

FCC Appendix RF Test Data for 2.4GWiFi

FCC ID : 2A7AQ-BD13

Company : Newsmay Technology Co.,limited

EUT : MINI PC

Model Number : BD13

Report No. : CTA26050900901

Reviewed By : Eric Wang

FCC Appendix RF Test Data for 2.4GWiFi Antenna 1

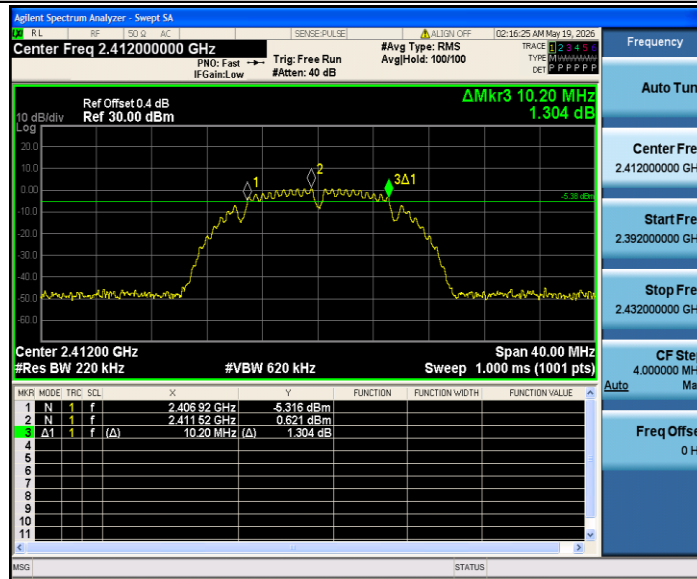
Appendix A: DTS Bandwidth

Test Result

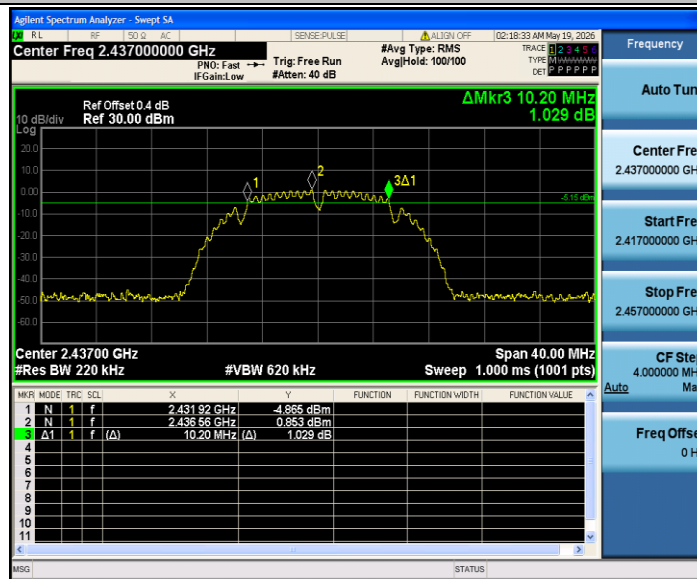
TestMode	Antenna	Frequency[MHz]	DTS BW [MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
11B	Ant1	2412	10.200	2406.920	2417.120	0.5	PASS
		2437	10.200	2431.920	2442.120	0.5	PASS
		2462	10.200	2456.920	2467.120	0.5	PASS
11G	Ant1	2412	15.560	2404.320	2419.880	0.5	PASS
		2437	15.640	2429.160	2444.800	0.5	PASS
		2462	15.880	2454.080	2469.960	0.5	PASS
11N20SISO	Ant1	2412	16.480	2403.520	2420.000	0.5	PASS
		2437	16.280	2428.680	2444.960	0.5	PASS
		2462	16.960	2453.600	2470.560	0.5	PASS
11N40SISO	Ant1	2422	35.840	2404.080	2439.920	0.5	PASS
		2437	35.840	2419.080	2454.920	0.5	PASS
		2452	35.040	2435.040	2470.080	0.5	PASS

