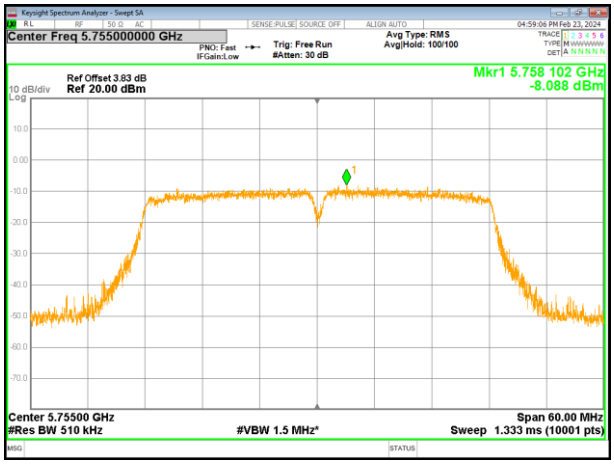
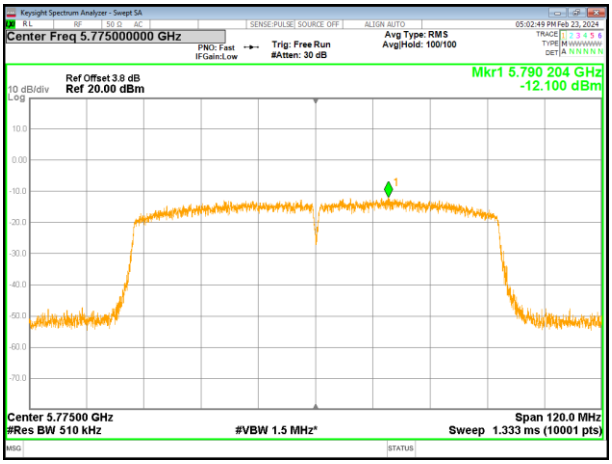
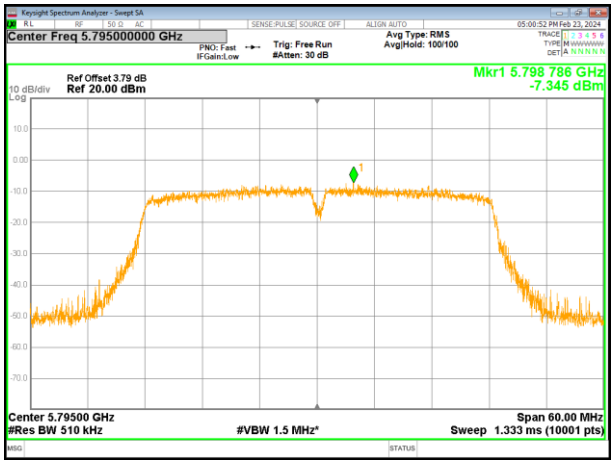
(802.11ac40) PSD plot on channel 151



(802.11ac80) PSD plot on channel 155

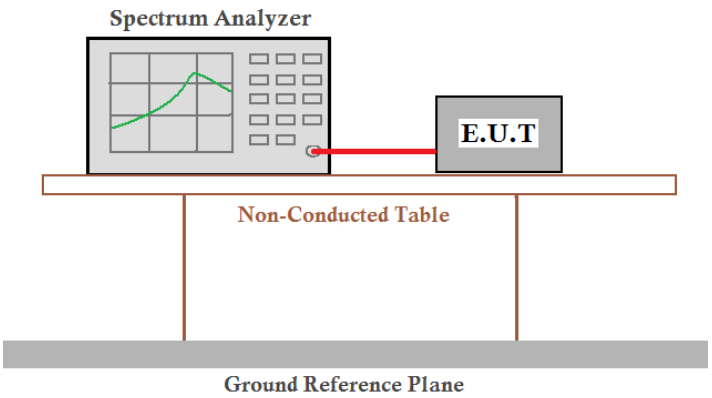


(802.11ac40) PSD plot on channel 159



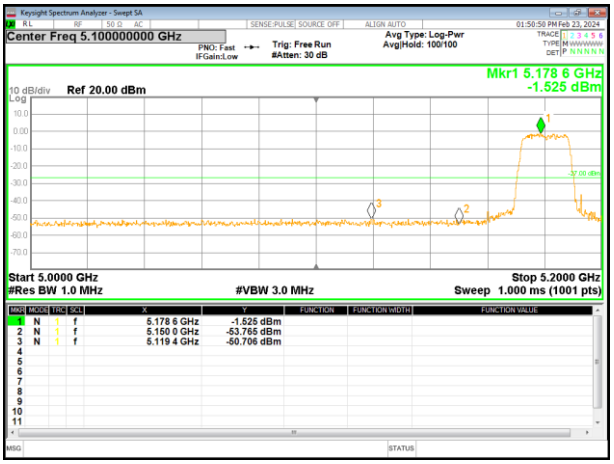
4.7 Band edge

4.7.1 Conducted test Method

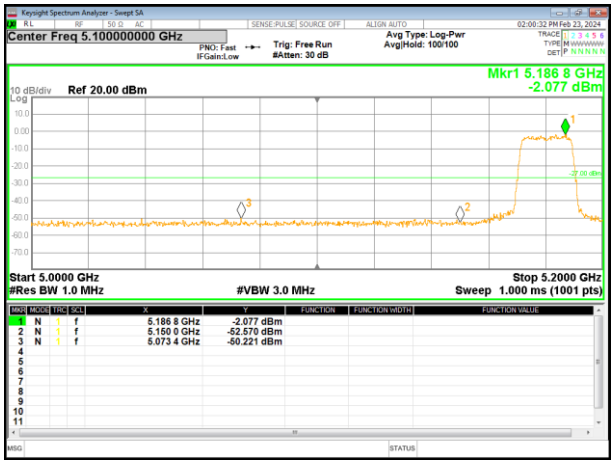
Test Requirement:	FCC Part15 C Section 15.209 and 15.205
Test Method:	ANSI C63.10: 2013
Limit:	All emissions shall be limited to a level of −27 dBm/MHz at 75 MHz or more above or below the band edge increasing linearly to 10 dBm/MHz at 25 MHz above or below the band edge, and from 25 MHz above or below 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:	
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 environment:	Temp.: 21.4°C Humid.: 40%RH
Test voltage:	DC 12V
Test results:	Pass

