

Appendix RF Test Data for 2.4GWIFI

FCC ID : 2A6P9-APID02

Company : Promaster Electronic LLC

EUT : Portable Infotainment Display

Model Number : APID-301

Report No. : CTA25072801103

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	9.080	2407.480	2416.560	0.5	PASS
		2437	9.480	2432.000	2441.480	0.5	PASS
		2462	8.760	2457.480	2466.240	0.5	PASS
11G	Ant1	2412	16.520	2403.760	2420.280	0.5	PASS
		2437	16.520	2428.760	2445.280	0.5	PASS
		2462	16.520	2453.760	2470.280	0.5	PASS
11N20SISO	Ant1	2412	17.560	2403.240	2420.800	0.5	PASS
		2437	17.560	2428.240	2445.800	0.5	PASS
		2462	17.520	2453.240	2470.760	0.5	PASS
11N40SISO	Ant1	2422	33.760	2405.360	2439.120	0.5	PASS
		2437	33.520	2420.360	2453.880	0.5	PASS
		2452	33.760	2435.120	2468.880	0.5	PASS

Test Graphs

11B_Ant1_2412



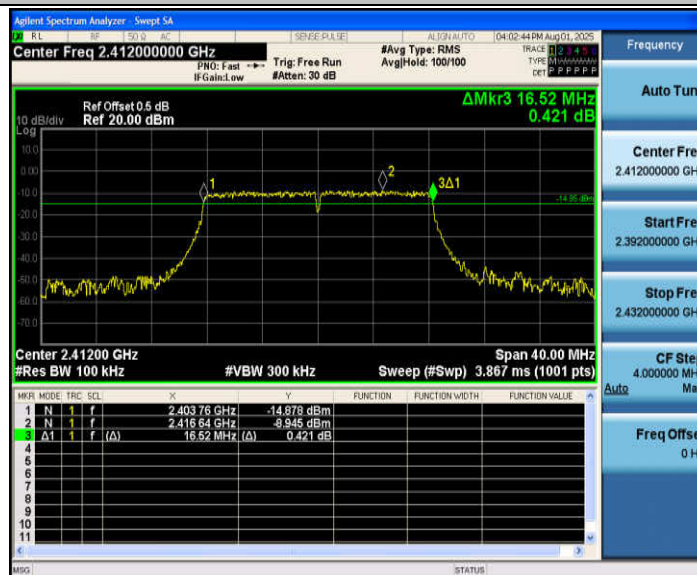
11B_Ant1_2437



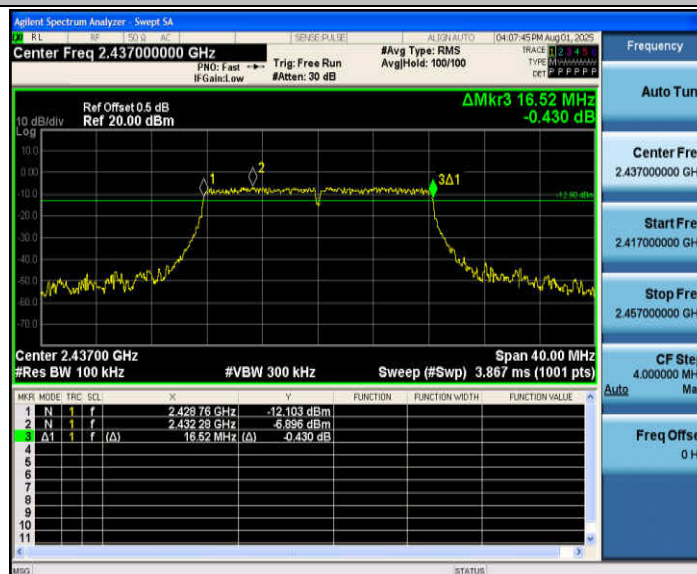
11B_Ant1_2462



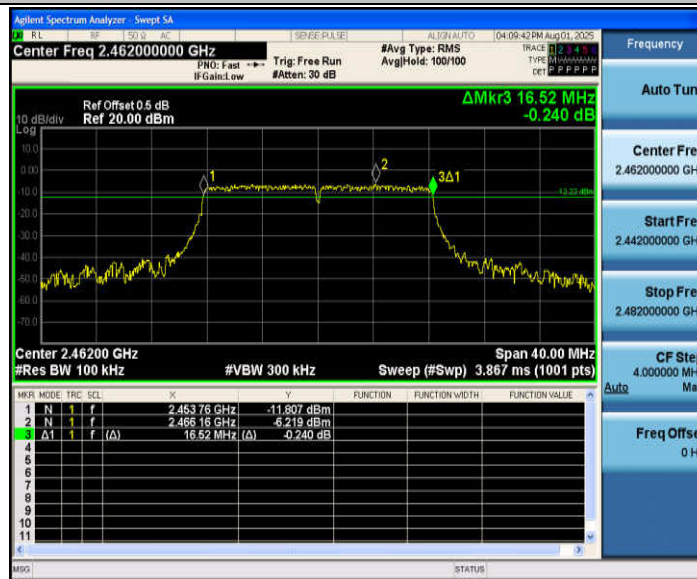
11G_Ant1_2412



11G_Ant1_2437



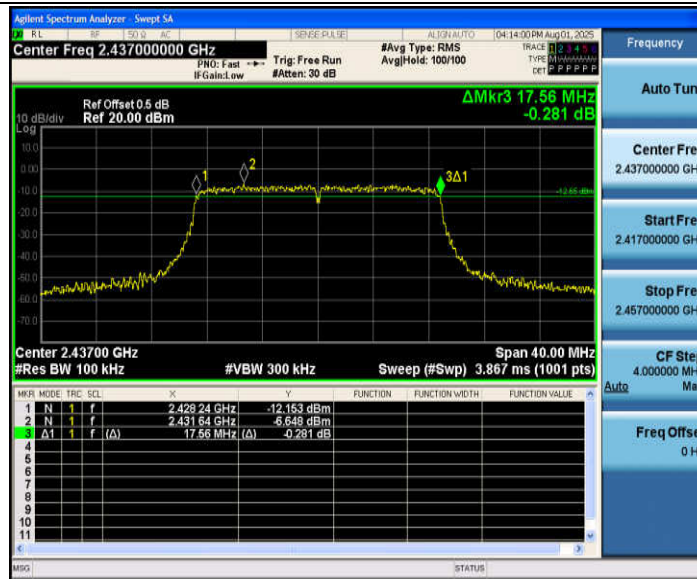
11G_Ant1_2462



11N20SISO_Ant1_2412



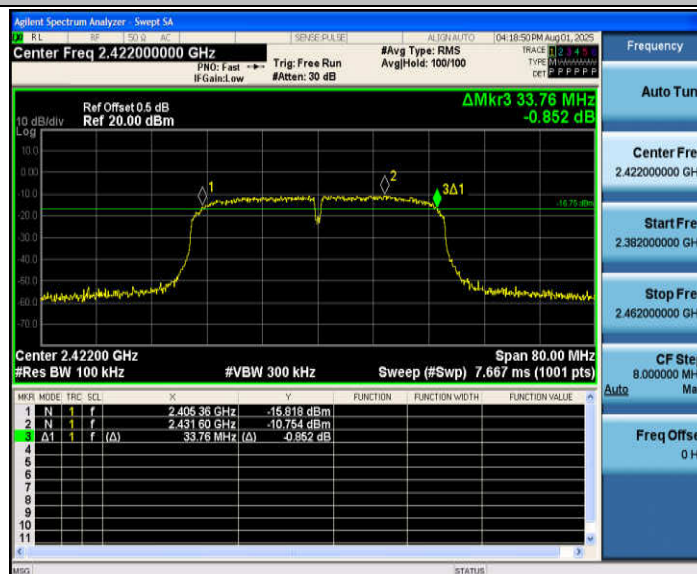
11N20SISO_Ant1_2437



11N20SISO_Ant1_2462



11N40SISO_Ant1_2422



11N40SISO_Ant1_2437



11N40SISO_Ant1_2452



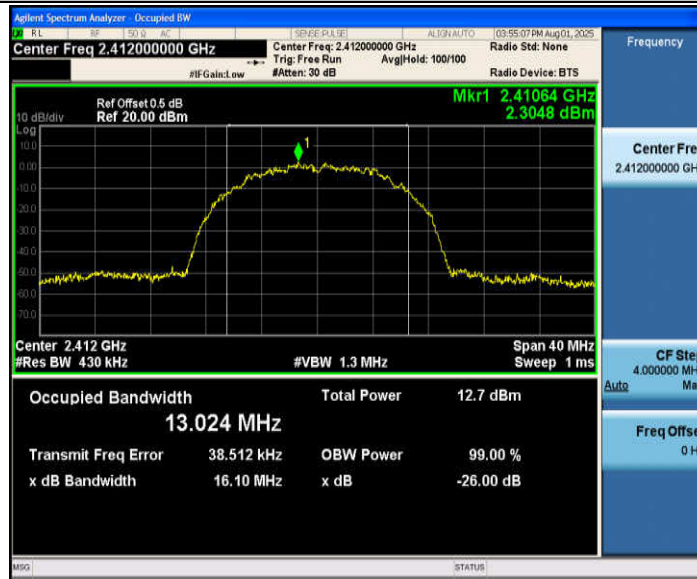
Appendix B: Occupied Channel Bandwidth

Test Result

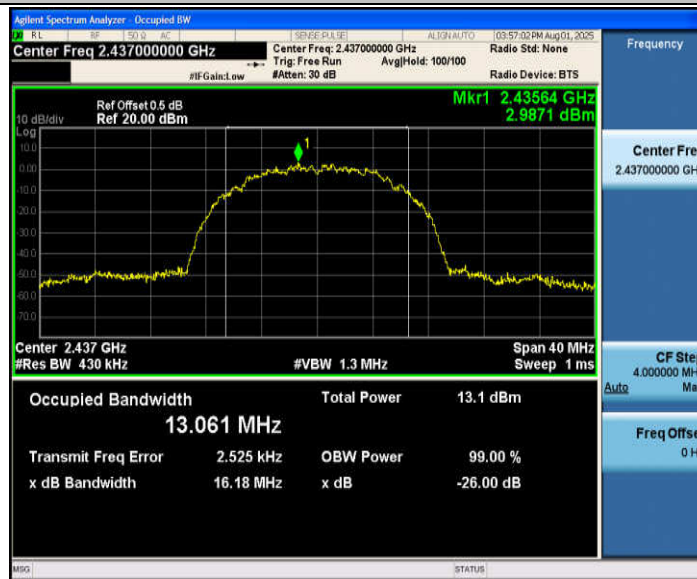
TestMode	Antenna	Channel Frequency[MHz]	OCB [MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
11B	Ant1	2412	13.024	2405.5265	2418.5505	---	---
		2437	13.061	2430.4720	2443.5330	---	---
		2462	13.037	2455.4842	2468.5212	---	---
11G	Ant1	2412	16.589	2403.7553	2420.3443	---	---
		2437	16.553	2428.7689	2445.3219	---	---
		2462	16.600	2453.7201	2470.3201	---	---
11N20SISO	Ant1	2412	17.448	2403.3135	2420.7615	---	---
		2437	17.449	2428.3106	2445.7596	---	---
		2462	17.460	2453.3092	2470.7692	---	---
11N40SISO	Ant1	2422	34.655	2404.7882	2439.4432	---	---
		2437	34.722	2419.7688	2454.4908	---	---
		2452	34.796	2434.7018	2469.4978	---	---

