



# RF TEST REPORT

**Report No.:** 20250617G13709X-W5

**Product Name:** Cobra-SC400D

**Model No.:** SC 400D

**FCC ID:** BBOSC400D2

**Applicant:** Cobra Electronics Corporation

**Address:** 1701 Golf Road Suite 3-900, Rolling Meadows, IL 60008,  
UnitedStates.

**Dates of Testing:** 06/10/2025 - 06/20/2025

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

**Lab Location:** Electronic Testing Building, No.43, Shahe Road, Xili Street,  
Nanshan District, Shenzhen, Guangdong, China.

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### Test Report

**Product**.....: Cobra-SC400D  
**Brand Name**.....: Cobra  
**Trade Name** .....: Cobra  
**Applicant**.....: Cobra Electronics Corporation  
**Applicant Address**.....: 1701 Golf Road Suite 3-900, Rolling Meadows, IL 60008, UnitedStates.  
**Manufacturer**.....: Cobra Electronics Corporation  
**Manufacturer Address**.....: 1701 Golf Road Suite 3-900, Rolling Meadows, IL 60008, UnitedStates.  
**Test Standards**.....: 47 CFR Part 15 Subpart E 15.407  
 ANSI C63.10-2020  
**Test Result**.....: Pass

**Tested by** .....: Chuiwang Zhang 2025.06.20  
 Chuiwang Zhang, Test Engineer

**Reviewed by**.....: Sun Jiaohui 2025.06.20  
 Sun Jiaohui, Senior Engineer

**Approved by**.....: Chris You 2025.06.20  
 Chris You, Manager



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Change History		
Issue	Date	Reason for change
1.0	2025.06.20	First edition



## 1. GENERAL INFORMATION

### 1.1. EUT Description

Product Name	Cobra-SC400D
Model No.	SC 400D
Hardware Version	3A
Software Version	COBRA SC-400D2 V1.8
EUT supports Radios application	WLAN5.0GHz 802.11a/n/ac
Product Type	Client devices
Modulation Type	802.11a/n: OFDM (BPSK/QPSK/16QAM/64QAM) 802.11ac: OFDM (BPSK/QPSK/16QAM/64QAM/256QAM)
Transfer Rate	802.11a: 54/48/36/24/18/12/9/6 Mbps 802.11n: up to 150 Mbps 802.11ac: up to 433.333 Mbps
Frequency Range	UNII-1: 5150 ~ 5250MHz UNII-2a: 5250 ~ 5350MHz UNII-2c: 5470 ~ 5725MHz UNII-3: 5725 ~ 5850MHz
Channel Bandwidth	802.11a: 20MHz 802.11n: 20MHz/40MHz 802.11ac: 20MHz/40MHz/80MHz
Channel Number	UNII-1: 4 for 802.11a, 802.11n(HT20), 802.11ac(VHT20) 2 for 802.11n(HT40), 802.11ac(VHT40) 1 for 802.11ac(VHT80) UNII-2a: 4 for 802.11a, 802.11n(HT20), 802.11ac(VHT20) 2 for 802.11n(HT40), 802.11ac(VHT40), 1 for 802.11ac(VHT80) UNII-2c: 11 for 802.11a, 802.11n(HT20), 802.11ac(VHT20) 5 for 802.11n(HT40), 802.11ac(VHT40) 2 for 802.11ac(VHT80) UNII-3: 5 for 802.11a, 802.11n(HT20), 802.11ac(VHT20) 2 for 802.11n(HT40), 802.11ac(VHT40) 1 for 802.11ac(VHT80)
Antenna Type	Internal Antenna
Antenna Gain	3.73dBi
Output Power (Max.)	UNII-1: 12.46dBm UNII-2a: 12.98dBm



	UNII-2c: 11.71dBm UNII-3: 11.05dBm
Test Control Software	MobaXterm
Power supply	DC 12/24V

Note 1: The information of antenna gain and cable loss is provided by the manufacturer and our lab is not responsible for the accuracy of the antenna gain and cable loss information.



## 1.2. Test Standards and Results

The purpose of the report is to conduct testing according to the following FCC certification standards:

No.	Identity	Document Title
1	47 CFR Part 15 Subpart E §15.407	Radio Frequency Devices
2	KDB789033 D02 General UNII Test Procedures New Rules v02r01	Guidelines for Compliance Testing of Unlicensed National Information Infrastructure (U-NII) Devices Part 15, Subpart E
3	KDB 662911 D01 Multiple Transmitter Output v02r01	Emissions Testing of Transmitters with Multiple Outputs in the Same Band
4	ANSI C63.10-2020	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 15.407(a)	Antenna Requirement	PASS
2	15.407(a)(1)(iv) 15.407 (a)(2) 15.407(a)(3)(i)	Maximum Conducted Output Power	PASS
3	15.407(a)(12)	26dB Emission Bandwidth 99% Occupied Bandwidth	PASS
4	15.407(e)	6dB Emission Bandwidth	PASS
5	15.407(a)(1)(iv) 15.407 (a)(2) 15.407(a)(3)(i)	Power spectral density (PSD)	PASS
6	15.207	AC Power Line Conducted Emission	N/A <sup>Note 1</sup>
7	15.205 15.209 15.407(b)(1) 15.407(b)(2) 15.407(b)(3) 15.407(b)(4)	Radiated Band Edges and Spurious Emission	PASS
8	15.407(g)	Frequency Stability	PASS

Note 1: Not applicable, the product is only powered by car charger DC.

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

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

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

1 channels are provided for 802.11ac-VHT80.

Channel	Frequency(MHz)	Channel	Frequency(MHz)
42	5210	/	/

#### Operated band in 5250 MHz ~ 5350MHz

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

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

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

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

1 channels are provided for 802.11ac-VHT80.

Channel	Frequency(MHz)	Channel	Frequency(MHz)
58	5290	/	/

#### Operated band in 5470 MHz ~ 5725MHz

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

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

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

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

2 channels are provided for 802.11ac-VHT80.

Channel	Frequency(MHz)	Channel	Frequency(MHz)	Channel	Frequency(MHz)
106	5530	122	5610	/	/

**Operated band in 5725 MHz ~ 5850MHz**

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

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

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

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

1 channel are provided for 802.11ac-VHT80

Channel	Frequency(MHz)	Channel	Frequency(MHz)
155	5775	/	/

**1.4. Test environment and mode**

During the measurement, the environmental conditions were within the listed ranges:

<b>Operating Environment</b>	
Temperature	15°C - 35°C
Humidity	30% -60%
Atmospheric Pressure	86kPa-106kPa
<b>Test mode:</b>	
Continuously transmitting mode	Keep the EUT in continuous transmitting with modulation

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				
Test Mode	Frequency(MHz)			Data rate
	LCH	MCH	HCH	
802.11a	5180	5220	5240	6 Mbps
802.11n-HT20/ac-VHT20				MCS 0
802.11n-HT40/ac-VHT40	5190	/	5230	MCS 0
802.11ac-VHT80	5210	/	/	MCS 0

Note: After scanning all modulation types and data rates for all test patterns, the above list was found to be the worst case.



For Frequency band 5250 ~ 5350 MHz				
Test Mode	Frequency(MHz)			Data rate
	LCH	MCH	HCH	
802.11a	5260	5300	5320	6 Mbps
802.11n-HT20/ac-VHT20				MCS 0
802.11n-HT40/ac-VHT40	5270	/	5310	MCS 0
802.11ac-VHT80	5290	/	/	MCS 0

Note: After scanning all modulation types and data rates for all test patterns, the above list was found to be the worst case.

For Frequency band 5470 ~ 5725 MHz				
Test Mode	Frequency(MHz)			Data rate
	LCH	MCH	HCH	
802.11a	5500	5580	5700	6 Mbps
802.11n-HT20/ac-VHT20				MCS 0
802.11n-HT40/ac-VHT40	5510	5550	5670	MCS 0
802.11ac-VHT80	5530	/	5610	MCS 0

Note: After scanning all modulation types and data rates for all test patterns, the above list was found to be the worst case.

For Frequency band 5725 ~ 5850 MHz				
Test Mode	Frequency(MHz)			Data rate
	LCH	MCH	HCH	
802.11a	5745	5785	5825	6 Mbps
802.11n-HT20/ac-VHT20				MCS 0
802.11n-HT40/ac-VHT40	5755	/	5795	MCS 0
802.11ac-VHT80	5775	/	/	MCS 0

Note: After scanning all modulation types and data rates for all test patterns, the above list was found to be the worst case.



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 802.11a SISO Mode
Mode 2	TX 802.11n-HT20 SISO Mode
Mode 3	TX 802.11n-HT40 SISO Mode
Mode 4	TX 802.11ac-VHT20 SISO Mode
Mode 5	TX 802.11ac-VHT40 SISO Mode
Mode 6	TX 802.11ac-VHT80 SISO Mode
Mode 7	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 7	TX Mode
For Radiated Test	
Final Test Mode	Description
Mode 1	TX 802.11a SISO Mode
Mode 2	TX 802.11n-HT20 SISO Mode
Mode 3	TX 802.11n-HT40 SISO Mode
Mode 4	TX 802.11ac-VHT20 SISO Mode
Mode 5	TX 802.11ac-VHT40 SISO Mode
Mode 6	TX 802.11ac-VHT80 SISO Mode
Mode 7	TX Mode

### 1.5. Table for Supporting Units

No.	Equipment	Brand Name	Model Name	Manufacturer	Serial No.	Note
1	Laptop	HP	TPN-Q221	HP	5CD14347QB	FCC DOC



## 1.6. Laboratory Facilities and Accreditation Certificate

### CCIC-SET Lab 1

Address: Electronic Testing Building, No.43, Shahe Road, Xili Street, Nanshan District, Shenzhen, Guangdong, China

### **FCC-Registration No.: CN1283**

CCIC Southern Testing Co., Ltd EMC Laboratory has been registered and fully described in a report filed with the FCC (Federal Communications Commission). The acceptance letter from the FCC is maintained in our files. Designation Number: CN1283, valid time is until Jun. 30th, 2025.

### **ISED Registration: 11185A, CAB number: CN0064**

CCIC Southern Testing Co., Ltd. EMC Laboratory has been registered by Certification and Engineering Bureau of Industry Canada for the performance of radiated measurements with Registration No. 11185A on Aug. 04, 2016, valid time is until Jun. 30th, 2025.

### **A2LA Code: 5721.01**

CCIC-SET is a third party testing organization accredited by A2LA according to ISO/IEC 17025. The accreditation certificate number is 5721.01.

### **CNAS L1659**

CCIC Southern Testing Co., Ltd. CCIC is a third party testing organization accredited by China National Accreditation Service for Conformity Assessment (CNAS) according to ISO/IEC 17025. The accreditation certificate number is L1659.

### CCIC-SET Lab 4

Address: No.125, Hongmei Section, Wangsha Road, Hongmei Town, Dongguan City, Guangdong Province, China

### **CNAS L1659**

CCIC Southern Testing Co., Ltd. CCIC is a third party testing organization accredited by China National Accreditation Service for Conformity Assessment (CNAS) according to ISO/IEC 17025. The accreditation certificate number is L1659.

## 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.

According to FCC 15.407(a)(1): For client devices in the 5.15-5.25 GHz band, If transmitting antennas of directional gain greater than 6 dBi are used, both the maximum conducted output power and the maximum power spectral density shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi.

According to FCC 15.407(a)(2): For the 5.25-5.35 GHz and 5.47-5.725 GHz bands, If transmitting antennas of directional gain greater than 6 dBi are used, both the maximum conducted output power and the maximum power spectral density shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi.

According to FCC 15.407(a)(3): For the band 5.725-5.850 GHz, If transmitting antennas of directional gain greater than 6 dBi are used, both the maximum conducted output power and the maximum power spectral density shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi.

#### 2.1.2. Antenna Information

**Antenna Category:** Internal Antenna

A internal Antenna was soldered to the antenna port of EUT via an adaptor cable, can't be removed.

**Antenna General Information:**

No.	EUT	Operating frequency range	Ant. Type	Ant. Gain
1	Cobra-SC400D	UNII-1, UNII-2a, UNII-2c, UNII-3	Internal	3.73dBi

#### 2.1.3. Result: comply

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

## 2.2. Maximum Conducted Output Power

### 2.2.1. Limit of Maximum Conducted Output Power

#### FCC Part 15.407(a):

The maximum conducted output power should not exceed:

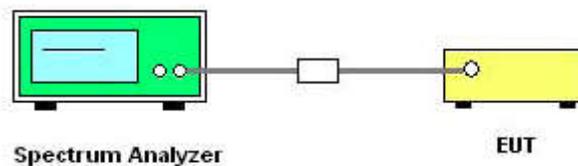
Band	EUT Category	Limit
U-NII-1	<input type="checkbox"/> Outdoor Access Point	1 Watt (30 dBm) (Max. e.i.r.p ≤ 125mW(21dBm) at any elevation angle above 30 degrees as measured from the horizon)
	<input type="checkbox"/> Fixed point-to-point Access device	1 Watt (30 dBm)
	<input type="checkbox"/> Indoor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

Note: B\* is the 26 dB emission bandwidth in MHz.

### 2.2.2. Measuring Instruments

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

### 2.2.3. Test Setup



### 2.2.4. Test Procedures

1. The testing follows the of KDB 789033 D02 v02r01 Section II.E.2.b and ANSI C63.10-2020 Section 12.4.2.2.
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. Power is calculated by integrating over the spectrum of the entire 99% OBW signal using the instrument's band power measurement feature.
4. Set span to encompass the entire 99% OBW of the signal.
5. Set RBW = 1MHz, VBW ≥ 3MHz, Sweep time = Auto, Detector = power averaging (RMS).



6. Number of points in sweep  $\geq 2 \times \text{span} / \text{RBW}$ .
7. Trace average at least 100 traces in power averaging (rms) mode.
8. Replace the EUT center frequency and repeat steps 3~7.

#### **2.2.5. Test Results of Maximum Conducted Output Power**

Please refer to APPENDIX A for detail.

## 2.3. Power spectral density (PSD)

### 2.3.1. Limit of Power Spectral Density

#### FCC Part 15.407(a)

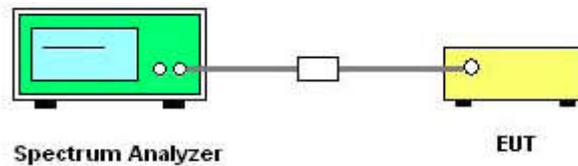
The maximum power spectral density should not exceed:

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

### 2.3.2. 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 of KDB 789033 D02 v02r01 Section II.F and ANSI C63.10-2020 Section 12.6.
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 span to encompass the entire 99% OBW of the signal.
4. For U-NII-1, U-NII-2a, U-NII-2c Band: Set RBW = 1MHz, VBW  $\geq$  3MHz, Sweep time = Auto, Detector = power averaging (RMS).
5. For U-NII-3 Band: Set RBW = 500kHz, VBW  $\geq$  2MHz, Sweep time = Auto, Detector = power averaging (RMS).
6. Number of points in sweep  $\geq 2 \times$  span / RBW.
7. Trace average at least 100 traces in power averaging (rms) mode.
8. Use the peak search function on the instrument to find the peak of the spectrum.



9. Replace the EUT center frequency and repeat steps 3~8.

### **2.3.5. Test Result of Power Spectral Density**

Please refer to APPENDIX A for detail.

## 2.4. 26dB Emission Bandwidth and 99% Occupied Bandwidth

### 2.4.1. Limit of 26dB Emission Bandwidth and 99% Occupied Bandwidth

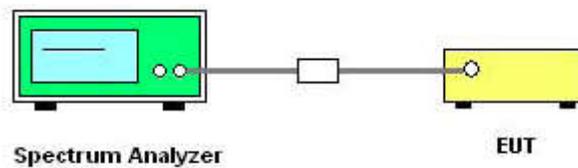
26dB Emission Bandwidth and 99% Occupied Bandwidth no Bandwidth limit.

The minimum 6dB bandwidth of U-NII-3 shall be at least 500 kHz.

### 2.4.2. Measuring Instruments

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

### 2.4.3. Test Description



### 2.4.4. Test Procedures

1. The testing follows the of KDB 789033 D02 v02r01 Section II.C.D and ANSI C63.10-2020 Section 12.5.
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. Use the spectrum analyzer “Channel Bandwidth” function to easurement the 26dB EBW, 6dB EBW and 99% OBW.
4. Set center frequency to the nominal EUT channel center frequency.
5. Set span = 1.5 times to 5.0 times the OBW or EBW.
6. For 26dB EBW and 99% OBW Measurement:  
Set RBW = approximately 1% EBW or 1.5 times to 5.0 times the OBW,  $VBW \geq 3 \times RBW$ .
7. For 6dB EBW Measurement:  
Set RBW =100kHz,  $VBW \geq 3 \times RBW$ .
8. Set Detector = Peak, Trace mode = max hold and Sweep time = auto couple.
9. Allow the trace to stabilize.
10. Replace the EUT center frequency and repeat steps 3~9.



### **2.4.5. Test Results of 26dB Emission Bandwidth and 99% Occupied Bandwidth**

Please refer to APPENDIX A for detail.

## 2.5. Frequency Stability

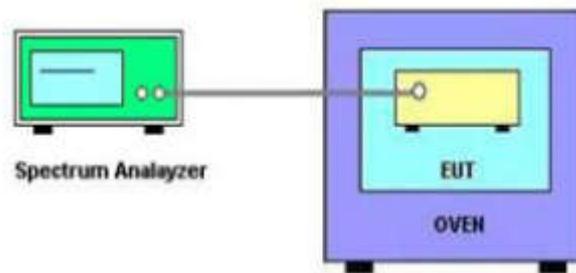
### 2.5.1. Limit of Frequency Stability

Manufacturers of U-NII devices are responsible for ensuring frequency stability such that an emission is maintained within the band of operation under all conditions of normal operation as specified in the users manual.

### 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 testing follows the of KDB 789033 D02 v02r01 Section II.A.3 and ANSI C63.10-2020 Section 6.8.
2. The EUT is installed in an environment test chamber with external power source, 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. Set the chamber to operate at 50°C 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 -30°C to 50°C and 85% to 115% of the nominal voltage. Change setting of chamber and external power source to complete all conditions.
7. Replace the EUT center frequency and repeat steps 3~6.



### **2.5.5. Test Result 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 (uV/m).
3. For frequencies above 1000MHz, the field strength limits are based on average detector, however, the peak field strength of any emission shall not exceed the maximum permitted average limits, specified above by more than 20dB under any condition of modulation.

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

FCC Part 15.407(b)			
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
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)  $\text{EIRP}[\text{dBm}] = \text{E}[\text{dB}\mu\text{V/m}] + 20 \log (d[\text{m}]) - 104.77$ , d is the measurement distance in m.
- 2)  $\text{E}[\text{dB}\mu\text{V/m}] = \text{EIRP}[\text{dBm}] + 95.2 = 68.2 \text{ dBuV/m}$ , for  $\text{EIRP}[\text{dBm}] = -27\text{dBm}$ .  
 $\text{E}[\text{dB}\mu\text{V/m}] = \text{EIRP}[\text{dBm}] + 95.2 = 105.2 \text{ dBuV/m}$ , for  $\text{EIRP}[\text{dBm}] = 10\text{dBm}$ .  
 $\text{E}[\text{dB}\mu\text{V/m}] = \text{EIRP}[\text{dBm}] + 95.2 = 110.8 \text{ dBuV/m}$ , for  $\text{EIRP}[\text{dBm}] = 15.6\text{dBm}$ .  
 $\text{E}[\text{dB}\mu\text{V/m}] = \text{EIRP}[\text{dBm}] + 95.2 = 122.2 \text{ dBuV/m}$ , for  $\text{EIRP}[\text{dBm}] = 27\text{dBm}$ .



Applicable To	Limit	
KDB 789033 D02 General UNII Test Procedures New Rules v02r01	Field Strength at 3m	
	PK: 68.2(dBμV/m)	AV: 54 (dBμV/m)

Radiated emissions which fall in the restricted bands, as defined in Section 15.205(a) of FCC part 15, must also comply with the radiated emission limits specified in Section 15.209(a).

