



RF TEST REPORT

Report No.: SET2019-13917

Product Name: Handheld Data Terminal

FCC ID: SWSDT50

Model No. : DT50、DT50C、DT51

Applicant: UROVO TECHNOLOGY CO., LTD.

Address: 36F,High-Tech Zone Union Tower,No.63,Xuefu Road,
Nanshan District, Shenzhen, Guangdong, China.

Dates of Testing: 10/12/2019 — 10/23/2019

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

Lab Location: Building 28/29, East of Shigu, Xili Industrial Zone, Xili Road,
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Test Report

Product Name : Handheld Data Terminal

Brand Name : UROVO

Trade Name : UROVO

Applicant : UROVO TECHNOLOGY CO., LTD.

Applicant Address : 36F, High-Tech Zone Union Tower, No.63, Xuefu Road,
Nanshan District, Shenzhen, Guangdong, China.

Manufacturer : UROVO TECHNOLOGY CO., LTD.

Manufacturer Address : 36F, High-Tech Zone Union Tower, No.63, Xuefu Road,
Nanshan District, Shenzhen, Guangdong, China.

Test Standards : 47 CFR Part 15 Subpart E 15.407

Test Result : PASS

Tested by : Vincent
2019.10.24
Vincent, Test Engineer

Reviewed by : Chris You
2019.10.24
Chris You, Senior Engineer

Approved by : Shuangwen Zhang
2019.10.24
Shuangwen Zhang, Manager

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Change History		
Issue	Date	Reason for change
1.0	2019.10.24	First edition

1. General Information

1.1. EUT Description

EUT Type	Handheld Data Terminal
EUT supports Radios application	WLAN5.0GHz 802.11a/n (HT20/40)/ac(VHT20/40)
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(SISO) 802.11n : up to 135 Mbps(MIMO) 802.11ac: up to 400Mbps(MIMO)
Frequency Range	Band UNII-1: 5150 ~ 5250MHz Band UNII-2a: 5250 ~ 5350MHz Band UNII-2c: 5500 ~ 5700MHz Band UNII-3: 5725 ~ 5850MHz
Channel Bandwidth	802.11a: 20MHz, 802.11n: 20MHz/40MHz 802.11ac: 20MHz/40MHz
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),
Antenna Type	Internal
Antenna Gain	Antenna 1/2: 1dBi
Output Power (Max.)	Band UNII-1: 15.51dBm Band UNII-2a: 16.08dBm Band UNII-2c: 16.73dBm Band UNII-3: 16.62dBm

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

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

Operated band in 5250 MHz ~ 5350MHz

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

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

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

Channel	Frequency	Channel	Frequency
54	5270 MHz	62	5310 MHz

Operated band in 5470 MHz ~ 5725MHz

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

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

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

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

1.4. 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:

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

For Frequency band 5250 ~ 5350 MHz			
Mode	Modulation scheme / bandwidth		
	5260 MHz	5300 MHz	5320 MHz
802.11a	6 Mbps	6 Mbps	6 Mbps
802.11n/ac – HT20	MCS 0	MCS 0	MCS 0
Frequency	5270 MHz		5310 MHz
802.11n/ac – HT40	MCS 0		MCS 0

For Frequency band 5470 ~ 5725 MHz			
Mode	Modulation scheme / bandwidth		
	5500 MHz	5580 MHz	5700 MHz
802.11a	6 Mbps	6 Mbps	6 Mbps
802.11n/ac – HT20	MCS 0	MCS 0	MCS 0
Frequency	5510 MHz		5670 MHz
802.11n/ac – HT40	MCS 0		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

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 A Mode / CH52, CH60, CH64 (UNII-2A)
Mode 7	TX N20 Mode / CH52, CH60, CH64 (UNII-2A)
Mode 8	TX N40 Mode / CH54, CH62 (UNII-2A)
Mode 9	TX AC20 Mode / CH52, CH60, CH64 (UNII-2A)
Mode 10	TX AC40 Mode / CH54, CH62 (UNII-2A)
Mode 11	TX A Mode / CH100, CH116, CH140 (UNII-2C)
Mode 12	TX N20 Mode / CH100, CH116, CH140 (UNII-2C)
Mode 13	TX N40 Mode / CH102, CH134 (UNII-2C)
Mode 14	TX AC20 Mode / CH100, CH116, CH140 (UNII-2C)
Mode 15	TX AC40 Mode / CH102, CH134 (UNII-2C)
Mode 16	TX A Mode / CH149, CH157, CH165 (UNII-3)
Mode 17	TX N20 Mode / CH149, CH157, CH165 (UNII-3)
Mode 18	TX N40 Mode / CH151, CH159 (UNII-3)
Mode 19	TX AC20 Mode / CH149, CH157, CH165 (UNII-3)
Mode 20	TX AC40 Mode / CH151, CH159 (UNII-3)
Mode 21	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 22	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 A Mode / CH52, CH60, CH64 (UNII-2A)
Mode 7	TX N20 Mode / CH52, CH60, CH64 (UNII-2A)
Mode 8	TX N40 Mode / CH54, CH62 (UNII-2A)
Mode 9	TX AC20 Mode / CH52, CH60, CH64 (UNII-2A)
Mode 10	TX AC40 Mode / CH54, CH62 (UNII-2A)
Mode 11	TX A Mode / CH100, CH116, CH140 (UNII-2C)
Mode 12	TX N20 Mode / CH100, CH116, CH140 (UNII-2C)
Mode 13	TX N40 Mode / CH102, CH134 (UNII-2C)
Mode 14	TX AC20 Mode / CH100, CH116, CH140 (UNII-2C)
Mode 15	TX AC40 Mode / CH102, CH134 (UNII-2C)
Mode 16	TX AC80 Mode / CH106, (UNII-2C)
Mode 17	TX A Mode / CH149, CH157, CH165 (UNII-3)
Mode 18	TX N20 Mode / CH149, CH157, CH165 (UNII-3)
Mode 19	TX N40 Mode / CH151, CH159 (UNII-3)
Mode 20	TX AC20 Mode / CH149, CH157, CH165 (UNII-3)
Mode 21	TX AC40 Mode / CH151, CH159 (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	16	16	16
Frequency (MHz)	5180	5220	5240
N20 mode	12	12	12
Frequency (MHz)	5190	5230	\
N40 mode	12	12	\
Frequency (MHz)	5180	5220	5240
AC20 mode	12	12	12
Frequency (MHz)	5190	5230	\
AC40 mode	12	12	\

Power level setup in software for 5G wifi			
UNII-1 (Antenna 1)			
Frequency (MHz)	5180	5220	5240
A mode	13	13	13
Frequency (MHz)	5180	5220	5240
N20 mode	9	9	9
Frequency (MHz)	5190	5230	\
N40 mode	9	9	\
Frequency (MHz)	5180	5220	5240
AC20 mode	9	9	9
Frequency (MHz)	5190	5230	\
AC40 mode	9	9	\

Power level setup in software for 5G wifi			
UNII-2A (Antenna 0)			
Frequency (MHz)	5260	5300	5320
A mode	16	16	16
Frequency (MHz)	5260	5300	5320
N20 mode	12	12	12
Frequency (MHz)	5270	5310	\
N40 mode	12	12	\
Frequency (MHz)	5260	5300	5320
AC20 mode	12	12	12
Frequency (MHz)	5270	5310	\
AC40 mode	12	12	\

Power level setup in software for 5G wifi			
UNII-2A (Antenna 1)			
Frequency (MHz)	5260	5300	5320
A mode	13	13	13
Frequency (MHz)	5260	5300	5320
N20 mode	9	9	9
Frequency (MHz)	5270	5310	\
N40 mode	9	9	\
Frequency (MHz)	5260	5300	5320
AC20 mode	9	9	9
Frequency (MHz)	5270	5310	\
AC40 mode	9	9	\

Power level setup in software for 5G wifi			
UNII-2C (Antenna 0)			
Frequency (MHz)	5500	5580	5700
A mode	16	16	16
Frequency (MHz)	5500	5580	5700
N20 mode	12	12	12
Frequency (MHz)	5510	5670	\
N40 mode	12	12	\
Frequency (MHz)	5500	5580	5700
AC20 mode	12	12	12
Frequency (MHz)	5510	5670	\
AC40 mode	12	12	\

Power level setup in software for 5G wifi			
UNII-2C (Antenna 1)			
Frequency (MHz)	5500	5580	5700
A mode	14	14	14
Frequency (MHz)	5500	5580	5700
N20 mode	9	9	9
Frequency (MHz)	5510	5670	\
N40 mode	10	10	\
Frequency (MHz)	5500	5580	5700
AC20 mode	10	10	10
Frequency (MHz)	5510	5670	\
AC40 mode	10	10	\

Power level setup in software for 5G wifi			
UNII-3 (Antenna 0)			
Frequency (MHz)	5745	5785	5825
A mode	16	16	16
Frequency (MHz)	5745	5785	5825
N20 mode	12	12	12
Frequency (MHz)	5755	5795	\
N40 mode	12	12	\
Frequency (MHz)	5745	5785	5825
AC20 mode	12	12	12
Frequency (MHz)	5755	5795	\
AC40 mode	12	12	\

Power level setup in software for 5G wifi			
UNII-3 (Antenna 1)			
Frequency (MHz)	5745	5785	5825
A mode	14	14	14
Frequency (MHz)	5745	5785	5825
N20 mode	10	10	10
Frequency (MHz)	5755	5795	\
N40 mode	10	10	\
Frequency (MHz)	5745	5785	5825
AC20 mode	10	10	10
Frequency (MHz)	5755	5795	\
AC40 mode	10	10	\

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	1
1	1
0+1	4.01

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)

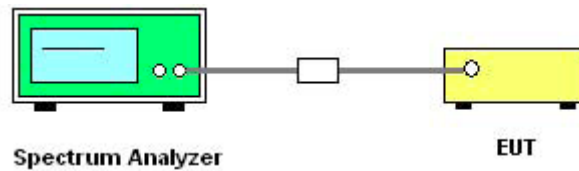
The maximum conducted output power should not exceed:

Band	EUT Category	Limit
U-NII-1	☐ 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)
	☐ Fixed point-to-point Access device	1 Watt (30 dBm)
	☐ Indoor Access Point	1 Watt (30 dBm)
	☒ Mobile and portable client device	250mW (24 dBm)
U-NII-2A	☒	250mW (24 dBm) or 11dBm+10logB* Whichever is less.
U-NII-2C	☒	250mW (24 dBm) or 11dBm+10logB* Whichever is less.
U-NII-3	☒	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

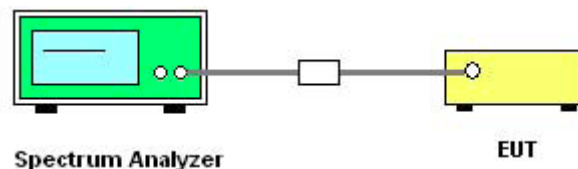
There is no limit bandwidth for bandU-NII-1, U-NII-2A and U-NII-2C.

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)

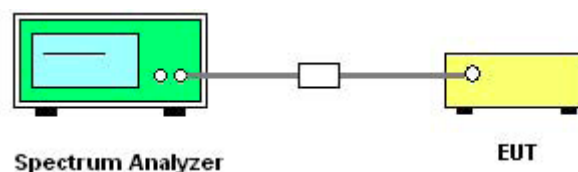
The maximum power spectral density should not exceed:

Band	EUT Category	Limit
U-NII-1	☐ Access Point (Master device)	17 dBm/MHz
	☐ Fixed point-to-point Access device	
	☒ Mobile and portable client device	11 dBm/MHz
U-NII-2A	☒	11 dBm/MHz
U-NII-2C	☒	11 dBm/MHz
U-NII-3	☒	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

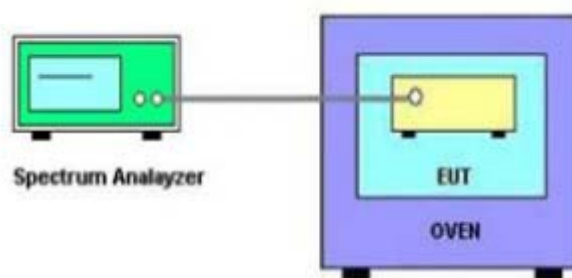
2.5.1. Limit

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 ($\mu\text{V/m}$)	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 ($\mu\text{V/m}$).
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 $\mu\text{V/m}$)	AV:54 (dB $\mu\text{V/m}$)

Frequency Band (MHz)	Frequency (MHz)	EIRP Limit (dBm)	Equivalent Field Strength (3m) (dB $\mu\text{V/m}$)
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:

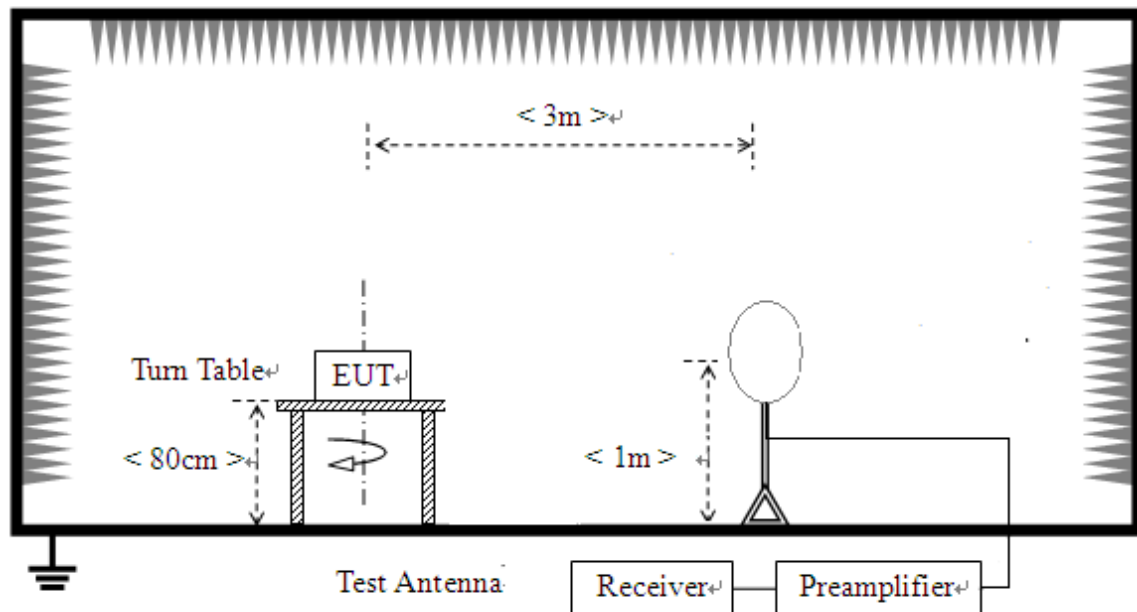
$$E = \frac{1000000 \sqrt{30P}}{3} \text{ } \mu\text{V/m, where P is the eirp (Watts).}$$

2.6.2. Measuring Instruments

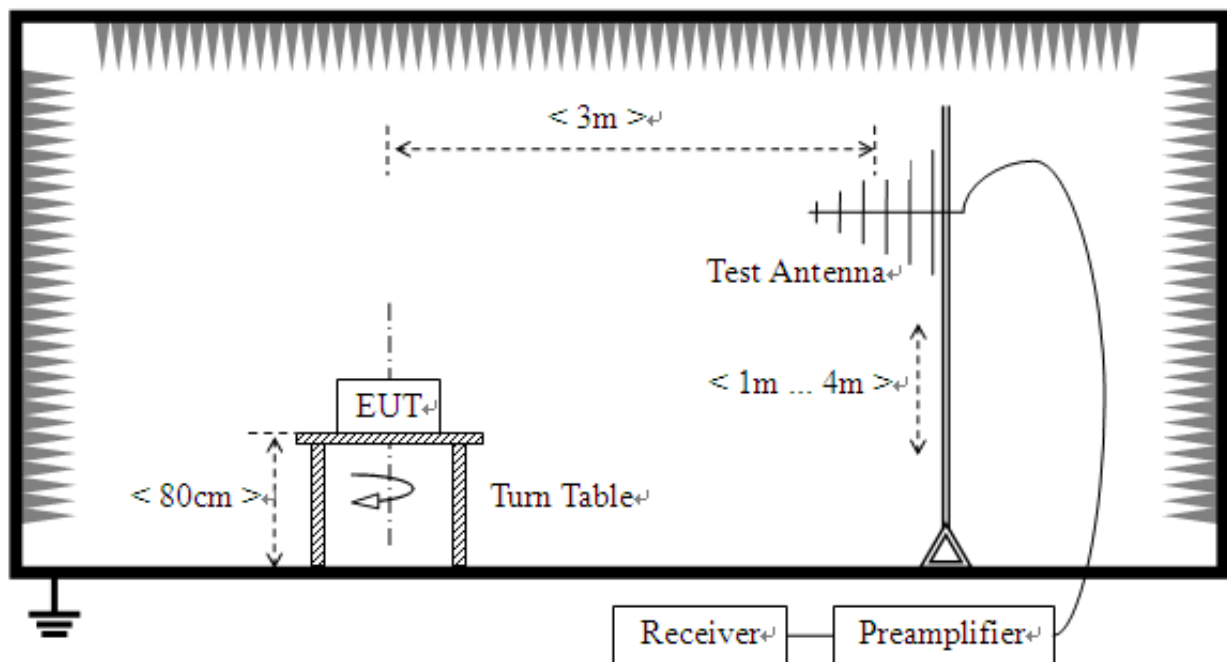
The measuring equipment is listed in the section 3 of this test report.

