

FCC Appendix RF Test Data

FCC ID : 2BO56-ZA001

Company: : Shenzhen Xingbiao Hang Technology Co., Ltd.

EUT : Dual WiFi three-in-one closed small system

Model Number : ZA001

Report No. : CTA25041800503

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	2407.440	2416.480	0.5	PASS
		2437	9.560	2431.960	2441.520	0.5	PASS
		2462	9.560	2456.960	2466.520	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	16.040	2454.120	2470.160	0.5	PASS
11N20SISO	Ant1	2412	16.160	2404.440	2420.600	0.5	PASS
		2437	16.040	2429.440	2445.480	0.5	PASS
		2462	16.880	2453.720	2470.600	0.5	PASS
11N40SISO	Ant1	2422	35.760	2404.480	2440.240	0.5	PASS
		2437	35.120	2419.480	2454.600	0.5	PASS
		2452	35.200	2434.320	2469.520	0.5	PASS
11AX20SISO	Ant1	2412	16.200	2404.440	2420.640	0.5	PASS
		2437	16.040	2429.480	2445.520	0.5	PASS
		2462	16.160	2454.360	2470.520	0.5	PASS
11AX40SISO	Ant1	2422	35.440	2404.480	2439.920	0.5	PASS
		2437	35.120	2419.480	2454.600	0.5	PASS
		2452	35.120	2434.400	2469.520	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



