

FCC Appendix RF Test Data for 2.4GWIFI

FCC ID : 2BP5V-ZK401

Company : Dong Guan Zhen Ke Technology Co., LTD

EUT : Weather Station

Model Number : WS-SA68-PLUS

Report No. : CTA26082701002

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	2431.920	2442.120	0.5	PASS
		2462	10.240	2456.920	2467.160	0.5	PASS
11G	Ant1	2412	15.880	2404.000	2419.880	0.5	PASS
		2437	15.960	2429.080	2445.040	0.5	PASS
		2462	15.520	2454.280	2469.800	0.5	PASS
11N20SISO	Ant1	2412	16.880	2403.720	2420.600	0.5	PASS
		2437	16.960	2428.520	2445.480	0.5	PASS
		2462	16.440	2454.080	2470.520	0.5	PASS
11N40SISO	Ant1	2422	33.120	2406.400	2439.520	0.5	PASS
		2437	36.000	2419.000	2455.000	0.5	PASS
		2452	35.920	2434.240	2470.160	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



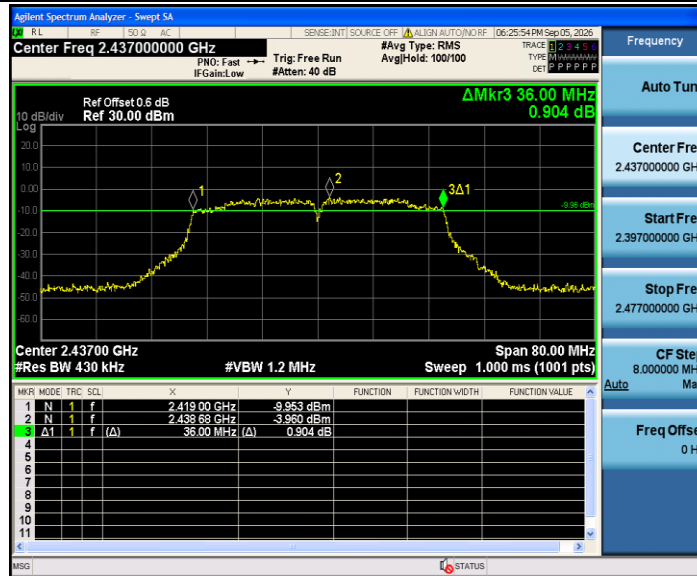
11N20SISO_Ant1_2462



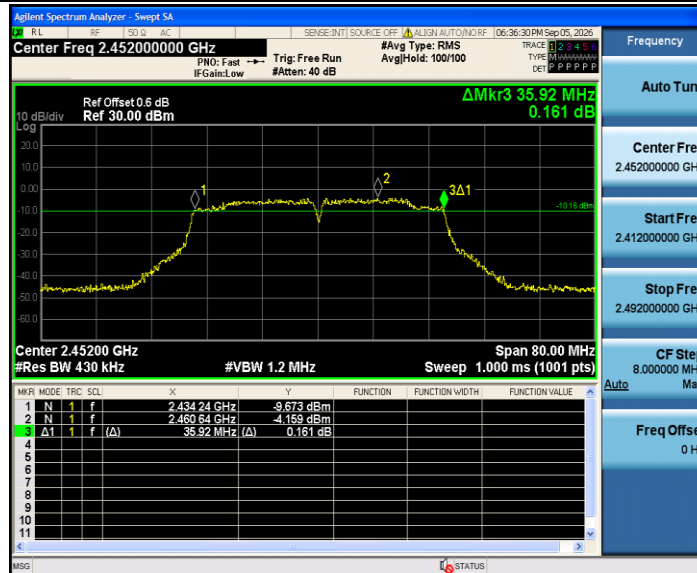
11N40SISO_Ant1_2422



11N40SISO_Ant1_2437



11N40SISO_Ant1_2452



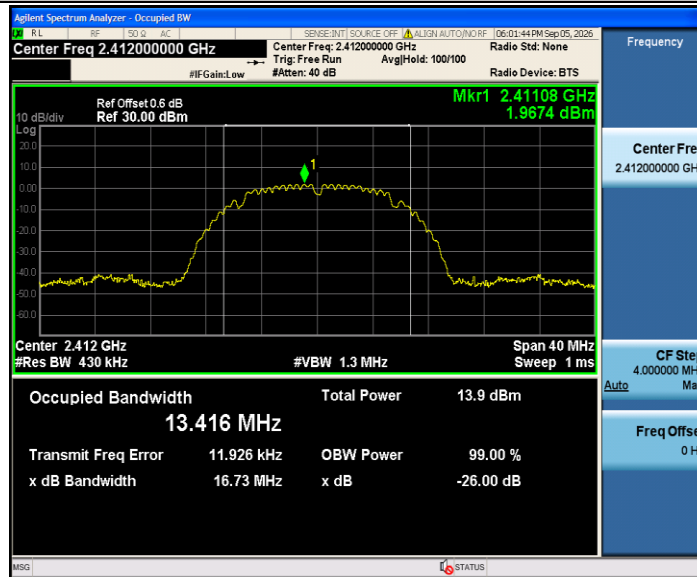
Appendix B: Occupied Channel Bandwidth

Test Result

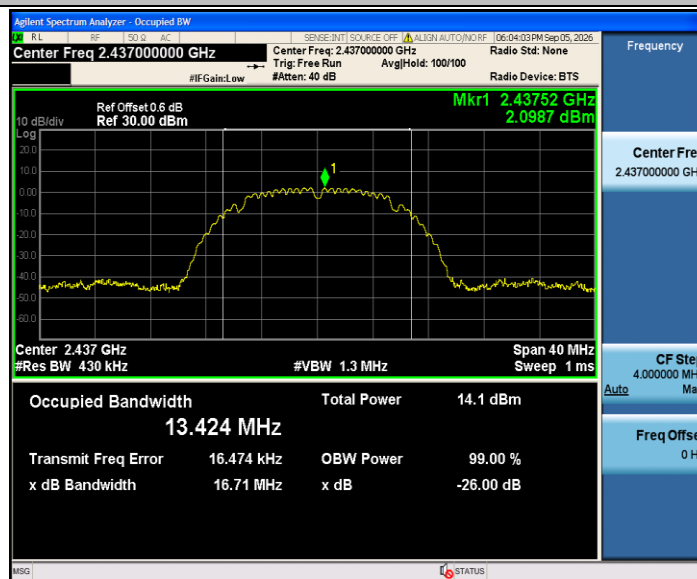
TestMode	Antenna	Channel Frequency[MHz]	OCB [MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
11B	Ant1	2412	13.416	2405.3039	2418.7199	---	---
		2437	13.424	2430.3045	2443.7285	---	---
		2462	13.418	2455.3181	2468.7361	---	---
11G	Ant1	2412	16.843	2403.5833	2420.4263	---	---
		2437	16.835	2428.6454	2445.4804	---	---
		2462	16.856	2453.6148	2470.4708	---	---
11N20SISO	Ant1	2412	17.943	2403.0321	2420.9751	---	---
		2437	17.903	2428.0803	2445.9833	---	---
		2462	17.899	2453.0530	2470.9520	---	---
11N40SISO	Ant1	2422	36.019	2404.1416	2440.1606	---	---
		2437	36.117	2419.0819	2455.1989	---	---
		2452	36.008	2434.1443	2470.1523	---	---