Test Graphs

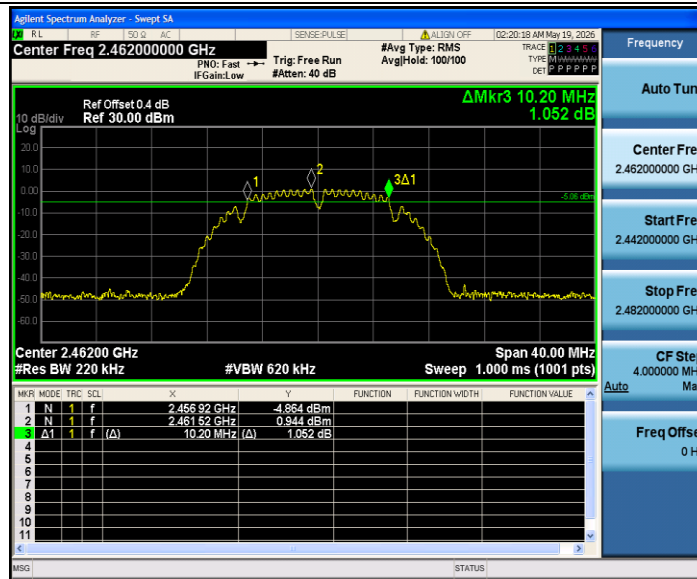
11B_Ant1_2412



11B_Ant1_2437



11B_Ant1_2462



11G_Ant1_2412



11G_Ant1_2437



11G_Ant1_2462



11N20SISO_Ant1_2412



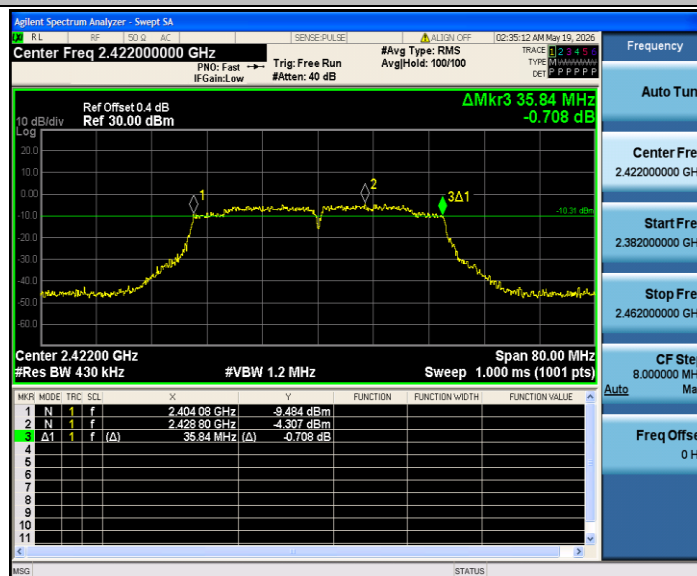
11N20SISO_Ant1_2437



11N20SISO_Ant1_2462



11N40SISO_Ant1_2422



11N40SISO_Ant1_2437



11N40SISO_Ant1_2452



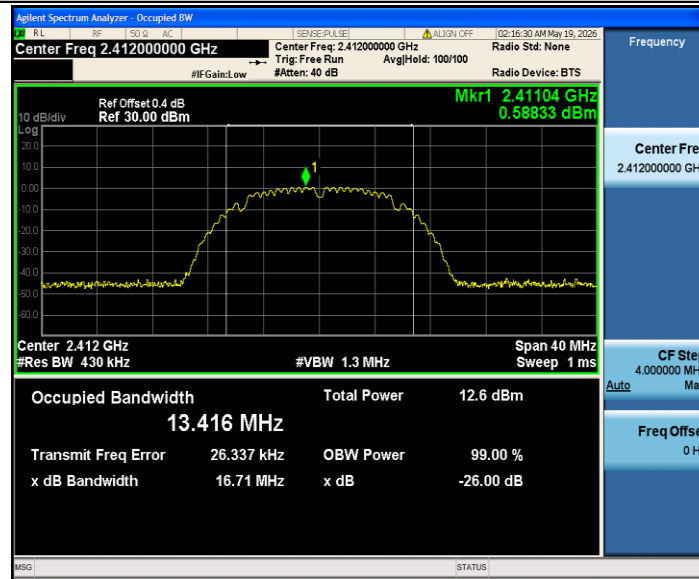
Appendix B: Occupied Channel Bandwidth

Test Result

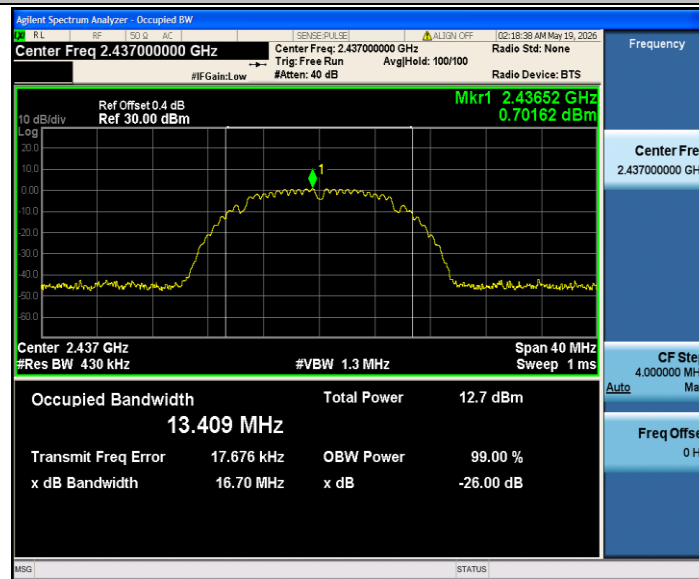
TestMode	Antenna	Channel Frequency[MHz]	OCB [MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
11B	Ant1	2412	13.416	2405.3183	2418.7343	---	---
		2437	13.409	2430.3132	2443.7222	---	---
		2462	13.413	2455.3083	2468.7213	---	---
11G	Ant1	2412	16.800	2403.6415	2420.4415	---	---
		2437	16.734	2428.6760	2445.4100	---	---
		2462	16.851	2453.5863	2470.4373	---	---
11N20SISO	Ant1	2412	17.889	2403.0838	2420.9728	---	---
		2437	17.903	2428.0588	2445.9618	---	---
		2462	17.843	2453.0974	2470.9404	---	---
11N40SISO	Ant1	2422	36.047	2404.0616	2440.1086	---	---
		2437	35.971	2419.1376	2455.1086	---	---
		2452	36.016	2434.1021	2470.1181	---	---

