

FCC Appendix RF Test Data

FCC ID : 2AAMS-X15-S

Company: : SHENZHEN NST INDUSTRY AND TRADE CO.,LTD

EUT : laptop

Model Number : X15-S

Report No. : CTA25041000803

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	9.520	2407.480	2417.000	0.5	PASS
		2437	9.480	2432.520	2442.000	0.5	PASS
		2462	9.560	2457.480	2467.040	0.5	PASS
11G	Ant1	2412	15.720	2403.880	2419.600	0.5	PASS
		2437	15.720	2429.440	2445.160	0.5	PASS
		2462	15.720	2453.840	2469.560	0.5	PASS
11N20SISO	Ant1	2412	15.640	2403.960	2419.600	0.5	PASS
		2437	15.640	2429.440	2445.080	0.5	PASS
		2462	16.120	2453.440	2469.560	0.5	PASS
11N40SISO	Ant1	2422	35.680	2404.240	2439.920	0.5	PASS
		2437	35.120	2419.480	2454.600	0.5	PASS
		2452	30.080	2434.480	2464.560	0.5	PASS

Test Graphs

11B_Ant1_2412



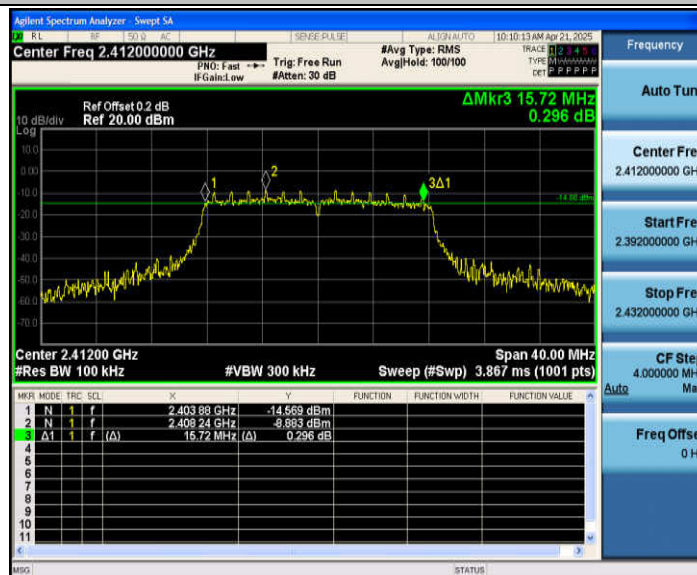
11B_Ant1_2437



11B_Ant1_2462



11G_Ant1_2412



11G_Ant1_2437



11G_Ant1_2462



11N20SISO_Ant1_2412



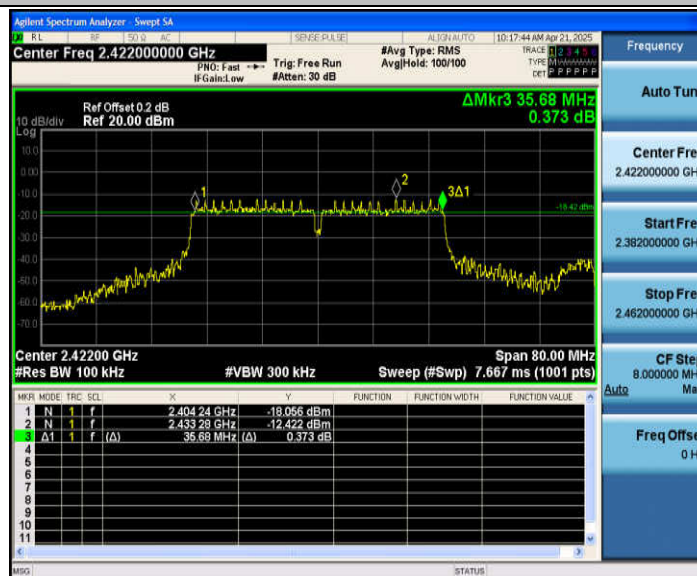
11N20SISO_Ant1_2437



11N20SISO_Ant1_2462



11N40SISO_Ant1_2422



11N40SISO_Ant1_2437



11N40SISO_Ant1_2452



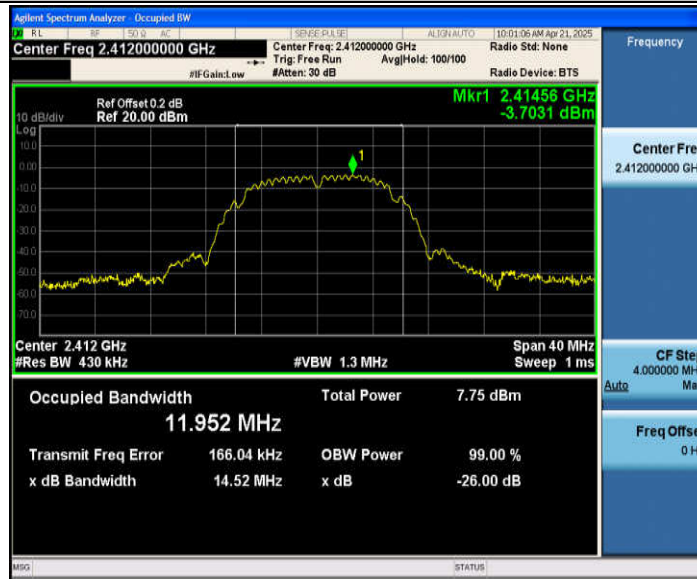
Appendix B: Occupied Channel Bandwidth

Test Result

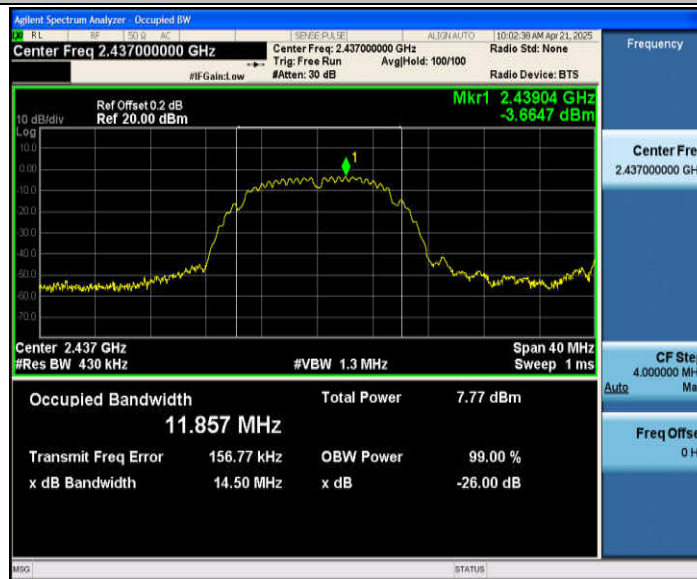
TestMode	Antenna	Channel Frequency[MHz]	OCB [MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
11B	Ant1	2412	11.952	2406.1900	2418.1420	---	---
		2437	11.857	2431.2283	2443.0853	---	---
		2462	11.995	2456.1358	2468.1308	---	---
11G	Ant1	2412	16.596	2403.6899	2420.2859	---	---
		2437	16.594	2428.8321	2445.4261	---	---
		2462	16.708	2453.5057	2470.2137	---	---
11N20SISO	Ant1	2412	17.573	2403.2047	2420.7777	---	---
		2437	17.612	2428.3016	2445.9136	---	---
		2462	17.795	2452.9267	2470.7217	---	---
11N40SISO	Ant1	2422	36.476	2403.9566	2440.4326	---	---
		2437	35.951	2419.1281	2455.0791	---	---
		2452	35.846	2433.9126	2469.7586	---	---

