

FCC Appendix RF Test Data

FCC ID : 2BOU9-R90

Company: : Shenzhen Yuntian Intelligent Terminal Co.,LTD.

EUT : SMART LOCK

Model Number : R90

Reviewed By : Eric Wang

Appendix A: DTS Bandwidth

Test Result

TestMode	Antenna	Frequency[MHz]	DTS BW [MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
11B	Ant1	2412	9.120	2406.960	2416.080	0.5	PASS
		2437	9.000	2432.000	2441.000	0.5	PASS
		2462	9.520	2457.000	2466.520	0.5	PASS
11G	Ant1	2412	15.720	2404.440	2420.160	0.5	PASS
		2437	15.480	2429.440	2444.920	0.5	PASS
		2462	16.280	2453.880	2470.160	0.5	PASS
11N20SISO	Ant1	2412	15.960	2404.440	2420.400	0.5	PASS
		2437	16.200	2429.440	2445.640	0.5	PASS
		2462	16.720	2453.720	2470.440	0.5	PASS
11N40SISO	Ant1	2422	35.600	2404.480	2440.080	0.5	PASS
		2437	35.120	2419.480	2454.600	0.5	PASS
		2452	35.520	2434.080	2469.600	0.5	PASS

Test Graphs

11B_Ant1_2412



11B_Ant1_2437



11B_Ant1_2462



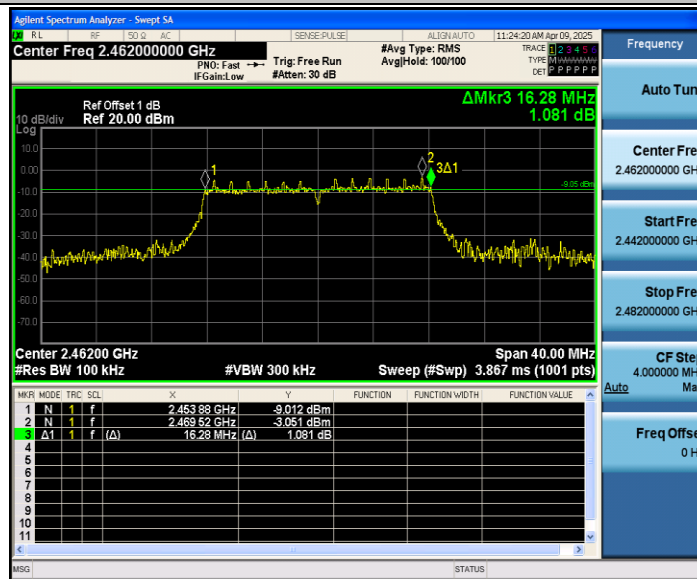
11G_Ant1_2412



11G_Ant1_2437



11G_Ant1_2462



11N20SISO_Ant1_2412



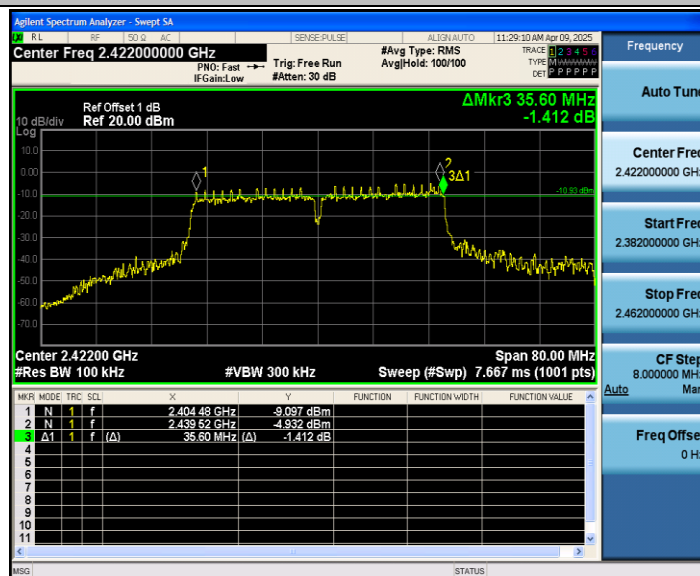
11N20SISO_Ant1_2437



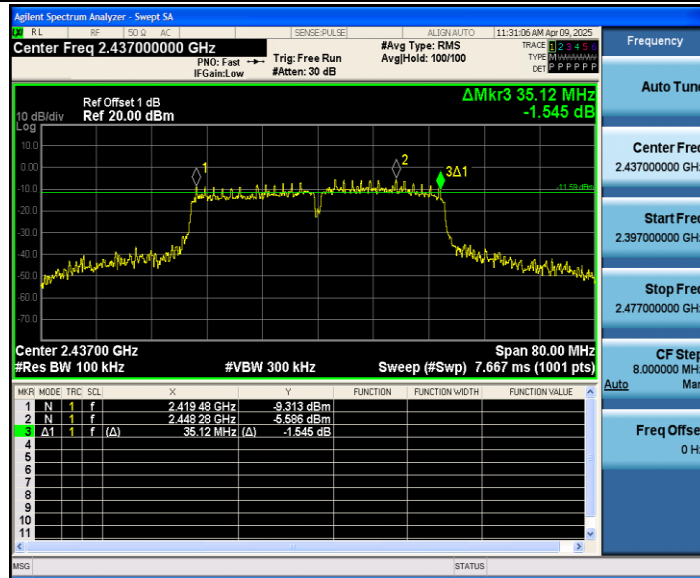
11N20SISO_Ant1_2462



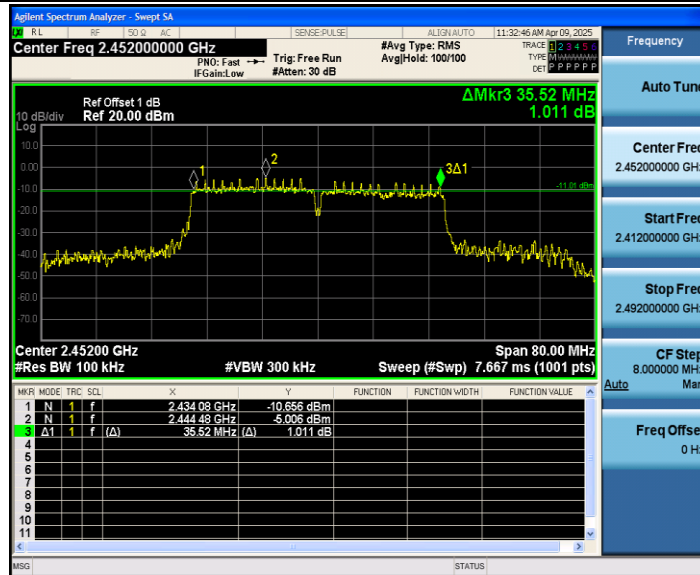
11N40SISO_Ant1_2422



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	12.337	2405.7725	2418.1095	---	---
		2437	11.637	2430.9588	2442.5958	---	---
		2462	12.706	2455.4521	2468.1581	---	---
11G	Ant1	2412	16.756	2403.7782	2420.5342	---	---
		2437	16.685	2428.7772	2445.4622	---	---
		2462	16.923	2453.5901	2470.5131	---	---
11N20SISO	Ant1	2412	17.941	2403.2761	2421.2171	---	---
		2437	17.609	2428.3498	2445.9588	---	---
		2462	18.012	2453.1488	2471.1608	---	---
11N40SISO	Ant1	2422	36.354	2404.1450	2440.4990	---	---
		2437	36.037	2419.0753	2455.1123	---	---
		2452	36.352	2433.8801	2470.2321	---	---

