Appendix Test Data

Report No.:	18220WC30267202	Test Sample No.:	1-2-2
Start Test Date:	2023.12.20	Finish Test Date:	2023.12.21
Test Engineer:	Hayman Chen	Auditor:	Rick Luo
Temperature:	25.3℃	Relative Humidity:	44%
Pressure:	101kPa		

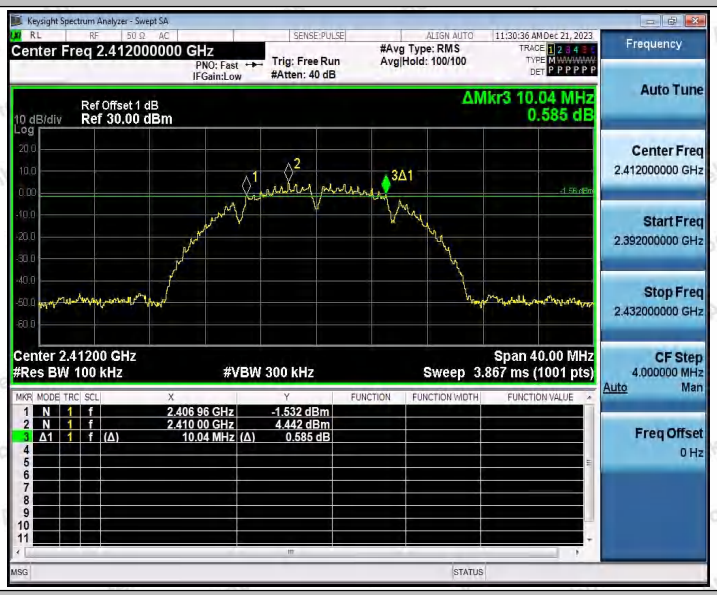
Appendix A: DTS Bandwidth

Test Result

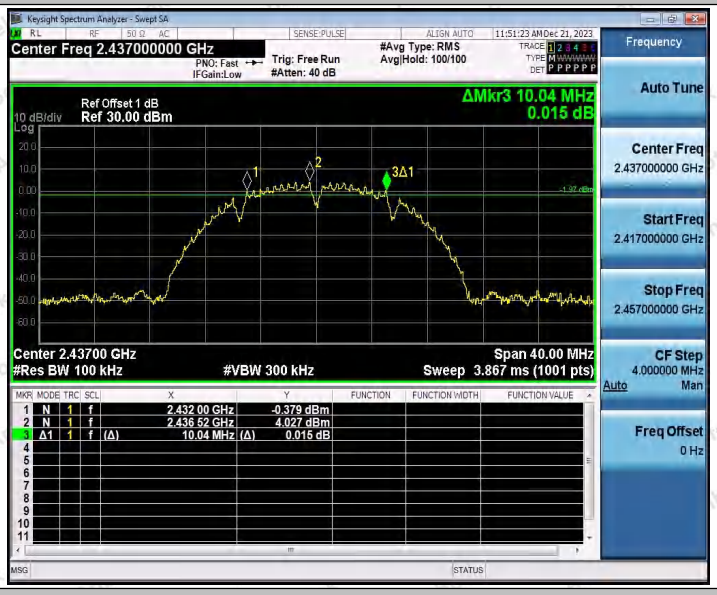
TestMode	Antenna	Frequency[MHz]	DTS BW [MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
11B	Ant1	2412	10.040	2406.960	2417.000	0.5	PASS
		2437	10.040	2432.000	2442.040	0.5	PASS
		2462	10.080	2456.960	2467.040	0.5	PASS
11G	Ant1	2412	16.400	2403.840	2420.240	0.5	PASS
		2437	16.320	2428.840	2445.160	0.5	PASS
		2462	16.360	2453.840	2470.200	0.5	PASS
11N20SISO	Ant1	2412	17.560	2403.240	2420.800	0.5	PASS
		2437	17.560	2428.240	2445.800	0.5	PASS
		2462	17.560	2453.240	2470.800	0.5	PASS
11N40SISO	Ant1	2422	35.120	2404.480	2439.600	0.5	PASS
		2437	35.120	2419.480	2454.600	0.5	PASS
		2452	35.040	2434.480	2469.520	0.5	PASS