Test Graphs

11B_Ant1_2412



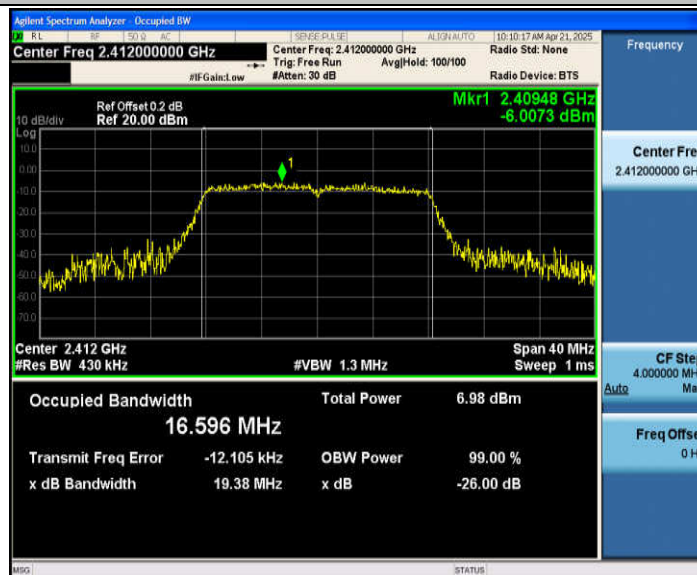
11B_Ant1_2437



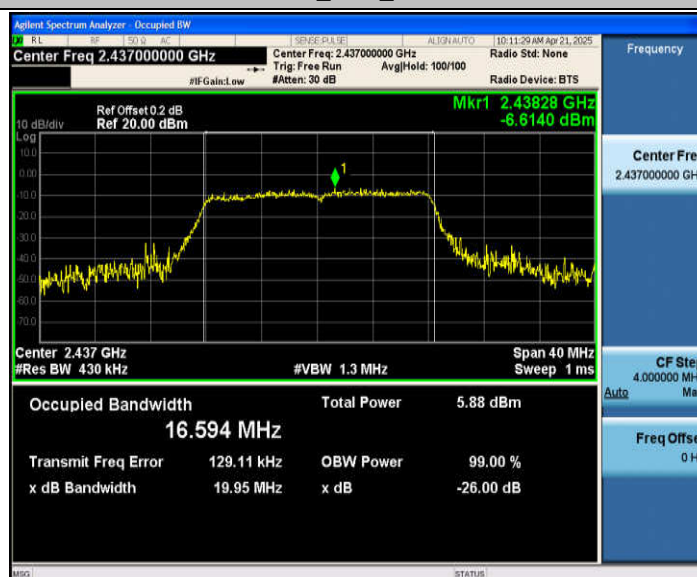
11B_Ant1_2462



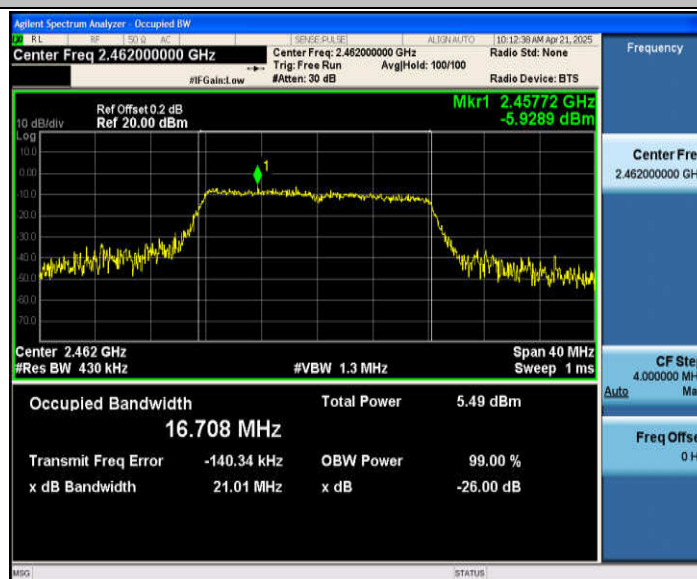
11G_Ant1_2412



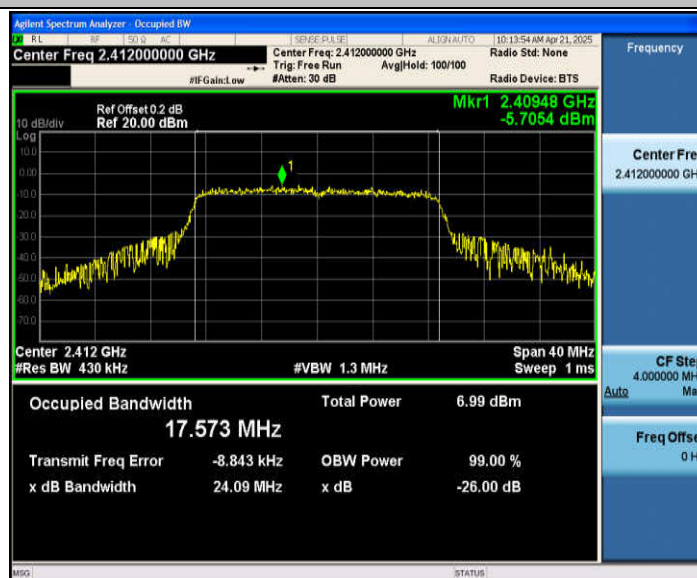
11G_Ant1_2437



11G_Ant1_2462



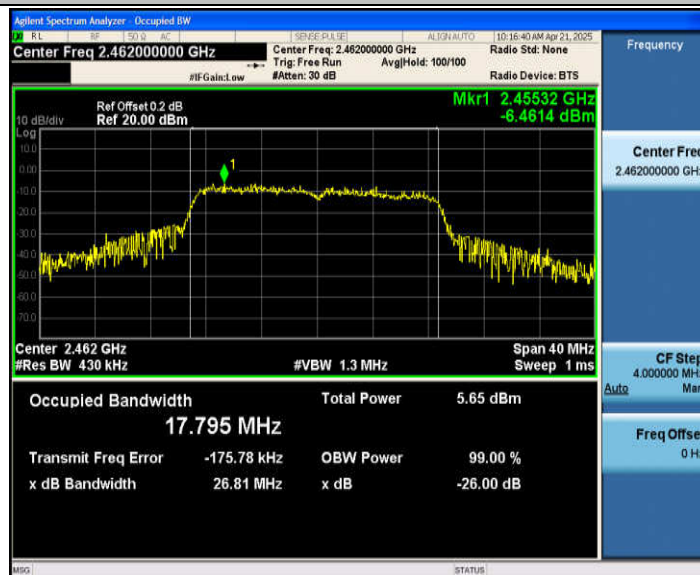
11N20SISO_Ant1_2412



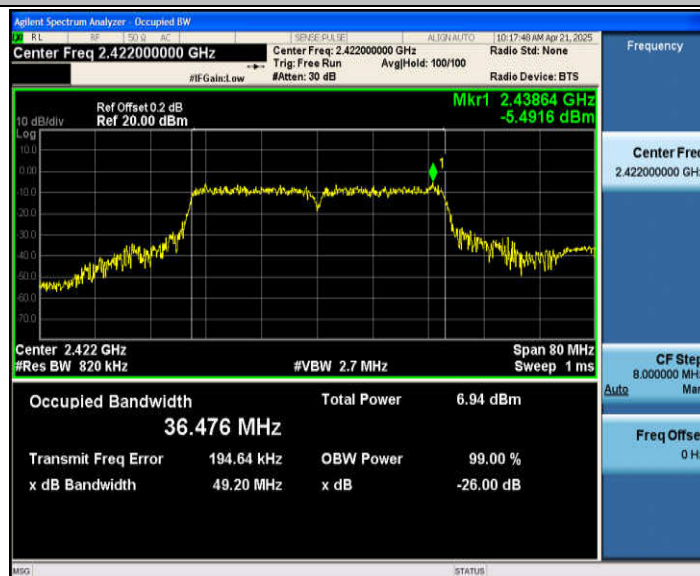
11N20SISO_Ant1_2437



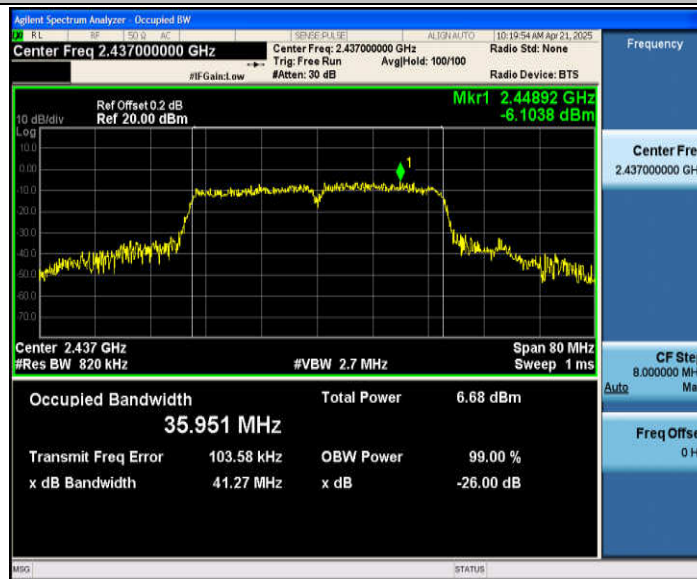
11N20SISO_Ant1_2462



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	7.63	≤30.00	PASS
		2437	7.69	≤30.00	PASS
		2462	6.65	≤30.00	PASS
11G	Ant1	2412	7.66	≤30.00	PASS
		2437	6.42	≤30.00	PASS
		2462	6.10	≤30.00	PASS
11N20SISO	Ant1	2412	7.45	≤30.00	PASS
		2437	6.39	≤30.00	PASS
		2462	6.18	≤30.00	PASS
11N40SISO	Ant1	2422	7.07	≤30.00	PASS
		2437	6.69	≤30.00	PASS
		2452	6.60	≤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	-17.88	≤8.00	PASS
		2437	-18.49	≤8.00	PASS
		2462	-19.59	≤8.00	PASS
11G	Ant1	2412	-24.42	≤8.00	PASS
		2437	-26.08	≤8.00	PASS
		2462	-25.10	≤8.00	PASS
11N20SISO	Ant1	2412	-24.30	≤8.00	PASS
		2437	-25.32	≤8.00	PASS
		2462	-25.65	≤8.00	PASS
11N40SISO	Ant1	2422	-28.22	≤8.00	PASS
		2437	-27.65	≤8.00	PASS
		2452	-25.63	≤8.00	PASS