MHz	MHz	MHz	GHz
0.090-0.110	16.42-16.423	399.9-410	4.5-5.15
10.495-0.505	16.69475-16.69525	608-614	5.35-5.46
2.1735-2.1905	16.80425-16.80475	960-1240	7.25-7.75
4.125-4.128	25.5-25.67	1300-1427	8.025-8.5
4.17725-4.17775	37.5-38.25	1435-1626.5	9.0-9.2
4.20725-4.20775	73-74.6	1645.5-1646.5	9.3-9.5
6.215-6.218	74.8-75.2	1660-1710	10.6-12.7
6.26775-6.26825	108-121.94	1718.8-1722.2	13.25-13.4
6.31175-6.31225	123-138	2200-2300	14.47-14.5
8.291-8.294	149.9-150.05	2310-2390	15.35-16.2
8.362-8.366	156.52475-156.52525	2483.5-2500	17.7-21.4
8.37625-8.38675	156.7-156.9	2690-2900	22.01-23.12
8.41425-8.41475	162.0125-167.17	3260-3267	23.6-24.0
12.29-12.293	167.72-173.2	3332-3339	31.2-31.8
12.51975-12.52025	240-285	3345.8-3358	36.43-36.5
12.57675-12.57725	322-335.4	3600-4400	( <sup>2</sup> )
13.36-13.41	/	/	/

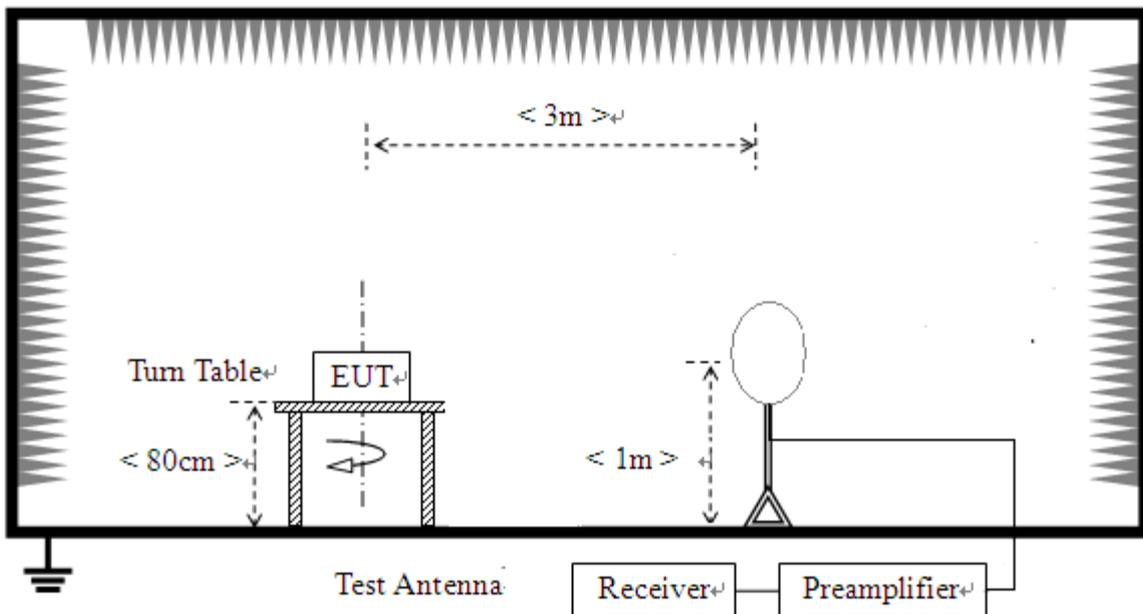
Note: <sup>1</sup>Until February 1, 1999, this restricted band shall be 0.490-0.510 MHz.  
<sup>2</sup>Above 38.6.

**2.6.2. Measuring Instruments**

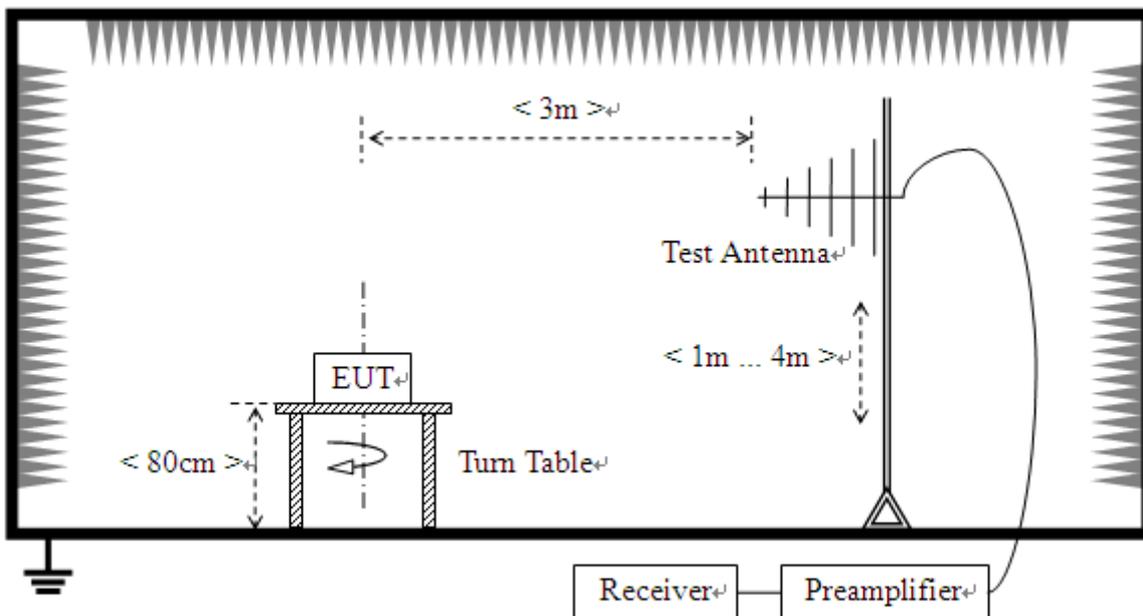
The measuring equipment is listed in the section 3 of this test report.

### 2.6.3. Test Setup

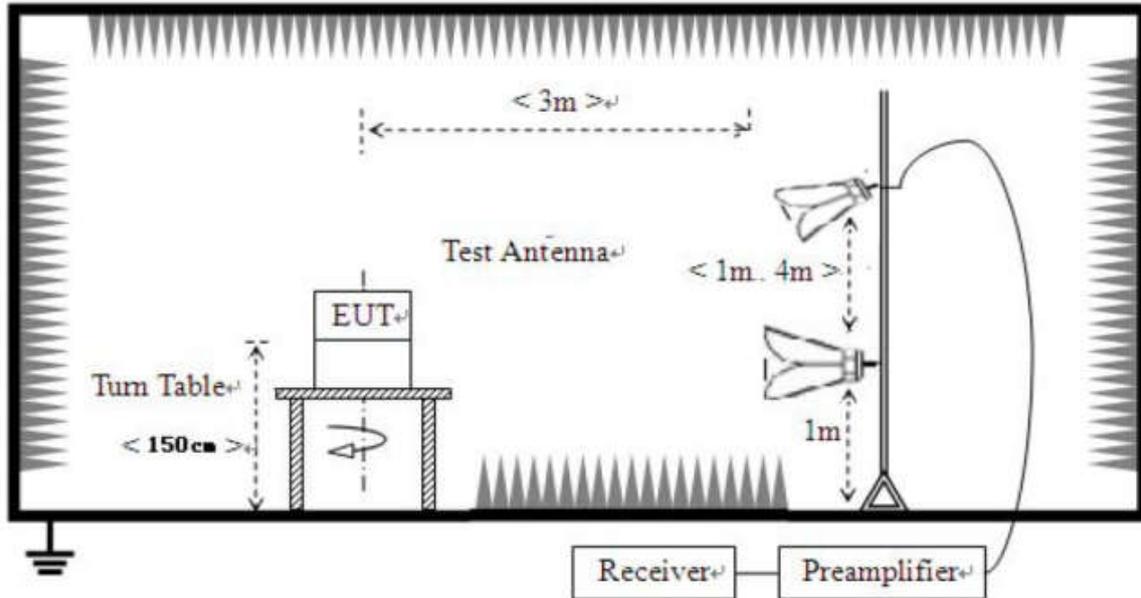
For radiated emissions from 9 kHz to 30 MHz



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 worst-Case mode data provide here, 802.11a (20MHz) 5180MHz for Below 1GHz.

### **2.6.5. Test Result 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 1GHz, All of the EUT Configure mode were tested and found 802.11a\_5500MHz channel is the worst mode, the worst case is recorded in this report.

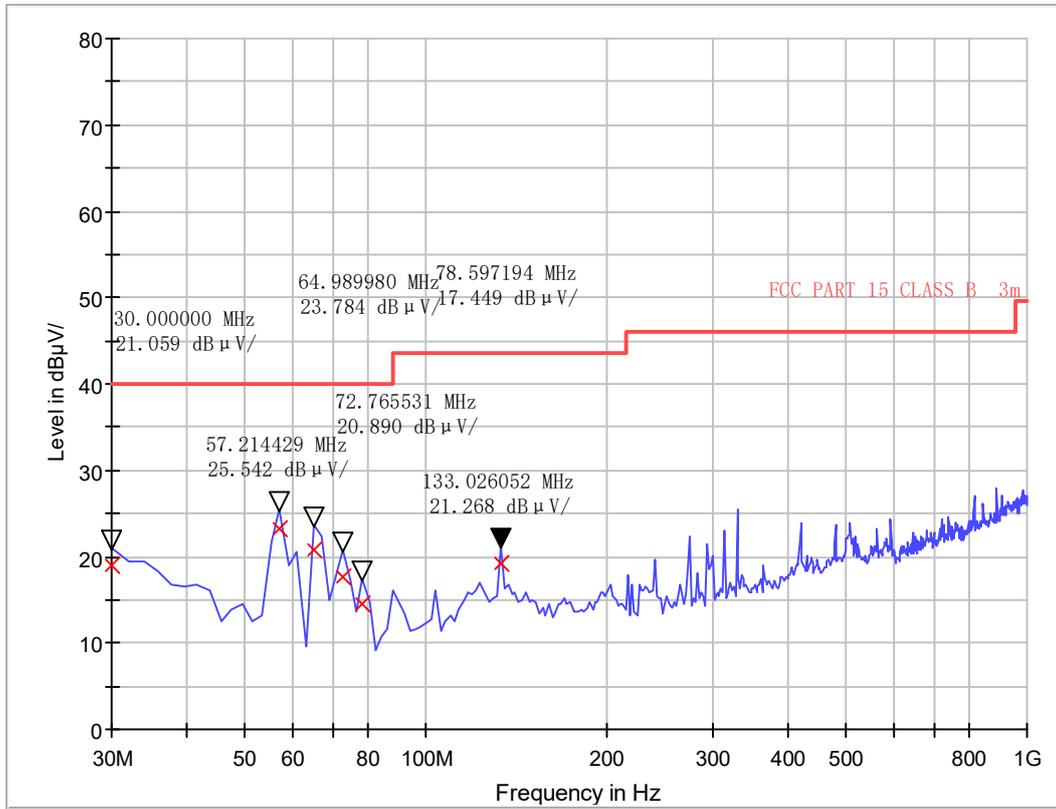
For 1GHz to 18GHz, Only worst-case data is reported.

For above 18GHz, 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**

Test site:	3M anechoic chamber	Environment:	Temp: 23°C; Humi:48%;101kPa
Operator:	Ye Jianfeng	Test Date:	2025.06.13
Test Mode:	5G WIFI - TX	Test Result:	Pass



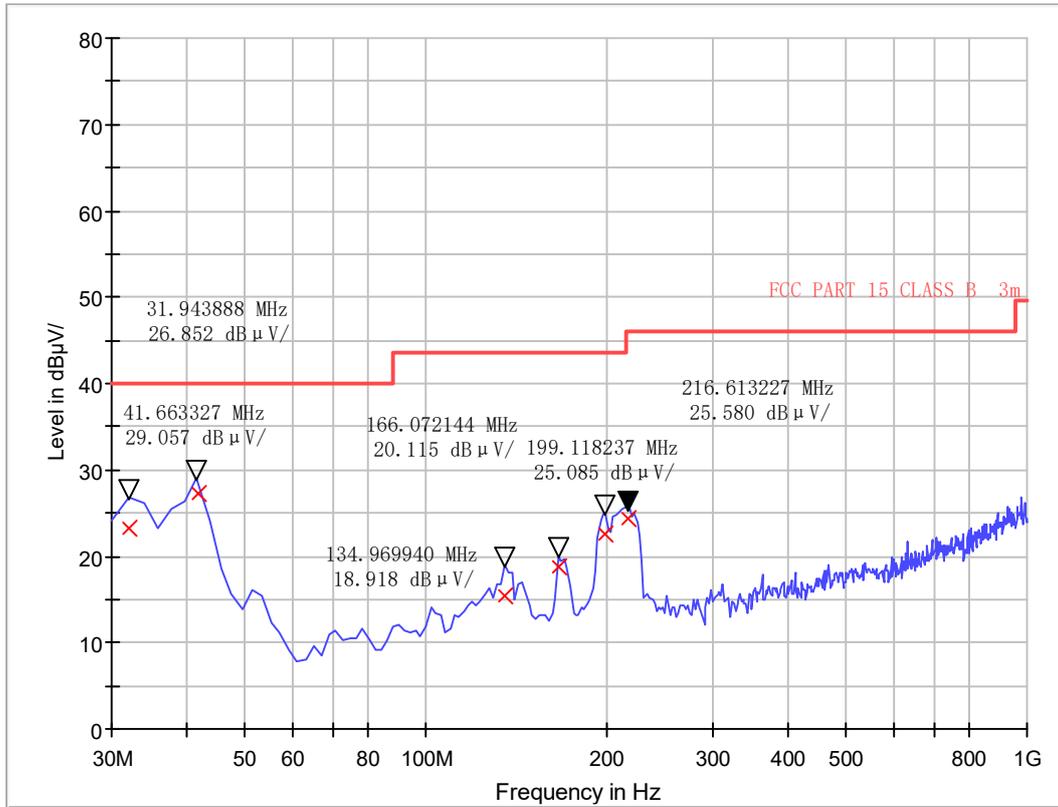
Frequency (MHz)	QuasiPeak (dBµV/m)	Bandwidth (kHz)	Height (cm)	Polarity	Corr. (dB/m)	Margin - QPK (dB)	Limit - QPK (dBµV/m)
30.000000	18.97	120.000	100.0	H	19.4	21.03	40.0
57.200000	23.35	120.000	100.0	H	6.4	16.65	40.0
65.000000	20.87	120.000	100.0	H	5.9	19.13	40.0
72.760000	17.58	120.000	100.0	H	6.8	22.42	40.0
78.600000	14.55	120.000	100.0	H	7.7	25.45	40.0
133.040000	19.32	120.000	100.0	H	11.5	24.18	43.5

**Remark:**

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. Margin value = Limit value - Emission Level.
4. The emission levels of other frequencies are very lower than the limit and not show in test report.
5. Only the antenna height (from 1m to 4m) at maximum reading are recorded.



Test site:	3M anechoic chamber	Environment:	Temp: 23°C; Humi:48%;101kPa
Operator:	Ye Jianfeng	Test Date:	2025.06.13
Test Mode:	5G WIFI - TX	Test Result:	Pass



Frequency (MHz)	QuasiPeak (dBµV/m)	Bandwidth (kHz)	Height (cm)	Polarity	Corr. (dB/m)	Margin - QPK (dB)	Limit - QPK (dBµV/m)
31.960000	23.21	120.000	100.0	V	18.3	16.79	40.0
41.680000	27.28	120.000	100.0	V	13.3	12.72	40.0
134.960000	15.47	120.000	100.0	V	11.6	28.03	43.5
166.080000	18.76	120.000	100.0	V	12.0	24.74	43.5
199.120000	22.61	120.000	100.0	V	11.7	20.89	43.5
216.600000	24.33	120.000	100.0	V	12.3	21.67	46.0

Remark:

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. Margin value = Limit value - Emission Level.
4. The emission levels of other frequencies are very lower than the limit and not show in test report.
5. Only the antenna height (from 1m to 4m) at maximum reading are recorded.

**For 1GHz to 40 GHz**

U-NII-1_802.11a_5180MHz									
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)	Polarity	Detector
5150.00	55.92	68.20	-12.28	1.50	220	55.48	0.44	Horizontal	Peak
5150.00	47.52	54.00	-6.48	1.50	220	47.08	0.44	Horizontal	Average
10360.00	55.84	68.20	-12.36	1.50	220	45.38	10.46	Horizontal	Peak
10360.00	44.73	54.00	-9.27	1.50	220	34.27	10.46	Horizontal	Average
5150.00	59.67	68.20	-8.53	1.50	160	59.23	0.44	Vertical	Peak
5150.00	47.52	54.00	-6.48	1.50	160	47.08	0.44	Vertical	Average
10360.00	54.53	68.20	-13.67	1.50	160	44.07	10.46	Vertical	Peak
10360.00	44.65	54.00	-9.35	1.50	160	34.19	10.46	Vertical	Average
U-NII-1_802.11a_5240MHz									
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)	Polarity	Detector
5350.00	49.12	68.20	-19.08	1.50	220	48.87	0.25	Horizontal	Peak
5350.00	39.13	54.00	-14.87	1.50	220	38.88	0.25	Horizontal	Average
10480.00	55.75	68.20	-12.45	1.50	220	44.75	11.00	Horizontal	Peak
10480.00	44.69	54.00	-9.31	1.50	220	33.69	11.00	Horizontal	Average
5350.00	48.19	68.20	-20.01	1.50	160	47.94	0.25	Vertical	Peak
5350.00	39.48	54.00	-14.52	1.50	160	39.23	0.25	Vertical	Average
10480.00	54.68	68.20	-13.52	1.50	160	43.68	11.00	Vertical	Peak
10480.00	44.74	54.00	-9.26	1.50	160	33.74	11.00	Vertical	Average
<p><b>Remark:</b></p> <ol style="list-style-type: none"> <li>1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)</li> <li>2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) - Pre-Amplifier Factor(dB)</li> <li>3. Margin value = Emission Level – Limit value</li> <li>4. The emission levels of other frequencies are very lower than the limit and not show in test report.</li> <li>5. Tnly the antenna height (from 1m to 4m) and turntable angle (from 0 degrees to 360 degrees) at maximum reading are recorded.</li> </ol>									

**U-NII-1\_802.11n-HT40\_5190MHz**

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)	Polarity	Detector
5150.00	55.87	68.20	-12.33	1.50	220	55.43	0.44	Horizontal	Peak
5150.00	47.67	54.00	-6.33	1.50	220	47.23	0.44	Horizontal	Average
10380.00	55.63	68.20	-12.57	1.50	220	45.10	10.53	Horizontal	Peak
10380.00	44.30	54.00	-9.70	1.50	220	33.77	10.53	Horizontal	Average
5150.00	59.46	68.20	-8.74	1.50	160	59.02	0.44	Vertical	Peak
5150.00	47.84	54.00	-6.16	1.50	160	47.40	0.44	Vertical	Average
10380.00	54.89	68.20	-13.31	1.50	160	44.36	10.53	Vertical	Peak
10380.00	44.89	54.00	-9.11	1.50	160	34.36	10.53	Vertical	Average

**U-NII-1\_802.11n-HT40\_5230MHz**

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)	Polarity	Detector
5350.00	49.03	68.20	-19.17	1.50	220	48.78	0.25	Horizontal	Peak
5350.00	38.66	54.00	-15.34	1.50	220	38.41	0.25	Horizontal	Average
10460.00	55.51	68.20	-12.69	1.50	220	44.60	10.91	Horizontal	Peak
10460.00	45.61	54.00	-8.39	1.50	220	34.70	10.91	Horizontal	Average
5350.00	47.63	68.20	-20.57	1.50	160	47.38	0.25	Vertical	Peak
5350.00	39.64	54.00	-14.36	1.50	160	39.39	0.25	Vertical	Average
10460.00	54.75	68.20	-13.45	1.50	160	43.84	10.91	Vertical	Peak
10460.00	44.79	54.00	-9.21	1.50	160	33.88	10.91	Vertical	Average

**Remark:**

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) - Pre-Amplifier Factor(dB)
3. Margin value = Emission Level – Limit value
4. The emission levels of other frequencies are very lower than the limit and not show in test report.
5. Tnly the antenna height (from 1m to 4m) and turntable angle (from 0 degrees to 360 degrees) at maximum reading are recorded.



