



# RF TEST REPORT

**Report No.:** SET2019-16479

**Product Name:** LTE/WCDMA/GSM (GPRS) Multi-Mode Digital Mobile Phone

**FCC ID:** SRQ-ZTE8000

**Model No. :** ZTE 8000

**Marketing Name:** ZTE Blade V2020 Vita

**Applicant:** ZTE Corporation.

**Address:** ZTE Plaza, Keji Road South, Shenzhen, China

**Dates of Testing:** 12/03/2019 —01/03/2020

**Issued by:** CCIC Southern Testing Co., Ltd.

**Lab Location:** Electronic Testing Building, No. 43 Shahe Road, Xili Street,  
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## Test Report

**Product Name** ..... : LTE/WCDMA/GSM (GPRS) Multi-Mode Digital Mobile  
Phone

**Brand Name** ..... : ZTE

**Trade Name** ..... : ZTE

**Applicant** ..... : ZTE Corporation.

**Applicant Address** ..... : ZTE Plaza, Keji Road South, Shenzhen, China

**Manufacturer** ..... : ZTE Corporation.

**Manufacturer Address** ..... : ZTE Plaza, Keji Road South, Shenzhen, China

**Test Standards** ..... : 47 CFR Part 15 Subpart E 15.407

**Test Result** ..... : PASS

**Tested by** ..... : *Vincent*  
2020.01.03

\_\_\_\_\_  
Vincent, Test Engineer

**Reviewed by** ..... : *Chris You*  
2020.01.03

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Chris You, Senior Engineer

**Approved by** ..... : *Shuangwen Zhang*  
2020.01.03

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Shuangwen Zhang, Manager



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Change History		
Issue	Date	Reason for change
1.0	2020.01.03	First edition

## 1. General Information

### 1.1. EUT Description

EUT Type	LTE/WCDMA/GSM(GPRS) Multi-Mode Digital Mobile Phone
EUT supports Radios application	WLAN5.0GHz 802.11a/n (HT20/40)/ac(VHT20/40/80)
Hardware Version	uqaA
Software Version	ATT_MX_ZTE_8000_V1.0
Product Type	Indoor
Modulation Type	CCK, DQPSK, DBPSK for DSSS 256QAM, 64QAM, 16QAM, QPSK, BPSK for OFDM 256QAM for OFDM in 11ac mode only
Transfer Rate	802.11a: 54/48/36/24/18/12/9/6 Mbps 802.11n : up to 135 Mbps 802.11ac: up to V9
Frequency Range	Band UNII-1: 5150 ~ 5250MHz Band UNII-3: 5725 ~ 5850MHz
Channel Bandwidth	802.11a: 20MHz, 802.11n: 20MHz/40MHz 802.11ac: 20MHz/40MHz/80MHz
Channel Number	5150 MHz ~ 5250MHz/5725 MHz ~ 5850MHz:4/5 for 802.11a, 802.11n(HT20), 802.11ac(VHT20), 2 for 802.11n (HT40), 802.11ac(VHT40), 1 for 802.11ac (VHT80)
Antenna Type	Internal
Output Power (Max.)	Band UNII-1: 12.68 dBm Band UNII-3: 12.13dBm

## 1.2. Test Standards and Results

The objective of the report is to perform testing according to 47 CFR Part 15 Subpart E for the EUT FCC Certification:

No.	Identity	Document Title
1	47 CFR Part 15 Subpart E § 15.407	Radio Frequency Devices
2	KDB Publication 789033D02 V02r01	Guidelines for Compliance Testing of Unlicensed National Information Infrastructure (U-NII) Devices Part 15, Subpart E
6	ANSI C63.10-2013	American National Standard for Testing Unlicensed Wireless Devices

Test detailed items/section required by FCC rules, and results are as below:

No.	FCC Rule	Description	Result
1	15.203	Antenna Requirement	PASS
2	15.407(a)	Maximum Conducted Output Power	PASS
3	15.407(a)	Emission Bandwidth (26 dB Bandwidth)	PASS
	15.407(e)	Emission Bandwidth (6 dB Bandwidth)	PASS
4	15.407(a)	Power spectral density (PSD)	PASS
5	15.207	AC Power Line Conducted Emission	PASS
6	15.209 15.407(b)	Radiated Band Edges and Spurious Emission	PASS
7	15.407(g)	Frequency Stability	PASS

### 1.3. Channel List

#### Operated band in 5150 MHz ~ 5250MHz

4 channels are provided for 802.11a, 802.11n-HT20, and 802.11ac-VHT20

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

2 channels are provided for 802.11n-HT40 and 802.11ac-VHT40

Channel	Frequency	Channel	Frequency
38	5190 MHz	46	5230 MHz

1 channel are provided for 802.11ac-VHT80

Channel	Frequency	Channel	Frequency
42	5210 MHz	/	/

#### Operated band in 5725 MHz ~ 5850MHz

5 channels are provided for 802.11a

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

2 channels are provided for 802.11n-HT40 and 802.11ac-VHT40

Channel	Frequency	Channel	Frequency
151	5755 MHz	159	5795 MHz

1 channel are provided for 802.11ac-VHT80

Channel	Frequency	Channel	Frequency
155	5775 MHz	/	/

## 1.4. Test environment and mode

Operating Environment	
Temperature	24°C
Humidity	57 % RH
Atmospheric Pressure	1010 mbar
Test mode:	
Continuously transmitting mode	Keeps the EUT in 100% duty cycle transmitting with modulation in SISO, duty cycle factor is not required.

We have verified the construction and function in typical operation. All the test modes were carried out with the EUT in transmitting operation, which was shown in this test report and defined as follows:

For Frequency band 5150 ~ 5250 MHz			
Mode	Modulation scheme / bandwidth		
	5180 MHz	5220 MHz	5240 MHz
802.11a	6 Mbps	6 Mbps	6 Mbps
802.11n/ac – HT20	MCS 0	MCS 0	MCS 0
Frequency	5190 MHz		5230 MHz
802.11n/ac – HT40	MCS 0		MCS 0
Frequency	5210 MHz		
802.11ac – VHT80	MCS 0		
For Frequency band 5725 ~ 5850 MHz			
Mode	Modulation scheme / bandwidth		
	5745 MHz	5785 MHz	5825 MHz
802.11a	6 Mbps	6 Mbps	6 Mbps
802.11n/ac – HT20	MCS 0	MCS 0	MCS 0
Frequency	5755 MHz		5795 MHz
802.11n/ac – HT40	MCS 0		MCS 0
Frequency	5775 MHz		
802.11ac – VHT80	MCS 0		

To investigate the maximum EMI emission characteristics generated from EUT, the test system was pre-scanning tested based on the consideration of following EUT operation mode or test configuration mode which possibly have effect on EMI emission level. Each of these EUT operation modes or test configuration modes mentioned above was evaluated respectively.



Pretest Test Mode	Description
Mode 1	TX A Mode / CH36, CH44, CH48 (UNII-1)
Mode 2	TX N20 Mode / CH36, CH44, CH48 (UNII-1)
Mode 3	TX N40 Mode / CH38, CH46 (UNII-1)
Mode 4	TX AC20 Mode / CH36, CH44, CH48 (UNII-1)
Mode 5	TX AC40 Mode / CH38, CH46 (UNII-1)
Mode 6	TX AC80 Mode / CH42 (UNII-1)
Mode 7	TX A Mode / CH149, CH157, CH165 (UNII-3)
Mode 8	TX N20 Mode / CH149, CH157, CH165 (UNII-3)
Mode 9	TX N40 Mode / CH151, CH159 (UNII-3)
Mode 10	TX AC20 Mode / CH149, CH157, CH165 (UNII-3)
Mode 11	TX AC40 Mode / CH151, CH159 (UNII-3)
Mode 12	TX AC80 Mode / CH155 (UNII-3)
Mode 13	TX Mode

The EUT system operated these modes were found to be the worst case during the pre-scanning test as following:

For Conducted Test	
Final Test Mode	Description
Mode 13	TX Mode
For Radiated Test	
Final Test Mode	Description
Mode 1	TX A Mode / CH36, CH44, CH48 (UNII-1)
Mode 2	TX AC20 Mode / CH36, CH44, CH48 (UNII-1)
Mode 3	TX AC40 Mode / CH38, CH46 (UNII-1)
Mode 4	TX AC80 Mode / CH42 (UNII-1)
Mode 5	TX A Mode / CH149, CH157, CH165 (UNII-3)
Mode 6	TX AC20 Mode / CH149, CH157, CH165 (UNII-3)
Mode 7	TX AC40 Mode / CH151, CH159 (UNII-3)
Mode 8	TX AC80 Mode / CH155 (UNII-3)

## 1.5. Power level setup in software

Power level setup in software for 5G wifi			
UNII-1			
Frequency (MHz)	5180	5220	5240
A mode	14	14	14
Frequency (MHz)	5180	5220	5240
N20 mode	13	13	13
Frequency (MHz)	5190	5230	\
N40 mode	13	13	\
Frequency (MHz)	5180	5220	5240
AC20 mode	13	13	13
Frequency (MHz)	5190	5230	\
AC40 mode	13	13	\
Frequency (MHz)	5210	\	\
AC80 mode	13	\	\
Power level setup in software for 5G wifi			
UNII-3			
Frequency (MHz)	5745	5785	5825
A mode	14	14	14
Frequency (MHz)	5745	5785	5825
N20 mode	13	13	13
Frequency (MHz)	5755	5795	\
N40 mode	13	13	\
Frequency (MHz)	5745	5785	5825
AC20 mode	13	13	13
Frequency (MHz)	5755	5795	\
AC40 mode	13	13	\
Frequency (MHz)	5775	\	\
AC80 mode	13	\	\



## **1.6. Laboratory Facilities**

### **FCC-Registration No.: CN5031**

CCIC Southern Testing Co., Ltd. EMC Laboratory has been registered and fully described in a report filed with the FCC (Federal Communications Commission). The acceptance letter from the FCC is maintained in our files. Designation Number: CN5031, valid time is until December 31, 2020.

### **ISED Registration: 11185A-1**

CCIC Southern Testing Co., Ltd. EMC Laboratory has been registered by Certification and Engineering Bureau of Industry Canada for the performance of radiated measurements with Registration No. 11185A-1 on Aug. 04, 2016, valid time is until Dec. 31, 2020.

### **NVLAP Lab Code: 201008-0**

CCIC-SET is a third party testing organization accredited by NVLAP according to ISO/IEC 17025. The accreditation certificate number is 201008-0.

## 2. 47 CFR Part 15E Requirements

### 2.1. Antenna requirement

#### 2.1.1. Applicable Standard

According to FCC 15.203, an intentional radiator shall be designed to ensure that no antenna other than that furnished by the responsible party shall be used with the device. The use of a permanently attached antenna or of an antenna that uses a unique coupling to the intentional radiator shall be considered sufficient to comply with the provisions of this section.

And according to FCC 47 CFR Section 15.407(E), if transmitting antennas of directional gain greater than 6dBi are used, the power shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6dBi.

#### 2.1.2. Antenna Information

Antenna Type	Internal
Antenna Gain	0.68dBi(Maximum)

#### 2.1.3. Result: comply

The EUT has a permanently and irreplaceable attached antenna. Please refer to the EUT internal photos.

## 2.2. Output Power

### 2.2.1. Limit of Output Power

#### FCC 15.407(a)

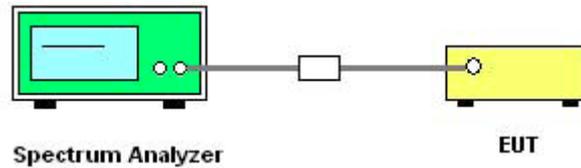
The maximum conducted output power should not exceed:

Band	EUT Category	Limit
U-NII-1	<input type="checkbox"/> Outdoor Access Point	1 Watt (30 dBm) (Max. e.i.r.p $\leq$ 125mW(21dBm) at any elevation angle above 30 degrees as measured from the horizon)
	<input type="checkbox"/> Fixed point-to-point Access device	1 Watt (30 dBm)
	<input type="checkbox"/> Indoor Access Point	1 Watt (30 dBm)
	<input checked="" type="checkbox"/> Mobile and portable client device	250mW (24 dBm)
U-NII-2A	<input type="checkbox"/>	250mW (24 dBm) or 11dBm+10logB* Whichever is less.
U-NII-2C	<input type="checkbox"/>	250mW (24 dBm) or 11dBm+10logB* Whichever is less.
U-NII-3	<input checked="" type="checkbox"/>	1 Watt (30 dBm)
Note: B* is the 26 dB emission bandwidth in MHz.		

### 2.2.2. Measuring Instruments

The measuring equipment is listed in the section 3 of this test report.

### 2.2.3. Test Setup



### 2.2.4. Test Procedures

1. The testing follows the Measurement Procedure of FCC KDB 789033 D02 General UNII Test Procedures New Rules v02r01 Method SA-1
2. The RF output of EUT was connected to spectrum analyzer by RF cable and attenuator. The path loss was compensated to the results for each measurement.
3. Set to the maximum power setting and enable the EUT transmit continuously.
4. Set RBW=1MHz, VBW=3MHz, Sweep time=Auto, Detector=average (RMS), Compute power by integrating the spectrum across the 99%OBW.
5. Measure the conducted output power and record the results in the test report.



### **2.2.5. Test Result**

Please refer to APPENDIX A for detail

## 2.3. Emission Bandwidth

### 2.3.1. Limit of Bandwidth

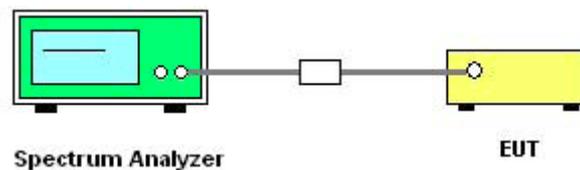
There is no limit bandwidth for band U-NII-1, U-NII-2A and U-NII-2C.

The minimum of 6dB bandwidth measurement is 0.5 MHz for U-NII-3.

### 2.3.2. Measuring Instruments

The measuring equipment is listed in the section 3 of this test report.

### 2.3.3. Test Setup



### 2.3.4. Test Procedures

1. The testing follows the Measurement Procedure of FCC KDB 789033 D02 General UNII Test Procedures New Rules v02r01.

2. The RF output of EUT was connected to the spectrum analyzer by RF cable and attenuator. The path loss was compensated to the results for each measurement.

3. Set to the maximum power setting and enable the EUT transmit continuously.

4. For 26dB bandwidth Measurement, the spectrum analyzer's resolution bandwidth (RBW) = approximately 1%EBW, VBW  $\geq$  3RBW, Detector = Peak, Trace mode = max hold  
Span > 26 dB bandwidth and Sweep time = auto

5. Use the spectrum analyzer N dB down function to find the 26dB bandwidth.

6. For 6 Bandwidth Measurement, the spectrum analyzer's resolution bandwidth (RBW) = 100kHz  
VBW = 300 kHz, Detector = Peak, Trace mode = max hold

7. Use the spectrum analyzer N dB down function to find the 6dB bandwidth

8. Measure and record the worst results in the test report.



### **2.3.5. Test Results Bandwidth**

Please refer to APPENDIX A for detail

## 2.4. Power spectral density (PSD)

### 2.4.1. Limit of Power Spectral Density

FCC 15.407(a)

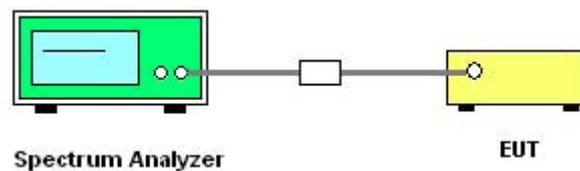
The maximum power spectral density should not exceed:

Band	EUT Category	Limit
U-NII-1	<input type="checkbox"/> Access Point (Master device)	17 dBm/MHz
	<input type="checkbox"/> Fixed point-to-point Access device	
	<input checked="" type="checkbox"/> Mobile and portable client device	11 dBm/MHz
U-NII-2A	<input type="checkbox"/>	11 dBm/MHz
U-NII-2C	<input type="checkbox"/>	11 dBm/MHz
U-NII-3	<input checked="" type="checkbox"/>	30dBm/500kHz

### 2.4.2. Measuring Instruments

The measuring equipment is listed in the section 3 of this test report.

### 2.4.3. Test Setup



### 2.4.4. Test Procedures

1. Place the EUT on the table and set it in transmitting mode.
2. The testing follows FCC KDB 789033 D02 General UNII Test Procedures New Rules v02r01.
3. Remove the antenna from the EUT and then connect a low loss RF cable from the antenna port to Spectrum.

#### 4. For U-NII-1, U-NII-2A, U-NII-2C Band:

Using method SA-1

Set RBW=1MHz, VBW=3MHz, where span is enough to capture the entire bandwidth, Sweep time = Auto, detector = sample, traces 100 sweeps of averaging mode.

#### For U-NII-3 Band:

Set RBW=500 kHz,  $VBW \geq 3RBW$ , where span is enough to capture the entire bandwidth, Sweep time = Auto, detector = sample, traces 100 sweeps of averaging mode.

5. Use peak search function on the instrument to find the peak of the spectrum and record its value
6. Repeat above procedures until all default test channel (low, middle, and high) was complete.



#### **2.4.5. Test Results of Power spectral density**

Please refer to APPENDIX A for detail

## 2.5. Frequency Stability

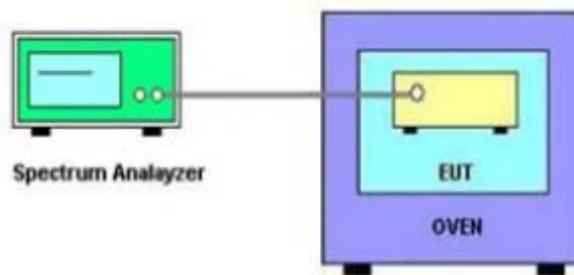
### 2.5.1. Limit

FCC 15.407(b) Frequency Stability	
Frequency Band(MHz)	Limit
5150~5250	Specified in the user's manual
5250~5350	
5470~5725	
5725~5850	

### 2.5.2. Measuring Instruments

The measuring equipment is listed in the section 3 of this test report.

### 2.5.3. Test Setup



### 2.5.4. Test Procedures

1. The EUT was connected to the spectrum analyzer by RF cable and attenuator. The path loss was compensated to the results for each measurement.
2. Set to the maximum power setting and enable the EUT transmit continuously.
3. The EUT is installed in an environment test chamber with external power source.
4. Set the chamber to operate at 50 centigrade and external power source to output at nominal voltage of EUT.
5. A sufficient stabilization period at each temperatures in used prior to each frequency measurement.
6. The test shall be performed under -10 to 55 centigrade and 85 to 115 percent of the nominal voltage. Change setting of chamber and external power source to complete all conditions.
7. Measure and record the worst results in the test report.



