

FCC Appendix RF Test Data for 2.4GWIFI

FCC ID : 2BVF8WTI5500

Company : Worldwide Telecommunications, Inc.

EUT : Industrial Router

Model Number : 5500

Report No. : CTA26042702501

Reviewed By : Eric Wang

FCC Appendix RF Test Data for 2.4GWIFI Antenna 1

Appendix A: DTS Bandwidth

Test Result

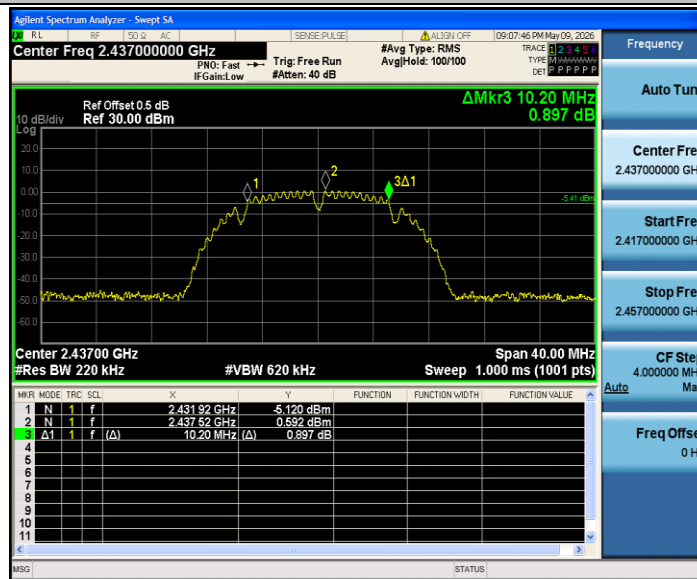
TestMode	Antenna	Frequency[MHz]	DTS BW [MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
11B	Ant1	2412	10.200	2406.960	2417.160	0.5	PASS
		2437	10.200	2431.920	2442.120	0.5	PASS
		2462	10.200	2456.920	2467.120	0.5	PASS
11G	Ant1	2412	16.160	2403.880	2420.040	0.5	PASS
		2437	15.880	2429.080	2444.960	0.5	PASS
		2462	15.720	2454.080	2469.800	0.5	PASS
11N20SISO	Ant1	2412	16.200	2404.120	2420.320	0.5	PASS
		2437	16.960	2428.520	2445.480	0.5	PASS
		2462	15.960	2453.880	2469.840	0.5	PASS
11N40SISO	Ant1	2422	35.520	2404.480	2440.000	0.5	PASS
		2437	35.280	2419.800	2455.080	0.5	PASS
		2452	35.680	2434.320	2470.000	0.5	PASS