## U-NII-1\_802.11ac-VHT80\_5210MHz

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)	Polarity	Detector
5150.00	55.67	68.20	-12.53	1.50	220	55.23	0.44	Horizontal	Peak
5150.00	47.35	54.00	-6.65	1.50	220	46.91	0.44	Horizontal	Average
5350.00	48.67	68.20	-19.53	1.50	220	48.42	0.25	Horizontal	Peak
5350.00	38.59	54.00	-15.41	1.50	220	38.34	0.25	Horizontal	Average
10420.00	55.60	68.20	-12.60	1.50	220	44.89	10.71	Horizontal	Peak
10420.00	45.70	54.00	-8.30	1.50	220	34.99	10.71	Horizontal	Average
5150.00	59.21	68.20	-8.99	1.50	160	58.77	0.44	Vertical	Peak
5150.00	47.46	54.00	-6.54	1.50	160	47.02	0.44	Vertical	Average
5350.00	47.52	68.20	-20.68	1.50	160	47.27	0.25	Vertical	Peak
5350.00	39.83	54.00	-14.17	1.50	160	39.58	0.25	Vertical	Average
10420.00	54.52	68.20	-13.68	1.50	160	43.81	10.71	Vertical	Peak
10420.00	44.05	54.00	-9.95	1.50	160	33.34	10.71	Vertical	Average

**Remark:**

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) - Pre-Amplifier Factor(dB)
3. Margin value = Emission Level – Limit value
4. The emission levels of other frequencies are very lower than the limit and not show in test report.
5. Only the antenna height (from 1m to 4m) and turntable angle (from 0 degrees to 360 degrees) at maximum reading are recorded.



U-NII-2A_802.11a_5260MHz									
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)	Polarity	Detector
5150.00	58.63	68.20	-9.57	1.50	220	58.19	0.44	Horizontal	Peak
5150.00	47.52	54.00	-6.48	1.50	220	47.08	0.44	Horizontal	Average
10520.00	55.84	68.20	-12.36	1.50	220	44.66	11.18	Horizontal	Peak
10520.00	44.73	54.00	-9.27	1.50	220	33.55	11.18	Horizontal	Average
5150.00	59.67	68.20	-8.53	1.50	160	59.23	0.44	Vertical	Peak
5150.00	47.52	54.00	-6.48	1.50	160	47.08	0.44	Vertical	Average
10520.00	54.53	68.20	-13.67	1.50	160	43.35	11.18	Vertical	Peak
10520.00	44.65	54.00	-9.35	1.50	160	33.47	11.18	Vertical	Average

U-NII-2A_802.11a_5320MHz									
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)	Polarity	Detector
5350.00	48.63	68.20	-19.57	1.50	220	48.38	0.25	Horizontal	Peak
5350.00	38.88	54.00	-15.12	1.50	220	38.63	0.25	Horizontal	Average
10640.00	55.52	68.20	-12.68	1.50	220	44.20	11.32	Horizontal	Peak
10640.00	44.41	54.00	-9.59	1.50	220	33.09	11.32	Horizontal	Average
5350.00	48.52	68.20	-19.68	1.50	160	48.27	0.25	Vertical	Peak
5350.00	39.95	54.00	-14.05	1.50	160	39.70	0.25	Vertical	Average
10640.00	55.01	68.20	-13.19	1.50	160	43.69	11.32	Vertical	Peak
10640.00	44.78	54.00	-9.22	1.50	160	33.46	11.32	Vertical	Average

**Remark:**

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) - Pre-Amplifier Factor(dB)
3. Margin value = Emission Level – Limit value
4. The emission levels of other frequencies are very lower than the limit and not show in test report.
5. Tnly the antenna height (from 1m to 4m) and turntable angle (from 0 degrees to 360 degrees) at maximum reading are recorded.

**U-NII-2A\_802.11n-HT40\_5270MHz**

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)	Polarity	Detector
5150.00	58.85	68.20	-9.35	1.50	220	58.41	0.44	Horizontal	Peak
5150.00	46.51	54.00	-7.49	1.50	220	46.07	0.44	Horizontal	Average
10540.00	55.67	68.20	-12.53	1.50	220	44.41	11.26	Horizontal	Peak
10540.00	44.92	54.00	-9.08	1.50	220	33.66	11.26	Horizontal	Average
5150.00	59.72	68.20	-8.48	1.50	160	59.28	0.44	Vertical	Peak
5150.00	47.85	54.00	-6.15	1.50	160	47.41	0.44	Vertical	Average
10540.00	54.60	68.20	-13.60	1.50	160	43.34	11.26	Vertical	Peak
10540.00	44.89	54.00	-9.11	1.50	160	33.63	11.26	Vertical	Average

**U-NII-2A\_802.11n-HT40\_5310MHz**

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)	Polarity	Detector
5350.00	47.98	68.20	-20.22	1.50	220	47.73	0.25	Horizontal	Peak
5350.00	38.34	54.00	-15.66	1.50	220	38.09	0.25	Horizontal	Average
10620.00	54.33	68.20	-13.87	1.50	220	42.92	11.41	Horizontal	Peak
10620.00	43.93	54.00	-10.07	1.50	220	32.52	11.41	Horizontal	Average
5350.00	48.40	68.20	-19.80	1.50	160	48.15	0.25	Vertical	Peak
5350.00	39.56	54.00	-14.44	1.50	160	39.31	0.25	Vertical	Average
10620.00	54.94	68.20	-13.26	1.50	160	43.53	11.41	Vertical	Peak
10620.00	45.32	54.00	-8.68	1.50	160	33.91	11.41	Vertical	Average

**Remark:**

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) - Pre-Amplifier Factor(dB)
3. Margin value = Emission Level – Limit value
4. The emission levels of other frequencies are very lower than the limit and not show in test report.
5. Tnly the antenna height (from 1m to 4m) and turntable angle (from 0 degrees to 360 degrees) at maximum reading are recorded.

**U-NII-2A\_802.11ac-VHT80\_5290MHz**

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)	Polarity	Detector
5150.00	58.65	68.20	-9.55	1.50	220	58.21	0.44	Horizontal	Peak
5150.00	46.52	54.00	-7.48	1.50	220	46.08	0.44	Horizontal	Average
5350.00	48.06	68.20	-20.14	1.50	220	47.81	0.25	Horizontal	Peak
5350.00	38.34	54.00	-15.66	1.50	220	38.09	0.25	Horizontal	Average
10580.00	54.30	68.20	-13.90	1.50	220	42.86	11.44	Horizontal	Peak
10580.00	43.99	54.00	-10.01	1.50	220	32.55	11.44	Horizontal	Average
5150.00	59.27	68.20	-8.93	1.50	160	58.83	0.44	Vertical	Peak
5150.00	47.54	54.00	-6.46	1.50	160	47.10	0.44	Vertical	Average
5350.00	48.49	68.20	-19.71	1.50	160	48.24	0.25	Vertical	Peak
5350.00	40.35	54.00	-13.65	1.50	160	40.10	0.25	Vertical	Average
10580.00	55.36	68.20	-12.84	1.50	160	43.92	11.44	Vertical	Peak
10580.00	45.05	54.00	-8.95	1.50	160	33.61	11.44	Vertical	Average

**Remark:**

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) - Pre-Amplifier Factor(dB)
3. Margin value = Emission Level – Limit value
4. The emission levels of other frequencies are very lower than the limit and not show in test report.
5. Only the antenna height (from 1m to 4m) and turntable angle (from 0 degrees to 360 degrees) at maximum reading are recorded.



U-NII-2C_802.11a_5500MHz									
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)	Polarity	Detector
5470.00	55.97	68.20	-12.23	1.50	220	56.01	-0.04	Horizontal	Peak
5470.00	43.44	54.00	-10.56	1.50	220	43.48	-0.04	Horizontal	Average
11000.00	53.91	68.20	-14.29	1.50	220	42.49	11.42	Horizontal	Peak
11000.00	44.05	54.00	-9.95	1.50	220	32.63	11.42	Horizontal	Average
5470.00	55.80	68.20	-12.40	1.50	160	55.84	-0.04	Vertical	Peak
5470.00	43.29	54.00	-10.71	1.50	160	43.33	-0.04	Vertical	Average
11000.00	54.25	68.20	-13.95	1.50	160	42.83	11.42	Vertical	Peak
11000.00	44.63	54.00	-9.37	1.50	160	33.21	11.42	Vertical	Average

U-NII-2C_802.11a_5700MHz									
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)	Polarity	Detector
5725.00	51.89	68.20	-16.31	1.50	220	50.59	1.30	Horizontal	Peak
5725.00	42.50	54.00	-11.50	1.50	220	41.20	1.30	Horizontal	Average
11400.00	53.85	68.20	-14.35	1.50	220	42.38	11.47	Horizontal	Peak
11400.00	43.95	54.00	-10.05	1.50	220	32.48	11.47	Horizontal	Average
5725.00	52.32	68.20	-15.88	1.50	160	51.02	1.30	Vertical	Peak
5725.00	42.56	54.00	-11.44	1.50	160	41.26	1.30	Vertical	Average
11400.00	54.36	68.20	-13.84	1.50	160	42.89	11.47	Vertical	Peak
11400.00	44.51	54.00	-9.49	1.50	160	33.04	11.47	Vertical	Average

**Remark:**

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) - Pre-Amplifier Factor(dB)
3. Margin value = Emission Level – Limit value
4. The emission levels of other frequencies are very lower than the limit and not show in test report.
5. Tnly the antenna height (from 1m to 4m) and turntable angle (from 0 degrees to 360 degrees) at maximum reading are recorded.



U-NII-2C_802.11n-HT40_5510MHz									
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)	Polarity	Detector
5470.00	55.60	68.20	-12.60	1.50	220	55.64	-0.04	Horizontal	Peak
5470.00	42.95	54.00	-11.05	1.50	220	42.99	-0.04	Horizontal	Average
11020.00	53.93	68.20	-14.27	1.50	220	42.47	11.46	Horizontal	Peak
11020.00	44.34	54.00	-9.66	1.50	220	32.88	11.46	Horizontal	Average
5470.00	56.11	68.20	-12.09	1.50	160	56.15	-0.04	Vertical	Peak
5470.00	42.36	54.00	-11.64	1.50	160	42.40	-0.04	Vertical	Average
11020.00	54.02	68.20	-14.18	1.50	160	42.56	11.46	Vertical	Peak
11020.00	45.70	54.00	-8.30	1.50	160	34.24	11.46	Vertical	Average

U-NII-2C_802.11n-HT40_5670MHz									
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)	Polarity	Detector
5725.00	56.66	68.20	-11.54	1.50	220	55.36	1.30	Horizontal	Peak
5725.00	43.13	54.00	-10.87	1.50	220	41.83	1.30	Horizontal	Average
11340.00	53.79	68.20	-14.41	1.50	220	42.37	11.42	Horizontal	Peak
11340.00	44.37	54.00	-9.63	1.50	220	32.95	11.42	Horizontal	Average
5725.00	55.61	68.20	-12.59	1.50	160	54.31	1.30	Vertical	Peak
5725.00	42.86	54.00	-11.14	1.50	160	41.56	1.30	Vertical	Average
11340.00	54.98	68.20	-13.22	1.50	160	43.56	11.42	Vertical	Peak
11340.00	46.29	54.00	-7.71	1.50	160	34.87	11.42	Vertical	Average

**Remark:**

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) - Pre-Amplifier Factor(dB)
3. Margin value = Emission Level – Limit value
4. The emission levels of other frequencies are very lower than the limit and not show in test report.
5. Tnly the antenna height (from 1m to 4m) and turntable angle (from 0 degrees to 360 degrees) at maximum reading are recorded.



U-NII-2C_802.11ac-VHT80_5530MHz									
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)	Polarity	Detector
5470.00	56.29	68.20	-11.91	1.50	220	56.33	-0.04	Horizontal	Peak
5470.00	43.51	54.00	-10.49	1.50	220	43.55	-0.04	Horizontal	Average
11060.00	53.97	68.20	-14.23	1.50	220	42.44	11.53	Horizontal	Peak
11060.00	44.62	54.00	-9.38	1.50	220	33.09	11.53	Horizontal	Average
5470.00	55.90	68.20	-12.30	1.50	160	55.94	-0.04	Vertical	Peak
5470.00	43.08	54.00	-10.92	1.50	160	43.12	-0.04	Vertical	Average
11060.00	54.77	68.20	-13.43	1.50	160	43.24	11.53	Vertical	Peak
11060.00	46.34	54.00	-7.66	1.50	160	34.81	11.53	Vertical	Average

U-NII-2C_802.11ac-VHT80_5610MHz									
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)	Polarity	Detector
5725.00	56.13	68.20	-12.07	1.50	220	54.83	1.30	Horizontal	Peak
5725.00	42.59	54.00	-11.41	1.50	220	41.29	1.30	Horizontal	Average
11220.00	53.54	68.20	-14.66	1.50	220	42.49	11.05	Horizontal	Peak
11220.00	45.17	54.00	-8.83	1.50	220	34.12	11.05	Horizontal	Average
5725.00	55.85	68.20	-12.35	1.50	160	54.55	1.30	Vertical	Peak
5725.00	42.60	54.00	-11.40	1.50	160	41.30	1.30	Vertical	Average
11220.00	55.48	68.20	-12.72	1.50	160	44.43	11.05	Vertical	Peak
11220.00	46.53	54.00	-7.47	1.50	160	35.48	11.05	Vertical	Average

**Remark:**

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) - Pre-Amplifier Factor(dB)
3. Margin value = Emission Level – Limit value
4. The emission levels of other frequencies are very lower than the limit and not show in test report.
5. Tnly the antenna height (from 1m to 4m) and turntable angle (from 0 degrees to 360 degrees) at maximum reading are recorded.



U-NII-3_802.11a_5745MHz									
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)	Polarity	Detector
5650.00	53.60	68.20	-14.60	1.50	220	52.80	0.80	Horizontal	Peak
5700.00	54.61	105.20	-50.59	1.50	220	53.37	1.24	Horizontal	Peak
5720.00	55.42	110.80	-55.38	1.50	220	54.14	1.28	Horizontal	Peak
5725.00	54.62	122.20	-67.58	1.50	220	53.32	1.30	Horizontal	Peak
11490.00	52.31	68.20	-15.89	1.50	220	40.76	11.55	Horizontal	Peak
11490.00	43.70	54.00	-10.30	1.50	220	32.15	11.55	Horizontal	Average
5650.00	53.70	68.20	-14.50	1.50	160	52.90	0.80	Vertical	Peak
5700.00	55.12	105.20	-50.08	1.50	160	53.88	1.24	Vertical	Peak
5720.00	54.72	110.80	-56.08	1.50	160	53.44	1.28	Vertical	Peak
5725.00	55.32	122.20	-66.88	1.50	160	54.02	1.30	Vertical	Peak
11490.00	52.56	68.20	-15.64	1.50	160	41.01	11.55	Vertical	Peak
11490.00	43.56	54.00	-10.44	1.50	160	32.01	11.55	Vertical	Average

U-NII-3_802.11a_5825MHz									
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)	Polarity	Detector
5850.00	56.30	122.20	-65.90	1.50	220	54.48	1.82	Horizontal	Peak
5855.00	53.09	110.80	-57.71	1.50	220	51.24	1.85	Horizontal	Peak
5875.00	54.59	105.20	-50.61	1.50	220	52.61	1.98	Horizontal	Peak
5925.00	53.91	68.20	-14.29	1.50	220	51.79	2.12	Horizontal	Peak
11650.00	52.52	68.20	-15.68	1.50	220	40.88	11.64	Horizontal	Peak
11650.00	43.34	54.00	-10.66	1.50	220	31.70	11.64	Horizontal	Average
5850.00	55.34	122.20	-66.86	1.50	160	53.52	1.82	Vertical	Peak
5855.00	54.32	110.80	-56.48	1.50	160	52.47	1.85	Vertical	Peak
5875.00	54.47	105.20	-50.73	1.50	160	52.49	1.98	Vertical	Peak
5925.00	54.48	68.20	-13.72	1.50	160	52.36	2.12	Vertical	Peak
11650.00	52.34	68.20	-15.86	1.50	160	40.70	11.64	Vertical	Peak
11650.00	43.61	54.00	-10.39	1.50	160	31.97	11.64	Vertical	Average

**Remark:**

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) - Pre-Amplifier Factor(dB)
3. Margin value = Emission Level – Limit value
4. The emission levels of other frequencies are very lower than the limit and not show in test report.
5. Tnly the antenna height (from 1m to 4m) and turntable angle (from 0 degrees to 360 degrees) at maximum reading are recorded.



U-NII-3_802.11n-HT40_5755MHz									
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)	Polarity	Detector
5650.00	53.13	68.20	-15.07	1.50	220	52.33	0.80	Horizontal	Peak
5700.00	55.14	105.20	-50.06	1.50	220	53.90	1.24	Horizontal	Peak
5720.00	55.67	110.80	-55.13	1.50	220	54.39	1.28	Horizontal	Peak
5725.00	55.03	122.20	-67.17	1.50	220	53.73	1.30	Horizontal	Peak
11510.00	51.76	68.20	-16.44	1.50	220	40.20	11.56	Horizontal	Peak
11510.00	43.69	54.00	-10.31	1.50	220	32.13	11.56	Horizontal	Average
5650.00	53.45	68.20	-14.75	1.50	160	52.65	0.80	Vertical	Peak
5700.00	54.66	105.20	-50.54	1.50	160	53.42	1.24	Vertical	Peak
5720.00	55.05	110.80	-55.75	1.50	160	53.77	1.28	Vertical	Peak
5725.00	55.50	122.20	-66.70	1.50	160	54.20	1.30	Vertical	Peak
11510.00	52.42	68.20	-15.78	1.50	160	40.86	11.56	Vertical	Peak
11510.00	44.15	54.00	-9.85	1.50	160	32.59	11.56	Vertical	Average

U-NII-3_802.11n-HT40_5795MHz									
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)	Polarity	Detector
5850.00	56.20	122.20	-66.00	1.50	220	54.38	1.82	Horizontal	Peak
5855.00	52.77	110.80	-58.03	1.50	220	50.92	1.85	Horizontal	Peak
5875.00	54.52	105.20	-50.68	1.50	220	52.54	1.98	Horizontal	Peak
5925.00	53.93	68.20	-14.27	1.50	220	51.81	2.12	Horizontal	Peak
11590.00	52.09	68.20	-16.11	1.50	220	40.58	11.51	Horizontal	Peak
11590.00	42.65	54.00	-11.35	1.50	220	31.14	11.51	Horizontal	Average
5850.00	56.17	122.20	-66.03	1.50	160	54.35	1.82	Vertical	Peak
5855.00	53.71	110.80	-57.09	1.50	160	51.86	1.85	Vertical	Peak
5875.00	54.08	105.20	-51.12	1.50	160	52.10	1.98	Vertical	Peak
5925.00	54.29	68.20	-13.91	1.50	160	52.17	2.12	Vertical	Peak
11590.00	52.57	68.20	-15.63	1.50	160	41.06	11.51	Vertical	Peak
11590.00	44.01	54.00	-9.99	1.50	160	32.50	11.51	Vertical	Average

**Remark:**

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) - Pre-Amplifier Factor(dB)
3. Margin value = Emission Level – Limit value
4. The emission levels of other frequencies are very lower than the limit and not show in test report.
5. Tnly the antenna height (from 1m to 4m) and turntable angle (from 0 degrees to 360 degrees) at maximum reading are recorded.



U-NII-3_802.11ac-VHT80_5775MHz									
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)	Polarity	Detector
5650.00	52.93	68.20	-15.27	1.50	220	52.13	0.80	Horizontal	Peak
5700.00	54.69	105.20	-50.51	1.50	220	53.45	1.24	Horizontal	Peak
5720.00	54.78	110.80	-56.02	1.50	220	53.50	1.28	Horizontal	Peak
5725.00	54.72	122.20	-67.48	1.50	220	53.42	1.30	Horizontal	Peak
5850.00	55.41	122.20	-66.79	1.50	220	53.59	1.82	Horizontal	Peak
5855.00	52.23	110.80	-58.57	1.50	220	50.38	1.85	Horizontal	Peak
5875.00	54.69	105.20	-50.51	1.50	220	52.71	1.98	Horizontal	Peak
5925.00	54.05	68.20	-14.15	1.50	220	51.93	2.12	Horizontal	Peak
11550.00	52.32	68.20	-15.88	1.50	220	40.78	11.54	Horizontal	Peak
11550.00	42.25	54.00	-11.75	1.50	220	30.71	11.54	Horizontal	Average
5650.00	53.27	68.20	-14.93	1.50	160	52.47	0.80	Vertical	Peak
5700.00	55.02	105.20	-50.18	1.50	160	53.78	1.24	Vertical	Peak
5720.00	54.55	110.80	-56.25	1.50	160	53.27	1.28	Vertical	Peak
5725.00	55.86	122.20	-66.34	1.50	160	54.56	1.30	Vertical	Peak
5850.00	56.76	122.20	-65.44	1.50	160	54.94	1.82	Vertical	Peak
5855.00	54.39	110.80	-56.41	1.50	160	52.54	1.85	Vertical	Peak
5875.00	54.49	105.20	-50.71	1.50	160	52.51	1.98	Vertical	Peak
5925.00	54.03	68.20	-14.17	1.50	160	51.91	2.12	Vertical	Peak
11550.00	53.06	68.20	-15.14	1.50	160	41.52	11.54	Vertical	Peak
11550.00	43.98	54.00	-10.02	1.50	160	32.44	11.54	Vertical	Average

**Remark:**

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) - Pre-Amplifier Factor(dB)
3. Margin value = Emission Level – Limit value
4. The emission levels of other frequencies are very lower than the limit and not show in test report.
5. Tnly the antenna height (from 1m to 4m) and turntable angle (from 0 degrees to 360 degrees) at maximum reading are recorded.

