

FCC Appendix RF Test Data for 2.4GWIFI

FCC ID : 2AZQI-SIFELYO

Company : LIFYFUN LLC

EUT : Model O Smart Lock

Model Number : Model O

Report No. : CTA25090900502

Reviewed By : Eric Wang

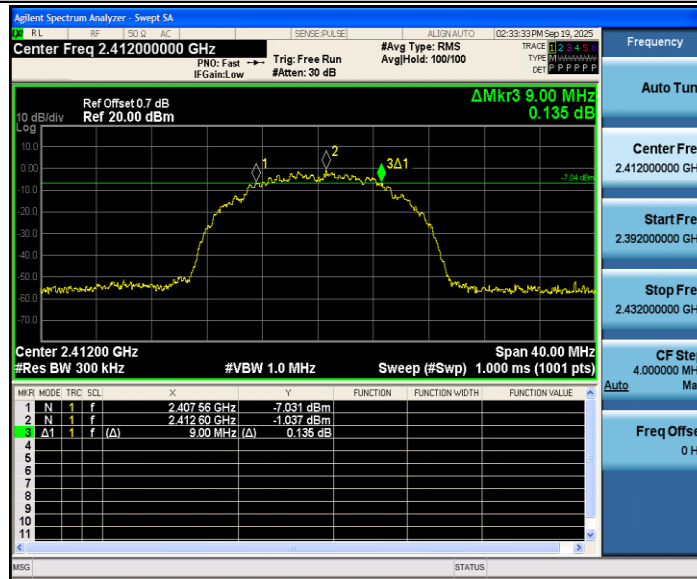
Appendix A: DTS Bandwidth

Test Result

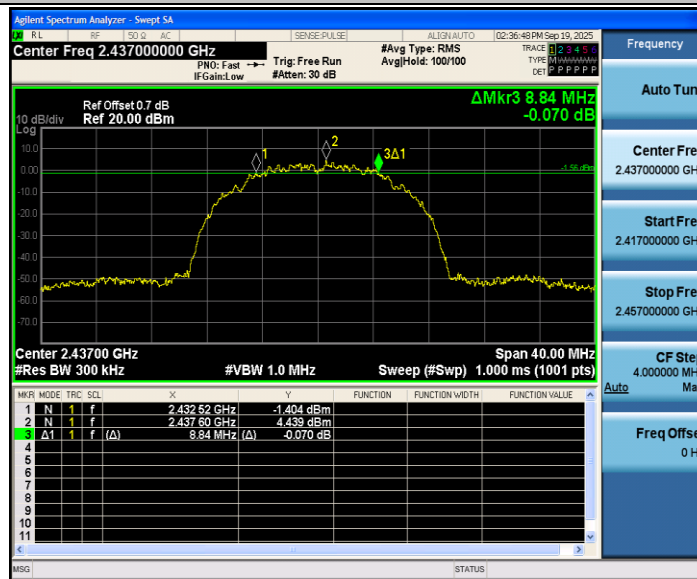
TestMode	Antenna	Frequency[MHz]	DTS BW [MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
11B	Ant1	2412	9.000	2407.560	2416.560	0.5	PASS
		2437	8.840	2432.520	2441.360	0.5	PASS
		2462	8.360	2457.960	2466.320	0.5	PASS
11G	Ant1	2412	16.320	2403.920	2420.240	0.5	PASS
		2437	16.320	2428.920	2445.240	0.5	PASS
		2462	16.360	2453.880	2470.240	0.5	PASS
11N20SISO	Ant1	2412	17.320	2403.360	2420.680	0.5	PASS
		2437	17.320	2428.360	2445.680	0.5	PASS
		2462	17.320	2453.360	2470.680	0.5	PASS
11N40SISO	Ant1	2422	33.840	2405.280	2439.120	0.5	PASS
		2437	33.840	2420.280	2454.120	0.5	PASS
		2452	33.680	2435.280	2468.960	0.5	PASS
11AX20SISO	Ant1	2412	17.200	2403.480	2420.680	0.5	PASS
		2437	17.160	2428.400	2445.560	0.5	PASS
		2462	17.320	2453.360	2470.680	0.5	PASS
11AX40SISO	Ant1	2422	33.680	2405.280	2438.960	0.5	PASS
		2437	34.080	2420.200	2454.280	0.5	PASS
		2452	34.400	2434.880	2469.280	0.5	PASS

