

Appendix RF Test Data for 2.4GWIFI

FCC ID : 2BDQV-TAD-AK3820S

Company : Shenzhen Tenganda Intelligent Equipment Co., Ltd

EUT : Surveillance camera

Model Number : AK-3820S

Report No. : CTA25081501301

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	8.600	2432.480	2441.080	0.5	PASS
		2462	9.040	2457.480	2466.520	0.5	PASS
11G	Ant1	2412	15.880	2404.280	2420.160	0.5	PASS
		2437	15.880	2428.880	2444.760	0.5	PASS
		2462	16.280	2453.880	2470.160	0.5	PASS
11N20SISO	Ant1	2412	16.080	2404.440	2420.520	0.5	PASS
		2437	16.240	2428.680	2444.920	0.5	PASS
		2462	16.840	2453.800	2470.640	0.5	PASS
11N40SISO	Ant1	2422	35.120	2404.480	2439.600	0.5	PASS
		2437	35.120	2419.400	2454.520	0.5	PASS
		2452	35.760	2433.840	2469.600	0.5	PASS

Test Graphs

11B_Ant1_2412



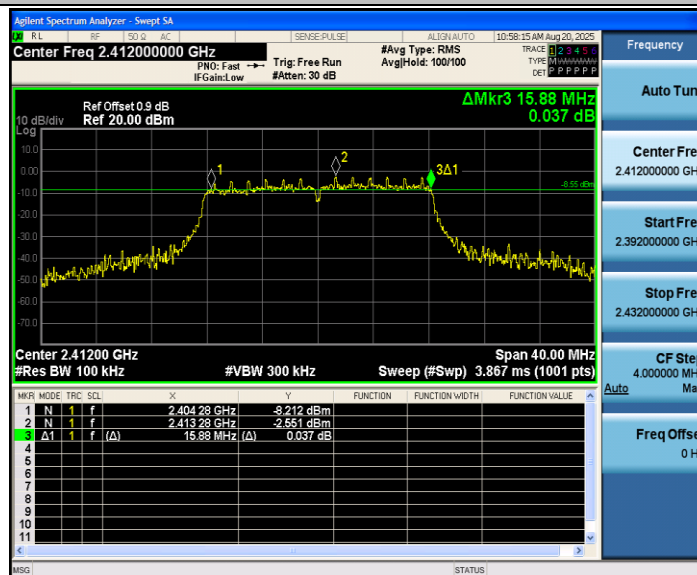
11B_Ant1_2437



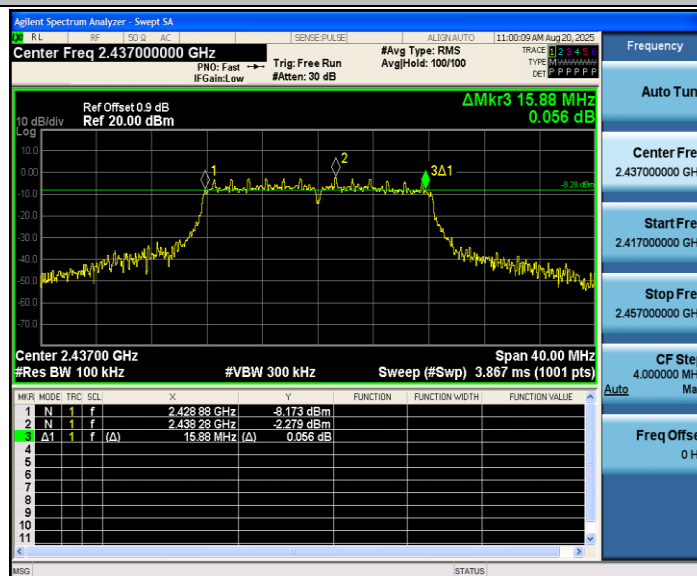
11B_Ant1_2462

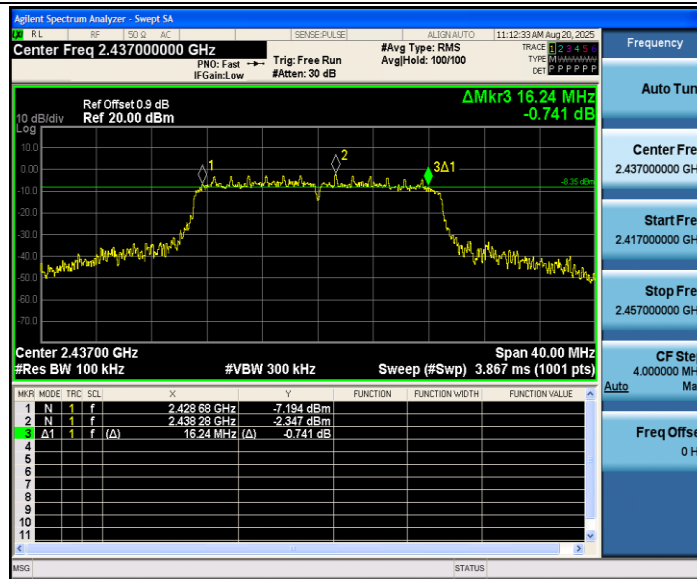


11G_Ant1_2412

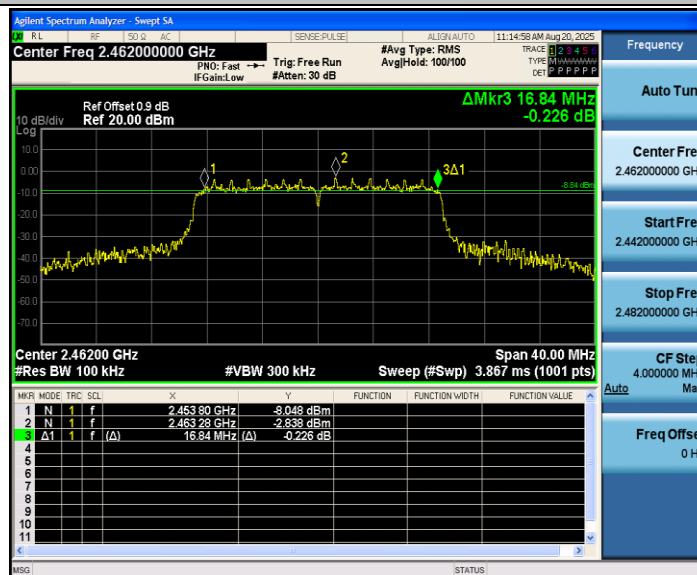


11G_Ant1_2437

