

FCC Appendix RF Test Data

FCC ID : 2BFN9-1314-01

Company : Ganzhou Yuan jia Technology Development Co.,Ltd

EUT : Bluetooth Wi-Fi dual-mode point-controlled light string

Model Number : 1314-01

Report No. : CTA25062001102

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	8.800	2407.280	2416.080	0.5	PASS
		2437	9.040	2432.480	2441.520	0.5	PASS
		2462	9.040	2457.000	2466.040	0.5	PASS
11G	Ant1	2412	15.720	2404.440	2420.160	0.5	PASS
		2437	15.320	2429.440	2444.760	0.5	PASS
		2462	15.720	2454.440	2470.160	0.5	PASS
11N20SISO	Ant1	2412	16.320	2404.440	2420.760	0.5	PASS
		2437	15.800	2429.440	2445.240	0.5	PASS
		2462	16.560	2454.040	2470.600	0.5	PASS
11N40SISO	Ant1	2422	35.680	2404.400	2440.080	0.5	PASS
		2437	35.040	2419.480	2454.520	0.5	PASS
		2452	35.360	2434.240	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



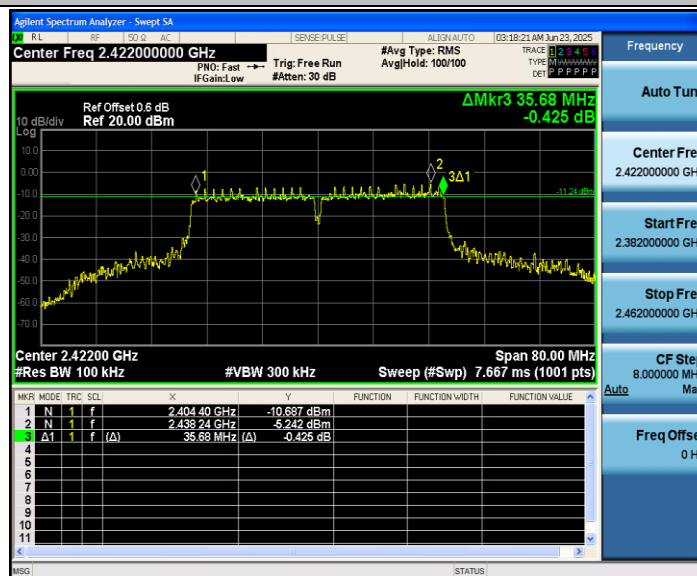
11N20SISO_Ant1_2437



11N20SISO_Ant1_2462



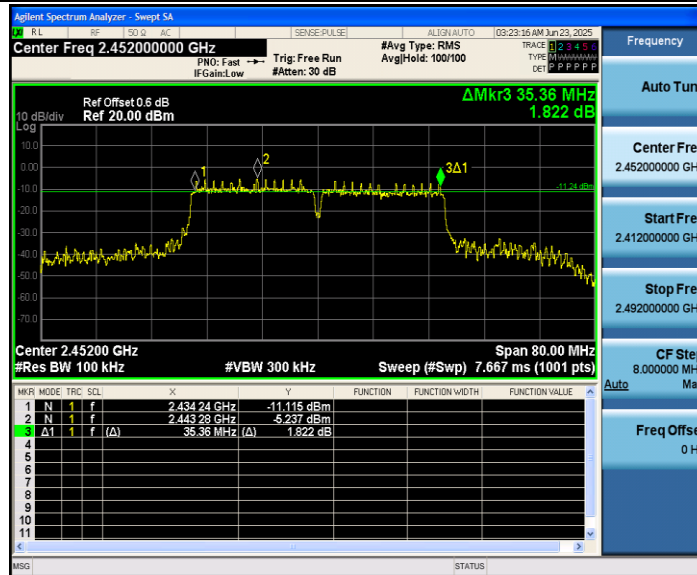
11N40SISO_Ant1_2422



11N40SISO_Ant1_2437



11N40SISO_Ant1_2452



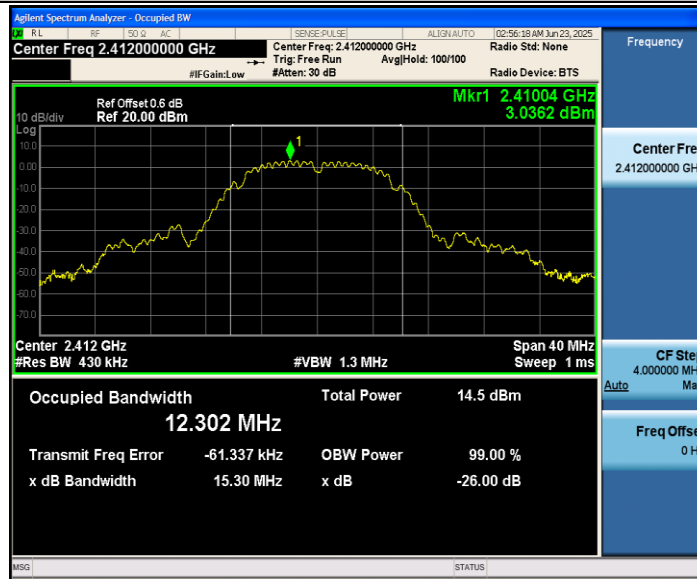
Appendix B: Occupied Channel Bandwidth

Test Result

TestMode	Antenna	Channel Frequency[MHz]	OCB [MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
11B	Ant1	2412	12.302	2405.7877	2418.0897	---	---
		2437	12.317	2431.0984	2443.4154	---	---
		2462	12.874	2455.3849	2468.2589	---	---
11G	Ant1	2412	16.767	2403.7744	2420.5414	---	---
		2437	16.591	2428.8123	2445.4033	---	---
		2462	16.994	2453.6264	2470.6204	---	---
11N20SISO	Ant1	2412	17.856	2403.2660	2421.1220	---	---
		2437	17.590	2428.2968	2445.8868	---	---
		2462	18.050	2453.1257	2471.1757	---	---
11N40SISO	Ant1	2422	36.313	2404.0434	2440.3564	---	---
		2437	35.945	2419.1028	2455.0478	---	---
		2452	36.439	2433.8315	2470.2705	---	---