5.180~5.240 GHz

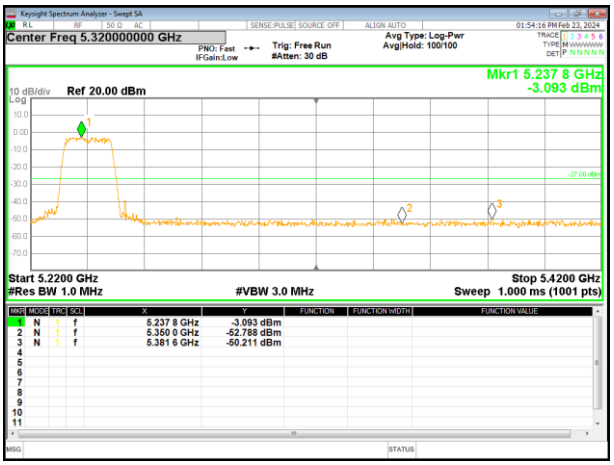
(802.11a) Band Edge, Left Side



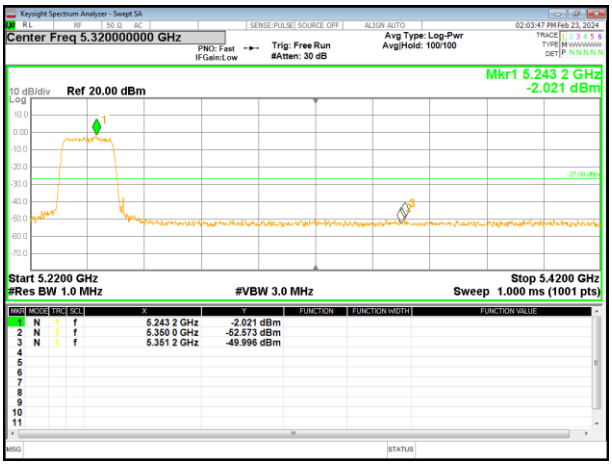
(802.11n20) Band Edge, Left Side



(802.11a) Band Edge, Right Side

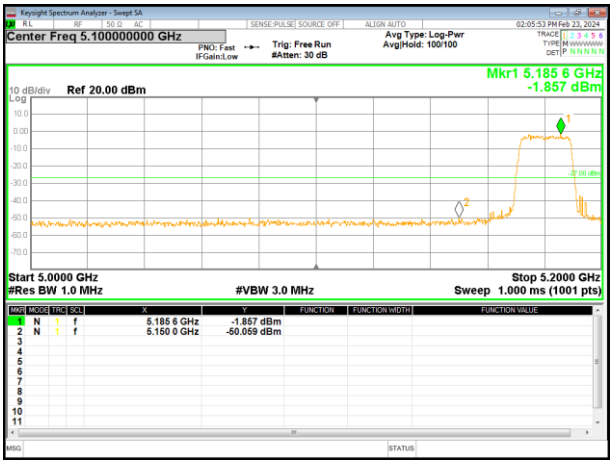


(802.11n20) Band Edge, Right Side

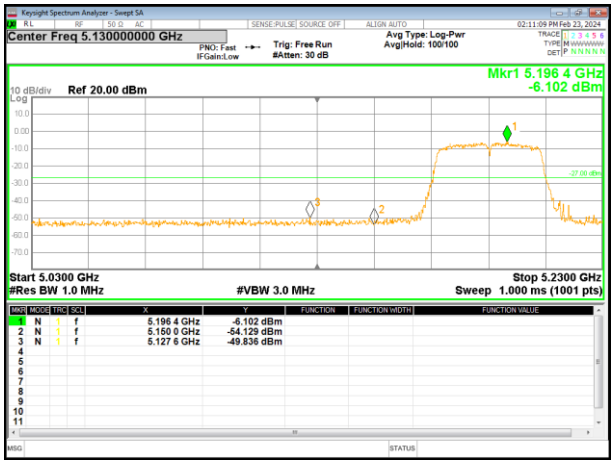


5.180~5.240 GHz

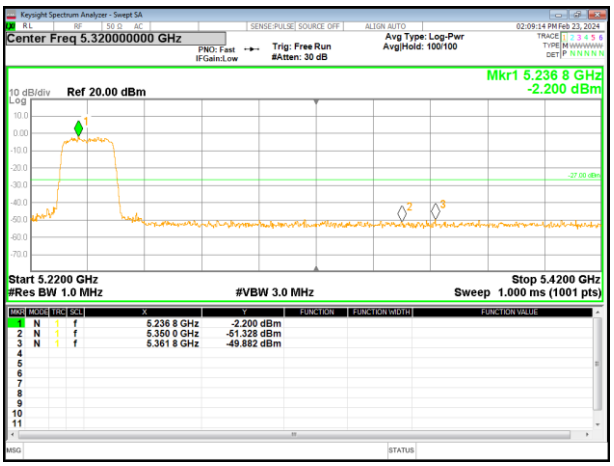
(802.11ac20) Band Edge, Left Side



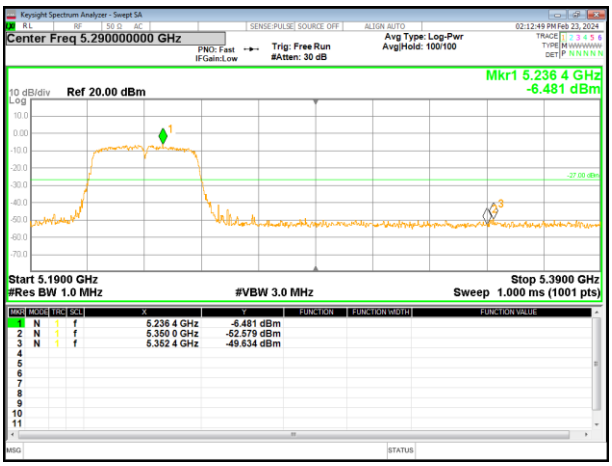
(802.11n40) Band Edge, Left Side



(802.11ac20) Band Edge, Right Side



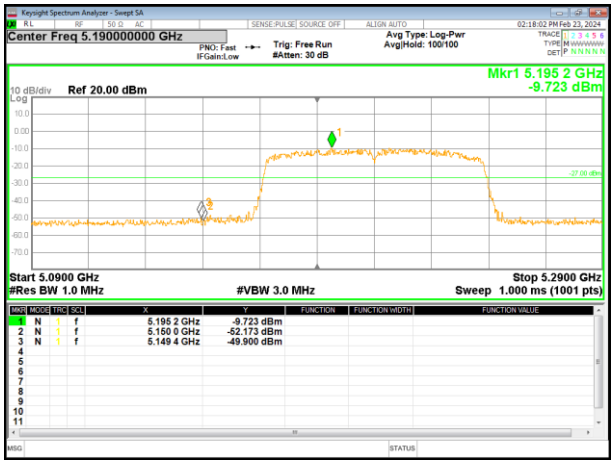
(802.11n40) Band Edge, Right Side



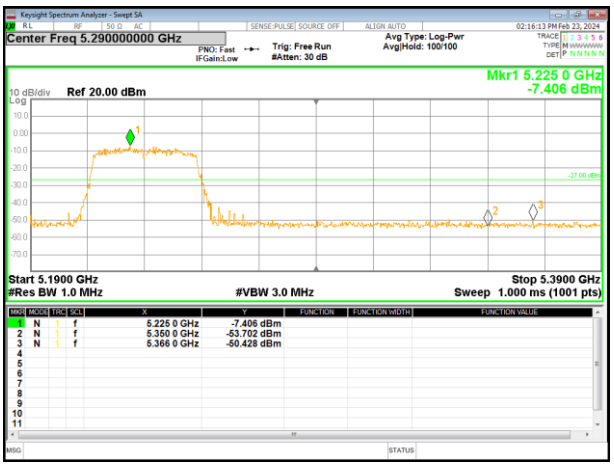
5.180~5.240 GHz

(802.11ac40) Band Edge, Left Side

(802.11ac80) Band Edge

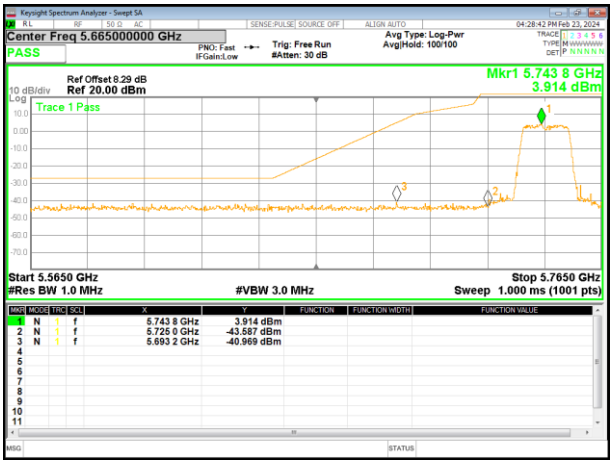


(802.11ac40) Band Edge, Right Side

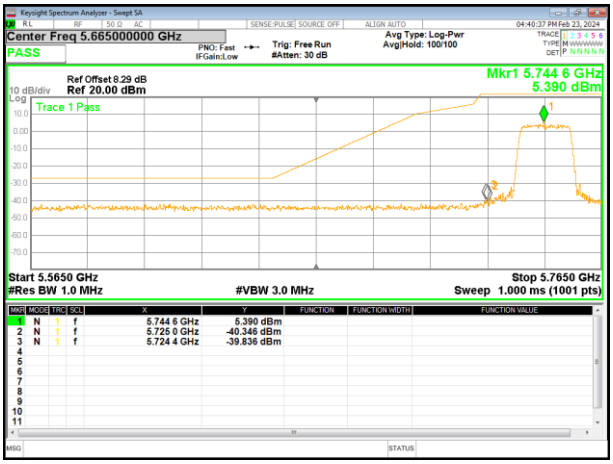


5.745~5.825 GHz

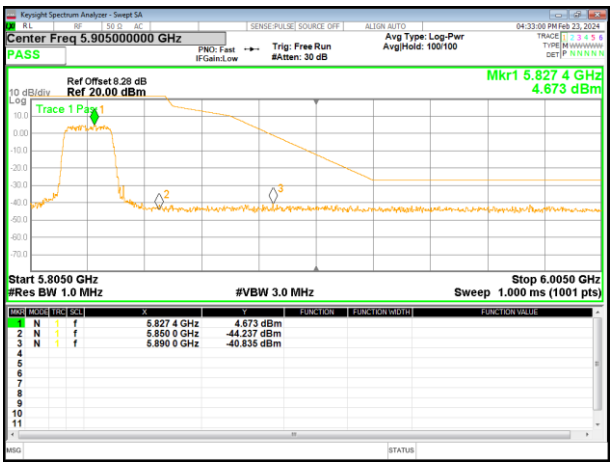
(802.11a) Band Edge, Left Side



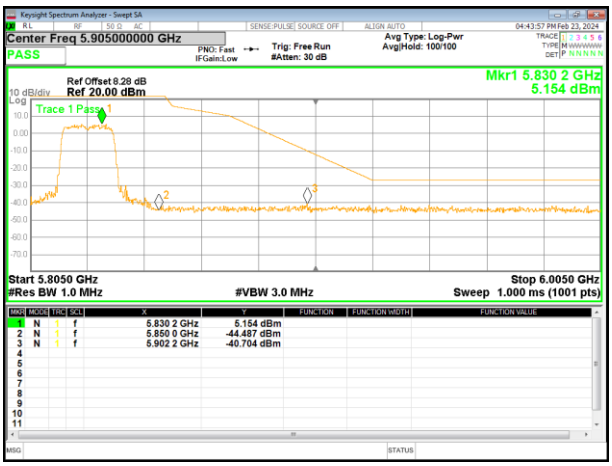
(802.11n20) Band Edge, Left Side



(802.11a) Band Edge, Right Side



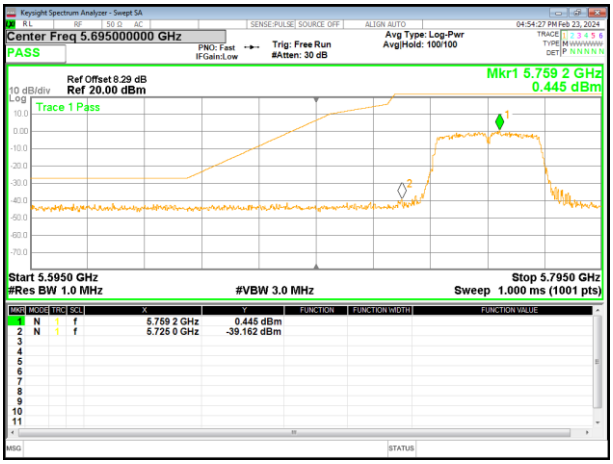
(802.11n20) Band Edge, Right Side



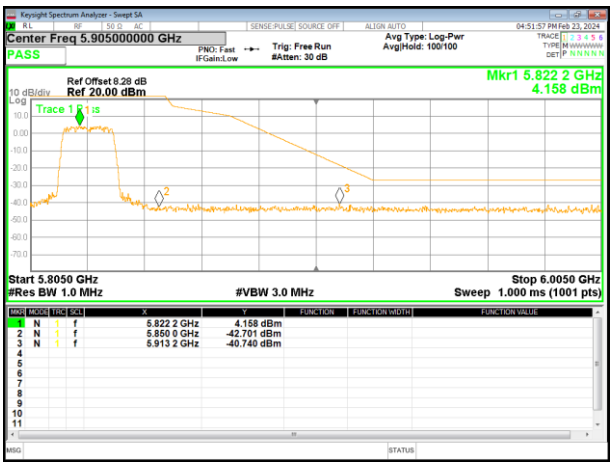
5.745~5.825 GHz

(802.11ac20) Band Edge, Left Side

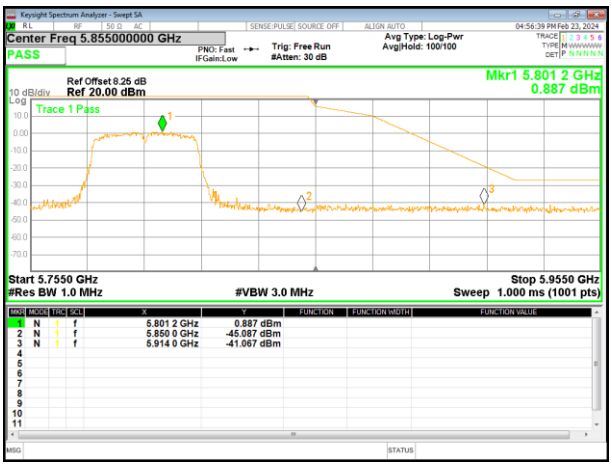
(802.11n40) Band Edge, Left Side



(802.11ac20) Band Edge, Right Side

