

FCC Appendix RF Test Data for 2.4GWIFI

FCC ID : 2BA4J-D2203

Company : Pangao Photoelectric

EUT : HYDRA-Mini 4-in-1 Thermal Monocular

Model Number : D2203

Report No. : CTA26051400802

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	10.200	2456.920	2467.120	0.5	PASS
11G	Ant1	2412	15.680	2404.120	2419.800	0.5	PASS
		2437	15.920	2429.080	2445.000	0.5	PASS
		2462	15.840	2454.040	2469.880	0.5	PASS
11N20SISO	Ant1	2412	16.720	2403.720	2420.440	0.5	PASS
		2437	16.960	2428.640	2445.600	0.5	PASS
		2462	16.880	2453.480	2470.360	0.5	PASS

Test Graphs

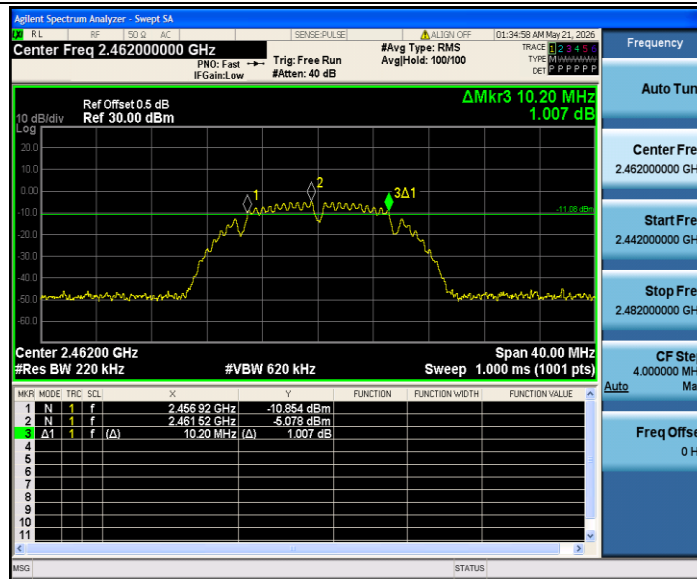
11B_Ant1_2412



11B_Ant1_2437



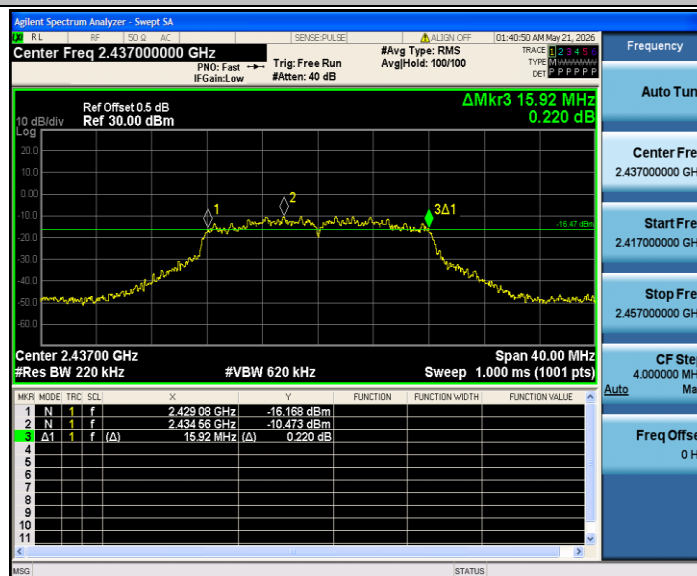
11B_Ant1_2462



11G_Ant1_2412



11G_Ant1_2437



11G_Ant1_2462



11N20SISO_Ant1_2412



11N20SISO_Ant1_2437



11N20SISO_Ant1_2462



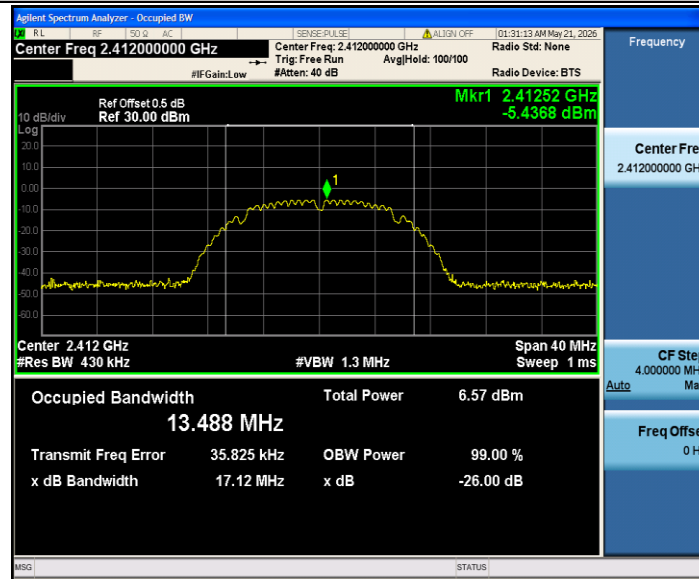
Appendix B: Occupied Channel Bandwidth

Test Result

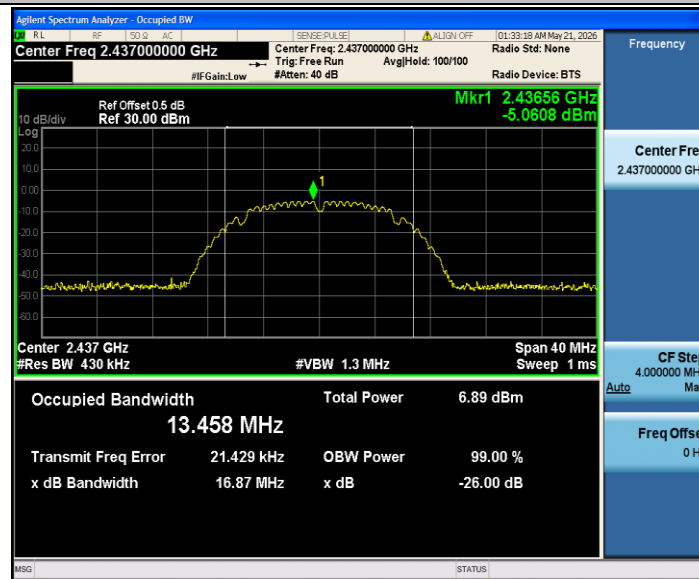
TestMode	Antenna	Channel Frequency[MHz]	OCB [MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
11B	Ant1	2412	13.488	2405.2918	2418.7798	---	---
		2437	13.458	2430.2924	2443.7504	---	---
		2462	13.488	2455.2708	2468.7588	---	---
11G	Ant1	2412	16.963	2403.5845	2420.5475	---	---
		2437	16.889	2428.6398	2445.5288	---	---
		2462	16.890	2453.6263	2470.5163	---	---
11N20SISO	Ant1	2412	17.881	2403.0934	2420.9744	---	---
		2437	17.939	2428.0242	2445.9632	---	---
		2462	17.907	2453.0843	2470.9913	---	---

