

FCC Appendix RF Test Data for 2.4GWIFI

FCC ID : 2BU4K-U4

Company : Shenzhen Xintie E-commerce Co., Ltd.

EUT : Essential oil Diffuser

Model Number : U4

Report No. : CTA26022500202

Reviewed By : Eric Wang

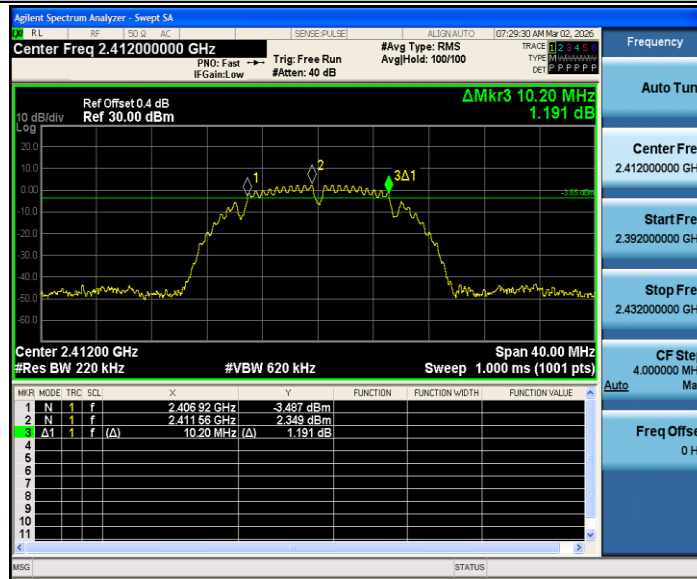
Appendix A: DTS Bandwidth

Test Result

TestMode	Antenna	Frequency[MHz]	DTS BW [MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
11B	Ant1	2412	10.200	2406.920	2417.120	0.5	PASS
		2437	10.200	2431.920	2442.120	0.5	PASS
		2462	10.240	2456.920	2467.160	0.5	PASS
11G	Ant1	2412	15.840	2404.120	2419.960	0.5	PASS
		2437	15.440	2429.320	2444.760	0.5	PASS
		2462	15.880	2454.120	2470.000	0.5	PASS
11N20SISO	Ant1	2412	17.120	2403.480	2420.600	0.5	PASS
		2437	15.920	2429.440	2445.360	0.5	PASS
		2462	16.920	2453.520	2470.440	0.5	PASS
11N40SISO	Ant1	2422	35.600	2404.160	2439.760	0.5	PASS
		2437	35.520	2419.320	2454.840	0.5	PASS
		2452	34.800	2434.480	2469.280	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



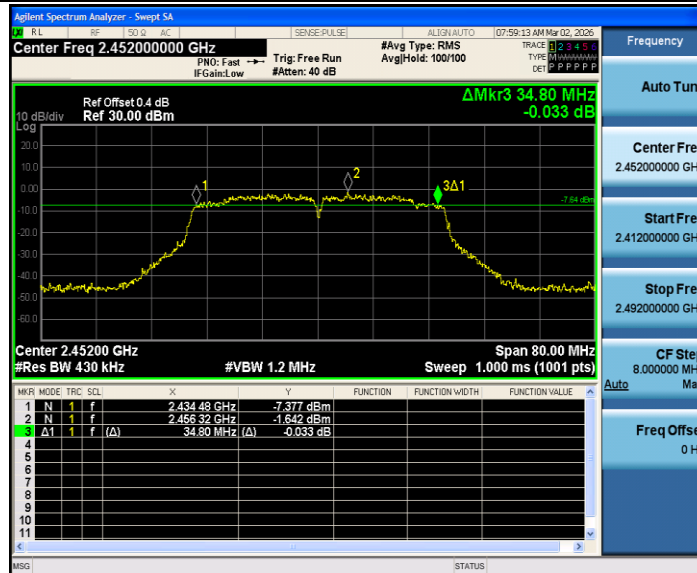
11N40SISO_Ant1_2422



11N40SISO_Ant1_2437



11N40SISO_Ant1_2452



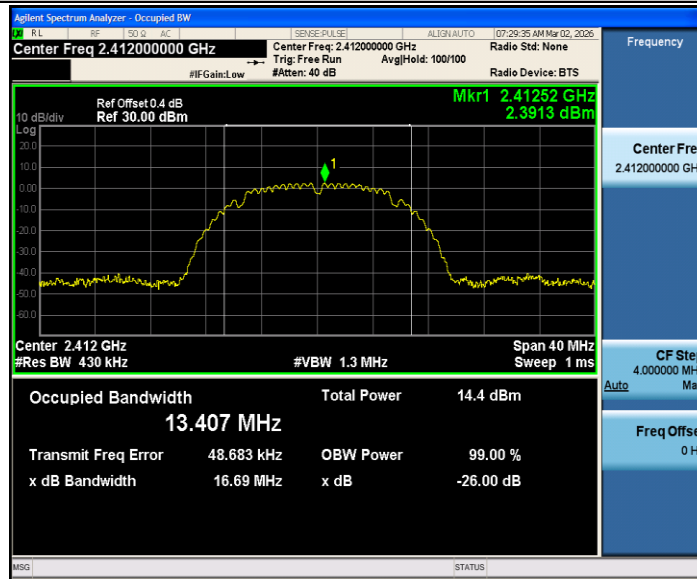
Appendix B: Occupied Channel Bandwidth

Test Result

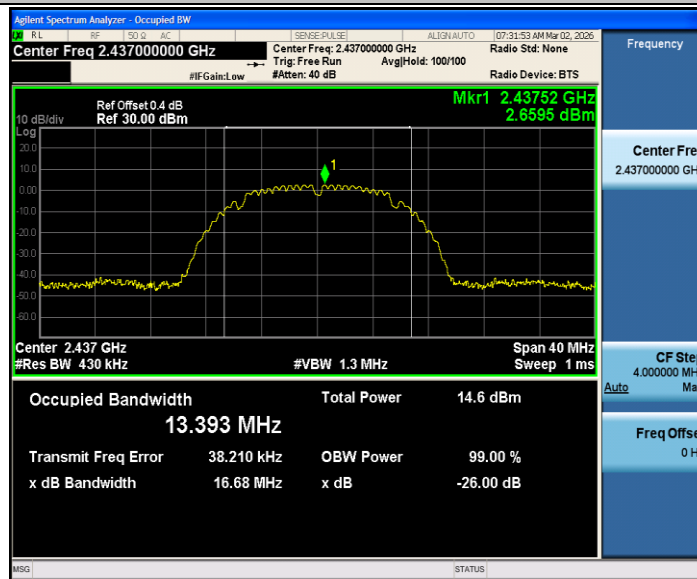
TestMode	Antenna	Channel Frequency[MHz]	OCB [MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
11B	Ant1	2412	13.407	2405.3452	2418.7522	---	---
		2437	13.393	2430.3417	2443.7347	---	---
		2462	13.403	2455.3178	2468.7208	---	---
11G	Ant1	2412	16.853	2403.6388	2420.4918	---	---
		2437	16.855	2428.5874	2445.4424	---	---
		2462	16.874	2453.6031	2470.4771	---	---
11N20SISO	Ant1	2412	17.892	2403.0925	2420.9845	---	---
		2437	17.869	2428.1094	2445.9784	---	---
		2462	17.944	2453.0569	2471.0009	---	---
11N40SISO	Ant1	2422	36.101	2404.0286	2440.1296	---	---
		2437	36.080	2419.0298	2455.1098	---	---
		2452	35.970	2434.1071	2470.0771	---	---