### **2.5.5. Test Results of Frequency Stability**

Please refer to APPENDIX A for detail

## 2.6. Radiated Band Edge and Spurious Emission

### 2.6.1. Limit of Radiated Band Edges and Spurious Emission

Radiated emission which fall in the restricted bands must comply with the radiated emission limits specified as below table. Other emissions shall be at least 20dB below the highest level of the desired power:

Frequency (MHz)	Field Strength ( $\mu\text{V}/\text{m}$ )	Measurement Distance (m)
0.009 - 0.490	2400/F(kHz)	300
0.490 - 1.705	24000/F(kHz)	30
1.705 - 30.0	30	30
30 - 88	100	3
88 - 216	150	3
216 - 960	200	3
Above 960	500	3

NOTE:

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

#### Limits of unwanted emission out of the restricted bands

Applicable To	Limit	
789033 D02 General UNII Test Procedures New Rules V02r01	Field Strength at 3m	
	PK:74(dB $\mu\text{V}/\text{m}$ )	AV:54 (dB $\mu\text{V}/\text{m}$ )

Frequency Band (MHz)	Frequency (MHz)	EIRP Limit (dBm)	Equivalent Field Strength (3m) (dB $\mu\text{V}/\text{m}$ )
5150 - 5250	Outside of the 5.15~5.35 GHz	-27	68.2
5250 - 5350	Outside of the 5.15~5.35 GHz		
5470 -5725	Outside of the 5.47~5.725 GHz		

FCC 15.407			
Frequency Band (MHz)	Frequency (MHz)	EIRP Limit (dBm)	Equivalent Field Strength (3m) (dBμV/m)
5725 - 5850	<5650	-27	68.2
	5650~5700	-27~10	68.2~105.2
	5700~5720	10~15.6	105.2~110.8
	5720~5725	15.6~27	110.8~122.2
	5850~5855	27~15.6	122.2~110.8
	5855~5875	15.6~10	110.8~105.2
	5875~5925	10~-27	105.2~68.2
	>5925	-27	68.2

Note: 1. The following formula is used to convert the equipment isotropic radiated power (eirp) to field strength:

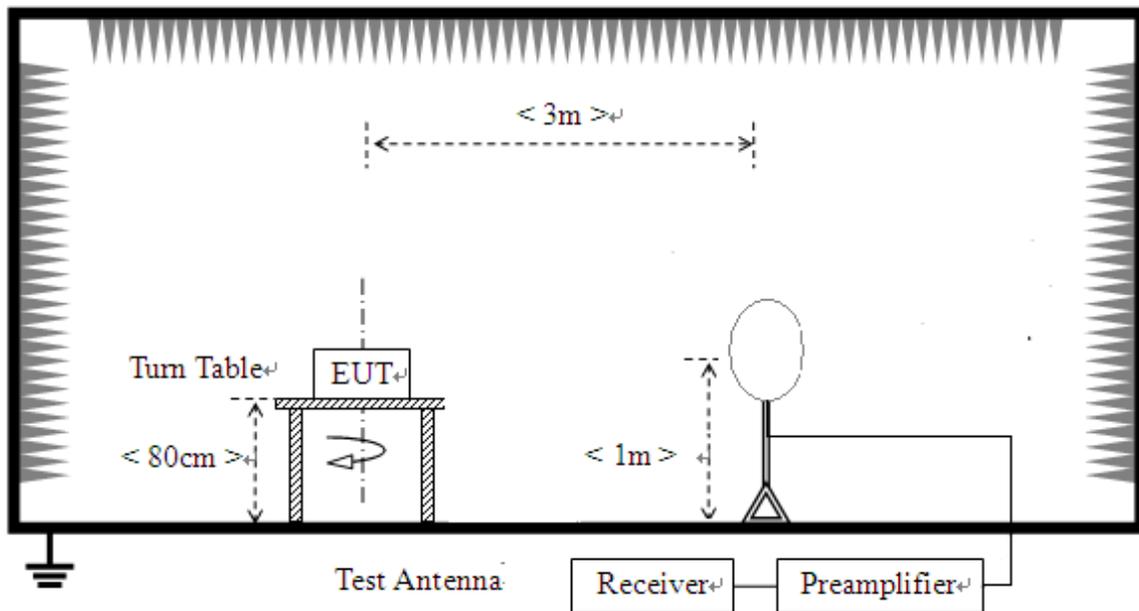
$$E = \frac{1000000 \sqrt{30P}}{3} \mu\text{V/m, where } P \text{ is the eirp (Watts).}$$

### 2.6.2. Measuring Instruments

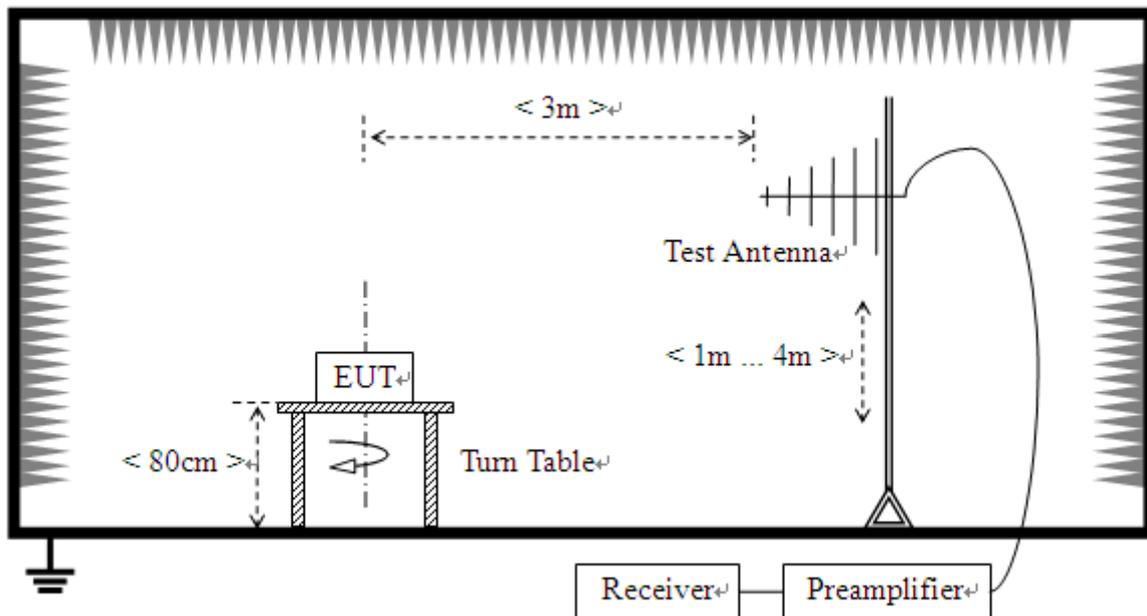
The measuring equipment is listed in the section 3 of this test report.

### 2.6.3. Test Setup

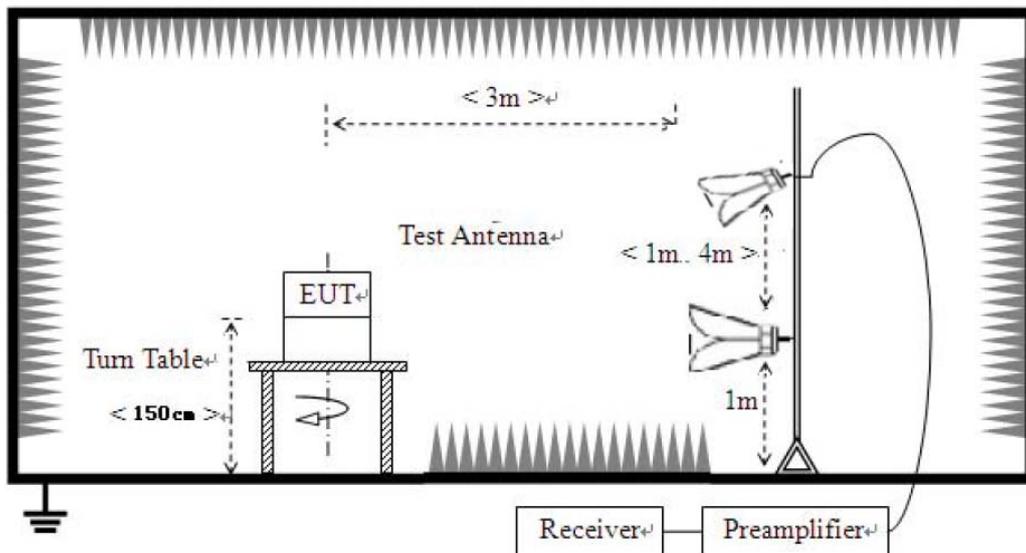
For radiated emissions from 9 KHz to 30 MHz



For radiated emissions from 30MHz to 1GHz



### For radiated emissions above 1GHz



#### 2.6.4. Test Procedures

1. The EUT was placed on the top of a rotating table 0.8 meters (for below 1GHz) / 1.5 meters (for above 1GHz) above the ground at 3 meter chamber room for test. The table was rotated 360 degrees to determine the position of the highest radiation.
2. The EUT was set 3 meters away from the interference-receiving antenna, which was mounted on the top of a variable-height antenna tower.
3. 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.
4. 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.
5. 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.
6. The test-receiver system was set to peak and average detects 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) 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 1GHz.
3. The resolution bandwidth of test receiver/spectrum analyzer is 1MHz and the video bandwidth is 3MHz for RMS Average (Duty cycle < 98%) for Average detection (AV) at frequency above 1GHz, then the measurement results was added to a correction factor ( $10 \log(1/\text{duty cycle})$ ).
4. The resolution bandwidth of test receiver/spectrum analyzer is 1MHz and the video bandwidth is 10Hz (Duty cycle  $\geq 98\%$ ) for Average detection (AV) at frequency above 1GHz.
5. All modes of operation were investigated and the worst-case emissions are reported.

The worst mode as below:

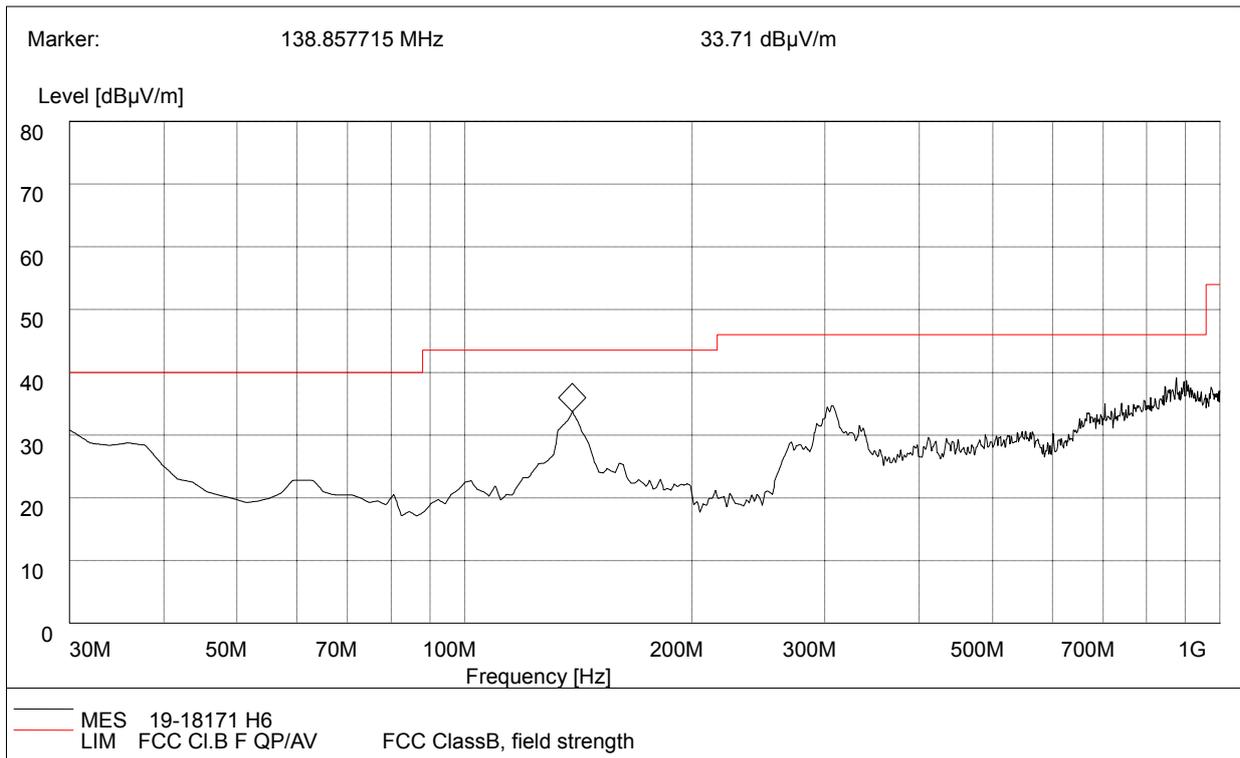
11a CH36 TX for below 1GHz

### 2.6.5. Test Results of Radiated Band Edge and Spurious Emission

#### For 9 KHz to 30MHz

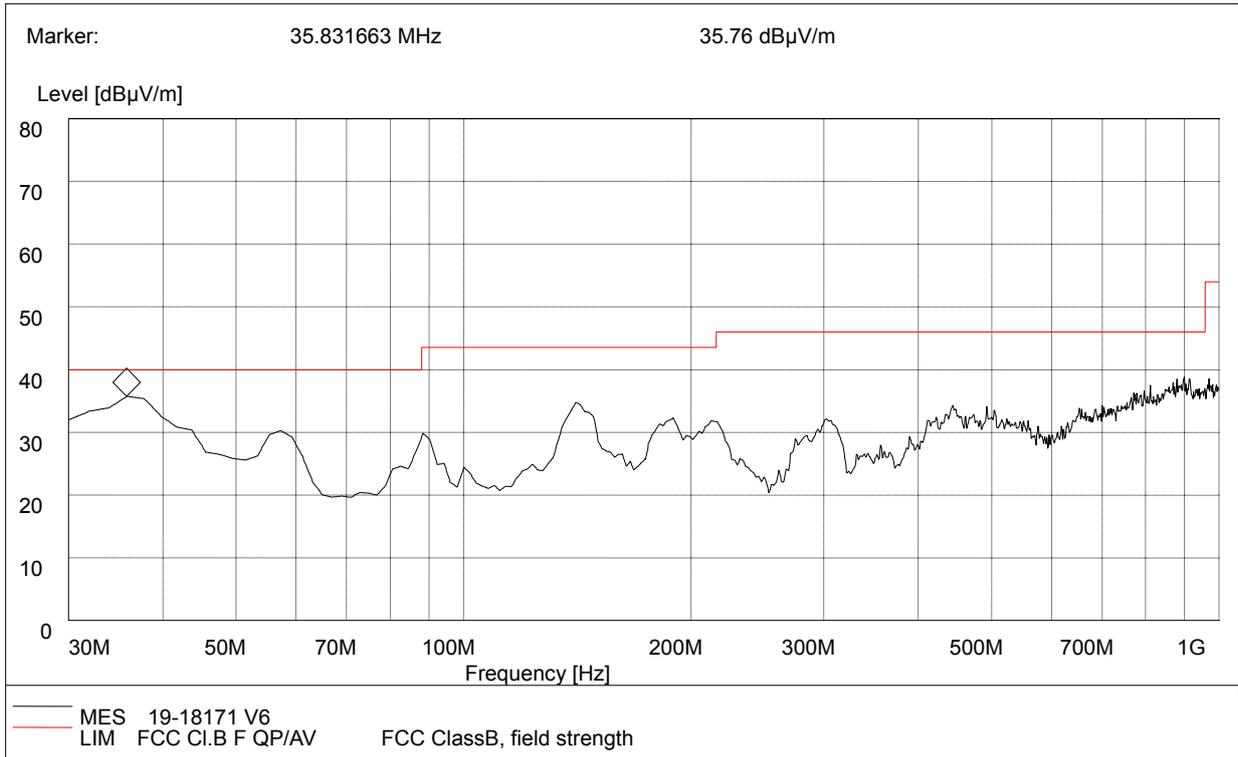
The amplitude of spurious emissions which are attenuated by more than 20dB below the permissible value has no need to be reported.

#### For 30MHz to 1000 MHz



30MHz to 1GHz, Antenna Horizontal

Frequency (MHz)	QuasiPeak (dBµV/m)	Bandwidth (kHz)	Corr. Factor (dB/m)	Antenna height (cm)	Limit (dBµV/m)	Margin	Antenna	Verdict
31.62	31.98	120.000	17.9	100.0	40.0	8.02	Horizontal	Pass
59.33	23.68	120.000	8.2	100.0	40.0	16.32	Horizontal	Pass
138.86	33.71	120.000	12.9	100.0	43.5	9.79	Horizontal	Pass
318.95	34.15	120.000	13.1	100.0	46.0	11.85	Horizontal	Pass
700.36	34.28	120.000	22.0	100.0	46.0	11.72	Horizontal	Pass
889.57	37.85	120.000	24.8	100.0	46.0	8.15	Horizontal	Pass



30MHz to 1GHz, Antenna Vertical

Frequency (MHz)	QuasiPeak (dB $\mu$ V/m)	Bandwidth (kHz)	Corr. Factor (dB $\mu$ V/m)	Antenna height (cm)	Limit (dB $\mu$ V/m)	Margin	Antenna	Verdict
35.83	35.76	120.000	10.8	100.0	40.0	4.24	Vertical	Pass
57.77	30.41	120.000	8.2	100.0	40.0	9.59	Vertical	Pass
139.58	34.21	120.000	12.9	100.0	43.5	9.29	Vertical	Pass
237.58	32.58	120.000	11.4	100.0	46.0	13.42	Vertical	Pass
301.58	32.15	120.000	13.1	100.0	46.0	13.85	Vertical	Pass
900.33	38.54	120.000	24.8	100.0	46.0	7.46	Vertical	Pass

**For 1GHz to 40 GHz****ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M (802.11a\_5180MHz)**

No.	Frequency (MHz)	Emission Level (dBuV/m)		Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV/m)	Correction Factor (dB/m)
1	5150.00	54.33	PK	68.20	-13.87	1.50	130	46.83	7.50
2	5150.00	44.17	AV	54.00	-9.83	1.50	130	36.67	7.50
3	10360.00	55.84	PK	68.20	-12.36	1.50	130	36.04	19.80

**ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M (802.11a\_5180MHz)**

No.	Frequency (MHz)	Emission Level (dBuV/m)		Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV/m)	Correction Factor (dB/m)
1	5150.00	57.36	PK	68.20	-10.84	1.60	280	49.86	7.50
2	5150.00	47.60	AV	54.00	-6.40	1.60	280	40.10	7.50
3	10360.00	58.47	PK	68.20	-9.73	1.60	280	38.67	19.80

**ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M (802.11a\_5220MHz)**

No.	Frequency (MHz)	Emission Level (dBuV/m)		Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV/m)	Correction Factor (dB/m)
1	10440.00	56.66	PK	68.20	-11.54	1.50	130	36.76	19.90

**ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M (802.11a\_5220MHz)**

No.	Frequency (MHz)	Emission Level (dBuV/m)		Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV/m)	Correction Factor (dB/m)
1	10440.00	54.32	PK	68.20	-13.88	1.60	280	34.42	19.90

**ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M (802.11a\_5240MHz)**

No.	Frequency (MHz)	Emission Level (dBuV/m)		Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV/m)	Correction Factor (dB/m)
1	5350.00	58.41	PK	68.20	-9.79	1.50	290	50.41	8.00
2	5350.00	48.05	AV	54.00	-5.95	1.50	290	40.05	8.00
3	10480.00	57.74	PK	68.20	-10.46	1.50	290	37.84	19.90

**ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M (802.11a\_5240MHz)**

No.	Frequency (MHz)	Emission Level (dBuV/m)		Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV/m)	Correction Factor (dB/m)
1	5350.00	55.84	PK	68.20	-12.36	1.60	280	47.84	8.00
2	5350.00	46.19	AV	54.00	-7.81	1.60	280	38.19	8.00
3	10480.00	57.95	PK	68.20	-10.25	1.60	280	38.05	19.90

**ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M (802.11a\_5745MHz)**

No.	Frequency (MHz)	Emission Level (dBuV/m)		Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV/m)	Correction Factor (dB/m)
1	5725.00	58.12	PK	68.20	-10.08	1.60	300	48.47	9.65
2	11490.00	56.94	PK	68.20	-11.26	1.60	300	35.24	21.70
3	11490.00	46.78	AV	54.00	-7.22	1.60	300	25.08	21.70

**ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M (802.11a\_5745MHz)**

No.	Frequency (MHz)	Emission Level (dBuV/m)		Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV/m)	Correction Factor (dB/m)
1	5725.00	57.88	PK	68.20	-10.32	1.80	200	48.23	9.65
2	11490.00	56.21	PK	68.20	-11.99	1.80	200	34.51	21.70
3	11490.00	46.82	AV	54.00	-7.18	1.80	200	25.12	21.70

**ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M (802.11a\_5785MHz)**

No.	Frequency (MHz)	Emission Level (dBuV/m)		Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV/m)	Correction Factor (dB/m)
1	11570.00	55.95	PK	68.20	-12.25	1.60	200	34.25	21.70
2	11570.00	46.21	AV	54.00	-7.79	1.60	200	24.51	21.70

**ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M (802.11a\_5785MHz)**

No.	Frequency (MHz)	Emission Level (dBuV/m)		Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV/m)	Correction Factor (dB/m)
1	11570.00	58.97	PK	68.20	-9.23	1.80	200	37.27	21.70
2	11570.00	48.84	AV	54.00	-5.16	1.80	200	27.14	21.70

**ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M (802.11a\_5825MHz)**

No.	Frequency (MHz)	Emission Level (dBuV/m)		Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV/m)	Correction Factor (dB/m)
1	5850.00	57.74	PK	68.20	-10.46	1.70	300	47.96	9.78
2	11650.00	59.99	PK	68.20	-8.21	1.70	300	38.09	21.90
3	11650.00	50.57	AV	54.00	-3.43	1.70	300	28.67	21.90

**ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M (802.11a\_5825MHz)**

No.	Frequency (MHz)	Emission Level (dBuV/m)		Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV/m)	Correction Factor (dB/m)
1	5850.00	58.87	PK	68.20	-9.33	1.70	330	49.09	9.78
2	11650.00	59.02	PK	68.20	-9.18	1.70	330	37.12	21.90
3	11650.00	49.07	AV	54.00	-4.93	1.70	330	27.17	21.90

**ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M (802.11ac20\_5180MHz)**

No.	Frequency (MHz)	Emssion Level (dBuV/m)		Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV/m)	Correction Factor (dB/m)
1	5150.00	55.84	PK	68.20	-12.36	1.50	150	48.34	7.50
2	5150.00	45.68	AV	54.00	-8.32	1.50	150	38.18	7.50
3	10360.00	56.95	PK	68.20	-11.25	1.50	130	37.15	19.80

**ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M (802.11ac20\_5180MHz)**

No.	Frequency (MHz)	Emssion Level (dBuV/m)		Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV/m)	Correction Factor (dB/m)
1	5150.00	58.74	PK	68.20	-9.46	1.60	300	51.24	7.50
2	5150.00	48.98	AV	54.00	-5.02	1.60	300	41.48	7.50
3	10360.00	58.88	PK	68.20	-9.32	1.60	300	39.08	19.80

**ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M (802.11ac20\_5220MHz)**

No.	Frequency (MHz)	Emission Level (dBuV/m)		Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV/m)	Correction Factor (dB/m)
1	10440.00	57.48	PK	68.20	-10.72	1.50	180	37.58	19.90

**ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M (802.11ac20\_5220MHz)**

No.	Frequency (MHz)	Emission Level (dBuV/m)		Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV/m)	Correction Factor (dB/m)
1	10440.00	55.98	PK	68.20	-12.22	1.60	300	36.08	19.90

**ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M (802.11ac20\_5240MHz)**

No.	Frequency (MHz)	Emssion Level (dBuV/m)		Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV/m)	Correction Factor (dB/m)
1	5350.00	56.98	PK	68.20	-11.22	1.50	280	48.98	8.00
2	5350.00	46.62	AV	54.00	-7.38	1.50	280	38.62	8.00
3	10480.00	57.84	PK	68.20	-10.36	1.50	280	37.94	19.90

**ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M (802.11ac20\_5240MHz)**

No.	Frequency (MHz)	Emssion Level (dBuV/m)		Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV/m)	Correction Factor (dB/m)
1	5350.00	56.66	PK	68.20	-11.54	1.60	300	48.66	8.00
2	5350.00	47.01	AV	54.00	-6.99	1.60	300	39.01	8.00
3	10480.00	58.32	PK	68.20	-9.88	1.60	300	38.42	19.90

**ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M (802.11ac20\_5745MHz)**

No.	Frequency (MHz)	Emission Level (dBuV/m)		Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV/m)	Correction Factor (dB/m)
1	5725.00	57.55	PK	68.20	-10.65	1.60	300	47.90	9.65
2	11490.00	57.21	PK	68.20	-10.99	1.60	300	35.51	21.70
3	11490.00	47.05	AV	54.00	-6.95	1.60	300	25.35	21.70

**ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M (802.11ac20\_5745MHz)**

No.	Frequency (MHz)	Emission Level (dBuV/m)		Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV/m)	Correction Factor (dB/m)
1	5725.00	56.94	PK	68.20	-11.26	1.80	200	47.29	9.65
2	11490.00	57.12	PK	68.20	-11.08	1.80	200	35.42	21.70
3	11490.00	47.73	AV	54.00	-6.27	1.80	200	26.03	21.70

**ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M (802.11ac20\_5785MHz)**

No.	Frequency (MHz)	Emission Level (dBuV/m)		Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV/m)	Correction Factor (dB/m)
1	11570.00	54.85	PK	68.20	-13.35	1.60	200	33.15	21.70
2	11570.00	45.11	AV	54.00	-8.89	1.60	200	23.41	21.70

**ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M (802.11ac20\_5785MHz)**

No.	Frequency (MHz)	Emission Level (dBuV/m)		Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV/m)	Correction Factor (dB/m)
1	11570.00	56.33	PK	68.20	-11.87	1.80	200	34.63	21.70
2	11570.00	46.20	AV	54.00	-7.8	1.80	200	24.50	21.70

**ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M (802.11ac20\_5825MHz)**

No.	Frequency (MHz)	Emission Level (dBuV/m)		Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV/m)	Correction Factor (dB/m)
1	5850.00	58.95	PK	68.20	-9.25	1.70	300	49.17	9.78
2	11650.00	58.14	PK	68.20	-10.06	1.70	300	36.24	21.90
3	11650.00	48.72	AV	54.00	-5.28	1.70	300	26.82	21.90

**ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M (802.11ac20\_5825MHz)**

No.	Frequency (MHz)	Emission Level (dBuV/m)		Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV/m)	Correction Factor (dB/m)
1	5850.00	56.35	PK	68.20	-11.85	1.70	330	46.57	9.78
2	11650.00	57.23	PK	68.20	-10.97	1.70	330	35.33	21.90
3	11650.00	47.28	AV	54.00	-6.72	1.70	330	25.38	21.90

**ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M (802.11ac40\_5190MHz)**

No.	Frequency (MHz)	Emssion Level (dBuV/m)		Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV/m)	Correction Factor (dB/m)
1	5150.00	57.84	PK	68.20	-10.36	1.60	120.00	50.34	7.50
2	5150.00	47.51	AV	54.00	-6.49	1.60	120.00	40.01	7.50
3	10380.00	56.63	PK	68.20	-11.57	1.60	120.00	36.83	19.80

**ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M (802.11ac40\_5190MHz)**

No.	Frequency (MHz)	Emssion Level (dBuV/m)		Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV/m)	Correction Factor (dB/m)
1	5150.00	58.84	PK	68.20	-9.36	1.70	280.00	51.34	7.50
2	5150.00	49.10	AV	54.00	-4.9	1.70	280.00	41.60	7.50
3	10380.00	56.95	PK	68.20	-11.25	1.70	280.00	37.15	19.80

**ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M (802.11ac40\_5230MHz)**

No.	Frequency (MHz)	Emssion Level (dBuV/m)		Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV/m)	Correction Factor (dB/m)
1	5350.00	54.85	PK	68.20	-13.35	1.70	120.00	46.85	8.00
2	5350.00	44.57	AV	54.00	-9.43	1.70	120.00	36.57	8.00
3	10460.00	58.33	PK	68.20	-9.87	1.70	120.00	38.43	19.90

**ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M (802.11ac40\_5230MHz)**

No.	Frequency (MHz)	Emssion Level (dBuV/m)		Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV/m)	Correction Factor (dB/m)
1	5350.00	56.64	PK	68.20	-11.56	1.80	260.00	48.64	8.00
2	5350.00	48.95	AV	54.00	-5.05	1.80	260.00	40.95	8.00
3	10460.00	58.55	PK	68.20	-9.65	1.80	260.00	38.65	19.90

**ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M (802.11ac40\_5755MHz)**

No.	Frequency (MHz)	Emission Level (dBuV/m)		Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV/m)	Correction Factor (dB/m)
1	5725.00	56.35	PK	68.20	-11.85	1.70	120.00	46.70	9.65
2	5725.00	47.37	AV	54.00	-6.63	1.70	120.00	37.72	9.65
3	11510.00	55.98	PK	68.20	-12.22	1.70	120.00	34.28	21.70

**ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M (802.11ac40\_5755MHz)**

No.	Frequency (MHz)	Emission Level (dBuV/m)		Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV/m)	Correction Factor (dB/m)
1	5725.00	58.64	PK	68.20	-9.56	1.60	200.00	48.99	9.65
2	5725.00	47.99	AV	54.00	-6.01	1.60	200.00	38.34	9.65
3	11510.00	58.33	PK	68.20	-9.87	1.60	200.00	36.63	21.70

**ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M (802.11ac40\_5795MHz)**

No.	Frequency (MHz)	Emission Level (dBuV/m)		Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV/m)	Correction Factor (dB/m)
1	5850.00	58.24	PK	68.20	-9.96	1.70	180.00	48.46	9.78
2	5850.00	47.50	AV	54.00	-6.5	1.70	180.00	37.72	9.78
3	11590.00	57.62	PK	68.20	-10.58	1.70	180.00	35.82	21.80

**ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M (802.11ac40\_5795MHz)**

No.	Frequency (MHz)	Emission Level (dBuV/m)		Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV/m)	Correction Factor (dB/m)
1	5850.00	57.48	PK	68.20	-10.72	1.80	300.00	47.70	9.78
2	5850.00	46.83	AV	54.00	-7.17	1.80	300.00	37.05	9.78
3	11590.00	58.62	PK	68.20	-9.58	1.80	260.00	36.82	21.80



<b>ANTENNA POLARITY &amp; TEST DISTANCE: HORIZONTAL AT 3 M (802.11ac-VHT80_5210MHz)</b>									
No.	Frequency (MHz)	Emission Level (dBuV/m)		Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV/m)	Correction Factor (dB/m)
1	5150.00	57.32	PK	68.20	-10.88	1.70	300.00	49.82	7.50
2	5150.00	46.66	AV	54.00	-7.34	1.70	300.00	39.16	7.50
3	10420.00	56.34	PK	68.20	-11.86	1.70	300.00	36.44	19.90
<b>ANTENNA POLARITY &amp; TEST DISTANCE: VERTICAL AT 3 M (802.11ac-VHT80_5210MHz)</b>									
No.	Frequency (MHz)	Emission Level (dBuV/m)		Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV/m)	Correction Factor (dB/m)
1	5150.00	56.95	PK	68.20	-11.25	1.50	280.00	49.45	7.50
2	5150.00	46.97	AV	54.00	-7.03	1.50	280.00	39.47	7.50
3	10420.00	55.87	PK	68.20	-12.33	1.50	280.00	35.97	19.90



<b>ANTENNA POLARITY &amp; TEST DISTANCE: HORIZONTAL AT 3 M (802.11ac-VHT80_5775MHz)</b>									
No.	Frequency (MHz)	Emission Level (dBuV/m)		Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV/m)	Correction Factor (dB/m)
1	5460.00	56.95	PK	68.20	-11.25	1.50	300.00	47.17	9.78
2	5460.00	49.21	AV	54.00	-4.79	1.50	300.00	39.43	9.78
3	11550.00	60.33	PK	68.20	-7.87	1.50	300.00	38.53	21.80
4	11550.00	49.59	AV	54.00	-4.41	1.50	300.00	27.79	21.80
<b>ANTENNA POLARITY &amp; TEST DISTANCE: VERTICAL AT 3 M (802.11ac-VHT80_5775MHz)</b>									
No.	Frequency (MHz)	Emission Level (dBuV/m)		Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV/m)	Correction Factor (dB/m)
1	5460.00	59.65	PK	68.20	-8.55	1.60	250.00	49.87	9.78
2	5460.00	51.00	AV	54.00	-3.00	1.60	250.00	41.22	9.78
3	11550.00	60.31	PK	68.20	-7.89	1.60	250.00	38.51	21.80
4	11550.00	49.73	AV	54.00	-4.27	1.60	250.00	27.93	21.80

**REMARKS:**

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

## 2.7. Conducted Emission

### 2.7.1. Limit of Conducted Emission

FCC 15.207,

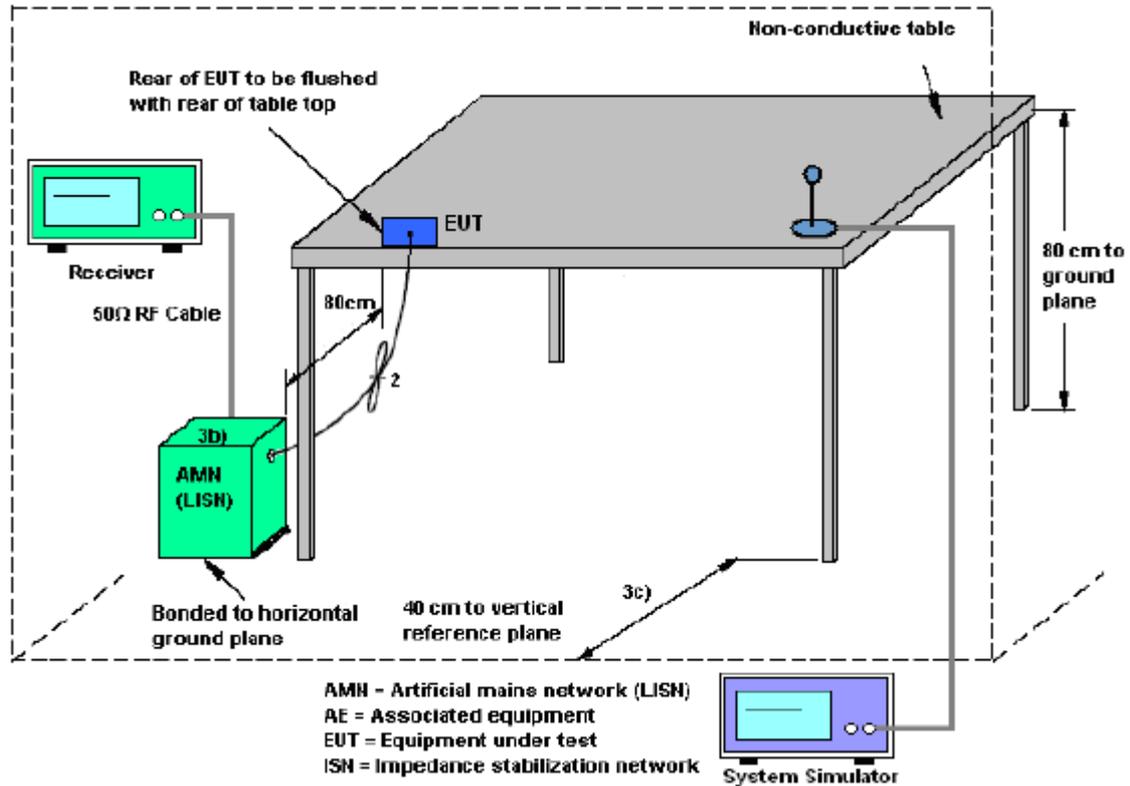
For equipment that is designed to be connected to the public utility (AC) power line, the radio frequency voltage that is conducted back onto the AC power line on any frequency or frequencies within the band 150 kHz to 30 MHz shall not exceed the limits in the following table.

Frequency range (MHz)	Conducted Limit (dB $\mu$ V)	
	Quai-peak	Average
0.15 - 0.50	66 to 56	56 to 46
0.50 - 5	56	46
5 - 30	60	50

### 2.7.2. Measuring Instruments

The measuring equipment is listed in the section 3 of this test report.

### 2.7.3. Test Setup

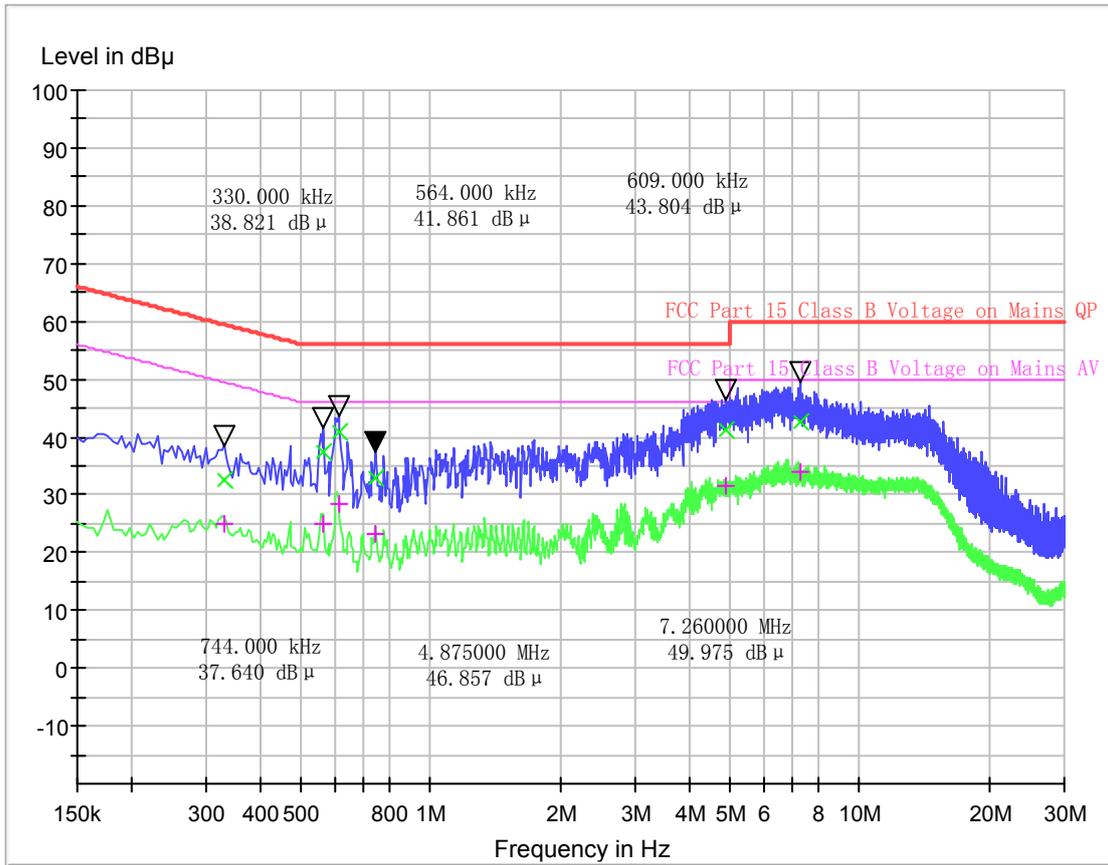


#### **2.7.4. Test Procedures**

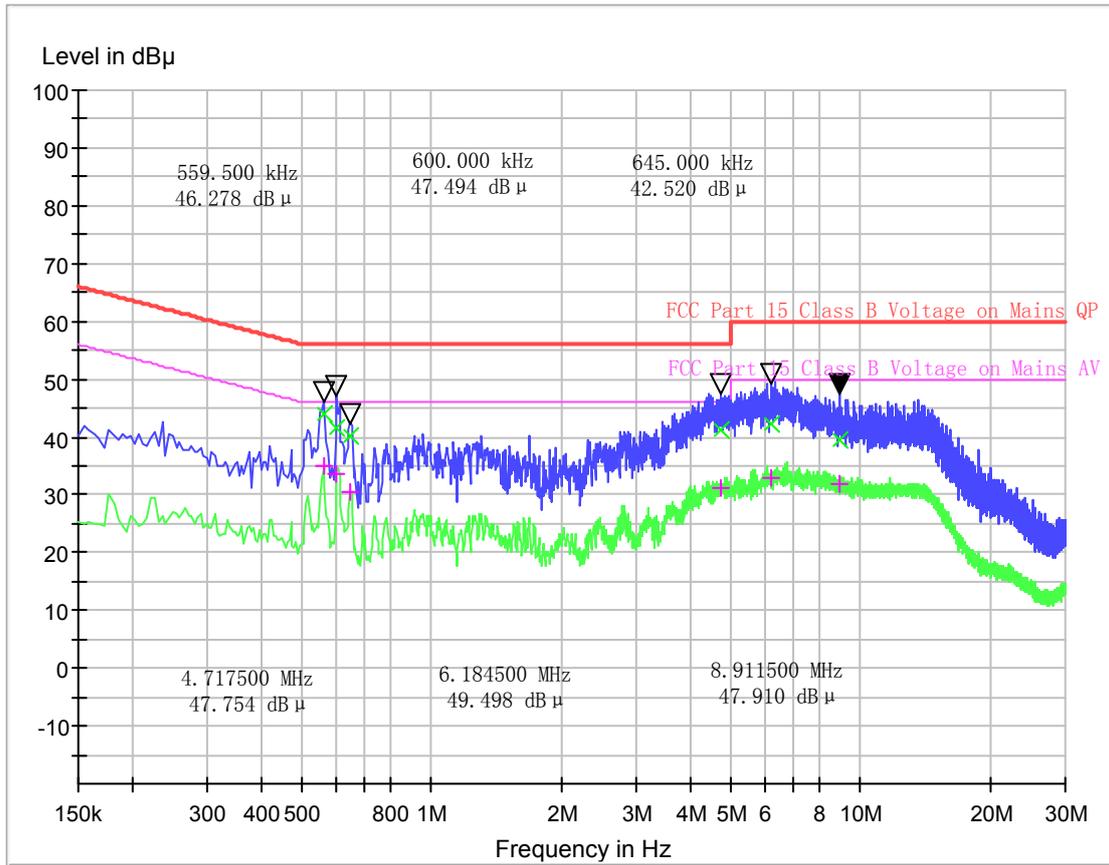
1. The EUT was placed 0.4 meter from the conducting wall of the shielding room was kept at least 80 centimeters from any other grounded conducting surface.
2. Connect EUT to the power mains through a line impedance stabilization network (LISN).
3. All the support units are connecting to the other LISN.
4. The LISN provides 50 ohm coupling impedance for the measuring instrument.
5. The FCC states that a 50 ohm, 50 microhenry LISN should be used.
6. Both sides of AC line were checked for maximum conducted interference.
7. The frequency range from 150 kHz to 30 MHz was searched.
8. Set the test-receiver system to Peak Detect Function and specified bandwidth (IF Bandwidth = 9kHz) with Maximum Hold Mode. Then measurement is also conducted by Average Detector and Quasi-Peak Detector Function respectively.