Test Graphs

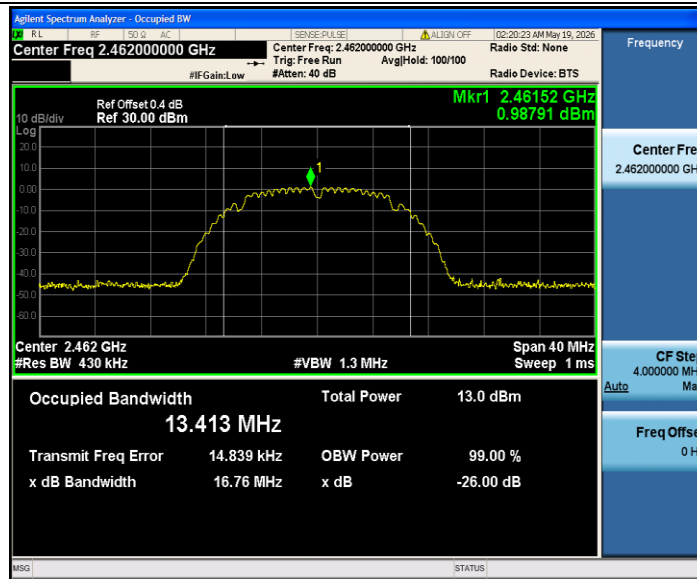
11B_Ant1_2412



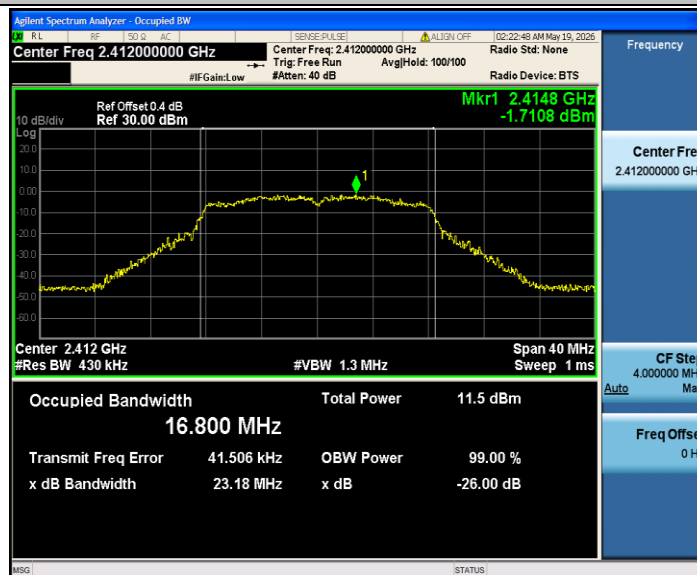
11B_Ant1_2437



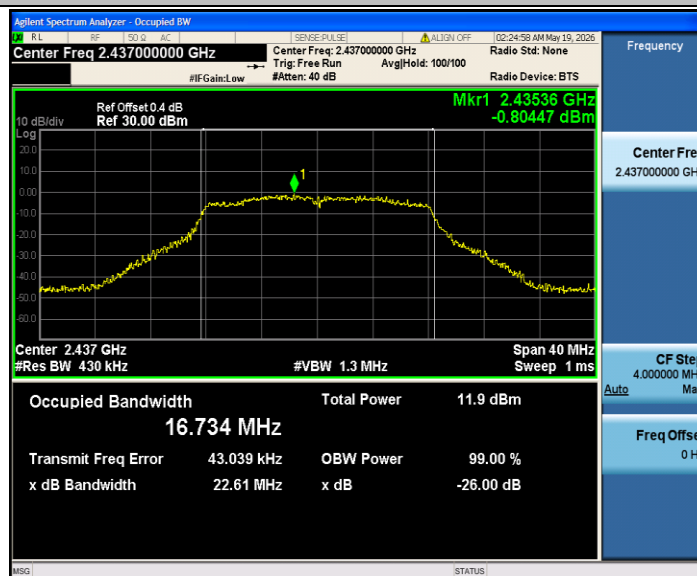
11B_Ant1_2462



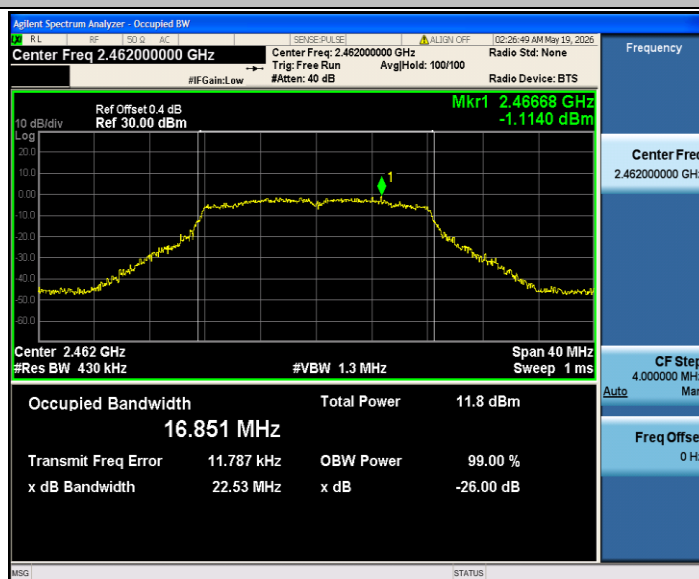
11G_Ant1_2412



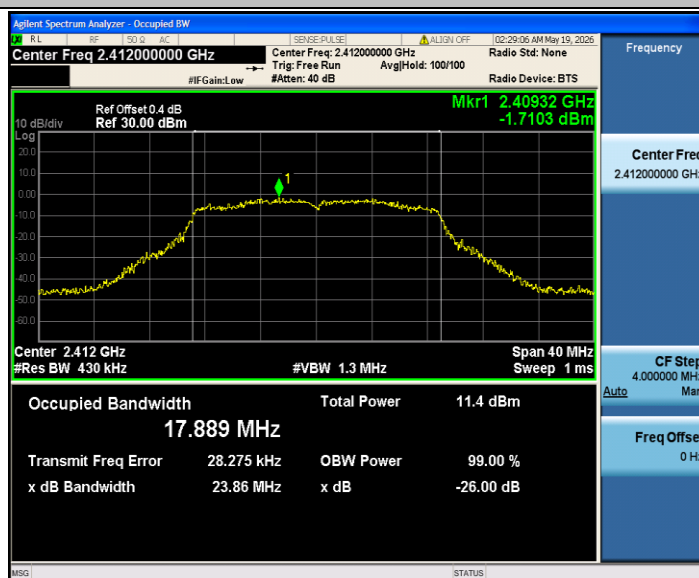
11G_Ant1_2437



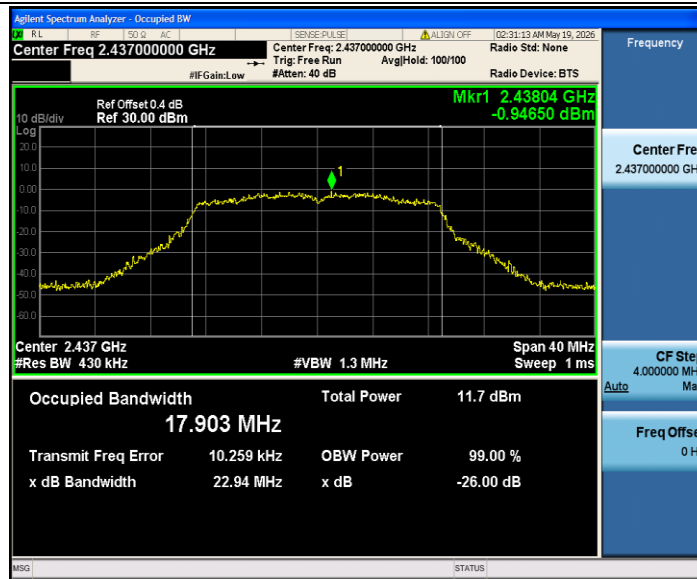
11G_Ant1_2462



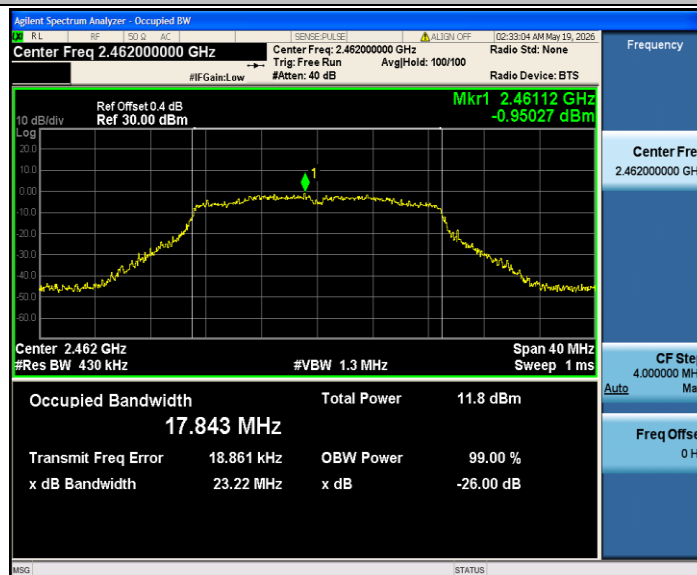
11N20SISO_Ant1_2412



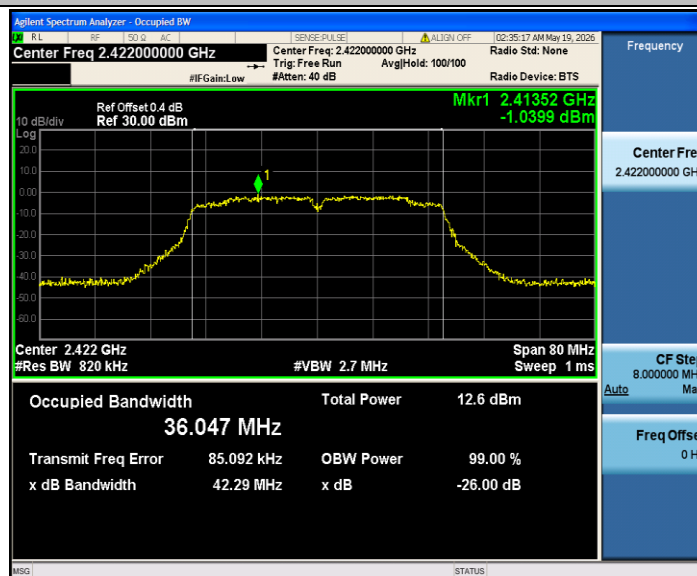
11N20SISO_Ant1_2437



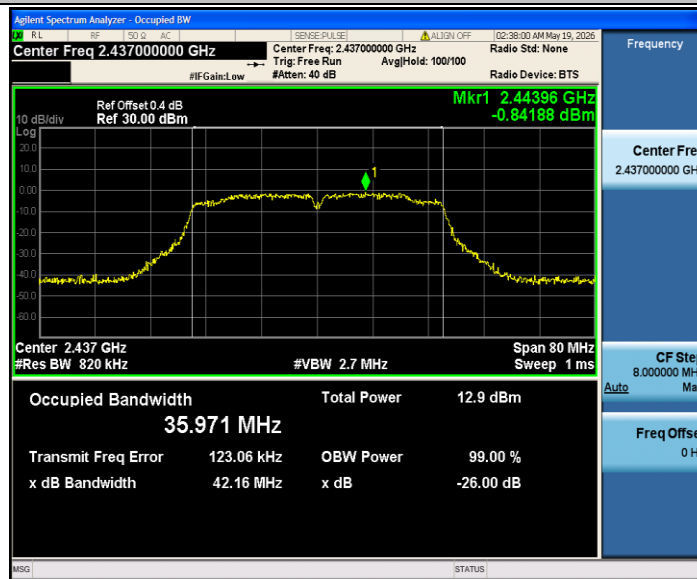
11N20SISO_Ant1_2462



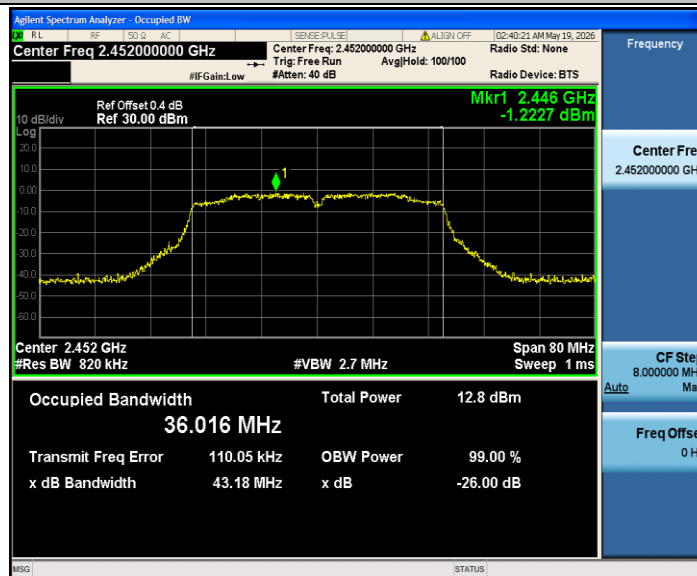
11N40SISO_Ant1_2422



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	12.26	≤30.00	PASS
		2437	12.46	≤30.00	PASS
		2462	12.55	≤30.00	PASS
11G	Ant1	2412	12.44	≤30.00	PASS
