

FCC Appendix RF Test Data for 2.4GWIFI

FCC ID : 2BWDQ-PULAOECHOP1

Company : Beijing Zhixue Vision Management Consulting
Co., Ltd.

EUT : PulaoEcho

Model Number : PulaoEcho P1

Report No. : CTA26051802103

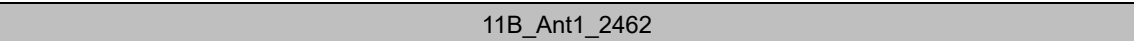
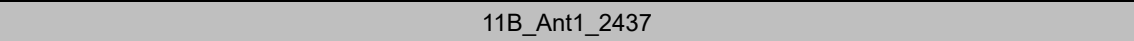
Reviewed By : Eric Wang

Appendix A: DTS Bandwidth

Test Result

TestMode	Antenna	Frequency[MHz]	DTS BW [MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
11B	Ant1	2412	10.200	2406.920	2417.120	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	15.440	2404.320	2419.760	0.5	PASS
		2437	15.680	2429.040	2444.720	0.5	PASS
		2462	16.000	2454.000	2470.000	0.5	PASS
11N20SISO	Ant1	2412	17.160	2403.480	2420.640	0.5	PASS
		2437	16.680	2428.560	2445.240	0.5	PASS
		2462	16.760	2453.640	2470.400	0.5	PASS
11N40SISO	Ant1	2422	35.840	2404.080	2439.920	0.5	PASS
		2437	35.440	2419.480	2454.920	0.5	PASS
		2452	35.760	2434.240	2470.000	0.5	PASS

11B_Ant1_2412





11G_Ant1_2412



11G_Ant1_2437



11G_Ant1_2462



11N20SISO_Ant1_2412



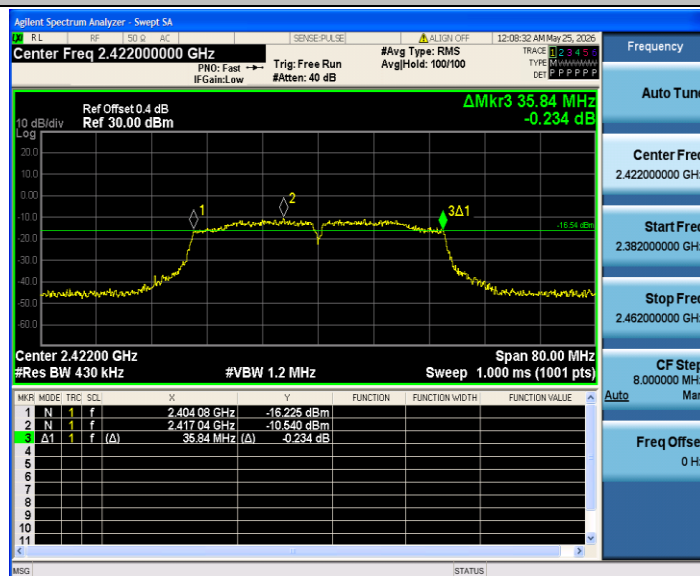
11N20SISO_Ant1_2437



11N20SISO_Ant1_2462



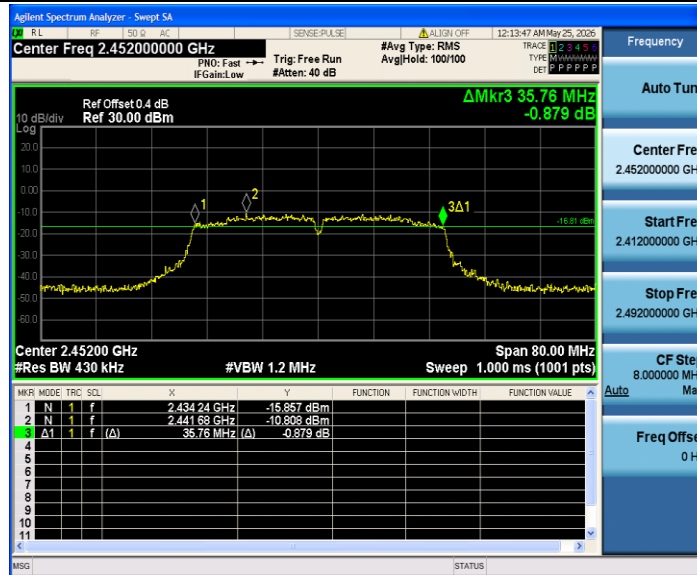
11N40SISO_Ant1_2422



11N40SISO_Ant1_2437



11N40SISO_Ant1_2452



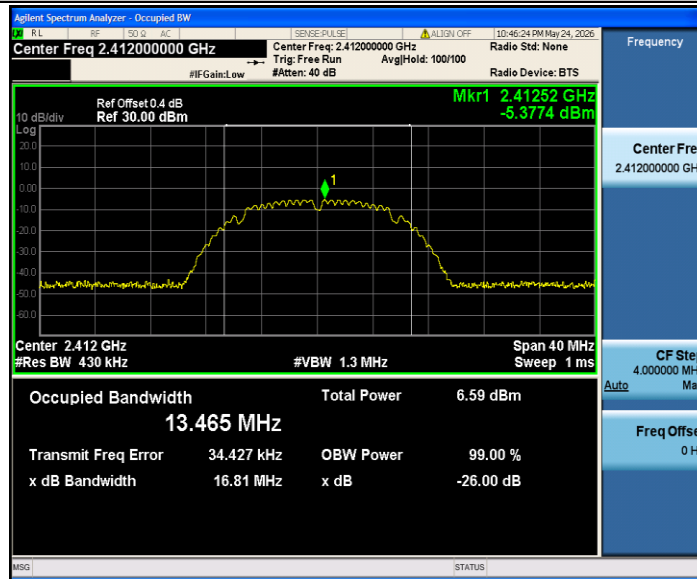
Appendix B: Occupied Channel Bandwidth

Test Result

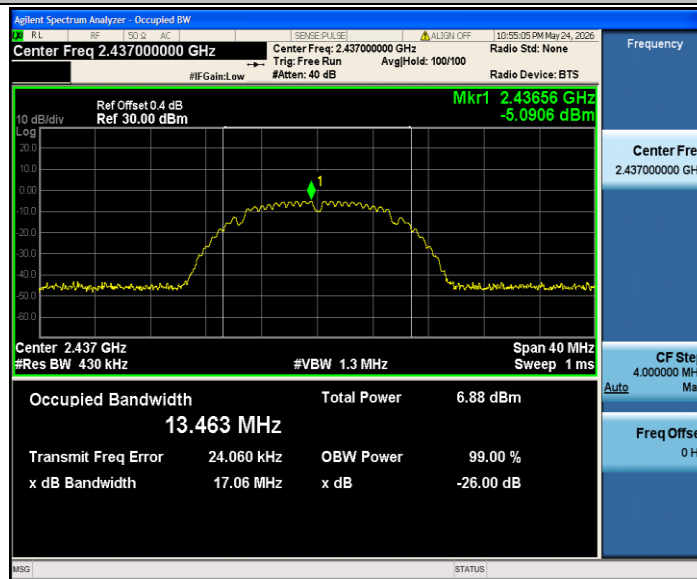
TestMode	Antenna	Channel Frequency[MHz]	OCB [MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
11B	Ant1	2412	13.465	2405.3019	2418.7669	---	---
		2437	13.463	2430.2926	2443.7556	---	---
		2462	13.478	2455.2802	2468.7582	---	---
11G	Ant1	2412	16.890	2403.5929	2420.4829	---	---
		2437	16.907	2428.5686	2445.4756	---	---
		2462	16.827	2453.6116	2470.4386	---	---
11N20SISO	Ant1	2412	17.938	2403.0438	2420.9818	---	---
		2437	17.969	2428.0069	2445.9759	---	---
		2462	17.914	2453.0654	2470.9794	---	---
11N40SISO	Ant1	2422	36.109	2404.0404	2440.1494	---	---
		2437	36.171	2419.0016	2455.1726	---	---
		2452	36.119	2434.0022	2470.1212	---	---