#### **2.7.5. Test Results of Conducted Emission**

The EUT configuration of the emission tests is 5G WLAN Link + USB Cable (Charging from Adapter)



Frequency (MHz)	QuasiPeak (dB μ V)	Average (dB μ V)	Cabel Loss (dB)	Corr. (dB)	Margin - QPK	Limit - QPK	Margin - AV	Limit - AV (dB μ V)
0.330000	32.58	24.99	0.1	10.1	26.87	59.5	24.46	49.5
0.564000	37.27	25.01	0.1	10.1	18.73	56.0	20.99	46.0
0.609000	41.02	28.32	0.1	10.1	14.98	56.0	17.68	46.0
0.744000	33.05	23.39	0.1	10.1	22.95	56.0	22.61	46.0
4.875000	41.34	31.58	0.2	10.2	14.66	56.0	14.42	46.0
7.260000	42.72	33.90	0.2	10.2	17.28	60.0	16.10	50.0



Frequency (MHz)	QuasiPeak (dB μ V)	CAverage (dB μ V)	Cabel Loss (dB)	Corr. (dB)	Margin - QPK	Limit - QPK	Margin - AV	Limit - AV (dB μ V)
0.559500	44.12	35.08	0.1	10.1	11.88	56.0	10.92	46.0
0.600000	41.69	33.50	0.1	10.1	14.31	56.0	12.50	46.0
0.645000	40.08	30.52	0.1	10.1	15.92	56.0	15.48	46.0
4.717500	41.24	31.35	0.1	10.1	14.76	56.0	14.65	46.0
6.184500	42.24	32.75	0.2	10.2	17.76	60.0	17.25	50.0
8.911500	39.45	31.95	0.2	10.2	20.55	60.0	18.05	50.0

**Test Result: PASS**

**Note: Correction factor=Cabel loss+ attenuation factor  
attenuation factor=10dB**

### 3. List of measuring equipment

Item	Test Equipment	Manufacturer	Model No.	Serial No.	Cal Date	Due Date
1	EMI TEST RECEIVER	R&S	ESIB7	A0501375	2019.07.30	2020.07.29
2	Power Meter	R&S	NRP-Z31	102872	2019.05.05	2020.05.04
3	TURNTABLE	ETS	2088	2149	N/A	N/A
4	ANTENNA MAST	ETS	2075	2346	N/A	N/A
5	EMI TEST Software	R&S	ESK1	N/A	N/A	N/A
6	Horn antenna (18GHz~26.5GHz)	AR	AT4002A	305753	2017.11.10	2020.11.09
7	Amplifer	MILMEGA	80RF1000-250	A140901925	2017.10.09	2020.10.08
8	JS amplifer	AR	25S1G4AM1	A0304248	2017.10.09	2020.10.08
9	High pass filter	Compliance Direction systems	BSU-6	34202	2019.11.10	2020.11.09
13	Horn Antenna	AR	AT4002A	305753	2017.07.12	2020.07.11
14	Horn Antenna	AR	AT4510	325306	2018.07.14	2020.07.13
15	Horn Antenna (26.5-40GHz)	R&S	Oct-60	71688	2018.08.29	2020.08.28
16	ULTRA-BROADBAND ANTENNA	R&S	HL562	A0304224	2017.07.14	2020.07.13
17	Passive Loop Antenna	R&S	HFH2-Z2	100047	2019.04.26	2022.04.25
18	Temperature chamber	Dongguan gaoda instrument CO.LTD	GD-7005-100	130130101	2019.04.22	2020.04.21
19	Spectrum Analyzer	KEYSIGHT	N9030A	A160702554	2019.06.05	2020.06.04
20	Power Supply	R&S	NGMO1	101037	2019.08.03	2020.08.02
21	EMI TEST RECEIVER	KEYSIGHT	ESIB26	A0304218	2019.05.20	2020.05.19
22	LISN	R&S	ESH2-Z5	A0304221	2019.04.30	2020.04.29
23	Cable	MATCHING PAD	W7	/	2019.01.02	2020.01.01

## Appendix A

### Conducted output power

#### Test results

U-NII-1 AVGSA Output Power				
Mode	Test Frequency (MHz)	Max Conducted Output Power (dBm)	Limit (dBm)	Result
802.11n (20MHz)	5180	11.38	24	Pass
802.11n (20MHz)	5220	11.32	24	Pass
802.11n (20MHz)	5240	11.77	24	Pass
802.11n (40MHz)	5190	11.15	24	Pass
802.11n (40MHz)	5230	11.42	24	Pass
802.11a (20MHz)	5180	12.68	24	Pass
802.11a (20MHz)	5220	12.45	24	Pass
802.11a (20MHz)	5240	11.86	24	Pass
802.11ac (20MHz)	5180	11.45	24	Pass
802.11ac (20MHz)	5220	12.01	24	Pass
802.11ac (20MHz)	5240	11.51	24	Pass
802.11ac (40MHz)	5190	11.68	24	Pass
802.11ac (40MHz)	5230	10.95	24	Pass
802.11ac (80MHz)	5210	11.39	24	Pass



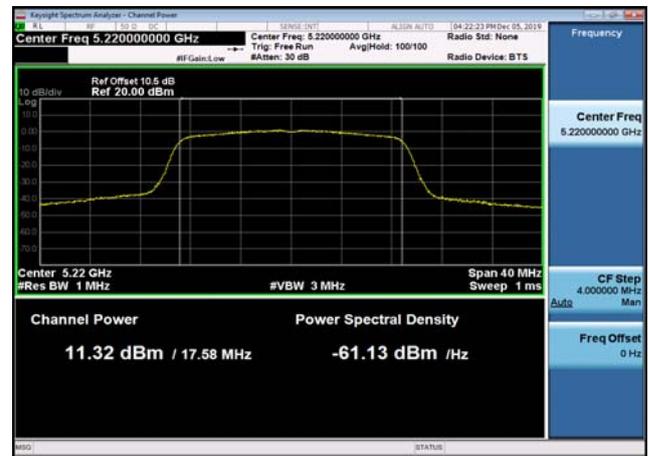
U-NII-3 AVGSA Output Power				
Mode	Test Frequency (MHz)	Max Conducted Output Power (dBm)	Limit (dBm)	Result
802.11a (20MHz)	5745	12.04	30	Pass
802.11a (20MHz)	5785	12.03	30	Pass
802.11a (20MHz)	5825	12.07	30	Pass
802.11n (20MHz)	5745	11.59	30	Pass
802.11n (20MHz)	5785	12.13	30	Pass
802.11n (20MHz)	5825	11.62	30	Pass
802.11n (40MHz)	5755	11.83	30	Pass
802.11n (40MHz)	5795	11.99	30	Pass
802.11ac (20MHz)	5745	11.90	30	Pass
802.11ac (20MHz)	5785	11.54	30	Pass
802.11ac (20MHz)	5825	11.12	30	Pass
802.11ac (40MHz)	5755	11.96	30	Pass
802.11ac (40MHz)	5795	11.91	30	Pass
802.11ac (80MHz)	5775	11.79	30	Pass

### Test Plots

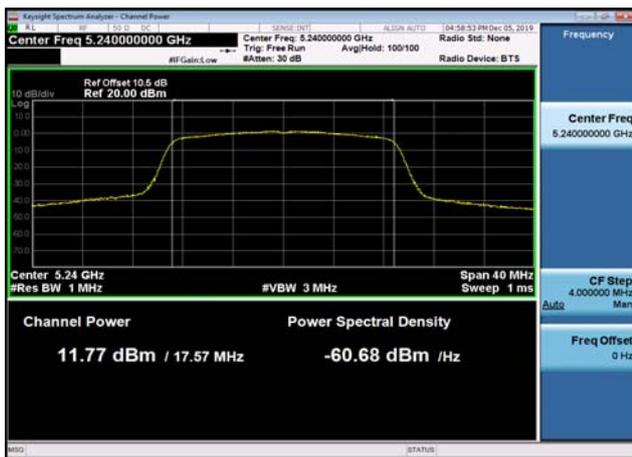
U-NII-1 Output Power-802.11n(20MHz)  
,5180MHz,Ant1



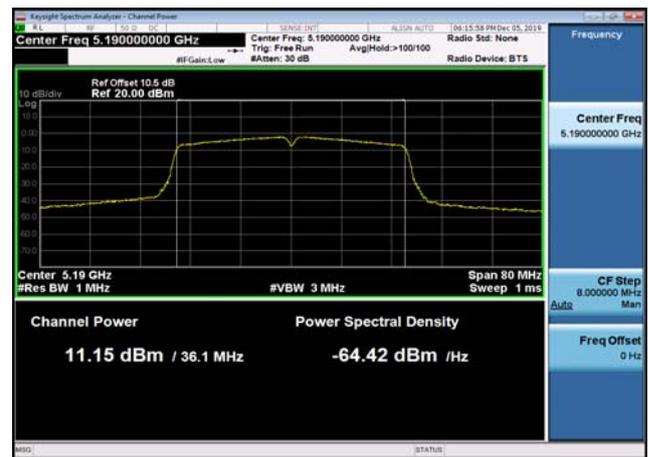
U-NII-1 Output Power-802.11n(20MHz)  
,5220MHz,Ant1



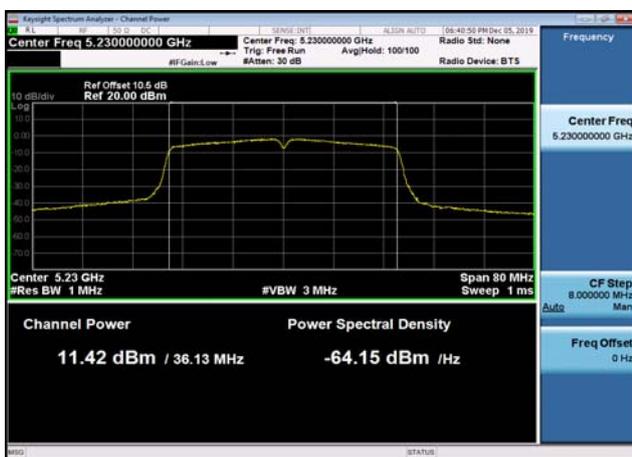
U-NII-1 Output Power-802.11n(20MHz)  
,5240MHz,Ant1



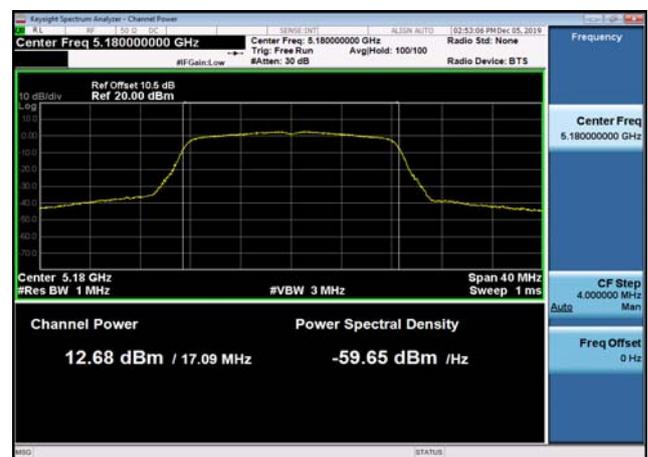
U-NII-1 Output Power-802.11n(40MHz)  
,5190MHz,Ant1



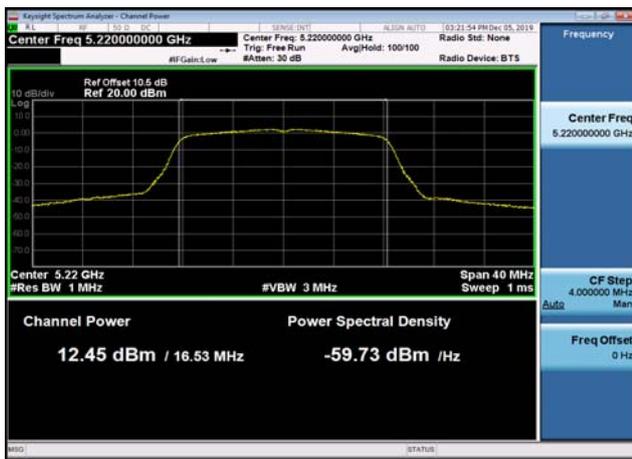
U-NII-1 Output Power-802.11n(40MHz)  
,5230MHz,Ant1



U-NII-1 Output Power-802.11a(20MHz)  
,5180MHz,Ant1



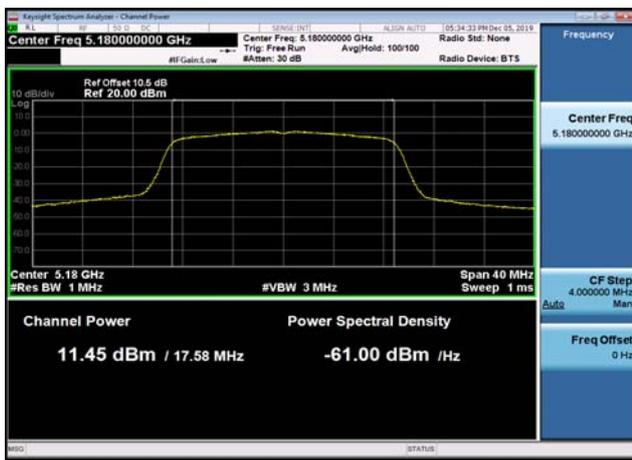
U-NII-1 Output Power-802.11a(20MHz)  
,5220MHz,Ant1



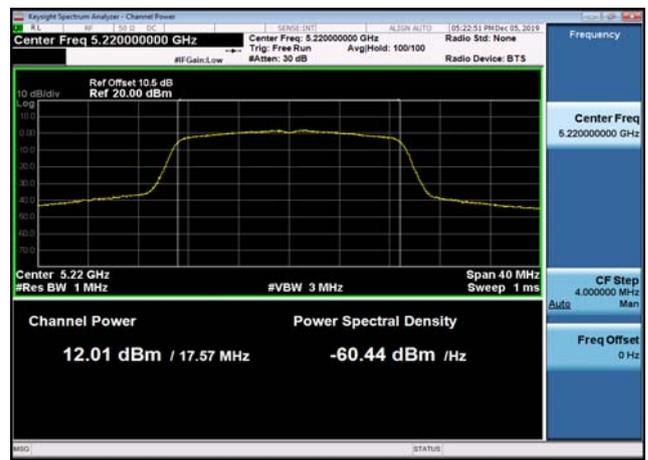
U-NII-1 Output Power-802.11a(20MHz)  
,5240MHz,Ant1



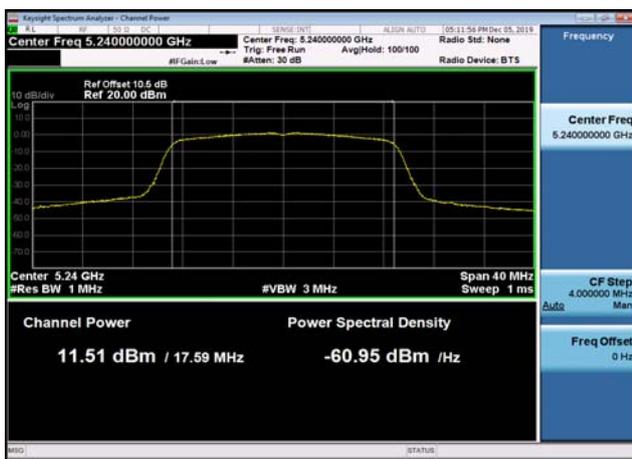
U-NII-1 Output Power-802.11ac(20MHz)  
,5180MHz,Ant1



U-NII-1 Output Power-802.11ac(20MHz)  
,5220MHz,Ant1



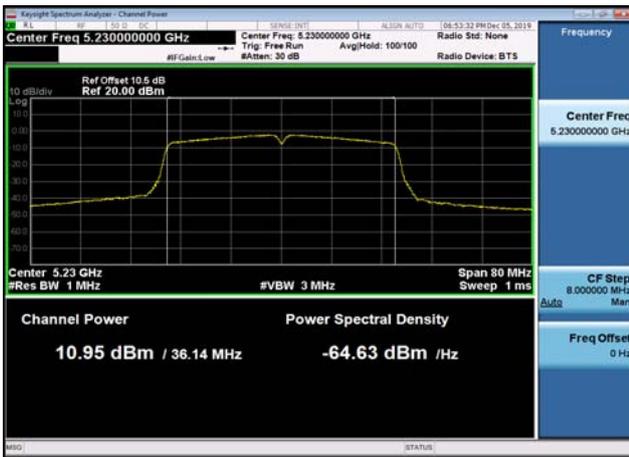
U-NII-1 Output Power-802.11ac(20MHz)  
,5240MHz,Ant1



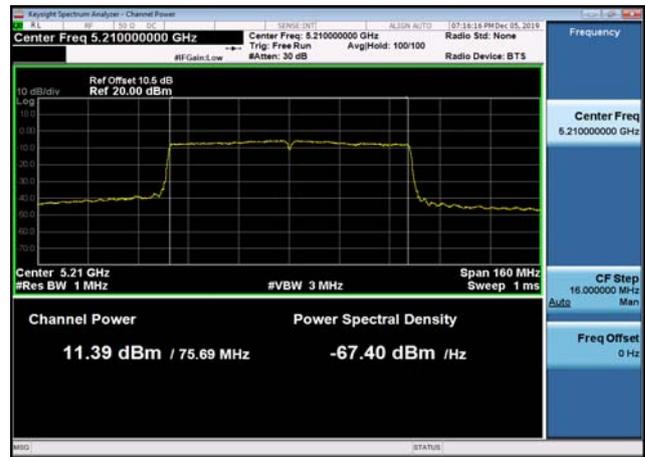
U-NII-1 Output Power-802.11ac(40MHz)  
,5190MHz,Ant1



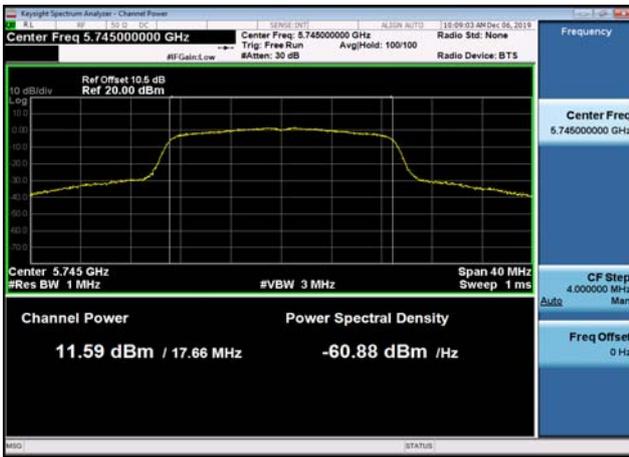
U-NII-1 Output Power-802.11ac(40MHz)  
,5230MHz,Ant1



U-NII-1 Output Power-802.11ac(80MHz)  
,5210MHz,Ant1



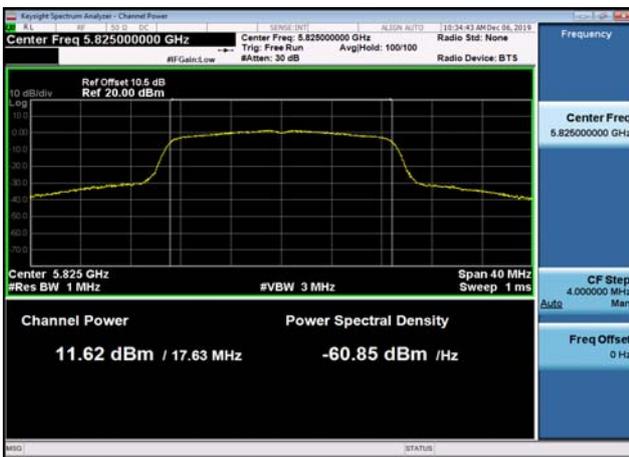
U-NII-3 Output Power-802.11n(20MHz)  
,5745MHz,Ant1



