

Appendix RF Test Data for 2.4GWIFI

FCC ID : 2BVLR-AIC-K156

Company : Shanghai AICSHTER Intelligent Technology Co.,Ltd.

EUT : Rugged Notebook computer

Model Number : AIC-K156

Report No. : CTA25061701002

Reviewed By : Eric Wang

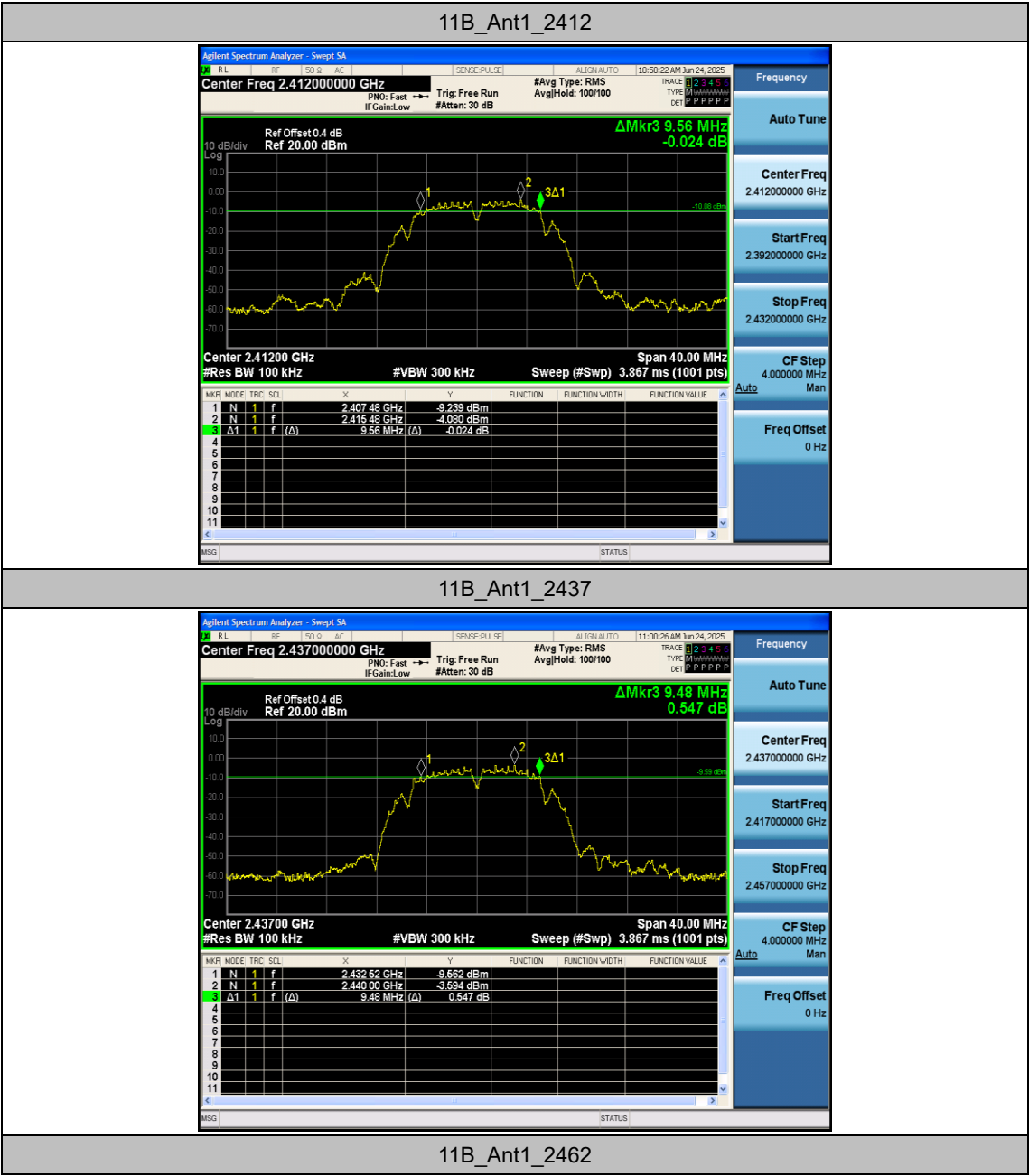
Appendix RF Test Data for 2.4GWIFI ANT1

Appendix A: DTS Bandwidth

Test Result

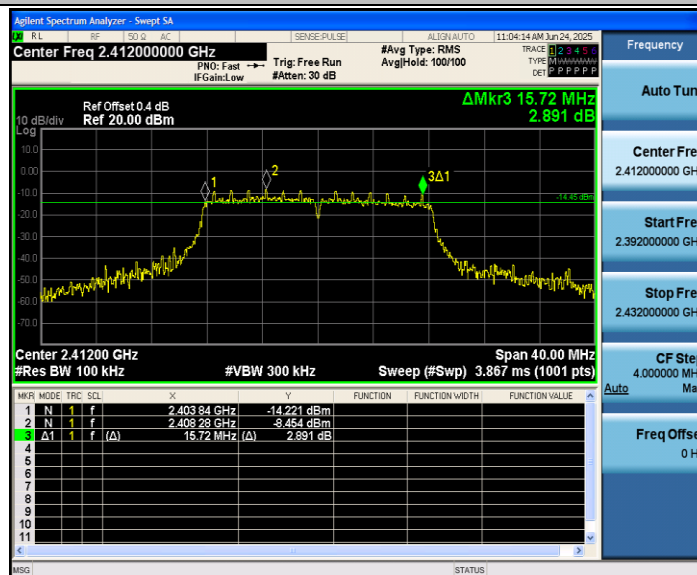
TestMode	Antenna	Frequency[MHz]	DTS BW [MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
11B	Ant1	2412	9.560	2407.480	2417.040	0.5	PASS
		2437	9.480	2432.520	2442.000	0.5	PASS
		2462	9.560	2457.440	2467.000	0.5	PASS
11G	Ant1	2412	15.720	2403.840	2419.560	0.5	PASS
		2437	15.720	2429.440	2445.160	0.5	PASS
		2462	15.720	2453.840	2469.560	0.5	PASS
11N20SISO	Ant1	2412	16.000	2403.680	2419.680	0.5	PASS
		2437	16.200	2429.440	2445.640	0.5	PASS
		2462	16.160	2453.400	2469.560	0.5	PASS
11N40SISO	Ant1	2422	36.000	2404.080	2440.080	0.5	PASS
		2437	35.120	2419.480	2454.600	0.5	PASS
		2452	30.080	2434.480	2464.560	0.5	PASS
11AX20SISO	Ant1	2412	16.240	2403.400	2419.640	0.5	PASS
		2437	15.880	2429.440	2445.320	0.5	PASS
		2462	16.200	2453.360	2469.560	0.5	PASS
11AX40SISO	Ant1	2422	35.920	2404.160	2440.080	0.5	PASS
		2437	35.120	2419.480	2454.600	0.5	PASS
		2452	30.080	2434.480	2464.560	0.5	PASS

