FCC Test Report

Report No.:	RF160205C08I
FCC ID:	PY315200317
Test Model:	EX7300
Received Date:	Nov. 01, 2016
Test Date:	Dec. 02 ~ Dec. 27, 2016
Issued Date:	Dec. 27, 2016
Applicant:	NETGEAR, INC.
Address:	350 East Plumeria Drive San Jose, CA 95134
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.)

Testing Laboratory
2021

Table of Contents

Release Control Record

Issue No.	Description	Date Issued
RF160205C08I	Original release	Dec. 27, 2016

1 Certificate of Conformity

Product:	Nighthawk X4 AC2200 WiFi Range Extender
Brand:	NETGEAR
Test Model:	EX7300
Sample Status:	Engineering sample
Applicant:	NETGEAR, INC.
Test Date:	Dec. 02 ~ Dec. 27, 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:** Dec. 27, 2016

Suntee Liu / Specialist

Approved by : _____ , **Date:** Dec. 27, 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 -13.14dB at 0.15000MHz.
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 -0.2dB at 5354.00MHz.
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	No antenna connector is used.

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	3.59 dB
	200MHz ~ 1000MHz	3.60 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	Nighthawk X4 AC2200 WiFi Range Extender
Brand	NETGEAR
Test Model	EX7300
Status of EUT	Engineering sample
Power Supply Rating	100-240Vac
Modulation Type	256QAM, 64QAM, 16QAM, QPSK, BPSK for OFDM
Modulation Technology	OFDM
Transfer Rate	802.11a: 54/48/36/24/18/12/9/6Mbps 802.11n: up to 600Mbps 802.11ac: up to 1733Mbps
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): 11 802.11n (HT40), 802.11ac (VHT40): 5 802.11ac (VHT80): 2
Output Power	CDD Mode 5260~5320MHz: 158.465mW 5500~5700MHz: 243.726mW Beamforming Mode 5260~5320MHz: 113.298mW 5500~5700MHz: 117.826mW
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. This report is issued as a supplementary report of the original report no.: RF160205C08C. The difference compared with the original report is adding 5.26GHz to 5.32GHz and 5.50GHz to 5.70GHz by software.
2. The EUT incorporates a MIMO function. Physically, the EUT provides 4 completed transmitters and 4 receivers.

Band	Modulation Mode	Beamforming Mode	TX Function
2.4GHz	802.11b	Not Support	3TX
	802.11g	Not Support	3TX
	802.11n (HT20)	Not Support	3TX
	802.11n (HT40)	Not Support	3TX
5GHz	802.11a	Not Support	4TX
	802.11n (HT20)	Support	4TX
	802.11n (HT40)	Support	4TX
	802.11ac (VHT20)	Support	4TX
	802.11ac (VHT40)	Support	4TX
	802.11ac (VHT80)	Support	4TX

* The modulation and bandwidth are similar for 802.11n mode for 20MHz/40MHz and 802.11ac mode for 20MHz/40MHz, therefore investigated worst case to representative mode in test report. (Final test mode refer section 3.2.1)

* For 802.11n and 802.11ac, CDD mode and Beamforming mode are presented in output power test item. For other test items, CDD mode is the worst case for final tests after pretesting.

3. The EUT uses following antennas.

Antenna Type	Chain 0/1/2: PIFA, Chain 3: PCB																
Antenna Connector	NA																
Antenna Gain (dBi)																	
Chain	Frequency (MHz)																
	2412	2422	2437	2452	2462	5180	5200	5240	5190	5230	5210	5745	5785	5825	5755	5795	5775
0	2.5	2.5	3	3.5	4	1.7	2.2	2.5	1.9	2.2	2.2	3.7	4	4	3.9	4	4
1	1.5	1.7	2.1	2.3	2.4	3.6	3.6	3.8	3.6	3.7	3.7	4	4.2	4.1	4.1	4.2	4.2
2	3.1	3.3	3.6	4	4	2.6	2.7	3.1	2.6	3	3	2.5	2.9	3.1	2.5	3	2.9
3	-	-	-	-	-	2.3	2.4	2.5	2.3	2.5	2.4	3.2	3	3.2	3.2	3.1	3

Antenna Gain (dBi)														
Chain	Frequency (MHz)													
	5260	5300	5320	5270	5310	5290	5500	5580	5700	5510	5550	5670	5530	5610
0	2.6	2.7	2.9	2.6	2.9	2.7	3.2	3.3	3.7	3.2	3.4	3.5	3.2	3.4
1	3.8	3.6	3.6	3.8	3.6	3.6	3	3.6	4	3.2	3.6	4	3.4	4
2	3.1	3.2	3.3	3.1	3.3	3.2	2.6	2.3	2.6	2.6	2.7	2.6	2.7	2.5
3	2.4	2.3	2.4	2.4	2.4	2.3	3	3.2	3.2	3.1	3.3	3.3	3.3	3.2

4. 2.4GHz and 5GHz technology can transmit at same time.
5. Spurious emission of the simultaneous operation (2.4GHz and 5GHz) has been evaluated and no non-compliance was found.

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:

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

Channel	Frequency	Channel	Frequency
100	5500 MHz	124	5620 MHz
104	5520 MHz	128	5640 MHz
108	5540 MHz	132	5660 MHz
112	5560 MHz	136	5680 MHz
116	5580 MHz	140	5700 MHz
120	5600 MHz		

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

Channel	Frequency	Channel	Frequency
102	5510 MHz	126	5630 MHz
110	5550 MHz	134	5670 MHz
118	5590 MHz		

2 channels are provided for 802.11ac (VHT80):

Channel	Frequency	Channel	Frequency
106	5530 MHz	122	5610 MHz

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
-	802.11ac (VHT20)		52 to 64	52, 60, 64	OFDM	BPSK	7.2
-	802.11ac (VHT40)		54 to 62	54, 62	OFDM	BPSK	15.0
-	802.11ac (VHT80)		58	58	OFDM	BPSK	130.0
-	802.11a	5500-5700	100 to 140	100, 116, 140	OFDM	BPSK	6.0
-	802.11ac (VHT20)		100 to 140	100, 116, 140	OFDM	BPSK	7.2
-	802.11ac (VHT40)		102 to 134	102, 110, 134	OFDM	BPSK	15.0
-	802.11ac (VHT80)		106 to 122	106, 122	OFDM	BPSK	130.0

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	5260-5700	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	5260-5700	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
-	802.11ac (VHT20)		52 to 64	52, 60, 64	OFDM	BPSK	7.2
-	802.11ac (VHT40)		54 to 62	54, 62	OFDM	BPSK	15.0
-	802.11ac (VHT80)		58	58	OFDM	BPSK	130.0
-	802.11a	5500-5700	100 to 140	100, 116, 140	OFDM	BPSK	6.0
-	802.11ac (VHT20)		100 to 140	100, 116, 140	OFDM	BPSK	7.2
-	802.11ac (VHT40)		102 to 134	102, 110, 134	OFDM	BPSK	15.0
-	802.11ac (VHT80)		106 to 122	106, 122	OFDM	BPSK	130.0

Test Condition:

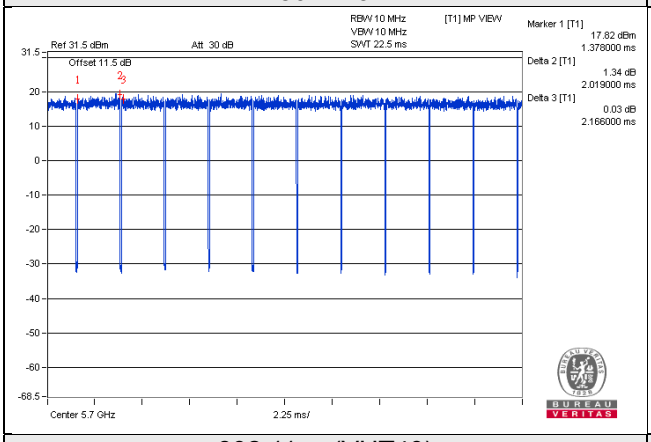
Applicable to	Environmental Conditions	Input Power	Tested by
RE≥1G	25 deg. C, 70% RH 18 deg. C, 70% RH	120Vac, 60Hz	Matthew Yang
RE<1G	20 deg. C, 69% RH	120Vac, 60Hz	Bayu Chen
PLC	25 deg. C, 69% RH	120Vac, 60Hz	Bond Tseng
APCM	25 deg. C, 60% RH	120Vac, 60Hz	Frank Liu

3.3 Duty Cycle of Test Signal

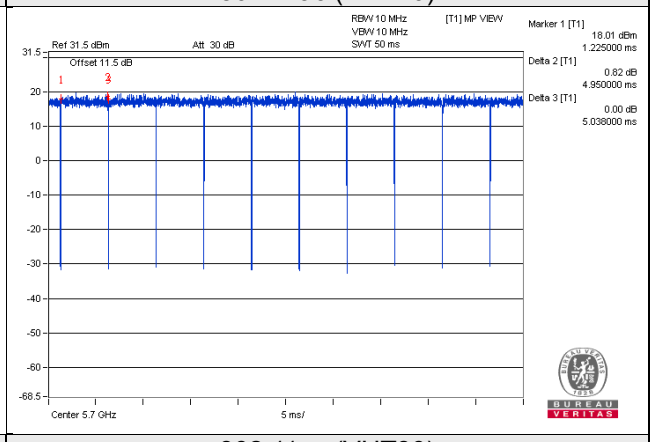
Duty cycle of test signal is ≥ 98%, duty factor is not required.
Duty cycle of test signal is < 98%, duty factor shall be considered.

802.11a: Duty cycle = 2.019/2.166 = 0.932, Duty factor = 10 * log(1/0.932) = 0.31
802.11ac (VHT20): Duty cycle = 4.95/5.038 = 0.983
802.11ac (VHT40): Duty cycle = 2.387/2.562 = 0.932, Duty factor = 10 * log(1/0.932) = 0.31
802.11ac (VHT80): Duty cycle = 1.132/1.202 = 0.942, Duty factor = 10 * log(1/0.942) = 0.26

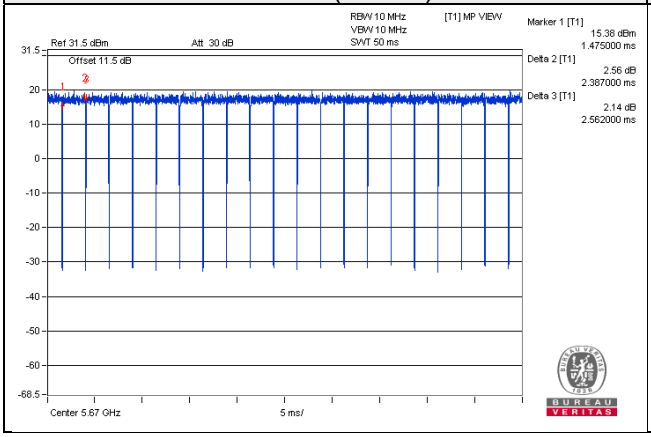
802.11a



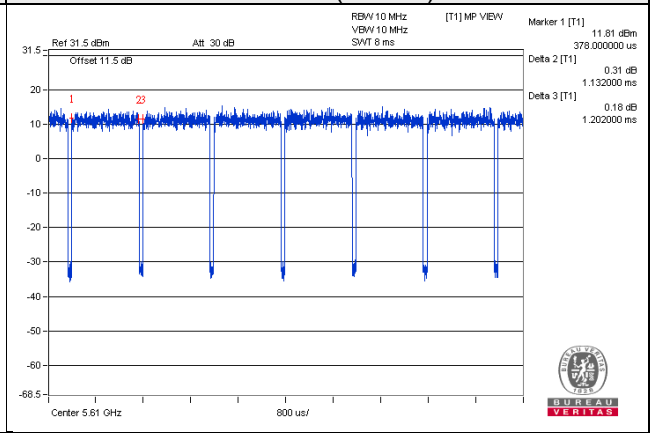
802.11ac (VHT20)



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.