Test Graphs

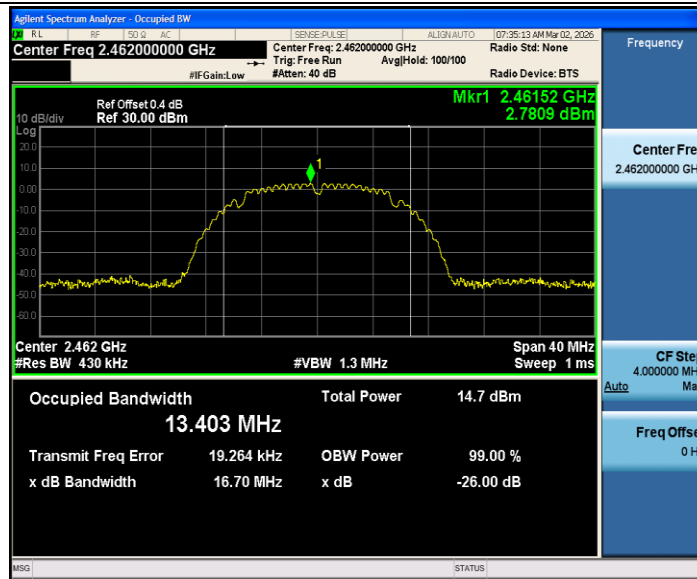
11B_Ant1_2412



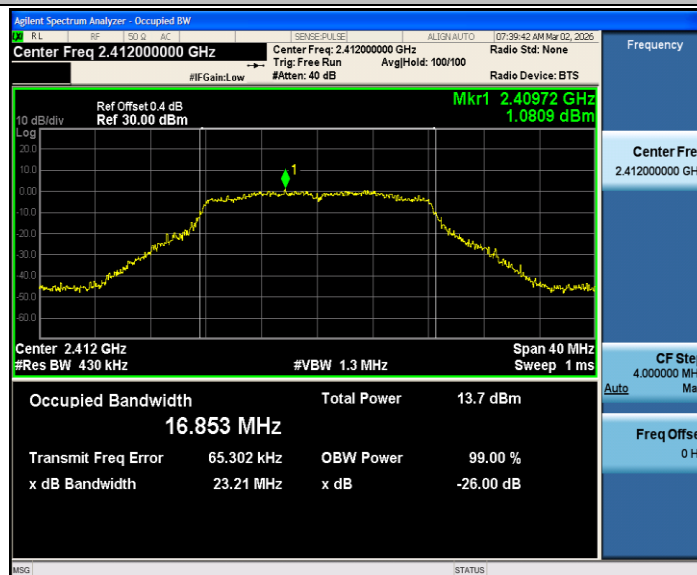
11B_Ant1_2437



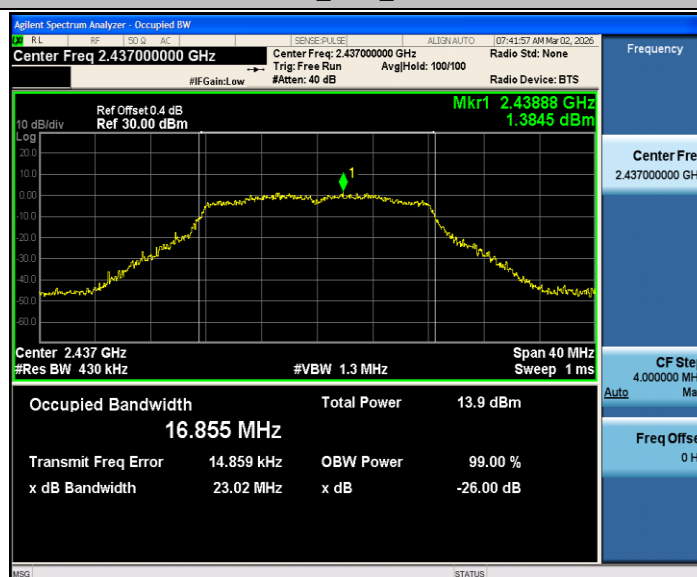
11B_Ant1_2462



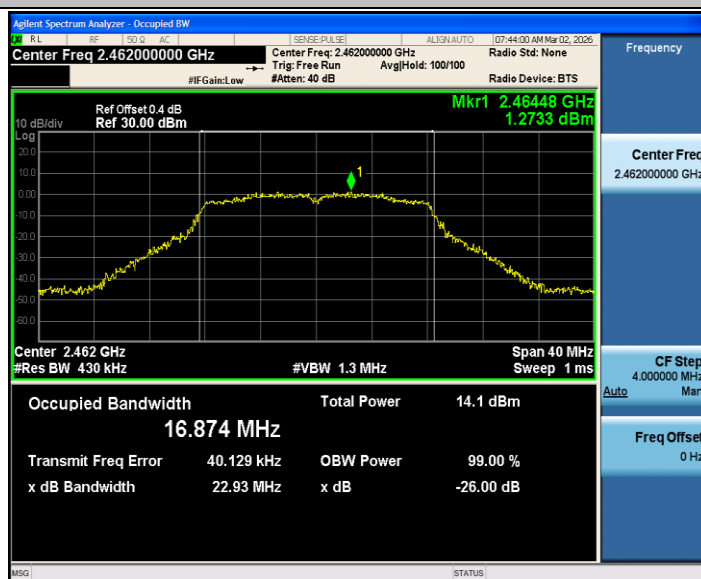
11G_Ant1_2412



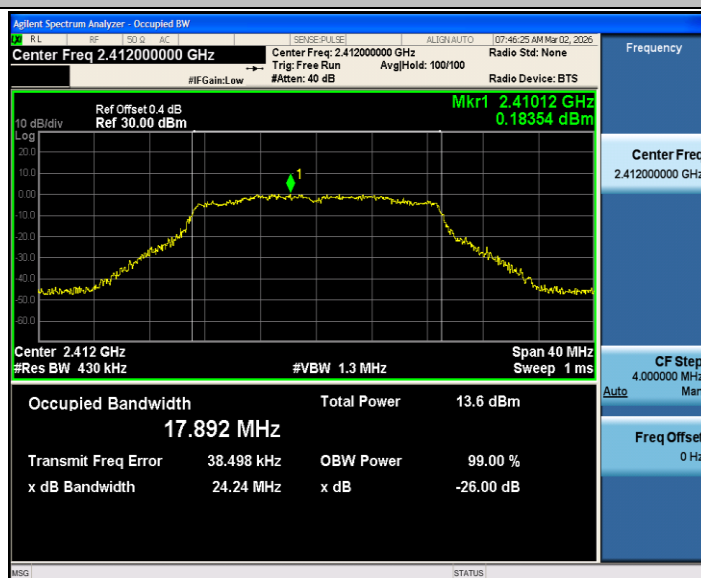
11G_Ant1_2437



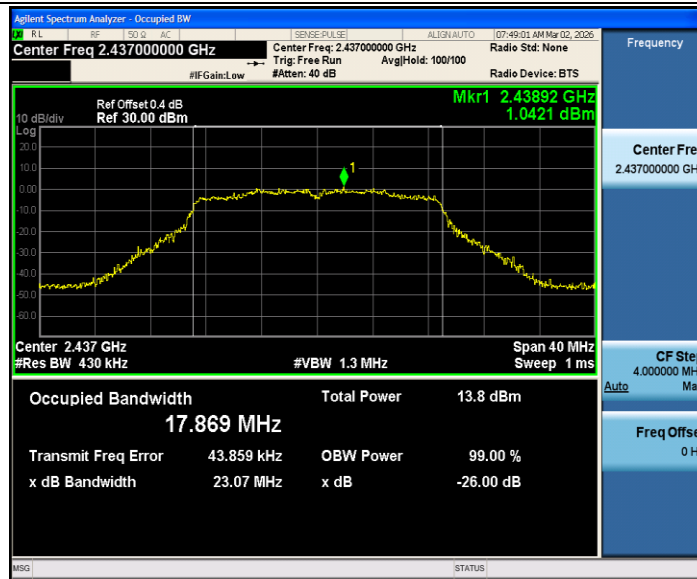
11G_Ant1_2462



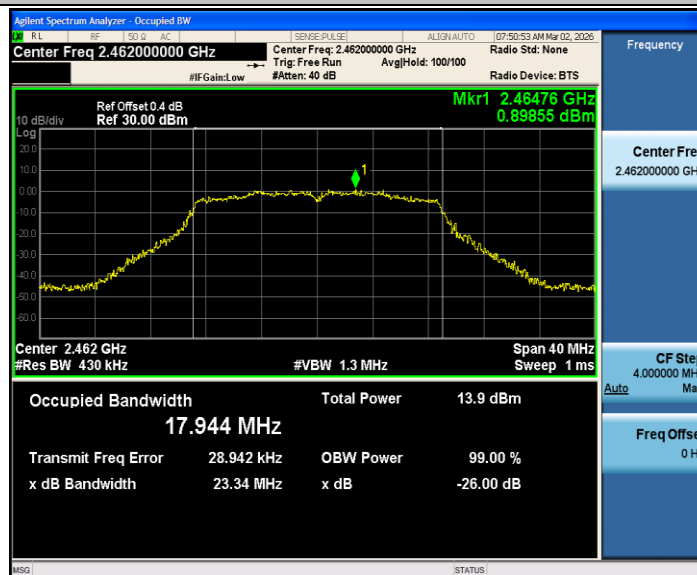
11N20SISO_Ant1_2412



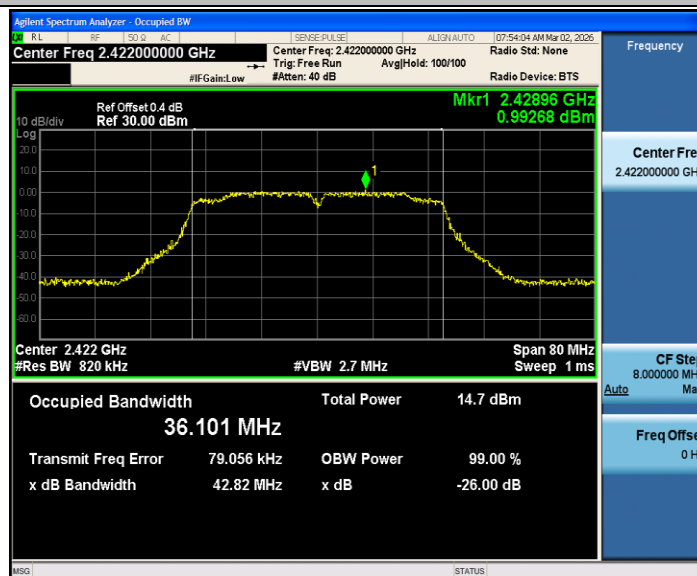
11N20SISO_Ant1_2437



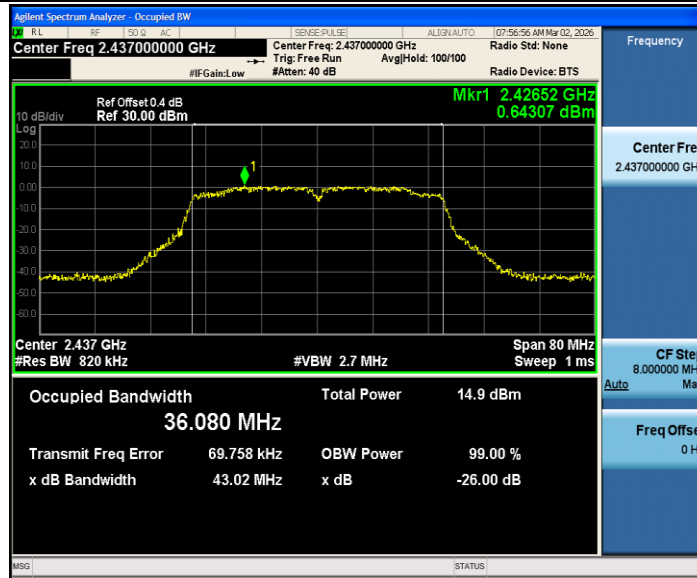
11N20SISO_Ant1_2462



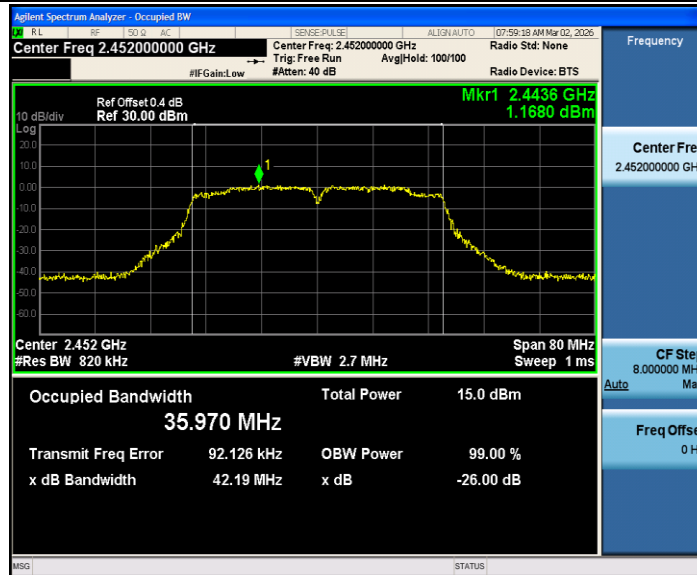
11N40SISO_Ant1_2422



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	14.11	≤30.00	PASS
		2437	14.31	≤30.00	PASS
		2462	14.48	≤30.00	PASS
11G	Ant1	2412	14.50	≤30.00	PASS