Test Graphs

11B_Ant1_2412



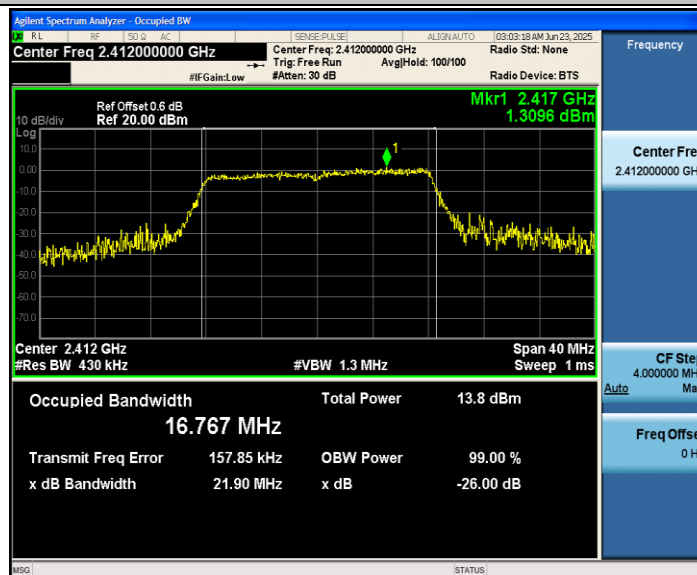
11B_Ant1_2437



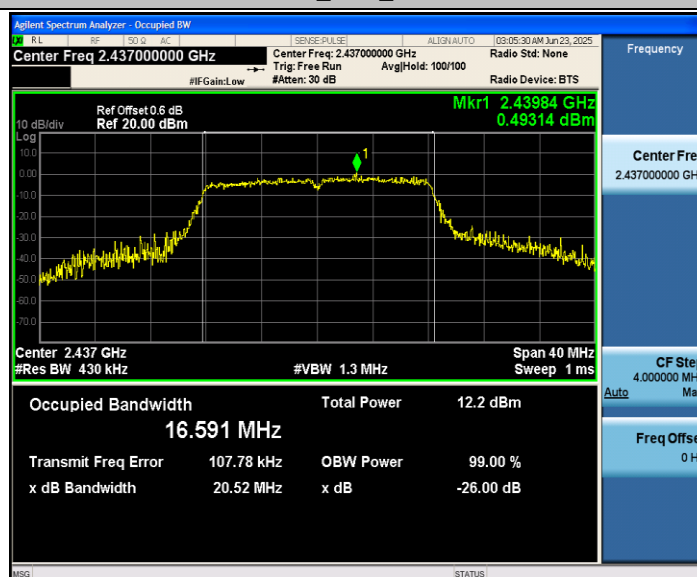
11B_Ant1_2462



11G_Ant1_2412



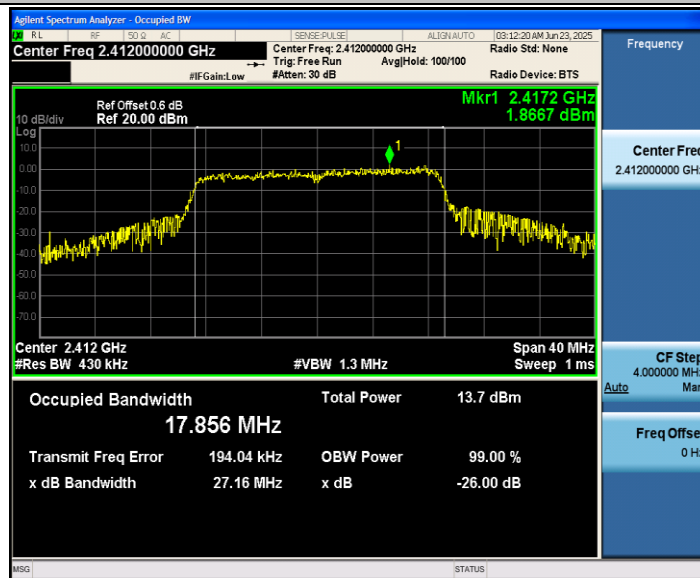
11G_Ant1_2437



11G_Ant1_2462



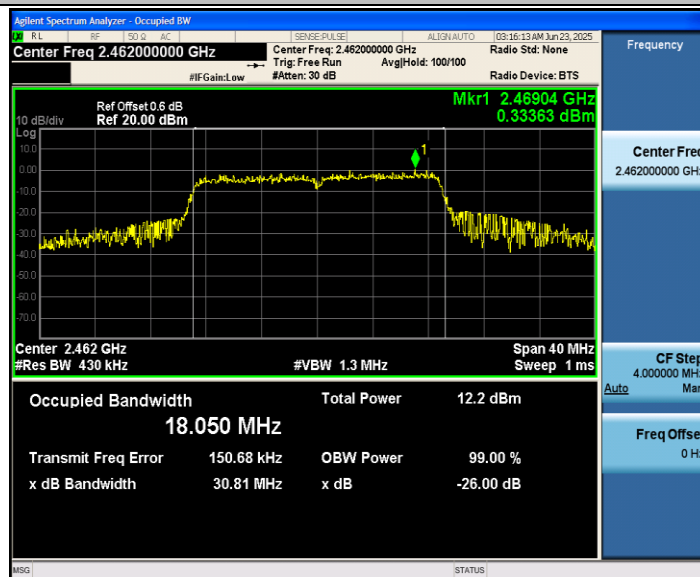
11N20SISO_Ant1_2412



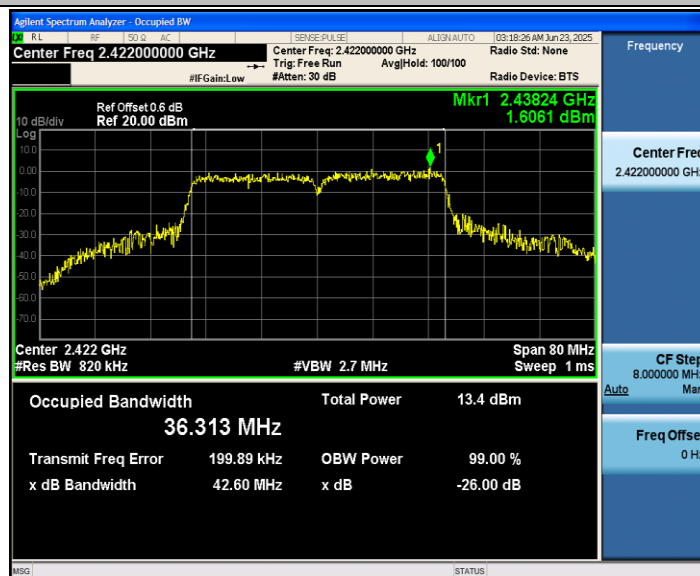
11N20SISO_Ant1_2437



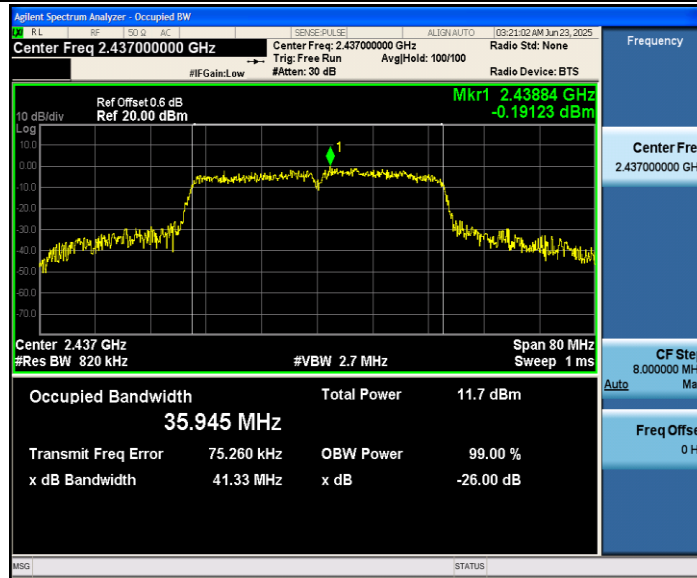
11N20SISO_Ant1_2462



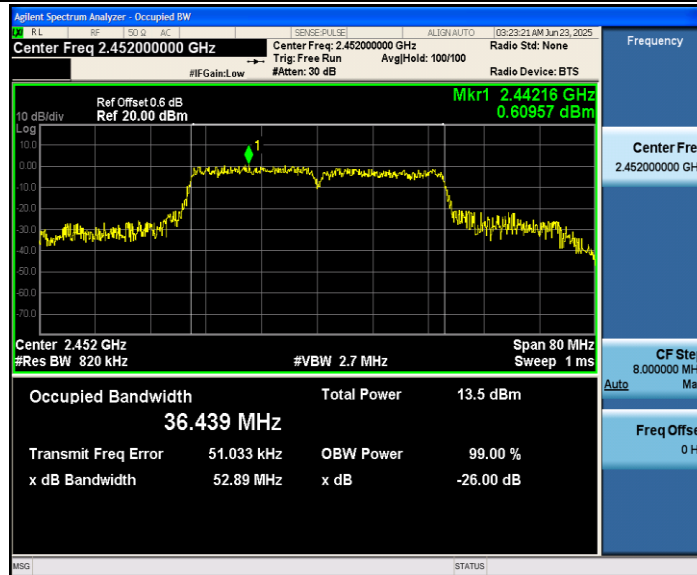
11N40SISO_Ant1_2422



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	14.22	≤30.00	PASS
		2437	14.62	≤30.00	PASS
		2462	13.65	≤30.00	PASS
11G	Ant1	2412	14.26	≤30.00	PASS
		2437	12.71	≤30.00	PASS
		2462	12.77	≤30.00	PASS
11N20SISO	Ant1	2412	14.25	≤30.00	PASS
		2437	12.74	≤30.00	PASS
		2462	12.81	≤30.00	PASS
11N40SISO	Ant1	2422	13.54	≤30.00	PASS
		2437	11.92	≤30.00	PASS
		2452	13.61	≤30.00	PASS

