RF TEST REPORT

Report No.: 20250217G03102X-W5

Product Name: SOLIS GO

Model No.: SGO24

FCC ID: 2A9UP-SOL24PB

Applicant: SIMO Holdings Inc.

Address: PO.Box PO.Box 309, Ugland House, GrandCayman, KY1-1104, Cayman Islands

Dates of Testing: 04/17/2024 - 05/31/2024
02/25/2025 - 03/21/2025

Issued by: CCIC Southern Testing Co., Ltd.

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Test Report

Product.....:	SOLIS GO
Brand Name.....:	N/A
Trade Name .....:	
Applicant.....:	SIMO Holdings Inc.
Applicant Address.....:	PO.Box PO.Box 309, Ugland House, GrandCayman, KY1-1104, Cayman Islands
Manufacturer.....:	SIMO Holdings Inc.
Manufacturer Address.....:	PO.Box PO.Box 309, Ugland House, GrandCayman, KY1-1104, Cayman Islands
Test Standards.....:	47 CFR Part 15 Subpart E 15.407 ANSI C63.10-2013
Test Result.....:	Pass
Tested by .....:	Chuiwang Zhang 2025.03.21 Chuiwang Zhang, Test Engineer
Reviewed by.....:	Sun Jiaohui 2025.03.21 Sun Jiaohui, Senior Engineer
Approved by.....:	Chris You 2025.03.21 Chris You, Manager

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Change History		
Issue	Date	Reason for change
1.0	2025.03.21	First edition

1. GENERAL INFORMATION

1.1. EUT Description

Product Name	SOLIS GO
EUT supports Radios application	WLAN5.0GHz 802.11a/n/ac
Product Type	Outdoor Access Point
Modulation Type	802.11a/n/ac: OFDM (BPSK/QPSK/16QAM/64QAM)
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-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-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	1.41dBi
Output Power (Max.)	UNII-1: 9.62dBm UNII-3: 7.82dBm
Power supply	Rechargeable Li-ion Battery DC3.8V/8000mAh

Note 1: For model differences, the electrical circuit design, layout, components used and internal wiring, with only difference in model name.

Note 2: This report is based on the original report 20240417G06548X-W5. EUT Batteries were changed from single cell to dual cell, and conducted nuisance and radiated spurious were re-tested in accordance with the change in EUT.

1.2. Test Standards and Results

The objective of the report is to perform testing according to below standards for the EUT FCC ID Certification:

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	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 15.407(a)	Antenna Requirement	PASS
2	15.407(a)(1)(iv) 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)(3)(i)	Power spectral density (PSD)	PASS
6	15.207	AC Power Line Conducted Emission	PASS
7	15.205 15.209 15.407(b)	Radiated Band Edges and Spurious Emission	PASS
8	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(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 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:

Operating Environment	
Temperature	15°C - 35°C
Humidity	30% -60%
Atmospheric Pressure	86kPa-106kPa

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 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 A 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 A 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

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

1.1. 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)(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	SOLIS GO	UNII-1,UNII-3	Internal Antenna	1.41dBi

2.1.3. Result: comply

The EUT has a unique antenna connector. 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)

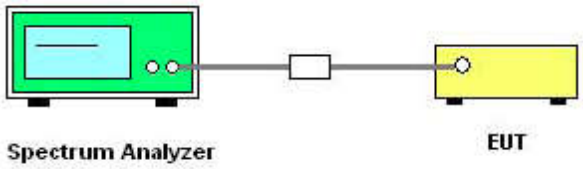
The maximum conducted output power should not exceed:

Band	EUT Category	Limit
U-NII-1	☒ 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)
	☐ 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-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 of KDB 789033 D02 v02r01 Section II.E.2.b and ANSI C63.10-2013 Section 12.3.2.2.
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 ≥ 2 × span / 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)

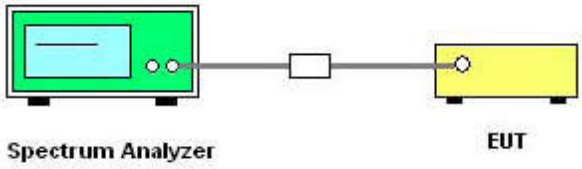
The maximum power spectral density should not exceed:

Band	EUT Category	Limit
U-NII-1	☒ Outdoor Access Point	17 dBm/MHz
	☐ Fixed point-to-point Access device	
	☐ Indoor Access Point	
	☐ Mobile and portable client device	11 dBm/MHz
U-NII-3	☒	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 C63.10-2013 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. Set span to encompass the entire 99% OBW of the signal.
4. For U-NII-1 Band: Set RBW = 1MHz, VBW ≥ 3MHz, Sweep time = Auto, Detector = power averaging (RMS).
5. For U-NII-3 Band: Set RBW = 500kHz, VBW ≥ 3MHz, Sweep time = Auto, Detector = power averaging (RMS).
6. Number of points in sweep ≥ 2 × 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. Emission Bandwidth and Occupied Bandwidth

2.4.1. Limit of Emission Bandwidth and Occupied Bandwidth

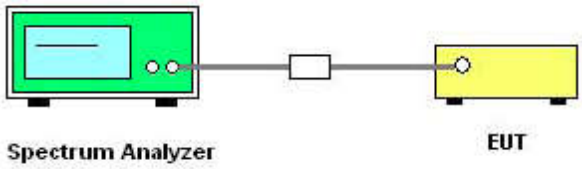
26dB Emission Bandwidth and 99% Occupied Bandwidth no Bandwidth limit.

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 C63.10-2013 Section 12.4.
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 ≥ 3 × RBW.
7. For 6dB EBW Measurement:
   Set RBW =100kHz, VBW ≥ 3 × 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 Emission Bandwidth and Occupied Bandwidth

Please refer to APPENDIX A for detail.

2.5. Frequency Stability

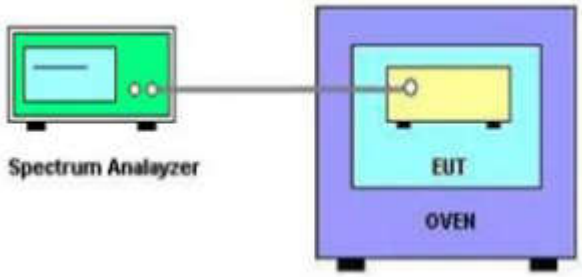
2.5.1. Limit of Frequency Stability

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 C63.10-2013 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 (μV/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 (dBμV/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) EIRP[dBm] = E[dBμV/m] + 20 log (d[m]) - 104.77, d is the measurement distance in m.
2) E[dBμV/m] = EIRP[dBm] + 95.2=68.2 dBuV/m, for EIPR[dBm] = -27dBm.
   E[dBμV/m] = EIRP[dBm] + 95.2=105.2 dBuV/m, for EIPR[dBm] = 10dBm.
   E[dBμV/m] = EIRP[dBm] + 95.2=110.8 dBuV/m, for EIPR[dBm] = 15.6dBm.
   E[dBμV/m] = EIRP[dBm] + 95.2=122.2 dBuV/m, for EIPR[dBm] = 27dBm.

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).

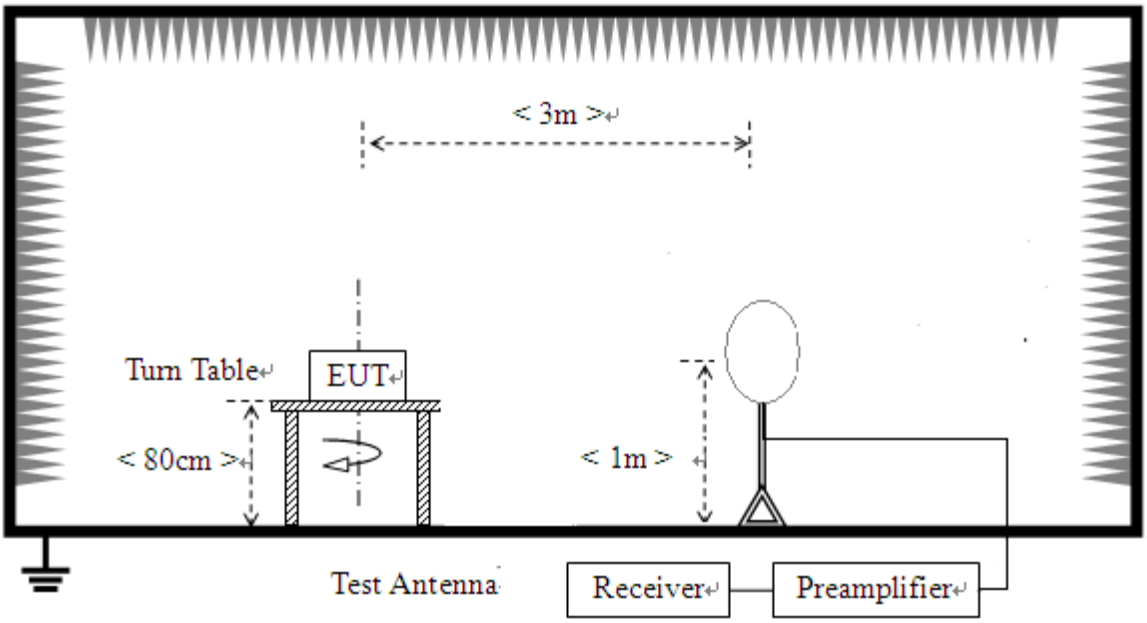
MHz	MHz	MHz	GHz
0.090-0.110	16.42-16.423	399.9-410	4.5-5.15
[1]0.495-0.505	16.69475-16.69525	608-614	5.35-5.46
2.1735-2.1905	16.80425-16.80475	960-1240	7.25-7.75
4.125-4.128	25.5-25.67	1300-1427	8.025-8.5
4.17725-4.17775	37.5-38.25	1435-1626.5	9.0-9.2
4.20725-4.20775	73-74.6	1645.5-1646.5	9.3-9.5
6.215-6.218	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	([2])
13.36-13.41	/	/	/
Note: [1]Until February 1, 1999, this restricted band shall be 0.490-0.510 MHz. [2]Above 38.6.			

2.6.2. Measuring Instruments

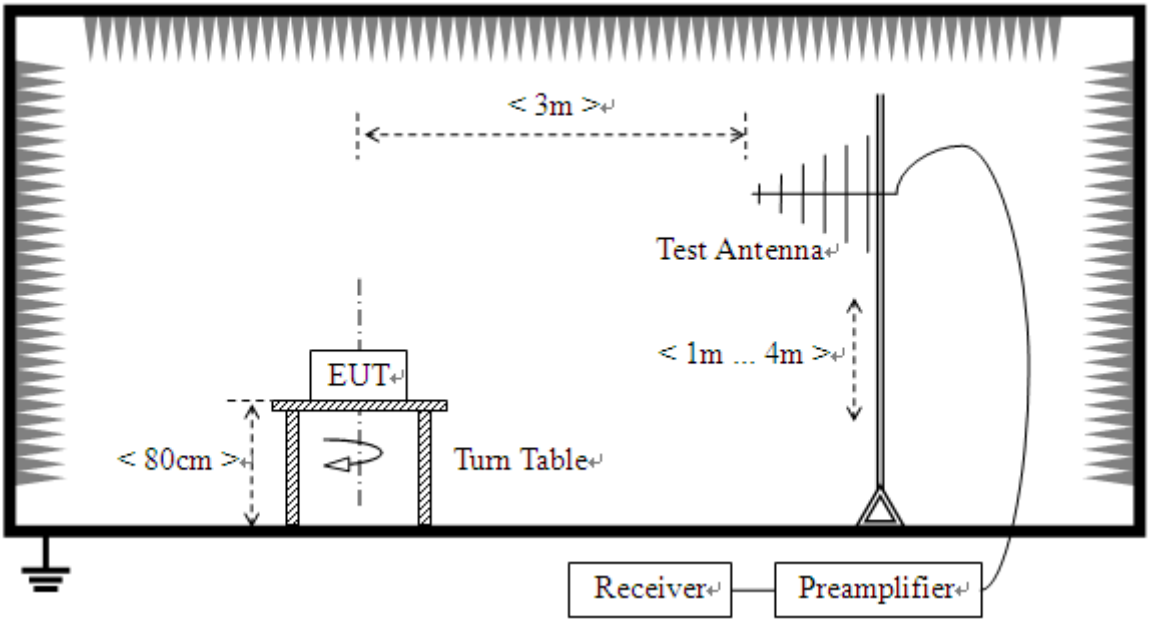
The measuring equipment is listed in the section 3 of this test report.