Test Graphs

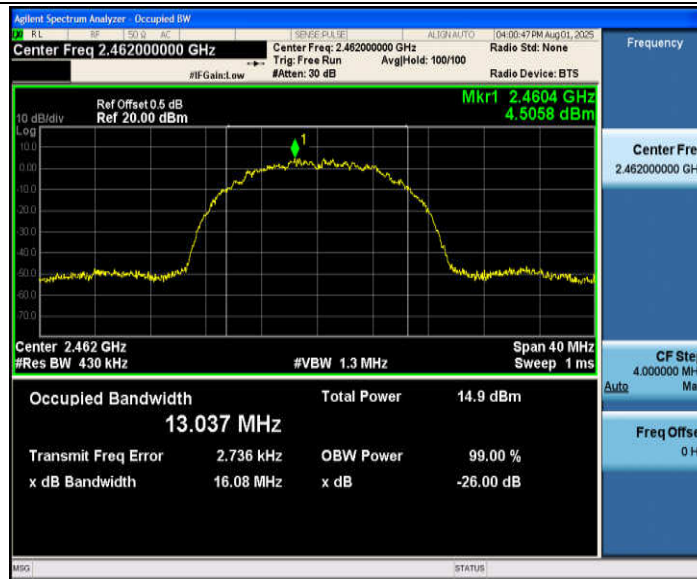
11B_Ant1_2412



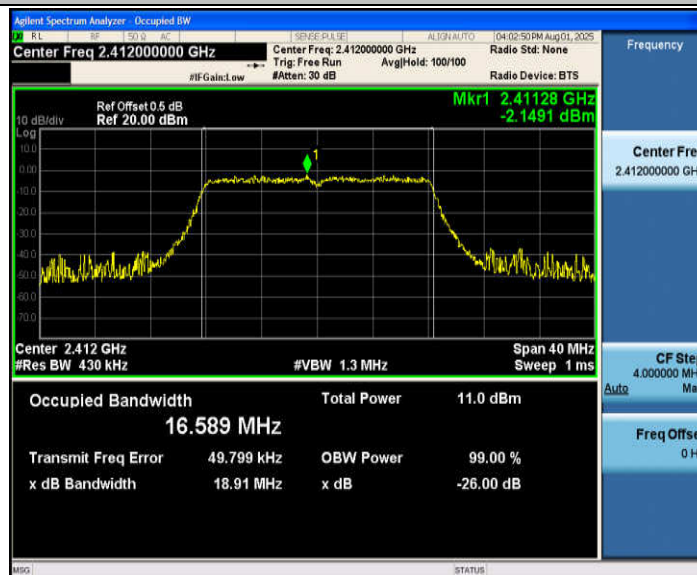
11B_Ant1_2437



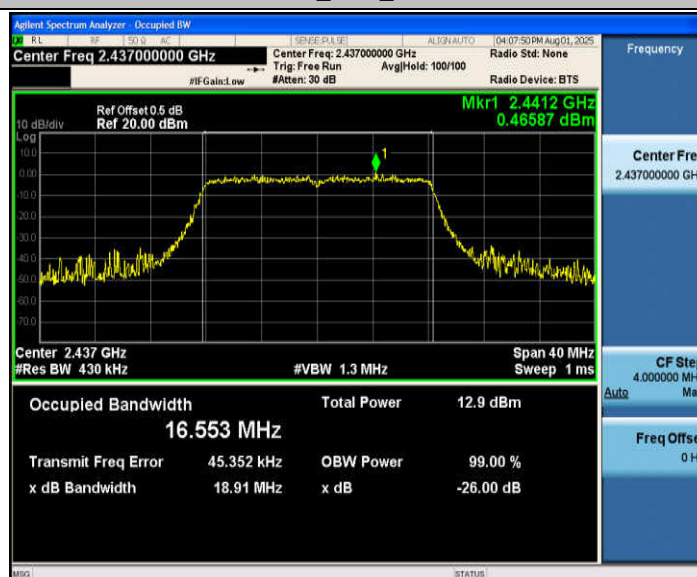
11B_Ant1_2462



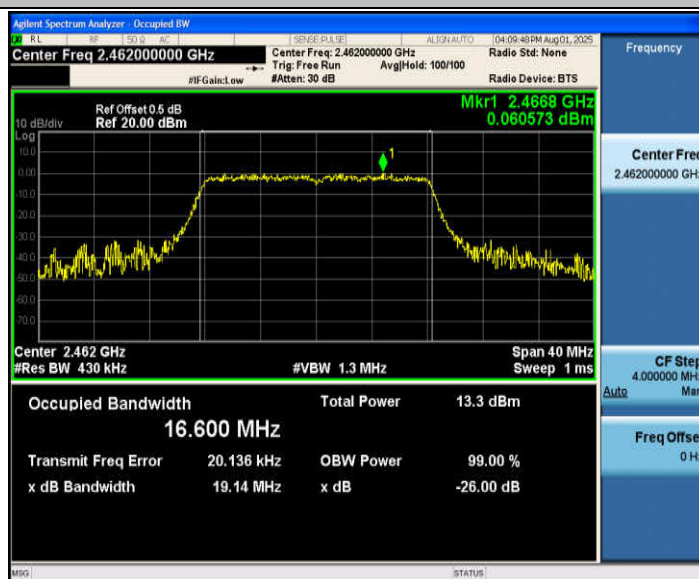
11G_Ant1_2412



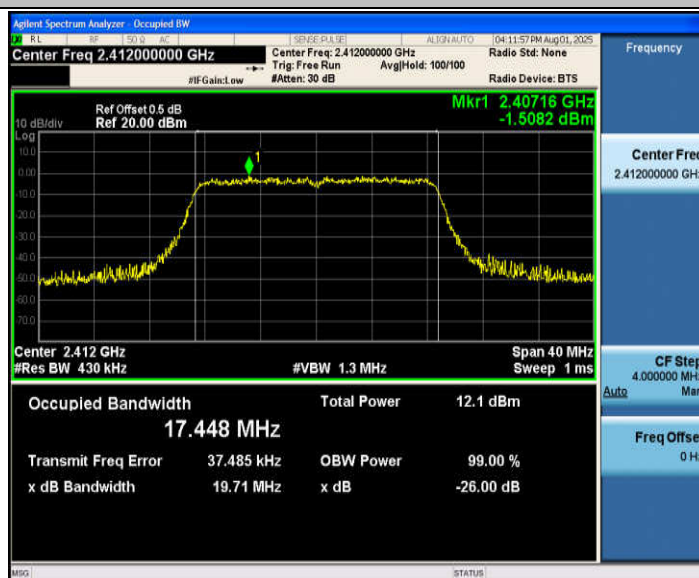
11G_Ant1_2437



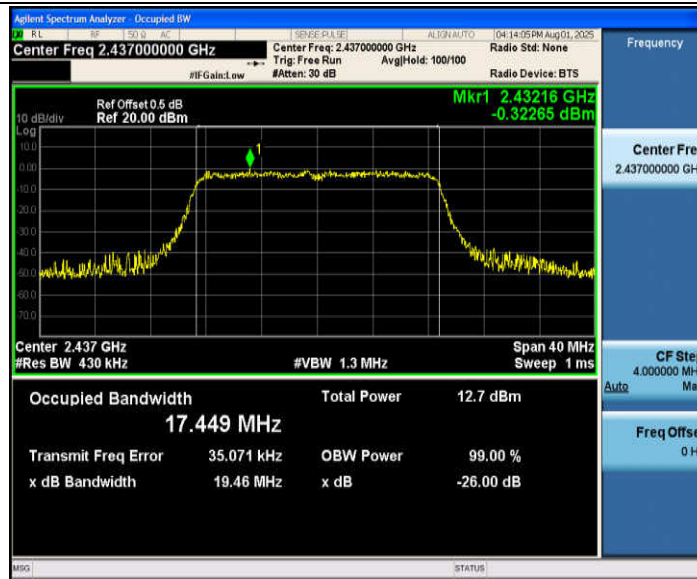
11G_Ant1_2462



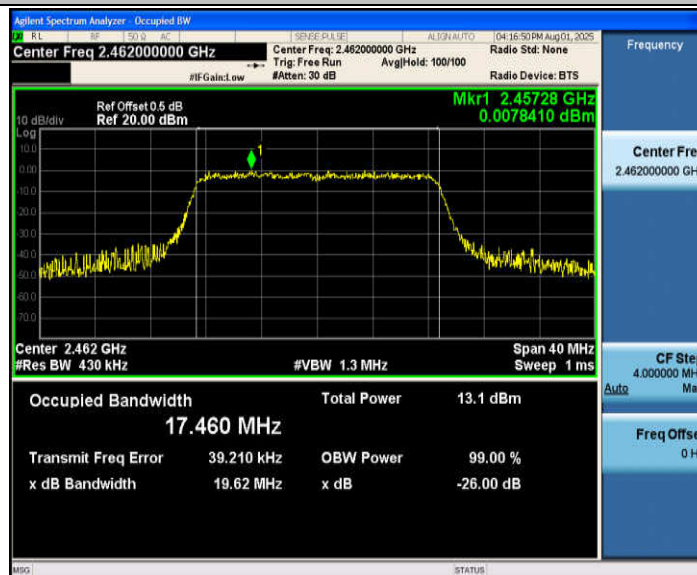
11N20SISO_Ant1_2412



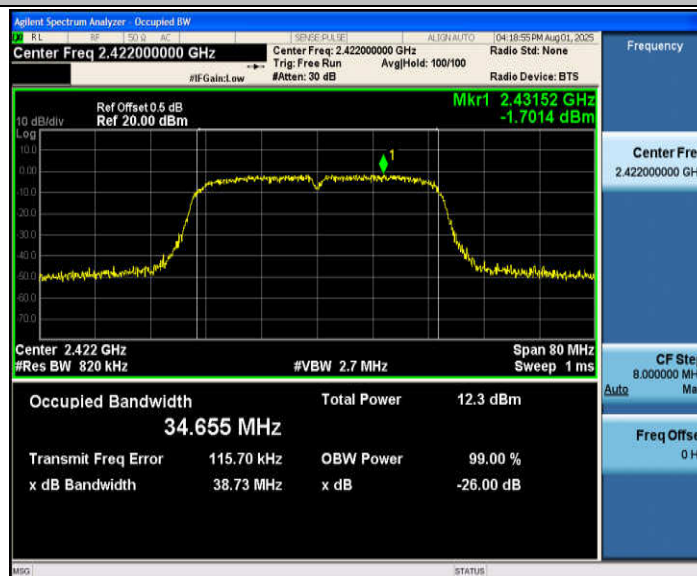
11N20SISO_Ant1_2437



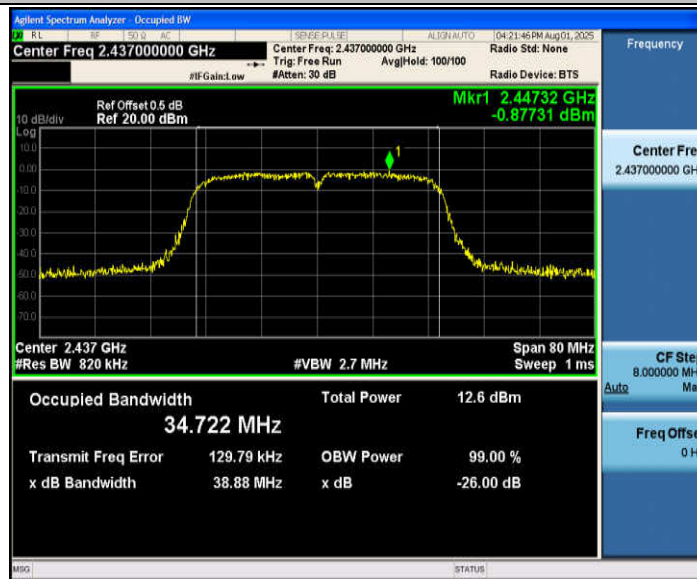
11N20SISO_Ant1_2462



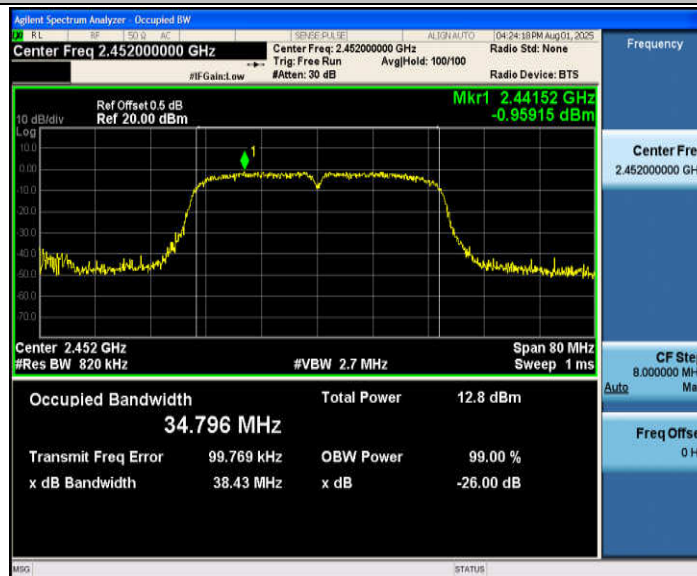
11N40SISO_Ant1_2422



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	13.98	≤30.00	PASS
		2437	14.59	≤30.00	PASS
		2462	14.33	≤30.00	PASS
11G	Ant1	2412	13.27	≤30.00	PASS
		2437	13.80	≤30.00	PASS
		2462	14.11	≤30.00	PASS
11N20SISO	Ant1	2412	13.33	≤30.00	PASS
		2437	13.91	≤30.00	PASS
		2462	14.23	≤30.00	PASS
11N40SISO	Ant1	2422	12.58	≤30.00	PASS
		2437	12.82	≤30.00	PASS
		2452	13.15	≤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	-15.02	≤8.00	PASS
		2437	-15.03	≤8.00	PASS
		2462	-14.36	≤8.00	PASS
11G	Ant1	2412	-21.23	≤8.00	PASS
		2437	-20.59	≤8.00	PASS
		2462	-20.28	≤8.00	PASS
11N20SISO	Ant1	2412	-21.12	≤8.00	PASS
		2437	-20.54	≤8.00	PASS
		2462	-20.12	≤8.00	PASS
11N40SISO	Ant1	2422	-23.58	≤8.00	PASS
		2437	-21.94	≤8.00	PASS
		2452	-22.23	≤8.00	PASS