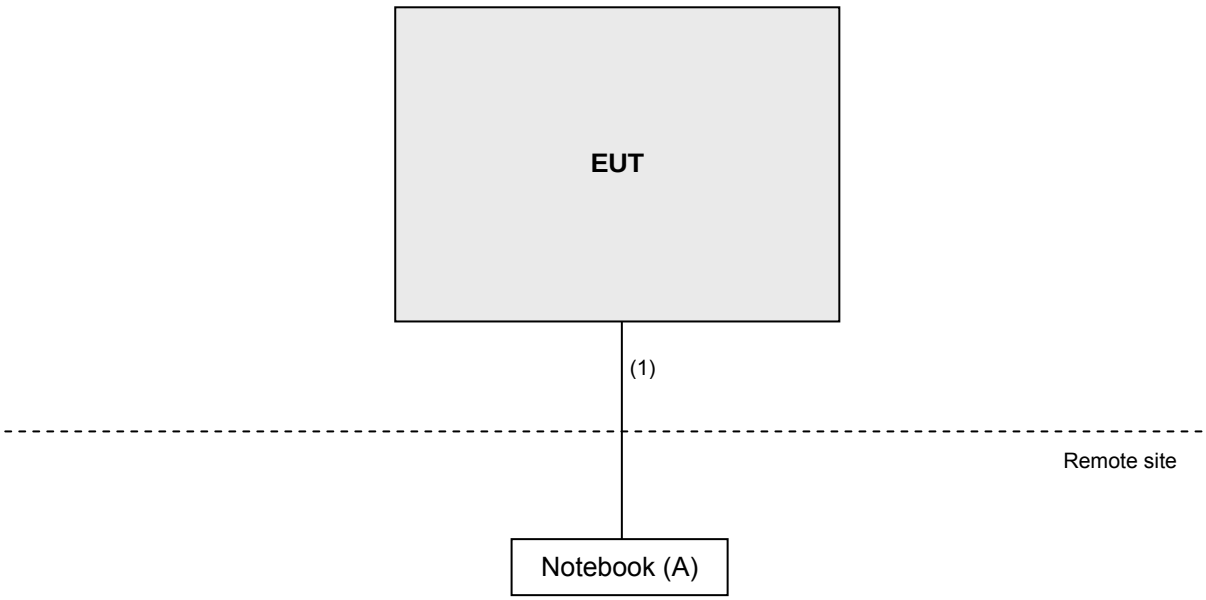
ID	Product	Brand	Model No.	Serial No.	FCC ID	Remarks
A.	Notebook	DELL	E5410	BPQ7MQ1	FCC DoC Approved	-

Note:

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

ID	Descriptions	Qty.	Length (m)	Shielding (Yes/No)	Cores (Qty.)	Remarks
1.	RJ45	1	5	N	0	-

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 v01r04
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 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

<table>
<tr><td colspan="3">Applicable To</td><td colspan="2">Limit</td></tr>
<tr><td colspan="3" rowspan="2">789033 D02 General UNII Test Procedure New Rules v01r03</td><td colspan="2">Field Strength at 3m</td></tr>
<tr><td>PK:74 (dBμV/m)</td><td>AV:54 (dBμV/m)</td></tr>
<tr><td>Frequency Band</td><td colspan="2">Applicable To</td><td>EIRP Limit</td><td>Equivalent Field Strength at 3m</td></tr>
<tr><td>5150~5250 MHz</td><td colspan="2">15.407(b)(1)</td><td rowspan="3">PK:-27 (dBm/MHz)</td><td rowspan="3">PK:68.2(dBμV/m)</td></tr>
<tr><td>5250~5350 MHz</td><td colspan="2">15.407(b)(2)</td></tr>
<tr><td>5470~5725 MHz</td><td colspan="2">15.407(b)(3)</td></tr>
<tr><td rowspan="2">5725~5850 MHz</td><td>☐</td><td>15.407(b)(4)(i)</td><td>PK: -27 (dBm/MHz) *1
PK: 10 (dBm/MHz) *2
PK: 15.6 (dBm/MHz) *3
PK: 27 (dBm/MHz) *4</td><td>PK: 68.2 (dBμV/m) *1
PK: 105.2 (dBμV/m) *2
PK: 110.8 (dBμV/m) *3
PK: 122.2 (dBμV/m) *4</td></tr>
<tr><td>☐</td><td>15.407(b)(4)(ii)</td><td colspan="2">Emission limits in section 15.247(d)</td></tr>
<tr><td colspan="5">*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.</td></tr>
</table>

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	ESCI	100424	Oct. 24, 2016	Oct. 23, 2017
Spectrum Analyzer ROHDE & SCHWARZ	FSP40	100040	Aug. 16, 2016	Aug. 15, 2017
BILOG Antenna SCHWARZBECK	VULB9168	9168-155	Jan. 07, 2016	Jan. 06, 2017
HORN Antenna SCHWARZBECK	BBHA 9120D	9120D-1170	Jan. 08, 2016	Jan. 07, 2017
HORN Antenna SCHWARZBECK	BBHA 9170	BBHA9170241	Jan. 18, 2016	Jan. 17, 2017
Loop Antenna	EM-6879	269	Aug. 11, 2016	Aug. 10, 2017
Preamplifier Agilent	8449B	3008A01960	Aug. 09, 2016	Aug. 08, 2017
Preamplifier Agilent	8447D	2944A10631	Aug. 09, 2016	Aug. 08, 2017
RF signal cable HUBER+SUHNER	SUCOFLEX 104	MY 13380+295012/04	Aug. 09, 2016	Aug. 08, 2017
RF signal cable HUBER+SUHNER	SUCOFLEX 104	Cable-CH4-03 (250724)	Aug. 09, 2016	Aug. 08, 2017
Software BV ADT	ADT_Radiated_ V7.6.15.9.4	NA	NA	NA
Antenna Tower inn-co GmbH	MA 4000	010303	NA	NA
Antenna Tower Controller BV ADT	AT100	AT93021703	NA	NA
Turn Table BV ADT	TT100	TT93021703	NA	NA
Turn Table Controller BV ADT	SC100	SC93021703	NA	NA
26GHz ~ 40GHz Amplifier	EM26400	815221	Oct. 17, 2016	Oct. 16, 2017
High Speed Peak Power Meter	ML2495A	0824012	Aug. 11, 2016	Aug. 10, 2017
Power Sensor	MA2411B	0738171	Aug. 11, 2016	Aug. 10, 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 4.
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 460141.
5. The IC Site Registration No. is IC7450F-4.

4.1.3 Test Procedures

For Radiated emission below 30MHz

a. The EUT was placed on the top of a rotating table 0.8 meters above the ground at a 3 meter chamber room. The table was rotated 360 degrees to determine the position of the highest radiation.

b. The EUT was set 3 meters away from the interference-receiving antenna, which was mounted on the top of a variable-height antenna tower.

c. Both X and Y axes of the antenna are set to make the measurement.

d. For each suspected emission, the EUT was arranged to its worst case and the rotatable table was turned from 0 degrees to 360 degrees to find the maximum reading.

e. The test-receiver system was set to Quasi-Peak Detect Function and Specified Bandwidth with Maximum Hold Mode.

Note:

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

For Radiated emission above 30MHz

a. The EUT was placed on the top of a rotating table 0.8 meters (for 30MHz ~ 1GHz) / 1.5 meters (for above 1GHz) above the ground at 3 meter chamber room for test. The table was rotated 360 degrees to determine the position of the highest radiation.

b. The EUT was set 3 meters away from the interference-receiving antenna, which was mounted on the top of a variable-height antenna tower.

c. The height of antenna is varied from one meter to four meters above the ground to determine the maximum value of the field strength. Both horizontal and vertical polarizations of the antenna are set to make the measurement.

d. For each suspected emission, the EUT was arranged to its worst case and then the antenna was tuned to heights from 1 meter to 4 meters and the rotatable table was turned from 0 degrees to 360 degrees to find the maximum reading.

e. The test-receiver system was set to quasi-peak detect function and specified bandwidth with maximum hold mode when the test frequency is below 1 GHz.

f. The test-receiver system was set to peak and average 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:

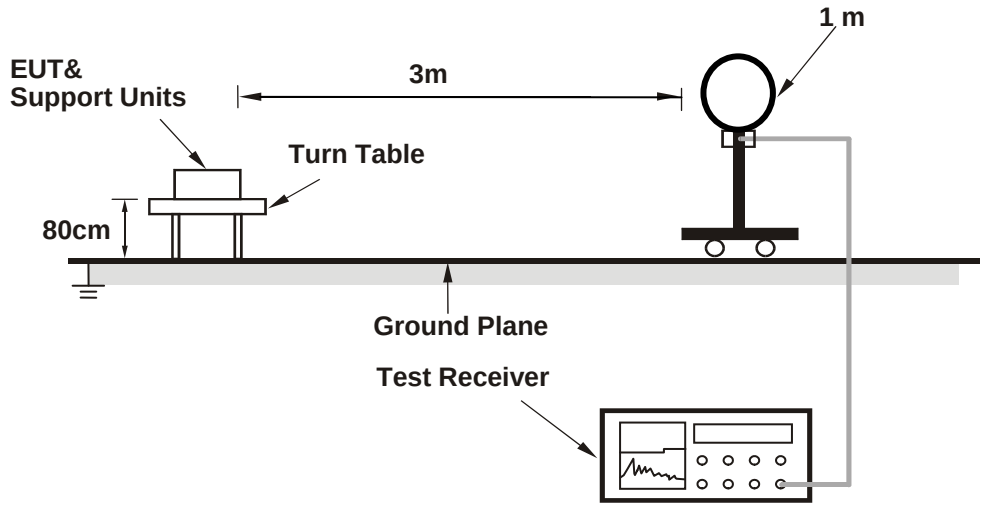
1. The resolution bandwidth and video bandwidth of test receiver/spectrum analyzer is 120kHz for Quasi-peak detection (QP) at frequency below 1GHz.
2. The resolution bandwidth of test receiver/spectrum analyzer is 1 MHz and the video bandwidth is 3 MHz for Peak detection (PK) at frequency above 1GHz.
3. The resolution bandwidth of test receiver/spectrum analyzer is 1MHz and the video bandwidth is ≥ 1/T (Duty cycle < 98%) or 10Hz (Duty cycle ≥ 98%) for Average detection (AV) at frequency above 1GHz.
4. All modes of operation were investigated and the worst-case emissions are reported.

4.1.4 Deviation from Test Standard

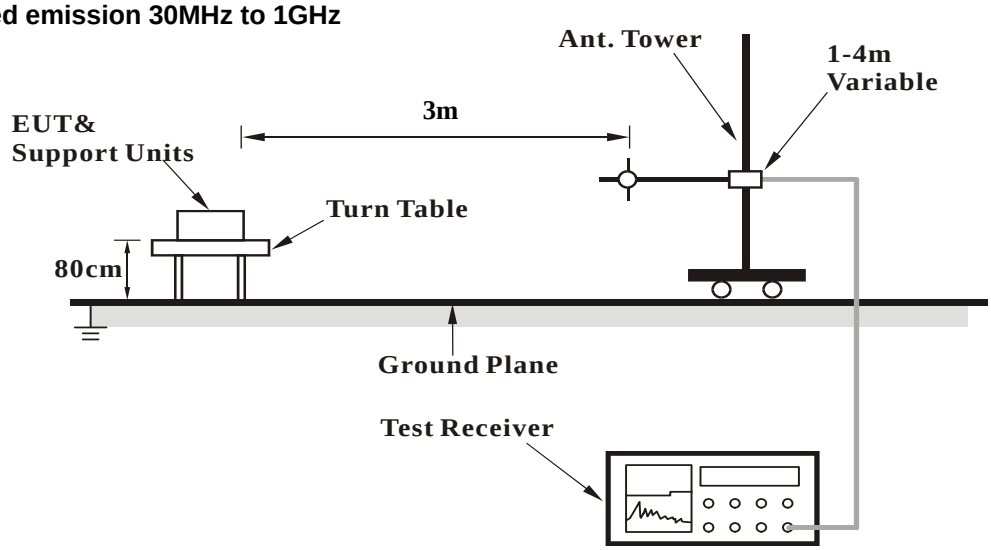
No deviation.

4.1.5 Test Setup

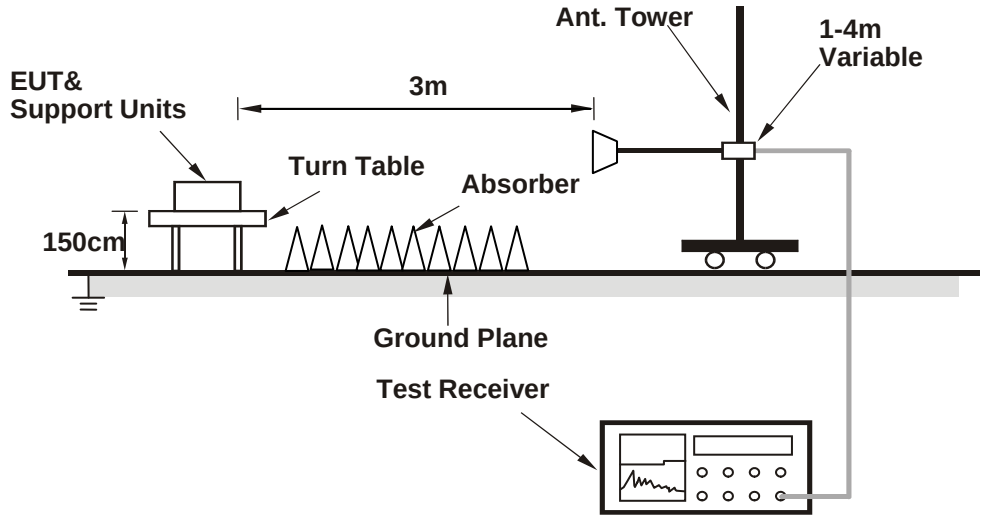
For Radiated emission below 30MHz



For Radiated emission 30MHz to 1GHz



For Radiated emission above 1GHz



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

4.1.6 EUT Operating Conditions

a. 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:

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	5150.00	57.2 PK	74.0	-16.8	1.76 H	352	51.2	6.0
2	5150.00	44.5 AV	54.0	-9.5	1.76 H	352	38.5	6.0
3	*5260.00	112.2 PK			1.76 H	352	72.0	40.2
4	*5260.00	101.8 AV			1.76 H	352	61.6	40.2
5	#10520.00	59.8 PK	74.0	-14.2	1.34 H	118	41.5	18.3
6	#10520.00	47.5 AV	54.0	-6.5	1.34 H	118	29.2	18.3
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	57.5 PK	74.0	-16.5	1.18 V	85	51.5	6.0
2	5150.00	44.5 AV	54.0	-9.5	1.18 V	85	38.5	6.0
3	*5260.00	113.2 PK			1.18 V	85	73.0	40.2
4	*5260.00	102.2 AV			1.18 V	85	62.0	40.2
5	#10520.00	59.4 PK	74.0	-14.6	1.23 V	245	41.1	18.3
6	#10520.00	47.0 AV	54.0	-7.0	1.23 V	245	28.7	18.3

