

Annex for FCC 2.4G WIFI

Test Report No.:CTL2203279012-WF01

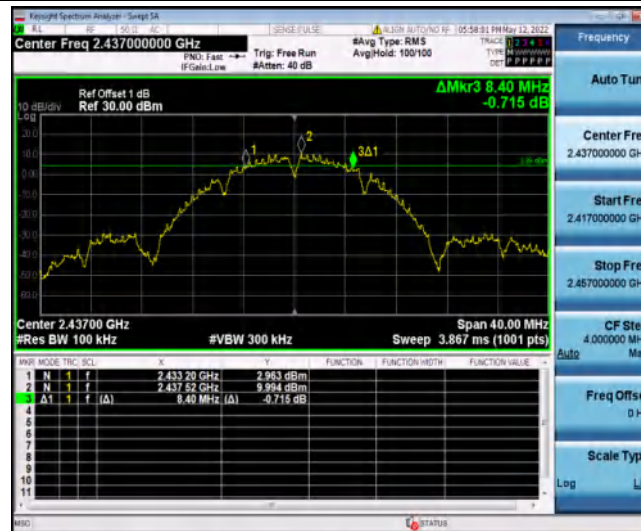
Appendix A: DTS Bandwidth**Test Result**

TestMode	Antenna	Channel	DTS BW [MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
11B	Ant1	2412	8.120	2407.960	2416.080	0.5	PASS
		2437	8.400	2433.200	2441.600	0.5	PASS
		2462	8.120	2457.960	2466.080	0.5	PASS
11G	Ant1	2412	16.400	2403.800	2420.200	0.5	PASS
		2437	16.440	2428.800	2445.240	0.5	PASS
		2462	16.400	2453.800	2470.200	0.5	PASS
11N20SISO	Ant1	2412	17.560	2403.200	2420.760	0.5	PASS
		2437	17.720	2428.160	2445.880	0.5	PASS
		2462	17.680	2453.160	2470.840	0.5	PASS
11N40SISO	Ant1	2422	36.480	2403.760	2440.240	0.5	PASS
		2437	36.480	2418.760	2455.240	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



