

FCC Appendix RF Test Data for 2.4GWIFI

FCC ID : 2BSUL-EG8143A5

Company : Shenzhen HUANET Technology CO., Ltd

EUT : Optical Network Terminal

Model Number : EG8143A5

Report No. : CTA25120500101

Reviewed By : Eric Wang

Appendix RF Test Data for 2.4GWIFI ANT1

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	10.240	2431.920	2442.160	0.5	PASS
		2462	10.240	2456.920	2467.160	0.5	PASS
11G	Ant1	2412	16.200	2403.880	2420.080	0.5	PASS
		2437	16.240	2428.880	2445.120	0.5	PASS
		2462	16.120	2453.960	2470.080	0.5	PASS
11N20SISO	Ant1	2412	17.160	2403.320	2420.480	0.5	PASS
		2437	17.240	2428.320	2445.560	0.5	PASS
		2462	16.680	2453.760	2470.440	0.5	PASS
11N40SISO	Ant1	2422	35.840	2404.240	2440.080	0.5	PASS
		2437	35.600	2419.240	2454.840	0.5	PASS
		2452	35.760	2434.320	2470.080	0.5	PASS

Test Graphs

11B_Ant1_2412



11B_Ant1_2437



11B_Ant1_2462



11G_Ant1_2412



11G_Ant1_2437





11N20SISO_Ant1_2462



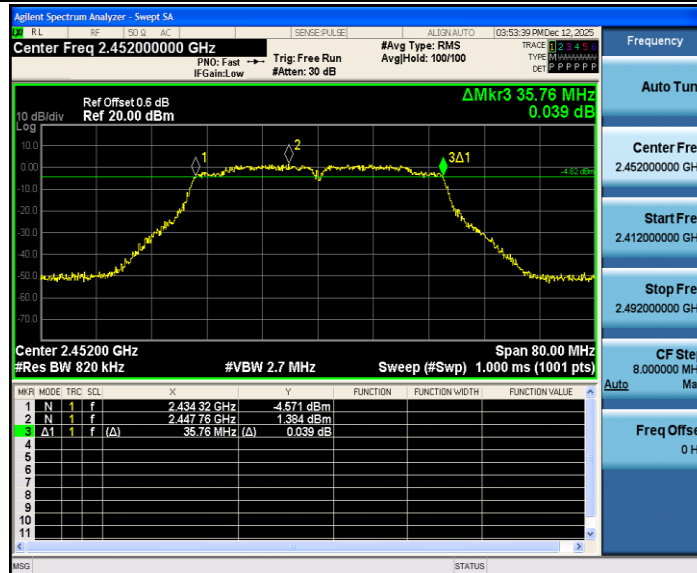
11N40SISO_Ant1_2422



11N40SISO_Ant1_2437



11N40SISO_Ant1_2452



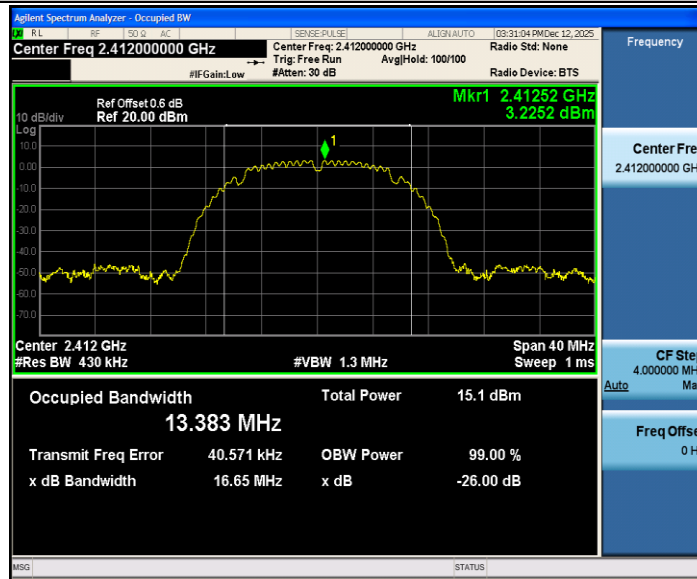
Appendix B: Occupied Channel Bandwidth

Test Result

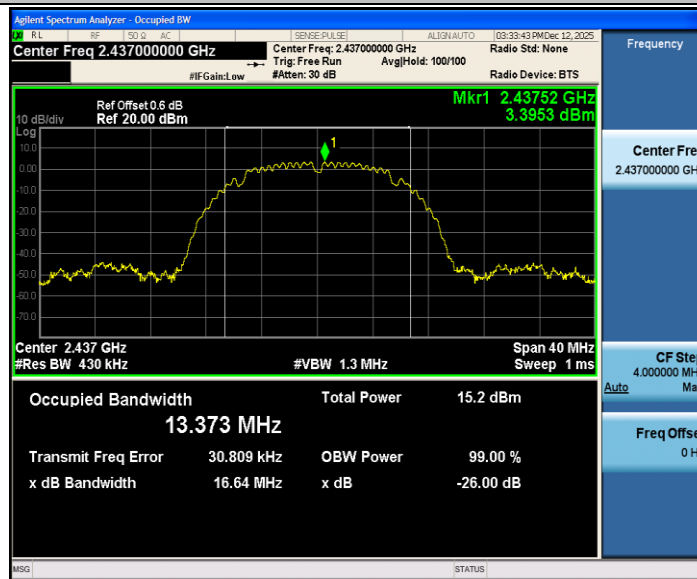
TestMode	Antenna	Channel Frequency[MHz]	OCB [MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
11B	Ant1	2412	13.383	2405.3491	2418.7321	---	---
		2437	13.373	2430.3443	2443.7173	---	---
		2462	13.386	2455.3230	2468.7090	---	---
11G	Ant1	2412	16.773	2403.6538	2420.4268	---	---
		2437	16.750	2428.6857	2445.4357	---	---
		2462	16.732	2453.7015	2470.4335	---	---
11N20SISO	Ant1	2412	17.828	2403.1281	2420.9561	---	---
		2437	17.772	2428.1591	2445.9311	---	---
		2462	17.874	2453.0721	2470.9461	---	---
11N40SISO	Ant1	2422	36.091	2404.0611	2440.1521	---	---
		2437	36.071	2419.0572	2455.1282	---	---
		2452	35.990	2434.0651	2470.0551	---	---

