

FCC Appendix RF Test Data for 2.4GWIFI

FCC ID : 2AZ2R-M5

Company : Shenzhen USEER Robotics Co.,Ltd.

EUT : Robotic Vacuum Cleaner

Model Number : M5

Report No. : CTA25110501802

Reviewed By : Eric Wang

Appendix A: DTS Bandwidth

Test Result

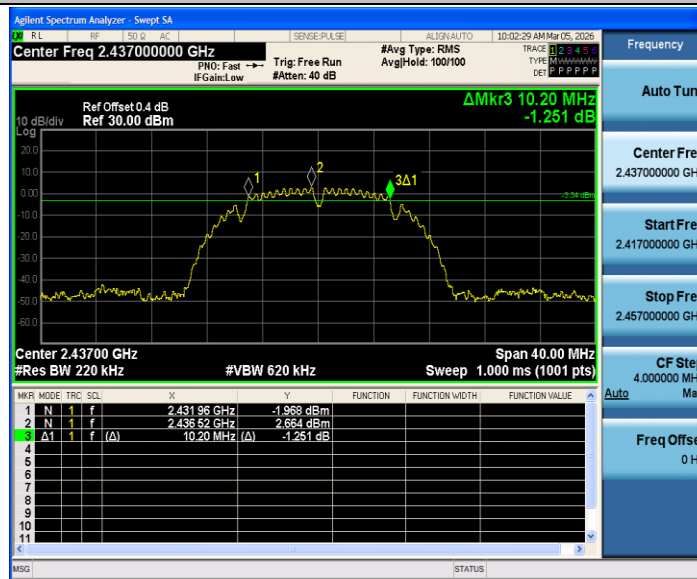
TestMode	Antenna	Frequency[MHz]	DTS BW [MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
11B	Ant1	2412	10.240	2406.920	2417.160	0.5	PASS
		2437	10.200	2431.960	2442.160	0.5	PASS
		2462	10.200	2456.920	2467.120	0.5	PASS
11G	Ant1	2412	15.480	2404.280	2419.760	0.5	PASS
		2437	15.880	2429.120	2445.000	0.5	PASS
		2462	15.960	2454.080	2470.040	0.5	PASS
11N20SISO	Ant1	2412	16.880	2403.680	2420.560	0.5	PASS
		2437	16.840	2428.520	2445.360	0.5	PASS
		2462	16.400	2454.040	2470.440	0.5	PASS