Test Graphs

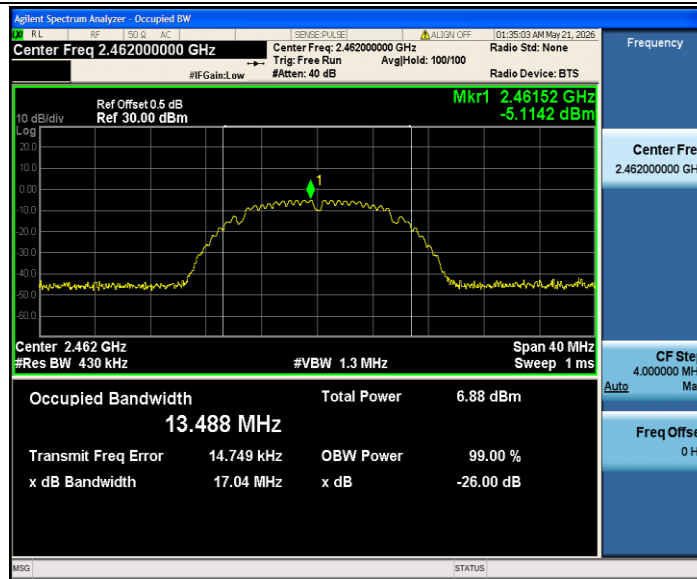
11B_Ant1_2412



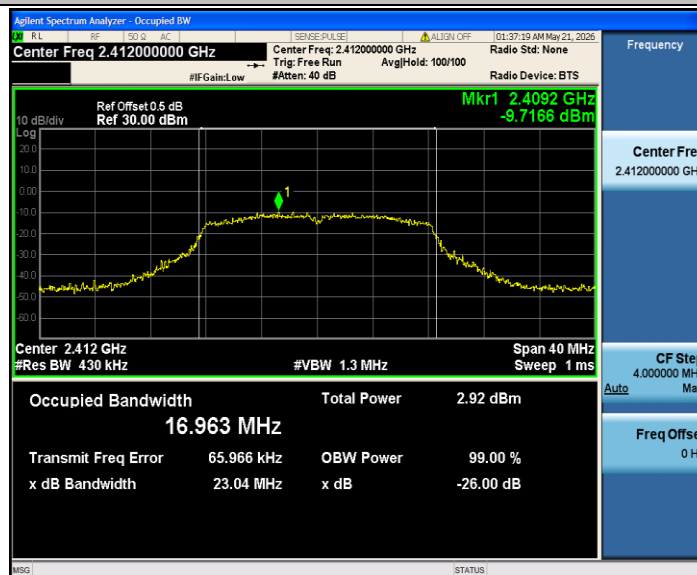
11B_Ant1_2437



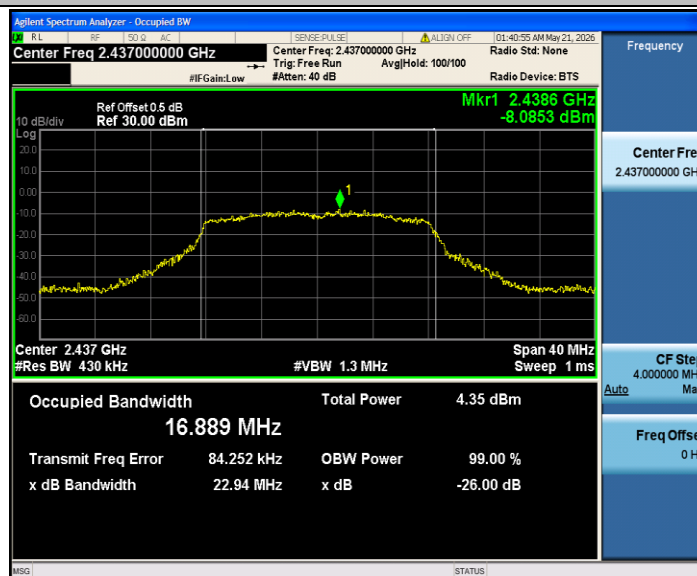
11B_Ant1_2462



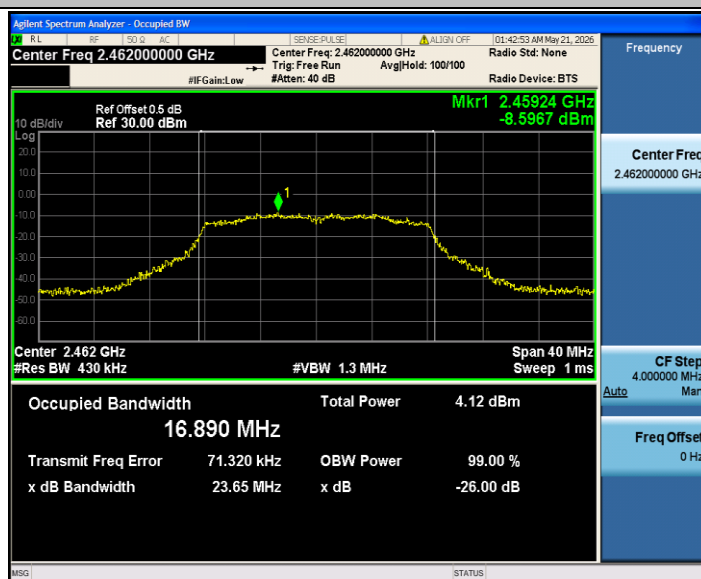
11G_Ant1_2412



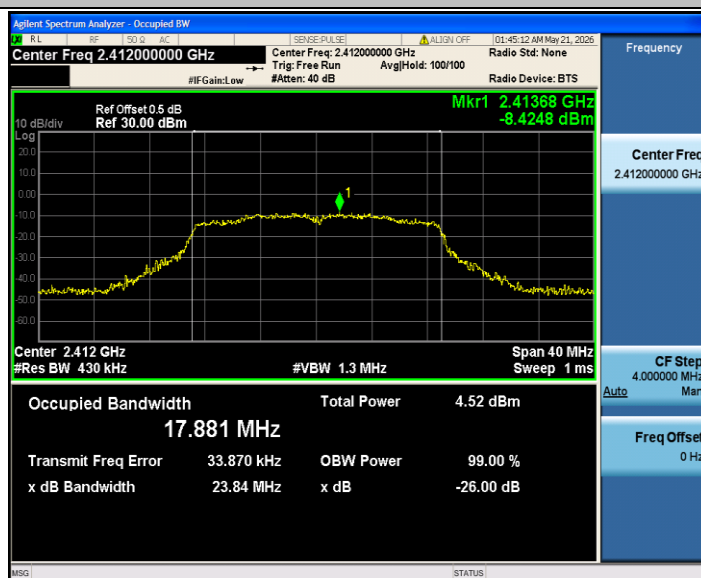
11G_Ant1_2437



11G_Ant1_2462



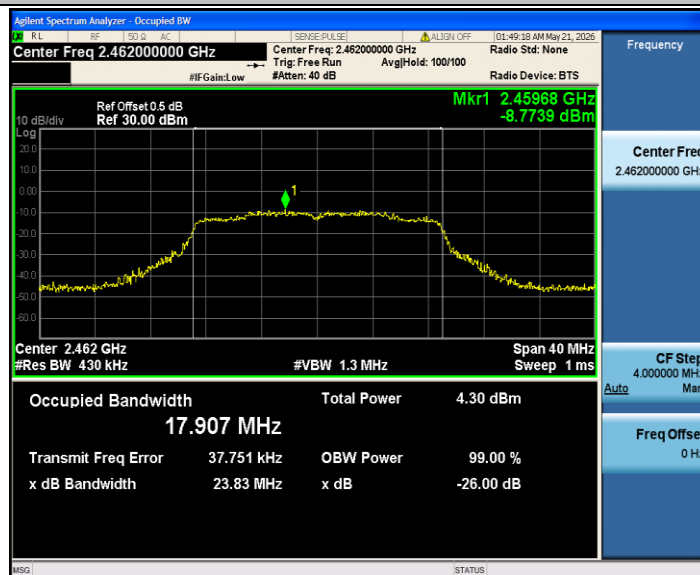
11N20SISO_Ant1_2412



11N20SISO_Ant1_2437



11N20SISO_Ant1_2462



Appendix C: Maximum conducted output power

Test Result Average

Test Mode	Antenna	Frequency[M Hz]	Result [dBm]	Limit [dBm]	Verdict
11B	Ant1	2412	6.17	≤30.00	PASS
		2437	6.48	≤30.00	PASS
		2462	6.58	≤30.00	PASS
11G	Ant1	2412	5.22	≤30.00	PASS
		2437	5.30	≤30.00	PASS
		2462	5.11	≤30.00	PASS
11N20SISO	Ant1	2412	5.33	≤30.00	PASS
		2437	5.39	≤30.00	PASS
		2462	5.22	≤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	-20.29	≤8.00	PASS
		2437	-19.43	≤8.00	PASS
		2462	-19.00	≤8.00	PASS
11G	Ant1	2412	-26.31	≤8.00	PASS
		2437	-25.99	≤8.00	PASS
		2462	-26.97	≤8.00	PASS
11N20SISO	Ant1	2412	-25.60	≤8.00	PASS
		2437	-26.58	≤8.00	PASS
		2462	-25.07	≤8.00	PASS