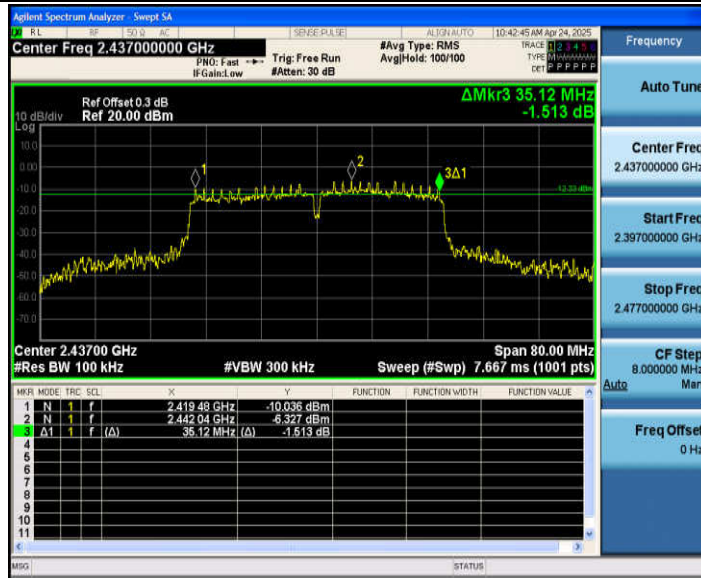
11N20SISO_Ant1_2462



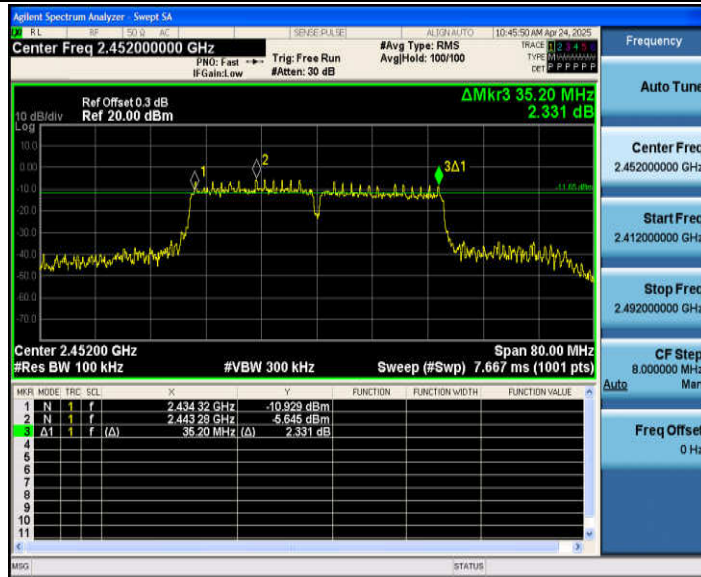
11N40SISO_Ant1_2422



11N40SISO_Ant1_2437



11N40SISO_Ant1_2452



11AX20SISO_Ant1_2412



11AX20SISO_Ant1_2437



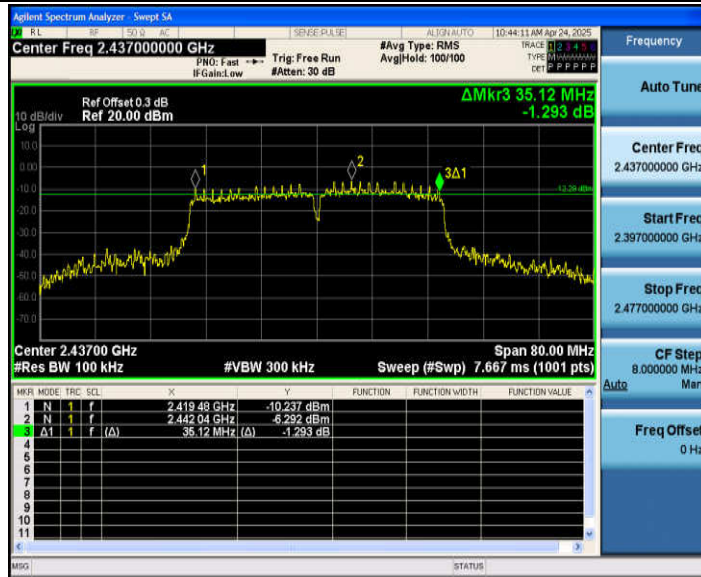
11AX20SISO_Ant1_2462



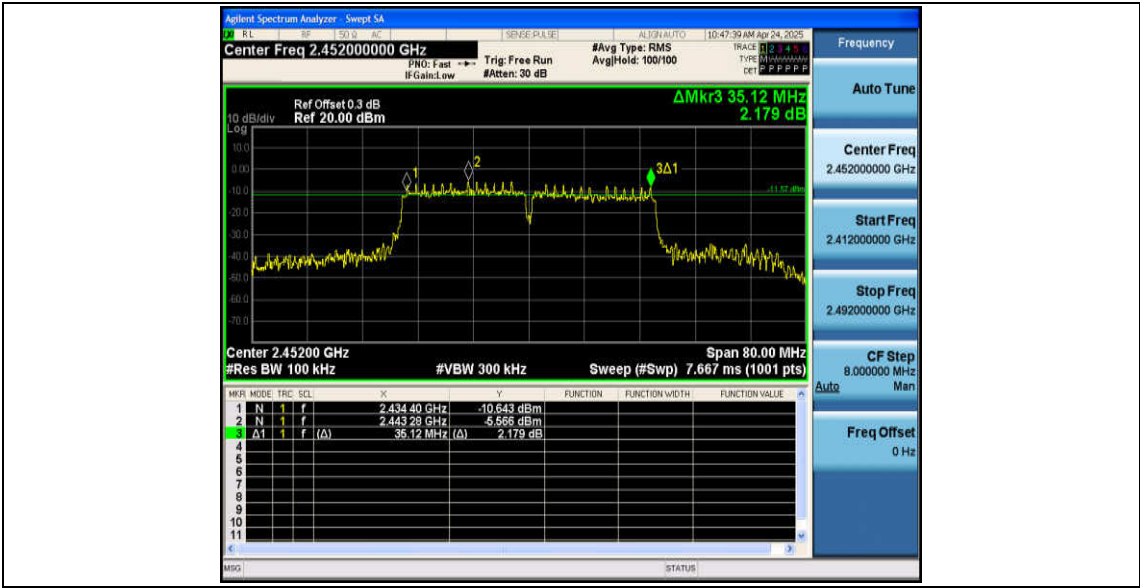
11AX40SISO_Ant1_2422



11AX40SISO_Ant1_2437



11AX40SISO_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	12.352	2405.7699	2418.1219	---	---
		2437	11.582	2431.0031	2442.5851	---	---
		2462	12.712	2455.4527	2468.1647	---	---
11G	Ant1	2412	16.791	2403.7689	2420.5599	---	---
		2437	16.677	2428.8029	2445.4799	---	---
		2462	16.931	2453.6323	2470.5633	---	---
11N20SISO	Ant1	2412	17.929	2403.2524	2421.1814	---	---
		2437	17.603	2428.3252	2445.9282	---	---
		2462	18.042	2453.1251	2471.1671	---	---
11N40SISO	Ant1	2422	36.379	2404.1569	2440.5359	---	---
		2437	36.074	2419.0563	2455.1303	---	---
		2452	36.361	2433.8391	2470.2001	---	---
11AX20SISO	Ant1	2412	17.887	2403.2369	2421.1239	---	---
		2437	17.644	2428.3097	2445.9537	---	---
		2462	18.010	2453.1455	2471.1555	---	---
11AX40SISO	Ant1	2422	36.428	2404.1777	2440.6057	---	---
		2437	36.061	2419.0799	2455.1409	---	---
		2452	36.389	2433.8363	2470.2253	---	---