Test Graphs

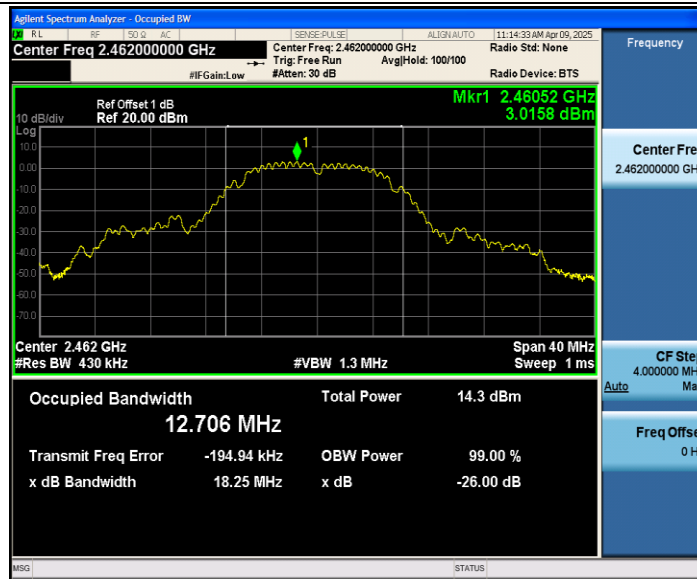
11B_Ant1_2412



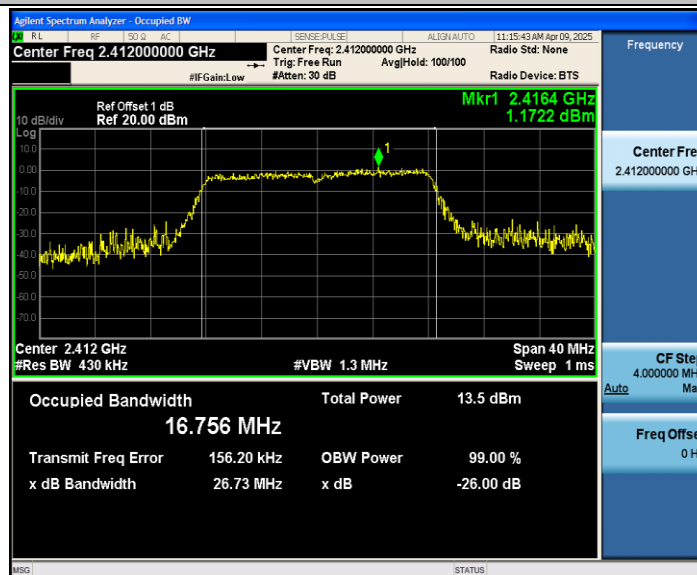
11B_Ant1_2437



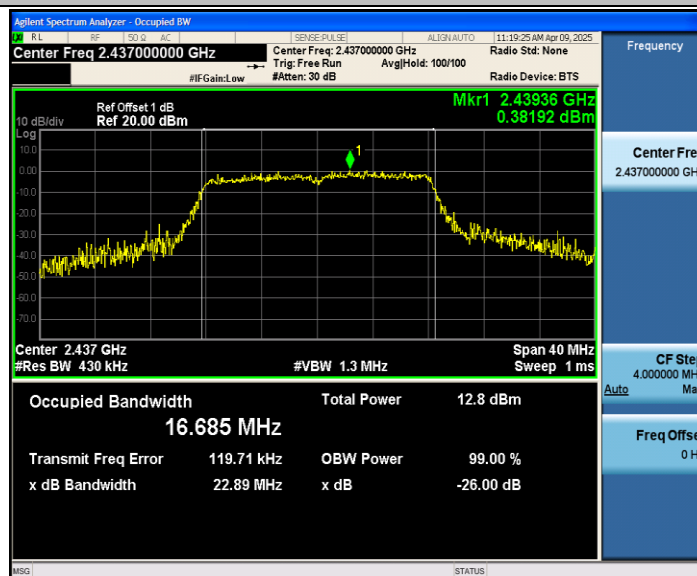
11B_Ant1_2462



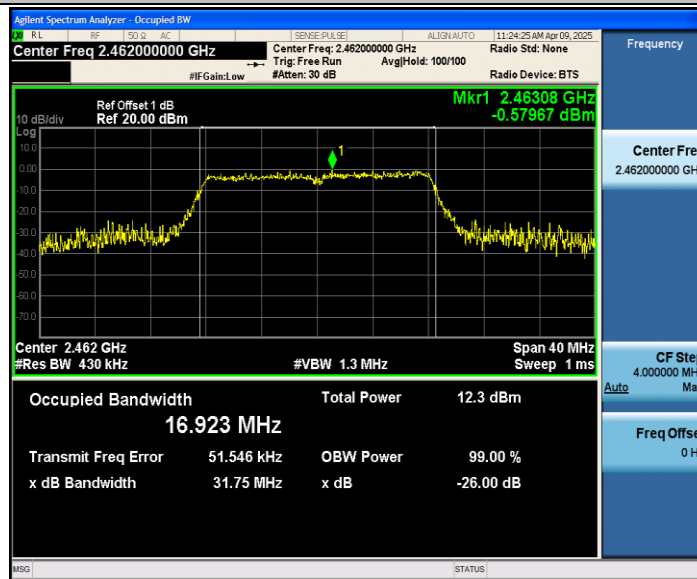
11G_Ant1_2412



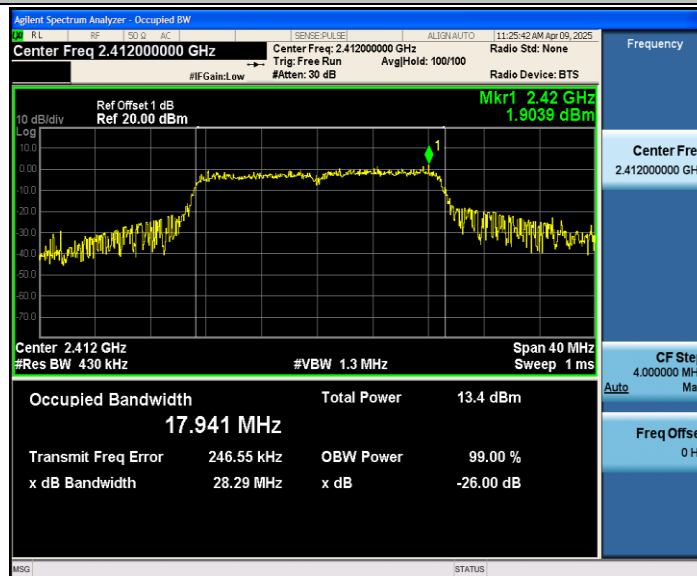
11G_Ant1_2437



11G_Ant1_2462



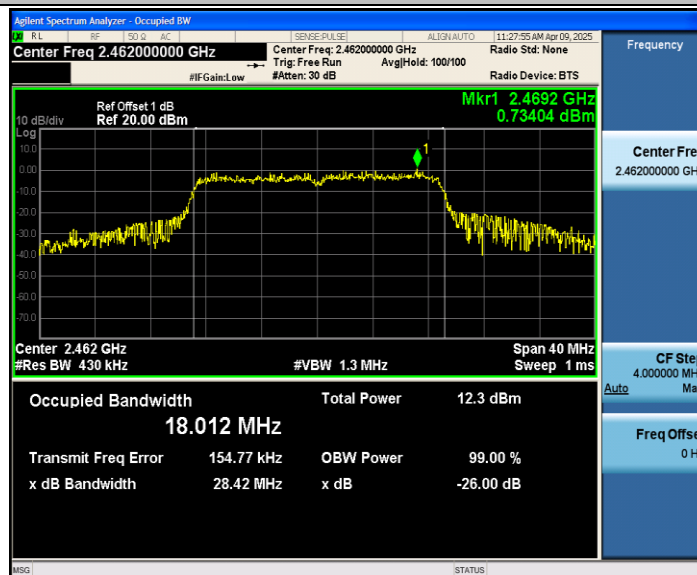
11N20SISO_Ant1_2412



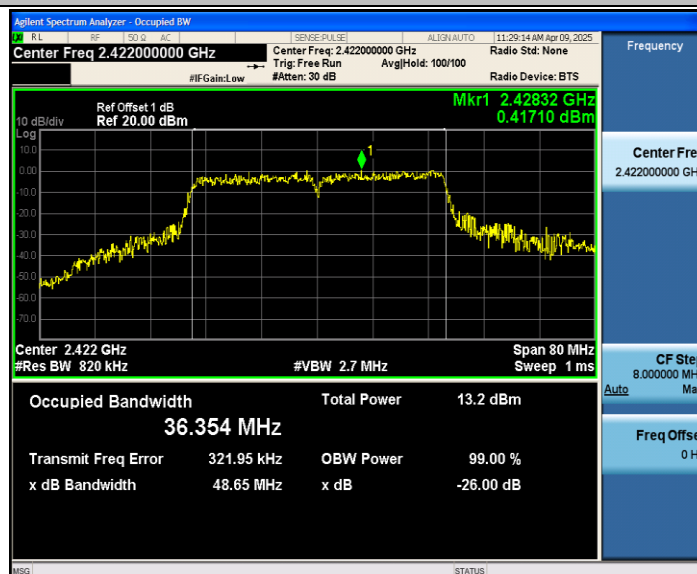
11N20SISO_Ant1_2437



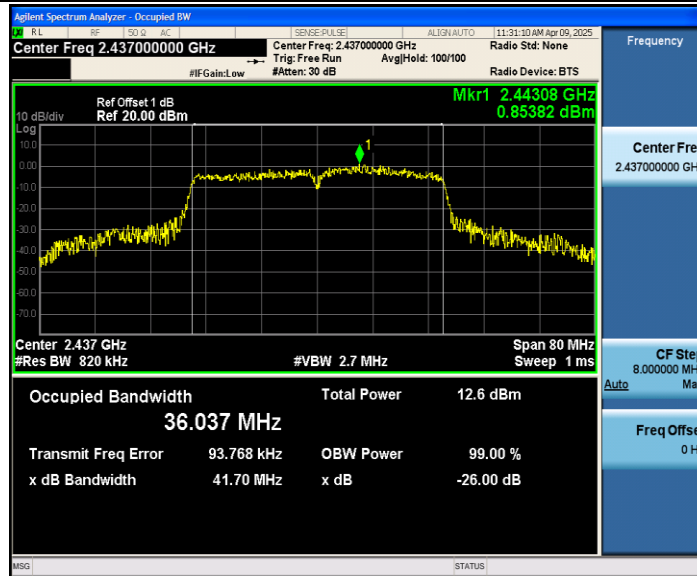
11N20SISO_Ant1_2462



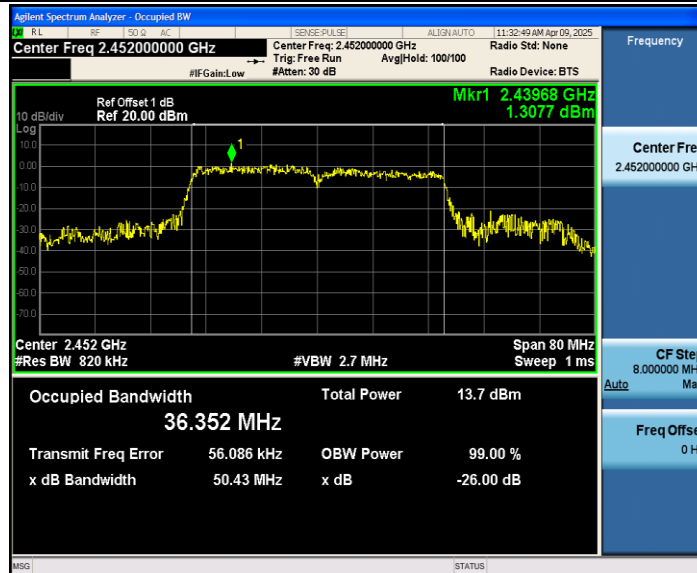
11N40SISO_Ant1_2422



11N40SISO_Ant1_2437



11N40SISO_Ant1_2452



Appendix C: Maximum conducted output power

Test Result Peak

Test Mode	Antenna	Frequency[MHz]	Peak power [dBm]	Limit [dBm]	Verdict
11B	Ant1	2412	15.08	≤30.00	PASS
		2437	13.52	≤30.00	PASS
		2462	14.23	≤30.00	PASS
11G	Ant1	2412	14.13	≤30.00	PASS
		2437	13.57	≤30.00	PASS
		2462	13.03	≤30.00	PASS
11N20SISO	Ant1	2412	13.96	≤30.00	PASS
		2437	13.34	≤30.00	PASS
		2462	12.84	≤30.00	PASS
11N40SISO	Ant1	2422	13.32	≤30.00	PASS
		2437	12.78	≤30.00	PASS
		2452	13.97	≤30.00	PASS

