FCC Test Report

Report No.:	RF180629C26-1
FCC ID:	ACQ-VAP4641
Test Model:	VAP4641
Received Date:	Jun. 29, 2018
Test Date:	Jul. 21 ~ Aug. 23, 2018
Issued Date:	Sep. 03, 2018
Applicant:	ARRIS
Address:	101 Tournament Drive, Horsham, Pennsylvania 19044, United States
Issued By:	Bureau Veritas Consumer Products Services (H.K.) Ltd., Taoyuan Branch
Lab Address:	No. 47-2, 14th Ling, Chia Pau Vil., Lin Kou Dist., New Taipei City, Taiwan (R.O.C.)
Test Location (1):	No. 19, Hwa Ya 2nd Rd., Wen Hwa Vil., Kwei Shan Dist., Taoyuan City 33383, TAIWAN (R.O.C.)
FCC Registration / Designation Number:	788550 / TW0003
Test Location (2):	E-2, No.1, Li Hsin 1st Road, Hsinchu Science Park, Hsinchu City 300, Taiwan R.O.C.
FCC Registration / Designation Number:	723255 / TW2022

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Release Control Record

Issue No.	Description	Date Issued
RF180629C26-1	Original release.	Sep. 03, 2018

1 Certificate of Conformity

Product:	Wireless AP router
Brand:	Arris
Test Model:	VAP4641
Sample Status:	Engineering sample
Applicant:	ARRIS
Test Date:	Jul. 21 ~ Aug. 23, 2018
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:** Sep. 03, 2018

Suntee Liu / Specialist

Approved by : _____ , **Date:** Sep. 03, 2018

Bruce Chen / 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 -3.98dB at 0.40800MHz.
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 5745.00, 5825.00, 5510.00, 5795.00, 5530.00, 5610.00, 5470.00, 5150.00MHz.
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. (U-NII-3 Band only)
15.407(e)	6dB bandwidth	Pass	Meet the requirement of limit.
15.407(g)	Frequency Stability	Pass	Meet the requirement of limit.
15.203	Antenna Requirement	Pass	Antenna connector is i-pex(MHF) not a standard connector.

*For U-NII-3 band compliance with rule part 15.407(b)(4)(i), the OOBE test plots were recorded in Annex A.

2.1 Measurement Uncertainty

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

Measurement	Frequency	Expanded Uncertainty (k=2) (±)
Conducted Emissions at mains ports	150kHz ~ 30MHz	2.94 dB
Radiated Emissions up to 1 GHz	30MHz ~ 200MHz	3.63 dB
	200MHz ~1000MHz	3.64 dB
Radiated Emissions above 1 GHz	1GHz ~ 18GHz	2.29 dB
	18GHz ~ 40GHz	2.29 dB

2.2 Modification Record

There were no modifications required for compliance.

3 General Information

3.1 General Description of EUT

Product	Wireless AP router
Brand	Arris
Test Model	VAP4641
Sample Status	Engineering sample
Power Supply Rating	100-240Vac, 50/60Hz
Modulation Type	256QAM, 64QAM, 16QAM, QPSK, BPSK
Modulation Technology	OFDM
Transfer Rate	802.11a: 54/48/36/24/18/12/9/6Mbps 802.11n: up to 600Mbps 802.11ac: up to 1700Mbps
Operating Frequency	5180~5240MHz, 5260~5320MHz, 5500~5720MHz, 5745~5825MHz
Number of Channel	5180~5240MHz: 802.11a, 802.11n (HT20), 802.11ac (VHT20): 4 802.11n (HT40), 802.11ac (VHT40): 2 802.11ac (VHT80): 1 5260~5320MHz: 802.11a, 802.11n (HT20), 802.11ac (VHT20): 4 802.11n (HT40), 802.11ac (VHT40): 2 802.11ac (VHT80): 1 802.11ac (VHT80+80): 1 set 5500~5720MHz: 802.11a, 802.11n (HT20), 802.11ac (VHT20): 12 802.11n (HT40), 802.11ac (VHT40): 6 802.11ac (VHT80): 3 802.11ac (VHT80+80): 1 set 5745~5825MHz: 802.11a, 802.11n (HT20), 802.11ac (VHT20): 5 802.11n (HT40), 802.11ac (VHT40): 2 802.11ac (VHT80): 1

Output Power	CDD mode: 5180~5240MHz for Client mode: 232.398mW 5180~5240MHz for Master mode: 590.034mW 5260~5320MHz: 239.823mW 5500~5720MHz: 240.932mW 5745~5825MHz: 970.694mW Beamforming mode: 5180~5240MHz for Client mode: 163.568mW 5180~5240MHz for Master mode: 581.459mW 5260~5320MHz: 166.130mW 5500~5720MHz: 152.885mW 5745~5825MHz: 675.161mW
Antenna Type	Refer to Note
Antenna Connector	Refer to Note
Accessory Device	Power plug
Cable Supplied	1.45m non-shielded AC cable without core 0.95m non-shielded RJ45 cable without core

Note:

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

Modulation Mode	TX Function	Beamforming
802.11a	4TX	Not support
802.11n (HT20)	4TX	Support
802.11n (HT40)	4TX	Support
802.11ac (VHT20)	4TX	Support
802.11ac (VHT40)	4TX	Support
802.11ac (VHT80)	4TX	Support
802.11ac (VHT80+80)	2TX+2TX	Support

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

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

* The EUT supports Master mode and Client mode. For 5GHz band 1, Master mode and Client mode test results are presented individually. For the other bands, Master mode and Client mode share common test results in test report.

2. The EUT uses following antenna.

Type	PCB			
Connector	i-pex(MHF)			
Correlated Directional Gain (dBi)				
2400~2500MHz	5150~5250MHz	5250~5350MHz	5470~5725MHz	5725~5825MHz
6.1	7.8	7.4	7.7	7.7
Peak Gain (dBi)				
2400~2500MHz	5150~5250MHz	5250~5350MHz	5470~5725MHz	5725~5825MHz
3.5	5.1	5.6	4.7	5.3

* Correlated directional gain values are declared and measured by manufacturer, for more details please refer to operation description.

3. The EUT uses following internal power supplies. PSU 1 is the worst case for final test.

Internal power supply unit 1	
Brand	APD
Model	FP-18C12-AAAA
Input Power	100-240Vac, 50-60Hz, 0.5A Max
Output Power	12Vdc, 1.5A Max

Internal power supply unit 2	
Brand	Liteon
Model	PA-1180-03R1
Input Power	100-240Vac, 50-60Hz, 0.5A Max
Output Power	12Vdc, 1.5A Max

4. The EUT has two types of extender mounting options for power (Table Top Mount and Wall Plug Mount), after pre-test, Table Top Mount was the worse and chosen for final test.
5. WLAN 2.4GHz + WLAN 5GHz technologies can transmit at same time.
6. Spurious emission of the simultaneous operation (WLAN 2.4GHz + WLAN 5GHz) has been evaluated and no non-compliance was found.

3.2 Description of Test Modes

5180~5240MHz:

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

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

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

Channel	Frequency	Channel	Frequency
38	5190 MHz	46	5230 MHz

1 channel is provided for 802.11ac (VHT80):

Channel	Frequency
42	5210 MHz

5260~5320MHz:

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

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

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

Channel	Frequency	Channel	Frequency
54	5270 MHz	62	5310 MHz

1 channel is provided for 802.11ac (VHT80):

Channel	Frequency
58	5290 MHz

5500~5720MHz:

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

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

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

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

3 channels are provided for 802.11ac (VHT80):

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

5745~5825MHz:

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

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

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

Channel	Frequency	Channel	Frequency
151	5755 MHz	159	5795 MHz

1 channel is provided for 802.11ac (VHT80):

Channel	Frequency
155	5775 MHz

For simultaneous transmission:

2 sets are provided for 802.11ac (VHT80+80):

Channel	Frequency
50	5210 MHz + 5290 MHz
114	5530 MHz + 5610 MHz

3.2.1 Test Mode Applicability and Tested Channel Detail

EUT Configure Mode	Applicable to				Description
	RE≥1G	RE<1G	PLC	APCM	
A	√	√	√	√	Powered from Internal power supply unit 1 with Power cable
B	-	-	√	-	Powered from Internal power supply unit 2 with Power cable
C	-	-	√	-	Powered from Internal power supply unit 1 with Power plug
D	-	-	√	-	Powered from Internal power supply unit 2 with Power plug

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

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

Note: The EUT had been pre-tested on the positioned of each 3 axis. The worst case was found when positioned on 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)	Remark
A	802.11a	5180-5240	36 to 48	36, 40, 48	OFDM	6.0	-
A	802.11ac (VHT20)		36 to 48	36, 40, 48	OFDM	7.2	-
A	802.11ac (VHT40)		38 to 46	38, 46	OFDM	15.0	-
A	802.11ac (VHT80)		42	42	OFDM	130.0	-
A	802.11a	5260-5320	52 to 64	52, 60, 64	OFDM	6.0	-
A	802.11ac (VHT20)		52 to 64	52, 60, 64	OFDM	7.2	-
A	802.11ac (VHT40)		54 to 62	54, 62	OFDM	15.0	-
A	802.11ac (VHT80)		58	58	OFDM	130.0	-
A	802.11a	5500-5720	100 to 144	100, 116, 120, 124, 128, 140, 144	OFDM	6.0	-
A	802.11ac (VHT20)		100 to 144	100, 116, 120, 124, 128, 140, 144	OFDM	7.2	-
A	802.11ac (VHT40)		102 to 142	102, 110, 118, 126, 134, 142	OFDM	15.0	-
A	802.11ac (VHT80)		106 to 138	106, 122, 138	OFDM	130.0	-
A	802.11a	5745-5825	149 to 165	149, 157, 165	OFDM	6.0	-
A	802.11ac (VHT20)		149 to 165	149, 157, 165	OFDM	7.2	-
A	802.11ac (VHT40)		151 to 159	151, 159	OFDM	15.0	-
A	802.11ac (VHT80)		155	155	OFDM	130.0	-
A	802.11ac (VHT80+80)	5180-5240 5260-5320 5500-5720	50, 114	50, 114	OFDM	130.0	-

Radiated Emission Test (Below 1GHz):

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

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

EUT Configure Mode	Mode	Frequency Band (MHz)	Available Channel	Tested Channel	Modulation Technology	Data Rate (Mbps)	Remark
A	802.11ac (VHT20)	5180-5240	36 to 48	157	OFDM	7.2	-
		5260-5320	52 to 64		OFDM	7.2	-
		5500-5720	100 to 144		OFDM	7.2	-
		5745-5825	149 to 165		OFDM	7.2	-

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)	Remark
A, B, C, D	802.11ac (VHT20)	5180-5240	36 to 48	157	OFDM	7.2	-
		5260-5320	52 to 64		OFDM	7.2	-
		5500-5720	100 to 144		OFDM	7.2	-
		5745-5825	149 to 165		OFDM	7.2	-

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)	Remark
A	802.11a	5180-5240	36 to 48	36, 40, 48	OFDM	6.0	-
A	802.11ac (VHT20)		36 to 48	36, 40, 48	OFDM	7.2	-
A	802.11ac (VHT40)		38 to 46	38, 46	OFDM	15.0	-
A	802.11ac (VHT80)		42	42	OFDM	130.0	-
A	802.11a	5260-5320	52 to 64	52, 60, 64	OFDM	6.0	-
A	802.11ac (VHT20)		52 to 64	52, 60, 64	OFDM	7.2	-
A	802.11ac (VHT40)		54 to 62	54, 62	OFDM	15.0	-
A	802.11ac (VHT80)		58	58	OFDM	130.0	-
A	802.11a	5500-5720	100 to 144	100, 116, 120, 124, 128, 140, 144	OFDM	6.0	-
A	802.11ac (VHT20)		100 to 144	100, 116, 120, 124, 128, 140, 144	OFDM	7.2	-
A	802.11ac (VHT40)		102 to 142	102, 110, 118, 126, 134, 142	OFDM	15.0	-
A	802.11ac (VHT80)		106 to 138	106, 122, 138	OFDM	130.0	-
A	802.11a	5745-5825	149 to 165	149, 157, 165	OFDM	6.0	-
A	802.11ac (VHT20)		149 to 165	149, 157, 165	OFDM	7.2	-
A	802.11ac (VHT40)		151 to 159	151, 159	OFDM	15.0	-
A	802.11ac (VHT80)		155	155	OFDM	130.0	-
A	802.11ac (VHT80+80)	5180-5240 5260-5320 5500-5720	50, 114	50, 114	OFDM	130.0	-

Test Condition:

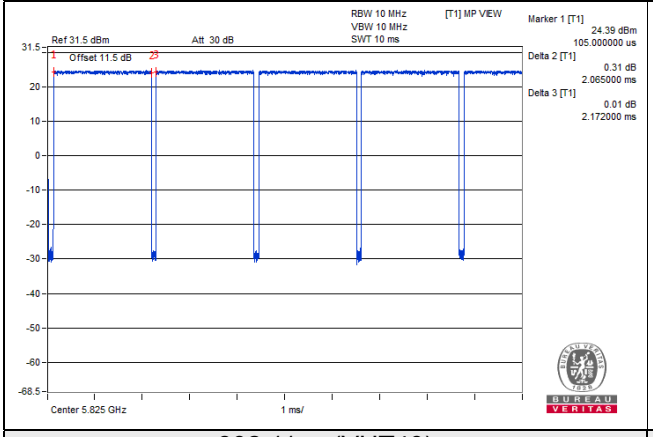
Applicable to	Environmental Conditions	Input Power	Tested by
RE≥1G	23 deg. C, 74% RH 22 deg. C, 67% RH 22 deg. C, 63% RH	120Vac, 60Hz	Steven Chiang Frank Chuang Eason Tseng
RE<1G	22 deg. C, 67% RH	120Vac, 60Hz	Frank Chuang
PLC	24 deg. C, 76% RH	120Vac, 60Hz	Andy Ho
APCM	25 deg. C, 60% RH	120Vac, 60Hz	Ted Chang Chris Lin

3.3 Duty Cycle of Test Signal

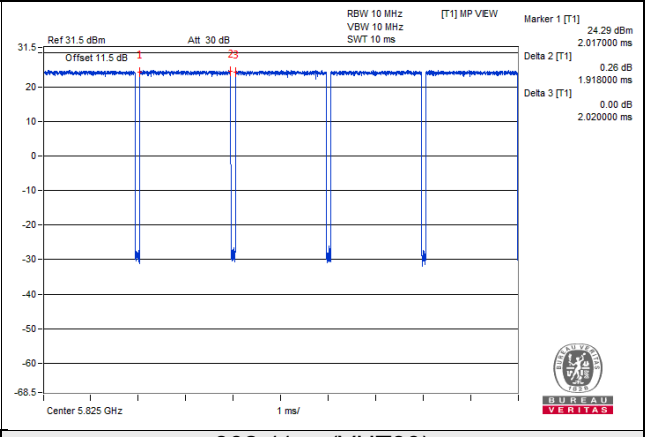
Duty cycle of test signal is ≥ 98%, duty factor is not required.
Duty cycle of test signal is < 98%, duty factor shall be considered.

802.11a: Duty cycle = 2.065/2.172 = 0.951, Duty factor = 10 * log(1/0.951) = 0.22
802.11ac (VHT20): Duty cycle = 1.918/2.02 = 0.950, Duty factor = 10 * log(1/0.950) = 0.23
802.11ac (VHT40): Duty cycle = 0.942/1.053 = 0.895, Duty factor = 10 * log(1/0.895) = 0.48
802.11ac (VHT80): Duty cycle = 0.457/0.487 = 0.938, Duty factor = 10 * log(1/0.938) = 0.28
802.11ac (VHT80+80): Duty cycle = 0.457/0.487 = 0.938, Duty factor = 10 * log(1/0.938) = 0.28

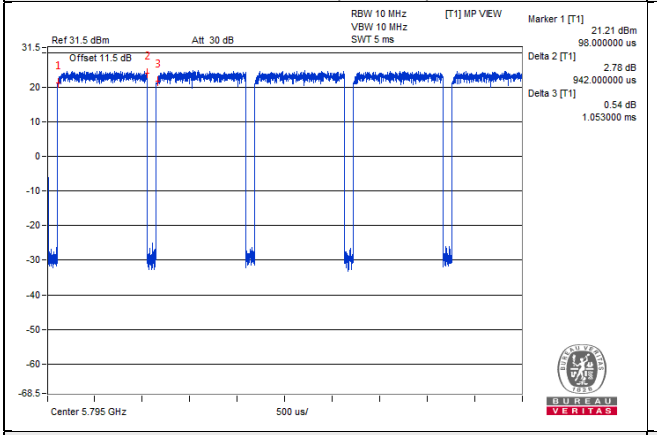
802.11a



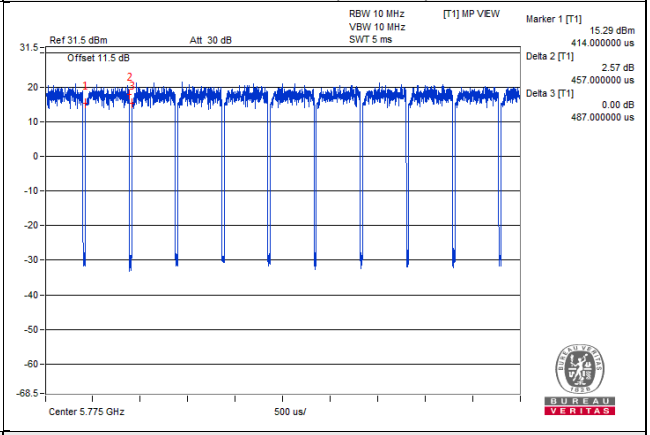
802.11ac (VHT20)



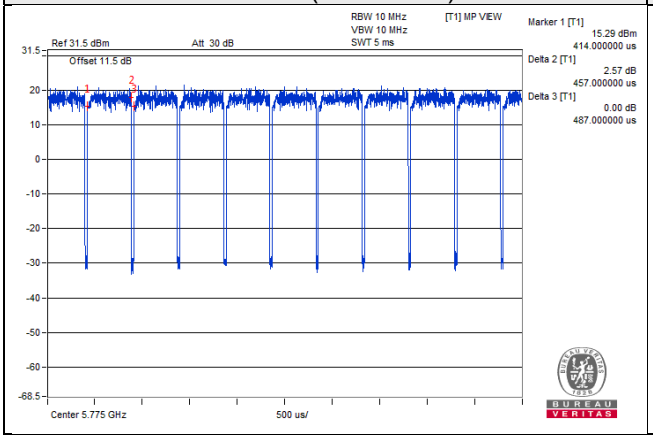
802.11ac (VHT40)



802.11ac (VHT80)



802.11ac (VHT80+80)



3.4 Description of Support Units

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

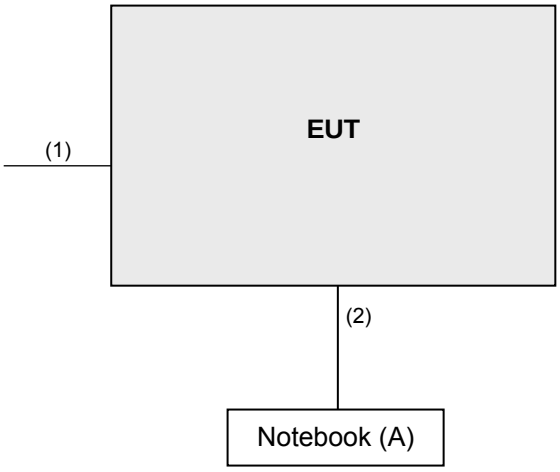
ID	Product	Brand	Model No.	Serial No.	FCC ID	Remarks
A.	Notebook	HP	Pavilion 14-ab023TU	5CD5340WXZ	FCC DoC Approved	-

Note:

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

ID	Descriptions	Qty.	Length (m)	Shielding (Yes/No)	Cores (Qty.)	Remarks
1.	AC cable	1	1.45	N	0	Accessory
2.	RJ45, Cat5e cable	1	10	N	0	-

3.4.1 Configuration of System under Test



3.5 General Description of Applied Standards

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

FCC Part 15, Subpart E (15.407)
KDB 789033 D02 General UNII Test Procedure New Rules v02r01
KDB 662911 D01 Multiple Transmitter Output 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:

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

Limits of unwanted emission out of the restricted bands

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

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

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

4.1.2 Test Instruments

Description & Manufacturer	Model No.	Serial No.	Cal. Date	Cal. Due
Test Receiver Keysight	N9038A	MY54450088	Jul. 05, 2018	Jul. 04, 2019
Pre-Amplifier EMCI	EMC001340	980142	Feb. 09, 2018	Feb. 08, 2019
Loop Antenna(*) Electro-Metrics	EM-6879	264	Dec. 16, 2016	Dec. 15, 2018
RF Cable	NA	LOOPCAB-001	Jan. 15, 2018	Jan. 14, 2019
RF Cable	NA	LOOPCAB-002	Jan. 15, 2018	Jan. 14, 2019
Pre-Amplifier Mini-Circuits	ZFL-1000VH2B	AMP-ZFL-01	Nov. 09, 2017	Nov. 08, 2018
Trilog Broadband Antenna SCHWARZBECK	VULB 9168	9168-406	Nov. 29, 2017	Nov. 28, 2018
RF Cable	8D	966-4-1	Mar. 21, 2018	Mar. 20, 2019
RF Cable	8D	966-4-2	Mar. 21, 2018	Mar. 20, 2019
RF Cable	8D	966-4-3	Mar. 21, 2018	Mar. 20, 2019
Fixed attenuator Mini-Circuits	UNAT-5+	PAD-3m-4-01	Oct. 03, 2017	Oct. 02, 2018
Horn_Antenna SCHWARZBECK	BBHA 9120D	9120D-783	Dec. 12, 2017	Dec. 11, 2018
Pre-Amplifier Mini-Circuits	ZVA-183-S+	AMP-ZVA-03	May 10, 2018	May 09, 2019
RF Cable	EMC104-SM-SM-1200	160923	Jan. 29, 2018	Jan. 28, 2019
RF Cable	EMC104-SM-SM-2000	150318	Jan. 29, 2018	Jan. 28, 2019
RF Cable	EMC104-SM-SM-5000	150321	Jan. 29, 2018	Jan. 28, 2019
Pre-Amplifier EMCI	EMC184045SE	980387	Jan. 29, 2018	Jan. 28, 2019
Horn_Antenna SCHWARZBECK	BBHA 9170	BBHA9170608	Dec. 14, 2017	Dec. 13, 2018
RF Cable	EMC102-KM-KM-1200	160925	Jan. 29, 2018	Jan. 28, 2019
Software	ADT_Radiated_V8.7.08	NA	NA	NA
Boresight Antenna Tower & Turn Table Max-Full	MF-7802BS	MF780208530	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 calibration interval of the above test instruments is 24 months and the calibrations are traceable to NML/ROC and NIST/USA.
3. The test was performed in HsinChu Chamber 966-4. (TAF No.: 2022)
4. The CANADA Site Registration No. is 20331-2.

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:

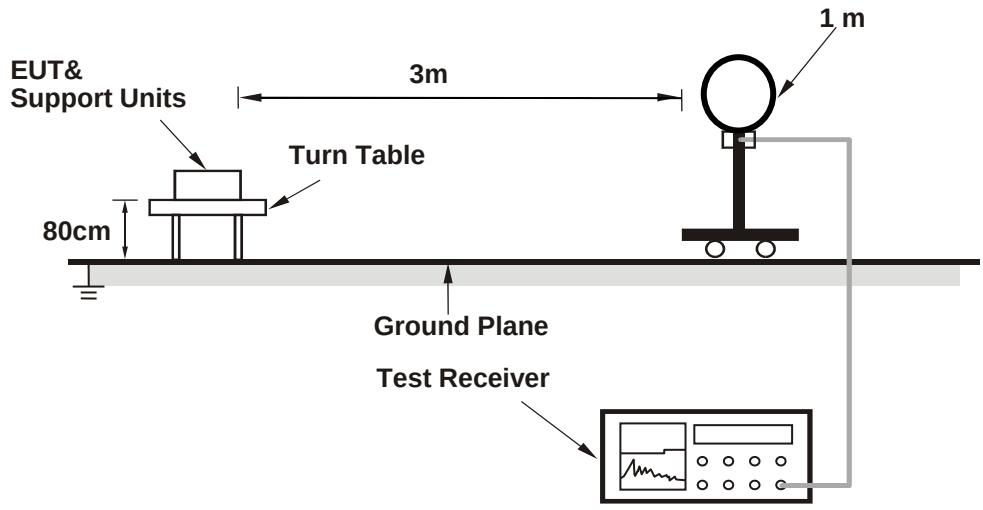
1. The resolution bandwidth and video bandwidth of test receiver/spectrum analyzer is 120kHz for Quasi-peak detection (QP) at frequency below 1GHz.
2. The resolution bandwidth of test receiver/spectrum analyzer is 1 MHz and the video bandwidth is 3 MHz for Peak detection (PK) at frequency above 1GHz.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

4.1.4 Deviation from Test Standard

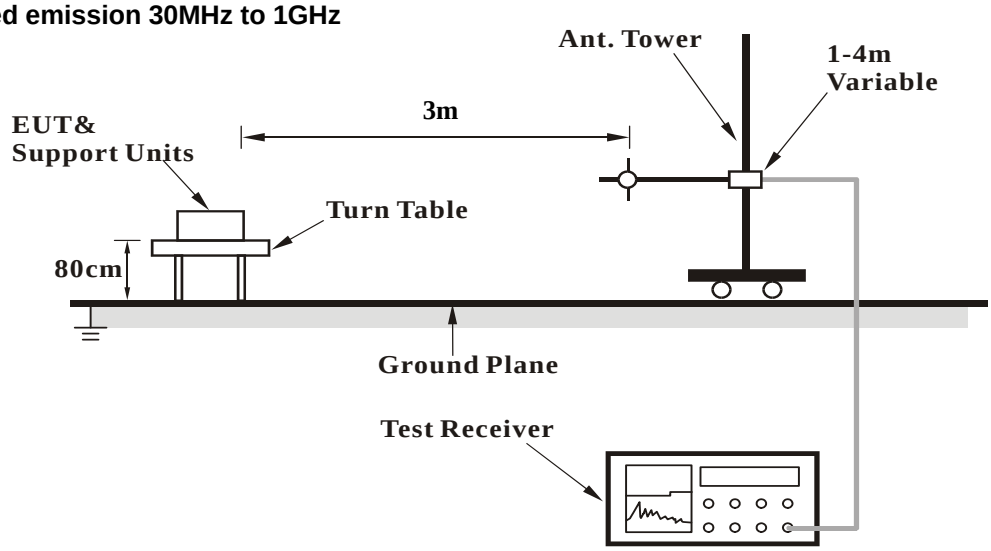
No deviation.

4.1.5 Test Setup

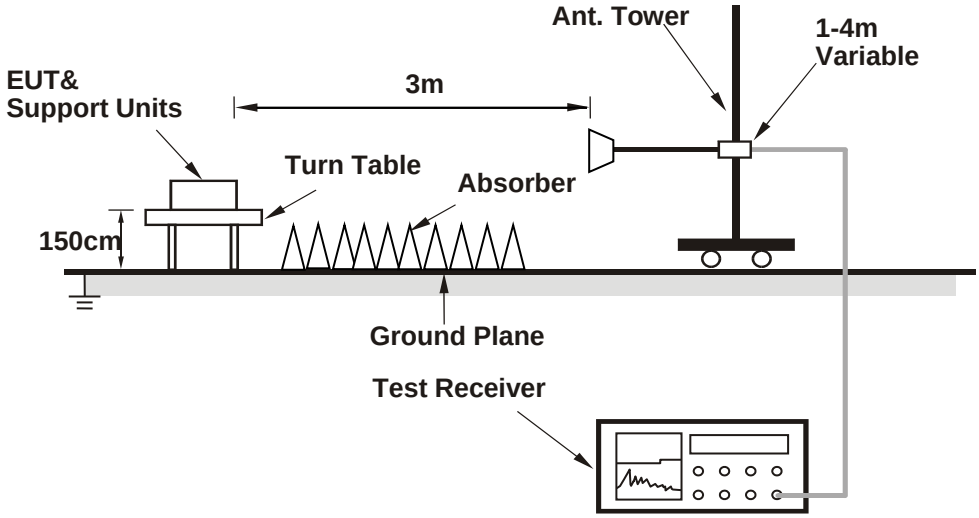
For Radiated emission below 30MHz



For Radiated emission 30MHz to 1GHz



For Radiated emission above 1GHz



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

4.1.6 EUT Operating Conditions

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

4.1.7 Test Results

Above 1GHz data:

For U-NII-1 band

Client Mode

802.11a

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

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	5150.00	68.1 PK	74.0	-5.9	1.89 H	85	65.1	3.0
2	5150.00	53.1 AV	54.0	-0.9	1.89 H	85	50.1	3.0
3	*5180.00	116.5 PK			1.89 H	85	113.7	2.8
4	*5180.00	105.8 AV			1.89 H	85	103.0	2.8
5	#10360.00	66.3 PK	68.2	-1.9	2.11 H	131	53.9	12.4
6	15540.00	50.3 PK	74.0	-23.7	1.84 H	319	37.5	12.8
7	15540.00	39.2 AV	54.0	-14.8	1.84 H	319	26.4	12.8
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	71.3 PK	74.0	-2.7	1.87 V	353	68.3	3.0
2	5150.00	53.8 AV	54.0	-0.2	1.87 V	353	50.8	3.0
3	*5180.00	117.6 PK			1.87 V	353	114.8	2.8
4	*5180.00	107.4 AV			1.87 V	353	104.6	2.8
5	#10360.00	65.4 PK	68.2	-2.8	1.71 V	163	53.0	12.4
6	15540.00	49.5 PK	74.0	-24.5	1.94 V	208	36.7	12.8
7	15540.00	39.9 AV	54.0	-14.1	1.94 V	208	27.1	12.8

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) Average (AV)
FREQUENCY RANGE	1GHz ~ 40GHz		

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	5150.00	64.6 PK	74.0	-9.4	2.03 H	68	61.6	3.0
2	5150.00	50.7 AV	54.0	-3.3	2.03 H	68	47.7	3.0
3	*5200.00	116.8 PK			2.04 H	77	114.1	2.7
4	*5200.00	106.5 AV			2.04 H	77	103.8	2.7
5	#10400.00	66.9 PK	68.2	-1.3	2.08 H	127	54.4	12.5
6	15600.00	50.5 PK	74.0	-23.5	1.75 H	313	37.7	12.8
7	15600.00	39.5 AV	54.0	-14.5	1.75 H	313	26.7	12.8
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	67.6 PK	74.0	-6.4	1.58 V	327	64.6	3.0
2	5150.00	53.1 AV	54.0	-0.9	1.58 V	327	50.1	3.0
3	*5200.00	118.4 PK			1.58 V	327	115.7	2.7
4	*5200.00	108.9 AV			1.58 V	327	106.2	2.7
5	#10400.00	65.7 PK	68.2	-2.5	1.69 V	175	53.2	12.5
6	15600.00	50.3 PK	74.0	-23.7	2.08 V	213	37.5	12.8
7	15600.00	40.2 AV	54.0	-13.8	2.08 V	213	27.4	12.8

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 48	DETECTOR FUNCTION	Peak (PK) Average (AV)
FREQUENCY RANGE	1GHz ~ 40GHz		

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5240.00	116.4 PK			2.02 H	70	113.9	2.5
2	*5240.00	106.1 AV			2.02 H	70	103.6	2.5
3	5350.00	64.5 PK	74.0	-9.5	2.02 H	70	61.9	2.6
4	5350.00	50.5 AV	54.0	-3.5	2.02 H	70	47.9	2.6
5	#10480.00	67.2 PK	68.2	-1.0	2.06 H	120	54.2	13.0
6	15720.00	50.3 PK	74.0	-23.7	1.76 H	308	37.9	12.4
7	15720.00	39.0 AV	54.0	-15.0	1.76 H	308	26.6	12.4
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5240.00	118.3 PK			1.59 V	328	115.8	2.5
2	*5240.00	108.6 AV			1.59 V	328	106.1	2.5
3	5350.00	67.2 PK	74.0	-6.8	1.59 V	328	64.6	2.6
4	5350.00	52.7 AV	54.0	-1.3	1.59 V	328	50.1	2.6
5	#10480.00	65.2 PK	68.2	-3.0	1.70 V	161	52.2	13.0
6	15720.00	49.7 PK	74.0	-24.3	2.09 V	210	37.3	12.4
7	15720.00	39.8 AV	54.0	-14.2	2.09 V	210	27.4	12.4

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.

802.11ac (VHT20)

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

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	5150.00	67.5 PK	74.0	-6.5	1.09 H	69	64.5	3.0
2	5150.00	52.9 AV	54.0	-1.1	1.09 H	69	49.9	3.0
3	*5180.00	115.1 PK			1.09 H	69	112.3	2.8
4	*5180.00	104.5 AV			1.09 H	69	101.7	2.8
5	#10360.00	65.4 PK	68.2	-2.8	2.27 H	144	53.0	12.4
6	15540.00	49.1 PK	74.0	-24.9	1.42 H	297	36.3	12.8
7	15540.00	38.5 AV	54.0	-15.5	1.42 H	297	25.7	12.8
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	71.8 PK	74.0	-2.2	1.89 V	350	68.8	3.0
2	5150.00	53.7 AV	54.0	-0.3	1.89 V	350	50.7	3.0
3	*5180.00	117.1 PK			1.89 V	350	114.3	2.8
4	*5180.00	106.7 AV			1.89 V	350	103.9	2.8
5	#10360.00	65.1 PK	68.2	-3.1	1.75 V	147	52.7	12.4
6	15540.00	49.2 PK	74.0	-24.8	1.99 V	218	36.4	12.8
7	15540.00	39.3 AV	54.0	-14.7	1.99 V	218	26.5	12.8

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) Average (AV)
FREQUENCY RANGE	1GHz ~ 40GHz		

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	5150.00	64.3 PK	74.0	-9.7	1.99 H	72	61.3	3.0
2	5150.00	50.5 AV	54.0	-3.5	1.99 H	72	47.5	3.0
3	*5200.00	116.5 PK			2.08 H	66	113.8	2.7
4	*5200.00	106.3 AV			2.08 H	66	103.6	2.7
5	#10400.00	67.3 PK	68.2	-0.9	2.09 H	136	54.8	12.5
6	15600.00	50.7 PK	74.0	-23.3	1.80 H	325	37.9	12.8
7	15600.00	39.7 AV	54.0	-14.3	1.80 H	325	26.9	12.8
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	67.1 PK	74.0	-6.9	1.53 V	313	64.1	3.0
2	5150.00	52.9 AV	54.0	-1.1	1.53 V	313	49.9	3.0
3	*5200.00	118.2 PK			1.64 V	312	115.5	2.7
4	*5200.00	108.6 AV			1.64 V	312	105.9	2.7
5	#10400.00	65.4 PK	68.2	-2.8	1.65 V	168	52.9	12.5
6	15600.00	49.9 PK	74.0	-24.1	2.05 V	202	37.1	12.8
7	15600.00	39.8 AV	54.0	-14.2	2.05 V	202	27.0	12.8

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 48	DETECTOR FUNCTION	Peak (PK) Average (AV)
FREQUENCY RANGE	1GHz ~ 40GHz		

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5240.00	116.3 PK			1.96 H	79	113.8	2.5
2	*5240.00	106.1 AV			1.96 H	79	103.6	2.5
3	5350.00	64.0 PK	74.0	-10.0	2.06 H	74	61.4	2.6
4	5350.00	50.2 AV	54.0	-3.8	2.06 H	74	47.6	2.6
5	#10480.00	67.1 PK	68.2	-1.1	2.11 H	120	54.1	13.0
6	15720.00	51.1 PK	74.0	-22.9	1.72 H	294	38.7	12.4
7	15720.00	39.5 AV	54.0	-14.5	1.72 H	294	27.1	12.4
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5240.00	118.0 PK			1.56 V	329	115.5	2.5
2	*5240.00	108.4 AV			1.56 V	329	105.9	2.5
3	5350.00	67.2 PK	74.0	-6.8	1.57 V	336	64.6	2.6
4	5350.00	52.5 AV	54.0	-1.5	1.57 V	336	49.9	2.6
5	#10480.00	65.2 PK	68.2	-3.0	1.75 V	171	52.2	13.0
6	15720.00	49.8 PK	74.0	-24.2	2.11 V	220	37.4	12.4
7	15720.00	39.7 AV	54.0	-14.3	2.11 V	220	27.3	12.4

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.