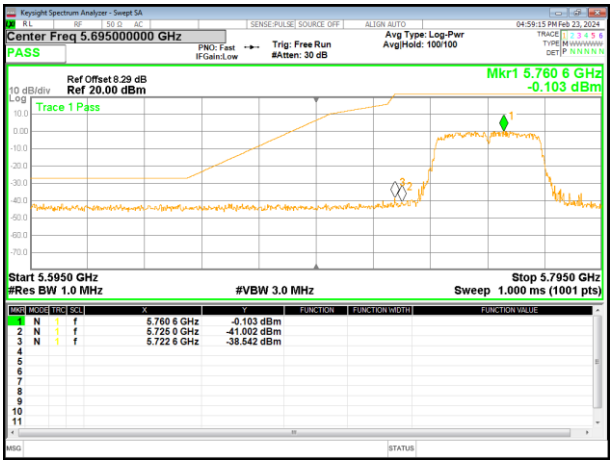


(802.11n40) Band Edge, Right Side

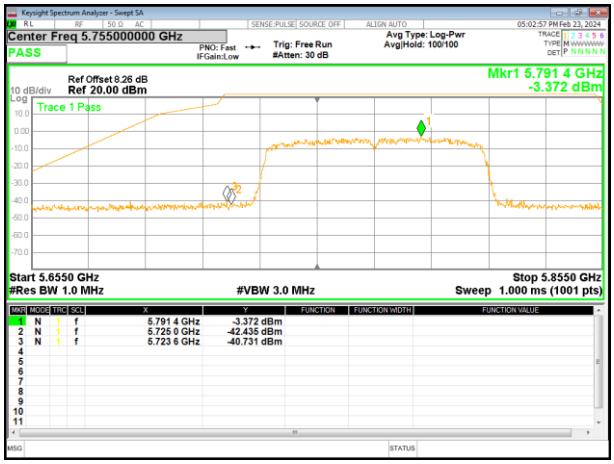


5.745~5.825 GHz

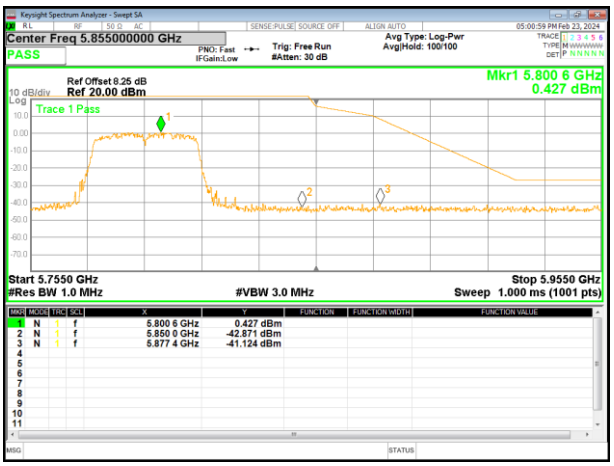
(802.11ac40) Band Edge, Left Side



(802.11ac80) Band Edge



(802.11ac40) Band Edge, Right Side



4.8 Spurious Emission

4.8.1 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

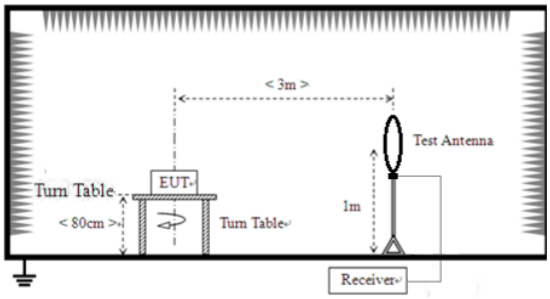
Limit:

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	

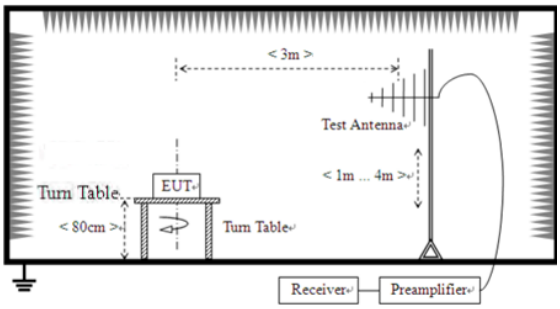
Frequency	Limit (dBm/MHz)	Remark
Above 1GHz	-27.0	Peak Value

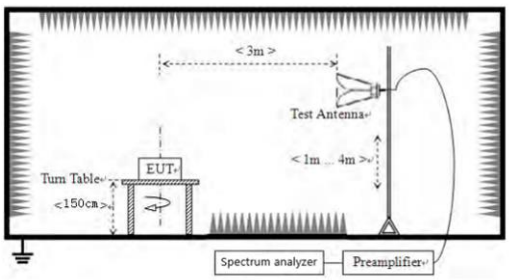
Test setup:

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. 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 results:	Pass

Remarks:

1. *The report only shows the worst mode.*
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

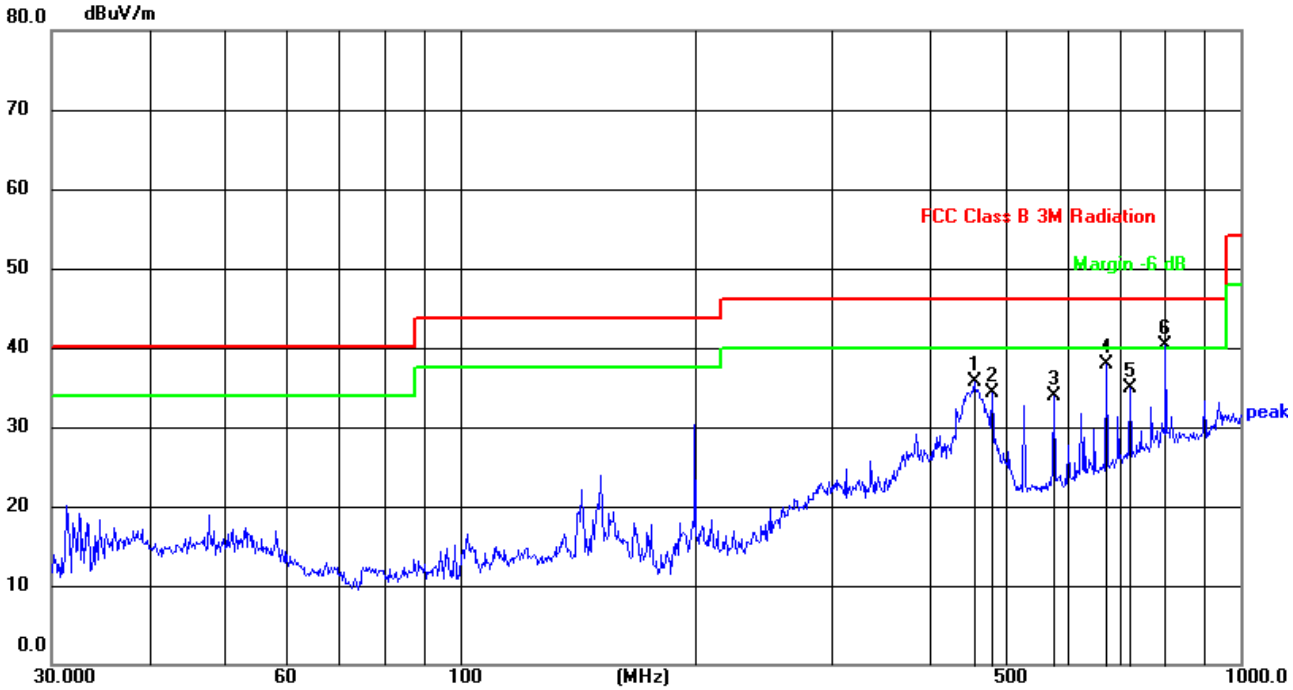
The emission from 9 kHz to 30MHz was pre-tested and found the result was 20dB lower than the limit, and according to 15.31(o) & RSS-Gen 6.13, the test result no need to reported.

Below 1GHz

Remark: The test data shows only the worst case 802.11n20 mode.

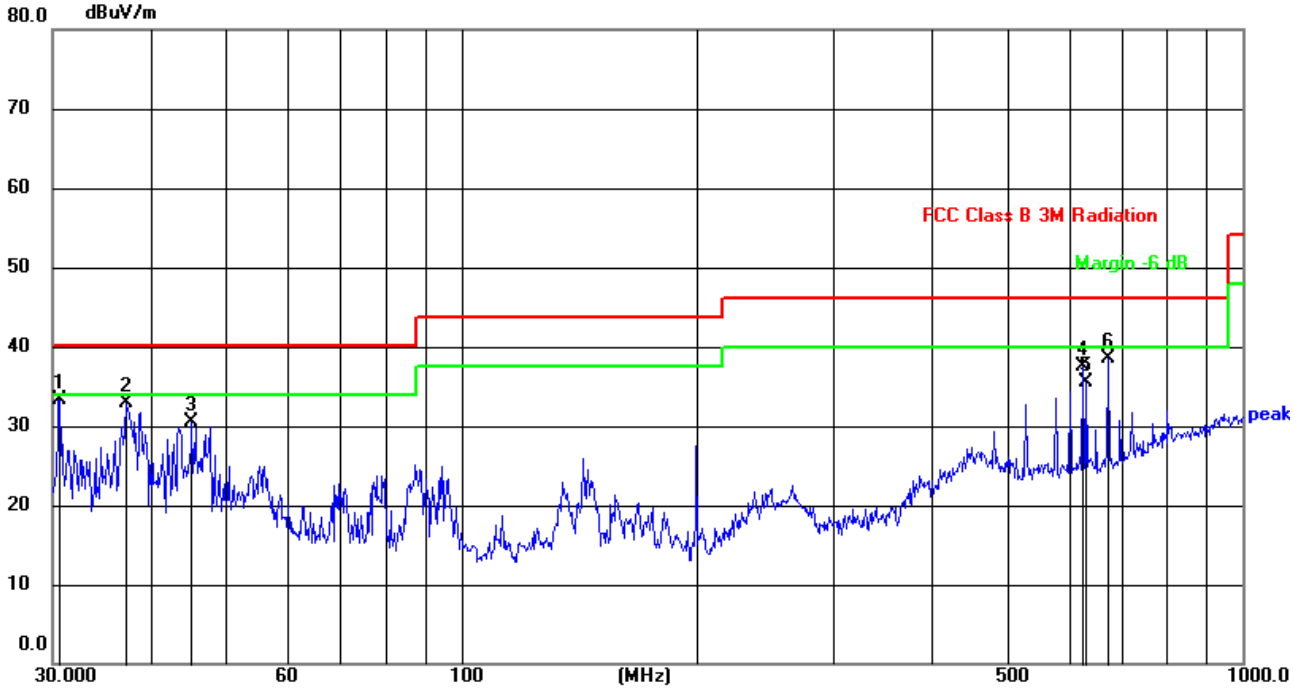
Temperature:	21.4℃	Relative Humidity:	40%
Pressure:	101.2kPar	Test Voltage :	DC 12V
Test Mode :	5.8G TX- 802.11ac20 (5825MHz)		

