

FCC Appendix RF Test Data for 2.4GWIFI

FCC ID : 2AWOA-M121V5S-93

Company : Shenzhen CLT Electronics Co., Ltd

EUT : LED Display (Full Color)

Model Number : M121V5S-93

Report No. : CTA26090200601

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	10.200	2456.920	2467.120	0.5	PASS
11G	Ant1	2412	15.920	2404.000	2419.920	0.5	PASS
		2437	16.080	2429.040	2445.120	0.5	PASS
		2462	15.680	2454.080	2469.760	0.5	PASS
11N20SISO	Ant1	2412	16.880	2403.720	2420.600	0.5	PASS
		2437	17.160	2428.440	2445.600	0.5	PASS
		2462	17.040	2453.400	2470.440	0.5	PASS
11N40SISO	Ant1	2422	35.600	2404.400	2440.000	0.5	PASS
		2437	35.600	2419.480	2455.080	0.5	PASS
		2452	35.280	2434.560	2469.840	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



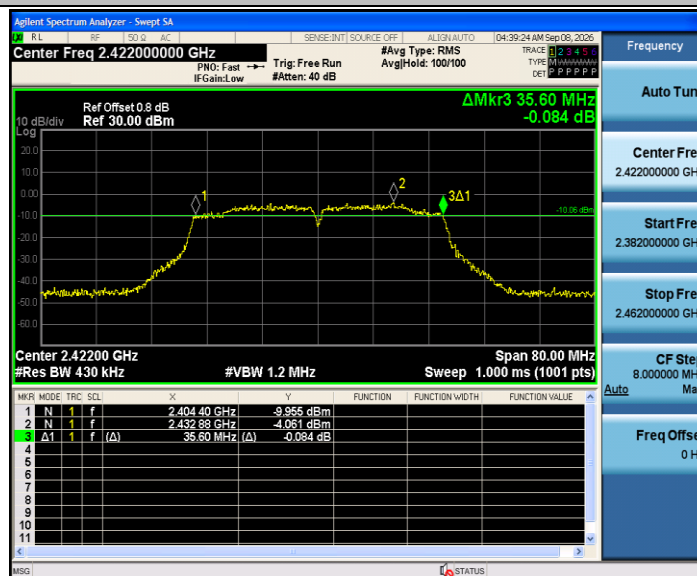
11N20SISO_Ant1_2437



11N20SISO_Ant1_2462



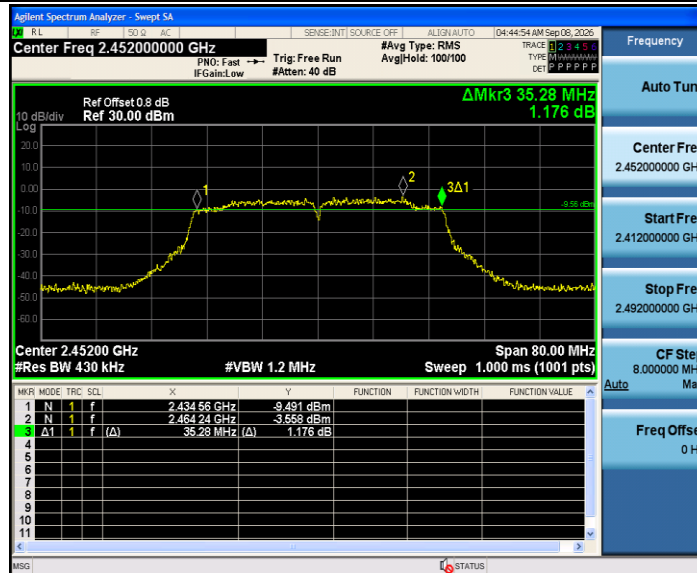
11N40SISO_Ant1_2422



11N40SISO_Ant1_2437



11N40SISO_Ant1_2452



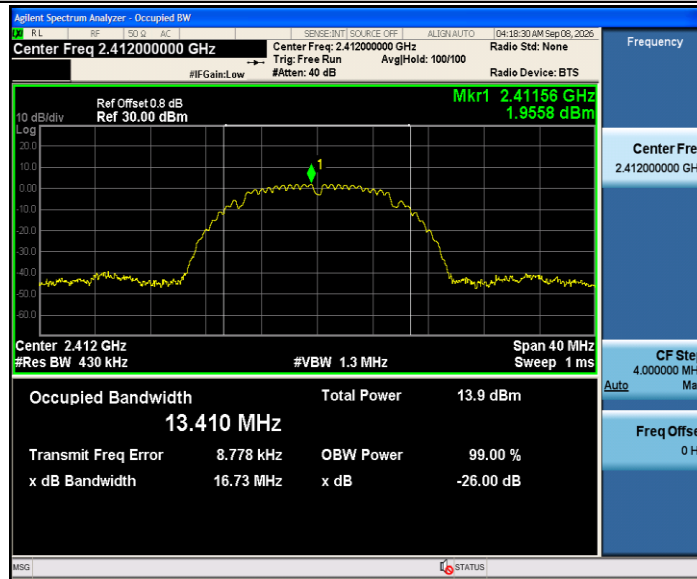
Appendix B: Occupied Channel Bandwidth

Test Result

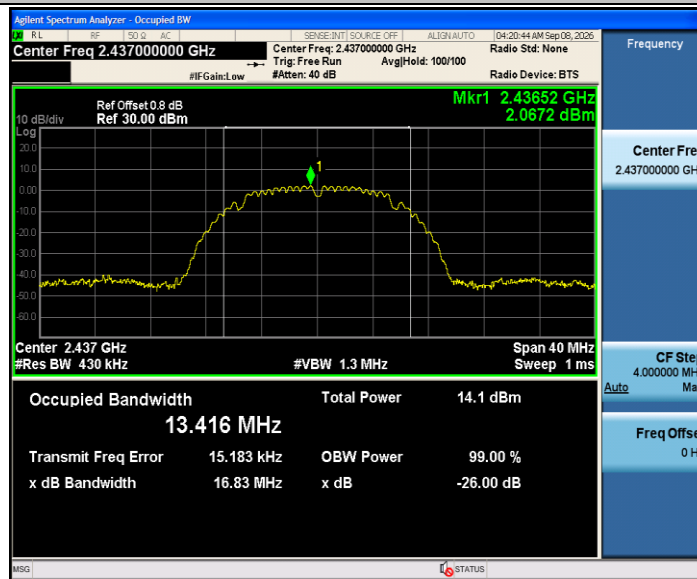
TestMode	Antenna	Channel Frequency[MHz]	OCB [MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
11B	Ant1	2412	13.410	2405.3038	2418.7138	---	---
		2437	13.416	2430.3072	2443.7232	---	---
		2462	13.416	2455.3152	2468.7312	---	---
11G	Ant1	2412	16.918	2403.5642	2420.4822	---	---
		2437	16.852	2428.6063	2445.4583	---	---
		2462	16.907	2453.5629	2470.4699	---	---
11N20SISO	Ant1	2412	17.910	2403.0367	2420.9467	---	---
		2437	17.964	2428.0602	2446.0242	---	---
		2462	17.919	2453.0842	2471.0032	---	---
11N40SISO	Ant1	2422	36.058	2404.1112	2440.1692	---	---
		2437	36.109	2419.0991	2455.2081	---	---
		2452	36.072	2434.1079	2470.1799	---	---