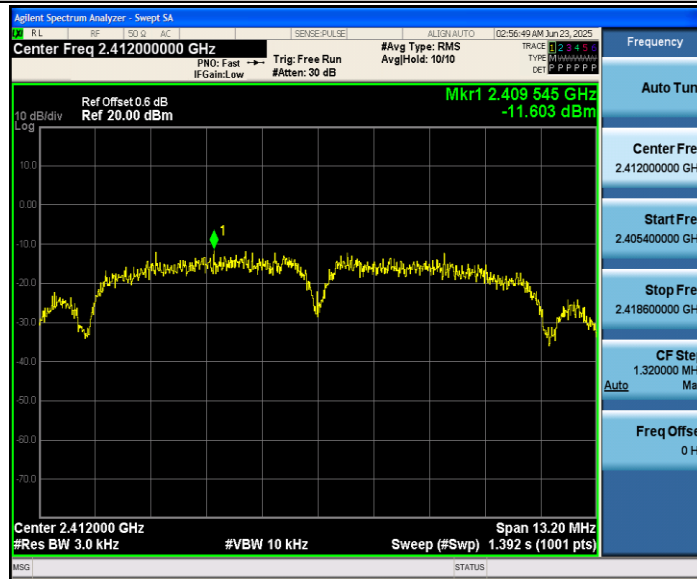
Appendix D: Maximum power spectral density

Test Result

TestMode	Antenna	Frequency[MHz]	Result[dBm/3-100kHz]	Limit[dBm/3kHz]	Verdict
11B	Ant1	2412	-11.60	≤8.00	PASS
		2437	-11.33	≤8.00	PASS
		2462	-11.90	≤8.00	PASS
11G	Ant1	2412	-16.93	≤8.00	PASS
		2437	-19.00	≤8.00	PASS
		2462	-18.82	≤8.00	PASS
11N20SISO	Ant1	2412	-16.81	≤8.00	PASS
		2437	-18.23	≤8.00	PASS
		2462	-19.47	≤8.00	PASS
11N40SISO	Ant1	2422	-20.50	≤8.00	PASS
		2437	-22.60	≤8.00	PASS
		2452	-21.45	≤8.00	PASS