Test Graphs

11B_Ant1_2412



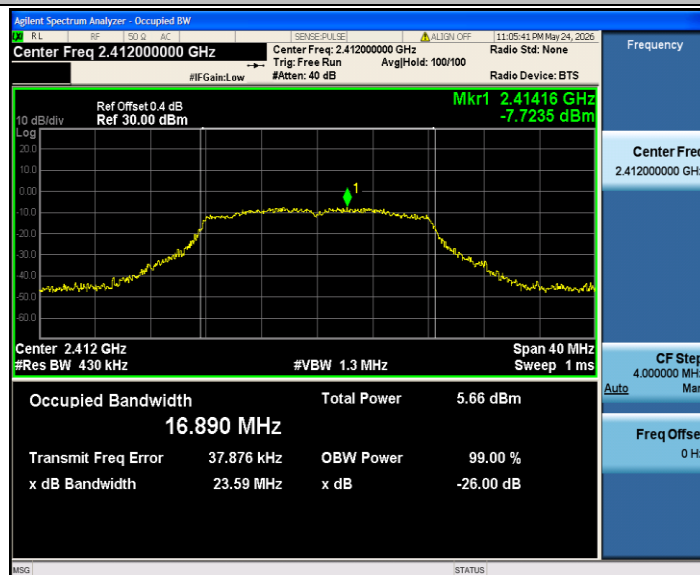
11B_Ant1_2437



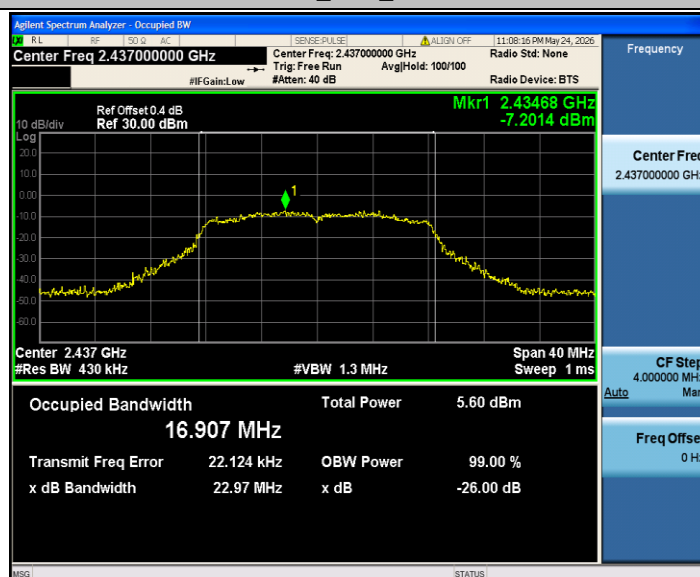
11B_Ant1_2462



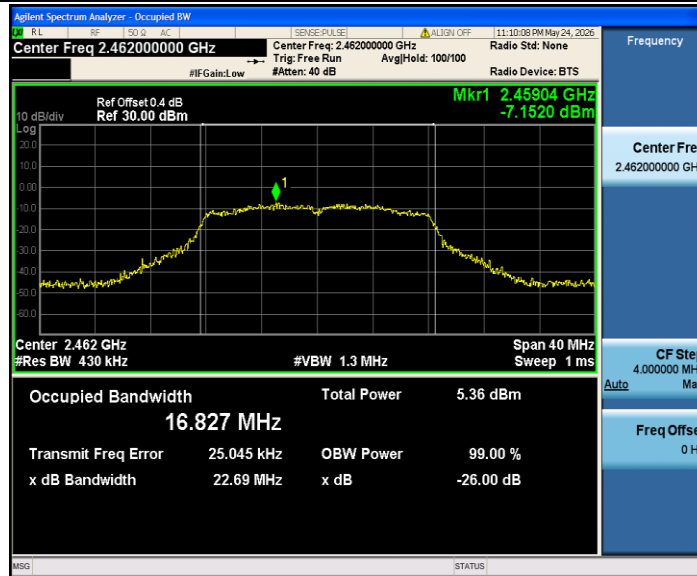
11G_Ant1_2412



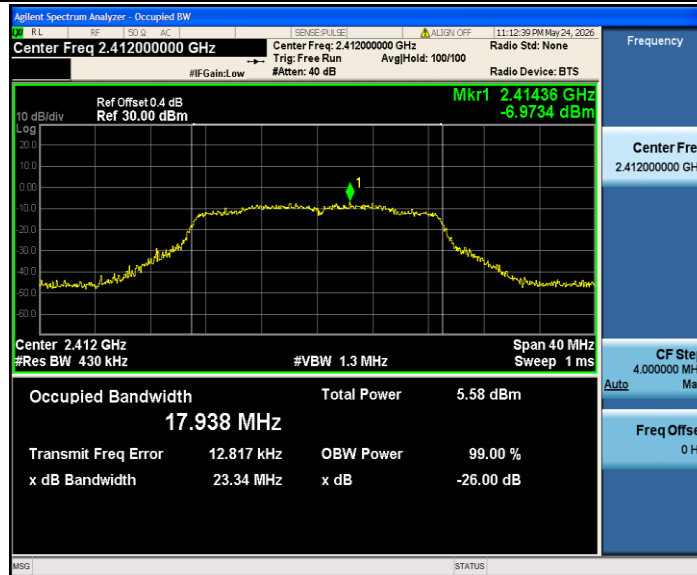
11G_Ant1_2437



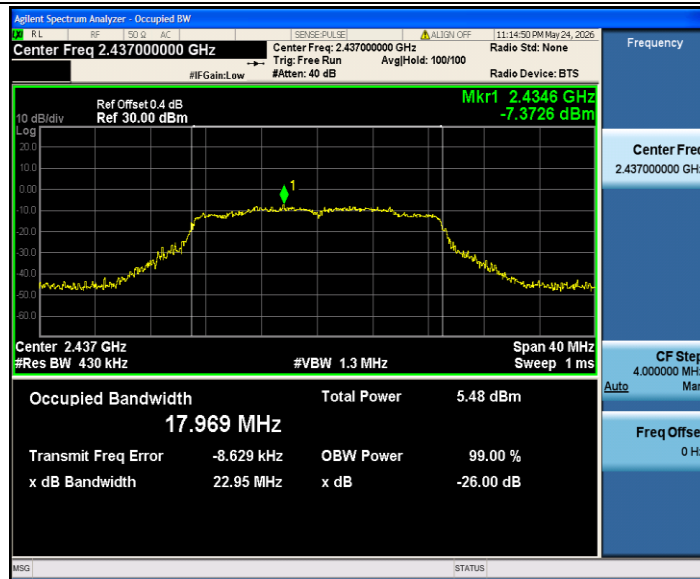
11G_Ant1_2462



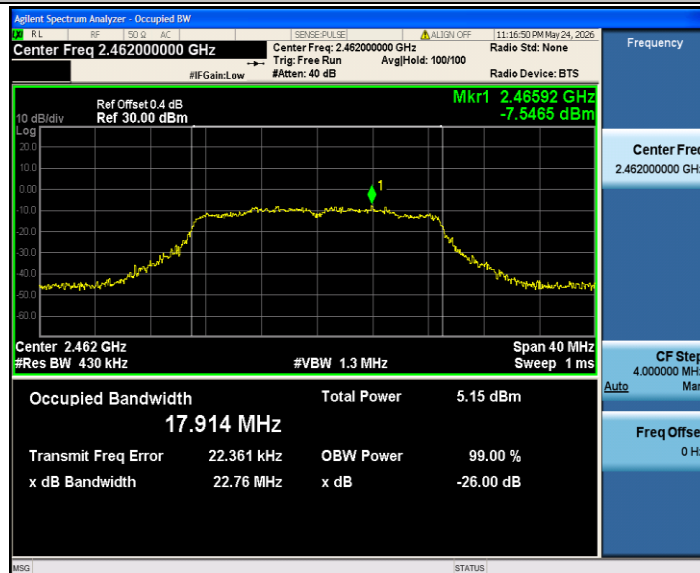
11N20SISO_Ant1_2412



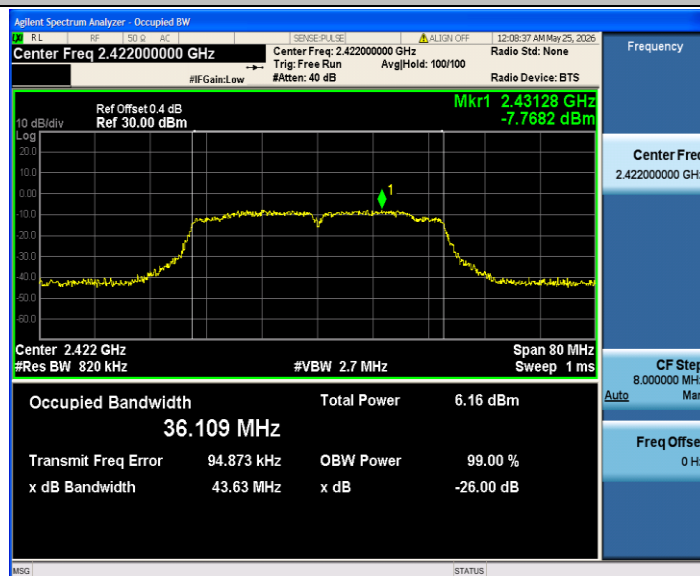
11N20SISO_Ant1_2437



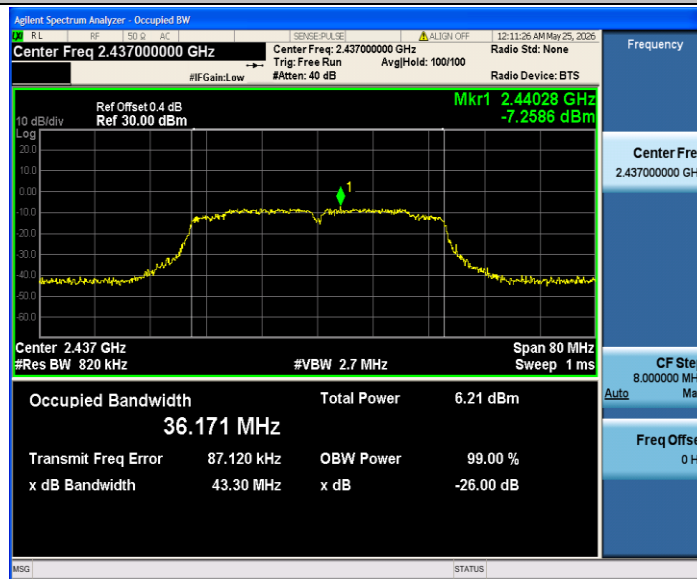
11N20SISO_Ant1_2462



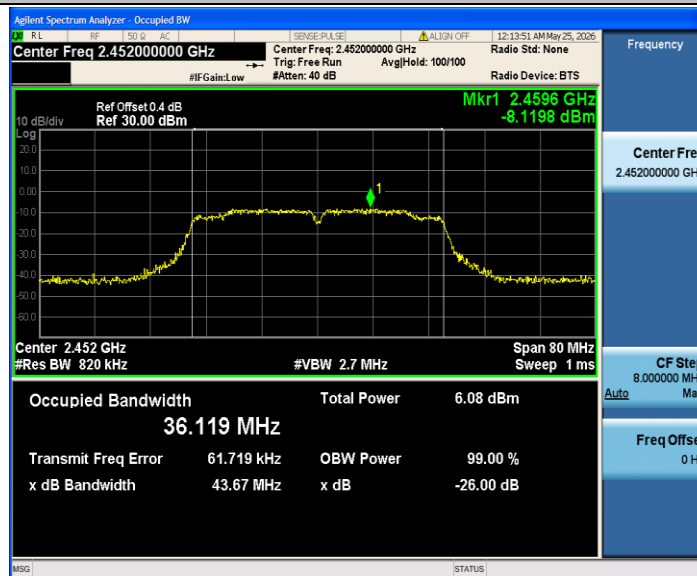
11N40SISO_Ant1_2422



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	6.32	≤30.00	PASS
		2437	6.53	≤30.00	PASS
		2462	6.69	≤30.00	PASS
11G	Ant1	2412	6.50	≤30.00	PASS
		2437	6.49	≤30.00	PASS
		2462	6.28	≤30.00	PASS
11N20SISO	Ant1	2412	6.44	≤30.00	PASS
		2437	6.30	≤30.00	PASS
		2462	6.08	≤30.00	PASS
11N40SISO	Ant1	2422	6.45	≤30.00	PASS
		2437	6.25	≤30.00	PASS
		2452	6.26	≤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	-19.04	≤8.00	PASS
		2437	-19.35	≤8.00	PASS
		2462	-19.07	≤8.00	PASS
11G	Ant1	2412	-25.48	≤8.00	PASS
		2437	-25.25	≤8.00	PASS
		2462	-24.77	≤8.00	PASS
11N20SISO	Ant1	2412	-24.71	≤8.00	PASS
		2437	-25.27	≤8.00	PASS
		2462	-24.65	≤8.00	PASS
11N40SISO	Ant1	2422	-27.76	≤8.00	PASS
		2437	-27.90	≤8.00	PASS
		2452	-29.11	≤8.00	PASS

