

Appendix RF Test Data for 2.4GWIFI

FCC ID : 2BPAY-EX004

Company : Shenzhen Lianying Zhida Technology Co., Ltd.

EUT : WIFI 11ac 1200M Type C Extender

Model Number : EX004

Report No. : CTA25070500101

Reviewed By : Eric Wang

Appendix RF Test Data for 2.4GWIFI ANT1

Appendix A: DTS Bandwidth

Test Result

TestMode	Antenna	Frequency[MHz]	DTS BW [MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
11B	Ant1	2412	8.480	2408.520	2417.000	0.5	PASS
		2437	9.080	2432.960	2442.040	0.5	PASS
		2462	9.080	2456.960	2466.040	0.5	PASS
11G	Ant1	2412	13.160	2407.000	2420.160	0.5	PASS
		2437	15.720	2428.840	2444.560	0.5	PASS
		2462	15.640	2454.480	2470.120	0.5	PASS
11N20SISO	Ant1	2412	13.400	2406.960	2420.360	0.5	PASS
		2437	16.080	2428.480	2444.560	0.5	PASS
		2462	15.880	2454.480	2470.360	0.5	PASS
11N40SISO	Ant1	2422	23.760	2410.720	2434.480	0.5	PASS
		2437	35.440	2419.080	2454.520	0.5	PASS
		2452	35.440	2434.480	2469.920	0.5	PASS

