

FCC Appendix RF Test Data for 2.4GWIFI

FCC ID : 2BPRF-BP4SL3VU

Company : Shenzhen WestMicro Digital Technology Co., Ltd.

EUT : LinkPower Ultra

Model Number : BP4SL3VU

Report No. : CTA26092002702

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	10.200	2406.920	2417.120	0.5	PASS
		2437	10.200	2431.920	2442.120	0.5	PASS
		2462	10.240	2456.920	2467.160	0.5	PASS
11G	Ant1	2412	15.960	2404.080	2420.040	0.5	PASS
		2437	15.960	2429.040	2445.000	0.5	PASS
		2462	16.040	2453.960	2470.000	0.5	PASS
11N20SISO	Ant1	2412	16.840	2403.440	2420.280	0.5	PASS
		2437	16.240	2428.440	2444.680	0.5	PASS
		2462	16.080	2454.320	2470.400	0.5	PASS
11N40SISO	Ant1	2422	34.320	2405.680	2440.000	0.5	PASS
		2437	35.040	2419.880	2454.920	0.5	PASS
		2452	34.960	2435.040	2470.000	0.5	PASS
11AX20SISO	Ant1	2412	17.920	2403.160	2421.080	0.5	PASS
		2437	18.600	2427.640	2446.240	0.5	PASS
		2462	18.640	2452.760	2471.400	0.5	PASS
11AX40SISO	Ant1	2422	31.280	2408.720	2440.000	0.5	PASS
		2437	37.040	2418.840	2455.880	0.5	PASS
		2452	35.840	2434.400	2470.240	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