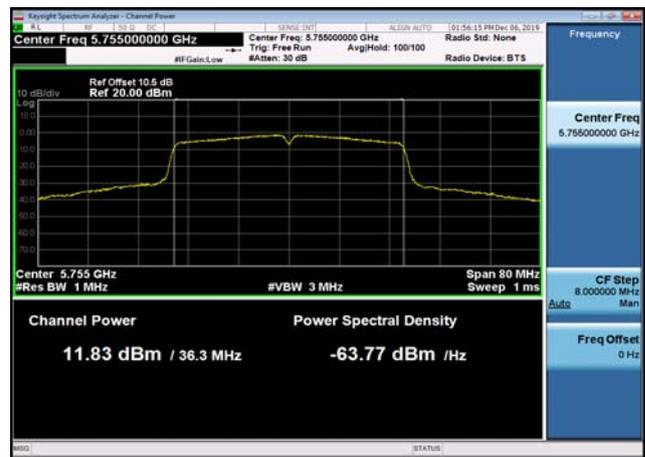
U-NII-3 Output Power-802.11n(20MHz)  
,5785MHz,Ant1



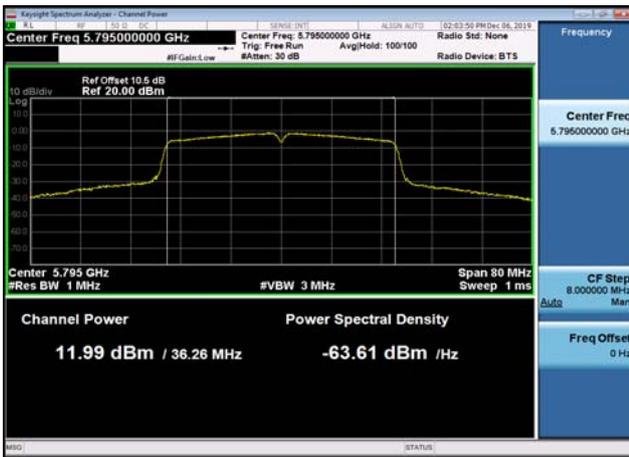
U-NII-3 Output Power-802.11n(20MHz)  
,5825MHz,Ant1



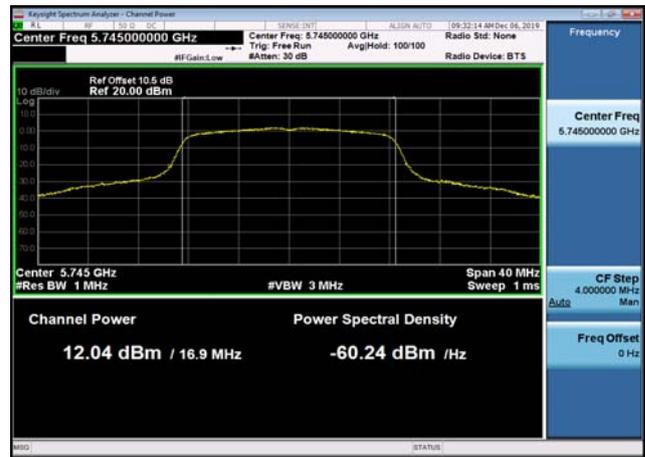
U-NII-3 Output Power-802.11n(40MHz)  
,5755MHz,Ant1



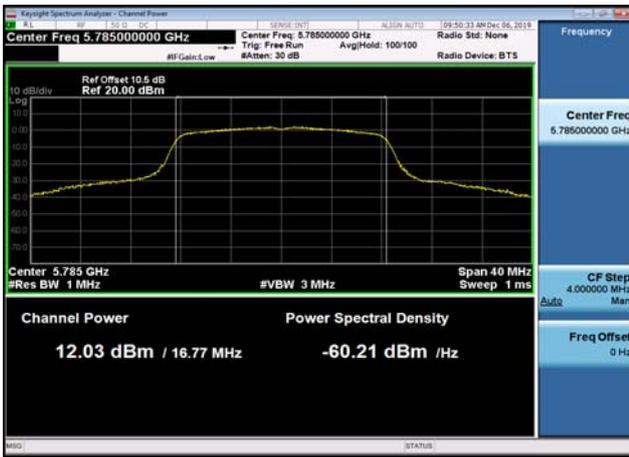
U-NII-3 Output Power-802.11n(40MHz)  
,5795MHz,Ant1



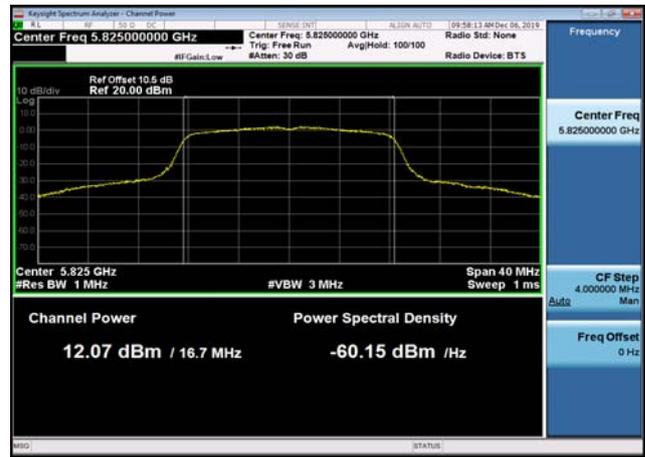
U-NII-3 Output Power-802.11a(20MHz)  
,5745MHz,Ant1



U-NII-3 Output Power-802.11a(20MHz)  
,5785MHz,Ant1



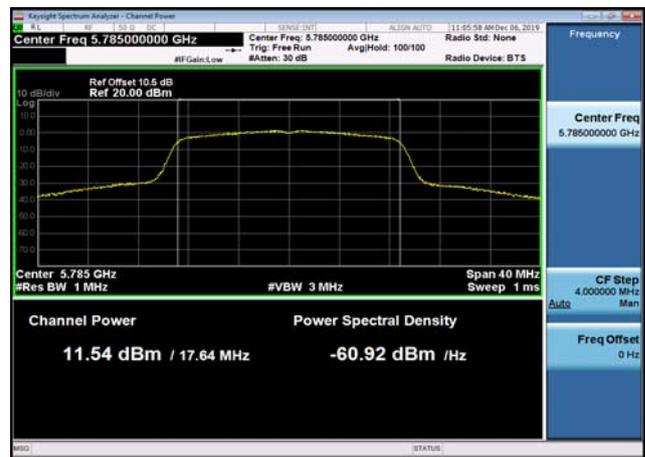
U-NII-3 Output Power-802.11a(20MHz)  
,5825MHz,Ant1



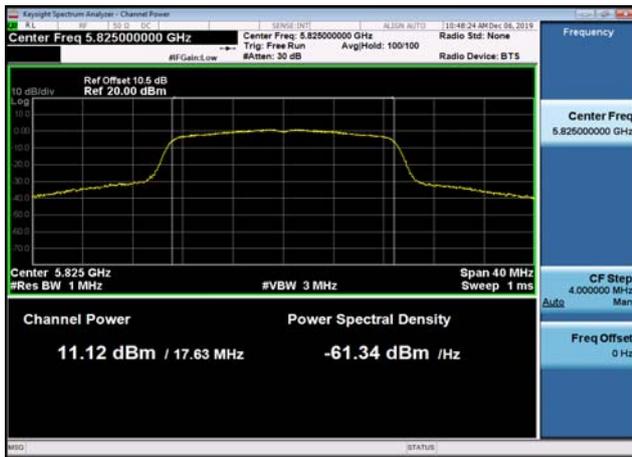
U-NII-3 Output Power-802.11ac(20MHz)  
,5745MHz,Ant1



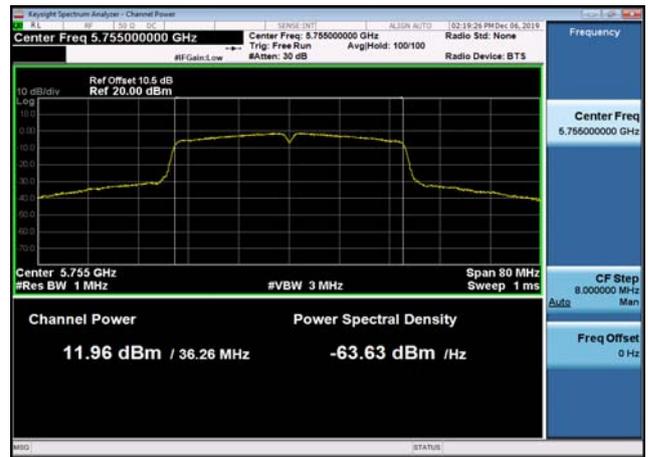
U-NII-3 Output Power-802.11ac(20MHz)  
,5785MHz,Ant1



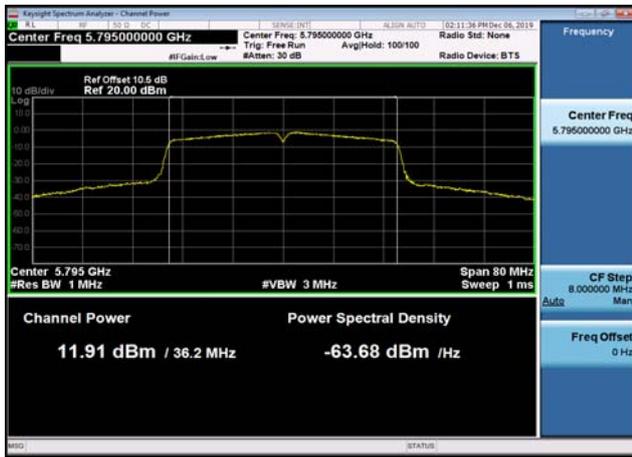
U-NII-3 Output Power-802.11ac(20MHz)  
,5825MHz,Ant1



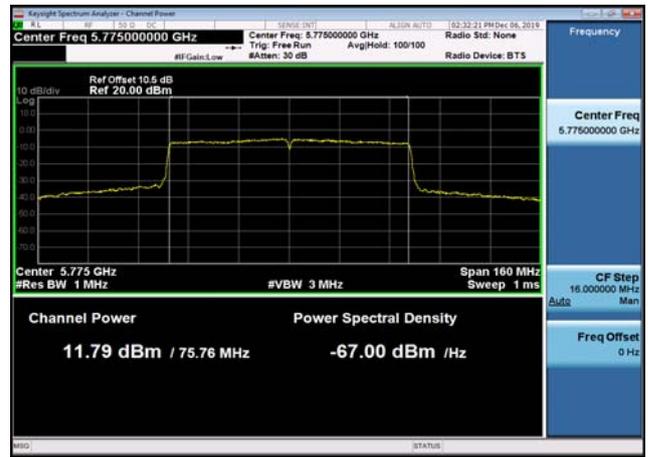
U-NII-3 Output Power-802.11ac(40MHz)  
,5755MHz,Ant1



U-NII-3 Output Power-802.11ac(40MHz)  
,5795MHz,Ant1



U-NII-3 Output Power-802.11ac(80MHz)  
,5775MHz,Ant1





## AVGSA Power Spectral Density

### Test Result and Data

U-NII-1 AVGSA Power Spectral Density				
Mode	Test Frequency (MHz)	PSD (dBm/1MHz)	Limit (dBm/1MHz)	Result
802.11n (20MHz)	5180	1.109	11	Pass
802.11n (20MHz)	5220	0.687	11	Pass
802.11n (20MHz)	5240	1.823	11	Pass
802.11n (40MHz)	5190	-1.957	11	Pass
802.11n (40MHz)	5230	-1.449	11	Pass
802.11ac (20MHz)	5180	1.314	11	Pass
802.11ac (20MHz)	5220	1.914	11	Pass
802.11ac (20MHz)	5240	1.187	11	Pass
802.11ac (40MHz)	5190	-0.967	11	Pass
802.11ac (40MHz)	5230	-2.246	11	Pass
802.11ac (80MHz)	5210	-5.148	11	Pass
802.11a (20MHz)	5180	2.491	11	Pass
802.11a (20MHz)	5220	2.461	11	Pass
802.11a (20MHz)	5240	1.854	11	Pass



U-NII-3 AVGSA Power Spectral Density				
Mode	Test Frequency (MHz)	PSD (dBm/510KHz)	Limit (dBm/500KHz)	Result
802.11n (20MHz)	5745	-1.340	30	Pass
802.11n (20MHz)	5785	-0.700	30	Pass
802.11n (20MHz)	5825	-1.056	30	Pass
802.11n (40MHz)	5755	-3.356	30	Pass
802.11n (40MHz)	5795	-3.803	30	Pass
802.11ac (20MHz)	5745	-0.486	30	Pass
802.11ac (20MHz)	5785	-1.126	30	Pass
802.11ac (20MHz)	5825	-1.372	30	Pass
802.11ac (40MHz)	5755	-3.358	30	Pass
802.11ac (40MHz)	5795	-3.320	30	Pass
802.11ac (80MHz)	5775	-7.502	30	Pass
802.11a (20MHz)	5745	-0.538	30	Pass
802.11a (20MHz)	5785	-0.412	30	Pass
802.11a (20MHz)	5825	-0.066	30	Pass

### Test Plots

U-NII-1 Power spectral density-802.11  
n(20MHz),5180MHz,Ant1



U-NII-1 Power spectral density-802.11  
n(20MHz),5220MHz,Ant1



U-NII-1 Power spectral density-802.11  
n(20MHz),5240MHz,Ant1



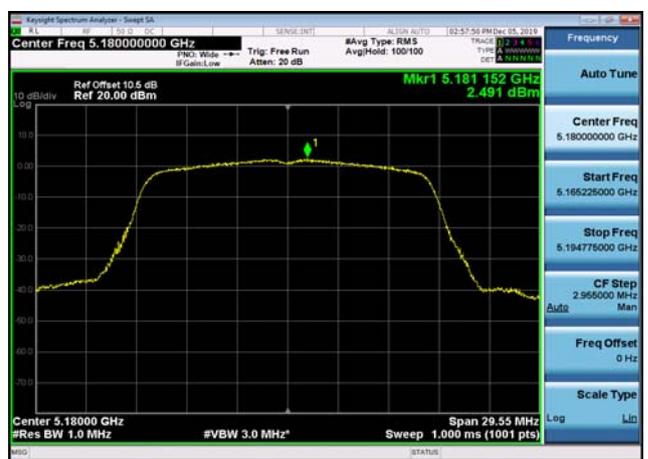
U-NII-1 Power spectral density-802.11  
n(40MHz),5190MHz,Ant1



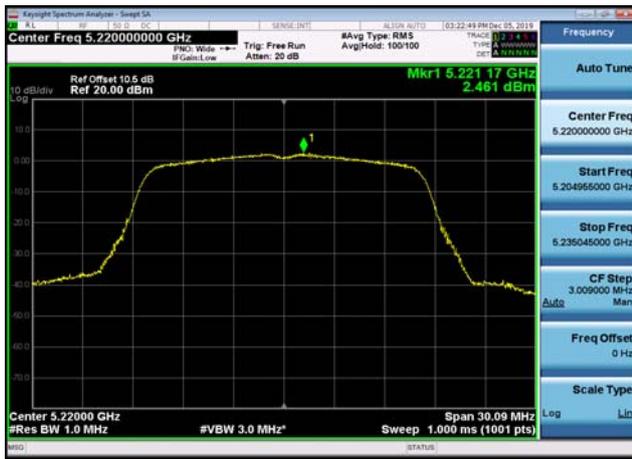
U-NII-1 Power spectral density-802.11  
n(40MHz),5230MHz,Ant1



U-NII-1 Power spectral density-802.11  
a(20MHz),5180MHz,Ant1



U-NII-1 Power spectral density-802.11  
a(20MHz),5220MHz,Ant1



U-NII-1 Power spectral density-802.11  
a(20MHz),5240MHz,Ant1



U-NII-1 Power spectral density-802.11  
ac(20MHz),5180MHz,Ant1



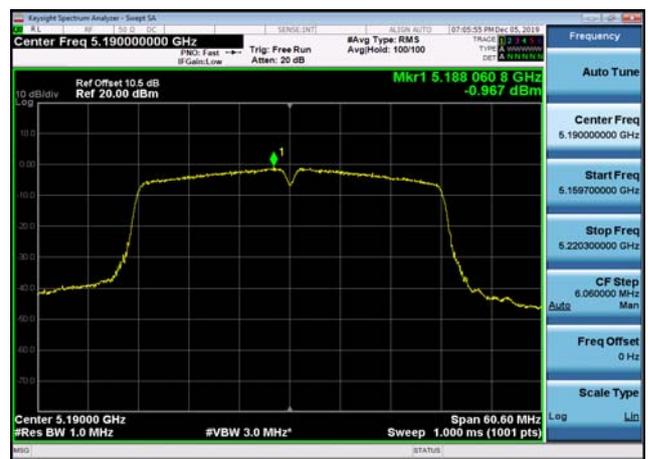
U-NII-1 Power spectral density-802.11  
ac(20MHz),5220MHz,Ant1



U-NII-1 Power spectral density-802.11  
ac(20MHz),5240MHz,Ant1



U-NII-1 Power spectral density-802.11  
ac(40MHz),5190MHz,Ant1



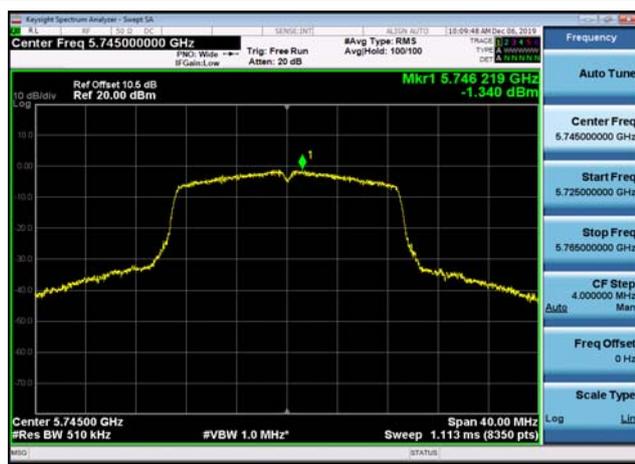
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ac(40MHz),5230MHz,Ant1



U-NII-1 Power spectral density-802.11  
ac(80MHz),5210MHz,Ant1



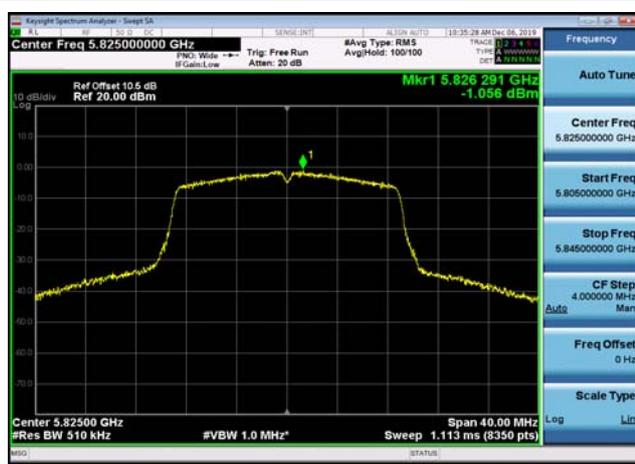
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n(20MHz),5745MHz,Ant1



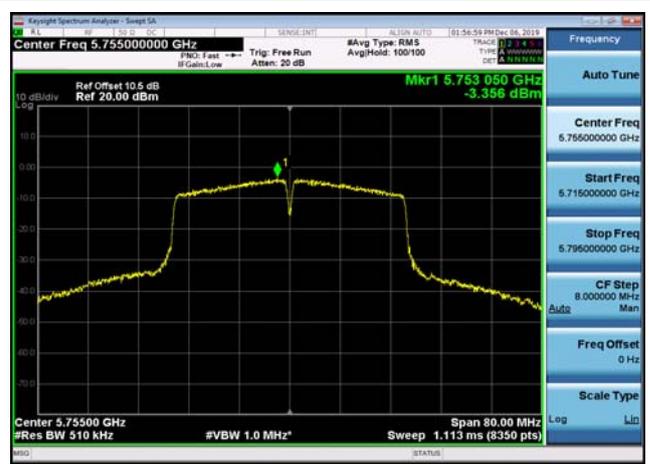
U-NII-3 Power spectral density-802.11  
n(20MHz),5785MHz,Ant1



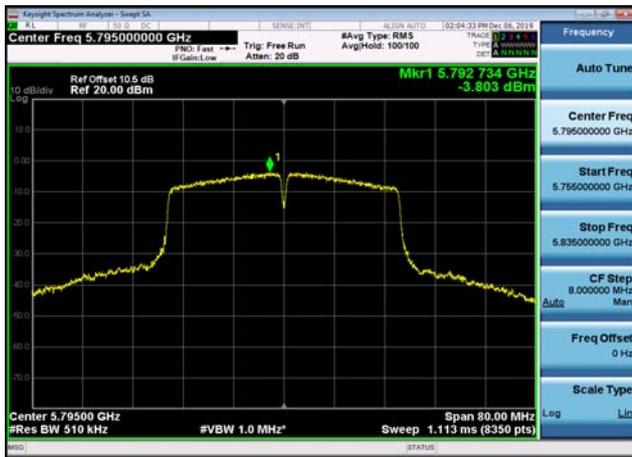
U-NII-3 Power spectral density-802.11  
n(20MHz),5825MHz,Ant1