Test Graphs

11B_Ant1_2412



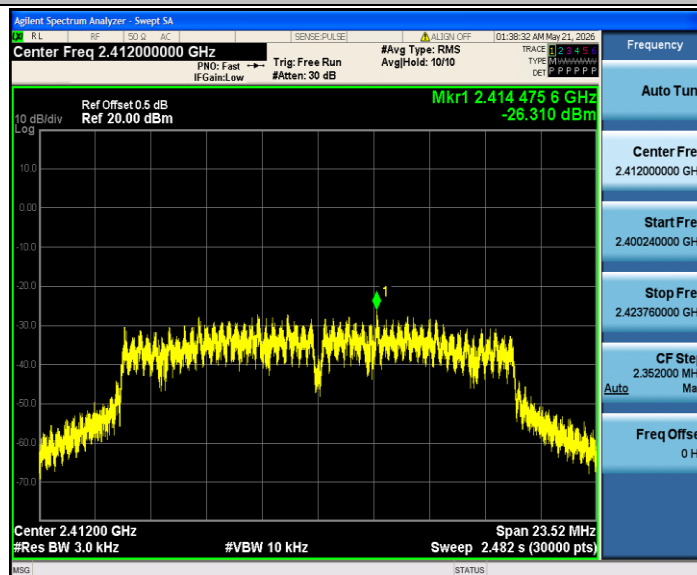
11B_Ant1_2437



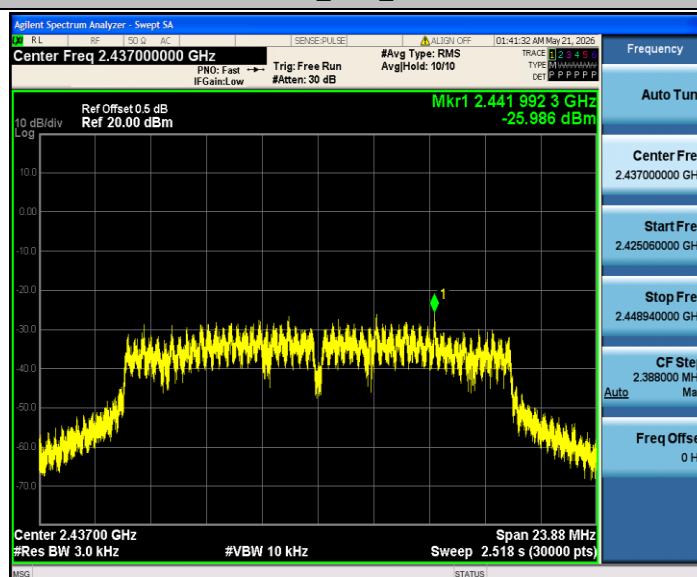
11B_Ant1_2462



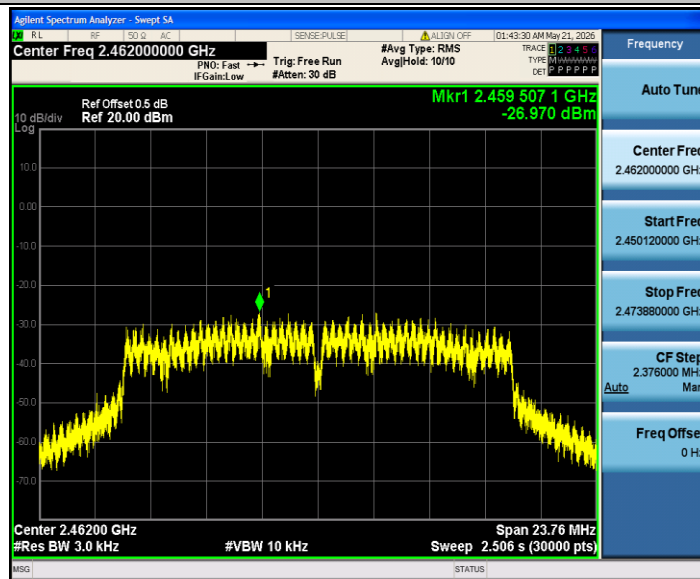
11G_Ant1_2412



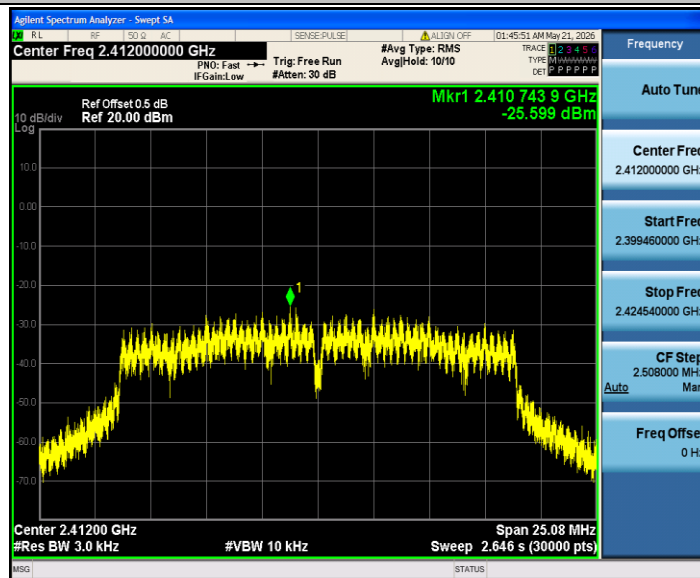
11G_Ant1_2437



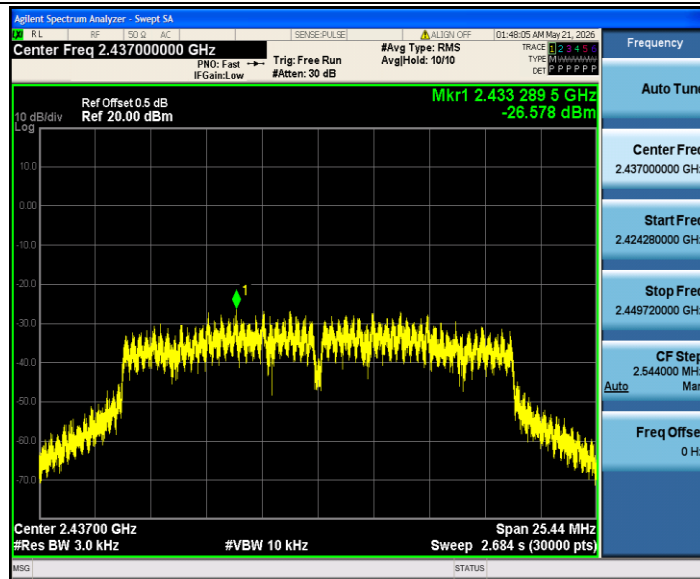
11G_Ant1_2462



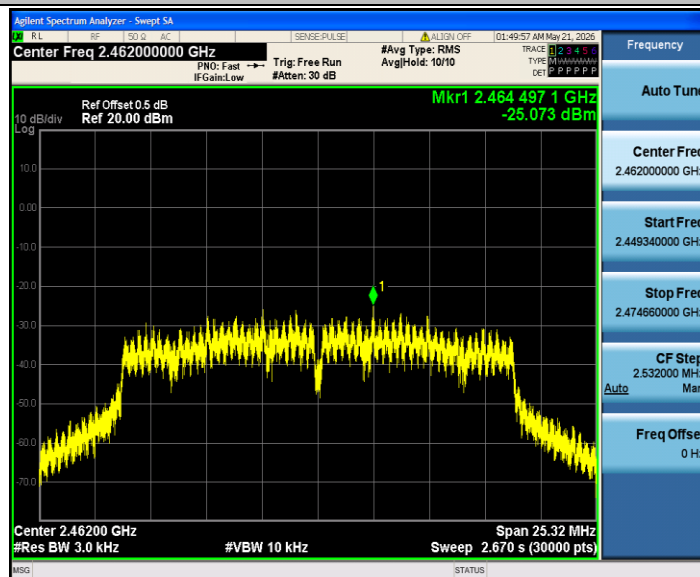
11N20SISO_Ant1_2412



11N20SISO_Ant1_2437



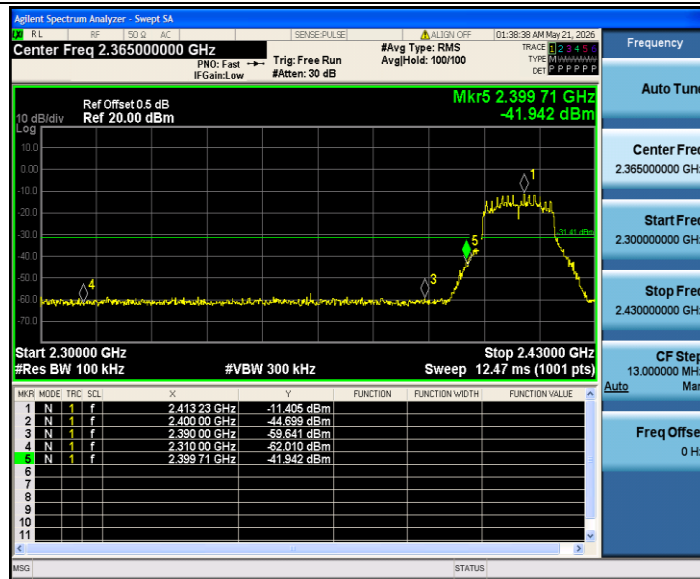
11N20SISO_Ant1_2462



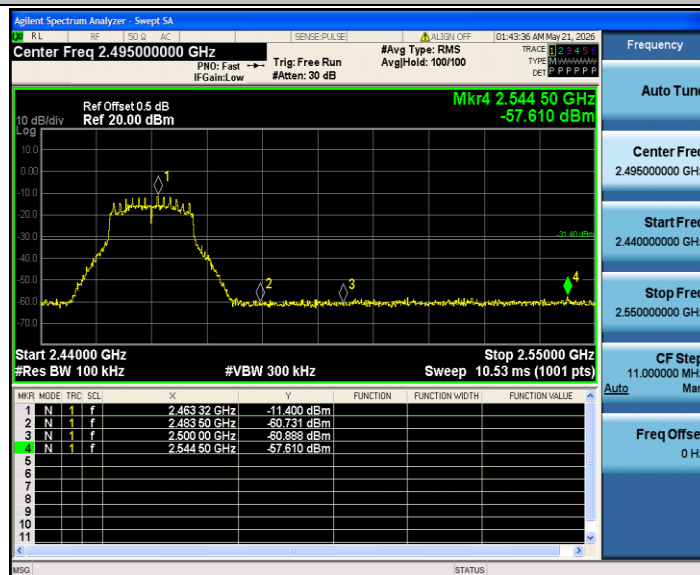
Appendix E: Band edge measurements

Test Result

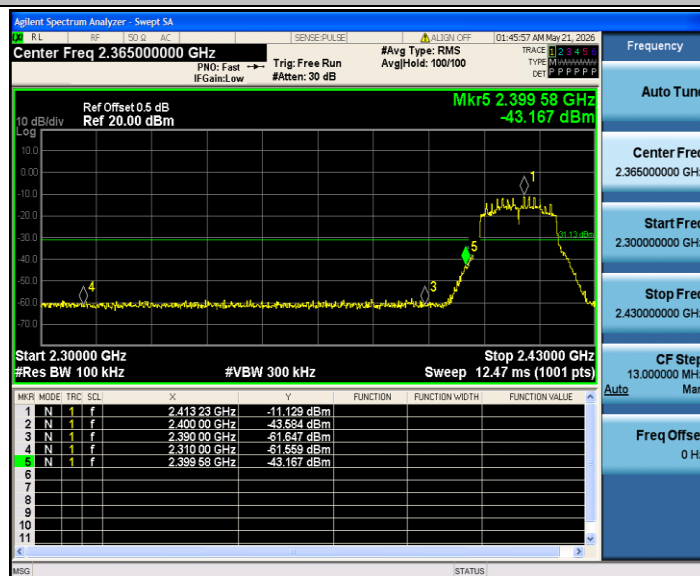
TestMode	Antenna	Channel Name	Frequency[MHz]	RefLevel[dBm]	Result[dBm]	Limit[dBm]	Verdict
11B	Ant1	Low	2412	-6.17	-56.9	≤-26.17	PASS
		High	2462	-5.94	-57.73	≤-25.94	PASS
11G	Ant1	Low	2412	-11.41	-41.94	≤-31.41	PASS
		High	2462	-11.40	-57.61	≤-31.4	PASS
11N20SISO	Ant1	Low	2412	-11.13	-43.17	≤-31.13	PASS
		High	2462	-11.16	-58.07	≤-31.16	PASS



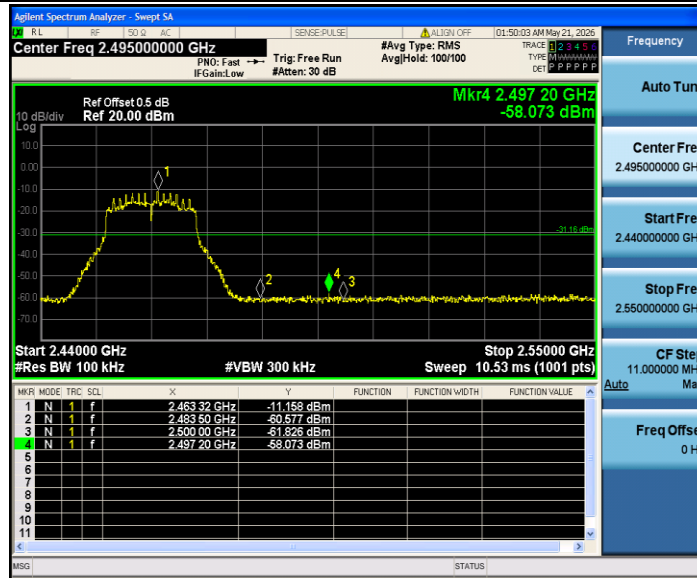
11G_Ant1_High_2462



11N20SISO_Ant1_Low_2412



11N20SISO_Ant1_High_2462



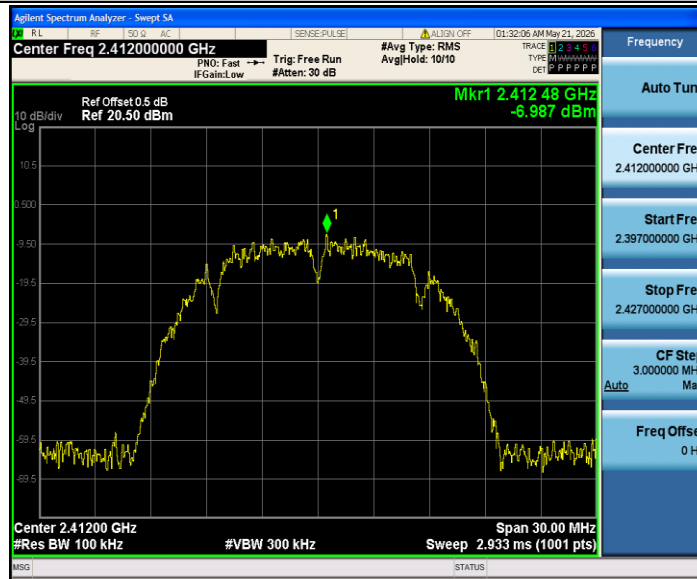
Appendix F: Conducted Spurious Emission

Test Result

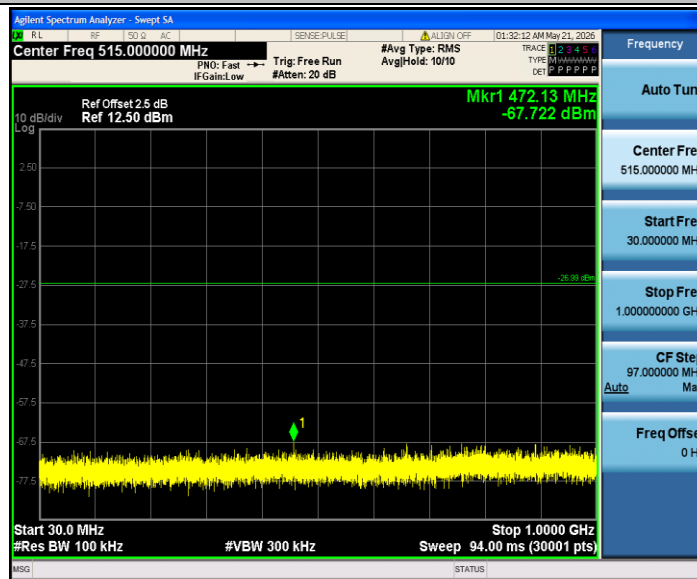