Test Graphs

11B_Ant1_2412



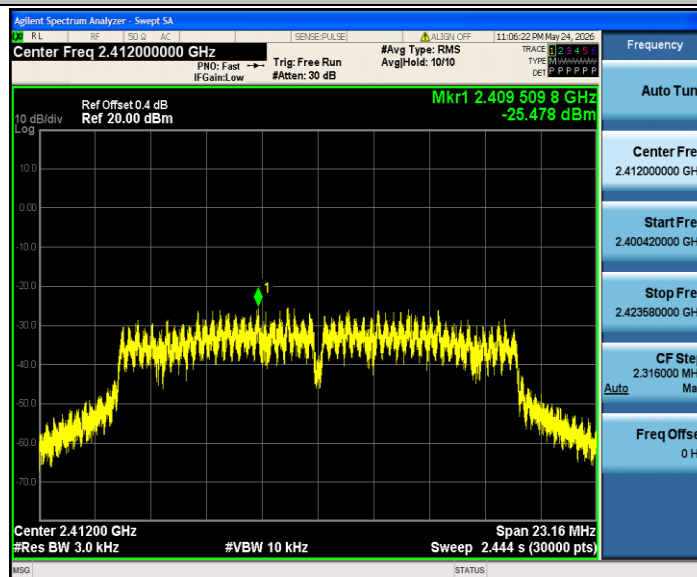
11B_Ant1_2437



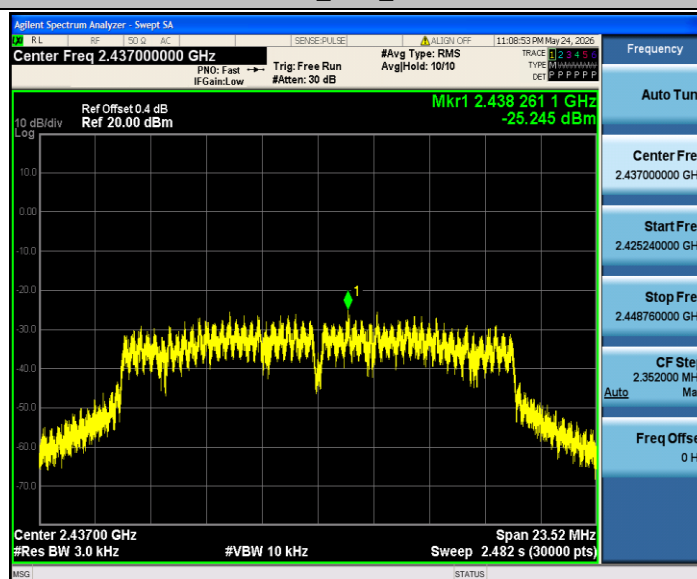
11B_Ant1_2462



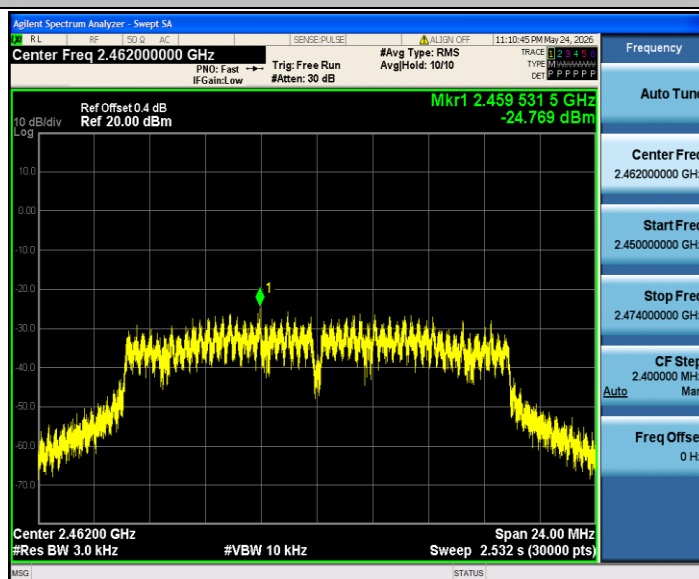
11G_Ant1_2412



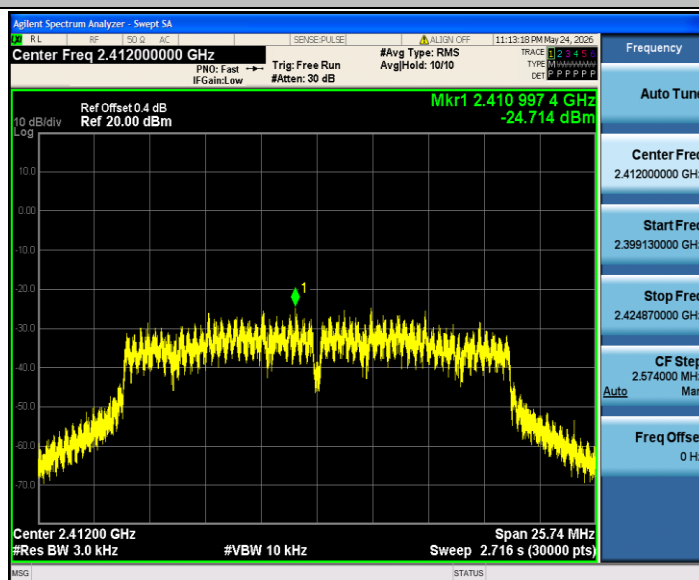
11G_Ant1_2437



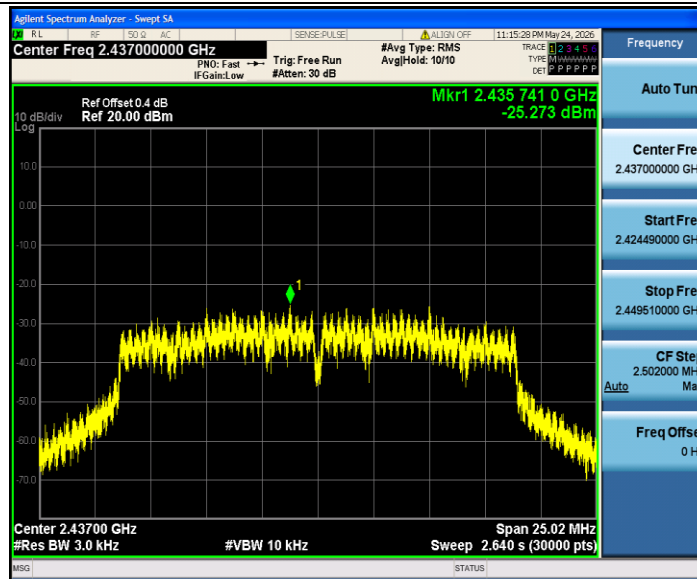
11G_Ant1_2462



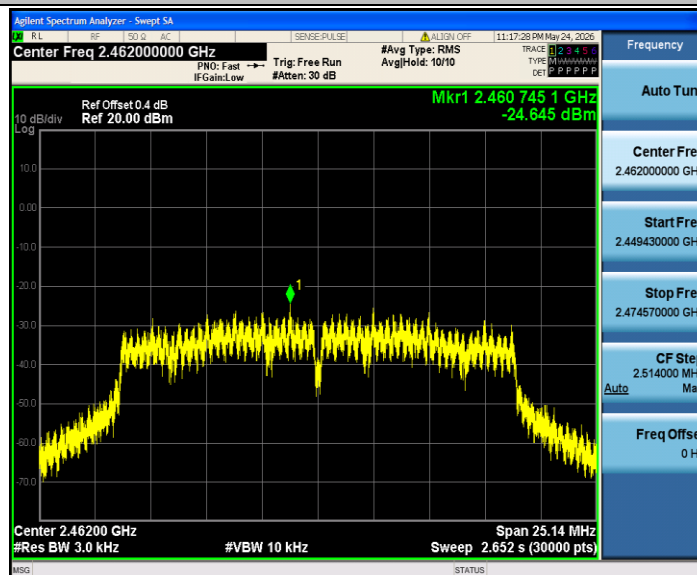
11N20SISO_Ant1_2412



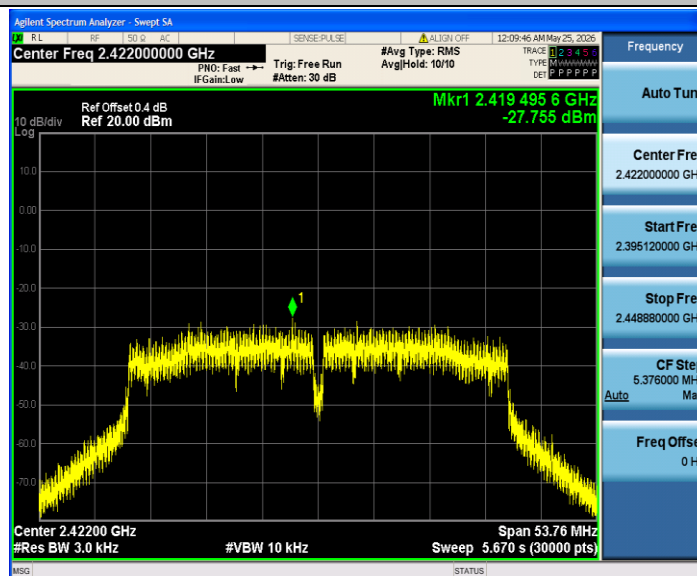
11N20SISO_Ant1_2437



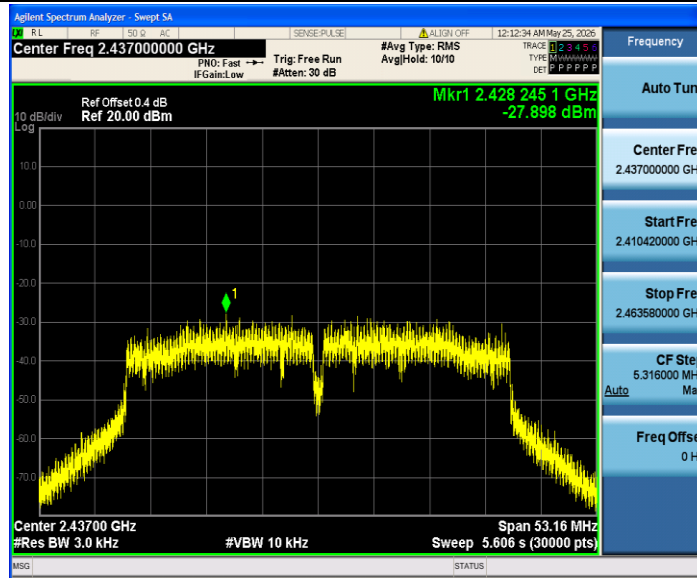
11N20SISO_Ant1_2462



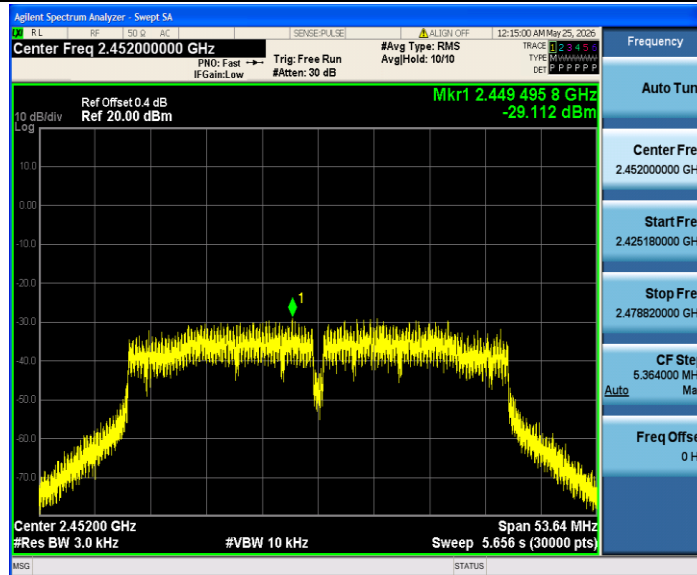
11N40SISO_Ant1_2422



11N40SISO_Ant1_2437



