

FCC Appendix RF Test Data

FCC ID : 2A7UA-WWA-01

Company: : Shenzhen Smart Tech Security Co., Ltd

EUT : Water leakage alarm

Model Number : WWA-01

Report No. : CTA25042801001

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	9.560	2406.960	2416.520	0.5	PASS
		2437	8.600	2432.440	2441.040	0.5	PASS
		2462	9.040	2457.000	2466.040	0.5	PASS
11G	Ant1	2412	15.760	2404.440	2420.200	0.5	PASS
		2437	15.720	2429.440	2445.160	0.5	PASS
		2462	15.920	2454.240	2470.160	0.5	PASS
11N20SISO	Ant1	2412	16.080	2404.440	2420.520	0.5	PASS
		2437	15.800	2429.440	2445.240	0.5	PASS
		2462	16.720	2453.800	2470.520	0.5	PASS

Test Graphs

11B_Ant1_2412



11B_Ant1_2437



11B_Ant1_2462



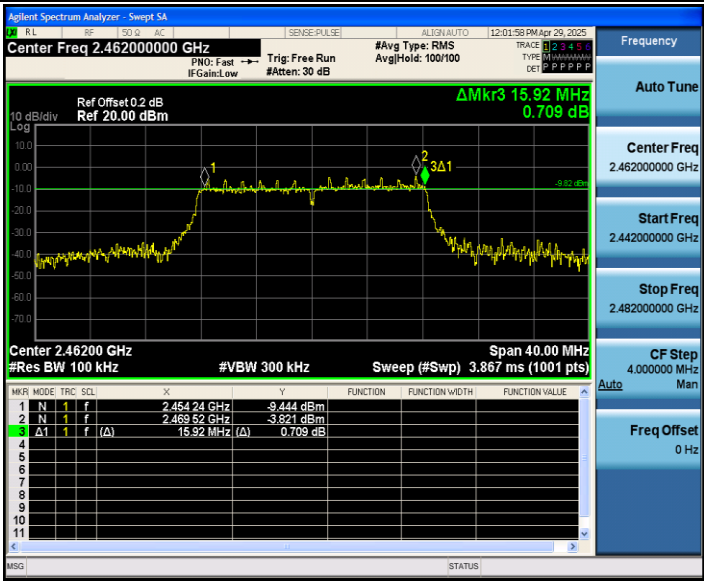
11G_Ant1_2412



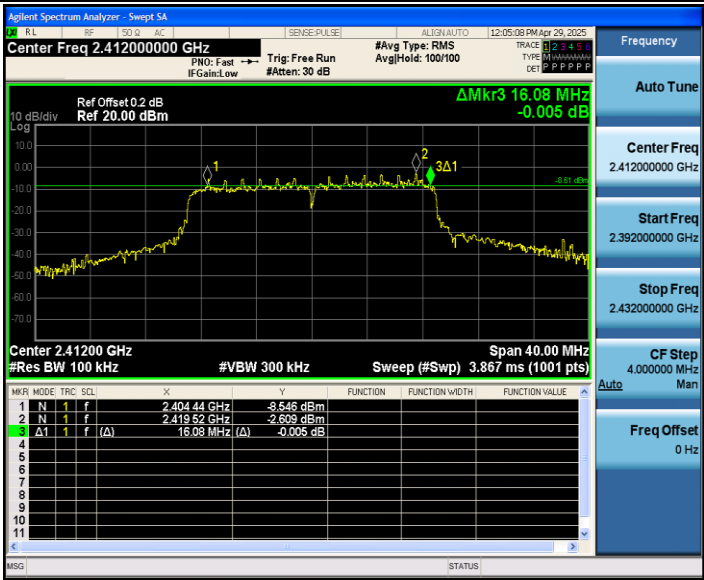
11G_Ant1_2437



11G_Ant1_2462



11N20SISO_Ant1_2412



11N20SISO_Ant1_2437



11N20SISO_Ant1_2462



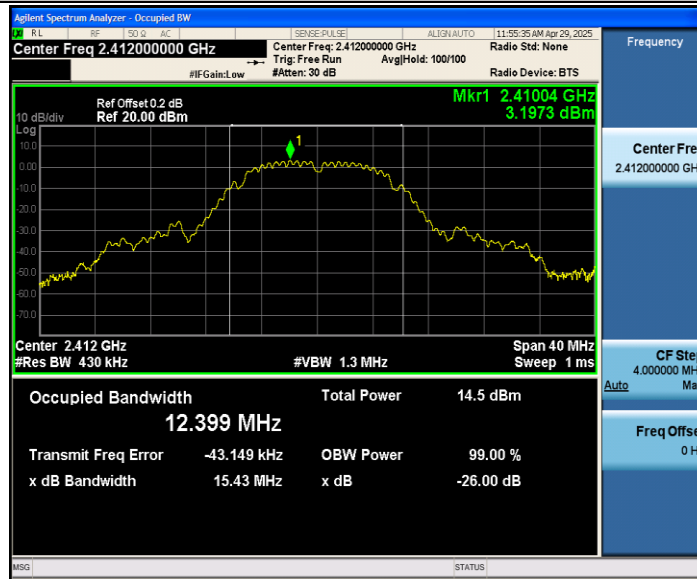
Appendix B: Occupied Channel Bandwidth

Test Result

TestMode	Antenna	Channel Frequency[MHz]	OCB [MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
11B	Ant1	2412	12.399	2405.7574	2418.1564	---	---
		2437	11.712	2430.9970	2442.7090	---	---
		2462	12.724	2455.4465	2468.1705	---	---
11G	Ant1	2412	16.752	2403.8051	2420.5571	---	---
		2437	16.675	2428.8000	2445.4750	---	---
		2462	16.894	2453.6374	2470.5314	---	---
11N20SISO	Ant1	2412	17.848	2403.2555	2421.1035	---	---
		2437	17.630	2428.3053	2445.9353	---	---
		2462	18.007	2453.1183	2471.1253	---	---