Test Graphs

11B_Ant1_2412



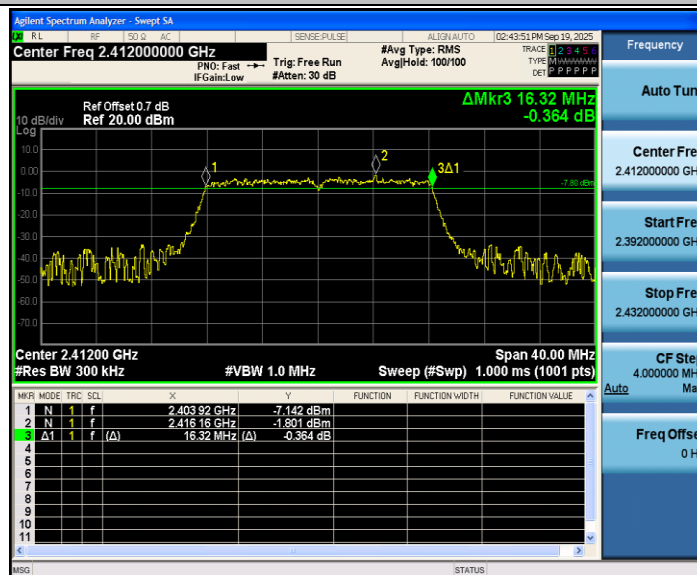
11B_Ant1_2437



11B_Ant1_2462



11G_Ant1_2412



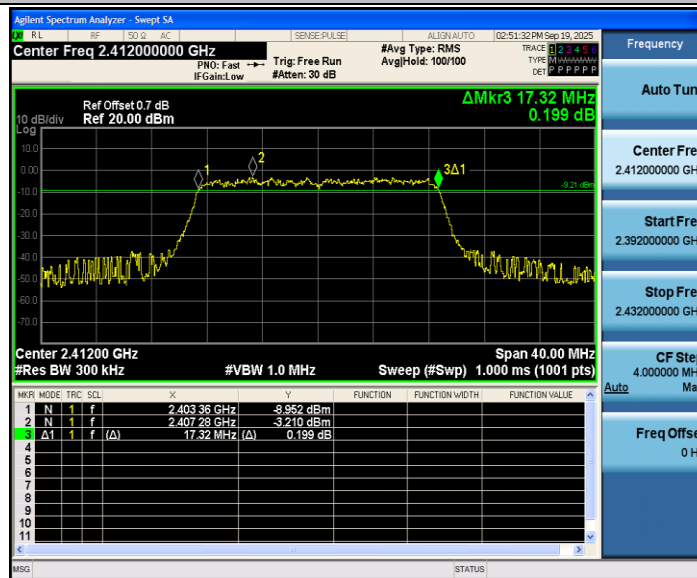
11G_Ant1_2437



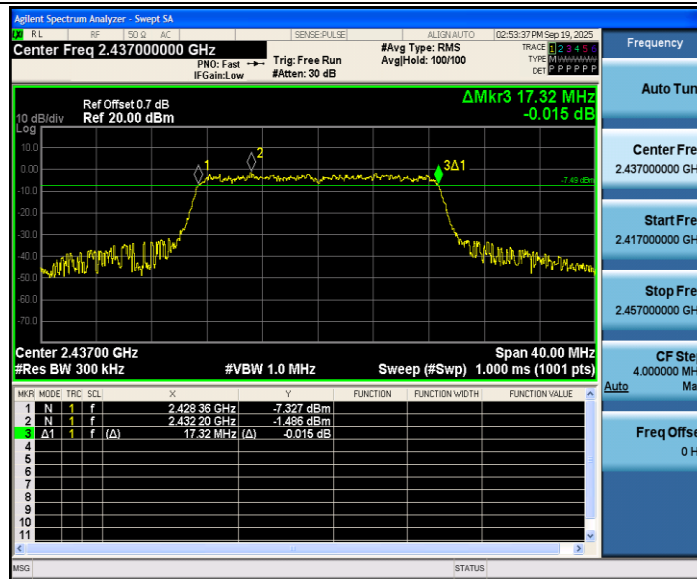
11G_Ant1_2462



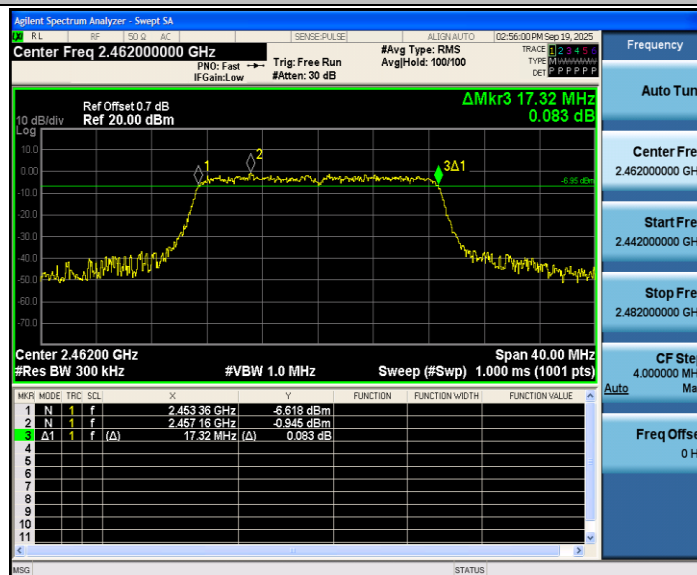
11N20SISO_Ant1_2412



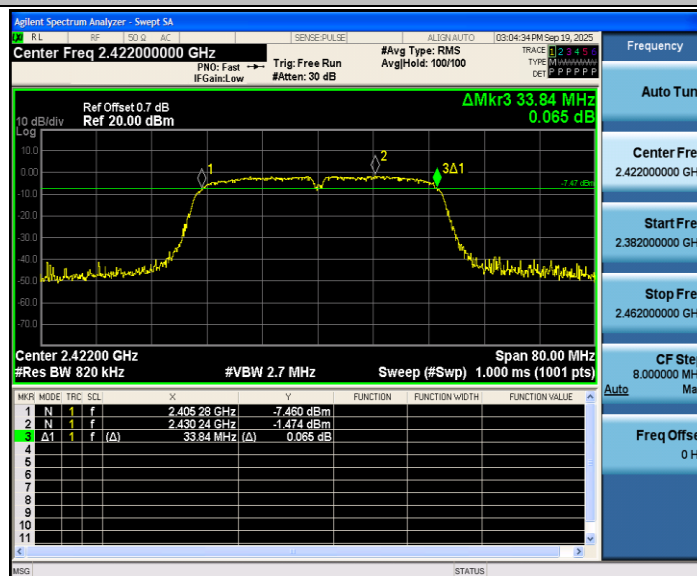
11N20SISO_Ant1_2437



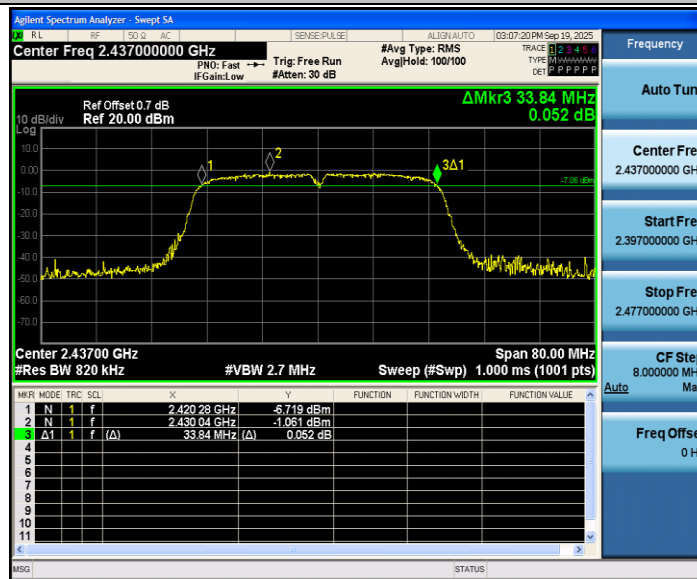
11N20SISO_Ant1_2462



11N40SISO_Ant1_2422



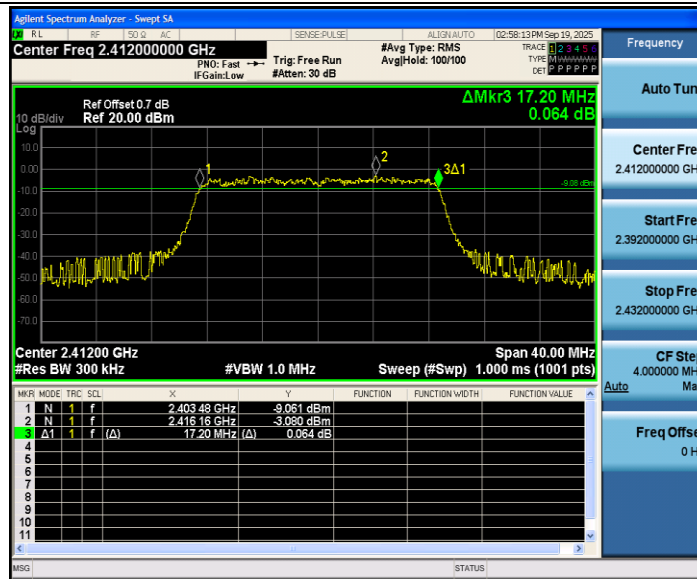
11N40SISO_Ant1_2437



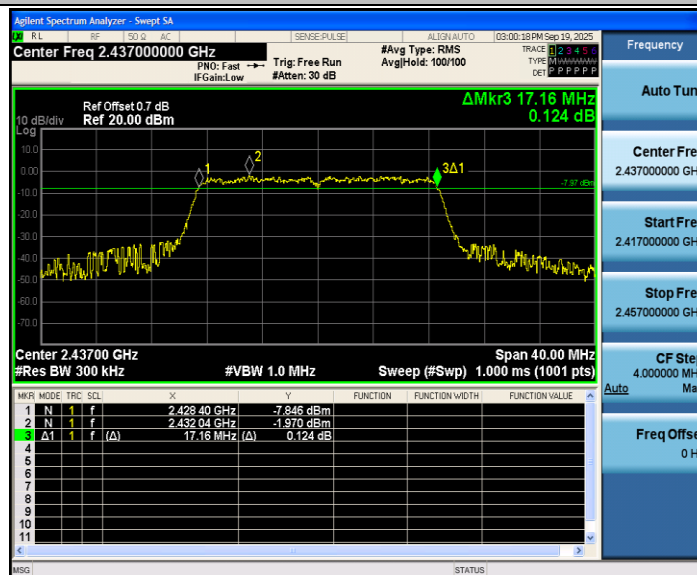
11N40SISO_Ant1_2452



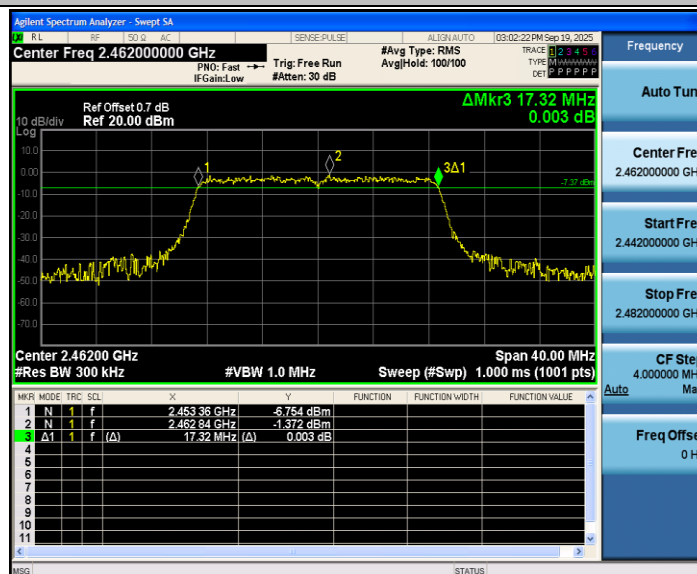
11AX20SISO_Ant1_2412



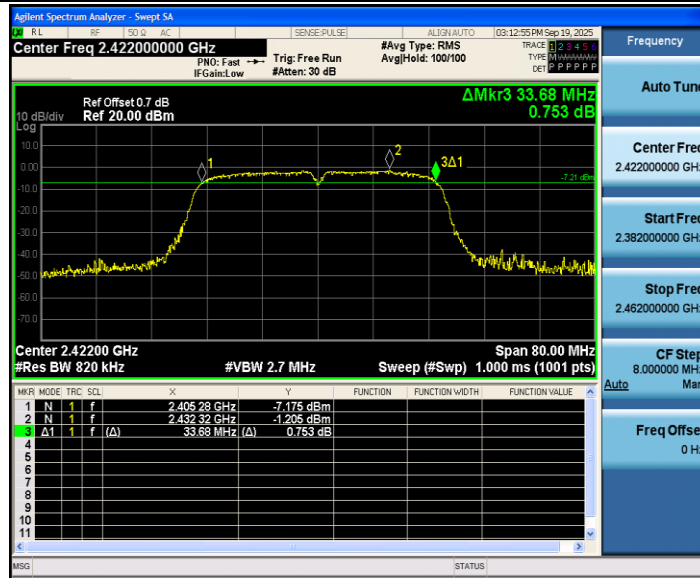
11AX20SISO_Ant1_2437



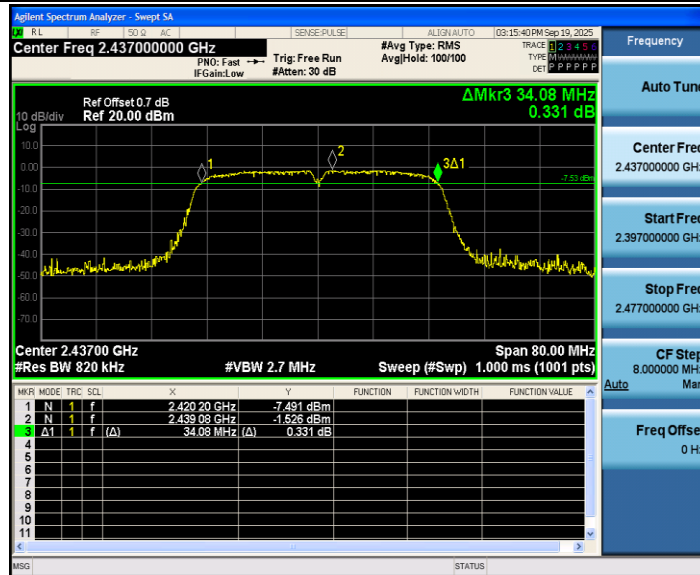
11AX20SISO_Ant1_2462



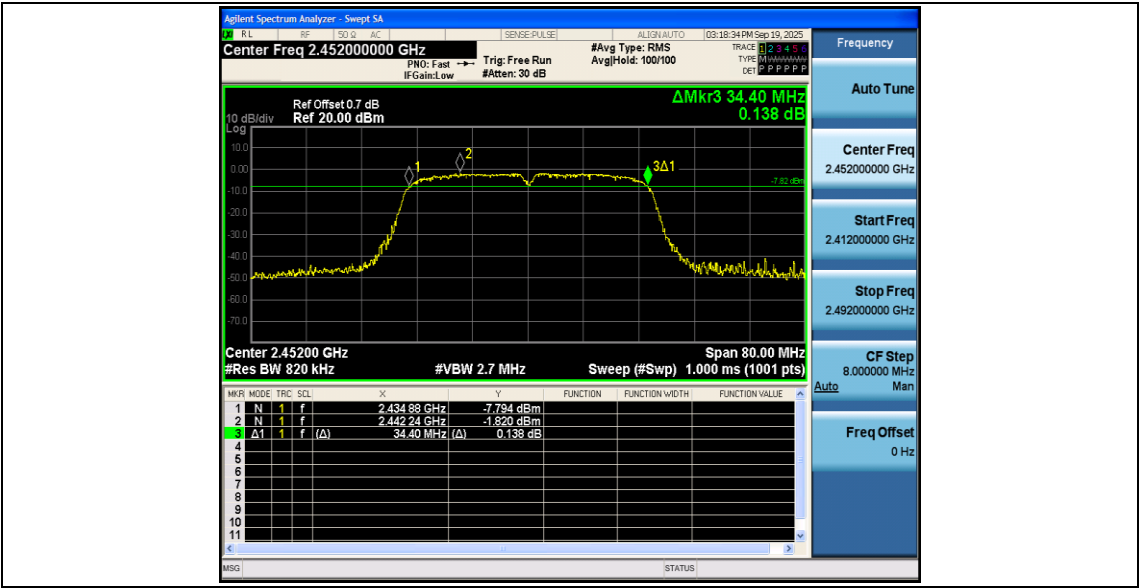
11AX40SISO_Ant1_2422



11AX40SISO_Ant1_2437



11AX40SISO_Ant1_2452



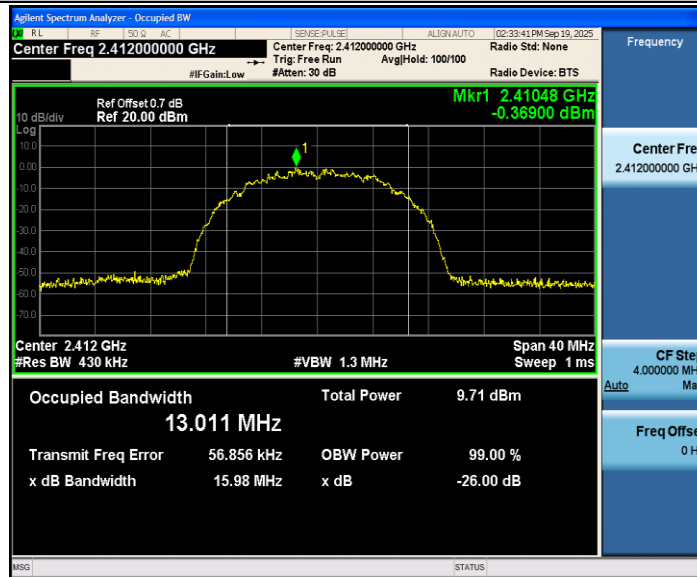
Appendix B: Occupied Channel Bandwidth