Test Graphs

11B_Ant1_2412



11B_Ant1_2437



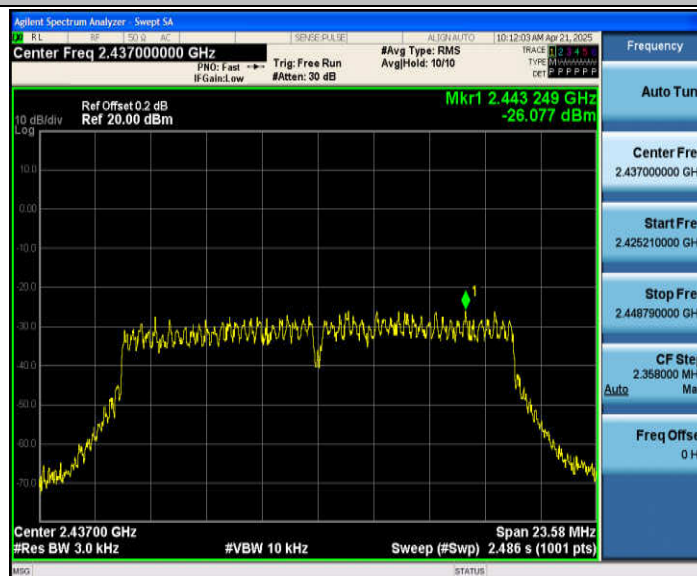
11B_Ant1_2462



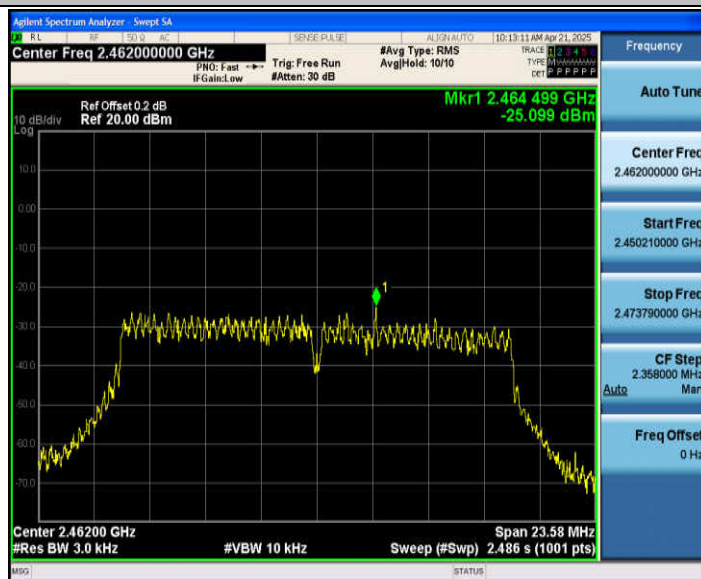
11G_Ant1_2412



11G_Ant1_2437



11G_Ant1_2462



11N20SISO_Ant1_2412



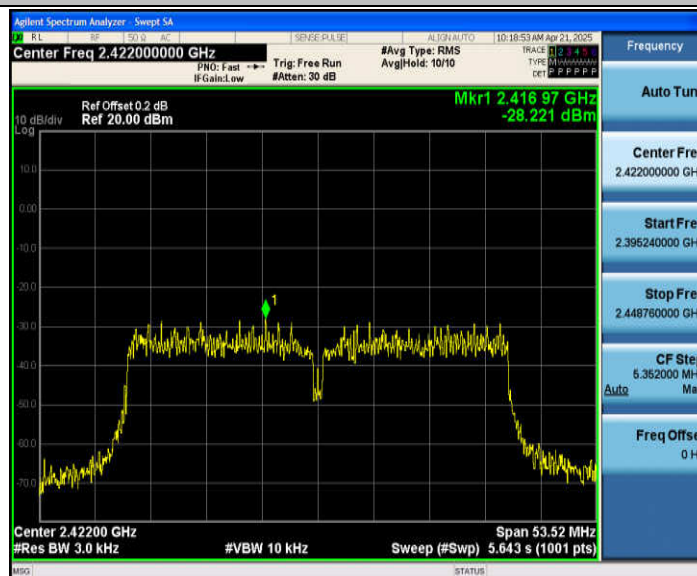
11N20SISO_Ant1_2437



11N20SISO_Ant1_2462



11N40SISO_Ant1_2422



11N40SISO_Ant1_2437



11N40SISO_Ant1_2452



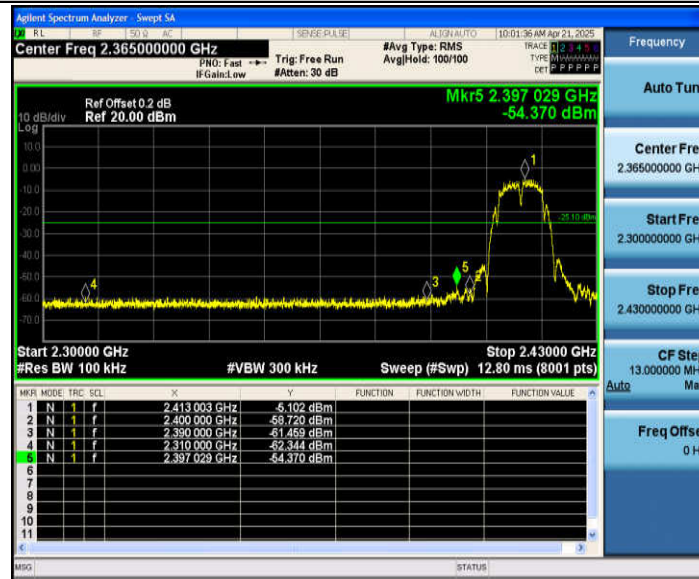
Appendix E: Band edge measurements

Test Result

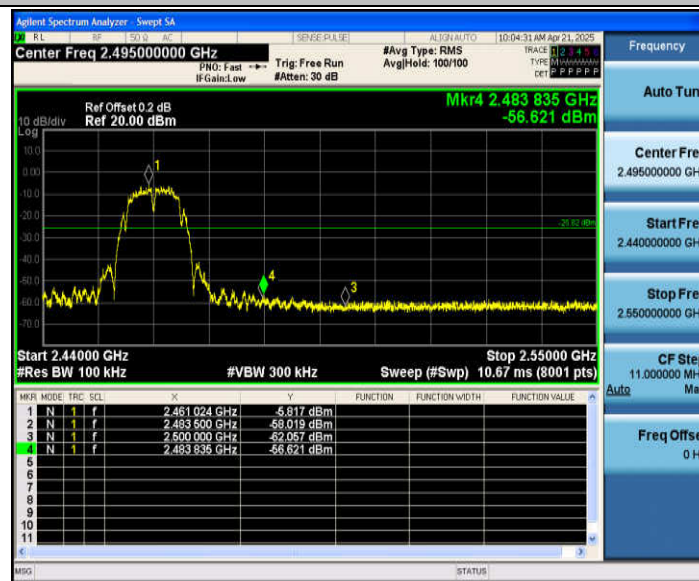
TestMode	Antenna	Channel Name	Frequency[MHz]	RefLevel[dBm]	Result[dBm]	Limit[dBm]	Verdict
11B	Ant1	Low	2412	-5.10	-54.37	≤-25.1	PASS
		High	2462	-5.82	-56.62	≤-25.82	PASS
11G	Ant1	Low	2412	-8.93	-42.52	≤-28.93	PASS
		High	2462	-9.50	-55.72	≤-29.5	PASS
11N20SISO	Ant1	Low	2412	-8.95	-40.93	≤-28.95	PASS
		High	2462	-9.55	-54.72	≤-29.55	PASS
11N40SISO	Ant1	Low	2422	-12.43	-43.27	≤-32.43	PASS
		High	2452	-10.80	-48.31	≤-30.8	PASS

