

FCC Appendix RF Test Data for 2.4GWIFI

FCC ID : 2A68F-LP5-SG

Company : Shenzhen Hingin Technology Co.,Ltd

EUT : LaserPecker LP5 Safeguard

Model Number : LP5-SG

Report No. : CTA25120901901

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	10.240	2406.920	2417.160	0.5	PASS
		2437	10.240	2431.920	2442.160	0.5	PASS
		2462	10.240	2456.920	2467.160	0.5	PASS
11G	Ant1	2412	15.440	2404.400	2419.840	0.5	PASS
		2437	15.840	2429.160	2445.000	0.5	PASS
		2462	15.960	2454.080	2470.040	0.5	PASS
11N20SISO	Ant1	2412	17.280	2403.440	2420.720	0.5	PASS
		2437	17.320	2428.320	2445.640	0.5	PASS
		2462	17.360	2453.400	2470.760	0.5	PASS
11N40SISO	Ant1	2422	35.840	2404.160	2440.000	0.5	PASS
		2437	35.680	2419.240	2454.920	0.5	PASS
		2452	35.520	2434.400	2469.920	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



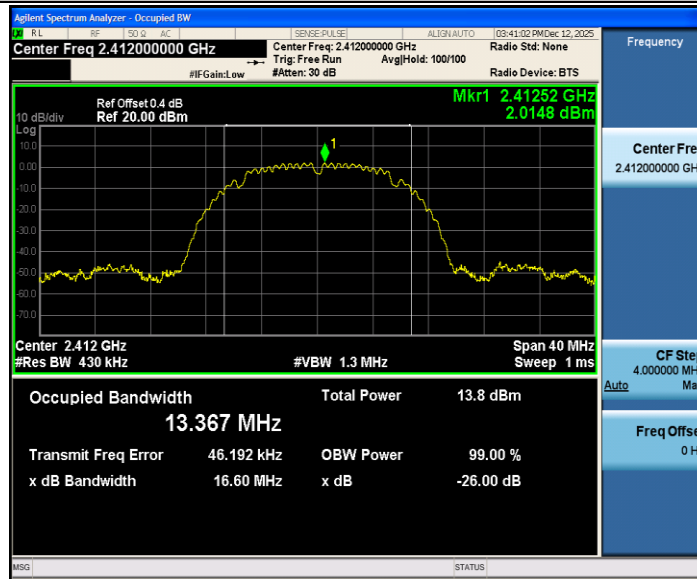
Appendix B: Occupied Channel Bandwidth

Test Result

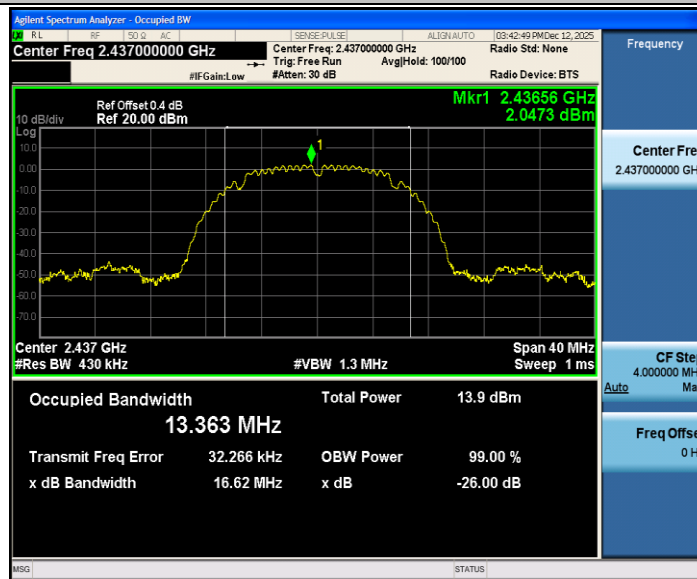
TestMode	Antenna	Channel Frequency[MHz]	OCB [MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
11B	Ant1	2412	13.367	2405.3627	2418.7297	---	---
		2437	13.363	2430.3508	2443.7138	---	---
		2462	13.377	2455.3291	2468.7061	---	---
11G	Ant1	2412	16.741	2403.7035	2420.4445	---	---
		2437	16.732	2428.7080	2445.4400	---	---
		2462	16.786	2453.6484	2470.4344	---	---
11N20SISO	Ant1	2412	17.808	2403.1435	2420.9515	---	---
		2437	17.803	2428.1287	2445.9317	---	---
		2462	17.784	2453.1195	2470.9035	---	---
11N40SISO	Ant1	2422	36.066	2404.0722	2440.1382	---	---
		2437	36.027	2419.1076	2455.1346	---	---
		2452	36.062	2434.0483	2470.1103	---	---