Test Graphs

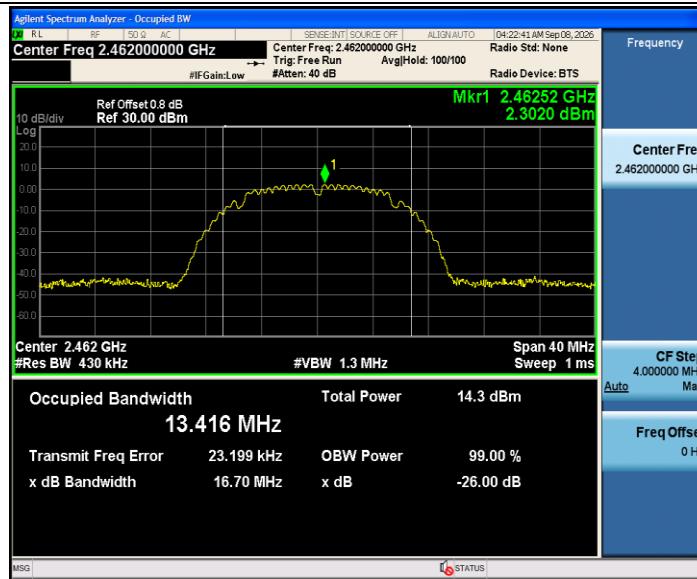
11B_Ant1_2412



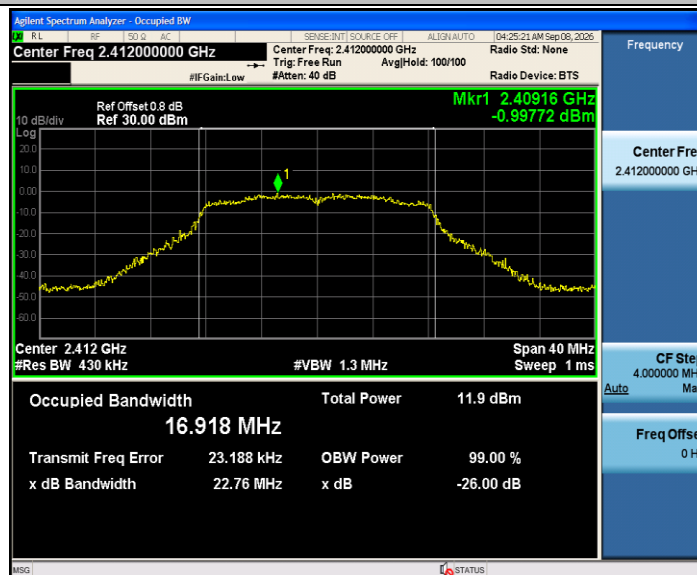
11B_Ant1_2437



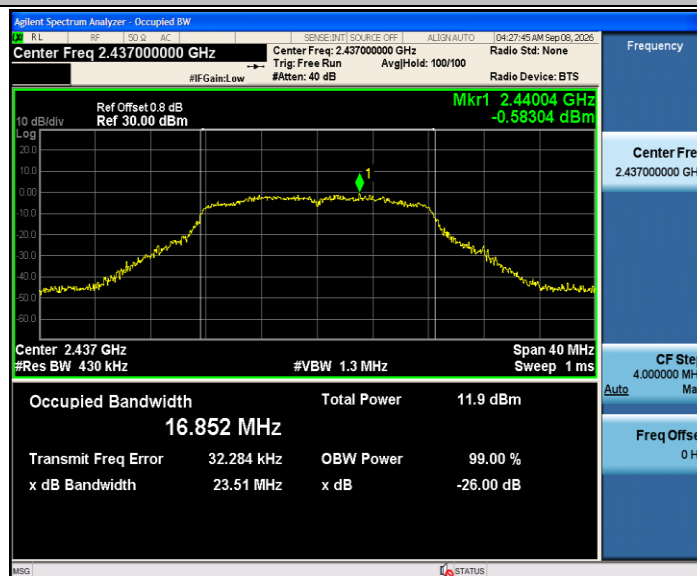
11B_Ant1_2462



11G_Ant1_2412



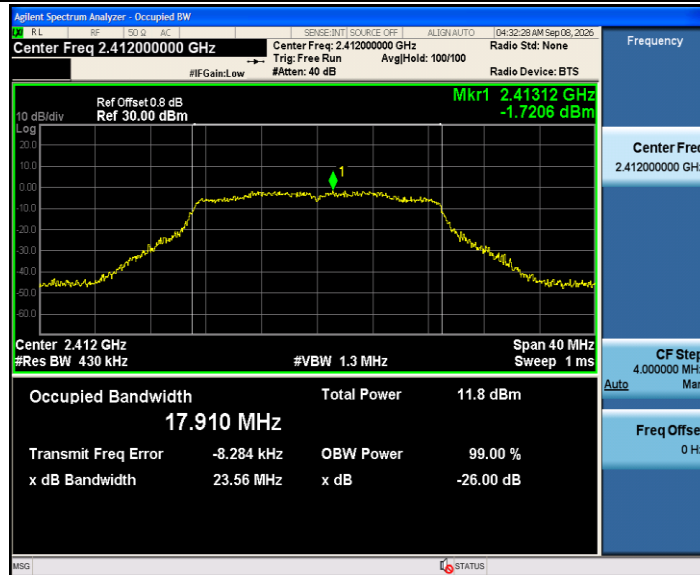
11G_Ant1_2437



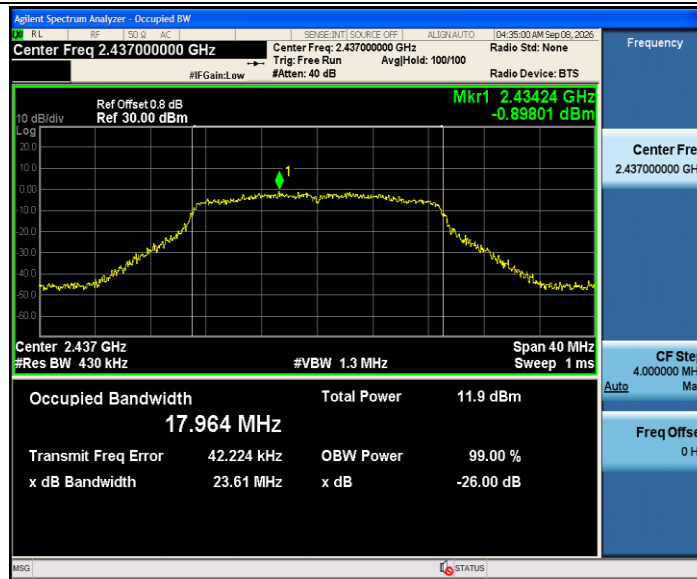
11G_Ant1_2462



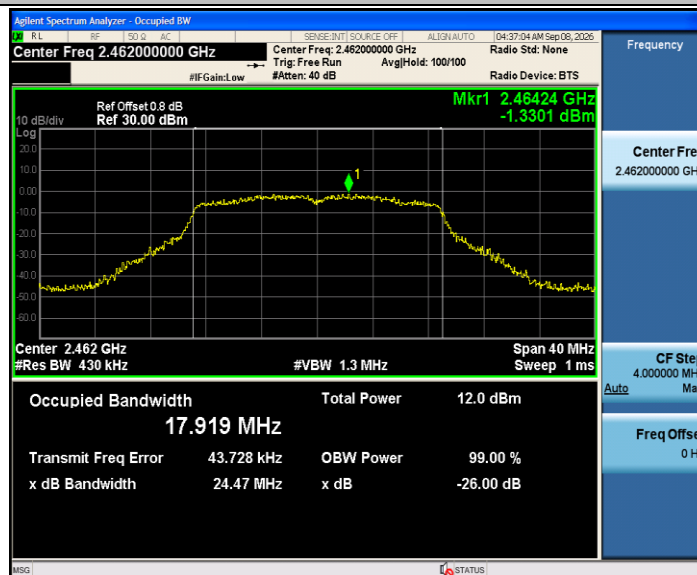
11N20SISO_Ant1_2412



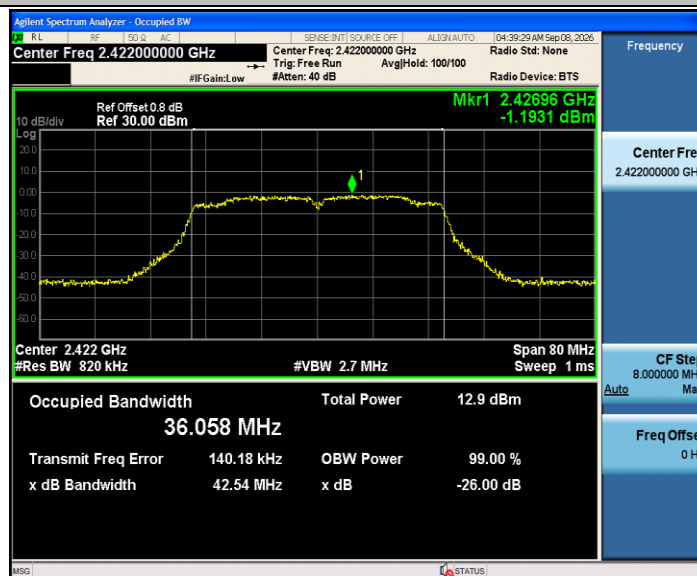
11N20SISO_Ant1_2437



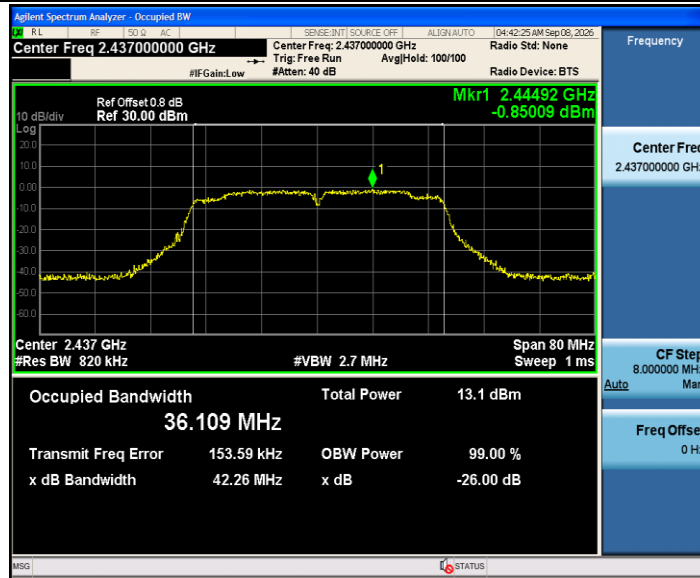
11N20SISO_Ant1_2462



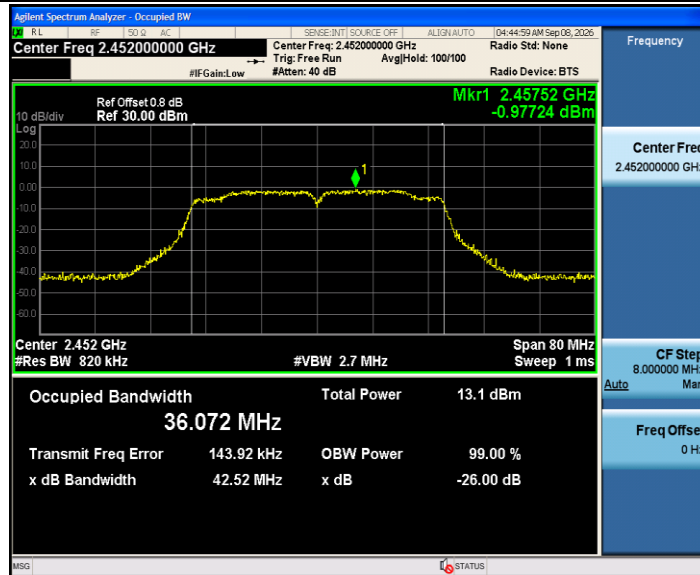
11N40SISO_Ant1_2422



11N40SISO_Ant1_2437



11N40SISO_Ant1_2452



Appendix C: Maximum conducted output power

Test Result

Test Mode	Antenna	Frequency[MHz]	Result [dBm]	Limit [dBm]	Verdict
11B	Ant1	2412	13.64	≤30.00	PASS
		2437	13.70	≤30.00	PASS