		2437	14.77	≤30.00	PASS
		2462	14.97	≤30.00	PASS
11N20SISO	Ant1	2412	14.45	≤30.00	PASS
		2437	14.67	≤30.00	PASS
		2462	14.74	≤30.00	PASS
11N40SISO	Ant1	2422	14.82	≤30.00	PASS
		2437	15.20	≤30.00	PASS
		2452	15.01	≤30.00	PASS

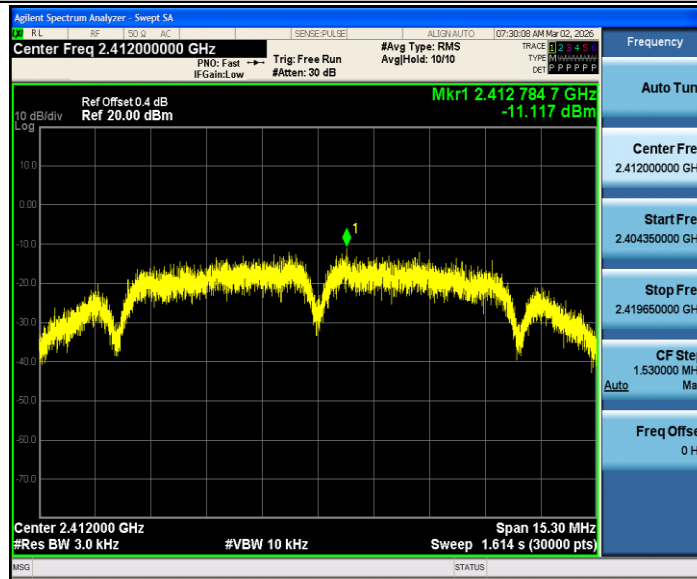
Appendix D: Maximum power spectral density

Test Result

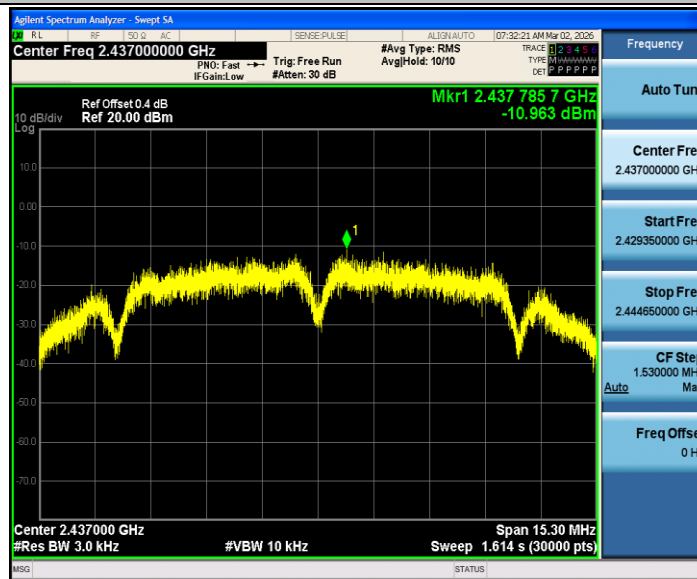
TestMode	Antenna	Frequency[MHz]	Result[dBm/3-100kHz]	Limit[dBm/3kHz]	Verdict
11B	Ant1	2412	-11.12	≤8.00	PASS
		2437	-10.96	≤8.00	PASS
		2462	-11.16	≤8.00	PASS
11G	Ant1	2412	-17.85	≤8.00	PASS
		2437	-16.84	≤8.00	PASS
		2462	-16.75	≤8.00	PASS
11N20SISO	Ant1	2412	-17.10	≤8.00	PASS
		2437	-15.50	≤8.00	PASS
		2462	-16.38	≤8.00	PASS
11N40SISO	Ant1	2422	-19.75	≤8.00	PASS
		2437	-19.47	≤8.00	PASS
		2452	-19.32	≤8.00	PASS

