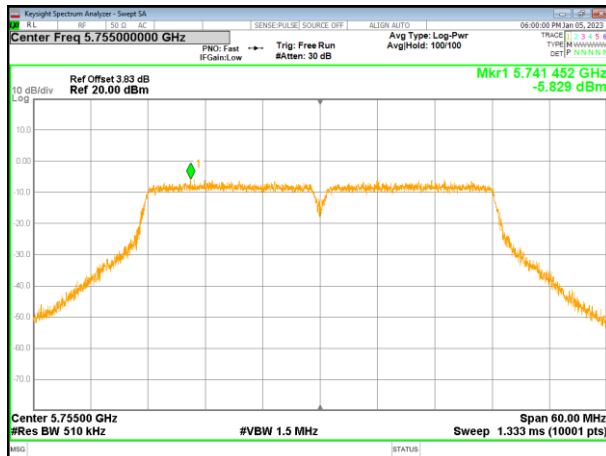
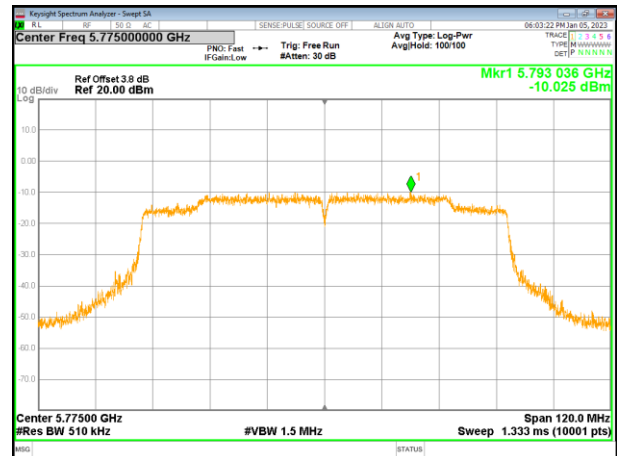


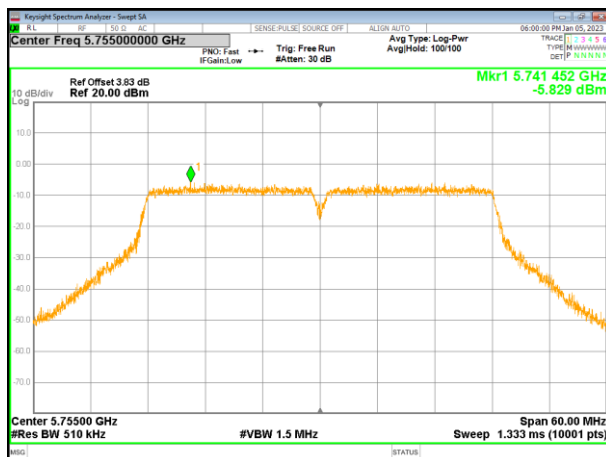
(802.11ac40) PSD plot on channel 151



(802.11ac80) PSD plot on channel 155

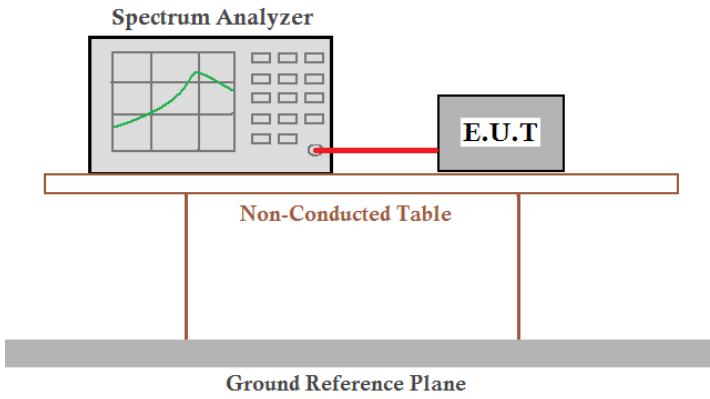


(802.11ac40) PSD plot on channel 159



4.6 Band edge

4.6.1 Conducted test Method

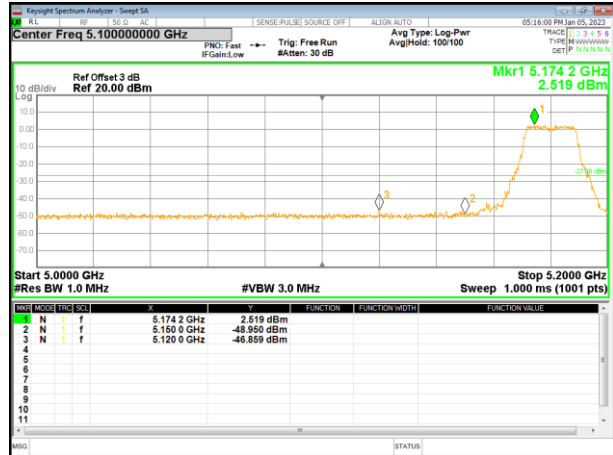
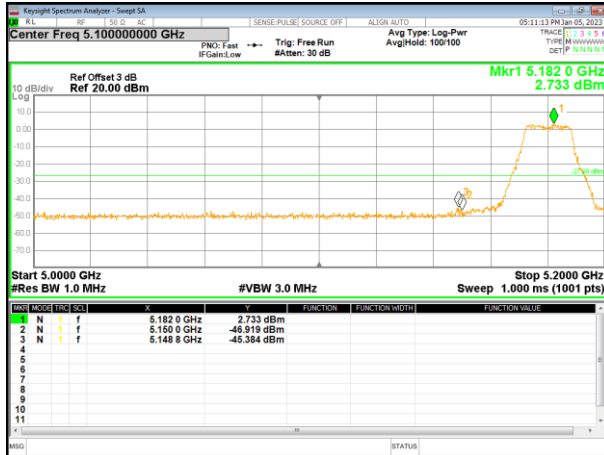
Test Requirement:	FCC Part15 C Section 15.209 and 15.205
Test Method:	ANSI C63.10: 2013
Limit:	All emissions shall be limited to a level of -27 dBm/MHz at 75 MHz or more above or below the band edge increasing linearly to 10 dBm/MHz at 25 MHz above or below the band edge, and from 25 MHz above or below the band edge increasing linearly to a level of 15.6 dBm/MHz at 5 MHz above or below the band edge, and from 5 MHz above or below the band edge increasing linearly to a level of 27 dBm/MHz at the band edge.
Test setup:	 The diagram illustrates the test setup. A Spectrum Analyzer is connected to an E.U.T. (Equipment Under Test) via a red cable. Both are placed on a Non-Conducted Table, which is supported by a Ground Reference Plane.
Test Procedure:	1. Check the calibration of the measuring instrument using either an internal calibrator or a known signal from an external generator. 2. Position the EUT without connection to measurement instrument. Turn on the EUT and connect its antenna terminal to measurement instrument via a low loss cable. Then set it to any one measured frequency within its operating range, and make sure the instrument is operated in its linear range. 3. Set RBW of spectrum analyzer to 1 MHz with a convenient frequency span. 4. Measure the highest amplitude appearing on spectral display and set it as a reference level. Plot the graph with marking the highest point and edge frequency. 5. Repeat above procedures until all measured frequencies were complete..
Test Instruments:	Refer to section 3.0 for details
Test mode:	Refer to section 2.2 for details
Test results:	Pass

Remarks:/

5.180~5.240 GHz

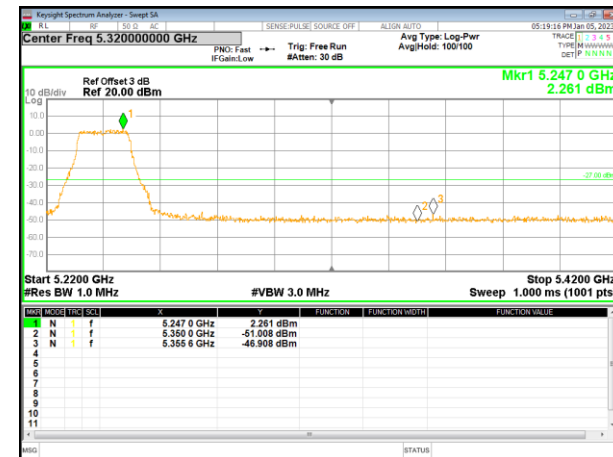
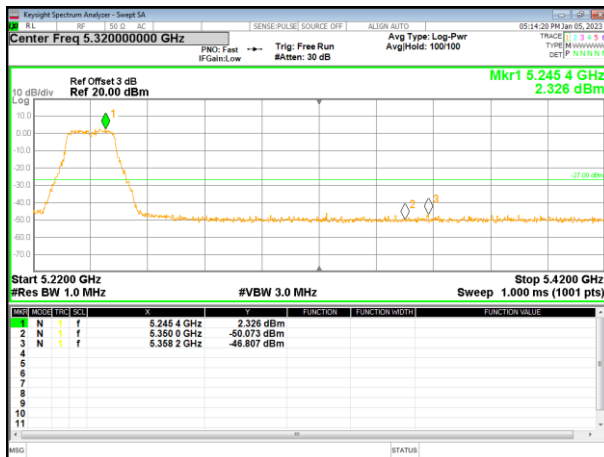
(802.11a) Band Edge, Left Side