		2462	13.94	≤30.00	PASS
11G	Ant1	2412	12.61	≤30.00	PASS
		2437	12.89	≤30.00	PASS
		2462	13.00	≤30.00	PASS
11N20SISO	Ant1	2412	12.55	≤30.00	PASS
		2437	12.76	≤30.00	PASS
		2462	12.86	≤30.00	PASS
11N40SISO	Ant1	2422	13.08	≤30.00	PASS
		2437	13.29	≤30.00	PASS
		2452	13.24	≤30.00	PASS

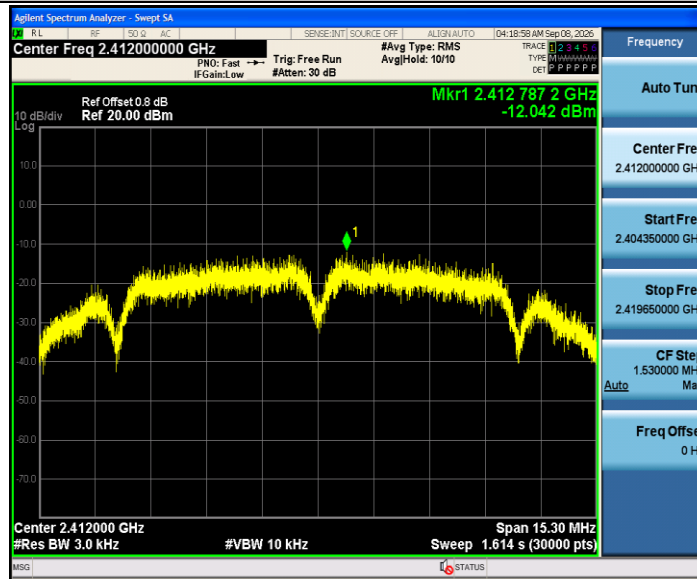
Appendix D: Maximum power spectral density

Test Result

TestMode	Antenna	Frequency[MHz]	Result[dBm/3-100kHz]	Limit[dBm/3kHz]	Verdict
11B	Ant1	2412	-12.04	≤8.00	PASS
		2437	-12.81	≤8.00	PASS
		2462	-11.19	≤8.00	PASS
11G	Ant1	2412	-19.14	≤8.00	PASS
		2437	-18.69	≤8.00	PASS
		2462	-17.24	≤8.00	PASS
11N20SISO	Ant1	2412	-19.30	≤8.00	PASS
		2437	-18.44	≤8.00	PASS
		2462	-18.67	≤8.00	PASS
11N40SISO	Ant1	2422	-21.60	≤8.00	PASS
		2437	-21.21	≤8.00	PASS
		2452	-21.48	≤8.00	PASS