2.6.3. Test Setup

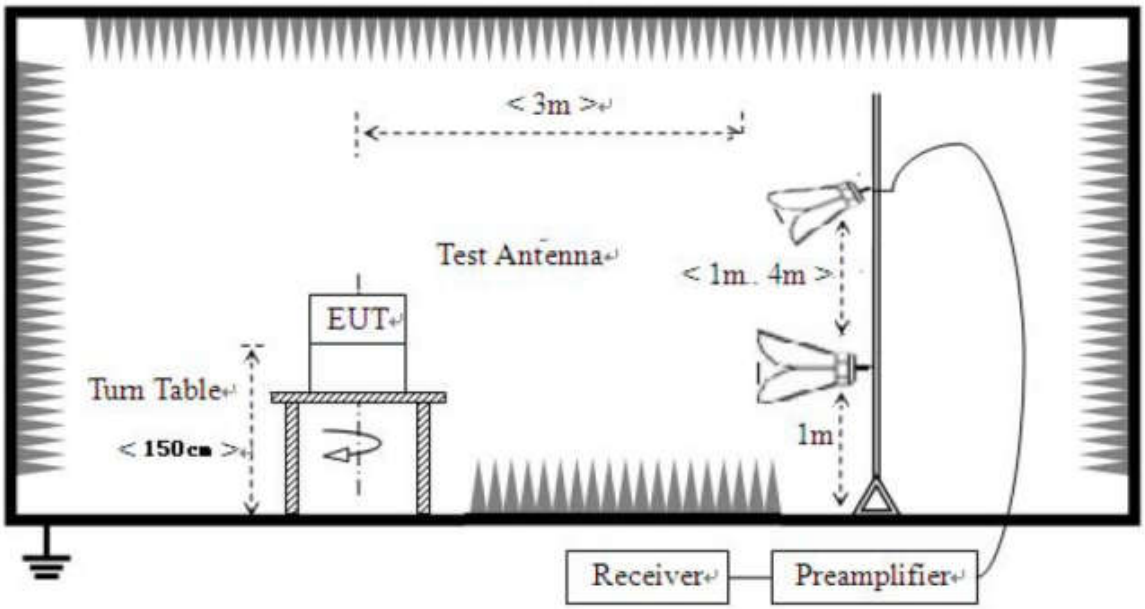
For radiated emissions from 9 kHz to 30 MHz



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/duty cycle)).
4. The resolution bandwidth of test receiver/spectrum analyzer is 1MHz and the video bandwidth is 10Hz (Duty cycle ≥ 98%) for Average detection (AV) at frequency above 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.

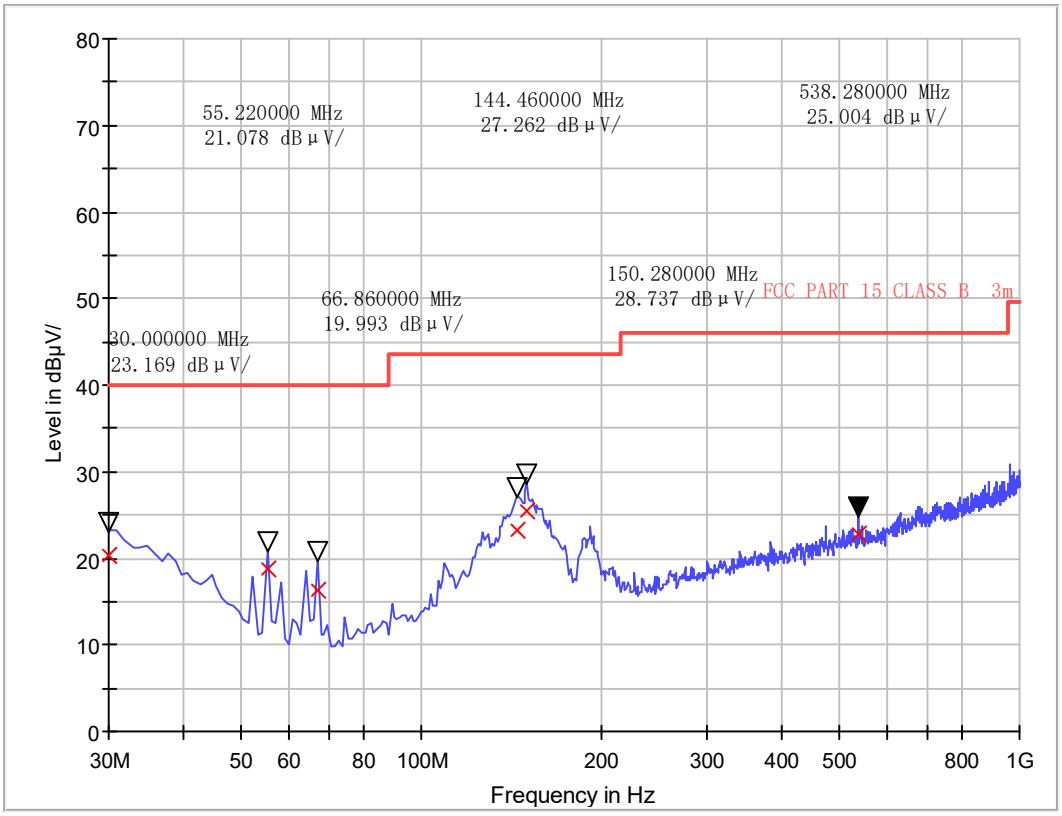
For 30MHz to 1GHz, All of the EUT Configure mode were tested and found 802.11a_5180MHz channel is the worst mode, the worst case is recorded in this report.

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℃; Humi:48%;101kPa
Operator:	Huang Chaoming	Test Date:	2024.04.30
Test Mode:	5G WIFI - TX	Test Result:	Pass

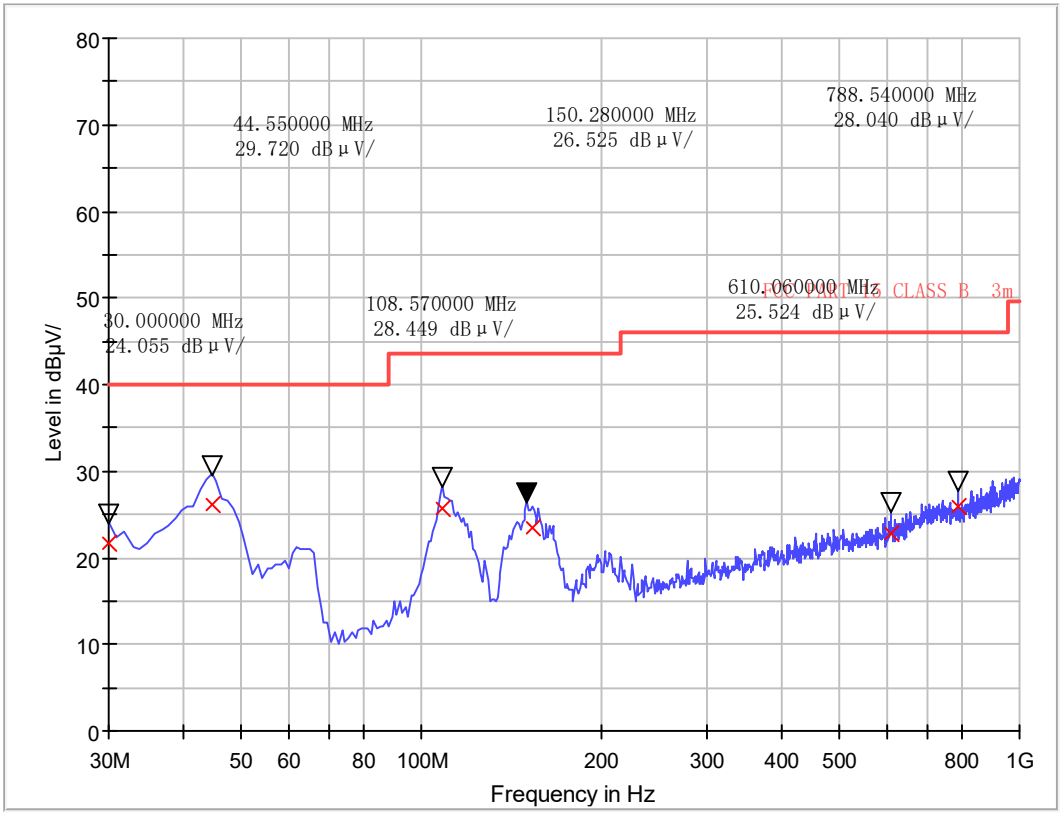


Frequency (MHz)	QuasiPeak (dBμV/m)	Bandwidth (kHz)	Height (cm)	Polarity	Corr. (dB/m)	Margin - QPK (dB)	Limit - QPK (dBμV/m)
30.000000	20.43	120.000	100.0	H	19.4	19.57	40.0
55.200000	18.84	120.000	100.0	H	7.1	21.16	40.0
66.840000	16.25	120.000	100.0	H	6.1	23.75	40.0
144.440000	23.13	120.000	100.0	H	11.9	20.37	43.5
150.280000	25.44	120.000	100.0	H	12.1	18.06	43.5
538.280000	22.89	120.000	100.0	H	18.5	23.11	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.

Test site:	3M anechoic chamber	Environment:	Temp: 23℃; Humi:48%;101kPa
Operator:	Huang Chaoming	Test Date:	2024.04.30
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	21.62	120.000	100.0	V	19.4	18.38	40.0
44.560000	26.05	120.000	100.0	V	11.7	13.95	40.0
108.560000	25.71	120.000	100.0	V	10.6	17.79	43.5
153.200000	23.45	120.000	100.0	V	12.1	20.05	43.5
610.040000	22.87	120.000	100.0	V	19.1	23.13	46.0
788.520000	26.00	120.000	100.0	V	21.6	20.00	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)	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	51.19	68.20	-17.01	1.50	200	50.75	0.44	Horizontal	Peak
5150.00	40.78	54.00	-13.22	1.50	200	40.34	0.44	Horizontal	Average
10360.00	51.54	68.20	-16.66	1.50	200	41.08	10.46	Horizontal	Peak
10360.00	42.88	54.00	-11.12	1.50	200	32.42	10.46	Horizontal	Average
5150.00	51.42	68.20	-16.78	1.50	180	50.98	0.44	Vertical	Peak
5150.00	40.88	54.00	-13.12	1.50	180	40.44	0.44	Vertical	Average
10360.00	52.50	68.20	-15.70	1.50	180	42.04	10.46	Vertical	Peak
10360.00	43.16	54.00	-10.84	1.50	180	32.70	10.46	Vertical	Average
U-NII-1_802.11a_5240MHz									
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	46.35	68.20	-21.85	1.50	200	46.10	0.25	Horizontal	Peak
5350.00	37.30	54.00	-16.70	1.50	200	37.05	0.25	Horizontal	Average
10480.00	52.64	68.20	-15.56	1.50	200	41.64	11.00	Horizontal	Peak
10480.00	43.14	54.00	-10.86	1.50	200	32.14	11.00	Horizontal	Average
5350.00	47.49	68.20	-20.71	1.50	180	47.24	0.25	Vertical	Peak
5350.00	37.59	54.00	-16.41	1.50	180	37.34	0.25	Vertical	Average
10480.00	52.82	68.20	-15.38	1.50	180	41.82	11.00	Vertical	Peak
10480.00	42.10	54.00	-11.90	1.50	180	31.10	11.00	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.