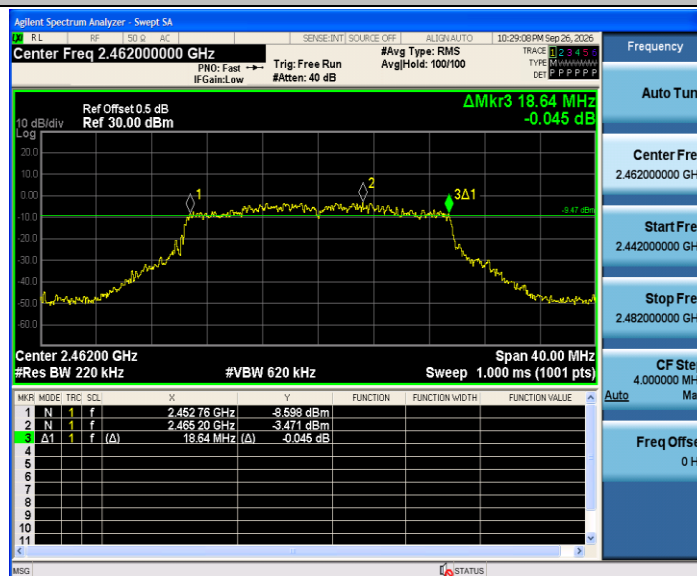
11AX20SISO_Ant1_2412



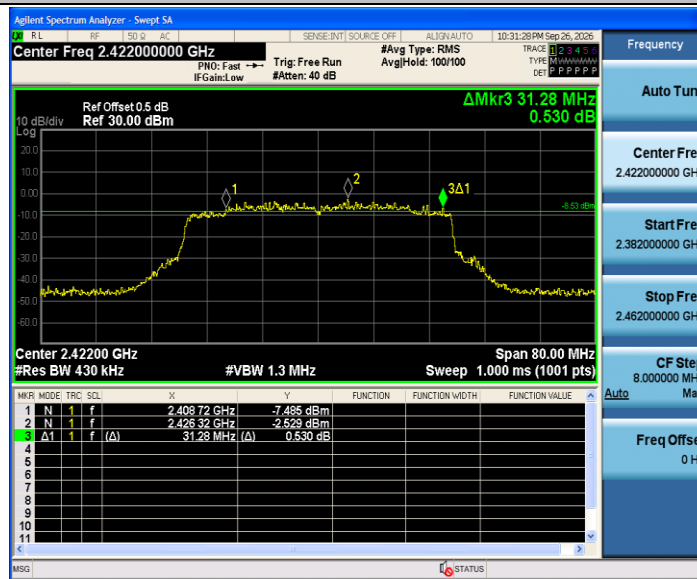
11AX20SISO_Ant1_2437



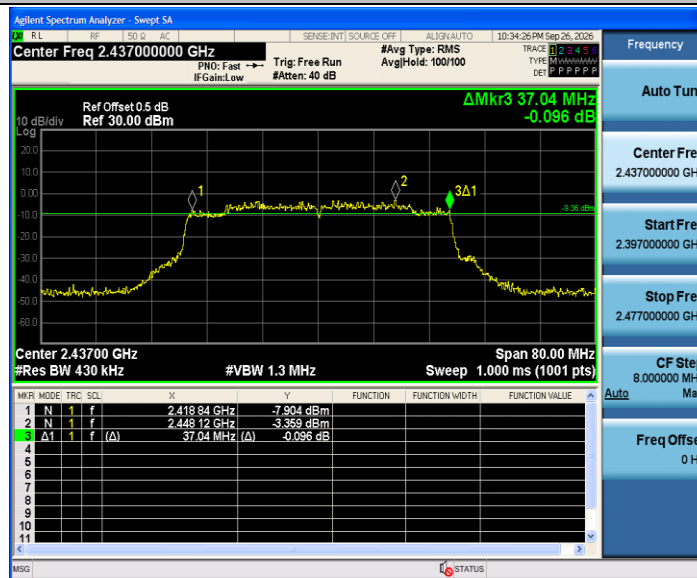
11AX20SISO_Ant1_2462



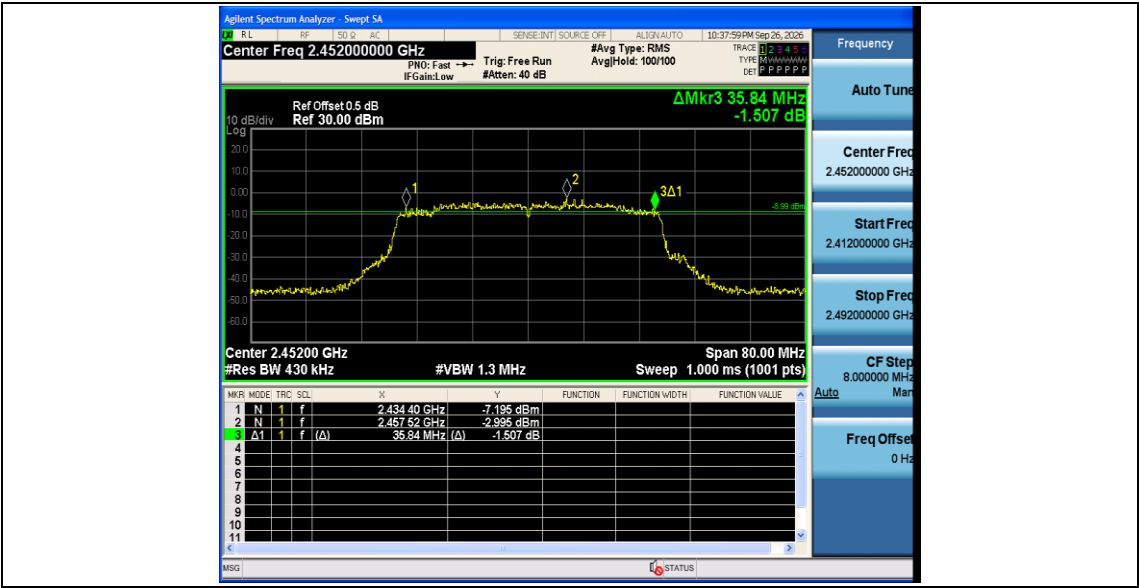
11AX40SISO_Ant1_2422



11AX40SISO_Ant1_2437



11AX40SISO_Ant1_2452



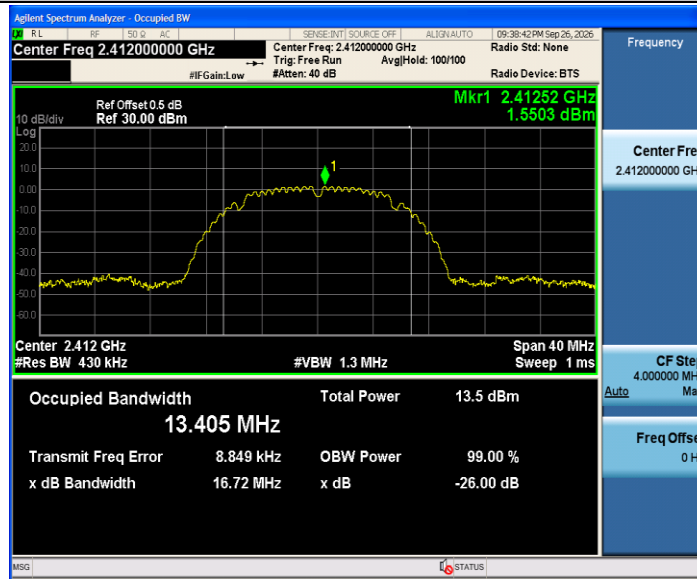
Appendix B: Occupied Channel Bandwidth

Test Result

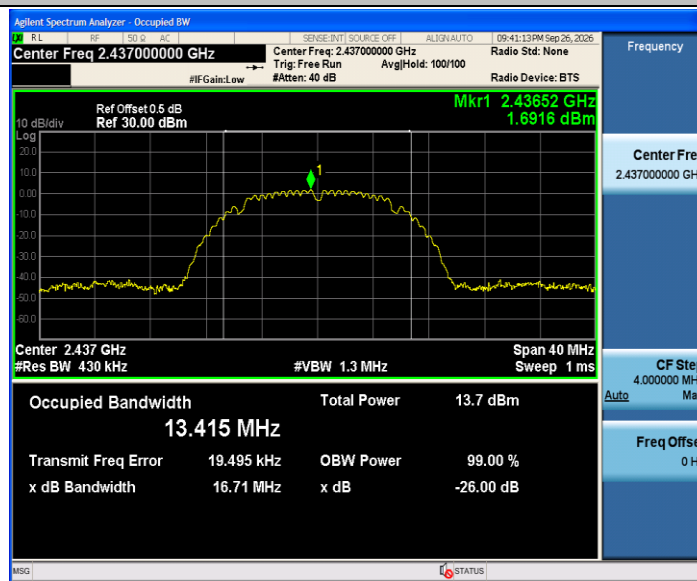
TestMode	Antenna	Channel Frequency[MHz]	OCB [MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
11B	Ant1	2412	13.405	2405.3064	2418.7114	---	---
		2437	13.415	2430.3120	2443.7270	---	---
		2462	13.403	2455.3261	2468.7291	---	---
11G	Ant1	2412	16.878	2403.5825	2420.4605	---	---
		2437	16.810	2428.6622	2445.4722	---	---
		2462	16.780	2453.6509	2470.4309	---	---
11N20SISO	Ant1	2412	17.964	2403.0628	2421.0268	---	---
		2437	17.961	2428.0477	2446.0087	---	---
		2462	17.888	2453.0771	2470.9651	---	---
11N40SISO	Ant1	2422	36.085	2404.1119	2440.1969	---	---
		2437	36.086	2419.0786	2455.1646	---	---
		2452	36.088	2434.0838	2470.1718	---	---
11AX20SISO	Ant1	2412	18.943	2402.5462	2421.4892	---	---
		2437	18.937	2427.5900	2446.5270	---	---
		2462	18.913	2452.5699	2471.4829	---	---
11AX40SISO	Ant1	2422	37.561	2403.4014	2440.9624	---	---
		2437	37.662	2418.3444	2456.0064	---	---
		2452	37.725	2433.2696	2470.9946	---	---