Test Graphs

11B_Ant1_2412



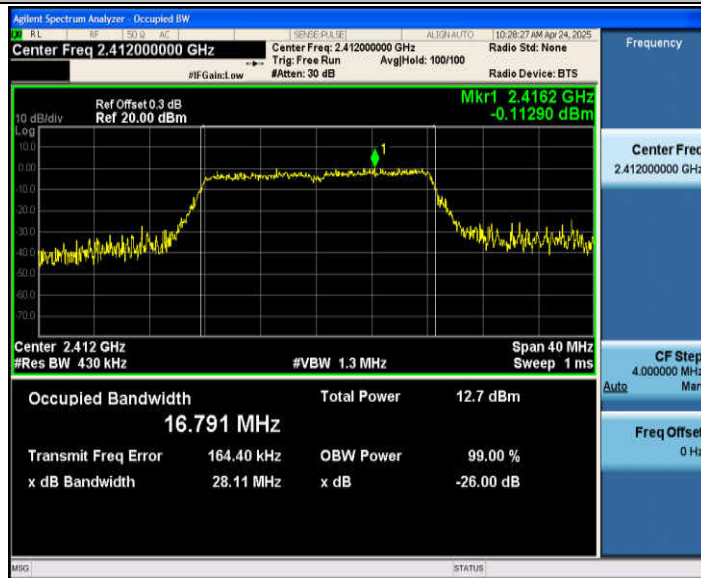
11B_Ant1_2437



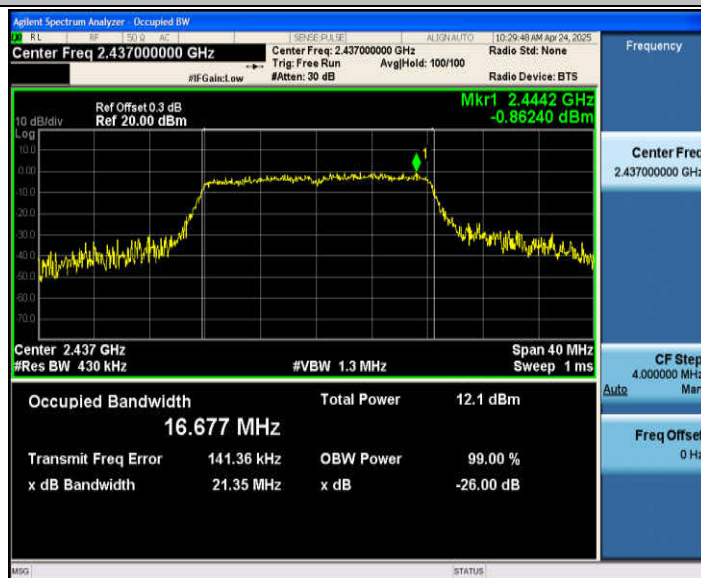
11B_Ant1_2462



11G_Ant1_2412



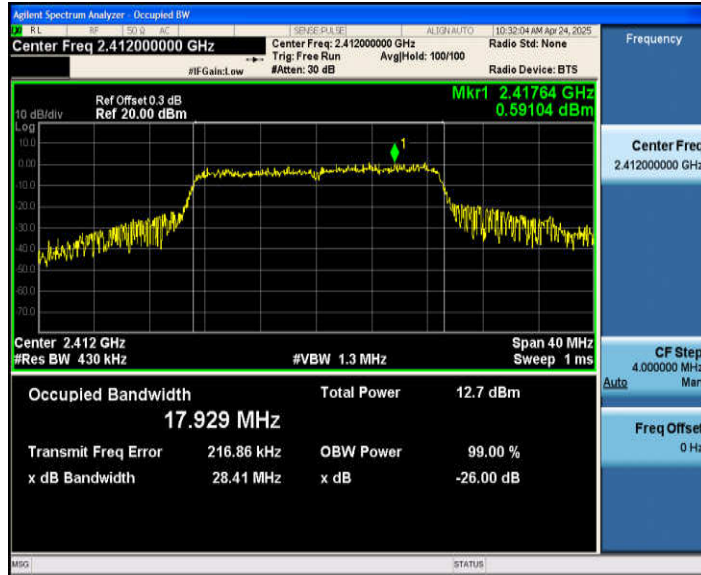
11G_Ant1_2437



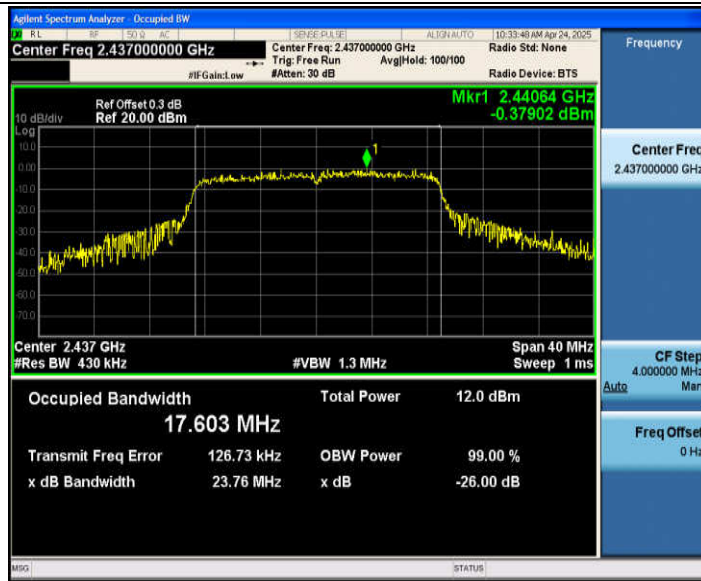
11G_Ant1_2462



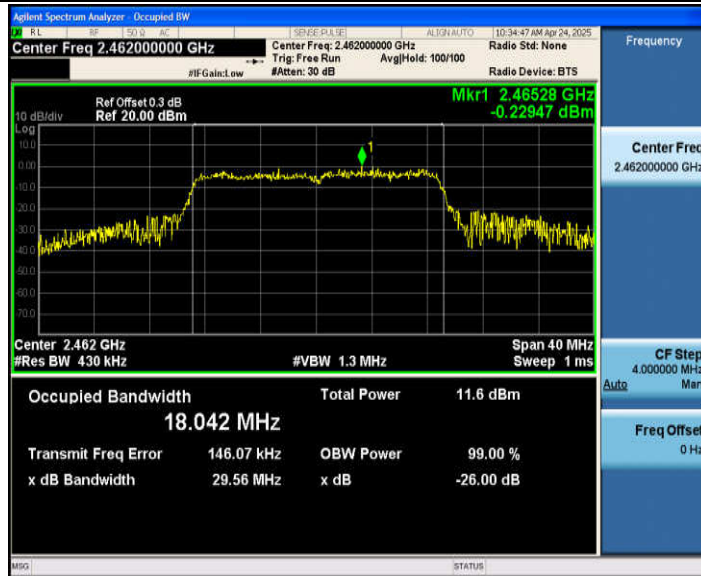
11N20SISO_Ant1_2412



11N20SISO_Ant1_2437



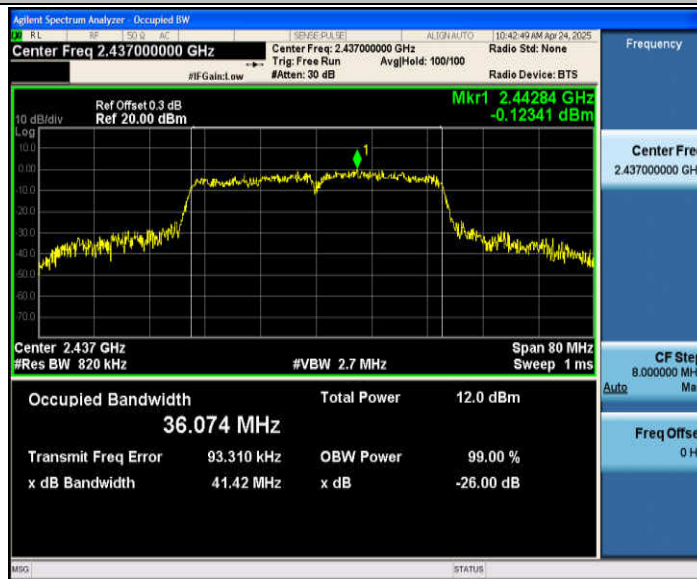
11N20SISO_Ant1_2462



11N40SISO_Ant1_2422



11N40SISO_Ant1_2437



11N40SISO_Ant1_2452



11AX20SISO_Ant1_2412



11AX20SISO_Ant1_2437



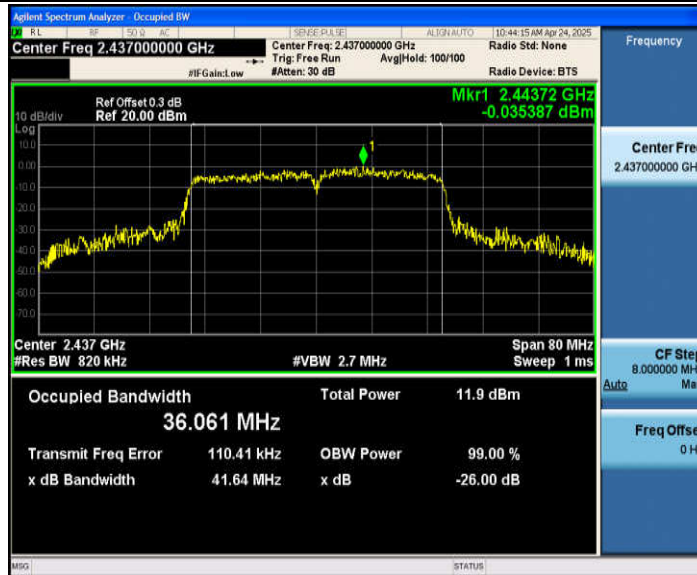
11AX20SISO_Ant1_2462



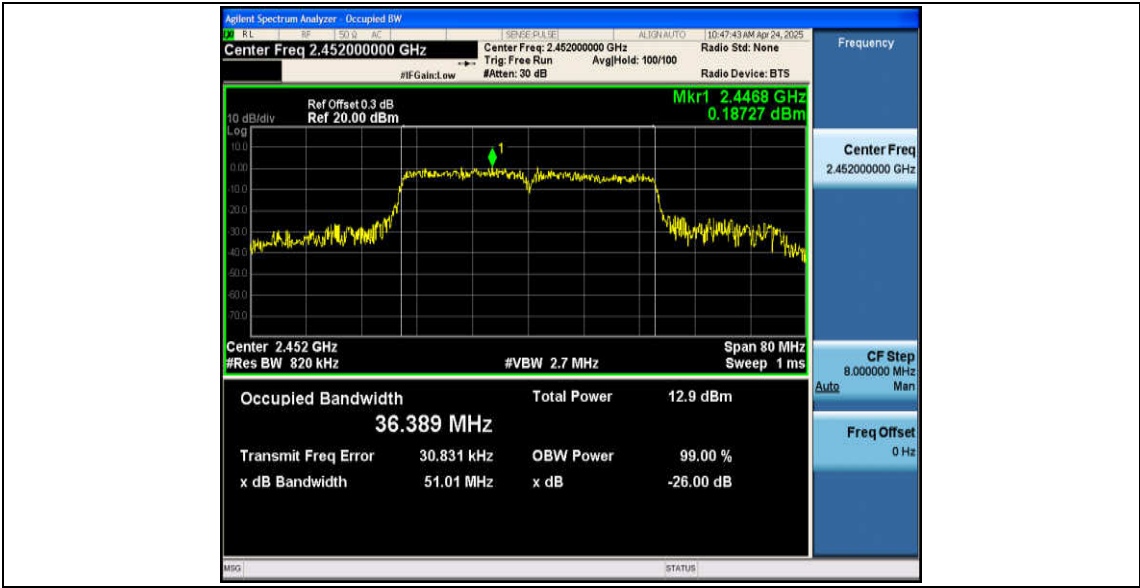
11AX40SISO_Ant1_2422



11AX40SISO_Ant1_2437



11AX40SISO_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	14.34	≤30.00	PASS
		2437	13.40	≤30.00	PASS
		2462	13.57	≤30.00	PASS
11G	Ant1	2412	13.04	≤30.00	PASS
		2437	12.68	≤30.00	PASS
		2462	12.18	≤30.00	PASS