Test Graphs

11B_Ant1_2412



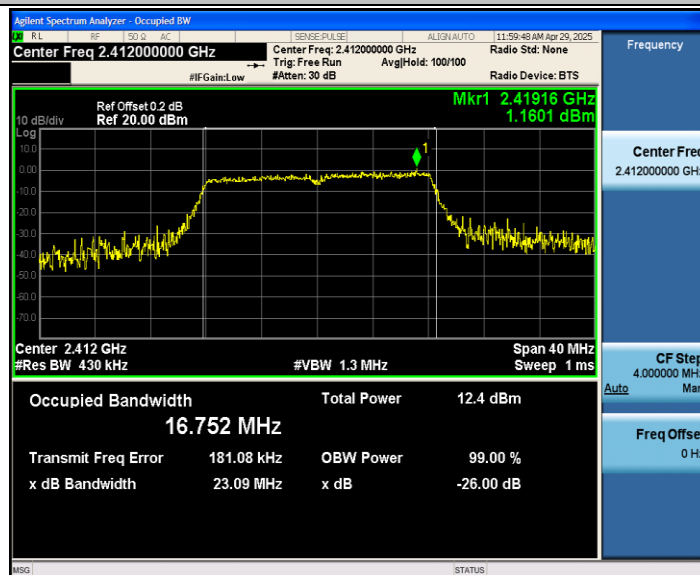
11B_Ant1_2437



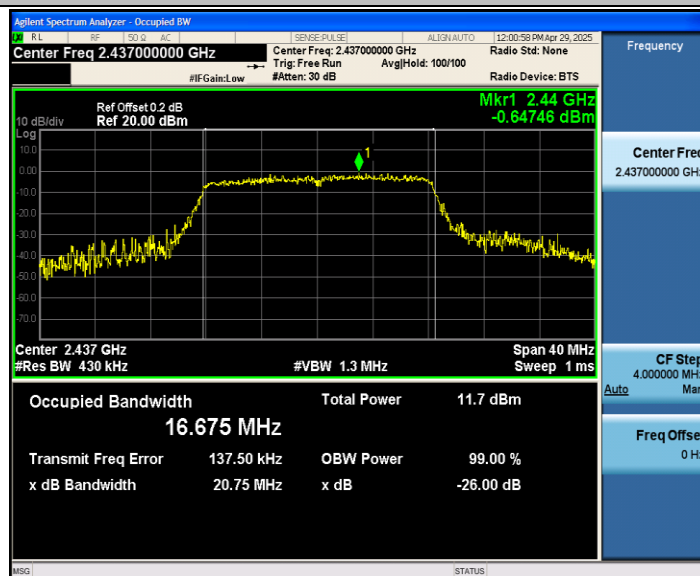
11B_Ant1_2462



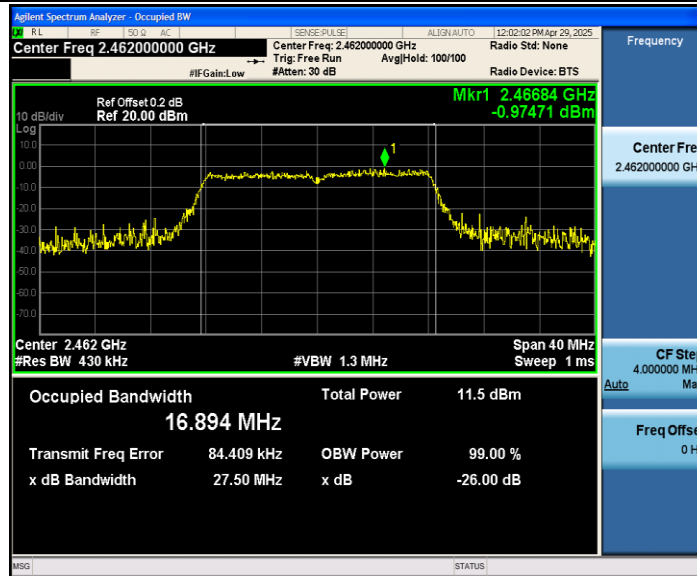
11G_Ant1_2412



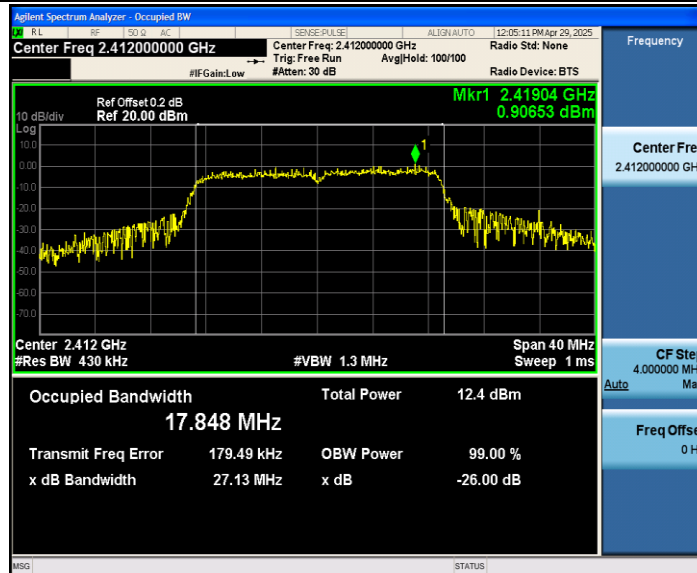
11G_Ant1_2437



11G_Ant1_2462



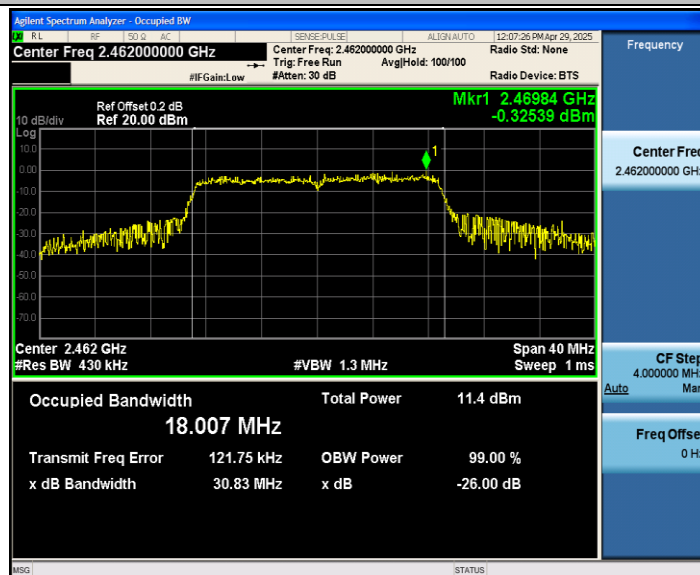
11N20SISO_Ant1_2412



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	14.45	≤30.00	PASS
		2437	13.04	≤30.00	PASS
		2462	13.35	≤30.00	PASS
11G	Ant1	2412	13.03	≤30.00	PASS
		2437	12.46	≤30.00	PASS
		2462	12.20	≤30.00	PASS
11N20SISO	Ant1	2412	12.92	≤30.00	PASS
		2437	12.21	≤30.00	PASS
		2462	12.00	≤30.00	PASS