Test Graphs

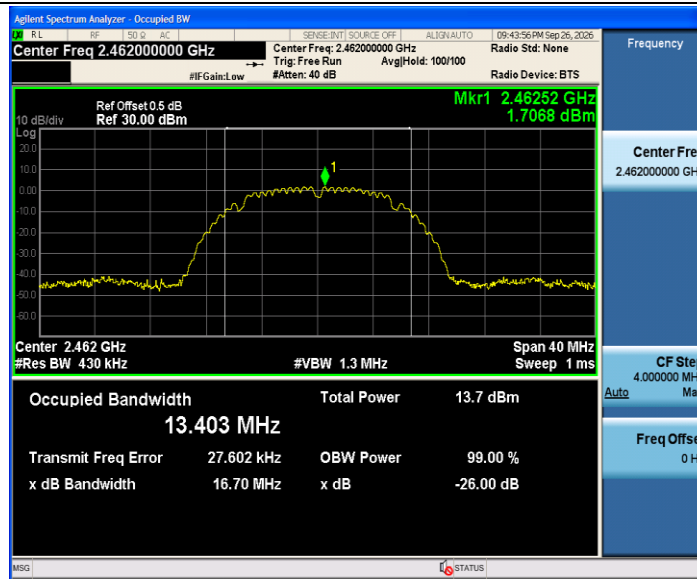
11B_Ant1_2412



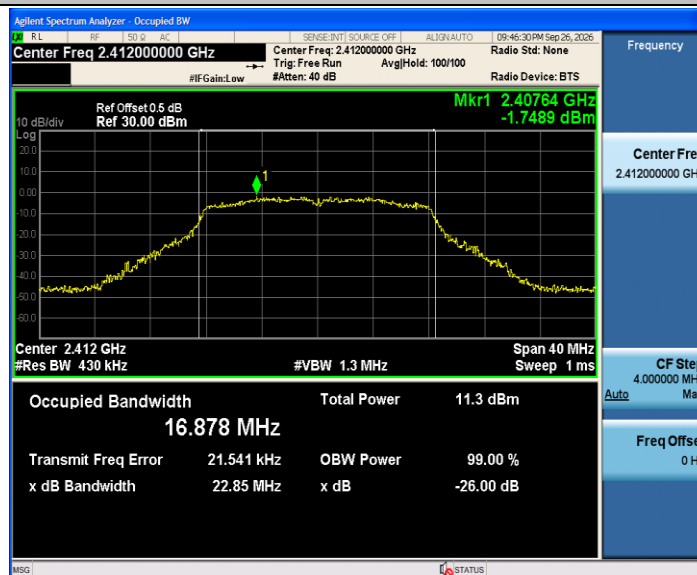
11B_Ant1_2437



11B_Ant1_2462



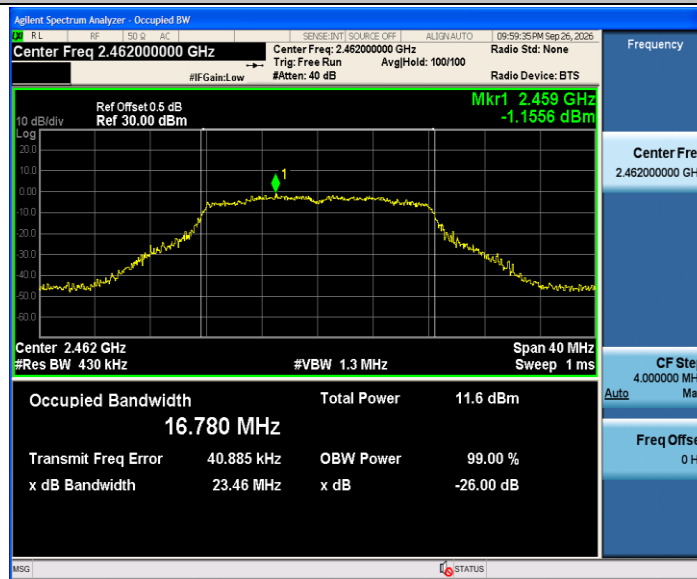
11G_Ant1_2412



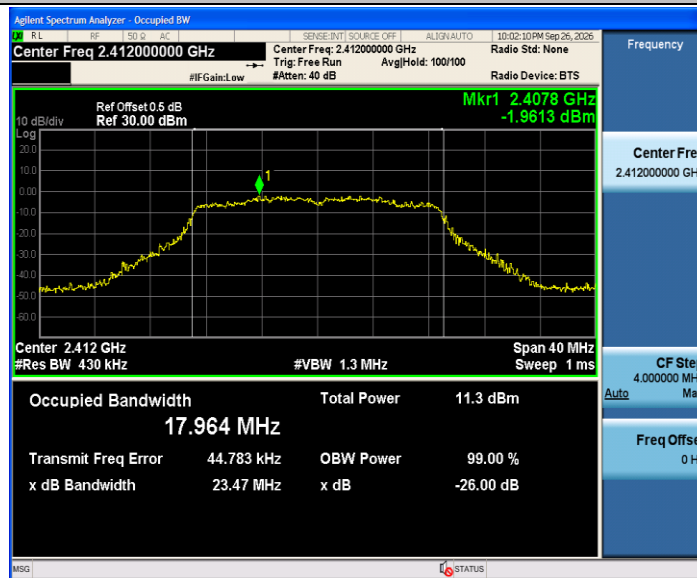
11G_Ant1_2437



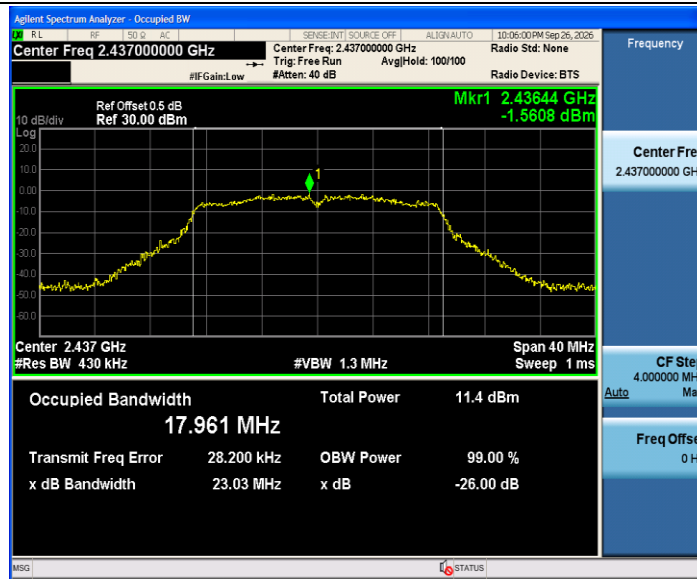
11G_Ant1_2462



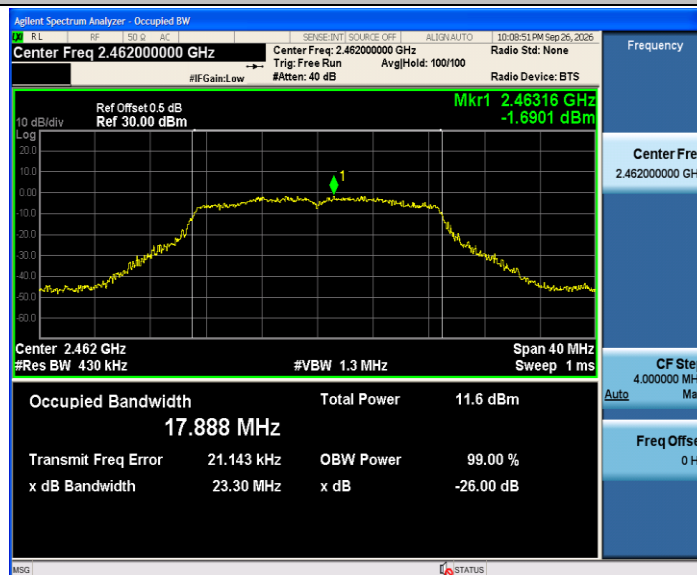
11N20SISO_Ant1_2412



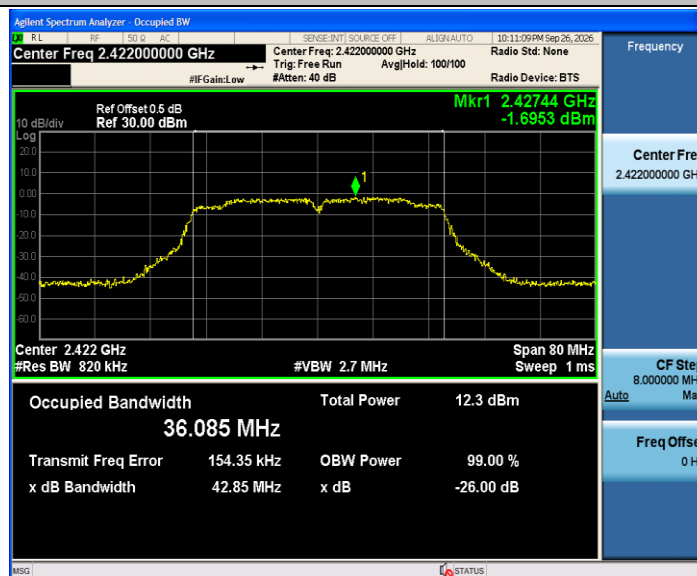
11N20SISO_Ant1_2437



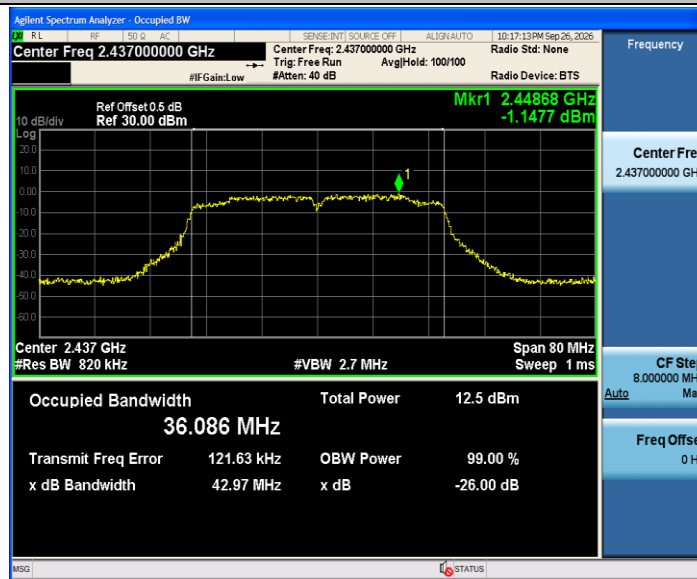
11N20SISO_Ant1_2462



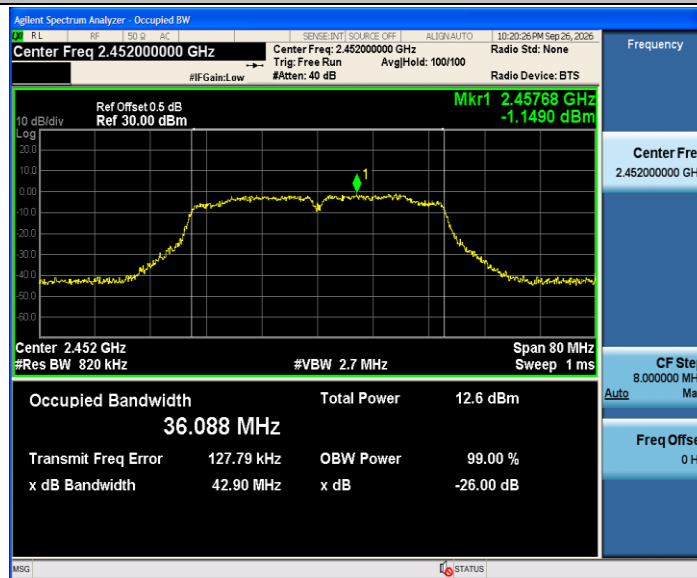
11N40SISO_Ant1_2422



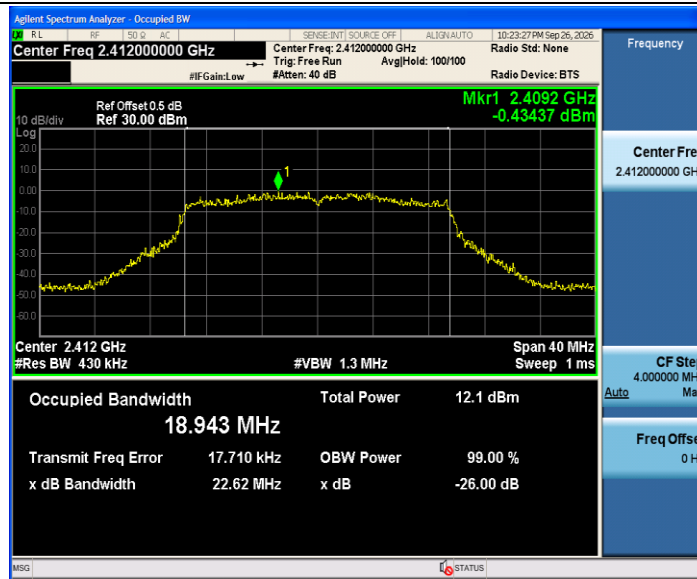
11N40SISO_Ant1_2437



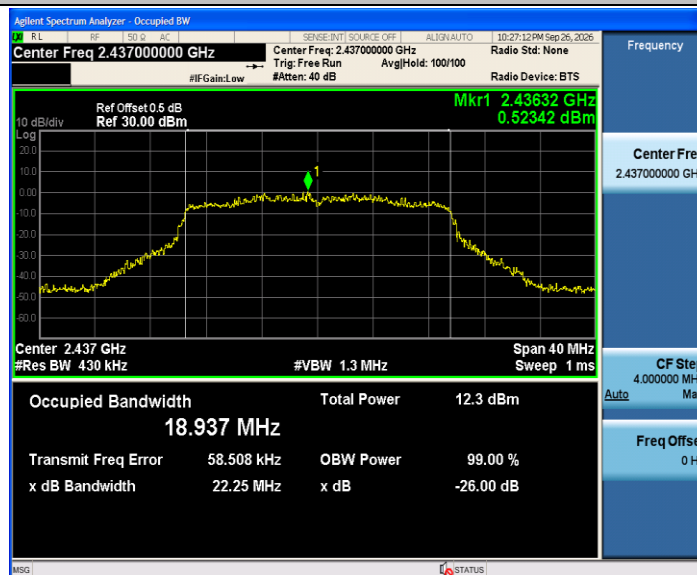
11N40SISO_Ant1_2452



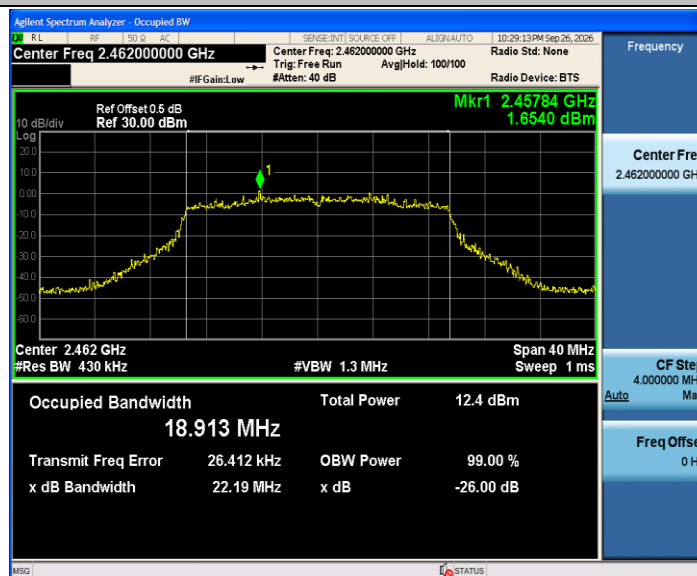
11AX20SISO_Ant1_2412



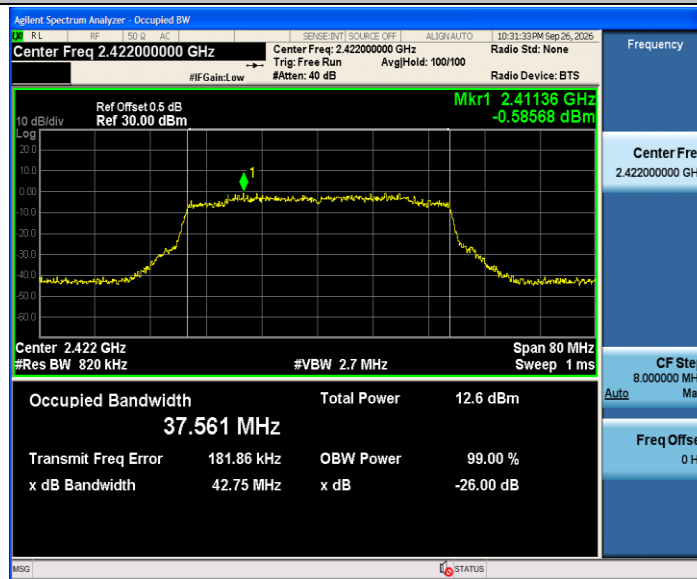
11AX20SISO_Ant1_2437



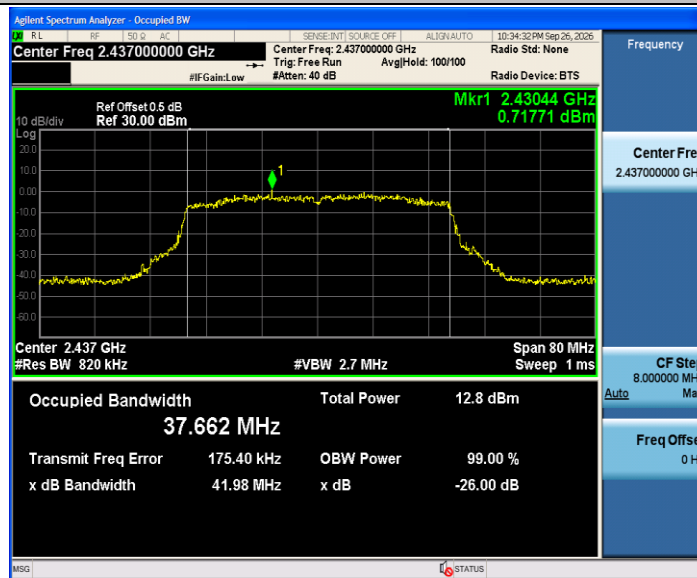
11AX20SISO_Ant1_2462



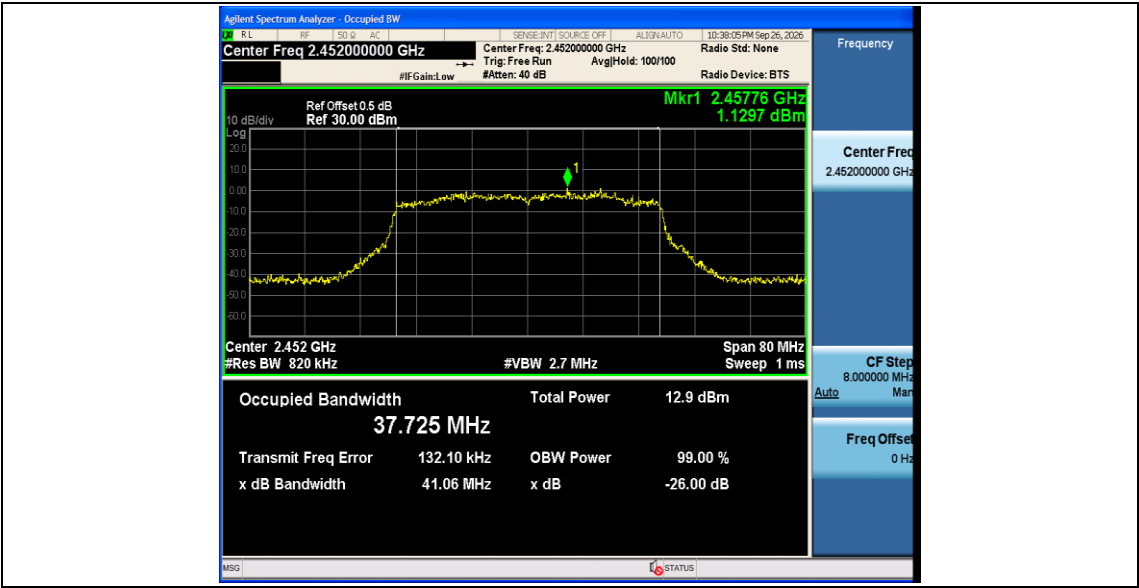
11AX40SISO_Ant1_2422



11AX40SISO_Ant1_2437



11AX40SISO_Ant1_2452



Appendix C: Maximum conducted output power

Test Result Peak

Test Mode	Antenna	Frequency[MHz]	Result [dBm]	Limit [dBm]	Verdict
11B	Ant1	2412	13.18	≤30.00	PASS
		2437	13.28	≤30.00	PASS