		2437	12.60	≤30.00	PASS
		2462	12.79	≤30.00	PASS
11N20SISO	Ant1	2412	12.37	≤30.00	PASS
		2437	12.50	≤30.00	PASS
		2462	12.74	≤30.00	PASS
11N40SISO	Ant1	2422	12.73	≤30.00	PASS
		2437	12.97	≤30.00	PASS
		2452	12.92	≤30.00	PASS

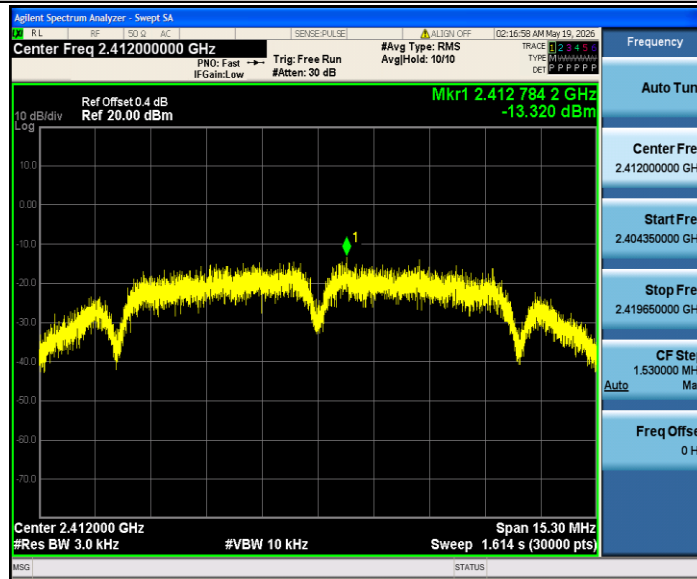
Appendix D: Maximum power spectral density

Test Result

TestMode	Antenna	Frequency[MHz]	Result[dBm/3-100kHz]	Limit[dBm/3kHz]	Verdict
11B	Ant1	2412	-13.32	≤8.00	PASS
		2437	-12.78	≤8.00	PASS
		2462	-13.23	≤8.00	PASS
11G	Ant1	2412	-20.14	≤8.00	PASS
		2437	-18.32	≤8.00	PASS
		2462	-19.40	≤8.00	PASS
11N20SISO	Ant1	2412	-19.55	≤8.00	PASS
		2437	-18.67	≤8.00	PASS
		2462	-18.87	≤8.00	PASS
11N40SISO	Ant1	2422	-21.36	≤8.00	PASS
		2437	-21.56	≤8.00	PASS
		2452	-21.20	≤8.00	PASS

