

FCC Appendix RF Test Data for 2.4GWIFI

FCC ID : 2BSSX-MBR001

Company : Shanghai MBrainet Intelligent Technology Co.,Ltd

EUT : Intelligent Care Companion Device

Model Number : MBR001

Report No. : CTA25101000603

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	9.160	2407.480	2416.640	0.5	PASS
		2437	8.880	2432.520	2441.400	0.5	PASS
		2462	8.160	2458.040	2466.200	0.5	PASS
11G	Ant1	2412	16.280	2403.960	2420.240	0.5	PASS
		2437	16.360	2428.880	2445.240	0.5	PASS
		2462	16.280	2453.920	2470.200	0.5	PASS
11N20SISO	Ant1	2412	17.240	2403.440	2420.680	0.5	PASS
		2437	17.360	2428.400	2445.760	0.5	PASS
		2462	17.320	2453.400	2470.720	0.5	PASS
11N40SISO	Ant1	2422	34.160	2405.200	2439.360	0.5	PASS
		2437	34.160	2420.120	2454.280	0.5	PASS
		2452	34.240	2434.960	2469.200	0.5	PASS

Test Graphs

11B_Ant1_2412



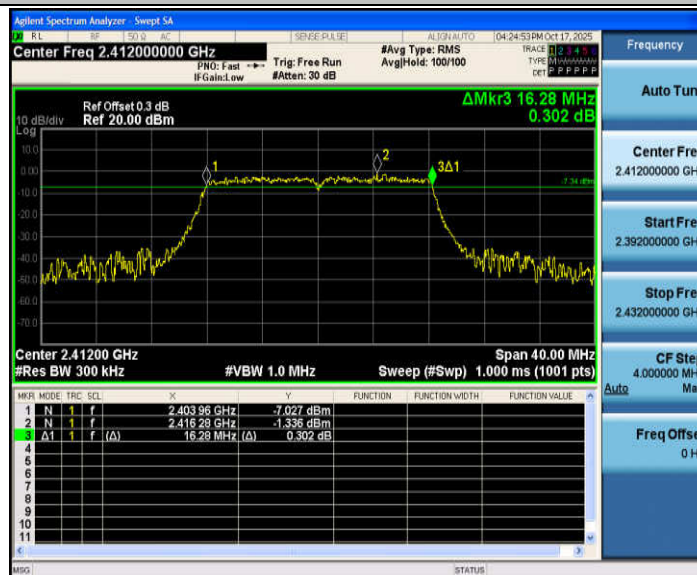
11B_Ant1_2437



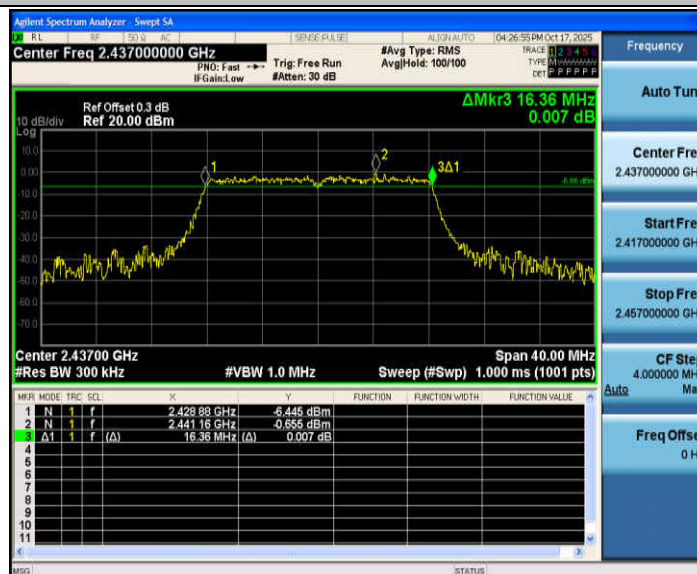
11B_Ant1_2462



11G_Ant1_2412



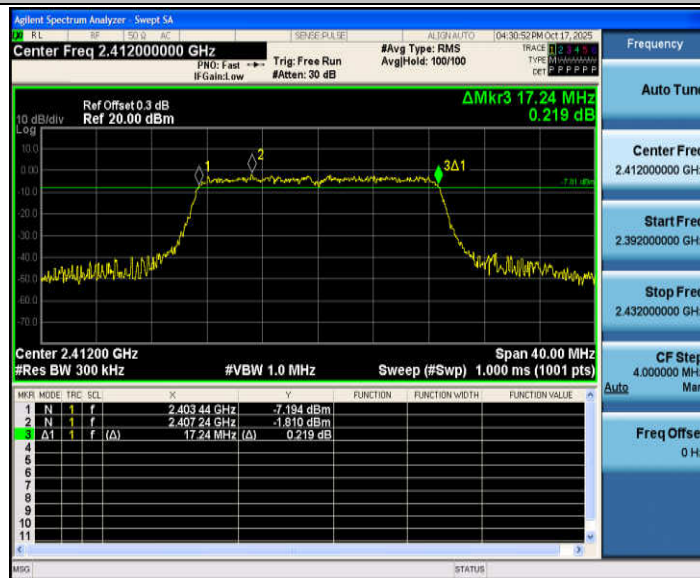
11G_Ant1_2437



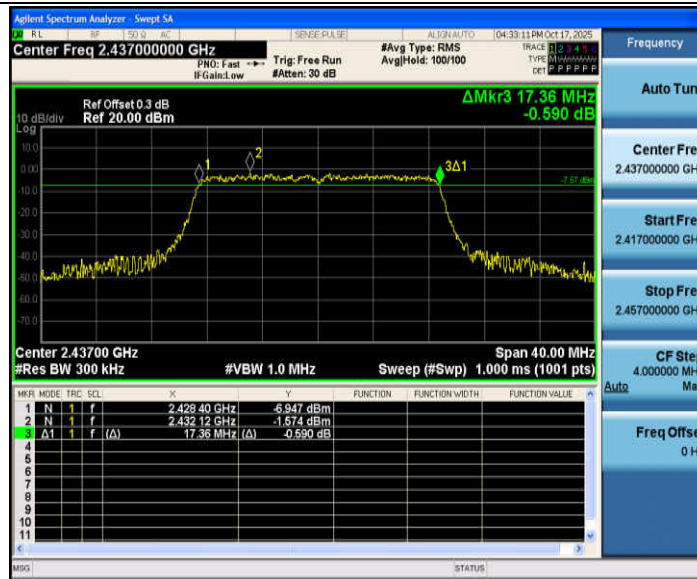
11G_Ant1_2462



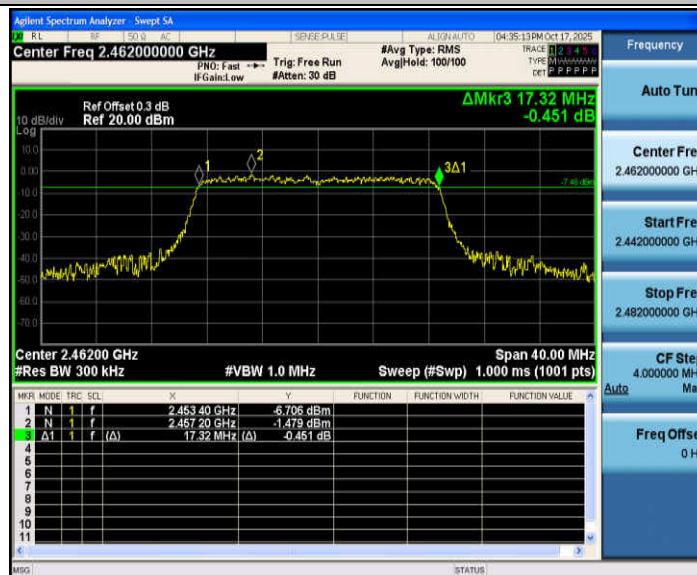
11N20SISO_Ant1_2412



11N20SISO_Ant1_2437



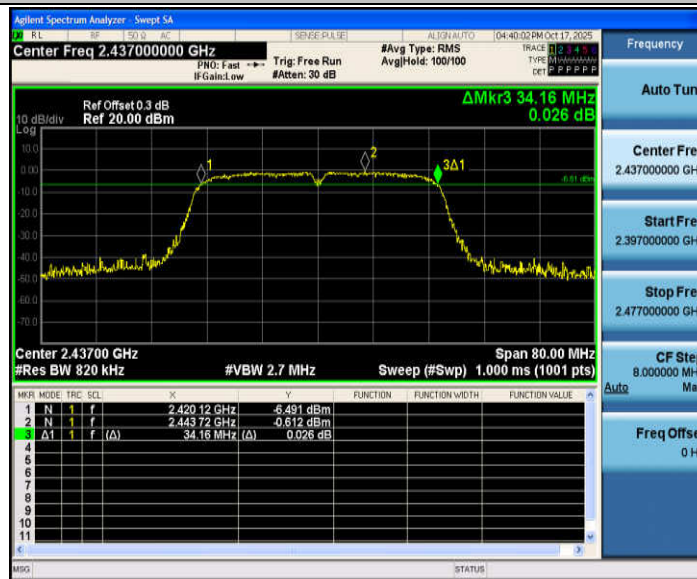
11N20SISO_Ant1_2462



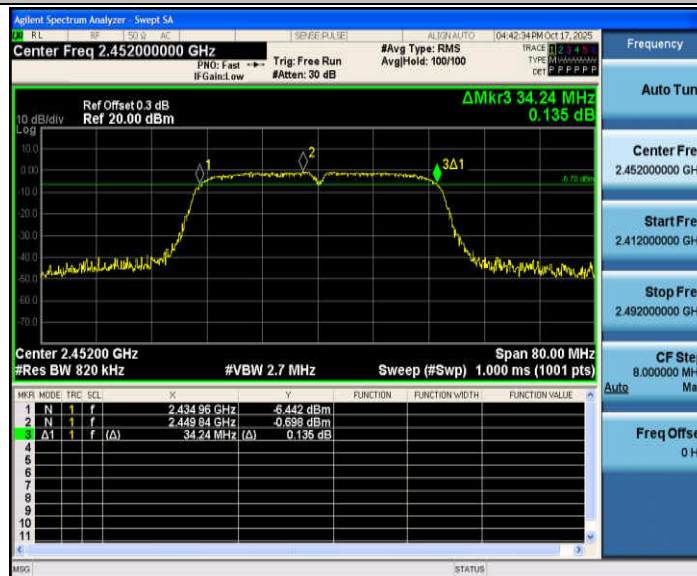
11N40SISO_Ant1_2422



11N40SISO_Ant1_2437



11N40SISO_Ant1_2452



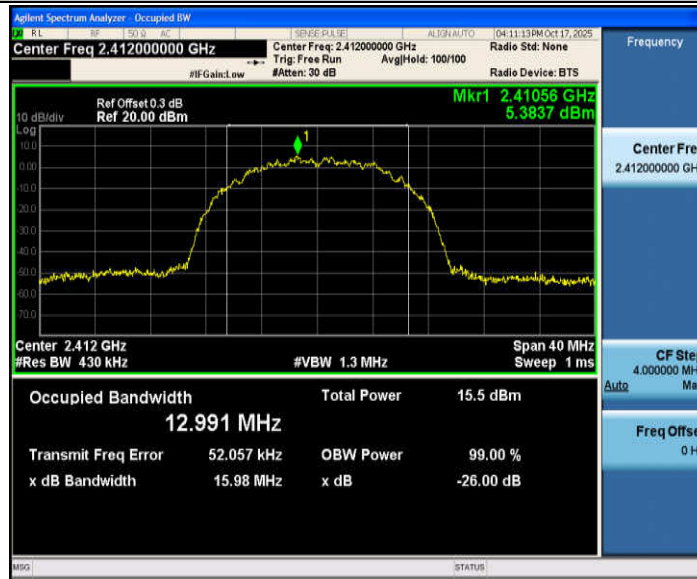
Appendix B: Occupied Channel Bandwidth

Test Result

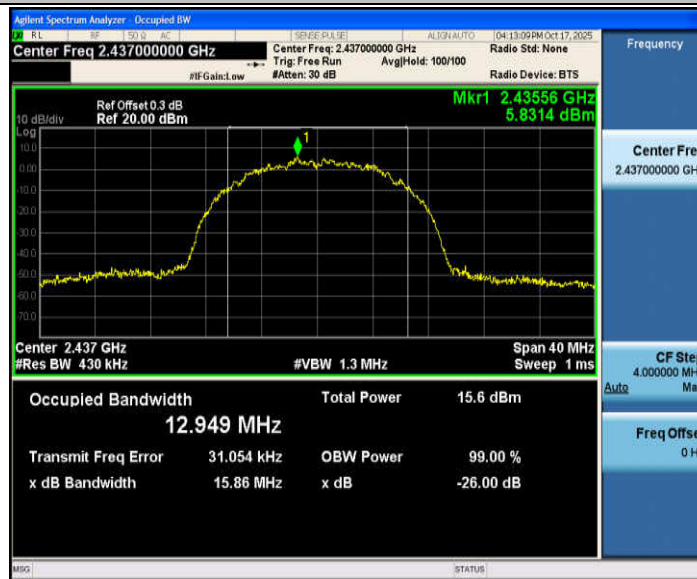
TestMode	Antenna	Channel Frequency[MHz]	OCB [MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
11B	Ant1	2412	12.991	2405.5566	2418.5476	---	---
		2437	12.949	2430.5566	2443.5056	---	---
		2462	12.982	2455.5252	2468.5072	---	---
11G	Ant1	2412	16.604	2403.7523	2420.3563	---	---
		2437	16.585	2428.7515	2445.3365	---	---
		2462	16.582	2453.7538	2470.3358	---	---
11N20SISO	Ant1	2412	17.453	2403.3306	2420.7836	---	---
		2437	17.451	2428.3168	2445.7678	---	---
		2462	17.480	2453.3004	2470.7804	---	---
11N40SISO	Ant1	2422	34.858	2404.7297	2439.5877	---	---
		2437	34.868	2419.6908	2454.5588	---	---
		2452	34.888	2434.6627	2469.5507	---	---

