FCC Test Report

Report No.:	RF160613C30A-3
FCC ID:	TVE-281BB022
Test Model:	FAP-U421EV, FAP-U423EV
Series Model:	FortiAP U421EVxxxxxx, FAP-U421EVxxxxxx, FORTIAP-U421EVxxxxxx, FortiAP U423EVxxxxxx, FAP-U423EVxxxxxx, FORTIAP-U423EVxxxxxx (where “x” can be used as “A-Z” or “0-9” or “-“ or blank for software changes or marketing purposes only) (refer to item 3.1 for more details)
Received Date:	Jun. 13, 2016
Test Date:	Jul. 07 ~ Sep. 20, 2016
Issued Date:	Sep. 21, 2016
Applicant:	Fortinet Inc.
Address:	899 Kifer Road Sunnyvale, CA 94086 USA
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

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

Table of Contents

Release Control Record

Issue No.	Description	Date Issued
RF160613C30A-3	Original release.	Sep. 21, 2016

1 Certificate of Conformity

Product:	Secured Wireless Access Point
Brand:	Fortinet Inc.
Test Model:	FAP-U421EV, FAP-U423EV
Series Model:	FortiAP U421EVxxxxxx, FAP-U421EVxxxxxx, FORTIAP-U421EVxxxxxx, FortiAP U423EVxxxxxx, FAP-U423EVxxxxxx, FORTIAP-U423EVxxxxxx (where "x" can be used as "A-Z" or "0-9" or "-" or blank for software changes or marketing purposes only) (refer to item 3.1 for more details)
Sample Status:	Engineering sample
Applicant:	Fortinet Inc.
Test Date:	Jul. 07 ~ Sep. 20, 2016
Standard:	47 CFR FCC Part 15, Subpart E (Section 15.407) ANSI C63.10:2013

This report is issued as a supplementary report of RF160613C30-3. This report shall be used combined together with its original report.

Prepared by : _____ , **Date:** Sep. 21, 2016

Suntee Liu / Specialist

Approved by : _____ , **Date:** Sep. 21, 2016

Ken Liu / Senior Manager

Note: All test items except conducted emission are performed for the addendum. Refer to original report for the other test data.

2 Summary of Test Results

47 CFR FCC Part 15, Subpart E (Section 15.407)			
FCC Clause	Test Item	Result	Remarks
15.407(b)(6)	AC Power Conducted Emissions	N/A	Refer to Note
15.407(b) (1/2/3/4/6)	Radiated Emissions & Band Edge Measurement	PASS	Meet the requirement of limit. Minimum passing margin is -1.0dB at 5150.00, 5400.00, 5970.00, 10360.00, 10480.00MHz.
15.407(a)(1/2/3)	Max Average Transmit Power	PASS	Meet the requirement of limit.
15.407(a)(1/2/3)	Peak Power Spectral Density	PASS	Meet the requirement of limit.
15.407(e)	6dB bandwidth	PASS	Meet the requirement of limit. (U-NII-3 Band only)
15.407(g)	Frequency Stability	PASS	Meet the requirement of limit.
15.203	Antenna Requirement	PASS	Antenna connector is IPEX or RPSMA not a standard connector.

Note: All test items except conducted emission are performed for the addendum. Refer to original report for the other test data.

2.1 Measurement Uncertainty

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

Measurement	Frequency	Expanded Uncertainty (k=2) (±)
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	Secured Wireless Access Point
Brand	Fortinet Inc.
Test Model	FAP-U421EV, FAP-U423EV
Series Model	FortiAP U421EVxxxxxx, FAP-U421EVxxxxxx, FORTIAP-U421EVxxxxxx, FortiAP U423EVxxxxxx, FAP-U423EVxxxxxx, FORTIAP-U423EVxxxxxx (where “x” can be used as “A-Z” or “0-9” or “-“ or blank for software changes or marketing purposes only) (refer to Note for more details)
Model Difference	Refer to Note
Sample Status	Engineering sample
Power Supply Rating	12Vdc (adapter) 54Vdc (POE)
Modulation Type	256QAM, 64QAM, 16QAM, QPSK, BPSK
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	5180~5240MHz, 5745~5825MHz
Number of Channel	5180~5240MHz: 802.11a, 802.11n (HT20), 802.11ac (VHT20): 4 802.11n (HT40), 802.11ac (VHT40): 2 802.11ac (VHT80): 1 5745~5825MHz: 802.11a, 802.11n (HT20), 802.11ac (VHT20): 5 802.11n (HT40), 802.11ac (VHT40): 2 802.11ac (VHT80): 1
Output Power	5180~5240MHz: 132.986mW 5745~5825MHz: 143.027mW
Antenna Type	Refer to Note
Antenna Connector	Refer to Note
Accessory Device	NA
Data Cable Supplied	NA

Note:

1. This report is prepared for FCC class II permissive change. The differences compared with the original report of BV ADT report no. RF160613C30-3 are changing WLAN external antenna 5GHz gain to 3.18dBi, changing 2 models and adding beamforming function.

   Antenna port conducted measurement without beamforming function is no affected for gain modification, since it was tested with WLAN internal antenna of maximum gain in original report.

   Radiated emission above 1GHz & Radiated emission below 1GHz measurements without beamforming function are re-tested for gain modification in this report. Radiated emission above 1GHz & Antenna port conducted measurements with beamforming function are re-tested for beamforming function addition in this report. Refer to original report for the other test data.

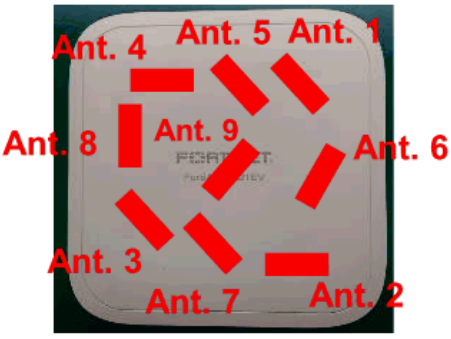
2. The EUT incorporates a MIMO function. Physically, the EUT provides 4 completed transmitters and 4 receivers.

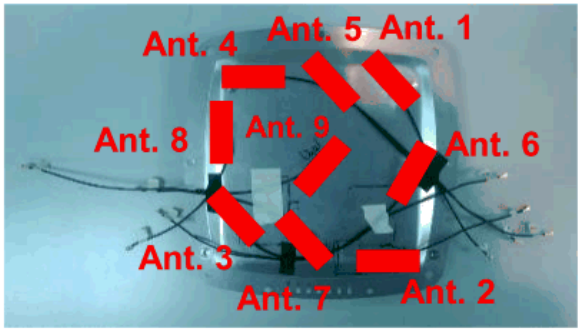
Modulation Mode	TX Function	Beamforming Mode
802.11b	4TX	Not Support
802.11g	4TX	Not Support
802.11a	4TX	Not Support
802.11n (HT20)	4TX	Support
802.11n (HT40)	4TX	Support
802.11ac (VHT20)	4TX	Support
802.11ac (VHT40)	4TX	Support
802.11ac (VHT80)	4TX	Support

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

3. The EUT uses following antennas.

Antenna Type	Printed	Antenna Connector	IPEX
Gain (dBi)	Frequency (MHz)		
	2400~2500	5150~5850	
WLAN Internal Ant. 1	3.81	-	
WLAN Internal Ant. 2	3.98	-	
WLAN Internal Ant. 3	3.47	-	
WLAN Internal Ant. 4	3.75	-	
WLAN Internal Ant. 5	-	5.65	
WLAN Internal Ant. 6	-	5.50	
WLAN Internal Ant. 7	-	5.84	
WLAN Internal Ant. 8	-	5.84	
Gain (dBi)	Frequency (MHz)		
	2400	2450	2500
BT Internal Ant. 9	2.56	2.91	2.62





Antenna Type	Dipole	Antenna Connector	RPSMA
Gain (dBi)	Frequency (MHz)		
	2400~2500	5150~5850	
WLAN External Ant.	4.42	3.18	

4. All models are listed as below (where “x” can be used as “A-Z” or “0-9” or “-“ or blank for software changes or marketing purposes only). Models FAP-U421EV and FAP-U423EV are the representatives for final test.

Brand	Model	Difference
Fortinet Inc.	FortiAP U421EVxxxxxx	Internal antenna
	FAP-U421EVxxxxxx	
	FORTIAP-U421EVxxxxxx	
	FortiAP U423EVxxxxxx	External antenna
	FAP-U423EVxxxxxx	
	FORTIAP-U423EVxxxxx	

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

3.2 Description of Test Modes

FOR 5180 ~ 5240MHz:

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

Channel	Frequency	Channel	Frequency
36	5180 MHz	44	5220 MHz
40	5200 MHz	48	5240 MHz

2 channels are provided for 802.11n (HT40), 802.11ac (40MHz):

Channel	Frequency	Channel	Frequency
38	5190 MHz	46	5230 MHz

1 channel is provided for 802.11ac (VHT80):

Channel	Frequency
42	5210MHz

FOR 5745 ~ 5825MHz:

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

Channel	Frequency	Channel	Frequency
149	5745MHz	161	5805MHz
153	5765MHz	165	5825MHz
157	5785MHz		

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

Channel	Frequency	Channel	Frequency
151	5755MHz	159	5795MHz

1 channel is provided for 802.11ac (VHT80):

Channel	Frequency
155	5775MHz

3.2.1 Test Mode Applicability and Tested Channel Detail

EUT Configure Mode	Applicable to			Description
	RE≥1G	RE<1G	APCM	
A	√	√	√	Internal antenna, Power from adapter
B	-	√	-	Internal antenna, Power from POE
C	√	√	-	External antenna, Power from adapter
D	-	√	-	External antenna, Power from POE

Where RE≥1G: Radiated Emission above 1GHz & Bandedge Measurement RE<1G: Radiated Emission below 1GHz
APCM: Antenna Port Conducted Measurement

Note:
1. The EUT had been pre-tested on the positioned of each 3 axis. The worst case was found when positioned on Y-plane.
2. "-" means no effect.

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	Frequency Band (MHz)	Available Channel	Tested Channel	Modulation Technology	Data Rate (Mbps)
CDD Mode						
A, C	802.11a	5180-5240	36 to 48	36, 40, 48	OFDM	6.0
A, C	802.11ac (VHT20)		36 to 48	36, 40, 48	OFDM	7.2
A, C	802.11ac (VHT40)		38 to 46	38, 46	OFDM	15.0
A, C	802.11ac (VHT80)		42	42	OFDM	130.0
A, C	802.11a	5745-5825	149 to 165	149, 157, 165	OFDM	6.0
A, C	802.11ac (VHT20)		149 to 165	149, 157, 165	OFDM	7.2
A, C	802.11ac (VHT40)		151 to 159	151, 159	OFDM	15.0
A, C	802.11ac (VHT80)		155	155	OFDM	130.0
Beamforming Mode						
A, C	802.11ac (VHT20)	5180-5240	36 to 48	36, 40, 48	OFDM	7.2
A, C	802.11ac (VHT40)		38 to 46	38, 46	OFDM	15.0
A, C	802.11ac (VHT80)		42	42	OFDM	130.0
A, C	802.11ac (VHT20)	5745-5825	149 to 165	149, 157, 165	OFDM	7.2
A, C	802.11ac (VHT40)		151 to 159	151, 159	OFDM	15.0
A, C	802.11ac (VHT80)		155	155	OFDM	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	Frequency Band (MHz)	Available Channel	Tested Channel	Modulation Technology	Data Rate (Mbps)
CDD Mode						
A, B, C, D	802.11a	5180-5240	36 to 48	157	OFDM	6.0
	802.11a	5745-5825	149 to 165		OFDM	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	Frequency Band (MHz)	Available Channel	Tested Channel	Modulation Technology	Data Rate (Mbps)
Beamforming Mode						
A	802.11ac (VHT20)	5180-5240	36 to 48	36, 40, 48	OFDM	7.2
A	802.11ac (VHT40)		38 to 46	38, 46	OFDM	15.0
A	802.11ac (VHT80)		42	42	OFDM	130.0
A	802.11ac (VHT20)	5745-5825	149 to 165	149, 157, 165	OFDM	7.2
A	802.11ac (VHT40)		151 to 159	151, 159	OFDM	15.0
A	802.11ac (VHT80)		155	155	OFDM	130.0

Test Condition:

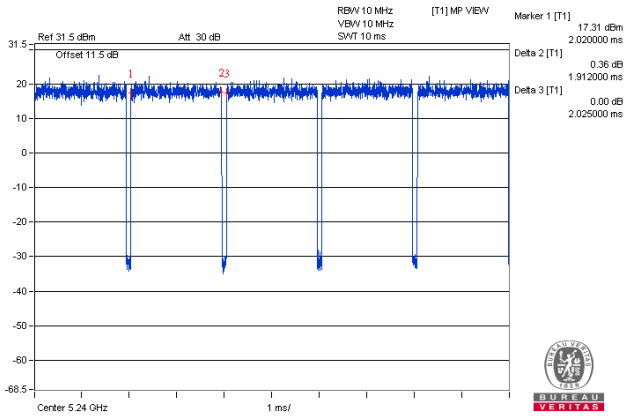
Applicable to	Environmental Conditions	Input Power	Tested by
RE≥1G	18 deg. C, 70% RH 16 deg. C, 70% RH	120Vac, 60Hz	Jones Chang
RE<1G	18 deg. C, 70% RH	120Vac, 60Hz	Nick Hsu
APCM	25 deg. C, 60% RH	120Vac, 60Hz	Antony Lee

3.3 Duty Cycle of Test Signal

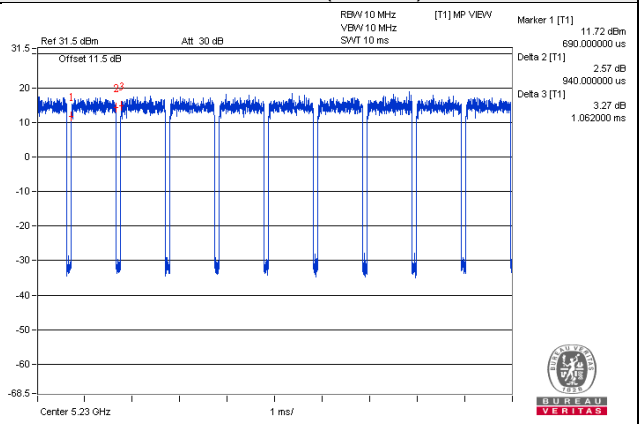
Duty cycle of test signal is < 98%, duty factor shall be considered.

802.11ac (VHT20): Duty cycle = 1.912/2.025 = 0.944, Duty factor = 10 * log(1/0.944) = 0.25
802.11ac (VHT40): Duty cycle = 0.94/1.062 = 0.885, Duty factor = 10 * log(1/0.885) = 0.53
802.11ac (VHT80): Duty cycle = 0.453/0.498 = 0.910, Duty factor = 10 * log(1/0.910) = 0.41

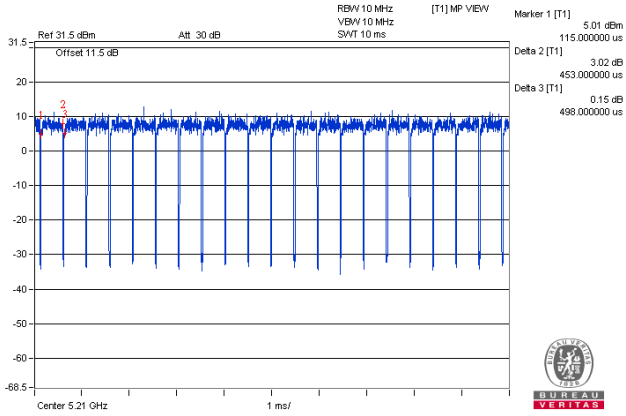
802.11ac (VHT20)



802.11ac (VHT40)



802.11ac (VHT80)



3.4 Description of Support Units

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

ID	Product	Brand	Model No.	Serial No.	FCC ID	Remarks
A.	Notebook	DELL	E5410	1HC2XM1	FCC DoC Approved	-
B.	Load	NA	NA	NA	NA	-
C.	Flash	Transcend	8GB	NA	NA	-
D.	Adapter	Asian Power Devices Inc.	WA-36A12R	NA	NA	Option of EUT I/P: 100-240Vac, 50-60Hz, 0.9A Max. O/P: 12Vdc, 3A 1.8m DC cable with 1 core
E.	POE	EnGenius	EPA5006GAT	NA	NA	Option of EUT I/P: 100-240Vac, 50-60Hz, 0.8A O/P: 54Vdc, 0.6A 0.5m power cable w/o core

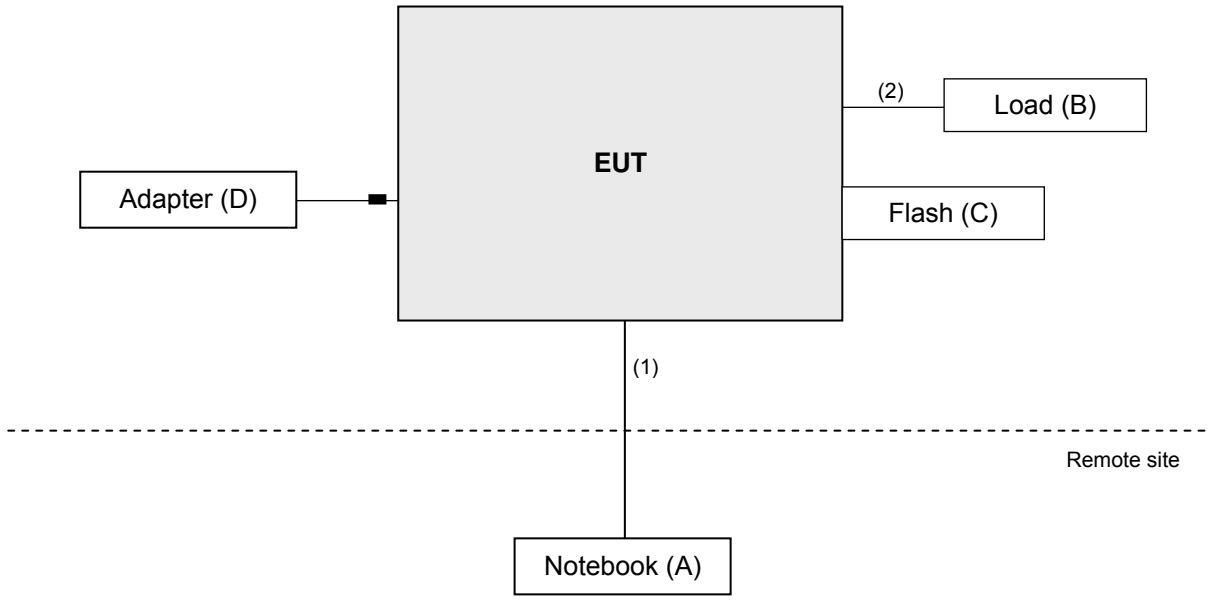
Note:

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.