(802.11n20) Band Edge, Left Side



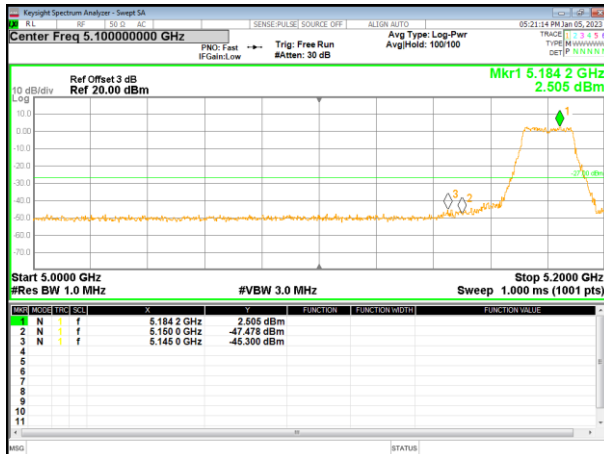
(802.11a) Band Edge, Right Side

(802.11n20) Band Edge, Right Side

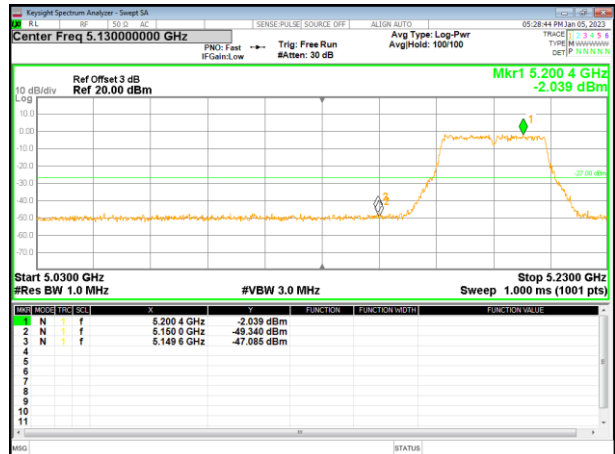


5.180~5.240 GHz

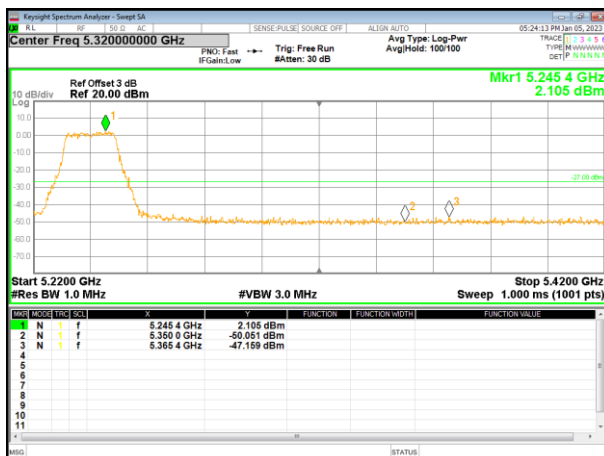
(802.11ac20) Band Edge, Left Side



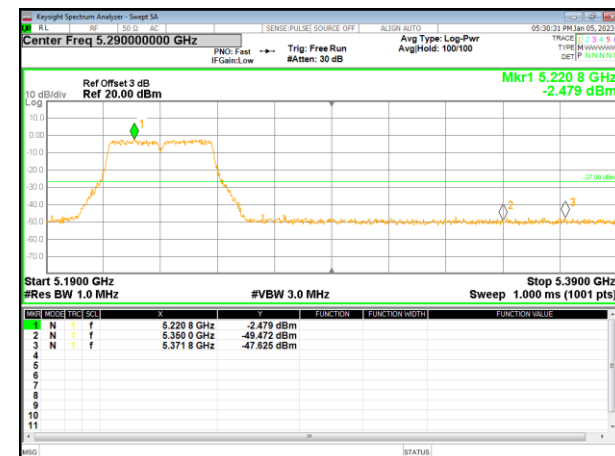
(802.11n40) Band Edge, Left Side



(802.11ac20) Band Edge, Right Side



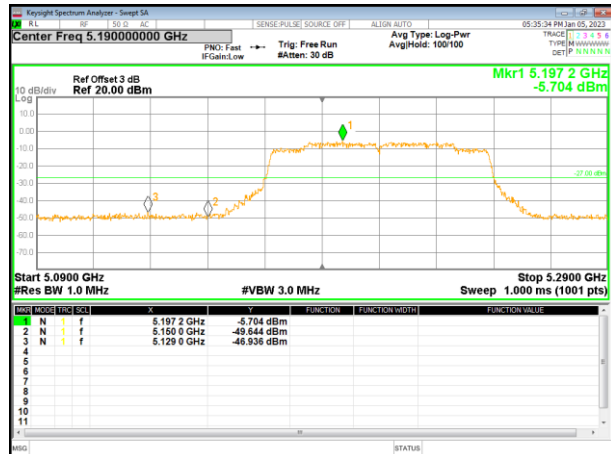
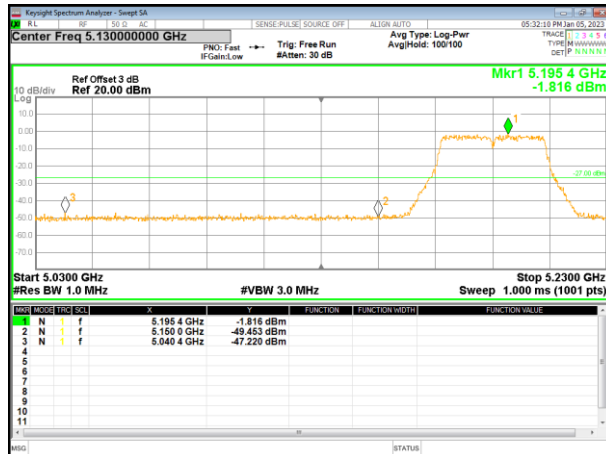
(802.11n40) Band Edge, Right Side



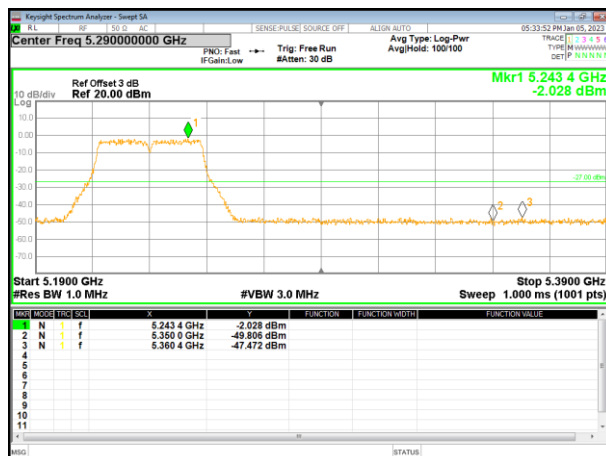
5.180~5.240 GHz

(802.11ac40) Band Edge, Left Side

(802.11ac80) Band Edge



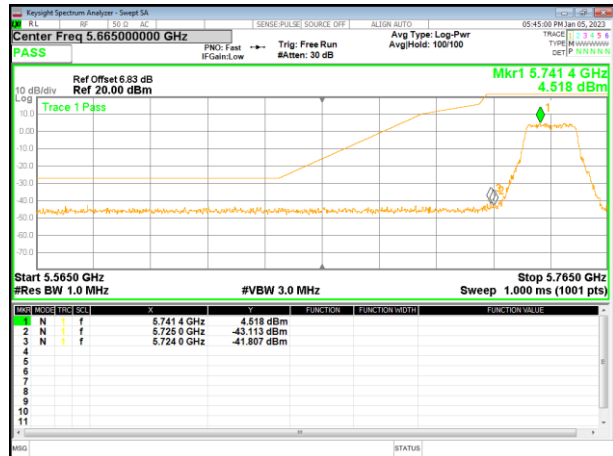
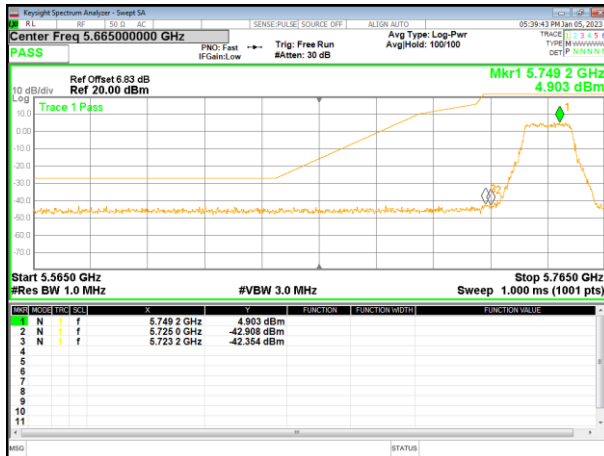
(802.11ac40) Band Edge, Right Side



5.745~5.825 GHz

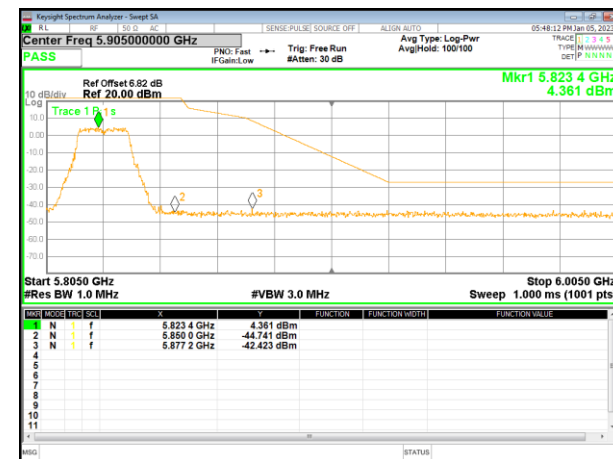
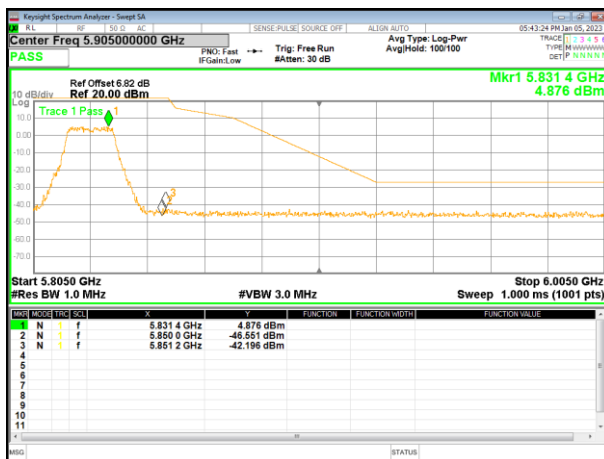
(802.11a) Band Edge, Left Side

(802.11n20) Band Edge, Left Side



(802.11a) Band Edge, Right Side

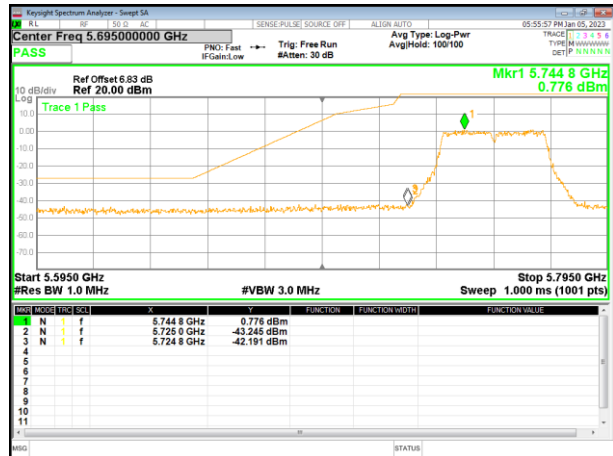
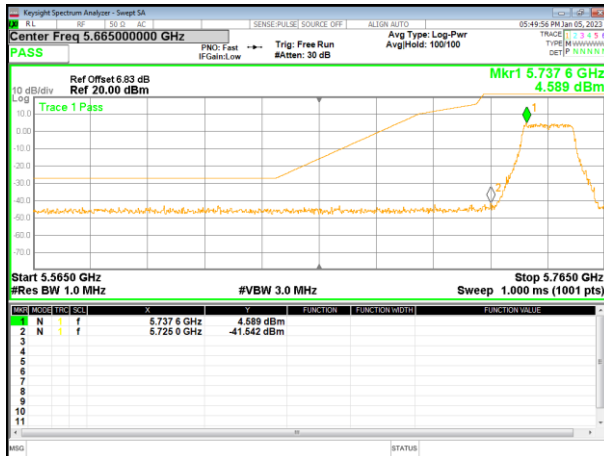
(802.11n20) Band Edge, Right Side



5.745~5.825 GHz

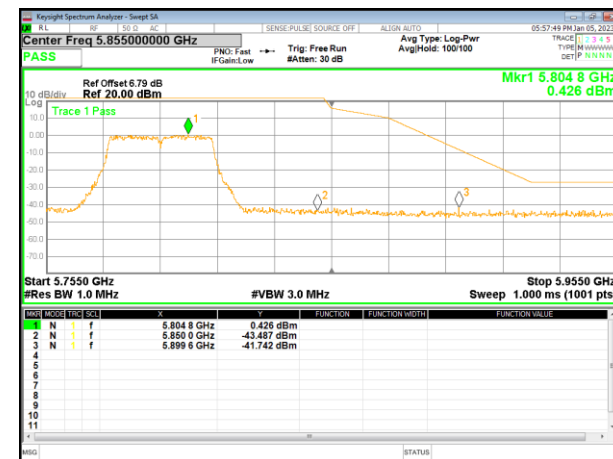
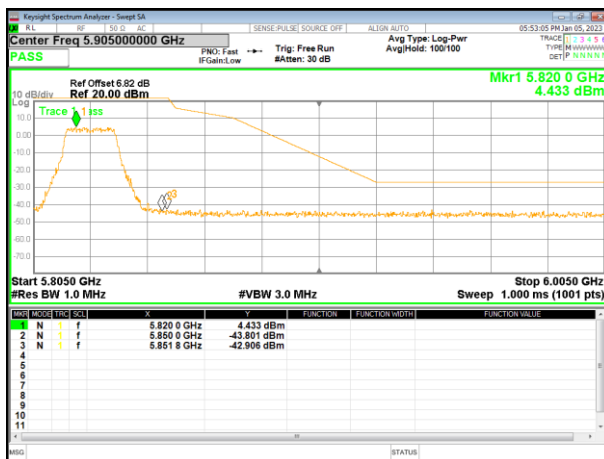
(802.11ac20) Band Edge, Left Side