Test Graphs

11B_Ant1_2412



11B_Ant1_2437



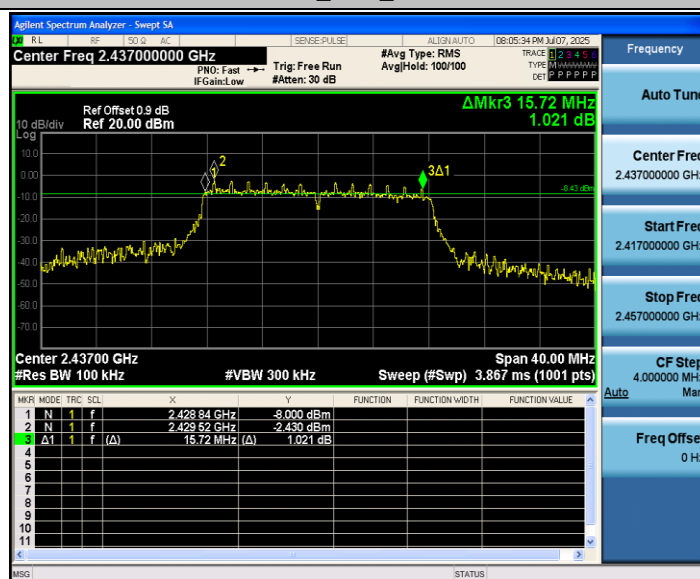
11B_Ant1_2462



11G_Ant1_2412



11G_Ant1_2437



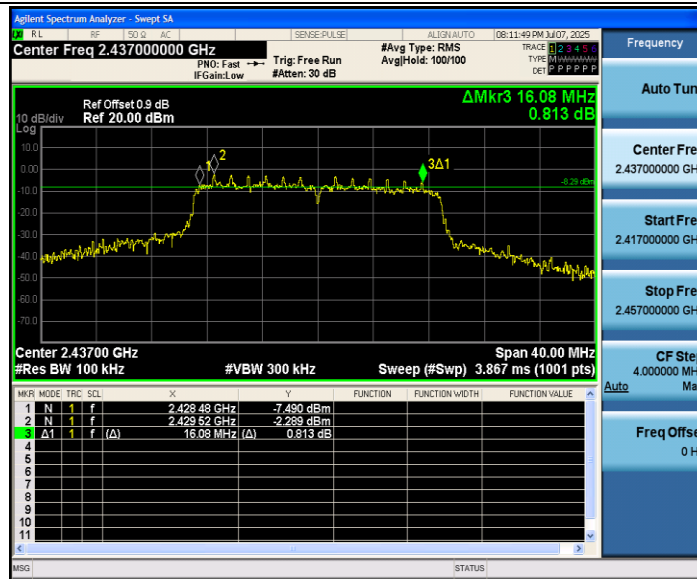
11G_Ant1_2462



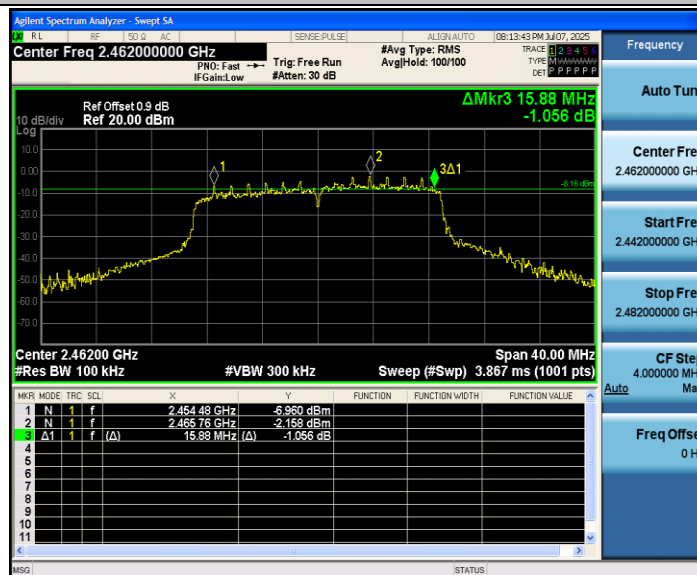
11N20SISO_Ant1_2412



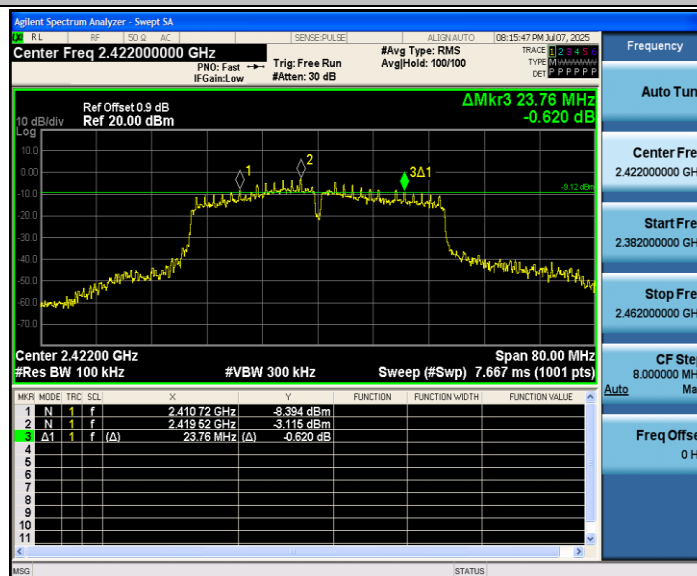
11N20SISO_Ant1_2437



11N20SISO_Ant1_2462



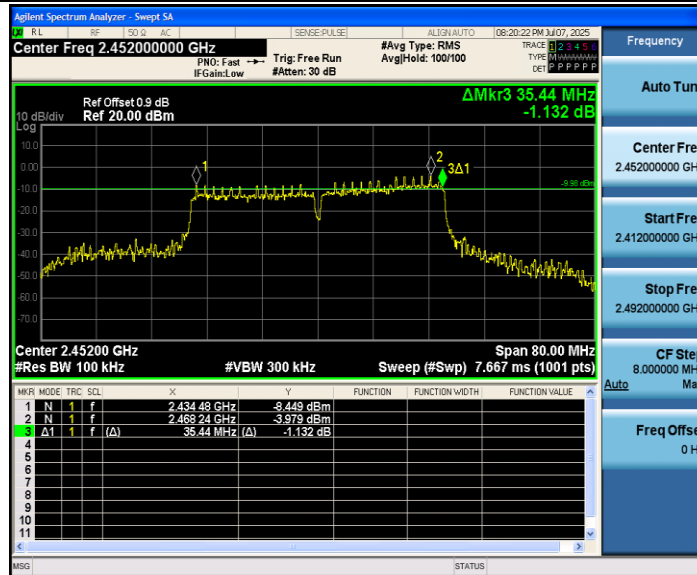
11N40SISO_Ant1_2422



11N40SISO_Ant1_2437



11N40SISO_Ant1_2452



Appendix B: Occupied Channel Bandwidth

Test Result

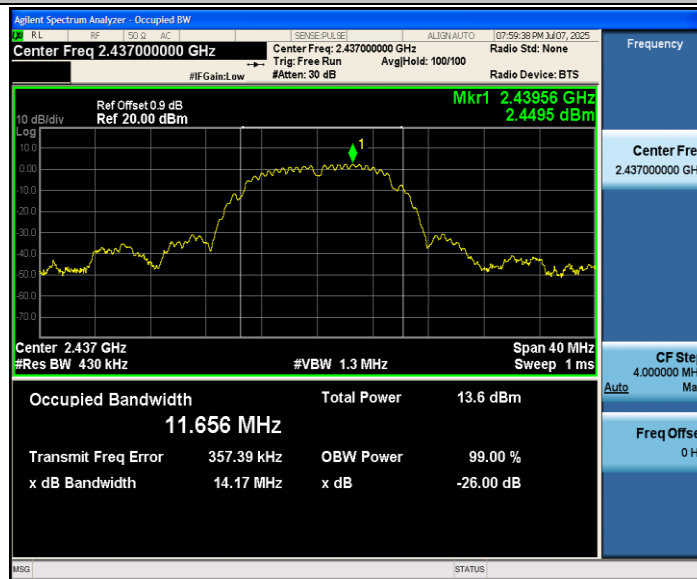
TestMode	Antenna	Channel Frequency[MHz]	OCB [MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
11B	Ant1	2412	12.014	2406.8581	2418.8721	---	---
		2437	11.656	2431.5294	2443.1854	---	---
		2462	11.757	2455.9577	2467.7147	---	---
11G	Ant1	2412	16.691	2404.0327	2420.7237	---	---
		2437	16.838	2428.4315	2445.2695	---	---
		2462	16.515	2453.9283	2470.4433	---	---
11N20SISO	Ant1	2412	17.583	2403.5843	2421.1673	---	---
		2437	17.828	2427.9896	2445.8176	---	---
		2462	17.528	2453.4078	2470.9358	---	---
11N40SISO	Ant1	2422	35.476	2404.4306	2439.9066	---	---
		2437	36.655	2418.5410	2455.1960	---	---
		2452	36.539	2433.9409	2470.4799	---	---