Test Graphs

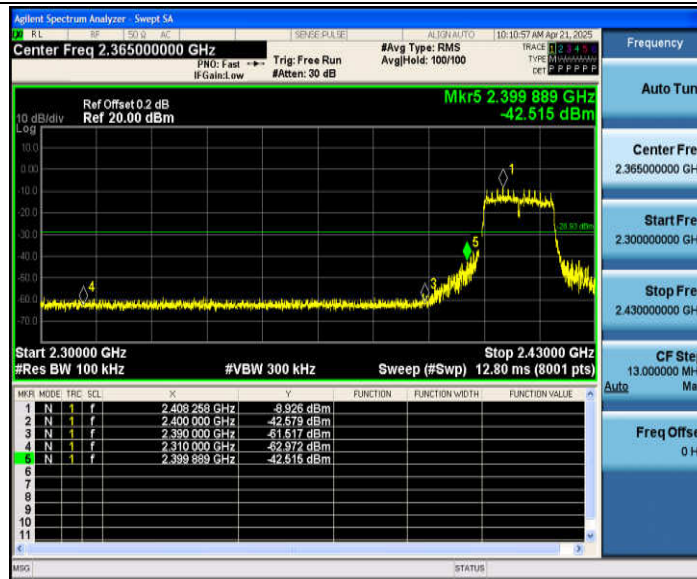
11B_Ant1_Low_2412



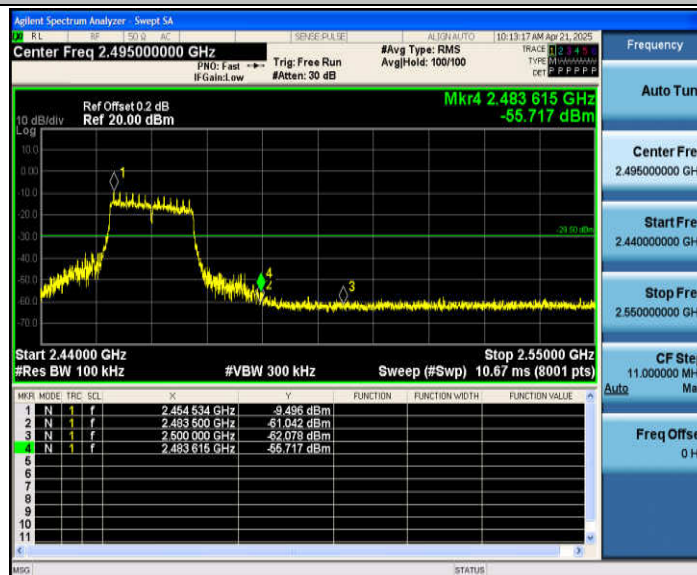
11B_Ant1_High_2462



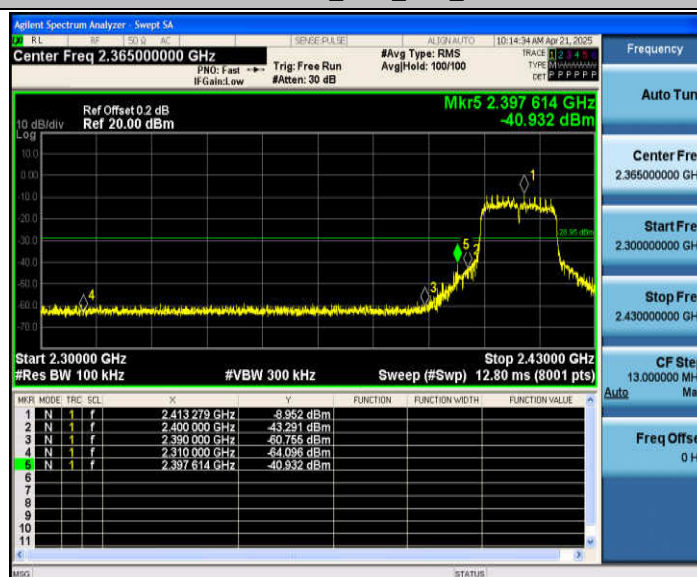
11G_Ant1_Low_2412



11G_Ant1_High_2462



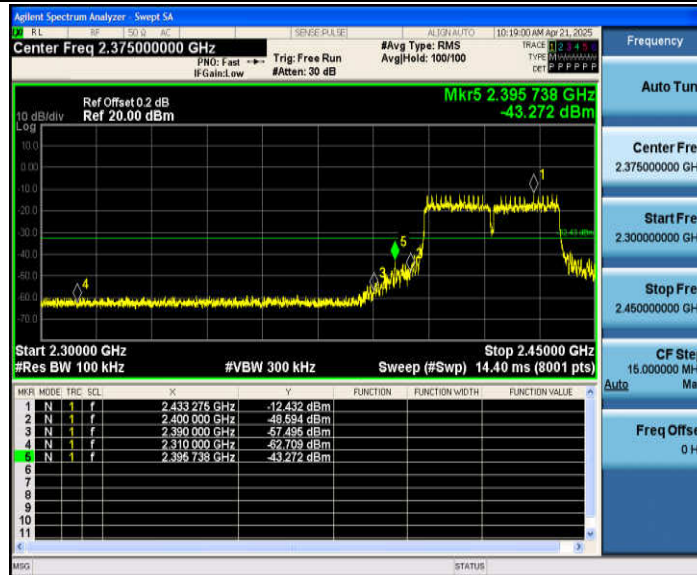
11N20SISO_Ant1_Low_2412



11N20SISO_Ant1_High_2462



11N40SISO_Ant1_Low_2422



11N40SISO_Ant1_High_2452



Appendix F: Conducted Spurious Emission

Test Result

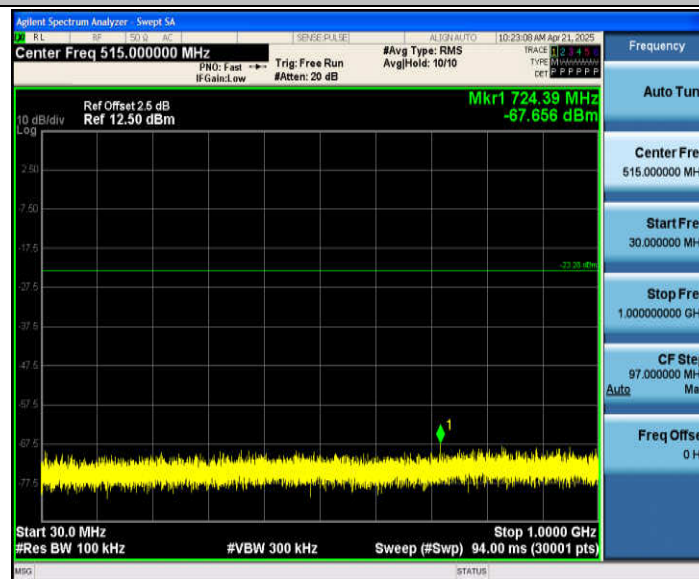
TestMode	Antenna	Frequency[MHz]	FreqRange [Mhz]	RefLevel [dBm]	Result [dBm]	Limit [dBm]	Verdict
11B	Ant1	2412	Reference	-3.28	-3.28	---	PASS
			30~1000	-3.28	-67.66	≤-23.28	PASS
			1000~26500	-3.28	-51.26	≤-23.28	PASS
		2437	Reference	-3.30	-3.30	---	PASS
			30~1000	-3.30	-67.85	≤-23.3	PASS
			1000~26500	-3.30	-49.48	≤-23.3	PASS
		2462	Reference	-4.25	-4.25	---	PASS
			30~1000	-4.25	-67.86	≤-24.25	PASS
			1000~26500	-4.25	-43.88	≤-24.25	PASS
11G	Ant1	2412	Reference	-6.59	-6.59	---	PASS
			30~1000	-6.59	-67.8	≤-26.59	PASS
			1000~26500	-6.59	-54.42	≤-26.59	PASS
		2437	Reference	-8.28	-8.28	---	PASS
			30~1000	-8.28	-68.23	≤-28.28	PASS
			1000~26500	-8.28	-55.27	≤-28.28	PASS
		2462	Reference	-7.30	-7.30	---	PASS
			30~1000	-7.30	-68.12	≤-27.3	PASS
			1000~26500	-7.30	-54.98	≤-27.3	PASS
11N20SISO	Ant1	2412	Reference	-6.76	-6.76	---	PASS
			30~1000	-6.76	-66.93	≤-26.76	PASS
			1000~26500	-6.76	-54.09	≤-26.76	PASS
		2437	Reference	-7.81	-7.81	---	PASS
			30~1000	-7.81	-68.48	≤-27.81	PASS
			1000~26500	-7.81	-54.79	≤-27.81	PASS
		2462	Reference	-7.06	-7.06	---	PASS
			30~1000	-7.06	-67.41	≤-27.06	PASS
			1000~26500	-7.06	-53.81	≤-27.06	PASS
11N40SISO	Ant1	2422	Reference	-10.49	-10.49	---	PASS
			30~1000	-10.49	-67.37	≤-30.49	PASS
			1000~26500	-10.49	-49.9	≤-30.49	PASS
		2437	Reference	-9.38	-9.38	---	PASS
			30~1000	-9.38	-66.8	≤-29.38	PASS
			1000~26500	-9.38	-53.99	≤-29.38	PASS
		2452	Reference	-8.54	-8.54	---	PASS
			30~1000	-8.54	-68.17	≤-28.54	PASS
			1000~26500	-8.54	-50.13	≤-28.54	PASS