(802.11n40) Band Edge, Left Side



(802.11ac20) Band Edge, Right Side

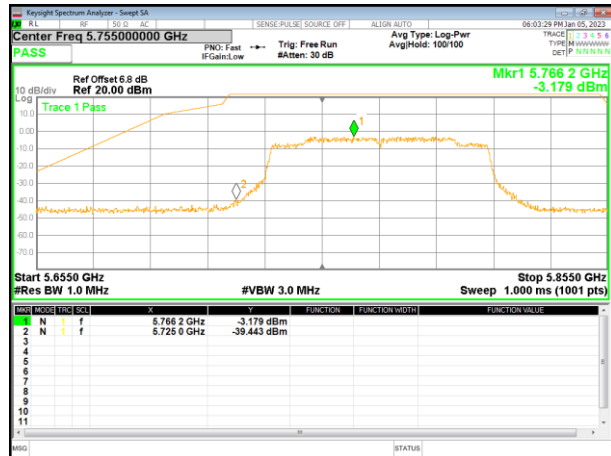
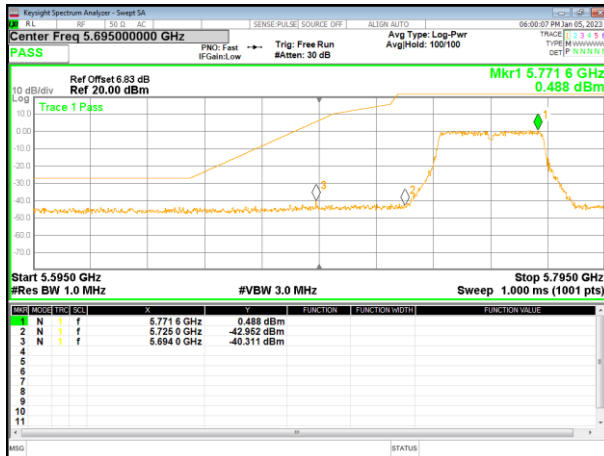
(802.11n40) Band Edge, Right Side



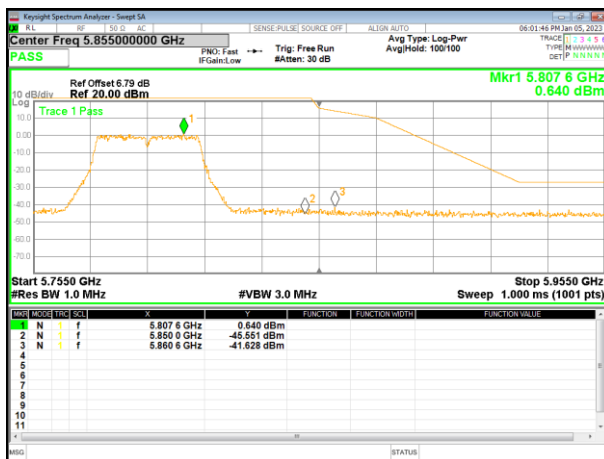
5.745~5.825 GHz

(802.11ac40) Band Edge, Left Side

(802.11ac80) Band Edge

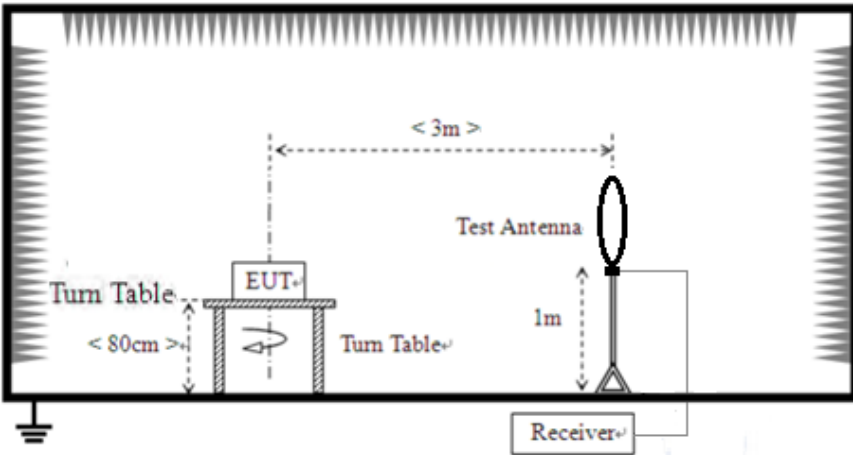


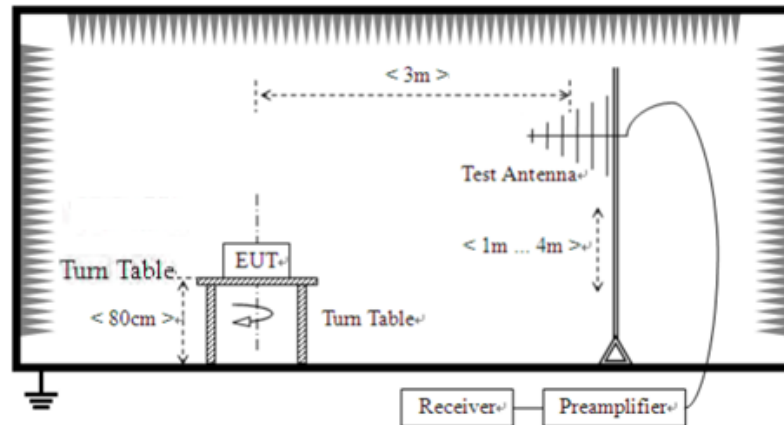
(802.11ac40) Band Edge, Right Side



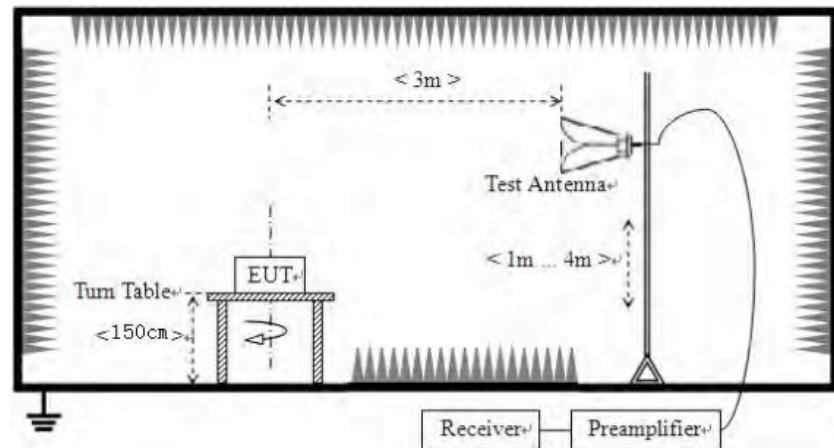
4.7 Spurious Emission

4.7.1 Radiated Emission Method

Test Requirement:	FCC Part15 C Section 15.209, Part 15E Section 15.407(b)(4)					
Test Method:	ANSI C63.10:2013					
Test Frequency Range:	9kHz to 40GHz					
Test site:	Measurement Distance: 3m					
Receiver setup:	Frequency	Detector	RBW	VBW	Value	
	9kHz-150KHz	Quasi-peak	200Hz	1kHz	Quasi-peak Value	
	150kHz-30MHz	Quasi-peak	9kHz	30kHz	Quasi-peak Value	
	30MHz-1GHz	Quasi-peak	120KHz	300KHz	Quasi-peak Value	
	Above 1GHz	Peak	1MHz	3MHz	Peak Value	
		AV	1MHz	3MHz	Average Value	
Limit:	Frequency		Limit (uV/m)	Value	Measurement Distance	
	0.009MHz-0.490MHz		2400/F(KHz)	QP	300m	
	0.490MHz-1.705MHz		24000/F(KHz)	QP	300m	
	1.705MHz-30MHz		30	QP	30m	
	30MHz-88MHz		100	QP	3m	
	88MHz-216MHz		150	QP		
	216MHz-960MHz		200	QP		
	960MHz-1GHz		500	QP		
	Frequency		Limit (dBm/MHz)	Remark		
	Above 1GHz		-27.0	Peak Value		
	Test setup:	For radiated emissions from 9kHz to 30MHz				
						
		For radiated emissions from 30MHz to1GHz				



For radiated emissions above 1GHz



Test Procedure:

1. The EUT was placed on the top of a rotating table (0.8m for below 1GHz and 1.5 meters for above 1GHz) above the ground at a 3 meter camber. 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 antenna height 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 rota table was turned from 0 degrees to 360 degrees to find the maximum reading.
5. The test-receiver system was set to Peak Detect Function and Specified Bandwidth with Maximum Hold Mode.
6. If the emission level of the EUT in peak mode was 10dB lower than the limit specified, then testing could be stopped and the peak values of the EUT would be reported. Otherwise the emissions that did not have 10dB margin would be re-tested one by one using peak, quasi-peak or average

	method as specified and then reported in a data sheet.					
	7. The radiation measurements are performed in X, Y, Z axis positioning. And found the X axis positioning which it is worse case, only the test worst case mode is recorded in the report.					
Test Instruments:	Refer to section 3.0 for details					
Test mode:	Refer to section 2.2 for details					
Test environment:	Temp.:	25.6°C	Humid.:	55%	Press.:	1012mbar
Test voltage:	DC 19V					
Test results:	Pass					

Remarks:

1. All antennas was tested, only show the worst case 802.11n20 mode test data.
2. Pre-scan all kind of the place mode (X-axis, Y-axis, Z-axis), and found the Y-axis which it is worse case.

Measurement Data:

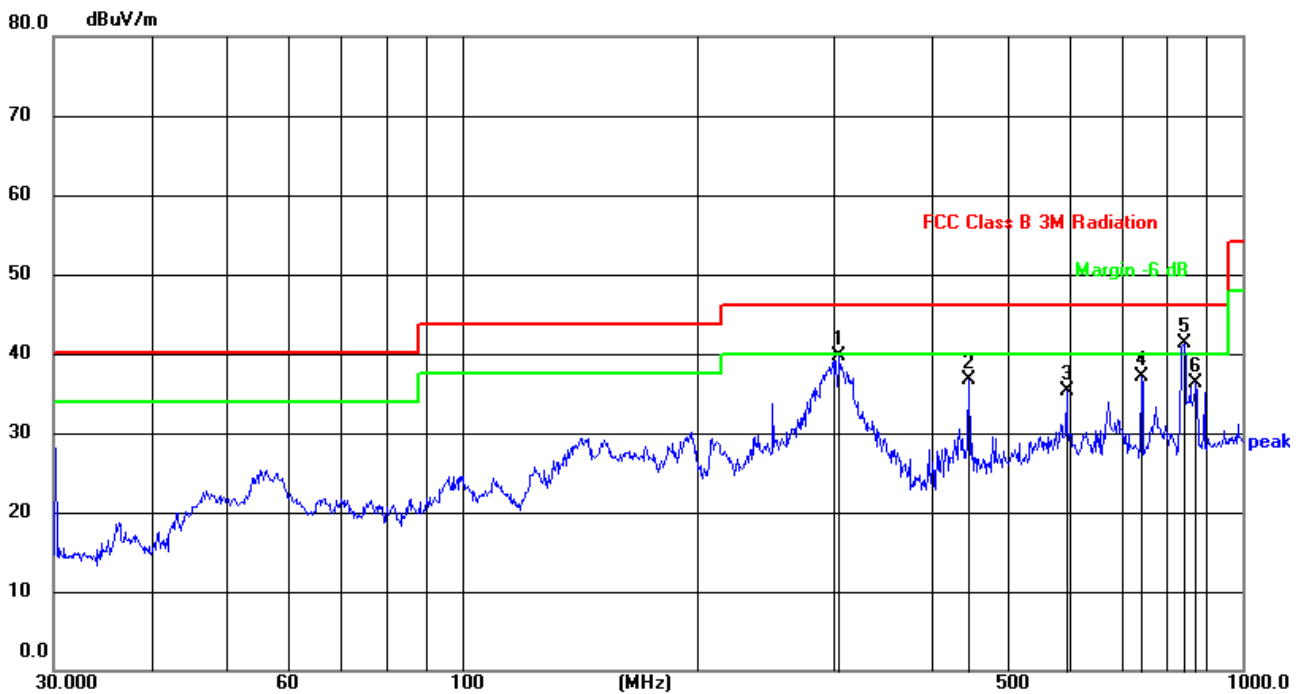
9 kHz ~ 30 MHz

The emission from 9 kHz to 30MHz was pre-tested and found the result was 20dB lower than the limit, and according to 15.31(o) & RSS-Gen 6.13, the test result no need to reported.

