



RF TEST REPORT

Report No.: SET2019-10396

Product Name: 4G Wireless Router

FCC ID: SRQ-MF286C

Model No. : MF286C

Applicant: ZTE Corporation.

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

Dates of Testing: 08/01/2019 —08/19/2019

Issued by: CCIC Southern Electronic Product Testing (Shenzhen) Co.,
Ltd.

Lab Location: Building 28/29, East of Shigu, Xili Industrial Zone, Xili Road,
Nanshan District, Shenzhen, Guangdong, China.

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Test Report

Product Name : 4G Wireless Router

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 : Robin Luo 2019.08.19

Robin Luo, Test Engineer

Reviewed by : Chris You 2019.08.19

Chris You, Senior Engineer

Approved by : Shuangwen Zhang 2019.08.19

Shuangwen Zhang, Manager



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Change History		
Issue	Date	Reason for change
1.0	2019.08.19	First edition



1. General Information

1.1. EUT Description

EUT Type	4G Wireless Router
EUT supports Radios application	WLAN5.0GHz 802.11a/n (HT20/40)/ac(VHT20/40/80)
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(MIMO)
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
Antenna Gain	Antenna 1/2: 3dBi
Output Power (Max.)	Band UNII-1: 17.78dBm Band UNII-3: 16.97dBm

Frequency	Modulation Mode	TX / RX Function
5.0GHz	802.11a	1TX / 1RX
	802.11n (HT20)	1TX / 1RX or 2TX / 2RX
	802.11n (HT40)	1TX / 1RX or 2TX / 2RX
	802.11ac (VHT20)	1TX / 1RX or 2TX / 2RX
	802.11ac (VHT40)	1TX / 1RX or 2TX / 2RX
	802.11ac (VHT80)	1TX / 1RX or 2TX / 2RX

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 789033D02v01	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, 802.11n-HT20 and 802.11ac-VHT20

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

2 channels are provided for 802.11n-HT40 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 and MIMO, 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 generates from EUT, the test system was pre-scanning tested base on the consideration of following EUT operation mode or test configuration mode which possible 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 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)

1.5. Power level setup in software

Power level setup in software for 5G wifi			
UNII-1 (Antenna 0)			
Frequency (MHz)	5180	5220	5240
A mode	18	18	18
Frequency (MHz)	5180	5220	5240
N20 mode	16	16	16
Frequency (MHz)	5190	5230	\
N40 mode	16	16	\
Frequency (MHz)	5180	5220	5240
AC20 mode	16	16	16
Frequency (MHz)	5190	5230	\
AC40 mode	16	16	\
Frequency (MHz)	5210	\	\
AC80 mode	16	\	\

Power level setup in software for 5G wifi			
UNII-1 (Antenna 1)			
Frequency (MHz)	5180	5220	5240
A mode	18	18	18
Frequency (MHz)	5180	5220	5240
N20 mode	16	16	16
Frequency (MHz)	5190	5230	\
N40 mode	16	16	\
Frequency (MHz)	5180	5220	5240
AC20 mode	16	16	16
Frequency (MHz)	5190	5230	\
AC40 mode	16	16	\
Frequency (MHz)	5210	\	\
AC80 mode	16	\	\



Power level setup in software for 5G wifi			
UNII-3 (Antenna 0)			
Frequency (MHz)	5745	5785	5825
A mode	18	18	18
Frequency (MHz)	5745	5785	5825
N20 mode	16	16	16
Frequency (MHz)	5755	5795	\
N40 mode	16	16	\
Frequency (MHz)	5745	5785	5825
AC20 mode	16	16	16
Frequency (MHz)	5755	5795	\
AC40 mode	16	16	\
Frequency (MHz)	5775	\	\
AC80 mode	16	\	\

Power level setup in software for 5G wifi			
UNII-3 (Antenna 1)			
Frequency (MHz)	5745	5785	5825
A mode	18	18	18
Frequency (MHz)	5745	5785	5825
N20 mode	16	16	16
Frequency (MHz)	5755	5795	\
N40 mode	16	16	\
Frequency (MHz)	5745	5785	5825
AC20 mode	16	16	16
Frequency (MHz)	5755	5795	\
AC40 mode	16	16	\
Frequency (MHz)	5775	\	\
AC80 mode	16	\	\



1.6. Laboratory Facilities

FCC-Registration No.: CN5031

CCIC Southern Electronic Product Testing (Shenzhen) 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, 2019.

ISED Registration: 11185A-1

CAB identifier:CN0064

CCIC Southern Electronic Product Testing (Shenzhen) 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, 2019.

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 System	Cyclic Delay Diversity(CDD)
	2 antennas are correlated with each other
Antenna Type	PCB

2.1.3. Antenna Gain

Antenna	Gain(dBi)
0	3
1	3
0+1	6.01

Note: 1. for 802.11n/ac mode, antenna 0, 1 can transmit/receive simultaneously (MIMO mode), for 802.11a, both antennas 0, 1 can transmit/receive at single mode (SISO mode)

2. Directional gain = $G_{ANT} + 10\log(N_{ANT})$ dBi

2.1.4. 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)

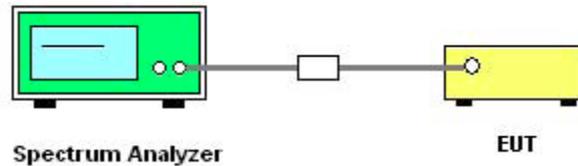
The maximum conducted output power should not exceed:

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 v02 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

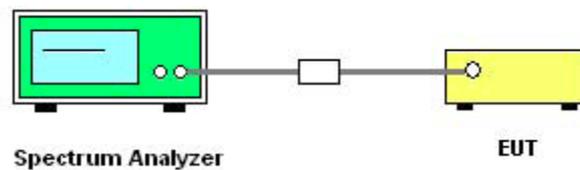
There is no limit bandwidth for band U-NII-1, U-NII-2A and U-NII-2C.

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 v02.

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)

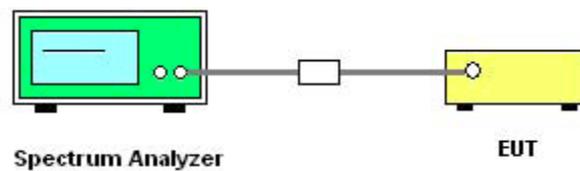
The maximum power spectral density should not exceed:

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 checked="" type="checkbox"/>	11 dBm/MHz
U-NII-2C	<input checked="" 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 v02.
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

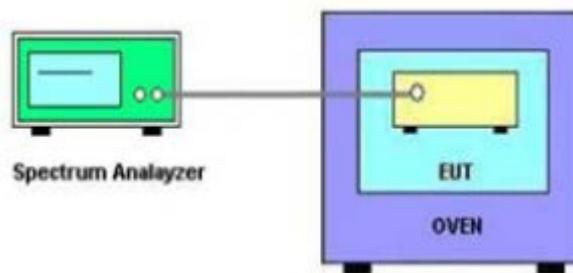
2.5.1. Limit

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 (dB $\mu\text{V}/\text{m}$) = 20 log Emission level ($\mu\text{V}/\text{m}$).
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 v01	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:

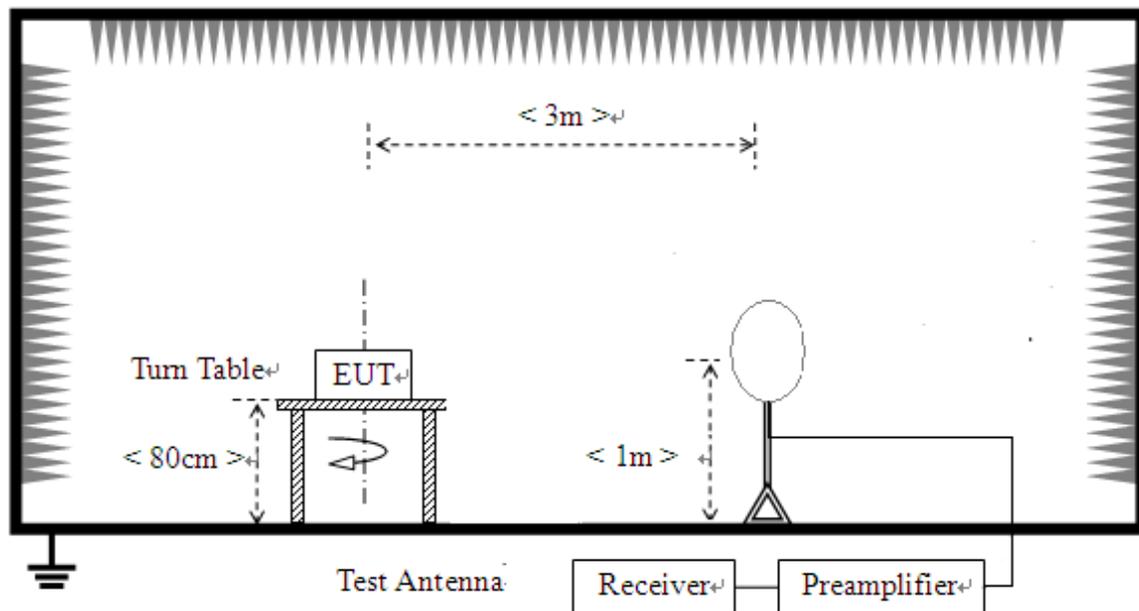
$$E = \frac{1000000 \sqrt{30P}}{3} \mu\text{V/m, where } P \text{ is the eirp (Watts).}$$

2.6.2. Measuring Instruments

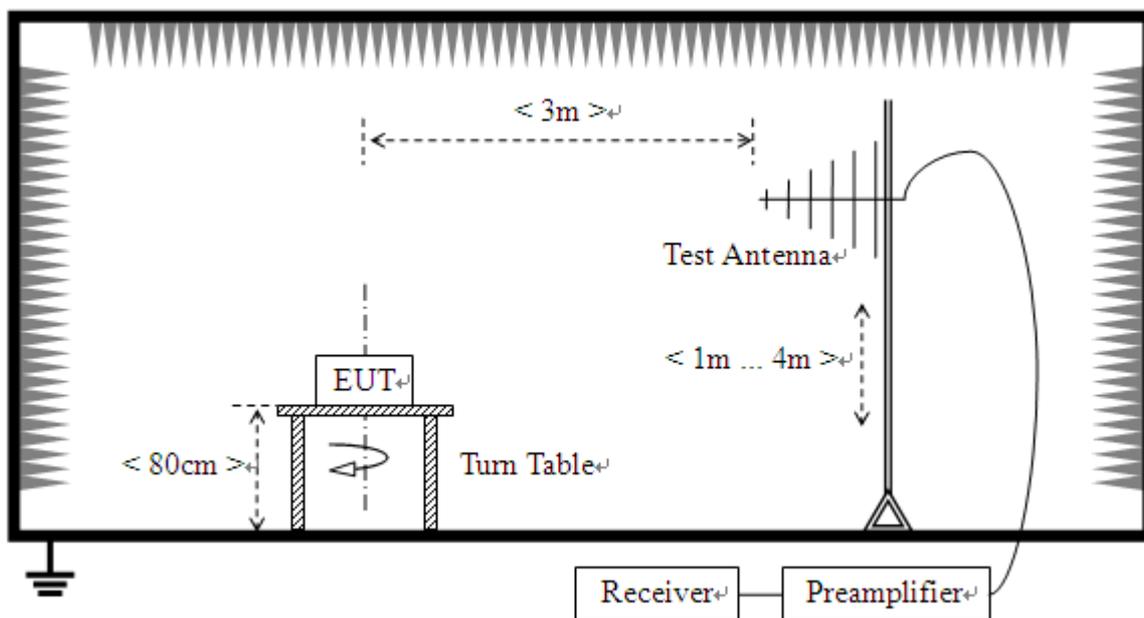
The measuring equipment is listed in the section 3 of this test report.