Test Graphs

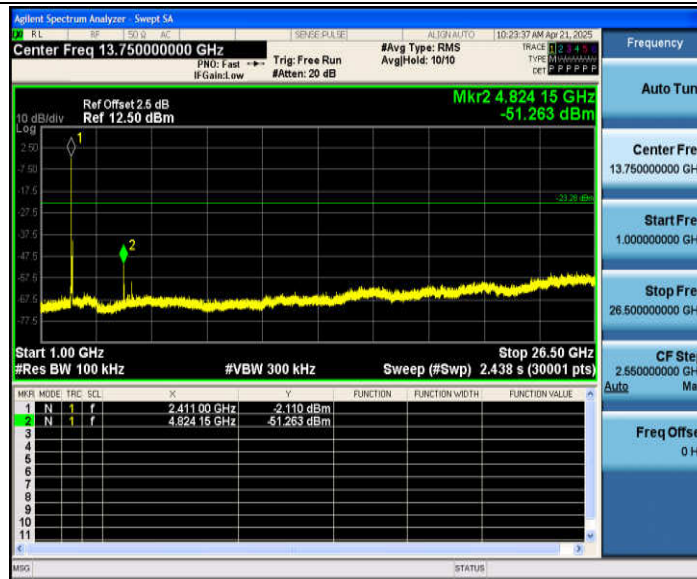
11B_Ant1_2412_0~Reference



11B_Ant1_2412_30~1000



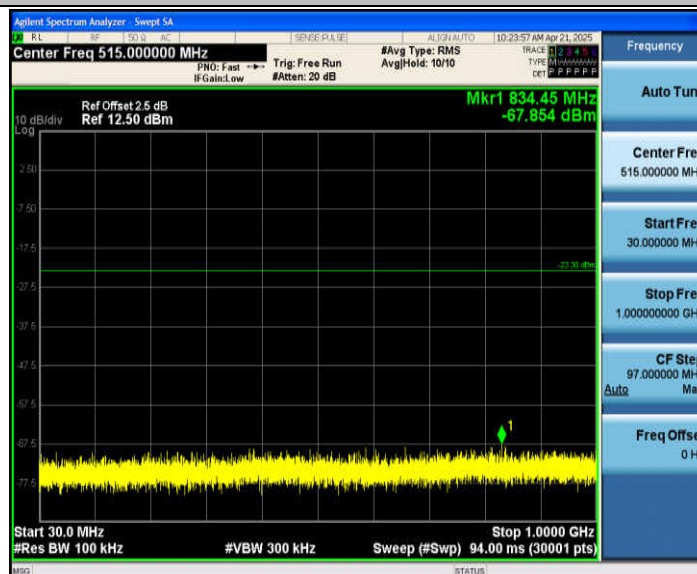
11B_Ant1_2412_1000~26500



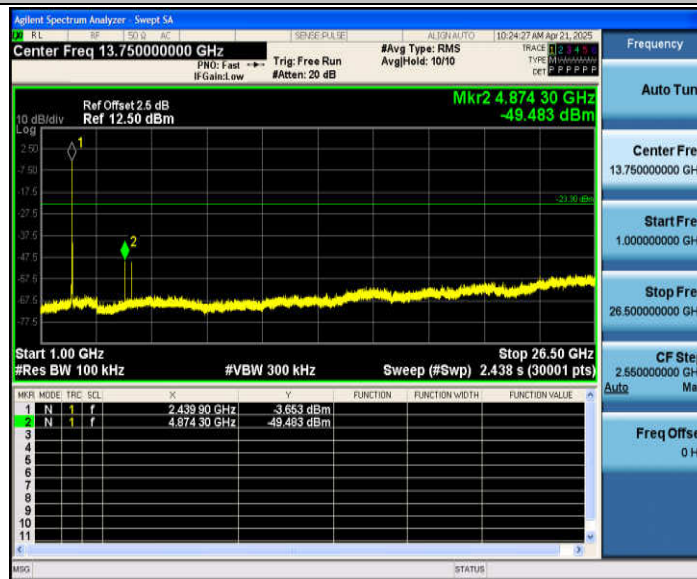
11B_Ant1_2437_0~Reference



11B_Ant1_2437_30~1000



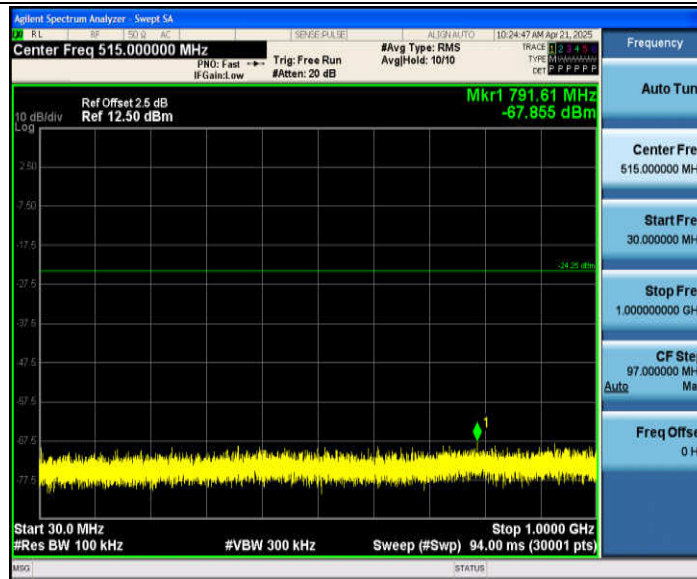
11B_Ant1_2437_1000~26500



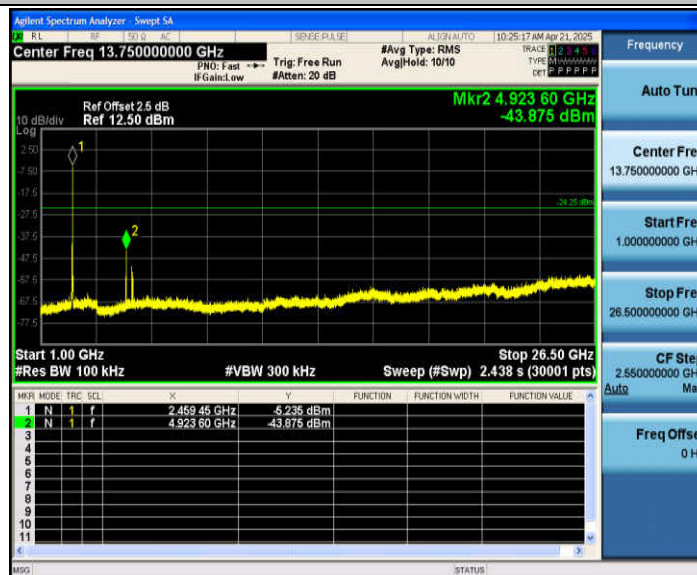
11B_Ant1_2462_0~Reference



11B_Ant1_2462_30~1000



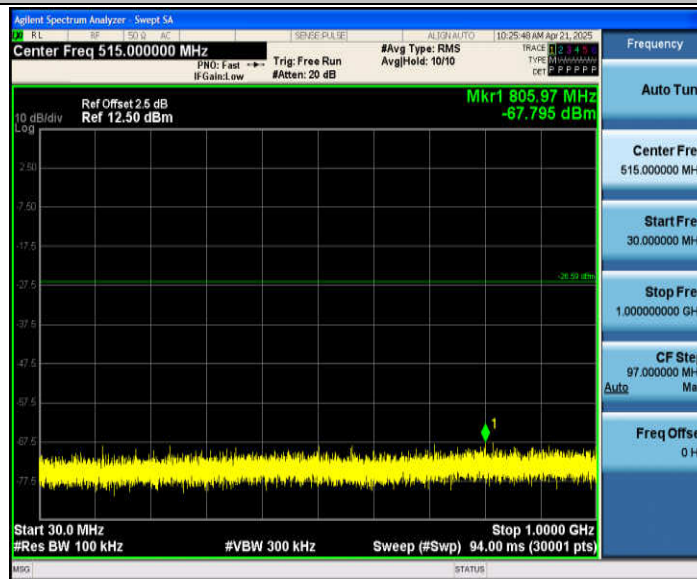
11B_Ant1_2462_1000~26500



11G_Ant1_2412_0~Reference



11G_Ant1_2412_30~1000



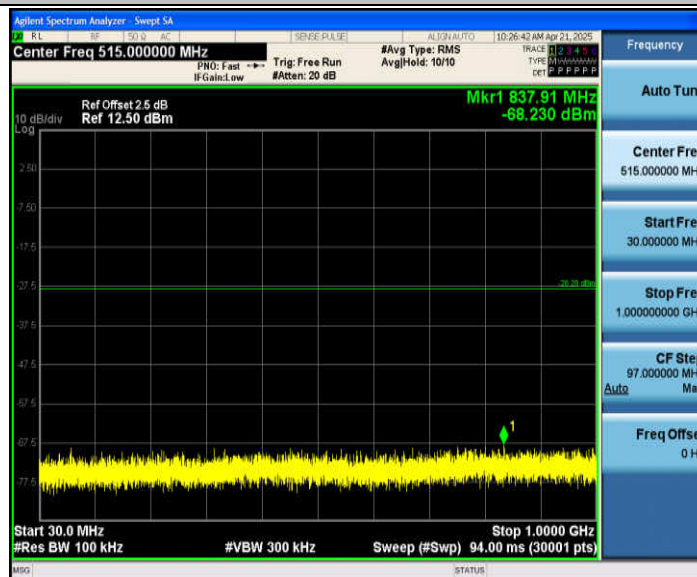
11G_Ant1_2412_1000~26500



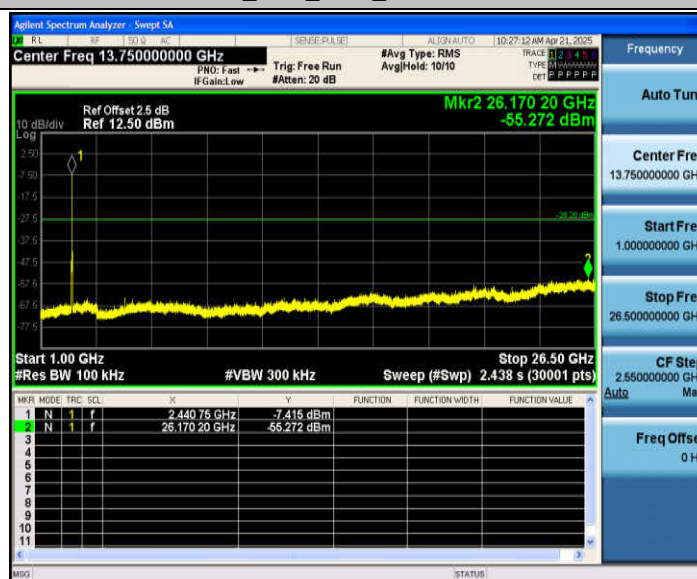
11G_Ant1_2437_0~Reference



11G_Ant1_2437_30~1000



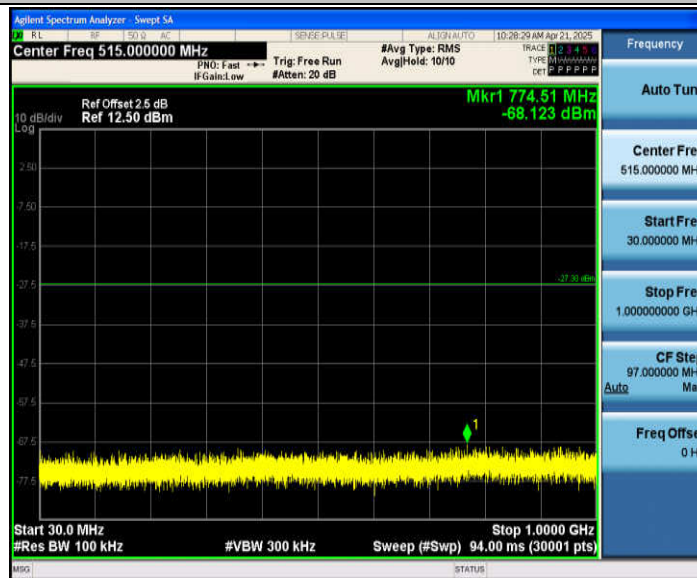
11G_Ant1_2437_1000~26500



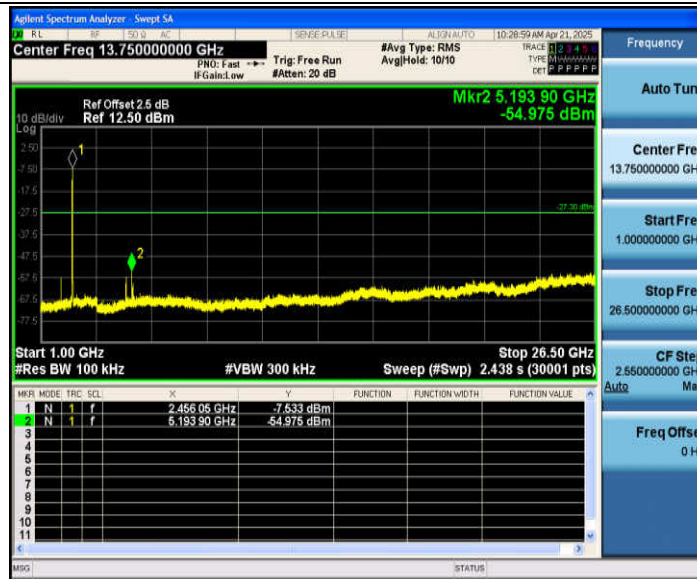
11G_Ant1_2462_0~Reference