		2462	13.46	≤30.00	PASS
11G	Ant1	2412	12.31	≤30.00	PASS
		2437	12.42	≤30.00	PASS
		2462	12.65	≤30.00	PASS
11N20SISO	Ant1	2412	12.21	≤30.00	PASS
		2437	12.16	≤30.00	PASS
		2462	12.37	≤30.00	PASS
11N40SISO	Ant1	2422	12.43	≤30.00	PASS
		2437	12.65	≤30.00	PASS
		2452	12.72	≤30.00	PASS
11AX20SISO	Ant1	2412	12.52	≤30.00	PASS
		2437	12.71	≤30.00	PASS
		2462	12.94	≤30.00	PASS
11AX40SISO	Ant1	2422	12.26	≤30.00	PASS
		2437	12.76	≤30.00	PASS
		2452	12.92	≤30.00	PASS

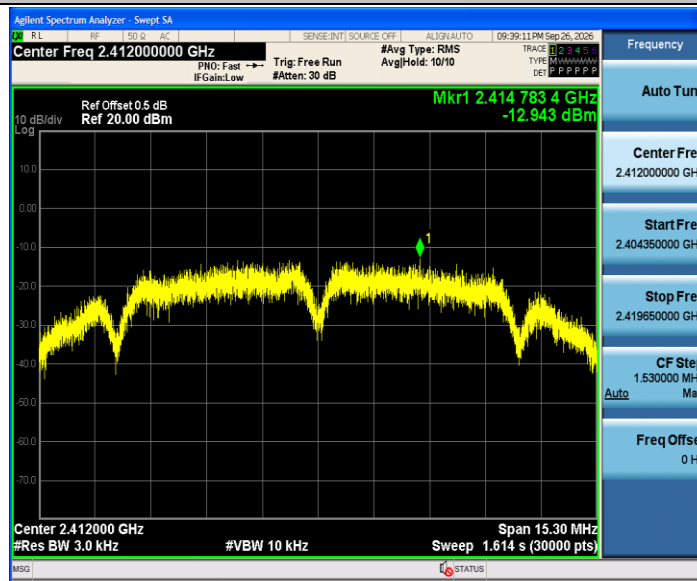
Appendix D: Maximum power spectral density

Test Result

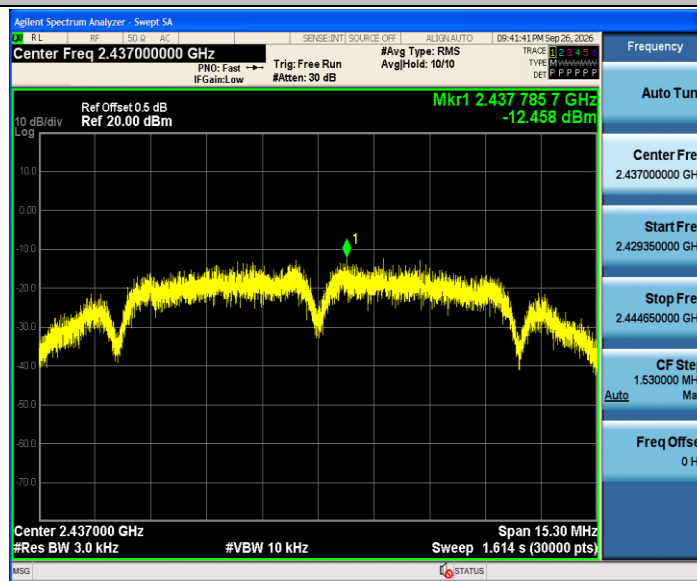
TestMode	Antenna	Frequency[MHz]	Result[dBm/3-100kHz]	Limit[dBm/3kHz]	Verdict
11B	Ant1	2412	-12.94	≤8.00	PASS
		2437	-12.46	≤8.00	PASS
		2462	-12.88	≤8.00	PASS
11G	Ant1	2412	-18.78	≤8.00	PASS
		2437	-18.85	≤8.00	PASS
		2462	-19.55	≤8.00	PASS
11N20SISO	Ant1	2412	-17.55	≤8.00	PASS
		2437	-18.96	≤8.00	PASS
		2462	-18.88	≤8.00	PASS
11N40SISO	Ant1	2422	-22.41	≤8.00	PASS
		2437	-20.77	≤8.00	PASS
		2452	-22.24	≤8.00	PASS
11AX20SISO	Ant1	2412	-20.41	≤8.00	PASS
		2437	-20.81	≤8.00	PASS
		2462	-20.52	≤8.00	PASS
11AX40SISO	Ant1	2422	-22.53	≤8.00	PASS
		2437	-23.22	≤8.00	PASS
		2452	-22.08	≤8.00	PASS