Test Graphs

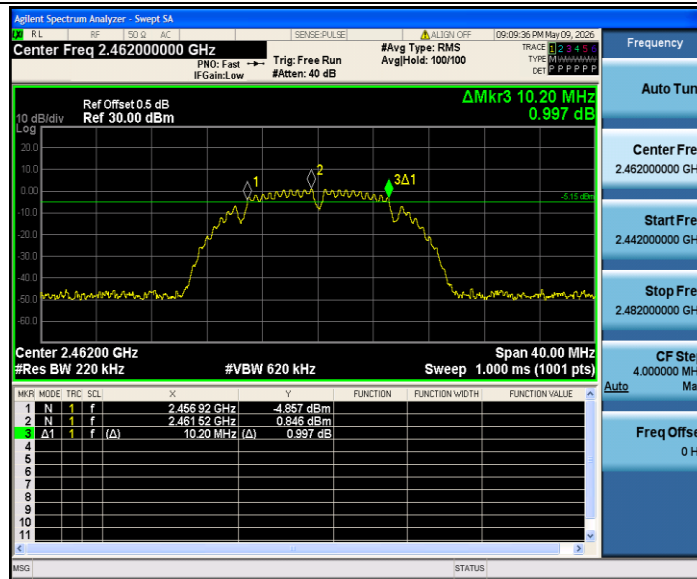
11B_Ant1_2412



11B_Ant1_2437



11B_Ant1_2462



11G_Ant1_2412



11G_Ant1_2437



11G_Ant1_2462



11N20SISO_Ant1_2412



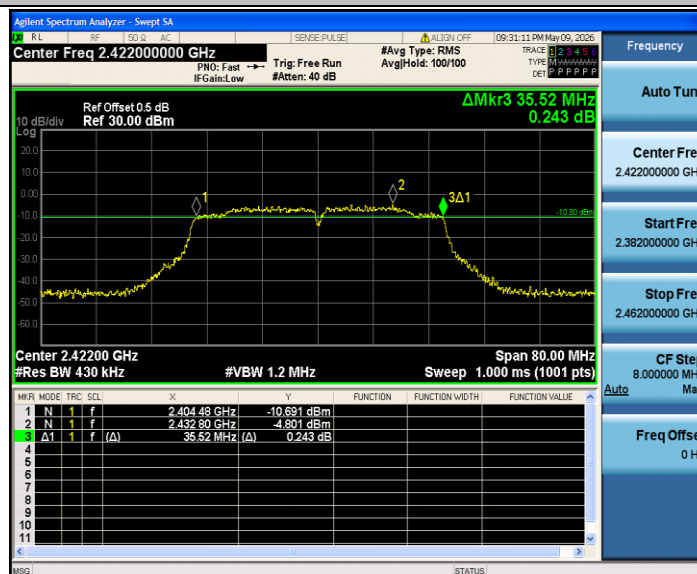
11N20SISO_Ant1_2437



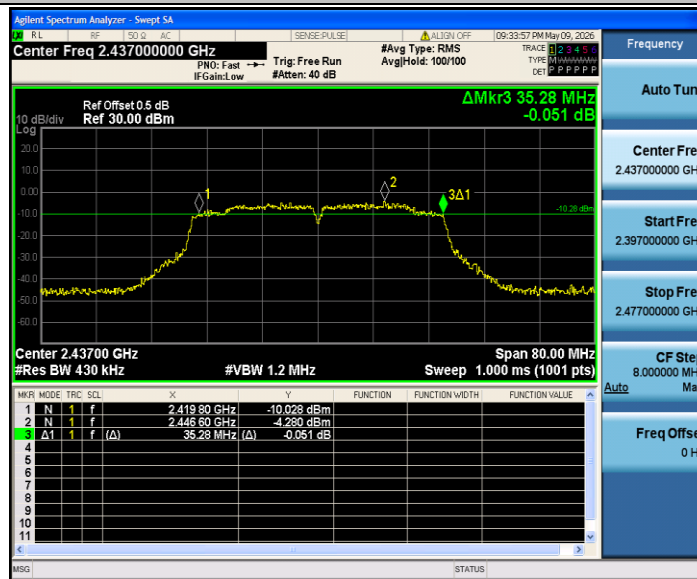
11N20SISO_Ant1_2462



11N40SISO_Ant1_2422



11N40SISO_Ant1_2437



11N40SISO_Ant1_2452



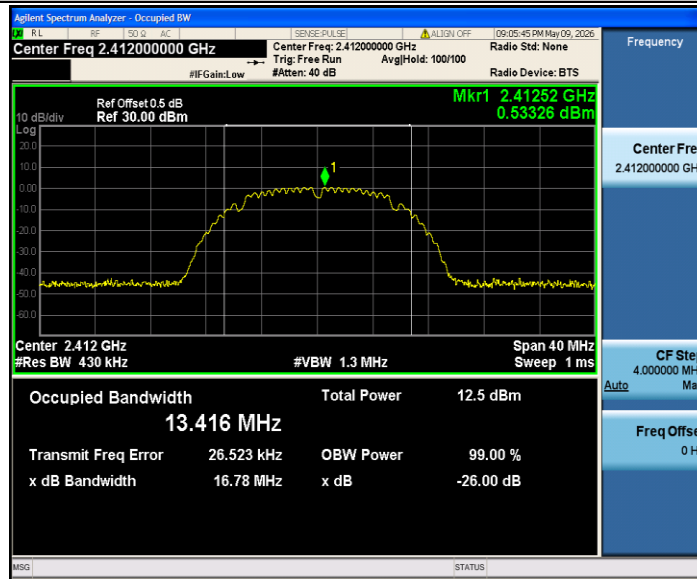
Appendix B: Occupied Channel Bandwidth

Test Result

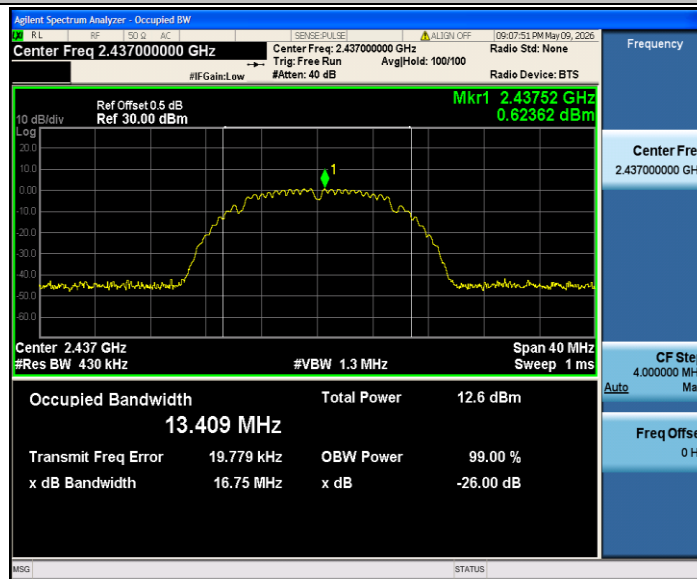
TestMode	Antenna	Channel Frequency[MHz]	OCB [MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
11B	Ant1	2412	13.416	2405.3185	2418.7345	---	---
		2437	13.409	2430.3153	2443.7243	---	---
		2462	13.428	2455.2999	2468.7279	---	---
11G	Ant1	2412	16.807	2403.6414	2420.4484	---	---
		2437	16.813	2428.6301	2445.4431	---	---
		2462	16.791	2453.6246	2470.4156	---	---
11N20SISO	Ant1	2412	17.881	2403.0890	2420.9700	---	---
		2437	17.903	2428.0589	2445.9619	---	---
		2462	17.870	2453.0825	2470.9525	---	---
11N40SISO	Ant1	2422	36.049	2404.0752	2440.1242	---	---
		2437	36.027	2419.1059	2455.1329	---	---
		2452	36.067	2434.0686	2470.1356	---	---