11G_Ant1_2462_30~1000



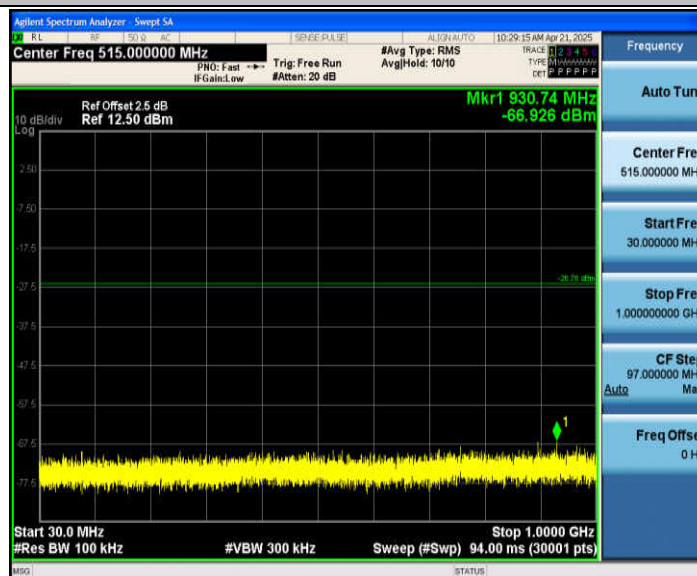
11G_Ant1_2462_1000~26500



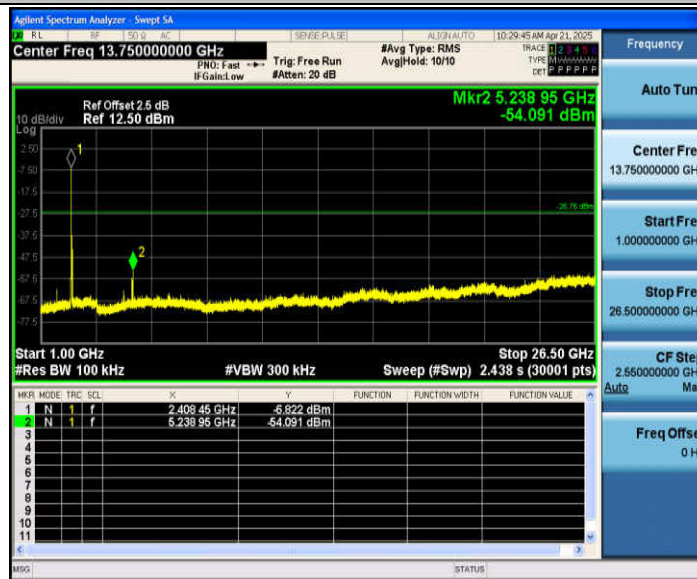
11N20ISO_Ant1_2412_0~Reference



11N20ISO_Ant1_2412_30~1000



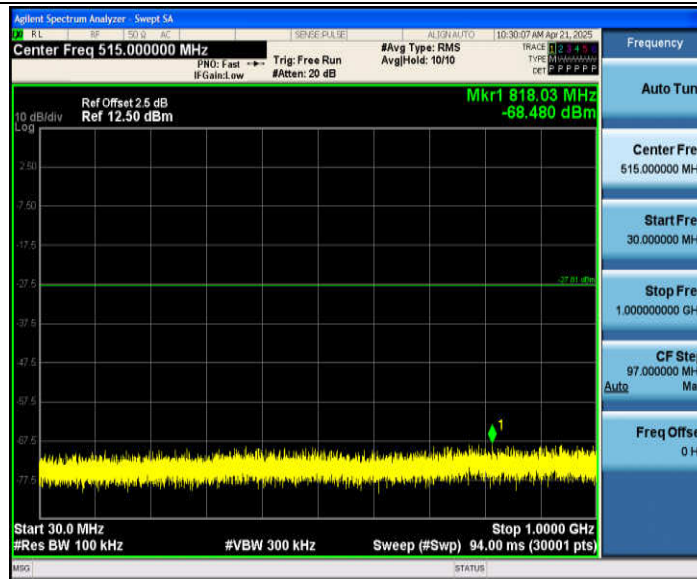
11N20SISO_Ant1_2412_1000~26500



11N20SISO_Ant1_2437_0~Reference



11N20SISO_Ant1_2437_30~1000



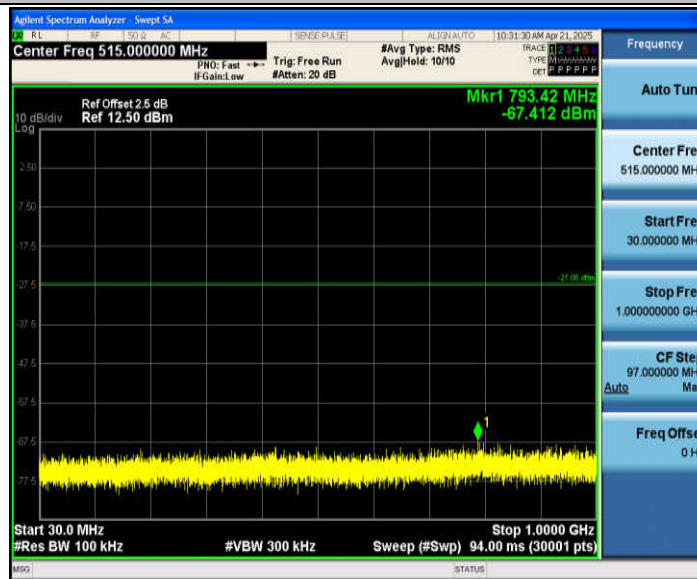
11N20SISO_Ant1_2437_1000~26500



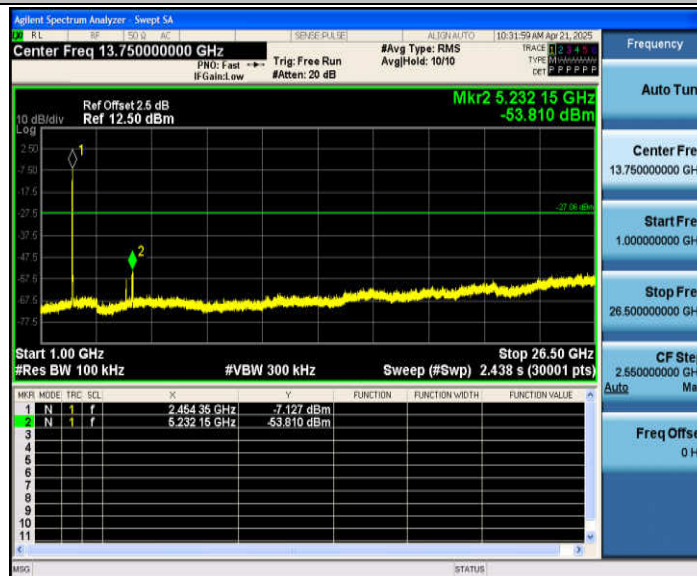
11N20SISO_Ant1_2462_0~Reference



11N20SISO_Ant1_2462_30~1000



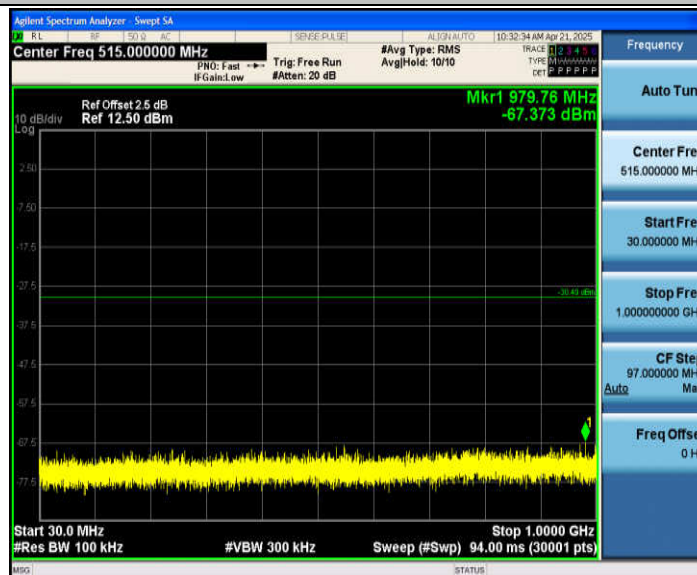
11N20SISO_Ant1_2462_1000~26500



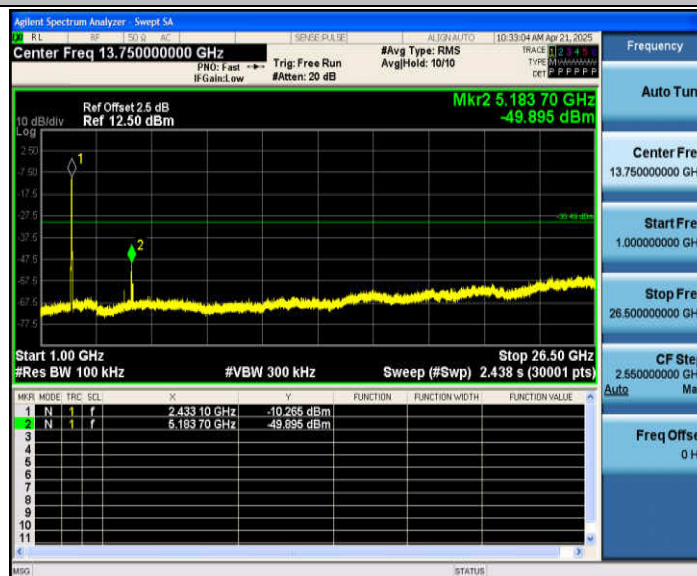
11N40SISO_Ant1_2422_0~Reference



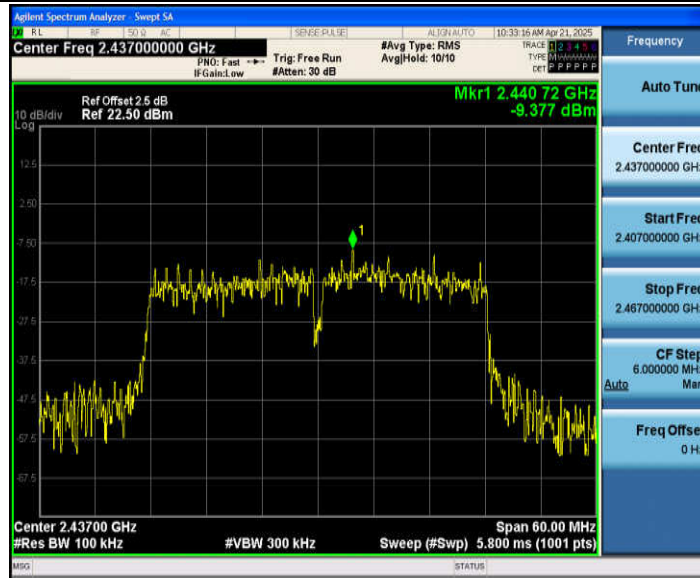
11N40SISO_Ant1_2422_30~1000



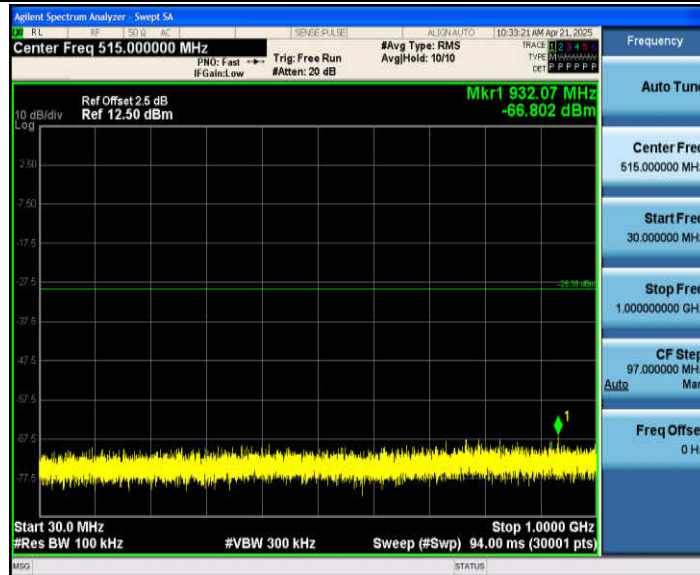
11N40SISO_Ant1_2422_1000~26500



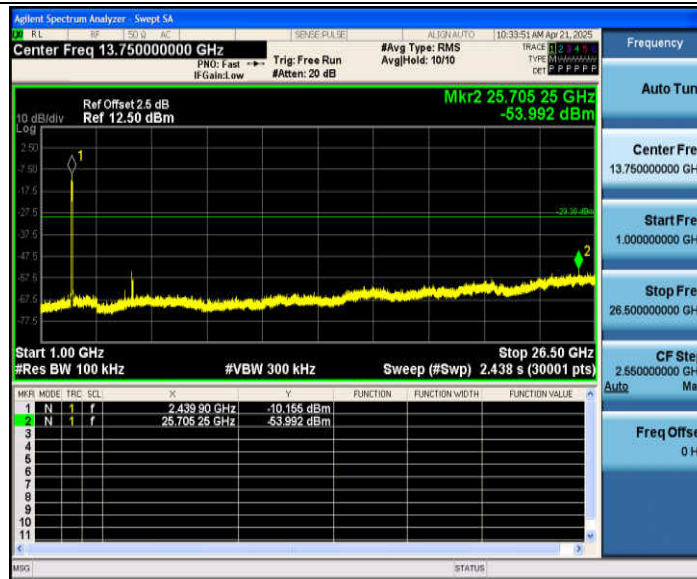