802.11ac (VHT40)

CHANNEL	TX Channel 38	DETECTOR FUNCTION	Peak (PK) Average (AV)
FREQUENCY RANGE	1GHz ~ 40GHz		

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	5150.00	69.6 PK	74.0	-4.4	1.17 H	82	66.6	3.0
2	5150.00	51.8 AV	54.0	-2.2	1.17 H	82	48.8	3.0
3	*5190.00	109.1 PK			1.17 H	82	106.3	2.8
4	*5190.00	98.8 AV			1.17 H	82	96.0	2.8
5	5350.00	50.2 PK	74.0	-23.8	1.17 H	82	47.6	2.6
6	5350.00	37.7 AV	54.0	-16.3	1.17 H	82	35.1	2.6
7	#10380.00	58.8 PK	68.2	-9.4	2.32 H	139	46.4	12.4
8	15570.00	47.6 PK	74.0	-26.4	1.44 H	299	34.8	12.8
9	15570.00	37.4 AV	54.0	-16.6	1.44 H	299	24.6	12.8
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	71.8 PK	74.0	-2.2	1.46 V	206	68.8	3.0
2	**5150.00**	**53.9 AV**	**54.0**	**-0.1**	**1.46 V**	**206**	**50.9**	**3.0**
3	*5190.00	111.2 PK			1.46 V	206	108.4	2.8
4	*5190.00	101.1 AV			1.46 V	206	98.3	2.8
5	5350.00	51.1 PK	74.0	-22.9	1.46 V	206	48.5	2.6
6	5350.00	39.9 AV	54.0	-14.1	1.46 V	206	37.3	2.6
7	#10380.00	61.4 PK	68.2	-6.8	1.61 V	157	49.0	12.4
8	15570.00	50.2 PK	74.0	-23.8	2.04 V	186	37.4	12.8
9	15570.00	40.6 AV	54.0	-13.4	2.04 V	186	27.8	12.8

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 46	DETECTOR FUNCTION	Peak (PK) Average (AV)
FREQUENCY RANGE	1GHz ~ 40GHz		

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	5150.00	66.4 PK	74.0	-7.6	1.11 H	67	63.4	3.0
2	5150.00	51.1 AV	54.0	-2.9	1.11 H	67	48.1	3.0
3	*5230.00	113.8 PK			1.11 H	67	111.3	2.5
4	*5230.00	104.5 AV			1.11 H	67	102.0	2.5
5	5350.00	54.8 PK	74.0	-19.2	1.11 H	67	52.2	2.6
6	5350.00	41.6 AV	54.0	-12.4	1.11 H	67	39.0	2.6
7	#10460.00	66.9 PK	68.2	-1.3	2.30 H	125	54.0	12.9
8	15690.00	51.8 PK	74.0	-22.2	1.43 H	306	39.4	12.4
9	15690.00	40.2 AV	54.0	-13.8	1.43 H	306	27.8	12.4
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	68.6 PK	74.0	-5.4	1.82 V	169	65.6	3.0
2	5150.00	53.5 AV	54.0	-0.5	1.82 V	169	50.5	3.0
3	*5230.00	115.8 PK			1.82 V	169	113.3	2.5
4	*5230.00	106.1 AV			1.82 V	169	103.6	2.5
5	5350.00	56.7 PK	74.0	-17.3	1.82 V	169	54.1	2.6
6	5350.00	43.6 AV	54.0	-10.4	1.82 V	169	41.0	2.6
7	#10460.00	65.8 PK	68.2	-2.4	1.84 V	207	52.9	12.9
8	15690.00	50.2 PK	74.0	-23.8	2.18 V	234	37.8	12.4
9	15690.00	41.9 AV	54.0	-12.1	2.18 V	234	29.5	12.4

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.

802.11ac (VHT80)

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

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	5150.00	69.5 PK	74.0	-4.5	1.21 H	92	66.5	3.0
2	5150.00	52.3 AV	54.0	-1.7	1.21 H	92	49.3	3.0
3	*5210.00	106.3 PK			1.21 H	92	103.6	2.7
4	*5210.00	96.6 AV			1.21 H	92	93.9	2.7
5	5350.00	50.2 PK	74.0	-23.8	1.21 H	92	47.6	2.6
6	5350.00	39.9 AV	54.0	-14.1	1.21 H	92	37.3	2.6
7	#10420.00	59.8 PK	68.2	-8.4	2.28 H	139	47.2	12.6
8	15630.00	49.7 PK	74.0	-24.3	1.50 H	290	37.0	12.7
9	15630.00	38.3 AV	54.0	-15.7	1.50 H	290	25.6	12.7
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	5150.00	70.8 PK	74.0	-3.2	1.94 V	347	67.8	3.0
2	5150.00	53.6 AV	54.0	-0.4	1.94 V	347	50.6	3.0
3	*5210.00	107.8 PK			1.94 V	347	105.1	2.7
4	*5210.00	98.1 AV			1.94 V	347	95.4	2.7
5	5350.00	51.5 PK	74.0	-22.5	1.94 V	347	48.9	2.6
6	5350.00	41.2 AV	54.0	-12.8	1.94 V	347	38.6	2.6
7	#10420.00	62.9 PK	68.2	-5.3	1.65 V	170	50.3	12.6
8	15630.00	53.9 PK	74.0	-20.1	2.08 V	192	41.2	12.7
9	15630.00	42.8 AV	54.0	-11.2	2.08 V	192	30.1	12.7

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.

Master Mode

802.11a

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

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	5150.00	66.1 PK	74.0	-7.9	1.89 H	85	63.1	3.0
2	5150.00	51.2 AV	54.0	-2.8	1.89 H	85	48.2	3.0
3	*5180.00	111.5 PK			1.89 H	85	108.7	2.8
4	*5180.00	100.8 AV			1.89 H	85	98.0	2.8
5	#10360.00	65.3 PK	68.2	-2.9	2.11 H	124	52.9	12.4
6	15540.00	48.2 PK	74.0	-25.8	1.52 H	346	35.4	12.8
7	15540.00	37.4 AV	54.0	-16.6	1.52 H	346	24.6	12.8
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	69.3 PK	74.0	-4.7	1.87 V	353	66.3	3.0
2	5150.00	51.8 AV	54.0	-2.2	1.87 V	353	48.8	3.0
3	*5180.00	112.6 PK			1.87 V	353	109.8	2.8
4	*5180.00	102.4 AV			1.87 V	353	99.6	2.8
5	#10360.00	64.3 PK	68.2	-3.9	1.71 V	188	51.9	12.4
6	15540.00	49.1 PK	74.0	-24.9	2.14 V	189	36.3	12.8
7	15540.00	38.8 AV	54.0	-15.2	2.14 V	189	26.0	12.8

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) Average (AV)
FREQUENCY RANGE	1GHz ~ 40GHz		

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	5150.00	63.6 PK	74.0	-10.4	1.90 H	76	60.6	3.0
2	5150.00	49.9 AV	54.0	-4.1	1.90 H	76	46.9	3.0
3	*5200.00	110.9 PK			1.90 H	76	108.2	2.7
4	*5200.00	100.7 AV			1.90 H	76	98.0	2.7
5	#10400.00	66.3 PK	68.2	-1.9	2.06 H	109	53.8	12.5
6	15600.00	49.2 PK	74.0	-24.8	1.56 H	345	36.4	12.8
7	15600.00	38.4 AV	54.0	-15.6	1.56 H	345	25.6	12.8
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	66.8 PK	74.0	-7.2	1.68 V	354	63.8	3.0
2	5150.00	51.5 AV	54.0	-2.5	1.68 V	354	48.5	3.0
3	*5200.00	112.0 PK			1.68 V	354	109.3	2.7
4	*5200.00	102.3 AV			1.68 V	354	99.6	2.7
5	#10400.00	65.3 PK	68.2	-2.9	1.65 V	173	52.8	12.5
6	15600.00	50.1 PK	74.0	-23.9	2.15 V	205	37.3	12.8
7	15600.00	39.8 AV	54.0	-14.2	2.15 V	205	27.0	12.8

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 48	DETECTOR FUNCTION	Peak (PK) Average (AV)
FREQUENCY RANGE	1GHz ~ 40GHz		

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5240.00	111.0 PK			1.87 H	85	108.5	2.5
2	*5240.00	100.5 AV			1.87 H	85	98.0	2.5
3	5350.00	51.0 PK	74.0	-23.0	1.00 H	0	48.4	2.6
4	5350.00	41.5 AV	54.0	-12.5	1.00 H	0	38.9	2.6
5	#10480.00	65.8 PK	68.2	-2.4	2.12 H	109	52.8	13.0
6	15720.00	48.7 PK	74.0	-25.3	1.59 H	349	36.3	12.4
7	15720.00	37.9 AV	54.0	-16.1	1.59 H	349	25.5	12.4
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5240.00	112.1 PK			1.85 V	351	109.6	2.5
2	*5240.00	102.1 AV			1.85 V	351	99.6	2.5
3	5350.00	54.2 PK	74.0	-19.8	1.85 V	351	51.6	2.6
4	5350.00	43.1 AV	54.0	-10.9	1.85 V	351	40.5	2.6
5	#10480.00	64.8 PK	68.2	-3.4	1.67 V	171	51.8	13.0
6	15720.00	49.6 PK	74.0	-24.4	2.18 V	200	37.2	12.4
7	15720.00	39.3 AV	54.0	-14.7	2.18 V	200	26.9	12.4

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.

802.11ac (VHT20)

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

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	5150.00	68.6 PK	74.0	-5.4	1.09 H	69	65.6	3.0
2	5150.00	50.5 AV	54.0	-3.5	1.09 H	69	47.5	3.0
3	*5180.00	110.5 PK			1.09 H	69	107.7	2.8
4	*5180.00	100.1 AV			1.09 H	69	97.3	2.8
5	#10360.00	59.2 PK	68.2	-9.0	2.27 H	144	46.8	12.4
6	15540.00	46.7 PK	74.0	-27.3	1.42 H	297	33.9	12.8
7	15540.00	36.2 AV	54.0	-17.8	1.42 H	297	23.4	12.8
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	69.8 PK	74.0	-4.2	1.89 V	350	66.8	3.0
2	5150.00	51.7 AV	54.0	-2.3	1.89 V	350	48.7	3.0
3	*5180.00	112.6 PK			1.89 V	350	109.8	2.8
4	*5180.00	102.2 AV			1.89 V	350	99.4	2.8
5	#10360.00	59.6 PK	68.2	-8.6	1.60 V	171	47.2	12.4
6	15540.00	50.8 PK	74.0	-23.2	2.02 V	170	38.0	12.8
7	15540.00	40.3 AV	54.0	-13.7	2.02 V	170	27.5	12.8

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) Average (AV)
FREQUENCY RANGE	1GHz ~ 40GHz		

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	5150.00	63.4 PK	74.0	-10.6	1.10 H	82	60.4	3.0
2	5150.00	49.3 AV	54.0	-4.7	1.10 H	82	46.3	3.0
3	*5200.00	110.0 PK			1.10 H	82	107.3	2.7
4	*5200.00	100.2 AV			1.10 H	82	97.5	2.7
5	#10400.00	58.6 PK	68.2	-9.6	2.27 H	141	46.1	12.5
6	15600.00	46.2 PK	74.0	-27.8	1.46 H	273	33.4	12.8
7	15600.00	36.1 AV	54.0	-17.9	1.46 H	273	23.3	12.8
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	64.6 PK	74.0	-9.4	1.93 V	352	61.6	3.0
2	5150.00	50.5 AV	54.0	-3.5	1.93 V	352	47.5	3.0
3	*5200.00	111.6 PK			1.93 V	352	108.9	2.7
4	*5200.00	102.0 AV			1.93 V	352	99.3	2.7
5	#10400.00	59.8 PK	68.2	-8.4	1.61 V	157	47.3	12.5
6	15600.00	50.5 PK	74.0	-23.5	2.09 V	187	37.7	12.8
7	15600.00	40.1 AV	54.0	-13.9	2.09 V	187	27.3	12.8

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 48	DETECTOR FUNCTION	Peak (PK) Average (AV)
FREQUENCY RANGE	1GHz ~ 40GHz		

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5240.00	110.1 PK			1.04 H	64	107.6	2.5
2	*5240.00	100.3 AV			1.04 H	64	97.8	2.5
3	5350.00	49.5 PK	74.0	-24.5	1.04 H	64	46.9	2.6
4	5350.00	39.2 AV	54.0	-14.8	1.04 H	64	36.6	2.6
5	#10480.00	58.6 PK	68.2	-9.6	2.27 H	127	45.6	13.0
6	15720.00	46.9 PK	74.0	-27.1	1.46 H	284	34.5	12.4
7	15720.00	36.3 AV	54.0	-17.7	1.46 H	284	23.9	12.4
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5240.00	112.2 PK			1.63 V	169	109.7	2.5
2	*5240.00	102.4 AV			1.63 V	169	99.9	2.5
3	5350.00	50.7 PK	74.0	-23.3	1.63 V	169	48.1	2.6
4	5350.00	40.4 AV	54.0	-13.6	1.63 V	169	37.8	2.6
5	#10480.00	60.1 PK	68.2	-8.1	1.60 V	150	47.1	13.0
6	15720.00	50.6 PK	74.0	-23.4	2.04 V	174	38.2	12.4
7	15720.00	40.3 AV	54.0	-13.7	2.04 V	174	27.9	12.4

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.

802.11ac (VHT40)

CHANNEL	TX Channel 38	DETECTOR FUNCTION	Peak (PK) Average (AV)
FREQUENCY RANGE	1GHz ~ 40GHz		

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	5150.00	69.5 PK	74.0	-4.5	1.17 H	82	66.5	3.0
2	5150.00	51.6 AV	54.0	-2.4	1.17 H	82	48.6	3.0
3	*5190.00	108.7 PK			1.17 H	82	105.9	2.8
4	*5190.00	98.6 AV			1.17 H	82	95.8	2.8
5	5350.00	49.8 PK	74.0	-24.2	1.17 H	82	47.2	2.6
6	5350.00	37.6 AV	54.0	-16.4	1.17 H	82	35.0	2.6
7	#10380.00	58.6 PK	68.2	-9.6	2.32 H	139	46.2	12.4
8	15570.00	47.4 PK	74.0	-26.6	1.44 H	299	34.6	12.8
9	15570.00	37.1 AV	54.0	-16.9	1.44 H	299	24.3	12.8
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	70.8 PK	74.0	-3.2	1.46 V	206	67.8	3.0
2	5150.00	52.9 AV	54.0	-1.1	1.46 V	206	49.9	3.0
3	*5190.00	111.2 PK			1.46 V	206	108.4	2.8
4	*5190.00	101.1 AV			1.46 V	206	98.3	2.8
5	5350.00	51.1 PK	74.0	-22.9	1.46 V	206	48.5	2.6
6	5350.00	38.9 AV	54.0	-15.1	1.46 V	206	36.3	2.6
7	#10380.00	61.2 PK	68.2	-7.0	1.61 V	157	48.8	12.4
8	15570.00	49.8 PK	74.0	-24.2	2.04 V	186	37.0	12.8
9	15570.00	40.3 AV	54.0	-13.7	2.04 V	186	27.5	12.8

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 46	DETECTOR FUNCTION	Peak (PK) Average (AV)
FREQUENCY RANGE	1GHz ~ 40GHz		

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	5150.00	65.0 PK	74.0	-9.0	1.17 H	89	62.0	3.0
2	5150.00	49.9 AV	54.0	-4.1	1.17 H	89	46.9	3.0
3	*5230.00	107.6 PK			1.17 H	89	105.1	2.5
4	*5230.00	97.9 AV			1.17 H	89	95.4	2.5
5	5350.00	53.3 PK	74.0	-20.7	1.17 H	89	50.7	2.6
6	5350.00	40.1 AV	54.0	-13.9	1.17 H	89	37.5	2.6
7	#10460.00	58.3 PK	68.2	-9.9	2.24 H	143	45.4	12.9
8	15690.00	46.7 PK	74.0	-27.3	1.47 H	283	34.3	12.4
9	15690.00	37.0 AV	54.0	-17.0	1.47 H	283	24.6	12.4
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	66.3 PK	74.0	-7.7	1.82 V	169	63.3	3.0
2	5150.00	51.2 AV	54.0	-2.8	1.82 V	169	48.2	3.0
3	*5230.00	110.1 PK			1.82 V	169	107.6	2.5
4	*5230.00	100.4 AV			1.82 V	169	97.9	2.5
5	5350.00	54.6 PK	74.0	-19.4	1.82 V	169	52.0	2.6
6	5350.00	41.4 AV	54.0	-12.6	1.82 V	169	38.8	2.6
7	#10460.00	60.7 PK	68.2	-7.5	1.65 V	157	47.8	12.9
8	15690.00	50.8 PK	74.0	-23.2	2.04 V	182	38.4	12.4
9	15690.00	40.7 AV	54.0	-13.3	2.04 V	182	28.3	12.4

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.

802.11ac (VHT80)

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

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	5150.00	69.5 PK	74.0	-4.5	1.21 H	92	66.5	3.0
2	5150.00	52.3 AV	54.0	-1.7	1.21 H	92	49.3	3.0
3	*5210.00	106.3 PK			1.21 H	92	103.6	2.7
4	*5210.00	96.6 AV			1.21 H	92	93.9	2.7
5	5350.00	50.2 PK	74.0	-23.8	1.21 H	92	47.6	2.6
6	5350.00	39.9 AV	54.0	-14.1	1.21 H	92	37.3	2.6
7	#10420.00	59.8 PK	68.2	-8.4	2.28 H	139	47.2	12.6
8	15630.00	49.7 PK	74.0	-24.3	1.50 H	290	37.0	12.7
9	15630.00	38.3 AV	54.0	-15.7	1.50 H	290	25.6	12.7
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	5150.00	70.8 PK	74.0	-3.2	1.94 V	347	67.8	3.0
2	5150.00	53.6 AV	54.0	-0.4	1.94 V	347	50.6	3.0
3	*5210.00	107.8 PK			1.94 V	347	105.1	2.7
4	*5210.00	98.1 AV			1.94 V	347	95.4	2.7
5	5350.00	51.5 PK	74.0	-22.5	1.94 V	347	48.9	2.6
6	5350.00	41.2 AV	54.0	-12.8	1.94 V	347	38.6	2.6
7	#10420.00	62.9 PK	68.2	-5.3	1.65 V	170	50.3	12.6
8	15630.00	53.9 PK	74.0	-20.1	2.08 V	192	41.2	12.7
9	15630.00	42.8 AV	54.0	-11.2	2.08 V	192	30.1	12.7

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.

For U-NII-2A, U-NII-2C, U-NII-3 band

802.11a

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

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	5150.00	52.7 PK	74.0	-21.3	1.90 H	78	49.7	3.0
2	5150.00	41.8 AV	54.0	-12.2	1.90 H	78	38.8	3.0
3	*5260.00	110.5 PK			1.90 H	78	108.1	2.4
4	*5260.00	100.5 AV			1.90 H	78	98.1	2.4
5	#10520.00	66.1 PK	68.2	-2.1	2.06 H	102	53.2	12.9
6	15780.00	48.4 PK	74.0	-25.6	1.61 H	332	35.9	12.5
7	15780.00	37.4 AV	54.0	-16.6	1.61 H	332	24.9	12.5
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	55.9 PK	74.0	-18.1	1.85 V	350	52.9	3.0
2	5150.00	43.4 AV	54.0	-10.6	1.85 V	350	40.4	3.0
3	*5260.00	111.6 PK			1.85 V	350	109.2	2.4
4	*5260.00	102.1 AV			1.85 V	350	99.7	2.4
5	#10520.00	65.4 PK	68.2	-2.8	1.60 V	164	52.5	12.9
6	15780.00	54.7 PK	74.0	-19.3	2.11 V	205	42.2	12.5
7	15780.00	43.6 AV	54.0	-10.4	2.11 V	205	31.1	12.5

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

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5300.00	110.4 PK			1.94 H	75	107.9	2.5
2	*5300.00	100.4 AV			1.94 H	75	97.9	2.5
3	10600.00	60.1 PK	74.0	-13.9	2.02 H	120	47.7	12.4
4	10600.00	48.6 AV	54.0	-5.4	2.02 H	120	36.2	12.4
5	15900.00	49.0 PK	74.0	-25.0	1.57 H	332	36.7	12.3
6	15900.00	38.1 AV	54.0	-15.9	1.57 H	332	25.8	12.3
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	*5300.00	111.5 PK			1.81 V	349	109.0	2.5
2	*5300.00	102.0 AV			1.81 V	349	99.5	2.5
3	10600.00	64.6 PK	74.0	-9.4	1.65 V	181	52.2	12.4
4	10600.00	52.4 AV	54.0	-1.6	1.65 V	181	40.0	12.4
5	15900.00	54.2 PK	74.0	-19.8	2.11 V	211	41.9	12.3
6	15900.00	43.2 AV	54.0	-10.8	2.11 V	211	30.9	12.3

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 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	109.9 PK			1.89 H	80	107.4	2.5
2	*5320.00	100.1 AV			1.89 H	80	97.6	2.5
3	5350.00	62.0 PK	74.0	-12.0	1.89 H	80	59.4	2.6
4	5350.00	48.1 AV	54.0	-5.9	1.89 H	80	45.5	2.6
5	10640.00	66.4 PK	74.0	-7.6	2.10 H	98	53.8	12.6
6	10640.00	48.5 AV	54.0	-5.5	2.10 H	98	35.9	12.6
7	15960.00	49.1 PK	74.0	-24.9	1.51 H	339	36.6	12.5
8	15960.00	38.3 AV	54.0	-15.7	1.51 H	339	25.8	12.5
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	*5320.00	111.0 PK			1.82 V	349	108.5	2.5
2	*5320.00	101.7 AV			1.82 V	349	99.2	2.5
3	5350.00	67.2 PK	74.0	-6.8	1.82 V	349	64.6	2.6
4	5350.00	51.7 AV	54.0	-2.3	1.82 V	349	49.1	2.6
5	10640.00	64.8 PK	74.0	-9.2	1.67 V	174	52.2	12.6
6	10640.00	52.4 AV	54.0	-1.6	1.67 V	174	39.8	12.6
7	15960.00	54.4 PK	74.0	-19.6	2.16 V	221	41.9	12.5
8	15960.00	43.5 AV	54.0	-10.5	2.16 V	221	31.0	12.5

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

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	5460.00	62.1 PK	74.0	-11.9	1.91 H	68	59.2	2.9
2	5460.00	49.6 AV	54.0	-4.4	1.91 H	68	46.7	2.9
3	#5470.00	64.7 PK	68.2	-3.5	1.91 H	68	61.8	2.9
4	*5500.00	111.8 PK			1.91 H	68	108.9	2.9
5	*5500.00	101.7 AV			1.91 H	68	98.8	2.9
6	11000.00	60.5 PK	74.0	-13.5	2.07 H	123	47.3	13.2
7	11000.00	49.0 AV	54.0	-5.0	2.07 H	123	35.8	13.2
8	#16500.00	49.6 PK	68.2	-18.6	1.61 H	359	34.6	15.0
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	5460.00	65.3 PK	74.0	-8.7	1.74 V	38	62.4	2.9
2	5460.00	51.2 AV	54.0	-2.8	1.74 V	38	48.3	2.9
3	#5470.00	67.9 PK	68.2	-0.3	1.74 V	38	65.0	2.9
4	*5500.00	112.9 PK			1.74 V	38	110.0	2.9
5	*5500.00	103.3 AV			1.74 V	38	100.4	2.9
6	11000.00	64.9 PK	74.0	-9.1	1.68 V	185	51.7	13.2
7	11000.00	52.6 AV	54.0	-1.4	1.68 V	185	39.4	13.2
8	#16500.00	55.2 PK	68.2	-13.0	2.10 V	220	40.2	15.0

Remarks:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – 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	111.5 PK			1.93 H	81	108.3	3.2
2	*5580.00	101.0 AV			1.93 H	81	97.8	3.2
3	11160.00	66.6 PK	74.0	-7.4	2.08 H	111	53.5	13.1
4	11160.00	48.3 AV	54.0	-5.7	2.08 H	111	35.2	13.1
5	#16740.00	49.1 PK	68.2	-19.1	1.62 H	330	32.7	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	*5580.00	112.6 PK			1.77 V	39	109.4	3.2
2	*5580.00	102.6 AV			1.77 V	39	99.4	3.2
3	11160.00	64.3 PK	74.0	-9.7	1.63 V	167	51.2	13.1
4	11160.00	52.2 AV	54.0	-1.8	1.63 V	167	39.1	13.1
5	#16740.00	54.2 PK	68.2	-14.0	2.15 V	211	37.8	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 120	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	*5600.00	112.1 PK			1.85 H	63	108.8	3.3
2	*5600.00	101.8 AV			1.85 H	63	98.5	3.3
3	11200.00	60.6 PK	74.0	-13.4	2.07 H	117	47.5	13.1
4	11200.00	49.1 AV	54.0	-4.9	2.07 H	117	36.0	13.1
5	#16800.00	49.2 PK	68.2	-19.0	1.52 H	345	32.5	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	*5600.00	113.2 PK			1.69 V	48	109.9	3.3
2	*5600.00	103.4 AV			1.69 V	48	100.1	3.3
3	11200.00	64.6 PK	74.0	-9.4	1.63 V	180	51.5	13.1
4	11200.00	52.6 AV	54.0	-1.4	1.63 V	180	39.5	13.1
5	#16800.00	54.8 PK	68.2	-13.4	2.11 V	191	38.1	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 124	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	*5620.00	112.0 PK			1.89 H	62	108.7	3.3
2	*5620.00	101.7 AV			1.89 H	62	98.4	3.3
3	11240.00	65.7 PK	74.0	-8.3	2.01 H	98	52.4	13.3
4	11240.00	48.9 AV	54.0	-5.1	2.01 H	98	35.6	13.3
5	#16860.00	49.4 PK	68.2	-18.8	1.60 H	349	32.7	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	*5620.00	113.1 PK			1.73 V	48	109.8	3.3
2	*5620.00	103.3 AV			1.73 V	48	100.0	3.3
3	11240.00	64.7 PK	74.0	-9.3	1.66 V	188	51.4	13.3
4	11240.00	52.5 AV	54.0	-1.5	1.66 V	188	39.2	13.3
5	#16860.00	55.2 PK	68.2	-13.0	2.20 V	219	38.5	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 128	DETECTOR FUNCTION	Peak (PK) Average (AV)
FREQUENCY RANGE	1GHz ~ 40GHz		

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5640.00	113.1 PK			1.94 H	70	109.9	3.2
2	*5640.00	102.3 AV			1.94 H	70	99.1	3.2
3	#5725.00	55.1 PK	68.2	-13.1	1.94 H	70	51.8	3.3
4	#5881.00	60.7 PK	68.2	-7.5	1.94 H	70	57.0	3.7
5	11280.00	59.8 PK	74.0	-14.2	2.02 H	100	46.3	13.5
6	11280.00	48.3 AV	54.0	-5.7	2.02 H	100	34.8	13.5
7	#16920.00	49.7 PK	68.2	-18.5	1.57 H	354	33.1	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	*5640.00	114.2 PK			1.84 V	48	111.0	3.2
2	*5640.00	103.8 AV			1.84 V	48	100.6	3.2
3	#5725.00	58.3 PK	68.2	-9.9	1.84 V	48	55.0	3.3
4	#5881.00	63.9 PK	68.2	-4.3	1.84 V	48	60.2	3.7
5	11280.00	64.9 PK	74.0	-9.1	1.59 V	187	51.4	13.5
6	11280.00	52.8 AV	54.0	-1.2	1.59 V	187	39.3	13.5
7	#16920.00	54.6 PK	68.2	-13.6	2.20 V	209	38.0	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 140	DETECTOR FUNCTION	Peak (PK) Average (AV)
FREQUENCY RANGE	1GHz ~ 40GHz		

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5700.00	112.1 PK			1.89 H	67	108.7	3.4
2	*5700.00	101.2 AV			1.89 H	67	97.8	3.4
3	#5725.00	64.6 PK	68.2	-3.6	1.89 H	67	61.3	3.3
4	11400.00	60.9 PK	74.0	-13.1	2.01 H	102	47.4	13.5
5	11400.00	49.0 AV	54.0	-5.0	2.01 H	102	35.5	13.5
6	#17100.00	49.6 PK	68.2	-18.6	1.51 H	335	33.5	16.1
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5700.00	113.2 PK			1.82 V	38	109.8	3.4
2	*5700.00	102.8 AV			1.82 V	38	99.4	3.4
3	#5725.00	67.8 PK	68.2	-0.4	1.82 V	38	64.5	3.3
4	11400.00	64.8 PK	74.0	-9.2	1.64 V	173	51.3	13.5
5	11400.00	52.4 AV	54.0	-1.6	1.64 V	173	38.9	13.5
6	#17100.00	58.1 PK	68.2	-10.1	2.19 V	217	42.0	16.1

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

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	#5470.00	48.7 PK	68.2	-19.5	1.88 H	73	45.8	2.9
2	*5720.00	109.9 PK			1.88 H	73	106.6	3.3
3	*5720.00	99.4 AV			1.88 H	73	96.1	3.3
4	#5850.00	52.4 PK	68.2	-15.8	1.88 H	73	48.8	3.6
5	#5965.00	58.4 PK	68.2	-9.8	1.88 H	73	54.9	3.5
6	11440.00	60.1 PK	74.0	-13.9	2.06 H	101	46.7	13.4
7	11440.00	48.6 AV	54.0	-5.4	2.06 H	101	35.2	13.4
8	#17160.00	49.9 PK	68.2	-18.3	1.57 H	357	33.6	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	#5470.00	51.9 PK	68.2	-16.3	1.81 V	36	49.0	2.9
2	*5720.00	111.0 PK			1.81 V	36	107.7	3.3
3	*5720.00	101.0 AV			1.81 V	36	97.7	3.3
4	#5850.00	55.6 PK	68.2	-12.6	1.81 V	36	52.0	3.6
5	#5965.00	61.6 PK	68.2	-6.6	1.81 V	36	58.1	3.5
6	11440.00	64.8 PK	74.0	-9.2	1.71 V	169	51.4	13.4
7	11440.00	52.7 AV	54.0	-1.3	1.71 V	169	39.3	13.4
8	#17160.00	54.7 PK	68.2	-13.5	2.15 V	197	38.4	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 149	DETECTOR FUNCTION	Peak (PK) Average (AV)
FREQUENCY RANGE	1GHz ~ 40GHz		

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	#5644.50	60.7 PK	68.2	-7.5	1.15 H	79	57.5	3.2
2	*5745.00	120.2 PK			1.15 H	79	116.9	3.3
3	*5745.00	109.4 AV			1.15 H	79	106.1	3.3
4	#5989.07	59.3 PK	68.2	-8.9	1.15 H	79	55.6	3.7
5	11490.00	60.3 PK	74.0	-13.7	1.42 H	195	46.9	13.4
6	11490.00	48.6 AV	54.0	-5.4	1.42 H	195	35.2	13.4
7	#17235.00	56.1 PK	68.2	-12.1	1.48 H	255	39.4	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	#5656.11	72.5 PK	72.7	-0.2	1.75 V	7	69.2	3.3
2	*5745.00	122.1 PK			1.75 V	7	118.8	3.3
3	*5745.00	111.4 AV			1.75 V	7	108.1	3.3
4	#5976.81	63.8 PK	68.2	-4.4	1.75 V	7	60.2	3.6
5	11490.00	63.1 PK	74.0	-10.9	1.54 V	46	49.7	13.4
6	11490.00	51.1 AV	54.0	-2.9	1.54 V	46	37.7	13.4
7	#17235.00	58.3 PK	68.2	-9.9	1.68 V	202	41.6	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 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	#5638.80	61.8 PK	68.2	-6.4	1.16 H	82	58.6	3.2
2	*5785.00	121.1 PK			1.16 H	82	117.8	3.3
3	*5785.00	110.1 AV			1.16 H	82	106.8	3.3
4	#5937.69	63.1 PK	68.2	-5.1	1.16 H	82	59.5	3.6
5	11570.00	59.8 PK	74.0	-14.2	2.01 H	112	46.4	13.4
6	11570.00	48.3 AV	54.0	-5.7	2.01 H	112	34.9	13.4
7	#17355.00	49.6 PK	68.2	-18.6	1.58 H	359	32.3	17.3
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	#5639.47	64.8 PK	68.2	-3.4	1.77 V	10	61.6	3.2
2	*5785.00	122.3 PK			1.77 V	10	119.0	3.3
3	*5785.00	111.6 AV			1.77 V	10	108.3	3.3
4	#5923.42	67.6 PK	69.4	-1.8	1.77 V	10	64.0	3.6
5	11570.00	64.5 PK	74.0	-9.5	1.52 V	45	51.1	13.4
6	11570.00	52.4 AV	54.0	-1.6	1.52 V	45	39.0	13.4
7	#17355.00	55.2 PK	68.2	-13.0	1.70 V	194	37.9	17.3

