FCC Test Report

Report No.:	RFBHAT-WTW-P20121068A-3
FCC ID:	R68OQ845US
Test Model:	Open-Q 845 uSOM
Received Date:	Jul. 14, 2022
Test Date:	Jul. 23 ~ Aug. 22, 2022
Issued Date:	Oct. 06, 2022
Applicant:	Lantronix, Inc.
Address:	7535 Irvine Center Drive, Suite 100, Irvine, CA 92618 USA
Issued By:	Bureau Veritas Consumer Products Services (H.K.) Ltd., Taoyuan Branch Lin Kou Laboratories
Lab Address:	No. 47-2, 14th Ling, Chia Pau Vil., Lin Kou Dist., New Taipei City, Taiwan
Test Location:	No.19, Hwa Ya 2nd Rd., Wen Hwa Vil., Kwei Shan Dist., Taoyuan City 33383, Taiwan
FCC Registration / Designation Number:	788550 / TW0003

Testing Laboratory
2021

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Release Control Record

Issue No.	Description	Date Issued
RFBHAT-WTW-P20121068A-3	Original Release	Oct. 06, 2022

1 Certificate of Conformity

Product:	Open-Q 845 uSOM
Brand:	Lantronix
Test Model:	Open-Q 845 uSOM
Sample Status:	Engineering Sample
Applicant:	Lantronix, Inc.
Test Date:	Jul. 23 ~ Aug. 22, 2022
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 : Lena Wang , **Date:** Oct. 06, 2022

Lena Wang / Specialist

Approved by : Jeremy Lin , **Date:** Oct. 06, 2022

Jeremy Lin / 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)(8)	AC Power Conducted Emissions	Pass	Meet the requirement of limit. Minimum passing margin is -24.07 dB at 0.60600 MHz.
15.407(b) (1/2/3/4(i/ii)/8)	Radiated Emissions & Band Edge Measurement	Pass	Meet the requirement of limit. Minimum passing margin is -0.4 dB at 5654.80 MHz.
15.407(a)(1/2/3)	Max Average Transmit Power	Pass	Meet the requirement of limit.
---	Occupied Bandwidth Measurement	N/A	Refer to Note 1
15.407(a)(1/2/3)	Peak Power Spectral Density	N/A	Refer to Note 1
15.407(e)	6 dB Bandwidth	N/A	Refer to Note 1
15.407(g)	Frequency Stability	N/A	Refer to Note 1
15.203	Antenna Requirement	N/A	Refer to Note 1

Note:

1. This report is a partial report, only test item of AC Power Conducted Emission, Max Average Transmit Power and Radiated Emissions tests were performed for this report. Other testing data please refer to original report no.: RFBHAT-WTW-P20121068-3.
2. For U-NII-3 band compliance with rule part 15.407(b)(4)(i), the OOBE test plots were recorded in Annex A.
3. For U-NII-1, U-NII-2A, U-NII-2C band compliance with rule 15.407(b) of the band-edge items, the test plots were recorded in Annex B. Test Procedures refer to report 4.1.3.
4. Determining compliance based on the results of the compliance measurement, not taking into account measurement instrumentation uncertainty.

2.1 Measurement Uncertainty

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

Measurement	Frequency	Expanded Uncertainty (k=2) (±)
Conducted Emissions at mains ports	150 kHz ~ 30 MHz	2.79 dB
Radiated Emissions up to 1 GHz	9 kHz ~ 30 MHz	3.04 dB
	30 MHz ~ 200 MHz	2.93 dB
	200 MHz ~ 1000 MHz	2.95 dB
Radiated Emissions above 1 GHz	1 GHz ~ 18 GHz	2.26 dB
	18 GHz ~ 40 GHz	1.94 dB

2.2 Modification Record

There were no modifications required for compliance.

3 General Information

3.1 General Description of EUT

Product	Open-Q 845 uSOM
Brand	Lantronix
Test Model	Open-Q 845 uSOM
Status of EUT	Engineering Sample
Power Supply Rating	12 Vdc (Adapter)
Modulation Type	256QAM, 64QAM, 16QAM, QPSK, BPSK
Modulation Technology	OFDM
Transfer Rate	802.11a: 54.0/ 48.0/ 36.0/ 24.0/ 18.0/ 12.0/ 9.0/ 6.0 Mbps 802.11n: up to 300 Mbps 802.11ac: up to 866.7 Mbps
Operating Frequency	5180 ~ 5240 MHz, 5260 ~ 5320 MHz, 5500 ~ 5720 MHz, 5745 ~ 5825 MHz
Number of Channel	5180 ~ 5240 MHz: 4 for 802.11a, 802.11n (HT20), 802.11ac (VHT20) 2 for 802.11n (HT40), 802.11ac (VHT40) 1 for 802.11ac (VHT80) 5260 ~ 5320 MHz: 4 for 802.11a, 802.11n (HT20), 802.11ac (VHT20) 2 for 802.11n (HT40), 802.11ac (VHT40) 1 for 802.11ac (VHT80) 5500 ~ 5720 MHz: 9 for 802.11a, 802.11n (HT20), 802.11ac (VHT20) 4 for 802.11n (HT40), 802.11ac (VHT40) 2 for 802.11ac (VHT80) 5745 ~ 5825 MHz: 5 for 802.11a, 802.11n (HT20), 802.11ac (VHT20) 2 for 802.11n (HT40), 802.11ac (VHT40) 1 for 802.11ac (VHT80)
Output Power	CDD mode: 46.005 mW for 5180 ~ 5240 MHz 46.432 mW for 5260 ~ 5320 MHz 238.665 mW for 5500 ~ 5720 MHz 389.343 mW for 5745 ~ 5825 MHz Beamforming mode: 23.523 mW for 5180 ~ 5240 MHz 23.813 mW for 5260 ~ 5320 MHz 120.727 mW for 5500 ~ 5720 MHz 389.343 mW for 5745 ~ 5825 MHz
Antenna Type	Refer to Note as below
Antenna Connector	Refer to Note as below
Accessory Device	N/A
Data Cable Supplied	N/A

Note:

1. This report is issued as a supplementary report to BV CPS report no. RFBHAT-WTW-P20121068-3. The difference compared with original report are adding antenna, therefore only test item of AC Power Conducted Emission, Max Average Transmit Power and Radiated Emissions tests were performed for this report.
2. The EUT incorporates a MIMO function. Physically, the EUT provides two completed transmitters and two receivers.

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

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

3. The following antennas were provided to the EUT. (Ant. B is new)

Ant. A		
Ant. Type	Flexible Dipole Antenna	
Connector Type	U.FL	
Antenna Gain (dBi)		
Item	**2.4~2.5G**	**4.9~5.8G**
Ant 1	3.32	6.11
Ant 2	3.32	6.11
Ant. B		
Brand	Fractus Antennas	
Model	FR05-S1-NO-1-003	
Ant. Type	Chip Monopole	
Connector Type	SMA	
Antenna Gain (dBi)		
2.4~2.5G		**4.9~5.8G**
3.9		6

4. Detail antenna specification please refer to antenna datasheet and/or antenna measurement report.
5. The above EUT information is declared by manufacturer and for more detailed features description, please refers to the manufacturer's specifications or user's manual.
6. BT, 2.4G and 5GHz WLAN can transmit simultaneously. The emission of the simultaneous operation has been evaluated and non-compliance was found.

3.2 Description of Test Modes

For 5180 ~ 5240 MHz

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

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

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

Channel	Frequency (MHz)	Channel	Frequency (MHz)
38	5190	46	5230

1 channel is provided for 802.11ac (VHT80):

Channel	Frequency (MHz)
42	5210

For 5260 ~ 5320 MHz

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

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

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

Channel	Frequency (MHz)	Channel	Frequency (MHz)
54	5270	62	5310

1 channel is provided for 802.11ac (VHT80):

Channel	Frequency (MHz)
58	5290

For 5500 ~ 5720 MHz

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

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

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

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

2 channels are provided for 802.11ac (VHT80):

Channel	Frequency (MHz)	Channel	Frequency (MHz)
106	5530	138	5690

For 5745 ~ 5825 MHz:

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

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

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

Channel	Frequency (MHz)	Channel	Frequency (MHz)
151	5755	159	5795

1 channel is provided for 802.11ac (VHT80):

Channel	Frequency (MHz)
155	5775

3.2.1 Test Mode Applicability and Tested Channel Detail

EUT Configure Mode	Applicable To				Description
	RE≥1G	RE<1G	PLC	APCM	
-	√	√	√	√	-

Where **RE≥1G:** Radiated Emission above 1 GHz **RE<1G:** Radiated Emission below 1 GHz
PLC: Power Line Conducted Emission **APCM:** Antenna Port Conducted Measurement

Note:
1. The EUT had been pre-tested on the positioned of each 3 axis. The worst case was found when positioned on **X-plane**.
2. "-" means no effect.
3. Radiated emission test (below 1GHz) and power line conducted emission test items chosen the worst fundamental frequency emission level.

Radiated Emission Test (Above 1 GHz):

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

Radiated Emission Test (Below 1 GHz):

☒ 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	Frequency Band (MHz)	Mode	Available Channel	Tested Channel	Modulation Technology	Modulation Type	Data Rate (Mbps)
-	5745-5825	802.11ac (VHT40)	151 to 159	159	OFDM	BPSK	13.5

Power Line Conducted Emission Test:

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

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

EUT Configure Mode	Frequency Band (MHz)	Mode	Available Channel	Tested Channel	Modulation Technology	Modulation Type	Data Rate (Mbps)
-	5745-5825	802.11ac (VHT40)	151 to 159	159	OFDM	BPSK	13.5

Antenna Port Conducted Measurement:

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

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

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

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

Test Condition:

Applicable To	Environmental Conditions	Input Power	Tested by
RE≥1G	23 deg. C, 73 % RH	120 Vac, 60 Hz	Rex Wang
RE<1G	21 deg. C, 68 % RH	120 Vac, 60 Hz	Rex Wang
PLC	25 deg. C, 75 % RH	120 Vac, 60 Hz	Rex Wang
APCM	25 deg. C, 60 % RH	120 Vac, 60 Hz	Jisyong Wang

3.3 Duty Cycle of Test Signal

Duty cycle of test signal is < 98 %, duty factor is required.

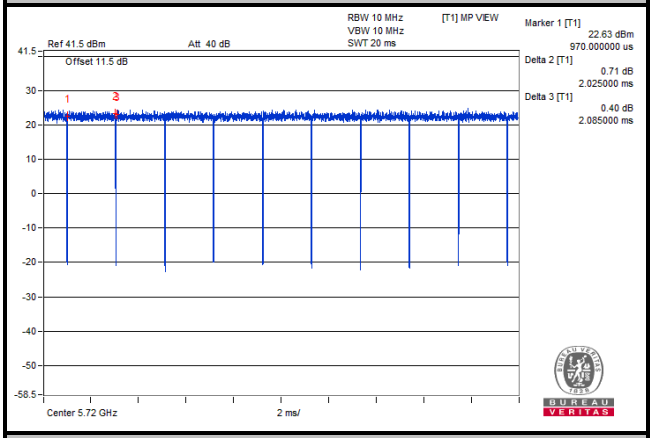
802.11a: Duty cycle = 2.025/2.085 = 0.971, Duty factor = 10 * log(1/0.971) = 0.13

802.11ac (VHT20): Duty cycle = 1.895/1.94 = 0.977, Duty factor = 10 * log(1/0.977) = 0.10

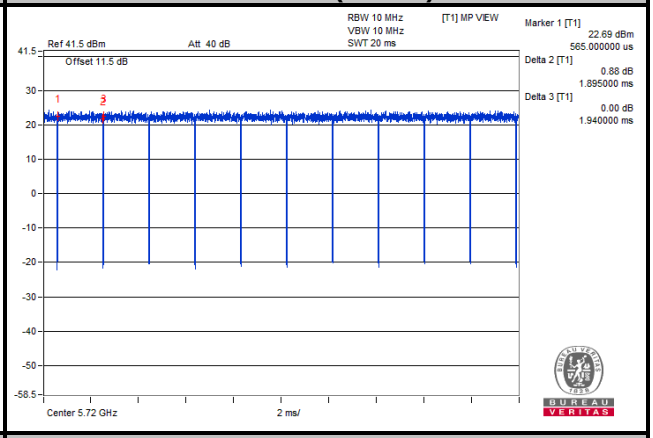
802.11ac (VHT40): Duty cycle = 0.925/0.987 = 0.937, Duty factor = 10 * log(1/0.937) = 0.28

802.11ac (VHT80): Duty cycle = 0.452/0.497 = 0.909, Duty factor = 10 * log(1/0.909) = 0.41

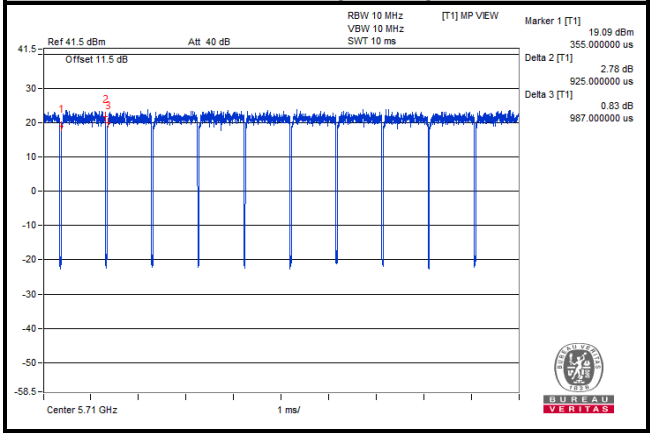
802.11a



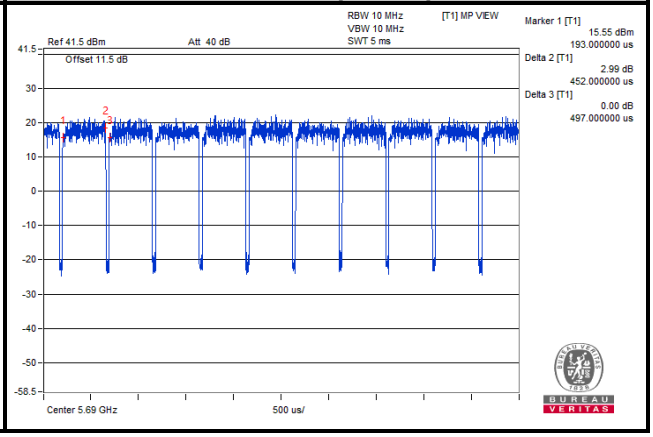
802.11ac (VHT20)



802.11ac (VHT40)



802.11ac (VHT80)



3.4 Description of Support Units

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

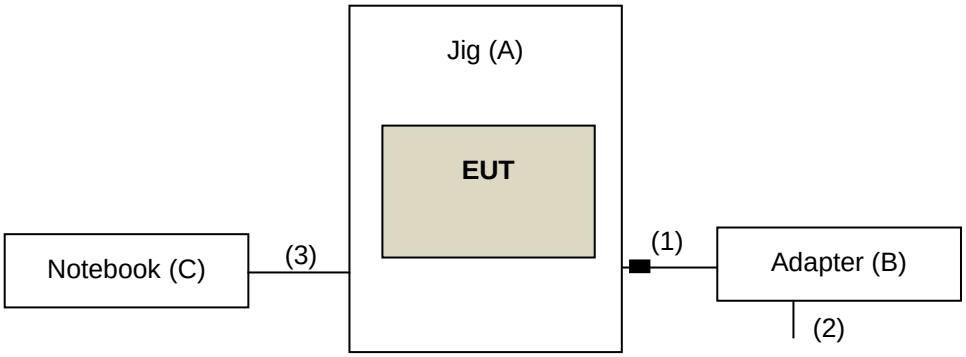
ID	Product	Brand	Model No.	Serial No.	FCC ID	Remarks
A	Jig	N/A	N/A	N/A	N/A	Provided by client
B	Adapter	YINGHUIYUAN	YHY-12003000	N/A	N/A	Provided by client
C	Notebook	Dell	E5420	FHP75S1	N/A	--

Note:

1. All power cords of the above support units are non-shielded (1.8m).

ID	Cable Descriptions	Qty.	Length (m)	Shielding (Yes/No)	Cores (Qty.)	Remarks
1.	Adapter Cable	1	1.2	Y	1	Provided by client
2.	Power Cable	1	1.15	N	0	Provided by client
3.	USB Type C Cable	1	1	Y	0	--

3.4.1 Configuration of System under Test



3.5 General Description of Applied Standards and References

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

Test Standard:

FCC Part 15, Subpart E (15.407)
ANSI C63.10-2013

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

References Test Guidance:

KDB 789033 D02 General UNII Test Procedures New Rules v02r01
KDB 662911 D01 Multiple Transmitter Output v02r01

All test items have been performed as a reference to the above KDB test guidance.

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 1000 MHz, 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 20 dB under any condition of modulation.

Limits of Unwanted Emission Out of the Restricted Bands

Applicable To			Limit	
789033 D02 General UNII Test Procedures New Rules v02r01			Field Strength at 3 m	
			PK: 74 (dBμV/m)	AV: 54 (dBμV/m)
Frequency Band	**Applicable To**		**EIRP Limit**	**Equivalent Field Strength at 3 m**
5150~5250 MHz	15.407(b)(1)		PK: -27 (dBm/MHz)	PK: 68.2 (dBμV/m)
5250~5350 MHz	15.407(b)(2)			
5470~5725 MHz	15.407(b)(3)			
5725~5850 MHz	☒	15.407(b)(4)(i)	PK:-27 (dBm/MHz) *1 PK:10 (dBm/MHz) *2 PK:15.6 (dBm/MHz) *3 PK:27 (dBm/MHz) *4	PK: 68.2 (dBμV/m) *1 PK:105.2 (dBμV/m) *2 PK: 110.8 (dBμV/m) *3 PK:122.2 (dBμV/m) *4
	☐	15.407(b)(4)(ii)	Emission limits in section 15.247(d)	

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

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

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

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

Note:

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

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

4.1.2 Test Instruments

Description & Manufacturer	Model No.	Serial No.	Date of Calibration	Due Date of Calibration
Software BV ADT	ADT_Radiated_ V7.6.15.9.5	NA	NA	NA
Antenna Tower &Turn BV ADT	AT100	AT93021705	NA	NA
Turn Table BV ADT	TT100	TT93021705	NA	NA
Turn Table Controller BV ADT	SC100	SC93021705	NA	NA
Test Receiver Agilent	N9038A	MY51210203	Sep. 22, 2021	Sep. 21, 2022
Spectrum Analyzer R&S	FSW43	101867	Jan. 07, 2022	Jan. 06, 2023
Pre-amplifier EMCI	EMC001340	980201	Sep. 15, 2021	Sep. 14, 2022
Pre-amplifier EMCI	EMC001340	980201	Sep. 15, 2021	Sep. 14, 2022
RF Coaxial Cable EMCI	5D-NM-BM	140903+140902	Jan. 15, 2022	Jan. 14, 2023
Preamplifier Agilent	8447D	2944A10638	May 14, 2022	May 13, 2023
Bi_Log Antenna Schwarbeck	VULB9168	9168-160	Oct. 28, 2021	Oct. 27, 2022
RF Coaxial Cable WOKEN	8D-FB	Cable-CH9-01	May 14, 2022	May 13, 2023
Horn Antenna Schwarzbeck	9120D	9120D-1169	Nov. 14, 2021	Nov. 13, 2022
Preamplifier Agilent	8449B	3008A02367	Feb. 16, 2022	Feb. 15, 2023
RF Coaxial Cable HUBER+SUHNER&EMCI	SUCOFLEX 104& EMC104-SM- SM8000	CABLE-CH9-02 (248780+171006)	Jan. 15, 2022	Jan. 14, 2023
RF Coaxial Cable HUBER+SUHNER	SUCOFLEX 104	CABLE-CH9- (250795/4)	Jan. 15, 2022	Jan. 14, 2023
RF FLITER MICRO-TRONICS	BRM50716	060	Jan. 10, 2022	Jan. 09, 2023
RF FLITER MICRO-TRONICS	BRM17690	004	Jan. 10, 2022	Jan. 09, 2023
Boresight antenna tower fixture BV	BAF-02	5	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 966 chamber 4.

4.1.3 Test Procedures

For Radiated Emission below 30 MHz

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 9 kHz at frequency below 30 MHz.

For Radiated Emission above 30 MHz

a. The EUT was placed on the top of a rotating table 0.8 meters (for 30 MHz ~ 1 GHz) / 1.5 meters (for above 1 GHz) 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 detected 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:

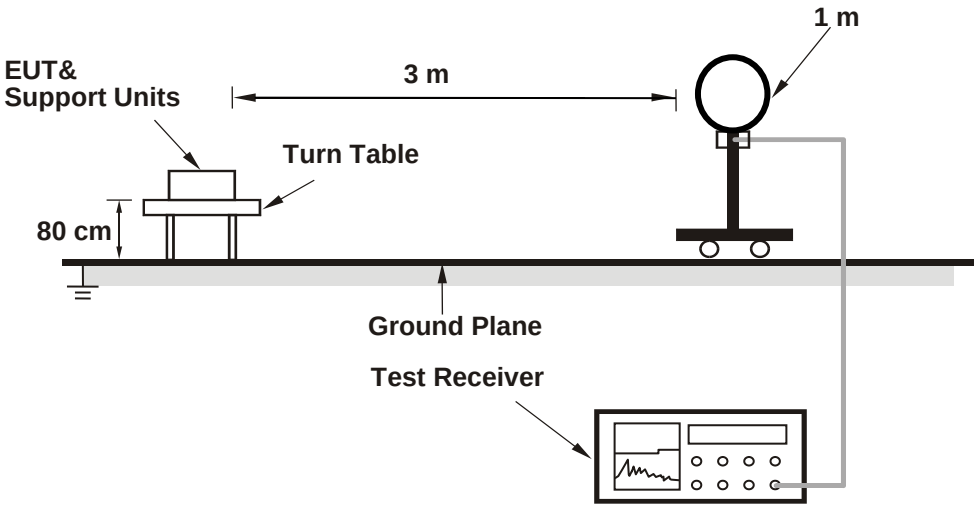
1. The resolution bandwidth and video bandwidth of test receiver/spectrum analyzer is 120 kHz for Quasi-peak detection (QP) or Peak detection (PK) at frequency below 1 GHz.
2. The resolution bandwidth of test receiver/spectrum analyzer is 1 MHz and the video bandwidth is 3 MHz for Peak detection (PK) at frequency above 1 GHz.
3. The resolution bandwidth of test receiver/spectrum analyzer is 1 MHz and the video bandwidth is ≥ 1/T (Duty cycle < 98 %) or 10 Hz (Duty cycle ≥ 98 %) for Average detection (AV) at frequency above 1 GHz.
   (11a: RBW = 1 MHz, VBW = 510 Hz ; 11n (HT20): RBW = 1 MHz, VBW = 1 kHz ;
   11n (HT40): RBW = 1 MHz, VBW = 2 kHz ; 11ac (VHT80): RBW = 1 MHz, VBW = 3 kHz)
4. All modes of operation were investigated and the worst-case emissions are reported.

4.1.4 Deviation from Test Standard

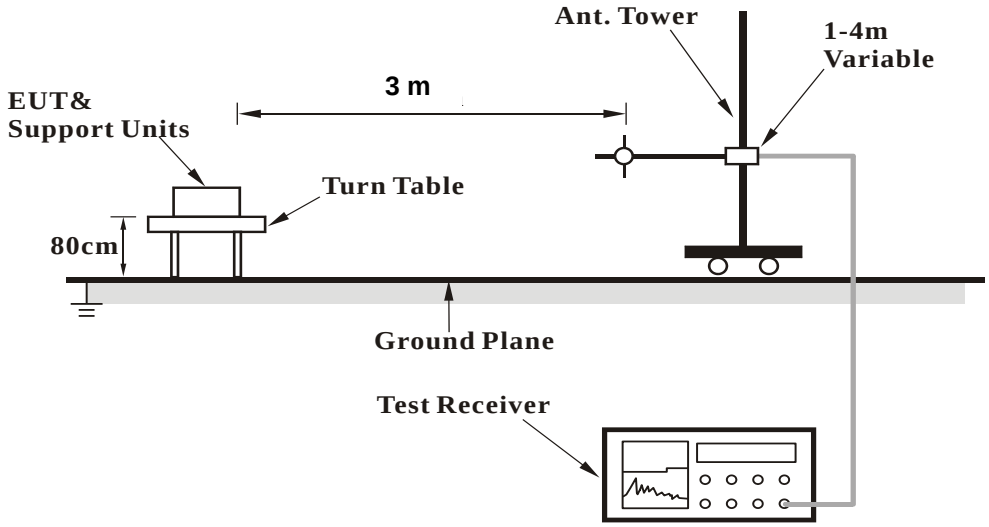
No deviation.

4.1.5 Test Setup

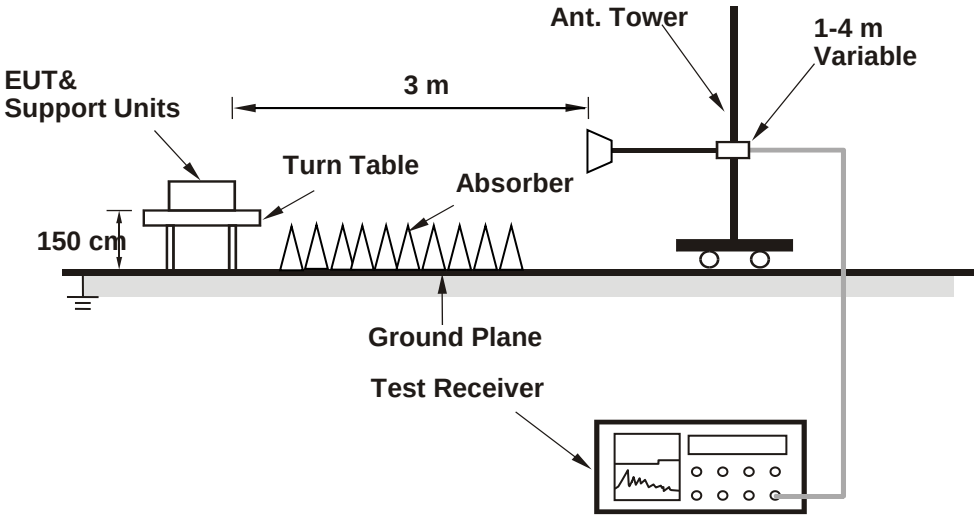
<Radiated Emission below 30 MHz>



<Radiated Emission 30 MHz to 1 GHz>



<Radiated Emission above 1 GHz>



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 a testing table.
b. Use the software to control the EUT under transmission condition continuously at specific channel frequency.

