

FCC Appendix RF Test Data for 2.4GWIFI

FCC ID : 2BA4J-HYDRAHS225R

Company : Pangao Photoelectric

EUT : HYDRA THERMAL SCOPE

Model Number : HYDRA HS225R

Report No. : CTA25092300802

Reviewed By : Eric Wang

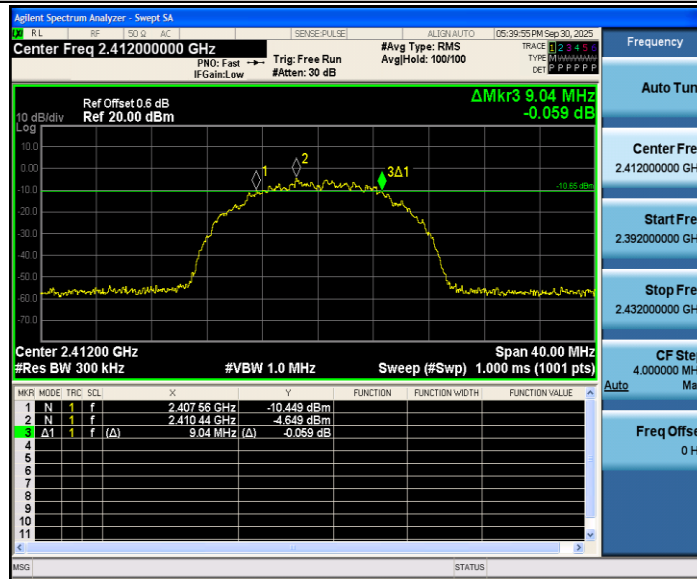
Appendix A: DTS Bandwidth

Test Result

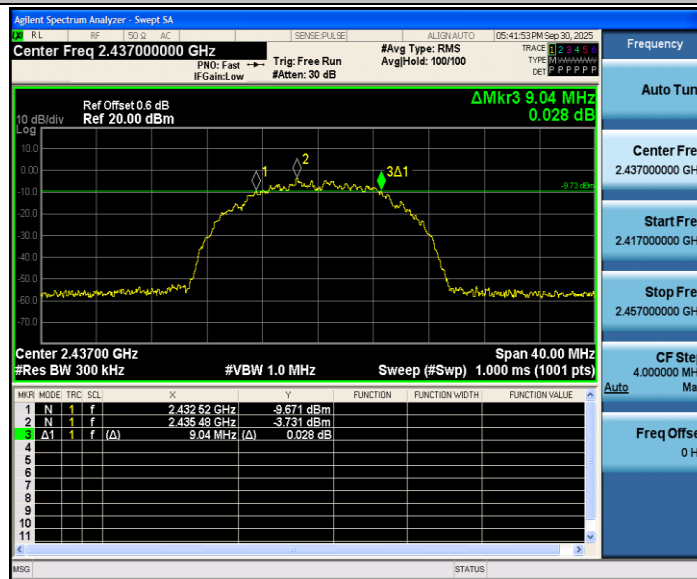
TestMode	Antenna	Frequency[MHz]	DTS BW [MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
11B	Ant1	2412	9.040	2407.560	2416.600	0.5	PASS
		2437	9.040	2432.520	2441.560	0.5	PASS
		2462	8.720	2457.520	2466.240	0.5	PASS
11G	Ant1	2412	16.320	2403.920	2420.240	0.5	PASS
		2437	16.360	2428.880	2445.240	0.5	PASS
		2462	16.320	2453.880	2470.200	0.5	PASS
11N20SISO	Ant1	2412	17.280	2403.400	2420.680	0.5	PASS
		2437	17.280	2428.400	2445.680	0.5	PASS
		2462	17.400	2453.360	2470.760	0.5	PASS