Test Graphs

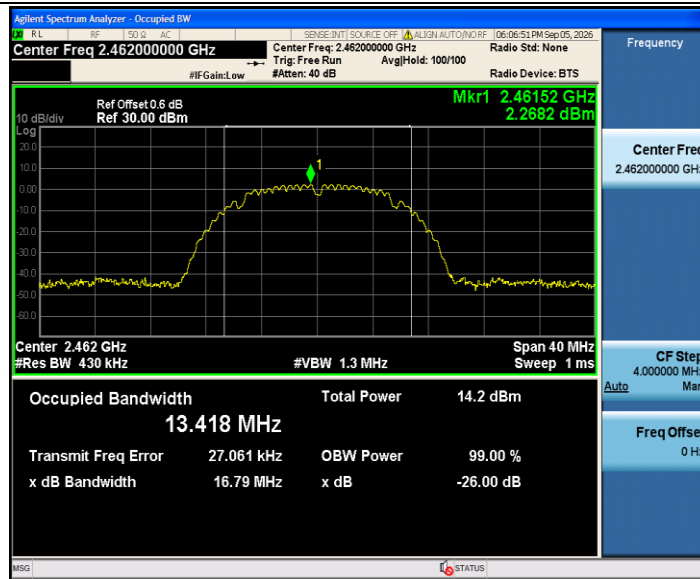
11B_Ant1_2412



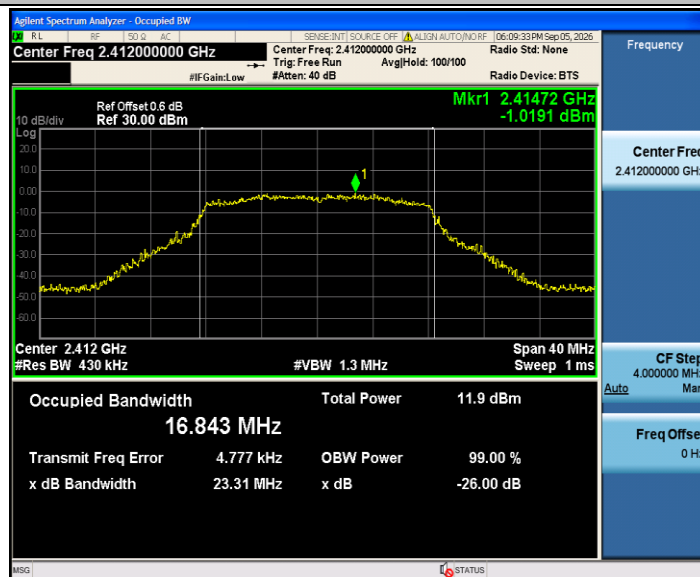
11B_Ant1_2437



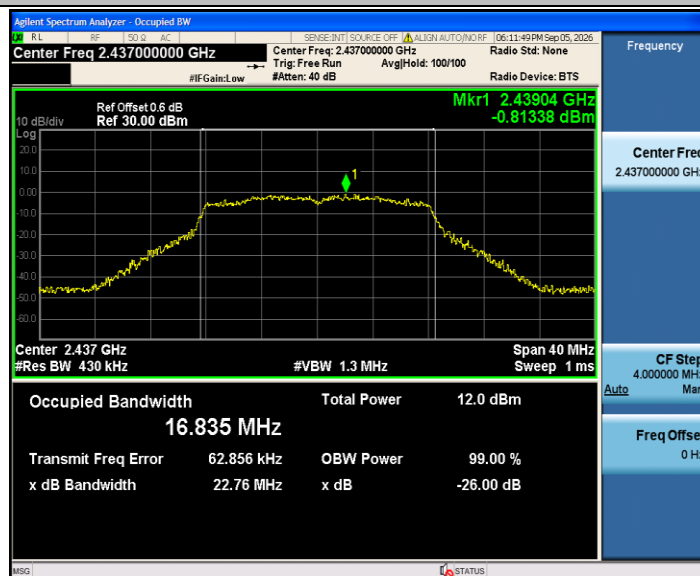
11B_Ant1_2462



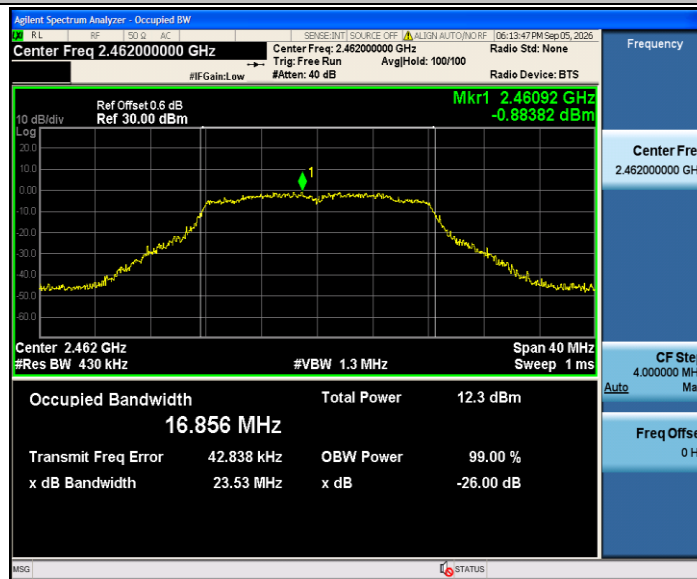
11G_Ant1_2412



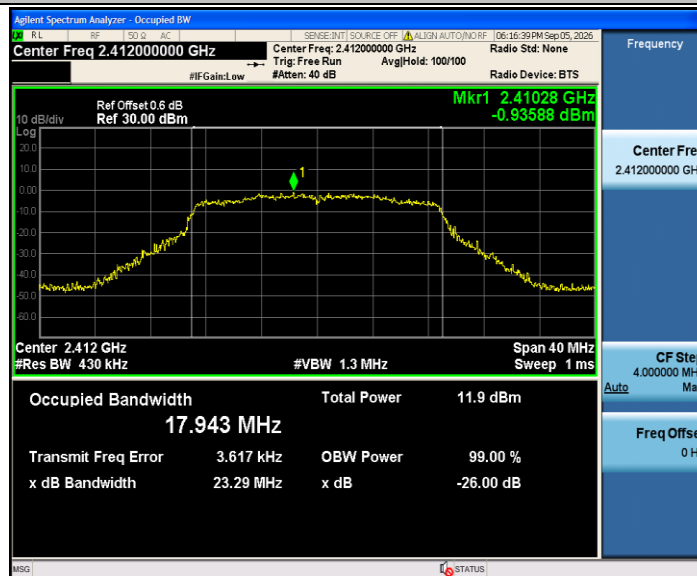
11G_Ant1_2437



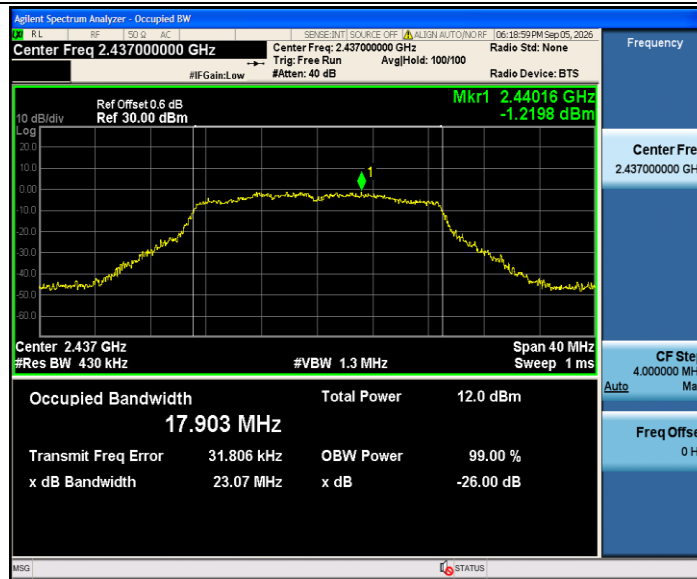
11G_Ant1_2462



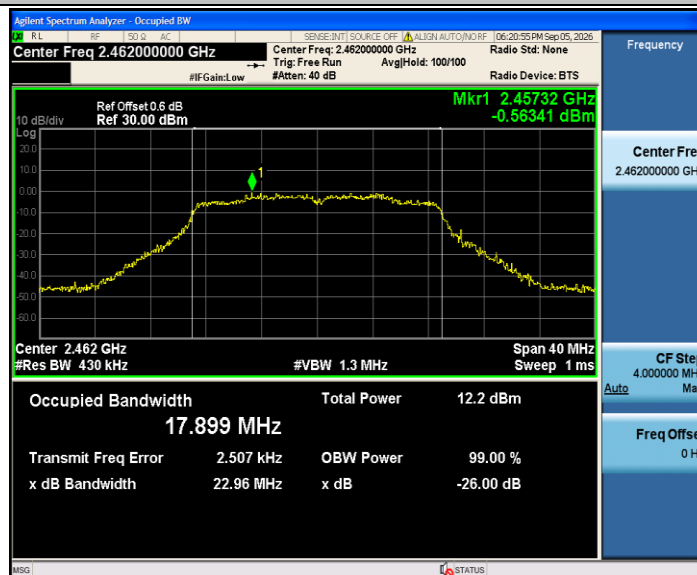
11N20SISO_Ant1_2412



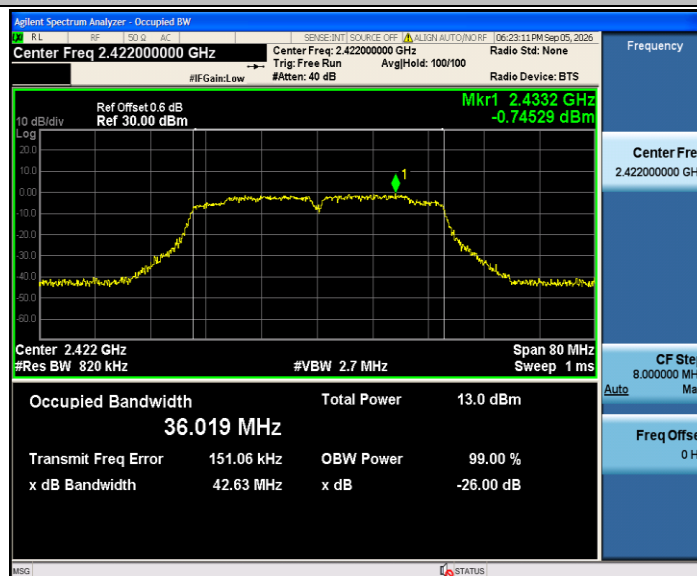
11N20SISO_Ant1_2437



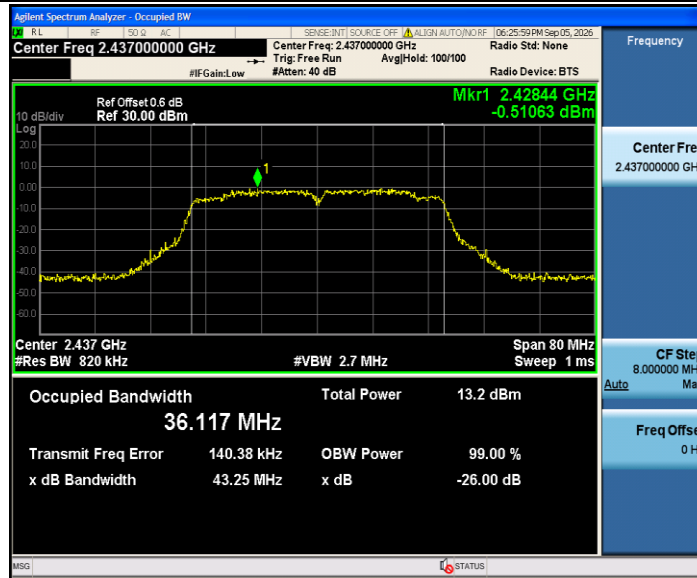
11N20SISO_Ant1_2462



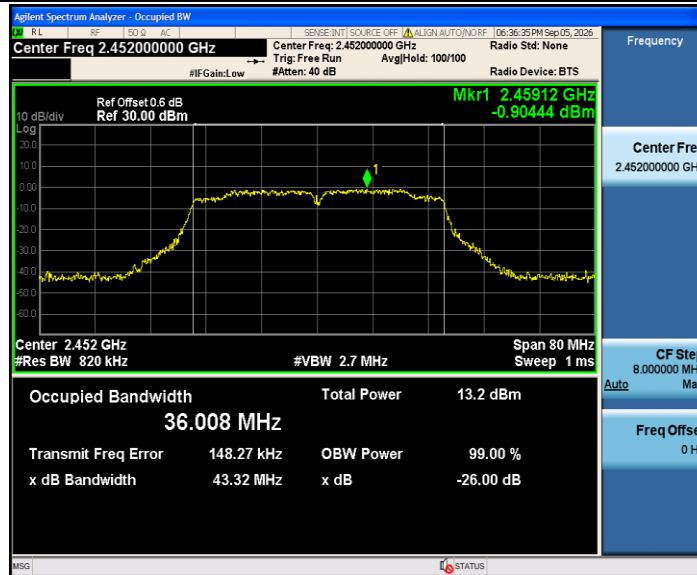
11N40SISO_Ant1_2422



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	13.63	≤30.00	PASS
		2437	13.73	≤30.00	PASS
		2462	13.92	≤30.00	PASS
11G	Ant1	2412	12.83	≤30.00	PASS
		2437	13.06	≤30.00	PASS
		2462	13.21	≤30.00	PASS
11N20SISO	Ant1	2412	12.75	≤30.00	PASS
		2437	12.92	≤30.00	PASS
		2462	13.06	≤30.00	PASS
11N40SISO	Ant1	2422	12.94	≤30.00	PASS
		2437	13.42	≤30.00	PASS
		2452	13.38	≤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	-11.80	≤8.00	PASS
		2437	-11.49	≤8.00	PASS
		2462	-11.74	≤8.00	PASS
11G	Ant1	2412	-19.26	≤8.00	PASS
		2437	-18.11	≤8.00	PASS
		2462	-18.72	≤8.00	PASS
11N20SISO	Ant1	2412	-17.57	≤8.00	PASS
		2437	-18.48	≤8.00	PASS
		2462	-18.12	≤8.00	PASS
11N40SISO	Ant1	2422	-20.85	≤8.00	PASS
		2437	-20.64	≤8.00	PASS
		2452	-20.50	≤8.00	PASS