TestMode	Antenna	Frequency[MHz]	FreqRange [Mhz]	RefLevel [dBm]	Result [dBm]	Limit [dBm]	Verdict
11B	Ant1	2412	Reference	-6.99	-6.99	---	PASS
			30~1000	-6.99	-67.72	≤-26.99	PASS
			1000~26500	-6.99	-55.09	≤-26.99	PASS
		2437	Reference	-5.80	-5.80	---	PASS
			30~1000	-5.80	-68.2	≤-25.8	PASS
			1000~26500	-5.80	-55.33	≤-25.8	PASS
		2462	Reference	-6.82	-6.82	---	PASS
			30~1000	-6.82	-67.93	≤-26.82	PASS
			1000~26500	-6.82	-55.04	≤-26.82	PASS
11G	Ant1	2412	Reference	-11.68	-11.68	---	PASS
			30~1000	-11.68	-68.13	≤-31.68	PASS
			1000~26500	-11.68	-56.08	≤-31.68	PASS
		2437	Reference	-11.57	-11.57	---	PASS
			30~1000	-11.57	-67.18	≤-31.57	PASS
			1000~26500	-11.57	-55.74	≤-31.57	PASS
		2462	Reference	-12.30	-12.30	---	PASS
			30~1000	-12.30	-68.14	≤-32.3	PASS
			1000~26500	-12.30	-55.17	≤-32.3	PASS
11N20SISO	Ant1	2412	Reference	-11.88	-11.88	---	PASS
			30~1000	-11.88	-67.71	≤-31.88	PASS
			1000~26500	-11.88	-55.09	≤-31.88	PASS
		2437	Reference	-11.53	-11.53	---	PASS
			30~1000	-11.53	-68.22	≤-31.53	PASS
			1000~26500	-11.53	-56.08	≤-31.53	PASS
		2462	Reference	-12.75	-12.75	---	PASS
			30~1000	-12.75	-67.27	≤-32.75	PASS
			1000~26500	-12.75	-55.34	≤-32.75	PASS