Below 1GHz

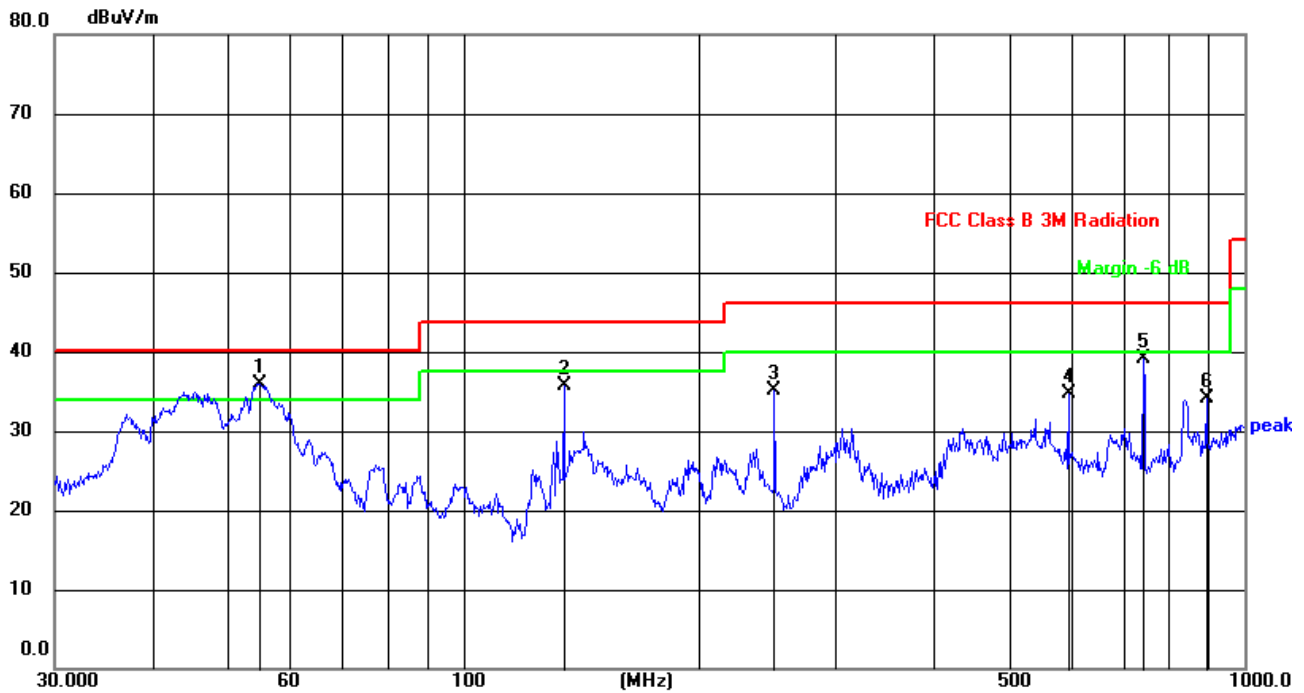
Temperature:	25.6°C	Relative Humidity:	55%
Pressure:	1010 hPa	Test Voltage :	DC 19V
Test Mode :	5.2G TX- 802.11n20		

Horizontal:



No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
1	304.6099	58.04	-18.42	39.62	46.00	-6.38	QP
2	446.4139	51.57	-14.87	36.70	46.00	-9.30	QP
3	595.1326	45.78	-10.41	35.37	46.00	-10.63	QP
4	742.2586	45.51	-8.32	37.19	46.00	-8.81	QP
5	842.1295	48.35	-7.06	41.29	46.00	-4.71	QP
6	872.1832	43.14	-6.82	36.32	46.00	-9.68	QP

Vertical:



No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
1	55.0274	56.77	-20.85	35.92	40.00	-4.08	QP
2	134.5591	54.57	-18.95	35.62	43.50	-7.88	QP
3	250.3009	53.27	-18.20	35.07	46.00	-10.93	QP
4	595.1326	46.07	-11.31	34.76	46.00	-11.24	QP
5	742.2586	47.42	-8.29	39.13	46.00	-6.87	QP
6	893.8564	40.02	-5.99	34.03	46.00	-11.97	QP

Remarks:

1. Final Level = Receiver Read level + Antenna Factor + Cable Loss – Preamplifier Factor
2. The emission levels of other frequencies are very lower than the limit and not show in test report.
3. The test data shows only the worst case 802.11n20 mode



Above 1GHz:

Temperature:	25.6℃	Relative Humidity:	55%
Pressure:	1010 hPa	Test Voltage :	DC 19V
Test Mode :	5.2G TX- 802.11n20		

802.11n20

Polar (H/V)	Frequency	Meter Read n g	Pre- amplifier	Cable Loss	Antenna Factor	Emission Level	Limits	Margin	Detect or Type
	(MHz)	(dBuV)	(dB)	(dB)	(dB)	(dBuV/m)	(dBuV/m)	(dB)	
Low Channel:5180MHz									
V	10360.00	50.98	46.20	8.27	38.50	51.55	68.20	-16.65	PK
V	10360.00	40.29	46.20	8.27	38.50	40.86	54.00	-13.14	AV
V	15540.00	47.89	46.30	10.35	38.70	50.64	74.00	-23.36	PK
V	15540.00	37.13	46.30	10.35	38.70	39.88	54.00	-14.12	AV
V	20720.00	57.64	57.40	11.93	37.80	49.97	68.20	-18.23	PK
V	20720.00	46.89	57.40	11.93	37.80	39.22	54.00	-14.78	AV
V	25900.00	55.11	56.50	13.45	39.70	51.76	68.20	-16.44	PK
V	25900.00	43.93	56.50	13.45	39.70	40.58	54.00	-13.42	AV
H	10360.00	50.90	46.20	8.27	38.50	51.47	68.20	-16.73	PK
H	10360.00	38.82	46.20	8.27	38.50	39.39	54.00	-14.61	AV
H	15540.00	46.83	46.30	10.35	38.70	49.58	74.00	-24.42	PK
H	15540.00	34.52	46.30	10.35	38.70	37.27	54.00	-16.73	AV
H	20720.00	60.02	57.40	11.93	37.80	52.35	68.20	-15.85	PK
H	20720.00	47.85	57.40	11.93	37.80	40.18	54.00	-13.82	AV
H	25900.00	56.20	56.50	13.45	39.70	52.85	68.20	-15.35	PK
H	25900.00	43.97	56.50	13.45	39.70	40.62	54.00	-13.38	AV

Polar (H/V)	Frequency	Meter Reading	Pre- amplifier	Cable Loss	Antenna Factor	Emission Level	Limits	Margin	Detect or Type
	(MHz)	(dBuV)	(dB)	(dB)	(dB)	(dBuV/m)	(dBuV/m)	(dB)	
Middle Channel:5200MHz									
V	10400.00	48.66	46.20	8.27	38.50	49.23	68.20	-18.97	PK
V	10400.00	38.73	46.20	8.27	38.50	39.30	54.00	-14.70	AV
V	15600.00	46.93	46.30	10.35	38.40	49.38	74.00	-24.62	PK
V	15600.00	37.46	46.30	10.35	38.40	39.91	54.00	-14.09	AV
V	20800.00	57.63	57.40	11.93	37.80	49.96	68.20	-18.24	PK
V	20800.00	47.22	57.40	11.93	37.80	39.55	54.00	-14.45	AV
V	26000.00	52.41	56.50	13.45	39.80	49.16	68.20	-19.04	PK
V	26000.00	43.97	56.50	13.45	39.80	40.72	54.00	-13.28	AV
H	10400.00	49.32	46.20	8.27	38.50	49.89	68.20	-18.31	PK
H	10400.00	39.01	46.20	8.27	38.50	39.58	54.00	-14.42	AV
H	15600.00	46.91	46.30	10.35	38.40	49.36	74.00	-24.64	PK
H	15600.00	37.46	46.30	10.35	38.40	39.91	54.00	-14.09	AV
H	20800.00	56.50	57.40	11.93	37.80	48.83	68.20	-19.37	PK
H	20800.00	44.97	57.40	11.93	37.80	37.30	54.00	-16.70	AV
H	26000.00	52.10	56.50	13.45	39.80	48.85	68.20	-19.35	PK
H	26000.00	43.11	56.50	13.45	39.80	39.86	54.00	-14.14	AV

Polar (H/V)	Frequency (MHz)	Meter Reading (dBuV)	Pre- amplifier (dB)	Cable Loss (dB)	Antenna Factor (dB)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Detect or Type
High Channel:5240MHz									
V	10480.00	49.97	46.20	8.27	38.60	50.64	68.20	-17.56	PK
V	10480.00	39.24	46.20	8.27	38.60	39.91	54.00	-14.09	AV
V	15720.00	47.36	46.30	10.35	38.40	49.81	74.00	-24.19	PK
V	15720.00	36.80	46.30	10.35	38.40	39.25	54.00	-14.75	AV
V	20960.00	58.21	57.40	11.93	37.50	50.24	68.20	-17.96	PK
V	20960.00	49.01	57.40	11.93	37.50	41.04	54.00	-12.96	AV
V	26200.00	53.90	56.50	13.45	40.10	50.95	68.20	-17.25	PK
V	26200.00	43.79	56.50	13.45	40.10	40.84	54.00	-13.16	AV
H	10480.00	50.23	46.20	8.27	38.60	50.90	68.20	-17.30	PK
H	10480.00	39.24	46.20	8.27	38.60	39.91	54.00	-14.09	AV
H	15720.00	47.72	46.30	10.35	38.40	50.17	74.00	-23.83	PK
H	15720.00	36.91	46.30	10.35	38.40	39.36	54.00	-14.64	AV
H	20960.00	58.41	57.40	11.93	37.50	50.44	68.20	-17.76	PK
H	20960.00	48.90	57.40	11.93	37.50	40.93	54.00	-13.07	AV
H	26200.00	53.58	56.50	13.45	40.10	50.63	68.20	-17.57	PK
H	26200.00	43.12	56.50	13.45	40.10	40.17	54.00	-13.83	AV

Remark:

1. Emission Level = Meter Reading + Antenna Factor + Cable Loss – Pre-amplifier,
Margin= Emission Level - Limit
2. If peak below the average limit, the average emission was no test.
3. The amplitude of spurious emissions which are attenuated by more than 20dB below the permissible value has no need to be reported.
4. The worst mode is 802.11n20, only the worst data is recorded.