11N40SISO_Ant1_2452



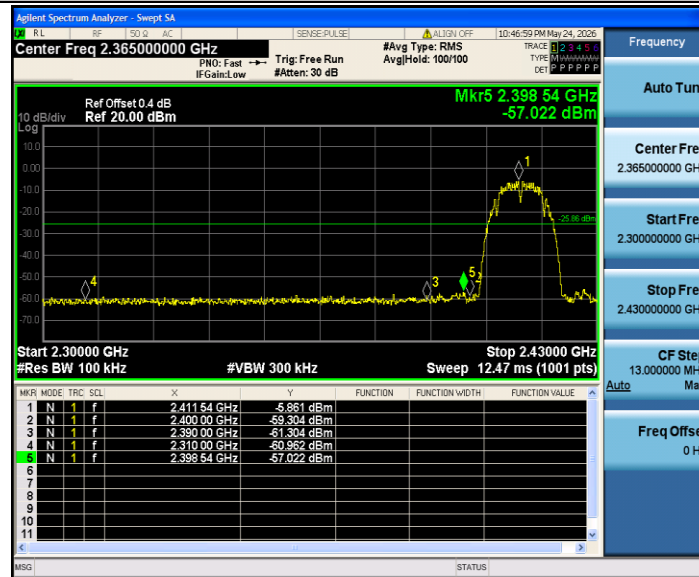
Appendix E: Band edge measurements

Test Result

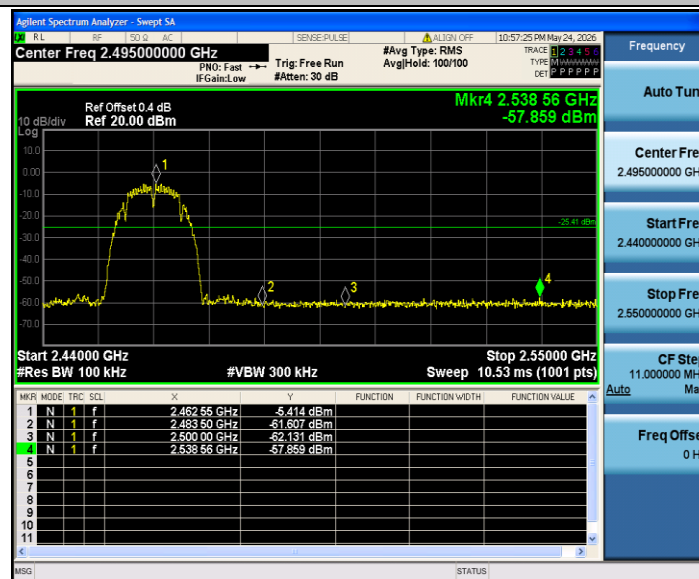
TestMode	Antenna	Channel Name	Frequency[MHz]	RefLevel[dBm]	Result[dBm]	Limit[dBm]	Verdict
11B	Ant1	Low	2412	-5.86	-57.02	≤-25.86	PASS
		High	2462	-5.41	-57.86	≤-25.41	PASS
11G	Ant1	Low	2412	-9.90	-40.15	≤-29.9	PASS
		High	2462	-10.55	-57.89	≤-30.55	PASS
11N20SISO	Ant1	Low	2412	-9.92	-41.91	≤-29.92	PASS
		High	2462	-10.42	-58.49	≤-30.42	PASS
11N40SISO	Ant1	Low	2422	-13.72	-40.77	≤-33.72	PASS
		High	2452	-13.70	-57.66	≤-33.7	PASS