Test Graphs

11B_Ant1_2412



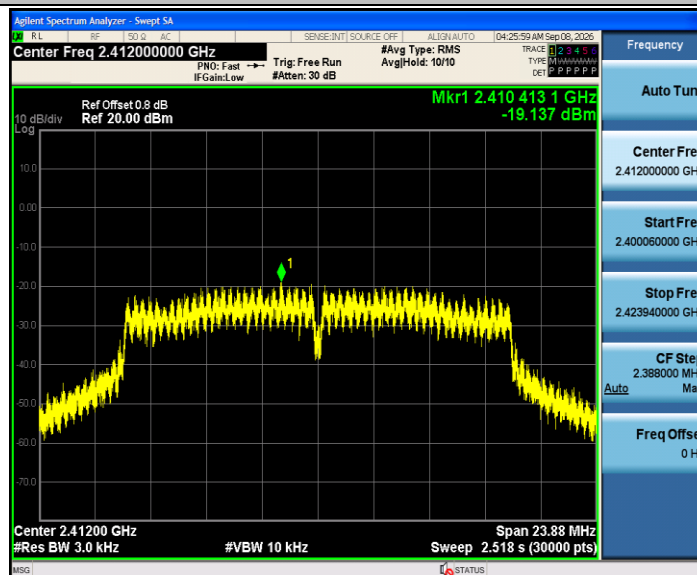
11B_Ant1_2437



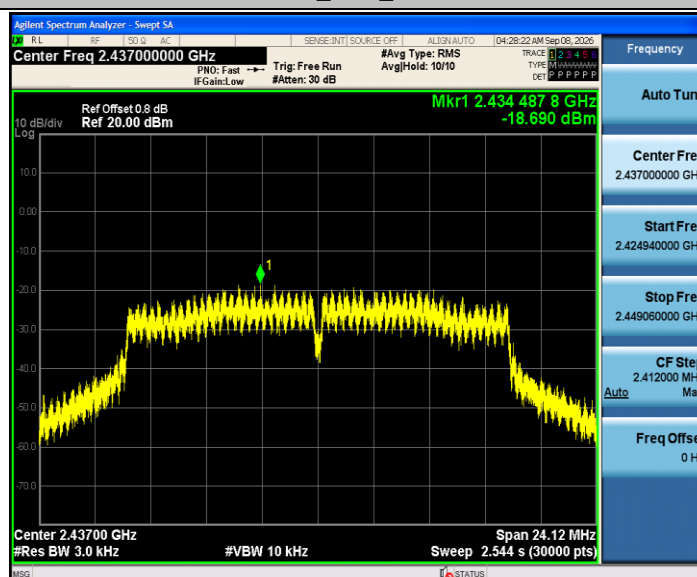
11B_Ant1_2462



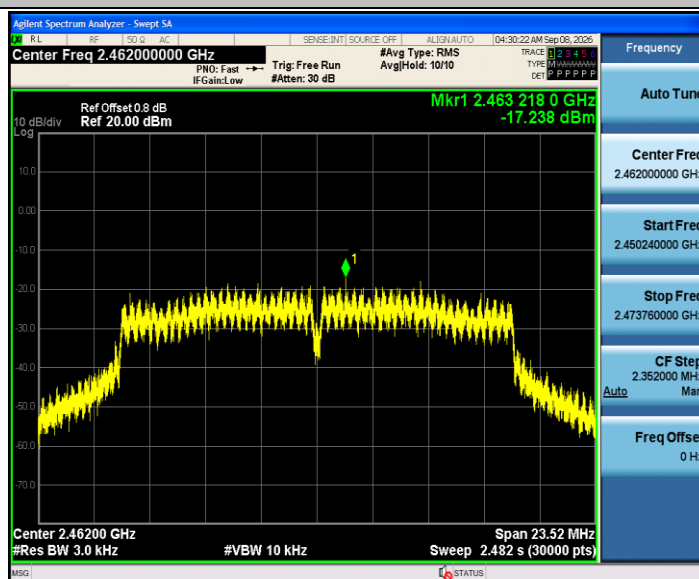
11G_Ant1_2412



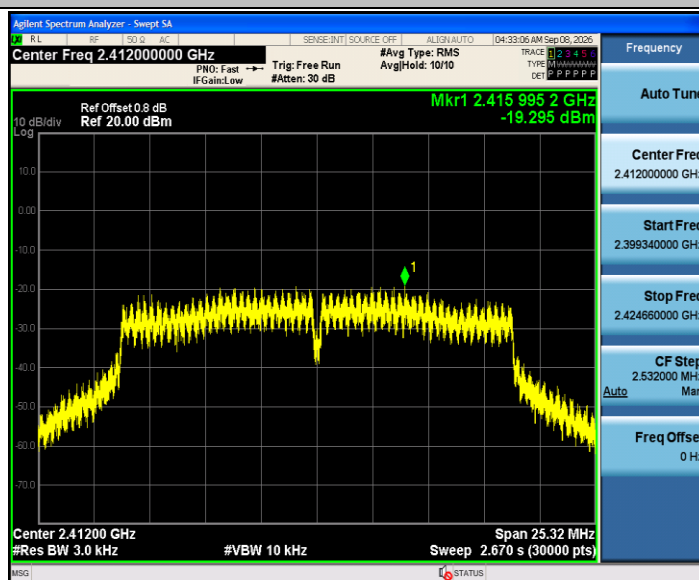
11G_Ant1_2437



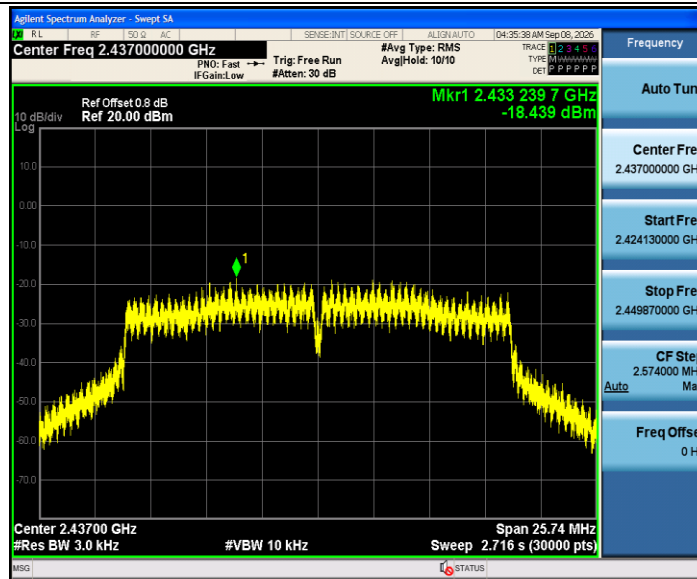
11G_Ant1_2462



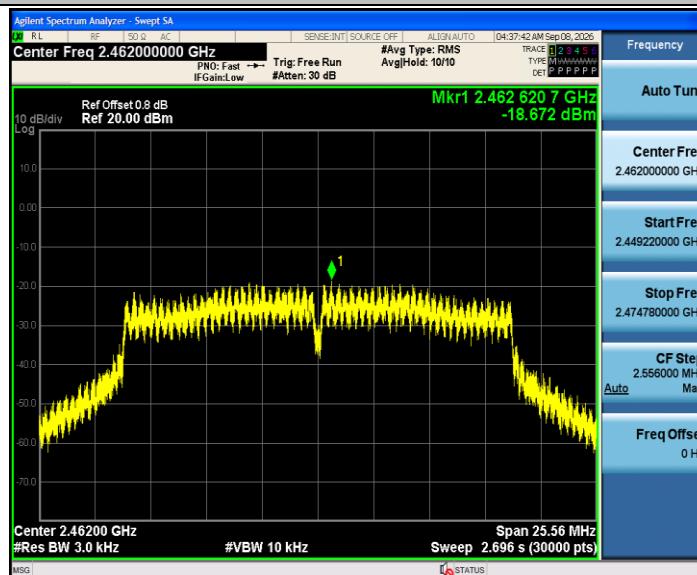
11N20SISO_Ant1_2412



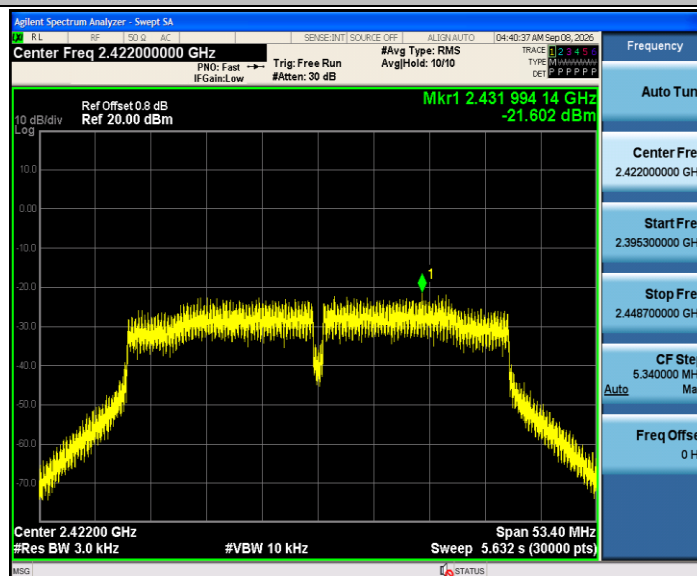
11N20SISO_Ant1_2437



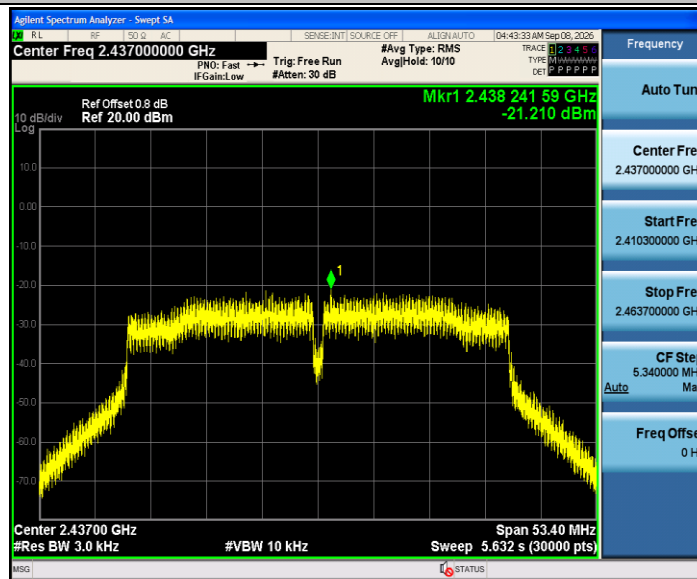
11N20SISO_Ant1_2462



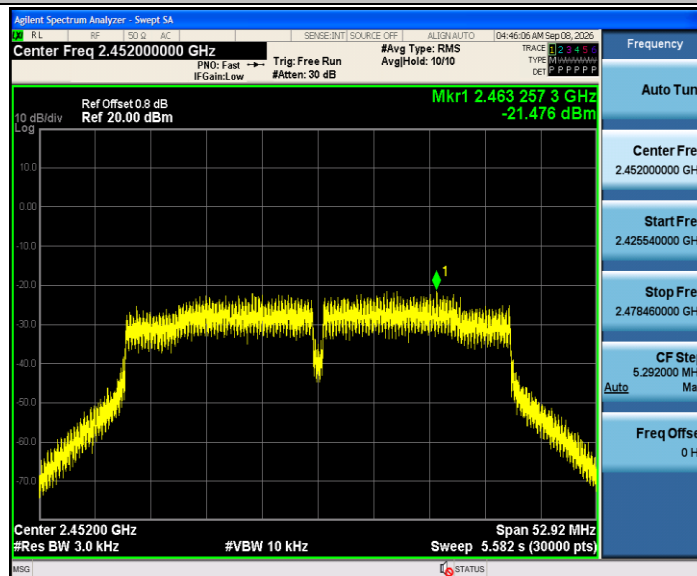
11N40SISO_Ant1_2422



11N40SISO_Ant1_2437