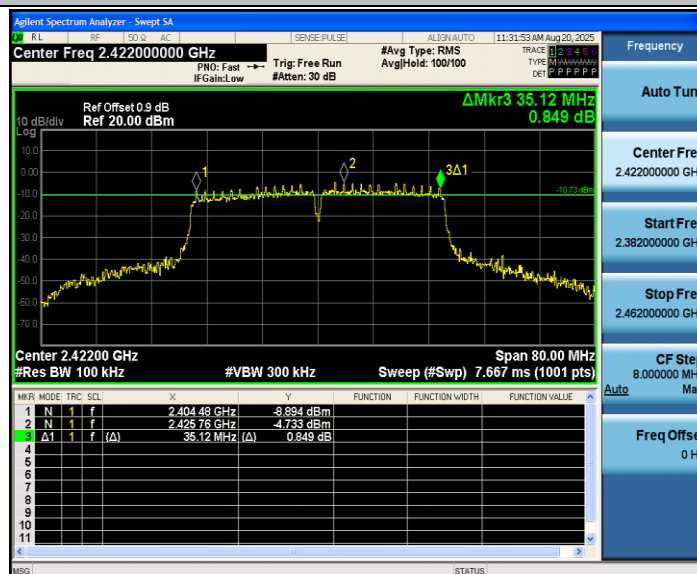




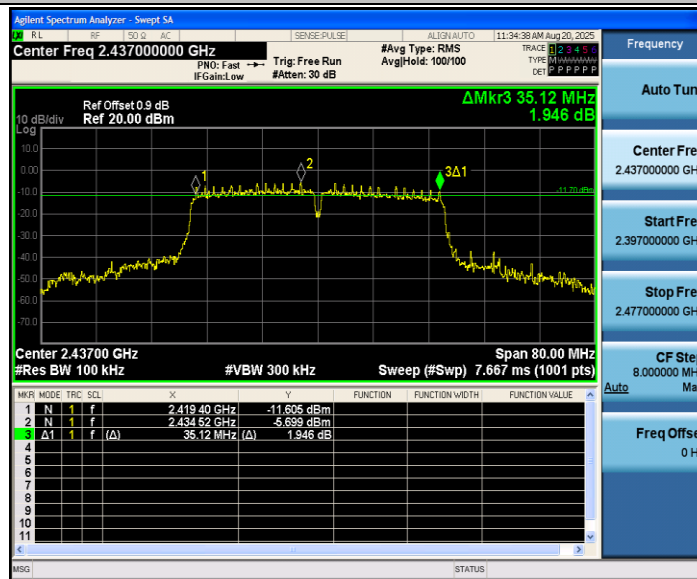
11N20SISO_Ant1_2462



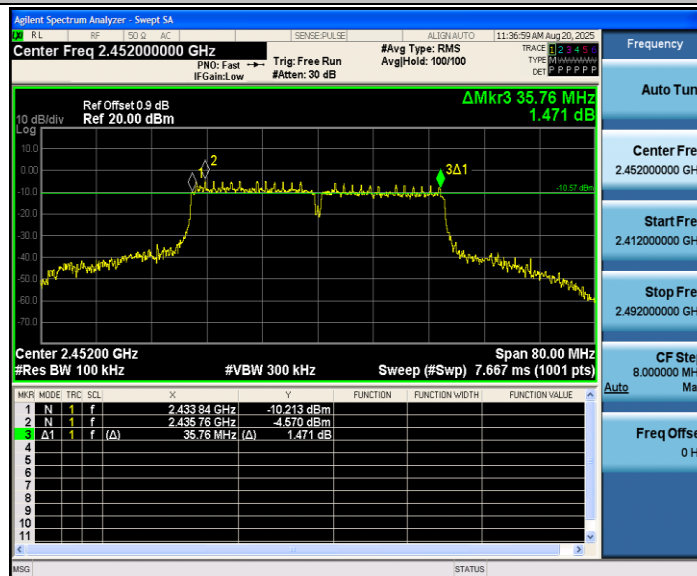
11N40SISO_Ant1_2422



11N40SISO_Ant1_2437



11N40SISO_Ant1_2452



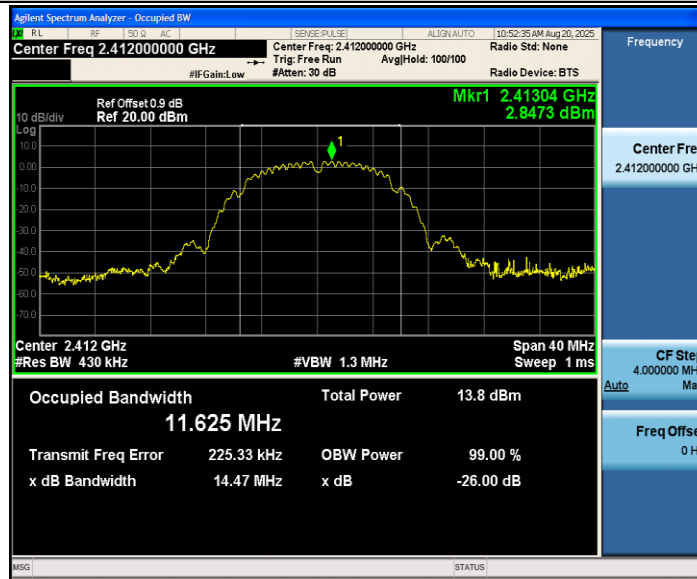
Appendix B: Occupied Channel Bandwidth

Test Result

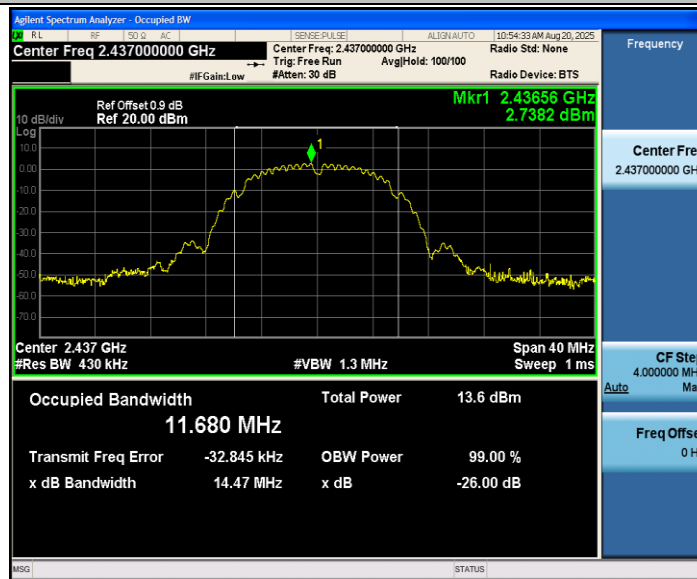
TestMode	Antenna	Channel Frequency[MHz]	OCB [MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
11B	Ant1	2412	11.625	2406.4128	2418.0378	---	---
		2437	11.680	2431.1272	2442.8072	---	---
		2462	11.837	2456.1438	2467.9808	---	---
11G	Ant1	2412	16.640	2403.8292	2420.4692	---	---
		2437	16.613	2428.6738	2445.2868	---	---
		2462	16.777	2453.6596	2470.4366	---	---
11N20SISO	Ant1	2412	17.565	2403.3416	2420.9066	---	---
		2437	17.550	2428.2421	2445.7921	---	---
		2462	17.749	2453.1643	2470.9133	---	---
11N40SISO	Ant1	2422	36.069	2404.1593	2440.2283	---	---
		2437	36.024	2419.0058	2455.0298	---	---
		2452	36.415	2433.7706	2470.1856	---	---