Test Result

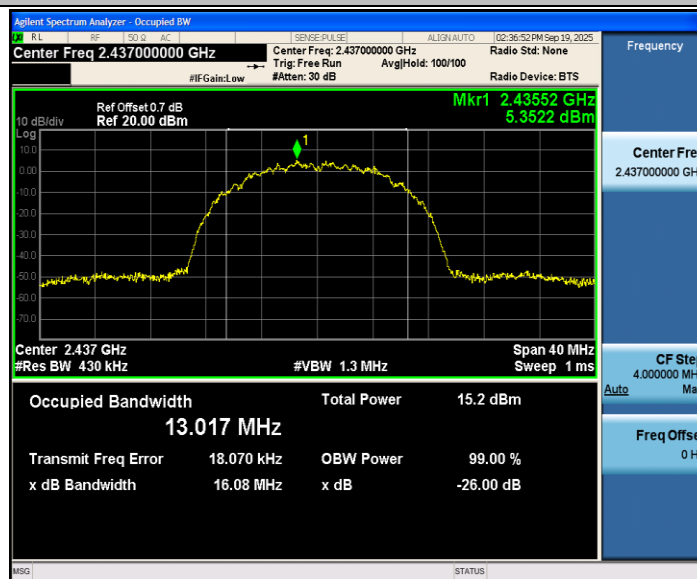
TestMode	Antenna	Channel Frequency[MHz]	OCB [MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
11B	Ant1	2412	13.011	2405.5514	2418.5624	---	---
		2437	13.017	2430.5096	2443.5266	---	---
		2462	12.992	2455.5289	2468.5209	---	---
11G	Ant1	2412	16.603	2403.7565	2420.3595	---	---
		2437	16.616	2428.7240	2445.3400	---	---
		2462	16.574	2453.7508	2470.3248	---	---
11N20SISO	Ant1	2412	17.474	2403.3024	2420.7764	---	---
		2437	17.443	2428.3171	2445.7601	---	---
		2462	17.442	2453.3170	2470.7590	---	---
11N40SISO	Ant1	2422	34.799	2404.7953	2439.5943	---	---
		2437	34.766	2419.7522	2454.5182	---	---
		2452	34.796	2434.7150	2469.5110	---	---
11AX20SISO	Ant1	2412	17.438	2403.3387	2420.7767	---	---
		2437	17.454	2428.3220	2445.7760	---	---
		2462	17.450	2453.3091	2470.7591	---	---
11AX40SISO	Ant1	2422	34.822	2404.7767	2439.5987	---	---
		2437	34.807	2419.7208	2454.5278	---	---
		2452	34.844	2434.6699	2469.5139	---	---