Test Graphs

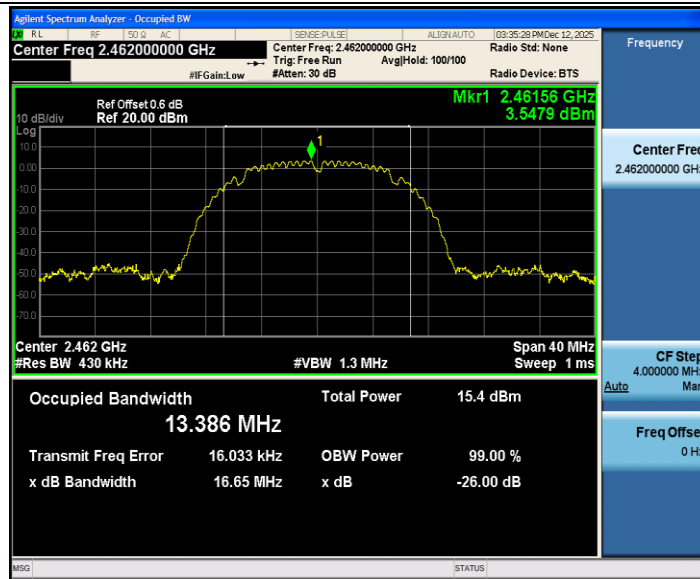
11B_Ant1_2412



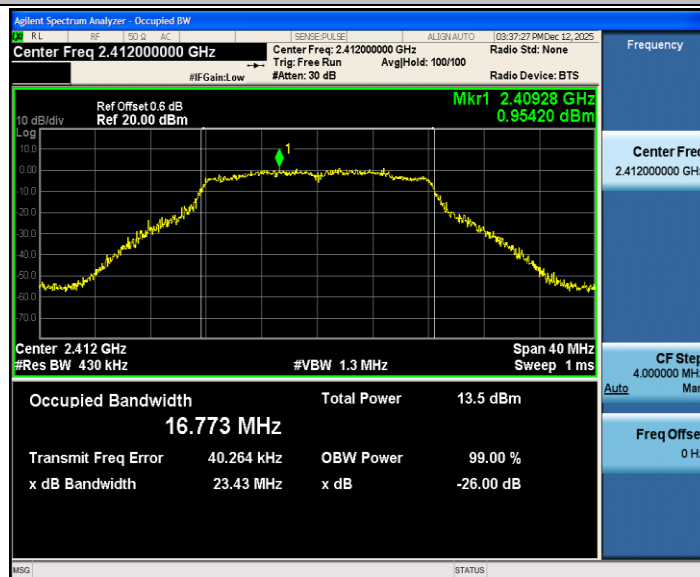
11B_Ant1_2437



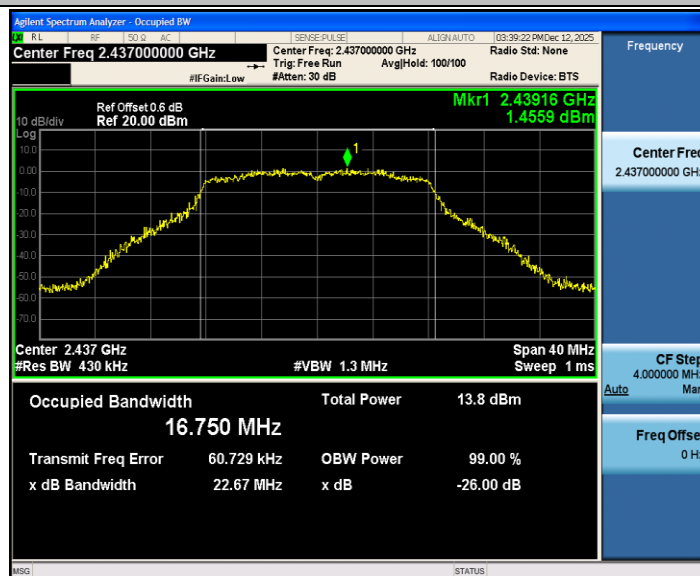
11B_Ant1_2462



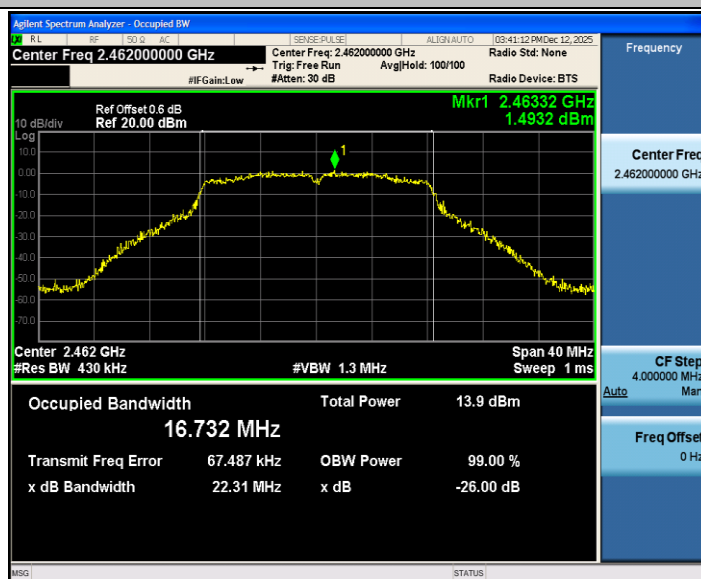
11G_Ant1_2412



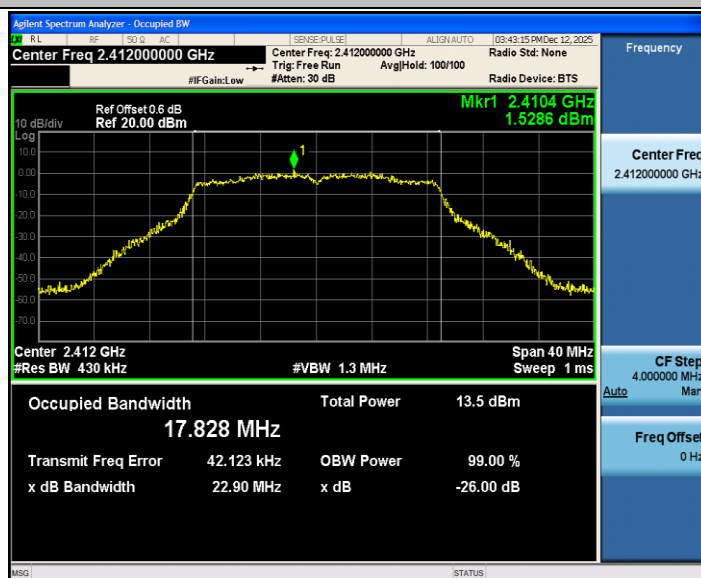
11G_Ant1_2437



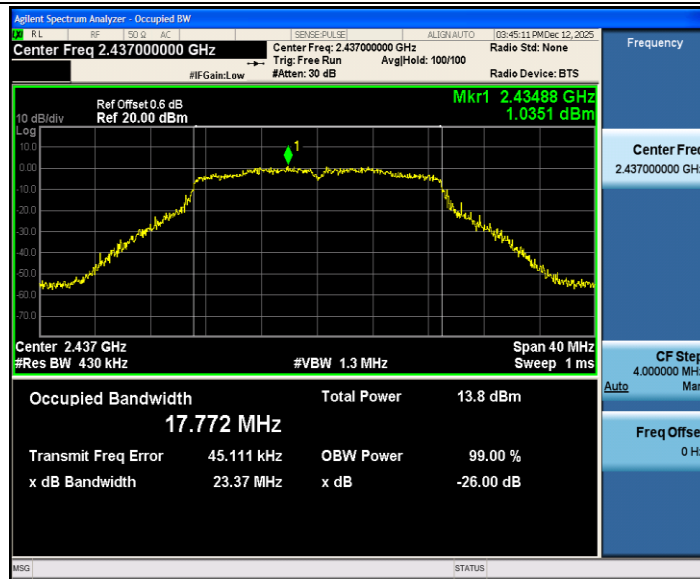
11G_Ant1_2462



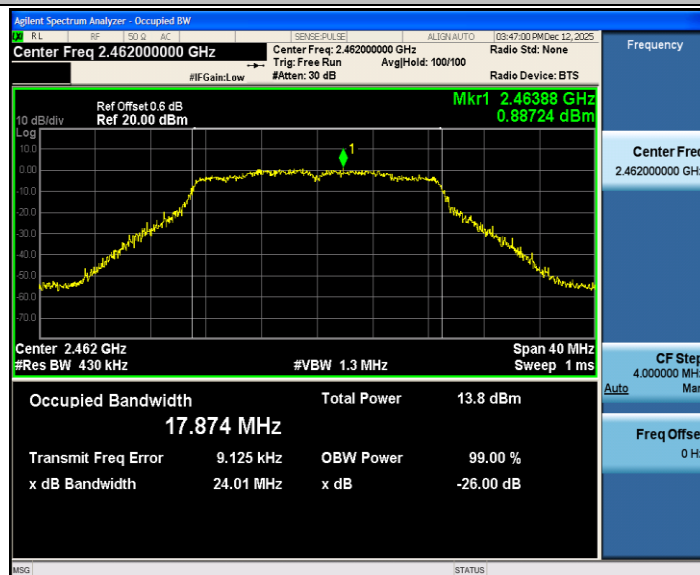
11N20SISO_Ant1_2412



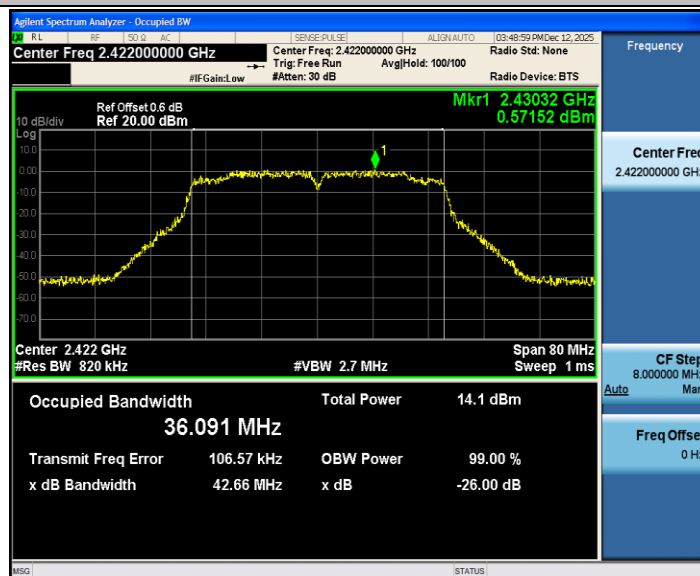
11N20SISO_Ant1_2437



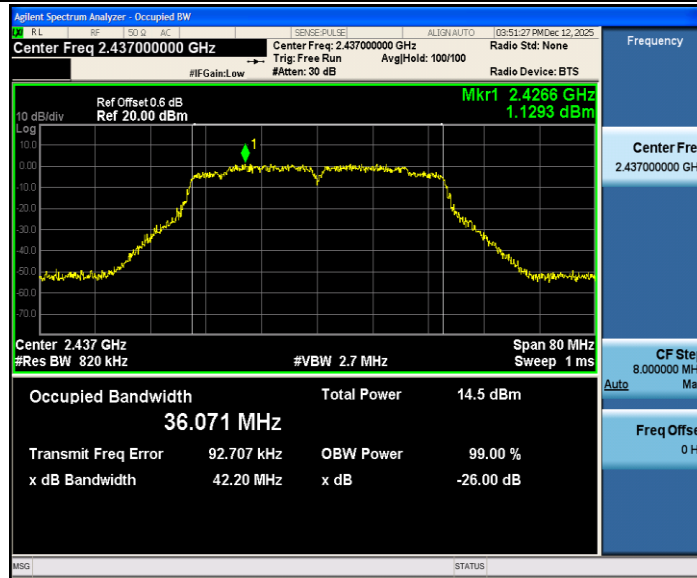
11N20SISO_Ant1_2462



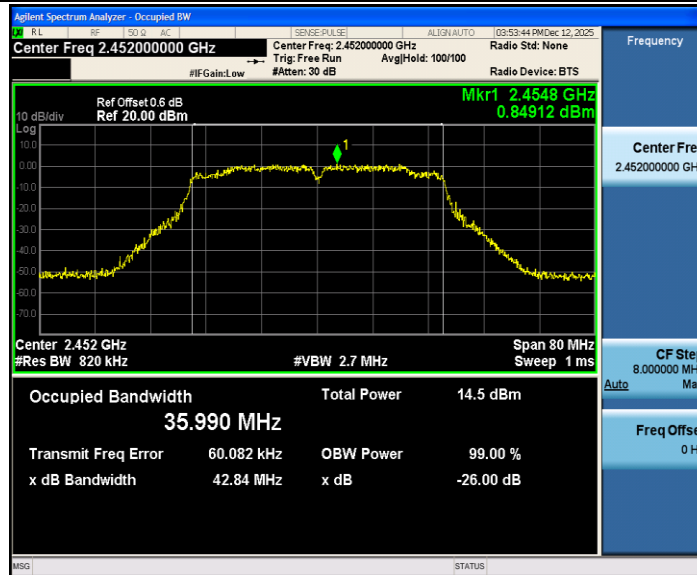
11N40SISO_Ant1_2422



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	14.91	≤30.00	PASS
		2437	15.07	≤30.00	PASS
		2462	15.32	≤30.00	PASS
11G	Ant1	2412	14.21	≤30.00	PASS
		2437	14.50	≤30.00	PASS
		2462	14.55	≤30.00	PASS
11N20SISO	Ant1	2412	14.00	≤30.00	PASS
		2437	14.18	≤30.00	PASS
		2462	14.36	≤30.00	PASS
11N40SISO	Ant1	2422	14.40	≤30.00	PASS
		2437	14.75	≤30.00	PASS
		2452	14.69	≤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	-11.59	≤8.00	PASS
		2437	-11.02	≤8.00	PASS
		2462	-10.09	≤8.00	PASS
11G	Ant1	2412	-17.06	≤8.00	PASS
		2437	-16.54	≤8.00	PASS
		2462	-16.29	≤8.00	PASS
11N20SISO	Ant1	2412	-15.92	≤8.00	PASS
		2437	-15.99	≤8.00	PASS
		2462	-15.72	≤8.00	PASS
11N40SISO	Ant1	2422	-19.01	≤8.00	PASS
		2437	-18.81	≤8.00	PASS
		2452	-19.08	≤8.00	PASS