Test Graphs

11B_Ant1_2412



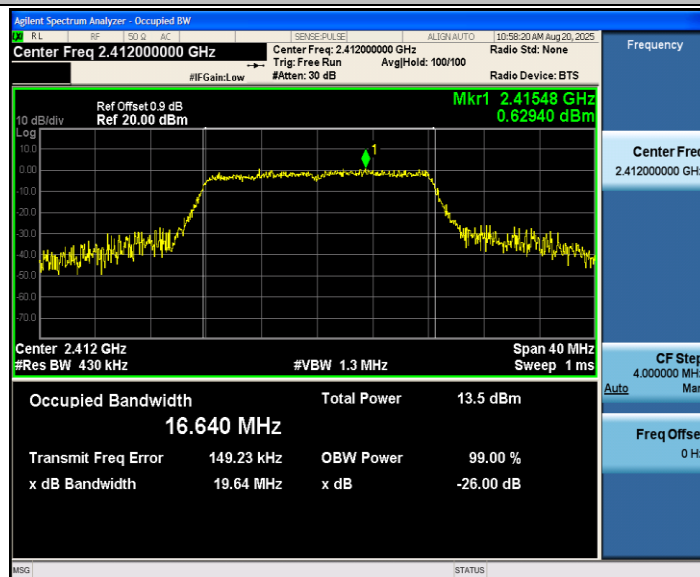
11B_Ant1_2437



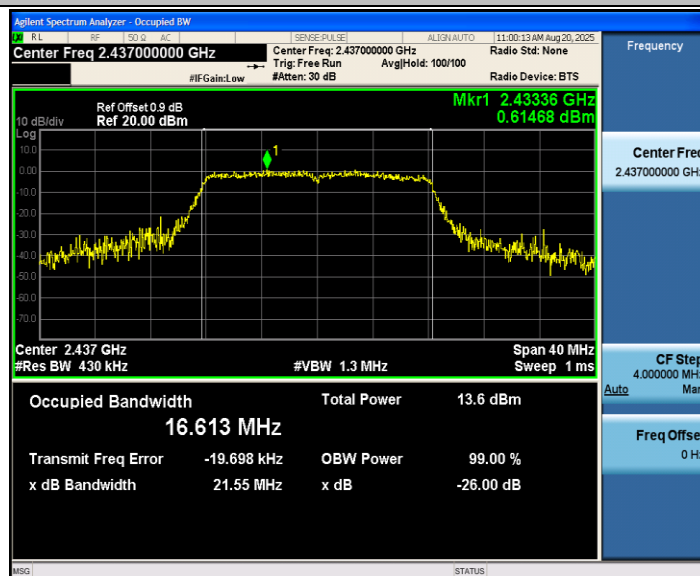
11B_Ant1_2462



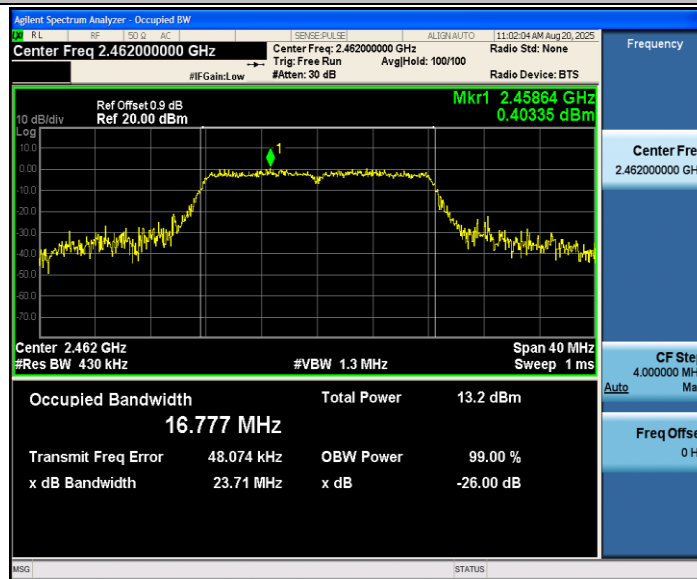
11G_Ant1_2412



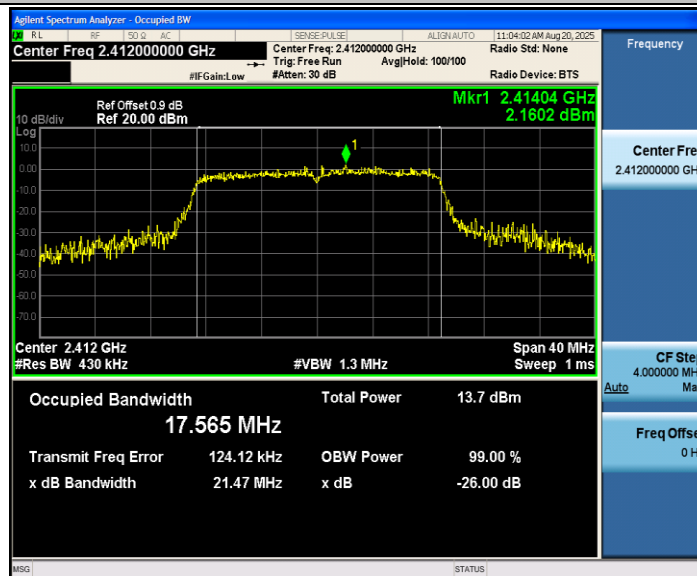
11G_Ant1_2437



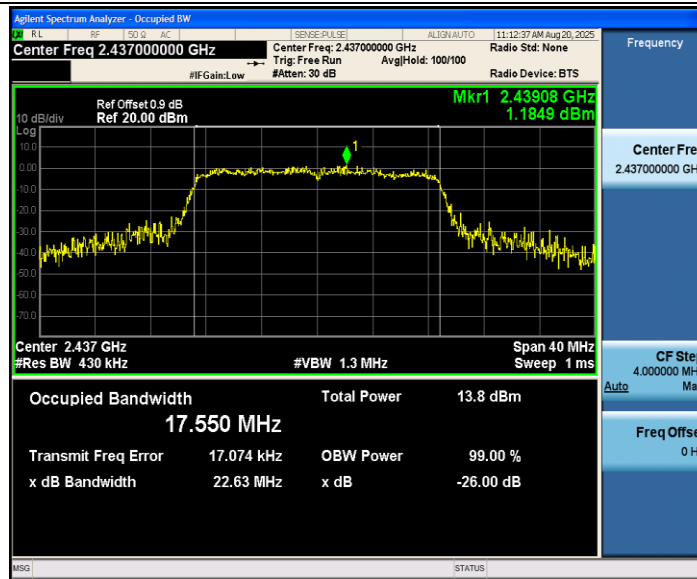
11G_Ant1_2462



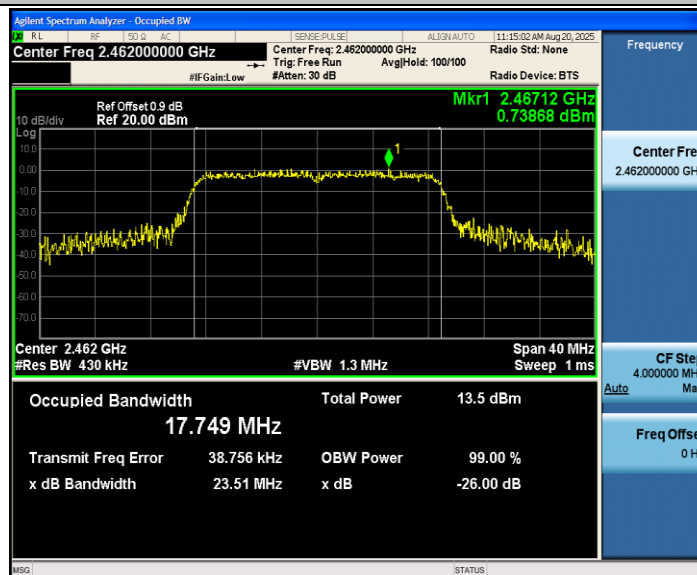
11N20SISO_Ant1_2412



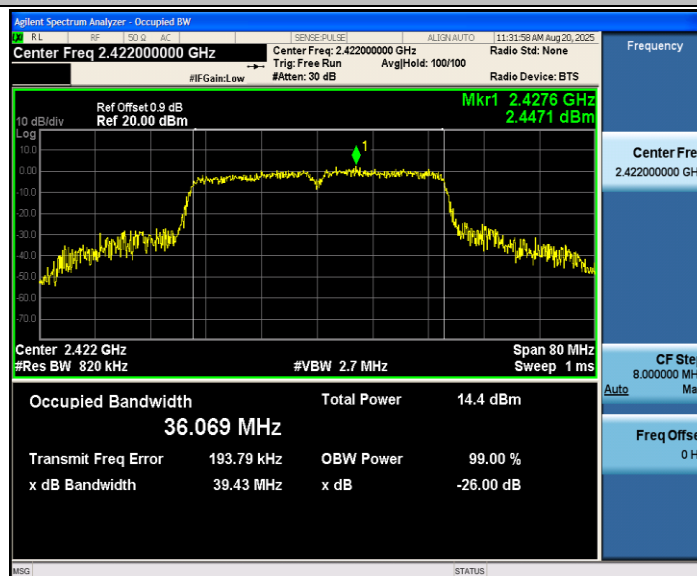
11N20SISO_Ant1_2437



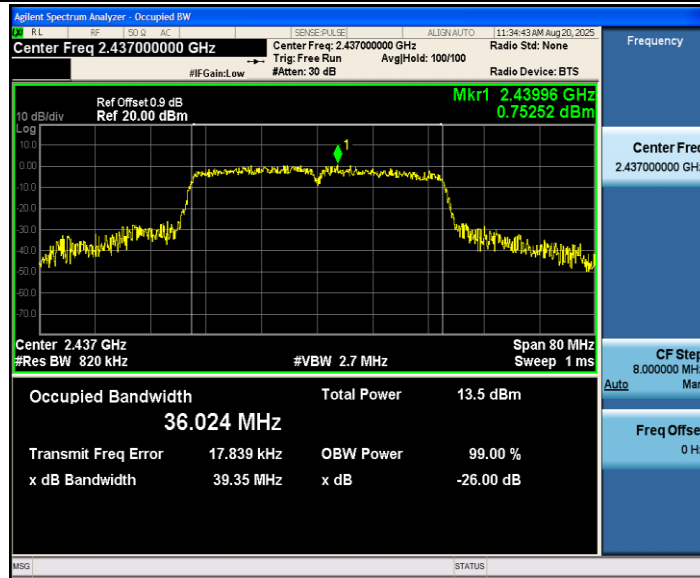
11N20SISO_Ant1_2462



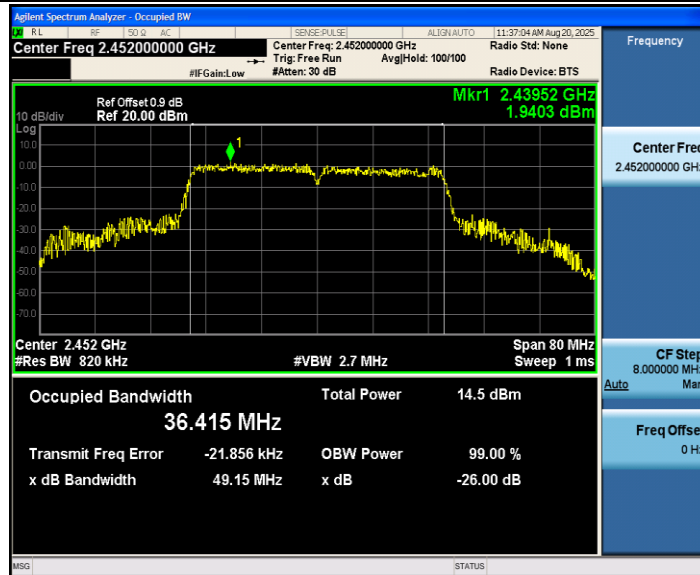
11N40SISO_Ant1_2422



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	13.67	≤30.00	PASS
		2437	13.43	≤30.00	PASS
		2462	13.39	≤30.00	PASS
11G	Ant1	2412	14.23	≤30.00	PASS
		2437	14.28	≤30.00	PASS
		2462	14.06	≤30.00	PASS
11N20SISO	Ant1	2412	14.40	≤30.00	PASS
		2437	14.48	≤30.00	PASS
		2462	14.20	≤30.00	PASS
11N40SISO	Ant1	2422	14.63	≤30.00	PASS
		2437	13.62	≤30.00	PASS
		2452	14.71	≤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	-11.02	≤8.00	PASS
		2437	-11.29	≤8.00	PASS
		2462	-11.49	≤8.00	PASS
11G	Ant1	2412	-16.85	≤8.00	PASS
		2437	-17.15	≤8.00	PASS
		2462	-17.40	≤8.00	PASS
11N20SISO	Ant1	2412	-17.13	≤8.00	PASS
		2437	-17.03	≤8.00	PASS
		2462	-17.44	≤8.00	PASS
11N40SISO	Ant1	2422	-19.11	≤8.00	PASS
		2437	-20.93	≤8.00	PASS
		2452	-18.96	≤8.00	PASS