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 165	DETECTOR FUNCTION	Peak (PK) Average (AV)
FREQUENCY RANGE	1GHz ~ 40GHz		

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	#5575.36	58.8 PK	68.2	-9.4	1.13 H	77	55.6	3.2
2	*5825.00	121.3 PK			1.13 H	77	117.8	3.5
3	*5825.00	110.8 AV			1.13 H	77	107.3	3.5
4	#5924.51	68.1 PK	68.6	-0.5	1.13 H	77	64.5	3.6
5	11650.00	60.6 PK	74.0	-13.4	2.12 H	116	47.3	13.3
6	11650.00	48.8 AV	54.0	-5.2	2.12 H	116	35.5	13.3
7	#17475.00	49.3 PK	68.2	-18.9	1.59 H	360	31.1	18.2
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	#5579.78	60.3 PK	68.2	-7.9	1.78 V	9	57.1	3.2
2	*5825.00	121.9 PK			1.78 V	9	118.4	3.5
3	*5825.00	111.2 AV			1.78 V	9	107.7	3.5
4	#5927.74	67.7 PK	68.2	-0.5	1.78 V	9	64.1	3.6
5	11650.00	65.4 PK	74.0	-8.6	1.51 V	47	52.1	13.3
6	11650.00	52.7 AV	54.0	-1.3	1.51 V	47	39.4	13.3
7	#17475.00	55.1 PK	68.2	-13.1	1.64 V	186	36.9	18.2

Remarks:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – 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 52	DETECTOR FUNCTION	Peak (PK) Average (AV)
FREQUENCY RANGE	1GHz ~ 40GHz		

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	5150.00	50.3 PK	74.0	-23.7	1.11 H	64	47.3	3.0
2	5150.00	39.1 AV	54.0	-14.9	1.11 H	64	36.1	3.0
3	*5260.00	109.5 PK			1.11 H	64	107.1	2.4
4	*5260.00	99.9 AV			1.11 H	64	97.5	2.4
5	#10520.00	58.9 PK	68.2	-9.3	2.22 H	143	46.0	12.9
6	15780.00	47.4 PK	74.0	-26.6	1.47 H	276	34.9	12.5
7	15780.00	36.8 AV	54.0	-17.2	1.47 H	276	24.3	12.5
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	51.5 PK	74.0	-22.5	1.66 V	171	48.5	3.0
2	5150.00	40.3 AV	54.0	-13.7	1.66 V	171	37.3	3.0
3	*5260.00	111.6 PK			1.66 V	171	109.2	2.4
4	*5260.00	102.0 AV			1.66 V	171	99.6	2.4
5	#10520.00	59.6 PK	68.2	-8.6	1.58 V	170	46.7	12.9
6	15780.00	50.3 PK	74.0	-23.7	1.99 V	190	37.8	12.5
7	15780.00	40.2 AV	54.0	-13.8	1.99 V	190	27.7	12.5

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

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5300.00	110.2 PK			1.07 H	68	107.7	2.5
2	*5300.00	100.5 AV			1.07 H	68	98.0	2.5
3	10600.00	58.7 PK	74.0	-15.3	2.21 H	155	46.3	12.4
4	10600.00	47.4 AV	54.0	-6.6	2.21 H	155	35.0	12.4
5	15900.00	46.9 PK	74.0	-27.1	1.51 H	282	34.6	12.3
6	15900.00	36.6 AV	54.0	-17.4	1.51 H	282	24.3	12.3
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	*5300.00	112.3 PK			1.51 V	174	109.8	2.5
2	*5300.00	102.6 AV			1.51 V	174	100.1	2.5
3	10600.00	60.0 PK	74.0	-14.0	1.60 V	162	47.6	12.4
4	10600.00	47.8 AV	54.0	-6.2	1.60 V	162	35.4	12.4
5	15900.00	50.6 PK	74.0	-23.4	2.04 V	173	38.3	12.3
6	15900.00	40.3 AV	54.0	-13.7	2.04 V	173	28.0	12.3

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 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	109.0 PK			1.12 H	66	106.5	2.5
2	*5320.00	98.1 AV			1.12 H	66	95.6	2.5
3	5350.00	65.3 PK	74.0	-8.7	1.12 H	66	62.7	2.6
4	5350.00	50.5 AV	54.0	-3.5	1.12 H	66	47.9	2.6
5	10640.00	59.1 PK	74.0	-14.9	2.22 H	139	46.5	12.6
6	10640.00	47.6 AV	54.0	-6.4	2.22 H	139	35.0	12.6
7	15960.00	46.6 PK	74.0	-27.4	1.46 H	274	34.1	12.5
8	15960.00	36.5 AV	54.0	-17.5	1.46 H	274	24.0	12.5
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	*5320.00	111.1 PK			1.44 V	177	108.6	2.5
2	*5320.00	100.2 AV			1.44 V	177	97.7	2.5
3	5350.00	66.5 PK	74.0	-7.5	1.44 V	177	63.9	2.6
4	5350.00	51.7 AV	54.0	-2.3	1.44 V	177	49.1	2.6
5	10640.00	59.8 PK	74.0	-14.2	1.58 V	162	47.2	12.6
6	10640.00	47.7 AV	54.0	-6.3	1.58 V	162	35.1	12.6
7	15960.00	50.7 PK	74.0	-23.3	2.05 V	201	38.2	12.5
8	15960.00	40.5 AV	54.0	-13.5	2.05 V	201	28.0	12.5

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 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	65.2 PK	74.0	-8.8	1.03 H	79	62.3	2.9
2	5460.00	49.9 AV	54.0	-4.1	1.03 H	79	47.0	2.9
3	#5470.00	66.8 PK	68.2	-1.4	1.03 H	79	63.9	2.9
4	*5500.00	110.0 PK			1.03 H	79	107.1	2.9
5	*5500.00	100.5 AV			1.03 H	79	97.6	2.9
6	11000.00	58.6 PK	74.0	-15.4	2.27 H	157	45.4	13.2
7	11000.00	47.1 AV	54.0	-6.9	2.27 H	157	33.9	13.2
8	#16500.00	46.0 PK	68.2	-22.2	1.46 H	284	31.0	15.0
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	5460.00	66.4 PK	74.0	-7.6	1.39 V	181	63.5	2.9
2	5460.00	51.1 AV	54.0	-2.9	1.39 V	181	48.2	2.9
3	#5470.00	68.0 PK	68.2	-0.2	1.39 V	181	65.1	2.9
4	*5500.00	112.1 PK			1.39 V	181	109.2	2.9
5	*5500.00	102.6 AV			1.39 V	181	99.7	2.9
6	11000.00	60.3 PK	74.0	-13.7	1.67 V	161	47.1	13.2
7	11000.00	47.9 AV	54.0	-6.1	1.67 V	161	34.7	13.2
8	#16500.00	50.6 PK	68.2	-17.6	2.06 V	181	35.6	15.0

Remarks:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – 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	109.8 PK			1.06 H	82	106.6	3.2
2	*5580.00	100.2 AV			1.06 H	82	97.0	3.2
3	11160.00	58.5 PK	74.0	-15.5	2.21 H	139	45.4	13.1
4	11160.00	47.3 AV	54.0	-6.7	2.21 H	139	34.2	13.1
5	#16740.00	46.2 PK	68.2	-22.0	1.44 H	294	29.8	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	*5580.00	111.9 PK			1.37 V	182	108.7	3.2
2	*5580.00	102.3 AV			1.37 V	182	99.1	3.2
3	11160.00	59.6 PK	74.0	-14.4	1.57 V	163	46.5	13.1
4	11160.00	47.4 AV	54.0	-6.6	1.57 V	163	34.3	13.1
5	#16740.00	50.5 PK	68.2	-17.7	2.09 V	180	34.1	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 120	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	*5600.00	111.7 PK			1.06 H	72	108.4	3.3
2	*5600.00	100.6 AV			1.06 H	72	97.3	3.3
3	11200.00	58.5 PK	74.0	-15.5	2.28 H	130	45.4	13.1
4	11200.00	47.5 AV	54.0	-6.5	2.28 H	130	34.4	13.1
5	#16800.00	47.4 PK	68.2	-20.8	1.49 H	290	30.7	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	*5600.00	113.8 PK			2.85 V	37	110.5	3.3
2	*5600.00	102.7 AV			2.85 V	37	99.4	3.3
3	11200.00	59.9 PK	74.0	-14.1	1.59 V	146	46.8	13.1
4	11200.00	47.8 AV	54.0	-6.2	1.59 V	146	34.7	13.1
5	#16800.00	50.5 PK	68.2	-17.7	2.08 V	192	33.8	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 124	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	*5620.00	111.6 PK			1.12 H	90	108.3	3.3
2	*5620.00	101.0 AV			1.12 H	90	97.7	3.3
3	11240.00	59.3 PK	74.0	-14.7	2.26 H	133	46.0	13.3
4	11240.00	47.9 AV	54.0	-6.1	2.26 H	133	34.6	13.3
5	#16860.00	46.9 PK	68.2	-21.3	1.50 H	273	30.2	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	*5620.00	113.7 PK			1.79 V	38	110.4	3.3
2	*5620.00	103.1 AV			1.79 V	38	99.8	3.3
3	11240.00	60.3 PK	74.0	-13.7	1.56 V	146	47.0	13.3
4	11240.00	48.0 AV	54.0	-6.0	1.56 V	146	34.7	13.3
5	#16860.00	50.6 PK	68.2	-17.6	2.02 V	188	33.9	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 128	DETECTOR FUNCTION	Peak (PK) Average (AV)
FREQUENCY RANGE	1GHz ~ 40GHz		

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5640.00	110.0 PK			1.06 H	91	106.8	3.2
2	*5640.00	100.3 AV			1.06 H	91	97.1	3.2
3	#5725.00	57.4 PK	68.2	-10.8	1.06 H	91	54.1	3.3
4	#5882.00	61.1 PK	68.2	-7.1	1.06 H	91	57.4	3.7
5	11280.00	58.7 PK	74.0	-15.3	2.23 H	138	45.2	13.5
6	11280.00	47.4 AV	54.0	-6.6	2.23 H	138	33.9	13.5
7	#16920.00	46.7 PK	68.2	-21.5	1.52 H	291	30.1	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	*5640.00	112.1 PK			1.98 V	39	108.9	3.2
2	*5640.00	102.4 AV			1.98 V	39	99.2	3.2
3	#5725.00	58.6 PK	68.2	-9.6	1.98 V	39	55.3	3.3
4	#5882.00	62.3 PK	68.2	-5.9	1.98 V	39	58.6	3.7
5	11280.00	59.7 PK	74.0	-14.3	1.66 V	150	46.2	13.5
6	11280.00	47.6 AV	54.0	-6.4	1.66 V	150	34.1	13.5
7	#16920.00	50.6 PK	68.2	-17.6	2.10 V	176	34.0	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 140	DETECTOR FUNCTION	Peak (PK) Average (AV)
FREQUENCY RANGE	1GHz ~ 40GHz		

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5700.00	109.6 PK			1.05 H	79	106.2	3.4
2	*5700.00	99.8 AV			1.05 H	79	96.4	3.4
3	#5725.00	66.7 PK	68.2	-1.5	1.05 H	79	63.4	3.3
4	11400.00	58.8 PK	74.0	-15.2	2.19 H	138	45.3	13.5
5	11400.00	47.7 AV	54.0	-6.3	2.19 H	138	34.2	13.5
6	#17100.00	46.9 PK	68.2	-21.3	1.42 H	270	30.8	16.1
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5700.00	111.7 PK			1.36 V	180	108.3	3.4
2	*5700.00	101.9 AV			1.36 V	180	98.5	3.4
3	#5725.00	67.9 PK	68.2	-0.3	1.36 V	180	64.6	3.3
4	11400.00	60.0 PK	74.0	-14.0	1.56 V	153	46.5	13.5
5	11400.00	47.9 AV	54.0	-6.1	1.56 V	153	34.4	13.5
6	#17100.00	51.0 PK	68.2	-17.2	2.08 V	185	34.9	16.1

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

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	#5470.00	50.1 PK	68.2	-18.1	1.10 H	67	47.2	2.9
2	*5720.00	110.0 PK			1.10 H	67	106.7	3.3
3	*5720.00	100.4 AV			1.10 H	67	97.1	3.3
4	#5850.00	54.2 PK	68.2	-14.0	1.10 H	67	50.6	3.6
5	#5966.00	60.4 PK	68.2	-7.8	1.10 H	67	56.9	3.5
6	11440.00	59.4 PK	74.0	-14.6	2.28 H	149	46.0	13.4
7	11440.00	47.9 AV	54.0	-6.1	2.28 H	149	34.5	13.4
8	#17160.00	46.7 PK	68.2	-21.5	1.48 H	286	30.4	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	#5470.00	51.3 PK	68.2	-16.9	1.47 V	181	48.4	2.9
2	*5720.00	112.1 PK			1.47 V	181	108.8	3.3
3	*5720.00	102.5 AV			1.47 V	181	99.2	3.3
4	#5850.00	55.4 PK	68.2	-12.8	1.47 V	181	51.8	3.6
5	#5966.00	61.6 PK	68.2	-6.6	1.47 V	181	58.1	3.5
6	11440.00	60.2 PK	74.0	-13.8	1.56 V	171	46.8	13.4
7	11440.00	47.7 AV	54.0	-6.3	1.56 V	171	34.3	13.4
8	#17160.00	50.2 PK	68.2	-18.0	2.04 V	171	33.9	16.3

Remarks:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – 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) 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	#5632.39	58.0 PK	68.2	-10.2	1.05 H	79	54.8	3.2
2	*5745.00	119.9 PK			1.05 H	79	116.6	3.3
3	*5745.00	109.0 AV			1.05 H	79	105.7	3.3
4	#5961.26	57.4 PK	68.2	-10.8	1.05 H	79	53.9	3.5
5	11490.00	59.8 PK	74.0	-14.2	2.27 H	140	46.4	13.4
6	11490.00	48.3 AV	54.0	-5.7	2.27 H	140	34.9	13.4
7	#17235.00	47.1 PK	68.2	-21.1	1.48 H	294	30.4	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	**#5651.34**	**69.1 PK**	**69.2**	**-0.1**	**1.67 V**	**360**	**65.9**	**3.2**
2	*5745.00	121.8 PK			1.67 V	360	118.5	3.3
3	*5745.00	111.1 AV			1.67 V	360	107.8	3.3
4	#5991.75	62.4 PK	68.2	-5.8	1.67 V	360	58.7	3.7
5	11490.00	60.2 PK	74.0	-13.8	1.65 V	149	46.8	13.4
6	11490.00	48.1 AV	54.0	-5.9	1.65 V	149	34.7	13.4
7	#17235.00	51.0 PK	68.2	-17.2	2.05 V	192	34.3	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 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	#5654.40	68.0 PK	71.5	-3.5	1.07 H	81	64.7	3.3
2	*5785.00	121.1 PK			1.07 H	81	117.8	3.3
3	*5785.00	110.2 AV			1.07 H	81	106.9	3.3
4	#5929.12	62.7 PK	68.2	-5.5	1.07 H	81	59.1	3.6
5	11570.00	59.4 PK	74.0	-14.6	2.24 H	138	46.0	13.4
6	11570.00	48.0 AV	54.0	-6.0	2.24 H	138	34.6	13.4
7	#17355.00	47.7 PK	68.2	-20.5	1.44 H	268	30.4	17.3
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	#5649.37	61.4 PK	68.2	-6.8	1.69 V	5	58.2	3.2
2	*5785.00	122.0 PK			1.69 V	5	118.7	3.3
3	*5785.00	111.2 AV			1.69 V	5	107.9	3.3
4	#5950.73	62.4 PK	68.2	-5.8	1.69 V	5	58.9	3.5
5	11570.00	60.4 PK	74.0	-13.6	1.65 V	168	47.0	13.4
6	11570.00	47.9 AV	54.0	-6.1	1.65 V	168	34.5	13.4
7	#17355.00	50.1 PK	68.2	-18.1	2.01 V	196	32.8	17.3

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 165	DETECTOR FUNCTION	Peak (PK) Average (AV)
FREQUENCY RANGE	1GHz ~ 40GHz		

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	#5589.90	62.3 PK	68.2	-5.9	1.08 H	80	59.1	3.2
2	*5825.00	119.5 PK			1.08 H	80	116.0	3.5
3	*5825.00	108.8 AV			1.08 H	80	105.3	3.5
4	#5937.86	58.2 PK	68.2	-10.0	1.08 H	80	54.6	3.6
5	11650.00	59.5 PK	74.0	-14.5	2.30 H	132	46.2	13.3
6	11650.00	48.0 AV	54.0	-6.0	2.30 H	132	34.7	13.3
7	#17475.00	46.4 PK	68.2	-21.8	1.47 H	285	28.2	18.2
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	#5590.71	60.4 PK	68.2	-7.8	1.64 V	16	57.2	3.2
2	*5825.00	121.8 PK			1.64 V	16	118.3	3.5
3	*5825.00	111.2 AV			1.64 V	16	107.7	3.5
4	**#5942.64**	**68.1 PK**	**68.2**	**-0.1**	**1.64 V**	**16**	**64.6**	**3.5**
5	11650.00	60.7 PK	74.0	-13.3	1.61 V	159	47.4	13.3
6	11650.00	48.4 AV	54.0	-5.6	1.61 V	159	35.1	13.3
7	#17475.00	50.9 PK	68.2	-17.3	2.03 V	175	32.7	18.2

Remarks:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – 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 54	DETECTOR FUNCTION	Peak (PK) Average (AV)
FREQUENCY RANGE	1GHz ~ 40GHz		

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	5150.00	57.0 PK	74.0	-17.0	1.12 H	79	54.0	3.0
2	5150.00	42.7 AV	54.0	-11.3	1.12 H	79	39.7	3.0
3	*5270.00	107.5 PK			1.12 H	79	105.1	2.4
4	*5270.00	97.8 AV			1.12 H	79	95.4	2.4
5	5350.00	62.9 PK	74.0	-11.1	1.12 H	79	60.3	2.6
6	5350.00	50.3 AV	54.0	-3.7	1.12 H	79	47.7	2.6
7	#10540.00	58.1 PK	68.2	-10.1	2.25 H	139	45.3	12.8
8	15810.00	47.0 PK	74.0	-27.0	1.53 H	287	34.6	12.4
9	15810.00	36.7 AV	54.0	-17.3	1.53 H	287	24.3	12.4
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	58.3 PK	74.0	-15.7	1.83 V	170	55.3	3.0
2	5150.00	44.0 AV	54.0	-10.0	1.83 V	170	41.0	3.0
3	*5270.00	110.0 PK			1.83 V	170	107.6	2.4
4	*5270.00	100.3 AV			1.83 V	170	97.9	2.4
5	5350.00	64.2 PK	74.0	-9.8	1.83 V	170	61.6	2.6
6	5350.00	51.6 AV	54.0	-2.4	1.83 V	170	49.0	2.6
7	#10540.00	61.7 PK	68.2	-6.5	1.59 V	172	48.9	12.8
8	15810.00	50.4 PK	74.0	-23.6	2.13 V	202	38.0	12.4
9	15810.00	40.2 AV	54.0	-13.8	2.13 V	202	27.8	12.4

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) Average (AV)
FREQUENCY RANGE	1GHz ~ 40GHz		

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5310.00	107.8 PK			1.18 H	72	105.4	2.4
2	*5310.00	97.9 AV			1.18 H	72	95.5	2.4
3	5350.00	68.6 PK	74.0	-5.4	1.18 H	72	66.0	2.6
4	5350.00	51.7 AV	54.0	-2.3	1.18 H	72	49.1	2.6
5	10620.00	58.4 PK	74.0	-15.6	2.25 H	144	45.9	12.5
6	10620.00	46.9 AV	54.0	-7.1	2.25 H	144	34.4	12.5
7	15930.00	47.0 PK	74.0	-27.0	1.45 H	281	34.6	12.4
8	15930.00	36.9 AV	54.0	-17.1	1.45 H	281	24.5	12.4
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	*5310.00	110.3 PK			1.72 V	155	107.9	2.4
2	*5310.00	100.4 AV			1.72 V	155	98.0	2.4
3	5350.00	69.9 PK	74.0	-4.1	1.72 V	155	67.3	2.6
4	5350.00	53.0 AV	54.0	-1.0	1.72 V	155	50.4	2.6
5	10620.00	60.8 PK	74.0	-13.2	1.63 V	169	48.3	12.5
6	10620.00	48.3 AV	54.0	-5.7	1.63 V	169	35.8	12.5
7	15930.00	51.0 PK	74.0	-23.0	2.07 V	188	38.6	12.4
8	15930.00	40.7 AV	54.0	-13.3	2.07 V	188	28.3	12.4

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

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	5460.00	65.0 PK	74.0	-9.0	1.12 H	94	62.1	2.9
2	5460.00	49.9 AV	54.0	-4.1	1.12 H	94	47.0	2.9
3	#5470.00	66.8 PK	68.2	-1.4	1.12 H	94	63.9	2.9
4	*5510.00	108.4 PK			1.12 H	94	105.5	2.9
5	*5510.00	96.9 AV			1.12 H	94	94.0	2.9
6	11020.00	58.4 PK	74.0	-15.6	2.20 H	139	45.2	13.2
7	11020.00	47.2 AV	54.0	-6.8	2.20 H	139	34.0	13.2
8	#16530.00	47.7 PK	68.2	-20.5	1.44 H	288	32.8	14.9
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	66.3 PK	74.0	-7.7	1.96 V	35	63.4	2.9
2	5460.00	51.2 AV	54.0	-2.8	1.96 V	35	48.3	2.9
3	**#5470.00**	**68.1 PK**	**68.2**	**-0.1**	**1.96 V**	**35**	**65.2**	**2.9**
4	*5510.00	110.9 PK			1.96 V	35	108.0	2.9
5	*5510.00	99.4 AV			1.96 V	35	96.5	2.9
6	11020.00	61.0 PK	74.0	-13.0	1.70 V	157	47.8	13.2
7	11020.00	48.4 AV	54.0	-5.6	1.70 V	157	35.2	13.2
8	#16530.00	50.4 PK	68.2	-17.8	2.11 V	205	35.5	14.9

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 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	#5470.00	65.9 PK	68.2	-2.3	1.14 H	86	63.0	2.9
2	*5550.00	109.8 PK			1.14 H	86	106.8	3.0
3	*5550.00	99.4 AV			1.14 H	86	96.4	3.0
4	11100.00	58.3 PK	74.0	-15.7	2.22 H	150	45.3	13.0
5	11100.00	47.1 AV	54.0	-6.9	2.22 H	150	34.1	13.0
6	#16650.00	46.8 PK	68.2	-21.4	1.52 H	299	31.2	15.6
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	67.2 PK	68.2	-1.0	1.77 V	34	64.3	2.9
2	*5550.00	112.3 PK			1.77 V	34	109.3	3.0
3	*5550.00	101.9 AV			1.77 V	34	98.9	3.0
4	11100.00	61.6 PK	74.0	-12.4	1.65 V	146	48.6	13.0
5	11100.00	48.9 AV	54.0	-5.1	1.65 V	146	35.9	13.0
6	#16650.00	50.3 PK	68.2	-17.9	2.15 V	210	34.7	15.6

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 118	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	*5590.00	109.8 PK			1.19 H	75	106.6	3.2
2	*5590.00	99.1 AV			1.19 H	75	95.9	3.2
3	#5725.00	58.2 PK	68.2	-10.0	1.19 H	75	54.9	3.3
4	11180.00	58.0 PK	74.0	-16.0	2.23 H	136	44.8	13.2
5	11180.00	46.9 AV	54.0	-7.1	2.23 H	136	33.7	13.2
6	#16770.00	46.8 PK	68.2	-21.4	1.51 H	309	30.2	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	*5590.00	112.3 PK			1.69 V	37	109.1	3.2
2	*5590.00	101.6 AV			1.69 V	37	98.4	3.2
3	#5725.00	59.5 PK	68.2	-8.7	1.69 V	37	56.2	3.3
4	11180.00	61.6 PK	74.0	-12.4	1.68 V	154	48.4	13.2
5	11180.00	49.0 AV	54.0	-5.0	1.68 V	154	35.8	13.2
6	#16770.00	50.0 PK	68.2	-18.2	2.13 V	200	33.4	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 126	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	*5630.00	109.9 PK			1.11 H	93	106.6	3.3
2	*5630.00	99.0 AV			1.11 H	93	95.7	3.3
3	#5725.00	61.2 PK	68.2	-7.0	1.11 H	93	57.9	3.3
4	11260.00	58.2 PK	74.0	-15.8	2.27 H	137	44.8	13.4
5	11260.00	46.9 AV	54.0	-7.1	2.27 H	137	33.5	13.4
6	#16890.00	47.2 PK	68.2	-21.0	1.50 H	278	30.5	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	*5630.00	112.4 PK			1.72 V	33	109.1	3.3
2	*5630.00	101.5 AV			1.72 V	33	98.2	3.3
3	#5725.00	62.5 PK	68.2	-5.7	1.72 V	33	59.2	3.3
4	11260.00	60.9 PK	74.0	-13.1	1.69 V	165	47.5	13.4
5	11260.00	48.3 AV	54.0	-5.7	1.69 V	165	34.9	13.4
6	#16890.00	50.5 PK	68.2	-17.7	2.08 V	200	33.8	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 134	DETECTOR FUNCTION	Peak (PK) Average (AV)
FREQUENCY RANGE	1GHz ~ 40GHz		

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5670.00	109.2 PK			1.18 H	91	105.9	3.3
2	*5670.00	98.7 AV			1.18 H	91	95.4	3.3
3	#5725.00	66.6 PK	68.2	-1.6	1.18 H	91	63.3	3.3
4	11340.00	57.8 PK	74.0	-16.2	2.25 H	129	44.3	13.5
5	11340.00	46.4 AV	54.0	-7.6	2.25 H	129	32.9	13.5
6	#17010.00	47.1 PK	68.2	-21.1	1.47 H	291	30.6	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	*5670.00	111.7 PK			1.75 V	33	108.4	3.3
2	*5670.00	101.2 AV			1.75 V	33	97.9	3.3
3	#5725.00	67.9 PK	68.2	-0.3	1.75 V	33	64.6	3.3
4	11340.00	61.3 PK	74.0	-12.7	1.65 V	169	47.8	13.5
5	11340.00	48.7 AV	54.0	-5.3	1.65 V	169	35.2	13.5
6	#17010.00	51.0 PK	68.2	-17.2	2.05 V	206	34.5	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 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	50.9 PK	68.2	-17.3	1.14 H	96	48.0	2.9
2	*5710.00	109.3 PK			1.14 H	96	106.0	3.3
3	*5710.00	98.8 AV			1.14 H	96	95.5	3.3
4	#5850.00	55.1 PK	68.2	-13.1	1.14 H	96	51.5	3.6
5	11420.00	58.1 PK	74.0	-15.9	2.32 H	143	44.7	13.4
6	11420.00	46.7 AV	54.0	-7.3	2.32 H	143	33.3	13.4
7	#17130.00	47.3 PK	68.2	-20.9	1.51 H	289	31.0	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	#5470.00	52.2 PK	68.2	-16.0	2.01 V	3	49.3	2.9
2	*5710.00	111.8 PK			2.01 V	3	108.5	3.3
3	*5710.00	101.3 AV			2.01 V	3	98.0	3.3
4	#5850.00	56.4 PK	68.2	-11.8	2.01 V	3	52.8	3.6
5	11420.00	61.2 PK	74.0	-12.8	1.69 V	159	47.8	13.4
6	11420.00	48.7 AV	54.0	-5.3	1.69 V	159	35.3	13.4
7	#17130.00	50.6 PK	68.2	-17.6	2.13 V	188	34.3	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 151	DETECTOR FUNCTION	Peak (PK) Average (AV)
FREQUENCY RANGE	1GHz ~ 40GHz		

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	#5640.27	63.0 PK	68.2	-5.2	1.08 H	82	59.8	3.2
2	*5755.00	115.5 PK			1.08 H	82	112.2	3.3
3	*5755.00	104.3 AV			1.08 H	82	101.0	3.3
4	#5926.22	57.6 PK	68.2	-10.6	1.08 H	82	54.0	3.6
5	11510.00	59.8 PK	74.0	-14.2	2.26 H	151	46.4	13.4
6	11510.00	48.2 AV	54.0	-5.8	2.26 H	151	34.8	13.4
7	#17265.00	49.1 PK	68.2	-19.1	1.55 H	305	32.3	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	#5631.68	67.8 PK	68.2	-0.4	1.74 V	5	64.6	3.2
2	*5755.00	117.9 PK			1.74 V	5	114.6	3.3
3	*5755.00	106.8 AV			1.74 V	5	103.5	3.3
4	#5932.28	60.5 PK	68.2	-7.7	1.74 V	5	56.9	3.6
5	11510.00	63.2 PK	74.0	-10.8	1.66 V	169	49.8	13.4
6	11510.00	50.5 AV	54.0	-3.5	1.66 V	169	37.1	13.4
7	#17265.00	52.3 PK	68.2	-15.9	2.08 V	195	35.5	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) 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	#5645.62	66.0 PK	68.2	-2.2	1.15 H	84	62.8	3.2
2	*5795.00	107.3 PK			1.15 H	84	104.0	3.3
3	*5795.00	105.9 AV			1.15 H	84	102.6	3.3
4	#5932.56	64.9 PK	68.2	-3.3	1.15 H	84	61.3	3.6
5	11590.00	60.1 PK	74.0	-13.9	2.34 H	148	46.7	13.4
6	11590.00	48.5 AV	54.0	-5.5	2.34 H	148	35.1	13.4
7	#17385.00	49.4 PK	68.2	-18.8	1.53 H	303	31.9	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	#5644.93	65.4 PK	68.2	-2.8	1.92 V	8	62.2	3.2
2	*5795.00	118.2 PK			1.92 V	8	114.9	3.3
3	*5795.00	107.1 AV			1.92 V	8	103.8	3.3
4	**#5928.36**	**68.1 PK**	**68.2**	**-0.1**	**1.92 V**	**8**	**64.5**	**3.6**
5	11590.00	63.5 PK	74.0	-10.5	1.67 V	172	50.1	13.4
6	11590.00	50.8 AV	54.0	-3.2	1.67 V	172	37.4	13.4
7	#17385.00	52.7 PK	68.2	-15.5	2.13 V	195	35.2	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.

802.11ac (VHT80)

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

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	5150.00	51.0 PK	74.0	-23.0	1.13 H	76	48.0	3.0
2	5150.00	40.7 AV	54.0	-13.3	1.13 H	76	37.7	3.0
3	*5290.00	106.4 PK			1.13 H	76	104.0	2.4
4	*5290.00	96.7 AV			1.13 H	76	94.3	2.4
5	5350.00	72.5 PK	74.0	-1.5	1.13 H	76	69.9	2.6
6	5350.00	52.3 AV	54.0	-1.7	1.13 H	76	49.7	2.6
7	#10580.00	59.6 PK	68.2	-8.6	2.27 H	155	47.0	12.6
8	15870.00	50.0 PK	74.0	-24.0	1.56 H	298	37.6	12.4
9	15870.00	40.0 AV	54.0	-14.0	1.56 H	298	27.6	12.4
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	52.3 PK	74.0	-21.7	1.84 V	348	49.3	3.0
2	5150.00	42.0 AV	54.0	-12.0	1.84 V	348	39.0	3.0
3	*5290.00	107.9 PK			1.84 V	348	105.5	2.4
4	*5290.00	98.2 AV			1.84 V	348	95.8	2.4
5	5350.00	73.8 PK	74.0	-0.2	1.84 V	348	71.2	2.6
6	5350.00	53.6 AV	54.0	-0.4	1.84 V	348	51.0	2.6
7	#10580.00	63.6 PK	68.2	-4.6	1.63 V	163	51.0	12.6
8	15870.00	53.8 PK	74.0	-20.2	2.11 V	207	41.4	12.4
9	15870.00	42.1 AV	54.0	-11.9	2.11 V	207	29.7	12.4

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

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	5460.00	65.5 PK	74.0	-8.5	1.13 H	80	62.6	2.9
2	5460.00	50.8 AV	54.0	-3.2	1.13 H	80	47.9	2.9
3	#5470.00	66.8 PK	68.2	-1.4	1.13 H	80	63.9	2.9
4	*5530.00	104.2 PK			1.13 H	80	101.2	3.0
5	*5530.00	93.3 AV			1.13 H	80	90.3	3.0
6	#5725.00	50.8 PK	68.2	-17.4	1.13 H	80	47.5	3.3
7	11060.00	59.5 PK	74.0	-14.5	2.39 H	139	46.3	13.2
8	11060.00	47.8 AV	54.0	-6.2	2.39 H	139	34.6	13.2
9	#16590.00	49.6 PK	68.2	-18.6	1.56 H	284	34.5	15.1
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	66.8 PK	74.0	-7.2	1.78 V	35	63.9	2.9
2	5460.00	52.1 AV	54.0	-1.9	1.78 V	35	49.2	2.9
3	**#5470.00**	**68.1 PK**	**68.2**	**-0.1**	**1.78 V**	**35**	**65.2**	**2.9**
4	*5530.00	105.7 PK			1.78 V	35	102.7	3.0
5	*5530.00	94.8 AV			1.78 V	35	91.8	3.0
6	#5725.00	52.1 PK	68.2	-16.1	1.78 V	35	48.8	3.3
7	11060.00	63.3 PK	74.0	-10.7	1.62 V	163	50.1	13.2
8	11060.00	50.9 AV	54.0	-3.1	1.62 V	163	37.7	13.2
9	#16590.00	53.5 PK	68.2	-14.7	2.10 V	217	38.4	15.1

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 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	*5610.00	108.3 PK			1.11 H	90	105.0	3.3
2	*5610.00	97.8 AV			1.11 H	90	94.5	3.3
3	#5725.00	66.8 PK	68.2	-1.4	1.11 H	90	63.5	3.3
4	11220.00	59.2 PK	74.0	-14.8	2.33 H	141	46.0	13.2
5	11220.00	47.9 AV	54.0	-6.1	2.33 H	141	34.7	13.2
6	#16830.00	49.0 PK	68.2	-19.2	1.56 H	293	32.4	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	*5610.00	109.8 PK			1.77 V	36	106.5	3.3
2	*5610.00	99.3 AV			1.77 V	36	96.0	3.3
3	**#5725.00**	**68.1 PK**	**68.2**	**-0.1**	**1.77 V**	**36**	**64.8**	**3.3**
4	11220.00	62.6 PK	74.0	-11.4	1.67 V	187	49.4	13.2
5	11220.00	50.3 AV	54.0	-3.7	1.67 V	187	37.1	13.2
6	#16830.00	53.4 PK	68.2	-14.8	2.12 V	205	36.8	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 138	DETECTOR FUNCTION	Peak (PK) Average (AV)
FREQUENCY RANGE	1GHz ~ 40GHz		

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	#5470.00	58.8 PK	68.2	-9.4	1.17 H	87	55.9	2.9
2	*5690.00	106.7 PK			1.17 H	87	103.4	3.3
3	*5690.00	96.2 AV			1.17 H	87	92.9	3.3
4	#5850.00	66.5 PK	68.2	-1.7	1.17 H	87	62.9	3.6
5	11380.00	59.4 PK	74.0	-14.6	2.32 H	134	45.9	13.5
6	11380.00	47.8 AV	54.0	-6.2	2.32 H	134	34.3	13.5
7	#17070.00	49.2 PK	68.2	-19.0	1.46 H	305	33.0	16.2
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	60.1 PK	68.2	-8.1	1.76 V	35	57.2	2.9
2	*5690.00	108.2 PK			1.76 V	35	104.9	3.3
3	*5690.00	97.7 AV			1.76 V	35	94.4	3.3
4	#5850.00	67.8 PK	68.2	-0.4	1.76 V	35	64.2	3.6
5	11380.00	62.8 PK	74.0	-11.2	1.67 V	183	49.3	13.5
6	11380.00	50.6 AV	54.0	-3.4	1.67 V	183	37.1	13.5
7	#17070.00	53.2 PK	68.2	-15.0	2.16 V	206	37.0	16.2

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 155	DETECTOR FUNCTION	Peak (PK) Average (AV)
FREQUENCY RANGE	1GHz ~ 40GHz		

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	#5649.20	67.1 PK	68.2	-1.1	1.13 H	83	63.9	3.2
2	*5775.00	110.6 PK			1.13 H	83	107.2	3.4
3	*5775.00	100.3 AV			1.13 H	83	96.9	3.4
4	#5928.81	63.3 PK	68.2	-4.9	1.13 H	83	59.7	3.6
5	11550.00	59.6 PK	74.0	-14.4	2.37 H	134	46.3	13.3
6	11550.00	48.1 AV	54.0	-5.9	2.37 H	134	34.8	13.3
7	#17325.00	49.3 PK	68.2	-18.9	1.51 H	298	32.2	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	#5643.46	67.8 PK	68.2	-0.4	1.76 V	6	64.6	3.2
2	*5775.00	112.1 PK			1.76 V	6	108.7	3.4
3	*5775.00	101.8 AV			1.76 V	6	98.4	3.4
4	#5941.97	65.7 PK	68.2	-2.5	1.76 V	6	62.2	3.5
5	11550.00	63.2 PK	74.0	-10.8	1.67 V	173	49.9	13.3
6	11550.00	50.7 AV	54.0	-3.3	1.67 V	173	37.4	13.3
7	#17325.00	53.4 PK	68.2	-14.8	2.14 V	206	36.3	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.