4.1.7 Test Results

Above 1 GHz Data：

802.11a

RF Mode	TX 802.11a	Channel	CH 36：5180 MHz
Frequency Range	1GHz ~ 40GHz	Detector Function	Peak (PK) Average (AV)

Antenna Polarity & Test Distance : Horizontal at 3 m								
No	Frequency (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	58.9 PK	74.0	-15.1	1.37 H	11	53.3	5.6
2	5150.00	44.2 AV	54.0	-9.8	1.37 H	11	38.6	5.6
3	*5180.00	107.1 PK			1.37 H	11	67.1	40.0
4	*5180.00	98.0 AV			1.37 H	11	58.0	40.0
5	#10360.00	59.1 PK	68.2	-9.1	1.32 H	115	41.6	17.5
Antenna Polarity & Test Distance : Vertical at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	5150.00	56.4 PK	74.0	-17.6	3.68 V	62	50.8	5.6
2	5150.00	43.1 AV	54.0	-10.9	3.68 V	62	37.5	5.6
3	*5180.00	101.6 PK			3.68 V	62	61.6	40.0
4	*5180.00	92.5 AV			3.68 V	62	52.5	40.0
5	#10360.00	58.8 PK	68.2	-9.4	2.58 V	343	41.3	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. Margin value = Emission Level – Limit value
4. The other emission levels were very low against the limit.
5. " * ": Fundamental frequency.
6. " # ": The radiated frequency is out of the restricted band.

RF Mode	TX 802.11a	Channel	CH 40：5200 MHz
Frequency Range	1GHz ~ 40GHz	Detector Function	Peak (PK) Average (AV)

Antenna Polarity & Test Distance : Horizontal at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	*5200.00	107.4 PK			1.35 H	15	67.4	40.0
2	*5200.00	97.8 AV			1.35 H	15	57.8	40.0
3	#10400.00	59.0 PK	68.2	-9.2	1.35 H	114	41.5	17.5
Antenna Polarity & Test Distance : Vertical at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	*5200.00	103.3 PK			3.78 V	91	63.3	40.0
2	*5200.00	93.6 AV			3.78 V	91	53.6	40.0
3	#10400.00	58.8 PK	68.2	-9.4	2.58 V	327	41.3	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. Margin value = Emission Level – Limit value
4. The other emission levels were very low against the limit.
5. " * ": Fundamental frequency.
6. " # ": The radiated frequency is out of the restricted band.

RF Mode	TX 802.11a	Channel	CH 48：5240 MHz
Frequency Range	1GHz ~ 40GHz	Detector Function	Peak (PK) Average (AV)

Antenna Polarity & Test Distance : Horizontal at 3 m								
No	Frequency (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	106.8 PK			1.55 H	9	66.9	39.9
2	*5240.00	97.4 AV			1.55 H	9	57.5	39.9
3	5350.00	56.1 PK	74.0	-17.9	1.55 H	9	50.8	5.3
4	5350.00	43.2 AV	54.0	-10.8	1.55 H	9	37.9	5.3
5	#10480.00	59.5 PK	68.2	-8.7	1.34 H	115	41.9	17.6
Antenna Polarity & Test Distance : Vertical at 3 m								
No	Frequency (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	101.3 PK			3.52 V	78	61.4	39.9
2	*5240.00	92.2 AV			3.52 V	78	52.3	39.9
3	5350.00	56.0 PK	74.0	-18.0	3.52 V	78	50.7	5.3
4	5350.00	43.1 AV	54.0	-10.9	3.52 V	78	37.8	5.3
5	#10480.00	59.2 PK	68.2	-9.0	2.51 V	342	41.6	17.6

Remarks:

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

RF Mode	TX 802.11a	Channel	CH 52：5260 MHz
Frequency Range	1GHz ~ 40GHz	Detector Function	Peak (PK) Average (AV)

Antenna Polarity & Test Distance : Horizontal at 3 m								
No	Frequency (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	1.84 H	9	51.4	5.6
2	5150.00	43.4 AV	54.0	-10.6	1.84 H	9	37.8	5.6
3	*5260.00	110.3 PK			1.84 H	9	70.4	39.9
4	*5260.00	100.5 AV			1.84 H	9	60.6	39.9
5	#10520.00	59.2 PK	68.2	-9.0	1.30 H	105	41.6	17.6
Antenna Polarity & Test Distance : Vertical at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	5150.00	56.4 PK	74.0	-17.6	3.90 V	90	50.8	5.6
2	5150.00	43.2 AV	54.0	-10.8	3.90 V	90	37.6	5.6
3	*5260.00	104.5 PK			3.90 V	90	64.6	39.9
4	*5260.00	95.2 AV			3.90 V	90	55.3	39.9
5	#10520.00	59.0 PK	68.2	-9.2	2.51 V	355	41.4	17.6

Remarks:

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

RF Mode	TX 802.11a	Channel	CH 60：5300 MHz
Frequency Range	1GHz ~ 40GHz	Detector Function	Peak (PK) Average (AV)

Antenna Polarity & Test Distance : Horizontal at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	*5300.00	109.7 PK			1.84 H	10	70.1	39.6
2	*5300.00	99.9 AV			1.84 H	10	60.3	39.6
3	10600.00	59.5 PK	74.0	-14.5	1.32 H	116	41.5	18.0
4	10600.00	46.4 AV	54.0	-7.6	1.32 H	116	28.4	18.0
Antenna Polarity & Test Distance : Vertical at 3 m								
No	Frequency (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	104.4 PK			3.84 V	91	64.8	39.6
2	*5300.00	94.6 AV			3.84 V	91	55.0	39.6
3	10600.00	59.2 PK	74.0	-14.8	2.61 V	349	41.2	18.0
4	10600.00	46.3 AV	54.0	-7.7	2.61 V	349	28.3	18.0

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. Margin value = Emission Level – Limit value
4. The other emission levels were very low against the limit.
5. " * ": Fundamental frequency.

RF Mode	TX 802.11a	Channel	CH 64：5320 MHz
Frequency Range	1GHz ~ 40GHz	Detector Function	Peak (PK) Average (AV)

Antenna Polarity & Test Distance : Horizontal at 3 m								
No	Frequency (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	109.2 PK			1.71 H	10	69.6	39.6
2	*5320.00	99.5 AV			1.71 H	10	59.9	39.6
3	5350.00	58.7 PK	74.0	-15.3	1.71 H	10	53.4	5.3
4	5350.00	44.7 AV	54.0	-9.3	1.71 H	10	39.4	5.3
5	10640.00	59.4 PK	74.0	-14.6	1.30 H	112	41.5	17.9
6	10640.00	46.3 AV	54.0	-7.7	1.30 H	112	28.4	17.9
Antenna Polarity & Test Distance : Vertical at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	*5320.00	103.1 PK			3.80 V	92	63.5	39.6
2	*5320.00	93.7 AV			3.80 V	92	54.1	39.6
3	5350.00	57.5 PK	74.0	-16.5	3.80 V	92	52.2	5.3
4	5350.00	43.0 AV	54.0	-11.0	3.80 V	92	37.7	5.3
5	10640.00	59.2 PK	74.0	-14.8	2.57 V	351	41.3	17.9
6	10640.00	46.0 AV	54.0	-8.0	2.57 V	351	28.1	17.9

Remarks:

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

RF Mode	TX 802.11a	Channel	CH 100：5500 MHz
Frequency Range	1GHz ~ 40GHz	Detector Function	Peak (PK) Average (AV)

Antenna Polarity & Test Distance : Horizontal at 3 m								
No	Frequency (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	62.0 PK	74.0	-12.0	2.70 H	15	55.8	6.2
2	5460.00	45.6 AV	54.0	-8.4	2.70 H	15	39.4	6.2
3	#5470.00	62.9 PK	68.2	-5.3	2.70 H	15	56.7	6.2
4	*5500.00	116.0 PK			2.70 H	15	75.5	40.5
5	*5500.00	105.9 AV			2.70 H	15	65.4	40.5
6	11000.00	60.6 PK	74.0	-13.4	1.26 H	119	41.8	18.8
7	11000.00	46.6 AV	54.0	-7.4	1.26 H	119	27.8	18.8
Antenna Polarity & Test Distance : Vertical at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	5460.00	58.2 PK	74.0	-15.8	3.35 V	67	52.0	6.2
2	5460.00	44.3 AV	54.0	-9.7	3.35 V	67	38.1	6.2
3	#5470.00	58.8 PK	68.2	-9.4	3.35 V	67	52.6	6.2
4	*5500.00	109.6 PK			3.35 V	67	69.1	40.5
5	*5500.00	100.1 AV			3.35 V	67	59.6	40.5
6	11000.00	60.3 PK	74.0	-13.7	2.45 V	339	41.5	18.8
7	11000.00	46.4 AV	54.0	-7.6	2.45 V	339	27.6	18.8

Remarks:

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

RF Mode	TX 802.11a	Channel	CH 116：5580 MHz
Frequency Range	1GHz ~ 40GHz	Detector Function	Peak (PK) Average (AV)

Antenna Polarity & Test Distance : Horizontal at 3 m								
No	Frequency (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	114.6 PK			2.64 H	14	74.3	40.3
2	*5580.00	104.8 AV			2.64 H	14	64.5	40.3
3	11160.00	59.1 PK	74.0	-14.9	1.38 H	115	41.0	18.1
4	11160.00	46.2 AV	54.0	-7.8	1.38 H	115	28.1	18.1
Antenna Polarity & Test Distance : Vertical at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	*5580.00	108.9 PK			3.79 V	65	68.6	40.3
2	*5580.00	99.6 AV			3.79 V	65	59.3	40.3
3	11160.00	58.7 PK	74.0	-15.3	2.57 V	343	40.6	18.1
4	11160.00	45.7 AV	54.0	-8.3	2.57 V	343	27.6	18.1

Remarks:

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

RF Mode	TX 802.11a	Channel	CH 140：5700 MHz
Frequency Range	1GHz ~ 40GHz	Detector Function	Peak (PK) Average (AV)

Antenna Polarity & Test Distance : Horizontal at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	*5700.00	115.5 PK			2.91 H	6	74.8	40.7
2	*5700.00	106.3 AV			2.91 H	6	65.6	40.7
3	#5748.00	65.8 PK	68.2	-2.4	2.91 H	6	59.2	6.6
4	11400.00	60.3 PK	74.0	-13.7	1.28 H	122	41.5	18.8
5	11400.00	47.3 AV	54.0	-6.7	1.28 H	122	28.5	18.8
Antenna Polarity & Test Distance : Vertical at 3 m								
No	Frequency (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	109.9 PK			3.14 V	68	69.2	40.7
2	*5700.00	100.3 AV			3.14 V	68	59.6	40.7
3	#5748.00	57.9 PK	68.2	-10.3	3.14 V	68	51.3	6.6
4	11400.00	60.1 PK	74.0	-13.9	2.62 V	345	41.3	18.8
5	11400.00	46.9 AV	54.0	-7.1	2.62 V	345	28.1	18.8

Remarks:

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

RF Mode	TX 802.11a	Channel	CH 144：5720 MHz
Frequency Range	1GHz ~ 40GHz	Detector Function	Peak (PK) Average (AV)

Antenna Polarity & Test Distance : Horizontal at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	#5470.00	57.5 PK	68.2	-10.7	2.89 H	2	51.3	6.2
2	*5720.00	116.1 PK			2.89 H	2	75.3	40.8
3	*5720.00	106.4 AV			2.89 H	2	65.6	40.8
4	#5850.00	58.4 PK	68.2	-9.8	2.89 H	2	51.4	7.0
5	11440.00	60.3 PK	74.0	-13.7	1.42 H	129	41.6	18.7
6	11440.00	47.0 AV	54.0	-7.0	1.42 H	129	28.3	18.7
Antenna Polarity & Test Distance : Vertical at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	#5470.00	57.0 PK	68.2	-11.2	3.38 V	88	50.8	6.2
2	*5720.00	109.4 PK			3.38 V	88	68.6	40.8
3	*5720.00	99.7 AV			3.38 V	88	58.9	40.8
4	#5850.00	58.0 PK	68.2	-10.2	3.38 V	88	51.0	7.0
5	11440.00	60.1 PK	74.0	-13.9	2.54 V	349	41.4	18.7
6	11440.00	46.8 AV	54.0	-7.2	2.54 V	349	28.1	18.7

Remarks:

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

RF Mode	TX 802.11a	Channel	CH 149：5745 MHz
Frequency Range	1GHz ~ 40GHz	Detector Function	Peak (PK) Average (AV)

Antenna Polarity & Test Distance : Horizontal at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	#5624.40	57.9 PK	68.2	-10.3	2.85 H	14	51.9	6.0
2	*5745.00	118.6 PK			2.85 H	14	77.7	40.9
3	*5745.00	109.1 AV			2.85 H	14	68.2	40.9
4	#5973.60	56.6 PK	68.2	-11.6	2.85 H	14	49.7	6.9
5	11490.00	60.1 PK	74.0	-13.9	1.46 H	125	41.5	18.6
6	11490.00	46.9 AV	54.0	-7.1	1.46 H	125	28.3	18.6
Antenna Polarity & Test Distance : Vertical at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	#5608.40	56.0 PK	68.2	-12.2	3.92 V	68	50.0	6.0
2	*5745.00	113.6 PK			3.92 V	68	72.7	40.9
3	*5745.00	104.1 AV			3.92 V	68	63.2	40.9
4	#5978.40	57.8 PK	68.2	-10.4	3.92 V	68	50.9	6.9
5	11490.00	59.8 PK	74.0	-14.2	2.35 V	348	41.2	18.6
6	11490.00	46.6 AV	54.0	-7.4	2.35 V	348	28.0	18.6

Remarks:

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

RF Mode	TX 802.11a	Channel	CH 157：5785 MHz
Frequency Range	1GHz ~ 40GHz	Detector Function	Peak (PK) Average (AV)

Antenna Polarity & Test Distance : Horizontal at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	#5639.60	56.1 PK	68.2	-12.1	2.83 H	20	50.1	6.0
2	*5785.00	117.8 PK			2.83 H	20	76.8	41.0
3	*5785.00	108.4 AV			2.83 H	20	67.4	41.0
4	#5969.60	57.3 PK	68.2	-10.9	2.83 H	20	50.4	6.9
5	11570.00	59.9 PK	74.0	-14.1	1.29 H	114	41.5	18.4
6	11570.00	46.7 AV	54.0	-7.3	1.29 H	114	28.3	18.4
Antenna Polarity & Test Distance : Vertical at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	#5645.20	56.1 PK	68.2	-12.1	3.85 V	63	50.1	6.0
2	*5785.00	112.4 PK			3.85 V	63	71.4	41.0
3	*5785.00	103.1 AV			3.85 V	63	62.1	41.0
4	#5933.60	56.9 PK	68.2	-11.3	3.85 V	63	49.9	7.0
5	11570.00	59.7 PK	74.0	-14.3	2.49 V	344	41.3	18.4
6	11570.00	46.2 AV	54.0	-7.8	2.49 V	344	27.8	18.4

Remarks:

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

RF Mode	TX 802.11a	Channel	CH 165：5825 MHz
Frequency Range	1GHz ~ 40GHz	Detector Function	Peak (PK) Average (AV)

Antenna Polarity & Test Distance : Horizontal at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	#5620.80	56.0 PK	68.2	-12.2	2.78 H	21	50.0	6.0
2	*5825.00	117.3 PK			2.78 H	21	76.1	41.2
3	*5825.00	108.2 AV			2.78 H	21	67.0	41.2
4	#5931.20	57.3 PK	68.2	-10.9	2.78 H	21	50.3	7.0
5	11650.00	60.0 PK	74.0	-14.0	1.32 H	124	41.8	18.2
6	11650.00	46.7 AV	54.0	-7.3	1.32 H	124	28.5	18.2
Antenna Polarity & Test Distance : Vertical at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	#5629.20	55.9 PK	68.2	-12.3	4.00 V	68	49.9	6.0
2	*5825.00	112.0 PK			4.00 V	68	70.8	41.2
3	*5825.00	102.6 AV			4.00 V	68	61.4	41.2
4	#5950.80	57.6 PK	68.2	-10.6	4.00 V	68	50.7	6.9
5	11650.00	59.7 PK	74.0	-14.3	2.46 V	337	41.5	18.2
6	11650.00	46.4 AV	54.0	-7.6	2.46 V	337	28.2	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. Margin value = Emission Level – Limit value
4. The other emission levels were very low against the limit.
5. " * ": Fundamental frequency.
6. " # ": The radiated frequency is out of the restricted band.

802.11ac (VHT20)

RF Mode	TX 802.11ac (VHT20)	Channel	CH 36：5180 MHz
Frequency Range	1GHz ~ 40GHz	Detector Function	Peak (PK) Average (AV)

Antenna Polarity & Test Distance : Horizontal at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	5150.00	57.7 PK	74.0	-16.3	1.36 H	5	52.1	5.6
2	5150.00	43.5 AV	54.0	-10.5	1.36 H	5	37.9	5.6
3	*5180.00	107.8 PK			1.36 H	5	67.8	40.0
4	*5180.00	98.1 AV			1.36 H	5	58.1	40.0
5	#10360.00	59.1 PK	68.2	-9.1	1.41 H	116	41.6	17.5
Antenna Polarity & Test Distance : Vertical at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	5150.00	57.2 PK	74.0	-16.8	3.39 V	92	51.6	5.6
2	5150.00	43.3 AV	54.0	-10.7	3.39 V	92	37.7	5.6
3	*5180.00	101.4 PK			3.39 V	92	61.4	40.0
4	*5180.00	91.2 AV			3.39 V	92	51.2	40.0
5	#10360.00	58.9 PK	68.2	-9.3	3.39 V	92	41.4	17.5

Remarks:

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

RF Mode	TX 802.11ac (VHT20)	Channel	CH 40：5200 MHz
Frequency Range	1GHz ~ 40GHz	Detector Function	Peak (PK) Average (AV)

Antenna Polarity & Test Distance : Horizontal at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	*5200.00	107.8 PK			1.64 H	8	67.8	40.0
2	*5200.00	97.7 AV			1.64 H	8	57.7	40.0
3	#10400.00	58.9 PK	68.2	-9.3	1.30 H	113	41.4	17.5
Antenna Polarity & Test Distance : Vertical at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	*5200.00	103.2 PK			3.80 V	91	63.2	40.0
2	*5200.00	92.9 AV			3.80 V	91	52.9	40.0
3	#10400.00	58.6 PK	68.2	-9.6	2.59 V	349	41.1	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. Margin value = Emission Level – Limit value
4. The other emission levels were very low against the limit.
5. " * ": Fundamental frequency.
6. " # ": The radiated frequency is out of the restricted band.

RF Mode	TX 802.11ac (VHT20)	Channel	CH 48：5240 MHz
Frequency Range	1GHz ~ 40GHz	Detector Function	Peak (PK) Average (AV)

Antenna Polarity & Test Distance : Horizontal at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	*5240.00	107.6 PK			1.32 H	3	67.7	39.9
2	*5240.00	97.4 AV			1.32 H	3	57.5	39.9
3	5350.00	56.6 PK	74.0	-17.4	1.32 H	3	51.3	5.3
4	5350.00	43.0 AV	54.0	-11.0	1.32 H	3	37.7	5.3
5	#10480.00	59.1 PK	68.2	-9.1	1.36 H	117	41.5	17.6
Antenna Polarity & Test Distance : Vertical at 3 m								
No	Frequency (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	102.2 PK			3.55 V	70	62.3	39.9
2	*5240.00	92.3 AV			3.55 V	70	52.4	39.9
3	5350.00	56.4 PK	74.0	-17.6	3.55 V	70	51.1	5.3
4	5350.00	42.9 AV	54.0	-11.1	3.55 V	70	37.6	5.3
5	#10480.00	58.9 PK	68.2	-9.3	2.61 V	345	41.3	17.6

Remarks:

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

RF Mode	TX 802.11ac (VHT20)	Channel	CH 52：5260 MHz
Frequency Range	1GHz ~ 40GHz	Detector Function	Peak (PK) Average (AV)

Antenna Polarity & Test Distance : Horizontal at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	5150.00	56.7 PK	74.0	-17.3	1.87 H	11	51.1	5.6
2	5150.00	43.6 AV	54.0	-10.4	1.87 H	11	38.0	5.6
3	*5260.00	109.3 PK			1.87 H	11	69.4	39.9
4	*5260.00	99.7 AV			1.87 H	11	59.8	39.9
5	#10520.00	59.0 PK	68.2	-9.2	1.38 H	117	41.4	17.6
Antenna Polarity & Test Distance : Vertical at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	5150.00	56.6 PK	74.0	-17.4	3.72 V	91	51.0	5.6
2	5150.00	43.5 AV	54.0	-10.5	3.72 V	91	37.9	5.6
3	*5260.00	103.9 PK			3.72 V	91	64.0	39.9
4	*5260.00	93.9 AV			3.72 V	91	54.0	39.9
5	#10520.00	58.7 PK	68.2	-9.5	2.55 V	336	41.1	17.6

Remarks:

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

RF Mode	TX 802.11ac (VHT20)	Channel	CH 60：5300 MHz
Frequency Range	1GHz ~ 40GHz	Detector Function	Peak (PK) Average (AV)

Antenna Polarity & Test Distance : Horizontal at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	*5300.00	109.1 PK			1.74 H	11	69.5	39.6
2	*5300.00	99.1 AV			1.74 H	11	59.5	39.6
3	10600.00	59.3 PK	74.0	-14.7	1.38 H	111	41.3	18.0
4	10600.00	46.2 AV	54.0	-7.8	1.38 H	111	28.2	18.0
Antenna Polarity & Test Distance : Vertical at 3 m								
No	Frequency (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	102.7 PK			3.84 V	72	63.1	39.6
2	*5300.00	93.2 AV			3.84 V	72	53.6	39.6
3	10600.00	59.1 PK	74.0	-14.9	2.60 V	348	41.1	18.0
4	10600.00	46.0 AV	54.0	-8.0	2.60 V	348	28.0	18.0

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. Margin value = Emission Level – Limit value
4. The other emission levels were very low against the limit.
5. " * ": Fundamental frequency.