Test Graphs

11B_Ant1_2412



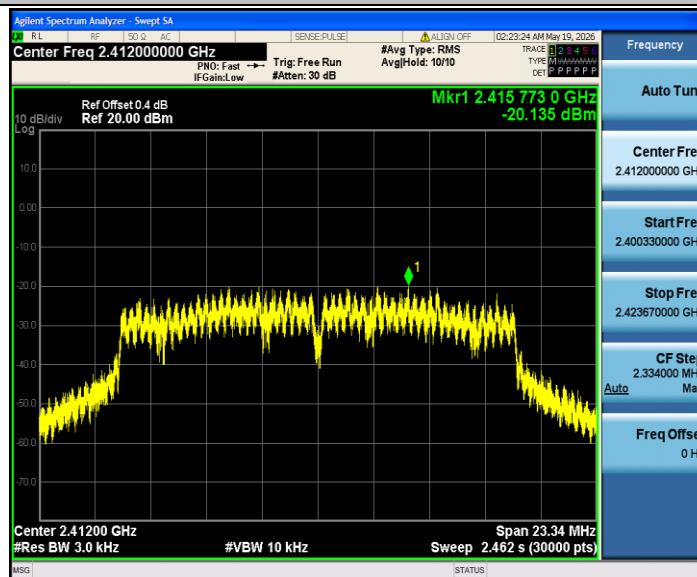
11B_Ant1_2437



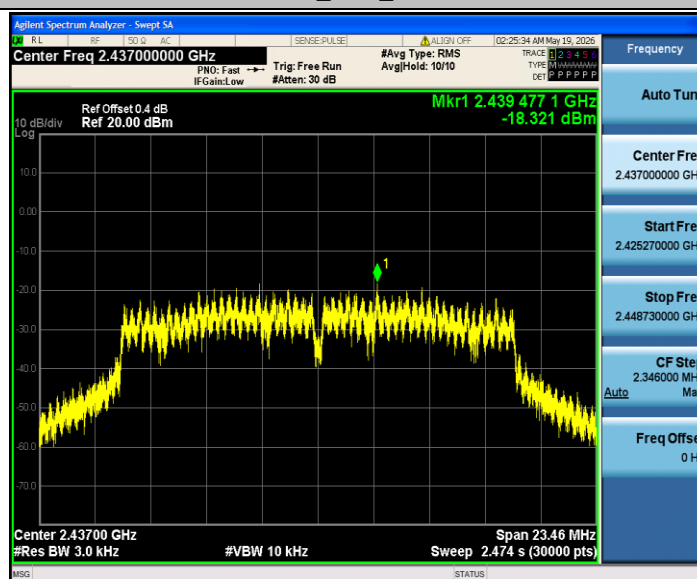
11B_Ant1_2462



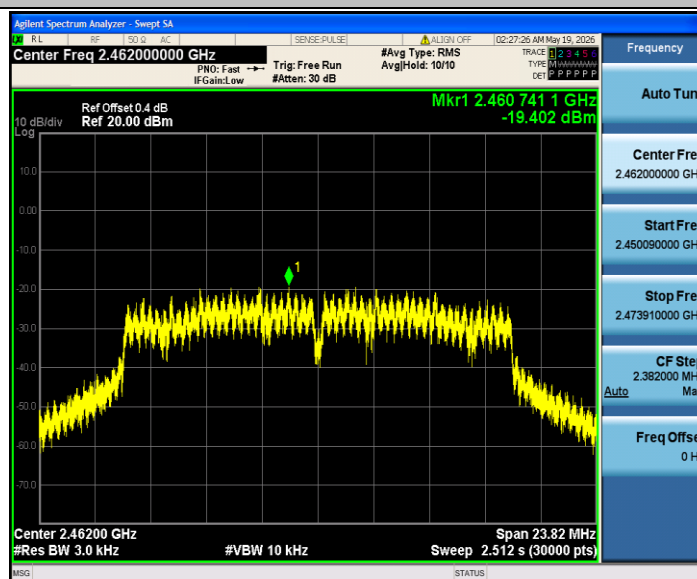
11G_Ant1_2412



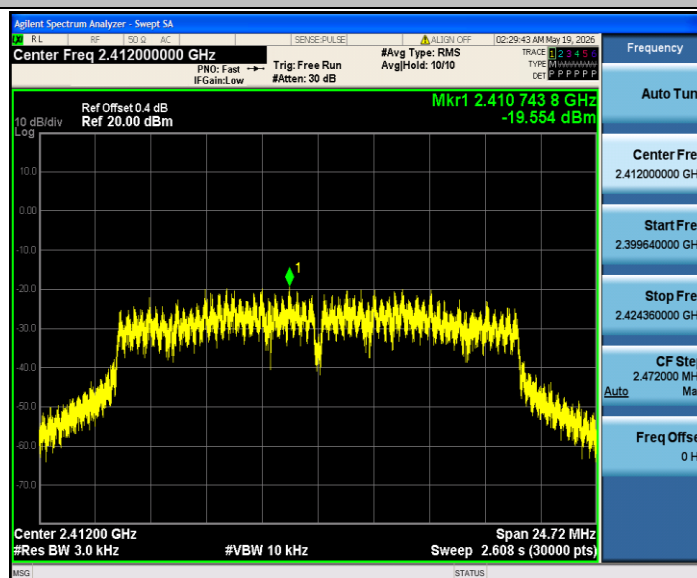
11G_Ant1_2437



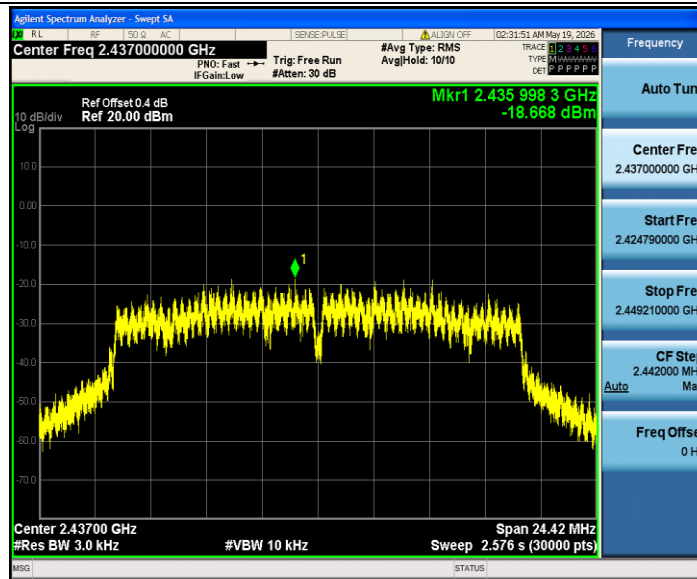
11G_Ant1_2462



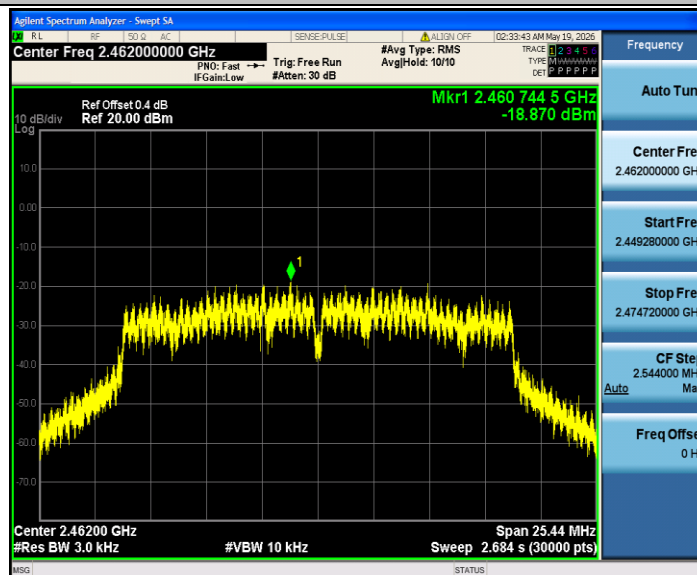
11N20SISO_Ant1_2412



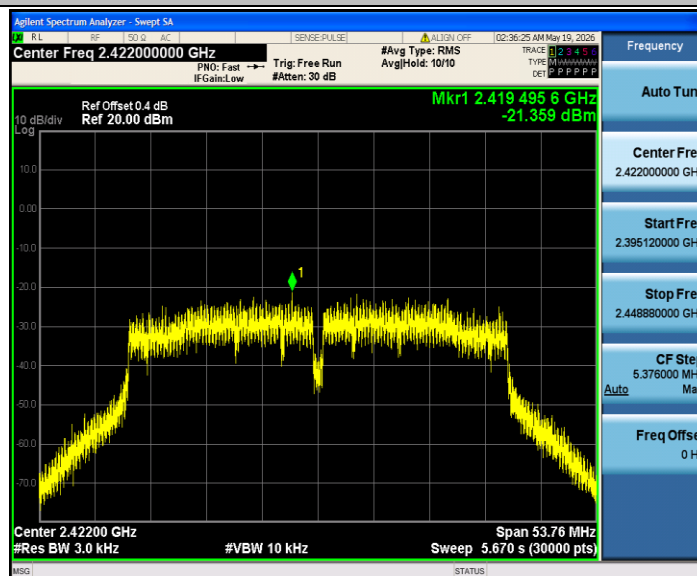
11N20SISO_Ant1_2437



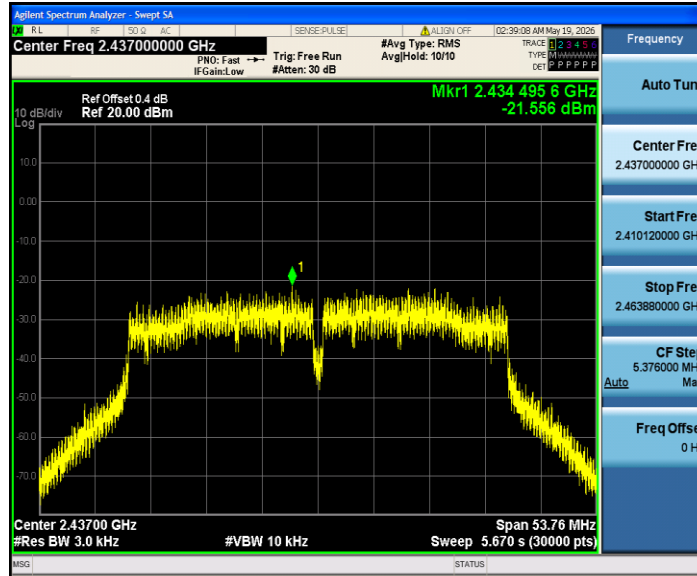
11N20SISO_Ant1_2462



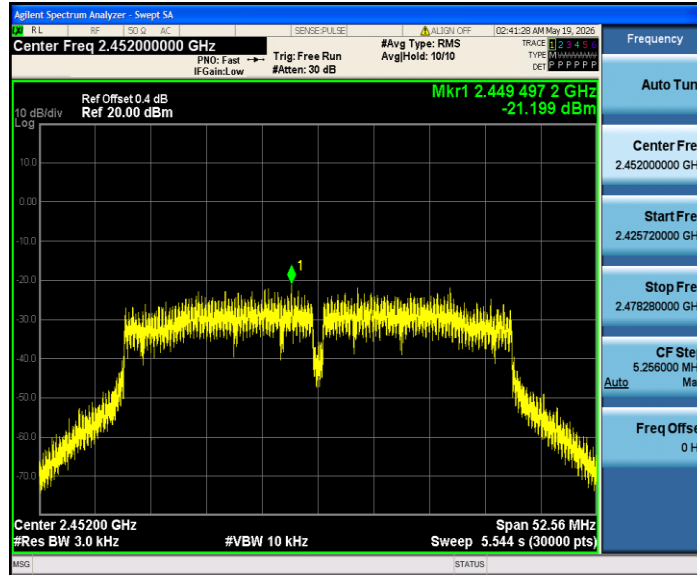
11N40SISO_Ant1_2422



11N40SISO_Ant1_2437



11N40SISO_Ant1_2452



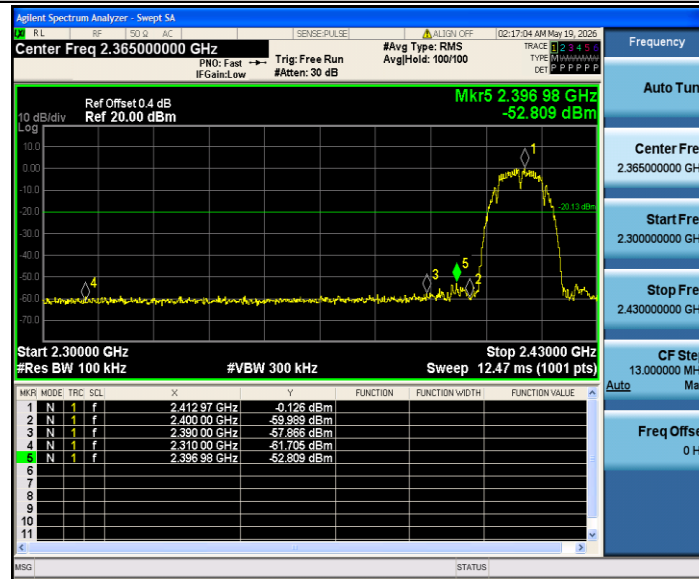
Appendix E: Band edge measurements

Test Result

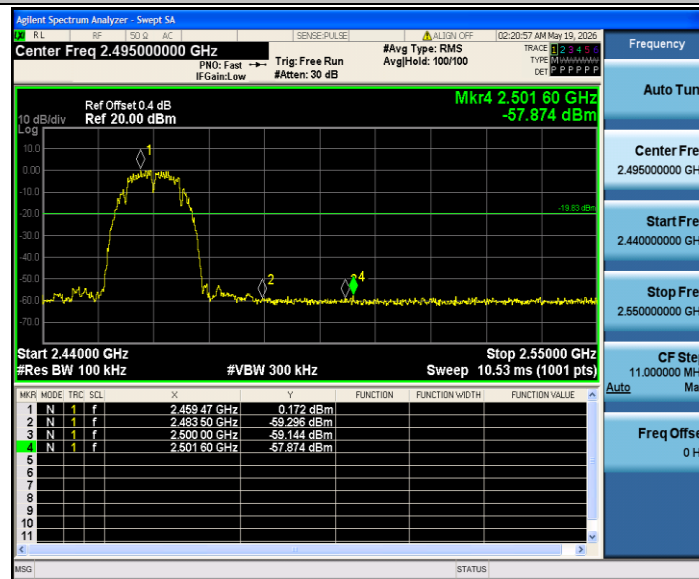
TestMode	Antenna	Channel Name	Frequency[MHz]	RefLevel[dBm]	Result[dBm]	Limit[dBm]	Verdict
11B	Ant1	Low	2412	-0.13	-52.81	≤-20.13	PASS
		High	2462	0.17	-57.87	≤-19.83	PASS
11G	Ant1	Low	2412	-4.03	-36.06	≤-24.03	PASS
		High	2462	-3.71	-57.54	≤-23.71	PASS
11N20SISO	Ant1	Low	2412	-4.21	-36.92	≤-24.21	PASS
		High	2462	-3.96	-57.52	≤-23.96	PASS
11N40SISO	Ant1	Low	2422	-7.24	-35.93	≤-27.24	PASS
		High	2452	-7.03	-56.84	≤-27.03	PASS