Test Graphs

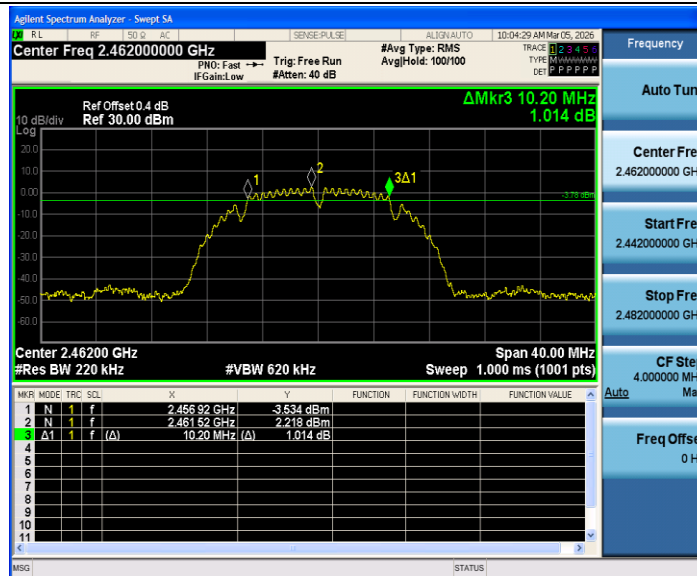
11B_Ant1_2412



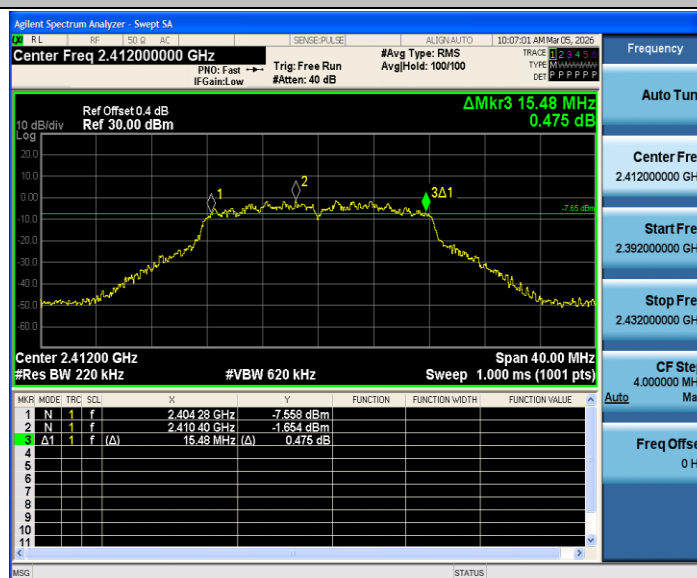
11B_Ant1_2437



11B_Ant1_2462



11G_Ant1_2412



11G_Ant1_2437



11G_Ant1_2462



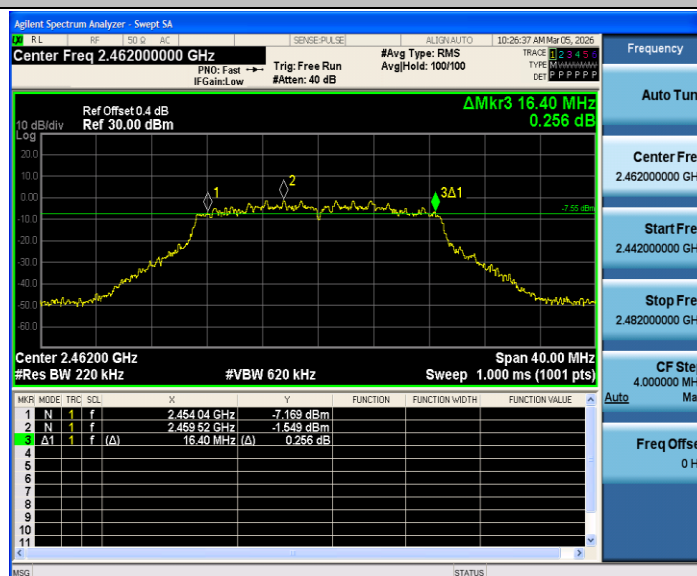
11N20SISO_Ant1_2412



11N20SISO_Ant1_2437



11N20SISO_Ant1_2462



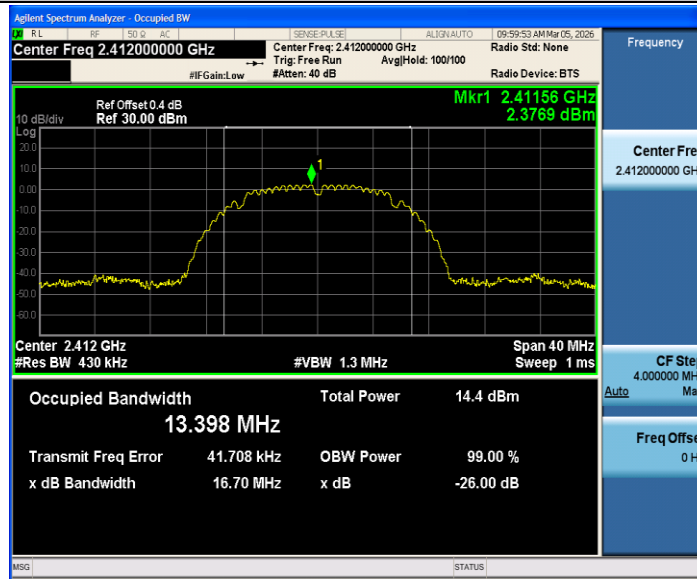
Appendix B: Occupied Channel Bandwidth

Test Result

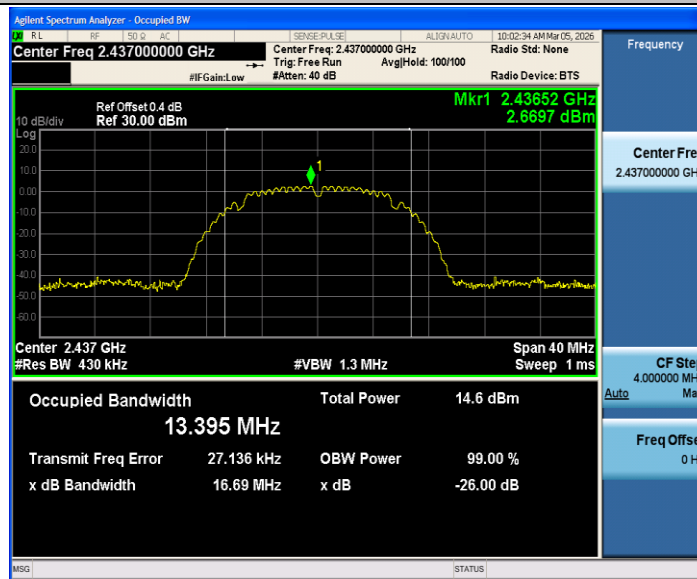
TestMode	Antenna	Channel Frequency[MHz]	OCB [MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
11B	Ant1	2412	13.398	2405.3427	2418.7407	---	---
		2437	13.395	2430.3296	2443.7246	---	---
		2462	13.409	2455.3056	2468.7146	---	---
11G	Ant1	2412	16.805	2403.6611	2420.4661	---	---
		2437	16.892	2428.6007	2445.4927	---	---
		2462	16.790	2453.6400	2470.4300	---	---
11N20SISO	Ant1	2412	17.944	2403.0582	2421.0022	---	---
		2437	17.863	2428.0972	2445.9602	---	---
		2462	17.848	2453.0689	2470.9169	---	---