Test Graphs

11B_Ant1_2412



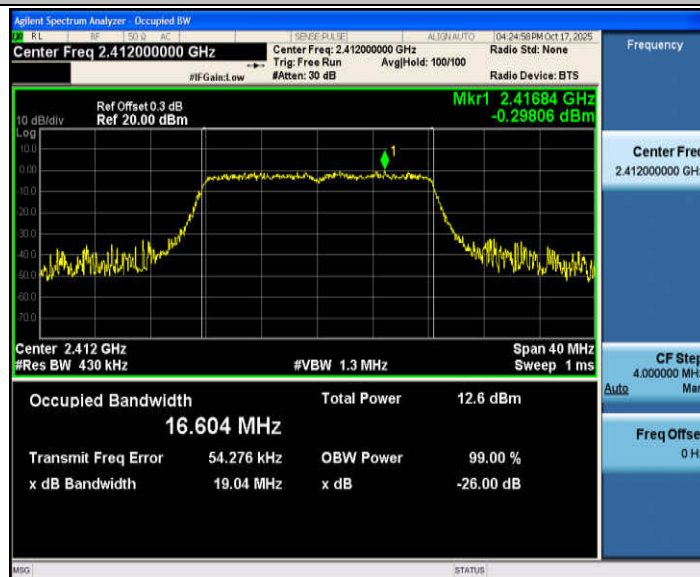
11B_Ant1_2437



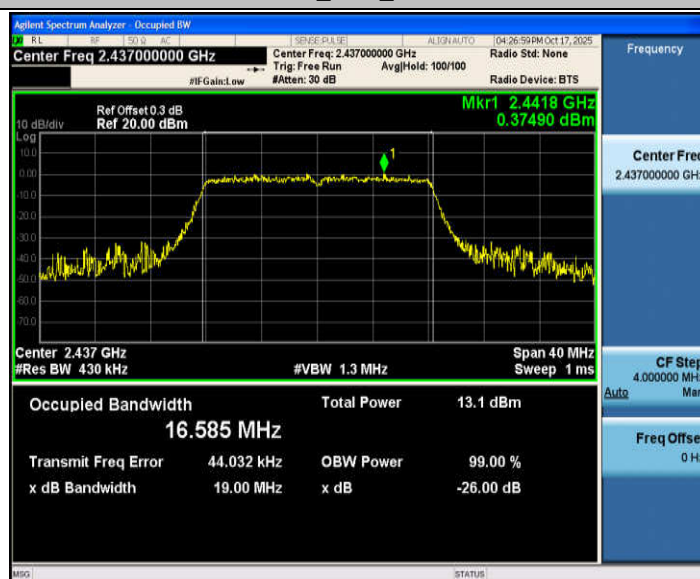
11B_Ant1_2462



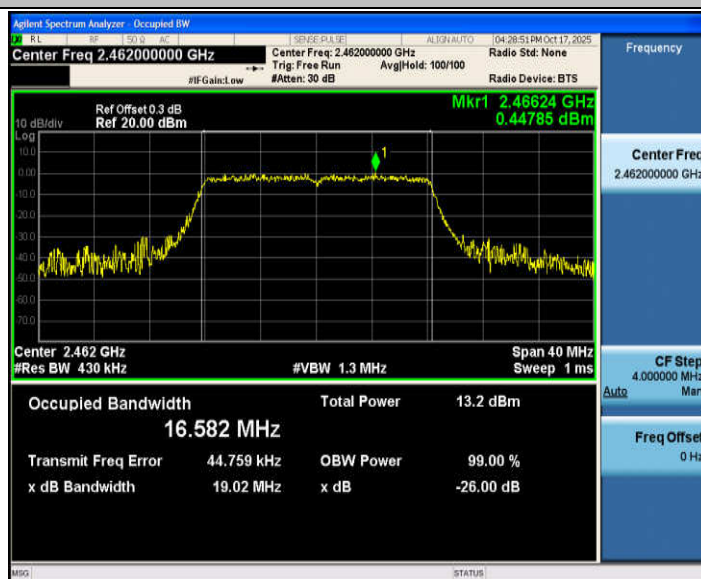
11G_Ant1_2412



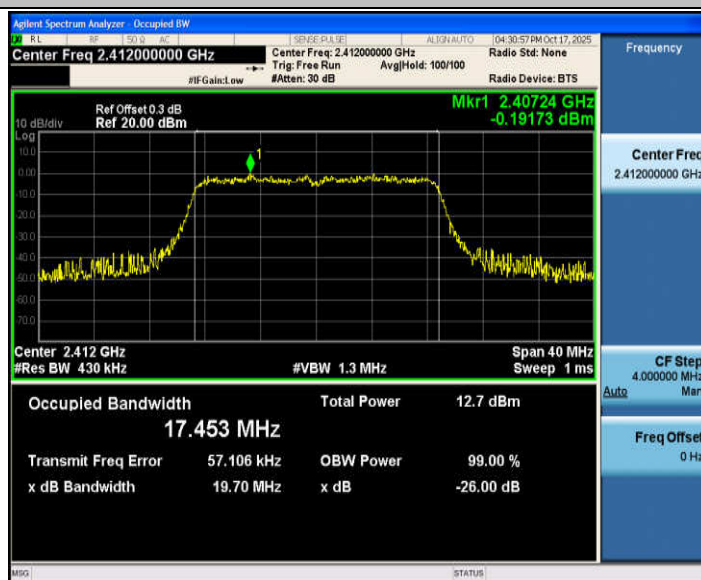
11G_Ant1_2437



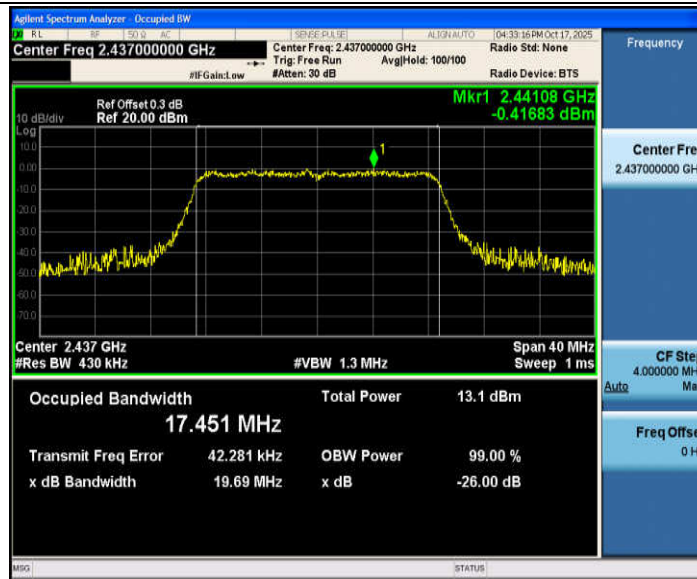
11G_Ant1_2462



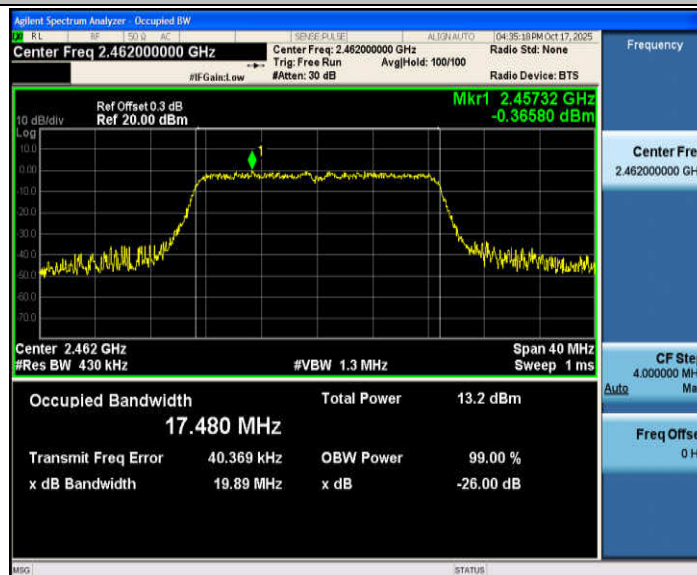
11N20SISO_Ant1_2412



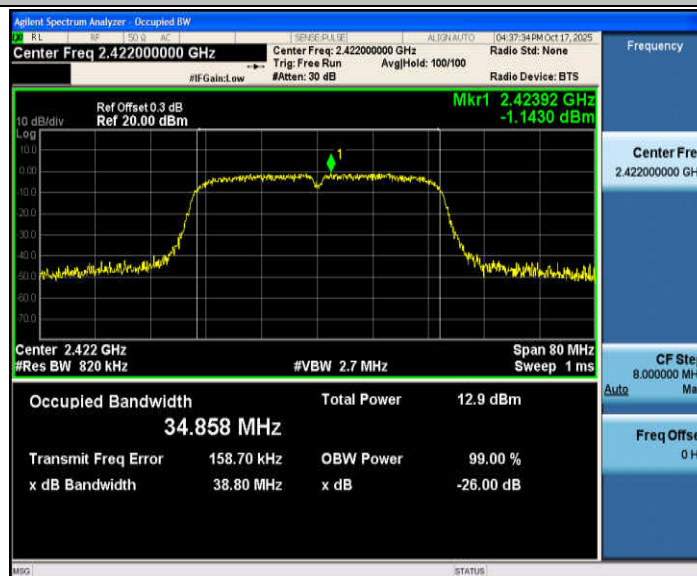
11N20SISO_Ant1_2437



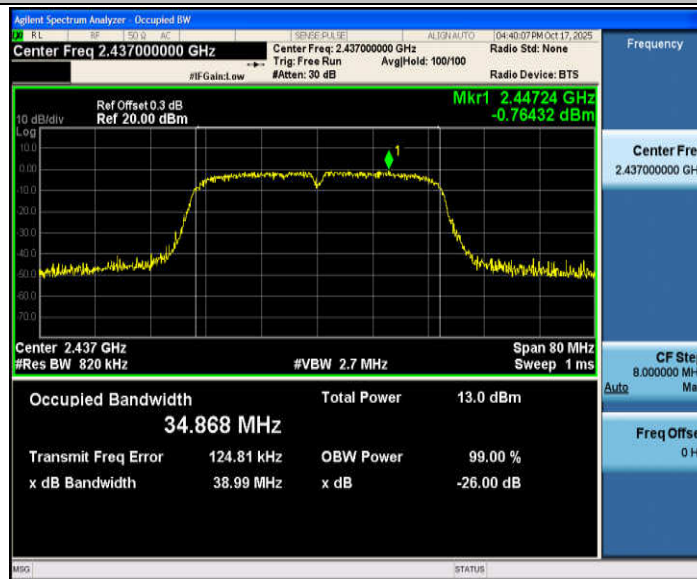
11N20SISO_Ant1_2462



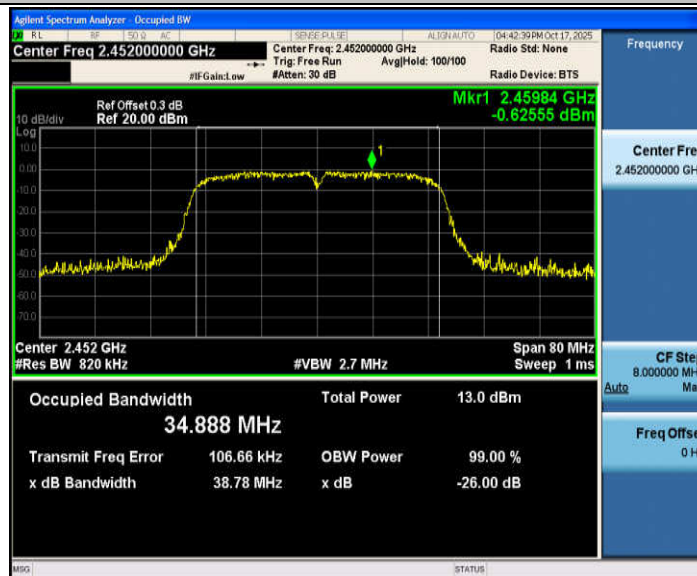
11N40SISO_Ant1_2422



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	14.97	≤30.00	PASS
		2437	15.15	≤30.00	PASS
		2462	15.35	≤30.00	PASS
11G	Ant1	2412	13.44	≤30.00	PASS
		2437	13.95	≤30.00	PASS
		2462	13.97	≤30.00	PASS
11N20SISO	Ant1	2412	13.91	≤30.00	PASS
		2437	14.40	≤30.00	PASS
		2462	14.33	≤30.00	PASS
11N40SISO	Ant1	2422	13.27	≤30.00	PASS
		2437	13.29	≤30.00	PASS
		2452	13.41	≤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	-14.34	≤8.00	PASS
		2437	-13.91	≤8.00	PASS
		2462	-13.31	≤8.00	PASS
11G	Ant1	2412	-21.01	≤8.00	PASS
		2437	-20.49	≤8.00	PASS
		2462	-20.44	≤8.00	PASS
11N20SISO	Ant1	2412	-20.22	≤8.00	PASS
		2437	-20.49	≤8.00	PASS
		2462	-20.16	≤8.00	PASS
11N40SISO	Ant1	2422	-21.21	≤8.00	PASS
		2437	-21.27	≤8.00	PASS
		2452	-22.30	≤8.00	PASS