2.6.3. Test Setup

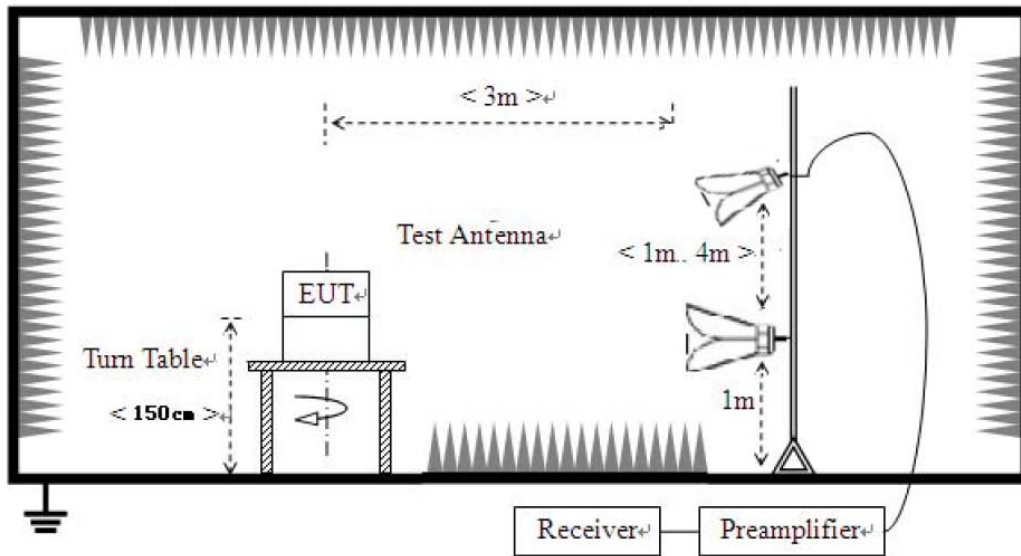
For radiated emissions from 9 KHz to 30 MHz



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:

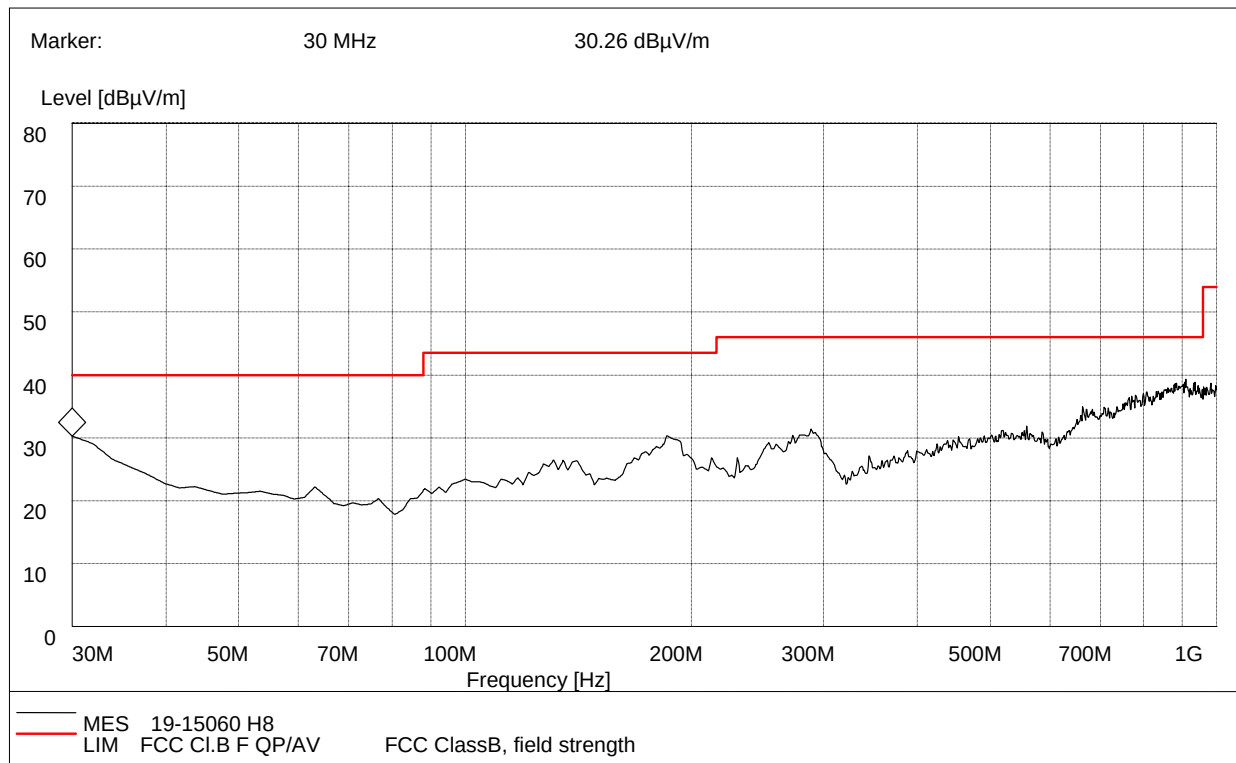
1. The resolution bandwidth and video bandwidth of test receiver/spectrum analyzer is 120 kHz for Quasi-peak detection (QP) at frequency below 1 GHz.
2. The resolution bandwidth of test receiver/spectrum analyzer is 1 MHz and the video bandwidth is 3 MHz for Peak detection (PK) at frequency above 1GHz.
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

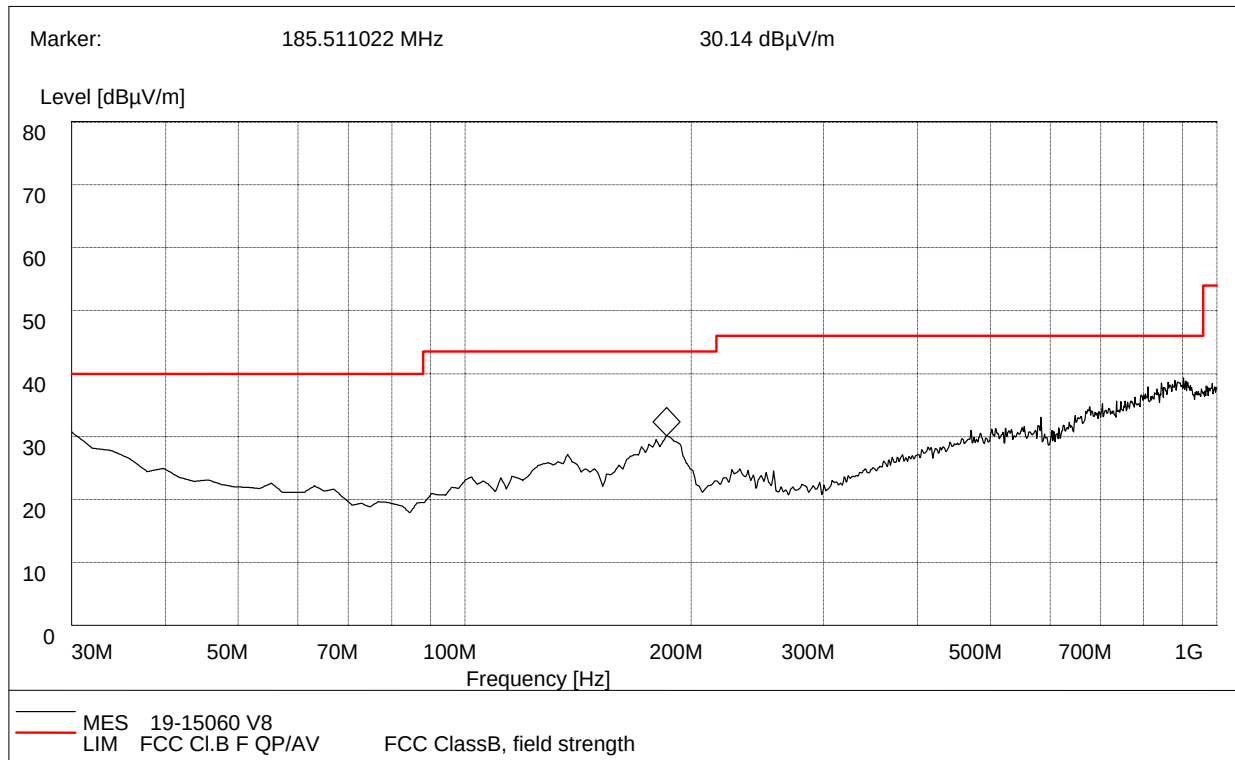
The amplitude of spurious emissions which are attenuated by more than 20dB below the permissible value has no need to be reported.

For 30MHz to 1000 MHz



30MHz to 1GHz, Antenna Horizontal

Frequency (MHz)	QuasiPeak (dB μ V/m)	Bandwidth (kHz)	Antenna height (cm)	Cable Loss (dB)	ANT. Factor (dB)	Limit (dB μ V/m)	Antenna	Verdict
30	30.26	120.000	100.0	0.3	26.2	40.0	Horizontal	Pass



30MHz to 1GHz, Antenna Vertical

Frequency (MHz)	QuasiPeak (dB μ V/m)	Bandwidth (kHz)	Antenna height (cm)	Cable Loss (dB)	ANT. Factor (dB)	Limit (dB μ V/m)	Antenna	Verdict
30	30.14	120.000	200.0	0.3	26.2	40.0	Vertical	Pass

For 1GHz to 40 GHz

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M (802.11a_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	56.98	PK	68.20	-11.22	1.50	180	49.48	7.50
2	5150.00	46.82	AV	54.00	-7.18	1.50	180	39.32	7.50
3	10360.00	57.36	PK	68.20	-10.84	1.50	180	37.56	19.80
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M (802.11a_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	58.36	PK	68.20	-9.84	1.70	300	50.86	7.50
2	5150.00	48.60	AV	54.00	-5.40	1.70	300	41.10	7.50
3	10360.00	61.33	PK	68.20	-6.87	1.70	300	41.53	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	54.62	PK	68.20	-13.58	1.50	220	34.72	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	55.98	PK	68.20	-12.22	1.70	100	36.08	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	57.33	PK	68.20	-10.87	1.70	330	49.33	8.00
2	5350.00	46.97	AV	54.00	-7.03	1.70	330	38.97	8.00
3	10480.00	59.20	PK	68.20	-9	1.70	330	39.30	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	56.37	PK	68.20	-11.83	1.80	98	48.37	8.00
2	5350.00	46.72	AV	54.00	-7.28	1.80	98	38.72	8.00
3	10480.00	55.18	PK	68.20	-13.02	1.80	98	35.28	19.90

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M (802.11a_5260MHz)

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	55.65	PK	68.20	-12.55	2.00	200	48.15	7.50
2	5150.00	45.03	AV	54.00	-8.97	2.00	200	37.53	7.50
3	10520.00	58.65	PK	68.20	-9.55	2.00	200	38.65	20.00

ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M (802.11a_5260MHz)

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	54.62	PK	68.20	-13.58	1.50	200	47.12	7.50
2	5150.00	46.47	AV	54.00	-7.53	1.50	200	38.97	7.50
3	10520.00	58.21	PK	68.20	-9.99	1.50	200	38.21	20.00

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M (802.11a_5300MHz)

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	10600.00	53.62	PK	68.20	-14.58	1.60	300	33.62	20.00
2	10600.00	44.57	AV	54.00	-9.43	1.60	300	24.57	20.00

ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M (802.11a_5300MHz)

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	10600.00	57.64	PK	68.20	-10.56	1.70	200	37.64	20.00
2	10600.00	48.99	AV	54.00	-5.01	1.70	200	28.99	20.00

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M (802.11a_5320MHz)

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	38.95	PK	68.20	-29.25	2.00	260	30.95	8.00
2	5350.00	31.20	AV	54.00	-22.80	2.00	260	23.20	8.00
3	10640.00	50.09	PK	68.20	-18.11	2.00	120	29.99	20.10
4	10640.00	41.95	AV	54.00	-12.05	2.00	120	21.85	20.10

ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M (802.11a_5320MHz)

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	41.69	PK	68.20	-26.51	1.50	330	33.69	8.00
2	5350.00	32.34	AV	54.00	-21.66	1.50	330	24.34	8.00
3	10640.00	50.19	PK	68.20	-18.01	1.20	210	30.09	20.10
4	10640.00	41.05	AV	54.00	-12.95	1.20	210	20.95	20.10

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M (802.11a_5500MHz)

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	39.25	PK	68.20	-28.95	2.00	120	30.75	8.50
2	5460.00	31.51	AV	54.00	-22.49	2.00	120	23.01	8.50
3	5470.00	38.95	PK	68.2	-29.25	2.00	260	30.45	8.50
4	11000.00	49.36	PK	68.20	-18.84	1.80	200	28.36	21.00
5	11000.00	41.01	AV	54.00	-12.99	1.80	200	20.01	21.00

ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M (802.11a_5500MHz)

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	38.74	PK	68.20	-29.46	2.50	180	30.24	8.50
2	5460.00	30.09	AV	54.00	-23.91	2.50	180	21.59	8.50
3	5470.00	38.84	PK	68.20	-29.36	2.00	180	30.34	8.50
4	11000.00	50.69	PK	74.00	-23.31	2.00	200	29.69	21.00
5	11000.00	42.84	AV	54.00	-11.16	2.00	200	21.84	21.00

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M (802.11a_5580MHz)

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	11160.00	52.14	PK	68.20	-16.06	1.80	100	30.64	21.50
2	11160.00	43.89	AV	54.00	-10.11	1.80	100	22.39	21.50

ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M (802.11a_5580MHz)

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	11160.00	50.37	PK	68.20	-17.83	2.00	180	28.87	21.50
2	11160.00	41.52	AV	54.00	-12.48	2.00	180	20.02	21.50

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M (802.11a_5700MHz)

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	5700.00	46.69	PK	68.2	-21.51	1.00	0	37.04	9.65
2	11400.00	52.17	PK	68.20	-16.03	1.80	360	30.67	21.50
3	11400.00	44.43	AV	54.00	-9.57	1.80	360	22.93	21.50

ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M (802.11a_5700MHz)

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	5700.00	46.87	PK	68.2	-21.33	1.00	170	37.22	9.65
2	11400.00	53.14	PK	68.20	-15.06	2.00	260	31.64	21.50
3	11400.00	45.56	AV	54.00	-8.44	2.00	260	24.06	21.50

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	5700.00	42.59	PK	68.2	-25.61	1.48	170	32.94	9.65
2	11490.00	52.18	PK	68.20	-16.02	1.29	340	30.48	21.70
3	11490.00	45.66	AV	54.00	-8.34	1.50	340	23.96	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	5700.00	44.39	PK	68.2	-23.81	1.50	170	34.74	9.65
2	11490.00	52.08	PK	68.20	-16.12	1.50	350	30.38	21.70
3	11490.00	45.54	AV	54.00	-8.46	1.45	350	23.84	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	51.29	PK	68.20	-16.91	1.00	120	29.59	21.70
2	11570.00	44.61	AV	54.00	-9.39	1.00	120	22.91	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	52.36	PK	68.20	-15.84	1.00	200	30.66	21.70
2	11570.00	45.78	AV	54.00	-8.22	1.00	200	24.08	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	38.65	PK	68.20	-29.55	2.00	0	28.87	9.78
2	11650.00	51.74	PK	68.20	-16.46	1.00	250	29.84	21.90
3	11650.00	45.39	AV	54.00	-8.61	1.00	250	23.49	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	40.15	PK	68.20	-28.05	1.00	180	30.37	9.78
2	11650.00	52.36	PK	68.20	-15.84	2.00	120	30.46	21.90
3	11650.00	45.82	AV	54.00	-8.18	2.00	120	23.92	21.90

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M (802.11n20_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	46.26	PK	68.20	-21.94	1.00	120	38.76	7.50
2	5150.00	35.96	AV	54.00	-18.04	1.00	120	28.46	7.50
3	10360.00	51.24	PK	68.20	-16.96	1.50	120	31.44	19.80

ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M (802.11n20_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	44.25	PK	68.20	-23.95	1.50	260	36.75	7.50
2	5150.00	34.27	AV	54.00	-19.73	1.50	260	26.77	7.50
3	10360.00	50.09	PK	68.20	-18.11	1.50	270	30.29	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	51.19	PK	68.2	-17.01	1.50	250	31.29	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	51.84	PK	68.2	-16.36	1.00	360	31.94	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	46.25	PK	68.20	-21.95	1.00	120	38.25	8.00
2	5350.00	35.90	AV	54.00	-18.1	1.00	120	27.90	8.00
3	10480.00	48.95	PK	68.2	-19.25	2.00	120	29.05	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	43.52	PK	68.20	-24.95	1.00	230	35.52	8.00
2	5350.00	33.38	AV	54.00	-20.62	1.00	230	25.38	8.00
3	10480.00	51.19	PK	68.2	-17.01	2.00	360	31.29	19.90

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M (802.11n20_5260MHz)

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	38.26	PK	68.20	-29.94	2.00	120	30.76	7.50
2	5150.00	29.91	AV	54.00	-24.09	2.00	120	22.41	7.50
3	10520.00	51.19	PK	68.2	-17.01	1.00	120	31.19	20.00

ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M (802.11n20_5260MHz)

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	39.62	PK	68.20	-28.58	1.20	100	32.12	7.50
2	5150.00	31.47	AV	54.00	-22.53	1.20	100	23.97	7.50
3	10520.00	50.26	PK	68.2	-17.94	1.00	210	30.26	20.00

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M (802.11n20_5300MHz)

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	10600.00	49.65	PK	68.20	-18.55	1.00	0	29.65	20.00
2	10600.00	40.60	AV	54.00	-13.4	1.00	0	20.60	20.00

ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M (802.11n20_5300MHz)

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	10600.00	48.85	PK	68.20	-19.35	1.50	360	28.85	20.00
2	10600.00	40.20	AV	54.00	-13.8	1.50	360	20.20	20.00

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M (802.11n20_5320MHz)

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	40.15	PK	68.20	-28.05	1.00	120	32.15	8.00
2	5350.00	32.40	AV	54.00	-21.6	1.00	120	24.40	8.00
3	10640.00	51.16	PK	68.20	-17.04	1.50	260	31.06	20.10
4	10640.00	43.02	AV	54.00	-10.98	1.50	260	22.92	20.10

ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M (802.11n20_5320MHz)

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	41.25	PK	68.20	-26.95	1.50	260	33.25	8.00
2	5350.00	31.90	AV	54.00	-22.1	1.50	260	23.90	8.00
3	10640.00	48.25	PK	68.20	-19.95	1.00	180	28.15	20.10
4	10640.00	39.11	AV	54.00	-14.89	1.00	180	19.01	20.10

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M (802.11n20_5500MHz)

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	38.66	PK	68.20	-29.54	1.00	120	30.16	8.50
2	5460.00	30.92	AV	54.00	-23.08	1.00	120	22.42	8.50
3	5470.00	38.96	PK	68.2	-29.24	1.50	250	30.46	8.50
4	11000.00	51.36	PK	68.20	-16.84	1.80	360	30.36	21.00
5	11000.00	43.01	AV	54.00	-10.99	1.80	360	22.01	21.00

ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M (802.11n20_5500MHz)

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	39.95	PK	68.20	-28.25	1.00	120	31.45	8.50
2	5460.00	31.30	AV	54.00	-22.70	1.00	120	22.80	8.50
3	5470.00	39.65	PK	68.2	-28.55	1.50	100	31.15	8.50
4	11000.00	52.24	PK	68.20	-15.96	2.00	100	31.24	21.00
5	11000.00	44.39	AV	54.00	-9.61	2.00	100	23.39	21.00

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M (802.11n20_5580MHz)

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	11160.00	51.00	PK	68.20	-17.20	2.00	0	29.50	21.50
2	11160.00	42.75	AV	54.00	-11.25	2.00	0	21.25	21.50

ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M (802.11n20_5580MHz)

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	11160.00	50.98	PK	68.20	-17.22	1.00	150	29.48	21.50
2	11160.00	42.13	AV	54.00	-11.87	1.00	150	20.63	21.50

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M (802.11n20_5700MHz)

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	5700.00	45.63	PK	68.2	-22.57	1.00	0	35.98	9.65
2	11400.00	52.25	PK	68.20	-15.95	1.80	360	30.75	21.50
3	11400.00	44.51	AV	54.00	-9.49	1.80	360	23.01	21.50

ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M (802.11n20_5700MHz)

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	5700.00	46.6	PK	68.2	-21.60	1.00	180	36.95	9.65
2	11400.00	53.05	PK	68.20	-15.15	2.00	200	31.55	21.50
3	11400.00	45.47	AV	54.00	-8.53	2.00	200	23.97	21.50

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	5700.00	40.18	PK	68.2	-28.02	1.00	120	30.53	9.65
2	11490.00	51.18	PK	68.20	-17.02	1.20	320	29.48	21.70
3	11490.00	44.66	AV	54.00	-9.34	1.20	320	22.96	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	5700.00	45.35	PK	68.2	-22.85	2.00	220	35.70	9.65
2	11490.00	50.06	PK	68.20	-18.14	1.00	100	28.36	21.70
3	11490.00	43.52	AV	54.00	-10.48	1.00	100	21.82	21.70

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M (802.11n20_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	52.25	PK	68.20	-15.95	2.00	223	30.55	21.70
2	11570.00	45.57	AV	54.00	-8.43	2.00	223	23.87	21.70

ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M (802.11n20_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	51.19	PK	68.20	-17.01	2.00	120	29.49	21.70
2	11570.00	44.61	AV	54.00	-9.39	2.00	120	22.91	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	5150.00	44.26	PK	68.20	-23.94	1.20	210.00	36.76	7.50
2	5150.00	33.48	AV	54.00	-28.13	1.20	210.00	25.98	7.50
3	10380.00	50.36	PK	68.2	-23.64	1.50	100.00	30.56	19.80

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	5150.00	42.65	PK	68.20	-25.55	1.20	250.00	35.15	7.50
2	5150.00	32.67	AV	54.00	-21.33	1.20	250.00	25.17	7.50
3	10380.00	53.36	PK	68.2	-14.84	1.00	270.00	33.56	19.80