Test Graphs

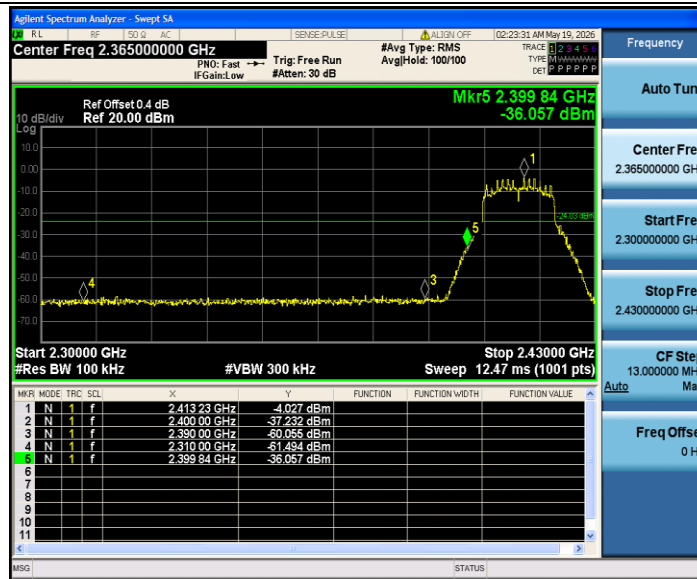
11B_Ant1_Low_2412



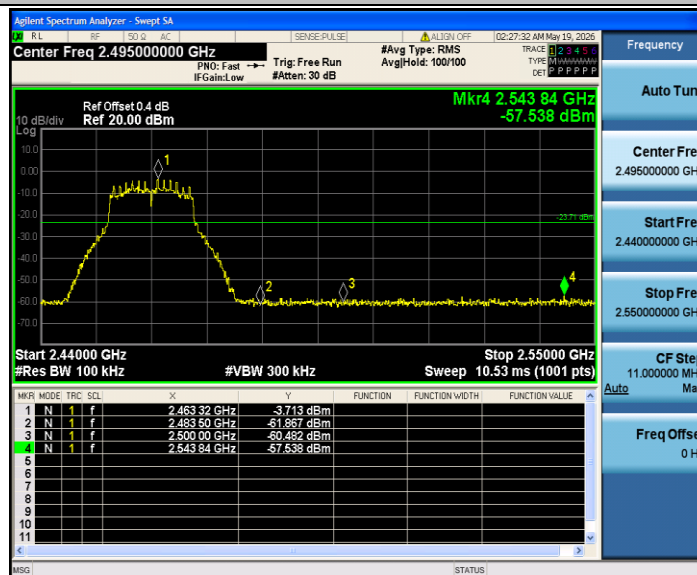
11B_Ant1_High_2462



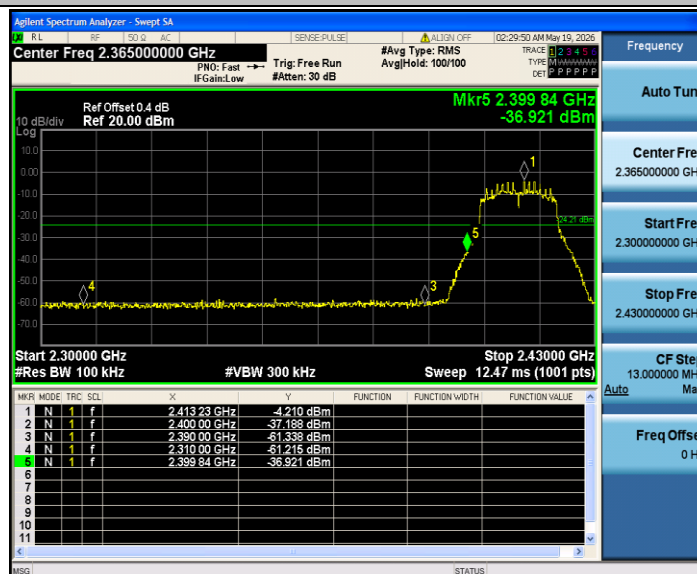
11G_Ant1_Low_2412



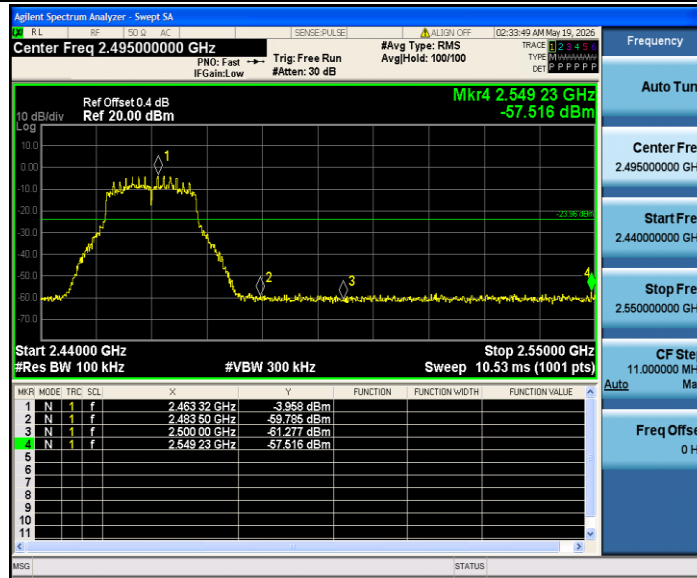
11G_Ant1_High_2462



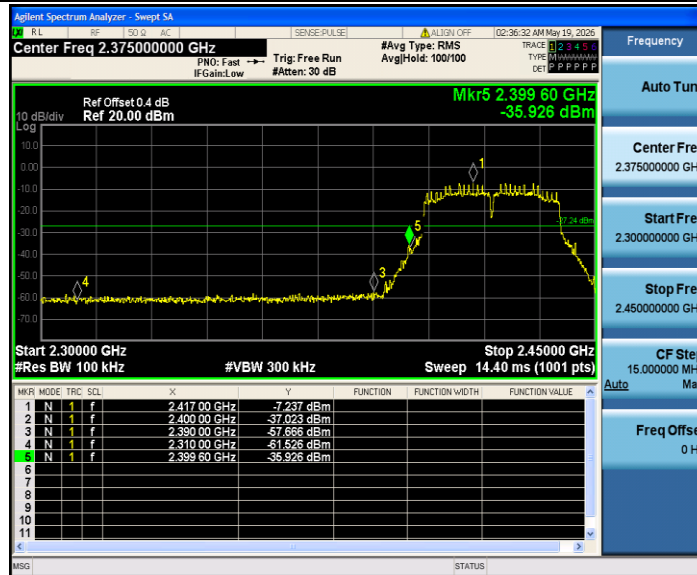
11N20SISO_Ant1_Low_2412



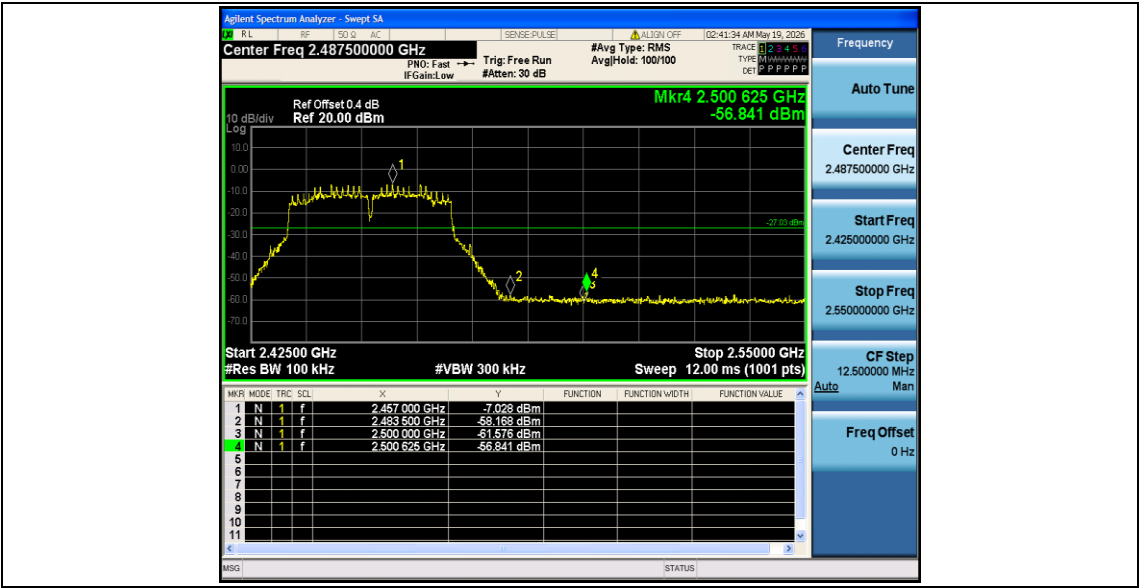
11N20SISO_Ant1_High_2462



11N40SISO_Ant1_Low_2422



11N40SISO_Ant1_High_2452



Appendix F: Conducted Spurious Emission

Test Result

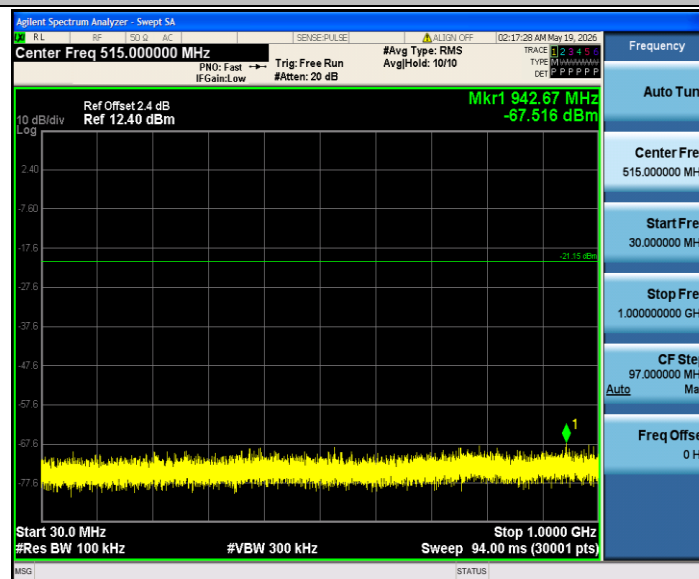
TestMode	Antenna	Frequency[MHz]	FreqRange [Mhz]	RefLevel [dBm]	Result [dBm]	Limit [dBm]	Verdict
11B	Ant1	2412	Reference	-1.15	-1.15	---	PASS
			30~1000	-1.15	-67.52	≤-21.15	PASS
			1000~26500	-1.15	-55.64	≤-21.15	PASS
		2437	Reference	-0.23	-0.23	---	PASS
			30~1000	-0.23	-67.6	≤-20.23	PASS
			1000~26500	-0.23	-55.23	≤-20.23	PASS
		2462	Reference	-0.16	-0.16	---	PASS
			30~1000	-0.16	-67.58	≤-20.16	PASS
			1000~26500	-0.16	-55.1	≤-20.16	PASS
11G	Ant1	2412	Reference	-4.72	-4.72	---	PASS
			30~1000	-4.72	-67.78	≤-24.72	PASS
			1000~26500	-4.72	-55.37	≤-24.72	PASS
		2437	Reference	-4.31	-4.31	---	PASS
			30~1000	-4.31	-68.22	≤-24.31	PASS
			1000~26500	-4.31	-55.7	≤-24.31	PASS
		2462	Reference	-5.32	-5.32	---	PASS
			30~1000	-5.32	-68.29	≤-25.32	PASS
			1000~26500	-5.32	-55.64	≤-25.32	PASS
11N20SISO	Ant1	2412	Reference	-5.95	-5.95	---	PASS
			30~1000	-5.95	-67.97	≤-25.95	PASS
			1000~26500	-5.95	-55.98	≤-25.95	PASS
		2437	Reference	-4.13	-4.13	---	PASS
			30~1000	-4.13	-67.19	≤-24.13	PASS
			1000~26500	-4.13	-55.36	≤-24.13	PASS
		2462	Reference	-5.14	-5.14	---	PASS
			30~1000	-5.14	-67.7	≤-25.14	PASS
			1000~26500	-5.14	-55.22	≤-25.14	PASS
11N40SISO	Ant1	2422	Reference	-7.75	-7.75	---	PASS
			30~1000	-7.75	-52.5	≤-27.75	PASS
			1000~26500	-7.75	-56.02	≤-27.75	PASS
		2437	Reference	-7.59	-7.59	---	PASS
			30~1000	-7.59	-66.95	≤-27.59	PASS
			1000~26500	-7.59	-55.65	≤-27.59	PASS
		2452	Reference	-7.74	-7.74	---	PASS
			30~1000	-7.74	-67.64	≤-27.74	PASS
			1000~26500	-7.74	-55.29	≤-27.74	PASS