Test Graphs

11B_Ant1_2412



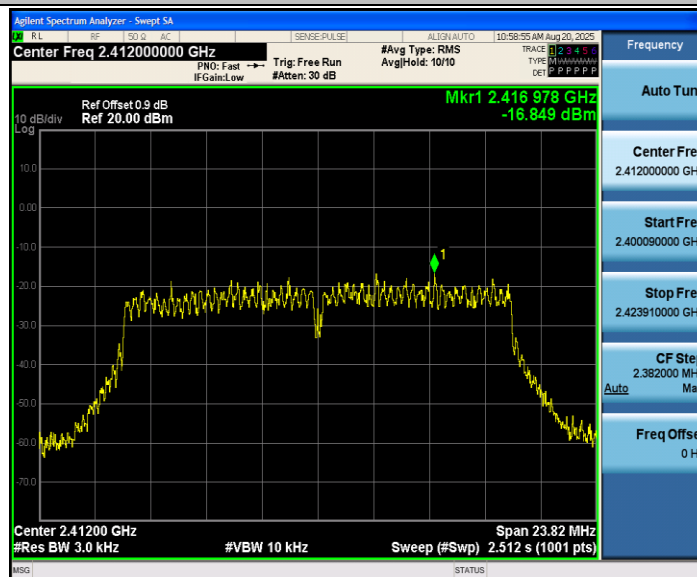
11B_Ant1_2437



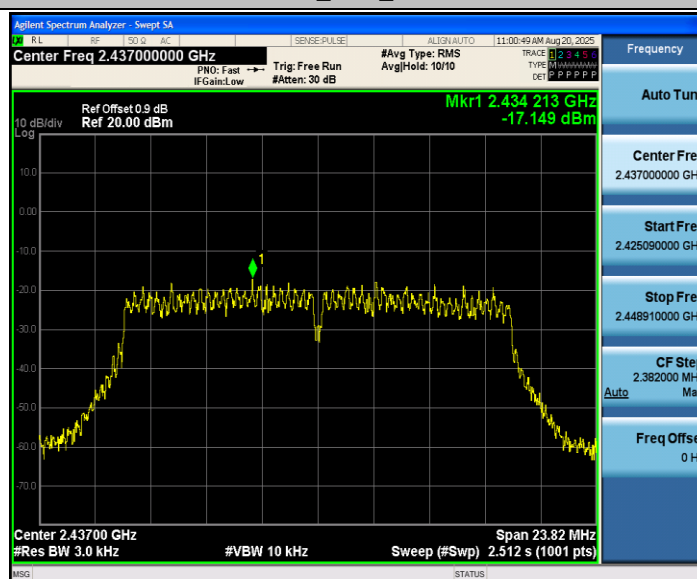
11B_Ant1_2462



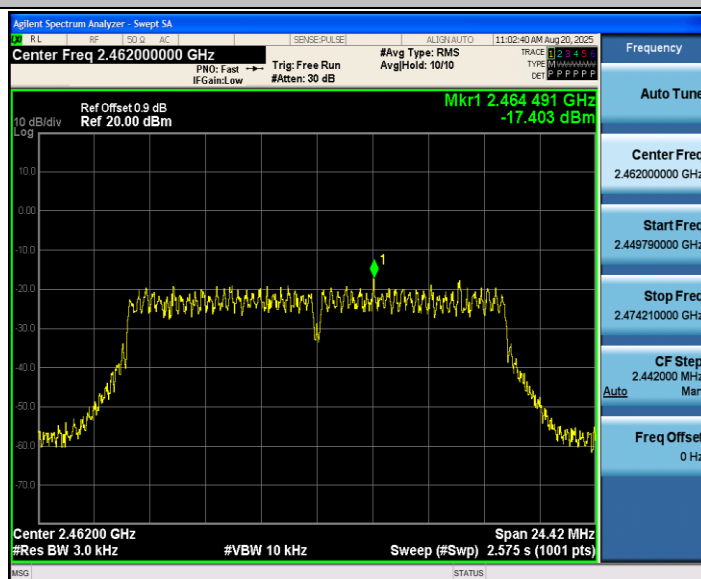
11G_Ant1_2412



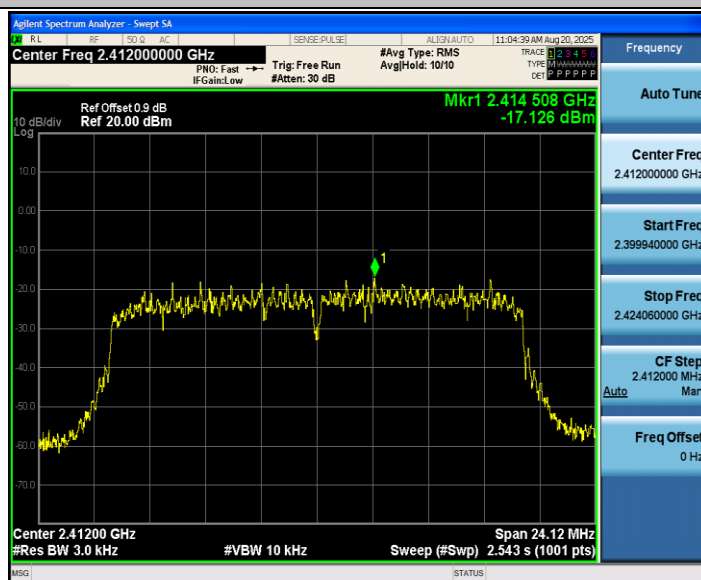
11G_Ant1_2437



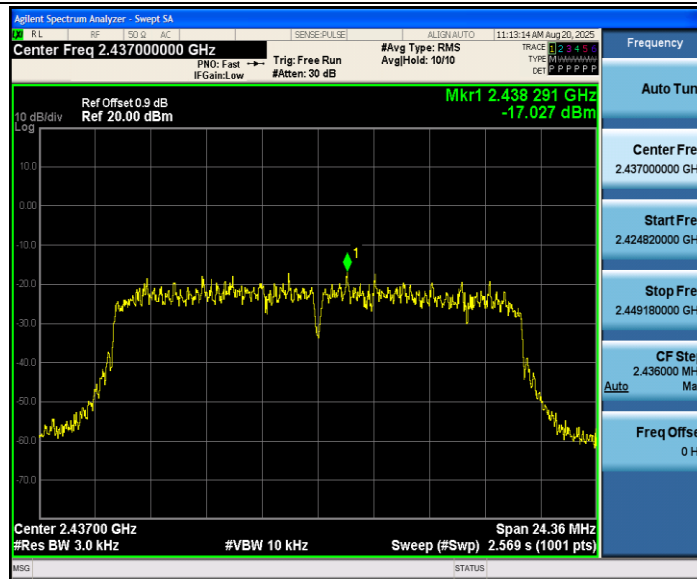
11G_Ant1_2462



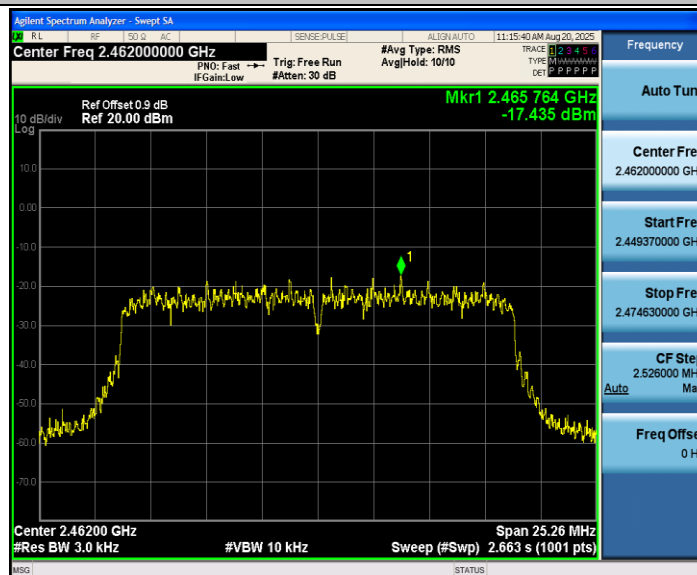
11N20SISO_Ant1_2412



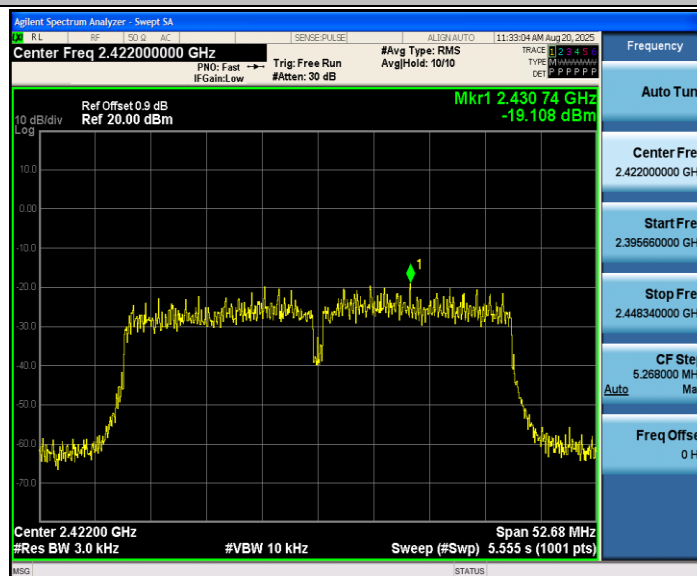
11N20SISO_Ant1_2437



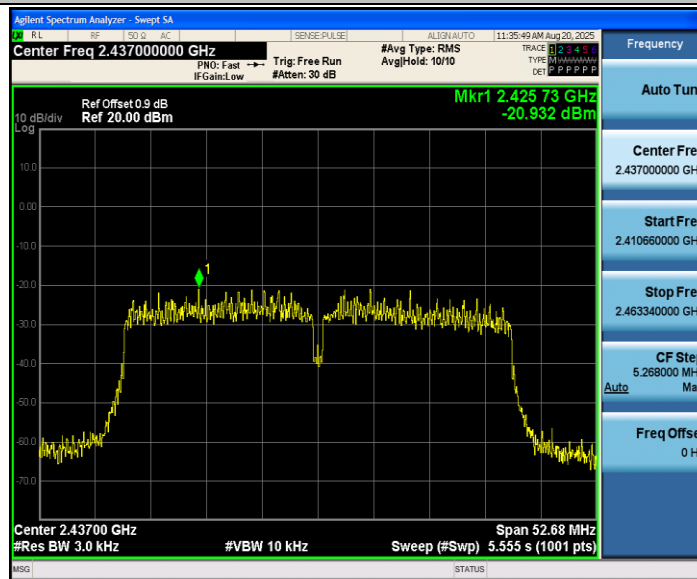
11N20SISO_Ant1_2462



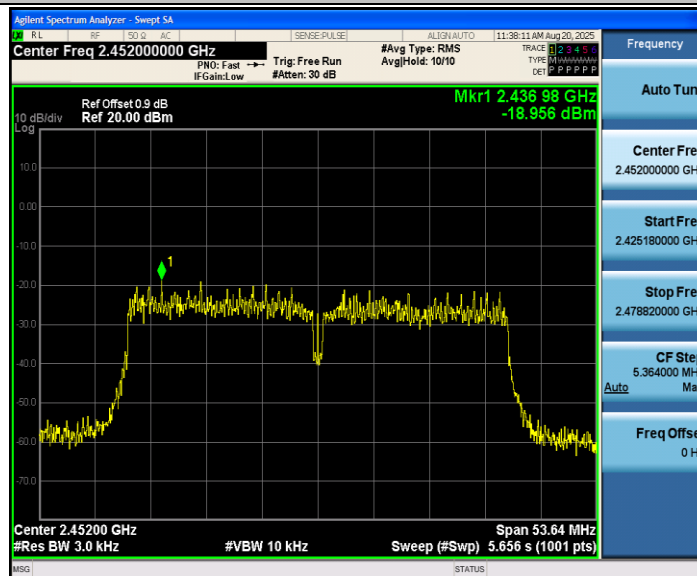
11N40SISO_Ant1_2422



11N40SISO_Ant1_2437