11N40SISO_Ant1_2452



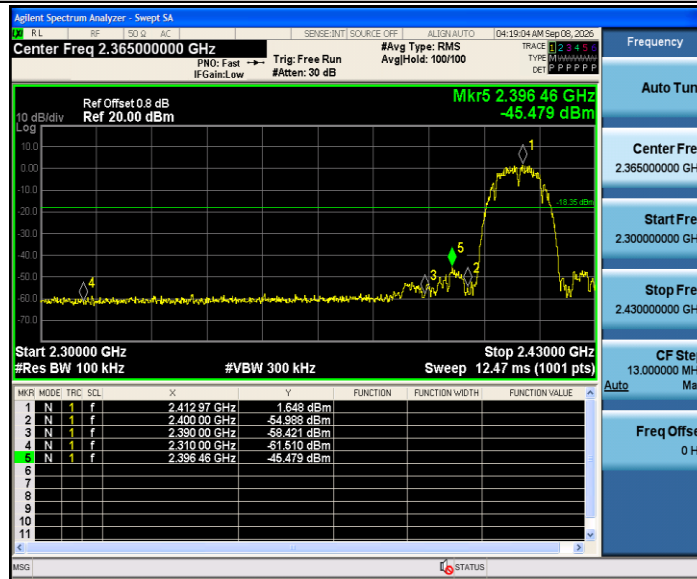
Appendix E: Band edge measurements

Test Result

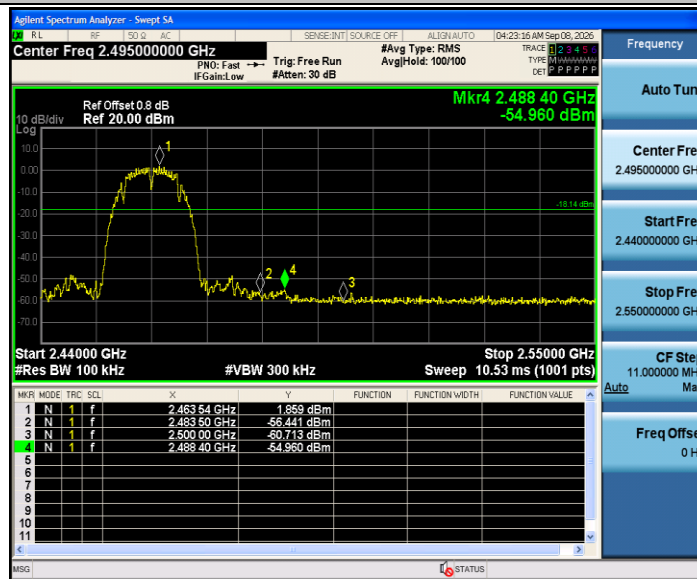
TestMode	Antenna	Channel Name	Frequency[MHz]	RefLevel[dBm]	Result[dBm]	Limit[dBm]	Verdict
11B	Ant1	Low	2412	1.65	-45.48	≤-18.35	PASS
		High	2462	1.86	-54.96	≤-18.14	PASS
11G	Ant1	Low	2412	-4.76	-35.57	≤-24.76	PASS
		High	2462	-3.75	-56.61	≤-23.75	PASS
11N20SISO	Ant1	Low	2412	-6.48	-34.65	≤-26.48	PASS
		High	2462	-4.15	-57.89	≤-24.15	PASS
11N40SISO	Ant1	Low	2422	-8.47	-38.71	≤-28.47	PASS
		High	2452	-7.73	-57.16	≤-27.73	PASS