802.11ac (VHT80+80)

CHANNEL	TX Channel 50	DETECTOR FUNCTION	Peak (PK) Average (AV)
FREQUENCY RANGE	1GHz ~ 40GHz		

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	5150.00	68.2 PK	74.0	-5.8	1.15 H	69	65.2	3.0
2	5150.00	51.4 AV	54.0	-2.6	1.15 H	69	48.4	3.0
3	*5210.00	104.1 PK			1.15 H	69	101.4	2.7
4	*5210.00	93.3 AV			1.15 H	69	90.6	2.7
5	*5290.00	101.0 PK			1.03 H	70	98.6	2.4
6	*5290.00	90.2 AV			1.03 H	70	87.8	2.4
7	5350.00	67.7 PK	74.0	-6.3	1.03 H	70	65.1	2.6
8	5350.00	49.7 AV	54.0	-4.3	1.03 H	70	47.1	2.6
9	#10420.00	59.7 PK	68.2	-8.5	2.40 H	130	47.1	12.6
10	#10580.00	60.0 PK	68.2	-8.2	2.36 H	145	47.4	12.6
11	15630.00	49.4 PK	74.0	-24.6	1.54 H	288	36.7	12.7
12	15630.00	38.7 AV	54.0	-15.3	1.54 H	288	26.0	12.7
13	15870.00	49.0 PK	74.0	-25.0	1.50 H	254	36.6	12.4
14	15870.00	38.1 AV	54.0	-15.9	1.50 H	254	25.7	12.4
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	72.9 PK	74.0	-1.1	2.07 V	197	69.9	3.0
2	5150.00	53.6 AV	54.0	-0.4	2.07 V	197	50.6	3.0
3	*5210.00	106.5 PK			2.07 V	197	103.8	2.7
4	*5210.00	95.8 AV			2.07 V	197	93.1	2.7
5	*5290.00	100.6 PK			2.05 V	24	98.2	2.4
6	*5290.00	91.1 AV			2.05 V	24	88.7	2.4
7	5350.00	68.1 PK	74.0	-5.9	2.05 V	24	65.5	2.6
8	5350.00	50.1 AV	54.0	-3.9	2.05 V	24	47.5	2.6
9	#10420.00	63.5 PK	68.2	-4.7	1.59 V	164	50.9	12.6
10	#10580.00	63.0 PK	68.2	-5.2	1.66 V	157	50.4	12.6
11	15630.00	53.8 PK	74.0	-20.2	2.07 V	202	41.1	12.7
12	15630.00	42.8 AV	54.0	-11.2	2.07 V	202	30.1	12.7
13	15870.00	54.1 PK	74.0	-19.9	2.07 V	195	41.7	12.4
14	15870.00	42.9 AV	54.0	-11.1	2.07 V	195	30.5	12.4

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 114	DETECTOR FUNCTION	Peak (PK) Average (AV)
FREQUENCY RANGE	1GHz ~ 40GHz		

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	5460.00	65.2 PK	74.0	-8.8	1.09 H	74	62.3	2.9
2	5460.00	43.8 AV	54.0	-10.2	1.09 H	74	40.9	2.9
3	#5470.00	66.8 PK	68.2	-1.4	1.09 H	74	63.9	2.9
4	*5530.00	101.2 PK			1.09 H	74	98.2	3.0
5	*5530.00	90.3 AV			1.09 H	74	87.3	3.0
6	*5610.00	98.5 PK			1.07 H	68	95.2	3.3
7	*5610.00	87.2 AV			1.07 H	68	83.9	3.3
8	#5725.00	51.2 PK	68.2	-17.0	1.07 H	68	47.9	3.3
9	11060.00	59.9 PK	74.0	-14.1	2.35 H	144	46.7	13.2
10	11060.00	48.2 AV	54.0	-5.8	2.35 H	144	35.0	13.2
11	11220.00	60.2 PK	74.0	-13.8	2.33 H	154	47.0	13.2
12	11220.00	48.5 AV	54.0	-5.5	2.33 H	154	35.3	13.2
13	#16590.00	49.1 PK	68.2	-19.1	1.55 H	270	34.0	15.1
14	#16830.00	49.8 PK	68.2	-18.4	1.57 H	267	33.2	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	5460.00	64.8 PK	74.0	-9.2	1.18 V	182	61.9	2.9
2	5460.00	45.2 AV	54.0	-8.8	1.18 V	182	42.3	2.9
3	**#5470.00**	**68.1 PK**	**68.2**	**-0.1**	**1.18 V**	**182**	**65.2**	**2.9**
4	*5530.00	104.7 PK			1.18 V	182	101.7	3.0
5	*5530.00	93.7 AV			1.18 V	182	90.7	3.0
6	*5610.00	99.2 PK			2.42 V	299	95.9	3.3
7	*5610.00	88.3 AV			2.42 V	299	85.0	3.3
8	#5725.00	51.3 PK	68.2	-16.9	2.42 V	299	48.0	3.3
9	11060.00	63.1 PK	74.0	-10.9	1.63 V	167	49.9	13.2
10	11060.00	50.8 AV	54.0	-3.2	1.63 V	167	37.6	13.2
11	11220.00	63.5 PK	74.0	-10.5	1.65 V	175	50.3	13.2
12	11220.00	51.2 AV	54.0	-2.8	1.65 V	175	38.0	13.2
13	#16590.00	53.5 PK	68.2	-14.7	2.15 V	204	38.4	15.1
14	#16830.00	53.3 PK	68.2	-14.9	2.16 V	206	36.7	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.

Below 1GHz worst-case data:

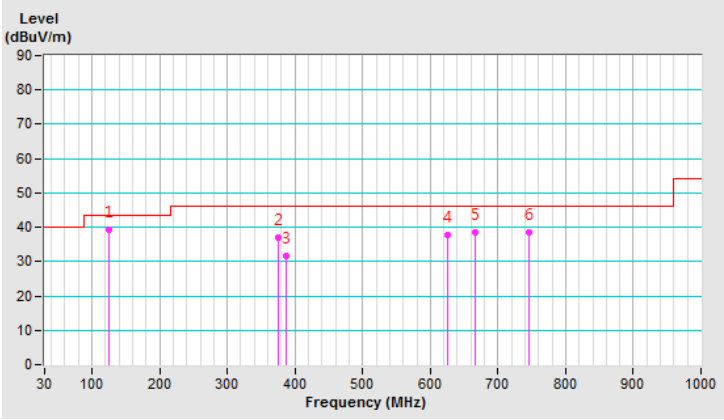
802.11ac (VHT20)

CHANNEL	TX Channel 157	DETECTOR FUNCTION	Quasi-Peak (QP)
FREQUENCY RANGE	9kHz ~ 1GHz		

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	125.01	39.3 QP	43.5	-4.2	2.00 H	251	48.7	-9.4
2	375.00	36.9 QP	46.0	-9.1	1.00 H	300	41.7	-4.8
3	387.23	31.6 QP	46.0	-14.4	1.50 H	360	36.1	-4.5
4	625.00	37.8 QP	46.0	-8.2	1.50 H	360	36.6	1.2
5	666.13	38.5 QP	46.0	-7.5	1.50 H	360	36.9	1.6
6	745.04	38.6 QP	46.0	-7.4	1.00 H	165	35.5	3.1

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

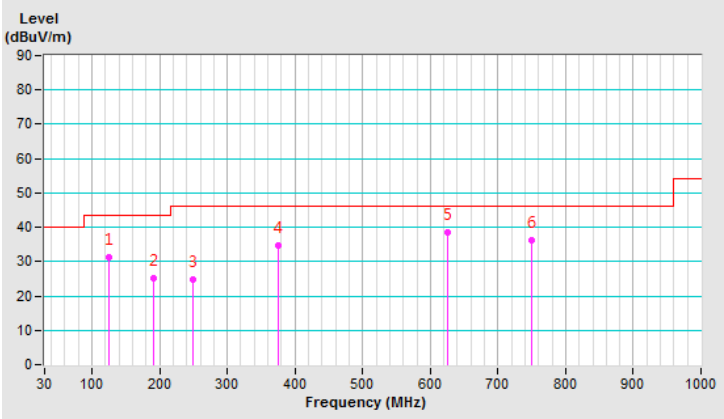


CHANNEL	TX Channel 157	DETECTOR FUNCTION	Quasi-Peak (QP)
FREQUENCY RANGE	9kHz ~ 1GHz		

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	125.01	31.2 QP	43.5	-12.3	1.00 V	351	40.6	-9.4
2	190.90	25.3 QP	43.5	-18.2	1.00 V	283	35.9	-10.6
3	250.02	24.8 QP	46.0	-21.2	1.00 V	340	33.7	-8.9
4	375.00	34.8 QP	46.0	-11.2	1.50 V	227	39.6	-4.8
5	625.02	38.5 QP	46.0	-7.5	1.00 V	236	37.3	1.2
6	749.98	36.1 QP	46.0	-9.9	1.50 V	305	33.0	3.1

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



4.2 Conducted Emission Measurement

4.2.1 Limits of Conducted Emission Measurement

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

Note: 1. The lower limit shall apply at the transition frequencies.
2. The limit decreases in line with the logarithm of the frequency in the range of 0.15 to 0.50MHz.

4.2.2 Test Instruments

Description & Manufacturer	Model No.	Serial No.	Cal. Date	Cal. Due
Test Receiver ROHDE & SCHWARZ	ESCI	100613	Nov. 23, 2017	Nov. 22, 2018
RF signal cable Woken	5D-FB	Cable-cond1-01	Sep. 05, 2017	Sep. 04, 2018
LISN ROHDE & SCHWARZ (EUT)	ENV216	101826	Feb. 26, 2018	Feb. 25, 2019
LISN ROHDE & SCHWARZ (Peripheral)	ESH3-Z5	100311	Aug. 15, 2017	Aug. 14, 2018
			Aug. 15, 2018	Aug. 14, 2019
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-2040.

4.2.3 Test Procedures

a. The EUT was placed 0.4 meters from the conducting wall of the shielded room with EUT being connected to the power mains through a line impedance stabilization network (LISN). Other support units were connected to the power mains through another LISN. The two LISNs provide 50 ohm/ 50uH of coupling impedance for the measuring instrument.

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

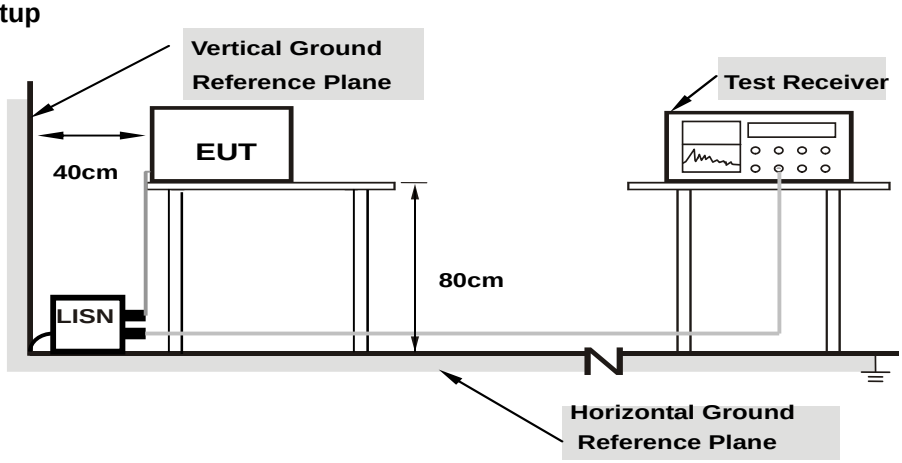
c. The frequency range from 150kHz to 30MHz was searched. Emission levels under (Limit - 20dB) was not recorded.

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

4.2.4 Deviation from Test Standard

No deviation.

4.2.5 Test Setup



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

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

4.2.6 EUT Operating Conditions

Same as item 4.1.6.

4.2.7 Test Results

Worst-case data:

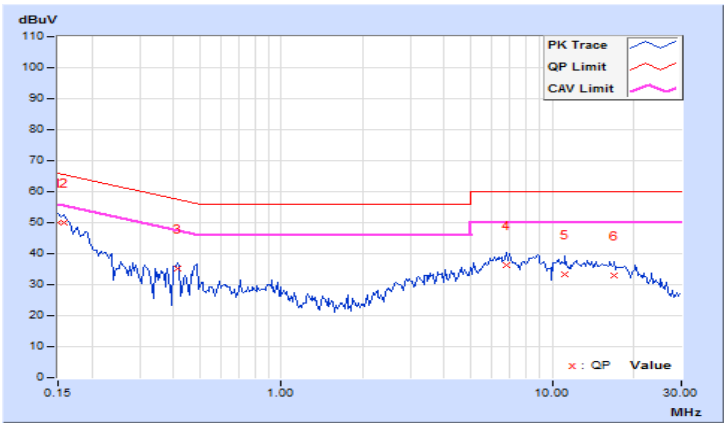
802.11ac (VHT20)

Channel	TX Channel 157	Detector Function	Quasi-Peak (QP) / Average (AV)
Phase	Line (L)	Test Mode	A

No	Freq.	Corr. Factor	Reading Value		Emission Level		Limit		Margin	
			[dB (uV)]		[dB (uV)]		[dB (uV)]		(dB)	
	[MHz]	(dB)	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.
1	0.15000	10.03	39.84	25.33	49.87	35.36	66.00	56.00	-16.13	-20.64
2	0.15781	10.04	40.06	28.59	50.10	38.63	65.58	55.58	-15.48	-16.95
3	0.41563	10.11	25.12	21.71	35.23	31.82	57.54	47.54	-22.31	-15.72
4	6.79688	10.40	25.89	17.65	36.29	28.05	60.00	50.00	-23.71	-21.95
5	11.13281	10.61	22.56	16.03	33.17	26.64	60.00	50.00	-26.83	-23.36
6	17.02344	10.94	22.15	16.71	33.09	27.65	60.00	50.00	-26.91	-22.35

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.

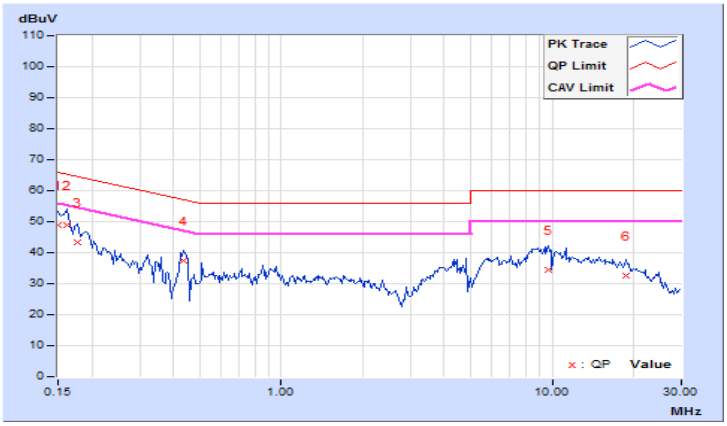


Channel	TX Channel 157	Detector Function	Quasi-Peak (QP) / Average (AV)
Phase	Neutral (N)	Test Mode	A

No	Freq.	Corr. Factor	Reading Value		Emission Level		Limit		Margin	
			[dB (uV)]		[dB (uV)]		[dB (uV)]		(dB)	
	[MHz]	(dB)	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.
1	0.15000	9.94	39.12	24.17	49.06	34.11	66.00	56.00	-16.94	-21.89
2	0.16172	9.95	38.88	26.06	48.83	36.01	65.38	55.38	-16.55	-19.37
3	0.17734	9.95	33.38	18.01	43.33	27.96	64.61	54.61	-21.28	-26.65
4	0.43516	10.00	27.26	15.66	37.26	25.66	57.15	47.15	-19.89	-21.49
5	9.66797	10.38	24.10	15.42	34.48	25.80	60.00	50.00	-25.52	-24.20
6	18.65234	10.83	21.73	16.59	32.56	27.42	60.00	50.00	-27.44	-22.58

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.

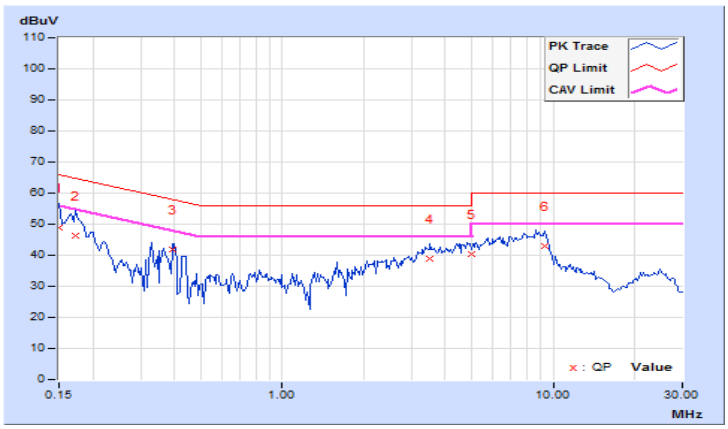


Channel	TX Channel 157	Detector Function	Quasi-Peak (QP) / Average (AV)
Phase	Line (L)	Test Mode	B

No	Freq.	Corr. Factor	Reading Value		Emission Level		Limit		Margin	
			[dB (uV)]		[dB (uV)]		[dB (uV)]		(dB)	
	[MHz]	(dB)	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.
1	0.15000	10.03	38.88	24.68	48.91	34.71	66.00	56.00	-17.09	-21.29
2	0.17344	10.05	36.41	23.10	46.46	33.15	64.79	54.79	-18.33	-21.64
3	0.39609	10.11	31.63	27.07	41.74	37.18	57.93	47.93	-16.19	-10.75
4	3.52344	10.25	28.70	20.77	38.95	31.02	56.00	46.00	-17.05	-14.98
5	5.00000	10.32	30.16	21.12	40.48	31.44	56.00	46.00	-15.52	-14.56
6	9.27734	10.51	32.31	25.53	42.82	36.04	60.00	50.00	-17.18	-13.96

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.

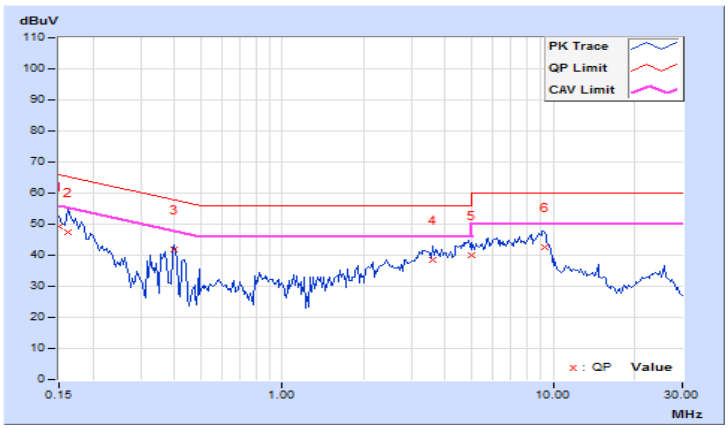


Channel	TX Channel 157	Detector Function	Quasi-Peak (QP) / Average (AV)
Phase	Neutral (N)	Test Mode	B

No	Freq.	Corr. Factor	Reading Value		Emission Level		Limit		Margin	
			[dB (uV)]		[dB (uV)]		[dB (uV)]		(dB)	
	[MHz]	(dB)	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.
1	0.15000	9.94	39.31	24.48	49.25	34.42	66.00	56.00	-16.75	-21.58
2	0.16172	9.95	37.31	22.78	47.26	32.73	65.38	55.38	-18.12	-22.65
3	0.40000	10.00	31.85	30.23	41.85	40.23	57.85	47.85	-16.00	-7.62
4	3.58594	10.13	28.29	20.44	38.42	30.57	56.00	46.00	-17.58	-15.43
5	5.00000	10.18	29.86	21.10	40.04	31.28	56.00	46.00	-15.96	-14.72
6	9.27734	10.36	32.33	25.55	42.69	35.91	60.00	50.00	-17.31	-14.09

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.

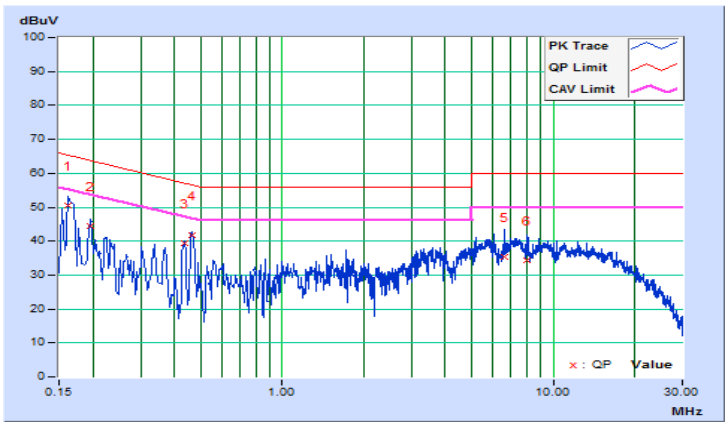


Channel	TX Channel 157	Detector Function	Quasi-Peak (QP) / Average (AV)
Phase	Line (L)	Test Mode	C

No	Freq.	Corr. Factor	Reading Value		Emission Level		Limit		Margin	
			[dB (uV)]		[dB (uV)]		[dB (uV)]		(dB)	
	[MHz]	(dB)	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.
1	0.16173	9.73	40.81	28.75	50.54	38.48	65.37	55.37	-14.83	-16.89
2	0.19692	9.73	34.69	23.33	44.42	33.06	63.74	53.74	-19.32	-20.68
3	0.43543	9.76	29.51	26.22	39.27	35.98	57.15	47.15	-17.88	-11.17
4	0.46301	9.75	31.99	28.95	41.74	38.70	56.64	46.64	-14.90	-7.94
5	6.57804	9.85	25.38	16.12	35.23	25.97	60.00	50.00	-24.77	-24.03
6	7.97000	9.87	24.64	16.35	34.51	26.22	60.00	50.00	-25.49	-23.78

REMARKS:

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

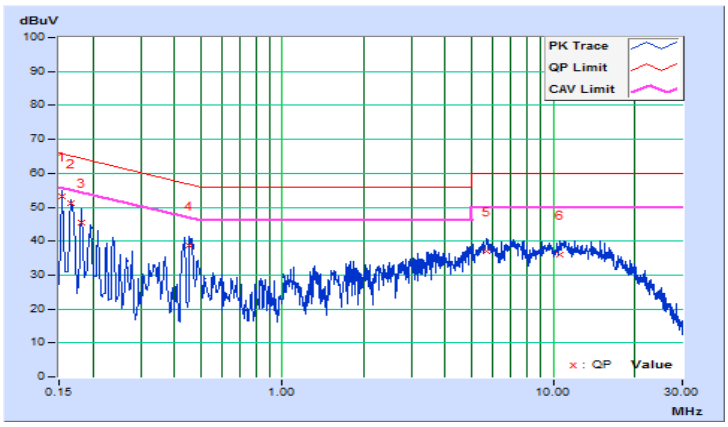


Channel	TX Channel 157	Detector Function	Quasi-Peak (QP) / Average (AV)
Phase	Neutral (N)	Test Mode	C

No	Freq.	Corr. Factor	Reading Value		Emission Level		Limit		Margin	
			[dB (uV)]		[dB (uV)]		[dB (uV)]		(dB)	
	[MHz]	(dB)	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.
1	0.15391	9.73	43.45	27.75	53.18	37.48	65.79	55.79	-12.61	-18.31
2	0.16569	9.73	41.45	27.31	51.18	37.04	65.17	55.17	-13.99	-18.13
3	0.18128	9.73	35.69	22.40	45.42	32.13	64.43	54.43	-19.01	-22.30
4	0.45498	9.76	29.00	15.76	38.76	25.52	56.78	46.78	-18.02	-21.26
5	5.69829	9.86	27.09	18.16	36.95	28.02	60.00	50.00	-23.05	-21.98
6	10.64053	9.95	26.21	19.63	36.16	29.58	60.00	50.00	-23.84	-20.42

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.

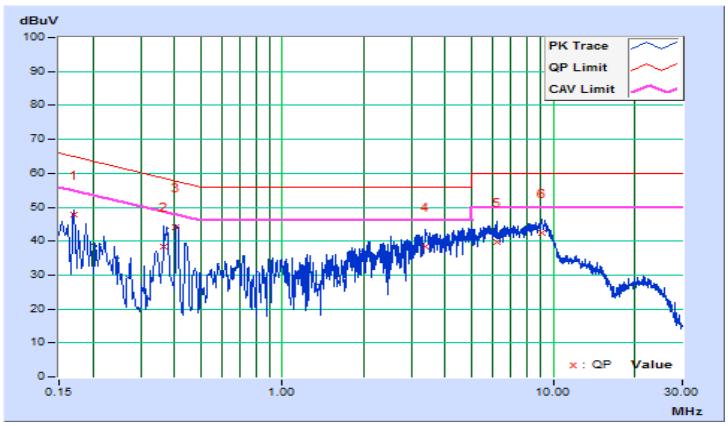


Channel	TX Channel 157	Detector Function	Quasi-Peak (QP) / Average (AV)
Phase	Line (L)	Test Mode	D

No	Freq.	Corr. Factor	Reading Value		Emission Level		Limit		Margin	
			[dB (uV)]		[dB (uV)]		[dB (uV)]		(dB)	
	[MHz]	(dB)	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.
1	0.16955	9.73	38.16	26.58	47.89	36.31	64.98	54.98	-17.09	-18.67
2	0.36526	9.75	28.80	12.68	38.55	22.43	58.61	48.61	-20.06	-26.18
3	0.40479	9.76	34.42	29.11	44.18	38.87	57.75	47.75	-13.57	-8.88
4	3.39139	9.80	28.50	20.42	38.30	30.22	56.00	46.00	-17.70	-15.78
5	6.19877	9.85	29.96	21.62	39.81	31.47	60.00	50.00	-20.19	-18.53
6	9.10390	9.89	32.49	24.62	42.38	34.51	60.00	50.00	-17.62	-15.49

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.

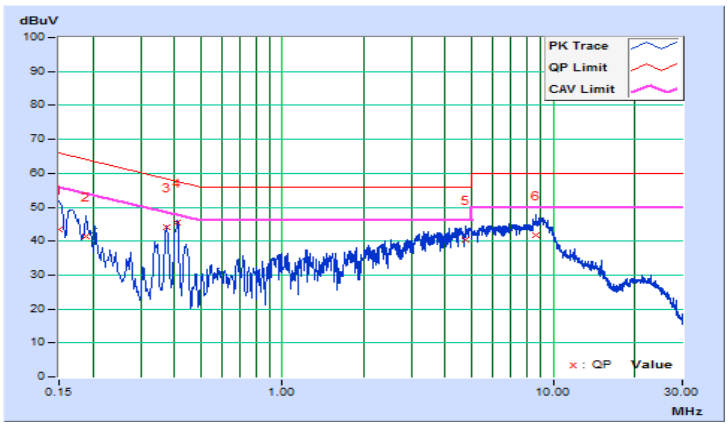


Channel	TX Channel 157	Detector Function	Quasi-Peak (QP) / Average (AV)
Phase	Neutral (N)	Test Mode	D

No	Freq.	Corr. Factor	Reading Value		Emission Level		Limit		Margin	
			[dB (uV)]		[dB (uV)]		[dB (uV)]		(dB)	
	[MHz]	(dB)	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.
1	0.15000	9.72	33.74	17.56	43.46	27.28	66.00	56.00	-22.54	-28.72
2	0.18910	9.73	31.66	15.81	41.39	25.54	64.08	54.08	-22.69	-28.54
3	0.37600	9.76	34.25	33.46	44.01	43.22	58.37	48.37	-14.36	-5.15
4	**0.40800**	**9.76**	**35.85**	**33.95**	**45.61**	**43.71**	**57.69**	**47.69**	**-12.08**	**-3.98**
5	4.77162	9.85	30.43	21.71	40.28	31.56	56.00	46.00	-15.72	-14.44
6	8.66989	9.91	31.89	23.74	41.80	33.65	60.00	50.00	-18.20	-16.35

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 ≦ 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

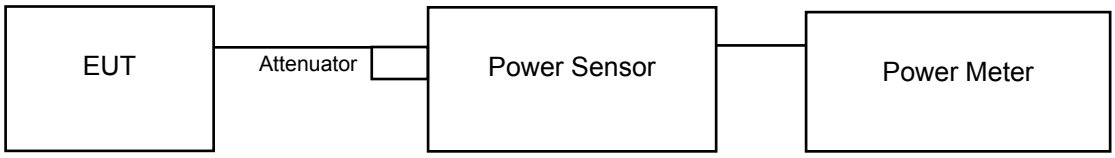
Per KDB 662911 Method of conducted output power measurement on IEEE 802.11 devices,

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 $N_{ANT} \geq 5$.

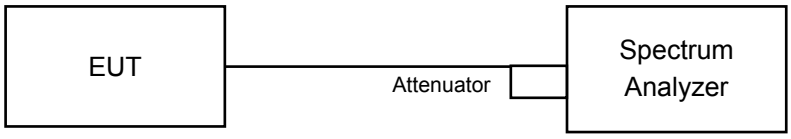
For power measurements on all other devices: Array Gain = 10 log(N_{ANT}/N_{SS}) dB.

4.3.2 Test Setup

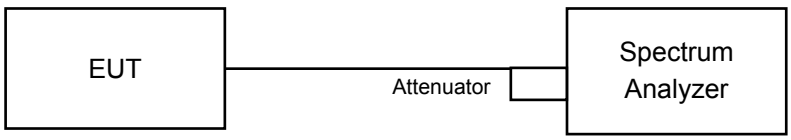
For Power Output
802.11a, 802.11ac (VHT20), 802.11ac (VHT40)



802.11ac (VHT80), 802.11ac (VHT80+80)



For Bandwidth



4.3.3 Test Instruments

Refer to section 4.1.2 to get information of above instrument.

4.3.4 Test Procedure

For Average Power Measurement

For 802.11a, 802.11ac (VHT20), 802.11ac (VHT40)
Method PM is used to perform output power measurement, trigger and gating function of wide band power meter is enabled to measure max output power of TX on burst. Duty factor is not added to measured value.

For 802.11ac (VHT80), 802.11ac (VHT80+80)
a. Set span to encompass the entire 26 dB EBW (or, alternatively, the entire 99% occupied bandwidth) of the signal.
b. Set sweep trigger to “free run”.
c. Set RBW = 1 MHz
d. Set VBW ≥ 3 MHz
e. Number of points in sweep ≥ 2 Span / RBW
f. Sweep time ≤ (number of points in sweep) * T
g. Using emission bandwidth to determine the frequency span for integration the channel bandwidth.
h. Detector = RMS
i. Trace mode = max hold
j. Allow max hold to run for at least 60 seconds, or longer as needed to allow the trace to stabilize.
k. Compute power by integrating the spectrum across the EBW (or, alternatively, the entire 99% occupied bandwidth) of the signal using the instrument’s band power measurement function with band limits set equal to the EBW (or occupied bandwidth) band edges. If the instrument does not have a band power function, sum the spectrum levels (in power units) at 1 MHz intervals extending across the EBW (or, alternatively, the entire 99% occupied bandwidth) of the spectrum.