Test Graphs

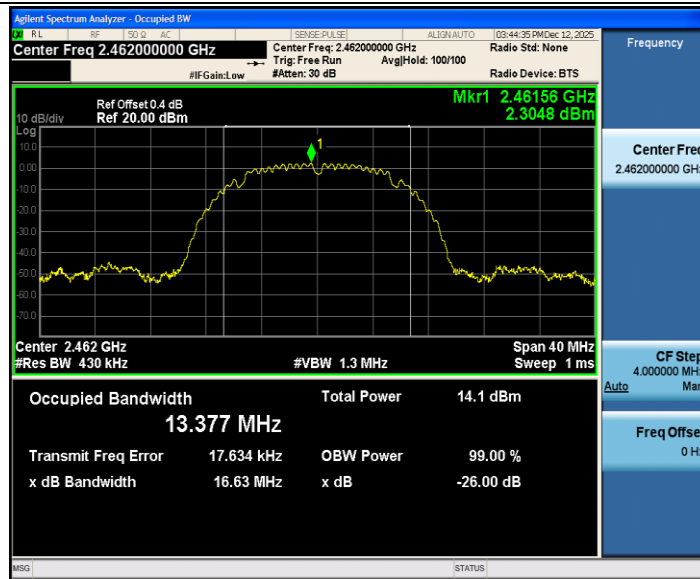
11B_Ant1_2412



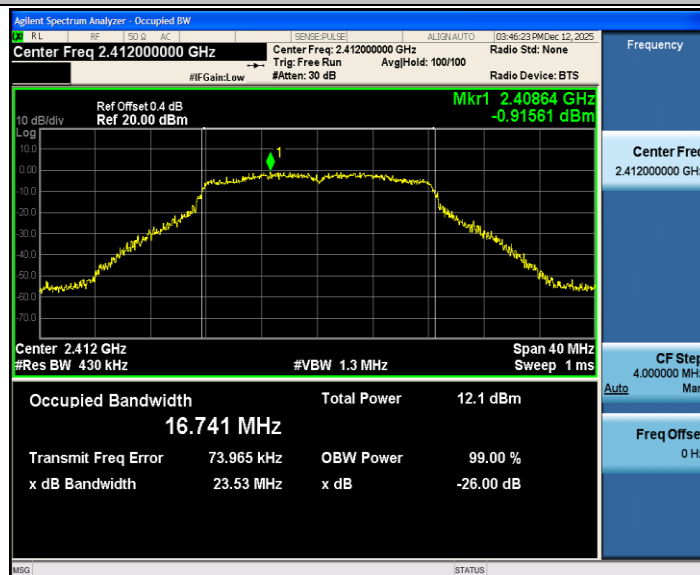
11B_Ant1_2437



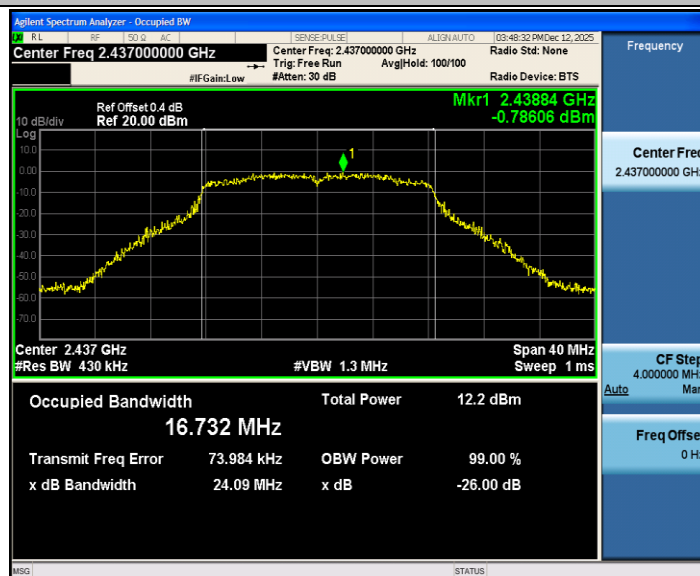
11B_Ant1_2462



11G_Ant1_2412



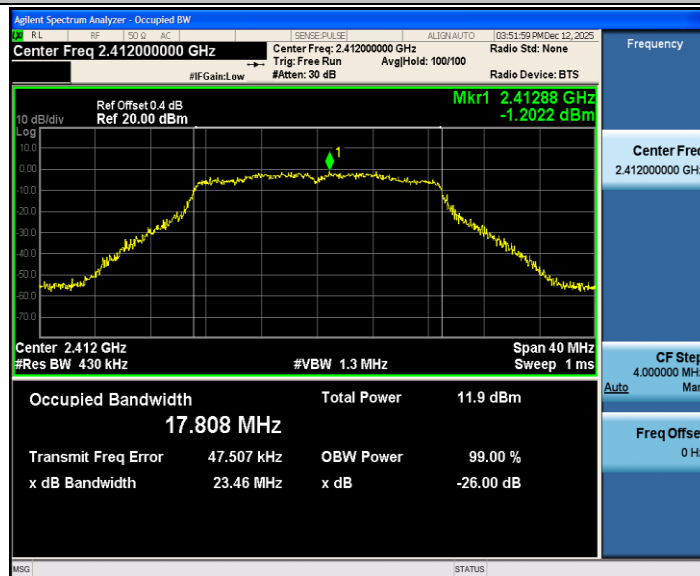
11G_Ant1_2437



11G_Ant1_2462



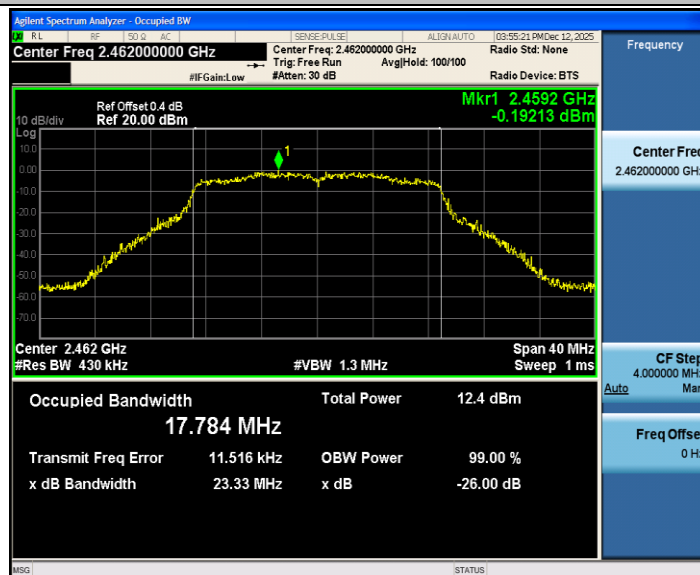
11N20SISO_Ant1_2412



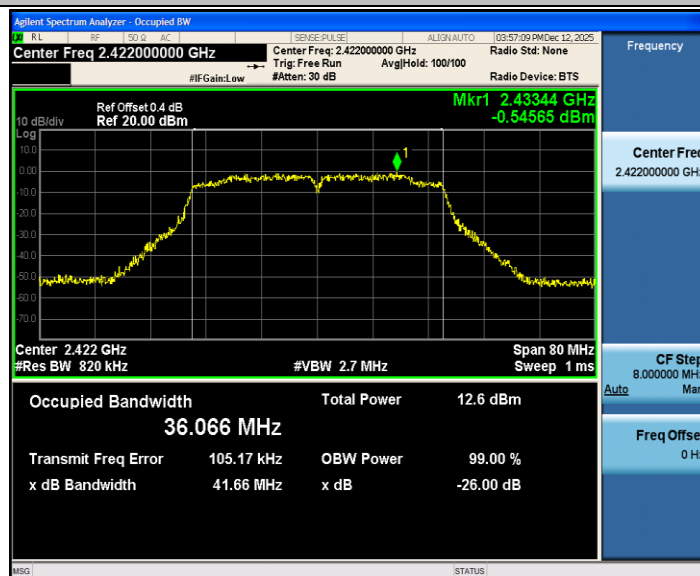
11N20SISO_Ant1_2437



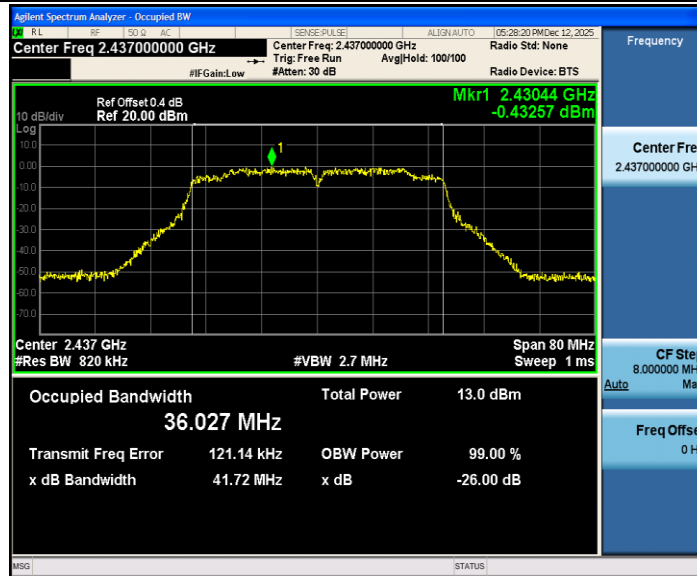
11N20SISO_Ant1_2462



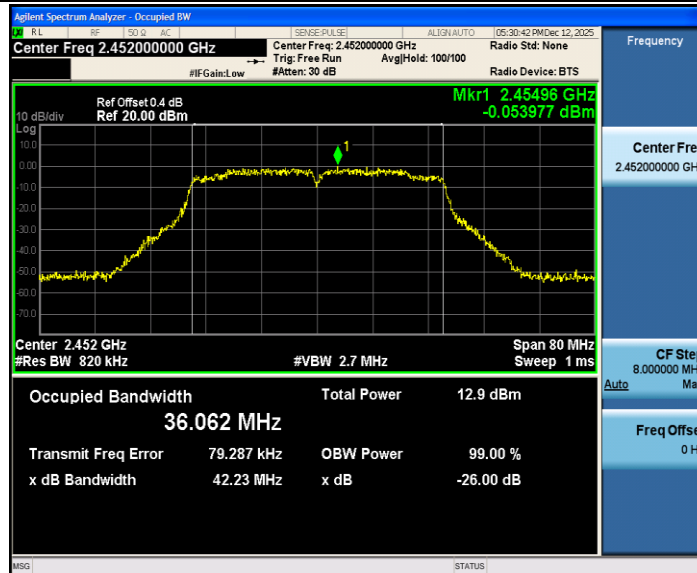
11N40SISO_Ant1_2422



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	13.68	≤30.00	PASS
		2437	13.74	≤30.00	PASS
		2462	13.88	≤30.00	PASS
11G	Ant1	2412	12.61	≤30.00	PASS
		2437	12.86	≤30.00	PASS
		2462	13.06	≤30.00	PASS
11N20SISO	Ant1	2412	12.58	≤30.00	PASS
		2437	12.76	≤30.00	PASS
		2462	12.97	≤30.00	PASS
11N40SISO	Ant1	2422	12.86	≤30.00	PASS
		2437	13.35	≤30.00	PASS
		2452	13.14	≤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	-11.47	≤8.00	PASS
		2437	-12.61	≤8.00	PASS
		2462	-12.12	≤8.00	PASS
11G	Ant1	2412	-17.73	≤8.00	PASS
		2437	-17.42	≤8.00	PASS
		2462	-18.41	≤8.00	PASS
11N20SISO	Ant1	2412	-18.36	≤8.00	PASS
		2437	-18.22	≤8.00	PASS
		2462	-17.81	≤8.00	PASS
11N40SISO	Ant1	2422	-20.66	≤8.00	PASS
		2437	-20.95	≤8.00	PASS
		2452	-20.27	≤8.00	PASS