Test Graphs

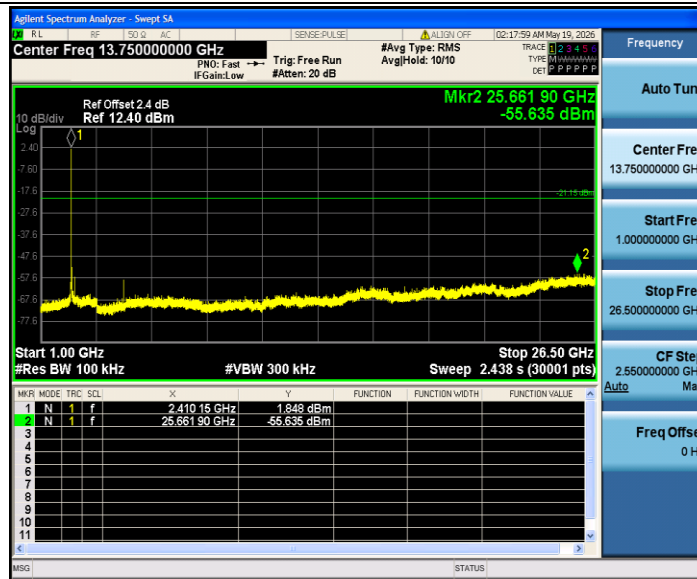
11B_Ant1_2412_0~Reference



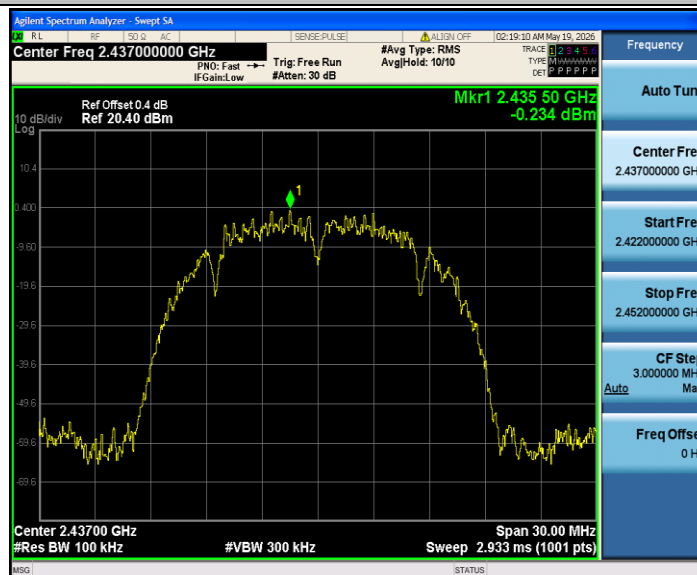
11B_Ant1_2412_30~1000



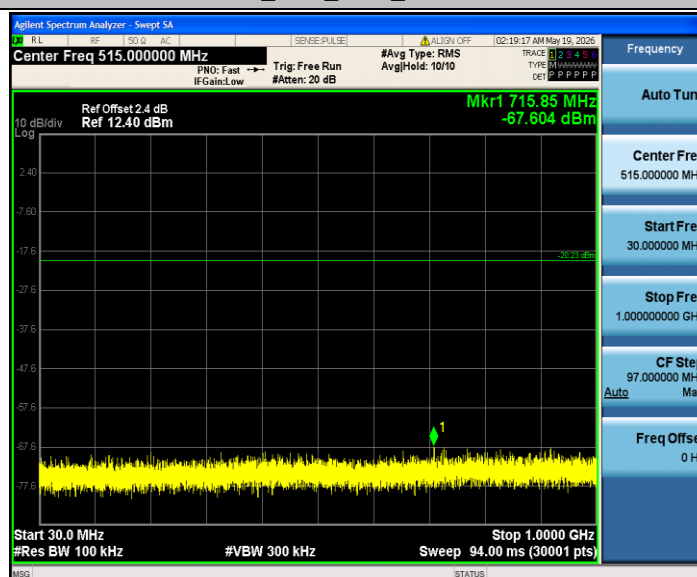
11B_Ant1_2412_1000~26500



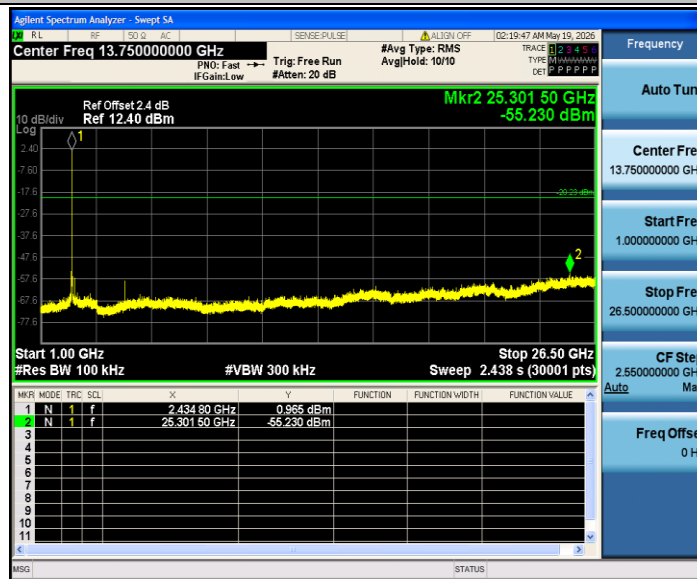
11B_Ant1_2437_0~Reference



11B_Ant1_2437_30~1000



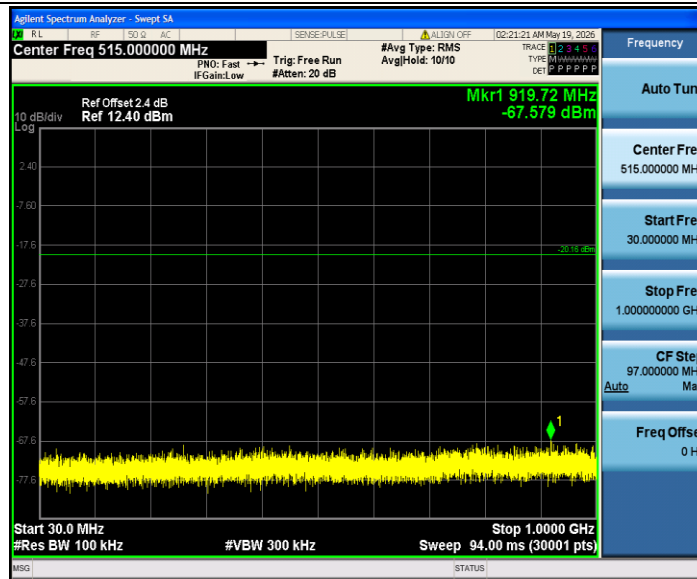
11B_Ant1_2437_1000~26500



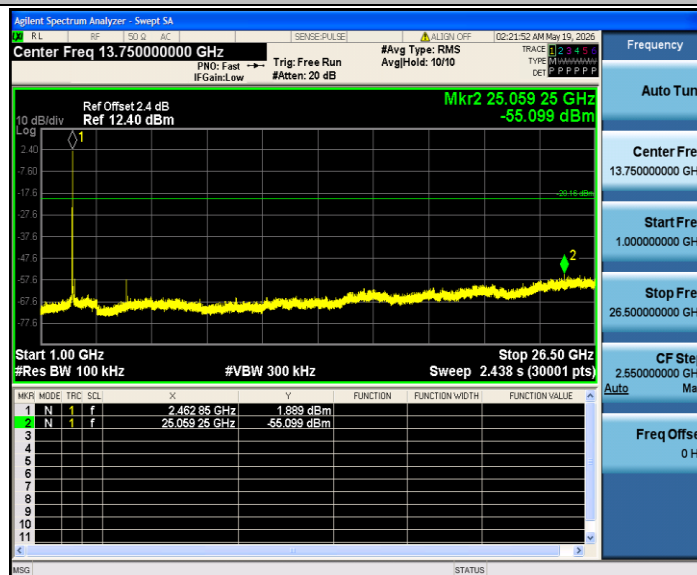
11B_Ant1_2462_0~Reference



11B_Ant1_2462_30~1000



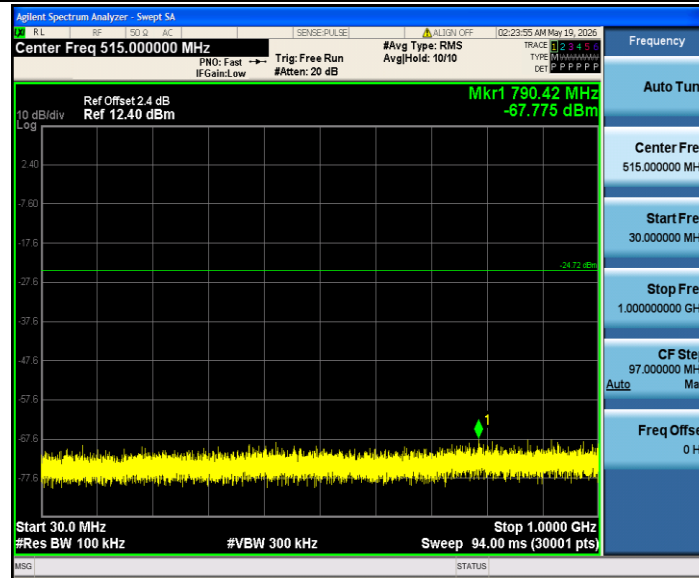
11B_Ant1_2462_1000~26500