Test Graphs

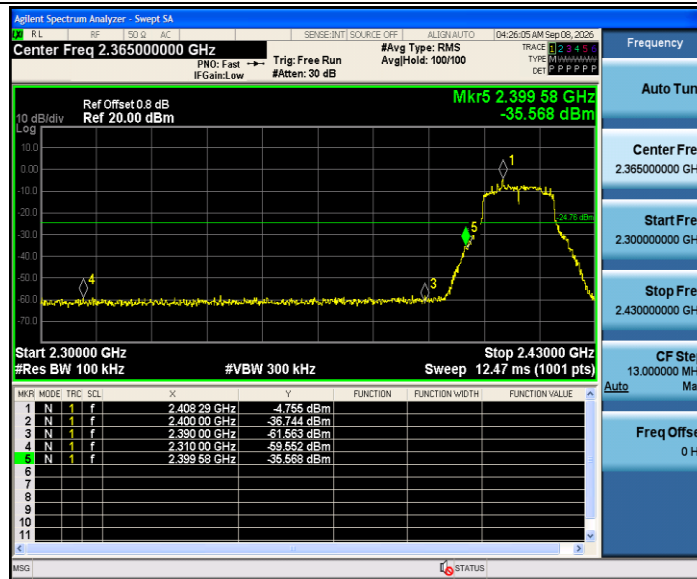
11B_Ant1_Low_2412



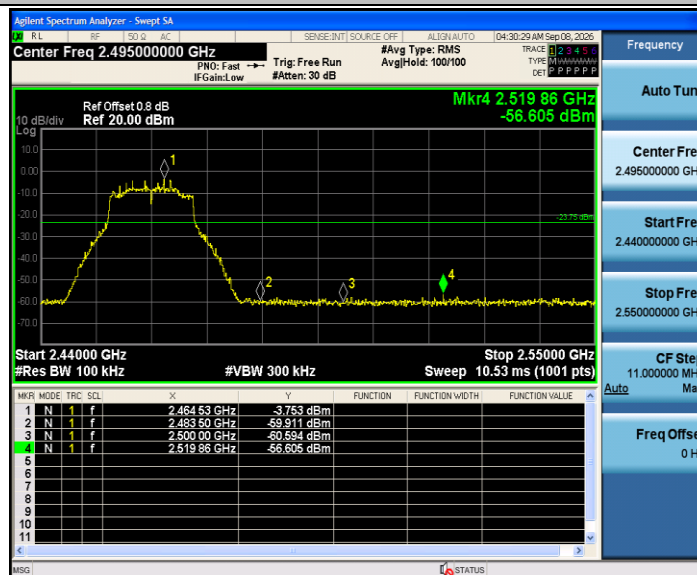
11B_Ant1_High_2462



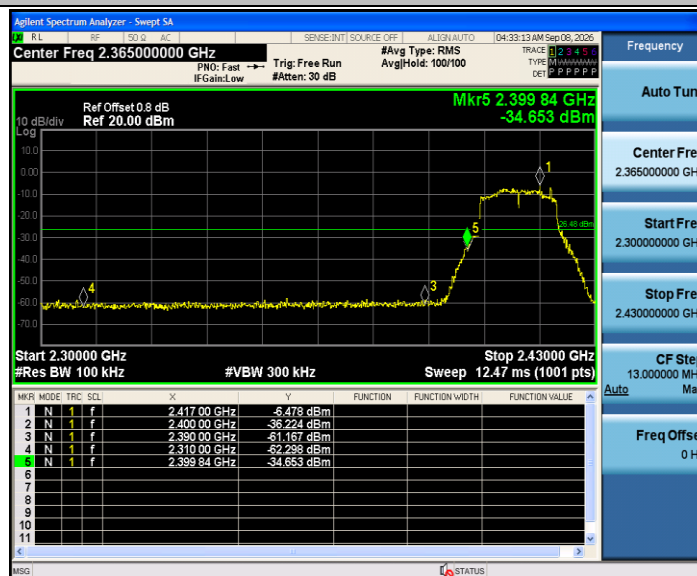
11G_Ant1_Low_2412



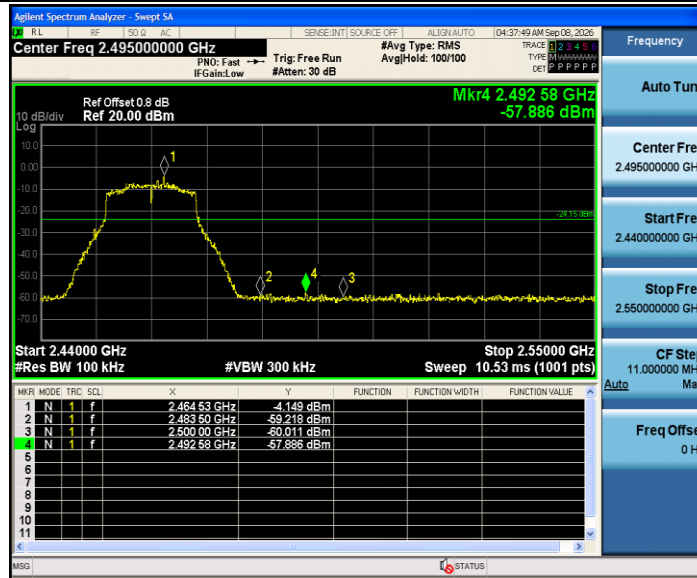
11G_Ant1_High_2462



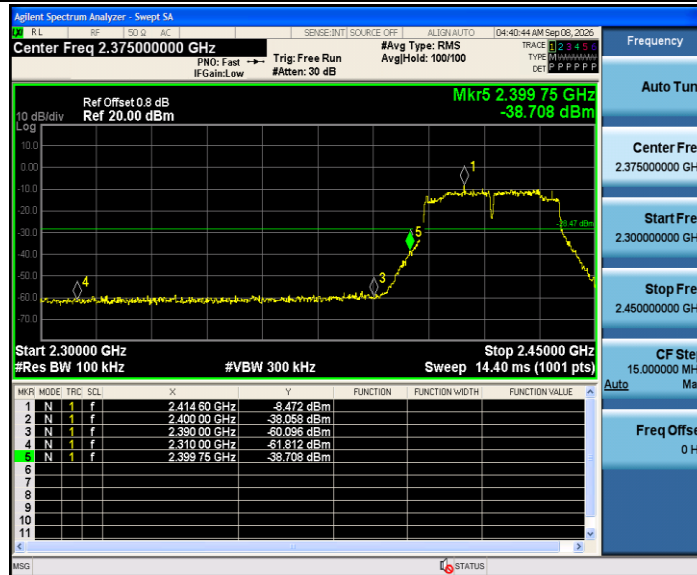
11N20SISO_Ant1_Low_2412



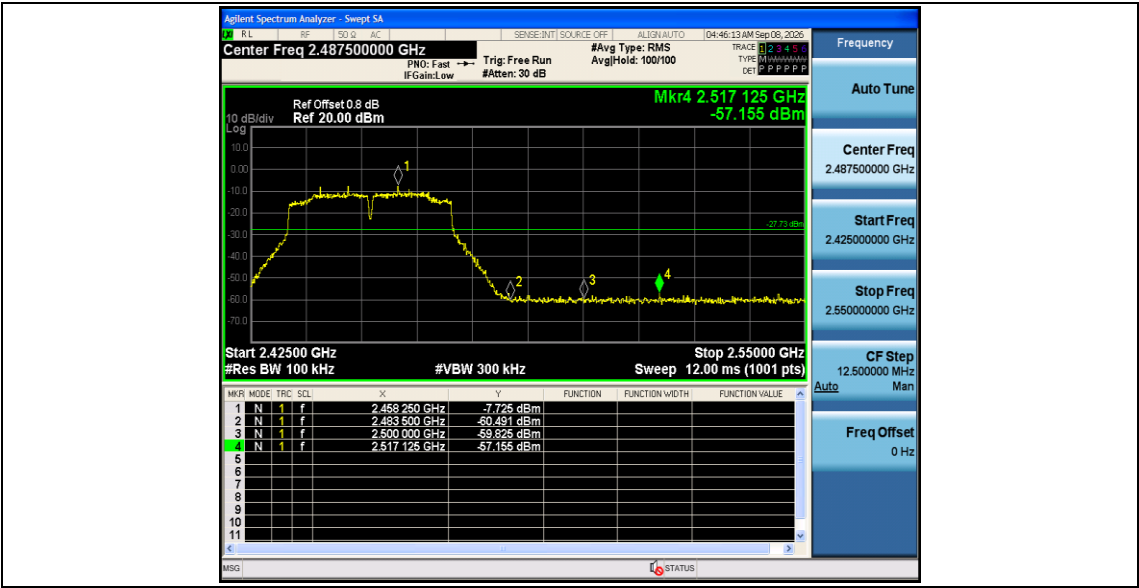
11N20SISO_Ant1_High_2462



11N40SISO_Ant1_Low_2422



11N40SISO_Ant1_High_2452



Appendix F: Conducted Spurious Emission

Test Result

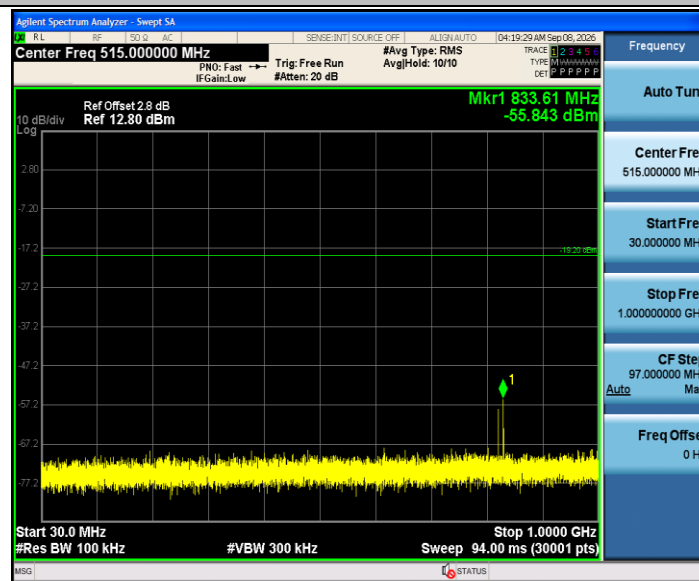
TestMode	Antenna	Frequency[MHz]	FreqRange [Mhz]	RefLevel [dBm]	Result [dBm]	Limit [dBm]	Verdict
11B	Ant1	2412	Reference	0.80	0.80	---	PASS
			30~1000	0.80	-55.84	≤-19.2	PASS
			1000~26500	0.80	-46.4	≤-19.2	PASS
		2437	Reference	1.30	1.30	---	PASS
			30~1000	1.30	-67.58	≤-18.7	PASS
			1000~26500	1.30	-46.42	≤-18.7	PASS
		2462	Reference	1.62	1.62	---	PASS
			30~1000	1.62	-67.68	≤-18.38	PASS
			1000~26500	1.62	-46.57	≤-18.38	PASS
11G	Ant1	2412	Reference	-5.06	-5.06	---	PASS
			30~1000	-5.06	-68.17	≤-25.06	PASS
			1000~26500	-5.06	-46.29	≤-25.06	PASS
		2437	Reference	-8.18	-8.18	---	PASS
			30~1000	-8.18	-68.31	≤-28.18	PASS
			1000~26500	-8.18	-46.25	≤-28.18	PASS
		2462	Reference	-7.44	-7.44	---	PASS
			30~1000	-7.44	-67.81	≤-27.44	PASS
			1000~26500	-7.44	-46.28	≤-27.44	PASS
11N20SISO	Ant1	2412	Reference	-7.64	-7.64	---	PASS
			30~1000	-7.64	-67.96	≤-27.64	PASS
			1000~26500	-7.64	-46.07	≤-27.64	PASS
		2437	Reference	-8.31	-8.31	---	PASS
			30~1000	-8.31	-68.28	≤-28.31	PASS
			1000~26500	-8.31	-46.74	≤-28.31	PASS
		2462	Reference	-8.46	-8.46	---	PASS
			30~1000	-8.46	-67.96	≤-28.46	PASS
			1000~26500	-8.46	-45.9	≤-28.46	PASS
11N40SISO	Ant1	2422	Reference	-11.01	-11.01	---	PASS
			30~1000	-11.01	-67.75	≤-31.01	PASS
			1000~26500	-11.01	-46.51	≤-31.01	PASS
		2437	Reference	-10.18	-10.18	---	PASS
			30~1000	-10.18	-67.65	≤-30.18	PASS
			1000~26500	-10.18	-46.15	≤-30.18	PASS
		2452	Reference	-10.32	-10.32	---	PASS
			30~1000	-10.32	-67.98	≤-30.32	PASS
			1000~26500	-10.32	-44.39	≤-30.32	PASS