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	108.8 PK			1.67 H	344	68.6	40.2
2	*5300.00	99.2 AV			1.67 H	344	59.0	40.2
3	10600.00	60.8 PK	74.0	-13.2	1.32 H	114	42.1	18.7
4	10600.00	47.4 AV	54.0	-6.6	1.32 H	114	28.7	18.7
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5300.00	109.4 PK			1.24 V	90	69.2	40.2
2	*5300.00	99.8 AV			1.24 V	90	59.6	40.2
3	10600.00	60.1 PK	74.0	-13.9	1.17 V	248	41.4	18.7
4	10600.00	47.1 AV	54.0	-6.9	1.17 V	248	28.4	18.7

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	110.4 PK			1.61 H	346	70.2	40.2
2	*5320.00	100.4 AV			1.61 H	346	60.2	40.2
3	5350.00	57.9 PK	74.0	-16.1	1.61 H	346	51.7	6.2
4	5350.00	44.8 AV	54.0	-9.2	1.61 H	346	38.6	6.2
5	10640.00	60.8 PK	74.0	-13.2	1.28 H	111	41.8	19.0
6	10640.00	47.7 AV	54.0	-6.3	1.28 H	111	28.7	19.0
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5320.00	111.1 PK			1.13 V	94	70.9	40.2
2	*5320.00	100.9 AV			1.13 V	94	60.7	40.2
3	5350.00	57.9 PK	74.0	-16.1	1.13 V	94	51.7	6.2
4	5350.00	45.4 AV	54.0	-8.6	1.13 V	94	39.2	6.2
5	10640.00	60.6 PK	74.0	-13.4	1.25 V	220	41.6	19.0
6	10640.00	47.6 AV	54.0	-6.4	1.25 V	220	28.6	19.0

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	56.3 PK	74.0	-17.7	2.14 H	57	50.0	6.3
2	5460.00	44.8 AV	54.0	-9.2	2.14 H	57	38.5	6.3
3	#5470.00	56.4 PK	74.0	-17.6	2.14 H	57	50.1	6.3
4	#5470.00	44.9 AV	54.0	-9.1	2.14 H	57	38.6	6.3
5	*5500.00	110.3 PK			2.14 H	57	69.9	40.4
6	*5500.00	99.9 AV			2.14 H	57	59.5	40.4
7	11000.00	61.6 PK	74.0	-12.4	1.42 H	96	42.1	19.5
8	11000.00	47.6 AV	54.0	-6.4	1.42 H	96	28.1	19.5
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	5460.00	56.7 PK	74.0	-17.3	1.17 V	100	50.4	6.3
2	5460.00	45.1 AV	54.0	-8.9	1.17 V	100	38.8	6.3
3	#5470.00	56.9 PK	74.0	-17.1	1.17 V	100	50.6	6.3
4	#5470.00	45.3 AV	54.0	-8.7	1.17 V	100	39.0	6.3
5	*5500.00	111.2 PK			1.17 V	100	70.8	40.4
6	*5500.00	100.4 AV			1.17 V	100	60.0	40.4
7	11000.00	61.3 PK	74.0	-12.7	1.07 V	322	41.8	19.5
8	11000.00	48.3 AV	54.0	-5.7	1.07 V	322	28.8	19.5

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	110.6 PK			2.13 H	56	70.1	40.5
2	*5580.00	100.3 AV			2.13 H	56	59.8	40.5
3	11160.00	61.1 PK	74.0	-12.9	1.34 H	92	41.1	20.0
4	11160.00	48.2 AV	54.0	-5.8	1.34 H	92	28.2	20.0
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5580.00	111.8 PK			1.02 V	99	71.3	40.5
2	*5580.00	100.8 AV			1.02 V	99	60.3	40.5
3	11160.00	61.7 PK	74.0	-12.3	1.08 V	318	41.7	20.0
4	11160.00	48.4 AV	54.0	-5.6	1.08 V	318	28.4	20.0

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	111.2 PK			1.99 H	51	70.3	40.9
2	*5700.00	101.1 AV			1.99 H	51	60.2	40.9
3	#5725.00	56.5 PK	74.0	-17.5	1.99 H	51	49.8	6.7
4	#5725.00	44.9 AV	54.0	-9.1	1.99 H	51	38.2	6.7
5	11400.00	63.0 PK	74.0	-11.0	1.30 H	99	42.4	20.6
6	11400.00	49.1 AV	54.0	-4.9	1.30 H	99	28.5	20.6
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	112.8 PK			1.05 V	90	71.9	40.9
2	*5700.00	102.5 AV			1.05 V	90	61.6	40.9
3	#5725.00	57.1 PK	74.0	-16.9	1.05 V	90	50.4	6.7
4	#5725.00	45.1 AV	54.0	-8.9	1.05 V	90	38.4	6.7
5	11400.00	62.5 PK	74.0	-11.5	1.14 V	300	41.9	20.6
6	11400.00	49.5 AV	54.0	-4.5	1.14 V	300	28.9	20.6

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 (VHT20)

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	5150.00	57.2 PK	74.0	-16.8	1.00 H	17	51.2	6.0
2	5150.00	44.2 AV	54.0	-9.8	1.00 H	17	38.2	6.0
3	*5260.00	111.2 PK			1.00 H	17	71.0	40.2
4	*5260.00	100.5 AV			1.00 H	17	60.3	40.2
5	#10520.00	59.1 PK	74.0	-14.9	1.00 H	135	40.8	18.3
6	#10520.00	46.7 AV	54.0	-7.3	1.00 H	135	28.4	18.3
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	57.1 PK	74.0	-16.9	1.10 V	93	51.1	6.0
2	5150.00	44.4 AV	54.0	-9.6	1.10 V	93	38.4	6.0
3	*5260.00	113.8 PK			1.10 V	93	73.6	40.2
4	*5260.00	103.5 AV			1.10 V	93	63.3	40.2
5	#10520.00	59.6 PK	74.0	-14.4	1.17 V	225	41.3	18.3
6	#10520.00	46.4 AV	54.0	-7.6	1.17 V	225	28.1	18.3

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	109.6 PK			1.00 H	16	69.4	40.2
2	*5300.00	99.2 AV			1.00 H	16	59.0	40.2
3	10600.00	59.6 PK	74.0	-14.4	1.00 H	144	40.9	18.7
4	10600.00	47.1 AV	54.0	-6.9	1.00 H	144	28.4	18.7
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5300.00	112.7 PK			1.05 V	91	72.5	40.2
2	*5300.00	102.8 AV			1.05 V	91	62.6	40.2
3	10600.00	59.8 PK	74.0	-14.2	1.09 V	201	41.1	18.7
4	10600.00	46.7 AV	54.0	-7.3	1.09 V	201	28.0	18.7

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	112.4 PK			1.86 H	42	72.2	40.2
2	*5320.00	101.6 AV			1.86 H	42	61.4	40.2
3	5350.00	58.3 PK	74.0	-15.7	1.86 H	42	52.1	6.2
4	5350.00	45.0 AV	54.0	-9.0	1.86 H	42	38.8	6.2
5	10640.00	59.7 PK	74.0	-14.3	1.30 H	120	40.7	19.0
6	10640.00	47.4 AV	54.0	-6.6	1.30 H	120	28.4	19.0
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5320.00	113.8 PK			1.11 V	92	73.6	40.2
2	*5320.00	102.6 AV			1.11 V	92	62.4	40.2
3	5350.00	58.2 PK	74.0	-15.8	1.11 V	92	52.0	6.2
4	5350.00	44.6 AV	54.0	-9.4	1.11 V	92	38.4	6.2
5	10640.00	60.1 PK	74.0	-13.9	1.15 V	183	41.1	19.0
6	10640.00	47.2 AV	54.0	-6.8	1.15 V	183	28.2	19.0

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	55.0 PK	74.0	-19.0	2.05 H	52	48.7	6.3
2	5460.00	44.4 AV	54.0	-9.6	2.05 H	52	38.1	6.3
3	#5470.00	55.3 PK	74.0	-18.7	2.05 H	52	49.0	6.3
4	#5470.00	44.6 AV	54.0	-9.4	2.05 H	52	38.3	6.3
5	*5500.00	110.5 PK			2.05 H	52	70.1	40.4
6	*5500.00	100.0 AV			2.05 H	52	59.6	40.4
7	11000.00	60.6 PK	74.0	-13.4	1.41 H	101	41.1	19.5
8	11000.00	47.7 AV	54.0	-6.3	1.41 H	101	28.2	19.5
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	5460.00	55.5 PK	74.0	-18.5	1.20 V	97	49.2	6.3
2	5460.00	44.3 AV	54.0	-9.7	1.20 V	97	38.0	6.3
3	#5470.00	56.1 PK	74.0	-17.9	1.20 V	97	49.8	6.3
4	#5470.00	44.4 AV	54.0	-9.6	1.20 V	97	38.1	6.3
5	*5500.00	112.4 PK			1.20 V	97	72.0	40.4
6	*5500.00	101.9 AV			1.20 V	97	61.5	40.4
7	11000.00	60.3 PK	74.0	-13.7	1.16 V	308	40.8	19.5
8	11000.00	47.9 AV	54.0	-6.1	1.16 V	308	28.4	19.5

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	111.4 PK			2.10 H	55	70.9	40.5
2	*5580.00	101.2 AV			2.10 H	55	60.7	40.5
3	11160.00	61.1 PK	74.0	-12.9	1.35 H	81	41.1	20.0
4	11160.00	48.8 AV	54.0	-5.2	1.35 H	81	28.8	20.0
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5580.00	113.9 PK			1.14 V	101	73.4	40.5
2	*5580.00	102.9 AV			1.14 V	101	62.4	40.5
3	11160.00	60.9 PK	74.0	-13.1	1.05 V	305	40.9	20.0
4	11160.00	48.4 AV	54.0	-5.6	1.05 V	305	28.4	20.0

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	113.0 PK			2.16 H	45	72.1	40.9
2	*5700.00	101.8 AV			2.16 H	45	60.9	40.9
3	#5725.00	58.7 PK	74.0	-15.3	2.16 H	45	52.0	6.7
4	#5725.00	45.8 AV	54.0	-8.2	2.16 H	45	39.1	6.7
5	11400.00	62.1 PK	74.0	-11.9	1.45 H	298	41.5	20.6
6	11400.00	49.3 AV	54.0	-4.7	1.45 H	298	28.7	20.6
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	114.9 PK			1.07 V	103	74.0	40.9
2	*5700.00	104.1 AV			1.07 V	103	63.2	40.9
3	#5725.00	59.3 PK	74.0	-14.7	1.07 V	103	52.6	6.7
4	#5725.00	46.7 AV	54.0	-7.3	1.07 V	103	40.0	6.7
5	11400.00	61.9 PK	74.0	-12.1	1.04 V	303	41.3	20.6
6	11400.00	49.1 AV	54.0	-4.9	1.04 V	303	28.5	20.6

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 (VHT40)

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	5150.00	58.0 PK	74.0	-16.0	1.65 H	32	52.0	6.0
2	5150.00	44.2 AV	54.0	-9.8	1.65 H	32	38.2	6.0
3	*5270.00	111.5 PK			1.65 H	32	71.3	40.2
4	*5270.00	101.7 AV			1.65 H	32	61.5	40.2
5	#10540.00	59.4 PK	74.0	-14.6	1.31 H	80	41.0	18.4
6	#10540.00	47.1 AV	54.0	-6.9	1.31 H	80	28.7	18.4
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	5150.00	57.6 PK	74.0	-16.4	1.14 V	92	51.6	6.0
2	5150.00	44.0 AV	54.0	-10.0	1.14 V	92	38.0	6.0
3	*5270.00	112.7 PK			1.14 V	92	72.5	40.2
4	*5270.00	102.7 AV			1.14 V	92	62.5	40.2
5	#10540.00	59.6 PK	74.0	-14.4	1.10 V	174	41.2	18.4
6	#10540.00	46.9 AV	54.0	-7.1	1.10 V	174	28.5	18.4

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	110.2 PK			1.72 H	41	70.0	40.2
2	*5310.00	100.4 AV			1.72 H	41	60.2	40.2
3	5350.00	59.2 PK	74.0	-14.8	1.72 H	41	53.0	6.2
4	5350.00	47.7 AV	54.0	-6.3	1.72 H	41	41.5	6.2
5	10620.00	59.7 PK	74.0	-14.3	1.35 H	91	40.9	18.8
6	10620.00	47.6 AV	54.0	-6.4	1.35 H	91	28.8	18.8
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5310.00	112.0 PK			1.02 V	94	71.8	40.2
2	*5310.00	102.2 AV			1.02 V	94	62.0	40.2
3	5350.00	63.3 PK	74.0	-10.7	1.02 V	94	57.1	6.2
4	5350.00	49.3 AV	54.0	-4.7	1.02 V	94	43.1	6.2
5	10620.00	60.3 PK	74.0	-13.7	1.18 V	190	41.5	18.8
6	10620.00	47.4 AV	54.0	-6.6	1.18 V	190	28.6	18.8