11N40SISO_Ant1_2452



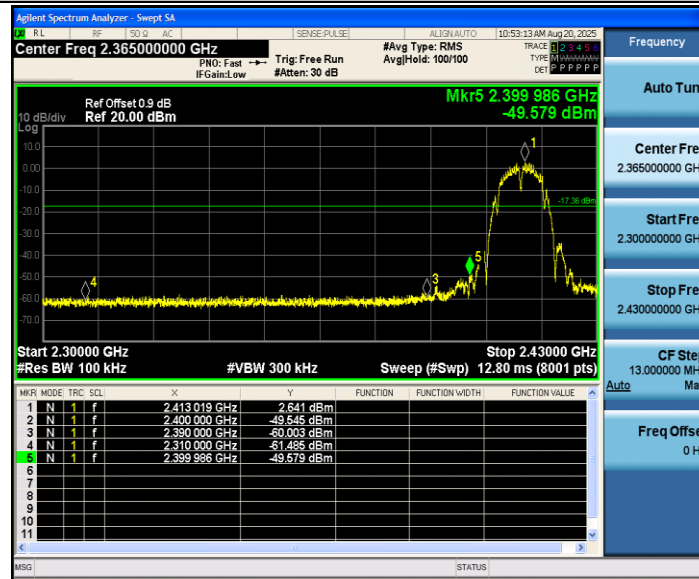
Appendix E: Band edge measurements

Test Result

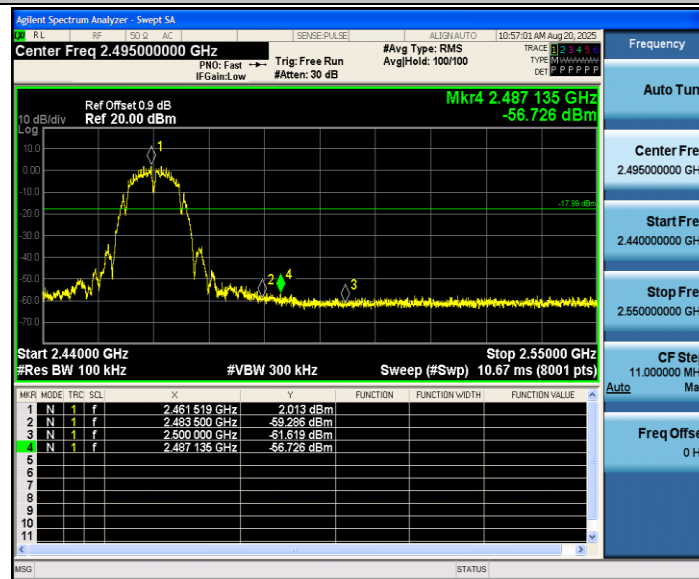
TestMode	Antenna	Channel Name	Frequency[MHz]	RefLevel[dBm]	Result[dBm]	Limit[dBm]	Verdict
11B	Ant1	Low	2412	2.64	-49.58	≤-17.36	PASS
		High	2462	2.01	-56.73	≤-17.99	PASS
11G	Ant1	Low	2412	-2.30	-35.82	≤-22.3	PASS
		High	2462	-3.00	-46.53	≤-23	PASS
11N20SISO	Ant1	Low	2412	-2.28	-33.91	≤-22.28	PASS
		High	2462	-3.14	-46.23	≤-23.14	PASS
11N40SISO	Ant1	Low	2422	-4.74	-40.18	≤-24.74	PASS
		High	2452	-4.57	-44.78	≤-24.57	PASS