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	44.26	PK	68.20	-23.94	1.2	210.00	36.76	7.50
2	5150.00	33.48	AV	54.00	-20.52	1.2	210.00	25.98	7.50
3	10380.00	50.36	PK	68.2	-17.84	1.5	100.00	30.56	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	42.65	PK	68.20	-25.55	1.20	250.00	35.15	7.50
2	5150.00	32.67	AV	54.00	-21.33	1.20	250.00	25.17	7.50
3	10380.00	53.36	PK	68.2	-14.84	1.00	270.00	33.56	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	44.16	PK	68.20	-24.04	2.00	100.00	36.16	8.00
2	5350.00	33.81	AV	54.00	-20.19	2.00	100.00	25.81	8.00
3	10460.00	52.36	PK	68.2	-15.84	1.00	200.00	32.46	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	45.35	PK	68.20	-22.85	1.80	100.00	37.35	8.00
2	5350.00	35.21	AV	54.00	-18.79	1.80	100.00	27.21	8.00
3	10460.00	53.02	PK	68.2	-15.18	2.00	360.00	33.12	19.90

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M (802.11n40_5270MHz)

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	42.65	PK	68.20	-25.55	1.20	88.00	35.15	7.50
2	5150.00	34.30	AV	54.00	-19.70	1.20	88.00	26.80	7.50
3	10540.00	52.19	PK	68.2	-16.01	1.80	36.00	32.19	20.00

ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M (802.11n40_5270MHz)

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	44.15	PK	68.20	-24.05	2.00	120.00	36.65	7.50
2	5150.00	34.00	AV	54.00	-20.00	2.00	120.00	26.50	7.50
3	10540.00	51.36	PK	68.2	-16.84	1.50	360.00	31.36	20.00

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M (802.11n40_5310MHz)

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	42.25	PK	68.20	-25.95	1.50	260.00	34.25	8.00
2	5350.00	31.50	AV	54.00	-22.497	1.50	260.00	23.50	8.00
3	10640.00	51.36	PK	68.20	-16.84	2.60	180.00	31.26	20.10
4	10640.00	43.22	AV	54.00	-10.78	2.60	180.00	23.12	20.10

ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M (802.11n40_5310MHz)

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	43.36	PK	68.20	-24.84	1.50	260.00	35.36	8.00
2	5350.00	34.01	AV	54.00	-19.99	1.50	260.00	26.01	8.00
3	10620.00	51.28	PK	68.20	-16.92	2.00	360.00	31.18	20.10
4	10620.00	42.14	AV	54.00	-11.86	2.00	360.00	22.04	20.10

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M (802.11n40_5510MHz)

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	5460.00	42.15	PK	68.20	-26.05	1.60	180.00	33.65	8.50
2	5460.00	31.41	AV	54.00	-22.59	1.60	180.00	22.91	8.50
3	5470.00	43.26	PK	68.20	-24.94	1.60	180.00	34.76	8.50
4	11020.00	51.36	PK	68.20	-16.84	1.60	320.00	30.36	21.00
5	11020.00	40.90	AV	54.00	-13.1	1.60	320.00	19.90	21.00

ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M (802.11n40_5510MHz)

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	5460.00	43.69	PK	68.20	-24.51	1.00	200.00	35.19	8.50
2	5460.00	33.04	AV	54.00	-20.96	1.00	200.00	24.54	8.50
3	5470.00	45.56	PK	68.20	-22.64	1.50	200.00	37.06	8.50
4	11020.00	52.19	PK	68.20	-16.01	1.60	360.00	31.19	21.00
5	11020.00	41.34	AV	54.00	-12.66	1.60	360.00	20.34	21.00

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M (802.11n40_5670MHz)

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	11340.00	53.26	PK	68.20	-14.94	1.50	360.00	31.86	21.40
2	11340.00	42.52	AV	54.00	-11.48	1.50	360.00	21.12	21.40

ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M (802.11n40_5670MHz)

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	11340.00	51.17	PK	68.20	-17.03	1.50	360.00	29.77	21.40
2	11340.00	40.59	AV	54.00	-13.41	1.50	360.00	19.19	21.40

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	44.26	PK	68.20	-23.94	1.80	180.00	34.61	9.65
2	11510.00	51.36	PK	68.20	-16.84	2.00	120.00	29.66	21.70
3	11510.00	40.84	AV	54.00	-13.16	2.00	120.00	19.14	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	43.62	PK	68.20	-24.58	1.20	200.00	33.97	9.65
2	11510.00	52.29	PK	68.20	-15.91	2.00	180.00	30.59	21.70
3	11510.00	41.75	AV	54.00	-12.25	2.00	180.00	20.05	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	42.21	PK	68.20	-25.99	1.50	200.00	32.43	9.78
2	11590.00	53.32	PK	68.20	-14.88	1.80	360.00	31.52	21.80
3	11590.00	42.64	AV	54.00	-11.36	1.80	360.00	20.84	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	42.56	PK	68.20	-25.64	1.50	120.00	32.78	9.78
2	11590.00	53.36	PK	68.20	-14.84	1.80	360.00	31.56	21.80
3	11590.00	42.78	AV	54.00	-11.22	1.80	360.00	20.98	21.80

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	42.65	PK	68.20	-25.55	1.00	120	35.15	7.50
2	5150.00	32.35	AV	54.00	-21.65	1.00	120	24.85	7.50
3	10360.00	50.32	PK	68.2	-17.88	1.50	140	30.52	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	44.05	PK	68.20	-24.15	1.50	240	36.55	7.50
2	5150.00	34.07	AV	54.00	-19.93	1.50	240	26.57	7.50
3	10360.00	51.36	PK	68.2	-16.84	1.50	250	31.56	19.80

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M (802.11ac20_5220MHz)

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	10400.00	52.05	PK	68.2	-16.15	1.50	200	32.15	19.90

ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M (802.11ac20_5220MHz)

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	10400.00	53.21	PK	68.2	-14.99	1.00	120	33.31	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	45.52	PK	68.20	-22.68	1.00	240	37.52	8.00
2	5350.00	35.17	AV	54.00	-18.83	1.00	240	27.17	8.00
3	10480.00	47.00	PK	68.20	-21.20	2.00	160	27.10	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	45.00	PK	68.20	-23.20	1.00	120	37.00	8.00
2	5350.00	34.86	AV	54.00	-19.14	1.00	120	26.86	8.00
3	10480.00	50.25	PK	68.20	-17.95	2.00	180	30.35	19.90

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M (802.11ac20_5260MHz)

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	39.65	PK	68.20	-28.55	1.00	150	32.15	7.50
2	5150.00	31.30	AV	54.00	-22.70	1.00	150	23.80	7.50
3	10520.00	50.12	PK	68.20	-18.08	1.60	200	30.12	20.00

ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M (802.11ac20_5260MHz)

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	38.45	PK	68.20	-29.75	1.00	160	30.95	7.50
2	5150.00	30.30	AV	54.00	-23.70	1.00	160	22.80	7.50
3	10520.00	52.25	PK	68.20	-15.95	1.50	200	32.25	20.00

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M (802.11ac20_5300MHz)

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	10600.00	48.56	PK	68.20	-19.64	1.00	120	28.56	20.00
2	10600.00	39.51	AV	54.00	-14.49	1.00	120	19.51	20.00

ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M (802.11ac20_5300MHz)

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	10600.00	50.21	PK	68.20	-17.99	1.20	180	30.21	20.00
2	10600.00	41.56	AV	54.00	-12.44	1.20	180	21.56	20.00

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M (802.11ac20_5320MHz)

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	41.52	PK	68.20	-26.68	2.00	120	33.52	8.00
2	5350.00	33.77	AV	54.00	-20.23	2.00	120	25.77	8.00
3	10640.00	50.26	PK	68.20	-17.94	1.00	360	30.16	20.10
4	10640.00	42.12	AV	54.00	-11.88	1.00	360	22.02	20.10

ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M (802.11ac20_5320MHz)

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	42.25	PK	68.20	-25.95	1.50	300	34.25	8.00
2	5350.00	32.90	AV	54.00	-21.1	1.50	300	24.90	8.00
3	10640.00	50.06	PK	68.20	-18.14	1.00	250	29.96	20.10
4	10640.00	40.92	AV	54.00	-13.08	1.00	250	20.82	20.10

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M (802.11ac20_5500MHz)

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	5460.00	40.25	PK	68.20	-27.95	1.00	100	31.75	8.50
2	5460.00	32.51	AV	54.00	-21.49	1.00	100	24.01	8.50
3	5470.00	39.65	PK	68.2	-28.55	2.00	200	31.15	8.50
4	11000.00	52.65	PK	68.20	-15.55	1.80	180	31.65	21.00
5	11000.00	44.30	AV	54.00	-9.70	1.80	180	23.30	21.00

ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M (802.11ac20_5500MHz)

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	5460.00	41.26	PK	68.20	-26.94	2.00	180	32.76	8.50
2	5460.00	32.61	AV	54.00	-21.39	2.00	180	24.11	8.50
3	5470.00	41.10	PK	68.2	-27.10	1.80	360	32.60	8.50
4	11000.00	52.36	PK	68.20	-15.84	1.00	120	31.36	21.00
5	11000.00	44.51	AV	54.00	-9.49	1.00	120	23.51	21.00

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M (802.11ac20_5580MHz)

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	11160.00	52.02	PK	68.20	-16.18	2.00	0	30.52	21.50
2	11160.00	43.77	AV	54.00	-10.23	2.00	0	22.27	21.50

ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M (802.11ac20_5580MHz)

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	11160.00	51.36	PK	68.20	-16.84	1.00	200	29.86	21.50
2	11160.00	42.51	AV	54.00	-11.49	1.00	200	21.01	21.50

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M (802.11ac20_5700MHz)

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	5700.00	44.36	PK	68.20	-23.84	1.00	0	34.71	9.65
2	11400.00	51.36	PK	68.20	-16.84	1.20	125	29.86	21.50
3	11400.00	43.62	AV	54.00	-10.38	1.20	125	22.12	21.50

ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M (802.11ac20_5700MHz)

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	5700.00	43.25	PK	68.20	-24.95	2.00	100	33.60	9.65
2	11400.00	51.02	PK	68.20	-17.18	1.50	360	29.52	21.50
3	11400.00	43.44	AV	54.00	-10.56	1.50	360	21.94	21.50

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M (802.11ac20_5745MHz)

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	5700.00	41.25	PK	68.20	-26.95	1.00	100	31.60	9.65
2	11490.00	52.36	PK	68.20	-15.84	2.00	320	30.66	21.70
3	11490.00	45.84	AV	54.00	-8.16	2.00	320	24.14	21.70

ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M (802.11ac20_5745MHz)

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	5700.00	42.36	PK	68.20	-25.84	1.00	120	32.71	9.65
2	11490.00	51.25	PK	68.20	-16.95	2.00	250	29.55	21.70
3	11490.00	44.71	AV	54.00	-9.29	2.00	250	23.01	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	53.36	PK	68.20	-14.84	1.00	250	31.66	21.70
2	11570.00	46.68	AV	54.00	-7.32	1.00	250	24.98	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	50.26	PK	68.20	-17.94	1.00	260	28.56	21.70
2	11570.00	43.68	AV	54.00	-10.32	1.00	260	21.98	21.70

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M (802.11ac20_5825MHz)

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	38.65	PK	68.2	-29.55	1.50	200	28.87	9.78
2	11650.00	51.26	PK	68.20	-16.94	1.50	260	29.36	21.90
3	11650.00	44.91	AV	54.00	-9.09	1.50	260	23.01	21.90

ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M (802.11ac20_5825MHz)

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	39.54	PK	68.2	-28.66	2.00	100	29.76	9.78
2	11650.00	52.00	PK	68.20	-16.20	1.80	270	30.10	21.90
3	11650.00	45.46	AV	54.00	-8.54	1.80	270	23.56	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	43.25	PK	68.20	-24.95	1.00	100.00	35.75	7.50
2	5150.00	32.47	AV	54.00	-21.53	1.00	100.00	24.97	7.50
3	10380.00	52.14	PK	68.20	-16.06	1.60	120.00	32.34	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	41.36	PK	68.20	-26.84	2.00	360.00	33.86	7.50
2	5150.00	31.38	AV	54.00	-22.62	2.00	360.00	23.88	7.50
3	10380.00	53.65	PK	68.20	-14.55	1.80	250.00	33.85	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	43.36	PK	68.20	-24.84	1.00	200.00	35.36	8.00
2	5350.00	33.01	AV	54.00	-20.99	1.00	200.00	25.01	8.00
3	10460.00	52.36	PK	68.2	-15.84	2.00	180.00	32.46	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	44.15	PK	68.20	-24.05	2.00	100.00	36.15	8.00
2	5350.00	34.01	AV	54.00	-19.99	2.00	100.00	26.01	8.00
3	10460.00	51.06	PK	68.2	-17.14	1.50	360.00	31.16	19.90

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M (802.11ac40_5270MHz)

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	43.65	PK	68.20	-24.55	1.50	150.00	36.15	7.50
2	5150.00	35.30	AV	54.00	-18.7	1.50	150.00	27.80	7.50
3	10540.00	51.36	PK	68.20	-16.84	1.60	200.00	31.36	20.00

ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M (802.11ac40_5270MHz)

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	43.26	PK	68.20	-24.94	1.60	260.00	35.76	7.50
2	5150.00	33.11	AV	54.00	-20.89	1.60	260.00	25.61	7.50
3	10540.00	50.36	PK	68.20	-17.84	2.00	180.00	30.36	20.00

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M (802.11ac40_5310MHz)

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	41.26	PK	68.20	-26.94	1.00	200.00	33.26	8.00
2	5350.00	30.51	AV	54.00	-23.49	1.00	200.00	22.51	8.00
3	10640.00	50.15	PK	68.20	-18.05	2.50	120.00	30.05	20.10
4	10640.00	42.01	AV	54.00	-11.99	2.50	120.00	21.91	20.10

ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M (802.11ac40_5310MHz)

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	44.39	PK	68.20	-23.81	2.00	100.00	36.39	8.00
2	5350.00	35.04	AV	54.00	-18.96	2.00	100.00	27.04	8.00
3	10620.00	50.25	PK	68.20	-17.95	1.90	360.00	30.15	20.10
4	10620.00	41.11	AV	54.00	-12.89	1.90	360.00	21.01	20.10

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M (802.11ac40_5510MHz)

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	5460.00	43.25	PK	68.20	-24.95	1.50	180.00	34.75	8.50
2	5460.00	32.51	AV	54.00	-21.49	1.50	180.00	24.01	8.50
3	5470.00	44.15	PK	68.20	-24.05	2.00	180.00	35.65	8.50
4	11020.00	52.00	PK	68.20	-16.20	1.80	320.00	31.00	21.00
5	11020.00	41.54	AV	54.00	-12.46	1.80	320.00	20.54	21.00

ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M (802.11ac40_5510MHz)

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	5460.00	42.36	PK	68.20	-25.84	2.00	100.00	33.86	8.50
2	5460.00	31.71	AV	54.00	-22.29	2.00	100.00	23.21	8.50
3	5470.00	43.65	PK	68.20	-24.55	1.80	360.00	35.15	8.50
4	11020.00	51.36	PK	68.20	-16.84	2.00	180.00	30.36	21.00
5	11020.00	40.51	AV	54.00	-13.49	2.00	180.00	19.51	21.00

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M (802.11ac40_5670MHz)

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	11340.00	51.36	PK	68.20	-16.84	1.00	100.00	29.96	21.40
2	11340.00	40.62	AV	54.00	-13.38	1.00	100.00	19.22	21.40

ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M (802.11ac40_5670MHz)

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	11340.00	52.06	PK	68.20	-16.14	1.00	150.00	30.66	21.40
2	11340.00	41.48	AV	54.00	-12.52	1.00	150.00	20.08	21.40

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	43.36	PK	68.2	-24.84	1.80	180.00	33.71	9.65
2	11510.00	50.15	PK	68.20	-18.05	2.00	120.00	28.45	21.70
3	11510.00	39.63	AV	54.00	-14.37	2.00	120.00	17.93	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	43.62	PK	68.2	-24.58	1.20	200.00	33.97	9.65
2	11510.00	52.29	PK	68.20	-15.91	2.00	180.00	30.59	21.70
3	11510.00	41.75	AV	54.00	-12.25	2.00	180.00	20.05	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	42.25	PK	68.20	-25.95	1.40	100.00	32.47	9.78
2	11590.00	52.36	PK	68.20	-15.84	1.60	0.00	30.56	21.80
3	11590.00	41.68	AV	54.00	-12.32	1.60	0.00	19.88	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	44.15	PK	68.20	-24.05	1.20	360.00	34.37	9.78
2	11590.00	56.25	PK	68.20	-11.95	2.00	120.00	34.45	21.80
3	11590.00	45.67	AV	54.00	-8.33	2.00	120.00	23.87	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,

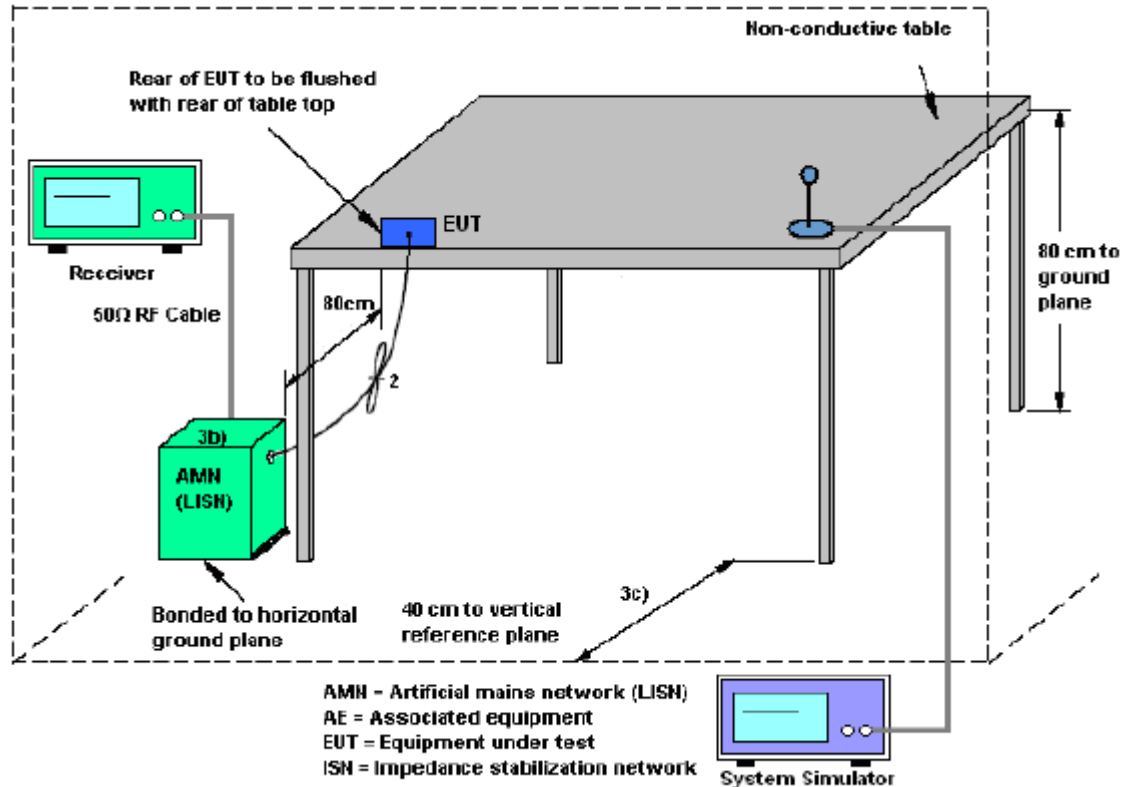
For equipment that is designed to be connected to the public utility (AC) power line, the radio frequency voltage that is conducted back onto the AC power line on any frequency or frequencies within the band 150 kHz to 30 MHz shall not exceed the limits in the following table.