Test Graphs

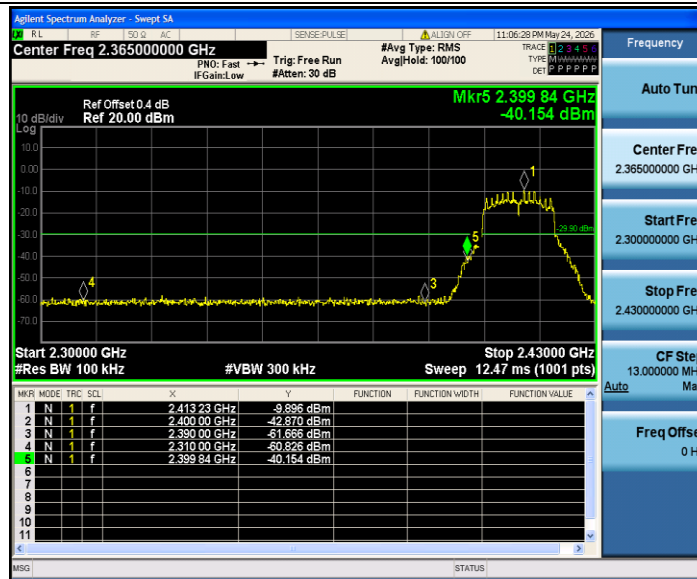
11B_Ant1_Low_2412



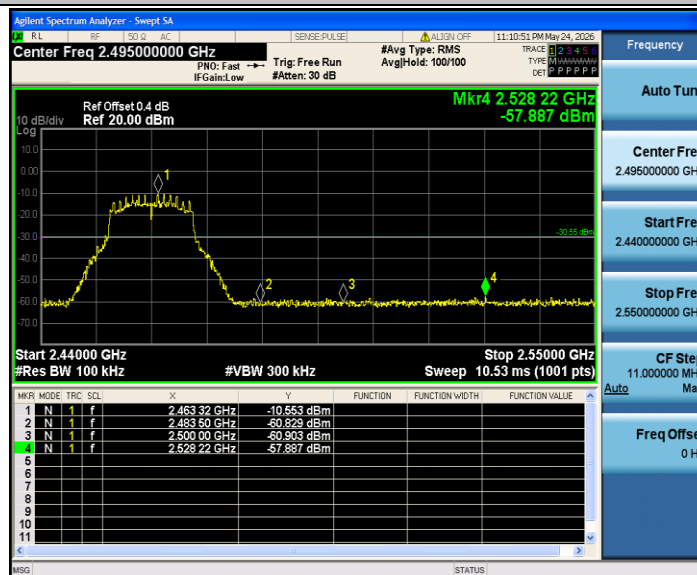
11B_Ant1_High_2462



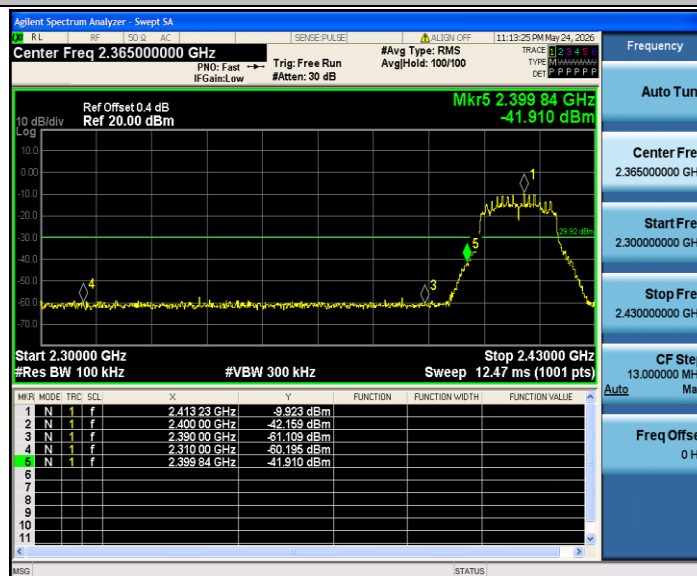
11G_Ant1_Low_2412



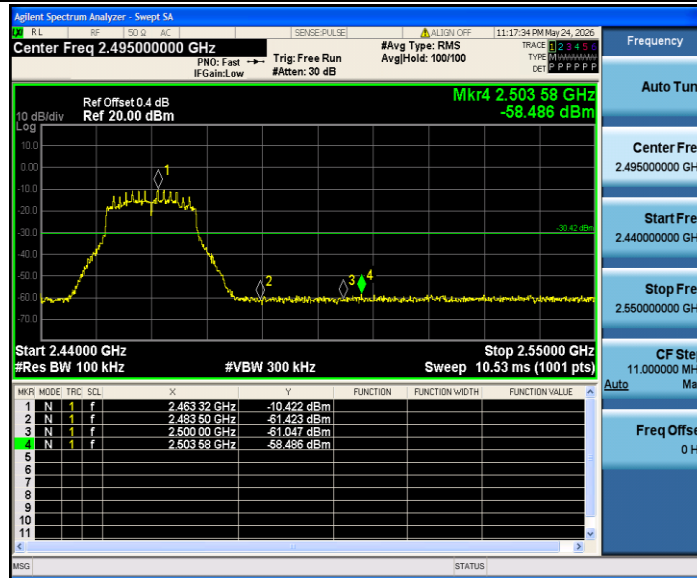
11G_Ant1_High_2462



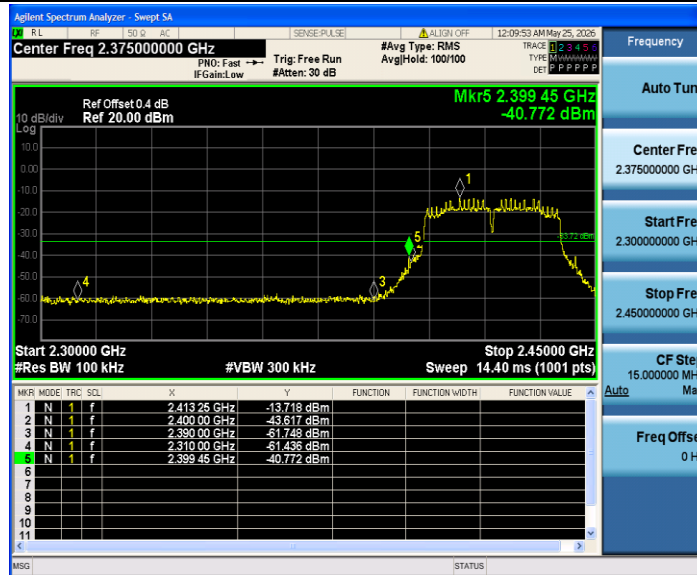
11N20SISO_Ant1_Low_2412



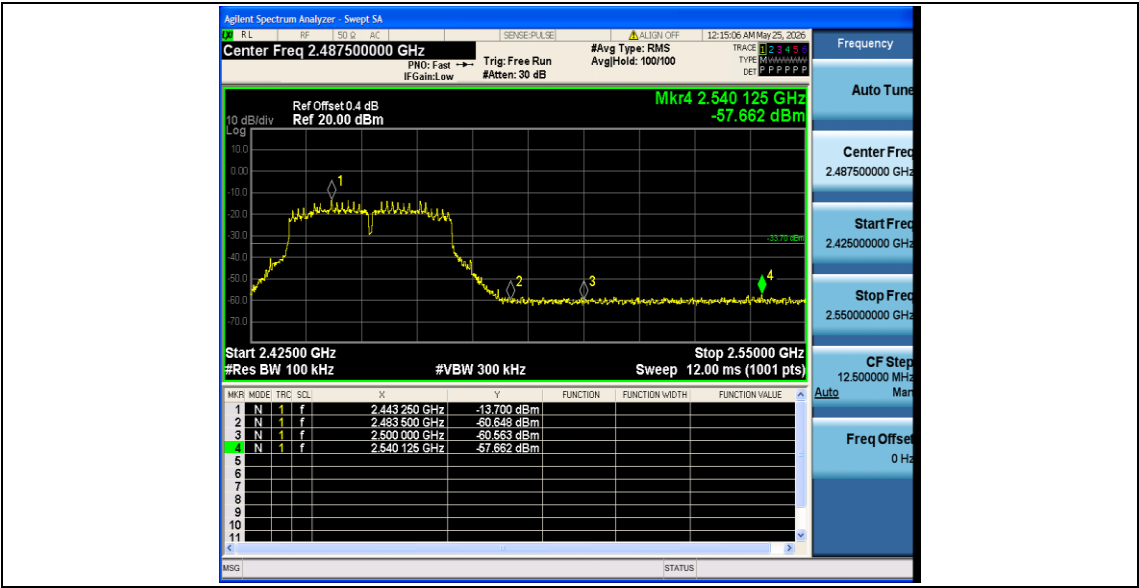
11N20SISO_Ant1_High_2462



11N40SISO_Ant1_Low_2422



11N40SISO_Ant1_High_2452



Appendix F: Conducted Spurious Emission

Test Result

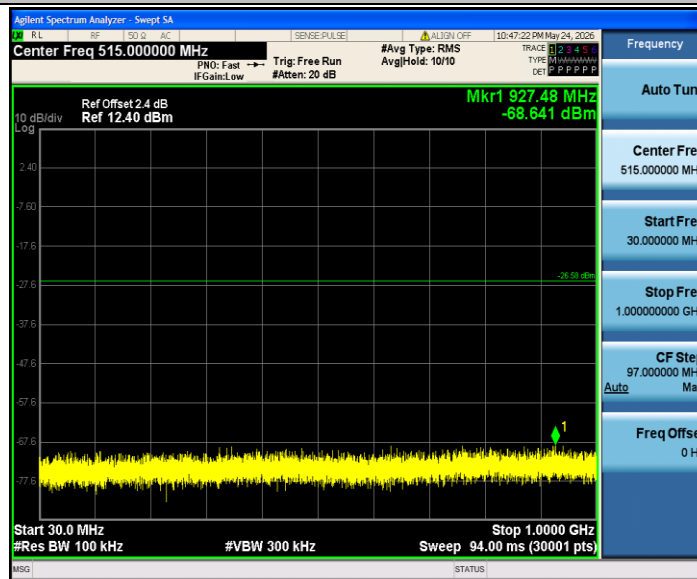
TestMode	Antenna	Frequency[MHz]	FreqRange [Mhz]	RefLevel [dBm]	Result [dBm]	Limit [dBm]	Verdict
11B	Ant1	2412	Reference	-6.58	-6.58	---	PASS
			30~1000	-6.58	-68.64	≤-26.58	PASS
			1000~26500	-6.58	-55.82	≤-26.58	PASS
		2437	Reference	-7.29	-7.29	---	PASS
			30~1000	-7.29	-68.08	≤-27.29	PASS
			1000~26500	-7.29	-55.71	≤-27.29	PASS
		2462	Reference	-6.12	-6.12	---	PASS
			30~1000	-6.12	-67.67	≤-26.12	PASS
			1000~26500	-6.12	-56.12	≤-26.12	PASS
11G	Ant1	2412	Reference	-10.67	-10.67	---	PASS
			30~1000	-10.67	-67.91	≤-30.67	PASS
			1000~26500	-10.67	-55.14	≤-30.67	PASS
		2437	Reference	-10.26	-10.26	---	PASS
			30~1000	-10.26	-67.22	≤-30.26	PASS
			1000~26500	-10.26	-55.5	≤-30.26	PASS
		2462	Reference	-11.33	-11.33	---	PASS
			30~1000	-11.33	-68.83	≤-31.33	PASS
			1000~26500	-11.33	-55.34	≤-31.33	PASS
11N20SISO	Ant1	2412	Reference	-10.79	-10.79	---	PASS
			30~1000	-10.79	-68.31	≤-30.79	PASS
			1000~26500	-10.79	-55.69	≤-30.79	PASS
		2437	Reference	-10.57	-10.57	---	PASS
			30~1000	-10.57	-66.8	≤-30.57	PASS
			1000~26500	-10.57	-54.79	≤-30.57	PASS
		2462	Reference	-10.41	-10.41	---	PASS
			30~1000	-10.41	-67.87	≤-30.41	PASS
			1000~26500	-10.41	-55.34	≤-30.41	PASS
11N40SISO	Ant1	2422	Reference	-13.97	-13.97	---	PASS
			30~1000	-13.97	-67.37	≤-33.97	PASS
			1000~26500	-13.97	-54.49	≤-33.97	PASS
		2437	Reference	-14.07	-14.07	---	PASS
			30~1000	-14.07	-67.31	≤-34.07	PASS
			1000~26500	-14.07	-55.28	≤-34.07	PASS
		2452	Reference	-14.49	-14.49	---	PASS
			30~1000	-14.49	-67.86	≤-34.49	PASS
			1000~26500	-14.49	-55.27	≤-34.49	PASS