2.6.3. Test Setup

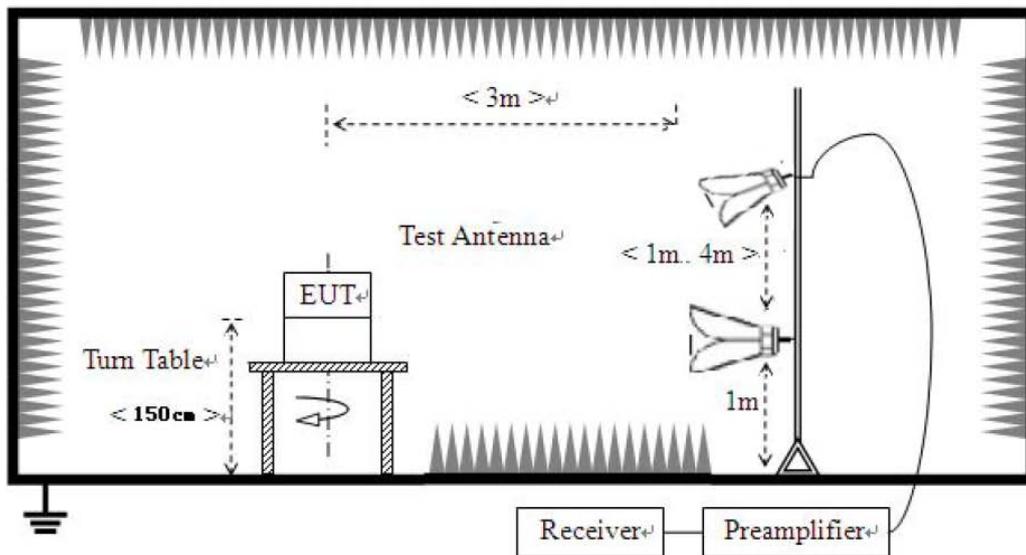
For radiated emissions from 9 KHz to 30 MHz



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:

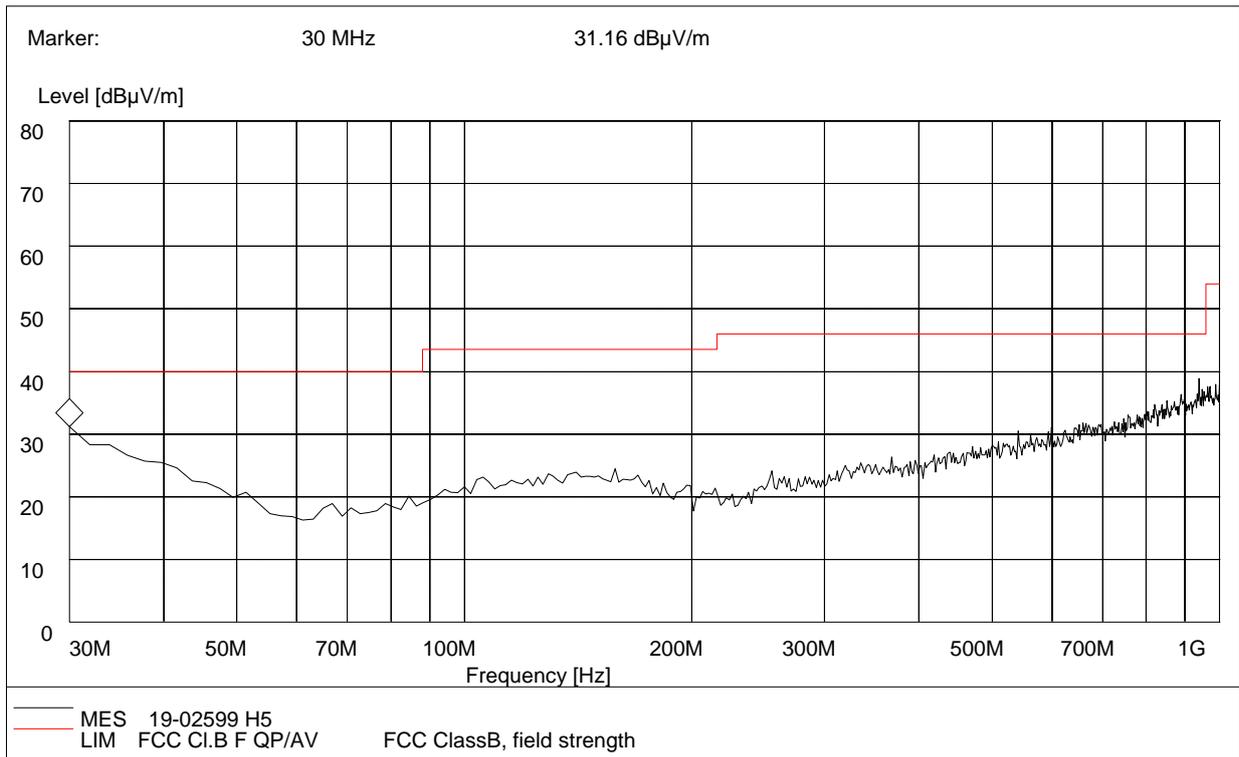
1. The resolution bandwidth and video bandwidth of test receiver/spectrum analyzer is 120 kHz for Quasi-peak detection (QP) at frequency below 1 GHz.
2. The resolution bandwidth of test receiver/spectrum analyzer is 1 MHz and the video bandwidth is 3 MHz for Peak detection (PK) at frequency above 1GHz.
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. Only provide worst-Case mode data provide here, ANT0 for 11a and MIMO mode for 11n/11n(40M)/11ac/11ac(40M)/11ac(80M) for above 1GHz, 11n(40M) MIMO mode for Below 1GHz .

2.6.5. Test Results of Radiated Band Edge and Spurious Emission

For 9 KHz to 30MHz

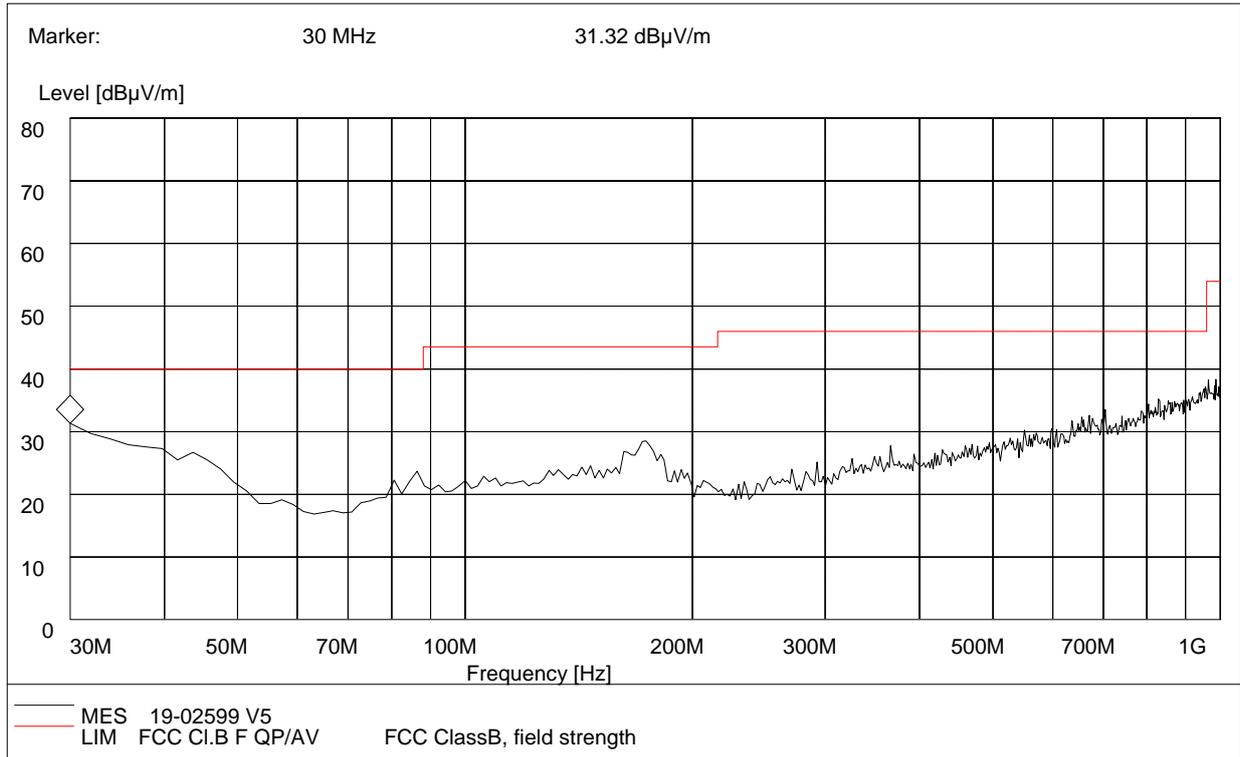
The amplitude of spurious emissions which are attenuated by more than 20dB below the permissible value has no need to be reported.

For 30MHz to 1000 MHz



30MHz to 1GHz, Antenna Horizontal

Frequency (MHz)	QuasiPeak (dBµV/m)	Bandwidth (kHz)	Antenna height (cm)	Limit (dBµV/m)	Antenna	Verdict
30.00	31.16	120.000	200.0	40.00	Horizontal	Pass



30MHz to 1GHz, Antenna Vertical

Frequency (MHz)	QuasiPeak (dB μ V/m)	Bandwidth (kHz)	Antenna height (cm)	Limit (dB μ V/m)	Antenna	Verdict
30	31.32	120.000	200.0	40.0	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	56.32	PK	68.20	-11.88	1.60	210	48.82	7.50
2	5150.00	45.83	AV	54.00	-8.17	1.60	210	38.33	7.50
3	10360.00	55.62	PK	68.20	-12.58	1.60	200	35.82	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	55.82	PK	68.20	-12.38	1.50	180	48.32	7.50
2	5150.00	45.58	AV	54.00	-8.42	1.50	180	38.08	7.50
3	10360.00	54.69	PK	68.20	-13.51	1.50	180	34.89	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	10400.00	55.03	PK	68.20	-13.17	1.60	200	35.13	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	10400.00	55.17	PK	68.20	-13.03	1.50	270	35.27	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	61.33	PK	68.20	-6.87	1.70	120	53.33	8.00
2	5350.00	50.98	AV	54.00	-3.02	1.70	120	42.98	8.00
3	10480.00	53.29	PK	68.20	-14.91	1.70	280	33.39	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	58.36	PK	68.20	-9.84	1.40	120	50.36	8.00
2	5350.00	48.22	AV	54.00	-5.78	1.40	120	40.22	8.00
3	10480.00	54.69	PK	68.20	-13.51	1.50	120	34.79	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	56.95	PK	68.20	-11.25	1.60	230	47.30	9.65
2	11490.00	54.98	PK	68.20	-13.22	1.60	230	33.28	21.70
3	11490.00	44.87	AV	54.00	-9.13	1.60	230	23.17	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	62.35	PK	68.20	-5.85	1.70	100	52.70	9.65
2	11490.00	52.98	PK	68.20	-15.22	1.70	100	31.28	21.70
3	11490.00	43.13	AV	54.00	-10.87	1.70	100	21.43	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	300	34.25	21.70
2	11570.00	46.27	AV	54.00	-7.73	1.60	300	24.57	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	54.95	PK	68.20	-13.25	1.50	180	33.25	21.70
2	11570.00	44.93	AV	54.00	-9.07	1.50	180	23.23	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	62.39	PK	68.20	-5.81	1.50	300	52.61	9.78
2	11650.00	55.95	PK	68.20	-12.25	1.50	300	34.05	21.90
3	11650.00	46.60	AV	54.00	-7.4	1.50	300	24.70	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	63.25	PK	68.20	-4.95	2.00	320	53.47	9.78
2	11650.00	55.28	PK	68.20	-12.92	2.00	320	33.38	21.90
3	11650.00	45.74	AV	54.00	-8.26	2.00	320	23.84	21.90

**ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M (802.11n20_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	54.95	PK	68.20	-13.25	1.60	210	47.45	7.50
2	5150.00	44.63	AV	54.00	-9.37	1.60	210	37.13	7.50
3	10360.00	54.39	PK	68.20	-13.81	1.60	200	34.59	19.80

ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M (802.11n20_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	55.74	PK	68.20	-12.46	1.50	180	48.24	7.50
2	5150.00	45.93	AV	54.00	-8.07	1.50	180	38.43	7.50
3	10360.00	53.66	PK	68.20	-14.54	1.50	180	33.86	19.80

**ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M (802.11n20_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	10400.00	54.89	PK	68.20	-13.31	1.60	200	34.99	19.90

ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M (802.11n20_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	10400.00	54.62	PK	68.20	-13.58	1.50	270	34.72	19.90

**ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M (802.11n20_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	60.95	PK	68.20	-7.25	1.70	120	52.95	8.00
2	5350.00	51.37	AV	54.00	-2.63	1.70	120	43.37	8.00
3	10480.00	52.87	PK	68.20	-15.33	1.70	280	32.97	19.90

ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M (802.11n20_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	59.62	PK	68.20	-8.58	1.40	120	51.62	8.00
2	5350.00	49.97	AV	54.00	-4.03	1.40	120	41.97	8.00
3	10480.00	53.84	PK	68.20	-14.36	1.50	120	33.94	19.90

**ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M (802.11n20_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	56.15	PK	68.20	-12.05	1.60	230	46.50	9.65
2	11490.00	53.57	PK	68.20	-14.63	1.60	230	31.87	21.70
3	11490.00	43.34	AV	54.00	-10.66	1.60	230	21.64	21.70

ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M (802.11n20_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	61.25	PK	68.20	-6.95	1.70	100	51.60	9.65
2	11490.00	52.01	PK	68.20	-16.19	1.70	100	30.31	21.70
3	11490.00	42.62	AV	54.00	-11.38	1.70	100	20.92	21.70

**ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M (802.11n20_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	54.18	PK	68.20	-14.02	1.60	300	32.48	21.70
2	11570.00	44.44	AV	54.00	-9.56	1.60	300	22.74	21.70

ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M (802.11n20_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	53.96	PK	68.20	-14.24	1.50	180	32.26	21.70
2	11570.00	43.83	AV	54.00	-10.17	1.50	180	22.13	21.70

**ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M (802.11n20_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	62.39	PK	68.20	-5.81	1.50	300	52.61	9.78
2	11650.00	55.23	PK	68.20	-12.97	1.50	300	33.33	21.90
3	11650.00	45.81	AV	54.00	-8.19	1.50	300	23.91	21.90

ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M (802.11n20_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	62.59	PK	68.20	-5.61	2.00	320	52.81	9.78
2	11650.00	55.28	PK	68.20	-12.92	2.00	320	33.38	21.90
3	11650.00	45.33	AV	54.00	-8.67	2.00	320	23.43	21.90

**ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M (802.11n40_5190MHz)**

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	260.00	49.45	7.50
2	5150.00	46.17	AV	54.00	-7.83	1.50	260.00	38.67	7.50
3	10380.00	58.15	PK	68.20	-10.047	1.50	260.00	38.35	19.80

ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M (802.11n40_5190MHz)

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	54.18	PK	68.20	-14.02	1.60	300.00	46.68	7.50
2	5150.00	44.44	AV	54.00	-9.56	1.60	300.00	36.94	7.50
3	10380.00	55.69	PK	68.20	-12.51	1.60	300.00	35.89	19.80

**ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M (802.11n40_5230MHz)**

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	55.62	PK	68.20	-12.58	1.50	260.00	47.62	8.00
2	5350.00	45.34	AV	54.00	-8.66	1.50	260.00	37.34	8.00
3	10460.00	56.12	PK	68.20	-12.08	1.50	260.00	36.22	19.90

ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M (802.11n40_5230MHz)

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	56.25	PK	68.20	-11.95	1.60	300.00	48.25	8.00
2	5350.00	46.12	AV	54.00	-7.88	1.60	300.00	38.12	8.00
3	10460.00	55.95	PK	68.20	-21.54	1.60	320.00	36.05	19.90

**ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M (802.11n40_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	59.32	PK	68.20	-8.88	1.50	126.00	49.67	9.65
2	5725.00	50.96	AV	54.00	-3.04	1.50	126.00	41.31	9.65
3	11510.00	54.13	PK	68.20	-14.07	1.50	126.00	32.43	21.70

ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M (802.11n40_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	58.16	PK	68.20	-10.04	1.50	170.00	48.51	9.65
2	5725.00	47.51	AV	54.00	-6.49	1.50	170.00	37.86	9.65
3	11510.00	52.62	PK	68.20	-15.58	1.50	170.00	30.92	21.70

**ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M (802.11n40_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	55.62	PK	68.20	-12.58	1.70	180.00	45.84	9.78
2	5850.00	44.88	AV	54.00	-9.12	1.70	180.00	35.10	9.78
3	11590.00	53.62	PK	68.20	-14.58	1.70	180.00	31.82	21.80

ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M (802.11n40_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	53.21	PK	68.20	-14.99	1.70	330.00	43.43	9.78
2	5850.00	42.56	AV	54.00	-11.44	1.70	330.00	32.78	9.78
3	11590.00	51.98	PK	68.20	-16.22	1.70	330.00	30.18	21.80

**ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M (802.11ac20_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	56.32	PK	68.20	-11.88	1.60	210	48.82	7.50
2	5150.00	46.21	AV	54.00	-7.79	1.60	210	38.71	7.50
3	10360.00	53.62	PK	68.20	-14.58	1.60	200	33.82	19.80

ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M (802.11ac20_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	54.63	PK	68.20	-13.57	1.50	180	47.13	7.50
2	5150.00	44.82	AV	54.00	-9.18	1.50	180	37.32	7.50
3	10360.00	55.13	PK	68.20	-13.07	1.50	180	35.33	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	10400.00	55.92	PK	68.20	-12.28	1.60	200	36.02	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	10400.00	56.32	PK	68.20	-11.88	1.50	270	36.42	19.90

**ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M (802.11ac20_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	58.96	PK	68.20	-9.24	1.70	120	50.96	8.00
2	5350.00	50.24	AV	54.00	-3.76	1.70	120	42.24	8.00
3	10480.00	52.87	PK	68.20	-15.33	1.70	280	32.97	19.90

ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M (802.11ac20_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	60.32	PK	68.20	-7.88	1.40	120	52.32	8.00
2	5350.00	50.67	AV	54.00	-3.33	1.40	120	42.67	8.00
3	10480.00	55.69	PK	68.20	-12.51	1.50	120	35.79	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	56.95	PK	68.20	-11.25	1.60	230	47.30	9.65
2	11490.00	57.25	PK	68.20	-10.95	1.60	230	35.55	21.70
3	11490.00	47.09	AV	54.00	-6.91	1.60	230	25.39	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	62.32	PK	68.20	-5.88	1.70	100	52.67	9.65
2	11490.00	52.01	PK	68.20	-16.19	1.70	100	30.31	21.70
3	11490.00	42.62	AV	54.00	-11.38	1.70	100	20.92	21.70

**ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M (802.11ac20_5785MHz)**

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	11570.00	56.25	PK	68.20	-11.95	1.60	300	34.55	21.70
2	11570.00	46.51	AV	54.00	-7.49	1.60	300	24.81	21.70

ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M (802.11ac20_5785MHz)

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	11570.00	55.98	PK	68.20	-12.22	1.50	180	34.28	21.70
2	11570.00	45.85	AV	54.00	-8.15	1.50	180	24.15	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	61.59	PK	68.20	-6.61	1.50	300	51.81	9.78
2	11650.00	56.32	PK	68.20	-11.88	1.50	300	34.42	21.90
3	11650.00	46.90	AV	54.00	-7.1	1.50	300	25.00	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	62.59	PK	68.20	-5.61	2.00	320	52.81	9.78
2	11650.00	56.92	PK	68.20	-11.28	2.00	320	35.02	21.90
3	11650.00	46.97	AV	54.00	-7.03	2.00	320	25.07	21.90

**ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M (802.11ac40_5190MHz)**

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	56.48	PK	68.20	-11.72	1.40	320.00	48.98	7.50
2	5150.00	46.15	AV	54.00	-7.85	1.40	320.00	38.65	7.50
3	10380.00	57.48	PK	68.20	-10.72	1.40	320.00	37.68	19.80

ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M (802.11ac40_5190MHz)

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	55.29	PK	68.20	-12.91	1.80	180.00	47.79	7.50
2	5150.00	45.55	AV	54.00	-8.45	1.80	180.00	38.05	7.50
3	10380.00	53.62	PK	68.20	-14.58	1.80	180.00	33.82	19.80

**ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M (802.11ac40_5230MHz)**

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	54.36	PK	68.20	-13.84	1.50	260.00	46.36	8.00
2	5350.00	44.08	AV	54.00	-9.92	1.50	260.00	36.08	8.00
3	10460.00	55.95	PK	68.20	-12.25	1.50	260.00	36.05	19.90

ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M (802.11ac40_5230MHz)

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	56.25	PK	68.20	-11.95	1.60	300.00	48.25	8.00
2	5350.00	46.12	AV	54.00	-7.88	1.60	300.00	38.12	8.00
3	10460.00	56.69	PK	68.20	-21.54	1.60	320.00	36.79	19.90

**ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M (802.11ac40_5755MHz)**

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	5725.00	58.94	PK	68.20	-9.26	1.80	320.00	49.29	9.65
2	5725.00	49.96	AV	54.00	-4.04	1.80	320.00	40.31	9.65
3	11510.00	56.92	PK	68.20	-11.28	1.80	320.00	35.22	21.70

ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M (802.11ac40_5755MHz)

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	5725.00	60.32	PK	68.20	-7.88	1.70	180.00	50.67	9.65
2	5725.00	49.67	AV	54.00	-4.33	1.70	180.00	40.02	9.65
3	11510.00	54.58	PK	68.20	-13.62	1.70	180.00	32.88	21.70

**ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M (802.11ac40_5795MHz)**

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	5850.00	56.95	PK	68.20	-11.25	1.70	180.00	47.17	9.78
2	5850.00	46.21	AV	54.00	-7.79	1.70	180.00	36.43	9.78
3	11590.00	55.18	PK	68.20	-13.02	1.70	180.00	33.38	21.80

ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M (802.11ac40_5795MHz)

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	5850.00	56.66	PK	68.20	-11.54	1.70	330.00	46.88	9.78
2	5850.00	46.01	AV	54.00	-7.99	1.70	330.00	36.23	9.78
3	11590.00	52.94	PK	68.20	-15.26	1.70	330.00	31.14	21.80



ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M (802.11ac-VHT80_5210MHz)									
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	56.23	PK	68.20	-11.97	1.50	120.00	48.73	7.50
2	5150.00	45.57	AV	54.00	-8.43	1.50	120.00	38.07	7.50
3	10420.00	55.62	PK	68.20	-12.58	1.50	120.00	35.72	19.90
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M (802.11ac-VHT80_5210MHz)									
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	55.14	PK	68.20	-13.06	1.80	260.00	47.64	7.50
2	5150.00	45.16	AV	54.00	-8.84	1.80	260.00	37.66	7.50
3	10420.00	55.95	PK	68.20	-12.25	1.80	260.00	36.05	19.90



ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M (802.11ac-VHT80_5775MHz)									
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	56.66	PK	68.20	-11.54	1.70	160.00	46.88	9.78
2	5460.00	48.92	AV	54.00	-5.08	1.70	160.00	39.14	9.78
3	11550.00	54.19	PK	68.20	-14.01	1.70	160.00	32.39	21.80
4	11550.00	46.45	AV	54.00	-7.55	1.70	160.00	24.65	21.80
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M (802.11ac-VHT80_5775MHz)									
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	55.95	PK	68.20	-12.25	1.80	220.00	46.17	9.78
2	5460.00	47.30	AV	54.00	-6.70	1.80	220.00	37.52	9.78
3	11550.00	54.19	PK	68.20	-14.01	1.80	220.00	32.39	21.80
4	11550.00	46.61	AV	54.00	-7.39	1.80	220.00	24.81	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,