Horizontal:



No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
1	455.9057	51.18	-15.54	35.64	46.00	-10.36	QP
2	480.5276	49.55	-15.24	34.31	46.00	-11.69	QP
3	576.6443	46.17	-12.27	33.90	46.00	-12.10	QP
4	672.8442	47.94	-10.04	37.90	46.00	-8.10	QP
5	721.7258	43.56	-8.68	34.88	46.00	-11.12	QP
6	801.7862	46.88	-6.49	40.39	46.00	-5.61	QP

Vertical:



No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
1	30.6373	55.95	-22.63	33.32	40.00	-6.68	QP
2	37.2854	54.26	-21.36	32.90	40.00	-7.10	QP
3	45.2165	51.73	-21.21	30.52	40.00	-9.48	QP
4	625.0778	48.12	-10.67	37.45	46.00	-8.55	QP
5	631.6883	46.06	-10.58	35.48	46.00	-10.52	QP
6	672.8442	48.60	-10.04	38.56	46.00	-7.44	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:	21.4℃	Relative Humidity:	40%
Pressure:	101.2kPar	Test Voltage :	DC 12V
Test Mode :	5.2G TX- 802.11a		

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	Detector Type
Low Channel:5180MHz									
V	10360.00	51.75	46.20	8.27	38.50	52.32	68.20	-15.88	PK
V	10360.00	41.55	46.20	8.27	38.50	42.12	54.00	-11.88	AV
V	15540.00	48.79	46.30	10.35	38.70	51.54	74.00	-22.46	PK
V	15540.00	38.54	46.30	10.35	38.70	41.29	54.00	-12.71	AV
V	20720.00	58.09	57.40	11.93	37.80	50.42	68.20	-17.78	PK
V	20720.00	47.85	57.40	11.93	37.80	40.18	54.00	-13.82	AV
V	25900.00	55.68	56.50	13.45	39.70	52.33	68.20	-15.87	PK
V	25900.00	45.04	56.50	13.45	39.70	41.69	54.00	-12.31	AV
H	10360.00	51.67	46.20	8.27	38.50	52.24	68.20	-15.96	PK
H	10360.00	40.15	46.20	8.27	38.50	40.72	54.00	-13.28	AV
H	15540.00	47.79	46.30	10.35	38.70	50.54	74.00	-23.46	PK
H	15540.00	36.06	46.30	10.35	38.70	38.81	54.00	-15.19	AV
H	20720.00	60.36	57.40	11.93	37.80	52.69	68.20	-15.51	PK
H	20720.00	48.76	57.40	11.93	37.80	41.09	54.00	-12.91	AV
H	25900.00	56.73	56.50	13.45	39.70	53.38	68.20	-14.82	PK
H	25900.00	45.07	56.50	13.45	39.70	41.72	54.00	-12.28	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)	Detector Type
Middle Channel:5200MHz									
V	10400.00	50.78	46.20	8.27	38.50	51.35	68.20	-16.85	PK
V	10400.00	41.30	46.20	8.27	38.50	41.87	54.00	-12.13	AV
V	15600.00	49.12	46.30	10.35	38.40	51.57	74.00	-22.43	PK
V	15600.00	40.10	46.30	10.35	38.40	42.55	54.00	-11.45	AV
V	20800.00	59.33	57.40	11.93	37.80	51.66	68.20	-16.54	PK
V	20800.00	49.40	57.40	11.93	37.80	41.73	54.00	-12.27	AV
V	26000.00	54.33	56.50	13.45	39.80	51.08	68.20	-17.12	PK
V	26000.00	46.30	56.50	13.45	39.80	43.05	54.00	-10.95	AV
H	10400.00	51.39	46.20	8.27	38.50	51.96	68.20	-16.24	PK
H	10400.00	41.57	46.20	8.27	38.50	42.14	54.00	-11.86	AV
H	15600.00	49.10	46.30	10.35	38.40	51.55	74.00	-22.45	PK
H	15600.00	40.10	46.30	10.35	38.40	42.55	54.00	-11.45	AV
H	20800.00	58.25	57.40	11.93	37.80	50.58	68.20	-17.62	PK
H	20800.00	47.25	57.40	11.93	37.80	39.58	54.00	-14.42	AV
H	26000.00	54.06	56.50	13.45	39.80	50.81	68.20	-17.39	PK
H	26000.00	45.49	56.50	13.45	39.80	42.24	54.00	-11.76	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)	Detector Type
High Channel:5240MHz									
V	10480.00	47.52	46.20	8.27	38.60	48.19	68.20	-20.01	PK
V	10480.00	37.27	46.20	8.27	38.60	37.94	54.00	-16.06	AV
V	15720.00	45.04	46.30	10.35	38.40	47.49	74.00	-26.51	PK
V	15720.00	34.97	46.30	10.35	38.40	37.42	54.00	-16.58	AV
V	20960.00	55.36	57.40	11.93	37.50	47.39	68.20	-20.81	PK
V	20960.00	46.61	57.40	11.93	37.50	38.64	54.00	-15.36	AV
V	26200.00	51.25	56.50	13.45	40.10	48.30	68.20	-19.90	PK
V	26200.00	41.62	56.50	13.45	40.10	38.67	54.00	-15.33	AV
H	10480.00	47.76	46.20	8.27	38.60	48.43	68.20	-19.77	PK
H	10480.00	37.27	46.20	8.27	38.60	37.94	54.00	-16.06	AV
H	15720.00	45.36	46.30	10.35	38.40	47.81	74.00	-26.19	PK
H	15720.00	35.05	46.30	10.35	38.40	37.50	54.00	-16.50	AV
H	20960.00	55.57	57.40	11.93	37.50	47.60	68.20	-20.60	PK
H	20960.00	46.49	57.40	11.93	37.50	38.52	54.00	-15.48	AV
H	26200.00	50.96	56.50	13.45	40.10	48.01	68.20	-20.19	PK
H	26200.00	40.98	56.50	13.45	40.10	38.03	54.00	-15.97	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.

Temperature:	21.4℃	Relative Humidity:	40%
Pressure:	101.2kPar	Test Voltage :	DC 12V
Test Mode :	5.8G TX- 802.11a		

