3.3.7 TEST RESULTS

Please Refer to Appendix A/H Of this test report.

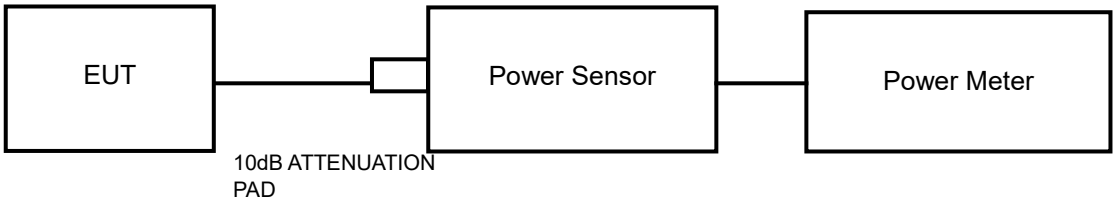
3.4 CONDUCTED OUTPUT POWER

3.4.1 LIMITS OF CONDUCTED OUTPUT POWER MEASUREMENT

For systems using digital modulation in the 2400–2483.5 MHz band: 1 Watt (30dBm)

3.4.2 TEST SETUP

BT:



3.4.3 TEST INSTRUMENTS

Refer to section 3.2.2 to get information of above instrument.

3.4.4 TEST PROCEDURES

A peak power sensor was used on the output port of the EUT. A power meter was used to read the response of the peak power sensor. Record the power level.

3.4.5 DEVIATION FROM TEST STANDARD

No deviation.

3.4.6 EUT OPERATING CONDITIONS

The software provided by client to enable the EUT under transmission condition continuously at lowest, middle and highest channel frequencies individually.

3.4.7 TEST RESULTS

3.4.7.1 MAXIMUM PEAK OUTPUT POWER

Please Refer to Appendix C/J Of this test report.

3.4.7.2 AVERAGE OUTPUT POWER (FOR REFERENCE)

The average power sensor was used on the output port of the EUT. A power meter was used to read the response of the power sensor. Record the power level.

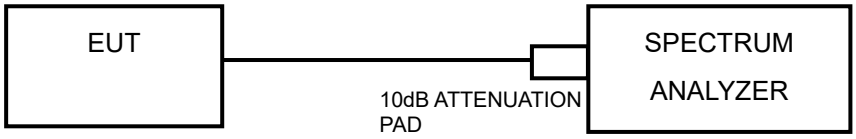
Please Refer to Appendix C/J Of this test report.

3.5 POWER SPECTRAL DENSITY MEASUREMENT

3.5.1 LIMITS OF POWER SPECTRAL DENSITY MEASUREMENT

The Maximum of Power Spectral Density Measurement is 8dBm/3KHz.

3.5.2 TEST SETUP



3.5.3 TEST INSTRUMENTS

Refer to section 3.3.2 to get information of above instrument.

3.5.4 TEST PROCEDURE

1. Set the span to 1.5 times the DTS bandwidth
2. Set the RBW = 3 kHz, VBW ≥ 3 x RBW, Detector = peak.
3. Sweep time = auto couple, Trace mode = max hold, allow trace to fully stabilize.
4. Use the peak marker function to determine the maximum amplitude level.

3.5.5 DEVIATION FROM TEST STANDARD

No deviation.

3.5.6 EUT OPERATING CONDITION

The software provided by client to enable the EUT under transmission condition continuously at lowest, middle and highest channel frequencies individually.

3.5.7 TEST RESULTS

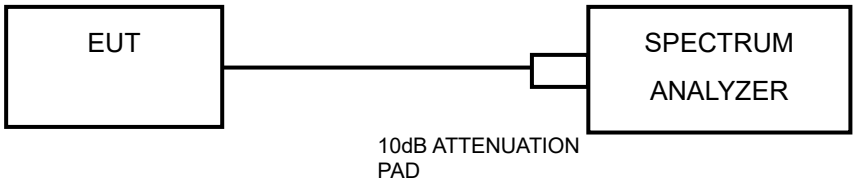
Please Refer to Appendix D/K Of this test report.

3.6 OUT OF BAND EMISSION MEASUREMENT

3.6.1 LIMITS OF OUT OF BAND EMISSION MEASUREMENT

Below –20dB of the highest emission level of operating band (in 100kHz Resolution Bandwidth).

3.6.2 TEST SETUP



3.6.3 TEST INSTRUMENTS

Refer to section 3.3.2 to get information of above instrument.

3.6.4 TEST PROCEDURE

MEASUREMENT PROCEDURE REF

1. Set the RBW = 100 kHz.
2. Set the VBW ≥ 300 kHz.
3. Detector = peak.
4. Sweep time = auto couple.
5. Trace mode = max hold.
6. Allow trace to fully stabilize.
7. Use the peak marker function to determine the maximum power level in any 100 kHz band segment within the fundamental EBW.

MEASUREMENT PROCEDURE OOBE

1. Set RBW = 100 kHz.
2. Set VBW ≥ 300 kHz.
3. Set span to encompass the spectrum to be examined
4. Detector = peak.
5. Trace Mode = max hold.
6. Sweep = auto couple.

3.6.5 DEVIATION FROM TEST STANDARD

No deviation.

3.6.6 EUT OPERATING CONDITION

The software provided by client to enable the EUT under transmission condition continuously at lowest, middle and highest channel frequencies individually.

3.6.7 TEST RESULTS

Please Refer to Appendix E/F/L/M Of this test report.

4 PHOTOGRAPHS OF THE TEST CONFIGURATION

Please refer to the attached file (Test Setup Photo).

5 MODIFICATIONS RECORDERS FOR ENGINEERING CHANGES TO THE EUT BY THE LAB

No any modifications are made to the EUT by the lab during the test.

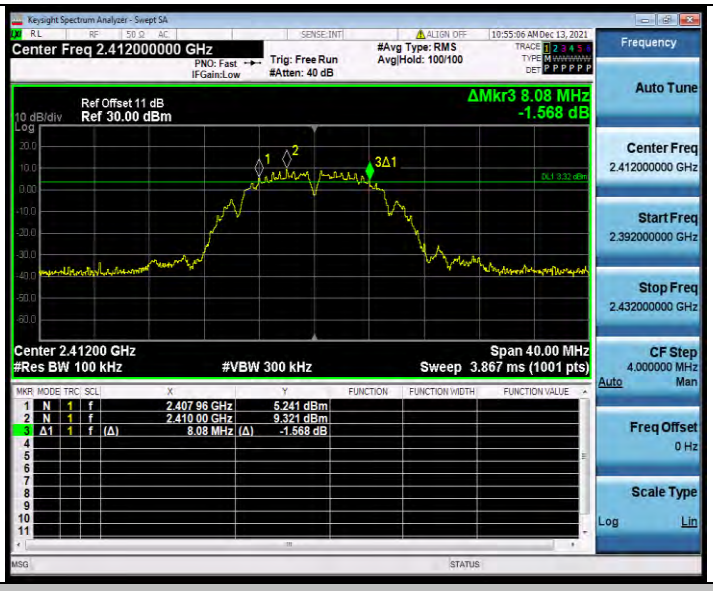
6 Appendix

APPENDIX A: DTS BANDWIDTH

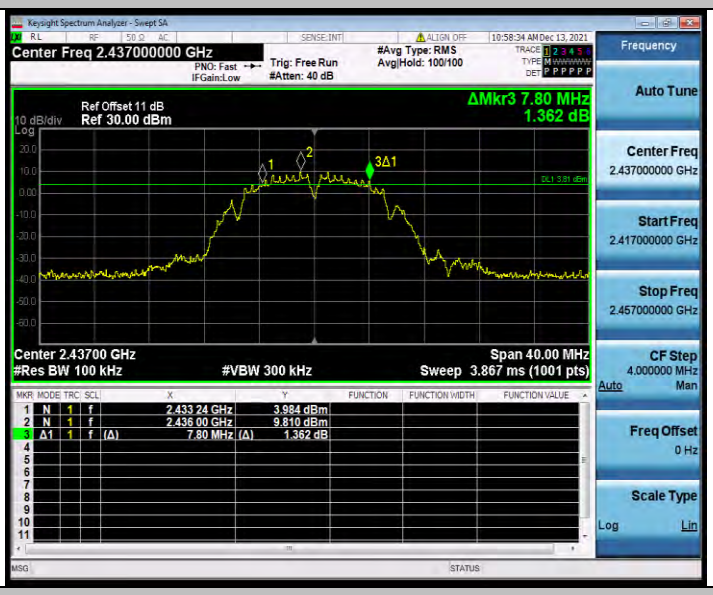
TEST RESULT

TestMode	Antenna	Channel	DTS BW [MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
11B	Ant1	2412	8.080	2407.960	2416.040	0.5	PASS
		2437	7.800	2433.240	2441.040	0.5	PASS
		2462	8.080	2457.960	2466.040	0.5	PASS
11G	Ant1	2412	16.080	2404.080	2420.160	0.5	PASS
		2437	16.040	2429.120	2445.160	0.5	PASS
		2462	16.080	2454.080	2470.160	0.5	PASS
11N20SISO	Ant1	2412	16.840	2403.640	2420.480	0.5	PASS
		2437	15.720	2428.960	2444.680	0.5	PASS
		2462	16.520	2453.680	2470.200	0.5	PASS
11N40SISO	Ant1	2422	35.440	2404.480	2439.920	0.5	PASS
		2437	34.720	2419.400	2454.120	0.5	PASS
		2452	35.840	2434.000	2469.840	0.5	PASS