Test Graphs

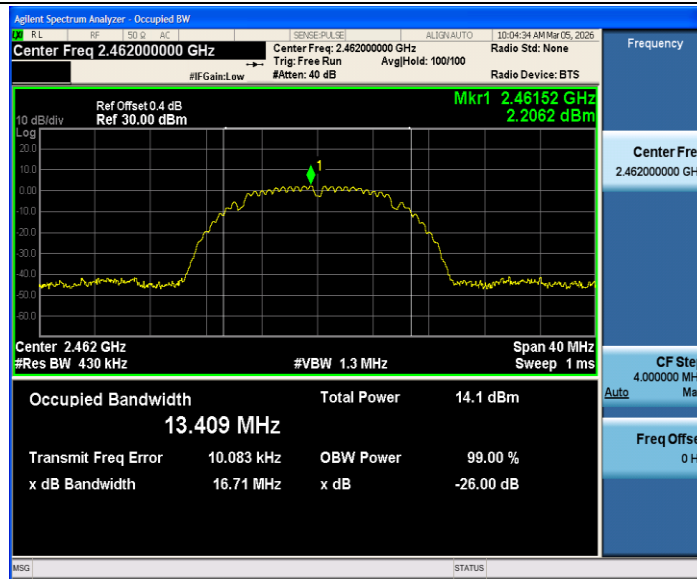
11B_Ant1_2412



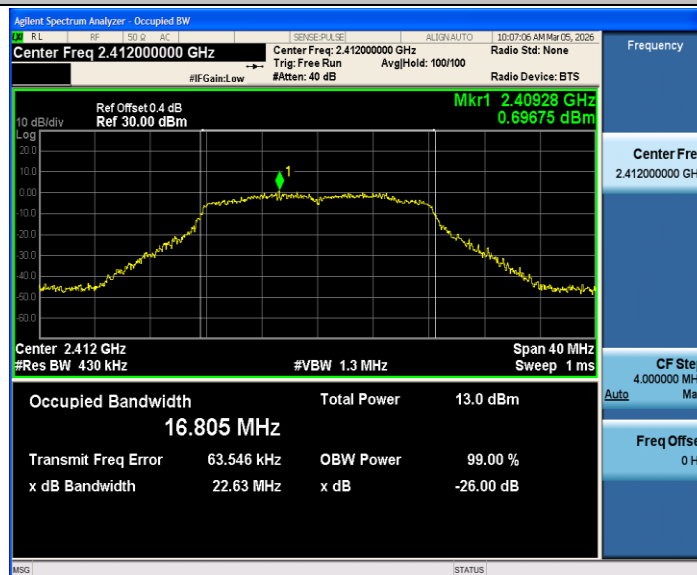
11B_Ant1_2437



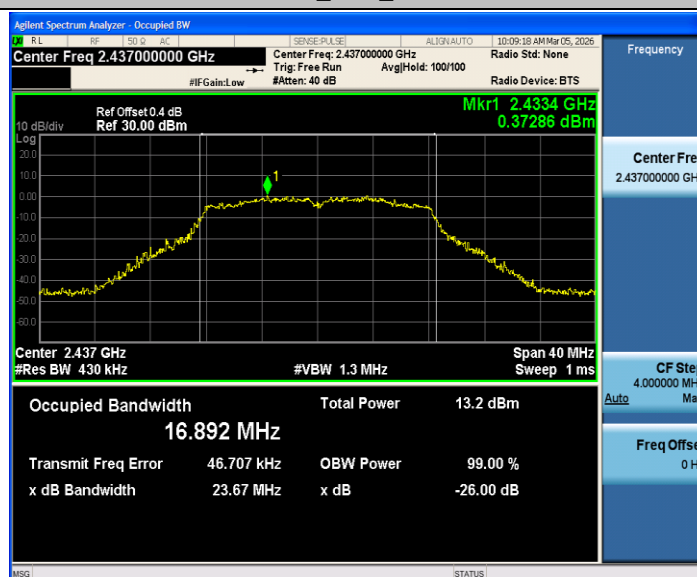
11B_Ant1_2462



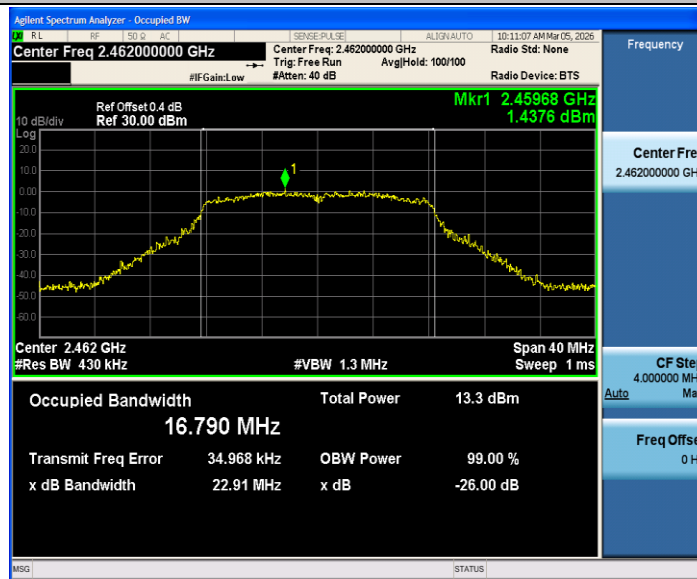
11G_Ant1_2412



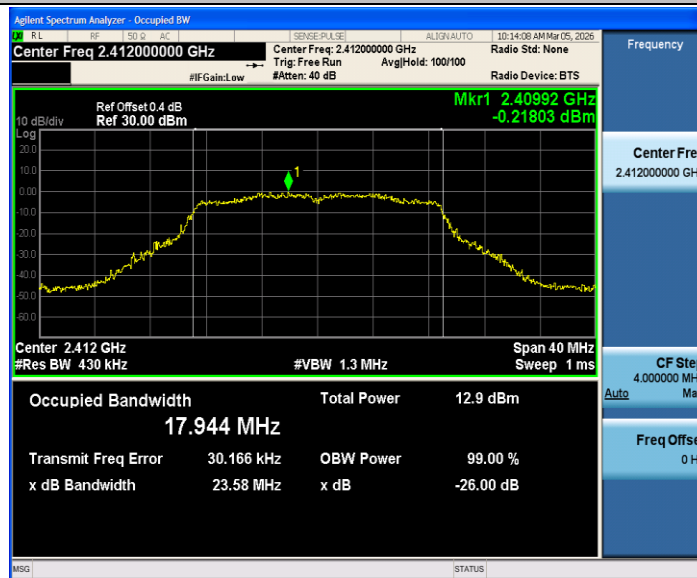
11G_Ant1_2437



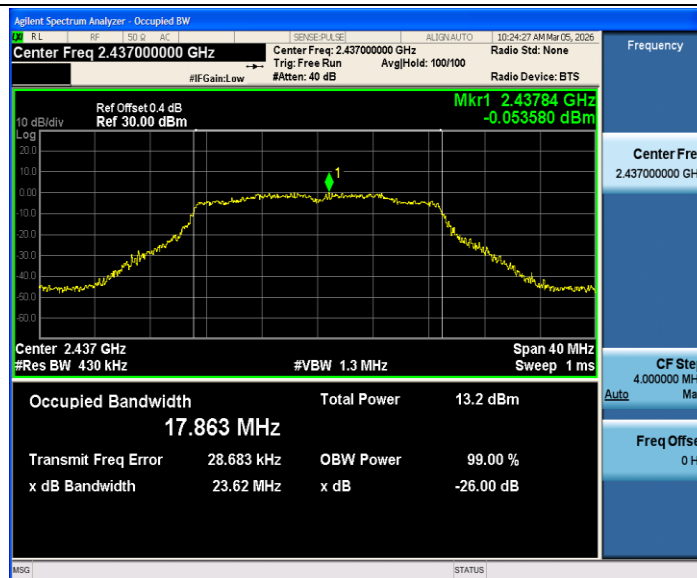
11G_Ant1_2462



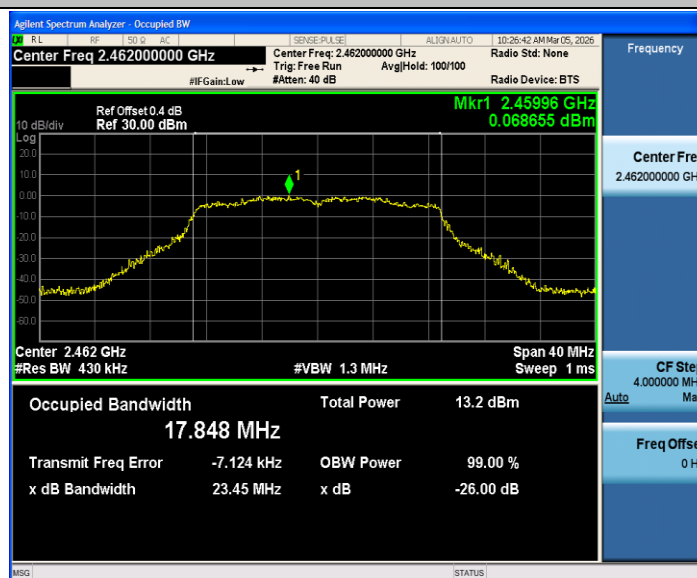
11N20SISO_Ant1_2412



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	14.10	≤30.00	PASS
		2437	14.32	≤30.00	PASS
		2462	13.80	≤30.00	PASS
11G	Ant1	2412	13.86	≤30.00	PASS