Test Graphs

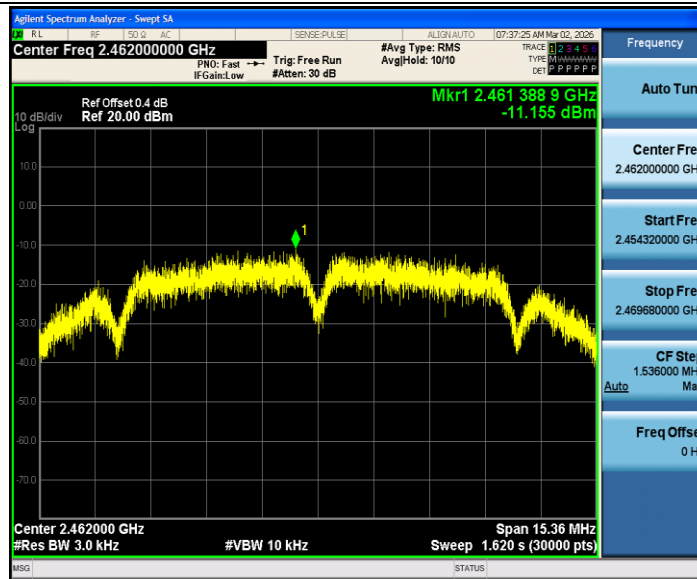
11B_Ant1_2412



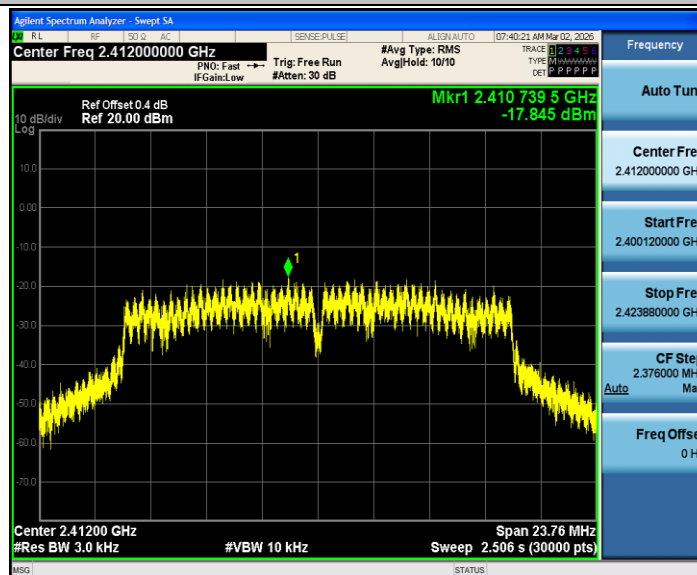
11B_Ant1_2437



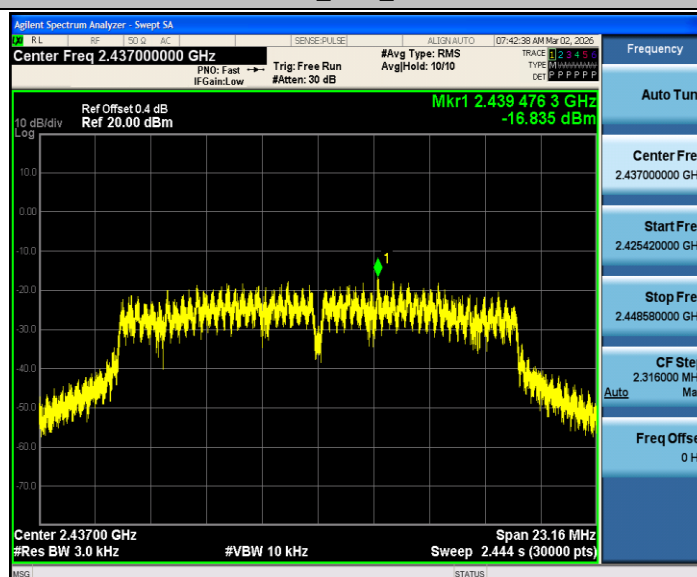
11B_Ant1_2462



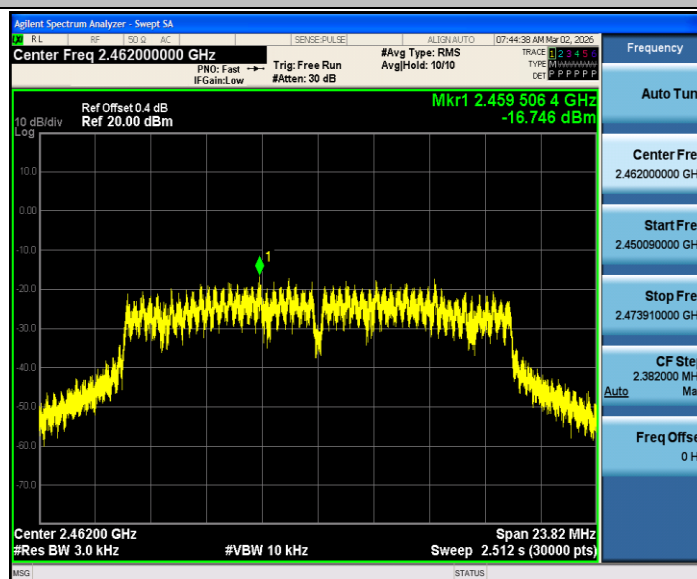
11G_Ant1_2412



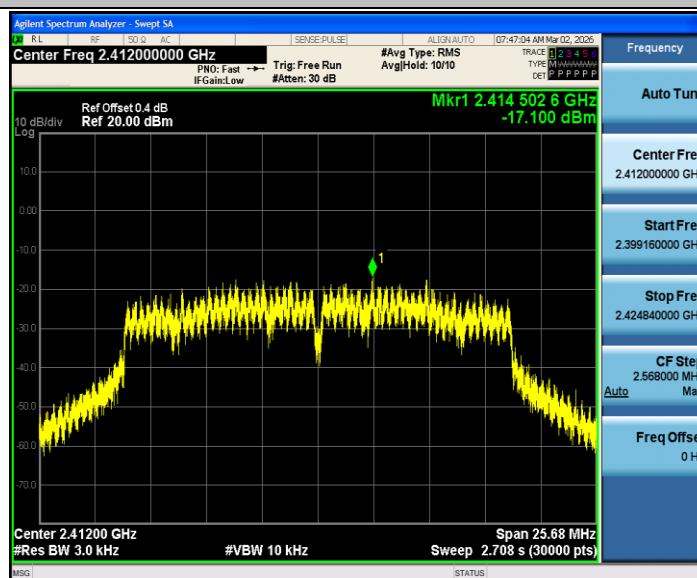
11G_Ant1_2437



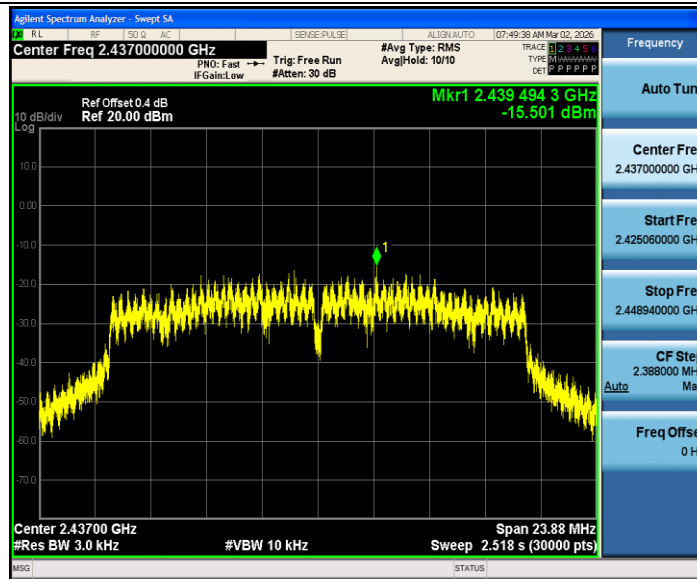
11G_Ant1_2462



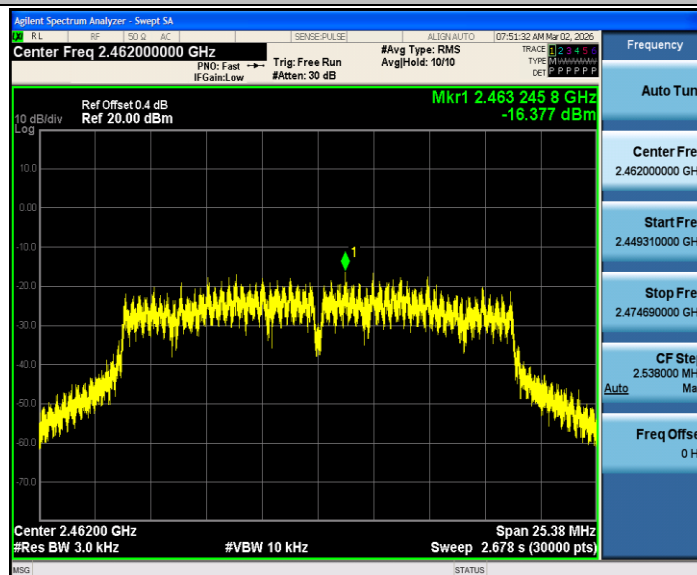
11N20SISO_Ant1_2412



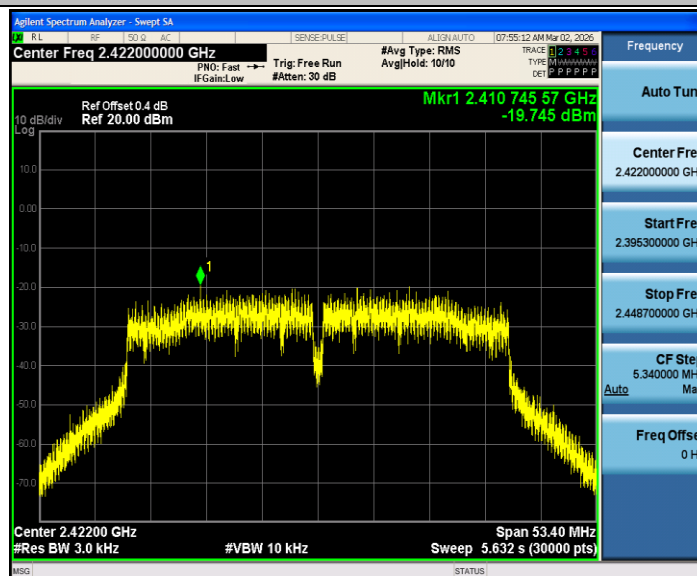
11N20SISO_Ant1_2437



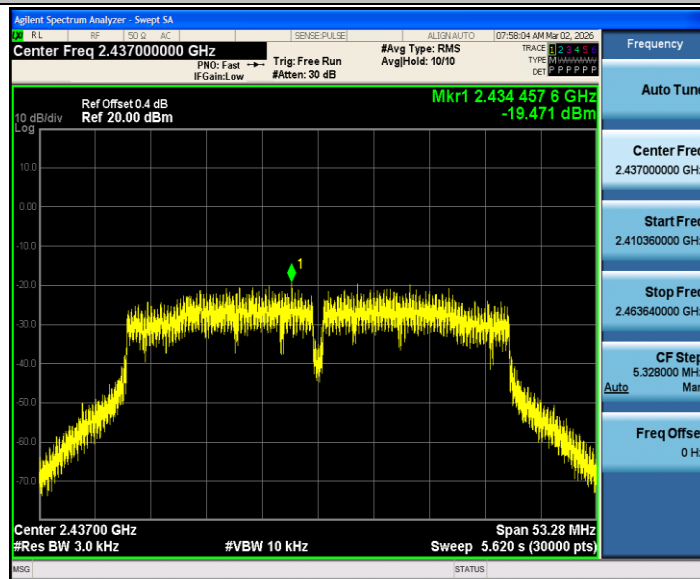
11N20SISO_Ant1_2462



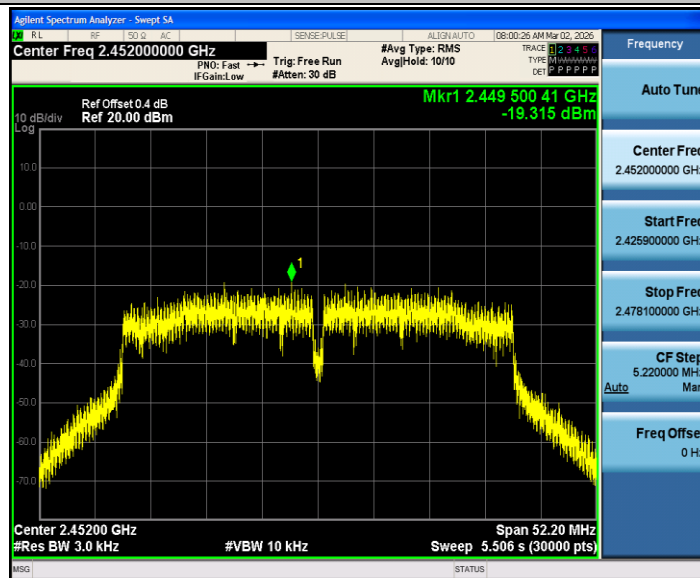
11N40SISO_Ant1_2422