Test Graphs

11B_Ant1_2412



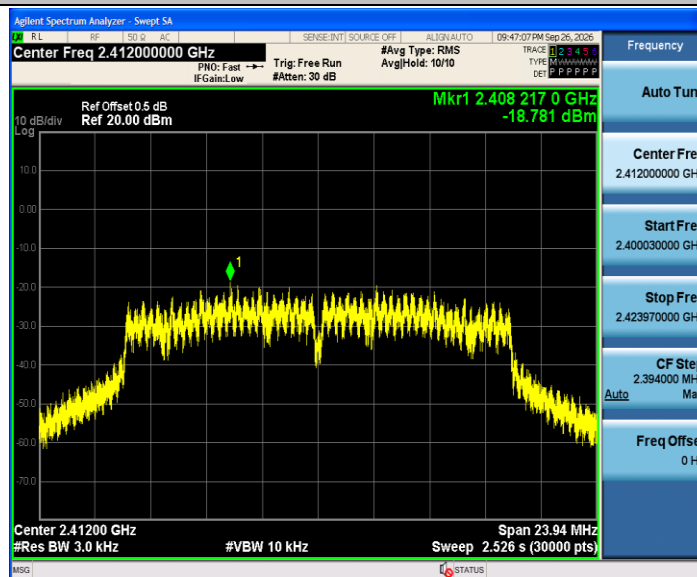
11B_Ant1_2437



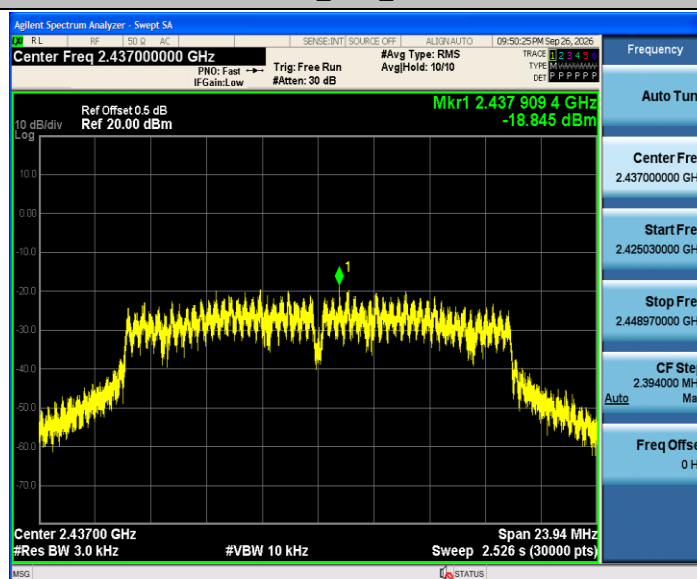
11B_Ant1_2462



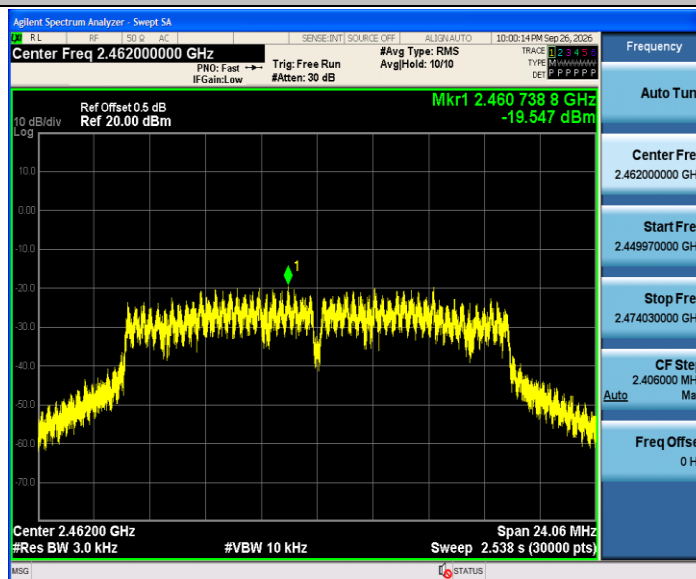
11G_Ant1_2412



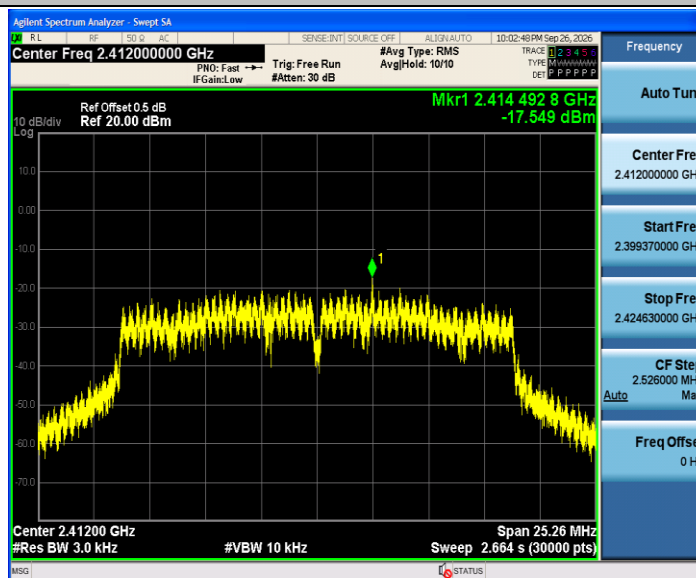
11G_Ant1_2437



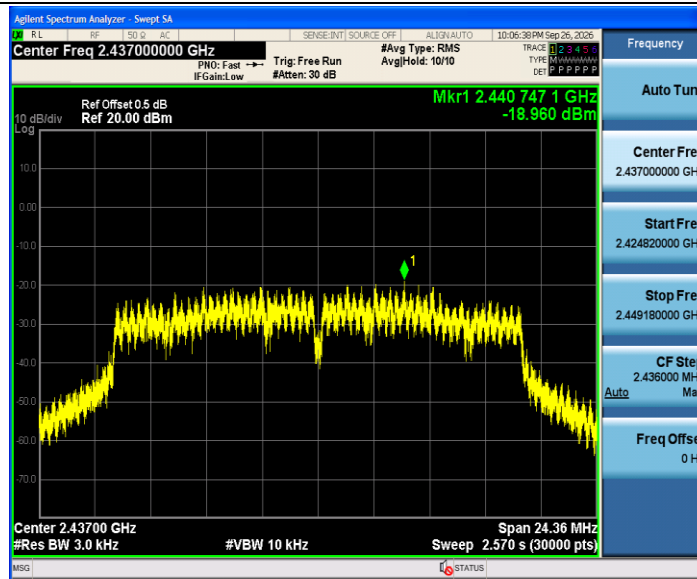
11G_Ant1_2462



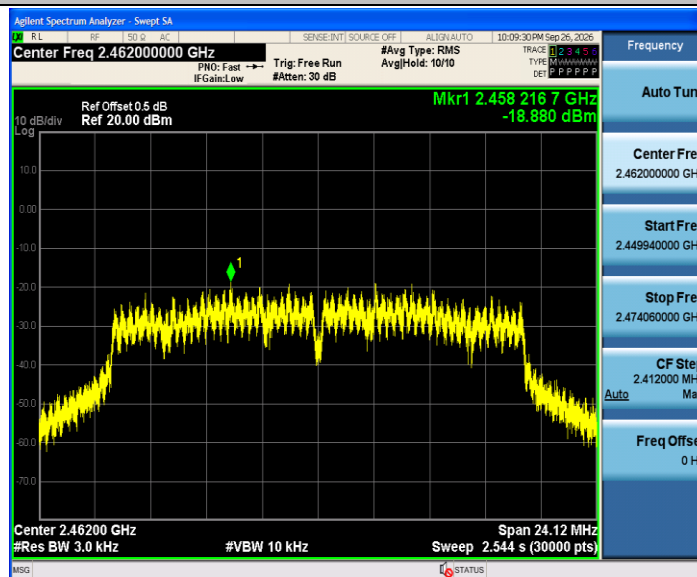
11N20SISO_Ant1_2412



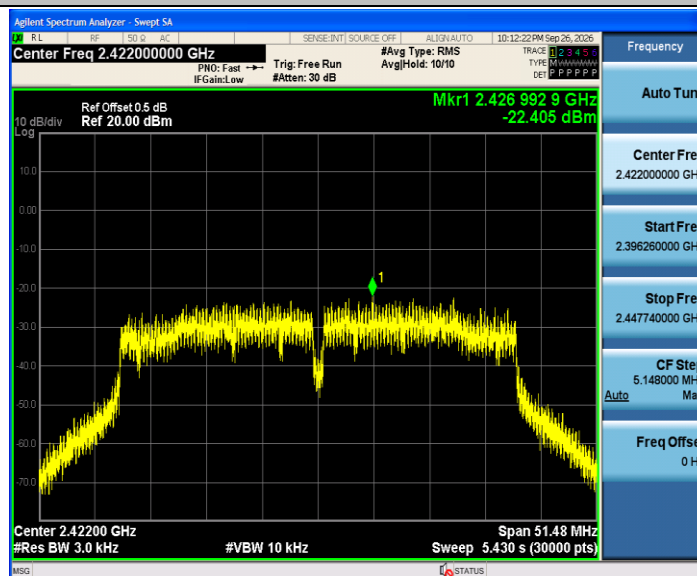
11N20SISO_Ant1_2437



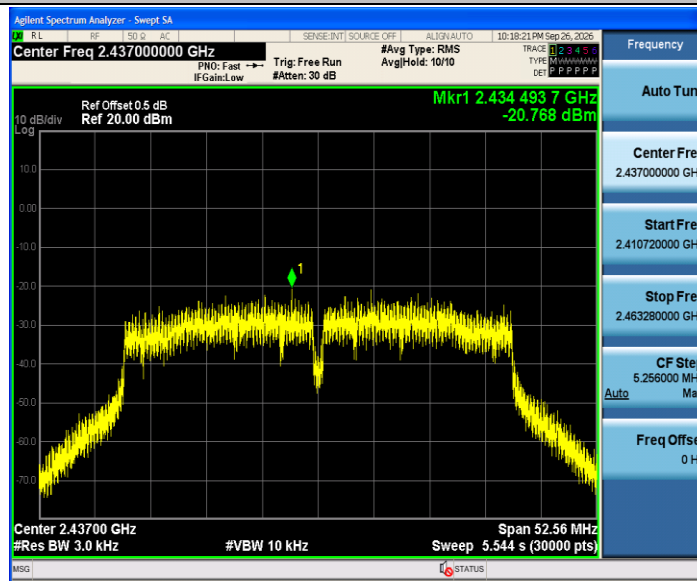
11N20SISO_Ant1_2462



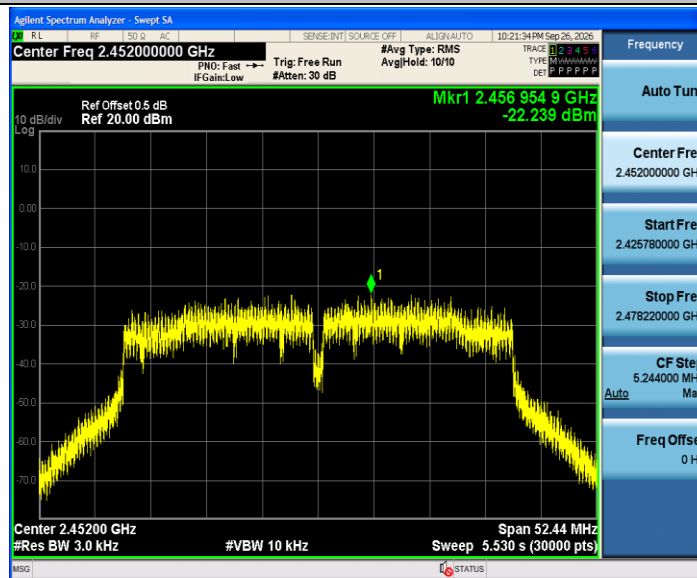
11N40SISO_Ant1_2422



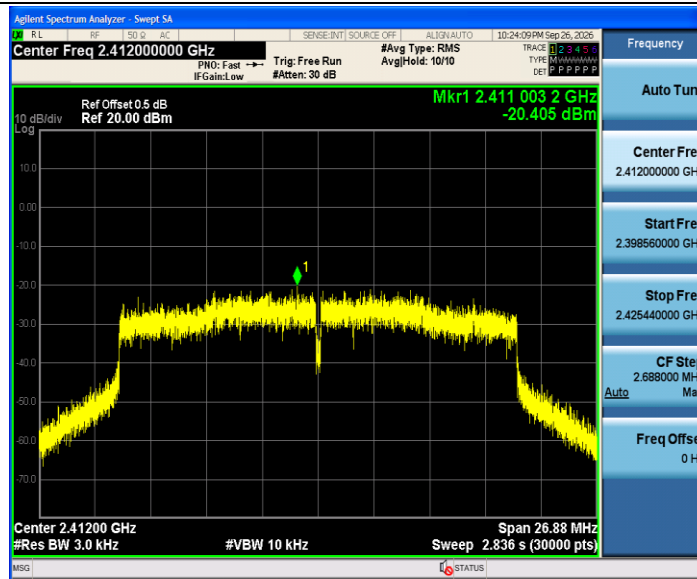
11N40SISO_Ant1_2437



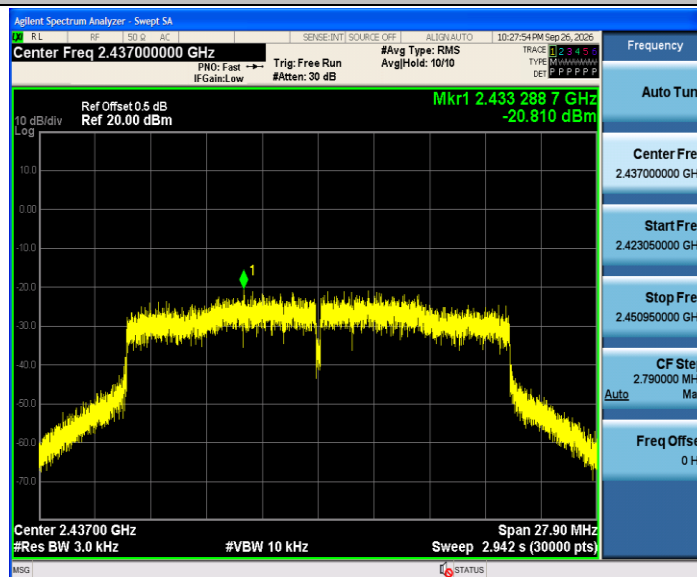
11N40SISO_Ant1_2452



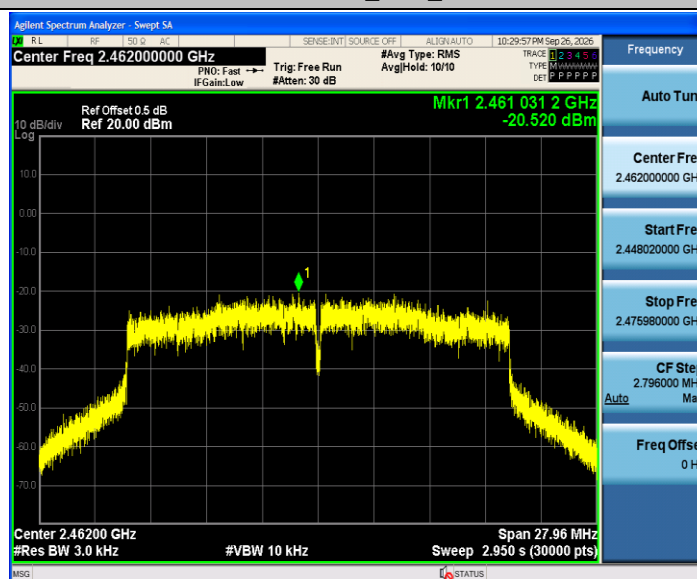
11AX20SISO_Ant1_2412



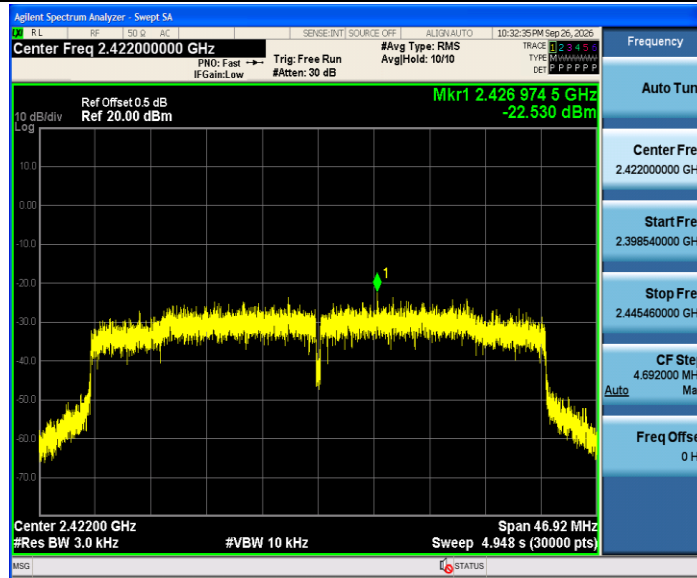
11AX20SISO_Ant1_2437



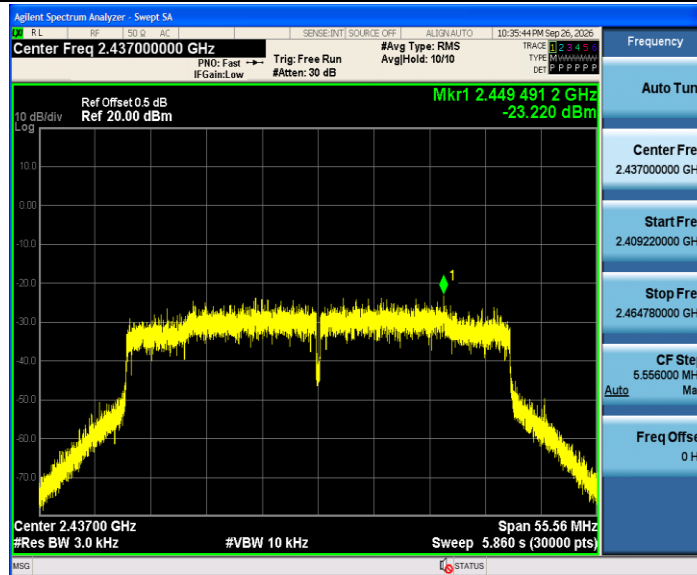