Test Graphs

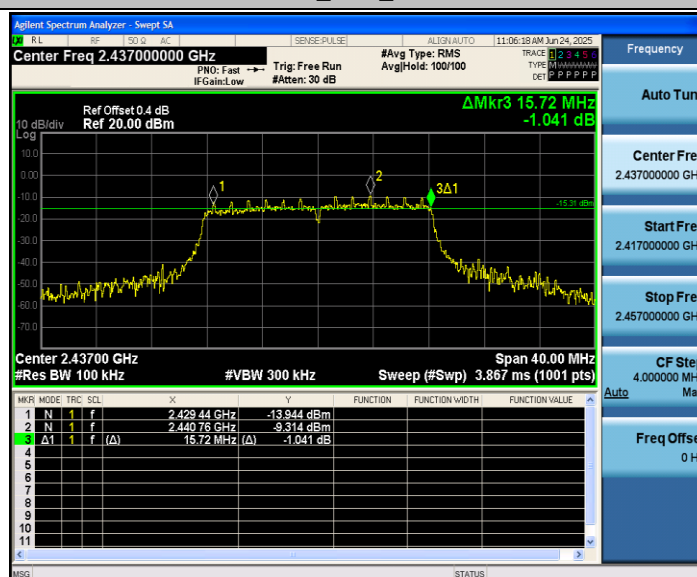




11G_Ant1_2412



11G_Ant1_2437



11G_Ant1_2462



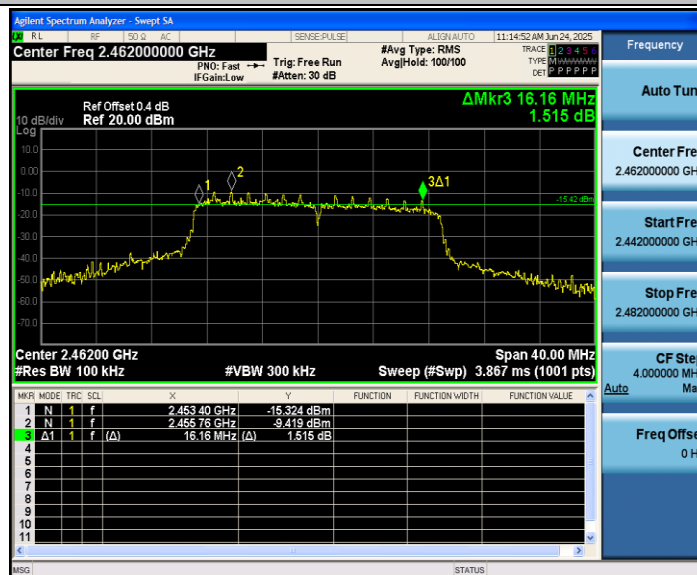
11N20SISO_Ant1_2412



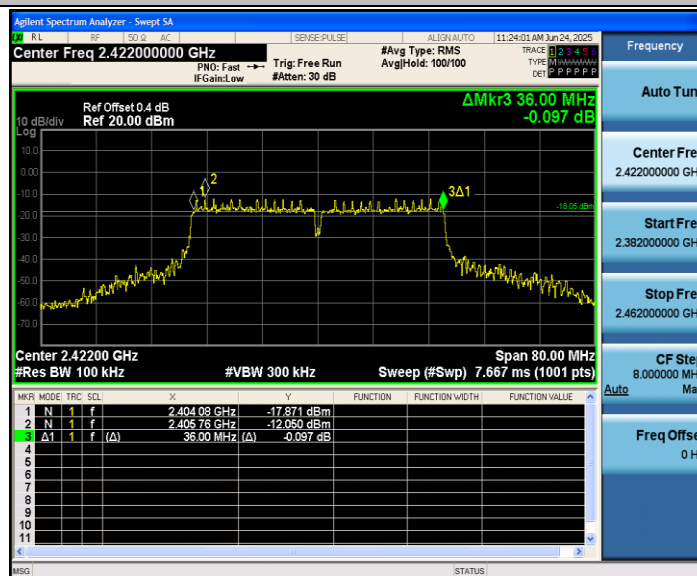
11N20SISO_Ant1_2437



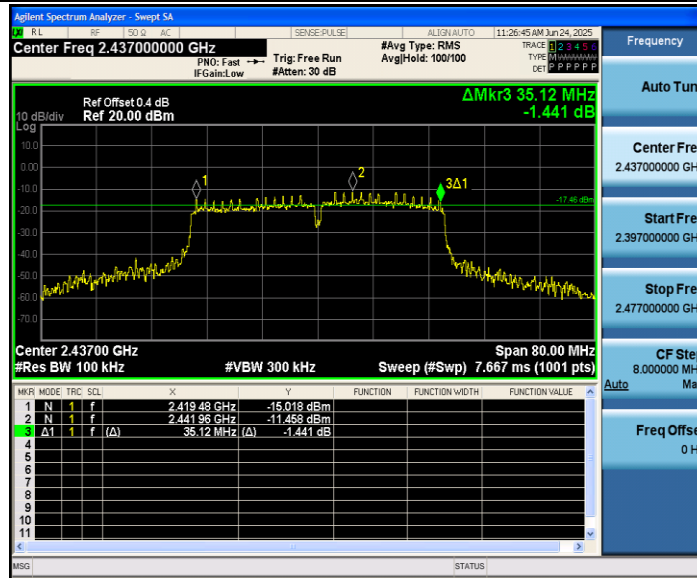
11N20SISO_Ant1_2462



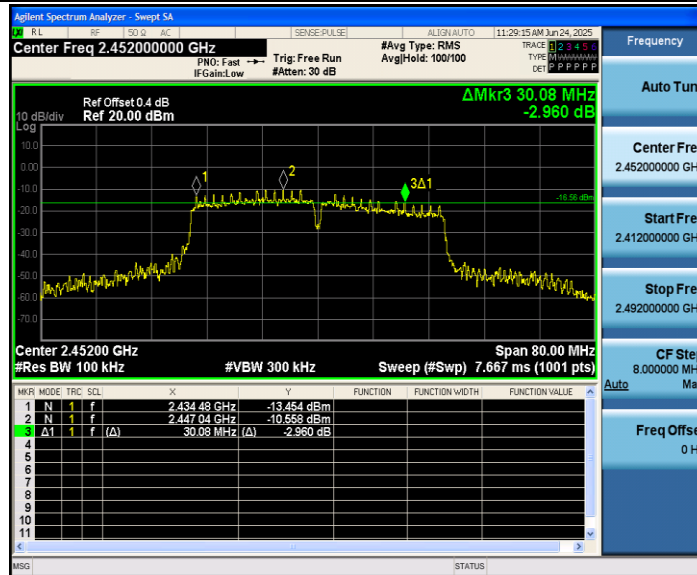
11N40SISO_Ant1_2422



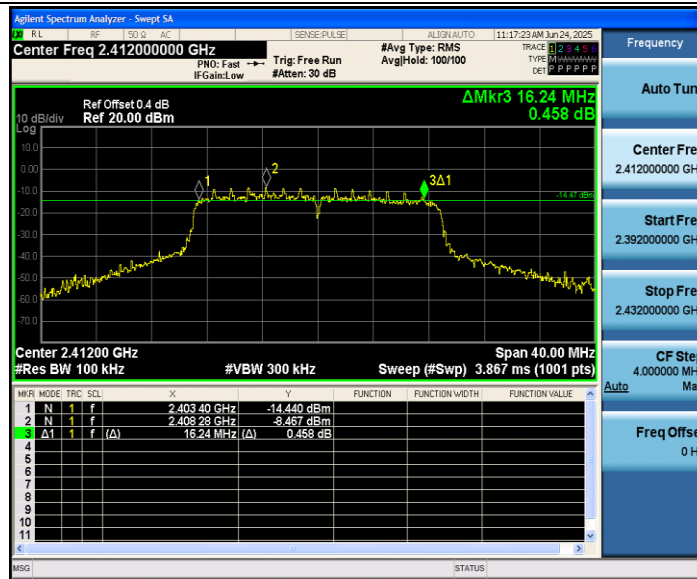
11N40SISO_Ant1_2437



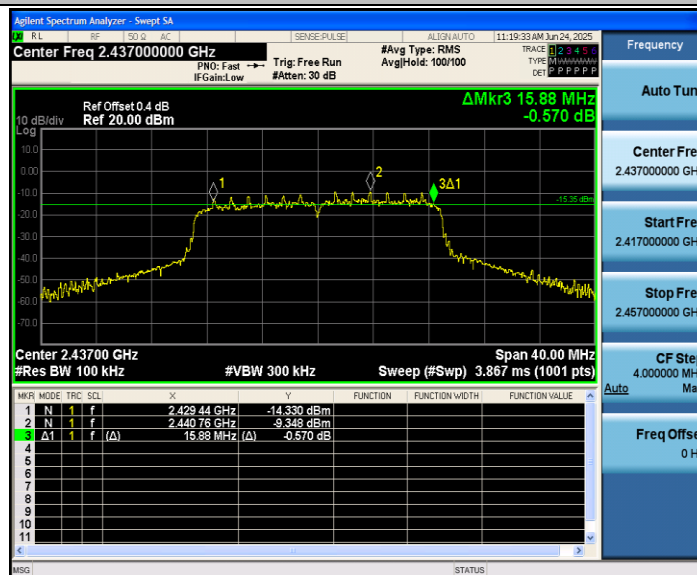
11N40SISO_Ant1_2452



11AX20SISO_Ant1_2412



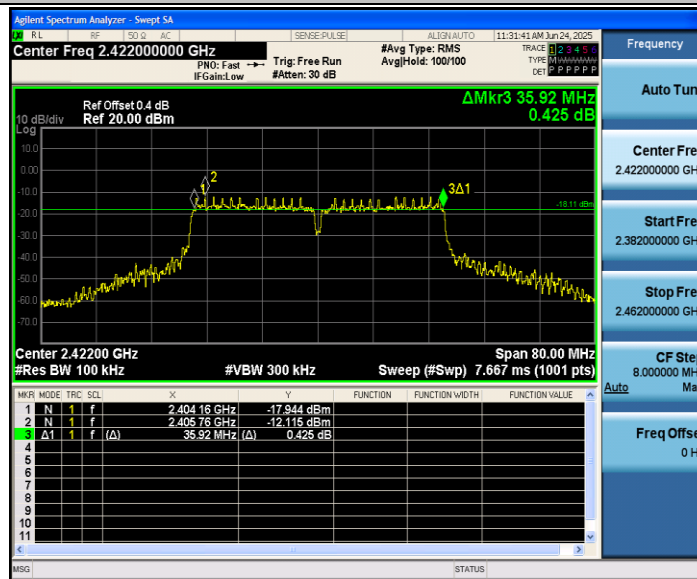
11AX20SISO_Ant1_2437



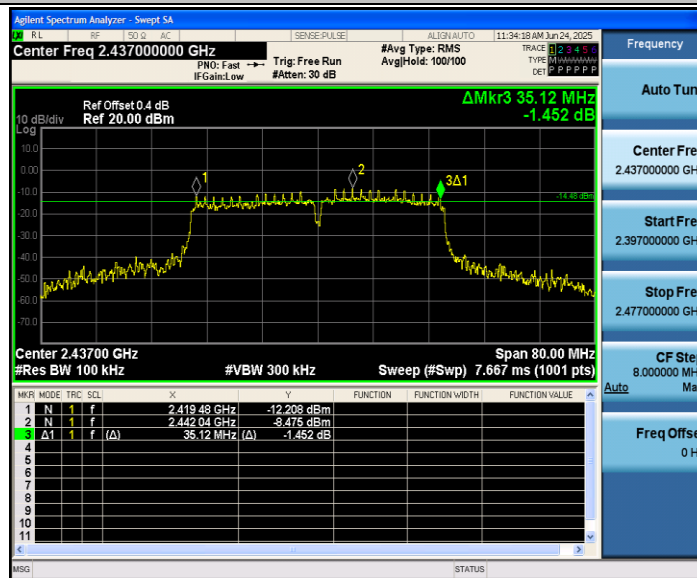
11AX20SISO_Ant1_2462



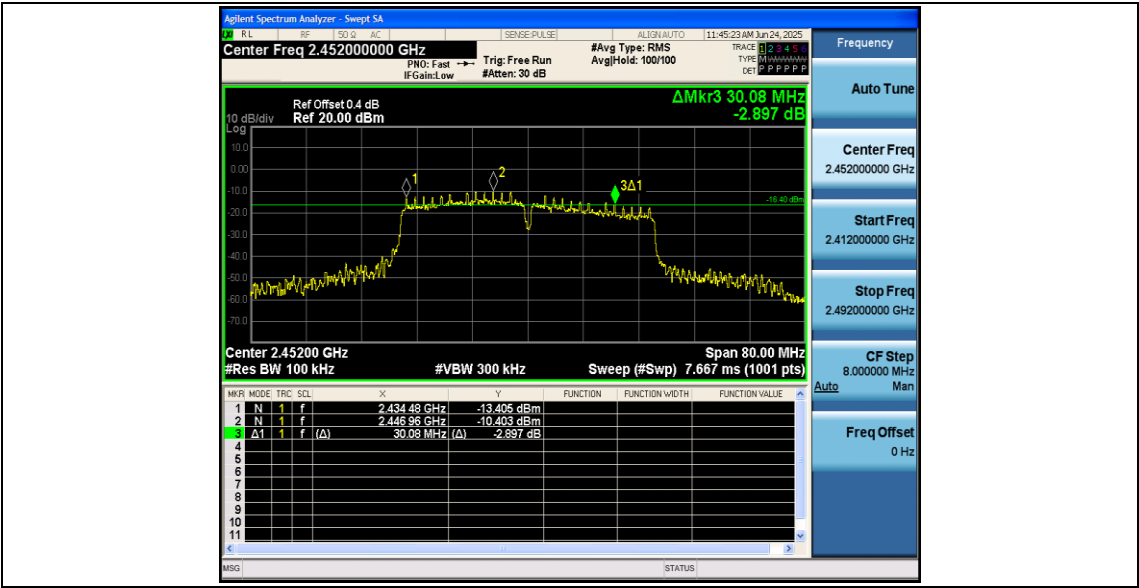
11AX40SISO_Ant1_2422



11AX40SISO_Ant1_2437



11AX40SISO_Ant1_2452



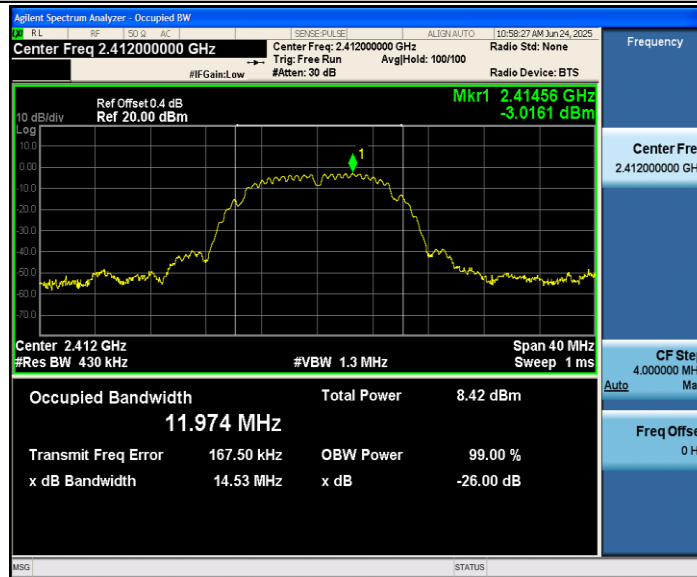
Appendix B: Occupied Channel Bandwidth

Test Result

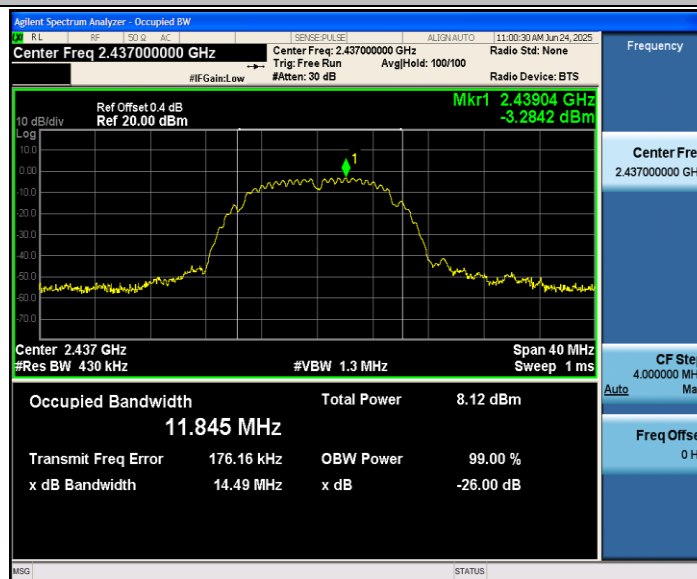