Test Graphs

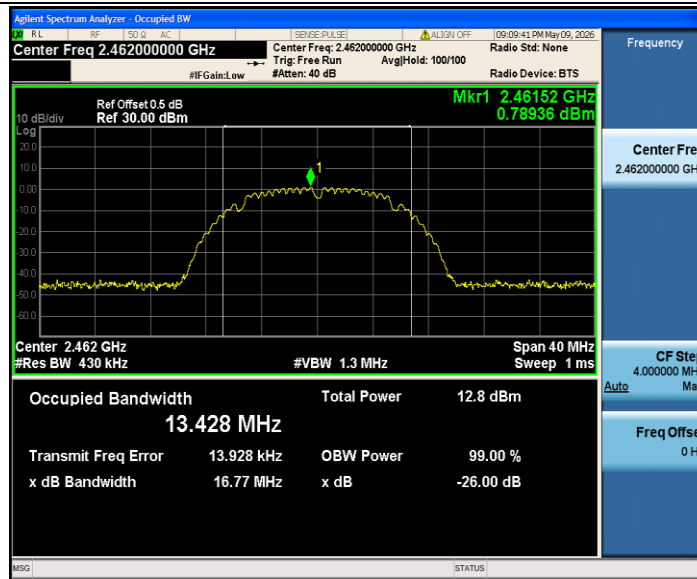
11B_Ant1_2412



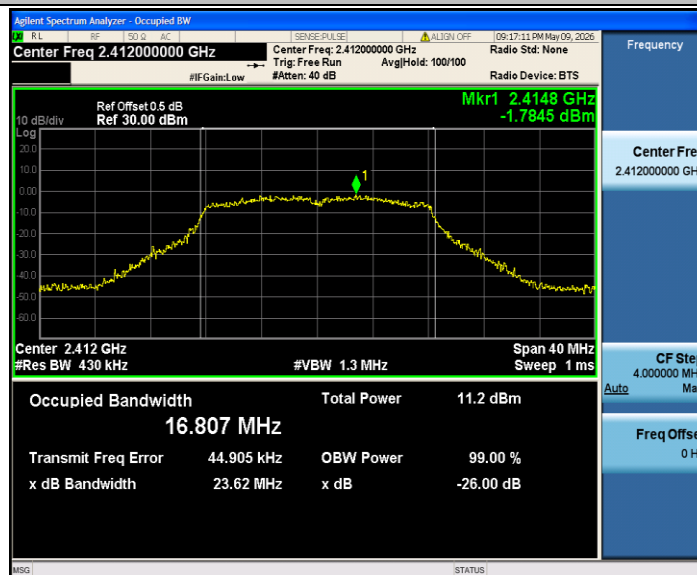
11B_Ant1_2437



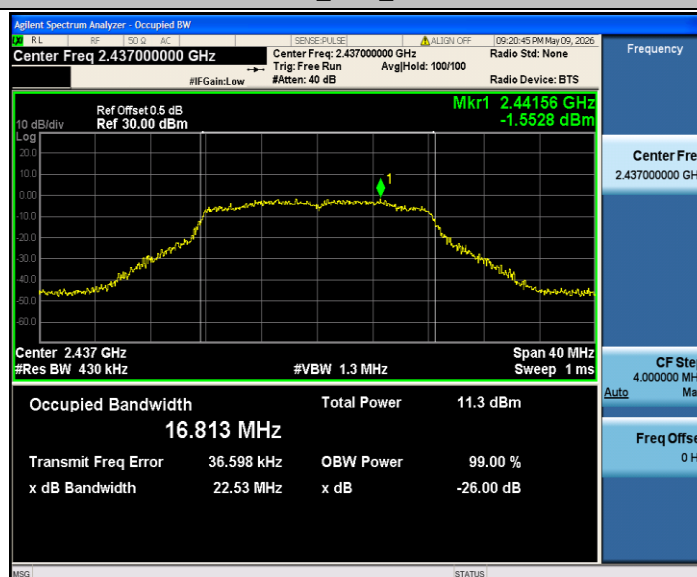
11B_Ant1_2462



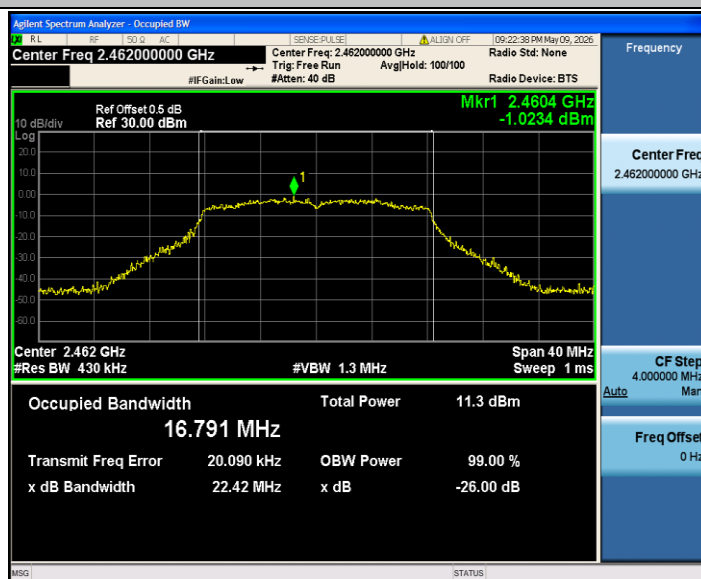
11G_Ant1_2412



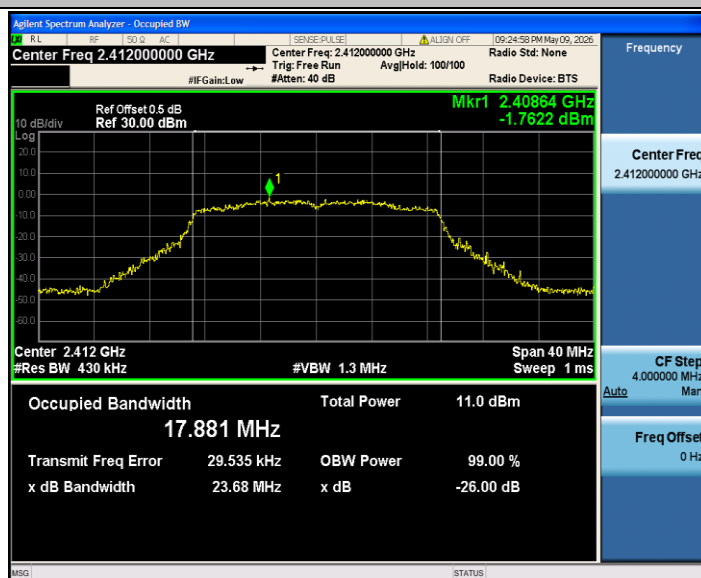
11G_Ant1_2437



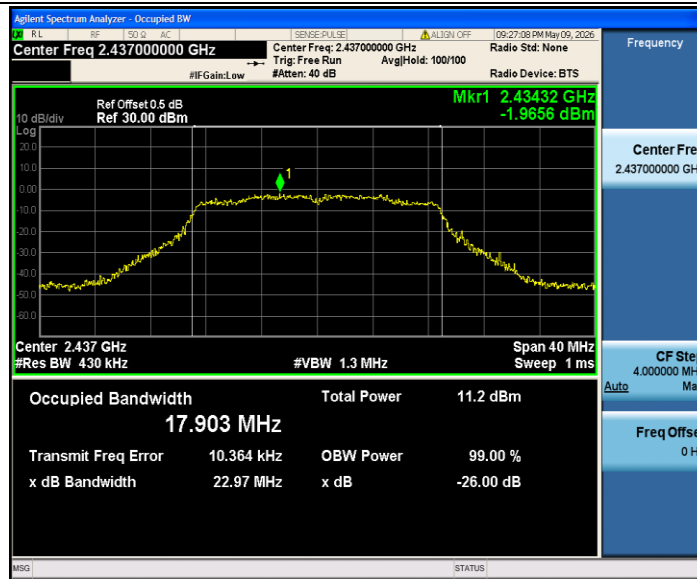
11G_Ant1_2462



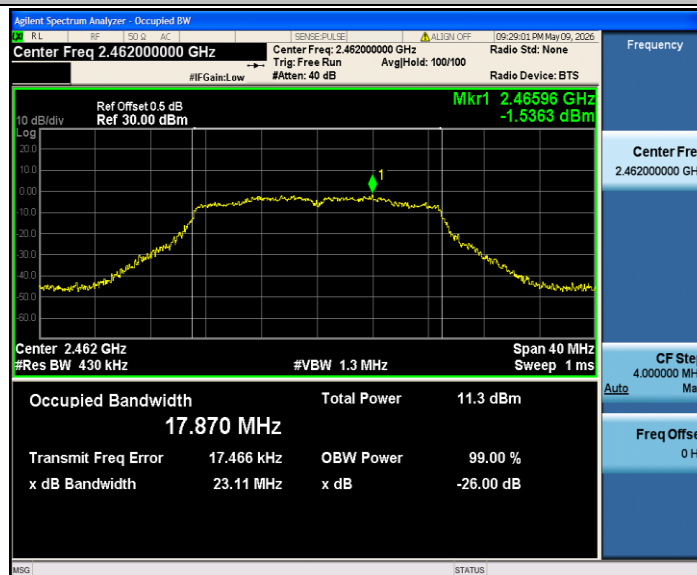
11N20SISO_Ant1_2412



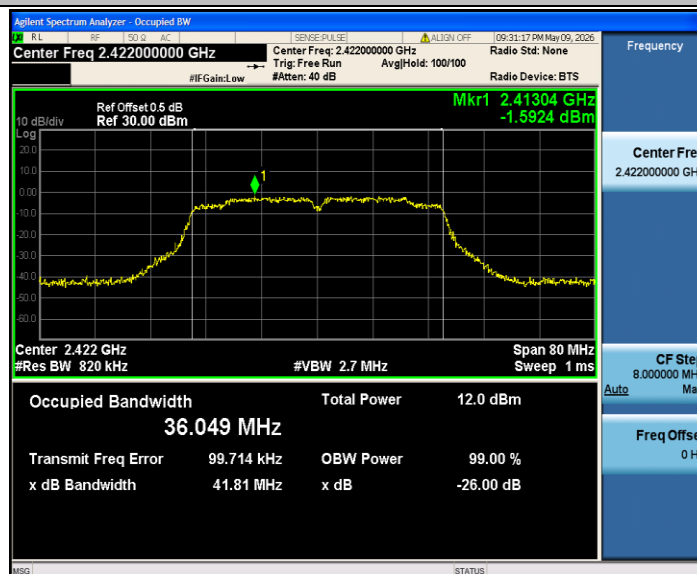
11N20SISO_Ant1_2437



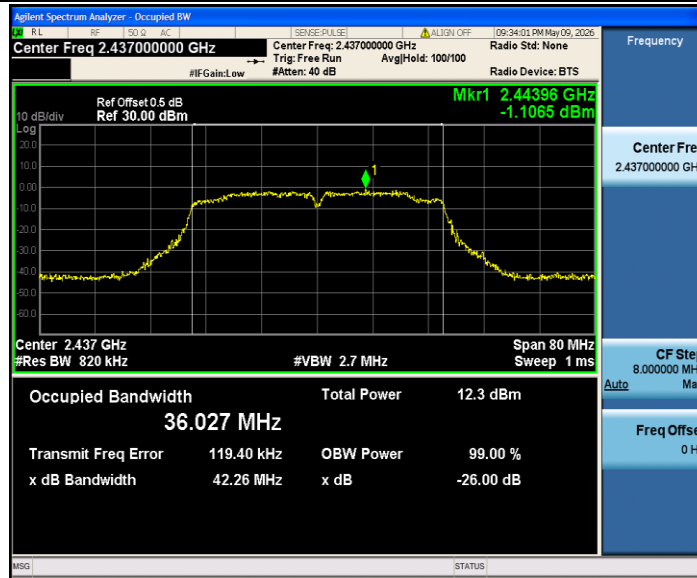
11N20SISO_Ant1_2462



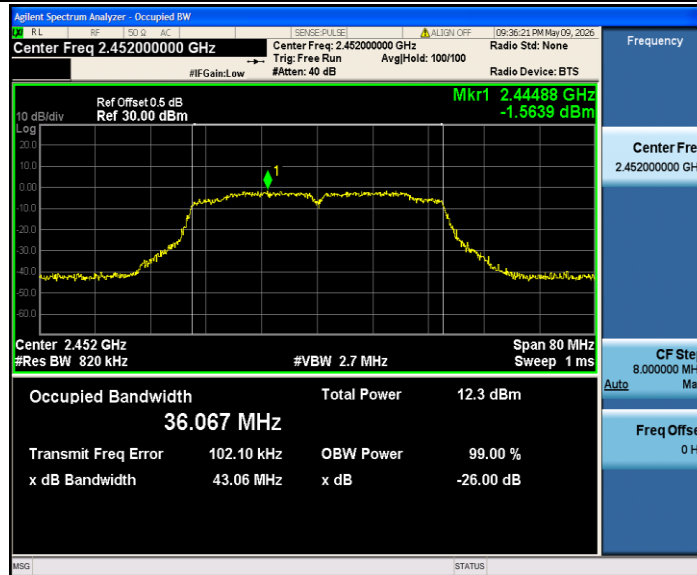
11N40SISO_Ant1_2422



11N40SISO_Ant1_2437



11N40SISO_Ant1_2452



Appendix C: Maximum conducted output power

Test Result

Test Mode	Antenna	Frequency[MHz]	Result [dBm]	Limit [dBm]	Verdict
11B	Ant1	2412	12.06	≤30.00	PASS
		2437	12.26	≤30.00	PASS
		2462	12.45	≤30.00	PASS
11G	Ant1	2412	12.05	≤30.00	PASS
		2437	12.20	≤30.00	PASS
		2462	12.23	≤30.00	PASS
11N20SISO	Ant1	2412	11.70	≤30.00	PASS
		2437	12.16	≤30.00	PASS
		2462	12.15	≤30.00	PASS
11N40SISO	Ant1	2422	12.26	≤30.00	PASS
		2437	12.42	≤30.00	PASS
		2452	12.52	≤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	-13.03	≤8.00	PASS
		2437	-13.72	≤8.00	PASS
		2462	-13.79	≤8.00	PASS
11G	Ant1	2412	-19.83	≤8.00	PASS
		2437	-19.56	≤8.00	PASS
		2462	-19.11	≤8.00	PASS
11N20SISO	Ant1	2412	-20.31	≤8.00	PASS
		2437	-19.12	≤8.00	PASS
		2462	-19.13	≤8.00	PASS
11N40SISO	Ant1	2422	-22.07	≤8.00	PASS
		2437	-21.54	≤8.00	PASS
		2452	-22.20	≤8.00	PASS