Test Graphs

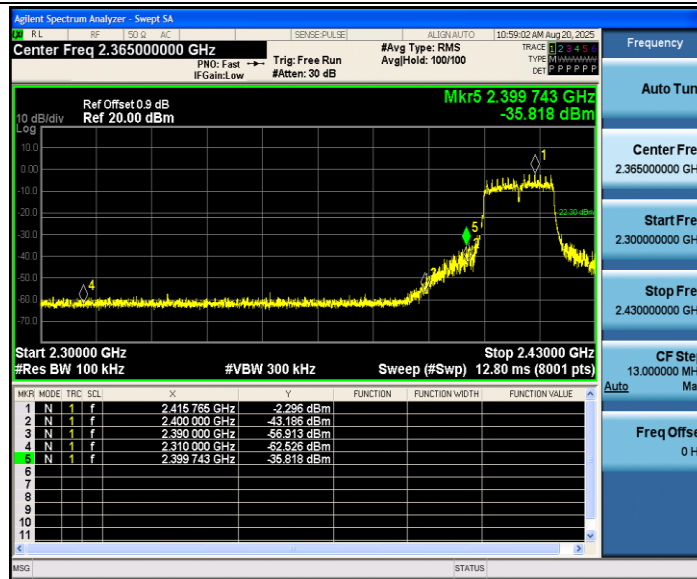
11B_Ant1_Low_2412



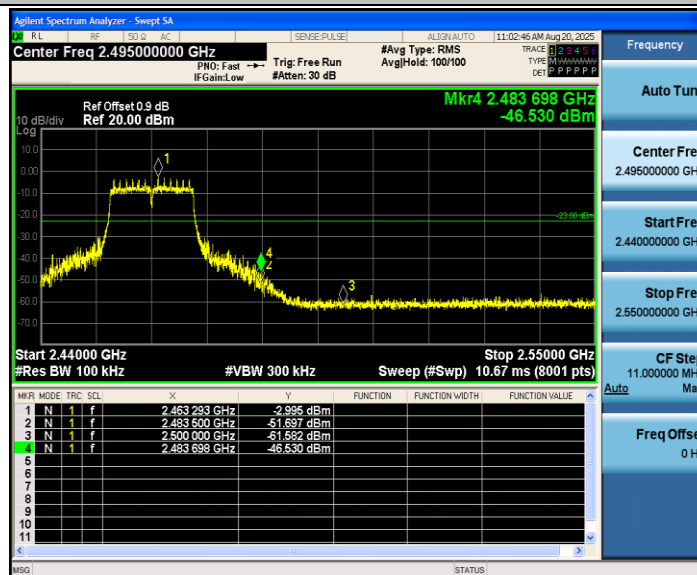
11B_Ant1_High_2462



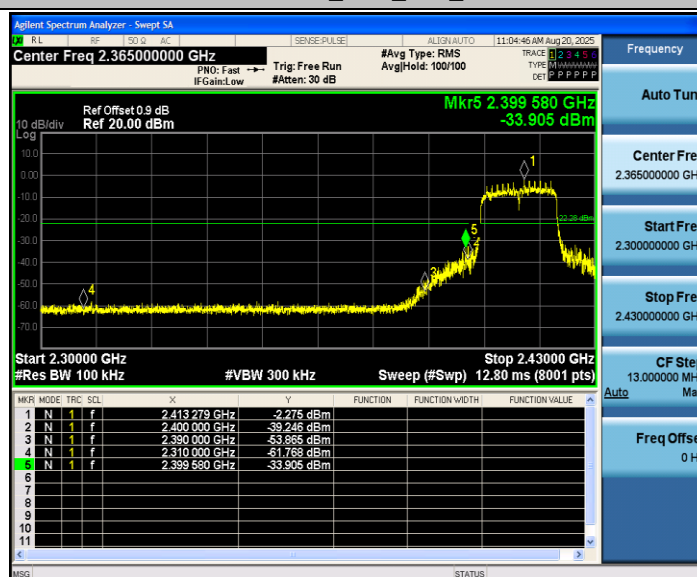
11G_Ant1_Low_2412



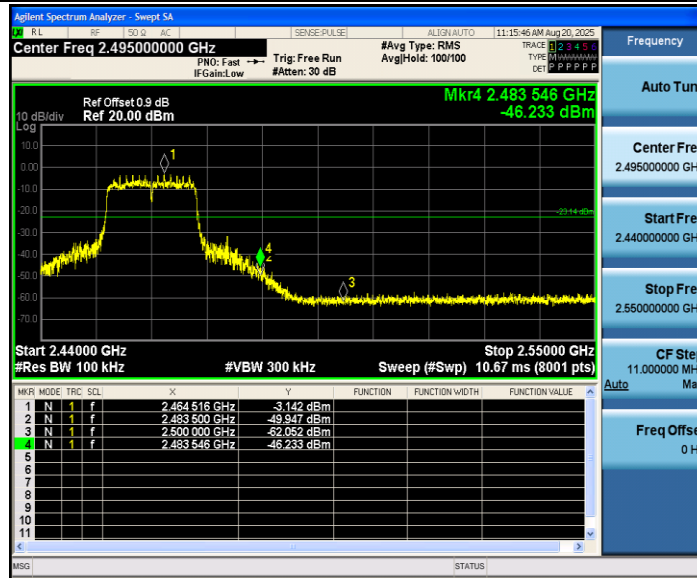
11G_Ant1_High_2462



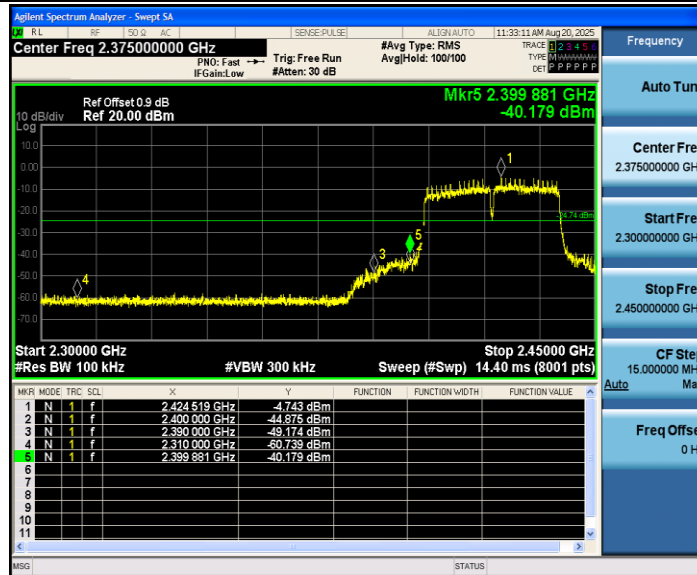
11N20SISO_Ant1_Low_2412



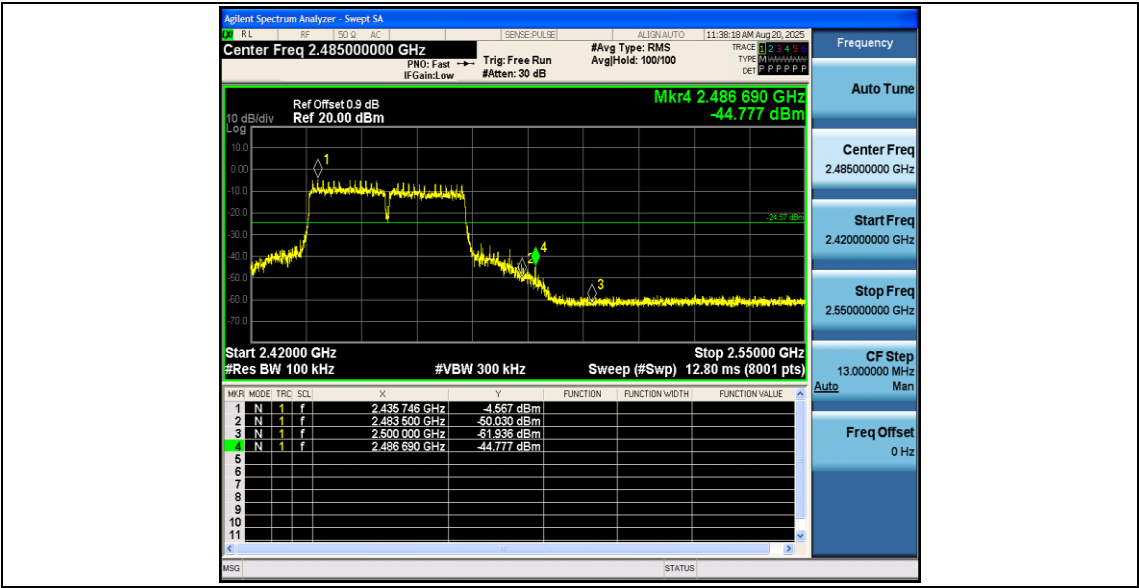
11N20SISO_Ant1_High_2462



11N40SISO_Ant1_Low_2422



11N40SISO_Ant1_High_2452



Appendix F: Conducted Spurious Emission

Test Result

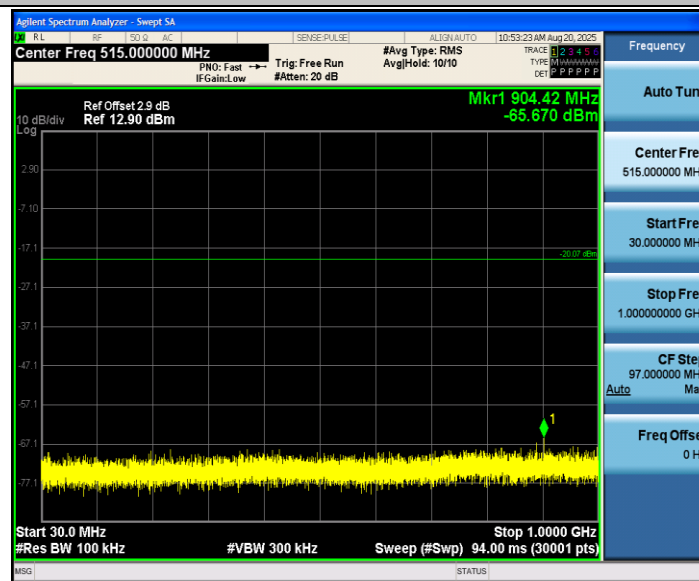
TestMode	Antenna	Frequency[MHz]	FreqRange [Mhz]	RefLevel [dBm]	Result [dBm]	Limit [dBm]	Verdict
11B	Ant1	2412	Reference	-0.07	-0.07	---	PASS
			30~1000	-0.07	-65.67	≤-20.07	PASS
			1000~26500	-0.07	-54.59	≤-20.07	PASS
		2437	Reference	1.12	1.12	---	PASS
			30~1000	1.12	-62.59	≤-18.88	PASS
			1000~26500	1.12	-54.62	≤-18.88	PASS
		2462	Reference	1.46	1.46	---	PASS
			30~1000	1.46	-67.65	≤-18.54	PASS
			1000~26500	1.46	-53.71	≤-18.54	PASS
11G	Ant1	2412	Reference	-2.28	-2.28	---	PASS
			30~1000	-2.28	-67.43	≤-22.28	PASS
			1000~26500	-2.28	-53.98	≤-22.28	PASS
		2437	Reference	-3.72	-3.72	---	PASS
			30~1000	-3.72	-67.56	≤-23.72	PASS
			1000~26500	-3.72	-54.58	≤-23.72	PASS
		2462	Reference	-3.23	-3.23	---	PASS
			30~1000	-3.23	-67.17	≤-23.23	PASS
			1000~26500	-3.23	-54.23	≤-23.23	PASS
11N20SISO	Ant1	2412	Reference	-2.39	-2.39	---	PASS
			30~1000	-2.39	-67.35	≤-22.39	PASS
			1000~26500	-2.39	-53.82	≤-22.39	PASS
		2437	Reference	-2.78	-2.78	---	PASS
			30~1000	-2.78	-66.82	≤-22.78	PASS
			1000~26500	-2.78	-53.79	≤-22.78	PASS
		2462	Reference	-3.55	-3.55	---	PASS
			30~1000	-3.55	-67.81	≤-23.55	PASS
			1000~26500	-3.55	-54.11	≤-23.55	PASS
11N40SISO	Ant1	2422	Reference	-4.75	-4.75	---	PASS
			30~1000	-4.75	-67.8	≤-24.75	PASS
			1000~26500	-4.75	-54.24	≤-24.75	PASS
		2437	Reference	-5.85	-5.85	---	PASS
			30~1000	-5.85	-67.14	≤-25.85	PASS
			1000~26500	-5.85	-54.47	≤-25.85	PASS
		2452	Reference	-5.01	-5.01	---	PASS
			30~1000	-5.01	-66.51	≤-25.01	PASS
			1000~26500	-5.01	-53.48	≤-25.01	PASS