Appendix D: Maximum power spectral density

Test Result

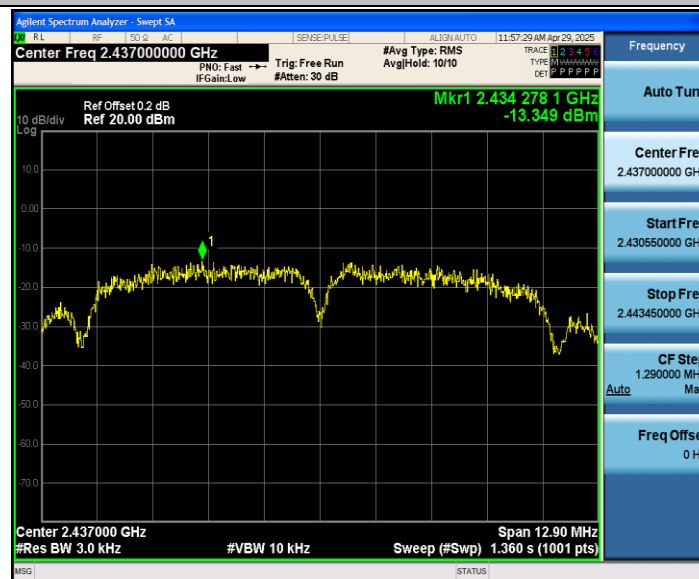
TestMode	Antenna	Frequency[MHz]	Result[dBm/3-100kHz]	Limit[dBm/3kHz]	Verdict
11B	Ant1	2412	-11.38	≤8.00	PASS
		2437	-13.35	≤8.00	PASS
		2462	-13.16	≤8.00	PASS
11G	Ant1	2412	-18.44	≤8.00	PASS
		2437	-19.54	≤8.00	PASS
		2462	-18.87	≤8.00	PASS
11N20SISO	Ant1	2412	-18.91	≤8.00	PASS
		2437	-19.01	≤8.00	PASS
		2462	-19.39	≤8.00	PASS