RF Mode	TX 802.11ac (VHT20)	Channel	CH 64：5320 MHz
Frequency Range	1GHz ~ 40GHz	Detector Function	Peak (PK) Average (AV)

Antenna Polarity & Test Distance : Horizontal at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	*5320.00	110.0 PK			1.50 H	4	70.4	39.6
2	*5320.00	99.5 AV			1.50 H	4	59.9	39.6
3	5350.00	61.8 PK	74.0	-12.2	1.50 H	4	56.5	5.3
4	5350.00	44.0 AV	54.0	-10.0	1.50 H	4	38.7	5.3
5	10640.00	59.4 PK	74.0	-14.6	1.35 H	120	41.5	17.9
6	10640.00	46.5 AV	54.0	-7.5	1.35 H	120	28.6	17.9
Antenna Polarity & Test Distance : Vertical at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	*5320.00	103.0 PK			3.29 V	62	63.4	39.6
2	*5320.00	92.7 AV			3.29 V	62	53.1	39.6
3	5350.00	56.5 PK	74.0	-17.5	3.29 V	62	51.2	5.3
4	5350.00	43.0 AV	54.0	-11.0	3.29 V	62	37.7	5.3
5	10640.00	59.1 PK	74.0	-14.9	2.55 V	346	41.2	17.9
6	10640.00	46.2 AV	54.0	-7.8	2.55 V	346	28.3	17.9

Remarks:

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

RF Mode	TX 802.11ac (VHT20)	Channel	CH 100：5500 MHz
Frequency Range	1GHz ~ 40GHz	Detector Function	Peak (PK) Average (AV)

Antenna Polarity & Test Distance : Horizontal at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	5450.00	64.2 PK	74.0	-9.8	2.72 H	1	58.0	6.2
2	5450.00	44.9 AV	54.0	-9.1	2.72 H	1	38.7	6.2
3	#5470.00	61.5 PK	68.2	-6.7	2.72 H	1	55.3	6.2
4	*5500.00	115.4 PK			2.72 H	1	74.9	40.5
5	*5500.00	105.5 AV			2.72 H	1	65.0	40.5
6	11000.00	60.5 PK	74.0	-13.5	1.46 H	130	41.7	18.8
7	11000.00	47.1 AV	54.0	-6.9	1.46 H	130	28.3	18.8
Antenna Polarity & Test Distance : Vertical at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	5450.00	60.2 PK	74.0	-13.8	3.93 V	63	54.0	6.2
2	5450.00	44.0 AV	54.0	-10.0	3.93 V	63	37.8	6.2
3	#5470.00	57.5 PK	68.2	-10.7	3.93 V	63	51.3	6.2
4	*5500.00	108.7 PK			3.93 V	63	68.2	40.5
5	*5500.00	99.1 AV			3.93 V	63	58.6	40.5
6	11000.00	60.1 PK	74.0	-13.9	2.66 V	357	41.3	18.8
7	11000.00	46.5 AV	54.0	-7.5	2.66 V	357	27.7	18.8

Remarks:

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

RF Mode	TX 802.11ac (VHT20)	Channel	CH 116：5580 MHz
Frequency Range	1GHz ~ 40GHz	Detector Function	Peak (PK) Average (AV)

Antenna Polarity & Test Distance : Horizontal at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	*5580.00	115.8 PK			2.90 H	1	75.5	40.3
2	*5580.00	105.3 AV			2.90 H	1	65.0	40.3
3	11160.00	59.8 PK	74.0	-14.2	1.45 H	124	41.7	18.1
4	11160.00	46.5 AV	54.0	-7.5	1.45 H	124	28.4	18.1
Antenna Polarity & Test Distance : Vertical at 3 m								
No	Frequency (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	109.5 PK			4.00 V	65	69.2	40.3
2	*5580.00	100.1 AV			4.00 V	65	59.8	40.3
3	11160.00	59.0 PK	74.0	-15.0	2.56 V	348	40.9	18.1
4	11160.00	46.2 AV	54.0	-7.8	2.56 V	348	28.1	18.1

Remarks:

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

RF Mode	TX 802.11ac (VHT20)	Channel	CH 140：5700 MHz
Frequency Range	1GHz ~ 40GHz	Detector Function	Peak (PK) Average (AV)

Antenna Polarity & Test Distance : Horizontal at 3 m								
No	Frequency (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	116.0 PK			2.92 H	2	75.3	40.7
2	*5700.00	106.1 AV			2.92 H	2	65.4	40.7
3	#5747.80	66.1 PK	68.2	-2.1	2.92 H	2	59.5	6.6
4	11400.00	60.4 PK	74.0	-13.6	1.47 H	136	41.6	18.8
5	11400.00	47.1 AV	54.0	-6.9	1.47 H	136	28.3	18.8
Antenna Polarity & Test Distance : Vertical at 3 m								
No	Frequency (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	109.7 PK			3.99 V	68	69.0	40.7
2	*5700.00	100.1 AV			3.99 V	68	59.4	40.7
3	#5747.80	63.0 PK	68.2	-5.2	3.99 V	68	56.4	6.6
4	11400.00	60.1 PK	74.0	-13.9	2.51 V	337	41.3	18.8
5	11400.00	46.8 AV	54.0	-7.2	2.51 V	337	28.0	18.8

Remarks:

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

RF Mode	TX 802.11ac (VHT20)	Channel	CH 144：5720 MHz
Frequency Range	1GHz ~ 40GHz	Detector Function	Peak (PK) Average (AV)

Antenna Polarity & Test Distance : Horizontal at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	#5470.00	57.8 PK	68.2	-10.4	2.91 H	7	51.6	6.2
2	*5720.00	116.7 PK			2.91 H	7	75.9	40.8
3	*5720.00	106.3 AV			2.91 H	7	65.5	40.8
4	#5850.00	58.5 PK	68.2	-9.7	2.91 H	7	51.5	7.0
5	11440.00	60.2 PK	74.0	-13.8	1.40 H	128	41.5	18.7
6	11440.00	46.9 AV	54.0	-7.1	1.40 H	128	28.2	18.7
Antenna Polarity & Test Distance : Vertical at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	#5470.00	57.4 PK	68.2	-10.8	3.96 V	68	51.2	6.2
2	*5720.00	111.0 PK			3.96 V	68	70.2	40.8
3	*5720.00	100.9 AV			3.96 V	68	60.1	40.8
4	#5850.00	57.8 PK	68.2	-10.4	3.96 V	68	50.8	7.0
5	11440.00	59.6 PK	74.0	-14.4	2.57 V	346	40.9	18.7
6	11440.00	46.7 AV	54.0	-7.3	2.57 V	346	28.0	18.7

Remarks:

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

RF Mode	TX 802.11ac (VHT20)	Channel	CH 149：5745 MHz
Frequency Range	1GHz ~ 40GHz	Detector Function	Peak (PK) Average (AV)

Antenna Polarity & Test Distance : Horizontal at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	#5625.20	58.5 PK	68.2	-9.7	2.87 H	18	52.5	6.0
2	*5745.00	118.7 PK			2.87 H	18	77.8	40.9
3	*5745.00	108.8 AV			2.87 H	18	67.9	40.9
4	#5955.20	58.0 PK	68.2	-10.2	2.87 H	18	51.1	6.9
5	11490.00	60.2 PK	74.0	-13.8	1.27 H	116	41.6	18.6
6	11490.00	47.0 AV	54.0	-7.0	1.27 H	116	28.4	18.6
Antenna Polarity & Test Distance : Vertical at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	#5614.00	56.4 PK	68.2	-11.8	3.21 V	64	50.4	6.0
2	*5745.00	113.8 PK			3.21 V	64	72.9	40.9
3	*5745.00	104.2 AV			3.21 V	64	63.3	40.9
4	#5937.20	57.1 PK	68.2	-11.1	3.21 V	64	50.1	7.0
5	11490.00	59.8 PK	74.0	-14.2	2.38 V	352	41.2	18.6
6	11490.00	46.6 AV	54.0	-7.4	2.38 V	352	28.0	18.6

Remarks:

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

RF Mode	TX 802.11ac (VHT20)	Channel	CH 157：5785 MHz
Frequency Range	1GHz ~ 40GHz	Detector Function	Peak (PK) Average (AV)

Antenna Polarity & Test Distance : Horizontal at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	#5622.80	56.1 PK	68.2	-12.1	3.09 H	10	50.1	6.0
2	*5785.00	117.1 PK			3.09 H	10	76.1	41.0
3	*5785.00	107.5 AV			3.09 H	10	66.5	41.0
4	#5943.20	57.9 PK	68.2	-10.3	3.09 H	10	50.9	7.0
5	11570.00	59.7 PK	74.0	-14.3	1.26 H	118	41.3	18.4
6	11570.00	46.9 AV	54.0	-7.1	1.26 H	118	28.5	18.4
Antenna Polarity & Test Distance : Vertical at 3 m								
No	Frequency (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	56.4 PK	68.2	-11.8	3.47 V	76	50.4	6.0
2	*5785.00	111.6 PK			3.47 V	76	70.6	41.0
3	*5785.00	101.5 AV			3.47 V	76	60.5	41.0
4	#5975.20	57.2 PK	68.2	-11.0	3.47 V	76	50.3	6.9
5	11570.00	59.4 PK	74.0	-14.6	2.46 V	334	41.0	18.4
6	11570.00	46.6 AV	54.0	-7.4	2.46 V	334	28.2	18.4

Remarks:

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

RF Mode	TX 802.11ac (VHT20)	Channel	CH 165：5825 MHz
Frequency Range	1GHz ~ 40GHz	Detector Function	Peak (PK) Average (AV)

Antenna Polarity & Test Distance : Horizontal at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	#5606.40	56.3 PK	68.2	-11.9	3.06 H	15	50.3	6.0
2	*5825.00	116.8 PK			3.06 H	15	75.6	41.2
3	*5825.00	106.7 AV			3.06 H	15	65.5	41.2
4	#5945.20	61.1 PK	68.2	-7.1	3.06 H	15	54.1	7.0
5	11650.00	59.6 PK	74.0	-14.4	1.23 H	119	41.4	18.2
6	11650.00	46.6 AV	54.0	-7.4	1.23 H	119	28.4	18.2
Antenna Polarity & Test Distance : Vertical at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	#5635.20	56.1 PK	68.2	-12.1	3.46 V	80	50.1	6.0
2	*5825.00	111.8 PK			3.46 V	80	70.6	41.2
3	*5825.00	101.8 AV			3.46 V	80	60.6	41.2
4	#5941.20	57.9 PK	68.2	-10.3	3.46 V	80	50.9	7.0
5	11650.00	59.1 PK	74.0	-14.9	2.47 V	337	40.9	18.2
6	11650.00	46.3 AV	54.0	-7.7	2.47 V	337	28.1	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. Margin value = Emission Level – Limit value
4. The other emission levels were very low against the limit.
5. " * ": Fundamental frequency.
6. " # ": The radiated frequency is out of the restricted band.

802.11ac (VHT40)

RF Mode	TX 802.11ac (VHT40)	Channel	CH 38：5190 MHz
Frequency Range	1GHz ~ 40GHz	Detector Function	Peak (PK) Average (AV)

Antenna Polarity & Test Distance : Horizontal at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	5150.00	60.2 PK	74.0	-13.8	1.88 H	8	54.6	5.6
2	5150.00	44.9 AV	54.0	-9.1	1.88 H	8	39.3	5.6
3	*5190.00	107.2 PK			1.88 H	8	67.2	40.0
4	*5190.00	97.3 AV			1.88 H	8	57.3	40.0
5	#10380.00	59.0 PK	68.2	-9.2	1.33 H	117	41.4	17.6
Antenna Polarity & Test Distance : Vertical at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	5150.00	56.4 PK	74.0	-17.6	3.62 V	74	50.8	5.6
2	5150.00	43.4 AV	54.0	-10.6	3.62 V	74	37.8	5.6
3	*5190.00	100.8 PK			3.62 V	74	60.8	40.0
4	*5190.00	91.5 AV			3.62 V	74	51.5	40.0
5	#10380.00	58.8 PK	68.2	-9.4	2.58 V	344	41.2	17.6

Remarks:

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

RF Mode	TX 802.11ac (VHT40)	Channel	CH 46：5230 MHz
Frequency Range	1GHz ~ 40GHz	Detector Function	Peak (PK) Average (AV)

Antenna Polarity & Test Distance : Horizontal at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	*5230.00	107.3 PK			1.55 H	10	67.3	40.0
2	*5230.00	97.8 AV			1.55 H	10	57.8	40.0
3	5453.00	68.5 PK	74.0	-5.5	1.55 H	10	62.3	6.2
4	5453.00	47.3 AV	54.0	-6.7	1.55 H	10	41.1	6.2
5	#10460.00	58.9 PK	68.2	-9.3	1.24 H	110	41.4	17.5
Antenna Polarity & Test Distance : Vertical at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	*5230.00	103.1 PK			3.51 V	91	63.1	40.0
2	*5230.00	93.5 AV			3.51 V	91	53.5	40.0
3	5453.00	60.2 PK	74.0	-13.8	3.51 V	91	54.0	6.2
4	5453.00	44.8 AV	54.0	-9.2	3.51 V	91	38.6	6.2
5	#10460.00	58.6 PK	68.2	-9.6	2.55 V	342	41.1	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. Margin value = Emission Level – Limit value
4. The other emission levels were very low against the limit.
5. " * ": Fundamental frequency.
6. " # ": The radiated frequency is out of the restricted band.

RF Mode	TX 802.11ac (VHT40)	Channel	CH 54：5270 MHz
Frequency Range	1GHz ~ 40GHz	Detector Function	Peak (PK) Average (AV)

Antenna Polarity & Test Distance : Horizontal at 3 m								
No	Frequency (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	1.96 H	41	51.4	5.6
2	5150.00	44.3 AV	54.0	-9.7	1.96 H	41	38.7	5.6
3	*5270.00	104.0 PK			1.96 H	41	64.2	39.8
4	*5270.00	95.3 AV			1.96 H	41	55.5	39.8
5	#10540.00	59.4 PK	68.2	-8.8	1.41 H	122	41.7	17.7
Antenna Polarity & Test Distance : Vertical at 3 m								
No	**Frequency (MHz)**	**Emission Level (dBuV/m)**	**Limit (dBuV/m)**	**Margin (dB)**	**Antenna Height (m)**	**Table Angle (Degree)**	**Raw Value (dBuV)**	**Correction Factor (dB/m)**
1	5150.00	56.4 PK	74.0	-17.6	3.45 V	100	50.8	5.6
2	5150.00	43.9 AV	54.0	-10.1	3.45 V	100	38.3	5.6
3	*5270.00	102.7 PK			3.45 V	100	62.9	39.8
4	*5270.00	93.0 AV			3.45 V	100	53.2	39.8
5	#10540.00	59.2 PK	68.2	-9.0	2.47 V	350	41.5	17.7

Remarks:

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

RF Mode	TX 802.11ac (VHT40)	Channel	CH 62：5310 MHz
Frequency Range	1GHz ~ 40GHz	Detector Function	Peak (PK) Average (AV)

Antenna Polarity & Test Distance : Horizontal at 3 m								
No	Frequency (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	105.2 PK			1.76 H	59	65.6	39.6
2	*5310.00	96.0 AV			1.76 H	59	56.4	39.6
3	5350.00	61.9 PK	74.0	-12.1	1.76 H	59	56.6	5.3
4	5350.00	45.8 AV	54.0	-8.2	1.76 H	59	40.5	5.3
5	10620.00	59.7 PK	74.0	-14.3	1.42 H	133	41.7	18.0
6	10620.00	46.7 AV	54.0	-7.3	1.42 H	133	28.7	18.0
Antenna Polarity & Test Distance : Vertical at 3 m								
No	Frequency (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	103.4 PK			3.22 V	96	63.8	39.6
2	*5310.00	93.4 AV			3.22 V	96	53.8	39.6
3	5350.00	64.2 PK	74.0	-9.8	3.22 V	96	58.9	5.3
4	5350.00	44.3 AV	54.0	-9.7	3.22 V	96	39.0	5.3
5	10620.00	59.2 PK	74.0	-14.8	2.58 V	352	41.2	18.0
6	10620.00	46.5 AV	54.0	-7.5	2.58 V	352	28.5	18.0

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. Margin value = Emission Level – Limit value
4. The other emission levels were very low against the limit.
5. " * ": Fundamental frequency.

RF Mode	TX 802.11ac (VHT40)	Channel	CH 102：5510 MHz
Frequency Range	1GHz ~ 40GHz	Detector Function	Peak (PK) Average (AV)

Antenna Polarity & Test Distance : Horizontal at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	5390.00	71.1 PK	74.0	-2.9	2.69 H	8	65.4	5.7
2	5390.00	46.3 AV	54.0	-7.7	2.69 H	8	40.6	5.7
3	#5470.00	67.1 PK	68.2	-1.1	2.69 H	8	60.9	6.2
4	*5510.00	113.4 PK			2.69 H	8	72.9	40.5
5	*5510.00	104.0 AV			2.69 H	8	63.5	40.5
6	#5733.00	60.3 PK	68.2	-7.9	2.69 H	8	53.8	6.5
7	#5733.00	48.5 AV	54.0	-5.5	2.69 H	8	42.0	6.5
8	11020.00	60.1 PK	74.0	-13.9	1.52 H	138	41.4	18.7
9	11020.00	46.5 AV	54.0	-7.5	1.52 H	138	27.8	18.7
Antenna Polarity & Test Distance : Vertical at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	5390.00	62.7 PK	74.0	-11.3	3.89 V	63	57.0	5.7
2	5390.00	44.7 AV	54.0	-9.3	3.89 V	63	39.0	5.7
3	#5470.00	61.4 PK	68.2	-6.8	3.89 V	63	55.2	6.2
4	*5510.00	106.5 PK			3.89 V	63	66.0	40.5
5	*5510.00	97.3 AV			3.89 V	63	56.8	40.5
6	#5725.00	57.6 PK	68.2	-10.6	3.89 V	63	51.1	6.5
7	11020.00	59.8 PK	74.0	-14.2	2.63 V	345	41.1	18.7
8	11020.00	46.2 AV	54.0	-7.8	2.63 V	345	27.5	18.7

Remarks:

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

RF Mode	TX 802.11ac (VHT40)	Channel	CH 110：5550 MHz
Frequency Range	1GHz ~ 40GHz	Detector Function	Peak (PK) Average (AV)

Antenna Polarity & Test Distance : Horizontal at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	*5550.00	115.2 PK			2.94 H	6	74.8	40.4
2	*5550.00	105.6 AV			2.94 H	6	65.2	40.4
3	11100.00	59.2 PK	74.0	-14.8	1.43 H	135	41.4	17.8
4	11100.00	45.8 AV	54.0	-8.2	1.43 H	135	28.0	17.8
Antenna Polarity & Test Distance : Vertical at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	*5550.00	109.3 PK			3.82 V	63	68.9	40.4
2	*5550.00	99.7 AV			3.82 V	63	59.3	40.4
3	11100.00	58.5 PK	74.0	-15.5	2.62 V	355	40.7	17.8
4	11100.00	45.6 AV	54.0	-8.4	2.62 V	355	27.8	17.8

Remarks:

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

RF Mode	TX 802.11ac (VHT40)	Channel	CH 134：5670 MHz
Frequency Range	1GHz ~ 40GHz	Detector Function	Peak (PK) Average (AV)

Antenna Polarity & Test Distance : Horizontal at 3 m								
No	Frequency (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	107.9 PK			2.95 H	9	67.5	40.4
2	*5670.00	98.0 AV			2.95 H	9	57.6	40.4
3	**#5790.00**	**67.8 PK**	**68.2**	**-0.4**	**2.95 H**	**9**	**61.1**	**6.7**
4	11340.00	60.0 PK	74.0	-14.0	1.43 H	122	41.1	18.9
5	11340.00	46.5 AV	54.0	-7.5	1.43 H	122	27.6	18.9
Antenna Polarity & Test Distance : Vertical at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	*5670.00	100.6 PK			3.64 V	72	60.2	40.4
2	*5670.00	91.0 AV			3.64 V	72	50.6	40.4
3	#5790.00	60.9 PK	68.2	-7.3	3.64 V	72	54.2	6.7
4	11340.00	59.6 PK	74.0	-14.4	2.50 V	343	40.7	18.9
5	11340.00	46.3 AV	54.0	-7.7	2.50 V	343	27.4	18.9

Remarks:

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

RF Mode	TX 802.11ac (VHT40)	Channel	CH 142：5710 MHz
Frequency Range	1GHz ~ 40GHz	Detector Function	Peak (PK) Average (AV)

Antenna Polarity & Test Distance : Horizontal at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	5453.00	58.1 PK	74.0	-15.9	2.93 H	8	51.9	6.2
2	5453.00	46.4 AV	54.0	-7.6	2.93 H	8	40.2	6.2
3	#5470.00	57.4 PK	68.2	-10.8	2.93 H	8	51.2	6.2
4	*5710.00	115.1 PK			2.93 H	8	74.4	40.7
5	*5710.00	105.5 AV			2.93 H	8	64.8	40.7
6	#5933.00	60.4 PK	68.2	-7.8	2.93 H	8	53.4	7.0
7	#5933.00	49.3 AV	54.0	-4.7	2.93 H	8	42.3	7.0
8	11420.00	60.3 PK	74.0	-13.7	1.48 H	129	41.5	18.8
9	11420.00	46.8 AV	54.0	-7.2	1.48 H	129	28.0	18.8
Antenna Polarity & Test Distance : Vertical at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	5460.00	57.0 PK	74.0	-17.0	3.61 V	79	50.8	6.2
2	5460.00	45.2 AV	54.0	-8.8	3.61 V	79	39.0	6.2
3	#5470.00	57.2 PK	68.2	-11.0	3.61 V	79	51.0	6.2
4	*5710.00	108.8 PK			3.61 V	79	68.1	40.7
5	*5710.00	98.8 AV			3.61 V	79	58.1	40.7
6	#5850.00	58.0 PK	68.2	-10.2	3.61 V	79	51.0	7.0
7	11420.00	60.1 PK	74.0	-13.9	2.54 V	348	41.3	18.8
8	11420.00	46.4 AV	54.0	-7.6	2.54 V	348	27.6	18.8

Remarks:

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

RF Mode	TX 802.11ac (VHT40)	Channel	CH 151：5755 MHz
Frequency Range	1GHz ~ 40GHz	Detector Function	Peak (PK) Average (AV)

Antenna Polarity & Test Distance : Horizontal at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	#5635.20	67.5 PK	68.2	-0.7	2.85 H	18	61.5	6.0
2	*5755.00	110.9 PK			2.85 H	18	70.0	40.9
3	*5755.00	101.9 AV			2.85 H	18	61.0	40.9
4	#5947.60	58.1 PK	68.2	-10.1	2.85 H	18	51.1	7.0
5	11510.00	59.8 PK	74.0	-14.2	1.30 H	121	41.3	18.5
6	11510.00	46.5 AV	54.0	-7.5	1.30 H	121	28.0	18.5
Antenna Polarity & Test Distance : Vertical at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	#5635.20	60.9 PK	68.2	-7.3	3.70 V	66	54.9	6.0
2	*5755.00	106.2 PK			3.70 V	66	65.3	40.9
3	*5755.00	95.4 AV			3.70 V	66	54.5	40.9
4	#5962.80	57.3 PK	68.2	-10.9	3.70 V	66	50.4	6.9
5	11510.00	59.3 PK	74.0	-14.7	2.49 V	342	40.8	18.5
6	11510.00	46.1 AV	54.0	-7.9	2.49 V	342	27.6	18.5

Remarks:

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

RF Mode	TX 802.11ac (VHT40)	Channel	CH 159：5795 MHz
Frequency Range	1GHz ~ 40GHz	Detector Function	Peak (PK) Average (AV)

Antenna Polarity & Test Distance : Horizontal at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	#5616.00	57.1 PK	68.2	-11.1	3.07 H	15	51.2	5.9
2	*5795.00	115.4 PK			3.07 H	15	74.3	41.1
3	*5795.00	106.2 AV			3.07 H	15	65.1	41.1
4	#5952.80	57.0 PK	68.2	-11.2	3.07 H	15	50.1	6.9
5	11590.00	59.8 PK	74.0	-14.2	1.29 H	117	41.5	18.3
6	11590.00	46.6 AV	54.0	-7.4	1.29 H	117	28.3	18.3
Antenna Polarity & Test Distance : Vertical at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	#5632.40	56.5 PK	68.2	-11.7	3.68 V	86	50.5	6.0
2	*5795.00	109.0 PK			3.68 V	86	67.9	41.1
3	*5795.00	99.6 AV			3.68 V	86	58.5	41.1
4	#5962.40	57.5 PK	68.2	-10.7	3.68 V	86	50.6	6.9
5	11590.00	59.6 PK	74.0	-14.4	2.49 V	328	41.3	18.3
6	11590.00	46.3 AV	54.0	-7.7	2.49 V	328	28.0	18.3

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

802.11ac (VHT80)

RF Mode	TX 802.11ac (VHT80)	Channel	CH 42：5210 MHz
Frequency Range	1GHz ~ 40GHz	Detector Function	Peak (PK) Average (AV)

Antenna Polarity & Test Distance : Horizontal at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	5150.00	61.0 PK	74.0	-13.0	1.56 H	8	55.4	5.6
2	5150.00	46.7 AV	54.0	-7.3	1.56 H	8	41.1	5.6
3	*5210.00	104.0 PK			1.56 H	8	64.0	40.0
4	*5210.00	94.9 AV			1.56 H	8	54.9	40.0
5	#10420.00	59.1 PK	68.2	-9.1	1.37 H	118	41.6	17.5
Antenna Polarity & Test Distance : Vertical at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	5150.00	59.6 PK	74.0	-14.4	3.66 V	90	54.0	5.6
2	5150.00	45.3 AV	54.0	-8.7	3.66 V	90	39.7	5.6
3	*5210.00	98.0 PK			3.66 V	90	58.0	40.0
4	*5210.00	88.9 AV			3.66 V	90	48.9	40.0
5	#10420.00	58.8 PK	68.2	-9.4	2.54 V	341	41.3	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. Margin value = Emission Level – Limit value
4. The other emission levels were very low against the limit.
5. " * ": Fundamental frequency.
6. " # ": The radiated frequency is out of the restricted band.

RF Mode	TX 802.11ac (VHT80)	Channel	CH 58：5290 MHz
Frequency Range	1GHz ~ 40GHz	Detector Function	Peak (PK) Average (AV)

Antenna Polarity & Test Distance : Horizontal at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	*5290.00	105.2 PK			1.84 H	4	65.5	39.7
2	*5290.00	95.7 AV			1.84 H	4	56.0	39.7
3	5350.00	69.3 PK	74.0	-4.7	1.84 H	4	64.0	5.3
4	5350.00	49.8 AV	54.0	-4.2	1.84 H	4	44.5	5.3
5	#10420.00	59.2 PK	68.2	-9.0	1.30 H	121	41.7	17.5
Antenna Polarity & Test Distance : Vertical at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	*5290.00	98.1 PK			3.13 V	58	58.4	39.7
2	*5290.00	88.9 AV			3.13 V	58	49.2	39.7
3	5350.00	56.5 PK	74.0	-17.5	3.13 V	58	51.2	5.3
4	5350.00	45.1 AV	54.0	-8.9	3.13 V	58	39.8	5.3
5	#10420.00	58.9 PK	68.2	-9.3	2.57 V	342	41.4	17.5

Remarks:

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

RF Mode	TX 802.11ac (VHT80)	Channel	CH 106：5530 MHz
Frequency Range	1GHz ~ 40GHz	Detector Function	Peak (PK) Average (AV)

Antenna Polarity & Test Distance : Horizontal at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	5410.00	71.6 PK	74.0	-2.4	2.80 H	11	65.8	5.8
2	5410.00	48.6 AV	54.0	-5.4	2.80 H	11	42.8	5.8
3	#5470.00	63.6 PK	68.2	-4.6	2.80 H	11	57.4	6.2
4	*5530.00	110.8 PK			2.80 H	11	70.4	40.4
5	*5530.00	100.4 AV			2.80 H	11	60.0	40.4
6	#5725.00	57.3 PK	68.2	-10.9	2.80 H	11	50.8	6.5
7	11060.00	59.7 PK	74.0	-14.3	1.40 H	125	41.4	18.3
8	11060.00	46.7 AV	54.0	-7.3	1.40 H	125	28.4	18.3
Antenna Polarity & Test Distance : Vertical at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	5410.00	64.9 PK	74.0	-9.1	3.88 V	62	59.1	5.8
2	5410.00	45.9 AV	54.0	-8.1	3.88 V	62	40.1	5.8
3	#5470.00	60.6 PK	68.2	-7.6	3.88 V	62	54.4	6.2
4	*5530.00	103.2 PK			3.88 V	62	62.8	40.4
5	*5530.00	93.9 AV			3.88 V	62	53.5	40.4
6	#5725.00	57.0 PK	68.2	-11.2	3.88 V	62	50.5	6.5
7	11060.00	59.2 PK	74.0	-14.8	2.59 V	352	40.9	18.3
8	11060.00	46.4 AV	54.0	-7.6	2.59 V	352	28.1	18.3

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

RF Mode	TX 802.11ac (VHT80)	Channel	CH 138：5690 MHz
Frequency Range	1GHz ~ 40GHz	Detector Function	Peak (PK) Average (AV)

Antenna Polarity & Test Distance : Horizontal at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	#5470.00	57.8 PK	68.2	-10.4	2.94 H	5	51.6	6.2
2	*5690.00	113.0 PK			2.94 H	5	72.5	40.5
3	*5690.00	103.0 AV			2.94 H	5	62.5	40.5
4	#5850.00	59.3 PK	68.2	-8.9	2.94 H	5	52.3	7.0
5	11380.00	60.2 PK	74.0	-13.8	1.45 H	126	41.4	18.8
6	11380.00	47.3 AV	54.0	-6.7	1.45 H	126	28.5	18.8
Antenna Polarity & Test Distance : Vertical at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	#5470.00	57.3 PK	68.2	-10.9	3.60 V	65	51.1	6.2
2	*5690.00	104.8 PK			3.60 V	65	64.3	40.5
3	*5690.00	96.0 AV			3.60 V	65	55.5	40.5
4	#5850.00	58.8 PK	68.2	-9.4	3.60 V	65	51.8	7.0
5	11380.00	59.9 PK	74.0	-14.1	2.51 V	353	41.1	18.8
6	11380.00	47.0 AV	54.0	-7.0	2.51 V	353	28.2	18.8

Remarks:

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

RF Mode	TX 802.11ac (VHT80)	Channel	CH 155：5775 MHz
Frequency Range	1GHz ~ 40GHz	Detector Function	Peak (PK) Average (AV)

Antenna Polarity & Test Distance : Horizontal at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	#5642.80	60.1 PK	68.2	-8.1	2.83 H	20	54.1	6.0
2	**#5654.80**	**71.4 PK**	**71.8**	**-0.4**	**2.83 H**	**20**	**65.4**	**6.0**
3	*5775.00	112.0 PK			2.83 H	20	71.0	41.0
4	*5775.00	101.5 AV			2.83 H	20	60.5	41.0
5	#5962.40	57.4 PK	68.2	-10.8	2.83 H	20	50.5	6.9
6	11550.00	59.3 PK	74.0	-14.7	1.24 H	118	40.9	18.4
7	11550.00	46.4 AV	54.0	-7.6	1.24 H	118	28.0	18.4
Antenna Polarity & Test Distance : Vertical at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	#5622.40	57.1 PK	68.2	-11.1	3.70 V	63	51.1	6.0
2	*5775.00	106.4 PK			3.70 V	63	65.4	41.0
3	*5775.00	96.8 AV			3.70 V	63	55.8	41.0
4	#5934.80	56.7 PK	68.2	-11.5	3.70 V	63	49.7	7.0
5	11550.00	59.0 PK	74.0	-15.0	2.44 V	336	40.6	18.4
6	11550.00	46.1 AV	54.0	-7.9	2.44 V	336	27.7	18.4

Remarks:

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

9 kHz ~ 30 MHz Data:

The amplitude of spurious emissions attenuated more than 20 dB below the permissible value is not required to be report.