TestMode	Antenna	Channel Frequency[MHz]	OCB [MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
11B	Ant1	2412	11.974	2406.1805	2418.1545	---	---
		2437	11.845	2431.2537	2443.0987	---	---
		2462	12.022	2456.1150	2468.1370	---	---
11G	Ant1	2412	16.612	2403.6732	2420.2852	---	---
		2437	16.632	2428.8232	2445.4552	---	---
		2462	16.769	2453.4736	2470.2426	---	---
11N20SISO	Ant1	2412	17.637	2403.1904	2420.8274	---	---
		2437	17.606	2428.3282	2445.9342	---	---
		2462	17.812	2452.9356	2470.7476	---	---
11N40SISO	Ant1	2422	36.463	2403.9034	2440.3664	---	---
		2437	35.946	2419.1100	2455.0560	---	---
		2452	35.857	2433.8854	2469.7424	---	---
11AX20SISO	Ant1	2412	17.598	2403.1964	2420.7944	---	---
		2437	17.636	2428.3340	2445.9700	---	---
		2462	17.868	2452.8947	2470.7627	---	---
11AX40SISO	Ant1	2422	36.453	2403.9011	2440.3541	---	---
		2437	35.971	2419.1012	2455.0722	---	---
		2452	35.779	2433.9798	2469.7588	---	---