Test Graphs

11B_Ant1_2412



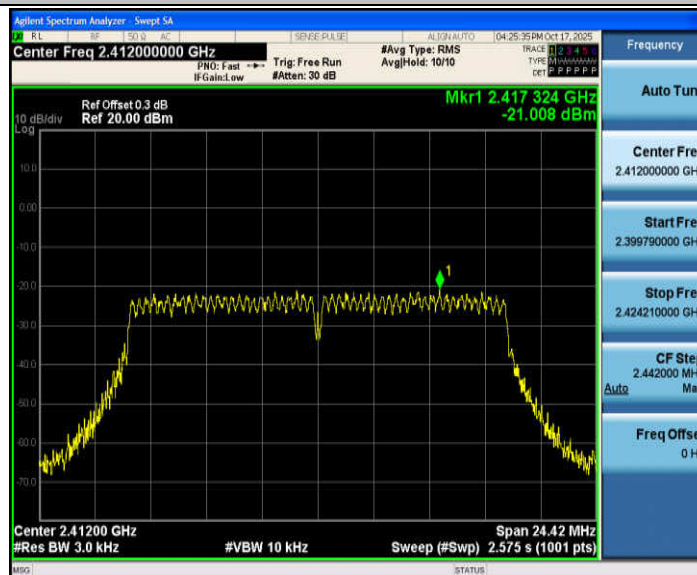
11B_Ant1_2437



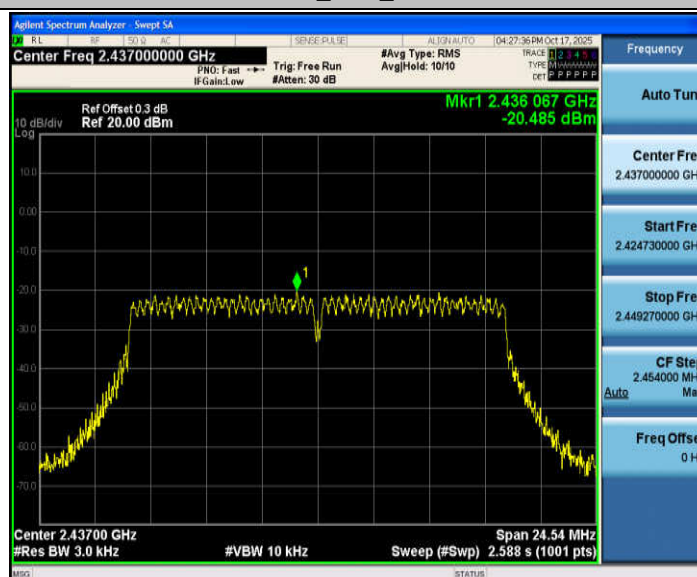
11B_Ant1_2462



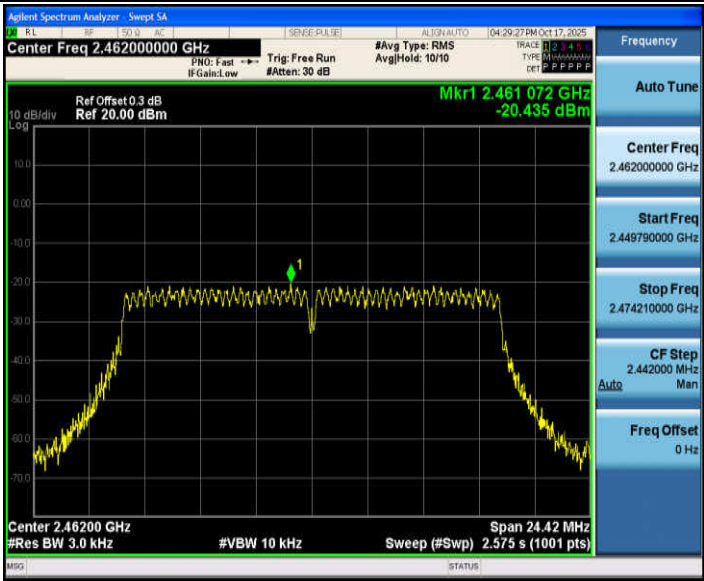
11G_Ant1_2412



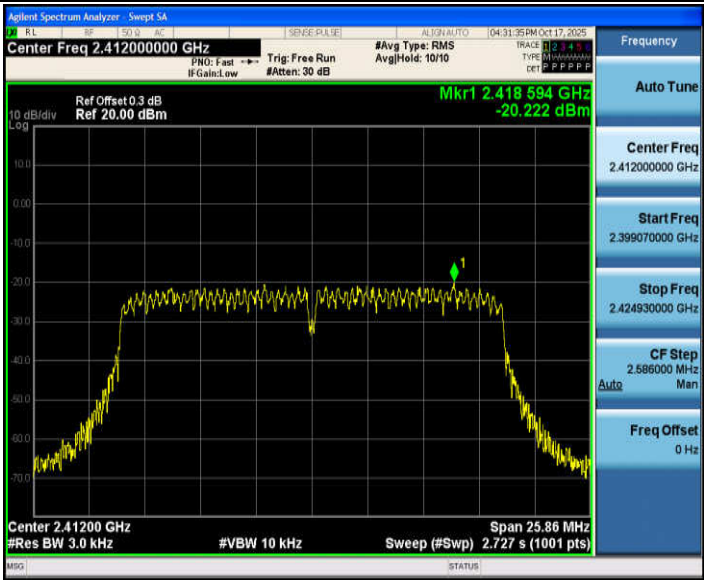
11G_Ant1_2437



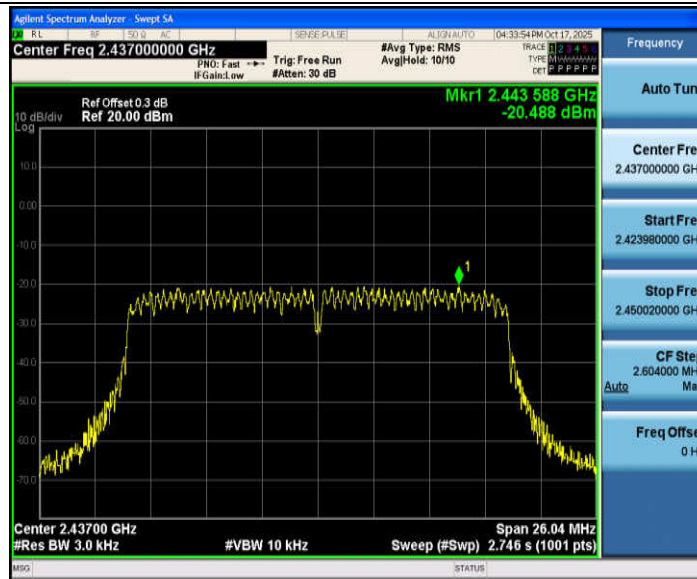
11G_Ant1_2462



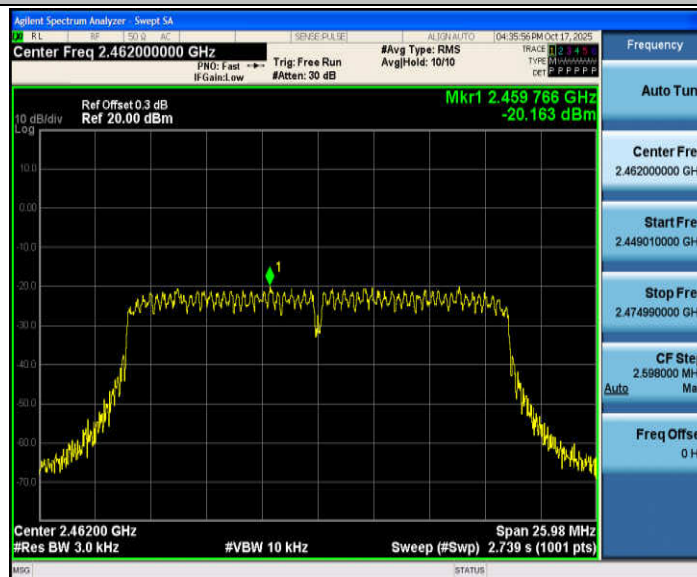
11N20SISO_Ant1_2412



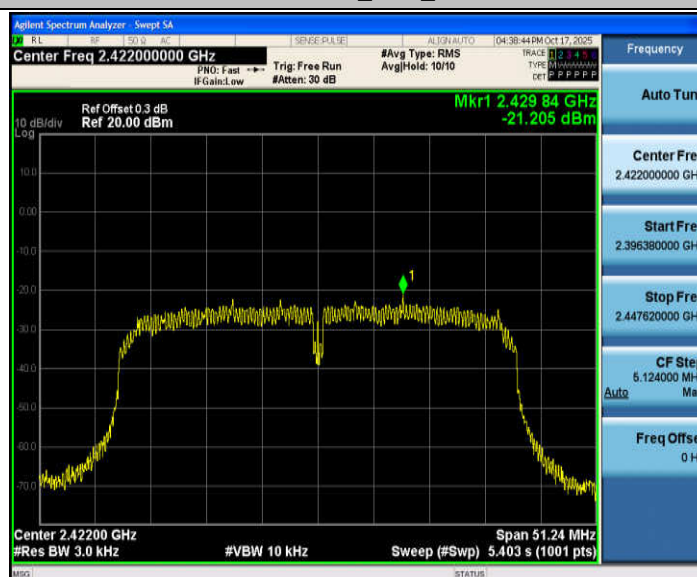
11N20SISO_Ant1_2437



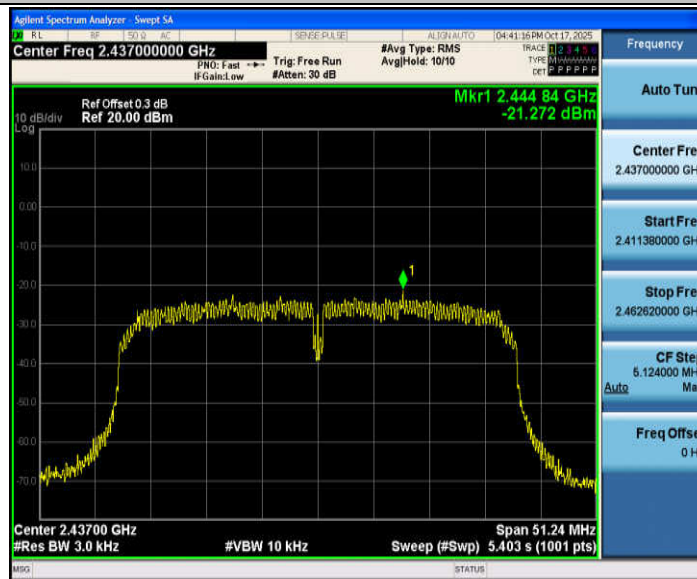
11N20SISO_Ant1_2462



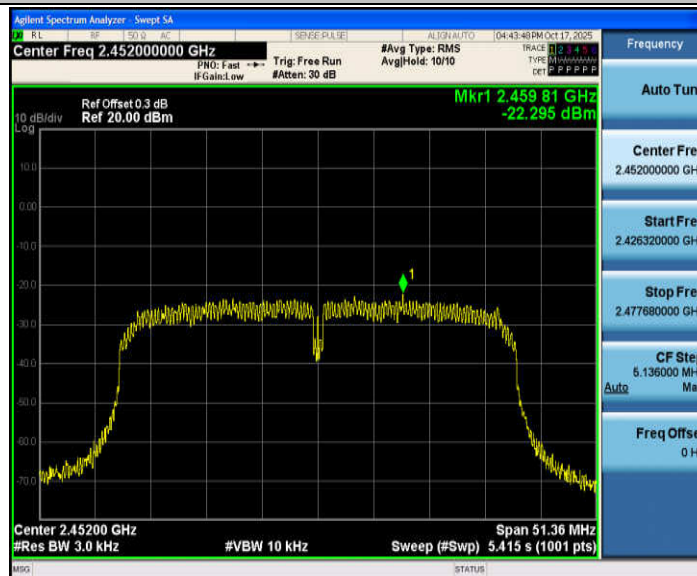
11N40SISO_Ant1_2422



11N40SISO_Ant1_2437



11N40SISO_Ant1_2452



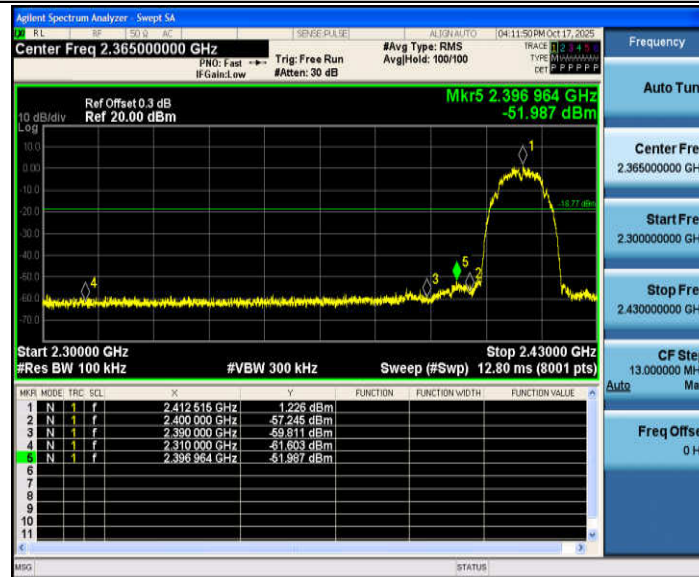
Appendix E: Band edge measurements

Test Result

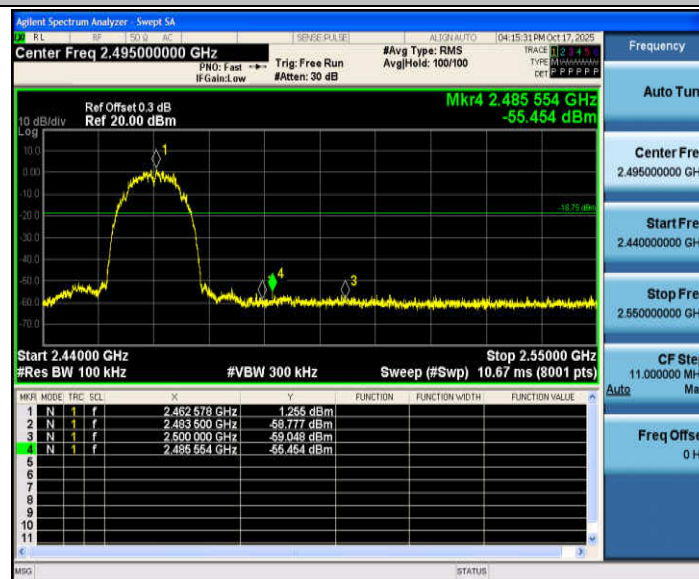
TestMode	Antenna	ChName	Frequency[MHz]	RefLevel[dBm]	Result[dBm]	Limit[dBm]	Verdict
11B	Ant1	Low	2412	1.23	-51.99	≤ -18.77	PASS
		High	2462	1.26	-55.45	≤ -18.75	PASS
11G	Ant1	Low	2412	-7.05	-43.04	≤ -27.05	PASS
		High	2462	-6.27	-52.5	≤ -26.27	PASS
11N20SISO	Ant1	Low	2412	-6.92	-46.47	≤ -26.92	PASS
		High	2462	-6.71	-52.55	≤ -26.71	PASS
11N40SISO	Ant1	Low	2422	-9.82	-51.57	≤ -29.82	PASS
		High	2452	-10.16	-54.05	≤ -30.16	PASS