Test Graphs

11B_Ant1_2412



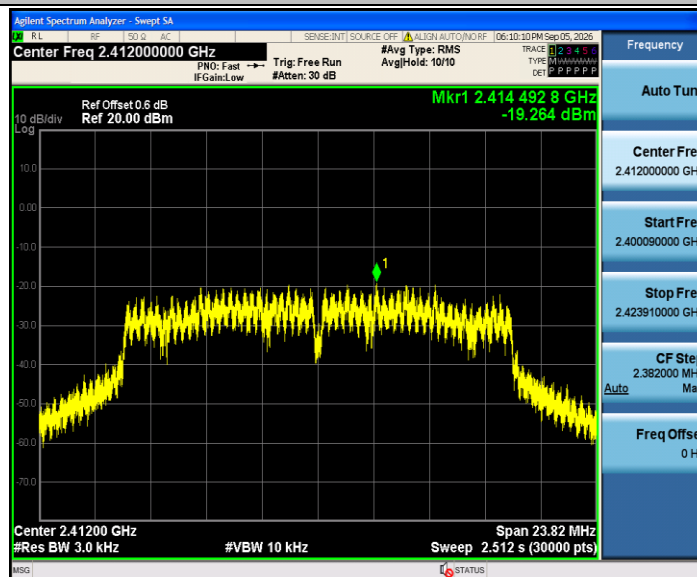
11B_Ant1_2437



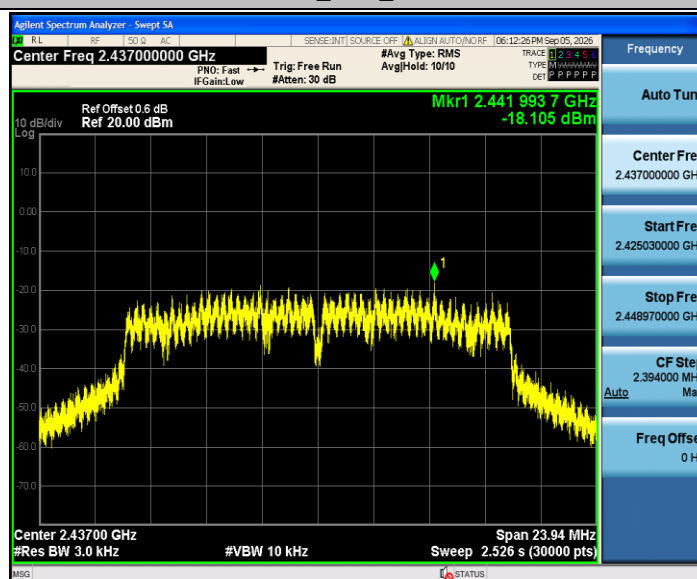
11B_Ant1_2462



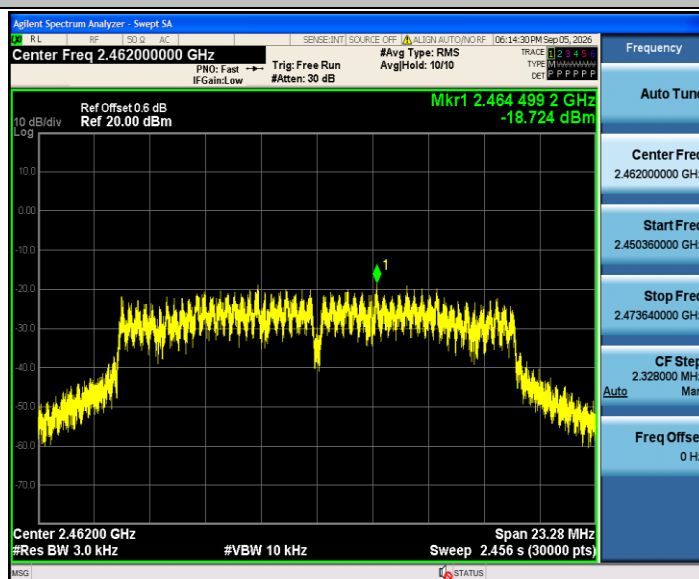
11G_Ant1_2412



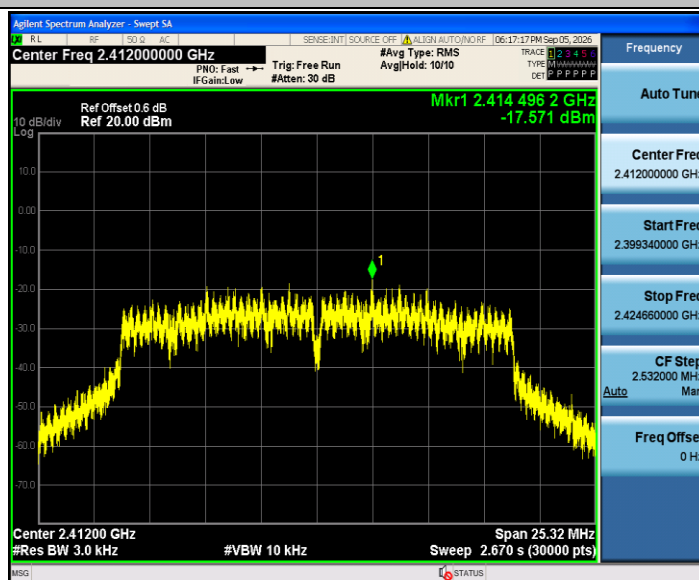
11G_Ant1_2437



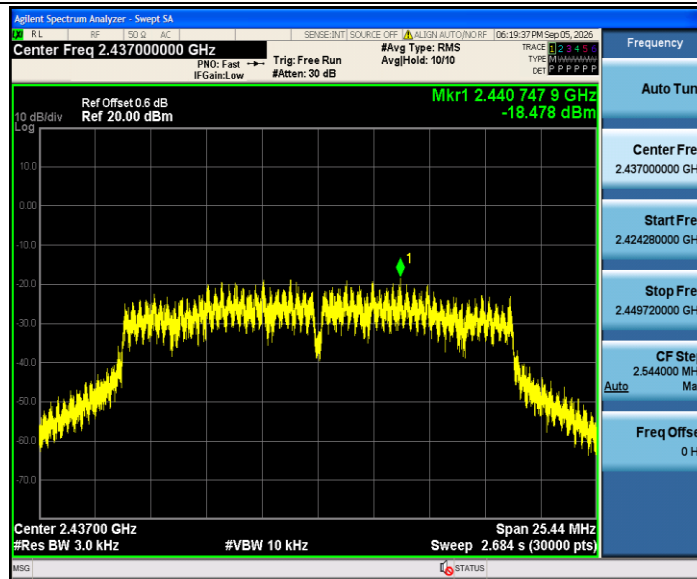
11G_Ant1_2462



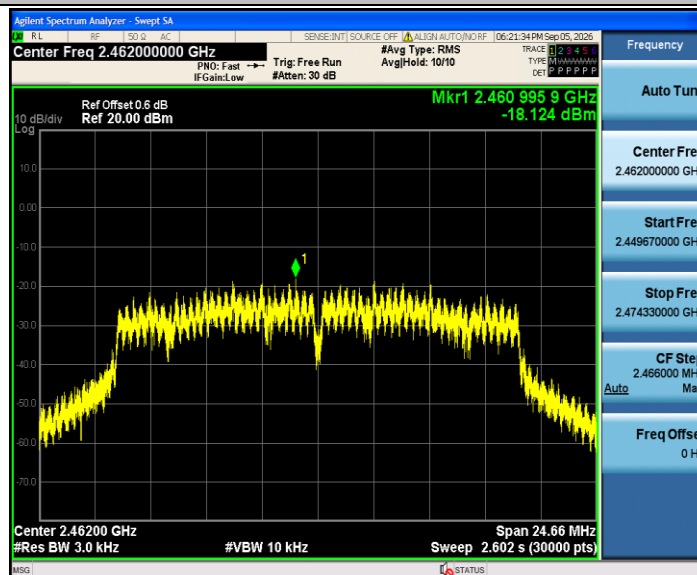
11N20SISO_Ant1_2412



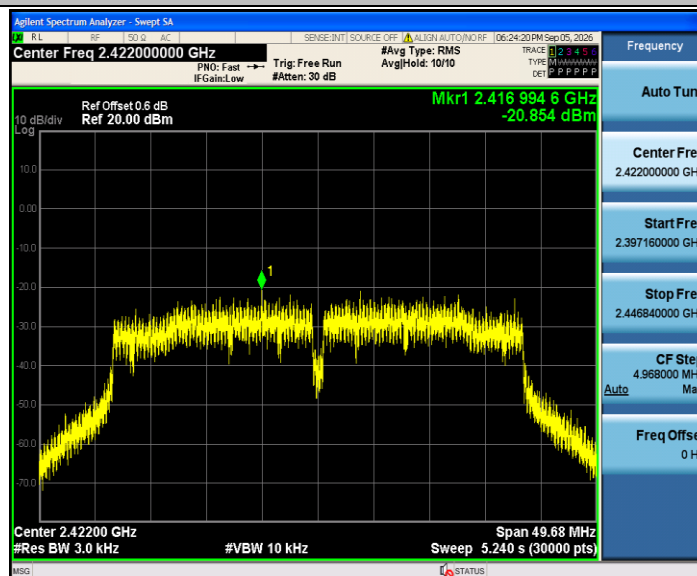
11N20SISO_Ant1_2437



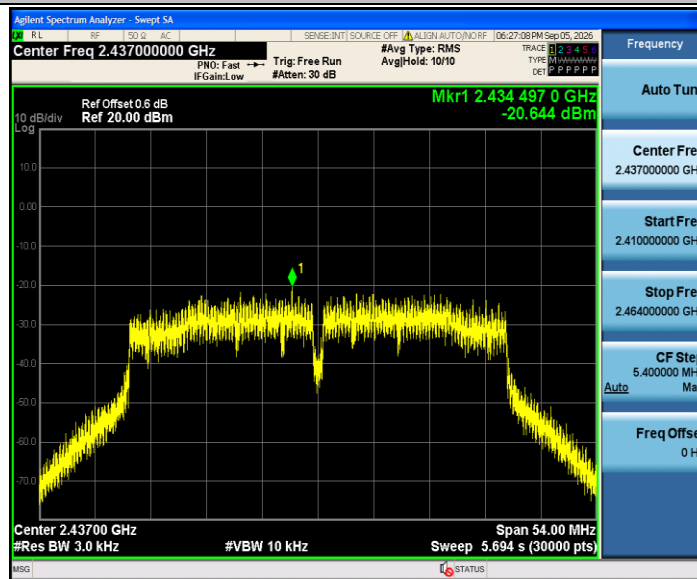
11N20SISO_Ant1_2462



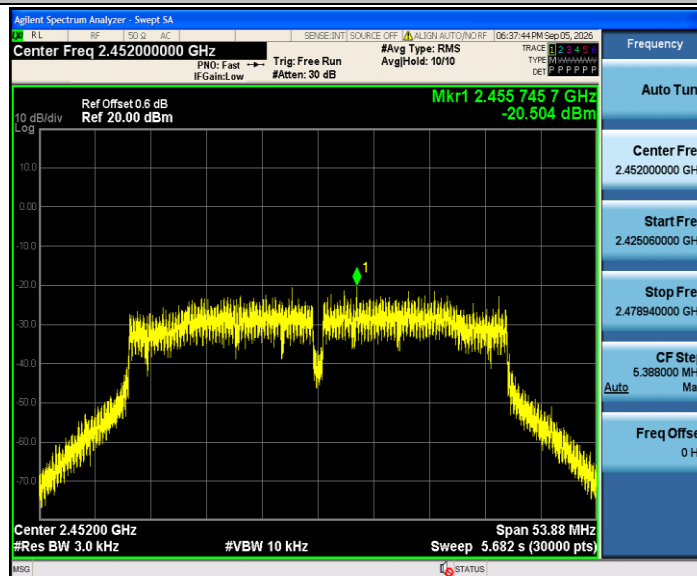
11N40SISO_Ant1_2422



11N40SISO_Ant1_2437