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

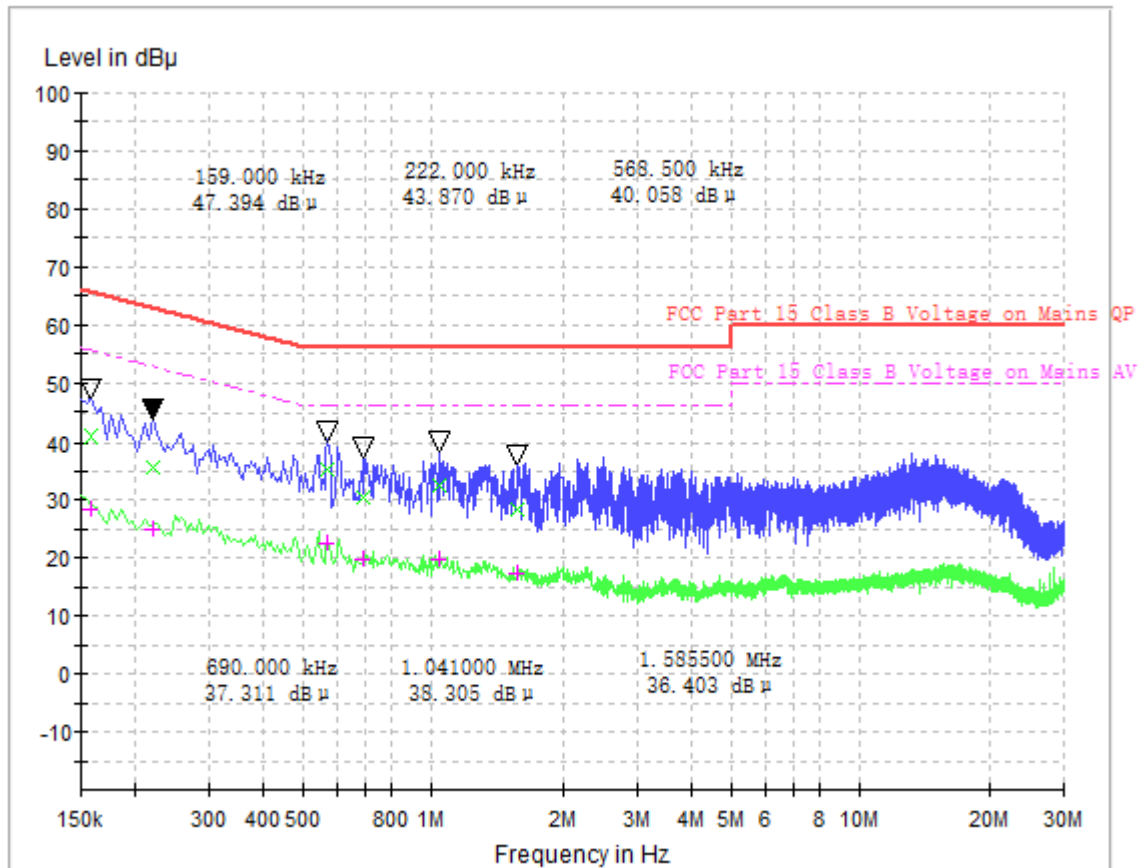


2.7.4. Test Procedures

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.

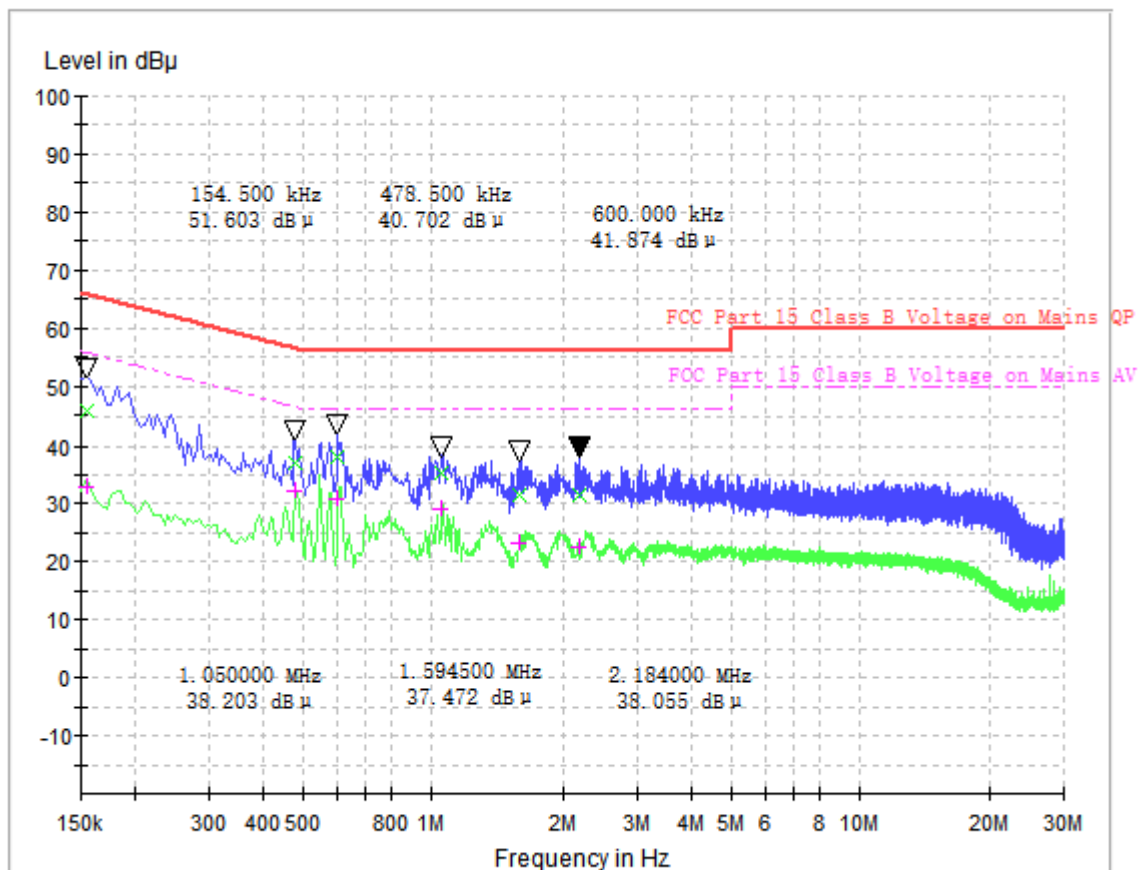
2.7.5. Test Results of Conducted Emission

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



(Plot B:L Phase)

Frequency (MHz)	QuasiPeak (dB μ V)	Average (dB μ V)	Cabel Loss (dB)	Corr. (dB)	Margin - QPK (dB)	Limit - QPK (dB μ V)	Margin - AV (dB)	Limit - AV (dB μ V)
0.159000	41.03	28.56	0.1	10.1	24.49	65.5	26.96	55.5
0.222000	35.79	25.00	0.1	10.1	26.95	62.7	27.74	52.7
0.568500	35.24	22.46	0.1	10.1	20.76	56.0	23.54	46.0
0.690000	30.64	19.73	0.1	10.1	25.36	56.0	26.27	46.0
1.041000	32.56	19.69	0.2	10.2	23.44	56.0	26.31	46.0
1.585500	28.52	17.27	0.2	10.2	27.48	56.0	28.73	46.0



(PLOT B:N Phase)

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)
0.154500	45.62	32.77	0.1	10.1	20.13	65.8	22.98	55.8
0.478500	36.93	32.35	0.1	10.1	19.44	56.4	14.02	46.4
0.600000	38.09	30.95	0.1	10.1	17.91	56.0	15.05	46.0
1.050000	35.16	28.97	0.1	10.1	20.84	56.0	17.03	46.0
1.594500	31.38	23.13	0.2	10.2	24.62	56.0	22.87	46.0
2.184000	31.53	22.37	0.2	10.2	24.47	56.0	23.63	46.0

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	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	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	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	ESIB26	A0304218	2019.05.20	2020.05.19
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	15.51	15.42	24	PASS	
5220	15.48	15.25	24	PASS	
5240	15.45	15.00	24	PASS	
802.11n-HT20 mode					
Test Frequency (MHz)	Conducted Output Power (dBm)			FCC Limit (dBm)	Result
	Antenna 0	Antenna 1	Total		
5180	11.30	11.26	14.29	24	PASS
5220	11.23	12.08	14.69	24	PASS
5240	11.43	12.16	14.82	24	PASS
802.11n-HT40 mode					
Test Frequency (MHz)	Conducted Output Power (dBm)			FCC Limit (dBm)	Result
	Antenna 0	Antenna 1	Total		
5190	11.82	11.95	14.90	24	PASS
5230	11.94	11.96	14.96	24	PASS
802.11ac-VHT20 mode					
Test Frequency (MHz)	Conducted Output Power (dBm)			FCC Limit (dBm)	Result
	Antenna 0	Antenna 1	Total		
5180	11.23	11.00	14.13	24	PASS
5220	11.38	11.26	14.33	24	PASS
5240	11.39	11.14	14.28	24	PASS



802.11ac-VHT40 mode					
Test Frequency (MHz)	Conducted Output Power (dBm)			FCC Limit (dBm)	Result
	Antenna 0	Antenna 1	Total		
5190	11.93	12.03	14.99	24	PASS
5230	11.88	11.87	14.89	24	PASS

Conducted Power Test results of band U-NII-2A (5250 ~ 5350 MHz)

802.11a mode					
Frequency (MHz)	Conducted Output Power (dBm)		FCC Limit (dBm)	Result	
	Antenna 0	Antenna 1			
5260	15.57	15.56	24	PASS	
5300	16.08	15.15	24	PASS	
5320	16.05	15.96	24	PASS	
802.11n-HT20 mode					
Test Frequency (MHz)	Conducted Output Power (dBm)			FCC Limit (dBm)	Result
	Antenna 0	Antenna 1	Total		
5260	11.02	11.49	14.27	24	PASS
5300	11.15	11.09	14.13	24	PASS
5320	11.19	11.02	14.12	24	PASS
802.11n-HT40 mode					
Test Frequency (MHz)	Conducted Output Power (dBm)			FCC Limit (dBm)	Result
	Antenna 0	Antenna 1	Total		
5270	12.04	11.98	15.02	24	PASS
5310	11.89	11.26	14.60	24	PASS
802.11ac-VHT20 mode					
Test Frequency (MHz)	Conducted Output Power (dBm)			FCC Limit (dBm)	Result
	Antenna 0	Antenna 1	Total		
5260	11.63	11.31	14.48	24	PASS
5300	11.31	10.92	14.13	24	PASS
5320	11.39	11.93	14.68	24	PASS
802.11ac-VHT40 mode					
Test Frequency (MHz)	Conducted Output Power (dBm)			FCC Limit (dBm)	Result
	Antenna 0	Antenna 1	Total		
5270	11.58	12.04	14.83	24	PASS
5310	11.44	11.38	14.42	24	PASS

Conducted Power Test results of band U-NII-2C (5470 ~ 5725 MHz)

802.11a mode					
Frequency (MHz)	Conducted Output Power (dBm)		FCC Limit (dBm)	Result	
	Antenna 0	Antenna 1			
5500	16.73	15.69	24	PASS	
5600	16.08	15.65	24	PASS	
5700	15.52	15.71	24	PASS	
802.11n-HT20 mode					
Test Frequency (MHz)	Conducted Output Power (dBm)			FCC Limit (dBm)	Result
	Antenna 0	Antenna 1	Total		
5500	11.34	12.25	14.83	24	PASS
5600	11.96	12.28	15.13	24	PASS
5700	12.09	12.24	15.18	24	PASS
802.11n-HT40 mode					
Test Frequency (MHz)	Conducted Output Power (dBm)			FCC Limit (dBm)	Result
	Antenna 0	Antenna 1	Total		
5510	11.94	11.35	14.67	24	PASS
5670	11.63	12.22	14.95	24	PASS
802.11ac-VHT20 mode					
Test Frequency (MHz)	Conducted Output Power (dBm)			FCC Limit (dBm)	Result
	Antenna 0	Antenna 1	Total		
5500	11.28	12.29	14.82	24	PASS
5600	11.91	11.48	14.71	24	PASS
5700	12.09	11.69	14.90	24	PASS
802.11ac-VHT40 mode					
Test Frequency (MHz)	Conducted Output Power (dBm)			FCC Limit (dBm)	Result
	Antenna 0	Antenna 1	Total		
5510	11.94	10.30	14.21	24	PASS
5670	12.76	12.18	15.49	24	PASS

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	16.24	16.30	30	PASS	
5785	16.40	16.62	30	PASS	
5825	16.12	16.40	30	PASS	
802.11n-HT20 mode					
Test Frequency (MHz)	Conducted Output Power (dBm)			FCC Limit (dBm)	Result
	Antenna 0	Antenna 1	Total		
5745	11.50	11.59	14.56	30	PASS
5785	11.49	11.34	14.43	30	PASS
5825	11.91	11.26	14.61	30	PASS
802.11n-HT40 mode					
Test Frequency (MHz)	Conducted Output Power (dBm)			FCC Limit (dBm)	Result
	Antenna 0	Antenna 1	Total		
5755	11.92	12.13	15.04	30	PASS
5795	11.83	11.90	14.88	30	PASS
802.11ac-VHT20 mode					
Test Frequency (MHz)	Conducted Output Power (dBm)			FCC Limit (dBm)	Result
	Antenna 0	Antenna 1	Total		
5745	11.48	11.69	14.60	30	PASS
5785	11.54	11.52	14.54	30	PASS
5825	11.20	11.59	14.41	30	PASS
802.11ac-VHT40 mode					
Test Frequency (MHz)	Conducted Output Power (dBm)			FCC Limit (dBm)	Result
	Antenna 0	Antenna 1	Total		
5755	11.88	12.11	15.01	30	PASS
5795	11.93	11.86	14.91	30	PASS

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	4.763	3.766	11	PASS	
5220	4.970	4.923	11	PASS	
5240	4.802	4.410	11	PASS	
802.11n-HT20 mode					
Test Frequency (MHz)	Power Spectral Density (dBm/MHz)			Limit (dBm/MHz)	Result
	Antenna 0	Antenna 1	Total		
5180	0.656	0.459	3.57	11	PASS
5220	0.439	1.322	3.91	11	PASS
5240	0.613	1.122	3.89	11	PASS
802.11n-HT40 mode					
Test Frequency (MHz)	Power Spectral Density (dBm/MHz)			Limit (dBm/MHz)	Result
	Antenna 0	Antenna 1	Total		
5190	-1.893	-1.579	1.28	11	PASS
5230	-1.291	-1.806	1.47	11	PASS
802.11ac-VHT20 mode					
Test Frequency (MHz)	Power Spectral Density (dBm/MHz)			Limit (dBm/MHz)	Result
	Antenna 0	Antenna 1	Total		
5180	0.494	0.519	3.52	11	PASS
5220	0.699	0.411	3.57	11	PASS
5240	0.354	0.863	3.63	11	PASS
802.11ac-VHT40 mode					
Test Frequency (MHz)	Power Spectral Density (dBm/MHz)			Limit (dBm/MHz)	Result
	Antenna 0	Antenna 1	Total		
5190	-1.909	-1.572	1.27	11	PASS
5230	-1.652	-1.763	1.30	11	PASS

Conducted PSD Test results of band U-NII-2A (5250~5350MHz)

802.11a mode					
Test Frequency (MHz)	Power Spectral Density (dBm/MHz)		Limit (dBm/MHz)	Result	
	Antenna 0	Antenna 1			
5260	5.846	4.591	11	PASS	
5300	6.043	2.181	11	PASS	
5320	6.003	2.099	11	PASS	
802.11n-HT20 mode					
Test Frequency (MHz)	Power Spectral Density (dBm/MHz)			Limit (dBm/MHz)	Result
	Antenna 0	Antenna 1	Total		
5260	1.056	1.355	4.22	11	PASS
5300	1.199	1.174	4.20	11	PASS
5320	0.735	0.865	3.81	11	PASS
802.11n-HT40 mode					
Test Frequency (MHz)	Power Spectral Density (dBm/MHz)			Limit (dBm/MHz)	Result
	Antenna 0	Antenna 1	Total		
5270	-1.096	-2.495	1.27	11	PASS
5310	-1.382	-1.980	1.34	11	PASS
802.11ac-VHT20 mode					
Test Frequency (MHz)	Power Spectral Density (dBm/MHz)			Limit (dBm/MHz)	Result
	Antenna 0	Antenna 1	Total		
5260	1.379	1.002	4.20	11	PASS
5300	1.038	0.636	3.85	11	PASS
5320	1.097	0.820	3.97	11	PASS
802.11ac-VHT40 mode					
Test Frequency (MHz)	Power Spectral Density (dBm/MHz)			Limit (dBm/MHz)	Result
	Antenna 0	Antenna 1	Total		
5270	-1.677	-1.248	1.55	11	PASS
5310	-1.737	-1.837	1.22	11	PASS

Conducted PSD Test results of band U-NII-2C (5470~5725MHz)

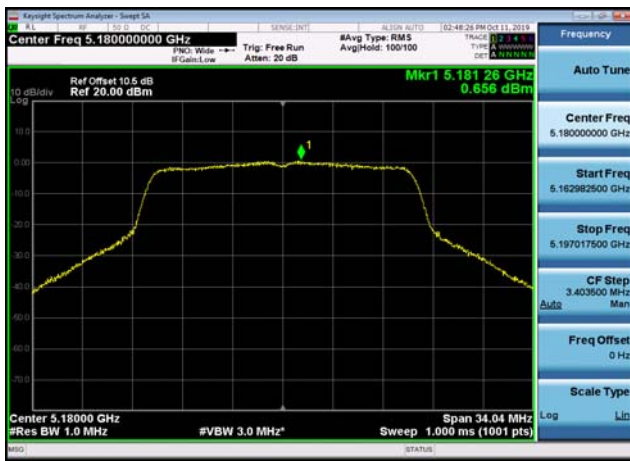
802.11a mode					
Test Frequency (MHz)	Power Spectral Density (dBm/MHz)		Limit (dBm/MHz)	Result	
	Antenna 0	Antenna 1			
5500	6.565	0.935	11	PASS	
5600	7.434	1.996	11	PASS	
5700	5.018	0.543	11	PASS	
802.11n-HT20 mode					
Test Frequency (MHz)	Power Spectral Density (dBm/MHz)			Limit (dBm/MHz)	Result
	Antenna 0	Antenna 1	Total		
5500	1.334	2.950	5.23	11	PASS
5600	1.965	2.186	5.09	11	PASS
5700	1.184	1.601	4.41	11	PASS
802.11n-HT40 mode					
Test Frequency (MHz)	Power Spectral Density (dBm/MHz)			Limit (dBm/MHz)	Result
	Antenna 0	Antenna 1	Total		
5510	-2.635	0.544	2.25	11	PASS
5590	-2.207	-1.165	1.36	11	PASS
5670	-1.683	-1.281	1.53	11	
802.11ac-VHT20 mode					
Test Frequency (MHz)	Power Spectral Density (dBm/MHz)			Limit (dBm/MHz)	Result
	Antenna 0	Antenna 1	Total		
5500	1.218	0.825	4.04	11	PASS
5600	1.643	1.090	4.39	11	PASS
5700	1.202	1.158	4.19	11	PASS
802.11ac-VHT40 mode					
Test Frequency (MHz)	Power Spectral Density (dBm/MHz)			Limit (dBm/MHz)	Result
	Antenna 0	Antenna 1	Total		
5510	-1.294	-3.139	0.89	11	PASS
5590	-1.010	-0.987	2.01	11	PASS
5670	-0.566	-0.976	2.24	11	PASS