Test Graphs

11B_Ant1_2412



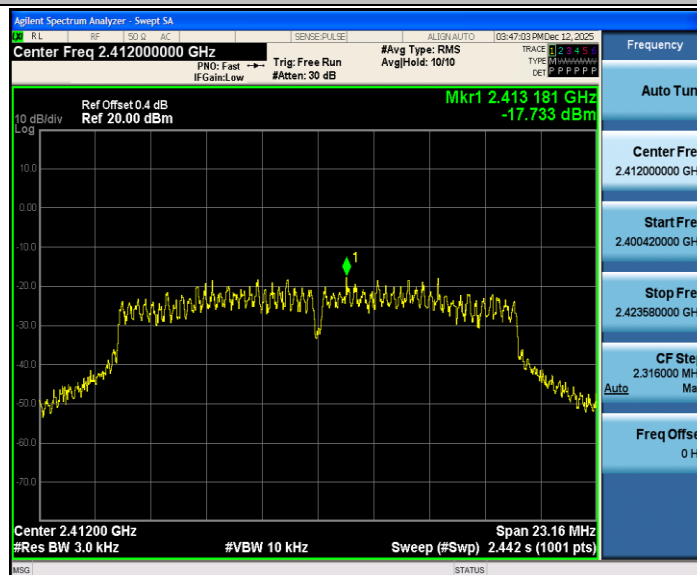
11B_Ant1_2437



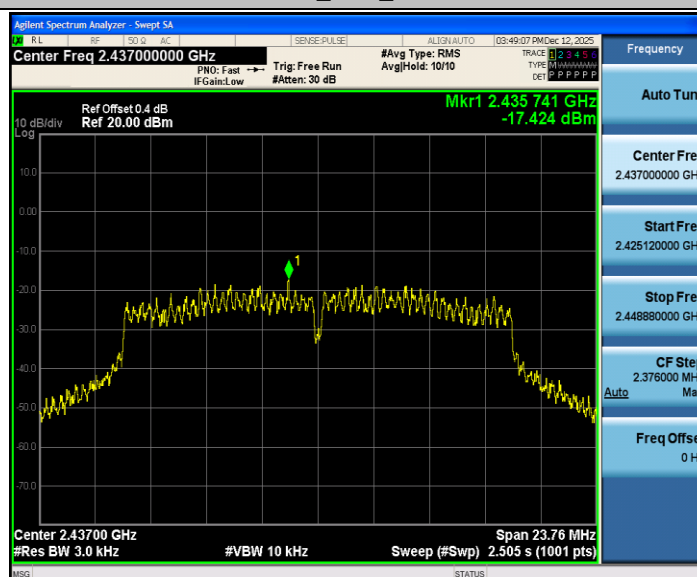
11B_Ant1_2462



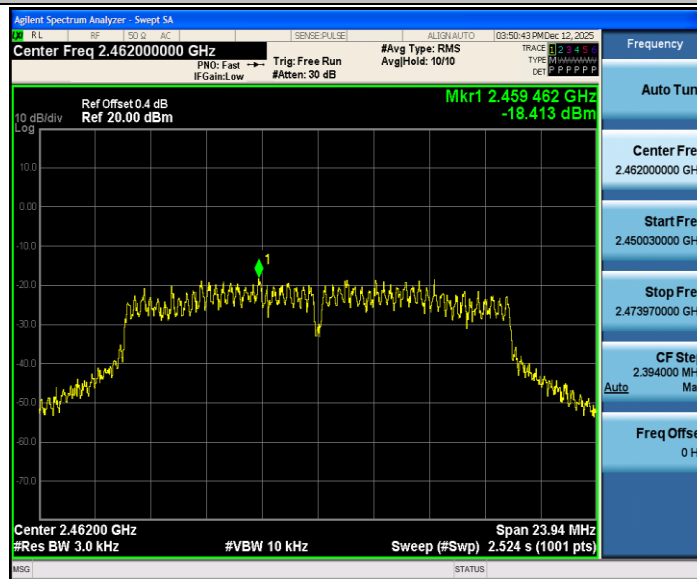
11G_Ant1_2412



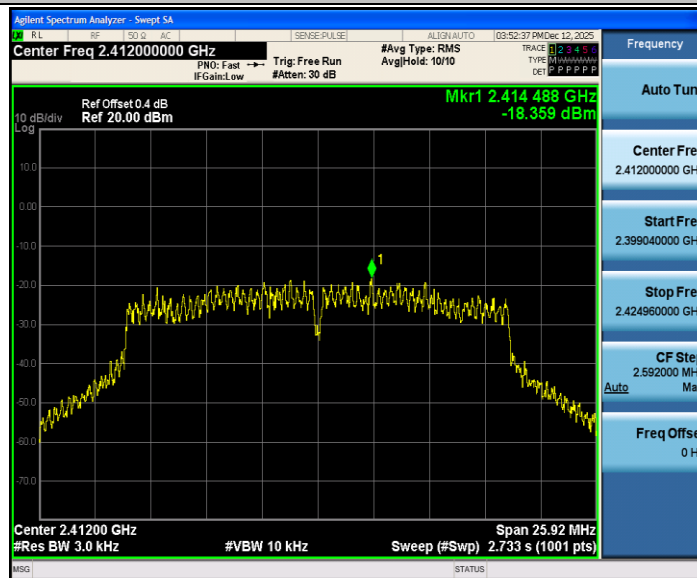
11G_Ant1_2437



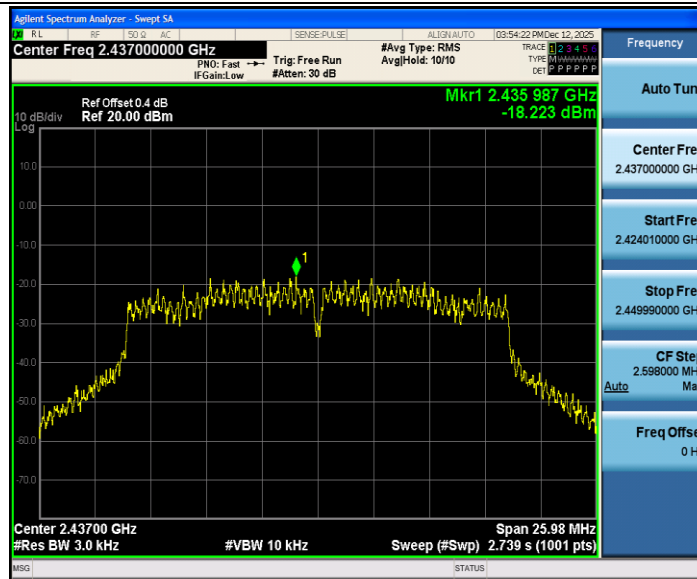
11G_Ant1_2462



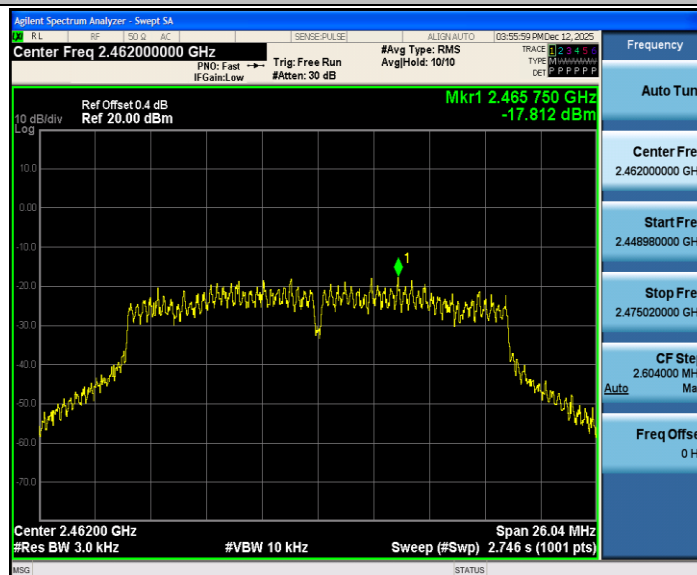
11N20SISO_Ant1_2412



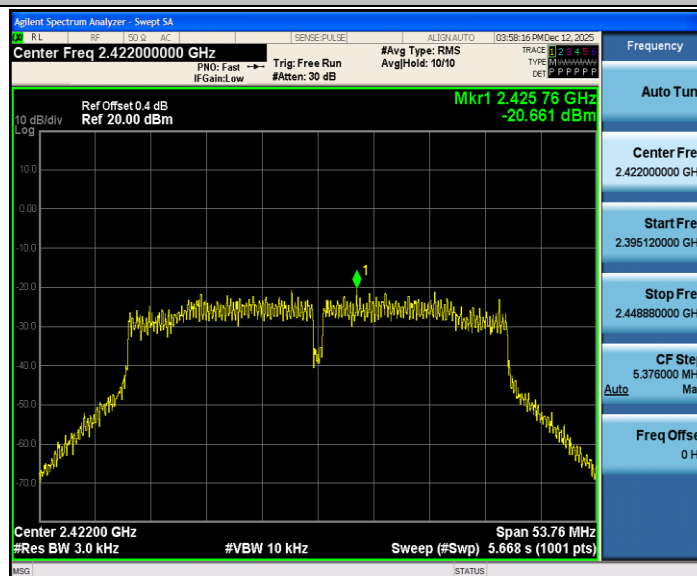
11N20SISO_Ant1_2437



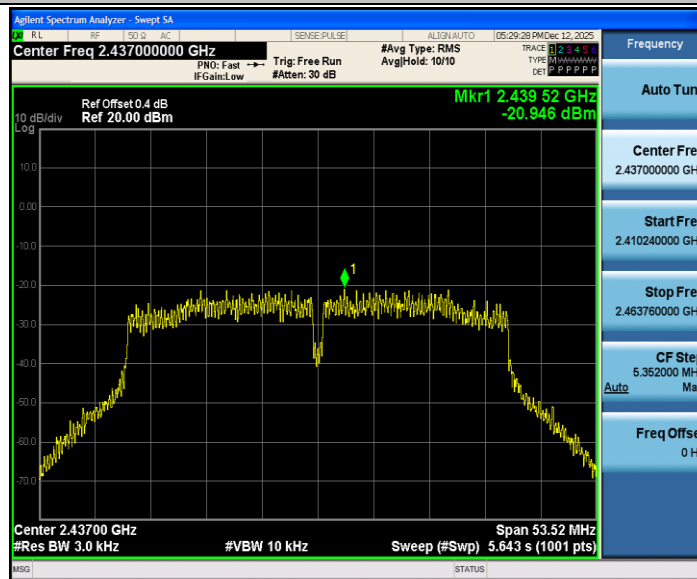
11N20SISO_Ant1_2462



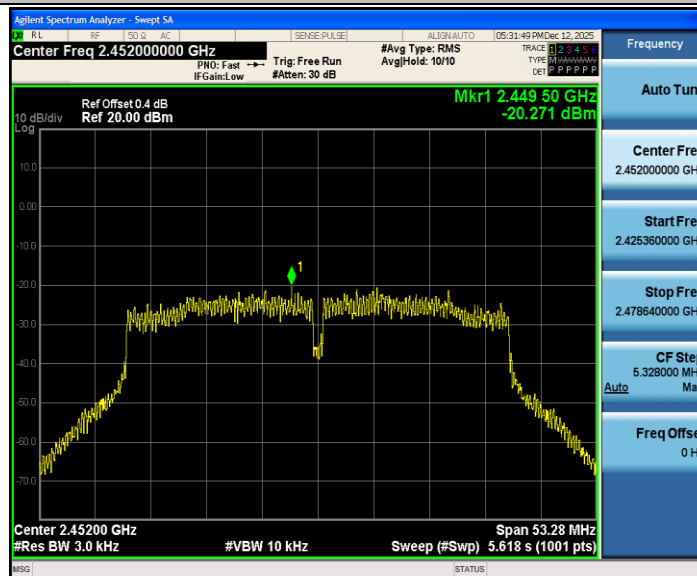
11N40SISO_Ant1_2422



11N40SISO_Ant1_2437