Test Graphs

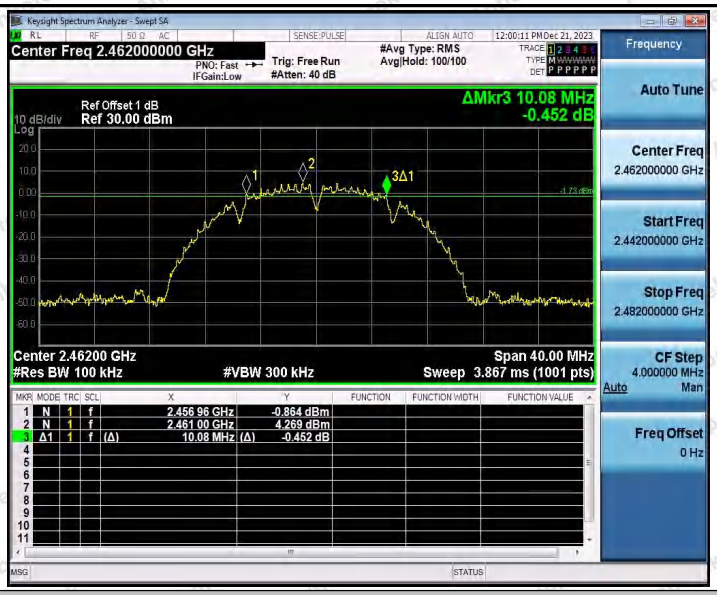
11B_Ant1_2412



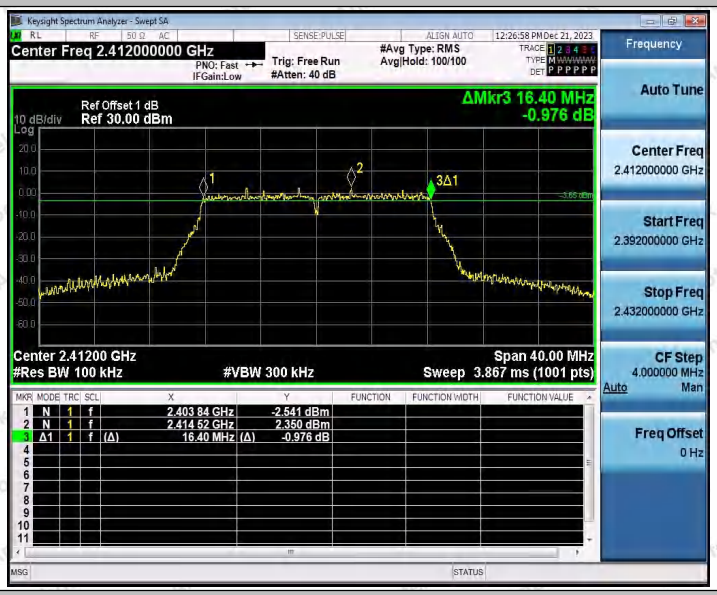
11B_Ant1_2437



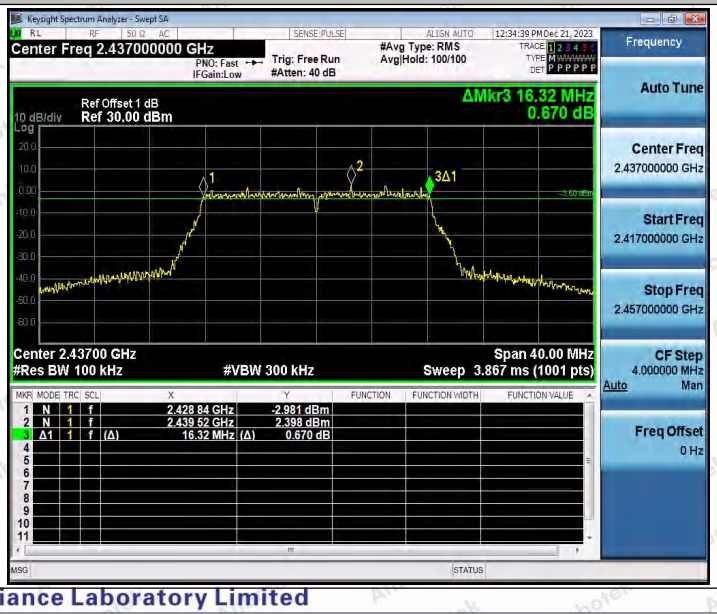
11B_Ant1_2462



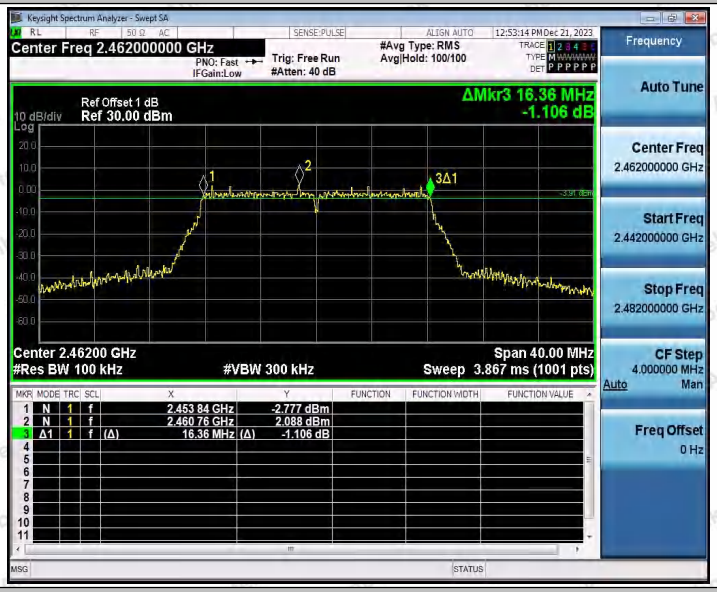
11G_Ant1_2412



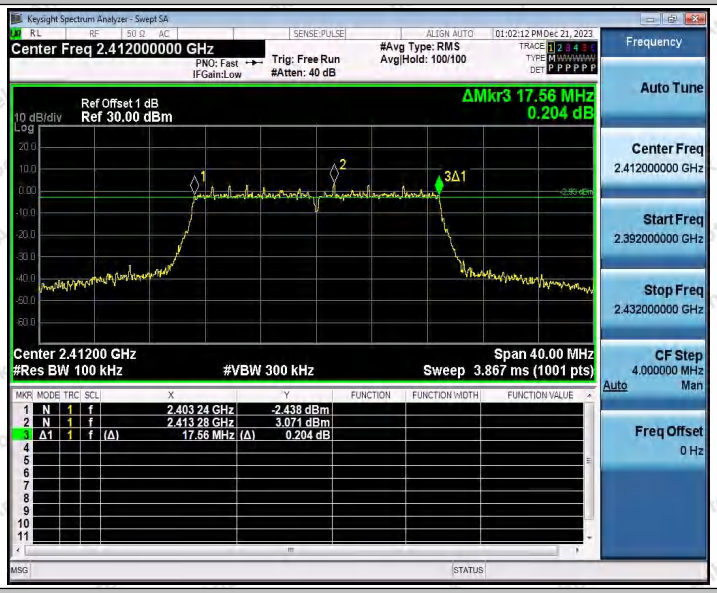
11G_Ant1_2437



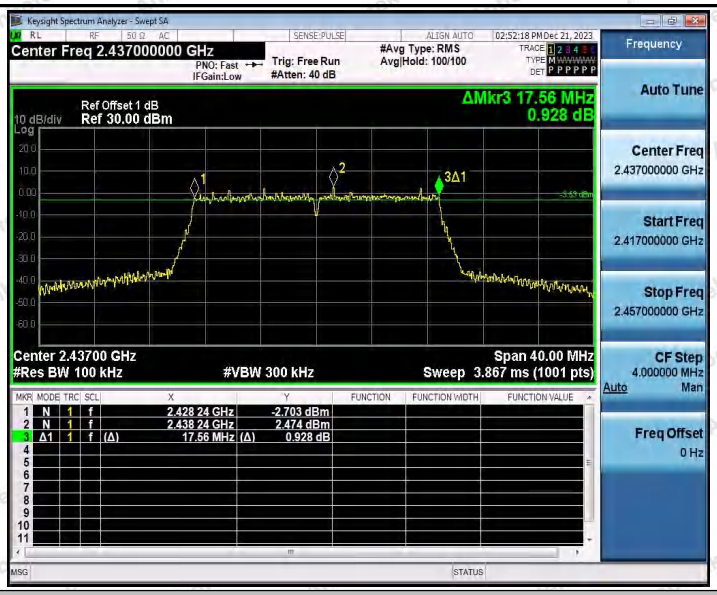
11G_Ant1_2462



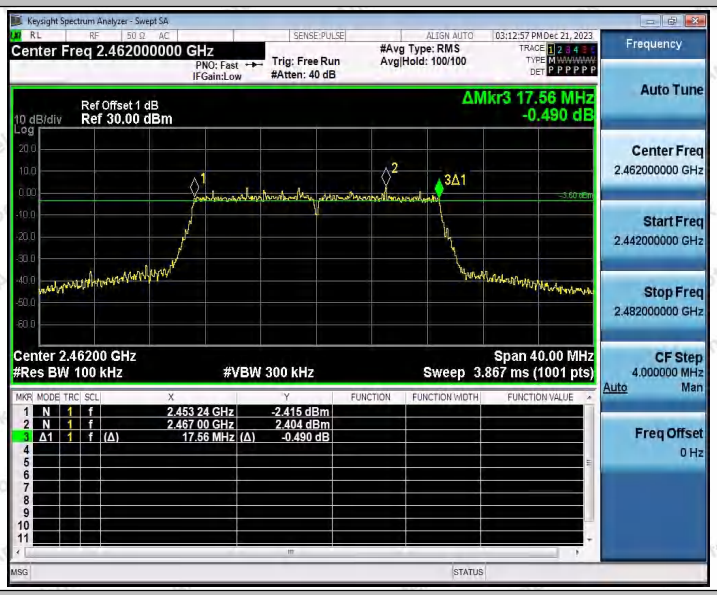
11N20SISO_Ant1_2412



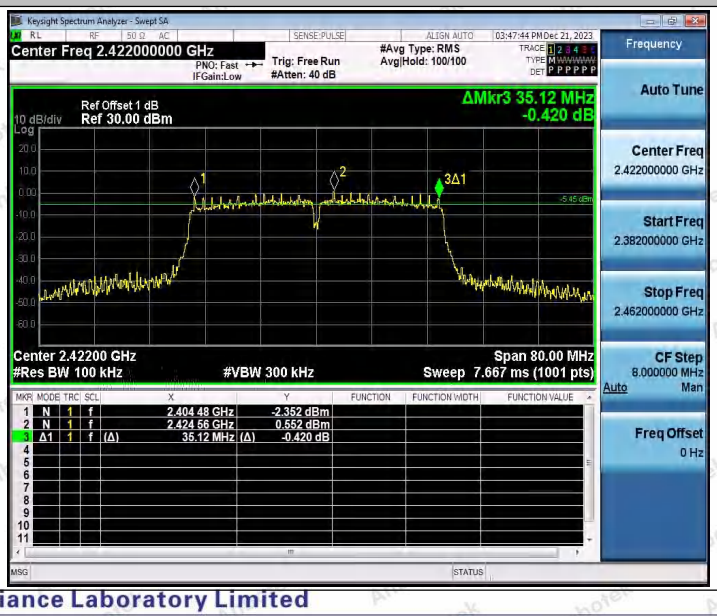
11N20SISO_Ant1_2437



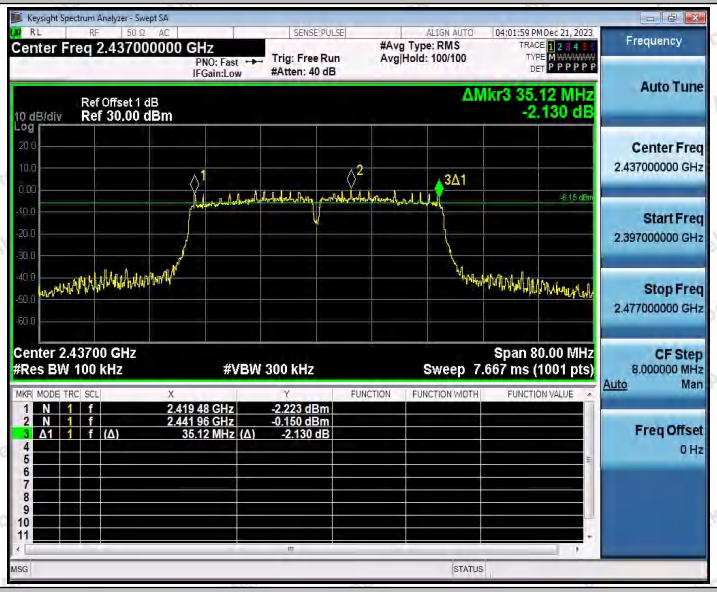
11N20SISO_Ant1_2462



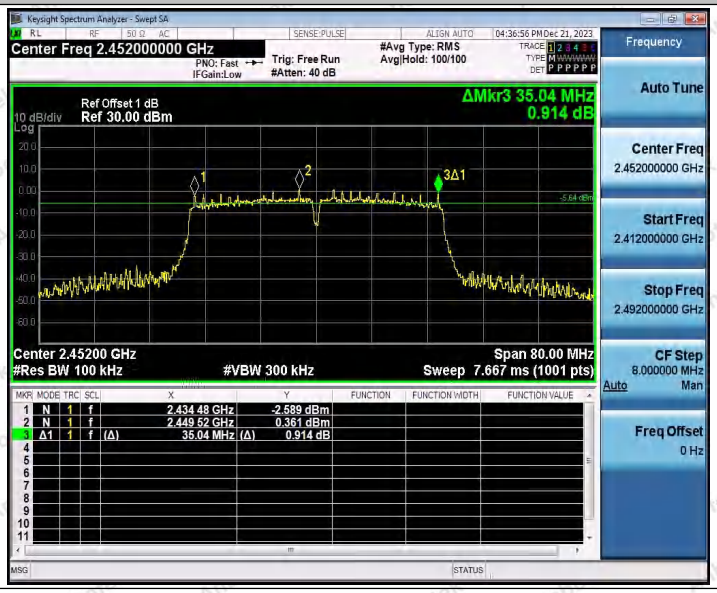
11N40SISO_Ant1_2422



11N40SISO_Ant1_2437



11N40SISO_Ant1_2452



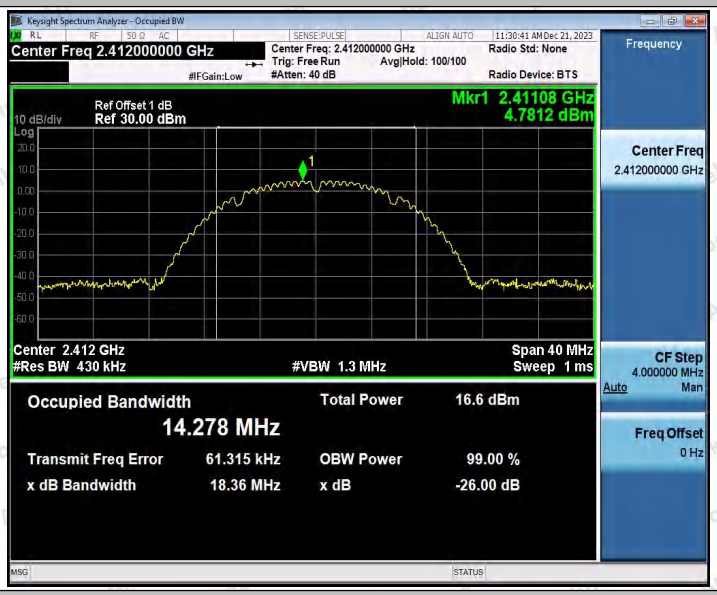
Appendix B: Occupied Channel Bandwidth

Test Result

TestMode	Antenna	Channel Frequency[MHz]	OCB [MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
11B	Ant1	2412	14.278	2404.9223	2419.2003	---	---
		2437	14.276	2429.9093	2444.1853	---	---
		2462	14.270	2454.8778	2469.1478	---	---
11G	Ant1	2412	17.101	2403.4686	2420.5696	---	---
		2437	17.064	2428.5025	2445.5665	---	---
		2462	17.133	2453.4377	2470.5707	---	---
11N20SISO	Ant1	2412	17.970	2403.0720	2421.0420	---	---
		2437	18.057	2428.0287	2446.0857	---	---
		2462	17.969	2453.0746	2471.0436	---	---
11N40SISO	Ant1	2422	35.988	2404.1378	2440.1258	---	---
		2437	35.994	2419.1266	2455.1206	---	---
		2452	35.878	2434.1565	2470.0345	---	---

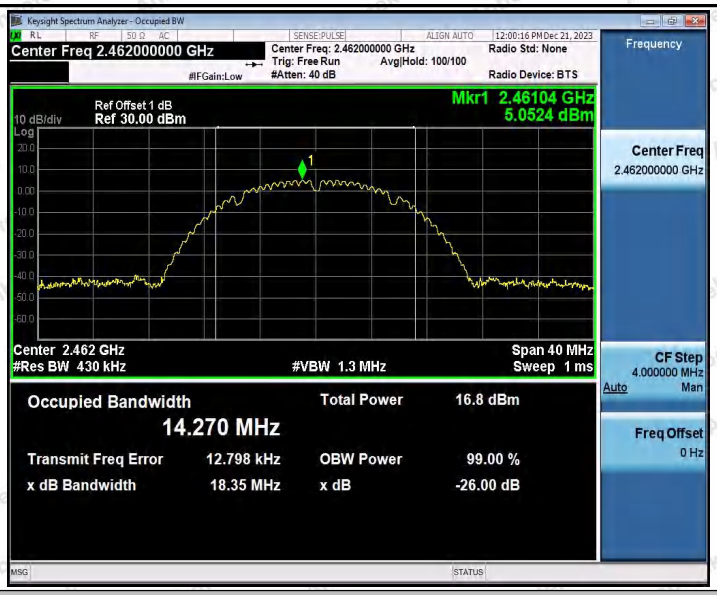
Test Graphs

11B_Ant1_2412

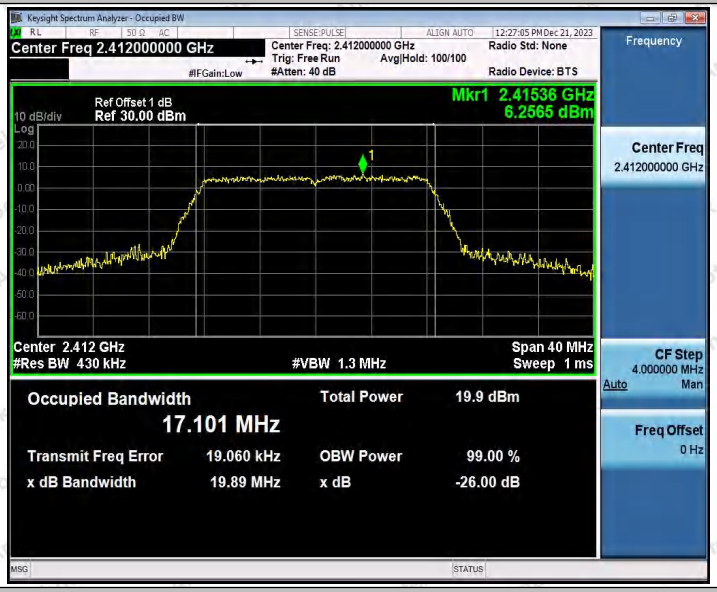


11B_Ant1_2437

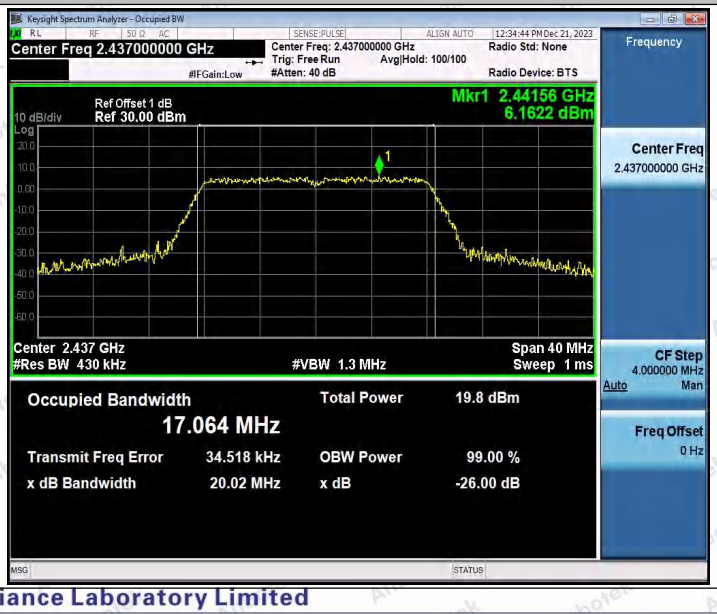
11B_Ant1_2462



11G_Ant1_2412

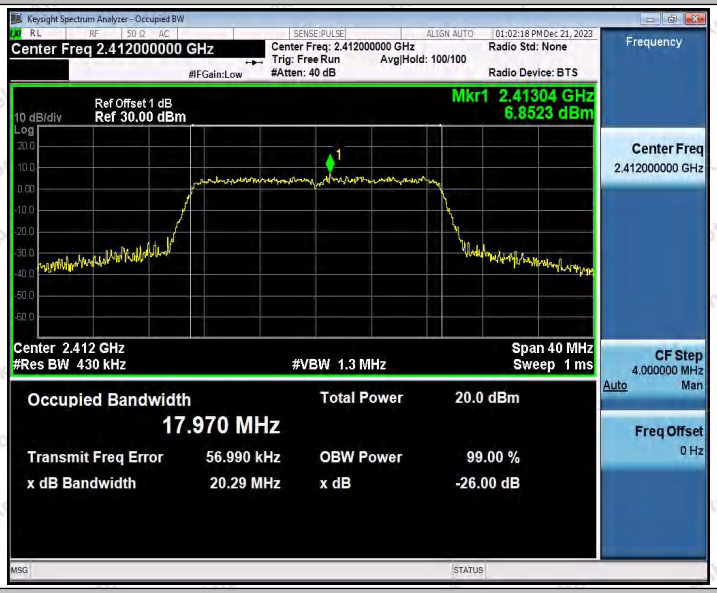


11G_Ant1_2437



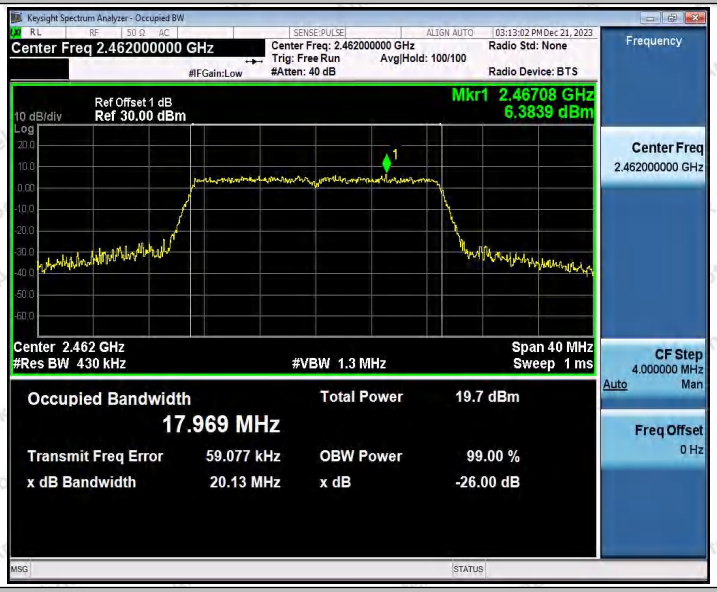
11G_Ant1_2462

11N20SISO_Ant1_2412

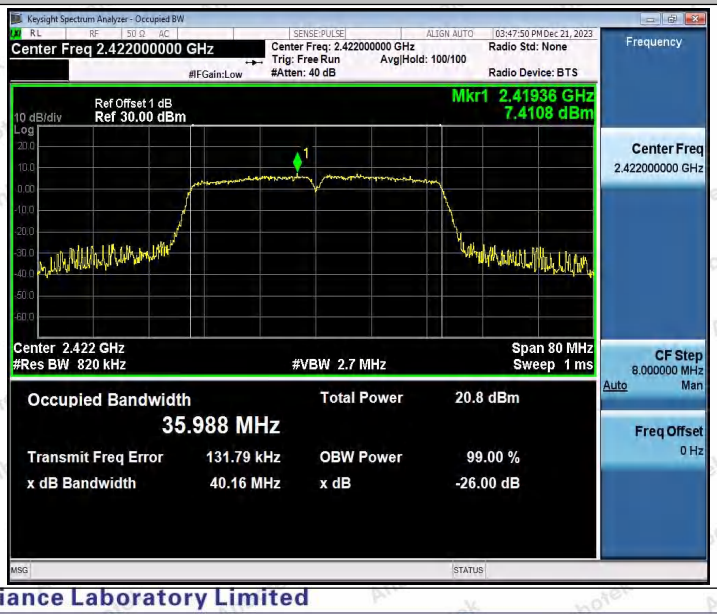


11N20SISO_Ant1_2437

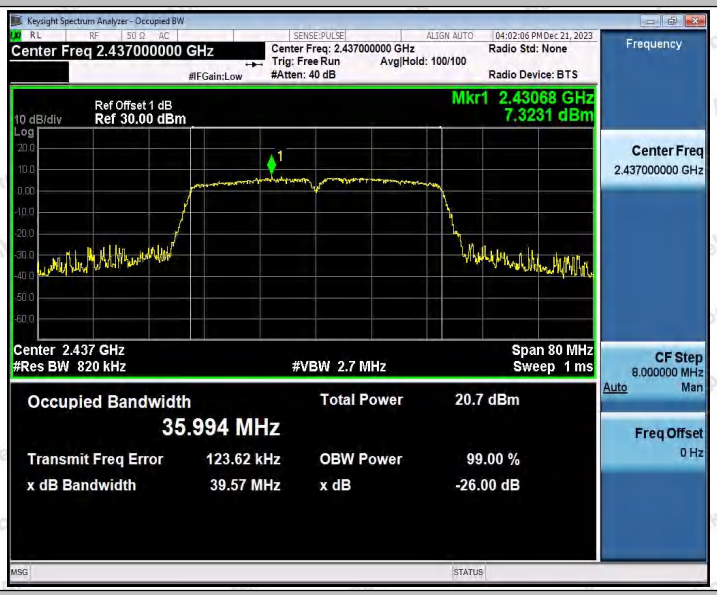
11N20SISO_Ant1_2462



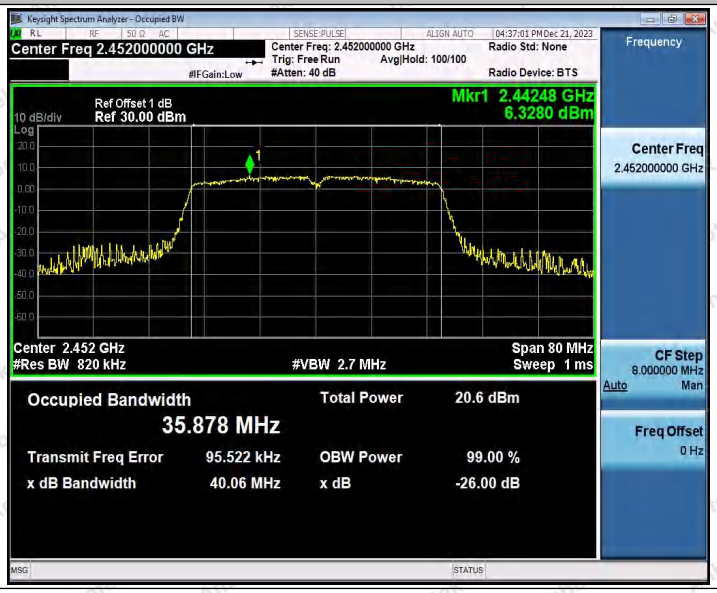
11N40SISO_Ant1_2422



11N40SISO_Ant1_2437



11N40SISO_Ant1_2452



Appendix C: Maximum conducted output power

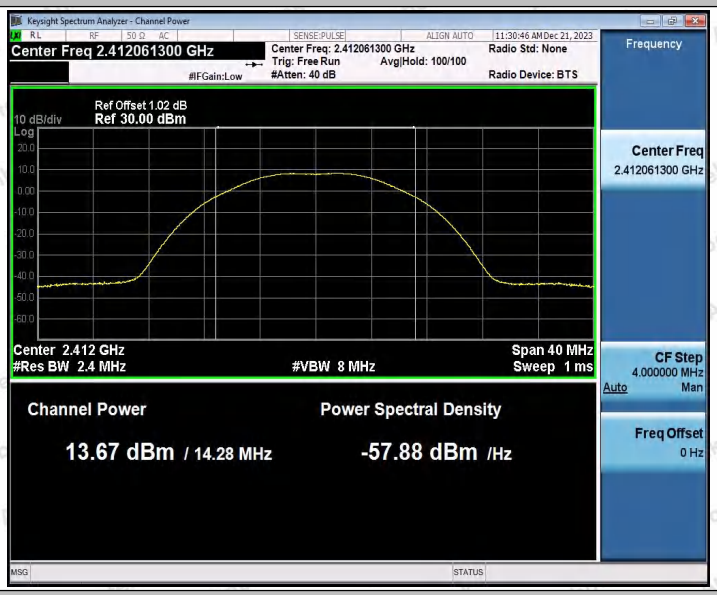
Test Result

TestMode	Antenna	Frequency[MHz]	Average Output Power[dBm]	Conducted Limit[dBm]
11B	Ant1	2412	13.67	≤30.00
		2437	13.77	≤30.00
		2462	13.84	≤30.00
11G	Ant1	2412	13.73	≤30.00
		2437	13.72	≤30.00
		2462	13.49	≤30.00
11N20SISO	Ant1	2412	13.80	≤30.00
		2437	13.41	≤30.00
		2462	13.53	≤30.00
11N40SISO	Ant1	2422	13.90	≤30.00
		2437	13.78	≤30.00
		2452	**13.97**	≤30.00

Note：The Duty Cycle Factor(10*log(1/D)) and cable loss are compensated in the graph.