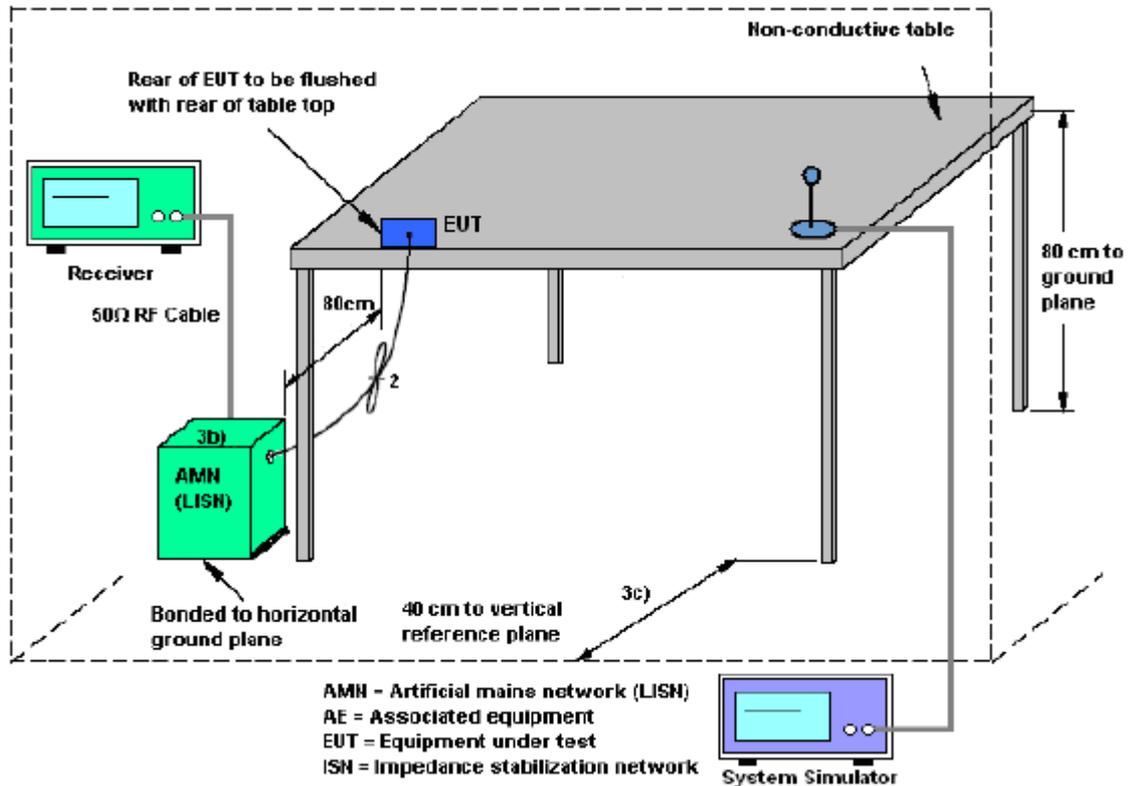
For equipment that is designed to be connected to the public utility (AC) power line, the radio frequency voltage that is conducted back onto the AC power line on any frequency or frequencies within the band 150 kHz to 30 MHz shall not exceed the limits in the following table.

Frequency range (MHz)	Conducted Limit (dB μ 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

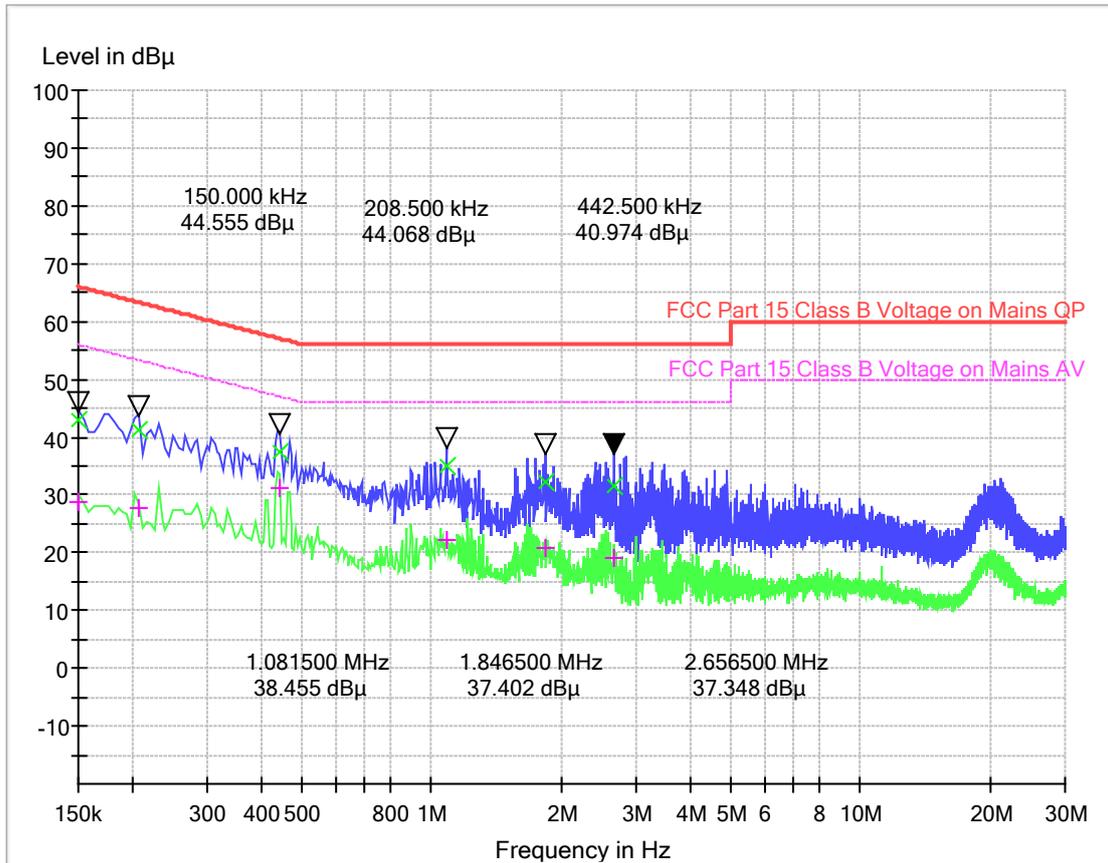


2.7.4. Test Procedures

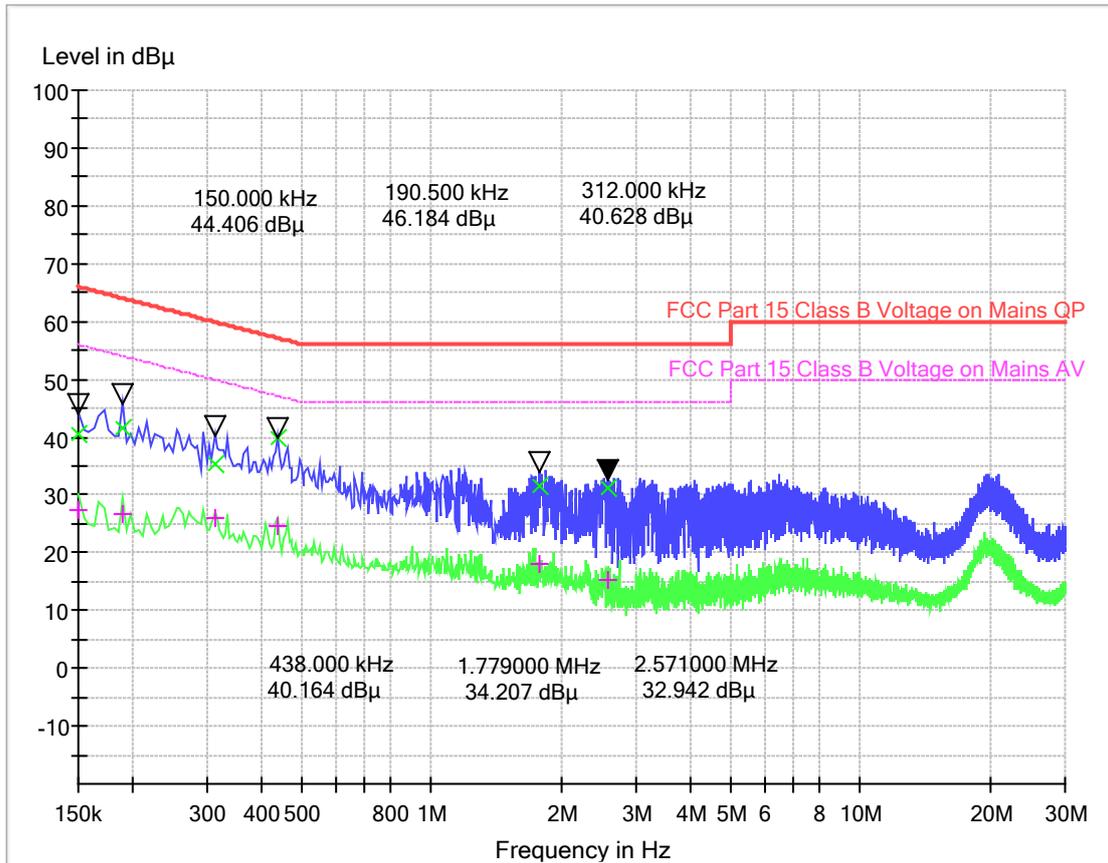
1. The EUT was placed 0.4 meter from the conducting wall of the shielding room was kept at least 80 centimeters from any other grounded conducting surface.
2. Connect EUT to the power mains through a line impedance stabilization network (LISN).
3. All the support units are connecting to the other LISN.
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)



Conducted Disturbance at Mains Terminals					
L Test Data					
QP			AV		
Frequency (MHz)	Limits (dBµV)	Measurement Value (dBµV)	Frequency (MHz)	Limits (dBµV)	Measurement Value (dBµV)
0.150000	66.0	42.80	0.150000	56.0	28.72
0.208500	63.3	41.29	0.208500	53.3	27.73
0.442500	57.0	37.55	0.442500	47.0	31.31
1.081500	56.0	35.05	1.081500	46.0	22.10
1.846500	56.0	32.31	1.846500	46.0	20.83
2.656500	56.0	31.65	2.656500	46.0	19.00



Conducted Disturbance at Mains Terminals					
N Test Data					
QP			AV		
Frequency (MHz)	Limits (dBμV)	Measurement Value (dBμV)	Frequency (MHz)	Limits (dBμV)	Measurement Value (dBμV)
0.150000	66.0	40.59	0.150000	56.0	27.52
0.190500	64.0	41.62	0.190500	54.0	26.68
0.312000	59.9	35.38	0.312000	49.9	25.94
0.438000	57.1	39.91	0.438000	47.1	24.60
1.779000	56.0	31.56	1.779000	46.0	18.12
2.571000	56.0	31.22	2.571000	46.0	15.13

Test result:PASS

3. List of measuring equipment

Item	Test Equipment	Manufacturer	Model No.	Serial No.	Cal Date	Due Date
1	EMI TEST RECEIVER	R&S	ESW26	A180502935	2018.11.1	2019.10.31
2	Power Meter	R&S	NRP-Z31	102872	2019.5.5	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	Amplifier	MILMEGA	80RF1000-250	A140901925	2017.10.09	2020.10.08
8	JS amplifier	AR	25S1G4AM1	A0304248	2017.10.09	2020.10.08
9	High pass filter	Compliance Direction systems	BSU-6	34202	2018.11.11	2019.11.10
13	Horn Antenna	ShwarzBeck	9120D	1012	2018.11.11	2019.11.10
14	Horn Antenna	ShwarzBeck	BBHA9170	25841	2018.11.11	2019.11.10
15	ULTRA-BROADBAND ANTENNA	R&S	HL562	A0304224	2017.07.14	2020.07.13
16	Passive Loop Antenna	R&S	HFH2-Z2	100047	2019.04.26	2022.04.25
17	Temperature chamber	Dongguan gaoda instrument CO.LTD	GD-7005-100	130130101	2019.04.22	2020.04.21
18	Spectrum Analyzer	Keysight	N9030A	A160702554	2018.11.15	2019.11.14
19	Power Supply	R&S	NGMO1	101037	2019.08.03	2020.08.02
20	EMI TEST RECEIVER	KEYSIGHT	ESR3	A181103297	2018.09.14	2019.09.13
21	LISN	ROHDE&SCHWARZ	ENV216	A140701847	2018.12.10	2019.12.10
22	Cable	MATCHING PAD	W7	/	2019.01.02	2020.01.01