Test Graphs

11B_Ant1_2412



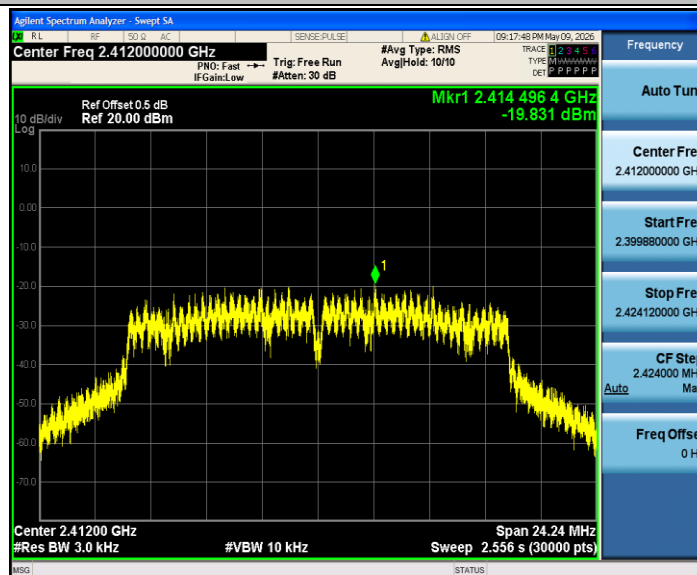
11B_Ant1_2437



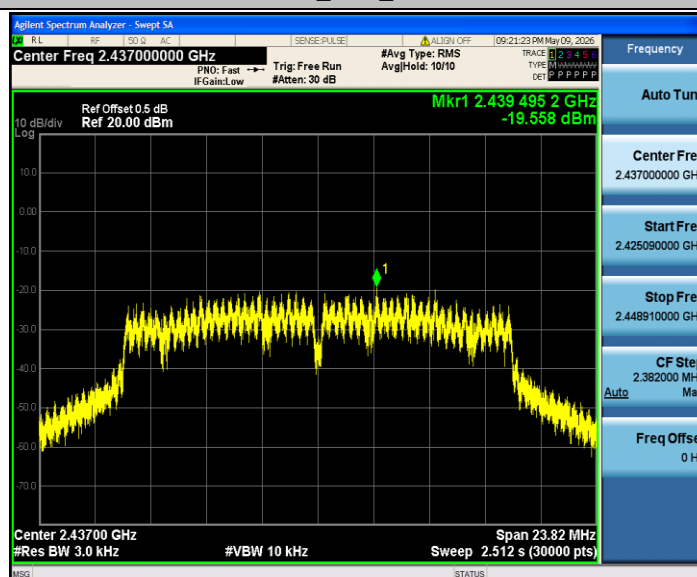
11B_Ant1_2462



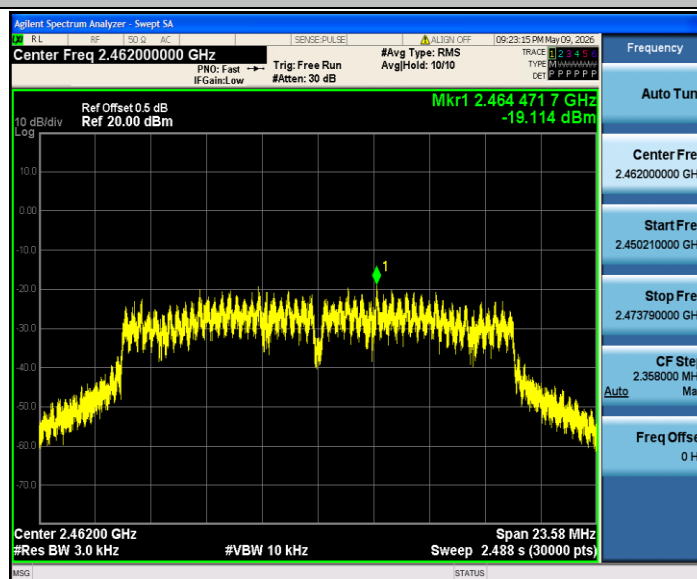
11G_Ant1_2412



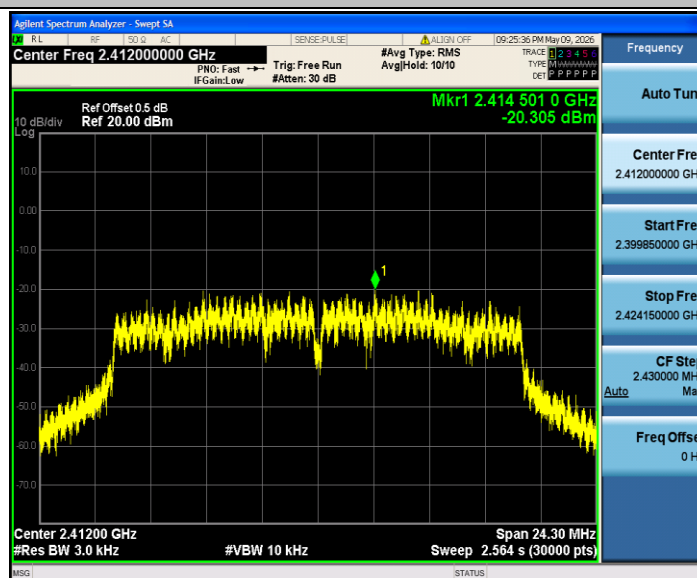
11G_Ant1_2437



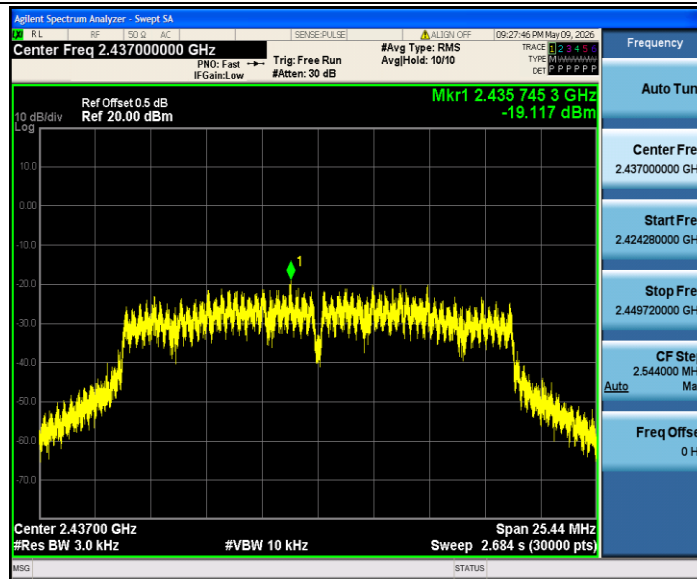
11G_Ant1_2462



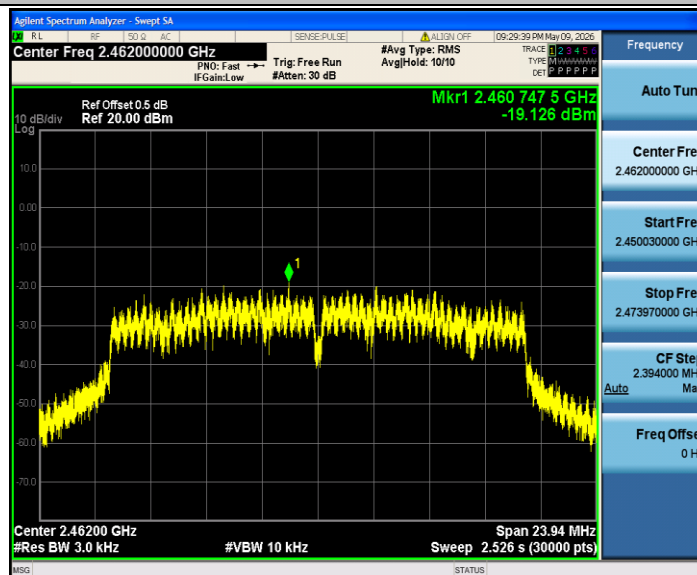
11N20SISO_Ant1_2412



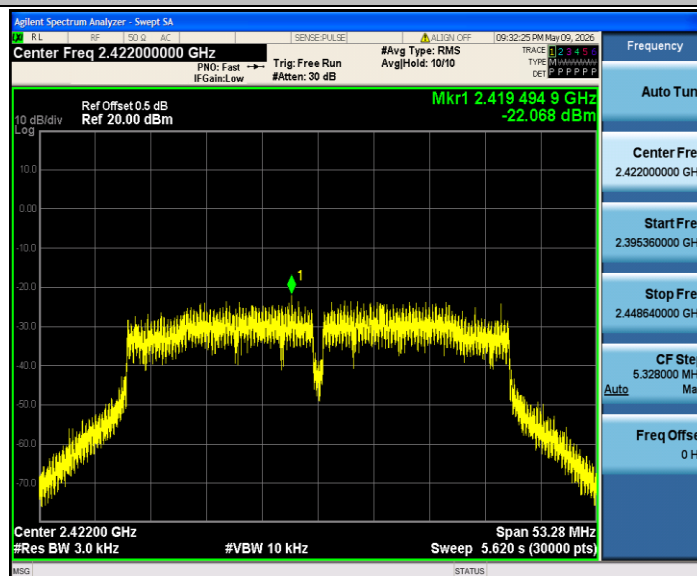
11N20SISO_Ant1_2437



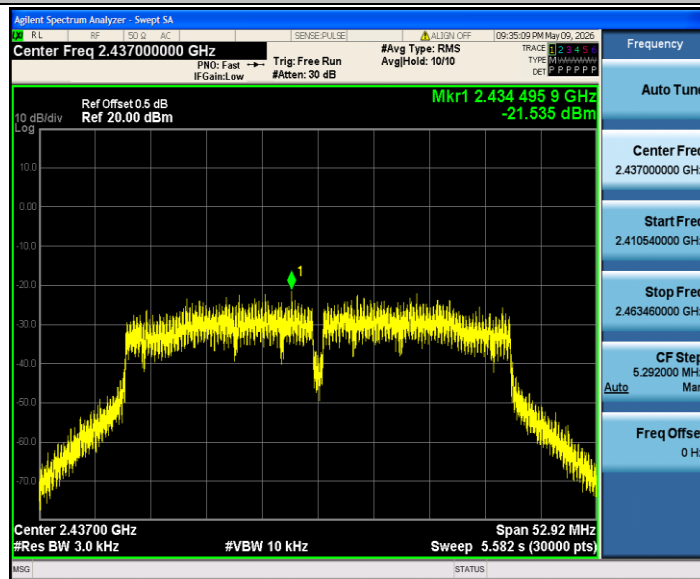
11N20SISO_Ant1_2462



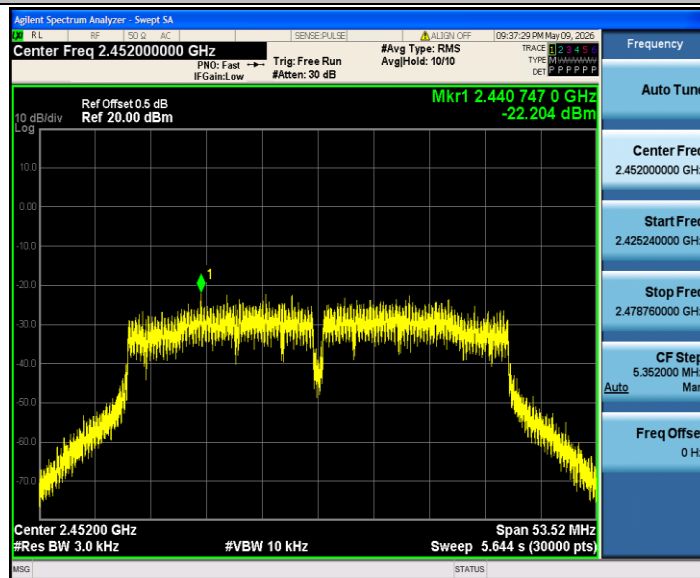
11N40SISO_Ant1_2422



11N40SISO_Ant1_2437