Test Graphs

11B_Ant1_2412



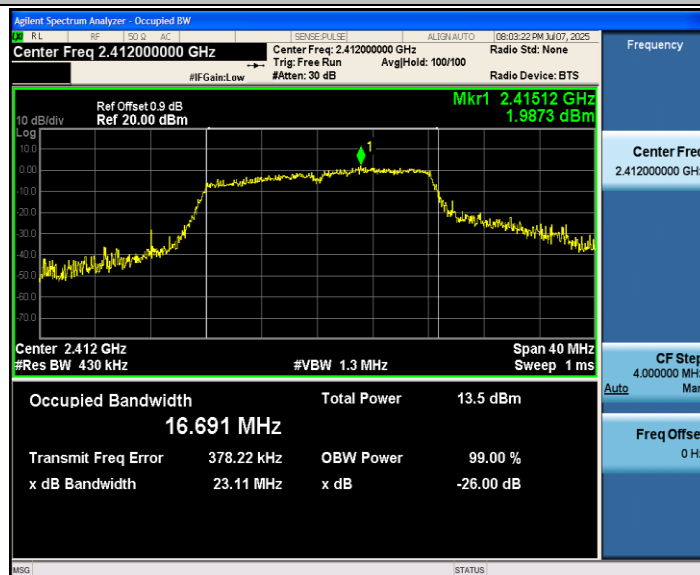
11B_Ant1_2437



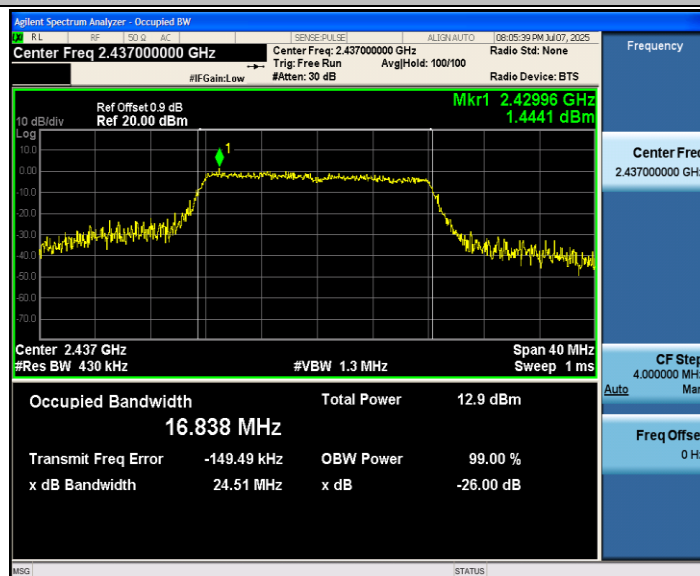
11B_Ant1_2462



11G_Ant1_2412



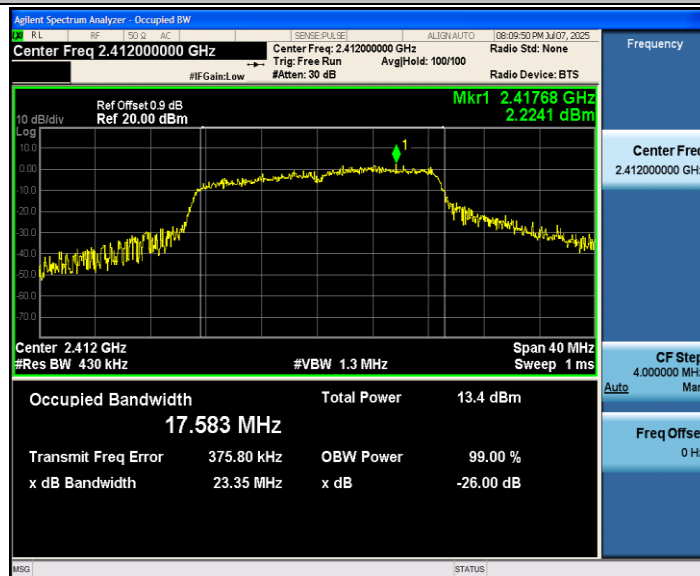
11G_Ant1_2437



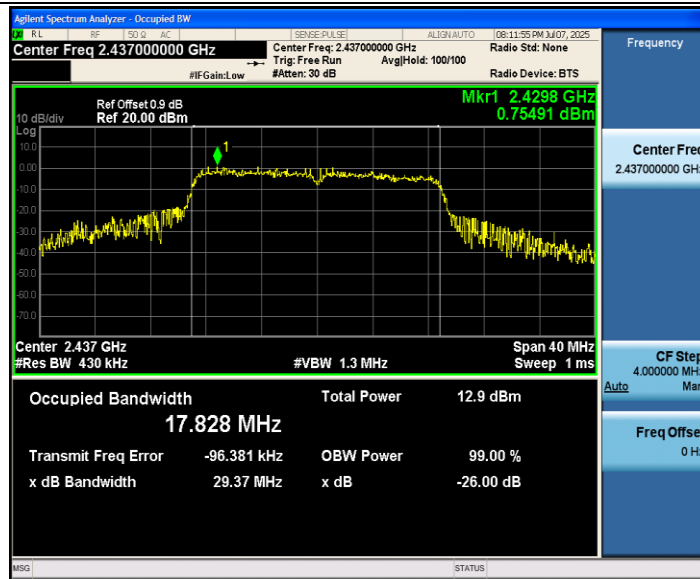
11G_Ant1_2462



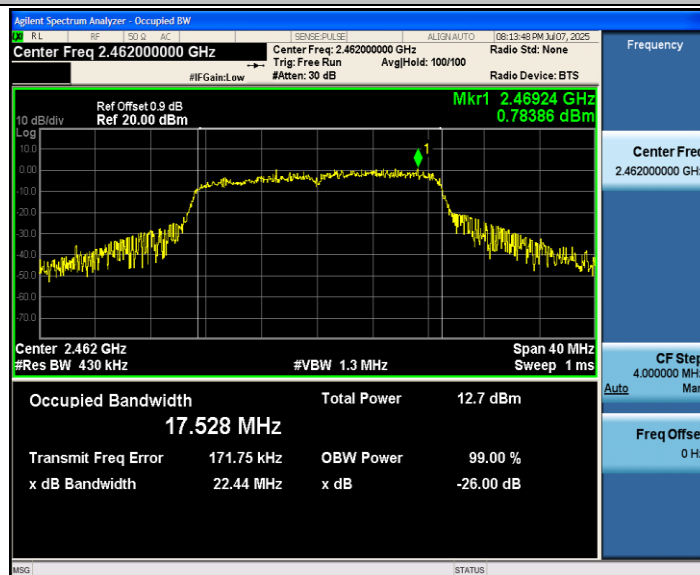
11N20SISO_Ant1_2412



11N20SISO_Ant1_2437



11N20SISO_Ant1_2462



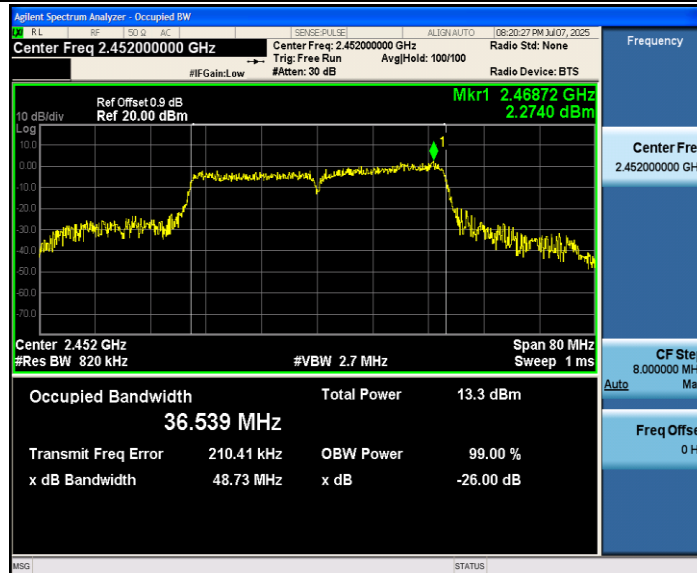
11N40SISO_Ant1_2422



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	14.99	≤30.00	PASS
		2437	13.39	≤30.00	PASS
		2462	14.55	≤30.00	PASS
11G	Ant1	2412	13.88	≤30.00	PASS
		2437	13.61	≤30.00	PASS
		2462	13.30	≤30.00	PASS
11N20SISO	Ant1	2412	13.56	≤30.00	PASS
		2437	13.35	≤30.00	PASS
		2462	13.07	≤30.00	PASS
11N40SISO	Ant1	2422	12.69	≤30.00	PASS
		2437	13.31	≤30.00	PASS
		2452	13.32	≤30.00	PASS

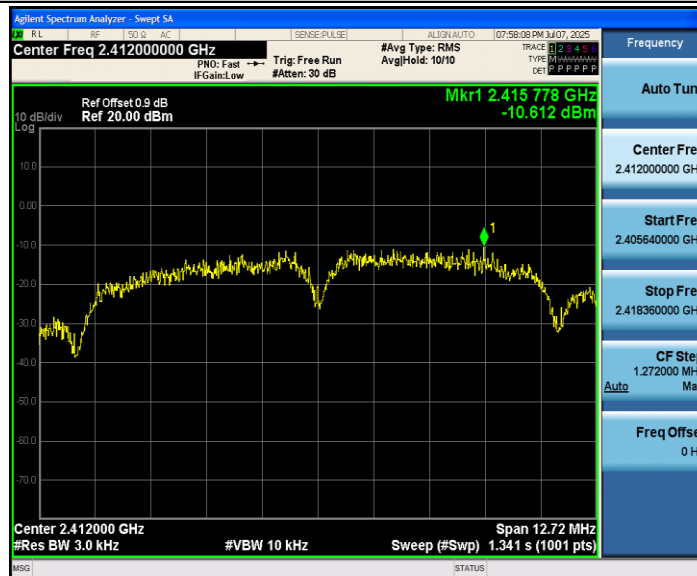
Appendix D: Maximum power spectral density

Test Result

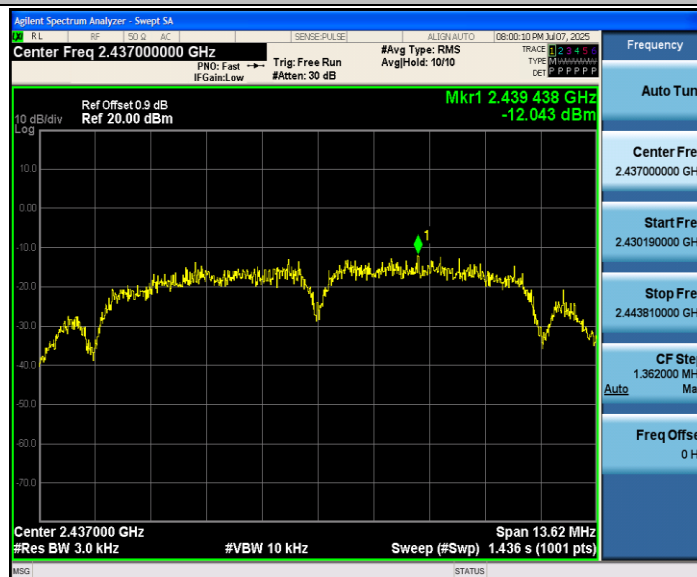
TestMode	Antenna	Frequency[MHz]	Result[dBm/3-100kHz]	Limit[dBm/3kHz]	Verdict
11B	Ant1	2412	-10.61	≤8.00	PASS
		2437	-12.04	≤8.00	PASS
		2462	-11.49	≤8.00	PASS
11G	Ant1	2412	-17.08	≤8.00	PASS
		2437	-18.45	≤8.00	PASS
		2462	-18.22	≤8.00	PASS
11N20SISO	Ant1	2412	-16.37	≤8.00	PASS
		2437	-18.57	≤8.00	PASS
		2462	-16.72	≤8.00	PASS
11N40SISO	Ant1	2422	-18.89	≤8.00	PASS
		2437	-19.24	≤8.00	PASS
		2452	-19.13	≤8.00	PASS