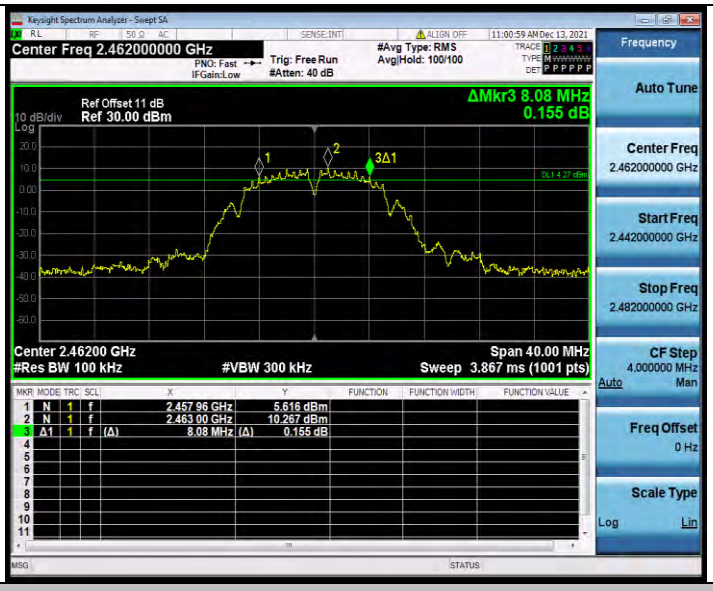
TEST GRAPHS



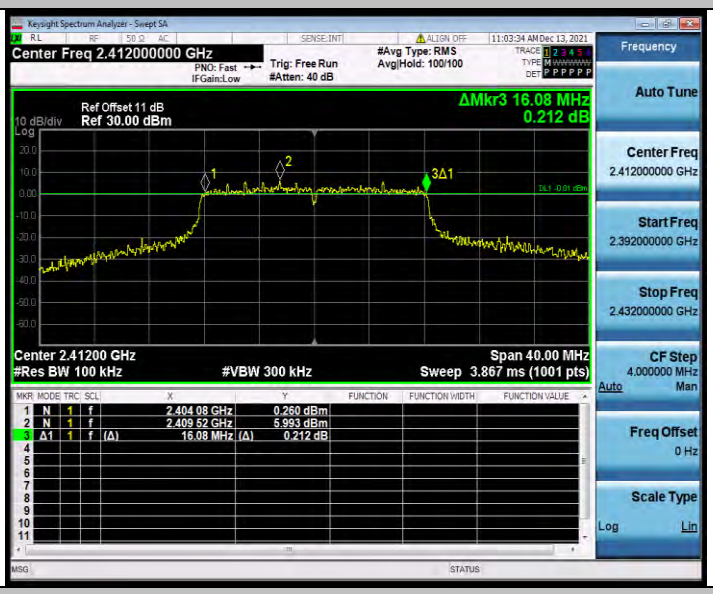
11B_Ant1_2412



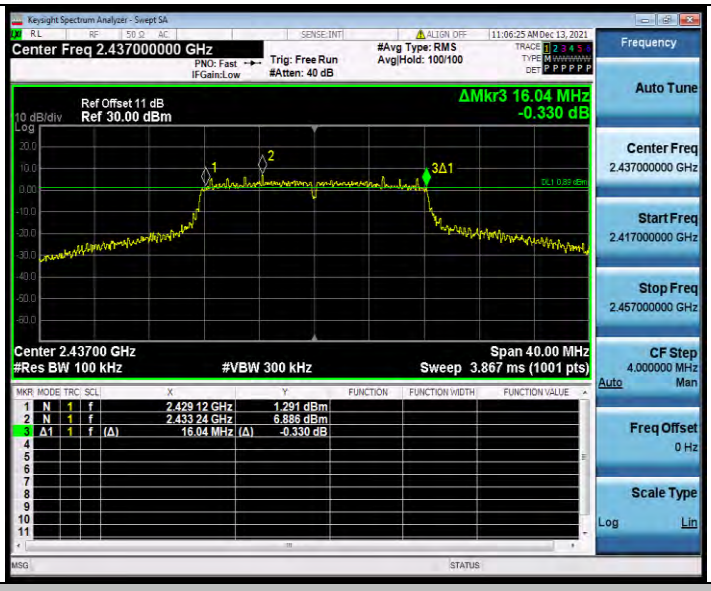
11B_Ant1_2437



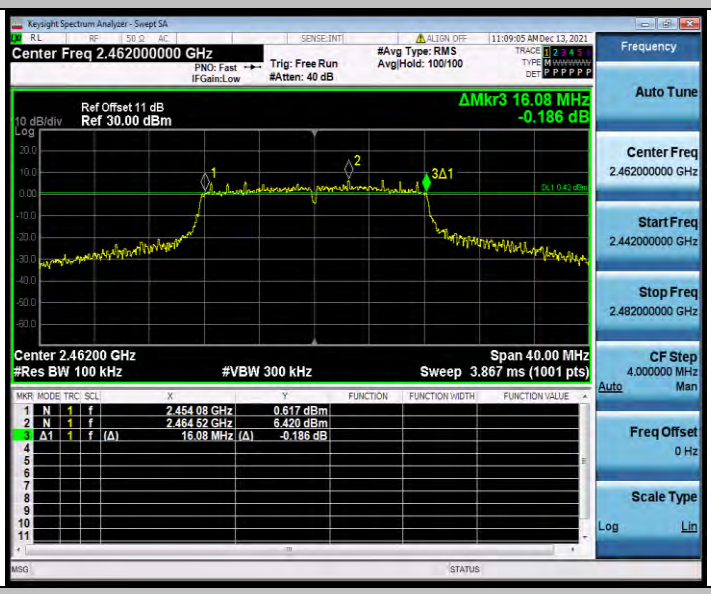
11B_Ant1_2462



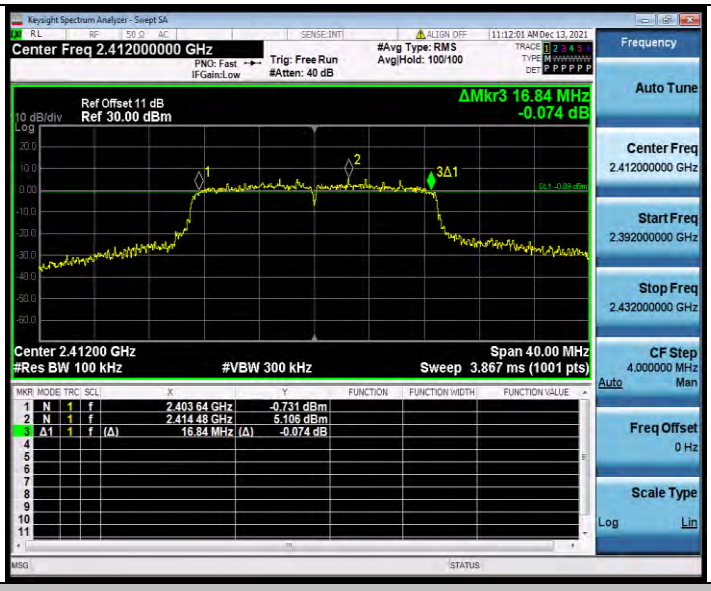
11G_Ant1_2412



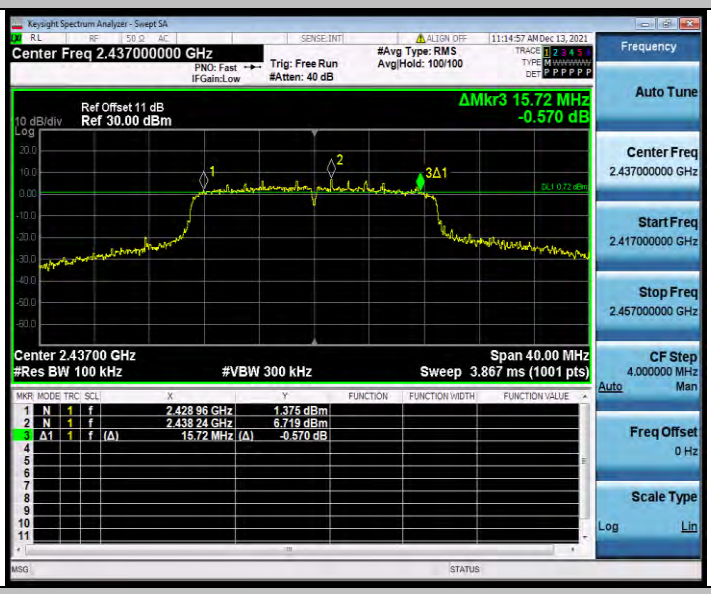
11G_Ant1_2437



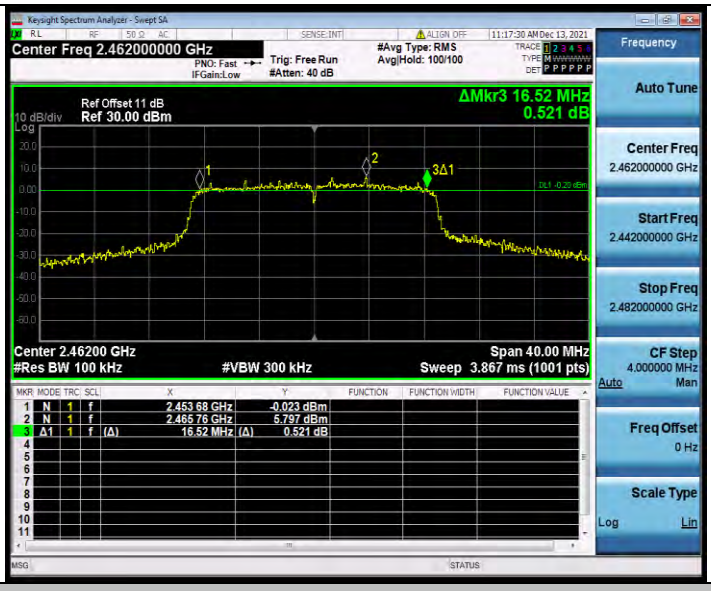
11G_Ant1_2462



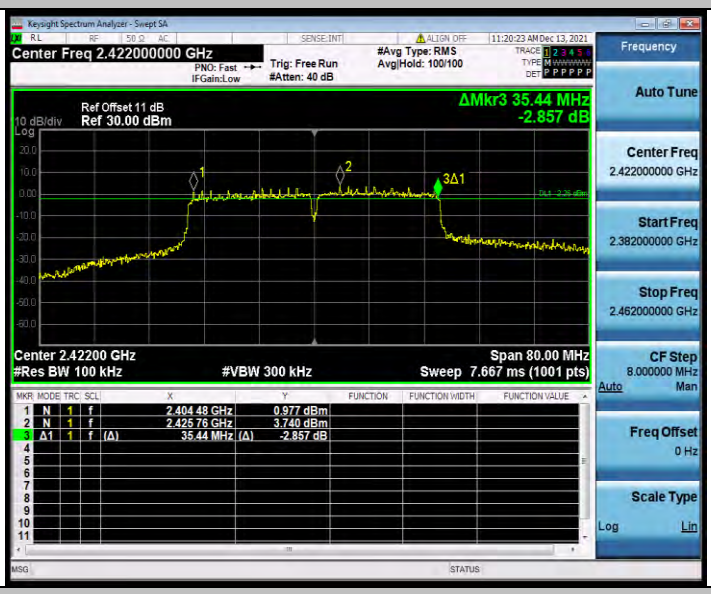
11N20SISO_Ant1_2412



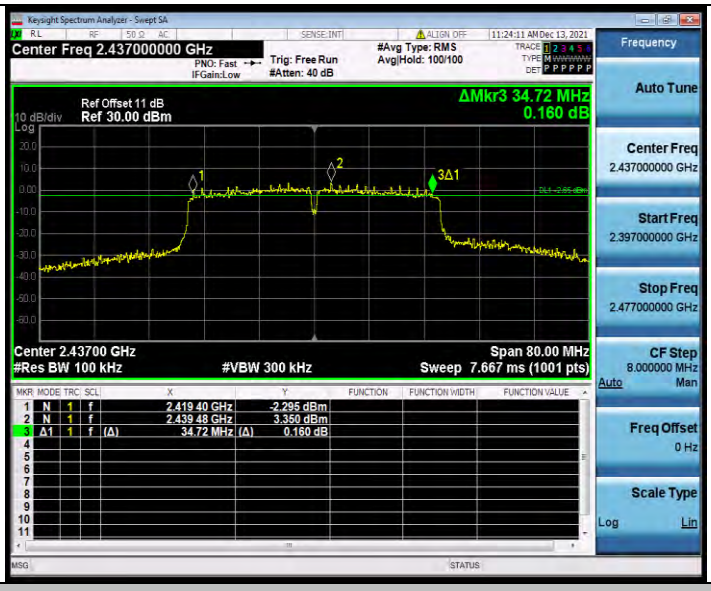
11N20SISO_Ant1_2437



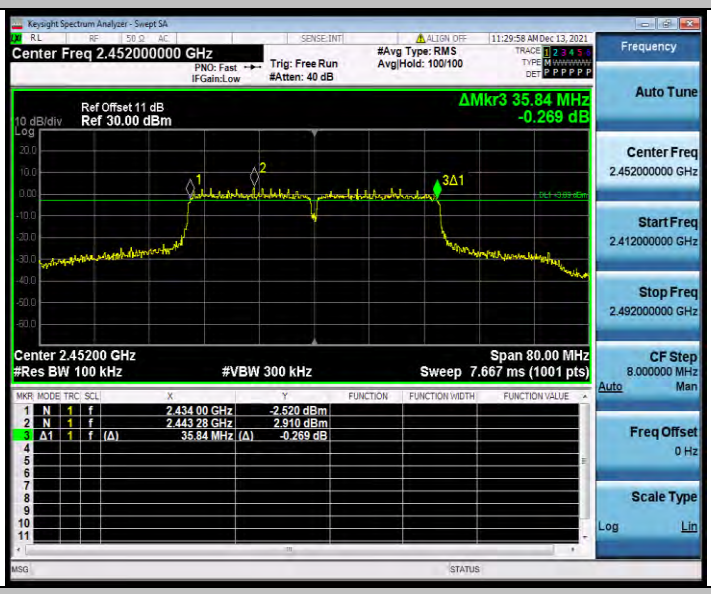
11N20SISO_Ant1_2462



11N40SISO_Ant1_2422



11N40SISO_Ant1_2437



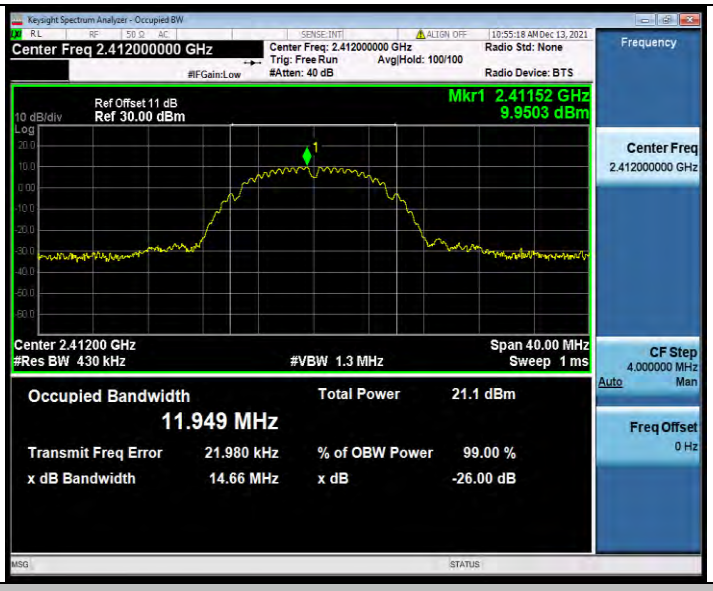
11N40SISO_Ant1_2452

APPENDIX B: OCCUPIED CHANNEL BANDWIDTH

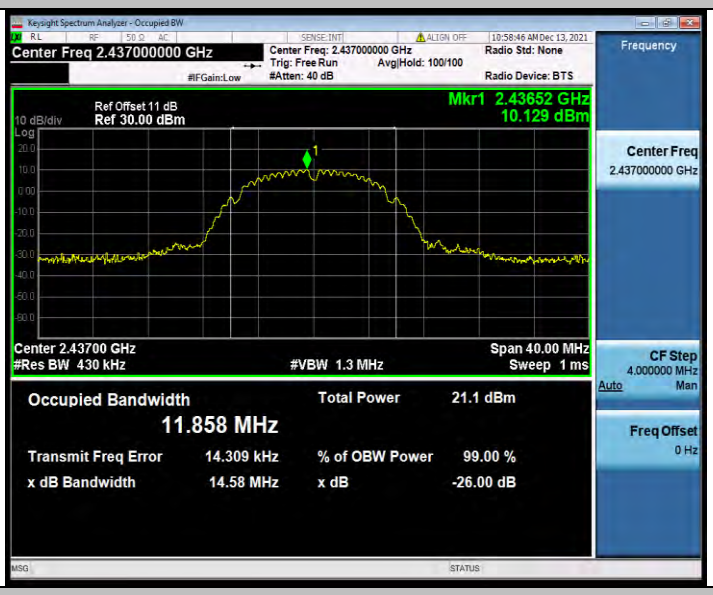
TEST RESULT

TestMode	Antenna	Channel	OCB [MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
11B	Ant1	2412	11.949	2406.047	2417.996	---	PASS
		2437	11.858	2431.085	2442.943	---	PASS
		2462	11.813	2456.172	2467.985	---	PASS
11G	Ant1	2412	16.993	2403.614	2420.607	---	PASS
		2437	17.046	2428.577	2445.623	---	PASS
		2462	16.909	2453.649	2470.558	---	PASS
11N20SISO	Ant1	2412	17.752	2403.176	2420.928	---	PASS
		2437	17.768	2428.181	2445.949	---	PASS
		2462	17.628	2453.230	2470.858	---	PASS
11N40SISO	Ant1	2422	36.665	2404.020	2440.685	---	PASS
		2437	36.321	2418.963	2455.284	---	PASS
		2452	36.439	2433.754	2470.193	---	PASS

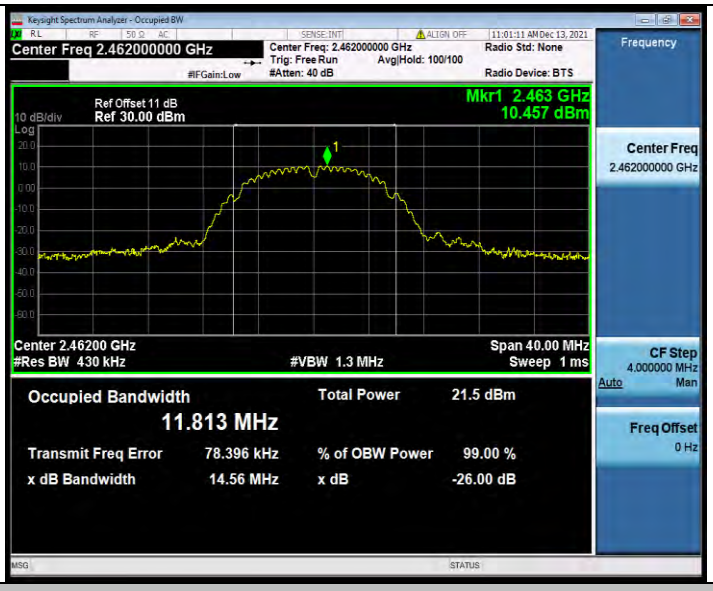
TEST GRAPHS



11B_Ant1_2412



11B_Ant1_2437



11B_Ant1_2462

11G_Ant1_2412

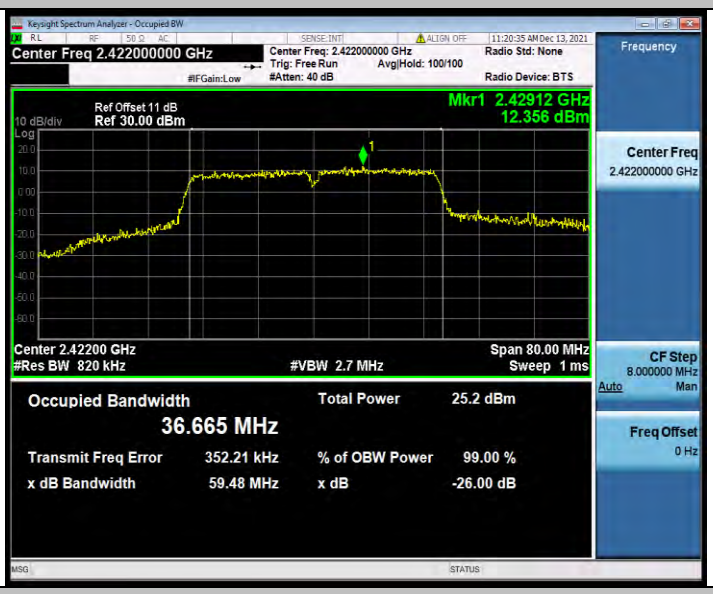
11G_Ant1_2437