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	51.55	68.20	-16.65	1.50	200	51.11	0.44	Horizontal	Peak
5150.00	41.29	54.00	-12.71	1.50	200	40.85	0.44	Horizontal	Average
10380.00	51.22	68.20	-16.98	1.50	200	40.69	10.53	Horizontal	Peak
10380.00	42.81	54.00	-11.19	1.50	200	32.28	10.53	Horizontal	Average
5150.00	50.43	68.20	-17.77	1.50	180	49.99	0.44	Vertical	Peak
5150.00	41.14	54.00	-12.86	1.50	180	40.70	0.44	Vertical	Average
10380.00	53.05	68.20	-15.15	1.50	180	42.52	10.53	Vertical	Peak
10380.00	43.29	54.00	-10.71	1.50	180	32.76	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	46.97	68.20	-21.23	1.50	200	46.72	0.25	Horizontal	Peak
5350.00	38.19	54.00	-15.81	1.50	200	37.94	0.25	Horizontal	Average
10460.00	52.47	68.20	-15.73	1.50	200	41.56	10.91	Horizontal	Peak
10460.00	43.48	54.00	-10.52	1.50	200	32.57	10.91	Horizontal	Average
5350.00	47.13	68.20	-21.07	1.50	180	46.88	0.25	Vertical	Peak
5350.00	37.72	54.00	-16.28	1.50	180	37.47	0.25	Vertical	Average
10460.00	52.68	68.20	-15.52	1.50	180	41.77	10.91	Vertical	Peak
10460.00	42.31	54.00	-11.69	1.50	180	31.40	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.

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	51.51	68.20	-16.69	1.50	200	51.07	0.44	Horizontal	Peak
5150.00	41.90	54.00	-12.10	1.50	200	41.46	0.44	Horizontal	Average
5350.00	46.96	68.20	-21.24	1.50	200	46.71	0.25	Horizontal	Peak
5350.00	38.38	54.00	-15.62	1.50	200	38.13	0.25	Horizontal	Average
10420.00	52.10	68.20	-16.10	1.50	200	41.39	10.71	Horizontal	Peak
10420.00	43.60	54.00	-10.40	1.50	200	32.89	10.71	Horizontal	Average
5150.00	50.41	68.20	-17.79	1.50	180	49.97	0.44	Vertical	Peak
5150.00	41.60	54.00	-12.40	1.50	180	41.16	0.44	Vertical	Average
5350.00	46.77	68.20	-21.43	1.50	180	46.52	0.25	Vertical	Peak
5350.00	37.66	54.00	-16.34	1.50	180	37.41	0.25	Vertical	Average
10420.00	52.30	68.20	-15.90	1.50	180	41.59	10.71	Vertical	Peak
10420.00	41.98	54.00	-12.02	1.50	180	31.27	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.

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	50.86	68.20	-17.34	1.50	200	50.06	0.80	Horizontal	Peak
5700.00	51.92	105.20	-53.28	1.50	200	50.68	1.24	Horizontal	Peak
5720.00	51.00	110.80	-59.80	1.50	200	49.72	1.28	Horizontal	Peak
5725.00	52.96	122.20	-69.24	1.50	200	51.66	1.30	Horizontal	Peak
11490.00	52.91	68.20	-15.29	1.50	200	41.36	11.55	Horizontal	Peak
11490.00	42.49	54.00	-11.51	1.50	200	30.94	11.55	Horizontal	Average
5650.00	50.91	68.20	-17.29	1.50	180	50.11	0.80	Vertical	Peak
5700.00	51.59	105.20	-53.61	1.50	180	50.35	1.24	Vertical	Peak
5720.00	51.81	110.80	-58.99	1.50	180	50.53	1.28	Vertical	Peak
5725.00	50.30	122.20	-71.90	1.50	180	49.00	1.30	Vertical	Peak
11490.00	52.16	68.20	-16.04	1.50	180	40.61	11.55	Vertical	Peak
11490.00	42.93	54.00	-11.07	1.50	180	31.38	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	51.94	122.20	-70.26	1.50	200	50.12	1.82	Horizontal	Peak
5855.00	51.10	110.80	-59.70	1.50	200	49.25	1.85	Horizontal	Peak
5875.00	51.14	105.20	-54.06	1.50	200	49.16	1.98	Horizontal	Peak
5925.00	51.89	68.20	-16.31	1.50	200	49.77	2.12	Horizontal	Peak
11650.00	53.52	68.20	-14.68	1.50	200	41.88	11.64	Horizontal	Peak
11650.00	42.38	54.00	-11.62	1.50	200	30.74	11.64	Horizontal	Average
5850.00	50.93	122.20	-71.27	1.50	180	49.11	1.82	Vertical	Peak
5855.00	52.65	110.80	-58.15	1.50	180	50.80	1.85	Vertical	Peak
5875.00	51.37	105.20	-53.83	1.50	180	49.39	1.98	Vertical	Peak
5925.00	52.32	68.20	-15.88	1.50	180	50.20	2.12	Vertical	Peak
11650.00	51.58	68.20	-16.62	1.50	180	39.94	11.64	Vertical	Peak
11650.00	43.42	54.00	-10.58	1.50	180	31.78	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.

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	50.90	68.20	-17.30	1.50	200	50.10	0.80	Horizontal	Peak
5700.00	51.37	105.20	-53.83	1.50	200	50.13	1.24	Horizontal	Peak
5720.00	50.75	110.80	-60.05	1.50	200	49.47	1.28	Horizontal	Peak
5725.00	53.36	122.20	-68.84	1.50	200	52.06	1.30	Horizontal	Peak
11510.00	52.70	68.20	-15.50	1.50	200	41.14	11.56	Horizontal	Peak
11510.00	43.02	54.00	-10.98	1.50	200	31.46	11.56	Horizontal	Average
5650.00	50.66	68.20	-17.54	1.50	180	49.86	0.80	Vertical	Peak
5700.00	51.95	105.20	-53.25	1.50	180	50.71	1.24	Vertical	Peak
5720.00	52.13	110.80	-58.67	1.50	180	50.85	1.28	Vertical	Peak
5725.00	49.84	122.20	-72.36	1.50	180	48.54	1.30	Vertical	Peak
11510.00	51.71	68.20	-16.49	1.50	180	40.15	11.56	Vertical	Peak
11510.00	41.85	54.00	-12.15	1.50	180	30.29	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	51.60	122.20	-70.60	1.50	200	49.78	1.82	Horizontal	Peak
5855.00	51.06	110.80	-59.74	1.50	200	49.21	1.85	Horizontal	Peak
5875.00	50.69	105.20	-54.51	1.50	200	48.71	1.98	Horizontal	Peak
5925.00	52.14	68.20	-16.06	1.50	200	50.02	2.12	Horizontal	Peak
11590.00	53.45	68.20	-14.75	1.50	200	41.94	11.51	Horizontal	Peak
11590.00	42.39	54.00	-11.61	1.50	200	30.88	11.51	Horizontal	Average
5850.00	51.28	122.20	-70.92	1.50	180	49.46	1.82	Vertical	Peak
5855.00	53.19	110.80	-57.61	1.50	180	51.34	1.85	Vertical	Peak
5875.00	51.37	105.20	-53.83	1.50	180	49.39	1.98	Vertical	Peak
5925.00	51.91	68.20	-16.29	1.50	180	49.79	2.12	Vertical	Peak
11590.00	51.16	68.20	-17.04	1.50	180	39.65	11.51	Vertical	Peak
11590.00	43.10	54.00	-10.90	1.50	180	31.59	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.

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	50.66	68.20	-17.54	1.50	200	49.86	0.80	Horizontal	Peak
5700.00	51.25	105.20	-53.95	1.50	200	50.01	1.24	Horizontal	Peak
5720.00	50.01	110.80	-60.79	1.50	200	48.73	1.28	Horizontal	Peak
5725.00	52.98	122.20	-69.22	1.50	200	51.68	1.30	Horizontal	Peak
5850.00	50.97	122.20	-71.23	1.50	200	49.15	1.82	Horizontal	Peak
5855.00	51.97	110.80	-58.83	1.50	200	50.12	1.85	Horizontal	Peak
5875.00	52.54	105.20	-52.66	1.50	200	50.56	1.98	Horizontal	Peak
5925.00	49.73	68.20	-18.47	1.50	200	47.61	2.12	Horizontal	Peak
11550.00	51.26	68.20	-16.94	1.50	200	39.72	11.54	Horizontal	Peak
11550.00	42.20	54.00	-11.80	1.50	200	30.66	11.54	Horizontal	Average
5650.00	52.11	68.20	-16.09	1.50	180	51.31	0.80	Vertical	Peak
5700.00	50.88	105.20	-54.32	1.50	180	49.64	1.24	Vertical	Peak
5720.00	50.77	110.80	-60.03	1.50	180	49.49	1.28	Vertical	Peak
5725.00	52.21	122.20	-69.99	1.50	180	50.91	1.30	Vertical	Peak
5850.00	50.76	122.20	-71.44	1.50	180	48.94	1.82	Vertical	Peak
5855.00	52.80	110.80	-58.00	1.50	180	50.95	1.85	Vertical	Peak
5875.00	51.08	105.20	-54.12	1.50	180	49.10	1.98	Vertical	Peak
5925.00	52.55	68.20	-15.65	1.50	180	50.43	2.12	Vertical	Peak
11550.00	50.62	68.20	-17.58	1.50	180	39.08	11.54	Vertical	Peak
11550.00	43.55	54.00	-10.45	1.50	180	32.01	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.