Test Graphs

11B_Ant1_2412



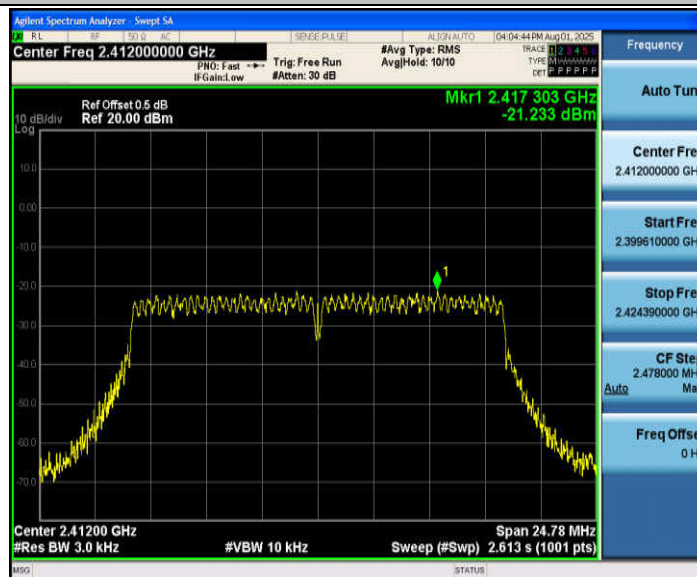
11B_Ant1_2437



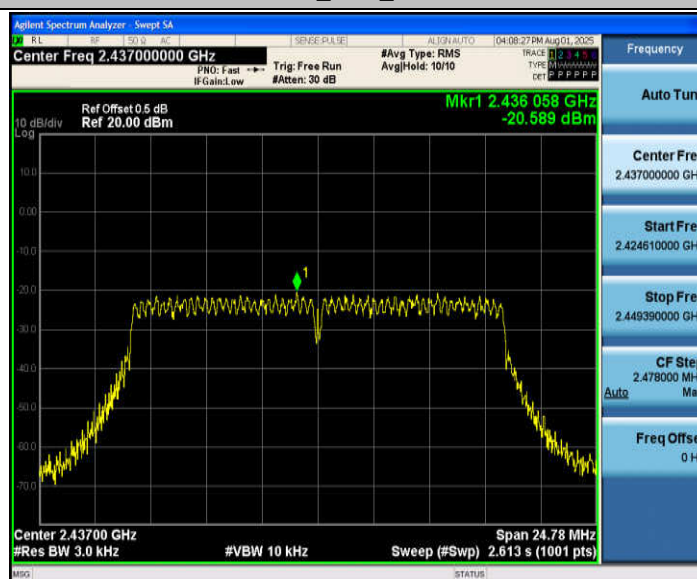
11B_Ant1_2462



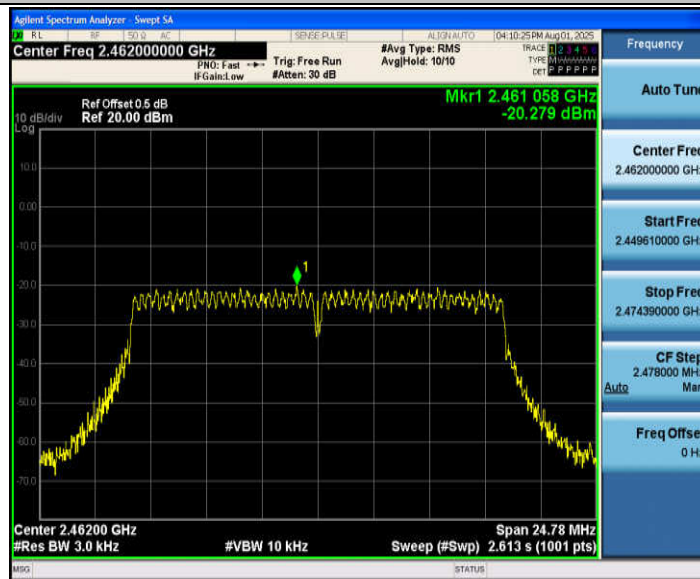
11G_Ant1_2412



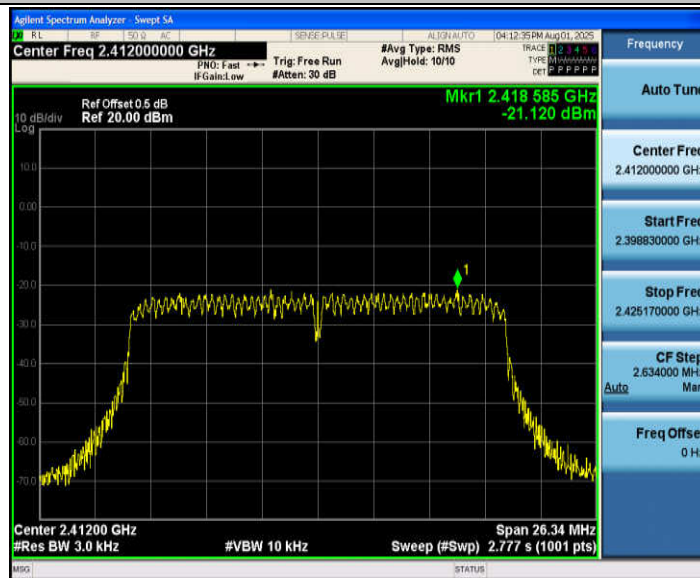
11G_Ant1_2437



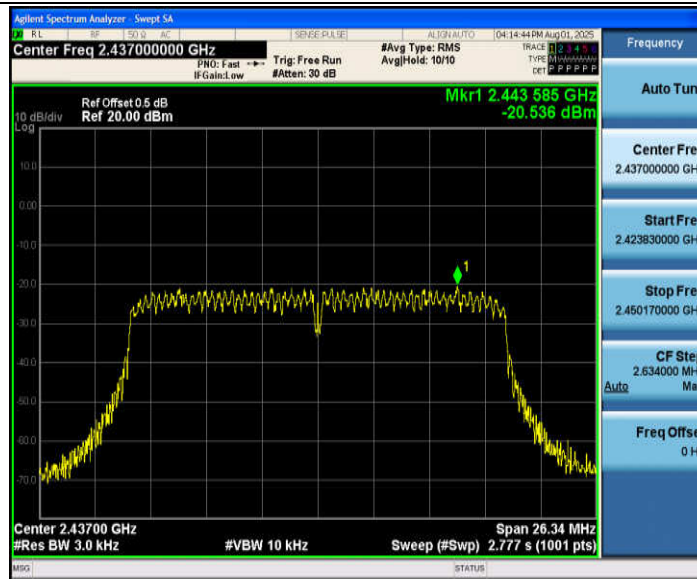
11G_Ant1_2462



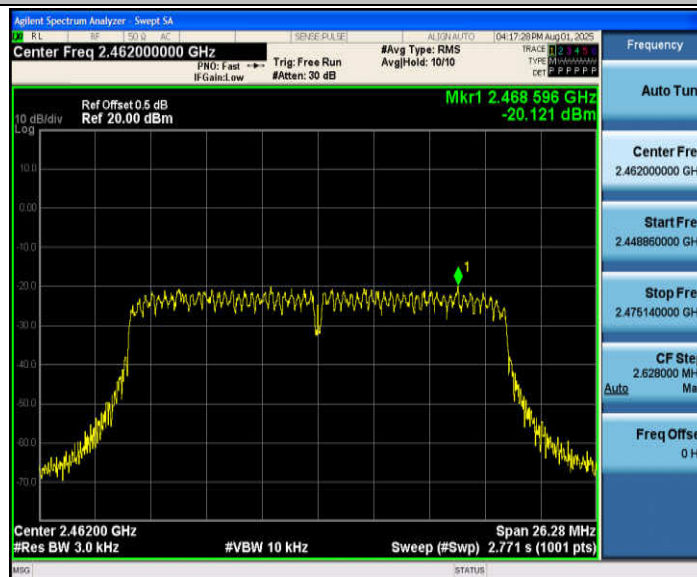
11N20SISO_Ant1_2412



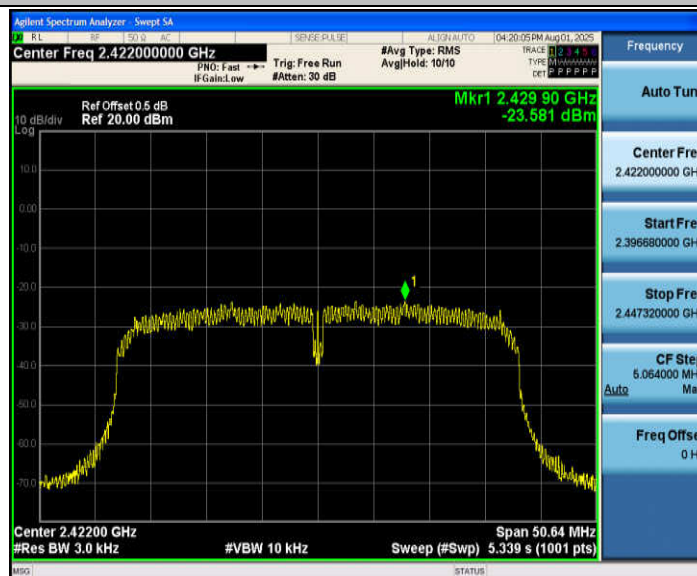
11N20SISO_Ant1_2437



11N20SISO_Ant1_2462



11N40SISO_Ant1_2422



11N40SISO_Ant1_2437



11N40SISO_Ant1_2452



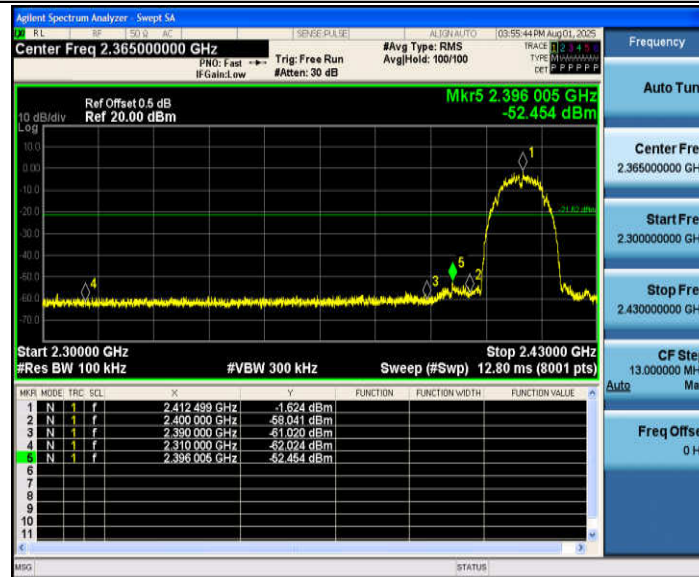
Appendix E: Band edge measurements

Test Result

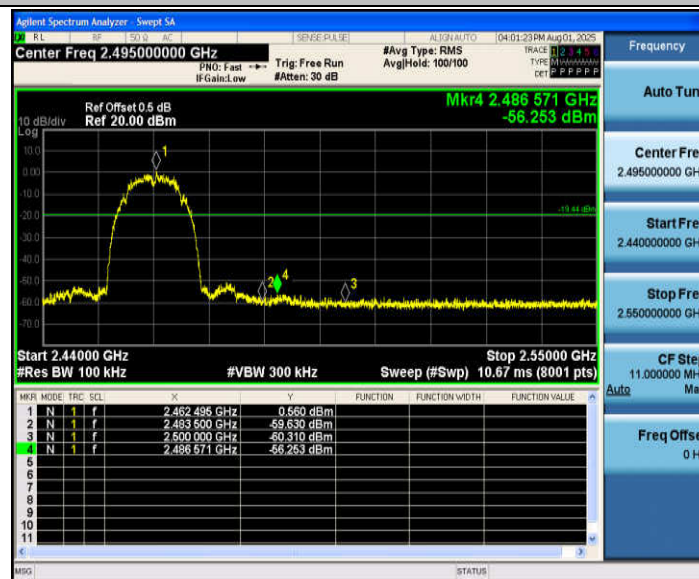
TestMode	Antenna	Channel Name	Frequency[MHz]	RefLevel[dBm]	Result[dBm]	Limit[dBm]	Verdict
11B	Ant1	Low	2412	-1.62	-52.45	≤-21.62	PASS
		High	2462	0.56	-56.25	≤-19.44	PASS
11G	Ant1	Low	2412	-7.03	-47.08	≤-27.03	PASS
		High	2462	-6.24	-53.26	≤-26.24	PASS
11N20SISO	Ant1	Low	2412	-7.38	-50.14	≤-27.38	PASS
		High	2462	-6.20	-53.64	≤-26.2	PASS
11N40SISO	Ant1	Low	2422	-10.18	-51.43	≤-30.18	PASS
		High	2452	-10.19	-53.75	≤-30.19	PASS