Test Graphs

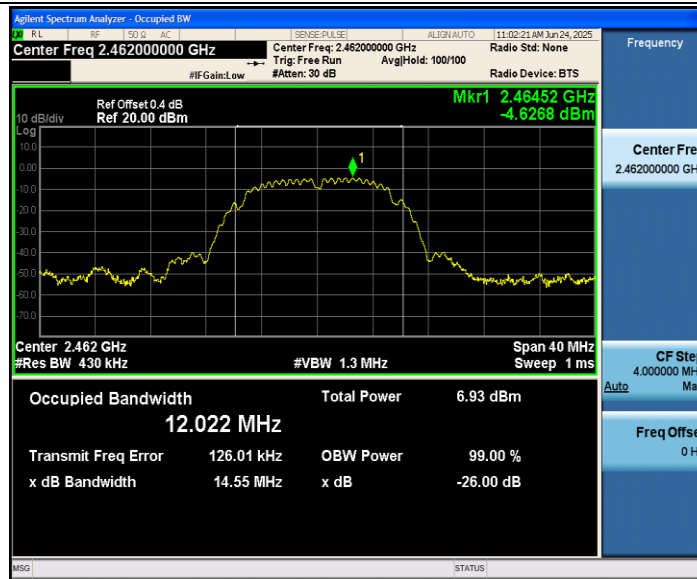
11B_Ant1_2412



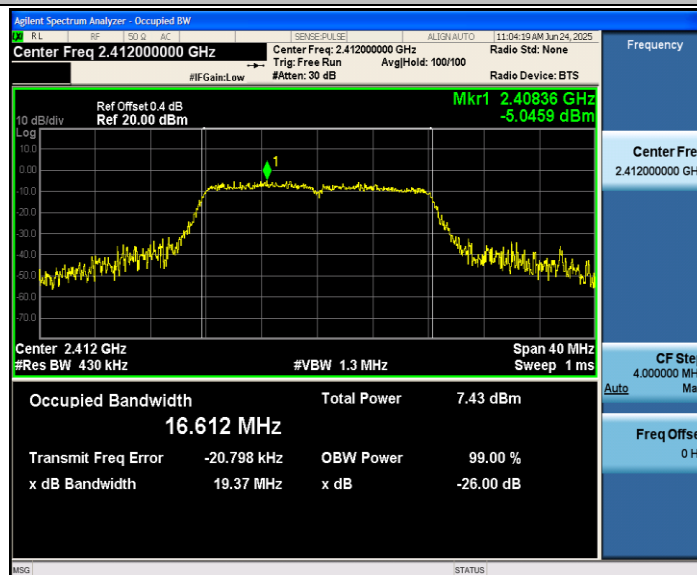
11B_Ant1_2437



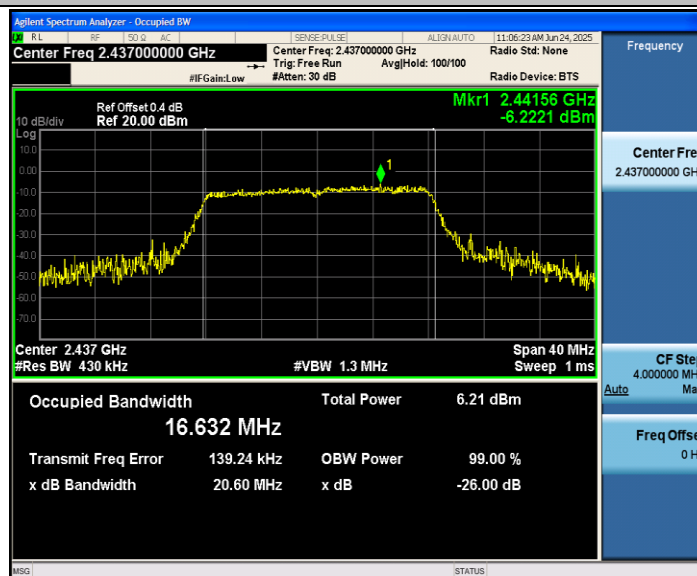
11B_Ant1_2462



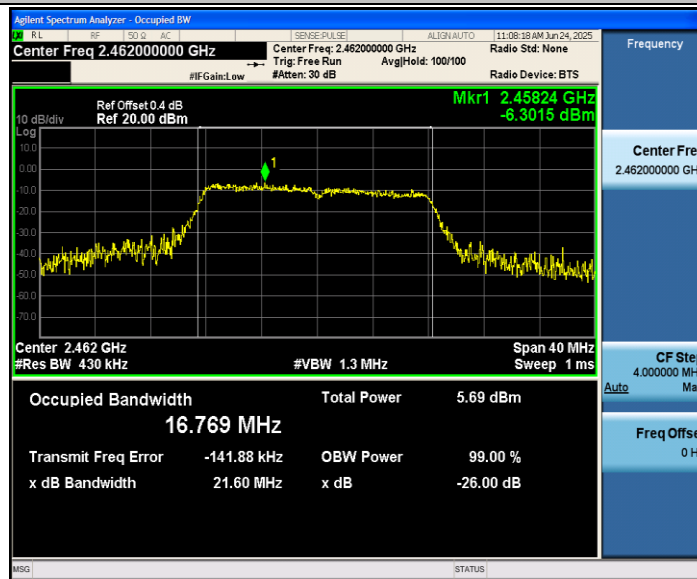
11G_Ant1_2412



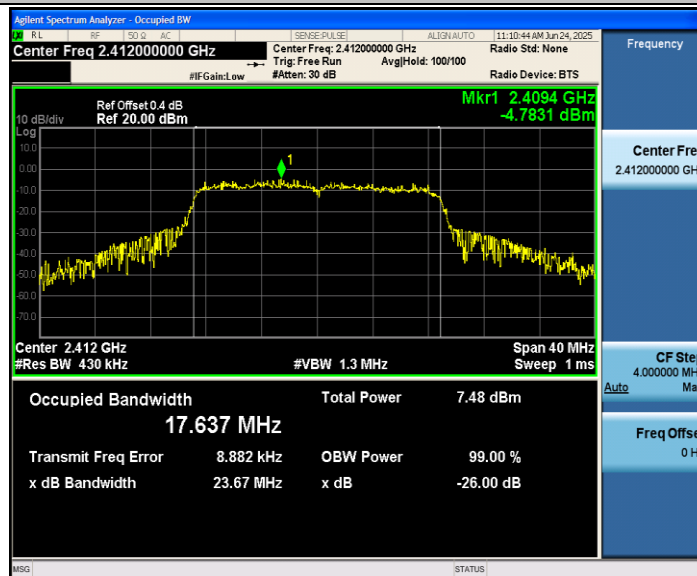
11G_Ant1_2437



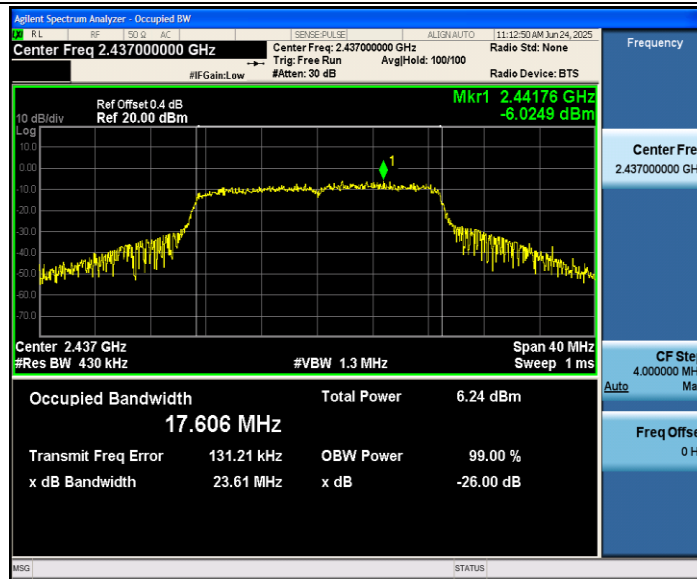
11G_Ant1_2462



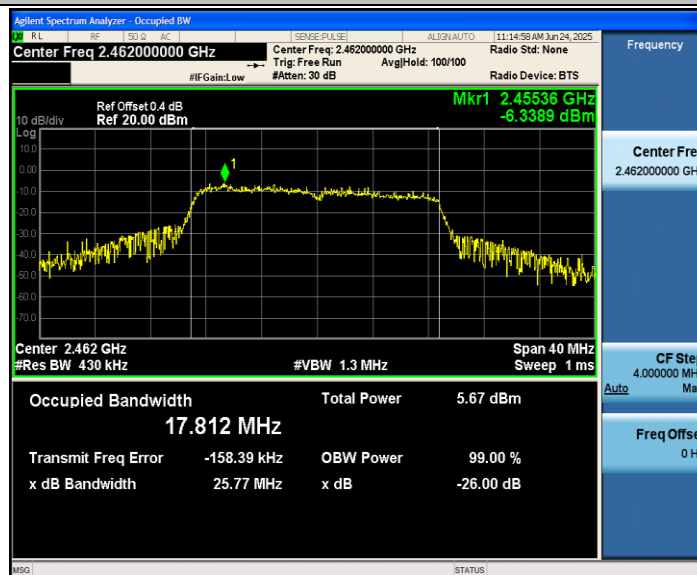
11N20SISO_Ant1_2412



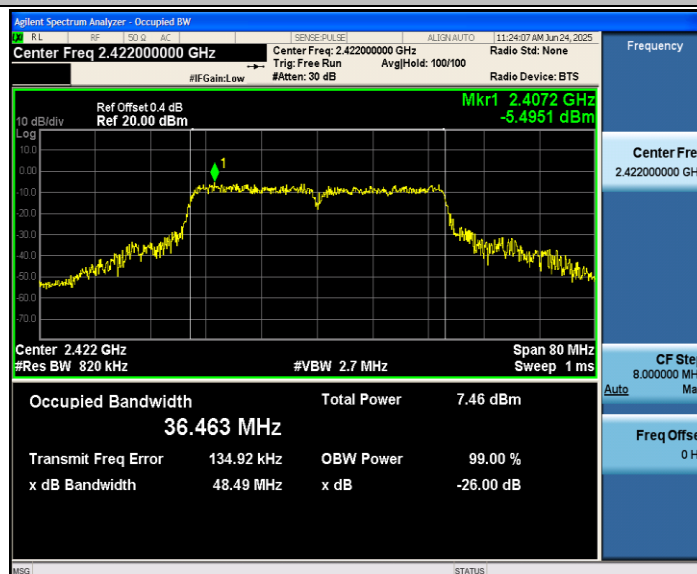
11N20SISO_Ant1_2437



11N20SISO_Ant1_2462

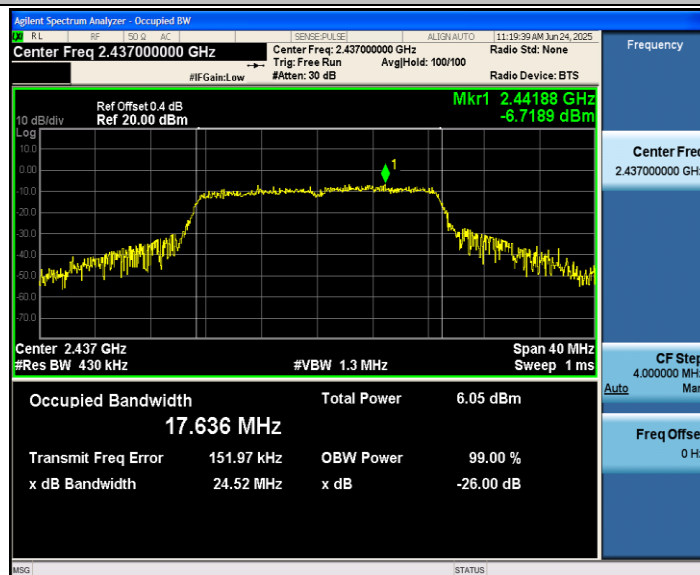


11N40SISO_Ant1_2422

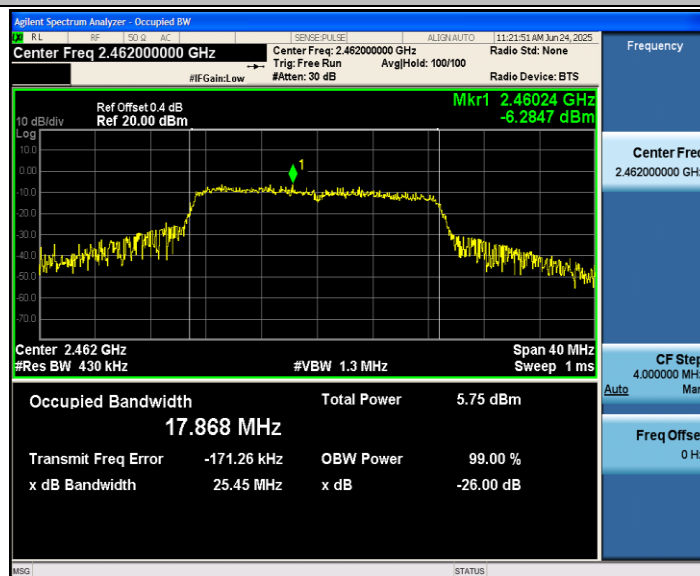




11AX20ISO_Ant1_2437



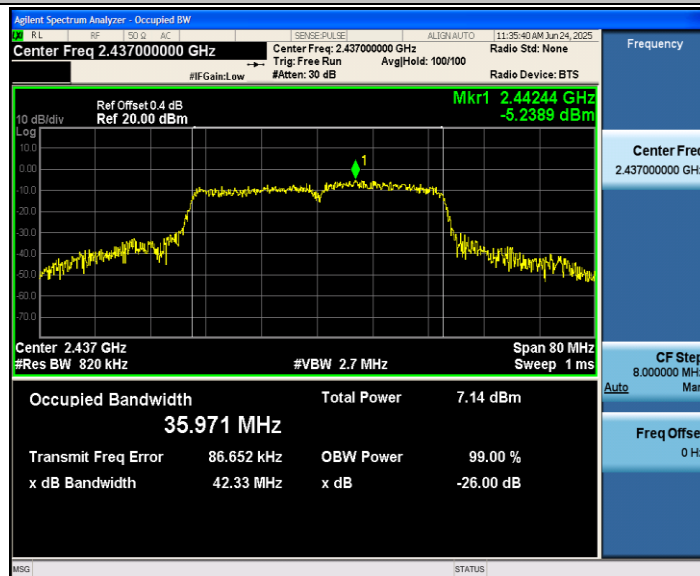
11AX20ISO_Ant1_2462



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	6.3	≤30.00	PASS
		2437	6.03	≤30.00	PASS
		2462	6.22	≤30.00	PASS
11G	Ant1	2412	6.19	≤30.00	PASS
		2437	6.37	≤30.00	PASS
		2462	6.32	≤30.00	PASS