Test Graphs

11B_Ant1_2412



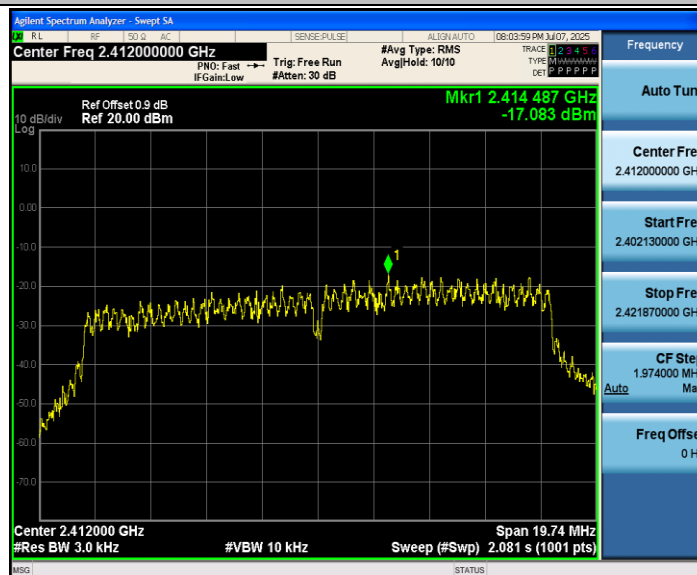
11B_Ant1_2437



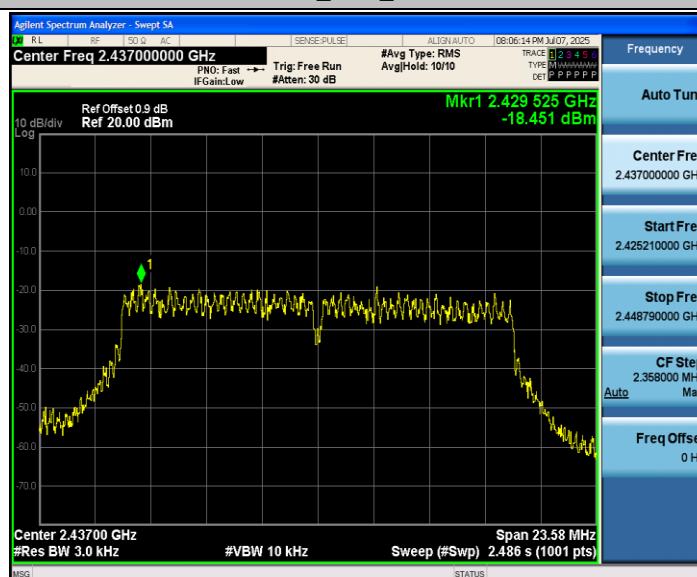
11B_Ant1_2462



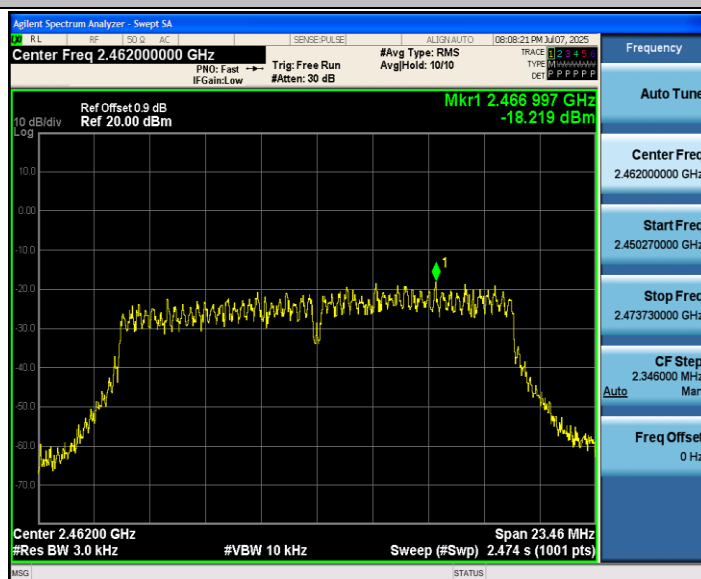
11G_Ant1_2412



11G_Ant1_2437



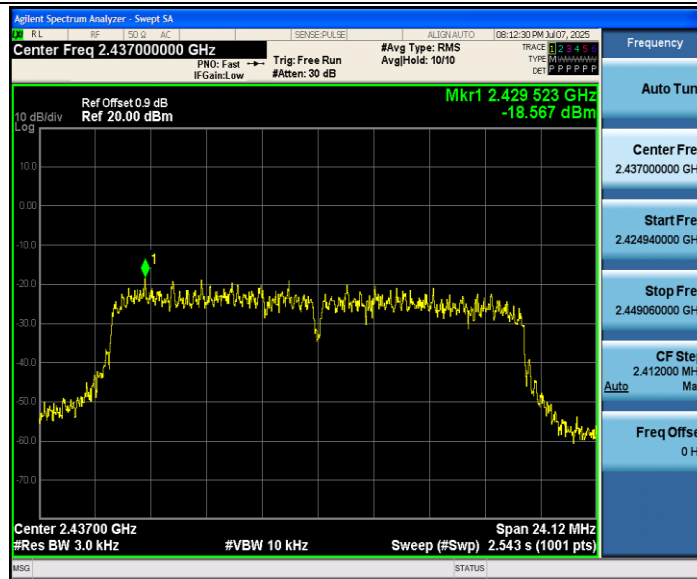
11G_Ant1_2462



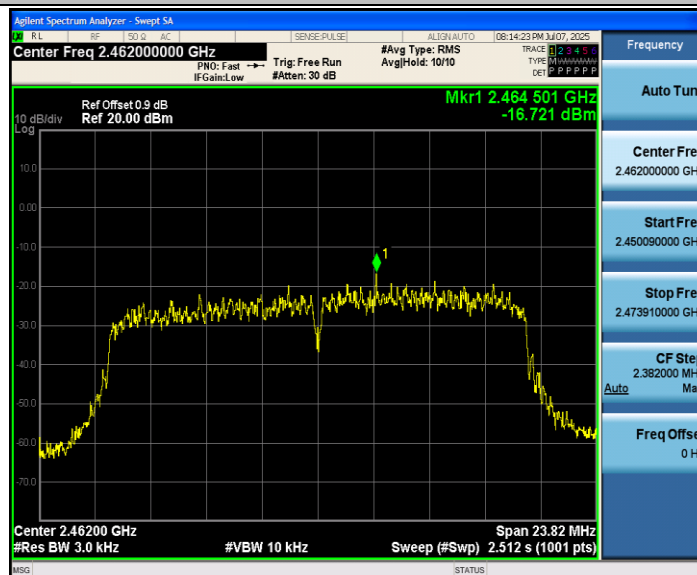
11N20SISO_Ant1_2412



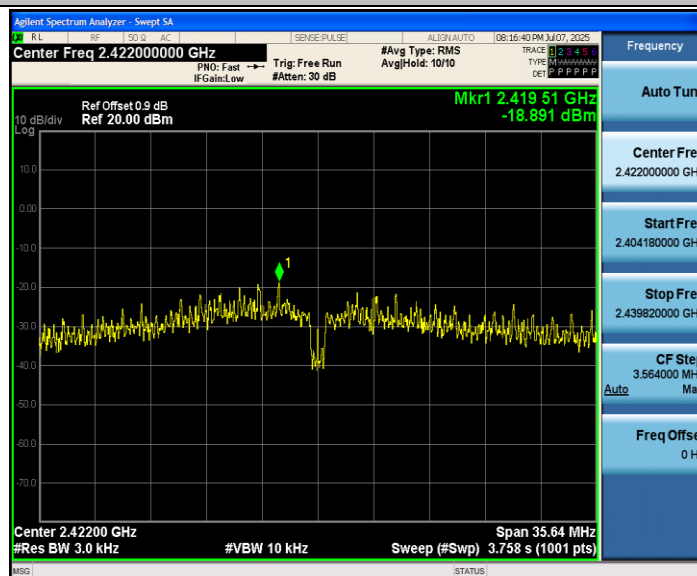
11N20SISO_Ant1_2437



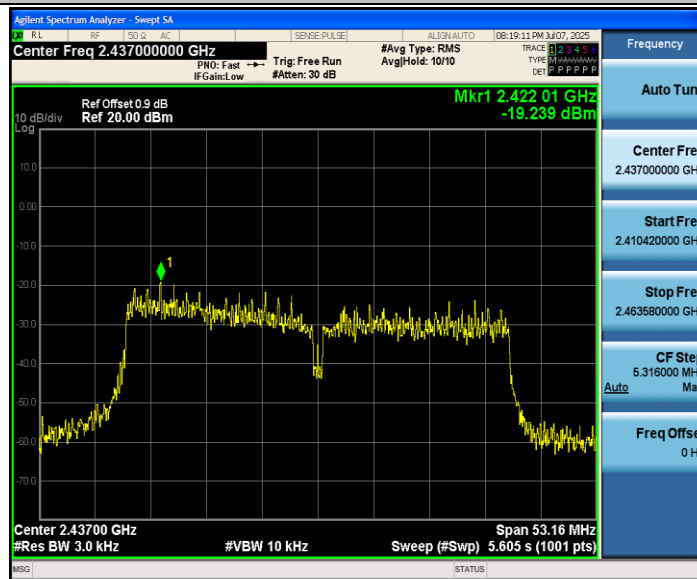
11N20SISO_Ant1_2462



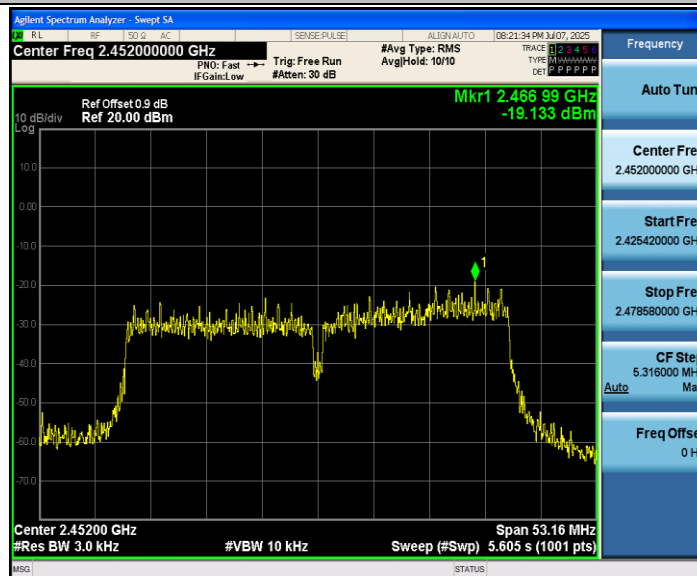
11N40SISO_Ant1_2422



11N40SISO_Ant1_2437