Appendix D: Maximum power spectral density

Test Result

TestMode	Antenna	Frequency[MHz]	Result[dBm/3-100kHz]	Limit[dBm/3kHz]	Verdict
11B	Ant1	2412	-10.95	≤8.00	PASS
		2437	-12.58	≤8.00	PASS
		2462	-11.67	≤8.00	PASS
11G	Ant1	2412	-17.23	≤8.00	PASS
		2437	-18.43	≤8.00	PASS
		2462	-19.36	≤8.00	PASS
11N20SISO	Ant1	2412	-17.87	≤8.00	PASS
		2437	-18.62	≤8.00	PASS
		2462	-19.10	≤8.00	PASS
11N40SISO	Ant1	2422	-20.67	≤8.00	PASS
		2437	-21.91	≤8.00	PASS
		2452	-20.18	≤8.00	PASS

Test Graphs

11B_Ant1_2412



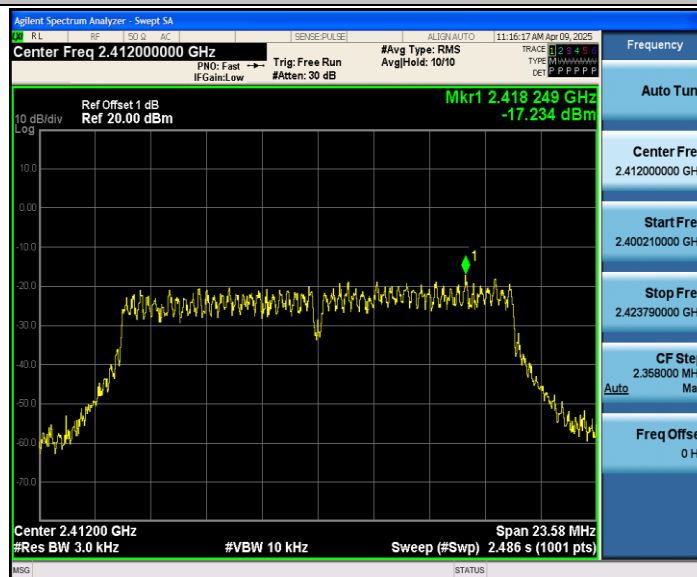
11B_Ant1_2437



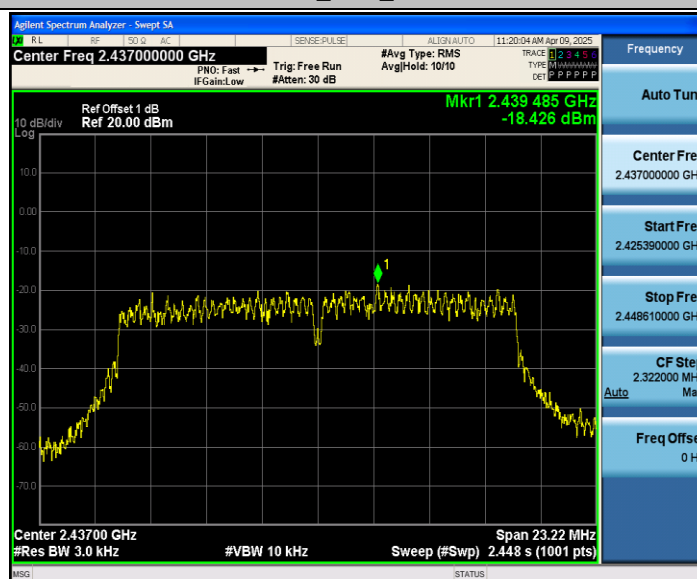
11B_Ant1_2462



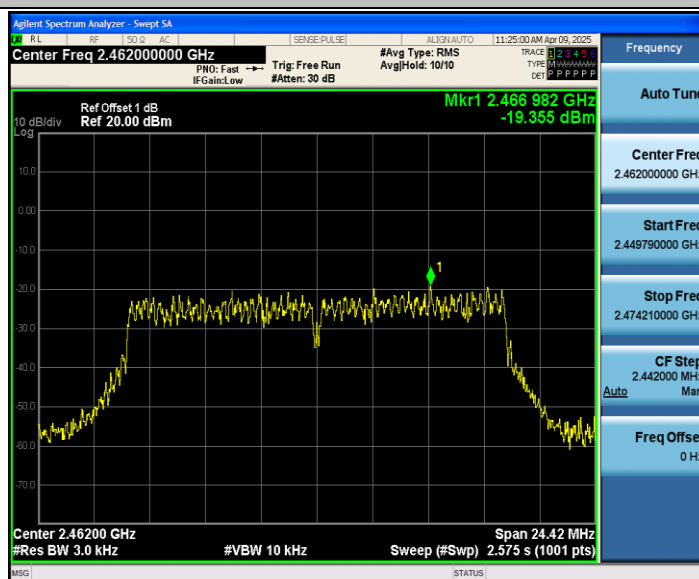
11G_Ant1_2412



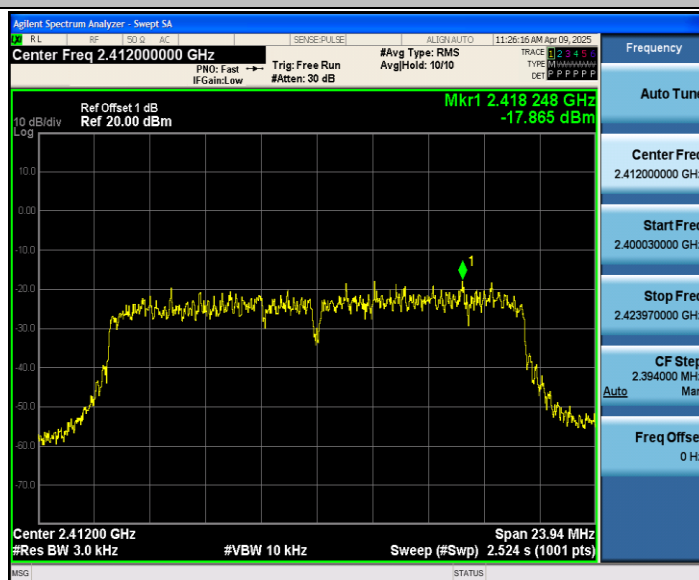
11G_Ant1_2437



11G_Ant1_2462



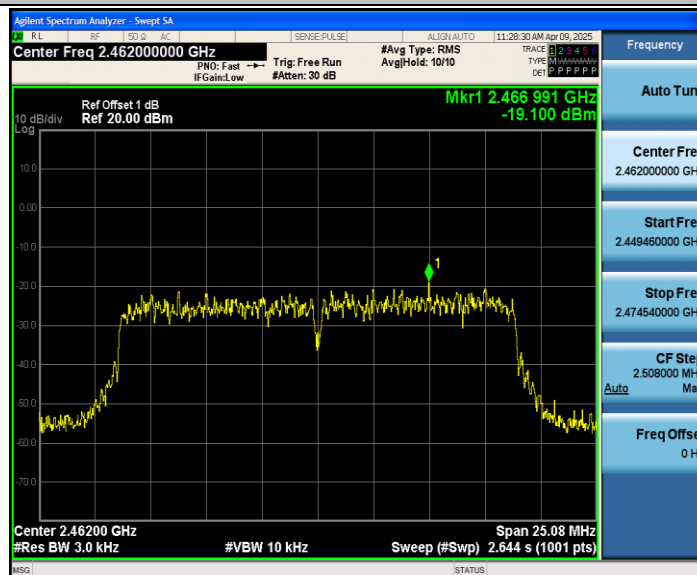