11AX20SISO_Ant1_2462



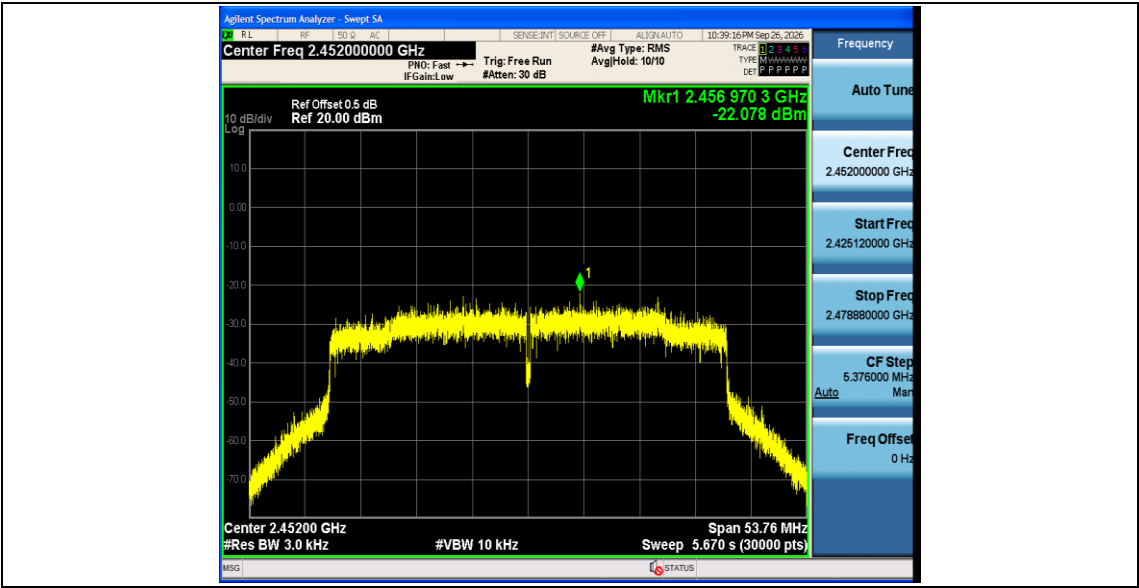
11AX40SISO_Ant1_2422



11AX40SISO_Ant1_2437



11AX40SISO_Ant1_2452



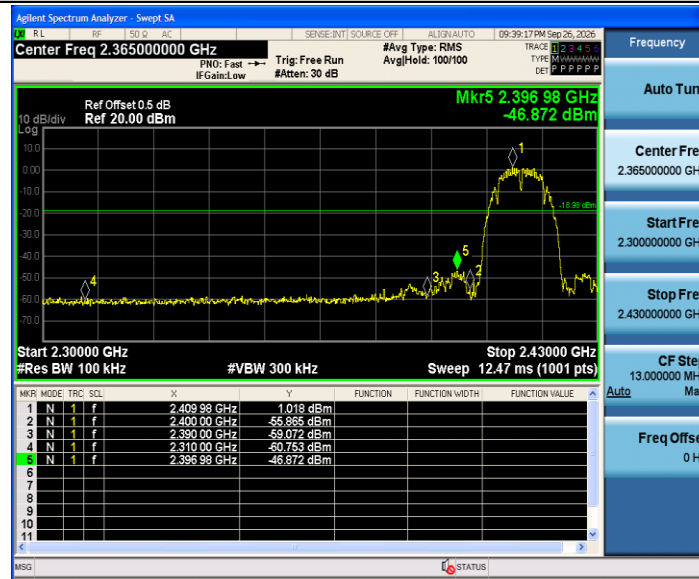
Appendix E: Band edge measurements

Test Result

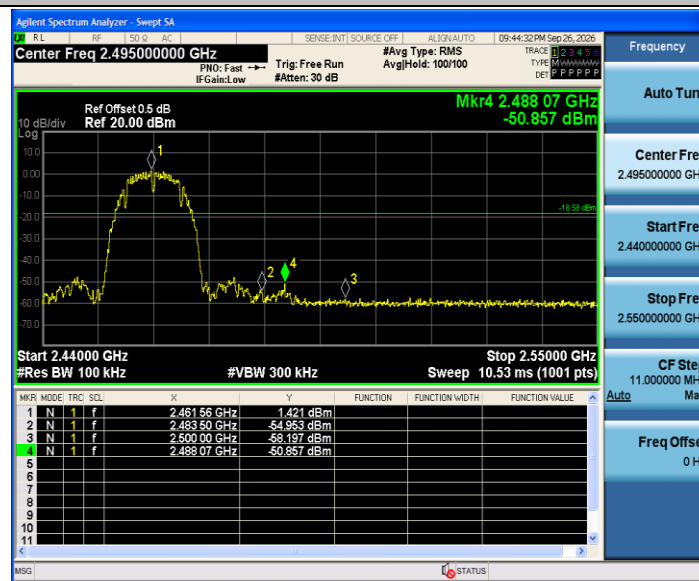
TestMode	Antenna	Channel	Frequency[MHz]	RefLevel[dBm]	Result[dBm]	Limit[dBm]	Verdict
11B	Ant1	Low	2412	1.02	-46.87	≤-18.98	PASS
		High	2462	1.42	-50.86	≤-18.58	PASS
11G	Ant1	Low	2412	-4.17	-33.33	≤-24.17	PASS
		High	2462	-3.96	-57.59	≤-23.96	PASS
11N20SISO	Ant1	Low	2412	-4.45	-35.78	≤-24.45	PASS
		High	2462	-3.80	-57.94	≤-23.8	PASS
11N40SISO	Ant1	Low	2422	-7.31	-35.59	≤-27.31	PASS
		High	2452	-7.15	-57.95	≤-27.15	PASS
11AX20SISO	Ant1	Low	2412	-4.59	-34.46	≤-24.59	PASS
		High	2462	-4.23	-57.83	≤-24.23	PASS
11AX40SISO	Ant1	Low	2422	-7.89	-37.6	≤-27.89	PASS
		High	2452	-7.53	-57.3	≤-27.53	PASS