30 MHz ~ 1 GHz Worst-Case Data:

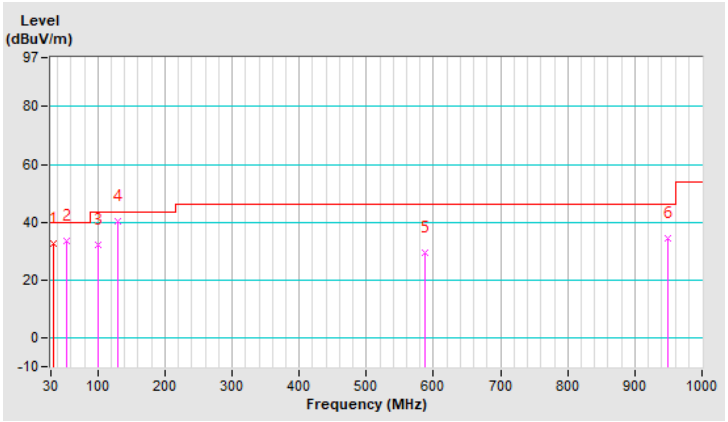
802.11ac (VHT40)

RF Mode	TX 802.11ac (VHT40)	Channel	CH 159：5795 MHz
Frequency Range	30MHz ~ 1GHz	Detector Function	Quasi-Peak (QP)

Antenna Polarity & Test Distance : Horizontal at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	33.60	32.7 QP	40.0	-7.3	1.00 H	228	43.2	-10.5
2	53.28	33.6 QP	40.0	-6.4	1.50 H	140	42.7	-9.1
3	100.81	32.1 QP	43.5	-11.4	1.00 H	314	45.5	-13.4
4	128.94	40.1 QP	43.5	-3.4	1.50 H	112	50.5	-10.4
5	586.78	29.4 QP	46.0	-16.6	1.25 H	6	30.1	-0.7
6	949.56	34.6 QP	46.0	-11.4	1.00 H	320	28.5	6.1

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 other emission levels were very low against the limit of frequency range 30MHz~1000MHz.
5. The emission levels were very low against the limit of frequency range 9kHz~30MHz: the amplitude of spurious emissions attenuated more than 20 dB below the permissible value to be report.

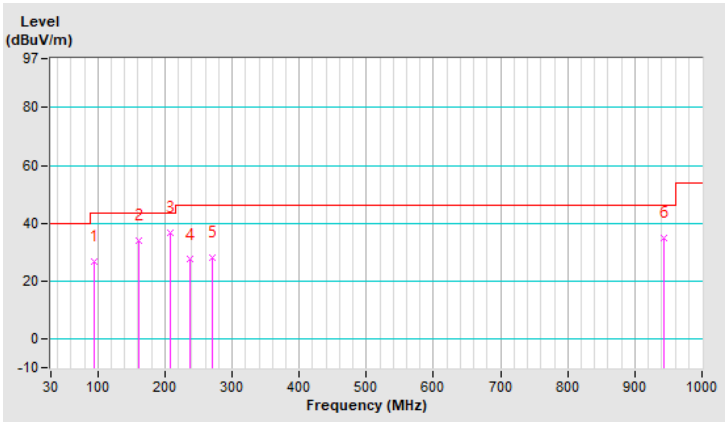


RF Mode	TX 802.11ac (VHT40)	Channel	CH 159：5795 MHz
Frequency Range	30MHz ~ 1GHz	Detector Function	Quasi-Peak (QP)

Antenna Polarity & Test Distance : Vertical at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	94.02	26.7 QP	43.5	-16.8	1.49 V	139	41.2	-14.5
2	160.95	33.9 QP	43.5	-9.6	1.00 V	112	42.6	-8.7
3	207.51	36.9 QP	43.5	-6.6	1.00 V	117	48.3	-11.4
4	236.61	27.4 QP	46.0	-18.6	1.24 V	189	37.2	-9.8
5	269.59	28.0 QP	46.0	-18.0	1.00 V	349	35.9	-7.9
6	942.77	35.0 QP	46.0	-11.0	1.00 V	162	28.8	6.2

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. Margin value = Emission Level – Limit value
4. The other emission levels were very low against the limit of frequency range 30MHz~1000MHz.
5. The emission levels were very low against the limit of frequency range 9kHz~30MHz: the amplitude of spurious emissions attenuated more than 20 dB below the permissible value to be report.



4.2 Conducted Emission Measurement

4.2.1 Limits of Conducted Emission Measurement

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

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

4.2.2 Test Instruments

Description & Manufacturer	Model No.	Serial No.	Date of Calibration	Due Date of Calibration
Test Receiver ROHDE & SCHWARZ	ESR3	102783	Dec. 20, 2021	Dec. 19, 2022
RF signal cable (with 10dB PAD) Woken	5D-FB	Cable-cond2-01	Sep. 04, 2021	Sep. 03, 2022
LISN/AMN ROHDE & SCHWARZ (EUT)	ESH2-Z5	100100	Feb. 17, 2022	Feb. 16, 2023
LISN/AMN ROHDE & SCHWARZ (Peripheral)	ESH3-Z5	100312	Sep. 17, 2021	Sep. 16, 2022
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 2 (Conduction 2).
3. The VCCI Site Registration No. is C-12047.
4. Test Date: 2022/8/3

4.2.3 Test Procedures

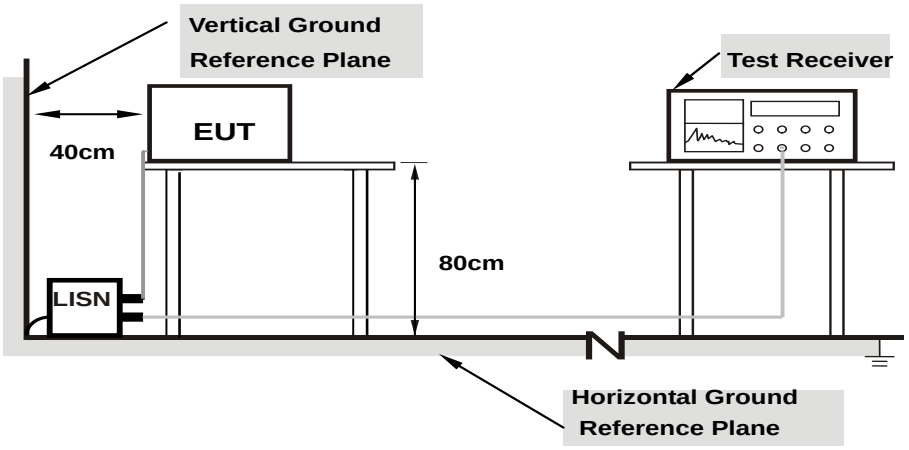
a. The EUT was placed 0.4 meters from the conducting wall of the shielded room with EUT being connected to the power mains through a line impedance stabilization network (LISN). Other support units were connected to the power mains through another LISN. The two LISNs provide 50 ohm/ 50uH of coupling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

Note: All modes of operation were investigated and the worst-case emissions are reported.

4.2.4 Deviation from Test Standard

No deviation.

4.2.5 Test Setup



Note: 1.Support units were connected to second LISN.
2.Both of LISNs (AMN) are 80 cm from EUT and at least 80 from other units and other metal planes

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

4.2.6 EUT Operating Conditions

a. Placed the EUT on a testing table.
b. Use the software to control the EUT under transmission condition continuously at specific channel frequency.

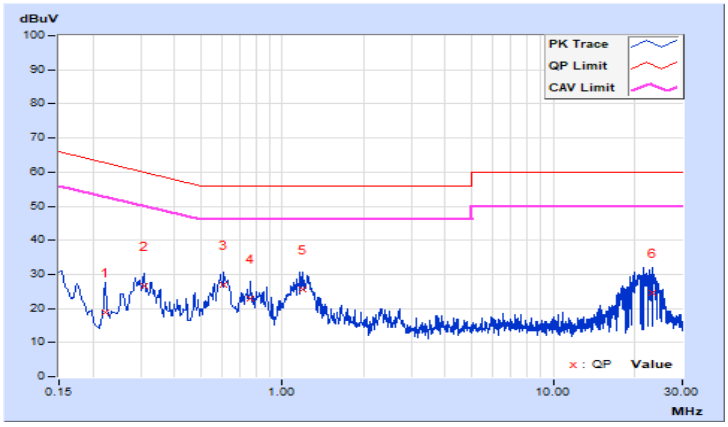
4.2.7 Test Results

RF Mode	TX 802.11ac (VHT40)	Channel	CH 159：5795 MHz
Frequency Range	150kHz ~ 30MHz	Detector Function & Resolution Bandwidth	Quasi-Peak (QP) / Average (AV), 9kHz

Phase Of Power : Line (L)										
No	Frequency (MHz)	Correction Factor (dB)	Reading Value (dBuV)		Emission Level (dBuV)		Limit (dBuV)		Margin (dB)	
			Q.P.	AV.	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.
1	0.22200	10.14	8.80	1.15	18.94	11.29	62.74	52.74	-43.80	-41.45
2	0.31000	10.15	16.58	10.18	26.73	20.33	59.97	49.97	-33.24	-29.64
3	0.61000	10.17	16.77	10.52	26.94	20.69	56.00	46.00	-29.06	-25.31
4	0.76200	10.18	12.82	5.08	23.00	15.26	56.00	46.00	-33.00	-30.74
5	1.18600	10.20	15.38	8.52	25.58	18.72	56.00	46.00	-30.42	-27.28
6	23.18200	10.29	14.29	2.85	24.58	13.14	60.00	50.00	-35.42	-36.86

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

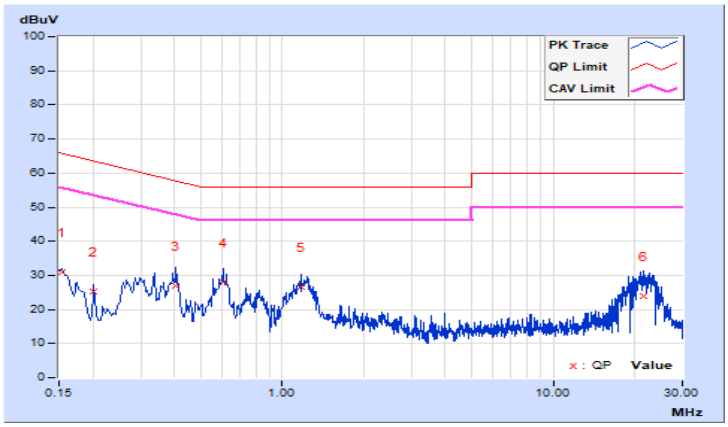


RF Mode	TX 802.11ac (VHT40)	Channel	CH 159：5795 MHz
Frequency Range	150kHz ~ 30MHz	Detector Function & Resolution Bandwidth	Quasi-Peak (QP) / Average (AV), 9kHz

Phase Of Power : Neutral (N)										
No	Frequency (MHz)	Correction Factor (dB)	Reading Value (dBuV)		Emission Level (dBuV)		Limit (dBuV)		Margin (dB)	
			Q.P.	AV.	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.
1	0.15400	10.14	20.87	16.00	31.01	26.14	65.78	55.78	-34.77	-29.64
2	0.20200	10.15	15.18	7.87	25.33	18.02	63.53	53.53	-38.20	-35.51
3	0.40600	10.17	16.71	3.78	26.88	13.95	57.73	47.73	-30.85	-33.78
4	**0.60600**	**10.18**	**17.90**	**11.75**	**28.08**	**21.93**	**56.00**	**46.00**	**-27.92**	**-24.07**
5	1.17000	10.21	16.51	9.96	26.72	20.17	56.00	46.00	-29.28	-25.83
6	21.54200	10.49	13.37	3.65	23.86	14.14	60.00	50.00	-36.14	-35.86

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 ≦ 125 mW (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	250 mW (24 dBm)
U-NII-2A	√		250 mW (24 dBm) or 11 dBm + 10 log B*
U-NII-2C	√		250 mW (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 $N_{ANT} \leq 4$;

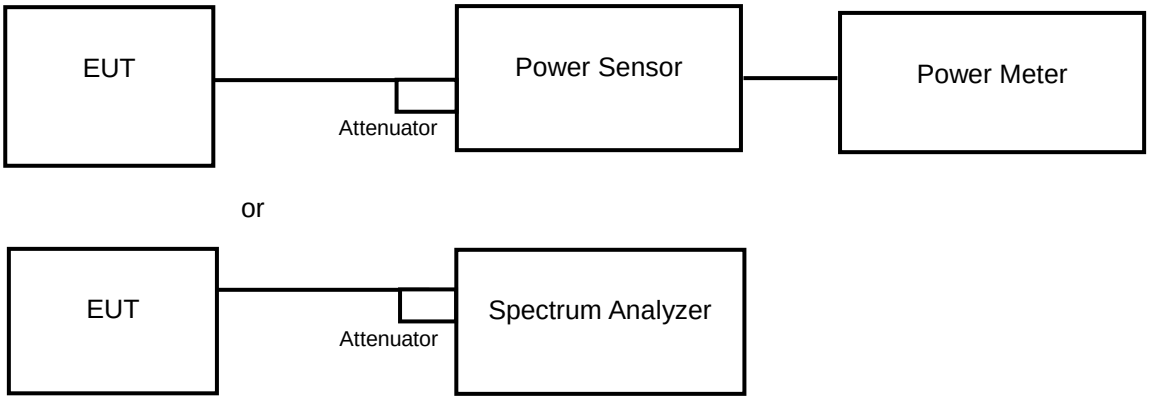
Array Gain = 0 dB (i.e., no array gain) for channel widths ≥ 40 MHz for any N_{ANT};

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

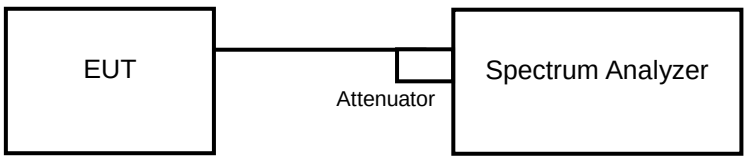
For power measurements on all other devices: Array Gain = 10 log(N_{ANT}/N_{SS}) dB.

4.3.2 Test Setup

<Power Output Measurement>



<26 dB Bandwidth>



4.3.3 Test Instruments

Refer to section 4.1.2 to get information of above instrument.

4.3.4 Test Procedure

Average Power Measurement

<802.11a, 802.11n (HT20), 802.11n (HT40)>

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

<802.11ac (VHT80)>

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

For channel straddling 5725 MHz

Follow FCC KDB 789033 UNII test procedure:

Method SA-1

a. Set span to encompass the entire emission bandwidth (EBW) of the signal.
b. Set RBW = 1 MHz.
c. Set VBW ≥ 3 x RBW.
d. Number of points in sweep ≥ 2 Span / RBW.
e. Sweep time = auto.
f. Set trigger to free run (duty cycle ≥ 98 percent)
g. Detector = RMS.
h. Trace average at least 100 traces in power averaging mode.
i. Compute power by integrating the spectrum across the 26 dB EBW of the signal.

26 dB Bandwidth

a. Set RBW = approximately 1 % of the emission bandwidth.
b. Set the VBW ≥ 3 x 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 Results

Power Output:

CDD Mode

802.11a

Channel	Frequency (MHz)	Maximum Conducted Power (dBm)		Total Power (mW)	Total Power (dBm)	Power Limit (dBm)	Pass / Fail
		Chain 0	Chain 1				
36	5180	11.64	10.37	25.474	14.06	23.89	Pass
40	5200	11.87	10.57	26.789	14.28	23.89	Pass
48	5240	11.75	10.58	26.396	14.22	23.89	Pass
52	5260	14.09	12.87	45.009	16.53	23.89	Pass
60	5300	14.16	12.99	45.968	16.62	23.89	Pass
64	5320	13.85	12.74	43.059	16.34	23.89	Pass
100	5500	17.98	16.79	110.559	20.44	23.89	Pass
116	5580	17.71	16.67	105.472	20.23	23.89	Pass
140	5700	19.59	18.29	158.444	22.00	23.89	Pass
144	5720 (U-NII-2C)	18.70	17.37	132.52	21.22	23.00	Pass
144	5720 (U-NII-3)	10.76	9.48	21.4	13.30	29.89	Pass
149	5745	23.09	21.74	352.984	25.48	29.89	Pass
157	5785	23.11	21.97	362.043	25.59	29.89	Pass
165	5825	23.38	22.18	382.967	25.83	29.89	Pass

Note:

1. Test was performed in accordance with measurement follow FCC KDB 789033 UNII test procedure Method SA-2A and use spectrum analyzer test , the duty factor was included in the total power.
2. Directional gain is the maximum gain of antennas.
3. For U-NII-1, the maximum gain is 6.11 dBi > 6 dBi, so the output power limit shall be reduced to 24-(6.11-6) = 23.89 dBm.
4. For U-NII-2A, the maximum gain is 6.11 dBi > 6 dBi, so the output power limit shall be reduced to 24-(6.11-6) = 23.89 dBm.
5. For U-NII-2C, the maximum gain is 6.11 dBi > 6 dBi, so the output power limit shall be reduced to 23.11-(6.11-6) = 23 dBm.
6. For U-NII-3, the maximum gain is 6.11 dBi> 6 dBi, so the output power limit shall be reduced to 30-(6.11-6) = 29.89 dBm.

802.11ac (VHT20)

Channel	Frequency (MHz)	Maximum Conducted Power (dBm)		Total Power (mW)	Total Power (dBm)	Power Limit (dBm)	Pass / Fail
		Chain 0	Chain 1				
36	5180	11.90	10.90	27.775	14.44	23.89	Pass
40	5200	12.01	11.01	28.505	14.55	23.89	Pass
48	5240	12.18	10.82	28.599	14.56	23.89	Pass
52	5260	14.05	12.76	44.29	16.46	23.89	Pass
60	5300	13.99	12.78	44.028	16.44	23.89	Pass
64	5320	14.18	12.99	46.089	16.64	23.89	Pass
100	5500	18.07	17.18	116.361	20.66	23.89	Pass
116	5580	18.21	17.04	116.804	20.67	23.89	Pass
140	5700	19.99	18.62	172.548	22.37	23.89	Pass
144	5720 (U-NII-2C)	18.69	17.19	129.32	21.12	23.24	Pass
144	5720 (U-NII-3)	11.12	10.01	23.51	13.71	29.89	Pass
149	5745	23.09	21.69	351.275	25.46	29.89	Pass
157	5785	23.11	21.81	356.35	25.52	29.89	Pass
165	5825	23.17	22.14	371.173	25.70	29.89	Pass

Note:

1. Test was performed in accordance with measurement follow FCC KDB 789033 UNII test procedure Method SA-2A and use spectrum analyzer test , the duty factor was included in the total power.
2. Directional gain is the maximum gain of antennas.
3. For U-NII-1, the maximum gain is 6.11 dBi > 6 dBi, so the output power limit shall be reduced to 24-(6.11-6) = 23.89 dBm.
4. For U-NII-2A, the maximum gain is 6.11 dBi > 6 dBi, so the output power limit shall be reduced to 24-(6.11-6) = 23.89 dBm.
5. For U-NII-2C, the maximum gain is 6.11 dBi > 6 dBi, so the output power limit shall be reduced to 23.35-(6.11-6) = 23.24 dBm.
6. For U-NII-3, the maximum gain is 6.11 dBi> 6 dBi, so the output power limit shall be reduced to 30-(6.11-6) = 29.89 dBm.

802.11ac (VHT40)

Channel	Frequency (MHz)	Maximum Conducted Power (dBm)		Total Power (mW)	Total Power (dBm)	Power Limit (dBm)	Pass / Fail
		Chain 0	Chain 1				
38	5190	14.07	12.67	44.02	16.44	23.89	Pass
46	5230	14.11	12.68	44.299	16.46	23.89	Pass
54	5270	14.10	12.89	45.158	16.55	23.89	Pass
62	5310	14.16	13.09	46.432	16.67	23.89	Pass
102	5510	18.87	18.08	141.359	21.50	23.89	Pass
110	5550	21.23	20.25	238.665	23.78	23.89	Pass
134	5670	13.52	12.66	40.941	16.12	23.89	Pass
142	5710 (U-NII-2C)	20.12	19.01	194.644	22.89	23.89	Pass
142	5710 (U-NII-3)	9.75	8.32	17.321	12.39	29.89	Pass
151	5755	17.56	16.28	99.478	19.98	29.89	Pass
159	5795	23.52	22.16	389.343	25.90	29.89	Pass

Note:

1. Test was performed in accordance with measurement follow FCC KDB 789033 UNII test procedure Method SA-2A and use spectrum analyzer test , the duty factor was included in the total power.
2. Directional gain is the maximum gain of antennas.
3. For U-NII-1, the maximum gain is 6.11 dBi > 6 dBi, so the output power limit shall be reduced to 24-(6.11-6) = 23.89 dBm.
4. For U-NII-2A, the maximum gain is 6.11 dBi > 6 dBi, so the output power limit shall be reduced to 24-(6.11-6) = 23.89 dBm.
5. For U-NII-2C, the maximum gain is 6.11 dBi > 6 dBi, so the output power limit shall be reduced to 24-(6.11-6) = 23.89 dBm.
6. For U-NII-3, the maximum gain is 6.11 dBi> 6 dBi, so the output power limit shall be reduced to 30-(6.11-6) = 29.89 dBm.

802.11ac (VHT80)

Channel	Frequency (MHz)	Maximum Conducted Power (dBm)		Total Power (mW)	Total Power (dBm)	Power Limit (dBm)	Pass / Fail
		Chain 0	Chain 1				
42	5210	14.27	12.85	46.005	16.63	23.89	Pass
58	5290	14.27	12.78	45.697	16.60	23.89	Pass
106	5530	17.98	16.79	110.559	20.44	23.89	Pass
138	5690 (U-NII-2C)	20.21	19.25	207.919	23.18	23.89	Pass
138	5690 (U-NII-3)	6.31	5.21	8.351	9.22	29.89	Pass
155	5775	21.18	19.87	228.271	23.58	29.89	Pass

Note:

1. Test was performed in accordance with measurement follow FCC KDB 789033 UNII test procedure Method SA-2A and use spectrum analyzer test , the duty factor was included in the total power.
2. Directional gain is the maximum gain of antennas.
3. For U-NII-1, the maximum gain is 6.11 dBi > 6 dBi, so the output power limit shall be reduced to 24-(6.11-6) = 23.89 dBm.
4. For U-NII-2A, the maximum gain is 6.11 dBi > 6 dBi, so the output power limit shall be reduced to 24-(6.11-6) = 23.89 dBm.
5. For U-NII-2C, the maximum gain is 6.11 dBi > 6 dBi, so the output power limit shall be reduced to 24-(6.11-6) = 23.89 dBm.
6. For U-NII-3, the maximum gain is 6.11 dBi> 6 dBi, so the output power limit shall be reduced to 30-(6.11-6) = 29.89 dBm.