11G_Ant1_2462

11N20SISO_Ant1_2412

11N20SISO_Ant1_2437

11N20SISO_Ant1_2462



11N40SISO_Ant1_2422

11N40SISO_Ant1_2437

11N40SISO_Ant1_2452

APPENDIX C: MAXIMUM CONDUCTED OUTPUT POWER

PEAK POWER TEST RESULT

TestMode	Antenna	Channel	Result[dBm]	Result[mW]	Limit[dBm]	Verdict	Power Setting
11B	Ant1	2412	21.62	145.21	≤30	PASS	15
		2437	21.23	132.74	≤30	PASS	16
		2462	21.70	147.91	≤30	PASS	17
11G	Ant1	2412	22.35	171.79	≤30	PASS	13
		2437	21.69	147.57	≤30	PASS	13
		2462	21.83	152.41	≤30	PASS	14
11N20SISO	Ant1	2412	22.70	186.21	≤30	PASS	13
		2437	21.92	155.60	≤30	PASS	13
		2462	21.40	138.04	≤30	PASS	13
11N40SISO	Ant1	2422	20.97	125.03	≤30	PASS	11
		2437	20.36	108.64	≤30	PASS	12
		2452	20.40	109.65	≤30	PASS	12

AVERAGE POWER TEST RESULT

TestMode	Antenna	Channel	Result[dBm]	Limit[dBm]	Verdict	Power Setting
11B	Ant1	2412	18.30	/	PASS	15
		2437	17.94	/	PASS	16
		2462	18.42	/	PASS	17
11G	Ant1	2412	14.98	/	PASS	13
		2437	14.02	/	PASS	13
		2462	14.32	/	PASS	14
11N20SISO	Ant1	2412	15.62	/	PASS	13
		2437	14.48	/	PASS	13
		2462	13.82	/	PASS	13
11N40SISO	Ant1	2422	13.30	/	PASS	11
		2437	12.81	/	PASS	12
		2452	12.97	/	PASS	12

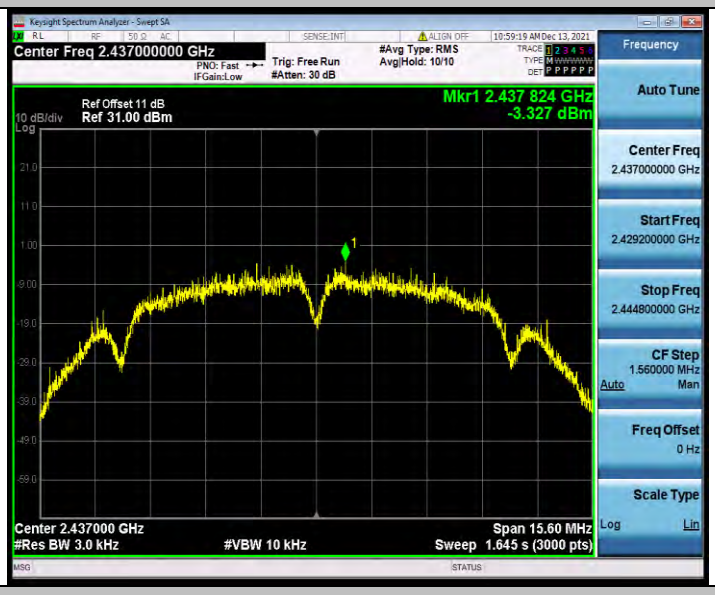
APPENDIX D: MAXIMUM POWER SPECTRAL DENSITY

TEST RESULT

TestMode	Antenna	Channel	Result[dBm/3-100kHz]	Limit[dBm/3kHz]	Verdict
11B	Ant1	2412	-3.11	≤8	PASS
		2437	-3.33	≤8	PASS
		2462	-0.83	≤8	PASS
11G	Ant1	2412	-7.98	≤8	PASS
		2437	-7.6	≤8	PASS
		2462	-7.83	≤8	PASS
11N20SISO	Ant1	2412	-8.84	≤8	PASS
		2437	-8.21	≤8	PASS
		2462	-8.05	≤8	PASS
11N40SISO	Ant1	2422	-11.15	≤8	PASS
		2437	-9.61	≤8	PASS
		2452	-10.81	≤8	PASS