11N20SISO	Ant1	2412	6.1	≤30.00	PASS
		2437	5.79	≤30.00	PASS
		2462	5.2	≤30.00	PASS
11N40SISO	Ant1	2422	5.57	≤30.00	PASS
		2437	5.22	≤30.00	PASS
		2452	5.24	≤30.00	PASS
11AX20SISO	Ant1	2412	5.02	≤30.00	PASS
		2437	5.68	≤30.00	PASS
		2462	5.36	≤30.00	PASS
11AX40SISO	Ant1	2422	5.5	≤30.00	PASS
		2437	5.31	≤30.00	PASS
		2452	5.33	≤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	-17.95	≤8.00	PASS
		2437	-17.42	≤8.00	PASS
		2462	-19.79	≤8.00	PASS
11G	Ant1	2412	-24.06	≤8.00	PASS
		2437	-25.23	≤8.00	PASS
		2462	-24.66	≤8.00	PASS
11N20SISO	Ant1	2412	-23.40	≤8.00	PASS
		2437	-24.32	≤8.00	PASS
		2462	-23.56	≤8.00	PASS
11N40SISO	Ant1	2422	-27.00	≤8.00	PASS
		2437	-26.36	≤8.00	PASS
		2452	-25.16	≤8.00	PASS
11AX20SISO	Ant1	2412	-23.52	≤8.00	PASS
		2437	-24.47	≤8.00	PASS
		2462	-25.25	≤8.00	PASS
11AX40SISO	Ant1	2422	-25.92	≤8.00	PASS
		2437	-26.20	≤8.00	PASS
		2452	-24.38	≤8.00	PASS