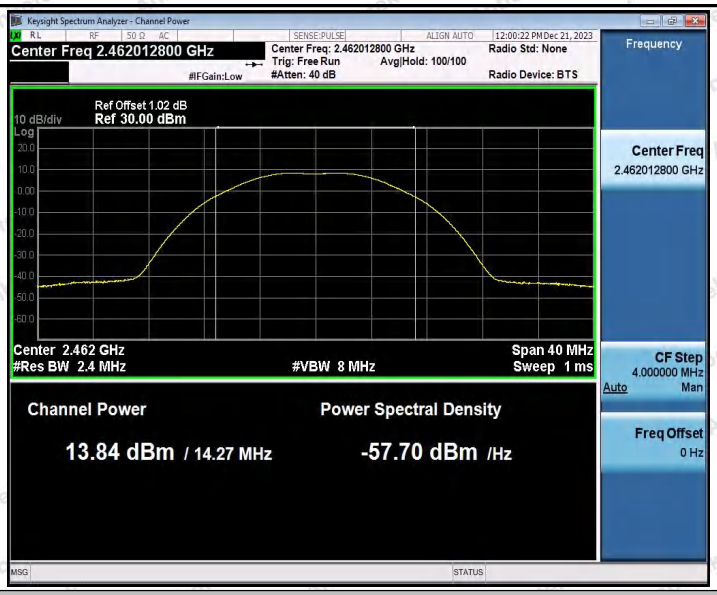
Test Graphs

11B_Ant1_2412

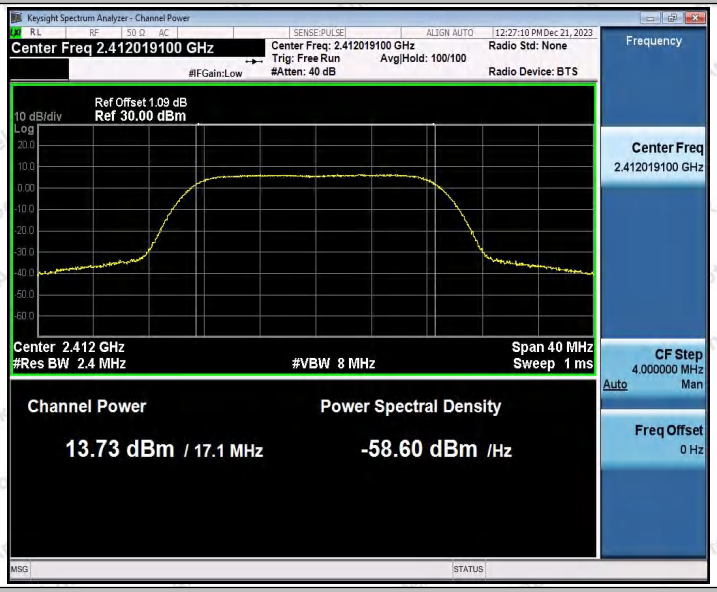


11B_Ant1_2437

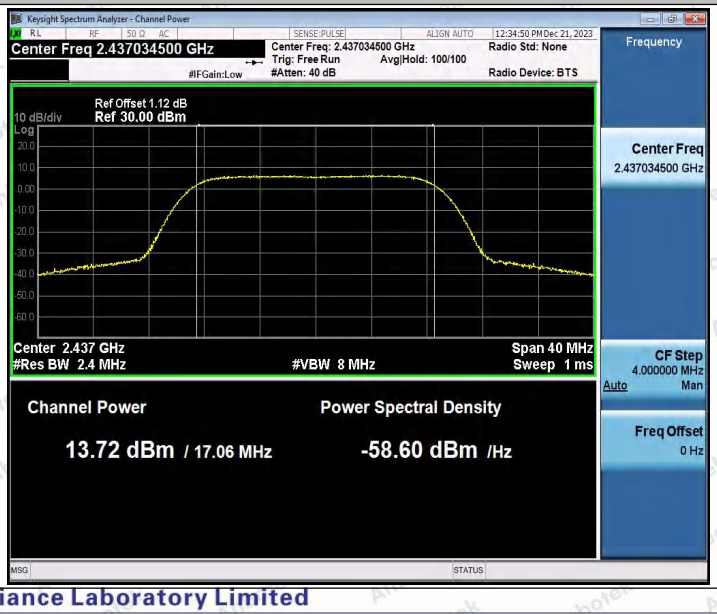
11B_Ant1_2462



11G_Ant1_2412

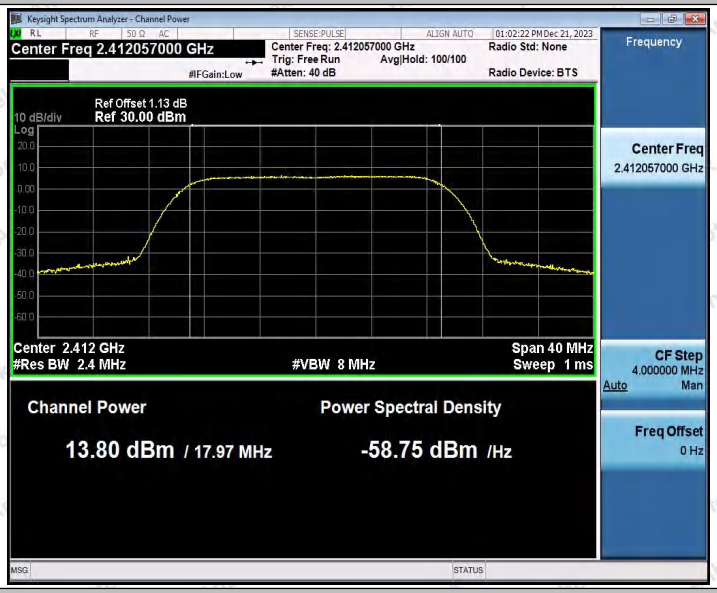


11G_Ant1_2437



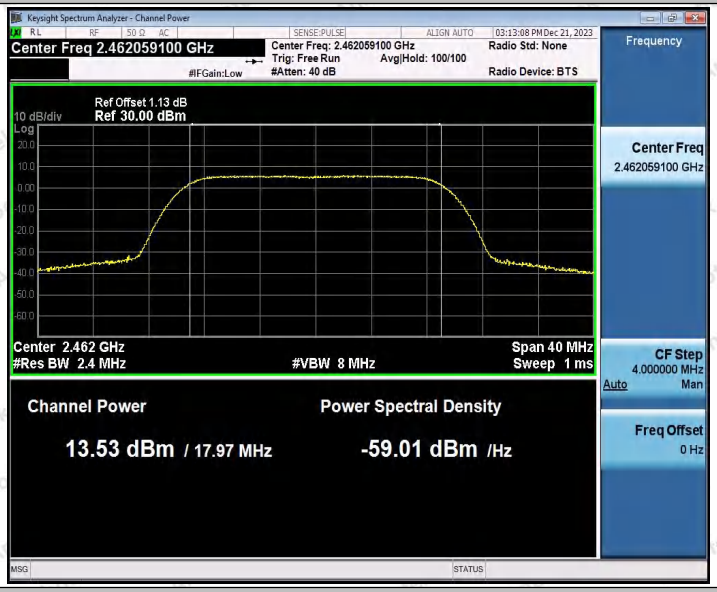
11G_Ant1_2462

11N20SISO_Ant1_2412

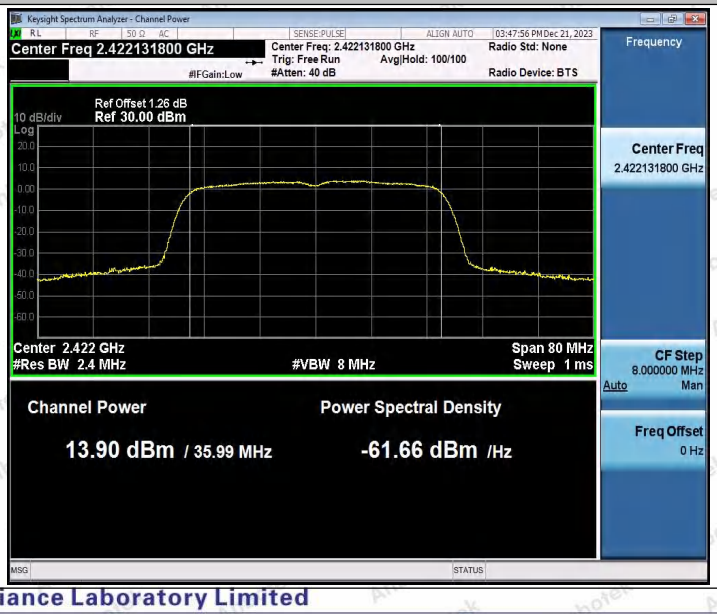


11N20SISO_Ant1_2437

11N20SISO_Ant1_2462



11N40SISO_Ant1_2422



11N40SISO_Ant1_2437

11N40SISO_Ant1_2452

Appendix D: Maximum power spectral density

Test Result

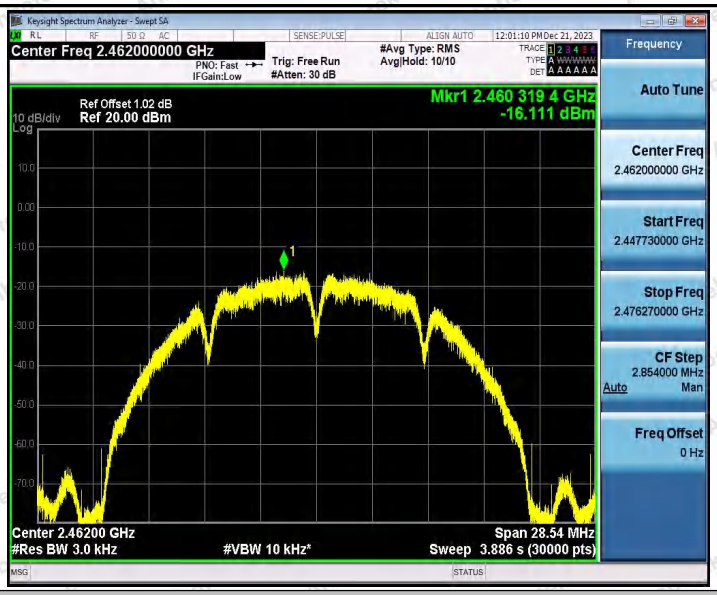
TestMode	Antenna	Frequency[MHz]	Result[dBm/3kHz]	Limit[dBm/3kHz]	Verdict
11B	Ant1	2412	-16.47	≤8.00	PASS
		2437	-16.41	≤8.00	PASS
		2462	-16.11	≤8.00	PASS
11G	Ant1	2412	-18.31	≤8.00	PASS
		2437	-18.23	≤8.00	PASS
		2462	-18.87	≤8.00	PASS
11N20SISO	Ant1	2412	-18.85	≤8.00	PASS
		2437	-19.01	≤8.00	PASS
		2462	-18.53	≤8.00	PASS
11N40SISO	Ant1	2422	-20.04	≤8.00	PASS
		2437	-19.53	≤8.00	PASS
		2452	-20.19	≤8.00	PASS