Test Graphs

11B_Ant1_2412



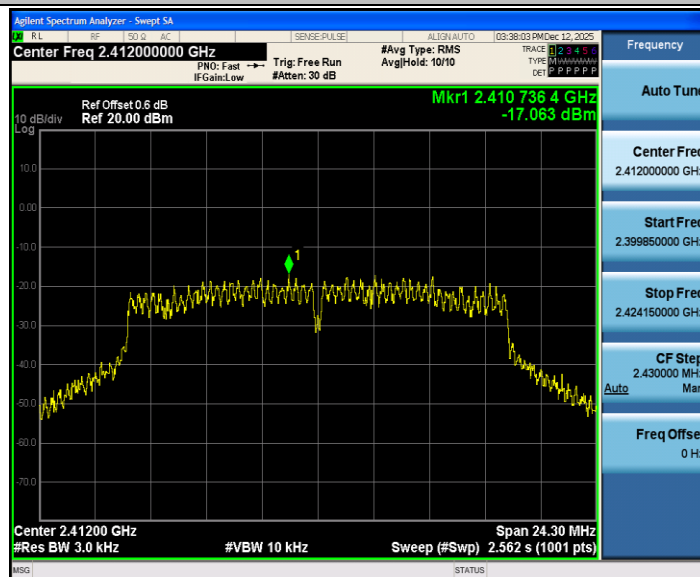
11B_Ant1_2437



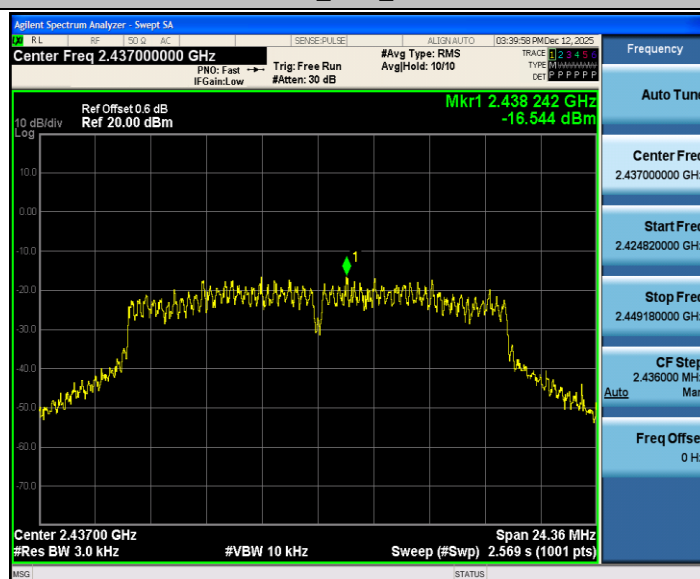
11B_Ant1_2462



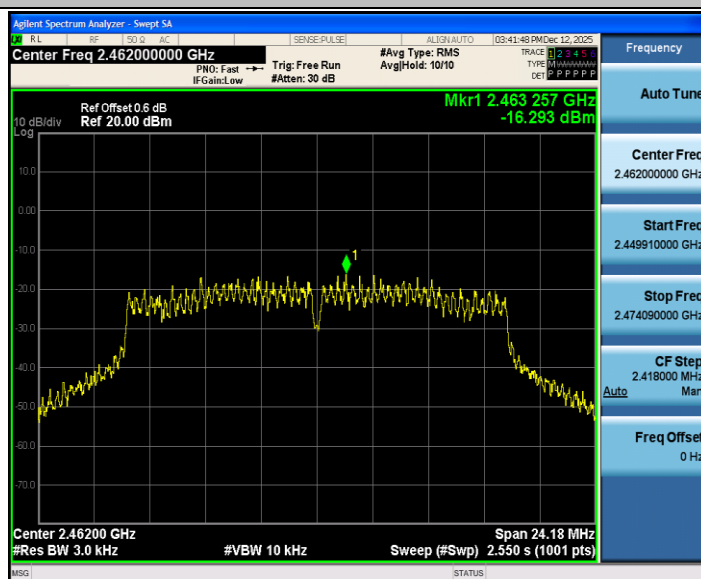
11G_Ant1_2412



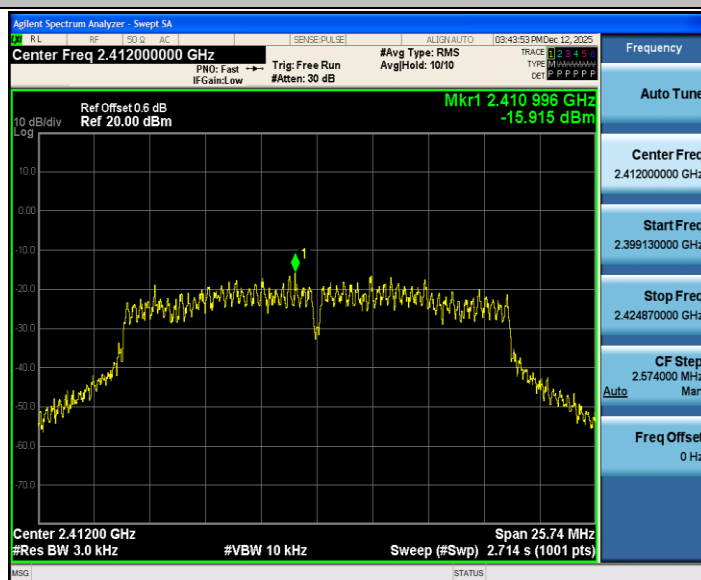
11G_Ant1_2437



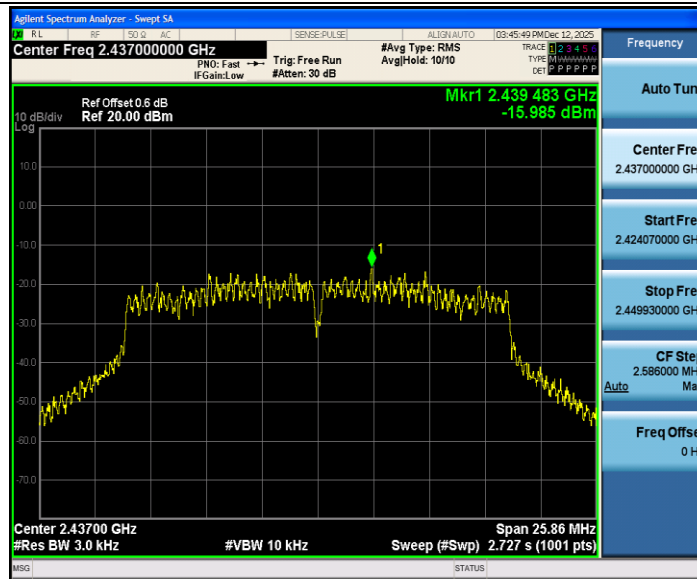
11G_Ant1_2462



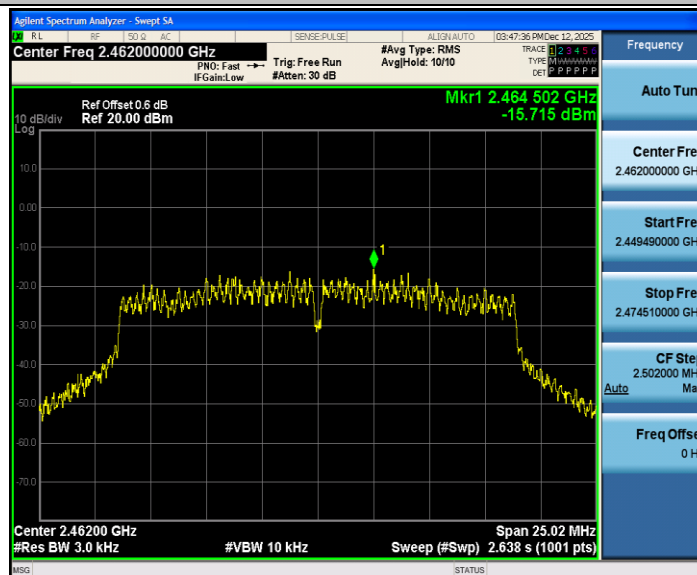
11N20SISO_Ant1_2412



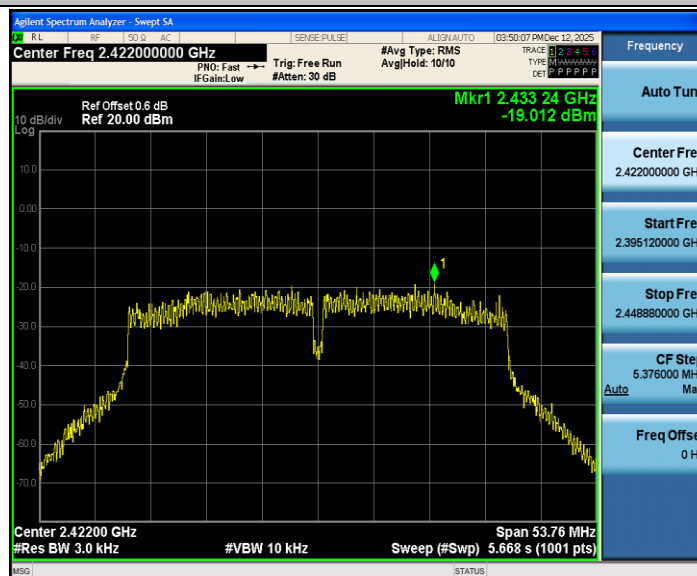
11N20SISO_Ant1_2437



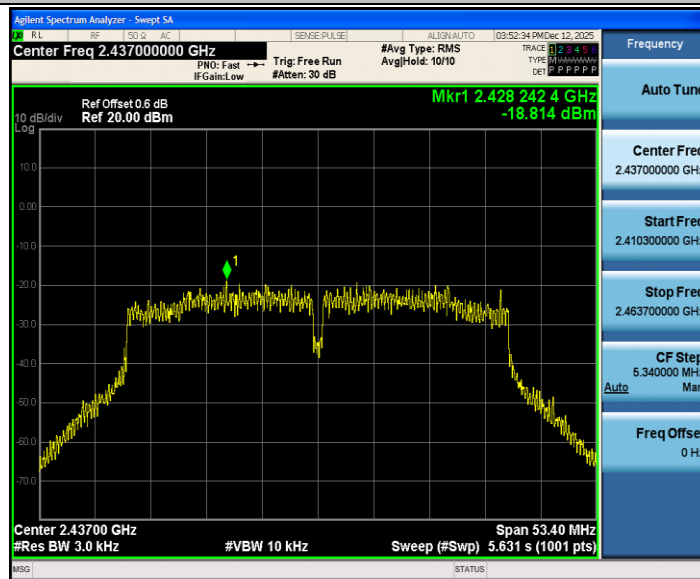
11N20SISO_Ant1_2462



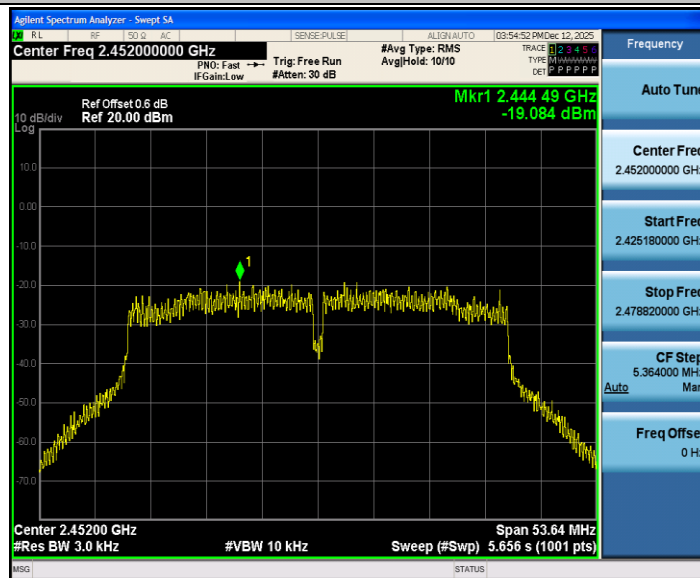
11N40SISO_Ant1_2422



11N40SISO_Ant1_2437



