

FCC Appendix RF Test Data

FCC ID : 2BRB9-X100

Company : Shenzhen zhengqing Technology Co., Ltd.

EUT : ZICALSTAR

Model Number : X100

Report No. : CTA25071701201

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	9.000	2408.000	2417.000	0.5	PASS
		2437	9.520	2432.000	2441.520	0.5	PASS
		2462	8.600	2457.960	2466.560	0.5	PASS
11G	Ant1	2412	12.880	2407.000	2419.880	0.5	PASS
		2437	15.720	2428.840	2444.560	0.5	PASS
		2462	15.680	2454.480	2470.160	0.5	PASS
11N20SISO	Ant1	2412	13.280	2407.000	2420.280	0.5	PASS
		2437	16.080	2428.520	2444.600	0.5	PASS
		2462	15.840	2454.480	2470.320	0.5	PASS
11N40SISO	Ant1	2422	23.840	2410.720	2434.560	0.5	PASS
		2437	35.280	2419.240	2454.520	0.5	PASS
		2452	35.520	2434.480	2470.000	0.5	PASS
11AX20SISO	Ant1	2412	13.400	2406.960	2420.360	0.5	PASS
		2437	16.080	2428.480	2444.560	0.5	PASS
		2462	15.840	2454.480	2470.320	0.5	PASS
11AX40SISO	Ant1	2422	23.840	2410.720	2434.560	0.5	PASS
		2437	35.440	2419.080	2454.520	0.5	PASS
		2452	35.520	2434.480	2470.000	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