Test Graphs

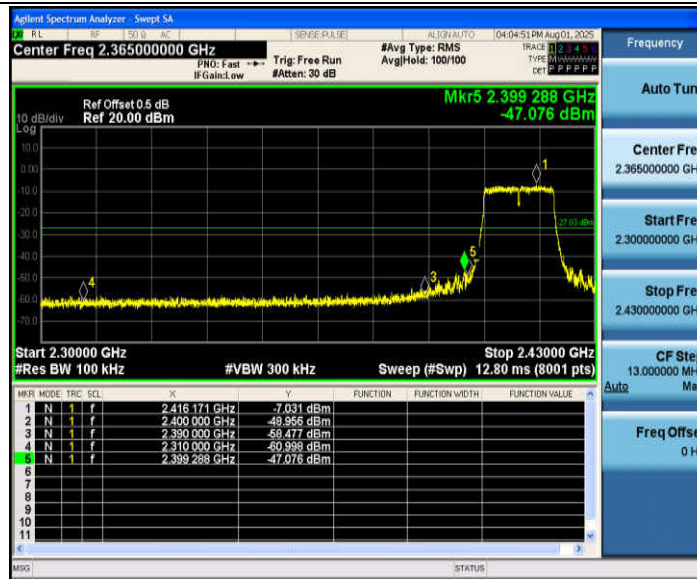
11B_Ant1_Low_2412



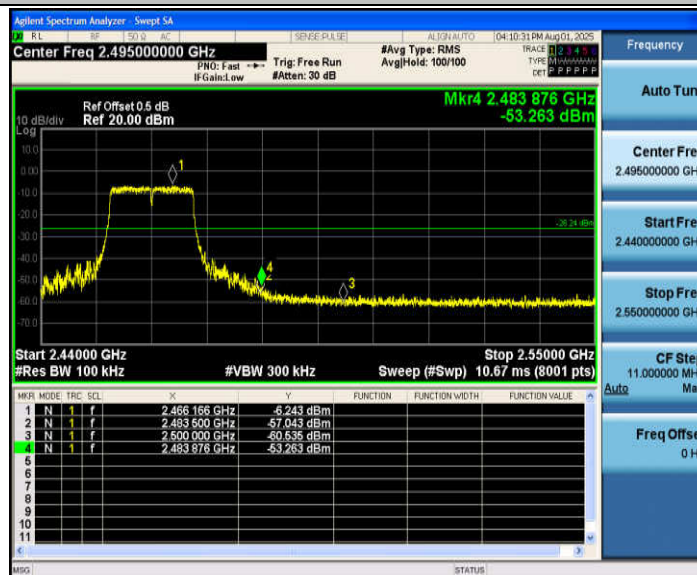
11B_Ant1_High_2462



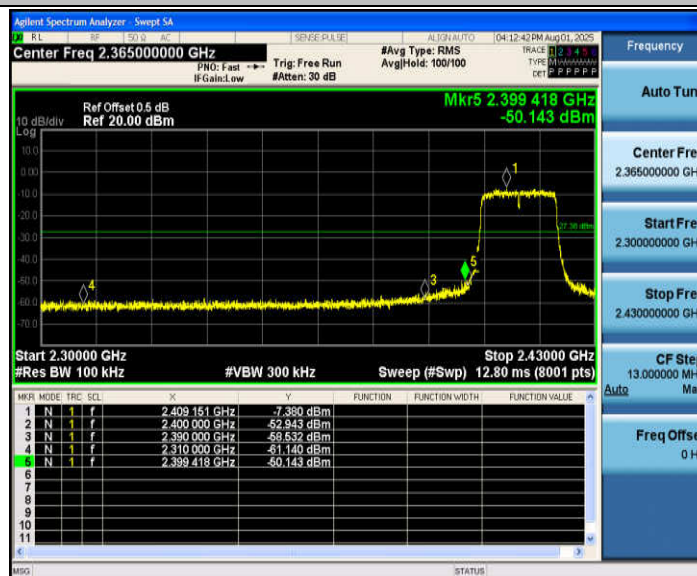
11G_Ant1_Low_2412



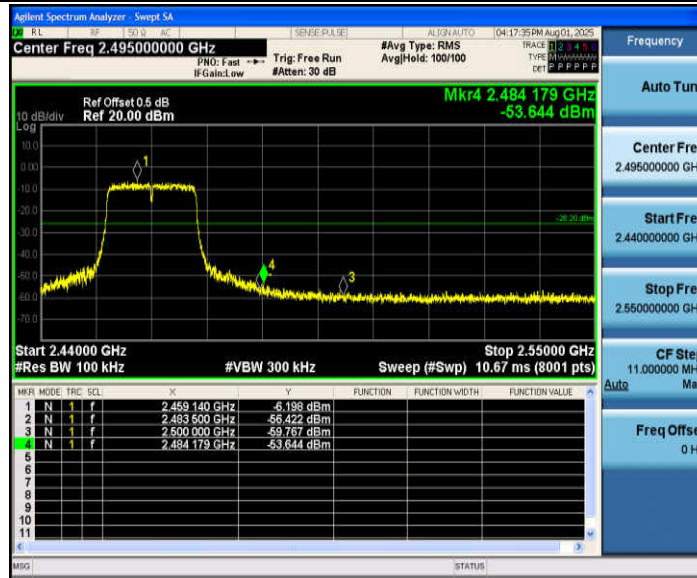
11G_Ant1_High_2462



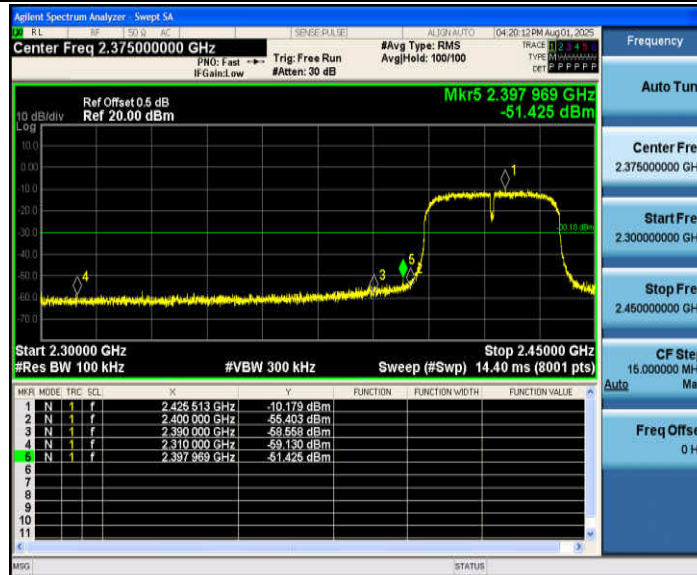
11N20SISO_Ant1_Low_2412



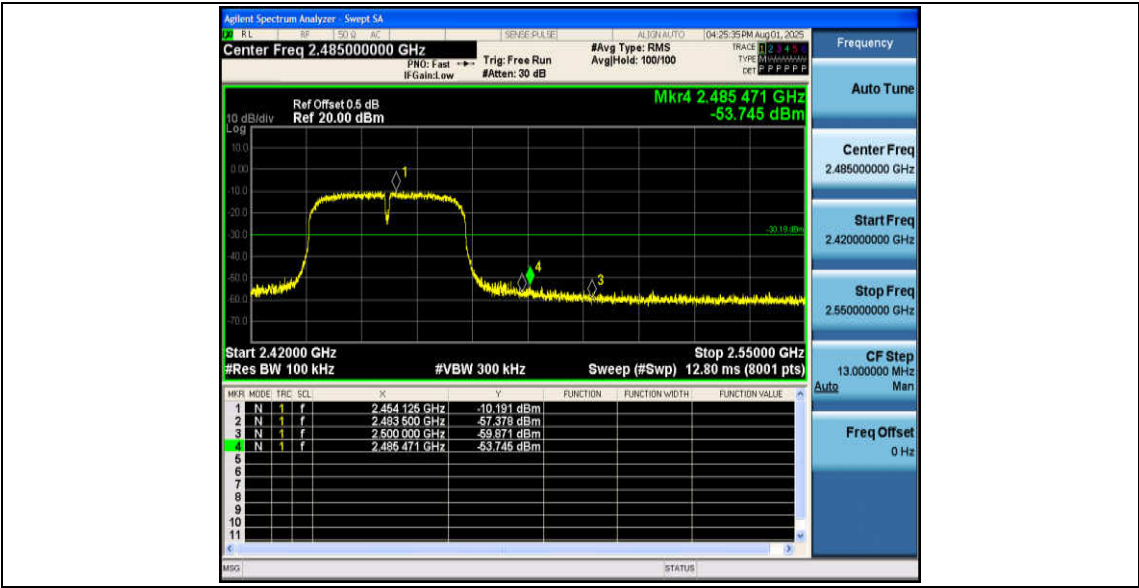
11N20SISO_Ant1_High_2462



11N40SISO_Ant1_Low_2422



11N40SISO_Ant1_High_2452



Appendix F: Conducted Spurious Emission

Test Result

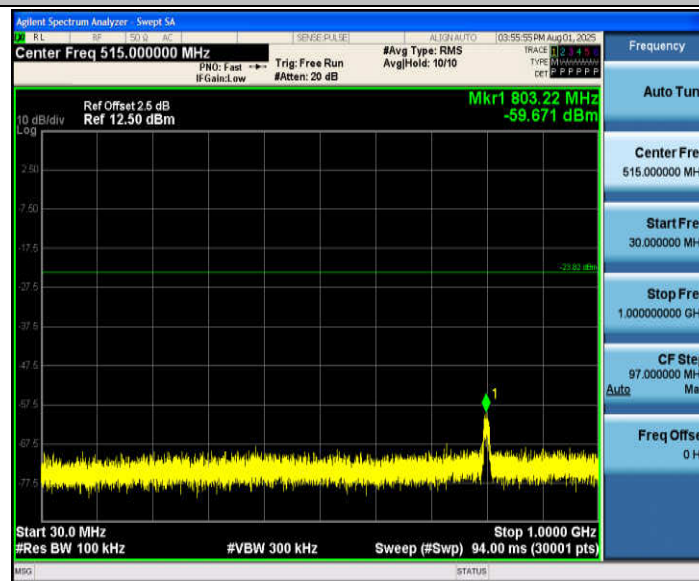
TestMode	Antenna	Frequency[MHz]	FreqRange [Mhz]	RefLevel [dBm]	Result [dBm]	Limit [dBm]	Verdict
11B	Ant1	2412	Reference	-3.82	-3.82	---	PASS
			30~1000	-3.82	-59.67	≤-23.82	PASS
			1000~26500	-3.82	-45.17	≤-23.82	PASS
		2437	Reference	0.70	0.70	---	PASS
			30~1000	0.70	-55.2	≤-19.3	PASS
			1000~26500	0.70	-44.52	≤-19.3	PASS
		2462	Reference	-1.24	-1.24	---	PASS
			30~1000	-1.24	-54.56	≤-21.24	PASS
			1000~26500	-1.24	-44.73	≤-21.24	PASS
11G	Ant1	2412	Reference	-7.74	-7.74	---	PASS
			30~1000	-7.74	-60.44	≤-27.74	PASS
			1000~26500	-7.74	-43.74	≤-27.74	PASS
		2437	Reference	-7.08	-7.08	---	PASS
			30~1000	-7.08	-59.57	≤-27.08	PASS
			1000~26500	-7.08	-44.11	≤-27.08	PASS
		2462	Reference	-7.02	-7.02	---	PASS
			30~1000	-7.02	-58.99	≤-27.02	PASS
			1000~26500	-7.02	-44.57	≤-27.02	PASS
11N20SISO	Ant1	2412	Reference	-8.12	-8.12	---	PASS
			30~1000	-8.12	-60.46	≤-28.12	PASS
			1000~26500	-8.12	-43.9	≤-28.12	PASS
		2437	Reference	-7.70	-7.70	---	PASS
			30~1000	-7.70	-59.95	≤-27.7	PASS
			1000~26500	-7.70	-44.05	≤-27.7	PASS
		2462	Reference	-7.69	-7.69	---	PASS
			30~1000	-7.69	-60.08	≤-27.69	PASS
			1000~26500	-7.69	-44.56	≤-27.69	PASS
11N40SISO	Ant1	2422	Reference	-11.14	-11.14	---	PASS
			30~1000	-11.14	-62.32	≤-31.14	PASS
			1000~26500	-11.14	-43.67	≤-31.14	PASS
		2437	Reference	-10.49	-10.49	---	PASS
			30~1000	-10.49	-61.68	≤-30.49	PASS
			1000~26500	-10.49	-44.14	≤-30.49	PASS
		2452	Reference	-10.63	-10.63	---	PASS
			30~1000	-10.63	-62.28	≤-30.63	PASS
			1000~26500	-10.63	-44.47	≤-30.63	PASS