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

4.3.5 Deviation 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:

CDD Mode

For U-NII-1 band

Client Mode

802.11a

Chan.	Freq. (MHz)	Maximum Conducted Power (dBm)				Total Power (mW)	Total Power (dBm)	Power Limit (dBm)	Pass / Fail
		Chain 0	Chain 1	Chain 2	Chain 3				
36	5180	15.76	16.01	16.16	16.22	160.756	22.06	24.00	Pass
40	5200	15.52	15.62	15.96	16.02	151.56	21.81	24.00	Pass
48	5240	15.61	15.69	16.03	16.24	155.62	21.92	24.00	Pass

802.11ac (VHT20)

Chan.	Freq. (MHz)	Maximum Conducted Power (dBm)				Total Power (mW)	Total Power (dBm)	Power Limit (dBm)	Pass / Fail
		Chain 0	Chain 1	Chain 2	Chain 3				
36	5180	15.75	16.12	16.18	16.23	161.981	22.09	24.00	Pass
40	5200	15.65	16.21	16.10	16.29	161.809	22.09	24.00	Pass
48	5240	15.84	16.05	16.26	16.30	163.568	22.14	24.00	Pass

802.11ac (VHT40)

Chan.	Freq. (MHz)	Maximum Conducted Power (dBm)				Total Power (mW)	Total Power (dBm)	Power Limit (dBm)	Pass / Fail
		Chain 0	Chain 1	Chain 2	Chain 3				
38	5190	17.53	17.73	17.51	17.79	**232.398**	23.66	24.00	Pass
46	5230	17.48	17.54	17.68	17.73	230.637	23.63	24.00	Pass

802.11ac (VHT80)

Chan.	Freq. (MHz)	Maximum Conducted Power (dBm)				Total Power (mW)	Total Power (dBm)	Power Limit (dBm)	Pass / Fail
		Chain 0	Chain 1	Chain 2	Chain 3				
42	5210	17.05	17.09	17.08	17.18	205.157	23.12	24.00	Pass

Master Mode

802.11a

Chan.	Freq. (MHz)	Maximum Conducted Power (dBm)				Total Power (mW)	Total Power (dBm)	Power Limit (dBm)	Pass / Fail
		Chain 0	Chain 1	Chain 2	Chain 3				
36	5180	20.84	20.98	21.13	21.32	511.890	27.09	30.00	Pass
40	5200	21.45	21.62	21.78	21.89	**590.034**	27.71	30.00	Pass
48	5240	20.45	20.36	20.47	20.45	441.906	26.45	30.00	Pass

802.11ac (VHT20)

Chan.	Freq. (MHz)	Maximum Conducted Power (dBm)				Total Power (mW)	Total Power (dBm)	Power Limit (dBm)	Pass / Fail
		Chain 0	Chain 1	Chain 2	Chain 3				
36	5180	20.19	20.24	20.42	20.71	438.069	26.42	30.00	Pass
40	5200	21.48	21.52	21.67	21.82	581.459	27.65	30.00	Pass
48	5240	19.65	19.74	19.56	19.65	369.068	25.67	30.00	Pass

802.11ac (VHT40)

Chan.	Freq. (MHz)	Maximum Conducted Power (dBm)				Total Power (mW)	Total Power (dBm)	Power Limit (dBm)	Pass / Fail
		Chain 0	Chain 1	Chain 2	Chain 3				
38	5190	17.53	17.73	17.51	17.79	232.398	23.66	30.00	Pass
46	5230	20.41	20.63	20.47	20.85	458.560	26.61	30.00	Pass

802.11ac (VHT80)

Chan.	Freq. (MHz)	Maximum Conducted Power (dBm)				Total Power (mW)	Total Power (dBm)	Power Limit (dBm)	Pass / Fail
		Chain 0	Chain 1	Chain 2	Chain 3				
42	5210	17.05	17.09	17.08	17.18	205.157	23.12	30.00	Pass

For U-NII-2A, U-NII-2C, U-NII-3 band

802.11a

Chan.	Freq. (MHz)	Maximum Conducted Power (dBm)				Total Power (mW)	Total Power (dBm)	Power Limit (dBm)	Pass / Fail
		Chain 0	Chain 1	Chain 2	Chain 3				
52	5260	15.81	16.06	16.22	16.28	162.813	22.12	24.00	Pass
60	5300	15.79	16.02	15.93	16.24	159.172	22.02	24.00	Pass
64	5320	15.75	15.91	16.11	16.18	158.905	22.01	24.00	Pass
100	5500	15.84	15.64	15.51	16.08	151.129	21.79	24.00	Pass
116	5580	15.43	15.75	15.77	16.17	151.655	21.81	24.00	Pass
120	5600	15.12	15.38	15.27	15.48	135.992	21.34	24.00	Pass
124	5620	15.04	15.12	15.31	15.52	134.032	21.27	24.00	Pass
128	5640	14.81	15.17	15.42	15.51	133.551	21.26	24.00	Pass
140	5700	15.61	15.73	15.86	15.91	151.345	21.80	24.00	Pass
144	5720 For 5500~5720MHz	13.83	14.34	14.57	14.62	114.579	20.59	22.98	Pass
144	5720 For 5745~5825MHz	9.55	10.06	10.20	10.29	42.406	16.27	30.00	Pass
149	5745	23.23	23.78	23.52	23.86	917.284	29.63	30.00	Pass
157	5785	23.44	23.72	23.57	23.77	922.047	29.65	30.00	Pass
165	5825	23.06	23.32	23.32	23.41	851.148	29.30	30.00	Pass

Note:
For 5260~5320MHz, 5500~5720MHz
Chain 0
1. 11dBm + 10log (24.68) = 24.92 dBm > 24dBm
2. 11dBm + 10log (21.79) = 24.38 dBm > 24dBm
3. 11dBm + 10log (21.82) = 24.39 dBm > 24dBm
4. 11dBm + 10log (21.78) = 24.38 dBm > 24dBm
5. 11dBm + 10log (21.78) = 24.38 dBm > 24dBm
6. 11dBm + 10log (21.72) = 24.37 dBm > 24dBm
7. 11dBm + 10log (21.74) = 24.37 dBm > 24dBm
8. 11dBm + 10log (21.77) = 24.38 dBm > 24dBm
9. 11dBm + 10log (21.82) = 24.39 dBm > 24dBm
10. 11dBm + 10log (5725.00 - 5709.16) = 23.00 dBm < 24dBm

Chain 1
1. 11dBm + 10log (21.80) = 24.38 dBm > 24dBm
2. 11dBm + 10log (21.71) = 24.37 dBm > 24dBm
3. 11dBm + 10log (21.70) = 24.36 dBm > 24dBm
4. 11dBm + 10log (21.74) = 24.37 dBm > 24dBm
5. 11dBm + 10log (21.62) = 24.35 dBm > 24dBm
6. 11dBm + 10log (21.82) = 24.39 dBm > 24dBm
7. 11dBm + 10log (21.72) = 24.37 dBm > 24dBm
8. 11dBm + 10log (21.75) = 24.37 dBm > 24dBm
9. 11dBm + 10log (21.87) = 24.40 dBm > 24dBm
10. 11dBm + 10log (5725.00 - 5709.20) = 22.99 dBm < 24dBm

Chain 2
1. 11dBm + 10log (21.76) = 24.38 dBm > 24dBm
2. 11dBm + 10log (21.66) = 24.36 dBm > 24dBm
3. 11dBm + 10log (21.76) = 24.38 dBm > 24dBm
4. 11dBm + 10log (21.64) = 24.35 dBm > 24dBm
5. 11dBm + 10log (21.69) = 24.36 dBm > 24dBm
6. 11dBm + 10log (21.74) = 24.37 dBm > 24dBm
7. 11dBm + 10log (21.66) = 24.36 dBm > 24dBm
8. 11dBm + 10log (21.71) = 24.37 dBm > 24dBm
9. 11dBm + 10log (21.77) = 24.38 dBm > 24dBm
10. 11dBm + 10log (5725.00 - 5709.03) = 23.03 dBm < 24dBm

Chain 3
1. 11dBm + 10log (21.78) = 24.38 dBm > 24dBm
2. 11dBm + 10log (21.85) = 24.39 dBm > 24dBm
3. 11dBm + 10log (21.64) = 24.35 dBm > 24dBm
4. 11dBm + 10log (21.57) = 24.34 dBm > 24dBm
5. 11dBm + 10log (21.75) = 24.37 dBm > 24dBm
6. 11dBm + 10log (21.75) = 24.37 dBm > 24dBm
7. 11dBm + 10log (21.72) = 24.37 dBm > 24dBm
8. 11dBm + 10log (21.59) = 24.34 dBm > 24dBm
9. 11dBm + 10log (21.64) = 24.35 dBm > 24dBm
10. 11dBm + 10log (5725.00 - 5709.21) = 22.98 dBm < 24dBm

802.11ac (VHT20)

Chan.	Freq. (MHz)	Maximum Conducted Power (dBm)				Total Power (mW)	Total Power (dBm)	Power Limit (dBm)	Pass / Fail
		Chain 0	Chain 1	Chain 2	Chain 3				
52	5260	15.85	16.16	16.19	16.25	163.525	22.14	24.00	Pass
60	5300	15.83	16.07	16.14	16.19	161.446	22.08	24.00	Pass
64	5320	15.74	16.06	16.03	16.11	158.781	22.01	24.00	Pass
100	5500	15.41	15.88	15.51	16.19	150.634	21.78	24.00	Pass
116	5580	15.62	15.82	15.65	16.03	151.484	21.80	24.00	Pass
120	5600	15.53	15.86	15.77	16.09	152.676	21.84	24.00	Pass
124	5620	15.57	15.81	15.88	16.02	152.885	21.84	24.00	Pass
128	5640	15.46	15.77	15.90	16.08	152.369	21.83	24.00	Pass
140	5700	15.32	15.78	15.95	16.10	151.978	21.82	24.00	Pass
144	5720 For 5500~5720MHz	14.00	14.49	14.69	14.66	117.876	20.71	23.03	Pass
144	5720 For 5745~5825MHz	9.78	10.03	9.89	10.39	42.406	16.27	30.00	Pass
149	5745	23.71	23.51	23.74	23.81	936.379	29.71	30.00	Pass
157	5785	23.81	23.71	23.42	23.91	941.222	29.74	30.00	Pass
165	5825	23.65	23.24	23.48	24.08	921.305	29.64	30.00	Pass

Note:
For 5260~5320MHz, 5500~5720MHz
Chain 0
1. 11dBm + 10log (22.31) = 24.48 dBm > 24dBm
2. 11dBm + 10log (21.99) = 24.42 dBm > 24dBm
3. 11dBm + 10log (22.00) = 24.42 dBm > 24dBm
4. 11dBm + 10log (23.86) = 24.78 dBm > 24dBm
5. 11dBm + 10log (25.49) = 25.06 dBm > 24dBm
6. 11dBm + 10log (21.98) = 24.42 dBm > 24dBm
7. 11dBm + 10log (21.95) = 24.41 dBm > 24dBm
8. 11dBm + 10log (22.14) = 24.45 dBm > 24dBm
9. 11dBm + 10log (22.09) = 24.44 dBm > 24dBm
10. 11dBm + 10log (5725.00 - 5709.02) = 23.03 dBm < 24dBm
Chain 1
1. 11dBm + 10log (22.16) = 24.46 dBm > 24dBm
2. 11dBm + 10log (21.87) = 24.40 dBm > 24dBm
3. 11dBm + 10log (21.88) = 24.40 dBm > 24dBm
4. 11dBm + 10log (22.58) = 24.54 dBm > 24dBm
5. 11dBm + 10log (26.86) = 25.29 dBm > 24dBm
6. 11dBm + 10log (21.79) = 24.38 dBm > 24dBm
7. 11dBm + 10log (23.03) = 24.62 dBm > 24dBm
8. 11dBm + 10log (21.83) = 24.39 dBm > 24dBm
9. 11dBm + 10log (22.28) = 24.48 dBm > 24dBm
10. 11dBm + 10log (5725.00 - 5708.59) = 23.15 dBm < 24dBm
Chain 2
1. 11dBm + 10log (23.01) = 24.62 dBm > 24dBm
2. 11dBm + 10log (21.90) = 24.40 dBm > 24dBm
3. 11dBm + 10log (23.09) = 24.63 dBm > 24dBm
4. 11dBm + 10log (21.71) = 24.37 dBm > 24dBm
5. 11dBm + 10log (22.07) = 24.44 dBm > 24dBm
6. 11dBm + 10log (24.31) = 24.86 dBm > 24dBm
7. 11dBm + 10log (22.91) = 24.60 dBm > 24dBm
8. 11dBm + 10log (24.15) = 24.83 dBm > 24dBm
9. 11dBm + 10log (22.27) = 24.48 dBm > 24dBm
10. 11dBm + 10log (5725.00 - 5706.90) = 23.58 dBm < 24dBm
Chain 3
1. 11dBm + 10log (21.77) = 24.38 dBm > 24dBm
2. 11dBm + 10log (21.79) = 24.38 dBm > 24dBm
3. 11dBm + 10log (21.92) = 24.41 dBm > 24dBm
4. 11dBm + 10log (21.98) = 24.42 dBm > 24dBm
5. 11dBm + 10log (25.55) = 25.07 dBm > 24dBm
6. 11dBm + 10log (22.05) = 24.43 dBm > 24dBm
7. 11dBm + 10log (22.38) = 24.50 dBm > 24dBm
8. 11dBm + 10log (23.98) = 24.80 dBm > 24dBm
9. 11dBm + 10log (21.76) = 24.38 dBm > 24dBm
10. 11dBm + 10log (5725.00 - 5709.02) = 23.03 dBm < 24dBm

802.11ac (VHT40)

Chan.	Freq. (MHz)	Maximum Conducted Power (dBm)				Total Power (mW)	Total Power (dBm)	Power Limit (dBm)	Pass / Fail
		Chain 0	Chain 1	Chain 2	Chain 3				
54	5270	17.33	17.69	17.75	17.81	232.785	23.67	24.00	Pass
62	5310	17.40	17.69	17.74	17.79	233.249	23.68	24.00	Pass
102	5510	14.97	14.98	14.76	15.11	125.239	20.98	24.00	Pass
110	5550	17.55	17.62	17.66	17.72	232.196	23.66	24.00	Pass
118	5590	17.32	17.74	17.72	17.80	232.792	23.67	24.00	Pass
126	5630	17.31	17.67	17.92	17.99	237.201	23.75	24.00	Pass
134	5670	17.36	17.79	17.81	17.86	236.056	23.73	24.00	Pass
142	5710 For 5500~5720MHz	15.86	16.27	16.17	16.63	188.174	22.75	24.00	Pass
142	5710 For 5745~5825MHz	12.22	12.67	13.00	12.79	82.864	19.18	30.00	Pass
151	5755	22.83	23.12	23.31	23.51	835.660	29.22	30.00	Pass
159	5795	23.94	23.59	23.87	23.99	**970.694**	29.87	30.00	Pass

Note:
For 5260~5320MHz, 5500~5720MHz
Chain 0
1. 11dBm + 10log (65.90) = 29.19 dBm > 24dBm
2. 11dBm + 10log (71.46) = 29.54 dBm > 24dBm
3. 11dBm + 10log (51.96) = 28.16 dBm > 24dBm
4. 11dBm + 10log (71.29) = 29.53 dBm > 24dBm
5. 11dBm + 10log (74.91) = 29.75 dBm > 24dBm
6. 11dBm + 10log (68.80) = 29.38 dBm > 24dBm
7. 11dBm + 10log (66.90) = 29.25 dBm > 24dBm
8. 11dBm + 10log (5725.00 - 5677.87) = 27.73 dBm > 24dBm

Chain 1
1. 11dBm + 10log (70.68) = 29.49 dBm > 24dBm
2. 11dBm + 10log (78.13) = 29.93 dBm > 24dBm
3. 11dBm + 10log (59.85) = 28.77 dBm > 24dBm
4. 11dBm + 10log (73.08) = 29.64 dBm > 24dBm
5. 11dBm + 10log (74.53) = 29.72 dBm > 24dBm
6. 11dBm + 10log (71.38) = 29.54 dBm > 24dBm
7. 11dBm + 10log (74.55) = 29.72 dBm > 24dBm
8. 11dBm + 10log (5725.00 - 5672.77) = 28.18 dBm > 24dBm

Chain 2
1. 11dBm + 10log (68.42) = 29.35 dBm > 24dBm
2. 11dBm + 10log (72.92) = 29.63 dBm > 24dBm
3. 11dBm + 10log (40.89) = 27.12 dBm > 24dBm
4. 11dBm + 10log (70.06) = 29.45 dBm > 24dBm
5. 11dBm + 10log (72.49) = 29.60 dBm > 24dBm
6. 11dBm + 10log (71.14) = 29.52 dBm > 24dBm
7. 11dBm + 10log (70.88) = 29.51 dBm > 24dBm
8. 11dBm + 10log (5725.00 - 5674.35) = 28.05 dBm > 24dBm

Chain 3
1. 11dBm + 10log (64.94) = 29.13 dBm > 24dBm
2. 11dBm + 10log (65.48) = 29.16 dBm > 24dBm
3. 11dBm + 10log (47.95) = 27.81 dBm > 24dBm
4. 11dBm + 10log (72.69) = 29.61 dBm > 24dBm
5. 11dBm + 10log (70.49) = 29.48 dBm > 24dBm
6. 11dBm + 10log (68.72) = 29.37 dBm > 24dBm
7. 11dBm + 10log (69.84) = 29.44 dBm > 24dBm
8. 11dBm + 10log (5725.00 - 5677.34) = 27.78 dBm > 24dBm

802.11ac (VHT80)

Chan.	Freq. (MHz)	Maximum Conducted Power (dBm)				Total Power (mW)	Total Power (dBm)	Power Limit (dBm)	Pass / Fail
		Chain 0	Chain 1	Chain 2	Chain 3				
58	5290	17.41	17.77	17.90	18.01	**239.823**	23.80	24.00	Pass
106	5530	13.46	13.46	13.39	13.54	88.785	19.48	24.00	Pass
122	5610	17.66	17.81	17.83	17.89	**240.932**	23.82	24.00	Pass
138	5690 For 5500~5720MHz	16.85	17.14	17.16	17.35	220.059	23.43	24.00	Pass
138	5690 For 5745~5825MHz	8.62	8.91	9.33	8.80	33.263	15.22	30.00	Pass
155	5775	20.74	21.18	21.34	21.55	528.83	27.23	30.00	Pass

Note:
For 5260~5320MHz, 5500~5720MHz
Chain 0
1. 11dBm + 10log (118.08) = 31.72 dBm > 24dBm
2. 11dBm + 10log (82.43) = 30.16 dBm > 24dBm
3. 11dBm + 10log (117.43) = 31.70 dBm > 24dBm
4. 11dBm + 10log (5725.00 - 5623.97) = 31.04 dBm > 24dBm

Chain 1
1. 11dBm + 10log (130.43) = 32.15 dBm > 24dBm
2. 11dBm + 10log (82.46) = 30.16 dBm > 24dBm
3. 11dBm + 10log (119.72) = 31.78 dBm > 24dBm
4. 11dBm + 10log (5725.00 - 5623.97) = 31.04 dBm > 24dBm

Chain 2
1. 11dBm + 10log (118.62) = 31.74 dBm > 24dBm
2. 11dBm + 10log (82.15) = 30.15 dBm > 24dBm
3. 11dBm + 10log (125.54) = 31.99 dBm > 24dBm
4. 11dBm + 10log (5725.00 - 5635.43) = 30.52 dBm > 24dBm

Chain 3
1. 11dBm + 10log (117.21) = 31.69 dBm > 24dBm
2. 11dBm + 10log (82.27) = 30.15 dBm > 24dBm
3. 11dBm + 10log (115.76) = 31.64 dBm > 24dBm
4. 11dBm + 10log (5725.00 - 5624.84) = 31.01 dBm > 24dBm

802.11ac (VHT80+80)

Chan.	Freq. (MHz)	Maximum Conducted Power (dBm)				Total Power (mW)	Total Power (dBm)	Power Limit (dBm)	Pass / Fail
		Chain 0	Chain 1	Chain 2	Chain 3				
50	5210	17.10	16.80	-	-	99.149	19.96	24.00	Pass
50	5290	-	-	17.20	17.03	102.947	20.13	24.00	Pass
114	5530+5610	14.22	14.48	14.03	14.11	105.534	20.23	24.00	Pass

Note:
For 5260~5320MHz, 5500~5720MHz
Chain 0
1. 11dBm + 10log (82.60) = 30.17 dBm > 24dBm
Chain 1
1. 11dBm + 10log (82.29) = 30.15 dBm > 24dBm
Chain 2
1. 11dBm + 10log (86.02) = 30.35 dBm > 24dBm
Chain 3
1. 11dBm + 10log (87.71) = 30.43 dBm > 24dBm

Beamforming Mode

For U-NII-1 band

Client Mode

802.11ac (VHT20)

Chan.	Freq. (MHz)	Maximum Conducted Power (dBm)				Total Power (mW)	Total Power (dBm)	Power Limit (dBm)	Pass / Fail
		Chain 0	Chain 1	Chain 2	Chain 3				
36	5180	15.75	16.12	16.18	16.23	161.981	22.09	22.20	Pass
40	5200	15.65	16.21	16.10	16.29	161.809	22.09	22.20	Pass
48	5240	15.84	16.05	16.26	16.30	**163.568**	22.14	22.20	Pass

Note:
5180~5240MHz Directional Gain = 7.8dBi > 6dBi, so the limit shall be reduced to 24-(7.8-6) = 22.20dBm.

802.11ac (VHT40)

Chan.	Freq. (MHz)	Maximum Conducted Power (dBm)				Total Power (mW)	Total Power (dBm)	Power Limit (dBm)	Pass / Fail
		Chain 0	Chain 1	Chain 2	Chain 3				
38	5190	15.95	16.12	16.07	16.29	163.299	22.13	22.20	Pass
46	5230	16.06	15.97	16.02	16.18	161.391	22.08	22.20	Pass

Note:
5180~5240MHz Directional Gain = 7.8dBi > 6dBi, so the limit shall be reduced to 24-(7.8-6) = 22.20dBm.

802.11ac (VHT80)

Chan.	Freq. (MHz)	Maximum Conducted Power (dBm)				Total Power (mW)	Total Power (dBm)	Power Limit (dBm)	Pass / Fail
		Chain 0	Chain 1	Chain 2	Chain 3				
42	5210	15.94	15.91	16.08	16.16	160.114	22.04	22.20	Pass

Note:
5180~5240MHz Directional Gain = 7.8dBi > 6dBi, so the limit shall be reduced to 24-(7.8-6) = 22.20dBm.

Master Mode

802.11ac (VHT20)

Chan.	Freq. (MHz)	Maximum Conducted Power (dBm)				Total Power (mW)	Total Power (dBm)	Power Limit (dBm)	Pass / Fail
		Chain 0	Chain 1	Chain 2	Chain 3				
36	5180	20.19	20.24	20.42	20.71	438.069	26.42	28.20	Pass
40	5200	21.48	21.52	21.67	21.82	**581.459**	27.65	28.20	Pass
48	5240	19.65	19.74	19.56	19.65	369.068	25.67	28.20	Pass

Note:
5180~5240MHz Directional Gain = 7.8dBi > 6dBi, so the limit shall be reduced to 30-(7.8-6) = 28.20dBm.

802.11ac (VHT40)

Chan.	Freq. (MHz)	Maximum Conducted Power (dBm)				Total Power (mW)	Total Power (dBm)	Power Limit (dBm)	Pass / Fail
		Chain 0	Chain 1	Chain 2	Chain 3				
38	5190	17.53	17.73	17.51	17.79	232.398	23.66	28.20	Pass
46	5230	20.41	20.63	20.47	20.85	458.560	26.61	28.20	Pass

Note:
5180~5240MHz Directional Gain = 7.8dBi > 6dBi, so the limit shall be reduced to 30-(7.8-6) = 28.20dBm.

802.11ac (VHT80)

Chan.	Freq. (MHz)	Maximum Conducted Power (dBm)				Total Power (mW)	Total Power (dBm)	Power Limit (dBm)	Pass / Fail
		Chain 0	Chain 1	Chain 2	Chain 3				
42	5210	17.05	17.09	17.08	17.18	205.157	23.12	28.20	Pass

Note:
5180~5240MHz Directional Gain = 7.8dBi > 6dBi, so the limit shall be reduced to 30-(7.8-6) = 28.20dBm.

For U-NII-2A, U-NII-2C, U-NII-3 band

802.11ac (VHT20)

Chan.	Freq. (MHz)	Maximum Conducted Power (dBm)				Total Power (mW)	Total Power (dBm)	Power Limit (dBm)	Pass / Fail
		Chain 0	Chain 1	Chain 2	Chain 3				
52	5260	15.85	16.16	16.19	16.25	163.525	22.14	22.60	Pass
60	5300	15.83	16.07	16.14	16.19	161.446	22.08	22.60	Pass
64	5320	15.74	16.06	16.03	16.11	158.781	22.01	22.60	Pass
100	5500	15.41	15.88	15.51	16.19	150.634	21.78	22.30	Pass
116	5580	15.62	15.82	15.65	16.03	151.484	21.80	22.30	Pass
120	5600	15.53	15.86	15.77	16.09	152.676	21.84	22.30	Pass
124	5620	15.57	15.81	15.88	16.02	**152.885**	21.84	22.30	Pass
128	5640	15.46	15.77	15.90	16.08	152.369	21.83	22.30	Pass
140	5700	15.32	15.78	15.95	16.10	151.978	21.82	22.30	Pass
144	5720 For 5500~5720MHz	14.00	14.49	14.69	14.66	117.876	20.71	22.30	Pass
144	5720 For 5745~5825MHz	9.78	10.03	9.89	10.39	42.406	16.27	28.30	Pass
149	5745	21.88	22.31	21.96	22.34	652.818	28.15	28.30	Pass
157	5785	21.85	22.13	22.17	22.24	648.724	28.12	28.30	Pass
165	5825	22.14	22.28	22.27	22.40	**675.161**	28.29	28.30	Pass

Note:
5260~5320MHz Directional Gain = 7.4dBi > 6dBi, so the limit shall be reduced to 24-(7.4-6) = 22.60dBm.
5500~5720MHz Directional Gain = 7.7dBi > 6dBi, so the limit shall be reduced to 24-(7.7-6) = 22.30dBm.
5745~5825MHz Directional Gain = 7.7dBi > 6dBi, so the limit shall be reduced to 30-(7.7-6) = 28.30dBm.

For 5260~5320MHz, 5500~5720MHz

Chain 0

1. 11dBm + 10log (22.31) = 24.48 dBm > 22.39dBm
2. 11dBm + 10log (21.99) = 24.42 dBm > 22.39dBm
3. 11dBm + 10log (22.00) = 24.42 dBm > 22.39dBm
4. 11dBm + 10log (23.86) = 24.78 dBm > 22.02dBm
5. 11dBm + 10log (25.49) = 25.06 dBm > 22.02dBm
6. 11dBm + 10log (21.98) = 24.42 dBm > 22.02dBm
7. 11dBm + 10log (21.95) = 24.41 dBm > 22.02dBm
8. 11dBm + 10log (22.14) = 24.45 dBm > 22.02dBm
9. 11dBm + 10log (22.09) = 24.44 dBm > 22.02dBm
10. 11dBm + 10log (5725.00 - 5709.02) = 23.03 dBm > 22.02dBm

Chain 1

1. 11dBm + 10log (22.16) = 24.46 dBm > 22.39dBm
2. 11dBm + 10log (21.87) = 24.40 dBm > 22.39dBm
3. 11dBm + 10log (21.88) = 24.40 dBm > 22.39dBm
4. 11dBm + 10log (22.58) = 24.54 dBm > 22.02dBm
5. 11dBm + 10log (26.86) = 25.29 dBm > 22.02dBm
6. 11dBm + 10log (21.79) = 24.38 dBm > 22.02dBm
7. 11dBm + 10log (23.03) = 24.62 dBm > 22.02dBm
8. 11dBm + 10log (21.83) = 24.39 dBm > 22.02dBm
9. 11dBm + 10log (22.28) = 24.48 dBm > 22.02dBm
10. 11dBm + 10log (5725.00 - 5708.59) = 23.15 dBm > 22.02dBm

Chain 2

1. 11dBm + 10log (23.01) = 24.62 dBm > 22.39dBm
2. 11dBm + 10log (21.90) = 24.40 dBm > 22.39dBm
3. 11dBm + 10log (23.09) = 24.63 dBm > 22.39dBm
4. 11dBm + 10log (21.71) = 24.37 dBm > 22.02dBm
5. 11dBm + 10log (22.07) = 24.44 dBm > 22.02dBm
6. 11dBm + 10log (24.31) = 24.86 dBm > 22.02dBm
7. 11dBm + 10log (22.91) = 24.60 dBm > 22.02dBm
8. 11dBm + 10log (24.15) = 24.83 dBm > 22.02dBm
9. 11dBm + 10log (22.27) = 24.48 dBm > 22.02dBm
10. 11dBm + 10log (5725.00 - 5706.90) = 23.58 dBm > 22.02dBm

Chain 3

1. 11dBm + 10log (21.77) = 24.38 dBm > 22.39dBm
2. 11dBm + 10log (21.79) = 24.38 dBm > 22.39dBm
3. 11dBm + 10log (21.92) = 24.41 dBm > 22.39dBm
4. 11dBm + 10log (21.98) = 24.42 dBm > 22.02dBm
5. 11dBm + 10log (25.55) = 25.07 dBm > 22.02dBm
6. 11dBm + 10log (22.05) = 24.43 dBm > 22.02dBm
7. 11dBm + 10log (22.38) = 24.50 dBm > 22.02dBm
8. 11dBm + 10log (23.98) = 24.80 dBm > 22.02dBm
9. 11dBm + 10log (21.76) = 24.38 dBm > 22.02dBm
10. 11dBm + 10log (5725.00 - 5709.02) = 23.03 dBm > 22.02dBm

802.11ac (VHT40)

Chan.	Freq. (MHz)	Maximum Conducted Power (dBm)				Total Power (mW)	Total Power (dBm)	Power Limit (dBm)	Pass / Fail
		Chain 0	Chain 1	Chain 2	Chain 3				
54	5270	15.87	16.06	16.27	16.31	164.122	22.15	22.60	Pass
62	5310	15.88	16.18	16.30	16.36	**166.130**	22.20	22.60	Pass
102	5510	14.97	14.98	14.76	15.11	125.239	20.98	22.30	Pass
110	5550	15.45	15.76	15.45	15.83	146.102	21.65	22.30	Pass
118	5590	15.51	15.76	15.56	15.81	147.315	21.68	22.30	Pass
126	5630	15.38	15.57	15.75	15.80	146.175	21.65	22.30	Pass
134	5670	15.26	15.66	15.88	15.92	148.197	21.71	22.30	Pass
142	5710 For 5500~5720MHz	13.71	14.42	14.31	14.76	120.799	20.82	22.30	Pass
142	5710 For 5745~5825MHz	10.07	10.82	11.14	10.92	53.210	17.26	28.30	Pass
151	5755	21.86	22.01	22.34	22.51	661.951	28.21	28.30	Pass
159	5795	22.01	22.23	22.14	22.26	657.913	28.18	28.30	Pass

Note:
5260~5320MHz Directional Gain = 7.4dBi > 6dBi, so the limit shall be reduced to 24-(7.4-6) = 22.60dBm.
5500~5720MHz Directional Gain = 7.7dBi > 6dBi, so the limit shall be reduced to 24-(7.7-6) = 22.30dBm.
5745~5825MHz Directional Gain = 7.7dBi > 6dBi, so the limit shall be reduced to 30-(7.7-6) = 28.30dBm.

For 5260~5320MHz, 5500~5720MHz
Chain 0
1. 11dBm + 10log (118.08) = 31.72 dBm > 22.39dBm
2. 11dBm + 10log (82.43) = 30.16 dBm > 22.39dBm
3. 11dBm + 10log (117.43) = 31.70 dBm > 22.02dBm
4. 11dBm + 10log (5725.00 - 5623.97) = 31.04 dBm > 22.02dBm
Chain 1
1. 11dBm + 10log (130.43) = 32.15 dBm > 22.39dBm
2. 11dBm + 10log (82.46) = 30.16 dBm > 22.39dBm
3. 11dBm + 10log (119.72) = 31.78 dBm > 22.02dBm
4. 11dBm + 10log (5725.00 - 5623.97) = 31.04 dBm > 22.02dBm
Chain 2
1. 11dBm + 10log (118.62) = 31.74 dBm > 22.39dBm
2. 11dBm + 10log (82.15) = 30.15 dBm > 22.39dBm
3. 11dBm + 10log (125.54) = 31.99 dBm > 22.02dBm
4. 11dBm + 10log (5725.00 - 5635.43) = 30.52 dBm > 22.02dBm
Chain 3
1. 11dBm + 10log (117.21) = 31.69 dBm > 22.39dBm
2. 11dBm + 10log (82.27) = 30.15 dBm > 22.39dBm
3. 11dBm + 10log (115.76) = 31.64 dBm > 22.02dBm
4. 11dBm + 10log (5725.00 - 5624.84) = 31.01 dBm > 22.02dBm

802.11ac (VHT80)

Chan.	Freq. (MHz)	Maximum Conducted Power (dBm)				Total Power (mW)	Total Power (dBm)	Power Limit (dBm)	Pass / Fail
		Chain 0	Chain 1	Chain 2	Chain 3				
58	5290	15.82	16.01	16.12	16.22	160.901	22.07	22.60	Pass
106	5530	13.46	13.46	13.39	13.54	88.785	19.48	22.30	Pass
122	5610	15.72	15.81	15.82	15.88	152.352	21.83	22.30	Pass
138	5690 For 5500~5720MHz	14.72	15.20	15.25	15.41	139.612	21.45	22.30	Pass
138	5690 For 5745~5825MHz	6.49	6.97	7.42	6.86	21.108	13.24	28.30	Pass
155	5775	20.74	21.18	21.34	21.55	528.83	27.23	28.30	Pass

Note:
5260~5320MHz Directional Gain = 7.4dBi > 6dBi, so the limit shall be reduced to 24-(7.4-6) = 22.60dBm.
5500~5720MHz Directional Gain = 7.7dBi > 6dBi, so the limit shall be reduced to 24-(7.7-6) = 22.30dBm.
5745~5825MHz Directional Gain = 7.7dBi > 6dBi, so the limit shall be reduced to 30-(7.7-6) = 28.30dBm.