Test Graphs

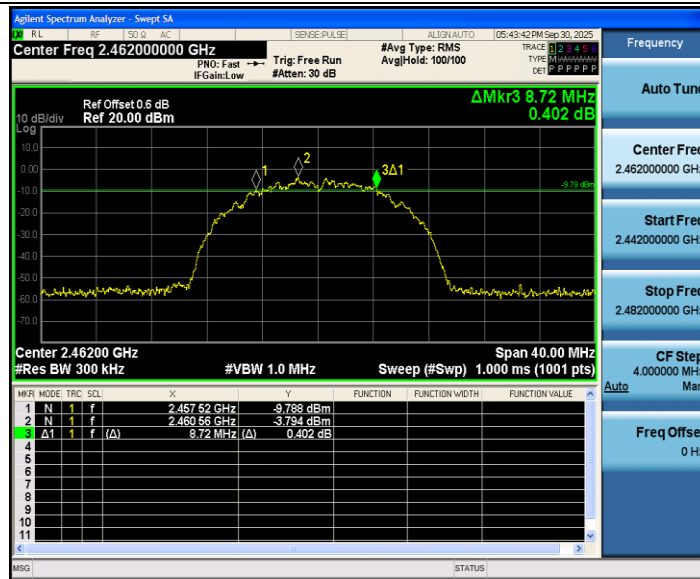
11B_Ant1_2412



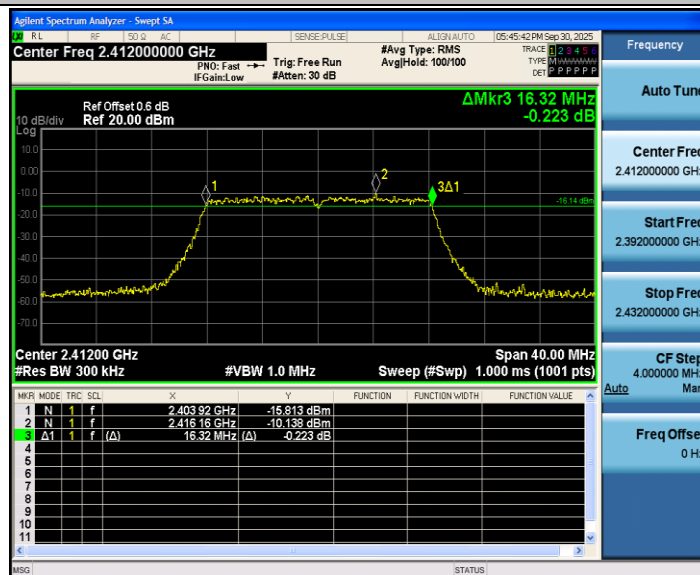
11B_Ant1_2437



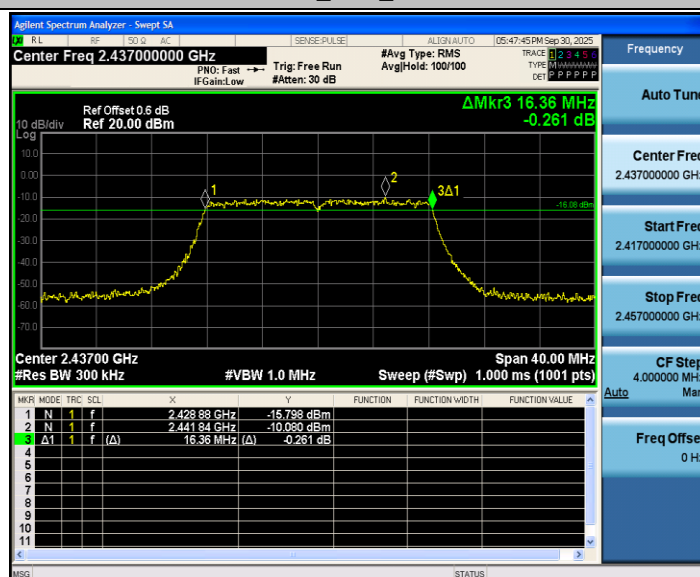
11B_Ant1_2462

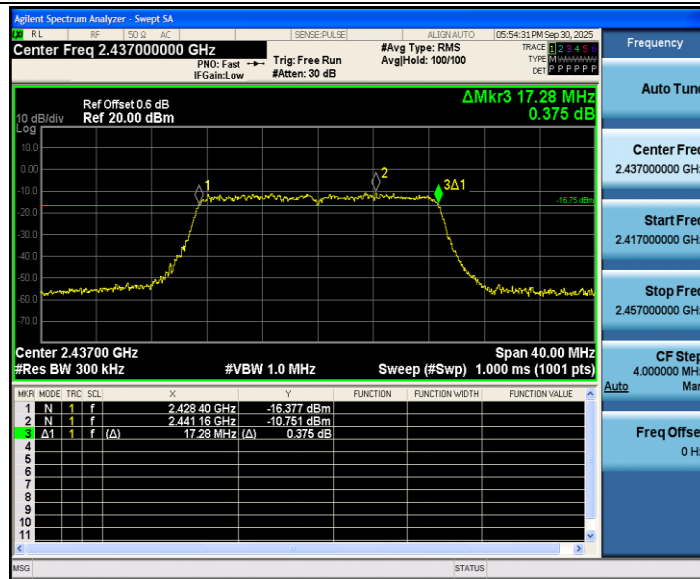


11G_Ant1_2412

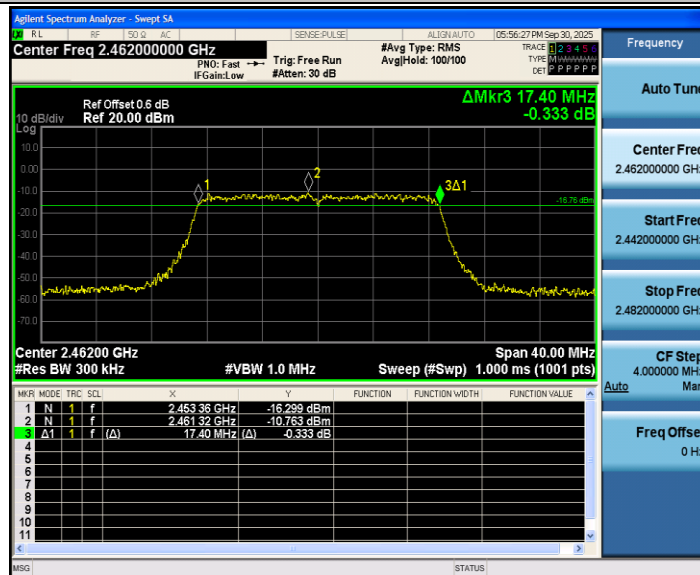


11G_Ant1_2437





11N20SISO_Ant1_2462



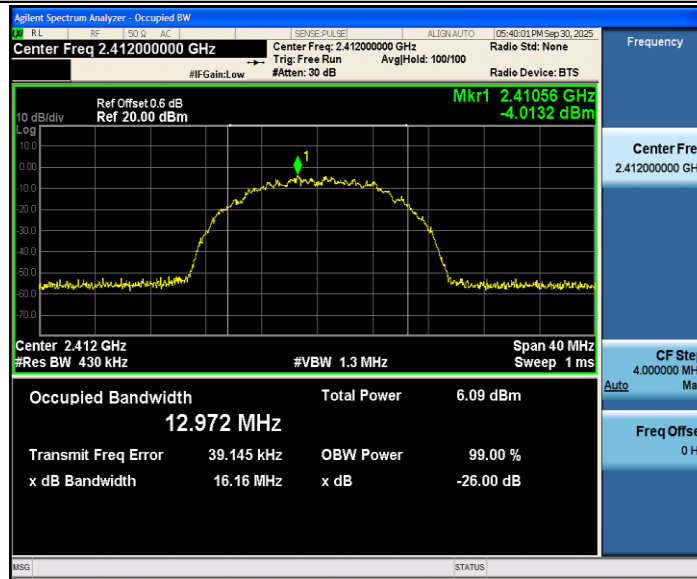
Appendix B: Occupied Channel Bandwidth

Test Result

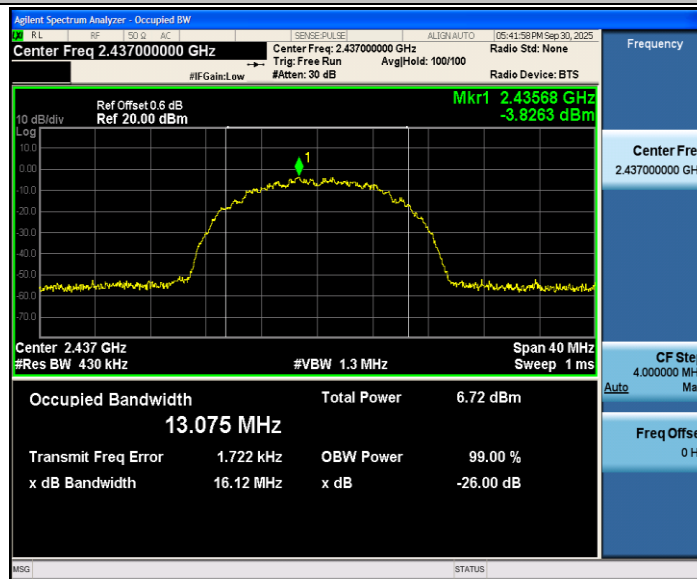
TestMode	Antenna	Channel Frequency[MHz]	OCB [MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
11B	Ant1	2412	12.972	2405.5531	2418.5251	---	---
		2437	13.075	2430.4642	2443.5392	---	---
		2462	12.981	2455.5210	2468.5020	---	---
11G	Ant1	2412	16.530	2403.7987	2420.3287	---	---
		2437	16.590	2428.7376	2445.3276	---	---
		2462	16.588	2453.7418	2470.3298	---	---
11N20SISO	Ant1	2412	17.469	2403.3230	2420.7920	---	---
		2437	17.446	2428.3256	2445.7716	---	---
		2462	17.464	2453.3056	2470.7696	---	---