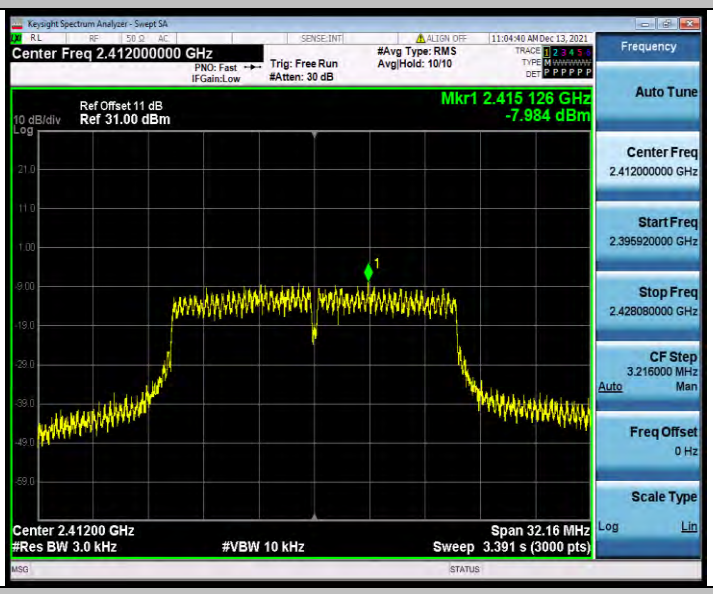
TEST GRAPHS

11B_Ant1_2412

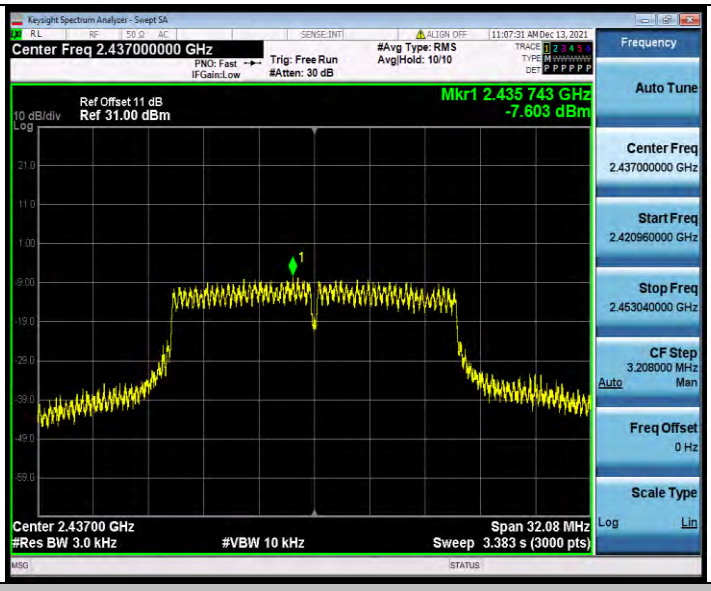


11B_Ant1_2437

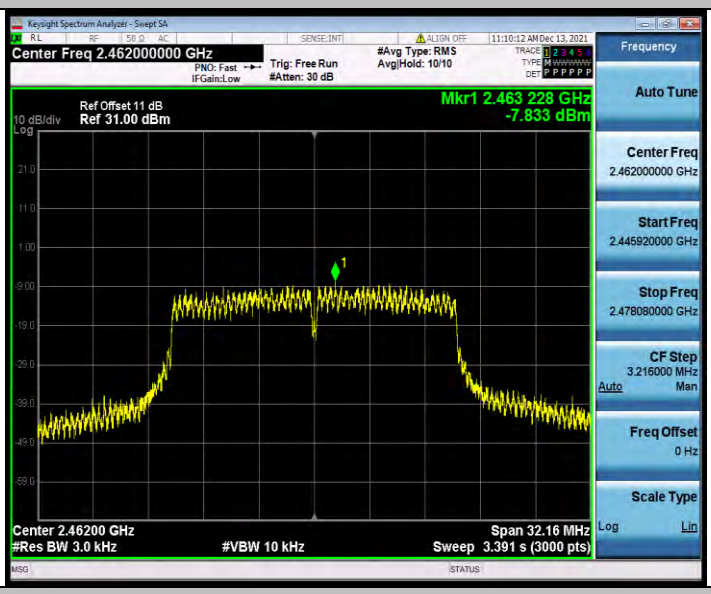
11B_Ant1_2462



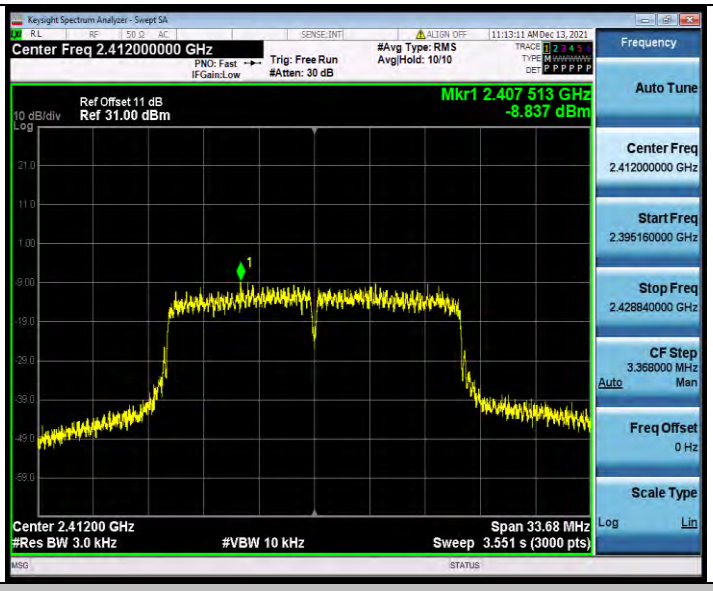
11G_Ant1_2412



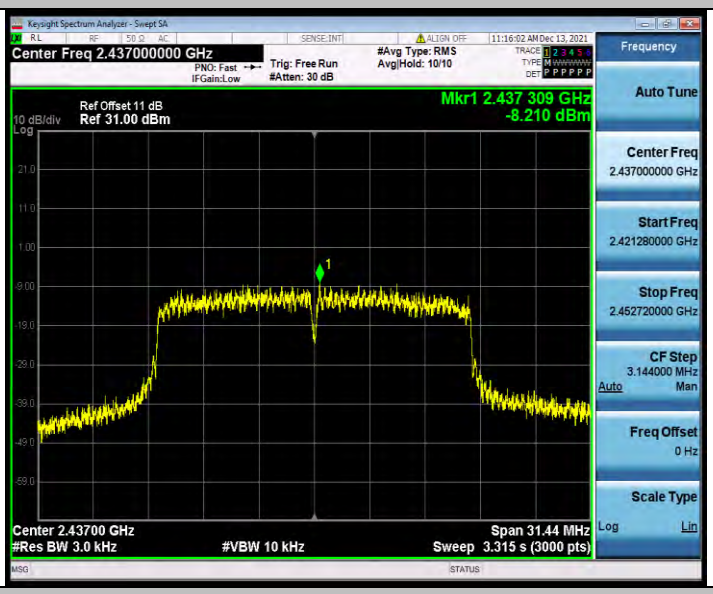
11G_Ant1_2437



11G_Ant1_2462

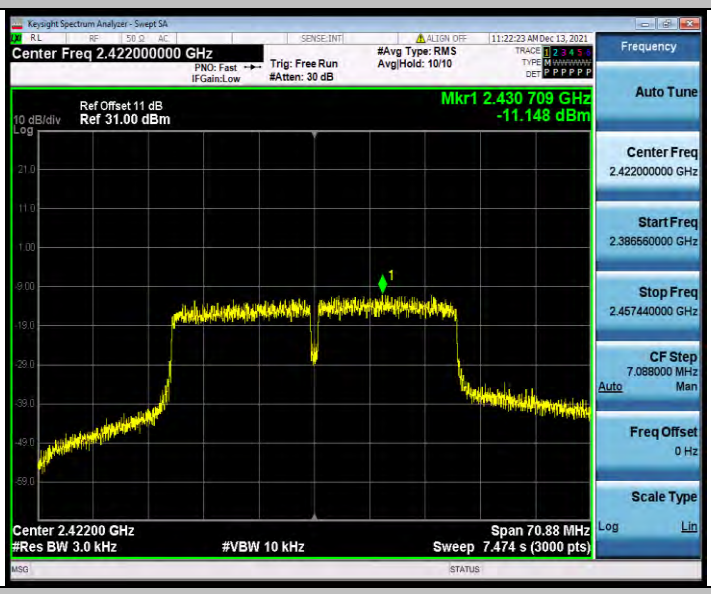


11N20SISO_Ant1_2412



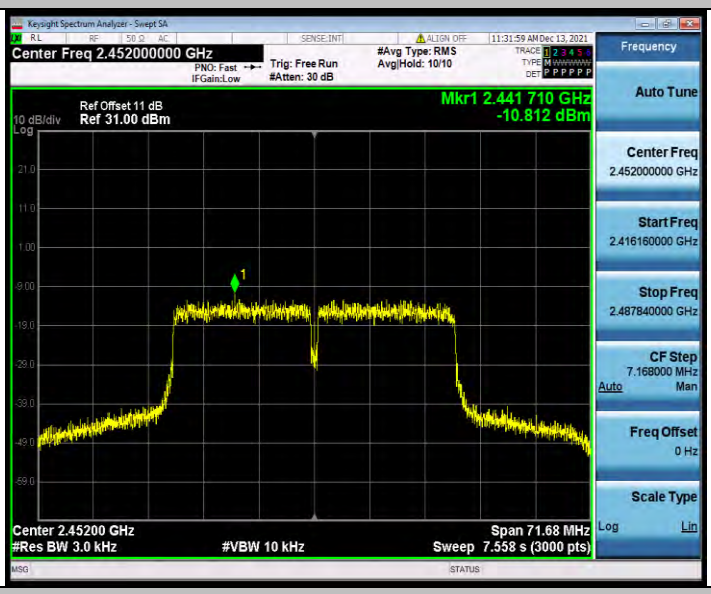
11N20SISO_Ant1_2437

11N20SISO_Ant1_2462



11N40SISO_Ant1_2422

11N40SISO_Ant1_2437



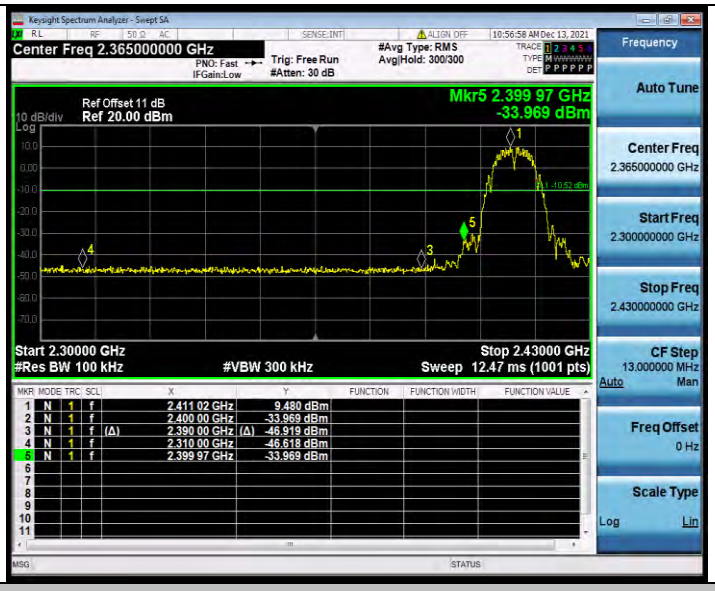
11N40SISO_Ant1_2452

APPENDIX E: BAND EDGE MEASUREMENTS

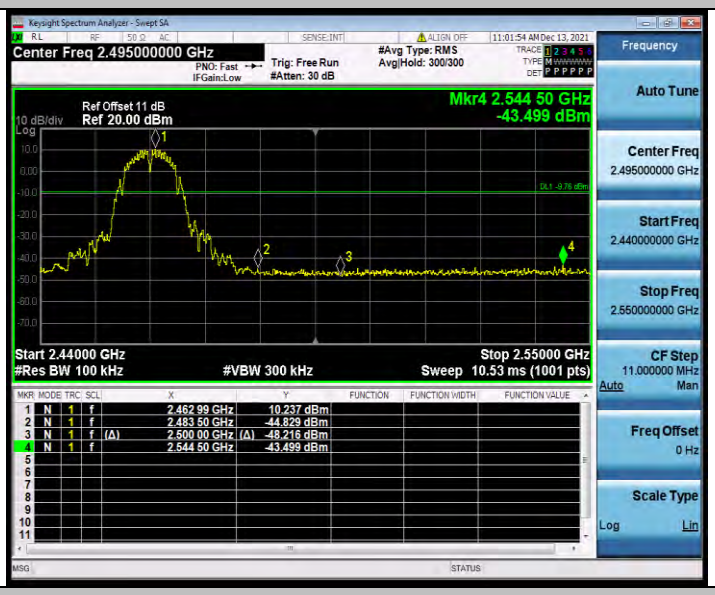
TEST RESULT

TestMode	Antenna	ChName	Channel	RefLevel[dBm]	Result[dBm]	Limit[dBm]	Verdict
11B	Ant1	Low	2412	9.48	-33.97	≤-10.52	PASS
		High	2462	10.24	-43.5	≤-9.76	PASS
11G	Ant1	Low	2412	6.53	-22.25	≤-13.47	PASS
		High	2462	6.88	-32.57	≤-13.13	PASS
11N20SISO	Ant1	Low	2412	5.27	-25.46	≤-14.73	PASS
		High	2462	6.24	-32.39	≤-13.76	PASS
11N40SISO	Ant1	Low	2422	4.12	-25.12	≤-15.88	PASS
		High	2452	3.01	-27.36	≤-17	PASS