For 5260~5320MHz, 5500~5720MHz
Chain 0
1. 11dBm + 10log (118.08) = 31.72 dBm > 22.39dBm
2. 11dBm + 10log (82.43) = 30.16 dBm > 22.02dBm
3. 11dBm + 10log (117.43) = 31.70 dBm > 22.02dBm
4. 11dBm + 10log (5725.00 - 5623.97) = 31.04 dBm > 22.02dBm
Chain 1
1. 11dBm + 10log (130.43) = 32.15 dBm > 22.39dBm
2. 11dBm + 10log (82.46) = 30.16 dBm > 22.02dBm
3. 11dBm + 10log (119.72) = 31.78 dBm > 22.02dBm
4. 11dBm + 10log (5725.00 - 5623.97) = 31.04 dBm > 22.02dBm
Chain 2
1. 11dBm + 10log (118.62) = 31.74 dBm > 22.39dBm
2. 11dBm + 10log (82.15) = 30.15 dBm > 22.02dBm
3. 11dBm + 10log (125.54) = 31.99 dBm > 22.02dBm
4. 11dBm + 10log (5725.00 - 5635.43) = 30.52 dBm > 22.02dBm
Chain 3
1. 11dBm + 10log (117.21) = 31.69 dBm > 22.39dBm
2. 11dBm + 10log (82.27) = 30.15 dBm > 22.02dBm
3. 11dBm + 10log (115.76) = 31.64 dBm > 22.02dBm
4. 11dBm + 10log (5725.00 - 5624.84) = 31.01 dBm > 22.02dBm

802.11ac (VHT80+80)

Chan.	Freq. (MHz)	Maximum Conducted Power (dBm)				Total Power (mW)	Total Power (dBm)	Power Limit (dBm)	Pass / Fail
		Chain 0	Chain 1	Chain 2	Chain 3				
50	5210	17.10	16.80	-	-	99.149	19.96	22.20	Pass
50	5290	-	-	17.20	17.03	102.947	20.13	22.60	Pass
114	5530+5610	14.22	14.48	14.03	14.11	105.534	20.23	22.30	Pass

Note:
5180~5240MHz Directional Gain = 7.8dBi > 6dBi, so the limit shall be reduced to 24-(7.8-6) = 22.20dBm.
5260~5320MHz Directional Gain = 7.4dBi > 6dBi, so the limit shall be reduced to 24-(7.4-6) = 22.60dBm.
5500~5720MHz Directional Gain = 7.7dBi > 6dBi, so the limit shall be reduced to 24-(7.7-6) = 22.30dBm.

For 5260~5320MHz, 5500~5720MHz
Chain 0
1. 11dBm + 10log (82.60) = 30.17 dBm > 22.39dBm
Chain 1
1. 11dBm + 10log (82.29) = 30.15 dBm > 22.39dBm
Chain 2
1. 11dBm + 10log (86.02) = 30.35 dBm > 22.39dBm
Chain 3
1. 11dBm + 10log (87.71) = 30.43 dBm > 22.39dBm

26dB Bandwidth:

For U-NII-1 band

Client Mode

802.11a

Channel	Frequency (MHz)	26dBc Bandwidth (MHz)			
		Chain 0	Chain 1	Chain 2	Chain 3
36	5180	21.83	21.66	21.66	21.69
40	5200	21.84	21.62	21.66	21.85
48	5240	21.82	21.77	21.77	21.77

802.11ac (VHT20)

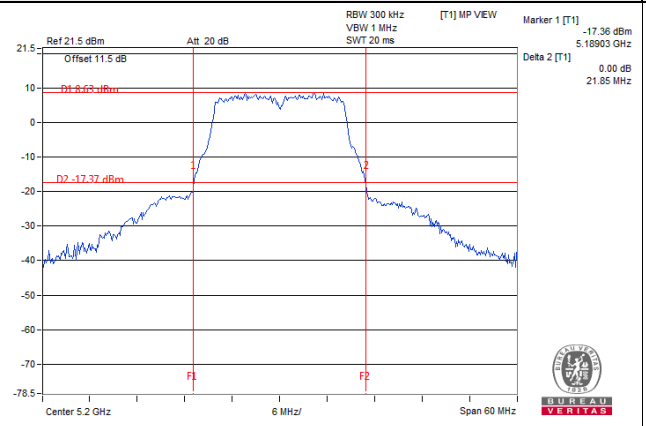
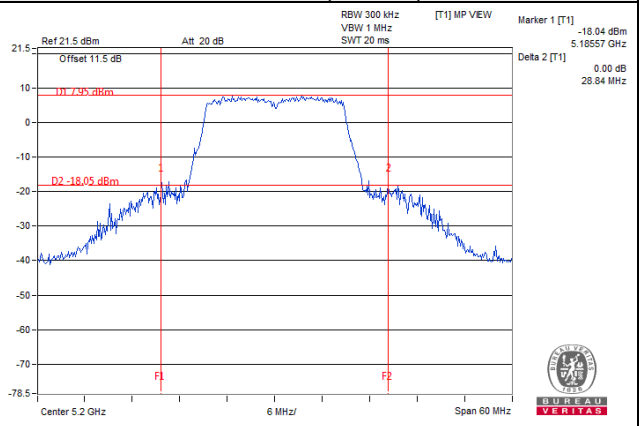
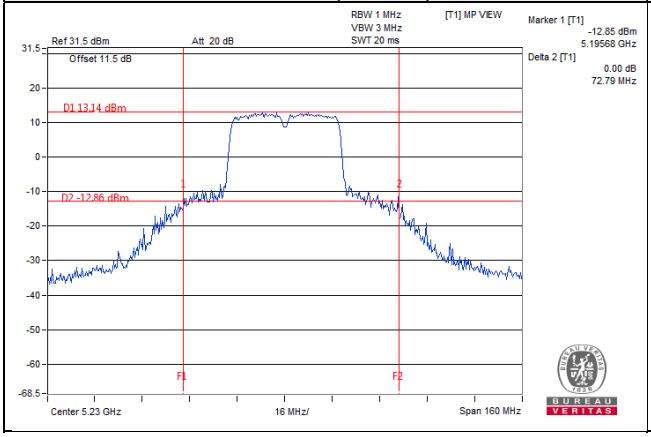
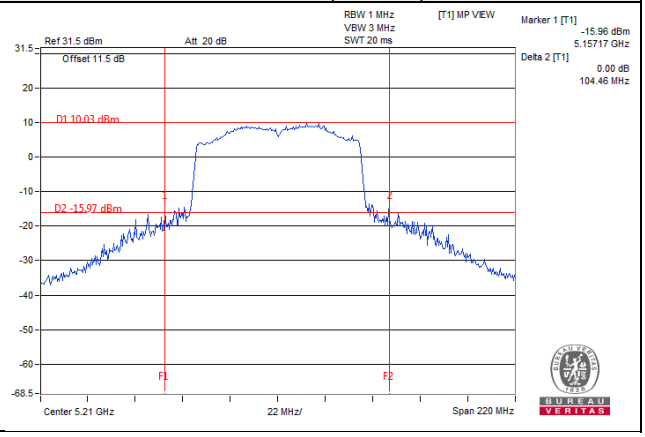
Channel	Frequency (MHz)	26dBc Bandwidth (MHz)			
		Chain 0	Chain 1	Chain 2	Chain 3
36	5180	22.38	23.66	21.66	21.82
40	5200	28.84	21.76	25.94	28.48
48	5240	22.75	25.94	21.89	21.91

802.11ac (VHT40)

Channel	Frequency (MHz)	26dBc Bandwidth (MHz)			
		Chain 0	Chain 1	Chain 2	Chain 3
38	5190	68.13	72.39	65.76	69.29
46	5230	69.34	72.79	66.36	70.58

802.11ac (VHT80)

Channel	Frequency (MHz)	26dBc Bandwidth (MHz)			
		Chain 0	Chain 1	Chain 2	Chain 3
42	5210	104.46	81.84	91.68	93.42

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

Master Mode

802.11a

Channel	Frequency (MHz)	26dBc Bandwidth (MHz)			
		Chain 0	Chain 1	Chain 2	Chain 3
36	5180	37.26	36.97	36.22	34.17
40	5200	41.76	38.49	37.21	37.09
48	5240	36.14	35.56	33.12	33.20

802.11ac (VHT20)

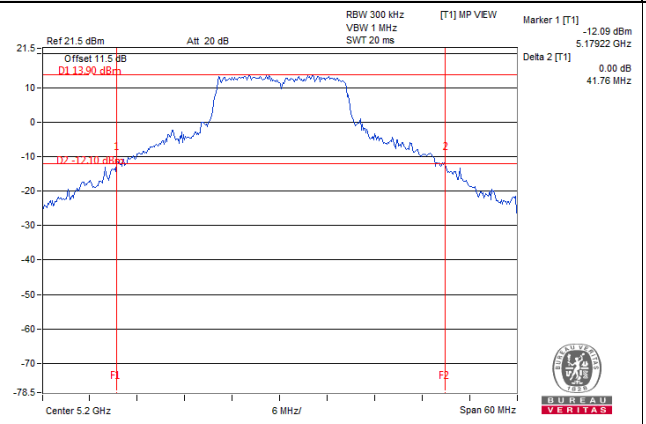
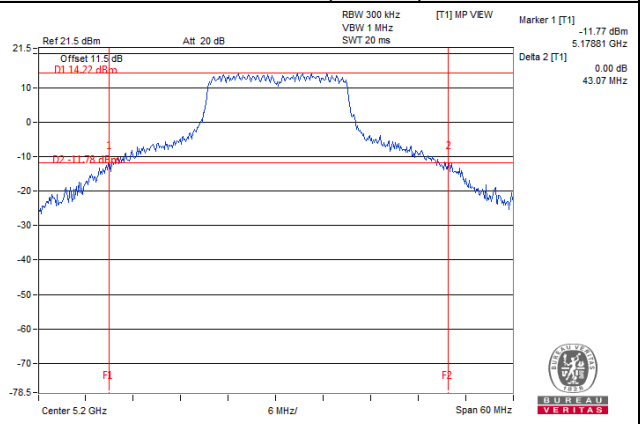
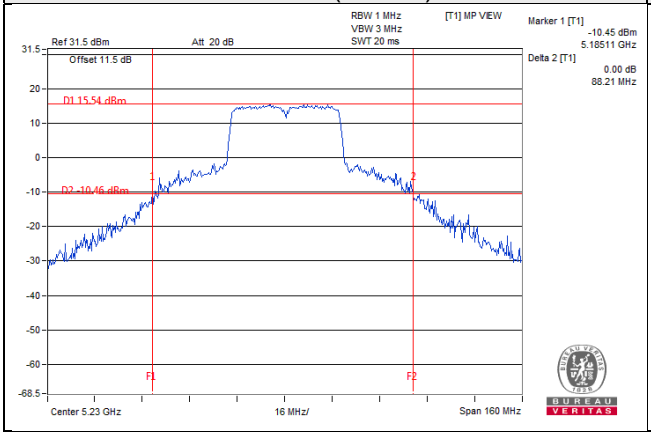
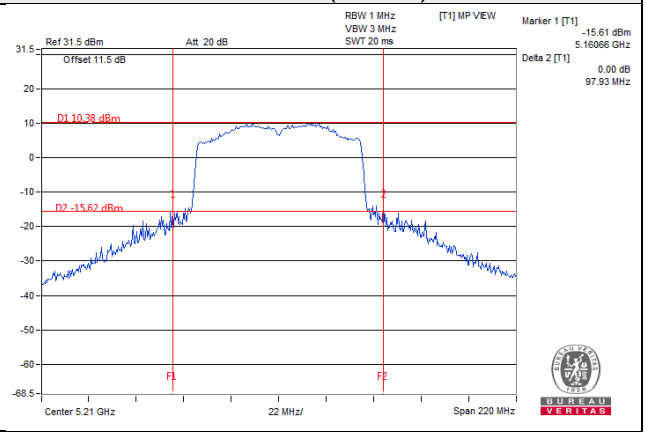
Channel	Frequency (MHz)	26dBc Bandwidth (MHz)			
		Chain 0	Chain 1	Chain 2	Chain 3
36	5180	39.28	36.44	35.61	40.81
40	5200	43.00	40.31	39.68	43.07
48	5240	37.61	36.53	33.81	40.47

802.11ac (VHT40)

Channel	Frequency (MHz)	26dBc Bandwidth (MHz)			
		Chain 0	Chain 1	Chain 2	Chain 3
38	5190	72.86	65.43	64.74	65.90
46	5230	88.21	65.14	77.78	82.73

802.11ac (VHT80)

Channel	Frequency (MHz)	26dBc Bandwidth (MHz)			
		Chain 0	Chain 1	Chain 2	Chain 3
42	5210	97.93	84.40	85.88	95.13

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

For U-NII-2A, U-NII-2C, U-NII-3 band

802.11a

Channel	Frequency (MHz)	26dBc Bandwidth (MHz)			
		Chain 0	Chain 1	Chain 2	Chain 3
52	5260	24.68	21.80	21.76	21.78
60	5300	21.79	21.71	21.66	21.85
64	5320	21.82	21.70	21.76	21.64
100	5500	21.78	21.74	21.64	21.57
116	5580	21.78	21.62	21.69	21.75
120	5600	21.72	21.82	21.74	21.75
124	5620	21.74	21.72	21.66	21.72
128	5640	21.77	21.75	21.71	21.59
140	5700	21.82	21.87	21.77	21.64
144	5720 For 5500~5720MHz	15.84	15.80	15.97	15.79
144	5720 For 5745~5825MHz	5.91	5.89	5.84	5.83

802.11ac (VHT20)

Channel	Frequency (MHz)	26dBc Bandwidth (MHz)			
		Chain 0	Chain 1	Chain 2	Chain 3
52	5260	22.31	22.16	23.01	21.77
60	5300	21.99	21.87	21.90	21.79
64	5320	22.00	21.88	23.09	21.92
100	5500	23.86	22.58	21.71	21.98
116	5580	25.49	26.86	22.07	25.55
120	5600	21.98	21.79	24.31	22.05
124	5620	21.95	23.03	22.91	22.38
128	5640	22.14	21.83	24.15	23.98
140	5700	22.09	22.28	22.27	21.76
144	5720 For 5500~5720MHz	15.98	16.41	18.10	15.98
144	5720 For 5745~5825MHz	6.05	5.87	6.00	5.97

802.11ac (VHT40)

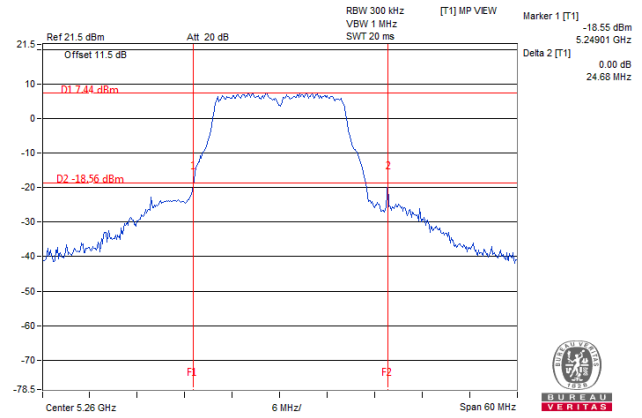
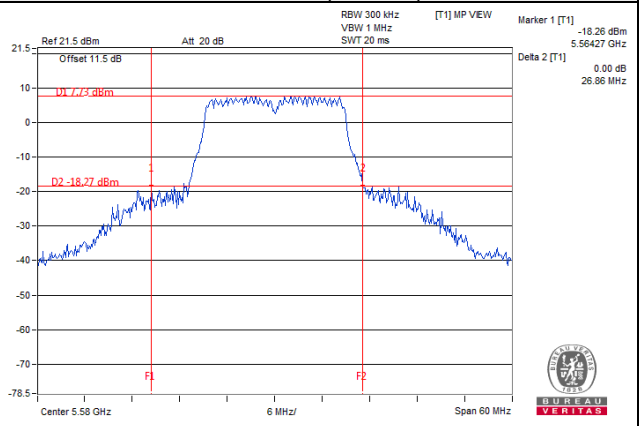
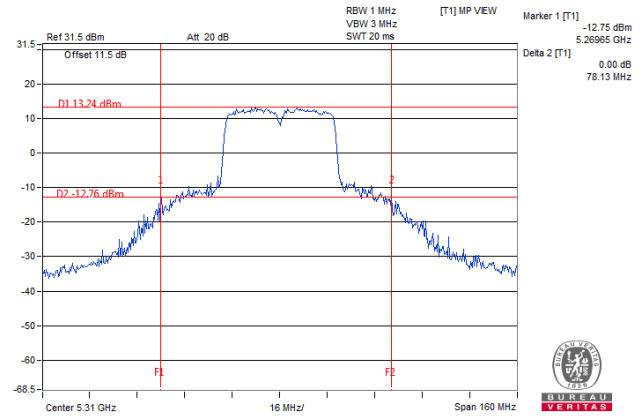
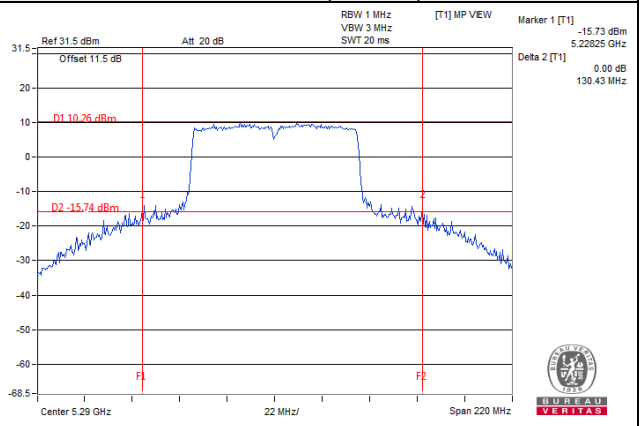
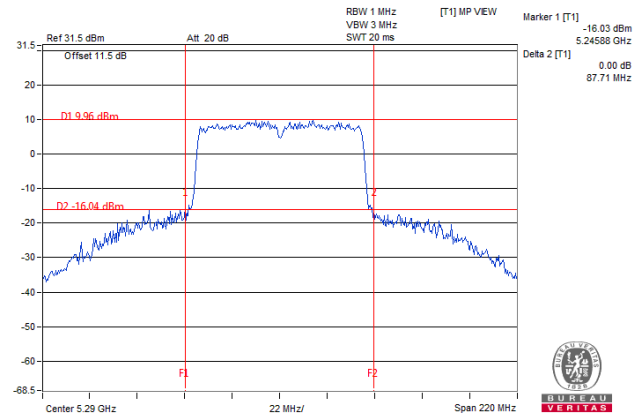
Channel	Frequency (MHz)	26dBc Bandwidth (MHz)			
		Chain 0	Chain 1	Chain 2	Chain 3
54	5270	65.90	70.68	68.42	64.94
62	5310	71.46	78.13	72.92	65.48
102	5510	51.96	59.85	40.89	47.95
110	5550	71.29	73.08	70.06	72.69
118	5590	74.91	74.53	72.49	70.49
126	5630	68.80	71.38	71.14	68.72
134	5670	66.90	74.55	70.88	69.84
142	5710 For 5500~5720MHz	47.13	52.23	50.65	47.66
142	5710 For 5745~5825MHz	20.42	22.80	24.43	20.04

802.11ac (VHT80)

Channel	Frequency (MHz)	26dBc Bandwidth (MHz)			
		Chain 0	Chain 1	Chain 2	Chain 3
58	5290	118.08	130.43	118.62	117.21
106	5530	82.43	82.46	82.15	82.27
122	5610	117.43	119.72	125.54	115.76
138	5690 For 5500~5720MHz	101.03	101.11	89.57	100.16
138	5690 For 5745~5825MHz	15.16	29.35	14.79	13.96

802.11ac (VHT80+80)

Channel	Frequency (MHz)	26dBc Bandwidth (MHz)			
		Chain 0	Chain 1	Chain 2	Chain 3
50	5210	93.83	92.32	-	-
50	5290	-	-	86.02	87.71
114	5530	82.60	82.29	-	-
114	5610	-	-	82.00	82.40

Spectrum Plot of Worst Value	
802.11a	802.11ac (VHT20)
	
802.11ac (VHT40)	802.11ac (VHT80)
	
802.11ac (VHT80+80)	
	

EUT Maximum Conducted Power

CDD Mode

802.11a

Frequency Band (MHz)	Max. Power	
	Output Power (mW)	Output Power (dBm)
5250~5350	162.813	22.12
5470~5725	151.655	21.81

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

802.11ac (VHT20)

Frequency Band (MHz)	Max. Power	
	Output Power (mW)	Output Power (dBm)
5250~5350	163.525	22.14
5470~5725	152.885	21.84

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	233.249	23.68
5470~5725	237.201	23.75

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	239.823	23.80
5470~5725	240.932	23.82

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

802.11ac (VHT80+80)

Frequency Band (MHz)	Max. Power	
	Output Power (mW)	Output Power (dBm)
5250~5350	102.947	20.13
5470~5725	105.534	20.23

Beamforming Mode

802.11ac (VHT20)

Frequency Band (MHz)	Max. Power	
	Output Power (mW)	Output Power (dBm)
5250~5350	163.525	22.14
5470~5725	152.885	21.84

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	166.130	22.20
5470~5725	148.197	21.71

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

802.11ac (VHT80)

Frequency Band (MHz)	Max. Power	
	Output Power (mW)	Output Power (dBm)
5250~5350	160.901	22.07
5470~5725	152.352	21.83

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

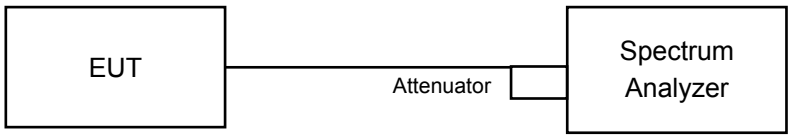
802.11ac (VHT80+80)

Frequency Band (MHz)	Max. Power	
	Output Power (mW)	Output Power (dBm)
5250~5350	102.947	20.13
5470~5725	105.534	20.23

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

For U-NII-1 band

Client Mode

802.11a

Channel	Frequency (MHz)	Occupied Bandwidth (MHz)			
		Chain 0	Chain 1	Chain 2	Chain 3
36	5180	17.16	17.04	16.92	16.92
40	5200	17.16	17.04	16.92	16.92
48	5240	17.16	17.16	17.04	17.04

802.11ac (VHT20)

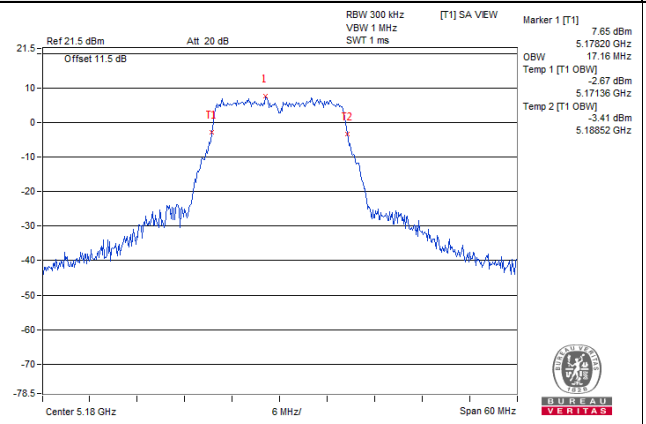
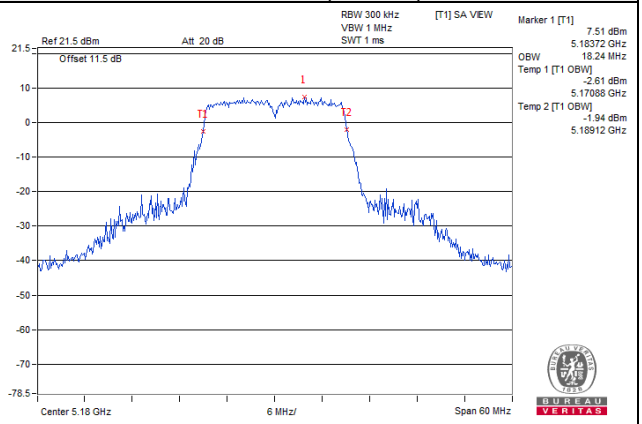
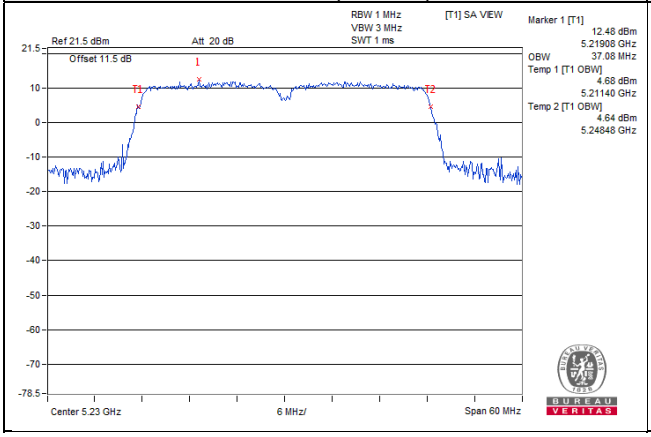
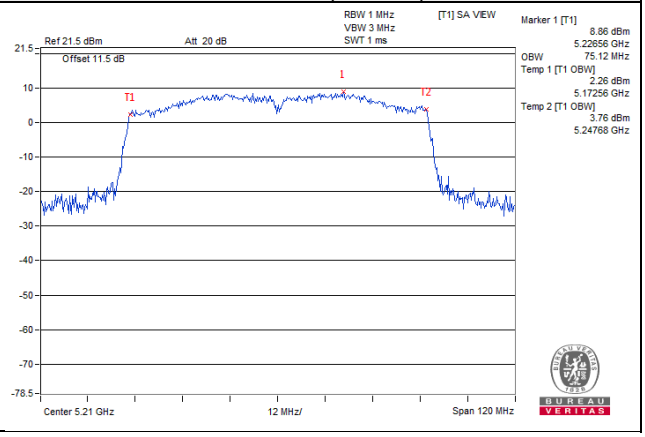
Channel	Frequency (MHz)	Occupied Bandwidth (MHz)			
		Chain 0	Chain 1	Chain 2	Chain 3
36	5180	18.24	18.00	18.12	18.12
40	5200	18.24	18.12	18.00	18.12
48	5240	18.24	18.00	18.12	18.12

802.11ac (VHT40)

Channel	Frequency (MHz)	Occupied Bandwidth (MHz)			
		Chain 0	Chain 1	Chain 2	Chain 3
38	5190	36.84	36.84	36.72	36.84
46	5230	37.08	36.84	36.84	36.96

802.11ac (VHT80)

Channel	Frequency (MHz)	Occupied Bandwidth (MHz)			
		Chain 0	Chain 1	Chain 2	Chain 3
42	5210	75.12	75.12	75.12	75.12

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

Master Mode

802.11a

Channel	Frequency (MHz)	Occupied Bandwidth (MHz)			
		Chain 0	Chain 1	Chain 2	Chain 3
36	5180	20.52	18.96	18.48	18.00
40	5200	24.72	20.76	20.04	19.56
48	5240	19.13	18.48	18.24	18.00

802.11ac (VHT20)

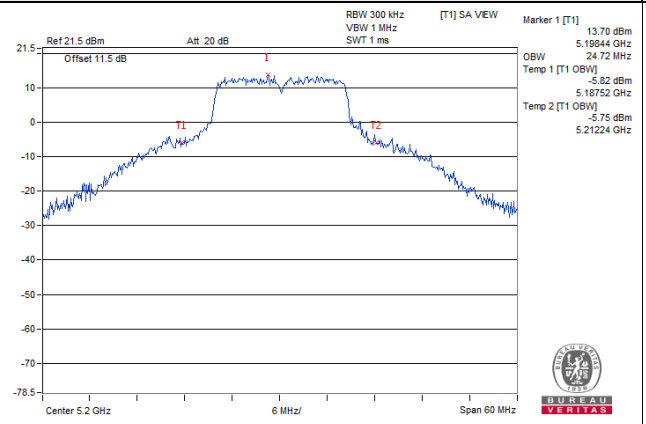
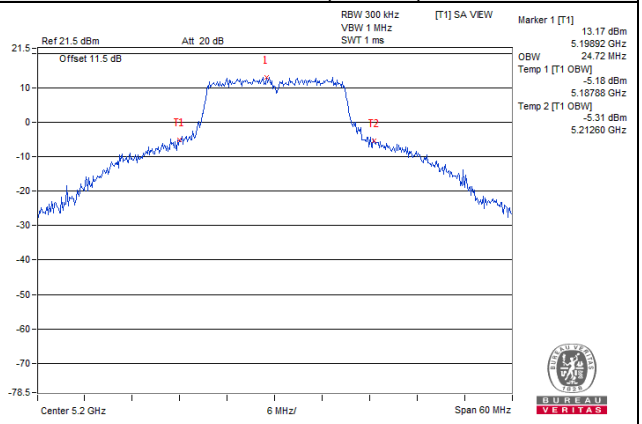
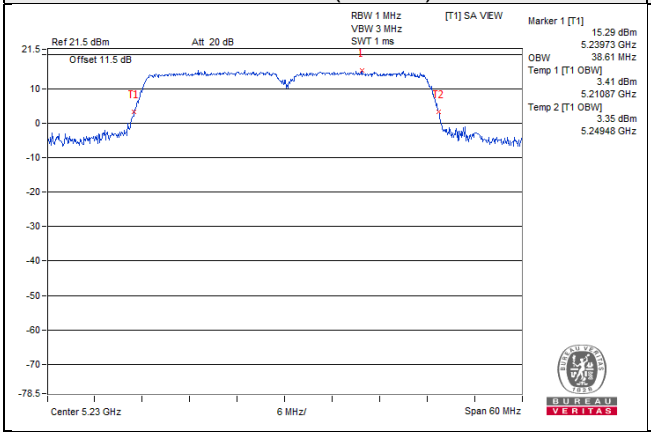
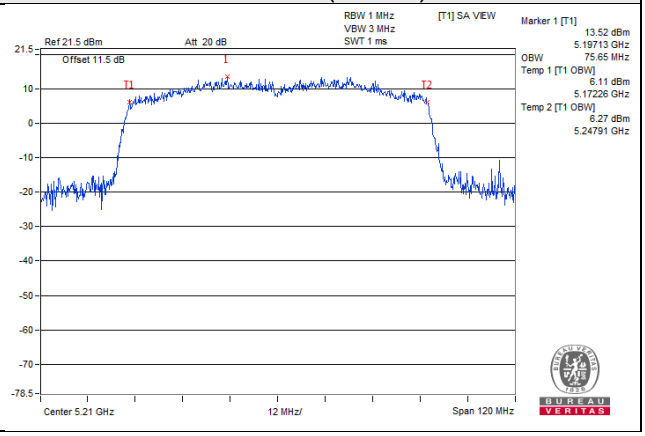
Channel	Frequency (MHz)	Occupied Bandwidth (MHz)			
		Chain 0	Chain 1	Chain 2	Chain 3
36	5180	20.04	19.08	18.72	19.56
40	5200	24.72	20.76	20.40	23.16
48	5240	19.31	18.72	18.60	19.22

802.11ac (VHT40)

Channel	Frequency (MHz)	Occupied Bandwidth (MHz)			
		Chain 0	Chain 1	Chain 2	Chain 3
38	5190	36.96	36.60	36.84	36.84
46	5230	38.61	36.84	37.44	37.68

802.11ac (VHT80)

Channel	Frequency (MHz)	Occupied Bandwidth (MHz)			
		Chain 0	Chain 1	Chain 2	Chain 3
42	5210	75.65	75.12	75.12	75.12

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

For U-NII-2A, U-NII-2C, U-NII-3 band

802.11a

Channel	Frequency (MHz)	Occupied Bandwidth (MHz)			
		Chain 0	Chain 1	Chain 2	Chain 3
52	5260	17.16	17.16	17.04	17.04
60	5300	17.04	17.04	17.04	17.16
64	5320	17.16	17.16	16.92	17.04
100	5500	17.16	17.16	17.04	16.92
116	5580	17.16	17.16	16.92	17.04
120	5600	17.04	17.16	16.92	16.92
124	5620	17.04	17.04	16.92	17.04
128	5640	16.44	16.56	16.44	16.56
140	5700	17.16	17.16	17.04	16.92
144	5720 For 5500~5720MHz	13.28	13.28	13.28	13.28
144	5720 For 5745~5825MHz	3.28	3.28	3.28	3.28
149	5745	32.88	30.96	28.08	27.60
157	5785	34.44	31.80	29.04	29.40
165	5825	33.84	29.88	29.88	29.28

802.11ac (VHT20)

Channel	Frequency (MHz)	Occupied Bandwidth (MHz)			
		Chain 0	Chain 1	Chain 2	Chain 3
52	5260	18.24	18.12	18.12	18.12
60	5300	18.24	18.00	18.12	18.00
64	5320	18.24	18.00	18.12	18.00
100	5500	18.36	18.00	18.12	18.12
116	5580	18.24	18.12	18.12	18.00
120	5600	18.24	18.00	18.00	18.00
124	5620	18.24	18.12	18.00	18.00
128	5640	18.24	18.00	18.00	18.00
140	5700	18.24	18.12	18.00	18.00
144	5720 For 5500~5720MHz	13.88	13.88	13.88	13.88
144	5720 For 5745~5825MHz	3.88	3.88	3.88	3.88
149	5745	33.60	32.40	29.76	30.24
157	5785	36.60	33.48	31.20	32.40
165	5825	34.68	34.32	32.40	32.16

802.11ac (VHT40)

Channel	Frequency (MHz)	Occupied Bandwidth (MHz)			
		Chain 0	Chain 1	Chain 2	Chain 3
54	5270	36.96	36.96	37.08	37.08
62	5310	37.08	37.08	37.08	36.96
102	5510	36.84	36.84	36.84	36.84
110	5550	37.08	37.08	37.08	37.08
118	5590	37.08	37.08	37.08	36.96
126	5630	36.96	36.96	36.96	36.96
134	5670	36.96	37.08	36.96	36.96
142	5710 For 5500~5720MHz	33.48	33.48	33.48	33.36
142	5710 For 5745~5825MHz	3.48	3.60	3.60	3.48
151	5755	50.04	49.08	47.04	46.68
159	5795	54.12	52.08	52.56	53.64

802.11ac (VHT80)