Test Graphs

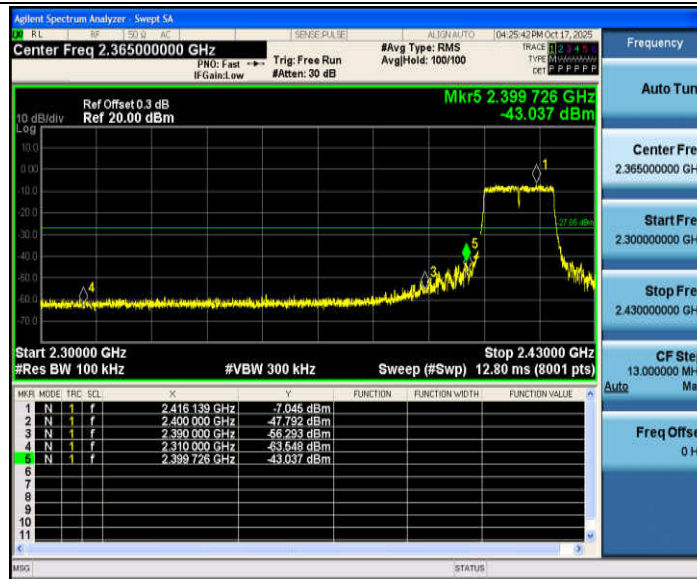
11B_Ant1_Low_2412



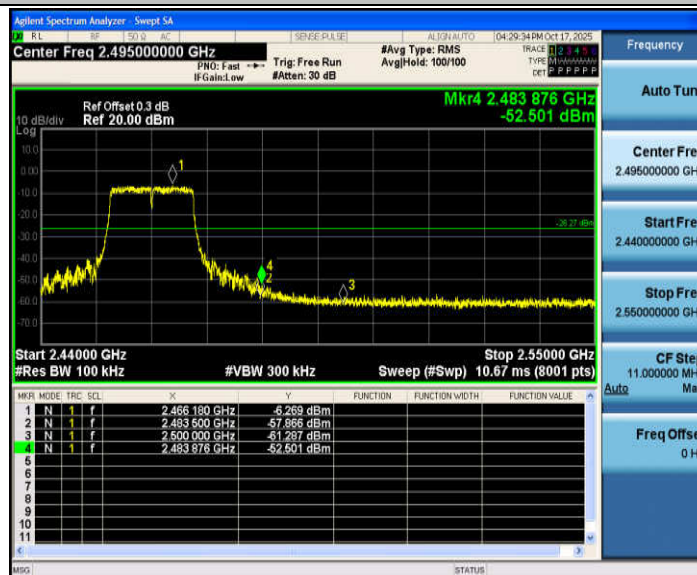
11B_Ant1_High_2462



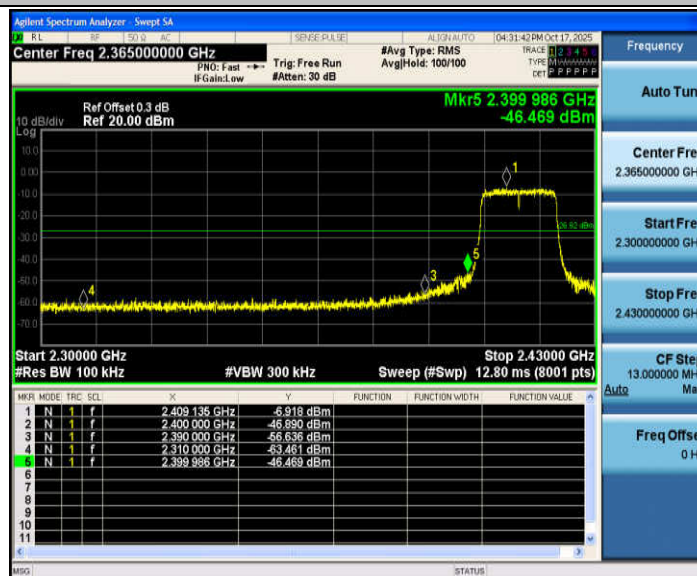
11G_Ant1_Low_2412



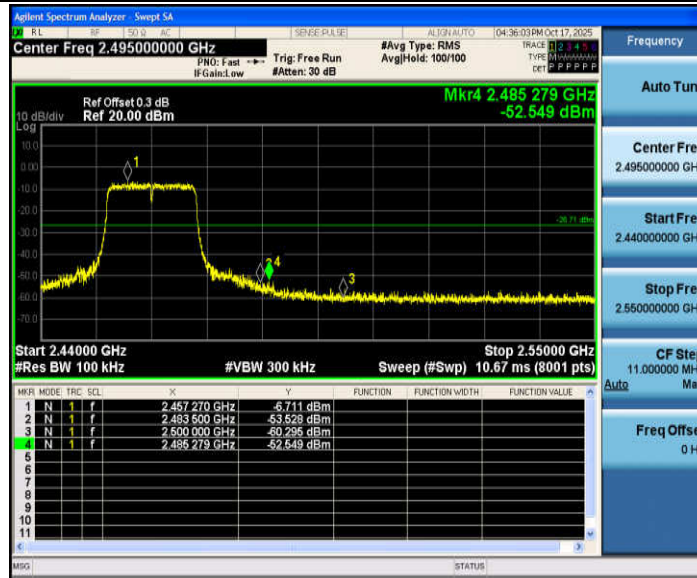
11G_Ant1_High_2462



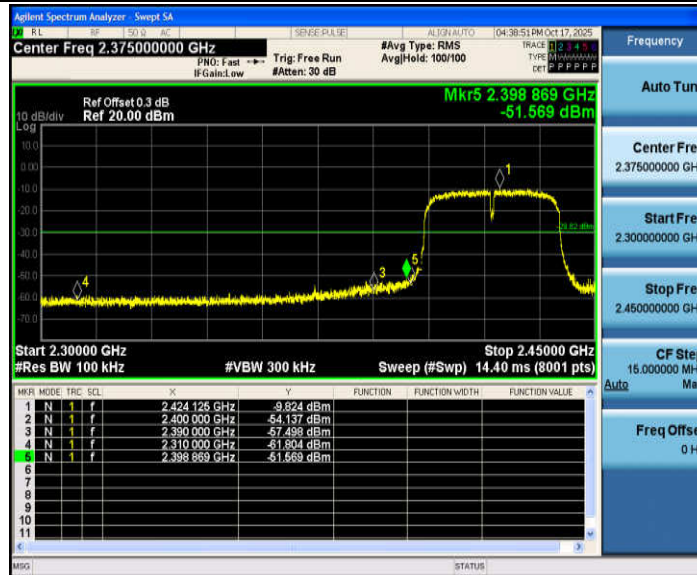
11N20SISO_Ant1_Low_2412



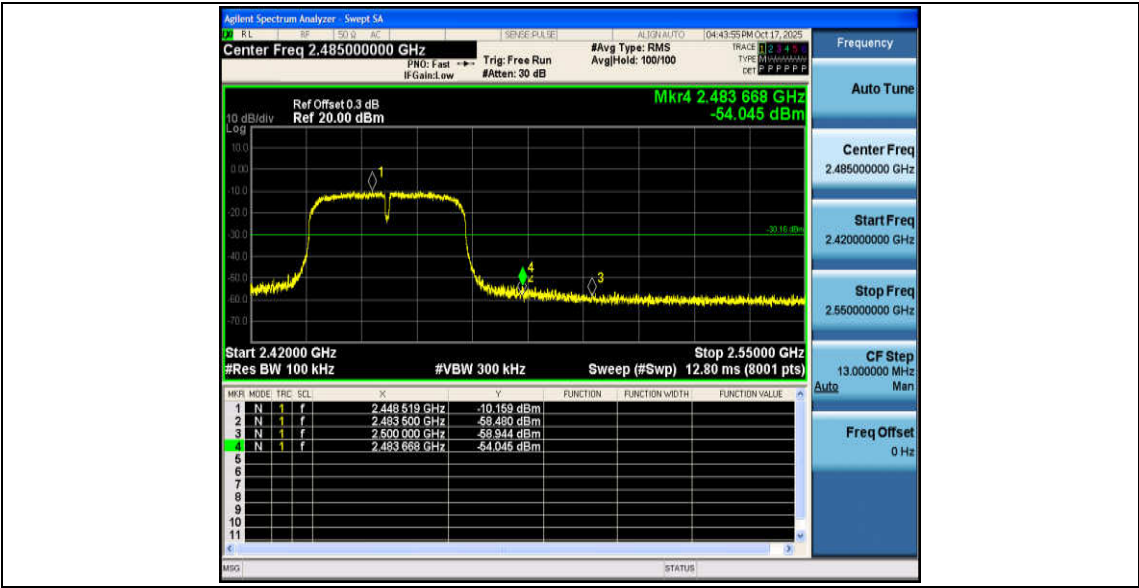
11N20SISO_Ant1_High_2462



11N40SISO_Ant1_Low_2422



11N40SISO_Ant1_High_2452

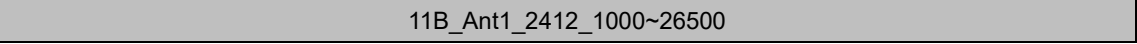
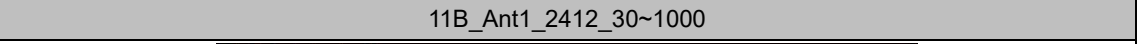


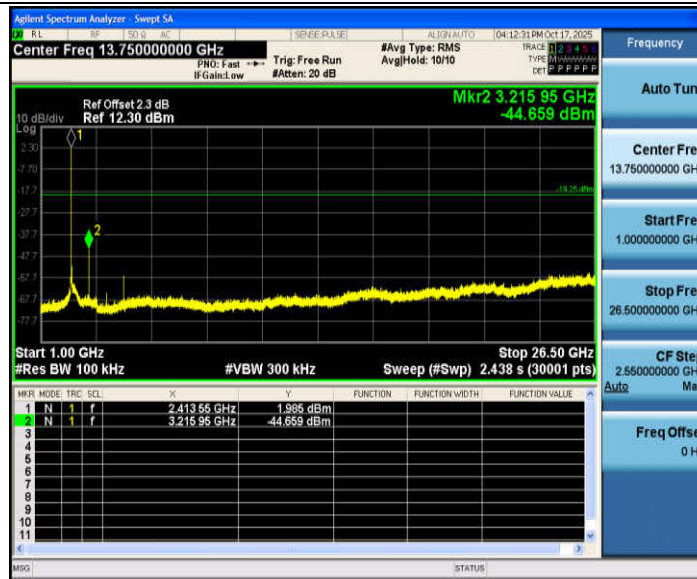
Appendix F: Conducted Spurious Emission

Test Result

TestMode	Antenna	Frequency[MHz]	FreqRange [Mhz]	RefLevel [dBm]	Result [dBm]	Limit [dBm]	Verdict
11B	Ant1	2412	Reference	0.75	0.75	---	PASS
			30~1000	0.75	-54.11	≤-19.25	PASS
			1000~26500	0.75	-44.66	≤-19.25	PASS
		2437	Reference	-0.30	-0.30	---	PASS
			30~1000	-0.30	-55.9	≤-20.3	PASS
			1000~26500	-0.30	-45.07	≤-20.3	PASS
		2462	Reference	-0.17	-0.17	---	PASS
			30~1000	-0.17	-55.4	≤-20.17	PASS
			1000~26500	-0.17	-45.46	≤-20.17	PASS
11G	Ant1	2412	Reference	-6.68	-6.68	---	PASS
			30~1000	-6.68	-59.49	≤-26.68	PASS
			1000~26500	-6.68	-44.17	≤-26.68	PASS
		2437	Reference	-6.80	-6.80	---	PASS
			30~1000	-6.80	-59.48	≤-26.8	PASS
			1000~26500	-6.80	-44.43	≤-26.8	PASS
		2462	Reference	-6.84	-6.84	---	PASS
			30~1000	-6.84	-59.18	≤-26.84	PASS
			1000~26500	-6.84	-44.88	≤-26.84	PASS
11N20SISO	Ant1	2412	Reference	-7.57	-7.57	---	PASS
			30~1000	-7.57	-58.86	≤-27.57	PASS
			1000~26500	-7.57	-43.94	≤-27.57	PASS
		2437	Reference	-6.07	-6.07	---	PASS
			30~1000	-6.07	-58.84	≤-26.07	PASS
			1000~26500	-6.07	-44.57	≤-26.07	PASS
		2462	Reference	-7.12	-7.12	---	PASS
			30~1000	-7.12	-59.02	≤-27.12	PASS
			1000~26500	-7.12	-44.78	≤-27.12	PASS
11N40SISO	Ant1	2422	Reference	-10.20	-10.20	---	PASS
			30~1000	-10.20	-61.49	≤-30.2	PASS
			1000~26500	-10.20	-44.18	≤-30.2	PASS
		2437	Reference	-10.28	-10.28	---	PASS
			30~1000	-10.28	-61.84	≤-30.28	PASS
			1000~26500	-10.28	-44.59	≤-30.28	PASS
		2452	Reference	-10.12	-10.12	---	PASS
			30~1000	-10.12	-61.62	≤-30.12	PASS
			1000~26500	-10.12	-44.69	≤-30.12	PASS