Test Graphs

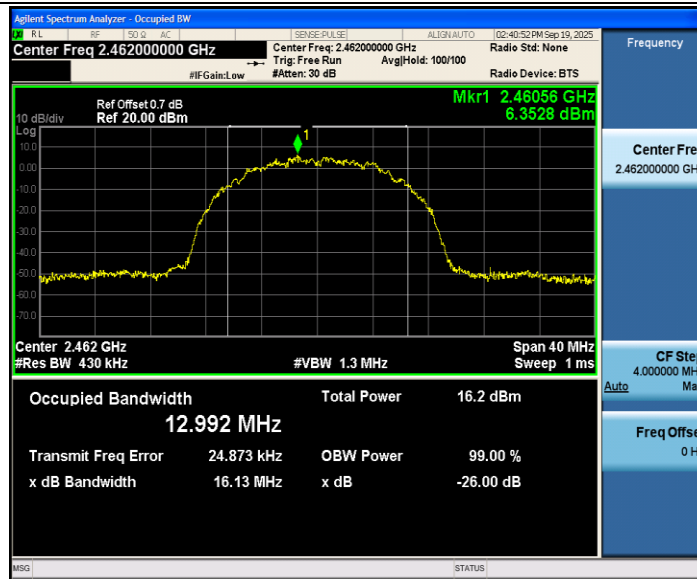
11B_Ant1_2412



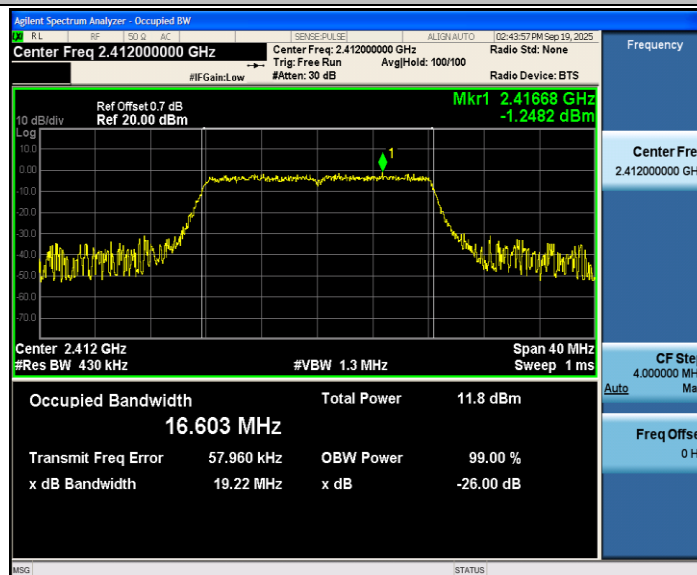
11B_Ant1_2437



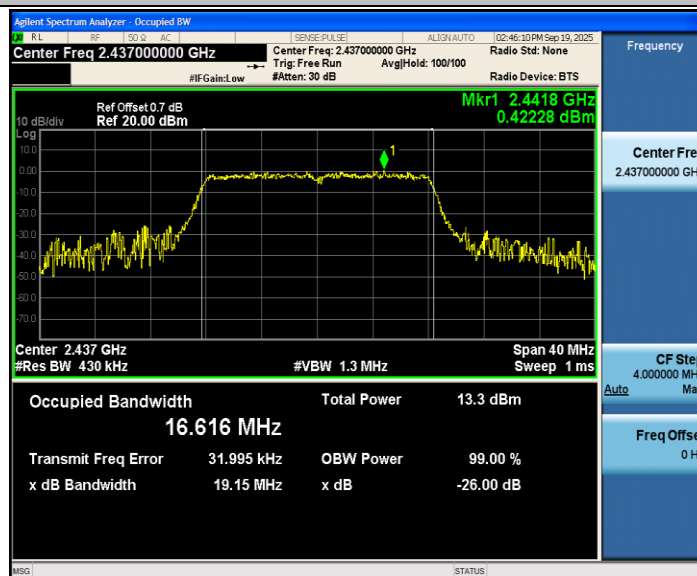
11B_Ant1_2462



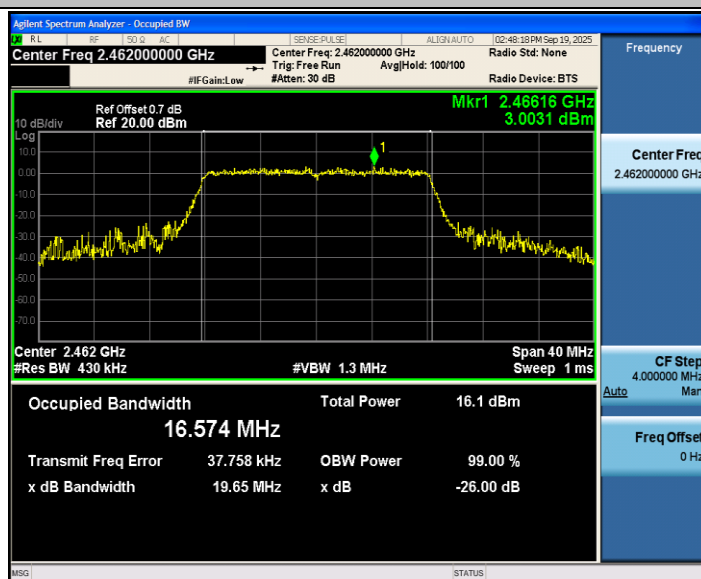
11G_Ant1_2412



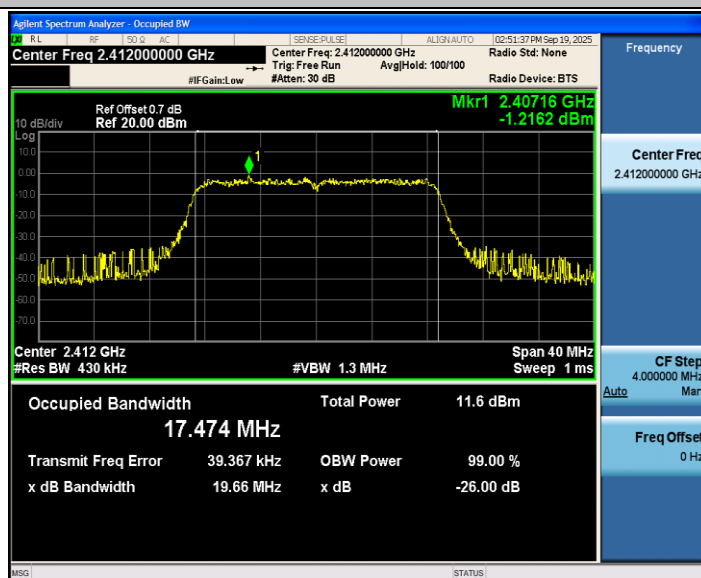
11G_Ant1_2437



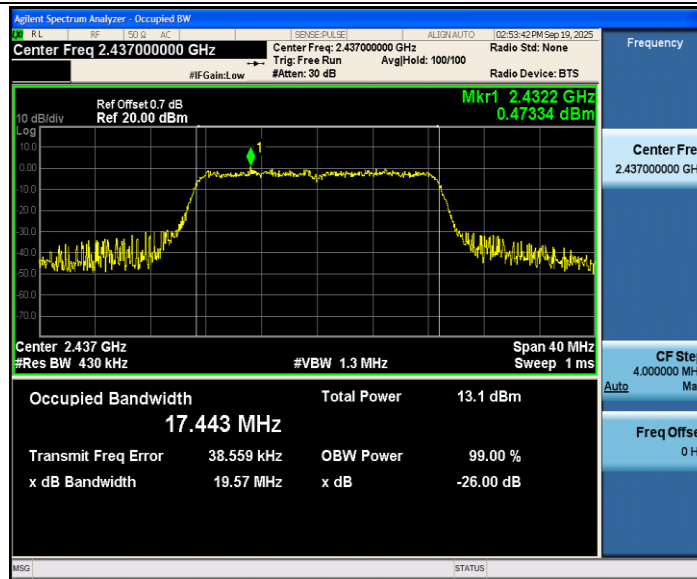
11G_Ant1_2462



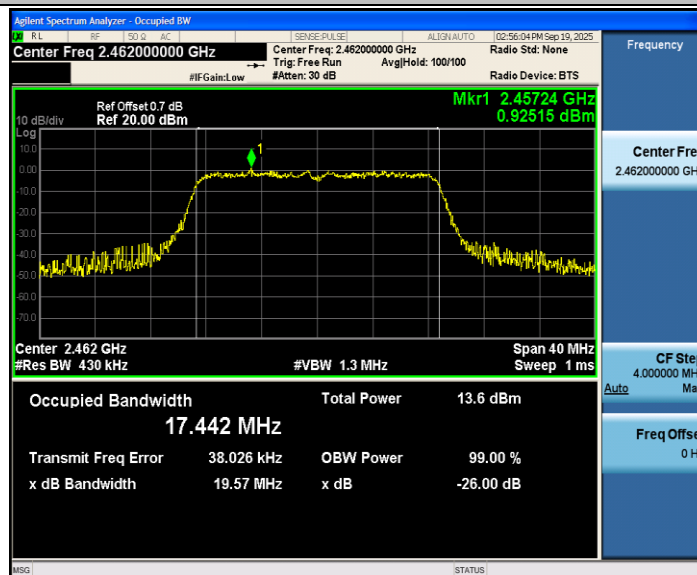
11N20SISO_Ant1_2412



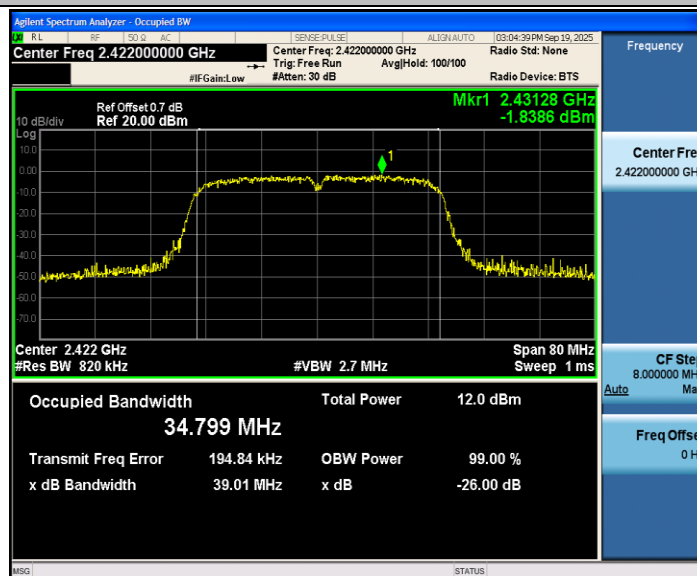
11N20SISO_Ant1_2437



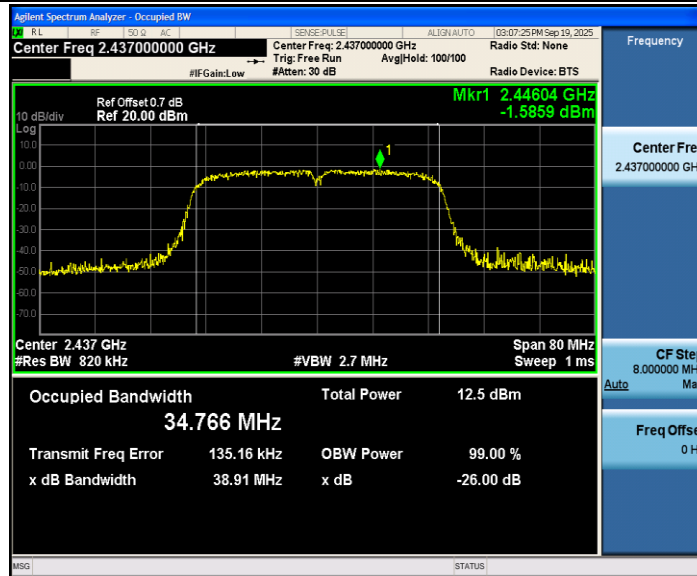
11N20SISO_Ant1_2462



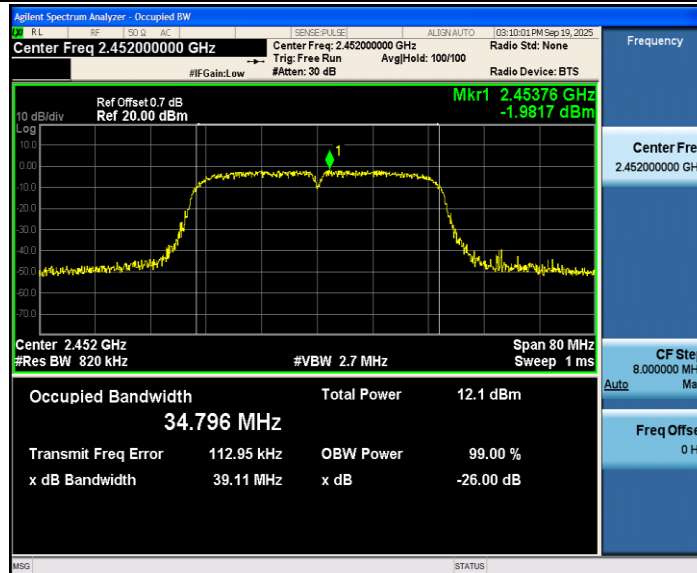
11N40SISO_Ant1_2422



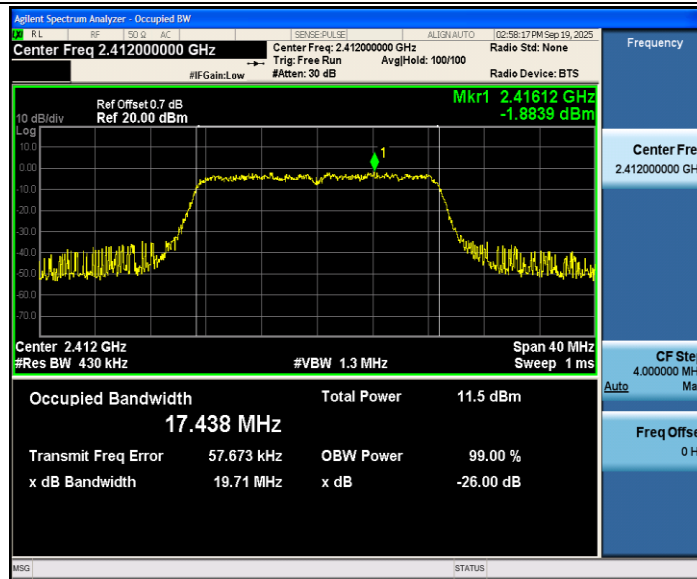
11N40SISO_Ant1_2437



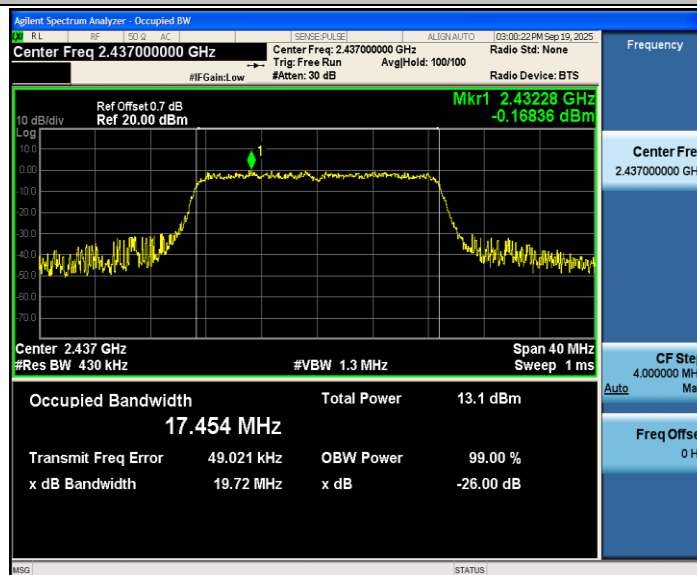
11N40SISO_Ant1_2452



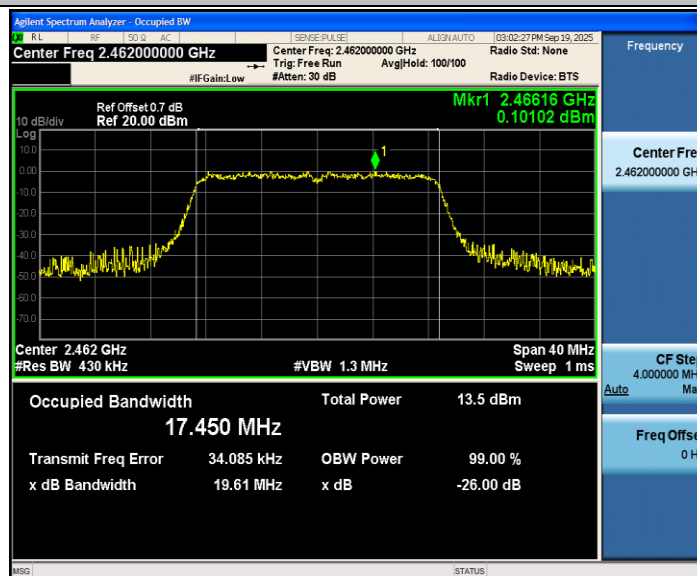
11AX20SISO_Ant1_2412



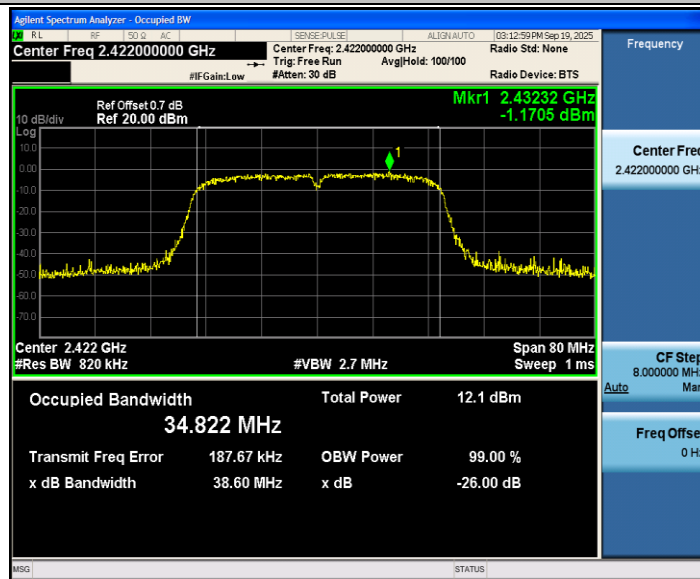
11AX20SISO_Ant1_2437



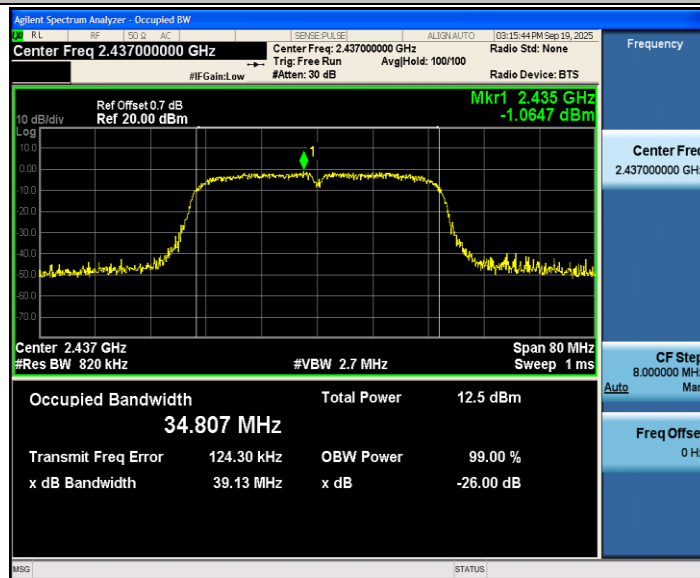
11AX20SISO_Ant1_2462



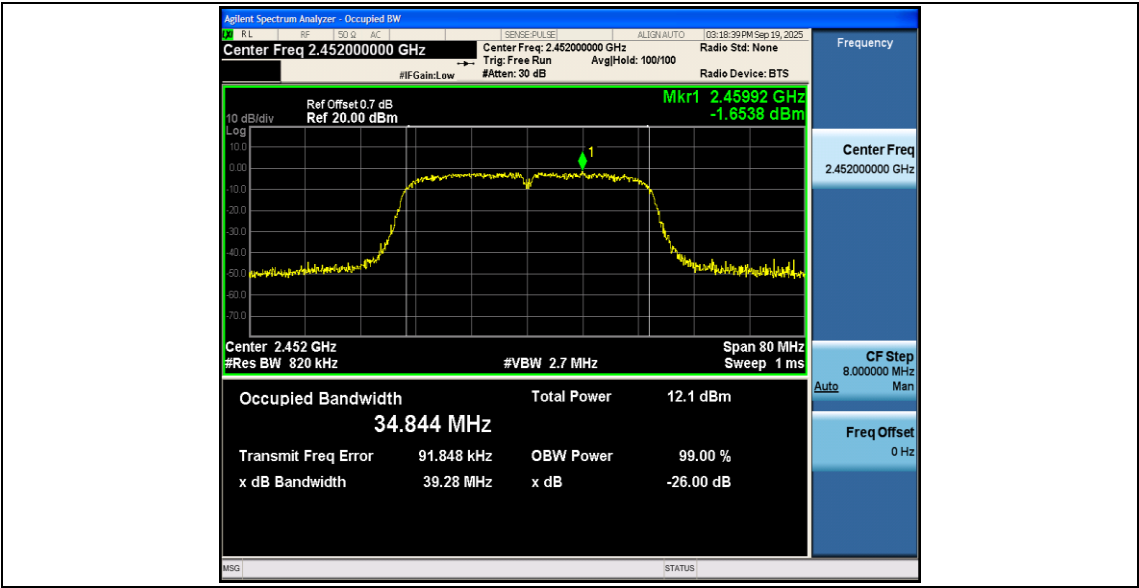
11AX40SISO_Ant1_2422



11AX40SISO_Ant1_2437



11AX40SISO_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	13.52	≤30.00	PASS