11N20SISO_Ant1_2412



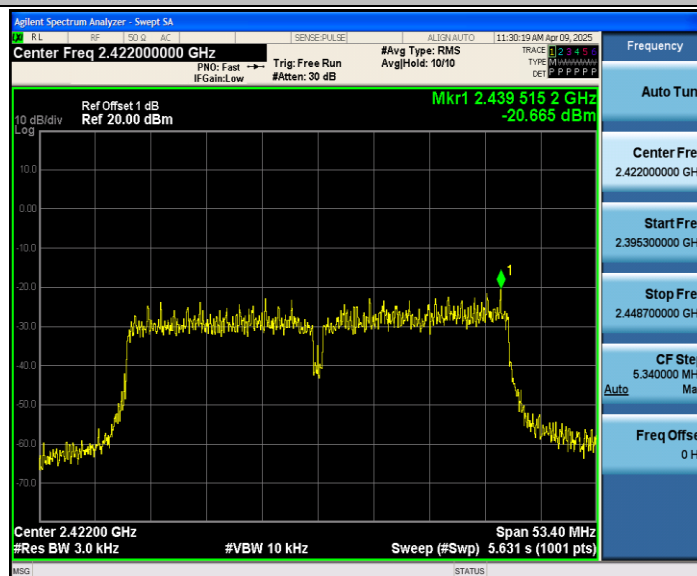
11N20SISO_Ant1_2437



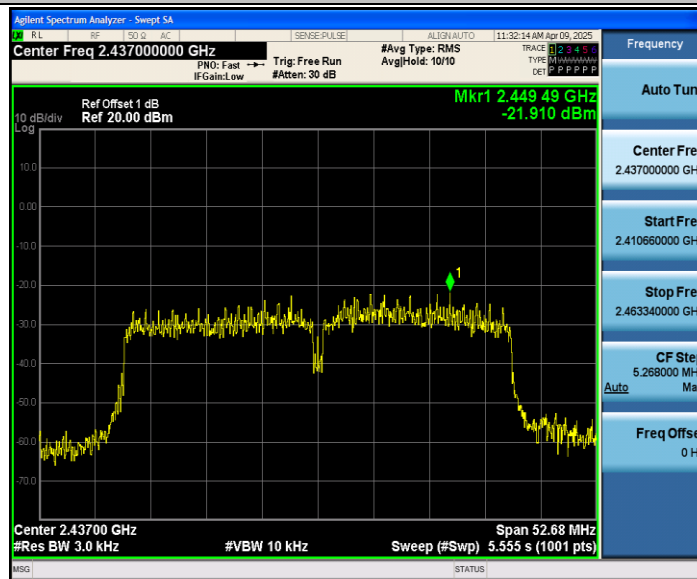
11N20SISO_Ant1_2462



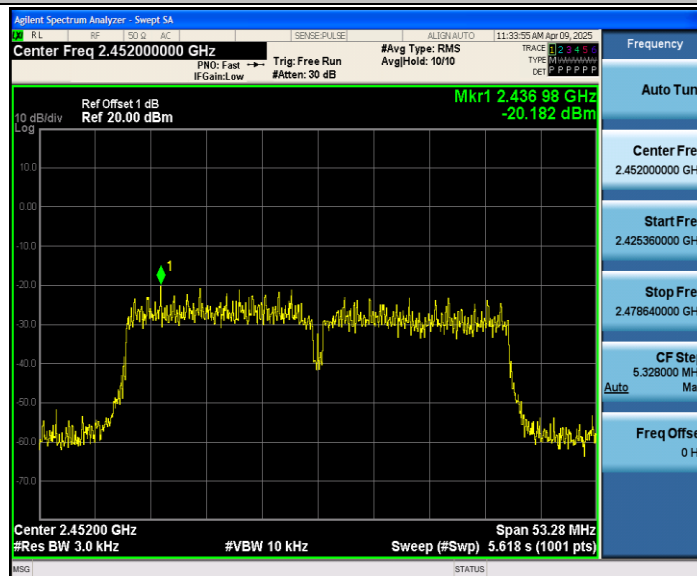
11N40SISO_Ant1_2422



11N40SISO_Ant1_2437



11N40SISO_Ant1_2452



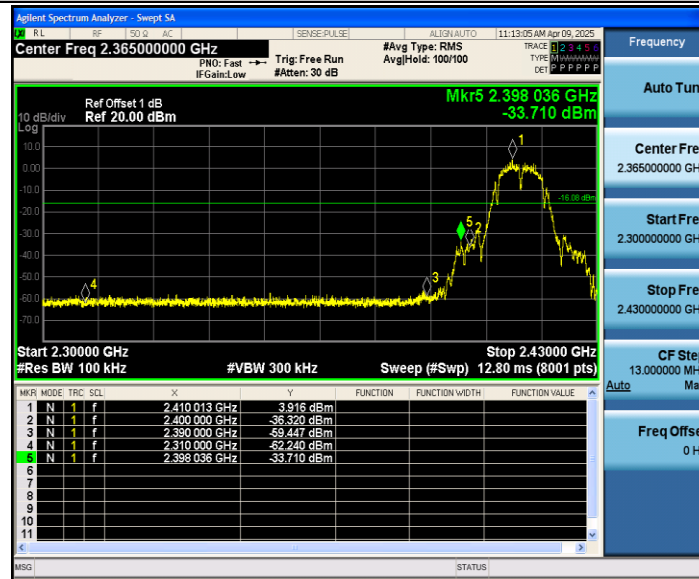
Appendix E: Band edge measurements

Test Result

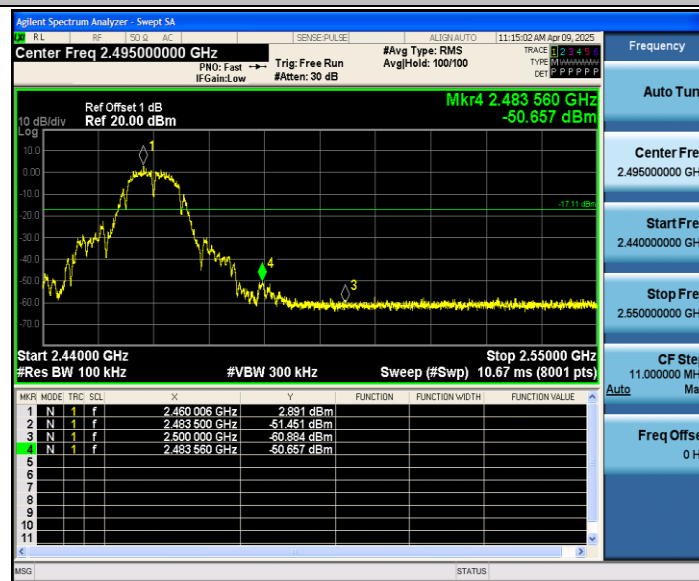
TestMode	Antenna	Channel	Frequency[MHz]	RefLevel[dBm]	Result[dBm]	Limit[dBm]	Verdict
11B	Ant1	Low	2412	3.92	-33.71	≤-16.08	PASS
		High	2462	2.89	-50.66	≤-17.11	PASS
11G	Ant1	Low	2412	-2.30	-35.35	≤-22.3	PASS
		High	2462	-3.02	-39.65	≤-23.02	PASS
11N20SISO	Ant1	Low	2412	-1.51	-35.03	≤-21.51	PASS
		High	2462	-3.02	-39.09	≤-23.02	PASS
11N40SISO	Ant1	Low	2422	-5.07	-38.41	≤-25.07	PASS
		High	2452	-4.80	-35.2	≤-24.8	PASS