Test Graphs

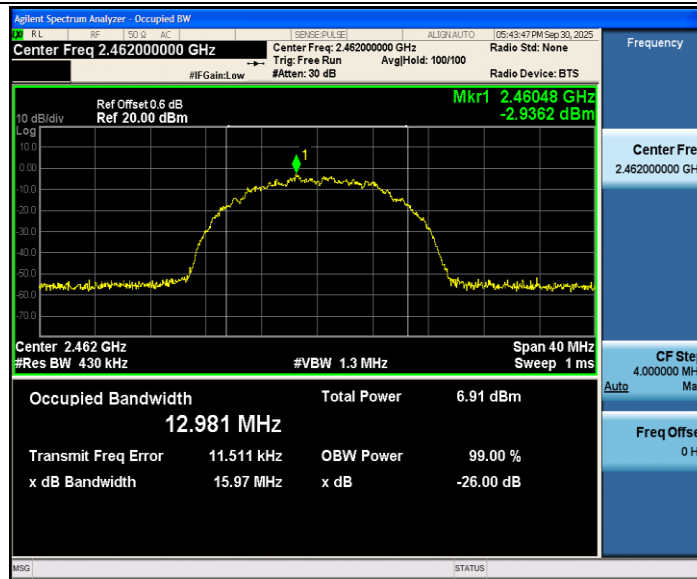
11B_Ant1_2412



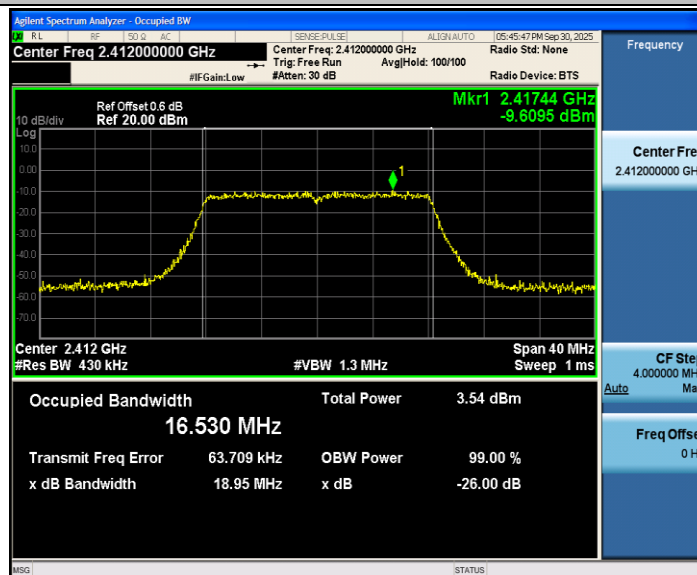
11B_Ant1_2437



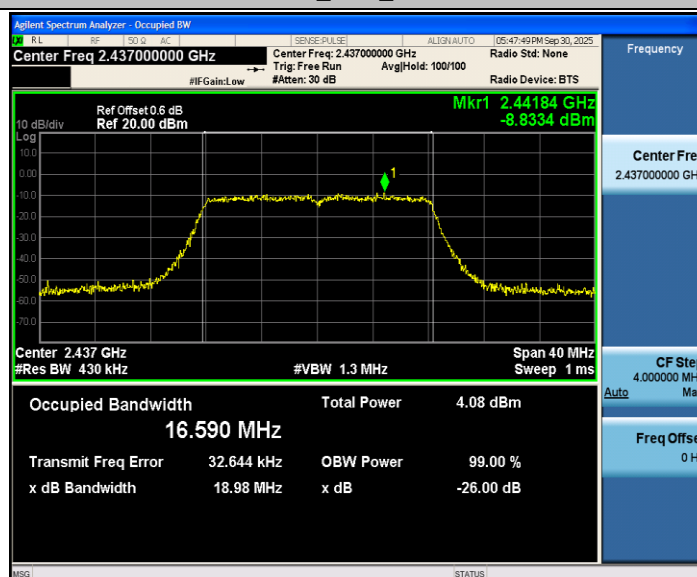
11B_Ant1_2462



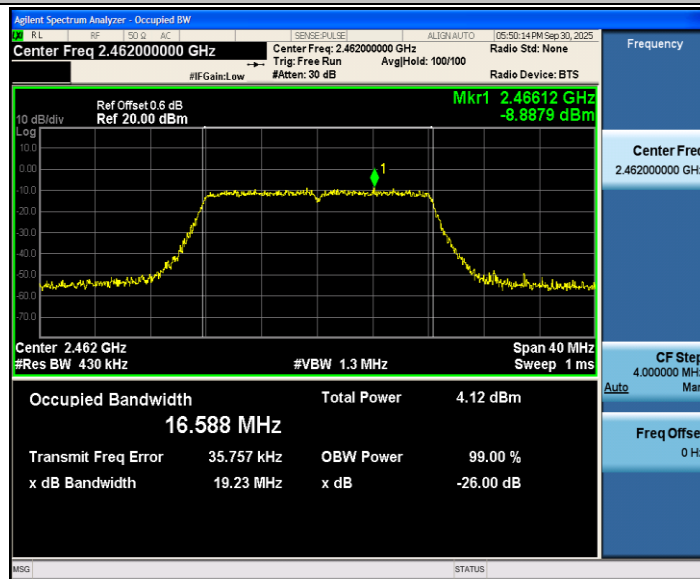
11G_Ant1_2412



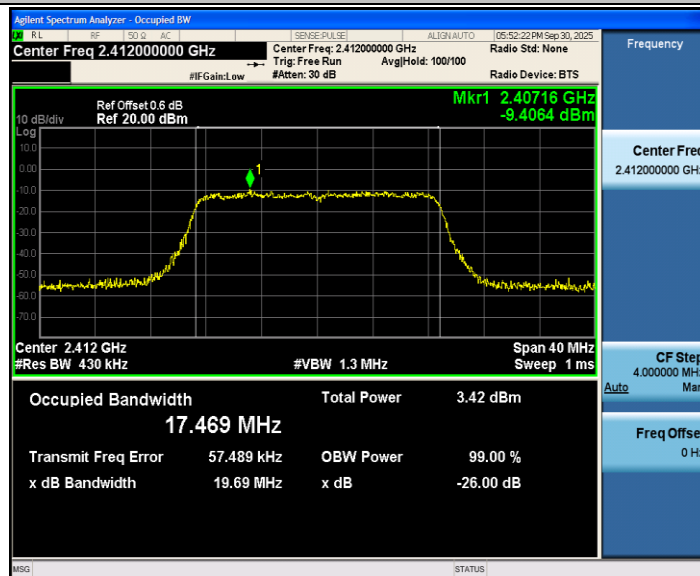
11G_Ant1_2437



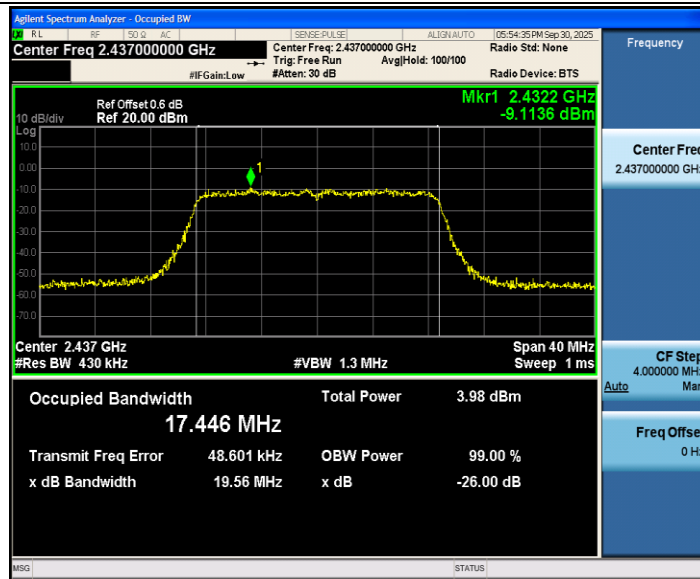
11G_Ant1_2462



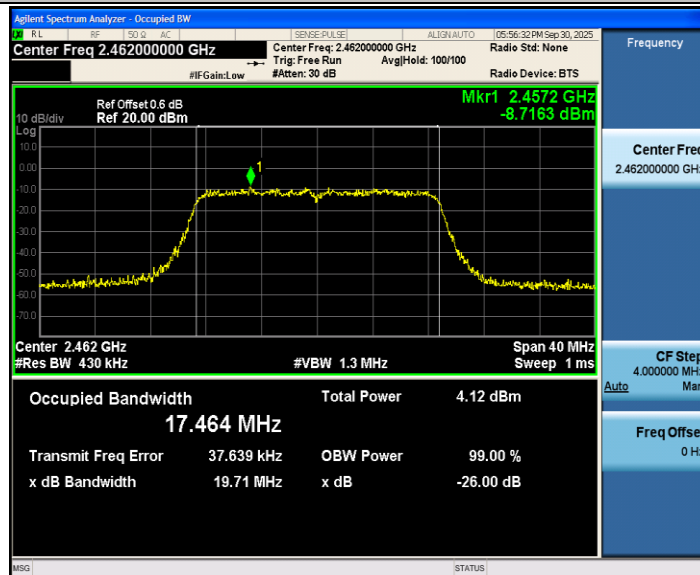
11N20SISO_Ant1_2412



11N20SISO_Ant1_2437



11N20SISO_Ant1_2462



Appendix C: Maximum conducted output power

Test Result Peak

Test Mode	Antenna	Frequency[MHz]	Peak power [dBm]	Limit [dBm]	Verdict
11B	Ant1	2412	5.62	≤30.00	PASS
		2437	6.27	≤30.00	PASS
		2462	6.16	≤30.00	PASS
11G	Ant1	2412	4.34	≤30.00	PASS
		2437	4.92	≤30.00	PASS
		2462	5.05	≤30.00	PASS
11N20SISO	Ant1	2412	4.68	≤30.00	PASS
		2437	5.28	≤30.00	PASS
		2462	5.31	≤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	-23.20	≤8.00	PASS
		2437	-23.06	≤8.00	PASS
		2462	-22.92	≤8.00	PASS
11G	Ant1	2412	-30.07	≤8.00	PASS
		2437	-29.45	≤8.00	PASS
		2462	-29.29	≤8.00	PASS
11N20SISO	Ant1	2412	-29.54	≤8.00	PASS
		2437	-29.18	≤8.00	PASS
		2462	-29.24	≤8.00	PASS