11N20SISO	Ant1	2412	13.30	≤30.00	PASS
		2437	12.59	≤30.00	PASS
		2462	12.34	≤30.00	PASS
11N40SISO	Ant1	2422	12.68	≤30.00	PASS
		2437	11.98	≤30.00	PASS
		2452	13.00	≤30.00	PASS
11AX20SISO	Ant1	2412	13.20	≤30.00	PASS
		2437	12.54	≤30.00	PASS
		2462	12.09	≤30.00	PASS
11AX40SISO	Ant1	2422	12.46	≤30.00	PASS
		2437	12.05	≤30.00	PASS
		2452	13.10	≤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	-11.65	≤8.00	PASS
		2437	-11.85	≤8.00	PASS
		2462	-11.91	≤8.00	PASS
11G	Ant1	2412	-17.42	≤8.00	PASS
		2437	-19.69	≤8.00	PASS
		2462	-18.85	≤8.00	PASS
11N20SISO	Ant1	2412	-17.97	≤8.00	PASS
		2437	-19.47	≤8.00	PASS
		2462	-20.27	≤8.00	PASS
11N40SISO	Ant1	2422	-22.18	≤8.00	PASS
		2437	-22.12	≤8.00	PASS
		2452	-21.94	≤8.00	PASS
11AX20SISO	Ant1	2412	-18.59	≤8.00	PASS
		2437	-19.00	≤8.00	PASS
		2462	-20.40	≤8.00	PASS
11AX40SISO	Ant1	2422	-21.99	≤8.00	PASS
		2437	-22.27	≤8.00	PASS
		2452	-22.34	≤8.00	PASS