Test Graphs

11B_Ant1_2412



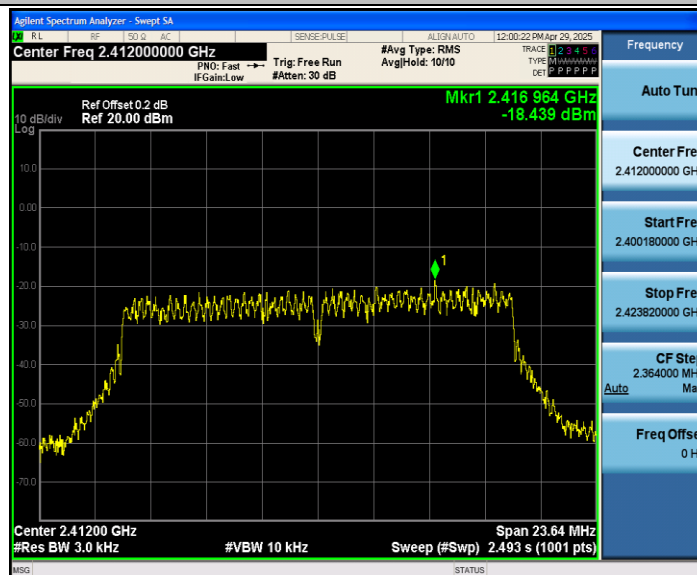
11B_Ant1_2437



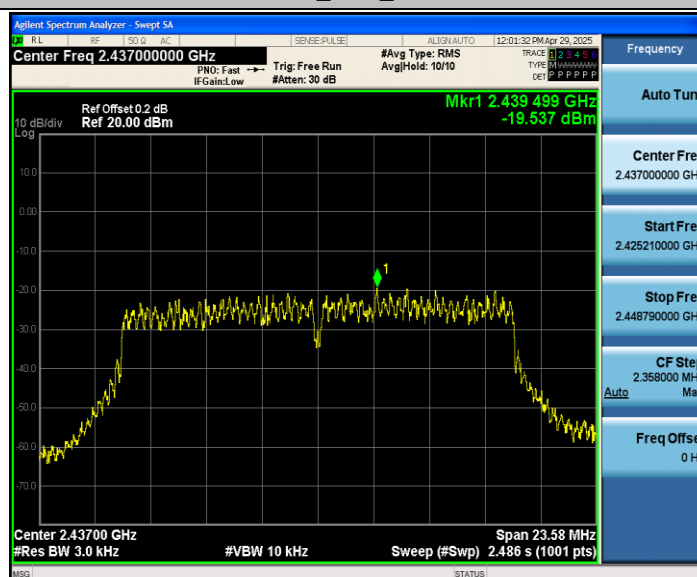
11B_Ant1_2462



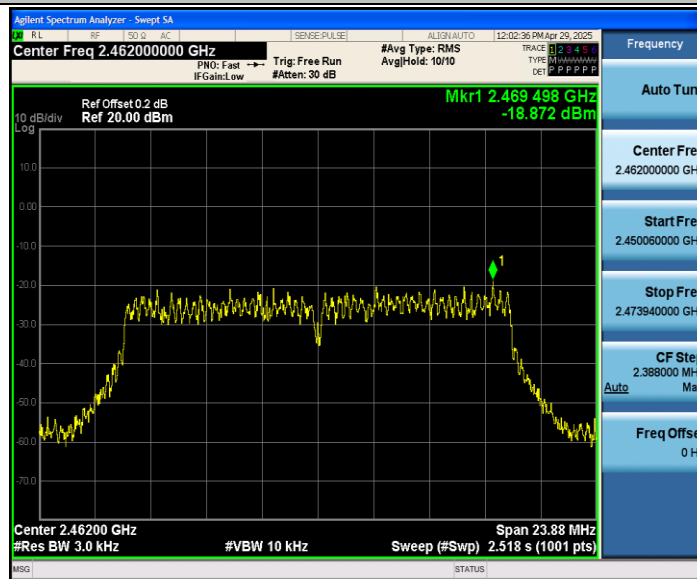
11G_Ant1_2412



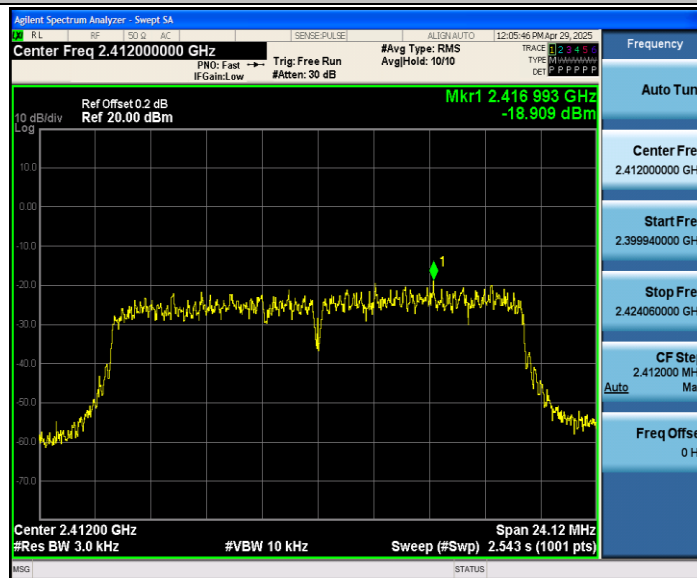
11G_Ant1_2437



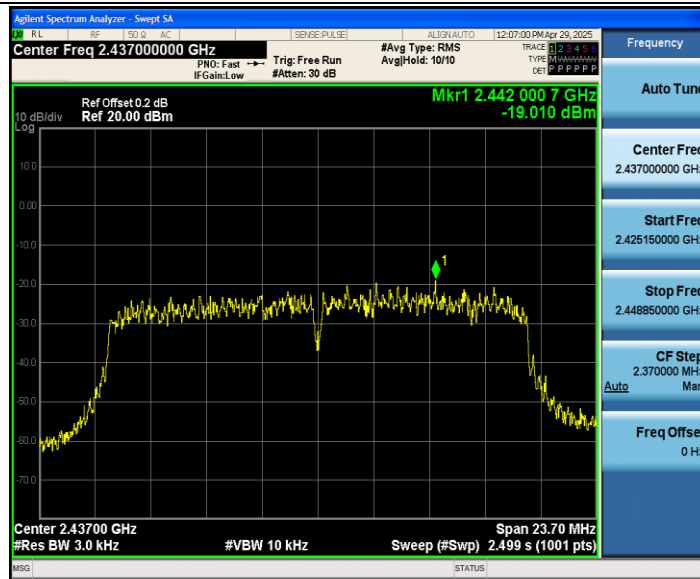
11G_Ant1_2462



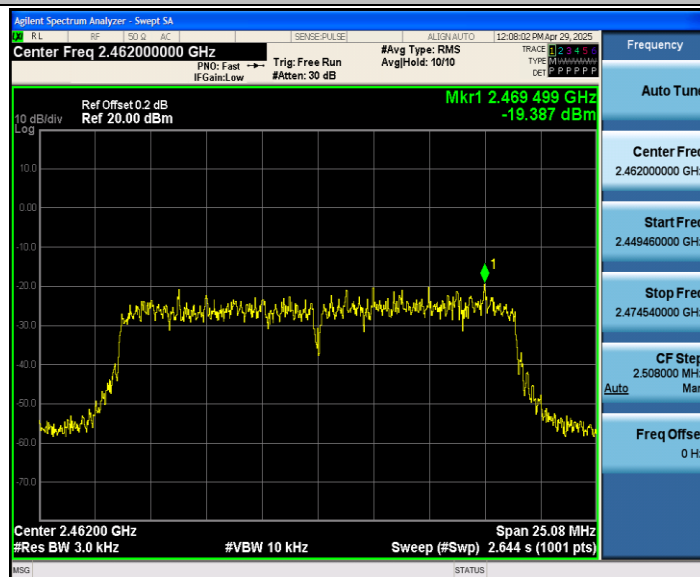
11N20SISO_Ant1_2412



11N20SISO_Ant1_2437



11N20SISO_Ant1_2462



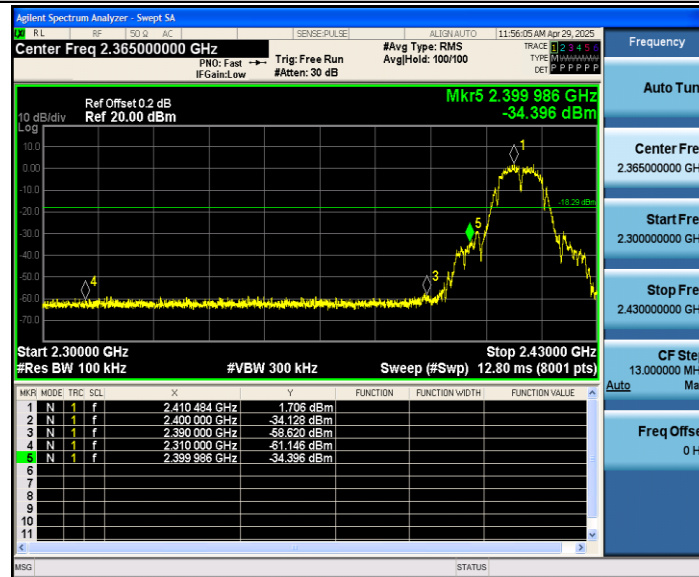
Appendix E: Band edge measurements

Test Result

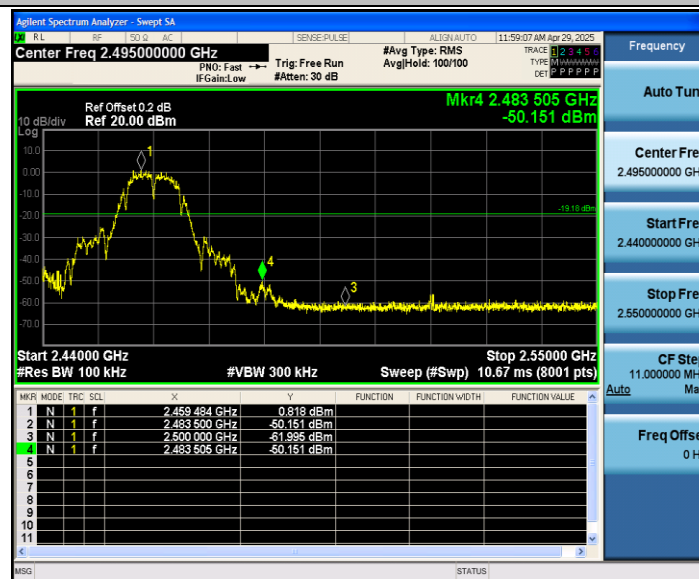
TestMode	Antenna	ChName	Frequency[MHz]	RefLevel[dBm]	Result[dBm]	Limit[dBm]	Verdict
11B	Ant1	Low	2412	1.71	-34.4	≤ -18.29	PASS
		High	2462	0.82	-50.15	≤ -19.18	PASS
11G	Ant1	Low	2412	-2.70	-36.32	≤ -22.7	PASS
		High	2462	-3.83	-40.97	≤ -23.83	PASS
11N20SISO	Ant1	Low	2412	-2.63	-36.24	≤ -22.63	PASS
		High	2462	-3.96	-38.04	≤ -23.96	PASS