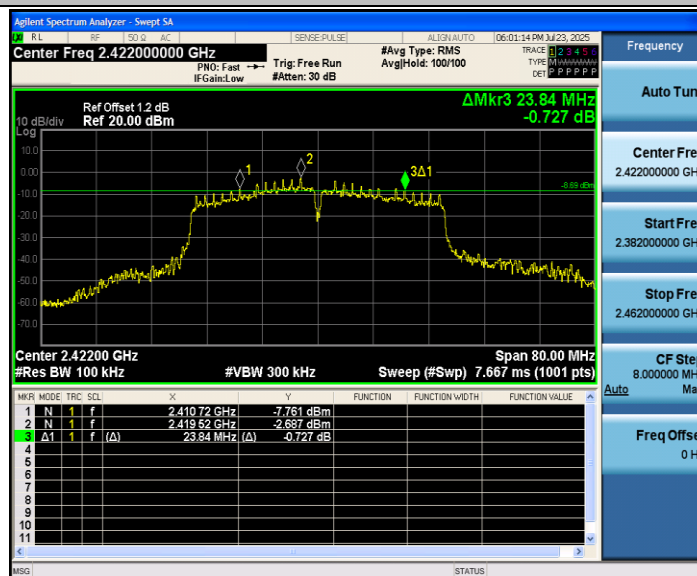
11N20SISO_Ant1_2437



11N20SISO_Ant1_2462

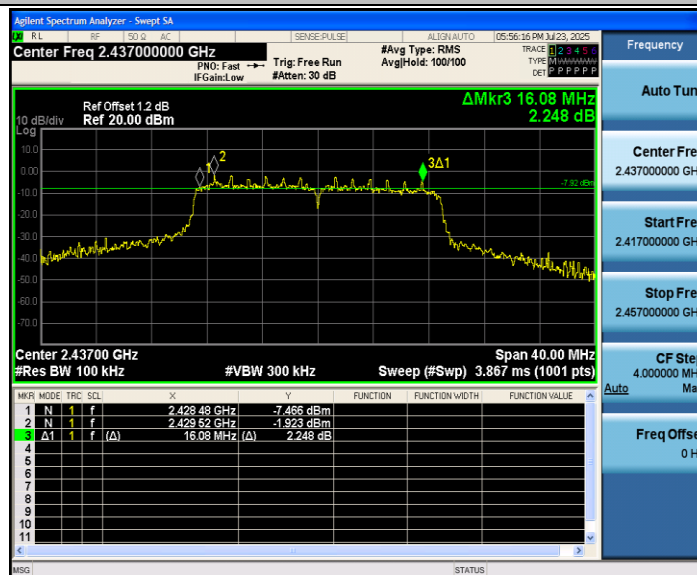


11N40SISO_Ant1_2422

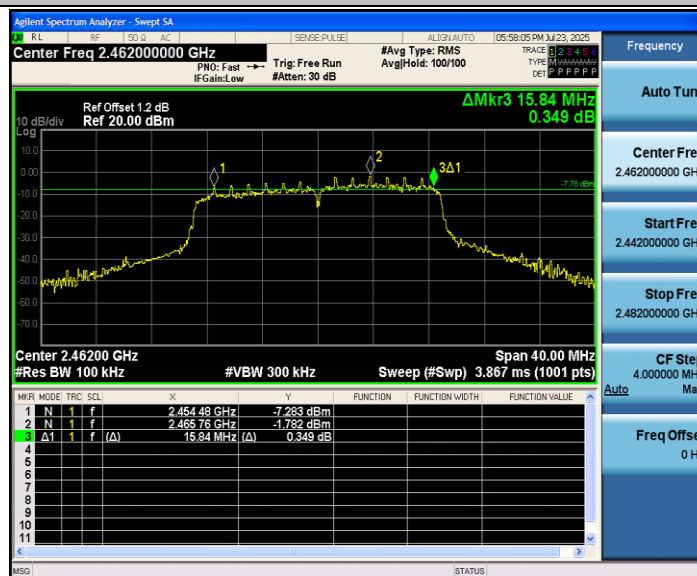


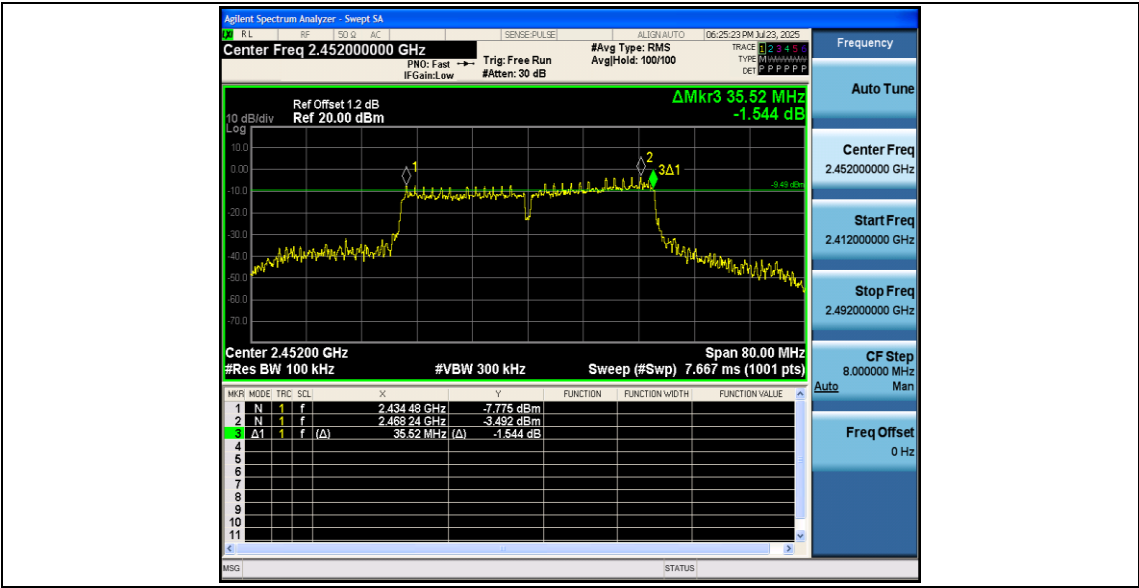


11AX20SISO_Ant1_2437



11AX20SISO_Ant1_2462





Appendix B: Occupied Channel Bandwidth

Test Result

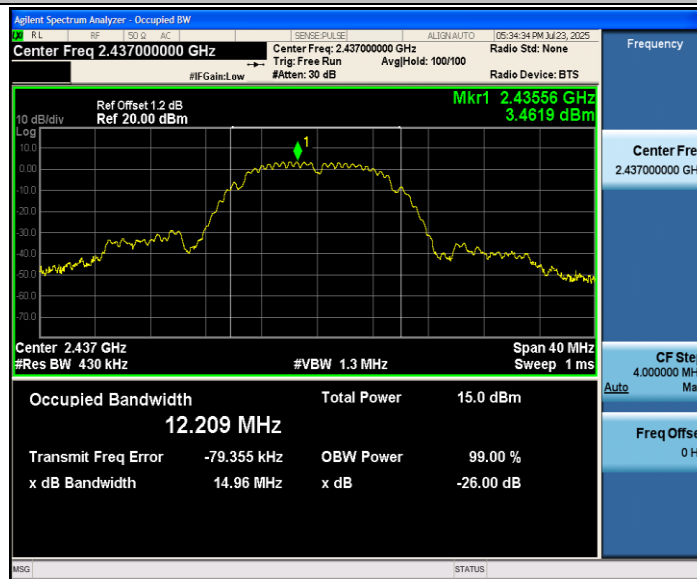
TestMode	Antenna	Channel Frequency[MHz]	OCB [MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
11B	Ant1	2412	12.028	2406.8520	2418.8800	---	---
		2437	12.209	2430.8162	2443.0252	---	---
		2462	11.624	2456.5223	2468.1463	---	---
11G	Ant1	2412	16.672	2404.0335	2420.7055	---	---
		2437	16.873	2428.4479	2445.3209	---	---
		2462	16.535	2453.8911	2470.4261	---	---
11N20SISO	Ant1	2412	17.703	2403.5382	2421.2412	---	---
		2437	17.814	2427.9922	2445.8062	---	---
		2462	17.564	2453.4112	2470.9752	---	---
11N40SISO	Ant1	2422	35.455	2404.4997	2439.9547	---	---
		2437	36.614	2418.5320	2455.1460	---	---
		2452	36.500	2433.9303	2470.4303	---	---
11AX20SISO	Ant1	2412	17.589	2403.5635	2421.1525	---	---
		2437	17.905	2427.9110	2445.8160	---	---
		2462	17.556	2453.4272	2470.9832	---	---
11AX40SISO	Ant1	2422	35.375	2404.4837	2439.8587	---	---
		2437	36.588	2418.5198	2455.1078	---	---
		2452	36.578	2433.9888	2470.5668	---	---