## 2.7. AC Power Line Conducted Emission

### 2.7.1. Limit of AC Power Line Conducted Emission

FCC Part 15.207:

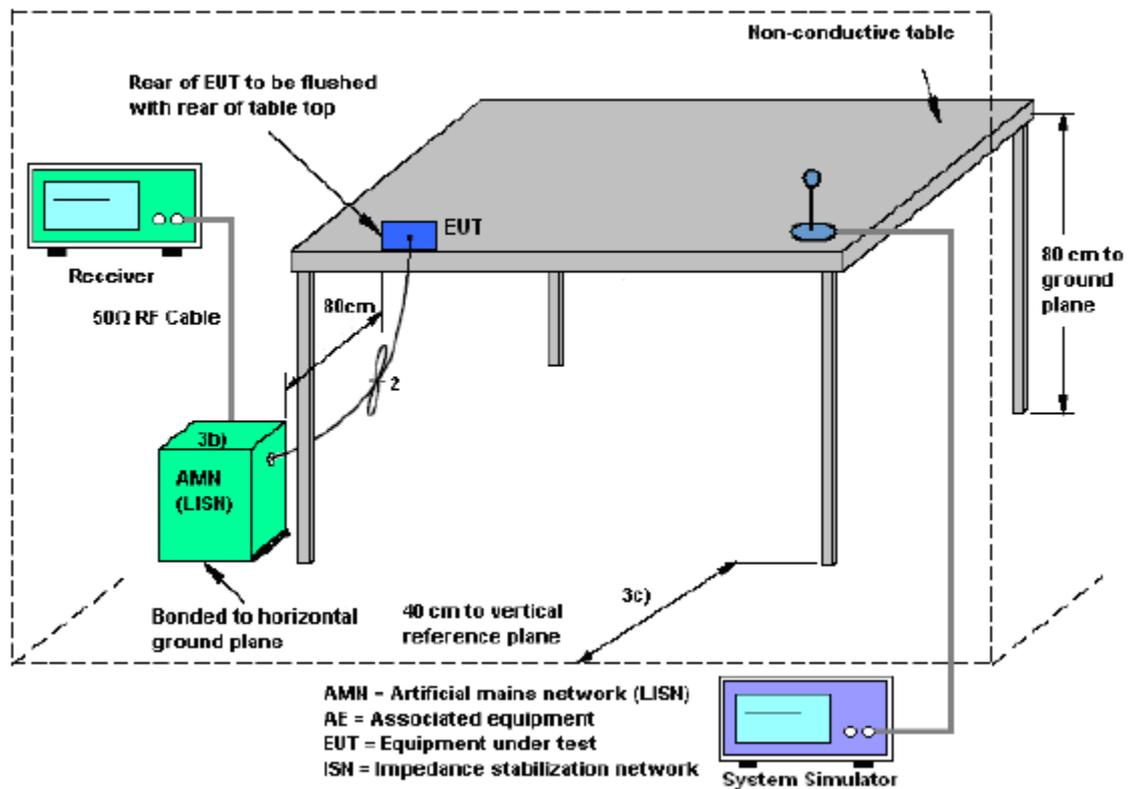
For equipment that is designed to be connected to the public utility (AC) power line, the radio frequency voltage that is conducted back onto the AC power line on any frequency or frequencies within the band 150 kHz to 30 MHz shall not exceed the limits in the following table.

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

### 2.7.2. Measuring Instruments

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

### 2.7.3. Test Setup



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

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

#### **2.7.5. Test Result of AC Power Line Conducted Emission**

Not applicable, the product is only powered by car charger DC.



### 3. List of measuring equipment

Item	Test Equipment	Manufacturer	Model No.	Serial No.	Cal Date	Due Date
1	5M Anechoic Chamber	Albatross	SAC-5MAC 12.8x6.8x6.4m	A0304210	2023.08.01	2026.07.31
2	EMI Test Receiver	ROHDE&SCHWARZ	ESW26	A180502935	2024.12.26	2025.12.25
3	Loop Antenna	SCHWARZBECK	FMZB 1519-60 C	A240204134	2023.12.13	2026.12.12
4	Broadband antenna (30MHz~1GHz)	R&S	HL562	A0304224	2023.06.08	2026.06.07
5	EMI Horn Ant. (1-18G)	ETC	MCTD-1209	A150402241	2023.05.16	2026.05.15
6	Horn antenna (18GHz~26.5GHz)	AR	AT4510	A0804450	2023.06.01	2026.05.31
7	Amplifier 30M~1GHz	TESEQ	CBA1G-600B	A190503534	2024.09.05	2025.09.04
8	Amplifier 1G~18GHz	MILMEGA	AS0104R-800/400	A160302517	2024.12.26	2025.12.25
9	Spectrum Analyzer	R&S	FSV-40	A140801886	2024.08.22	2025.08.21
10	Constant Temperature Humidity Chamber	ESPEC	SU-642	A150802409	2025.01.03	2026.01.02
11	Test Receiver	R&S	ESIB7	A0501375	2025.01.13	2026.01.12
12	Broadband Ant.	ETC	MCTD 2786	A150402240	2023.05.22	2026.05.21
13	3M Anechoic Chamber	Albatross	SAC-3MAC 9*6*6m	A0412375	2024.02.27	2027.02.26
14	Test Receiver	KEYSIGHT	N9038A	A141202036	2025.06.04	2026.06.03
15	LISN	ROHDE&SCHWARZ	ENV216	A140701847	2025.04.14	2026.04.13
16	Cable(9kHz~30MHz)	/	/	C230800587	2023.08.21	2026.08.20
17	Cable(30MHz~18GHz)	/	XSMJA750-SMN M(RA)-12M	C230800588	2023.08.21	2026.08.20
18	Cable(18GHz~40GHz)	/	SUCOFLEX102	C230800590	2023.08.21	2026.08.20



#### 4. Uncertainty of Evaluation

The measurement uncertainties shown below were calculated in accordance with the requirements of ANSI C63.10-2020. All the measurement uncertainty value were shown with a coverage  $K=2$  to indicate 95% level of confidence . The measurement data show herein meets or exceeds the CISPR measurement uncertainty values specified in CISPR 16-4-2 and can be compared directly to specified limit to determine compliance.

##### Uncertainty of AC Power Line Conducted Emission Measurement (150kHz~30MHz)

Measuring Uncertainty for a level of confidence of 95%( $U=2U_c(y)$ )	2.8dB
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##### Uncertainty of Radiated Emission Measurement (9kHz~30MHz)

Measuring Uncertainty for a level of confidence of 95%( $U=2U_c(y)$ )	3.5dB
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##### Uncertainty of Radiated Emission Measurement (30MHz~1GHz)

Measuring Uncertainty for a level of confidence of 95%( $U=2U_c(y)$ )	3.91dB
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##### Uncertainty of Radiated Emission Measurement (1GHz~18GHz)

Measuring Uncertainty for a level of confidence of 95%( $U=2U_c(y)$ )	4.5dB
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##### Uncertainty of Radiated Emission Measurement (18GHz~40GHz)

Measuring Uncertainty for a level of confidence of 95%( $U=2U_c(y)$ )	4.9dB
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##### Uncertainty of RF Conducted Measurement (9kHz~40GHz)

Measuring Uncertainty for a level of confidence of 95%( $U=2U_c(y)$ )	1.2dB
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##### Uncertainty of Occupied Bandwidth Measurement

Measuring Uncertainty for a level of confidence of 95%( $U=2U_c(y)$ )	1.2%
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## Appendix A

### Duty Cycle

#### Test Result and Data

TestMode	Antenna	Frequency[MHz]	ON Time[ms]	Period[ms]	Duty Cycle[%]	DC Factor
11A	Ant1	5180	2.06	2.10	98.10	0.08
11N20SISO	Ant1	5180	1.93	1.96	98.47	0.07
11N40SISO	Ant1	5190	0.65	0.69	94.20	0.26
11AC20SISO	Ant1	5180	1.31	1.35	97.04	0.13
11AC40SISO	Ant1	5190	0.95	0.98	96.94	0.13
11AC40SISO	Ant1	5190	0.46	0.49	93.88	0.27

TestMode	Antenna	Frequency[MHz]	ON Time[ms]	Period[ms]	Duty Cycle[%]	DC Factor
11A	Ant1	5260	2.07	2.10	98.57	0.06
11N20SISO	Ant1	5260	1.92	1.96	97.96	0.09
11N40SISO	Ant1	5270	0.65	0.69	94.20	0.26
11AC20SISO	Ant1	5260	1.32	1.36	97.06	0.13
11AC40SISO	Ant1	5270	0.95	0.98	96.94	0.13
11AC80SISO	Ant1	5290	0.46	0.49	93.88	0.27

TestMode	Antenna	Frequency[MHz]	ON Time[ms]	Period[ms]	Duty Cycle[%]	DC Factor
11A	Ant1	5500	2.06	2.10	98.10	0.08
11N20SISO	Ant1	5500	1.93	1.96	98.47	0.07
11N40SISO	Ant1	5510	0.65	0.69	94.20	0.26
11AC20SISO	Ant1	5500	1.32	1.36	97.06	0.13
11AC40SISO	Ant1	5510	0.96	0.99	96.97	0.13
11AC80SISO	Ant1	5530	0.46	0.49	93.88	0.27

Test Mode	Antenna	Frequency[MHz]	ON Time[ms]	Period[ms]	Duty Cycle[%]	DC Factor
11A	Ant1	5745	2.06	2.10	98.10	0.08
11N20SISO	Ant1	5745	1.92	1.95	98.46	0.07
11N40SISO	Ant1	5755	0.65	0.69	94.20	0.26
11AC20SISO	Ant1	5745	1.32	1.36	97.06	0.13
11AC40SISO	Ant1	5755	0.96	0.99	96.97	0.13
11AC80SISO	Ant1	5775	0.46	0.49	93.88	0.27

**Maximum Conducted Output Power****Test Result and Data**

TestMode	Antenna	Frequency [MHz]	Power [dBm]	DC Factor [dBm]	Result [dBm]	Power Limit [dBm]	Verdict
11A	Ant1	5180	12.04	0.08	12.12	≤23.98	PASS
11A	Ant1	5200	11.91	0.08	11.99	≤23.98	PASS
11A	Ant1	5240	12.28	0.08	12.36	≤23.98	PASS
11N20SISO	Ant1	5180	12.39	0.07	12.46	≤23.98	PASS
11N20SISO	Ant1	5200	12.15	0.07	12.22	≤23.98	PASS
11N20SISO	Ant1	5240	12.06	0.07	12.13	≤23.98	PASS
11N40SISO	Ant1	5190	11.04	0.26	11.30	≤23.98	PASS
11N40SISO	Ant1	5230	10.85	0.26	11.11	≤23.98	PASS
11AC20SISO	Ant1	5180	12.06	0.13	12.19	≤23.98	PASS
11AC20SISO	Ant1	5200	12.07	0.13	12.20	≤23.98	PASS
11AC20SISO	Ant1	5240	11.94	0.13	12.07	≤23.98	PASS
11AC40SISO	Ant1	5190	10.34	0.13	10.47	≤23.98	PASS
11AC40SISO	Ant1	5230	10.30	0.13	10.43	≤23.98	PASS
11AC80SISO	Ant1	5210	9.11	0.27	9.38	≤23.98	PASS

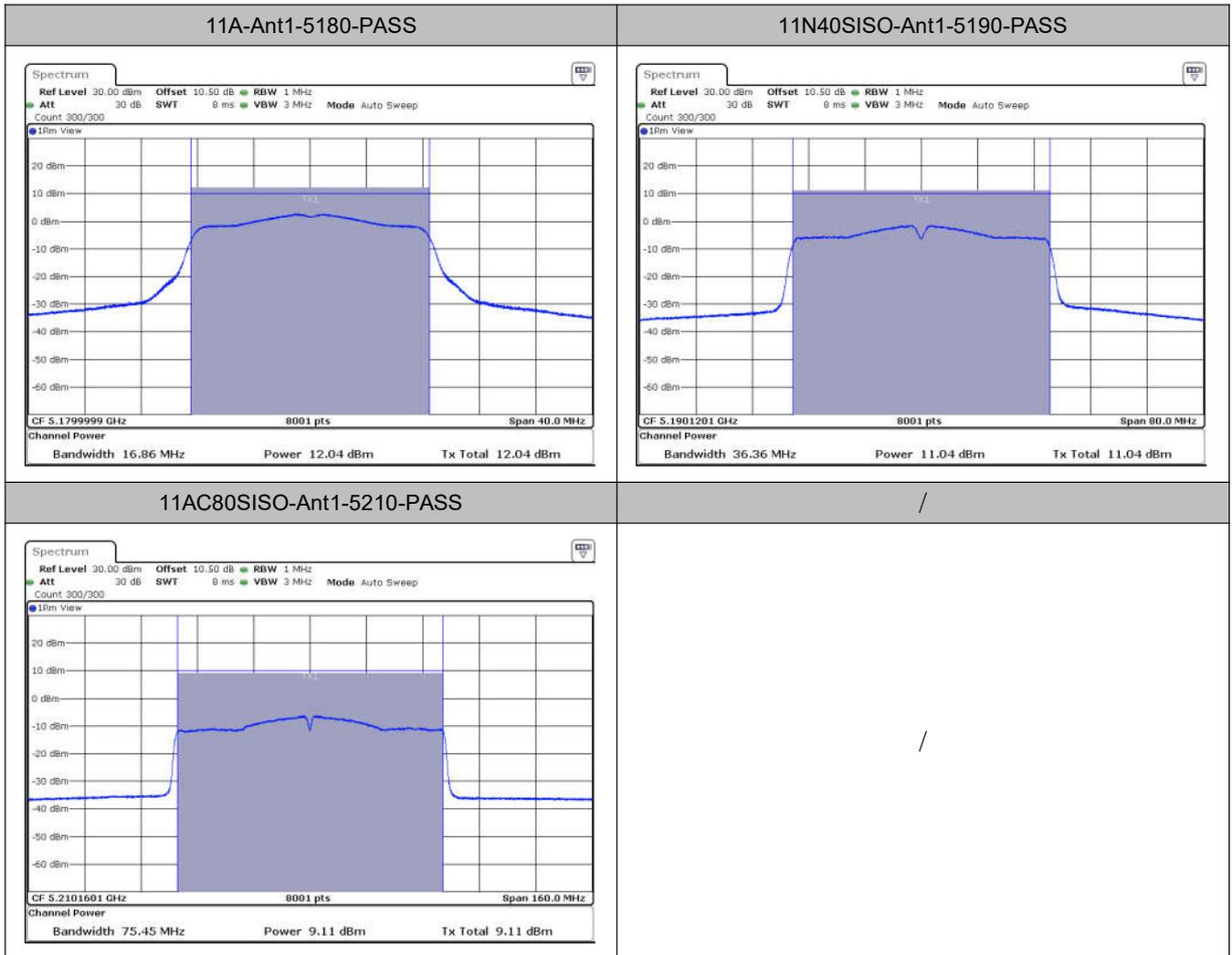
TestMode	Antenna	Frequency [MHz]	Power [dBm]	DC Factor [dBm]	Result [dBm]	Power Limit [dBm]	Verdict
11A	Ant1	5260	9.84	0.06	9.90	≤23.98	PASS
11A	Ant1	5300	9.96	0.06	10.02	≤23.98	PASS
11A	Ant1	5320	9.99	0.06	10.05	≤23.98	PASS
11N20SISO	Ant1	5260	11.02	0.09	11.11	≤23.98	PASS
11N20SISO	Ant1	5300	11.06	0.09	11.15	≤23.98	PASS
11N20SISO	Ant1	5320	11.37	0.09	11.46	≤23.98	PASS
11N40SISO	Ant1	5270	9.09	0.26	9.35	≤23.98	PASS
11N40SISO	Ant1	5310	9.02	0.26	9.28	≤23.98	PASS
11AC20SISO	Ant1	5260	11.93	0.13	12.06	≤23.98	PASS
11AC20SISO	Ant1	5300	12.32	0.13	12.45	≤23.98	PASS
11AC20SISO	Ant1	5320	12.85	0.13	12.98	≤23.98	PASS
11AC40SISO	Ant1	5270	9.71	0.13	9.84	≤23.98	PASS
11AC40SISO	Ant1	5310	9.93	0.13	10.06	≤23.98	PASS
11AC80SISO	Ant1	5290	8.68	0.27	8.95	≤23.98	PASS



TestMode	Antenna	Frequency [MHz]	Power [dBm]	DC Factor [dBm]	Result [dBm]	Power Limit [dBm]	Verdict
11A	Ant1	5500	9.07	0.08	9.15	≤23.98	PASS
11A	Ant1	5580	8.20	0.08	8.28	≤23.98	PASS
11A	Ant1	5700	5.96	0.08	6.04	≤23.98	PASS
11N20SISO	Ant1	5500	8.65	0.07	8.72	≤23.98	PASS
11N20SISO	Ant1	5580	7.67	0.07	7.74	≤23.98	PASS
11N20SISO	Ant1	5700	5.68	0.07	5.75	≤23.98	PASS
11N40SISO	Ant1	5510	9.50	0.26	9.76	≤23.98	PASS
11N40SISO	Ant1	5550	9.25	0.26	9.51	≤23.98	PASS
11N40SISO	Ant1	5670	7.46	0.26	7.72	≤23.98	PASS
11AC20SISO	Ant1	5500	11.58	0.13	11.71	≤23.98	PASS
11AC20SISO	Ant1	5580	10.58	0.13	10.71	≤23.98	PASS
11AC20SISO	Ant1	5700	8.54	0.13	8.67	≤23.98	PASS
11AC40SISO	Ant1	5510	9.66	0.13	9.79	≤23.98	PASS
11AC40SISO	Ant1	5550	9.20	0.13	9.33	≤23.98	PASS
11AC40SISO	Ant1	5670	7.30	0.13	7.43	≤23.98	PASS
11AC80SISO	Ant1	5530	10.09	0.27	10.36	≤23.98	PASS
11AC80SISO	Ant1	5610	8.95	0.27	9.22	≤23.98	PASS

Test Mode	Antenna	Frequency [MHz]	Power [dBm]	DC Factor [dBm]	Result [dBm]	Power Limit [dBm]	Verdict
11A	Ant1	5745	10.97	0.08	11.05	≤30.00	PASS
11A	Ant1	5785	10.25	0.08	10.33	≤30.00	PASS
11A	Ant1	5825	10.73	0.08	10.81	≤30.00	PASS
11N20SISO	Ant1	5745	10.51	0.07	10.58	≤30.00	PASS
11N20SISO	Ant1	5785	10.10	0.07	10.17	≤30.00	PASS
11N20SISO	Ant1	5825	10.07	0.07	10.14	≤30.00	PASS
11N40SISO	Ant1	5755	10.34	0.26	10.60	≤30.00	PASS
11N40SISO	Ant1	5795	10.16	0.26	10.42	≤30.00	PASS
11AC20SISO	Ant1	5745	10.63	0.13	10.76	≤30.00	PASS
11AC20SISO	Ant1	5785	10.02	0.13	10.15	≤30.00	PASS
11AC20SISO	Ant1	5825	9.80	0.13	9.93	≤30.00	PASS
11AC40SISO	Ant1	5755	10.42	0.13	10.55	≤30.00	PASS
11AC40SISO	Ant1	5795	9.56	0.13	9.69	≤30.00	PASS
11AC80SISO	Ant1	5775	10.66	0.27	10.93	≤30.00	PASS

### Test plots



Note: Only UNII-1 20MHz&40MHz&80MHz Bandwidth test plot is reported to show setting parameter complies with testing method and procedure.