Test Graphs

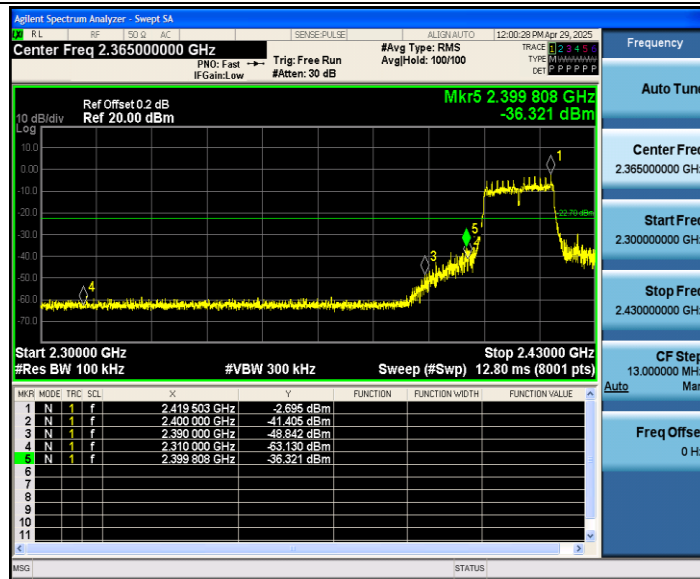
11B_Ant1_Low_2412



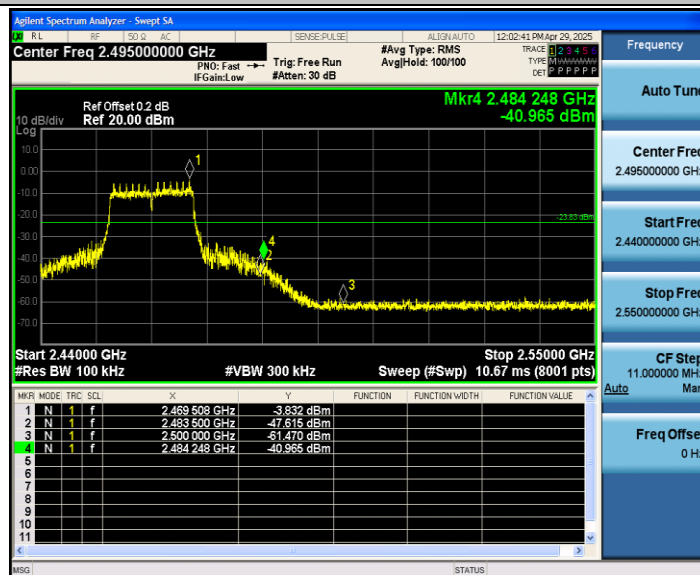
11B_Ant1_High_2462



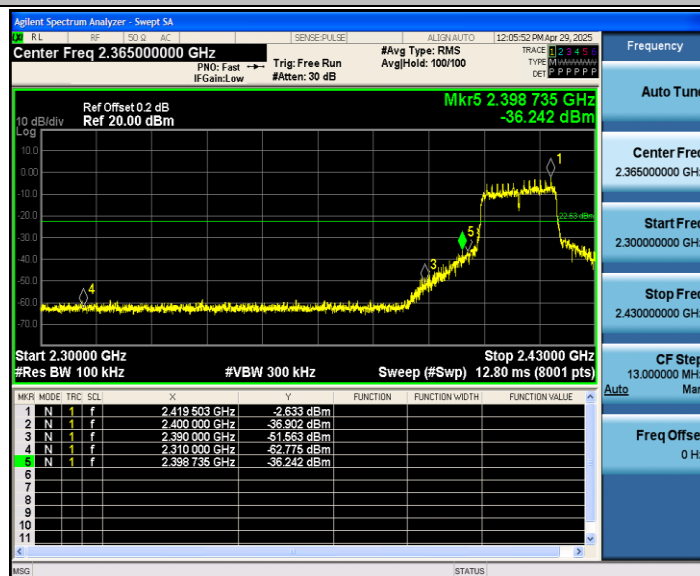
11G_Ant1_Low_2412



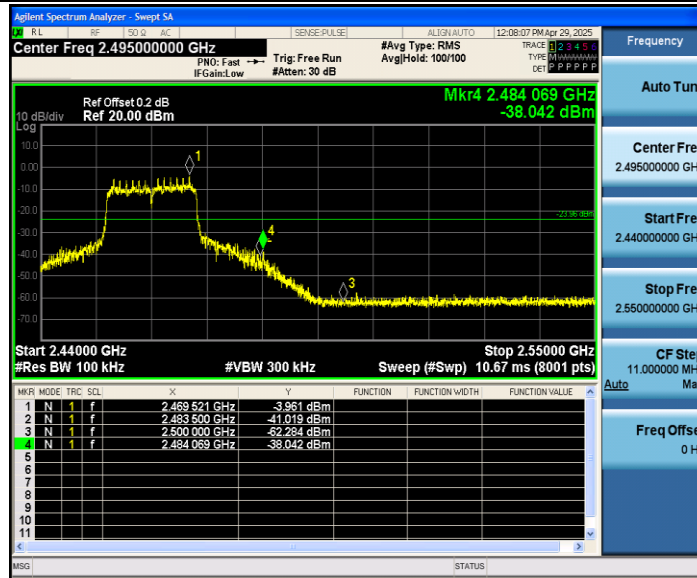
11G_Ant1_High_2462



11N20SISO_Ant1_Low_2412



11N20SISO_Ant1_High_2462



Appendix F: Conducted Spurious Emission

Test Result

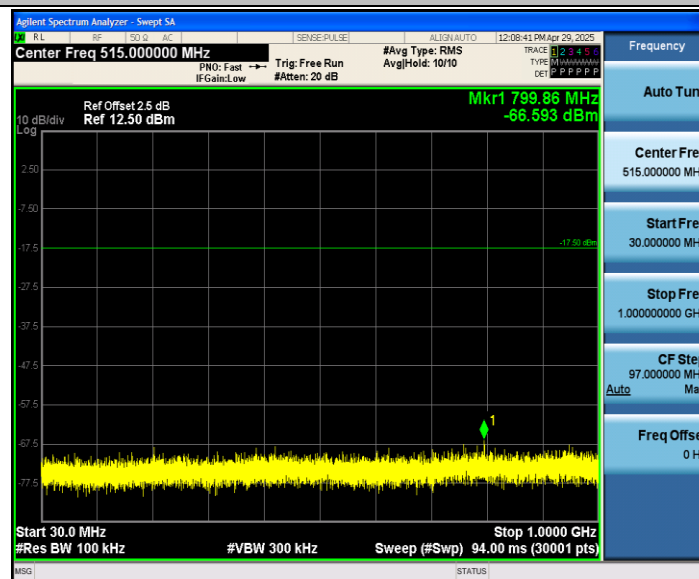
TestMode	Antenna	Frequency[MHz]	FreqRange [Mhz]	RefLevel [dBm]	Result [dBm]	Limit [dBm]	Verdict
11B	Ant1	2412	Reference	2.50	2.50	---	PASS
			30~1000	2.50	-66.59	≤-17.5	PASS
			1000~26500	2.50	-38.84	≤-17.5	PASS
		2437	Reference	2.03	2.03	---	PASS
			30~1000	2.03	-67.81	≤-17.97	PASS
			1000~26500	2.03	-37.37	≤-17.97	PASS
		2462	Reference	2.61	2.61	---	PASS
			30~1000	2.61	-67.72	≤-17.39	PASS
			1000~26500	2.61	-31.39	≤-17.39	PASS
11G	Ant1	2412	Reference	-1.38	-1.38	---	PASS
			30~1000	-1.38	-67.69	≤-21.38	PASS
			1000~26500	-1.38	-47.21	≤-21.38	PASS
		2437	Reference	-1.33	-1.33	---	PASS
			30~1000	-1.33	-67.79	≤-21.33	PASS
			1000~26500	-1.33	-49.68	≤-21.33	PASS
		2462	Reference	-3.14	-3.14	---	PASS
			30~1000	-3.14	-66.68	≤-23.14	PASS
			1000~26500	-3.14	-42.1	≤-23.14	PASS
11N20SISO	Ant1	2412	Reference	-1.22	-1.22	---	PASS
			30~1000	-1.22	-67.52	≤-21.22	PASS
			1000~26500	-1.22	-52.78	≤-21.22	PASS
		2437	Reference	-2.17	-2.17	---	PASS
			30~1000	-2.17	-68.4	≤-22.17	PASS
			1000~26500	-2.17	-50.46	≤-22.17	PASS
		2462	Reference	-2.50	-2.50	---	PASS
			30~1000	-2.50	-68.09	≤-22.5	PASS
			1000~26500	-2.50	-46.25	≤-22.5	PASS