2.7. AC Power Line Conducted Emission

2.7.1. Limit of AC Power Line Conducted Emission

FCC Part 15.207:

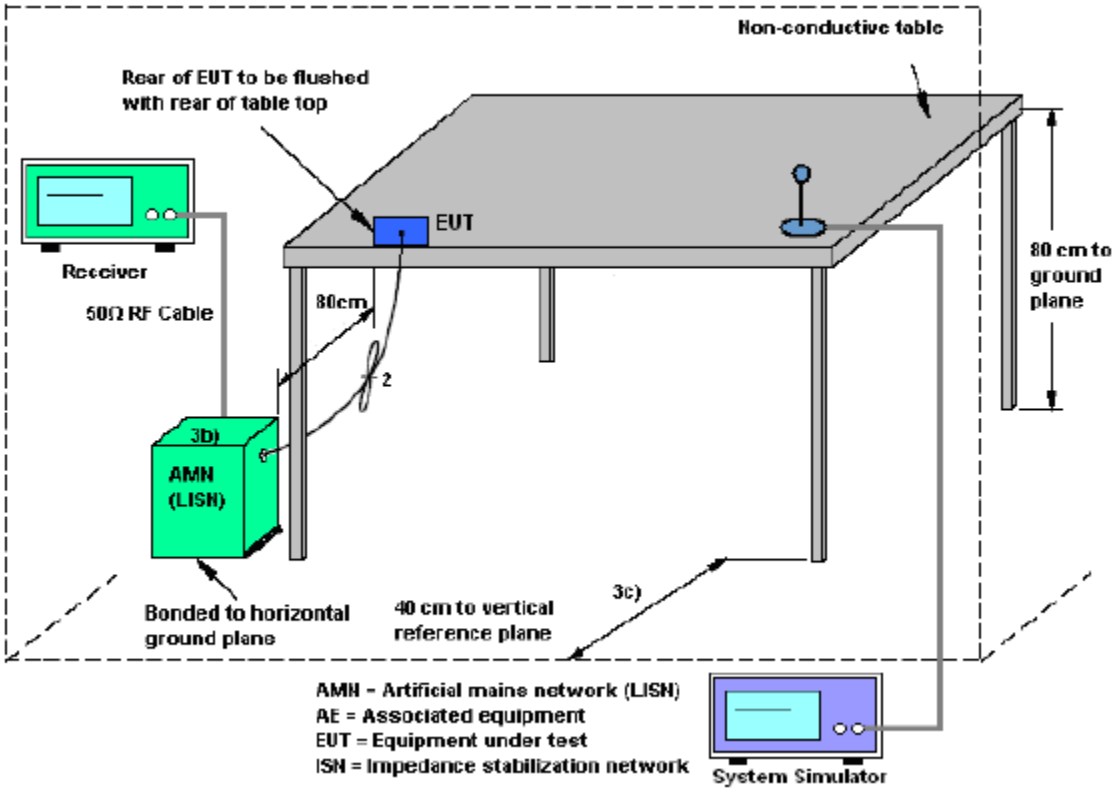
For equipment that is designed to be connected to the public utility (AC) power line, the radio frequency voltage that is conducted back onto the AC power line on any frequency or frequencies within the band 150 kHz to 30 MHz shall not exceed the limits in the following table.

Frequency range (MHz)	Conducted Limit (dBμV)	
	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.

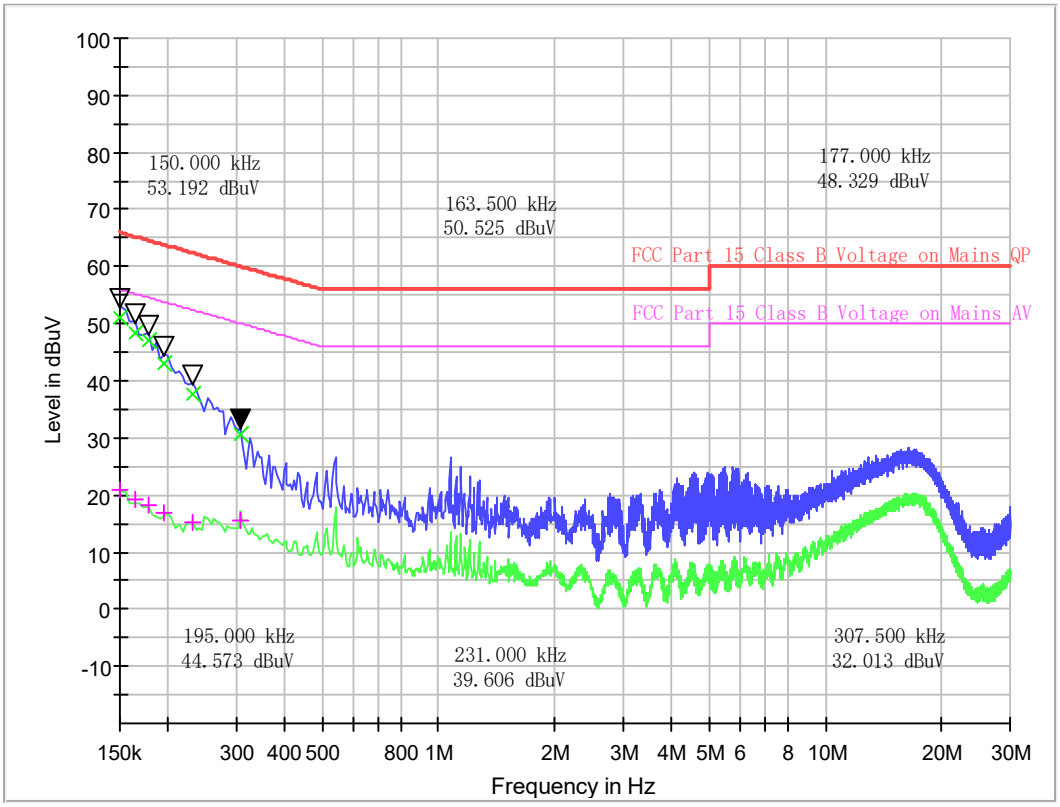
2.7.5. Test Result of AC Power Line Conducted Emission

The EUT configuration of the emission tests is 5G WLAN Link + USB DC 5V.

All of the EUT Configure mode were tested and found 802.11a_5180MHz channel is the worst mode, the worst case is recorded in this report.

Project Information

Test site:	Shield ROOM 1	Environment:	Temp: 23℃; Humi:53%;101kPa
Operator:	CAIFUJIE	Test Date:	2025.03.03
Test Mode:	5G WIFI - TX	Test Part:	L

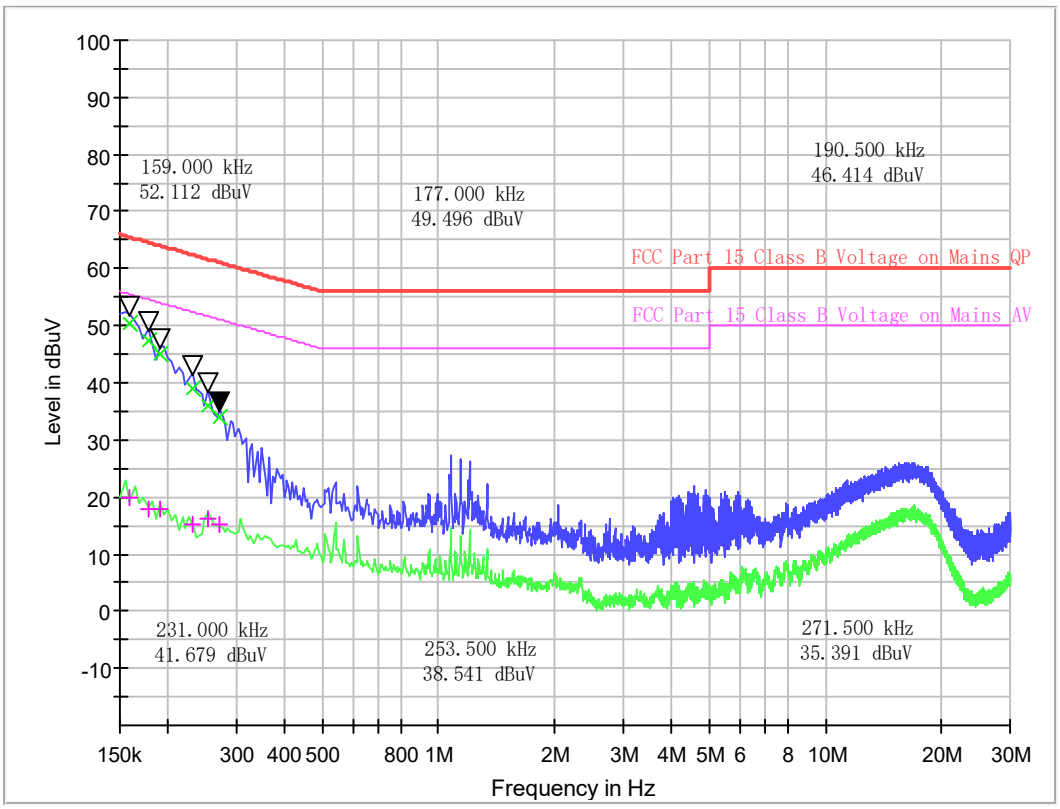


Frequency (MHz)	QuasiPeak (dBμV)	Average (dBμV)	Corr.Factor (dB)	Margin - QPK	Limit - QPK (dBμV)	Margin - AV (dB)	Limit - AV (dBμV)
0.150000	51.05	20.96	9.9	14.95	66.00	35.04	56.00
0.163500	48.43	19.36	9.9	16.86	65.28	35.93	55.28
0.177000	47.06	18.06	9.9	17.57	64.63	36.57	54.63
0.195000	42.89	16.80	9.9	20.93	63.82	37.02	53.82
0.231000	37.80	15.31	9.9	24.61	62.41	37.10	52.41
0.307500	30.62	15.40	9.9	29.41	60.04	34.64	50.04

Test Result : Pass

Note: Final Level = Receiver Read level + Correction factor.

Project Information			
Test site:	Shield ROOM 1	Environment:	Temp: 23℃; Humi:53%;101kPa
Operator:	CAIFUJIE	Test Date:	2025.03.03
Test Mode:	5G WIFI - TX	Test Part:	N



Frequency (MHz)	QuasiPeak (dBμV)	Average (dBμV)	Corr.Factor (dB)	Margin - QPK	Limit - QPK (dBμV)	Margin - AV (dB)	Limit - AV (dBμV)
0.159000	50.50	19.89	9.9	15.02	65.52	35.62	55.52
0.177000	47.21	18.03	9.9	17.41	64.63	36.60	54.63
0.190500	44.98	17.76	9.9	19.03	64.01	36.26	54.01
0.231000	38.95	15.13	9.9	23.46	62.41	37.29	52.41
0.253500	36.10	16.10	9.9	25.54	61.64	35.55	51.64
0.271500	34.08	15.11	9.9	26.99	61.07	35.96	51.07

Test Result : Pass

Note: Final Level = Receiver Read level + Correction factor.

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	2024.05.23	2025.05.22
3	Loop Antenna	Schwarz beck	HFH2-Z2	A0304220	2022.05.02	2025.05.01
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	MILMEGA	80RF1000-10004	A140101634	2023.10.20	2024.10.19
					2024.09.05	2025.09.04
8	Amplifier 1G~18GHz	MILMEGA	AS0104R-800/400	A160302517	2023.10.20	2024.10.19
					2024.05.25	2025.05.24
9	Spectrum Analyzer	KEYSIGHT	N9030A	A160702554	2024.01.18	2025.01.17
					2024.12.31	2025.12.30
10	Test Receiver	R&S	ESIB7	A0501375	2024.02.28	2025.02.27
					2025.01.13	2026.01.12
11	Broadband Ant.	ETC	MCTD 2786	A150402240	2023.05.22	2026.05.21
12	3M Anechoic Chamber	Albatross	SAC-3MAC 9*6*6m	A0412375	2024.02.27	2027.02.26
13	Temperature chamber	ESPEC	SU-642	A150802409	2024.02.22	2025.02.21
					2025.01.03	2026.01.02
14	Test Receiver	KEYSIGHT	N9038A	A141202036	2023.06.12	2024.06.11
					2024.06.05	2025.06.04
15	LISN	ROHDE&SCHWARZ	ENV216	A140701847	2023.06.08	2024.06.07
					2024.05.23	2025.05.22
16	Cable(9kHz~30MHz)	/	/	C230800587	2023.08.21	2026.08.20
17	Cable(30MHz~18GHz)	/	XSMJA750-SMNM(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 C63.10-2013. 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=2Uc(y))	2.8dB

Uncertainty of Radiated Emission Measurement (9kHz~30MHz)

Measuring Uncertainty for a level of confidence of 95%(U=2Uc(y))	3.5dB

Uncertainty of Radiated Emission Measurement (30MHz~1GHz)

Measuring Uncertainty for a level of confidence of 95%(U=2Uc(y))	3.91dB

Uncertainty of Radiated Emission Measurement (1GHz~18GHz)