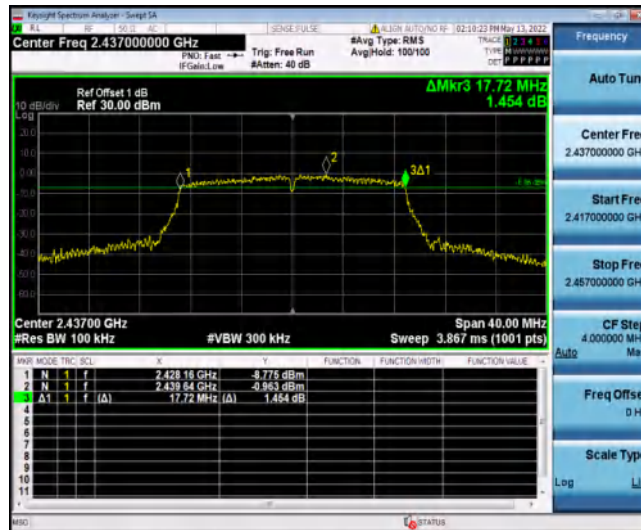
11G_Ant1_2437



11G_Ant1_2462



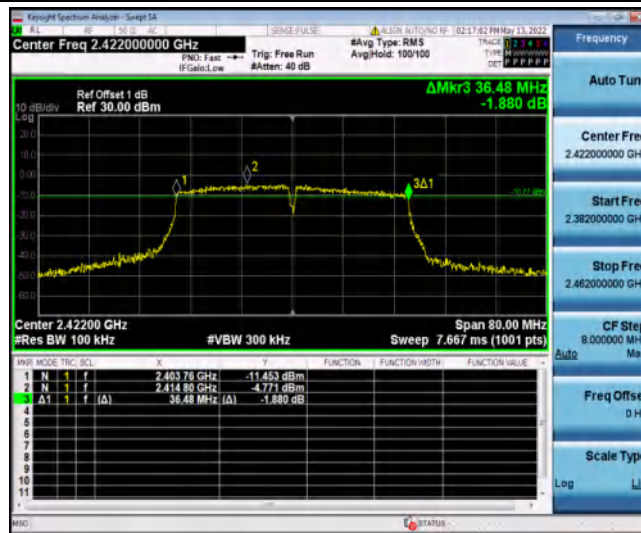
11N20SISO_Ant1_2412



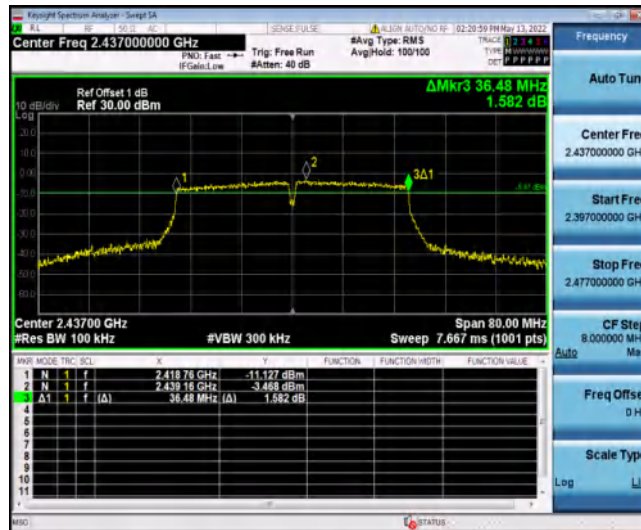
11N20SISO_Ant1_2437



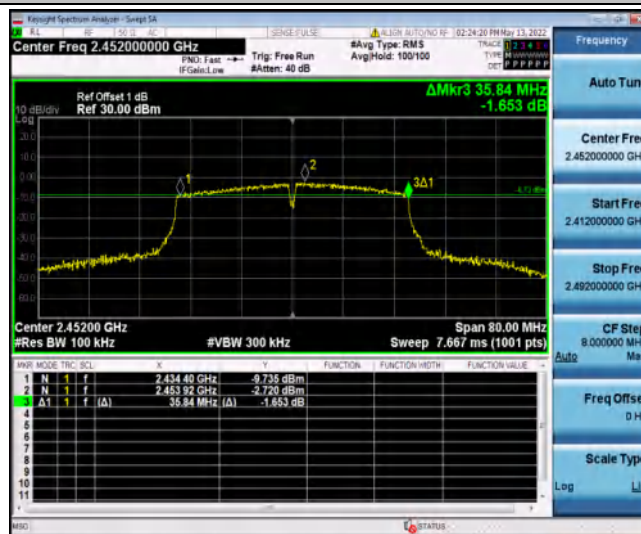
11N20SISO_Ant1_2462



11N40SISO_Ant1_2422



11N40SISO_Ant1_2437



11N40SISO_Ant1_2452

Appendix B: Occupied Channel Bandwidth

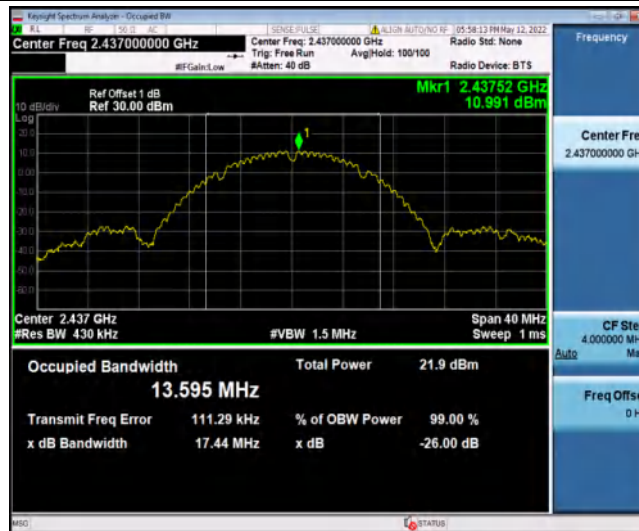
Test Result

TestMode	Antenna	Channel	OCB [MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
11B	Ant1	2412	13.437	2405.205	2418.642	---	PASS
		2437	13.595	2430.314	2443.909	---	PASS
		2462	13.671	2455.077	2468.748	---	PASS
11G	Ant1	2412	18.680	2402.245	2420.925	---	PASS
		2437	16.985	2428.571	2445.556	---	PASS
		2462	16.856	2453.531	2470.387	---	PASS
11N20SISO	Ant1	2412	19.197	2402.079	2421.276	---	PASS
		2437	17.888	2428.101	2445.989	---	PASS
		2462	17.740	2453.135	2470.875	---	PASS
11N40SISO	Ant1	2422	36.166	2403.899	2440.065	---	PASS
		2437	36.414	2418.930	2455.344	---	PASS
		2452	35.888	2434.182	2470.070	---	PASS