Test Graphs

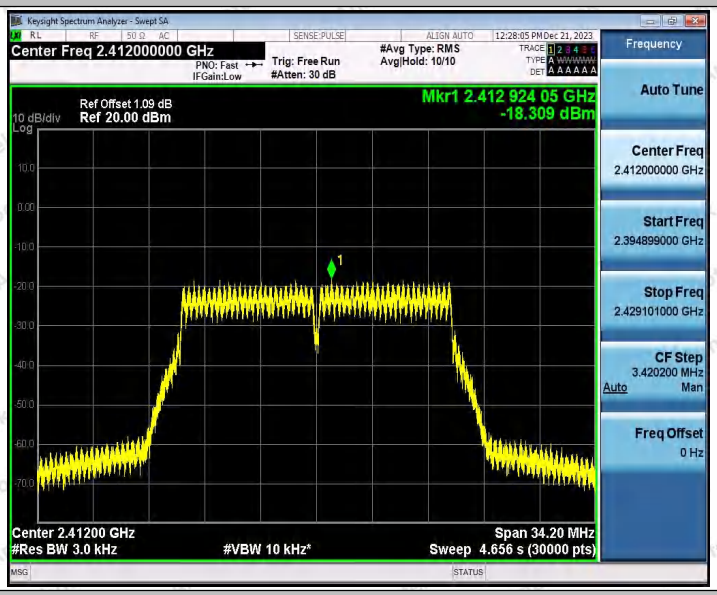
11B_Ant1_2412

11B_Ant1_2437

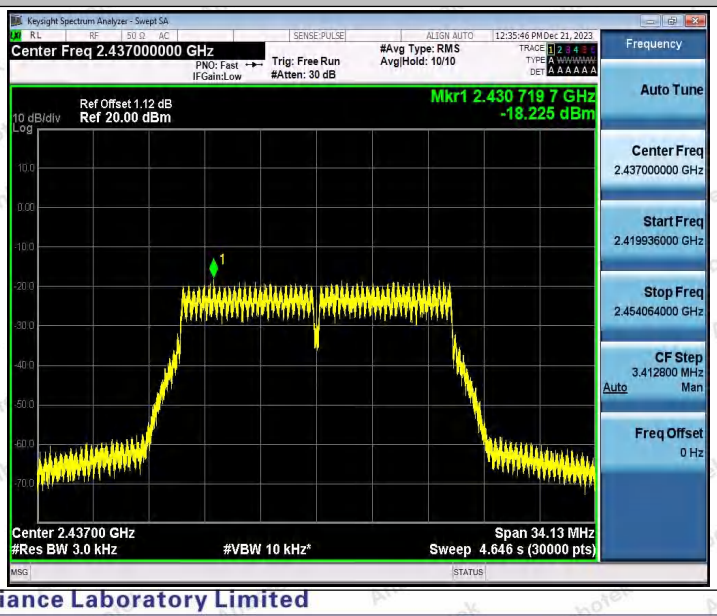
11B_Ant1_2462



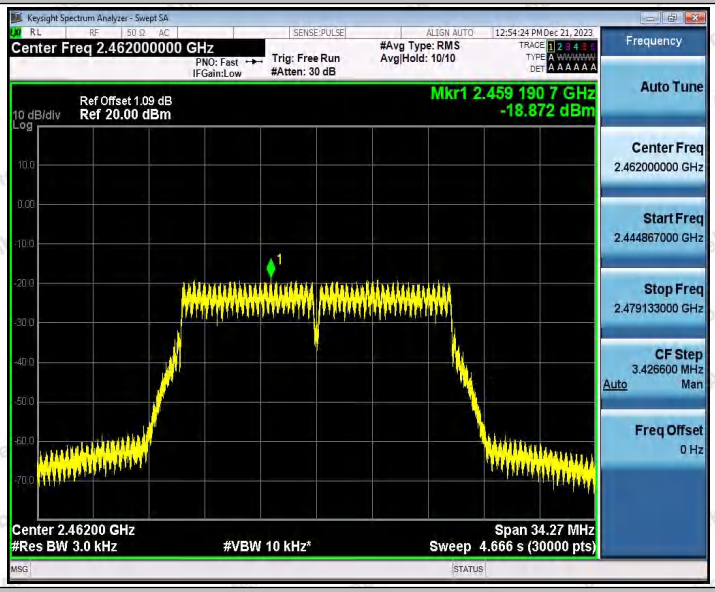
11G_Ant1_2412



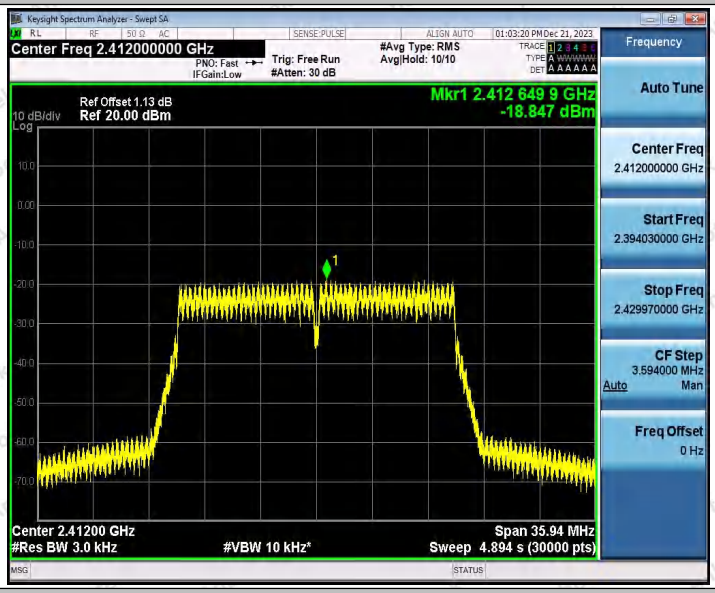
11G_Ant1_2437



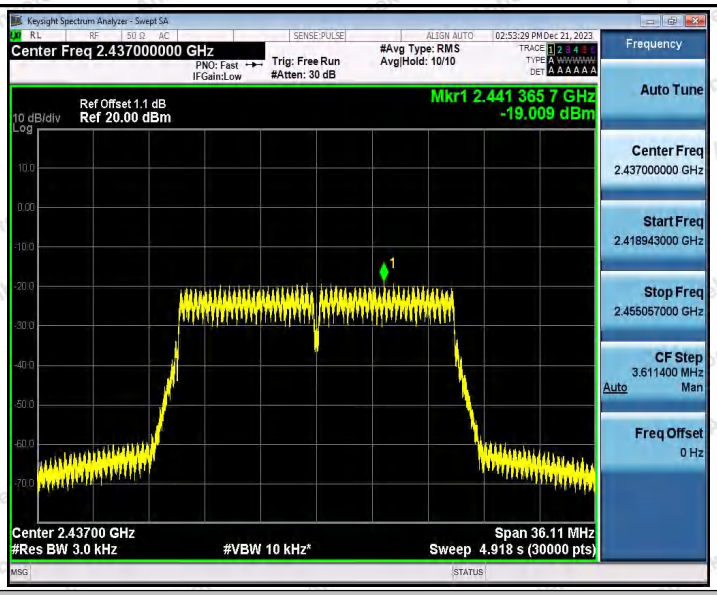
11G_Ant1_2462



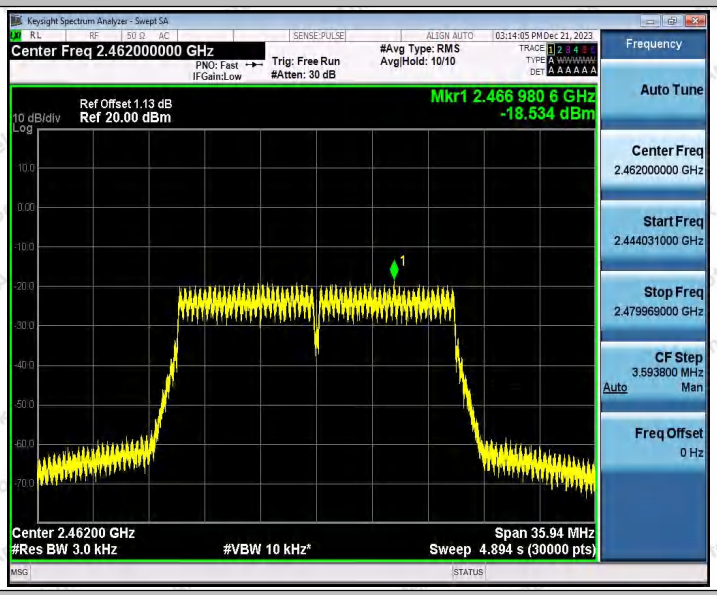
11N20SISO_Ant1_2412



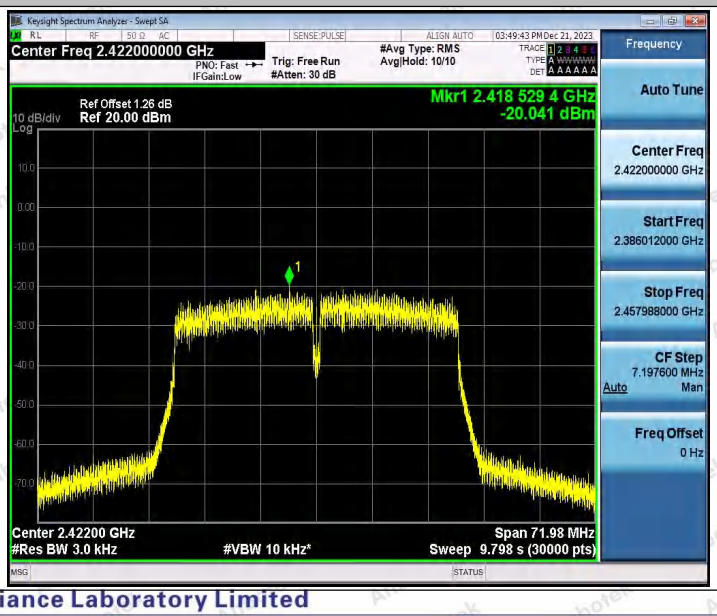
11N20SISO_Ant1_2437



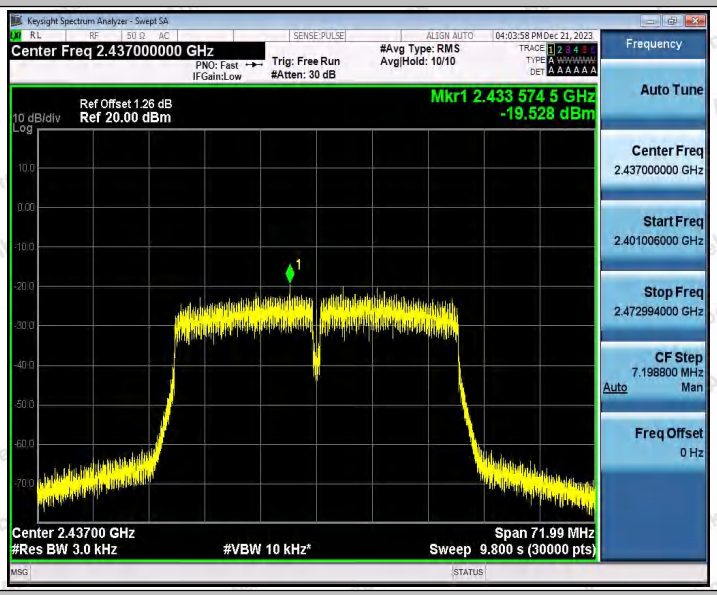
11N20SISO_Ant1_2462



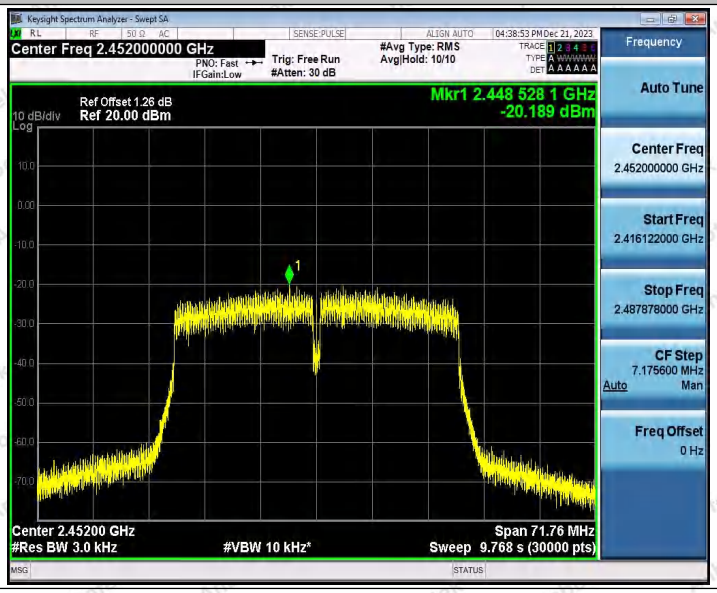
11N40SISO_Ant1_2422



11N40SISO_Ant1_2437



11N40SISO_Ant1_2452



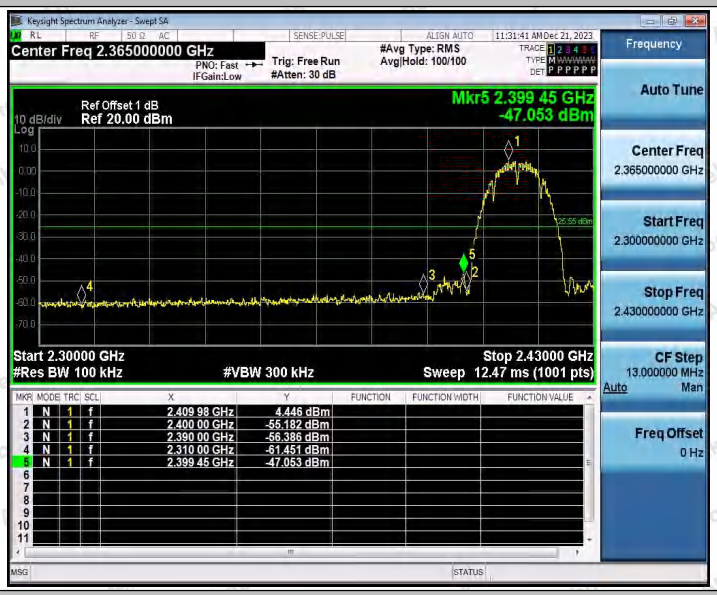
Appendix E: Band edge measurements

Test Result

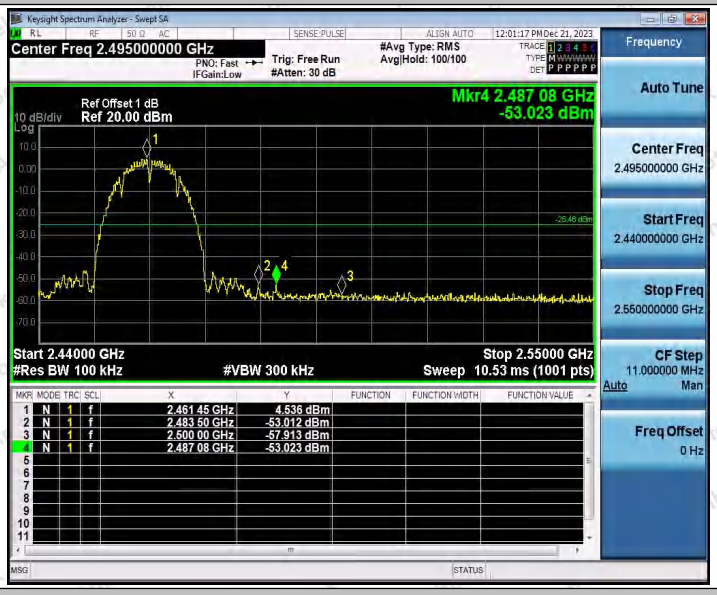
TestMode	Antenna	ChName	Frequency [MHz]	RefLevel[dBm]	Result[dBm]	Limit[dBm]	Verdict
11B	Ant1	Low	2412	4.45	-47.05	≤-25.55	PASS
		High	2462	4.54	-53.02	≤-25.46	PASS
11G	Ant1	Low	2412	3.02	-35.71	≤-26.98	PASS
		High	2462	2.73	-48.74	≤-27.27	PASS
11N20SISO	Ant1	Low	2412	2.31	-35.19	≤-27.7	PASS
		High	2462	2.52	-47.36	≤-27.49	PASS
11N40SISO	Ant1	Low	2422	-0.08	-34.97	≤-30.08	PASS
		High	2452	0.35	-41.6	≤-29.65	PASS