Measuring Uncertainty for a level of confidence of 95%(U=2Uc(y))	4.5dB

Uncertainty of Radiated Emission Measurement (18GHz~40GHz)

Measuring Uncertainty for a level of confidence of 95%(U=2Uc(y))	4.9dB

Uncertainty of RF Conducted Measurement (9kHz~40GHz)

Measuring Uncertainty for a level of confidence of 95%(U=2Uc(y))	1.2dB

Appendix A

Duty Cycle

Test Result and Data

Mode	Duty Cycle (%)	Duty Cycle Factor (dB)
802.11a (20MHz)	100	100
802.11n (20MHz)	100	100
802.11n (40MHz)	100	100
802.11ac (20MHz)	100	100
802.11ac (40MHz)	100	100
802.11ac (80MHz)	100	100

Output power

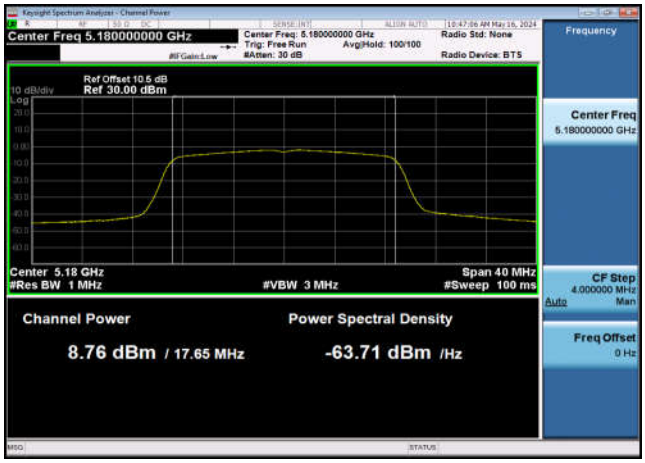
Test Result and Data

U-NII-1 AVGSA Output Power						
Mode	Test Frequency (MHz)	Max Power (dBm)	EIRP (dBm)	Power Limit (dBm)	EIRP Limit (dBm)	Result
802.11n (20MHz)	5180	8.76	10.17	30	21	Pass
802.11n (20MHz)	5220	9.11	10.52	30	21	Pass
802.11n (20MHz)	5240	9.26	10.67	30	21	Pass
802.11n (40MHz)	5190	8.99	10.40	30	21	Pass
802.11n (40MHz)	5230	9.27	10.68	30	21	Pass
802.11ac (20MHz)	5180	9.10	10.51	30	21	Pass
802.11ac (20MHz)	5220	9.17	10.58	30	21	Pass
802.11ac (20MHz)	5240	9.23	10.64	30	21	Pass
802.11ac (40MHz)	5190	9.14	10.55	30	21	Pass
802.11ac (40MHz)	5230	9.24	10.65	30	21	Pass
802.11ac (80MHz)	5210	8.85	10.26	30	21	Pass
802.11a (20MHz)	5180	9.52	10.93	30	21	Pass
802.11a (20MHz)	5220	9.62	11.03	30	21	Pass
802.11a (20MHz)	5240	9.25	10.66	30	21	Pass

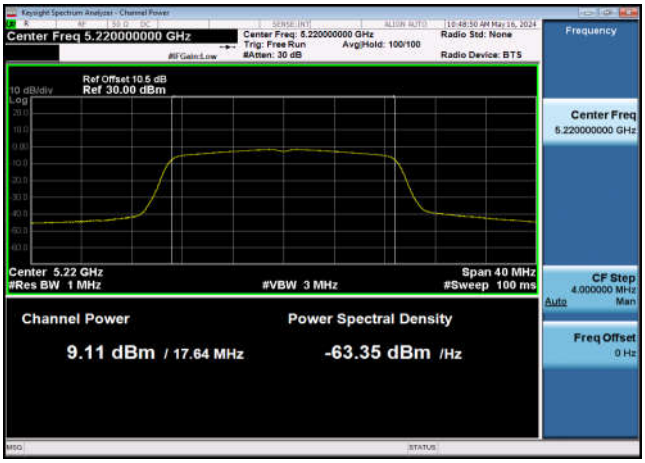
U-NII-3 AVGSA Output Power				
Mode	Test Frequency (MHz)	Max Power (dBm)	Limit (dBm)	Result
802.11n (20MHz)	5745	5.81	30	Pass
802.11n (20MHz)	5785	6.23	30	Pass
802.11n (20MHz)	5825	6.96	30	Pass
802.11n (40MHz)	5755	5.73	30	Pass
802.11n (40MHz)	5795	6.98	30	Pass
802.11ac (20MHz)	5745	6.21	30	Pass
802.11ac (20MHz)	5785	6.87	30	Pass
802.11ac (20MHz)	5825	7.80	30	Pass
802.11ac (40MHz)	5755	6.20	30	Pass
802.11ac (40MHz)	5795	6.90	30	Pass
802.11ac (80MHz)	5775	6.30	30	Pass
802.11a (20MHz)	5745	6.18	30	Pass
802.11a (20MHz)	5785	6.85	30	Pass
802.11a (20MHz)	5825	7.82	30	Pass

Test plots

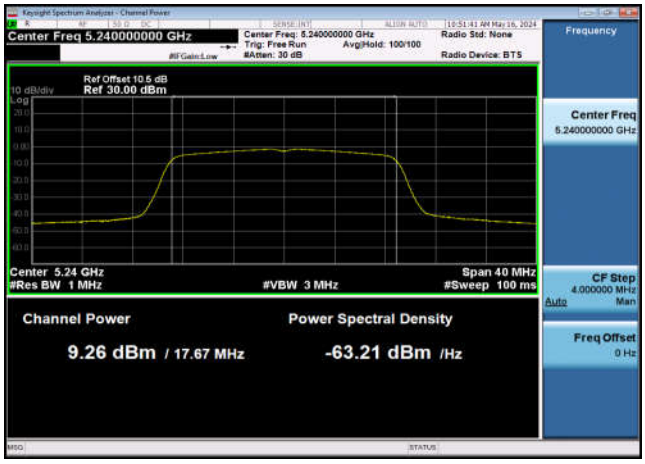
U-NII-1 Output Power-802.11n(20MHz) ,5180MHz,Ant1



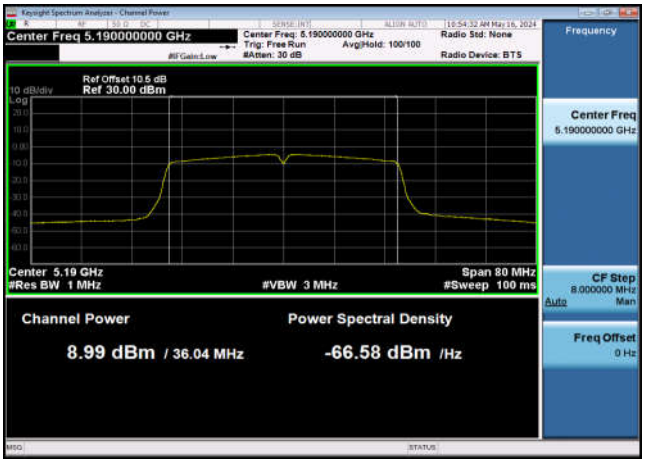
U-NII-1 Output Power-802.11n(20MHz) ,5220MHz,Ant1



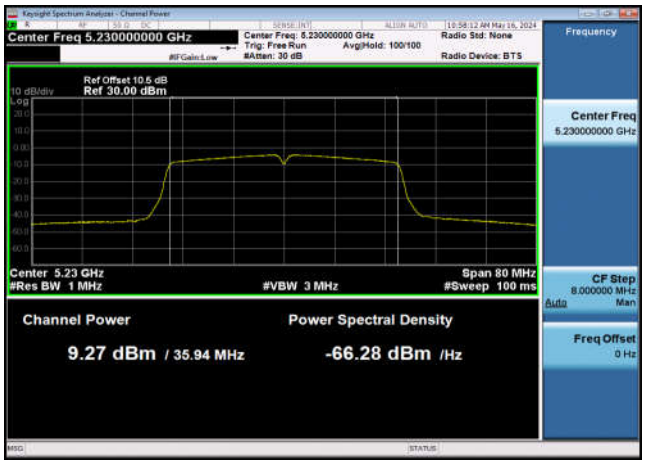
U-NII-1 Output Power-802.11n(20MHz) ,5240MHz,Ant1



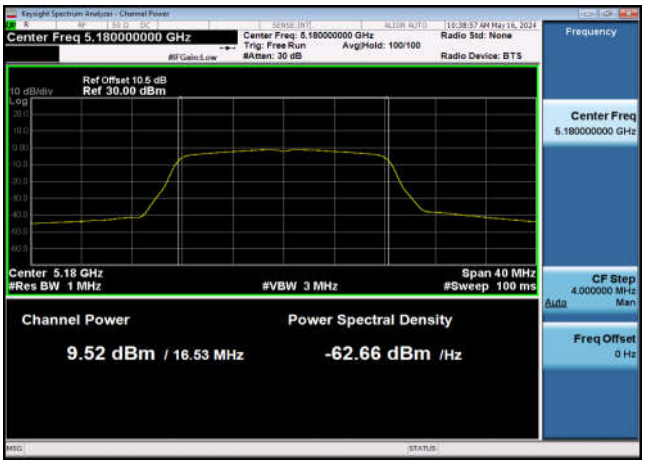
U-NII-1 Output Power-802.11n(40MHz) ,5190MHz,Ant1



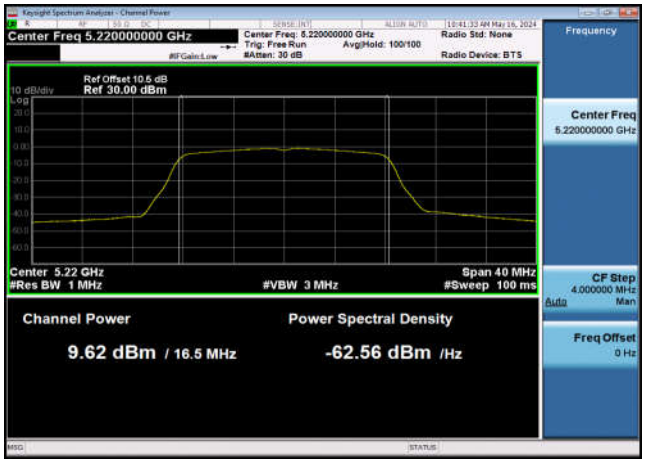
U-NII-1 Output Power-802.11n(40MHz) ,5230MHz,Ant1



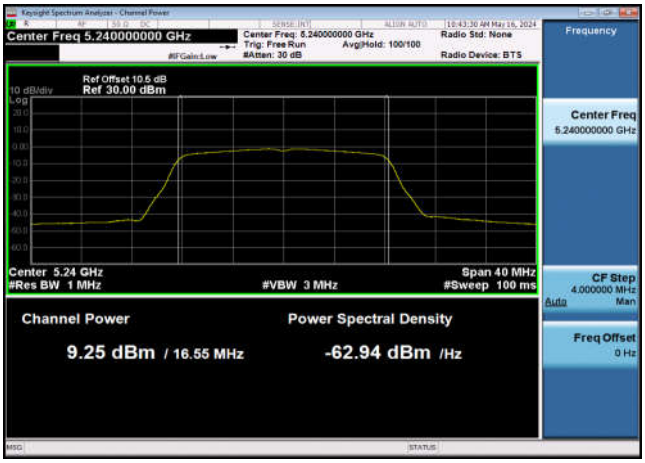
U-NII-1 Output Power-802.11a(20MHz) ,5180MHz,Ant1