Test Graphs

11B_Ant1_2412



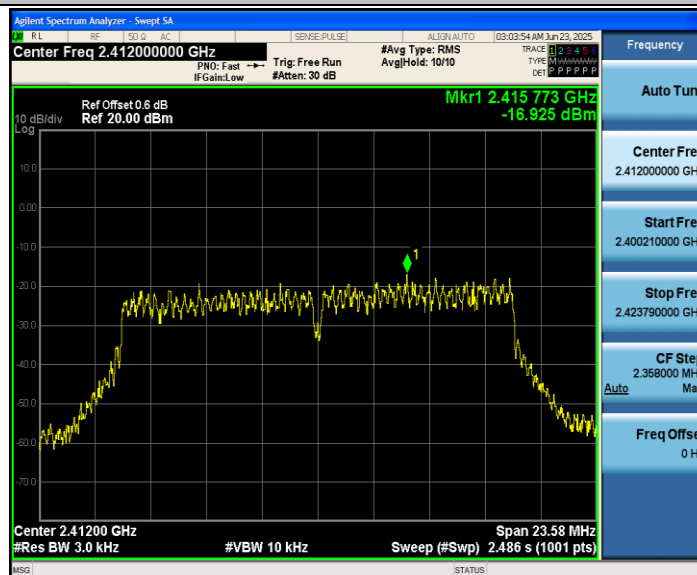
11B_Ant1_2437



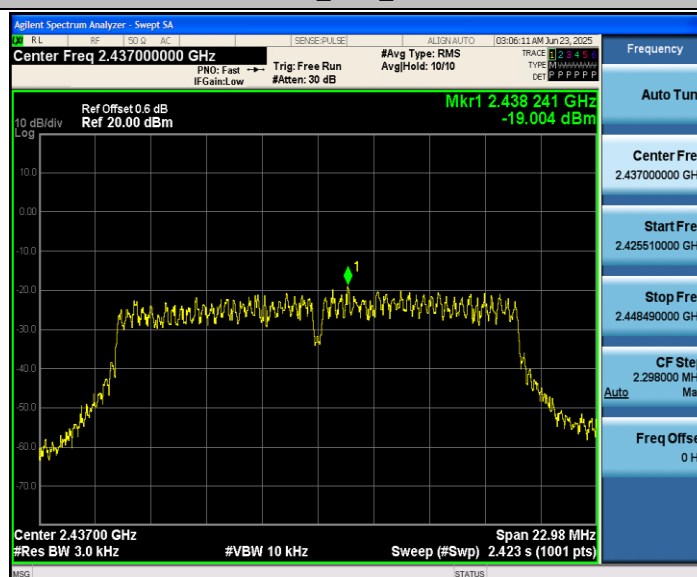
11B_Ant1_2462



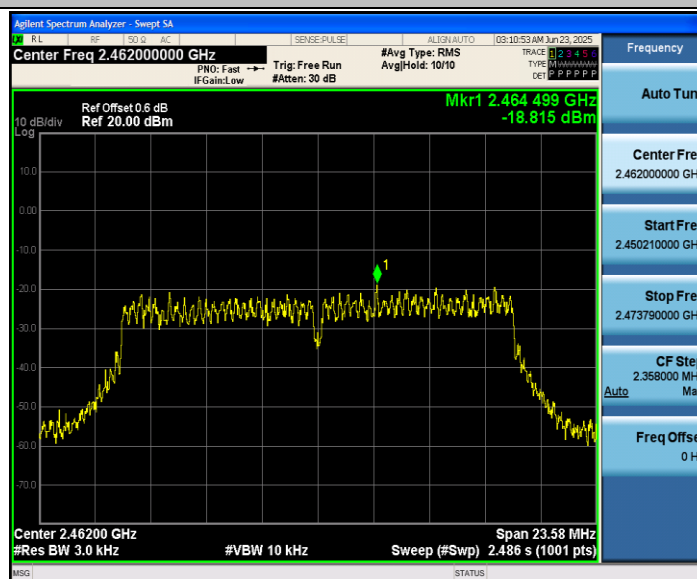
11G_Ant1_2412



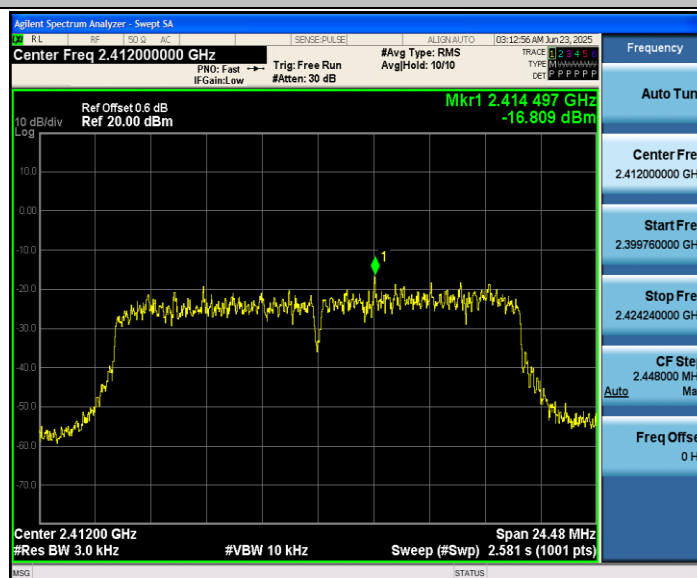
11G_Ant1_2437



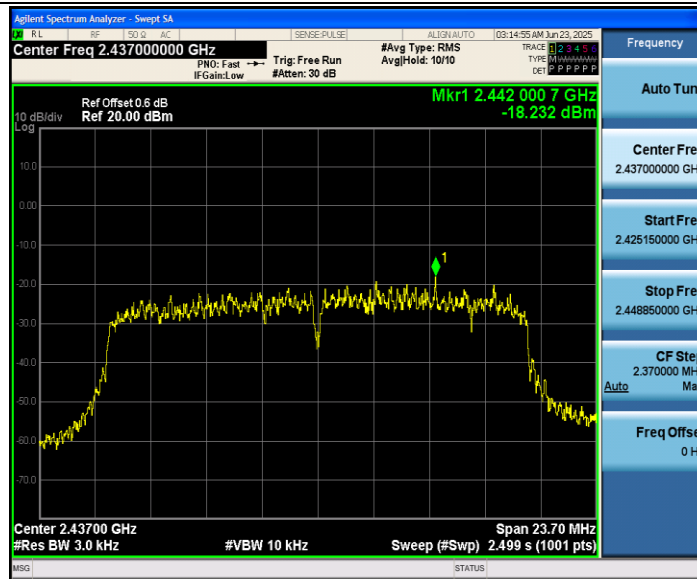
11G_Ant1_2462



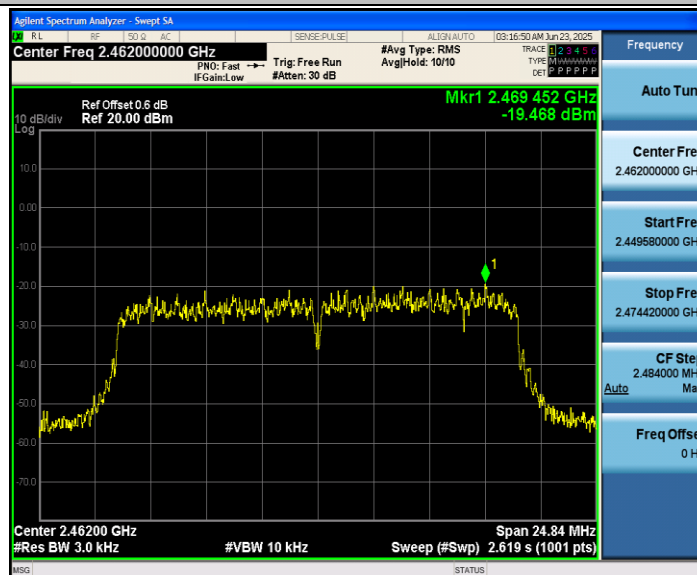
11N20SISO_Ant1_2412



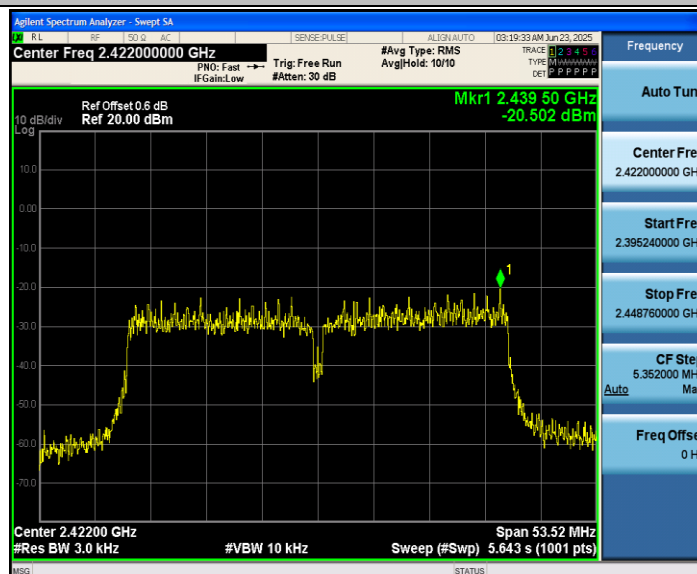
11N20SISO_Ant1_2437



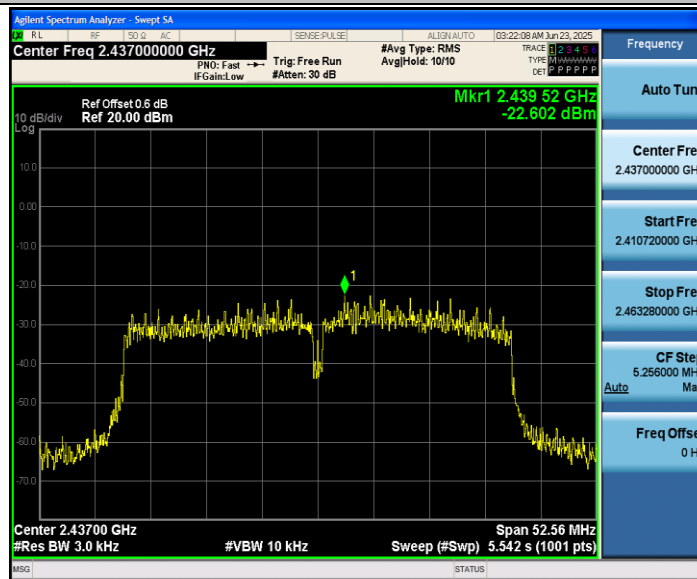
11N20SISO_Ant1_2462



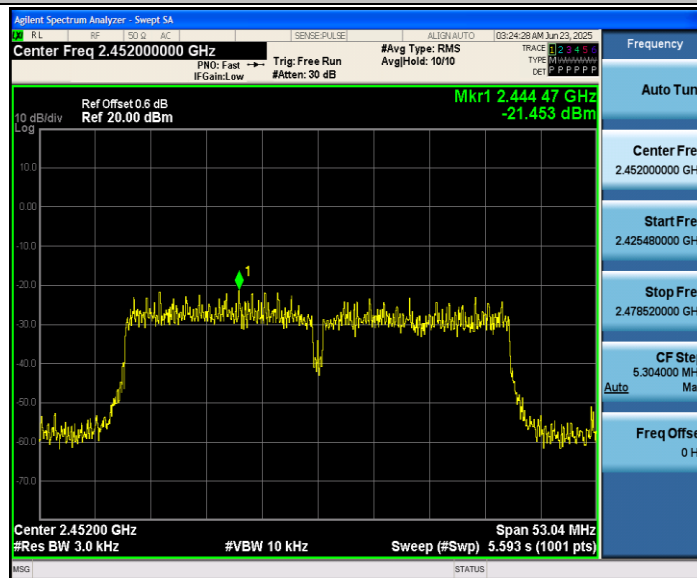
11N40SISO_Ant1_2422



11N40SISO_Ant1_2437



