

FCC Test Report

Report No.: RF160104C01C-1

FCC ID: VPYLB1GC

Test Model: Type 1PS

Series Model: Type 1GC (refer to item 3.1 for more details)

Received Date: Sep. 11, 2019

Test Date: Sep. 19 ~ Oct. 01, 2019

Issued Date: Oct. 17, 2019

Applicant: Murata Manufacturing Co., Ltd.

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Issued By: Bureau Veritas Consumer Products Services (H.K.) Ltd., Taoyuan Branch
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**FCC Registration /
Designation Number:** 788550 / TW0003



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Release Control Record

Issue No.	Description	Date Issued
RF160104C01C-1	Original release.	Oct. 17, 2019

1 Certificate of Conformity

Product: Communication Module

Brand: MURATA

Test Model: Type 1PS

Series Model: Type 1GC (refer to item 3.1 for more details)

Sample Status: Engineering sample

Applicant: Murata Manufacturing Co., Ltd.

Test Date: Sep. 19 ~ Oct. 01, 2019

Standards: 47 CFR FCC Part 15, Subpart E (Section 15.407)
ANSI C63.10:2013

The above equipment has been tested by **Bureau Veritas Consumer Products Services (H.K.) Ltd., Taoyuan Branch**, and found compliance with the requirement of the above standards. The test record, data evaluation & Equipment Under Test (EUT) configurations represented herein are true and accurate accounts of the measurements of the sample's RF characteristics under the conditions specified in this report.

Prepared by :  , **Date:** Oct. 17, 2019
Polly Chien / Specialist

Approved by :  , **Date:** Oct. 17, 2019
Bruce Chen / Senior Project Engineer

2 Summary of Test Results

47 CFR FCC Part 15, Subpart E (Section 15.407)			
FCC Clause	Test Item	Result	Remarks
15.407(b)(6)	AC Power Conducted Emissions	Pass	Meet the requirement of limit. Minimum passing margin is -15.75dB at 16.71276MHz.
15.407(b) (1/2/3/4(i/ii)/6)	Radiated Emissions & Band Edge Measurement	Pass	Meet the requirement of limit. Minimum passing margin is -0.1dB at 5470.00MHz.
15.407(a)(1/2/3)	Max Average Transmit Power	Pass	Meet the requirement of limit.
---	Occupied Bandwidth Measurement	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	No antenna connector is used.

*For U-NII-3 band compliance with rule part 15.407(b)(4)(i), the OOB test plots were recorded in Annex A.
 Note: Determining compliance based on the results of the compliance measurement, not taking into account measurement instrumentation uncertainty.

2.1 Measurement Uncertainty

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

Measurement	Frequency	Expanded Uncertainty (k=2) (\pm)
Conducted Emissions at mains ports	150kHz ~ 30MHz	2.94 dB
Radiated Emissions up to 1 GHz	9kHz ~ 30MHz	3.04 dB
	30MHz ~ 200MHz	3.59 dB
	200MHz ~ 1000MHz	3.60 dB
Radiated Emissions above 1 GHz	1GHz ~ 18GHz	2.29 dB
	18GHz ~ 40GHz	2.29 dB

2.2 Modification Record

There were no modifications required for compliance.

3 General Information

3.1 General Description of EUT

Product	Communication Module
Brand	MURATA
Test Model	Type 1PS
Series Model	Type 1GC
Model Difference	Refer to Note
Sample Status	Engineering sample
Nominal Voltage	3.6Vdc (from host equipment)
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 150Mbps 802.11ac: up to 433.3Mbps
Operating Frequency	5180~5240MHz, 5260~5320MHz, 5500~5720MHz, 5745~5825MHz
Number of Channel	5180~5240MHz: 802.11a, 802.11ac (VHT20): 4 802.11ac (VHT40): 2 802.11ac (VHT80): 1 5260~5320MHz: 802.11a, 802.11ac (VHT20): 4 802.11ac (VHT40): 2 802.11ac (VHT80): 1 5500~5720MHz: 802.11a, 802.11ac (VHT20): 12 802.11ac (VHT40): 6 802.11ac (VHT80): 3 5745~5825MHz: 802.11a, 802.11ac (VHT20): 5 802.11ac (VHT40): 2 802.11ac (VHT80): 1
Output Power	5180~5240MHz: 16.106mW 5260~5320MHz: 15.740mW 5500~5720MHz: 16.293mW 5745~5825MHz: 15.524mW
Antenna Type	Monopole pattern antenna with 2.5dBi gain
Antenna Connector	NA
Accessory Device	NA
Cable Supplied	NA

Note:

1. This report is prepared for FCC class II permissive change. This report is issued as a supplementary report of the original report no.: RF160104C01-1. The differences compared with original report are adding series model 1PS (support 11ac.) and update updating standard to the latest version. Therefore, antenna port conducted measurement test on 802.11 ac mode and radiated emission above 1GHz test on 802.11a & 802.11 ac mode were re-tested.
2. All models are listed as below. The model of the Type 1PS was chosen for final test. (New model is marked in boldface.)

Brand	Model	Description
MURATA	Type 1PS	Support 11ac.
	Type 1GC	Not support 11ac

3. The EUT provides 1 completed transmitter and 1 receiver.

Modulation Mode	TX Function
802.11a	1TX
802.11ac (VHT20)	1TX
802.11ac (VHT40)	1TX
802.11ac (VHT80)	1TX

4. The 2.4GHz and 5GHz cannot transmit simultaneously.

3.2 Description of Test Modes

5180~5240MHz:

4 channels are provided for 802.11a, 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 (VHT40):

Channel	Frequency	Channel	Frequency
38	5190 MHz	46	5230 MHz

1 channel is provided for 802.11ac (VHT80):

Channel	Frequency
42	5210MHz

5260~5320MHz:

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

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

2 channels are provided for 802.11ac (VHT40):

Channel	Frequency	Channel	Frequency
54	5270 MHz	62	5310 MHz

1 channel is provided for 802.11ac (VHT80):

Channel	Frequency
58	5290MHz

5500~5720MHz:

12 channels are provided for 802.11a, 802.11ac (VHT20):

Channel	Frequency	Channel	Frequency
100	5500 MHz	124	5620 MHz
104	5520 MHz	128	5640 MHz
108	5540 MHz	132	5660 MHz
112	5560 MHz	136	5680 MHz
116	5580 MHz	140	5700 MHz
120	5600 MHz	144	5720 MHz

6 channels are provided for 802.11ac (VHT40):

Channel	Frequency	Channel	Frequency
102	5510 MHz	126	5630 MHz
110	5550 MHz	134	5670 MHz
118	5590 MHz	142	5710 MHz

3 channels are provided for 802.11ac (VHT80):

Channel	Frequency	Channel	Frequency
106	5530 MHz	122	5610 MHz
138	5690 MHz		

5745~5825MHz:

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

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

2 channels are provided for 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 \geq 1G	RE<1G	PLC	APCM	
-	√	√	√	√	-

Where RE \geq 1G: Radiated Emission above 1GHz & Bandedge Measurement
 RE<1G: Radiated Emission below 1GHz
 PLC: Power Line Conducted Emission
 APCM: Antenna Port Conducted Measurement

Note:

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

Radiated Emission Test (Above 1GHz):

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

EUT Configure Mode	Mode	Frequency Band (MHz)	Available Channel	Tested Channel	Modulation Technology	Data Rate (Mbps)
-	802.11a	5180-5240	36 to 48	36, 40, 48	OFDM	6.0
	802.11ac (VHT20)		36 to 48	36, 40, 48	OFDM	6.5
	802.11ac (VHT40)		38 to 46	38, 46	OFDM	13.5
	802.11ac (VHT80)		42	42	OFDM	29.3
-	802.11a	5260-5320	52 to 64	52, 60, 64	OFDM	6.0
	802.11ac (VHT20)		52 to 64	52, 60, 64	OFDM	6.5
	802.11ac (VHT40)		54 to 62	54, 62	OFDM	13.5
	802.11ac (VHT80)		58	58	OFDM	29.3
-	802.11a	5500-5720	100 to 144	100, 116, 140, 144	OFDM	6.0
	802.11ac (VHT20)		100 to 144	100, 116, 140, 144	OFDM	6.5
	802.11ac (VHT40)		102 to 142	102, 110, 134, 142	OFDM	13.5
	802.11ac (VHT80)		106 to 138	106, 122, 138	OFDM	29.3
-	802.11a	5745-5825	149 to 165	149, 157, 165	OFDM	6.0
	802.11ac (VHT20)		149 to 165	149, 157, 165	OFDM	6.5
	802.11ac (VHT40)		151 to 159	151, 159	OFDM	13.5
	802.11ac (VHT80)		155	155	OFDM	29.3

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)
-	802.11ac (VHT20)	5260-5320	52 to 64	64	OFDM	6.5

Power Line Conducted Emission Test:

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

EUT Configure Mode	Mode	Frequency Band (MHz)	Available Channel	Tested Channel	Modulation Technology	Data Rate (Mbps)
-	802.11ac (VHT20)	5260-5320	52 to 64	64	OFDM	6.5

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)
-	802.11ac (VHT20)	-	36 to 48	36, 40, 48	OFDM	6.5
	802.11ac (VHT40)		38 to 46	38, 46	OFDM	13.5
	802.11ac (VHT80)		42	42	OFDM	29.3
-	802.11ac (VHT20)	-	52 to 64	52, 60, 64	OFDM	6.5
	802.11ac (VHT40)		54 to 62	54, 62	OFDM	13.5
	802.11ac (VHT80)		58	58	OFDM	29.3
-	802.11ac (VHT20)	-	100 to 144	100, 116, 140, 144	OFDM	6.5
	802.11ac (VHT40)		102 to 142	102, 110, 134, 142	OFDM	13.5
	802.11ac (VHT80)		106 to 138	106, 138	OFDM	29.3
-	802.11ac (VHT20)	-	149 to 165	149, 157, 165	OFDM	6.5
	802.11ac (VHT40)		151 to 159	151, 159	OFDM	13.5
	802.11ac (VHT80)		155	155	OFDM	29.3

Test Condition:

Applicable to	Environmental Conditions	Input Power (System)	Tested by
RE \geq 1G	22deg. C, 68%RH	120Vac, 60Hz	Greg Lin
RE $<$ 1G	22deg. C, 68%RH	120Vac, 60Hz	Greg Lin
PLC	23deg. C, 66%RH	120Vac, 60Hz	Titan Hsu
APCM	25deg. C, 60%RH	120Vac, 60Hz	Ivan Tseng

3.3 Duty Cycle of Test Signal

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

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

802.11ac (VHT20): Duty cycle = $1.343/1.366 = 0.983$

802.11ac (VHT40): Duty cycle = $0.662/0.689 = 0.961$, Duty factor = $10 * \log(1/0.961) = 0.17$

802.11ac (VHT80): Duty cycle = $0.330/0.362 = 0.912$, Duty factor = $10 * \log(1/0.912) = 0.40$



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.

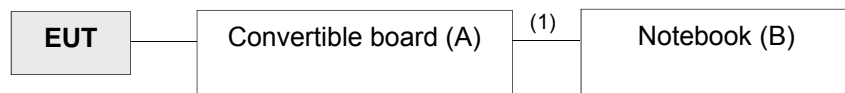
ID	Product	Brand	Model No.	Serial No.	FCC ID	Remarks
A.	Convertible board	NA	NA	NA	NA	Provided by client
B.	Notebook	ASUS	P2420L	FCNXCV16385351D	FCC DoC Approved	-

Note:

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

ID	Cable Descriptions	Qty.	Length (m)	Shielding (Yes/No)	Cores (Qty.)	Remarks
1.	USB cable	1	1	Y	0	-

3.4.1 Configuration of System under Test



3.5 General Description of Applied Standards

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

FCC Part 15, Subpart E (15.407)

KDB 789033 D02 General UNII Test Procedure New Rules v02r01

ANSI C63.10:2013

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

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:

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

Limits of unwanted emission out of the restricted bands

Applicable To		Limit	
789033 D02 General UNII Test Procedure New Rules v02r01		Field Strength at 3m	
		PK: 74 (dBuV/m)	AV: 54 (dBuV/m)
Frequency Band	Applicable To	EIRP Limit	Equivalent Field Strength at 3m
5150~5250 MHz	15.407(b)(1)	PK: -27 (dBm/MHz)	PK: 68.2(dBuV/m)
5250~5350 MHz	15.407(b)(2)		
5470~5725 MHz	15.407(b)(3)		
5725~5850 MHz	<input checked="" type="checkbox"/> 15.407(b)(4)(i)	PK: -27 (dBm/MHz) ^{*1} PK: 10 (dBm/MHz) ^{*2} PK: 15.6 (dBm/MHz) ^{*3} PK: 27 (dBm/MHz) ^{*4}	PK: 68.2(dBuV/m) ^{*1} PK: 105.2 (dBuV/m) ^{*2} PK: 110.8(dBuV/m) ^{*3} PK: 122.2 (dBuV/m) ^{*4}
	<input type="checkbox"/> 15.407(b)(4)(ii)	Emission limits in section 15.247(d)	
^{*1} beyond 75 MHz or more above of the band edge. ^{*3} below the band edge increasing linearly to a level of 15.6 dBm/MHz at 5 MHz above.		^{*2} below the band edge increasing linearly to 10 dBm/MHz at 25 MHz above. ^{*4} from 5 MHz above or below the band edge increasing linearly to a level of 27 dBm/MHz at the band edge.	

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

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

4.1.2 Test Instruments

Description & Manufacturer	Model No.	Serial No.	Cal. Date	Cal. Due
Test Receiver KEYSIGHT	N9038A	MY55420137	Apr. 15, 2019	Apr. 14, 2020
Spectrum Analyzer ROHDE & SCHWARZ	FSP40	100269	Jun. 04, 2019	Jun. 03, 2020
BILOG Antenna SCHWARZBECK	VULB9168	9168-160	Nov. 21, 2018	Nov. 20, 2019
HORN Antenna SCHWARZBECK	BBHA 9120 D	9120D-1169	Nov. 25, 2018	Nov. 24, 2019
HORN Antenna SCHWARZBECK	BBHA 9170	BBHA9170241	Nov. 25, 2018	Nov. 24, 2019
Loop Antenna TESEQ	HLA 6121	45745	Jul. 01, 2019	Jun. 30, 2020
Preamplifier Agilent (Below 1GHz)	8447D	2944A10638	Jul. 11, 2019	Jul. 10, 2020
Preamplifier Agilent (Above 1GHz)	8449B	3008A02367	Feb. 19, 2019	Feb. 18, 2020
RF signal cable HUBER+SUHNER&EMCI	SUCOFLEX 104 & EMC104-SM-SM8000	CABLE-CH9-02 (248780+171006)	Jan. 19, 2019	Jan. 18, 2020
RF signal cable HUBER+SUHNER	SUCOFLEX 104	CABLE-CH9-(250795/4)	Jul. 11, 2019	Jul. 10, 2020
RF signal cable Woken	8D-FB	Cable-CH9-01	Jul. 30, 2019	Jul. 29, 2020
Software BV ADT	ADT_Radiated_ V7.6.15.9.5	NA	NA	NA
Antenna Tower EMCO	2070/2080	512.835.4684	NA	NA
Turn Table EMCO	2087-2.03	NA	NA	NA
Antenna Tower & Turn BV ADT	AT100	AT93021705	NA	NA
Turn Table BV ADT	TT100	TT93021705	NA	NA
Turn Table Controller BV ADT	SC100	SC93021705	NA	NA
Boresight Antenna Fixture	FBA-01	FBA-SIP01	NA	NA
Pre-amplifier (18GHz- 40GHz) EMC	EMC184045B	980175	Nov. 14, 2018	Nov. 13, 2019
USB Wideband Power Sensor KEYSIGHT	U2021XA	MY55050005/MY55190 004/MY55190007/MY55 210005	Jul. 15, 2019	Jul. 14, 2020

- Note: 1. The calibration interval of the above test instruments is 12 months and the calibrations are traceable to NML/ROC and NIST/USA.
 2. The test was performed in HwaYa Chamber 9.

4.1.3 Test Procedures

For Radiated emission below 30MHz

- a. The EUT was placed on the top of a rotating table 0.8 meters above the ground at a 3 meter chamber room. The table was rotated 360 degrees to determine the position of the highest radiation.
- b. The EUT was set 3 meters away from the interference-receiving antenna, which was mounted on the top of a variable-height antenna tower.
- c. Parallel, perpendicular, and ground-parallel orientations of the antenna are set to make the measurement.
- d. For each suspected emission, the EUT was arranged to its worst case and the rotatable table was turned from 0 degrees to 360 degrees to find the maximum reading.
- e. The test-receiver system was set to Quasi-Peak Detect Function and Specified Bandwidth with Maximum Hold Mode.