Test Graphs

11B_Ant1_Low_2412



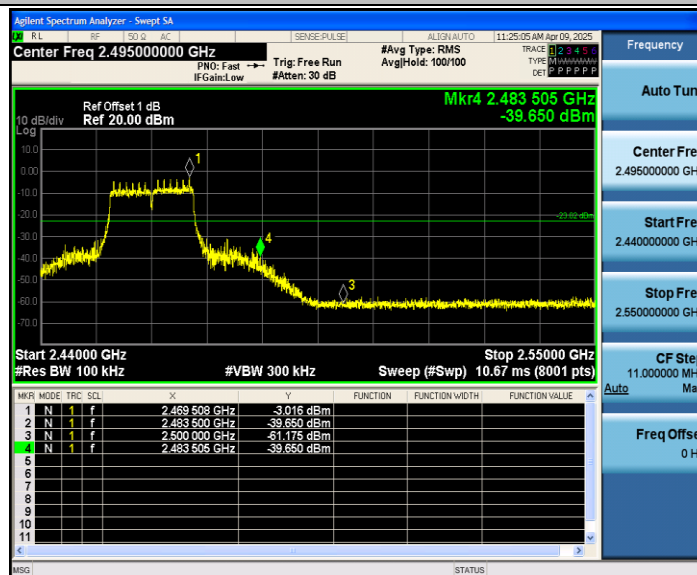
11B_Ant1_High_2462



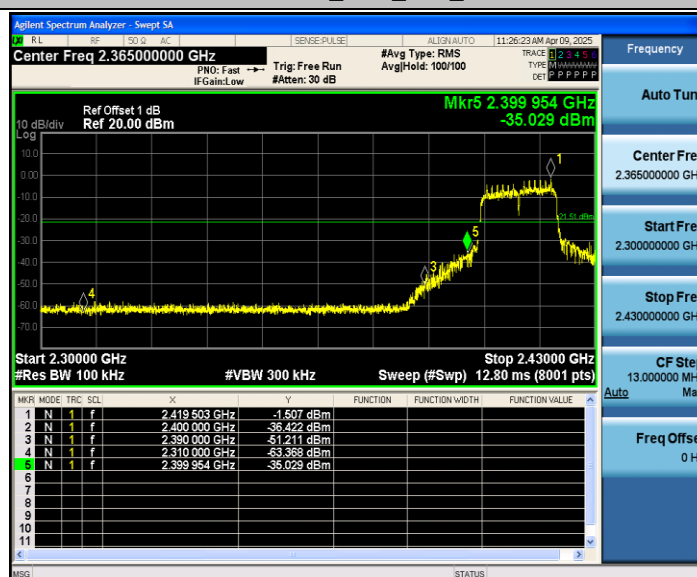
11G_Ant1_Low_2412



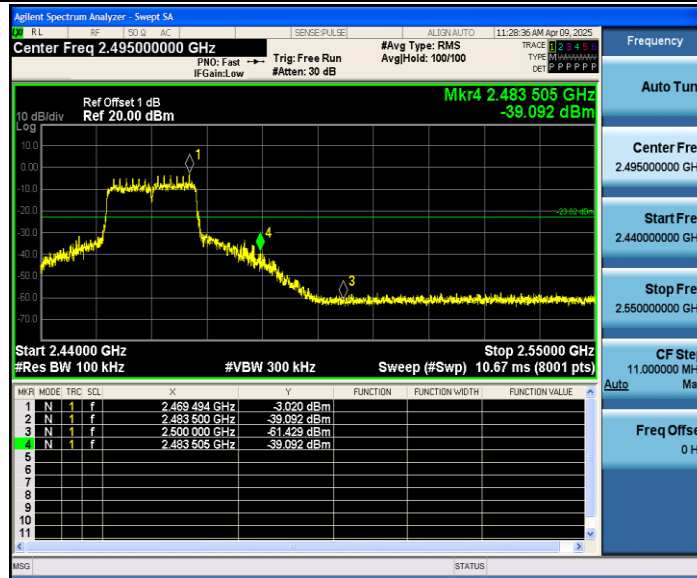
11G_Ant1_High_2462



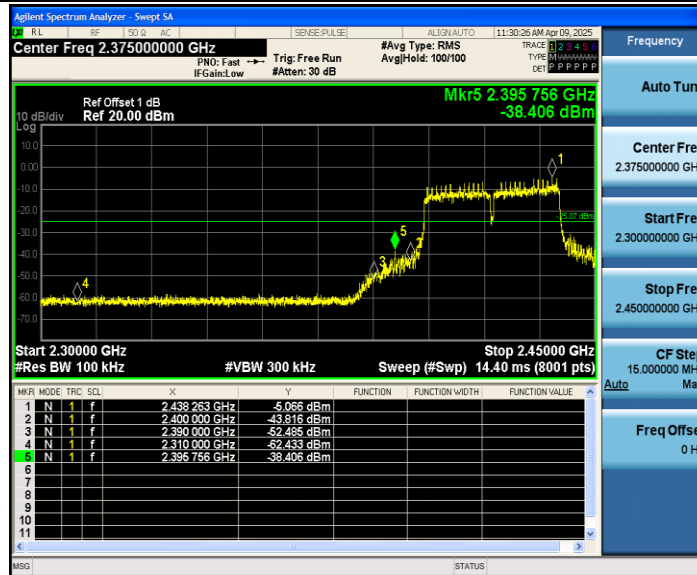
11N20SISO_Ant1_Low_2412



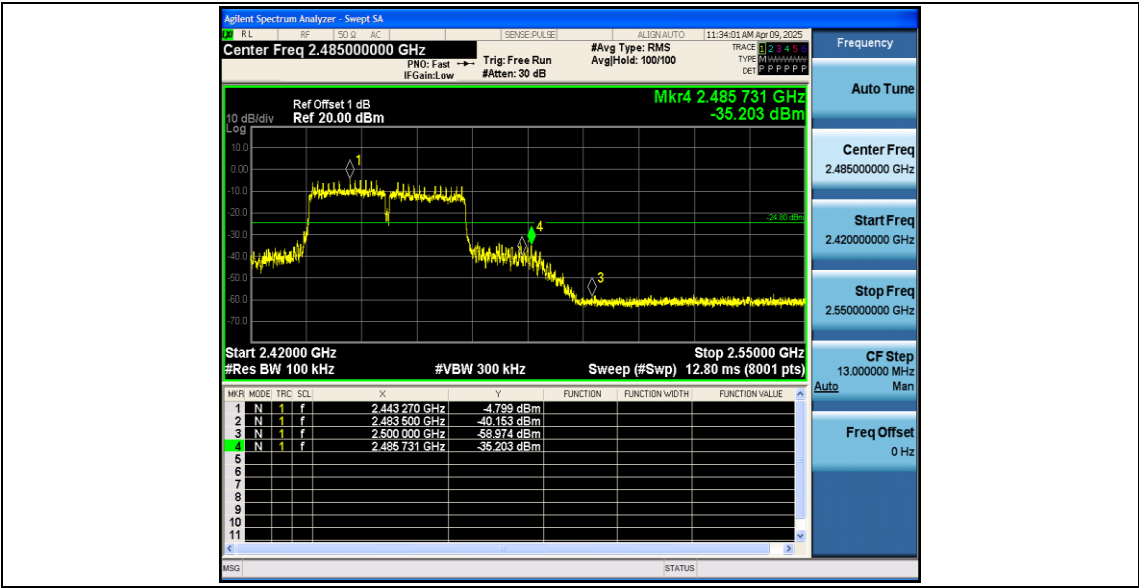
11N20SISO_Ant1_High_2462



11N40SISO_Ant1_Low_2422



11N40SISO_Ant1_High_2452



Appendix F: Conducted Spurious Emission

Test Result

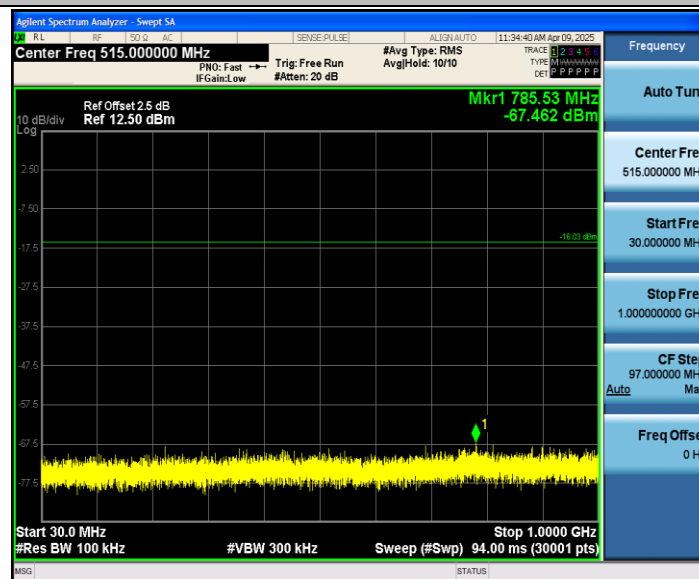
TestMode	Antenna	Frequency[MHz]	FreqRange [Mhz]	RefLevel [dBm]	Result [dBm]	Limit [dBm]	Verdict
11B	Ant1	2412	Reference	3.97	3.97	---	PASS
			30~1000	3.97	-67.46	≤-16.03	PASS
			1000~26500	3.97	-39.92	≤-16.03	PASS
		2437	Reference	2.86	2.86	---	PASS
			30~1000	2.86	-67.52	≤-17.14	PASS
			1000~26500	2.86	-37.79	≤-17.14	PASS
		2462	Reference	3.20	3.20	---	PASS
			30~1000	3.20	-68.08	≤-16.8	PASS
			1000~26500	3.20	-30.66	≤-16.8	PASS
11G	Ant1	2412	Reference	-0.75	-0.75	---	PASS