Test Graphs

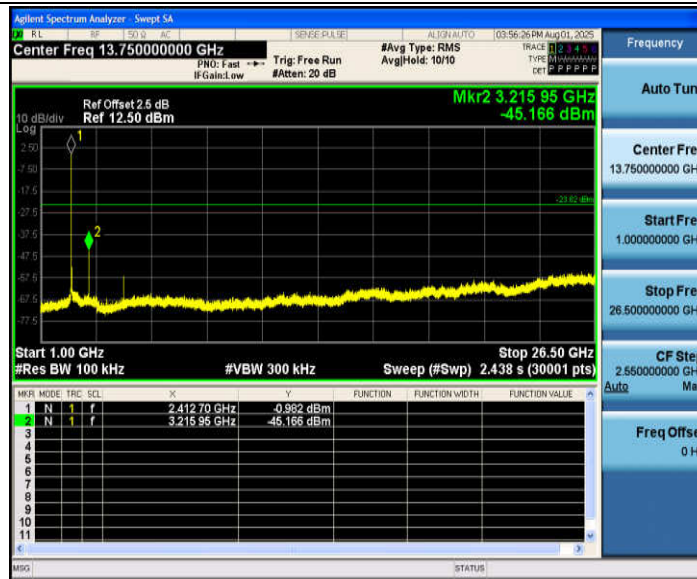
11B_Ant1_2412_0~Reference



11B_Ant1_2412_30~1000



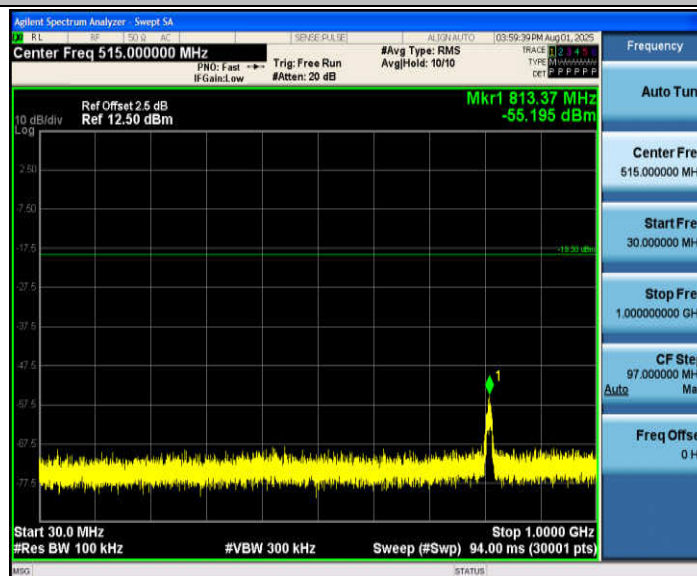
11B_Ant1_2412_1000~26500



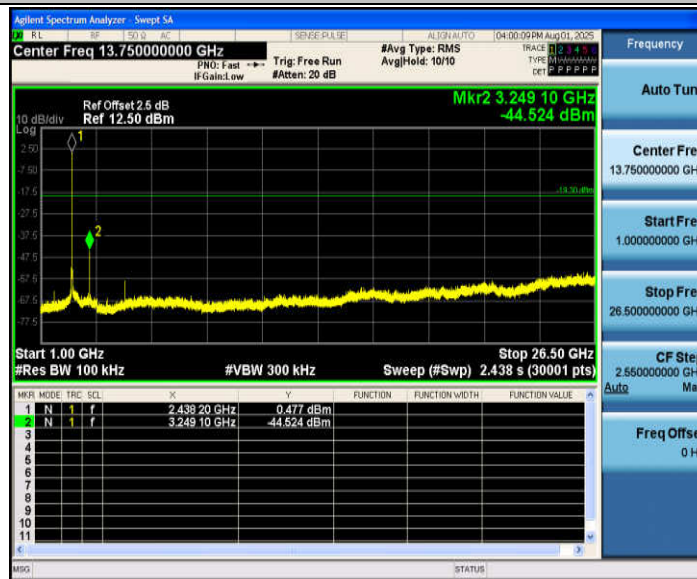
11B_Ant1_2437_0~Reference



11B_Ant1_2437_30~1000



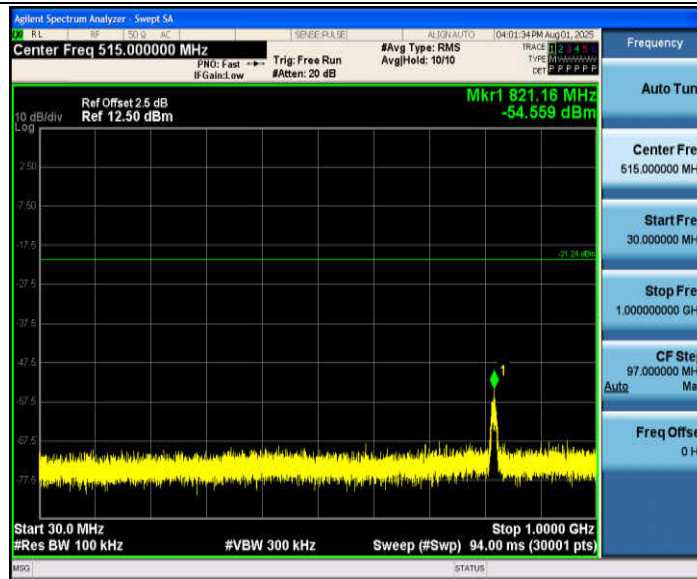
11B_Ant1_2437_1000~26500



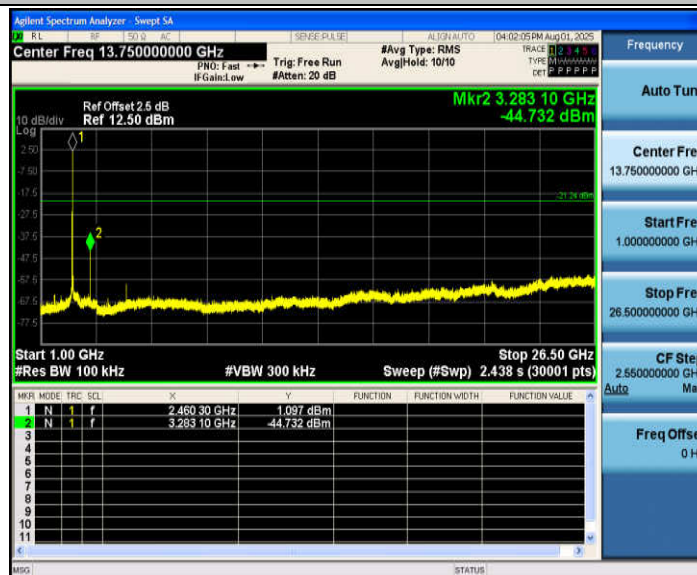
11B_Ant1_2462_0~Reference



11B_Ant1_2462_30~1000



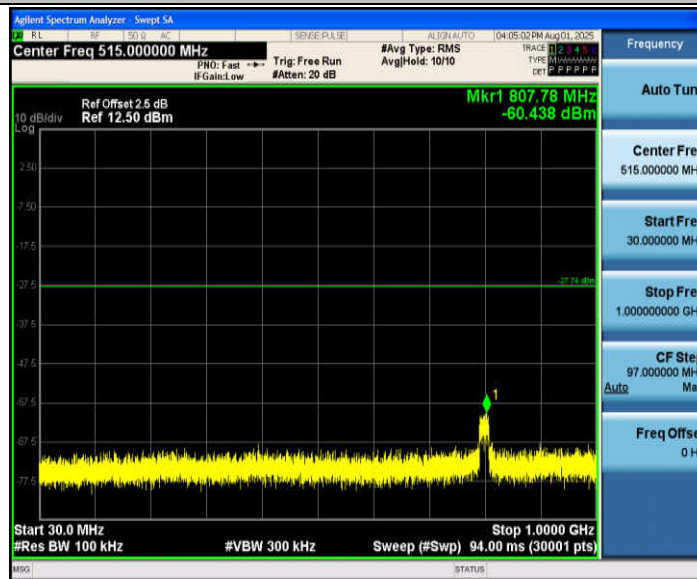
11B_Ant1_2462_1000~26500



11G_Ant1_2412_0~Reference



11G_Ant1_2412_30~1000



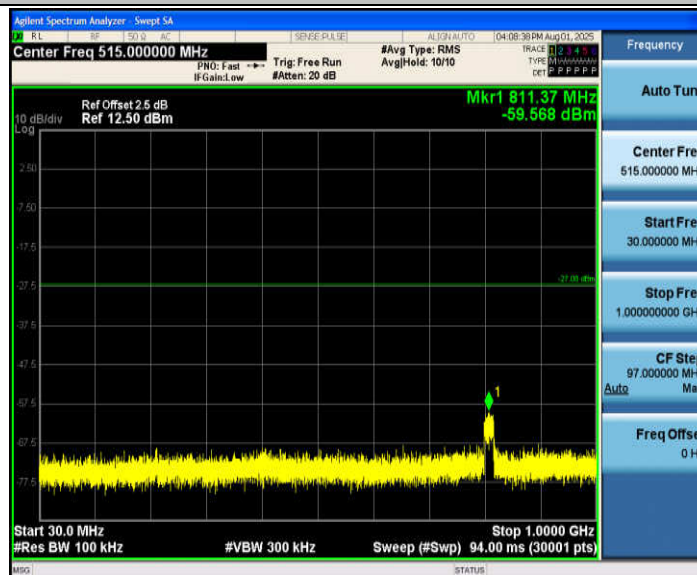
11G_Ant1_2412_1000~26500



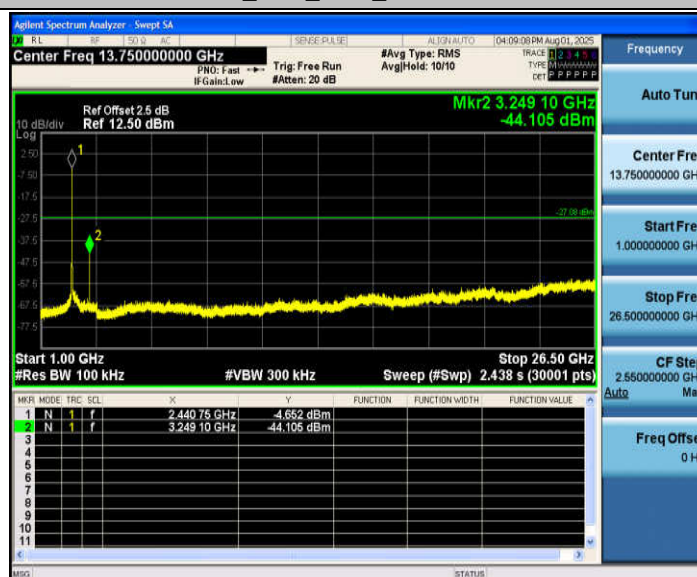
11G_Ant1_2437_0~Reference



11G_Ant1_2437_30~1000



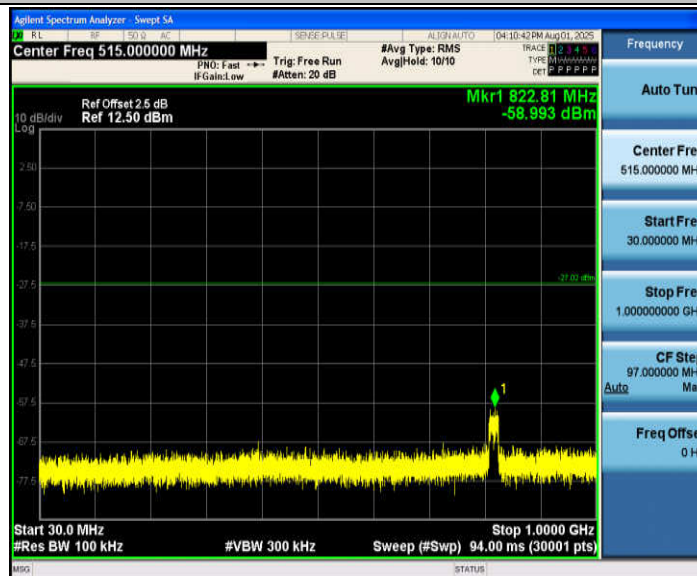