Note:

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

For Radiated emission above 30MHz

- a. The EUT was placed on the top of a rotating table 0.8 meters (for 30MHz ~ 1GHz) / 1.5 meters (for above 1GHz) above the ground at 3 meter chamber room for test. The table was rotated 360 degrees to determine the position of the highest radiation.
- b. The EUT was set 3 meters away from the interference-receiving antenna, which was mounted on the top of a variable-height antenna tower.
- c. The height of antenna is varied from one meter to four meters above the ground to determine the maximum value of the field strength. Both horizontal and vertical polarizations of the antenna are set to make the measurement.
- d. For each suspected emission, the EUT was arranged to its worst case and then the antenna was tuned to heights from 1 meter to 4 meters and the rotatable table was turned from 0 degrees to 360 degrees to find the maximum reading.
- e. The test-receiver system was set to quasi-peak detect function and specified bandwidth with maximum hold mode when the test frequency is below 1 GHz.
- f. The test-receiver system was set to peak and average 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:

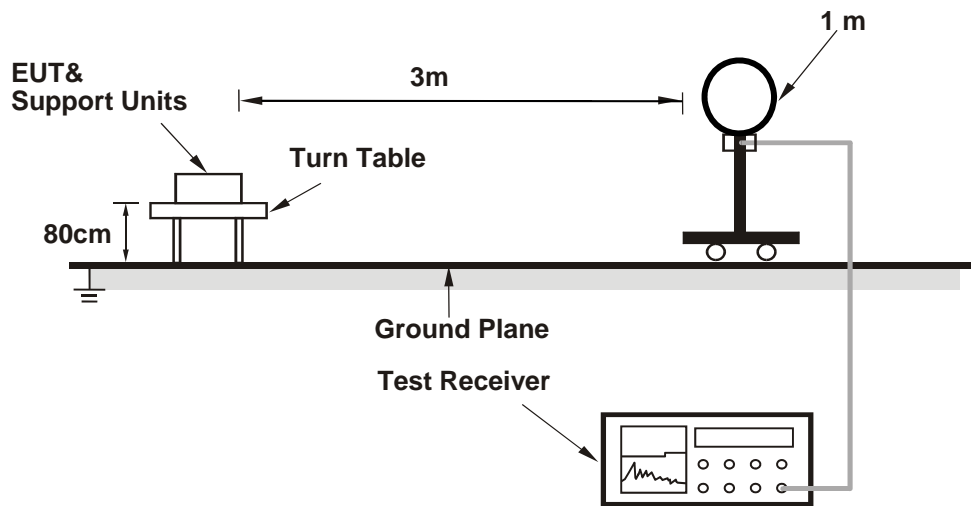
1. The resolution bandwidth and video bandwidth of test receiver/spectrum analyzer is 120kHz for Quasi-peak detection (QP) at frequency below 1GHz.
2. The resolution bandwidth of test receiver/spectrum analyzer is 1 MHz and the video bandwidth is 3 MHz for Peak detection (PK) at frequency above 1GHz.
3. The resolution bandwidth of test receiver/spectrum analyzer is 1MHz and the video bandwidth is $\geq 1/T$ (Duty cycle < 98%) or 10Hz (Duty cycle $\geq 98\%$) for Average detection (AV) at frequency above 1GHz.
(802.11a: RBW = 1MHz, VBW = 1kHz; 802.11ac (VHT20): RBW = 1MHz, VBW = 1kHz;
802.11ac (VHT40): RBW = 1MHz, VBW = 3kHz; 11ac (VHT80): RBW = 1MHz, VBW = 10kHz)
4. All modes of operation were investigated and the worst-case emissions are reported.

4.1.4 Deviation from Test Standard

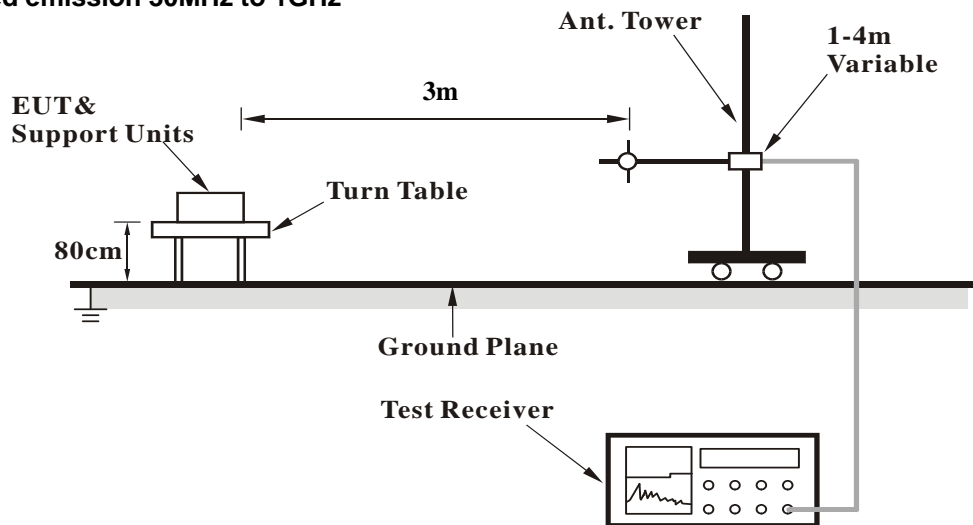
No deviation.

4.1.5 Test Set Up

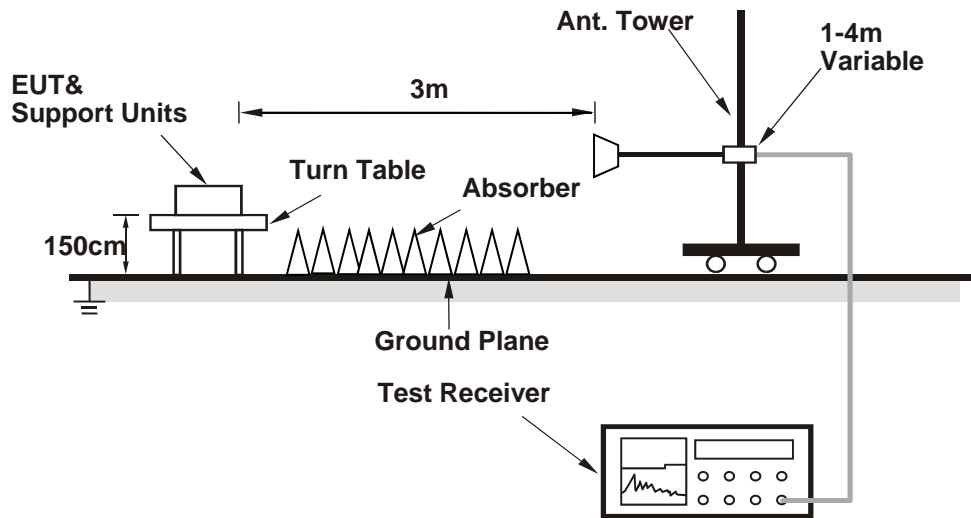
For Radiated emission below 30MHz



For Radiated emission 30MHz to 1GHz



For Radiated emission above 1GHz



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

4.1.6 EUT Operating Conditions

Set the EUT under transmission condition continuously at specific channel frequency.

4.1.7 Test Results

Above 1GHz data:

802.11a

CHANNEL	TX Channel 36	DETECTOR FUNCTION	Peak (PK)
FREQUENCY RANGE	1GHz ~ 40GHz		Average (AV)

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	5150.00	62.3 PK	74.0	-11.7	1.22 H	59	56.3	6.0
2	5150.00	48.7 AV	54.0	-5.3	1.22 H	59	42.7	6.0
3	*5180.00	109.3 PK			1.20 H	63	69.9	39.4
4	*5180.00	99.3 AV			1.20 H	63	59.9	39.4
5	#10360.00	60.3 PK	68.2	-7.9	1.60 H	260	42.5	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	1.87 V	280	53.5	6.0
2	5150.00	46.7 AV	54.0	-7.3	1.87 V	280	40.7	6.0
3	*5180.00	102.8 PK			1.87 V	277	63.4	39.4
4	*5180.00	91.4 AV			1.87 V	277	52.0	39.4
5	#10360.00	61.0 PK	68.2	-7.2	2.01 V	105	43.2	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) – Pre-Amplifier 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)
FREQUENCY RANGE	1GHz ~ 40GHz		Average (AV)

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5200.00	107.8 PK			1.57 H	63	68.3	39.5
2	*5200.00	98.2 AV			1.57 H	63	58.7	39.5
3	#10400.00	59.9 PK	68.2	-8.3	1.78 H	182	42.2	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	100.5 PK			1.80 V	274	61.0	39.5
2	*5200.00	89.5 AV			1.80 V	274	50.0	39.5
3	#10400.00	60.8 PK	68.2	-7.4	1.96 V	100	43.1	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) – Pre-Amplifier 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)
FREQUENCY RANGE	1GHz ~ 40GHz		Average (AV)

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M

NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5240.00	109.1 PK			1.57 H	68	69.5	39.6
2	*5240.00	99.6 AV			1.57 H	68	60.0	39.6
3	5350.00	58.1 PK	74.0	-15.9	1.57 H	55	51.6	6.5
4	5350.00	46.6 AV	54.0	-7.4	1.57 H	55	40.1	6.5
5	#10480.00	61.1 PK	68.2	-7.1	2.00 H	189	42.4	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	*5240.00	99.1 PK			1.82 V	275	59.5	39.6
2	*5240.00	89.7 AV			1.82 V	275	50.1	39.6
3	5350.00	58.2 PK	74.0	-15.8	1.80 V	280	51.7	6.5
4	5350.00	47.4 AV	54.0	-6.6	1.80 V	280	40.9	6.5
5	#10480.00	62.2 PK	68.2	-6.0	1.66 V	170	43.5	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) – Pre-Amplifier 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 52	DETECTOR FUNCTION	Peak (PK)
FREQUENCY RANGE	1GHz ~ 40GHz		Average (AV)

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	5150.00	56.6 PK	74.0	-17.4	1.19 H	273	50.6	6.0
2	5150.00	45.0 AV	54.0	-9.0	1.19 H	273	39.0	6.0
3	*5260.00	110.1 PK			1.10 H	66	70.5	39.6
4	*5260.00	100.1 AV			1.10 H	66	60.5	39.6
5	#10520.00	60.8 PK	68.2	-7.4	1.69 H	212	41.9	18.9

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	55.9 PK	74.0	-18.1	1.79 V	122	49.9	6.0
2	5150.00	44.5 AV	54.0	-9.5	1.79 V	122	38.5	6.0
3	*5260.00	101.2 PK			1.80 V	275	61.6	39.6
4	*5260.00	91.9 AV			1.80 V	275	52.3	39.6
5	#10520.00	60.8 PK	68.2	-7.4	1.58 V	56	41.9	18.9

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

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

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5300.00	109.3 PK			1.15 H	69	69.6	39.7
2	*5300.00	100.0 AV			1.15 H	69	60.3	39.7
3	10600.00	61.0 PK	74.0	-13.0	1.74 H	232	42.1	18.9
4	10600.00	48.2 AV	54.0	-5.8	1.74 H	232	29.3	18.9
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	*5300.00	98.4 PK			1.81 V	243	58.7	39.7
2	*5300.00	89.0 AV			1.81 V	243	49.3	39.7
3	10600.00	61.5 PK	74.0	-12.5	1.59 V	352	42.6	18.9
4	10600.00	48.5 AV	54.0	-5.5	1.59 V	352	29.6	18.9

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

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

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5320.00	111.4 PK			1.25 H	63	71.7	39.7
2	*5320.00	100.4 AV			1.25 H	63	60.7	39.7
3	5350.00	65.4 PK	74.0	-8.6	1.14 H	70	58.9	6.5
4	5350.00	50.1 AV	54.0	-3.9	1.14 H	70	43.6	6.5
5	10640.00	60.8 PK	74.0	-13.2	1.45 H	349	42.0	18.8
6	10640.00	48.0 AV	54.0	-6.0	1.45 H	349	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	*5320.00	98.2 PK			1.80 V	244	58.5	39.7
2	*5320.00	88.4 AV			1.80 V	244	48.7	39.7
3	5350.00	58.5 PK	74.0	-15.5	1.99 V	211	52.0	6.5
4	5350.00	47.0 AV	54.0	-7.0	1.99 V	211	40.5	6.5
5	10640.00	62.1 PK	74.0	-11.9	1.55 V	222	43.3	18.8
6	10640.00	49.2 AV	54.0	-4.8	1.55 V	222	30.4	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) – Pre-Amplifier Factor(dB)
3. The other emission levels were very low against the limit.
4. Margin value = Emission Level – Limit value
5. " * ": Fundamental frequency.
6. " # ": The radiated frequency is out of the restricted band.

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

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	5460.00	63.7 PK	74.0	-10.3	1.17 H	66	56.8	6.9
2	5460.00	48.0 AV	54.0	-6.0	1.17 H	66	41.1	6.9
3	#5470.00	68.1 PK	68.2	-0.1	1.17 H	66	61.2	6.9
4	*5500.00	110.9 PK			1.12 H	65	70.7	40.2
5	*5500.00	101.4 AV			1.12 H	65	61.2	40.2
6	11000.00	62.3 PK	74.0	-11.7	1.58 H	240	42.4	19.9
7	11000.00	49.1 AV	54.0	-4.9	1.58 H	240	29.2	19.9
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	5460.00	59.6 PK	74.0	-14.4	1.91 V	20	52.7	6.9
2	5460.00	46.4 AV	54.0	-7.6	1.91 V	20	39.5	6.9
3	#5470.00	59.9 PK	68.2	-8.3	1.91 V	19	53.0	6.9
4	*5500.00	103.8 PK			1.99 V	95	63.6	40.2
5	*5500.00	94.4 AV			1.99 V	95	54.2	40.2
6	11000.00	62.4 PK	74.0	-11.6	1.56 V	279	42.5	19.9
7	11000.00	48.9 AV	54.0	-5.1	1.56 V	279	29.0	19.9

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

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

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M

NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5580.00	109.9 PK			1.22 H	69	69.6	40.3
2	*5580.00	100.6 AV			1.22 H	69	60.3	40.3
3	11160.00	61.7 PK	74.0	-12.3	1.49 H	269	42.3	19.4
4	11160.00	48.5 AV	54.0	-5.5	1.49 H	269	29.1	19.4

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	*5580.00	103.2 PK			1.97 V	97	62.9	40.3
2	*5580.00	94.0 AV			1.97 V	97	53.7	40.3
3	11160.00	61.8 PK	74.0	-12.2	1.66 V	177	42.4	19.4
4	11160.00	48.7 AV	54.0	-5.3	1.66 V	177	29.3	19.4

Remarks:

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

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

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5700.00	109.4 PK			1.16 H	69	69.0	40.4
2	*5700.00	99.9 AV			1.16 H	69	59.5	40.4
3	#5725.00	67.8 PK	68.2	-0.4	1.25 H	69	60.4	7.4
4	11140.00	62.1 PK	74.0	-11.9	1.61 H	296	42.8	19.3
5	11140.00	48.8 AV	54.0	-5.2	1.61 H	296	29.5	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	*5700.00	100.9 PK			1.93 V	84	60.5	40.4
2	*5700.00	91.6 AV			1.93 V	84	51.2	40.4
3	#5725.00	64.4 PK	68.2	-3.8	2.52 V	87	57.0	7.4
4	11400.00	62.3 PK	74.0	-11.7	1.89 V	99	43.5	18.8
5	11400.00	49.1 AV	54.0	-4.9	1.89 V	99	30.3	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) – Pre-Amplifier Factor(dB)
3. The other emission levels were very low against the limit.
4. Margin value = Emission Level – Limit value
5. " * ": Fundamental frequency.
6. " # ": The radiated frequency is out of the restricted band.