Test Graphs

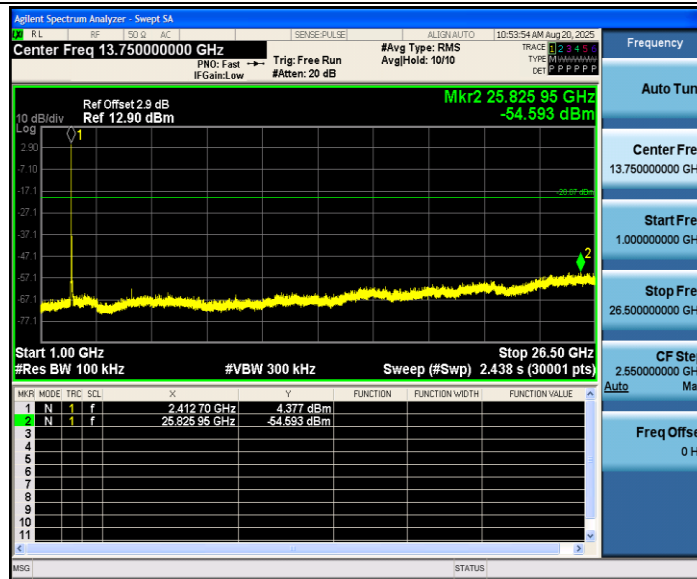
11B_Ant1_2412_0~Reference



11B_Ant1_2412_30~1000



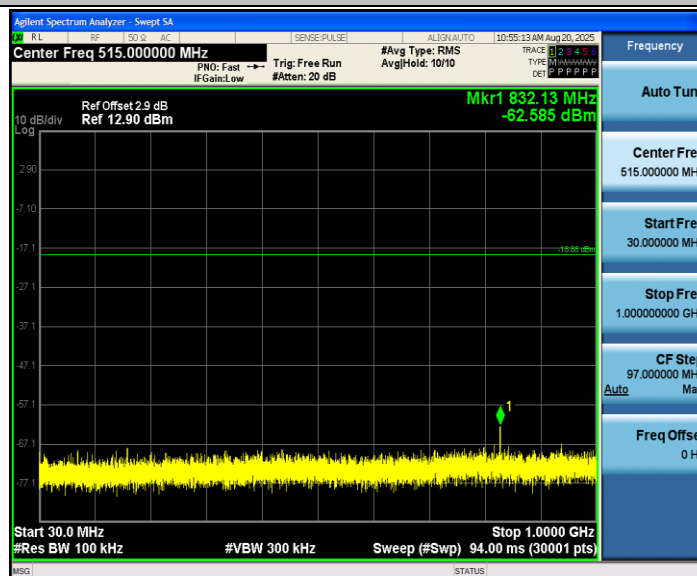
11B_Ant1_2412_1000~26500



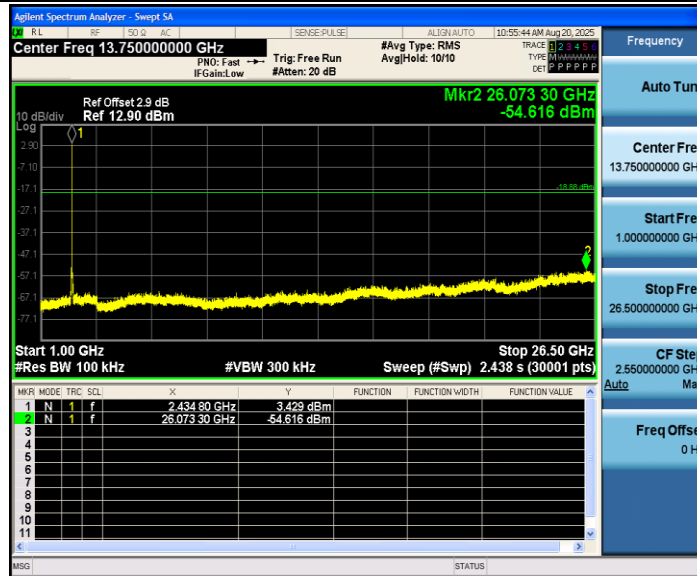
11B_Ant1_2437_0~Reference



11B_Ant1_2437_30~1000



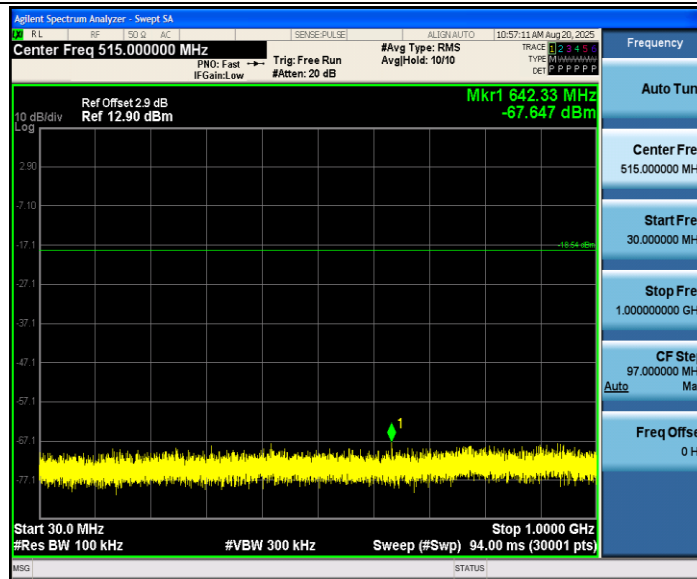
11B_Ant1_2437_1000~26500



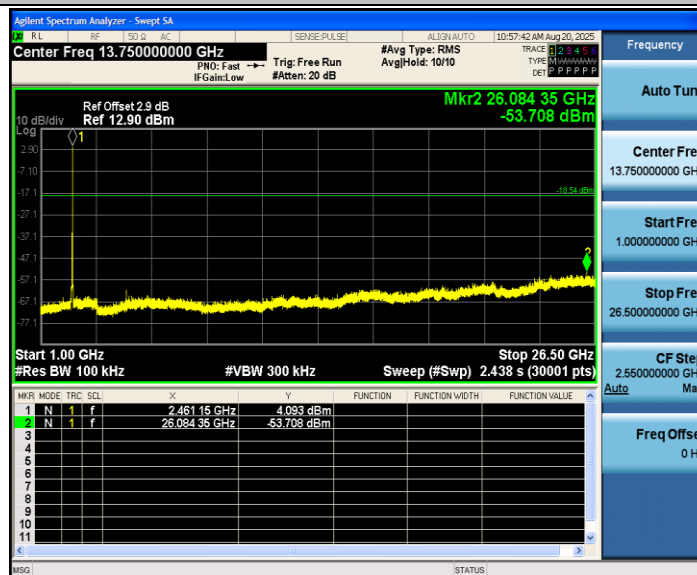
11B_Ant1_2462_0~Reference



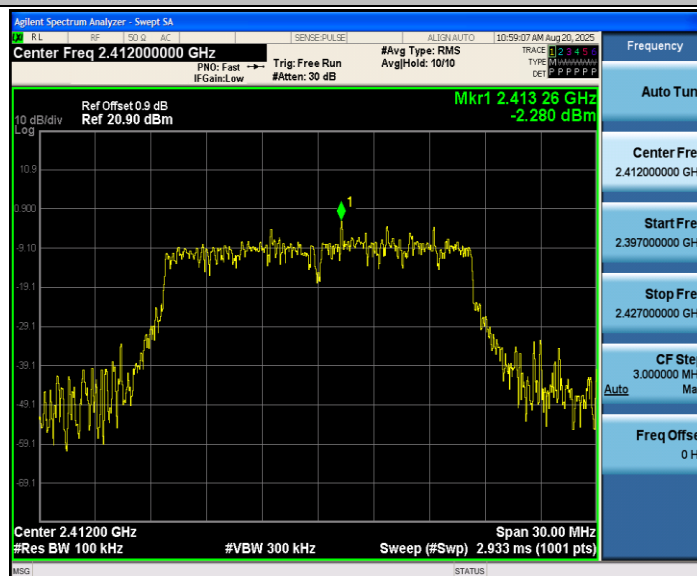
11B_Ant1_2462_30~1000



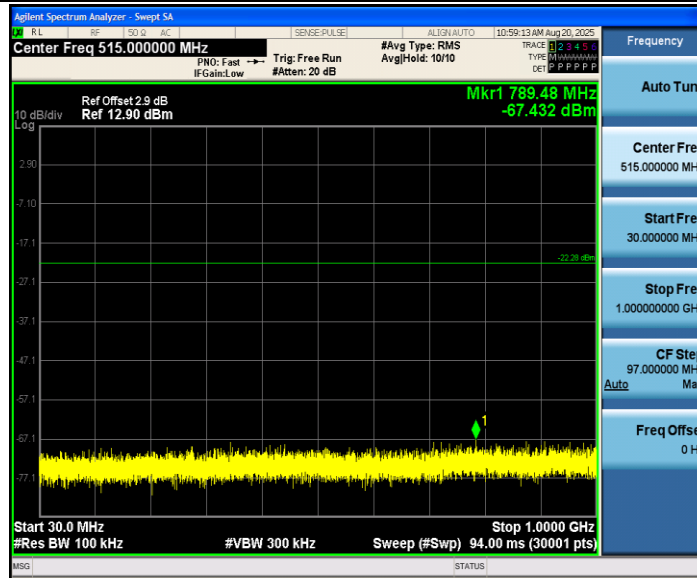
11B_Ant1_2462_1000~26500



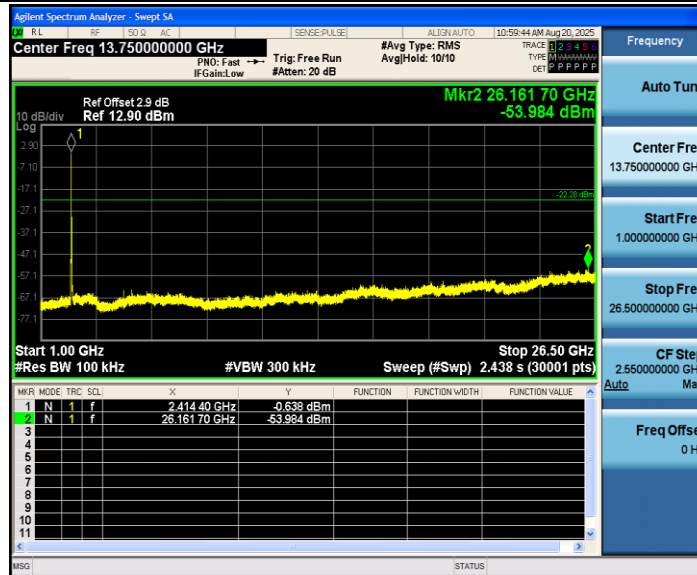