11B_Ant1_2412_0~Reference

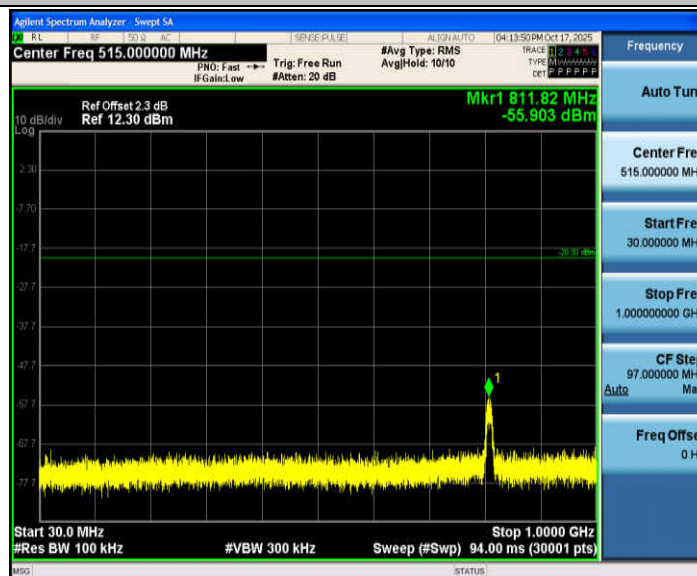




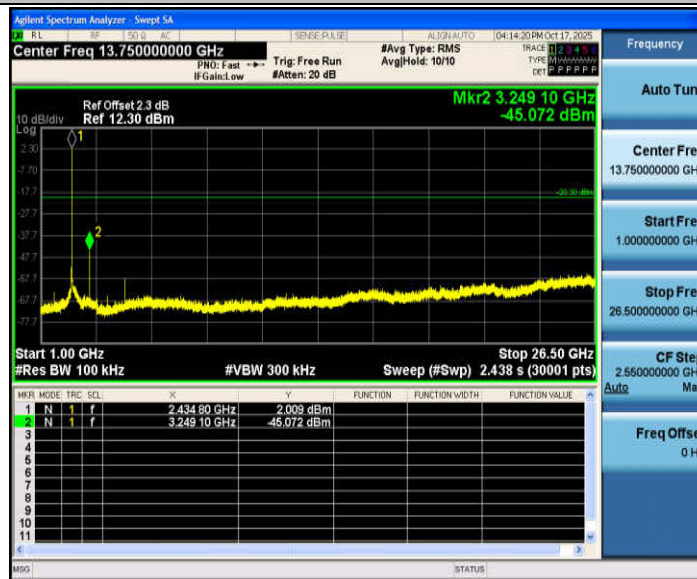
11B_Ant1_2437_0~Reference



11B_Ant1_2437_30~1000



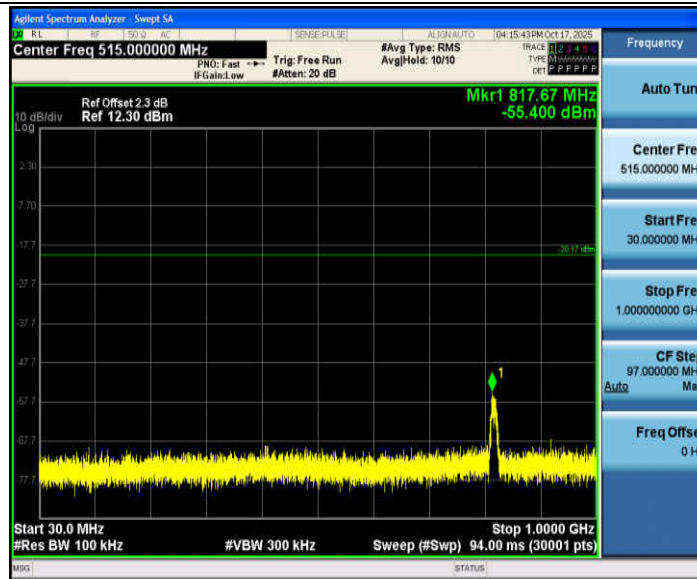
11B_Ant1_2437_1000~26500



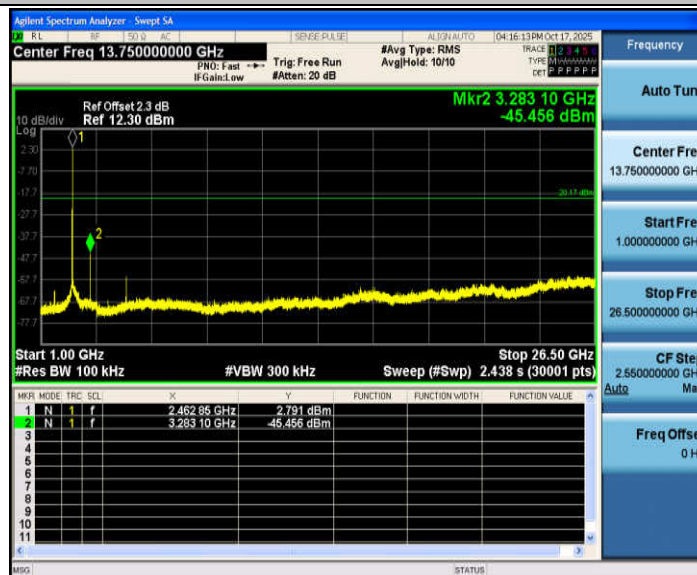
11B_Ant1_2462_0~Reference



11B_Ant1_2462_30~1000



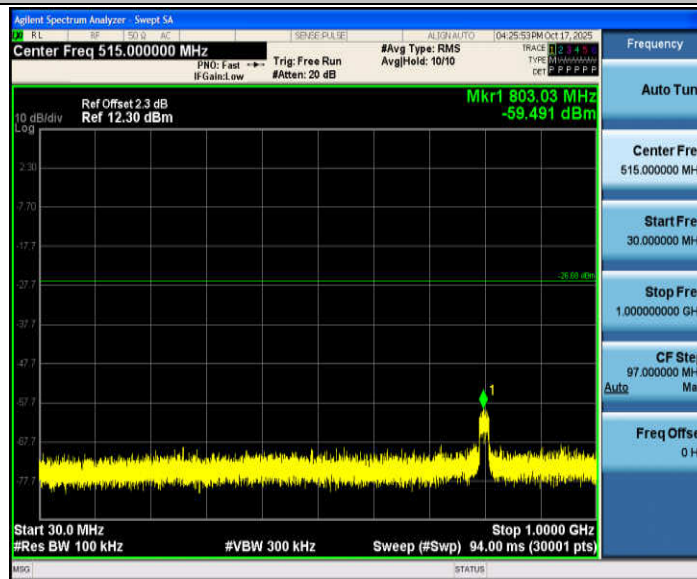
11B_Ant1_2462_1000~26500



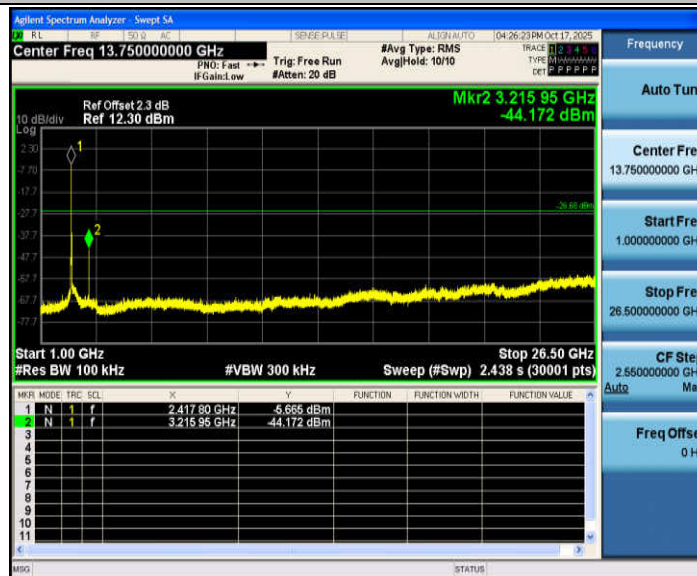
11G_Ant1_2412_0~Reference



11G_Ant1_2412_30~1000



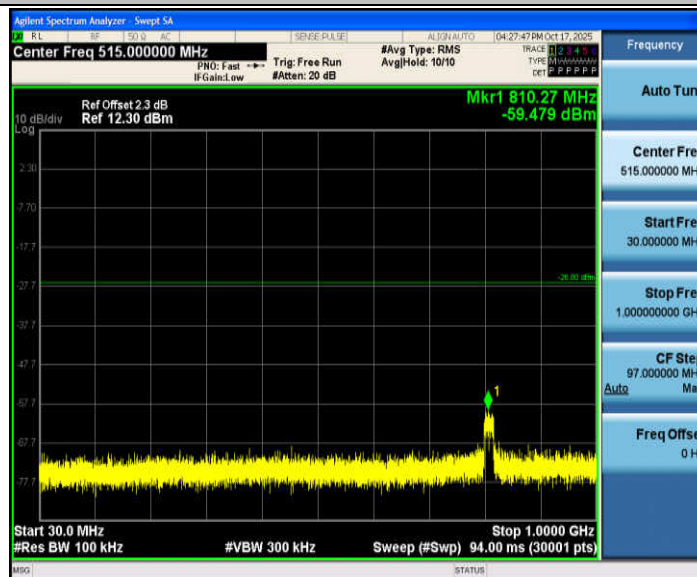
11G_Ant1_2412_1000~26500



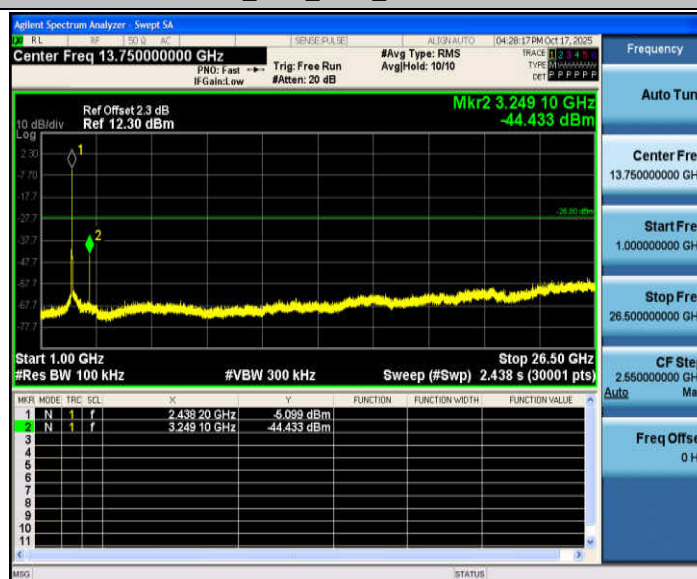
11G_Ant1_2437_0~Reference



11G_Ant1_2437_30~1000



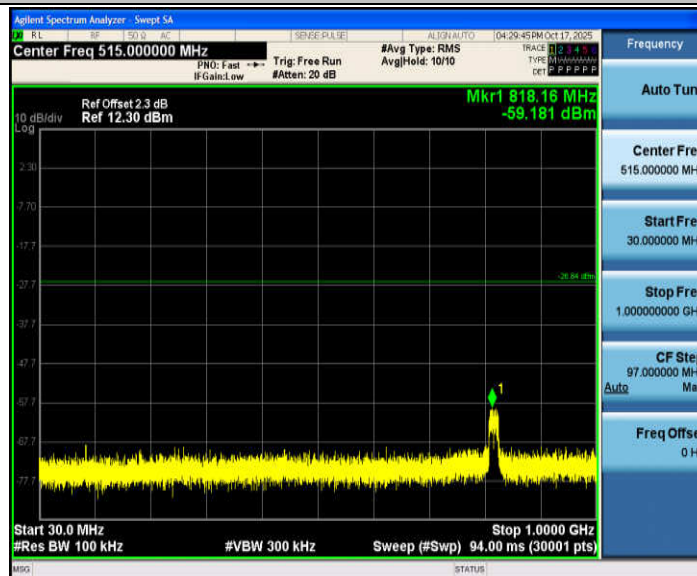
11G_Ant1_2437_1000~26500