		2437	14.72	≤30.00	PASS
		2462	14.58	≤30.00	PASS
11G	Ant1	2412	12.72	≤30.00	PASS
		2437	14.08	≤30.00	PASS
		2462	14.61	≤30.00	PASS
11N20SISO	Ant1	2412	12.84	≤30.00	PASS
		2437	14.22	≤30.00	PASS
		2462	14.71	≤30.00	PASS
11N40SISO	Ant1	2422	12.26	≤30.00	PASS
		2437	12.62	≤30.00	PASS
		2452	12.29	≤30.00	PASS
11AX20SISO	Ant1	2412	12.79	≤30.00	PASS
		2437	14.29	≤30.00	PASS
		2462	14.74	≤30.00	PASS
11AX40SISO	Ant1	2422	12.38	≤30.00	PASS
		2437	12.78	≤30.00	PASS
		2452	12.29	≤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	-15.97	≤8.00	PASS
		2437	-14.08	≤8.00	PASS
		2462	-14.25	≤8.00	PASS
11G	Ant1	2412	-21.78	≤8.00	PASS
		2437	-20.34	≤8.00	PASS
		2462	-19.97	≤8.00	PASS
11N20SISO	Ant1	2412	-21.82	≤8.00	PASS
		2437	-20.13	≤8.00	PASS
		2462	-19.72	≤8.00	PASS
11N40SISO	Ant1	2422	-22.09	≤8.00	PASS
		2437	-21.77	≤8.00	PASS
		2452	-22.47	≤8.00	PASS
11AX20SISO	Ant1	2412	-21.87	≤8.00	PASS
		2437	-20.15	≤8.00	PASS
		2462	-19.72	≤8.00	PASS
11AX40SISO	Ant1	2422	-22.91	≤8.00	PASS
		2437	-21.86	≤8.00	PASS
		2452	-22.60	≤8.00	PASS