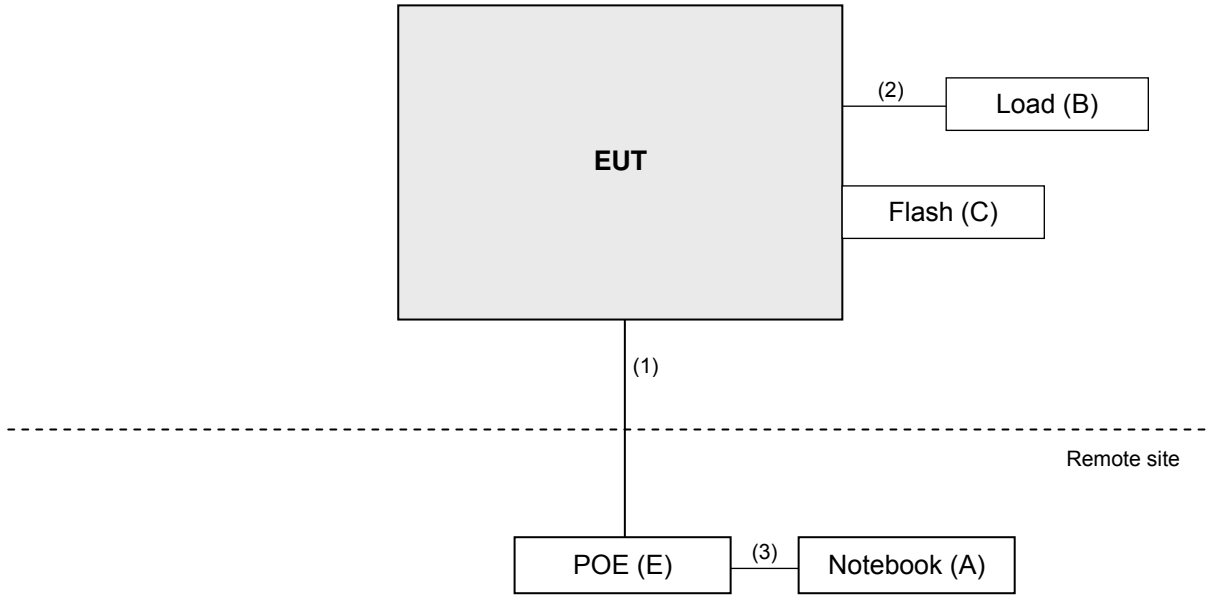
ID	Descriptions	Qty.	Length (m)	Shielding (Yes/No)	Cores (Qty.)	Remarks
1.	RJ45	1	5	N	0	-
2.	RJ45	2	1	N	0	-
3.	RJ45	1	1.8	N	0	-

3.4.1 Configuration of System under Test

Mode A, C



Mode B, D



3.5 General Description of Applied Standard

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)
789033 D02 General UNII Test Procedures New Rules v01r03
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	ESIB7	100187	Apr. 18, 2016	Apr. 17, 2017
Spectrum Analyzer ROHDE & SCHWARZ	FSP40	100040	Aug. 16, 2015	Aug. 15, 2016
			Aug. 16, 2016	Aug. 15, 2017
BILOG Antenna SCHWARZBECK	VULB9168	9168-171	Jan. 07, 2016	Jan. 06, 2017
HORN Antenna SCHWARZBECK	9120D	209	Jan. 20, 2016	Jan. 19, 2017
HORN Antenna SCHWARZBECK	BBHA 9170	BBHA9170241	Jan. 18, 2016	Jan. 17, 2017
Preamplifier Agilent	8447D	2944A10738	Oct.18, 2015	Oct. 17, 2016
Preamplifier Agilent	8449B	3008A01964	Aug. 22, 2015	Aug. 21, 2016
			Aug. 22, 2016	Aug. 21, 2017
RF signal cable HUBER+SUHNER	SUCOFLEX 104	Cable-CH3-03 (214378)	Aug. 22, 2015	Aug. 21, 2016
			Aug. 22, 2016	Aug. 21, 2017
RF signal cable HUBER+SUHNER	SUCOFLEX 106	Cable-CH3-03 (309224+12738)	Aug. 22, 2015	Aug. 21, 2016
			Aug. 22, 2016	Aug. 21, 2017
Software BV ADT	ADT_Radiated_ V7.6.15.9.4	NA	NA	NA
Antenna Tower inn-co GmbH	MA 4000	013303	NA	NA
Antenna Tower Controller BV ADT	AT100	AT93021702	NA	NA
Turn Table BV ADT	TT100	TT93021702	NA	NA
Turn Table Controller BV ADT	SC100	SC93021702	NA	NA
26GHz ~ 40GHz Amplifier	EM26400	815221	Oct. 18, 2015	Oct. 17, 2016
High Speed Peak Power Meter	ML2495A	1145013	Mar. 22, 2016	Mar. 21, 2017
Power Sensor	MA2411B	0738171	Mar. 22, 2016	Mar. 21, 2017

Note:
1. The calibration interval of the above test instruments is 12 months and the calibrations are traceable to NML/ROC and NIST/USA.
2. The test was performed in HwaYa Chamber 3.
3. The horn antenna and preamplifier (model: 8449B) are used only for the measurement of emission frequency above 1GHz if tested.
4. The FCC Site Registration No. is 988962.
5. The IC Site Registration No. is IC 7450F-3.

4.1.3 Test Procedure

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

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

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

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

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

f. The test-receiver system was set to peak and average detect function and specified bandwidth with maximum hold mode when the test frequency is above 1 GHz. If the peak reading value also meets average limit, measurement with the average detector is unnecessary.

Note:

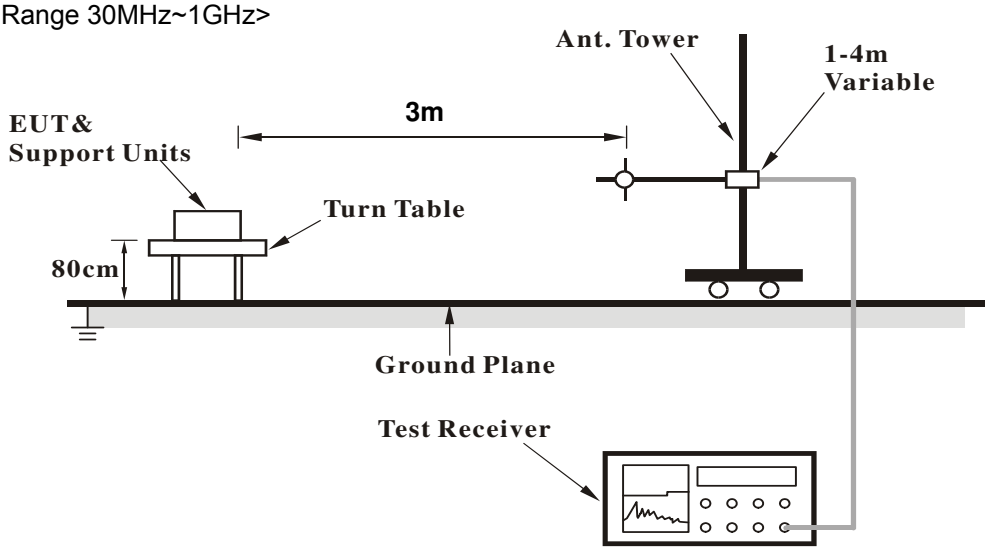
1. The resolution bandwidth and video bandwidth of test receiver/spectrum analyzer is 120kHz for Quasi-peak detection (QP) at frequency below 1GHz.
2. The resolution bandwidth of test receiver/spectrum analyzer is 1 MHz and the video bandwidth is 3 MHz for Peak detection (PK) at frequency above 1GHz.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

4.1.4 Deviation from Test Standard

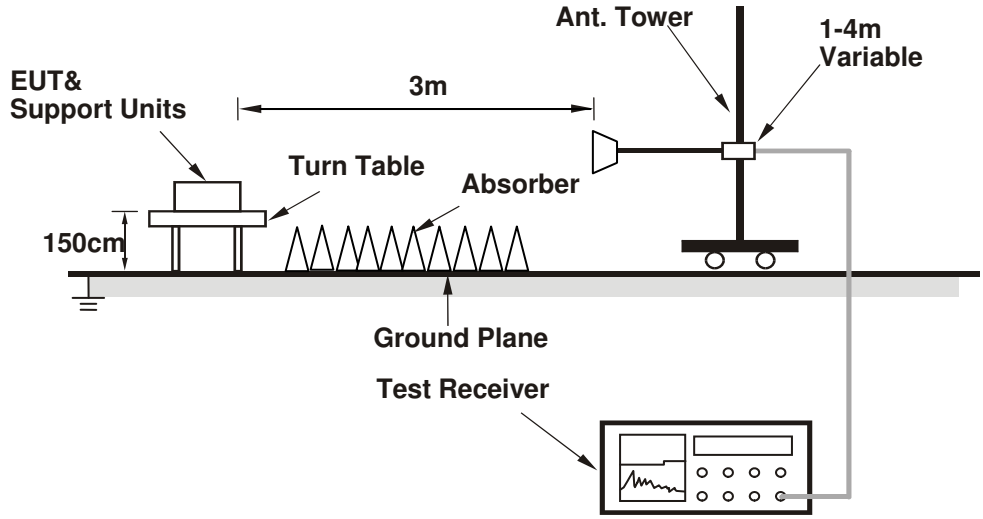
No deviation.

4.1.5 Test Setup

<Frequency Range 30MHz~1GHz>



<Frequency Range above 1GHz>



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

4.1.6 EUT Operating Conditions

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

4.1.7 Test Results

Above 1GHz Data:

CDD Mode

Mode A

802.11a

CHANNEL	TX Channel 36	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	61.8 PK	74.0	-12.2	1.72 H	282	57.0	4.8
2	5150.00	48.2 AV	54.0	-5.8	1.72 H	282	43.4	4.8
3	*5180.00	120.1 PK			2.05 H	60	81.4	38.7
4	*5180.00	109.1 AV			2.05 H	60	70.4	38.7
5	#10360.00	65.6 PK	74.0	-8.4	1.64 H	289	48.0	17.6
6	**#10360.00**	**53.0 AV**	**54.0**	**-1.0**	**1.64 H**	**289**	**35.4**	**17.6**
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	58.2 PK	74.0	-15.8	1.52 V	333	53.4	4.8
2	5150.00	45.3 AV	54.0	-8.7	1.52 V	333	40.5	4.8
3	*5180.00	114.4 PK			2.62 V	330	75.7	38.7
4	*5180.00	103.6 AV			2.62 V	330	64.9	38.7
5	#10360.00	63.3 PK	74.0	-10.7	1.75 V	317	45.7	17.6
6	#10360.00	50.8 AV	54.0	-3.2	1.75 V	317	33.2	17.6

Remarks:

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

CHANNEL	TX Channel 40	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	*5200.00	121.7 PK			1.99 H	53	83.0	38.7
2	*5200.00	110.8 AV			1.99 H	53	72.1	38.7
3	#10400.00	64.6 PK	74.0	-9.4	2.06 H	62	47.0	17.6
4	#10400.00	52.9 AV	54.0	-1.1	2.06 H	62	35.3	17.6
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	*5200.00	114.5 PK			2.83 V	328	75.8	38.7
2	*5200.00	104.6 AV			2.83 V	328	65.9	38.7
3	#10400.00	65.2 PK	74.0	-8.8	3.38 V	31	47.6	17.6
4	#10400.00	52.3 AV	54.0	-1.7	3.38 V	31	34.7	17.6

Remarks:

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

CHANNEL	TX Channel 48	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	*5240.00	122.6 PK			2.11 H	52	83.7	38.9
2	*5240.00	111.4 AV			2.11 H	52	72.5	38.9
3	5395.00	62.8 PK	74.0	-11.2	1.83 H	66	57.3	5.5
4	5395.00	50.3 AV	54.0	-3.7	1.83 H	66	44.8	5.5
5	#10480.00	67.3 PK	74.0	-6.7	1.64 H	305	48.9	18.4
6	**#10480.00**	**53.0 AV**	**54.0**	**-1.0**	**1.64 H**	**305**	**34.6**	**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	*5240.00	114.2 PK			2.06 V	341	75.3	38.9
2	*5240.00	103.6 AV			2.06 V	341	64.7	38.9
3	5395.00	60.3 PK	74.0	-13.7	1.92 V	357	54.8	5.5
4	5395.00	47.5 AV	54.0	-6.5	1.92 V	357	42.0	5.5
5	#10480.00	62.9 PK	74.0	-11.1	1.71 V	305	44.5	18.4
6	#10480.00	51.1 AV	54.0	-2.9	1.71 V	305	32.7	18.4

Remarks:

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

CHANNEL	TX Channel 149	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	#5714.90	64.3 PK	109.4	-45.1	2.82 H	267	58.0	6.3
2	#5722.90	76.9 PK	117.4	-40.5	2.73 H	284	70.6	6.3
3	#5725.00	58.1 PK	122.2	-64.1	2.51 H	269	51.8	6.3
4	*5745.00	117.8 PK			1.76 H	58	77.8	40.0
5	*5745.00	108.0 AV			1.76 H	58	68.0	40.0
6	11490.00	60.2 PK	74.0	-13.8	1.28 H	323	40.9	19.3
7	11490.00	47.2 AV	54.0	-6.8	1.28 H	323	27.9	19.3
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	#5714.90	64.6 PK	109.4	-44.8	3.69 V	333	58.3	6.3
2	#5722.90	68.1 PK	117.4	-49.3	3.66 V	341	61.8	6.3
3	#5725.00	52.5 PK	122.2	-69.7	3.81 V	335	46.2	6.3
4	*5745.00	114.9 PK			3.96 V	331	74.9	40.0
5	*5745.00	103.9 AV			3.96 V	331	63.9	40.0
6	11490.00	59.7 PK	74.0	-14.3	3.54 V	282	40.4	19.3
7	11490.00	47.0 AV	54.0	-7.0	3.54 V	282	27.7	19.3

Remarks:

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

CHANNEL	TX Channel 157	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	*5785.00	122.1 PK			1.82 H	69	82.0	40.1
2	*5785.00	112.0 AV			1.82 H	69	71.9	40.1
3	#6030.00	66.9 PK	68.2	-1.3	1.49 H	53	60.1	6.8
4	11570.00	61.0 PK	74.0	-13.0	3.52 H	279	41.8	19.2
5	11570.00	48.9 AV	54.0	-5.1	3.52 H	279	29.7	19.2
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	*5785.00	117.0 PK			3.89 V	6	76.9	40.1
2	*5785.00	107.2 AV			3.89 V	6	67.1	40.1
3	#6030.00	62.9 PK	68.2	-5.3	3.88 V	2	56.1	6.8
4	11570.00	60.3 PK	74.0	-13.7	3.91 V	3	41.1	19.2
5	11570.00	48.2 AV	54.0	-5.8	3.91 V	3	29.0	19.2

Remarks:

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

CHANNEL	TX Channel 165	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	*5825.00	119.7 PK			1.69 H	62	79.6	40.1
2	*5825.00	109.4 AV			1.69 H	62	69.3	40.1
3	#5850.00	58.6 PK	122.2	-63.6	1.62 H	38	52.1	6.5
4	#5852.10	76.8 PK	117.4	-40.6	2.01 H	66	70.3	6.5
5	#5860.10	69.4 PK	109.4	-40.0	1.71 H	52	62.9	6.5
6	11650.00	59.8 PK	74.0	-14.2	1.53 H	189	40.5	19.3
7	11650.00	47.8 AV	54.0	-6.2	1.53 H	189	28.5	19.3
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	*5825.00	116.8 PK			4.00 V	6	76.7	40.1
2	*5825.00	116.6 AV			4.00 V	6	76.5	40.1
3	#5850.00	53.8 PK	122.2	-68.4	3.97 V	359	47.3	6.5
4	#5852.10	72.6 PK	117.4	-44.8	3.99 V	353	66.1	6.5
5	#5860.10	63.3 PK	109.4	-46.1	3.86 V	337	56.8	6.5
6	11650.00	59.9 PK	74.0	-14.1	3.81 V	336	40.6	19.3
7	11650.00	47.6 AV	54.0	-6.4	3.81 V	336	28.3	19.3

Remarks:

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

802.11ac (VHT20)

CHANNEL	TX Channel 36	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	67.8 PK	74.0	-6.2	2.61 H	62	63.0	4.8
2	5150.00	49.3 AV	54.0	-4.7	2.61 H	62	44.5	4.8
3	*5180.00	120.0 PK			1.99 H	62	81.3	38.7
4	*5180.00	108.5 AV			1.99 H	62	69.8	38.7
5	#10360.00	65.9 PK	74.0	-8.1	2.52 H	283	48.3	17.6
6	#10360.00	52.8 AV	54.0	-1.2	2.52 H	283	35.2	17.6
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	60.9 PK	74.0	-13.1	2.61 V	318	56.1	4.8
2	5150.00	45.9 AV	54.0	-8.1	2.61 V	318	41.1	4.8
3	*5180.00	113.7 PK			2.74 V	338	75.0	38.7
4	*5180.00	102.0 AV			2.74 V	338	63.3	38.7
5	#10360.00	65.3 PK	74.0	-8.7	2.52 V	33	47.7	17.6
6	#10360.00	52.4 AV	54.0	-1.6	2.52 V	33	34.8	17.6

Remarks:

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

CHANNEL	TX Channel 40	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	*5200.00	120.8 PK			1.86 H	66	82.1	38.7
2	*5200.00	109.6 AV			1.86 H	66	70.9	38.7
3	#10400.00	69.1 PK	74.0	-4.9	2.02 H	258	51.5	17.6
4	#10400.00	52.9 AV	54.0	-1.1	2.02 H	258	35.3	17.6
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	*5200.00	112.8 PK			2.83 V	318	74.1	38.7
2	*5200.00	102.1 AV			2.83 V	318	63.4	38.7
3	#10400.00	64.7 PK	74.0	-9.3	2.66 V	30	47.1	17.6
4	#10400.00	51.4 AV	54.0	-2.6	2.66 V	30	33.8	17.6

Remarks:

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

CHANNEL	TX Channel 48	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	*5240.00	121.4 PK			1.80 H	53	82.5	38.9
2	*5240.00	110.0 AV			1.80 H	53	71.1	38.9
3	5395.00	62.2 PK	74.0	-11.8	2.51 H	52	56.7	5.5
4	5395.00	49.6 AV	54.0	-4.4	2.51 H	52	44.1	5.5
5	#10480.00	67.9 PK	74.0	-6.1	2.06 H	284	49.5	18.4
6	**#10480.00**	**53.0 AV**	**54.0**	**-1.0**	**2.06 H**	**284**	**34.6**	**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	*5240.00	114.8 PK			2.86 V	306	75.9	38.9
2	*5240.00	103.9 AV			2.86 V	306	65.0	38.9
3	5395.00	59.8 PK	74.0	-14.2	1.84 V	13	54.3	5.5
4	5395.00	46.9 AV	54.0	-7.1	1.84 V	13	41.4	5.5
5	#10480.00	63.4 PK	74.0	-10.6	2.33 V	306	45.0	18.4
6	#10480.00	50.6 AV	54.0	-3.4	2.33 V	306	32.2	18.4

Remarks:

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

CHANNEL	TX Channel 149	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	#5714.90	69.6 PK	109.4	-39.8	2.96 H	288	63.3	6.3
2	#5722.90	76.9 PK	117.4	-40.5	1.94 H	52	70.6	6.3
3	#5725.00	60.1 PK	122.2	-62.1	2.55 H	263	53.8	6.3
4	*5745.00	118.9 PK			1.76 H	56	78.9	40.0
5	*5745.00	108.0 AV			1.76 H	56	68.0	40.0
6	11490.00	59.8 PK	74.0	-14.2	1.27 H	286	40.5	19.3
7	11490.00	47.2 AV	54.0	-6.8	1.27 H	286	27.9	19.3
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	#5714.90	70.1 PK	109.4	-39.3	4.00 V	331	63.8	6.3
2	#5722.90	71.3 PK	117.4	-46.1	3.96 V	352	65.0	6.3
3	#5725.00	60.1 PK	122.2	-62.1	3.97 V	344	53.8	6.3
4	*5745.00	115.1 PK			3.99 V	341	75.1	40.0
5	*5745.00	104.3 AV			3.99 V	341	64.3	40.0
6	11490.00	59.9 PK	74.0	-14.1	2.51 V	234	40.6	19.3
7	11490.00	46.9 AV	54.0	-7.1	2.51 V	234	27.6	19.3

Remarks:

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

CHANNEL	TX Channel 157	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	*5785.00	120.9 PK			1.86 H	53	80.8	40.1
2	*5785.00	111.2 AV			1.86 H	53	71.1	40.1
3	#6033.00	66.9 PK	68.2	-1.3	1.82 H	53	60.1	6.8
4	11570.00	60.4 PK	74.0	-13.6	1.63 H	86	41.2	19.2
5	11570.00	47.2 AV	54.0	-6.8	1.63 H	86	28.0	19.2
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	*5785.00	117.1 PK			4.00 V	6	77.0	40.1
2	*5785.00	106.8 AV			4.00 V	6	66.7	40.1
3	#6033.00	63.2 PK	68.2	-5.0	4.00 V	2	56.4	6.8
4	11570.00	60.6 PK	74.0	-13.4	3.03 V	168	41.4	19.2
5	11570.00	47.9 AV	54.0	-6.1	3.03 V	168	28.7	19.2

Remarks:

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

CHANNEL	TX Channel 165	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	*5825.00	120.5 PK			1.81 H	57	80.4	40.1
2	*5825.00	109.9 AV			1.81 H	57	69.8	40.1
3	#5850.00	62.8 PK	122.2	-59.4	1.70 H	59	56.3	6.5
4	#5852.10	76.9 PK	117.4	-40.5	1.34 H	58	70.4	6.5
5	#6073.00	66.8 PK	68.2	-1.4	1.11 H	62	59.9	6.9
6	11650.00	60.3 PK	74.0	-13.7	1.76 H	79	41.0	19.3
7	11650.00	47.6 AV	54.0	-6.4	1.76 H	79	28.3	19.3
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	*5825.00	115.6 PK			4.00 V	9	75.5	40.1
2	*5825.00	104.7 AV			4.00 V	9	64.6	40.1
3	#5850.00	52.9 PK	122.2	-69.3	4.00 V	322	46.4	6.5
4	#5852.10	71.1 PK	117.4	-46.3	3.86 V	342	64.6	6.5
5	#6073.00	62.1 PK	68.2	-6.1	3.96 V	6	55.2	6.9
6	11650.00	61.1 PK	74.0	-12.9	2.86 V	300	41.8	19.3
7	11650.00	47.9 AV	54.0	-6.1	2.86 V	300	28.6	19.3

Remarks:

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

802.11ac (VHT40)

CHANNEL	TX Channel 38	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	72.4 PK	74.0	-1.6	1.73 H	281	67.6	4.8
2	5150.00	52.9 AV	54.0	-1.1	1.73 H	281	48.1	4.8
3	*5190.00	113.8 PK			1.86 H	62	75.1	38.7
4	*5190.00	103.4 AV			1.86 H	62	64.7	38.7
5	#10380.00	61.5 PK	74.0	-12.5	1.86 H	282	43.9	17.6
6	#10380.00	47.8 AV	54.0	-6.2	1.86 H	282	30.2	17.6
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	63.1 PK	74.0	-10.9	2.63 V	308	58.3	4.8
2	5150.00	48.2 AV	54.0	-5.8	2.63 V	308	43.4	4.8
3	*5190.00	105.8 PK			2.43 V	353	67.1	38.7
4	*5190.00	95.6 AV			2.43 V	353	56.9	38.7
5	#10380.00	60.9 PK	74.0	-13.1	2.41 V	182	43.3	17.6
6	#10380.00	47.1 AV	54.0	-6.9	2.41 V	182	29.5	17.6

Remarks:

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

CHANNEL	TX Channel 46	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	*5230.00	115.5 PK			1.79 H	66	76.6	38.9
2	*5230.00	105.3 AV			1.79 H	66	66.4	38.9
3	5381.00	64.2 PK	74.0	-9.8	2.72 H	264	58.7	5.5
4	5381.00	52.7 AV	54.0	-1.3	2.72 H	264	47.2	5.5
5	#10460.00	63.3 PK	74.0	-10.7	2.01 H	284	45.1	18.2
6	#10460.00	50.6 AV	54.0	-3.4	2.01 H	284	32.4	18.2
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	*5230.00	110.2 PK			2.09 V	8	71.3	38.9
2	*5230.00	100.2 AV			2.09 V	8	61.3	38.9
3	5381.00	61.7 PK	74.0	-12.3	2.09 V	337	56.2	5.5
4	5381.00	50.2 AV	54.0	-3.8	2.09 V	337	44.7	5.5
5	#10460.00	60.9 PK	74.0	-13.1	2.11 V	31	42.7	18.2
6	#10460.00	48.6 AV	54.0	-5.4	2.11 V	31	30.4	18.2

Remarks:

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

CHANNEL	TX Channel 151	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	5000.00	59.6 PK	74.0	-14.4	1.02 H	41	55.3	4.3
2	5000.00	51.0 AV	54.0	-3.0	1.02 H	41	46.7	4.3
3	5115.00	59.6 PK	74.0	-14.4	1.62 H	69	54.9	4.7
4	5115.00	50.0 AV	54.0	-4.0	1.62 H	69	45.3	4.7
5	#5714.90	66.2 PK	109.4	-43.2	1.81 H	63	59.9	6.3
6	#5722.90	72.1 PK	117.4	-45.3	1.80 H	49	65.8	6.3
7	#5725.00	60.9 PK	122.2	-61.3	1.72 H	53	54.6	6.3
8	*5755.00	111.1 PK			1.81 H	56	71.1	40.0
9	*5755.00	100.9 AV			1.81 H	56	60.9	40.0
10	#6234.00	63.1 PK	68.2	-5.1	1.77 H	66	53.4	9.7
11	#6394.00	57.1 PK	68.2	-11.1	1.50 H	62	47.5	9.6
12	11510.00	59.6 PK	74.0	-14.4	1.33 H	40	40.3	19.3
13	11510.00	46.7 AV	54.0	-7.3	1.33 H	40	27.4	19.3
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	5000.00	58.1 PK	74.0	-15.9	1.83 V	302	53.8	4.3
2	5000.00	46.0 AV	54.0	-8.0	1.83 V	302	41.7	4.3
3	5115.00	57.6 PK	74.0	-16.4	1.88 V	230	52.9	4.7
4	5115.00	44.6 AV	54.0	-9.4	1.88 V	230	39.9	4.7
5	#5714.90	59.8 PK	109.4	-49.6	1.80 V	353	53.5	6.3
6	#5722.90	64.2 PK	117.4	-53.2	2.06 V	9	57.9	6.3
7	#5725.00	54.3 PK	122.2	-67.9	1.88 V	6	48.0	6.3
8	*5755.00	105.1 PK			1.92 V	1	65.1	40.0
9	*5755.00	94.0 AV			1.92 V	1	54.0	40.0
10	#6234.00	55.8 PK	68.2	-12.4	1.53 V	326	46.1	9.7
11	#6394.00	55.1 PK	68.2	-13.1	1.78 V	316	45.5	9.6
12	11510.00	60.1 PK	74.0	-13.9	2.02 V	196	40.8	19.3
13	11510.00	47.0 AV	54.0	-7.0	2.02 V	196	27.7	19.3

Remarks:

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

CHANNEL	TX Channel 159	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	5000.00	59.6 PK	74.0	-14.4	1.33 H	35	55.3	4.3
2	5000.00	49.0 AV	54.0	-5.0	1.33 H	35	44.7	4.3
3	*5795.00	117.9 PK			1.64 H	51	77.8	40.1
4	*5795.00	107.4 AV			1.64 H	51	67.3	40.1
5	#5850.00	60.4 PK	122.2	-61.8	1.55 H	50	53.9	6.5
6	#5852.10	73.5 PK	117.4	-43.9	1.60 H	55	67.0	6.5
7	#5860.10	69.4 PK	109.4	-40.0	1.66 H	56	62.9	6.5
8	#6277.00	60.3 PK	68.2	-7.9	1.81 H	256	50.5	9.8
9	#6438.00	59.9 PK	68.2	-8.3	2.22 H	261	50.1	9.8
10	11590.00	60.6 PK	74.0	-13.4	1.86 H	141	41.4	19.2
11	11590.00	47.0 AV	54.0	-7.0	1.86 H	141	27.8	19.2
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	5000.00	58.2 PK	74.0	-15.8	2.02 V	318	53.9	4.3
2	5000.00	45.8 AV	54.0	-8.2	2.02 V	318	41.5	4.3
3	*5795.00	108.5 PK			2.33 V	328	68.4	40.1
4	*5795.00	98.4 AV			2.33 V	328	58.3	40.1
5	#5850.00	52.1 PK	122.2	-70.1	1.56 V	10	45.6	6.5
6	#5852.10	65.3 PK	117.4	-52.1	1.59 V	6	58.8	6.5
7	#5860.10	62.6 PK	109.4	-46.8	1.86 V	337	56.1	6.5
8	#6277.00	55.8 PK	68.2	-12.4	2.29 V	308	46.0	9.8
9	#6438.00	58.2 PK	68.2	-10.0	3.16 V	20	48.4	9.8
10	11590.00	60.8 PK	74.0	-13.2	2.17 V	164	41.6	19.2
11	11590.00	47.2 AV	54.0	-6.8	2.17 V	164	28.0	19.2

Remarks:

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

802.11ac (VHT80)

CHANNEL	TX Channel 42	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	68.8 PK	74.0	-5.2	2.30 H	284	64.0	4.8
2	5150.00	52.7 AV	54.0	-1.3	2.30 H	284	47.9	4.8
3	*5210.00	107.7 PK			1.31 H	296	69.0	38.7
4	*5210.00	98.0 AV			1.31 H	296	59.3	38.7
5	5350.00	59.3 PK	74.0	-14.7	1.46 H	269	53.8	5.5
6	5350.00	47.6 AV	54.0	-6.4	1.46 H	269	42.1	5.5
7	#10420.00	59.4 PK	74.0	-14.6	1.33 H	262	41.6	17.8
8	#10420.00	46.2 AV	54.0	-7.8	1.33 H	262	28.4	17.8
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	5150.00	63.2 PK	74.0	-10.8	3.76 V	9	58.4	4.8
2	5150.00	48.0 AV	54.0	-6.0	3.76 V	9	43.2	4.8
3	*5210.00	102.5 PK			3.89 V	7	63.8	38.7
4	*5210.00	93.1 AV			3.89 V	7	54.4	38.7
5	5350.00	58.4 PK	74.0	-15.6	2.52 V	26	52.9	5.5
6	5350.00	46.9 AV	54.0	-7.1	2.52 V	26	41.4	5.5
7	#10420.00	58.5 PK	74.0	-15.5	2.89 V	224	40.7	17.8
8	#10420.00	46.1 AV	54.0	-7.9	2.89 V	224	28.3	17.8

Remarks:

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

CHANNEL	TX Channel 155	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	5000.00	59.8 PK	74.0	-14.2	1.22 H	41	55.5	4.3
2	5000.00	49.8 AV	54.0	-4.2	1.22 H	41	45.5	4.3
3	#5714.90	68.6 PK	109.4	-40.8	1.59 H	58	62.3	6.3
4	#5722.90	68.3 PK	117.4	-49.1	1.80 H	61	62.0	6.3
5	#5725.00	58.6 PK	122.2	-63.6	1.84 H	55	52.3	6.3
6	*5775.00	106.9 PK			1.66 H	60	66.9	40.0
7	*5775.00	96.2 AV			1.66 H	60	56.2	40.0
8	#5850.00	54.9 PK	122.2	-67.3	1.63 H	59	48.4	6.5
9	#5852.10	64.5 PK	117.4	-52.9	1.64 H	58	58.0	6.5
10	#5860.10	63.2 PK	109.4	-46.2	1.79 H	52	56.7	6.5
11	11550.00	60.8 PK	74.0	-13.2	1.75 H	180	41.6	19.2
12	11550.00	47.8 AV	54.0	-6.2	1.75 H	180	28.6	19.2
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	5000.00	57.8 PK	74.0	-16.2	1.66 V	324	53.5	4.3
2	5000.00	46.4 AV	54.0	-7.6	1.66 V	324	42.1	4.3
3	#5714.90	60.6 PK	109.4	-48.8	1.33 V	341	54.3	6.3
4	#5722.90	61.8 PK	117.4	-55.6	1.37 V	328	55.5	6.3
5	#5725.00	52.6 PK	122.2	-69.6	1.37 V	340	46.3	6.3
6	*5775.00	98.1 PK			2.19 V	349	58.1	40.0
7	*5775.00	87.6 AV			2.19 V	349	47.6	40.0
8	#5850.00	51.4 PK	122.2	-70.8	1.76 V	355	44.9	6.5
9	#5852.10	60.8 PK	117.4	-56.6	1.77 V	348	54.3	6.5
10	#5860.10	59.8 PK	109.4	-49.6	1.46 V	339	53.3	6.5
11	11550.00	60.8 PK	74.0	-13.2	1.55 V	182	41.6	19.2
12	11550.00	47.1 AV	54.0	-6.9	1.55 V	182	27.9	19.2

Remarks:

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

Mode C

802.11a

CHANNEL	TX Channel 36	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	5103.00	61.2 PK	74.0	-12.8	2.16 H	309	56.5	4.7
2	5103.00	48.8 AV	54.0	-5.2	2.16 H	309	44.1	4.7
3	*5180.00	118.2 PK			1.63 H	22	79.5	38.7
4	*5180.00	107.4 AV			1.63 H	22	68.7	38.7
5	#10360.00	67.5 PK	74.0	-6.5	1.42 H	356	49.9	17.6
6	#10360.00	52.9 AV	54.0	-1.1	1.42 H	356	35.3	17.6
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	5103.00	57.1 PK	74.0	-16.9	1.96 V	288	52.4	4.7
2	5103.00	44.6 AV	54.0	-9.4	1.96 V	288	39.9	4.7
3	*5180.00	107.2 PK			1.83 V	54	68.5	38.7
4	*5180.00	97.4 AV			1.83 V	54	58.7	38.7
5	#10360.00	60.6 PK	74.0	-13.4	1.74 V	289	43.0	17.6
6	#10360.00	47.3 AV	54.0	-6.7	1.74 V	289	29.7	17.6

Remarks:

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

CHANNEL	TX Channel 40	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	5126.00	62.6 PK	74.0	-11.4	2.42 H	309	57.8	4.8
2	5126.00	49.4 AV	54.0	-4.6	2.42 H	309	44.6	4.8
3	*5200.00	118.9 PK			2.38 H	20	80.2	38.7
4	*5200.00	108.8 AV			2.38 H	20	70.1	38.7
5	#10400.00	67.9 PK	74.0	-6.1	2.46 H	330	50.3	17.6
6	#10400.00	52.9 AV	54.0	-1.1	2.46 H	330	35.3	17.6
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	5126.00	57.8 PK	74.0	-16.2	1.56 V	307	53.0	4.8
2	5126.00	44.9 AV	54.0	-9.1	1.56 V	307	40.1	4.8
3	*5200.00	110.5 PK			1.21 V	19	71.8	38.7
4	*5200.00	100.6 AV			1.21 V	19	61.9	38.7
5	#10400.00	60.1 PK	74.0	-13.9	1.91 V	300	42.5	17.6
6	#10400.00	47.5 AV	54.0	-6.5	1.91 V	300	29.9	17.6

Remarks:

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

CHANNEL	TX Channel 48	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	*5240.00	119.3 PK			2.71 H	31	80.4	38.9
2	*5240.00	109.3 AV			2.71 H	31	70.4	38.9
3	5401.00	61.3 PK	74.0	-12.7	2.89 H	334	55.8	5.5
4	5401.00	48.7 AV	54.0	-5.3	2.89 H	334	43.2	5.5
5	#10480.00	67.6 PK	74.0	-6.4	1.55 H	343	49.2	18.4
6	#10480.00	52.8 AV	54.0	-1.2	1.55 H	343	34.4	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	*5240.00	108.5 PK			2.33 V	181	69.6	38.9
2	*5240.00	98.3 AV			2.33 V	181	59.4	38.9
3	5401.00	58.7 PK	74.0	-15.3	1.69 V	159	53.2	5.5
4	5401.00	45.5 AV	54.0	-8.5	1.69 V	159	40.0	5.5
5	#10480.00	62.2 PK	74.0	-11.8	1.82 V	26	43.8	18.4
6	#10480.00	48.6 AV	54.0	-5.4	1.82 V	26	30.2	18.4

Remarks:

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

CHANNEL	TX Channel 149	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	#5512.00	63.6 PK	74.0	-10.4	2.34 H	22	57.7	5.9
2	#5512.00	41.1 AV	54.0	-12.9	2.34 H	22	35.2	5.9
3	#5714.90	69.9 PK	109.4	-39.5	2.38 H	31	63.6	6.3
4	#5722.90	77.2 PK	117.4	-40.2	3.16 H	5	70.9	6.3
5	#5725.00	63.1 PK	122.2	-59.1	2.28 H	39	56.8	6.3
6	*5745.00	117.2 PK			2.59 H	341	77.2	40.0
7	*5745.00	107.7 AV			2.59 H	341	67.7	40.0
8	#5990.00	66.7 PK	68.2	-1.5	2.16 H	30	60.0	6.7
9	11490.00	60.8 PK	74.0	-13.2	2.55 H	283	41.5	19.3
10	11490.00	48.6 AV	54.0	-5.4	2.55 H	283	29.3	19.3
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	#5512.00	59.8 PK	74.0	-14.2	2.83 V	290	53.9	5.9
2	#5512.00	46.6 AV	54.0	-7.4	2.83 V	290	40.7	5.9
3	#5714.90	58.8 PK	109.4	-50.6	2.68 V	291	52.5	6.3
4	#5722.90	70.1 PK	117.4	-47.3	2.69 V	231	63.8	6.3
5	#5725.00	55.8 PK	122.2	-66.4	2.73 V	228	49.5	6.3
6	*5745.00	108.5 PK			2.74 V	318	68.5	40.0
7	*5745.00	98.7 AV			2.74 V	318	58.7	40.0
8	#5990.00	60.3 PK	68.2	-7.9	2.66 V	328	53.6	6.7
9	11490.00	59.1 PK	74.0	-14.9	2.06 V	217	39.8	19.3
10	11490.00	45.9 AV	54.0	-8.1	2.06 V	217	26.6	19.3

Remarks:

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

CHANNEL	TX Channel 157	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	#5543.00	65.1 PK	68.2	-3.1	2.86 H	342	59.2	5.9
2	#5714.90	64.9 PK	109.4	-44.5	2.76 H	353	58.6	6.3
3	*5785.00	121.8 PK			2.96 H	328	81.7	40.1
4	*5785.00	112.0 AV			2.96 H	328	71.9	40.1
5	#5860.10	66.2 PK	109.4	-43.2	2.52 H	341	59.7	6.5
6	#5945.00	64.8 PK	68.2	-3.4	2.28 H	34	58.2	6.6
7	#6032.00	60.1 PK	68.2	-8.1	2.83 H	31	53.3	6.8
8	11570.00	61.2 PK	74.0	-12.8	2.82 H	311	42.0	19.2
9	11570.00	48.4 AV	54.0	-5.6	2.82 H	311	29.2	19.2
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	#5543.00	62.2 PK	68.2	-6.0	3.16 V	83	56.3	5.9
2	#5714.90	60.1 PK	109.4	-49.3	2.92 V	34	53.8	6.3
3	*5785.00	110.9 PK			2.64 V	311	70.8	40.1
4	*5785.00	100.6 AV			2.64 V	311	60.5	40.1
5	#5860.10	62.1 PK	109.4	-47.3	2.92 V	93	55.6	6.5
6	#5945.00	60.2 PK	68.2	-8.0	2.86 V	39	53.6	6.6
7	#6032.00	55.3 PK	68.2	-12.9	3.41 V	286	48.5	6.8
8	11570.00	59.6 PK	74.0	-14.4	3.11 V	232	40.4	19.2
9	11570.00	47.1 AV	54.0	-6.9	3.11 V	232	27.9	19.2

Remarks:

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

CHANNEL	TX Channel 165	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	#5584.00	63.9 PK	68.2	-4.3	3.39 H	4	57.8	6.1
2	*5825.00	118.6 PK			2.92 H	344	78.5	40.1
3	*5825.00	109.1 AV			2.92 H	344	69.0	40.1
4	#5850.00	60.3 PK	122.2	-61.9	3.33 H	10	53.8	6.5
5	#5852.10	76.8 PK	117.4	-40.6	3.33 H	16	70.3	6.5
6	#5860.10	67.7 PK	109.4	-41.7	3.34 H	28	61.2	6.5
7	#5906.00	65.1 PK	82.2	-17.1	3.36 H	11	58.5	6.6
8	#5986.00	65.7 PK	68.2	-2.5	3.18 H	6	59.0	6.7
9	#6067.00	56.9 PK	68.2	-11.3	3.42 H	322	50.0	6.9
10	11650.00	61.1 PK	74.0	-12.9	2.44 H	206	41.8	19.3
11	11650.00	48.5 AV	54.0	-5.5	2.44 H	206	29.2	19.3
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	#5584.00	59.9 PK	68.2	-8.3	2.94 V	302	53.8	6.1
2	*5825.00	111.8 PK			3.13 V	302	71.7	40.1
3	*5825.00	102.1 AV			3.13 V	302	62.0	40.1
4	#5850.00	56.7 PK	122.2	-65.5	3.06 V	300	50.2	6.5
5	#5852.10	71.7 PK	117.4	-45.7	3.05 V	301	65.2	6.5
6	#5860.10	63.2 PK	109.4	-46.2	2.99 V	211	56.7	6.5
7	#5906.00	60.3 PK	82.2	-21.9	2.98 V	213	53.7	6.6
8	#5986.00	60.3 PK	68.2	-7.9	2.99 V	255	53.6	6.7
9	#6067.00	53.9 PK	68.2	-14.3	3.07 V	293	47.0	6.9
10	11650.00	60.1 PK	74.0	-13.9	2.62 V	62	40.8	19.3
11	11650.00	47.3 AV	54.0	-6.7	2.62 V	62	28.0	19.3

Remarks:

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

802.11ac (VHT20)

CHANNEL	TX Channel 36	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	5103.00	62.2 PK	74.0	-11.8	2.17 H	25	57.5	4.7
2	5103.00	49.2 AV	54.0	-4.8	2.17 H	25	44.5	4.7
3	*5180.00	118.9 PK			2.52 H	11	80.2	38.7
4	*5180.00	106.3 AV			2.52 H	11	67.6	38.7
5	#10360.00	67.3 PK	74.0	-6.7	1.74 H	351	49.7	17.6
6	#10360.00	52.9 AV	54.0	-1.1	1.74 H	351	35.3	17.6
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	5103.00	57.6 PK	74.0	-16.4	2.28 V	186	52.9	4.7
2	5103.00	45.0 AV	54.0	-9.0	2.28 V	186	40.3	4.7
3	*5180.00	109.6 PK			2.63 V	281	70.9	38.7
4	*5180.00	99.0 AV			2.63 V	281	60.3	38.7
5	#10360.00	61.1 PK	74.0	-12.9	2.64 V	329	43.5	17.6
6	#10360.00	49.0 AV	54.0	-5.0	2.64 V	329	31.4	17.6

Remarks:

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

CHANNEL	TX Channel 40	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	5126.00	61.9 PK	74.0	-12.1	2.42 H	28	57.1	4.8
2	5126.00	49.5 AV	54.0	-4.5	2.42 H	28	44.7	4.8
3	*5200.00	119.3 PK			2.37 H	19	80.6	38.7
4	*5200.00	108.1 AV			2.37 H	19	69.4	38.7
5	#10400.00	67.5 PK	74.0	-6.5	2.31 H	337	49.9	17.6
6	#10400.00	52.9 AV	54.0	-1.1	2.31 H	337	35.3	17.6
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	5126.00	58.1 PK	74.0	-15.9	2.79 V	257	53.3	4.8
2	5126.00	45.1 AV	54.0	-8.9	2.79 V	257	40.3	4.8
3	*5200.00	109.7 PK			2.66 V	298	71.0	38.7
4	*5200.00	99.9 AV			2.66 V	298	61.2	38.7
5	#10400.00	61.6 PK	74.0	-12.4	2.42 V	334	44.0	17.6
6	#10400.00	49.2 AV	54.0	-4.8	2.42 V	334	31.6	17.6

Remarks:

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

CHANNEL	TX Channel 48	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	*5240.00	119.4 PK			2.52 H	30	80.5	38.9
2	*5240.00	108.0 AV			2.52 H	30	69.1	38.9
3	5401.00	61.5 PK	74.0	-12.5	2.55 H	341	56.0	5.5
4	5401.00	47.8 AV	54.0	-6.2	2.55 H	341	42.3	5.5
5	#10480.00	66.6 PK	74.0	-7.4	2.57 H	340	48.2	18.4
6	#10480.00	52.7 AV	54.0	-1.3	2.57 H	340	34.3	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	*5240.00	110.8 PK			3.16 V	333	71.9	38.9
2	*5240.00	100.6 AV			3.16 V	333	61.7	38.9
3	5401.00	58.6 PK	74.0	-15.4	2.44 V	108	53.1	5.5
4	5401.00	45.3 AV	54.0	-8.7	2.44 V	108	39.8	5.5
5	#10480.00	61.5 PK	74.0	-12.5	2.96 V	282	43.1	18.4
6	#10480.00	49.6 AV	54.0	-4.4	2.96 V	282	31.2	18.4

Remarks:

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

CHANNEL	TX Channel 149	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	#5514.00	62.3 PK	74.0	-11.7	2.83 H	344	56.4	5.9
2	#5514.00	51.0 AV	54.0	-3.0	2.83 H	344	45.1	5.9
3	#5714.90	70.1 PK	109.4	-39.3	3.32 H	19	63.8	6.3
4	#5722.90	76.8 PK	117.4	-40.6	3.11 H	20	70.5	6.3
5	#5725.00	63.5 PK	122.2	-58.7	3.11 H	16	57.2	6.3
6	*5745.00	116.5 PK			2.89 H	353	76.5	40.0
7	*5745.00	105.3 AV			2.89 H	353	65.3	40.0
8	#5993.00	64.6 PK	68.2	-3.6	2.67 H	32	57.9	6.7
9	11490.00	60.6 PK	74.0	-13.4	3.04 H	106	41.3	19.3
10	11490.00	47.8 AV	54.0	-6.2	3.04 H	106	28.5	19.3
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	#5514.00	59.3 PK	74.0	-14.7	3.11 V	209	53.4	5.9
2	#5514.00	46.6 AV	54.0	-7.4	3.11 V	209	40.7	5.9
3	#5714.90	59.9 PK	109.4	-49.5	2.82 V	313	53.6	6.3
4	#5722.90	73.8 PK	117.4	-43.6	3.32 V	301	67.5	6.3
5	#5725.00	58.1 PK	122.2	-64.1	3.26 V	306	51.8	6.3
6	*5745.00	111.2 PK			3.53 V	305	71.2	40.0
7	*5745.00	99.8 AV			3.53 V	305	59.8	40.0
8	#5993.00	59.9 PK	68.2	-8.3	2.96 V	261	53.2	6.7
9	11490.00	58.3 PK	74.0	-15.7	2.86 V	188	39.0	19.3
10	11490.00	45.6 AV	54.0	-8.4	2.86 V	188	26.3	19.3

Remarks:

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

CHANNEL	TX Channel 157	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	#5545.00	65.1 PK	68.2	-3.1	3.03 H	322	59.2	5.9
2	#5714.90	66.1 PK	109.4	-43.3	3.02 H	344	59.8	6.3
3	*5785.00	122.3 PK			3.16 H	328	82.2	40.1
4	*5785.00	111.2 AV			3.16 H	328	71.1	40.1
5	#5860.10	65.6 PK	109.4	-43.8	3.13 H	341	59.1	6.5
6	#5945.00	64.3 PK	68.2	-3.9	3.13 H	21	57.7	6.6
7	#6032.00	59.6 PK	68.2	-8.6	2.88 H	26	52.8	6.8
8	11570.00	60.9 PK	74.0	-13.1	2.94 H	306	41.7	19.2
9	11570.00	48.4 AV	54.0	-5.6	2.94 H	306	29.2	19.2
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	#5545.00	61.3 PK	68.2	-6.9	3.23 V	316	55.4	5.9
2	#5714.90	60.7 PK	109.4	-48.7	2.83 V	282	54.4	6.3
3	*5785.00	112.6 PK			2.72 V	215	72.5	40.1
4	*5785.00	102.7 AV			2.72 V	215	62.6	40.1
5	#5860.10	60.3 PK	109.4	-49.1	2.73 V	286	53.8	6.5
6	#5945.00	59.7 PK	68.2	-8.5	2.71 V	285	53.1	6.6
7	#6032.00	53.8 PK	68.2	-14.4	2.38 V	211	47.0	6.8
8	11570.00	60.3 PK	74.0	-13.7	2.73 V	269	41.1	19.2
9	11570.00	46.8 AV	54.0	-7.2	2.73 V	269	27.6	19.2

Remarks:

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

CHANNEL	TX Channel 165	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	#5584.00	63.3 PK	68.2	-4.9	3.11 H	336	57.2	6.1
2	*5825.00	118.9 PK			3.45 H	343	78.8	40.1
3	*5825.00	107.8 AV			3.45 H	343	67.7	40.1
4	#5850.00	63.0 PK	122.2	-59.2	3.41 H	327	56.5	6.5
5	#5852.10	77.1 PK	117.4	-40.3	3.29 H	311	70.6	6.5
6	#5860.10	70.4 PK	109.4	-39.0	3.40 H	326	63.9	6.5
7	#5906.00	63.4 PK	82.2	-18.8	3.15 H	329	56.8	6.6
8	#5986.00	64.2 PK	68.2	-4.0	3.25 H	10	57.5	6.7
9	#6067.00	57.1 PK	68.2	-11.1	3.28 H	19	50.2	6.9
10	11650.00	59.9 PK	74.0	-14.1	2.99 H	202	40.6	19.3
11	11650.00	46.7 AV	54.0	-7.3	2.99 H	202	27.4	19.3
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	#5584.00	59.1 PK	68.2	-9.1	3.03 V	199	53.0	6.1
2	*5825.00	112.1 PK			3.40 V	311	72.0	40.1
3	*5825.00	101.7 AV			3.40 V	311	61.6	40.1
4	#5850.00	55.8 PK	122.2	-66.4	3.11 V	293	49.3	6.5
5	#5852.10	69.9 PK	117.4	-47.5	3.05 V	300	63.4	6.5
6	#5860.10	60.5 PK	109.4	-48.9	3.31 V	306	54.0	6.5
7	#5906.00	60.3 PK	82.2	-21.9	2.88 V	303	53.7	6.6
8	#5986.00	60.9 PK	68.2	-7.3	3.21 V	299	54.2	6.7
9	#6067.00	52.6 PK	68.2	-15.6	3.11 V	282	45.7	6.9
10	11650.00	60.6 PK	74.0	-13.4	2.72 V	188	41.3	19.3
11	11650.00	47.6 AV	54.0	-6.4	2.72 V	188	28.3	19.3

Remarks:

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

802.11ac (VHT40)

CHANNEL	TX Channel 38	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	67.5 PK	74.0	-6.5	2.39 H	22	62.7	4.8
2	5150.00	52.4 AV	54.0	-1.6	2.39 H	22	47.6	4.8
3	*5190.00	112.1 PK			2.36 H	20	73.4	38.7
4	*5190.00	100.6 AV			2.36 H	20	61.9	38.7
5	#10380.00	62.9 PK	74.0	-11.1	2.34 H	348	45.3	17.6
6	#10380.00	48.5 AV	54.0	-5.5	2.34 H	348	30.9	17.6
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	62.4 PK	74.0	-11.6	2.89 V	233	57.6	4.8
2	5150.00	46.6 AV	54.0	-7.4	2.89 V	233	41.8	4.8
3	*5190.00	104.9 PK			2.88 V	291	66.2	38.7
4	*5190.00	94.1 AV			2.88 V	291	55.4	38.7
5	#10380.00	61.4 PK	74.0	-12.6	2.69 V	240	43.8	17.6
6	#10380.00	47.6 AV	54.0	-6.4	2.69 V	240	30.0	17.6

Remarks:

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

CHANNEL	TX Channel 46	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	5061.00	63.6 PK	74.0	-10.4	2.27 H	20	59.0	4.6
2	5061.00	51.8 AV	54.0	-2.2	2.27 H	20	47.2	4.6
3	*5230.00	117.3 PK			2.39 H	311	78.4	38.9
4	*5230.00	106.5 AV			2.39 H	311	67.6	38.9
5	5382.00	63.3 PK	74.0	-10.7	2.37 H	341	57.8	5.5
6	5382.00	52.3 AV	54.0	-1.7	2.37 H	341	46.8	5.5
7	#10460.00	64.8 PK	74.0	-9.2	2.28 H	350	46.6	18.2
8	#10460.00	51.2 AV	54.0	-2.8	2.28 H	350	33.0	18.2
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	5061.00	48.8 PK	74.0	-25.2	3.16 V	288	44.2	4.6
2	5061.00	46.7 AV	54.0	-7.3	3.16 V	288	42.1	4.6
3	*5230.00	111.5 PK			3.02 V	285	72.6	38.9
4	*5230.00	101.3 AV			3.02 V	285	62.4	38.9
5	5382.00	60.3 PK	74.0	-13.7	2.91 V	288	54.8	5.5
6	5382.00	48.8 AV	54.0	-5.2	2.91 V	288	43.3	5.5
7	#10460.00	61.6 PK	74.0	-12.4	2.86 V	333	43.4	18.2
8	#10460.00	48.5 AV	54.0	-5.5	2.86 V	333	30.3	18.2

Remarks:

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

CHANNEL	TX Channel 151	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	#5714.90	68.3 PK	109.4	-41.1	3.36 H	342	62.0	6.3
2	#5722.90	71.6 PK	117.4	-45.8	3.31 H	340	65.3	6.3
3	#5725.00	60.4 PK	122.2	-61.8	3.33 H	345	54.1	6.3
4	*5755.00	110.5 PK			2.82 H	351	70.5	40.0
5	*5755.00	99.6 AV			2.82 H	351	59.6	40.0
6	#6230.00	58.4 PK	68.2	-9.8	3.41 H	306	48.6	9.8
7	11510.00	59.4 PK	74.0	-14.6	2.71 H	162	40.1	19.3
8	11510.00	45.7 AV	54.0	-8.3	2.71 H	162	26.4	19.3
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	#5714.90	60.7 PK	109.4	-48.7	2.73 V	224	54.4	6.3
2	#5722.90	64.9 PK	117.4	-52.5	2.82 V	221	58.6	6.3
3	#5725.00	54.9 PK	122.2	-67.3	2.84 V	220	48.6	6.3
4	*5755.00	102.7 PK			2.82 V	226	62.7	40.0
5	*5755.00	92.0 AV			2.82 V	226	52.0	40.0
6	#6230.00	56.7 PK	68.2	-11.5	2.86 V	288	46.9	9.8
7	11510.00	58.9 PK	74.0	-15.1	2.75 V	181	39.6	19.3
8	11510.00	45.7 AV	54.0	-8.3	2.75 V	181	26.4	19.3

Remarks:

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

CHANNEL	TX Channel 159	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	*5795.00	114.5 PK			2.45 H	41	74.4	40.1
2	*5795.00	103.9 AV			2.45 H	41	63.8	40.1
3	#5850.00	60.9 PK	122.2	-61.3	2.72 H	31	54.4	6.5
4	#5852.10	75.8 PK	117.4	-41.6	2.88 H	25	69.3	6.5
5	#5860.10	68.7 PK	109.4	-40.7	2.79 H	22	62.2	6.5
6	#6277.00	57.7 PK	68.2	-10.5	3.31 H	308	47.9	9.8
7	11590.00	59.6 PK	74.0	-14.4	2.41 H	208	40.4	19.2
8	11590.00	47.0 AV	54.0	-7.0	2.41 H	208	27.8	19.2
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	*5795.00	107.9 PK			2.76 V	222	67.8	40.1
2	*5795.00	97.9 AV			2.76 V	222	57.8	40.1
3	#5850.00	55.5 PK	122.2	-66.7	3.21 V	283	49.0	6.5
4	#5852.10	69.2 PK	117.4	-48.2	3.22 V	300	62.7	6.5
5	#5860.10	62.9 PK	109.4	-46.5	3.06 V	289	56.4	6.5
6	#6277.00	54.6 PK	68.2	-13.6	3.22 V	303	44.8	9.8
7	11590.00	59.8 PK	74.0	-14.2	2.73 V	193	40.6	19.2
8	11590.00	46.8 AV	54.0	-7.2	2.73 V	193	27.6	19.2

Remarks:

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

802.11ac (VHT80)

CHANNEL	TX Channel 42	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	68.8 PK	74.0	-5.2	2.38 H	19	64.0	4.8
2	5150.00	52.5 AV	54.0	-1.5	2.38 H	19	47.7	4.8
3	*5210.00	108.1 PK			2.41 H	23	69.4	38.7
4	*5210.00	97.2 AV			2.41 H	23	58.5	38.7
5	5350.00	59.9 PK	74.0	-14.1	2.37 H	28	54.4	5.5
6	5350.00	47.8 AV	54.0	-6.2	2.37 H	28	42.3	5.5
7	#10420.00	60.9 PK	74.0	-13.1	2.33 H	250	43.1	17.8
8	#10420.00	48.3 AV	54.0	-5.7	2.33 H	250	30.5	17.8
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	5150.00	59.5 PK	74.0	-14.5	2.72 V	289	54.7	4.8
2	5150.00	46.4 AV	54.0	-7.6	2.72 V	289	41.6	4.8
3	*5210.00	101.5 PK			2.94 V	286	62.8	38.7
4	*5210.00	91.3 AV			2.94 V	286	52.6	38.7
5	5350.00	58.8 PK	74.0	-15.2	2.83 V	151	53.3	5.5
6	5350.00	46.7 AV	54.0	-7.3	2.83 V	151	41.2	5.5
7	#10420.00	60.6 PK	74.0	-13.4	2.33 V	293	42.8	17.8
8	#10420.00	48.2 AV	54.0	-5.8	2.33 V	293	30.4	17.8