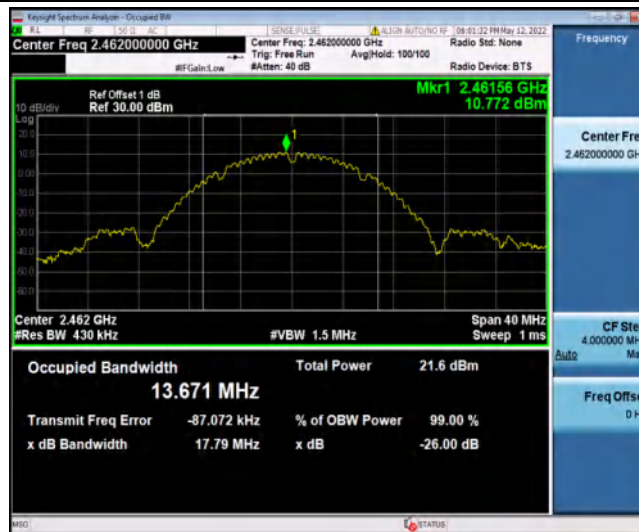
Test Graphs



11B_Ant1_2412



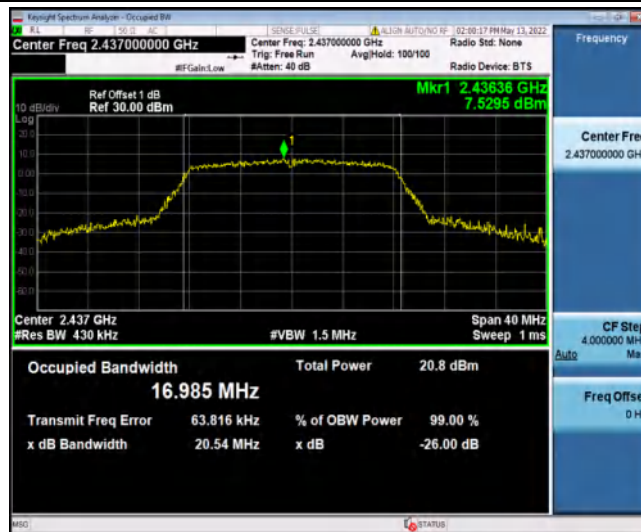
11B_Ant1_2437



11B_Ant1_2462



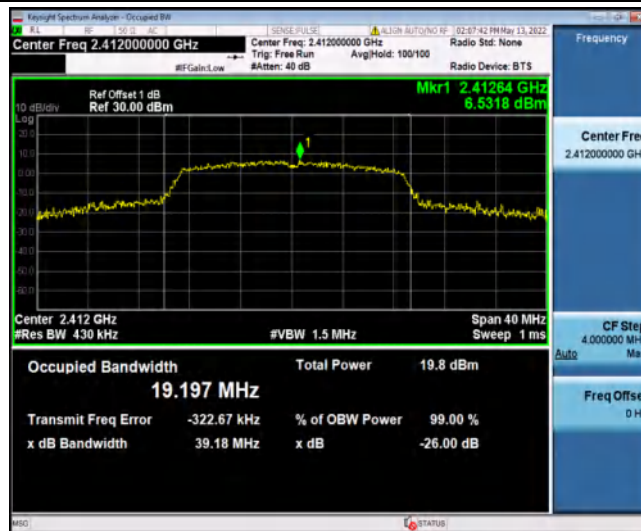
11G_Ant1_2412



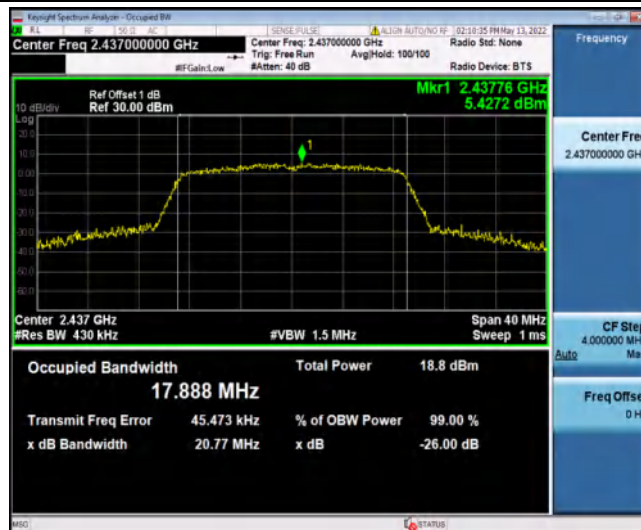
11G_Ant1_2437



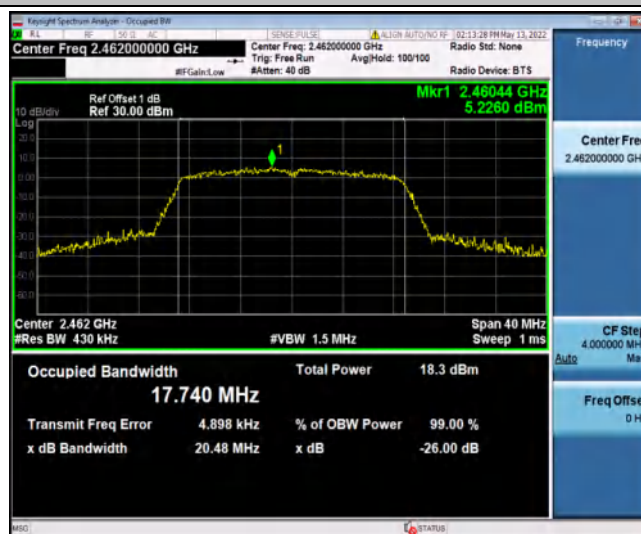
11G_Ant1_2462



11N20SISO_Ant1_2412



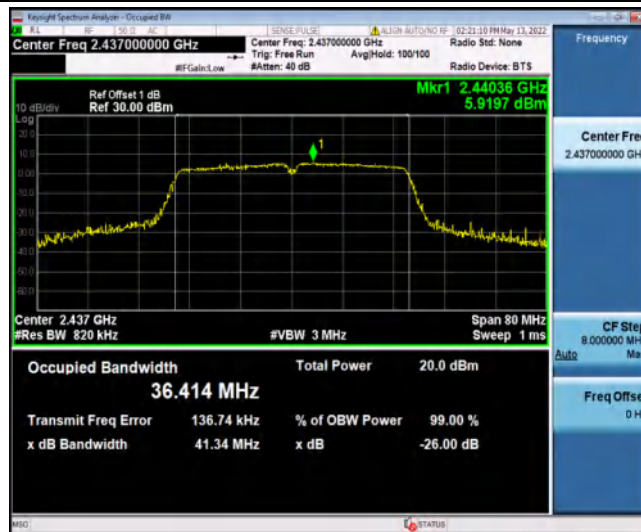
11N20SISO_Ant1_2437