Test Graphs

11B_Ant1_2412



11B_Ant1_2437



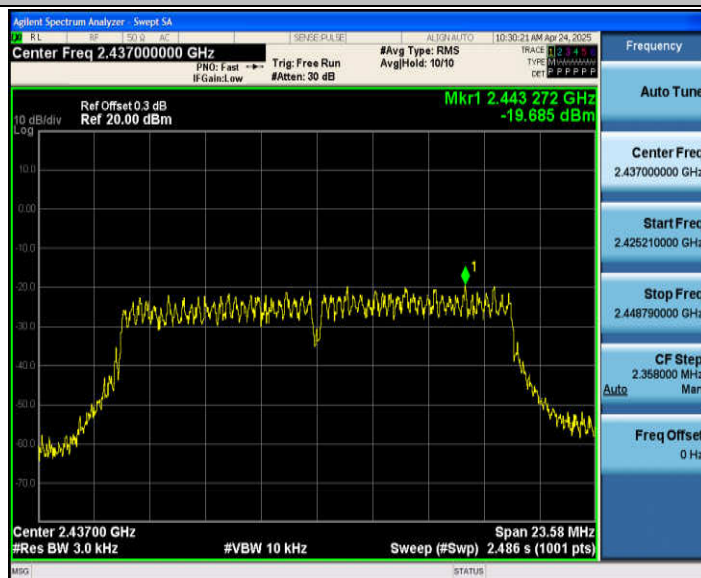
11B_Ant1_2462



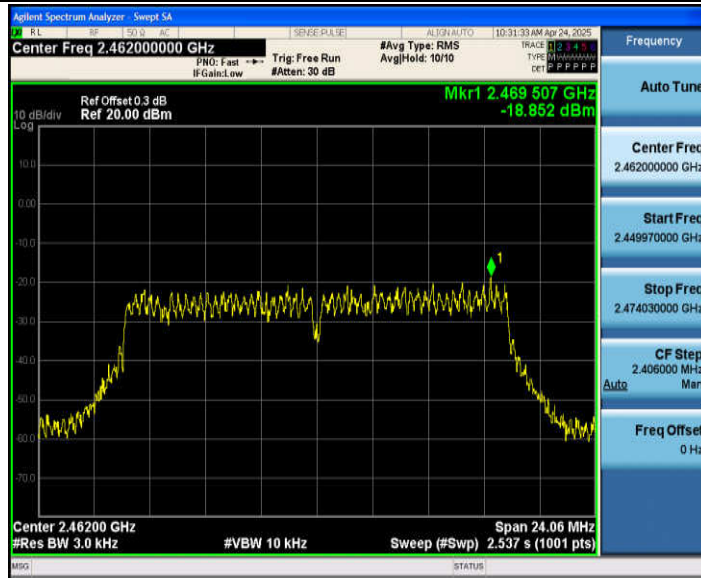
11G_Ant1_2412



11G_Ant1_2437



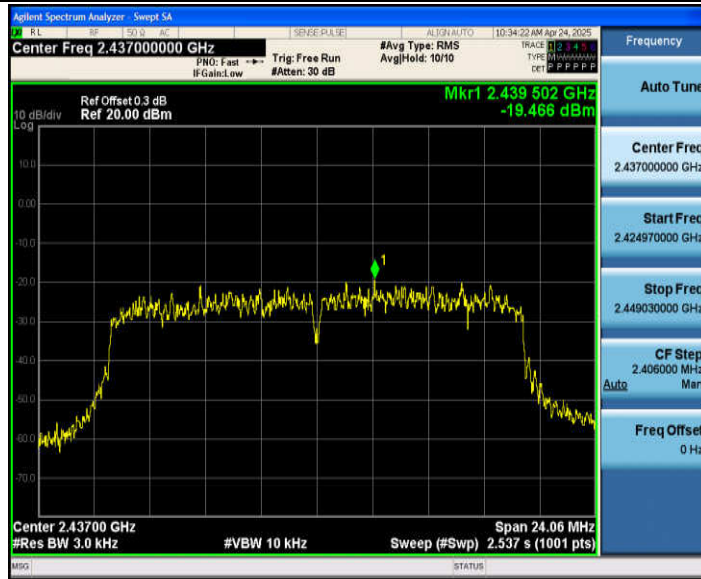
11G_Ant1_2462



11N20SISO_Ant1_2412



11N20SISO_Ant1_2437



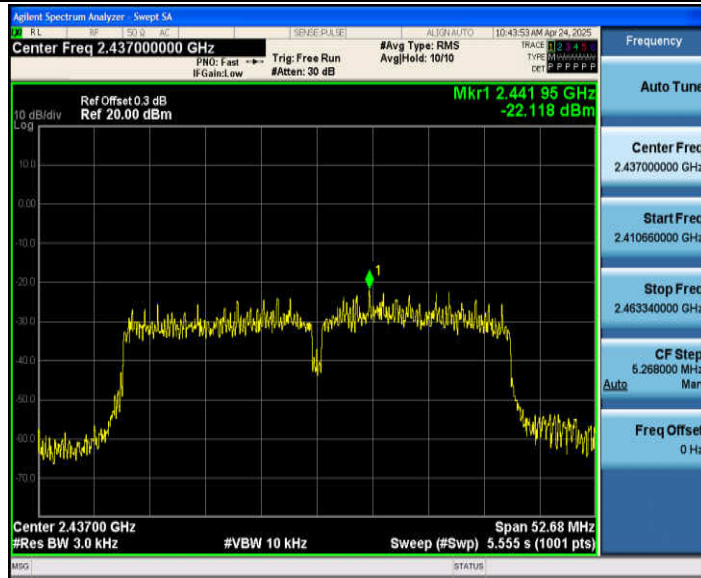
11N20SISO_Ant1_2462



11N40SISO_Ant1_2422



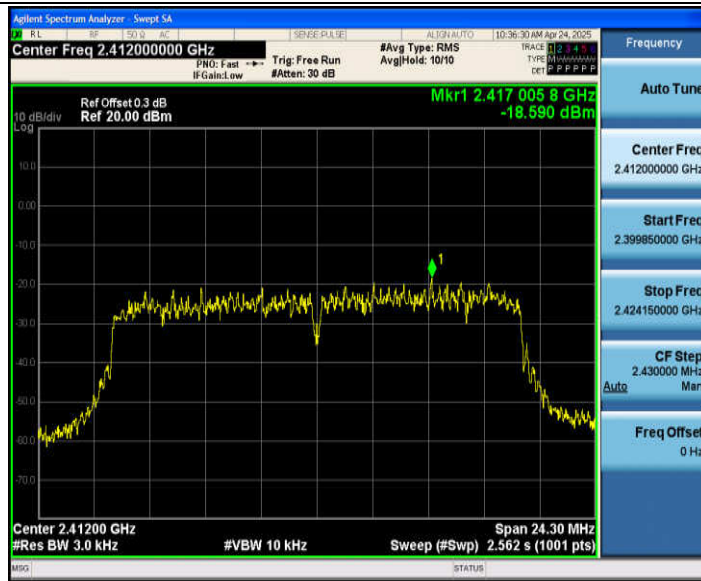
11N40SISO_Ant1_2437



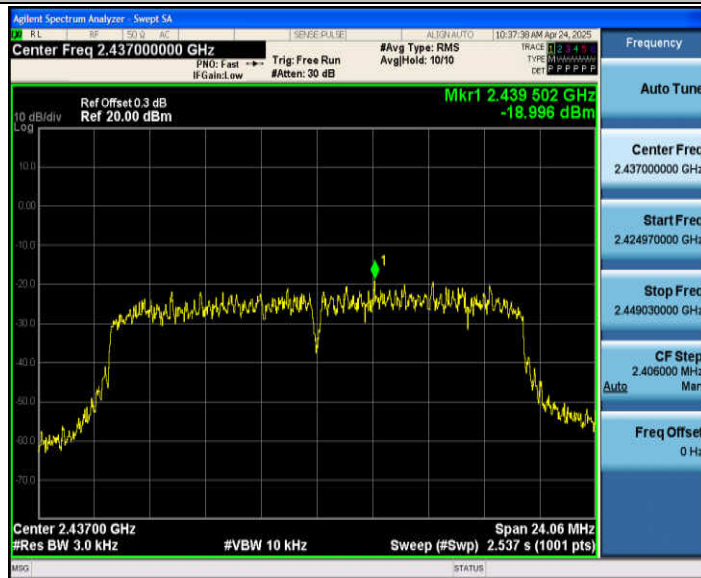
11N40SISO_Ant1_2452



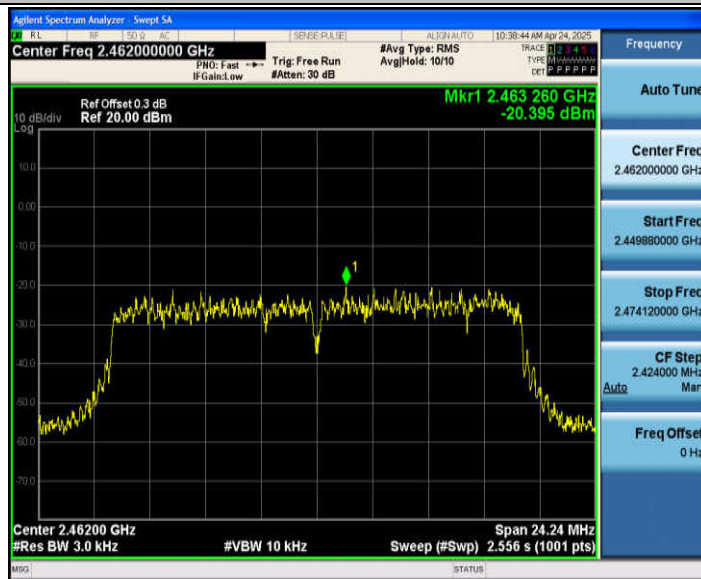
11AX20SISO_Ant1_2412



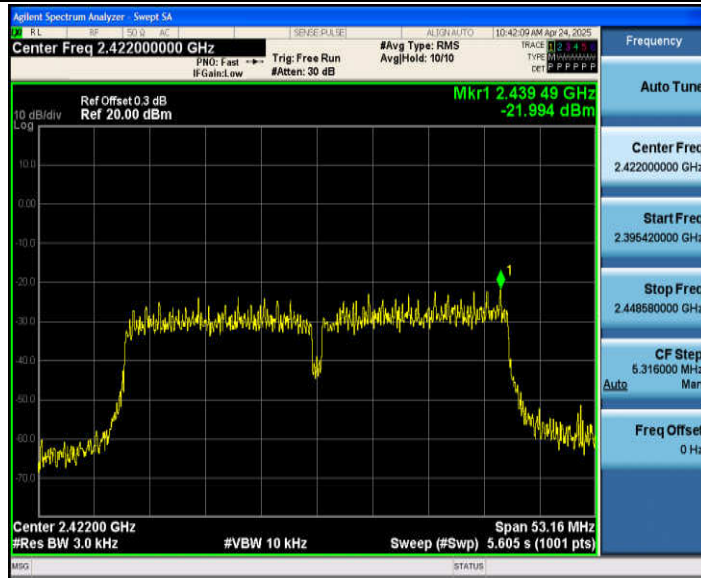
11AX20SISO_Ant1_2437



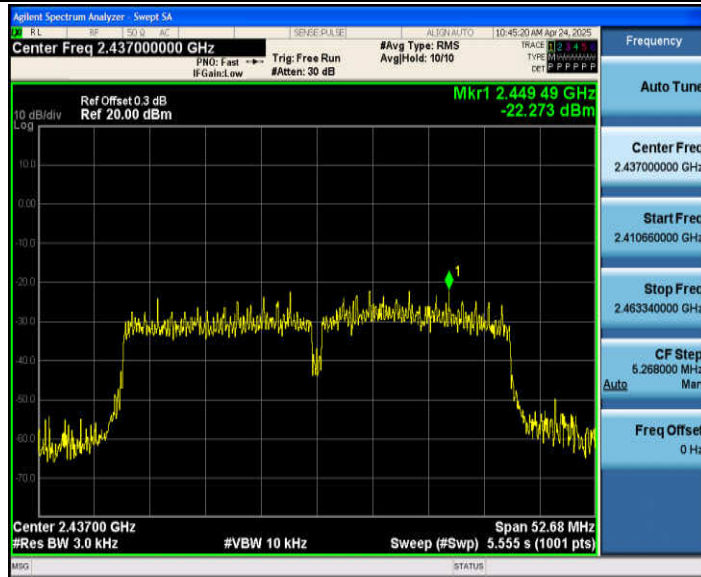
11AX20SISO_Ant1_2462



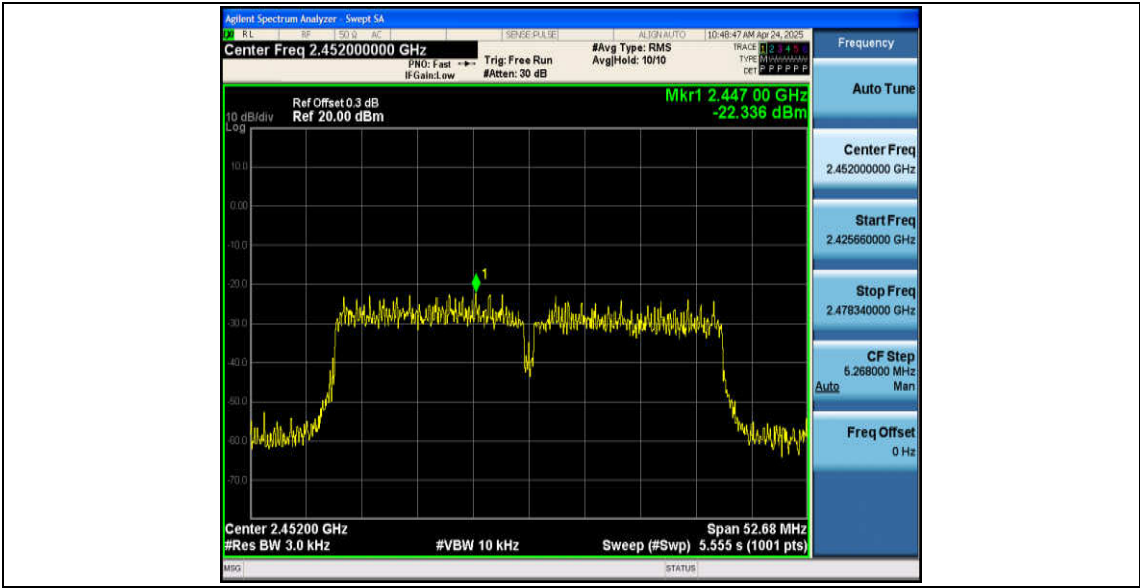
11AX40SISO_Ant1_2422