11N40SISO_Ant1_2452



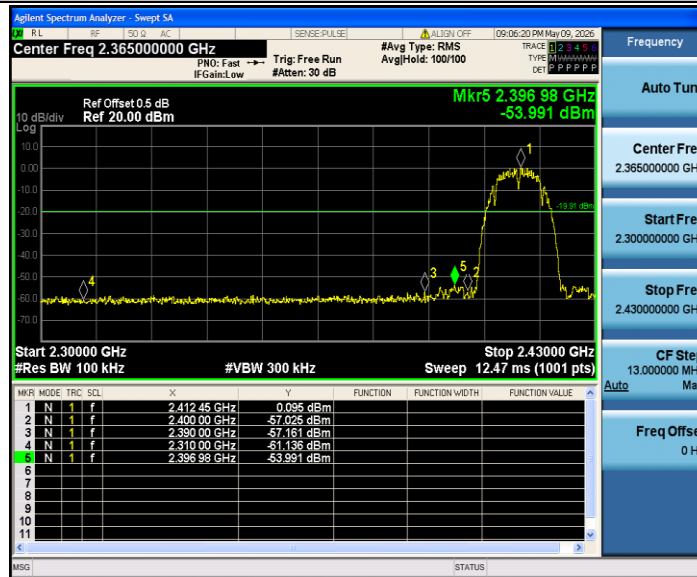
Appendix E: Band edge measurements

Test Result

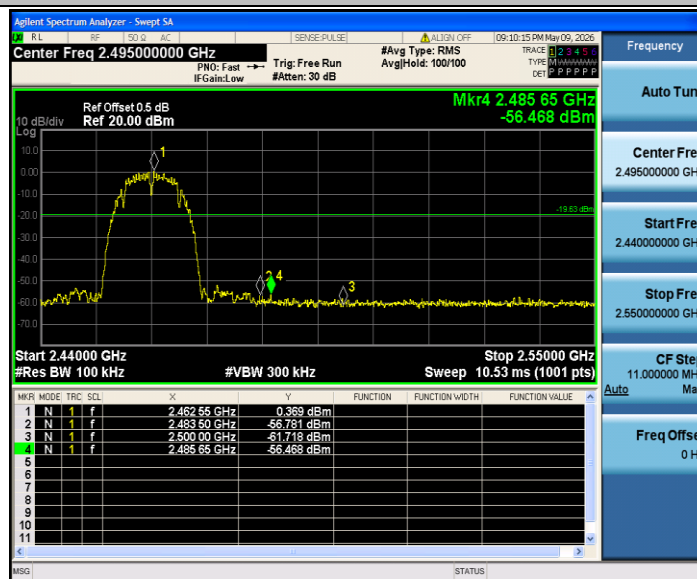
TestMode	Antenna	Channel Name	Frequency[MHz]	RefLevel[dBm]	Result[dBm]	Limit[dBm]	Verdict
11B	Ant1	Low	2412	0.10	-53.99	≤-19.91	PASS
		High	2462	0.37	-56.47	≤-19.63	PASS
11G	Ant1	Low	2412	-4.31	-36.25	≤-24.31	PASS
		High	2462	-4.46	-57.41	≤-24.46	PASS
11N20SISO	Ant1	Low	2412	-4.57	-35.22	≤-24.57	PASS
		High	2462	-4.33	-57.33	≤-24.33	PASS
11N40SISO	Ant1	Low	2422	-7.88	-35.9	≤-27.88	PASS
		High	2452	-7.59	-56.65	≤-27.59	PASS