Beamforming Mode

802.11ac (VHT20)

Channel	Frequency (MHz)	Maximum Conducted Power (dBm)		Total Power (mW)	Total Power (dBm)	Power Limit (dBm)	Pass / Fail
		Chain 0	Chain 1				
36	5180	10.63	9.67	20.828	13.19	20.88	Pass
40	5200	10.62	9.65	20.759	13.17	20.88	Pass
48	5240	10.78	9.45	20.778	13.18	20.88	Pass
52	5260	11.27	10.07	23.559	13.72	20.88	Pass
60	5300	11.23	10.03	23.343	13.68	20.88	Pass
64	5320	11.25	10.11	23.592	13.73	20.88	Pass
100	5500	17.65	16.78	105.853	20.25	20.88	Pass
116	5580	17.73	16.61	105.107	20.22	20.88	Pass
140	5700	17.83	16.51	105.445	20.23	20.88	Pass
144	5720 (U-NII-2C)	16.61	15.26	81.273	19.10	20.23	Pass
144	5720 (U-NII-3)	10.12	8.63	17.992	12.55	26.88	Pass
149	5745	23.09	21.69	351.275	25.46	26.88	Pass
157	5785	23.11	21.81	356.35	25.52	26.88	Pass
165	5825	23.17	22.14	371.173	25.70	26.88	Pass

Note:

1. Test was performed in accordance with measurement follow FCC KDB 789033 UNII test procedure Method SA-2A and use spectrum analyzer test , the duty factor was included in the total power.
2. Directional gain = gain of antenna element + 10 log (2 of TX antenna elements)
3. For U-NII-1, the directional gain is 9.12 dBi > 6 dBi, so the output power limit shall be reduced to 24-(9.12-6) = 20.88 dBm.
4. For U-NII-2A, the directional gain is 9.12 dBi > 6 dBi, so the output power limit shall be reduced to 24-(9.12-6) = 20.88 dBm.
5. For U-NII-2C, the directional gain is 9.12 dBi > 6 dBi, so the output power limit shall be reduced to 23.35-(9.12-6) = 20.23 dBm.
6. For U-NII-3, the directional gain is 9.12 dBi> 6 dBi, so the output power limit shall be reduced to 30-(9.12-6) = 26.88 dBm.

802.11ac (VHT40)

Channel	Frequency (MHz)	Maximum Conducted Power (dBm)		Total Power (mW)	Total Power (dBm)	Power Limit (dBm)	Pass / Fail
		Chain 0	Chain 1				
38	5190	11.26	9.93	23.206	13.66	20.88	Pass
46	5230	11.28	9.90	23.2	13.65	20.88	Pass
54	5270	11.28	10.10	23.661	13.74	20.88	Pass
62	5310	11.26	10.19	23.813	13.77	20.88	Pass
102	5510	17.95	17.22	115.096	20.61	20.88	Pass
110	5550	18.23	17.34	120.727	20.82	20.88	Pass
134	5670	13.52	12.66	40.941	16.12	20.88	Pass
142	5710 (U-NII-2C)	17.93	16.83	117.674	20.71	20.88	Pass
142	5710 (U-NII-3)	7.12	6.00	9.746	9.89	26.88	Pass
151	5755	17.56	16.28	99.478	19.98	26.88	Pass
159	5795	23.52	22.16	389.343	25.90	26.88	Pass

Note:

1. Test was performed in accordance with measurement follow FCC KDB 789033 UNII test procedure Method SA-2A and use spectrum analyzer test , the duty factor was included in the total power.
2. Directional gain = gain of antenna element + 10 log (2 of TX antenna elements)
3. For U-NII-1, the directional gain is 9.12 dBi > 6 dBi, so the output power limit shall be reduced to 24-(9.12-6) = 20.88 dBm.
4. For U-NII-2A, the directional gain is 9.12 dBi > 6 dBi, so the output power limit shall be reduced to 24-(9.12-6) = 20.88 dBm.
5. For U-NII-2C, the directional gain is 9.12 dBi > 6 dBi, so the output power limit shall be reduced to 24-(9.12-6) = 20.88 dBm.
6. For U-NII-3, the directional gain is 9.12 dBi> 6 dBi, so the output power limit shall be reduced to 30-(9.12-6) = 26.88 dBm.

802.11ac (VHT80)

Channel	Frequency (MHz)	Maximum Conducted Power (dBm)		Total Power (mW)	Total Power (dBm)	Power Limit (dBm)	Pass / Fail
		Chain 0	Chain 1				
42	5210	11.34	9.96	23.523	13.71	20.88	Pass
58	5290	11.40	9.88	23.531	13.72	20.88	Pass
106	5530	17.98	16.79	110.559	20.44	20.88	Pass
138	5690 (U-NII-2C)	17.78	16.79	118.458	20.74	20.88	Pass
138	5690 (U-NII-3)	3.06	2.07	3.995	6.02	26.88	Pass
155	5775	21.18	19.87	228.271	23.58	26.88	Pass

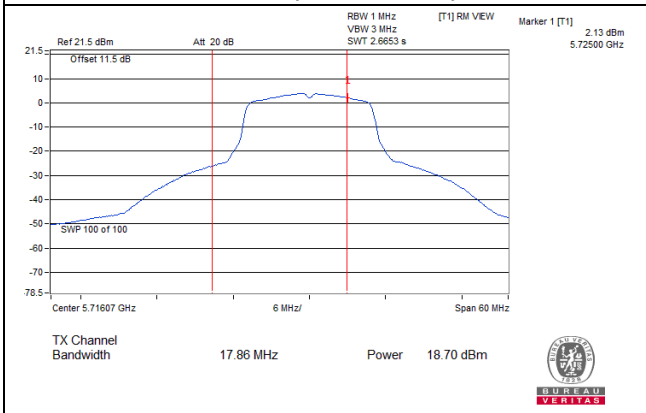
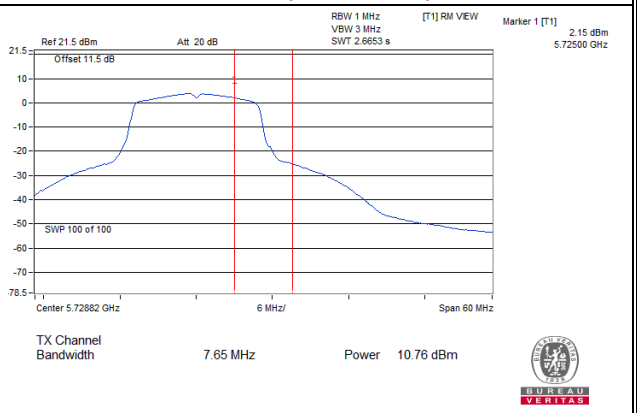
Note:

1. Test was performed in accordance with measurement follow FCC KDB 789033 UNII test procedure Method SA-2A and use spectrum analyzer test , the duty factor was included in the total power.
2. Directional gain = gain of antenna element + 10 log (2 of TX antenna elements)
3. For U-NII-1, the directional gain is 9.12 dBi > 6 dBi, so the output power limit shall be reduced to 24-(9.12-6) = 20.88 dBm.
4. For U-NII-2A, the directional gain is 9.12 dBi > 6 dBi, so the output power limit shall be reduced to 24-(9.12-6) = 20.88 dBm.
5. For U-NII-2C, the directional gain is 9.12 dBi > 6 dBi, so the output power limit shall be reduced to 24-(9.12-6) = 20.88 dBm.
6. For U-NII-3, the directional gain is 9.12 dBi> 6 dBi, so the output power limit shall be reduced to 30-(9.12-6) = 26.88 dBm.

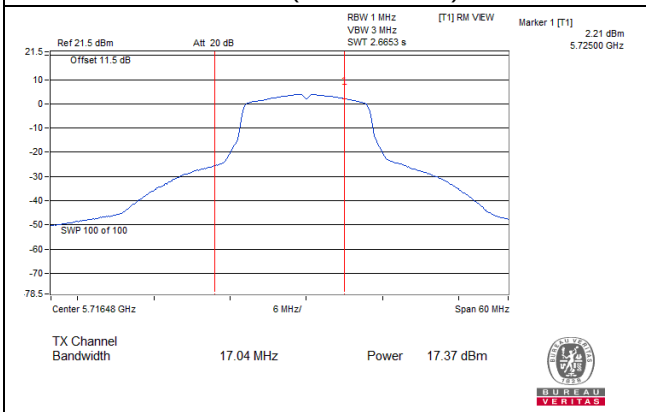
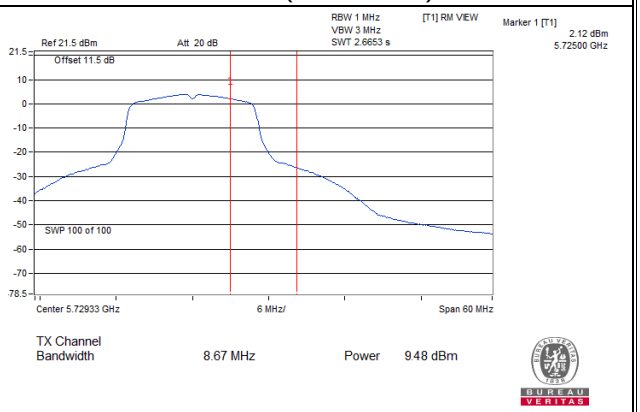
Straddle channel power plots:

802.11a

Chain 0

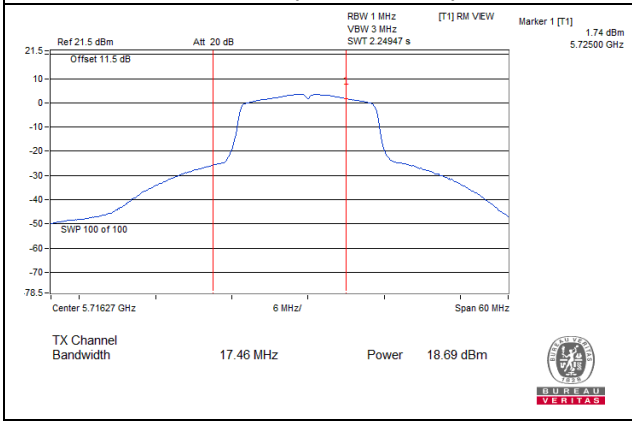
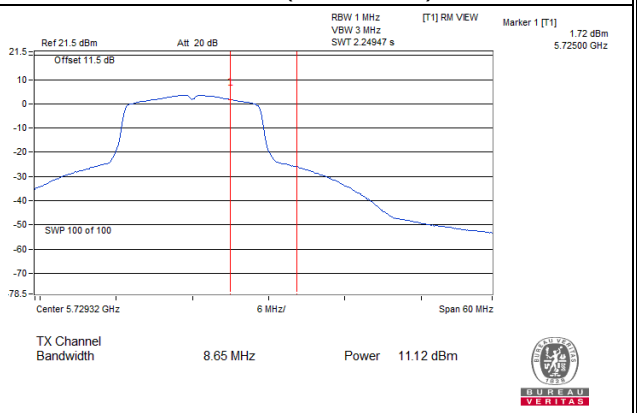
CH 144 (For U-NII-2C)	CH 144 (For U-NII-3)
	

Chain 1

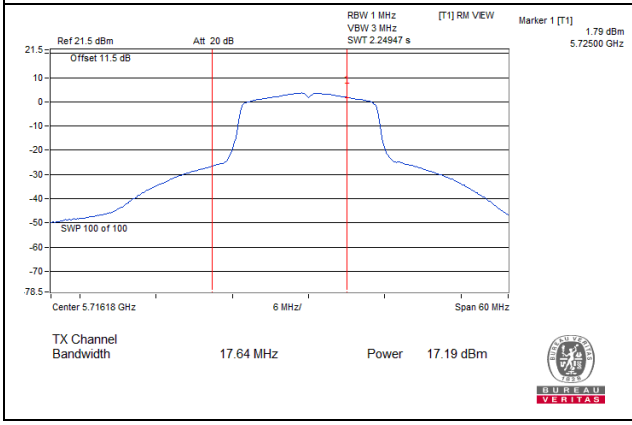
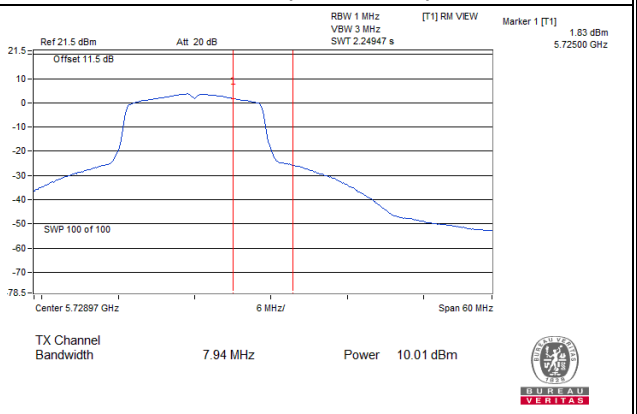
CH 144 (For U-NII-2C)	CH 144 (For U-NII-3)
	

802.11ac (VHT20)

Chain 0

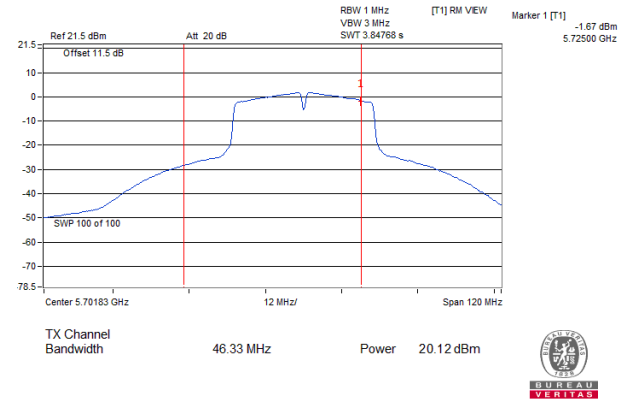
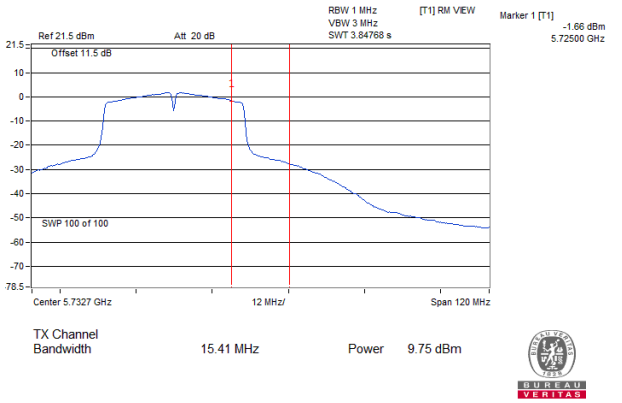
CH 144 (For U-NII-2C)	CH 144 (For U-NII-3)
	
TX Channel Bandwidth 17.46 MHz Power 18.69 dBm	TX Channel Bandwidth 8.65 MHz Power 11.12 dBm

Chain 1

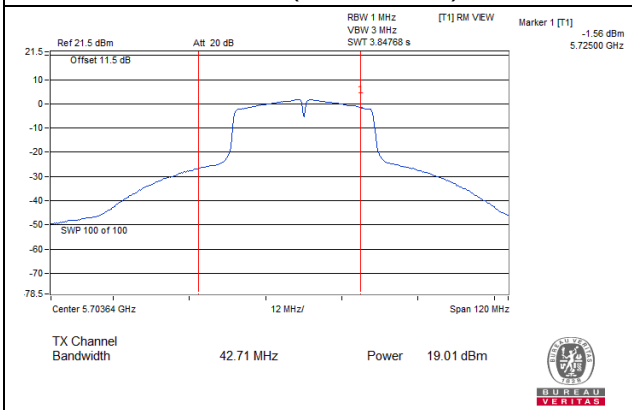
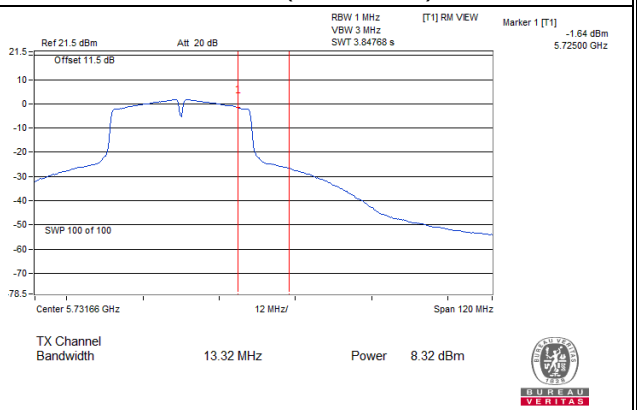
CH 144 (For U-NII-2C)	CH 144 (For U-NII-3)
	
TX Channel Bandwidth 17.64 MHz Power 17.19 dBm	TX Channel Bandwidth 7.94 MHz Power 10.01 dBm

802.11ac (VHT40)

Chain 0

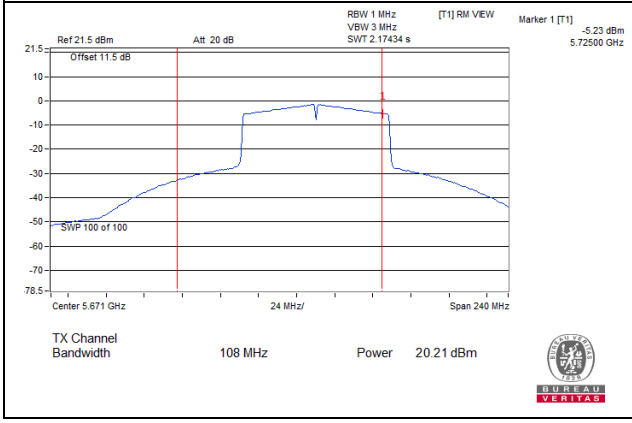
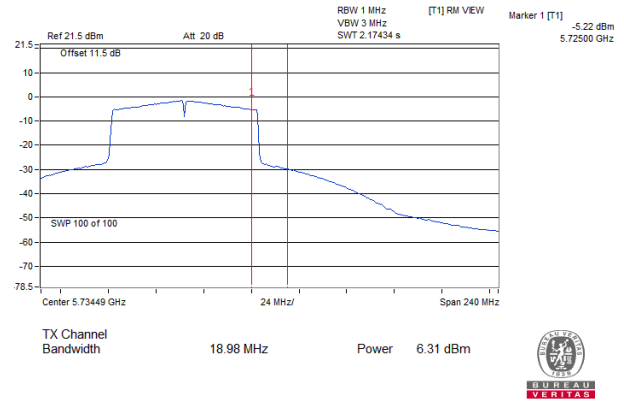
CH 142 (For U-NII-2C)	CH 142 (For U-NII-3)
	
TX Channel Bandwidth 46.33 MHz Power 20.12 dBm	TX Channel Bandwidth 15.41 MHz Power 9.75 dBm

Chain 1

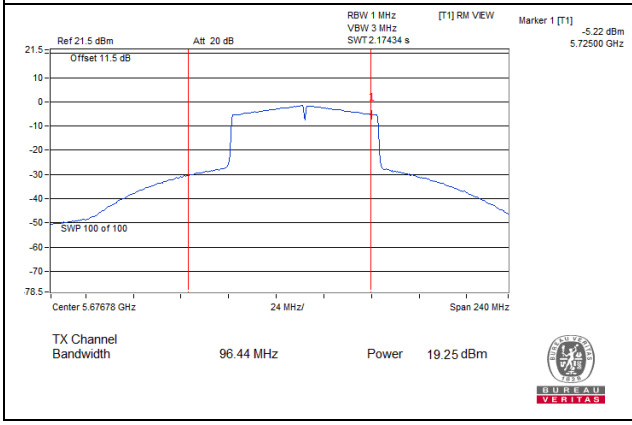
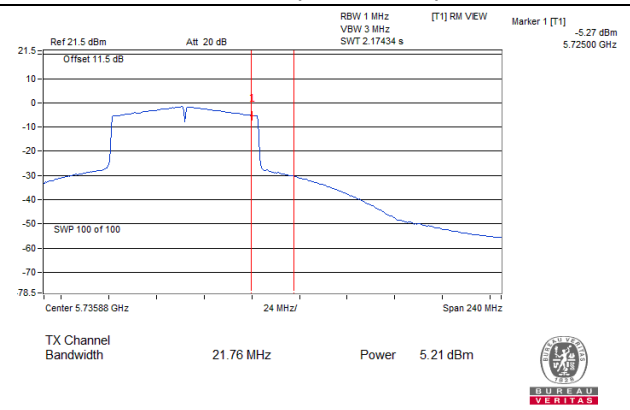
CH 142 (For U-NII-2C)	CH 142 (For U-NII-3)
	
TX Channel Bandwidth 42.71 MHz Power 19.01 dBm	TX Channel Bandwidth 13.32 MHz Power 8.32 dBm

802.11ac (VHT80)

Chain 0

CH 138 (For U-NII-2C)	CH 138 (For U-NII-3)
	
TX Channel Bandwidth 108 MHz Power 20.21 dBm	TX Channel Bandwidth 18.98 MHz Power 6.31 dBm

Chain 1

CH 138 (For U-NII-2C)	CH 138 (For U-NII-3)
	
TX Channel Bandwidth 96.44 MHz Power 19.25 dBm	TX Channel Bandwidth 21.76 MHz Power 5.21 dBm

EUT HIGHEST AND LOWEST CONDUCTED POWER

CDD Mode

802.11a

Frequency Band (MHz)	Max. Power	
	Output Power (mW)	Output Power (dBm)
5250~5350	45.968	16.62
5470~5725	158.444	22.00

802.11ac (VHT20)

Frequency Band (MHz)	Max. Power	
	Output Power (mW)	Output Power (dBm)
5250~5350	46.089	16.64
5470~5725	172.548	22.37

802.11ac (VHT40)

Frequency Band (MHz)	Max. Power	
	Output Power (mW)	Output Power (dBm)
5250~5350	46.432	16.67
5470~5725	238.665	23.78

802.11ac (VHT80)

Frequency Band (MHz)	Max. Power	
	Output Power (mW)	Output Power (dBm)
5250~5350	45.697	16.60
5470~5725	207.919	23.18

Beamforming Mode

802.11ac (VHT20)

Frequency Band (MHz)	Max. Power	
	Output Power (mW)	Output Power (dBm)
5250~5350	23.592	13.73
5470~5725	105.853	20.25

802.11ac (VHT40)

Frequency Band (MHz)	Max. Power	
	Output Power (mW)	Output Power (dBm)
5250~5350	23.813	13.77
5470~5725	120.727	20.82

802.11ac (VHT80)

Frequency Band (MHz)	Max. Power	
	Output Power (mW)	Output Power (dBm)
5250~5350	23.531	13.72
5470~5725	118.458	20.74

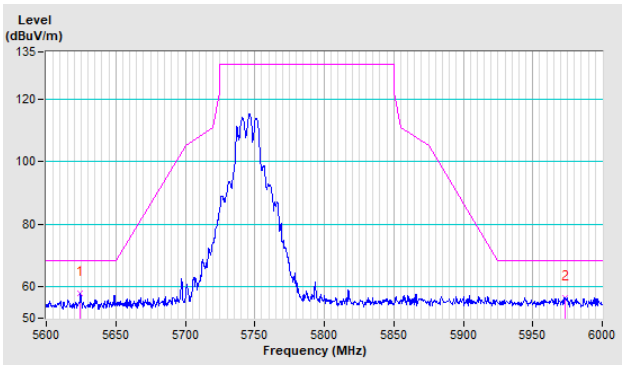
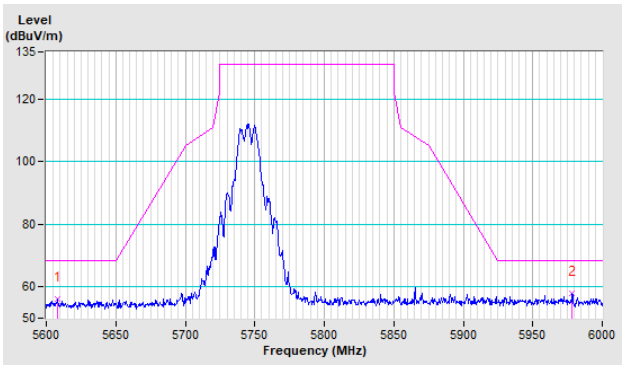
5 Pictures of Test Arrangements

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

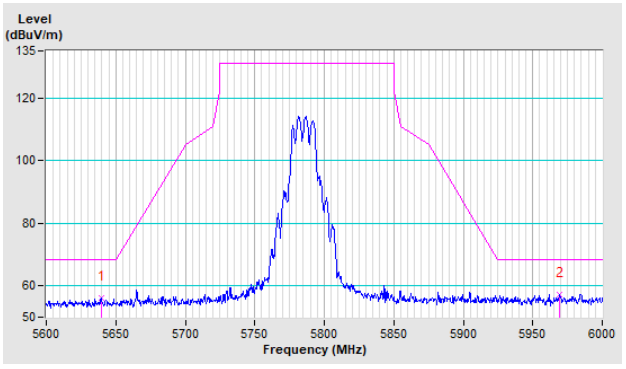
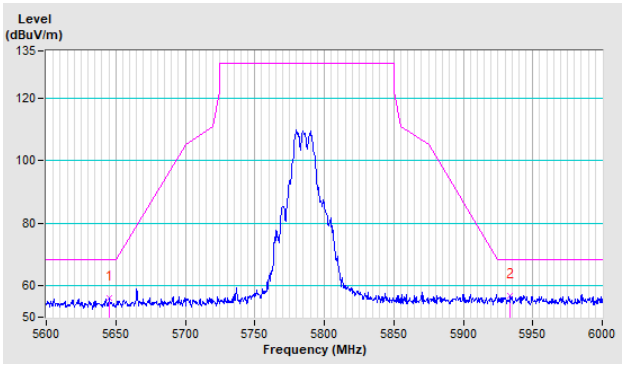
Annex A- Radiated Out of Band Emission (OOBE) Measurement (For U-NII-3 band)