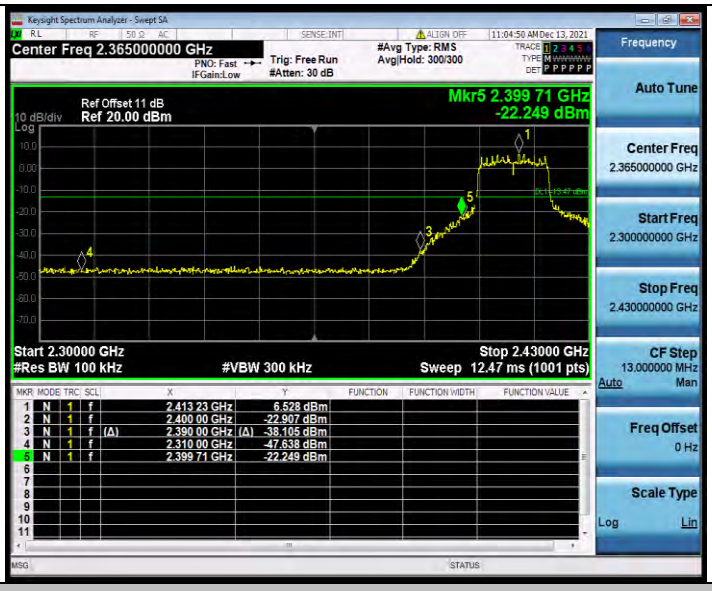
TEST GRAPHS



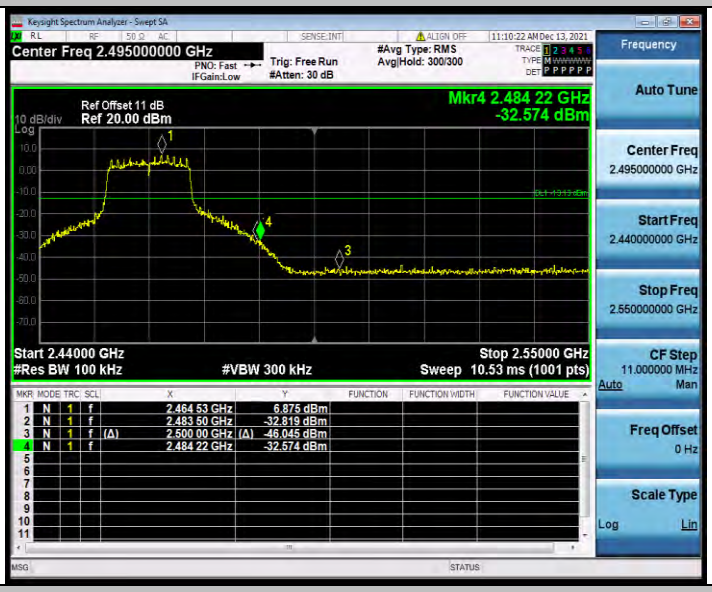
11B_Ant1_Low_2412



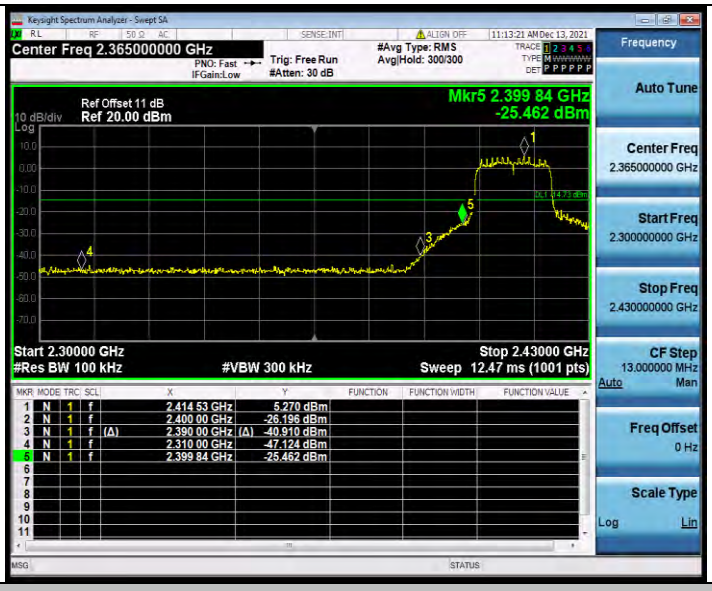
11B_Ant1_High_2462



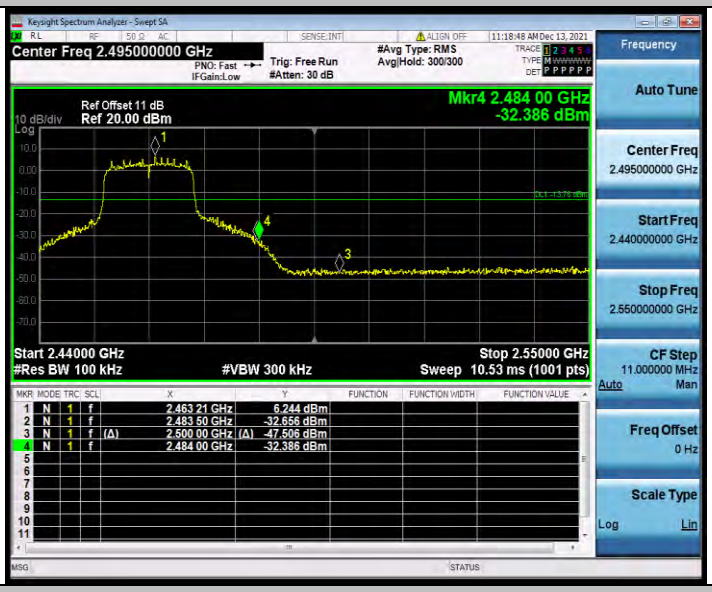
11G_Ant1_Low_2412



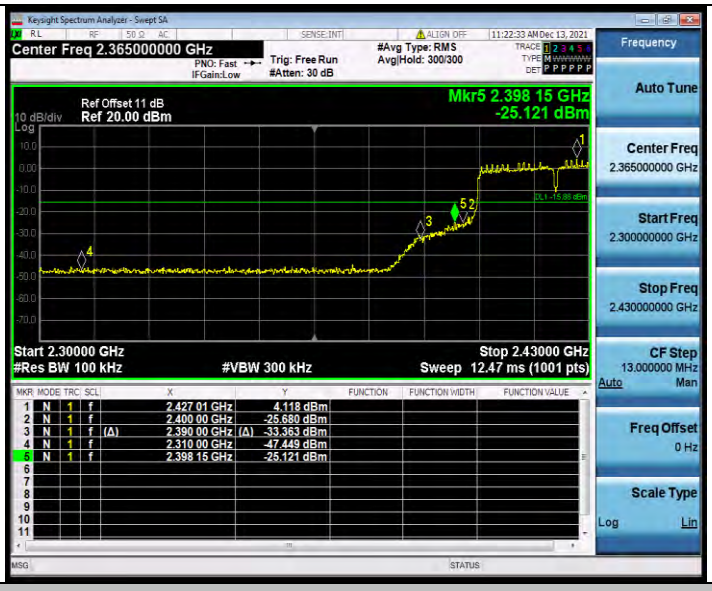
11G_Ant1_High_2462



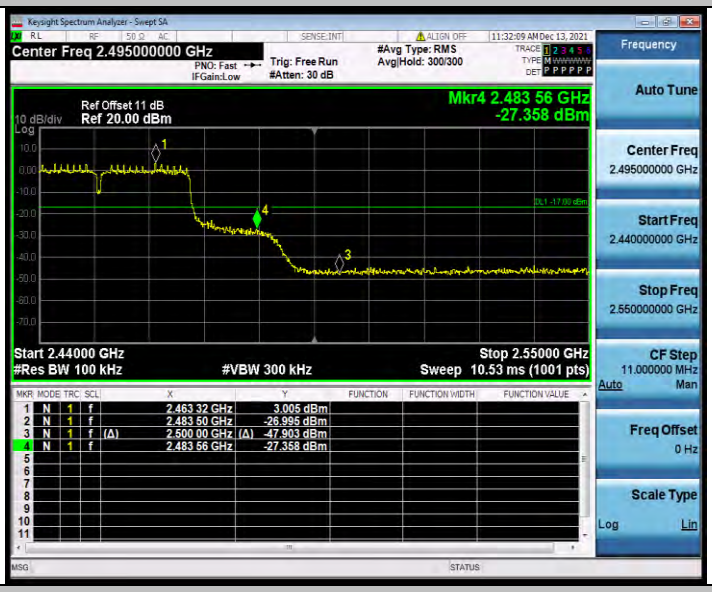
11N20SISO_Ant1_Low_2412



11N20SISO_Ant1_High_2462



11N40SISO_Ant1_Low_2422



11N40SISO_Ant1_High_2452

APPENDIX F: CONDUCTED SPURIOUS EMISSION

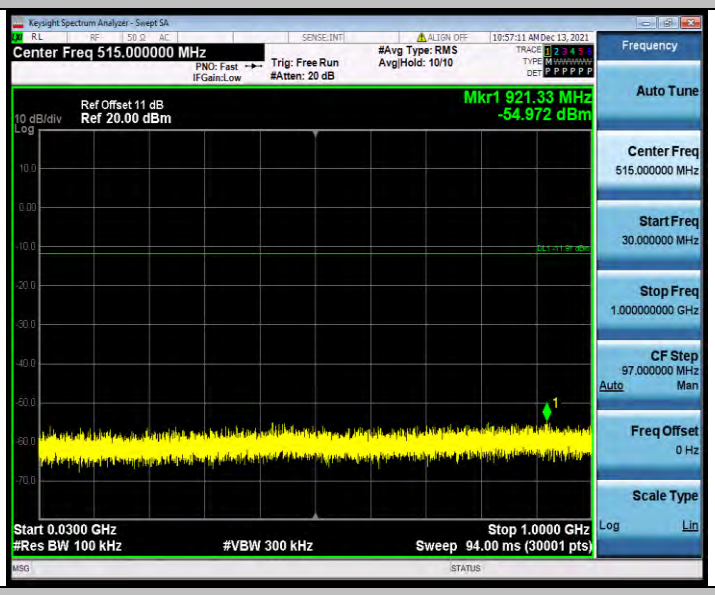
TEST RESULT

TestMode	Antenna	Channel	FreqRange [Mhz]	RefLevel [dBm]	Result [dBm]	Limit [dBm]	Verdict
11B	Ant1	2412	Reference	8.09	8.09	---	PASS
			30~1000	8.09	-54.97	≤-11.91	PASS
			1000~26500	8.09	-38.66	≤-11.91	PASS
		2437	Reference	9.43	9.43	---	PASS
			30~1000	9.43	-53.58	≤-10.57	PASS
			1000~26500	9.43	-37.72	≤-10.57	PASS
		2462	Reference	8.44	8.44	---	PASS
			30~1000	8.44	-54.63	≤-11.56	PASS
			1000~26500	8.44	-38.13	≤-11.56	PASS
11G	Ant1	2412	Reference	3.18	3.18	---	PASS
			30~1000	3.18	-54.11	≤-16.82	PASS
			1000~26500	3.18	-38.65	≤-16.82	PASS
		2437	Reference	5.58	5.58	---	PASS
			30~1000	5.58	-54.38	≤-14.42	PASS
			1000~26500	5.58	-38.63	≤-14.42	PASS
		2462	Reference	6.33	6.33	---	PASS
			30~1000	6.33	-54.34	≤-13.67	PASS
			1000~26500	6.33	-37.73	≤-13.67	PASS
11N20SISO	Ant1	2412	Reference	2.87	2.87	---	PASS
			30~1000	2.87	-54.25	≤-17.13	PASS
			1000~26500	2.87	-36.97	≤-17.13	PASS
		2437	Reference	3.94	3.94	---	PASS
			30~1000	3.94	-54.72	≤-16.06	PASS
			1000~26500	3.94	-38.74	≤-16.06	PASS
		2462	Reference	2.59	2.59	---	PASS
			30~1000	2.59	-54.29	≤-17.41	PASS
			1000~26500	2.59	-38.21	≤-17.41	PASS
11N40SISO	Ant1	2422	Reference	3.73	3.73	---	PASS
			30~1000	3.73	-54.77	≤-16.27	PASS

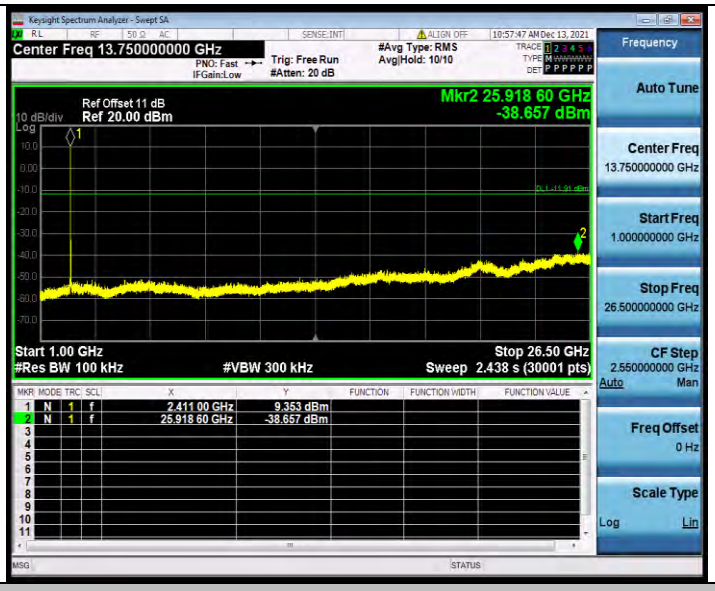
			1000~26500	3.73	-37.7	≤-16.27	PASS
		2437	Reference	2.79	2.79	---	PASS
			30~1000	2.79	-54.4	≤-17.21	PASS
			1000~26500	2.79	-38.19	≤-17.21	PASS
		2452	Reference	2.90	2.90	---	PASS
			30~1000	2.90	-54.68	≤-17.1	PASS
			1000~26500	2.90	-38.61	≤-17.1	PASS