11N40SISO_Ant1_2437



11N40SISO_Ant1_2452



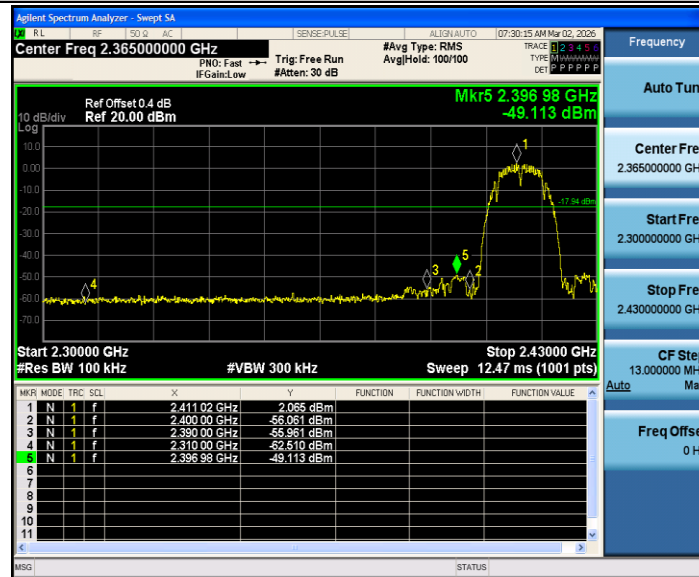
Appendix E: Band edge measurements

Test Result

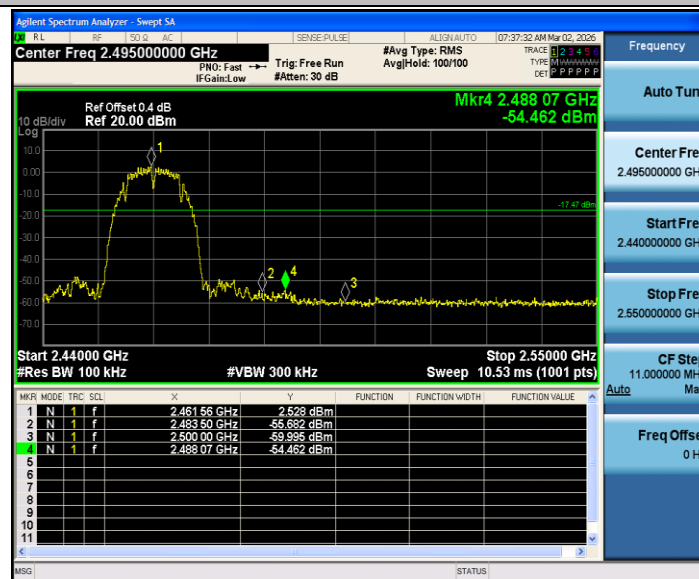
TestMode	Antenna	Channel Name	Frequency[MHz]	RefLevel[dBm]	Result[dBm]	Limit[dBm]	Verdict
11B	Ant1	Low	2412	2.07	-49.11	≤-17.94	PASS
		High	2462	2.53	-54.46	≤-17.47	PASS
11G	Ant1	Low	2412	-2.07	-34.27	≤-22.07	PASS
		High	2462	-1.60	-57.71	≤-21.6	PASS
11N20SISO	Ant1	Low	2412	-1.96	-32.96	≤-21.96	PASS
		High	2462	-1.93	-57.1	≤-21.93	PASS
11N40SISO	Ant1	Low	2422	-5.13	-33.14	≤-25.13	PASS
		High	2452	-4.80	-55.33	≤-24.8	PASS