**Power Spectral Density****Test Result and Data**

TestMode	Antenna	Frequency[MHz]	Result[dBm/MHz]	Limit[dBm/MHz]	Verdict
11A	Ant1	5180	2.72	≤11.00	PASS
11A	Ant1	5200	2.54	≤11.00	PASS
11A	Ant1	5240	2.10	≤11.00	PASS
11N20SISO	Ant1	5180	2.80	≤11.00	PASS
11N20SISO	Ant1	5200	2.87	≤11.00	PASS
11N20SISO	Ant1	5240	2.44	≤11.00	PASS
11N40SISO	Ant1	5190	-1.28	≤11.00	PASS
11N40SISO	Ant1	5230	-1.45	≤11.00	PASS
11AC20SISO	Ant1	5180	2.61	≤11.00	PASS
11AC20SISO	Ant1	5200	2.63	≤11.00	PASS
11AC20SISO	Ant1	5240	2.49	≤11.00	PASS
11AC40SISO	Ant1	5190	-2.19	≤11.00	PASS
11AC40SISO	Ant1	5230	-1.60	≤11.00	PASS
11AC80SISO	Ant1	5210	-6.23	≤11.00	PASS

TestMode	Antenna	Frequency[MHz]	Result[dBm/MHz]	Limit[dBm/MHz]	Verdict
11A	Ant1	5260	0.49	≤11.00	PASS
11A	Ant1	5300	0.66	≤11.00	PASS
11A	Ant1	5320	0.68	≤11.00	PASS
11N20SISO	Ant1	5260	1.35	≤11.00	PASS
11N20SISO	Ant1	5300	1.80	≤11.00	PASS
11N20SISO	Ant1	5320	1.94	≤11.00	PASS
11N40SISO	Ant1	5270	-3.04	≤11.00	PASS
11N40SISO	Ant1	5310	-3.33	≤11.00	PASS
11AC20SISO	Ant1	5260	2.86	≤11.00	PASS
11AC20SISO	Ant1	5300	2.73	≤11.00	PASS
11AC20SISO	Ant1	5320	5.13	≤11.00	PASS
11AC40SISO	Ant1	5270	-2.81	≤11.00	PASS
11AC40SISO	Ant1	5310	-2.47	≤11.00	PASS
11AC80SISO	Ant1	5290	-6.54	≤11.00	PASS

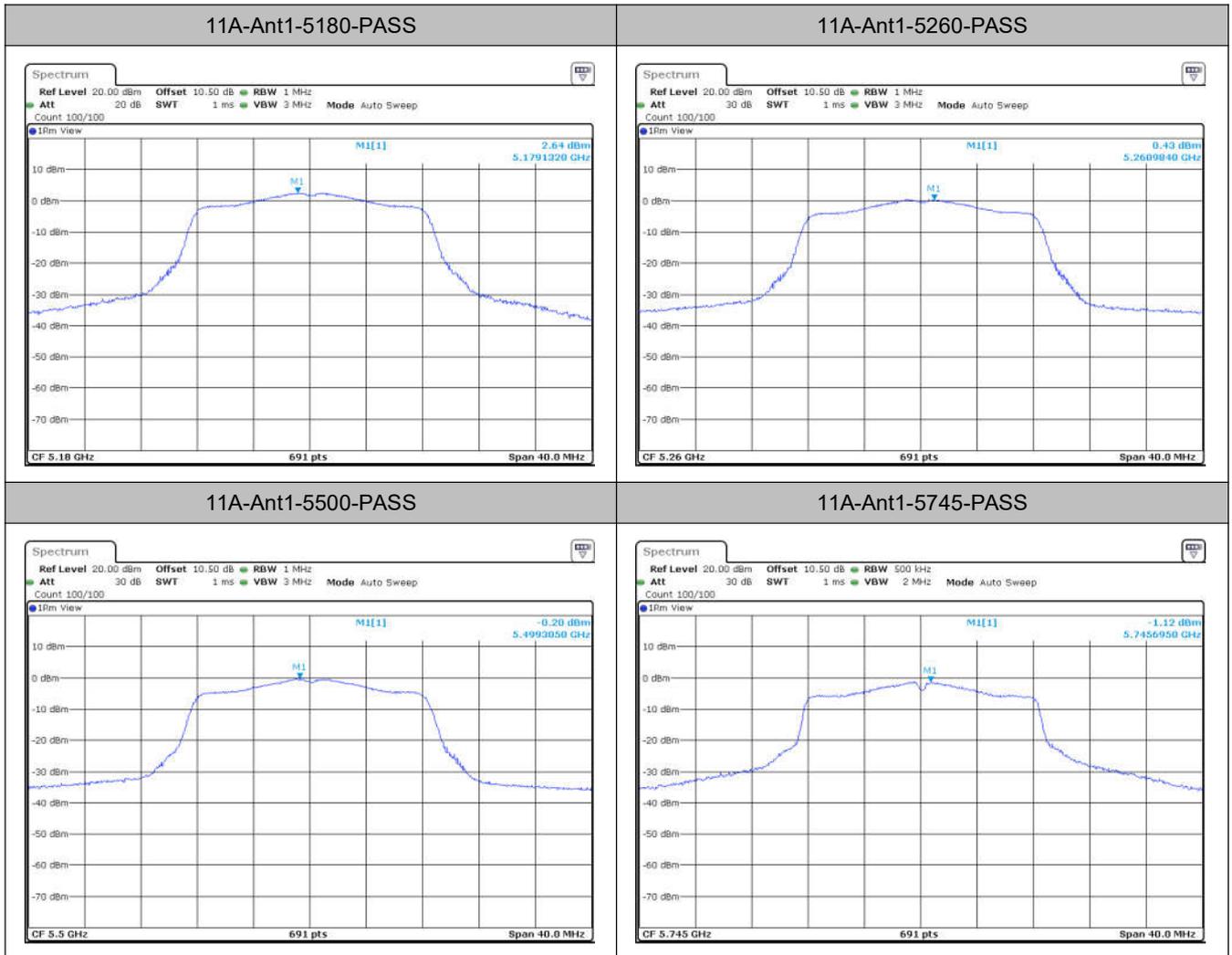


TestMode	Antenna	Frequency[MHz]	Result[dBm/MHz]	Limit[dBm/MHz]	Verdict
11A	Ant1	5500	-0.12	≤11.00	PASS
11A	Ant1	5580	-1.25	≤11.00	PASS
11A	Ant1	5700	-3.03	≤11.00	PASS
11N20SISO	Ant1	5500	-0.81	≤11.00	PASS
11N20SISO	Ant1	5580	-1.60	≤11.00	PASS
11N20SISO	Ant1	5700	-3.74	≤11.00	PASS
11N40SISO	Ant1	5510	-2.82	≤11.00	PASS
11N40SISO	Ant1	5550	-3.08	≤11.00	PASS
11N40SISO	Ant1	5670	-4.97	≤11.00	PASS
11AC20SISO	Ant1	5500	2.03	≤11.00	PASS
11AC20SISO	Ant1	5580	0.99	≤11.00	PASS
11AC20SISO	Ant1	5700	-0.81	≤11.00	PASS
11AC40SISO	Ant1	5510	-2.78	≤11.00	PASS
11AC40SISO	Ant1	5550	-3.27	≤11.00	PASS
11AC40SISO	Ant1	5670	-5.21	≤11.00	PASS
11AC80SISO	Ant1	5530	-4.82	≤11.00	PASS
11AC80SISO	Ant1	5610	-6.12	≤11.00	PASS

Test Mode	Antenna	Frequency[MHz]	Result [dBm/500kHz]	Limit [dBm/500kHz]	Verdict
11A	Ant1	5745	-1.04	≤30.00	PASS
11A	Ant1	5785	-1.77	≤30.00	PASS
11A	Ant1	5825	-1.39	≤30.00	PASS
11N20SISO	Ant1	5745	-1.80	≤30.00	PASS
11N20SISO	Ant1	5785	-2.26	≤30.00	PASS
11N20SISO	Ant1	5825	-2.13	≤30.00	PASS
11N40SISO	Ant1	5755	-4.87	≤30.00	PASS
11N40SISO	Ant1	5795	-4.78	≤30.00	PASS
11AC20SISO	Ant1	5745	-1.43	≤30.00	PASS
11AC20SISO	Ant1	5785	-2.33	≤30.00	PASS
11AC20SISO	Ant1	5825	-2.18	≤30.00	PASS
11AC40SISO	Ant1	5755	-4.87	≤30.00	PASS
11AC40SISO	Ant1	5795	-5.40	≤30.00	PASS
11AC80SISO	Ant1	5775	-7.56	≤30.00	PASS

Note: The Duty Cycle Factor is compensated in the graph.

### Test Plots



Note: Only 802.11a mode low channel plot is reported to show setting parameter complies with testing method and procedure.



### 99% Occupied Bandwidth and 26dB Emission Bandwidth Test Result and Data

TestMode	Antenna	Frequency[MHz]	99% OBW[MHz]	26dB EBW[MHz]	Verdict
11A	Ant1	5180	16.863	21.56	---
11A	Ant1	5200	16.703	21.04	---
11A	Ant1	5240	16.863	22.16	---
11N20SISO	Ant1	5180	17.942	22.44	---
11N20SISO	Ant1	5200	17.822	22.96	---
11N20SISO	Ant1	5240	18.022	22.24	---
11N40SISO	Ant1	5190	36.364	47.68	---
11N40SISO	Ant1	5230	36.284	50.16	---
11AC20SISO	Ant1	5180	18.062	24.92	---
11AC20SISO	Ant1	5200	18.102	22.24	---
11AC20SISO	Ant1	5240	17.902	24.32	---
11AC40SISO	Ant1	5190	36.364	42.48	---
11AC40SISO	Ant1	5230	36.204	45.76	---
11AC80SISO	Ant1	5210	75.445	81.60	---

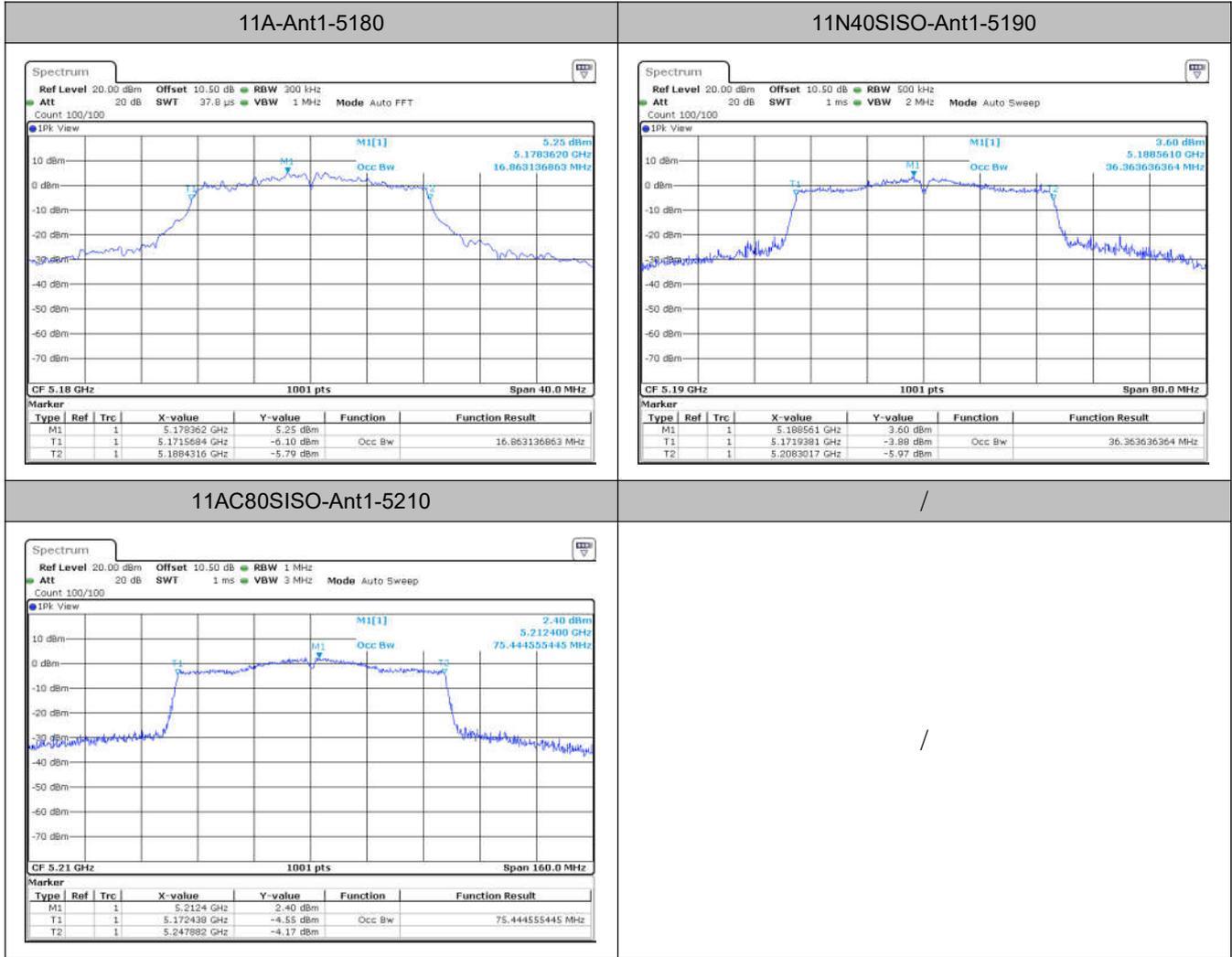
TestMode	Antenna	Frequency[MHz]	99% OBW[MHz]	26dB EBW[MHz]	Verdict
11A	Ant1	5260	16.543	21.48	---
11A	Ant1	5300	16.703	21.72	---
11A	Ant1	5320	16.663	21.60	---
11N20SISO	Ant1	5260	17.782	22.00	---
11N20SISO	Ant1	5300	17.782	22.12	---
11N20SISO	Ant1	5320	17.902	23.40	---
11N40SISO	Ant1	5270	36.204	39.84	---
11N40SISO	Ant1	5310	36.204	40.00	---
11AC20SISO	Ant1	5260	17.982	22.56	---
11AC20SISO	Ant1	5300	18.022	22.56	---
11AC20SISO	Ant1	5320	18.062	24.72	---
11AC40SISO	Ant1	5270	36.204	40.08	---
11AC40SISO	Ant1	5310	36.204	39.92	---
11AC80SISO	Ant1	5290	75.285	83.04	---



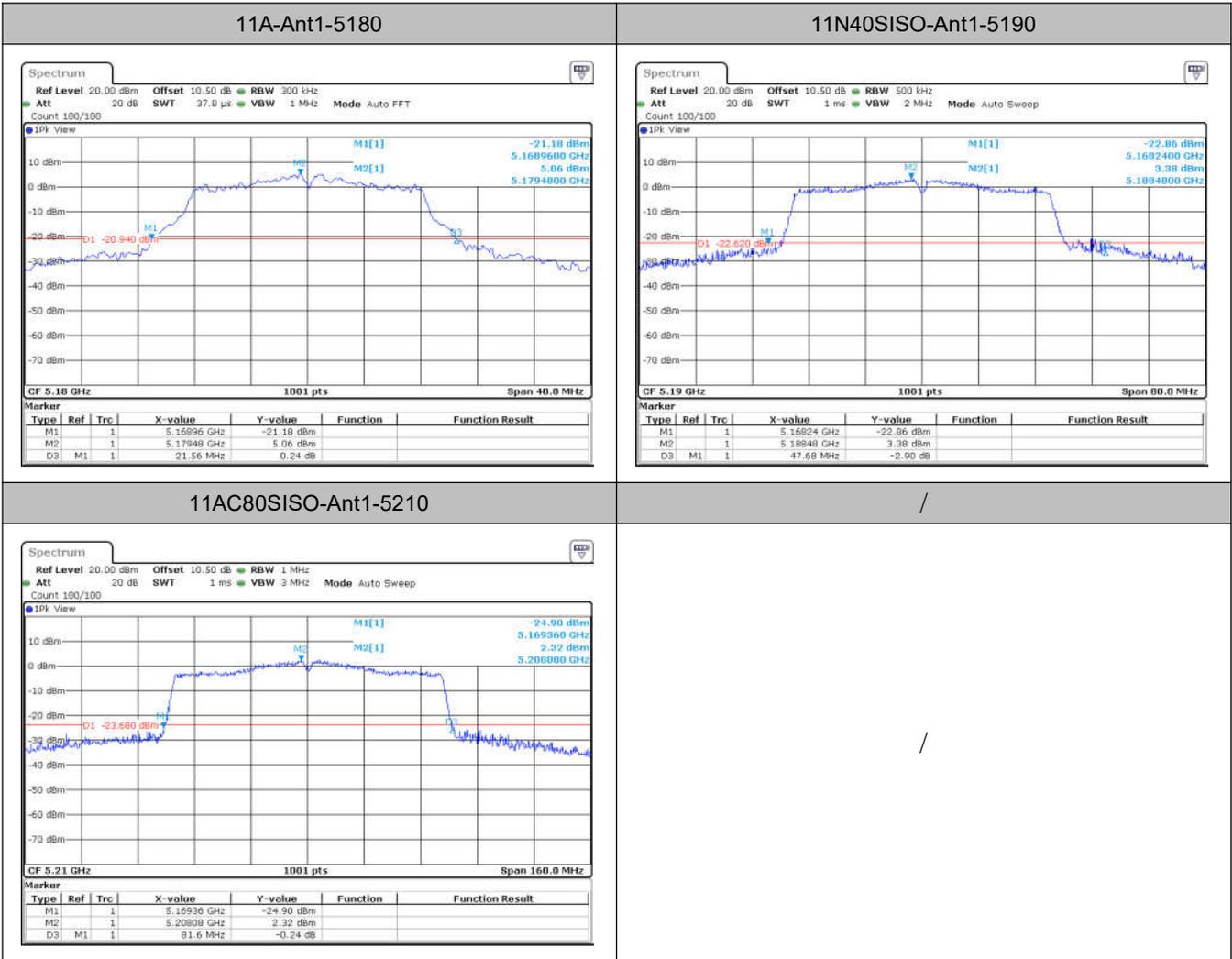
TestMode	Antenna	Frequency[MHz]	99% OBW[MHz]	26dB EBW[MHz]	Verdict
11A	Ant1	5500	16.623	21.20	---
11A	Ant1	5580	16.703	21.20	---
11A	Ant1	5700	16.743	21.28	---
11N20SISO	Ant1	5500	17.902	20.92	---
11N20SISO	Ant1	5580	17.982	21.48	---
11N20SISO	Ant1	5700	17.782	21.52	---
11N40SISO	Ant1	5510	36.124	39.84	---
11N40SISO	Ant1	5550	36.204	39.92	---
11N40SISO	Ant1	5670	36.204	39.84	---
11AC20SISO	Ant1	5500	17.982	21.40	---
11AC20SISO	Ant1	5580	17.782	21.52	---
11AC20SISO	Ant1	5700	17.942	21.76	---
11AC40SISO	Ant1	5510	36.284	40.00	---
11AC40SISO	Ant1	5550	36.204	39.92	---
11AC40SISO	Ant1	5670	36.204	40.08	---
11AC80SISO	Ant1	5530	75.445	81.60	---
11AC80SISO	Ant1	5610	75.445	81.76	---

Test Mode	Antenna	Frequency[MHz]	99% OBW[MHz]	26dB EBW[MHz]	Verdict
11A	Ant1	5745	18.861	27.92	---
11A	Ant1	5785	19.181	30.08	---
11A	Ant1	5825	19.141	28.56	---
11N20SISO	Ant1	5745	19.101	27.12	---
11N20SISO	Ant1	5785	19.221	27.96	---
11N20SISO	Ant1	5825	19.181	28.04	---
11N40SISO	Ant1	5755	37.483	65.60	---
11N40SISO	Ant1	5795	37.323	59.44	---
11AC20SISO	Ant1	5745	18.981	25.24	---
11AC20SISO	Ant1	5785	19.221	29.16	---
11AC20SISO	Ant1	5825	19.261	28.00	---
11AC40SISO	Ant1	5755	37.483	64.72	---
11AC40SISO	Ant1	5795	37.323	59.68	---
11AC80SISO	Ant1	5775	76.563	107.52	---

### Test Plots



Note: Only UNII-1 20MHz&40MHz&80MHz Bandwidth test plot is reported to show setting parameter complies with testing method and procedure.



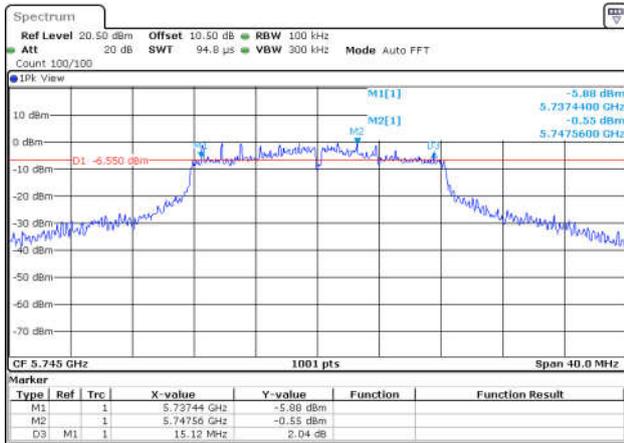
Note: Only UNII-1 20MHz&40MHz&80MHz Bandwidth test plot is reported to show setting parameter complies with testing method and procedure.