Test Graphs

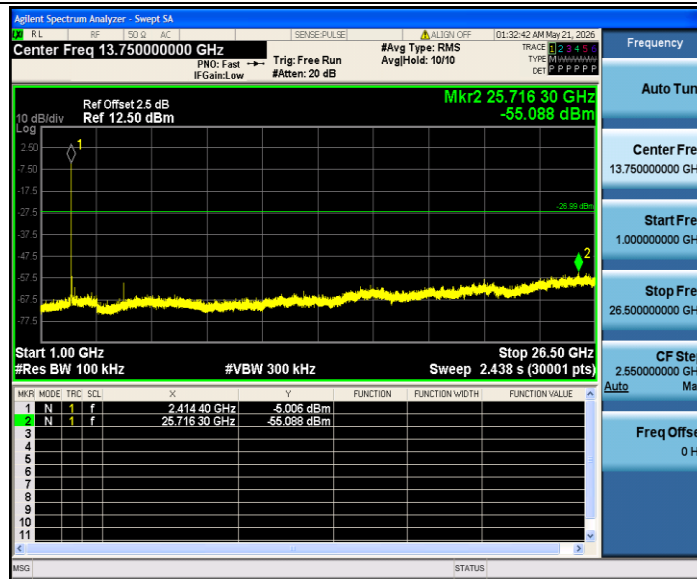
11B_Ant1_2412_0~Reference



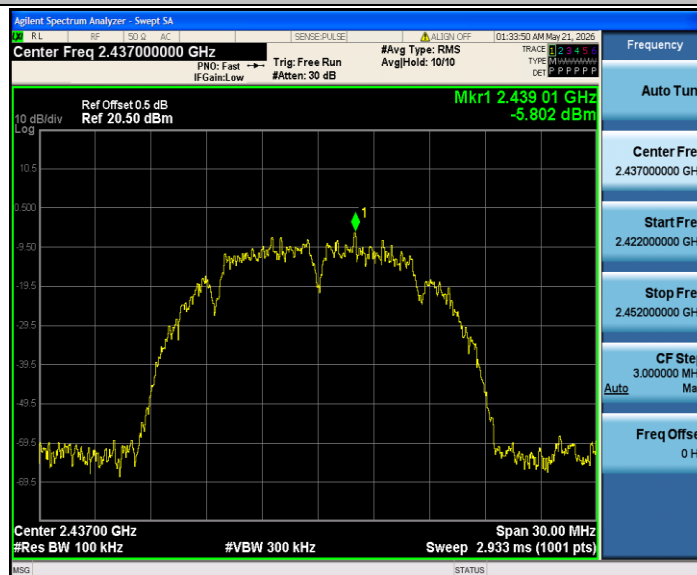
11B_Ant1_2412_30~1000



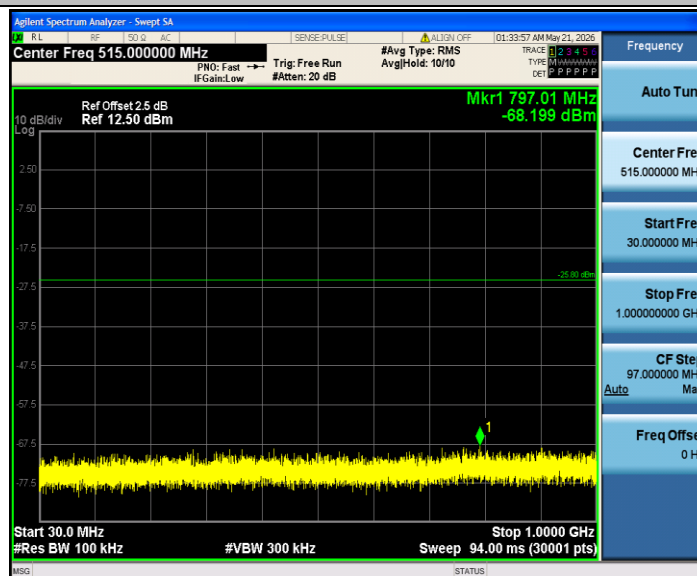
11B_Ant1_2412_1000~26500



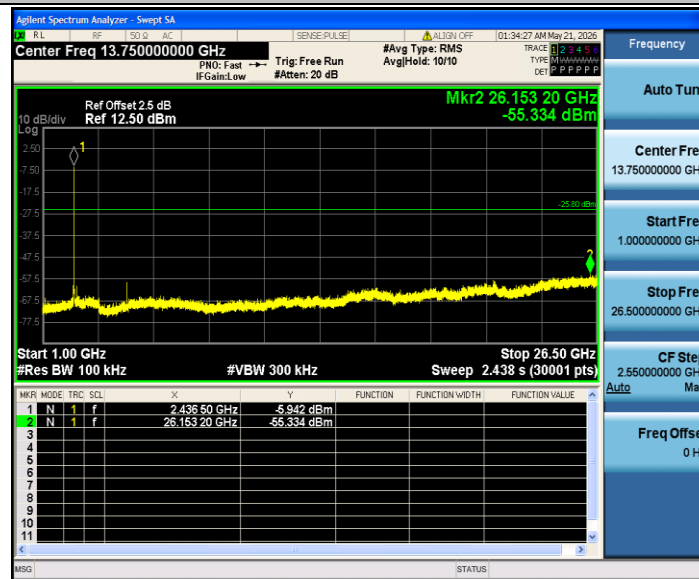
11B_Ant1_2437_0~Reference



11B_Ant1_2437_30~1000



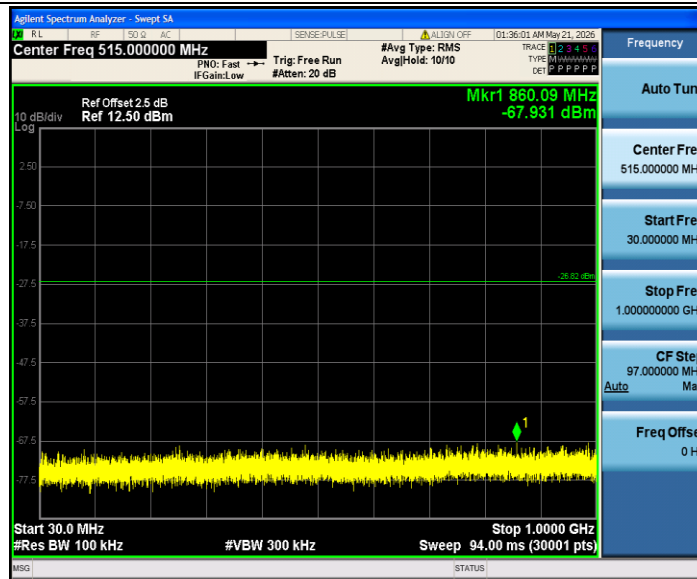
11B_Ant1_2437_1000~26500



11B_Ant1_2462_0~Reference



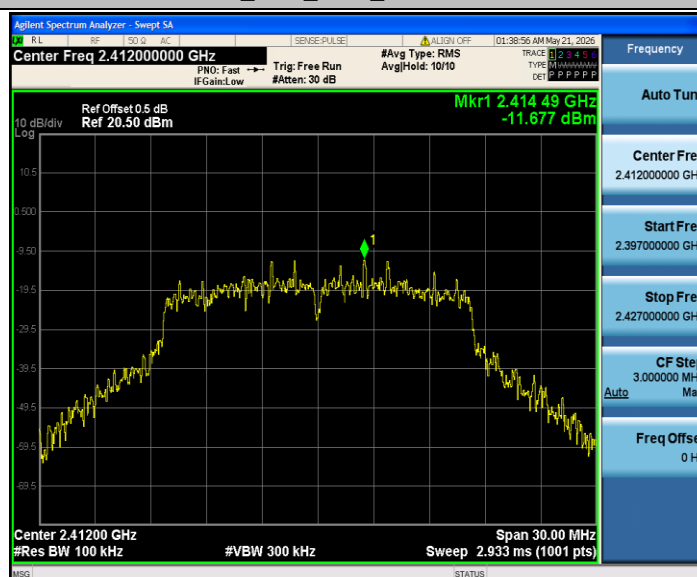
11B_Ant1_2462_30~1000



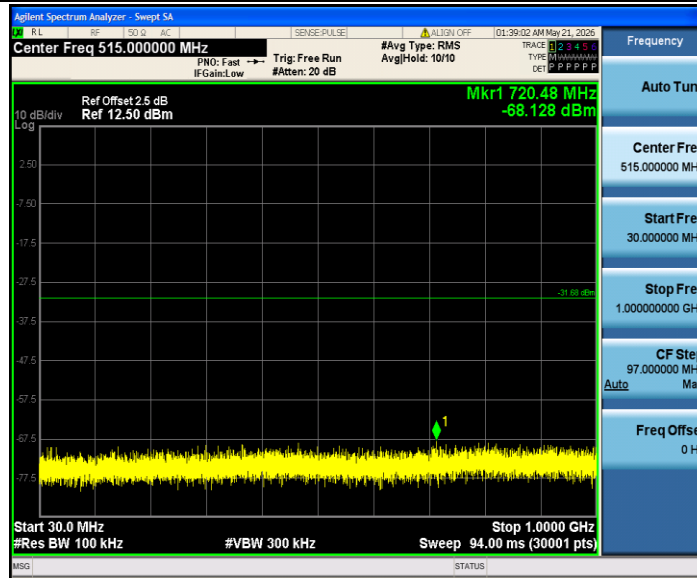
11B_Ant1_2462_1000~26500



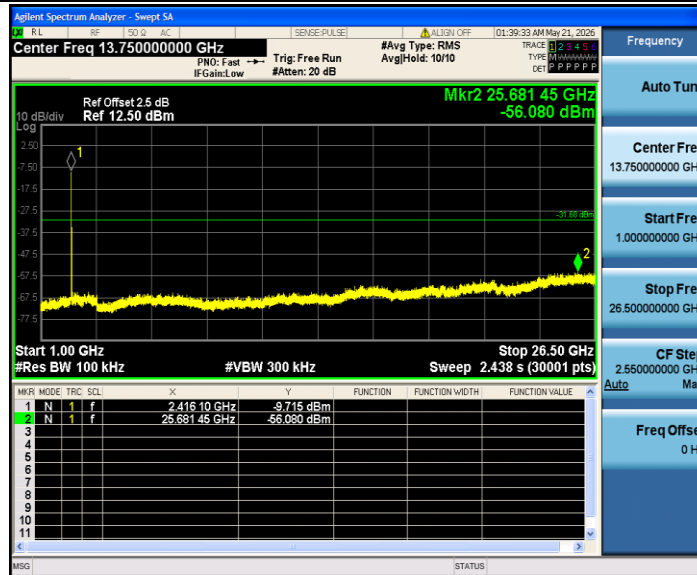