Test Graphs

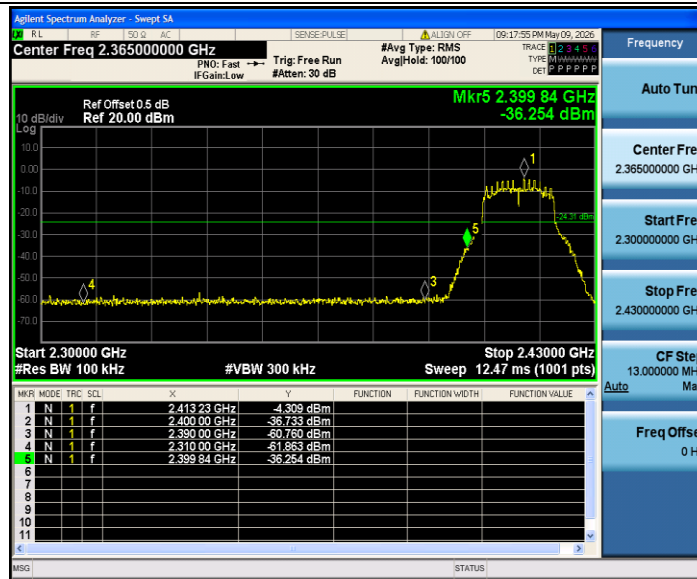
11B_Ant1_Low_2412



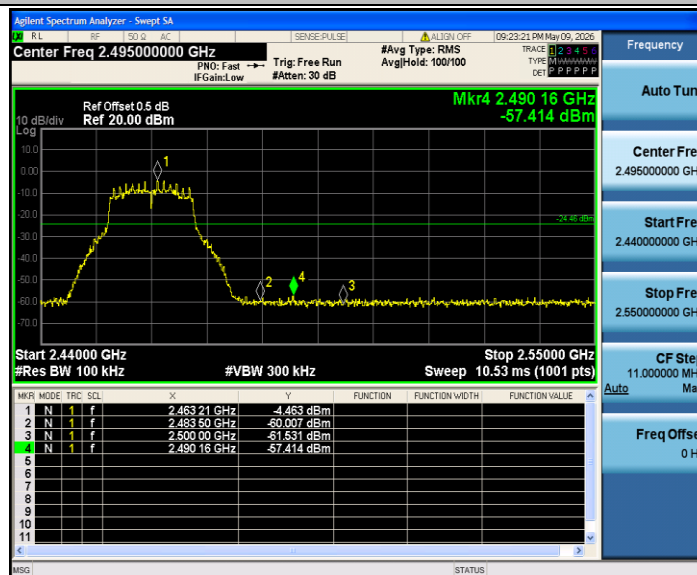
11B_Ant1_High_2462



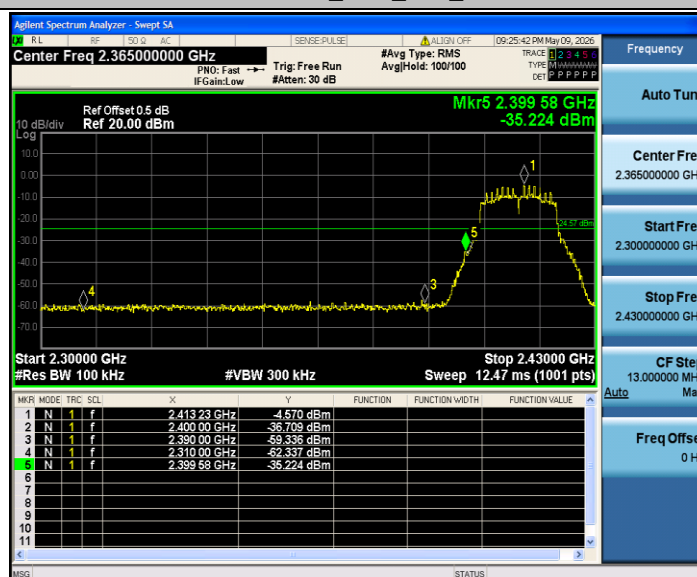
11G_Ant1_Low_2412



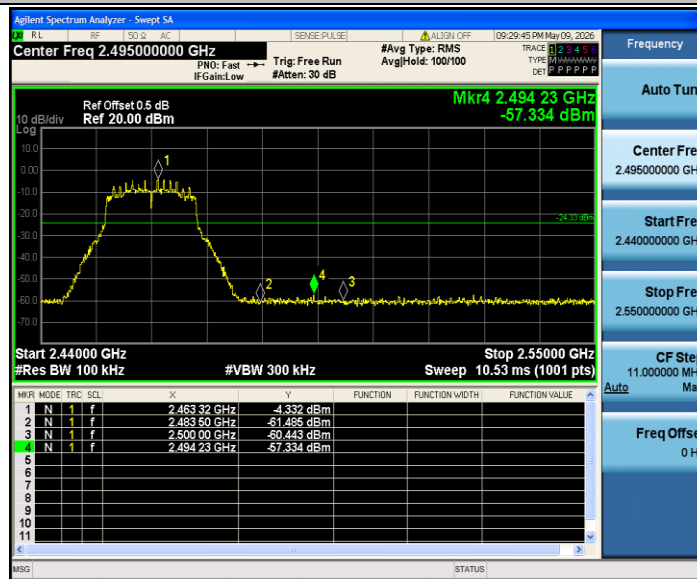
11G_Ant1_High_2462



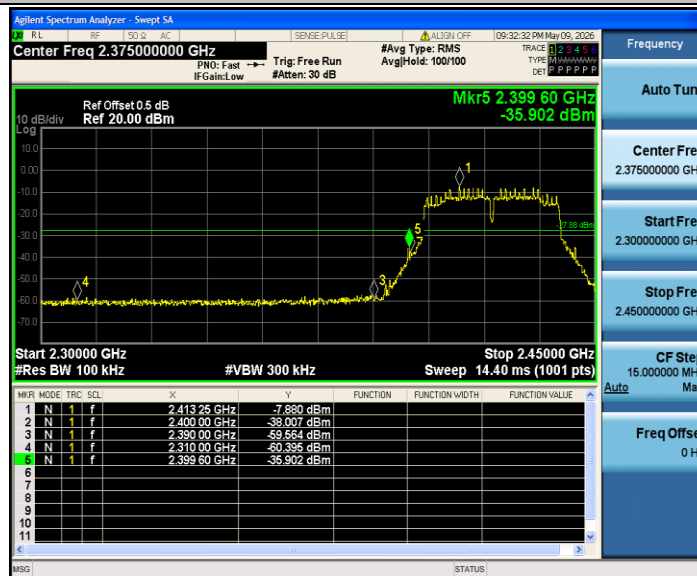
11N20SISO_Ant1_Low_2412



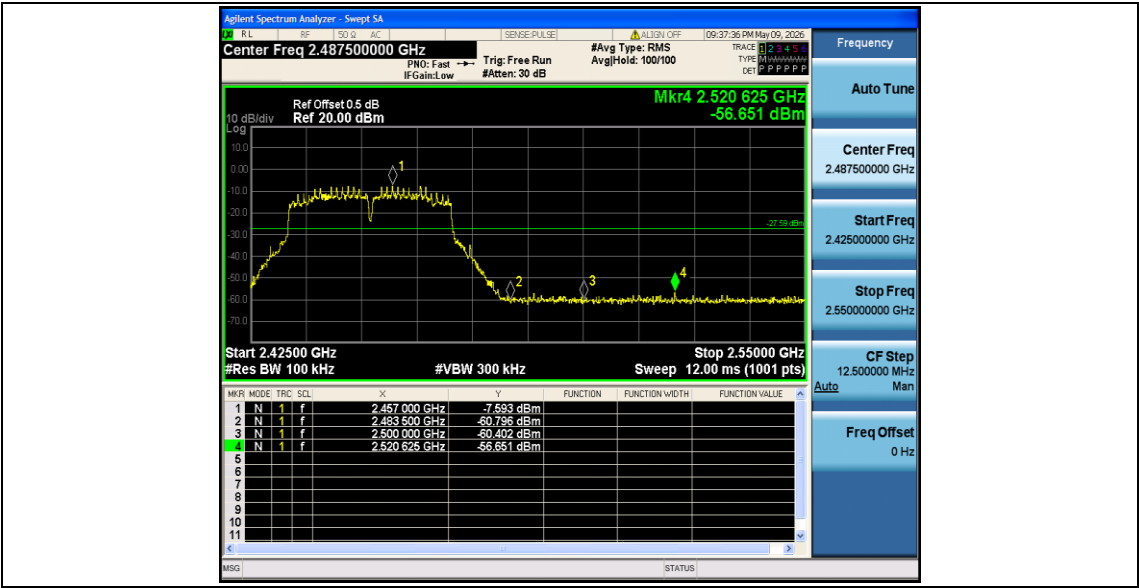
11N20SISO_Ant1_High_2462



11N40SISO_Ant1_Low_2422



11N40SISO_Ant1_High_2452



Appendix F: Conducted Spurious Emission

Test Result

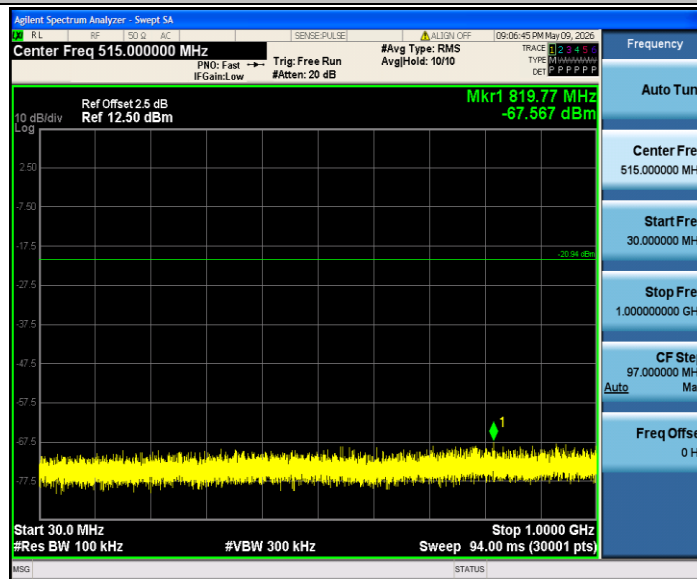
TestMode	Antenna	Frequency[MHz]	FreqRange [Mhz]	RefLevel [dBm]	Result [dBm]	Limit [dBm]	Verdict
11B	Ant1	2412	Reference	-0.94	-0.94	---	PASS
			30~1000	-0.94	-67.57	≤-20.94	PASS
			1000~26500	-0.94	-55.86	≤-20.94	PASS
		2437	Reference	-0.14	-0.14	---	PASS
			30~1000	-0.14	-67.92	≤-20.14	PASS
			1000~26500	-0.14	-55.82	≤-20.14	PASS
		2462	Reference	-0.56	-0.56	---	PASS
			30~1000	-0.56	-66.96	≤-20.56	PASS
			1000~26500	-0.56	-55.64	≤-20.56	PASS
11G	Ant1	2412	Reference	-5.42	-5.42	---	PASS
			30~1000	-5.42	-68.13	≤-25.42	PASS
			1000~26500	-5.42	-55.29	≤-25.42	PASS
		2437	Reference	-4.95	-4.95	---	PASS
			30~1000	-4.95	-67.6	≤-24.95	PASS
			1000~26500	-4.95	-55.73	≤-24.95	PASS
		2462	Reference	-5.26	-5.26	---	PASS
			30~1000	-5.26	-67.54	≤-25.26	PASS
			1000~26500	-5.26	-55.18	≤-25.26	PASS
11N20SISO	Ant1	2412	Reference	-4.70	-4.70	---	PASS
			30~1000	-4.70	-68.31	≤-24.7	PASS
			1000~26500	-4.70	-55.7	≤-24.7	PASS
		2437	Reference	-4.24	-4.24	---	PASS
			30~1000	-4.24	-66.66	≤-24.24	PASS
			1000~26500	-4.24	-55.86	≤-24.24	PASS
		2462	Reference	-4.48	-4.48	---	PASS
			30~1000	-4.48	-67.2	≤-24.48	PASS
			1000~26500	-4.48	-55.24	≤-24.48	PASS
11N40SISO	Ant1	2422	Reference	-7.98	-7.98	---	PASS
			30~1000	-7.98	-67.8	≤-27.98	PASS
			1000~26500	-7.98	-56.18	≤-27.98	PASS
		2437	Reference	-8.28	-8.28	---	PASS
			30~1000	-8.28	-67.43	≤-28.28	PASS
			1000~26500	-8.28	-55.89	≤-28.28	PASS
		2452	Reference	-7.66	-7.66	---	PASS
			30~1000	-7.66	-67.9	≤-27.66	PASS
			1000~26500	-7.66	-55.23	≤-27.66	PASS