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	56.0 PK	74.0	-18.0	2.23 H	57	49.7	6.3
2	5460.00	45.3 AV	54.0	-8.7	2.23 H	57	39.0	6.3
3	#5470.00	57.3 PK	74.0	-16.7	2.23 H	57	51.0	6.3
4	#5470.00	45.8 AV	54.0	-8.2	2.23 H	57	39.5	6.3
5	*5510.00	109.8 PK			2.23 H	57	69.4	40.4
6	*5510.00	100.0 AV			2.23 H	57	59.6	40.4
7	11020.00	61.4 PK	74.0	-12.6	1.40 H	79	41.9	19.5
8	11020.00	47.8 AV	54.0	-6.2	1.40 H	79	28.3	19.5
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	5460.00	56.7 PK	74.0	-17.3	1.17 V	98	50.4	6.3
2	5460.00	44.6 AV	54.0	-9.4	1.17 V	98	38.3	6.3
3	#5470.00	57.3 PK	74.0	-16.7	1.17 V	98	51.0	6.3
4	#5470.00	45.0 AV	54.0	-9.0	1.17 V	98	38.7	6.3
5	*5510.00	111.6 PK			1.17 V	98	71.2	40.4
6	*5510.00	101.8 AV			1.17 V	98	61.4	40.4
7	11020.00	61.1 PK	74.0	-12.9	1.12 V	334	41.6	19.5
8	11020.00	48.0 AV	54.0	-6.0	1.12 V	334	28.5	19.5

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	110.2 PK			2.04 H	49	69.7	40.5
2	*5550.00	100.4 AV			2.04 H	49	59.9	40.5
3	11100.00	61.8 PK	74.0	-12.2	1.44 H	103	41.8	20.0
4	11100.00	48.5 AV	54.0	-5.5	1.44 H	103	28.5	20.0
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5550.00	111.8 PK			1.17 V	100	71.3	40.5
2	*5550.00	102.2 AV			1.17 V	100	61.7	40.5
3	11100.00	61.7 PK	74.0	-12.3	1.20 V	349	41.7	20.0
4	11100.00	48.8 AV	54.0	-5.2	1.20 V	349	28.8	20.0

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	111.9 PK			1.99 H	50	71.2	40.7
2	*5670.00	102.1 AV			1.99 H	50	61.4	40.7
3	#5725.00	56.9 PK	74.0	-17.1	1.99 H	50	50.2	6.7
4	#5725.00	45.2 AV	54.0	-8.8	1.99 H	50	38.5	6.7
5	11340.00	62.7 PK	74.0	-11.3	1.36 H	77	42.2	20.5
6	11340.00	49.0 AV	54.0	-5.0	1.36 H	77	28.5	20.5
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5670.00	113.7 PK			1.02 V	101	73.0	40.7
2	*5670.00	103.6 AV			1.02 V	101	62.9	40.7
3	#5725.00	57.0 PK	74.0	-17.0	1.02 V	101	50.3	6.7
4	#5725.00	45.4 AV	54.0	-8.6	1.02 V	101	38.7	6.7
5	11340.00	62.3 PK	74.0	-11.7	1.08 V	350	41.8	20.5
6	11340.00	49.2 AV	54.0	-4.8	1.08 V	350	28.7	20.5

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	5150.00	57.2 PK	74.0	-16.8	2.09 H	32	51.2	6.0
2	5150.00	44.9 AV	54.0	-9.1	2.09 H	32	38.9	6.0
3	*5290.00	106.3 PK			2.09 H	32	66.1	40.2
4	*5290.00	96.6 AV			2.09 H	32	56.4	40.2
5	5354.00	65.3 PK	74.0	-8.7	2.09 H	32	59.1	6.2
6	5354.00	51.6 AV	54.0	-2.4	2.09 H	32	45.4	6.2
7	#10580.00	59.4 PK	74.0	-14.6	1.35 H	288	40.8	18.6
8	#10580.00	46.8 AV	54.0	-7.2	1.35 H	288	28.2	18.6
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	57.7 PK	74.0	-16.3	1.05 V	93	51.7	6.0
2	5150.00	44.3 AV	54.0	-9.7	1.05 V	93	38.3	6.0
3	*5290.00	107.5 PK			1.05 V	93	67.3	40.2
4	*5290.00	97.9 AV			1.05 V	93	57.7	40.2
5	5354.00	66.9 PK	74.0	-7.1	1.05 V	93	60.7	6.2
6	**5354.00**	**53.8 AV**	**54.0**	**-0.2**	**1.05 V**	**93**	**47.6**	**6.2**
7	#10580.00	59.6 PK	74.0	-14.4	1.18 V	184	41.0	18.6
8	#10580.00	47.2 AV	54.0	-6.8	1.18 V	184	28.6	18.6

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	66.3 PK	74.0	-7.7	2.20 H	58	60.0	6.3
2	5460.00	51.9 AV	54.0	-2.1	2.20 H	58	45.6	6.3
3	#5470.00	69.2 PK	74.0	-4.8	2.20 H	58	62.9	6.3
4	#5470.00	53.3 AV	54.0	-0.7	2.20 H	58	47.0	6.3
5	*5530.00	108.7 PK			2.20 H	58	68.3	40.4
6	*5530.00	99.2 AV			2.20 H	58	58.8	40.4
7	#5725.00	55.9 PK	74.0	-18.1	2.20 H	58	49.2	6.7
8	#5725.00	44.6 AV	54.0	-9.4	2.20 H	58	37.9	6.7
9	11060.00	61.4 PK	74.0	-12.6	1.48 H	63	41.6	19.8
10	11060.00	48.2 AV	54.0	-5.8	1.48 H	63	28.4	19.8
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	5460.00	63.5 PK	74.0	-10.5	1.09 V	99	57.2	6.3
2	5460.00	51.2 AV	54.0	-2.8	1.09 V	99	44.9	6.3
3	#5470.00	64.6 PK	74.0	-9.4	1.09 V	99	58.3	6.3
4	#5470.00	52.1 AV	54.0	-1.9	1.09 V	99	45.8	6.3
5	*5530.00	110.9 PK			1.09 V	99	70.5	40.4
6	*5530.00	100.9 AV			1.09 V	99	60.5	40.4
7	#5725.00	55.8 PK	74.0	-18.2	1.09 V	99	49.1	6.7
8	#5725.00	44.9 AV	54.0	-9.1	1.09 V	99	38.2	6.7
9	11060.00	61.0 PK	74.0	-13.0	1.17 V	311	41.2	19.8
10	11060.00	48.5 AV	54.0	-5.5	1.17 V	311	28.7	19.8

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 122	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	56.8 PK	74.0	-17.2	2.14 H	52	50.5	6.3
2	5460.00	45.2 AV	54.0	-8.8	2.14 H	52	38.9	6.3
3	#5470.00	60.7 PK	74.0	-13.3	2.14 H	52	54.4	6.3
4	#5470.00	46.6 AV	54.0	-7.4	2.14 H	52	40.3	6.3
5	*5610.00	109.7 PK			2.14 H	52	69.2	40.5
6	*5610.00	99.9 AV			2.14 H	52	59.4	40.5
7	#5725.00	60.5 PK	74.0	-13.5	2.14 H	52	53.8	6.7
8	#5725.00	49.3 AV	54.0	-4.7	2.14 H	52	42.6	6.7
9	11220.00	61.6 PK	74.0	-12.4	1.50 H	71	41.5	20.1
10	11220.00	48.6 AV	54.0	-5.4	1.50 H	71	28.5	20.1
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	57.2 PK	74.0	-16.8	1.17 V	104	50.9	6.3
2	5460.00	45.0 AV	54.0	-9.0	1.17 V	104	38.7	6.3
3	#5470.00	59.1 PK	74.0	-14.9	1.17 V	104	52.8	6.3
4	#5470.00	46.1 AV	54.0	-7.9	1.17 V	104	39.8	6.3
5	*5610.00	110.6 PK			1.17 V	104	70.1	40.5
6	*5610.00	100.8 AV			1.17 V	104	60.3	40.5
7	#5725.00	61.1 PK	74.0	-12.9	1.17 V	104	54.4	6.7
8	#5725.00	49.0 AV	54.0	-5.0	1.17 V	104	42.3	6.7
9	11220.00	61.4 PK	74.0	-12.6	1.19 V	342	41.3	20.1
10	11220.00	48.3 AV	54.0	-5.7	1.19 V	342	28.2	20.1

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: 802.11a

CHANNEL	TX Channel 52	DETECTOR FUNCTION	Quasi-Peak (QP)
FREQUENCY RANGE	9kHz ~ 1GHz		

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	49.30	17.2 QP	40.0	-22.8	1.26 H	345	31.2	-14.0
2	124.98	24.3 QP	43.5	-19.2	2.00 H	263	40.0	-15.7
3	150.20	19.0 QP	43.5	-24.5	2.00 H	167	32.6	-13.6
4	299.62	34.5 QP	46.0	-11.5	1.00 H	227	46.9	-12.4
5	375.29	34.4 QP	46.0	-11.6	1.00 H	94	45.3	-10.9
6	625.60	32.4 QP	46.0	-13.6	1.26 H	164	38.0	-5.6
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	39.60	26.3 QP	40.0	-13.7	1.00 V	136	41.1	-14.8
2	57.07	27.4 QP	40.0	-12.6	1.24 V	28	41.7	-14.3
3	97.81	26.6 QP	43.5	-16.9	1.49 V	127	45.4	-18.8
4	299.62	33.3 QP	46.0	-12.7	1.49 V	141	45.7	-12.4
5	375.29	35.9 QP	46.0	-10.1	1.00 V	240	46.8	-10.9
6	868.15	31.4 QP	46.0	-14.6	1.00 V	212	32.7	-1.3

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.

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. 21, 2016	Nov. 20, 2017
RF signal cable (with 10dB PAD) Woken	5D-FB	Cable-cond1-01	Dec. 22, 2016	Dec. 21, 2017
LISN ROHDE & SCHWARZ (EUT)	ESH3-Z5	835239/001	Feb. 26, 2016	Feb. 25, 2017
LISN ROHDE & SCHWARZ (Peripheral)	ESH3-Z5	100311	Jul. 28, 2016	Jul. 27, 2017
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.

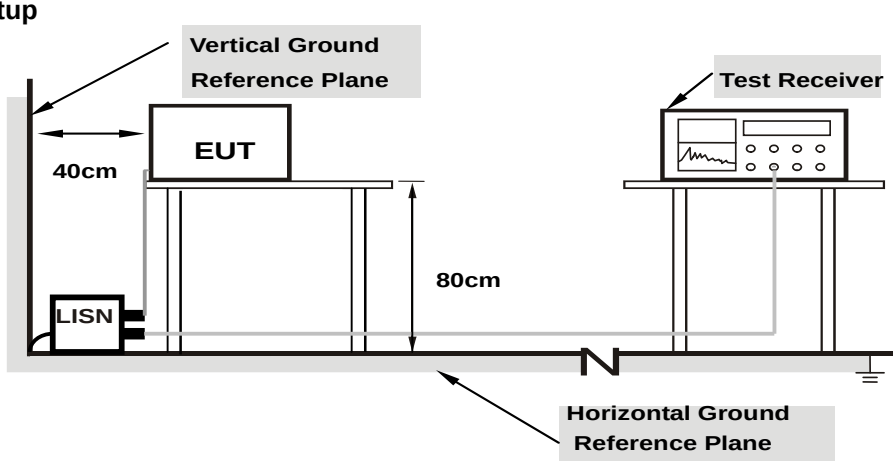
c. The frequency range from 150kHz to 30MHz was searched. Emission levels under (Limit - 20dB) was not recorded.

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.

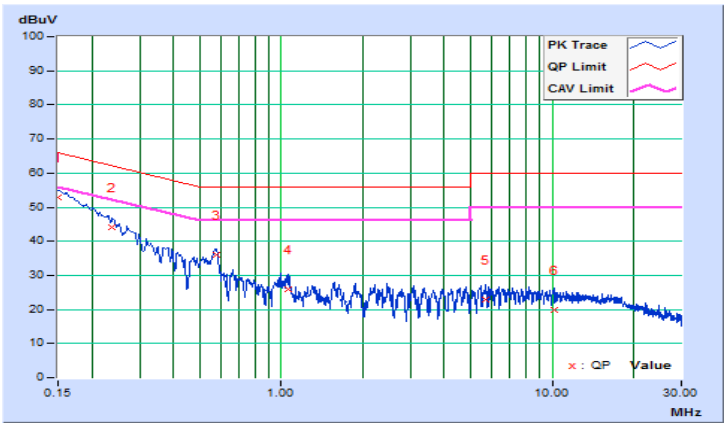
4.2.7 Test Results

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**	**10.17**	**42.69**	**27.60**	**52.86**	**37.77**	**66.00**	**56.00**	**-13.14**	**-18.23**
2	0.23785	10.20	33.81	19.61	44.01	29.81	62.17	52.17	-18.16	-22.36
3	0.57400	10.23	25.88	19.70	36.11	29.93	56.00	46.00	-19.89	-16.07
4	1.06600	10.28	15.57	9.43	25.85	19.71	56.00	46.00	-30.15	-26.29
5	5.67400	10.52	12.23	5.24	22.75	15.76	60.00	50.00	-37.25	-34.24
6	10.14200	10.75	9.16	3.82	19.91	14.57	60.00	50.00	-40.09	-35.43

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.