11N40SISO_Ant1_2452



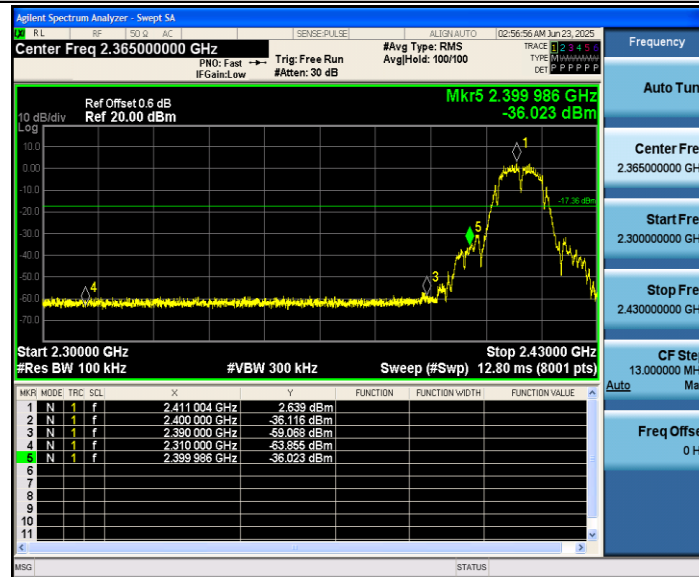
Appendix E: Band edge measurements

Test Result

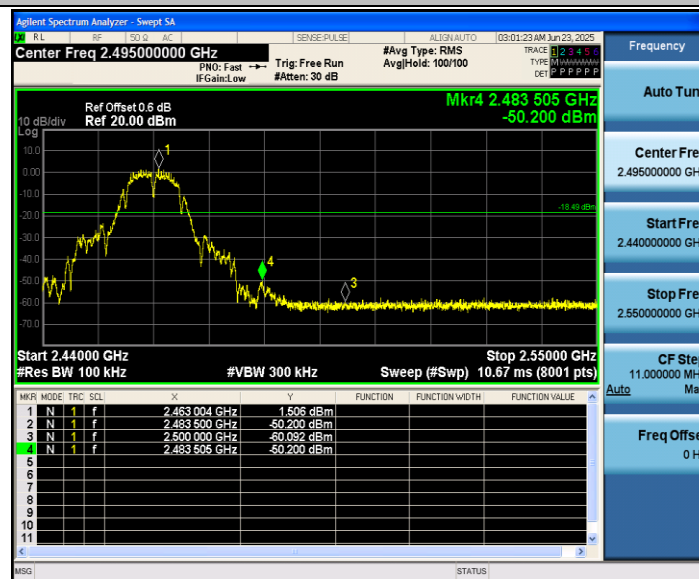
TestMode	Antenna	Channel Name	Frequency[MHz]	RefLevel[dBm]	Result[dBm]	Limit[dBm]	Verdict
11B	Ant1	Low	2412	2.64	-36.02	≤-17.36	PASS
		High	2462	1.51	-50.2	≤-18.49	PASS
11G	Ant1	Low	2412	-1.37	-35.7	≤-21.37	PASS
		High	2462	-2.79	-37.12	≤-22.79	PASS
11N20SISO	Ant1	Low	2412	-1.36	-33.99	≤-21.36	PASS
		High	2462	-2.81	-40.01	≤-22.81	PASS
11N40SISO	Ant1	Low	2422	-5.19	-36.22	≤-25.19	PASS
		High	2452	-5.28	-36.46	≤-25.28	PASS