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	2.879	2.719	30	PASS	
5785	3.284	3.310	30	PASS	
5825	3.146	3.370	30	PASS	
802.11n-HT20 mode					
Test Frequency (MHz)	Power Spectral Density (dBm/500kHz)			Limit (dBm/MHz)	Result
	Antenna 0	Antenna 1	Total		
5745	-2.023	-1.885	1.06	30	PASS
5785	-0.519	-2.182	1.74	30	PASS
5825	-1.275	-2.208	1.29	30	PASS
802.11n-HT40 mode					
Test Frequency (MHz)	Power Spectral Density (dBm/500kHz)			Limit (dBm/MHz)	Result
	Antenna 0	Antenna 1	Total		
5755	-4.173	-4.170	-1.16	30	PASS
5795	-5.448	-4.265	-1.81	30	PASS
802.11ac-VHT20 mode					
Test Frequency (MHz)	Power Spectral Density (dBm/500kHz)			Limit (dBm/MHz)	Result
	Antenna 0	Antenna 1	Total		
5745	-1.894	-1.943	1.09	30	PASS
5785	-1.848	-1.875	1.15	30	PASS
5825	-2.133	-1.710	1.09	30	PASS
802.11ac-VHT40 mode					
Test Frequency (MHz)	Power Spectral Density (dBm/500kHz)			Limit (dBm/MHz)	Result
	Antenna 0	Antenna 1	Total		
5755	-4.578	-4.242	-1.40	30	PASS
5795	-4.427	-4.767	-1.58	30	PASS

Test Plots

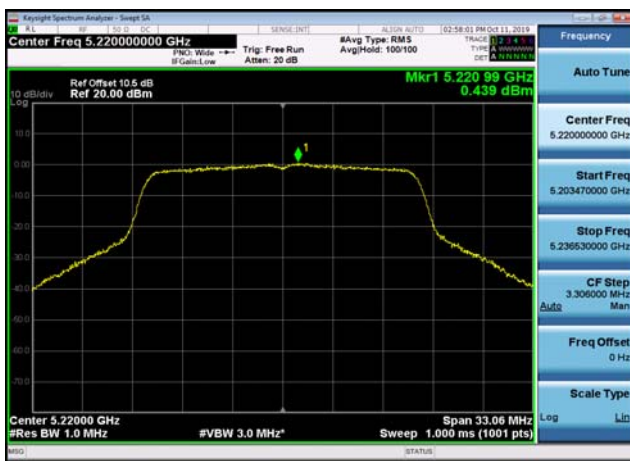
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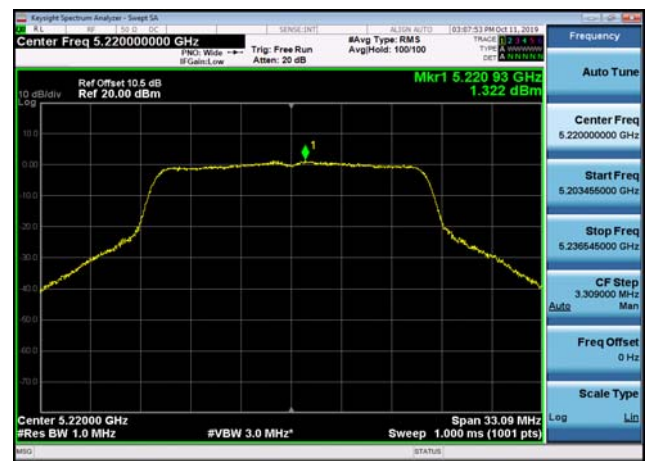
U-NII-1 Power spectral density-802.11
n(20MHz),5180MHz,Ant2



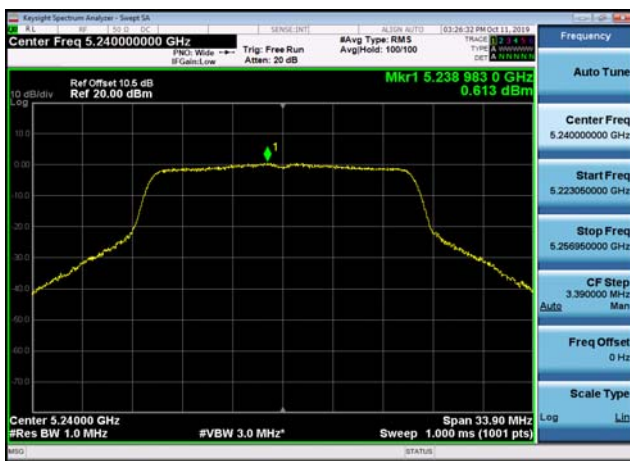
U-NII-1 Power spectral density-802.11
n(20MHz),5220MHz,Ant1



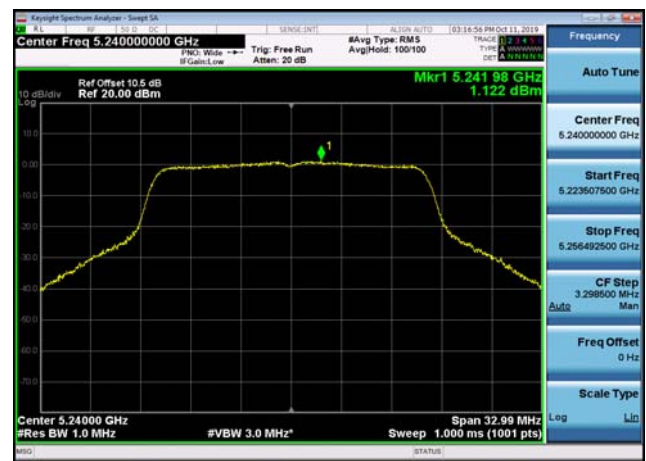
U-NII-1 Power spectral density-802.11
n(20MHz),5220MHz,Ant2



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



U-NII-1 Power spectral density-802.11
n(20MHz),5240MHz,Ant2



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



U-NII-1 Power spectral density-802.11
n(40MHz),5190MHz,Ant2



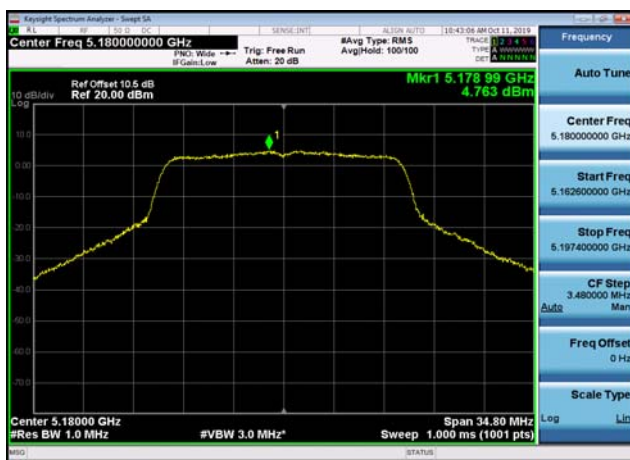
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n(40MHz),5230MHz,Ant1



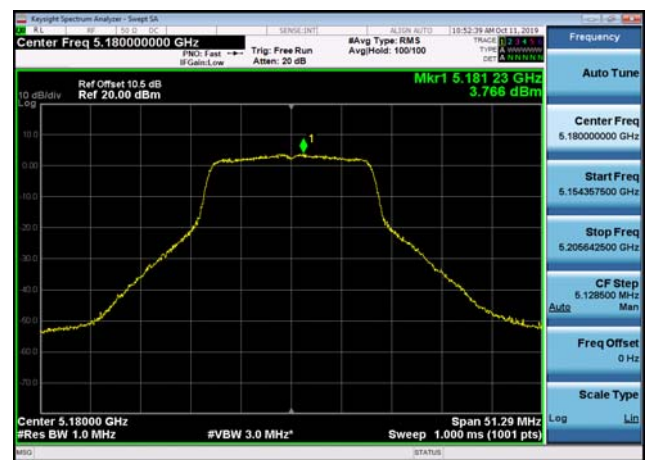
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n(40MHz),5230MHz,Ant2



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



U-NII-1 Power spectral density-802.11
a(20MHz),5180MHz,Ant2



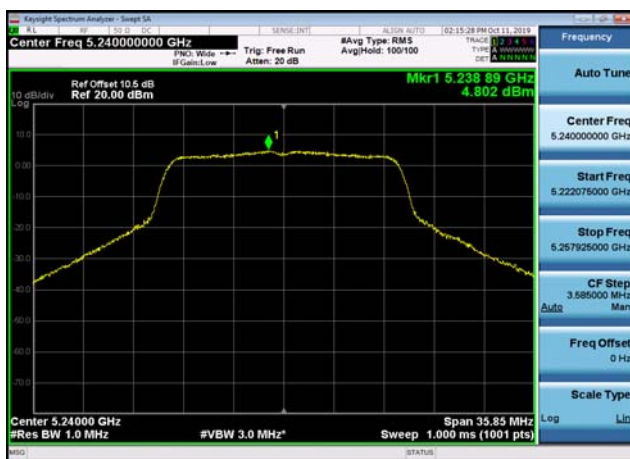
U-NII-1 Power spectral density-802.11
a(20MHz),5220MHz,Ant1



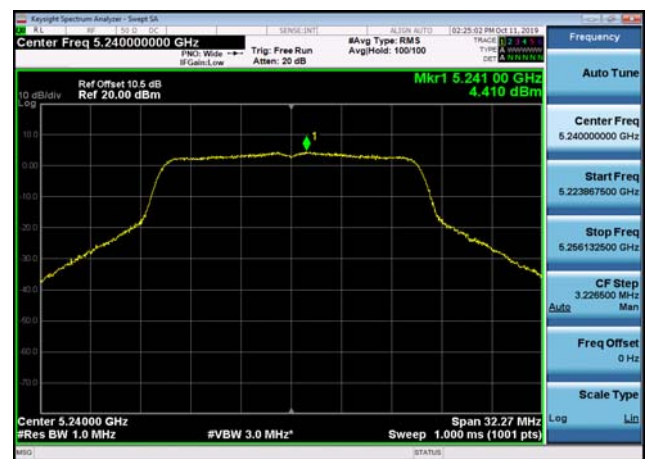
U-NII-1 Power spectral density-802.11
a(20MHz),5220MHz,Ant2



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



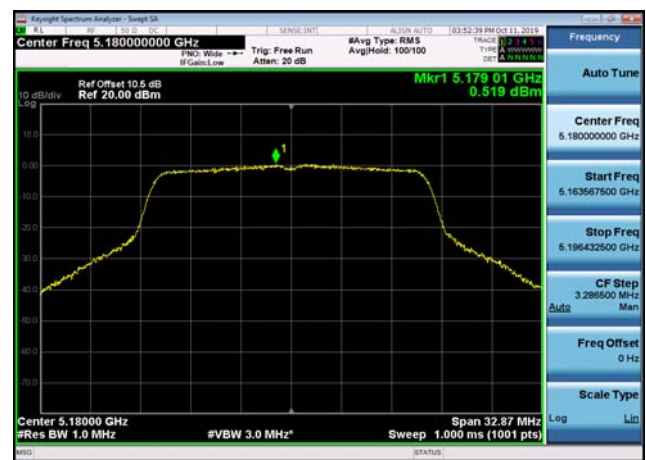
U-NII-1 Power spectral density-802.11
a(20MHz),5240MHz,Ant2



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



U-NII-1 Power spectral density-802.11
ac(20MHz),5180MHz,Ant2



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



U-NII-1 Power spectral density-802.11
ac(20MHz),5220MHz,Ant2



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



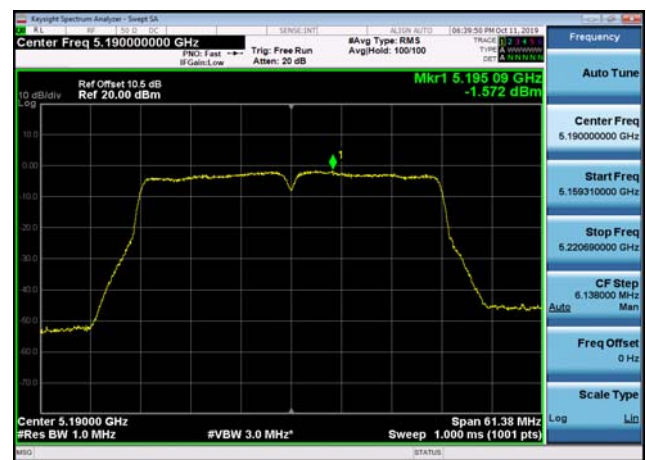
U-NII-1 Power spectral density-802.11
ac(20MHz),5240MHz,Ant2



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



U-NII-1 Power spectral density-802.11
ac(40MHz),5190MHz,Ant2



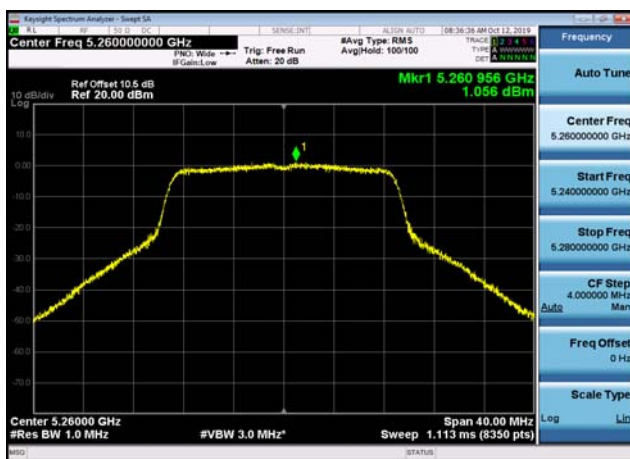
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ac(40MHz),5230MHz,Ant1



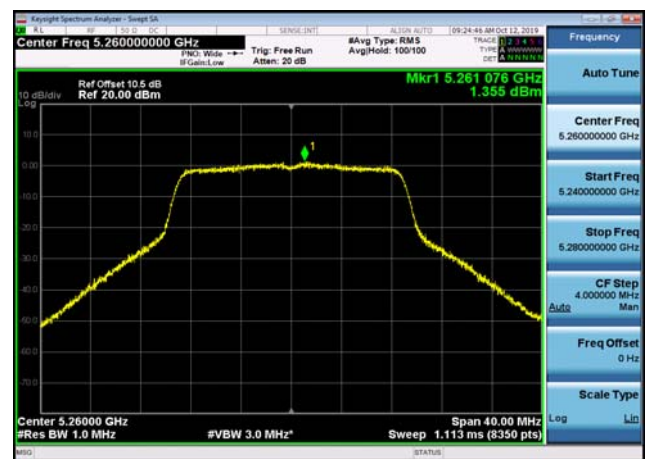
U-NII-1 Power spectral density-802.11
ac(40MHz),5230MHz,Ant2



U-NII-2a Power spectral density-802.1
1n(20MHz),5260MHz,Ant1



U-NII-2a Power spectral density-802.1
1n(20MHz),5260MHz,Ant2



U-NII-2a Power spectral density-802.1
1n(20MHz),5300MHz,Ant1



U-NII-2a Power spectral density-802.1
1n(20MHz),5300MHz,Ant2



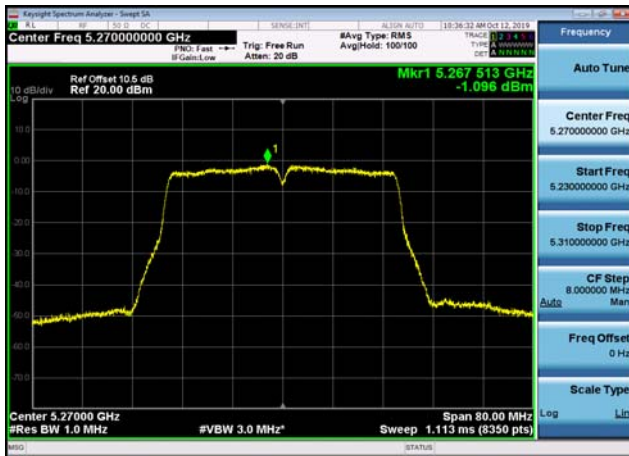
U-NII-2a Power spectral density-802.1
1n(20MHz),5320MHz,Ant1



U-NII-2a Power spectral density-802.1
1n(20MHz),5320MHz,Ant2



U-NII-2a Power spectral density-802.1
1n(40MHz),5270MHz,Ant1



U-NII-2a Power spectral density-802.1
1n(40MHz),5270MHz,Ant2



U-NII-2a Power spectral density-802.1
1n(40MHz),5310MHz,Ant1



U-NII-2a Power spectral density-802.1
1n(40MHz),5310MHz,Ant2



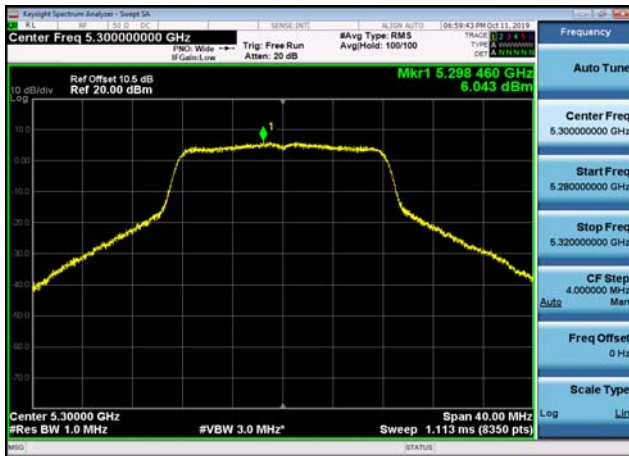
U-NII-2a Power spectral density-802.1
1a(20MHz),5260MHz,Ant1



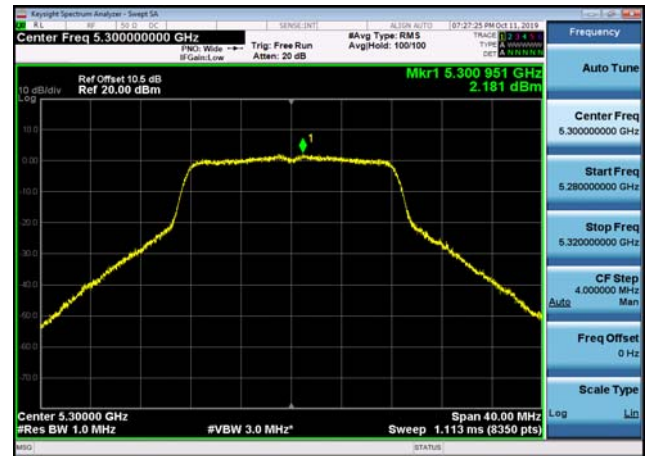
U-NII-2a Power spectral density-802.1
1a(20MHz),5260MHz,Ant2



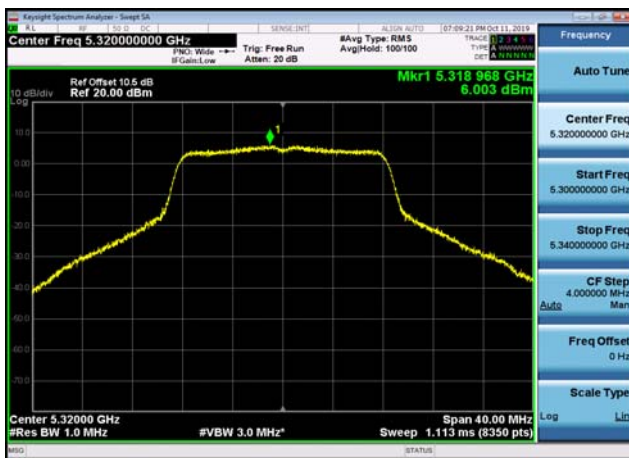
U-NII-2a Power spectral density-802.1
1a(20MHz),5300MHz,Ant1