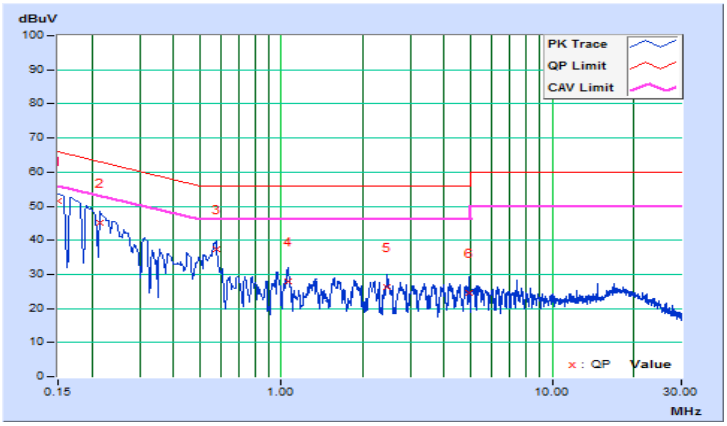


Phase	Neutral (N)	Detector Function	Quasi-Peak (QP) / Average (AV)

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	10.18	41.28	26.89	51.46	37.07	66.00	56.00	-14.54	-18.93
2	0.21406	10.20	35.04	22.11	45.24	32.31	63.05	53.05	-17.81	-20.74
3	0.57342	10.28	27.25	20.16	37.53	30.44	56.00	46.00	-18.47	-15.56
4	1.05800	10.28	17.64	9.26	27.92	19.54	56.00	46.00	-28.08	-26.46
5	2.46600	10.41	15.94	7.73	26.35	18.14	56.00	46.00	-29.65	-27.86
6	4.93000	10.59	13.94	8.63	24.53	19.22	56.00	46.00	-31.47	-26.78

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

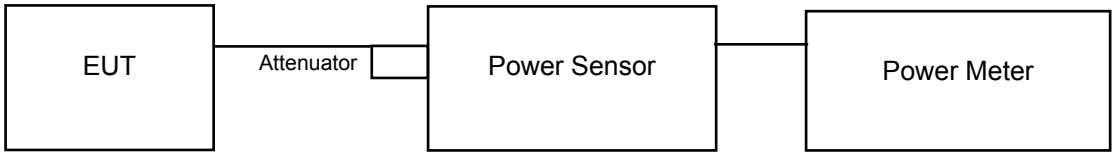
Operation Band	EUT Category		LIMIT
U-NII-1	-	Outdoor Access Point	1 Watt (30 dBm) (Max. e.i.r.p ≦ 125mW(21 dBm) at any elevation angle above 30 degrees as measured from the horizon)
	-	Fixed point-to-point Access Point	1 Watt (30 dBm)
	-	Indoor Access Point	1 Watt (30 dBm)
	-	Mobile and Portable client 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

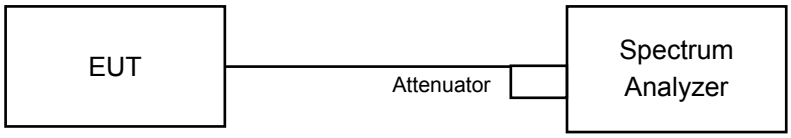
Per KDB 662911 Method of conducted output power measurement on IEEE 802.11 devices,
Array Gain = 0 dB (i.e., no array gain) for $N_{ANT} \leq 4$;
Array Gain = 0 dB (i.e., no array gain) for channel widths ≥ 40 MHz for any N_{ANT};
Array Gain = 5 log(N_{ANT}/N_{SS}) dB or 3 dB, whichever is less for 20-MHz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

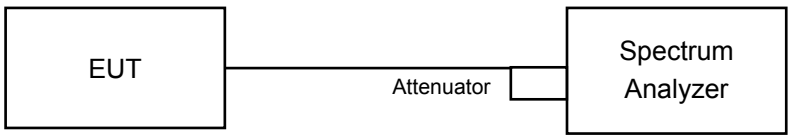
For Power Output Measurement
802.11a, 802.11ac (VHT20), 802.11ac (VHT40)



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, 802.11ac (VHT20), 802.11ac (VHT40)
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)
1) Set span to encompass the entire 26 dB EBW (or, alternatively, the entire 99% occupied bandwidth) of the signal.
2) Set sweep trigger to “free run”.
3) Set RBW = 1 MHz.
4) Set VBW ≥ 3 MHz.
5) Number of points in sweep ≥ 2 Span / RBW.
6) Sweep time ≤ (number of points in sweep) * T
7) Using emission bandwidth to determine the frequency span for integration the channel bandwidth.
8) Detector = RMS.
9) Trace mode = max hold.
10) Allow max hold to run for at least 60 seconds, or longer as needed to allow the trace to stabilize.

For 26dB Bandwidth
1) Set RBW = approximately 1% of the emission bandwidth.
2) Set the VBW > RBW.
3) Detector = Peak.
4) Trace mode = max hold.
5) 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	Chain 2	Chain 3				
52	5260	14.27	14.06	14.26	14.69	108.311	20.35	23.89	Pass
60	5300	14.39	14.59	14.42	14.24	110.468	20.43	23.86	Pass
64	5320	14.48	14.37	14.26	14.44	109.873	20.41	23.84	Pass
100	5500	14.49	14.53	14.39	14.41	111.583	20.48	23.81	Pass
116	5580	14.38	14.39	14.43	14.39	110.107	20.42	23.84	Pass
140	5700	14.43	14.44	14.56	14.43	111.839	20.49	23.88	Pass

Note:

Chain 0

1. 11dBm + 10log(19.44) = 23.89 dBm < 24dBm.
2. 11dBm + 10log(19.49) = 23.90 dBm < 24dBm.
3. 11dBm + 10log(19.21) = 23.84 dBm < 24dBm.
4. 11dBm + 10log(20.34) = 24.08 dBm > 24dBm.
5. 11dBm + 10log(19.39) = 23.88 dBm < 24dBm.
6. 11dBm + 10log(19.39) = 23.88 dBm < 24dBm.

Chain 1

1. 11dBm + 10log(19.85) = 23.98 dBm < 24dBm.
2. 11dBm + 10log(19.45) = 23.89 dBm < 24dBm.
3. 11dBm + 10log(19.50) = 23.90 dBm < 24dBm.
4. 11dBm + 10log(19.22) = 23.84 dBm < 24dBm.
5. 11dBm + 10log(19.23) = 23.84 dBm < 24dBm.
6. 11dBm + 10log(19.83) = 23.97 dBm < 24dBm.

Chain 2

1. 11dBm + 10log(19.76) = 23.96 dBm < 24dBm.
2. 11dBm + 10log(19.52) = 23.90 dBm < 24dBm.
3. 11dBm + 10log(19.53) = 23.91 dBm < 24dBm.
4. 11dBm + 10log(19.09) = 23.81 dBm < 24dBm.
5. 11dBm + 10log(19.83) = 23.97 dBm < 24dBm.
6. 11dBm + 10log(19.66) = 23.94 dBm < 24dBm.

Chain 3

1. 11dBm + 10log(19.96) = 24.00 dBm = 24dBm.
2. 11dBm + 10log(19.32) = 23.86 dBm < 24dBm.
3. 11dBm + 10log(19.44) = 23.89 dBm < 24dBm.
4. 11dBm + 10log(19.52) = 23.90 dBm < 24dBm.
5. 11dBm + 10log(19.79) = 23.96 dBm < 24dBm.
6. 11dBm + 10log(20.10) = 24.03 dBm > 24dBm.

802.11ac (VHT20)

Chan.	Freq. (MHz)	Maximum Conducted Power (dBm)				Total Power (mW)	Total Power (dBm)	Power Limit (dBm)	Pass / Fail
		Chain 0	Chain 1	Chain 2	Chain 3				
52	5260	14.33	14.60	14.42	14.61	112.518	20.51	24	Pass
60	5300	14.69	14.43	14.39	14.57	113.298	20.54	24	Pass
64	5320	14.57	14.64	14.37	14.24	111.648	20.48	24	Pass
100	5500	14.51	14.37	14.26	14.53	110.650	20.44	24	Pass
116	5580	14.46	14.56	14.44	14.36	111.588	20.48	24	Pass
140	5700	14.57	14.50	14.38	14.33	111.344	20.47	24	Pass

Note:
Chain 0
1. 11dBm + 10log(20.65) = 24.15 dBm > 24dBm.
2. 11dBm + 10log(21.04) = 24.23 dBm > 24dBm.
3. 11dBm + 10log(20.86) = 24.19 dBm > 24dBm.
4. 11dBm + 10log(19.90) = 23.99 dBm < 24dBm.
5. 11dBm + 10log(19.96) = 24.00 dBm > 24dBm.
6. 11dBm + 10log(20.19) = 24.05 dBm > 24dBm.

Chain 1
1. 11dBm + 10log(20.65) = 24.15 dBm > 24dBm.
2. 11dBm + 10log(20.63) = 24.14 dBm > 24dBm.
3. 11dBm + 10log(20.76) = 24.17 dBm > 24dBm.
4. 11dBm + 10log(20.01) = 24.01 dBm > 24dBm.
5. 11dBm + 10log(20.35) = 24.09 dBm > 24dBm.
6. 11dBm + 10log(20.49) = 24.12 dBm > 24dBm.

Chain 2
1. 11dBm + 10log(20.47) = 24.11 dBm > 24dBm.
2. 11dBm + 10log(20.77) = 24.17 dBm > 24dBm.
3. 11dBm + 10log(20.73) = 24.17 dBm > 24dBm.
4. 11dBm + 10log(20.31) = 24.08 dBm > 24dBm.
5. 11dBm + 10log(20.64) = 24.15 dBm > 24dBm.
6. 11dBm + 10log(20.15) = 24.04 dBm > 24dBm.

Chain 3
1. 11dBm + 10log(20.75) = 24.17 dBm > 24dBm.
2. 11dBm + 10log(20.63) = 24.14 dBm > 24dBm.
3. 11dBm + 10log(20.77) = 24.17 dBm > 24dBm.
4. 11dBm + 10log(20.06) = 24.02 dBm > 24dBm.
5. 11dBm + 10log(20.16) = 24.04 dBm > 24dBm.
6. 11dBm + 10log(20.35) = 24.09 dBm > 24dBm.

802.11ac (VHT40)

Chan.	Freq. (MHz)	Maximum Conducted Power (dBm)				Total Power (mW)	Total Power (dBm)	Power Limit (dBm)	Pass / Fail
		Chain 0	Chain 1	Chain 2	Chain 3				
54	5270	15.92	15.86	15.84	16.28	**158.465**	22.00	24	Pass
62	5310	15.37	15.25	15.41	15.62	139.161	21.44	24	Pass
102	5510	15.31	14.76	15.23	15.65	133.957	21.27	24	Pass
110	5550	15.88	15.43	15.66	15.95	149.808	21.76	24	Pass
134	5670	16.34	16.23	16.32	15.88	166.610	22.22	24	Pass

Note:
Chain 0
1. 11dBm + 10log(40.76) = 27.10 dBm > 24dBm.
2. 11dBm + 10log(41.23) = 27.15 dBm > 24dBm.
3. 11dBm + 10log(39.86) = 27.01 dBm > 24dBm.
4. 11dBm + 10log(40.69) = 27.09 dBm > 24dBm.
5. 11dBm + 10log(40.32) = 27.06 dBm > 24dBm.

Chain 1
1. 11dBm + 10log(40.61) = 27.09 dBm > 24dBm.
2. 11dBm + 10log(40.84) = 27.11 dBm > 24dBm.
3. 11dBm + 10log(40.72) = 27.10 dBm > 24dBm.
4. 11dBm + 10log(40.51) = 27.08 dBm > 24dBm.
5. 11dBm + 10log(40.51) = 27.08 dBm > 24dBm.

Chain 2
1. 11dBm + 10log(40.84) = 27.11 dBm > 24dBm.
2. 11dBm + 10log(41.04) = 27.13 dBm > 24dBm.
3. 11dBm + 10log(40.34) = 27.06 dBm > 24dBm.
4. 11dBm + 10log(40.92) = 27.12 dBm > 24dBm.
5. 11dBm + 10log(40.84) = 27.11 dBm > 24dBm.

Chain 3
1. 11dBm + 10log(40.61) = 27.09 dBm > 24dBm.
2. 11dBm + 10log(40.93) = 27.12 dBm > 24dBm.
3. 11dBm + 10log(40.82) = 27.11 dBm > 24dBm.
4. 11dBm + 10log(40.67) = 27.09 dBm > 24dBm.
5. 11dBm + 10log(40.36) = 27.06 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	Chain 2	Chain 3				
58	5290	14.81	14.93	14.88	15.32	126.188	21.01	24	Pass
106	5530	17.96	17.59	17.79	18.04	**243.726**	23.87	24	Pass
122	5610	17.82	17.69	17.67	17.74	237.191	23.75	24	Pass

Note:
Chain 0
1. 11dBm + 10log(84.57) = 30.27 dBm > 24dBm.
2. 11dBm + 10log(87.67) = 30.43 dBm > 24dBm.
3. 11dBm + 10log(83.74) = 30.23 dBm > 24dBm.

Chain 1
1. 11dBm + 10log(85.15) = 30.30 dBm > 24dBm.
2. 11dBm + 10log(84.52) = 30.27 dBm > 24dBm.
3. 11dBm + 10log(83.89) = 30.24 dBm > 24dBm.

Chain 2
1. 11dBm + 10log(85.75) = 30.33 dBm > 24dBm.
2. 11dBm + 10log(85.99) = 30.34 dBm > 24dBm.
3. 11dBm + 10log(85.02) = 30.30 dBm > 24dBm.

Chain 3
1. 11dBm + 10log(85.45) = 30.32 dBm > 24dBm.
2. 11dBm + 10log(83.89) = 30.24 dBm > 24dBm.
3. 11dBm + 10log(84.19) = 30.25 dBm > 24dBm.