11N40SISO_Ant1_2452



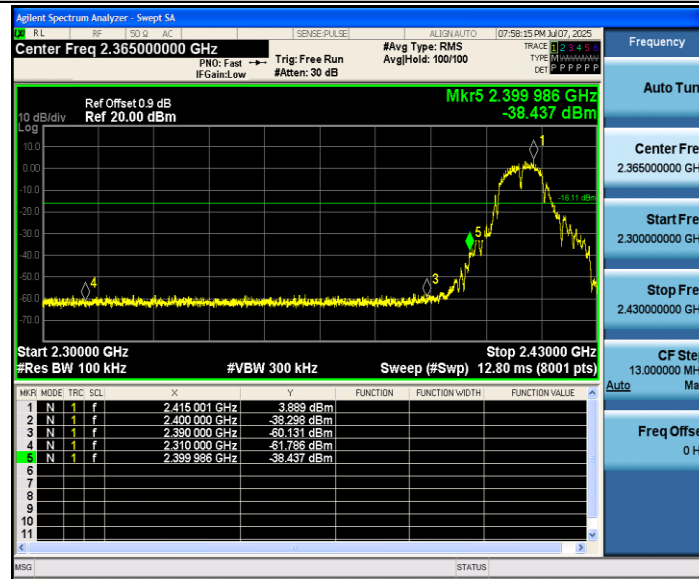
Appendix E: Band edge measurements

Test Result

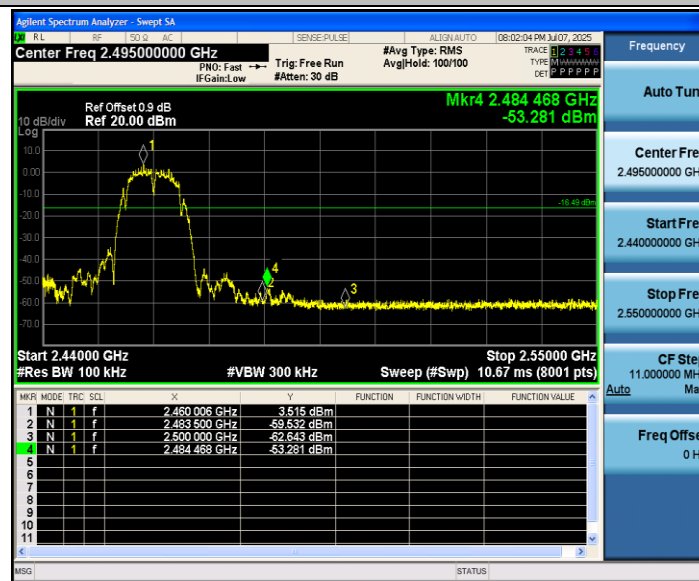
TestMode	Antenna	Channel Name	Frequency[MHz]	RefLevel[dBm]	Result[dBm]	Limit[dBm]	Verdict
11B	Ant1	Low	2412	3.89	-38.44	≤-16.11	PASS
		High	2462	3.52	-53.28	≤-16.49	PASS
11G	Ant1	Low	2412	-0.88	-43.71	≤-20.88	PASS
		High	2462	-2.14	-53.5	≤-22.14	PASS
11N20SISO	Ant1	Low	2412	-1.06	-38.49	≤-21.06	PASS
		High	2462	-2.58	-50.4	≤-22.58	PASS
11N40SISO	Ant1	Low	2422	-3.25	-43.27	≤-23.25	PASS
		High	2452	-4.02	-41.96	≤-24.02	PASS