Test Graphs

11B_Ant1_2412



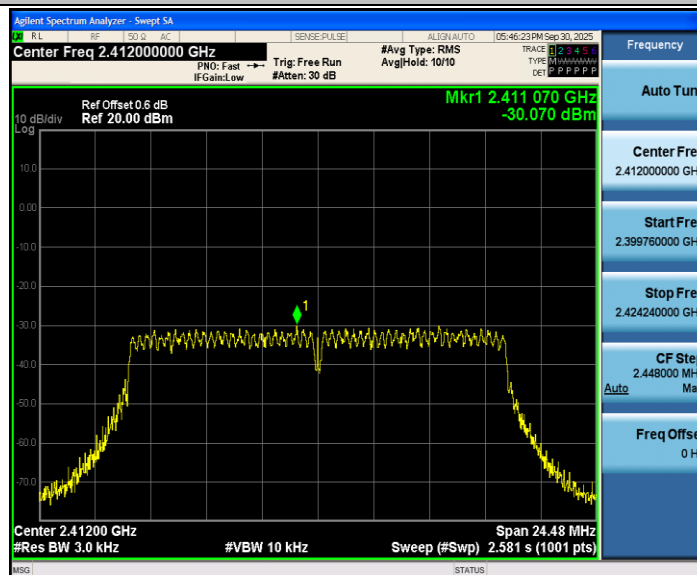
11B_Ant1_2437



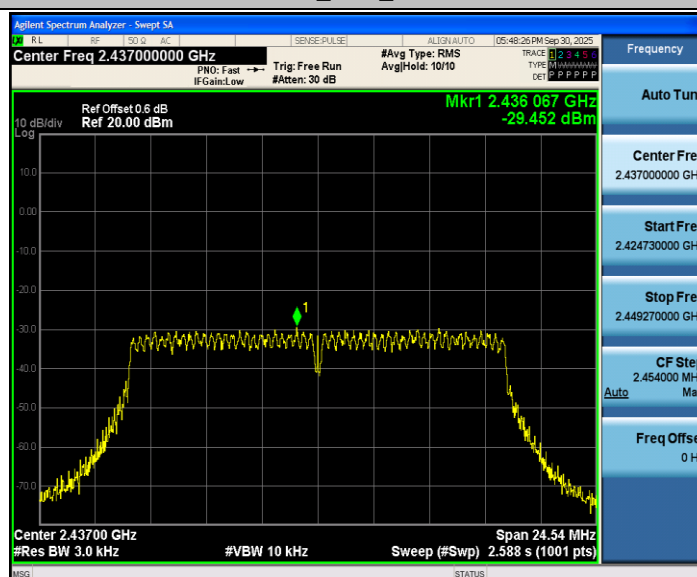
11B_Ant1_2462



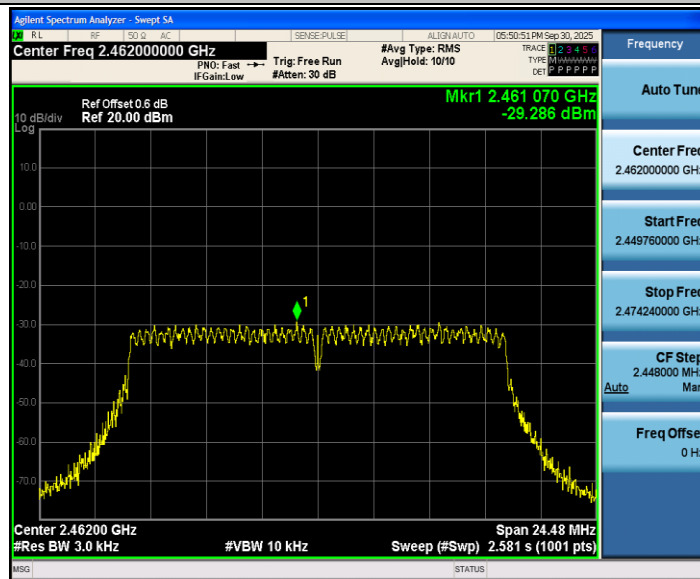
11G_Ant1_2412



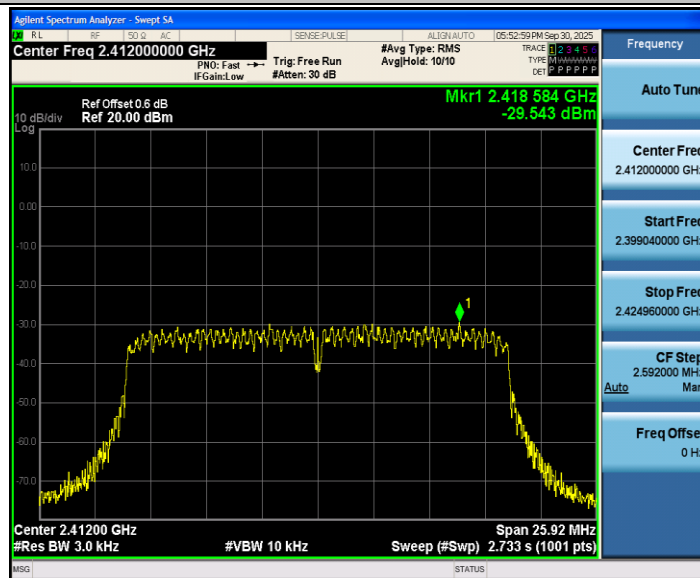
11G_Ant1_2437



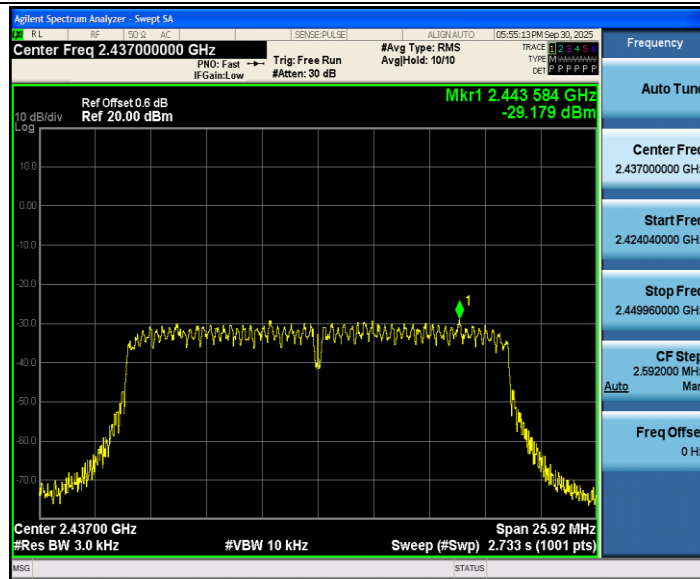
11G_Ant1_2462



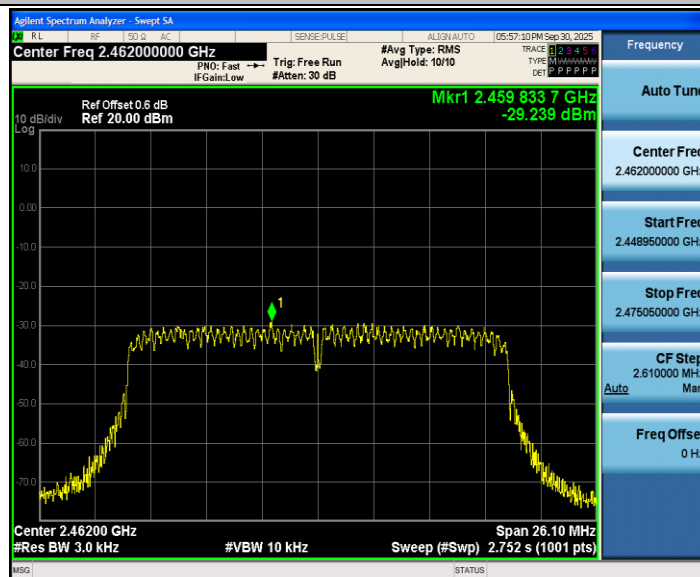
11N20SISO_Ant1_2412



11N20SISO_Ant1_2437



11N20SISO_Ant1_2462



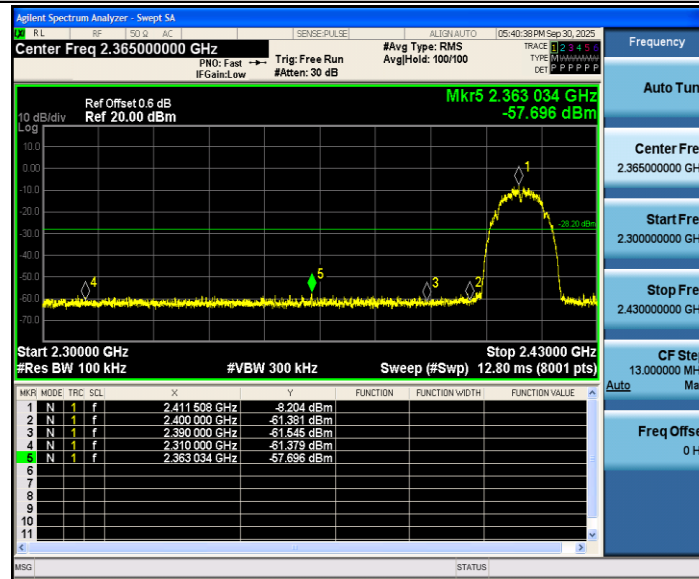
Appendix E: Band edge measurements

Test Result

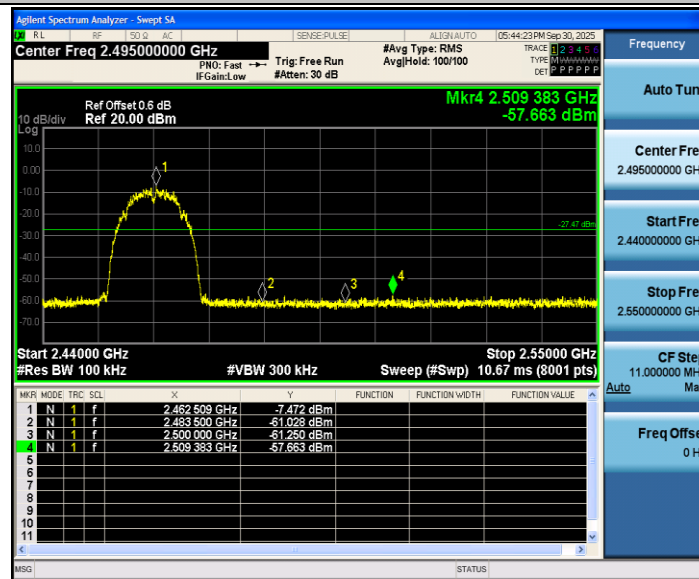
TestMode	Antenna	Channel Name	Frequency[MHz]	RefLevel[dBm]	Result[dBm]	Limit[dBm]	Verdict
11B	Ant1	Low	2412	-8.20	-57.7	≤-28.2	PASS
		High	2462	-7.47	-57.66	≤-27.47	PASS
11G	Ant1	Low	2412	-15.78	-57.13	≤-35.78	PASS
		High	2462	-15.25	-57.01	≤-35.25	PASS
11N20SISO	Ant1	Low	2412	-15.88	-56.56	≤-35.88	PASS
		High	2462	-15.13	-57.43	≤-35.13	PASS