U-NII-3 Power spectral density-802.11  
n(40MHz),5755MHz,Ant1



U-NII-3 Power spectral density-802.11  
n(40MHz),5795MHz,Ant1



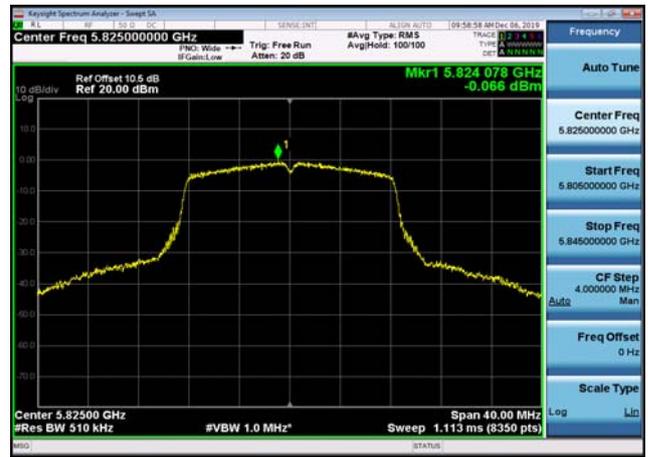
U-NII-3 Power spectral density-802.11  
a(20MHz),5745MHz,Ant1



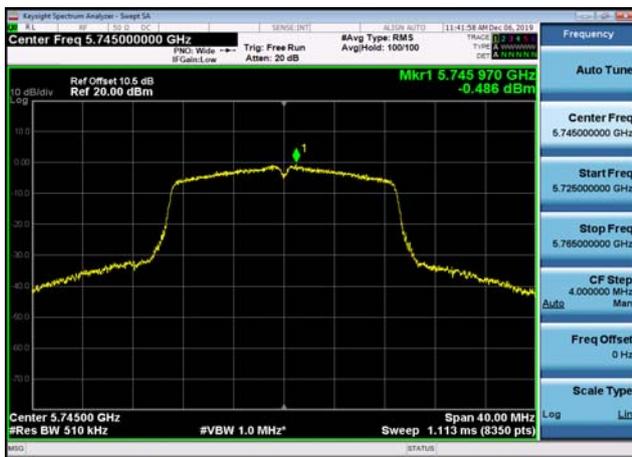
U-NII-3 Power spectral density-802.11  
a(20MHz),5785MHz,Ant1



U-NII-3 Power spectral density-802.11  
a(20MHz),5825MHz,Ant1



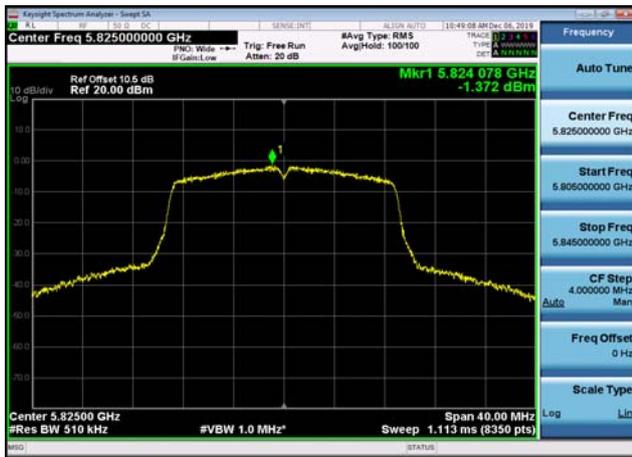
U-NII-3 Power spectral density-802.11  
ac(20MHz),5745MHz,Ant1



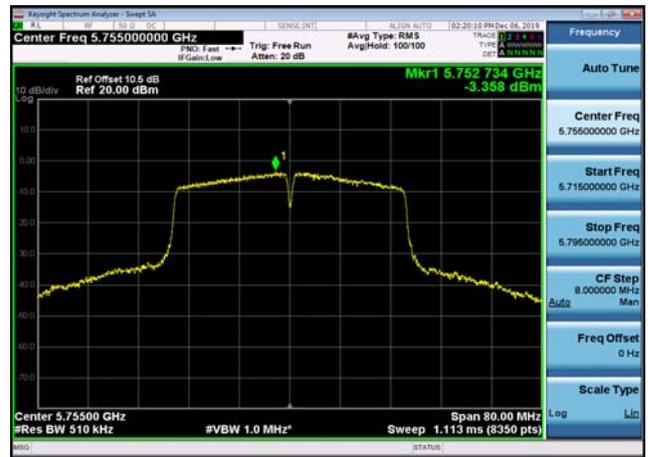
U-NII-3 Power spectral density-802.11  
ac(20MHz),5785MHz,Ant1



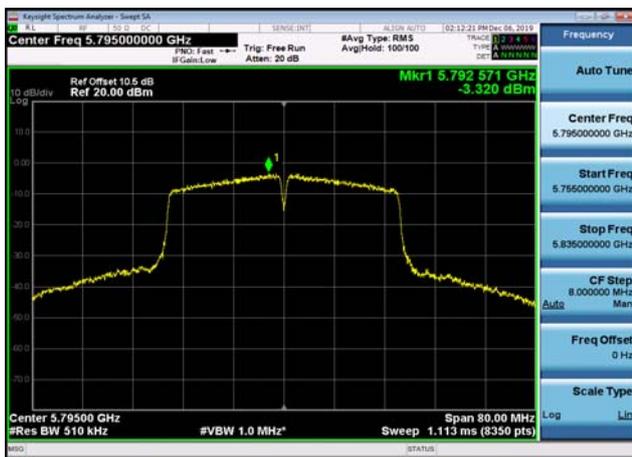
U-NII-3 Power spectral density-802.11  
ac(20MHz),5825MHz,Ant1



U-NII-3 Power spectral density-802.11  
ac(40MHz),5755MHz,Ant1



U-NII-3 Power spectral density-802.11  
ac(40MHz),5795MHz,Ant1



U-NII-3 Power spectral density-802.11  
ac(80MHz),5775MHz,Ant1



## 6dB and 26dB Down Bandwidth

### Test Result and Data

U-NII-1 Occupied 26dB Bandwidth			
Mode	Test Frequency (MHz)	Occupied Bandwidth (MHz)	Result
802.11n (20MHz)	5180	19.86	Pass
802.11n (20MHz)	5220	20.00	Pass
802.11n (20MHz)	5240	20.05	Pass
802.11n (40MHz)	5190	40.05	Pass
802.11n (40MHz)	5230	40.21	Pass
802.11ac (20MHz)	5180	19.99	Pass
802.11ac (20MHz)	5220	19.99	Pass
802.11ac (20MHz)	5240	19.94	Pass
802.11ac (40MHz)	5190	40.40	Pass
802.11ac (40MHz)	5230	40.05	Pass
802.11ac (80MHz)	5210	81.73	Pass
802.11a (20MHz)	5180	19.70	Pass
802.11a (20MHz)	5220	20.06	Pass
802.11a (20MHz)	5240	20.00	Pass



## U-NII-3 Occupied 6dB Bandwidth

Mode	Test Frequency (MHz)	Occupied Bandwidth (MHz)	Limit (KHz)	Result
802.11n (20MHz)	5745	13.89	500	Pass
802.11n (20MHz)	5785	15.13	500	Pass
802.11n (20MHz)	5825	13.90	500	Pass
802.11n (40MHz)	5755	33.92	500	Pass
802.11n (40MHz)	5795	35.12	500	Pass
802.11ac (20MHz)	5745	15.92	500	Pass
802.11ac (20MHz)	5785	15.08	500	Pass
802.11ac (20MHz)	5825	13.85	500	Pass
802.11ac (40MHz)	5755	33.86	500	Pass
802.11ac (40MHz)	5795	35.17	500	Pass
802.11ac (80MHz)	5775	75.46	500	Pass
802.11a (20MHz)	5745	14.48	500	Pass
802.11a (20MHz)	5785	12.86	500	Pass
802.11a (20MHz)	5825	15.16	500	Pass

# Test Plots

U-NII-1 26dB Bandwidth-802.11n(20MHz)  
,5180MHz,Ant1



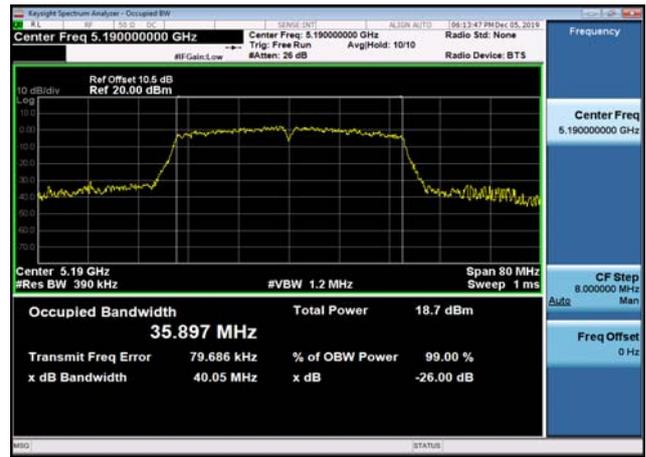
U-NII-1 26dB Bandwidth-802.11n(20MHz)  
,5220MHz,Ant1



U-NII-1 26dB Bandwidth-802.11n(20MHz)  
,5240MHz,Ant1



U-NII-1 26dB Bandwidth-802.11n(40MHz)  
,5190MHz,Ant1



U-NII-1 26dB Bandwidth-802.11n(40MHz)  
,5230MHz,Ant1



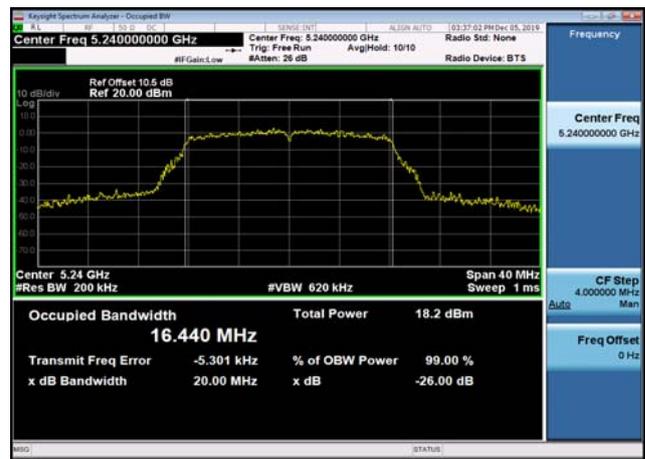
U-NII-1 26dB Bandwidth-802.11a(20MHz)  
,5180MHz,Ant1



U-NII-1 26dB Bandwidth-802.11a(20MHz)  
,5220MHz,Ant1



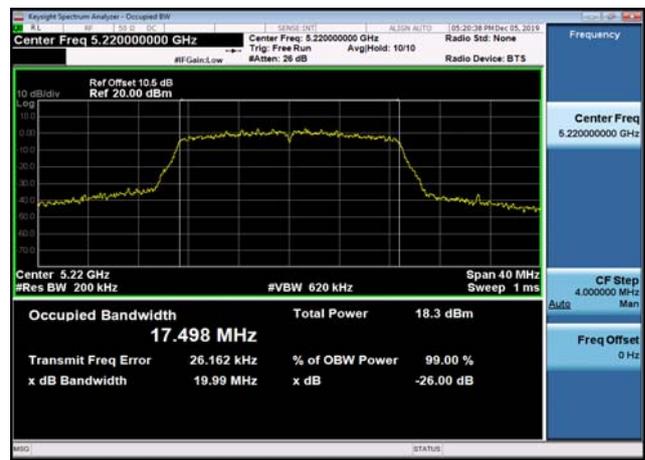
U-NII-1 26dB Bandwidth-802.11a(20MHz)  
,5240MHz,Ant1



U-NII-1 26dB Bandwidth-802.11ac(20MHz)  
,5180MHz,Ant1



U-NII-1 26dB Bandwidth-802.11ac(20MHz)  
,5220MHz,Ant1



U-NII-1 26dB Bandwidth-802.11ac(20MHz)  
,5240MHz,Ant1

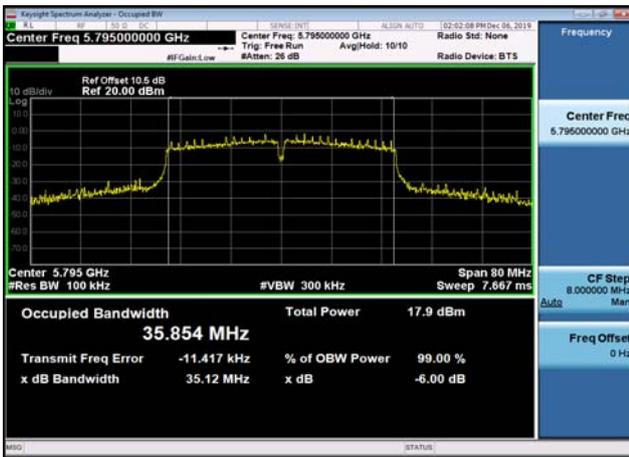


U-NII-1 26dB Bandwidth-802.11ac(40MHz)  
,5190MHz,Ant1





U-NII-3 6dB Bandwidth-802.11n(40MHz)  
,5795MHz,Ant1



U-NII-3 6dB Bandwidth-802.11a(20MHz)  
,5745MHz,Ant1



U-NII-3 6dB Bandwidth-802.11a(20MHz)  
,5785MHz,Ant1



U-NII-3 6dB Bandwidth-802.11a(20MHz)  
,5825MHz,Ant1



U-NII-3 6dB Bandwidth-802.11ac(20MHz)  
,5745MHz,Ant1



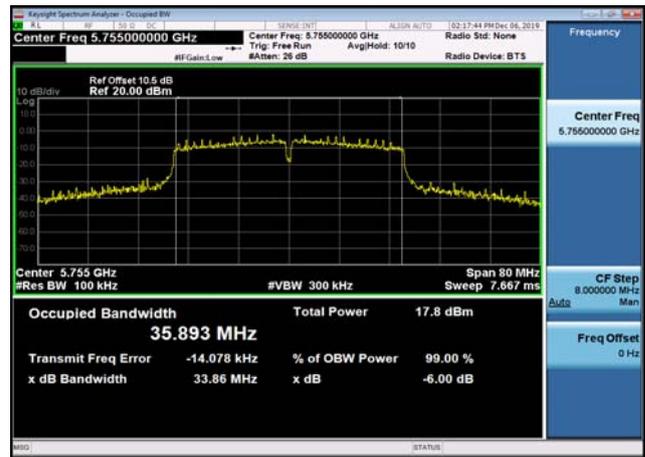
U-NII-3 6dB Bandwidth-802.11ac(20MHz)  
,5785MHz,Ant1



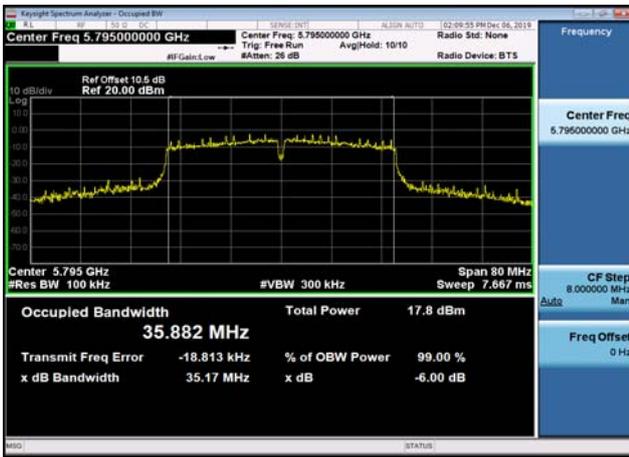
U-NII-3 6dB Bandwidth-802.11ac(20MHz)  
,5825MHz,Ant1



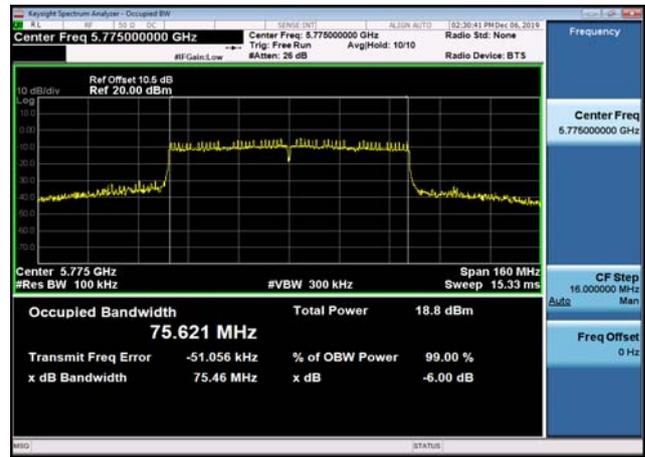
U-NII-3 6dB Bandwidth-802.11ac(40MHz)  
,5755MHz,Ant1



U-NII-3 6dB Bandwidth-802.11ac(40MHz)  
,5795MHz,Ant1



U-NII-3 6dB Bandwidth-802.11ac(80MHz)  
,5775MHz,Ant1



**Frequency Stability****U-NII-1**

U-NII-1 Centre Frequency							
Mode	Test Frequency (MHz)	Ant	LF (MHz)	HF (MHz)	CF (MHz)	Freq Stability (ppm)	Test Result
802.11n (20MHz)	5180	Ant1	5171.220	5188.789	5180.005	0.880	Pass
802.11n (20MHz)	5220	Ant1	5211.214	5228.794	5220.004	0.800	Pass
802.11n (20MHz)	5240	Ant1	5231.204	5248.797	5240.000	0.080	Pass
802.11n (40MHz)	5190	Ant1	5171.858	5208.173	5190.015	2.890	Pass
802.11n (40MHz)	5230	Ant1	5211.870	5248.176	5230.023	4.300	Pass
802.11ac (20MHz)	5180	Ant1	5171.188	5188.804	5179.996	-0.720	Pass
802.11ac (20MHz)	5220	Ant1	5211.214	5228.789	5220.002	0.320	Pass
802.11ac (20MHz)	5240	Ant1	5231.223	5248.785	5240.004	0.720	Pass
802.11ac (40MHz)	5190	Ant1	5171.864	5208.140	5190.002	0.290	Pass
802.11ac (40MHz)	5230	Ant1	5211.852	5248.179	5230.015	2.870	Pass
802.11ac (80MHz)	5210	Ant1	5171.867	5248.257	5210.062	11.840	Pass
802.11a (20MHz)	5180	Ant1	5171.741	5188.207	5179.974	-5.070	Pass
802.11a (20MHz)	5220	Ant1	5211.823	5228.179	5220.001	0.160	Pass
802.11a (20MHz)	5240	Ant1	5231.726	5248.213	5239.970	-5.800	Pass



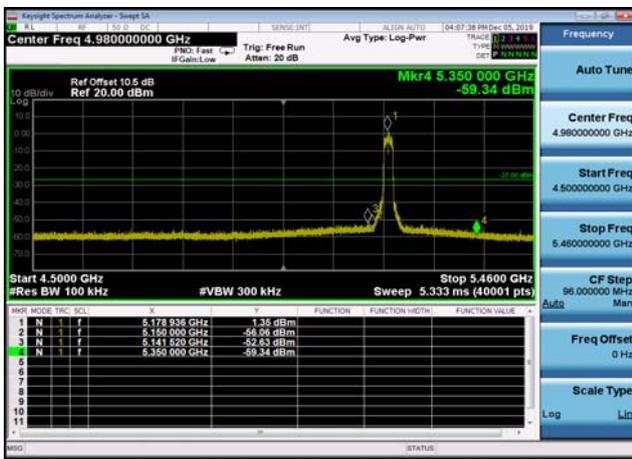
## U-NII-3

U-NII-3 Centre Frequency							
Mode	Test Frequency (MHz)	Ant	LF (MHz)	HF (MHz)	CF (MHz)	Freq Stability (ppm)	Test Result
802.11n (20MHz)	5745	Ant1	5736.218	5753.798	5745.008	1.380	Pass
802.11n (20MHz)	5785	Ant1	5776.199	5793.810	5785.005	0.790	Pass
802.11n (20MHz)	5825	Ant1	5816.208	5833.795	5825.001	0.210	Pass
802.11n (40MHz)	5755	Ant1	5736.843	5773.129	5754.986	-2.480	Pass
802.11n (40MHz)	5795	Ant1	5776.835	5813.149	5794.992	-1.420	Pass
802.11ac (20MHz)	5745	Ant1	5736.110	5753.860	5744.985	-2.610	Pass
802.11ac (20MHz)	5785	Ant1	5776.199	5793.786	5784.993	-1.300	Pass
802.11ac (20MHz)	5825	Ant1	5816.196	5833.779	5824.988	-2.150	Pass
802.11ac (40MHz)	5755	Ant1	5736.858	5773.177	5755.017	3.000	Pass
802.11ac (40MHz)	5795	Ant1	5776.844	5813.138	5794.991	-1.550	Pass
802.11ac (80MHz)	5775	Ant1	5736.837	5813.260	5775.048	8.370	Pass
802.11a (20MHz)	5745	Ant1	5736.734	5753.215	5744.975	-4.420	Pass
802.11a (20MHz)	5785	Ant1	5776.713	5793.278	5784.995	-0.790	Pass
802.11a (20MHz)	5825	Ant1	5816.782	5833.270	5825.026	4.430	Pass

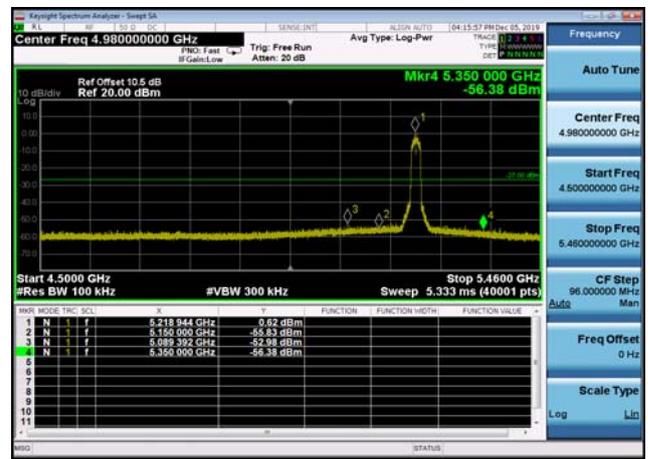
Note: The worst data reported only.