**6dB Down Bandwidth  
Test Result and Data**

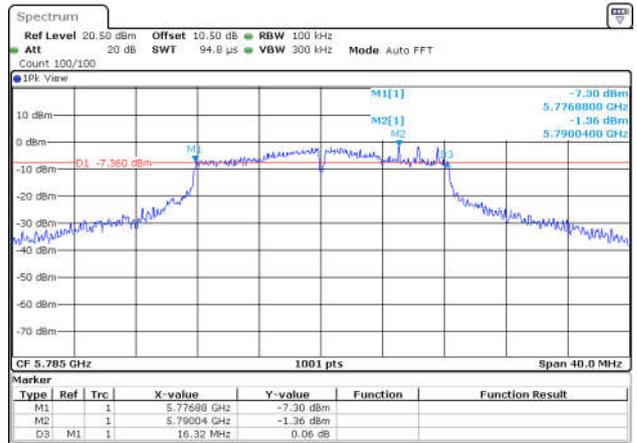
Test Mode	Antenna	Frequency[MHz]	6dB EBW[MHz]	Limit[MHz]	Verdict
11A	Ant1	5745	15.12	0.5	PASS
11A	Ant1	5785	16.32	0.5	PASS
11A	Ant1	5825	14.16	0.5	PASS
11N20SISO	Ant1	5745	17.56	0.5	PASS
11N20SISO	Ant1	5785	15.16	0.5	PASS
11N20SISO	Ant1	5825	17.56	0.5	PASS
11N40SISO	Ant1	5755	35.20	0.5	PASS
11N40SISO	Ant1	5795	35.20	0.5	PASS
11AC20SISO	Ant1	5745	15.36	0.5	PASS
11AC20SISO	Ant1	5785	16.92	0.5	PASS
11AC20SISO	Ant1	5825	16.80	0.5	PASS
11AC40SISO	Ant1	5755	35.12	0.5	PASS
11AC40SISO	Ant1	5795	35.20	0.5	PASS
11AC80SISO	Ant1	5775	75.20	0.5	PASS

### Test Graphs

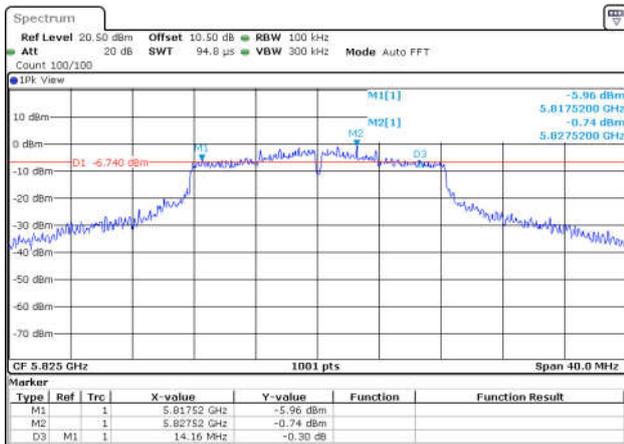
11A-Ant1-5745-PASS



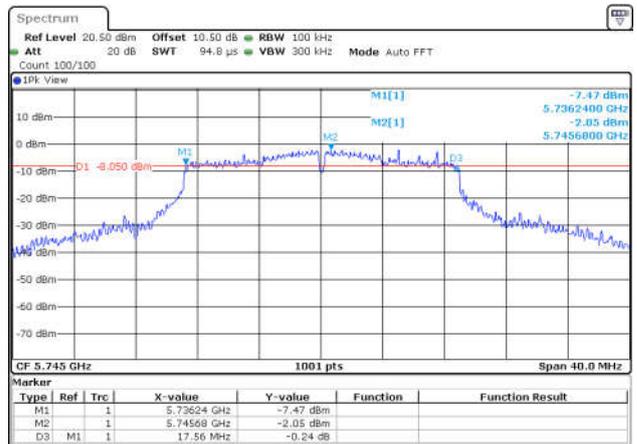
11A-Ant1-5785-PASS



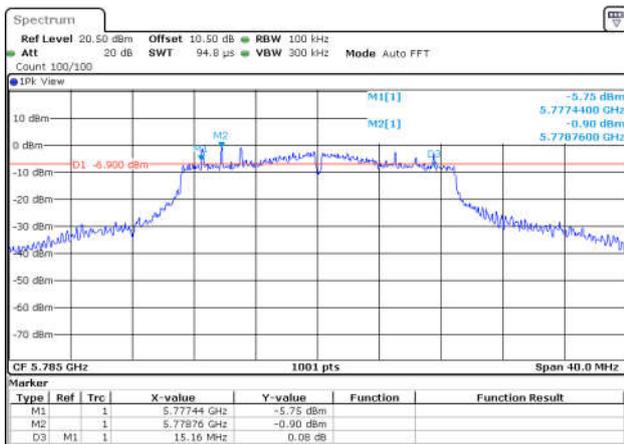
11A-Ant1-5825-PASS



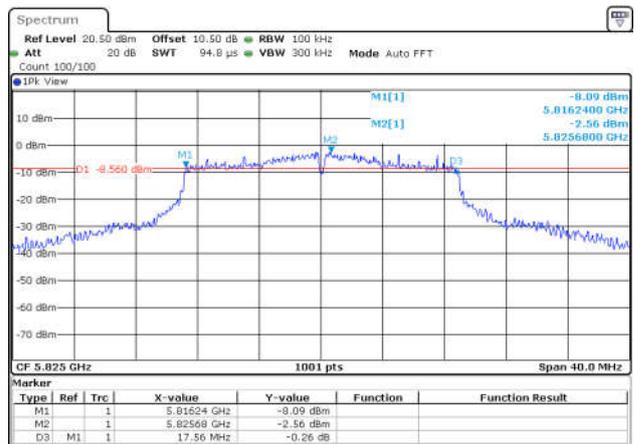
11N20SISO-Ant1-5745-PASS



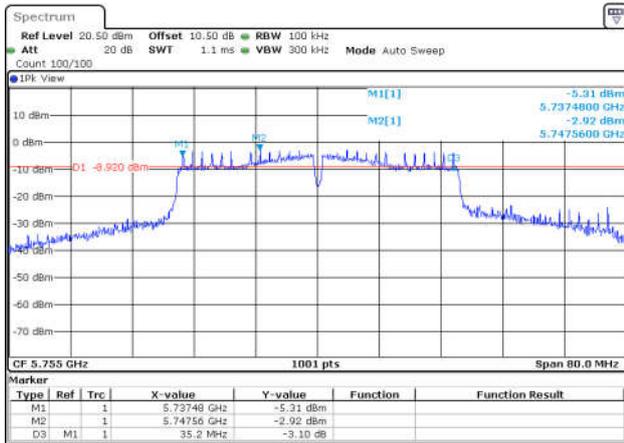
11N20SISO-Ant1-5785-PASS



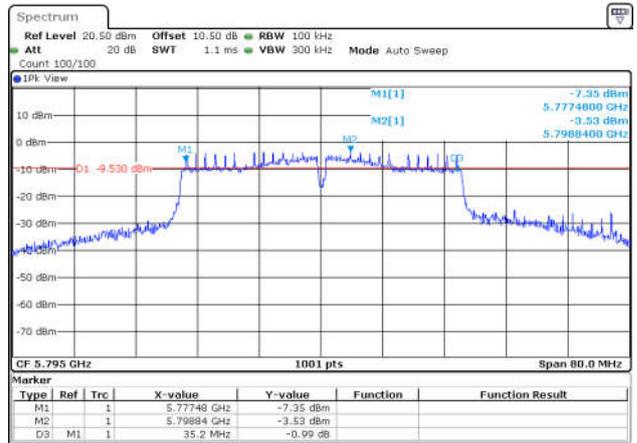
11N20SISO-Ant1-5825-PASS



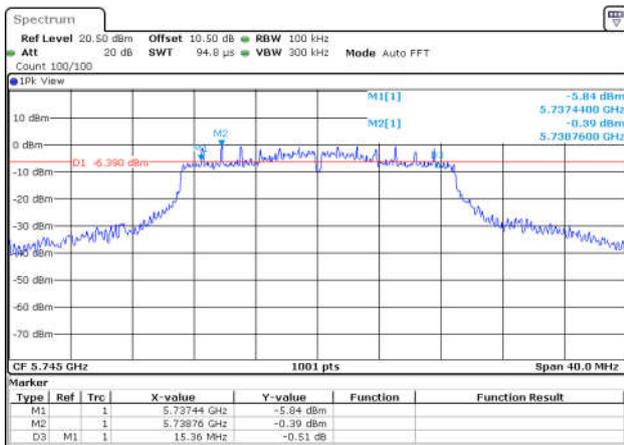
11N40SISO-Ant1-5755-PASS



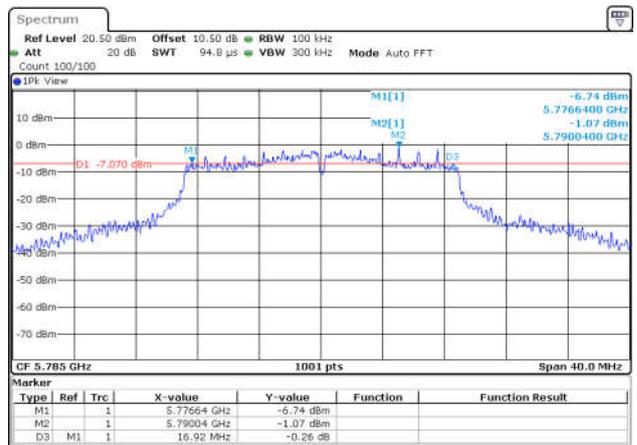
11N40SISO-Ant1-5795-PASS



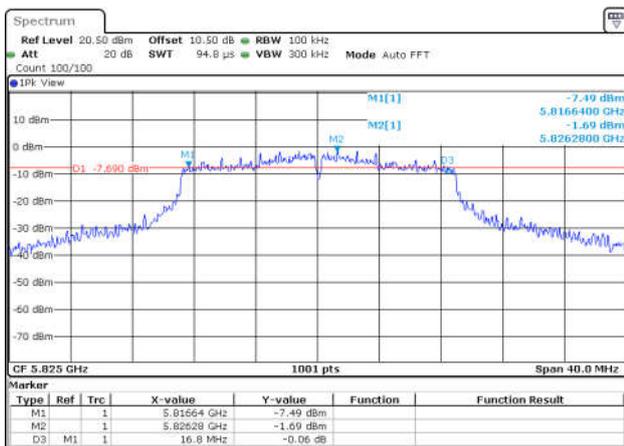
11A20SISO-Ant1-5745-PASS



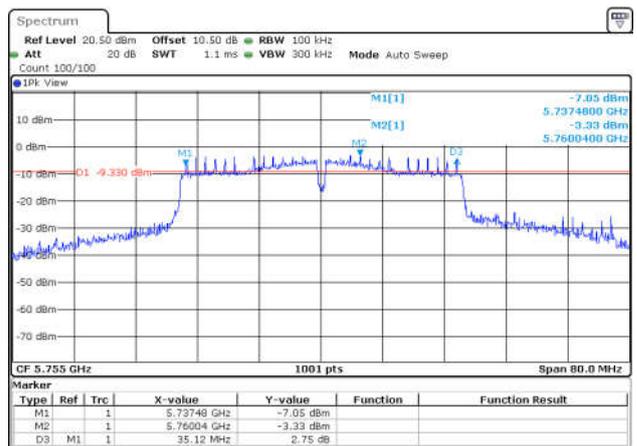
11A20SISO-Ant1-5785-PASS

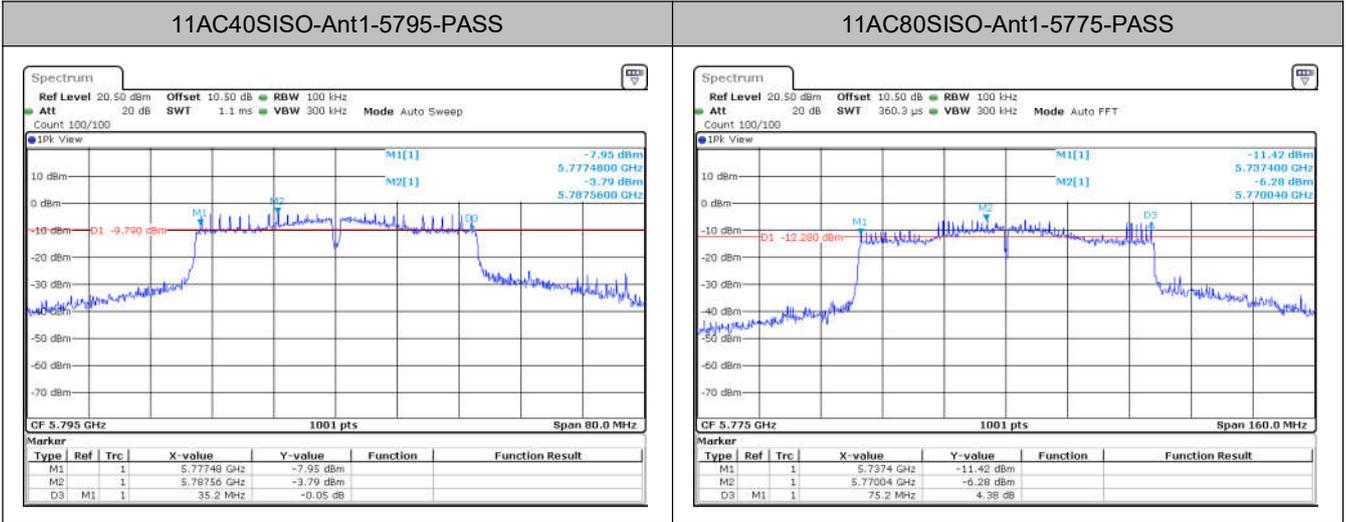


11A20SISO-Ant1-5825-PASS



11A40SISO-Ant1-5755-PASS







## Frequency Stability Test Result and Data

TestMode	Antenna	Frequency[MHz]	Voltage [Vdc]	Temperature (°C)	Deviation (Hz)	Deviation (ppm)	Limit (ppm)	Verdict
11A	Ant1	5180	NV	NT	40000.00	7.722008	20	PASS
11A	Ant1	5180	LV	NT	40000.00	7.722008	20	PASS
11A	Ant1	5180	HV	NT	40000.00	7.722008	20	PASS

TestMode	Antenna	Frequency[MHz]	Voltage [Vdc]	Temperature (°C)	Deviation (Hz)	Deviation (ppm)	Limit (ppm)	Verdict
11A	Ant1	5180	NV	-30	40000.00	7.722008	20	PASS
11A	Ant1	5180	NV	-20	40000.00	7.722008	20	PASS
11A	Ant1	5180	NV	-10	60000.00	11.583012	20	PASS
11A	Ant1	5180	NV	0	40000.00	7.722008	20	PASS
11A	Ant1	5180	NV	10	20000.00	3.861004	20	PASS
11A	Ant1	5180	NV	20	40000.00	7.722008	20	PASS
11A	Ant1	5180	NV	30	40000.00	7.722008	20	PASS
11A	Ant1	5180	NV	40	40000.00	7.722008	20	PASS
11A	Ant1	5180	NV	50	40000.00	7.722008	20	PASS

TestMode	Antenna	Frequency[MHz]	Voltage [Vdc]	Temperature (°C)	Deviation (Hz)	Deviation (ppm)	Limit (ppm)	Verdict
11A	Ant1	5260	NV	NT	20000.00	3.802281	20	PASS
11A	Ant1	5260	LV	NT	60000.00	11.406844	20	PASS
11A	Ant1	5260	HV	NT	40000.00	7.604563	20	PASS

TestMode	Antenna	Frequency[MHz]	Voltage [Vdc]	Temperature (°C)	Deviation (Hz)	Deviation (ppm)	Limit (ppm)	Verdict
11A	Ant1	5260	NV	-30	40000.00	7.604563	20	PASS
11A	Ant1	5260	NV	-20	40000.00	7.604563	20	PASS
11A	Ant1	5260	NV	-10	60000.00	11.406844	20	PASS
11A	Ant1	5260	NV	0	40000.00	7.604563	20	PASS
11A	Ant1	5260	NV	10	40000.00	7.604563	20	PASS
11A	Ant1	5260	NV	20	60000.00	11.406844	20	PASS
11A	Ant1	5260	NV	30	40000.00	7.604563	20	PASS
11A	Ant1	5260	NV	40	60000.00	11.406844	20	PASS
11A	Ant1	5260	NV	50	60000.00	11.406844	20	PASS



TestMode	Antenna	Frequency[MHz]	Voltage [Vdc]	Temperature (°C)	Deviation (Hz)	Deviation (ppm)	Limit (ppm)	Verdict
11A	Ant1	5500	NV	NT	60000.00	10.909091	20	PASS
11A	Ant1	5500	LV	NT	40000.00	7.272727	20	PASS
11A	Ant1	5500	HV	NT	60000.00	10.909091	20	PASS

TestMode	Antenna	Frequency[MHz]	Voltage [Vdc]	Temperature (°C)	Deviation (Hz)	Deviation (ppm)	Limit (ppm)	Verdict
11A	Ant1	5500	NV	-20	60000.00	10.909091	20	PASS
11A	Ant1	5500	NV	-10	60000.00	10.909091	20	PASS
11A	Ant1	5500	NV	0	60000.00	10.909091	20	PASS
11A	Ant1	5500	NV	10	40000.00	7.272727	20	PASS
11A	Ant1	5500	NV	20	40000.00	7.272727	20	PASS
11A	Ant1	5500	NV	30	60000.00	10.909091	20	PASS
11A	Ant1	5500	NV	40	40000.00	7.272727	20	PASS
11A	Ant1	5500	NV	50	40000.00	7.272727	20	PASS
11A	Ant1	5500	NV	-30	60000.00	10.909091	20	PASS

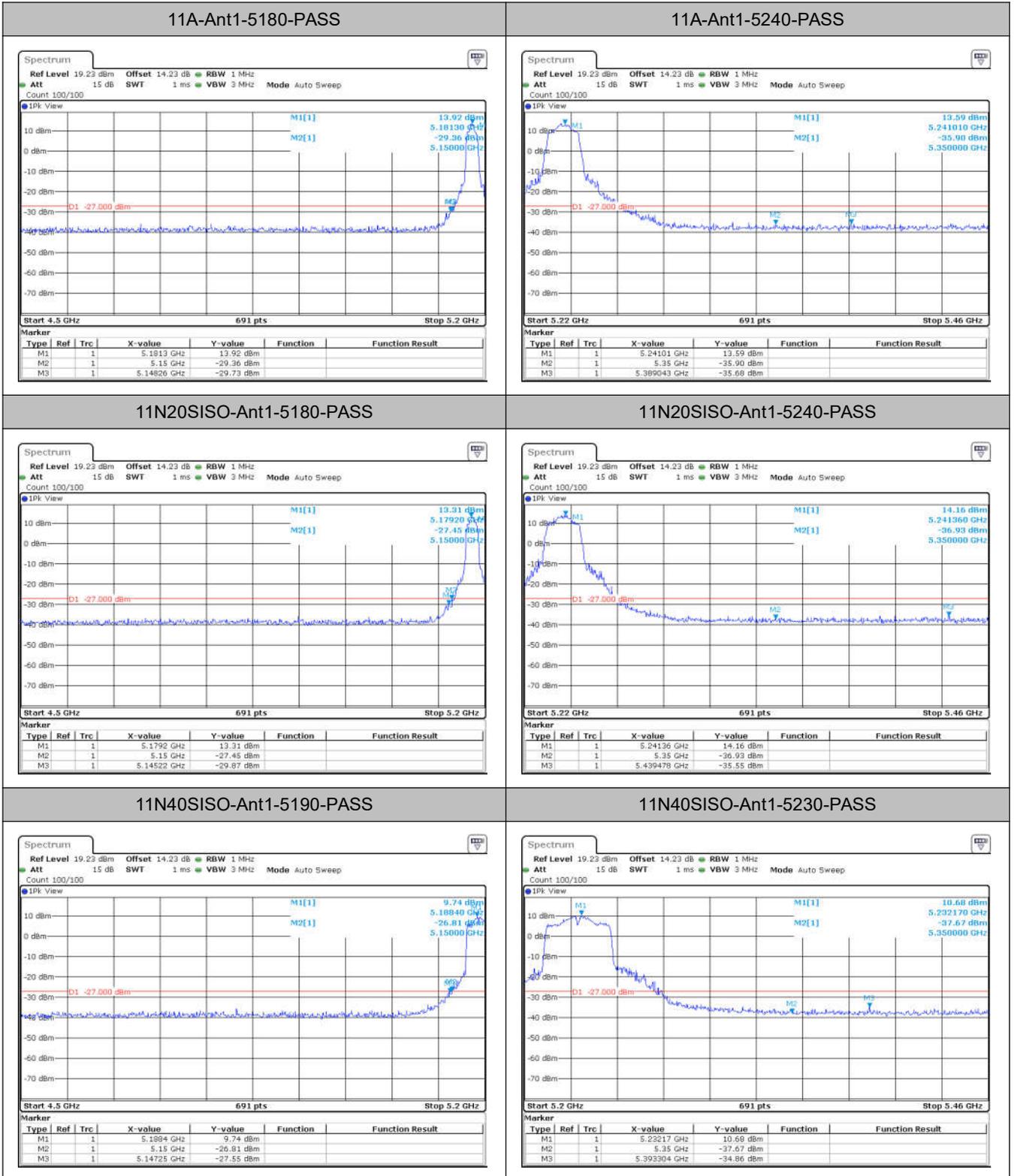
Test Mode	Antenna	Frequency[MHz]	Voltage [Vdc]	Temperature (°C)	Deviation (Hz)	Deviation (ppm)	Limit (ppm)	Verdict
11A	Ant1	5745	NV	NT	40000.00	6.962576	20	PASS
11A	Ant1	5745	LV	NT	60000.00	10.443864	20	PASS
11A	Ant1	5745	HV	NT	40000.00	6.962576	20	PASS