Temperature:	25.6℃	Relative Humidity:	55%
Pressure:	1010 hPa	Test Voltage :	DC 19V
Test Mode :	5.8G TX- 802.11n20		

802.11n20

Polar (H/V)	Frequency	Meter Readi g	Pre- amplifier	Cable Loss	Antenn Factor	Emission Level	Limits	Margin	Detect or Typ
	(MHz)	(dBuV)	(dB)	(dB)	(dB)	(dBuV/m)	(dBuV/m)	(dB)	
Low Channel:5745MHz									
V	11490.00	50.73	46.10	8.77	39.10	52.50	74.00	-21.50	PK
V	11490.00	41.32	46.10	8.77	39.10	43.09	54.00	-10.91	AV
V	17235.00	47.93	47.60	11.10	38.70	50.13	68.20	-18.07	PK
V	17235.00	39.51	47.60	11.10	38.70	41.71	54.00	-12.29	AV
V	22980.00	57.99	56.90	12.73	37.70	51.52	74.00	-22.48	PK
V	22980.00	48.77	56.90	12.73	37.70	42.30	54.00	-11.70	AV
V	28725.00	54.31	55.60	14.25	40.30	53.26	68.20	-14.94	PK
V	28725.00	44.51	55.60	14.25	40.30	43.46	54.00	-10.54	AV
H	11490.00	51.27	46.10	8.77	39.10	53.04	74.00	-20.96	PK
H	11490.00	41.11	46.10	8.77	39.10	42.88	54.00	-11.12	AV
H	17235.00	49.10	47.60	11.10	38.70	51.30	68.20	-16.90	PK
H	17235.00	40.00	47.60	11.10	38.70	42.20	54.00	-11.80	AV
H	22980.00	60.54	56.90	12.73	37.70	54.07	74.00	-19.93	PK
H	22980.00	48.50	56.90	12.73	37.70	42.03	54.00	-11.97	AV
H	28725.00	56.58	55.60	14.25	40.30	55.53	68.20	-12.67	PK
H	28725.00	45.24	55.60	14.25	40.30	44.19	54.00	-9.81	AV

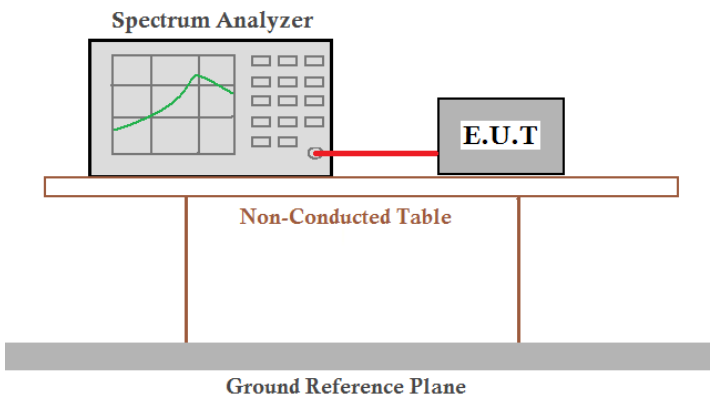
Polar (H/V)	Frequency	Meter Reading	Pre- amplifier	Cable Loss	Antenna Factor	Emission Level	Limits	Margin	Detect or Type
	(MHz)	(dBuV)	(dB)	(dB)	(dB)	(dBuV/m)	(dBuV/m)	(dB)	
Middle Channel:5785MHz									
V	11570.00	50.17	46.10	8.77	39.10	51.94	74.00	-22.06	PK
V	11570.00	40.18	46.10	8.77	39.10	41.95	54.00	-12.05	AV
V	17355.00	49.06	47.70	11.10	38.40	50.86	68.20	-17.34	PK
V	17355.00	40.09	47.70	11.10	38.40	41.89	54.00	-12.11	AV
V	23140.00	58.23	56.90	12.73	37.80	51.86	74.00	-22.14	PK
V	23140.00	48.41	56.90	12.73	37.80	42.04	54.00	-11.96	AV
V	28925.00	53.83	55.60	14.25	40.50	52.98	68.20	-15.22	PK
V	28925.00	44.85	55.60	14.25	40.50	44.00	54.00	-10.00	AV
H	11570.00	52.10	46.10	8.77	39.10	53.87	74.00	-20.13	PK
H	11570.00	41.49	46.10	8.77	39.10	43.26	54.00	-10.74	AV
H	17355.00	48.68	47.70	11.10	38.40	50.48	68.20	-17.72	PK
H	17355.00	39.50	47.70	11.10	38.40	41.30	54.00	-12.70	AV
H	23140.00	59.22	56.90	12.73	37.80	52.85	74.00	-21.15	PK
H	23140.00	49.85	56.90	12.73	37.80	43.48	54.00	-10.52	AV
H	28925.00	55.51	55.60	14.25	40.50	54.66	68.20	-13.54	PK
H	28925.00	45.75	55.60	14.25	40.50	44.90	54.00	-9.10	AV

Polar (H/V)	Frequency (MHz)	Meter Reading (dBuV)	Pre- amplifier (dB)	Cable Loss (dB)	Antenna Factor (dB)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Detect or Type
High Channel:5825MHz									
V	11650.00	51.67	46.10	8.77	39.10	53.44	74.00	-20.56	PK
V	11650.00	41.23	46.10	8.77	39.10	43.00	54.00	-11.00	AV
V	17475.00	49.22	47.90	11.23	38.90	51.45	68.20	-16.75	PK
V	17475.00	40.40	47.90	11.23	38.90	42.63	54.00	-11.37	AV
V	23300.00	60.34	57.10	12.73	37.80	53.77	68.20	-14.43	PK
V	23300.00	49.53	57.10	12.73	37.80	42.96	54.00	-11.04	AV
V	29125.00	56.58	55.80	14.25	40.50	55.53	68.20	-12.67	PK
V	29125.00	46.37	55.80	14.25	40.50	45.32	54.00	-8.68	AV
H	11650.00	53.97	46.10	8.77	39.10	55.74	74.00	-18.26	PK
H	11650.00	43.98	46.10	8.77	39.10	45.75	54.00	-8.25	AV
H	17475.00	50.61	47.90	11.23	38.90	52.84	68.20	-15.36	PK
H	17475.00	41.87	47.90	11.23	38.90	44.10	54.00	-9.90	AV
H	23300.00	61.96	57.10	12.73	37.80	55.39	68.20	-12.81	PK
H	23300.00	51.20	57.10	12.73	37.80	44.63	54.00	-9.37	AV
H	29125.00	57.80	55.80	14.25	40.50	56.75	68.20	-11.45	PK
H	29125.00	47.22	55.80	14.25	40.50	46.17	54.00	-7.83	AV

Remark:

1. Emission Level = Meter Reading + Antenna Factor + Cable Loss – Pre-amplifier,
Margin= Emission Level - Limit
2. If peak below the average limit, the average emission was no test.
3. The amplitude of spurious emissions which are attenuated by more than 20dB below the permissible value has no need to be reported.
4. The worst mode is 802.11n20, only the worst data is recorded.

4.7.2 Conducted Emission Method

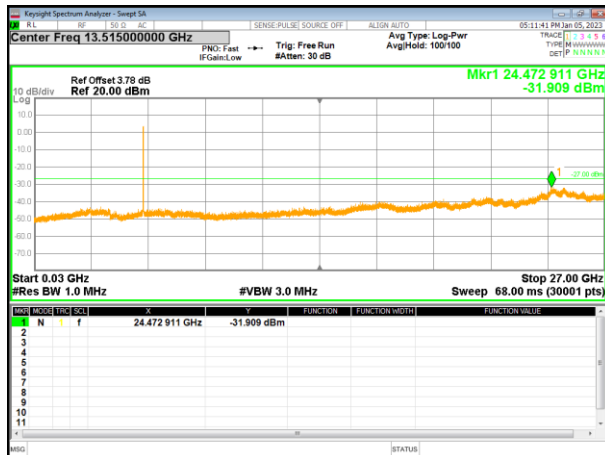
Test Requirement:	FCC Part15 C Section 15.209, Part 15E Section 15.407(b)(4)
Test Method:	ANSI C63.10:2013
Limit:	-27dBm/MHz
Test setup:	 The diagram illustrates the test setup for conducted emissions. A Spectrum Analyzer is connected to an Equipment Under Test (E.U.T.) via a red cable. Both the Spectrum Analyzer and the E.U.T. are placed on a Non-Conducted Table. The table is supported by a Ground Reference Plane.
Test Instruments:	Refer to section 3.0 for details
Test mode:	Refer to section 2.2 for details
Test results:	Pass