11N40SISO_Ant1_2452



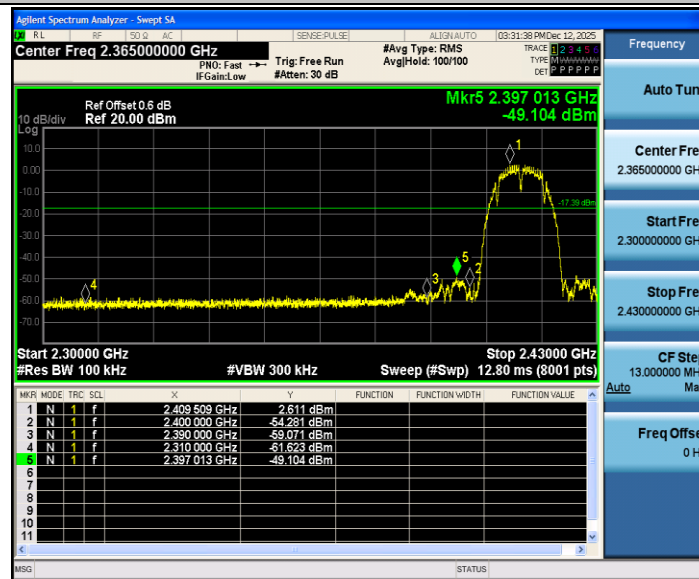
Appendix E: Band edge measurements

Test Result

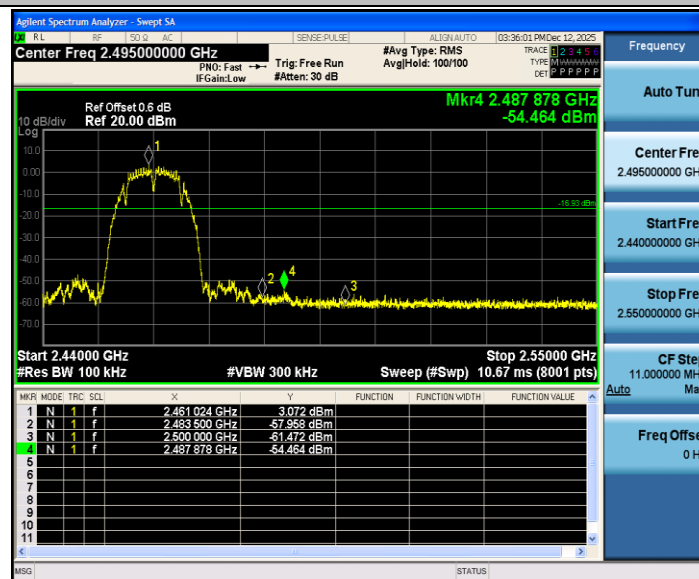
TestMode	Antenna	Channel Name	Frequency[MHz]	RefLevel[dBm]	Result[dBm]	Limit[dBm]	Verdict
11B	Ant1	Low	2412	2.61	-49.1	≤-17.39	PASS
		High	2462	3.07	-54.46	≤-16.93	PASS
11G	Ant1	Low	2412	-1.72	-33.61	≤-21.72	PASS
		High	2462	-1.26	-56.58	≤-21.26	PASS
11N20SISO	Ant1	Low	2412	-1.41	-32.88	≤-21.41	PASS
		High	2462	-1.09	-56.73	≤-21.09	PASS
11N40SISO	Ant1	Low	2422	-4.65	-32.37	≤-24.65	PASS
		High	2452	-4.39	-56.23	≤-24.39	PASS