Test Graphs

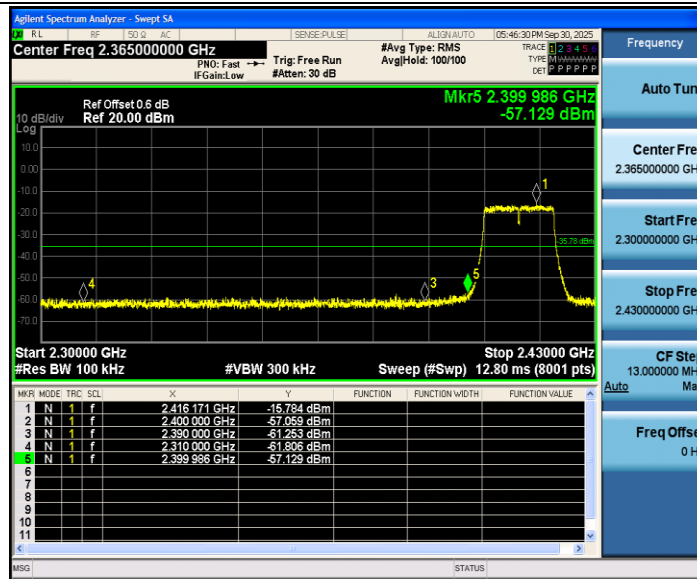
11B_Ant1_Low_2412



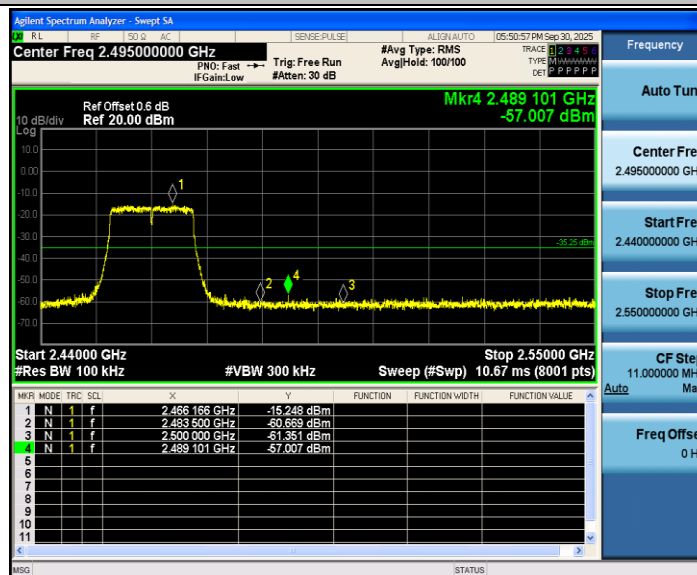
11B_Ant1_High_2462



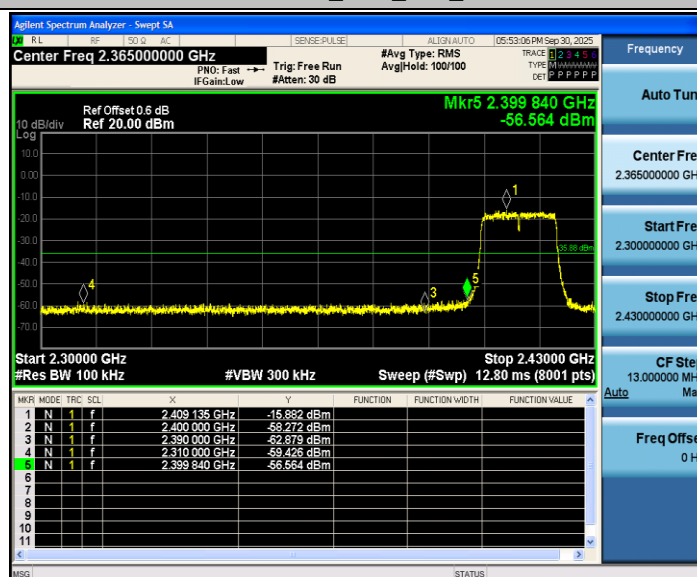
11G_Ant1_Low_2412



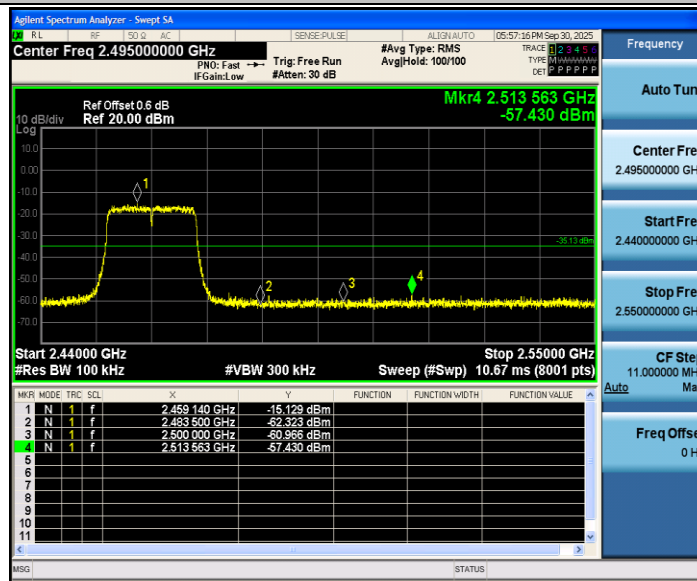
11G_Ant1_High_2462



11N20SISO_Ant1_Low_2412



11N20SISO_Ant1_High_2462



Appendix F: Conducted Spurious Emission

Test Result

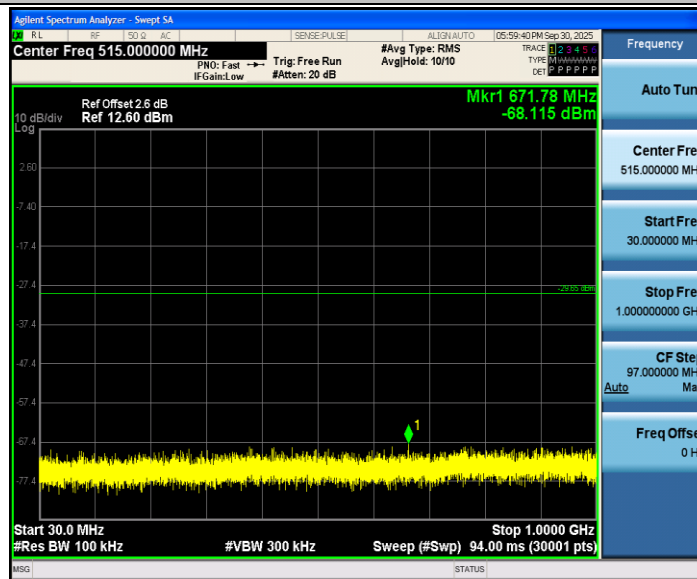
TestMode	Antenna	Frequency[MHz]	FreqRange [Mhz]	RefLevel [dBm]	Result [dBm]	Limit [dBm]	Verdict
11B	Ant1	2412	Reference	-9.65	-9.65	---	PASS
			30~1000	-9.65	-68.12	≤-29.65	PASS
			1000~26500	-9.65	-54.75	≤-29.65	PASS
		2437	Reference	-9.32	-9.32	---	PASS
			30~1000	-9.32	-68.08	≤-29.32	PASS
			1000~26500	-9.32	-54.81	≤-29.32	PASS
		2462	Reference	-9.72	-9.72	---	PASS
			30~1000	-9.72	-67.89	≤-29.72	PASS
			1000~26500	-9.72	-54.92	≤-29.72	PASS
11G	Ant1	2412	Reference	-9.14	-9.14	---	PASS
			30~1000	-9.14	-67.99	≤-29.14	PASS
			1000~26500	-9.14	-55.27	≤-29.14	PASS
		2437	Reference	-9.14	-9.14	---	PASS
			30~1000	-9.14	-67.59	≤-29.14	PASS
			1000~26500	-9.14	-54.69	≤-29.14	PASS
		2462	Reference	-8.61	-8.61	---	PASS
			30~1000	-8.61	-67.73	≤-28.61	PASS
			1000~26500	-8.61	-54.97	≤-28.61	PASS
11N20SISO	Ant1	2412	Reference	-9.38	-9.38	---	PASS
			30~1000	-9.38	-68.36	≤-29.38	PASS
			1000~26500	-9.38	-54.91	≤-29.38	PASS
		2437	Reference	-8.35	-8.35	---	PASS
			30~1000	-8.35	-67.53	≤-28.35	PASS
			1000~26500	-8.35	-54.68	≤-28.35	PASS
		2462	Reference	-9.33	-9.33	---	PASS
			30~1000	-9.33	-67.95	≤-29.33	PASS
			1000~26500	-9.33	-53.31	≤-29.33	PASS