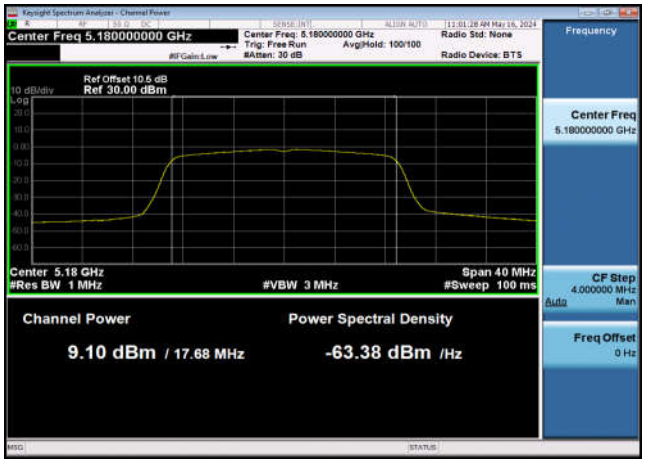
U-NII-1 Output Power-802.11a(20MHz) ,5220MHz,Ant1



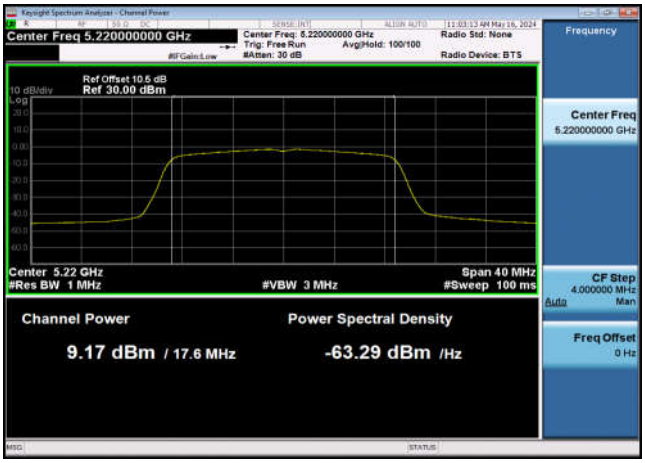
U-NII-1 Output Power-802.11a(20MHz) ,5240MHz,Ant1



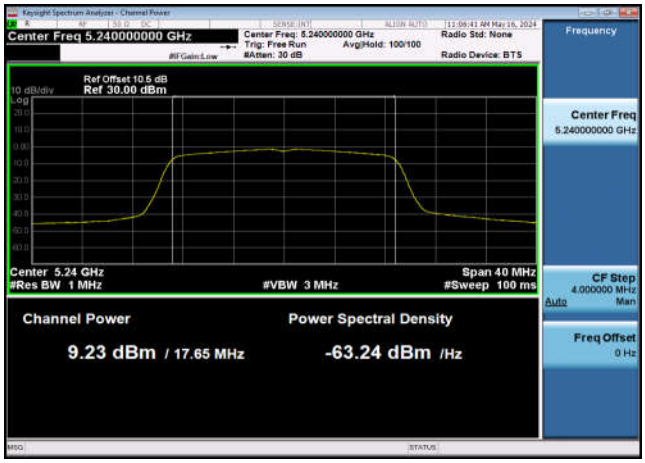
U-NII-1 Output Power-802.11ac(20MHz) ,5180MHz,Ant1



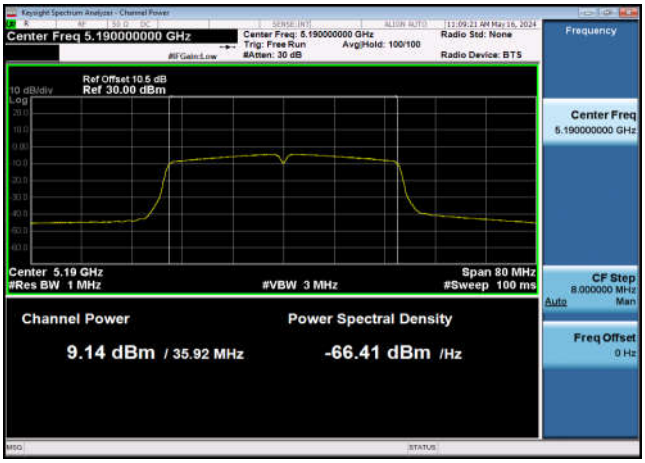
U-NII-1 Output Power-802.11ac(20MHz) ,5220MHz,Ant1



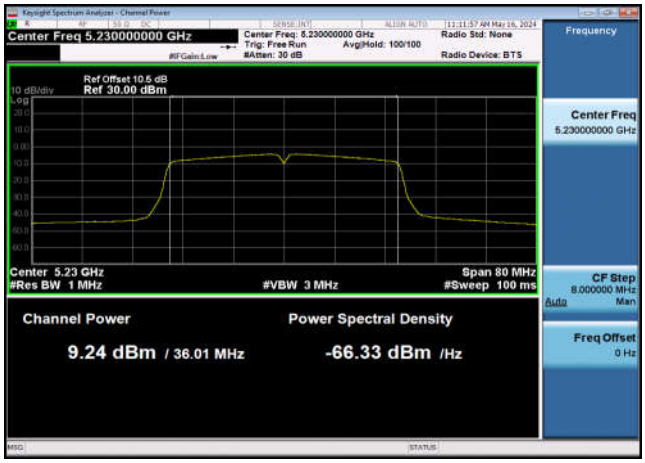
U-NII-1 Output Power-802.11ac(20MHz) ,5240MHz,Ant1



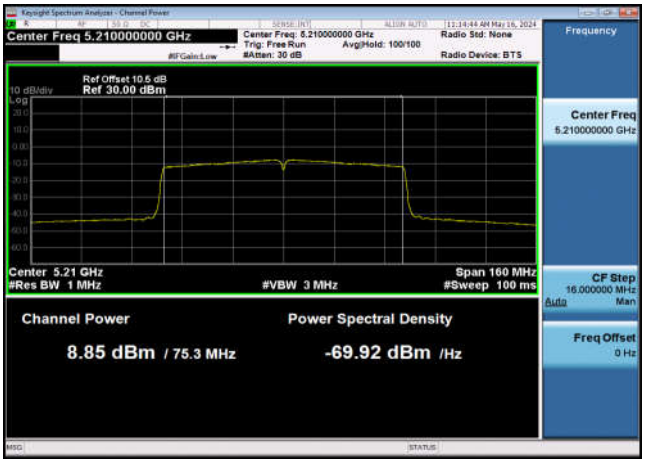
U-NII-1 Output Power-802.11ac(40MHz) ,5190MHz,Ant1



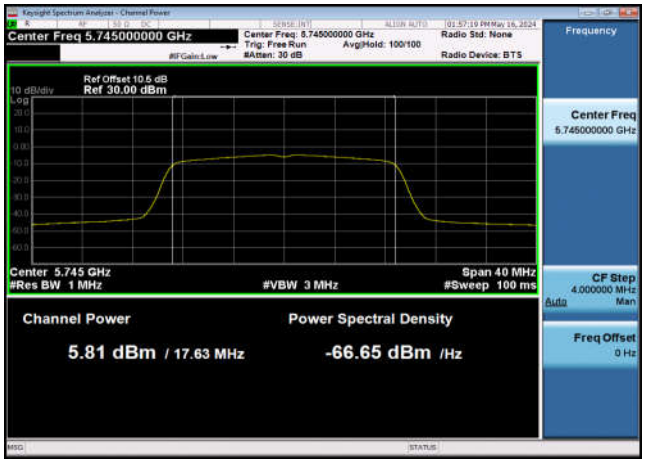
U-NII-1 Output Power-802.11ac(40MHz) ,5230MHz,Ant1



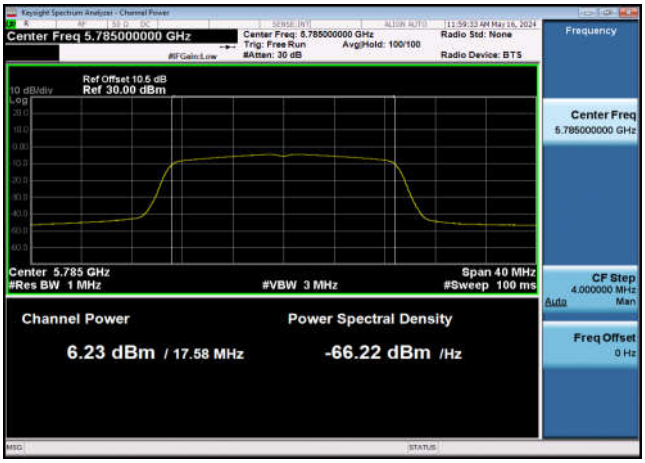
U-NII-1 Output Power-802.11ac(80MHz) ,5210MHz,Ant1



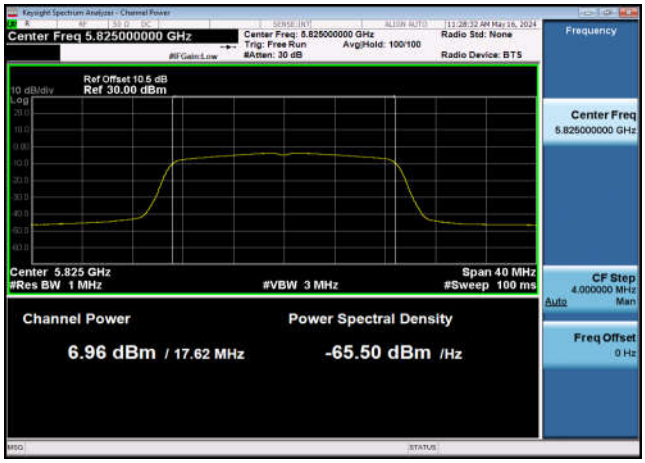
U-NII-3 Output Power-802.11n(20MHz) ,5745MHz,Ant1



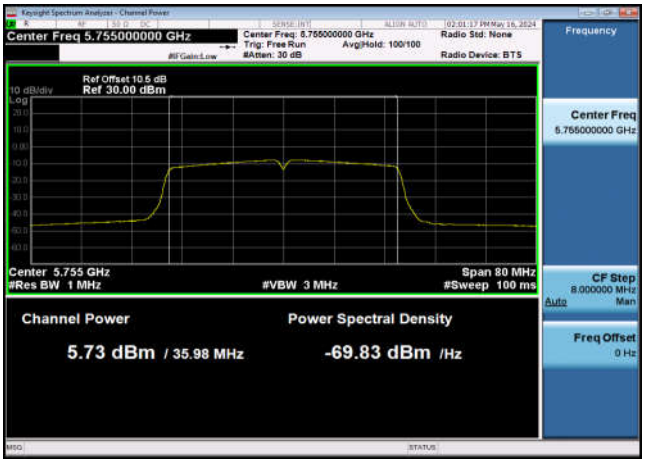
U-NII-3 Output Power-802.11n(20MHz) ,5785MHz,Ant1



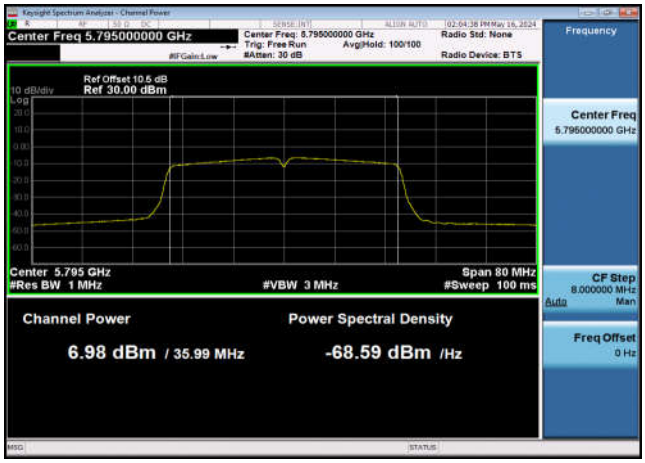
U-NII-3 Output Power-802.11n(20MHz) ,5825MHz,Ant1