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

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5720.00	109.1 PK			1.29 H	77	68.6	40.5
2	*5720.00	97.6 AV			1.29 H	77	57.1	40.5
3	11440.00	60.8 PK	74.0	-13.2	1.81 H	96	42.1	18.7
4	11440.00	47.9 AV	54.0	-6.1	1.81 H	96	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	*5720.00	98.0 PK			2.33 V	274	57.5	40.5
2	*5720.00	88.4 AV			2.33 V	274	47.9	40.5
3	11440.00	61.1 PK	74.0	-12.9	1.91 V	209	42.4	18.7
4	11440.00	48.0 AV	54.0	-6.0	1.91 V	209	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) – Pre-Amplifier 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)
FREQUENCY RANGE	1GHz ~ 40GHz		Average (AV)

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	#5649.60	54.5 PK	68.2	-13.7	1.10 H	72	50.1	4.4
2	#5714.90	72.4 PK	109.4	-37.0	1.10 H	72	65.0	7.4
3	#5722.00	76.0 PK	115.4	-39.4	1.22 H	68	68.6	7.4
4	#5725.00	65.1 PK	122.2	-57.1	1.22 H	68	57.7	7.4
5	*5745.00	109.2 PK			1.10 H	72	68.7	40.5
6	*5745.00	99.2 AV			1.10 H	72	58.7	40.5
7	#5942.40	55.0 PK	68.2	-13.2	1.10 H	72	49.6	5.4
8	11490.00	60.6 PK	74.0	-13.4	1.56 H	266	41.9	18.7
9	11490.00	47.8 AV	54.0	-6.2	1.56 H	266	29.1	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	#5646.40	54.4 PK	68.2	-13.8	2.76 V	87	50.0	4.4
2	#5714.00	64.2 PK	109.4	-45.2	2.76 V	87	56.8	7.4
3	#5722.00	70.1 PK	115.4	-45.3	2.56 V	90	62.7	7.4
4	#5725.00	57.5 PK	122.2	-64.7	2.56 V	90	50.1	7.4
5	*5745.00	104.8 PK			2.76 V	87	64.3	40.5
6	*5745.00	95.3 AV			2.76 V	87	54.8	40.5
7	#5957.60	55.1 PK	68.2	-13.1	2.76 V	87	49.7	5.4
8	11490.00	61.4 PK	74.0	-12.6	2.10 V	310	42.7	18.7
9	11490.00	48.6 AV	54.0	-5.4	2.10 V	310	29.9	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) – Pre-Amplifier 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	#5639.20	53.8 PK	68.2	-14.4	1.07 H	67	49.4	4.4
2	*5785.00	110.0 PK			1.07 H	67	69.4	40.6
3	*5785.00	100.5 AV			1.07 H	67	59.9	40.6
4	#5928.80	55.5 PK	68.2	-12.7	1.07 H	67	50.1	5.4
5	11570.00	61.2 PK	74.0	-12.8	1.50 H	120	42.5	18.7
6	11570.00	48.0 AV	54.0	-6.0	1.50 H	120	29.3	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	#5618.40	54.1 PK	68.2	-14.1	2.71 V	96	49.6	4.5
2	*5785.00	106.5 PK			2.71 V	96	65.9	40.6
3	*5785.00	97.0 AV			2.71 V	96	56.4	40.6
4	#5958.40	55.5 PK	68.2	-12.7	2.71 V	96	50.1	5.4
5	11570.00	61.7 PK	74.0	-12.3	2.20 V	199	43.0	18.7
6	11570.00	48.6 AV	54.0	-5.4	2.20 V	199	29.9	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) – Pre-Amplifier 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)
FREQUENCY RANGE	1GHz ~ 40GHz		Average (AV)

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M

NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	#5616.80	55.2 PK	68.2	-13.0	1.14 H	74	50.7	4.5
2	*5825.00	110.3 PK			1.14 H	74	69.7	40.6
3	*5825.00	101.3 AV			1.14 H	74	60.7	40.6
4	#5850.00	58.1 PK	122.2	-64.1	1.20 H	56	50.5	7.6
5	#5852.00	70.2 PK	117.6	-47.4	1.20 H	56	62.5	7.7
6	#5861.00	65.5 PK	109.1	-43.6	1.27 H	67	57.8	7.7
7	#5948.80	55.4 PK	68.2	-12.8	1.14 H	74	50.0	5.4
8	11650.00	61.4 PK	74.0	-12.6	1.67 H	100	42.2	19.2
9	11650.00	48.2 AV	54.0	-5.8	1.67 H	100	29.0	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	#5621.60	54.5 PK	68.2	-13.7	2.67 V	79	50.1	4.4
2	*5825.00	105.5 PK			2.67 V	79	64.9	40.6
3	*5825.00	96.1 AV			2.67 V	79	55.5	40.6
4	#5850.00	64.5 PK	122.2	-57.7	2.71 V	90	56.9	7.6
5	#5852.00	55.5 PK	117.6	-62.1	2.71 V	90	47.8	7.7
6	#5861.00	60.0 PK	109.1	-49.1	2.57 V	86	52.3	7.7
7	#5938.40	55.5 PK	68.2	-12.7	2.67 V	79	50.1	5.4
8	11650.00	61.9 PK	74.0	-12.1	2.34 V	123	42.7	19.2
9	11650.00	48.8 AV	54.0	-5.2	2.34 V	123	29.6	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) – Pre-Amplifier 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)
FREQUENCY RANGE	1GHz ~ 40GHz		Average (AV)

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M

NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	5150.00	65.5 PK	74.0	-8.5	1.16 H	68	61.4	4.1
2	5150.00	46.4 AV	54.0	-7.6	1.16 H	68	42.3	4.1
3	*5180.00	107.4 PK			1.26 H	76	68.9	38.5
4	*5180.00	97.1 AV			1.26 H	76	58.6	38.5
5	#10360.00	56.8 PK	74.0	-17.2	1.70 H	271	40.3	16.5

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	5150.00	62.6 PK	74.0	-11.4	3.47 V	118	58.5	4.1
2	5150.00	44.4 AV	54.0	-9.6	3.47 V	118	40.3	4.1
3	*5180.00	103.4 PK			3.53 V	126	64.9	38.5
4	*5180.00	92.6 AV			3.53 V	126	54.1	38.5
5	#10360.00	55.9 PK	68.2	-12.3	2.23 V	235	39.4	16.5

Remarks:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB)
3. 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	Peak (PK)
FREQUENCY RANGE	1GHz ~ 40GHz	FUNCTION	Average (AV)

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5200.00	107.9 PK			1.28 H	79	69.5	38.4
2	*5200.00	97.6 AV			1.28 H	79	59.2	38.4
3	#10400.00	57.1 PK	68.2	-11.1	1.67 H	262	40.6	16.5
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	*5200.00	103.5 PK			3.56 V	128	65.1	38.4
2	*5200.00	93.2 AV			3.56 V	128	54.8	38.4
3	#10400.00	56.2 PK	68.2	-12.0	2.12 V	237	39.7	16.5

Remarks:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB)
3. 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)
FREQUENCY RANGE	1GHz ~ 40GHz		Average (AV)

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M

NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5240.00	107.4 PK			1.24 H	86	69.1	38.3
2	*5240.00	97.0 AV			1.24 H	86	58.7	38.3
3	5350.00	56.2 PK	74.0	-17.8	1.17 H	75	52.3	3.9
4	5350.00	43.6 AV	54.0	-10.4	1.17 H	75	39.7	3.9
5	#10480.00	56.8 PK	68.2	-11.4	1.62 H	274	40.5	16.3

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	*5240.00	103.0 PK			3.48 V	121	64.7	38.3
2	*5240.00	92.7 AV			3.48 V	121	54.4	38.3
3	5350.00	55.3 PK	74.0	-18.7	3.37 V	129	51.4	3.9
4	5350.00	42.7 AV	54.0	-11.3	3.37 V	129	38.8	3.9
5	#10480.00	56.0 PK	68.2	-12.2	2.27 V	236	39.7	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) – Pre-Amplifier 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 52	DETECTOR FUNCTION	Peak (PK)
FREQUENCY RANGE	1GHz ~ 40GHz		Average (AV)

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M

NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	5150.00	55.4 PK	74.0	-18.6	1.21 H	83	51.3	4.1
2	5150.00	44.5 AV	54.0	-9.5	1.21 H	83	40.4	4.1
3	*5260.00	107.4 PK			1.26 H	79	69.2	38.2
4	*5260.00	96.6 AV			1.26 H	79	58.4	38.2
5	#10520.00	56.8 PK	68.2	-11.4	1.62 H	284	40.5	16.3

ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M

NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	5150.00	54.4 PK	74.0	-19.6	3.51 V	127	50.3	4.1
2	5150.00	43.7 AV	54.0	-10.3	3.51 V	127	39.6	4.1
3	*5260.00	103.1 PK			3.58 V	134	64.9	38.2
4	*5260.00	92.4 AV			3.58 V	134	54.2	38.2
5	#10520.00	56.0 PK	68.2	-12.2	2.26 V	237	39.7	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) – Pre-Amplifier Factor(dB)
3. The other emission levels were very low against the limit.
4. Margin value = Emission Level – Limit value
5. " * ": Fundamental frequency.
6. " # ": The radiated frequency is out of the restricted band.

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

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5300.00	107.5 PK			1.29 H	82	69.4	38.1
2	*5300.00	96.8 AV			1.29 H	82	58.7	38.1
3	10600.00	56.9 PK	74.0	-17.1	1.67 H	281	40.4	16.5
4	10600.00	43.8 AV	54.0	-10.2	1.67 H	281	27.3	16.5
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	*5300.00	103.3 PK			3.52 V	123	65.2	38.1
2	*5300.00	92.5 AV			3.52 V	123	54.4	38.1
3	10600.00	56.3 PK	74.0	-17.7	2.18 V	237	39.8	16.5
4	10600.00	43.1 AV	54.0	-10.9	2.18 V	237	26.6	16.5

Remarks:

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

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

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5320.00	108.0 PK			1.27 H	80	69.8	38.2
2	*5320.00	97.4 AV			1.27 H	80	59.2	38.2
3	5350.00	56.5 PK	74.0	-17.5	1.20 H	74	52.6	3.9
4	5350.00	45.2 AV	54.0	-8.8	1.20 H	74	41.3	3.9
5	10640.00	57.4 PK	74.0	-16.6	1.73 H	277	40.7	16.7
6	10640.00	44.1 AV	54.0	-9.9	1.73 H	277	27.4	16.7
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	*5320.00	103.6 PK			3.53 V	127	65.4	38.2
2	*5320.00	93.0 AV			3.53 V	127	54.8	38.2
3	5350.00	54.7 PK	74.0	-19.3	3.47 V	116	50.8	3.9
4	5350.00	44.2 AV	54.0	-9.8	3.47 V	116	40.3	3.9
5	10640.00	56.4 PK	74.0	-17.6	2.26 V	238	39.7	16.7
6	10640.00	43.3 AV	54.0	-10.7	2.26 V	238	26.6	16.7

Remarks:

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

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

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	5460.00	57.8 PK	74.0	-16.2	1.17 H	74	53.4	4.4
2	5460.00	44.7 AV	54.0	-9.3	1.17 H	74	40.3	4.4
3	#5470.00	65.1 PK	68.2	-3.1	1.21 H	72	60.6	4.5
4	*5500.00	108.0 PK			1.16 H	77	69.2	38.8
5	*5500.00	97.1 AV			1.16 H	77	58.3	38.8
6	11000.00	58.8 PK	74.0	-15.2	1.65 H	287	40.4	18.4
7	11000.00	45.7 AV	54.0	-8.3	1.65 H	287	27.3	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	5460.00	56.1 PK	74.0	-17.9	3.37 V	138	51.7	4.4
2	5460.00	44.0 AV	54.0	-10.0	3.37 V	138	39.6	4.4
3	#5470.00	63.2 PK	68.2	-5.0	3.43 V	142	58.7	4.5
4	*5500.00	103.4 PK			3.53 V	148	64.6	38.8
5	*5500.00	92.7 AV			3.53 V	148	53.9	38.8
6	11000.00	58.1 PK	74.0	-15.9	2.07 V	246	39.7	18.4
7	11000.00	45.2 AV	54.0	-8.8	2.07 V	246	26.8	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) – Pre-Amplifier Factor(dB)
3. The other emission levels were very low against the limit.
4. Margin value = Emission Level – Limit value
5. " * ": Fundamental frequency.
6. " # ": The radiated frequency is out of the restricted band.

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

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M

NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5580.00	108.0 PK			1.22 H	79	69.3	38.7
2	*5580.00	97.5 AV			1.22 H	79	58.8	38.7
3	11160.00	57.4 PK	74.0	-16.6	1.62 H	276	40.3	17.1
4	11160.00	44.3 AV	54.0	-9.7	1.62 H	276	27.2	17.1

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	*5580.00	103.6 PK			3.49 V	134	64.9	38.7
2	*5580.00	93.1 AV			3.49 V	134	54.4	38.7
3	11160.00	56.7 PK	74.0	-17.3	2.16 V	244	39.6	17.1
4	11160.00	43.6 AV	54.0	-10.4	2.16 V	244	26.5	17.1

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

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

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5700.00	108.3 PK			1.03 H	74	69.4	38.9
2	*5700.00	97.8 AV			1.03 H	74	58.9	38.9
3	#5725.00	67.2 PK	68.2	-1.0	1.05 H	74	62.6	4.6
4	11400.00	57.7 PK	74.0	-16.3	1.69 H	276	40.2	17.5
5	11400.00	44.5 AV	54.0	-9.5	1.69 H	276	27.0	17.5

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	*5700.00	104.1 PK			3.56 V	141	65.2	38.9
2	*5700.00	93.5 AV			3.56 V	141	54.6	38.9
3	#5725.00	65.3 PK	68.2	-2.9	3.48 V	137	60.7	4.6
4	11400.00	57.0 PK	74.0	-17.0	2.18 V	239	39.5	17.5
5	11400.00	43.9 AV	54.0	-10.1	2.18 V	239	26.4	17.5

Remarks:

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

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

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	#5470.00	56.9 PK	68.2	-11.3	1.18 H	83	52.4	4.5
2	*5720.00	107.3 PK			1.20 H	75	68.4	38.9
3	*5720.00	96.8 AV			1.20 H	75	57.9	38.9
4	#5850.00	56.5 PK	68.2	-11.7	1.17 H	76	51.6	4.9
5	11440.00	57.6 PK	74.0	-16.4	1.65 H	273	40.4	17.2
6	11440.00	44.5 AV	54.0	-9.5	1.65 H	273	27.3	17.2

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	#5470.00	55.3 PK	68.2	-12.9	3.46 V	132	50.8	4.5
2	*5720.00	103.1 PK			3.54 V	135	64.2	38.9
3	*5720.00	92.5 AV			3.54 V	135	53.6	38.9
4	#5850.00	55.2 PK	68.2	-13.0	3.41 V	130	50.3	4.9
5	11440.00	57.0 PK	74.0	-17.0	2.17 V	241	39.8	17.2
6	11440.00	43.9 AV	54.0	-10.1	2.17 V	241	26.7	17.2

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) – Pre-Amplifier 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)
FREQUENCY RANGE	1GHz ~ 40GHz		Average (AV)

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	#5608.80	53.5 PK	68.2	-14.7	1.06 H	77	49.1	4.4
2	*5745.00	107.9 PK			1.06 H	77	68.9	39.0
3	*5745.00	97.5 AV			1.06 H	77	58.5	39.0
4	#5954.40	53.6 PK	68.2	-14.6	1.06 H	77	48.3	5.3
5	11490.00	57.2 PK	74.0	-16.8	1.73 H	285	40.4	16.8
6	11490.00	44.1 AV	54.0	-9.9	1.73 H	285	27.3	16.8

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	#5612.00	53.8 PK	68.2	-14.4	3.53 V	129	49.4	4.4
2	*5745.00	103.6 PK			3.53 V	129	64.6	39.0
3	*5745.00	93.2 AV			3.53 V	129	54.2	39.0
4	#5927.20	54.0 PK	68.2	-14.2	3.53 V	129	48.7	5.3
5	11490.00	56.5 PK	74.0	-17.5	2.11 V	240	39.7	16.8
6	11490.00	43.4 AV	54.0	-10.6	2.11 V	240	26.6	16.8

Remarks:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB)
3. 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	#5609.60	53.0 PK	68.2	-15.2	1.30 H	78	48.6	4.4
2	*5785.00	108.7 PK			1.30 H	78	69.5	39.2
3	*5785.00	97.8 AV			1.30 H	78	58.6	39.2
4	#5960.80	53.1 PK	68.2	-15.1	1.30 H	78	47.7	5.4
5	11570.00	57.1 PK	74.0	-16.9	1.66 H	283	40.5	16.6
6	11570.00	44.0 AV	54.0	-10.0	1.66 H	283	27.4	16.6

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	#5612.80	54.2 PK	68.2	-14.0	3.47 V	138	49.8	4.4
2	*5785.00	104.3 PK			3.47 V	138	65.1	39.2
3	*5785.00	93.4 AV			3.47 V	138	54.2	39.2
4	#5958.40	54.7 PK	68.2	-13.5	3.47 V	138	49.4	5.3
5	11570.00	56.6 PK	74.0	-17.4	2.13 V	249	40.0	16.6
6	11570.00	43.5 AV	54.0	-10.5	2.13 V	249	26.9	16.6

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) – Pre-Amplifier 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)
FREQUENCY RANGE	1GHz ~ 40GHz		Average (AV)

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	#5638.40	53.2 PK	68.2	-15.0	1.17 H	78	48.6	4.6
2	*5825.00	107.9 PK			1.17 H	78	68.5	39.4
3	*5825.00	97.0 AV			1.17 H	78	57.6	39.4
4	#5988.80	53.7 PK	68.2	-14.5	1.17 H	78	48.4	5.3
5	11650.00	56.9 PK	74.0	-17.1	1.79 H	277	40.4	16.5
6	11650.00	43.7 AV	54.0	-10.3	1.79 H	277	27.2	16.5