U-NII-2a Power spectral density-802.1
1a(20MHz),5300MHz,Ant2



U-NII-2a Power spectral density-802.1
1a(20MHz),5320MHz,Ant1



U-NII-2a Power spectral density-802.1
1a(20MHz),5320MHz,Ant2



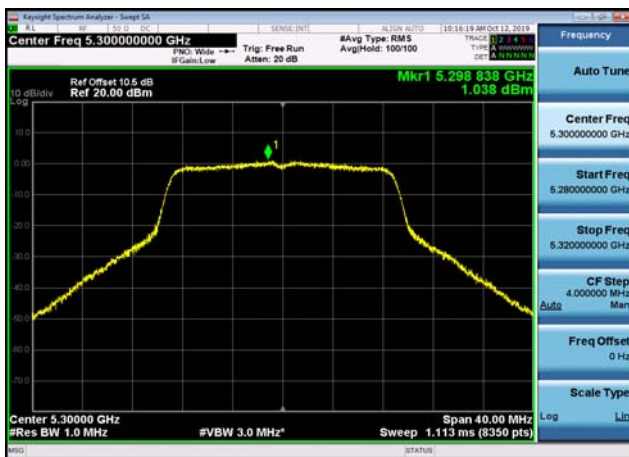
U-NII-2a Power spectral density-802.1
1ac(20MHz),5260MHz,Ant1



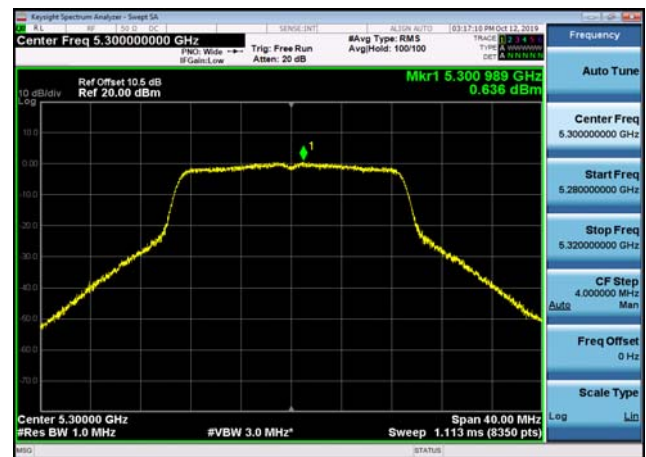
U-NII-2a Power spectral density-802.1
1ac(20MHz),5260MHz,Ant2



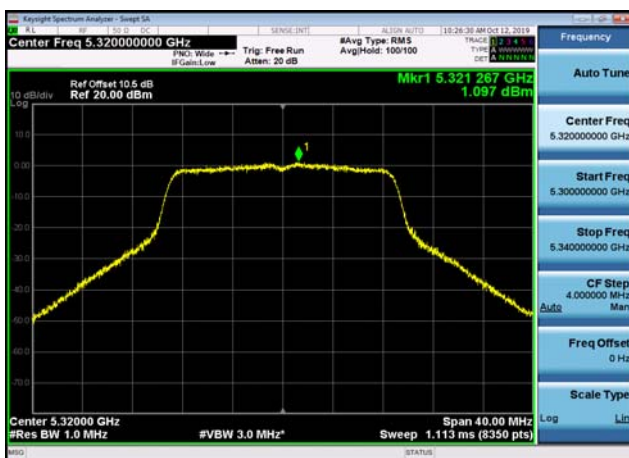
U-NII-2a Power spectral density-802.1
1ac(20MHz),5300MHz,Ant1



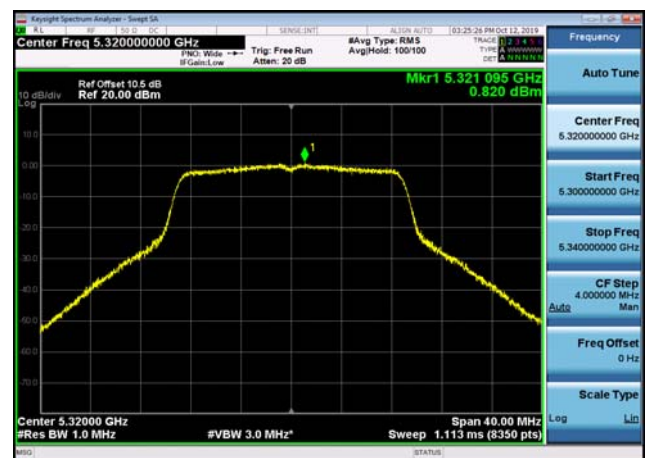
U-NII-2a Power spectral density-802.1
1ac(20MHz),5300MHz,Ant2



U-NII-2a Power spectral density-802.1
1ac(20MHz),5320MHz,Ant1



U-NII-2a Power spectral density-802.1
1ac(20MHz),5320MHz,Ant2



U-NII-2a Power spectral density-802.1
1ac(40MHz),5270MHz,Ant1



U-NII-2a Power spectral density-802.1
1ac(40MHz),5270MHz,Ant2



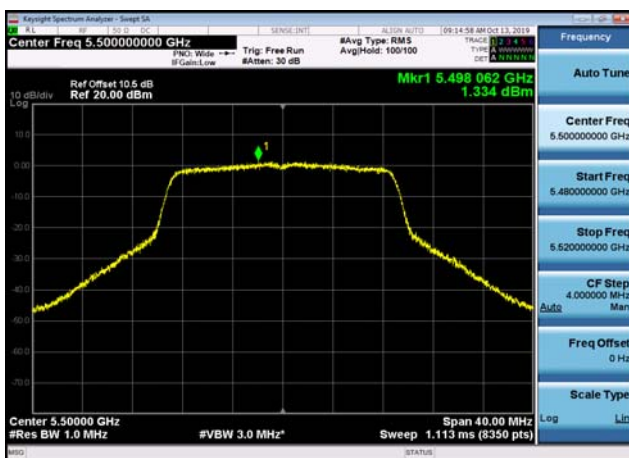
U-NII-2a Power spectral density-802.1
1ac(40MHz),5310MHz,Ant1



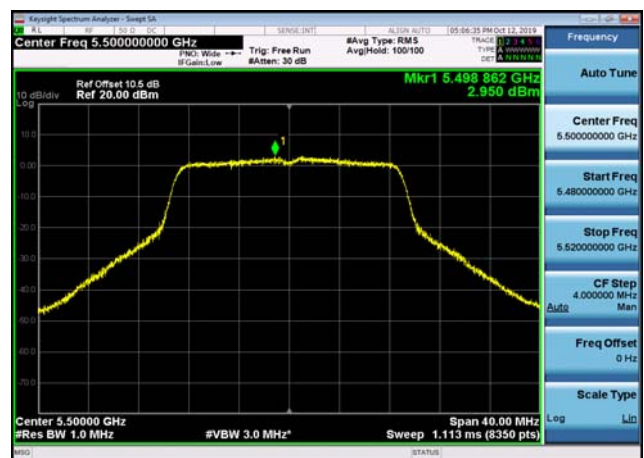
U-NII-2a Power spectral density-802.1
1ac(40MHz),5310MHz,Ant2



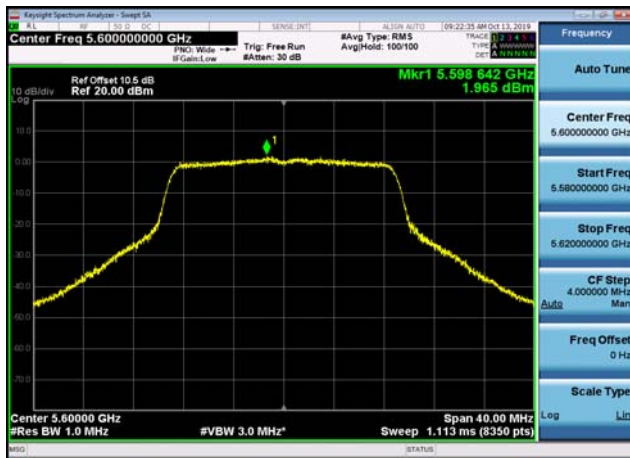
U-NII-2c Power spectral density-802.1
1n(20MHz),5500MHz,Ant1



U-NII-2c Power spectral density-802.1
1n(20MHz),5500MHz,Ant2



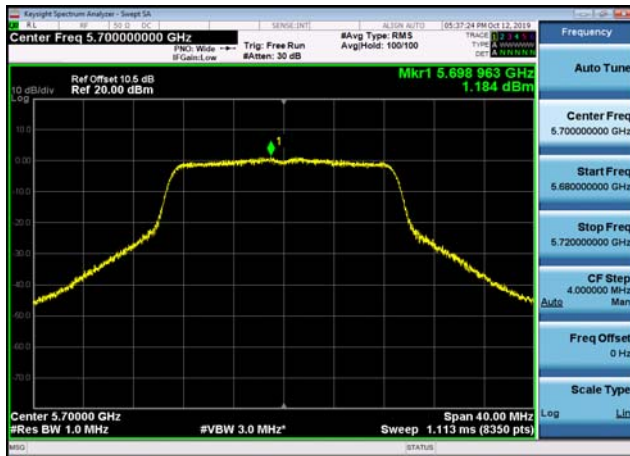
U-NII-2c Power spectral density-802.1
1n(20MHz),5600MHz,Ant1



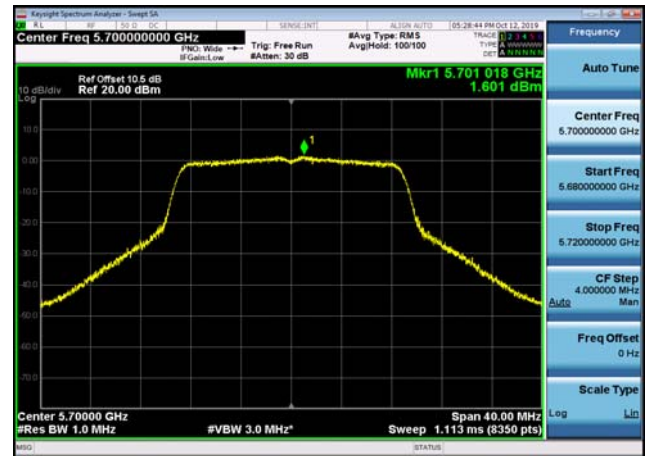
U-NII-2c Power spectral density-802.1
1n(20MHz),5600MHz,Ant2



U-NII-2c Power spectral density-802.1
1n(20MHz),5700MHz,Ant1



U-NII-2c Power spectral density-802.1
1n(20MHz),5700MHz,Ant2



U-NII-2c Power spectral density-802.1
1n(40MHz),5510MHz,Ant1



U-NII-2c Power spectral density-802.1
1n(40MHz),5510MHz,Ant2



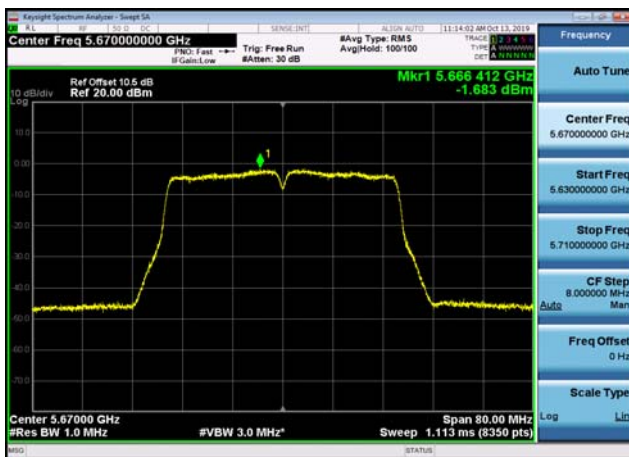
U-NII-2c Power spectral density-802.1
1n(40MHz),5590MHz,Ant1



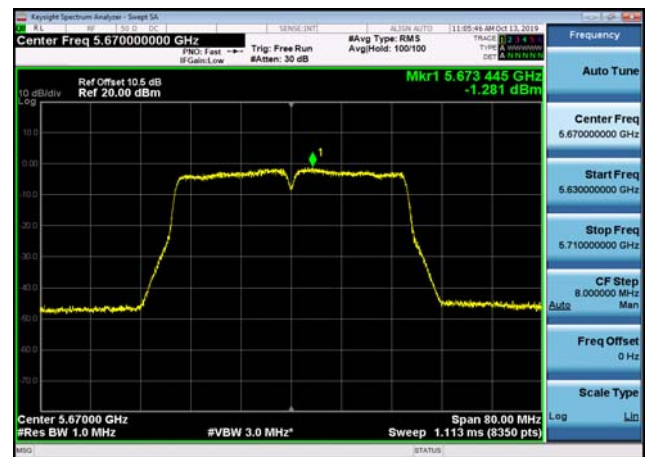
U-NII-2c Power spectral density-802.1
1n(40MHz),5590MHz,Ant2



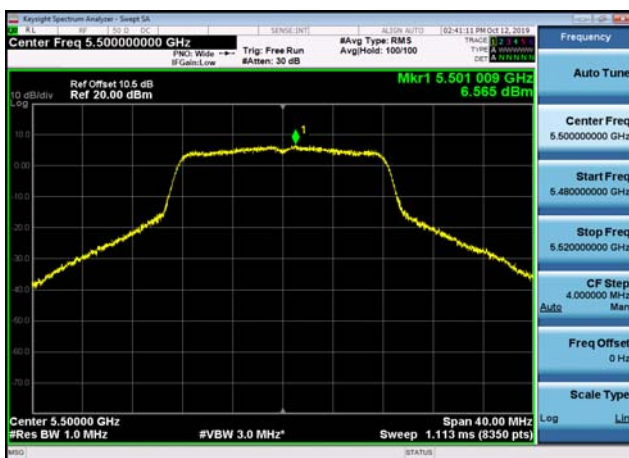
U-NII-2c Power spectral density-802.1
1n(40MHz),5670MHz,Ant1



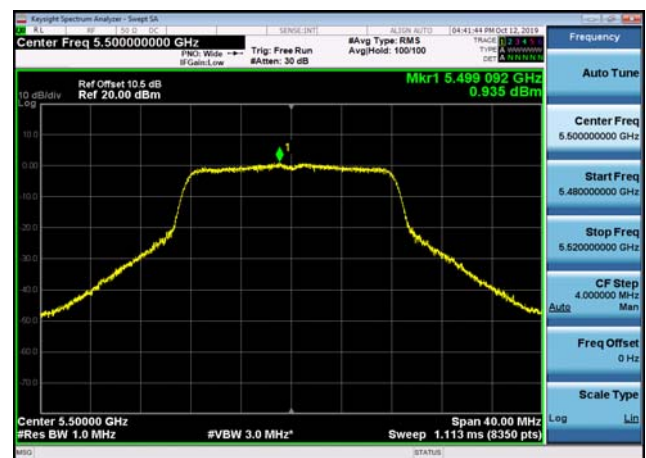
U-NII-2c Power spectral density-802.1
1n(40MHz),5670MHz,Ant2



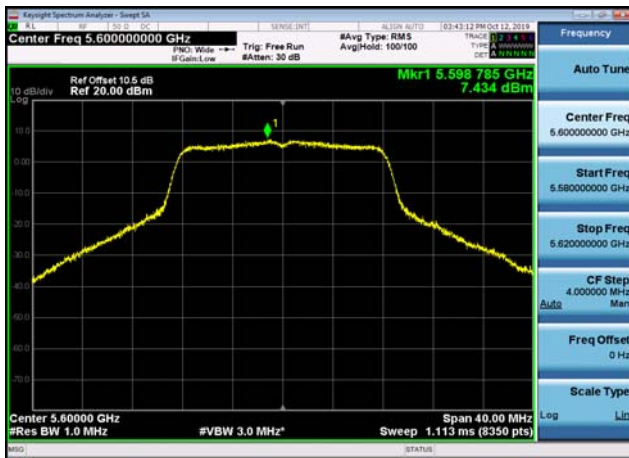
U-NII-2c Power spectral density-802.1
1a(20MHz),5500MHz,Ant1



U-NII-2c Power spectral density-802.1
1a(20MHz),5500MHz,Ant2



U-NII-2c Power spectral density-802.1
1a(20MHz),5600MHz,Ant1



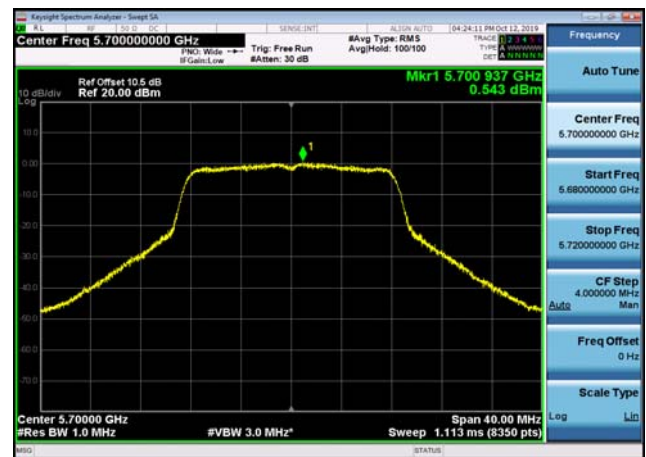
U-NII-2c Power spectral density-802.1
1a(20MHz),5600MHz,Ant2



U-NII-2c Power spectral density-802.1
1a(20MHz),5700MHz,Ant1



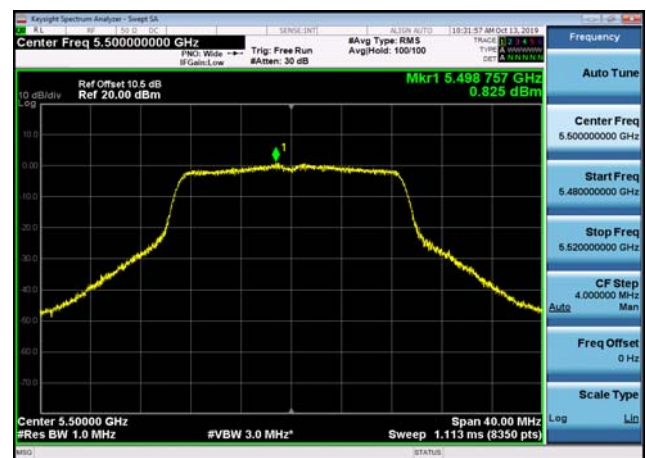
U-NII-2c Power spectral density-802.1
1a(20MHz),5700MHz,Ant2



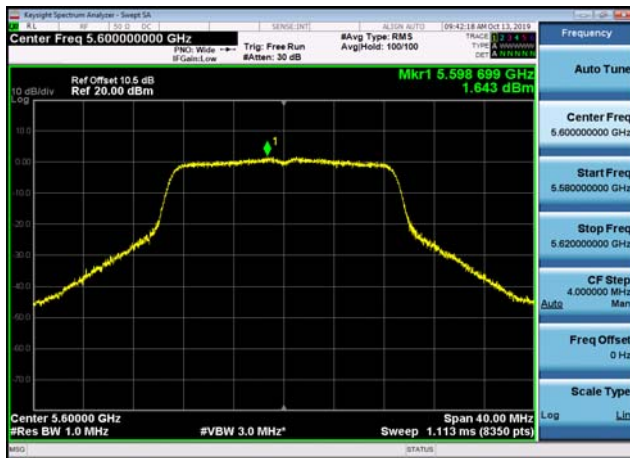
U-NII-2c Power spectral density-802.1
1ac(20MHz),5500MHz,Ant1



U-NII-2c Power spectral density-802.1
1ac(20MHz),5500MHz,Ant2



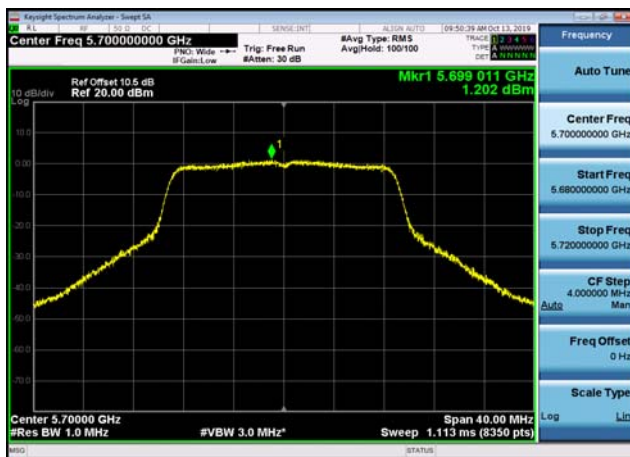
U-NII-2c Power spectral density-802.1
1ac(20MHz),5600MHz,Ant1