Beamforming Mode

802.11ac (VHT20)

Channel	Frequency (MHz)	Maximum Conducted Power (dBm)				Total Power (mW)	Total Power (dBm)	Power Limit (dBm)	Pass / Fail
		Chain 0	Chain 1	Chain 2	Chain 3				
52	5260	14.33	14.60	14.42	14.61	112.518	20.51	20.99	Pass
60	5300	14.69	14.43	14.39	14.57	**113.298**	20.54	21.02	Pass
64	5320	14.57	14.64	14.37	14.24	111.648	20.48	20.92	Pass
100	5500	14.51	14.37	14.26	14.53	110.650	20.44	21.03	Pass
116	5580	14.46	14.56	14.44	14.36	111.588	20.48	20.87	Pass
140	5700	14.57	14.50	14.38	14.33	111.344	20.47	20.59	Pass

Note:

5260MHz: Directional gain = 10 log[$(10^{G1/20} + 10^{G2/20} + ... + 10^{GN/20})^2$/N] = 9.01dBi > 6dBi, so the limit shall be reduced to 24-(9.01-6) = 20.99dBm.

5300MHz: Directional gain = 10 log[$(10^{G1/20} + 10^{G2/20} + ... + 10^{GN/20})^2$/N] = 8.98dBi > 6dBi, so the limit shall be reduced to 24-(8.98-6) = 21.02dBm.

5320MHz: Directional gain = 10 log[$(10^{G1/20} + 10^{G2/20} + ... + 10^{GN/20})^2$/N] = 9.08dBi > 6dBi, so the limit shall be reduced to 24-(9.08-6) = 20.92dBm.

5500MHz: Directional gain = 10 log[$(10^{G1/20} + 10^{G2/20} + ... + 10^{GN/20})^2$/N] = 8.97dBi > 6dBi, so the limit shall be reduced to 24-(8.97-6) = 21.03dBm.

5580MHz: Directional gain = 10 log[$(10^{G1/20} + 10^{G2/20} + ... + 10^{GN/20})^2$/N] = 9.13dBi > 6dBi, so the limit shall be reduced to 24-(9.13-6) = 20.87dBm.

5700MHz: Directional gain = 10 log[$(10^{G1/20} + 10^{G2/20} + ... + 10^{GN/20})^2$/N] = 9.41dBi > 6dBi, so the limit shall be reduced to 24-(9.41-6) = 20.59dBm.

Chain 0

1. 11dBm + 10log(19.44) = 23.89 dBm > 20.99dBm.
2. 11dBm + 10log(19.49) = 23.90 dBm > 21.02dBm.
3. 11dBm + 10log(19.21) = 23.84 dBm > 20.92dBm.
4. 11dBm + 10log(20.34) = 24.08 dBm > 21.03dBm.
5. 11dBm + 10log(19.39) = 23.88 dBm > 20.87dBm.
6. 11dBm + 10log(19.39) = 23.88 dBm > 20.59dBm.

Chain 1

1. 11dBm + 10log(19.85) = 23.98 dBm > 20.99dBm.
2. 11dBm + 10log(19.45) = 23.89 dBm > 21.02dBm.
3. 11dBm + 10log(19.50) = 23.90 dBm > 20.92dBm.
4. 11dBm + 10log(19.22) = 23.84 dBm > 21.03dBm.
5. 11dBm + 10log(19.23) = 23.84 dBm > 20.87dBm.
6. 11dBm + 10log(19.83) = 23.97 dBm > 20.59dBm.

Chain 2

1. 11dBm + 10log(19.76) = 23.96 dBm > 20.99dBm.
2. 11dBm + 10log(19.52) = 23.90 dBm > 21.02dBm.
3. 11dBm + 10log(19.53) = 23.91 dBm > 20.92dBm.
4. 11dBm + 10log(19.09) = 23.81 dBm > 21.03dBm.
5. 11dBm + 10log(19.83) = 23.97 dBm > 20.87dBm.
6. 11dBm + 10log(19.66) = 23.94 dBm > 20.59dBm.

Chain 3

1. 11dBm + 10log(19.96) = 24.00 dBm > 20.99dBm.
2. 11dBm + 10log(19.32) = 23.86 dBm > 21.02dBm.
3. 11dBm + 10log(19.44) = 23.89 dBm > 20.92dBm.
4. 11dBm + 10log(19.52) = 23.90 dBm > 21.03dBm.
5. 11dBm + 10log(19.79) = 23.96 dBm > 20.87dBm.
6. 11dBm + 10log(20.10) = 24.03 dBm > 20.59dBm.

802.11ac (VHT40)

Chan.	Freq. (MHz)	Maximum Conducted Power (dBm)				Total Power (mW)	Total Power (dBm)	Power Limit (dBm)	Pass / Fail
		Chain 0	Chain 1	Chain 2	Chain 3				
54	5270	14.57	14.26	14.73	14.36	112.318	20.50	20.99	Pass
62	5310	14.17	14.50	14.41	14.57	110.554	20.44	20.92	Pass
102	5510	14.52	14.62	14.83	14.79	**117.826**	20.71	20.95	Pass
110	5550	14.52	14.55	14.77	14.71	116.396	20.66	20.72	Pass
134	5670	14.76	14.46	14.34	14.68	114.388	20.58	20.61	Pass

Note:

5270MHz: Directional gain = 10 log[$(10^{G1/20} + 10^{G2/20} + ... + 10^{GN/20})^2/N$] = 9.01dBi > 6dBi, so the limit shall be reduced to 24-(9.01-6) = 20.99dBm.

5310MHz: Directional gain = 10 log[$(10^{G1/20} + 10^{G2/20} + ... + 10^{GN/20})^2/N$] = 9.08dBi > 6dBi, so the limit shall be reduced to 24-(9.08-6) = 20.92dBm.

5510MHz: Directional gain = 10 log[$(10^{G1/20} + 10^{G2/20} + ... + 10^{GN/20})^2/N$] = 9.05dBi > 6dBi, so the limit shall be reduced to 24-(9.05-6) = 20.95dBm.

5550MHz: Directional gain = 10 log[$(10^{G1/20} + 10^{G2/20} + ... + 10^{GN/20})^2/N$] = 9.28dBi > 6dBi, so the limit shall be reduced to 24-(9.28-6) = 20.72dBm.

5670MHz: Directional gain = 10 log[$(10^{G1/20} + 10^{G2/20} + ... + 10^{GN/20})^2/N$] = 9.39dBi > 6dBi, so the limit shall be reduced to 24-(9.39-6) = 20.61dBm.

Chain 0

1. 11dBm + 10log(40.76) = 27.10 dBm > 20.99dBm.
2. 11dBm + 10log(41.23) = 27.15 dBm > 20.92dBm.
3. 11dBm + 10log(39.86) = 27.01 dBm > 20.95dBm.
4. 11dBm + 10log(40.69) = 27.09 dBm > 20.72dBm.
5. 11dBm + 10log(40.32) = 27.06 dBm > 20.61dBm.

Chain 1

1. 11dBm + 10log(40.61) = 27.09 dBm > 20.99dBm.
2. 11dBm + 10log(40.84) = 27.11 dBm > 20.92dBm.
3. 11dBm + 10log(40.72) = 27.10 dBm > 20.95dBm.
4. 11dBm + 10log(40.51) = 27.08 dBm > 20.72dBm.
5. 11dBm + 10log(40.51) = 27.08 dBm > 20.61dBm.

Chain 2

1. 11dBm + 10log(40.84) = 27.11 dBm > 20.99dBm.
2. 11dBm + 10log(41.04) = 27.13 dBm > 20.92dBm.
3. 11dBm + 10log(40.34) = 27.06 dBm > 20.95dBm.
4. 11dBm + 10log(40.92) = 27.12 dBm > 20.72dBm.
5. 11dBm + 10log(40.84) = 27.11 dBm > 20.61dBm.

Chain 3

1. 11dBm + 10log(40.61) = 27.09 dBm > 20.99dBm.
2. 11dBm + 10log(40.93) = 27.12 dBm > 20.92dBm.
3. 11dBm + 10log(40.82) = 27.11 dBm > 20.95dBm.
4. 11dBm + 10log(40.67) = 27.09 dBm > 20.72dBm.
5. 11dBm + 10log(40.36) = 27.06 dBm > 20.61dBm.

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	Chain 2	Chain 3				
58	5290	13.84	13.66	13.58	13.74	93.899	19.73	21.02	Pass
106	5530	14.61	14.70	14.71	14.62	116.972	20.68	20.83	Pass
122	5610	14.44	14.60	14.73	14.65	115.528	20.63	20.69	Pass

Note:

5290MHz: Directional gain = 10 log[($10^{G1/20}$ + $10^{G2/20}$ + ... + $10^{GN/20}$)^2/N] = 8.98dBi > 6dBi, so the limit shall be reduced to 24-(8.98-6) = 21.02dBm.

5530MHz: Directional gain = 10 log[($10^{G1/20}$ + $10^{G2/20}$ + ... + $10^{GN/20}$)^2/N] = 9.17dBi > 6dBi, so the limit shall be reduced to 24-(9.17-6) = 20.83dBm.

5610MHz: Directional gain = 10 log[($10^{G1/20}$ + $10^{G2/20}$ + ... + $10^{GN/20}$)^2/N] = 9.31dBi > 6dBi, so the limit shall be reduced to 24-(9.31-6) = 20.69dBm.

Chain 0

1. 11dBm + 10log(84.57) = 30.27 dBm > 21.02dBm.
2. 11dBm + 10log(87.67) = 30.43 dBm > 20.83dBm.
3. 11dBm + 10log(83.74) = 30.23 dBm > 20.69dBm.

Chain 1

1. 11dBm + 10log(85.15) = 30.30 dBm > 21.02dBm.
2. 11dBm + 10log(84.52) = 30.27 dBm > 20.83dBm.
3. 11dBm + 10log(83.89) = 30.24 dBm > 20.69dBm.

Chain 2

1. 11dBm + 10log(85.75) = 30.33 dBm > 21.02dBm.
2. 11dBm + 10log(85.99) = 30.34 dBm > 20.83dBm.
3. 11dBm + 10log(85.02) = 30.30 dBm > 20.69dBm.

Chain 3

1. 11dBm + 10log(85.45) = 30.32 dBm > 21.02dBm.
2. 11dBm + 10log(83.89) = 30.24 dBm > 20.83dBm.
3. 11dBm + 10log(84.19) = 30.25 dBm > 20.69dBm.

26dB Bandwidth:

802.11a

Channel	Frequency (MHz)	26dBc Bandwidth (MHz)			
		Chain 0	Chain 1	Chain 2	Chain 3
52	5260	19.44	19.85	19.76	19.96
60	5300	19.49	19.45	19.52	19.32
64	5320	19.21	19.50	19.53	19.44
100	5500	20.34	19.22	19.09	19.52
116	5580	19.39	19.23	19.83	19.79
140	5700	19.39	19.83	19.66	20.10

802.11ac (VHT20)

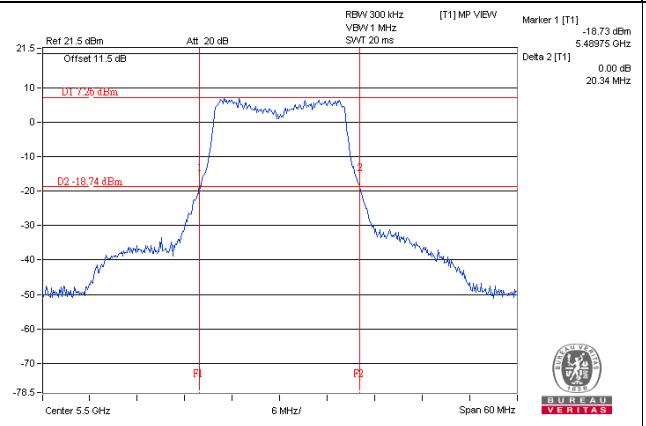
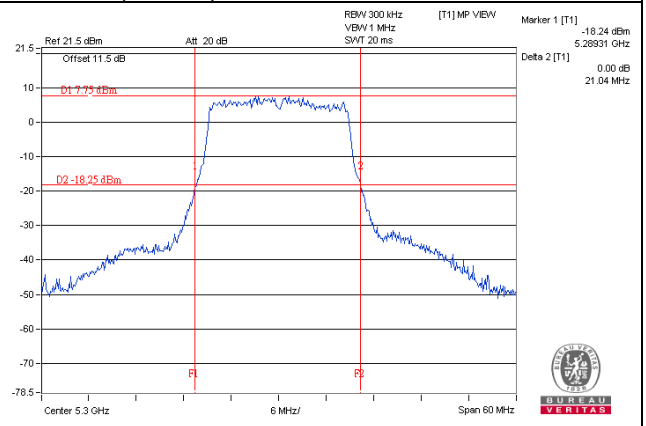
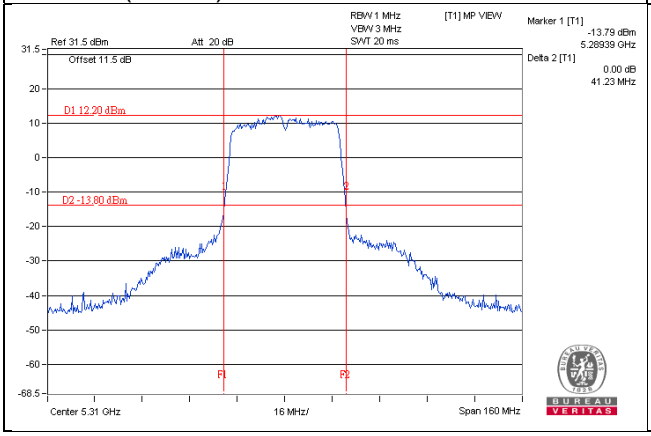
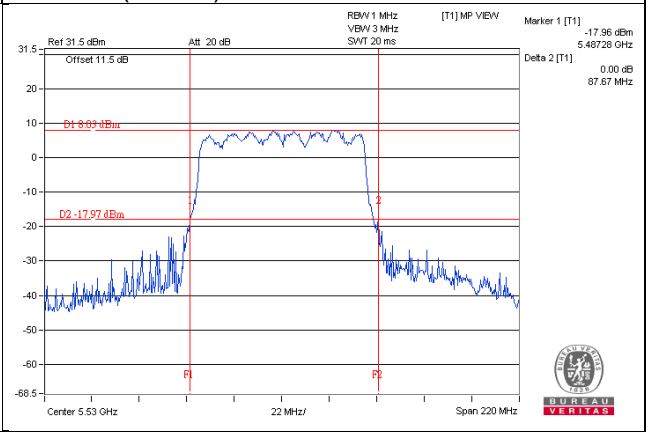
Channel	Frequency (MHz)	26dBc Bandwidth (MHz)			
		Chain 0	Chain 1	Chain 2	Chain 3
52	5260	20.65	20.65	20.47	20.75
60	5300	21.04	20.63	20.77	20.63
64	5320	20.86	20.76	20.73	20.77
100	5500	19.90	20.01	20.31	20.06
116	5580	19.96	20.35	20.64	20.16
140	5700	20.19	20.49	20.15	20.35