Test Graphs

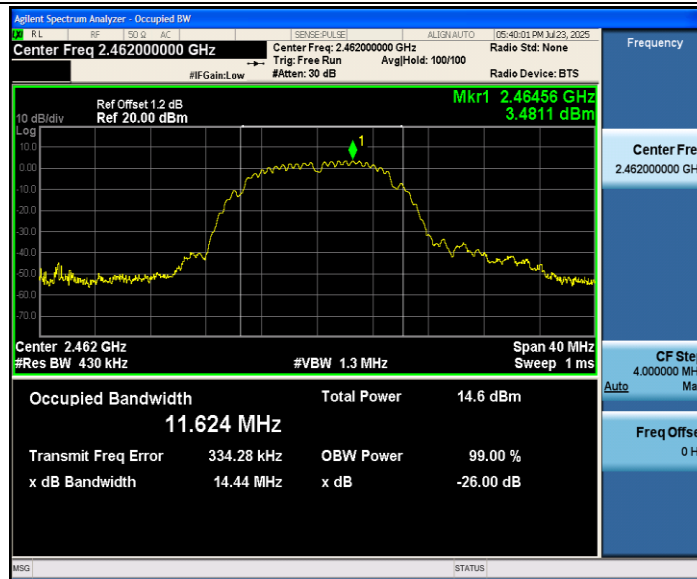
11B_Ant1_2412



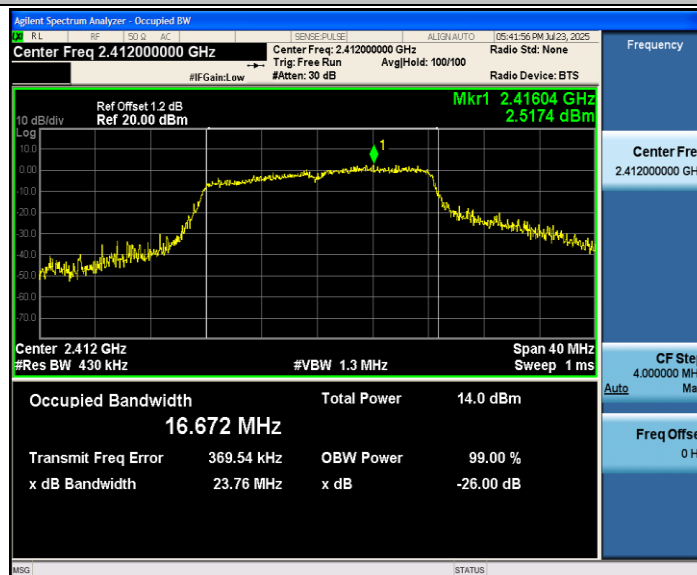
11B_Ant1_2437



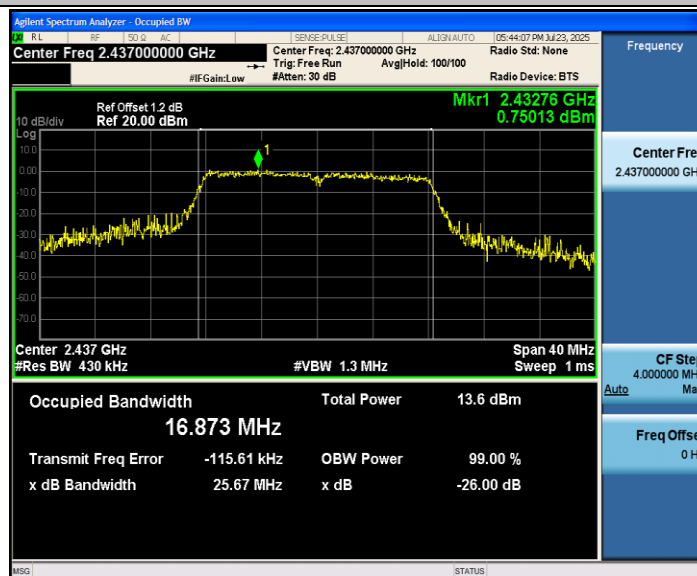
11B_Ant1_2462



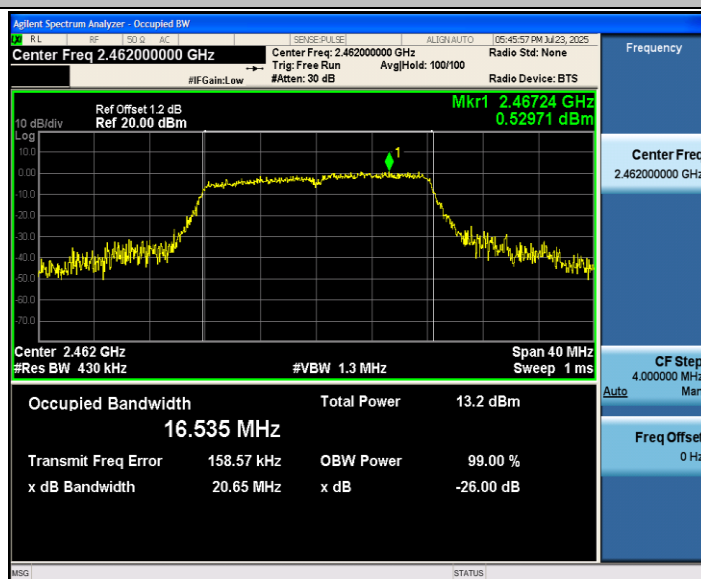
11G_Ant1_2412



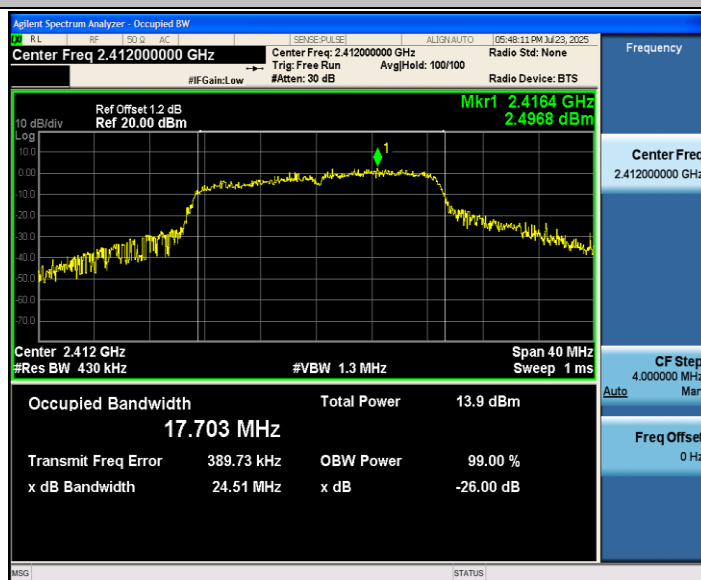
11G_Ant1_2437



11G_Ant1_2462



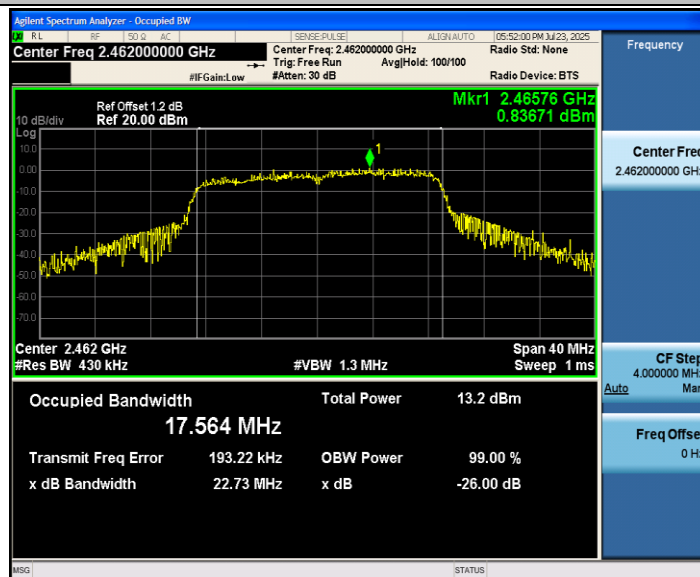
11N20SISO_Ant1_2412



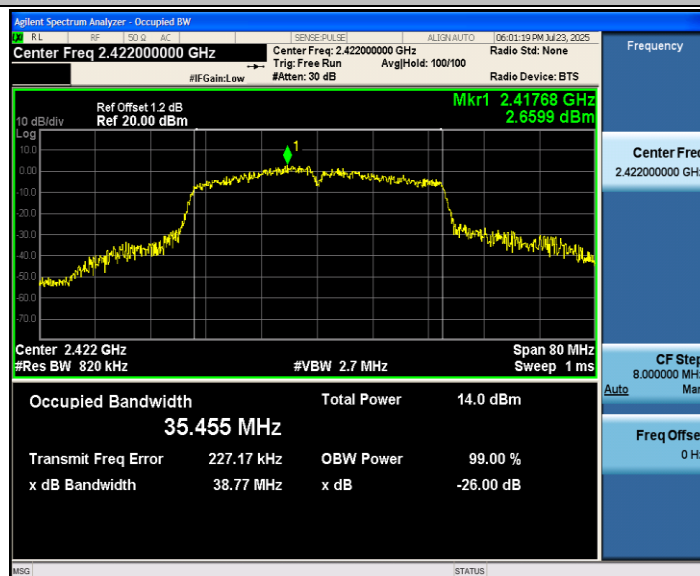
11N20SISO_Ant1_2437



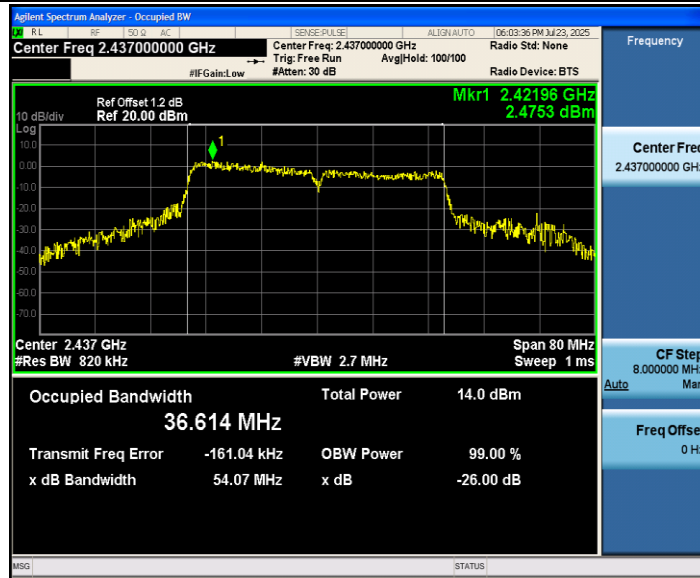
11N20SISO_Ant1_2462



11N40SISO_Ant1_2422



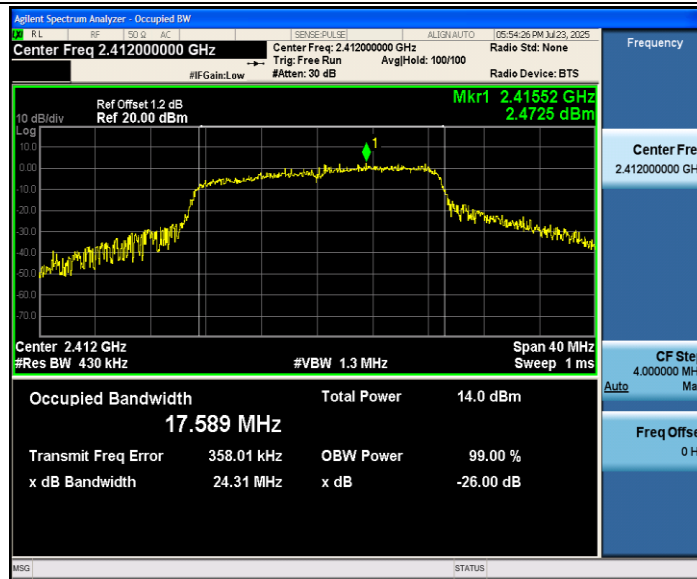
11N40SISO_Ant1_2437



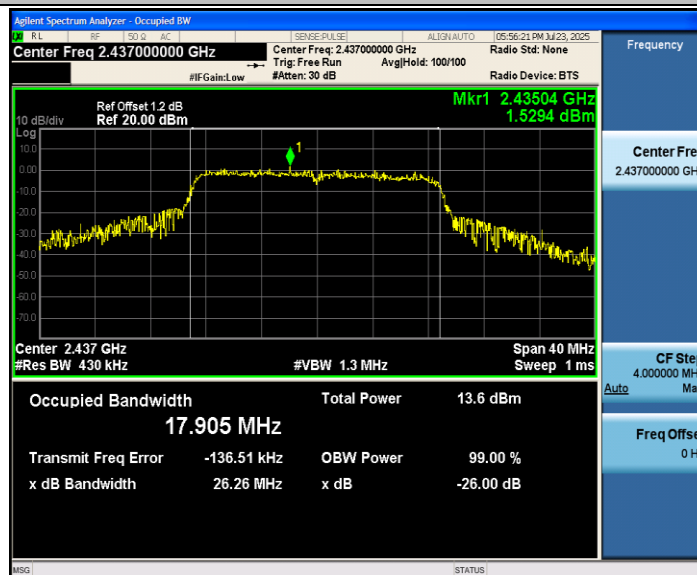
11N40SISO_Ant1_2452



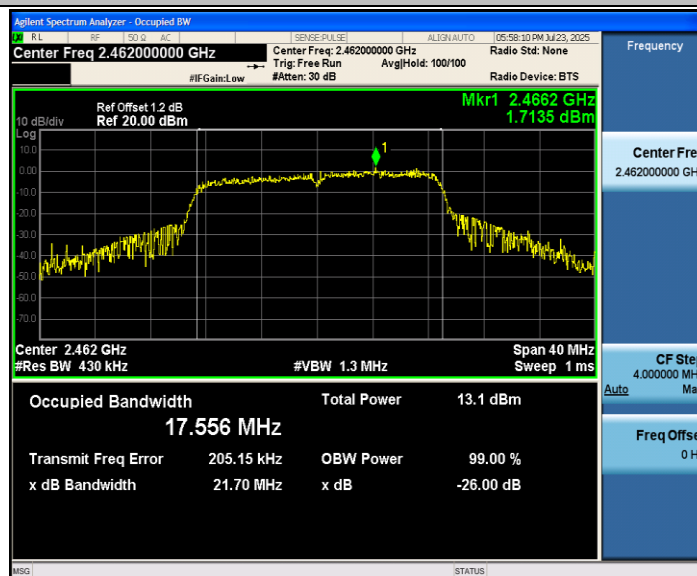
11AX20SISO_Ant1_2412



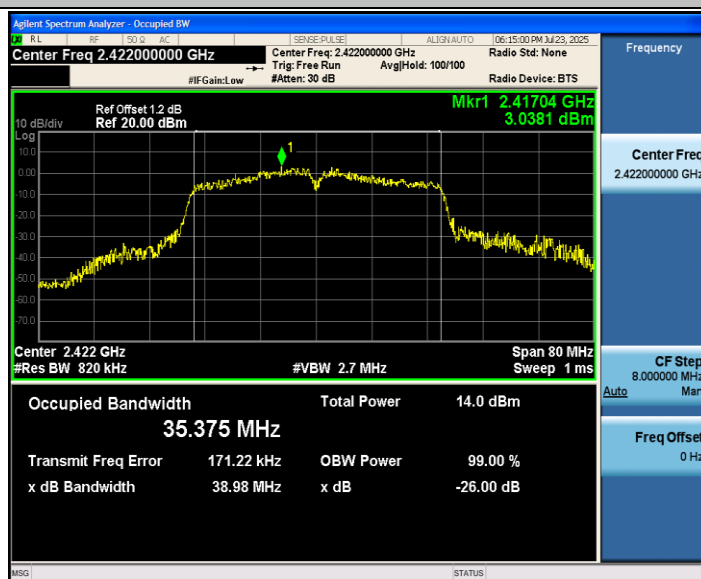
11AX20SISO_Ant1_2437



11AX20SISO_Ant1_2462



11AX40SISO_Ant1_2422



11AX40SISO_Ant1_2437



11AX40SISO_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	15.56	≤30.00	PASS
		2437	14.86	≤30.00	PASS
		2462	14.31	≤30.00	PASS
11G	Ant1	2412	14.41	≤30.00	PASS
		2437	14.22	≤30.00	PASS