		2437	14.04	≤30.00	PASS
		2462	14.31	≤30.00	PASS
11N20SISO	Ant1	2412	13.82	≤30.00	PASS
		2437	14.02	≤30.00	PASS
		2462	14.00	≤30.00	PASS

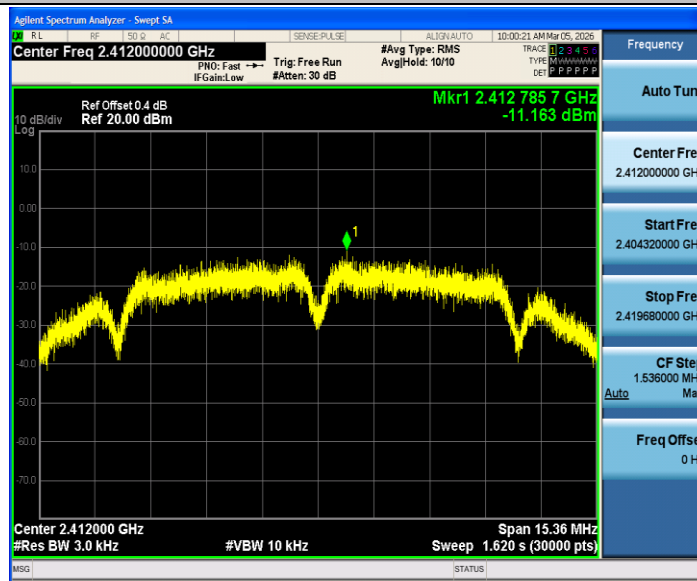
Appendix D: Maximum power spectral density

Test Result

TestMode	Antenna	Frequency[MHz]	Result[dBm/3-100kHz]	Limit[dBm/3kHz]	Verdict
11B	Ant1	2412	-11.16	≤8.00	PASS
		2437	-11.81	≤8.00	PASS
		2462	-12.07	≤8.00	PASS
11G	Ant1	2412	-18.13	≤8.00	PASS
		2437	-17.14	≤8.00	PASS
		2462	-16.97	≤8.00	PASS
11N20SISO	Ant1	2412	-17.17	≤8.00	PASS
		2437	-16.97	≤8.00	PASS
		2462	-17.16	≤8.00	PASS