### Bandedge and spurious Emission

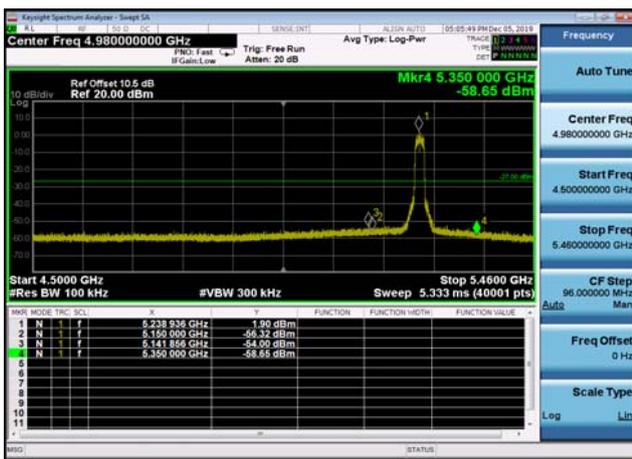
U-NII-1 ,Plot 1,Band Edge-802.11n(20M Hz),5180MHz,Ant1



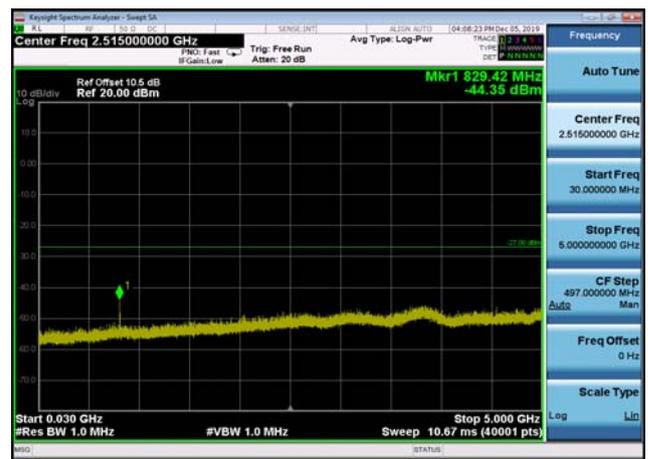
U-NII-1 ,Plot 1,Band Edge-802.11n(20M Hz),5220MHz,Ant1



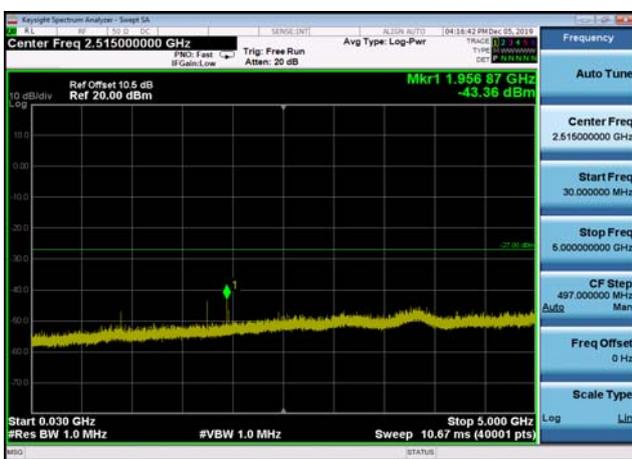
U-NII-1 ,Plot 1,Band Edge-802.11n(20M Hz),5240MHz,Ant1



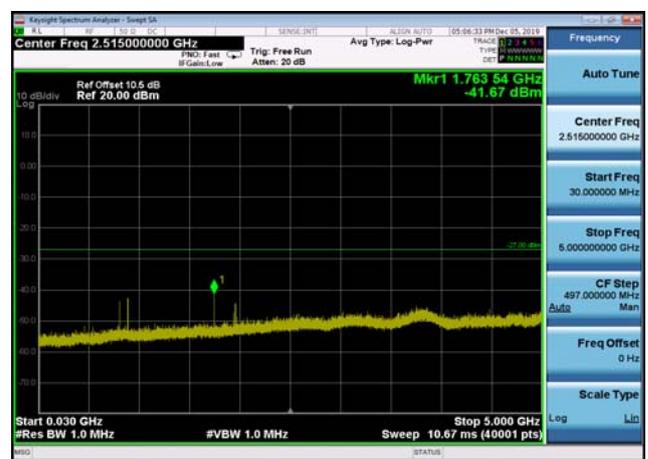
U-NII-1 ,Plot 2,30MHz~5000MHz-802.11n (20MHz),5180MHz,Ant1



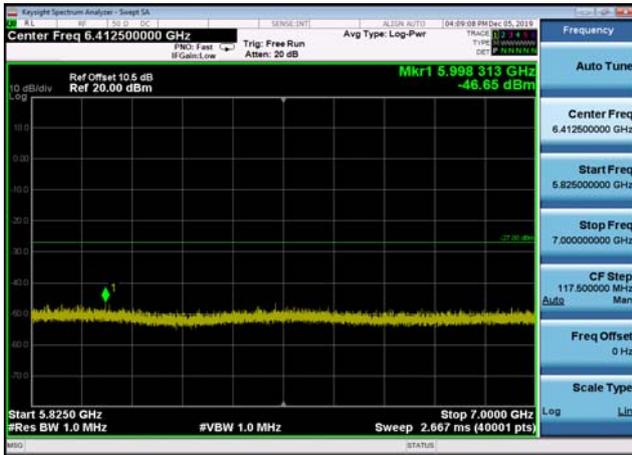
U-NII-1 ,Plot 2,30MHz~5000MHz-802.11n (20MHz),5220MHz,Ant1



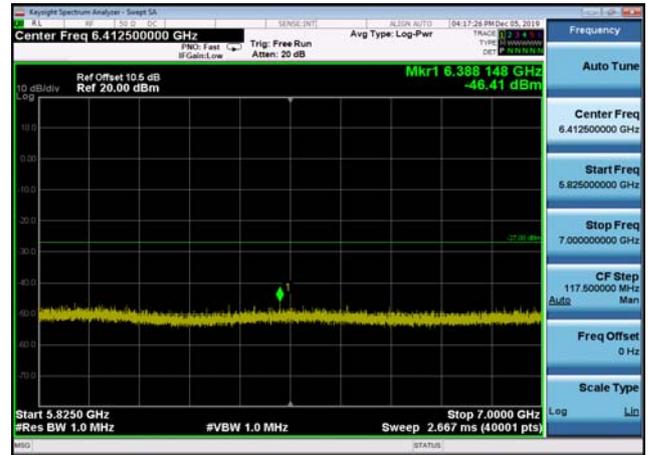
U-NII-1 ,Plot 2,30MHz~5000MHz-802.11n (20MHz),5240MHz,Ant1



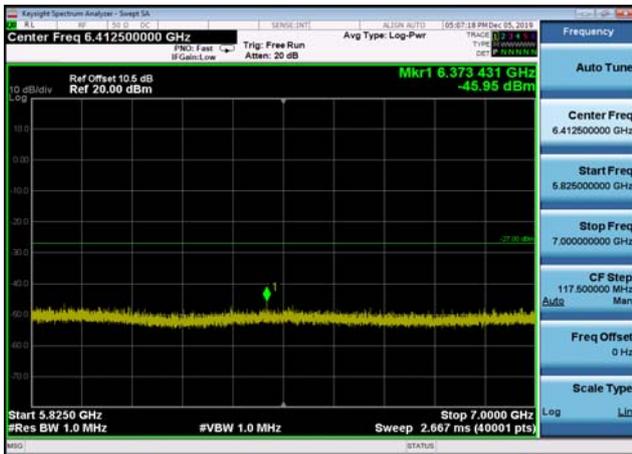
U-NII-1 ,Plot 3,5825MHz~7000MHz-802.1  
1n(20MHz),5180MHz,Ant1



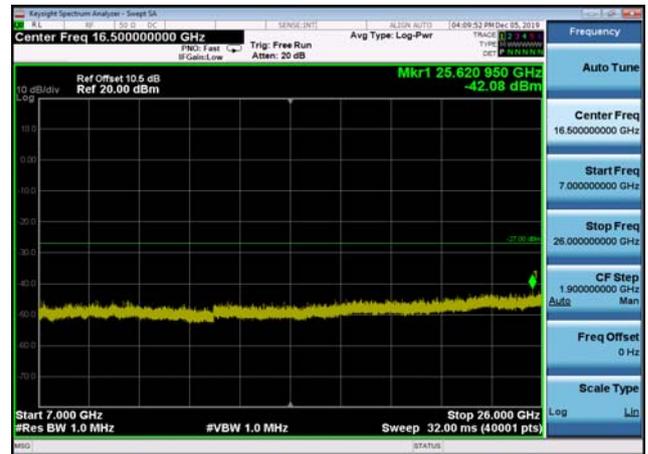
U-NII-1 ,Plot 3,5825MHz~7000MHz-802.1  
1n(20MHz),5220MHz,Ant1



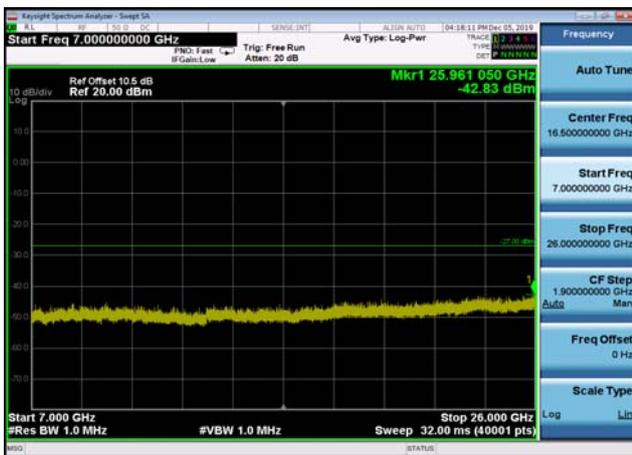
U-NII-1 ,Plot 3,5825MHz~7000MHz-802.1  
1n(20MHz),5240MHz,Ant1



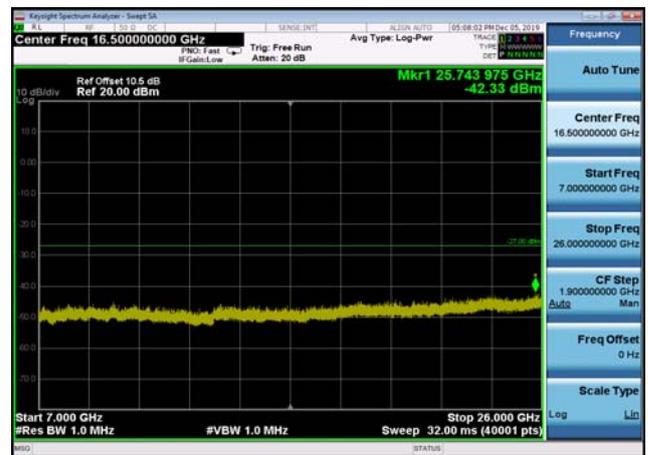
U-NII-1 ,Plot 4,7000MHz~26000MHz-802.  
11n(20MHz),5180MHz,Ant1



U-NII-1 ,Plot 4,7000MHz~26000MHz-802.  
11n(20MHz),5220MHz,Ant1

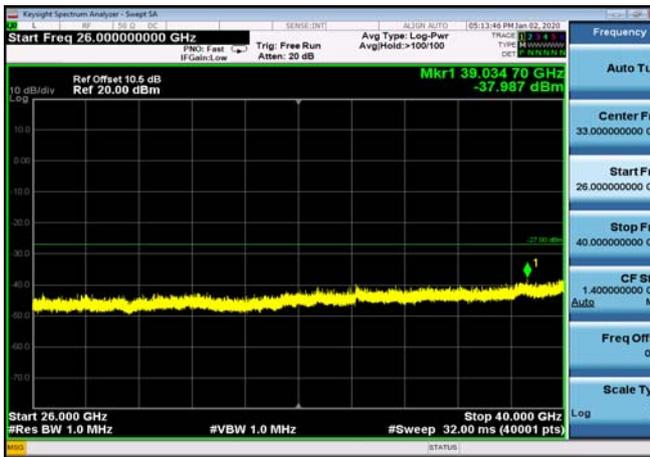


U-NII-1 ,Plot 4,7000MHz~26000MHz-802.  
11n(20MHz),5240MHz,Ant1





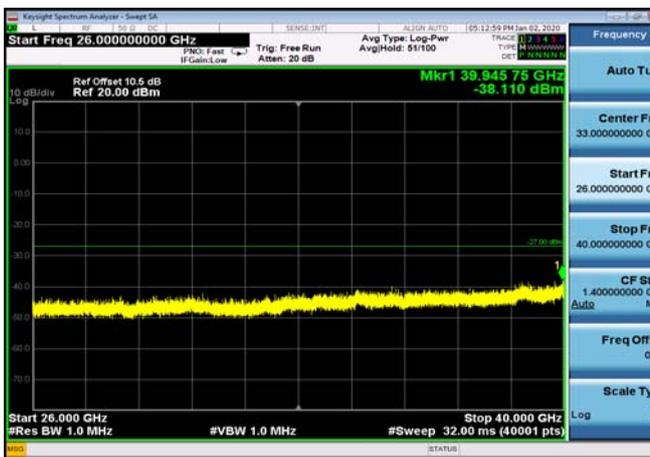
U-NII-1 ,Plot 2,26000MHz~40000MHz-802.11n  
(20MHz),5180MHz,Ant1



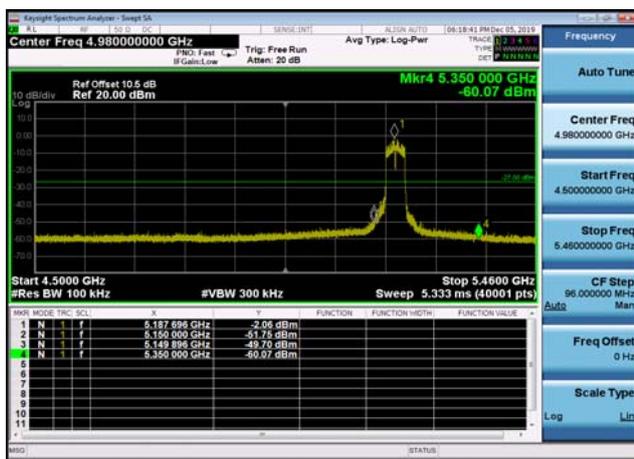
U-NII-1 ,Plot 2,26000MHz~40000MHz-802.11n  
(20MHz),5220MHz,Ant1



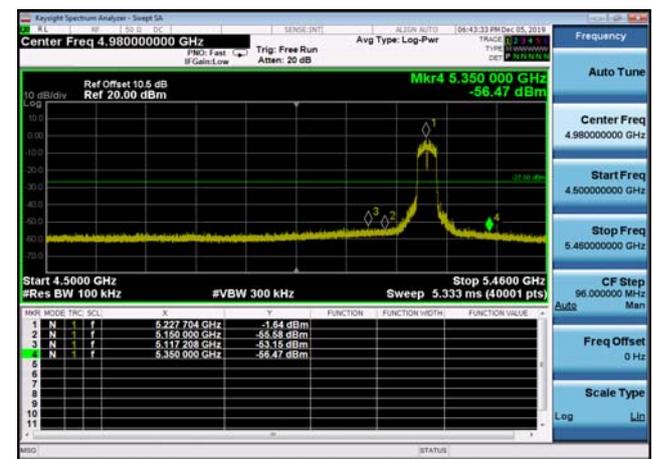
U-NII-1 ,Plot 2,26000MHz~40000MHz-802.11n  
(20MHz),5240MHz,Ant1



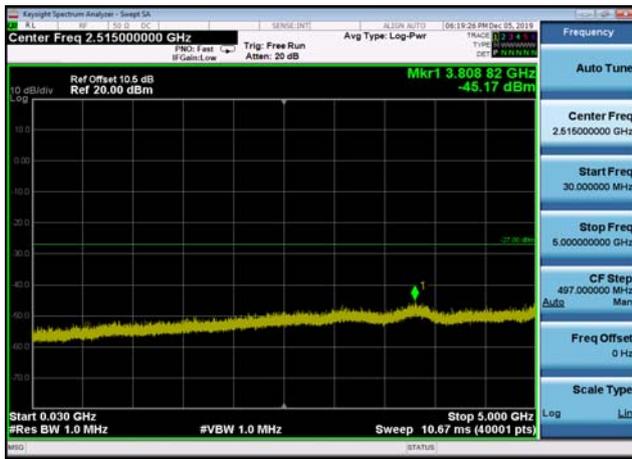
U-NII-1 ,Plot 1,Band Edge-802.11n(40M  
Hz),5190MHz,Ant1



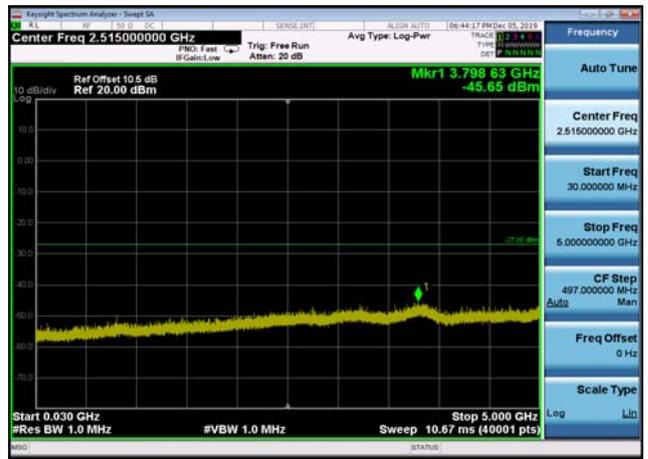
U-NII-1 ,Plot 1,Band Edge-802.11n(40M  
Hz),5230MHz,Ant1



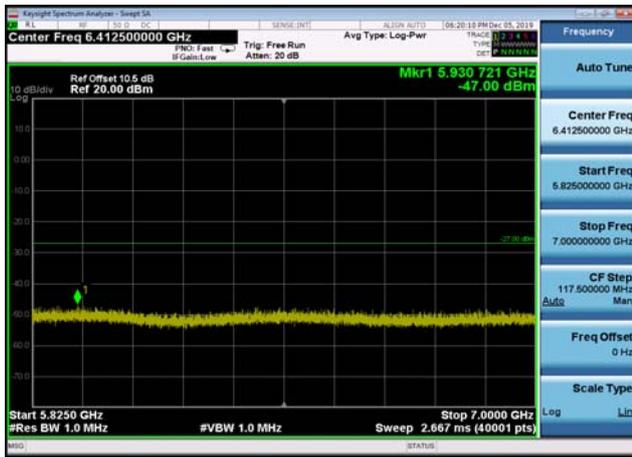
U-NII-1 ,Plot 2,30MHz~5000MHz-802.11n  
(40MHz),5190MHz,Ant1