11N40SISO_Ant1_2437_0~Reference



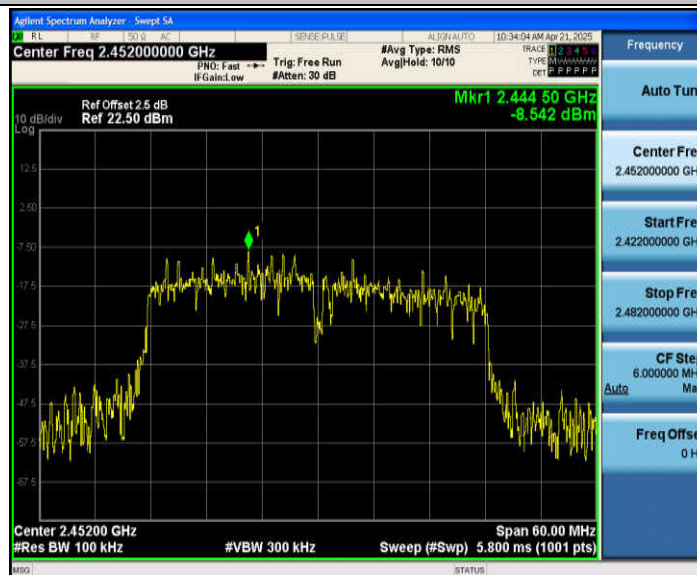
11N40SISO_Ant1_2437_30~1000



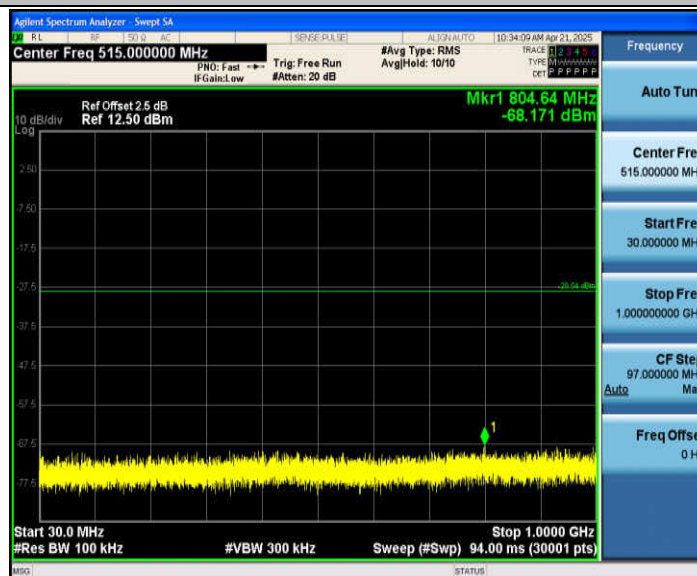
11N40SISO_Ant1_2437_1000~26500



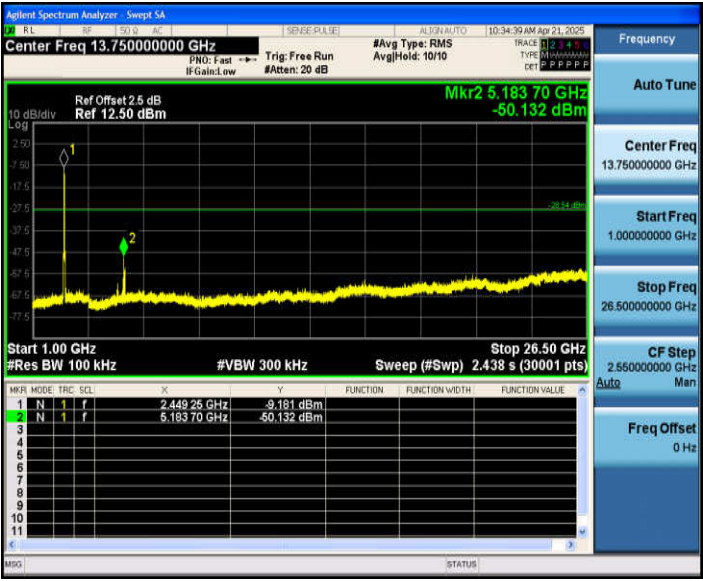
11N40ISO_Ant1_2452_0~Reference



11N40ISO_Ant1_2452_30~1000



11N40SISO_Ant1_2452_1000~26500



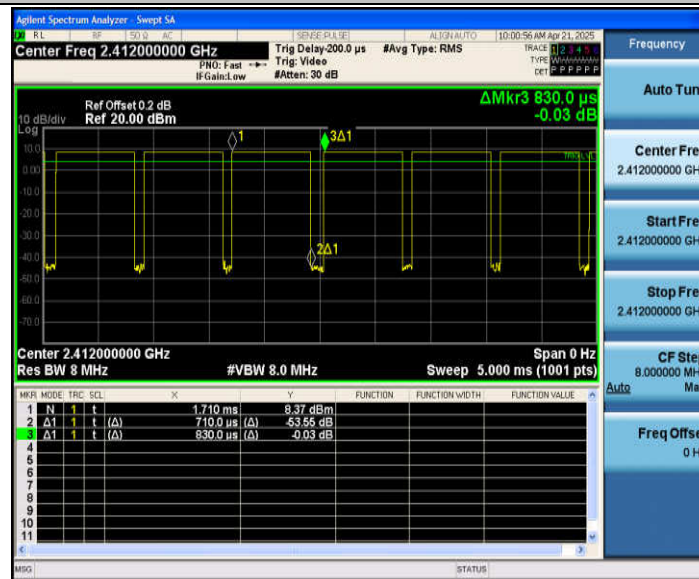
Appendix G: Duty Cycle

Test Result

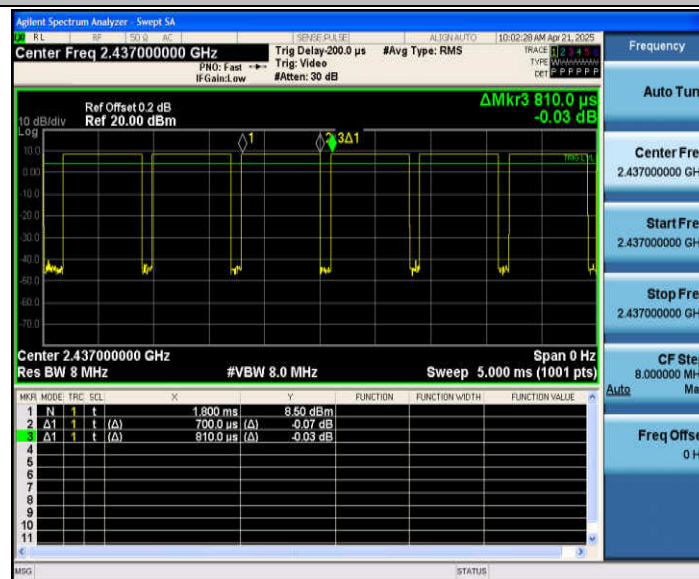
TestMode	Antenna	Frequency[MHz]	Transmission Duration [ms]	Transmission Period [ms]	Duty Cycle [%]
11B	Ant1	2412	0.71	0.83	85.54
		2437	0.70	0.81	86.42
		2462	0.70	0.81	86.42
11G	Ant1	2412	0.11	0.32	34.38
		2437	0.11	0.30	36.67
		2462	0.11	0.32	34.38
11N20SISO	Ant1	2412	0.11	0.29	37.93
		2437	0.11	0.30	36.67
		2462	0.11	0.30	36.67
11N40SISO	Ant1	2422	0.07	0.30	23.33
		2437	0.07	0.26	26.92
		2452	0.07	0.26	26.92