Test Graphs

11B_Ant1_2412



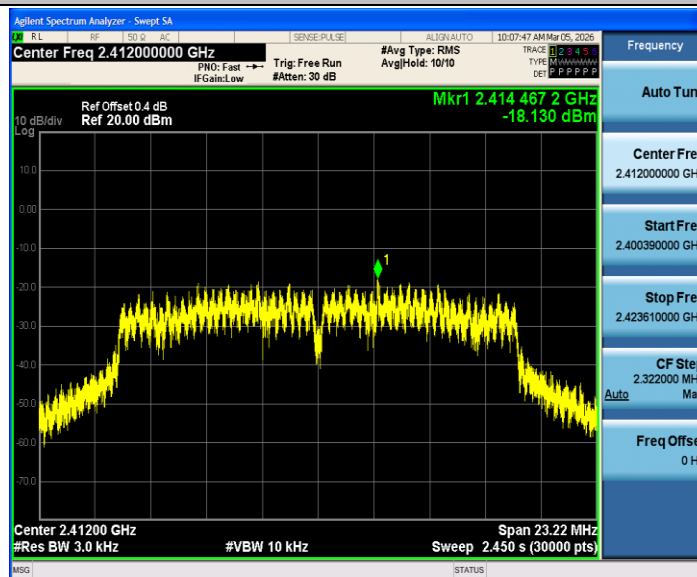
11B_Ant1_2437



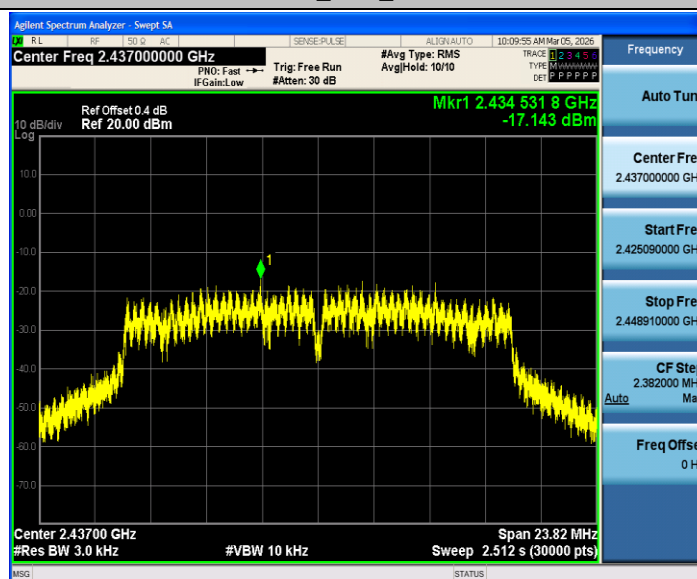
11B_Ant1_2462



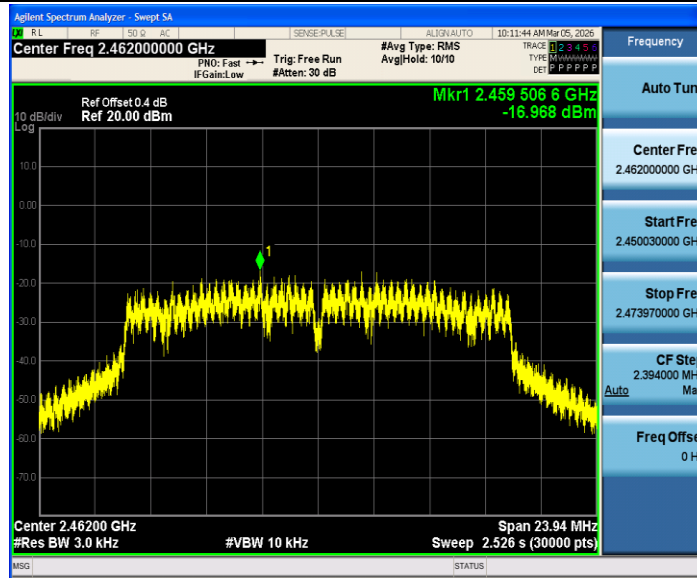
11G_Ant1_2412



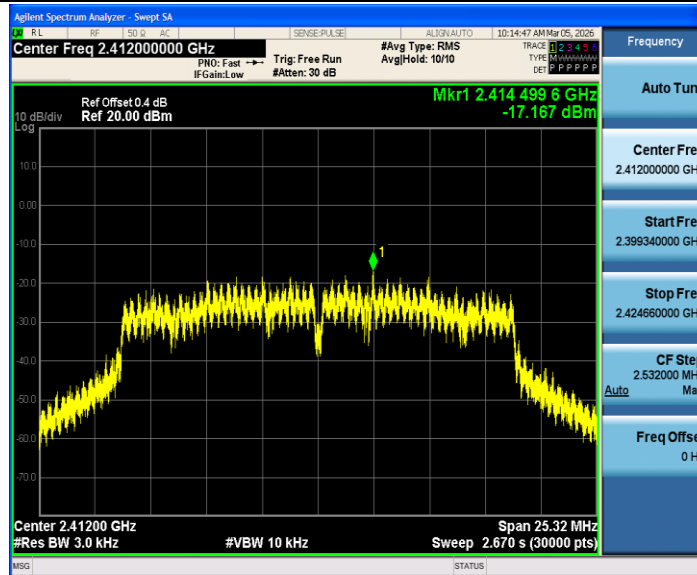
11G_Ant1_2437



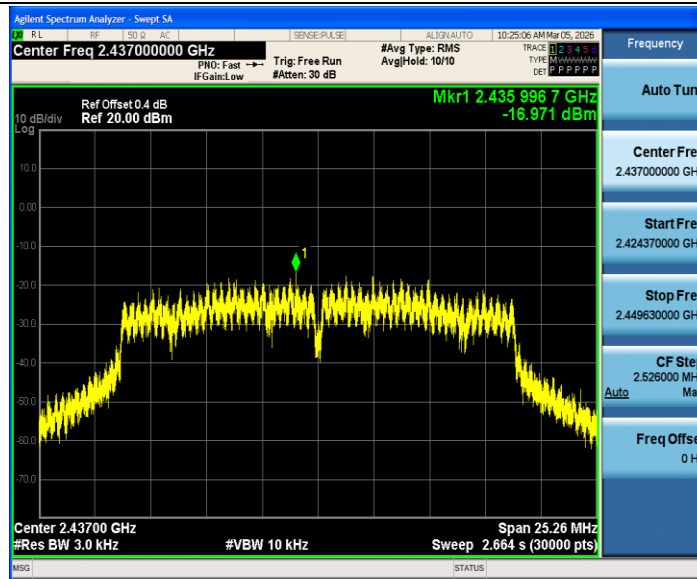
11G_Ant1_2462



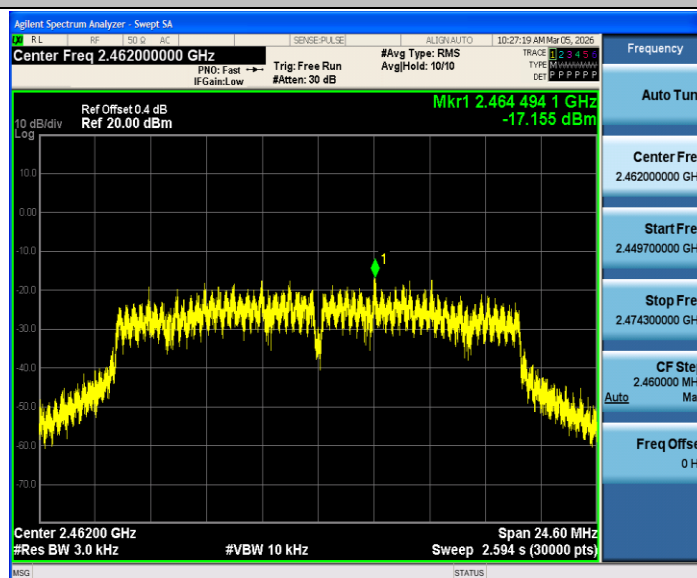
11N20SISO_Ant1_2412



11N20SISO_Ant1_2437



11N20SISO_Ant1_2462