Test Graphs

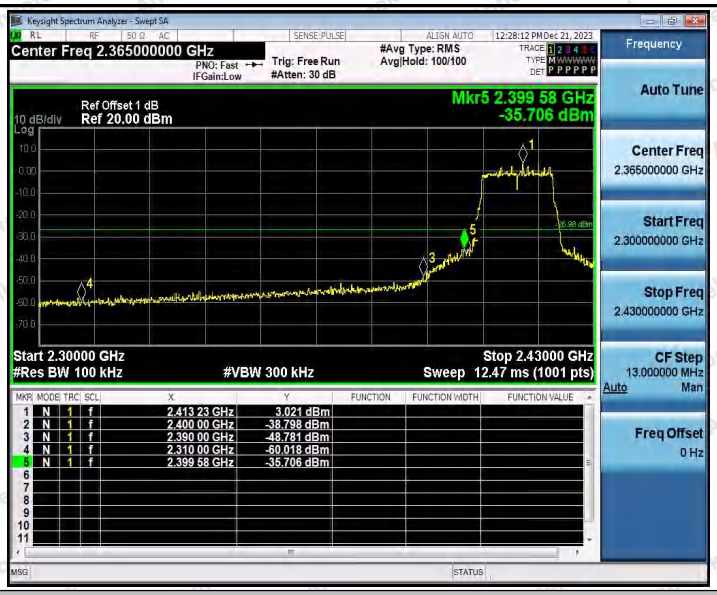
11B_Ant1_Low_2412



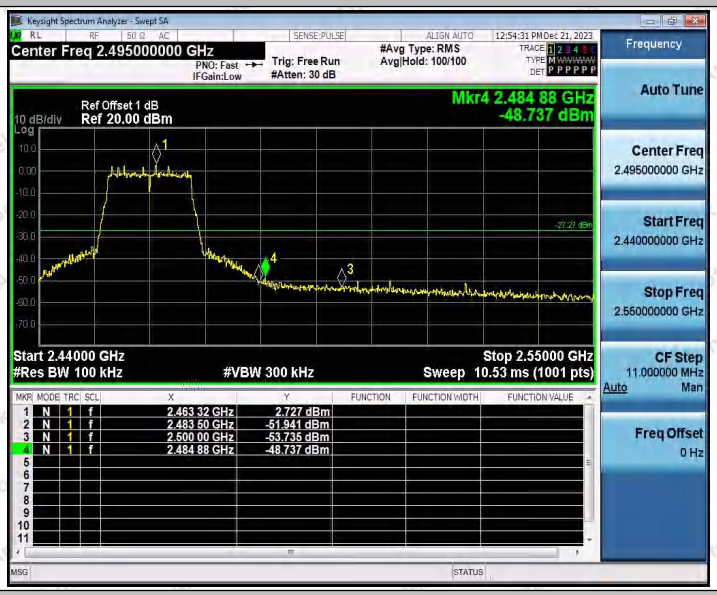
11B_Ant1_High_2462



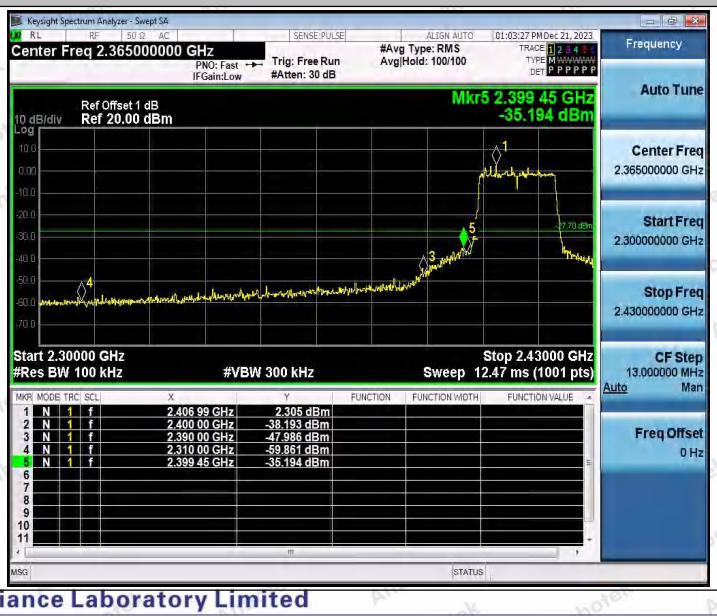
11G_Ant1_Low_2412



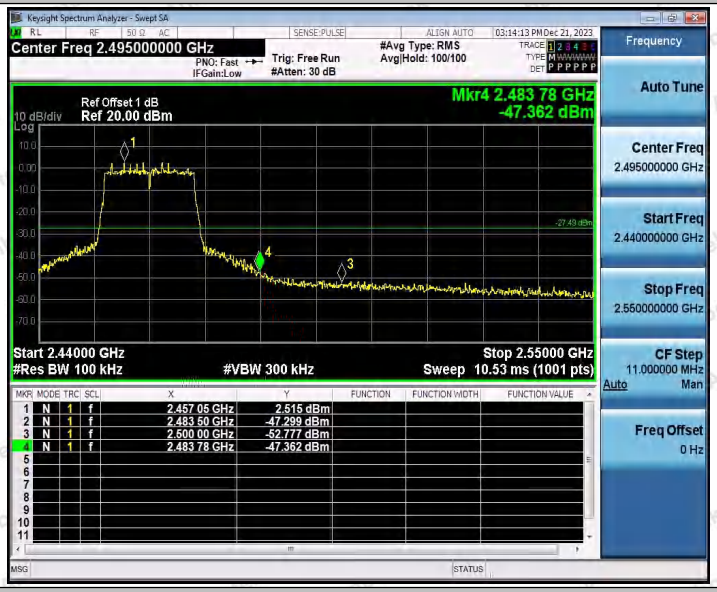
11G_Ant1_High_2462



11N20SISO_Ant1_Low_2412

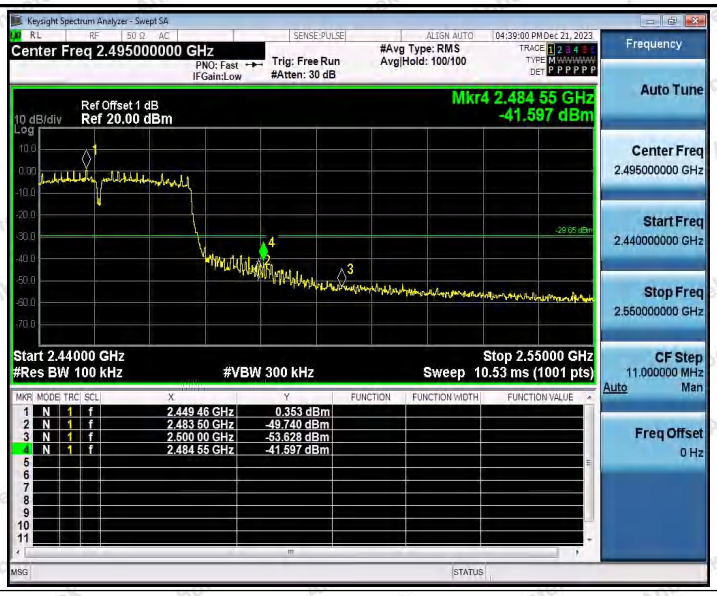


11N20SISO_Ant1_High_2462



11N40SISO_Ant1_Low_2422

11N40SISO_Ant1_High_2452


Keysight Spectrum Analyzer - Swept SA
Center Freq 2.495000000 GHz
PNO: Fast
IFGain:Low
Trig: Free Run
#Atten: 30 dB
#Avg Type: RMS
Avg|Hold: 100/100
04:39:00 PM Dec 21, 2023
Ref Offset 1 dB
10 dB/div
Ref 20.00 dBm
Log
Mkr4 2.484 55 GHz
-41.597 dBm
Start 2.44000 GHz
#Res BW 100 kHz
#VBW 300 kHz
Stop 2.55000 GHz
Sweep 10.53 ms (1001 pts)
1 N 1 f 2.449 46 GHz 0.353 dBm
2 N 1 f 2.483 50 GHz -49.740 dBm
3 N 1 f 2.500 00 GHz -53.628 dBm
4 N 1 f 2.484 55 GHz -41.597 dBm
Frequency
Auto Tune
Center Freq
2.495000000 GHz
Start Freq
2.440000000 GHz
Stop Freq
2.550000000 GHz
CF Step
11.000000 MHz
Auto Man
Freq Offset
0 Hz
MSG
STATUS

Appendix F: Conducted Spurious Emission

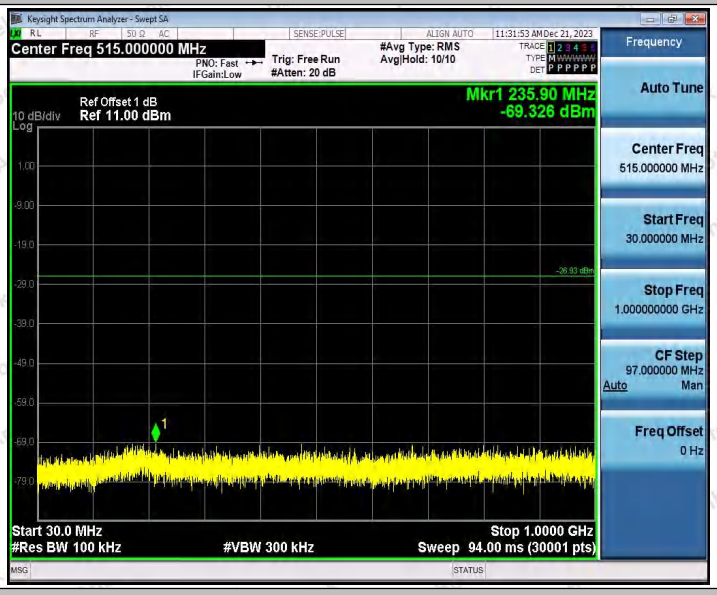
Test Result

TestMode	Antenna	Frequency[MHz]	FreqRange [Mhz]	RefLevel [dBm]	Result [dBm]	Limit [dBm]	Verdict
11B	Ant1	2412	Reference	3.07	3.07	---	PASS
			30~1000	3.07	-69.33	≤-26.93	PASS
			1000~26500	3.07	-53.44	≤-26.93	PASS
		2437	Reference	3.08	3.08	---	PASS
			30~1000	3.08	-69.17	≤-26.92	PASS
			1000~26500	3.08	-53.59	≤-26.92	PASS
		2462	Reference	3.48	3.48	---	PASS
			30~1000	3.48	-69.57	≤-26.52	PASS
			1000~26500	3.48	-53.9	≤-26.52	PASS
11G	Ant1	2412	Reference	-0.89	-0.89	---	PASS
			30~1000	-0.89	-68.67	≤-30.89	PASS
			1000~26500	-0.89	-54.1	≤-30.89	PASS
		2437	Reference	-0.69	-0.69	---	PASS
			30~1000	-0.69	-69.32	≤-30.69	PASS
			1000~26500	-0.69	-52.84	≤-30.69	PASS
		2462	Reference	0.50	0.50	---	PASS
			30~1000	0.50	-69.01	≤-29.5	PASS
			1000~26500	0.50	-53.39	≤-29.5	PASS
11N20SISO	Ant1	2412	Reference	1.75	1.75	---	PASS
			30~1000	1.75	-68.07	≤-28.25	PASS
			1000~26500	1.75	-53.61	≤-28.25	PASS
		2437	Reference	1.21	1.21	---	PASS
			30~1000	1.21	-69.2	≤-28.79	PASS
			1000~26500	1.21	-51.72	≤-28.79	PASS
		2462	Reference	1.71	1.71	---	PASS
			30~1000	1.71	-69.38	≤-28.29	PASS
			1000~26500	1.71	-53.41	≤-28.29	PASS
11N40SISO	Ant1	2422	Reference	-0.17	-0.17	---	PASS
			30~1000	-0.17	-68.8	≤-30.17	PASS
			1000~26500	-0.17	-53.13	≤-30.17	PASS
		2437	Reference	-0.14	-0.14	---	PASS
			30~1000	-0.14	-69.27	≤-30.14	PASS
			1000~26500	-0.14	-53.62	≤-30.14	PASS
		2452	Reference	-2.16	-2.16	---	PASS
			30~1000	-2.16	-68.85	≤-32.16	PASS
			1000~26500	-2.16	-52.61	≤-32.16	PASS