Test Graphs

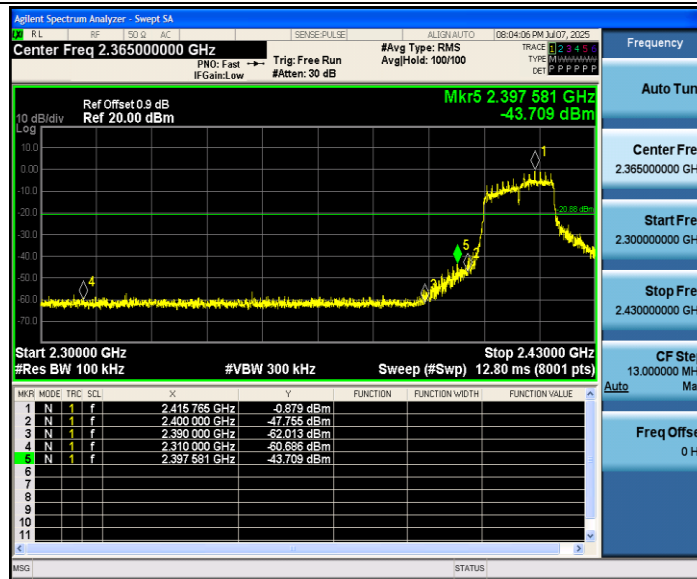
11B_Ant1_Low_2412



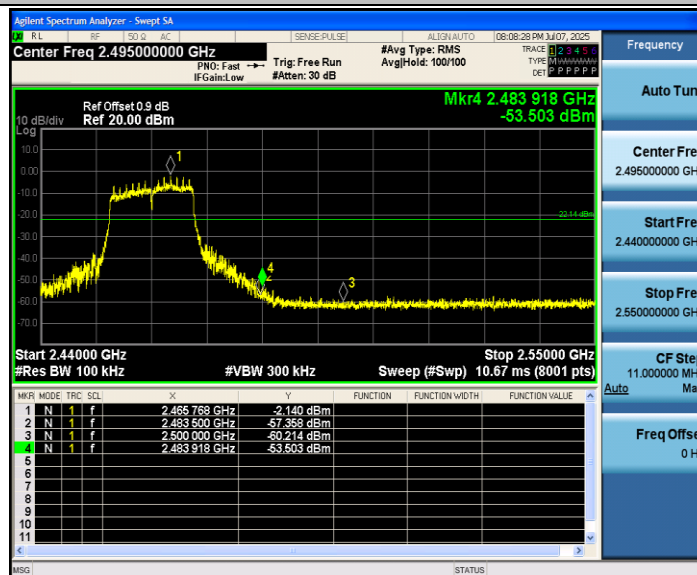
11B_Ant1_High_2462



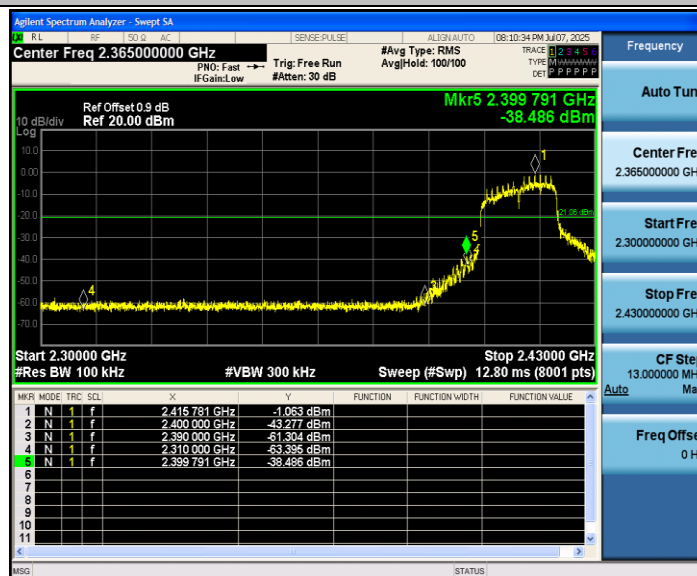
11G_Ant1_Low_2412



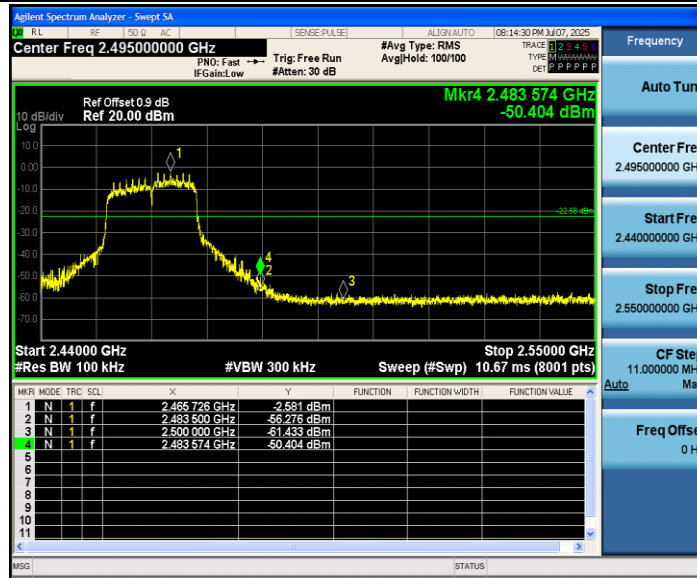
11G_Ant1_High_2462



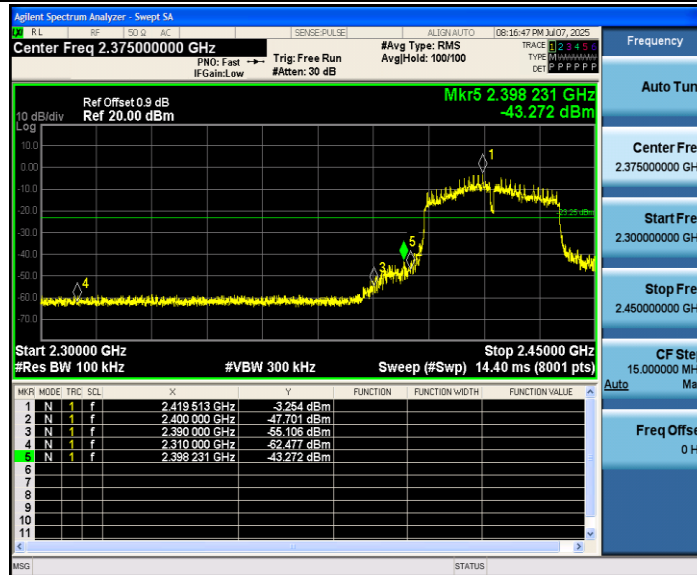
11N20SISO_Ant1_Low_2412



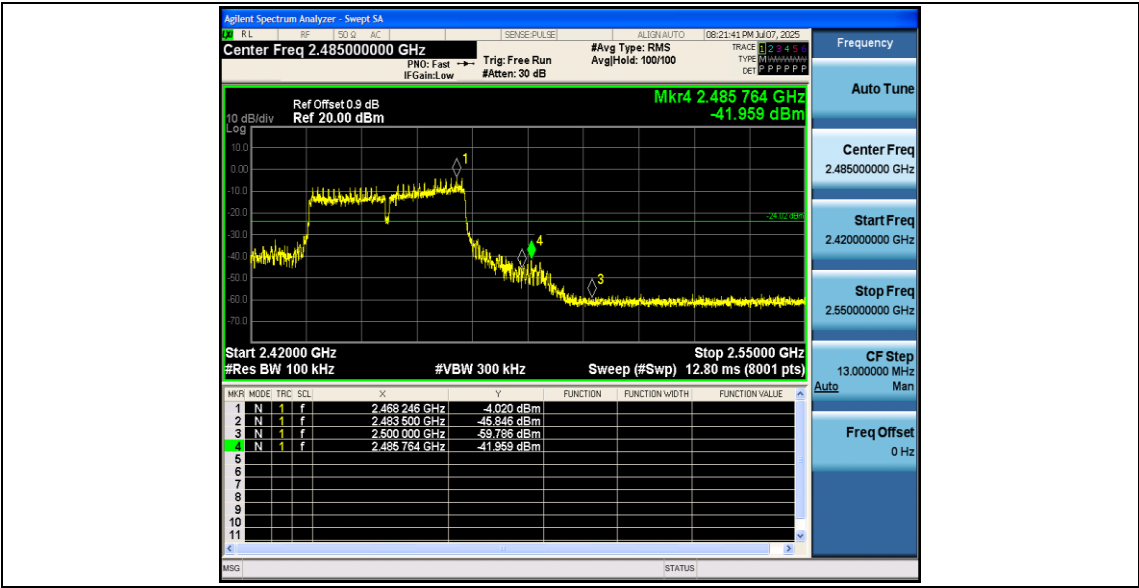
11N20SISO_Ant1_High_2462



11N40SISO_Ant1_Low_2422



11N40SISO_Ant1_High_2452



Appendix F: Conducted Spurious Emission

Test Result

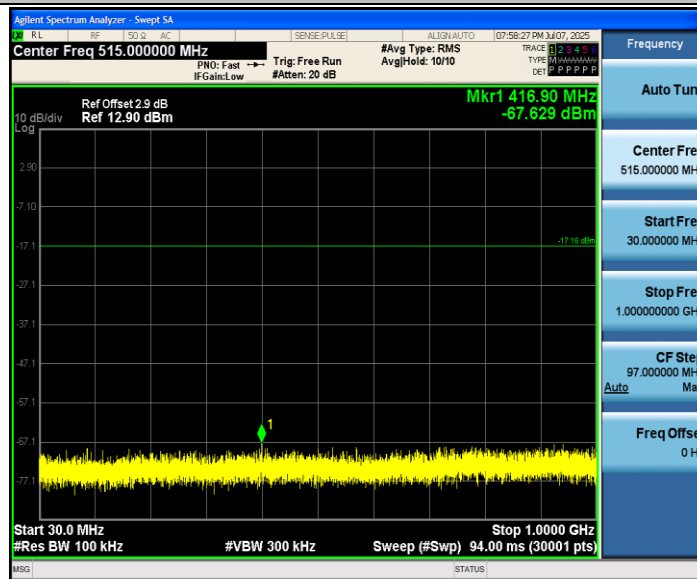
TestMode	Antenna	Frequency[MHz]	FreqRange [Mhz]	RefLevel [dBm]	Result [dBm]	Limit [dBm]	Verdict
11B	Ant1	2412	Reference	2.84	2.84	---	PASS
			30~1000	2.84	-67.63	≤-17.16	PASS
			1000~26500	2.84	-40.34	≤-17.16	PASS
		2437	Reference	0.89	0.89	---	PASS
			30~1000	0.89	-67.42	≤-19.11	PASS
			1000~26500	0.89	-40.62	≤-19.11	PASS
		2462	Reference	1.48	1.48	---	PASS
			30~1000	1.48	-67.68	≤-18.52	PASS
			1000~26500	1.48	-42.62	≤-18.52	PASS
11G	Ant1	2412	Reference	-1.15	-1.15	---	PASS
			30~1000	-1.15	-67.07	≤-21.15	PASS
			1000~26500	-1.15	-53.81	≤-21.15	PASS
		2437	Reference	-3.45	-3.45	---	PASS
			30~1000	-3.45	-67.7	≤-23.45	PASS
			1000~26500	-3.45	-54.49	≤-23.45	PASS
		2462	Reference	-3.82	-3.82	---	PASS
			30~1000	-3.82	-66.82	≤-23.82	PASS
			1000~26500	-3.82	-54.2	≤-23.82	PASS
11N20SISO	Ant1	2412	Reference	-1.43	-1.43	---	PASS
			30~1000	-1.43	-66.96	≤-21.43	PASS
			1000~26500	-1.43	-51.99	≤-21.43	PASS
		2437	Reference	-2.55	-2.55	---	PASS
			30~1000	-2.55	-67.44	≤-22.55	PASS
			1000~26500	-2.55	-50.41	≤-22.55	PASS
		2462	Reference	-2.64	-2.64	---	PASS
			30~1000	-2.64	-67.85	≤-22.64	PASS
			1000~26500	-2.64	-54.03	≤-22.64	PASS
11N40SISO	Ant1	2422	Reference	-3.71	-3.71	---	PASS
			30~1000	-3.71	-67.07	≤-23.71	PASS
			1000~26500	-3.71	-52.83	≤-23.71	PASS
		2437	Reference	-3.97	-3.97	---	PASS
			30~1000	-3.97	-67.18	≤-23.97	PASS
			1000~26500	-3.97	-54.38	≤-23.97	PASS
		2452	Reference	-4.39	-4.39	---	PASS
			30~1000	-4.39	-66.68	≤-24.39	PASS
			1000~26500	-4.39	-52.41	≤-24.39	PASS