		2462	13.93	≤30.00	PASS
11N20SISO	Ant1	2412	14.27	≤30.00	PASS
		2437	14.14	≤30.00	PASS
		2462	13.76	≤30.00	PASS
11N40SISO	Ant1	2422	13.35	≤30.00	PASS
		2437	14.10	≤30.00	PASS
		2452	13.97	≤30.00	PASS
11AX20SISO	Ant1	2412	14.42	≤30.00	PASS
		2437	14.26	≤30.00	PASS
		2462	13.51	≤30.00	PASS
11AX40SISO	Ant1	2422	13.47	≤30.00	PASS
		2437	14.03	≤30.00	PASS
		2452	14.09	≤30.00	PASS

Appendix D: Maximum power spectral density

Test Result

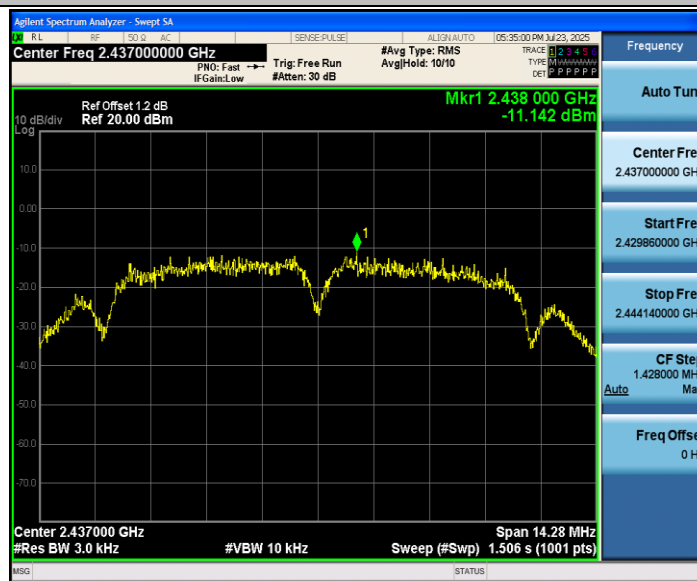
TestMode	Antenna	Frequency[MHz]	Result[dBm/3-100kHz]	Limit[dBm/3kHz]	Verdict
11B	Ant1	2412	-9.47	≤8.00	PASS
		2437	-11.14	≤8.00	PASS
		2462	-10.47	≤8.00	PASS
11G	Ant1	2412	-15.59	≤8.00	PASS
		2437	-15.95	≤8.00	PASS
		2462	-17.29	≤8.00	PASS
11N20SISO	Ant1	2412	-15.35	≤8.00	PASS
		2437	-16.60	≤8.00	PASS
		2462	-16.83	≤8.00	PASS
11N40SISO	Ant1	2422	-17.27	≤8.00	PASS
		2437	-17.60	≤8.00	PASS
		2452	-18.09	≤8.00	PASS
11AX20SISO	Ant1	2412	-16.35	≤8.00	PASS
		2437	-16.76	≤8.00	PASS
		2462	-17.36	≤8.00	PASS
11AX40SISO	Ant1	2422	-17.51	≤8.00	PASS
		2437	-18.31	≤8.00	PASS
		2452	-17.59	≤8.00	PASS