11AX40SISO_Ant1_2437



11AX40SISO_Ant1_2452



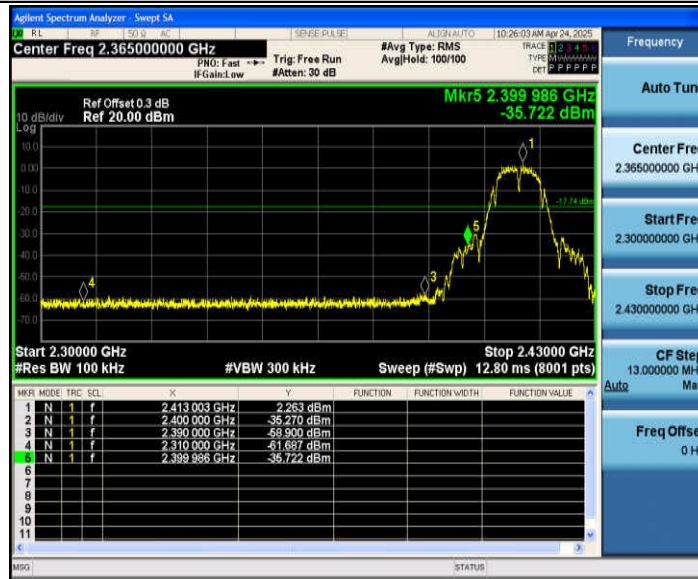
Appendix E: Band edge measurements

Test Result

TestMode	Antenna	Channel	Frequency[MHz]	RefLevel[dBm]	Result[dBm]	Limit[dBm]	Verdict
11B	Ant1	Low	2412	2.26	-35.72	≤-17.74	PASS
		High	2462	1.87	-50.66	≤-18.13	PASS
11G	Ant1	Low	2412	-2.52	-36.79	≤-22.52	PASS
		High	2462	-3.81	-40.85	≤-23.81	PASS
11N20SISO	Ant1	Low	2412	-2.37	-36.17	≤-22.37	PASS
		High	2462	-3.94	-40.39	≤-23.94	PASS
11N40SISO	Ant1	Low	2422	-5.84	-39.83	≤-25.84	PASS
		High	2452	-5.57	-36.07	≤-25.57	PASS
11AX20SISO	Ant1	Low	2412	-2.97	-35.98	≤-22.97	PASS
		High	2462	-3.68	-39.67	≤-23.68	PASS
11AX40SISO	Ant1	Low	2422	-5.80	-39.54	≤-25.8	PASS
		High	2452	-5.88	-36.33	≤-25.88	PASS