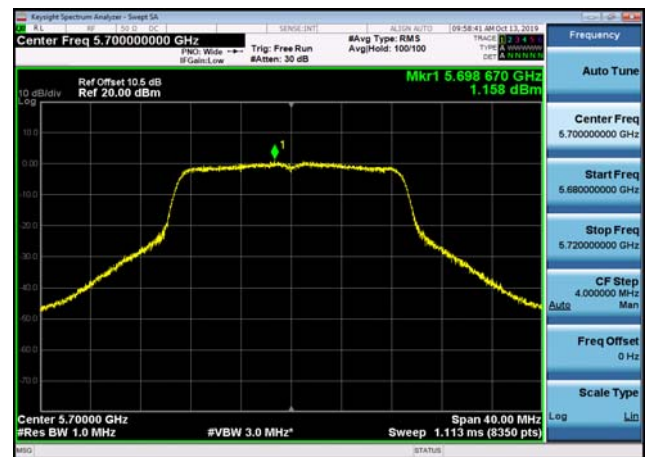
U-NII-2c Power spectral density-802.1
1ac(20MHz),5600MHz,Ant2



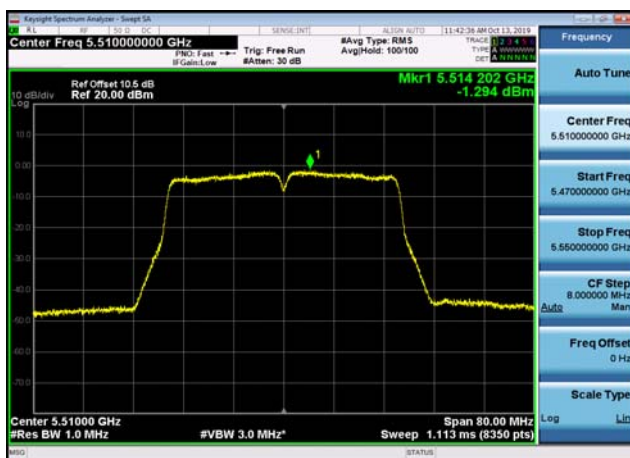
U-NII-2c Power spectral density-802.1
1ac(20MHz),5700MHz,Ant1



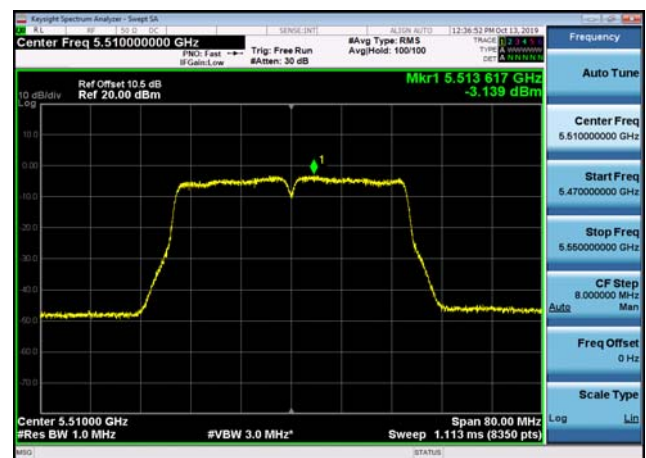
U-NII-2c Power spectral density-802.1
1ac(20MHz),5700MHz,Ant2



U-NII-2c Power spectral density-802.1
1ac(40MHz),5510MHz,Ant1



U-NII-2c Power spectral density-802.1
1ac(40MHz),5510MHz,Ant2



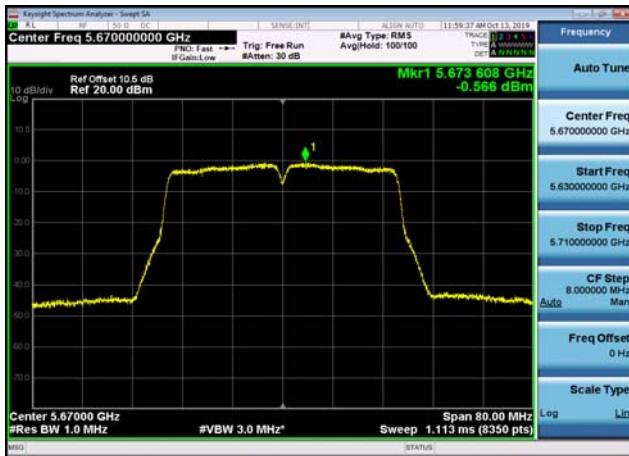
U-NII-2c Power spectral density-802.1
1ac(40MHz),5590MHz,Ant1



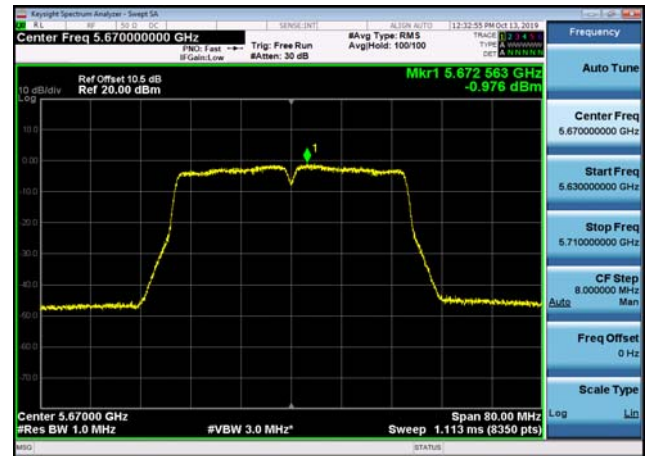
U-NII-2c Power spectral density-802.1
1ac(40MHz),5590MHz,Ant2



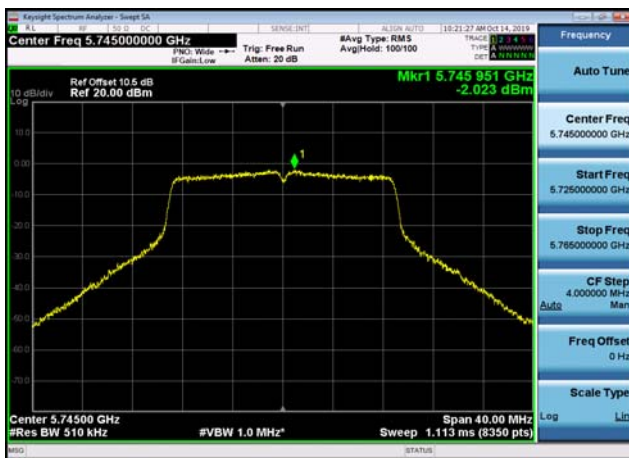
U-NII-2c Power spectral density-802.1
1ac(40MHz),5670MHz,Ant1



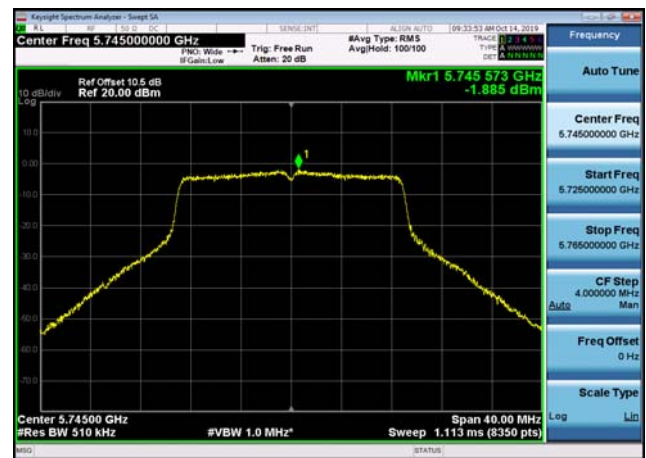
U-NII-2c Power spectral density-802.1
1ac(40MHz),5670MHz,Ant2



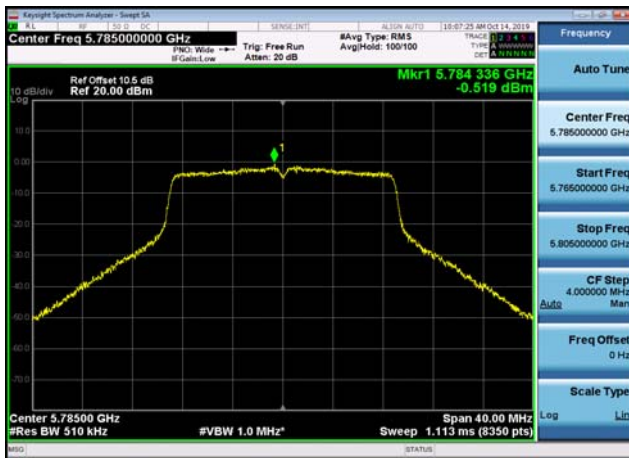
U-NII-3 Power spectral density-802.11
n(20MHz),5745MHz,Ant1



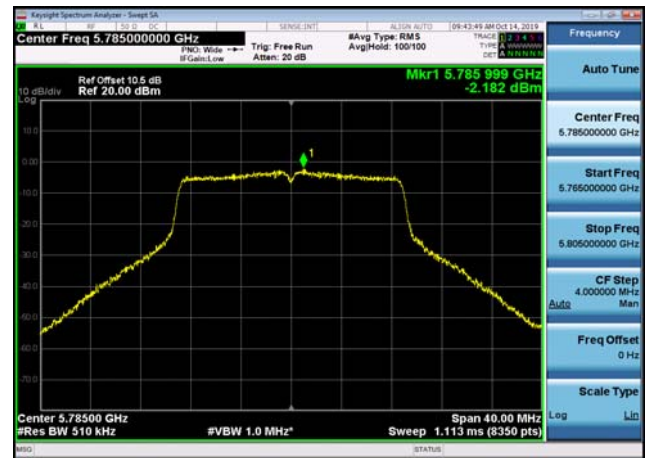
U-NII-3 Power spectral density-802.11
n(20MHz),5745MHz,Ant2



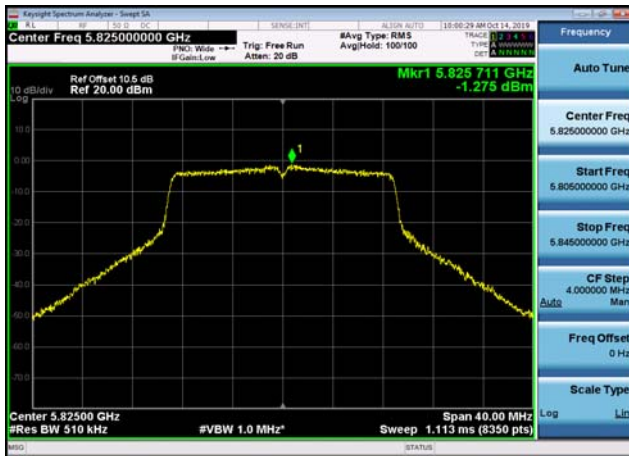
U-NII-3 Power spectral density-802.11
n(20MHz),5785MHz,Ant1



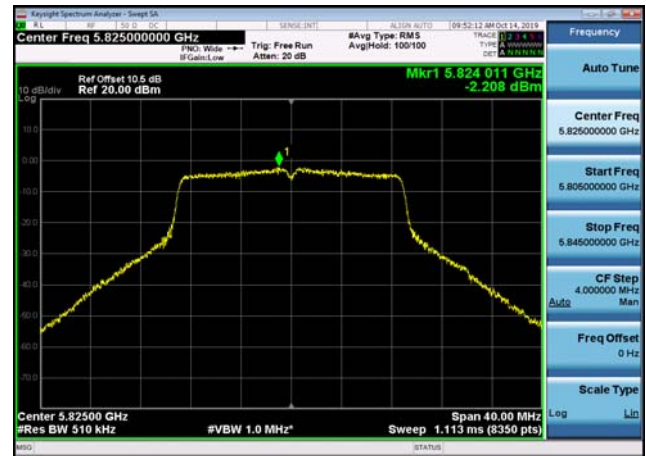
U-NII-3 Power spectral density-802.11
n(20MHz),5785MHz,Ant2



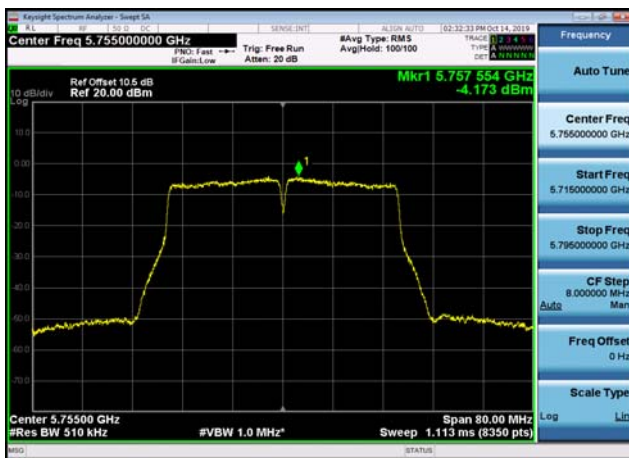
U-NII-3 Power spectral density-802.11
n(20MHz),5825MHz,Ant1



U-NII-3 Power spectral density-802.11
n(20MHz),5825MHz,Ant2



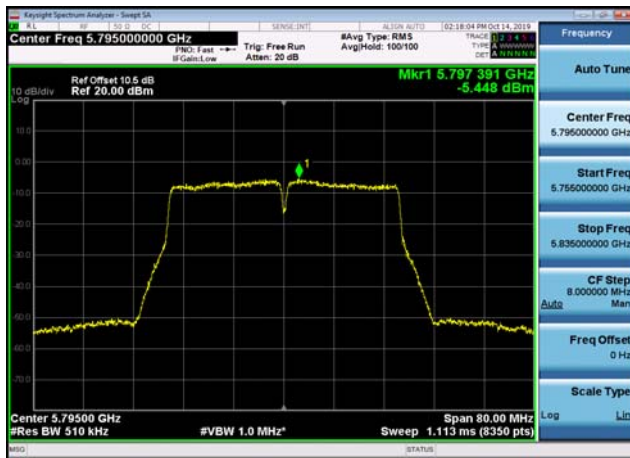
U-NII-3 Power spectral density-802.11
n(40MHz),5755MHz,Ant1



U-NII-3 Power spectral density-802.11
n(40MHz),5755MHz,Ant2



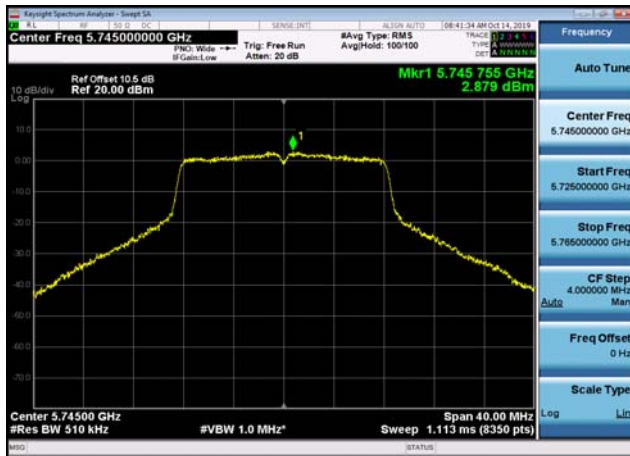
U-NII-3 Power spectral density-802.11
n(40MHz),5795MHz,Ant1



U-NII-3 Power spectral density-802.11
n(40MHz),5795MHz,Ant2



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



U-NII-3 Power spectral density-802.11
a(20MHz),5745MHz,Ant2



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



U-NII-3 Power spectral density-802.11
a(20MHz),5785MHz,Ant2



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



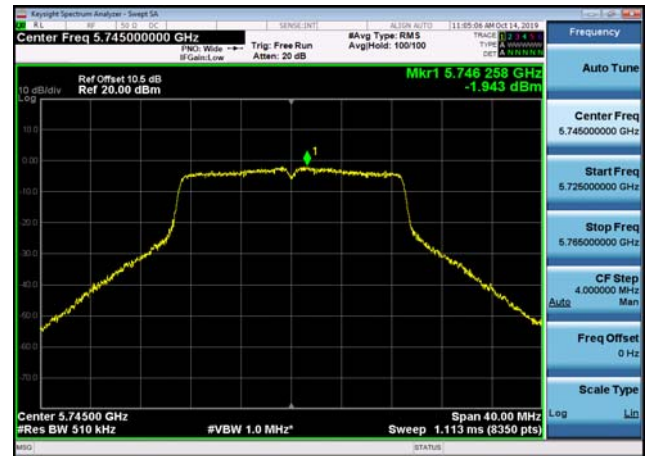
U-NII-3 Power spectral density-802.11
a(20MHz),5825MHz,Ant2



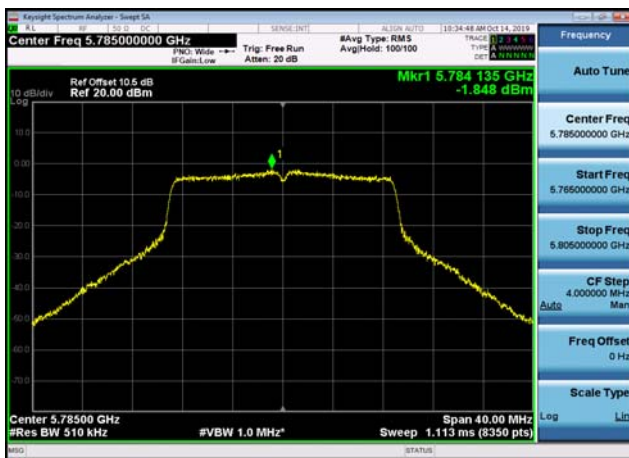
U-NII-3 Power spectral density-802.11
ac(20MHz),5745MHz,Ant1



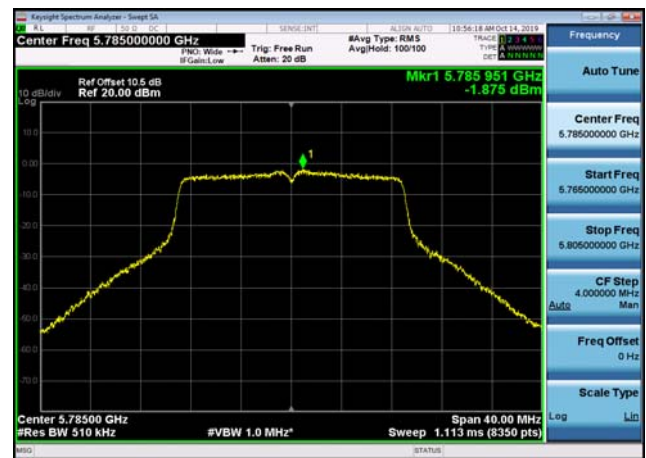
U-NII-3 Power spectral density-802.11
ac(20MHz),5745MHz,Ant2