802.11a

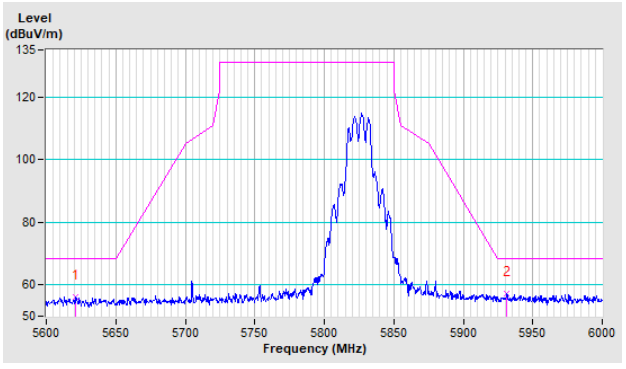
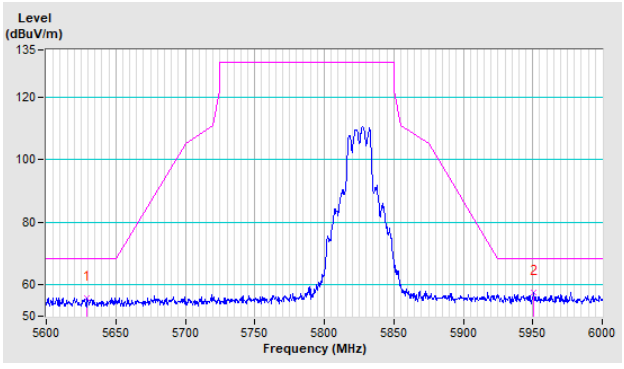
CH 149 5745 MHz

Horizontal	Vertical
	

CH 157 5785 MHz

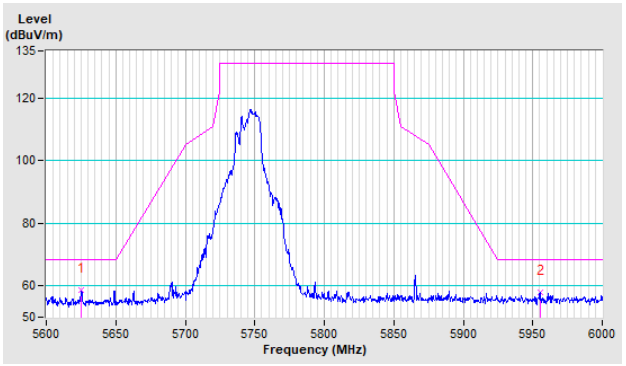
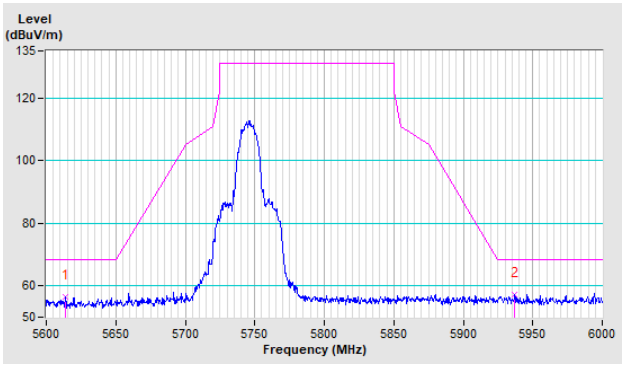
Horizontal	Vertical
	

CH 165 5825 MHz

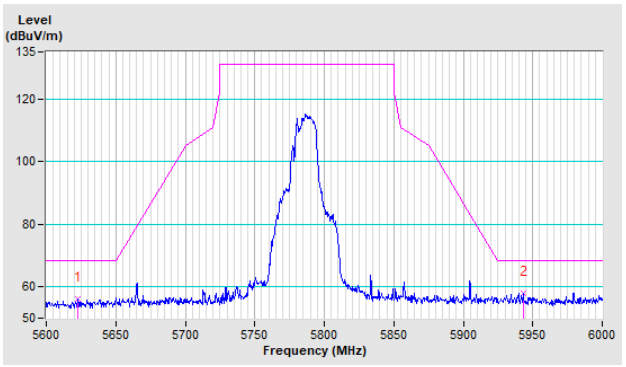
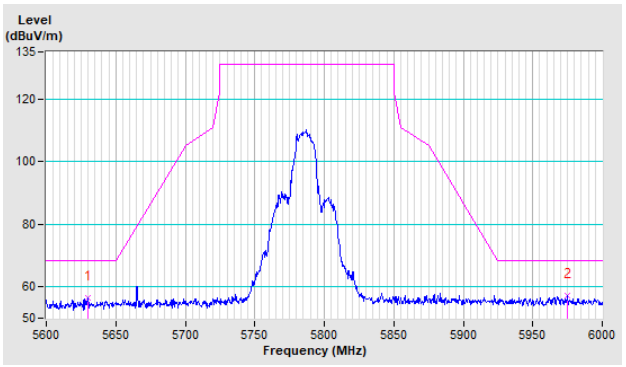
Horizontal	Vertical
	

802.11ac (VHT20)

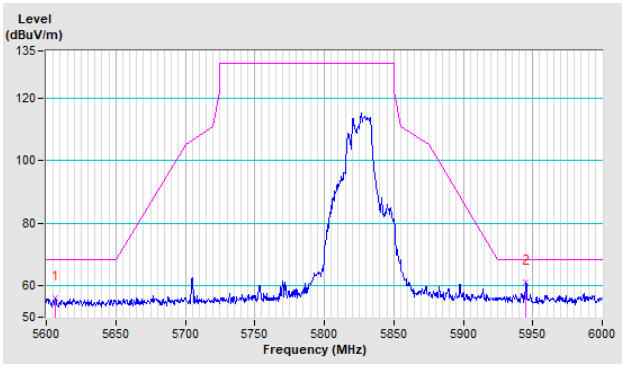
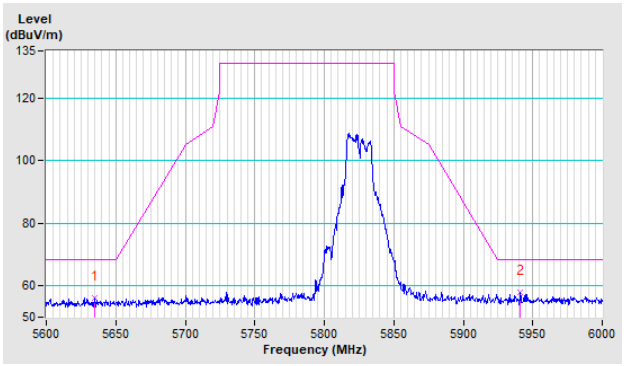
CH 149 5745 MHz

Horizontal	Vertical
	

CH 157 5785 MHz

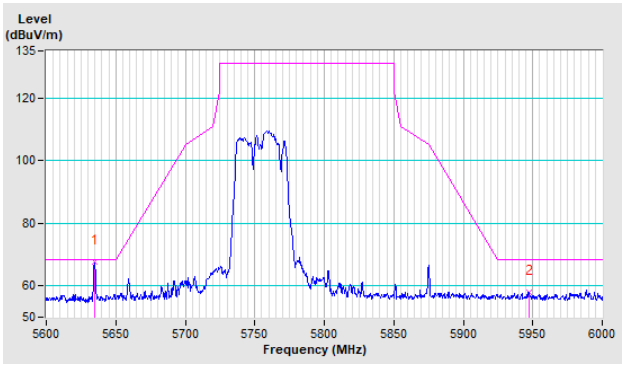
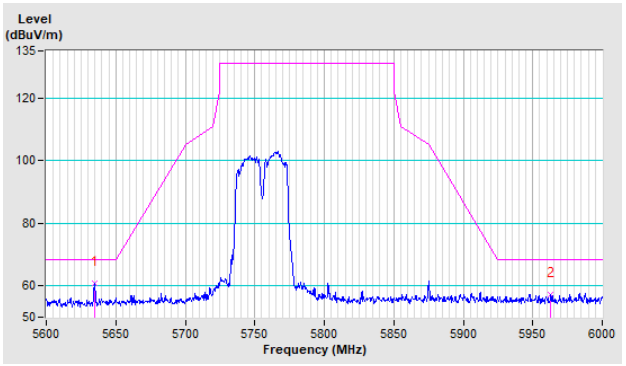
Horizontal	Vertical
	

CH 165 5825 MHz

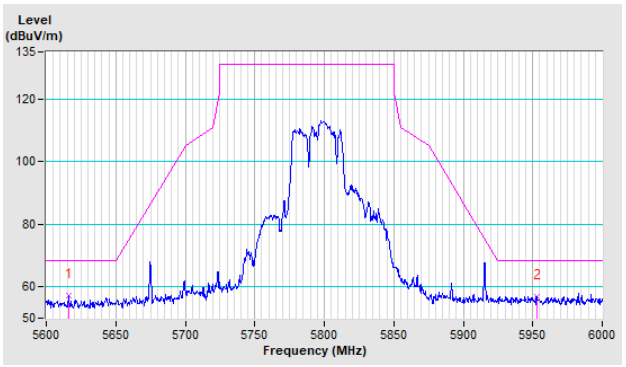
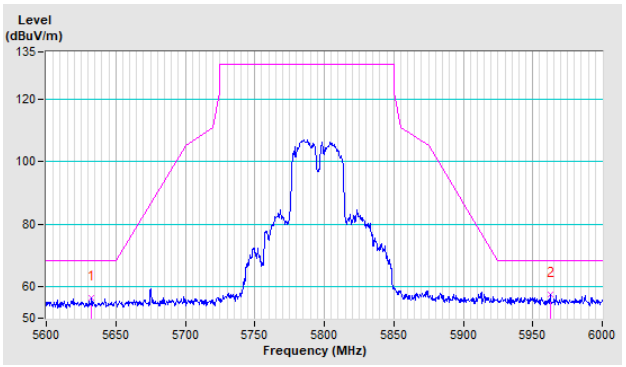
Horizontal	Vertical
	

802.11ac (VHT40)

CH 151 5755 MHz

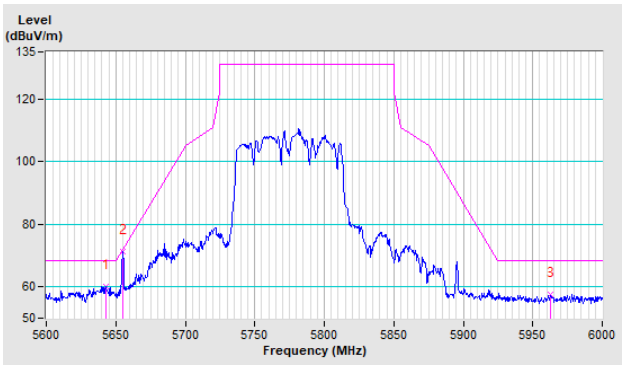
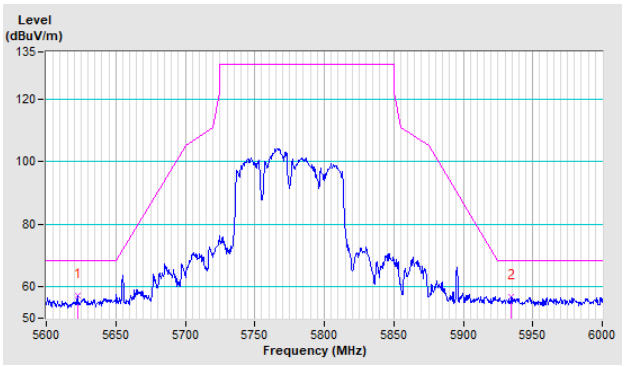
Horizontal	Vertical
	

CH 159 5795 MHz

Horizontal	Vertical
	

802.11ac (VHT80)

CH 155 5775 MHz

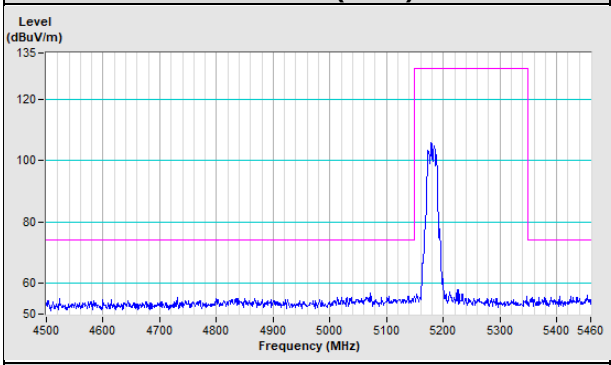
Horizontal	Vertical
	

Annex B- Band Edge Measurement

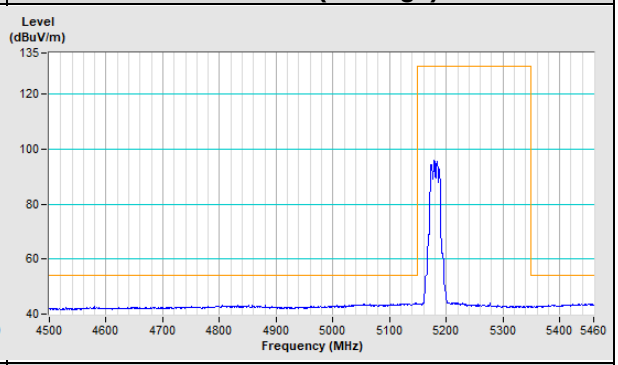
802.11a

802.11a Channel 36

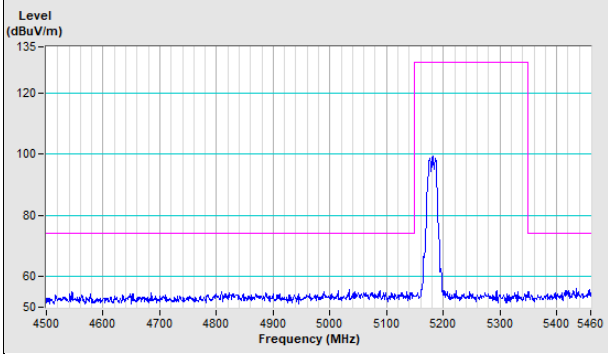
Horizontal (Peak)



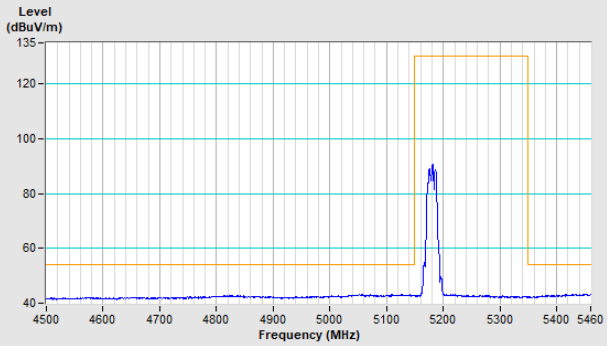
Horizontal (Average)



Vertical (Peak)

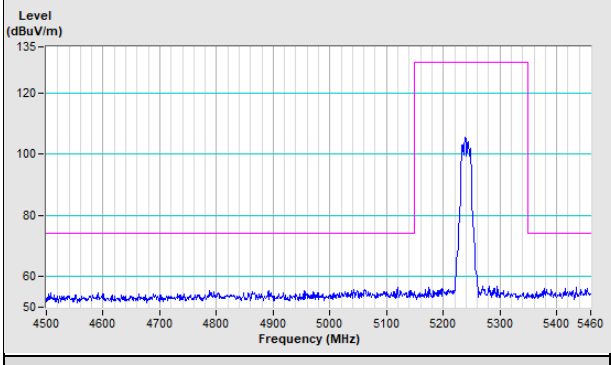


Vertical (Average)

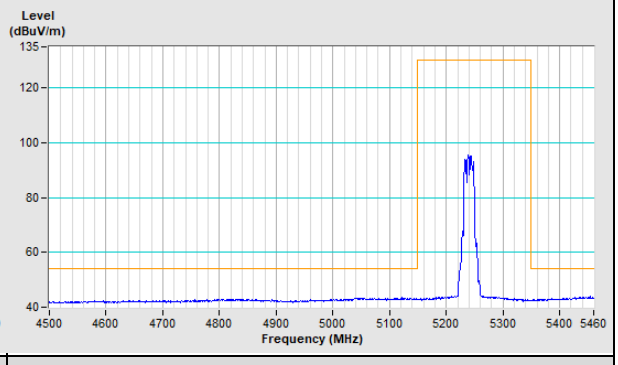


802.11a Channel 48

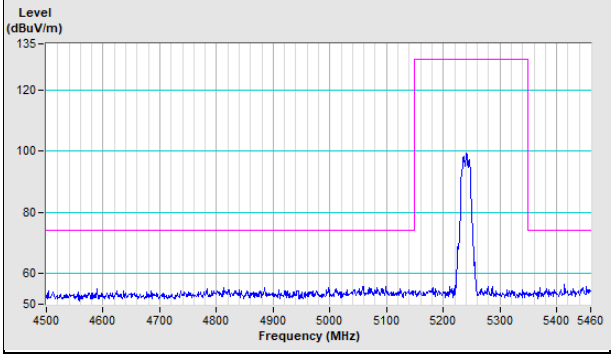
Horizontal (Peak)



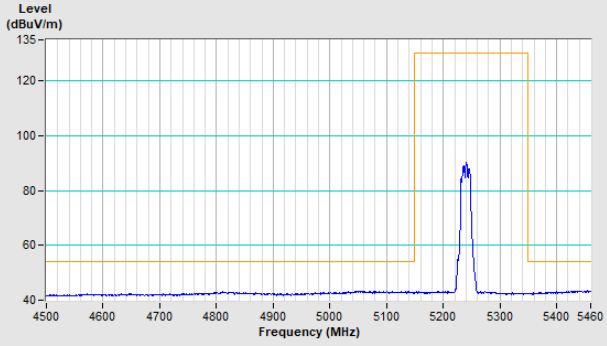
Horizontal (Average)

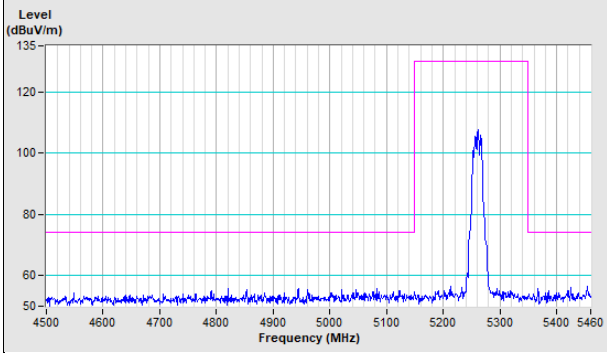
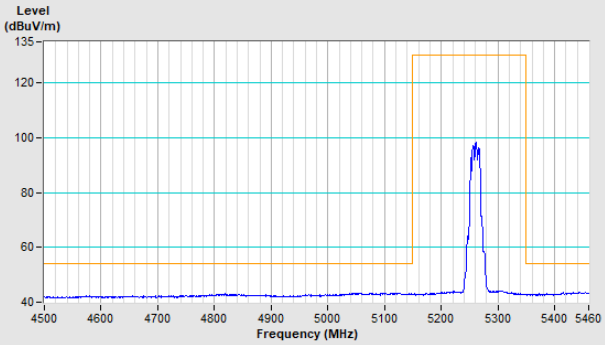
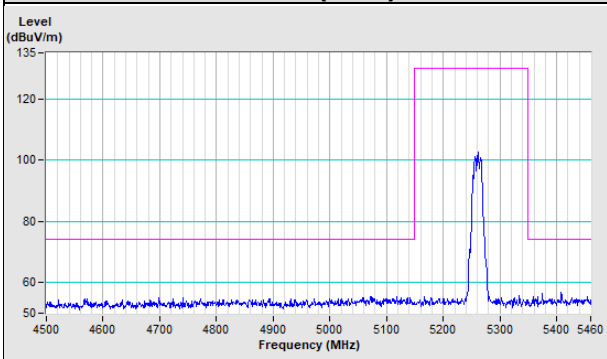
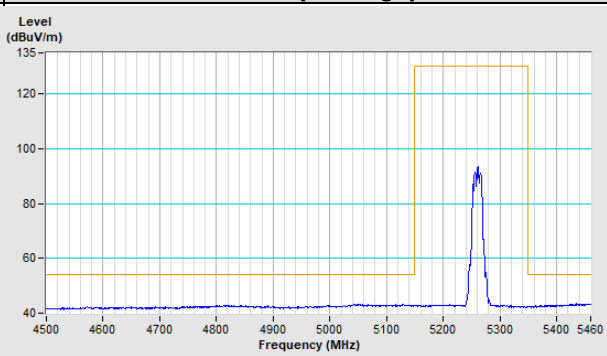
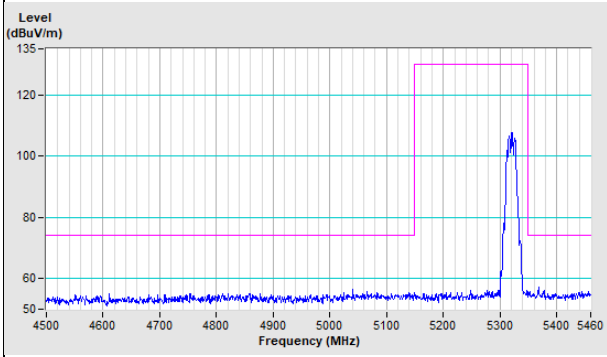
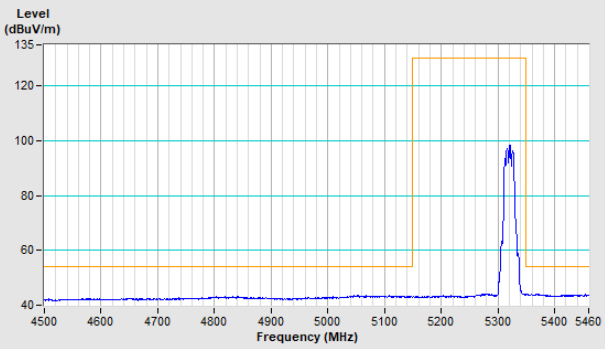
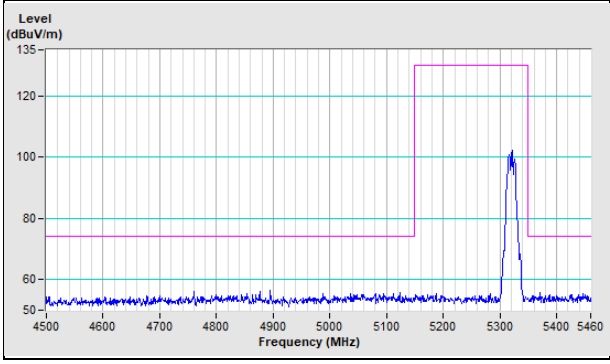
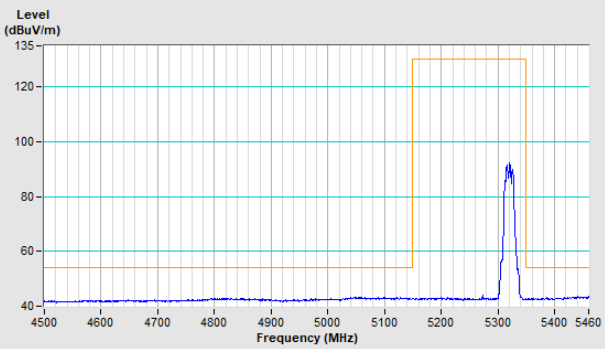


Vertical (Peak)



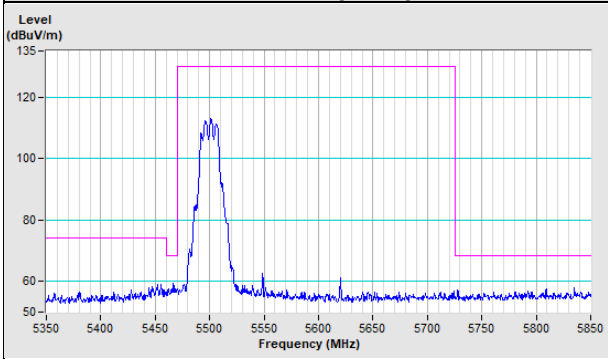
Vertical (Average)



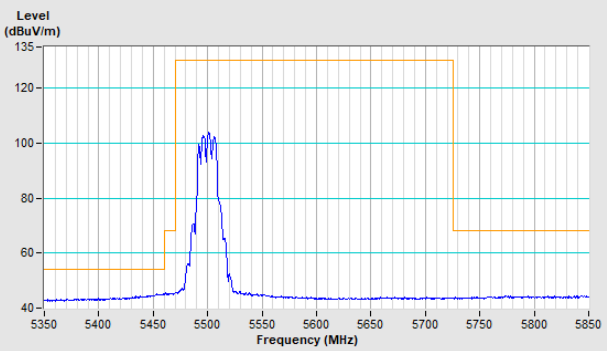
802.11a Channel 52	
Horizontal (Peak)	Horizontal (Average)
	
Vertical (Peak)	Vertical (Average)
	
802.11a Channel 64	
Horizontal (Peak)	Horizontal (Average)
	
Vertical (Peak)	Vertical (Average)
	

802.11a Channel 100

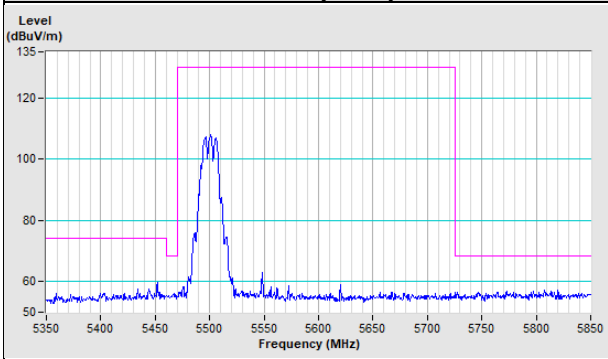
Horizontal (Peak)



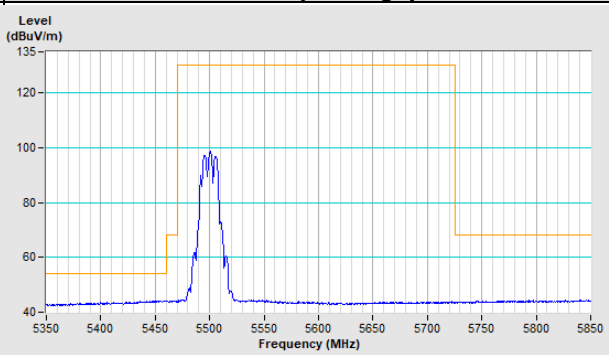
Horizontal (Average)