Test Graphs

11B_Ant1_Low_2412



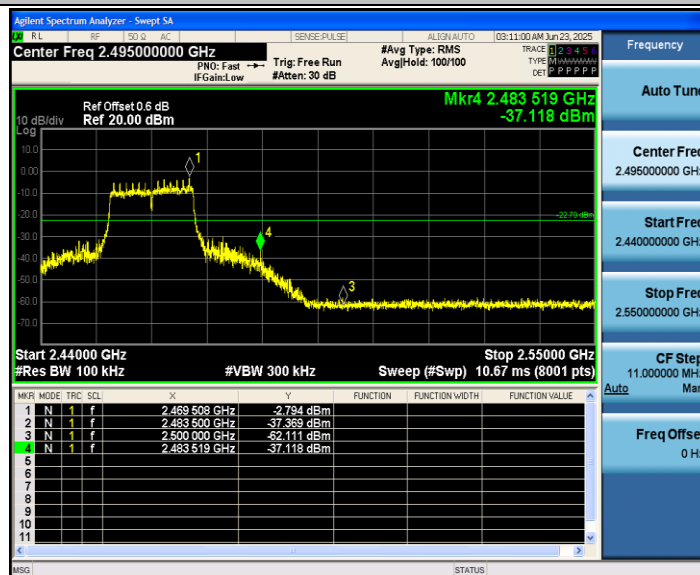
11B_Ant1_High_2462



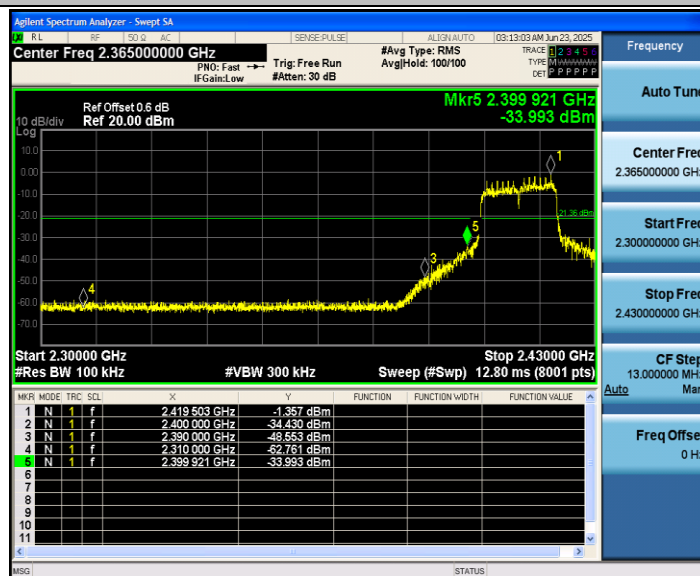
11G_Ant1_Low_2412



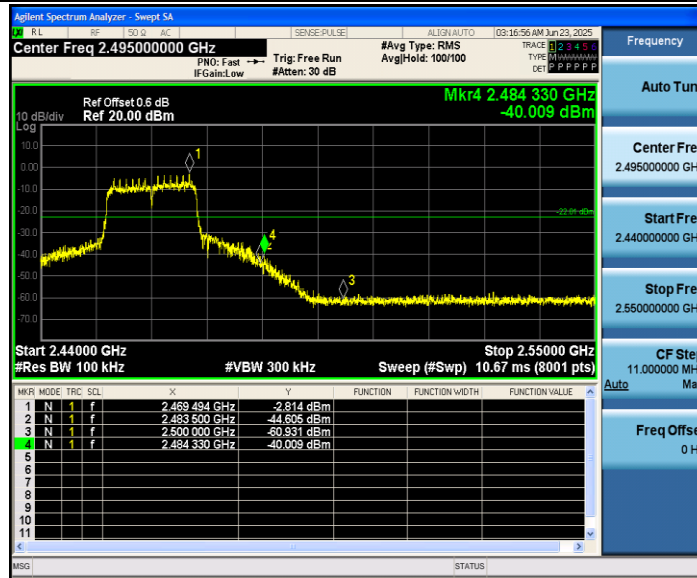
11G_Ant1_High_2462



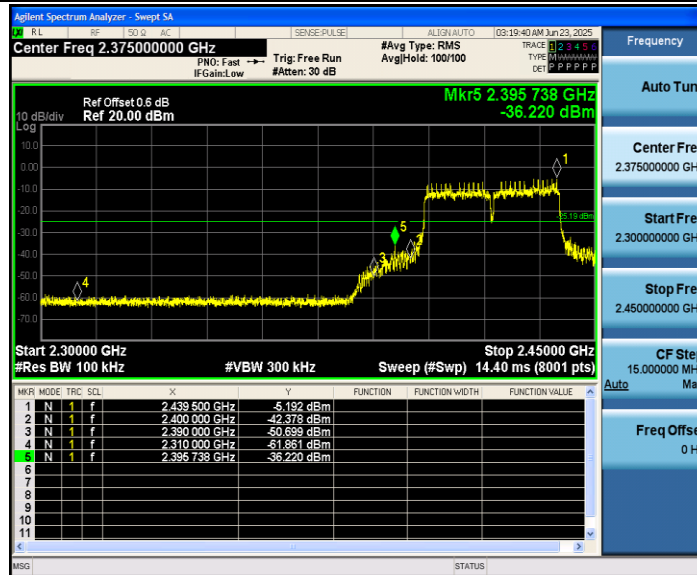
11N20SISO_Ant1_Low_2412



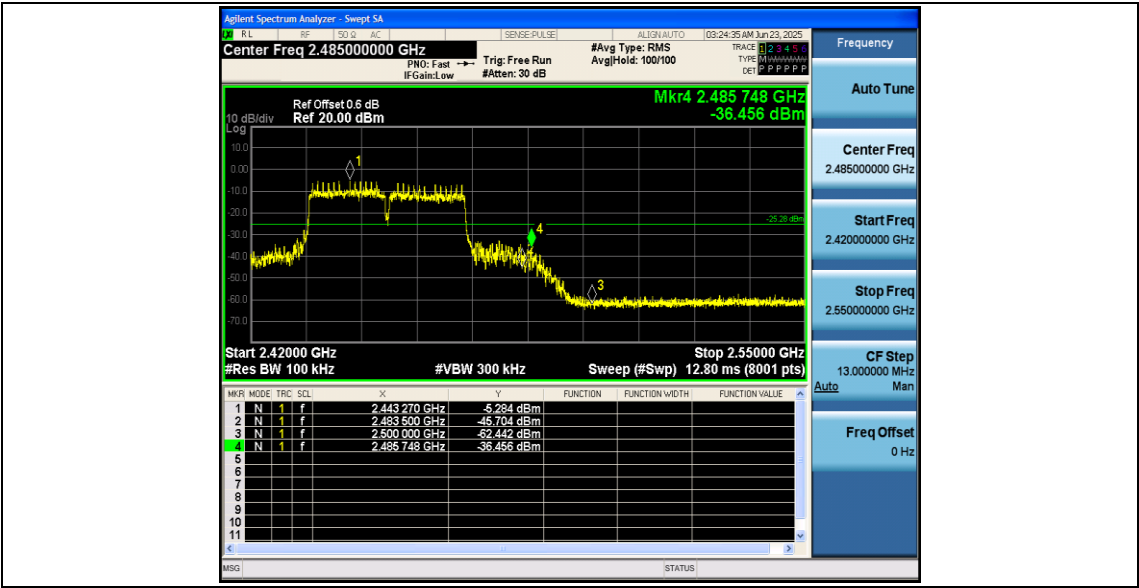
11N20SISO_Ant1_High_2462



11N40SISO_Ant1_Low_2422



11N40SISO_Ant1_High_2452



Appendix F: Conducted Spurious Emission

Test Result

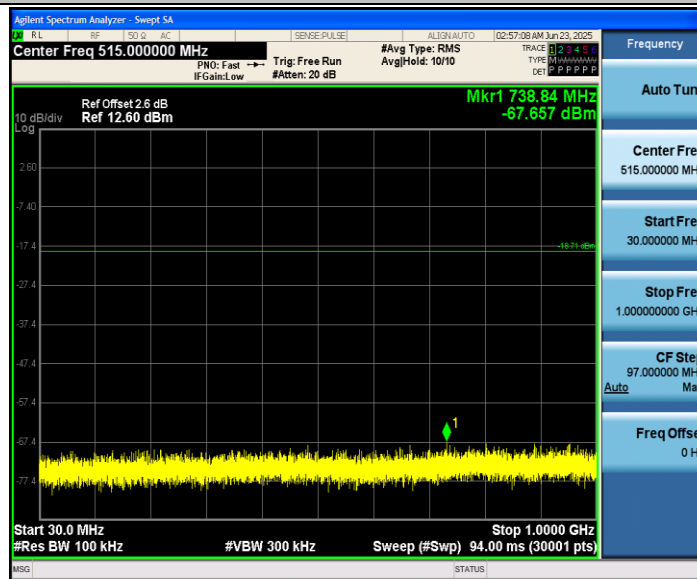
TestMode	Antenna	Frequency[MHz]	FreqRange [Mhz]	RefLevel [dBm]	Result [dBm]	Limit [dBm]	Verdict
11B	Ant1	2412	Reference	1.29	1.29	---	PASS
			30~1000	1.29	-67.66	≤-18.71	PASS
			1000~26500	1.29	-37.31	≤-18.71	PASS
		2437	Reference	1.44	1.44	---	PASS
			30~1000	1.44	-67.55	≤-18.56	PASS
			1000~26500	1.44	-36.32	≤-18.56	PASS
		2462	Reference	-0.44	-0.44	---	PASS
			30~1000	-0.44	-57.04	≤-20.44	PASS
			1000~26500	-0.44	-29.46	≤-20.44	PASS
11G	Ant1	2412	Reference	-1.48	-1.48	---	PASS
			30~1000	-1.48	-68.15	≤-21.48	PASS
			1000~26500	-1.48	-50.54	≤-21.48	PASS
		2437	Reference	-4.15	-4.15	---	PASS
			30~1000	-4.15	-67.19	≤-24.15	PASS
			1000~26500	-4.15	-50.99	≤-24.15	PASS
		2462	Reference	-3.50	-3.50	---	PASS
			30~1000	-3.50	-67.52	≤-23.5	PASS
			1000~26500	-3.50	-41.73	≤-23.5	PASS
11N20SISO	Ant1	2412	Reference	-4.12	-4.12	---	PASS
			30~1000	-4.12	-67.81	≤-24.12	PASS
			1000~26500	-4.12	-48.62	≤-24.12	PASS
		2437	Reference	-4.85	-4.85	---	PASS
			30~1000	-4.85	-67.52	≤-24.85	PASS
			1000~26500	-4.85	-48.39	≤-24.85	PASS
		2462	Reference	-4.19	-4.19	---	PASS
			30~1000	-4.19	-67.28	≤-24.19	PASS
			1000~26500	-4.19	-42.58	≤-24.19	PASS
11N40SISO	Ant1	2422	Reference	-6.35	-6.35	---	PASS
			30~1000	-6.35	-67.29	≤-26.35	PASS
			1000~26500	-6.35	-50.28	≤-26.35	PASS
		2437	Reference	-7.47	-7.47	---	PASS
			30~1000	-7.47	-67.01	≤-27.47	PASS
			1000~26500	-7.47	-53.07	≤-27.47	PASS
		2452	Reference	-5.58	-5.58	---	PASS
			30~1000	-5.58	-67.17	≤-25.58	PASS
			1000~26500	-5.58	-48.73	≤-25.58	PASS