Test Mode	Antenna	Frequency[MHz]	Voltage [Vdc]	Temperature (°C)	Deviation (Hz)	Deviation (ppm)	Limit (ppm)	Verdict
11A	Ant1	5745	NV	-30	60000.00	10.443864	20	PASS
11A	Ant1	5745	NV	-20	60000.00	10.443864	20	PASS
11A	Ant1	5745	NV	-10	20000.00	3.481288	20	PASS
11A	Ant1	5745	NV	0	60000.00	10.443864	20	PASS
11A	Ant1	5745	NV	10	20000.00	3.481288	20	PASS
11A	Ant1	5745	NV	20	40000.00	6.962576	20	PASS
11A	Ant1	5745	NV	30	80000.00	13.925152	20	PASS
11A	Ant1	5745	NV	40	40000.00	6.962576	20	PASS
11A	Ant1	5745	NV	50	40000.00	6.962576	20	PASS

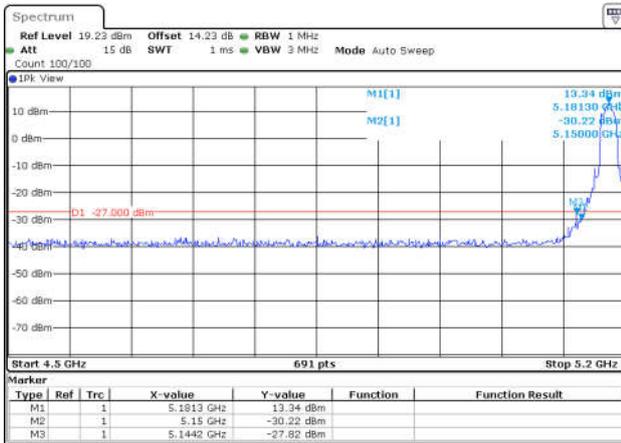
Note 1: All of the EUT Configure Mode were tested, the worst case is recorded in this report.

# Conducted Band Edges

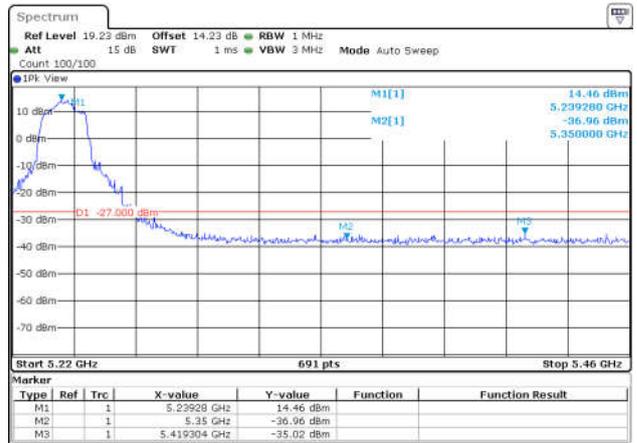
## Test Result and Data



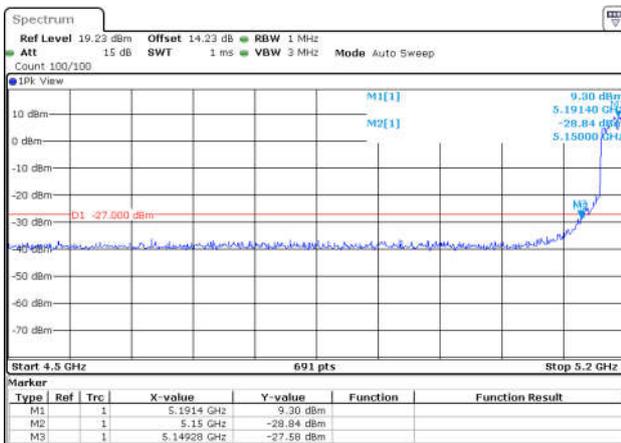
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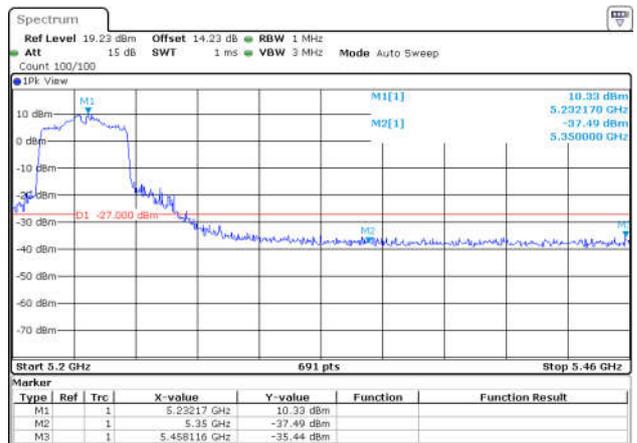
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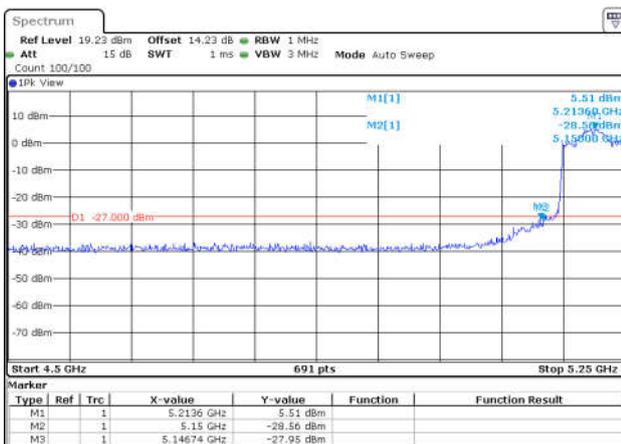
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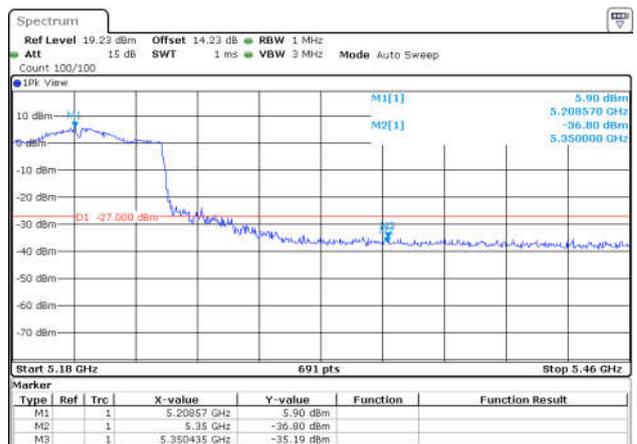
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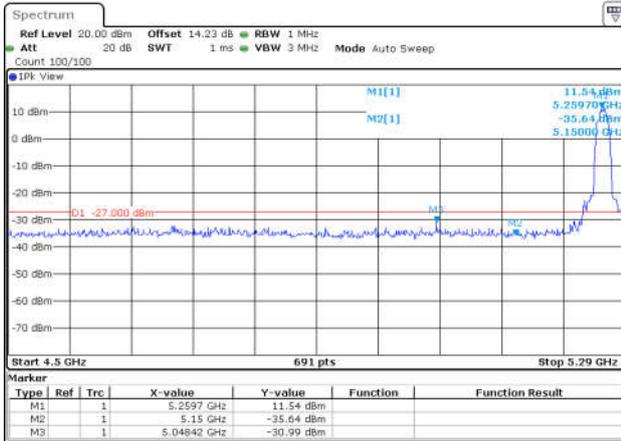
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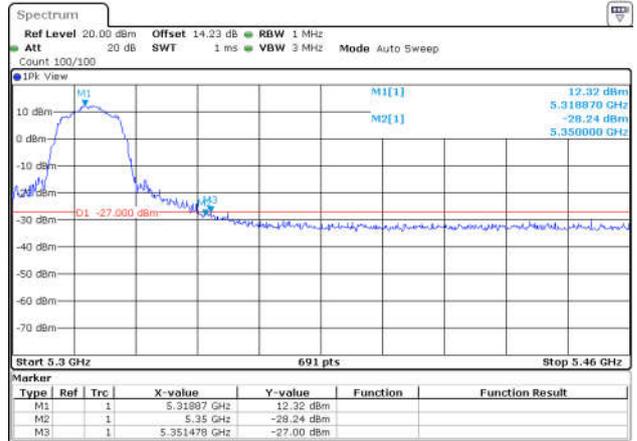
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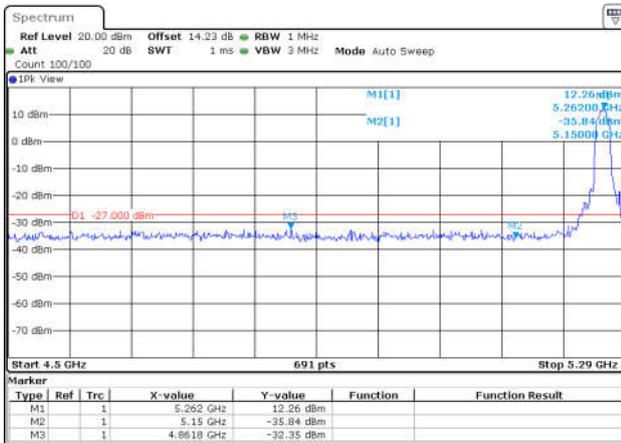
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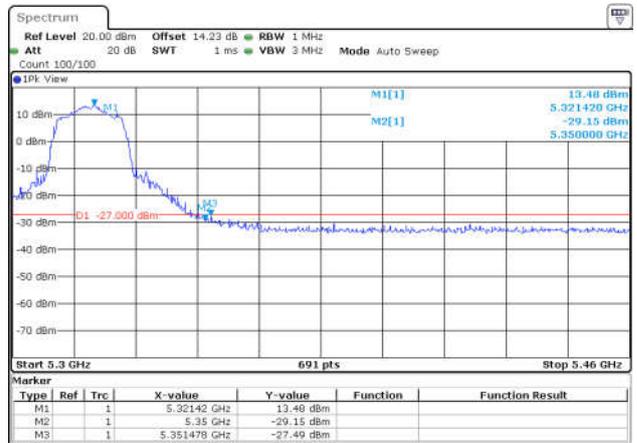
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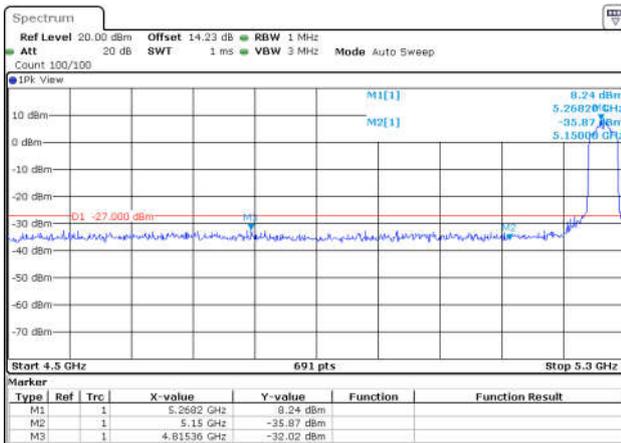
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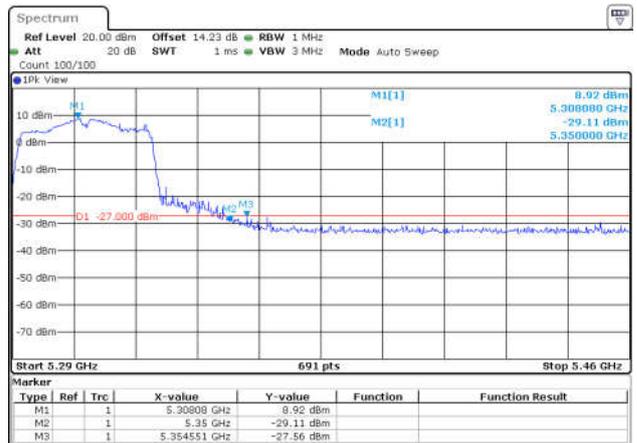
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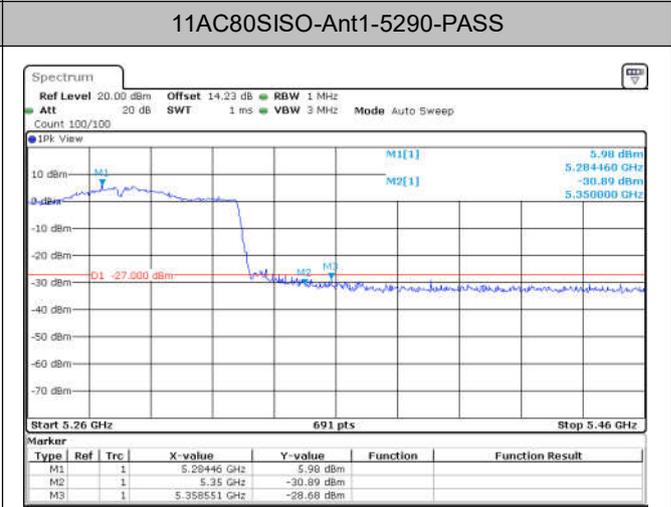
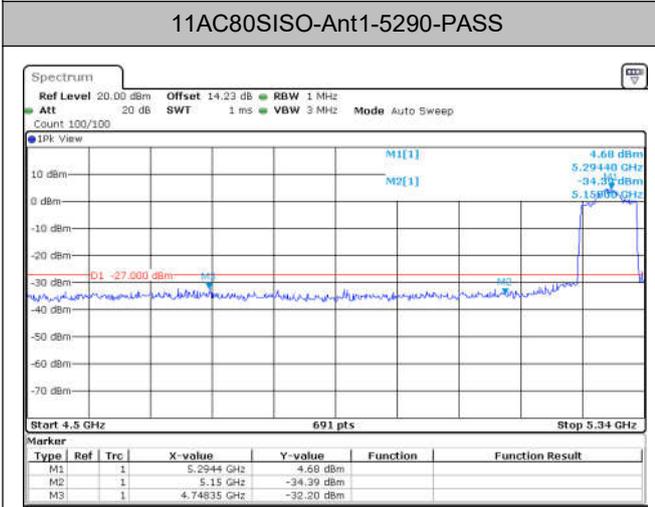
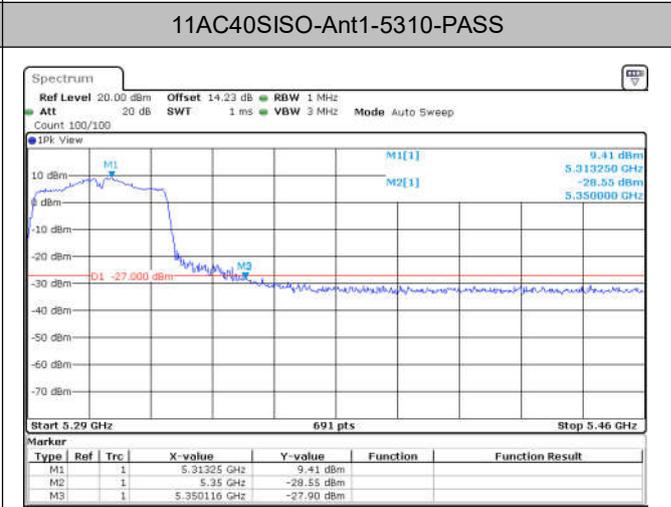
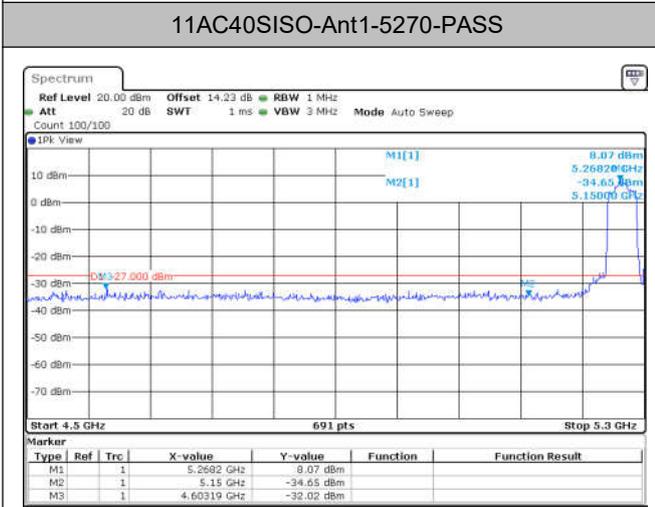
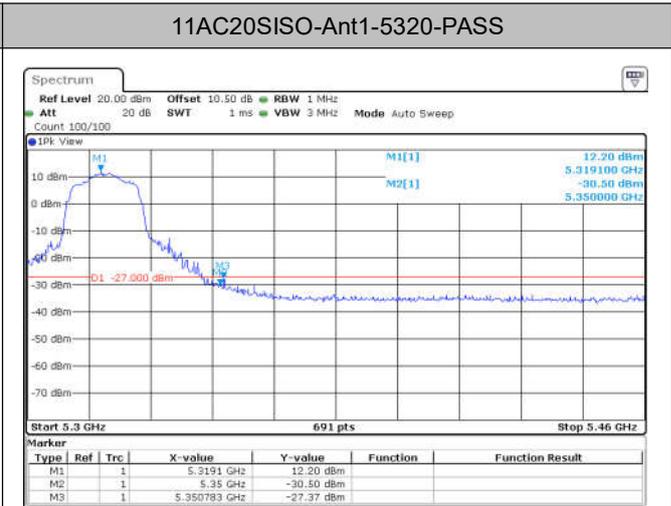
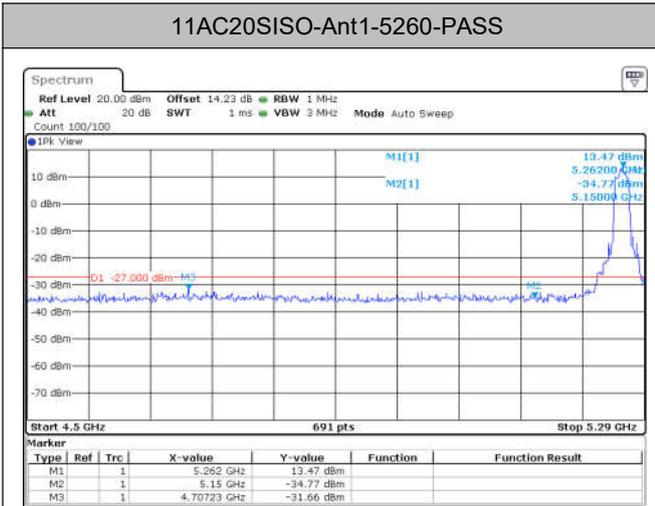