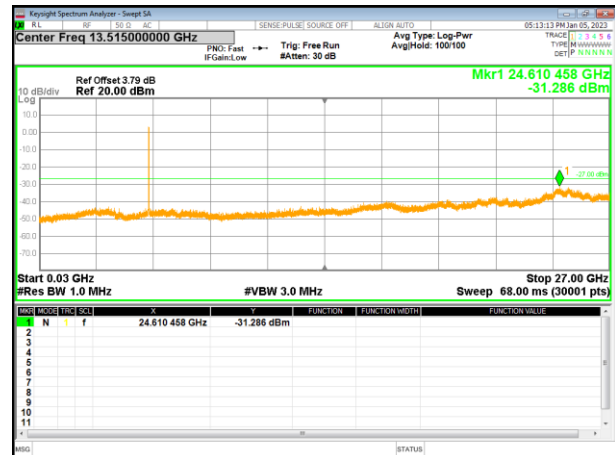
5180-5240MHz

Test Plot

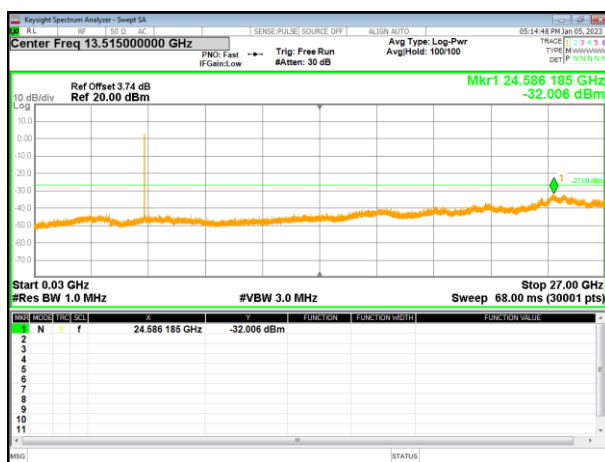
802.11a on channel 36



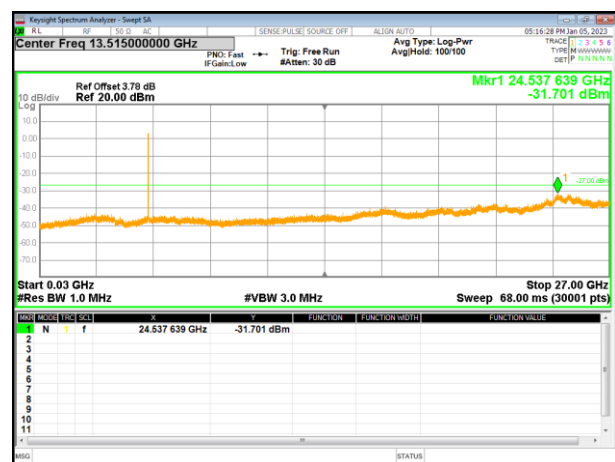
802.11a on channel 40



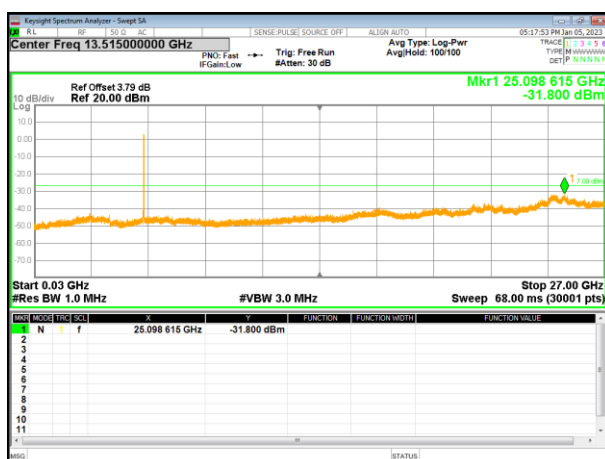
802.11a on channel 48



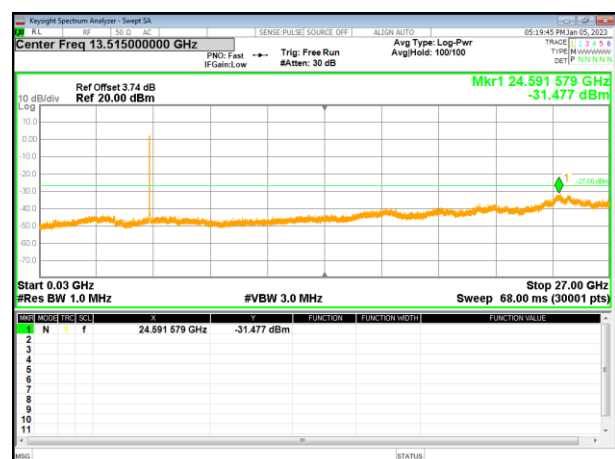
802.11n20 on channel 36



802.11n20 on channel 40

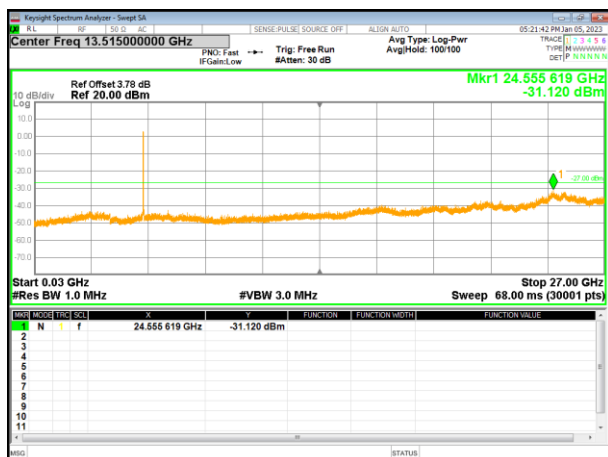


802.11n20 on channel 48

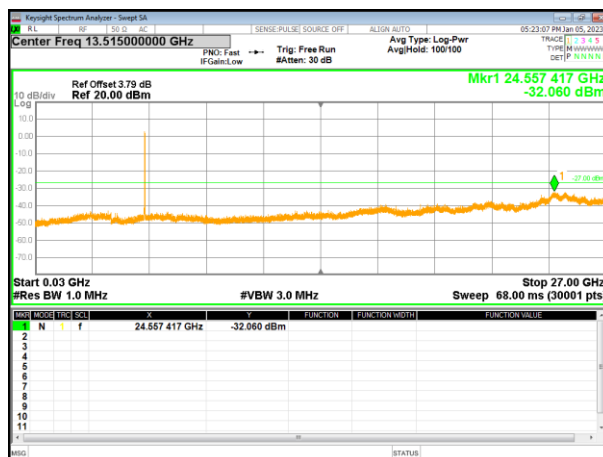


Test Plot

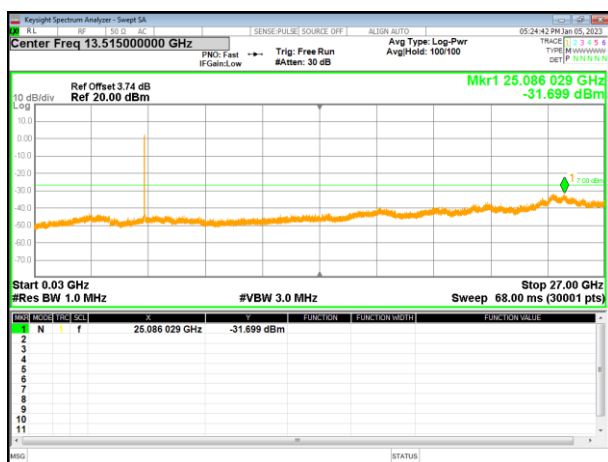
802.11ac20 on channel 36



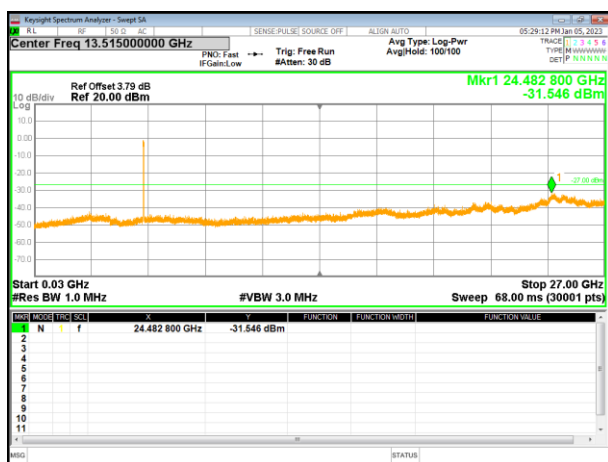
802.11ac20 on channel 40



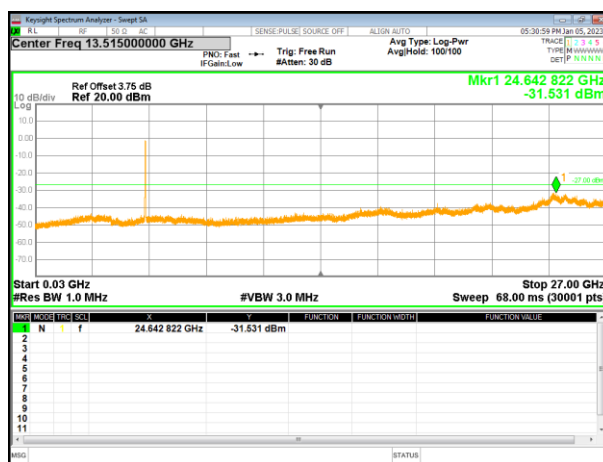
802.11ac20 on channel 48



802.11n40 on channel 38

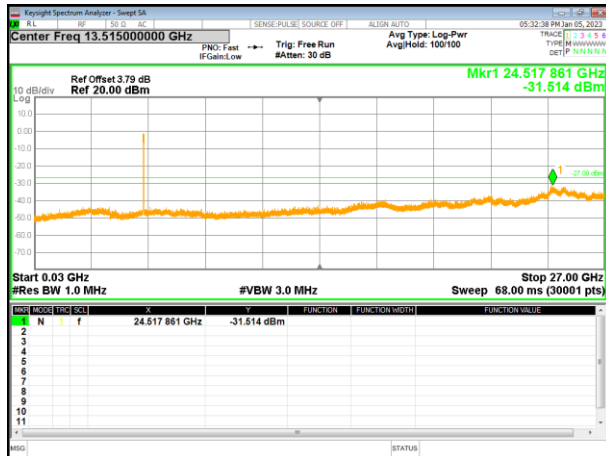


802.11n40 on channel 46

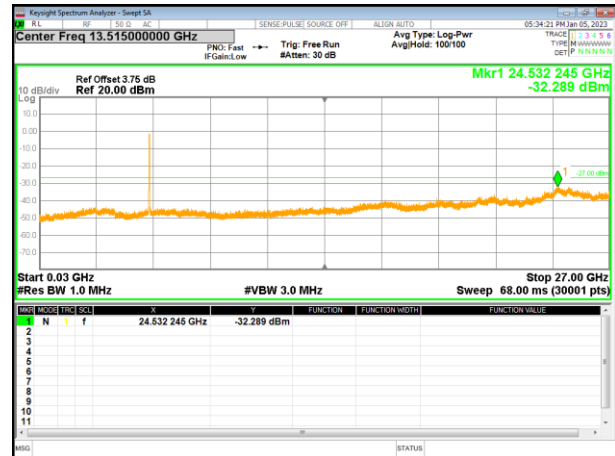


Test Plot

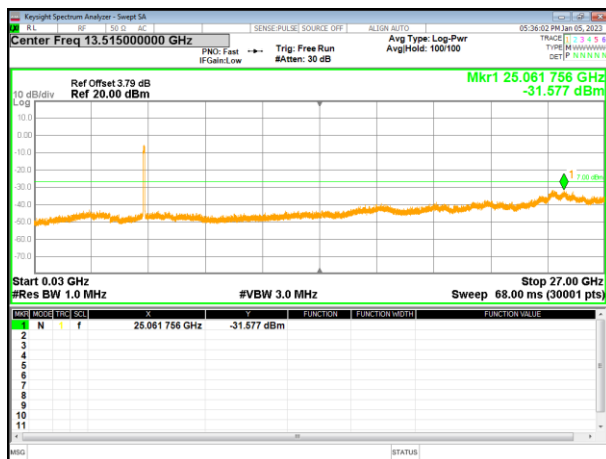
802.11ac40 on channel 38



802.11ac40 on channel 46



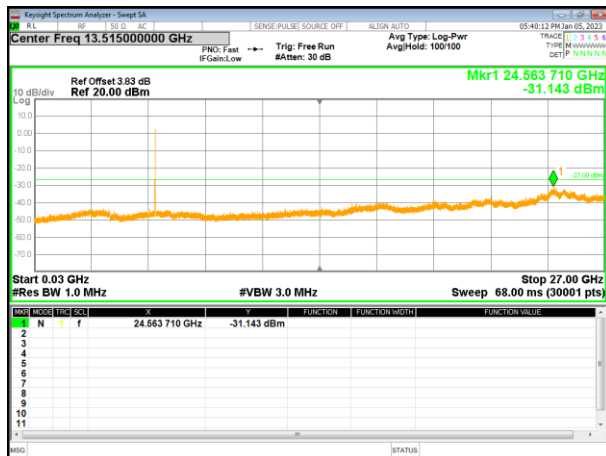
802.11ac80 on channel 42



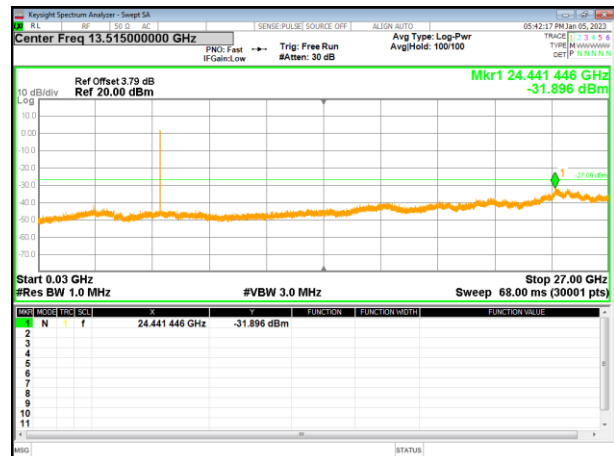
5745-5825MHz

Test Plot

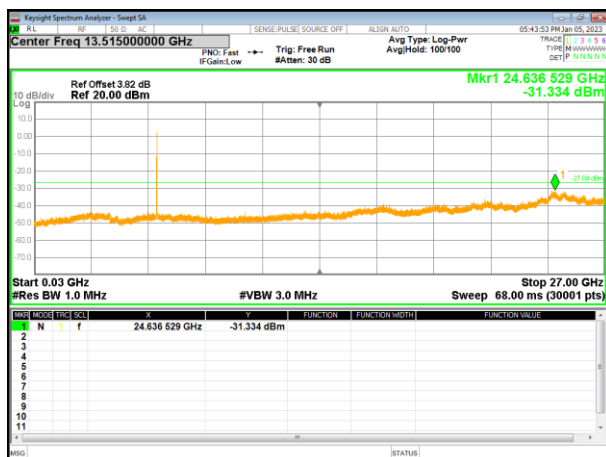
802.11a on channel 149



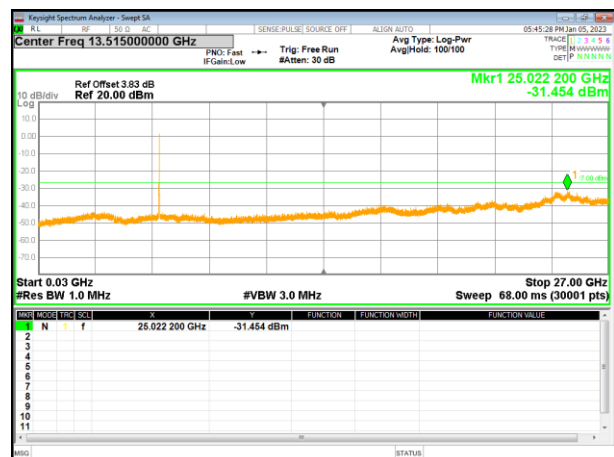
802.11a on channel 157



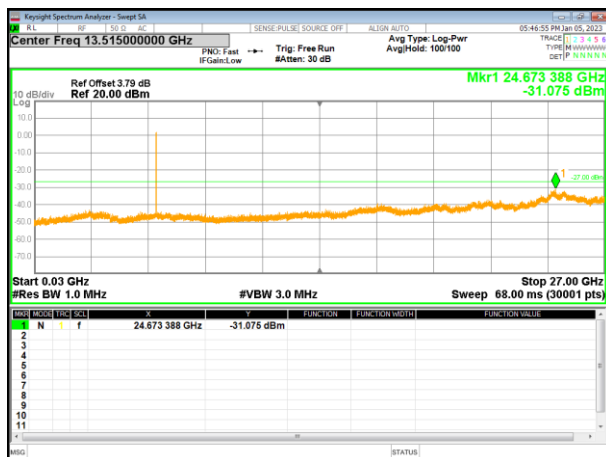
802.11a on channel 165



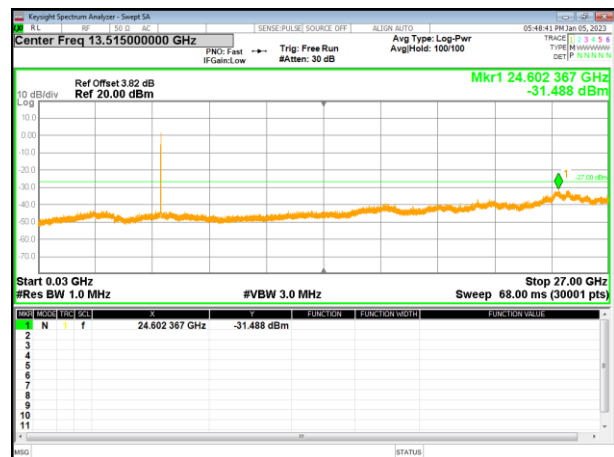
802.11n20 on channel 149



802.11n20 on channel 157

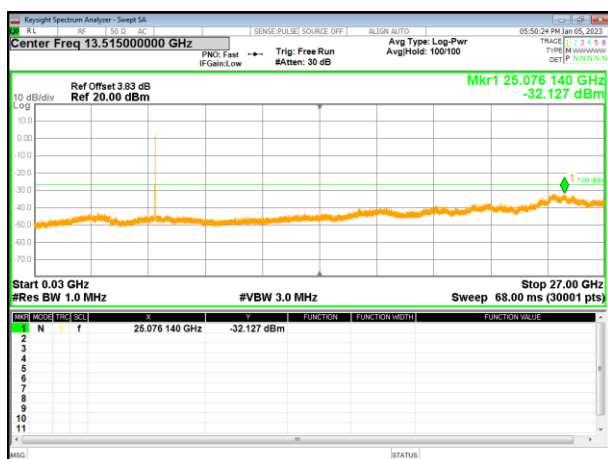


802.11n20 on channel 165

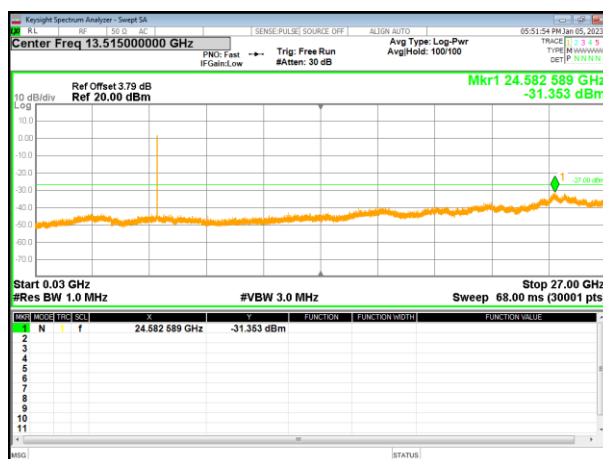


Test Plot

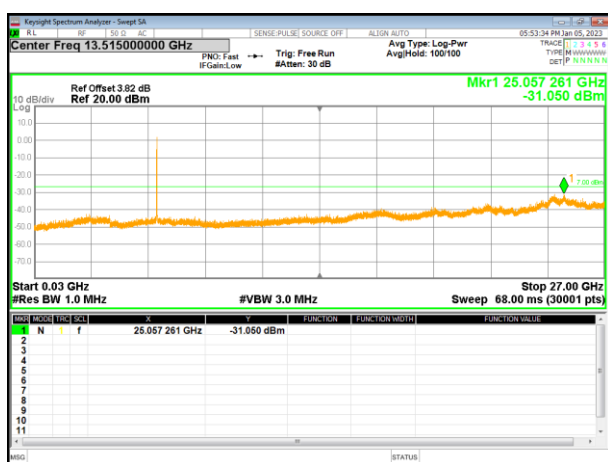
802.11ac20 on channel 149



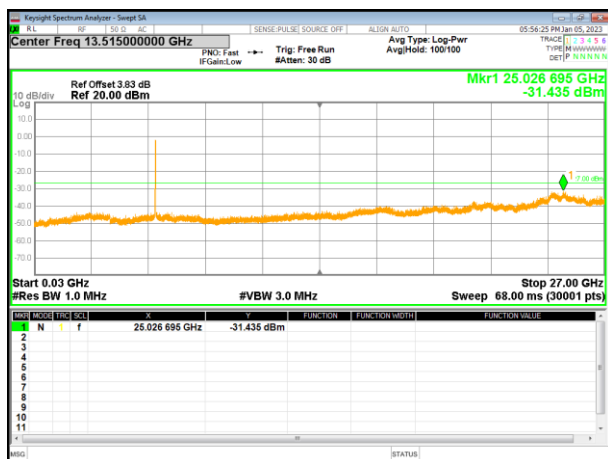