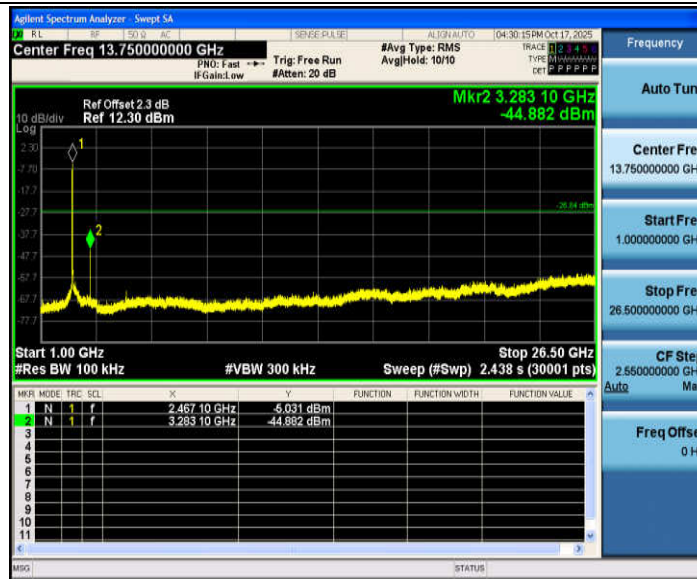
11G_Ant1_2462_0~Reference



11G_Ant1_2462_30~1000



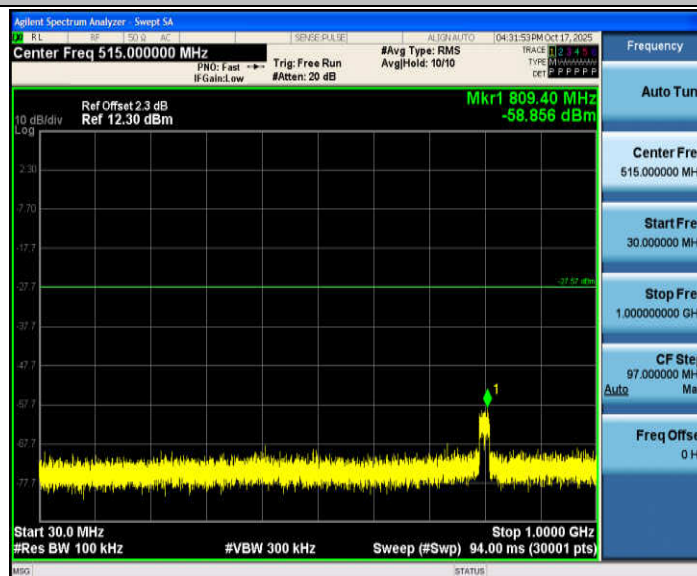
11G_Ant1_2462_1000~26500



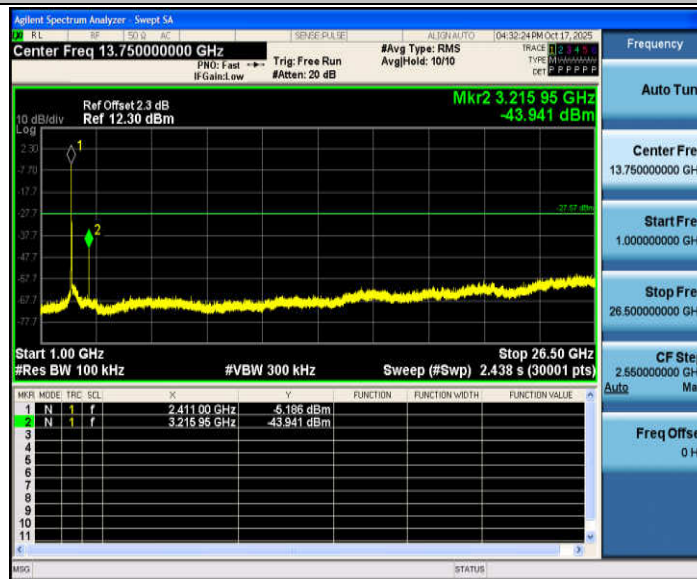
11N20SISO_Ant1_2412_0~Reference



11N20SISO_Ant1_2412_30~1000



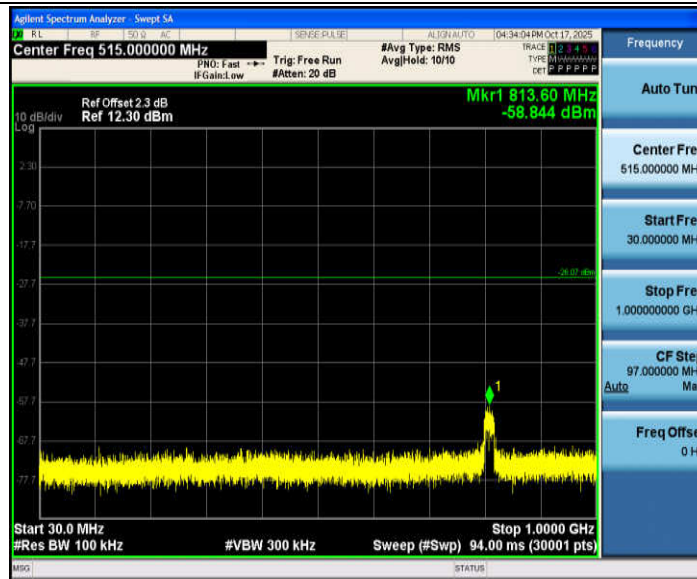
11N20SISO_Ant1_2412_1000~26500



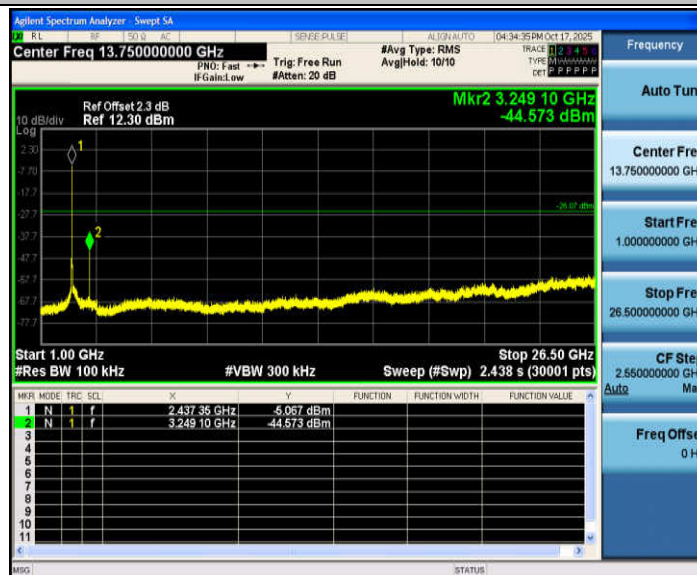
11N20SISO_Ant1_2437_0~Reference



11N20SISO_Ant1_2437_30~1000



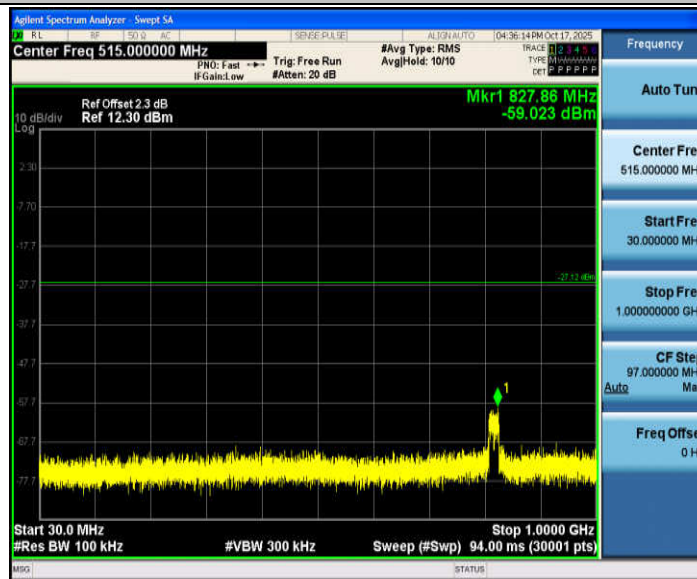
11N20SISO_Ant1_2437_1000~26500



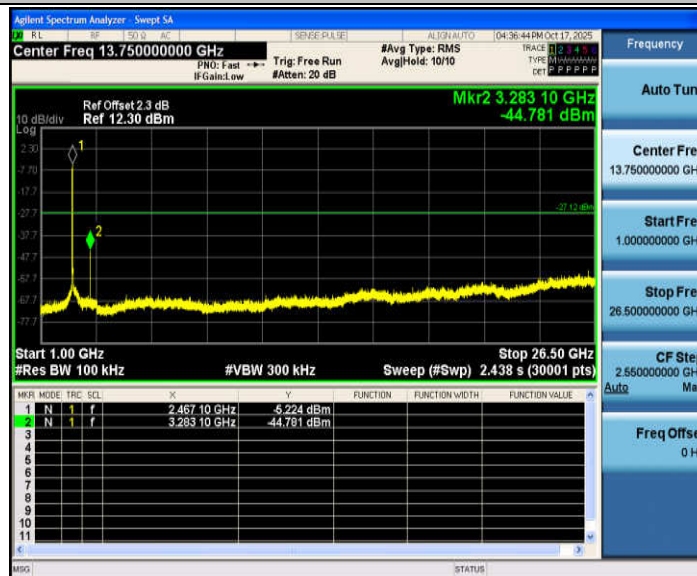
11N20SISO_Ant1_2462_0~Reference



11N20SISO_Ant1_2462_30~1000



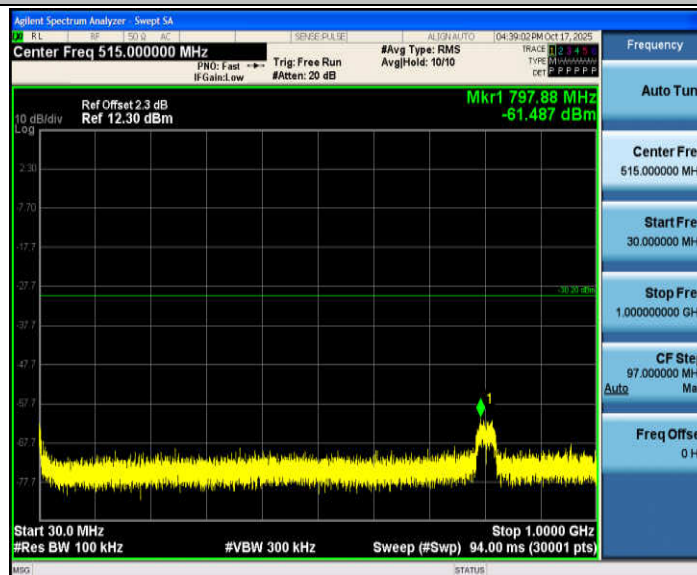
11N20SISO_Ant1_2462_1000~26500



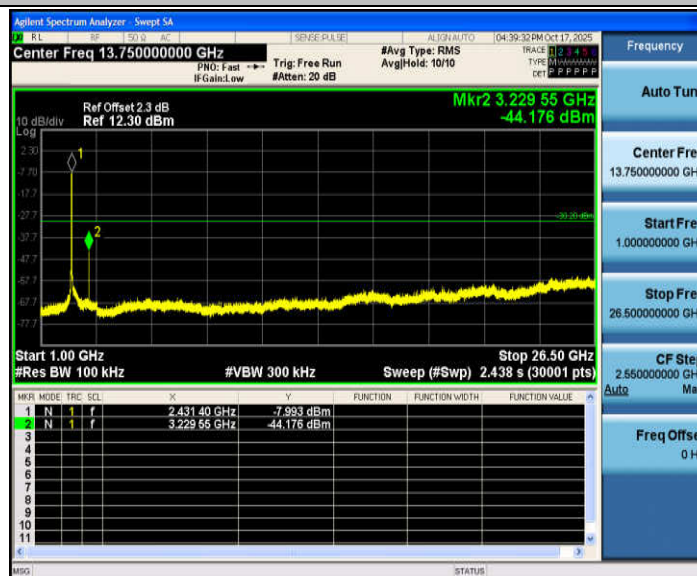