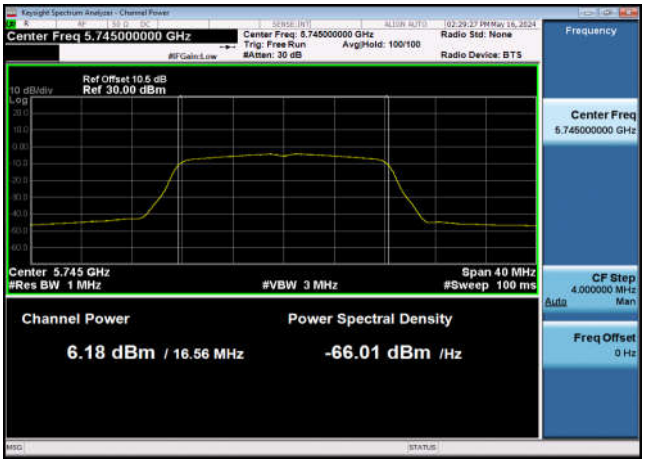
U-NII-3 Output Power-802.11n(40MHz) ,5755MHz,Ant1



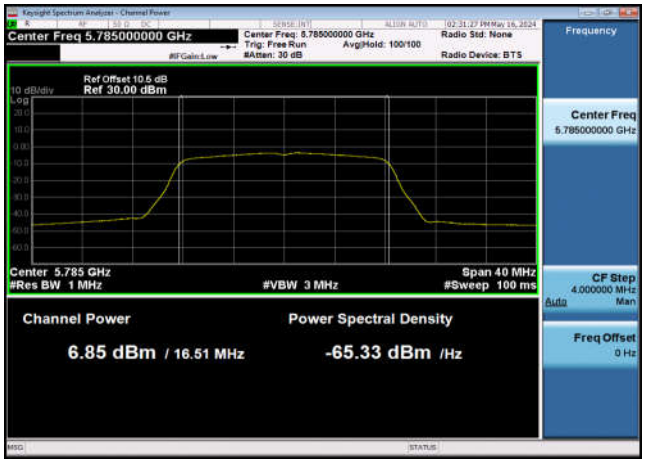
U-NII-3 Output Power-802.11n(40MHz) ,5795MHz,Ant1



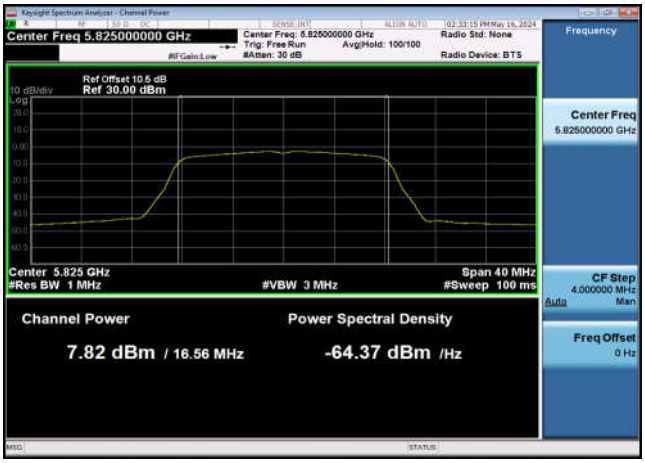
U-NII-3 Output Power-802.11a(20MHz) ,5745MHz,Ant1



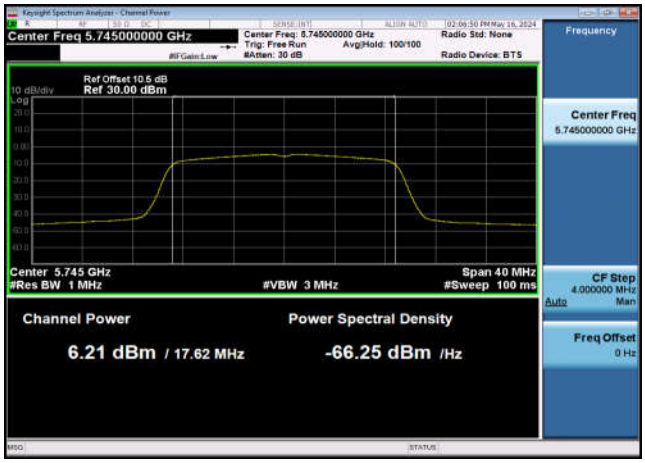
U-NII-3 Output Power-802.11a(20MHz) ,5785MHz,Ant1



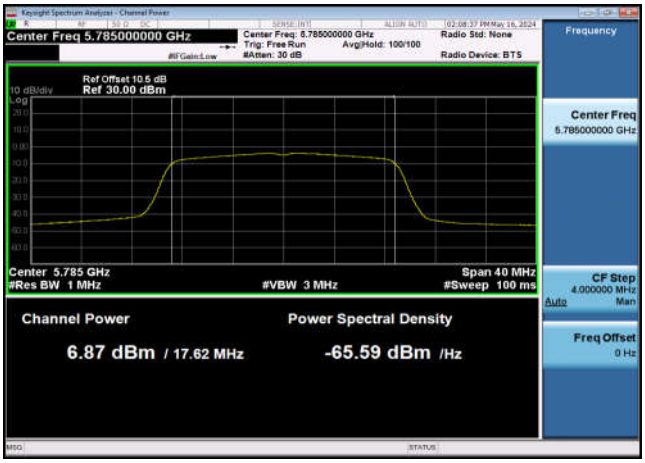
U-NII-3 Output Power-802.11a(20MHz) ,5825MHz,Ant1



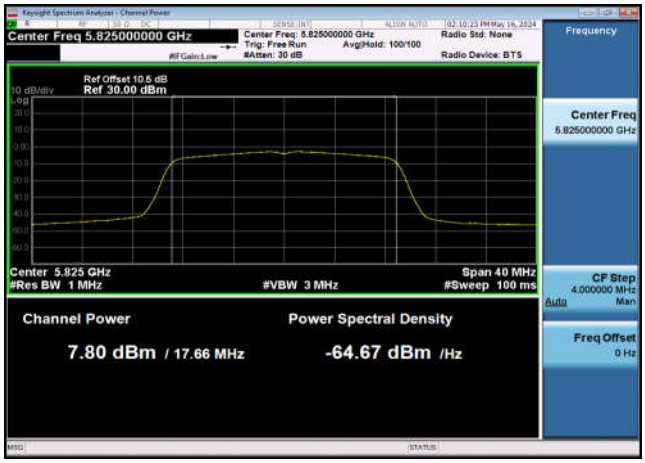
U-NII-3 Output Power-802.11ac(20MHz) ,5745MHz,Ant1



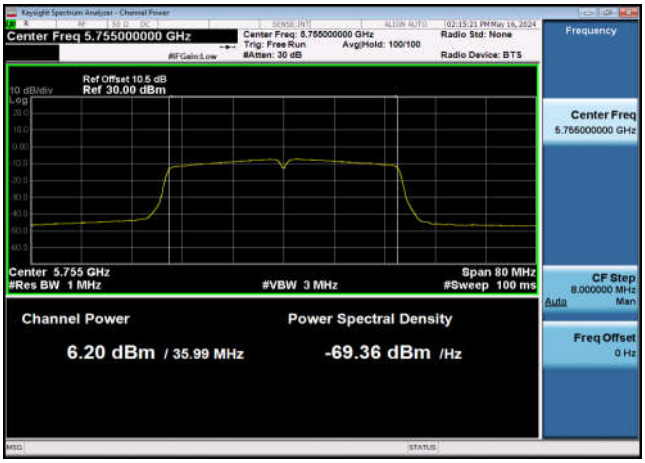
U-NII-3 Output Power-802.11ac(20MHz) ,5785MHz,Ant1



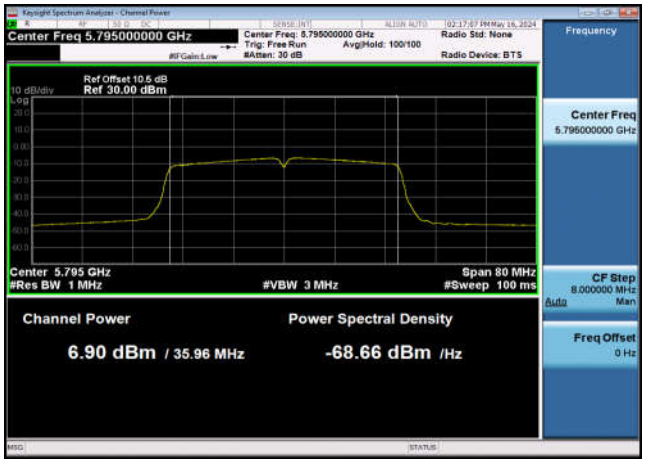
U-NII-3 Output Power-802.11ac(20MHz) ,5825MHz,Ant1



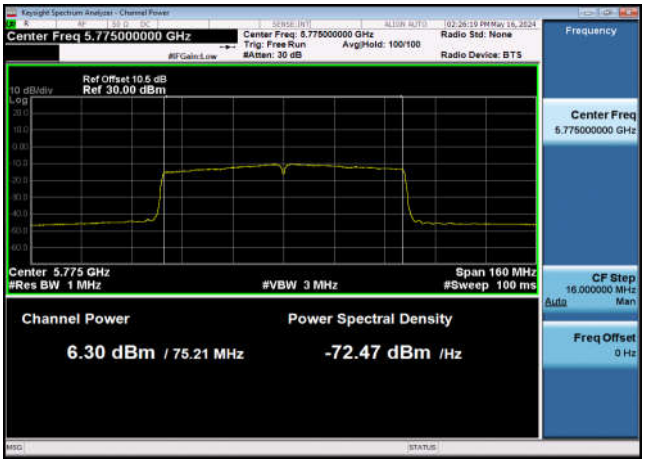
U-NII-3 Output Power-802.11ac(40MHz) ,5755MHz,Ant1



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



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



AVGSA Power Spectral Density

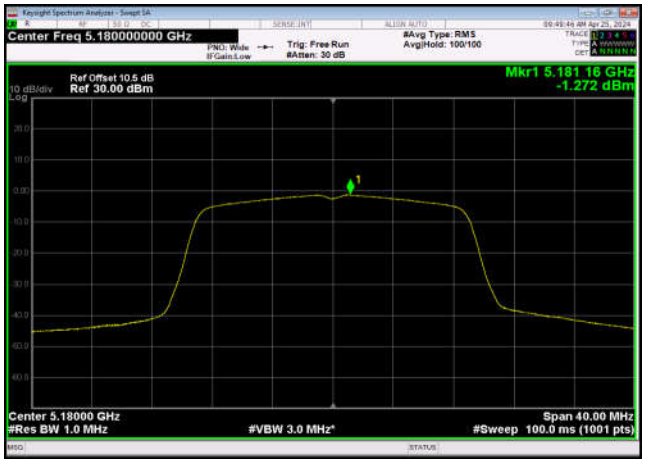
Test Result and Data

U-NII-1 AVGSA Output Power				
Mode	Test Frequency (MHz)	PSD (dBm)	Limit (dBm)	Result
802.11n (20MHz)	5180	-1.272	17	Pass
802.11n (20MHz)	5220	-1.527	17	Pass
802.11n (20MHz)	5240	-1.355	17	Pass
802.11n (40MHz)	5190	-3.771	17	Pass
802.11n (40MHz)	5230	-4.226	17	Pass
802.11ac (20MHz)	5180	-1.647	17	Pass
802.11ac (20MHz)	5220	-1.453	17	Pass
802.11ac (20MHz)	5240	-1.447	17	Pass
802.11ac (40MHz)	5190	-4.256	17	Pass
802.11ac (40MHz)	5230	-4.326	17	Pass
802.11ac (80MHz)	5210	-7.779	17	Pass
802.11a (20MHz)	5180	-1.339	17	Pass
802.11a (20MHz)	5220	-2.311	17	Pass
802.11a (20MHz)	5240	-1.215	17	Pass