11G_Ant1_2412_0~Reference



11G_Ant1_2412_30~1000



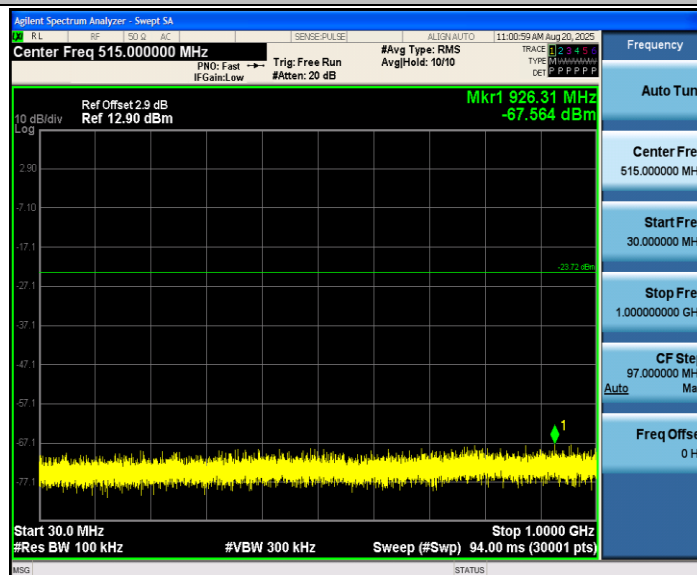
11G_Ant1_2412_1000~26500



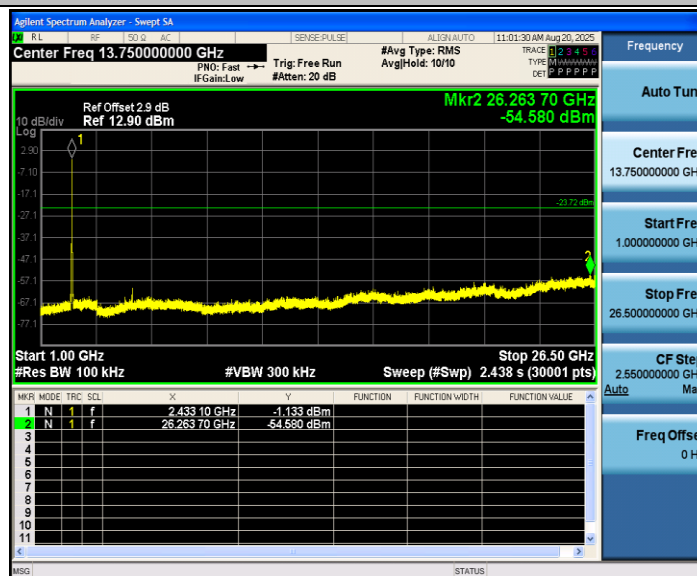
11G_Ant1_2437_0~Reference



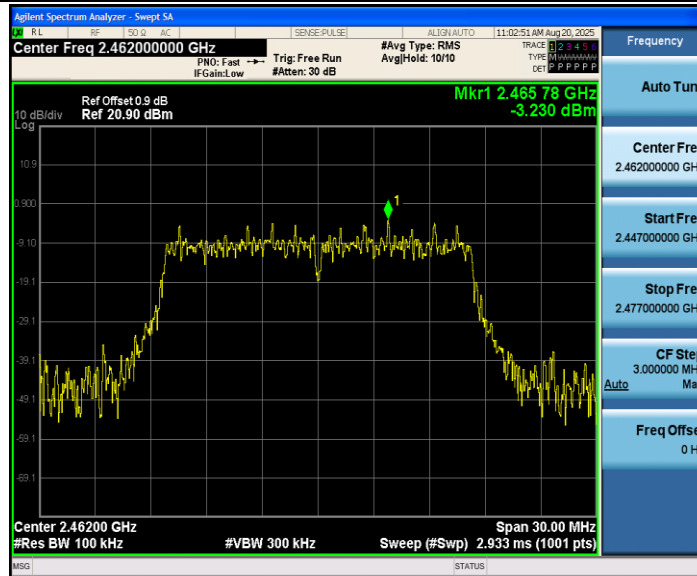
11G_Ant1_2437_30~1000



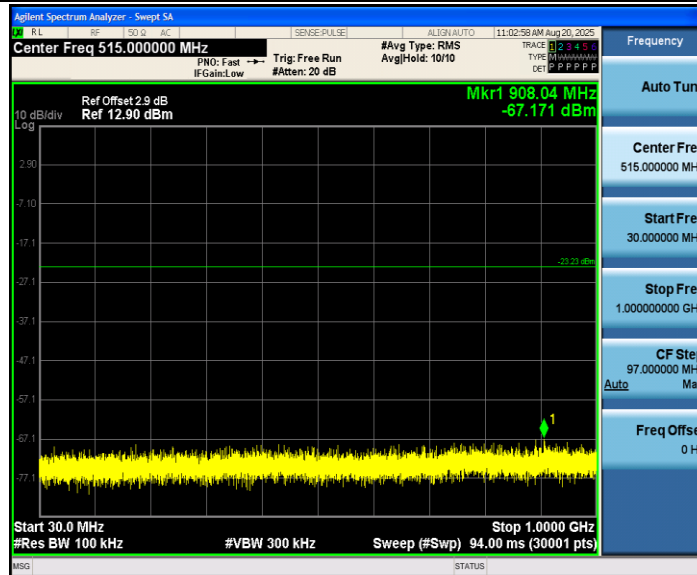
11G_Ant1_2437_1000~26500



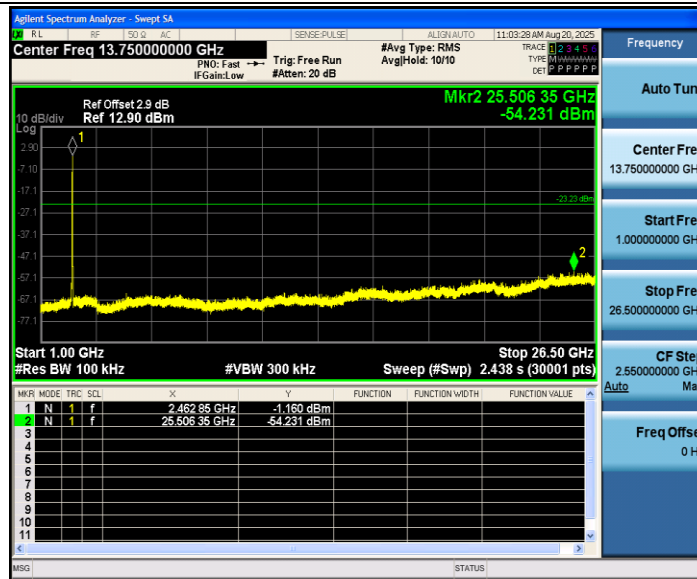
11G_Ant1_2462_0~Reference



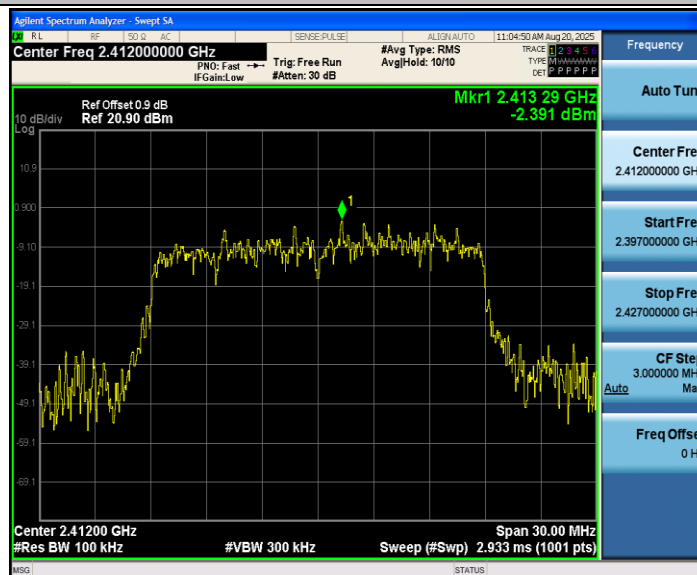
11G_Ant1_2462_30~1000



11G_Ant1_2462_1000~26500



11N20SISO_Ant1_2412_0~Reference



11N20SISO_Ant1_2412_30~1000