Test Graphs

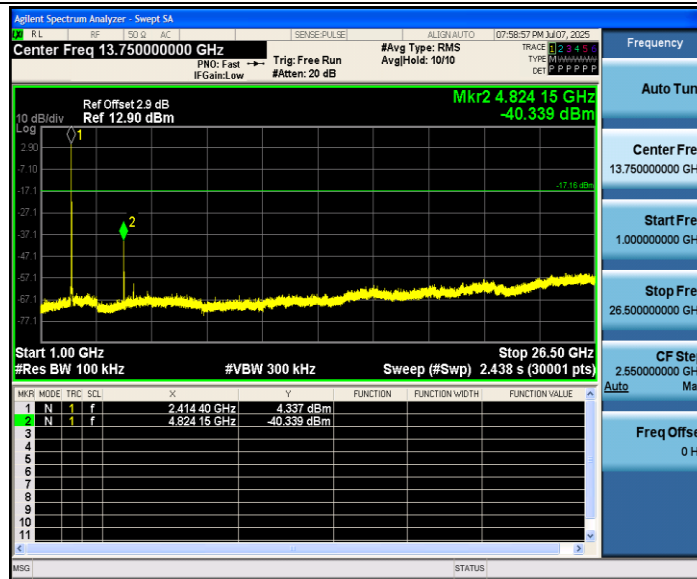
11B_Ant1_2412_0~Reference



11B_Ant1_2412_30~1000



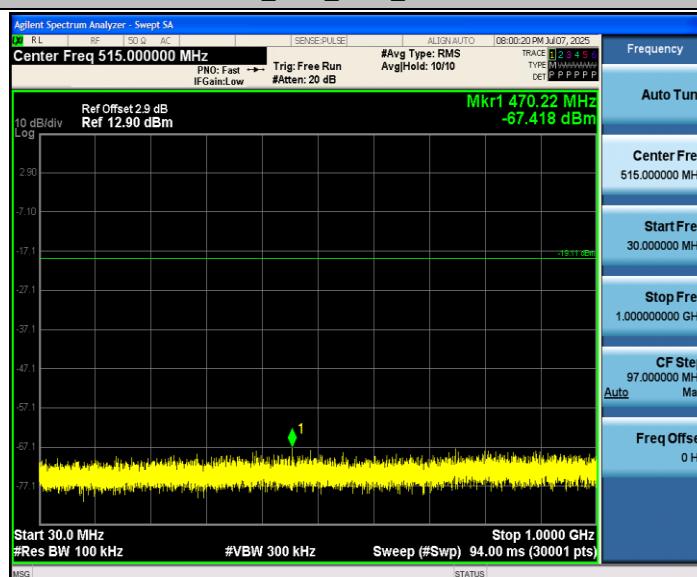
11B_Ant1_2412_1000~26500



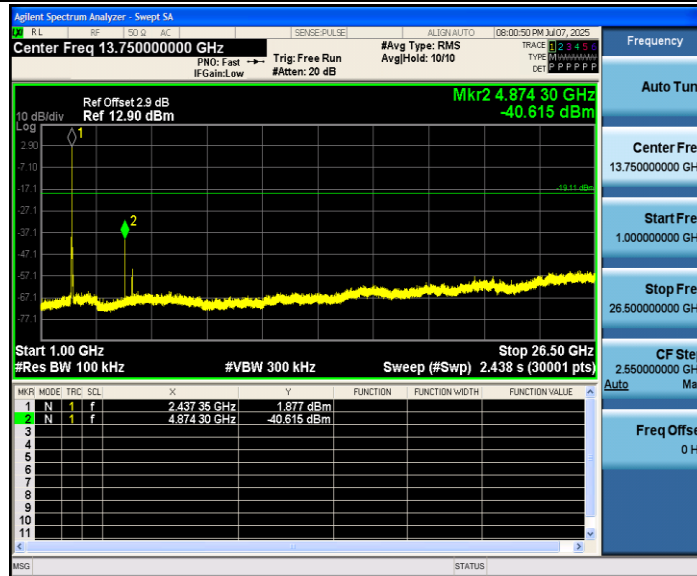
11B_Ant1_2437_0~Reference



11B_Ant1_2437_30~1000



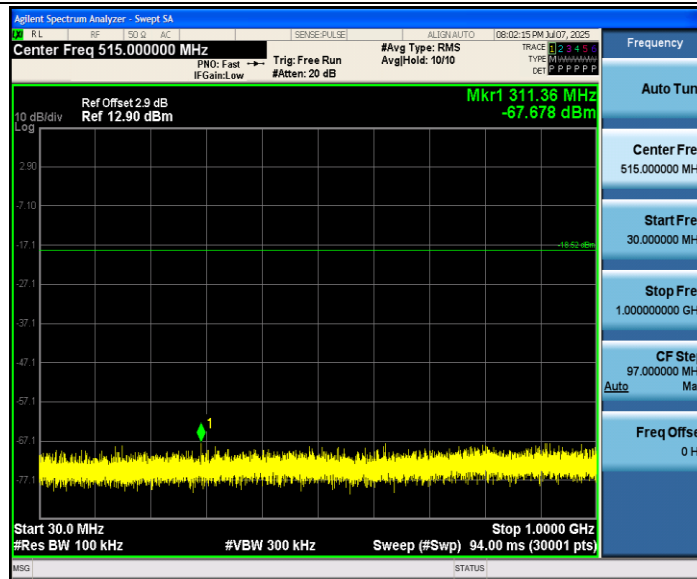
11B_Ant1_2437_1000~26500



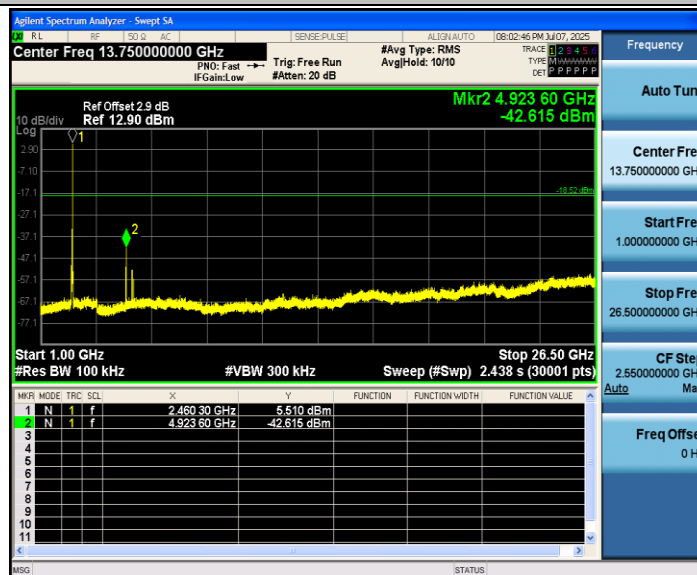
11B_Ant1_2462_0~Reference



11B_Ant1_2462_30~1000



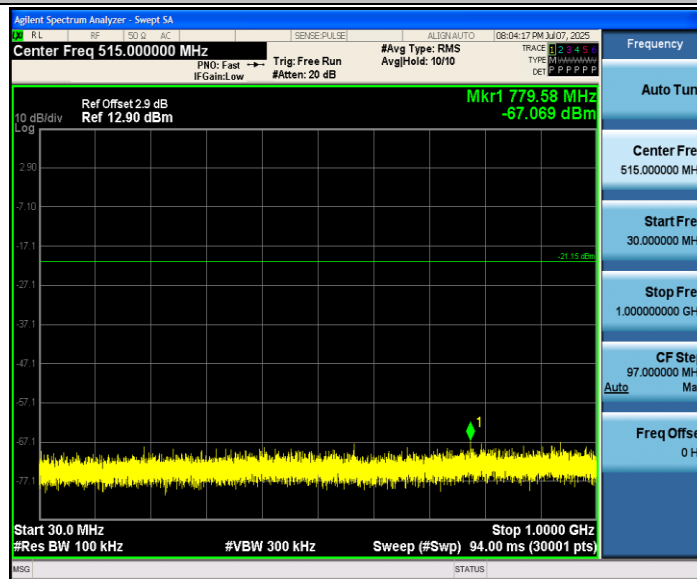
11B_Ant1_2462_1000~26500