Vertical (Peak)

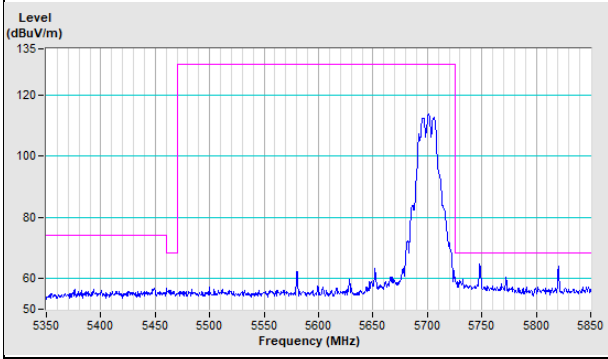


Vertical (Average)

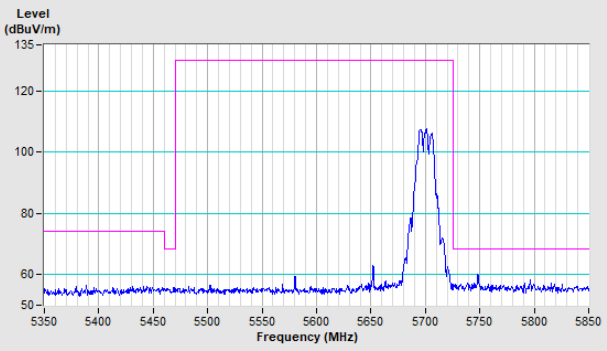


802.11a Channel 140

Horizontal (Peak)

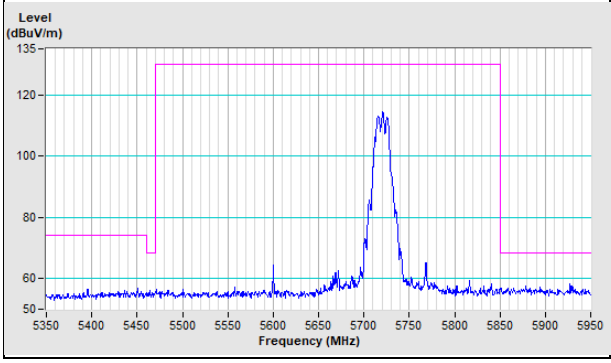


Vertical (Peak)

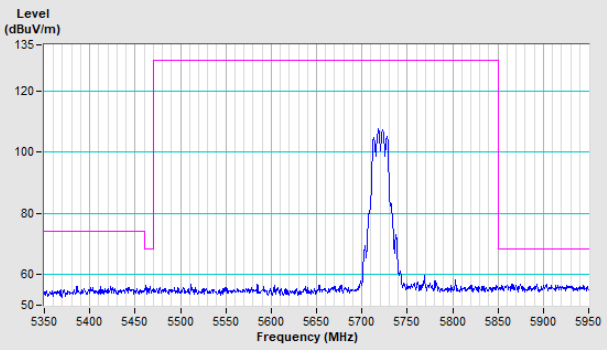


802.11a Channel 144

Horizontal (Peak)



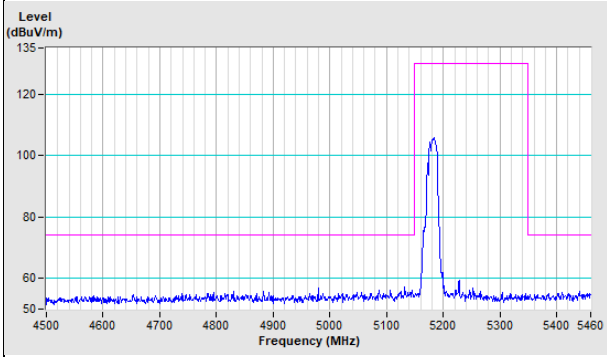
Vertical (Peak)



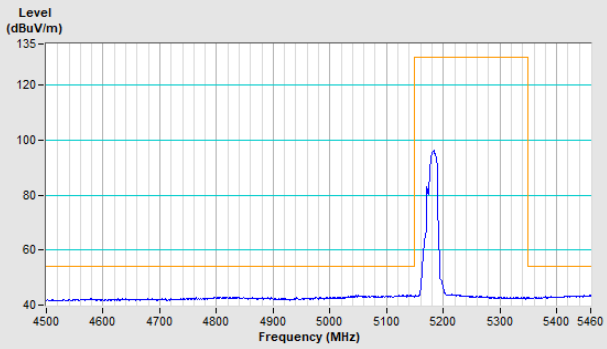
802.11ac (VHT20)

802.11ac (VHT20) Channel 36

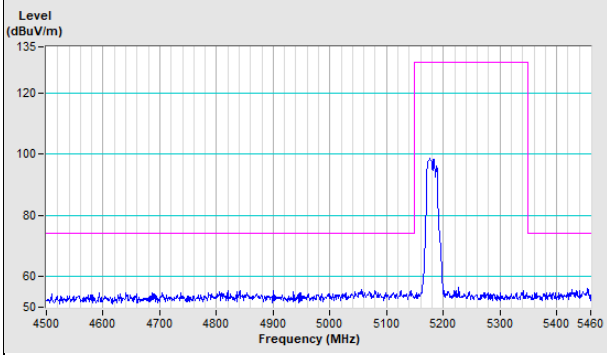
Horizontal (Peak)



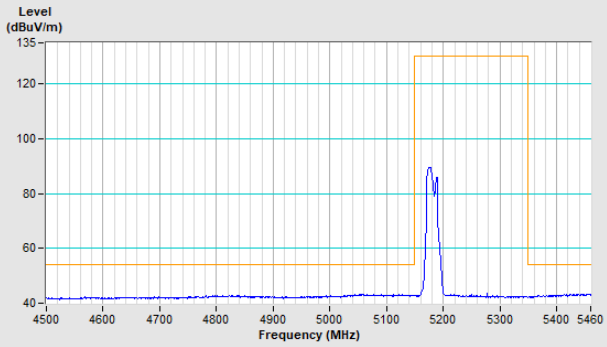
Horizontal (Average)



Vertical (Peak)

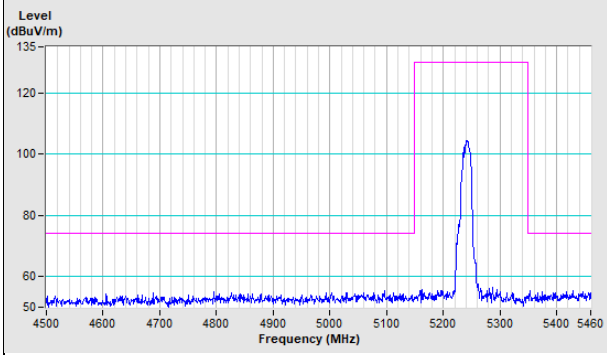


Vertical (Average)

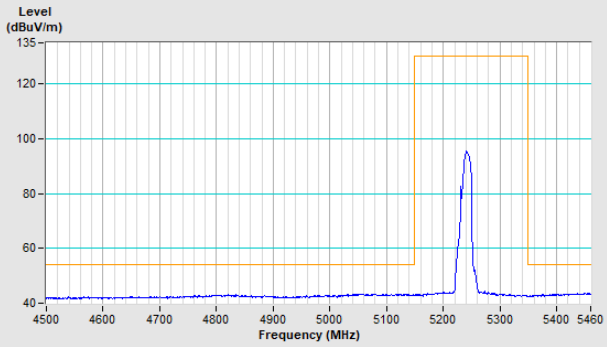


802.11ac (VHT20) Channel 48

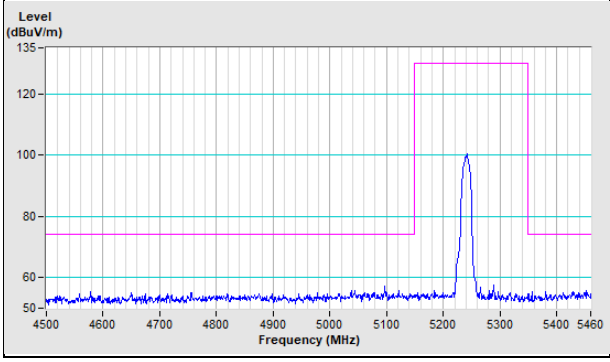
Horizontal (Peak)



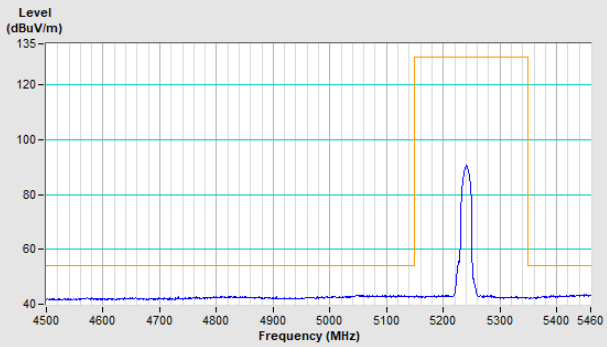
Horizontal (Average)



Vertical (Peak)

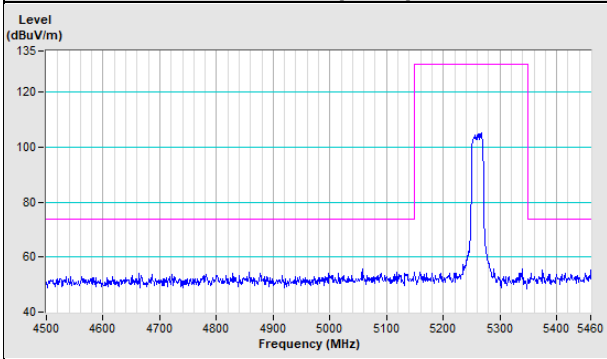


Vertical (Average)

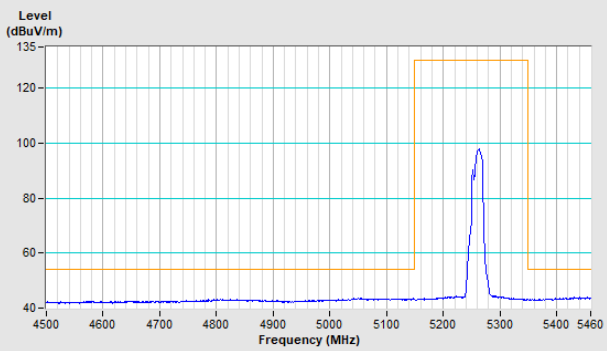


802.11ac (VHT20) Channel 52

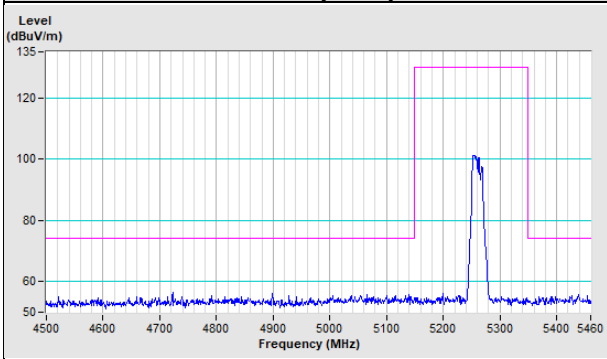
Horizontal (Peak)



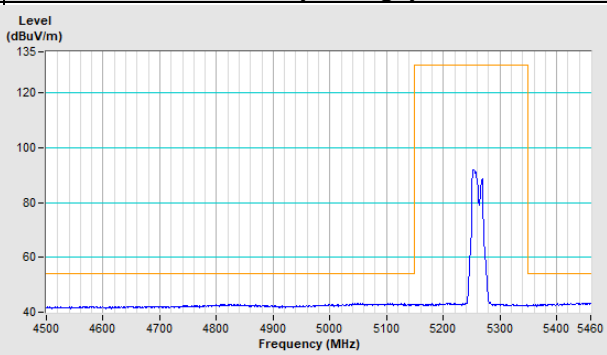
Horizontal (Average)



Vertical (Peak)

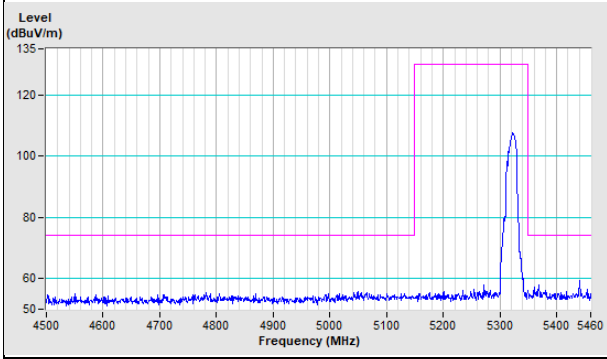


Vertical (Average)

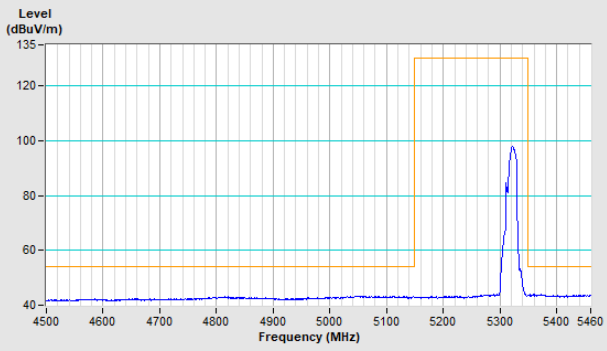


802.11ac (VHT20) Channel 64

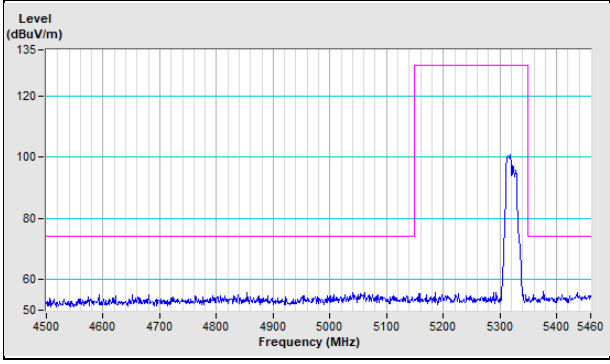
Horizontal (Peak)



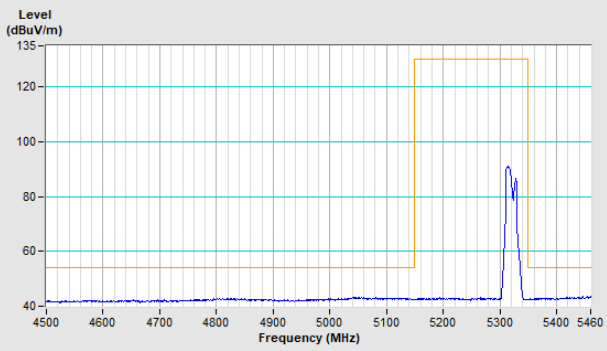
Horizontal (Average)



Vertical (Peak)

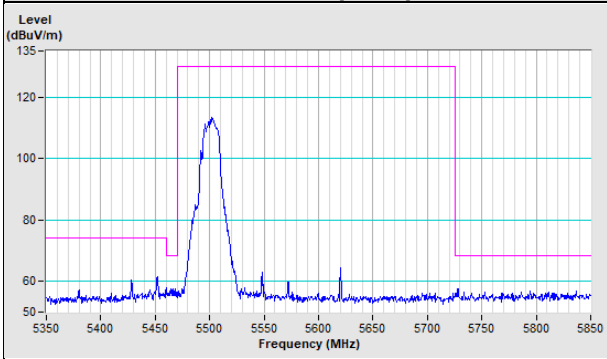


Vertical (Average)

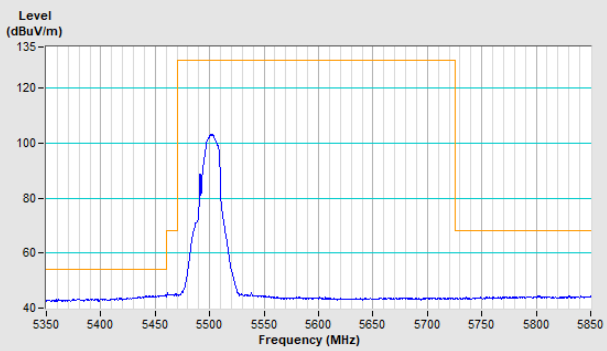


802.11ac (VHT20) Channel 100

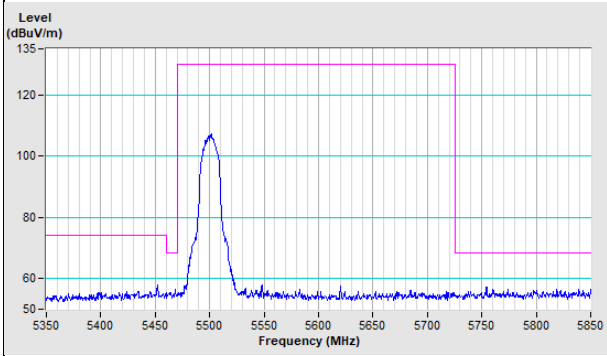
Horizontal (Peak)



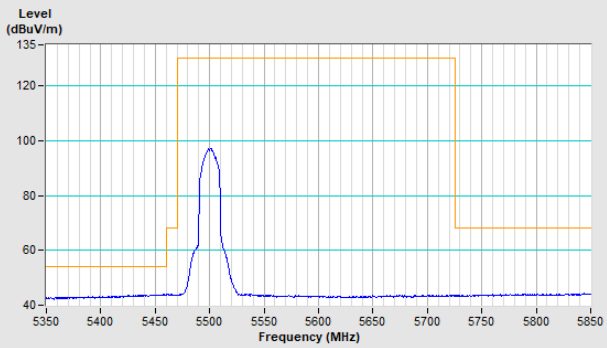
Horizontal (Average)



Vertical (Peak)

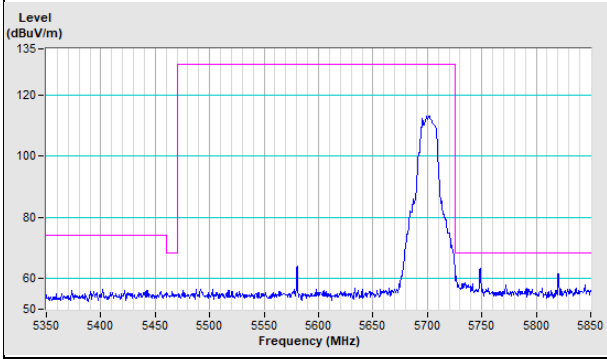


Vertical (Average)

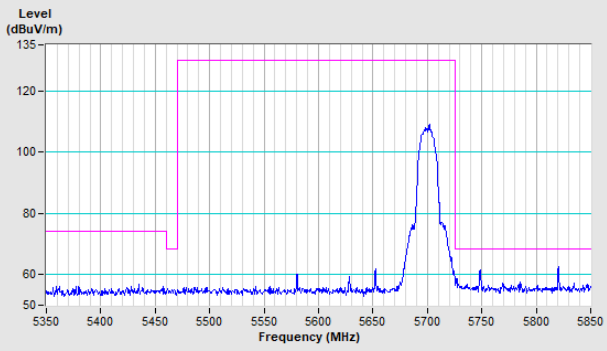


802.11ac (VHT20) Channel 140

Horizontal (Peak)

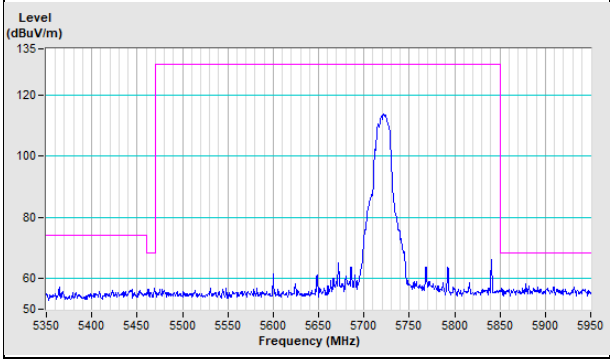


Vertical (Peak)

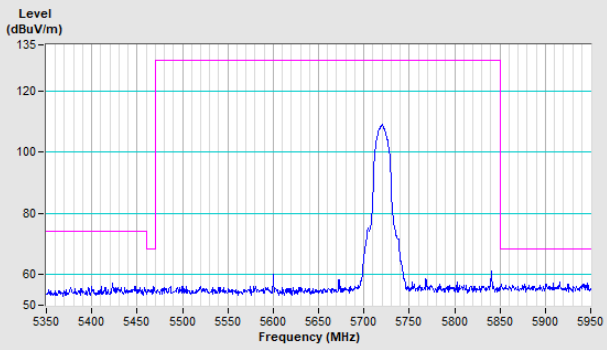


802.11ac (VHT20) Channel 144

Horizontal (Peak)



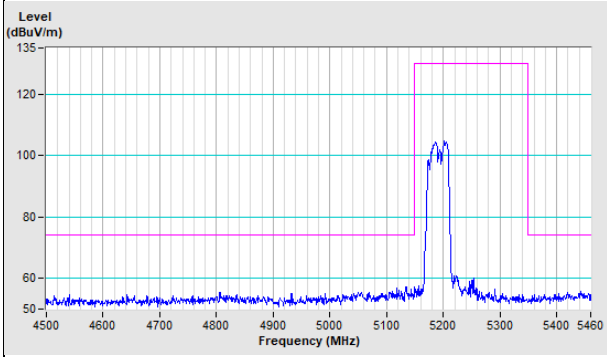
Vertical (Peak)



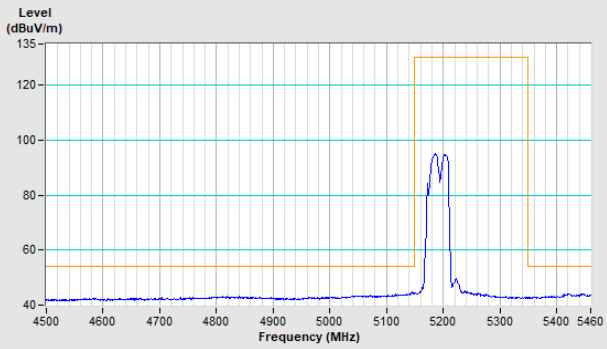
802.11ac (VHT40)

802.11ac (VHT40) Channel 38

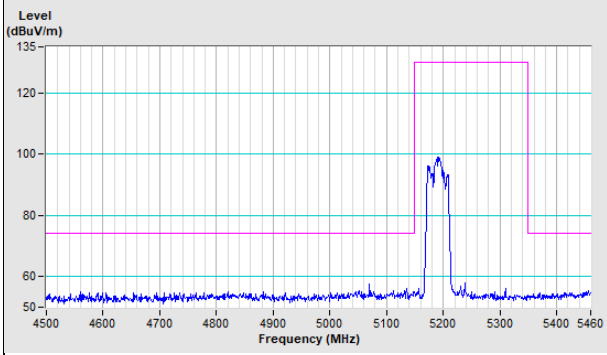
Horizontal (Peak)



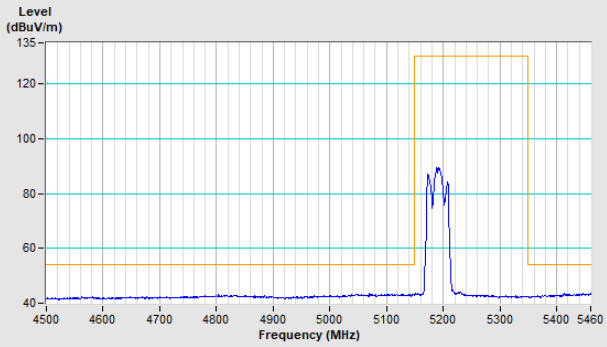
Horizontal (Average)



Vertical (Peak)

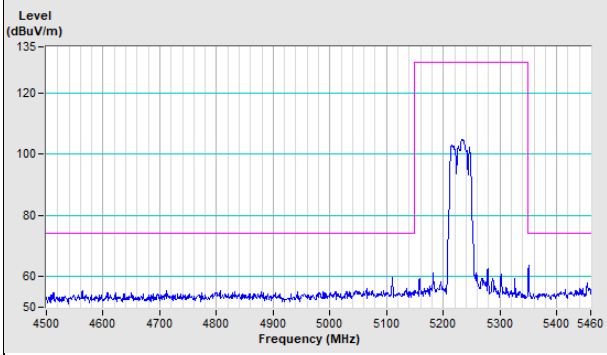


Vertical (Average)

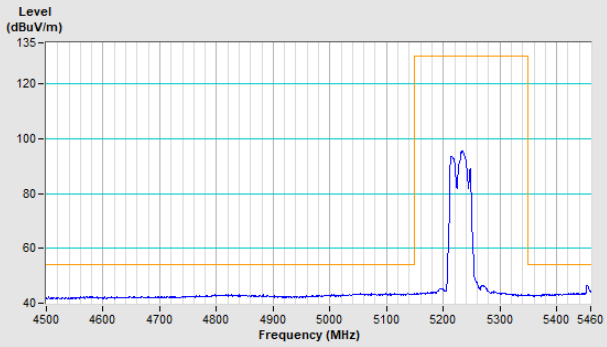


802.11ac (VHT40) Channel 46

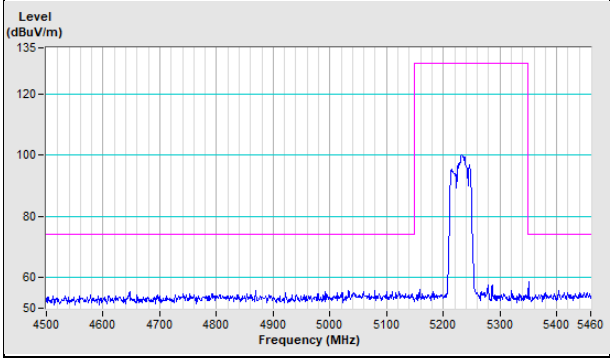
Horizontal (Peak)