Test Graphs

11B_Ant1_2412



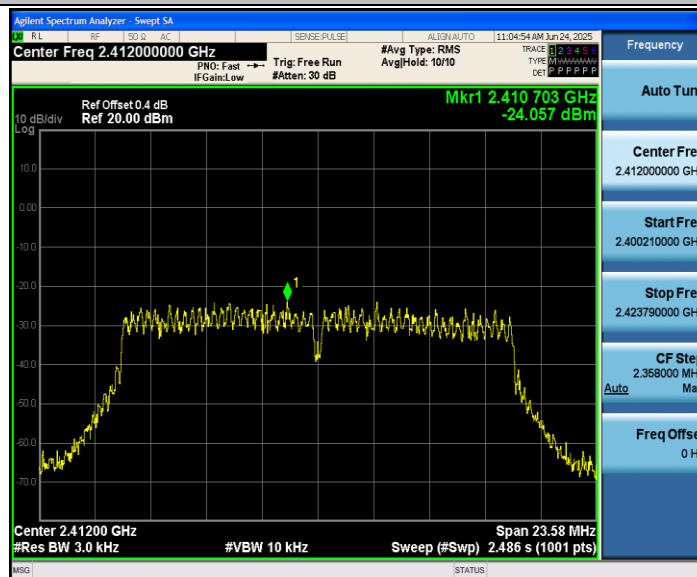
11B_Ant1_2437



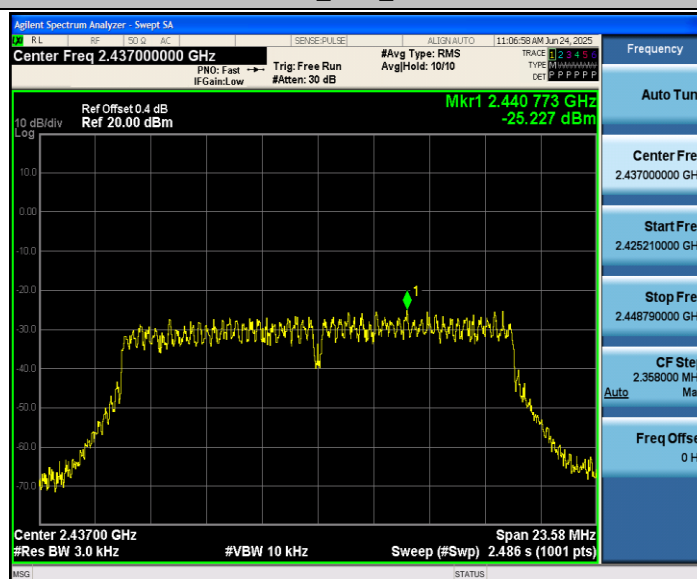
11B_Ant1_2462



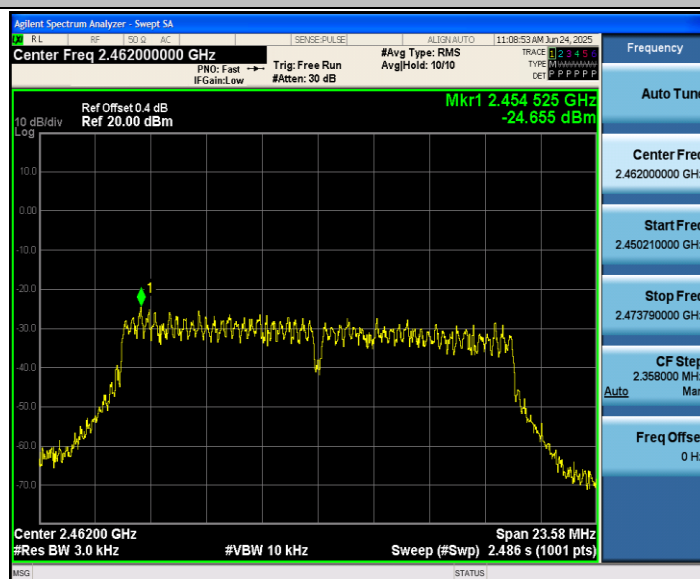
11G_Ant1_2412



11G_Ant1_2437



11G_Ant1_2462



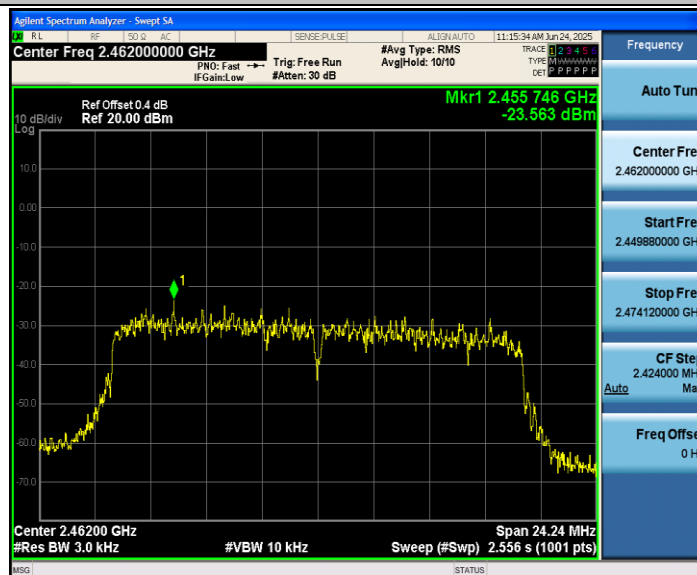
11N20SISO_Ant1_2412



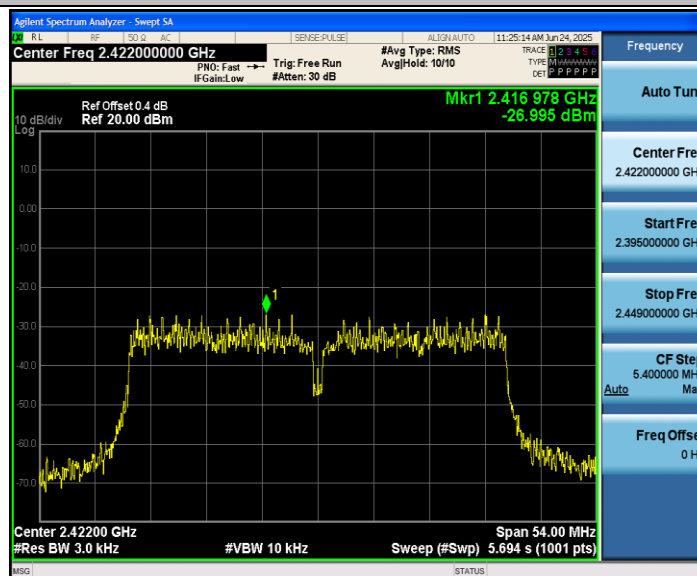
11N20SISO_Ant1_2437



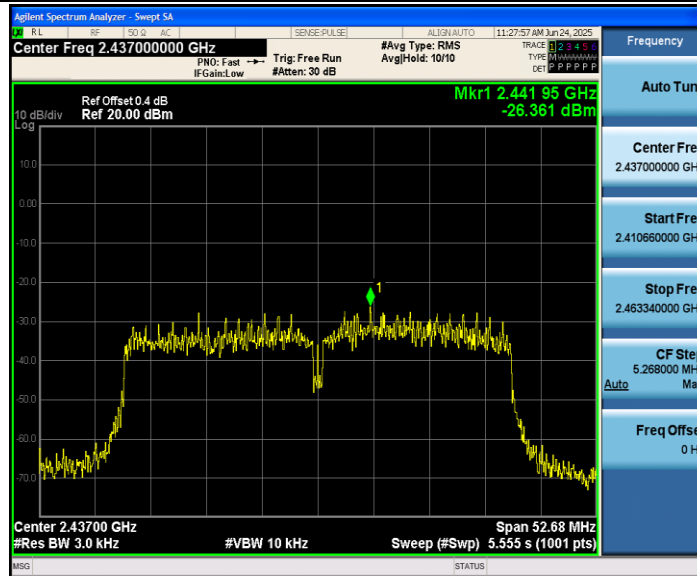
11N20SISO_Ant1_2462



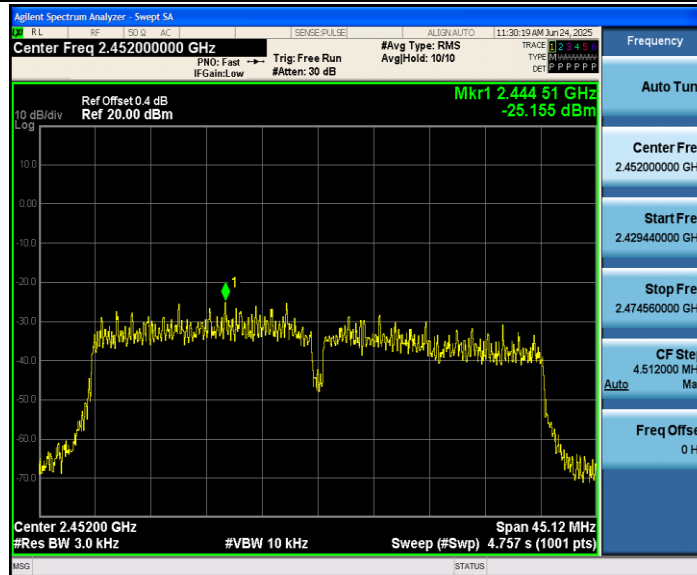
11N40SISO_Ant1_2422



11N40SISO_Ant1_2437



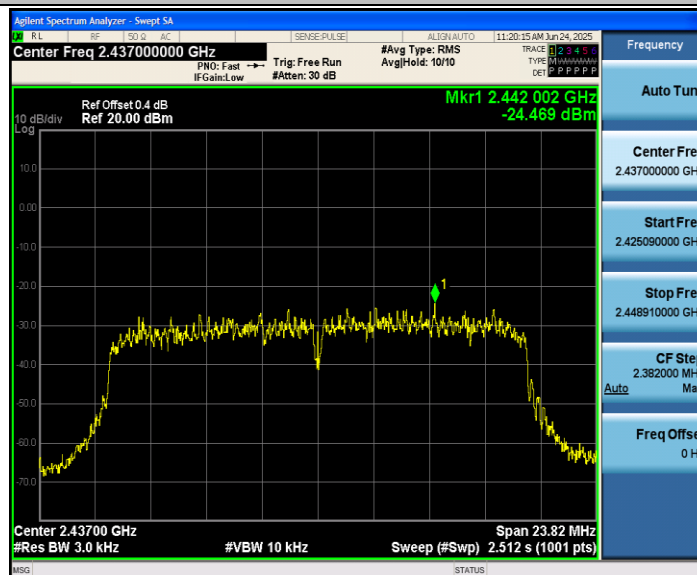
11N40SISO_Ant1_2452



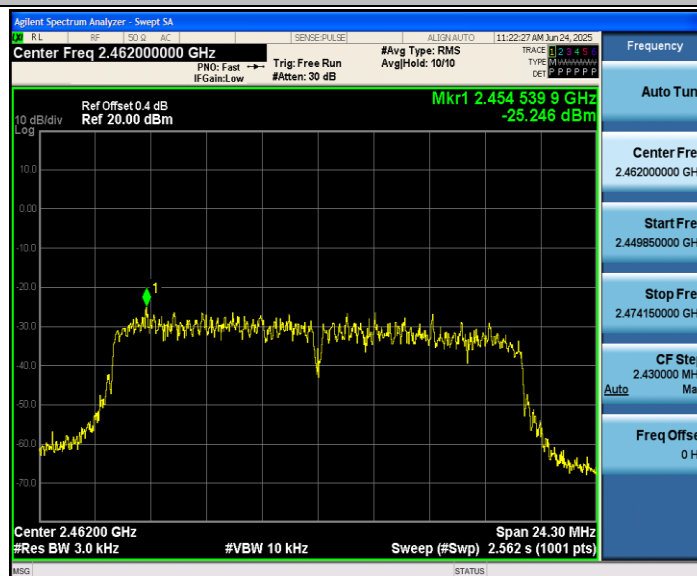
11AX20SISO_Ant1_2412



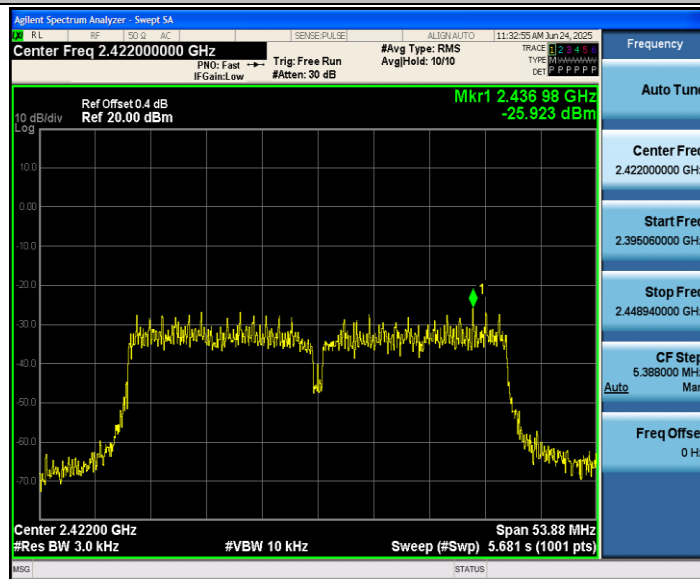
11AX20SISO_Ant1_2437



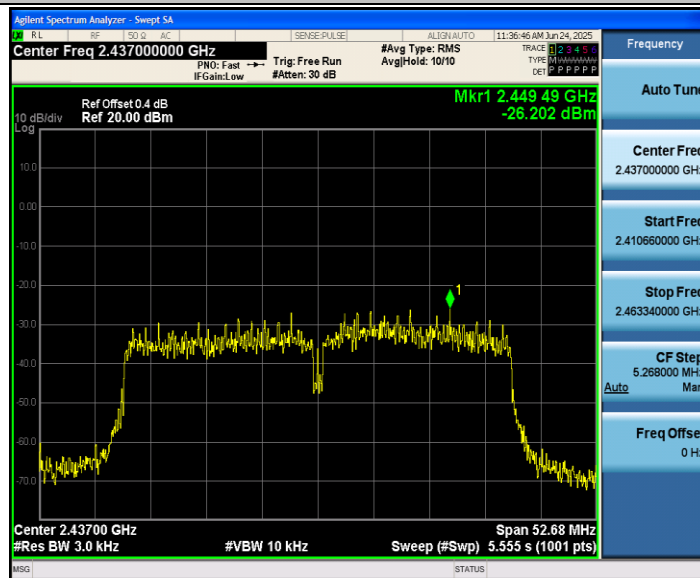
11AX20SISO_Ant1_2462



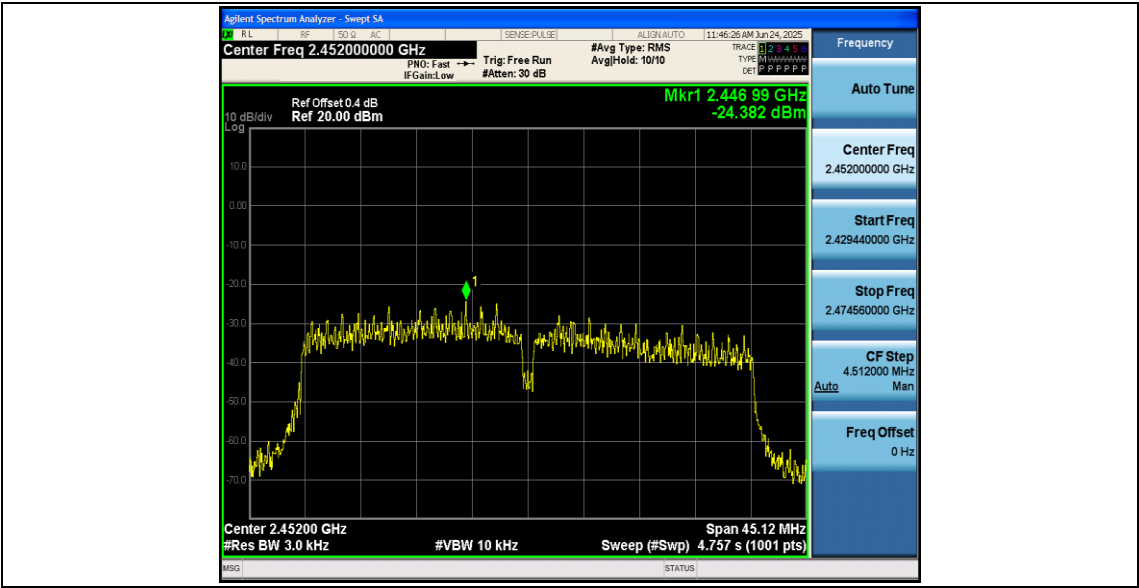