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	#5648.00	53.1 PK	68.2	-15.1	3.54 V	136	48.5	4.6
2	*5825.00	103.5 PK			3.54 V	136	64.1	39.4
3	*5825.00	92.7 AV			3.54 V	136	53.3	39.4
4	#5938.40	53.9 PK	68.2	-14.3	3.54 V	136	48.6	5.3
5	11650.00	56.3 PK	74.0	-17.7	2.11 V	247	39.8	16.5
6	11650.00	43.2 AV	54.0	-10.8	2.11 V	247	26.7	16.5

Remarks:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB)
3. 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)
FREQUENCY RANGE	1GHz ~ 40GHz		Average (AV)

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M

NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	5150.00	66.8 PK	74.0	-7.2	1.26 H	83	62.7	4.1
2	5150.00	52.7 AV	54.0	-1.3	1.26 H	83	48.6	4.1
3	*5190.00	105.6 PK			1.22 H	84	67.2	38.4
4	*5190.00	94.7 AV			1.22 H	84	56.3	38.4
5	#10380.00	57.1 PK	68.2	-11.1	1.76 H	263	40.5	16.6

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	65.9 PK	74.0	-8.1	3.42 V	131	61.8	4.1
2	5150.00	50.4 AV	54.0	-3.6	3.42 V	131	46.3	4.1
3	*5190.00	101.3 PK			3.49 V	124	62.9	38.4
4	*5190.00	90.5 AV			3.49 V	124	52.1	38.4
5	#10380.00	56.2 PK	68.2	-12.0	2.16 V	243	39.6	16.6

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) – Pre-Amplifier 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)
FREQUENCY RANGE	1GHz ~ 40GHz		Average (AV)

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5230.00	104.8 PK			1.25 H	85	66.6	38.2
2	*5230.00	93.6 AV			1.25 H	85	55.4	38.2
3	5350.00	55.7 PK	74.0	-18.3	1.35 H	74	51.8	3.9
4	5350.00	44.2 AV	54.0	-9.8	1.35 H	74	40.3	3.9
5	#10460.00	56.7 PK	68.2	-11.5	1.82 H	271	40.4	16.3

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	*5230.00	100.5 PK			3.53 V	132	62.3	38.2
2	*5230.00	89.4 AV			3.53 V	132	51.2	38.2
3	5350.00	54.6 PK	74.0	-19.4	3.46 V	125	50.7	3.9
4	5350.00	43.5 AV	54.0	-10.5	3.46 V	125	39.6	3.9
5	#10460.00	55.8 PK	68.2	-12.4	2.14 V	245	39.5	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) – Pre-Amplifier 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 54	DETECTOR FUNCTION	Peak (PK)
FREQUENCY RANGE	1GHz ~ 40GHz		Average (AV)

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M

NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	5150.00	55.5 PK	74.0	-18.5	1.32 H	85	51.4	4.1
2	5150.00	45.4 AV	54.0	-8.6	1.32 H	85	41.3	4.1
3	*5270.00	105.4 PK			1.21 H	84	67.2	38.2
4	*5270.00	95.0 AV			1.21 H	84	56.8	38.2
5	#10540.00	56.6 PK	68.2	-11.6	1.62 H	281	40.2	16.4

ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M

NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	5150.00	54.4 PK	74.0	-19.6	3.49 V	117	50.3	4.1
2	5150.00	43.9 AV	54.0	-10.1	3.49 V	117	39.8	4.1
3	*5270.00	101.3 PK			3.57 V	125	63.1	38.2
4	*5270.00	90.8 AV			3.57 V	125	52.6	38.2
5	#10540.00	56.1 PK	68.2	-12.1	2.27 V	231	39.7	16.4

Remarks:

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

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

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5310.00	104.9 PK			1.36 H	84	66.7	38.2
2	*5310.00	94.3 AV			1.36 H	84	56.1	38.2
3	5350.00	67.1 PK	74.0	-6.9	1.31 H	74	63.2	3.9
4	5350.00	47.3 AV	54.0	-6.7	1.31 H	74	43.4	3.9
5	10620.00	57.2 PK	74.0	-16.8	1.84 H	265	40.5	16.7
6	10620.00	44.0 AV	54.0	-10.0	1.84 H	265	27.3	16.7

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	*5310.00	100.6 PK			3.51 V	129	62.4	38.2
2	*5310.00	90.0 AV			3.51 V	129	51.8	38.2
3	5350.00	64.2 PK	74.0	-9.8	3.46 V	113	60.3	3.9
4	5350.00	45.6 AV	54.0	-8.4	3.46 V	113	41.7	3.9
5	10620.00	56.2 PK	74.0	-17.8	2.17 V	242	39.5	16.7
6	10620.00	43.1 AV	54.0	-10.9	2.17 V	242	26.4	16.7

Remarks:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB)
3. The other emission levels were very low against the limit.
4. Margin value = Emission Level – Limit value
5. " * ": Fundamental frequency.

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

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	5460.00	59.2 PK	74.0	-14.8	1.12 H	67	54.8	4.4
2	5460.00	45.6 AV	54.0	-8.4	1.12 H	67	41.2	4.4
3	#5470.00	63.7 PK	68.2	-4.5	1.09 H	71	59.2	4.5
4	*5510.00	104.5 PK			1.13 H	75	65.7	38.8
5	*5510.00	93.7 AV			1.13 H	75	54.9	38.8
6	11020.00	58.3 PK	74.0	-15.7	1.74 H	283	40.2	18.1
7	11020.00	45.2 AV	54.0	-8.8	1.74 H	283	27.1	18.1

ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	5460.00	57.1 PK	74.0	-16.9	3.36 V	124	52.7	4.4
2	5460.00	44.6 AV	54.0	-9.4	3.36 V	124	40.2	4.4
3	#5470.00	61.9 PK	68.2	-6.3	3.42 V	127	57.4	4.5
4	*5510.00	100.3 PK			3.48 V	132	61.5	38.8
5	*5510.00	89.5 AV			3.48 V	132	50.7	38.8
6	11020.00	57.8 PK	74.0	-16.2	2.13 V	244	39.7	18.1
7	11020.00	44.7 AV	54.0	-9.3	2.13 V	244	26.6	18.1

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

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

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M

NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5550.00	104.5 PK			1.27 H	80	65.8	38.7
2	*5550.00	93.9 AV			1.27 H	80	55.2	38.7
3	11100.00	57.6 PK	74.0	-16.4	1.59 H	291	40.4	17.2
4	11100.00	44.5 AV	54.0	-9.5	1.59 H	291	27.3	17.2

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	*5550.00	100.2 PK			3.56 V	137	61.5	38.7
2	*5550.00	89.4 AV			3.56 V	137	50.7	38.7
3	11100.00	56.8 PK	74.0	-17.2	2.07 V	234	39.6	17.2
4	11100.00	43.7 AV	54.0	-10.3	2.07 V	234	26.5	17.2

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

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

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5670.00	105.2 PK			1.19 H	80	66.2	39.0
2	*5670.00	94.6 AV			1.19 H	80	55.6	39.0
3	#5725.00	59.0 PK	68.2	-9.2	1.13 H	74	54.4	4.6
4	11340.00	58.2 PK	74.0	-15.8	1.76 H	279	40.5	17.7
5	11340.00	45.0 AV	54.0	-9.0	1.76 H	279	27.3	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	*5670.00	100.9 PK			3.47 V	128	61.9	39.0
2	*5670.00	90.3 AV			3.47 V	128	51.3	39.0
3	#5725.00	55.8 PK	68.2	-12.4	3.42 V	122	51.2	4.6
4	11340.00	57.1 PK	74.0	-16.9	2.15 V	252	39.4	17.7
5	11340.00	44.1 AV	54.0	-9.9	2.15 V	252	26.4	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) – Pre-Amplifier Factor(dB)
3. The other emission levels were very low against the limit.
4. Margin value = Emission Level – Limit value
5. " * ": Fundamental frequency.
6. " # ": The radiated frequency is out of the restricted band.

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

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M

NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	#5470.00	55.8 PK	68.2	-12.4	1.24 H	86	51.3	4.5
2	*5710.00	105.0 PK			1.03 H	79	66.1	38.9
3	*5710.00	94.7 AV			1.03 H	79	55.8	38.9
4	#5850.00	57.5 PK	68.2	-10.7	1.31 H	82	52.6	4.9
5	11420.00	57.8 PK	74.0	-16.2	1.73 H	285	40.4	17.4
6	11420.00	44.9 AV	54.0	-9.1	1.73 H	285	27.5	17.4

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	#5470.00	54.8 PK	68.2	-13.4	3.41 V	136	50.3	4.5
2	*5710.00	100.8 PK			3.52 V	142	61.9	38.9
3	*5710.00	90.4 AV			3.52 V	142	51.5	38.9
4	#5850.00	55.5 PK	68.2	-12.7	3.43 V	133	50.6	4.9
5	11420.00	57.1 PK	74.0	-16.9	2.06 V	231	39.7	17.4
6	11420.00	44.2 AV	54.0	-9.8	2.06 V	231	26.8	17.4

Remarks:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB)
3. 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)
FREQUENCY RANGE	1GHz ~ 40GHz		Average (AV)

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	#5631.20	53.9 PK	68.2	-14.3	1.04 H	78	49.4	4.5
2	*5755.00	105.7 PK			1.04 H	76	66.6	39.1
3	*5755.00	94.9 AV			1.04 H	76	55.8	39.1
4	#5990.40	53.0 PK	68.2	-15.2	1.04 H	76	47.7	5.3
5	11510.00	57.0 PK	74.0	-17.0	1.72 H	280	40.2	16.8
6	11510.00	43.8 AV	54.0	-10.2	1.72 H	280	27.0	16.8

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	#5637.60	53.3 PK	68.2	-14.9	3.50 V	134	48.7	4.6
2	*5755.00	101.3 PK			3.50 V	134	62.2	39.1
3	*5755.00	90.5 AV			3.50 V	134	51.4	39.1
4	#5961.60	53.6 PK	68.2	-14.6	3.50 V	134	48.2	5.4
5	11510.00	56.4 PK	74.0	-17.6	2.07 V	244	39.6	16.8
6	11510.00	43.1 AV	54.0	-10.9	2.07 V	244	26.3	16.8

Remarks:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB)
3. 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)
FREQUENCY RANGE	1GHz ~ 40GHz		Average (AV)

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	#5649.60	53.7 PK	68.2	-14.5	1.29 H	79	49.1	4.6
2	*5795.00	105.1 PK			1.29 H	79	65.9	39.2
3	*5795.00	94.7 AV			1.29 H	79	55.5	39.2
4	#5946.40	53.8 PK	68.2	-14.4	1.29 H	79	48.5	5.3
5	11590.00	56.9 PK	74.0	-17.1	1.70 H	282	40.4	16.5
6	11590.00	43.8 AV	54.0	-10.2	1.70 H	282	27.3	16.5

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	#5648.80	53.6 PK	68.2	-14.6	3.52 V	130	49.0	4.6
2	*5795.00	100.9 PK			3.52 V	130	61.7	39.2
3	*5795.00	90.5 AV			3.52 V	130	51.3	39.2
4	#5991.20	54.2 PK	68.2	-14.0	3.52 V	130	48.9	5.3
5	11590.00	56.2 PK	74.0	-17.8	2.15 V	236	39.7	16.5
6	11590.00	42.9 AV	54.0	-11.1	2.15 V	236	26.4	16.5

Remarks:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB)
3. 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.

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CHANNEL	TX Channel 42	DETECTOR FUNCTION	Peak (PK)
FREQUENCY RANGE	1GHz ~ 40GHz		Average (AV)

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	5150.00	67.4 PK	74.0	-6.6	1.00 H	83	63.3	4.1
2	5150.00	53.2 AV	54.0	-0.8	1.00 H	83	49.1	4.1
3	*5210.00	102.1 PK			1.23 H	84	63.8	38.3
4	*5210.00	90.8 AV			1.23 H	84	52.5	38.3
5	5350.00	56.4 PK	74.0	-17.6	1.14 H	76	52.5	3.9
6	5350.00	45.2 AV	54.0	-8.8	1.14 H	76	41.3	3.9
7	#10420.00	56.8 PK	68.2	-11.4	1.76 H	276	40.3	16.5
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	5150.00	65.5 PK	74.0	-8.5	3.42 V	123	61.4	4.1
2	5150.00	51.3 AV	54.0	-2.7	3.42 V	123	47.2	4.1
3	*5210.00	97.9 PK			3.48 V	129	59.6	38.3
4	*5210.00	86.6 AV			3.48 V	129	48.3	38.3
5	5350.00	54.6 PK	74.0	-19.4	3.54 V	132	50.7	3.9
6	5350.00	43.8 AV	54.0	-10.2	3.54 V	132	39.9	3.9
7	#10420.00	56.1 PK	68.2	-12.1	2.16 V	237	39.6	16.5

Remarks:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB)
3. 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 58	DETECTOR FUNCTION	Peak (PK) Average (AV)
FREQUENCY RANGE	1GHz ~ 40GHz		

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M

NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5290.00	101.3 PK			1.40 H	83	63.2	38.1
2	*5290.00	89.7 AV			1.40 H	83	51.6	38.1
3	5350.00	68.0 PK	74.0	-6.0	1.24 H	79	64.1	3.9
4	5350.00	48.2 AV	54.0	-5.8	1.24 H	79	44.3	3.9
5	#10580.00	56.9 PK	68.2	-11.3	1.69 H	283	40.3	16.6

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	*5290.00	96.9 PK			3.50 V	121	58.8	38.1
2	*5290.00	85.5 AV			3.50 V	121	47.4	38.1
3	5350.00	65.6 PK	74.0	-8.4	3.44 V	118	61.7	3.9
4	5350.00	45.7 AV	54.0	-8.3	3.44 V	118	41.8	3.9
5	#10580.00	56.2 PK	68.2	-12.0	2.24 V	239	39.6	16.6

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

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

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	5460.00	61.8 PK	74.0	-12.2	1.26 H	75	57.4	4.4
2	5460.00	47.8 AV	54.0	-6.2	1.26 H	75	43.4	4.4
3	#5470.00	62.7 PK	68.2	-5.5	1.22 H	74	58.2	4.5
4	*5530.00	101.2 PK			1.20 H	78	62.5	38.7
5	*5530.00	90.3 AV			1.20 H	78	51.6	38.7
6	#5725.00	56.0 PK	68.2	-12.2	1.18 H	71	51.4	4.6
7	11060.00	58.1 PK	74.0	-15.9	1.73 H	284	40.3	17.8
8	11060.00	44.8 AV	54.0	-9.2	1.73 H	284	27.0	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	5460.00	60.1 PK	74.0	-13.9	3.45 V	127	55.7	4.4
2	5460.00	46.0 AV	54.0	-8.0	3.45 V	127	41.6	4.4
3	#5470.00	60.8 PK	68.2	-7.4	3.43 V	126	56.3	4.5
4	*5530.00	97.0 PK			3.53 V	134	58.3	38.7
5	*5530.00	86.1 AV			3.53 V	134	47.4	38.7
6	#5725.00	54.8 PK	68.2	-13.4	3.38 V	121	50.2	4.6
7	11060.00	57.6 PK	74.0	-16.4	2.18 V	242	39.8	17.8
8	11060.00	44.5 AV	54.0	-9.5	2.18 V	242	26.7	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) – Pre-Amplifier Factor(dB)
3. The other emission levels were very low against the limit.
4. Margin value = Emission Level – Limit value
5. " * ": Fundamental frequency.
6. " # ": The radiated frequency is out of the restricted band.