			30~1000	-0.75	-67.85	≤-20.75	PASS
			1000~26500	-0.75	-51.63	≤-20.75	PASS
		2437	Reference	-0.99	-0.99	---	PASS
			30~1000	-0.99	-68.04	≤-20.99	PASS
			1000~26500	-0.99	-50.81	≤-20.99	PASS
		2462	Reference	-2.32	-2.32	---	PASS
			30~1000	-2.32	-68.21	≤-22.32	PASS
			1000~26500	-2.32	-45.4	≤-22.32	PASS
11N20SISO	Ant1	2412	Reference	-0.39	-0.39	---	PASS
			30~1000	-0.39	-68.01	≤-20.39	PASS
			1000~26500	-0.39	-38.71	≤-20.39	PASS
		2437	Reference	-1.49	-1.49	---	PASS
			30~1000	-1.49	-67.98	≤-21.49	PASS
			1000~26500	-1.49	-44.92	≤-21.49	PASS
		2462	Reference	-3.08	-3.08	---	PASS
			30~1000	-3.08	-68.51	≤-23.08	PASS
			1000~26500	-3.08	-42.86	≤-23.08	PASS
11N40SISO	Ant1	2422	Reference	-4.87	-4.87	---	PASS
			30~1000	-4.87	-68.19	≤-24.87	PASS
			1000~26500	-4.87	-53.78	≤-24.87	PASS
		2437	Reference	-4.16	-4.16	---	PASS
			30~1000	-4.16	-67.34	≤-24.16	PASS
			1000~26500	-4.16	-48.45	≤-24.16	PASS
		2452	Reference	-3.52	-3.52	---	PASS
			30~1000	-3.52	-67.37	≤-23.52	PASS
			1000~26500	-3.52	-49.27	≤-23.52	PASS