802.11ac (VHT40)

Channel	Frequency (MHz)	26dBc Bandwidth (MHz)			
		Chain 0	Chain 1	Chain 2	Chain 3
54	5270	40.76	40.61	40.84	40.61
62	5310	41.23	40.84	41.04	40.93
102	5510	39.86	40.72	40.34	40.82
110	5550	40.69	40.51	40.92	40.67
134	5670	40.32	40.51	40.84	40.36

802.11ac (VHT80)

Channel	Frequency (MHz)	26dBc Bandwidth (MHz)			
		Chain 0	Chain 1	Chain 2	Chain 3
58	5290	84.57	85.15	85.75	85.45
106	5530	87.67	84.52	85.99	83.89
122	5610	83.74	83.89	85.02	84.19

Spectrum Plot of Worst Value	
802.11a	802.11ac (VHT20)
	
802.11ac (VHT40)	802.11ac (VHT80)
	

EUT MAXIMUM CONDUCTED POWER

CDD Mode

802.11a

Frequency Band (MHz)	Max. Power	
	Output Power (mW)	Output Power (dBm)
5250~5350	110.468	20.43
5470~5725	111.839	20.49

Note: Manufacturer provides Transmit Power Control description to meet this requirement.

802.11ac (VHT20)

Frequency Band (MHz)	Max. Power	
	Output Power (mW)	Output Power (dBm)
5250~5350	113.298	20.54
5470~5725	111.588	20.48

Note: Manufacturer provides Transmit Power Control description to meet this requirement.

802.11ac (VHT40)

Frequency Band (MHz)	Max. Power	
	Output Power (mW)	Output Power (dBm)
5250~5350	158.465	22.00
5470~5725	166.610	22.22

Note: Manufacturer provides Transmit Power Control description to meet this requirement.

802.11ac (VHT80)

Frequency Band (MHz)	Max. Power	
	Output Power (mW)	Output Power (dBm)
5250~5350	126.188	21.01
5470~5725	243.726	23.87

Beamforming Mode

802.11ac (VHT20)

Frequency Band (MHz)	Max. Power	
	Output Power (mW)	Output Power (dBm)
5250~5350	113.298	20.54
5470~5725	111.588	20.48

Note: Manufacturer provides Transmit Power Control description to meet this requirement.

802.11ac (VHT40)

Frequency Band (MHz)	Max. Power	
	Output Power (mW)	Output Power (dBm)
5250~5350	112.318	20.50
5470~5725	117.826	20.71

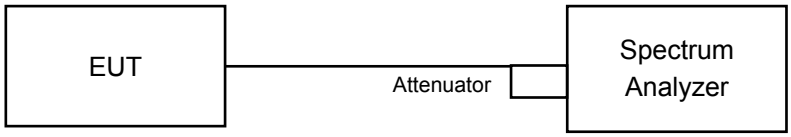
Note: Manufacturer provides Transmit Power Control description to meet this requirement.

802.11ac (VHT80)

Frequency Band (MHz)	Max. Power	
	Output Power (mW)	Output Power (dBm)
5250~5350	93.899	19.73
5470~5725	116.972	20.68

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 sampling. 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

802.11a

Channel	Frequency (MHz)	Occupied Bandwidth (MHz)			
		Chain 0	Chain 1	Chain 2	Chain 3
52	5260	16.44	16.44	16.44	16.44
60	5300	16.44	16.44	16.56	16.44
64	5320	16.44	16.56	16.56	16.56
100	5500	16.68	16.44	16.44	16.56
116	5580	16.56	16.44	16.56	16.56
140	5700	16.44	16.44	16.44	16.56

802.11ac (VHT20)

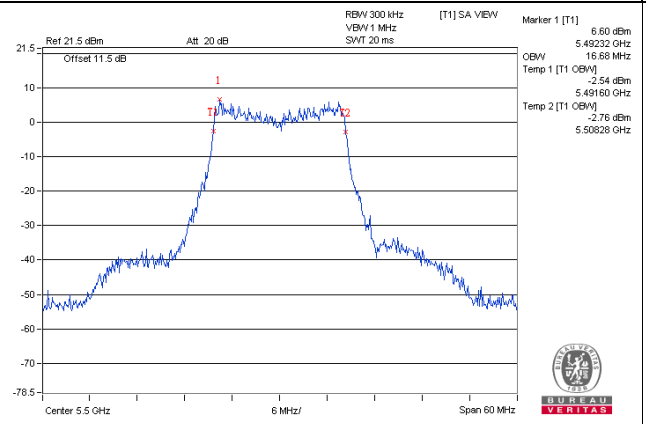
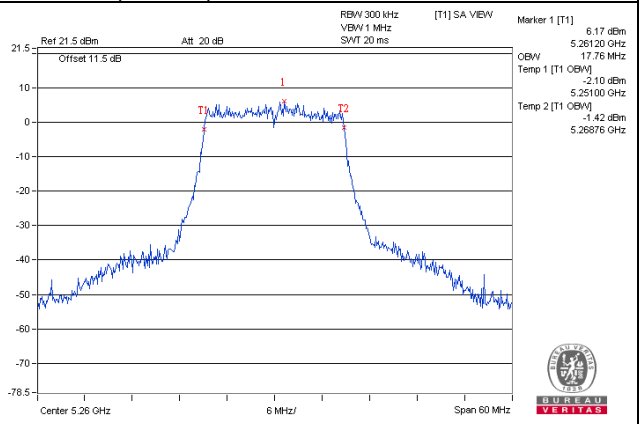
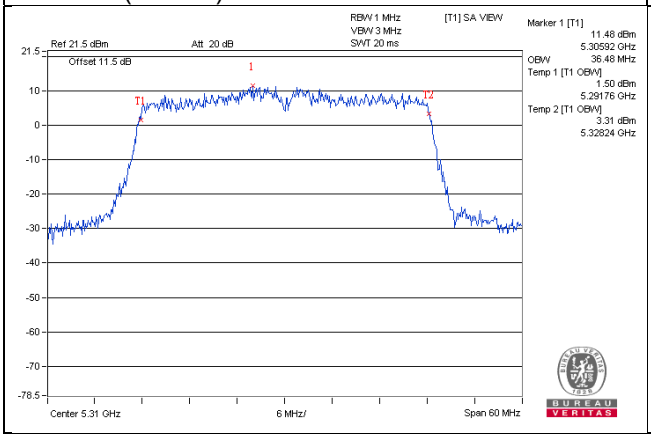
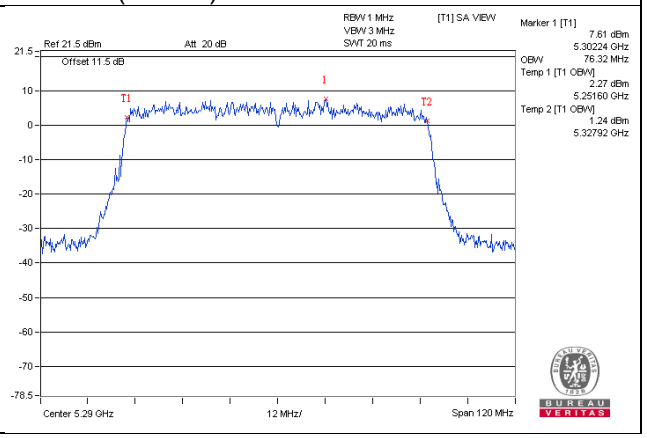
Channel	Frequency (MHz)	Occupied Bandwidth (MHz)			
		Chain 0	Chain 1	Chain 2	Chain 3
52	5260	17.76	17.64	17.64	17.76
60	5300	17.76	17.64	17.64	17.76
64	5320	17.76	17.76	17.64	17.64
100	5500	17.52	17.52	17.64	17.52
116	5580	17.52	17.64	17.76	17.52
140	5700	17.52	17.76	17.52	17.64

802.11ac (VHT40)

Channel	Frequency (MHz)	Occupied Bandwidth (MHz)			
		Chain 0	Chain 1	Chain 2	Chain 3
54	5270	36.36	36.24	36.24	36.24
62	5310	36.48	36.24	36.12	36.24
102	5510	35.64	36.12	36.00	36.24
110	5550	36.24	36.24	36.24	36.12
134	5670	36.12	36.24	36.24	36.00

802.11ac (VHT80)

Channel	Frequency (MHz)	Occupied Bandwidth (MHz)			
		Chain 0	Chain 1	Chain 2	Chain 3
58	5290	76.08	76.32	76.08	76.08
106	5530	75.84	75.84	76.08	75.36
122	5610	75.36	75.36	75.36	75.60

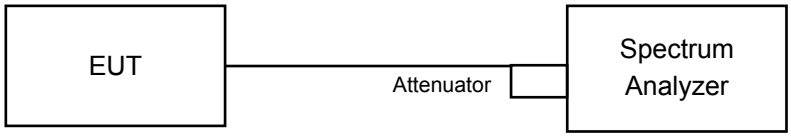
Spectrum Plot of Worst Value	
802.11a	802.11ac (VHT20)
	
802.11ac (VHT40)	802.11ac (VHT80)
	

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

Duty cycle of test signal is ≥ 98 %
Using method SA-1
1. Set span to encompass the entire emission bandwidth (EBW) of the signal.
2. Set RBW = 1 MHz, Set VBW ≥ 3 MHz, 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.

Duty cycle of test signal is < 98 %
Using method SA-2
1. Set span to encompass the entire emission bandwidth (EBW) of the signal.
2. Set RBW = 1 MHz, Set VBW ≥ 3 MHz, 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).

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

802.11a

Chan.	Freq. (MHz)	PSD W/O Duty Factor (dBm/MHz)				Duty Factor (dB)	Total PSD With Duty Factor (dBm/MHz)	Max. Limit (dBm/MHz)	Pass / Fail
		Chain 0	Chain 1	Chain 2	Chain 3				
52	5260	1.65	1.29	1.50	1.45	0.31	7.80	7.99	Pass
60	5300	1.65	1.67	1.33	1.39	0.31	7.84	8.02	Pass
64	5320	1.67	1.37	0.99	1.60	0.31	7.74	7.92	Pass
100	5500	-0.26	1.23	1.20	1.28	0.31	7.23	8.03	Pass
116	5580	1.07	1.00	0.48	1.23	0.31	7.28	7.87	Pass
140	5700	1.48	1.23	0.46	0.59	0.31	7.29	7.59	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. 5260MHz: Directional gain = 10 log[$(10^{G1/20} + 10^{G2/20} + ... + 10^{GN/20})^2/N$] = 9.01dBi > 6dBi, so the limit shall be reduced to 11-(9.01-6) = 7.99dBm.
   5300MHz: Directional gain = 10 log[$(10^{G1/20} + 10^{G2/20} + ... + 10^{GN/20})^2/N$] = 8.98dBi > 6dBi, so the limit shall be reduced to 11-(8.98-6) = 8.02dBm.
   5320MHz: Directional gain = 10 log[$(10^{G1/20} + 10^{G2/20} + ... + 10^{GN/20})^2/N$] = 9.08dBi > 6dBi, so the limit shall be reduced to 11-(9.08-6) = 7.92dBm.
   5500MHz: Directional gain = 10 log[$(10^{G1/20} + 10^{G2/20} + ... + 10^{GN/20})^2/N$] = 8.97dBi > 6dBi, so the limit shall be reduced to 11-(8.97-6) = 8.03dBm.
   5580MHz: Directional gain = 10 log[$(10^{G1/20} + 10^{G2/20} + ... + 10^{GN/20})^2/N$] = 9.13dBi > 6dBi, so the limit shall be reduced to 11-(9.13-6) = 7.87dBm.
   5700MHz: Directional gain = 10 log[$(10^{G1/20} + 10^{G2/20} + ... + 10^{GN/20})^2/N$] = 9.41dBi > 6dBi, so the limit shall be reduced to 11-(9.41-6) = 7.59dBm.
3. Refer to section 3.3 for duty cycle spectrum plot.