11G_Ant1_2412_0~Reference



11G_Ant1_2412_30~1000



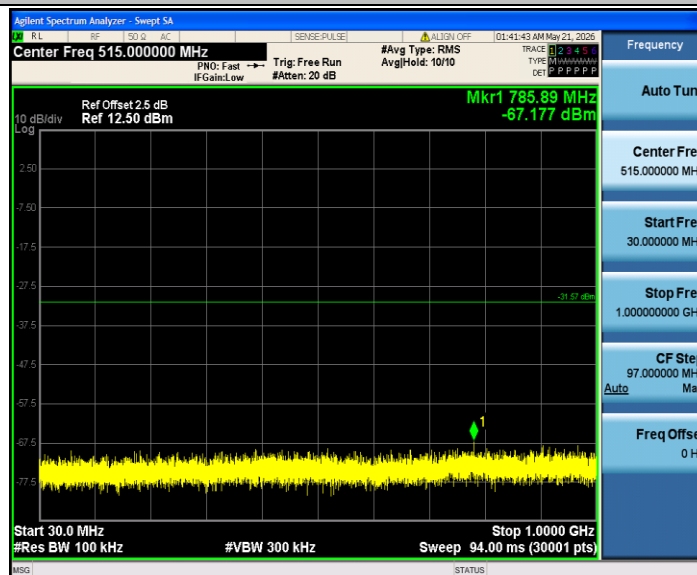
11G_Ant1_2412_1000~26500



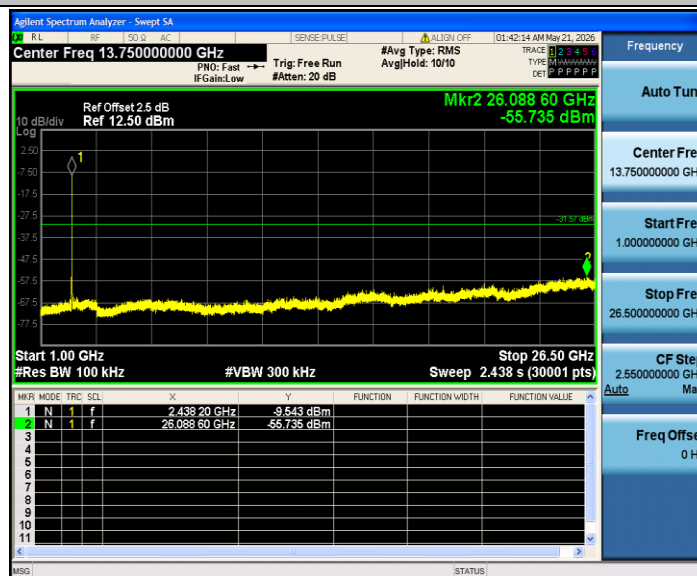
11G_Ant1_2437_0~Reference



11G_Ant1_2437_30~1000



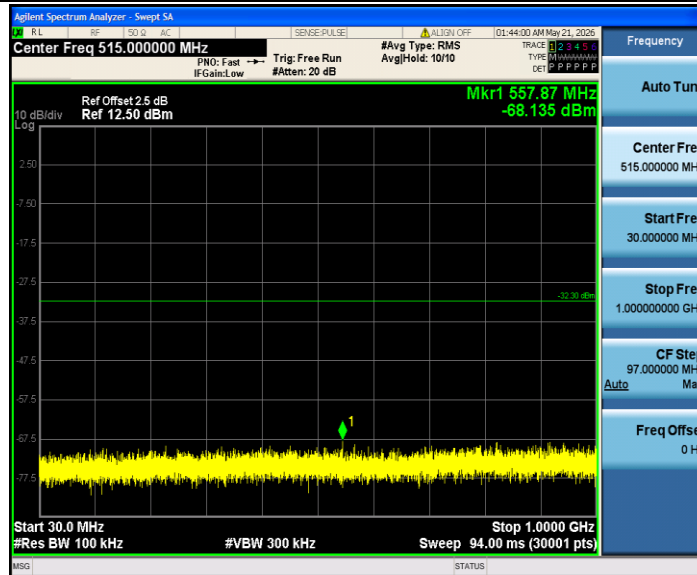
11G_Ant1_2437_1000~26500



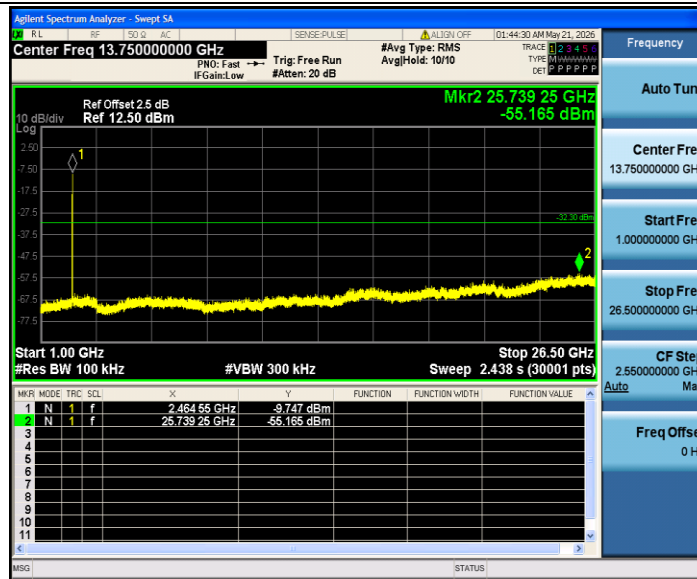
11G_Ant1_2462_0~Reference



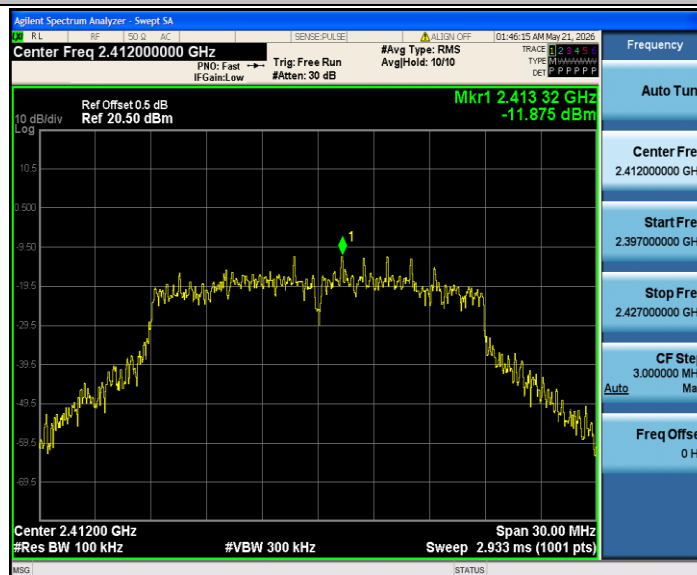
11G_Ant1_2462_30~1000



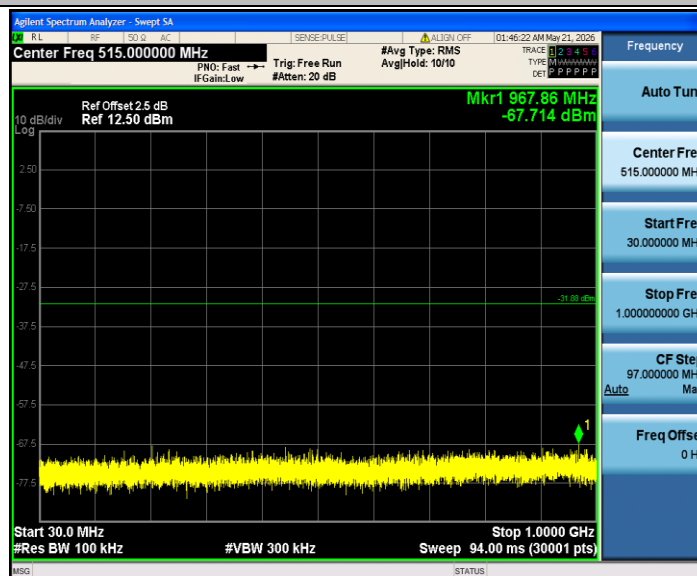
11G_Ant1_2462_1000~26500



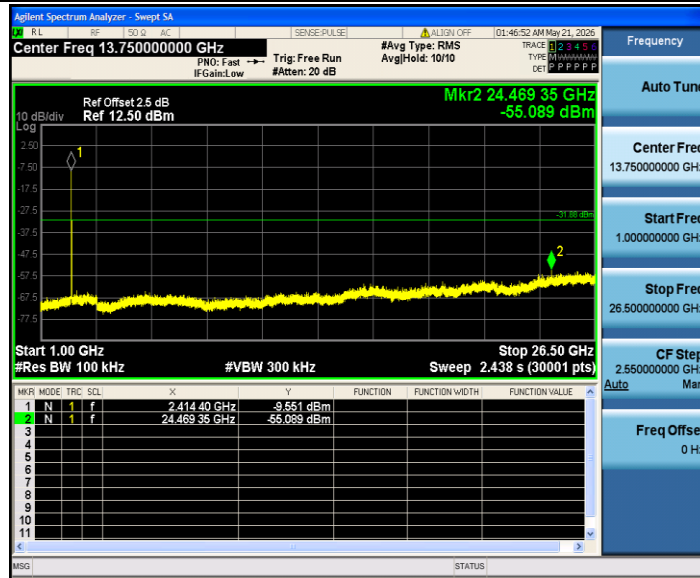
11N20SISO_Ant1_2412_0~Reference



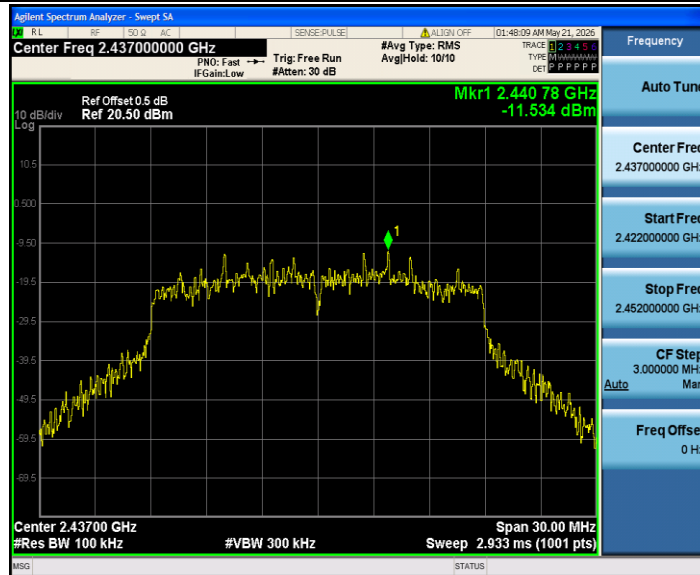