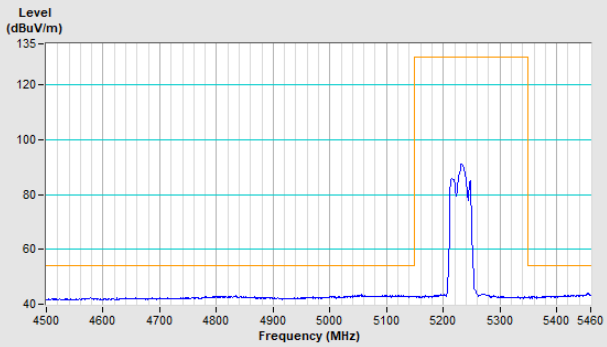
Horizontal (Average)



Vertical (Peak)

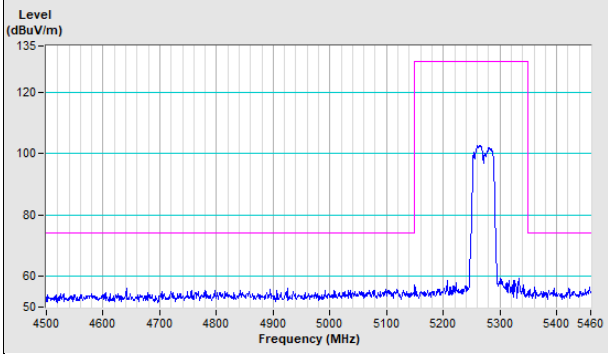


Vertical (Average)

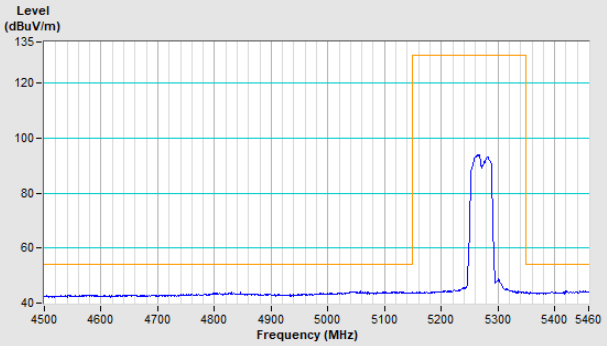


802.11ac (VHT40) Channel 46

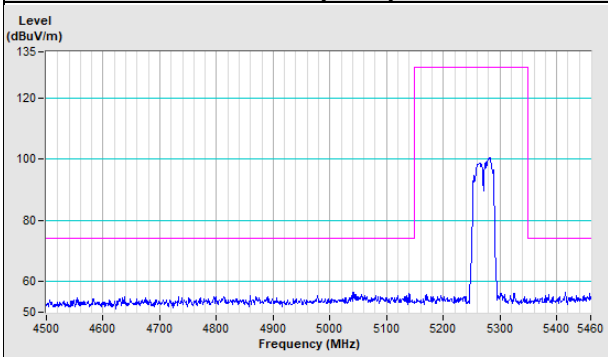
Horizontal (Peak)



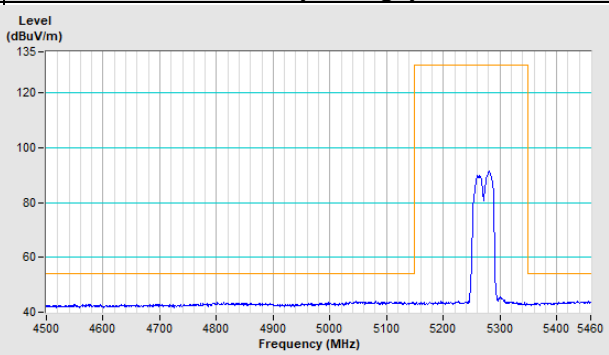
Horizontal (Average)



Vertical (Peak)

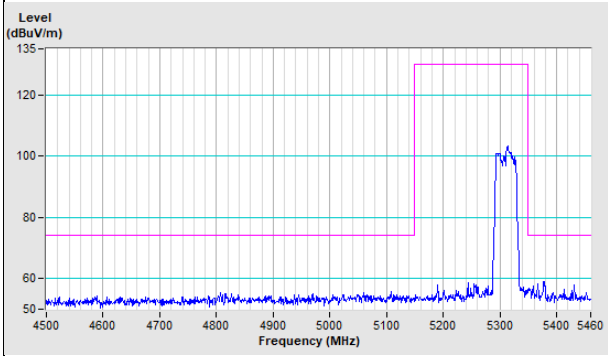


Vertical (Average)

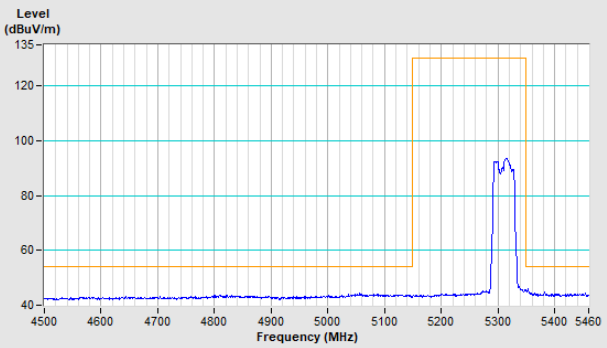


802.11ac (VHT40) Channel 62

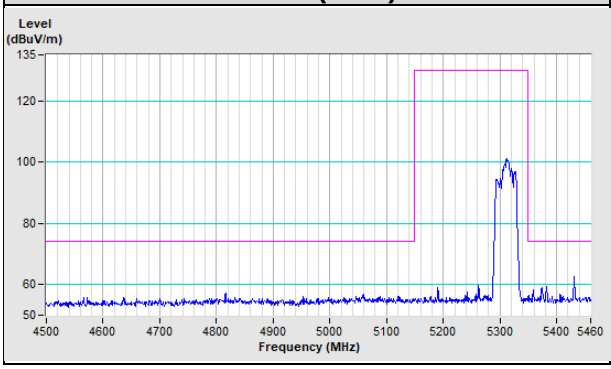
Horizontal (Peak)



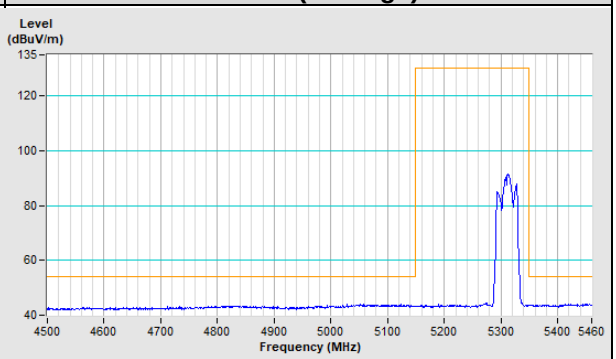
Horizontal (Average)

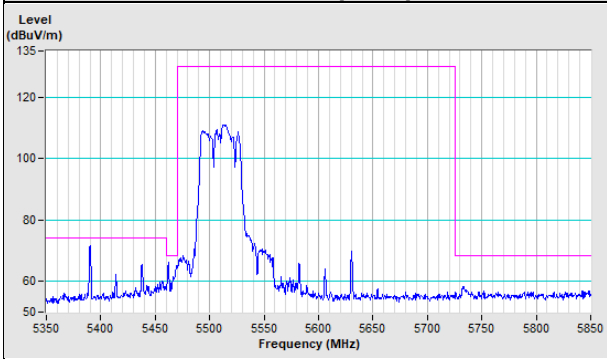
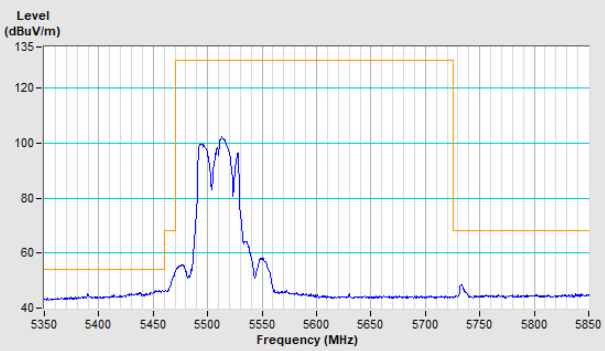
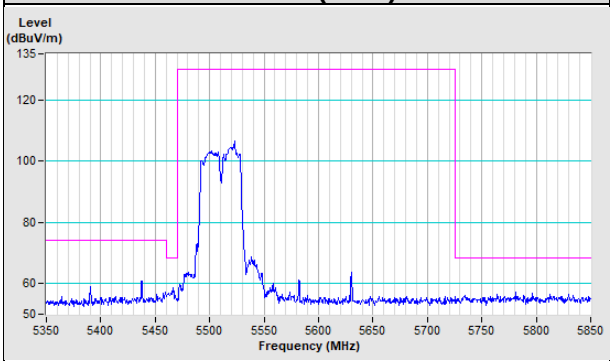
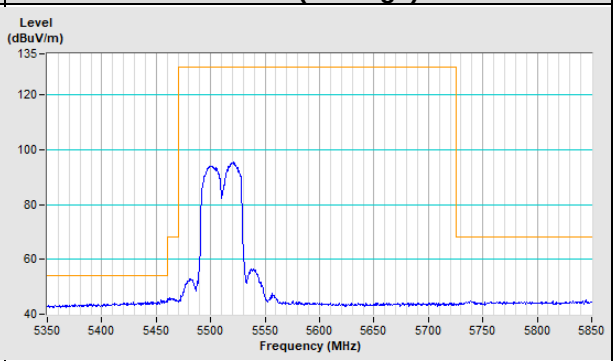
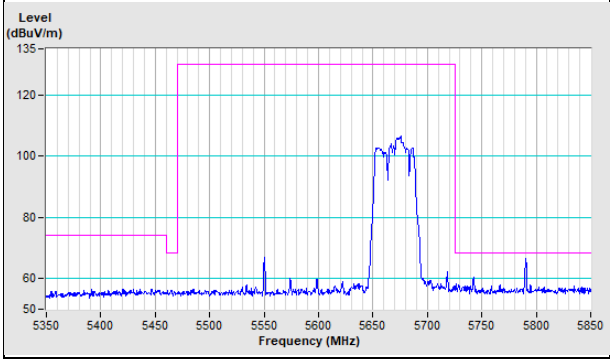
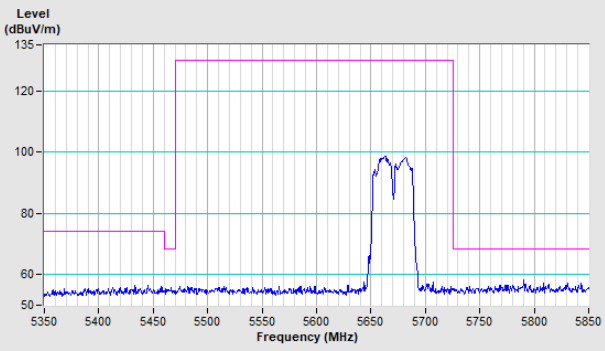


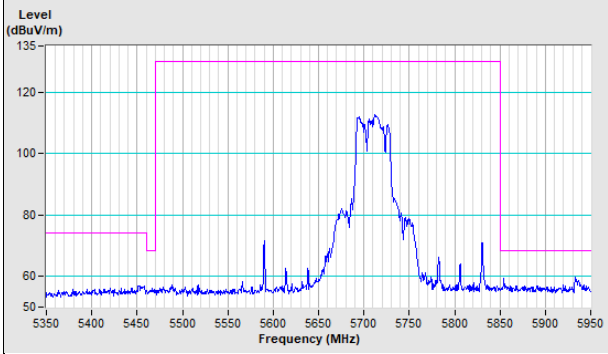
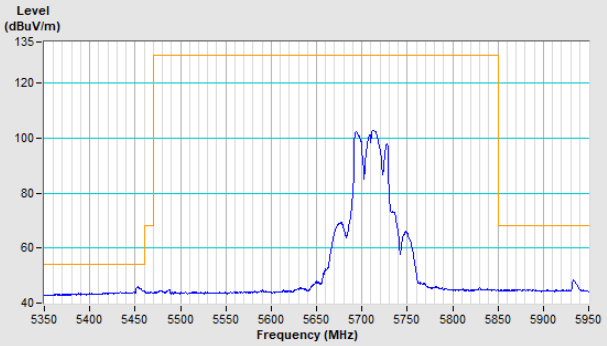
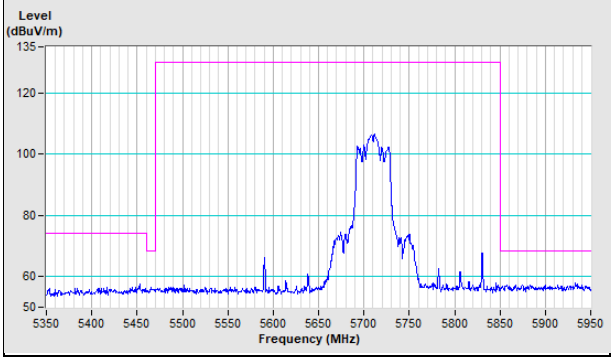
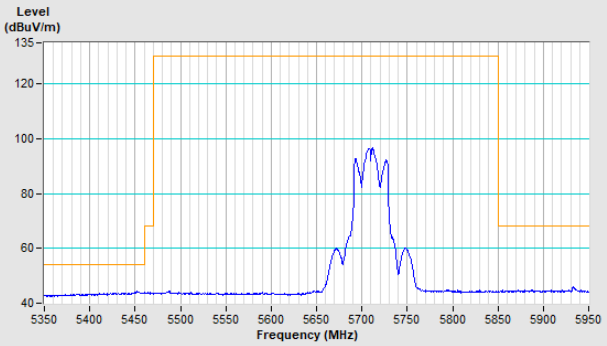
Vertical (Peak)



Vertical (Average)



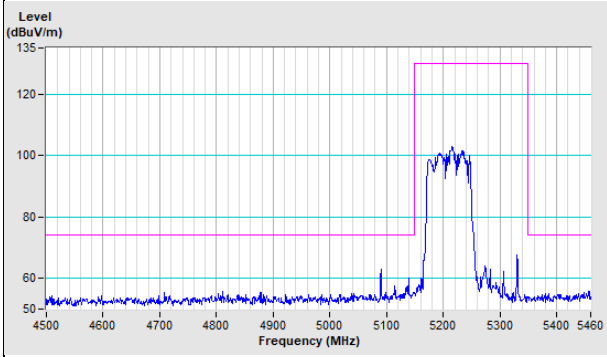
802.11ac (VHT40) Channel 102	
Horizontal (Peak)	Horizontal (Average)
	
Vertical (Peak)	Vertical (Average)
	
802.11ac (VHT40) Channel 134	
Horizontal (Peak)	Vertical (Peak)
	

802.11ac (VHT40) Channel 142	
Horizontal (Peak)	**Horizontal (Average)**
	
Vertical (Peak)	**Vertical (Average)**
	

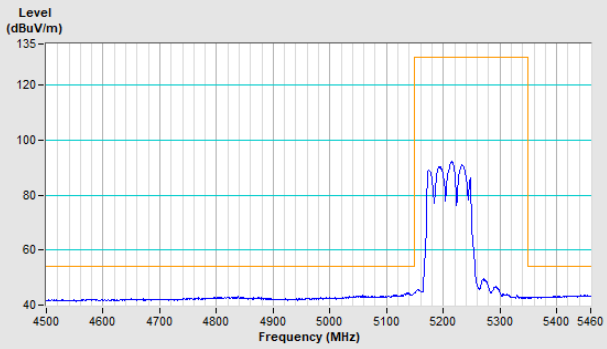
802.11ac (VHT80)

802.11ac (VHT80) Channel 42

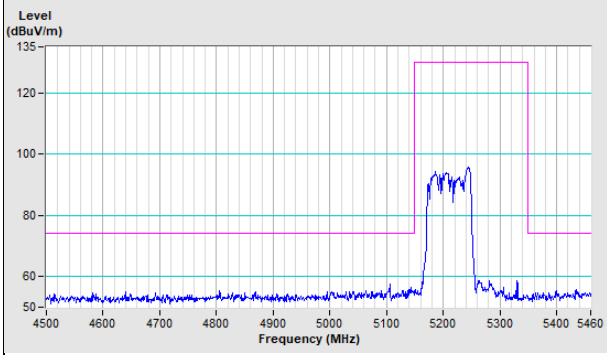
Horizontal (Peak)



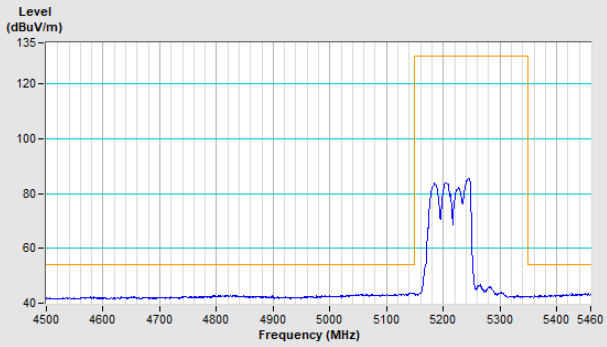
Horizontal (Average)



Vertical (Peak)

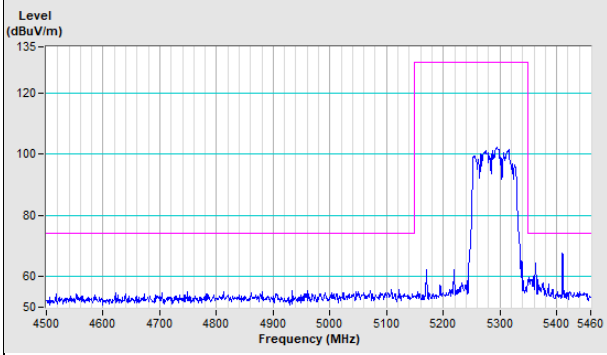


Vertical (Average)

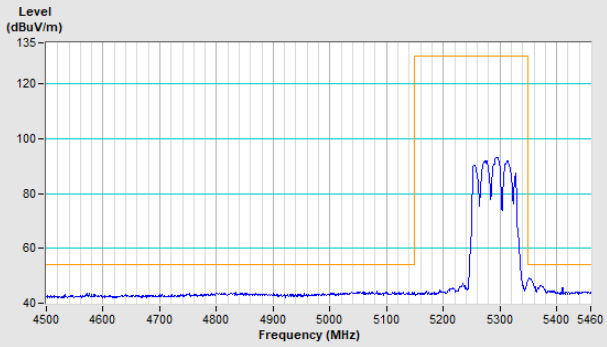


802.11ac (VHT80) Channel 58

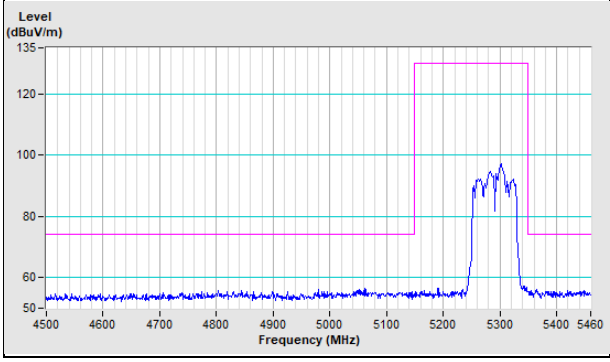
Horizontal (Peak)



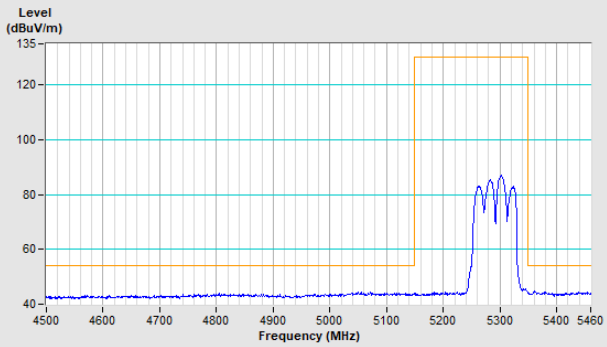
Horizontal (Average)

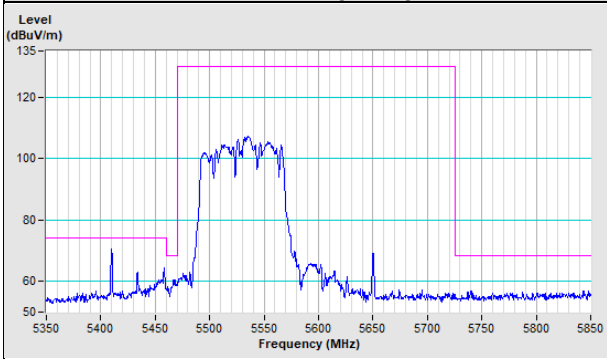
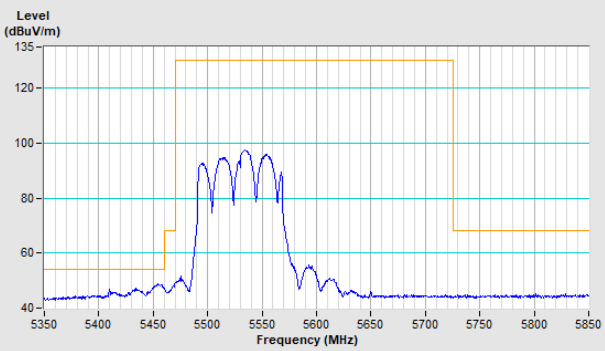
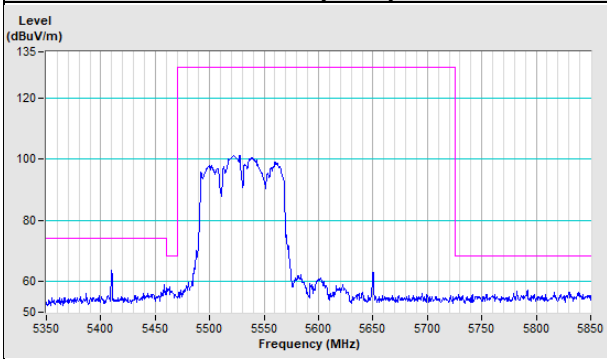
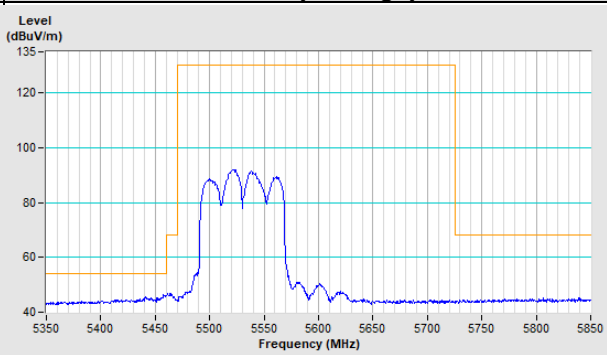
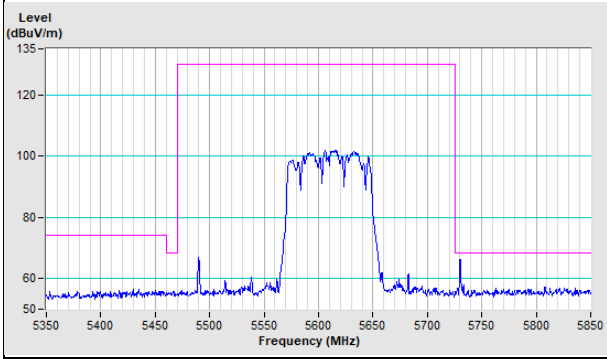
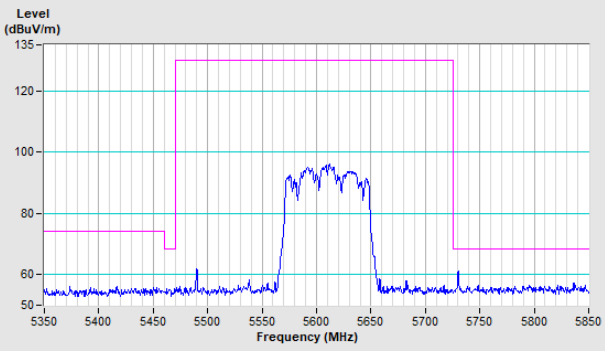
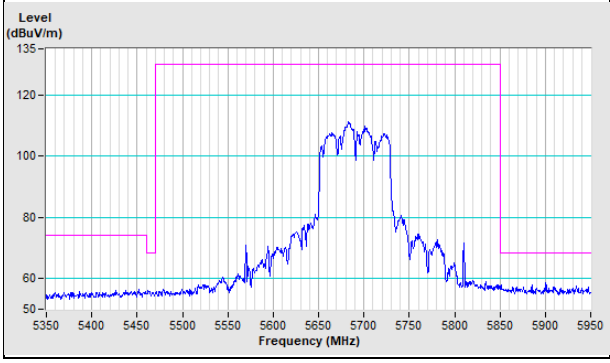
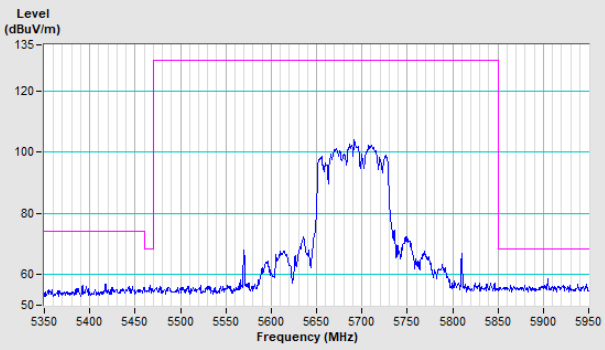


Vertical (Peak)



Vertical (Average)



802.11ac (VHT80) Channel 106	
Horizontal (Peak)	Horizontal (Average)
	
Vertical (Peak)	Vertical (Average)
	
802.11ac (VHT80) Channel 122	
Horizontal (Peak)	Vertical (Peak)
	
802.11ac (VHT80) Channel 138	
Horizontal (Peak)	Vertical (Peak)
	

Appendix – Information of the Testing Laboratories

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

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

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