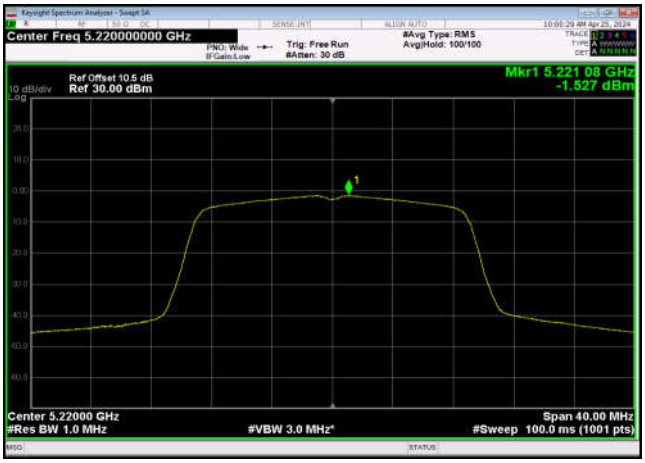
U-NII-3 AVGSA Output Power				
Mode	Test Frequency (MHz)	PSD (dBm)	Limit (dBm)	Result
802.11n (20MHz)	5745	-7.052	30	Pass
802.11n (20MHz)	5785	-6.615	30	Pass
802.11n (20MHz)	5825	-5.835	30	Pass
802.11n (40MHz)	5755	-10.387	30	Pass
802.11n (40MHz)	5795	-9.376	30	Pass
802.11ac (20MHz)	5745	-7.606	30	Pass
802.11ac (20MHz)	5785	-6.477	30	Pass
802.11ac (20MHz)	5825	-5.487	30	Pass
802.11ac (40MHz)	5755	-10.181	30	Pass
802.11ac (40MHz)	5795	-9.552	30	Pass
802.11ac (80MHz)	5775	-13.232	30	Pass
802.11a (20MHz)	5745	-6.592	30	Pass
802.11a (20MHz)	5785	-6.335	30	Pass
802.11a (20MHz)	5825	-5.512	30	Pass

Test Plots

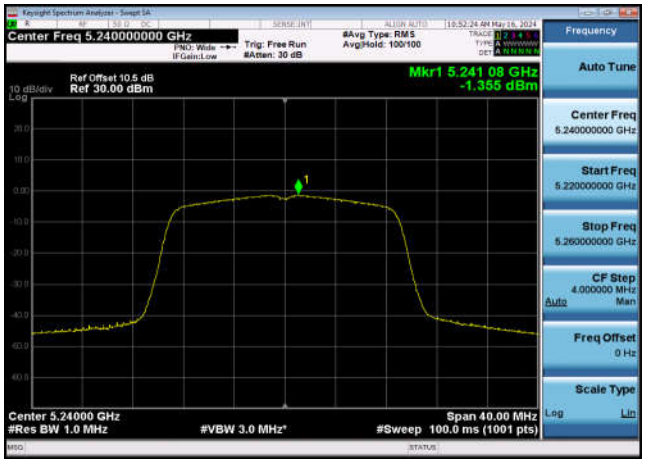
U-NII-1 Power spectral density-802.11 n(20MHz),5180MHz,Ant1



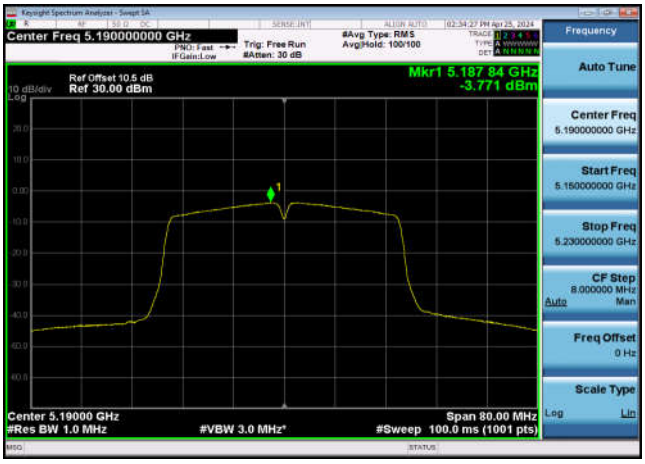
U-NII-1 Power spectral density-802.11 n(20MHz),5220MHz,Ant1



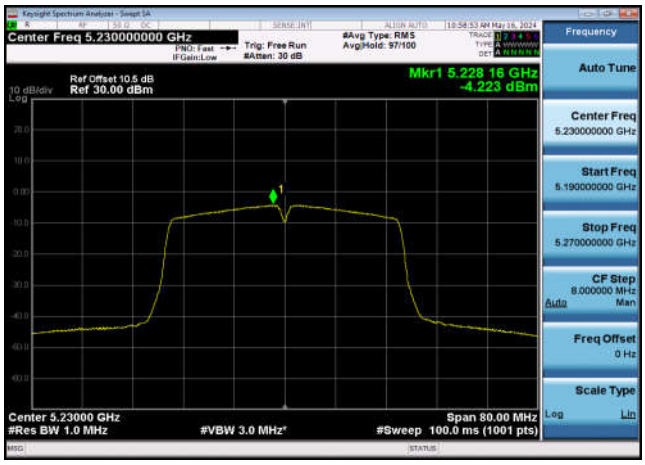
U-NII-1 Power spectral density-802.11 n(20MHz),5240MHz,Ant1



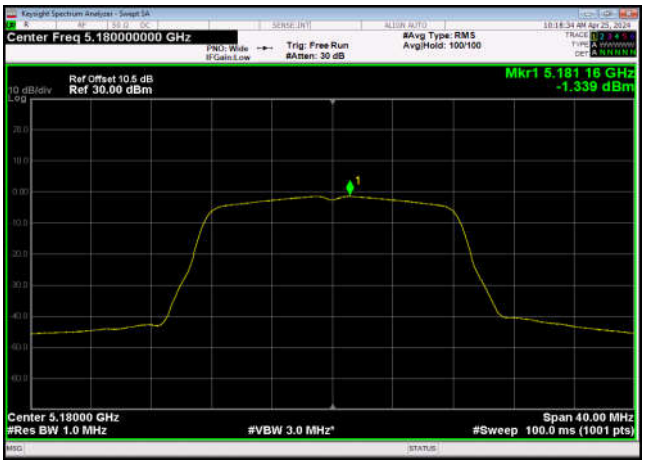
U-NII-1 Power spectral density-802.11 n(40MHz),5190MHz,Ant1



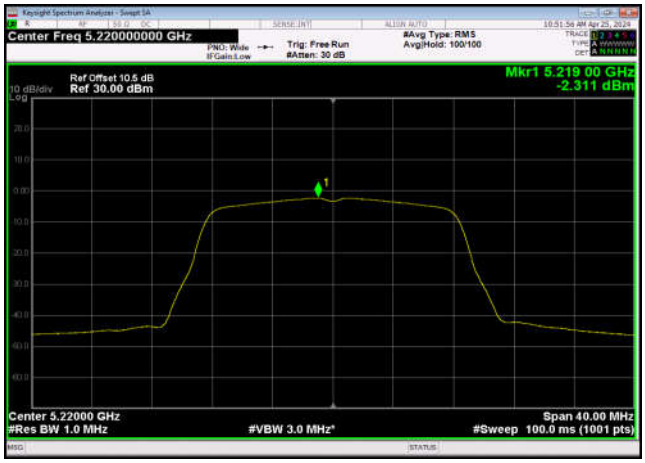
U-NII-1 Power spectral density-802.11 n(40MHz),5230MHz,Ant1



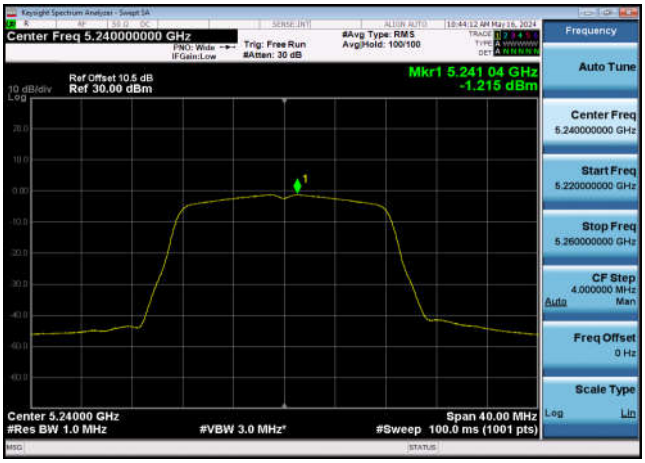
U-NII-1 Power spectral density-802.11 a(20MHz),5180MHz,Ant1



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



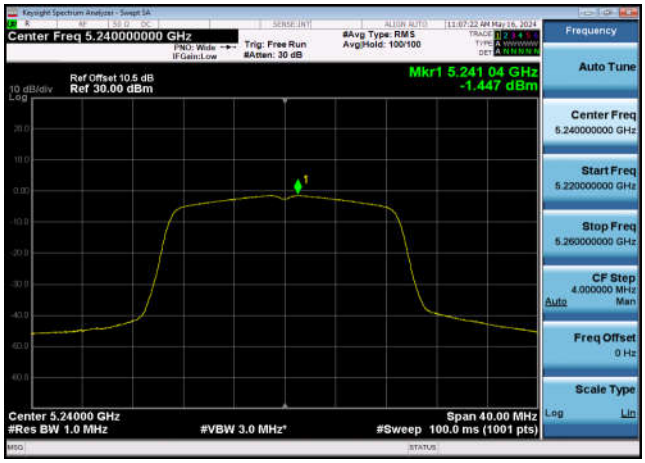
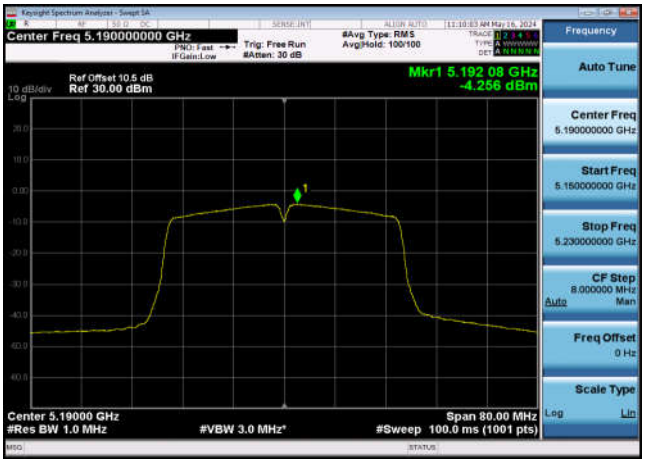
U-NII-1 Power spectral density-802.11 a(20MHz),5240MHz,Ant1



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

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

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



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