11N40SISO_Ant1_2452



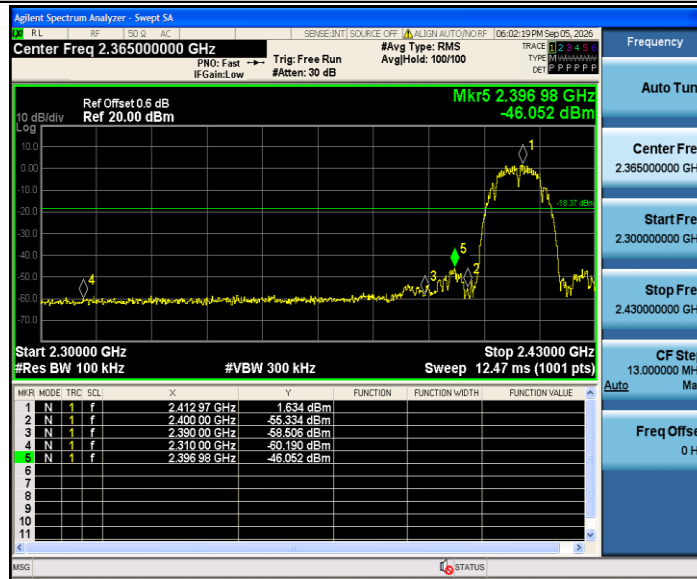
Appendix E: Band edge measurements

Test Result

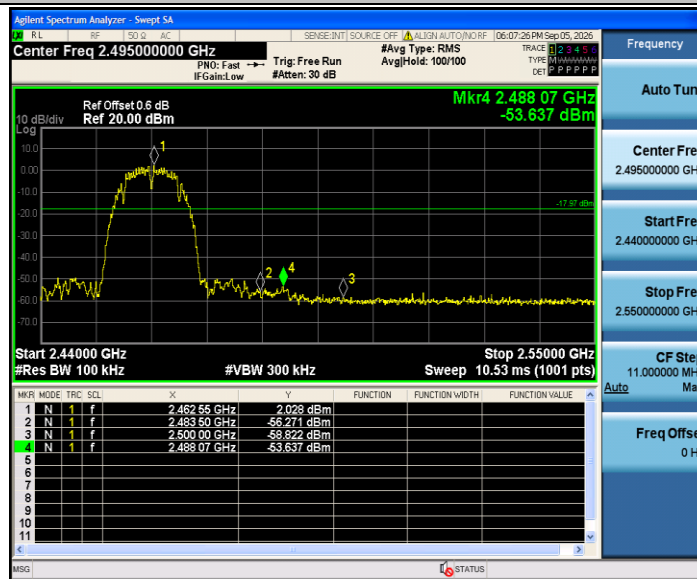
TestMode	Antenna	Channel Name	Frequency[MHz]	RefLevel[dBm]	Result[dBm]	Limit[dBm]	Verdict
11B	Ant1	Low	2412	1.63	-46.05	≤-18.37	PASS
		High	2462	2.03	-53.64	≤-17.97	PASS
11G	Ant1	Low	2412	-3.72	-34.36	≤-23.72	PASS
		High	2462	-3.22	-57.42	≤-23.22	PASS
11N20SISO	Ant1	Low	2412	-3.74	-35.44	≤-23.74	PASS
		High	2462	-3.47	-58.14	≤-23.47	PASS
11N40SISO	Ant1	Low	2422	-6.64	-34.97	≤-26.64	PASS
		High	2452	-6.42	-57.18	≤-26.42	PASS