11N20SISO_Ant1_2412_30~1000



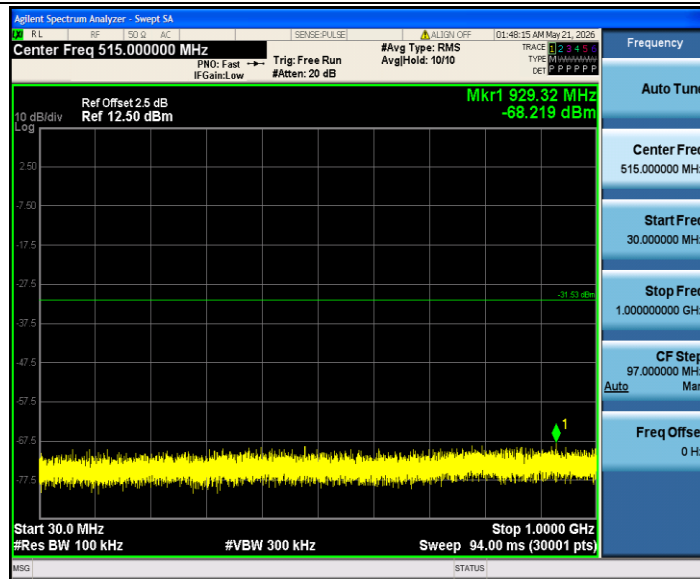
11N20SISO_Ant1_2412_1000~26500



11N20SISO_Ant1_2437_0~Reference



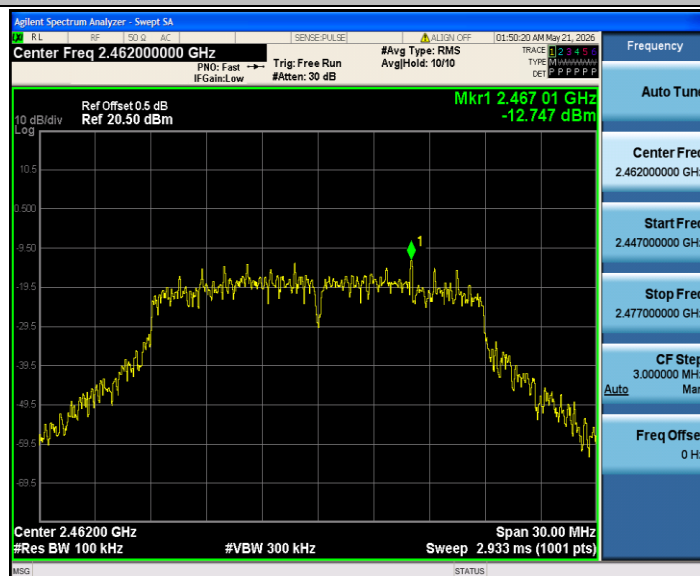
11N20SISO_Ant1_2437_30~1000



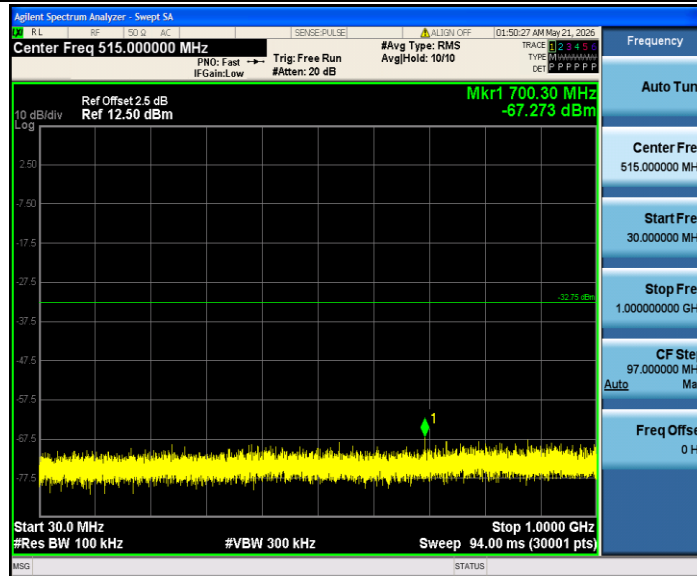
11N20SISO_Ant1_2437_1000~26500



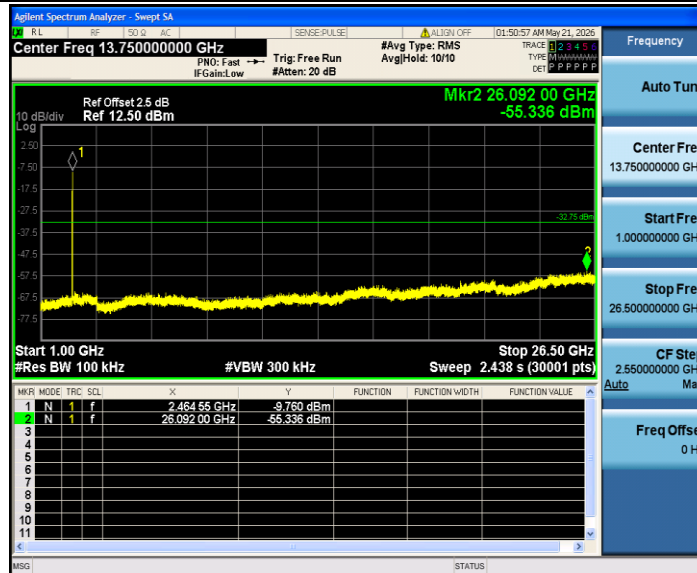
11N20SISO_Ant1_2462_0~Reference



11N20SISO_Ant1_2462_30~1000



11N20SISO_Ant1_2462_1000~26500



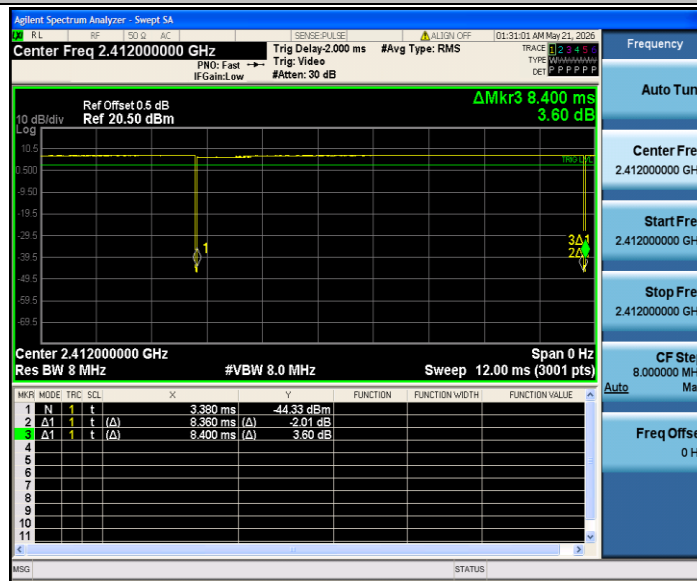
Appendix G: Duty Cycle

Test Result

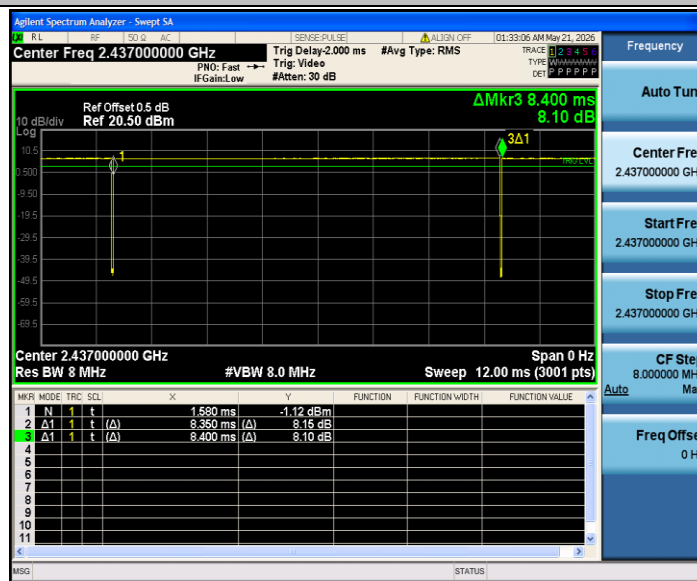