Test Graphs

11B_Ant1_Low_2412



11B_Ant1_High_2462



11G_Ant1_Low_2412



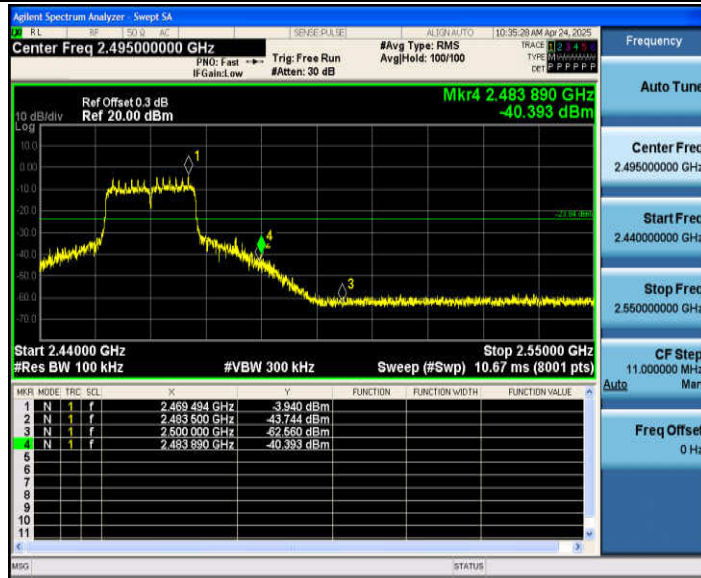
11G_Ant1_High_2462



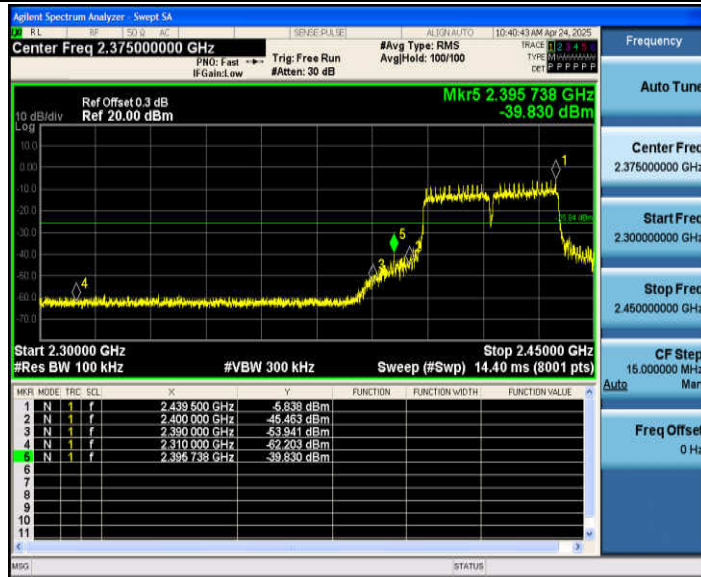
11N20SISO_Ant1_Low_2412



11N20SISO_Ant1_High_2462



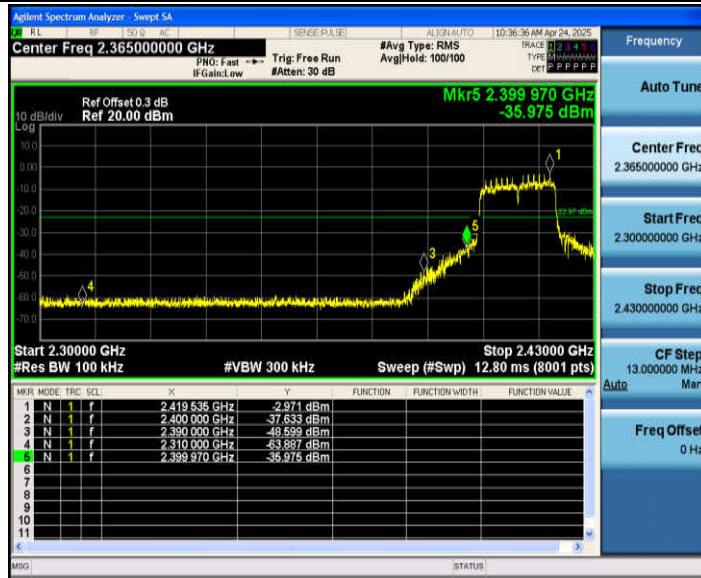
11N40SISO_Ant1_Low_2422



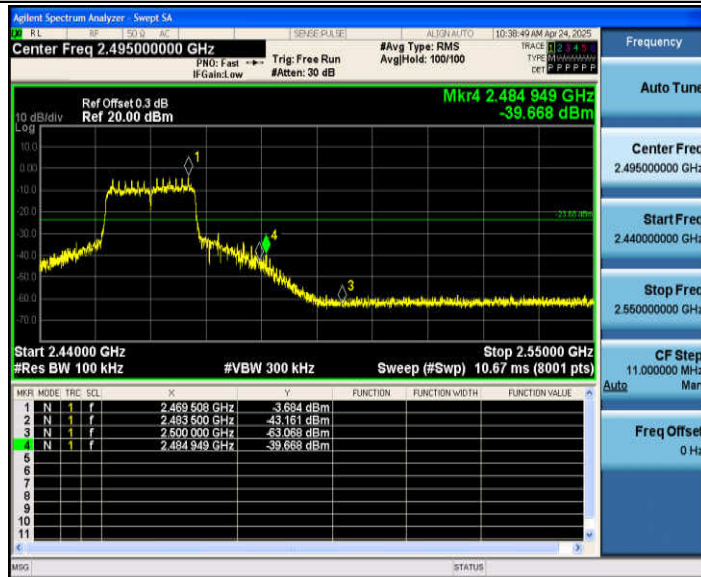
11N40SISO_Ant1_High_2452



11AX20SISO_Ant1_Low_2412



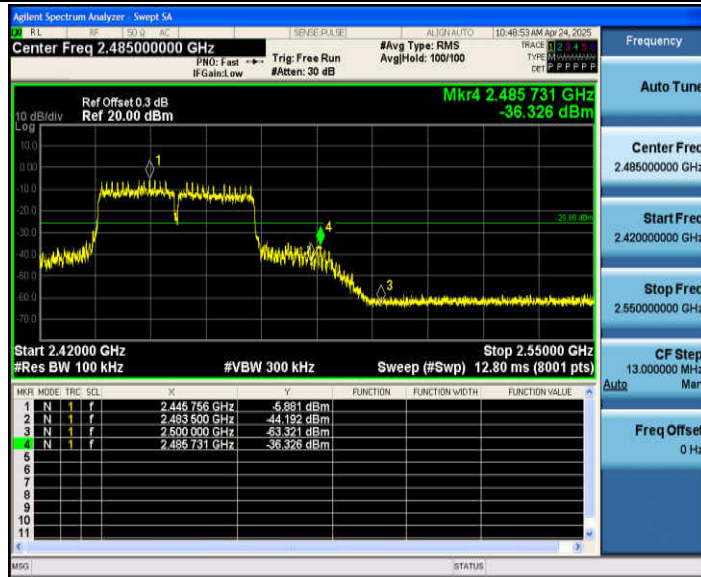
11AX20SISO_Ant1_High_2462



11AX40SISO_Ant1_Low_2422



11AX40SISO_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	3.03	3.03	---	PASS
			30~1000	3.03	-67.13	≤-16.97	PASS
			1000~26500	3.03	-38.92	≤-16.97	PASS
		2437	Reference	1.57	1.57	---	PASS
			30~1000	1.57	-68.27	≤-18.43	PASS
			1000~26500	1.57	-37.24	≤-18.43	PASS
		2462	Reference	2.59	2.59	---	PASS
			30~1000	2.59	-67.36	≤-17.41	PASS
			1000~26500	2.59	-31.14	≤-17.41	PASS
11G	Ant1	2412	Reference	-1.05	-1.05	---	PASS
			30~1000	-1.05	-67.47	≤-21.05	PASS
			1000~26500	-1.05	-49.55	≤-21.05	PASS
		2437	Reference	-1.86	-1.86	---	PASS
			30~1000	-1.86	-68.1	≤-21.86	PASS
			1000~26500	-1.86	-49.22	≤-21.86	PASS
		2462	Reference	-2.47	-2.47	---	PASS
			30~1000	-2.47	-67.63	≤-22.47	PASS
			1000~26500	-2.47	-44.65	≤-22.47	PASS
11N20SISO	Ant1	2412	Reference	-1.07	-1.07	---	PASS
			30~1000	-1.07	-67.93	≤-21.07	PASS
			1000~26500	-1.07	-49.43	≤-21.07	PASS
		2437	Reference	-1.79	-1.79	---	PASS
			30~1000	-1.79	-68.05	≤-21.79	PASS
			1000~26500	-1.79	-47.09	≤-21.79	PASS
		2462	Reference	-2.83	-2.83	---	PASS
			30~1000	-2.83	-67.1	≤-22.83	PASS
			1000~26500	-2.83	-44.27	≤-22.83	PASS
11N40SISO	Ant1	2422	Reference	-4.92	-4.92	---	PASS
			30~1000	-4.92	-67.69	≤-24.92	PASS
			1000~26500	-4.92	-51.41	≤-24.92	PASS
		2437	Reference	-4.41	-4.41	---	PASS
			30~1000	-4.41	-68.42	≤-24.41	PASS
			1000~26500	-4.41	-52.22	≤-24.41	PASS
		2452	Reference	-3.75	-3.75	---	PASS
			30~1000	-3.75	-66.6	≤-23.75	PASS
			1000~26500	-3.75	-51.93	≤-23.75	PASS
11AX20SISO	Ant1	2412	Reference	-0.32	-0.32	---	PASS

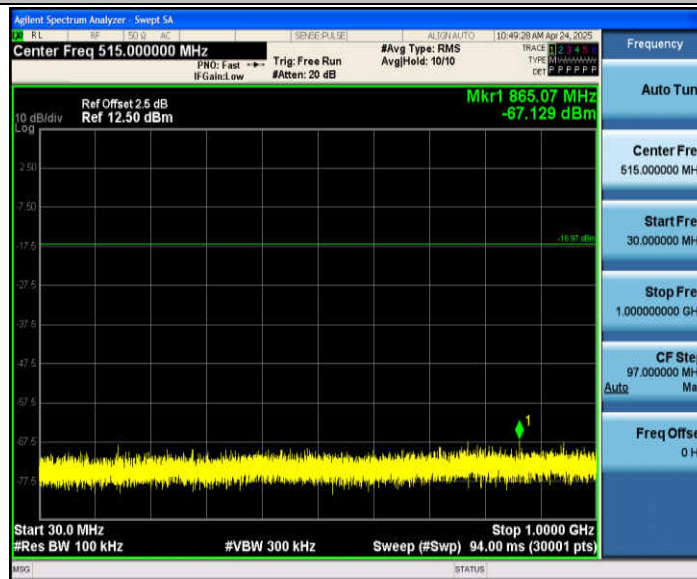
			30~1000	-0.32	-67.99	≤ -20.32	PASS
			1000~26500	-0.32	-52.05	≤ -20.32	PASS
		2437	Reference	-1.77	-1.77	---	PASS
			30~1000	-1.77	-68.27	≤ -21.77	PASS
			1000~26500	-1.77	-49.84	≤ -21.77	PASS
		2462	Reference	-2.22	-2.22	---	PASS
			30~1000	-2.22	-58.71	≤ -22.22	PASS
			1000~26500	-2.22	-44.33	≤ -22.22	PASS
		11AX40SISO	Ant1	2422	Reference	-5.00	-5.00
30~1000	-5.00				-67.69	≤ -25	PASS
1000~26500	-5.00				-49.42	≤ -25	PASS
2437	Reference			-4.23	-4.23	---	PASS
	30~1000			-4.23	-67.3	≤ -24.23	PASS
	1000~26500			-4.23	-51.54	≤ -24.23	PASS
2452	Reference			-4.39	-4.39	---	PASS
	30~1000			-4.39	-68.03	≤ -24.39	PASS
	1000~26500			-4.39	-47.26	≤ -24.39	PASS