Test Graphs

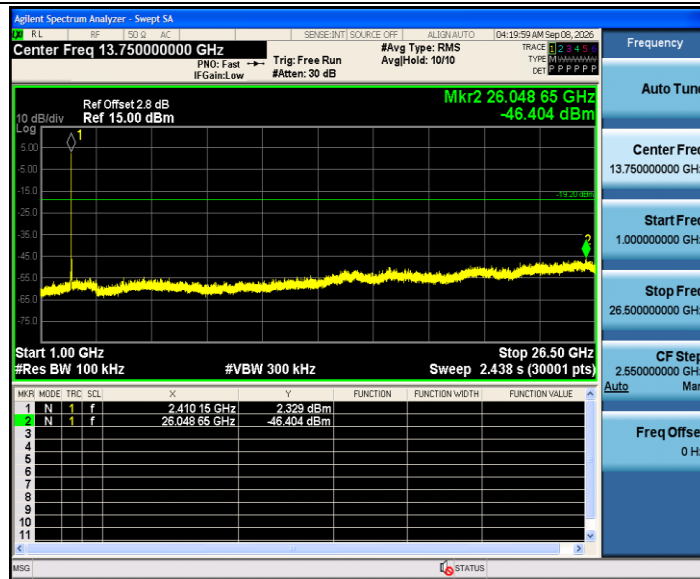
11B_Ant1_2412_0~Reference



11B_Ant1_2412_30~1000



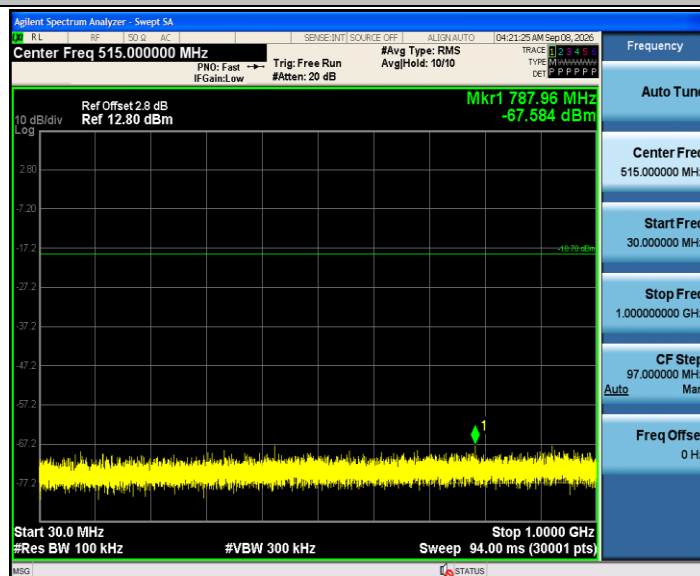
11B_Ant1_2412_1000~26500



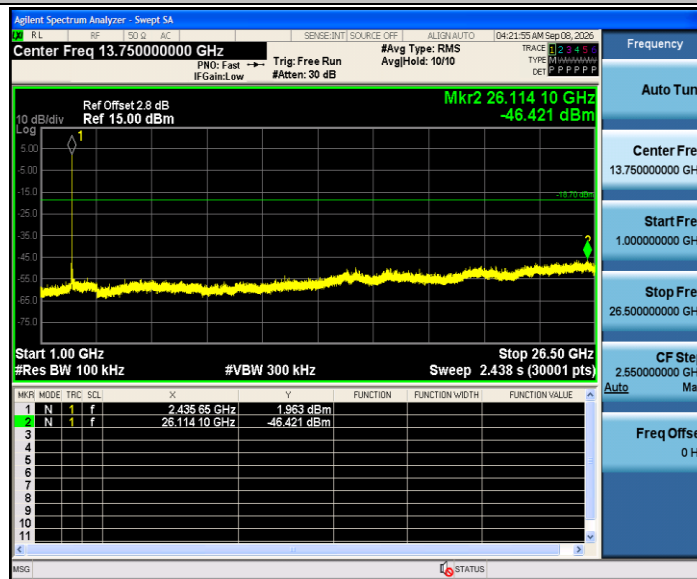
11B_Ant1_2437_0~Reference



11B_Ant1_2437_30~1000



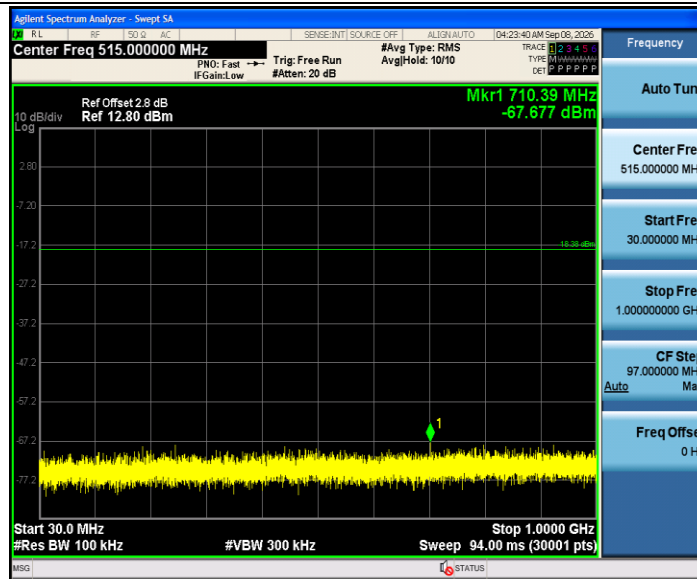
11B_Ant1_2437_1000~26500



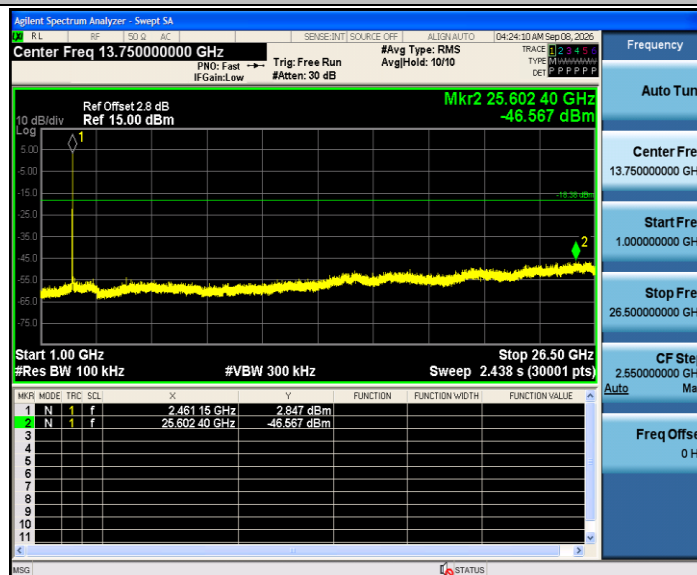
11B_Ant1_2462_0~Reference



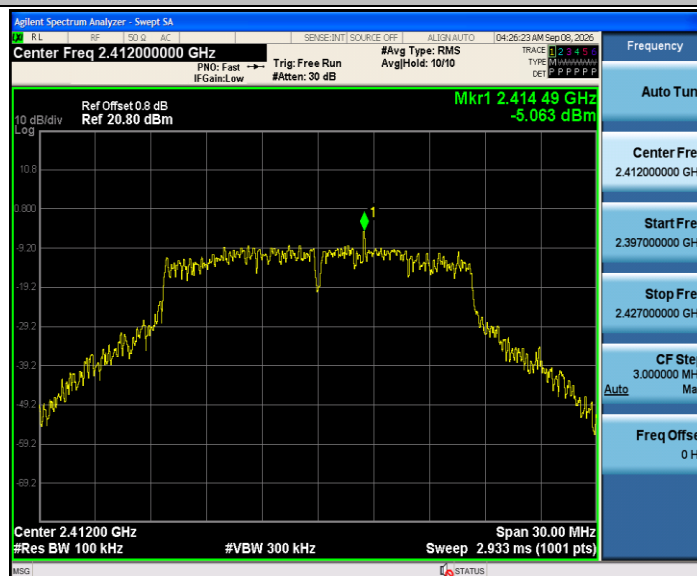
11B_Ant1_2462_30~1000



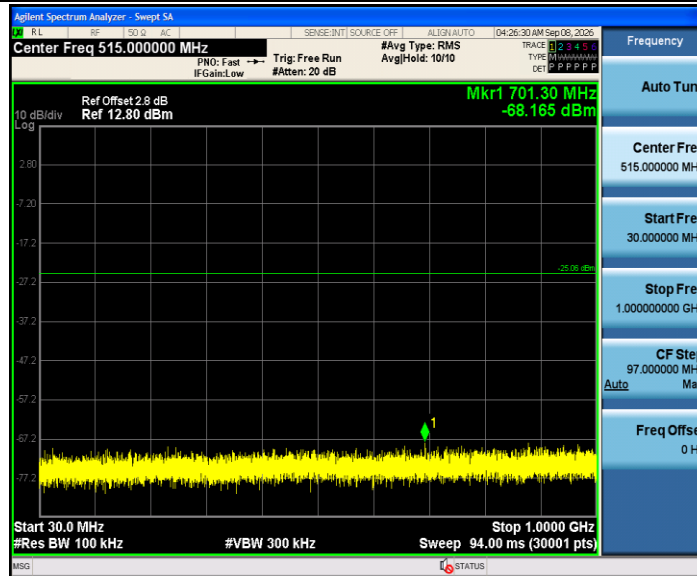
11B_Ant1_2462_1000~26500