Test Graphs

11B_Ant1_2412



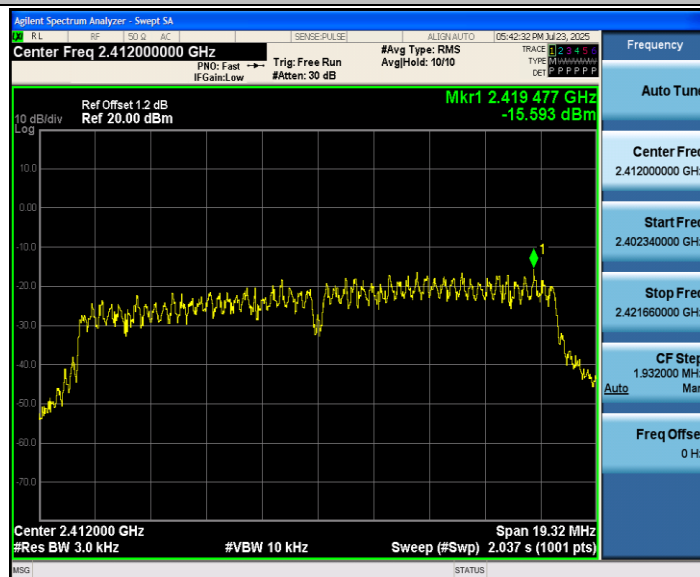
11B_Ant1_2437



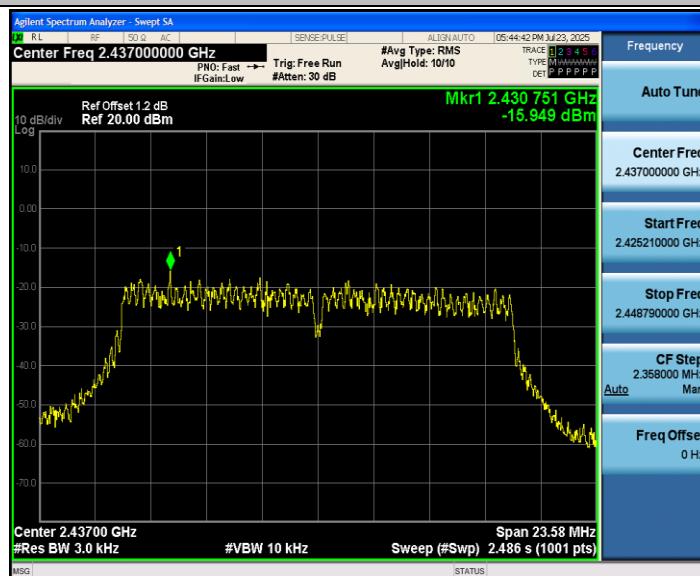
11B_Ant1_2462



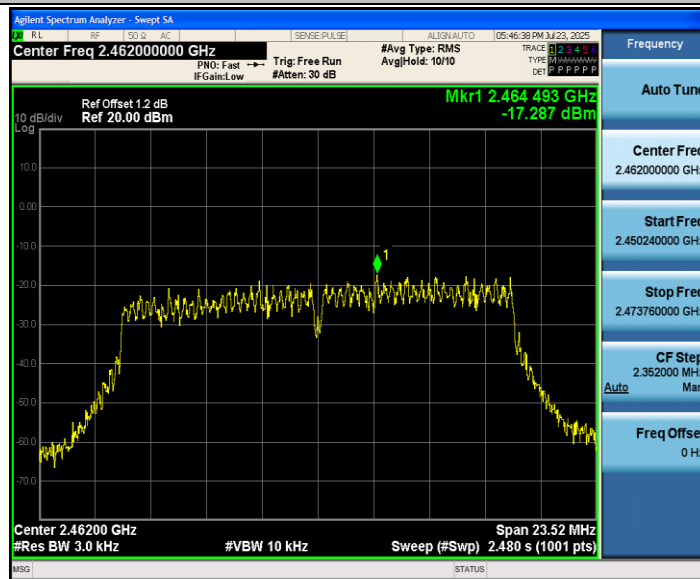
11G_Ant1_2412



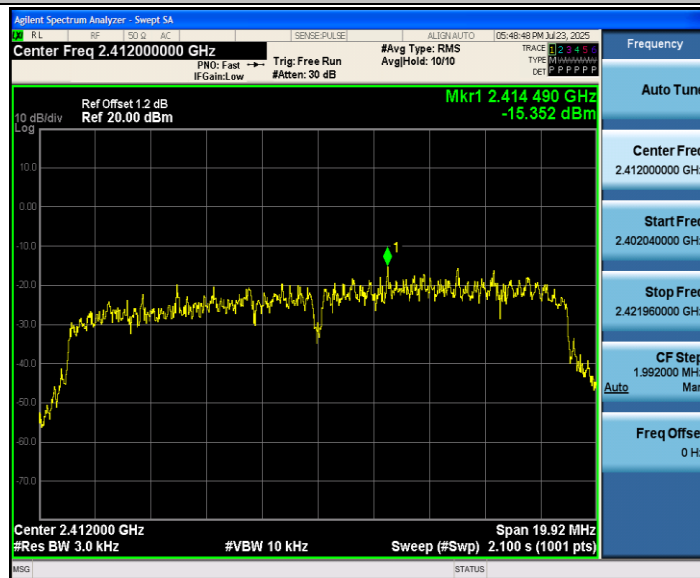
11G_Ant1_2437



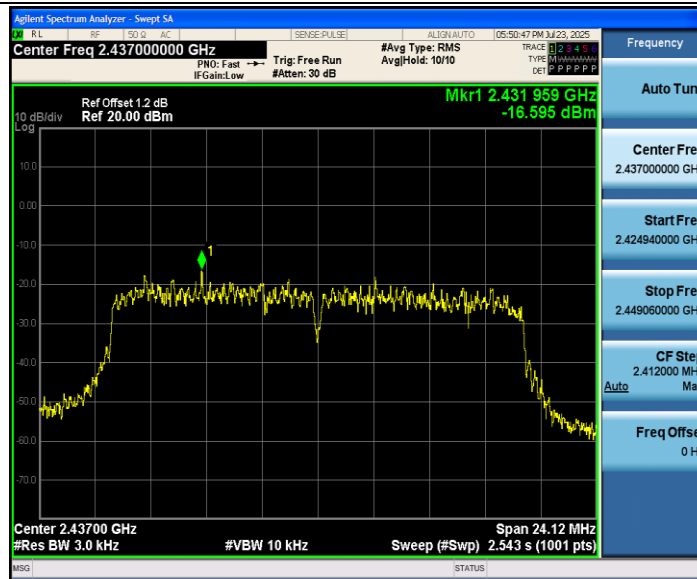
11G_Ant1_2462



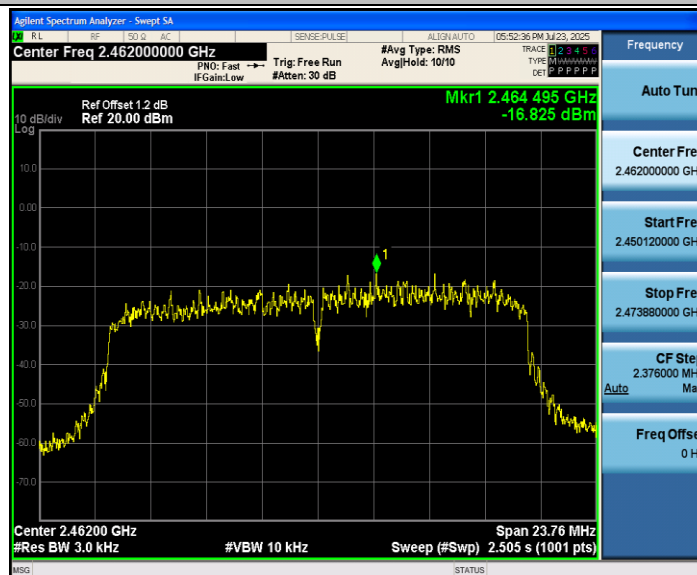
11N20SISO_Ant1_2412



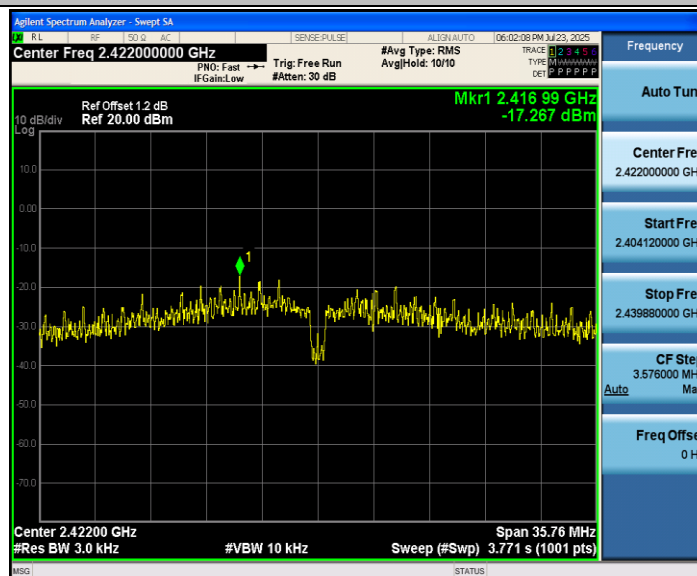
11N20SISO_Ant1_2437



11N20SISO_Ant1_2462



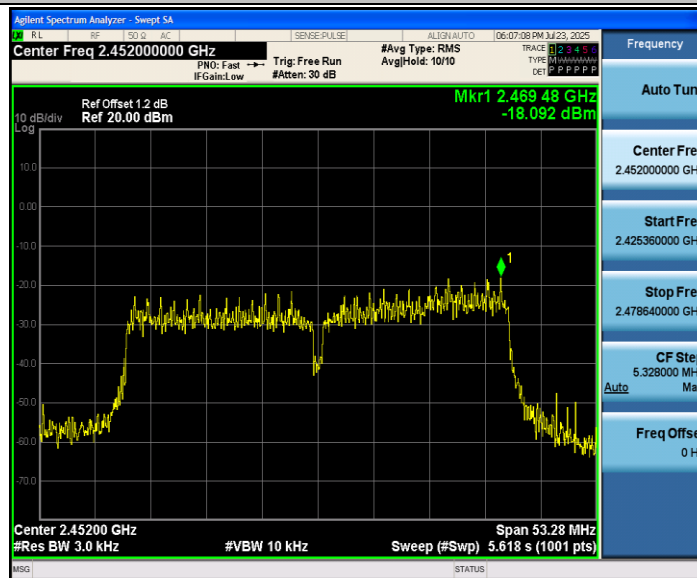