CHANNEL	TX Channel 122	DETECTOR FUNCTION	Peak (PK) Average (AV)
FREQUENCY RANGE	1GHz ~ 40GHz		

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M

NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	5460.00	55.0 PK	74.0	-19.0	1.29 H	71	50.6	4.4
2	5460.00	44.8 AV	54.0	-9.2	1.29 H	71	40.4	4.4
3	#5470.00	55.7 PK	68.2	-12.5	1.25 H	73	51.2	4.5
4	*5610.00	102.4 PK			1.21 H	79	63.5	38.9
5	*5610.00	91.2 AV			1.21 H	79	52.3	38.9
6	#5725.00	56.4 PK	68.2	-11.8	1.16 H	84	51.8	4.6
7	11220.00	57.7 PK	74.0	-16.3	1.65 H	271	40.6	17.1
8	11220.00	44.5 AV	54.0	-9.5	1.65 H	271	27.4	17.1

ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M

NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	5460.00	54.6 PK	74.0	-19.4	3.51 V	136	50.2	4.4
2	5460.00	44.1 AV	54.0	-9.9	3.51 V	136	39.7	4.4
3	#5470.00	55.2 PK	68.2	-13.0	3.47 V	133	50.7	4.5
4	*5610.00	98.1 PK			3.57 V	141	59.2	38.9
5	*5610.00	86.9 AV			3.57 V	141	48.0	38.9
6	#5725.00	55.6 PK	68.2	-12.6	3.37 V	145	51.0	4.6
7	11220.00	56.9 PK	74.0	-17.1	2.08 V	235	39.8	17.1
8	11220.00	43.8 AV	54.0	-10.2	2.08 V	235	26.7	17.1

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

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

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	#5470.00	55.8 PK	68.2	-12.4	1.26 H	81	51.3	4.5
2	*5690.00	103.0 PK			1.04 H	76	64.1	38.9
3	*5690.00	91.2 AV			1.04 H	76	52.3	38.9
4	#5850.00	57.3 PK	68.2	-10.9	1.22 H	78	52.4	4.9
5	11380.00	57.9 PK	74.0	-16.1	1.77 H	278	40.3	17.6
6	11380.00	44.7 AV	54.0	-9.3	1.77 H	278	27.1	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	#5470.00	54.1 PK	68.2	-14.1	3.46 V	134	49.6	4.5
2	*5690.00	97.8 PK			3.52 V	143	58.9	38.9
3	*5690.00	86.7 AV			3.52 V	143	47.8	38.9
4	#5850.00	55.2 PK	68.2	-13.0	3.41 V	125	50.3	4.9
5	11380.00	57.1 PK	74.0	-16.9	2.13 V	247	39.5	17.6
6	11380.00	44.0 AV	54.0	-10.0	2.13 V	247	26.4	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) – Pre-Amplifier 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)
FREQUENCY RANGE	1GHz ~ 40GHz		Average (AV)

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	#5644.00	55.4 PK	68.2	-12.8	1.09 H	78	50.8	4.6
2	#5650.00	56.0 PK	68.2	-12.2	1.31 H	82	51.4	4.6
3	*5775.00	103.1 PK			1.09 H	78	64.0	39.1
4	*5775.00	91.4 AV			1.09 H	78	52.3	39.1
5	#5925.00	55.6 PK	68.2	-12.6	1.28 H	78	50.3	5.3
6	#5996.00	54.9 PK	68.2	-13.3	1.09 H	78	49.6	5.3
7	11550.00	56.9 PK	74.0	-17.1	1.69 H	270	40.2	16.7
8	11550.00	43.6 AV	54.0	-10.4	1.69 H	270	26.9	16.7
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	#5640.80	54.7 PK	68.2	-13.5	3.47 V	125	50.1	4.6
2	#5650.00	55.2 PK	68.2	-13.0	3.42 V	121	50.6	4.6
3	*5775.00	98.3 PK			3.47 V	125	59.2	39.1
4	*5775.00	87.2 AV			3.47 V	125	48.1	39.1
5	#5925.00	55.0 PK	68.2	-13.2	3.37 V	119	49.7	5.3
6	#5960.00	54.0 PK	68.2	-14.2	3.47 V	125	48.6	5.4
7	11550.00	56.5 PK	74.0	-17.5	2.12 V	240	39.8	16.7
8	11550.00	43.3 AV	54.0	-10.7	2.12 V	240	26.6	16.7

Remarks:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB)
3. 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:

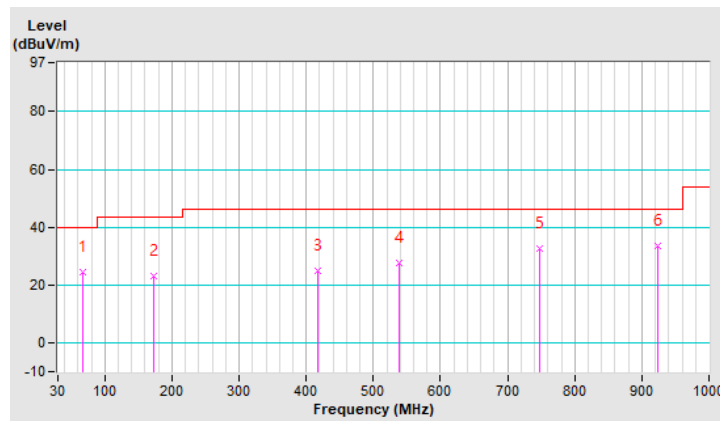
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CHANNEL	TX Channel 64	DETECTOR FUNCTION	Quasi-Peak (QP)
FREQUENCY RANGE	9kHz ~ 1GHz		

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	67.96	24.6 QP	40.0	-15.4	1.50 H	161	36.0	-11.4
2	171.99	23.0 QP	43.5	-20.5	1.00 H	135	32.6	-9.6
3	416.59	24.7 QP	46.0	-21.3	1.25 H	208	30.3	-5.6
4	537.49	27.8 QP	46.0	-18.2	1.25 H	23	31.0	-3.2
5	746.96	32.5 QP	46.0	-13.5	1.00 H	293	31.9	0.6
6	924.09	33.3 QP	46.0	-12.7	1.25 H	185	29.5	3.8

Remarks:

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

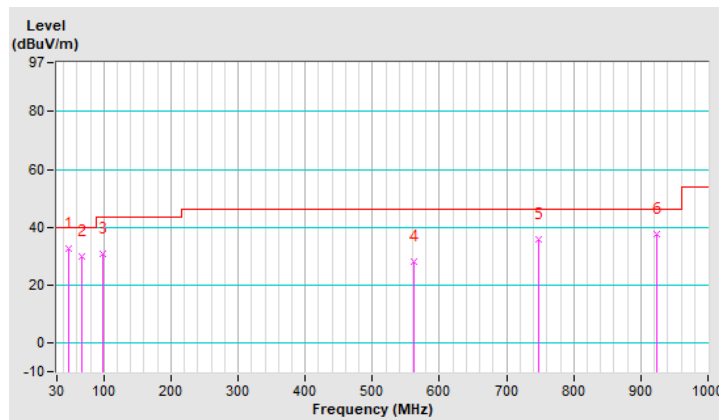


CHANNEL	TX Channel 64	DETECTOR FUNCTION	Quasi-Peak (QP)
FREQUENCY RANGE	9kHz ~ 1GHz		

ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	48.28	32.8 QP	40.0	-7.2	1.25 V	90	42.6	-9.8
2	66.55	30.0 QP	40.0	-10.0	1.00 V	270	41.2	-11.2
3	98.88	30.8 QP	43.5	-12.7	1.50 V	77	44.6	-13.8
4	561.39	28.0 QP	46.0	-18.0	1.00 V	215	30.9	-2.9
5	746.96	35.6 QP	46.0	-10.4	1.50 V	312	35.0	0.6
6	924.09	37.5 QP	46.0	-8.5	1.00 V	109	33.7	3.8

Remarks:

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



4.2 Conducted Emission Measurement

4.2.1 Limits of Conducted Emission Measurement

Frequency (MHz)	Conducted Limit (dBuV)	
	Quasi-peak	Average
0.15 - 0.5	66 - 56	56 - 46
0.50 - 5.0	56	46
5.0 - 30.0	60	50

Note: 1. The lower limit shall apply at the transition frequencies.

2. The limit decreases in line with the logarithm of the frequency in the range of 0.15 to 0.50MHz.

4.2.2 Test Instruments

Description & Manufacturer	Model No.	Serial No.	Cal. Date	Cal. Due
Test Receiver ROHDE & SCHWARZ	ESCI	100613	Dec. 10, 2018	Dec. 09, 2019
RF signal cable Woken	5D-FB	Cable-cond1-01	Sep. 05, 2019	Sep. 04, 2020
LISN ROHDE & SCHWARZ (EUT)	ENV216	101826	Feb. 21, 2019	Feb. 20, 2020
LISN ROHDE & SCHWARZ (Peripheral)	ESH3-Z5	100311	Aug. 22, 2019	Aug. 21, 2020
Software ADT	BV ADT_Cond_ V7.3.7.4	NA	NA	NA

Note: 1. The calibration interval of the above test instruments is 12 months and the calibrations are traceable to NML/ROC and NIST/USA.

2. The test was performed in HwaYa Shielded Room 1.

3. The VCCI Site Registration No. is C-12040.

4.2.3 Test Procedures

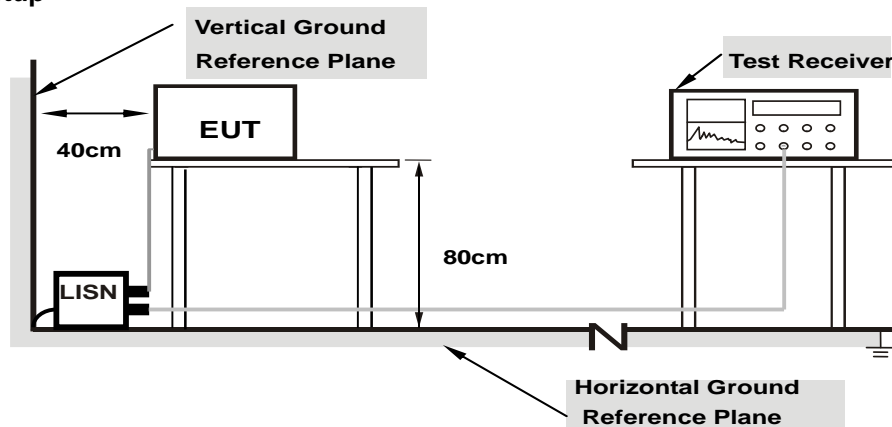
- The EUT was placed 0.4 meters from the conducting wall of the shielded room with EUT being connected to the power mains through a line impedance stabilization network (LISN). Other support units were connected to the power mains through another LISN. The two LISNs provide 50 ohm/ 50uH of coupling impedance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

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

4.2.4 Deviation from Test Standard

No deviation.

4.2.5 Test Setup



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

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

4.2.6 EUT Operating Conditions

Same as 4.1.6.

4.2.7 Test Results

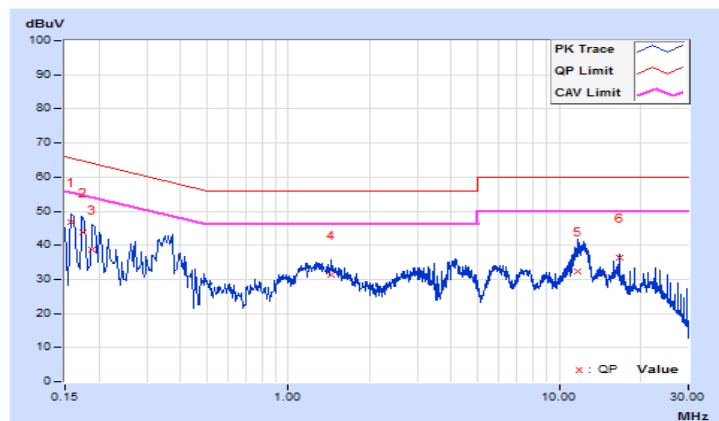
802.11ac (VHT20)

Phase	Line (L)	Detector Function	Quasi-Peak (QP) / Average (AV)
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No	Freq. [MHz]	Corr. Factor (dB)	Reading Value		Emission Level		Limit		Margin	
			[dB (uV)]		[dB (uV)]		[dB (uV)]		(dB)	
			Q.P.	AV.	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.
1	0.15802	9.67	37.00	20.50	46.67	30.17	65.57	55.57	-18.90	-25.40
2	0.17374	9.67	34.09	14.78	43.76	24.45	64.78	54.78	-21.02	-30.33
3	0.18903	9.66	29.19	10.29	38.85	19.95	64.08	54.08	-25.23	-34.13
4	1.43639	9.75	21.51	13.45	31.26	23.20	56.00	46.00	-24.74	-22.80
5	11.70014	9.94	22.45	15.23	32.39	25.17	60.00	50.00	-27.61	-24.83
6	16.71276	9.97	26.24	24.28	36.21	34.25	60.00	50.00	-23.79	-15.75

REMARKS:

1. Q.P. and AV. are abbreviations of quasi-peak and average individually.
2. The emission levels of other frequencies were very low against the limit.
3. Margin value = Emission level - Limit value
4. Correction factor = Insertion loss + Cable loss
5. Emission Level = Correction Factor + Reading Value.

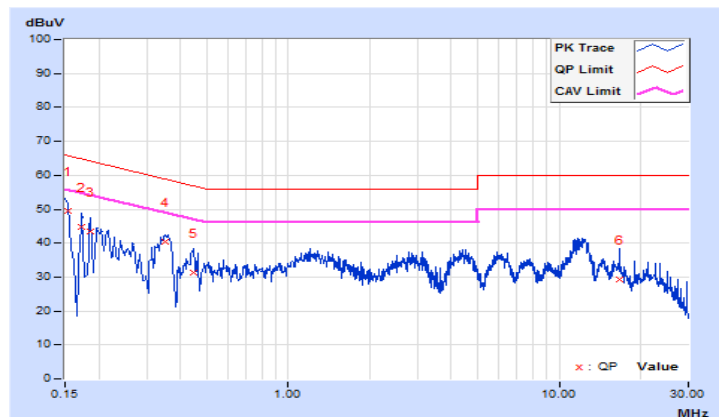


Phase	Neutral (N)	Detector Function	Quasi-Peak (QP) / Average (AV)
-------	-------------	-------------------	--------------------------------

No	Freq. [MHz]	Corr. Factor (dB)	Reading Value [dB (uV)]		Emission Level [dB (uV)]		Limit [dB (uV)]		Margin (dB)	
			Q.P.	AV.	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.
	1	0.15391	9.64	39.78	20.59	49.42	30.23	65.79	55.79	-16.37
2	0.17346	9.64	35.11	18.39	44.75	28.03	64.79	54.79	-20.04	-26.76
3	0.18519	9.64	33.77	18.65	43.41	28.29	64.25	54.25	-20.84	-25.96
4	0.34926	9.65	30.86	19.05	40.51	28.70	58.98	48.98	-18.47	-20.28
5	0.44716	9.66	21.50	14.95	31.16	24.61	56.93	46.93	-25.77	-22.32
6	16.70885	10.01	19.39	13.33	29.40	23.34	60.00	50.00	-30.60	-26.66

REMARKS:

1. Q.P. and AV. are abbreviations of quasi-peak and average individually.
2. The emission levels of other frequencies were very low against the limit.
3. Margin value = Emission level - Limit value
4. Correction factor = Insertion loss + Cable loss
5. Emission Level = Correction Factor + Reading Value.



4.3 Transmit Power Measurement

4.3.1 Limits of Transmit Power Measurement

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

*B is the 26 dB emission bandwidth in megahertz

Per KDB 662911 Method of conducted output power measurement on IEEE 802.11 devices,

Array Gain = 0 dB (i.e., no array gain) for $N_{ANT} \leq 4$;

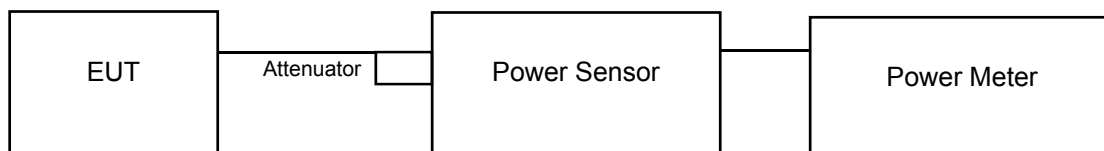
Array Gain = 0 dB (i.e., no array gain) for channel widths ≥ 40 MHz for any N_{ANT} ;

Array Gain = $5 \log(N_{ANT}/N_{SS})$ dB or 3 dB, whichever is less for 20-MHz channel widths with $N_{ANT} \geq 5$.

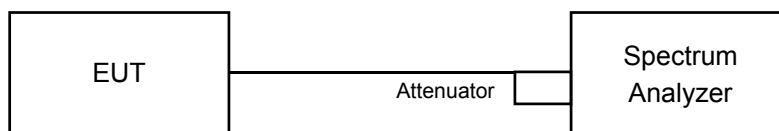
For power measurements on all other devices: Array Gain = $10 \log(N_{ANT}/N_{SS})$ dB.

4.3.2 Test Setup

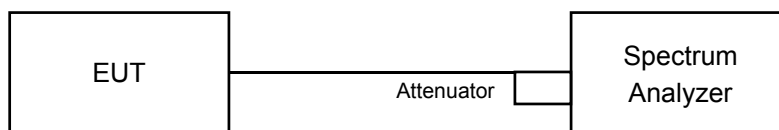
For Power Output
802.11ac (VHT20), 802.11ac (VHT40)



802.11ac (VHT80)



For 26dB



4.3.3 Test Instruments

Refer to section 4.1.2 to get information of above instrument.

4.3.4 Test Procedure

For Average Power Measurement

For 802.11ac (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 and set the detector to AVERAGE. Duty factor is not added to measured value.

For 802.11ac (VHT80)

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

For 26dB Bandwidth

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

4.3.5 Deviation from Test Standard

No deviation.