Test Graphs

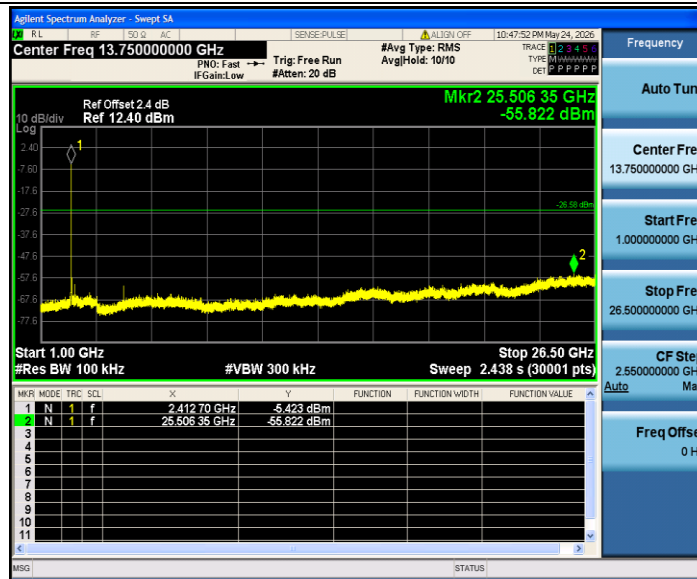
11B_Ant1_2412_0~Reference



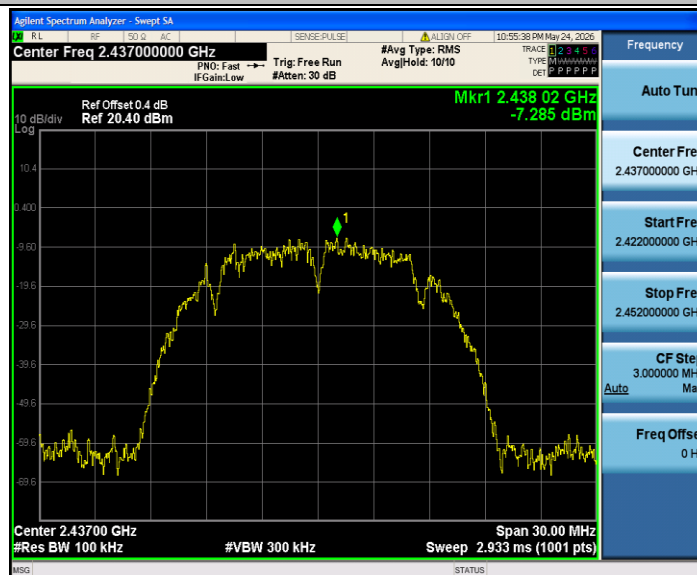
11B_Ant1_2412_30~1000



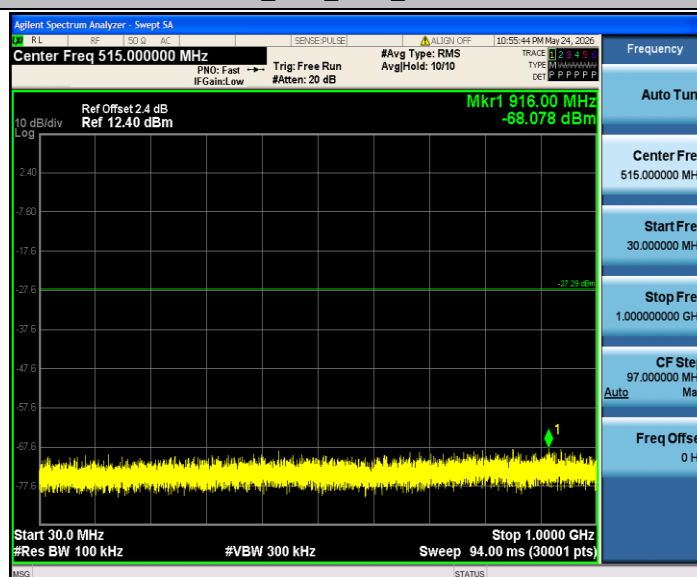
11B_Ant1_2412_1000~26500



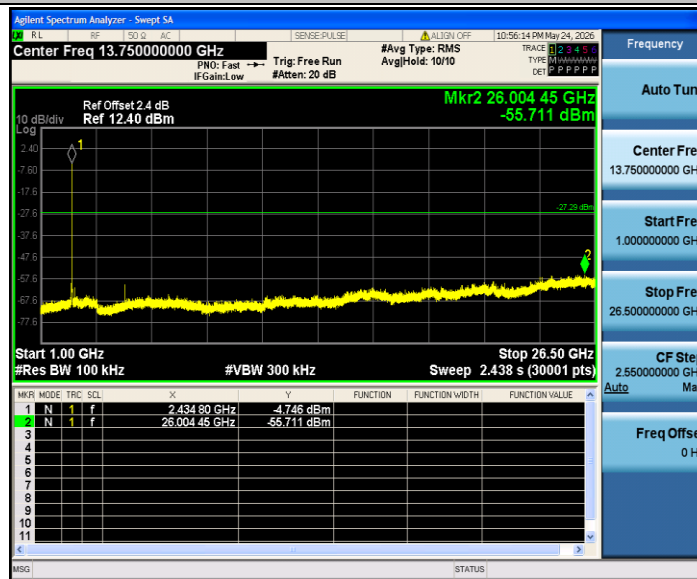
11B_Ant1_2437_0~Reference



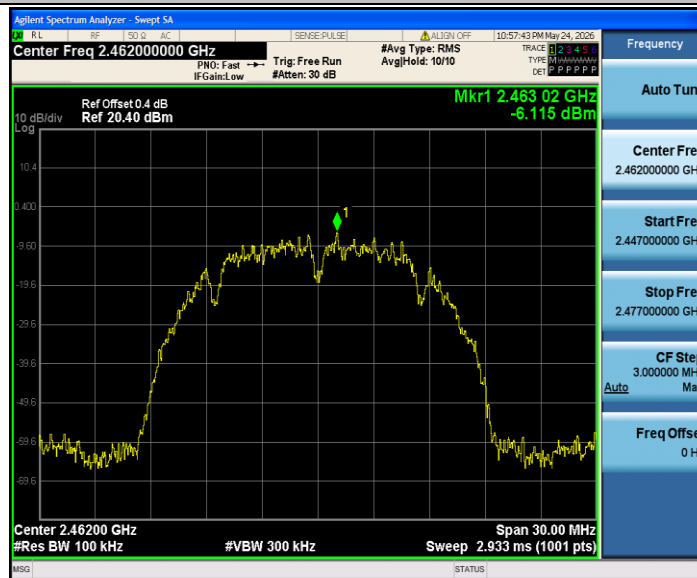
11B_Ant1_2437_30~1000



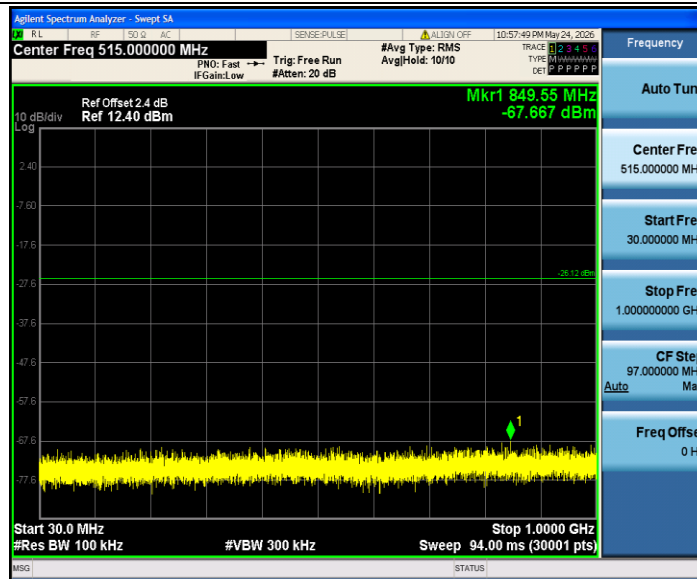
11B_Ant1_2437_1000~26500



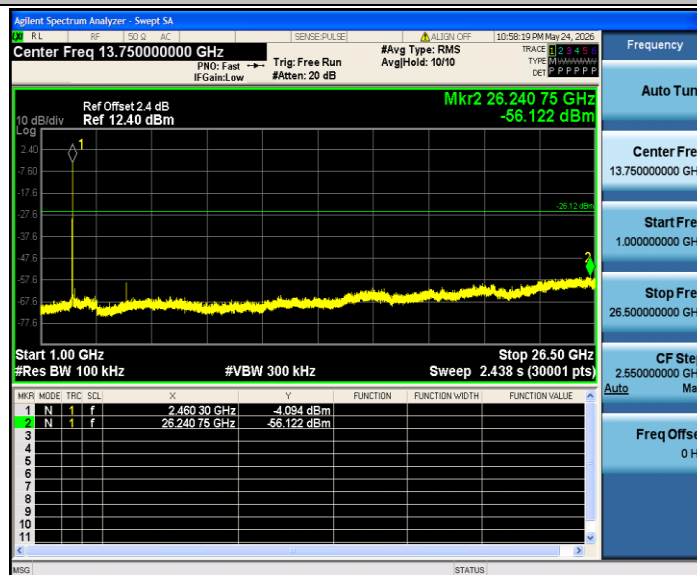
11B_Ant1_2462_0~Reference



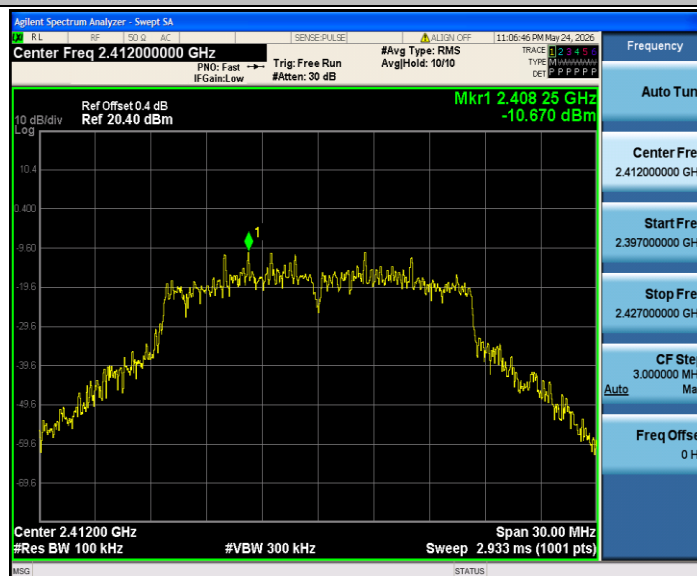
11B_Ant1_2462_30~1000



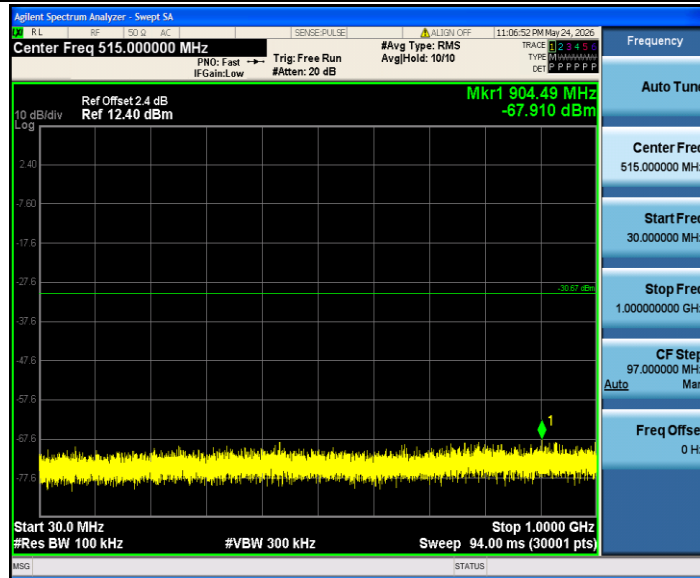