11N40SISO_Ant1_2452



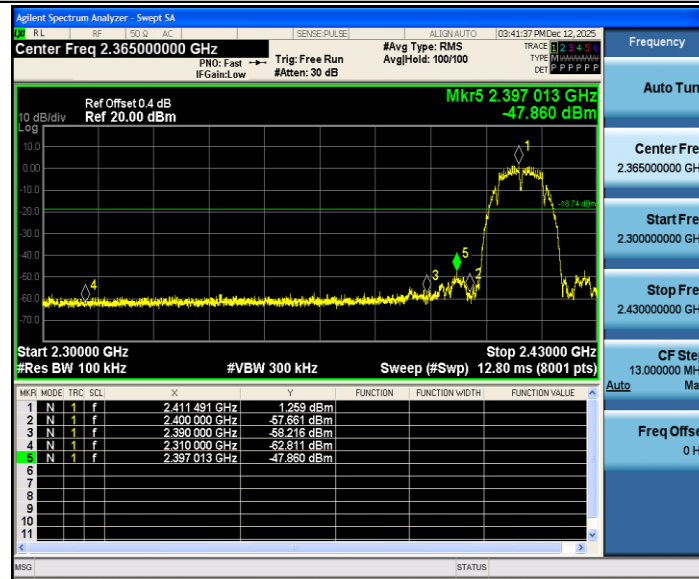
Appendix E: Band edge measurements

Test Result

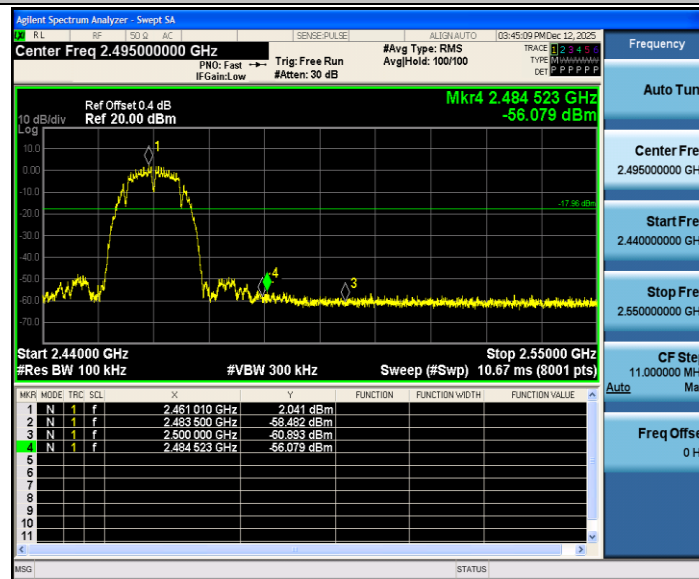
TestMode	Antenna	Channel Name	Frequency[MHz]	RefLevel[dBm]	Result[dBm]	Limit[dBm]	Verdict
11B	Ant1	Low	2412	1.26	-47.86	≤-18.74	PASS
		High	2462	2.04	-56.08	≤-17.96	PASS
11G	Ant1	Low	2412	-2.84	-32.71	≤-22.84	PASS
		High	2462	-2.50	-56.76	≤-22.5	PASS
11N20SISO	Ant1	Low	2412	-3.00	-34.08	≤-23	PASS
		High	2462	-2.73	-57.2	≤-22.73	PASS
11N40SISO	Ant1	Low	2422	-6.27	-34.3	≤-26.27	PASS
		High	2452	-5.91	-58.17	≤-25.91	PASS