11AX40SISO_Ant1_2422



11AX40SISO_Ant1_2437



11AX40SISO_Ant1_2452



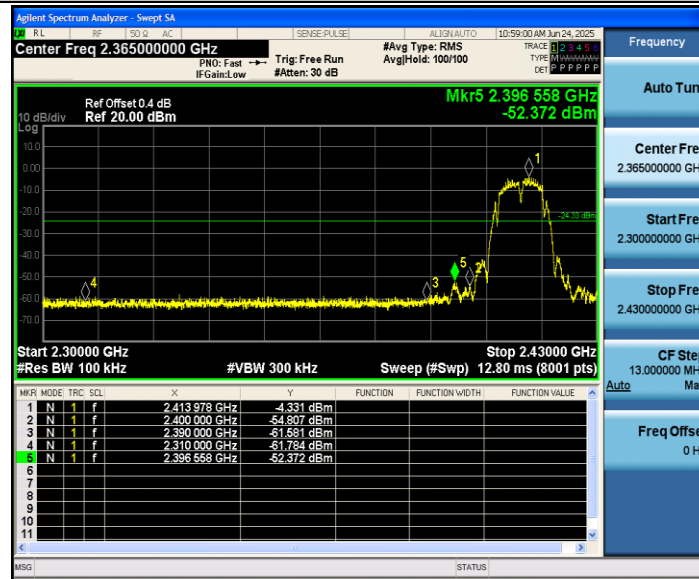
Appendix E: Band edge measurements

Test Result

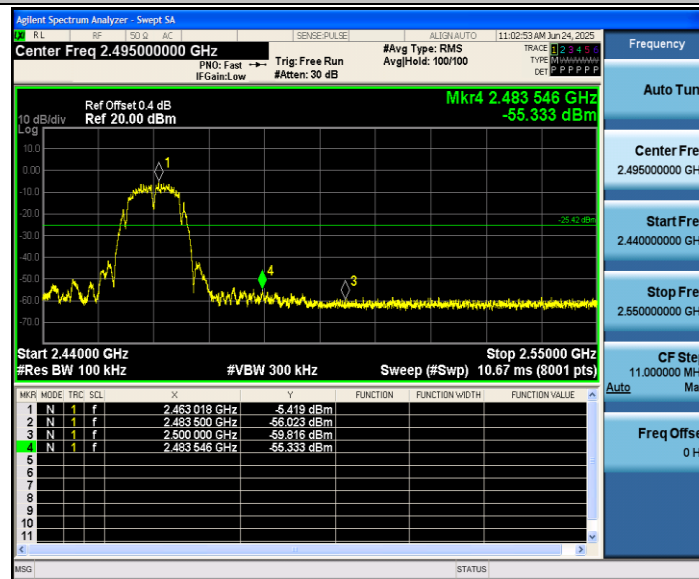
TestMode	Antenna	Channel	Frequency[MHz]	RefLevel[dBm]	Result[dBm]	Limit[dBm]	Verdict
11B	Ant1	Low	2412	-4.33	-52.37	≤-24.33	PASS
		High	2462	-5.42	-55.33	≤-25.42	PASS
11G	Ant1	Low	2412	-8.43	-45.48	≤-28.43	PASS
		High	2462	-9.31	-55.43	≤-29.31	PASS
11N20SISO	Ant1	Low	2412	-8.37	-42.35	≤-28.37	PASS
		High	2462	-9.22	-55.11	≤-29.22	PASS
11N40SISO	Ant1	Low	2422	-12.05	-43.03	≤-32.05	PASS
		High	2452	-10.57	-47.41	≤-30.57	PASS
11AX20SISO	Ant1	Low	2412	-8.43	-41.87	≤-28.43	PASS
		High	2462	-9.17	-54.7	≤-29.17	PASS
11AX40SISO	Ant1	Low	2422	-12.17	-43.07	≤-32.17	PASS
		High	2452	-10.45	-47.35	≤-30.45	PASS