11B_Ant1_2462_1000~26500



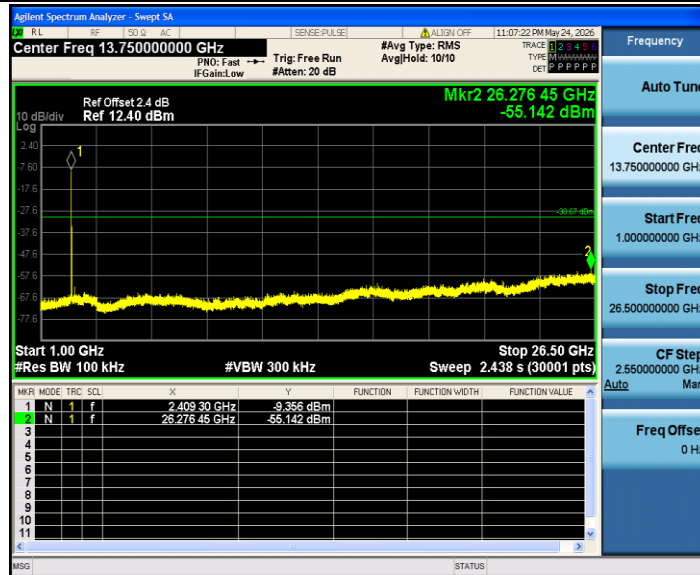
11G_Ant1_2412_0~Reference



11G_Ant1_2412_30~1000



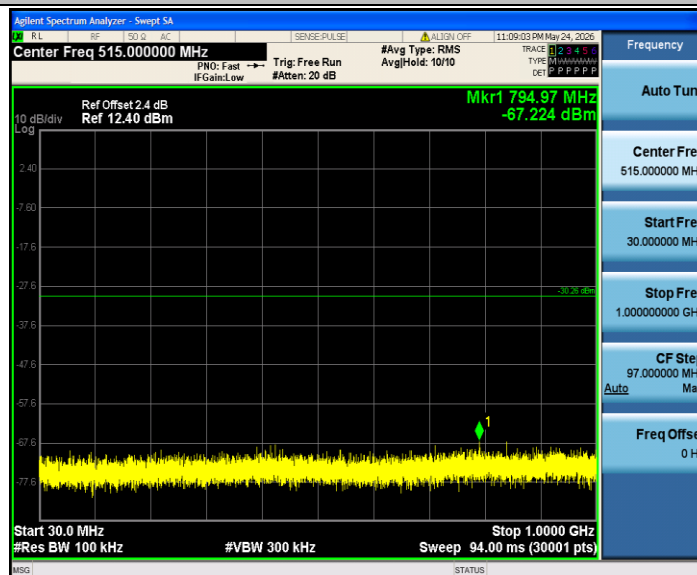
11G_Ant1_2412_1000~26500



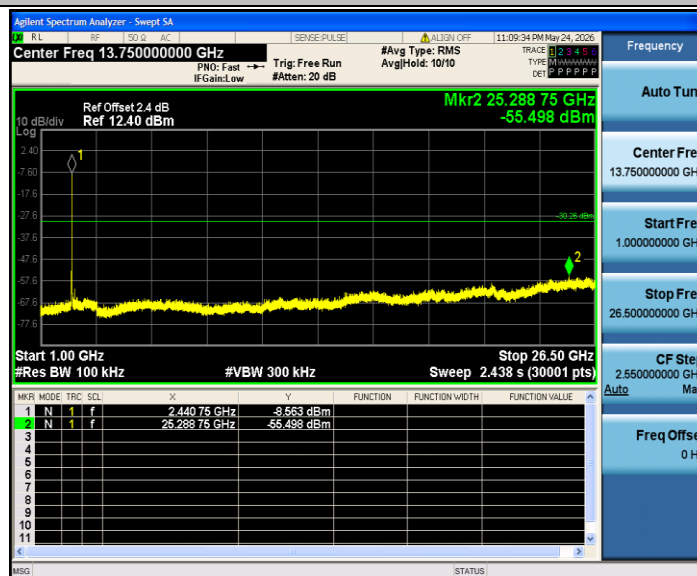
11G_Ant1_2437_0~Reference



11G_Ant1_2437_30~1000



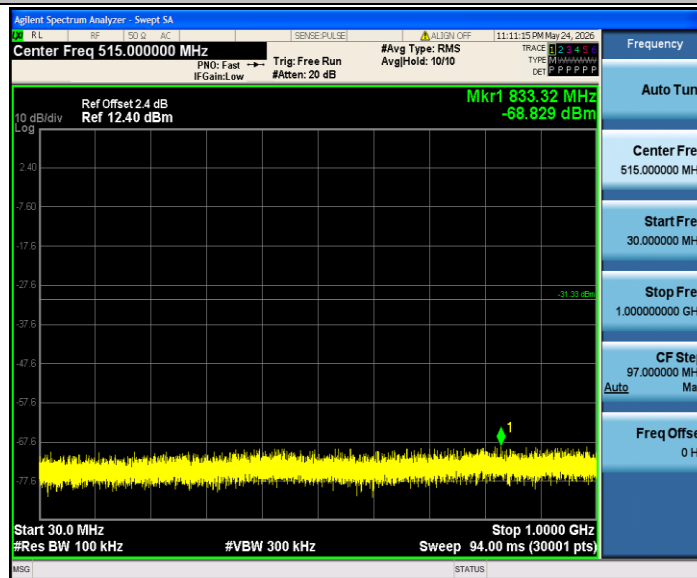
11G_Ant1_2437_1000~26500



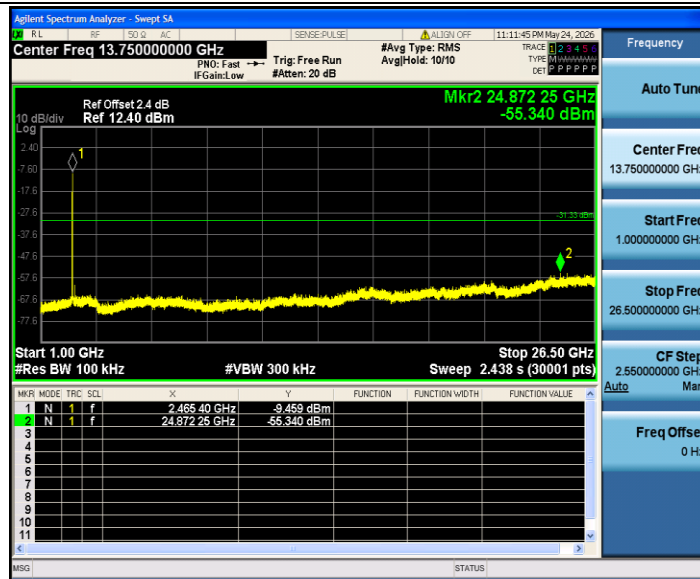
11G_Ant1_2462_0~Reference



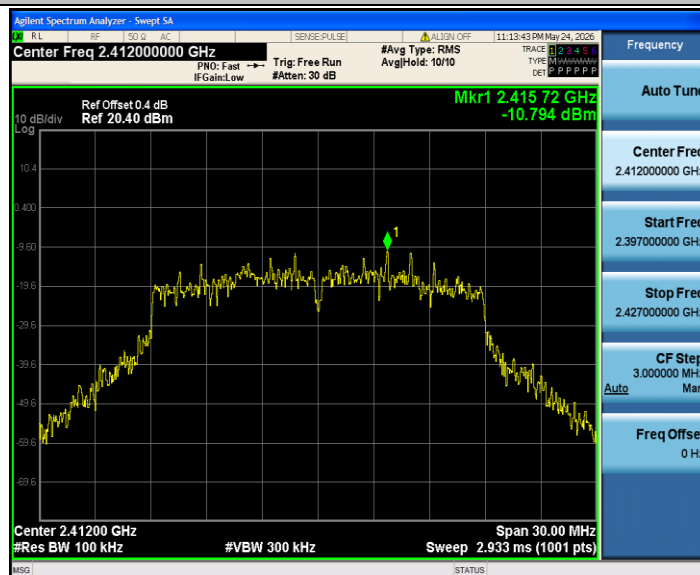
11G_Ant1_2462_30~1000



11G_Ant1_2462_1000~26500



11N20SISO_Ant1_2412_0~Reference



11N20SISO_Ant1_2412_30~1000