**Appendix A****Conducted output power
Test results****Conducted Power Test results of band U-NII-1 (5150 ~ 5250 MHz)**

802.11a mode					
Frequency (MHz)	Conducted Output Power (dBm)		FCC Limit (dBm)	Result	
	Antenna 0	Antenna 1			
5180	15.43	16.32	23.99	PASS	
5220	15.53	16.16	23.99	PASS	
5240	15.66	16.29	23.99	PASS	
802.11n-HT20 mode					
Test Frequency (MHz)	Conducted Output Power (dBm)			FCC Limit (dBm)	Result
	Antenna 0	Antenna 1	Total		
5180	13.20	13.89	16.57	23.99	PASS
5220	13.28	14.13	16.74	23.99	PASS
5240	13.37	14.19	16.81	23.99	PASS
802.11n-HT40 mode					
Test Frequency (MHz)	Conducted Output Power (dBm)			FCC Limit (dBm)	Result
	Antenna 0	Antenna 1	Total		
5190	14.46	15.04	17.77	23.99	PASS
5230	14.45	14.98	17.73	23.99	PASS
802.11ac-VHT20 mode					
Test Frequency (MHz)	Conducted Output Power (dBm)			FCC Limit (dBm)	Result
	Antenna 0	Antenna 1	Total		
5180	13.25	13.95	16.62	23.99	PASS
5220	13.39	14.13	16.79	23.99	PASS
5240	13.40	14.15	16.80	23.99	PASS



802.11ac-VHT40 mode					
Test Frequency (MHz)	Conducted Output Power (dBm)			FCC Limit (dBm)	Result
	Antenna 0	Antenna 1	Total		
5190	14.47	15.03	17.77	23.99	PASS
5230	14.48	15.04	17.78	23.99	PASS

802.11ac-VHT80 mode					
Test Frequency (MHz)	Conducted Output Power (dBm)			FCC Limit (dBm)	Result
	Antenna 0	Antenna 1	Total		
5210	14.39	14.81	17.62	23.99	PASS

Note: For 802.11n/ac, antenna 0, 1 can transmit/receive simultaneously (MIMO mode), The MIMO antenna directional gain is 6.01dBi , the applicable output power limit shall be calculated as follows:
 $P_{out}=P_{limit}-(G_{TX}-6)=24-(6.01-6)=23.99\text{dBm}$



Conducted Power Test results of band U-NII-3 (5725 ~ 5850 MHz)

802.11a mode					
Frequency (MHz)	Conducted Output Power (dBm)		FCC Limit (dBm)	Result	
	Antenna 0	Antenna 1			
5745	15.66	16.40	29.99	PASS	
5785	15.43	16.33	29.99	PASS	
5825	15.22	16.11	29.99	PASS	
802.11n-HT20 mode					
Test Frequency (MHz)	Conducted Output Power (dBm)			FCC Limit (dBm)	Result
	Antenna 0	Antenna 1	Total		
5745	13.71	14.20	16.97	29.99	PASS
5785	13.33	13.59	16.47	29.99	PASS
5825	13.02	13.26	16.15	29.99	PASS
802.11n-HT40 mode					
Test Frequency (MHz)	Conducted Output Power (dBm)			FCC Limit (dBm)	Result
	Antenna 0	Antenna 1	Total		
5755	13.80	12.92	16.39	29.99	PASS
5795	13.58	12.87	16.25	29.99	PASS
802.11ac-VHT20 mode					
Test Frequency (MHz)	Conducted Output Power (dBm)			FCC Limit (dBm)	Result
	Antenna 0	Antenna 1	Total		
5745	13.76	13.57	16.68	29.99	PASS
5785	13.36	13.92	16.66	29.99	PASS
5825	13.10	13.58	16.36	29.99	PASS
802.11ac-VHT40 mode					
Test Frequency (MHz)	Conducted Output Power (dBm)			FCC Limit (dBm)	Result
	Antenna 0	Antenna 1	Total		
5755	13.85	12.92	16.42	29.99	PASS
5795	13.45	12.89	16.19	29.99	PASS



802.11ac-VHT80 mode					
Test Frequency (MHz)	Conducted Output Power (dBm)			FCC Limit (dBm)	Result
	Antenna 0	Antenna 1	Total		
5775	13.36	12.75	16.08	29.99	PASS

Note: For 802.11n/ac, antenna 0, 1 can transmit/receive simultaneously (MIMO mode), The MIMO antenna directional gain is 6.01dBi , the applicable output power limit shall be calculated as follows:
 $P_{out}=P_{limit}-(G_{TX}-6)=30-(6.01-6)=29.99\text{dBm}$

AVGSA Power Spectral Density

Conducted PSD Test results of band U-NII-1 (5150~5250MHz)

802.11a mode						
Test Frequency (MHz)	Power Spectral Density (dBm/MHz)		Limit (dBm/MHz)	Result		
	Antenna 0	Antenna 1				
5180	4.601	4.096	11	PASS		
5220	4.349	4.369	11	PASS		
5240	4.560	4.290	11	PASS		
802.11n-HT20 mode						
Test Frequency (MHz)	Power Spectral Density (dBm/MHz)			Limit (dBm/MHz)	Result	
	Antenna 0	Antenna 1	Total			
5180	1.728	1.716	4.73	11	PASS	
5220	1.820	2.232	5.04	11	PASS	
5240	2.141	1.823	5.00	11	PASS	
802.11n-HT40 mode						
Test Frequency (MHz)	Power Spectral Density (dBm/MHz)			Limit (dBm/MHz)	Result	
	Antenna 0	Antenna 1	Total			
5190	0.436	0.180	3.32	11	PASS	
5230	0.469	0.037	3.27	11	PASS	
802.11ac-VHT20 mode						
Test Frequency (MHz)	Power Spectral Density (dBm/MHz)			Limit (dBm/MHz)	Result	
	Antenna 0	Antenna 1	Total			
5180	1.783	1.567	4.69	11	PASS	
5220	2.002	1.955	4.99	11	PASS	
5240	2.035	1.953	5.00	11	PASS	
802.11ac-VHT40 mode						
Test Frequency (MHz)	Power Spectral Density (dBm/MHz)			Limit (dBm/MHz)	Result	
	Antenna 0	Antenna 1	Total			
5190	0.467	0.096	3.30	11	PASS	
5230	0.419	0.199	3.32	11	PASS	
802.11n-VHT80 mode						
Test Frequency (MHz)	Power Spectral Density (dBm/MHz)			Limit (dBm/MHz)	Result	
	Antenna 0	Antenna 1	Total			
5210	-3.243	-3.559	-0.39	11	PASS	

Note: For 802.11n/ac, antenna 0, 1 can transmit/receive simultaneously (MIMO mode), The MIMO antenna directional gain is 6.01dBi, the applicable Power Spectral Density limit shall be calculated as follows:
 $PSD_{limit} - (G_{TX} - 6) = 11 - (6.01 - 6) = 10.99 \text{ dBm/MHz}$

Conducted PSD Test results of band U-NII-3 (5725 ~ 5850 MHz)

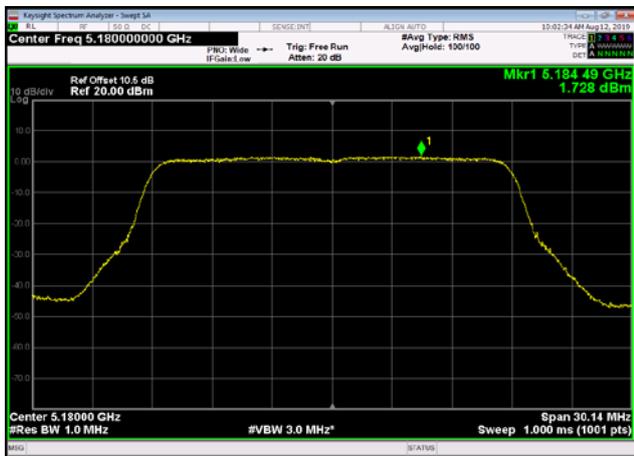
802.11a mode					
Test Frequency (MHz)	Power Spectral Density (dBm/500kHz)		Limit (dBm/MHz)	Result	
	Antenna 0	Antenna 1			
5745	2.254	1.736	30	PASS	
5785	1.722	1.942	30	PASS	
5825	1.632	1.715	30	PASS	
802.11n-HT20 mode					
Test Frequency (MHz)	Power Spectral Density (dBm/500kHz)			Limit (dBm/MHz)	Result
	Antenna 0	Antenna 1	Total		
5745	-0.407	-0.653	2.48	30	PASS
5785	-0.878	-0.956	2.09	30	PASS
5825	-0.887	-0.979	2.08	30	PASS
802.11n-HT40 mode					
Test Frequency (MHz)	Power Spectral Density (dBm/500kHz)			Limit (dBm/MHz)	Result
	Antenna 0	Antenna 1	Total		
5755	-3.452	-4.079	-0.74	30	PASS
5795	-3.881	-4.279	-1.07	30	PASS
802.11ac-VHT20 mode					
Test Frequency (MHz)	Power Spectral Density (dBm/500kHz)			Limit (dBm/MHz)	Result
	Antenna 0	Antenna 1	Total		
5745	-0.051	-0.645	2.67	30	PASS
5785	-0.875	-0.450	2.35	30	PASS
5825	-0.646	-1.134	2.13	30	PASS
802.11ac-VHT40 mode					
Test Frequency (MHz)	Power Spectral Density (dBm/500kHz)			Limit (dBm/MHz)	Result
	Antenna 0	Antenna 1	Total		
5755	-3.687	-4.309	-0.98	30	PASS
5795	-4.144	-4.178	-1.15	30	PASS
802.11n-VHT80 mode					
Test Frequency (MHz)	Power Spectral Density (dBm/500kHz)			Limit (dBm/MHz)	Result
	Antenna 0	Antenna 1	Total		
5775	-7.358	-7.682	-4.51	30	PASS

Note: For 802.11n/ac, antenna 0, 1 can transmit/receive simultaneously (MIMO mode), The MIMO antenna directional gain is 6.01dBi, the applicable Power Spectral Density limit shall be calculated as follows:

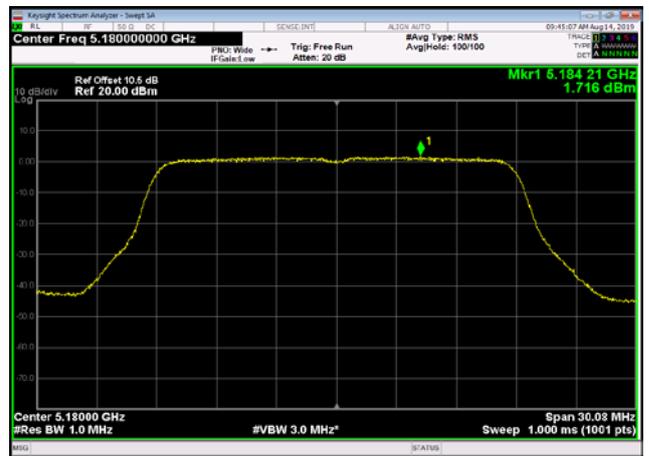
$$PSD_{limit}-(G_{TX}-6)=30-(6.01-6)=29.99\text{dBm/MHz}$$