802.11ac20 on channel 157



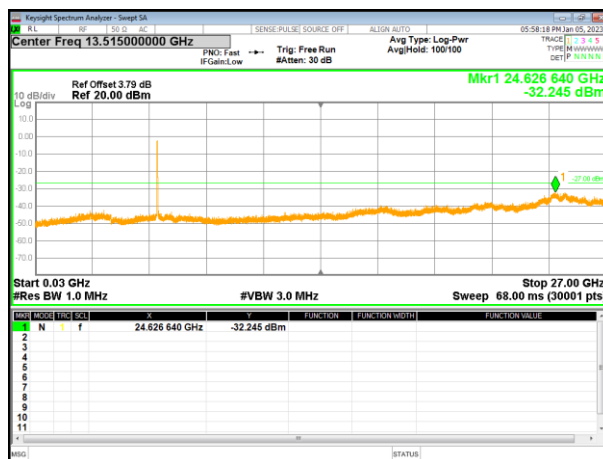
802.11ac20 on channel 165



802.11n40 on channel 151

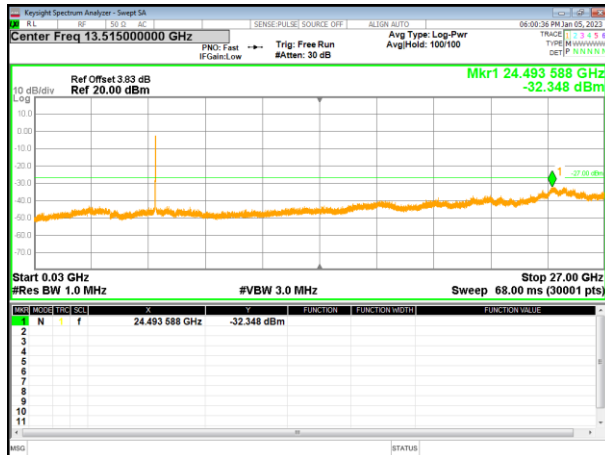


802.11n40 on channel 159

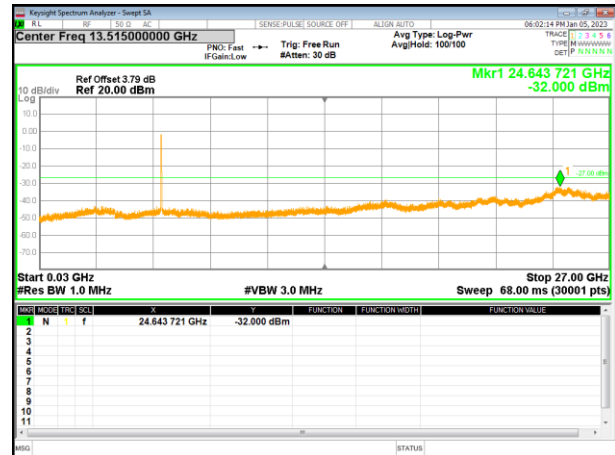


Test Plot

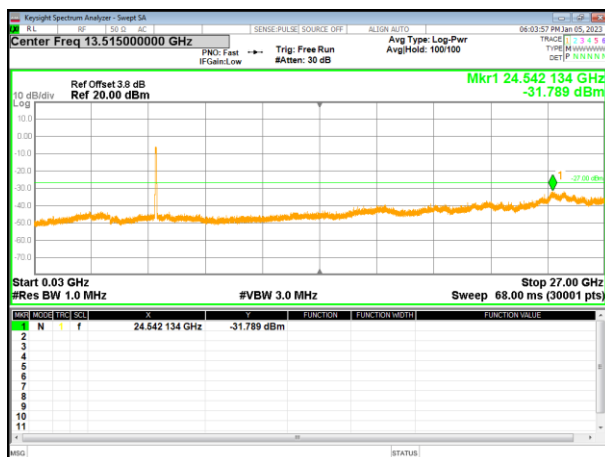
802.11ac40 on channel 151



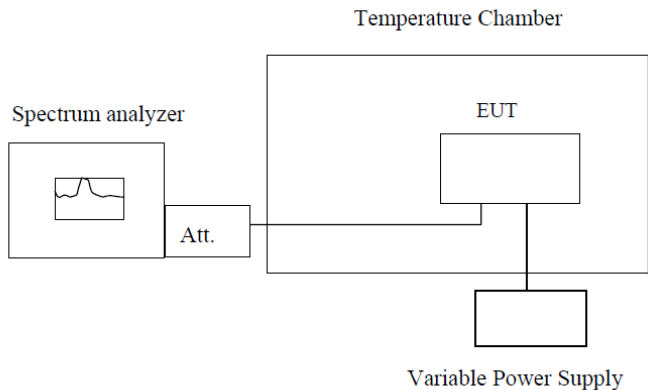
802.11ac40 on channel 159



802.11ac80 on channel 155



4.8 Frequency stability

Test Requirement:	FCC Part15 C Section 15.407(g)
Test Method:	ANSI C63.10:2013, FCC Part 2.1055
Limit:	Manufactures 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
Test Procedure:	a. The EUT was placed inside the environmental test chamber and powered by nominal DC voltage. b. Turn the EUT on and couple its output to a spectrum analyzer. c. Turn the EUT off and set the chamber to the highest temperature specified. d. Allow sufficient time (approximately 30 min) for the temperature of the chamber to stabilize, turn the EUT on and measure the operating frequency after 2, 5, and 10 Minutes. e. Repeat step 2 and 3 with the temperature chamber set to the lowest temperature. f. The test chamber was allowed to stabilize at +20 degree C for a minimum of 30 Minute s. The supply voltage was then adjusted on the EUT from 85% to 115% and the frequency record.
Test setup:	 Note : Measurement setup for testing on Antenna connector
Test Instruments:	Refer to section 3.0 for details
Test mode:	Refer to section 2.2 for details
Test results:	Pass

Remark: Set the EUT transmits at un-modulation mode to test frequency stability.