11N40SISO_Ant1_2422_0~Reference



11N40SISO_Ant1_2422_30~1000



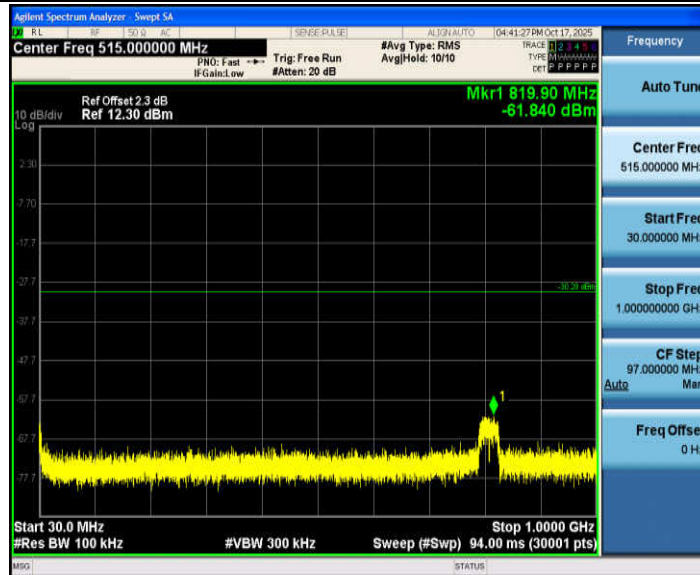
11N40SISO_Ant1_2422_1000~26500



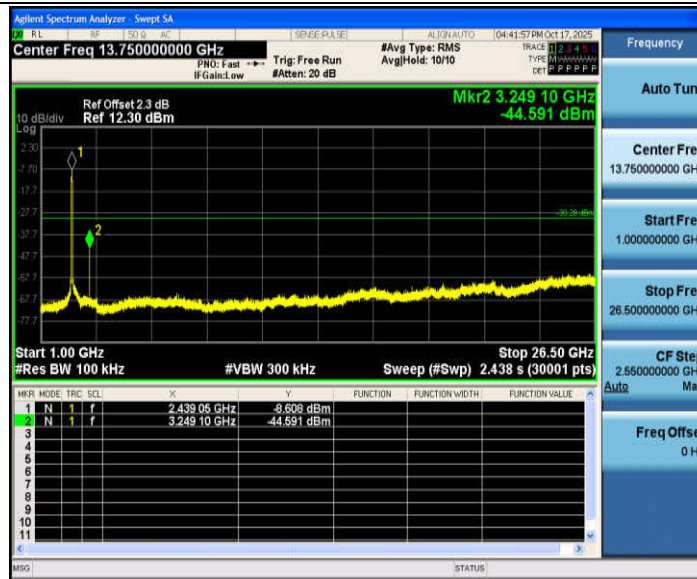
11N40SISO_Ant1_2437_0~Reference



11N40SISO_Ant1_2437_30~1000



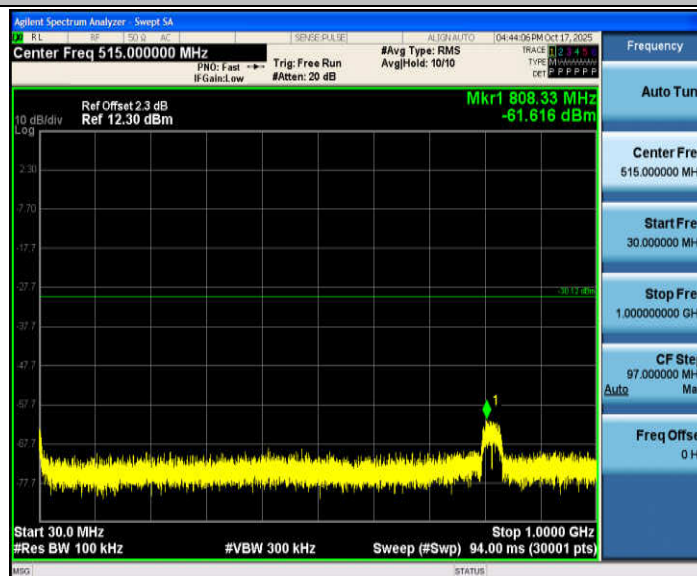
11N40SISO_Ant1_2437_1000~26500

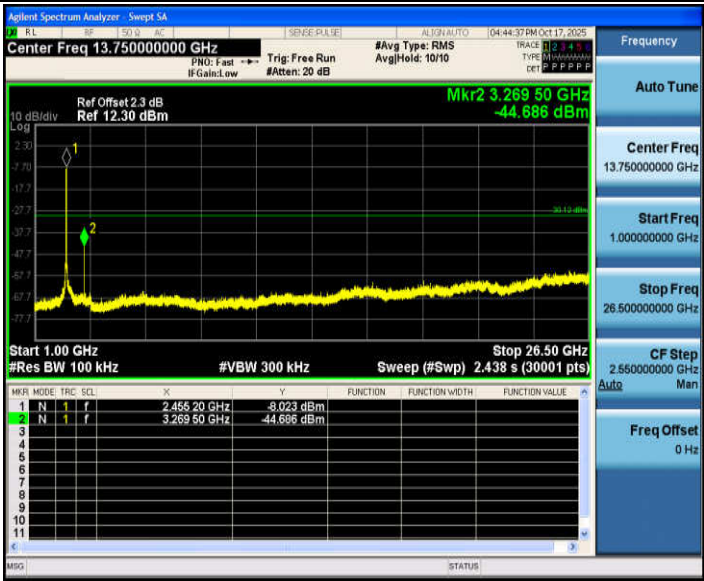


11N40SISO_Ant1_2452_0~Reference



11N40SISO_Ant1_2452_30~1000



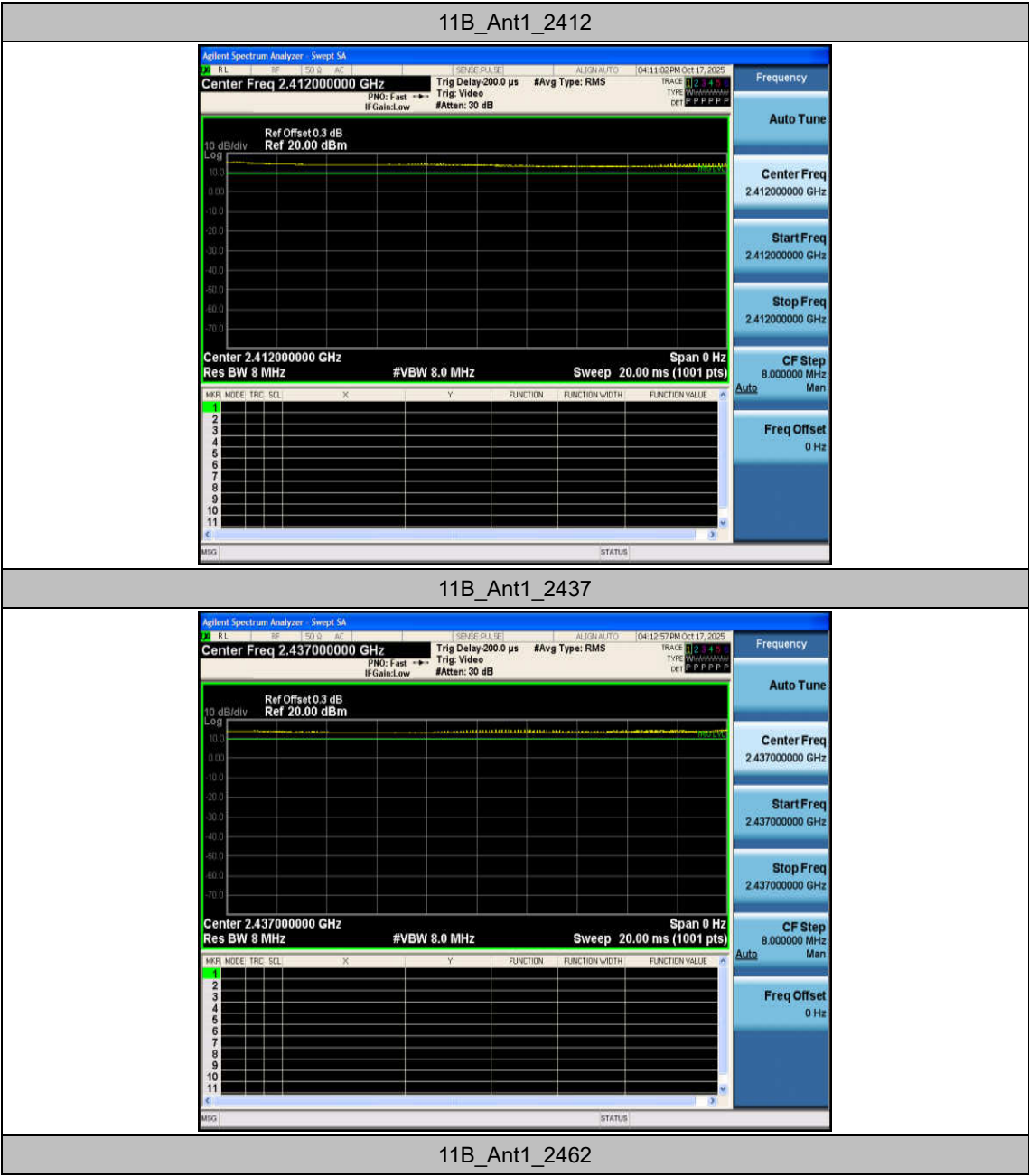


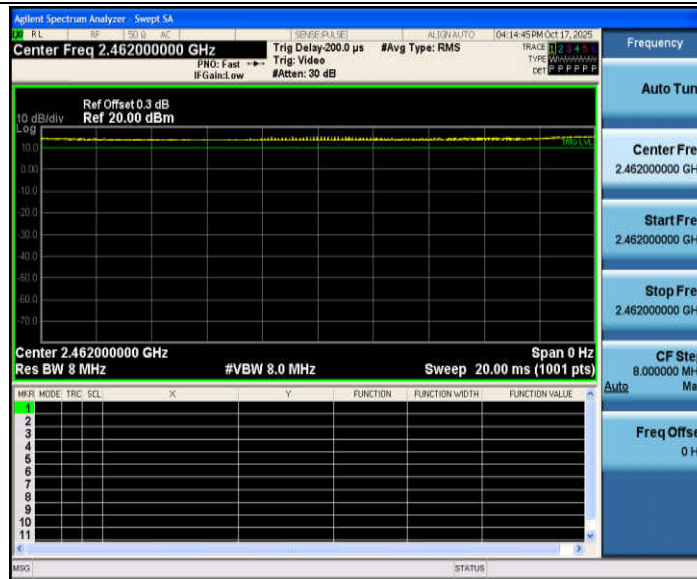
Appendix G: Duty Cycle

Test Result

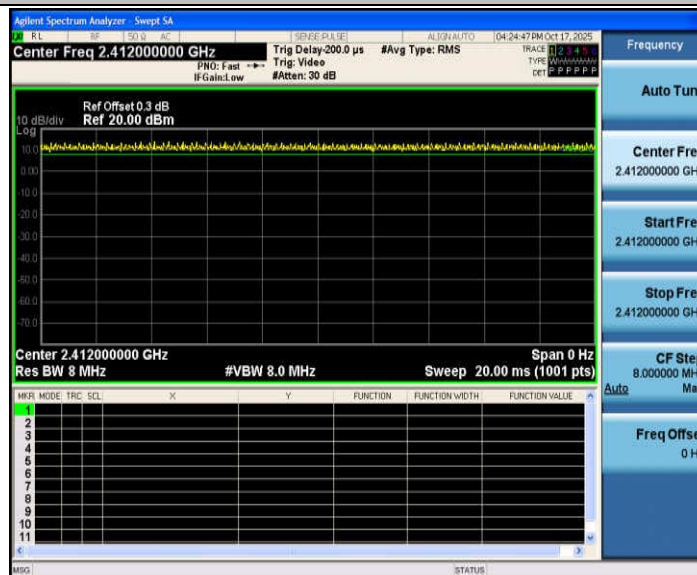
TestMode	Antenna	Frequency[MHz]	Transmission Duration [ms]	Transmission Period [ms]	Duty Cycle [%]
11B	Ant1	2412	20.00	20.00	100.00