Test Plots

U-NII-1 Power spectral density-802.11
n(20MHz),5180MHz,Ant0



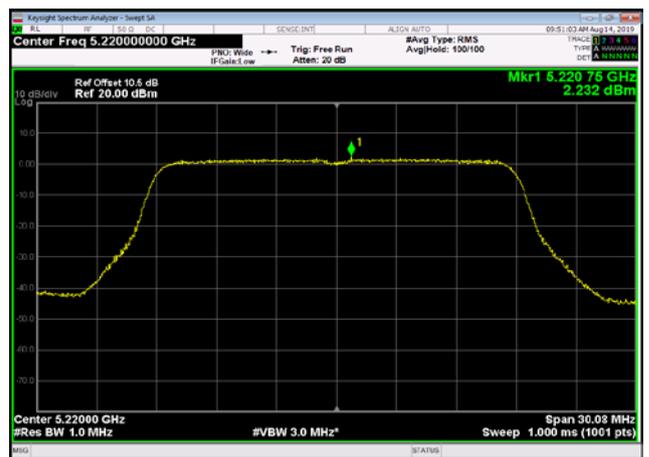
U-NII-1 Power spectral density-802.11
n(20MHz),5180MHz,Ant1



U-NII-1 Power spectral density-802.11
n(20MHz),5220MHz,Ant0



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



U-NII-1 Power spectral density-802.11
n(20MHz),5240MHz,Ant0



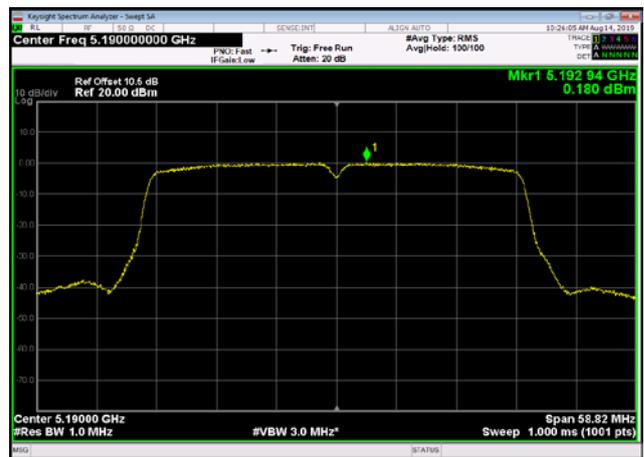
U-NII-1 Power spectral density-802.11
n(20MHz),5240MHz,Ant1



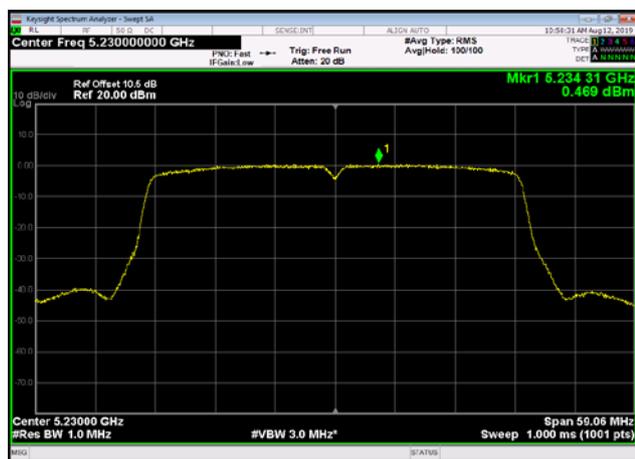
U-NII-1 Power spectral density-802.11
n(40MHz),5190MHz,Ant0



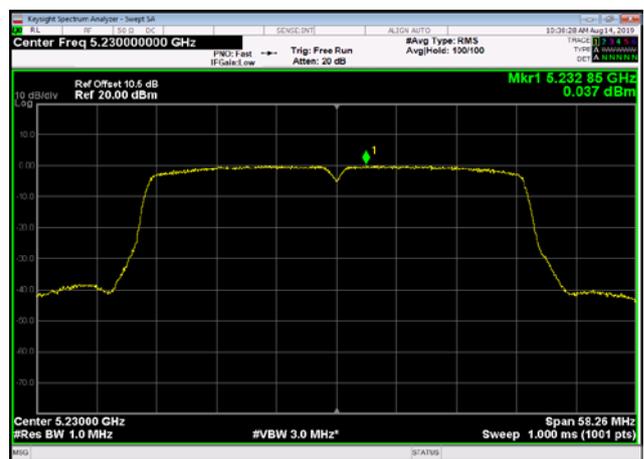
U-NII-1 Power spectral density-802.11
n(40MHz),5190MHz,Ant1



U-NII-1 Power spectral density-802.11
n(40MHz),5230MHz,Ant0



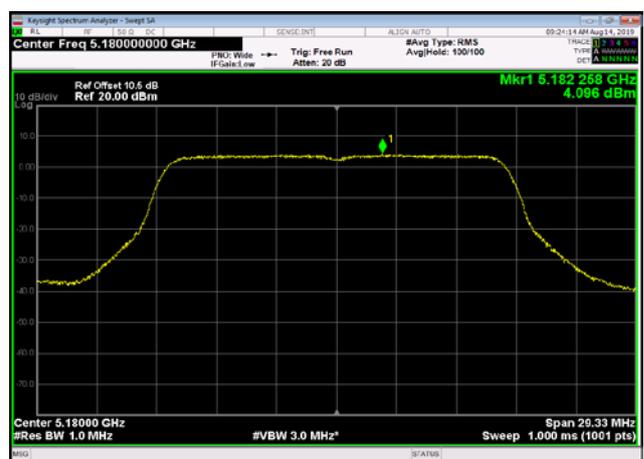
U-NII-1 Power spectral density-802.11
n(40MHz),5230MHz,Ant1



U-NII-1 Power spectral density-802.11
a(20MHz),5180MHz,Ant0



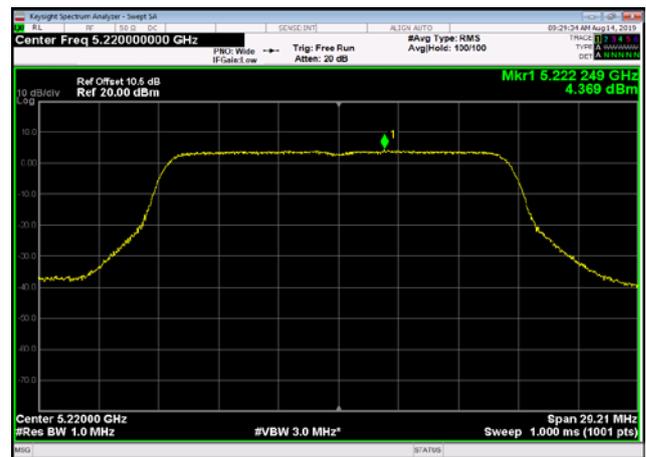
U-NII-1 Power spectral density-802.11
a(20MHz),5180MHz,Ant1



U-NII-1 Power spectral density-802.11
a(20MHz),5220MHz,Ant0



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



U-NII-1 Power spectral density-802.11
a(20MHz),5240MHz,Ant0



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



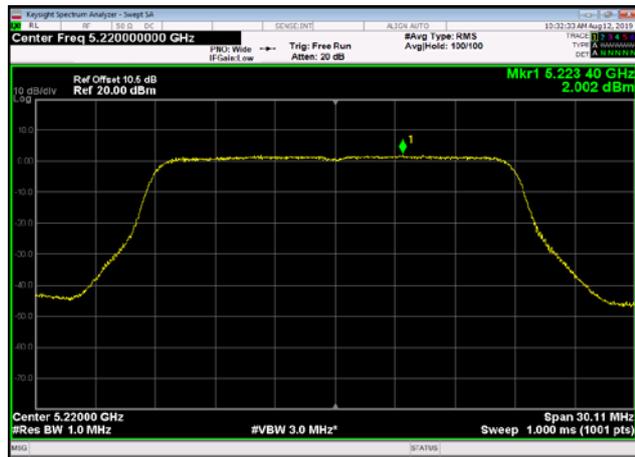
U-NII-1 Power spectral density-802.11
ac(20MHz),5180MHz,Ant0



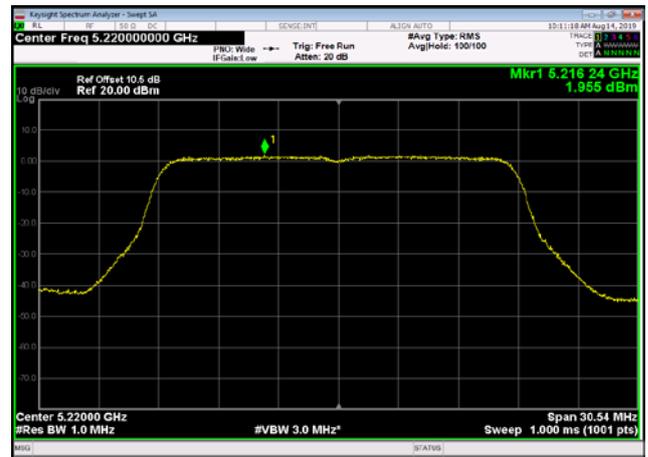
U-NII-1 Power spectral density-802.11
ac(20MHz),5180MHz,Ant1



U-NII-1 Power spectral density-802.11
ac(20MHz),5220MHz,Ant0



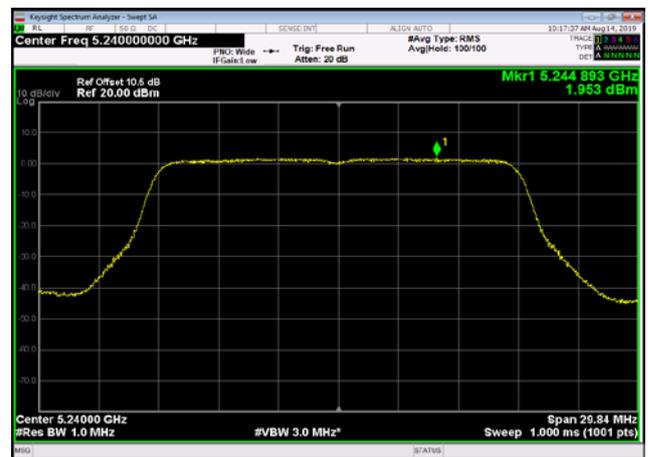
U-NII-1 Power spectral density-802.11
ac(20MHz),5220MHz,Ant1



U-NII-1 Power spectral density-802.11
ac(20MHz),5240MHz,Ant0



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



U-NII-1 Power spectral density-802.11
ac(40MHz),5190MHz,Ant0

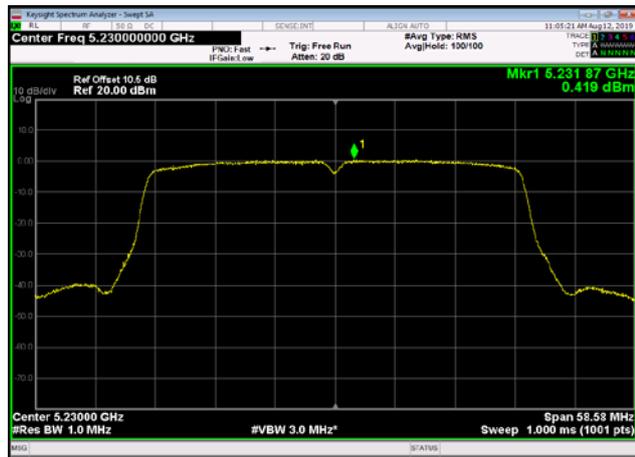


U-NII-1 Power spectral density-802.11
ac(40MHz),5190MHz,Ant1





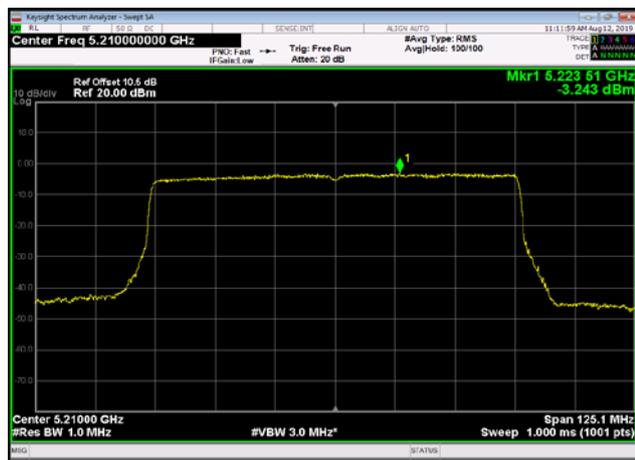
U-NII-1 Power spectral density-802.11
ac(40MHz),5230MHz,Ant0