Test Graphs

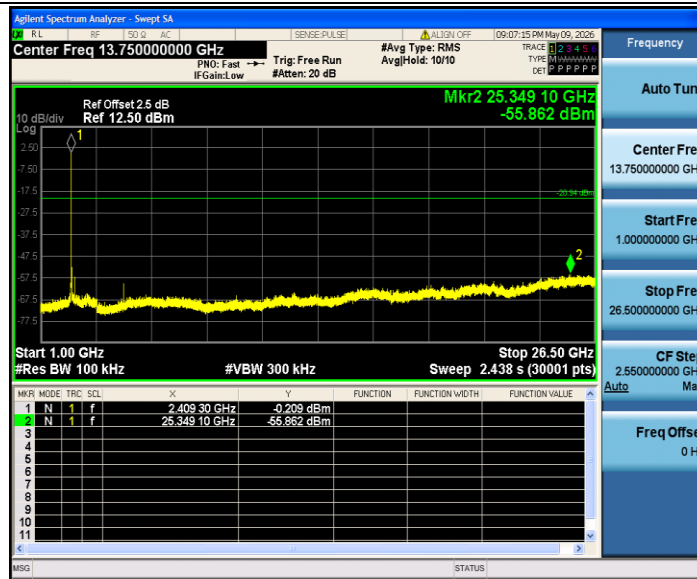
11B_Ant1_2412_0~Reference



11B_Ant1_2412_30~1000



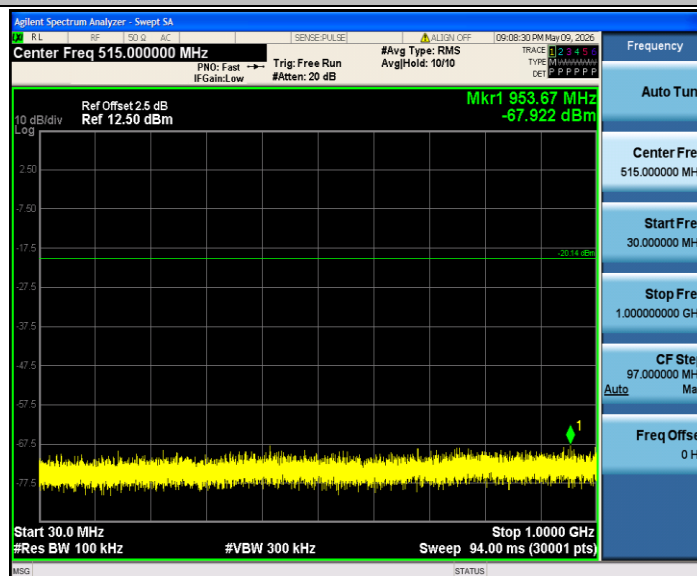
11B_Ant1_2412_1000~26500



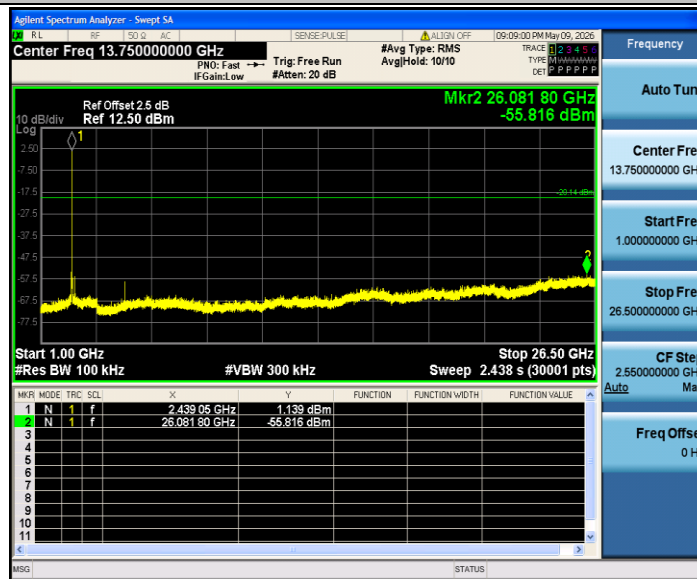
11B_Ant1_2437_0~Reference



11B_Ant1_2437_30~1000



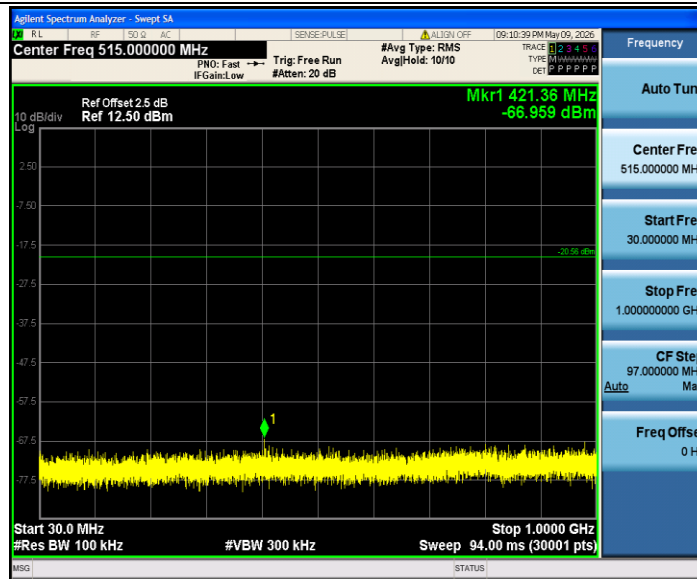
11B_Ant1_2437_1000~26500



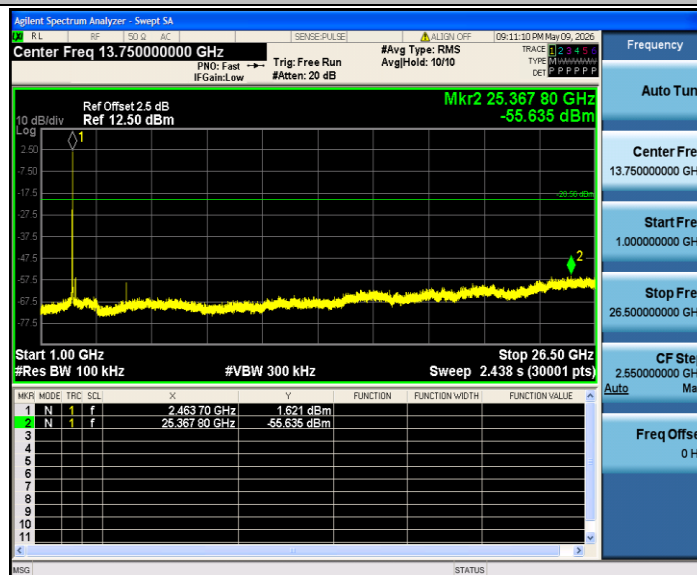
11B_Ant1_2462_0~Reference



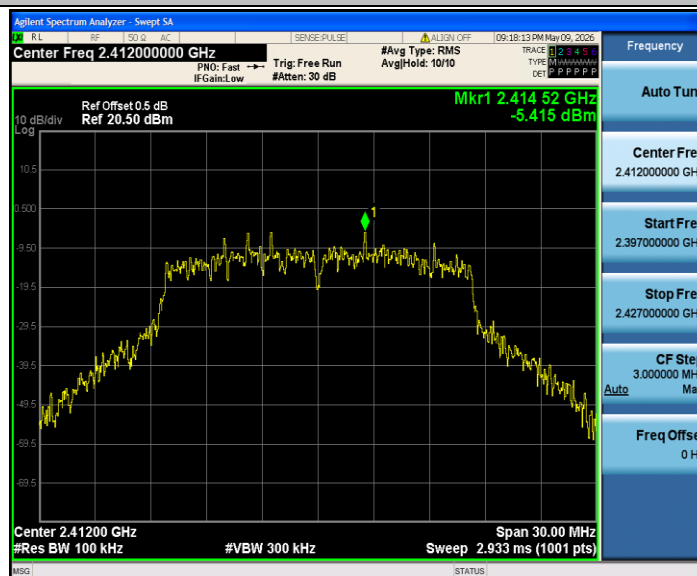
11B_Ant1_2462_30~1000



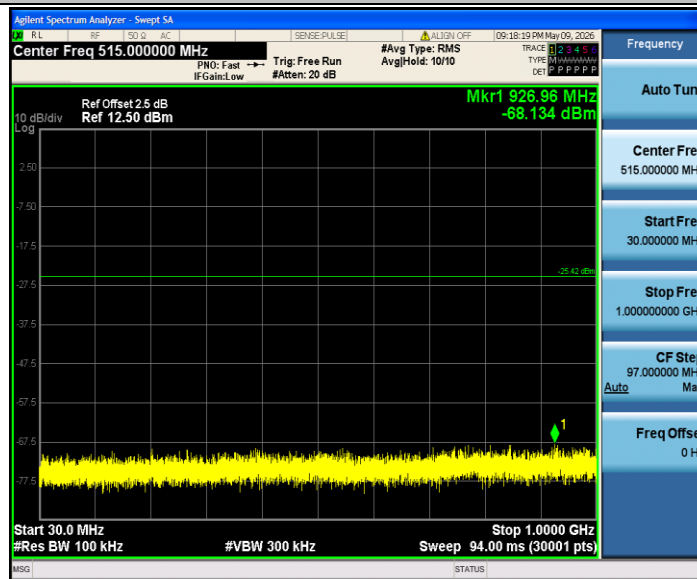
11B_Ant1_2462_1000~26500