Remarks:

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

CHANNEL	TX Channel 155	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	#5714.90	67.7 PK	109.4	-41.7	3.26 H	342	61.4	6.3
2	#5722.90	66.6 PK	117.4	-50.8	3.23 H	341	60.3	6.3
3	#5725.00	57.9 PK	122.2	-64.3	3.18 H	341	51.6	6.3
4	*5775.00	104.8 PK			2.82 H	21	64.8	40.0
5	*5775.00	93.6 AV			2.82 H	21	53.6	40.0
6	#5850.00	53.4 PK	122.2	-68.8	3.26 H	351	46.9	6.5
7	#5852.10	62.7 PK	117.4	-54.7	3.06 H	341	56.2	6.5
8	#5860.10	62.3 PK	109.4	-47.1	2.99 H	351	55.8	6.5
9	11550.00	60.3 PK	74.0	-13.7	2.86 H	242	41.1	19.2
10	11550.00	46.5 AV	54.0	-7.5	2.86 H	242	27.3	19.2
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	#5714.90	61.3 PK	109.4	-48.1	3.52 V	297	55.0	6.3
2	#5722.90	63.2 PK	117.4	-54.2	3.40 V	300	56.9	6.3
3	#5725.00	53.5 PK	122.2	-68.7	3.44 V	297	47.2	6.3
4	*5775.00	99.6 PK			3.52 V	311	59.6	40.0
5	*5775.00	89.2 AV			3.52 V	311	49.2	40.0
6	#5850.00	51.9 PK	122.2	-70.3	3.31 V	316	45.4	6.5
7	#5852.10	61.5 PK	117.4	-55.9	3.22 V	308	55.0	6.5
8	#5860.10	60.2 PK	109.4	-49.2	2.81 V	286	53.7	6.5
9	11550.00	59.1 PK	74.0	-14.9	2.82 V	233	39.9	19.2
10	11550.00	46.3 AV	54.0	-7.7	2.82 V	233	27.1	19.2

Remarks:

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

Beamforming Mode

Mode A

802.11ac (VHT20)

CHANNEL	TX Channel 36	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	67.5 PK	74.0	-6.5	1.55 H	294	61.5	6.0
2	5150.00	49.4 AV	54.0	-4.6	1.55 H	294	43.4	6.0
3	*5180.00	119.6 PK			1.27 H	280	80.2	39.4
4	*5180.00	106.1 AV			1.27 H	280	66.7	39.4
5	#10360.00	65.2 PK	74.0	-8.8	1.63 H	305	47.4	17.8
6	#10360.00	52.7 AV	54.0	-1.3	1.63 H	305	34.9	17.8
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	5150.00	59.0 PK	74.0	-15.0	1.89 V	254	53.0	6.0
2	5150.00	46.5 AV	54.0	-7.5	1.89 V	254	40.5	6.0
3	*5180.00	113.3 PK			3.12 V	354	73.9	39.4
4	*5180.00	102.5 AV			3.12 V	354	63.1	39.4
5	#10360.00	63.0 PK	74.0	-11.0	2.11 V	304	45.2	17.8
6	#10360.00	50.8 AV	54.0	-3.2	2.11 V	304	33.0	17.8

Remarks:

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

CHANNEL	TX Channel 40	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	*5200.00	118.7 PK			1.49 H	290	79.2	39.5
2	*5200.00	108.6 AV			1.49 H	290	69.1	39.5
3	#10400.00	65.6 PK	74.0	-8.4	1.30 H	290	47.9	17.7
4	#10400.00	52.6 AV	54.0	-1.4	1.30 H	290	34.9	17.7
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	*5200.00	114.7 PK			3.77 V	350	75.2	39.5
2	*5200.00	103.1 AV			3.77 V	350	63.6	39.5
3	#10400.00	63.1 PK	74.0	-10.9	1.94 V	309	45.4	17.7
4	#10400.00	51.0 AV	54.0	-3.0	1.94 V	309	33.3	17.7

Remarks:

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

CHANNEL	TX Channel 48	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	*5240.00	118.1 PK			2.47 H	312	78.5	39.6
2	*5240.00	108.4 AV			2.47 H	312	68.8	39.6
3	5395.00	60.7 PK	74.0	-13.3	1.93 H	269	54.0	6.7
4	5395.00	46.9 AV	54.0	-7.1	1.93 H	269	40.2	6.7
5	#10480.00	67.2 PK	74.0	-6.8	2.15 H	290	48.5	18.7
6	#10480.00	52.6 AV	54.0	-1.4	2.15 H	290	33.9	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	*5240.00	114.9 PK			2.77 V	351	75.3	39.6
2	*5240.00	103.5 AV			2.77 V	351	63.9	39.6
3	5395.00	57.6 PK	74.0	-16.4	2.89 V	1	50.9	6.7
4	5395.00	45.9 AV	54.0	-8.1	2.89 V	1	39.2	6.7
5	#10480.00	62.1 PK	74.0	-11.9	2.09 V	320	43.4	18.7
6	#10480.00	50.7 AV	54.0	-3.3	2.09 V	320	32.0	18.7

Remarks:

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

CHANNEL	TX Channel 149	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	#5714.90	69.9 PK	109.4	-39.5	1.59 H	53	62.5	7.4
2	#5722.90	77.1 PK	117.4	-40.3	1.67 H	59	69.7	7.4
3	#5725.00	62.9 PK	122.2	-59.3	1.67 H	59	55.5	7.4
4	*5745.00	118.3 PK			1.21 H	290	77.8	40.5
5	*5745.00	107.3 AV			1.21 H	290	66.8	40.5
6	11490.00	60.1 PK	74.0	-13.9	2.20 H	216	41.4	18.7
7	11490.00	47.1 AV	54.0	-6.9	2.20 H	216	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	#5714.90	60.0 PK	109.4	-49.4	1.20 V	0	52.6	7.4
2	#5722.90	74.1 PK	117.4	-43.3	1.49 V	319	66.7	7.4
3	#5725.00	58.0 PK	122.2	-64.2	1.49 V	319	50.6	7.4
4	*5745.00	110.2 PK			2.52 V	347	69.7	40.5
5	*5745.00	100.4 AV			2.52 V	347	59.9	40.5
6	11490.00	60.1 PK	74.0	-13.9	2.65 V	212	41.4	18.7
7	11490.00	47.0 AV	54.0	-7.0	2.65 V	212	28.3	18.7

Remarks:

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

CHANNEL	TX Channel 157	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	#5552.00	67.0 PK	68.2	-1.2	1.70 H	61	60.0	7.0
2	*5785.00	122.5 PK			1.65 H	55	81.9	40.6
3	*5785.00	112.3 AV			1.65 H	55	71.7	40.6
4	#5870.00	64.4 PK	106.6	-42.2	1.65 H	55	56.7	7.7
5	#6035.00	61.1 PK	68.2	-7.1	1.42 H	64	53.1	8.0
6	11570.00	60.9 PK	74.0	-13.1	1.52 H	264	42.2	18.7
7	11570.00	48.1 AV	54.0	-5.9	1.52 H	264	29.4	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	#5552.00	58.1 PK	68.2	-10.1	2.25 V	0	51.1	7.0
2	*5785.00	115.7 PK			1.44 V	342	75.1	40.6
3	*5785.00	104.3 AV			1.44 V	342	63.7	40.6
4	#5870.00	60.0 PK	106.6	-46.6	1.69 V	353	52.3	7.7
5	#6035.00	53.0 PK	68.2	-15.2	2.49 V	358	45.0	8.0
6	11570.00	60.1 PK	74.0	-13.9	3.00 V	180	41.4	18.7
7	11570.00	48.0 AV	54.0	-6.0	3.00 V	180	29.3	18.7

Remarks:

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

CHANNEL	TX Channel 165	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	*5825.00	121.6 PK			1.74 H	48	81.0	40.6
2	*5825.00	110.0 AV			1.74 H	48	69.4	40.6
3	#5850.00	60.9 PK	122.2	-61.3	2.03 H	54	53.3	7.6
4	#5853.00	76.6 PK	115.4	-38.8	2.03 H	54	68.9	7.7
5	#5860.10	71.3 PK	109.4	-38.1	1.82 H	47	63.6	7.7
6	11650.00	60.8 PK	74.0	-13.2	2.10 H	285	41.6	19.2
7	11650.00	47.8 AV	54.0	-6.2	2.10 H	285	28.6	19.2
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	*5825.00	111.8 PK			1.50 V	354	71.2	40.6
2	*5825.00	101.5 AV			1.50 V	354	60.9	40.6
3	#5850.00	57.7 PK	122.2	-64.5	1.72 V	0	50.1	7.6
4	#5853.00	70.2 PK	115.4	-45.2	1.72 V	0	62.5	7.7
5	#5860.10	61.2 PK	109.4	-48.2	3.05 V	342	53.5	7.7
6	11650.00	61.0 PK	74.0	-13.0	2.92 V	344	41.8	19.2
7	11650.00	48.2 AV	54.0	-5.8	2.92 V	344	29.0	19.2

Remarks:

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

802.11ac (VHT40)

CHANNEL	TX Channel 38	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**	**73.0 PK**	**74.0**	**-1.0**	**1.85 H**	**309**	**67.0**	**6.0**
2	5150.00	51.8 AV	54.0	-2.2	1.85 H	309	45.8	6.0
3	*5190.00	111.9 PK			1.66 H	28	72.5	39.4
4	*5190.00	101.1 AV			1.66 H	28	61.7	39.4
5	#5766.00	65.6 PK	68.2	-2.6	1.54 H	56	58.1	7.5
6	#10380.00	60.2 PK	74.0	-13.8	1.67 H	311	42.5	17.7
7	#10380.00	47.0 AV	54.0	-7.0	1.67 H	311	29.3	17.7
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	5150.00	59.2 PK	74.0	-14.8	2.68 V	345	53.2	6.0
2	5150.00	46.1 AV	54.0	-7.9	2.68 V	345	40.1	6.0
3	*5190.00	108.7 PK			2.68 V	345	69.3	39.4
4	*5190.00	96.8 AV			2.68 V	345	57.4	39.4
5	#5766.00	62.5 PK	68.2	-5.7	1.67 V	347	55.0	7.5
6	#10380.00	58.9 PK	74.0	-15.1	3.00 V	333	41.2	17.7
7	#10380.00	46.1 AV	54.0	-7.9	3.00 V	333	28.4	17.7

Remarks:

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

CHANNEL	TX Channel 46	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	*5230.00	116.7 PK			1.70 H	272	77.1	39.6
2	*5230.00	108.9 AV			1.70 H	272	69.3	39.6
3	5400.00	64.7 PK	74.0	-9.3	1.84 H	39	58.0	6.7
4	**5400.00**	**53.0 AV**	**54.0**	**-1.0**	**1.84 H**	**39**	**46.3**	**6.7**
5	#5811.00	64.7 PK	68.2	-3.5	1.57 H	46	57.2	7.5
6	#10460.00	63.2 PK	74.0	-10.8	1.96 H	277	44.7	18.5
7	#10460.00	51.0 AV	54.0	-3.0	1.96 H	277	32.5	18.5
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	*5230.00	110.3 PK			2.95 V	357	70.7	39.6
2	*5230.00	100.3 AV			2.95 V	357	60.7	39.6
3	5400.00	61.1 PK	74.0	-12.9	2.66 V	335	54.4	6.7
4	5400.00	49.0 AV	54.0	-5.0	2.66 V	335	42.3	6.7
5	#5811.00	60.0 PK	68.2	-8.2	1.66 V	352	52.5	7.5
6	#10460.00	60.4 PK	74.0	-13.6	2.86 V	349	41.9	18.5
7	#10460.00	47.3 AV	54.0	-6.7	2.86 V	349	28.8	18.5

Remarks:

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

CHANNEL	TX Channel 151	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	#5714.90	68.9 PK	109.4	-40.5	1.56 H	291	61.5	7.4
2	#5722.90	71.4 PK	117.4	-46.0	1.59 H	56	64.0	7.4
3	#5725.00	57.9 PK	122.2	-64.3	1.59 H	56	50.5	7.4
4	*5755.00	111.8 PK			1.24 H	292	71.2	40.6
5	*5755.00	100.9 AV			1.24 H	292	60.3	40.6
6	#6234.00	61.5 PK	68.2	-6.7	2.17 H	288	50.5	11.0
7	11510.00	60.2 PK	74.0	-13.8	1.40 H	278	41.5	18.7
8	11510.00	47.2 AV	54.0	-6.8	1.40 H	278	28.5	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	#5714.90	60.5 PK	109.4	-48.9	2.04 V	87	53.1	7.4
2	#5722.00	61.5 PK	115.4	-53.9	2.39 V	0	54.1	7.4
3	#5725.00	56.6 PK	122.2	-65.6	2.39 V	0	49.2	7.4
4	*5755.00	105.0 PK			1.70 V	0	64.4	40.6
5	*5755.00	93.9 AV			1.70 V	0	53.3	40.6
6	#6234.00	56.1 PK	68.2	-12.1	3.78 V	5	45.1	11.0
7	11510.00	59.9 PK	74.0	-14.1	2.10 V	210	41.2	18.7
8	11510.00	47.0 AV	54.0	-7.0	2.10 V	210	28.3	18.7

Remarks:

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

CHANNEL	TX Channel 159	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	#5640.00	64.4 PK	68.2	-3.8	1.58 H	56	57.3	7.1
2	*5795.00	117.3 PK			1.69 H	55	76.7	40.6
3	*5795.00	106.7 AV			1.69 H	55	66.1	40.6
4	#5850.00	59.7 PK	122.2	-62.5	2.43 H	51	52.1	7.6
5	#5853.00	75.6 PK	115.4	-39.8	2.43 H	51	67.9	7.7
6	#5860.10	72.1 PK	109.4	-37.3	1.83 H	55	64.4	7.7
7	**#5970.00**	**67.2 PK**	**68.2**	**-1.0**	**1.55 H**	**57**	**59.4**	**7.8**
8	11590.00	60.9 PK	74.0	-13.1	1.89 H	160	42.1	18.8
9	11590.00	48.0 AV	54.0	-6.0	1.89 H	160	29.2	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	#5640.00	59.7 PK	68.2	-8.5	1.71 V	355	52.6	7.1
2	*5795.00	111.1 PK			1.73 V	355	70.5	40.6
3	*5795.00	101.6 AV			1.73 V	355	61.0	40.6
4	#5850.00	60.1 PK	122.2	-62.1	1.90 V	0	52.5	7.6
5	#5853.00	52.1 PK	115.4	-63.3	1.90 V	0	44.4	7.7
6	#5860.10	59.4 PK	109.4	-50.0	1.71 V	359	51.7	7.7
7	#5970.00	60.7 PK	68.2	-7.5	2.10 V	346	52.9	7.8
8	11590.00	60.5 PK	74.0	-13.5	3.01 V	160	41.7	18.8
9	11590.00	47.2 AV	54.0	-6.8	3.01 V	160	28.4	18.8

Remarks:

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

802.11ac (VHT80)

CHANNEL	TX Channel 42	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	70.2 PK	74.0	-3.8	1.71 H	47	64.2	6.0
2	5150.00	52.7 AV	54.0	-1.3	1.71 H	47	46.7	6.0
3	*5210.00	113.9 PK			1.77 H	281	74.4	39.5
4	*5210.00	101.4 AV			1.77 H	281	61.9	39.5
5	5350.00	63.0 PK	74.0	-11.0	1.89 H	290	56.5	6.5
6	5350.00	48.6 AV	54.0	-5.4	1.89 H	290	42.1	6.5
7	#5788.00	64.1 PK	68.2	-4.1	2.19 H	34	56.6	7.5
8	#10420.00	59.7 PK	74.0	-14.3	1.59 H	50	41.8	17.9
9	#10420.00	46.5 AV	54.0	-7.5	1.59 H	50	28.6	17.9
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	58.0 PK	74.0	-16.0	2.71 V	335	52.0	6.0
2	5150.00	47.3 AV	54.0	-6.7	2.71 V	335	41.3	6.0
3	*5210.00	105.3 PK			2.95 V	335	65.8	39.5
4	*5210.00	94.3 AV			2.95 V	335	54.8	39.5
5	5350.00	57.0 PK	74.0	-17.0	2.69 V	340	50.5	6.5
6	5350.00	45.8 AV	54.0	-8.2	2.69 V	340	39.3	6.5
7	#5788.00	58.8 PK	68.2	-9.4	1.62 V	350	51.3	7.5
8	#10420.00	58.9 PK	74.0	-15.1	3.00 V	359	41.0	17.9
9	#10420.00	45.9 AV	54.0	-8.1	3.00 V	359	28.0	17.9

Remarks:

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

CHANNEL	TX Channel 155	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	#5714.90	68.7 PK	109.4	-40.7	1.67 H	57	61.3	7.4
2	#5722.90	66.7 PK	117.4	-50.7	1.93 H	58	59.3	7.4
3	#5725.00	56.4 PK	122.2	-65.8	1.93 H	58	49.0	7.4
4	*5775.00	108.7 PK			1.68 H	55	68.1	40.6
5	*5775.00	102.5 AV			1.68 H	55	61.9	40.6
6	#5850.00	55.5 PK	122.2	-66.7	1.70 H	60	47.9	7.6
7	#5852.10	64.2 PK	117.4	-53.2	1.70 H	60	56.5	7.7
8	#5860.10	61.9 PK	109.4	-47.5	1.63 H	79	54.2	7.7
9	11550.00	60.6 PK	74.0	-13.4	1.82 H	265	42.0	18.6
10	11550.00	47.5 AV	54.0	-6.5	1.82 H	265	28.9	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	#5714.90	59.5 PK	109.4	-49.9	1.92 V	333	52.1	7.4
2	#5722.90	65.9 PK	117.4	-51.5	2.91 V	295	58.5	7.4
3	#5725.00	53.6 PK	122.2	-68.6	2.91 V	295	46.2	7.4
4	*5775.00	101.7 PK			2.61 V	354	61.1	40.6
5	*5775.00	89.2 AV			2.61 V	354	48.6	40.6
6	#5850.00	52.0 PK	122.2	-70.2	3.12 V	300	44.4	7.6
7	#5853.00	60.8 PK	115.4	-54.6	3.12 V	300	53.1	7.7
8	#5860.10	61.9 PK	109.4	-47.5	3.09 V	322	54.2	7.7
9	11550.00	59.7 PK	74.0	-14.3	1.50 V	180	41.1	18.6
10	11550.00	46.9 AV	54.0	-7.1	1.50 V	180	28.3	18.6

Remarks:

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

Mode C

802.11ac (VHT20)