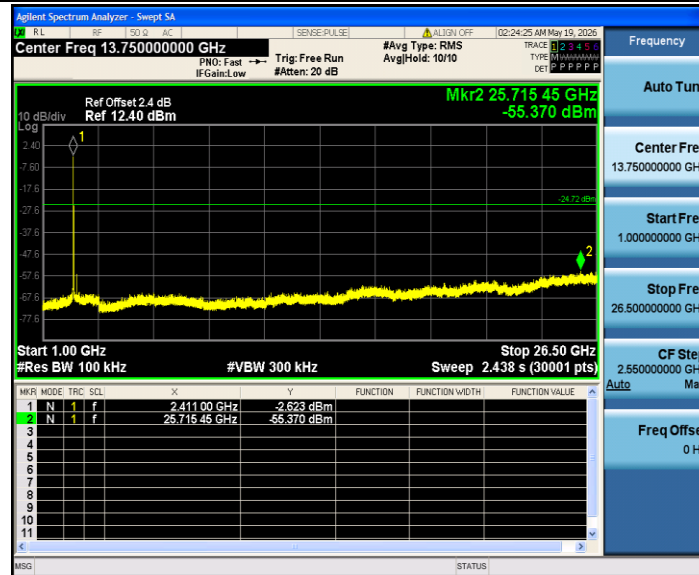
11G_Ant1_2412_0~Reference



11G_Ant1_2412_30~1000



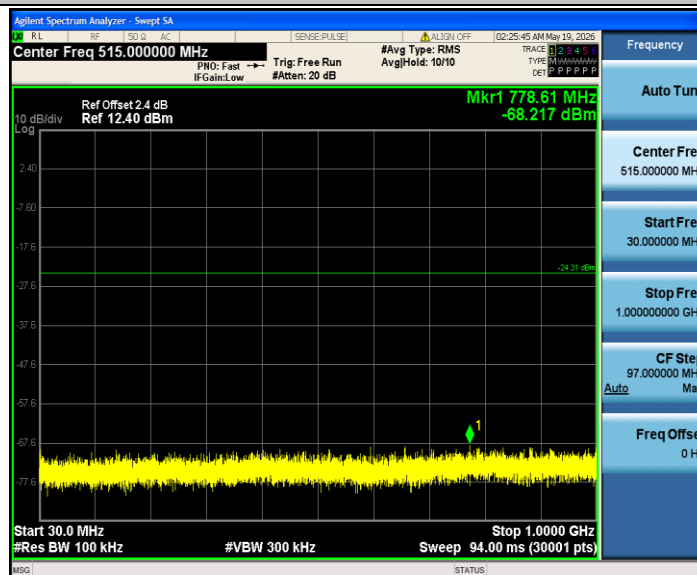
11G_Ant1_2412_1000~26500



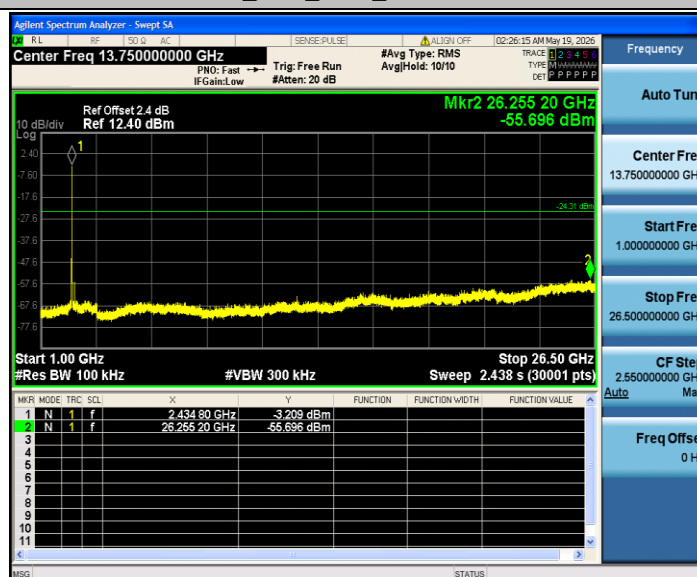
11G_Ant1_2437_0~Reference



11G_Ant1_2437_30~1000



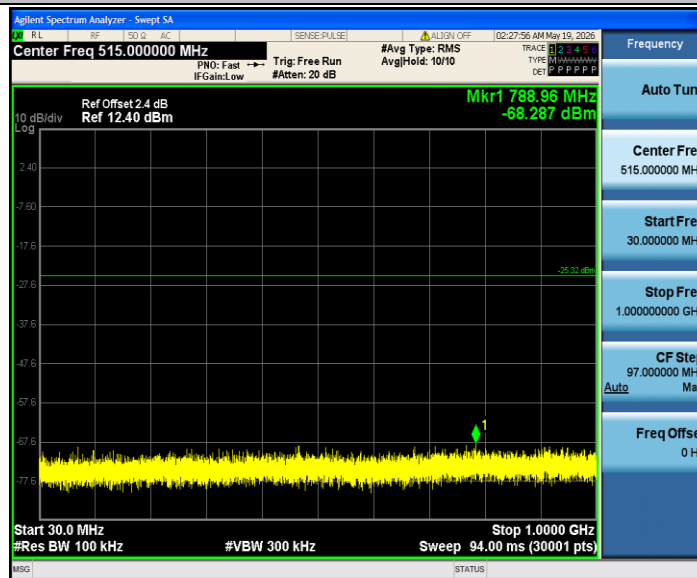
11G_Ant1_2437_1000~26500



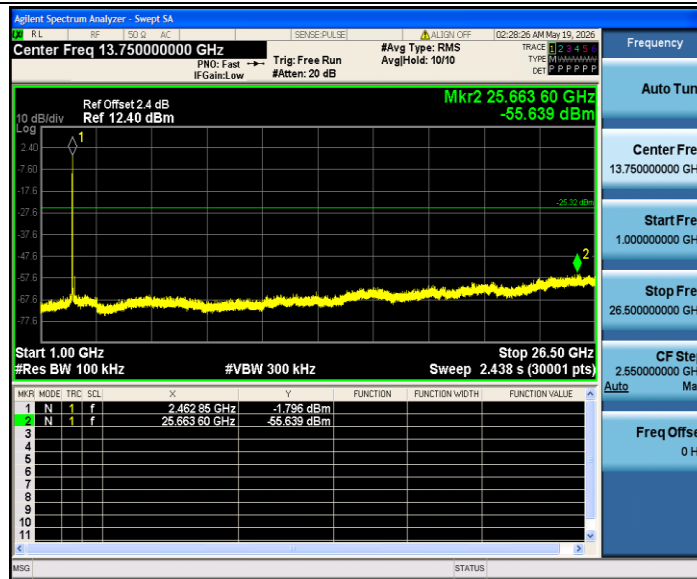
11G_Ant1_2462_0~Reference



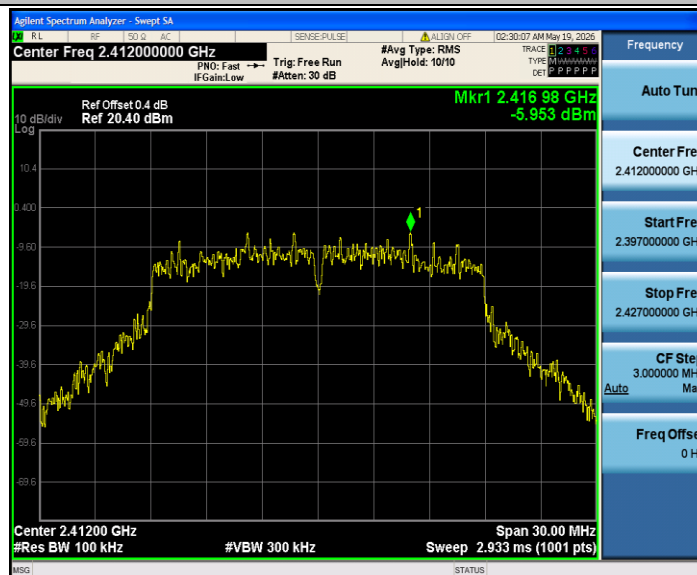
11G_Ant1_2462_30~1000



11G_Ant1_2462_1000~26500



11N20SISO_Ant1_2412_0~Reference



11N20SISO_Ant1_2412_30~1000