Test Graphs

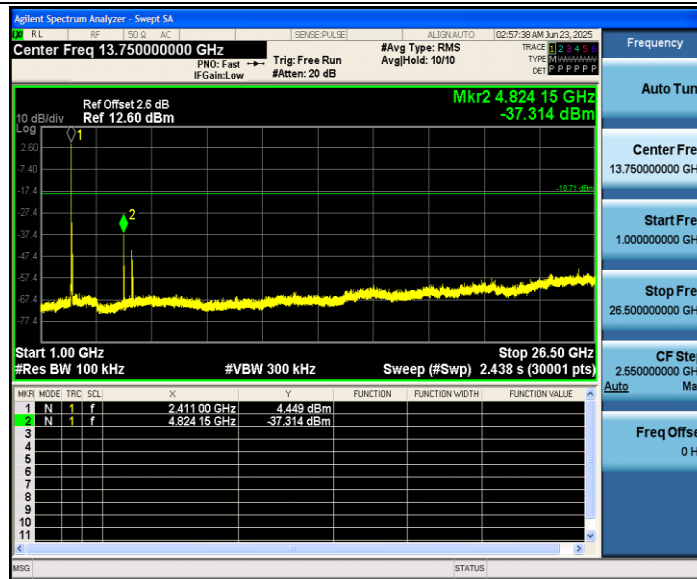
11B_Ant1_2412_0~Reference



11B_Ant1_2412_30~1000



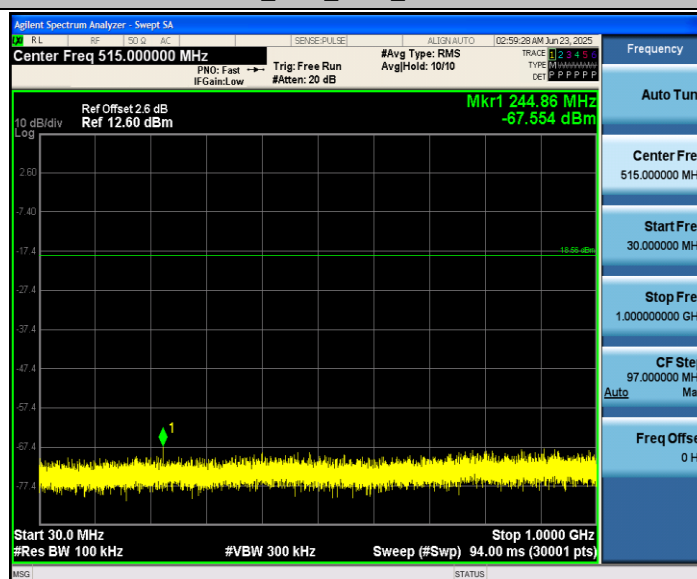
11B_Ant1_2412_1000~26500



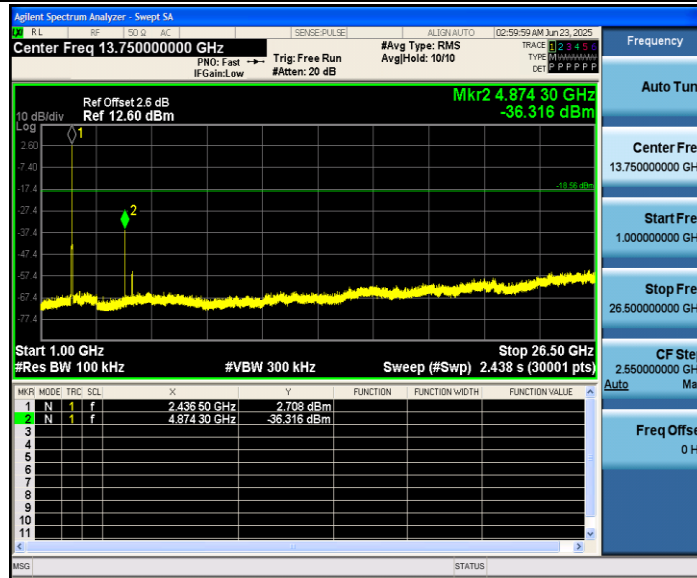
11B_Ant1_2437_0~Reference



11B_Ant1_2437_30~1000



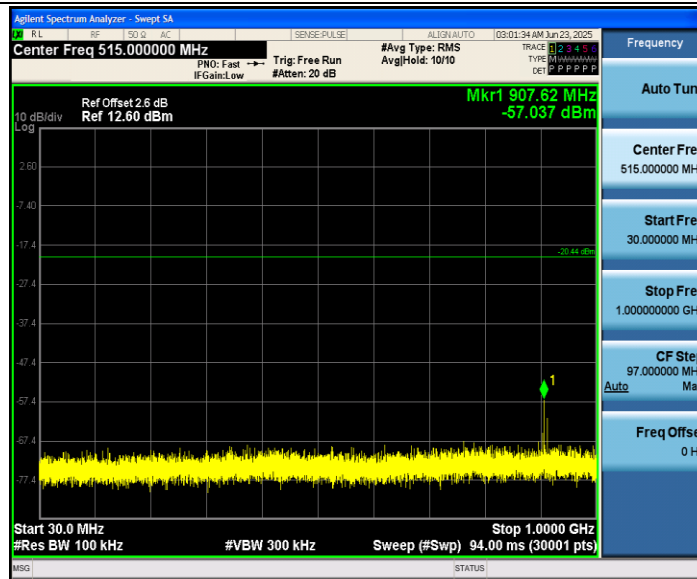
11B_Ant1_2437_1000~26500



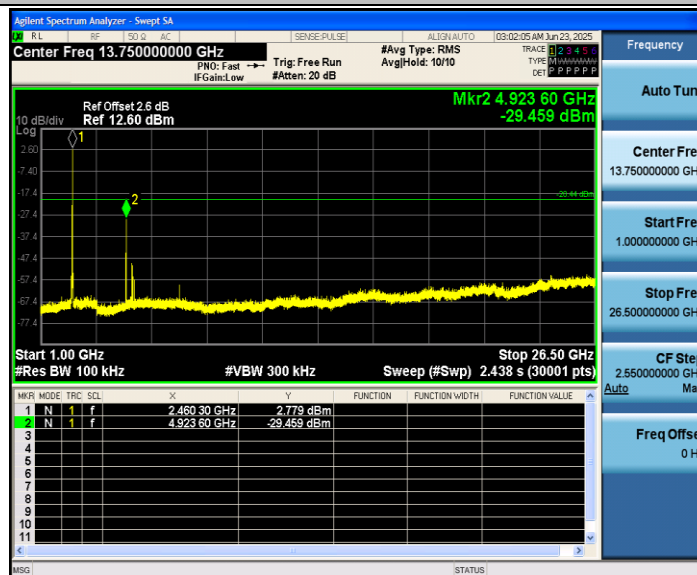
11B_Ant1_2462_0~Reference



11B_Ant1_2462_30~1000



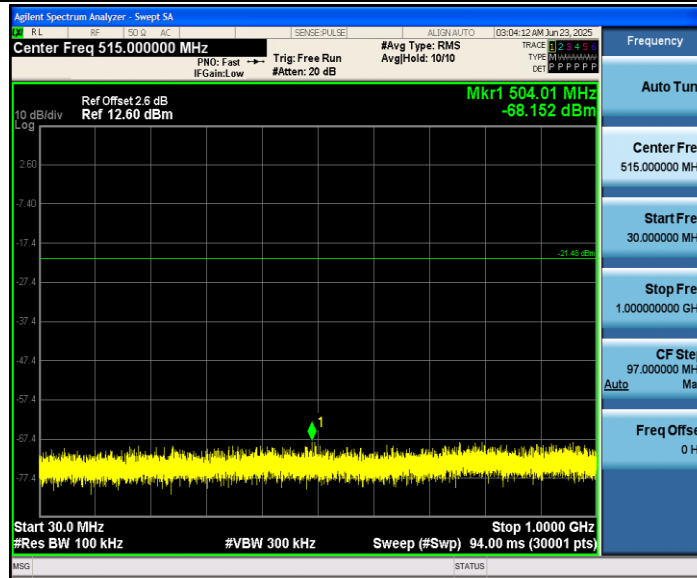