CHANNEL	TX Channel 36	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	67.8 PK	74.0	-6.2	2.50 H	19	61.8	6.0
2	5150.00	49.3 AV	54.0	-4.7	2.50 H	19	43.3	6.0
3	*5180.00	119.2 PK			2.93 H	312	79.8	39.4
4	*5180.00	108.2 AV			2.93 H	312	68.8	39.4
5	#10360.00	63.8 PK	74.0	-10.2	2.99 H	347	46.0	17.8
6	#10360.00	52.1 AV	54.0	-1.9	2.99 H	347	34.3	17.8
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	5150.00	57.6 PK	74.0	-16.4	2.00 V	249	51.6	6.0
2	5150.00	46.6 AV	54.0	-7.4	2.00 V	249	40.6	6.0
3	*5180.00	106.9 PK			2.25 V	272	67.5	39.4
4	*5180.00	96.3 AV			2.25 V	272	56.9	39.4
5	#10360.00	59.7 PK	74.0	-14.3	1.90 V	321	41.9	17.8
6	#10360.00	46.8 AV	54.0	-7.2	1.90 V	321	29.0	17.8

Remarks:

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

CHANNEL	TX Channel 40	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	5111.00	64.3 PK	74.0	-9.7	2.58 H	317	58.3	6.0
2	5111.00	50.2 AV	54.0	-3.8	2.58 H	317	44.2	6.0
3	*5200.00	119.4 PK			2.43 H	7	79.9	39.5
4	*5200.00	108.3 AV			2.43 H	7	68.8	39.5
5	#10400.00	65.1 PK	74.0	-8.9	2.72 H	347	47.4	17.7
6	#10400.00	52.3 AV	54.0	-1.7	2.72 H	347	34.6	17.7
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	5111.00	58.3 PK	74.0	-15.7	2.20 V	22	52.3	6.0
2	5111.00	47.1 AV	54.0	-6.9	2.20 V	22	41.1	6.0
3	*5200.00	108.0 PK			2.22 V	1	68.5	39.5
4	*5200.00	99.2 AV			2.22 V	1	59.7	39.5
5	#10400.00	60.1 PK	74.0	-13.9	2.19 V	266	42.4	17.7
6	#10400.00	47.0 AV	54.0	-7.0	2.19 V	266	29.3	17.7

Remarks:

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

CHANNEL	TX Channel 48	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	*5240.00	120.7 PK			2.50 H	313	81.1	39.6
2	*5240.00	109.7 AV			2.50 H	313	70.1	39.6
3	5400.00	58.0 PK	74.0	-16.0	2.60 H	310	51.3	6.7
4	5400.00	48.6 AV	54.0	-5.4	2.60 H	310	41.9	6.7
5	#10480.00	63.8 PK	74.0	-10.2	3.09 H	357	45.1	18.7
6	#10480.00	51.5 AV	54.0	-2.5	3.09 H	357	32.8	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	*5240.00	109.5 PK			1.49 V	8	69.9	39.6
2	*5240.00	99.0 AV			1.49 V	8	59.4	39.6
3	5400.00	59.3 PK	74.0	-14.7	2.22 V	346	52.6	6.7
4	5400.00	47.8 AV	54.0	-6.2	2.22 V	346	41.1	6.7
5	#10480.00	61.2 PK	74.0	-12.8	2.21 V	271	42.5	18.7
6	#10480.00	48.4 AV	54.0	-5.6	2.21 V	271	29.7	18.7

Remarks:

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

CHANNEL	TX Channel 149	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	#5714.90	64.9 PK	109.4	-44.5	1.82 H	19	57.5	7.4
2	#5722.00	76.7 PK	115.4	-38.7	1.69 H	25	69.3	7.4
3	#5725.00	63.0 PK	122.2	-59.2	1.69 H	25	55.6	7.4
4	*5745.00	115.9 PK			2.62 H	5	75.4	40.5
5	*5745.00	105.1 AV			2.62 H	5	64.6	40.5
6	11490.00	60.5 PK	74.0	-13.5	2.56 H	19	41.8	18.7
7	11490.00	47.3 AV	54.0	-6.7	2.56 H	19	28.6	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	#5714.90	59.8 PK	109.4	-49.6	2.91 V	202	52.4	7.4
2	#5722.00	73.0 PK	115.4	-42.4	2.89 V	245	65.6	7.4
3	#5725.00	58.3 PK	122.2	-63.9	2.89 V	245	50.9	7.4
4	*5745.00	110.1 PK			3.04 V	231	69.6	40.5
5	*5745.00	99.6 AV			3.04 V	231	59.1	40.5
6	11490.00	60.0 PK	74.0	-14.0	3.00 V	179	41.3	18.7
7	11490.00	46.6 AV	54.0	-7.4	3.00 V	179	27.9	18.7

Remarks:

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

CHANNEL	TX Channel 157	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	66.0 PK	68.2	-2.2	2.78 H	31	59.0	7.0
2	*5785.00	120.5 PK			1.94 H	28	79.9	40.6
3	*5785.00	110.7 AV			1.94 H	28	70.1	40.6
4	#5860.10	63.4 PK	109.4	-46.0	1.89 H	27	55.7	7.7
5	11570.00	61.6 PK	74.0	-12.4	2.08 H	78	42.9	18.7
6	11570.00	49.1 AV	54.0	-4.9	2.08 H	78	30.4	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	#5550.00	60.0 PK	68.2	-8.2	1.69 V	306	53.0	7.0
2	*5785.00	114.4 PK			3.11 V	228	73.8	40.6
3	*5785.00	104.9 AV			3.11 V	228	64.3	40.6
4	#5860.10	60.0 PK	109.4	-49.4	1.87 V	100	52.3	7.7
5	11570.00	60.2 PK	74.0	-13.8	1.96 V	253	41.5	18.7
6	11570.00	47.3 AV	54.0	-6.7	1.96 V	253	28.6	18.7

Remarks:

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

CHANNEL	TX Channel 165	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	*5825.00	117.0 PK			1.77 H	25	76.4	40.6
2	*5825.00	106.9 AV			1.77 H	25	66.3	40.6
3	#5850.00	63.6 PK	122.2	-58.6	1.50 H	33	56.0	7.6
4	#5855.00	77.0 PK	110.8	-33.8	1.56 H	33	69.3	7.7
5	#5860.10	64.2 PK	109.4	-45.2	1.84 H	30	56.5	7.7
6	11650.00	61.7 PK	74.0	-12.3	2.88 H	322	42.5	19.2
7	11650.00	48.5 AV	54.0	-5.5	2.88 H	322	29.3	19.2
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	*5825.00	111.7 PK			3.32 V	218	71.1	40.6
2	*5825.00	102.0 AV			3.32 V	218	61.4	40.6
3	#5850.00	57.7 PK	122.2	-64.5	1.99 V	200	50.1	7.6
4	#5853.00	62.3 PK	115.4	-53.1	1.99 V	200	54.6	7.7
5	#5860.10	58.2 PK	109.4	-51.2	3.06 V	312	50.5	7.7
6	11650.00	60.5 PK	74.0	-13.5	2.88 V	255	41.3	19.2
7	11650.00	47.5 AV	54.0	-6.5	2.88 V	255	28.3	19.2

Remarks:

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

802.11ac (VHT40)

CHANNEL	TX Channel 38	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	71.8 PK	74.0	-2.2	1.55 H	311	65.8	6.0
2	5150.00	52.8 AV	54.0	-1.2	1.55 H	311	46.8	6.0
3	*5190.00	113.6 PK			2.36 H	19	74.2	39.4
4	*5190.00	103.2 AV			2.36 H	19	63.8	39.4
5	#5766.00	64.0 PK	68.2	-4.2	1.58 H	30	56.5	7.5
6	#10380.00	60.9 PK	74.0	-13.1	2.43 H	246	43.2	17.7
7	#10380.00	48.1 AV	54.0	-5.9	2.43 H	246	30.4	17.7
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	5150.00	59.1 PK	74.0	-14.9	1.00 V	156	53.1	6.0
2	5150.00	46.4 AV	54.0	-7.6	1.00 V	156	40.4	6.0
3	*5190.00	101.2 PK			1.51 V	9	61.8	39.4
4	*5190.00	90.8 AV			1.51 V	9	51.4	39.4
5	#5766.00	57.6 PK	68.2	-10.6	2.12 V	77	50.1	7.5
6	#10380.00	59.7 PK	74.0	-14.3	2.02 V	0	42.0	17.7
7	#10380.00	46.9 AV	54.0	-7.1	2.02 V	0	29.2	17.7

Remarks:

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

CHANNEL	TX Channel 46	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	5087.00	64.3 PK	74.0	-9.7	2.57 H	11	58.5	5.8
2	5087.00	52.9 AV	54.0	-1.1	2.57 H	11	47.1	5.8
3	5150.00	69.5 PK	74.0	-4.5	2.41 H	315	63.5	6.0
4	5150.00	51.9 AV	54.0	-2.1	2.41 H	315	45.9	6.0
5	*5230.00	117.4 PK			2.14 H	4	77.8	39.6
6	*5230.00	107.2 AV			2.14 H	4	67.6	39.6
7	5400.00	62.8 PK	74.0	-11.2	2.31 H	307	56.1	6.7
8	5400.00	52.7 AV	54.0	-1.3	2.31 H	307	46.0	6.7
9	#10460.00	61.4 PK	74.0	-12.6	2.30 H	317	42.9	18.5
10	#10460.00	48.3 AV	54.0	-5.7	2.30 H	317	29.8	18.5
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	5087.00	56.4 PK	74.0	-17.6	1.49 V	175	50.6	5.8
2	5087.00	45.1 AV	54.0	-8.9	1.49 V	175	39.3	5.8
3	5150.00	57.9 PK	74.0	-16.1	1.60 V	277	51.9	6.0
4	5150.00	46.3 AV	54.0	-7.7	1.60 V	277	40.3	6.0
5	*5230.00	109.1 PK			1.49 V	13	69.5	39.6
6	*5230.00	99.9 AV			1.49 V	13	60.3	39.6
7	5400.00	58.4 PK	74.0	-15.6	2.17 V	0	51.7	6.7
8	5400.00	48.3 AV	54.0	-5.7	2.17 V	0	41.6	6.7
9	#10460.00	60.0 PK	74.0	-14.0	1.97 V	116	41.5	18.5
10	#10460.00	46.8 AV	54.0	-7.2	1.97 V	116	28.3	18.5

Remarks:

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

CHANNEL	TX Channel 151	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	5110.00	60.5 PK	74.0	-13.5	2.50 H	15	54.5	6.0
2	5110.00	50.0 AV	54.0	-4.0	2.50 H	15	44.0	6.0
3	#5714.90	67.4 PK	109.4	-42.0	1.71 H	28	60.0	7.4
4	#5722.00	77.1 PK	115.4	-38.3	1.68 H	26	69.7	7.4
5	#5725.00	63.2 PK	122.2	-59.0	1.68 H	26	55.8	7.4
6	*5755.00	110.3 PK			1.78 H	24	69.7	40.6
7	*5755.00	101.2 AV			1.78 H	24	60.6	40.6
8	11510.00	60.6 PK	74.0	-13.4	2.70 H	166	41.9	18.7
9	11510.00	47.9 AV	54.0	-6.1	2.70 H	166	29.2	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	5110.00	56.2 PK	74.0	-17.8	2.08 V	44	50.2	6.0
2	5110.00	44.8 AV	54.0	-9.2	2.08 V	44	38.8	6.0
3	#5714.90	57.9 PK	109.4	-51.5	1.71 V	28	50.5	7.4
4	#5722.00	64.5 PK	115.4	-50.9	2.75 V	263	57.1	7.4
5	#5725.00	54.1 PK	122.2	-68.1	2.75 V	263	46.7	7.4
6	*5755.00	104.9 PK			3.11 V	223	64.3	40.6
7	*5755.00	93.5 AV			3.11 V	223	52.9	40.6
8	11490.00	60.0 PK	74.0	-14.0	3.22 V	299	41.3	18.7
9	11490.00	46.9 AV	54.0	-7.1	3.22 V	299	28.2	18.7

Remarks:

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

CHANNEL	TX Channel 159	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	*5795.00	116.0 PK			1.64 H	22	75.4	40.6
2	*5795.00	106.2 AV			1.64 H	22	65.6	40.6
3	#5850.00	59.6 PK	122.2	-62.6	1.72 H	39	52.0	7.6
4	#5853.00	72.3 PK	115.4	-43.1	1.72 H	39	64.6	7.7
5	#5860.10	67.0 PK	109.4	-42.4	1.72 H	19	59.3	7.7
6	#5940.00	65.6 PK	68.2	-2.6	1.70 H	22	57.9	7.7
7	11590.00	60.9 PK	74.0	-13.1	2.43 H	339	42.1	18.8
8	11590.00	47.8 AV	54.0	-6.2	2.43 H	339	29.0	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	*5795.00	109.4 PK			3.09 V	230	68.8	40.6
2	*5795.00	99.3 AV			3.09 V	230	58.7	40.6
3	#5850.00	57.4 PK	122.2	-64.8	3.33 V	240	49.8	7.6
4	#5853.00	71.8 PK	115.4	-43.6	3.33 V	240	64.1	7.7
5	#5860.10	54.8 PK	109.4	-54.6	3.10 V	227	47.1	7.7
6	#5940.00	60.0 PK	68.2	-8.2	3.19 V	231	52.3	7.7
7	11590.00	59.8 PK	74.0	-14.2	2.90 V	313	41.0	18.8
8	11590.00	47.2 AV	54.0	-6.8	2.90 V	313	28.4	18.8

Remarks:

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

802.11ac (VHT80)

CHANNEL	TX Channel 42	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	69.5 PK	74.0	-4.5	1.60 H	309	63.5	6.0
2	5150.00	52.9 AV	54.0	-1.1	1.60 H	309	46.9	6.0
3	*5210.00	109.9 PK			2.70 H	14	70.4	39.5
4	*5210.00	99.5 AV			2.70 H	14	60.0	39.5
5	5350.00	62.6 PK	74.0	-11.4	2.45 H	22	56.1	6.5
6	5350.00	49.3 AV	54.0	-4.7	2.45 H	22	42.8	6.5
7	#5788.00	64.0 PK	68.2	-4.2	2.88 H	348	56.5	7.5
8	#10420.00	59.7 PK	74.0	-14.3	2.20 H	133	41.8	17.9
9	#10420.00	46.6 AV	54.0	-7.4	2.20 H	133	28.7	17.9
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	57.9 PK	74.0	-16.1	2.11 V	193	51.9	6.0
2	5150.00	46.5 AV	54.0	-7.5	2.11 V	193	40.5	6.0
3	*5210.00	98.4 PK			1.50 V	322	58.9	39.5
4	*5210.00	88.1 AV			1.50 V	322	48.6	39.5
5	5350.00	60.1 PK	74.0	-13.9	1.60 V	340	53.6	6.5
6	5350.00	47.9 AV	54.0	-6.1	1.60 V	340	41.4	6.5
7	#10420.00	59.5 PK	74.0	-14.5	2.00 V	343	41.6	17.9
8	#10420.00	46.3 AV	54.0	-7.7	2.00 V	343	28.4	17.9

Remarks:

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

CHANNEL	TX Channel 155	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	#5714.90	65.0 PK	109.4	-44.4	1.67 H	28	57.6	7.4
2	#5722.00	64.7 PK	115.4	-50.7	1.73 H	26	57.3	7.4
3	#5725.00	54.1 PK	122.2	-68.1	1.73 H	26	46.7	7.4
4	*5775.00	105.8 PK			1.79 H	22	65.2	40.6
5	*5775.00	95.3 AV			1.79 H	22	54.7	40.6
6	#5850.00	50.4 PK	122.2	-71.8	1.77 H	30	42.8	7.6
7	#5853.00	61.0 PK	115.4	-54.4	1.77 H	30	53.3	7.7
8	#5860.10	61.2 PK	109.4	-48.2	1.75 H	19	53.5	7.7
9	11550.00	59.6 PK	74.0	-14.4	2.77 H	254	41.0	18.6
10	11550.00	46.7 AV	54.0	-7.3	2.77 H	254	28.1	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	#5714.90	57.7 PK	109.4	-51.7	3.00 V	230	50.3	7.4
2	#5722.00	61.2 PK	115.4	-54.2	2.69 V	322	53.8	7.4
3	#5725.00	51.2 PK	122.2	-71.0	2.69 V	322	43.8	7.4
4	*5775.00	100.0 PK			3.00 V	230	59.4	40.6
5	*5775.00	87.0 AV			3.00 V	230	46.4	40.6
6	#5850.00	50.3 PK	122.2	-71.9	2.79 V	219	42.7	7.6
7	#5853.00	62.8 PK	115.4	-52.6	2.79 V	219	55.1	7.7
8	#5861.00	60.6 PK	109.1	-48.5	3.01 V	239	52.9	7.7
9	11550.00	59.4 PK	74.0	-14.6	2.33 V	71	40.8	18.6
10	11550.00	46.1 AV	54.0	-7.9	2.33 V	71	27.5	18.6

Remarks:

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

Below 1GHz Worst-Case Data: 802.11a

Mode A

CHANNEL	TX Channel 157	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	57.24	31.7 QP	40.0	-8.3	1.98 H	238	46.3	-14.6
2	136.63	26.8 QP	43.5	-16.7	1.55 H	238	41.7	-14.9
3	210.92	28.2 QP	43.5	-15.3	1.64 H	164	44.5	-16.3
4	305.69	26.7 QP	46.0	-19.3	1.05 H	137	38.7	-12.0
5	721.77	30.9 QP	46.0	-15.1	1.97 H	186	34.6	-3.7
6	900.64	35.5 QP	46.0	-10.5	1.02 H	135	35.4	0.1
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	33.59	37.5 QP	40.0	-2.5	1.05 V	202	53.3	-15.8
2	53.13	37.1 QP	40.0	-2.9	1.06 V	328	51.3	-14.2
3	140.52	25.6 QP	43.5	-17.9	1.14 V	152	40.2	-14.6
4	721.77	36.7 QP	46.0	-9.3	1.39 V	22	40.4	-3.7
5	778.25	37.6 QP	46.0	-8.4	1.31 V	255	39.9	-2.3
6	900.64	35.6 QP	46.0	-10.4	1.06 V	162	35.5	0.1

Remarks:

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

Mode B

CHANNEL	TX Channel 157	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	57.42	31.0 QP	40.0	-9.0	1.82 H	22	45.6	-14.6
2	88.73	27.9 QP	43.5	-15.6	1.94 H	231	47.7	-19.8
3	212.96	31.5 QP	43.5	-12.0	1.56 H	133	47.6	-16.1
4	304.34	26.6 QP	46.0	-19.4	1.05 H	122	38.7	-12.1
5	385.43	30.2 QP	46.0	-15.8	1.82 H	194	40.7	-10.5
6	714.89	42.6 QP	46.0	-3.4	1.34 H	53	46.4	-3.8
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	36.67	37.1 QP	40.0	-2.9	1.05 V	164	52.7	-15.6
2	64.64	29.7 QP	40.0	-10.3	1.38 V	26	44.9	-15.2
3	111.16	26.4 QP	43.5	-17.1	1.39 V	189	43.6	-17.2
4	210.32	27.8 QP	43.5	-15.7	1.38 V	122	44.1	-16.3
5	387.25	27.7 QP	46.0	-18.3	1.08 V	211	38.1	-10.4
6	833.19	36.3 QP	46.0	-9.7	1.31 V	243	37.8	-1.5

Remarks:

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

Mode C

CHANNEL	TX Channel 157	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	30.00	27.0 QP	40.0	-13.0	1.02 H	132	43.2	-16.2
2	57.31	31.5 QP	40.0	-8.5	1.75 H	20	46.1	-14.6
3	107.91	25.2 QP	43.5	-18.3	1.41 H	134	42.7	-17.5
4	136.28	28.7 QP	43.5	-14.8	1.82 H	252	43.8	-15.1
5	218.50	29.9 QP	46.0	-16.1	1.02 H	134	45.9	-16.0
6	305.49	28.1 QP	46.0	-17.9	1.02 H	169	40.1	-12.0
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	47.81	34.8 QP	40.0	-5.2	1.00 V	350	49.2	-14.4
2	69.80	27.0 QP	40.0	-13.0	1.06 V	205	43.2	-16.2
3	111.81	25.8 QP	43.5	-17.7	1.04 V	206	42.9	-17.1
4	138.34	25.2 QP	43.5	-18.3	1.32 V	208	39.9	-14.7
5	181.55	26.7 QP	43.5	-16.8	1.42 V	109	42.1	-15.4
6	307.69	28.4 QP	46.0	-17.6	1.39 V	8	40.3	-11.9

Remarks:

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

Mode D

CHANNEL	TX Channel 157	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	57.22	30.6 QP	40.0	-9.4	1.39 H	22	45.2	-14.6
2	90.31	31.1 QP	43.5	-12.4	1.82 H	253	50.8	-19.7
3	109.28	26.7 QP	43.5	-16.8	1.39 H	82	44.1	-17.4
4	140.76	22.7 QP	43.5	-20.8	1.86 H	131	37.2	-14.5
5	189.69	26.6 QP	43.5	-16.9	1.52 H	133	42.9	-16.3
6	212.81	32.6 QP	43.5	-10.9	1.56 H	128	48.7	-16.1
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	37.89	35.3 QP	40.0	-4.7	1.08 V	22	50.6	-15.3
2	90.21	24.4 QP	43.5	-19.1	1.43 V	206	44.1	-19.7
3	103.92	24.6 QP	43.5	-18.9	1.06 V	253	42.8	-18.2
4	142.86	26.5 QP	43.5	-17.0	1.00 V	139	40.8	-14.3
5	185.71	26.8 QP	43.5	-16.7	1.06 V	142	42.6	-15.8
6	210.91	25.6 QP	43.5	-17.9	1.06 V	122	41.9	-16.3

Remarks:

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

4.2 Transmit Power Measurement

4.2.1 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)

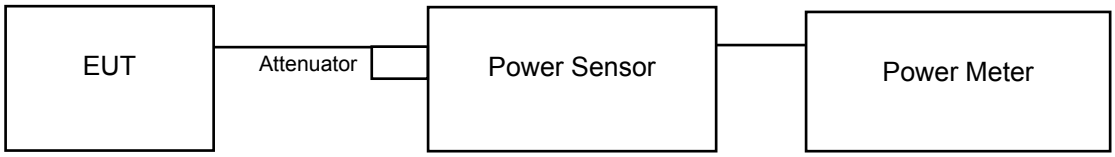
*B is the 26 dB emission bandwidth in megahertz

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 $N_{ANT} \geq 5$.

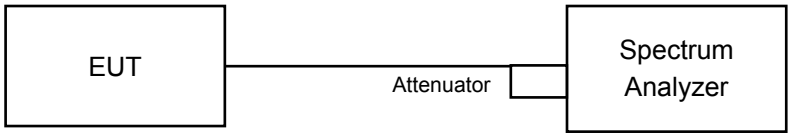
For power measurements on all other devices: Array Gain = 10 log(NANT/NSS) dB.

4.2.2 Test Setup

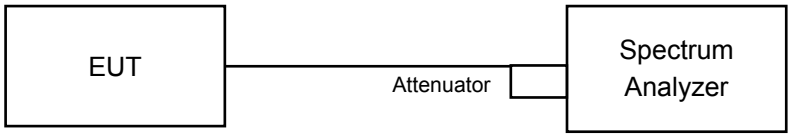
For Power Output Measurement
802.11a, 802.11ac (VHT20), 802.11ac (VHT40)



802.11ac (VHT80)



For Bandwidth



4.2.3 Test Instruments

Refer to section 4.1.2 to get information of above instrument.

4.2.4 Test Procedure

For Average Power Measurement

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.

802.11ac (VHT80)
a. Set span to encompass the entire 26 dB EBW (or, alternatively, the entire 99% occupied bandwidth) of the signal.
b. Set sweep trigger to “free run”.
c. Set RBW = 1 MHz
d. Set VBW ≥ 3 MHz
e. Number of points in sweep ≥ 2 Span / RBW
f. Sweep time ≤ (number of points in sweep) * T
g. Using emission bandwidth to determine the frequency span for integration the channel bandwidth.
h. Detector = RMS
i. Trace mode = max hold
j. Allow max hold to run for at least 60 seconds, or longer as needed to allow the trace to stabilize.

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%.

For Occupied Bandwidth
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.

4.2.5 Deviation from Test Standard

No deviation.

4.2.6 EUT Operating Conditions

The software provided by client to enable the EUT under transmission Condition continuously at lowest, middle and highest channel frequencies individually.

4.2.7 Test Result

Average Power:

802.11ac (VHT20)

Channel	Freq. (MHz)	Maximum Conducted Power (dBm)				Total Power (mW)	Total Power (dBm)	Limit (dBm)	Pass / Fail
		Chain 0	Chain 1	Chain 2	Chain 3				
36	5180	14.27	13.99	13.82	14.92	106.936	20.29	24.14	Pass
40	5200	14.35	14.13	14.13	14.96	110.324	20.43	24.14	Pass
48	5240	14.88	14.90	14.76	15.39	126.181	21.01	24.14	Pass
149	5745	13.12	12.85	12.61	13.35	79.653	19.01	24.14	Pass
157	5785	15.35	15.67	15.19	15.89	**143.027**	21.55	24.14	Pass
165	5825	14.04	13.99	13.62	14.38	100.842	20.04	24.14	Pass

Note: Directional gain = 5.84dBi + 10log(4) = 11.86dBi > 6dBi, so the limit shall be reduced to 30-(11.86-6) = 24.14dBm.

802.11ac (VHT40)

Channel	Freq. (MHz)	Maximum Conducted Power (dBm)				Total Power (mW)	Total Power (dBm)	Limit (dBm)	Pass / Fail
		Chain 0	Chain 1	Chain 2	Chain 3				
38	5190	10.11	10.15	9.91	10.54	41.727	16.20	24.14	Pass
46	5230	15.18	14.98	15.05	15.63	**132.986**	21.24	24.14	Pass
151	5755	8.83	8.57	8.22	9.17	29.729	14.73	24.14	Pass
159	5795	13.23	13.14	12.81	13.65	83.917	19.24	24.14	Pass

Note: Directional gain = 5.84dBi + 10log(4) = 11.86dBi > 6dBi, so the limit shall be reduced to 30-(11.86-6) = 24.14dBm.

802.11ac (VHT80)

Channel	Freq. (MHz)	Maximum Conducted Power (dBm)				Total Power (mW)	Total Power (dBm)	Limit (dBm)	Pass / Fail
		Chain 0	Chain 1	Chain 2	Chain 3				
42	5210	10.70	10.51	10.56	11.03	47.048	16.73	24.14	Pass
155	5775	7.46	7.51	7.28	7.68	22.415	13.51	24.14	Pass

Note: Directional gain = 5.84dBi + 10log(4) = 11.86dBi > 6dBi, so the limit shall be reduced to 30-(11.86-6) = 24.14dBm.

26dB Bandwidth:

802.11ac (VHT20)

Channel	Frequency (MHz)	26dBc Bandwidth (MHz)				Pass / Fail
		Chain 0	Chain 1	Chain 2	Chain 3	
36	5180	22.00	21.74	21.58	25.18	Pass
40	5200	22.19	21.86	21.79	23.75	Pass
48	5240	24.26	22.07	22.05	22.09	Pass

802.11ac (VHT40)

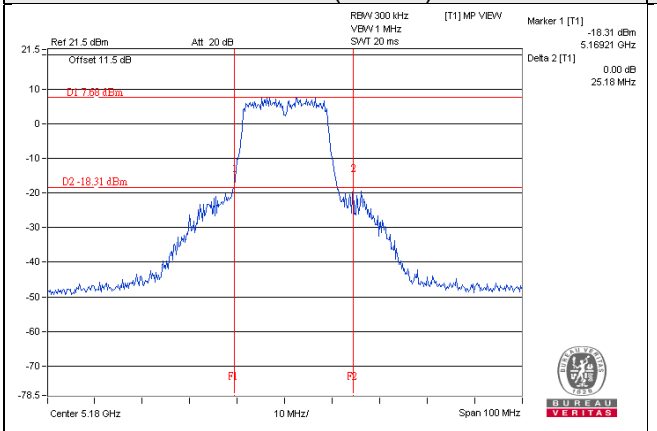
Channel	Frequency (MHz)	26dBc Bandwidth (MHz)				Pass / Fail
		Chain 0	Chain 1	Chain 2	Chain 3	
38	5190	41.48	41.36	41.31	41.01	Pass
46	5230	48.37	42.82	49.42	50.56	Pass

802.11ac (VHT80)

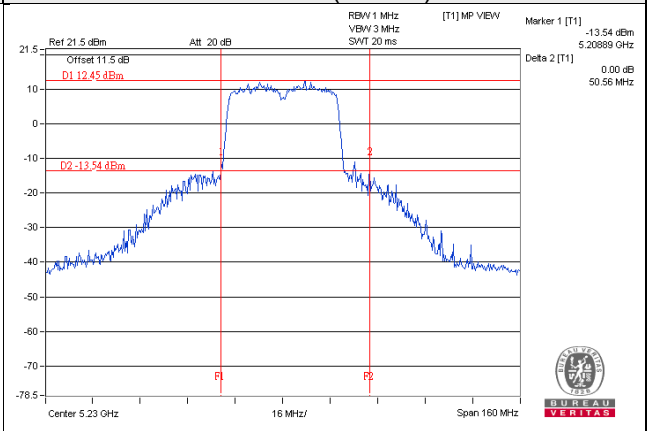
Channel	Frequency (MHz)	26dBc Bandwidth (MHz)				Pass / Fail
		Chain 0	Chain 1	Chain 2	Chain 3	
42	5210	82.18	81.60	81.55	81.96	Pass

Spectrum Plot of Worst Value

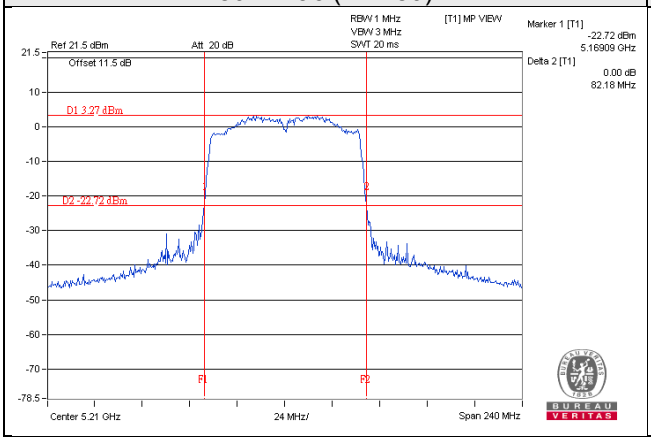
802.11ac (VHT20)



802.11ac (VHT40)



802.11ac (VHT80)



Occupied Bandwidth:

802.11ac (VHT20)

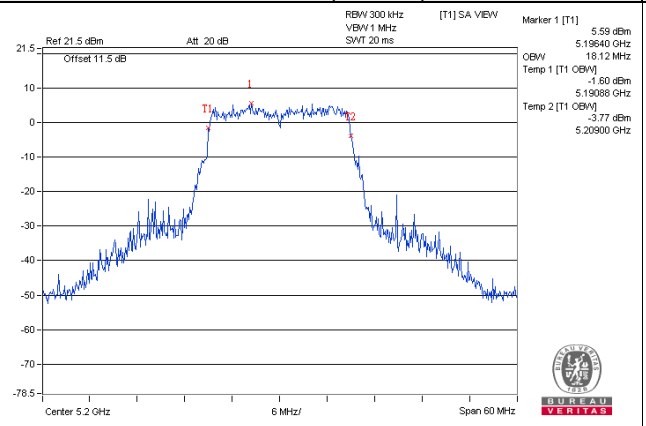
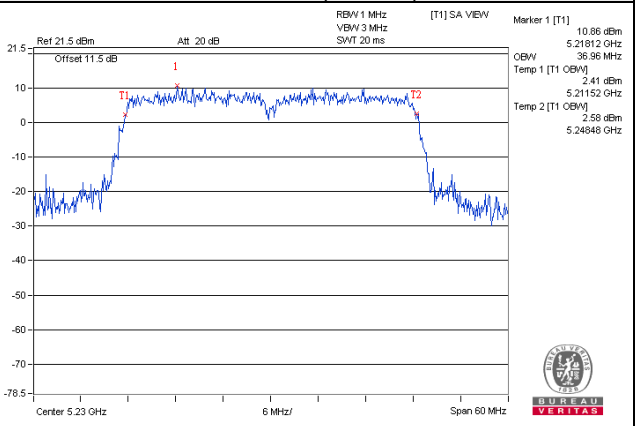
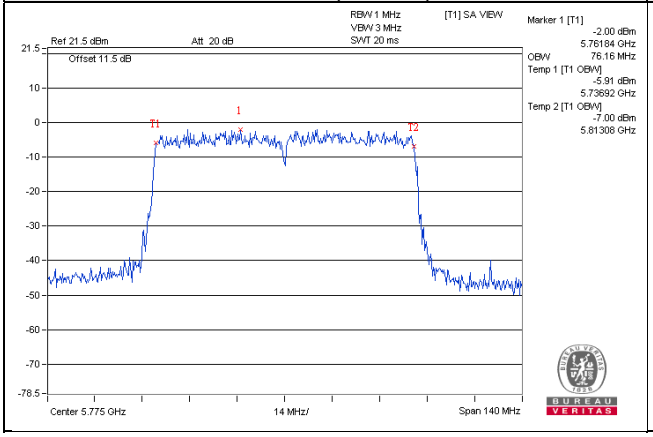
Channel	Frequency (MHz)	Occupied Bandwidth (MHz)			
		Chain 0	Chain 1	Chain 2	Chain 3
36	5180	18.00	18.00	18.12	18.12
40	5200	18.12	18.00	18.00	18.00
48	5240	18.12	18.00	18.12	18.00
149	5745	18.12	17.88	18.12	18.00
157	5785	18.00	18.12	17.88	18.12
165	5825	18.00	18.00	18.00	18.00

802.11ac (VHT40)

Channel	Frequency (MHz)	Occupied Bandwidth (MHz)			
		Chain 0	Chain 1	Chain 2	Chain 3
38	5190	36.84	36.72	36.48	36.72
46	5230	36.84	36.72	36.72	36.96
151	5755	36.60	36.72	36.72	36.60
159	5795	36.72	36.72	36.72	36.60

802.11ac (VHT80)

Channel	Frequency (MHz)	Occupied Bandwidth (MHz)			
		Chain 0	Chain 1	Chain 2	Chain 3
42	5210	75.04	75.04	75.04	75.04
155	5775	75.88	76.16	75.88	75.88

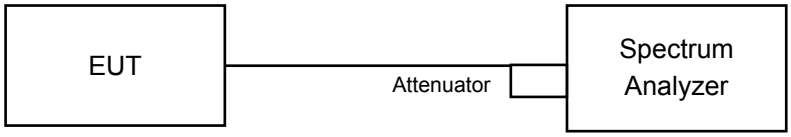
Spectrum Plot of Worst Value	
802.11ac (VHT20)	802.11ac (VHT40)
	
802.11ac (VHT80)	
	

4.3 Peak Power Spectral Density Measurement

4.3.1 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

4.3.2 Test Setup



4.3.3 Test Instruments

Refer to section 4.1.2 to get information of above instrument.

4.3.4 Test Procedure

For U-NII-1 band:
Using method SA-1
a. Set span to encompass the entire emission bandwidth (EBW) of the signal.
b. Set RBW = 1 MHz, Set VBW ≥ 3 MHz, Detector = RMS
c. Sweep time = auto, trigger set to “free run”.
d. Trace average at least 100 traces in power averaging mode.
e. Record the max value and add 10 log (1/duty cycle).

For U-NII-3 band:
a. Set span to encompass the entire emission bandwidth (EBW) of the signal.
b. Set RBW = 300 kHz, Set VBW ≥ 3 RBW, Detector = RMS
c. Sweep time = auto, trigger set to “free run”.
d. Trace average at least 100 traces in power averaging mode.
e. Record the max value and add 10 log (1/duty cycle).
f. Scale the observed power level to an equivalent value in 500 kHz by adjusting (reducing) the measured power by a bandwidth correction factor (BWCF) where BWCF = 10log(500kHz/300kHz).

4.3.5 Deviation from Test Standard

No deviation.

4.3.6 EUT Operating Condition

Same as 4.3.6.

4.3.7 Test Results

For U-NII-1 Band

802.11ac (VHT20)

Chan.	Freq. (MHz)	PSD (dBm)				Total PSD w/o duty factor (dBm)	Duty factor	Total PSD with duty factor (dBm)	Max. Limit (dBm)	Pass / Fail
		Chain 0	Chain 1	Chain 2	Chain 3					
36	5180	1.44	0.56	0.66	1.71	7.14	0.25	7.39	11.14	Pass
40	5200	1.44	0.22	1.17	1.87	7.24	0.25	7.49	11.14	Pass
48	5240	1.64	1.11	1.55	2.30	7.69	0.25	7.94	11.14	Pass

Note:
1. Method 1 of power density measurement of KDB 662911 is using for calculating total power density. Total power density is summing entire spectra across corresponding frequency bins on the various outputs by computer.
2. Directional gain = 5.84dBi + 10log(4) = 11.86dBi > 6dBi, so the limit shall be reduced to 17-(11.86-6) = 11.14dBm.
3. Refer to section 3.3 for duty cycle spectrum plot.