Test Graphs

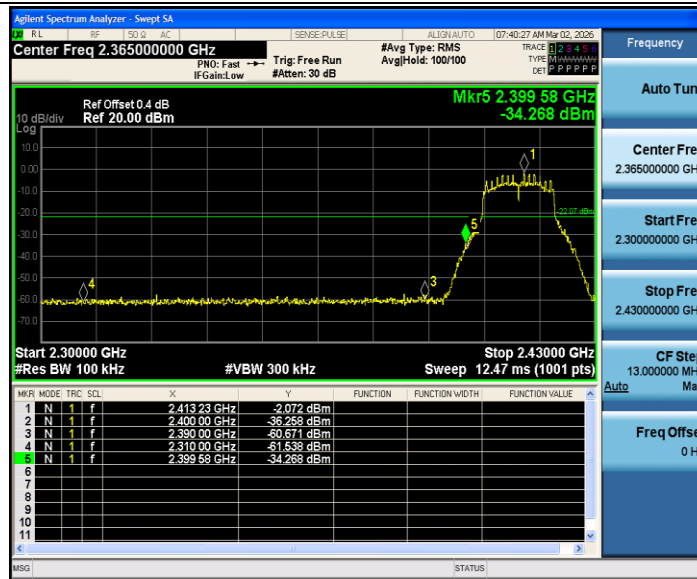
11B_Ant1_Low_2412



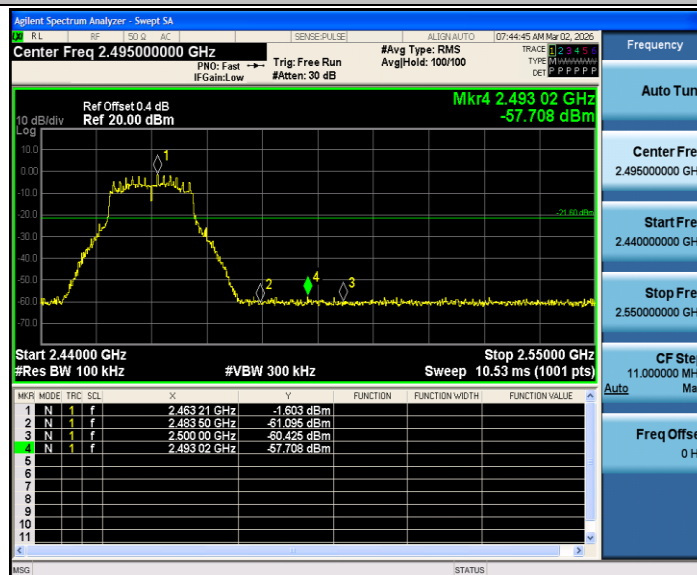
11B_Ant1_High_2462



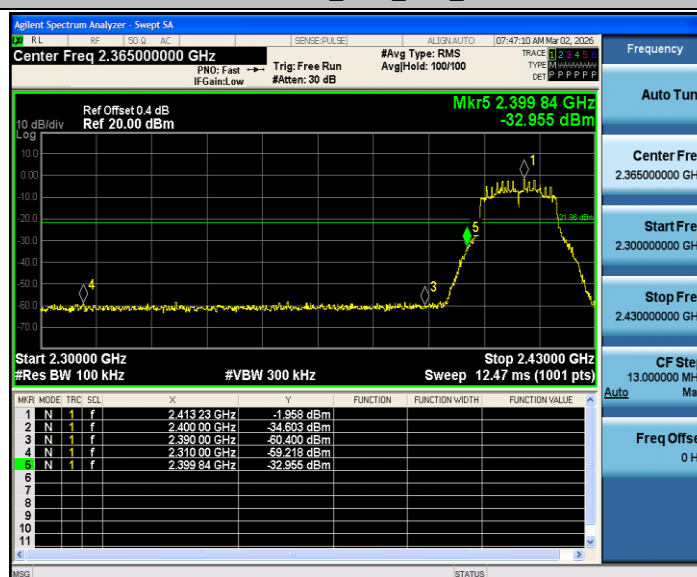
11G_Ant1_Low_2412



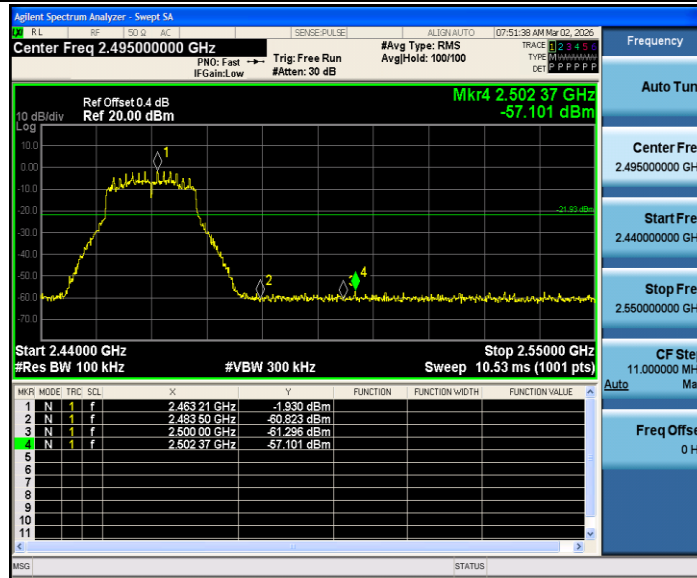
11G_Ant1_High_2462



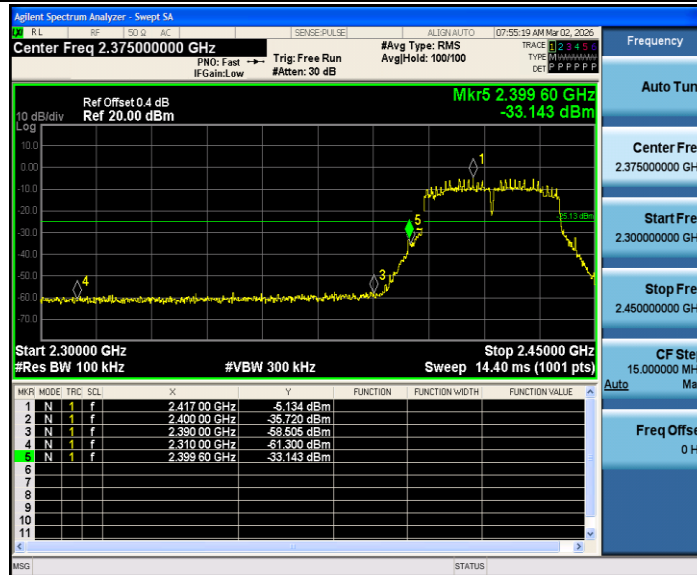
11N20SISO_Ant1_Low_2412



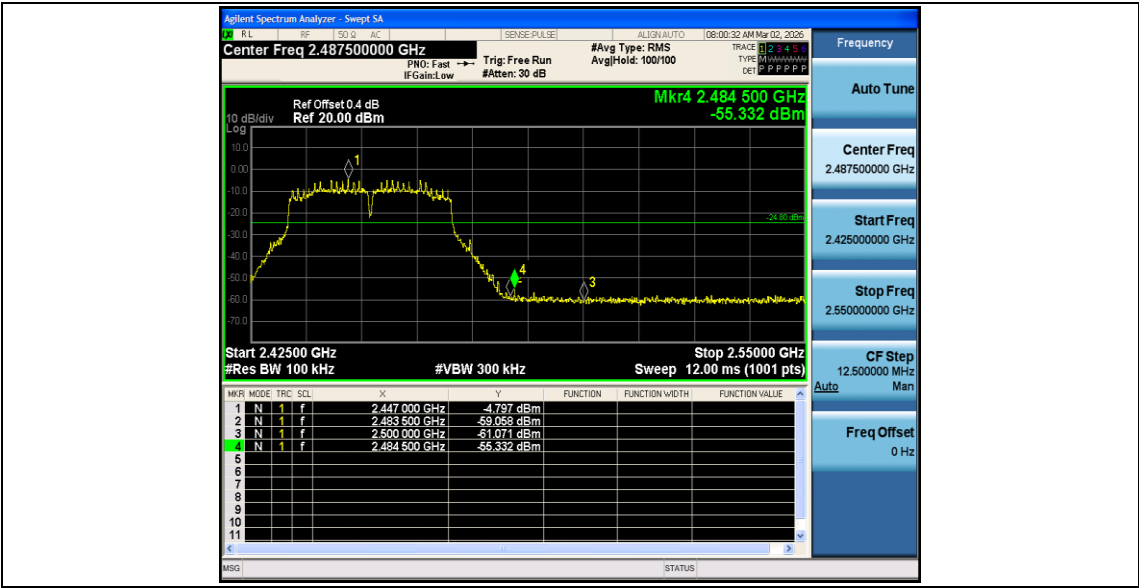
11N20SISO_Ant1_High_2462



11N40SISO_Ant1_Low_2422



11N40SISO_Ant1_High_2452



Appendix F: Conducted Spurious Emission

Test Result

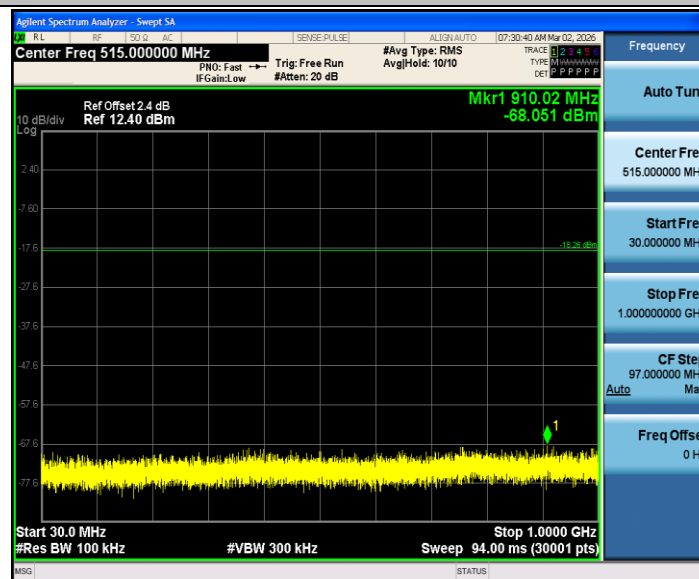
TestMode	Antenna	Frequency[MHz]	FreqRange [Mhz]	RefLevel [dBm]	Result [dBm]	Limit [dBm]	Verdict
11B	Ant1	2412	Reference	1.74	1.74	---	PASS
			30~1000	1.74	-68.05	≤-18.26	PASS
			1000~26500	1.74	-54.59	≤-18.26	PASS
		2437	Reference	1.76	1.76	---	PASS
			30~1000	1.76	-67.91	≤-18.24	PASS
			1000~26500	1.76	-54.81	≤-18.24	PASS
		2462	Reference	2.38	2.38	---	PASS
			30~1000	2.38	-67.64	≤-17.62	PASS
			1000~26500	2.38	-54.95	≤-17.62	PASS
11G	Ant1	2412	Reference	-3.30	-3.30	---	PASS
			30~1000	-3.30	-68.04	≤-23.3	PASS
			1000~26500	-3.30	-55.2	≤-23.3	PASS
		2437	Reference	-1.99	-1.99	---	PASS
			30~1000	-1.99	-67.44	≤-21.99	PASS
			1000~26500	-1.99	-55.22	≤-21.99	PASS
		2462	Reference	-2.14	-2.14	---	PASS
			30~1000	-2.14	-67.93	≤-22.14	PASS
			1000~26500	-2.14	-55.17	≤-22.14	PASS
11N20SISO	Ant1	2412	Reference	-2.30	-2.30	---	PASS
			30~1000	-2.30	-67.6	≤-22.3	PASS
			1000~26500	-2.30	-55.16	≤-22.3	PASS
		2437	Reference	-2.74	-2.74	---	PASS
			30~1000	-2.74	-67.98	≤-22.74	PASS
			1000~26500	-2.74	-55.51	≤-22.74	PASS
		2462	Reference	-2.08	-2.08	---	PASS
			30~1000	-2.08	-67.88	≤-22.08	PASS
			1000~26500	-2.08	-54.94	≤-22.08	PASS
11N40SISO	Ant1	2422	Reference	-5.38	-5.38	---	PASS
			30~1000	-5.38	-68.52	≤-25.38	PASS
			1000~26500	-5.38	-54.9	≤-25.38	PASS
		2437	Reference	-4.96	-4.96	---	PASS
			30~1000	-4.96	-68.04	≤-24.96	PASS
			1000~26500	-4.96	-54.75	≤-24.96	PASS
		2452	Reference	-5.57	-5.57	---	PASS
			30~1000	-5.57	-68.32	≤-25.57	PASS
			1000~26500	-5.57	-55.03	≤-25.57	PASS