Test Graphs

11B_Ant1_2412



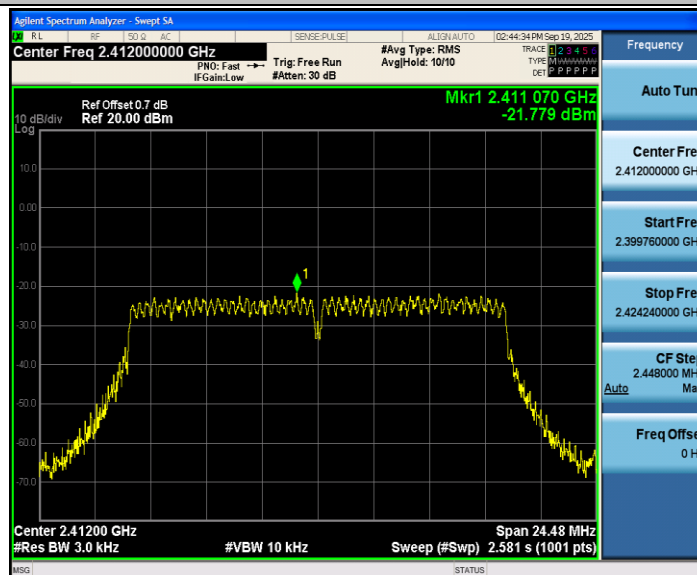
11B_Ant1_2437



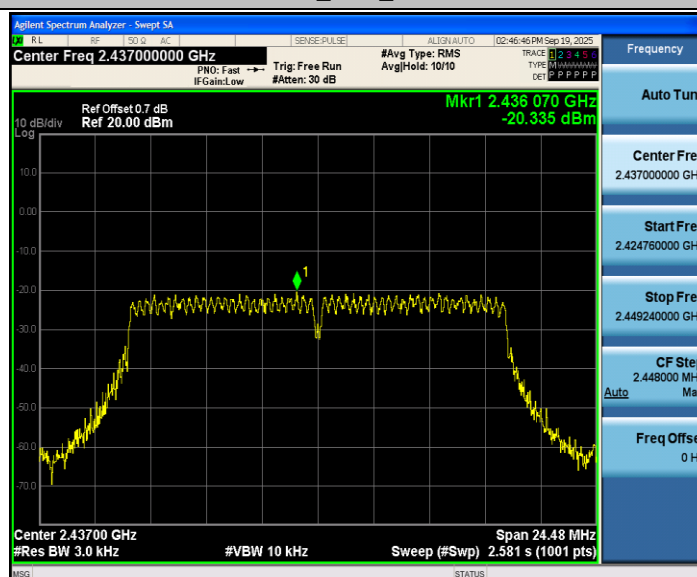
11B_Ant1_2462



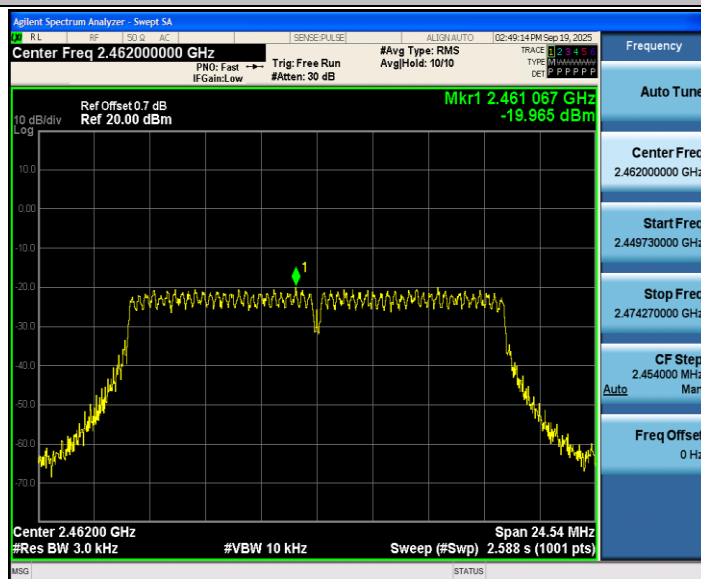
11G_Ant1_2412



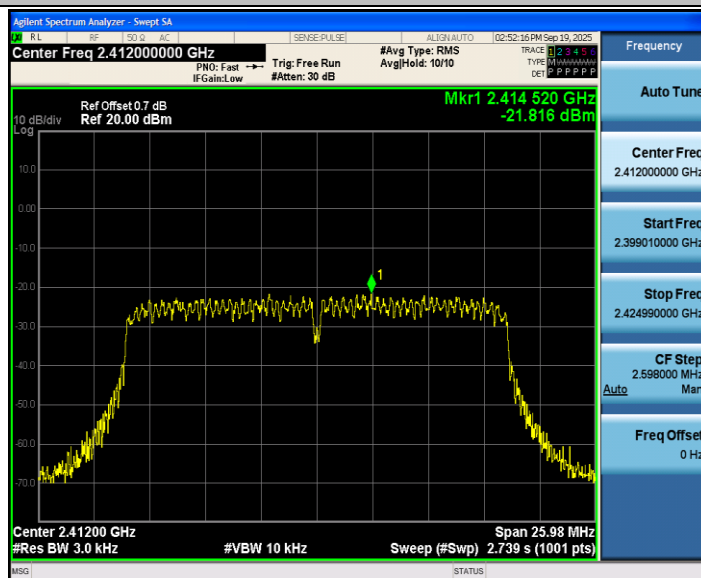
11G_Ant1_2437



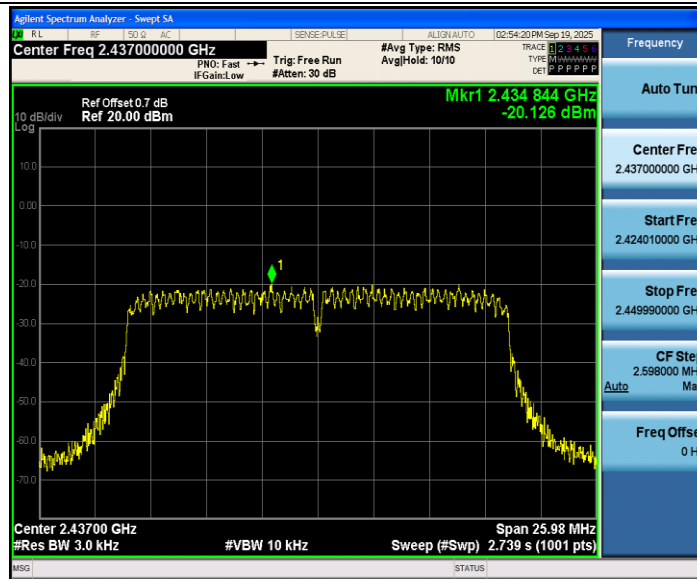
11G_Ant1_2462



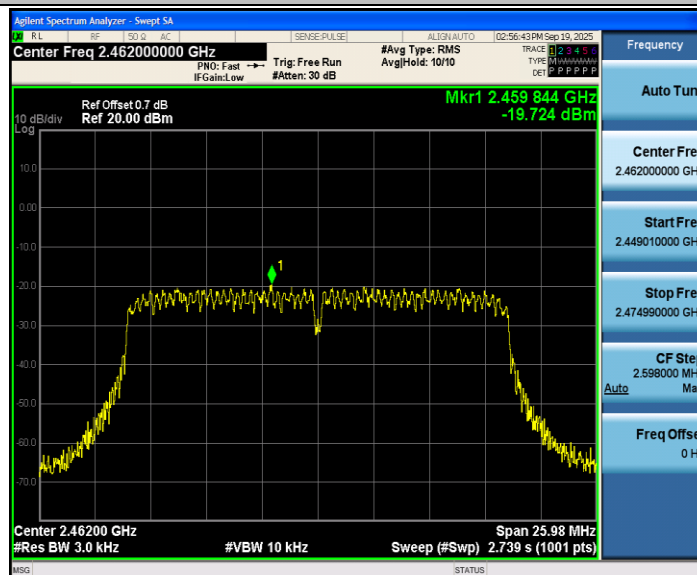
11N20SISO_Ant1_2412



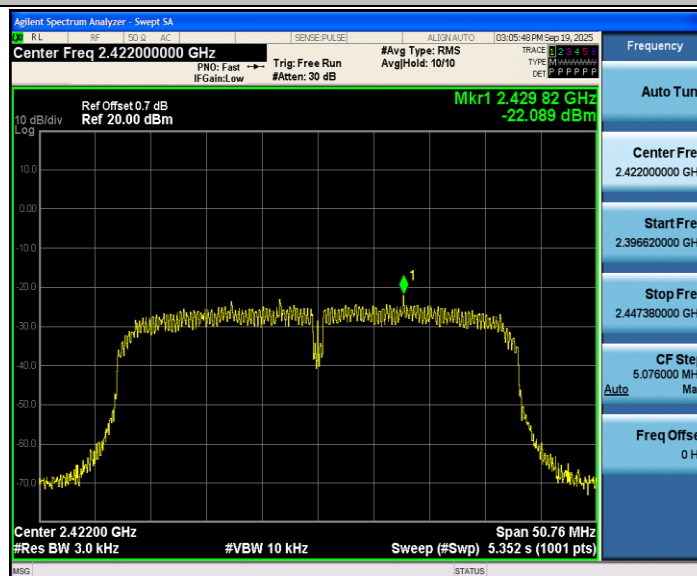
11N20SISO_Ant1_2437



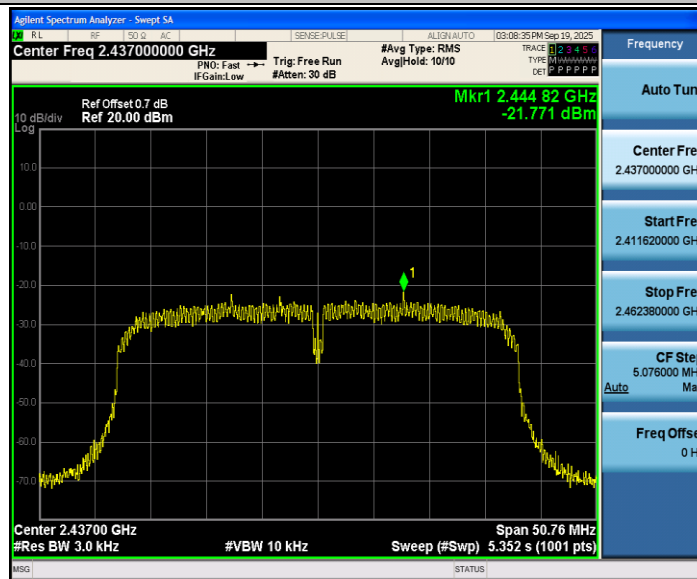
11N20SISO_Ant1_2462



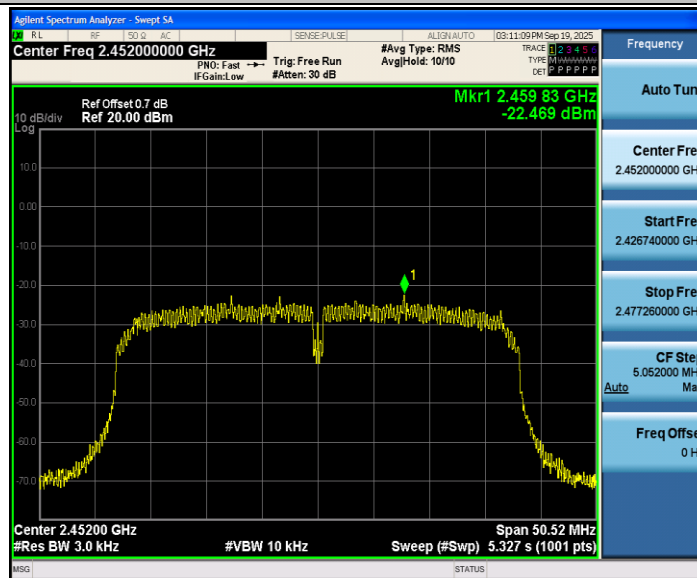
11N40SISO_Ant1_2422



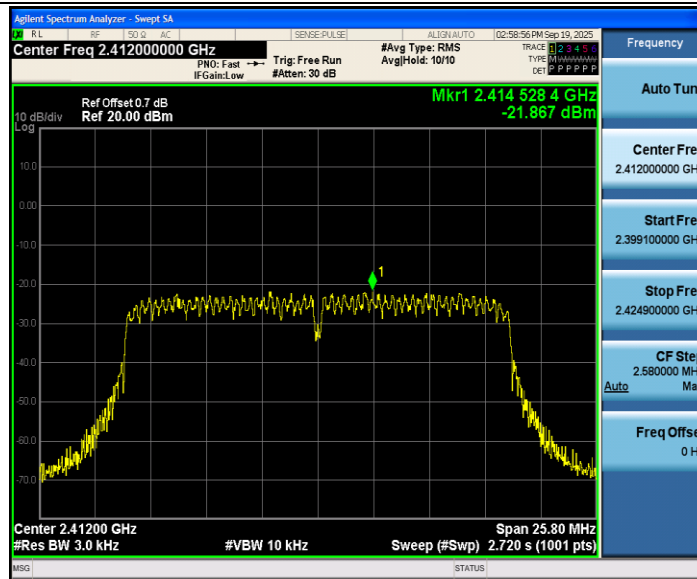
11N40SISO_Ant1_2437



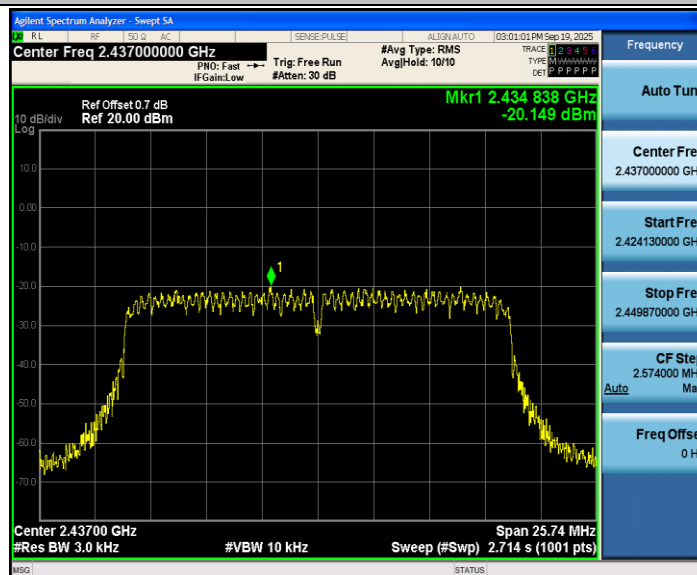
11N40SISO_Ant1_2452