4.3.6 EUT Operating Conditions

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

4.3.7 Test Result

Power Output:

802.11ac (VHT20)

Chan.	Freq. (MHz)	Conducted Power (mW)	Conducted Power (dBm)	Power Limit (dBm)	Pass / Fail
36	5180	15.596	11.93	24.00	Pass
40	5200	15.066	11.78	24.00	Pass
48	5240	14.894	11.73	24.00	Pass
52	5260	14.928	11.74	24.00	Pass
60	5300	15.346	11.86	24.00	Pass
64	5320	15.740	11.97	24.00	Pass
100	5500	15.311	11.85	24.00	Pass
116	5580	15.066	11.78	24.00	Pass
140	5700	15.346	11.86	24.00	Pass
144	5720 For U-NII-2C	10.666	10.28	23.04	Pass
144	5720 For U-NII-3	2.366	3.74	30.00	Pass
149	5745	15.524	11.91	30.00	Pass
157	5785	15.031	11.77	30.00	Pass
165	5825	14.588	11.64	30.00	Pass

Note:

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

1. $11\text{dBm} + 10\log(22.14) = 24.45 > 24\text{dBm}$
2. $11\text{dBm} + 10\log(22.05) = 24.43 > 24\text{dBm}$
3. $11\text{dBm} + 10\log(22.10) = 24.44 > 24\text{dBm}$
4. $11\text{dBm} + 10\log(22.19) = 24.46 > 24\text{dBm}$
5. $11\text{dBm} + 10\log(22.14) = 24.45 > 24\text{dBm}$
6. $11\text{dBm} + 10\log(22.70) = 24.56 > 24\text{dBm}$
7. $11\text{dBm} + 10\log(5725.00 - 5708.97) = 23.04 < 24\text{dBm}$

802.11ac (VHT40)

Chan.	Freq. (MHz)	Conducted Power (mW)	Conducted Power (dBm)	Power Limit (dBm)	Pass / Fail
38	5190	15.382	11.87	24.00	Pass
46	5230	15.560	11.92	24.00	Pass
54	5270	15.241	11.83	24.00	Pass
62	5310	15.241	11.83	24.00	Pass
102	5510	15.740	11.97	24.00	Pass
110	5550	14.859	11.72	24.00	Pass
134	5670	15.031	11.77	24.00	Pass
142	5710 For U-NII-2C	11.977	10.78	24.00	Pass
142	5710 For U-NII-3	1.075	0.31	30.00	Pass
151	5755	14.825	11.71	30.00	Pass
159	5795	14.689	11.67	30.00	Pass

Note:

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

1. $11\text{dBm} + 10\log(41.49) = 27.17 > 24\text{dBm}$
2. $11\text{dBm} + 10\log(41.61) = 27.19 > 24\text{dBm}$
3. $11\text{dBm} + 10\log(42.19) = 27.25 > 24\text{dBm}$
4. $11\text{dBm} + 10\log(41.78) = 27.20 > 24\text{dBm}$
5. $11\text{dBm} + 10\log(41.52) = 27.18 > 24\text{dBm}$
6. $11\text{dBm} + 10\log(5725.00 - 5689.28) = 26.52 > 24\text{dBm}$

802.11ac (VHT80)

Chan.	Freq. (MHz)	Conducted Power (mW)	Conducted Power (dBm)	Power Limit (dBm)	Pass / Fail
42	5210	16.106	12.07	24.00	Pass
58	5290	15.740	11.97	24.00	Pass
106	5530	16.293	12.12	24.00	Pass
122	5610	15.241	11.83	24.00	Pass
138	5690 For U-NII-2C	10.191	10.08	24.00	Pass
138	5690 For U-NII-3	0.467	-3.31	30.00	Pass
155	5775	14.894	11.73	30.00	Pass

Note:

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

1. $11\text{dBm} + 10\log(83.28) = 30.20 > 24\text{dBm}$
2. $11\text{dBm} + 10\log(91.28) = 30.60 > 24\text{dBm}$
3. $11\text{dBm} + 10\log(92.17) = 30.64 > 24\text{dBm}$
4. $11\text{dBm} + 10\log(5725.00 - 5648.58) = 29.83 > 24\text{dBm}$

26dB Bandwidth:
 802.11ac (VHT20)

Channel	Frequency (MHz)	26dBc Bandwidth (MHz)
36	5180	22.16
40	5200	22.04
48	5240	22.17
52	5260	22.14
60	5300	22.05
64	5320	22.10
100	5500	22.19
116	5580	22.14
140	5700	22.70
144	5720 For U-NII-2C	16.03

802.11ac (VHT40)

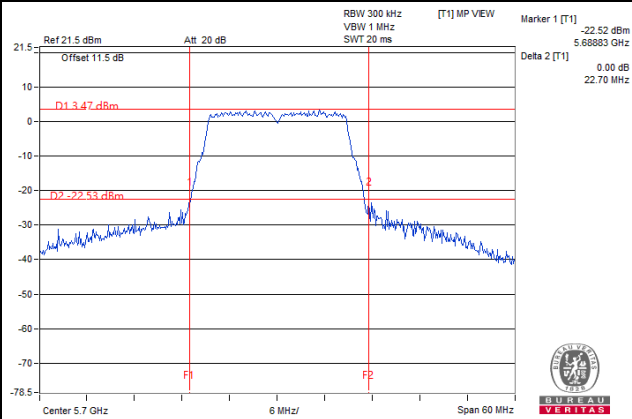
Channel	Frequency (MHz)	26dBc Bandwidth (MHz)
38	5190	41.53
46	5230	41.50
54	5270	41.49
62	5310	41.61
102	5510	42.19
110	5550	41.78
134	5670	41.52
142	5710 For U-NII-2C	35.72

802.11ac (VHT80)

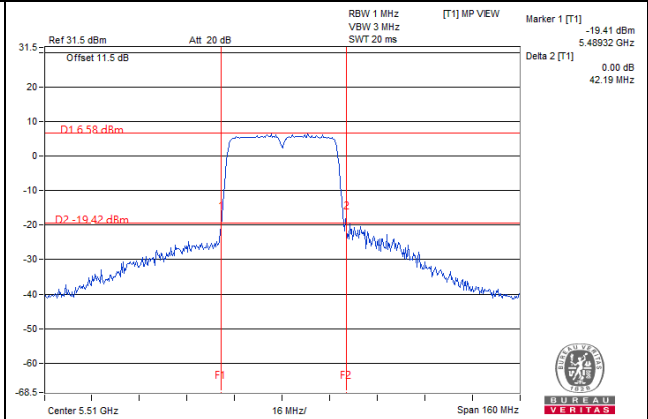
Channel	Frequency (MHz)	26dBc Bandwidth (MHz)
42	5210	82.96
58	5290	83.28
106	5530	91.28
122	5610	92.17
138	5690 For U-NII-2C	76.42

Spectrum Plot of Worst Value

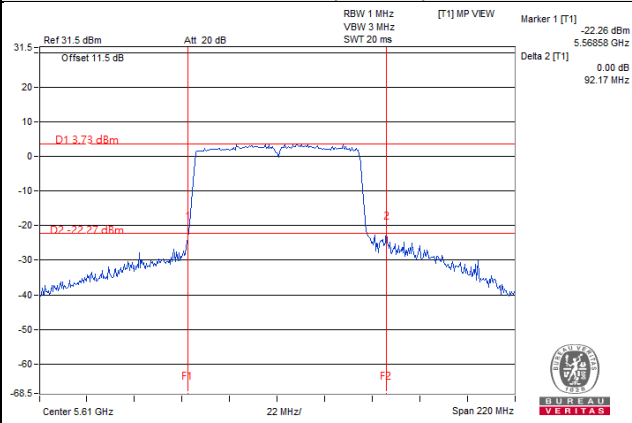
802.11ac (VHT20)



802.11ac (VHT40)



802.11ac (VHT80)



EUT Maximum Conducted Power

802.11ac (VHT20)

Frequency Band (MHz)	Max. Power	
	Output Power (mW)	Output Power (dBm)
5250~5350	15.740	11.97
5470~5725	15.346	11.86

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

802.11ac (VHT40)

Frequency Band (MHz)	Max. Power	
	Output Power (mW)	Output Power (dBm)
5250~5350	15.241	11.83
5470~5725	15.740	11.97

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

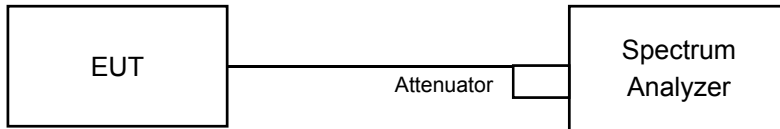
802.11ac (VHT80)

Frequency Band (MHz)	Max. Power	
	Output Power (mW)	Output Power (dBm)
5250~5350	15.740	11.97
5470~5725	16.293	12.12

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

4.4 Occupied Bandwidth Measurement

4.4.1 Test Setup



4.4.2 Test Instruments

Refer to section 4.1.2 to get information of above instrument.

4.4.3 Test Procedure

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

4.4.4 Test Result

802.11ac (VHT20)

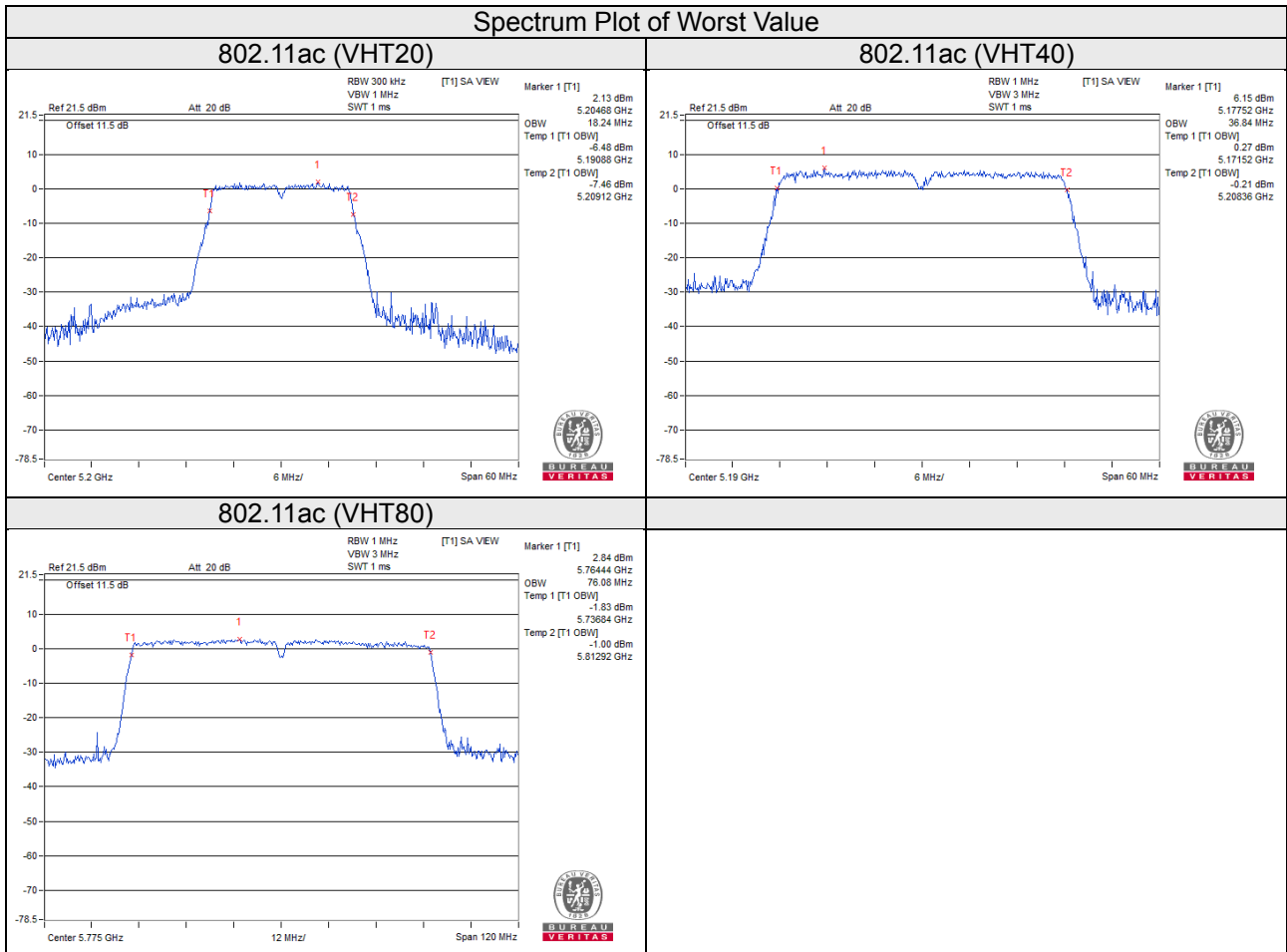
Channel	Frequency (MHz)	Occupied Bandwidth (MHz)
36	5180	18.12
40	5200	18.24
48	5240	18.24
52	5260	18.24
60	5300	18.24
64	5320	18.24
100	5500	18.24
116	5580	18.24
140	5700	18.24
144	5720 For U-NII-2C	13.88
144	5720 For U-NII-3	3.88
149	5745	18.24
157	5785	18.24
165	5825	18.24

802.11ac (VHT40)

Channel	Frequency (MHz)	Occupied Bandwidth (MHz)
38	5190	36.84
46	5230	36.84
54	5270	36.72
62	5310	36.84
102	5510	36.84
110	5550	36.72
134	5670	36.72
142	5710 For U-NII-2C	33.48
142	5710 For U-NII-3	3.48
151	5755	36.84
159	5795	36.84

802.11ac (VHT80)

Channel	Frequency (MHz)	Occupied Bandwidth (MHz)
42	5210	75.84
58	5290	75.84
106	5530	75.84
122	5610	75.84
138	5690 For U-NII-2C	72.92
138	5690 For U-NII-3	2.92
155	5775	76.08

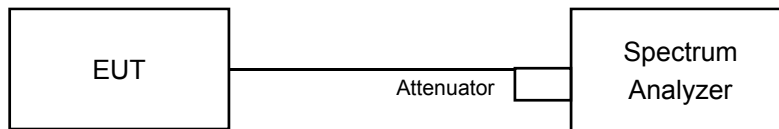


4.5 Peak Power Spectral Density Measurement

4.5.1 Limits of Peak Power Spectral Density Measurement

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

4.5.2 Test Setup



4.5.3 Test Instruments

Refer to section 4.1.2 to get information of above instrument.

4.5.4 Test Procedures

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

Duty cycle of test signal is $\geq 98\%$

Using method SA-1

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

Duty cycle of test signal is $< 98\%$

Using method SA-2

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

For U-NII-3 band

Duty cycle $\geq 98\%$

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

Duty cycle $< 98\%$

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

4.5.5 Deviation from Test Standard

No deviation.

4.5.6 EUT Operating Conditions

Same as 4.3.6.