Test Graphs

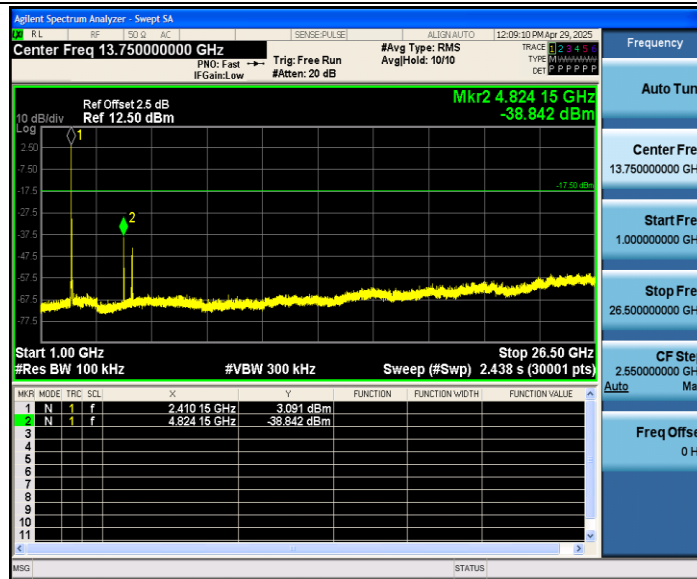
11B_Ant1_2412_0~Reference



11B_Ant1_2412_30~1000



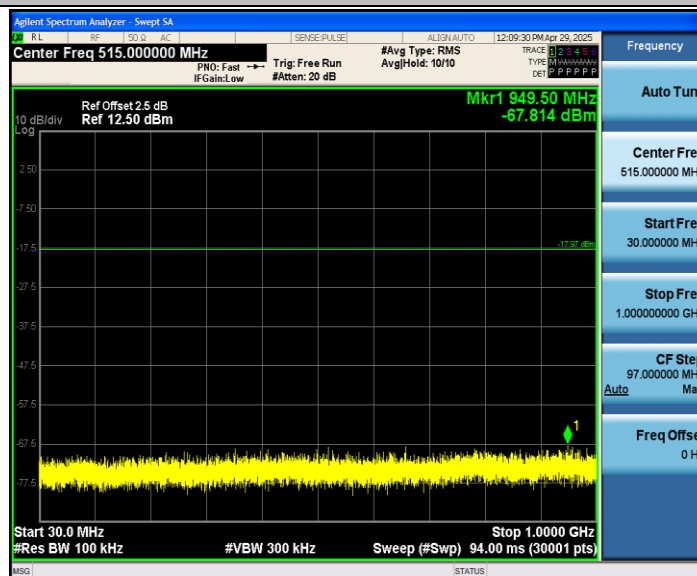
11B_Ant1_2412_1000~26500



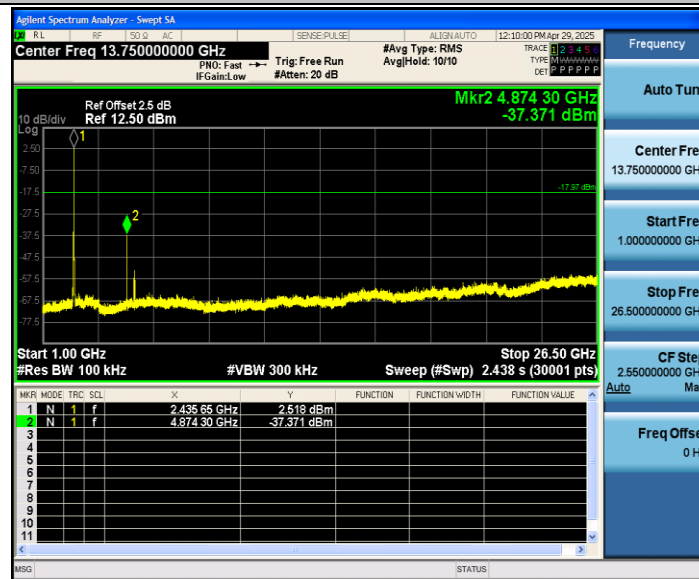
11B_Ant1_2437_0~Reference



11B_Ant1_2437_30~1000



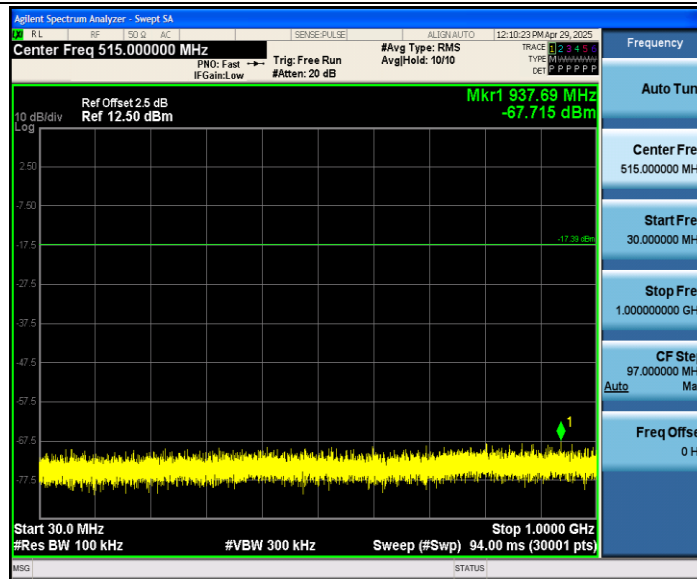
11B_Ant1_2437_1000~26500



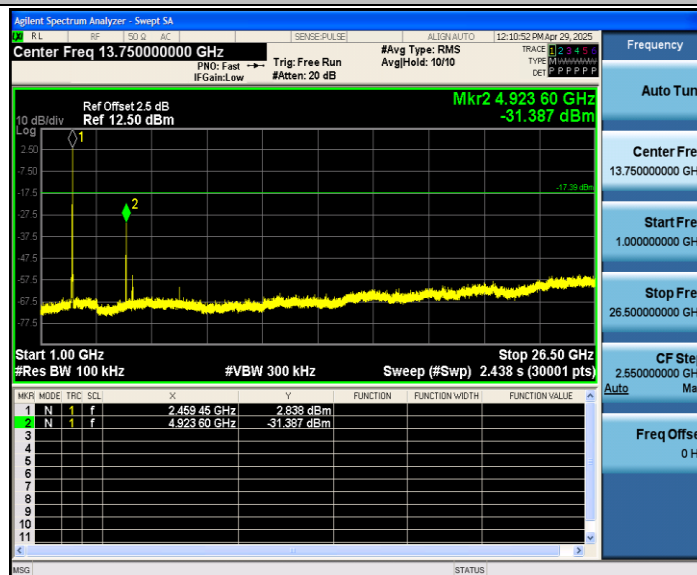