Test Graphs

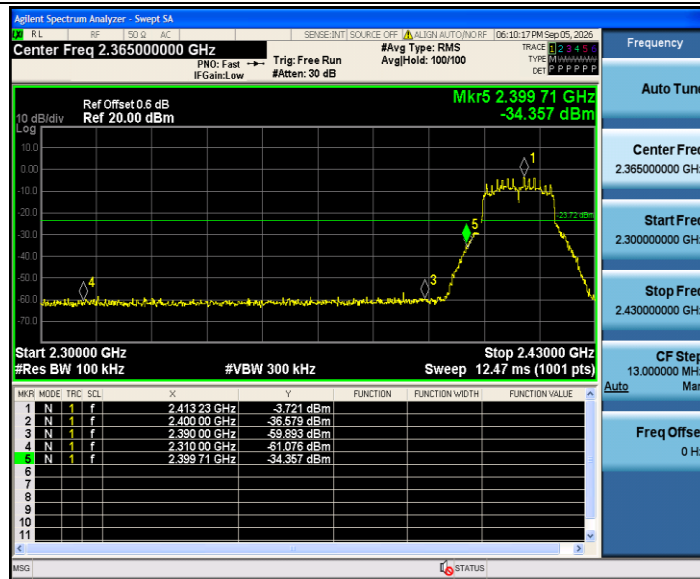
11B_Ant1_Low_2412



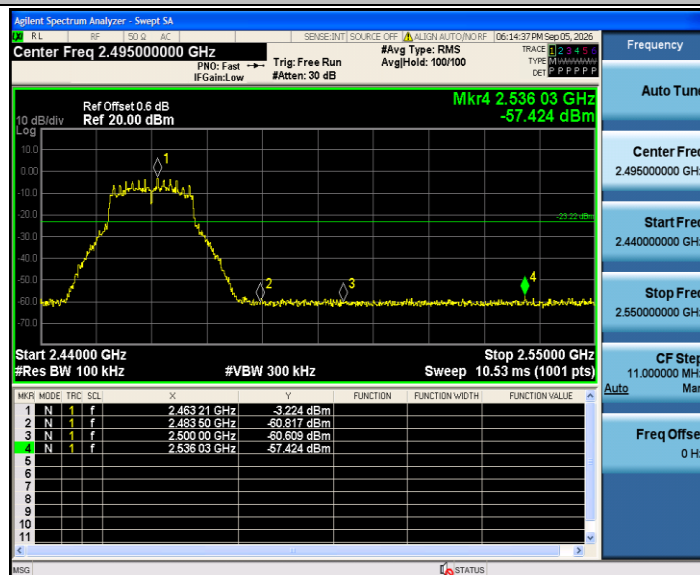
11B_Ant1_High_2462



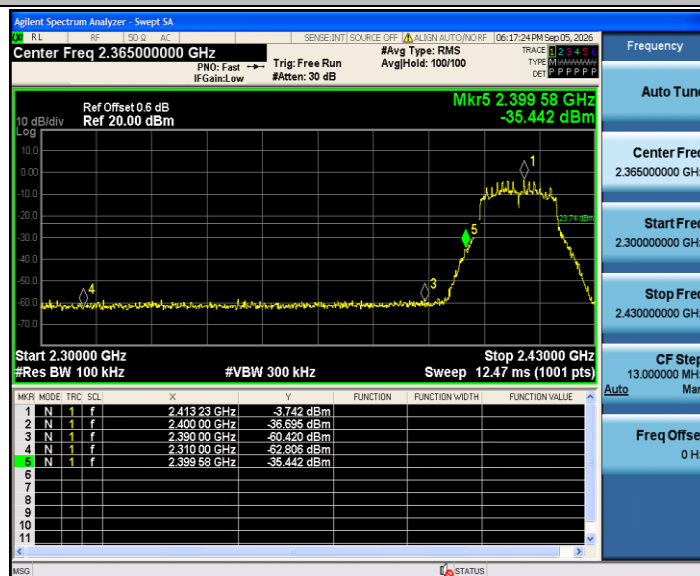
11G_Ant1_Low_2412



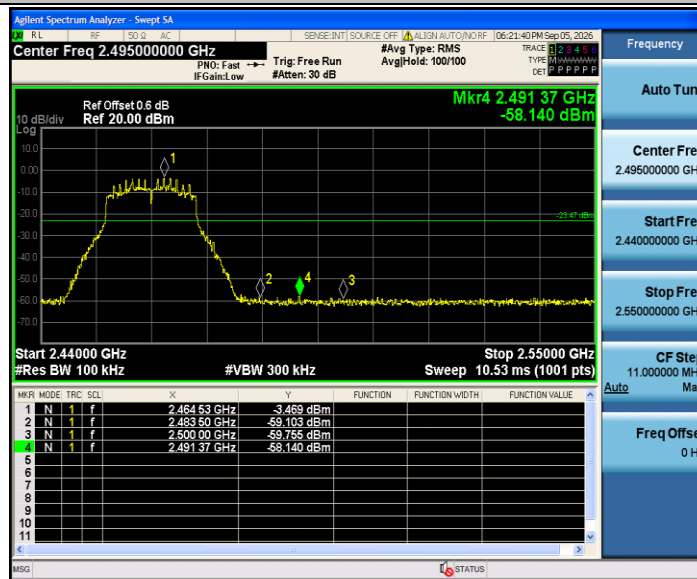
11G_Ant1_High_2462



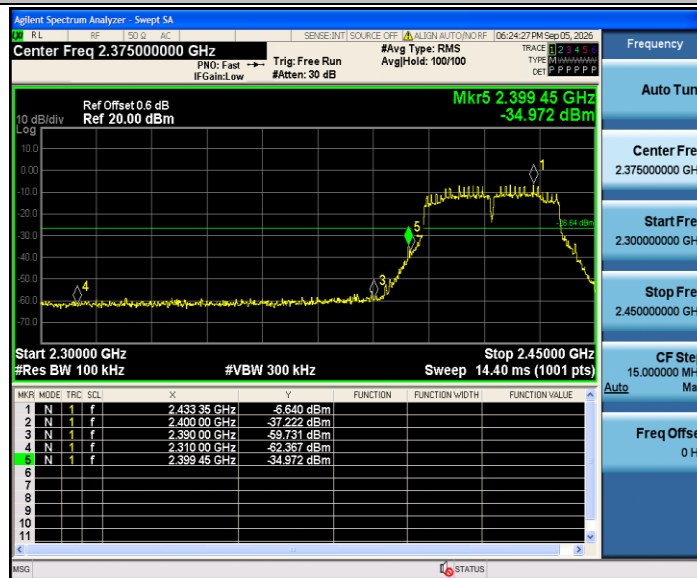
11N20SISO_Ant1_Low_2412



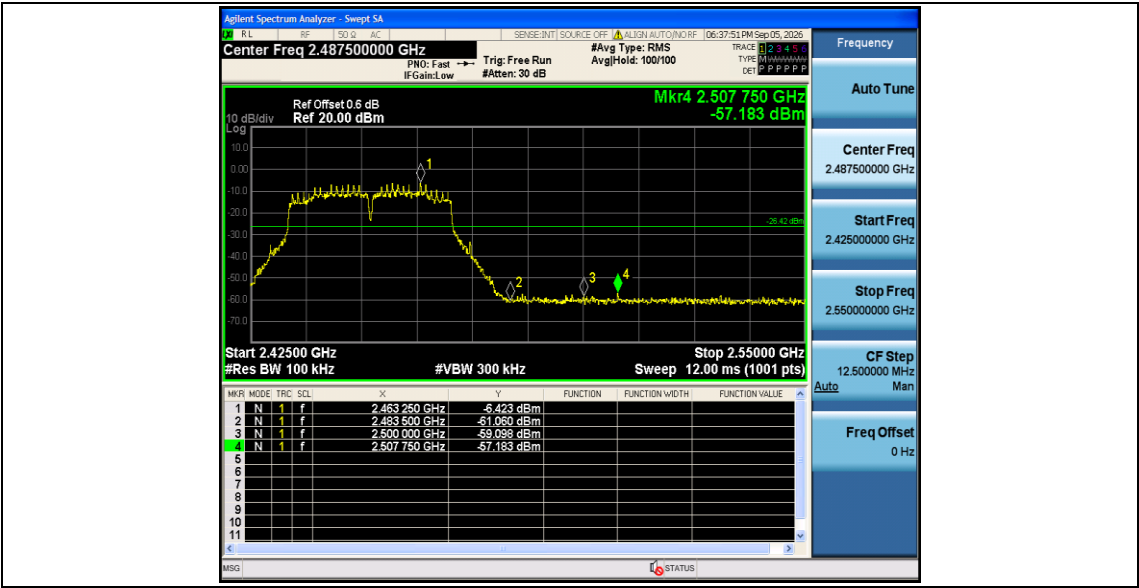
11N20SISO_Ant1_High_2462



11N40SISO_Ant1_Low_2422



11N40SISO_Ant1_High_2452



Appendix F: Conducted Spurious Emission

Test Result

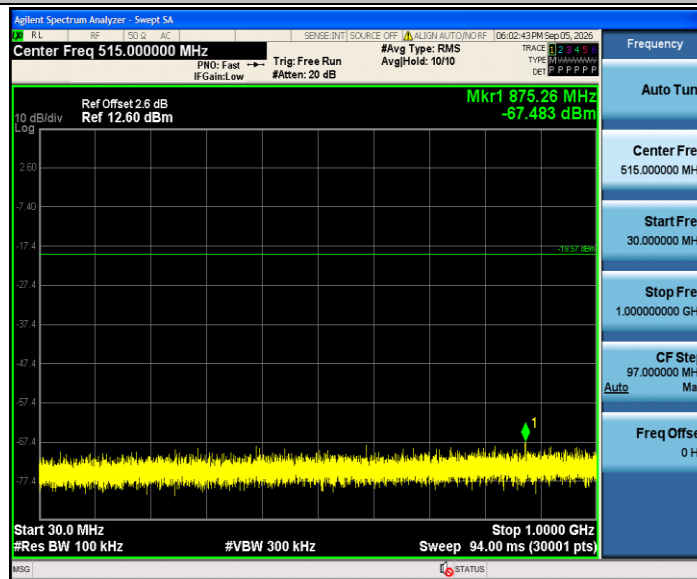
TestMode	Antenna	Frequency[MHz]	FreqRange [Mhz]	RefLevel [dBm]	Result [dBm]	Limit [dBm]	Verdict
11B	Ant1	2412	Reference	0.43	0.43	---	PASS
			30~1000	0.43	-67.48	≤-19.57	PASS
			1000~26500	0.43	-46.26	≤-19.57	PASS
		2437	Reference	0.12	0.12	---	PASS
			30~1000	0.12	-65	≤-19.88	PASS
			1000~26500	0.12	-46.39	≤-19.88	PASS
		2462	Reference	0.26	0.26	---	PASS
			30~1000	0.26	-68.29	≤-19.74	PASS
			1000~26500	0.26	-46.39	≤-19.74	PASS
11G	Ant1	2412	Reference	-3.66	-3.66	---	PASS
			30~1000	-3.66	-66.06	≤-23.66	PASS
			1000~26500	-3.66	-46.56	≤-23.66	PASS
		2437	Reference	-4.05	-4.05	---	PASS
			30~1000	-4.05	-67.91	≤-24.05	PASS
			1000~26500	-4.05	-46.25	≤-24.05	PASS
		2462	Reference	-3.83	-3.83	---	PASS
			30~1000	-3.83	-68.39	≤-23.83	PASS
			1000~26500	-3.83	-46.01	≤-23.83	PASS
11N20SISO	Ant1	2412	Reference	-4.86	-4.86	---	PASS
			30~1000	-4.86	-67.55	≤-24.86	PASS
			1000~26500	-4.86	-46.69	≤-24.86	PASS
		2437	Reference	-3.92	-3.92	---	PASS
			30~1000	-3.92	-68.09	≤-23.92	PASS
			1000~26500	-3.92	-46.45	≤-23.92	PASS
		2462	Reference	-3.87	-3.87	---	PASS
			30~1000	-3.87	-68.66	≤-23.87	PASS
			1000~26500	-3.87	-46.44	≤-23.87	PASS
11N40SISO	Ant1	2422	Reference	-7.01	-7.01	---	PASS
			30~1000	-7.01	-67.02	≤-27.01	PASS
			1000~26500	-7.01	-46.61	≤-27.01	PASS
		2437	Reference	-6.78	-6.78	---	PASS
			30~1000	-6.78	-68.12	≤-26.78	PASS
			1000~26500	-6.78	-45.93	≤-26.78	PASS
		2452	Reference	-6.69	-6.69	---	PASS
			30~1000	-6.69	-68.66	≤-26.69	PASS
			1000~26500	-6.69	-46.52	≤-26.69	PASS