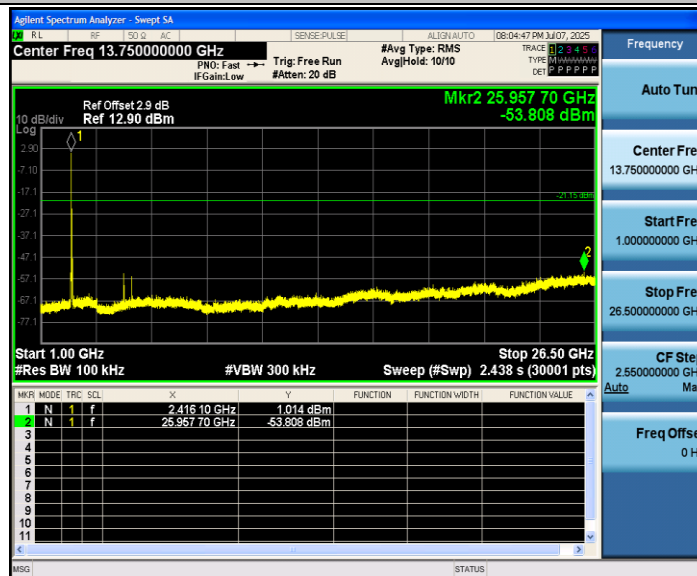
11G_Ant1_2412_0~Reference



11G_Ant1_2412_30~1000



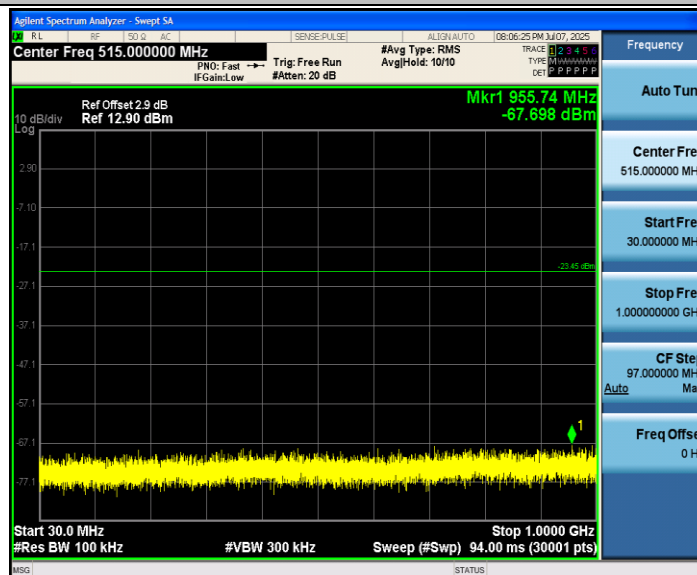
11G_Ant1_2412_1000~26500



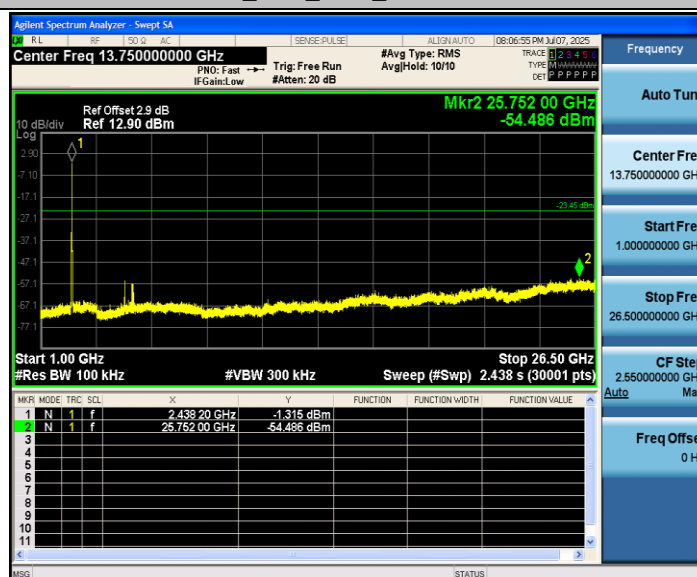
11G_Ant1_2437_0~Reference



11G_Ant1_2437_30~1000



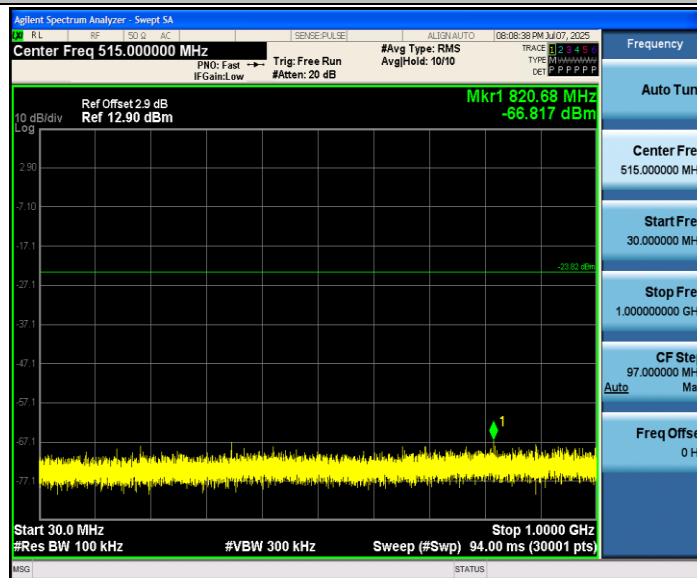
11G_Ant1_2437_1000~26500



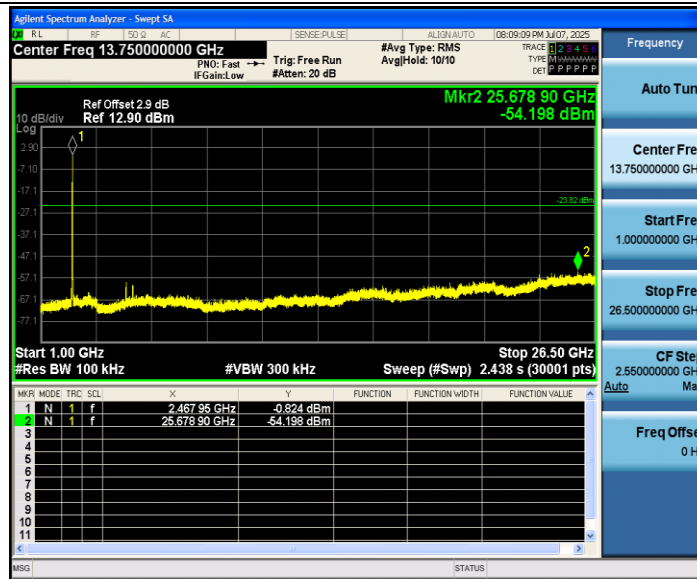
11G_Ant1_2462_0~Reference



11G_Ant1_2462_30~1000



11G_Ant1_2462_1000~26500



11N20SISO_Ant1_2412_0~Reference



11N20SISO_Ant1_2412_30~1000