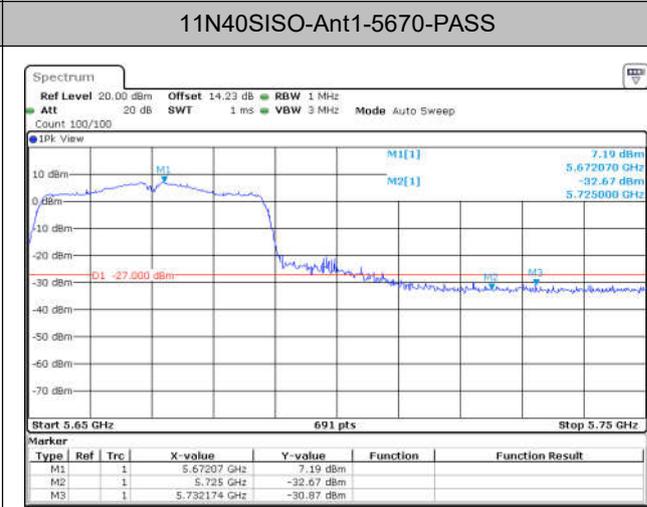
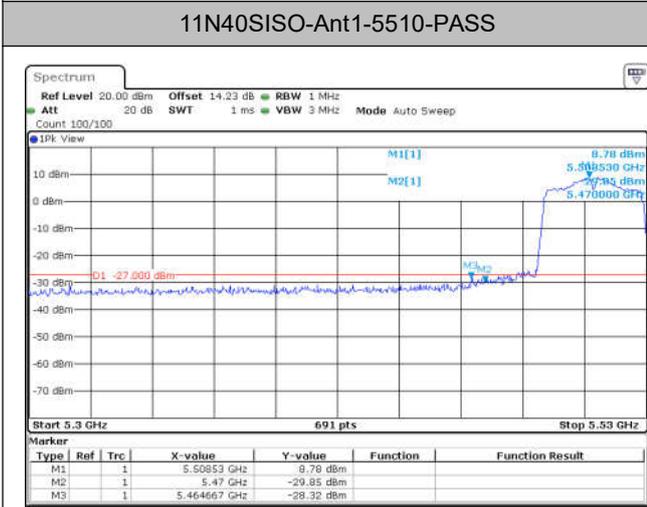
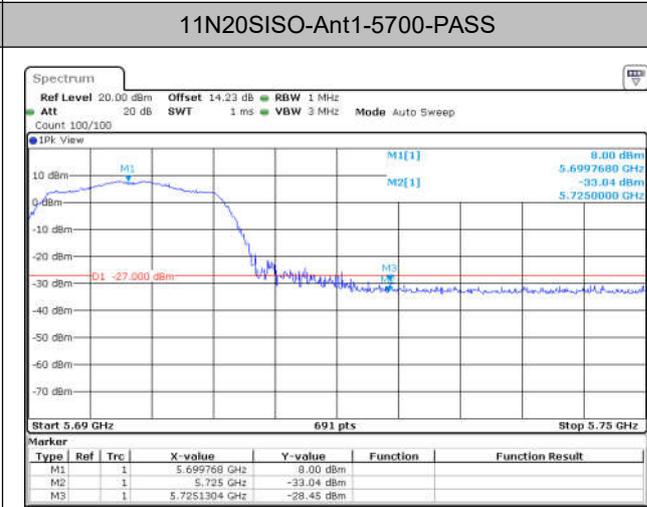
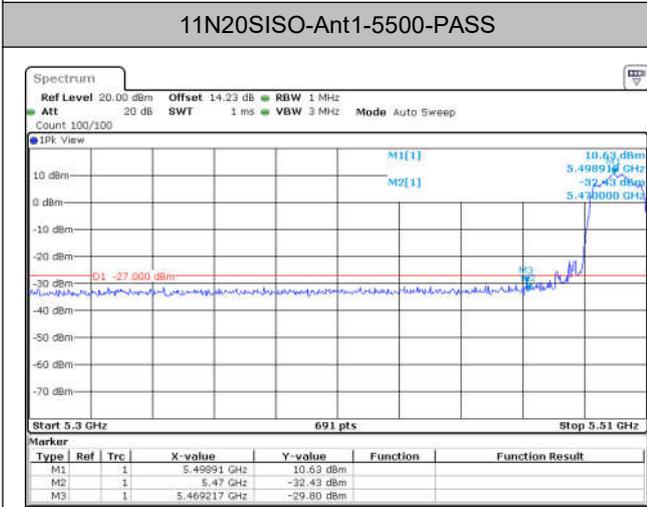
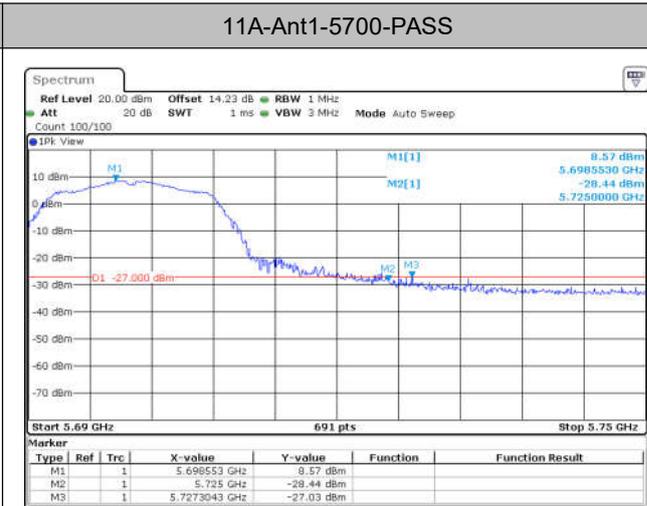
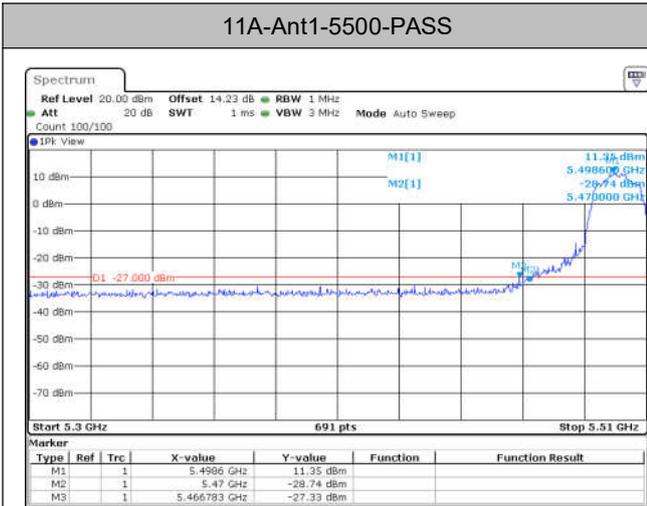
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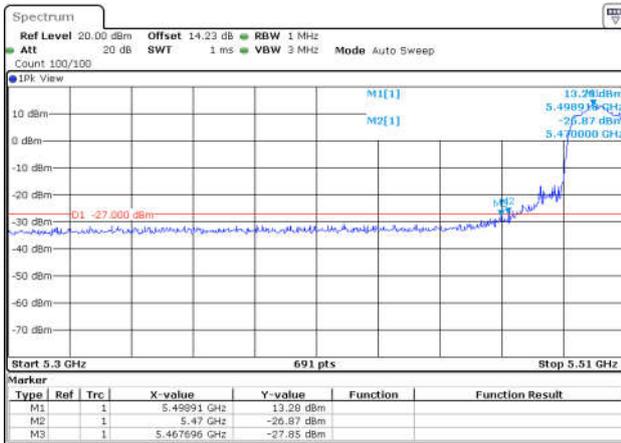
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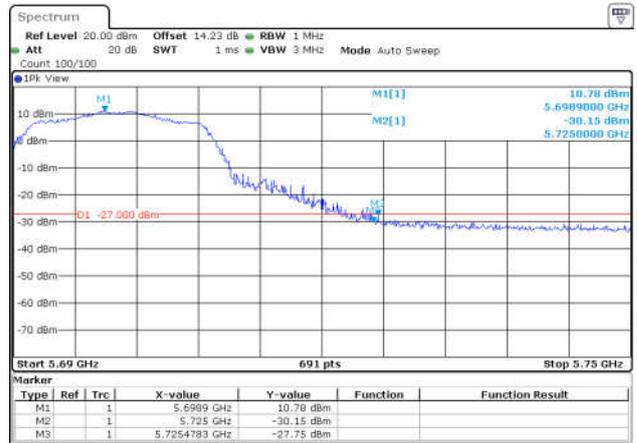




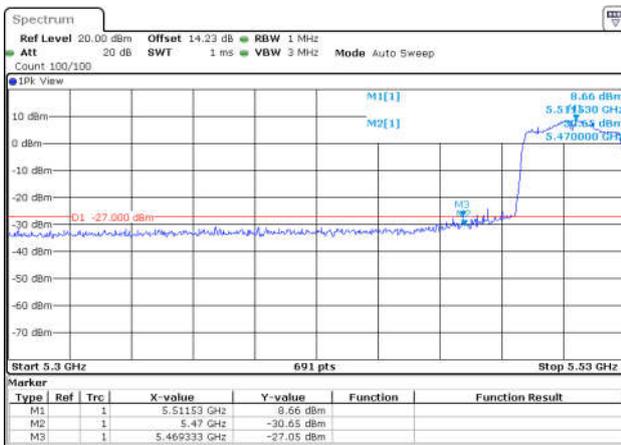
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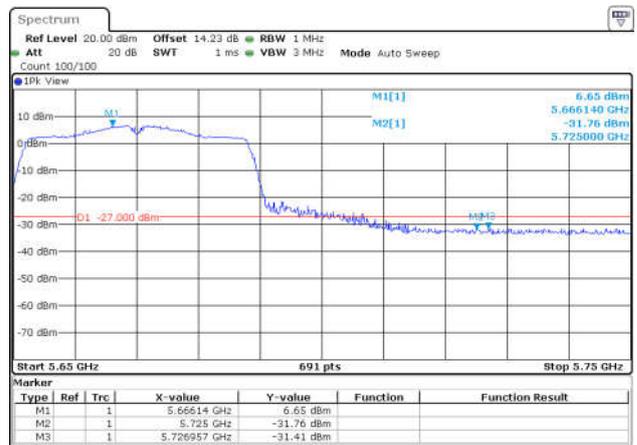
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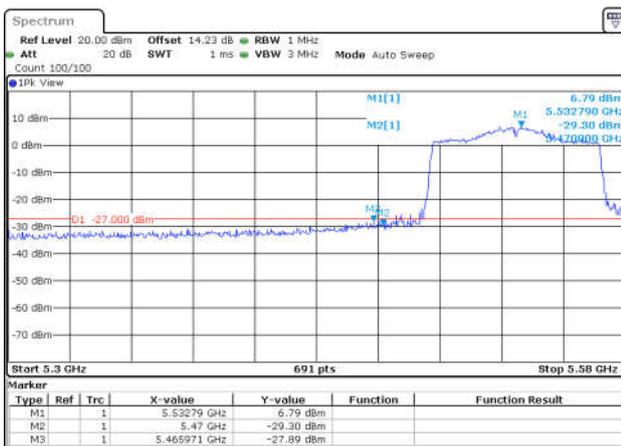
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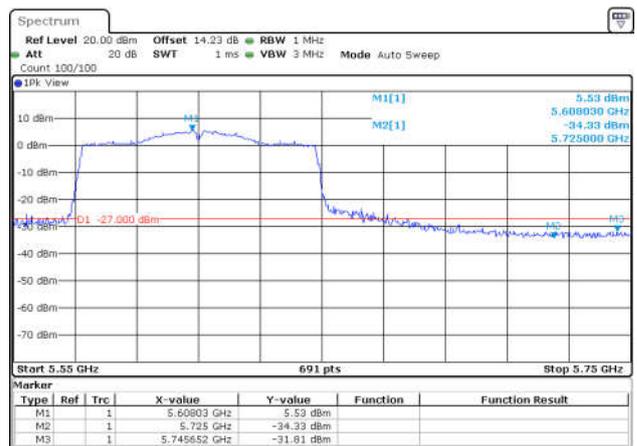
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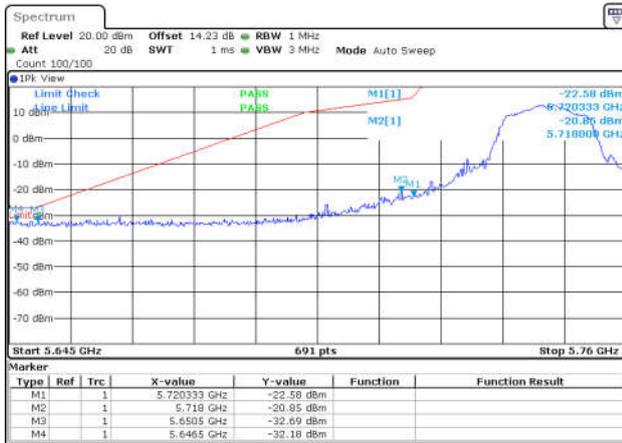
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11AC80SISO-Ant1-5610-PASS



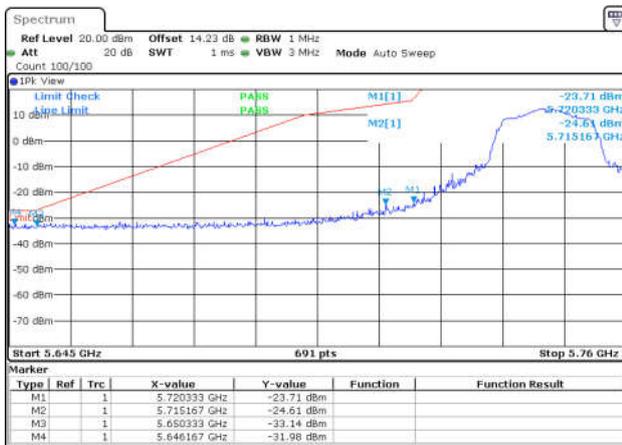
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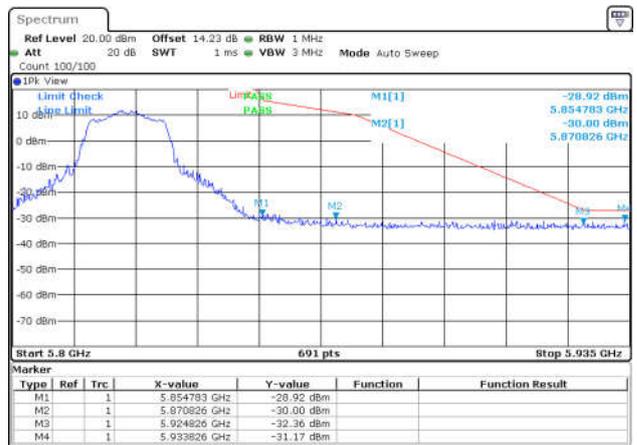
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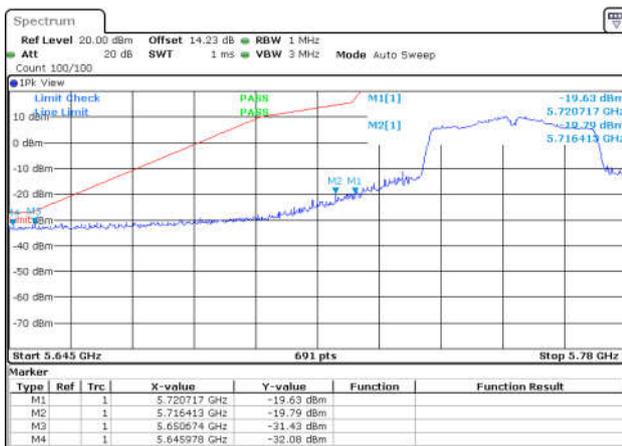
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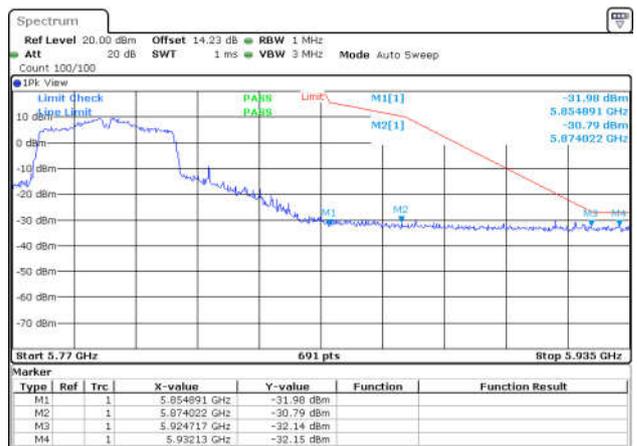
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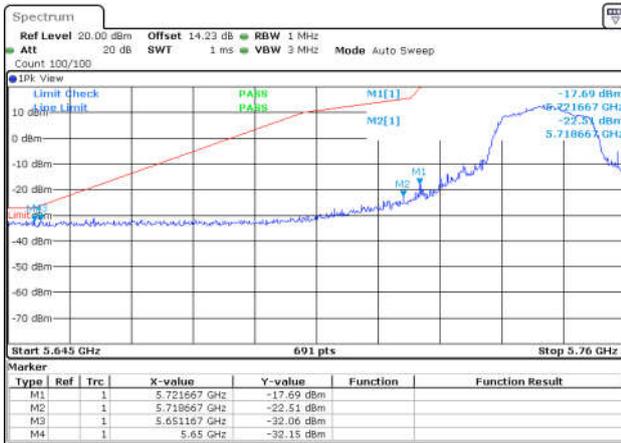


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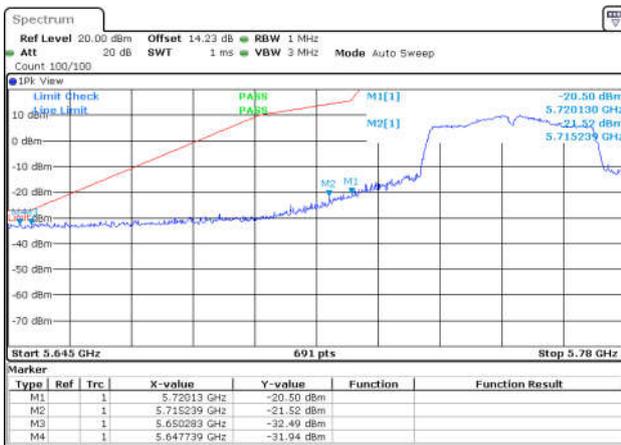
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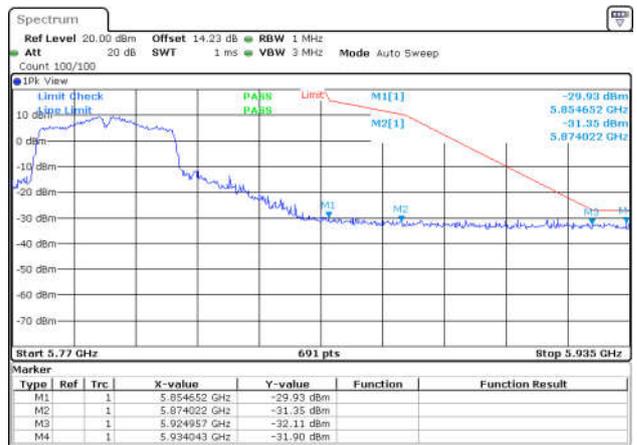
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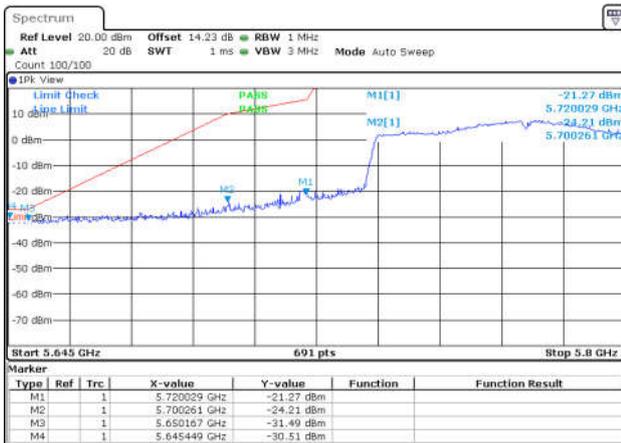
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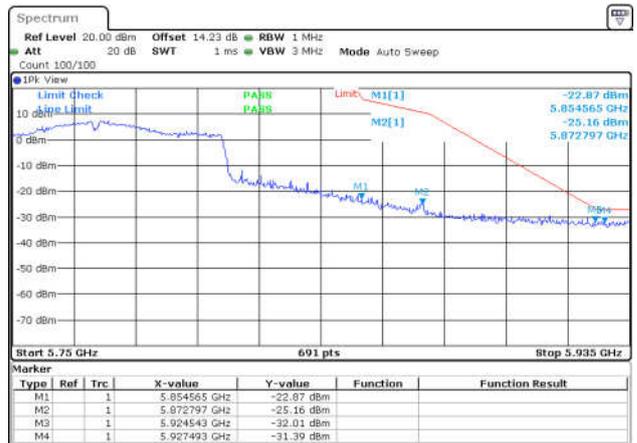
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11AC80SISO-Ant1-5775-PASS



11AC80SISO-Ant1-5775-PASS



\*\* END OF REPORT \*\*