11B_Ant1_2462_0~Reference



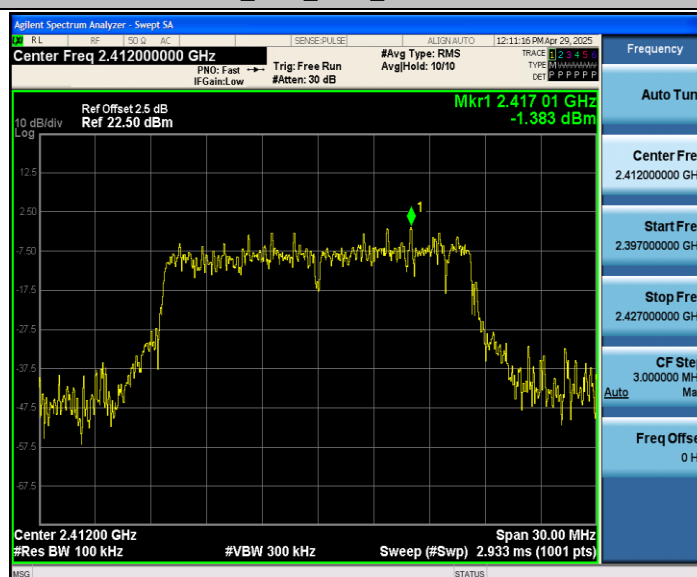
11B_Ant1_2462_30~1000



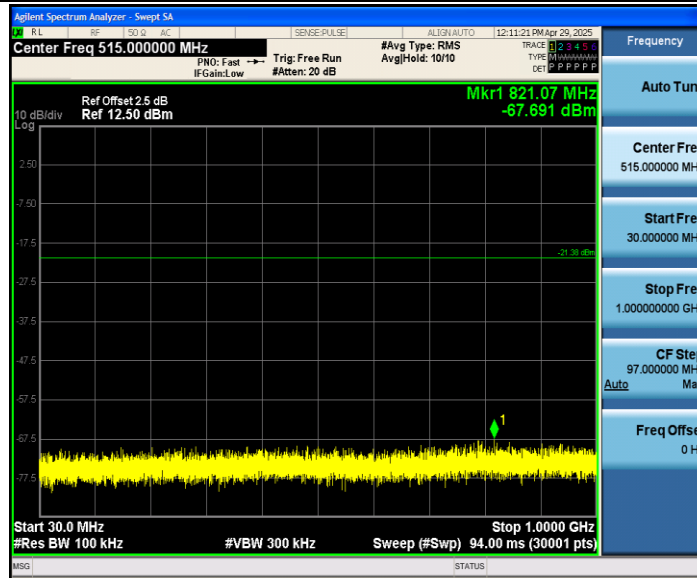
11B_Ant1_2462_1000~26500



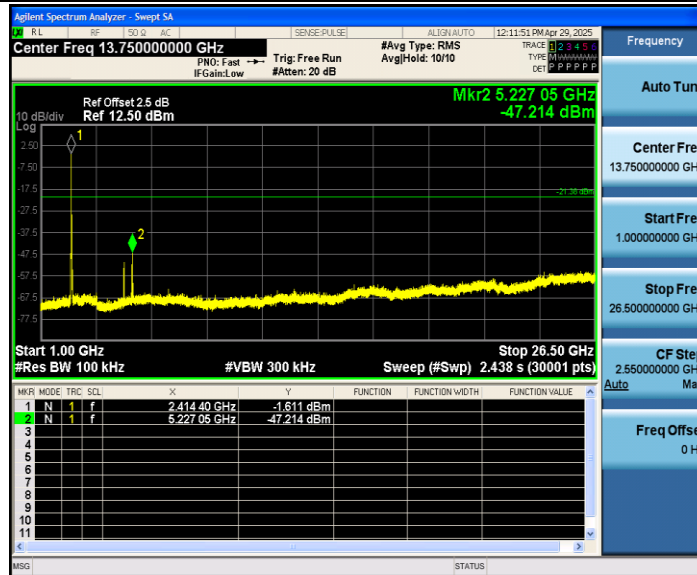
11G_Ant1_2412_0~Reference



11G_Ant1_2412_30~1000



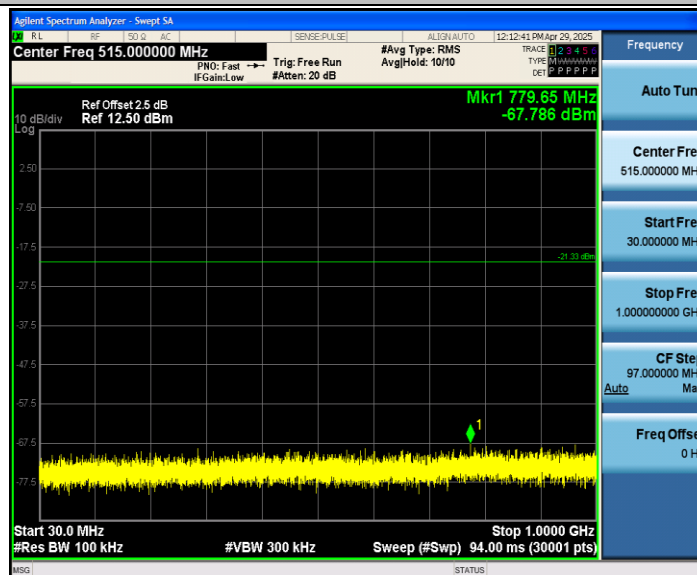
11G_Ant1_2412_1000~26500



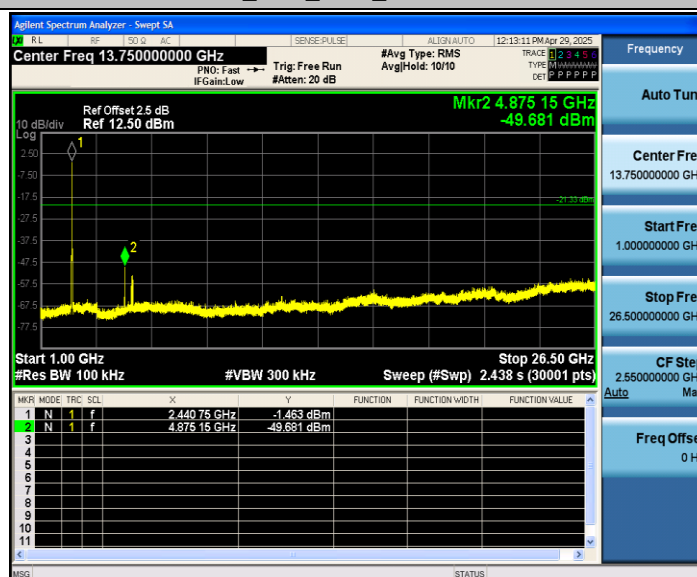