Test Graphs

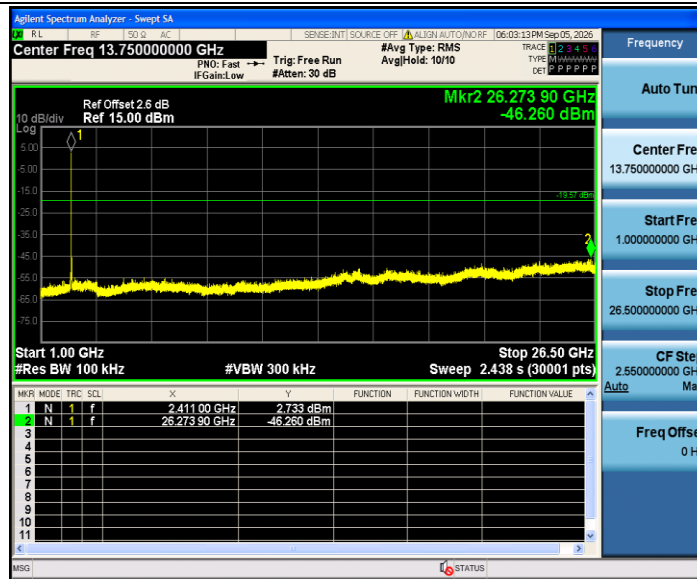
11B_Ant1_2412_0~Reference



11B_Ant1_2412_30~1000



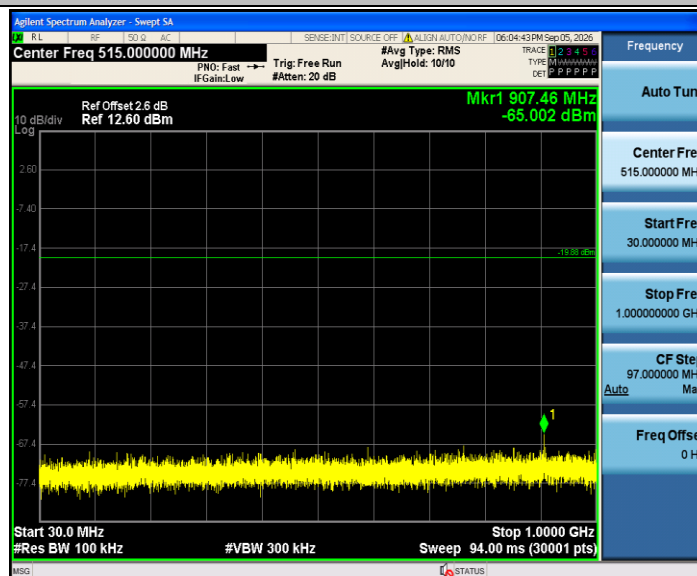
11B_Ant1_2412_1000~26500



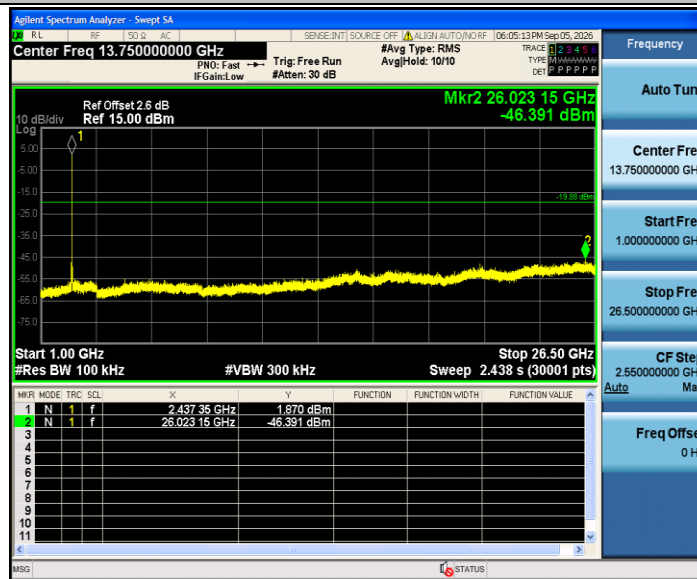
11B_Ant1_2437_0~Reference



11B_Ant1_2437_30~1000



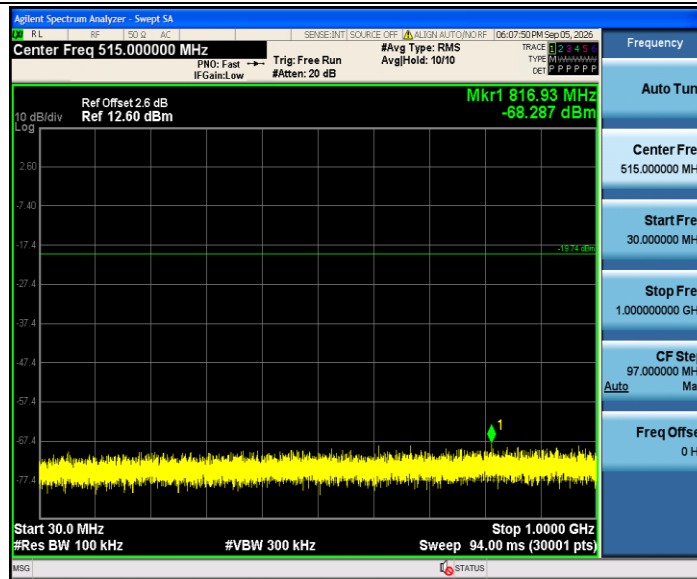
11B_Ant1_2437_1000~26500



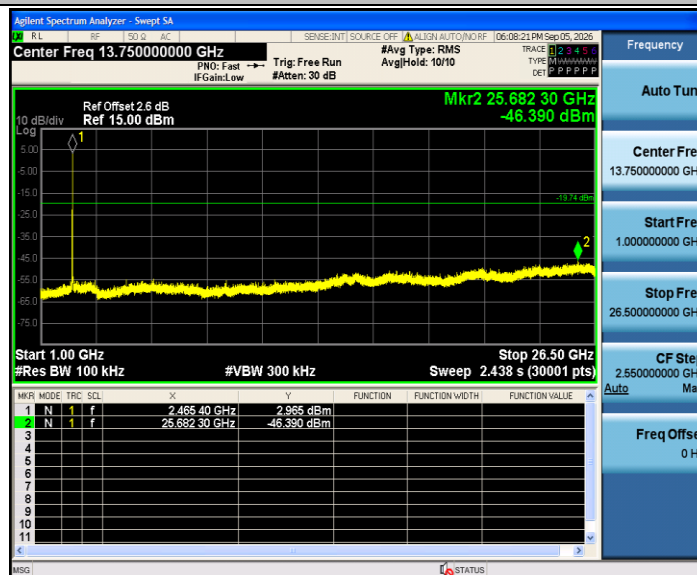
11B_Ant1_2462_0~Reference



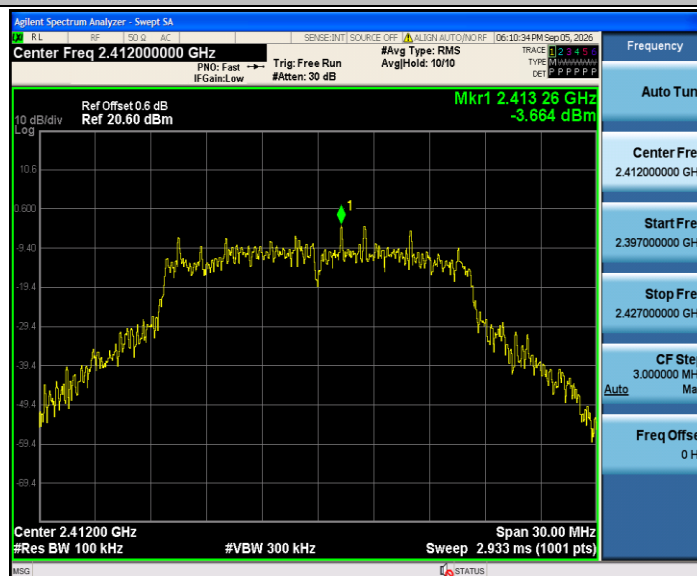
11B_Ant1_2462_30~1000



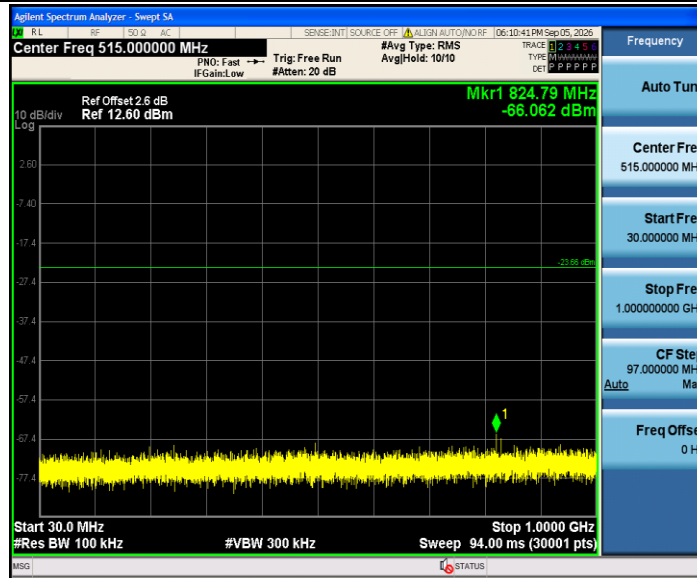