Test Graphs

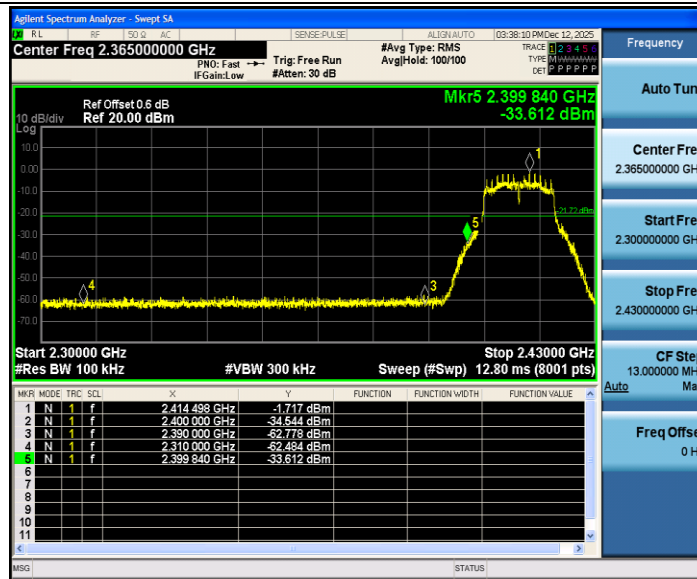
11B_Ant1_Low_2412



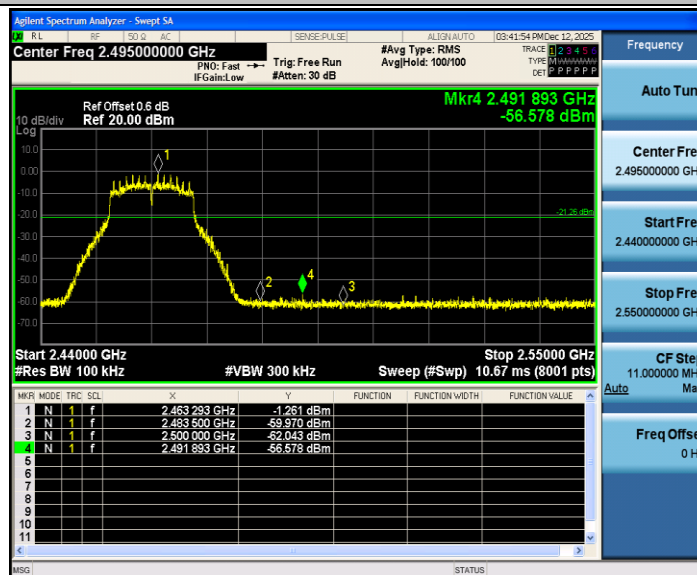
11B_Ant1_High_2462



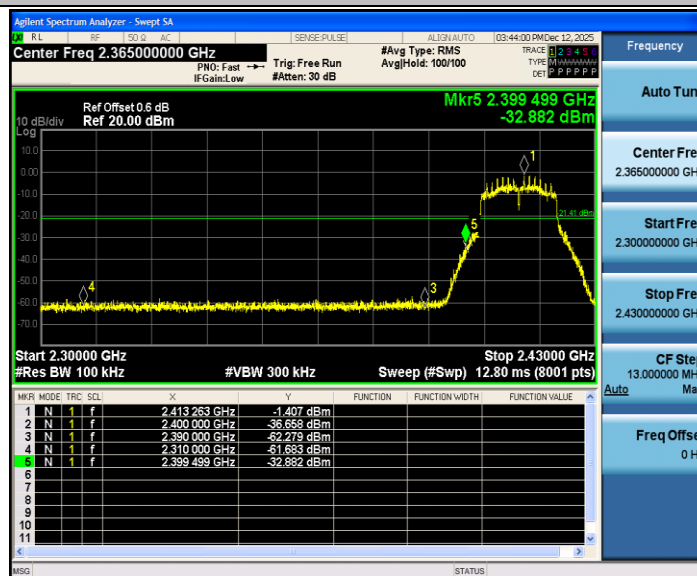
11G_Ant1_Low_2412



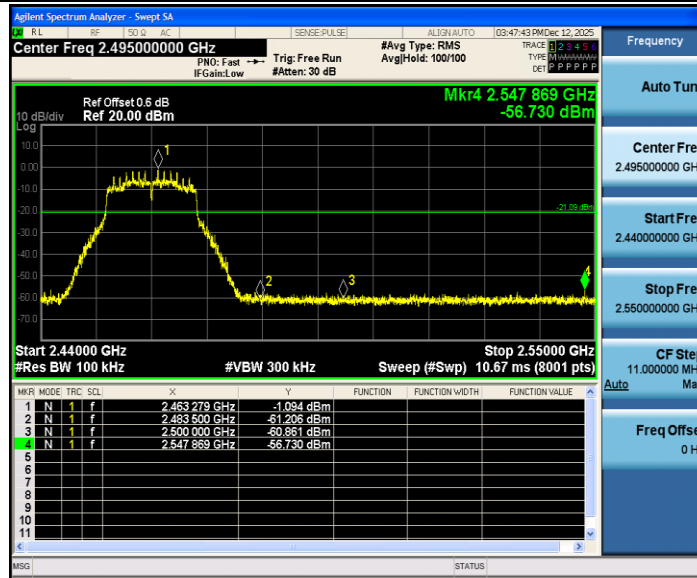
11G_Ant1_High_2462



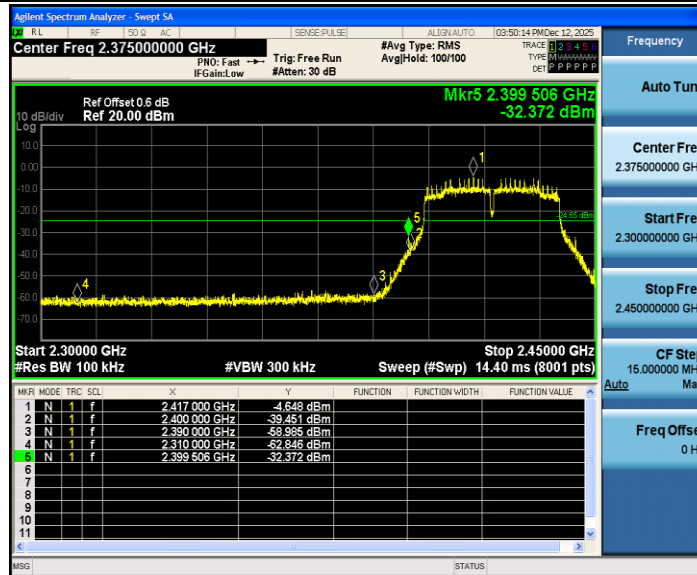
11N20SISO_Ant1_Low_2412



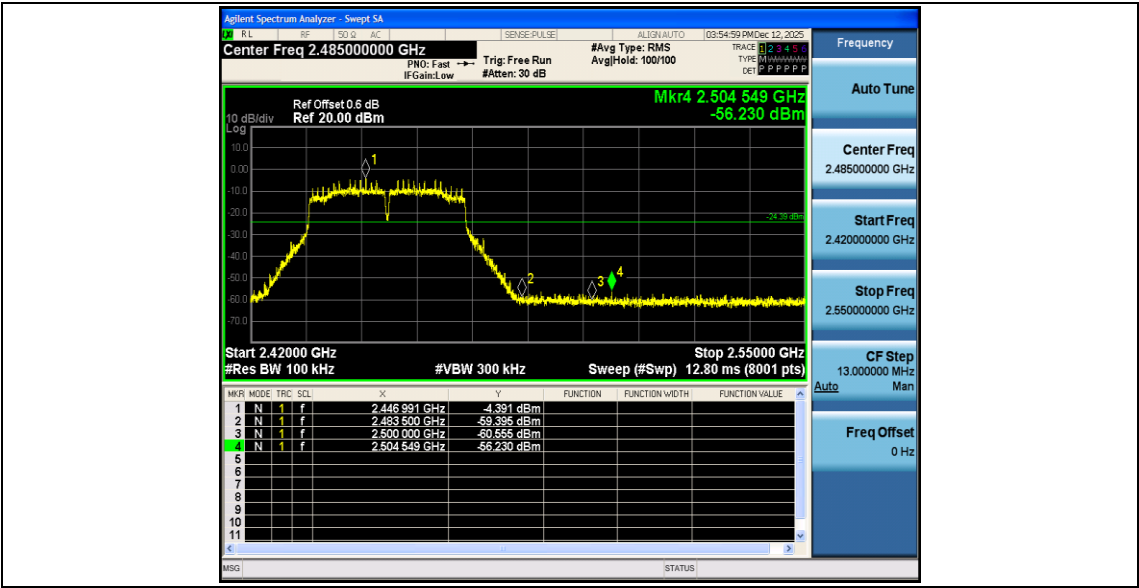
11N20SISO_Ant1_High_2462



11N40SISO_Ant1_Low_2422



11N40SISO_Ant1_High_2452



Appendix F: Conducted Spurious Emission

Test Result

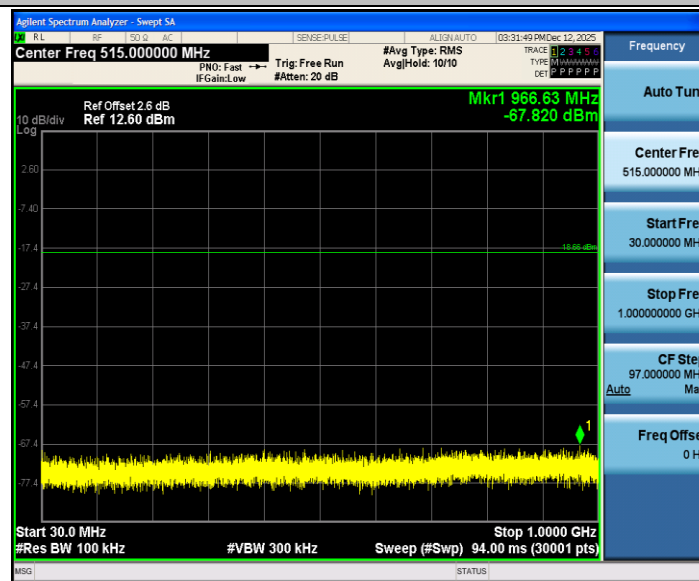
TestMode	Antenna	Frequency[MHz]	FreqRange [Mhz]	RefLevel [dBm]	Result [dBm]	Limit [dBm]	Verdict
11B	Ant1	2412	Reference	1.34	1.34	---	PASS
			30~1000	1.34	-67.82	≤-18.66	PASS
			1000~26500	1.34	-54.78	≤-18.66	PASS
		2437	Reference	2.65	2.65	---	PASS
			30~1000	2.65	-67.91	≤-17.35	PASS
			1000~26500	2.65	-54.6	≤-17.35	PASS
		2462	Reference	2.12	2.12	---	PASS
			30~1000	2.12	-67.55	≤-17.88	PASS
			1000~26500	2.12	-54.33	≤-17.88	PASS
11G	Ant1	2412	Reference	-1.59	-1.59	---	PASS
			30~1000	-1.59	-67.74	≤-21.59	PASS
			1000~26500	-1.59	-54.67	≤-21.59	PASS
		2437	Reference	-2.18	-2.18	---	PASS
			30~1000	-2.18	-67.42	≤-22.18	PASS
			1000~26500	-2.18	-54.93	≤-22.18	PASS
		2462	Reference	-2.13	-2.13	---	PASS
			30~1000	-2.13	-67.01	≤-22.13	PASS
			1000~26500	-2.13	-55.47	≤-22.13	PASS
11N20SISO	Ant1	2412	Reference	-1.92	-1.92	---	PASS
			30~1000	-1.92	-67.25	≤-21.92	PASS
			1000~26500	-1.92	-54.36	≤-21.92	PASS
		2437	Reference	-1.80	-1.80	---	PASS
			30~1000	-1.80	-67.52	≤-21.8	PASS
			1000~26500	-1.80	-54.8	≤-21.8	PASS
		2462	Reference	-1.76	-1.76	---	PASS
			30~1000	-1.76	-67.2	≤-21.76	PASS
			1000~26500	-1.76	-55.29	≤-21.76	PASS
11N40SISO	Ant1	2422	Reference	-4.81	-4.81	---	PASS
			30~1000	-4.81	-68.09	≤-24.81	PASS
			1000~26500	-4.81	-54.21	≤-24.81	PASS
		2437	Reference	-4.81	-4.81	---	PASS
			30~1000	-4.81	-68.05	≤-24.81	PASS
			1000~26500	-4.81	-55.06	≤-24.81	PASS
		2452	Reference	-5.05	-5.05	---	PASS
			30~1000	-5.05	-67.81	≤-25.05	PASS
			1000~26500	-5.05	-55.02	≤-25.05	PASS