Test Graphs

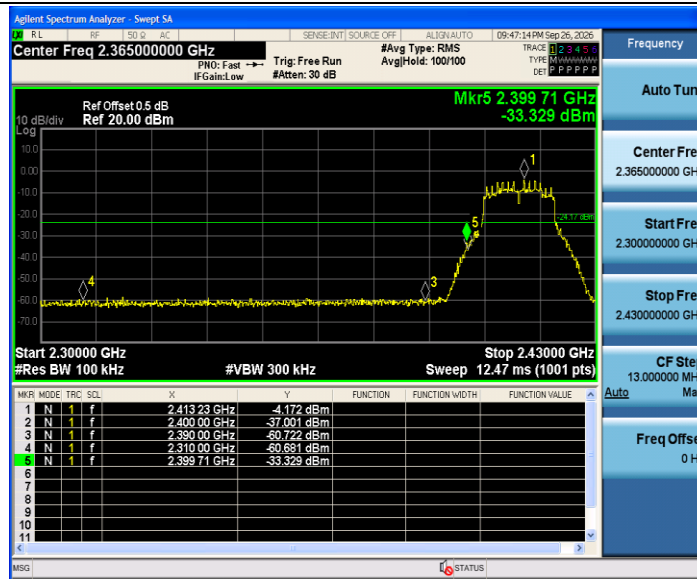
11B_Ant1_Low_2412



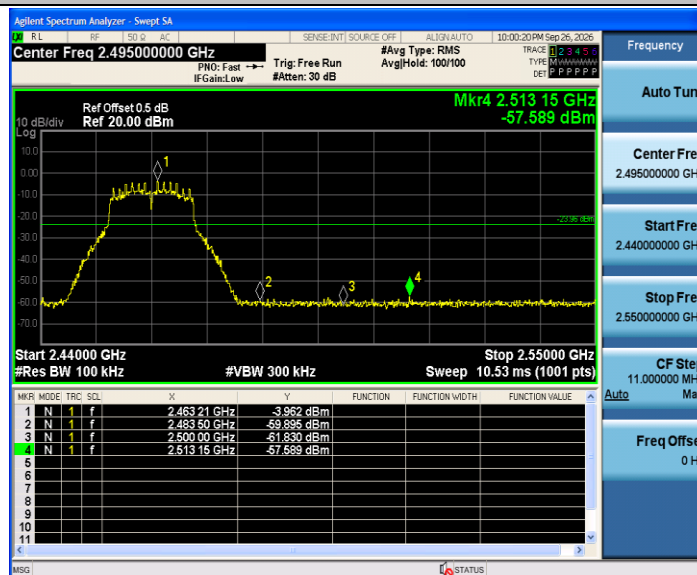
11B_Ant1_High_2462



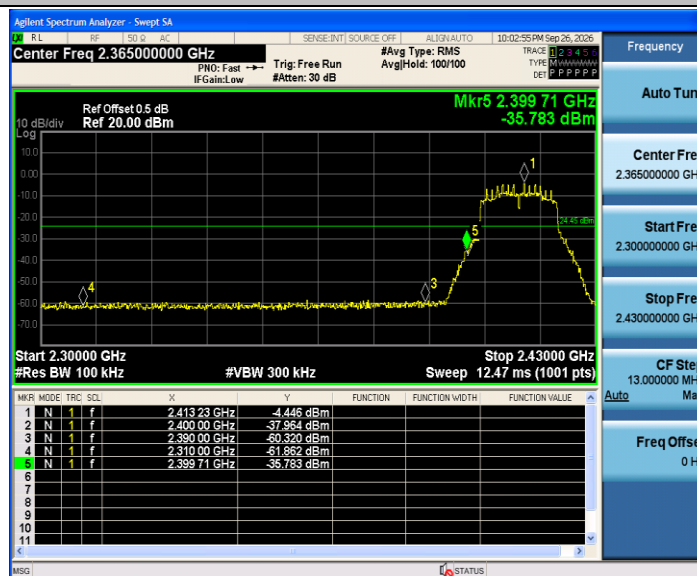
11G_Ant1_Low_2412



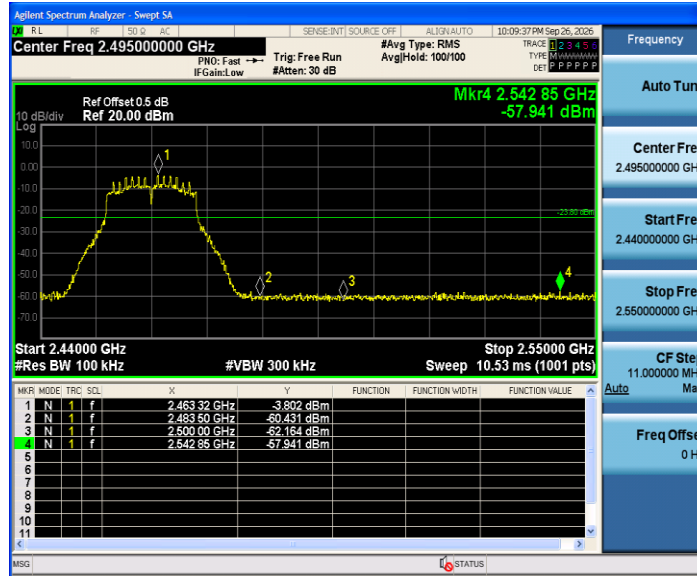
11G_Ant1_High_2462



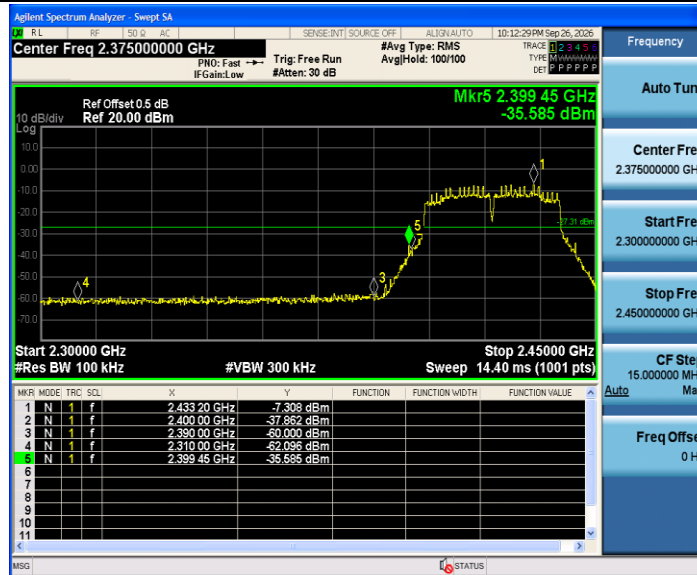
11N20SISO_Ant1_Low_2412



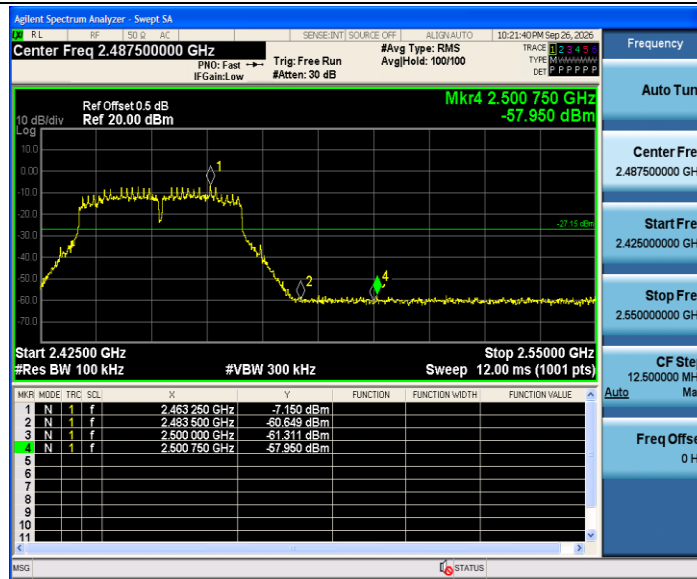
11N20SISO_Ant1_High_2462



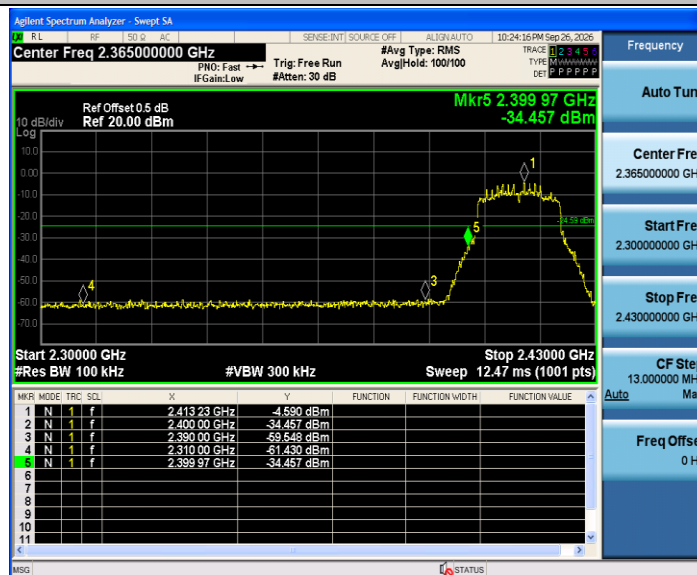
11N40SISO_Ant1_Low_2422



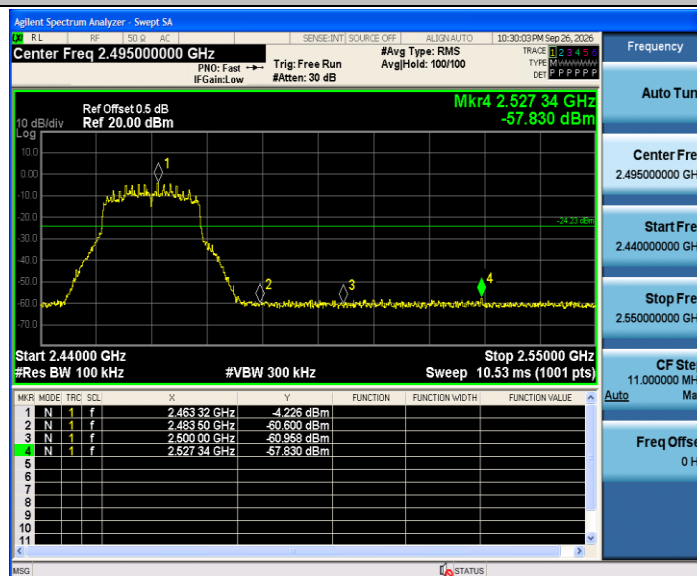
11N40SISO_Ant1_High_2452



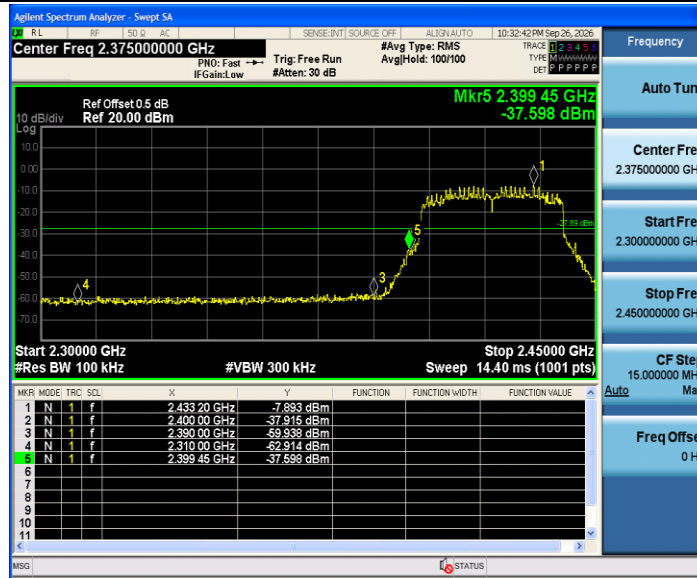
11AX20SISO_Ant1_Low_2412



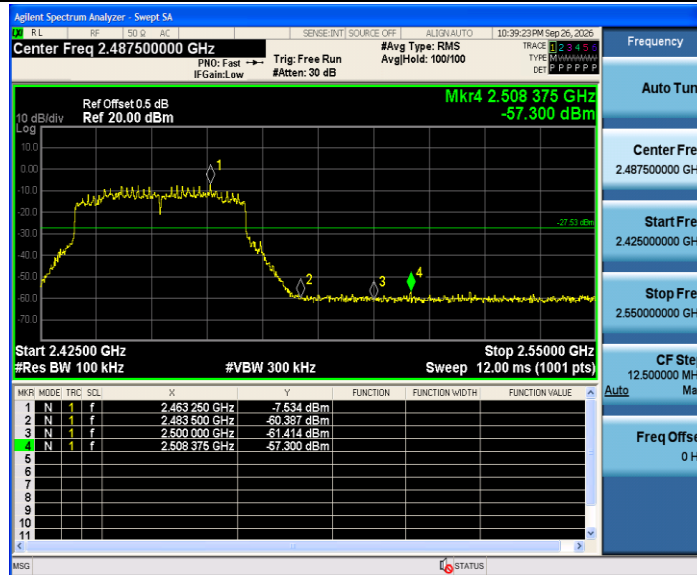
11AX20SISO_Ant1_High_2462



11AX40SISO_Ant1_Low_2422



11AX40SISO_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	-68.9	≤-18.66	PASS
			1000~26500	1.34	-46.33	≤-18.66	PASS
		2437	Reference	1.12	1.12	---	PASS
			30~1000	1.12	-69.35	≤-18.88	PASS
			1000~26500	1.12	-46.86	≤-18.88	PASS
		2462	Reference	0.56	0.56	---	PASS
			30~1000	0.56	-68.91	≤-19.44	PASS
			1000~26500	0.56	-46.4	≤-19.44	PASS
11G	Ant1	2412	Reference	-5.19	-5.19	---	PASS
			30~1000	-5.19	-68.81	≤-25.19	PASS
			1000~26500	-5.19	-46.81	≤-25.19	PASS
		2437	Reference	-4.56	-4.56	---	PASS
			30~1000	-4.56	-69.03	≤-24.56	PASS
			1000~26500	-4.56	-46.39	≤-24.56	PASS
		2462	Reference	-4.12	-4.12	---	PASS
			30~1000	-4.12	-68.6	≤-24.12	PASS
			1000~26500	-4.12	-45.97	≤-24.12	PASS