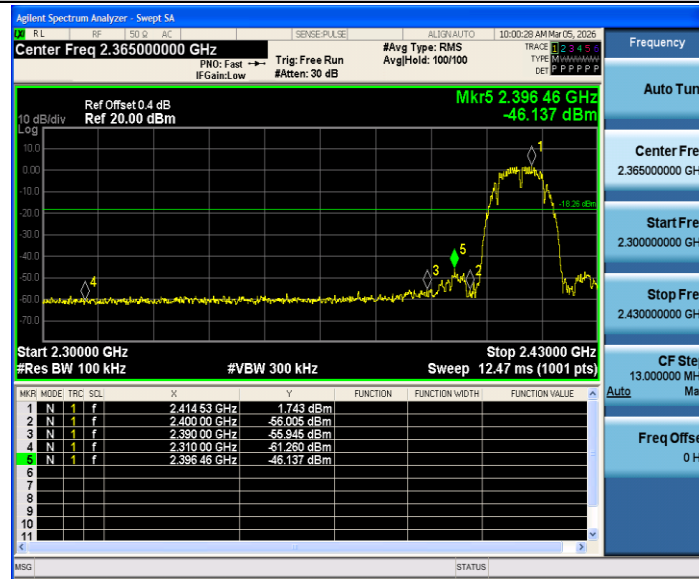
Appendix E: Band edge measurements

Test Result

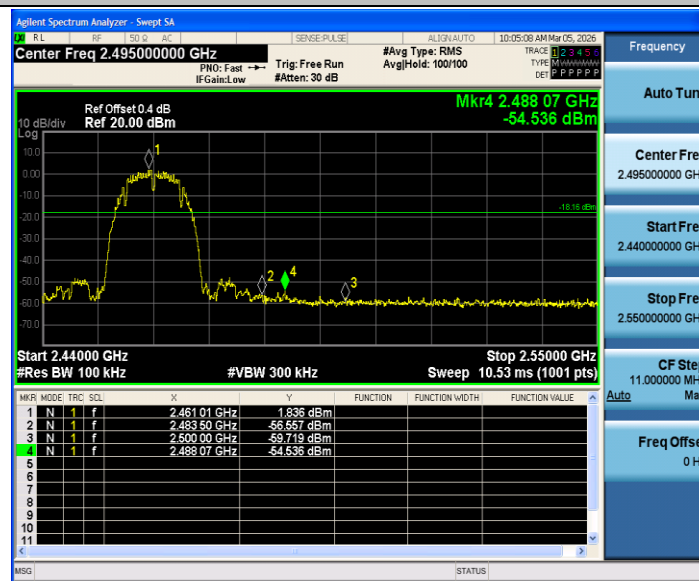
TestMode	Antenna	Channel Name	Frequency[MHz]	RefLevel[dBm]	Result[dBm]	Limit[dBm]	Verdict
11B	Ant1	Low	2412	1.74	-46.14	≤-18.26	PASS
		High	2462	1.84	-54.54	≤-18.16	PASS
11G	Ant1	Low	2412	-2.54	-35.61	≤-22.54	PASS
		High	2462	-2.28	-56.7	≤-22.28	PASS
11N20SISO	Ant1	Low	2412	-2.57	-34.38	≤-22.57	PASS
		High	2462	-2.60	-57.42	≤-22.6	PASS