4.5.7 Test Results

For U-NII-1, U-NII-2A, U-NII-2C band
 802.11ac (VHT20)

Chan.	Freq. (MHz)	PSD (dBm/MHz)	Max. Limit (dBm/MHz)	Pass / Fail
36	5180	-1.88	11	Pass
40	5200	-2.02	11	Pass
48	5240	-2.02	11	Pass
52	5260	-1.87	11	Pass
60	5300	-1.88	11	Pass
64	5320	-1.98	11	Pass
100	5500	-1.33	11	Pass
116	5580	-1.36	11	Pass
140	5700	-1.38	11	Pass
144	5720 For U-NII-2C	-1.18	11	Pass

802.11ac (VHT40)

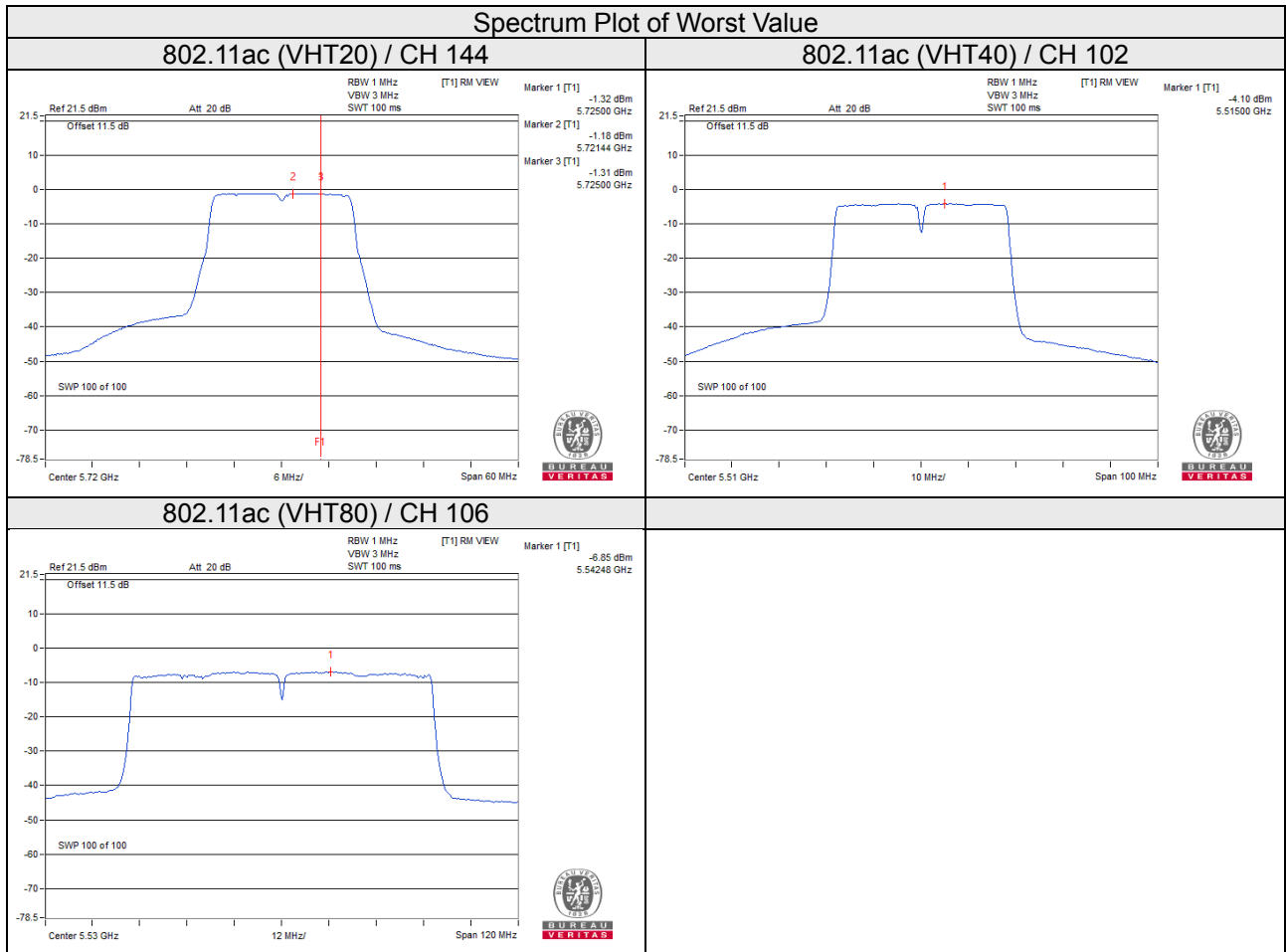
Chan.	Freq. (MHz)	PSD W/O Duty Factor (dBm/MHz)	Duty Factor (dB)	PSD With Duty Factor (dBm/MHz)	Max. Limit (dBm/MHz)	Pass / Fail
38	5190	-4.72	0.17	-4.55	11	Pass
46	5230	-4.67	0.17	-4.50	11	Pass
54	5270	-4.67	0.17	-4.50	11	Pass
62	5310	-4.75	0.17	-4.58	11	Pass
102	5510	-4.10	0.17	-3.93	11	Pass
110	5550	-4.48	0.17	-4.31	11	Pass
134	5670	-4.12	0.17	-3.95	11	Pass
142	5710 For U-NII-2C	-4.15	0.17	-3.98	11	Pass

Note: Refer to section 3.3 for duty cycle spectrum plot.

802.11ac (VHT80)

Chan.	Freq. (MHz)	PSD W/O Duty Factor (dBm/MHz)	Duty Factor (dB)	PSD With Duty Factor (dBm/MHz)	Max. Limit (dBm/MHz)	Pass / Fail
42	5210	-7.56	0.40	-7.16	11	Pass
58	5290	-7.26	0.40	-6.86	11	Pass
106	5530	-6.85	0.40	-6.45	11	Pass
122	5610	-6.90	0.40	-6.50	11	Pass
138	5690 For U-NII-2C	-6.94	0.40	-6.54	11	Pass

Note: Refer to section 3.3 for duty cycle spectrum plot.



For U-NII-3 band:
 802.11ac (VHT20)

Chan.	Freq. (MHz)	PSD W/O Duty Factor		Total PSD (dBm/500kHz)	Limit (dBm/500kHz)	Pass / Fail
		(dBm/300kHz)	(dBm/500kHz)			
144	5720 For U-NII-3	-9.72	-7.50	-7.50	30	Pass
149	5745	-9.41	-7.19	-7.19	30	Pass
157	5785	-9.44	-7.22	-7.22	30	Pass
165	5825	-9.46	-7.24	-7.24	30	Pass

802.11ac (VHT40)

Chan.	Freq. (MHz)	PSD W/O Duty Factor		Duty Factor (dB)	Total PSD With Duty Factor (dBm/500kHz)	Limit (dBm/500kHz)	Pass / Fail
		(dBm/300kHz)	(dBm/500kHz)				
142	5710 For U-NII-3	-13.18	-10.96	0.17	-10.79	30	Pass
151	5755	-12.67	-10.45	0.17	-10.28	30	Pass
159	5795	-12.56	-10.34	0.17	-10.17	30	Pass

Note: Refer to section 3.3 for duty cycle spectrum plot.

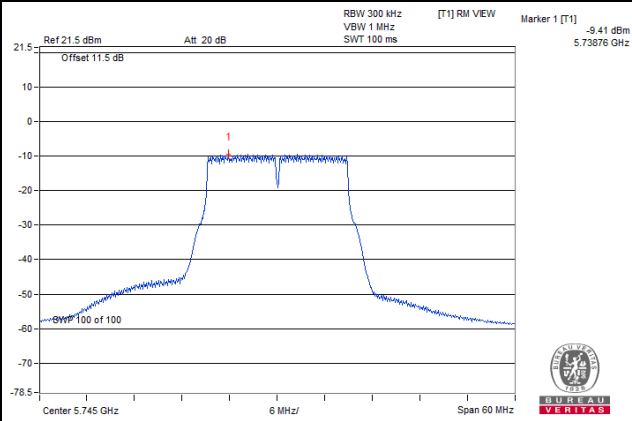
802.11ac (VHT80)

Chan.	Freq. (MHz)	PSD W/O Duty Factor		Duty Factor (dB)	Total PSD With Duty Factor (dBm/500kHz)	Limit (dBm/500kHz)	Pass / Fail
		(dBm/300kHz)	(dBm/500kHz)				
138	5690 For U-NII-3	-16.81	-14.59	0.40	-14.19	30	Pass
155	5775	-15.52	-13.30	0.40	-12.90	30	Pass

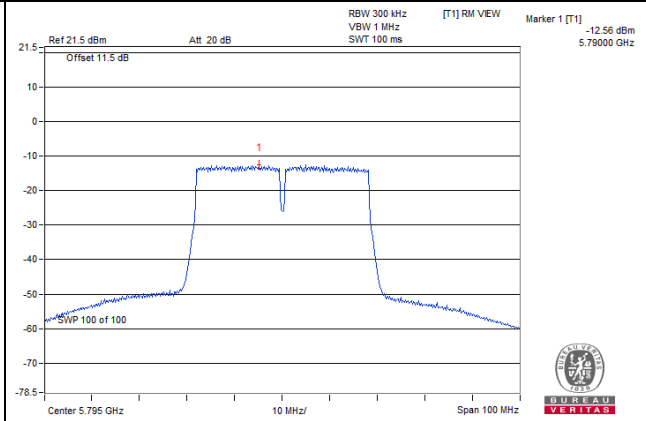
Note: Refer to section 3.3 for duty cycle spectrum plot.

Spectrum Plot of Worst Value

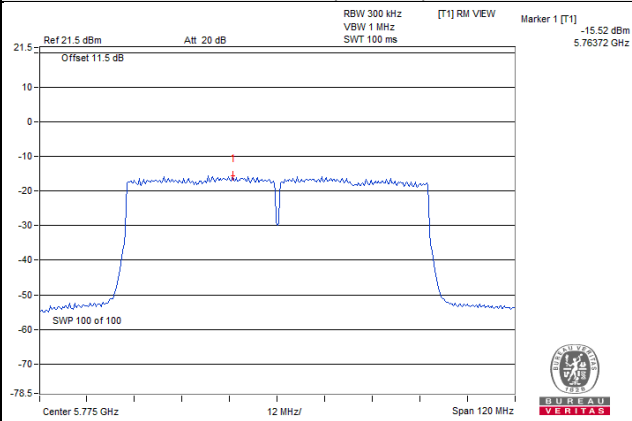
802.11ac (VHT20)



802.11ac (VHT40)



802.11ac (VHT80)

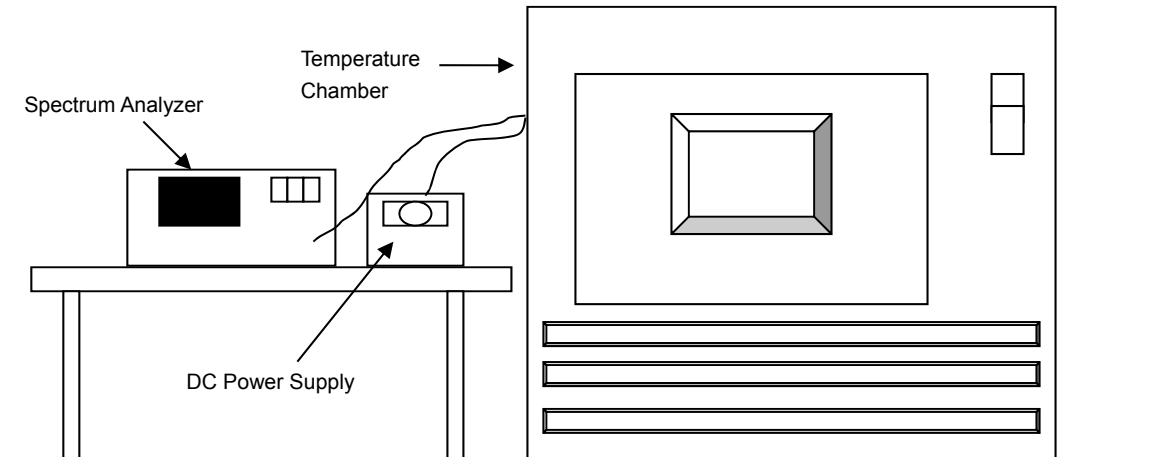


4.6 Frequency Stability

4.6.1 Limits of Frequency Stability Measurement

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

4.6.2 Test Setup



4.6.3 Test Instruments

Description & Manufacturer	Model No.	Serial No.	Cal. Date	Cal. Due
Spectrum Analyzer ROHDE & SCHWARZ	FSP40	100039	Jun. 12, 2019	Jun. 11, 2020
WIT Standard Temperature And Humidity Chamber	TH-4S-C	W981030	Jun. 03, 2019	Jun. 02, 2020
Digital Multimeter Fluke	87-III	70360742	Jun. 27, 2019	Jun. 26, 2020
DC Power Supply Topward	6603D	700637	NA	NA

4.6.4 Test Procedure

- The EUT was placed inside the environmental test chamber and powered by nominal DC voltage.
- Turn the EUT on and couple its output to a spectrum analyzer.
- Turn the EUT off and set the chamber to the highest temperature specified.
- 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.
- Repeat step c and d with every 10 degrees reduction until the lowest temperature achieved.
- The test chamber was allowed to stabilize at +20 degree C for a minimum of 30 minutes. The supply voltage was then adjusted on the EUT from 85% to 115% and the frequency record.

4.6.5 Deviation from Test Standard

No deviation.

4.6.6 EUT Operating Condition

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

4.6.7 Test Results

Frequency Stability Versus Temp.									
Operating Frequency: 5180MHz									
Temp. (°C)	Power Supply (Vdc)	0 Minute		2 Minute		5 Minute		10 Minute	
		Measured Frequency (MHz)	Result	Measured Frequency (MHz)	Result	Measured Frequency (MHz)	Result	Measured Frequency (MHz)	Result
85	3.6	5179.9958	PASS	5179.9948	PASS	5179.9925	PASS	5179.9931	PASS
80	3.6	5180.0089	PASS	5180.0074	PASS	5180.0062	PASS	5180.0056	PASS
70	3.6	5179.9893	PASS	5179.9857	PASS	5179.9881	PASS	5179.9859	PASS
60	3.6	5179.9768	PASS	5179.9726	PASS	5179.9752	PASS	5179.9737	PASS
50	3.6	5179.9875	PASS	5179.9891	PASS	5179.9869	PASS	5179.9889	PASS
40	3.6	5179.978	PASS	5179.9779	PASS	5179.9799	PASS	5179.979	PASS
30	3.6	5179.9799	PASS	5179.9791	PASS	5179.9805	PASS	5179.9799	PASS
20	3.6	5179.9836	PASS	5179.9819	PASS	5179.9858	PASS	5179.9853	PASS
10	3.6	5179.9892	PASS	5179.9892	PASS	5179.9866	PASS	5179.9853	PASS
0	3.6	5179.9846	PASS	5179.9847	PASS	5179.9853	PASS	5179.9854	PASS
-10	3.6	5179.9931	PASS	5179.9957	PASS	5179.9958	PASS	5179.9933	PASS
-20	3.6	5179.9917	PASS	5179.9879	PASS	5179.9902	PASS	5179.9919	PASS
-30	3.6	5180.0086	PASS	5180.0109	PASS	5180.0071	PASS	5180.0069	PASS
-40	3.6	5180.0188	PASS	5180.0189	PASS	5180.0202	PASS	5180.0215	PASS

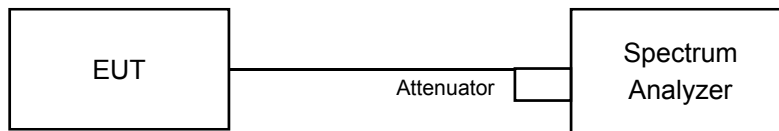
Frequency Stability Versus Voltage									
Operating Frequency: 5180MHz									
Temp. (°C)	Power Supply (Vdc)	0 Minute		2 Minute		5 Minute		10 Minute	
		Measured Frequency (MHz)	Result	Measured Frequency (MHz)	Result	Measured Frequency (MHz)	Result	Measured Frequency (MHz)	Result
20	4.14	5179.9846	PASS	5179.9829	PASS	5179.9849	PASS	5179.9862	PASS
	3.6	5179.9836	PASS	5179.9819	PASS	5179.9858	PASS	5179.9853	PASS
	3.06	5179.9838	PASS	5179.9811	PASS	5179.9863	PASS	5179.9853	PASS

4.7 6dB Bandwidth Measurement

4.7.1 Limits of 6dB Bandwidth Measurement

The minimum of 6dB Bandwidth Measurement is 0.5MHz.

4.7.2 Test Setup



4.7.3 Test Instruments

Refer to section 4.1.2 to get information of above instrument.

4.7.4 Test Procedure

Measurement Procedure REF

- Set resolution bandwidth (RBW) = 100kHz
- Set the video bandwidth (VBW) $\geq 3 \times$ RBW, Detector = Peak.
- Trace mode = max hold.
- Sweep = auto couple.
- 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

4.7.5 Deviation from Test Standard

No deviation.