11N40SISO_Ant1_2422



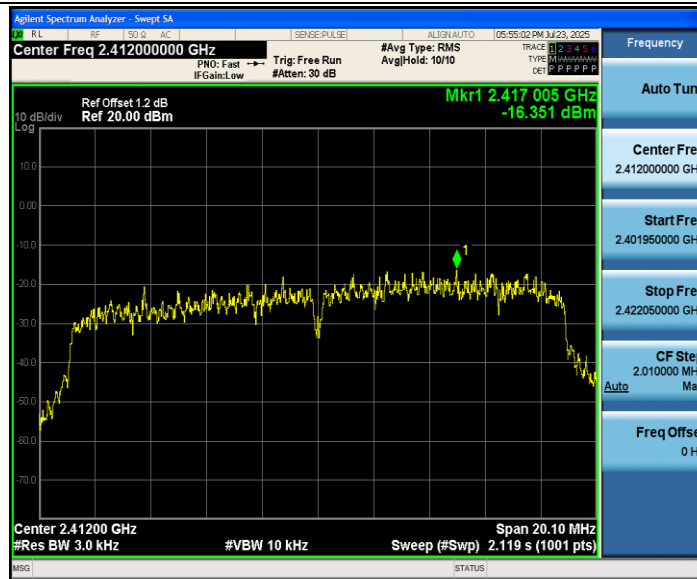
11N40SISO_Ant1_2437



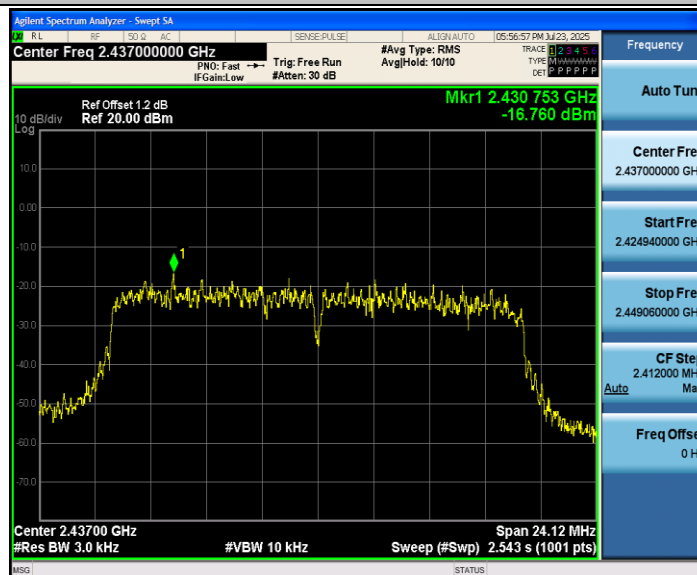
11N40SISO_Ant1_2452



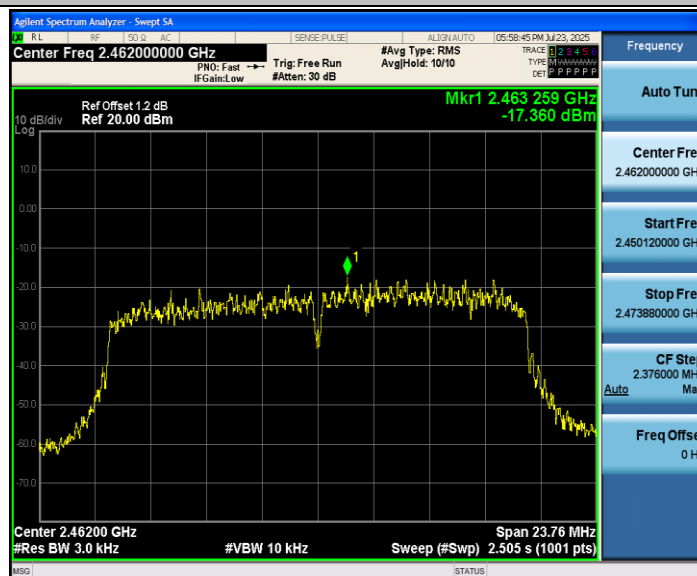
11AX20SISO_Ant1_2412



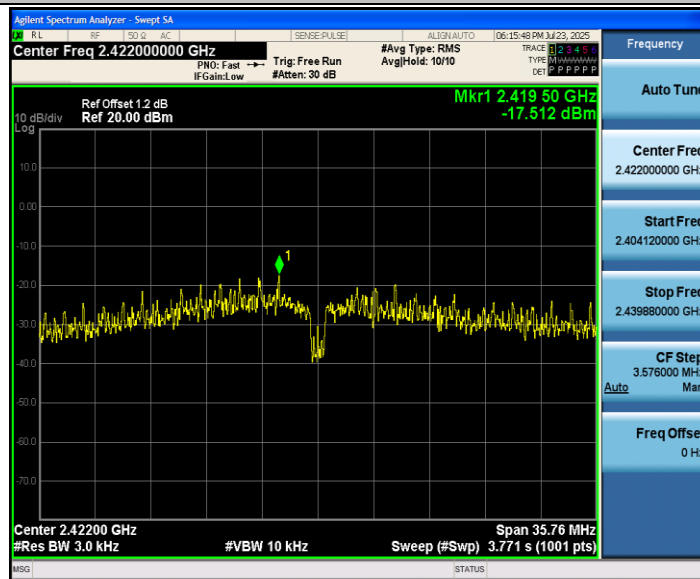
11AX20SISO_Ant1_2437



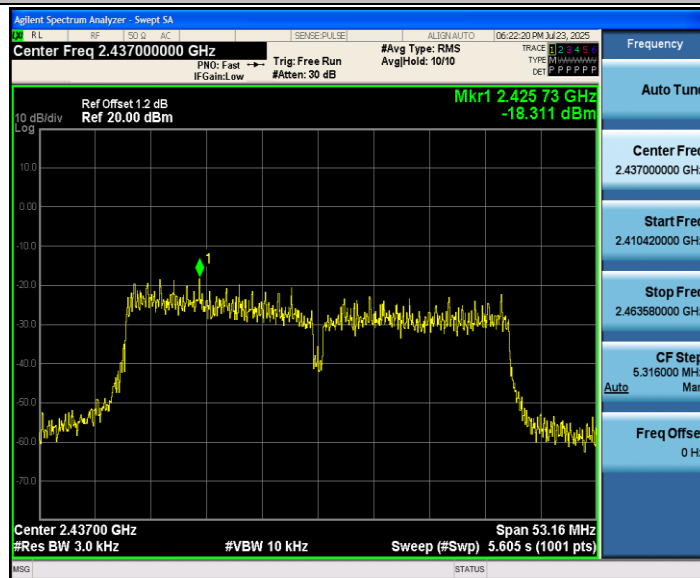
11AX20SISO_Ant1_2462



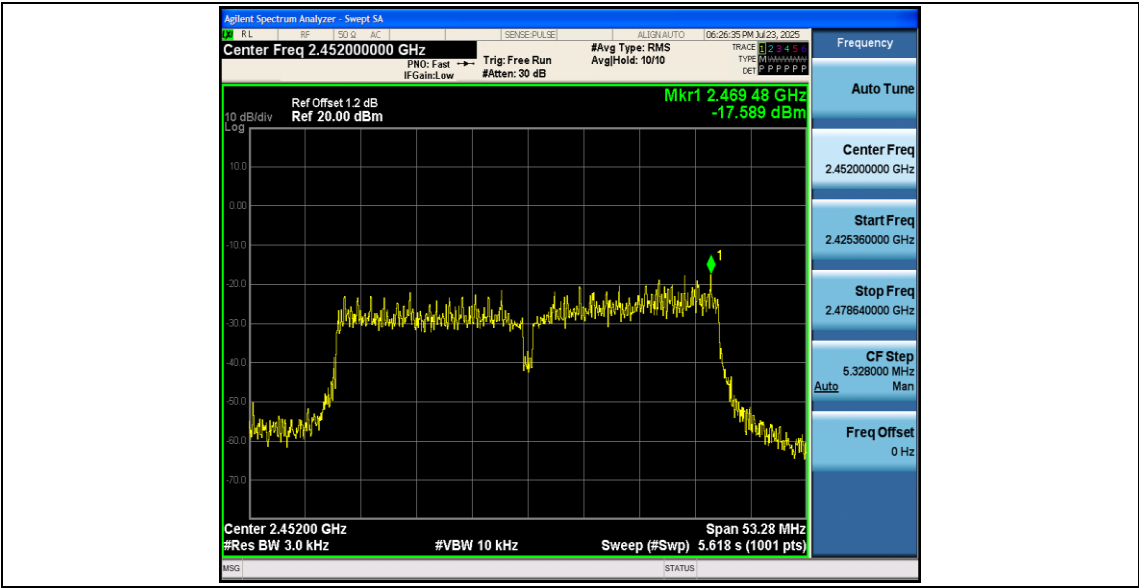
11AX40SISO_Ant1_2422



11AX40SISO_Ant1_2437



11AX40SISO_Ant1_2452



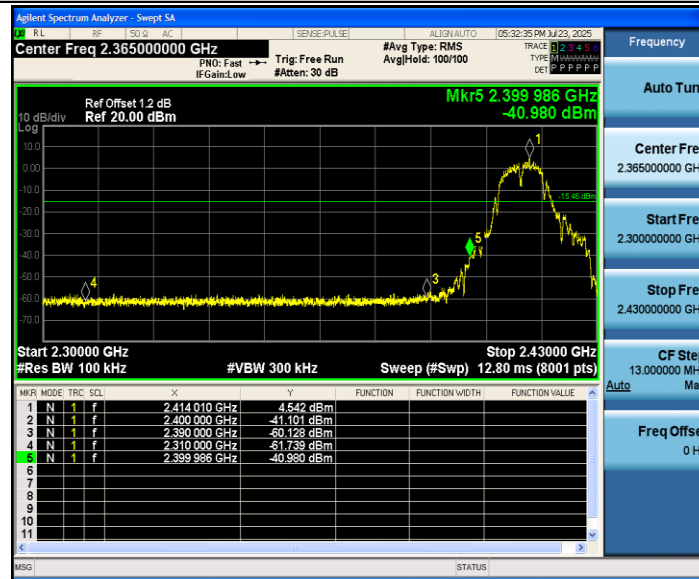
Appendix E: Band edge measurements