Test Graphs

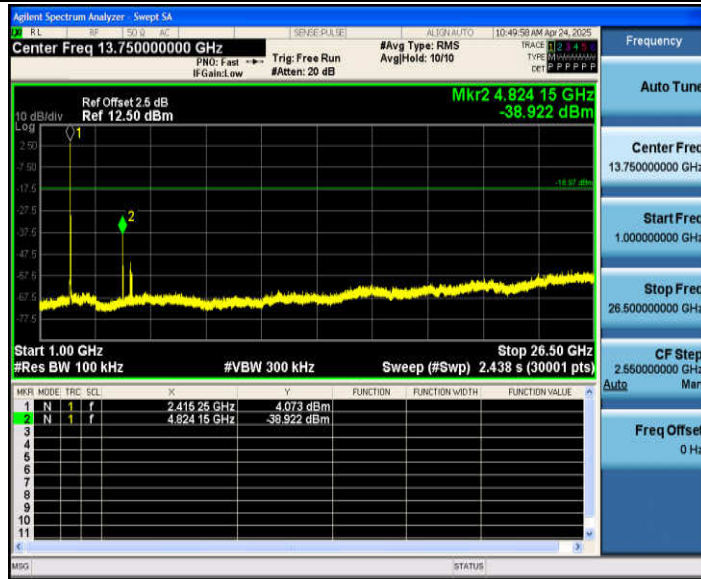
11B_Ant1_2412_0~Reference



11B_Ant1_2412_30~1000



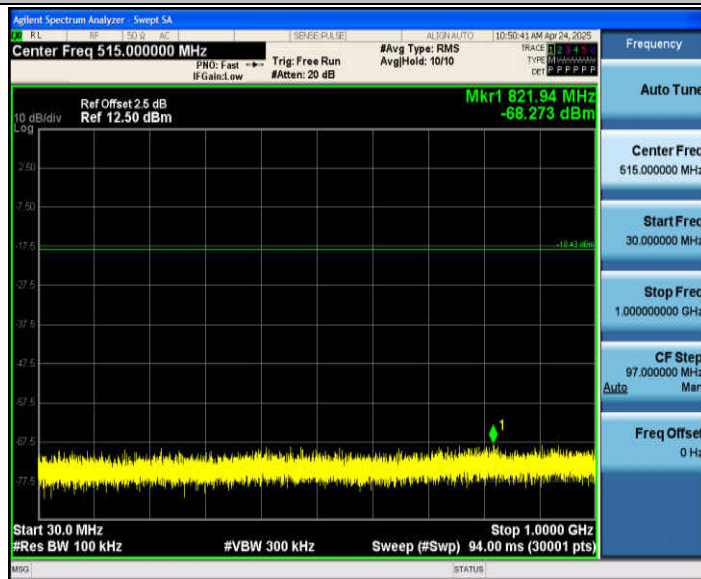
11B_Ant1_2412_1000~26500



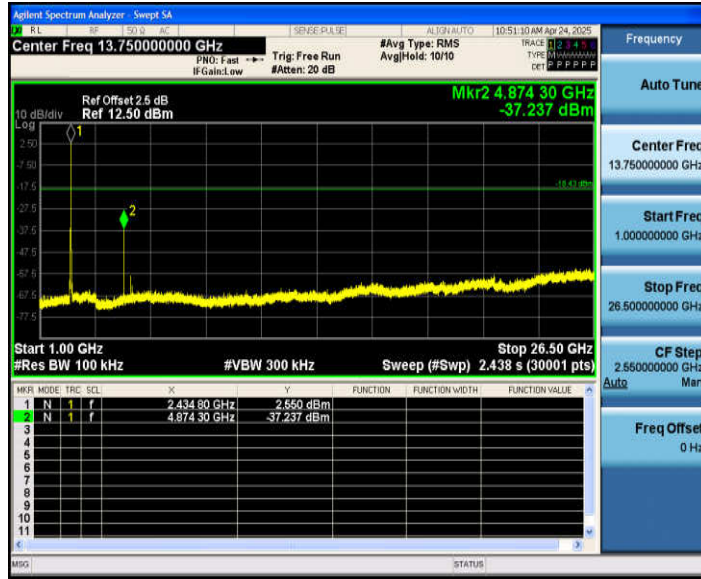
11B_Ant1_2437_0~Reference



11B_Ant1_2437_30~1000



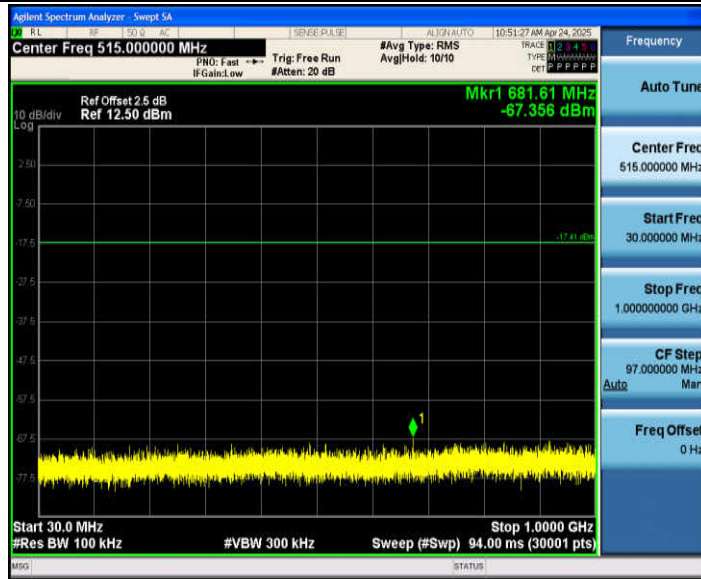
11B_Ant1_2437_1000~26500



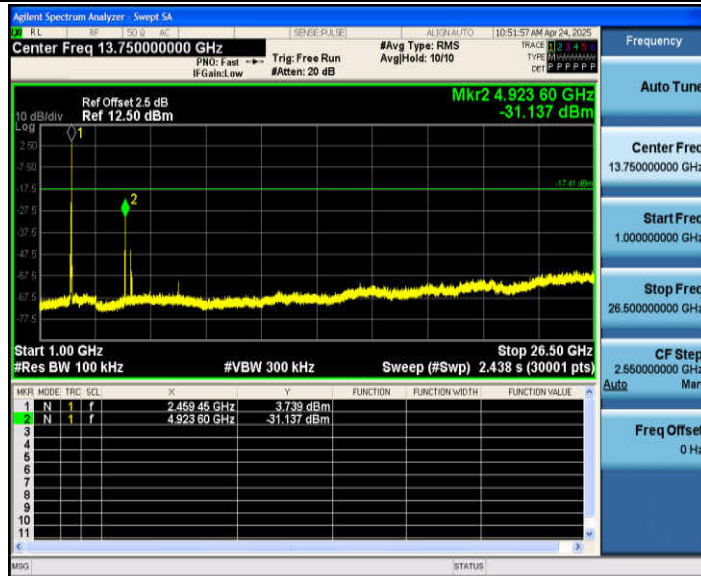
11B_Ant1_2462_0~Reference



11B_Ant1_2462_30~1000



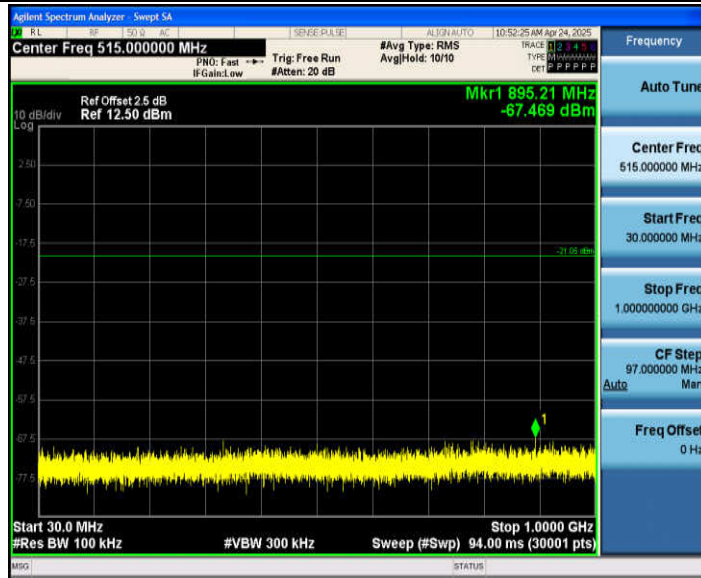
11B_Ant1_2462_1000~26500



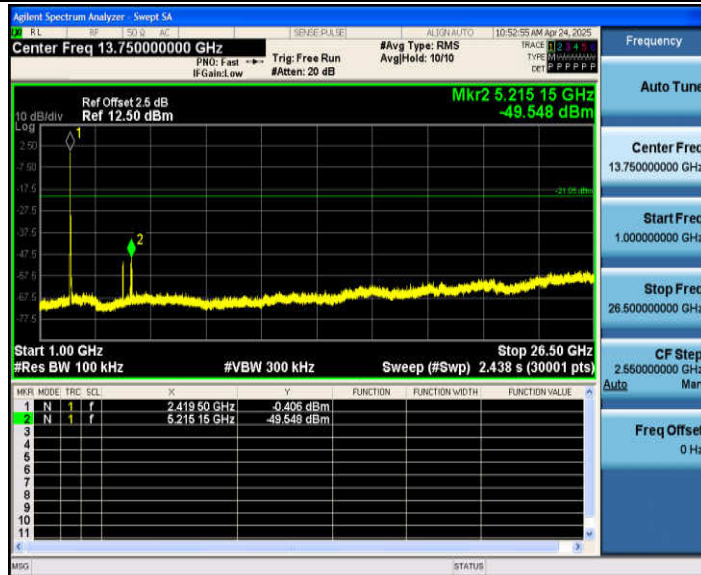
11G_Ant1_2412_0~Reference



11G_Ant1_2412_30~1000



11G_Ant1_2412_1000~26500



11G_Ant1_2437_0~Reference