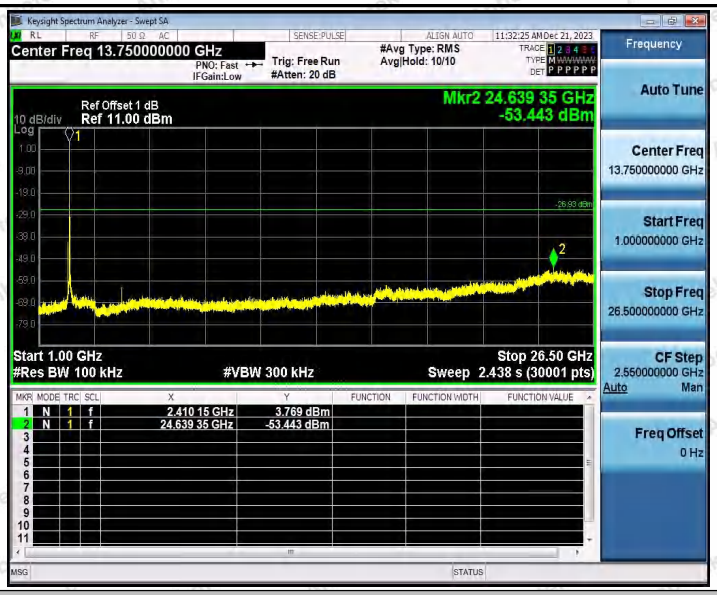
Test Graphs

11B_Ant1_2412_0~Reference

11B_Ant1_2412_30~1000

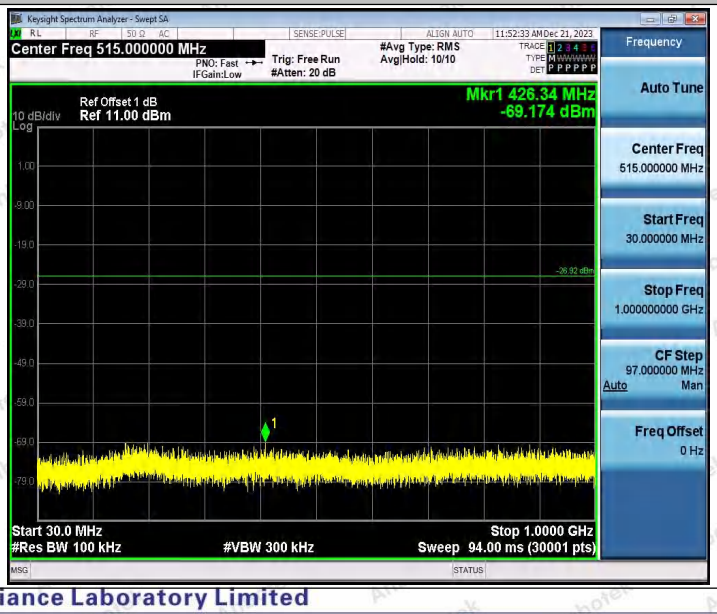


11B_Ant1_2412_1000~26500

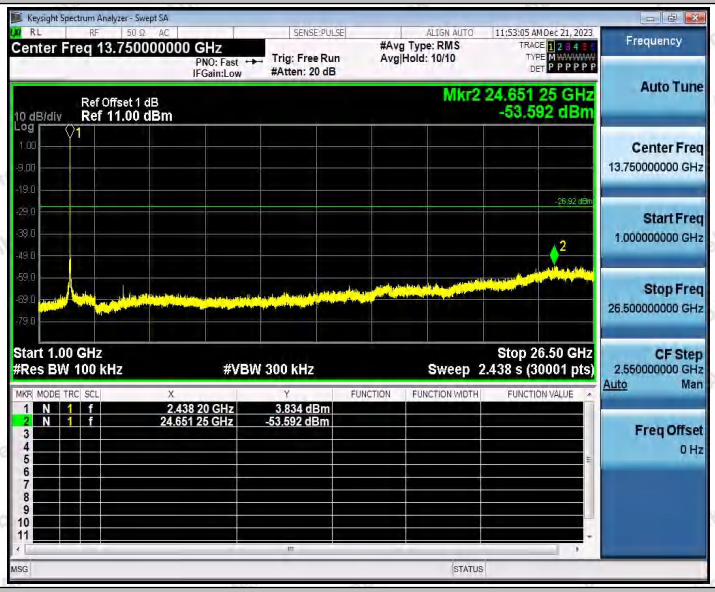


11B_Ant1_2437_0~Reference

11B_Ant1_2437_30~1000

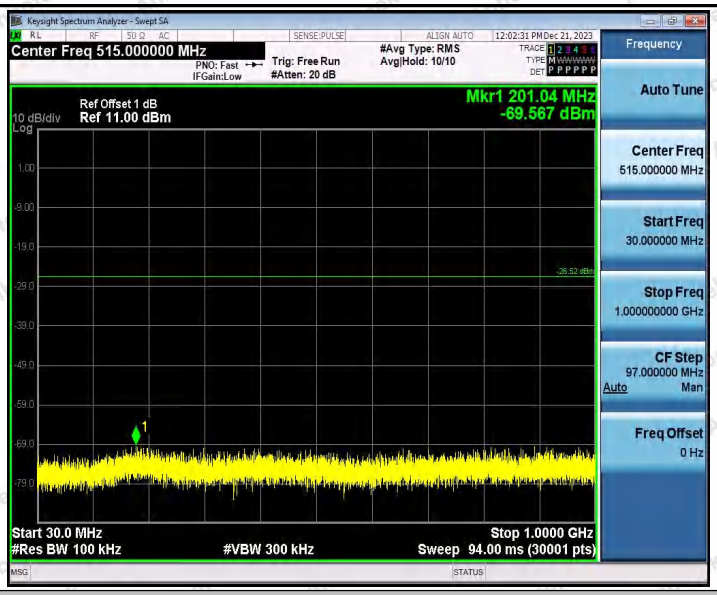


11B_Ant1_2437_1000~26500

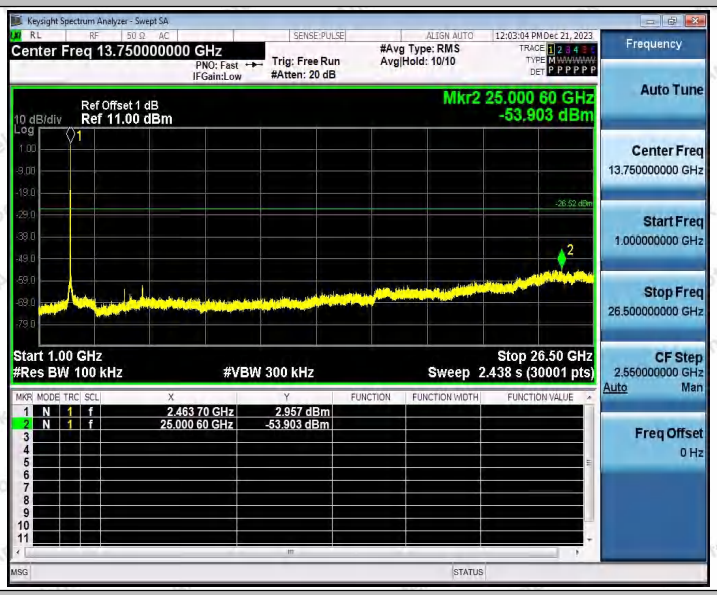


11B_Ant1_2462_0~Reference

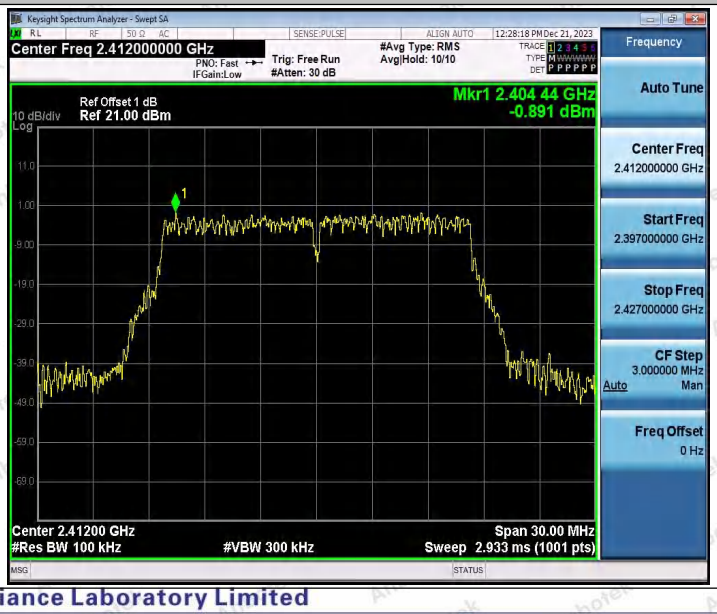
11B_Ant1_2462_30~1000



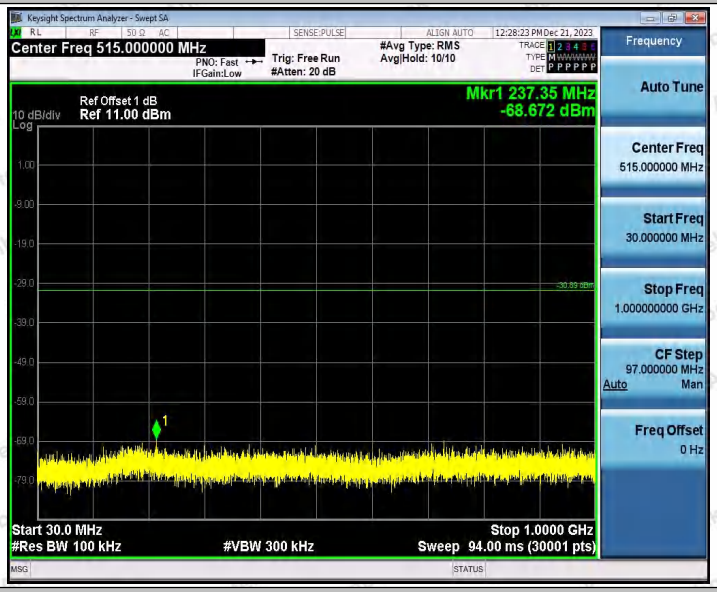
11B_Ant1_2462_1000~26500



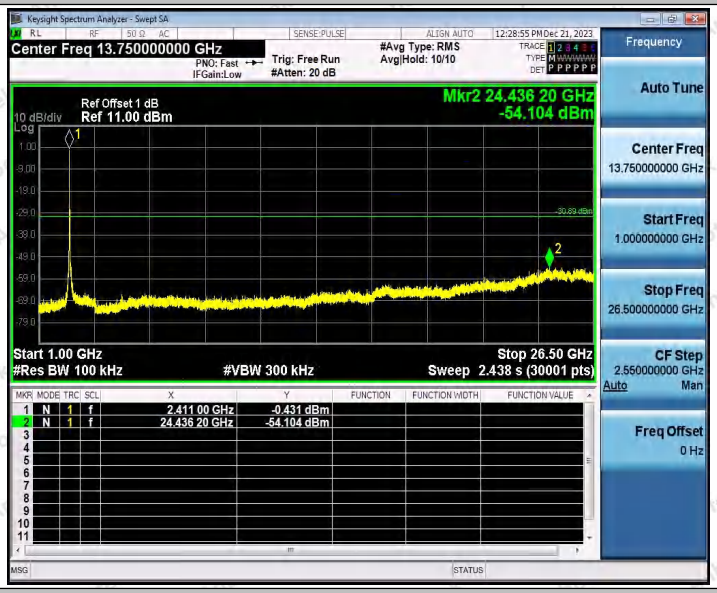
11G_Ant1_2412_0~Reference



11G_Ant1_2412_30~1000

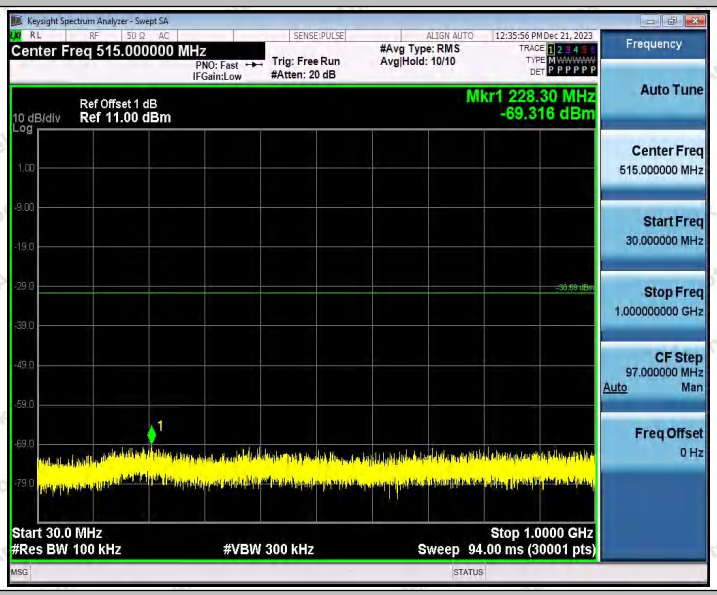


11G_Ant1_2412_1000~26500

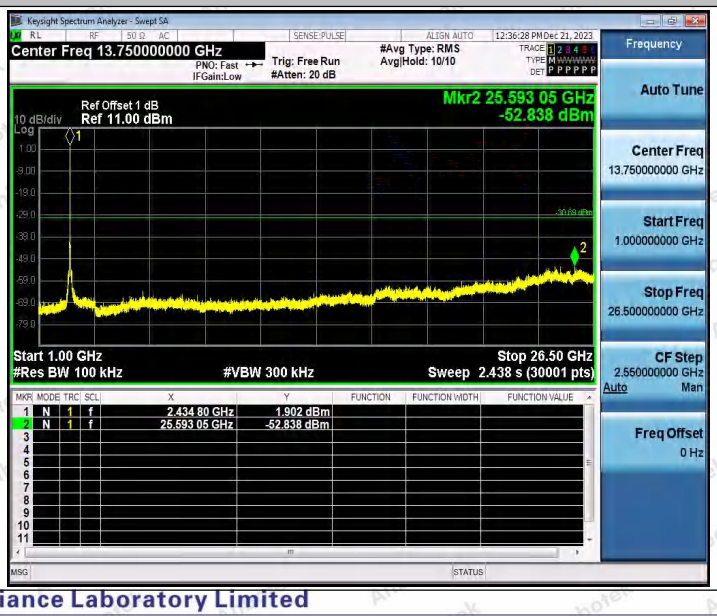


11G_Ant1_2437_0~Reference

11G_Ant1_2437_30~1000

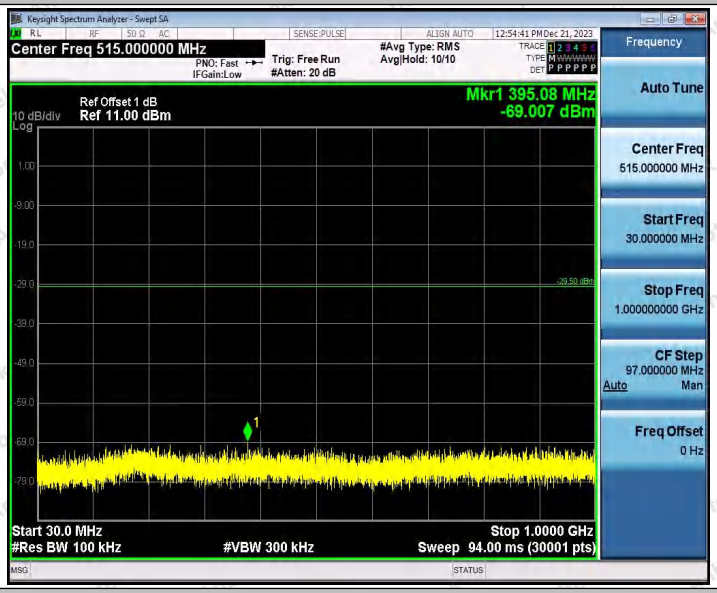


11G_Ant1_2437_1000~26500

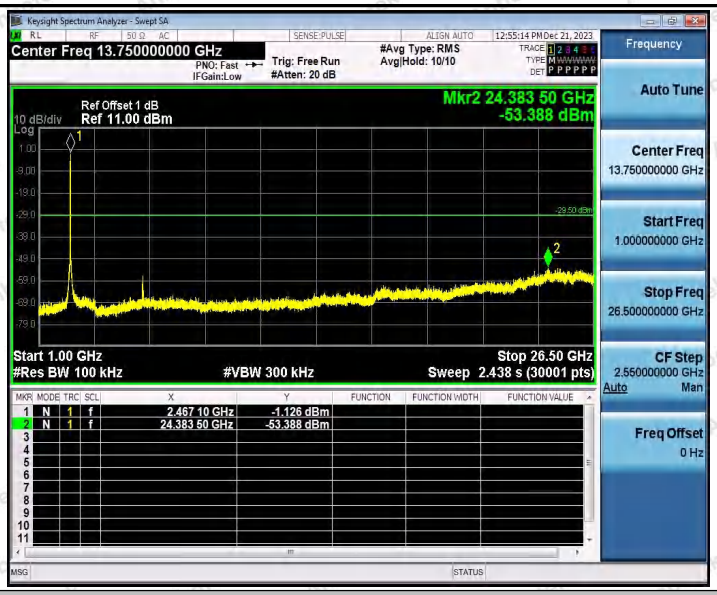


11G_Ant1_2462_0~Reference

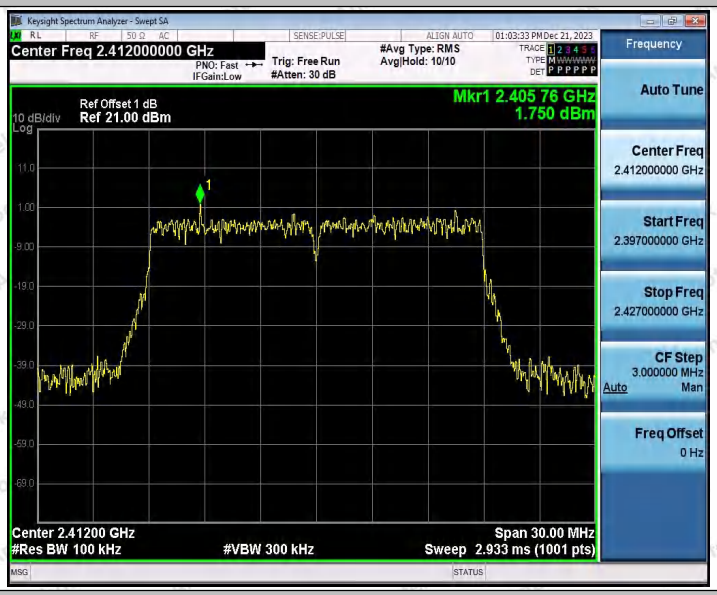
11G_Ant1_2462_30~1000



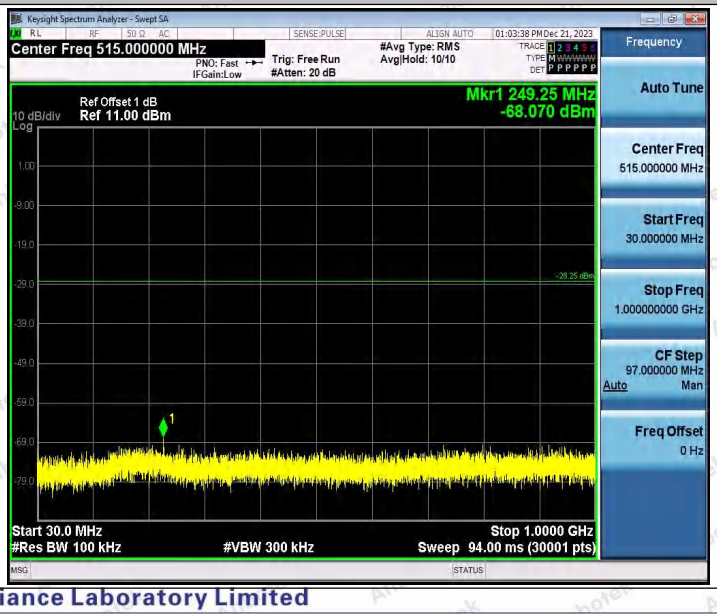
11G_Ant1_2462_1000~26500



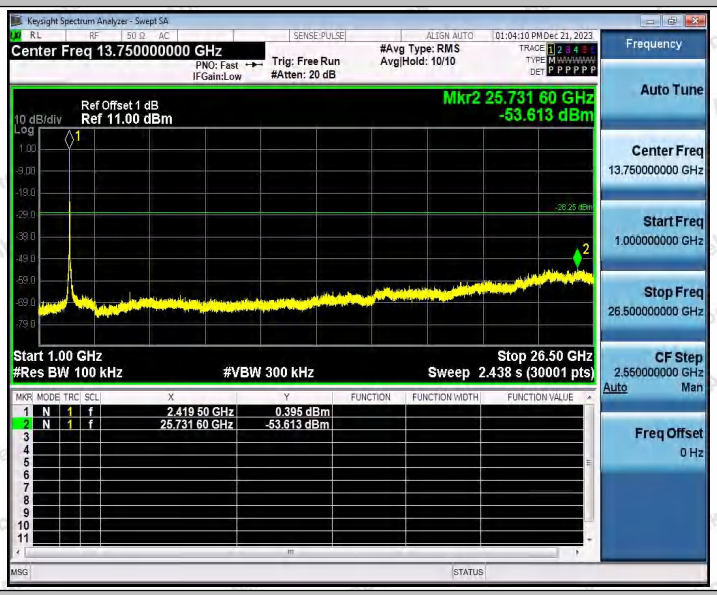
11N20SISO_Ant1_2412_0~Reference



11N20SISO_Ant1_2412_30~1000

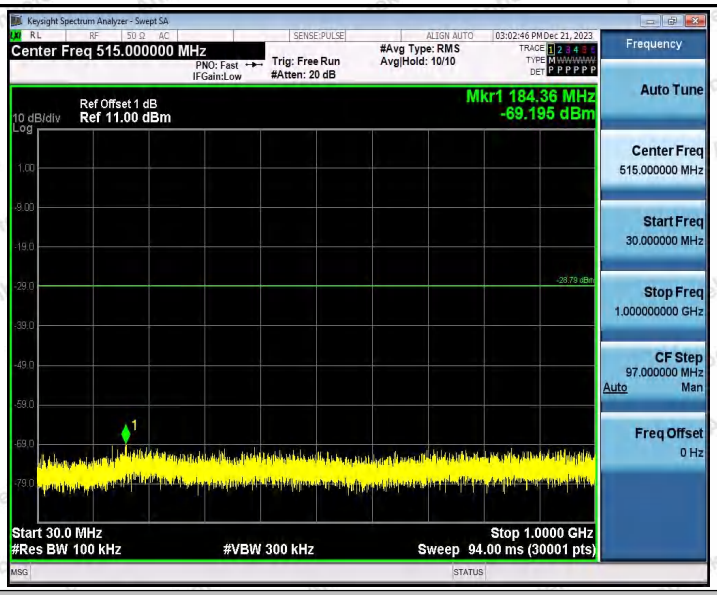


11N20SISO_Ant1_2412_1000~26500



11N20SISO_Ant1_2437_0~Reference

11N20SISO_Ant1_2437_30~1000



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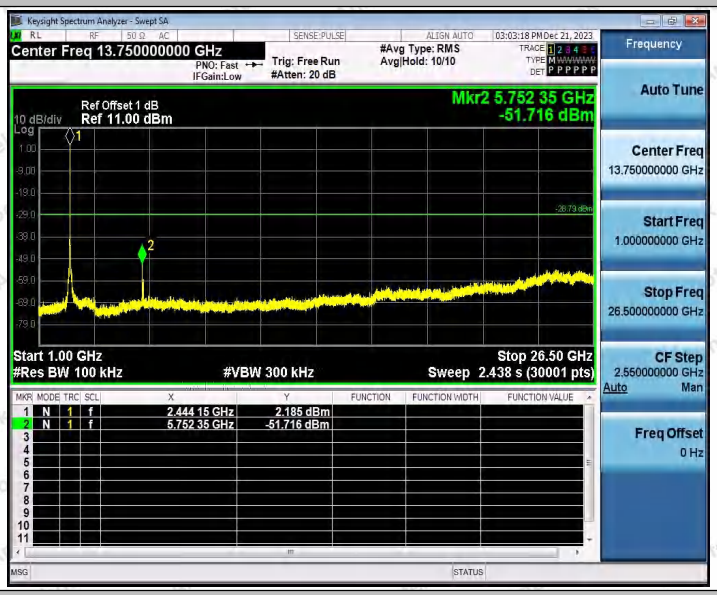