		2437	20.00	20.00	100.00
		2462	20.00	20.00	100.00
11G	Ant1	2412	20.00	20.00	100.00
		2437	20.00	20.00	100.00
		2462	20.00	20.00	100.00
11N20SISO	Ant1	2412	20.00	20.00	100.00
		2437	20.00	20.00	100.00
		2462	20.00	20.00	100.00
11N40SISO	Ant1	2422	20.00	20.00	100.00
		2437	20.00	20.00	100.00
		2452	20.00	20.00	100.00

Test Graphs

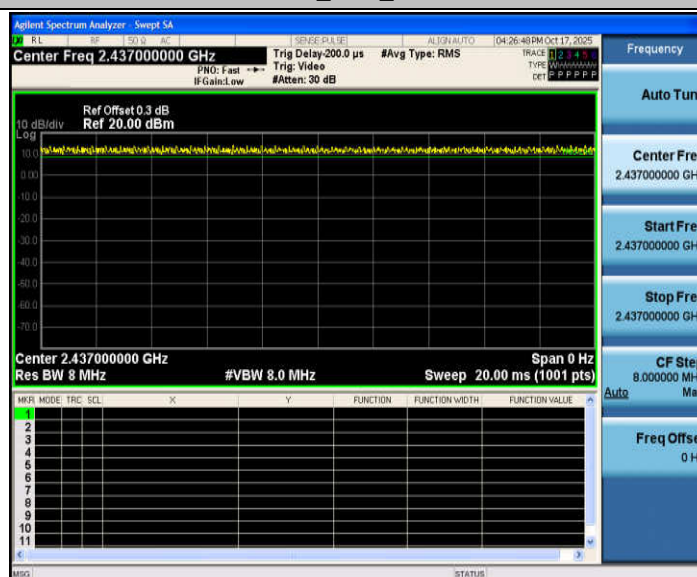




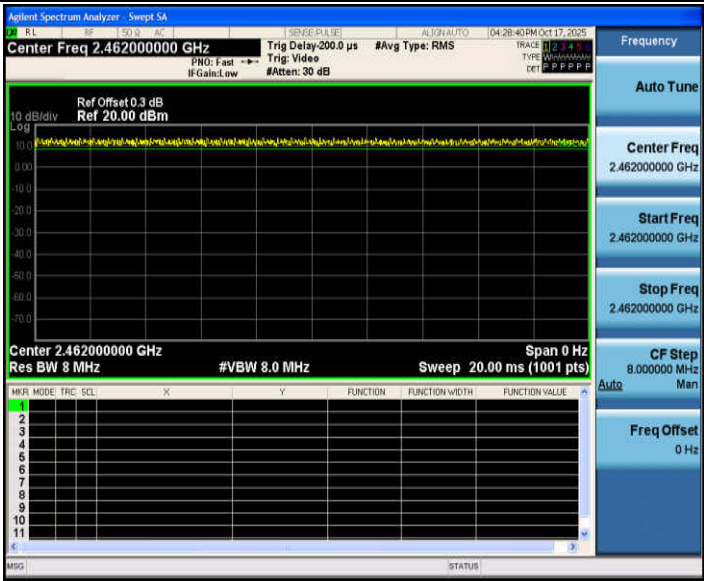
11G_Ant1_2412



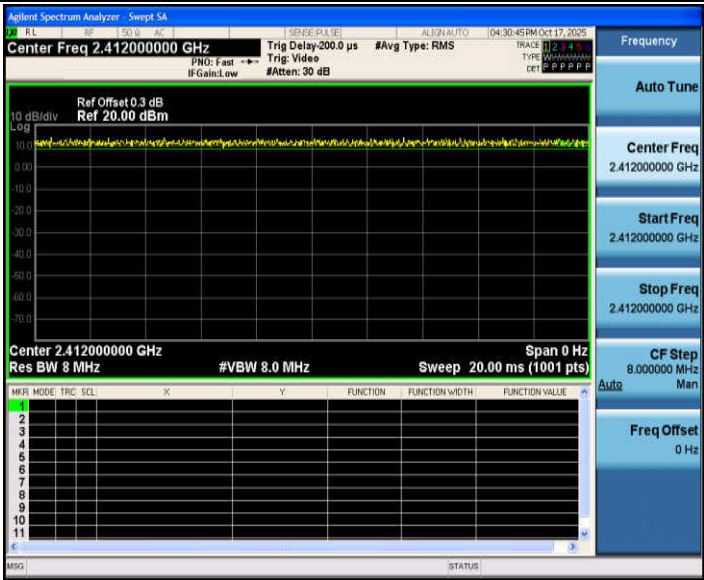
11G_Ant1_2437



11G_Ant1_2462



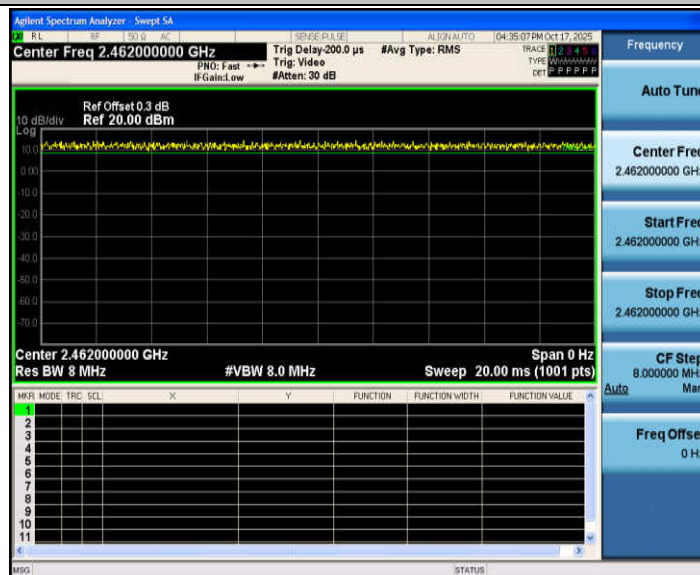
11N20SISO_Ant1_2412



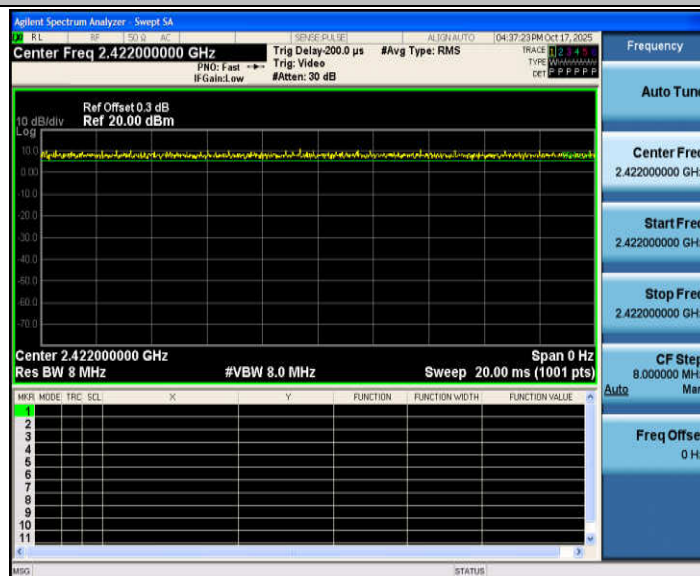
11N20SISO_Ant1_2437



11N20SISO_Ant1_2462



11N40SISO_Ant1_2422



11N40SISO_Ant1_2437



11N40SISO_Ant1_2452