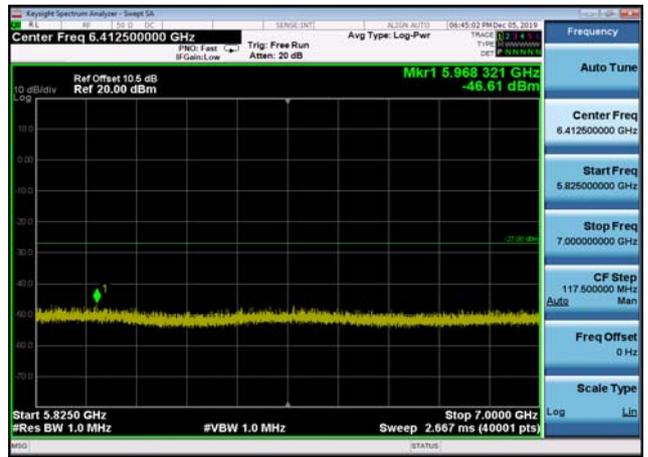
U-NII-1 ,Plot 2,30MHz~5000MHz-802.11n  
(40MHz),5230MHz,Ant1



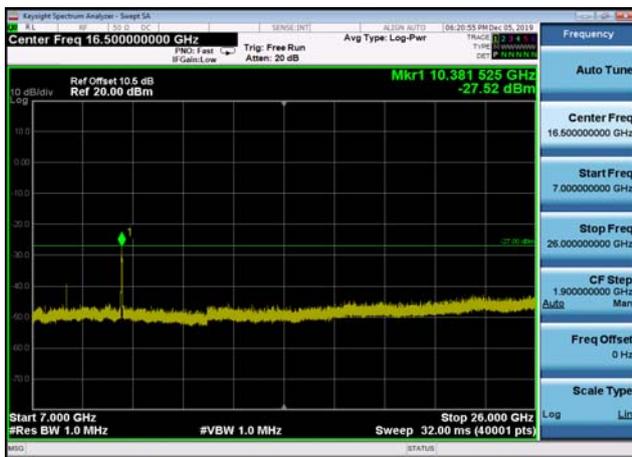
U-NII-1 ,Plot 3,5825MHz~7000MHz-802.1  
1n(40MHz),5190MHz,Ant1



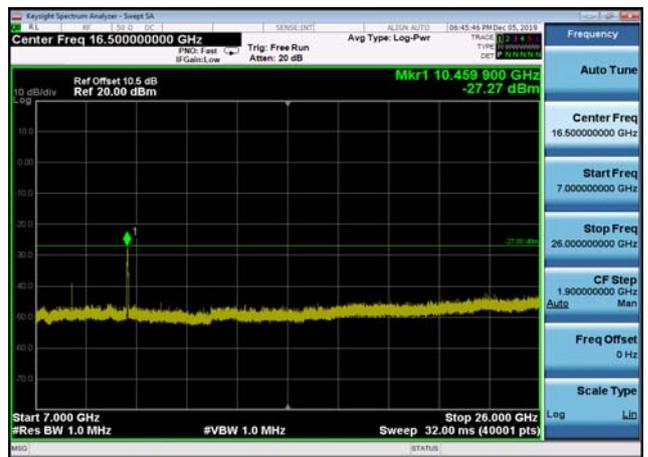
U-NII-1 ,Plot 3,5825MHz~7000MHz-802.1  
1n(40MHz),5230MHz,Ant1



U-NII-1 ,Plot 4,7000MHz~26000MHz-802.  
11n(40MHz),5190MHz,Ant1



U-NII-1 ,Plot 4,7000MHz~26000MHz-802.  
11n(40MHz),5230MHz,Ant1





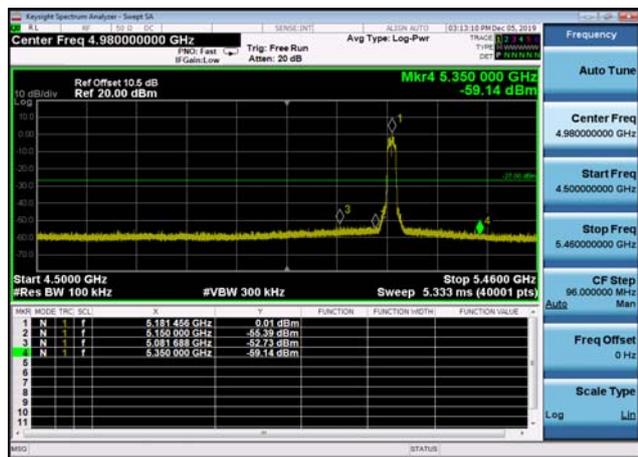
U-NII-1 ,Plot 2,26000MHz~40000MHz-802.11n  
(40MHz),5190MHz,Ant1



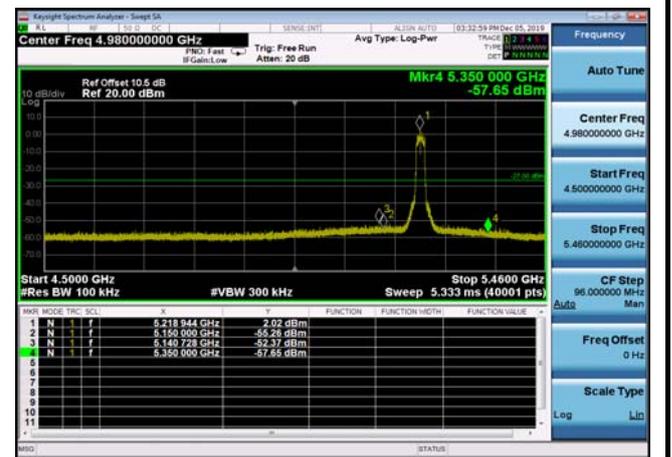
U-NII-1 ,Plot 2,26000MHz~40000MHz-802.11n  
(40MHz),5230MHz,Ant1



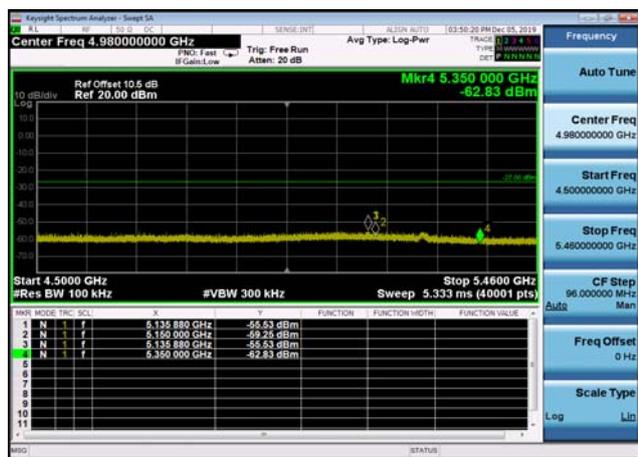
U-NII-1 ,Plot 1,Band Edge-802.11a(20M  
Hz),5180MHz,Ant1



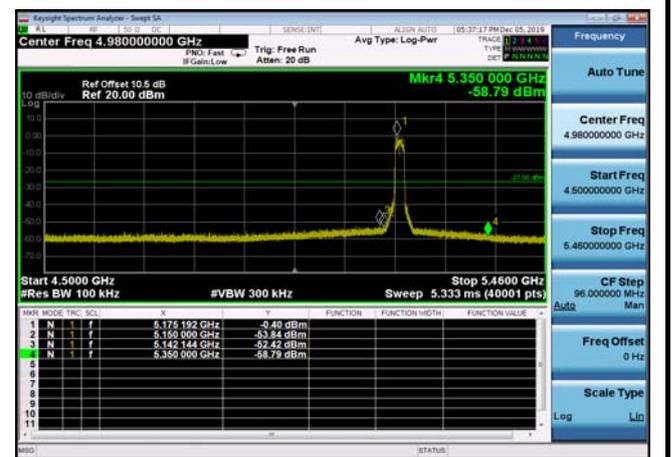
U-NII-1 ,Plot 1,Band Edge-802.11a(20M  
Hz),5220MHz,Ant1



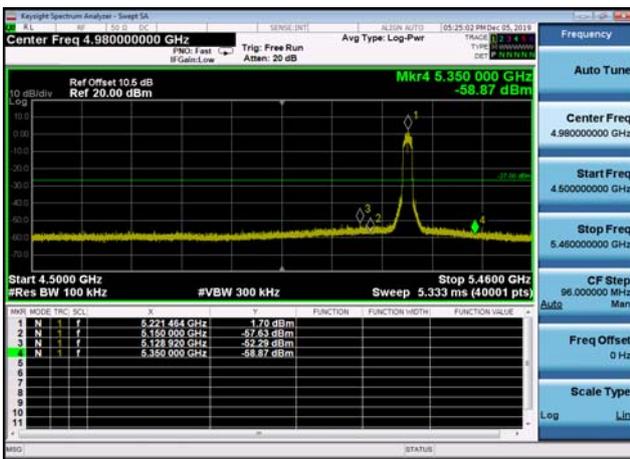
U-NII-1 ,Plot 1,Band Edge-802.11a(20M  
Hz),5240MHz,Ant1



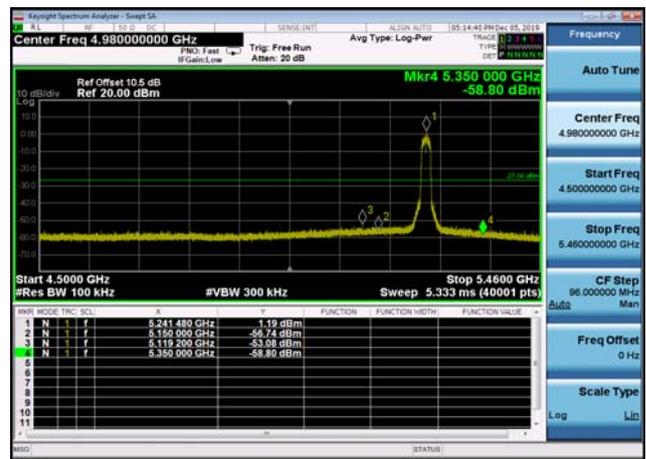
U-NII-1 ,Plot 1,Band Edge-802.11ac(20  
MHz),5180MHz,Ant1



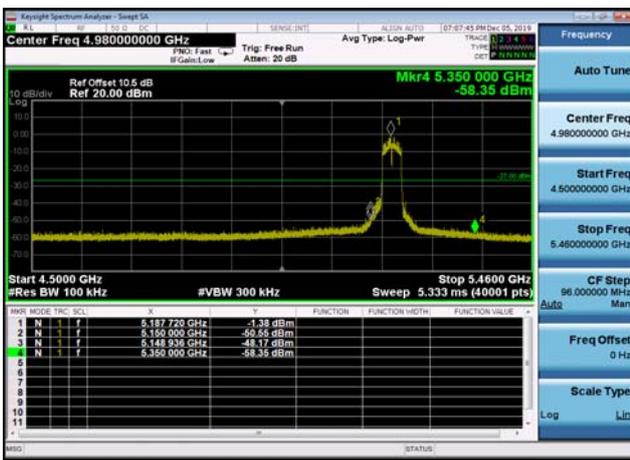
U-NII-1 ,Plot 1,Band Edge-802.11ac(20 MHz),5220MHz,Ant1



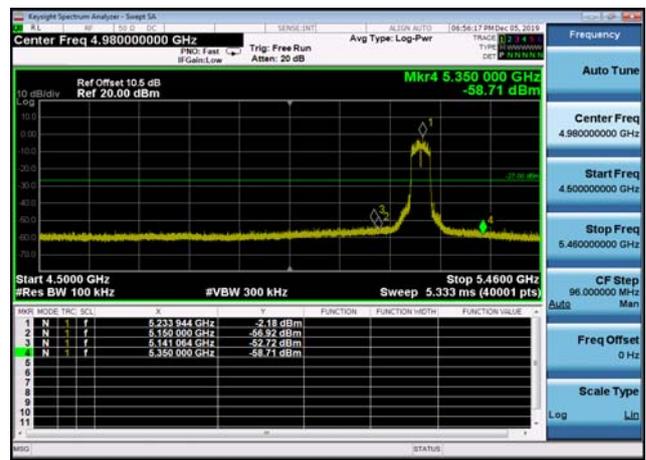
U-NII-1 ,Plot 1,Band Edge-802.11ac(20 MHz),5240MHz,Ant1



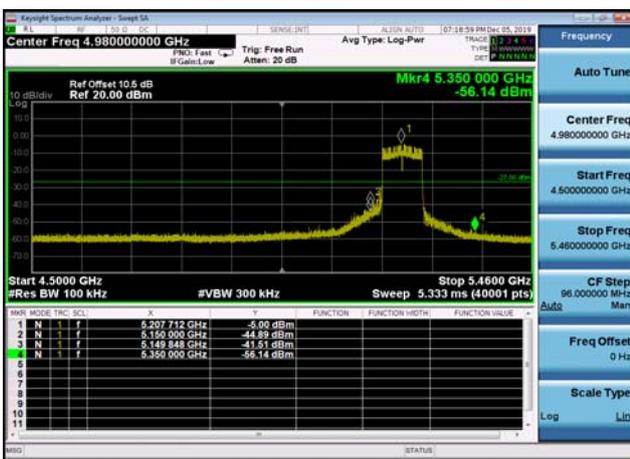
U-NII-1 ,Plot 1,Band Edge-802.11ac(40 MHz),5190MHz,Ant1



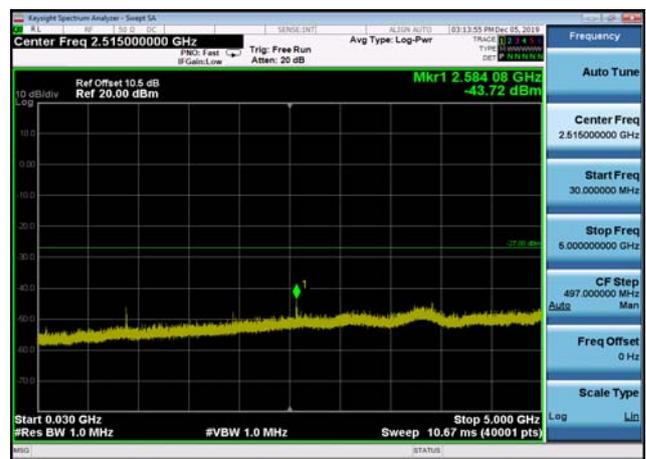
U-NII-1 ,Plot 1,Band Edge-802.11ac(40 MHz),5230MHz,Ant1



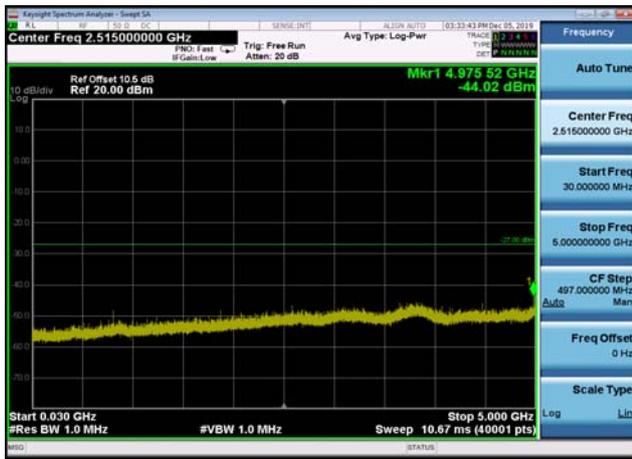
U-NII-1 ,Plot 1,Band Edge-802.11ac(80 MHz),5210MHz,Ant1



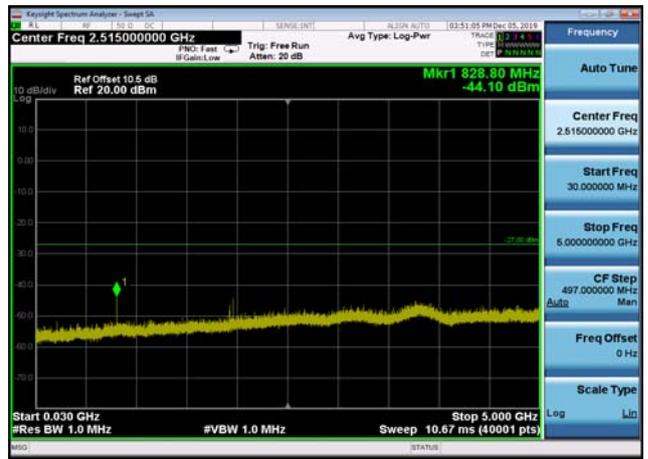
U-NII-1 ,Plot 2,30MHz~5000MHz-802.11a (20MHz),5180MHz,Ant1



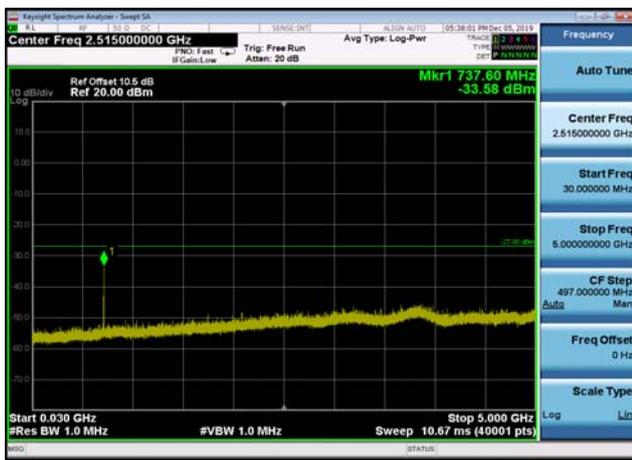
U-NII-1 ,Plot 2,30MHz~5000MHz-802.11a  
(20MHz),5220MHz,Ant1



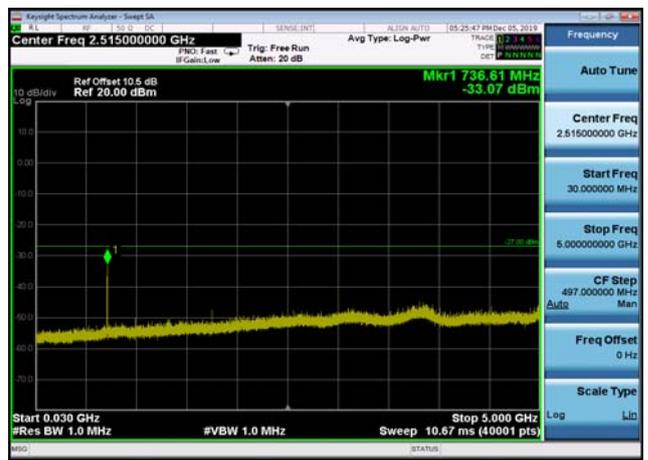
U-NII-1 ,Plot 2,30MHz~5000MHz-802.11a  
(20MHz),5240MHz,Ant1



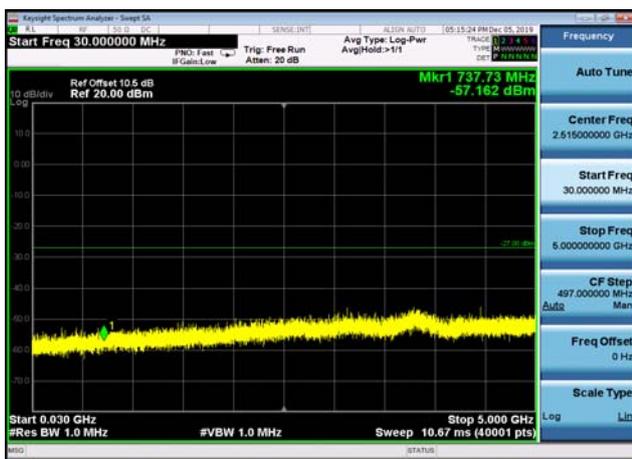
U-NII-1 ,Plot 2,30MHz~5000MHz-802.11a  
c(20MHz),5180MHz,Ant1



U-NII-1 ,Plot 2,30MHz~5000MHz-802.11a  
c(20MHz),5220MHz,Ant1



U-NII-1 ,Plot 2,30MHz~5000MHz-802.11a  
c(20MHz),5240MHz,Ant1



U-NII-1 ,Plot 2,30MHz~5000MHz-802.11a  
c(40MHz),5190MHz,Ant1