Test Graphs

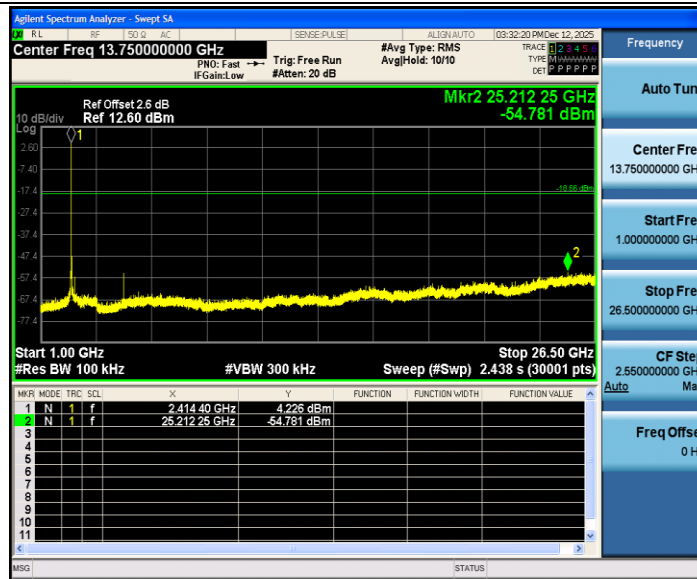
11B_Ant1_2412_0~Reference



11B_Ant1_2412_30~1000



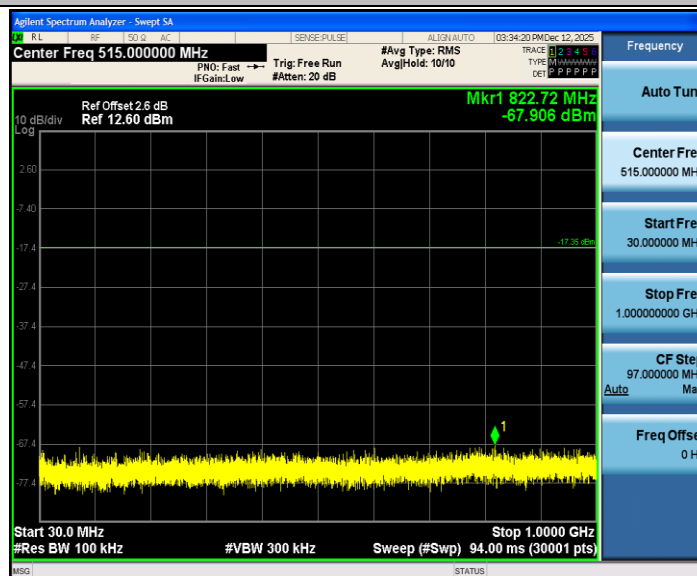
11B_Ant1_2412_1000~26500



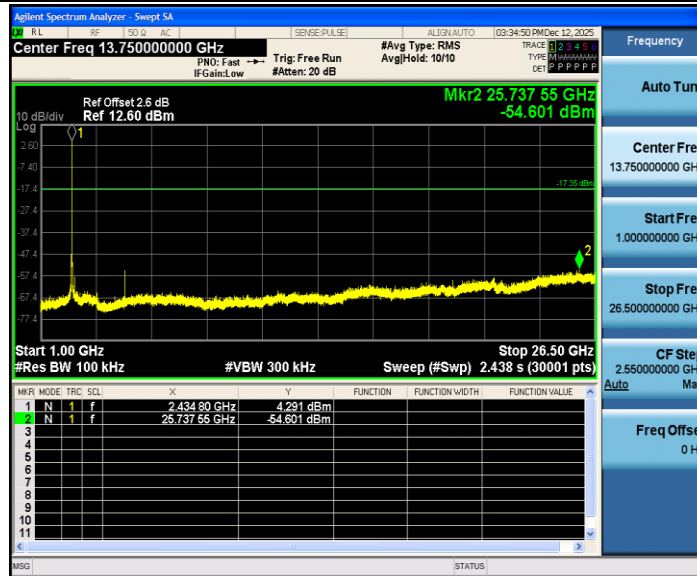
11B_Ant1_2437_0~Reference



11B_Ant1_2437_30~1000



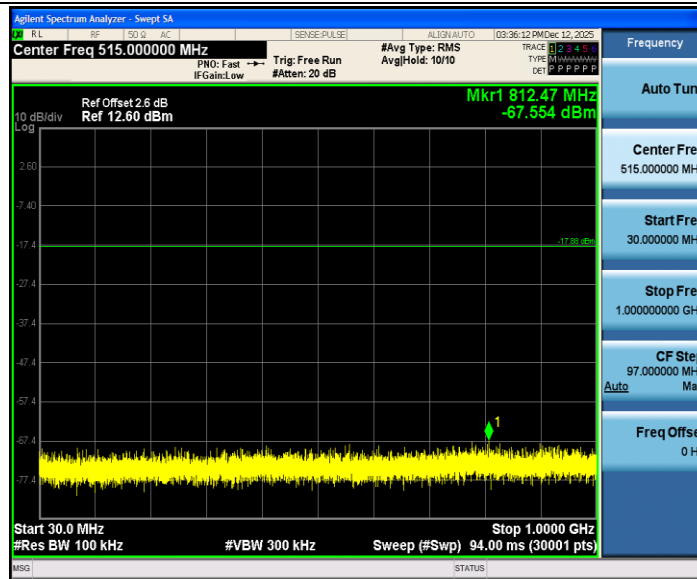
11B_Ant1_2437_1000~26500



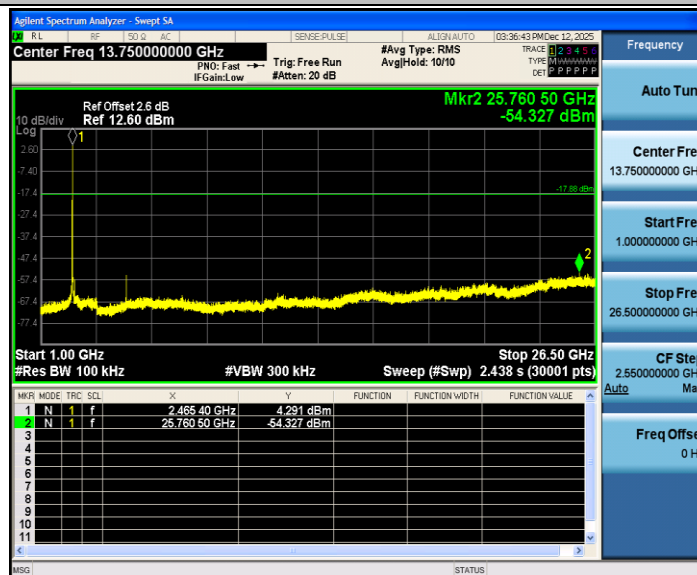
11B_Ant1_2462_0~Reference



11B_Ant1_2462_30~1000



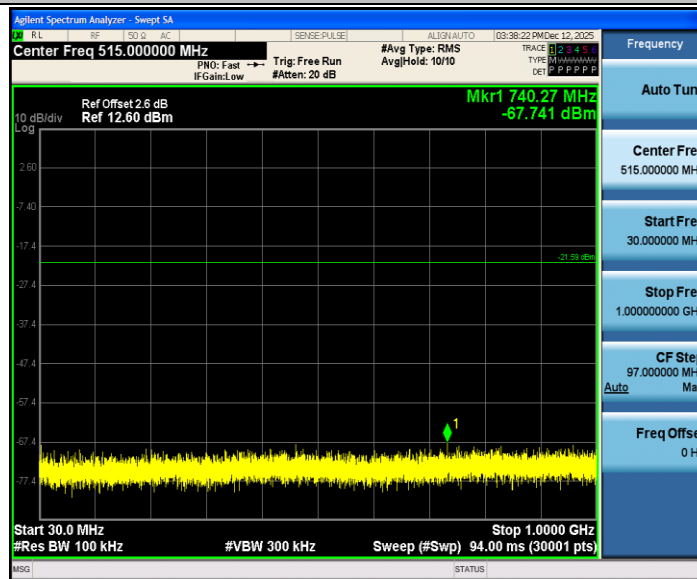
11B_Ant1_2462_1000~26500