Test Graphs

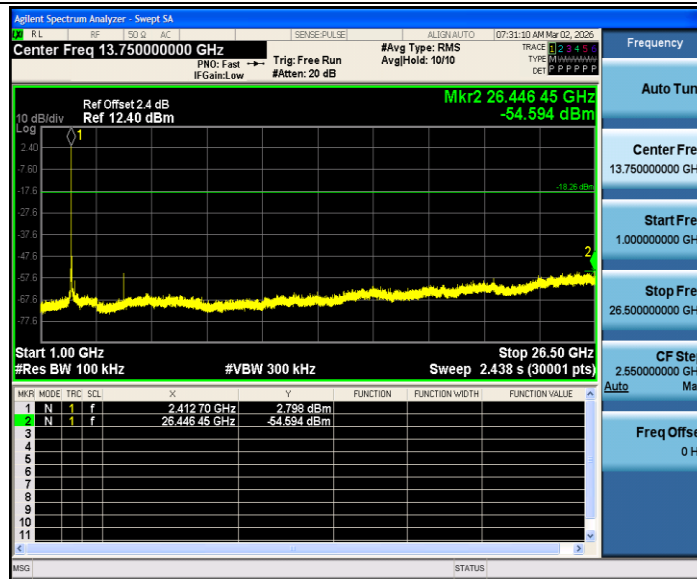
11B_Ant1_2412_0~Reference



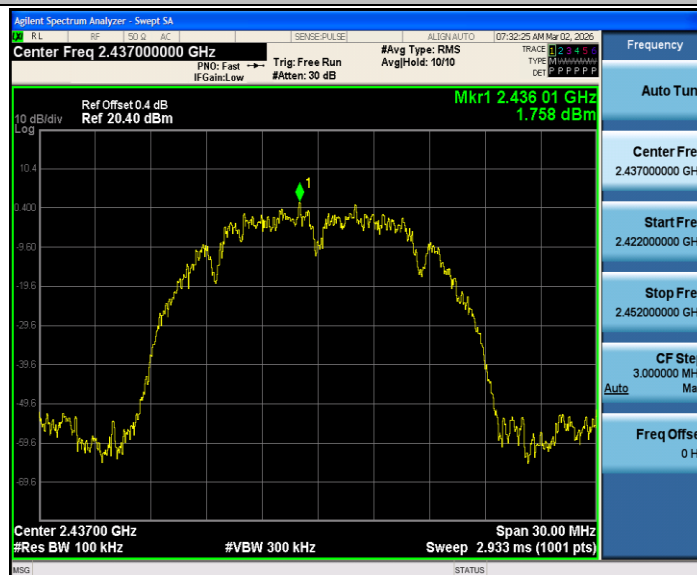
11B_Ant1_2412_30~1000



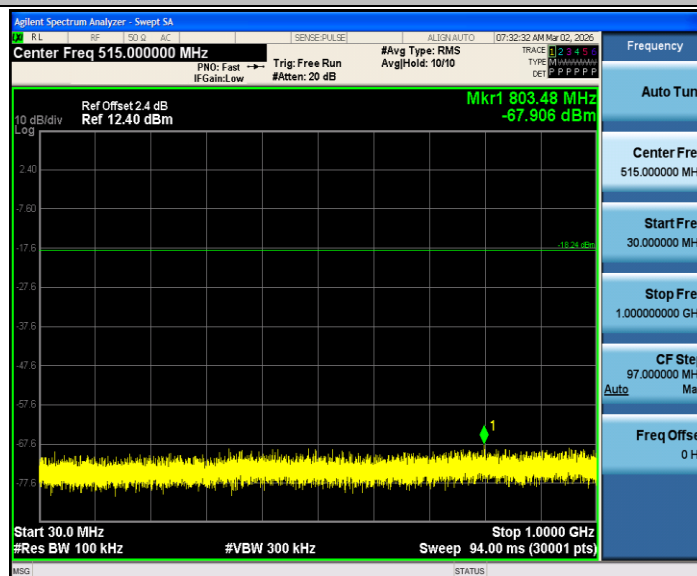
11B_Ant1_2412_1000~26500



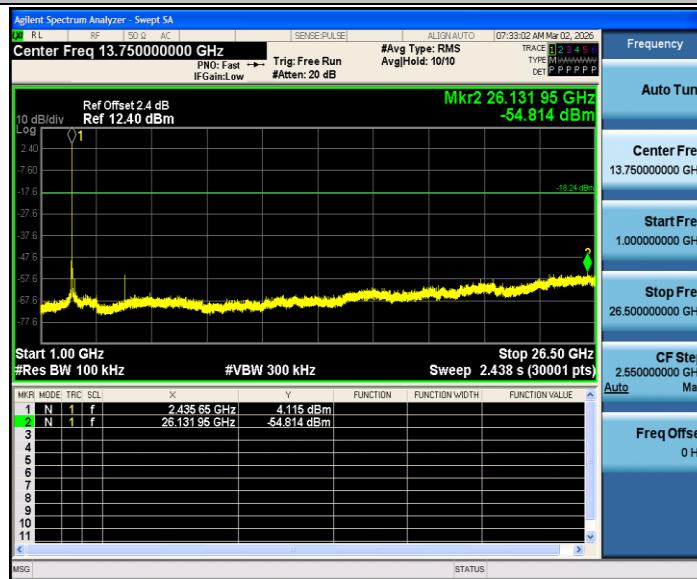
11B_Ant1_2437_0~Reference



11B_Ant1_2437_30~1000



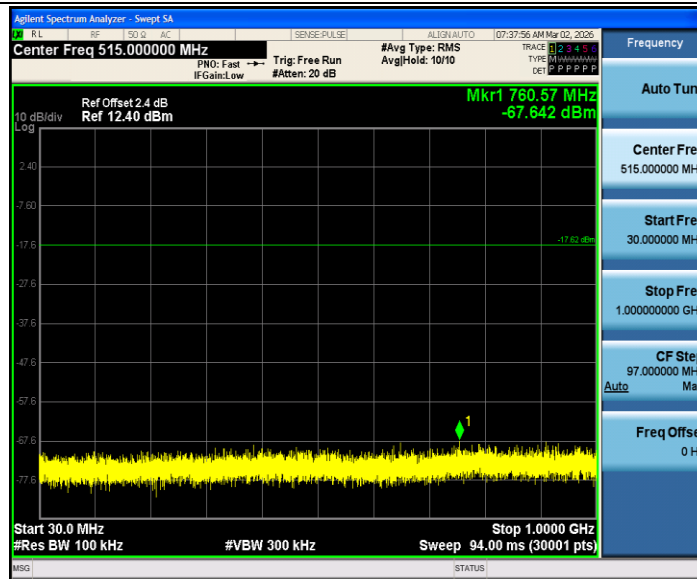
11B_Ant1_2437_1000~26500



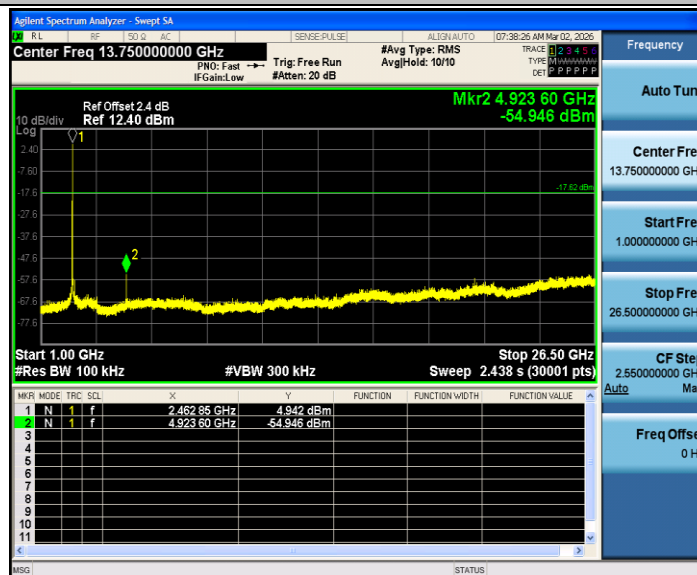
11B_Ant1_2462_0~Reference



11B_Ant1_2462_30~1000



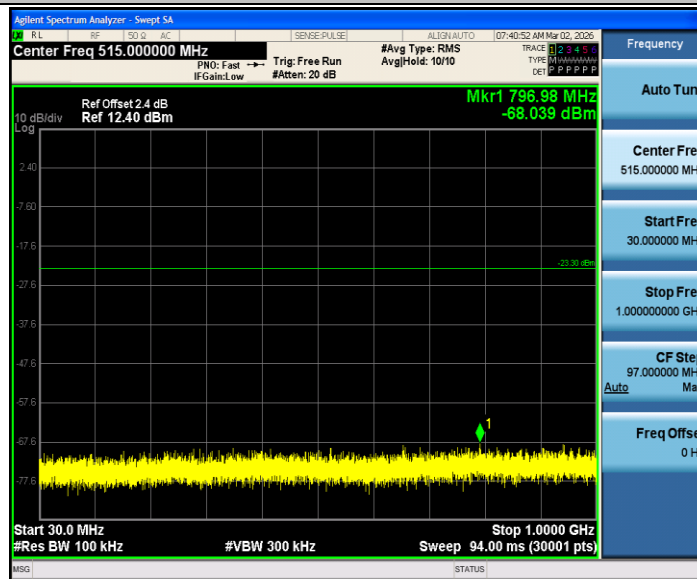