11G_Ant1_2437_1000~26500



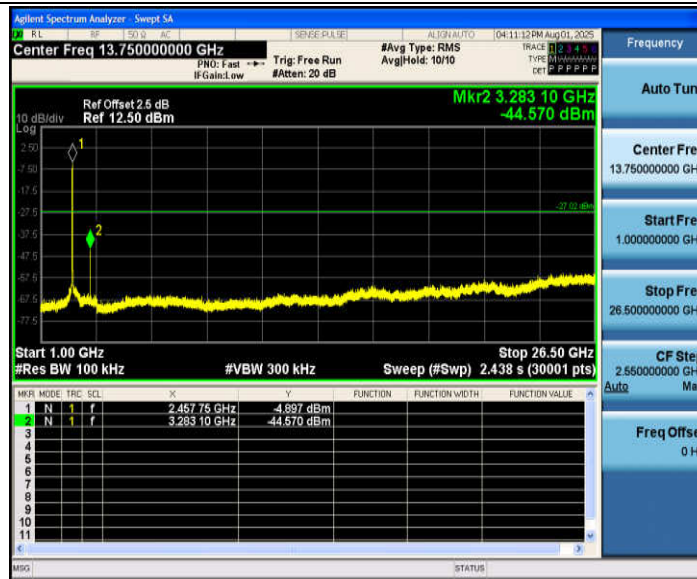
11G_Ant1_2462_0~Reference



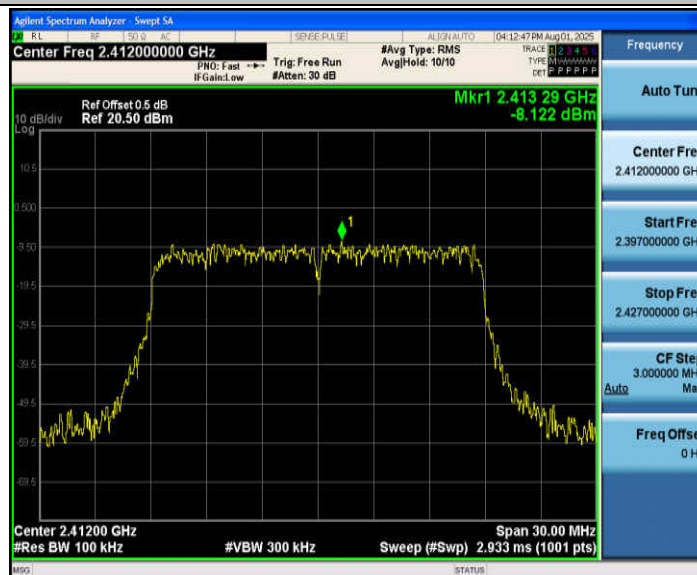
11G_Ant1_2462_30~1000



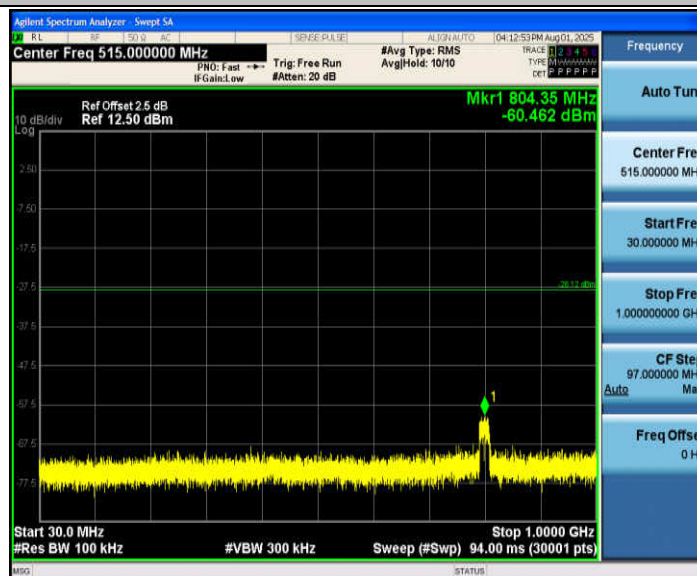
11G_Ant1_2462_1000~26500



11N20SISO_Ant1_2412_0~Reference



11N20SISO_Ant1_2412_30~1000



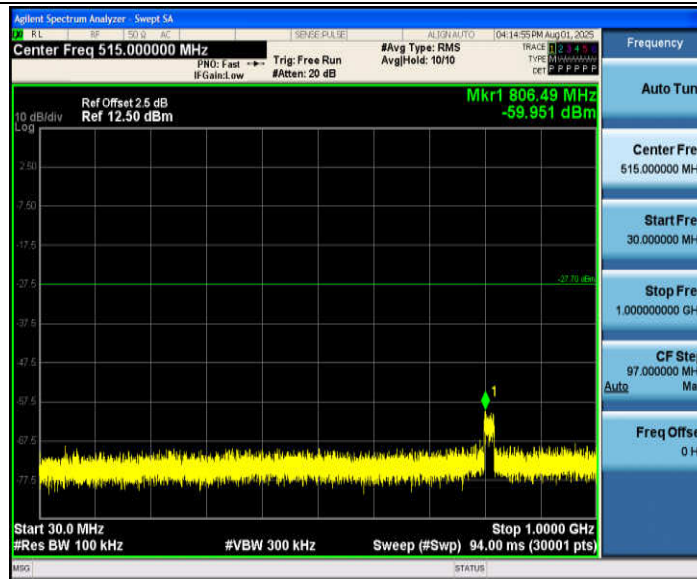
11N20SISO_Ant1_2412_1000~26500



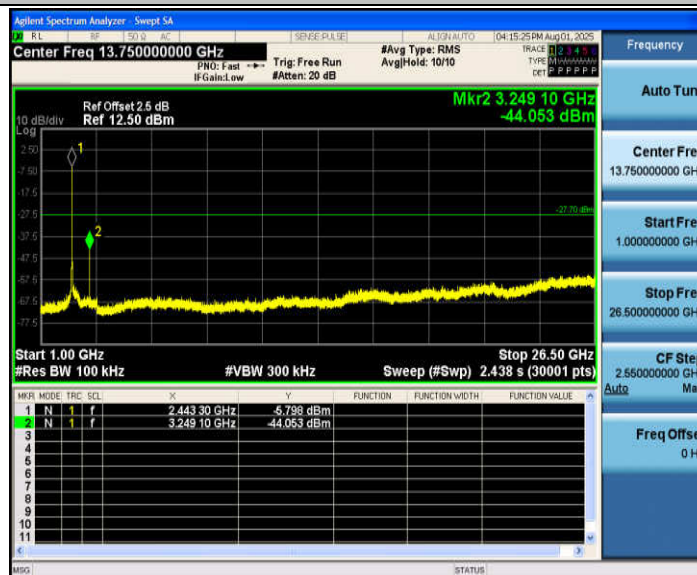
11N20SISO_Ant1_2437_0~Reference



11N20SISO_Ant1_2437_30~1000



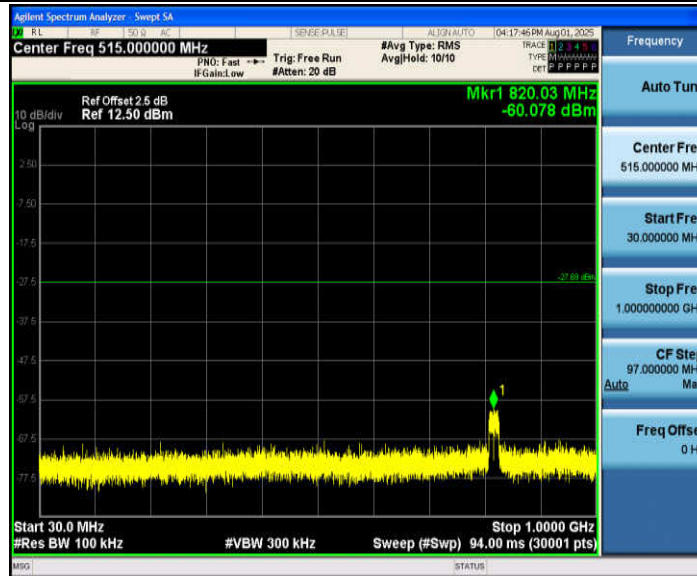
11N20SISO_Ant1_2437_1000~26500



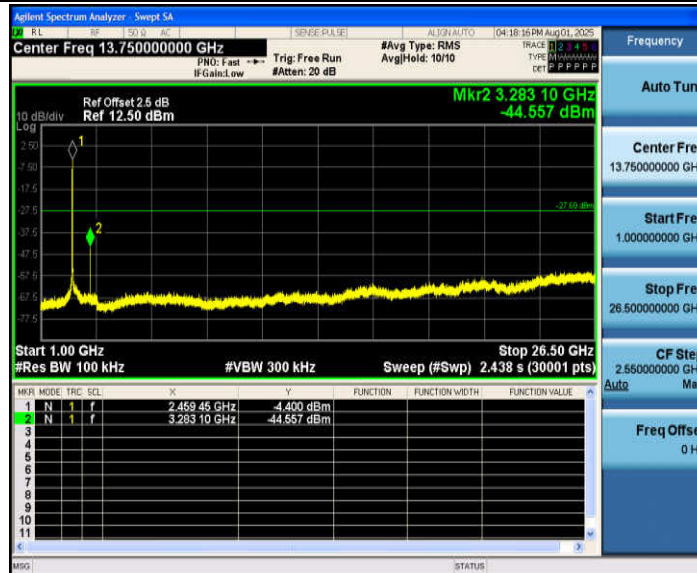
11N20SISO_Ant1_2462_0~Reference



11N20SISO_Ant1_2462_30~1000



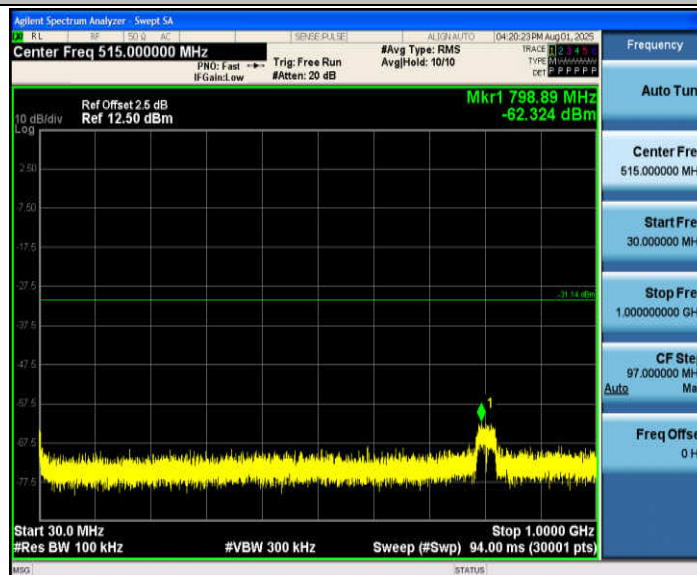
11N20SISO_Ant1_2462_1000~26500