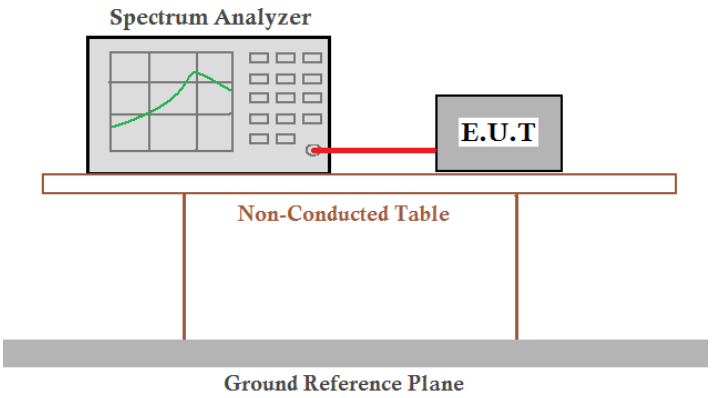
Polar (H/V)	Frequency (MHz)	Meter Reading (dBuV)	Pre-amplifier (dB)	Cable Loss (dB)	Antenn Factor (dB)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Detector Typ
Low Channel:5745MHz									
V	11490.00	46.83	46.10	8.77	39.10	48.60	74.00	-25.40	PK
V	11490.00	38.77	46.10	8.77	39.10	40.54	54.00	-13.46	AV
V	17235.00	44.45	47.60	11.10	38.70	46.65	68.20	-21.55	PK
V	17235.00	37.23	47.60	11.10	38.70	39.43	54.00	-14.57	AV
V	22980.00	53.08	56.90	12.73	37.70	46.61	74.00	-27.39	PK
V	22980.00	45.15	56.90	12.73	37.70	38.68	54.00	-15.32	AV
V	28725.00	49.93	55.60	14.25	40.30	48.88	68.20	-19.32	PK
V	28725.00	41.51	55.60	14.25	40.30	40.46	54.00	-13.54	AV
H	11490.00	47.32	46.10	8.77	39.10	49.09	74.00	-24.91	PK
H	11490.00	38.59	46.10	8.77	39.10	40.36	54.00	-13.64	AV
H	17235.00	45.46	47.60	11.10	38.70	47.66	68.20	-20.54	PK
H	17235.00	37.62	47.60	11.10	38.70	39.82	54.00	-14.18	AV
H	22980.00	55.28	56.90	12.73	37.70	48.81	74.00	-25.19	PK
H	22980.00	44.93	56.90	12.73	37.70	38.46	54.00	-15.54	AV
H	28725.00	51.87	55.60	14.25	40.30	50.82	68.20	-17.38	PK
H	28725.00	42.13	55.60	14.25	40.30	41.08	54.00	-12.92	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)	Detector Type
Middle Channel:5785MHz									
V	11570.00	46.64	46.10	8.77	39.10	48.41	74.00	-25.59	PK
V	11570.00	38.58	46.10	8.77	39.10	40.35	54.00	-13.65	AV
V	17355.00	44.27	47.60	11.10	38.70	46.47	68.20	-21.73	PK
V	17355.00	37.01	47.60	11.10	38.70	39.21	54.00	-14.79	AV
V	23140.00	52.91	56.90	12.73	37.70	46.44	74.00	-27.56	PK
V	23140.00	44.97	56.90	12.73	37.70	38.50	54.00	-15.50	AV
V	28925.00	49.73	55.60	14.25	40.30	48.68	68.20	-19.52	PK
V	28925.00	41.31	55.60	14.25	40.30	40.26	54.00	-13.74	AV
H	11570.00	47.12	46.10	8.77	39.10	48.89	74.00	-25.11	PK
H	11570.00	38.39	46.10	8.77	39.10	40.16	54.00	-13.84	AV
H	17355.00	45.27	47.60	11.10	38.70	47.47	68.20	-20.73	PK
H	17355.00	37.44	47.60	11.10	38.70	39.64	54.00	-14.36	AV
H	23140.00	55.07	56.90	12.73	37.70	48.60	74.00	-25.40	PK
H	23140.00	44.76	56.90	12.73	37.70	38.29	54.00	-15.71	AV
H	28925.00	51.69	55.60	14.25	40.30	50.64	68.20	-17.56	PK
H	28925.00	41.94	55.60	14.25	40.30	40.89	54.00	-13.11	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)	Detector Type
High Channel:5825MHz									
V	11650.00	47.73	46.10	8.77	39.10	49.50	74.00	-24.50	PK
V	11650.00	38.77	46.10	8.77	39.10	40.54	54.00	-13.46	AV
V	17475.00	45.61	47.90	11.23	38.90	47.84	68.20	-20.36	PK
V	17475.00	38.04	47.90	11.23	38.90	40.27	54.00	-13.73	AV
V	23300.00	55.20	57.10	12.73	37.80	48.63	68.20	-19.57	PK
V	23300.00	45.88	57.10	12.73	37.80	39.31	54.00	-14.69	AV
V	29125.00	51.96	55.80	14.25	40.50	50.91	68.20	-17.29	PK
V	29125.00	43.19	55.80	14.25	40.50	42.14	54.00	-11.86	AV
H	11650.00	49.71	46.10	8.77	39.10	51.48	74.00	-22.52	PK
H	11650.00	41.13	46.10	8.77	39.10	42.90	54.00	-11.10	AV
H	17475.00	46.82	47.90	11.23	38.90	49.05	68.20	-19.15	PK
H	17475.00	39.31	47.90	11.23	38.90	41.54	54.00	-12.46	AV
H	23300.00	56.58	57.10	12.73	37.80	50.01	68.20	-18.19	PK
H	23300.00	47.34	57.10	12.73	37.80	40.77	54.00	-13.23	AV
H	29125.00	53.01	55.80	14.25	40.50	51.96	68.20	-16.24	PK
H	29125.00	43.90	55.80	14.25	40.50	42.85	54.00	-11.15	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.

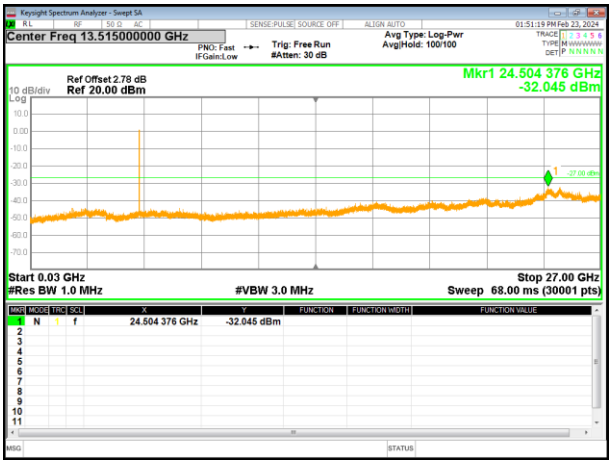
4.8.2 Conducted Emission Method

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:		
Test Instruments:	Refer to section 3.0 for details	
Test mode:	Refer to section 2.2 for details	
Test environment:	Temp.: 21.4°C	Humid.:40%RH
Test voltage:	DC 12V	
Test results:	Pass	