11B_Ant1_2462_1000~26500



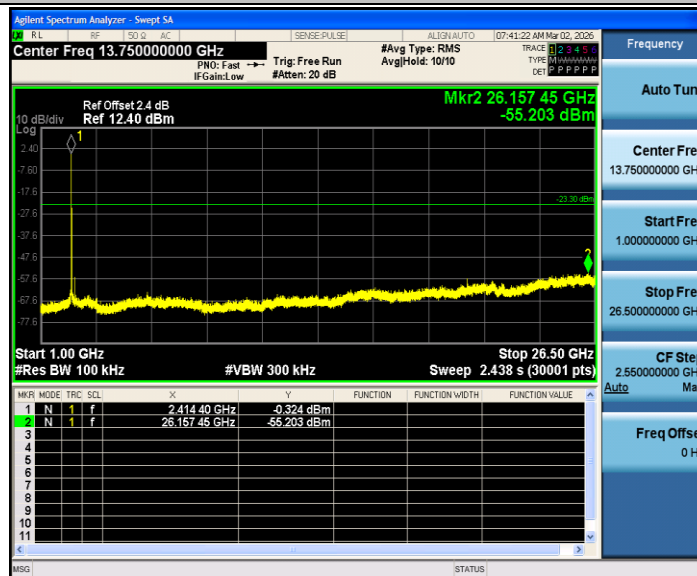
11G_Ant1_2412_0~Reference



11G_Ant1_2412_30~1000



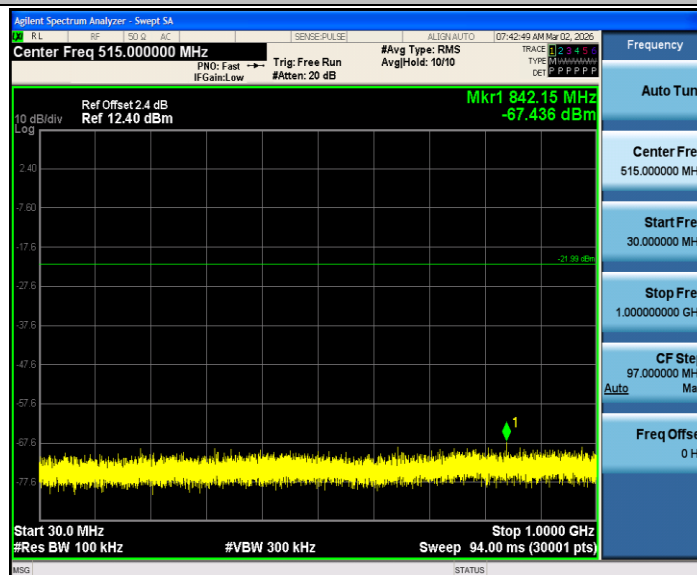
11G_Ant1_2412_1000~26500



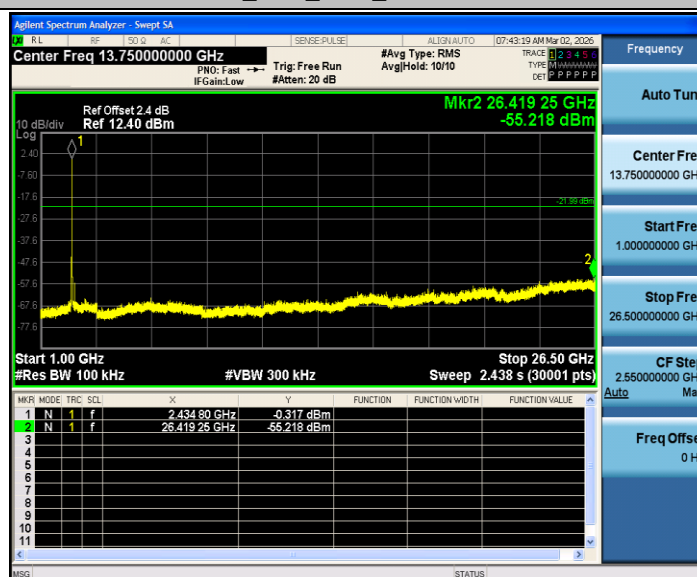
11G_Ant1_2437_0~Reference



11G_Ant1_2437_30~1000



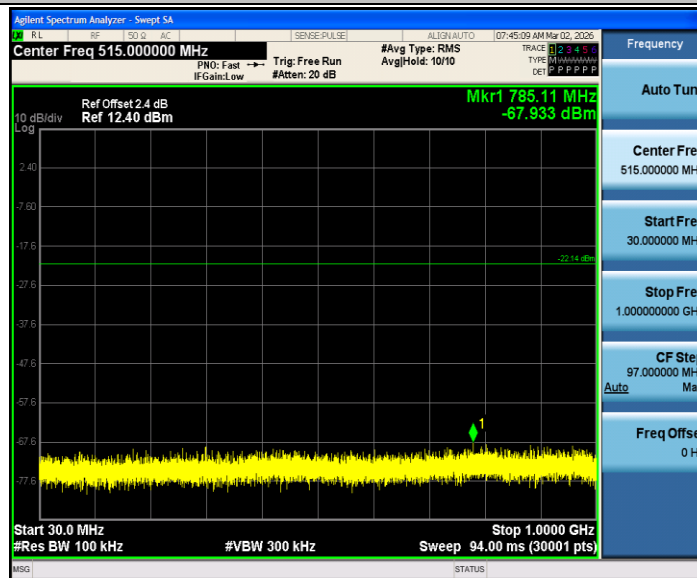
11G_Ant1_2437_1000~26500



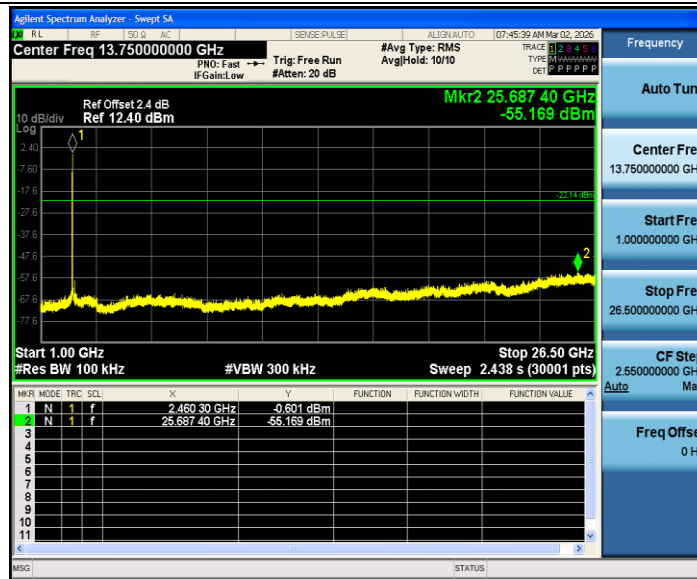
11G_Ant1_2462_0~Reference



11G_Ant1_2462_30~1000



11G_Ant1_2462_1000~26500



11N20SISO_Ant1_2412_0~Reference



11N20SISO_Ant1_2412_30~1000