Test Graphs

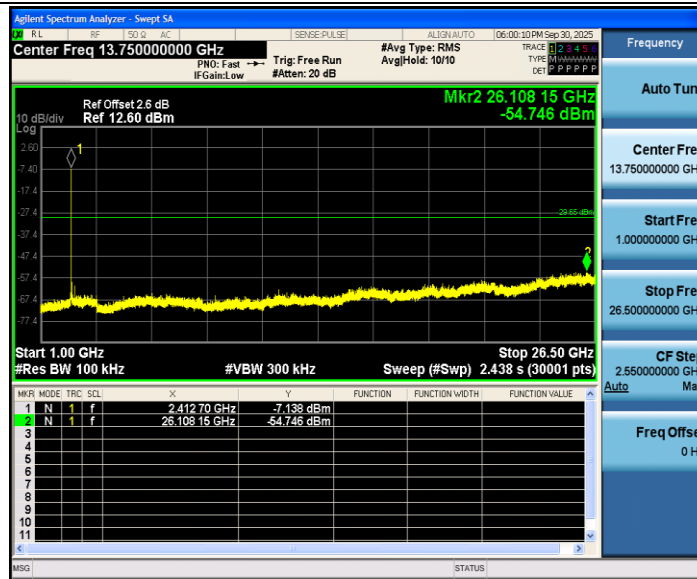
11B_Ant1_2412_0~Reference



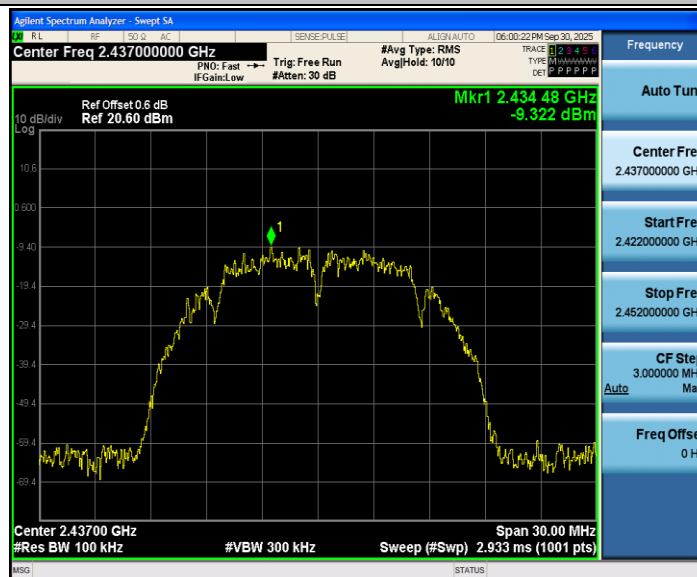
11B_Ant1_2412_30~1000



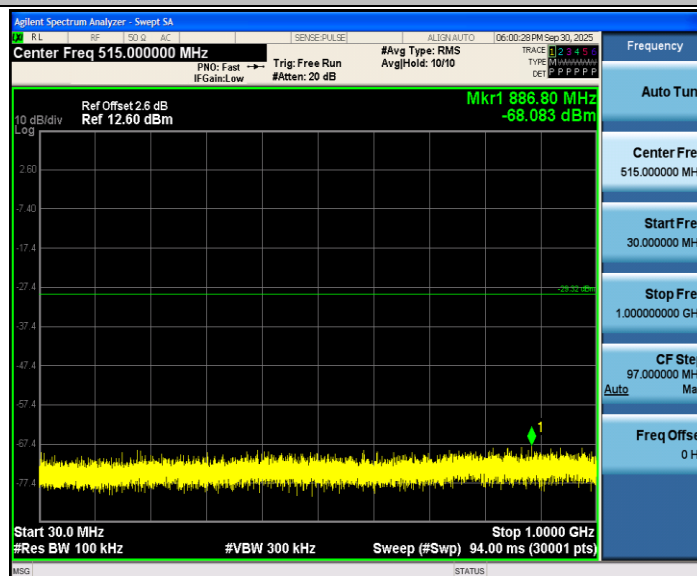
11B_Ant1_2412_1000~26500



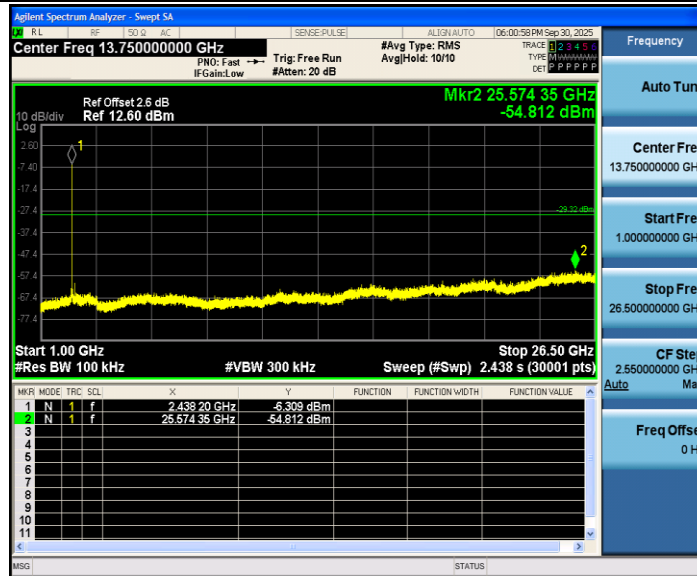
11B_Ant1_2437_0~Reference



11B_Ant1_2437_30~1000



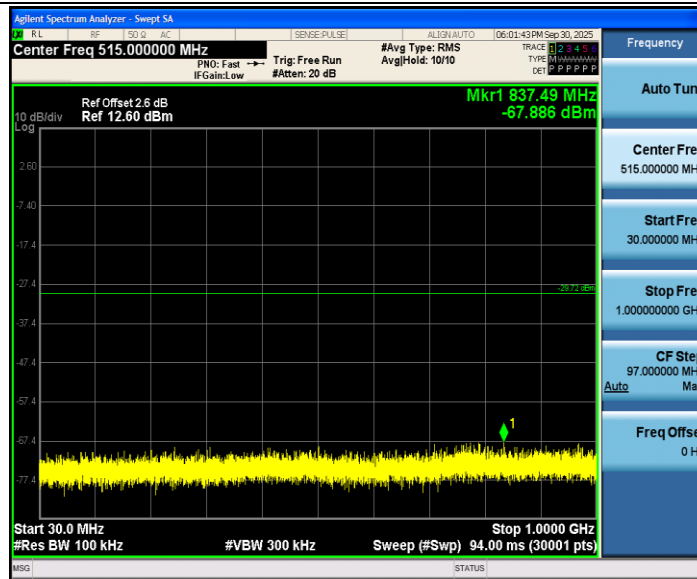
11B_Ant1_2437_1000~26500