Test Result

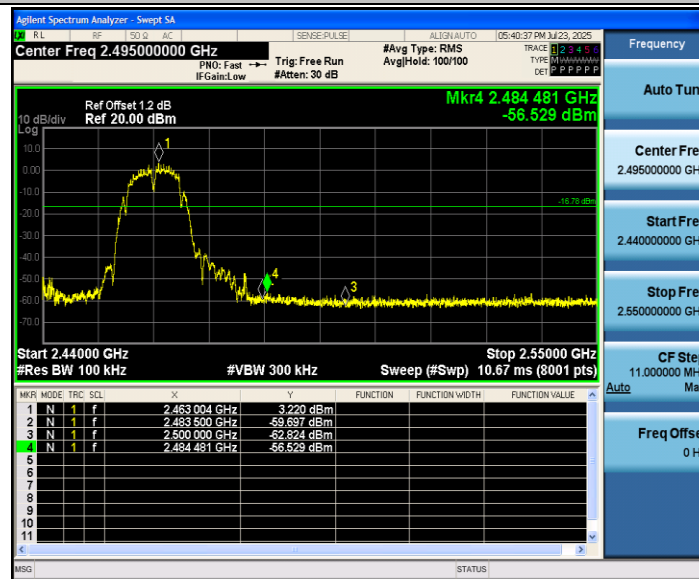
TestMode	Antenna	Channel	Frequency[MHz]	RefLevel[dBm]	Result[dBm]	Limit[dBm]	Verdict
11B	Ant1	Low	2412	4.54	-40.98	≤-15.46	PASS
		High	2462	3.22	-56.53	≤-16.78	PASS
11G	Ant1	Low	2412	-0.46	-41.91	≤-20.46	PASS
		High	2462	-1.75	-50.43	≤-21.75	PASS
11N20SISO	Ant1	Low	2412	-0.41	-37.88	≤-20.41	PASS
		High	2462	-1.78	-50.09	≤-21.78	PASS
11N40SISO	Ant1	Low	2422	-2.87	-42.95	≤-22.87	PASS
		High	2452	-3.68	-41.53	≤-23.68	PASS
11AX20SISO	Ant1	Low	2412	-0.45	-38.39	≤-20.45	PASS