802.11ac (VHT40)

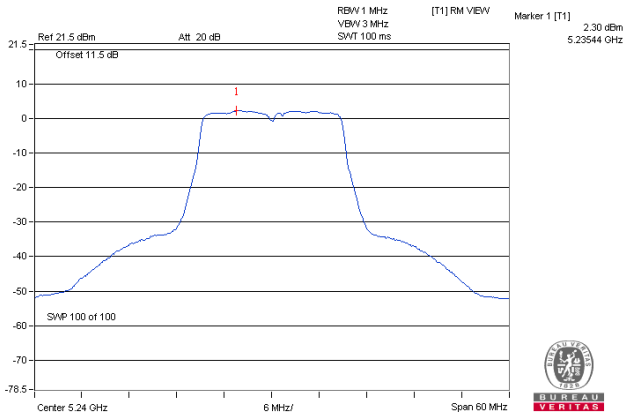
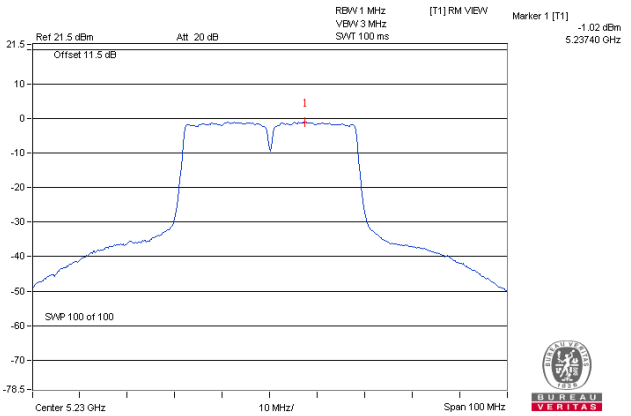
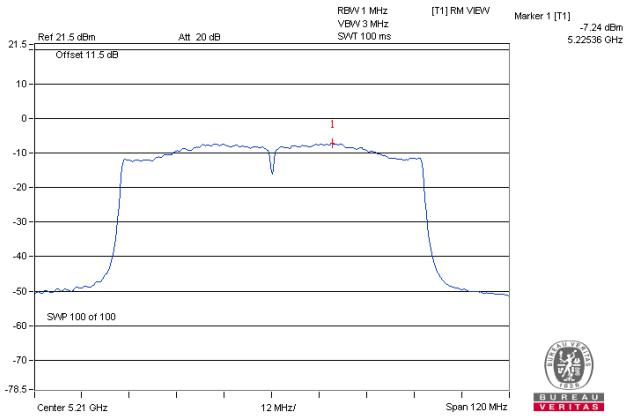
Chan.	Freq. (MHz)	PSD (dBm)				Total PSD w/o duty factor (dBm)	Duty factor	Total PSD with duty factor (dBm)	Max. Limit (dBm)	Pass / Fail
		Chain 0	Chain 1	Chain 2	Chain 3					
38	5190	-5.96	-6.81	-6.70	-5.95	-0.32	0.53	0.21	11.14	Pass
46	5230	-1.49	-1.81	-1.58	-1.06	4.54	0.53	5.07	11.14	Pass

Note:
1. Method 1 of power density measurement of KDB 662911 is using for calculating total power density. Total power density is summing entire spectra across corresponding frequency bins on the various outputs by computer.
2. Directional gain = 5.84dBi + 10log(4) = 11.86dBi > 6dBi, so the limit shall be reduced to 17-(11.86-6) = 11.14dBm.
3. Refer to section 3.3 for duty cycle spectrum plot.

802.11ac (VHT80)

Chan.	Freq. (MHz)	PSD (dBm)				Total PSD w/o duty factor (dBm)	Duty factor	Total PSD with duty factor (dBm)	Max. Limit (dBm)	Pass / Fail
		Chain 0	Chain 1	Chain 2	Chain 3					
42	5210	-7.92	-7.67	-7.93	-7.44	-1.72	0.41	-1.31	11.14	Pass

Note:
1. Method 1 of power density measurement of KDB 662911 is using for calculating total power density. Total power density is summing entire spectra across corresponding frequency bins on the various outputs by computer.
2. Directional gain = 5.84dBi + 10log(4) = 11.86dBi > 6dBi, so the limit shall be reduced to 17-(11.86-6) = 11.14dBm.
3. Refer to section 3.3 for duty cycle spectrum plot.

Spectrum Plot of Worst Value	
802.11ac (VHT20) / Ch 48 / Chain 3	802.11ac (VHT40) / Ch 46 / Chain 3
	
802.11ac (VHT80) / Ch 42 / Chain 3	
	

For U-NII-3 Band

802.11ac (VHT20)

TX chain	Channel	Freq. (MHz)	PSD (dBm/300kHz)	PSD (dBm/500kHz)	10 log (N=4) dB	Duty factor	Total PSD (dBm/500kHz)	Limit (dBm/500kHz)	Pass / Fail
0	149	5745	-8.40	-6.18	6.02	0.25	0.09	24.14	Pass
	157	5785	-6.04	-3.82	6.02	0.25	2.45	24.14	Pass
	165	5825	-7.60	-5.38	6.02	0.25	0.89	24.14	Pass
1	149	5745	-8.79	-6.57	6.02	0.25	-0.30	24.14	Pass
	157	5785	-6.36	-4.14	6.02	0.25	2.13	24.14	Pass
	165	5825	-7.58	-5.36	6.02	0.25	0.91	24.14	Pass
2	149	5745	-9.24	-7.02	6.02	0.25	-0.75	24.14	Pass
	157	5785	-6.52	-4.30	6.02	0.25	1.97	24.14	Pass
	165	5825	-8.27	-6.05	6.02	0.25	0.22	24.14	Pass
3	149	5745	-7.76	-5.54	6.02	0.25	0.73	24.14	Pass
	157	5785	-5.50	-3.28	6.02	0.25	2.99	24.14	Pass
	165	5825	-6.96	-4.74	6.02	0.25	1.53	24.14	Pass

Note:
1. Method 1 of power density measurement of KDB 662911 is using for calculating total power density. Total power density is summing entire spectra across corresponding frequency bins on the various outputs by computer.
2. Directional gain = 5.84dBi + 10log(4) = 11.86dBi > 6dBi, so the limit shall be reduced to 30-(11.86-6) = 24.14dBm.
3. Refer to section 3.3 for duty cycle spectrum plot.

802.11ac (VHT40)

TX chain	Channel	Freq. (MHz)	PSD (dBm/300kHz)	PSD (dBm/500kHz)	10 log (N=4) dB	Duty factor	Total PSD (dBm/500kHz)	Limit (dBm/500kHz)	Pass / Fail
0	151	5755	-16.06	-13.84	6.02	0.53	-7.29	24.14	Pass
	159	5795	-11.88	-9.66	6.02	0.53	-3.11	24.14	Pass
1	151	5755	-16.65	-14.43	6.02	0.53	-7.88	24.14	Pass
	159	5795	-12.00	-9.78	6.02	0.53	-3.23	24.14	Pass
2	151	5755	-16.96	-14.74	6.02	0.53	-8.19	24.14	Pass
	159	5795	-12.62	-10.40	6.02	0.53	-3.85	24.14	Pass
3	151	5755	-15.85	-13.63	6.02	0.53	-7.08	24.14	Pass
	159	5795	-11.46	-9.24	6.02	0.53	-2.69	24.14	Pass

Note:
1. Method 1 of power density measurement of KDB 662911 is using for calculating total power density. Total power density is summing entire spectra across corresponding frequency bins on the various outputs by computer.
2. Directional gain = 5.84dBi + 10log(4) = 11.86dBi > 6dBi, so the limit shall be reduced to 30-(11.86-6) = 24.14dBm.
3. Refer to section 3.3 for duty cycle spectrum plot.

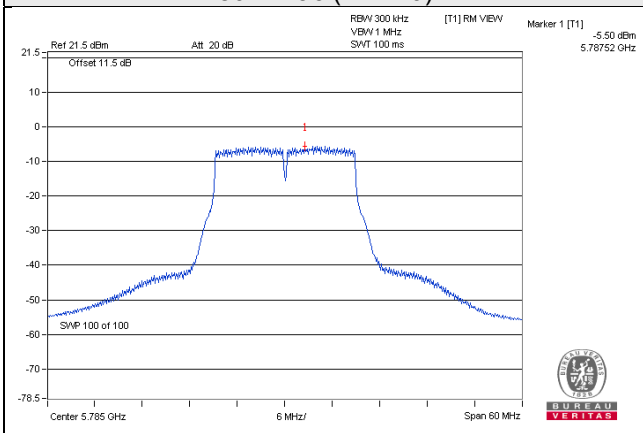
802.11ac (VHT80)

TX chain	Channel	Freq. (MHz)	PSD (dBm/300kHz)	PSD (dBm/500kHz)	10 log (N=4) dB	Duty factor	Total PSD (dBm/500kHz)	Limit (dBm/500kHz)	Pass / Fail
0	155	5775	-20.61	-18.39	6.02	0.41	-11.96	24.14	Pass
1	155	5775	-20.66	-18.44	6.02	0.41	-12.01	24.14	Pass
2	155	5775	-20.86	-18.64	6.02	0.41	-12.21	24.14	Pass
3	155	5775	-20.07	-17.85	6.02	0.41	-11.42	24.14	Pass

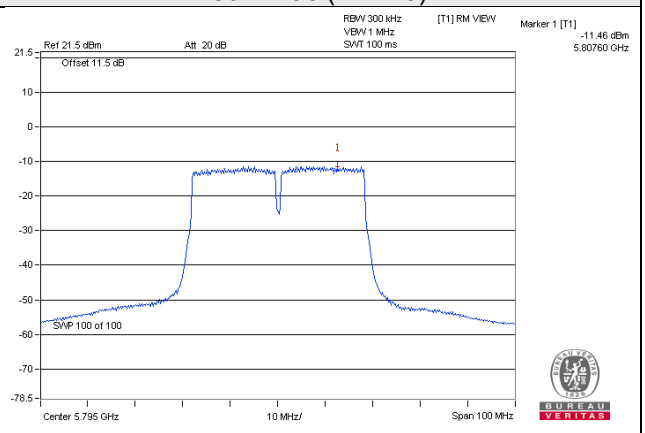
Note:
1. Method 1 of power density measurement of KDB 662911 is using for calculating total power density. Total power density is summing entire spectra across corresponding frequency bins on the various outputs by computer.
2. Directional gain = 5.84dBi + 10log(4) = 11.86dBi > 6dBi, so the limit shall be reduced to 30-(11.86-6) = 24.14dBm.
3. Refer to section 3.3 for duty cycle spectrum plot.

Spectrum Plot of Worst Value

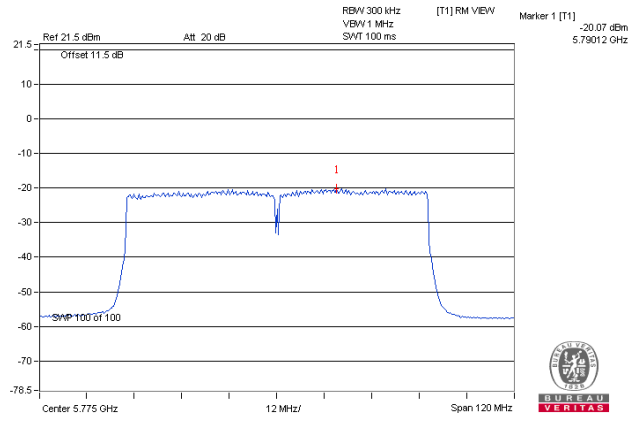
802.11ac (VHT20)



802.11ac (VHT40)



802.11ac (VHT80)

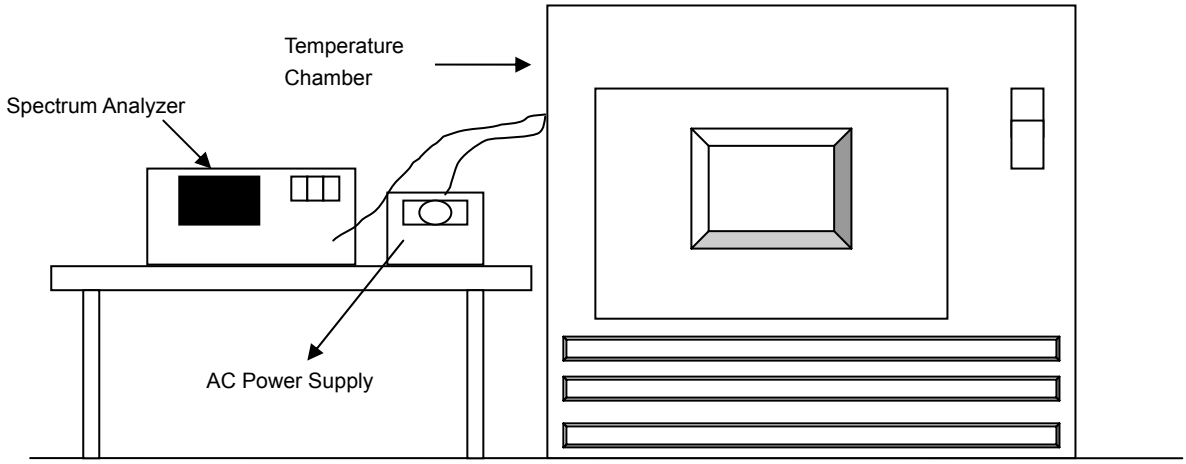


4.4 Frequency Stability

4.4.1 Limits of Frequency Stability Measurement

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

4.4.2 Test Setup



4.4.3 Test Instruments

Refer to section 4.1.2 to get information of above instrument.

4.4.4 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.

4.4.5 Deviation from Test Standard

No deviation.

4.4.6 EUT Operating Condition

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

4.4.7 Test Results

Frequency Stability Versus Temp.									
Operating Frequency: 5180MHz									
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	5179.9962	-0.00007	5179.9935	-0.00013	5179.9926	-0.00014	5179.9953	-0.00009
40	120	5180.0168	0.00032	5180.0154	0.00030	5180.0153	0.00030	5180.0179	0.00035
30	120	5179.983	-0.00033	5179.9836	-0.00032	5179.9851	-0.00029	5179.9821	-0.00035
20	120	5180.0169	0.00033	5180.0208	0.00040	5180.0211	0.00041	5180.0175	0.00034
10	120	5180.0017	0.00003	5180.001	0.00002	5180.0019	0.00004	5180.0011	0.00002
0	120	5180.0104	0.00020	5180.0084	0.00016	5180.0121	0.00023	5180.0073	0.00014
-10	120	5179.9883	-0.00023	5179.9874	-0.00024	5179.9903	-0.00019	5179.9868	-0.00025
-20	120	5180.0125	0.00024	5180.01	0.00019	5180.0124	0.00024	5180.0128	0.00025
-30	120	5180.0116	0.00022	5180.013	0.00025	5180.0128	0.00025	5180.0107	0.00021

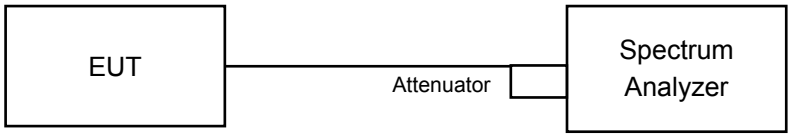
Frequency Stability Versus Voltage									
Operating Frequency: 5180MHz									
Temp. (℃)	Power Supply (Vac)	0 Minute		2 Minute		5 Minute		10 Minute	
		Measured Frequency (MHz)	Frequency Drift (%)	Measured Frequency (MHz)	Frequency Drift (%)	Measured Frequency (MHz)	Frequency Drift (%)	Measured Frequency (MHz)	Frequency Drift (%)
20	138	5180.0179	0.00035	5180.0217	0.00042	5180.0217	0.00042	5180.0169	0.00033
	120	5180.0169	0.00033	5180.0208	0.00040	5180.0211	0.00041	5180.0175	0.00034
	102	5180.016	0.00031	5180.0214	0.00041	5180.0205	0.00040	5180.0169	0.00033

4.5 6dB Bandwidth Measurement

4.5.1 Limits of 6dB Bandwidth Measurement

The minimum of 6dB Bandwidth Measurement is 0.5MHz.

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 Procedure

a. Set resolution bandwidth (RBW) = 100kHz
b. Set the video bandwidth (VBW) ≥ 3 x RBW, Detector = Peak
c. Trace mode = max hold
d. Sweep = auto couple
e. Measure the maximum width of the emission that is constrained by the frequencies associated with the two amplitude points (upper and lower) that are attenuated by 6 dB relative to the maximum level measured in the fundamental emission

4.5.5 Deviation from Test Standard

No deviation.

4.5.6 EUT Operating Condition

The software provided by client to enable the EUT under transmission Condition continuously at lowest, middle and highest channel frequencies individually.

4.5.7 Test Results

802.11ac (VHT20)

Channel	Frequency (MHz)	6dB Bandwidth (MHz)				Minimum Limit (MHz)	Pass / Fail
		Chain 0	Chain 1	Chain 2	Chain 3		
149	5745	17.68	17.69	17.66	17.69	0.5	Pass
157	5785	17.68	17.68	17.67	17.66	0.5	Pass
165	5825	17.67	17.69	17.66	17.67	0.5	Pass

802.11ac (VHT40)

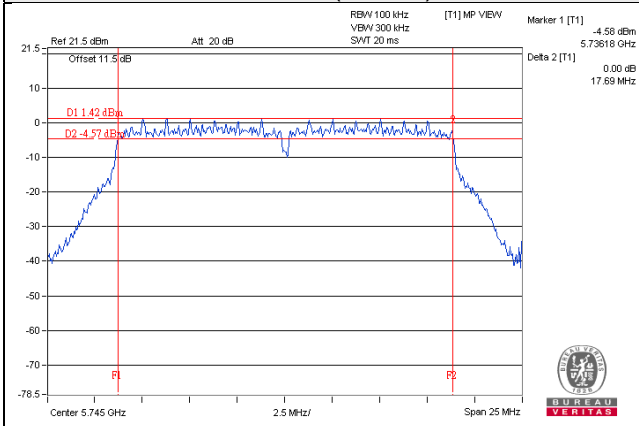
Channel	Frequency (MHz)	6dB Bandwidth (MHz)				Minimum Limit (MHz)	Pass / Fail
		Chain 0	Chain 1	Chain 2	Chain 3		
151	5755	36.41	36.46	36.45	36.47	0.5	Pass
159	5795	36.47	36.54	36.53	36.51	0.5	Pass

802.11ac (VHT80)

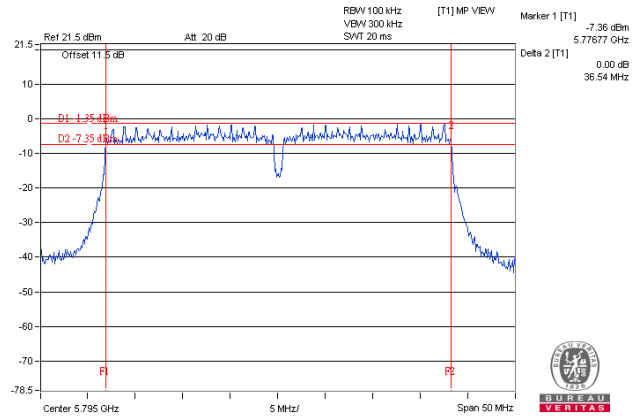
Channel	Frequency (MHz)	6dB Bandwidth (MHz)				Minimum Limit (MHz)	Pass / Fail
		Chain 0	Chain 1	Chain 2	Chain 3		
155	5775	76.14	76.63	76.49	76.59	0.5	Pass

Spectrum Plot of Worst Value

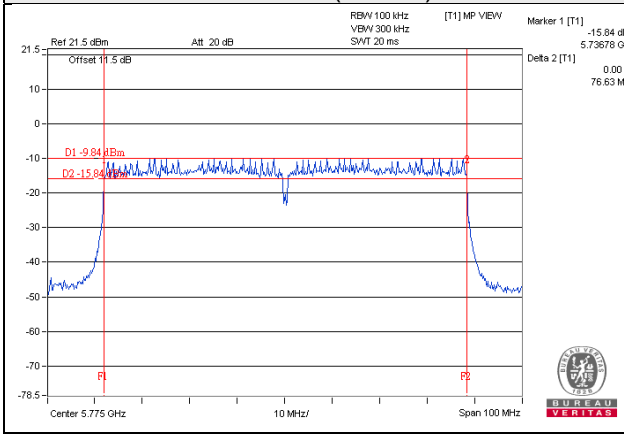
802.11ac (VHT20)



802.11ac (VHT40)



802.11ac (VHT80)



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 ---