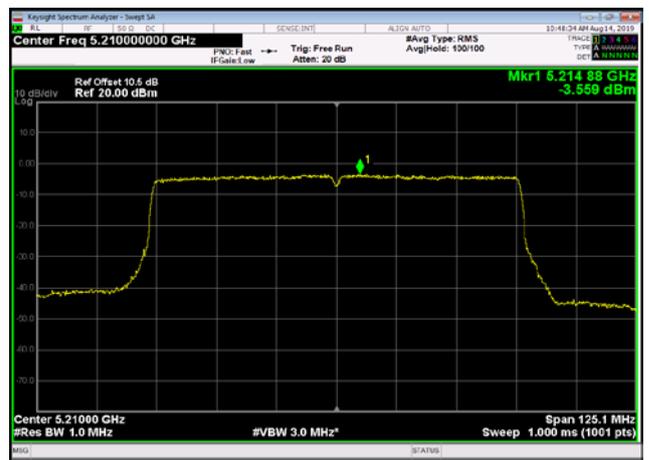
U-NII-1 Power spectral density-802.11
ac(40MHz),5230MHz,Ant1



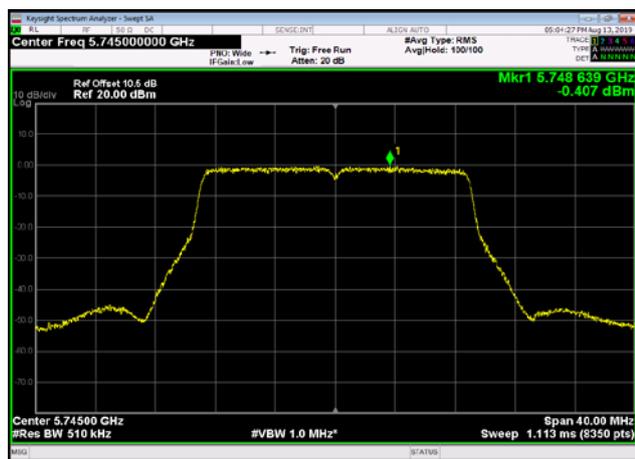
U-NII-1 Power spectral density-802.11
ac(80MHz),5210MHz,Ant0



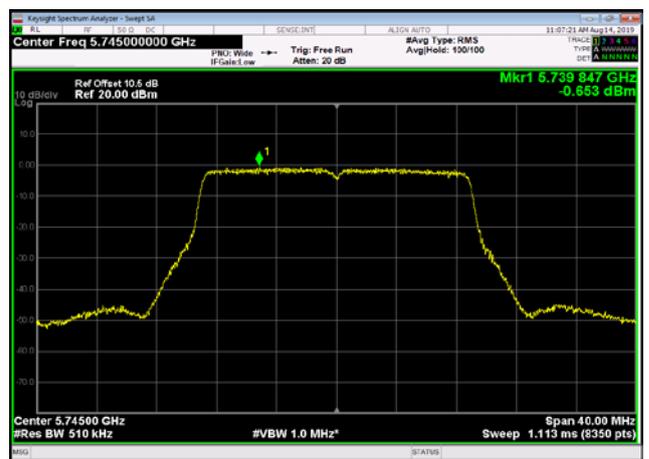
U-NII-1 Power spectral density-802.11
ac(80MHz),5210MHz,Ant1



U-NII-3 Power spectral density-802.11
n(20MHz),5745MHz,Ant0



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

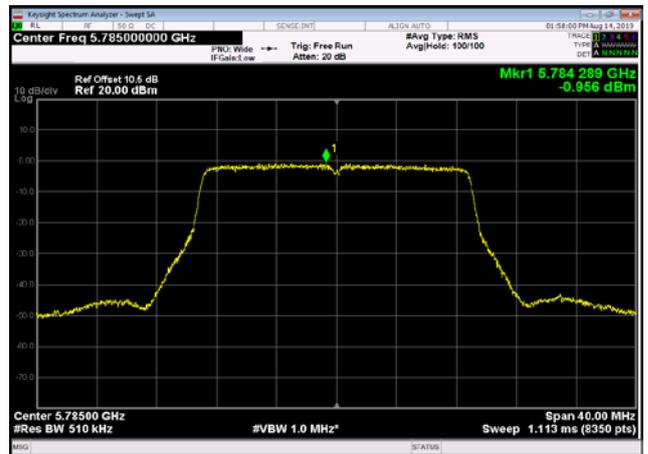




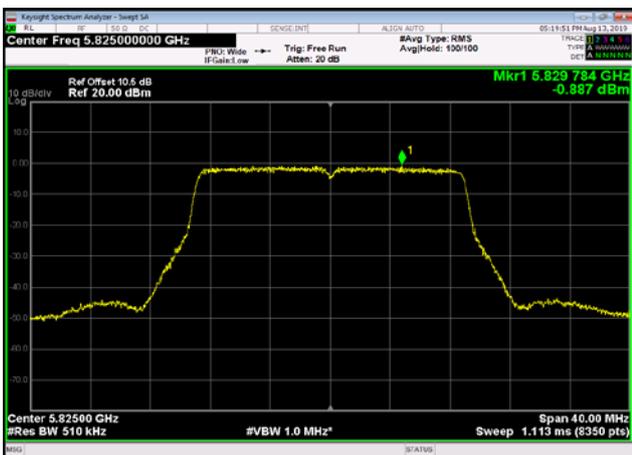
U-NII-3 Power spectral density-802.11
n(20MHz),5785MHz,Ant0



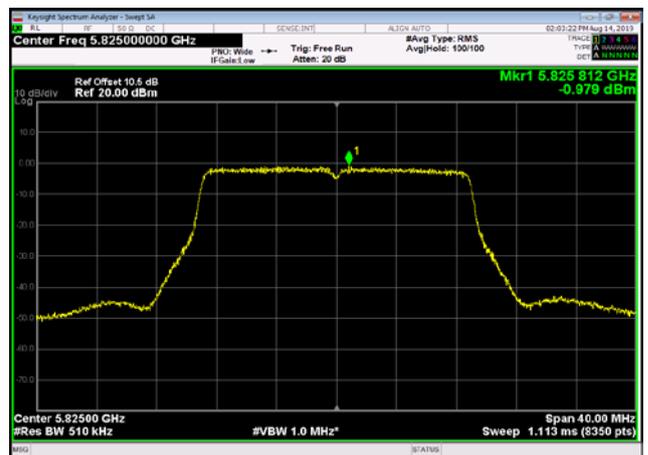
U-NII-3 Power spectral density-802.11
n(20MHz),5785MHz,Ant1



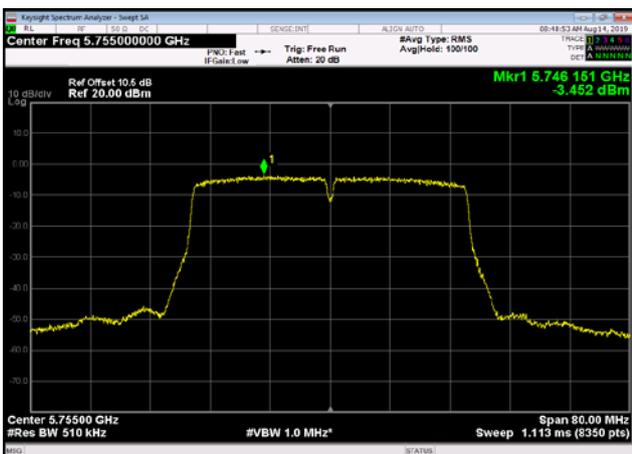
U-NII-3 Power spectral density-802.11
n(20MHz),5825MHz,Ant0



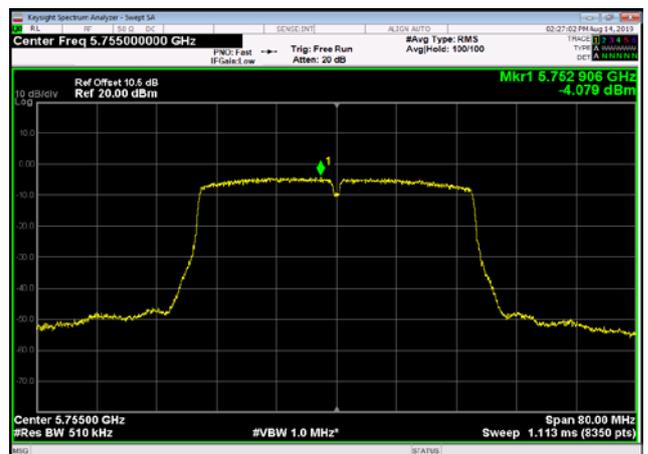
U-NII-3 Power spectral density-802.11
n(20MHz),5825MHz,Ant1



U-NII-3 Power spectral density-802.11
n(40MHz),5755MHz,Ant0



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





U-NII-3 Power spectral density-802.11
n(40MHz),5795MHz,Ant0



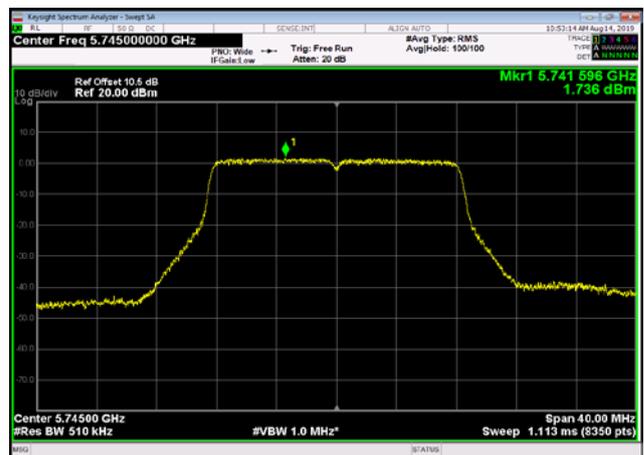
U-NII-3 Power spectral density-802.11
n(40MHz),5795MHz,Ant1



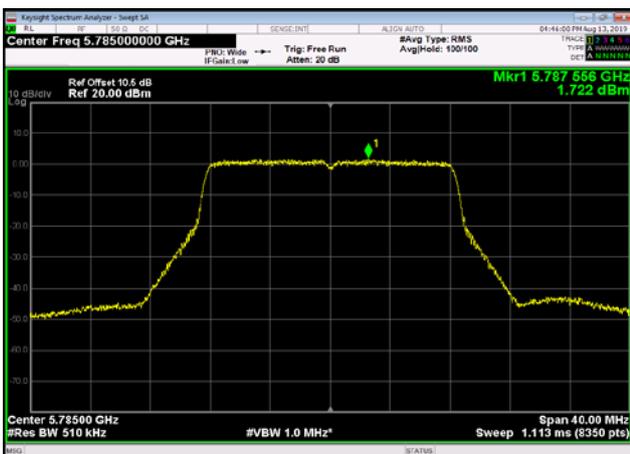
U-NII-3 Power spectral density-802.11
a(20MHz),5745MHz,Ant0



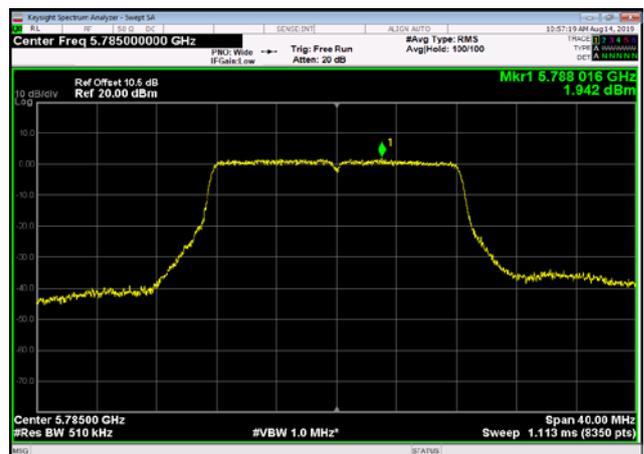
U-NII-3 Power spectral density-802.11
a(20MHz),5745MHz,Ant1