11B_Ant1_2462_0~Reference



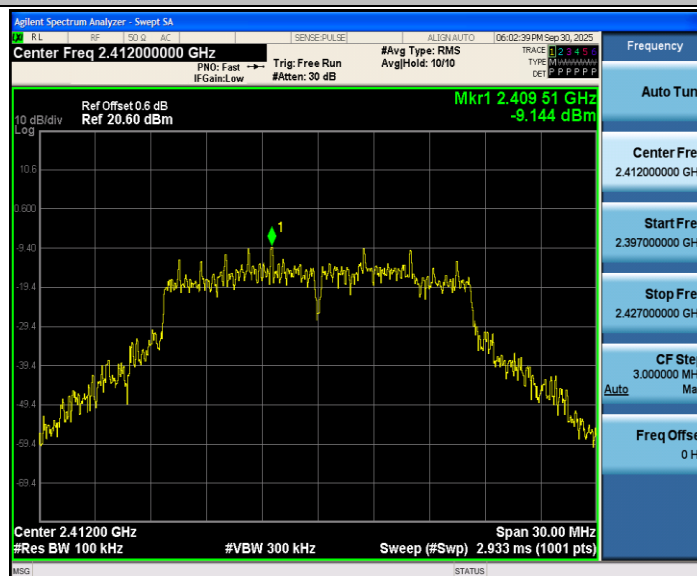
11B_Ant1_2462_30~1000



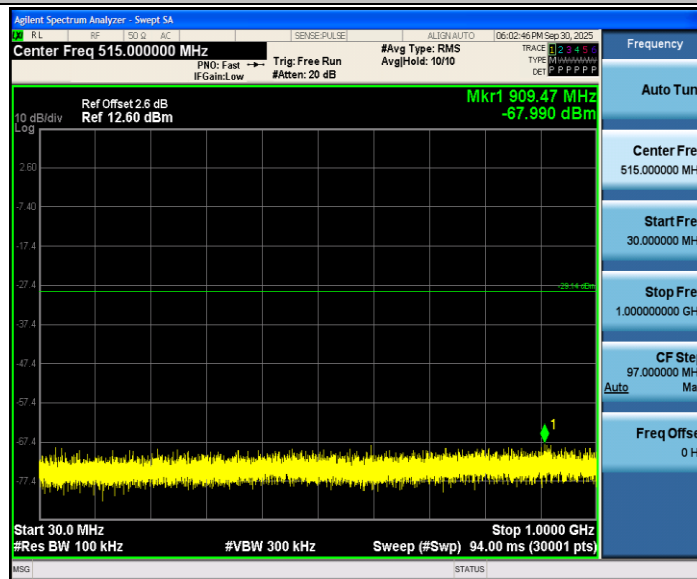
11B_Ant1_2462_1000~26500



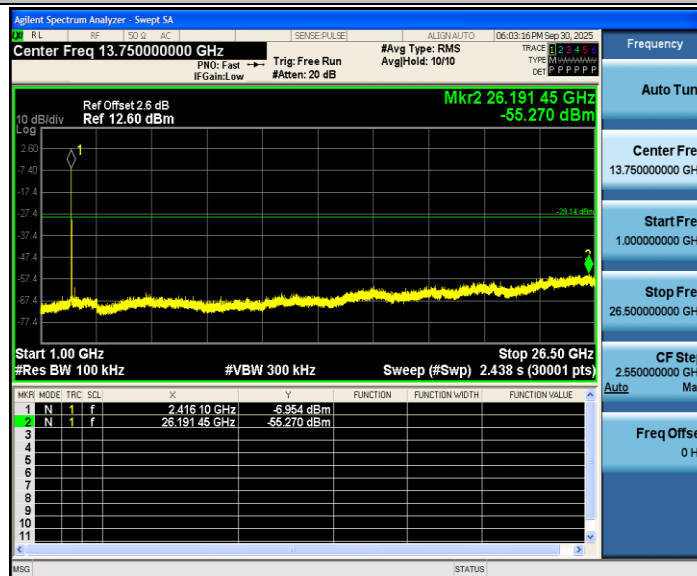
11G_Ant1_2412_0~Reference



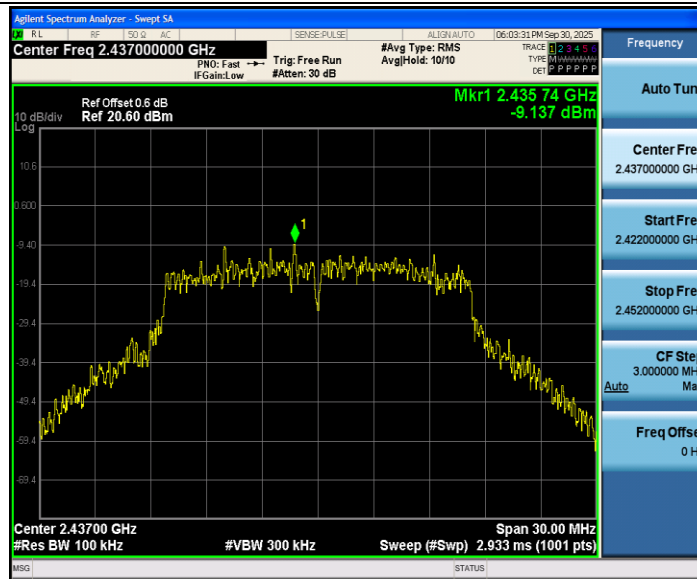
11G_Ant1_2412_30~1000



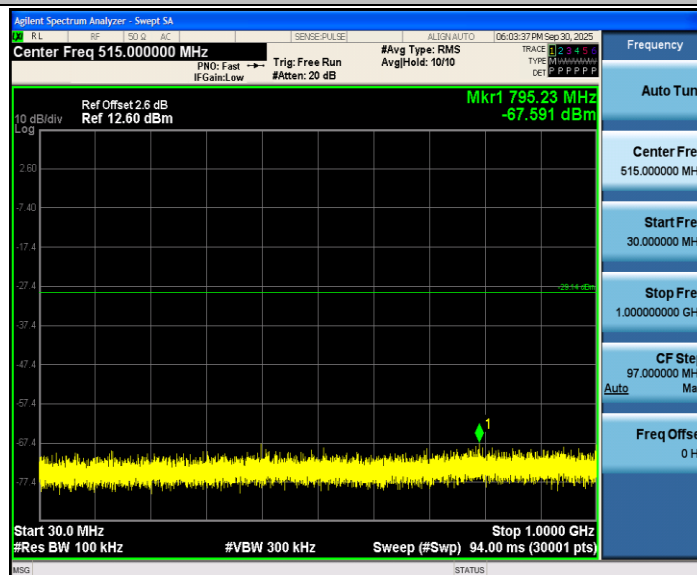
11G_Ant1_2412_1000~26500



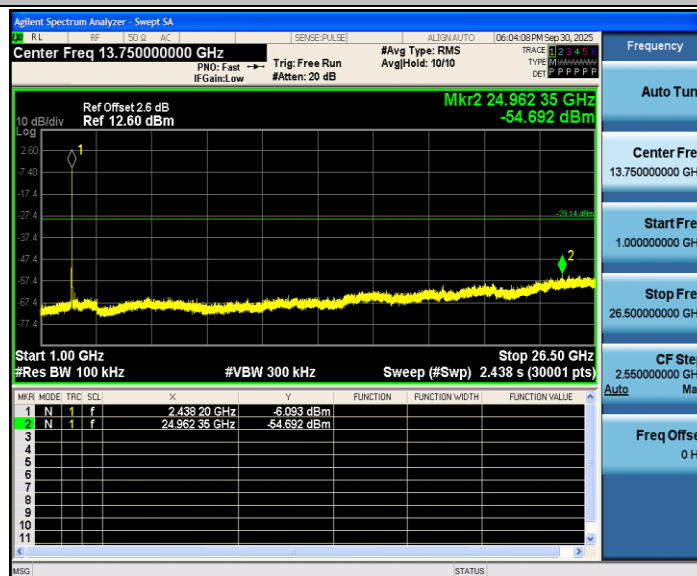