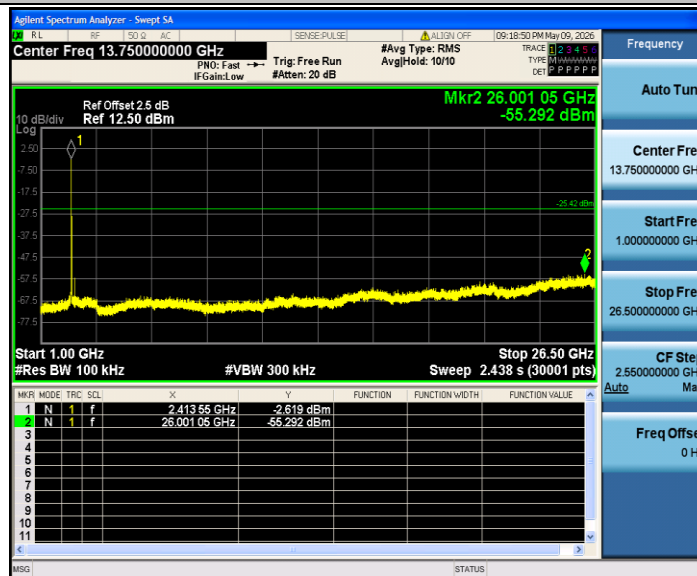
11G_Ant1_2412_0~Reference



11G_Ant1_2412_30~1000



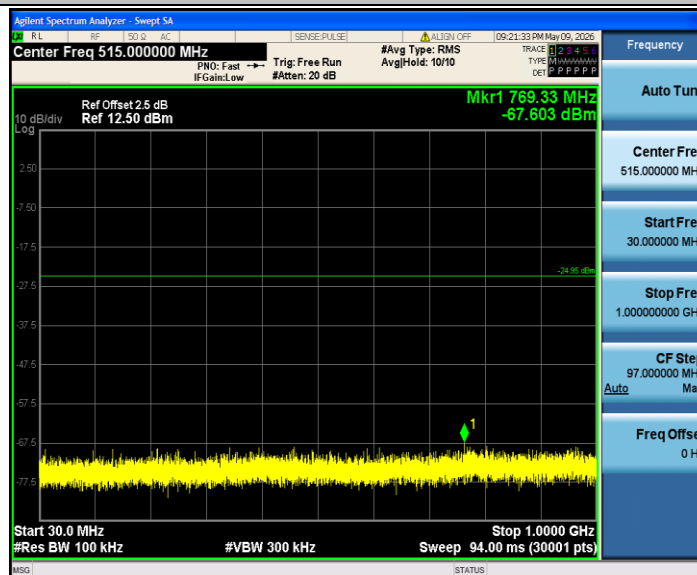
11G_Ant1_2412_1000~26500



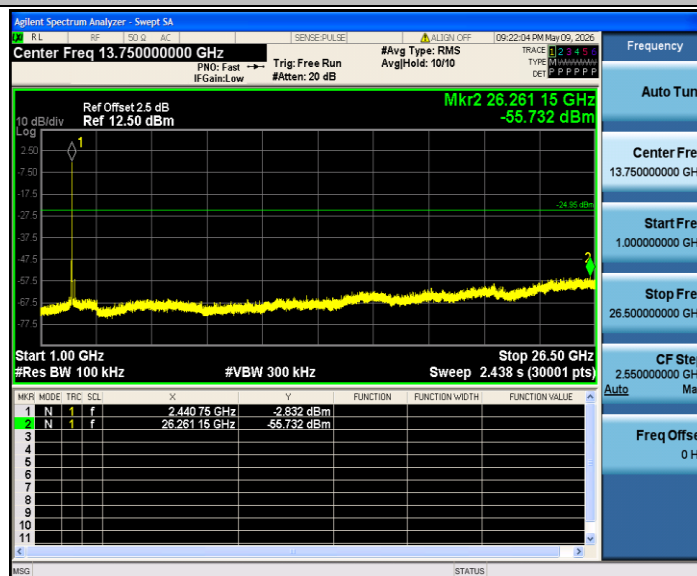
11G_Ant1_2437_0~Reference



11G_Ant1_2437_30~1000



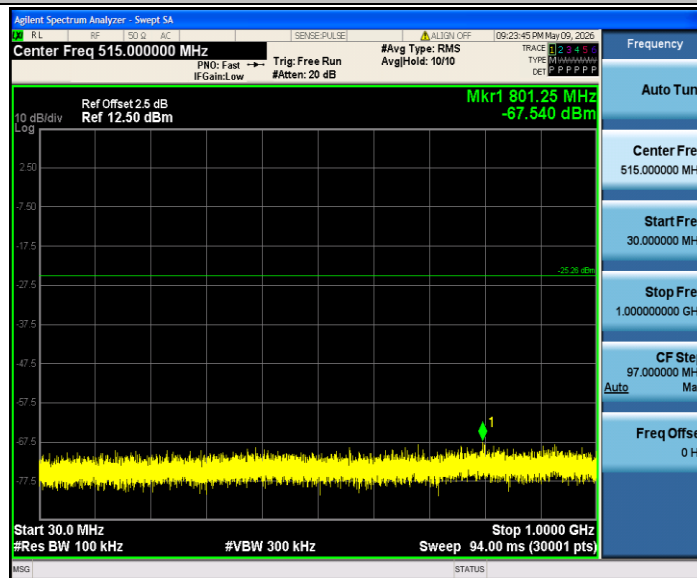
11G_Ant1_2437_1000~26500



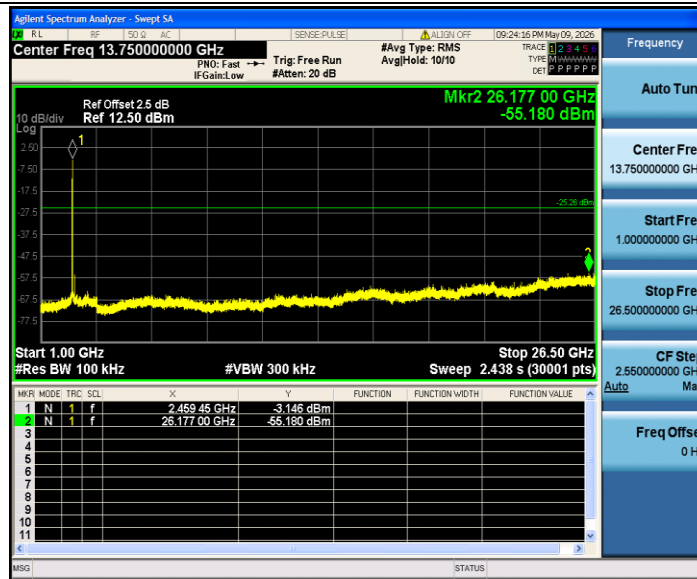
11G_Ant1_2462_0~Reference



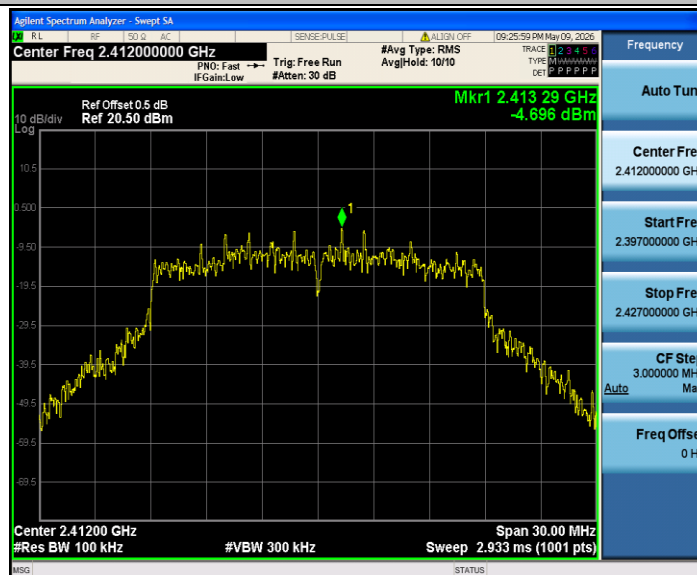
11G_Ant1_2462_30~1000



11G_Ant1_2462_1000~26500



11N20SISO_Ant1_2412_0~Reference



11N20SISO_Ant1_2412_30~1000