Test Graphs

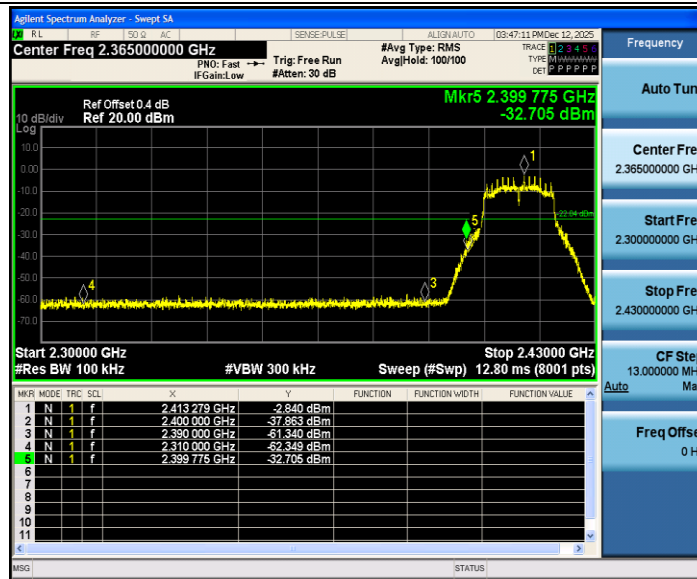
11B_Ant1_Low_2412



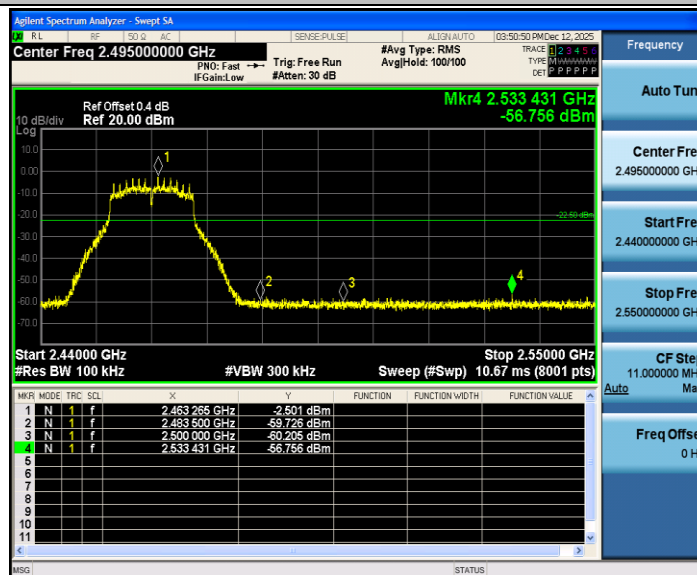
11B_Ant1_High_2462



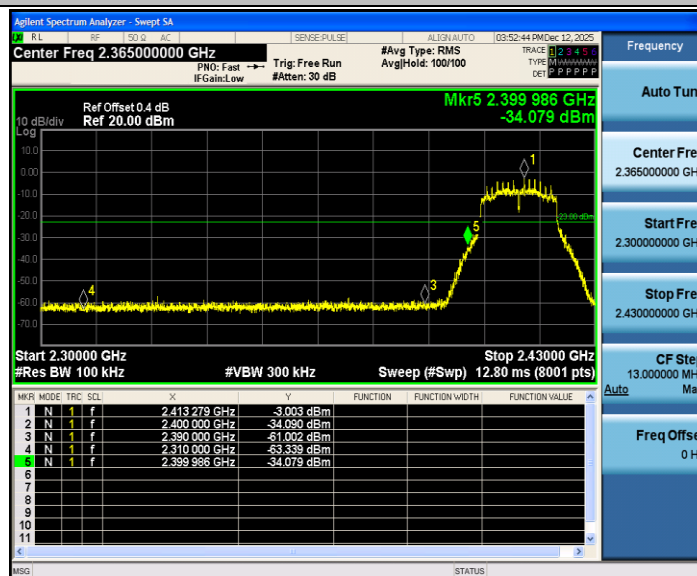
11G_Ant1_Low_2412



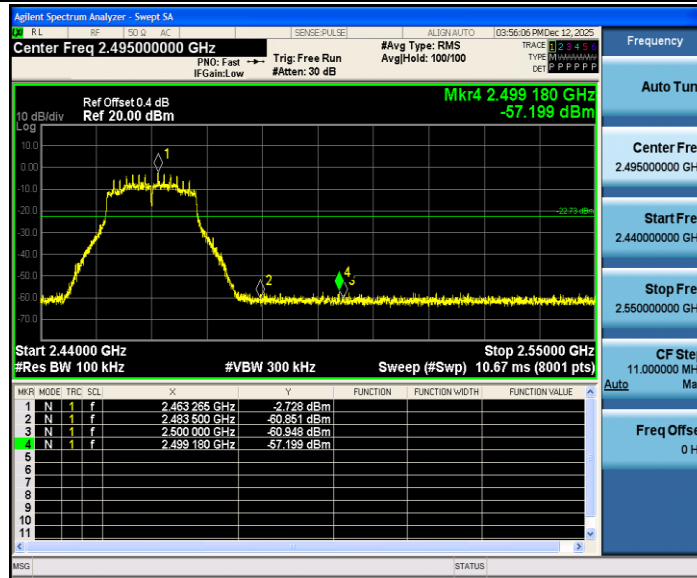
11G_Ant1_High_2462



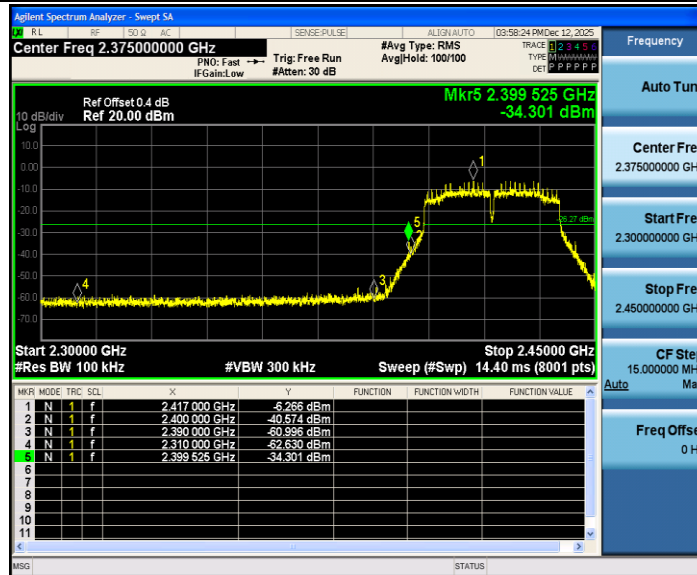
11N20SISO_Ant1_Low_2412



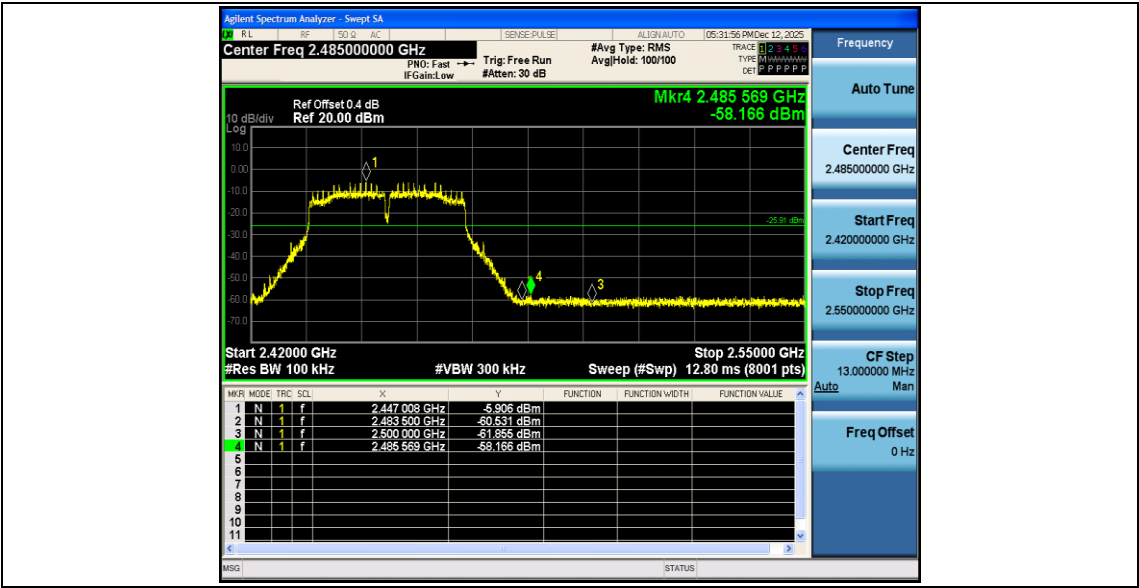
11N20SISO_Ant1_High_2462



11N40SISO_Ant1_Low_2422



11N40SISO_Ant1_High_2452



Appendix F: Conducted Spurious Emission

Test Result

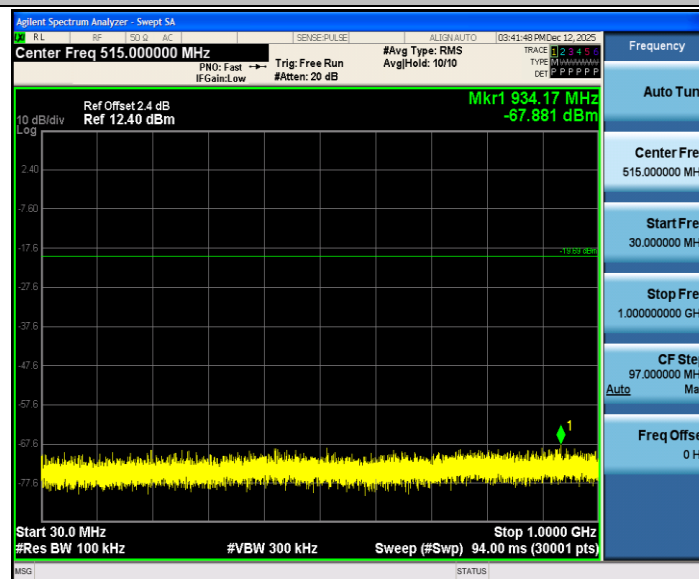
TestMode	Antenna	Frequency[MHz]	FreqRange [Mhz]	RefLevel [dBm]	Result [dBm]	Limit [dBm]	Verdict
11B	Ant1	2412	Reference	0.31	0.31	---	PASS
			30~1000	0.31	-67.88	≤-19.69	PASS
			1000~26500	0.31	-55.49	≤-19.69	PASS
		2437	Reference	0.09	0.09	---	PASS
			30~1000	0.09	-67.08	≤-19.91	PASS
			1000~26500	0.09	-54.35	≤-19.91	PASS
		2462	Reference	0.82	0.82	---	PASS
			30~1000	0.82	-67.46	≤-19.18	PASS
			1000~26500	0.82	-55.38	≤-19.18	PASS
11G	Ant1	2412	Reference	-3.75	-3.75	---	PASS