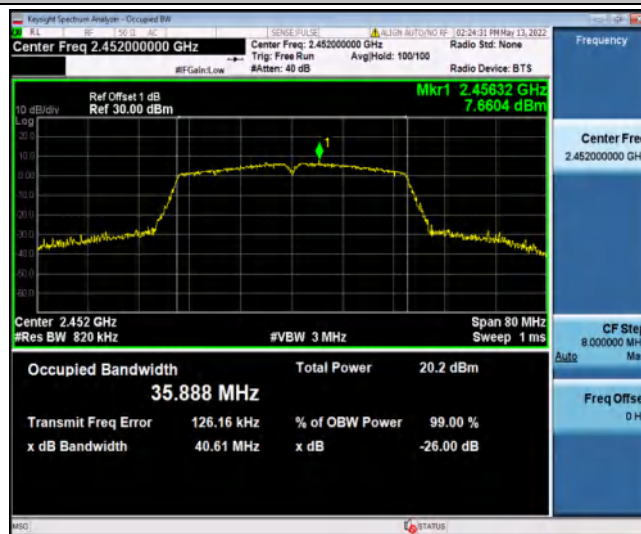
11N20SISO_Ant1_2462



11N40SISO_Ant1_2422



11N40SISO_Ant1_2437



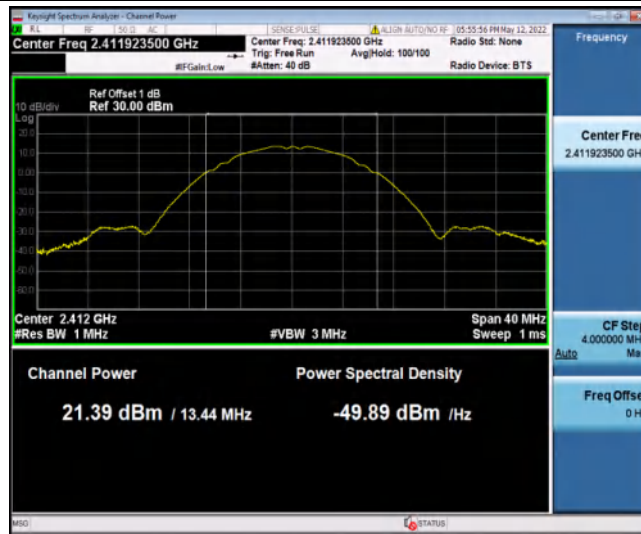
11N40SISO_Ant1_2452

Appendix C: Maximum conducted output power

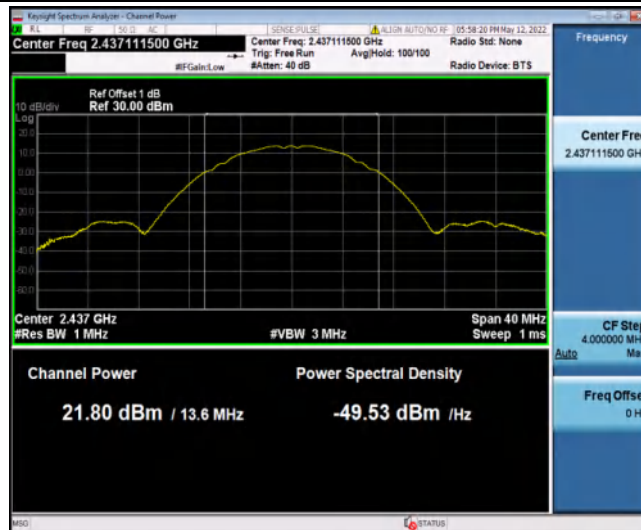
Test Result

TestMode	Antenna	Channel	Result[dBm]	Limit[dBm]	Verdict
11B	Ant1	2412	21.39	≤30	PASS
		2437	21.80	≤30	PASS
		2462	21.59	≤30	PASS