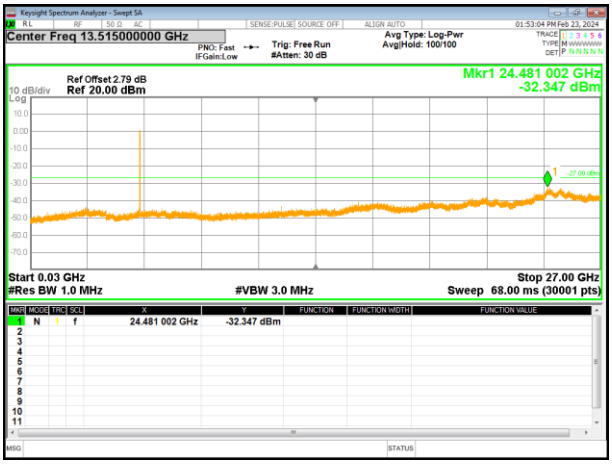
5180-5240MHz

Test Plot

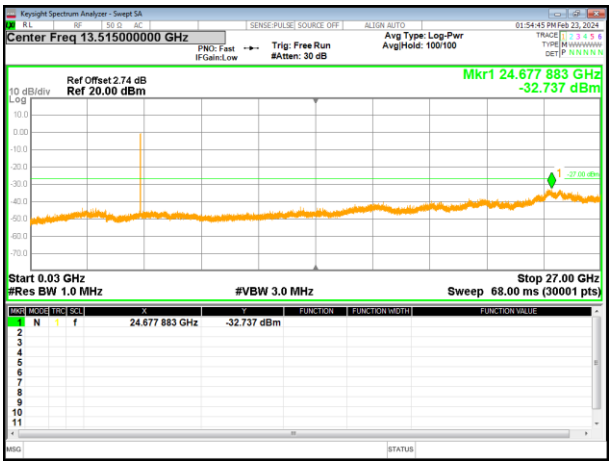
802.11a on channel 36



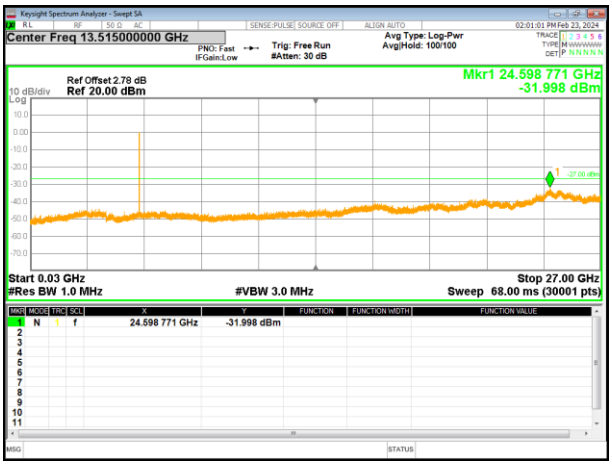
802.11a on channel 40



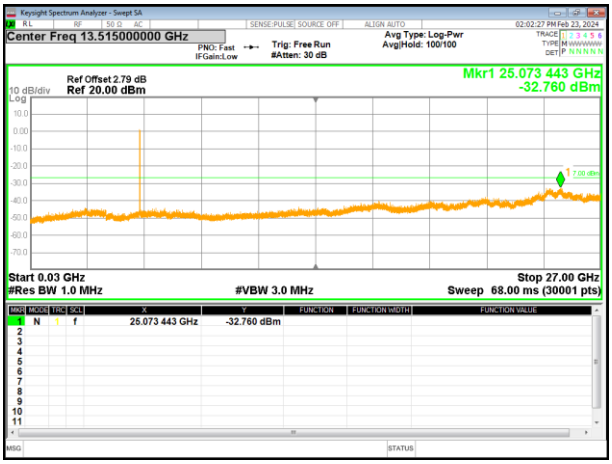
802.11a on channel 48



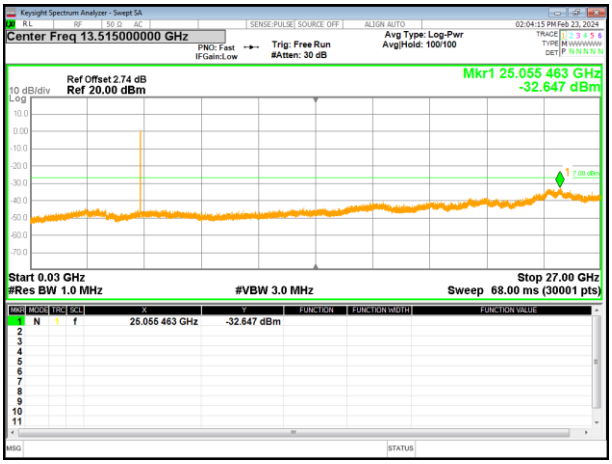
802.11n20 on channel 36



802.11n20 on channel 40

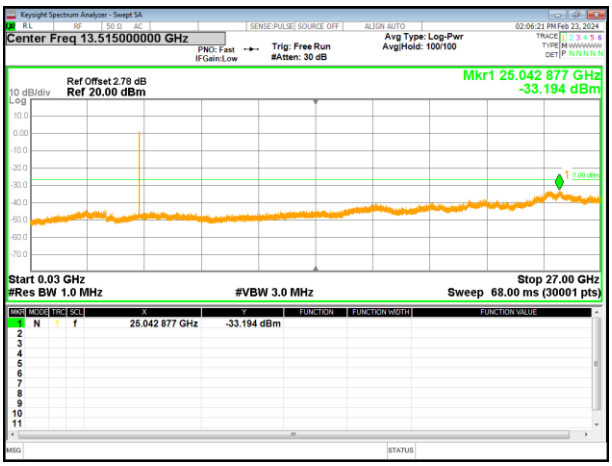


802.11n20 on channel 48

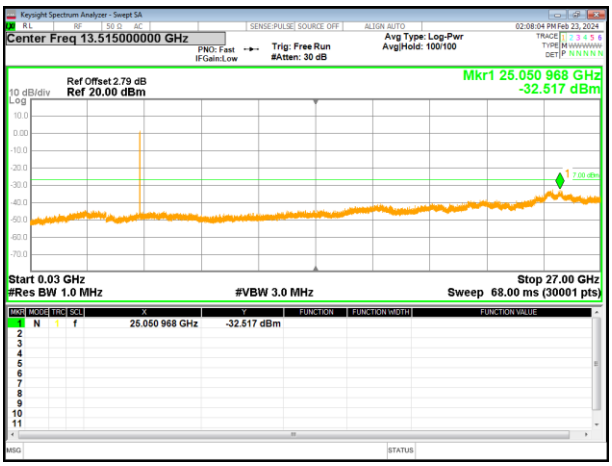


Test Plot

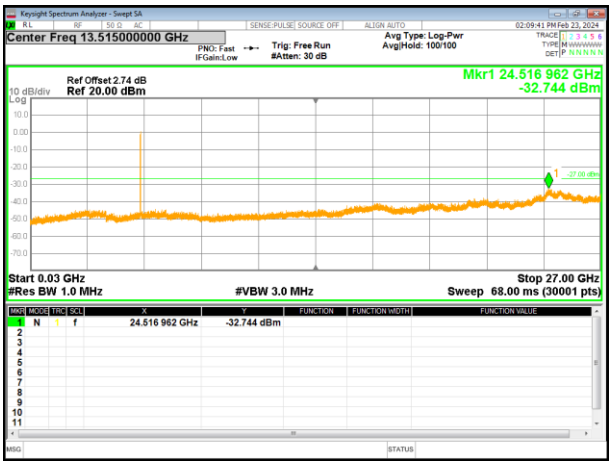
802.11ac20 on channel 36



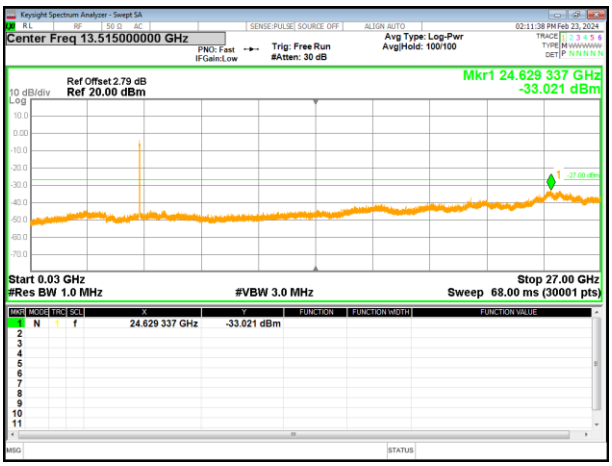
802.11ac20 on channel 40



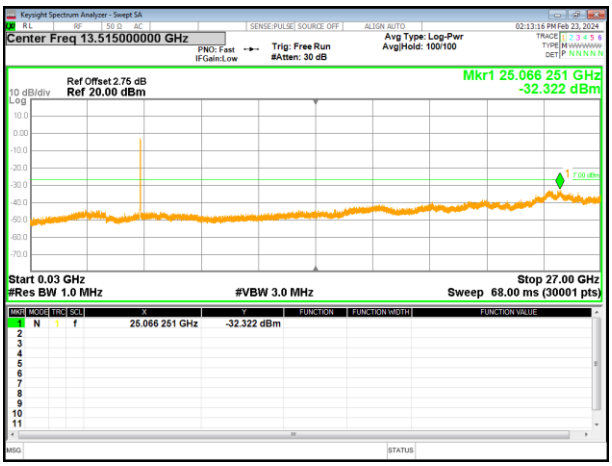
802.11ac20 on channel 48



802.11n40 on channel 38

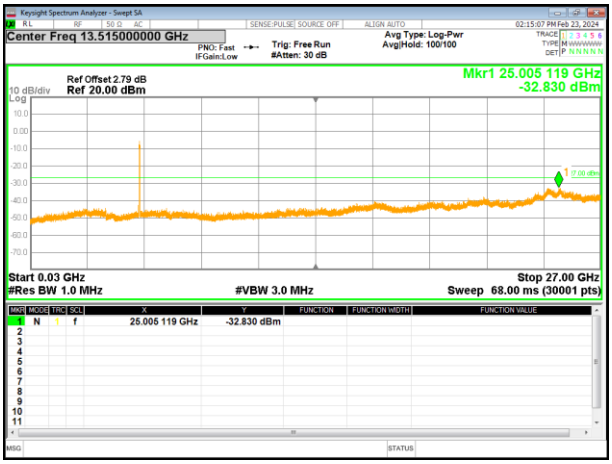


802.11n40 on channel 46

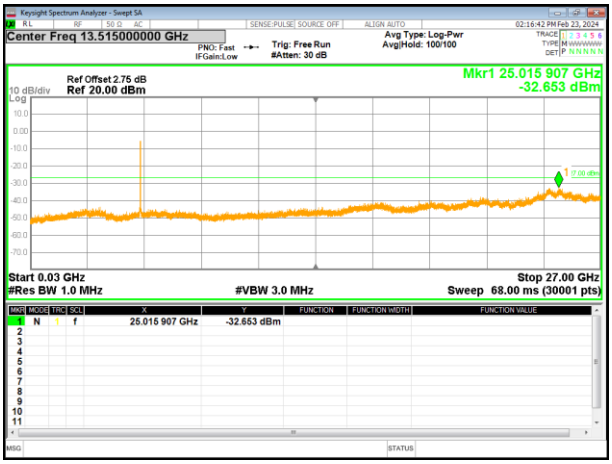


Test Plot

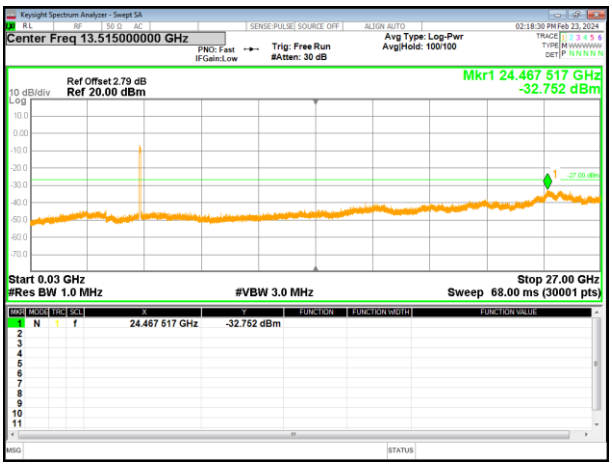
802.11ac40 on channel 38



802.11ac40 on channel 46



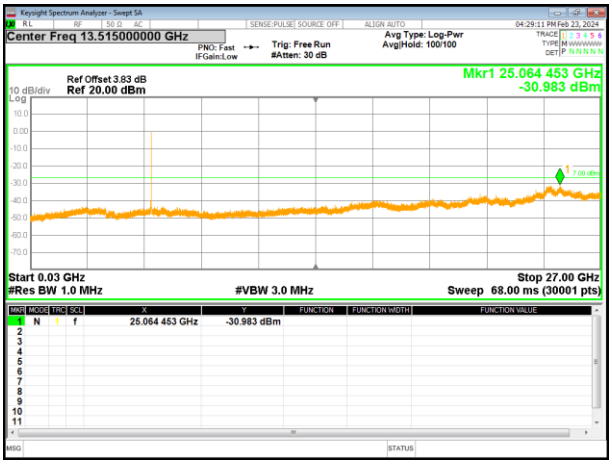
802.11ac80 on channel 42



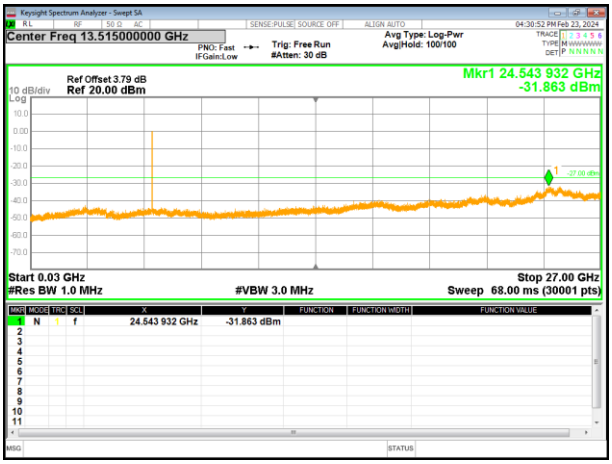
5745-5825MHz

Test Plot

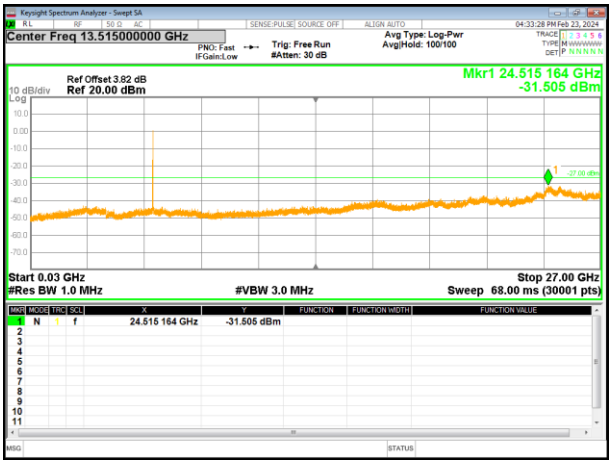
802.11a on channel 149



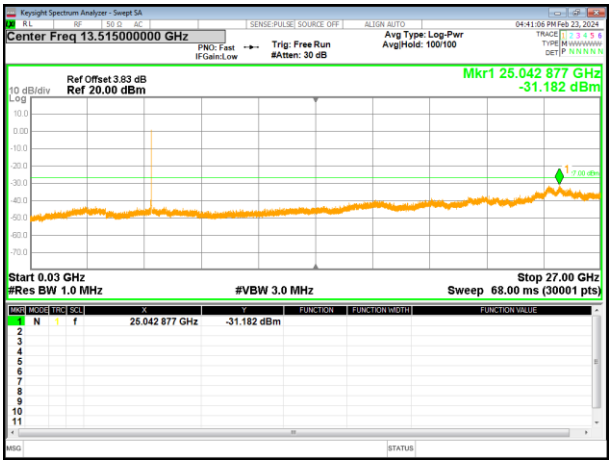
802.11a on channel 157



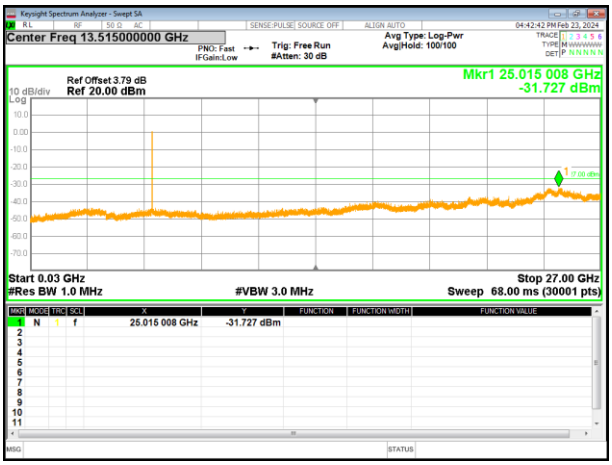
802.11a on channel 165



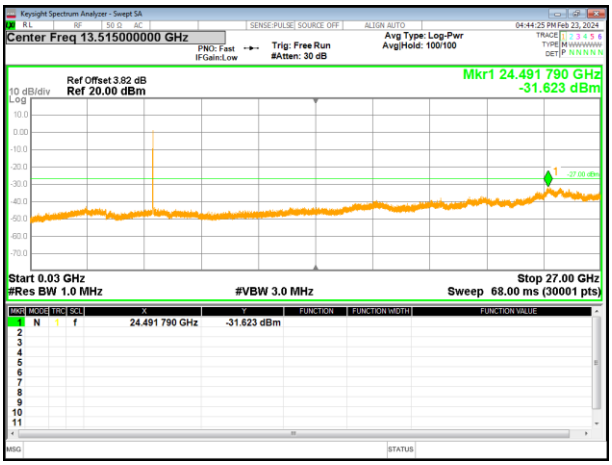
802.11n20 on channel 149



802.11n20 on channel 157

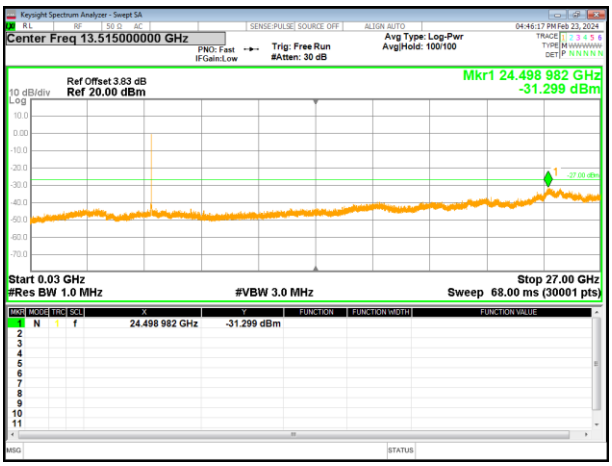


802.11n20 on channel 165

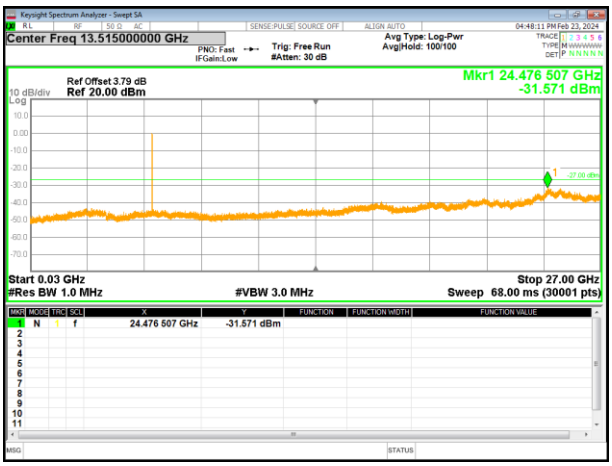


Test Plot

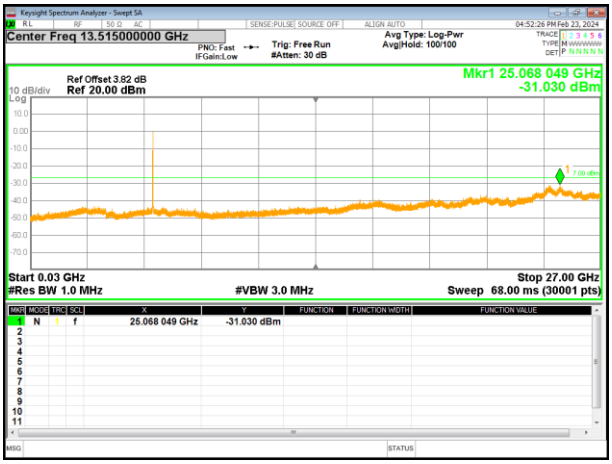
802.11ac20 on channel 149



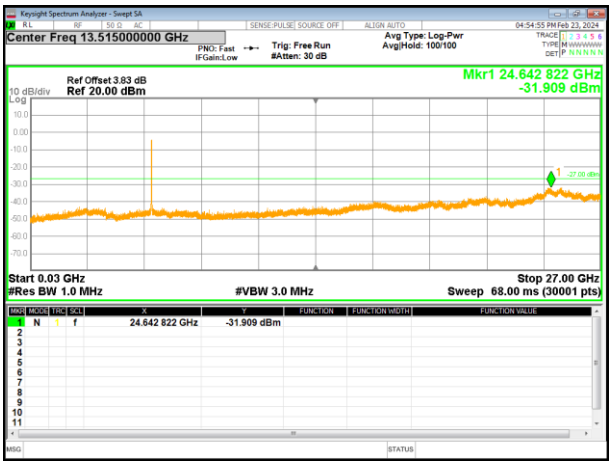
802.11ac20 on channel 157



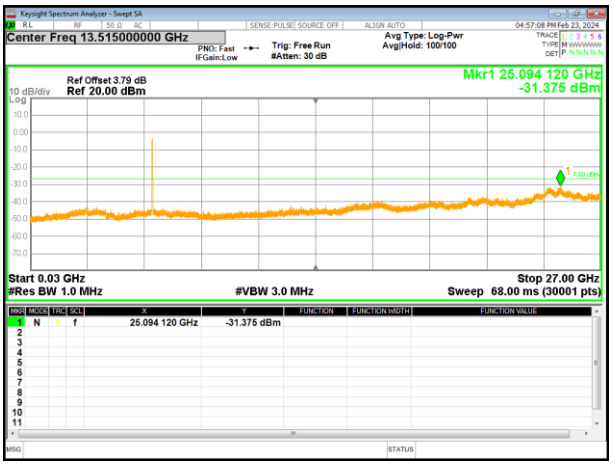
802.11ac20 on channel 165



802.11n40 on channel 151

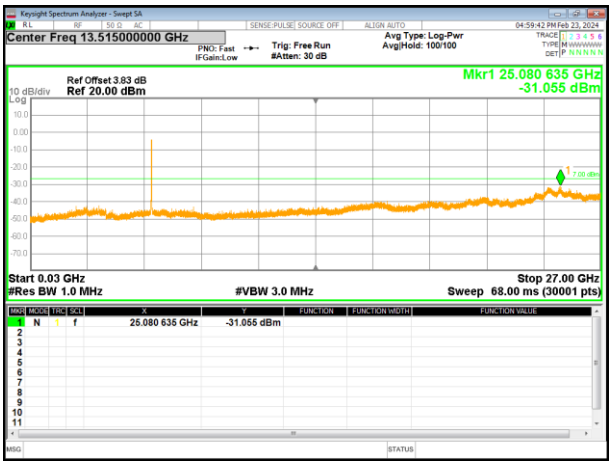


802.11n40 on channel 159

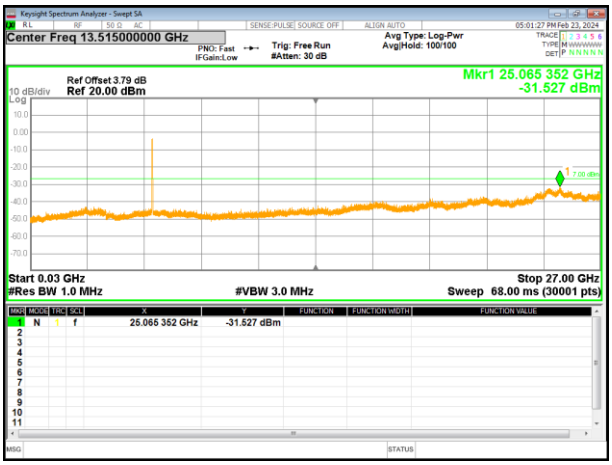


Test Plot

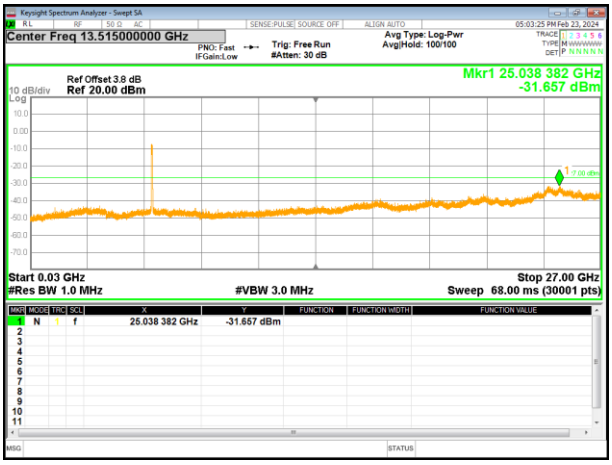
802.11ac40 on channel 151



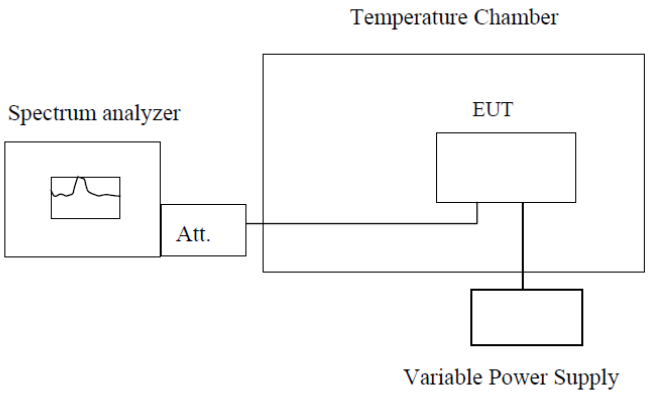
802.11ac40 on channel 159



802.11ac80 on channel 155



4.9 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 12V					
Temp. (°C)	Operating Frequency (MHz)	0 minute	2 minute	5 minute	10 minute
		Measured Frequency (MHz)	Measured Frequency (MHz)	Measured Frequency (MHz)	Measured Frequency (MHz)
-30	5180	5180.347	5179.790	5180.177	5180.317
	5190	5190.337	5199.805	5200.053	5190.327
	5200	5200.340	5199.790	5200.078	5200.318
	5210	5210.346	5209.768	5210.056	5210.319
	5220	5220.341	5219.783	5220.072	5220.324
	5230	5230.339	5229.776	5230.064	5230.342
	5240	5240.312	5239.785	5240.073	5240.327
-20	5180	5180.340	5179.766	5180.062	5180.338
	5190	5190.331	5189.757	5190.062	5190.333
	5200	5200.339	5199.765	5200.056	5200.328
	5210	5210.331	5209.757	5210.046	5210.334
	5220	5220.352	5219.778	5220.057	5220.327
	5230	5230.330	5229.756	5300.056	5230.325
	5240	5240.348	5239.775	5240.059	5240.298
-10	5180	5180.349	5179.775	5180.041	5180.317
	5190	5190.345	5189.771	5190.053	5190.327
	5200	5200.340	5199.766	5200.044	5200.318
	5210	5210.346	5209.772	5210.045	5210.319
	5220	5220.341	5219.767	5220.053	5220.324
	5230	5230.339	5229.765	5230.070	5230.342
	5240	5240.312	5239.739	5240.043	5240.314
0	5180	5180.126	5179.754	5180.053	5180.328