U-NII-3 Power spectral density-802.11
a(20MHz),5785MHz,Ant0

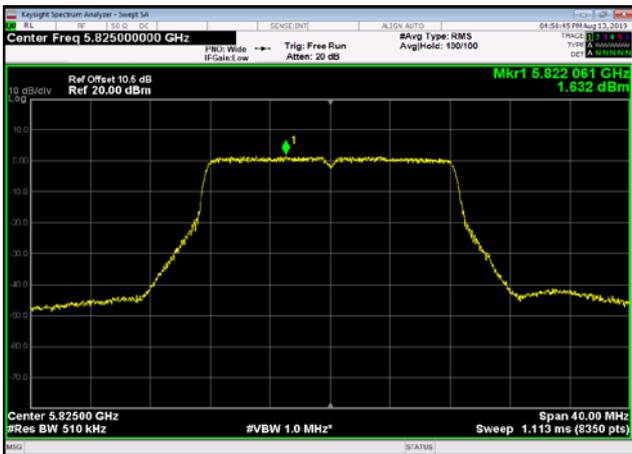


U-NII-3 Power spectral density-802.11
a(20MHz),5785MHz,Ant1

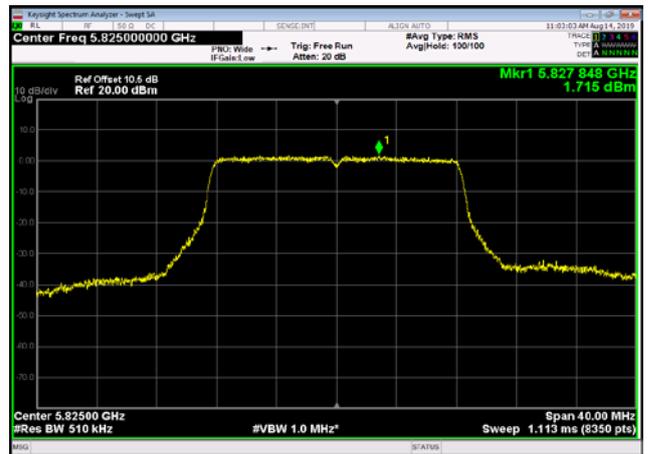




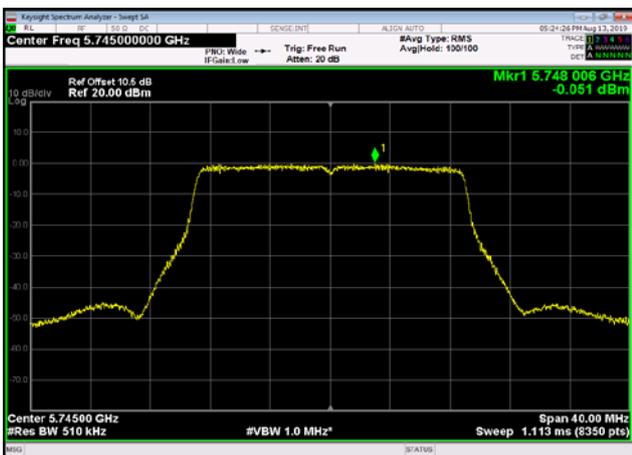
U-NII-3 Power spectral density-802.11
a(20MHz),5825MHz,Ant0



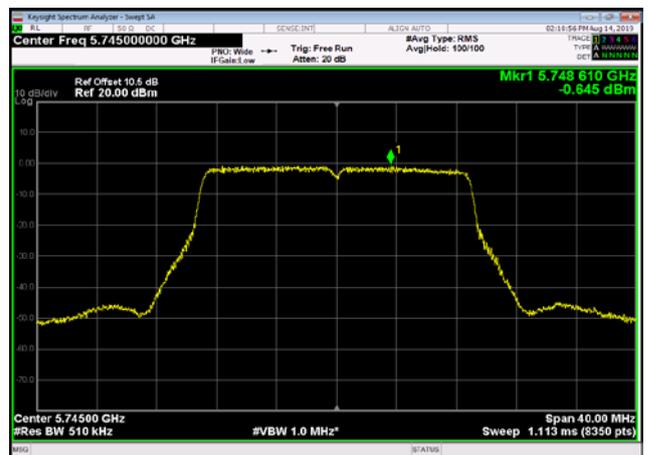
U-NII-3 Power spectral density-802.11
a(20MHz),5825MHz,Ant1



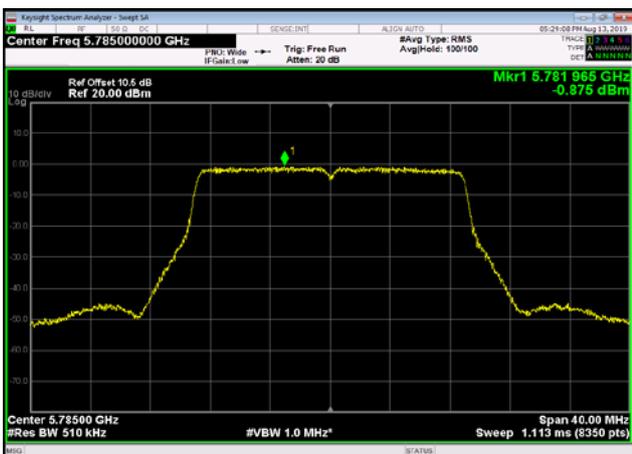
U-NII-3 Power spectral density-802.11
ac(20MHz),5745MHz,Ant0



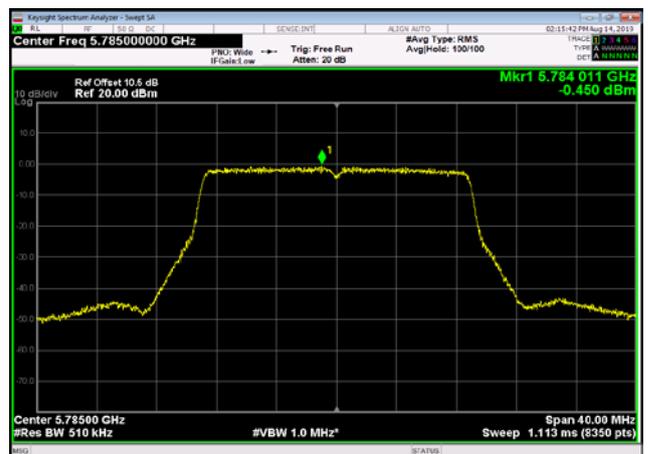
U-NII-3 Power spectral density-802.11
ac(20MHz),5745MHz,Ant1



U-NII-3 Power spectral density-802.11
ac(20MHz),5785MHz,Ant0



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





U-NII-3 Power spectral density-802.11
ac(20MHz),5825MHz,Ant0



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



U-NII-3 Power spectral density-802.11
ac(40MHz),5755MHz,Ant0



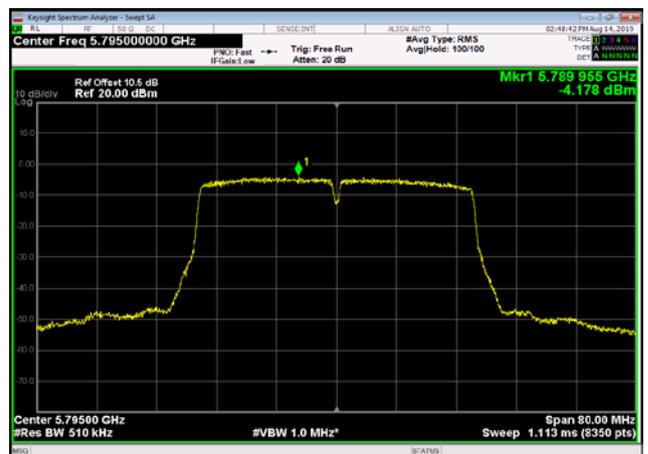
U-NII-3 Power spectral density-802.11
ac(40MHz),5755MHz,Ant1



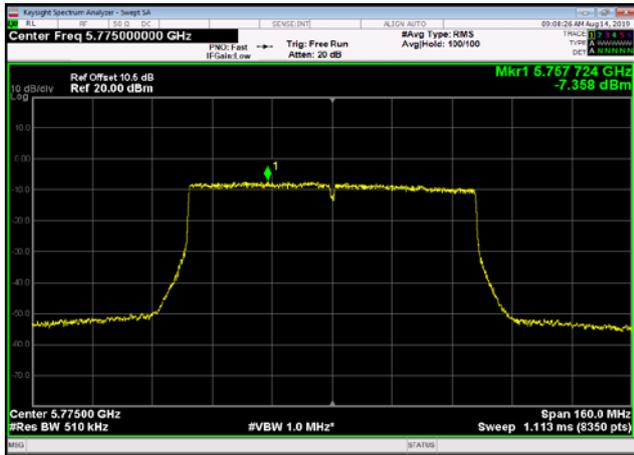
U-NII-3 Power spectral density-802.11
ac(40MHz),5795MHz,Ant0



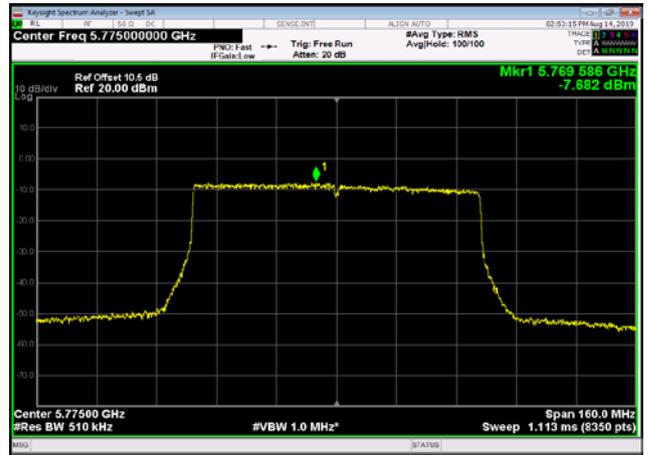
U-NII-3 Power spectral density-802.11
ac(40MHz),5795MHz,Ant1



U-NII-3 Power spectral density-802.11
ac(80MHz),5775MHz,Ant0



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



**Emission Bandwidth****Test Result and Data**

U-NII-1 Occupied 26 dB Bandwidth			
Mode	Test Frequency (MHz)	Ant	Occupied Bandwidth (MHz)
802.11n (20MHz)	5180	Ant0	20.09
802.11n (20MHz)	5180	Ant1	20.05
802.11n (20MHz)	5220	Ant0	20.02
802.11n (20MHz)	5220	Ant1	20.05
802.11n (20MHz)	5240	Ant0	20.05
802.11n (20MHz)	5240	Ant1	20.15
802.11n (40MHz)	5190	Ant0	39.05
802.11n (40MHz)	5190	Ant1	39.21
802.11n (40MHz)	5230	Ant0	39.37
802.11n (40MHz)	5230	Ant1	38.84
802.11ac (20MHz)	5180	Ant0	20.08
802.11ac (20MHz)	5180	Ant1	19.89
802.11ac (20MHz)	5220	Ant0	20.07
802.11ac (20MHz)	5220	Ant1	20.36
802.11ac (20MHz)	5240	Ant0	20.25
802.11ac (20MHz)	5240	Ant1	19.89
802.11ac (40MHz)	5190	Ant0	38.94
802.11ac (40MHz)	5190	Ant1	39.15
802.11ac (40MHz)	5230	Ant0	39.05
802.11ac (40MHz)	5230	Ant1	38.96
802.11ac (80MHz)	5210	Ant0	83.41
802.11ac (80MHz)	5210	Ant1	83.43
802.11a (20MHz)	5180	Ant0	40.00
802.11a (20MHz)	5180	Ant1	19.55
802.11a (20MHz)	5220	Ant0	19.48
802.11a (20MHz)	5220	Ant1	19.47
802.11a (20MHz)	5240	Ant0	19.74
802.11a (20MHz)	5240	Ant1	19.58

Report only