			30~1000	-3.75	-68.36	≤-23.75	PASS
			1000~26500	-3.75	-55.02	≤-23.75	PASS
		2437	Reference	-2.71	-2.71	---	PASS
			30~1000	-2.71	-67.45	≤-22.71	PASS
			1000~26500	-2.71	-55.33	≤-22.71	PASS
		2462	Reference	-2.84	-2.84	---	PASS
			30~1000	-2.84	-67.94	≤-22.84	PASS
			1000~26500	-2.84	-54.8	≤-22.84	PASS
11N20SISO	Ant1	2412	Reference	-2.95	-2.95	---	PASS
			30~1000	-2.95	-67.57	≤-22.95	PASS
			1000~26500	-2.95	-55.01	≤-22.95	PASS
		2437	Reference	-3.06	-3.06	---	PASS
			30~1000	-3.06	-68.67	≤-23.06	PASS
			1000~26500	-3.06	-54.92	≤-23.06	PASS
		2462	Reference	-4.44	-4.44	---	PASS
			30~1000	-4.44	-68.05	≤-24.44	PASS
			1000~26500	-4.44	-54.61	≤-24.44	PASS
11N40SISO	Ant1	2422	Reference	-6.64	-6.64	---	PASS
			30~1000	-6.64	-68.18	≤-26.64	PASS
			1000~26500	-6.64	-55.08	≤-26.64	PASS
		2437	Reference	-5.92	-5.92	---	PASS
			30~1000	-5.92	-43.1	≤-25.92	PASS
			1000~26500	-5.92	-54.91	≤-25.92	PASS
		2452	Reference	-5.96	-5.96	---	PASS
			30~1000	-5.96	-67.79	≤-25.96	PASS
			1000~26500	-5.96	-54.78	≤-25.96	PASS