4.7.6 EUT Operating Condition

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

4.7.7 Test Results

802.11ac (VHT20)

Channel	Frequency (MHz)	6dB Bandwidth (MHz)	Minimum Limit (MHz)	Pass / Fail
144	5720 For U-NII-3	3.83	0.5	Pass
149	5745	17.66	0.5	Pass
157	5785	17.67	0.5	Pass
165	5825	17.66	0.5	Pass

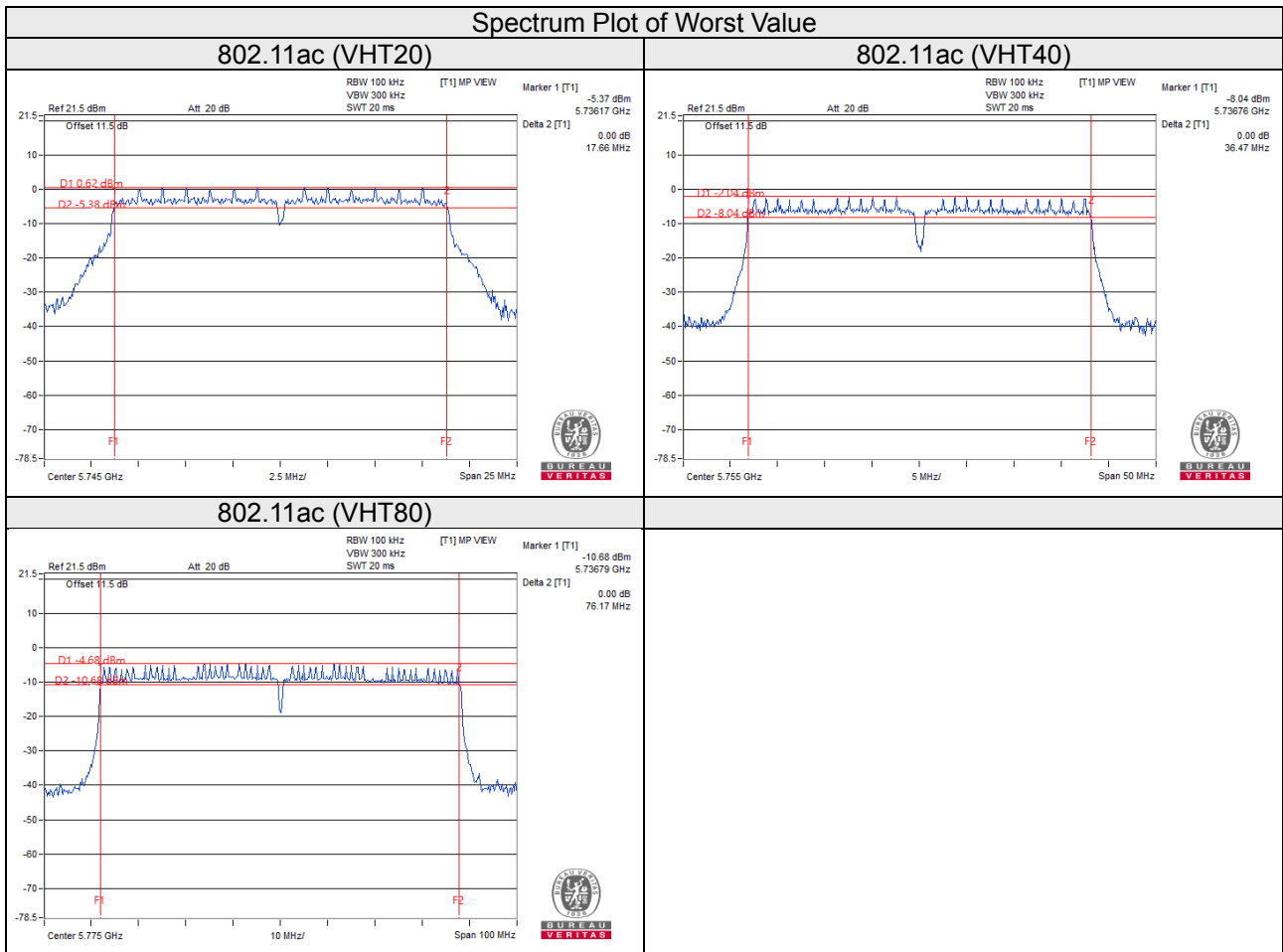
802.11ac (VHT40)

Channel	Frequency (MHz)	6dB Bandwidth (MHz)	Minimum Limit (MHz)	Pass / Fail
142	5710 For U-NII-3	3.21	0.5	Pass
151	5755	36.47	0.5	Pass
159	5795	36.47	0.5	Pass

802.11ac (VHT80)

Channel	Frequency (MHz)	6dB Bandwidth (MHz)	Minimum Limit (MHz)	Pass / Fail
138	5690 For U-NII-3	3.22	0.5	Pass
155	5775	76.17	0.5	Pass

Spectrum Plot of Worst Value



*802.11ac (VHT20): Ch 144 (5720MHz for U-NII-3): 17.66-(5725-5711.17) = 3.83

*802.11ac (VHT40): Ch 142 (5710MHz for U-NII-3): 36.45-(5725-5691.76) = 3.21

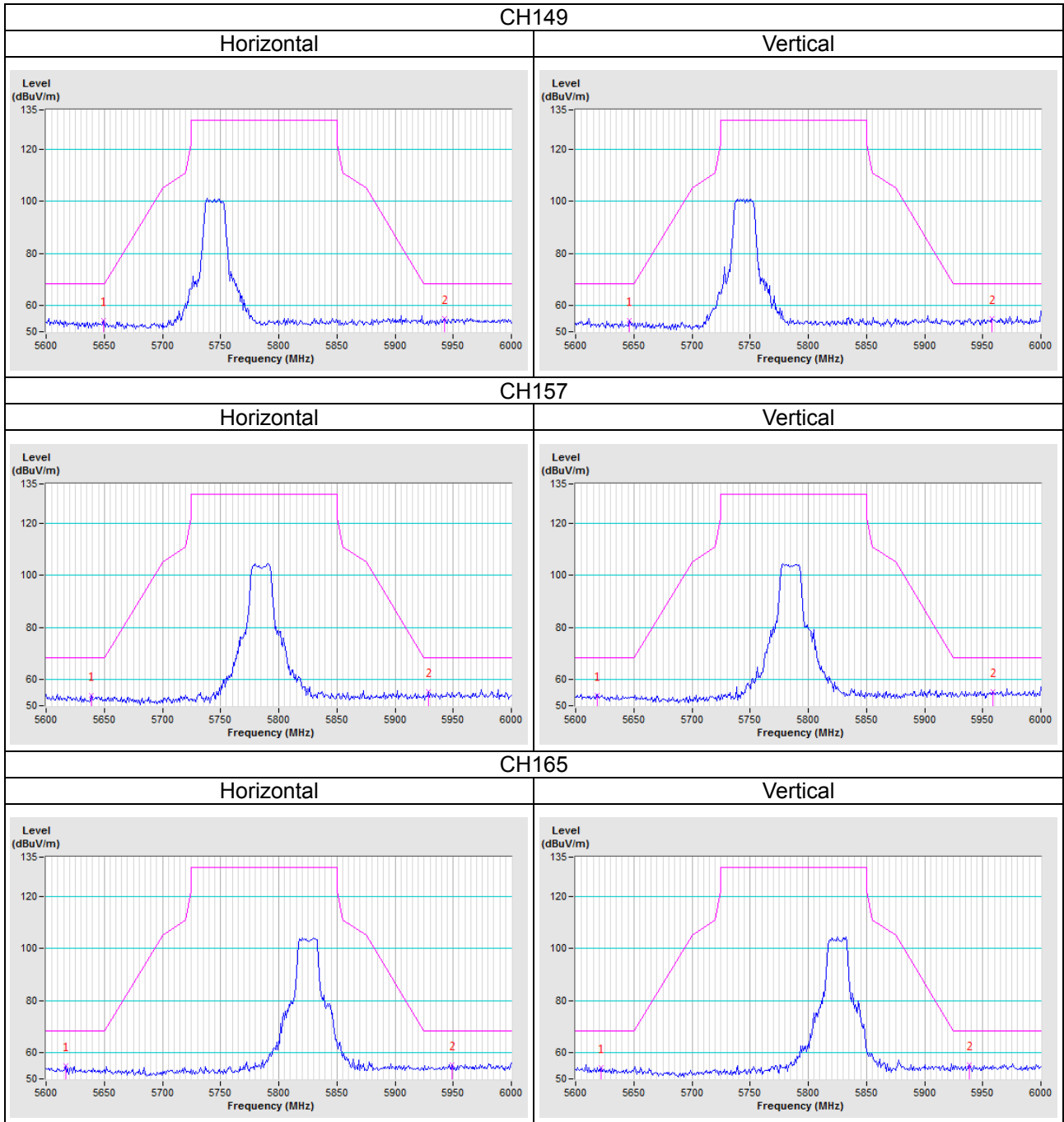
*802.11ac (VHT80): Ch 138 (5690MHz for U-NII-3): 76.43-(5725-5651.79) = 3.22

5 Pictures of Test Arrangements

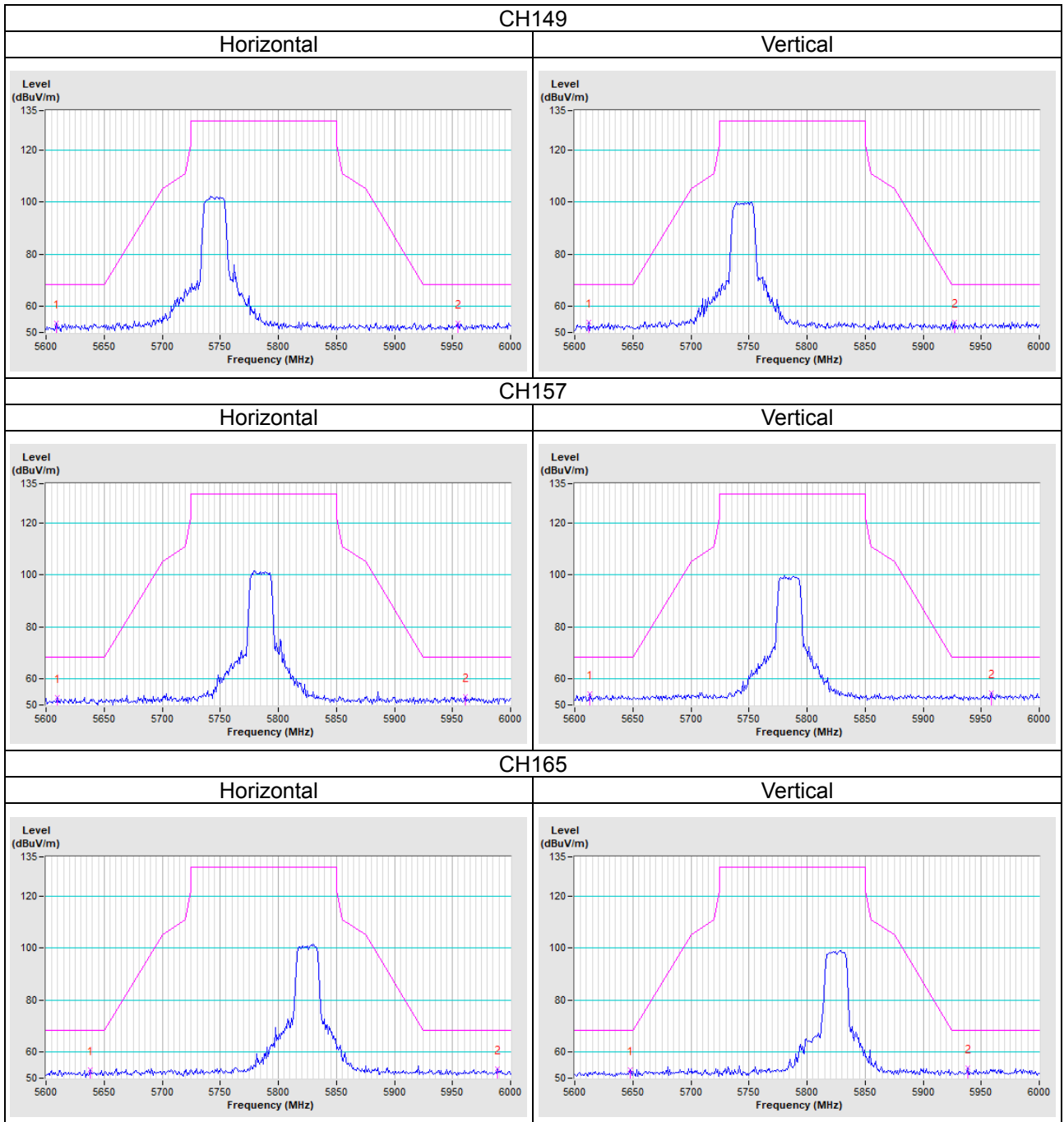
Please refer to the attached file (Test Setup Photo).

Annex A- Radiated Out of Band Emission (OOBE) Measurement (For U-NII-3 band)

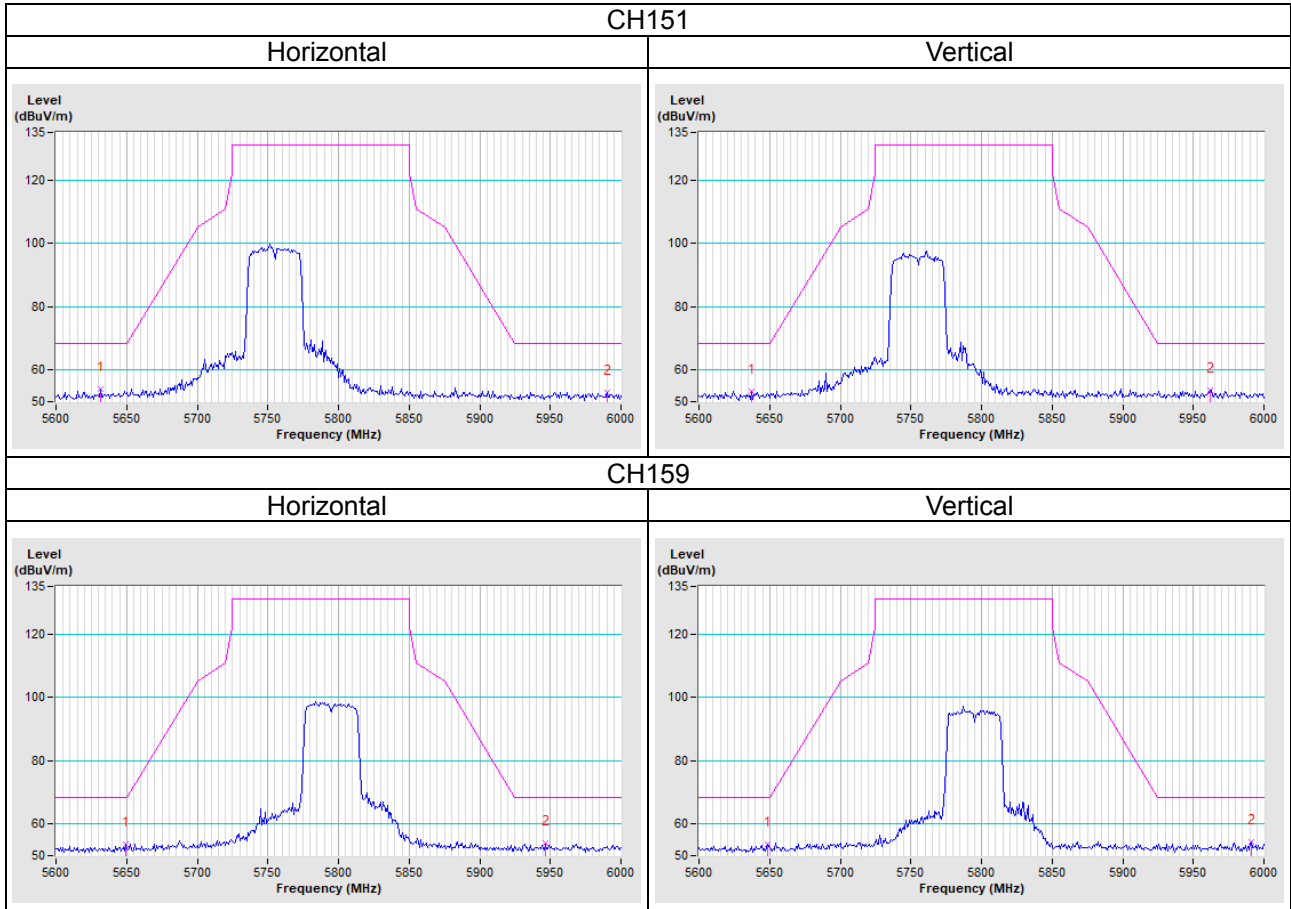
802.11a



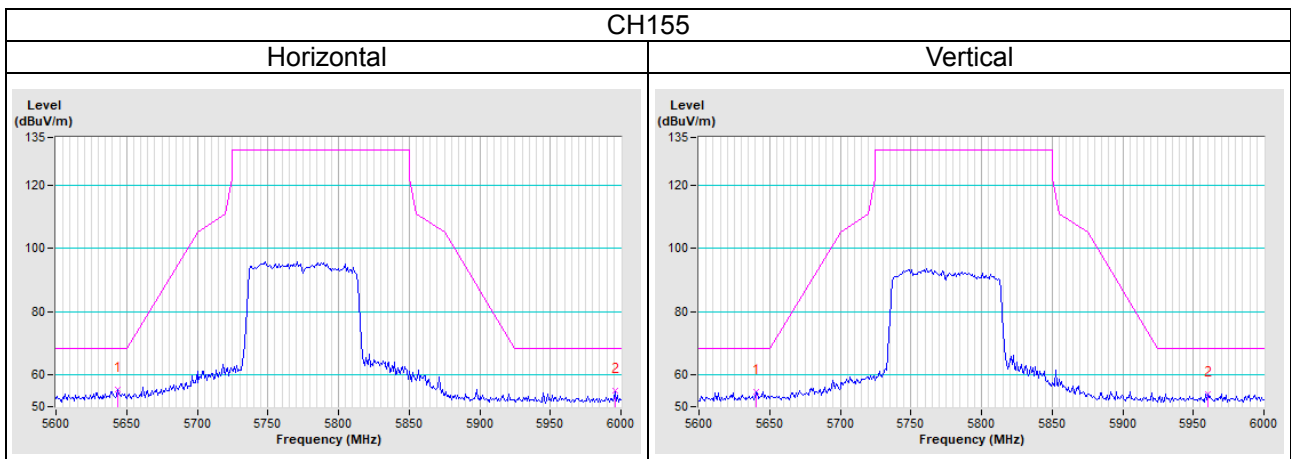
802.11ac (VHT20)



802.11ac (VHT40)



802.11ac (VHT80)



Appendix – Information of the Testing Laboratories

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

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

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Tel: 886-2-26052180

Fax: 886-2-26051924

Hsin Chu EMC/RF/Telecom Lab

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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.

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