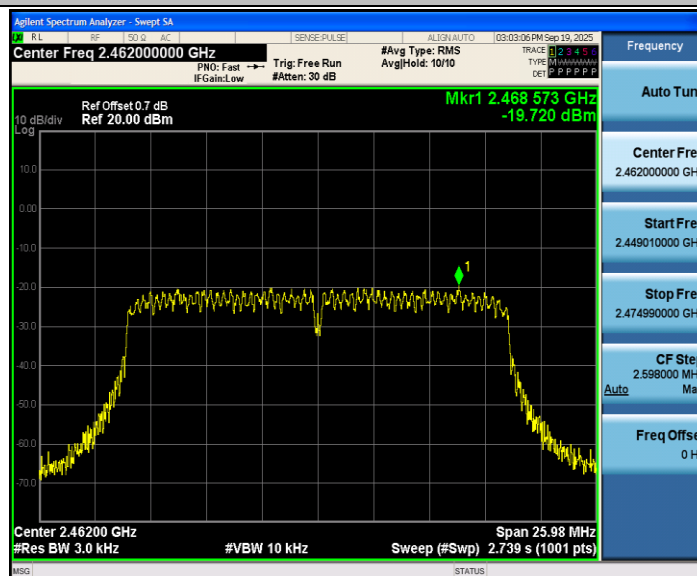
11AX20SISO_Ant1_2412



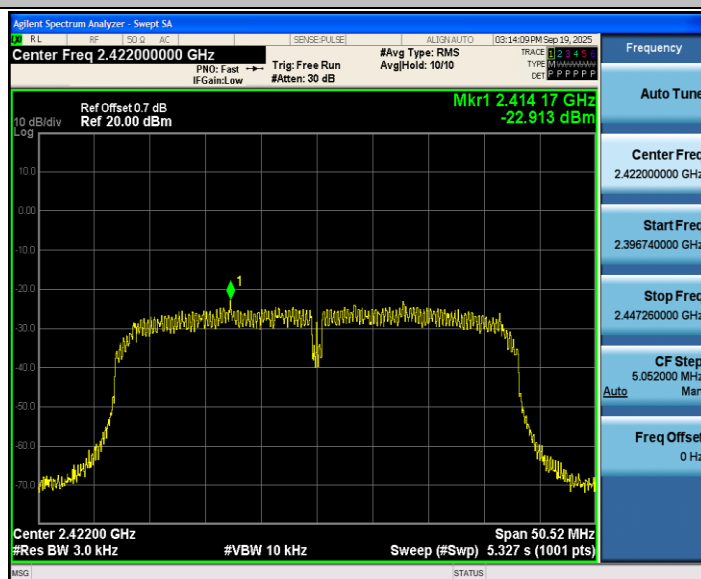
11AX20SISO_Ant1_2437



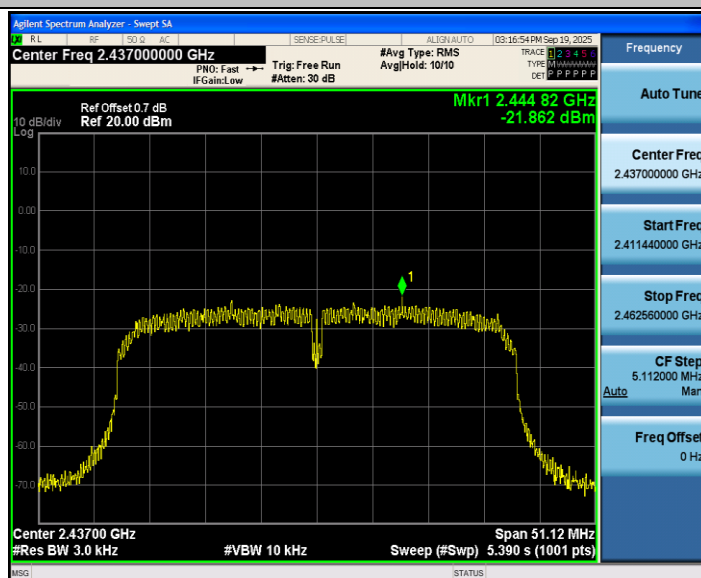
11AX20SISO_Ant1_2462



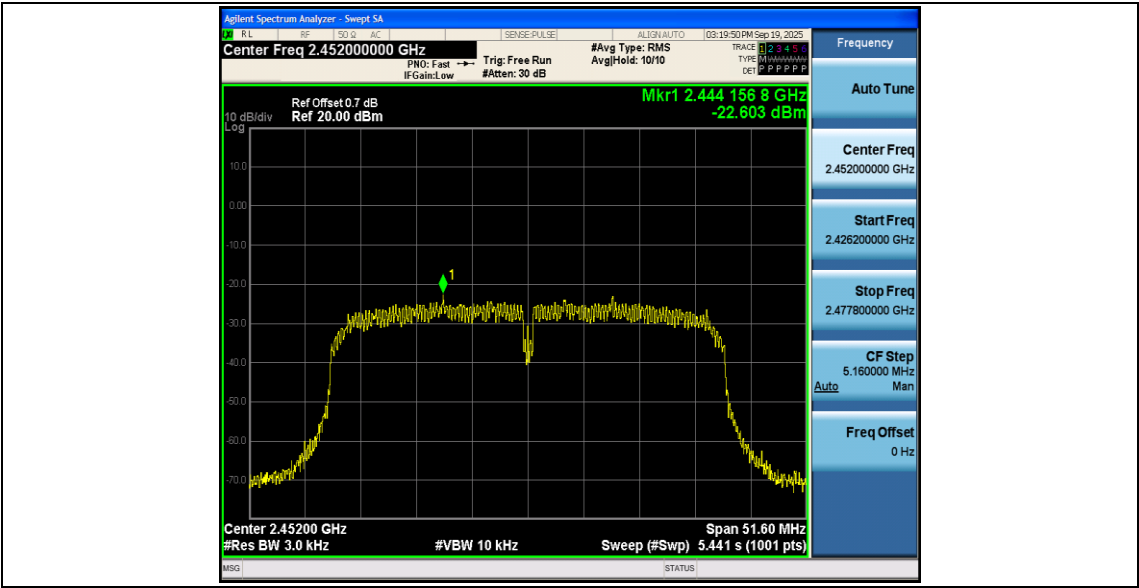
11AX40SISO_Ant1_2422



11AX40SISO_Ant1_2437



11AX40SISO_Ant1_2452



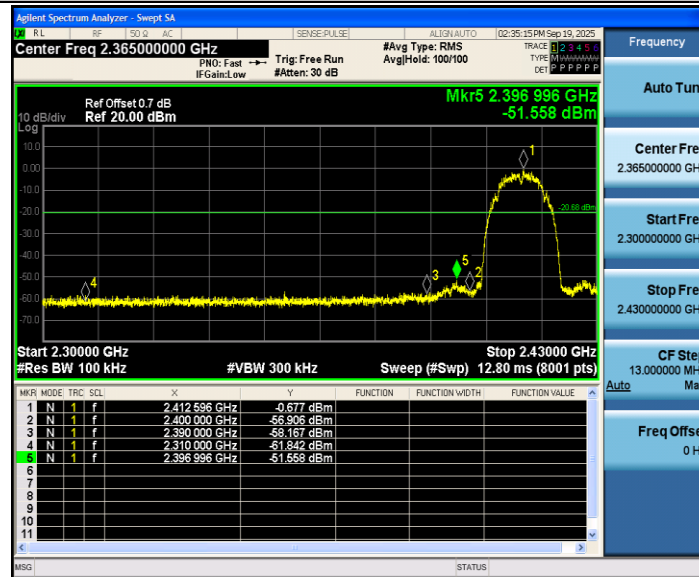
Appendix E: Band edge measurements

Test Result

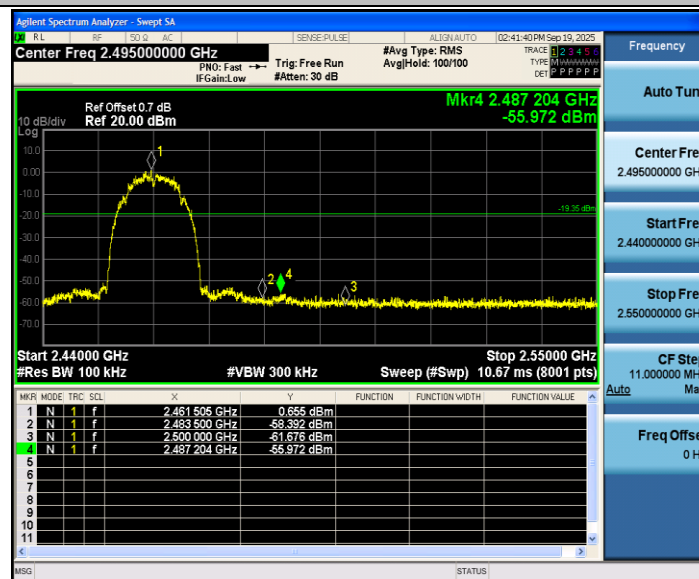
TestMode	Antenna	Channel	Frequency[MHz]	RefLevel[dBm]	Result[dBm]	Limit[dBm]	Verdict
11B	Ant1	Low	2412	-0.68	-51.56	≤-20.68	PASS
		High	2462	0.66	-55.97	≤-19.35	PASS
11G	Ant1	Low	2412	-8.17	-41.7	≤-28.17	PASS
		High	2462	-5.92	-51.89	≤-25.92	PASS
11N20SISO	Ant1	Low	2412	-7.88	-44.49	≤-27.88	PASS