Test Graphs

11B_Ant1_Low_2412



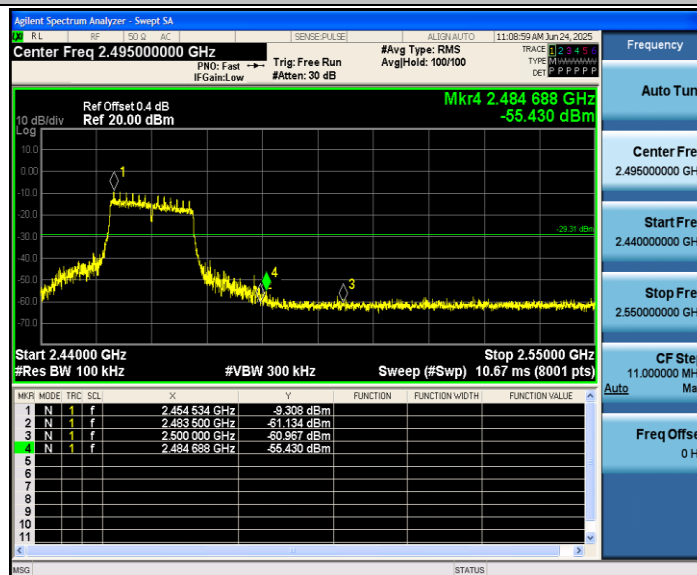
11B_Ant1_High_2462



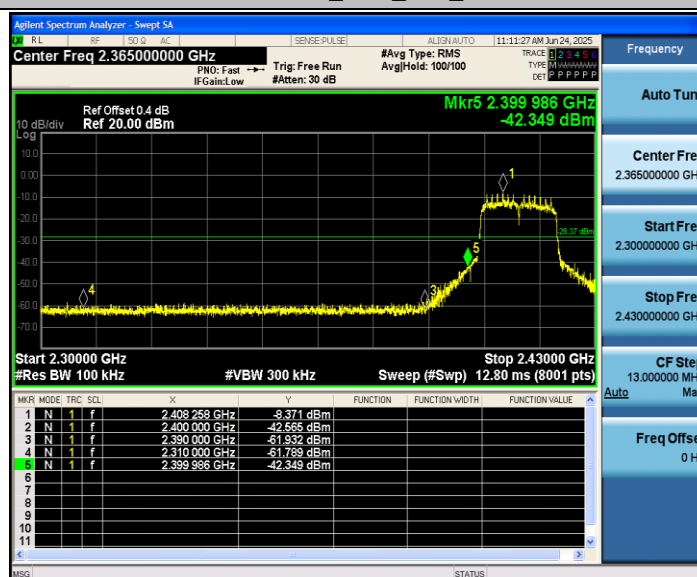
11G_Ant1_Low_2412



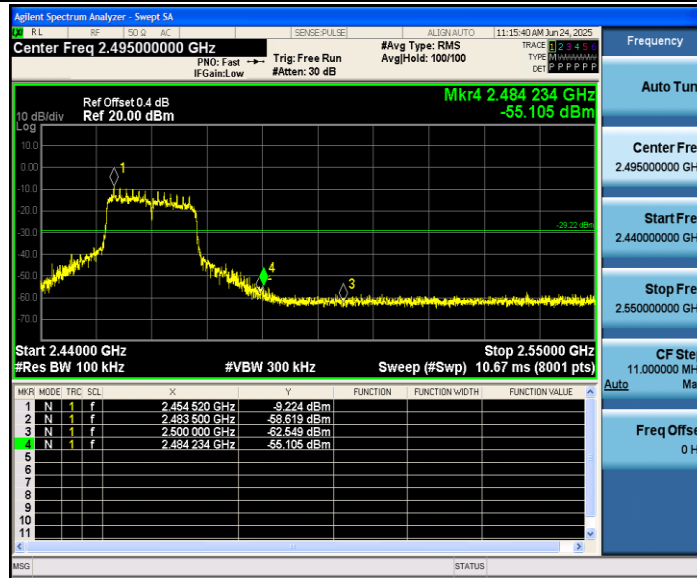
11G_Ant1_High_2462



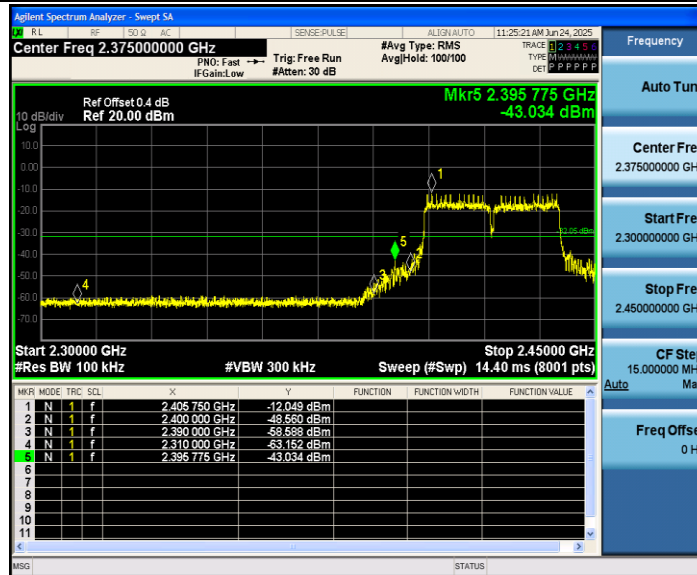
11N20SISO_Ant1_Low_2412



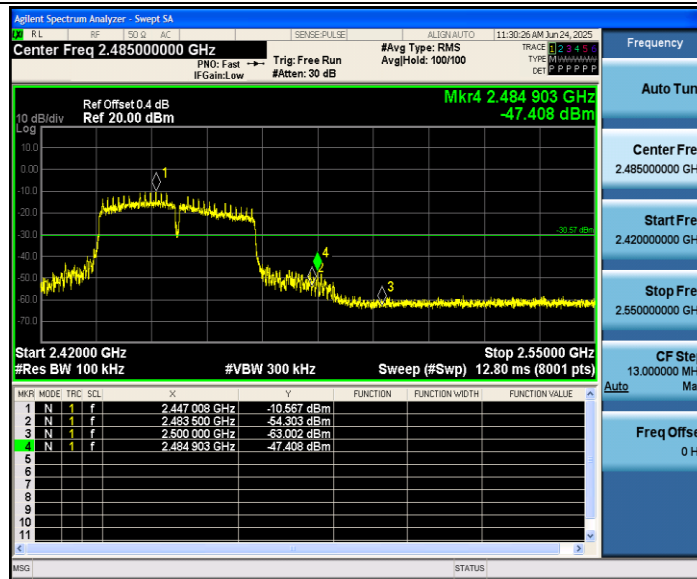
11N20SISO_Ant1_High_2462



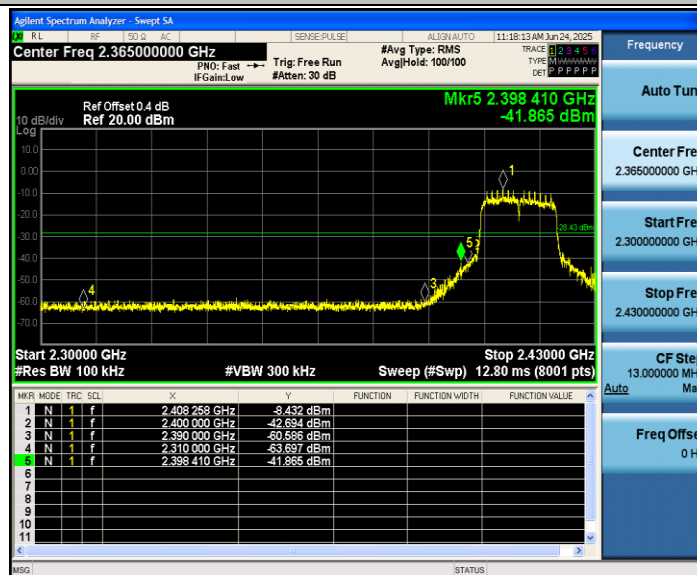
11N40SISO_Ant1_Low_2422



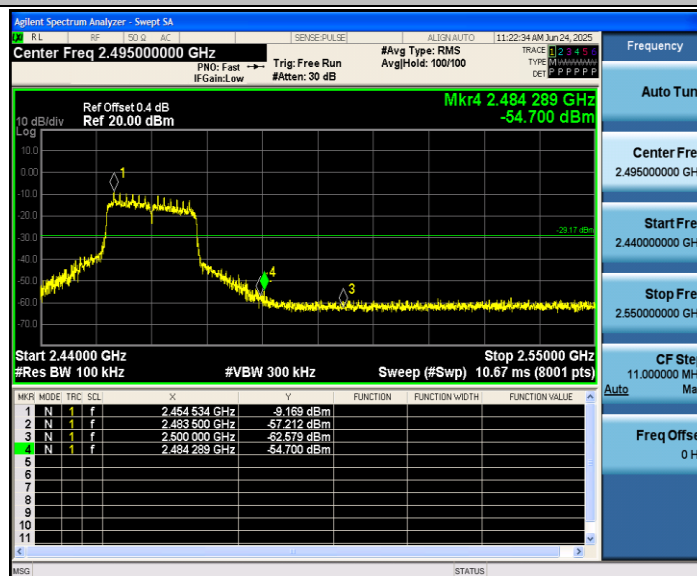
11N40SISO_Ant1_High_2452



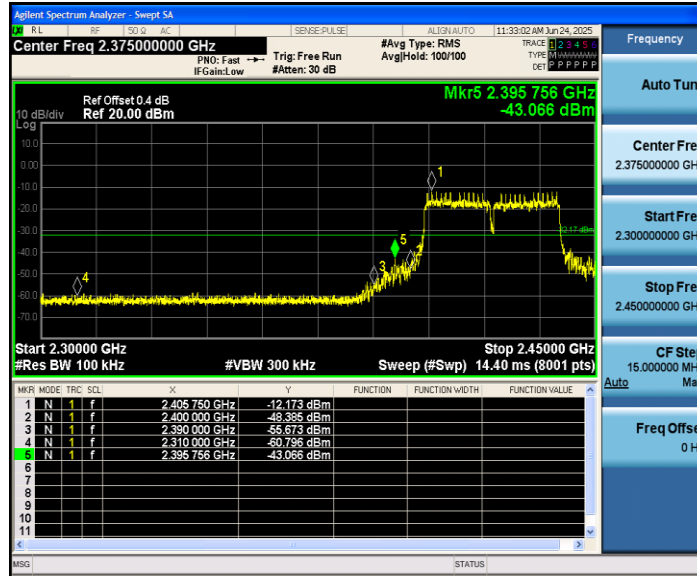
11AX20SISO_Ant1_Low_2412



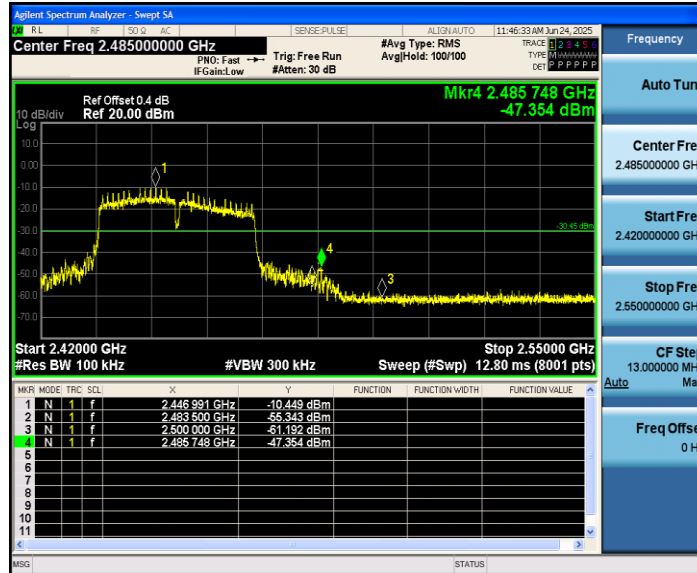
11AX20SISO_Ant1_High_2462



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	-3.18	-3.18	---	PASS
			30~1000	-3.18	-67.49	≤-23.18	PASS
			1000~26500	-3.18	-48.73	≤-23.18	PASS
		2437	Reference	-3.62	-3.62	---	PASS
			30~1000	-3.62	-68.15	≤-23.62	PASS
			1000~26500	-3.62	-47.05	≤-23.62	PASS
		2462	Reference	-6.63	-6.63	---	PASS
			30~1000	-6.63	-68.4	≤-26.63	PASS
			1000~26500	-6.63	-41.62	≤-26.63	PASS
11G	Ant1	2412	Reference	-9.20	-9.20	---	PASS
			30~1000	-9.20	-66.24	≤-29.2	PASS
			1000~26500	-9.20	-54.52	≤-29.2	PASS
		2437	Reference	-9.51	-9.51	---	PASS
			30~1000	-9.51	-67.55	≤-29.51	PASS
			1000~26500	-9.51	-52.34	≤-29.51	PASS
		2462	Reference	-10.62	-10.62	---	PASS
			30~1000	-10.62	-67.76	≤-30.62	PASS
			1000~26500	-10.62	-54.7	≤-30.62	PASS
11N20SISO	Ant1	2412	Reference	-8.83	-8.83	---	PASS
			30~1000	-8.83	-67.99	≤-28.83	PASS
			1000~26500	-8.83	-55.7	≤-28.83	PASS
		2437	Reference	-9.60	-9.60	---	PASS
			30~1000	-9.60	-68.41	≤-29.6	PASS
			1000~26500	-9.60	-51.33	≤-29.6	PASS
		2462	Reference	-10.09	-10.09	---	PASS
			30~1000	-10.09	-67.6	≤-30.09	PASS
			1000~26500	-10.09	-55.25	≤-30.09	PASS
11N40SISO	Ant1	2422	Reference	-12.27	-12.27	---	PASS
			30~1000	-12.27	-67.43	≤-32.27	PASS
			1000~26500	-12.27	-54.52	≤-32.27	PASS
		2437	Reference	-11.58	-11.58	---	PASS
			30~1000	-11.58	-67.79	≤-31.58	PASS
			1000~26500	-11.58	-52.02	≤-31.58	PASS
		2452	Reference	-10.71	-10.71	---	PASS
			30~1000	-10.71	-67.84	≤-30.71	PASS
			1000~26500	-10.71	-54.73	≤-30.71	PASS
11AX20SISO	Ant1	2412	Reference	-8.45	-8.45	---	PASS

			30~1000	-8.45	-63.07	≤-28.45	PASS
			1000~26500	-8.45	-54.94	≤-28.45	PASS
		2437	Reference	-9.67	-9.67	---	PASS
			30~1000	-9.67	-67.57	≤-29.67	PASS
			1000~26500	-9.67	-52.49	≤-29.67	PASS
		2462	Reference	-9.63	-9.63	---	PASS
			30~1000	-9.63	-68.08	≤-29.63	PASS
			1000~26500	-9.63	-54.82	≤-29.63	PASS
11AX40SISO	Ant1	2422	Reference	-12.28	-12.28	---	PASS
			30~1000	-12.28	-66.4	≤-32.28	PASS
			1000~26500	-12.28	-50.96	≤-32.28	PASS
		2437	Reference	-11.63	-11.63	---	PASS
			30~1000	-11.63	-66.85	≤-31.63	PASS
			1000~26500	-11.63	-54.76	≤-31.63	PASS
		2452	Reference	-10.56	-10.56	---	PASS
			30~1000	-10.56	-67.99	≤-30.56	PASS
			1000~26500	-10.56	-52.9	≤-30.56	PASS