11B_Ant1_2462_1000~26500



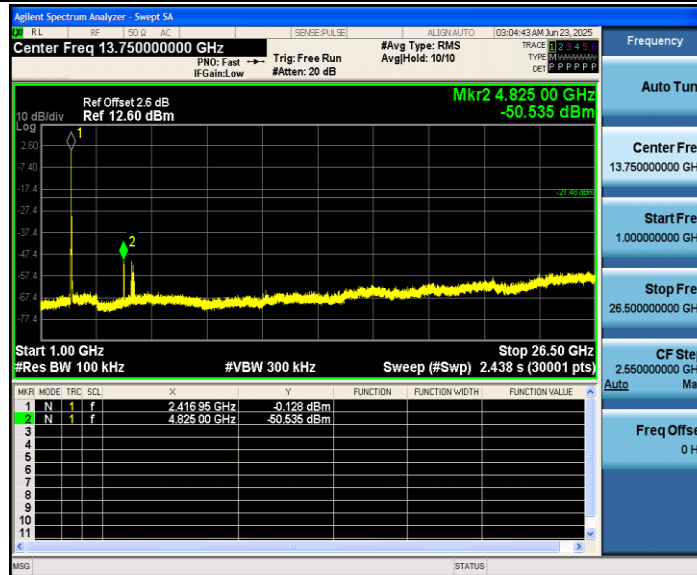
11G_Ant1_2412_0~Reference



11G_Ant1_2412_30~1000



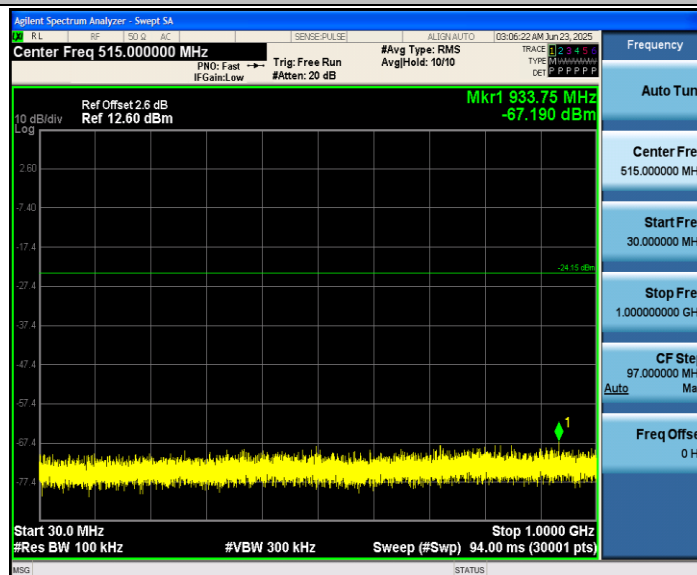
11G_Ant1_2412_1000~26500



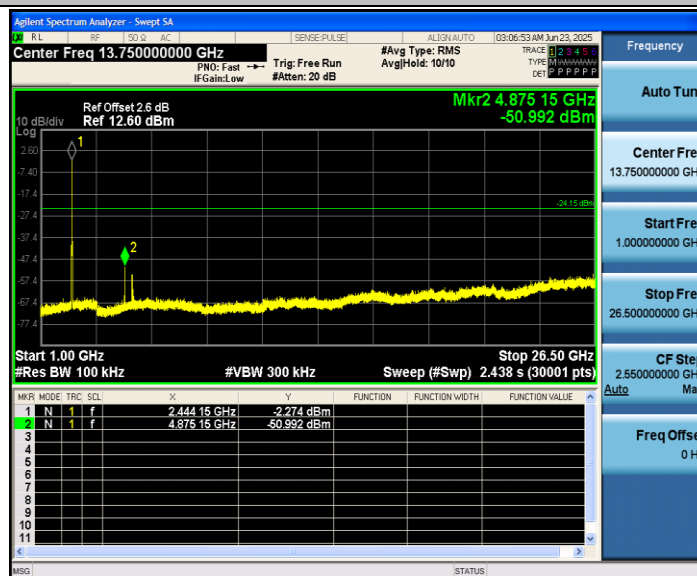
11G_Ant1_2437_0~Reference



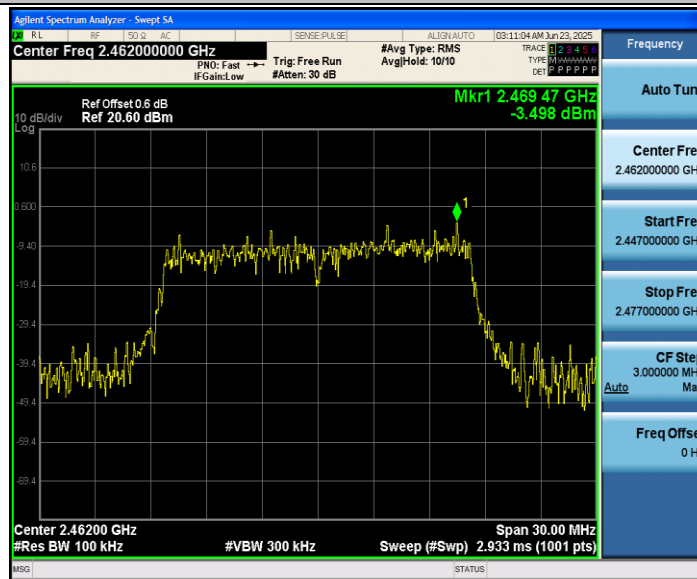
11G_Ant1_2437_30~1000



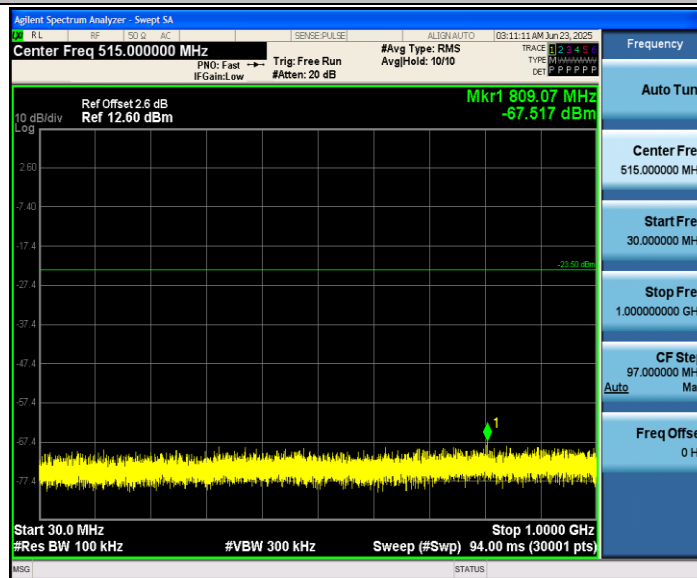
11G_Ant1_2437_1000~26500



11G_Ant1_2462_0~Reference



11G_Ant1_2462_30~1000



11G_Ant1_2462_1000~26500