Test Graphs

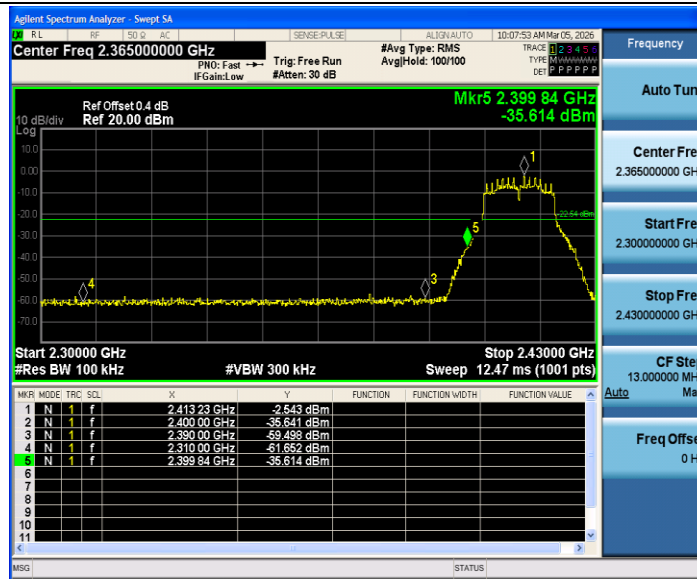
11B_Ant1_Low_2412



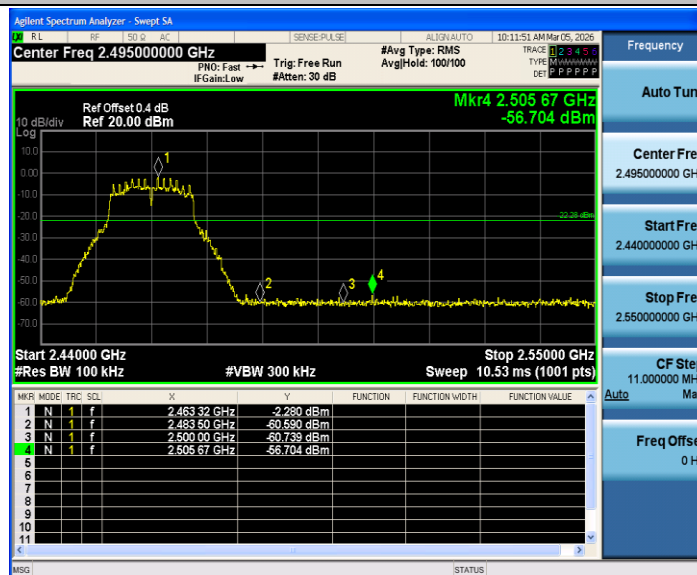
11B_Ant1_High_2462



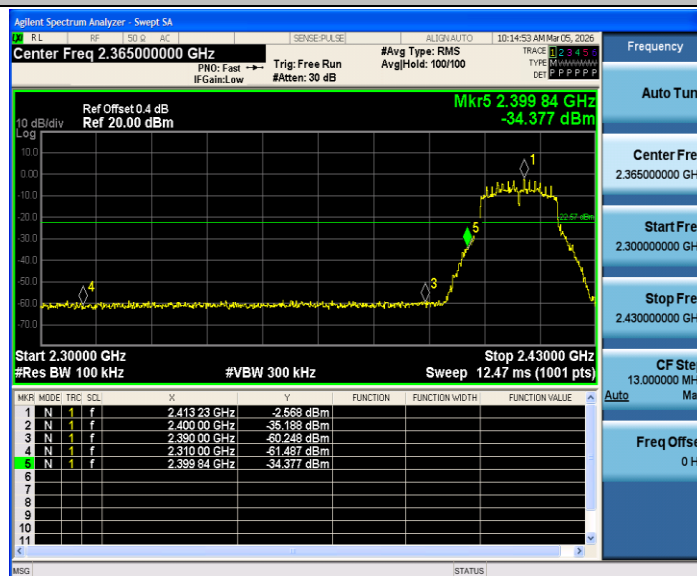
11G_Ant1_Low_2412



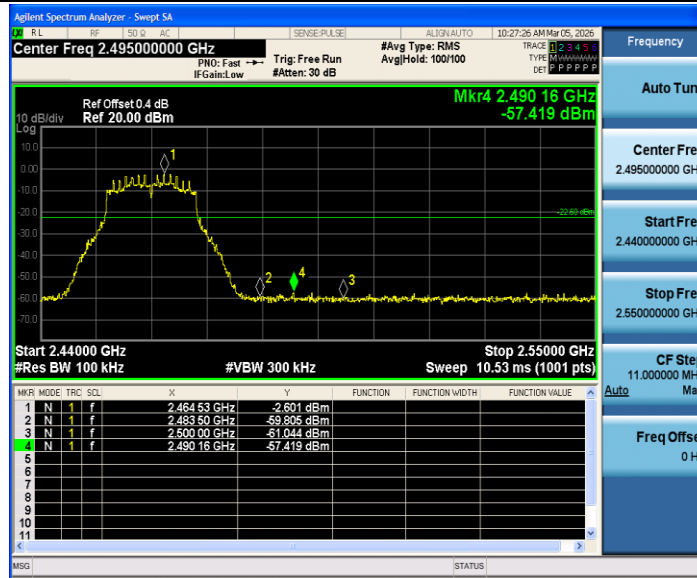
11G_Ant1_High_2462



11N20SISO_Ant1_Low_2412



11N20SISO_Ant1_High_2462



Appendix F: Conducted Spurious Emission

Test Result

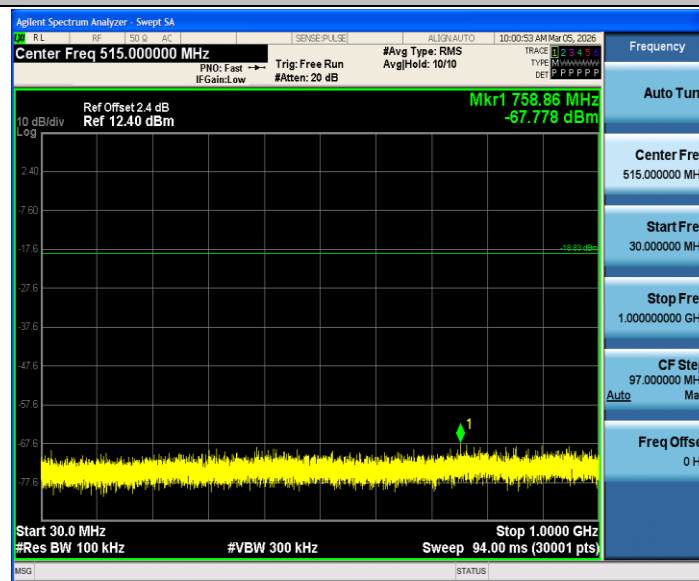
TestMode	Antenna	Frequency[MHz]	FreqRange [Mhz]	RefLevel [dBm]	Result [dBm]	Limit [dBm]	Verdict
11B	Ant1	2412	Reference	1.17	1.17	---	PASS
			30~1000	1.17	-67.78	≤-18.83	PASS
			1000~26500	1.17	-55.04	≤-18.83	PASS
		2437	Reference	1.71	1.71	---	PASS
			30~1000	1.71	-66.84	≤-18.29	PASS
			1000~26500	1.71	-53.96	≤-18.29	PASS
		2462	Reference	1.38	1.38	---	PASS
			30~1000	1.38	-67.68	≤-18.62	PASS
			1000~26500	1.38	-55.02	≤-18.62	PASS
11G	Ant1	2412	Reference	-2.74	-2.74	---	PASS
			30~1000	-2.74	-66.83	≤-22.74	PASS
			1000~26500	-2.74	-54.69	≤-22.74	PASS
		2437	Reference	-3.30	-3.30	---	PASS
			30~1000	-3.30	-68.42	≤-23.3	PASS
			1000~26500	-3.30	-54.95	≤-23.3	PASS
		2462	Reference	-2.22	-2.22	---	PASS
			30~1000	-2.22	-68.49	≤-22.22	PASS
			1000~26500	-2.22	-54.82	≤-22.22	PASS
11N20SISO	Ant1	2412	Reference	-2.82	-2.82	---	PASS
			30~1000	-2.82	-68.27	≤-22.82	PASS
			1000~26500	-2.82	-55	≤-22.82	PASS
		2437	Reference	-3.26	-3.26	---	PASS
			30~1000	-3.26	-68.26	≤-23.26	PASS
			1000~26500	-3.26	-54.11	≤-23.26	PASS
		2462	Reference	-3.00	-3.00	---	PASS
			30~1000	-3.00	-68.02	≤-23	PASS
			1000~26500	-3.00	-55.1	≤-23	PASS