	5190	5200.298	5189.765	5190.045	5190.328
	5200	5200.296	5199.756	5200.053	5200.319
	5210	5210.351	5209.757	5210.045	5300.323
	5220	5220.340	5219.764	5220.067	5220.317
	5230	5230.327	5229.782	5230.044	5230.338
	5240	5240.344	5239.755	5240.063	5240.316
10	5180	5180.328	5179.766	5180.062	5180.329
	5190	5190.339	5189.757	5190.059	5190.319
	5200	5200.330	5199.765	5200.054	5200.327
	5210	5210.331	5209.757	5210.060	5210.319
	5220	5220.338	5219.778	5220.056	5220.338
	5230	5230.356	5229.756	5230.053	5230.316
	5240	5240.341	5239.775	5240.027	5240.334
20	5180	5180.406	5179.019	5180.311	5180.091

	5190	5190.349	5189.808	5190.356	5190.355
	5200	5200.344	5199.799	5200.365	5200.380
	5210	5210.350	5299.810	5210.358	5210.364
	5220	5220.345	5219.799	5220.380	5220.354
	5230	5230.343	5229.820	5230.358	5230.382
	5240	5240.316	5239.799	5240.377	5240.370
30	5180	5180.332	5179.807	5180.364	5180.374
	5190	5190.343	5189.799	5190.356	5180.374
	5200	5200.334	5199.807	5200.365	5190.369
	5210	5210.335	5209.799	5210.358	5200.364
	5220	5220.342	5219.820	5220.380	5210.370
	5230	5230.360	5229.798	5230.358	5220.364
	5240	5240.332	5239.817	5240.377	5230.362
40	5180	5180.344	5179.806	5180.150	5180.353
	5190	5190.335	5189.808	5200.324	5190.363
	5200	5200.343	5199.799	5200.322	5200.354
	5210	5210.335	5299.810	5210.378	5210.355
	5220	5220.356	5219.799	5220.368	5220.361
	5230	5230.334	5229.820	5230.355	5230.379
	5240	5240.352	5239.799	5240.373	5240.351
50	5180	5180.344	5179.807	5180.364	5180.326
	5190	5190.335	5189.799	5190.356	5190.355
	5200	5200.343	5199.807	5200.365	5200.380
	5210	5210.335	5209.799	5210.358	5210.364
	5220	5220.356	5219.820	5220.380	5220.354
	5230	5230.334	5229.798	5230.358	5230.382
	5240	5240.352	5239.817	5240.377	5240.370

Frequency stability versus Voltage					
Temperature: 25°C					
Power Supply (VDC)	Operating Frequency (MHz)	0 minute	2 minute	5 minute	10 minute
		Measured Frequency (MHz)	Measured Frequency (MHz)	Measured Frequency (MHz)	Measured Frequency (MHz)
10.20	5180	5180.353	5179.810	5180.364	5180.489
	5190	5190.349	5199.804	5190.356	5200.363
	5200	5200.344	5199.832	5200.365	5200.388
	5210	5210.350	5209.810	5210.358	5210.366
	5220	5220.345	5219.825	5220.380	5220.380
	5230	5230.343	5229.818	5230.358	5230.373
	5240	5240.316	5239.827	5240.373	5240.381
12.00	5180	5180.339	5179.825	5180.363	5180.374
	5190	5190.335	5179.931	5190.365	5190.372
	5200	5200.343	5199.807	5200.357	5200.366
	5210	5210.336	5209.832	5300.373	5210.356
	5220	5220.356	5219.810	5220.359	5220.365
	5230	5230.334	5229.825	5230.379	5300.361
	5240	5240.352	5239.819	5240.359	5240.367
13.80	5180	5180.353	5179.816	5180.352	5180.353
	5190	5190.349	5189.813	5190.364	5190.363
	5200	5200.344	5199.808	5200.356	5200.353
	5210	5210.350	5209.814	5210.358	5210.355
	5220	5220.345	5219.809	5220.366	5220.361
	5230	5230.343	5229.807	5230.384	5230.384
	5240	5240.316	5239.781	5240.357	5240.351

Frequency stability versus Temp.					
Power Supply: DC 12V					
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	5745.329	5744.817	5745.401	5745.339
	5755	5755.339	5754.824	5755.409	5755.327
	5775	5775.360	5774.817	5775.428	5775.338
	5785	5785.336	5784.809	5785.404	5785.344
	5795	5795.332	5794.816	5795.401	5795.362