TestMode	Antenna	Frequency[MHz]	Transmission Duration [ms]	Transmission Period [ms]	Duty Cycle [%]	DC Factor [dB]	T Factor [dB]
11B	Ant1	2412	8.36	8.40	99.52	0.02	0.12
		2437	8.35	8.40	99.40	0.03	0.12
		2462	8.35	8.40	99.40	0.03	0.12
11G	Ant1	2412	0.14	0.19	73.68	1.33	7.14
		2437	0.15	0.20	75.00	1.25	6.67
		2462	0.15	0.20	75.00	1.25	6.67
11N20SISO	Ant1	2412	0.18	0.23	78.26	1.06	5.56
		2437	0.18	0.23	78.26	1.06	5.56
		2462	0.18	0.23	78.26	1.06	5.56

Test Graphs

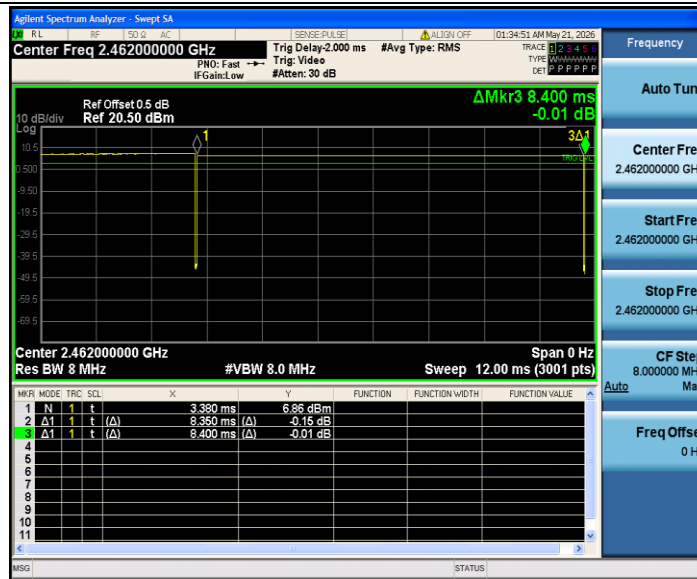
11B_Ant1_2412



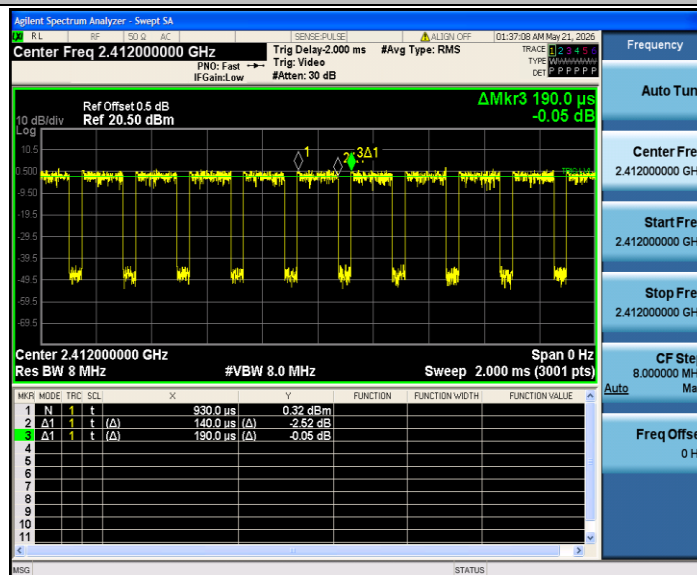
11B_Ant1_2437



11B_Ant1_2462



11G_Ant1_2412



11G_Ant1_2437