		High	2462	-1.77	-49.54	≤-21.77	PASS
11AX40SISO	Ant1	Low	2422	-2.85	-42.56	≤-22.85	PASS
		High	2452	-3.57	-41.28	≤-23.57	PASS

Test Graphs

11B_Ant1_Low_2412



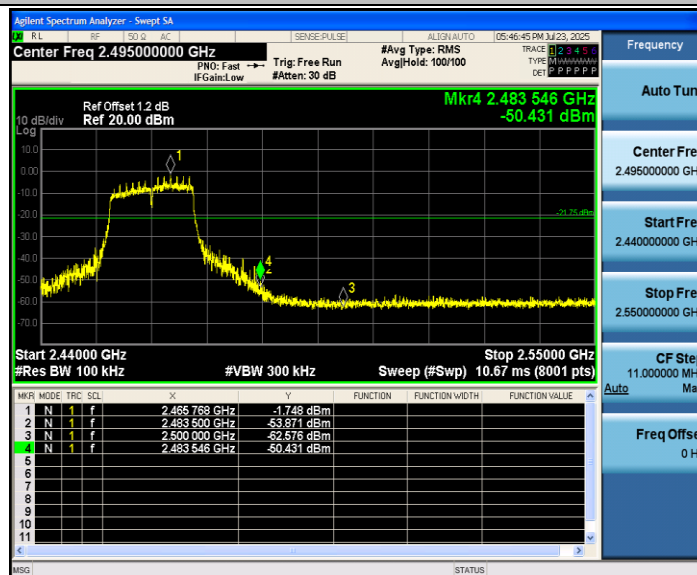
11B_Ant1_High_2462



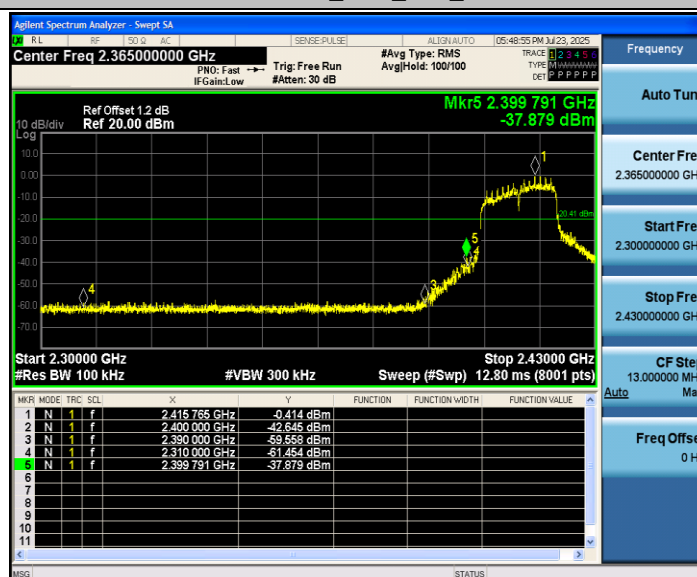
11G_Ant1_Low_2412



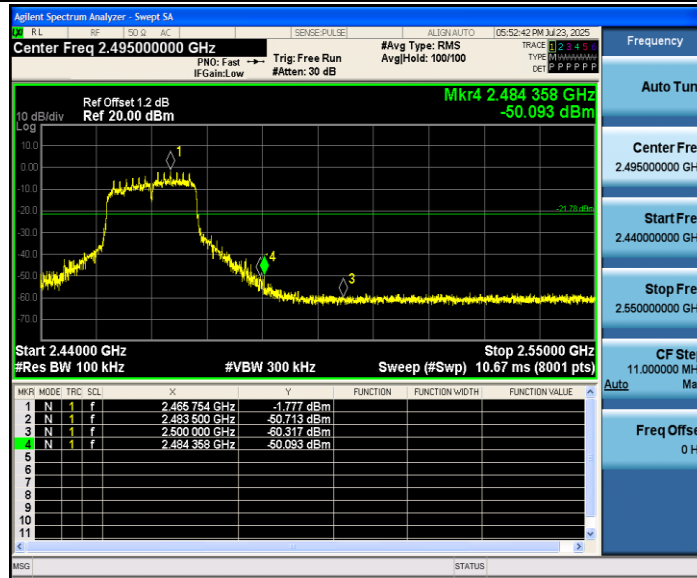
11G_Ant1_High_2462



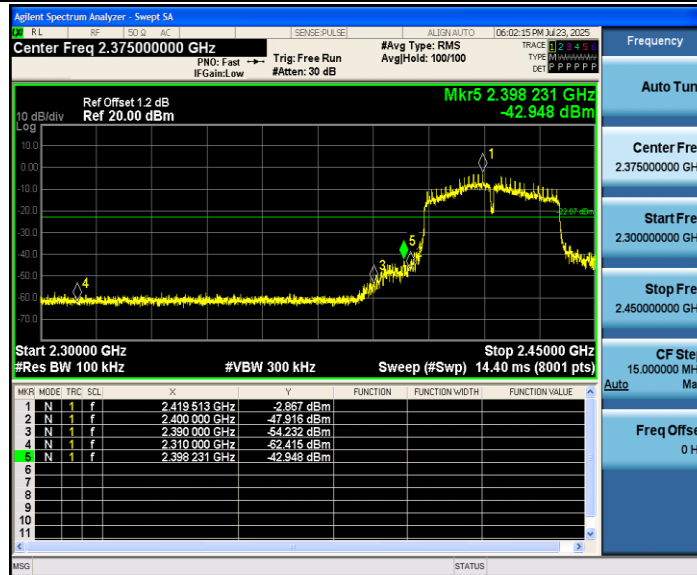
11N20SISO_Ant1_Low_2412



11N20SISO_Ant1_High_2462



11N40SISO_Ant1_Low_2422



11N40SISO_Ant1_High_2452