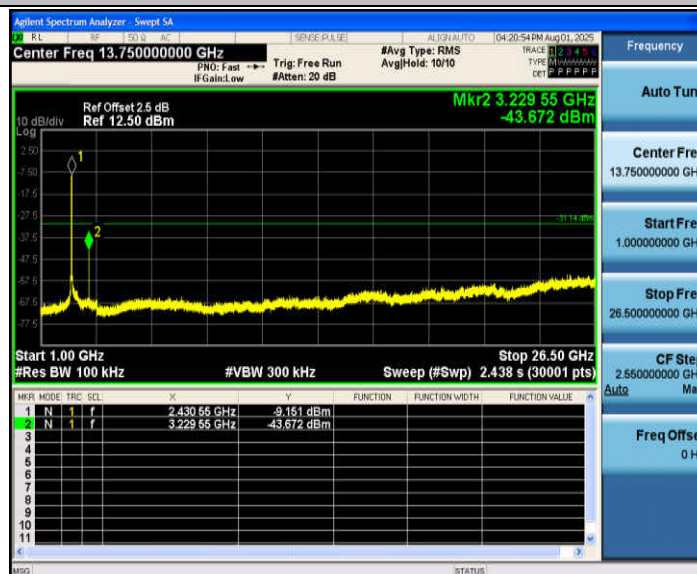
11N40SISO_Ant1_2422_0~Reference



11N40SISO_Ant1_2422_30~1000



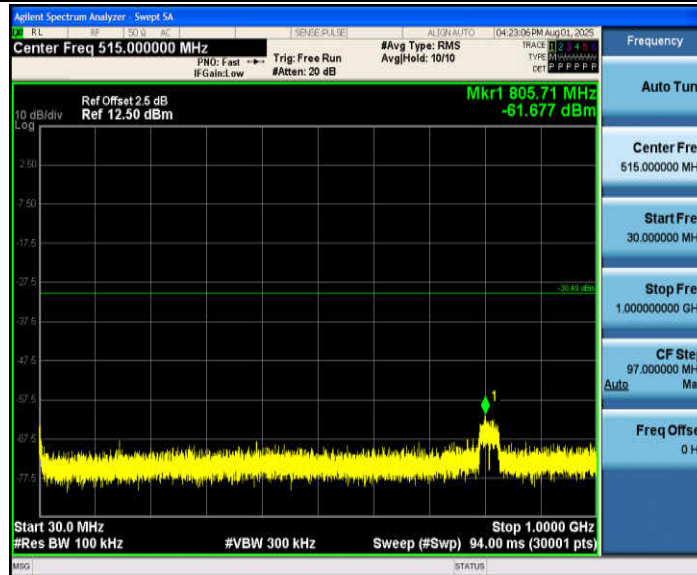
11N40SISO_Ant1_2422_1000~26500



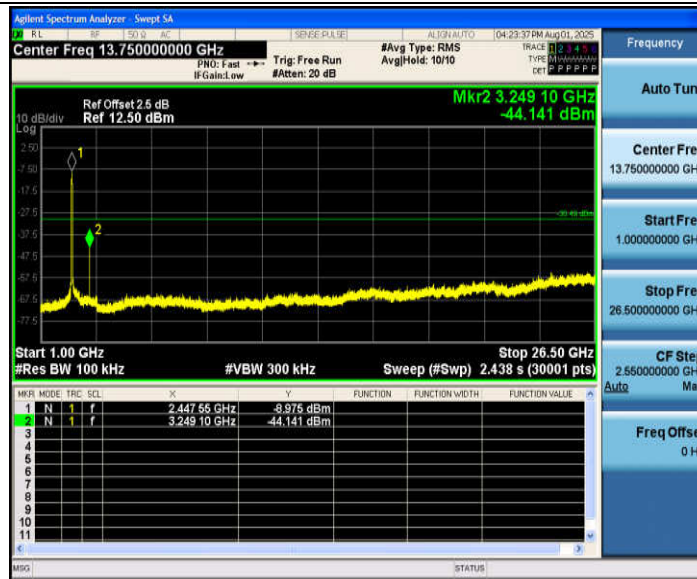
11N40SISO_Ant1_2437_0~Reference



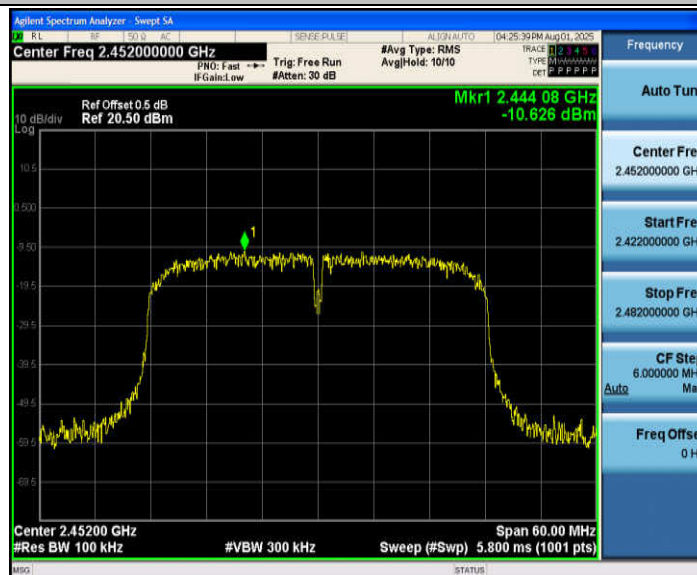
11N40SISO_Ant1_2437_30~1000



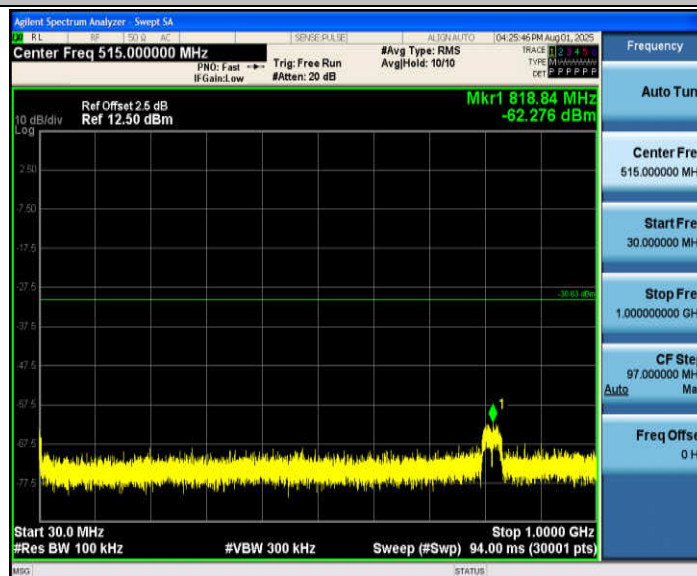
11N40SISO_Ant1_2437_1000~26500



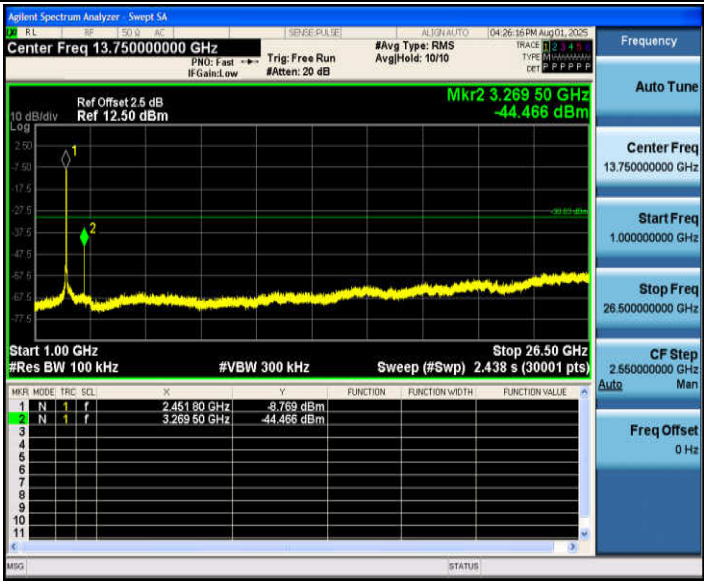
11N40ISO_Ant1_2452_0~Reference



11N40ISO_Ant1_2452_30~1000



11N40SISO_Ant1_2452_1000~26500



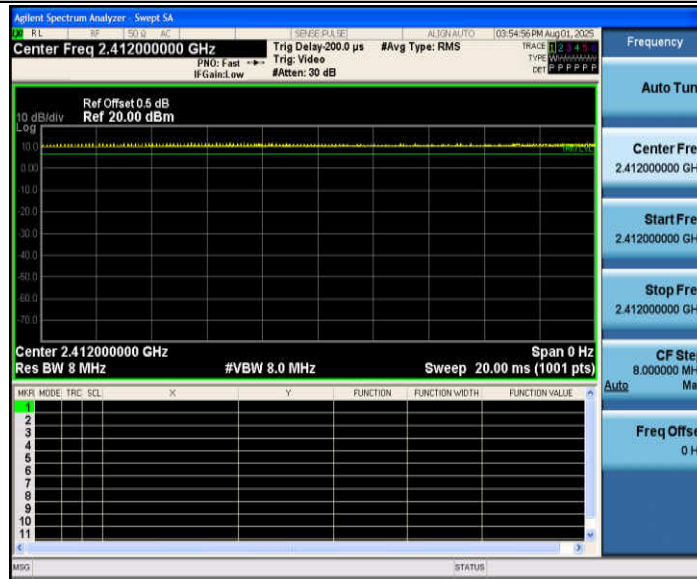
Appendix G: Duty Cycle

Test Result

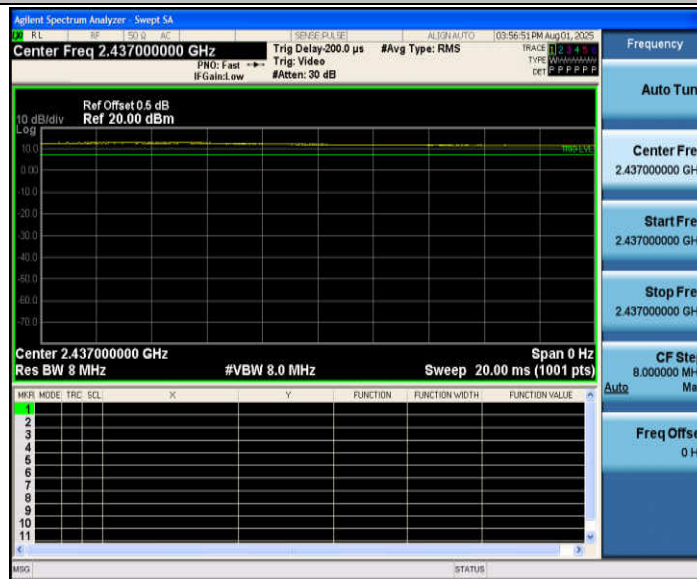
TestMode	Antenna	Frequency[MHz]	Transmission Duration [ms]	Transmission Period [ms]	Duty Cycle [%]
11B	Ant1	2412	20.00	20.00	100.00