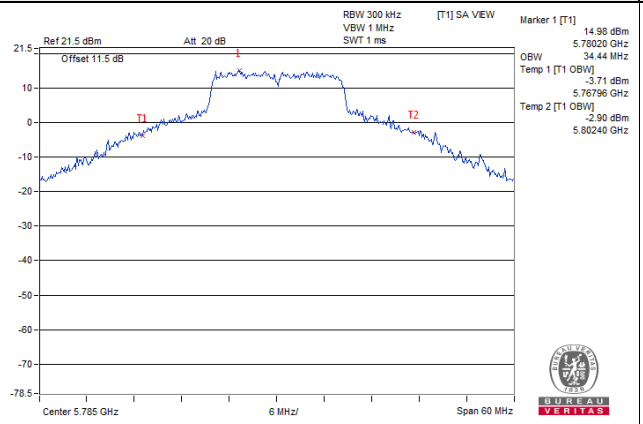
Channel	Frequency (MHz)	Occupied Bandwidth (MHz)			
		Chain 0	Chain 1	Chain 2	Chain 3
58	5290	76.08	76.32	76.08	76.08
106	5530	76.08	76.08	76.08	76.08
122	5610	76.32	76.32	76.08	76.08
138	5690 For 5500~5720MHz	72.92	72.92	72.92	72.92
138	5690 For 5745~5825MHz	3.16	3.16	3.16	3.16
155	5775	77.76	78.48	77.28	77.52

802.11ac (VHT80+80)

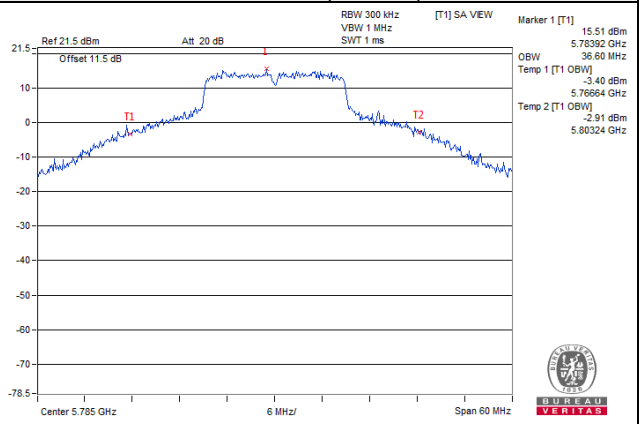
Channel	Frequency (MHz)	Occupied Bandwidth (MHz)			
		Chain 0	Chain 1	Chain 2	Chain 3
50	5210	75.60	75.60	-	-
50	5290	-	-	76.56	76.08
114	5530	76.08	75.84	-	-
114	5610	-	-	76.08	76.56

Spectrum Plot of Worst Value

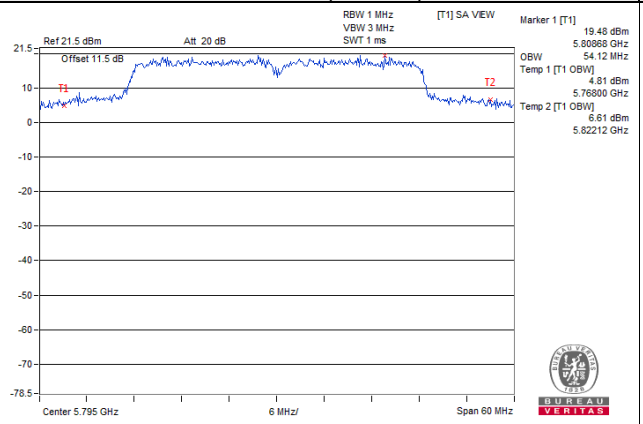
802.11a



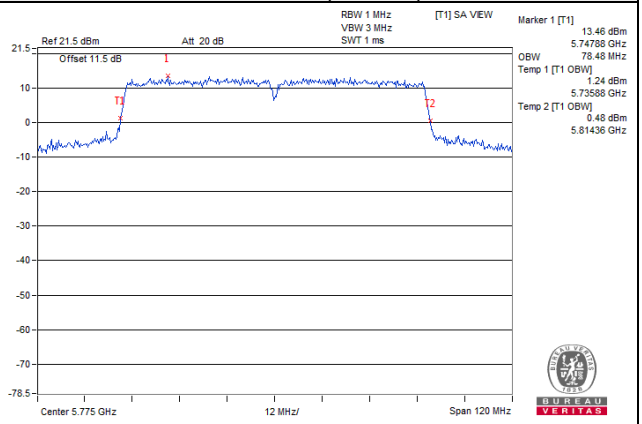
802.11ac (VHT20)



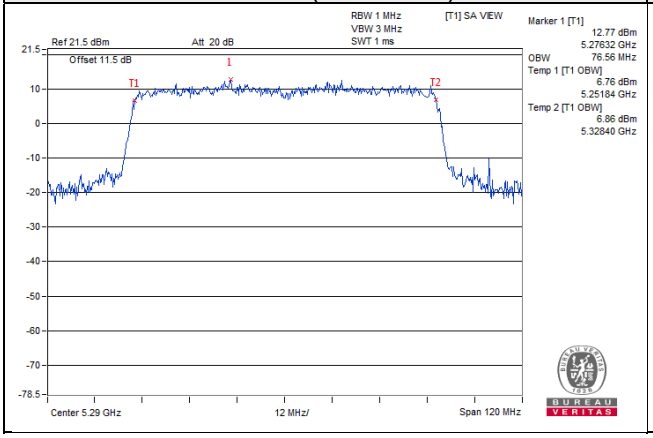
802.11ac (VHT40)



802.11ac (VHT80)



802.11ac (VHT80+80)

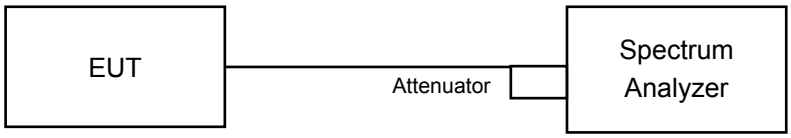


4.5 Peak Power Spectral Density Measurement

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 devise	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 ≥ 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/duty cycle).

For U-NII-3 band
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 1) power by a bandwidth correction factor (BWCF) where BWCF = 10log(500 kHz / 300 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 = 10log(500 kHz/300kHz)
5) Sweep time = auto, trigger set to “free run”.
6) Trace average at least 100 traces in power averaging mode.
7) Record the max value and add 10 log (1/duty cycle)

4.5.5 Deviation from Test Standard

No deviation.

4.5.6 EUT Operating Conditions

Same as item 4.3.6.

4.5.7 Test Results

For U-NII-1 band

Client Mode

802.11a

Chan.	Freq. (MHz)	PSD W/O Duty Factor (dBm/MHz)				Duty Factor (dB)	Total PSD With Duty Factor (dBm/MHz)	Max. Limit (dBm/MHz)	Pass / Fail
		Chain 0	Chain 1	Chain 2	Chain 3				
36	5180	2.81	2.39	3.14	3.31	0.22	9.17	9.20	Pass
40	5200	2.40	2.21	3.11	3.48	0.22	9.07	9.20	Pass
48	5240	2.37	2.16	3.09	3.55	0.22	9.07	9.20	Pass

Note:
1. Method a) of power density measurement of KDB 662911 is using for calculating total power density. Total power density is summing entire spectra across corresponding frequency bins on the various outputs by computer.
2. 5180~5240MHz Directional Gain = 7.8dBi > 6dBi, so the limit shall be reduced to 11-(7.8-6) = 9.20dBm.
3. Refer to section 3.3 for duty cycle spectrum plot.

802.11ac (VHT20)

Chan.	Freq. (MHz)	PSD W/O Duty Factor (dBm/MHz)				Duty Factor (dB)	Total PSD With Duty Factor (dBm/MHz)	Max. Limit (dBm/MHz)	Pass / Fail
		Chain 0	Chain 1	Chain 2	Chain 3				
36	5180	2.94	2.85	2.70	3.03	0.23	9.13	9.20	Pass
40	5200	3.01	2.75	2.88	3.12	0.23	9.19	9.20	Pass
48	5240	2.89	2.91	2.75	2.94	0.23	9.12	9.20	Pass

Note:
1. Method a) of power density measurement of KDB 662911 is using for calculating total power density. Total power density is summing entire spectra across corresponding frequency bins on the various outputs by computer.
2. 5180~5240MHz Directional Gain = 7.8dBi > 6dBi, so the limit shall be reduced to 11-(7.8-6) = 9.20dBm.
3. Refer to section 3.3 for duty cycle spectrum plot.

802.11ac (VHT40)

Chan.	Freq. (MHz)	PSD W/O Duty Factor (dBm/MHz)				Duty Factor (dB)	Total PSD With Duty Factor (dBm/MHz)	Max. Limit (dBm/MHz)	Pass / Fail
		Chain 0	Chain 1	Chain 2	Chain 3				
38	5190	1.53	1.55	1.48	2.21	0.48	8.21	9.20	Pass
46	5230	1.24	1.67	1.42	2.27	0.48	8.17	9.20	Pass

Note:
1. Method a) of power density measurement of KDB 662911 is using for calculating total power density. Total power density is summing entire spectra across corresponding frequency bins on the various outputs by computer.
2. 5180~5240MHz Directional Gain = 7.8dBi > 6dBi, so the limit shall be reduced to 11-(7.8-6) = 9.20dBm.
3. Refer to section 3.3 for duty cycle spectrum plot.

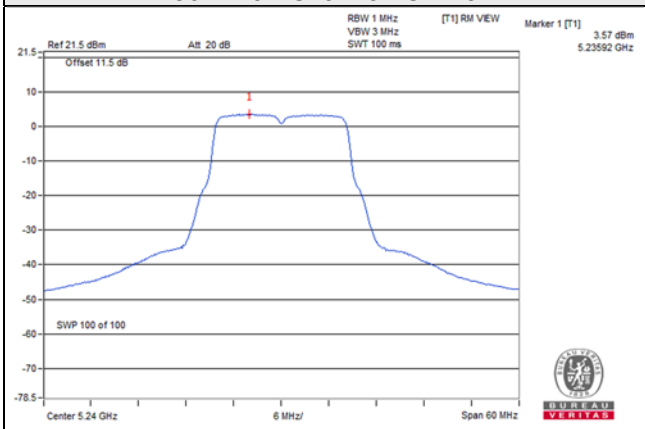
802.11ac (VHT80)

Chan.	Freq. (MHz)	PSD W/O Duty Factor (dBm/MHz)				Duty Factor (dB)	Total PSD With Duty Factor (dBm/MHz)	Max. Limit (dBm/MHz)	Pass / Fail
		Chain 0	Chain 1	Chain 2	Chain 3				
42	5210	-1.02	-1.39	-1.31	-0.59	0.28	5.23	9.20	Pass

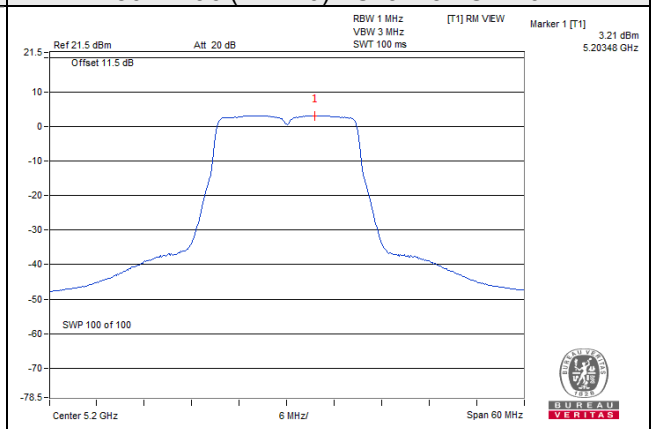
Note:
1. Method a) of power density measurement of KDB 662911 is using for calculating total power density. Total power density is summing entire spectra across corresponding frequency bins on the various outputs by computer.
2. 5180~5240MHz Directional Gain = 7.8dBi > 6dBi, so the limit shall be reduced to 11-(7.8-6) = 9.20dBm.
3. Refer to section 3.3 for duty cycle spectrum plot.

Spectrum Plot of Worst Value

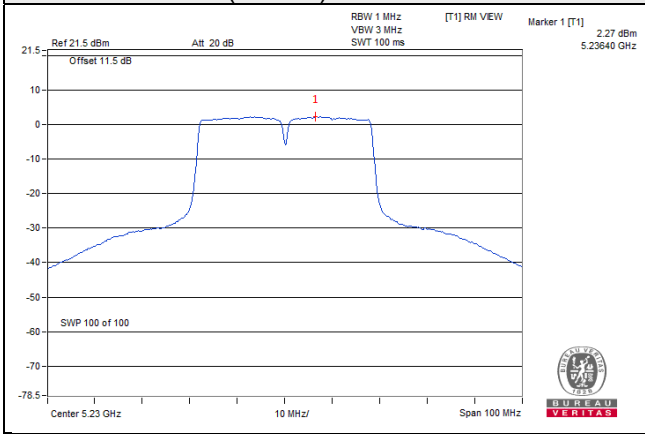
802.11a / Chain 3 / CH 48



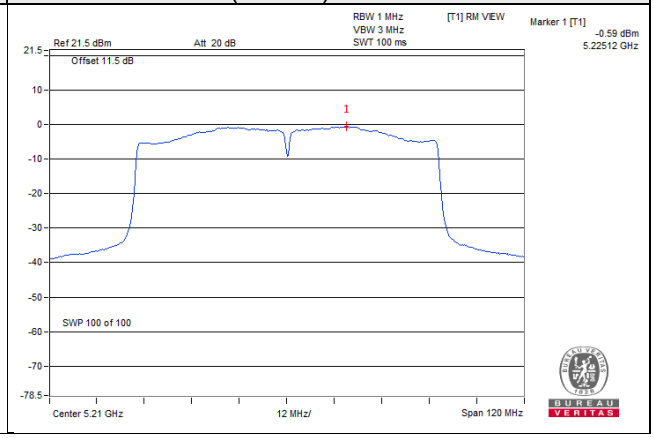
802.11ac (VHT20) / Chain 3 / CH 40



802.11ac (VHT40) / Chain 3 / CH 46



802.11ac (VHT80) / Chain 3 / CH 42



Master Mode

802.11a

Chan.	Freq. (MHz)	PSD W/O Duty Factor (dBm/MHz)				Duty Factor (dB)	Total PSD With Duty Factor (dBm/MHz)	Max. Limit (dBm/MHz)	Pass / Fail
		Chain 0	Chain 1	Chain 2	Chain 3				
36	5180	8.11	7.99	8.16	8.19	0.22	14.35	15.20	Pass
40	5200	9.23	8.59	8.75	8.83	0.22	15.10	15.20	Pass
48	5240	7.42	7.22	7.42	7.36	0.22	13.60	15.20	Pass

Note:
1. Method a) of power density measurement of KDB 662911 is using for calculating total power density. Total power density is summing entire spectra across corresponding frequency bins on the various outputs by computer.
2. 5180~5240MHz Directional Gain = 7.8dBi > 6dBi, so the limit shall be reduced to 17-(7.8-6) = 15.20dBm.
3. Refer to section 3.3 for duty cycle spectrum plot.

802.11ac (VHT20)

Chan.	Freq. (MHz)	PSD W/O Duty Factor (dBm/MHz)				Duty Factor (dB)	Total PSD With Duty Factor (dBm/MHz)	Max. Limit (dBm/MHz)	Pass / Fail
		Chain 0	Chain 1	Chain 2	Chain 3				
36	5180	7.67	7.29	7.39	8.08	0.23	13.86	15.20	Pass
40	5200	8.75	8.20	8.40	8.89	0.23	14.81	15.20	Pass
48	5240	6.40	6.14	6.50	7.80	0.23	13.01	15.20	Pass

Note:
1. Method a) of power density measurement of KDB 662911 is using for calculating total power density. Total power density is summing entire spectra across corresponding frequency bins on the various outputs by computer.
2. 5180~5240MHz Directional Gain = 7.8dBi > 6dBi, so the limit shall be reduced to 17-(7.8-6) = 15.20dBm.
3. Refer to section 3.3 for duty cycle spectrum plot.

802.11ac (VHT40)

Chan.	Freq. (MHz)	PSD W/O Duty Factor (dBm/MHz)				Duty Factor (dB)	Total PSD With Duty Factor (dBm/MHz)	Max. Limit (dBm/MHz)	Pass / Fail
		Chain 0	Chain 1	Chain 2	Chain 3				
38	5190	1.57	1.11	1.37	1.92	0.48	8.01	15.20	Pass
46	5230	4.62	1.28	4.09	4.88	0.48	10.43	15.20	Pass

Note:
1. Method a) of power density measurement of KDB 662911 is using for calculating total power density. Total power density is summing entire spectra across corresponding frequency bins on the various outputs by computer.
2. 5180~5240MHz Directional Gain = 7.8dBi > 6dBi, so the limit shall be reduced to 17-(7.8-6) = 15.20dBm.
3. Refer to section 3.3 for duty cycle spectrum plot.

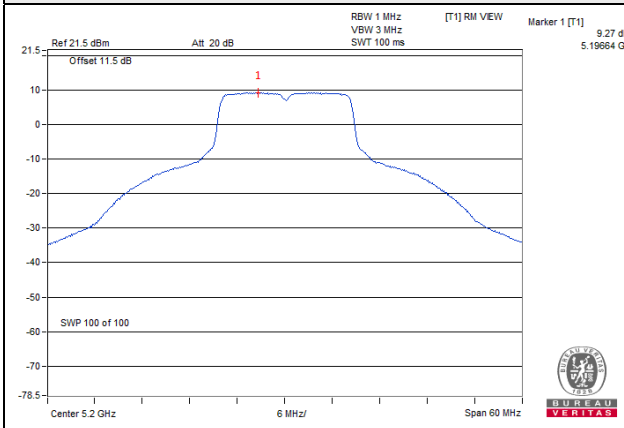
802.11ac (VHT80)

Chan.	Freq. (MHz)	PSD W/O Duty Factor (dBm/MHz)				Duty Factor (dB)	Total PSD With Duty Factor (dBm/MHz)	Max. Limit (dBm/MHz)	Pass / Fail
		Chain 0	Chain 1	Chain 2	Chain 3				
42	5210	-0.34	-0.90	-0.51	-0.04	0.28	5.86	15.20	Pass

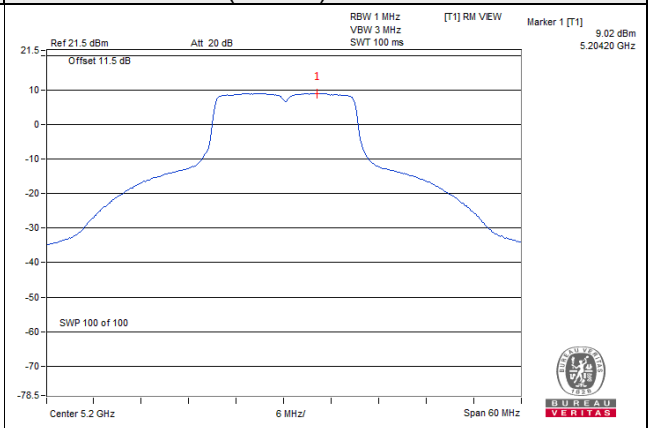
Note:
1. Method a) of power density measurement of KDB 662911 is using for calculating total power density. Total power density is summing entire spectra across corresponding frequency bins on the various outputs by computer.
2. 5180~5240MHz Directional Gain = 7.8dBi > 6dBi, so the limit shall be reduced to 17-(7.8-6) = 15.20dBm.
3. Refer to section 3.3 for duty cycle spectrum plot.

Spectrum Plot of Worst Value

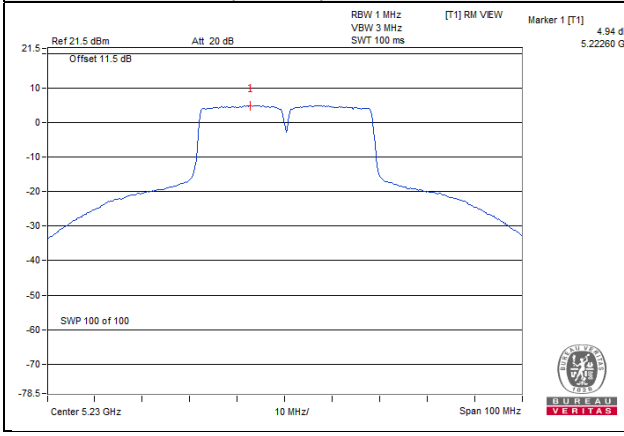
802.11a / Chain 0 / CH 40



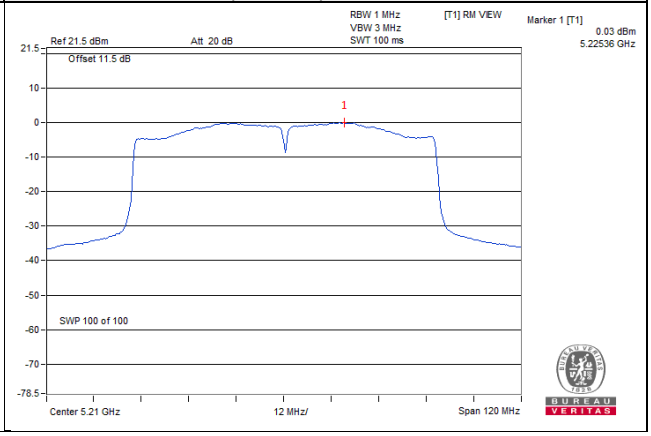
802.11ac (VHT20) / Chain 3 / CH 40



802.11ac (VHT40) / Chain 3 / CH 46



802.11ac (VHT80) / Chain 3 / CH 42



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

802.11a

Chan.	Freq. (MHz)	PSD W/O Duty Factor (dBm/MHz)				Duty Factor (dB)	Total PSD With Duty Factor (dBm/MHz)	Max. Limit (dBm/MHz)	Pass / Fail
		Chain 0	Chain 1	Chain 2	Chain 3				
52	5260	2.91	2.85	3.22	3.43	0.22	9.35	9.60	Pass
60	5300	2.66	2.74	2.71	3.90	0.22	9.27	9.60	Pass
64	5320	2.37	2.59	3.08	3.88	0.22	9.26	9.60	Pass
100	5500	2.57	2.29	2.45	3.50	0.22	8.97	9.30	Pass
116	5580	2.20	2.51	2.81	3.36	0.22	8.98	9.30	Pass
120	5600	2.04	2.62	2.34	3.43	0.22	8.88	9.30	Pass
124	5620	2.24	2.63	2.58	3.36	0.22	8.96	9.30	Pass
128	5640	1.97	2.49	2.38	3.18	0.22	8.77	9.30	Pass
140	5700	1.94	2.82	2.79	3.11	0.22	8.93	9.30	Pass
144	5720 For 5500~5720MHz	2.03	2.68	3.13	3.05	0.22	8.98	9.30	Pass

Note:

1. Method a) of power density measurement of KDB 662911 is using for calculating total power density. Total power density is summing entire spectra across corresponding frequency bins on the various outputs by computer.
2. 5260~5320MHz Directional Gain = 7.40dBi > 6dBi, so the limit shall be reduced to 11-(7.40-6) = 9.60dBm. 5500~5720MHz Directional Gain = 7.70dBi > 6dBi, so the limit shall be reduced to 11-(7.70-6) = 9.30dBm.
3. Refer to section 3.3 for duty cycle spectrum plot.

802.11ac (VHT20)

Chan.	Freq. (MHz)	PSD W/O Duty Factor (dBm/MHz)				Duty Factor (dB)	Total PSD With Duty Factor (dBm/MHz)	Max. Limit (dBm/MHz)	Pass / Fail
		Chain 0	Chain 1	Chain 2	Chain 3				
52	5260	2.77	2.77	2.69	3.15	0.23	9.09	9.60	Pass
60	5300	2.54	2.74	2.39	3.17	0.23	8.97	9.60	Pass
64	5320	2.65	2.68	2.63	2.95	0.23	8.98	9.60	Pass
100	5500	2.62	2.54	2.55	3.31	0.23	9.01	9.30	Pass
116	5580	1.85	2.22	2.49	3.10	0.23	8.68	9.30	Pass
120	5600	2.10	2.52	2.93	3.27	0.23	8.97	9.30	Pass
124	5620	1.84	2.54	2.33	3.05	0.23	8.71	9.30	Pass
128	5640	1.71	2.20	2.42	3.03	0.23	8.61	9.30	Pass
140	5700	1.87	2.60	2.68	2.92	0.23	8.78	9.30	Pass
144	5720 For 5500~5720MHz	1.72	2.38	2.63	2.93	0.23	8.68	9.30	Pass

Note:
1. Method a) of power density measurement of KDB 662911 is using for calculating total power density. Total power density is summing entire spectra across corresponding frequency bins on the various outputs by computer.
2. 5260~5320MHz Directional Gain = 7.40dBi > 6dBi, so the limit shall be reduced to 11-(7.40-6) = 9.60dBm. 5500~5720MHz Directional Gain = 7.70dBi > 6dBi, so the limit shall be reduced to 11-(7.70-6) = 9.30dBm.
3. Refer to section 3.3 for duty cycle spectrum plot.

802.11ac (VHT40)

Chan.	Freq. (MHz)	PSD W/O Duty Factor (dBm/MHz)				Duty Factor (dB)	Total PSD With Duty Factor (dBm/MHz)	Max. Limit (dBm/MHz)	Pass / Fail
		Chain 0	Chain 1	Chain 2	Chain 3				
54	5270	0.92	1.68	1.93	2.34	0.48	8.25	9.60	Pass
62	5310	1.25	1.62	2.10	2.06	0.48	8.28	9.60	Pass
102	5510	-0.94	-0.47	-1.39	-0.51	0.48	5.69	9.30	Pass
110	5550	1.05	1.85	1.42	2.05	0.48	8.11	9.30	Pass
118	5590	0.65	1.70	1.35	1.87	0.48	7.92	9.30	Pass
126	5630	0.67	1.50	1.38	1.85	0.48	7.88	9.30	Pass
134	5670	0.78	1.60	1.57	2.11	0.48	8.04	9.30	Pass
142	5710 For 5500~5720MHz	1.28	1.47	1.72	1.40	0.48	7.97	9.30	Pass

Note:
1. Method a) of power density measurement of KDB 662911 is using for calculating total power density. Total power density is summing entire spectra across corresponding frequency bins on the various outputs by computer.
2. 5260~5320MHz Directional Gain = 7.40dBi > 6dBi, so the limit shall be reduced to 11-(7.40-6) = 9.60dBm. 5500~5720MHz Directional Gain = 7.70dBi > 6dBi, so the limit shall be reduced to 11-(7.70-6) = 9.30dBm.
3. Refer to section 3.3 for duty cycle spectrum plot.

802.11ac (VHT80)

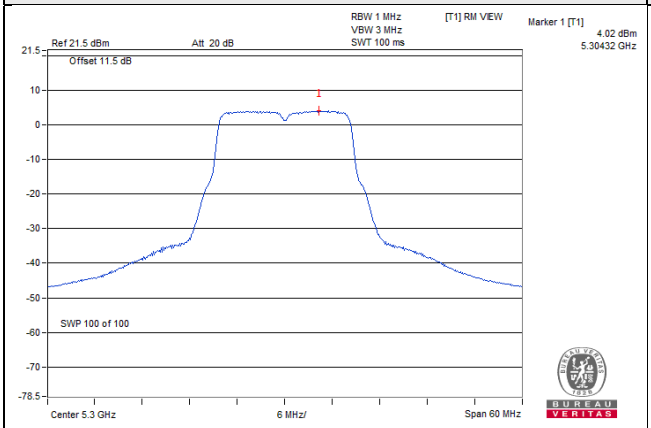
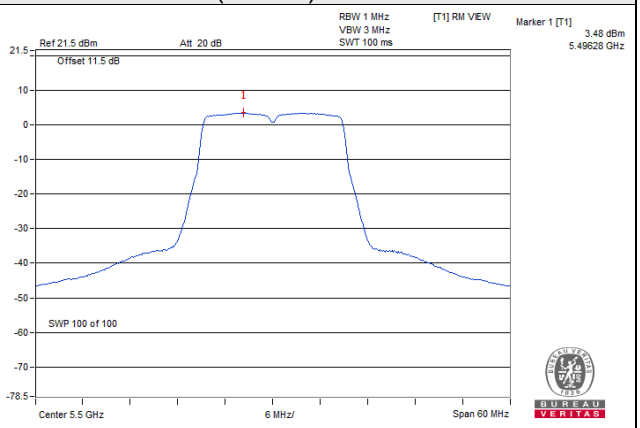
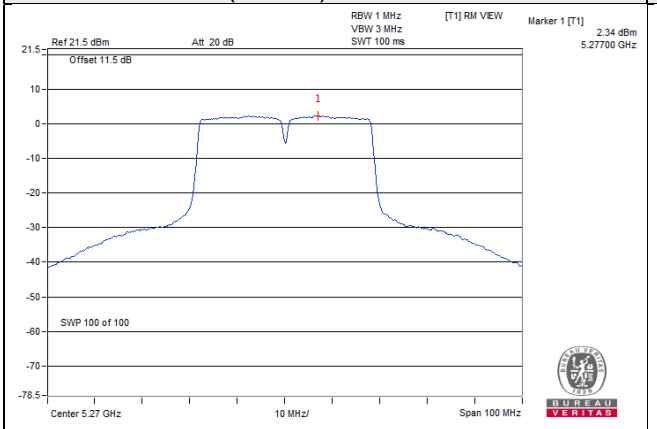
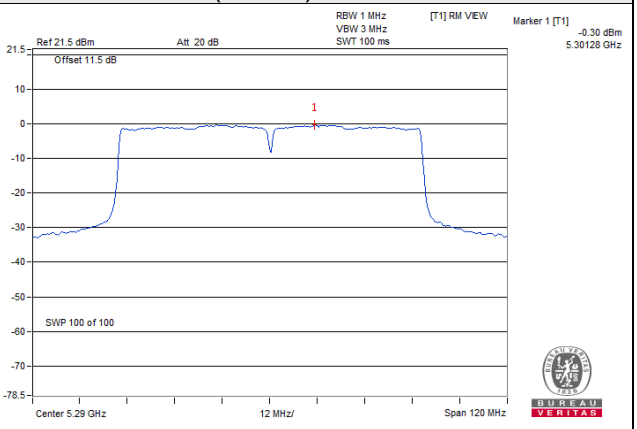
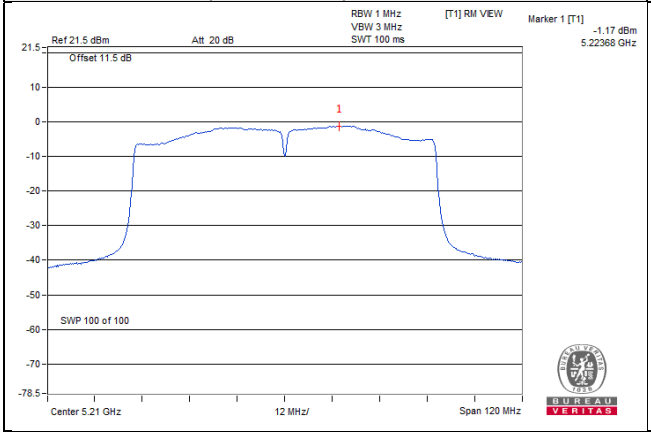
Chan.	Freq. (MHz)	PSD W/O Duty Factor (dBm/MHz)				Duty Factor (dB)	Total PSD With Duty Factor (dBm/MHz)	Max. Limit (dBm/MHz)	Pass / Fail
		Chain 0	Chain 1	Chain 2	Chain 3				
58	5290	-1.31	-1.15	-1.04	-0.30	0.28	5.36	9.60	Pass
106	5530	-5.83	-5.37	-5.63	-4.83	0.28	0.90	9.30	Pass
122	5610	-1.76	-1.24	-1.51	-1.11	0.28	4.90	9.30	Pass
138	5690 For 5500~5720MHz	-2.19	-1.38	-1.46	-1.20	0.28	4.76	9.30	Pass

Note:
1. Method a) of power density measurement of KDB 662911 is using for calculating total power density. Total power density is summing entire spectra across corresponding frequency bins on the various outputs by computer.
2. 5260~5320MHz Directional Gain = 7.40dBi > 6dBi, so the limit shall be reduced to 11-(7.40-6) = 9.60dBm.
   5500~5720MHz Directional Gain = 7.70dBi > 6dBi, so the limit shall be reduced to 11-(7.70-6) = 9.30dBm.
3. Refer to section 3.3 for duty cycle spectrum plot.

802.11ac (VHT80+80)

Chan.	Freq. (MHz)	PSD W/O Duty Factor (dBm/MHz)				Duty Factor (dB)	Total PSD With Duty Factor (dBm/MHz)	Max. Limit (dBm/MHz)	Pass / Fail
		Chain 0			Chain 3				
50	5210	-1.17	-1.46	-	-	0.28	1.97	9.20	Pass
50	5290	-	-	-2.00	-2.30	0.28	1.14	9.60	Pass
114	5530+5610	-5.06	-4.85	-5.27	-5.15	0.28	1.22	9.30	Pass

Note:
1. Method a) of power density measurement of KDB 662911 is using for calculating total power density. Total power density is summing entire spectra across corresponding frequency bins on the various outputs by computer.
2. 5180~5240MHz Directional Gain = 7.8dBi > 6dBi, so the limit shall be reduced to 11-(7.8-6) = 9.20dBm.
   5260~5320MHz Directional Gain = 7.4dBi > 6dBi, so the limit shall be reduced to 11-(7.4-6) = 9.60dBm.
   5500~5720MHz Directional Gain = 7.7dBi > 6dBi, so the limit shall be reduced to 11-(7.7-6) = 9.30dBm.
3. Refer to section 3.3 for duty cycle spectrum plot.

Spectrum Plot of Worst Value	
802.11a / Chain 3 / CH 60	802.11ac (VHT20) / Chain 3 / CH 10
	
802.11ac (VHT40) / Chain 3 / CH 54	802.11ac (VHT80) / Chain 3 / CH 58
	
802.11ac (VHT80+80) / Chain 0 / CH 50	
	

For U-NII-3 band

802.11a

TX chain	Channel	Chan. Freq. (MHz)	PSD W/O Duty Factor		10 log (N=4) dB	Duty Factor (dB)	Total PSD With Duty Factor (dBm/ 500kHz)	Limit (dBm/ 500kHz)	Pass / Fail
			(dBm/ 300kHz)	(dBm/ 500kHz)					
0	144	5720 For 5745~5825MHz	-6.17	-3.95	6.02	0.22	2.29	28.30	Pass
	149	5745	1.87	4.09	6.02	0.22	10.33	28.30	Pass
	157	5785	1.88	4.10	6.02	0.22	10.34	28.30	Pass
	165	5825	1.75	3.97	6.02	0.22	10.21	28.30	Pass
1	144	5720 For 5745~5825MHz	-5.82	-3.60	6.02	0.22	2.64	28.30	Pass
	149	5745	1.30	3.52	6.02	0.22	9.76	28.30	Pass
	157	5785	1.22	3.44	6.02	0.22	9.68	28.30	Pass
	165	5825	1.28	3.50	6.02	0.22	9.74	28.30	Pass
2	144	5720 For 5745~5825MHz	-5.51	-3.29	6.02	0.22	2.95	28.30	Pass
	149	5745	1.31	3.53	6.02	0.22	9.77	28.30	Pass
	157	5785	1.53	3.75	6.02	0.22	9.99	28.30	Pass
	165	5825	1.19	3.41	6.02	0.22	9.65	28.30	Pass
3	144	5720 For 5745~5825MHz	-5.51	-3.29	6.02	0.22	2.95	28.30	Pass
	149	5745	1.70	3.92	6.02	0.22	10.16	28.30	Pass
	157	5785	1.84	4.06	6.02	0.22	10.30	28.30	Pass
	165	5825	1.59	3.81	6.02	0.22	10.05	28.30	Pass

Note:

1. Method a) of power density measurement of KDB 662911 is using for calculating total power density. Total power density is summing entire spectra across corresponding frequency bins on the various outputs by computer.
2. 5745~5825MHz Directional Gain = 7.7dBi > 6dBi, so the limit shall be reduced to 30-(7.7-6) = 28.30dBm.
3. Refer to section 3.3 for duty cycle spectrum plot.