802.11ac (VHT20)

Chan.	Freq. (MHz)	PSD (dBm/MHz)				Total PSD (dBm/MHz)	Max. Limit (dBm/MHz)	Pass / Fail
		Chain 0	Chain 1	Chain 2	Chain 3			
52	5260	1.73	1.27	1.53	1.44	7.52	7.99	Pass
60	5300	1.71	1.43	1.58	1.43	7.56	8.02	Pass
64	5320	1.66	1.49	1.58	1.30	7.53	7.92	Pass
100	5500	1.64	1.43	1.72	1.36	7.56	8.03	Pass
116	5580	1.43	1.41	1.62	1.23	7.45	7.87	Pass
140	5700	1.36	1.22	1.00	1.10	7.19	7.59	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. 5260MHz: Directional gain = 10 log[$(10^{G1/20} + 10^{G2/20} + ... + 10^{GN/20})^2/N$] = 9.01dBi > 6dBi, so the limit shall be reduced to 11-(9.01-6) = 7.99dBm.
   5300MHz: Directional gain = 10 log[$(10^{G1/20} + 10^{G2/20} + ... + 10^{GN/20})^2/N$] = 8.98dBi > 6dBi, so the limit shall be reduced to 11-(8.98-6) = 8.02dBm.
   5320MHz: Directional gain = 10 log[$(10^{G1/20} + 10^{G2/20} + ... + 10^{GN/20})^2/N$] = 9.08dBi > 6dBi, so the limit shall be reduced to 11-(9.08-6) = 7.92dBm.
   5500MHz: Directional gain = 10 log[$(10^{G1/20} + 10^{G2/20} + ... + 10^{GN/20})^2/N$] = 8.97dBi > 6dBi, so the limit shall be reduced to 11-(8.97-6) = 8.03dBm.
   5580MHz: Directional gain = 10 log[$(10^{G1/20} + 10^{G2/20} + ... + 10^{GN/20})^2/N$] = 9.13dBi > 6dBi, so the limit shall be reduced to 11-(9.13-6) = 7.87dBm.
   5700MHz: Directional gain = 10 log[$(10^{G1/20} + 10^{G2/20} + ... + 10^{GN/20})^2/N$] = 9.41dBi > 6dBi, so the limit shall be reduced to 11-(9.41-6) = 7.59dBm.

802.11ac (VHT40)

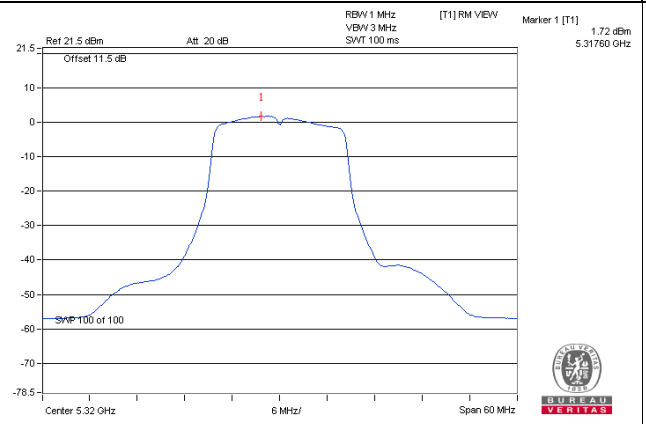
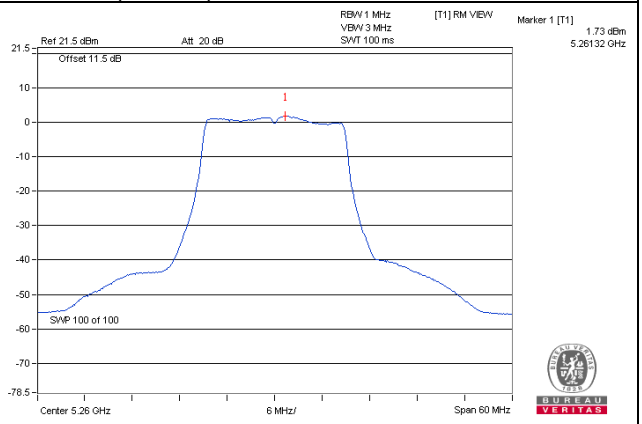
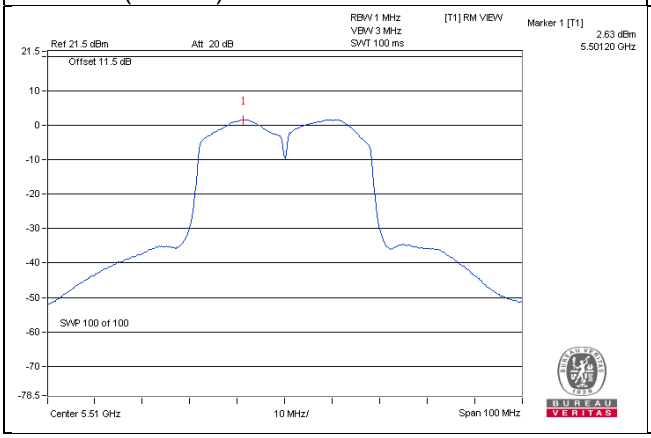
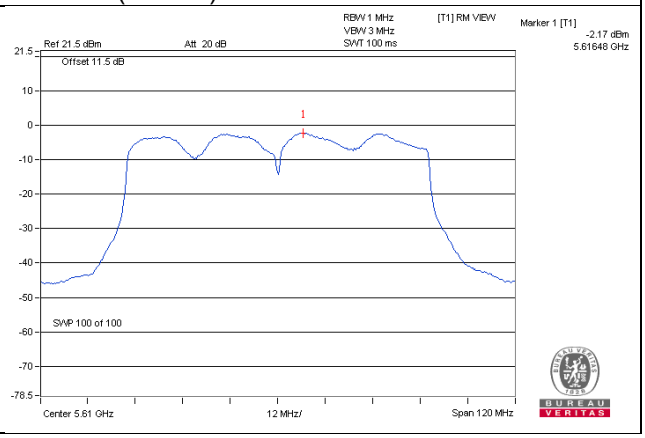
Chan.	Freq. (MHz)	PSD W/O Duty Factor (dBm/MHz)				Duty Factor (dB)	Total PSD With Duty Factor (dBm/MHz)	Max. Limit (dBm/MHz)	Pass / Fail
		Chain 0	Chain 1	Chain 2	Chain 3				
54	5270	1.37	1.49	1.48	1.47	0.31	7.78	7.99	Pass
62	5310	0.87	1.50	1.44	1.35	0.31	7.62	7.92	Pass
102	5510	1.54	1.06	1.02	0.90	0.31	7.46	7.95	Pass
110	5550	1.01	1.43	0.98	1.33	0.31	7.52	7.72	Pass
134	5670	1.34	1.38	0.03	1.40	0.31	7.40	7.61	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. 5270MHz: Directional gain = 10 log[$(10^{G1/20} + 10^{G2/20} + ... + 10^{GN/20})^2/N$] = 9.01dBi > 6dBi, so the limit shall be reduced to 11-(9.01-6) = 7.99dBm.
   5310MHz: Directional gain = 10 log[$(10^{G1/20} + 10^{G2/20} + ... + 10^{GN/20})^2/N$] = 9.08dBi > 6dBi, so the limit shall be reduced to 11-(9.08-6) = 7.92dBm.
   5510MHz: Directional gain = 10 log[$(10^{G1/20} + 10^{G2/20} + ... + 10^{GN/20})^2/N$] = 9.05dBi > 6dBi, so the limit shall be reduced to 11-(9.05-6) = 7.95dBm.
   5550MHz: Directional gain = 10 log[$(10^{G1/20} + 10^{G2/20} + ... + 10^{GN/20})^2/N$] = 9.28dBi > 6dBi, so the limit shall be reduced to 11-(9.28-6) = 7.72dBm.
   5670MHz: Directional gain = 10 log[$(10^{G1/20} + 10^{G2/20} + ... + 10^{GN/20})^2/N$] = 9.39dBi > 6dBi, so the limit shall be reduced to 11-(9.39-6) = 7.61dBm.
3. Refer to section 3.3 for duty cycle spectrum plot.

802.11ac (VHT80)

Chan.	Freq. (MHz)	PSD W/O Duty Factor (dBm/MHz)				Duty Factor (dB)	Total PSD With Duty Factor (dBm/MHz)	Max. Limit (dBm/MHz)	Pass / Fail
		Chain 0	Chain 1	Chain 2	Chain 3				
58	5290	-3.58	-2.51	-2.54	-4.36	0.26	3.10	8.02	Pass
106	5530	-3.23	-2.99	-2.88	-2.92	0.26	3.28	7.83	Pass
122	5610	-2.17	-2.18	-2.24	-2.26	0.26	4.07	7.69	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. 5290MHz: Directional gain = 10 log[$(10^{G1/20} + 10^{G2/20} + ... + 10^{GN/20})^2/N$] = 8.98dBi > 6dBi, so the limit shall be reduced to 11-(8.98-6) = 8.02dBm.
   5530MHz: Directional gain = 10 log[$(10^{G1/20} + 10^{G2/20} + ... + 10^{GN/20})^2/N$] = 9.17dBi > 6dBi, so the limit shall be reduced to 11-(9.17-6) = 7.83dBm.
   5610MHz: Directional gain = 10 log[$(10^{G1/20} + 10^{G2/20} + ... + 10^{GN/20})^2/N$] = 9.31dBi > 6dBi, so the limit shall be reduced to 11-(9.31-6) = 7.69dBm.
3. Refer to section 3.3 for duty cycle spectrum plot.

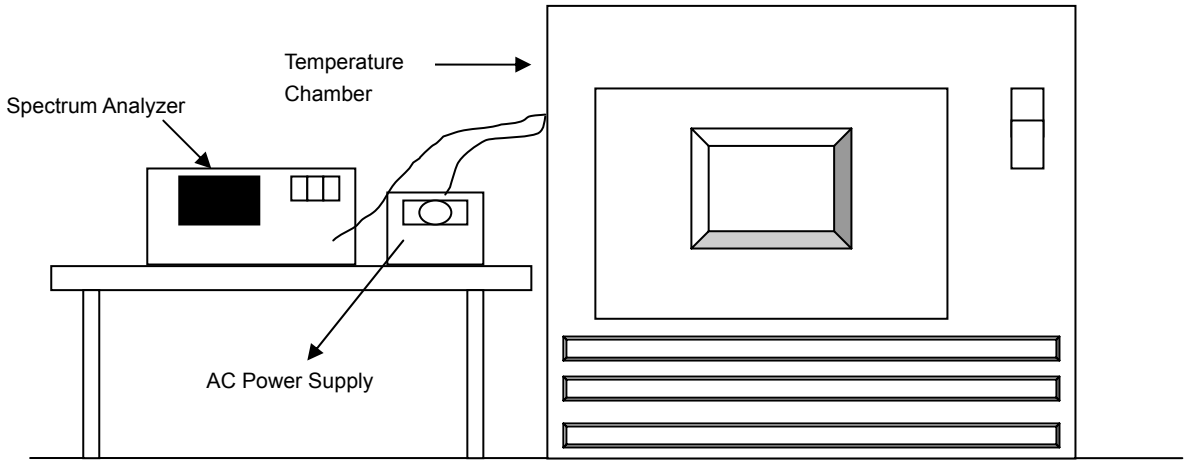
Spectrum Plot of Worst Value	
802.11a / Chain 0 / CH 64	802.11ac (VHT20) / Chain 0 / CH 52
	
802.11ac (VHT40)/ Chain 0 / CH 102	802.11ac (VHT80) / Chain 0 / CH 122
	

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: 5260MHz									
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	5259.997	-0.00006	5259.9979	-0.00004	5259.9982	-0.00003	5259.9977	-0.00004
40	120	5259.983	-0.00032	5259.9816	-0.00035	5259.9818	-0.00035	5259.9825	-0.00033
30	120	5259.9879	-0.00023	5259.9876	-0.00024	5259.9908	-0.00017	5259.9906	-0.00018
20	120	5260.0203	0.00039	5260.0193	0.00037	5260.0164	0.00031	5260.0188	0.00036
10	120	5260.0065	0.00012	5260.0081	0.00015	5260.0037	0.00007	5260.0035	0.00007
0	120	5260.0207	0.00039	5260.0211	0.00040	5260.0179	0.00034	5260.0172	0.00033
-10	120	5260.0004	0.00001	5259.9973	-0.00005	5260.0006	0.00001	5259.9988	-0.00002
-20	120	5259.9766	-0.00044	5259.9773	-0.00043	5259.9781	-0.00042	5259.9797	-0.00039
-30	120	5259.9782	-0.00041	5259.9771	-0.00044	5259.9809	-0.00036	5259.9775	-0.00043

Frequency Stability Versus Voltage									
Operating Frequency: 5260MHz									
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	5260.0205	0.00039	5260.0198	0.00038	5260.0163	0.00031	5260.0181	0.00034
	120	5260.0203	0.00039	5260.0193	0.00037	5260.0164	0.00031	5260.0188	0.00036
	102	5260.0207	0.00039	5260.0185	0.00035	5260.0161	0.00031	5260.0197	0.00037

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:

Linko EMC/RF Lab
Tel: 886-2-26052180
Fax: 886-2-26051924

Hsin Chu EMC/RF/Telecom Lab
Tel: 886-3-6668565
Fax: 886-3-6668323

Hwa Ya EMC/RF/Safety Lab
Tel: 886-3-3183232
Fax: 886-3-3270892

Email: service.adt@tw.bureauveritas.com
Web Site: www.bureauveritas-adt.com

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

--- END ---