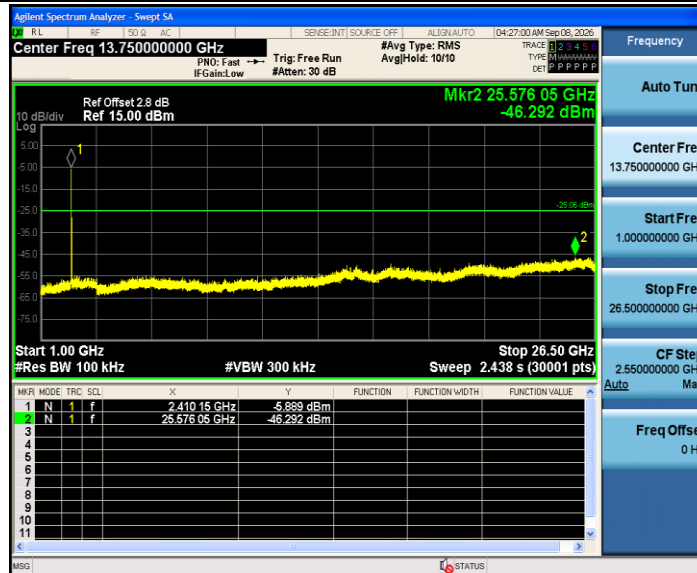
11G_Ant1_2412_0~Reference



11G_Ant1_2412_30~1000



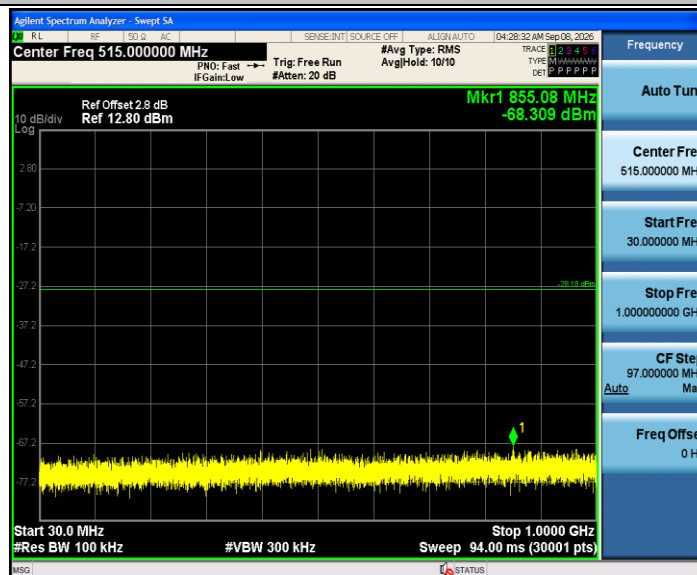
11G_Ant1_2412_1000~26500



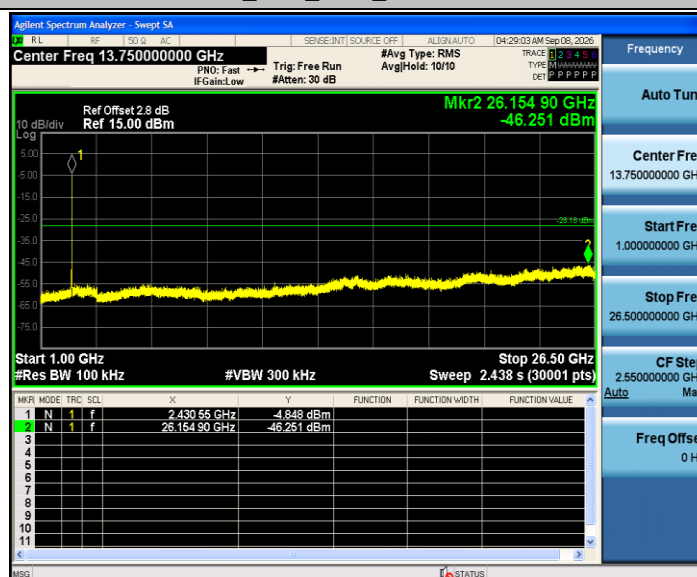
11G_Ant1_2437_0~Reference



11G_Ant1_2437_30~1000



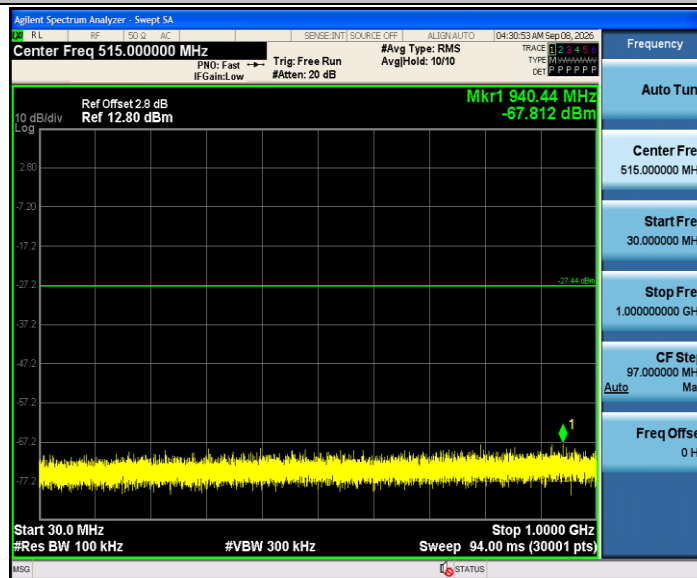
11G_Ant1_2437_1000~26500



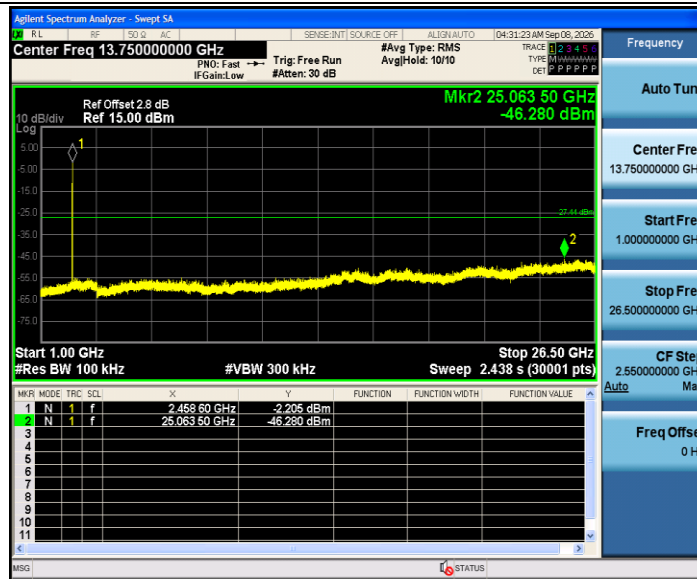
11G_Ant1_2462_0~Reference



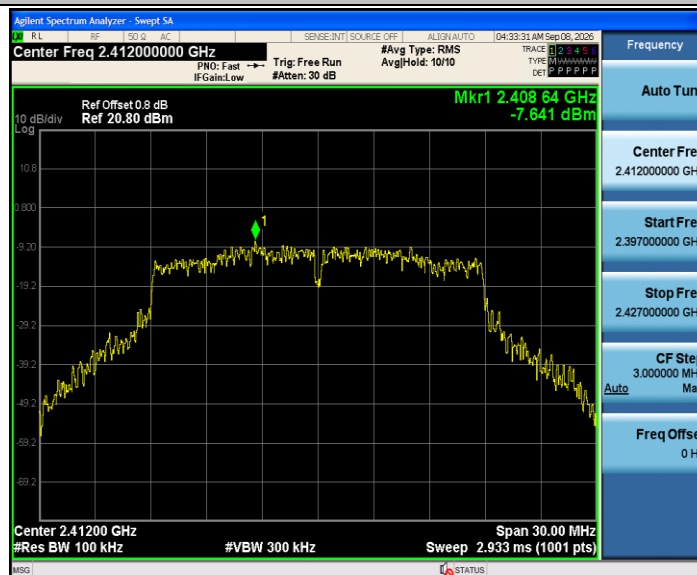
11G_Ant1_2462_30~1000



11G_Ant1_2462_1000~26500



11N20SISO_Ant1_2412_0~Reference



11N20SISO_Ant1_2412_30~1000