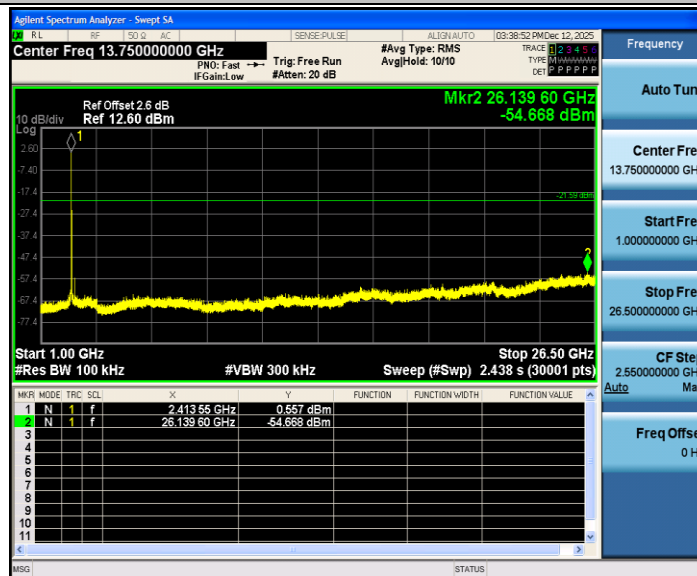
11G_Ant1_2412_0~Reference



11G_Ant1_2412_30~1000



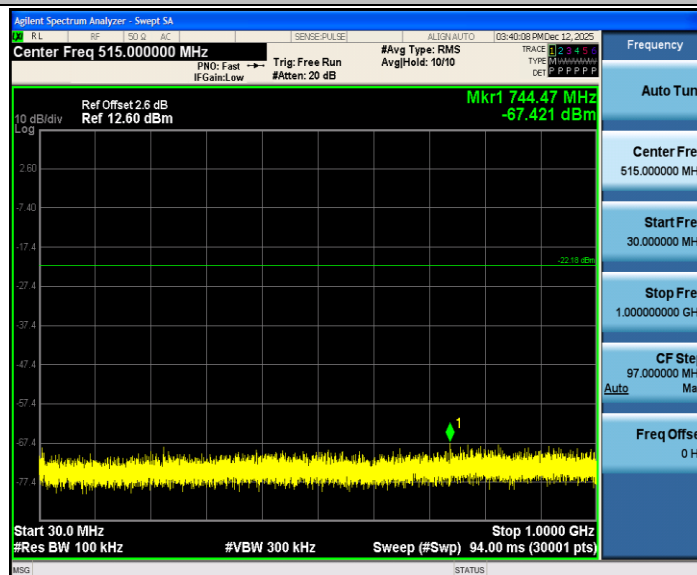
11G_Ant1_2412_1000~26500



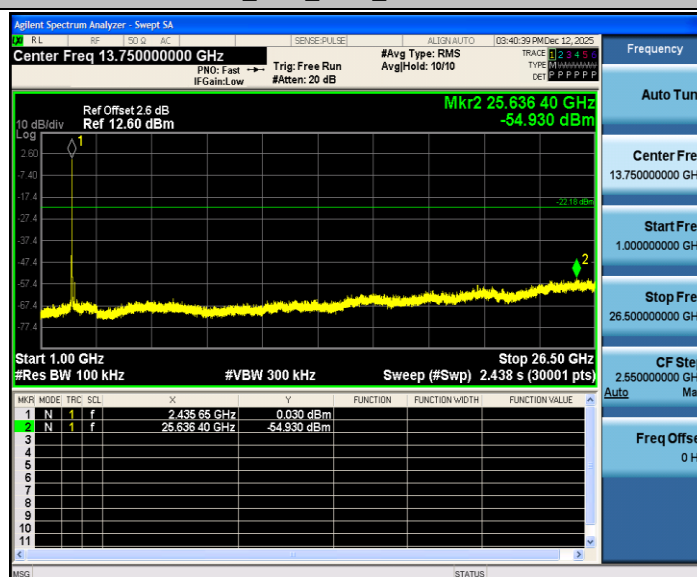
11G_Ant1_2437_0~Reference



11G_Ant1_2437_30~1000



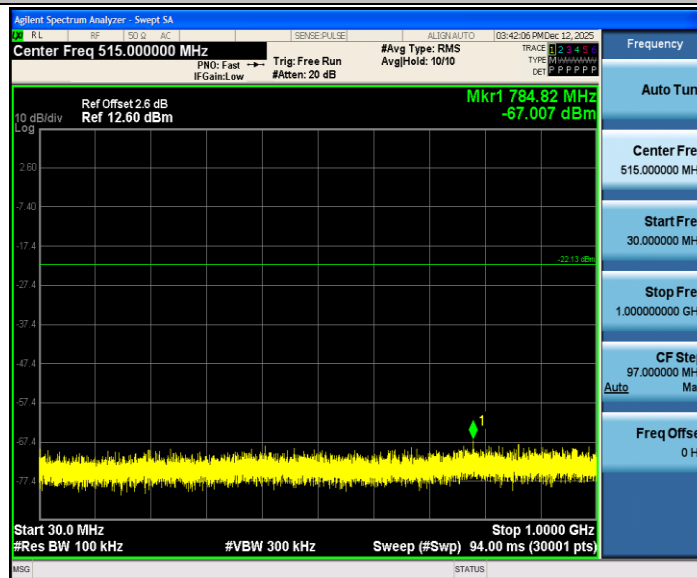
11G_Ant1_2437_1000~26500



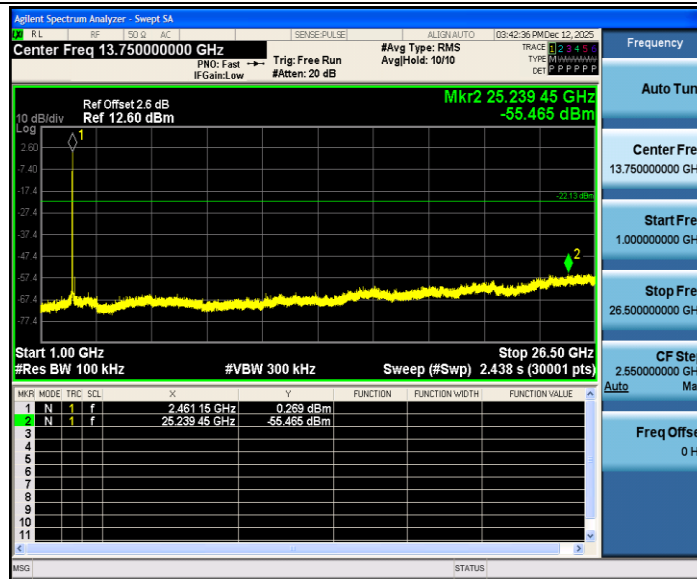
11G_Ant1_2462_0~Reference



11G_Ant1_2462_30~1000



11G_Ant1_2462_1000~26500



11N20SISO_Ant1_2412_0~Reference



11N20SISO_Ant1_2412_30~1000