		2437	20.00	20.00	100.00
		2462	20.00	20.00	100.00
11G	Ant1	2412	20.00	20.00	100.00
		2437	20.00	20.00	100.00
		2462	20.00	20.00	100.00
11N20SISO	Ant1	2412	20.00	20.00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

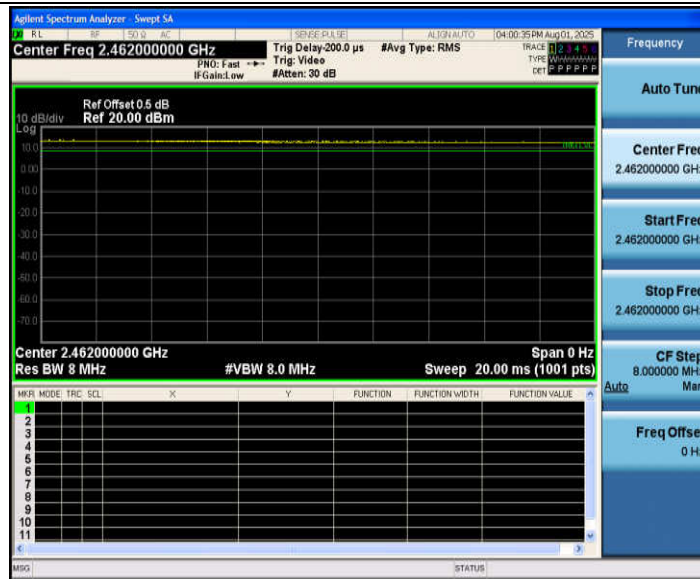
11B_Ant1_2412



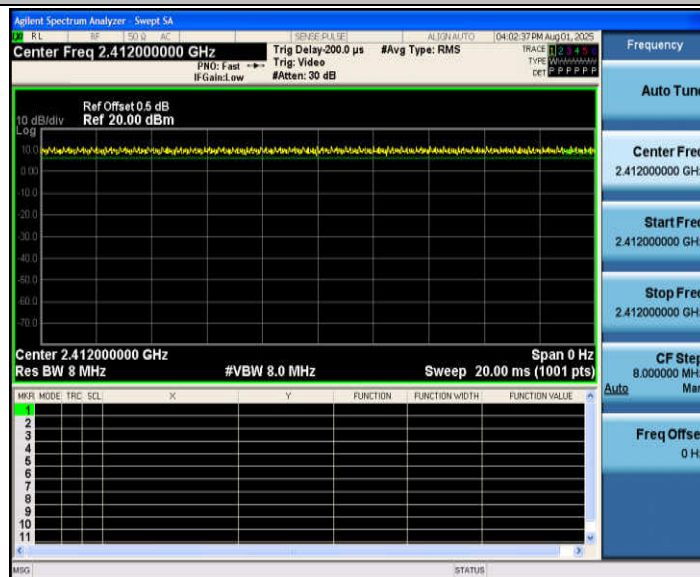
11B_Ant1_2437



11B_Ant1_2462



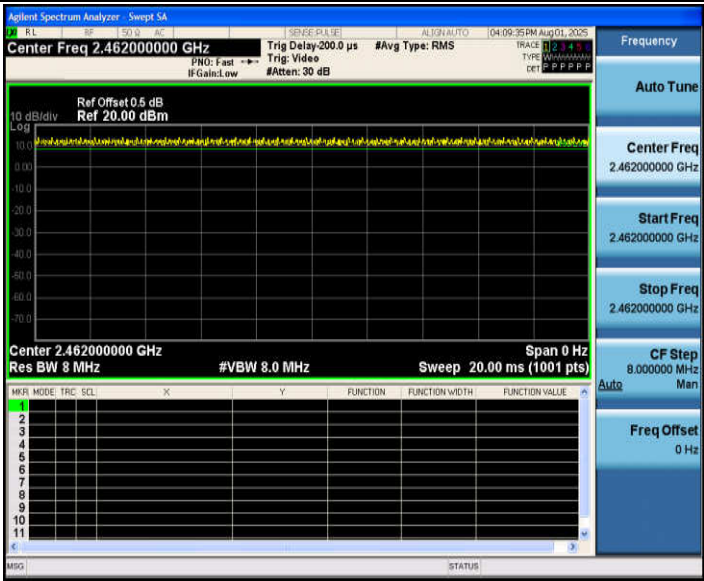
11G_Ant1_2412



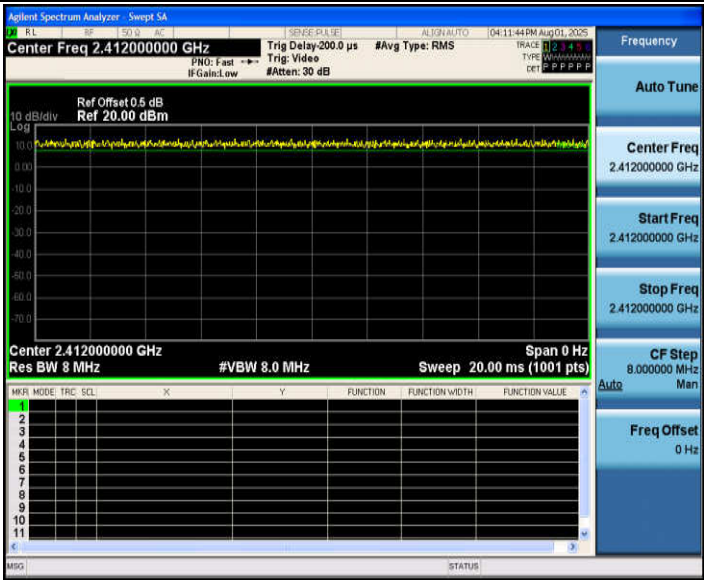
11G_Ant1_2437



11G_Ant1_2462



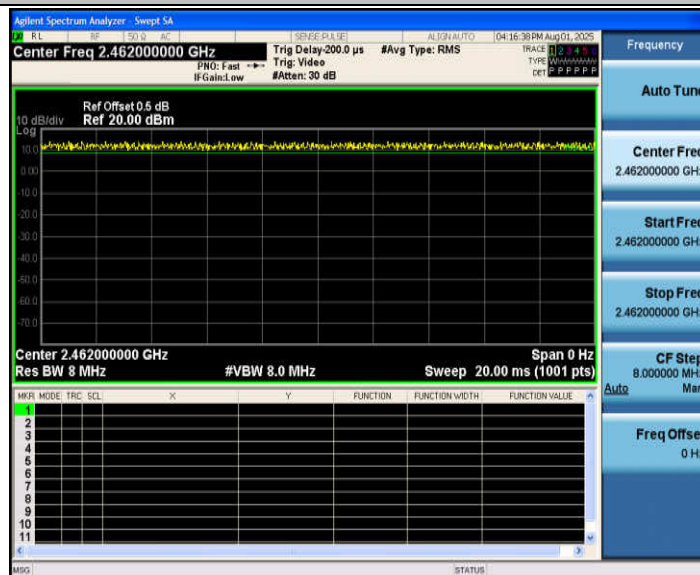
11N20SISO_Ant1_2412



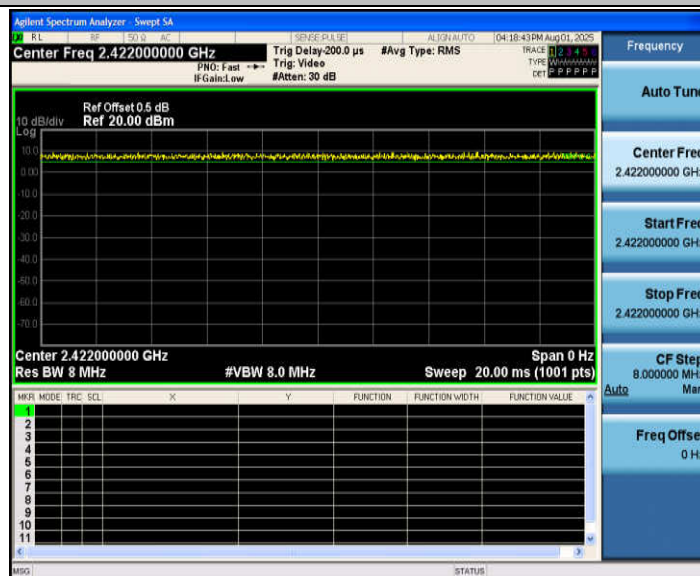
11N20SISO_Ant1_2437



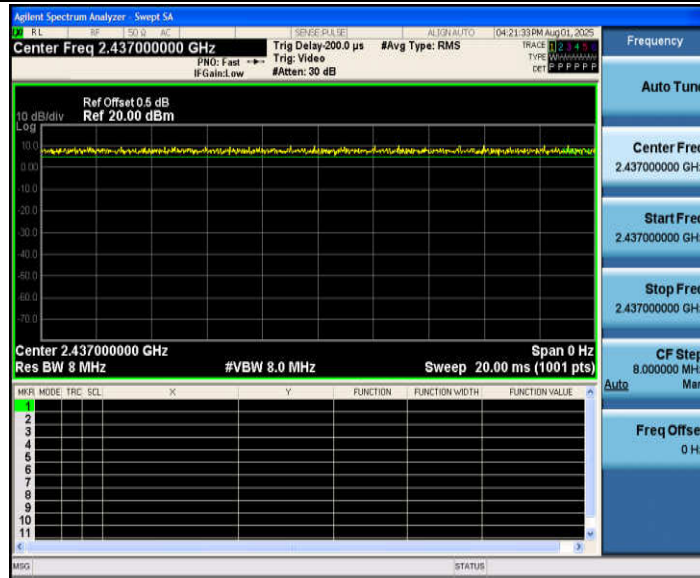
11N20SISO_Ant1_2462



11N40SISO_Ant1_2422



11N40SISO_Ant1_2437



11N40SISO_Ant1_2452