Test Graphs

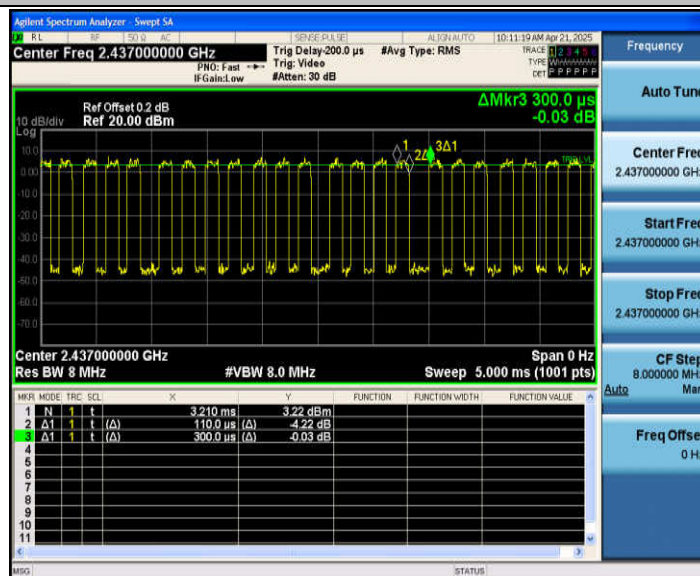
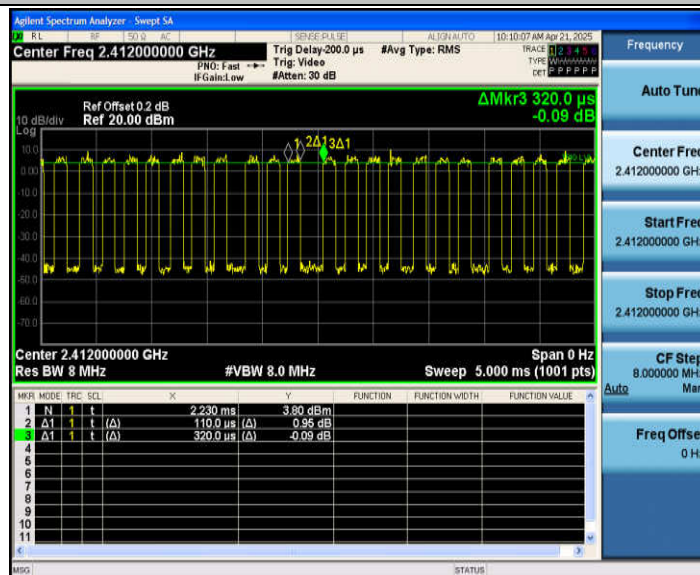
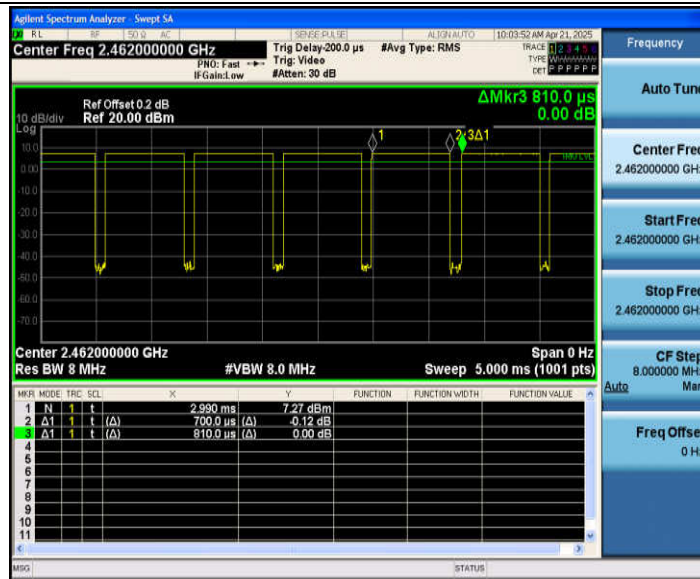
11B_Ant1_2412



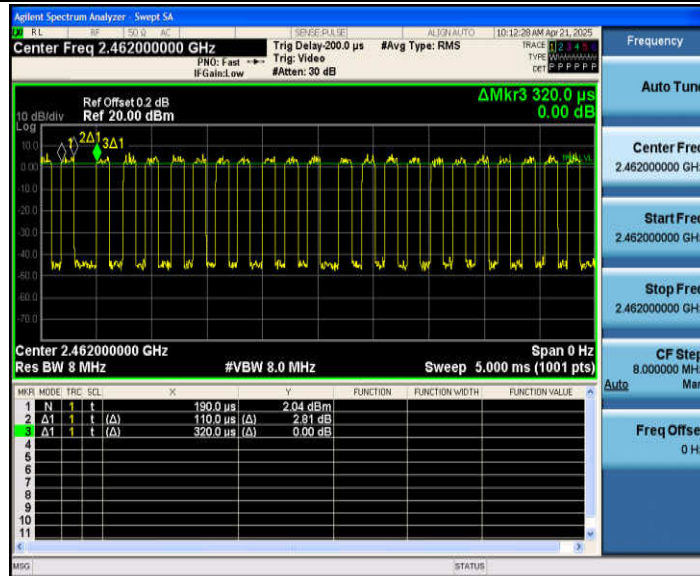
11B_Ant1_2437



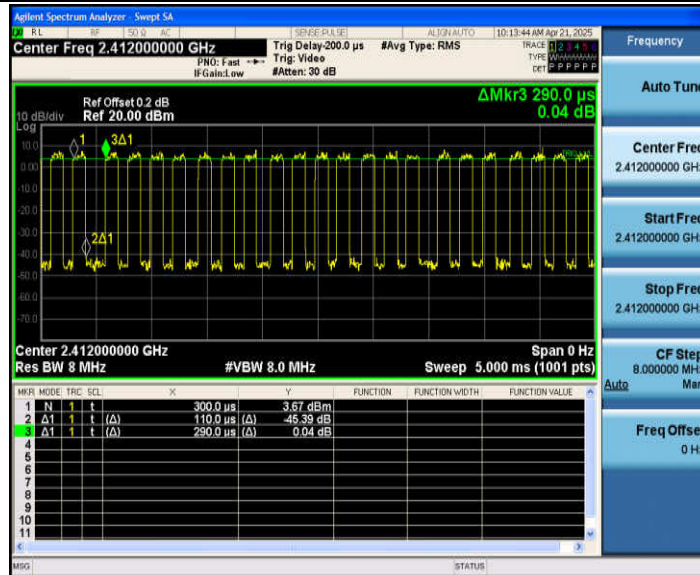
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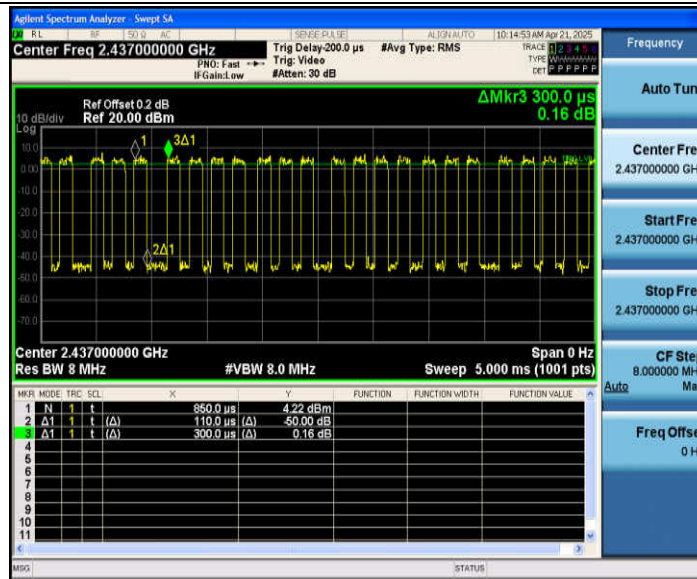
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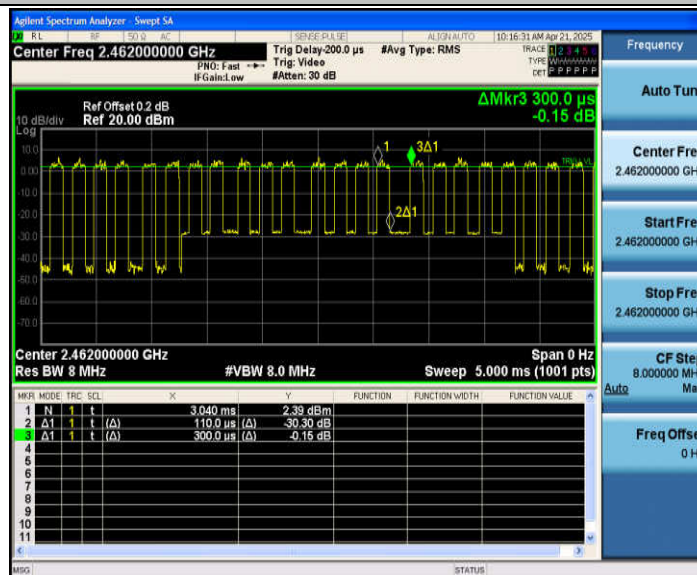
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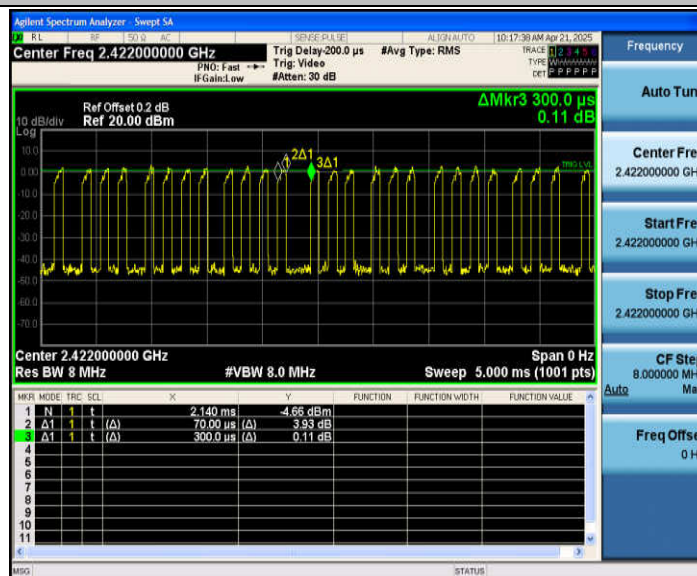
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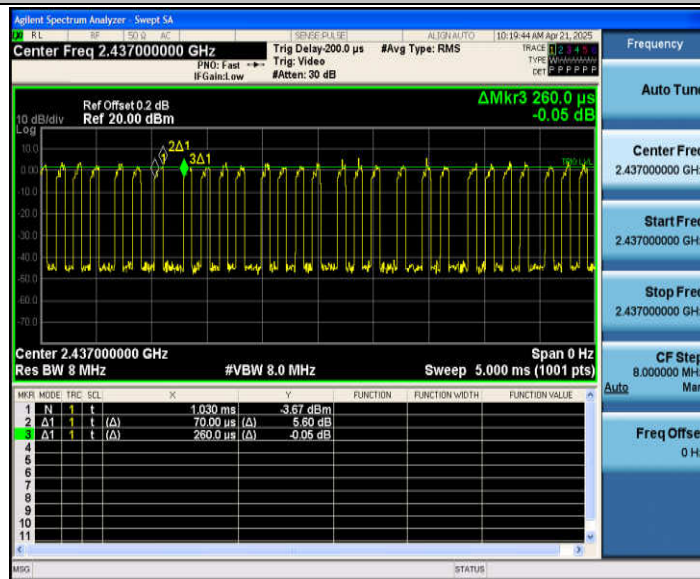
11N20SISO_Ant1_2462



11N40SISO_Ant1_2422



11N40SISO_Ant1_2437



11N40SISO_Ant1_2452