11B_Ant1_2462_1000~26500



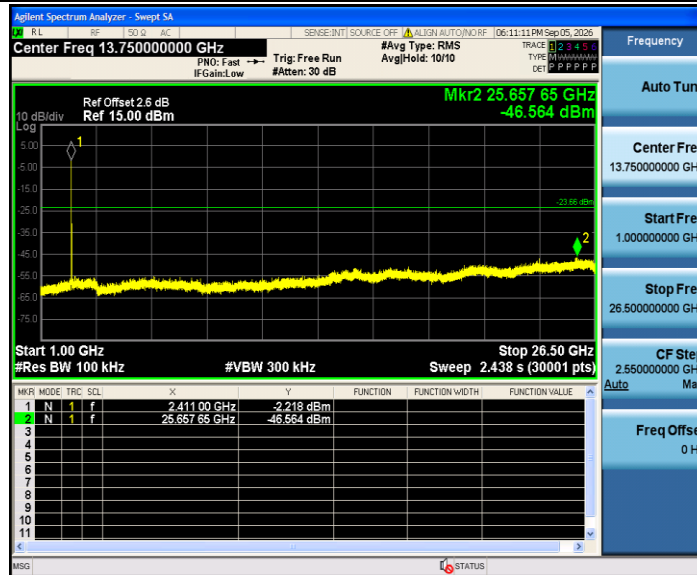
11G_Ant1_2412_0~Reference



11G_Ant1_2412_30~1000



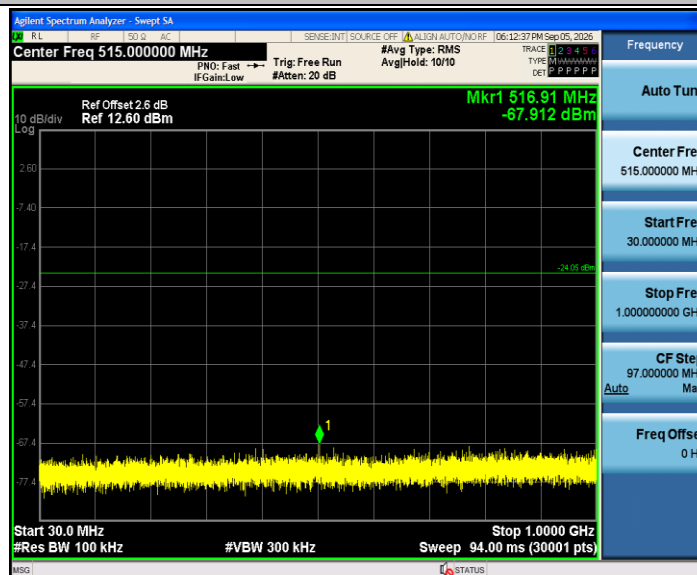
11G_Ant1_2412_1000~26500



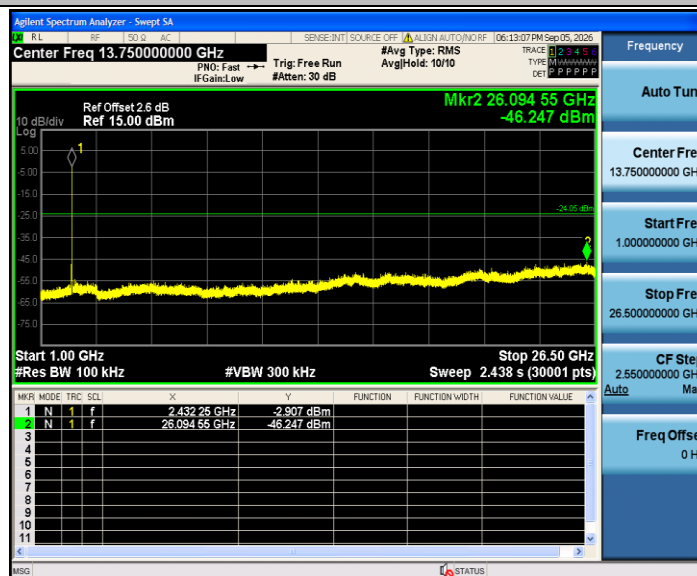
11G_Ant1_2437_0~Reference



11G_Ant1_2437_30~1000



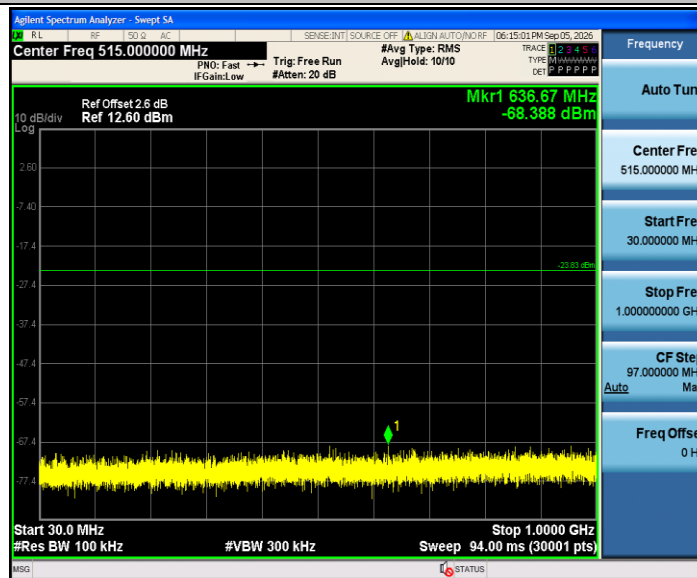
11G_Ant1_2437_1000~26500



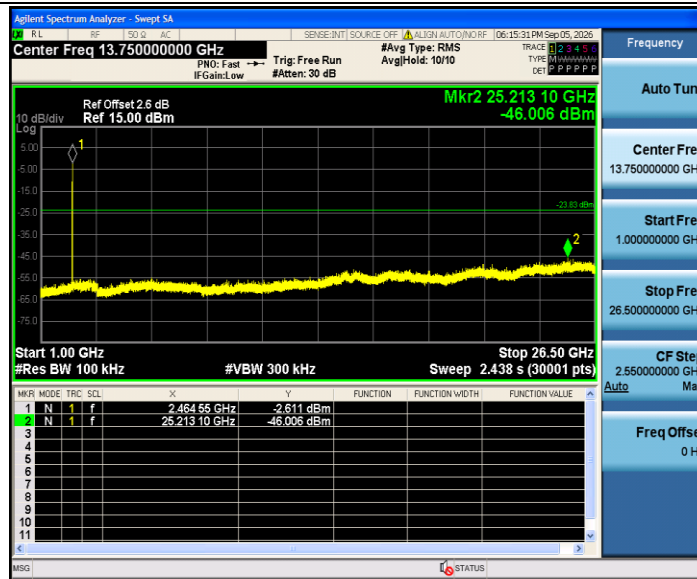
11G_Ant1_2462_0~Reference



11G_Ant1_2462_30~1000



11G_Ant1_2462_1000~26500



11N20SISO_Ant1_2412_0~Reference



11N20SISO_Ant1_2412_30~1000