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



U-NII-3 Power spectral density-802.11
ac(20MHz),5785MHz,Ant2



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



U-NII-3 Power spectral density-802.11
ac(20MHz),5825MHz,Ant2



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



U-NII-3 Power spectral density-802.11
ac(40MHz),5755MHz,Ant2



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



U-NII-3 Power spectral density-802.11
ac(40MHz),5795MHz,Ant2



26dB and 6dB Down Bandwidth

Test Result and Data

U-NII-1 Occupied 26 dB Bandwidth				
Mode	Test Frequency (MHz)	Ant	Occupied Bandwidth (MHz)	Result
802.11n (20MHz)	5180	Ant1	22.69	Pass
802.11n (20MHz)	5180	Ant2	23.69	Pass
802.11n (20MHz)	5220	Ant1	22.04	Pass
802.11n (20MHz)	5220	Ant2	22.06	Pass
802.11n (20MHz)	5240	Ant1	22.60	Pass
802.11n (20MHz)	5240	Ant2	21.99	Pass
802.11n (40MHz)	5190	Ant1	41.12	Pass
802.11n (40MHz)	5190	Ant2	40.65	Pass
802.11n (40MHz)	5230	Ant1	40.75	Pass
802.11n (40MHz)	5230	Ant2	40.55	Pass
802.11ac (20MHz)	5180	Ant1	23.14	Pass
802.11ac (20MHz)	5180	Ant2	21.91	Pass
802.11ac (20MHz)	5220	Ant1	22.92	Pass
802.11ac (20MHz)	5220	Ant2	22.49	Pass
802.11ac (20MHz)	5240	Ant1	23.34	Pass
802.11ac (20MHz)	5240	Ant2	22.42	Pass
802.11ac (40MHz)	5190	Ant1	41.25	Pass
802.11ac (40MHz)	5190	Ant2	40.92	Pass
802.11ac (40MHz)	5230	Ant1	40.66	Pass
802.11ac (40MHz)	5230	Ant2	41.22	Pass
802.11a (20MHz)	5180	Ant1	23.20	Pass
802.11a (20MHz)	5180	Ant2	34.19	Pass
802.11a (20MHz)	5220	Ant1	21.63	Pass
802.11a (20MHz)	5220	Ant2	22.12	Pass
802.11a (20MHz)	5240	Ant1	23.90	Pass
802.11a (20MHz)	5240	Ant2	21.51	Pass

U-NII-2a Occupied 26 dB Bandwidth				
Mode	Test Frequency (MHz)	Ant	Occupied Bandwidth (MHz)	Result
802.11n (20MHz)	5260	Ant1	22.15	Pass
802.11n (20MHz)	5260	Ant2	22.96	Pass
802.11n (20MHz)	5300	Ant1	22.25	Pass
802.11n (20MHz)	5300	Ant2	22.19	Pass
802.11n (20MHz)	5320	Ant1	22.44	Pass
802.11n (20MHz)	5320	Ant2	22.19	Pass
802.11n (40MHz)	5270	Ant1	40.50	Pass
802.11n (40MHz)	5270	Ant2	40.85	Pass
802.11n (40MHz)	5310	Ant1	41.06	Pass
802.11n (40MHz)	5310	Ant2	40.91	Pass
802.11ac (20MHz)	5260	Ant1	22.91	Pass
802.11ac (20MHz)	5260	Ant2	22.08	Pass
802.11ac (20MHz)	5300	Ant1	22.22	Pass
802.11ac (20MHz)	5300	Ant2	22.63	Pass
802.11ac (20MHz)	5320	Ant1	23.66	Pass
802.11ac (20MHz)	5320	Ant2	23.24	Pass
802.11ac (40MHz)	5270	Ant1	41.29	Pass
802.11ac (40MHz)	5270	Ant2	41.05	Pass
802.11ac (40MHz)	5310	Ant1	40.73	Pass
802.11ac (40MHz)	5310	Ant2	40.79	Pass
802.11a (20MHz)	5260	Ant1	23.93	Pass
802.11a (20MHz)	5260	Ant2	21.51	Pass
802.11a (20MHz)	5300	Ant1	23.23	Pass
802.11a (20MHz)	5300	Ant2	20.87	Pass
802.11a (20MHz)	5320	Ant1	22.28	Pass
802.11a (20MHz)	5320	Ant2	22.93	Pass

U-NII-2c Occupied 26 dB Bandwidth				
Mode	Test Frequency (MHz)	Ant	Occupied Bandwidth (MHz)	Result
802.11n (20MHz)	5500	Ant1	22.41	Pass
802.11n (20MHz)	5500	Ant2	22.23	Pass
802.11n (20MHz)	5600	Ant1	21.76	Pass
802.11n (20MHz)	5600	Ant2	21.93	Pass
802.11n (20MHz)	5700	Ant1	23.30	Pass
802.11n (20MHz)	5700	Ant2	22.86	Pass
802.11n (40MHz)	5510	Ant1	40.37	Pass
802.11n (40MHz)	5510	Ant2	40.50	Pass
802.11n (40MHz)	5590	Ant1	40.81	Pass
802.11n (40MHz)	5590	Ant2	40.86	Pass
802.11n (40MHz)	5670	Ant1	40.86	Pass
802.11n (40MHz)	5670	Ant2	41.53	Pass
802.11ac (20MHz)	5500	Ant1	22.07	Pass
802.11ac (20MHz)	5500	Ant2	22.35	Pass
802.11ac (20MHz)	5600	Ant1	23.27	Pass
802.11ac (20MHz)	5600	Ant2	21.92	Pass
802.11ac (20MHz)	5700	Ant1	22.14	Pass
802.11ac (20MHz)	5700	Ant2	22.58	Pass
802.11ac (40MHz)	5510	Ant1	41.19	Pass
802.11ac (40MHz)	5510	Ant2	40.89	Pass
802.11ac (40MHz)	5590	Ant1	41.24	Pass
802.11ac (40MHz)	5590	Ant2	41.21	Pass
802.11ac (40MHz)	5670	Ant1	40.66	Pass
802.11ac (40MHz)	5670	Ant2	40.93	Pass
802.11a (20MHz)	5500	Ant1	25.48	Pass
802.11a (20MHz)	5500	Ant2	21.83	Pass
802.11a (20MHz)	5600	Ant1	24.33	Pass
802.11a (20MHz)	5600	Ant2	21.23	Pass
802.11a (20MHz)	5700	Ant1	24.01	Pass
802.11a (20MHz)	5700	Ant2	21.08	Pass

U-NII-3 Occupied 6 dB Bandwidth				
Mode	Test Frequency (MHz)	Ant	Occupied Bandwidth (MHz)	Result
802.11n (20MHz)	5745	Ant1	16.53	Pass
802.11n (20MHz)	5745	Ant2	16.86	Pass
802.11n (20MHz)	5785	Ant1	17.29	Pass
802.11n (20MHz)	5785	Ant2	17.56	Pass
802.11n (20MHz)	5825	Ant1	15.40	Pass
802.11n (20MHz)	5825	Ant2	16.80	Pass
802.11n (40MHz)	5755	Ant1	35.25	Pass
802.11n (40MHz)	5755	Ant2	35.18	Pass
802.11n (40MHz)	5795	Ant1	35.68	Pass
802.11n (40MHz)	5795	Ant2	35.16	Pass
802.11ac (20MHz)	5745	Ant1	16.87	Pass
802.11ac (20MHz)	5745	Ant2	15.48	Pass
802.11ac (20MHz)	5785	Ant1	15.71	Pass
802.11ac (20MHz)	5785	Ant2	16.78	Pass
802.11ac (20MHz)	5825	Ant1	16.83	Pass
802.11ac (20MHz)	5825	Ant2	17.17	Pass
802.11ac (40MHz)	5755	Ant1	36.33	Pass
802.11ac (40MHz)	5755	Ant2	35.74	Pass
802.11ac (40MHz)	5795	Ant1	35.10	Pass
802.11ac (40MHz)	5795	Ant2	35.76	Pass
802.11a (20MHz)	5745	Ant1	14.81	Pass
802.11a (20MHz)	5745	Ant2	15.19	Pass
802.11a (20MHz)	5785	Ant1	15.94	Pass
802.11a (20MHz)	5785	Ant2	16.37	Pass
802.11a (20MHz)	5825	Ant1	15.56	Pass
802.11a (20MHz)	5825	Ant2	16.37	Pass

Test Plots

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



U-NII-1 26dB Bandwidth-802.11n(20MHz)
,5180MHz,Ant2



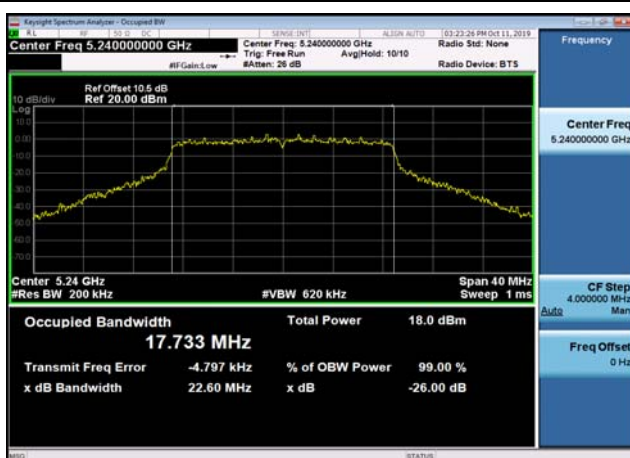
U-NII-1 26dB Bandwidth-802.11n(20MHz)
,5220MHz,Ant1



U-NII-1 26dB Bandwidth-802.11n(20MHz)
,5220MHz,Ant2



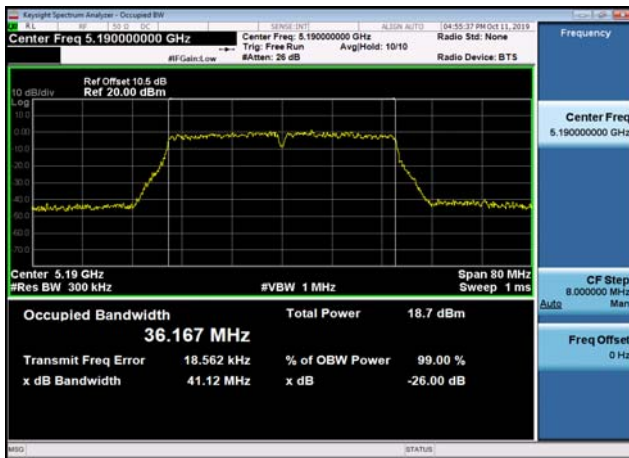
U-NII-1 26dB Bandwidth-802.11n(20MHz)
,5240MHz,Ant1



U-NII-1 26dB Bandwidth-802.11n(20MHz)
,5240MHz,Ant2



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



U-NII-1 26dB Bandwidth-802.11n(40MHz)
,5190MHz,Ant2



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



U-NII-1 26dB Bandwidth-802.11n(40MHz)
,5230MHz,Ant2



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



U-NII-1 26dB Bandwidth-802.11a(20MHz)
,5180MHz,Ant2



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



U-NII-1 26dB Bandwidth-802.11a(20MHz)
,5220MHz,Ant2



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



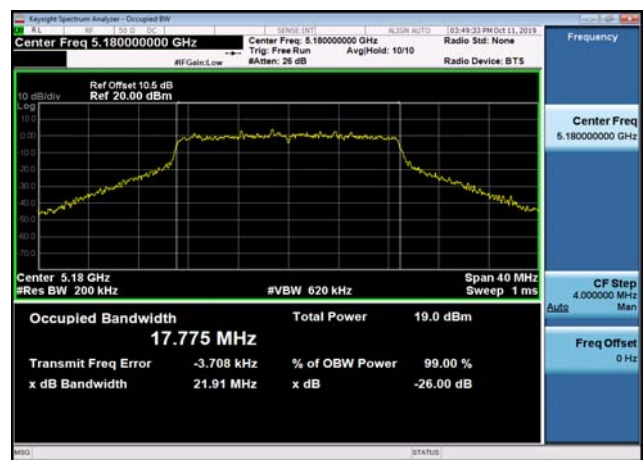
U-NII-1 26dB Bandwidth-802.11a(20MHz)
,5240MHz,Ant2



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



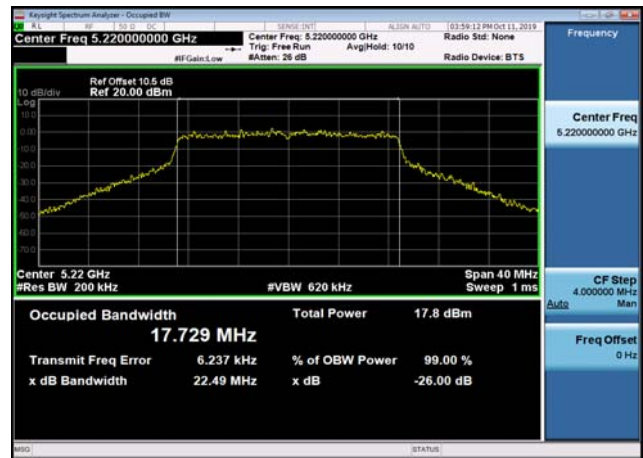
U-NII-1 26dB Bandwidth-802.11ac(20MHz)
,5180MHz,Ant2



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



U-NII-1 26dB Bandwidth-802.11ac(20MHz)
,5220MHz,Ant2



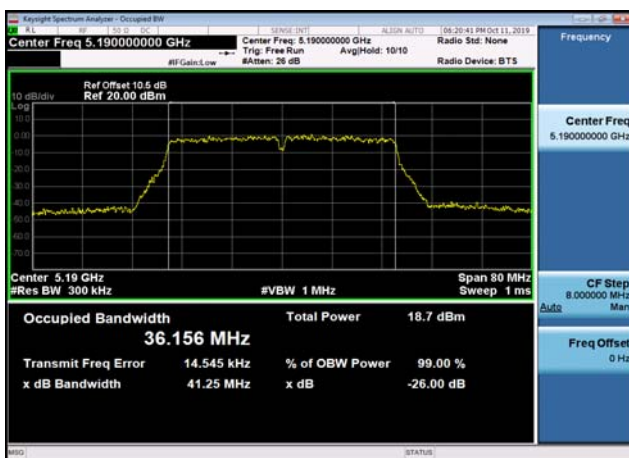
U-NII-1 26dB Bandwidth-802.11ac(20MHz)
,5240MHz,Ant1



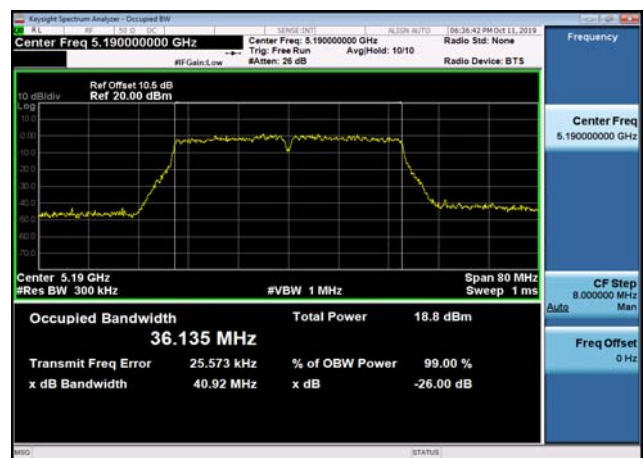
U-NII-1 26dB Bandwidth-802.11ac(20MHz)
,5240MHz,Ant2



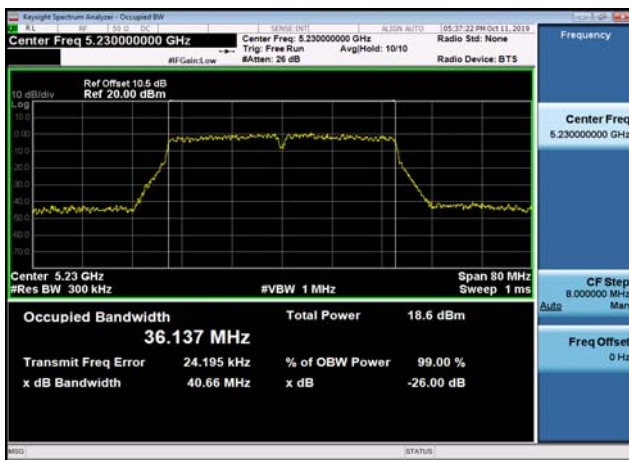
U-NII-1 26dB Bandwidth-802.11ac(40MHz)
,5190MHz,Ant1



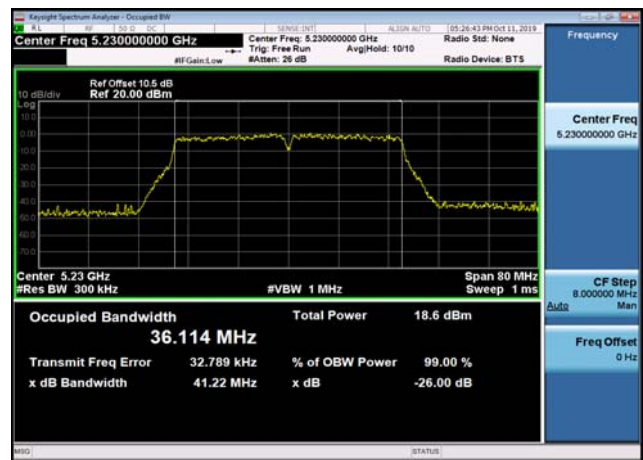
U-NII-1 26dB Bandwidth-802.11ac(40MHz)
,5190MHz,Ant2



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



U-NII-1 26dB Bandwidth-802.11ac(40MHz)
,5230MHz,Ant2



U-NII-2a 26dB Bandwidth-802.11n(20MHz)
,5260MHz,Ant1



U-NII-2a 26dB Bandwidth-802.11n(20MHz)
,5260MHz,Ant2



U-NII-2a 26dB Bandwidth-802.11n(20MHz)
,5300MHz,Ant1



U-NII-2a 26dB Bandwidth-802.11n(20MHz)
,5300MHz,Ant2



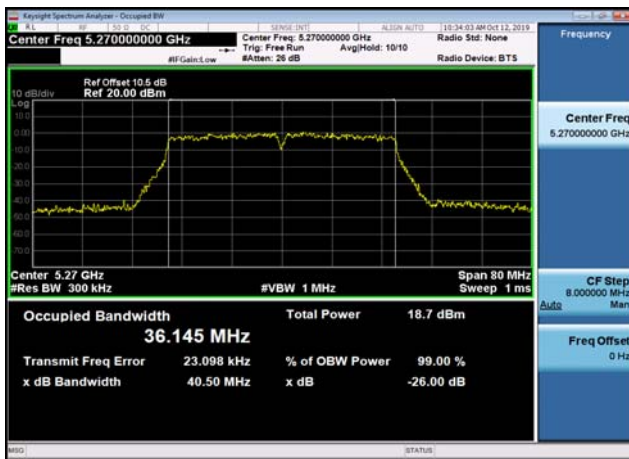
U-NII-2a 26dB Bandwidth-802.11n(20MHz
) ,5320MHz,Ant1



U-NII-2a 26dB Bandwidth-802.11n(20MHz
) ,5320MHz,Ant2



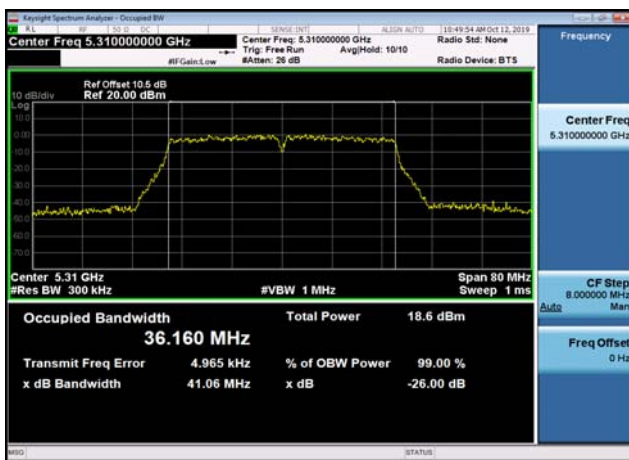
U-NII-2a 26dB Bandwidth-802.11n(40MHz
) ,5270MHz,Ant1



U-NII-2a 26dB Bandwidth-802.11n(40MHz
) ,5270MHz,Ant2



U-NII-2a 26dB Bandwidth-802.11n(40MHz
) ,5310MHz,Ant1



U-NII-2a 26dB Bandwidth-802.11n(40MHz
) ,5310MHz,Ant2