11N20SISO	Ant1	2412	Reference	-4.30	-4.30	---	PASS
			30~1000	-4.30	-69.08	≤-24.3	PASS
			1000~26500	-4.30	-46.7	≤-24.3	PASS
		2437	Reference	-3.93	-3.93	---	PASS
			30~1000	-3.93	-68.68	≤-23.93	PASS
			1000~26500	-3.93	-46.42	≤-23.93	PASS
		2462	Reference	-4.74	-4.74	---	PASS
			30~1000	-4.74	-69.12	≤-24.74	PASS
			1000~26500	-4.74	-46.42	≤-24.74	PASS
11N40SISO	Ant1	2422	Reference	-8.03	-8.03	---	PASS
			30~1000	-8.03	-69.34	≤-28.03	PASS
			1000~26500	-8.03	-46.1	≤-28.03	PASS
		2437	Reference	-8.02	-8.02	---	PASS
			30~1000	-8.02	-68.8	≤-28.02	PASS
			1000~26500	-8.02	-46.07	≤-28.02	PASS
		2452	Reference	-7.34	-7.34	---	PASS
			30~1000	-7.34	-68.78	≤-27.34	PASS
			1000~26500	-7.34	-46.17	≤-27.34	PASS
11AX20SISO	Ant1	2412	Reference	-4.72	-4.72	---	PASS

			30~1000	-4.72	-68.5	≤-24.72	PASS
			1000~26500	-4.72	-46.51	≤-24.72	PASS
		2437	Reference	-5.56	-5.56	---	PASS
			30~1000	-5.56	-68.96	≤-25.56	PASS
			1000~26500	-5.56	-46.24	≤-25.56	PASS
		2462	Reference	-6.23	-6.23	---	PASS
			30~1000	-6.23	-68.52	≤-26.23	PASS
			1000~26500	-6.23	-46.86	≤-26.23	PASS
11AX40SISO	Ant1	2422	Reference	-7.89	-7.89	---	PASS
			30~1000	-7.89	-68.93	≤-27.89	PASS
			1000~26500	-7.89	-46.57	≤-27.89	PASS
		2437	Reference	-8.15	-8.15	---	PASS
			30~1000	-8.15	-68.99	≤-28.15	PASS
			1000~26500	-8.15	-46.33	≤-28.15	PASS
		2452	Reference	-7.95	-7.95	---	PASS
			30~1000	-7.95	-65.99	≤-27.95	PASS
			1000~26500	-7.95	-46.3	≤-27.95	PASS