TEST GRAPHS

11B_Ant1_2412_0~Reference



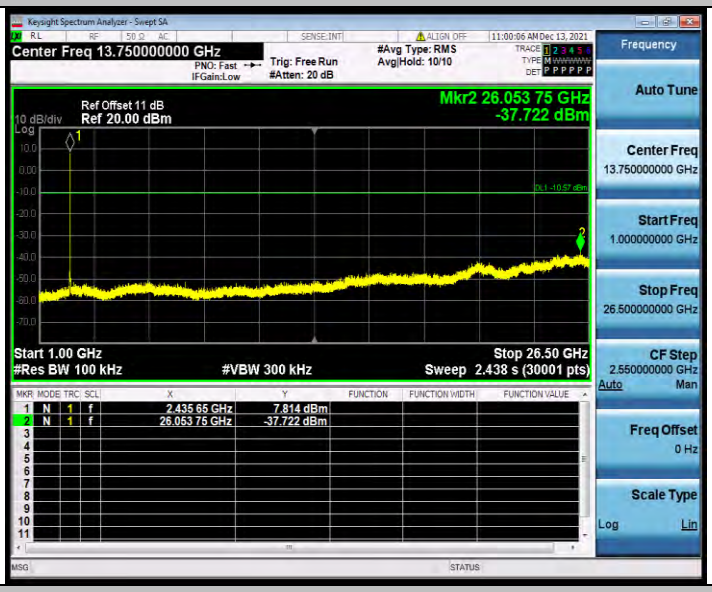
11B_Ant1_2412_30~1000



11B_Ant1_2412_1000~26500

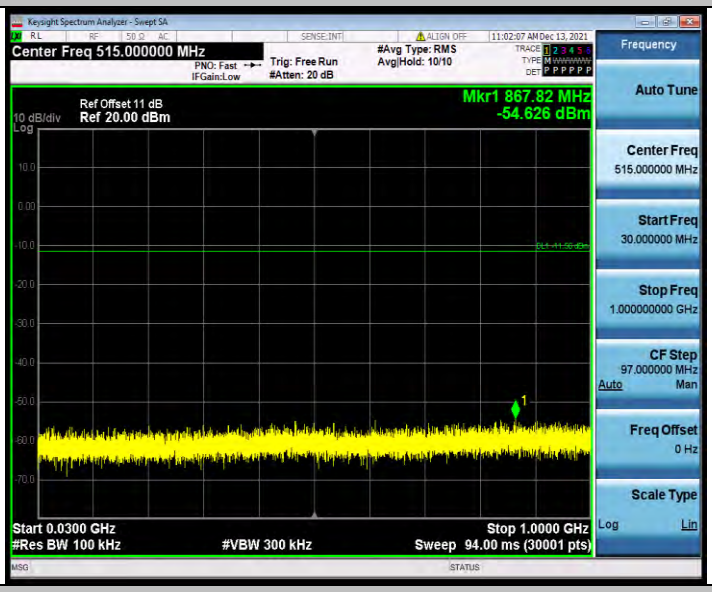
11B_Ant1_2437_0~Reference

11B_Ant1_2437_30~1000

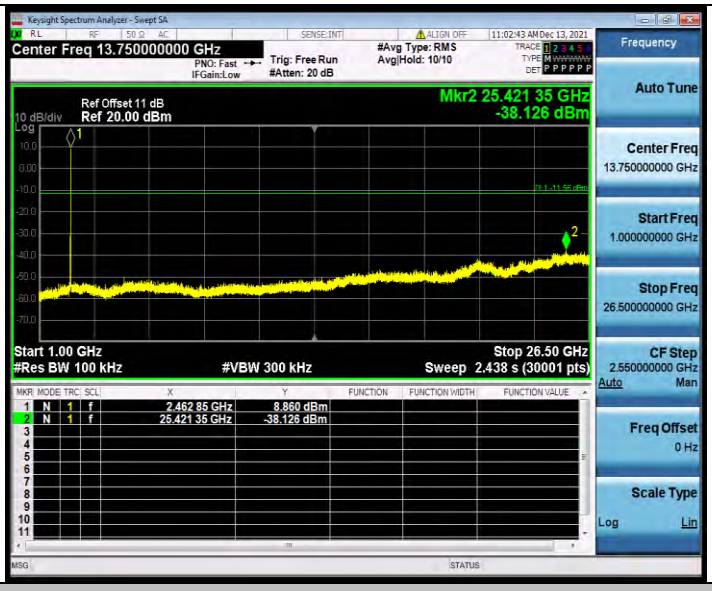


11B_Ant1_2437_1000~26500

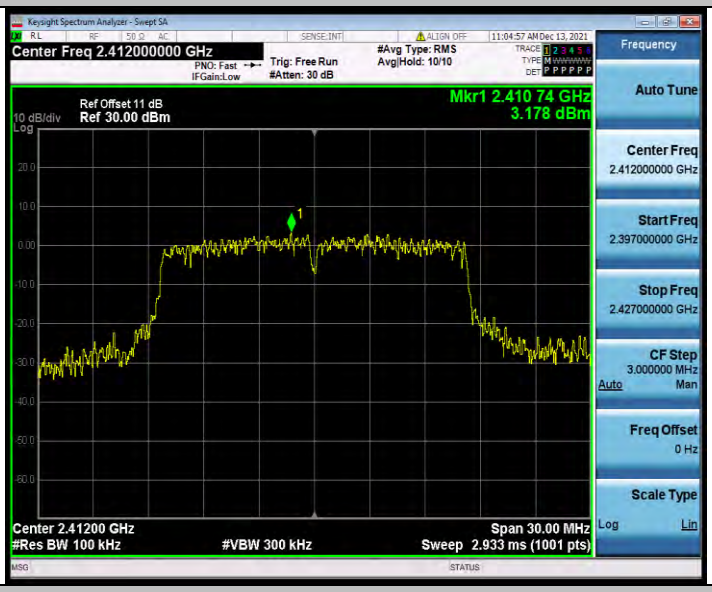
11B_Ant1_2462_0~Reference



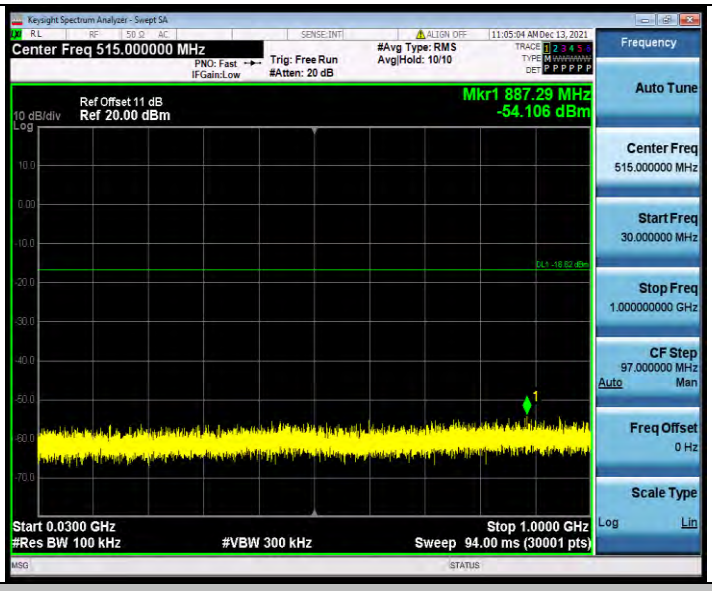
11B_Ant1_2462_30~1000



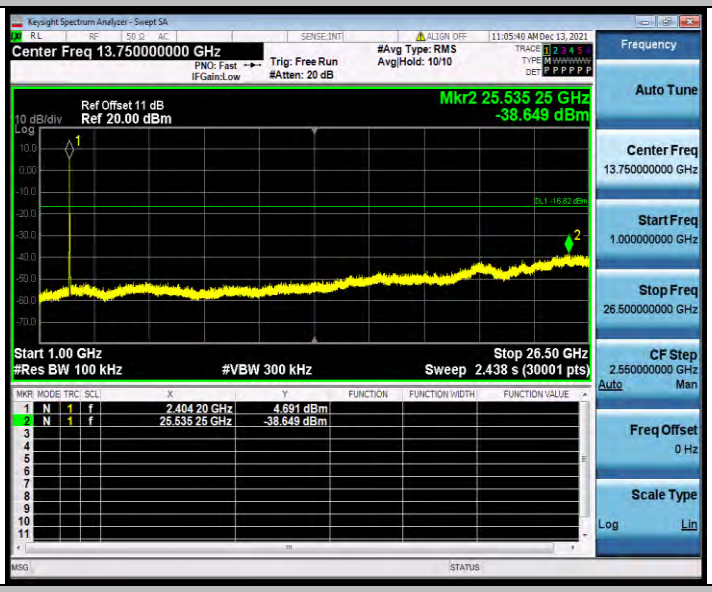
11B_Ant1_2462_1000~26500



11G_Ant1_2412_0~Reference

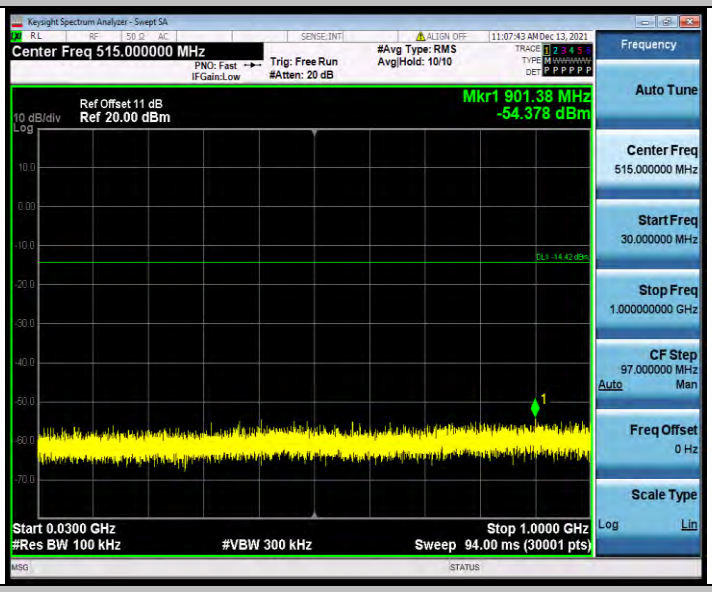


11G_Ant1_2412_30~1000

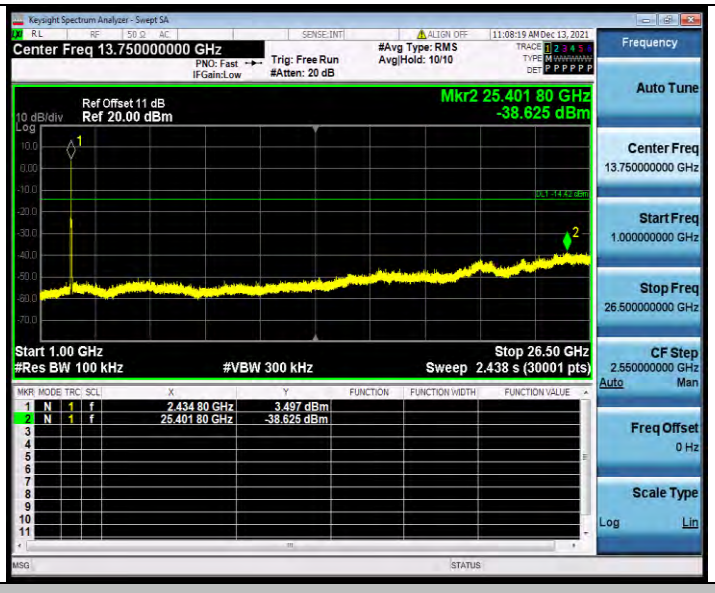


11G_Ant1_2412_1000~26500

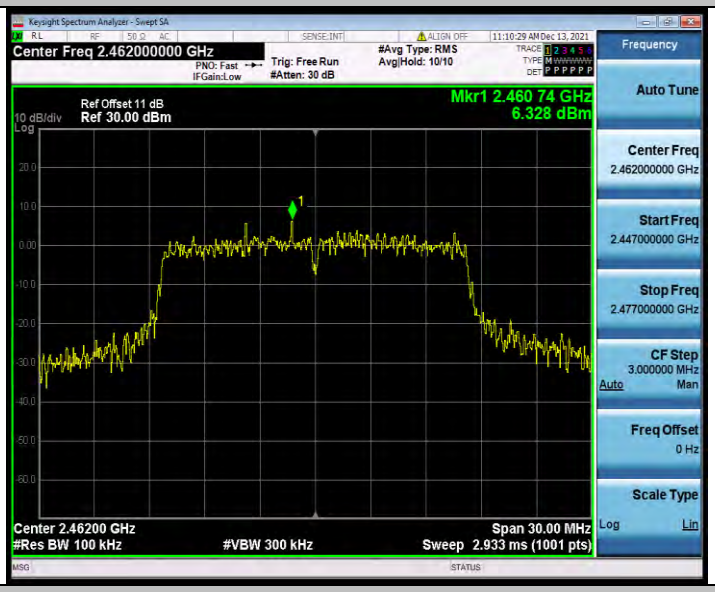
11G_Ant1_2437_0~Reference



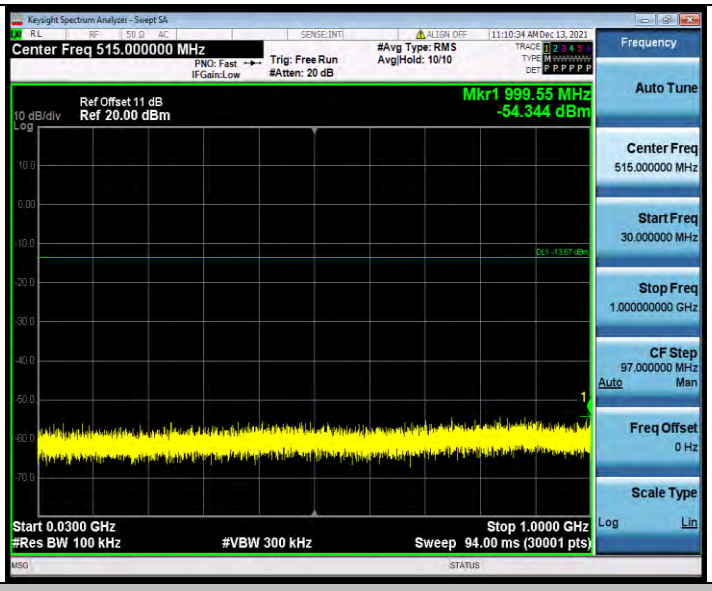
11G_Ant1_2437_30~1000



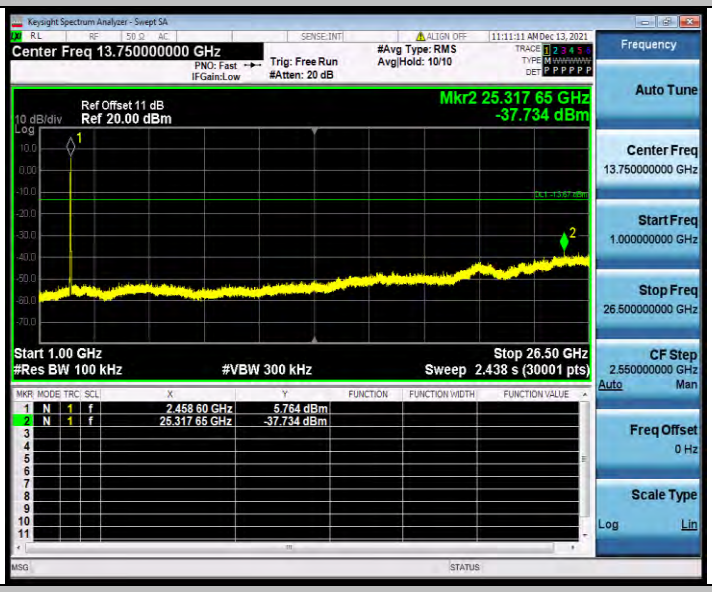
11G_Ant1_2437_1000~26500



11G_Ant1_2462_0~Reference