11G_Ant1_2437_0~Reference



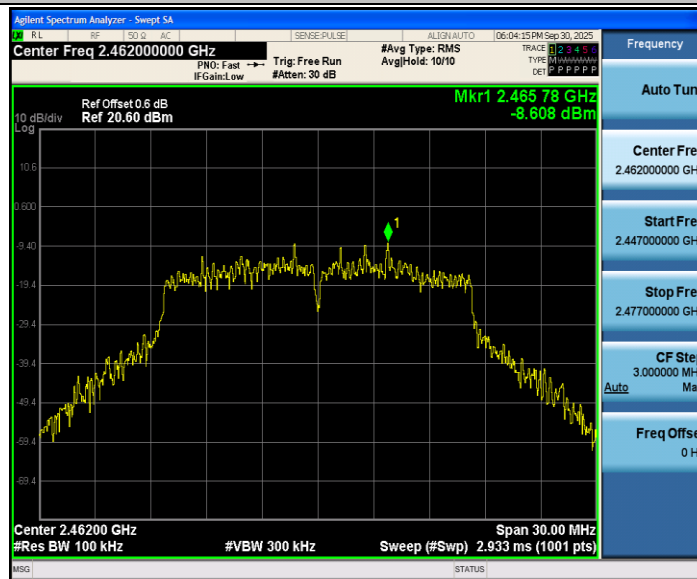
11G_Ant1_2437_30~1000



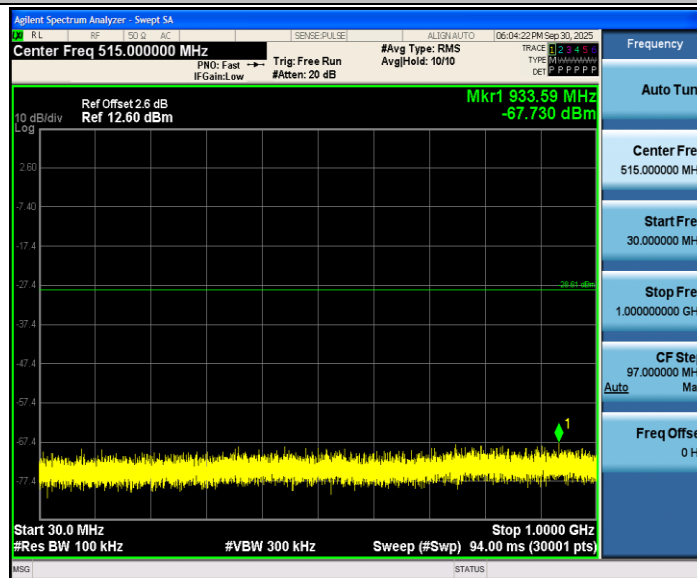
11G_Ant1_2437_1000~26500



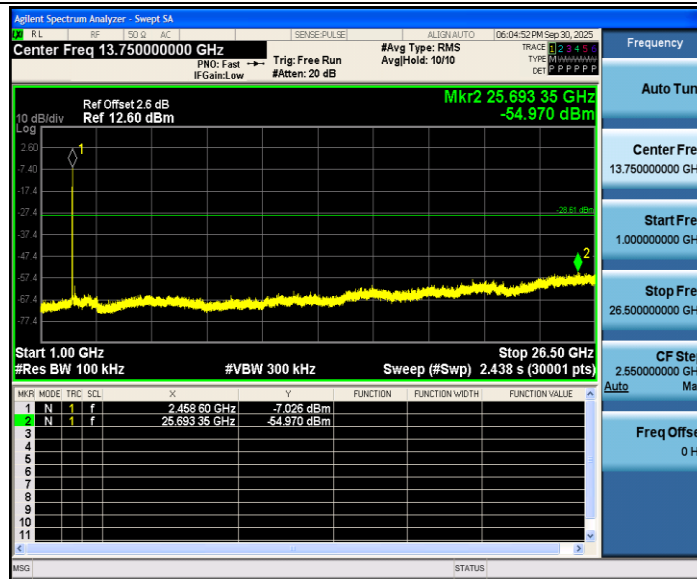
11G_Ant1_2462_0~Reference



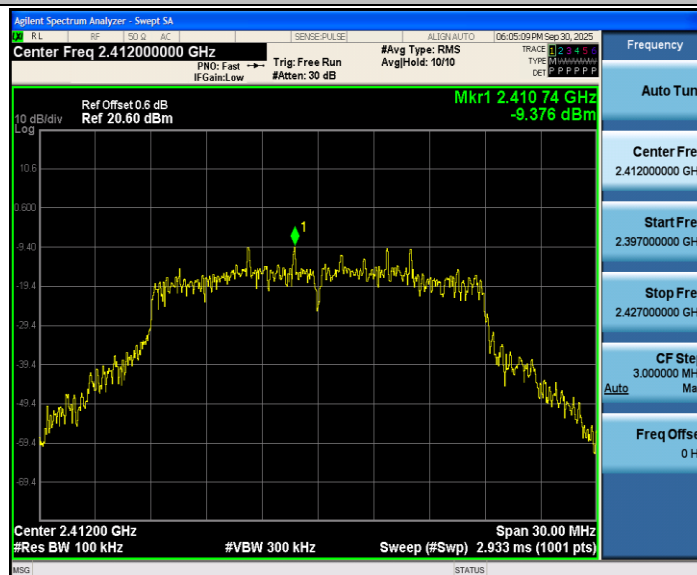
11G_Ant1_2462_30~1000



11G_Ant1_2462_1000~26500



11N20SISO_Ant1_2412_0~Reference



11N20SISO_Ant1_2412_30~1000