11G_Ant1_2437_0~Reference



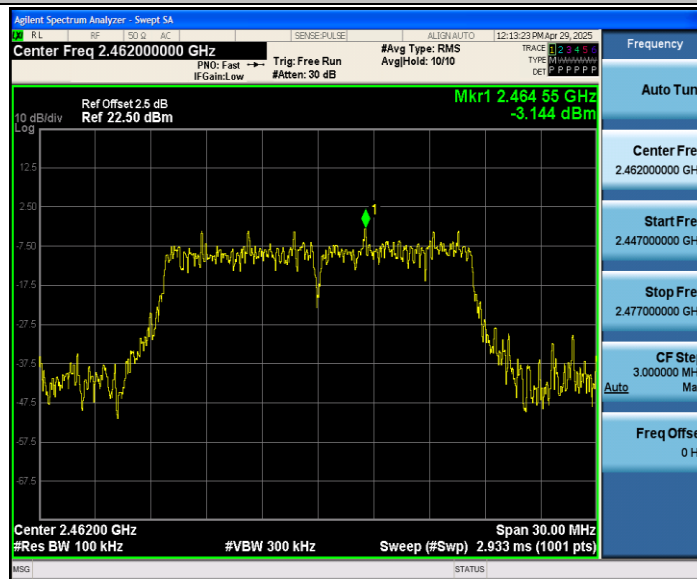
11G_Ant1_2437_30~1000



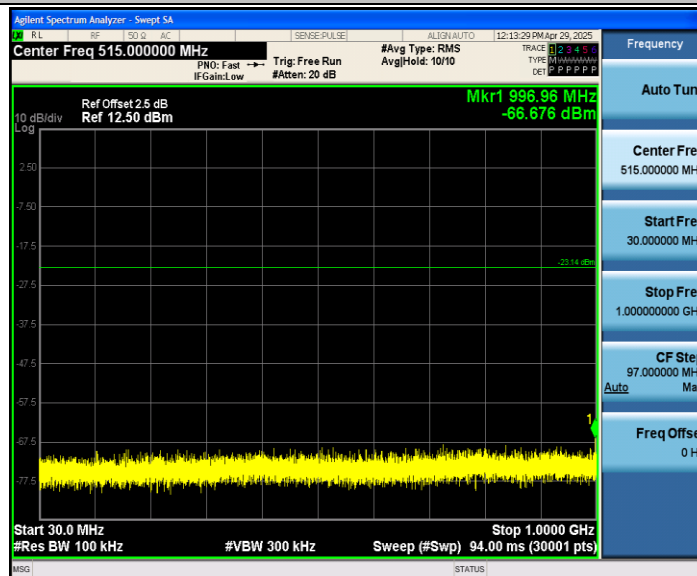
11G_Ant1_2437_1000~26500



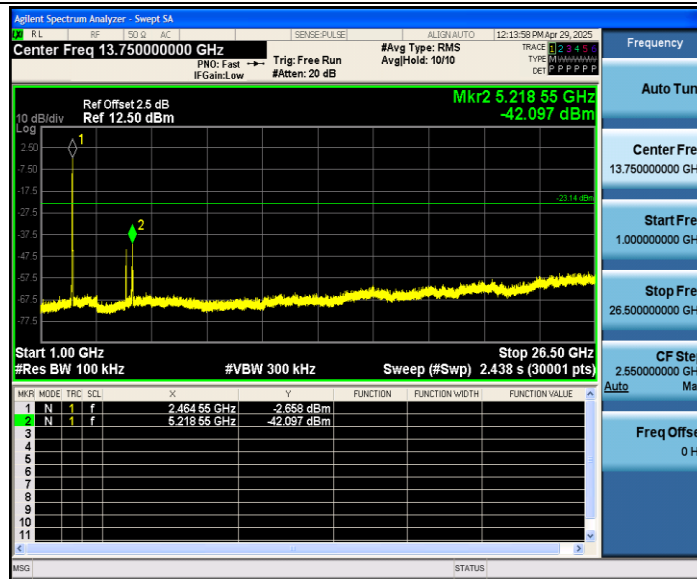
11G_Ant1_2462_0~Reference



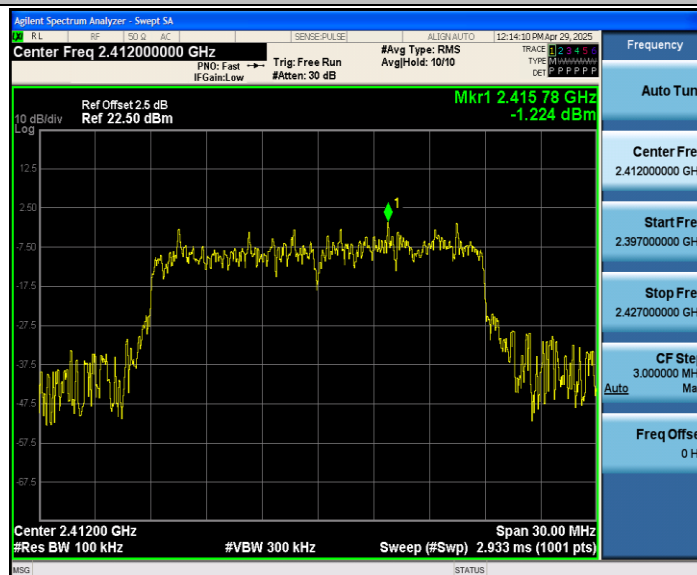
11G_Ant1_2462_30~1000



11G_Ant1_2462_1000~26500



11N20SISO_Ant1_2412_0~Reference



11N20SISO_Ant1_2412_30~1000