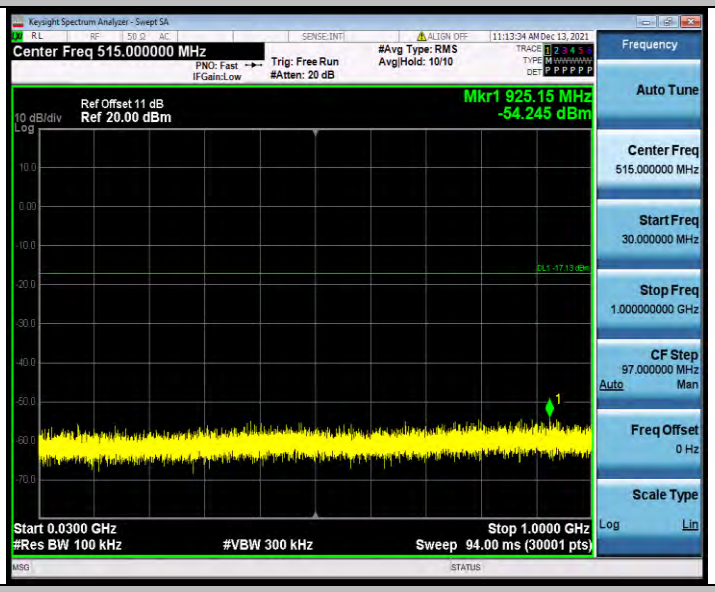


11G_Ant1_2462_30~1000

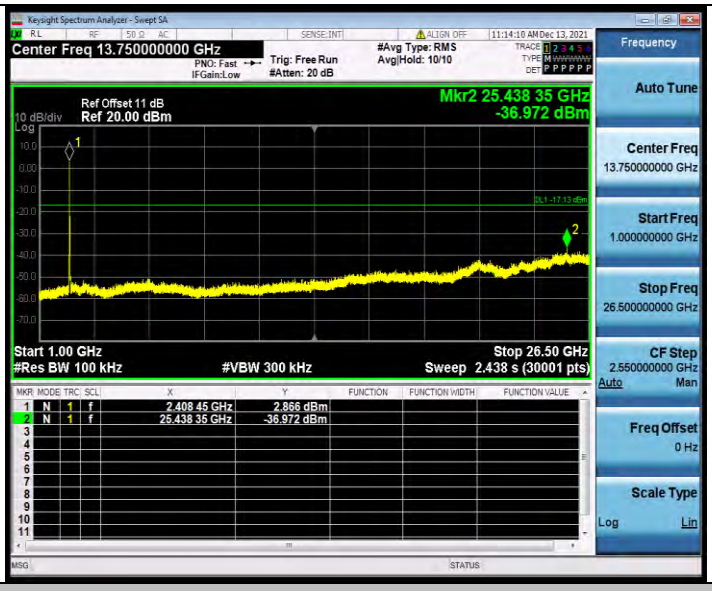


11G_Ant1_2462_1000~26500

11N20SISO_Ant1_2412_0~Reference

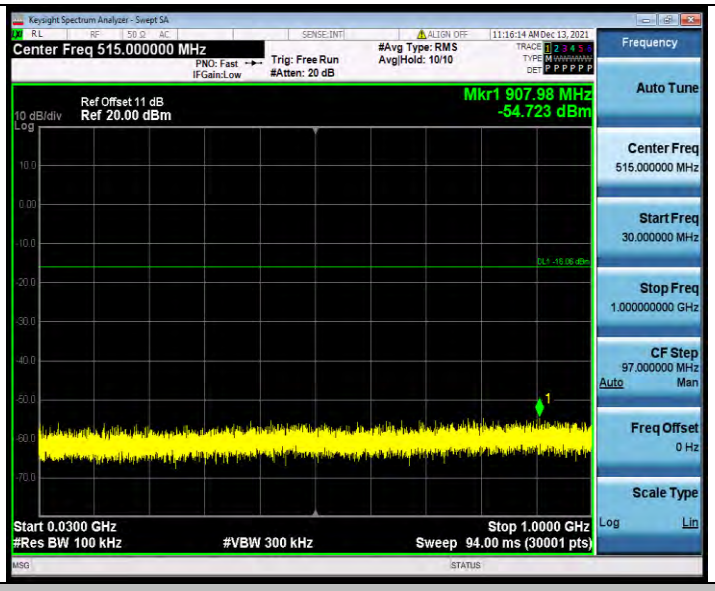


11N20SISO_Ant1_2412_30~1000

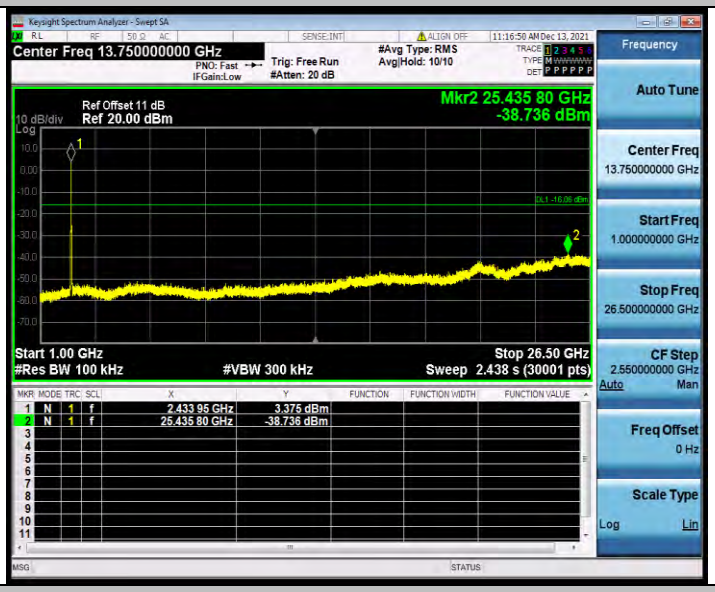


11N20SISO_Ant1_2412_1000~26500

11N20SISO_Ant1_2437_0~Reference

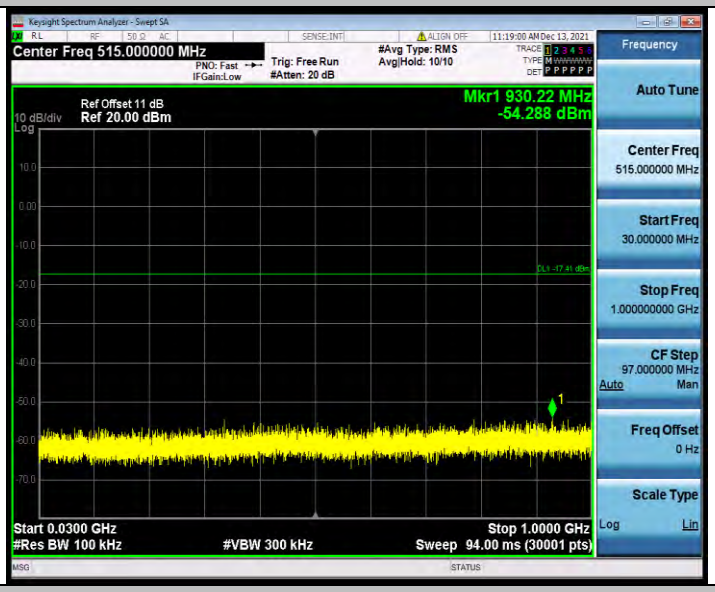


11N20SISO_Ant1_2437_30~1000

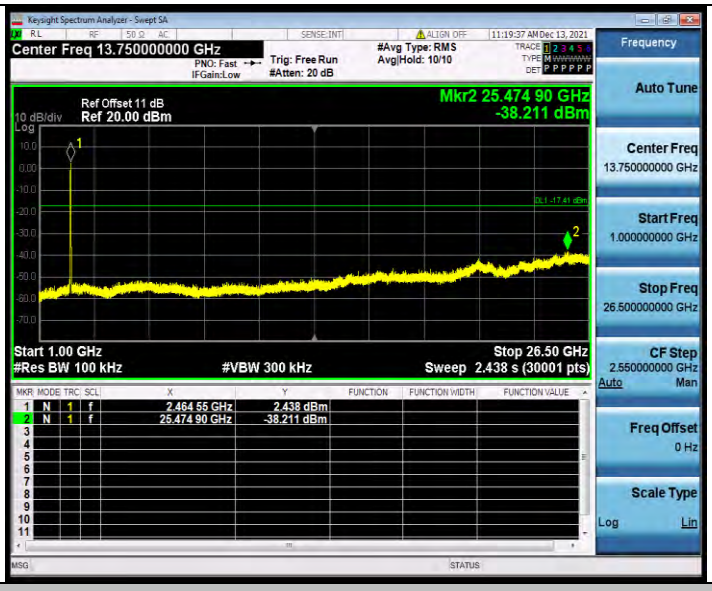


11N20SISO_Ant1_2437_1000~26500

11N20SISO_Ant1_2462_0~Reference



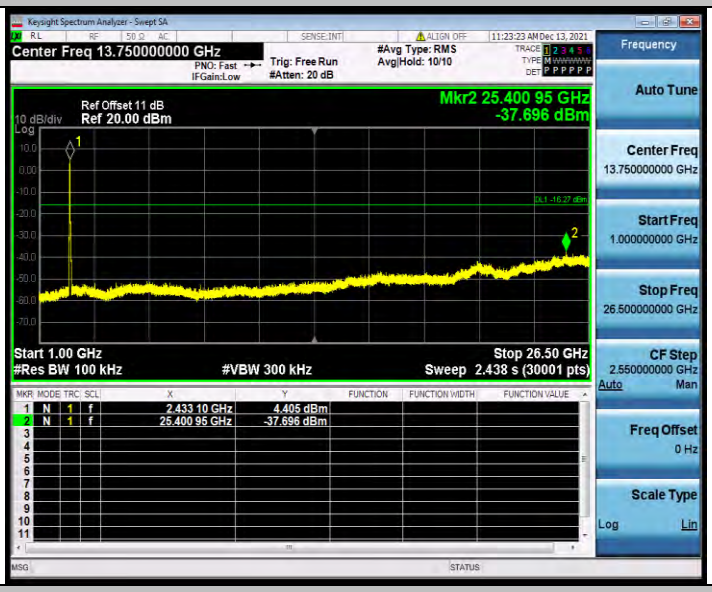
11N20SISO_Ant1_2462_30~1000



11N20SISO_Ant1_2462_1000~26500

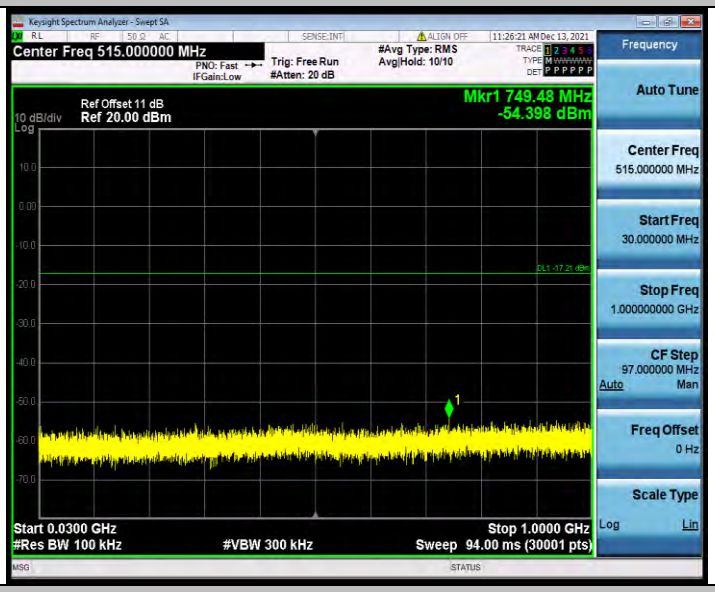
11N40SISO_Ant1_2422_0~Reference

11N40SISO_Ant1_2422_30~1000

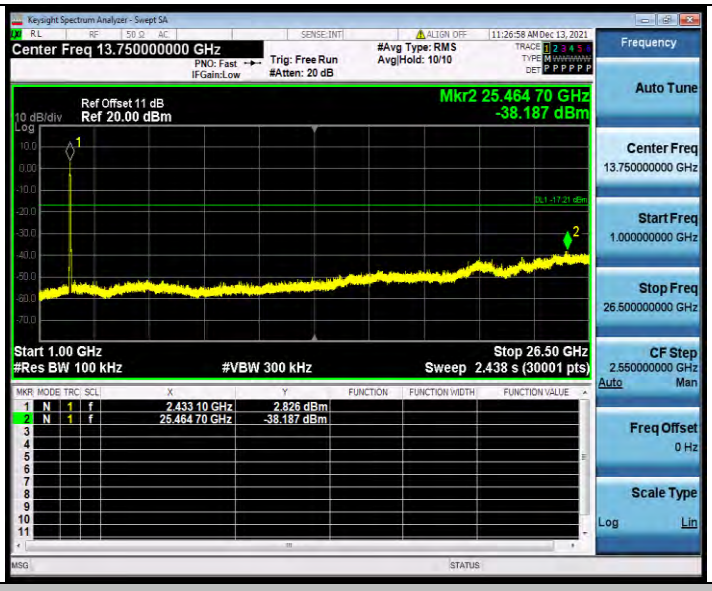


11N40SISO_Ant1_2422_1000~26500

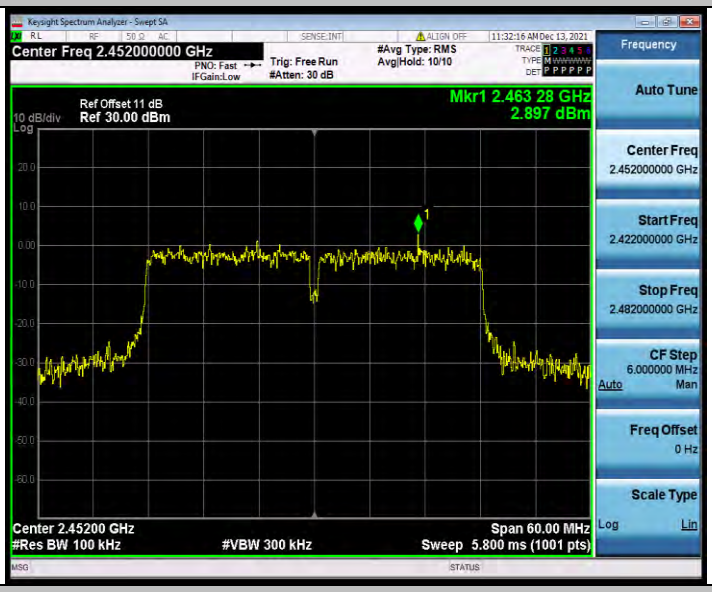
11N40SISO_Ant1_2437_0~Reference



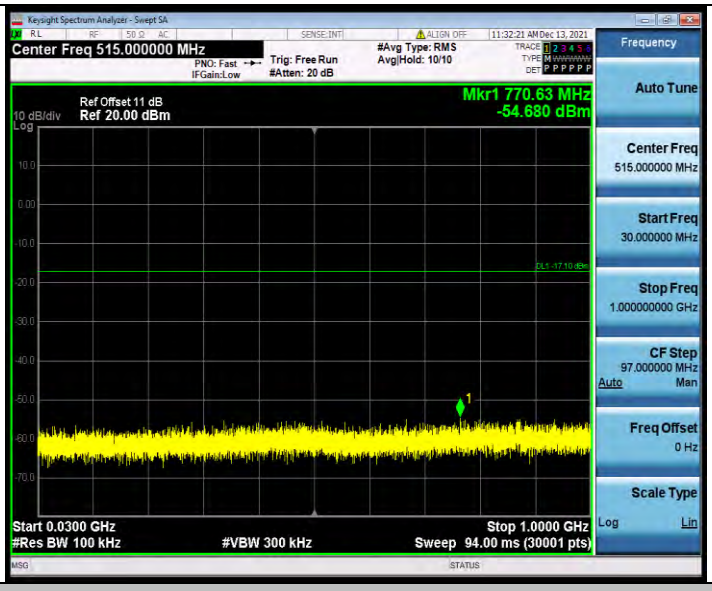