Test Graphs

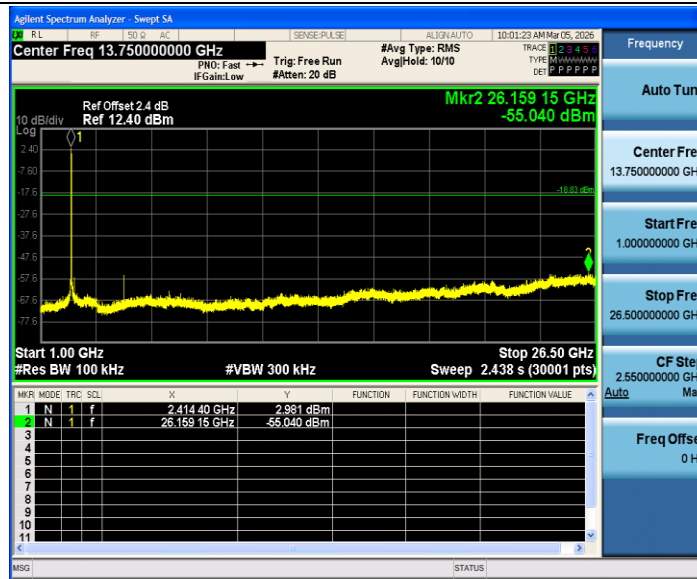
11B_Ant1_2412_0~Reference



11B_Ant1_2412_30~1000



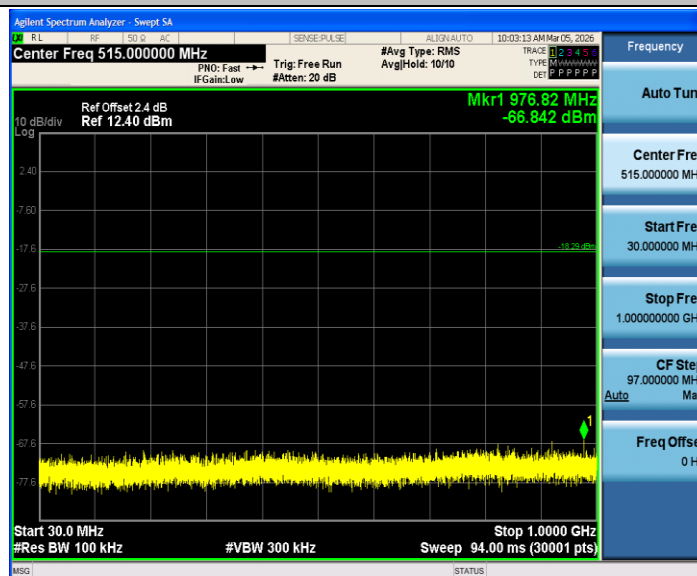
11B_Ant1_2412_1000~26500



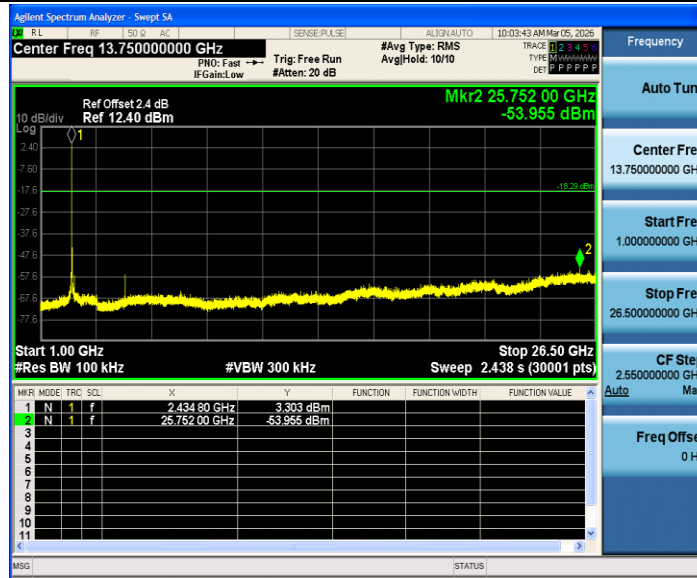
11B_Ant1_2437_0~Reference



11B_Ant1_2437_30~1000



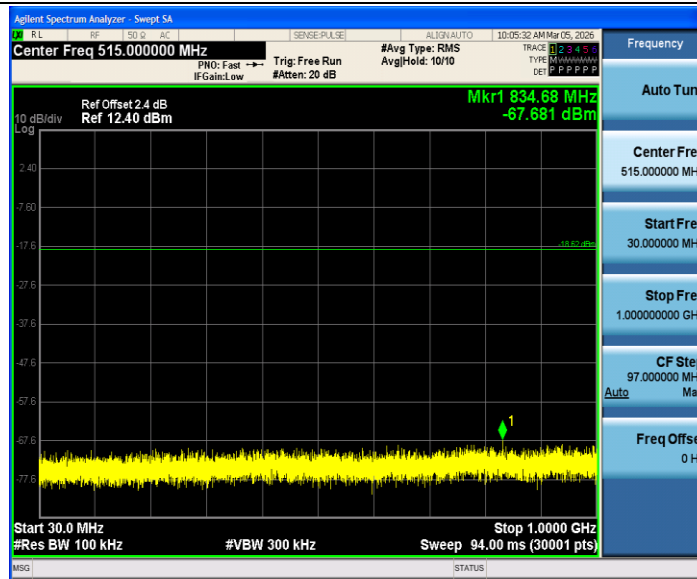
11B_Ant1_2437_1000~26500



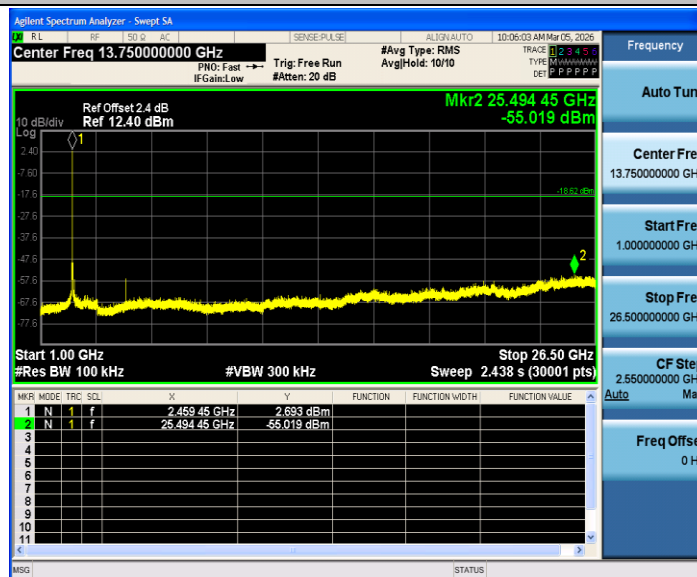
11B_Ant1_2462_0~Reference



11B_Ant1_2462_30~1000



11B_Ant1_2462_1000~26500



11G_Ant1_2412_0~Reference