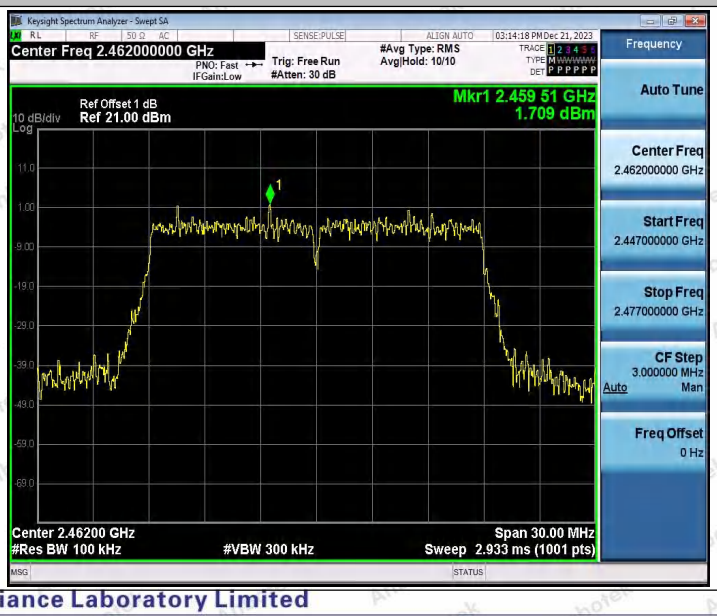
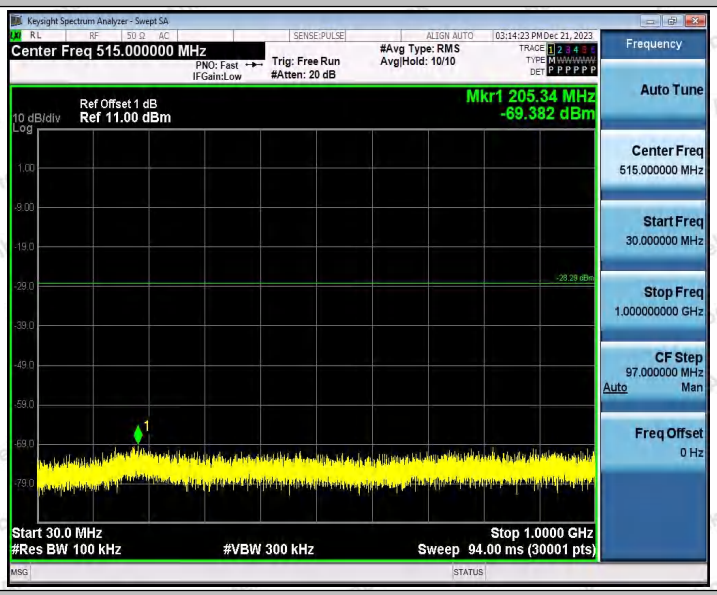


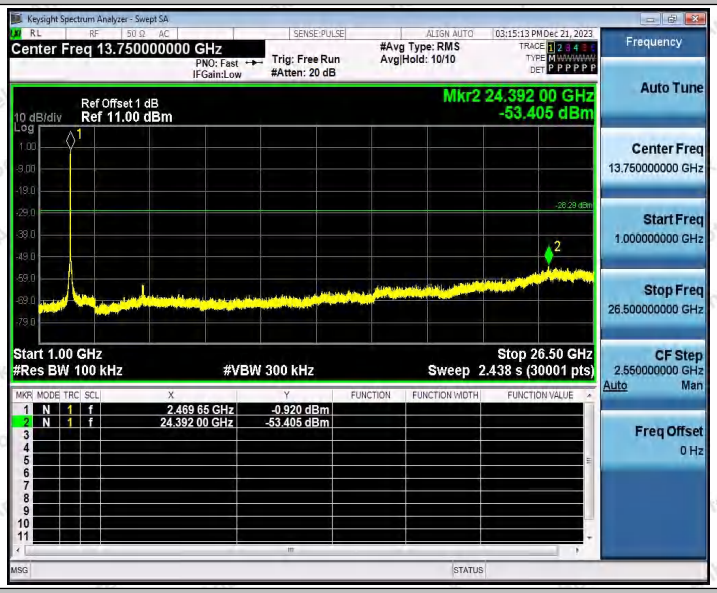
11N20SISO_Ant1_2462_0~Reference



11N20SISO_Ant1_2462_30~1000

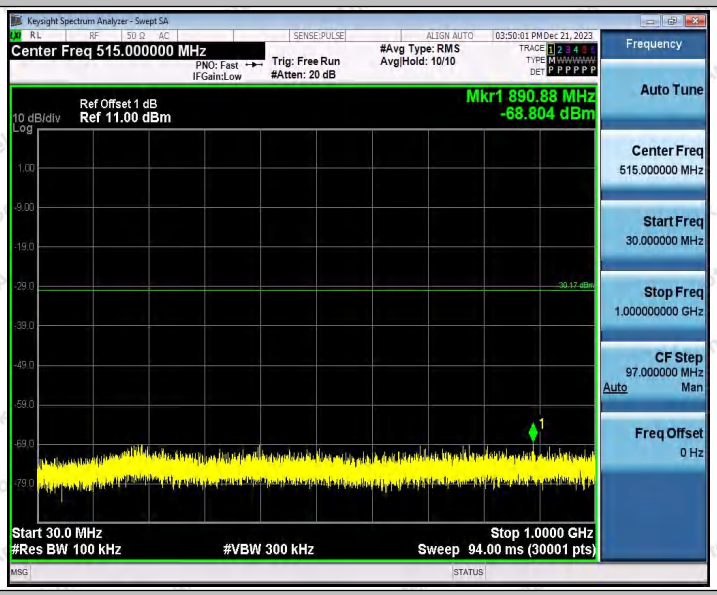


11N20SISO_Ant1_2462_1000~26500

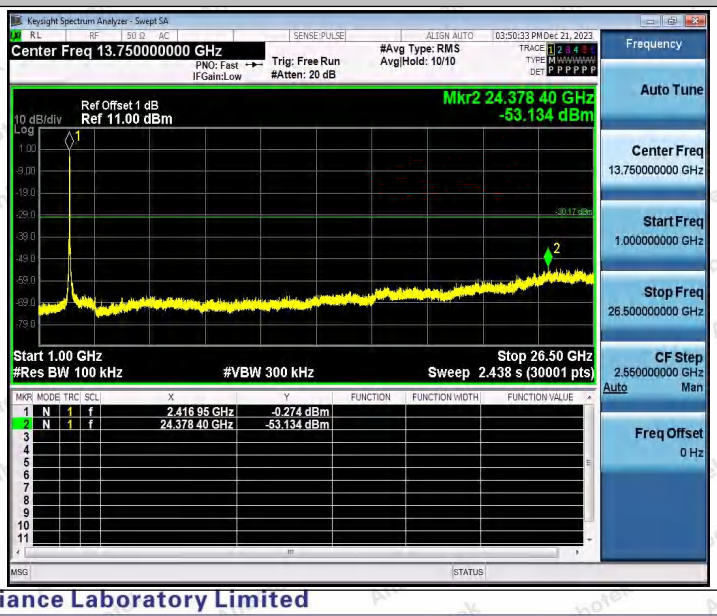


11N40SISO_Ant1_2422_0~Reference

11N40SISO_Ant1_2422_30~1000

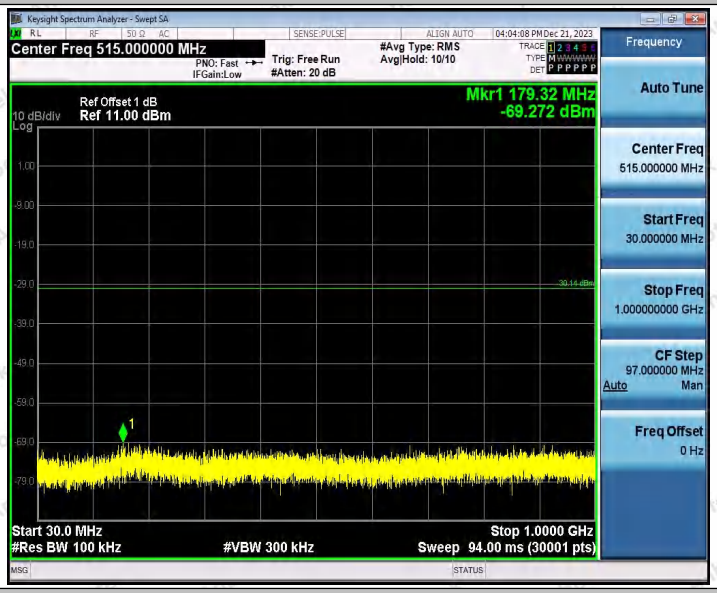


11N40SISO_Ant1_2422_1000~26500

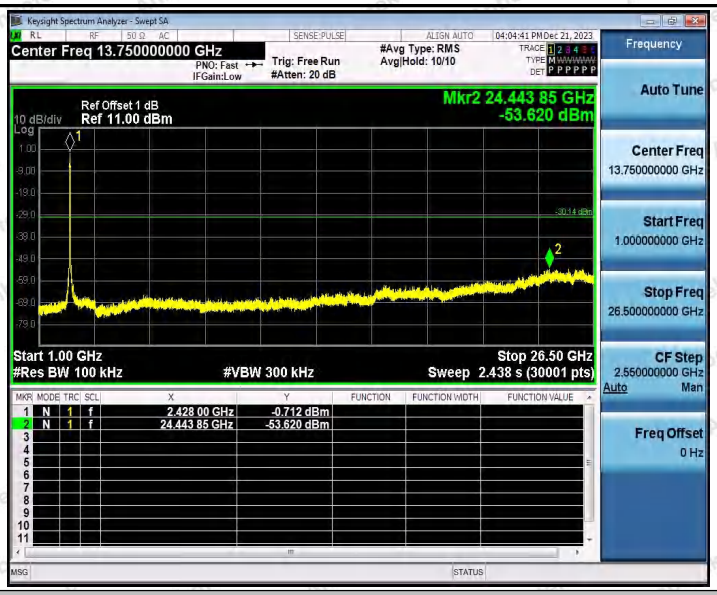


11N40SISO_Ant1_2437_0~Reference

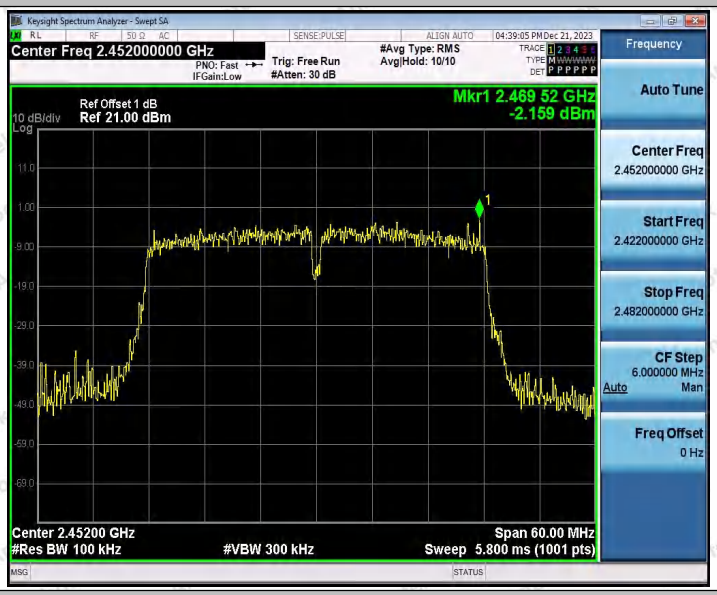
11N40SISO_Ant1_2437_30~1000



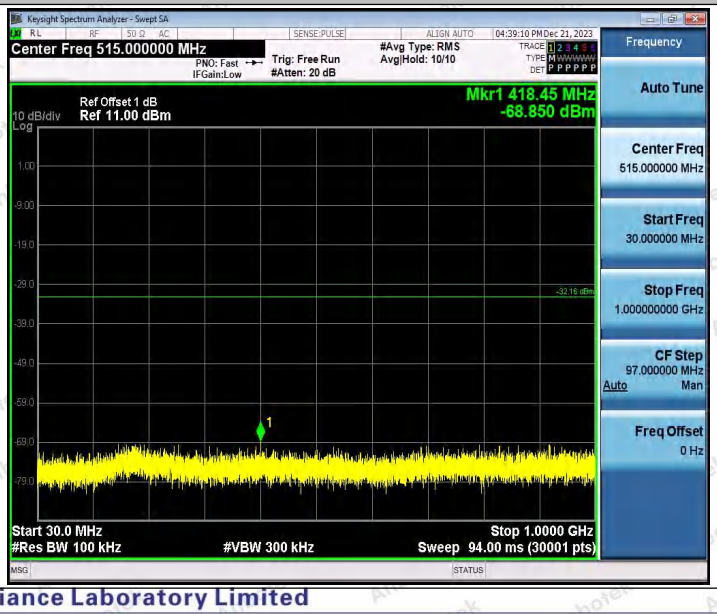
11N40SISO_Ant1_2437_1000~26500



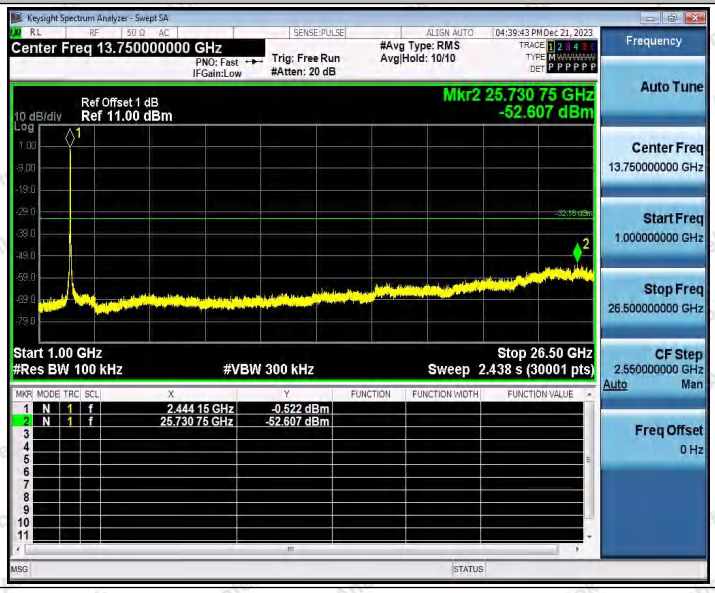
11N40SISO_Ant1_2452_0~Reference



11N40SISO_Ant1_2452_30~1000



11N40SISO_Ant1_2452_1000~26500



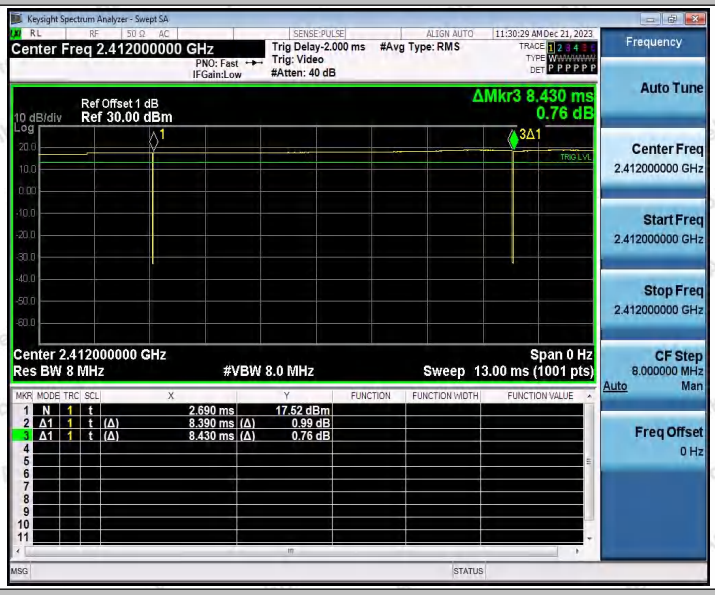
Appendix G: Duty Cycle

Test Result

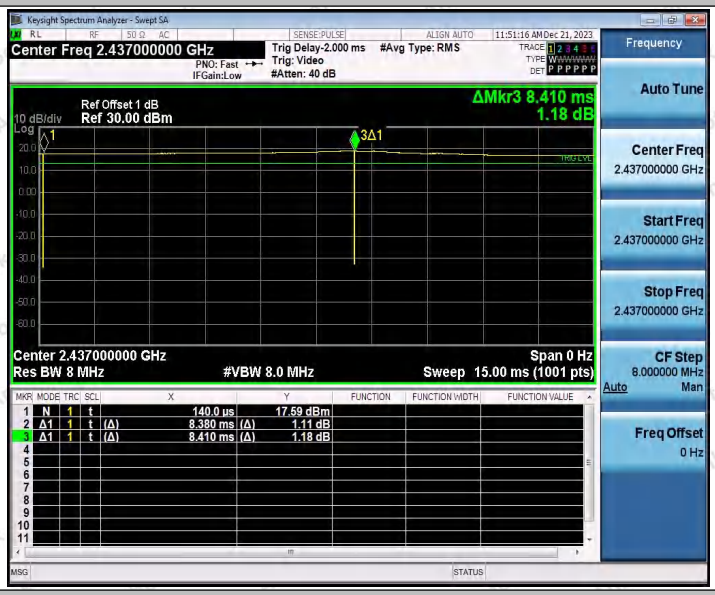
TestMode	Antenna	Frequency [MHz]	Transmission Duration [ms]	Transmission Period [ms]	Duty Cycle [%]	Factor
11B	Ant1	2412	8.39	8.43	99.53	0.02
		2437	8.38	8.41	99.64	0.02
		2462	8.38	8.41	99.64	0.02
11G	Ant1	2412	1.40	1.43	97.90	0.09
		2437	1.39	1.43	97.20	0.12
		2462	1.40	1.43	97.90	0.09
11N20SISO	Ant1	2412	1.30	1.34	97.01	0.13
		2437	1.30	1.33	97.74	0.10
		2462	1.30	1.34	97.01	0.13
11N40SISO	Ant1	2422	0.65	0.69	94.20	0.26
		2437	0.64	0.68	94.12	0.26
		2452	0.65	0.69	94.20	0.26