Test Graphs

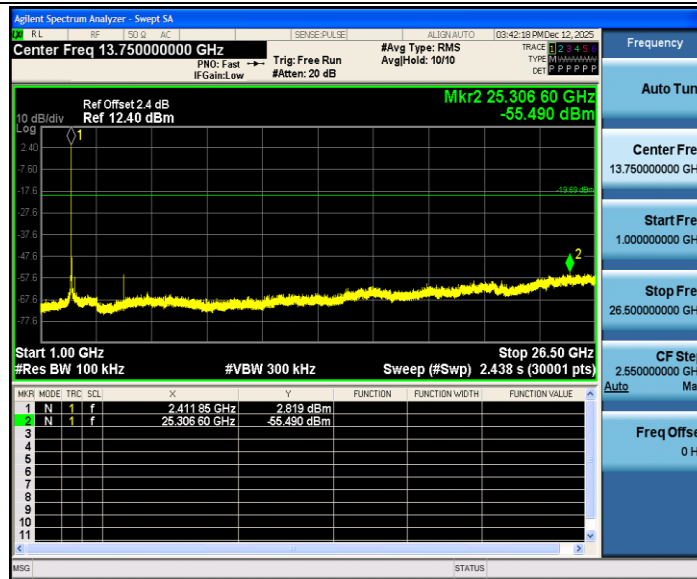
11B_Ant1_2412_0~Reference



11B_Ant1_2412_30~1000



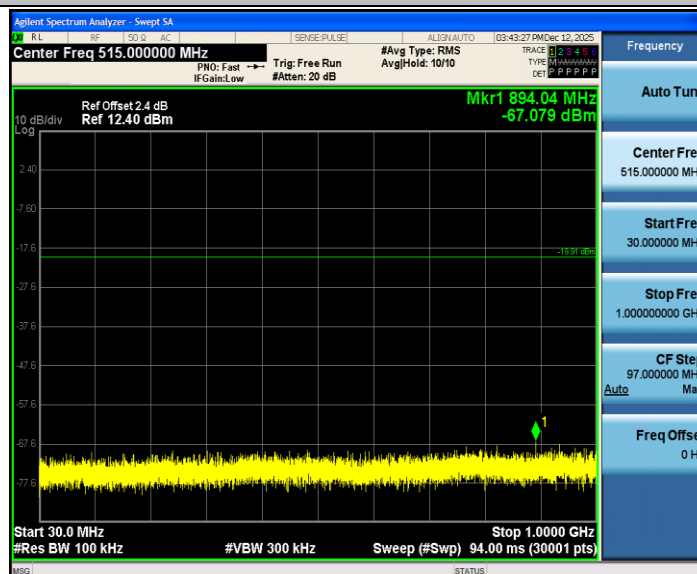
11B_Ant1_2412_1000~26500



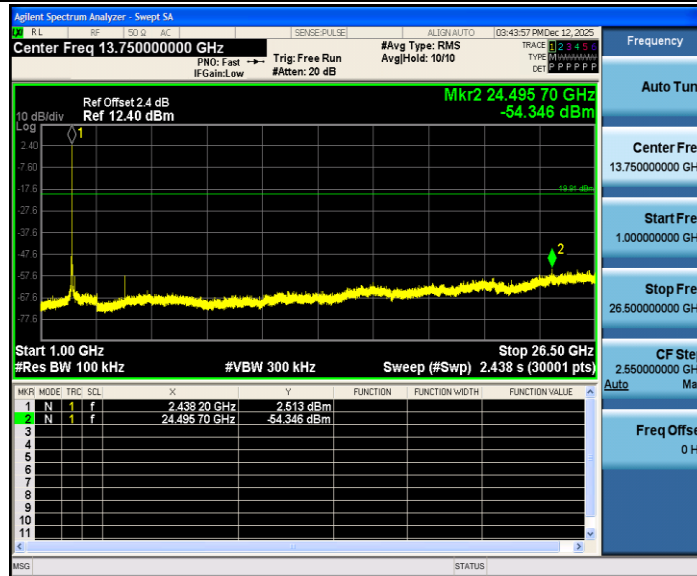
11B_Ant1_2437_0~Reference



11B_Ant1_2437_30~1000



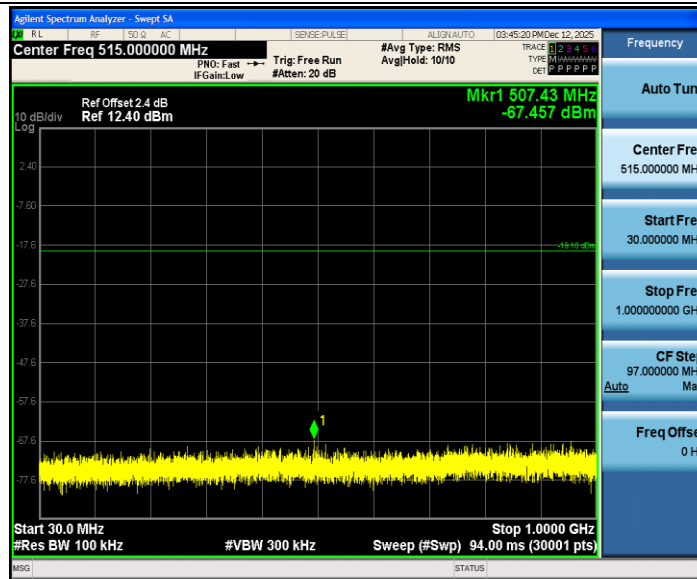
11B_Ant1_2437_1000~26500



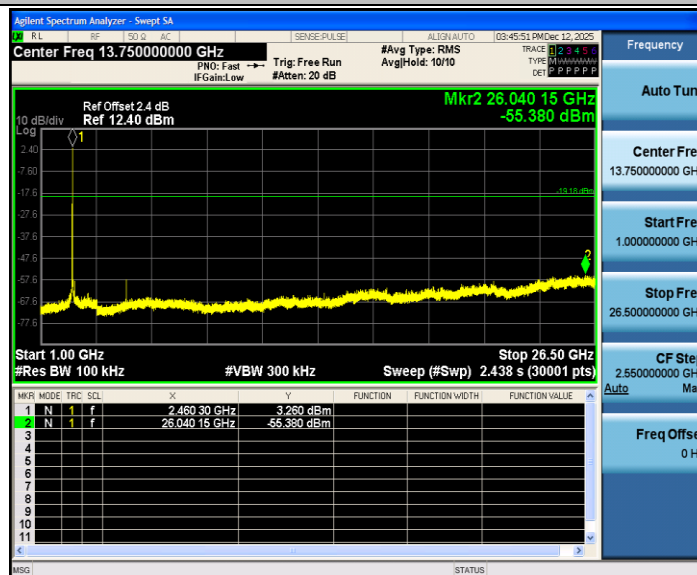
11B_Ant1_2462_0~Reference



11B_Ant1_2462_30~1000



11B_Ant1_2462_1000~26500



11G_Ant1_2412_0~Reference