11N40SISO_Ant1_2437_30~1000



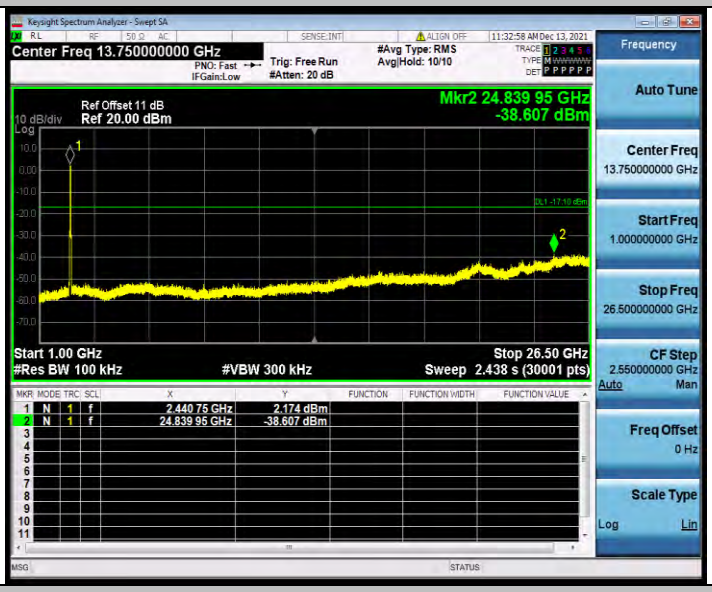
11N40SISO_Ant1_2437_1000~26500



11N40SISO_Ant1_2452_0~Reference



11N40SISO_Ant1_2452_30~1000



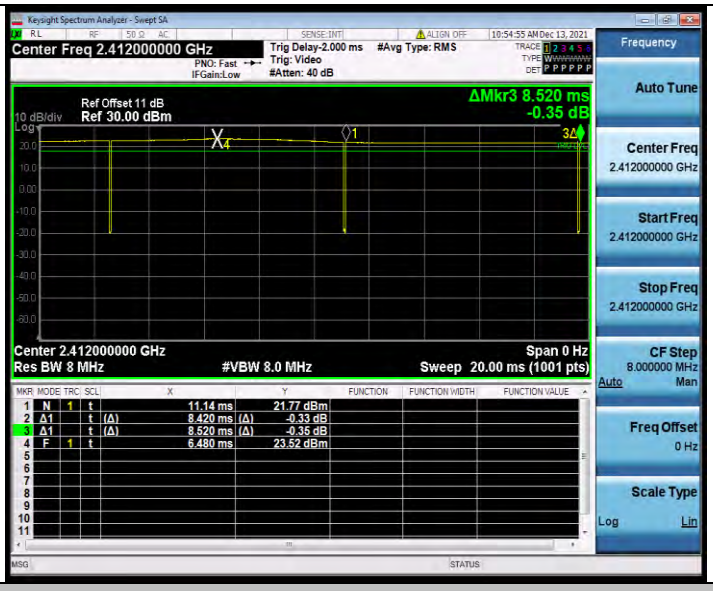
11N40SISO_Ant1_2452_1000~26500

APPENDIX G: DUTY CYCLE

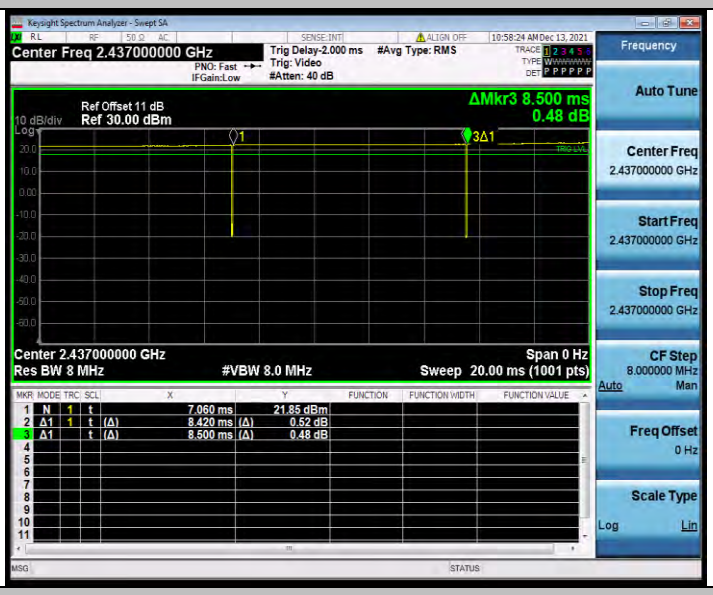
TEST RESULT

TestMode	Antenna	Channel	Transmission Duration [ms]	Transmission Period [ms]	Duty Cycle [%]	Limit	Verdict
11B	Ant1	2412	8.42	8.52	98.83	---	PASS
		2437	8.42	8.50	99.06	---	PASS
		2462	8.42	8.50	99.06	---	PASS
11G	Ant1	2412	1.39	1.48	93.92	---	PASS
		2437	1.40	1.50	93.33	---	PASS
		2462	1.39	1.47	94.56	---	PASS
11N20SISO	Ant1	2412	1.18	1.27	92.91	---	PASS
		2437	1.18	1.29	91.47	---	PASS
		2462	1.18	1.26	93.65	---	PASS
11N40SISO	Ant1	2422	0.59	0.70	84.29	---	PASS
		2437	0.58	0.69	84.06	---	PASS
		2452	0.59	0.67	88.06	---	PASS

TEST GRAPHS



11B_Ant1_2412



11B_Ant1_2437