Test Graphs

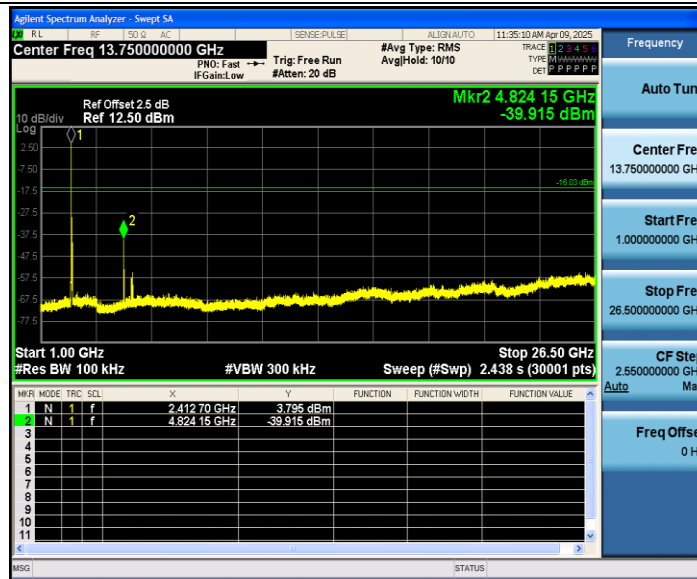
11B_Ant1_2412_0~Reference



11B_Ant1_2412_30~1000



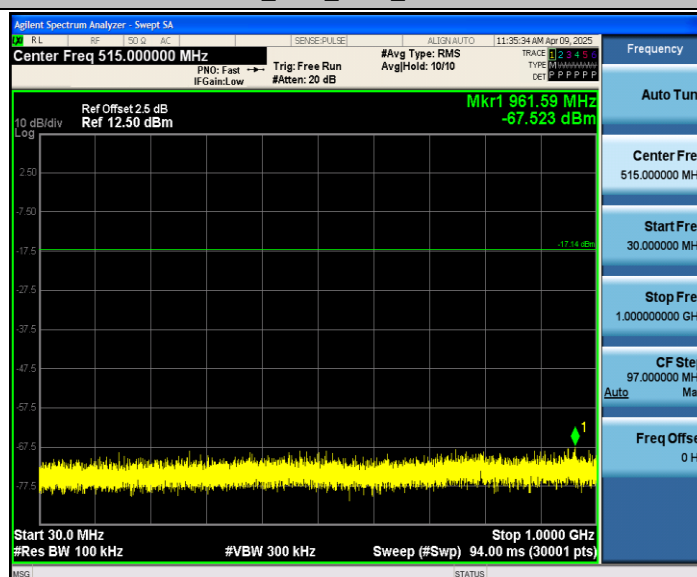
11B_Ant1_2412_1000~26500



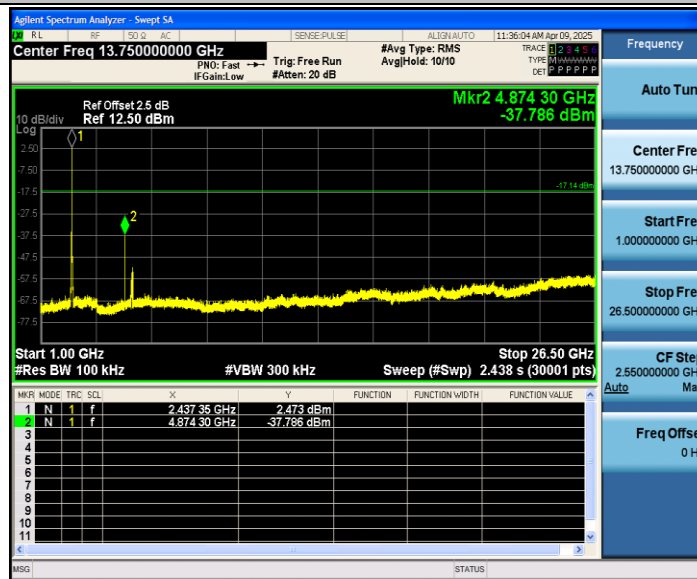
11B_Ant1_2437_0~Reference



11B_Ant1_2437_30~1000



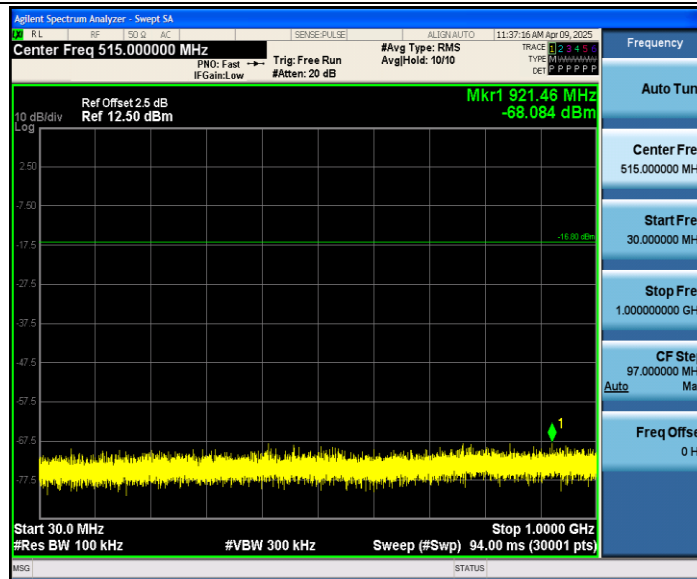
11B_Ant1_2437_1000~26500



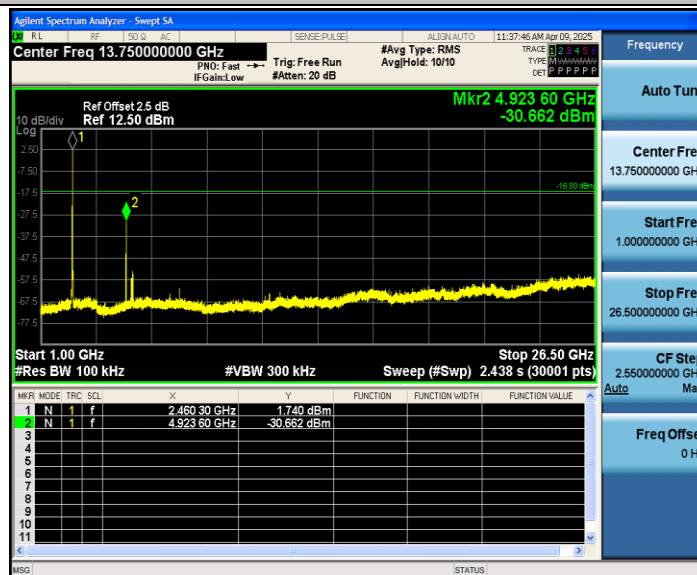
11B_Ant1_2462_0~Reference



11B_Ant1_2462_30~1000



11B_Ant1_2462_1000~26500



11G_Ant1_2412_0~Reference