Measurement data:

Frequency stability versus Temp.					
Power Supply: DC 19V					
Temp. (°C)	Operating Frequency (MHz)	0 minute Measured Frequency (MHz)	2 minute Measured Frequency (MHz)	5 minute Measured Frequency (MHz)	10 minute Measured Frequency (MHz)
-30	5180	5179.926	5180.062	5180.072	5179.910
	5190	5189.922	5199.936	5199.947	5189.921
	5200	5199.917	5199.961	5199.972	5199.911
	5210	5209.923	5209.939	5209.950	5209.912
	5220	5219.918	5219.954	5219.965	5219.919
	5230	5229.916	5229.947	5229.958	5229.936
	5240	5239.889	5239.955	5239.966	5239.921
-20	5180	5179.917	5179.938	5179.957	5179.931
	5190	5189.908	5189.928	5189.956	5189.927
	5200	5199.916	5199.936	5199.950	5199.921
	5210	5209.908	5209.928	5209.940	5209.927
	5220	5219.929	5219.949	5219.950	5219.922
	5230	5229.907	5229.927	5229.948	5229.919
	5240	5239.925	5239.945	5239.952	5239.892
-10	5180	5179.926	5179.947	5179.936	5179.910
	5190	5189.922	5189.942	5189.947	5189.921
	5200	5199.917	5199.937	5199.938	5199.911
	5210	5209.923	5209.943	5209.939	5209.912
	5220	5219.918	5219.938	5219.946	5219.919
	5230	5229.916	5229.936	5229.964	5229.936
	5240	5239.889	5239.909	5239.936	5239.908
0	5180	5179.703	5179.926	5179.948	5179.921
	5190	5199.875	5189.936	5189.939	5189.922
	5200	5199.873	5199.927	5199.947	5199.912
	5210	5209.928	5209.928	5209.939	5209.917
	5220	5219.917	5219.935	5219.960	5219.912
	5230	5229.904	5229.953	5229.938	5229.932
	5240	5239.921	5239.925	5239.956	5239.910
10	5180	5179.905	5179.938	5179.957	5179.922
	5190	5189.916	5189.928	5189.953	5189.913
	5200	5199.907	5199.936	5199.948	5199.920
	5210	5209.908	5209.928	5209.954	5209.912
	5220	5219.915	5219.949	5219.949	5219.933
	5230	5229.933	5229.927	5229.947	5229.910
	5240	5239.918	5239.945	5239.920	5239.928

20	5180	5179.926	5179.937	5179.948	5179.883
	5190	5189.922	5189.937	5189.939	5189.913
	5200	5199.917	5199.928	5199.947	5199.937
	5210	5209.923	5299.936	5209.939	5209.921
	5220	5219.918	5219.928	5219.960	5219.912
	5230	5229.916	5229.949	5229.938	5229.939
	5240	5239.889	5239.927	5239.956	5239.927
30	5180	5179.905	5179.938	5179.948	5179.931
	5190	5189.916	5189.928	5189.939	5179.931
	5200	5199.907	5199.936	5199.947	5189.927
	5210	5209.908	5209.928	5209.939	5199.921
	5220	5219.915	5219.949	5219.960	5209.927
	5230	5229.933	5229.927	5229.938	5219.922
	5240	5239.905	5239.945	5239.956	5229.919
40	5180	5179.917	5179.937	5179.734	5179.910
	5190	5189.908	5189.937	5199.906	5189.921
	5200	5199.916	5199.928	5199.904	5199.911
	5210	5209.908	5299.936	5209.959	5209.912
	5220	5219.929	5219.928	5219.948	5219.919
	5230	5229.907	5229.949	5229.935	5229.936
	5240	5239.925	5239.927	5239.952	5239.908
50	5180	5179.917	5179.938	5179.948	5179.883
	5190	5189.908	5189.928	5189.939	5189.913
	5200	5199.916	5199.936	5199.947	5199.937
	5210	5209.908	5209.928	5209.939	5209.921
	5220	5219.929	5219.949	5219.960	5219.912
	5230	5229.907	5229.927	5229.938	5229.939
	5240	5239.925	5239.945	5239.956	5239.927

Frequency stability versus Voltage					
Temperature: 25°C					
Power Supply (VDC)	Operating Frequency (MHz)	0 minute Measured Frequency (MHz)	2 minute Measured Frequency (MHz)	5 minute Measured Frequency (MHz)	10 minute Measured Frequency (MHz)
16.15	5180	5179.926	5180.062	5179.948	5180.046
	5190	5189.922	5199.936	5189.939	5199.920
	5200	5199.917	5199.961	5199.947	5199.945
	5210	5209.923	5209.939	5209.939	5209.923
	5220	5219.918	5219.954	5219.960	5219.938
	5230	5229.916	5229.947	5229.938	5229.930
	5240	5239.889	5239.955	5239.956	5239.938
19	5180	5179.917	5179.956	5179.947	5179.931
	5190	5189.908	5180.062	5189.948	5189.930
	5200	5199.916	5199.936	5199.939	5199.923
	5210	5209.908	5209.961	5299.947	5209.913
	5220	5219.929	5219.939	5219.939	5219.923
	5230	5229.907	5229.954	5229.960	5299.918
	5240	5239.925	5239.947	5239.938	5239.924
21.85	5180	5179.926	5179.947	5179.936	5179.910
	5190	5189.922	5189.942	5189.947	5189.921
	5200	5199.917	5199.937	5199.938	5199.911
	5210	5209.923	5209.943	5209.939	5209.912
	5220	5219.918	5219.938	5219.946	5219.919
	5230	5229.916	5229.936	5229.964	5229.936
	5240	5239.889	5239.909	5239.936	5239.908

Frequency stability versus Temp.					
Power Supply: DC 19V					
Temp. (°C)	Operating Frequency (MHz)	0 minute Measured Frequency (MHz)	2 minute Measured Frequency (MHz)	5 minute Measured Frequency (MHz)	10 minute Measured Frequency (MHz)
-30	5745	5744.909	5744.924	5744.937	5744.892
	5755	5754.916	5754.931	5754.944	5754.880
	5775	5774.932	5774.923	5774.960	5774.891
	5785	5784.908	5784.915	5784.936	5784.897
	5795	5794.904	5794.922	5794.932	5794.915
	5825	5824.907	5824.850	5824.935	5824.906
-20	5745	5744.898	5744.935	5744.931	5744.903
	5755	5754.914	5754.937	5754.956	5754.916
	5775	5774.912	5774.940	5774.936	5774.901
	5785	5784.915	5784.932	5784.945	5784.887
	5795	5794.926	5794.923	5794.943	5794.881
	5825	5824.907	5824.931	5824.953	5824.914
-10	5745	5744.909	5744.925	5744.947	5744.523
	5755	5754.935	5754.932	5754.949	5754.905
	5775	5774.930	5774.949	5774.951	5774.906
	5785	5784.914	5784.925	5784.943	5784.908
	5795	5794.903	5794.921	5794.934	5794.891
	5825	5824.838	5824.923	5824.943	5824.886
0	5745	5744.903	5744.914	5744.947	5744.928
	5755	5754.928	5754.930	5754.949	5754.918
	5775	5774.908	5774.929	5774.951	5774.914
	5785	5784.917	5784.932	5784.943	5784.897
	5795	5794.915	5794.943	5794.934	5794.886
	5825	5824.925	5824.923	5824.943	5824.820
10	5745	5744.903	5744.924	5744.936	5744.893
	5755	5754.928	5754.941	5754.943	5754.899
	5775	5774.908	5774.942	5774.934	5774.916
	5785	5784.917	5784.924	5784.926	5784.891
	5795	5794.915	5794.941	5794.933	5794.887
	5825	5824.925	5824.938	5824.862	5824.889
20	5745	5744.919	5744.949	5744.947	5744.892
	5755	5754.933	5754.921	5754.961	5754.910
	5775	5774.917	5774.944	5774.945	5774.890
	5785	5784.904	5784.944	5784.932	5784.916
	5795	5794.898	5794.935	5794.926	5794.908
	5825	5824.932	5824.949	5824.960	5824.916
30	5745	5744.909	5744.935	5744.936	5744.917
	5755	5754.916	5754.937	5754.953	5754.888
	5775	5774.932	5774.940	5774.953	5774.911
	5785	5784.908	5784.932	5784.935	5784.910
	5795	5794.904	5794.923	5794.952	5794.901
	5825	5824.907	5824.931	5824.950	5824.915

40	5745	5744.919	5744.919	5744.947	57442.928
	5755	5754.933	5754.944	5754.949	5754.918
	5775	5774.917	5774.925	5774.951	5774.914
	5785	5784.904	5784.934	5784.943	5784.897
	5795	5794.898	5794.932	5794.934	5794.886
	5825	5824.932	5824.941	5824.943	5824.820
50	5745	5744.919	5744.949	5744.947	5744.892
	5755	5754.933	5754.921	5754.961	5754.910
	5775	5774.917	5774.944	5774.945	5774.890
	5785	5784.904	5784.944	5784.932	5784.916
	5795	5794.898	5794.935	5794.926	5794.908
	5825	5824.932	5824.949	5824.960	5824.916

Frequency stability versus Voltage					
Temperature: 25°C					
Power Supply (VDC)	Operating Frequency (MHz)	0 minute Measured Frequency (MHz)	2 minute Measured Frequency (MHz)	5 minute Measured Frequency (MHz)	10 minute Measured Frequency (MHz)
16.15	5745	5744.898	5744.924	5744.936	5744.887
	5755	5754.914	5754.931	5754.953	5754.911
	5775	5774.912	5774.923	5774.953	5774.892
	5785	5784.915	5784.915	5784.935	5784.900
	5795	5794.926	5794.922	5794.952	5794.898
	5825	5824.907	5824.850	5824.950	5824.907
19	5745	5744.898	5744.935	5744.931	5744.903
	5755	5754.914	5754.937	5754.956	5754.916
	5775	5774.912	5774.940	5774.936	5774.901
	5785	5784.915	5784.932	5784.945	5784.887
	5795	5794.926	5794.923	5794.943	5794.881
	5825	5824.907	5824.931	5824.953	5824.914
21.85	5745	5744.919	5744.949	5744.947	5744.892
	5755	5754.933	5754.921	5754.961	5754.910
	5775	5774.917	5774.944	5774.945	5774.890
	5785	5784.904	5784.944	5784.932	5784.916
	5795	5794.898	5794.935	5794.926	5794.908
	5825	5824.932	5824.949	5824.960	5824.916

5 Test Setup Photo

Reference to the **appendix I** for details.

6 EUT Constructional Details

Reference to the **appendix II** for details.

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