		High	2462	-5.82	-52.96	≤-25.82	PASS
11N40SISO	Ant1	Low	2422	-10.71	-51.34	≤-30.71	PASS
		High	2452	-10.67	-53.48	≤-30.67	PASS
11AX20SISO	Ant1	Low	2412	-7.77	-44.82	≤-27.77	PASS
		High	2462	-6.70	-52.34	≤-26.7	PASS
11AX40SISO	Ant1	Low	2422	-10.39	-51.72	≤-30.39	PASS
		High	2452	-10.66	-54.73	≤-30.66	PASS

Test Graphs

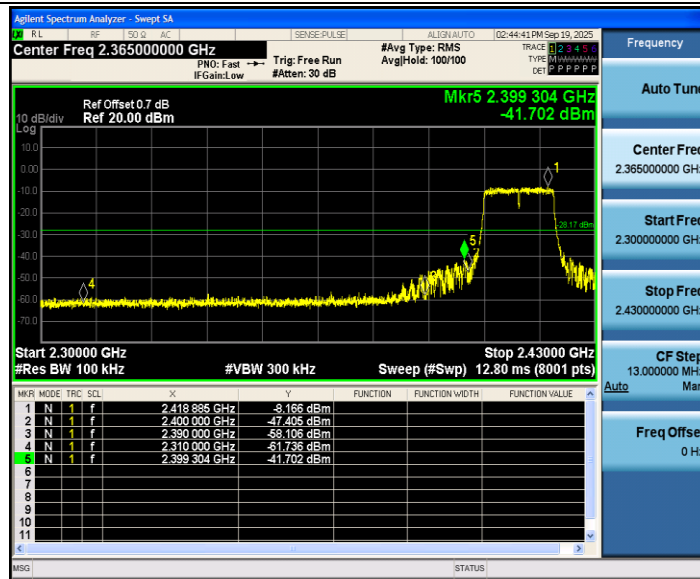
11B_Ant1_Low_2412



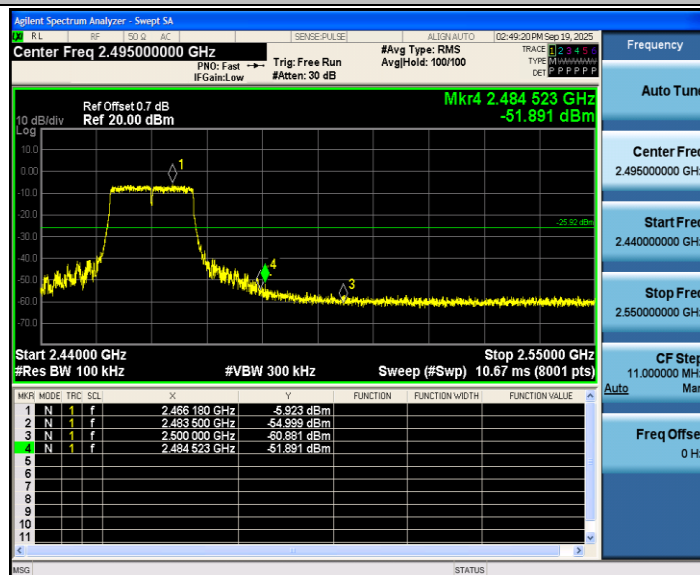
11B_Ant1_High_2462



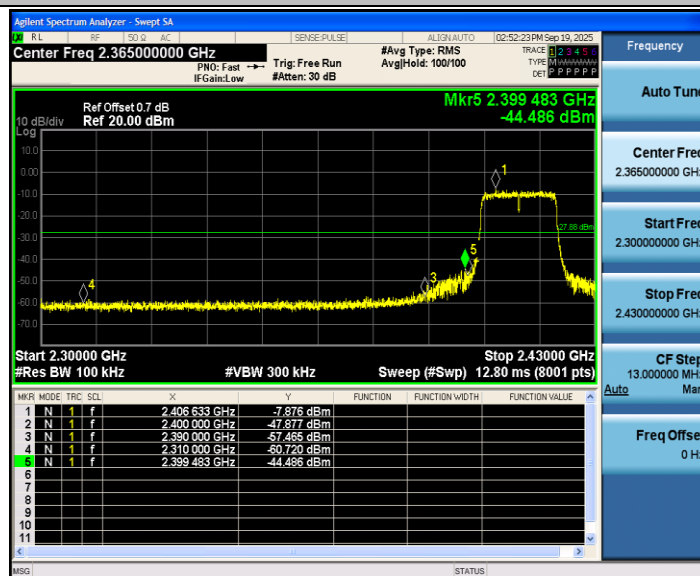
11G_Ant1_Low_2412



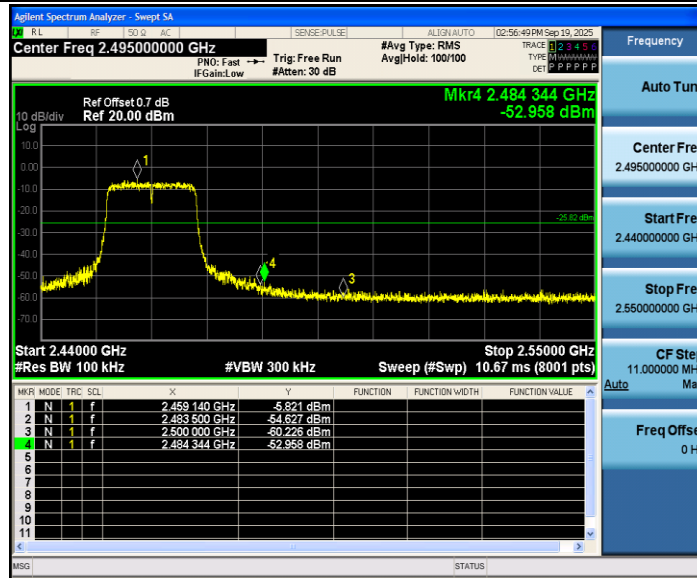
11G_Ant1_High_2462



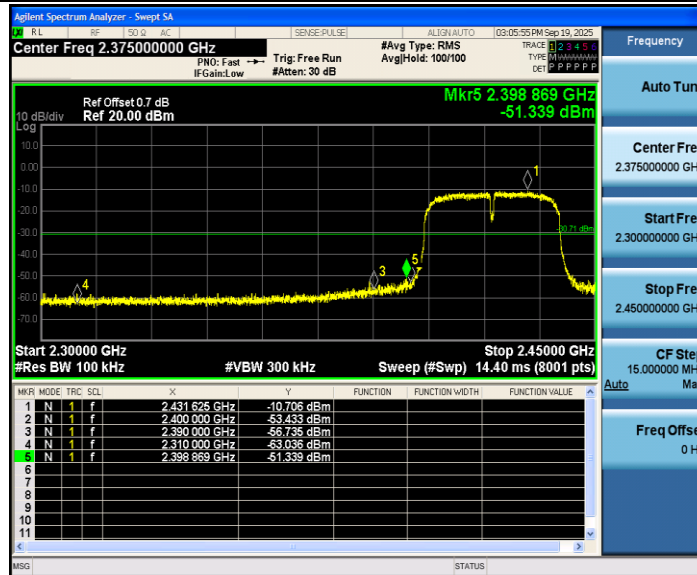
11N20SISO_Ant1_Low_2412



11N20SISO_Ant1_High_2462



11N40SISO_Ant1_Low_2422



11N40SISO_Ant1_High_2452