Test Graphs

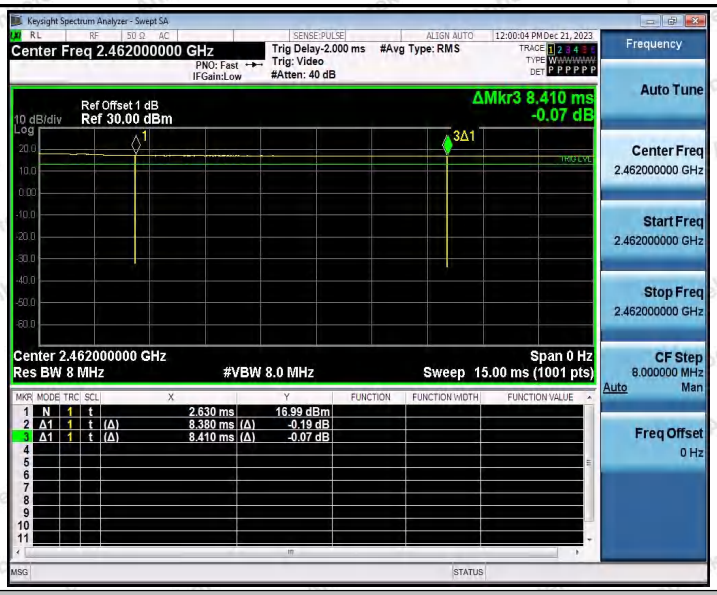
11B_Ant1_2412



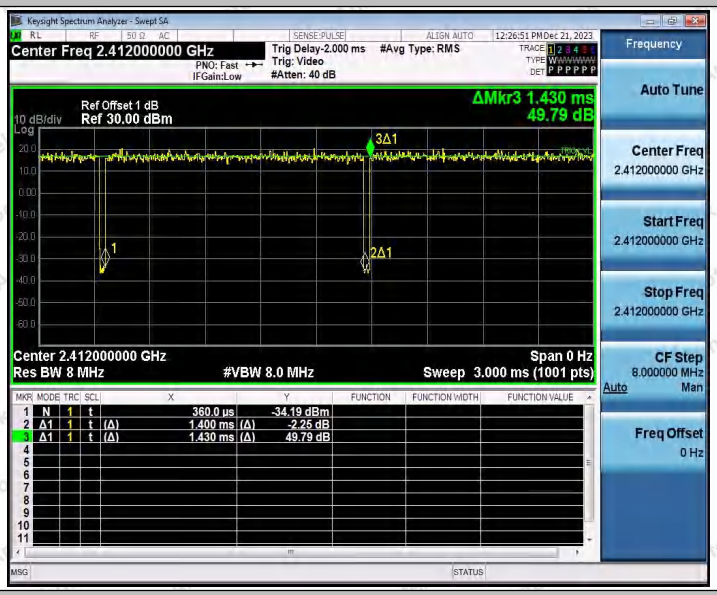
11B_Ant1_2437



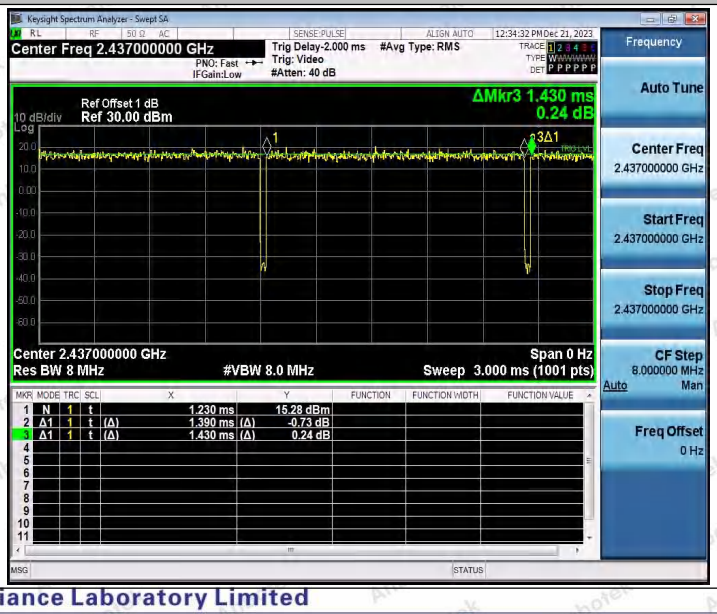
11B_Ant1_2462



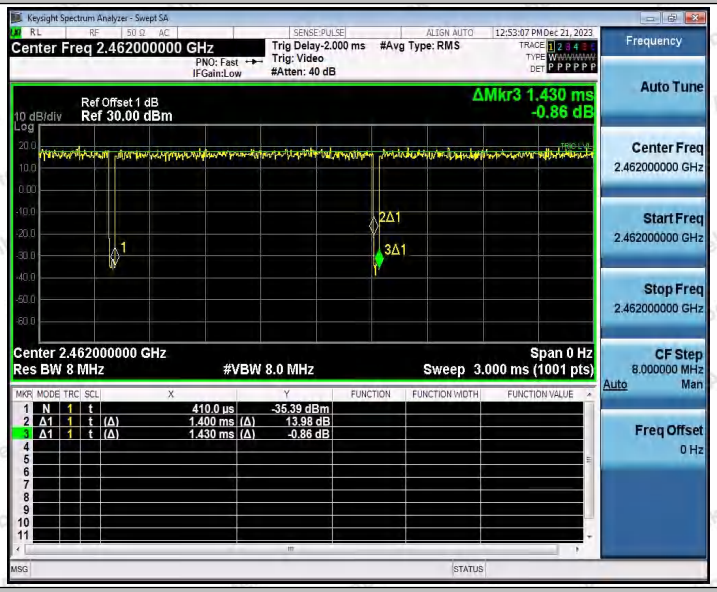
11G_Ant1_2412



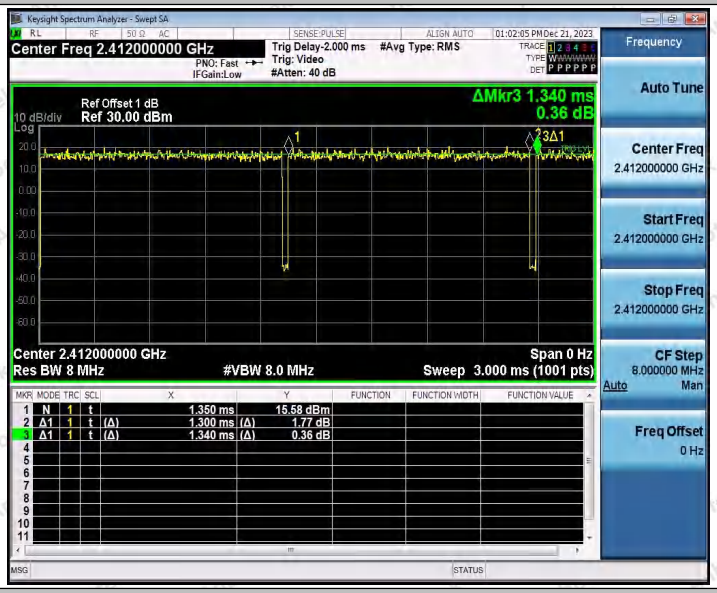
11G_Ant1_2437



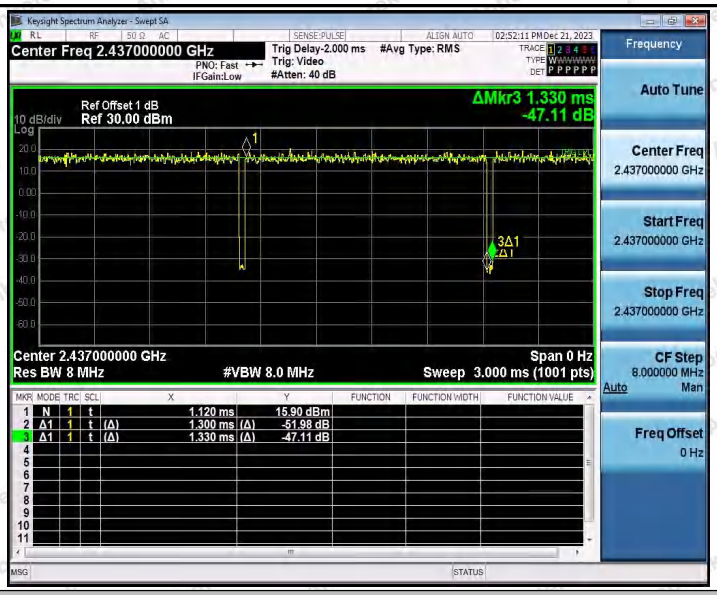
11G_Ant1_2462



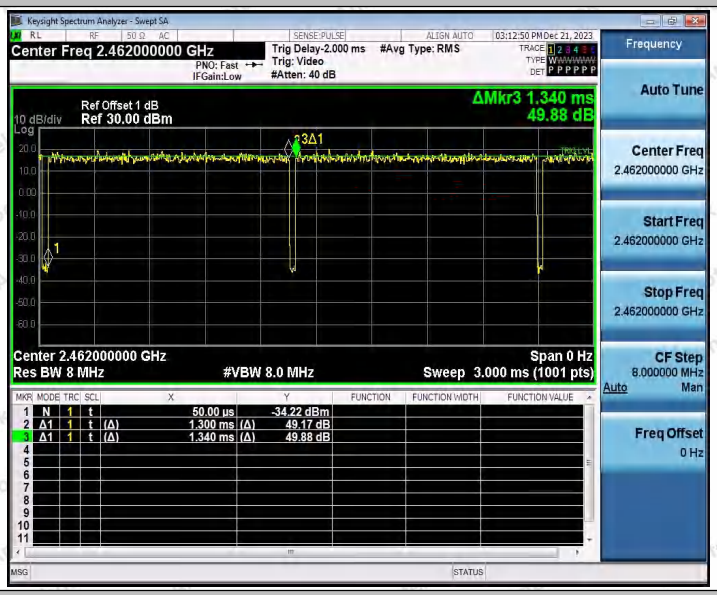
11N20SISO_Ant1_2412



11N20SISO_Ant1_2437



11N20SISO_Ant1_2462



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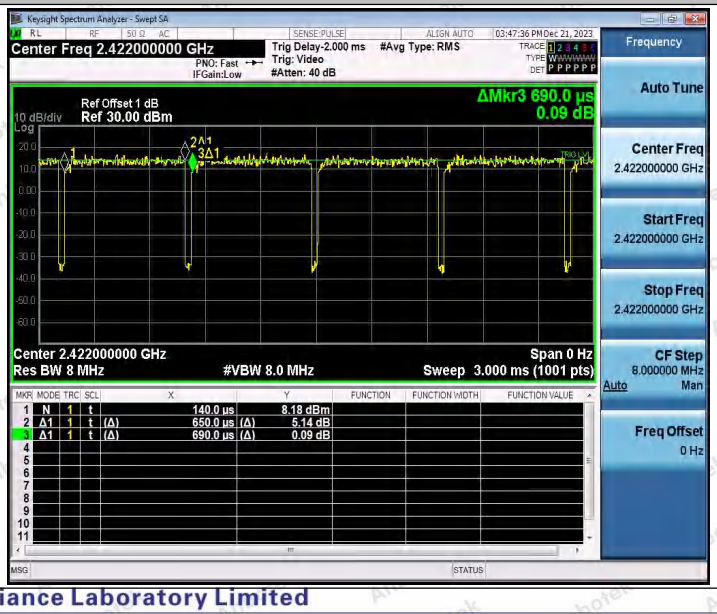

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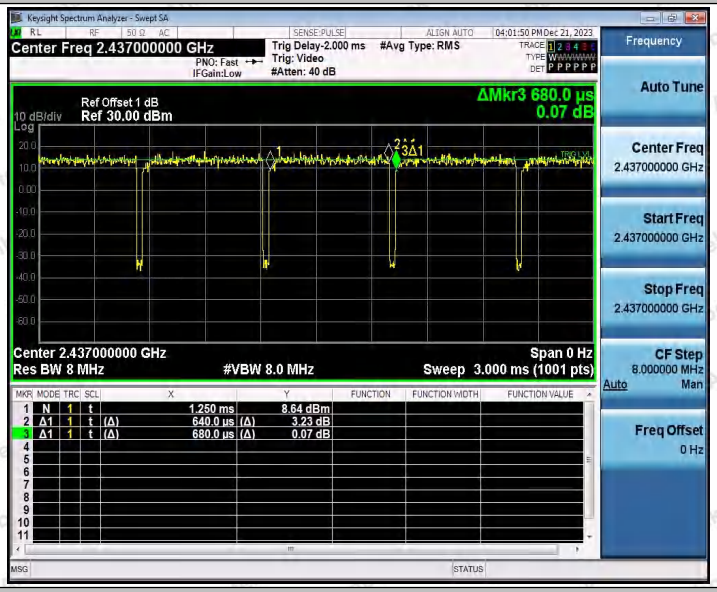
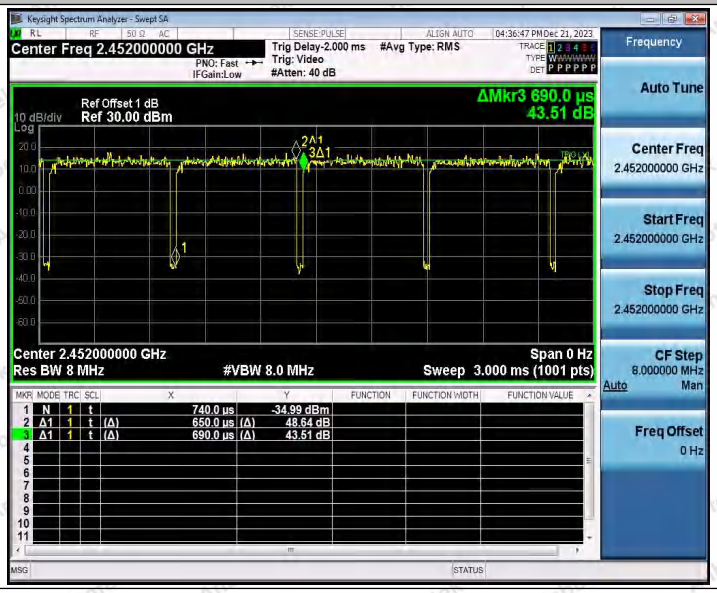


11N40SISO_Ant1_2452



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