	5825	5825.330	5824.746	5825.407	5825.353
-20	5745	5745.326	5744.828	5745.395	5745.350
	5755	5755.341	5754.830	5755.421	5755.363
	5775	5775.340	5774.834	5775.404	5775.348
	5785	5785.343	5784.826	5785.413	5785.334
	5795	5795.353	5794.817	5795.412	5795.328
	5825	5825.335	5824.827	5825.425	5825.361
-10	5745	5745.336	5744.818	5745.411	5744.969
	5755	5755.362	5754.825	5755.414	5755.352
	5775	5775.358	5774.843	5775.419	5775.353
	5785	5785.342	5784.819	5785.411	5785.355
	5795	5795.331	5794.815	5795.403	5795.338
	5825	5825.266	5824.818	5825.415	5825.333
0	5745	5745.330	5744.807	5745.411	5745.340
	5755	5755.355	5754.823	5755.414	5755.365
	5775	5775.336	5774.823	5775.419	5775.361
	5785	5785.345	5784.826	5785.411	5785.344
	5795	5795.343	5794.839	5795.403	5795.333
	5825	5825.353	5824.819	5825.415	5825.267
10	5745	5745.330	5744.817	5745.400	5745.335
	5755	5755.355	5754.834	5755.408	5755.346
	5775	5775.336	5774.836	5775.402	5775.363
	5785	5785.345	5784.818	5785.394	5785.338
	5795	5795.343	5794.835	5795.402	5795.334
	5825	5825.353	5824.834	5825.334	5825.336
20	5745	5745.346	5744.842	5745.409	5745.339
	5755	5755.360	5754.814	5755.426	5755.357
	5775	5775.345	5774.838	5775.413	5775.337
	5785	5785.332	5784.838	5785.400	5785.363
	5795	5795.326	5794.829	5795.395	5795.355
	5825	5825.360	5824.845	5825.432	5825.363
30	5745	5745.336	5744.828	5745.394	5745.364
	5755	5755.343	5754.830	5755.418	5755.335
	5775	5775.360	5774.834	5775.421	5775.358
	5785	5785.336	5784.826	5785.403	5785.357
	5795	5795.332	5794.817	5795.421	5795.348
	5825	5825.335	5824.827	5825.422	5825.362
40	5745	5745.346	5744.812	5745.411	5745.333
	5755	5755.360	5754.837	5755.414	5755.365

	5775	5775.345	5774.819	5775.419	5775.361
	5785	5785.332	5784.828	5785.411	5785.344
	5795	5795.326	5794.826	5795.403	5795.333
	5825	5825.360	5824.837	5825.415	5825.267
50	5745	5745.346	5744.842	5745.411	5745.339
	5755	5755.340	5754.814	5755.425	5755.357
	5775	5775.345	5774.838	5775.413	5775.337
	5785	5785.332	5784.838	5785.400	5785.364
	5795	5795.326	5794.828	5795.395	5795.355
	5825	5825.360	5824.849	5825.432	5825.363

Frequency stability versus Voltage					
Temperature: 25°C					
Power Supply (VAC)	Operating Frequency (MHz)	0 minute Measured Frequency (MHz)	2 minute Measured Frequency (MHz)	5 minute Measured Frequency (MHz)	10 minute Measured Frequency (MHz)
10.20	5745	5745.325	5744.817	5745.400	5745.334
	5755	5755.341	5754.824	5755.418	5755.358
	5775	5775.340	5774.817	5775.421	5775.339
	5785	5785.343	5784.809	5785.403	5785.347
	5795	5795.354	5794.816	5795.422	5795.345
	5825	5825.335	5824.746	5825.422	5825.354
12.00	5745	5745.325	5744.828	5745.395	5745.350
	5755	5755.341	5754.830	5755.421	5755.363
	5775	5775.340	5774.834	5775.404	5775.348
	5785	5785.343	5784.826	5785.413	5785.334
	5795	5795.350	5794.817	5795.412	5795.328
	5825	5825.335	5824.827	5825.425	5825.361
13.80	5745	5745.346	5744.841	5745.411	5745.339
	5755	5755.360	5754.814	5755.426	5755.357
	5775	5775.345	5774.838	5775.413	5775.337
	5785	5785.332	5784.838	5785.400	5785.363
	5795	5795.326	5794.829	5795.395	5795.355
	5825	5825.360	5824.845	5825.432	5825.363

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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