802.11ac (VHT20)

TX chain	Channel	Chan. Freq. (MHz)	PSD W/O Duty Factor		10 log (N=4) dB	Duty Factor (dB)	Total PSD With Duty Factor (dBm/ 500kHz)	Limit (dBm/ 500kHz)	Pass / Fail
			(dBm/ 300kHz)	(dBm/ 500kHz)					
0	144	5720 For 5745~5825MHz	-6.93	-4.71	6.02	0.23	1.54	28.30	Pass
	149	5745	1.84	4.06	6.02	0.23	10.31	28.30	Pass
	157	5785	1.82	4.04	6.02	0.23	10.29	28.30	Pass
	165	5825	1.36	3.58	6.02	0.23	9.83	28.30	Pass
1	144	5720 For 5745~5825MHz	-6.02	-3.80	6.02	0.23	2.45	28.30	Pass
	149	5745	0.82	3.04	6.02	0.23	9.29	28.30	Pass
	157	5785	1.10	3.32	6.02	0.23	9.57	28.30	Pass
	165	5825	1.18	3.40	6.02	0.23	9.65	28.30	Pass
2	144	5720 For 5745~5825MHz	-5.74	-3.52	6.02	0.23	2.73	28.30	Pass
	149	5745	1.03	3.25	6.02	0.23	9.50	28.30	Pass
	157	5785	1.12	3.34	6.02	0.23	9.59	28.30	Pass
	165	5825	0.94	3.16	6.02	0.23	9.41	28.30	Pass
3	144	5720 For 5745~5825MHz	-5.18	-2.96	6.02	0.23	3.29	28.30	Pass
	149	5745	1.42	3.64	6.02	0.23	9.89	28.30	Pass
	157	5785	1.56	3.78	6.02	0.23	10.03	28.30	Pass
	165	5825	1.54	3.76	6.02	0.23	10.01	28.30	Pass

Note:
1. Method a) of power density measurement of KDB 662911 is using for calculating total power density. Total power density is summing entire spectra across corresponding frequency bins on the various outputs by computer.
2. 5745~5825MHz Directional Gain = 7.7dBi > 6dBi, so the limit shall be reduced to 30-(7.7-6) = 28.30dBm.
3. Refer to section 3.3 for duty cycle spectrum plot.

802.11ac (VHT40)

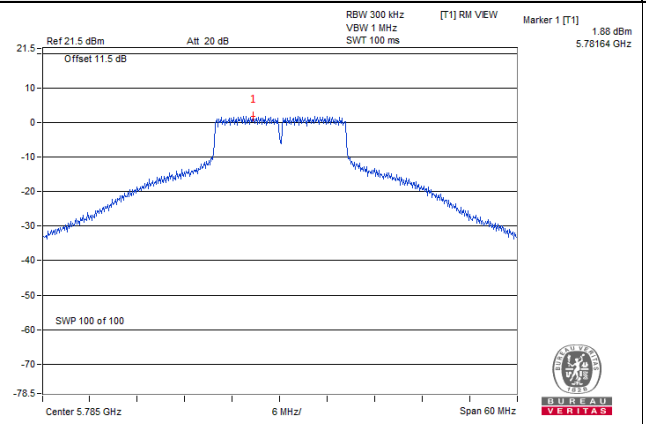
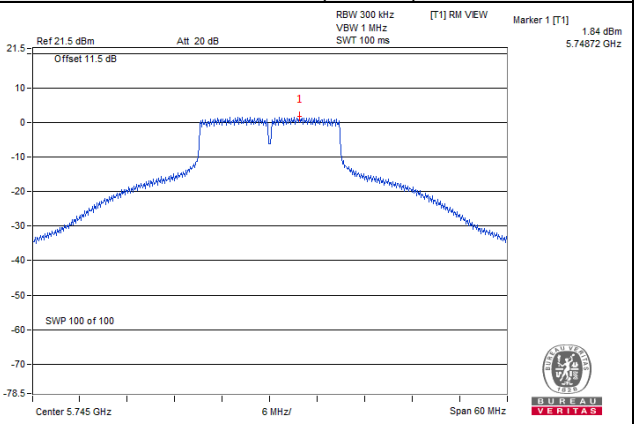
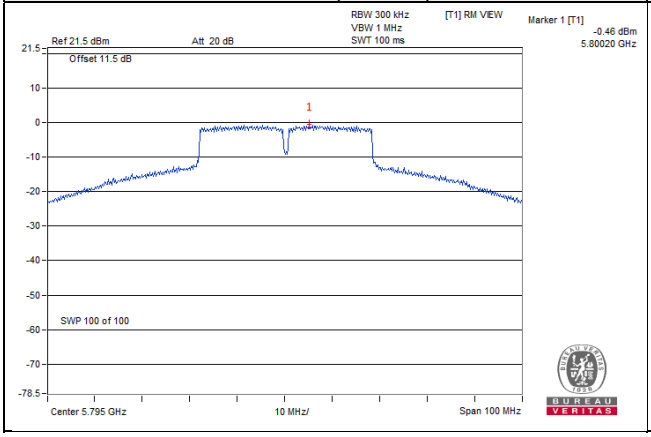
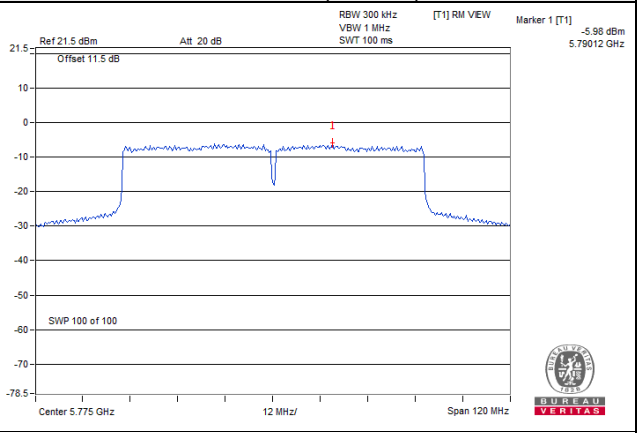
TX chain	Channel	Chan. Freq. (MHz)	PSD W/O Duty Factor		10 log (N=4) dB	Duty Factor (dB)	Total PSD With Duty Factor (dBm/ 500kHz)	Limit (dBm/ 500kHz)	Pass / Fail
			(dBm/ 300kHz)	(dBm/ 500kHz)					
0	142	5710 For 5745~5825MHz	-8.61	-6.39	6.02	0.48	0.11	28.30	Pass
	151	5755	-1.63	0.59	6.02	0.48	7.09	28.30	Pass
	159	5795	-1.00	1.22	6.02	0.48	7.72	28.30	Pass
1	142	5710 For 5745~5825MHz	-7.53	-5.31	6.02	0.48	1.19	28.30	Pass
	151	5755	-1.85	0.37	6.02	0.48	6.87	28.30	Pass
	159	5795	-0.98	1.24	6.02	0.48	7.74	28.30	Pass
2	142	5710 For 5745~5825MHz	-7.86	-5.64	6.02	0.48	0.86	28.30	Pass
	151	5755	-1.84	0.38	6.02	0.48	6.88	28.30	Pass
	159	5795	-1.16	1.06	6.02	0.48	7.56	28.30	Pass
3	142	5710 For 5745~5825MHz	-7.68	-5.46	6.02	0.48	1.04	28.30	Pass
	151	5755	-1.46	0.76	6.02	0.48	7.26	28.30	Pass
	159	5795	-0.46	1.76	6.02	0.48	8.26	28.30	Pass

Note:
1. Method a) of power density measurement of KDB 662911 is using for calculating total power density. Total power density is summing entire spectra across corresponding frequency bins on the various outputs by computer.
2. 5745~5825MHz Directional Gain = 7.7dBi > 6dBi, so the limit shall be reduced to 30-(7.7-6) = 28.30dBm.
3. Refer to section 3.3 for duty cycle spectrum plot.

802.11ac (VHT80)

TX chain	Channel	Chan. Freq. (MHz)	PSD W/O Duty Factor		10 log (N=4) dB	Duty Factor (dB)	Total PSD With Duty Factor (dBm/ 500kHz)	Limit (dBm/ 500kHz)	Pass / Fail
			(dBm/ 300kHz)	(dBm/ 500kHz)					
0	138	5690 For 5745~5825MHz	-11.79	-9.57	6.02	0.28	-3.27	28.30	Pass
	155	5775	-6.45	-4.23	6.02	0.28	2.07	28.30	Pass
1	138	5690 For 5745~5825MHz	-10.93	-8.71	6.02	0.28	-2.41	28.30	Pass
	155	5775	-6.32	-4.10	6.02	0.28	2.20	28.30	Pass
2	138	5690 For 5745~5825MHz	-11.02	-8.80	6.02	0.28	-2.50	28.30	Pass
	155	5775	-6.69	-4.47	6.02	0.28	1.83	28.30	Pass
3	138	5690 For 5745~5825MHz	-10.77	-8.55	6.02	0.28	-2.25	28.30	Pass
	155	5775	-5.98	-3.76	6.02	0.28	2.54	28.30	Pass

Note:
1. Method a) of power density measurement of KDB 662911 is using for calculating total power density. Total power density is summing entire spectra across corresponding frequency bins on the various outputs by computer.
2. 5745~5825MHz Directional Gain = 7.7dBi > 6dBi, so the limit shall be reduced to 30-(7.7-6) = 28.30dBm.
3. Refer to section 3.3 for duty cycle spectrum plot.

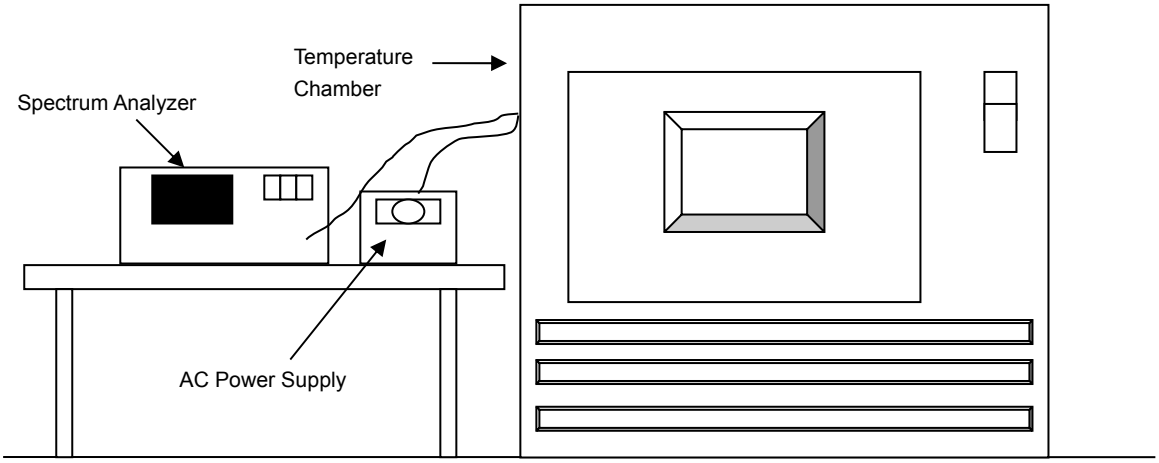
Spectrum Plot of Worst Value	
802.11a	802.11ac (VHT20)
	
802.11ac (VHT40)	802.11ac (VHT80)
	

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. 11, 2018	Jun. 10, 2019
WIT Standard Temperature And Humidity Chamber	TH-4S-C	W981030	Jun. 04, 2018	Jun. 03, 2019
Digital Multimeter Fluke	87-III	70360742	Jun. 29, 2018	Jun. 28, 2019
AC Power Supply Extech	CFW-105	E000603	NA	NA

4.6.4 Test Procedure

a. The EUT was placed inside the environmental test chamber and powered by nominal AC voltage.
b. Turn the EUT on and couple its output to a spectrum analyzer.
c. Turn the EUT off and set the chamber to the highest temperature specified.
d. Allow sufficient time (approximately 30 min) for the temperature of the chamber to stabilize, turn the EUT on and measure the operating frequency after 2, 5, and 10 minutes.
e. Repeat step 2 and 3 with the temperature chamber set to the lowest temperature.
f. The test chamber was allowed to stabilize at +20 degree C for a minimum of 30 minutes. The supply voltage was then adjusted on the EUT from 85% to 115% and the frequency record.

4.6.5 Deviation from Test Standard

No deviation.

4.6.6 EUT Operating Condition

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

4.6.7 Test Results

Client Mode

Frequency Stability Versus Temp.									
Operating Frequency: 5180MHz									
Temp. (℃)	Power Supply (Vac)	0 Minute		2 Minute		5 Minute		10 Minute	
		Measured Frequency (MHz)	Result	Measured Frequency (MHz)	Result	Measured Frequency (MHz)	Result	Measured Frequency (MHz)	Result
50	120	5180.0242	Pass	5180.0264	Pass	5180.023	Pass	5180.0222	Pass
40	120	5180.0208	Pass	5180.0253	Pass	5180.0226	Pass	5180.0245	Pass
30	120	5179.9968	Pass	5179.9964	Pass	5179.9978	Pass	5179.9942	Pass
20	120	5179.9844	Pass	5179.9849	Pass	5179.9845	Pass	5179.9848	Pass
10	120	5179.9844	Pass	5179.9823	Pass	5179.9843	Pass	5179.9848	Pass
0	120	5180.0027	Pass	5180.0041	Pass	5180.0022	Pass	5180.0008	Pass
-10	120	5179.982	Pass	5179.982	Pass	5179.9841	Pass	5179.9823	Pass
-20	120	5179.9743	Pass	5179.9758	Pass	5179.9757	Pass	5179.975	Pass
-30	120	5179.9823	Pass	5179.979	Pass	5179.9793	Pass	5179.98	Pass

Frequency Stability Versus Voltage									
Operating Frequency: 5180MHz									
Temp. (℃)	Power Supply (Vac)	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	138	5179.9851	Pass	5179.9842	Pass	5179.9837	Pass	5179.9846	Pass
	120	5179.9844	Pass	5179.9849	Pass	5179.9845	Pass	5179.9848	Pass
	102	5179.9842	Pass	5179.9843	Pass	5179.985	Pass	5179.9844	Pass

Master Mode

Frequency Stability Versus Temp.									
Operating Frequency: 5180MHz									
Temp. (℃)	Power Supply (Vac)	0 Minute		2 Minute		5 Minute		10 Minute	
		Measured Frequency (MHz)	Result	Measured Frequency (MHz)	Result	Measured Frequency (MHz)	Result	Measured Frequency (MHz)	Result
50	120	5179.9724	Pass	5179.9765	Pass	5179.9741	Pass	5179.9759	Pass
40	120	5180.0124	Pass	5180.0111	Pass	5180.0104	Pass	5180.0104	Pass
30	120	5180.0087	Pass	5180.0049	Pass	5180.0051	Pass	5180.0081	Pass
20	120	5179.9991	Pass	5179.9991	Pass	5180.003	Pass	5180.0025	Pass
10	120	5179.9865	Pass	5179.9821	Pass	5179.9821	Pass	5179.9836	Pass
0	120	5180.0003	Pass	5180.0019	Pass	5179.9997	Pass	5180.0032	Pass
-10	120	5180.0036	Pass	5180.0039	Pass	5180.0044	Pass	5180	Pass
-20	120	5180.0132	Pass	5180.0129	Pass	5180.0106	Pass	5180.0131	Pass
-30	120	5180.0057	Pass	5180.0079	Pass	5180.0087	Pass	5180.0083	Pass

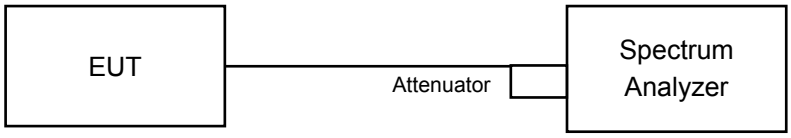
Frequency Stability Versus Voltage									
Operating Frequency: 5180MHz									
Temp. (℃)	Power Supply (Vac)	0 Minute		2 Minute		5 Minute		10 Minute	
		Measured Frequency (MHz)	Result	Measured Frequency (MHz)	Result	Measured Frequency (MHz)	Result	Measured Frequency (MHz)	Result
20	138	5179.9999	Pass	5180	Pass	5180.0025	Pass	5180.0035	Pass
	120	5179.9991	Pass	5179.9991	Pass	5180.003	Pass	5180.0025	Pass
	102	5179.9996	Pass	5179.9995	Pass	5180.0027	Pass	5180.0016	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

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

4.7.5 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

802.11a

Channel	Frequency (MHz)	6dB Bandwidth (MHz)				Minimum Limit (MHz)	Pass / Fail
		Chain 0	Chain 1	Chain 2	Chain 3		
144	5720 For 5745~5825MHz	3.22	3.24	3.20	3.22	0.5	Pass
149	5745	16.40	16.40	16.37	16.36	0.5	Pass
157	5785	16.42	16.39	16.38	16.37	0.5	Pass
165	5825	16.41	16.39	16.36	16.38	0.5	Pass

802.11ac (VHT20)

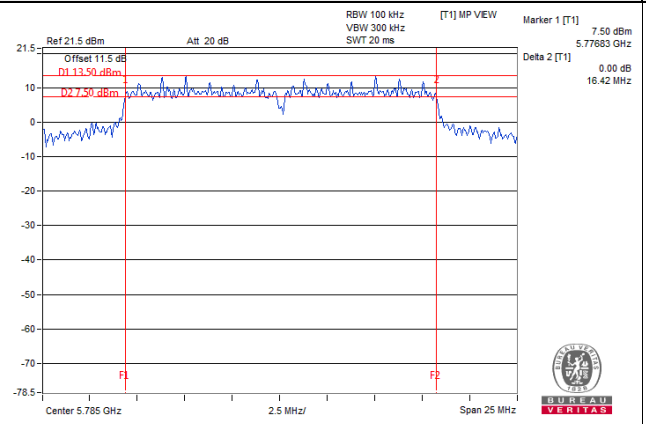
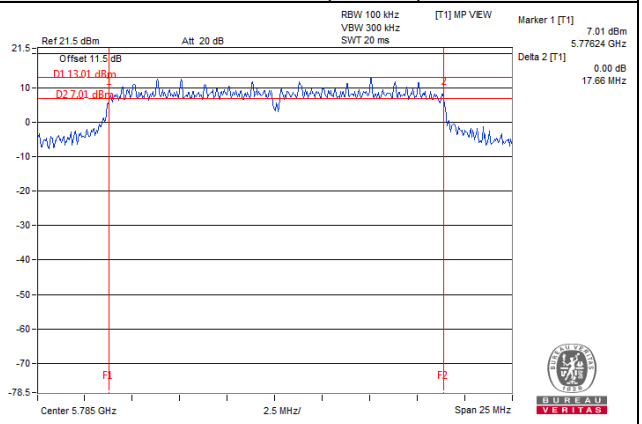
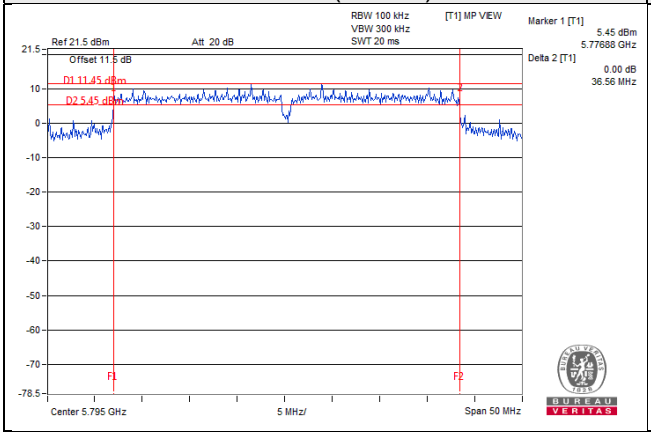
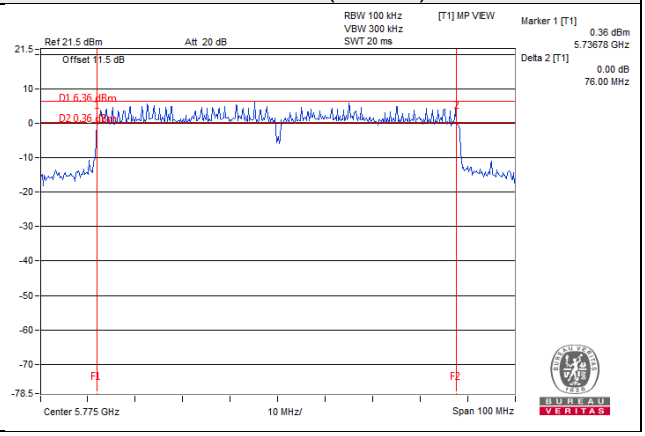
Channel	Frequency (MHz)	6dB Bandwidth (MHz)				Minimum Limit (MHz)	Pass / Fail
		Chain 0	Chain 1	Chain 2	Chain 3		
144	5720 For 5745~5825MHz	3.86	3.88	3.87	3.85	0.5	Pass
149	5745	17.63	17.62	17.61	17.64	0.5	Pass
157	5785	17.65	17.66	17.64	17.60	0.5	Pass
165	5825	17.64	17.65	17.63	17.65	0.5	Pass

802.11ac (VHT40)

Channel	Frequency (MHz)	6dB Bandwidth (MHz)				Minimum Limit (MHz)	Pass / Fail
		Chain 0	Chain 1	Chain 2	Chain 3		
142	5710 For 5745~5825MHz	3.26	3.32	3.31	3.31	0.5	Pass
151	5755	36.45	36.46	36.45	36.48	0.5	Pass
159	5795	36.47	36.49	36.54	36.56	0.5	Pass

802.11ac (VHT80)

Channel	Frequency (MHz)	6dB Bandwidth (MHz)				Minimum Limit (MHz)	Pass / Fail
		Chain 0	Chain 1	Chain 2	Chain 3		
138	5690 For 5745~5825MHz	3.40	3.34	3.40	3.40	0.5	Pass
155	5775	75.78	76.00	75.59	75.89	0.5	Pass

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

Note:

For CH144 (UNII-3 Band): The 6dB bandwidth above 5725MHz = Marker 1 + Delta 2 - 5725MHz

For CH142 (UNII-3 Band): The 6dB bandwidth above 5725MHz = Marker 1 + Delta 2 - 5725MHz

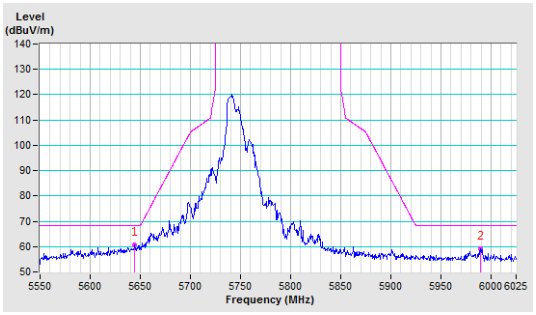
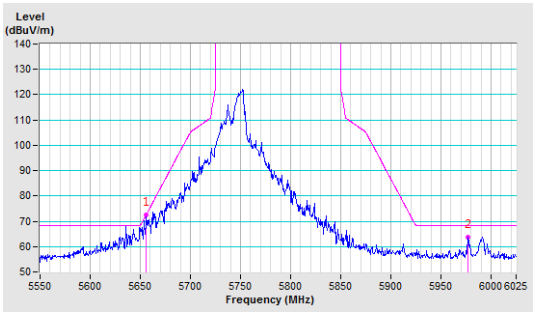
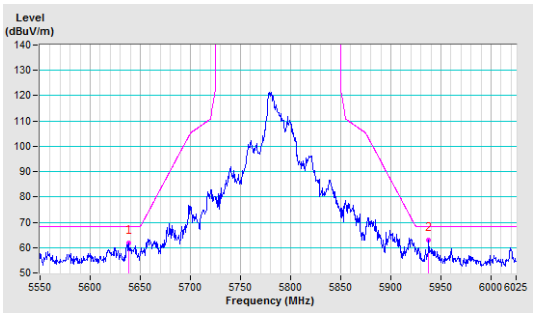
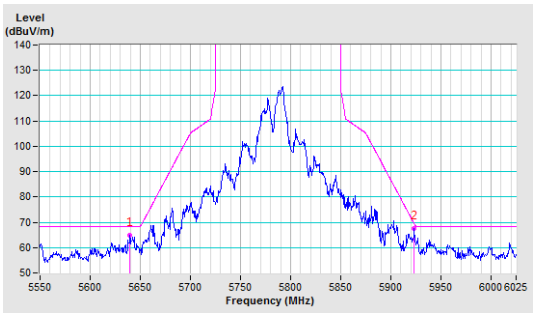
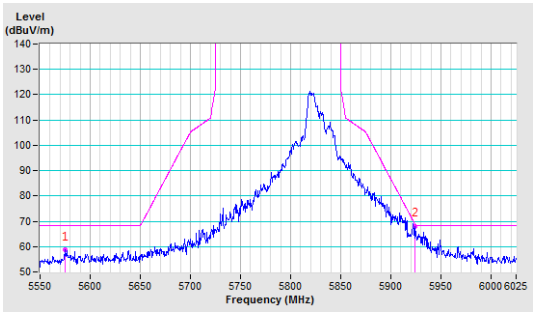
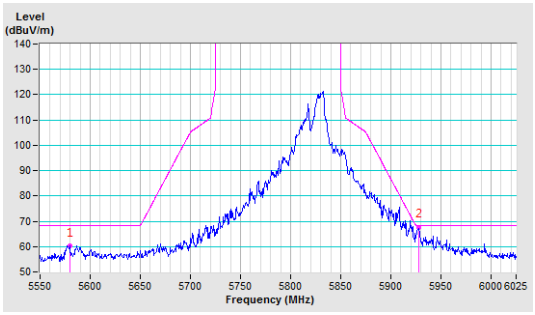
For CH138 (UNII-3 Band): The 6dB bandwidth above 5725MHz = Marker 1 + Delta 2 - 5725MHz

5 Pictures of Test Arrangements

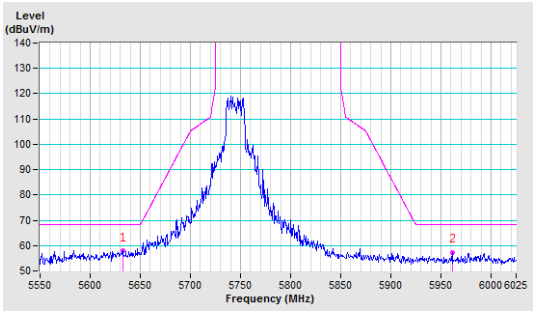
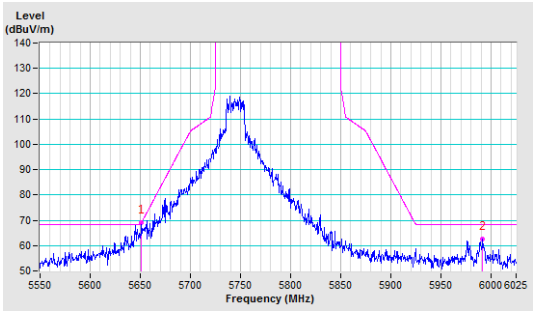
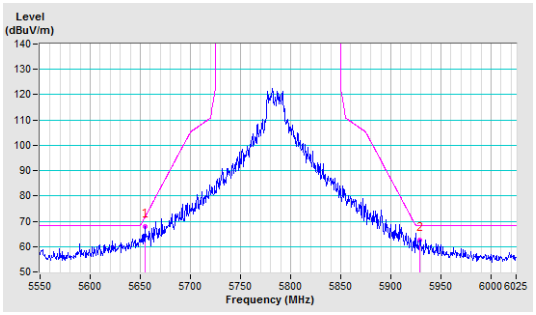
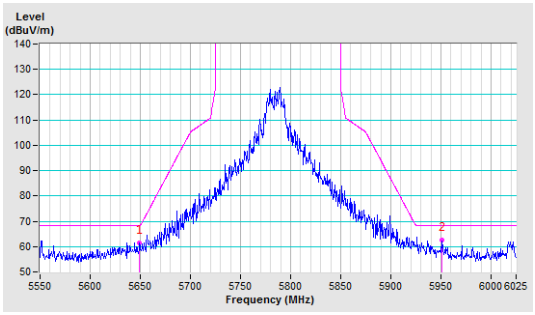
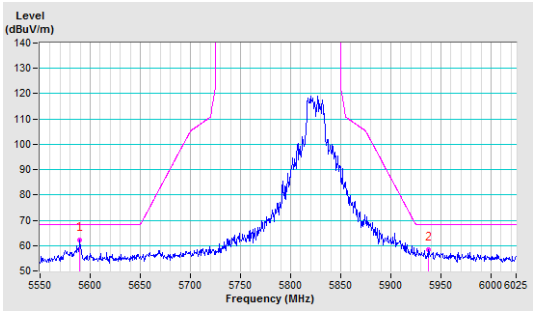
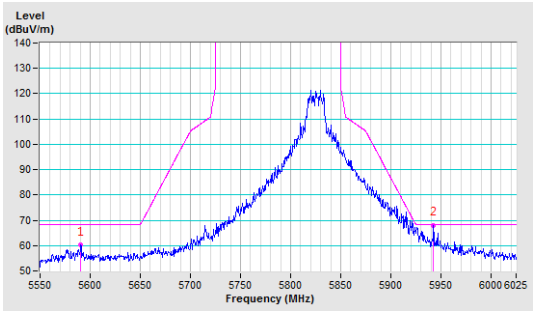
Please refer to the attached file (Test Setup Photo).

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

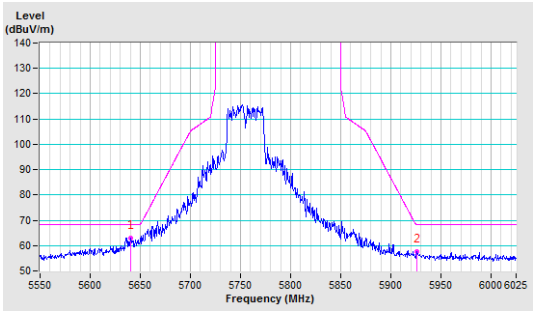
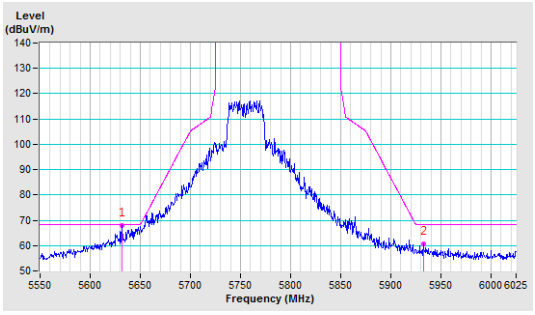
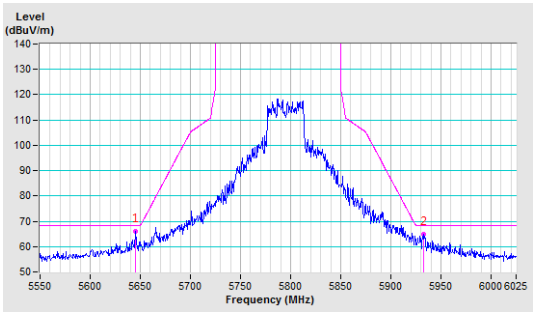
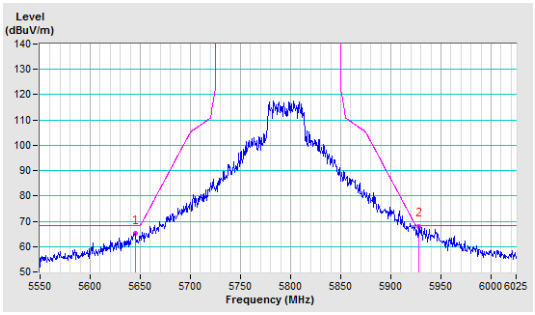
802.11a

CH149	
Horizontal	Vertical
	
CH157	
Horizontal	Vertical
	
CH165	
Horizontal	Vertical
	

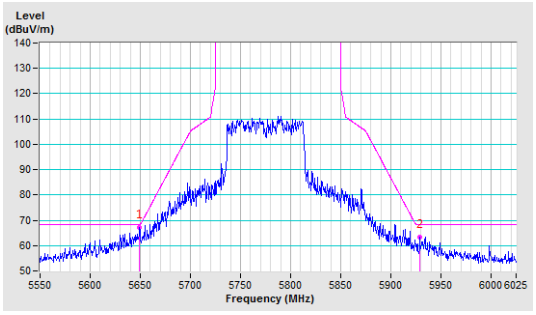
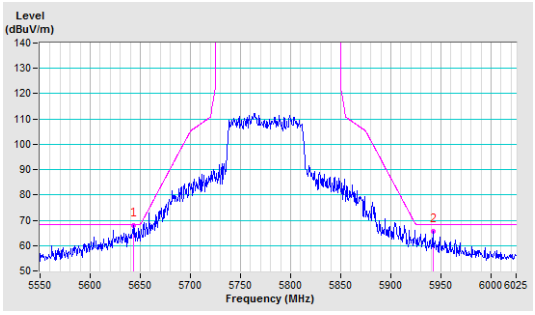
802.11ac (VHT20)

CH149	
Horizontal	Vertical
	
CH157	
Horizontal	Vertical
	
CH165	
Horizontal	Vertical
	

802.11ac (VHT40)

CH151	
Horizontal	Vertical
	
CH159	
Horizontal	Vertical
	

802.11ac (VHT80)

CH155	
Horizontal	Vertical
	

Appendix – Information on the Testing Laboratories

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

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

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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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