11G	Ant1	2412	21.89	≤30	PASS
		2437	21.92	≤30	PASS
		2462	21.55	≤30	PASS
11N20SISO	Ant1	2412	21.09	≤30	PASS
		2437	19.81	≤30	PASS
		2462	19.37	≤30	PASS
11N40SISO	Ant1	2422	18.73	≤30	PASS
		2437	20.34	≤30	PASS
		2452	20.57	≤30	PASS

Test Graphs



11B_Ant1_2412



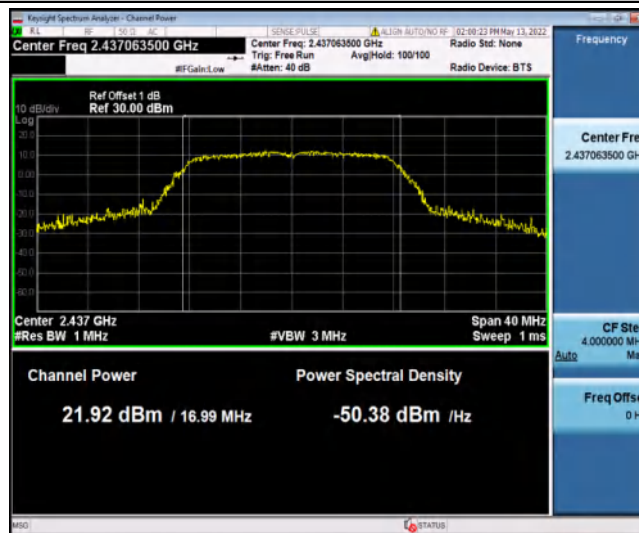
11B_Ant1_2437



11B_Ant1_2462



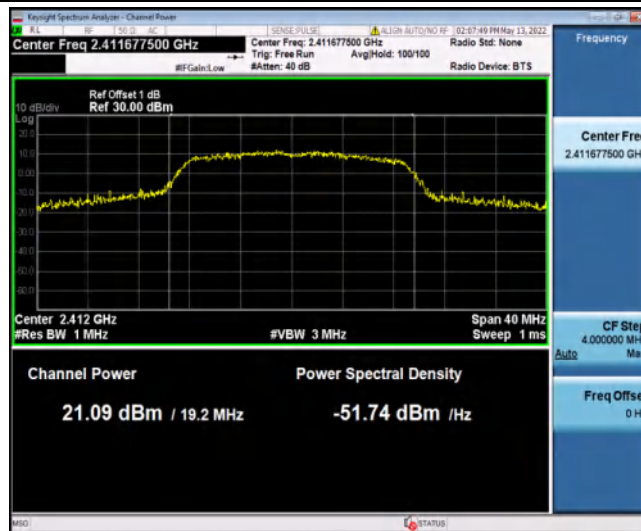
11G_Ant1_2412



11G_Ant1_2437



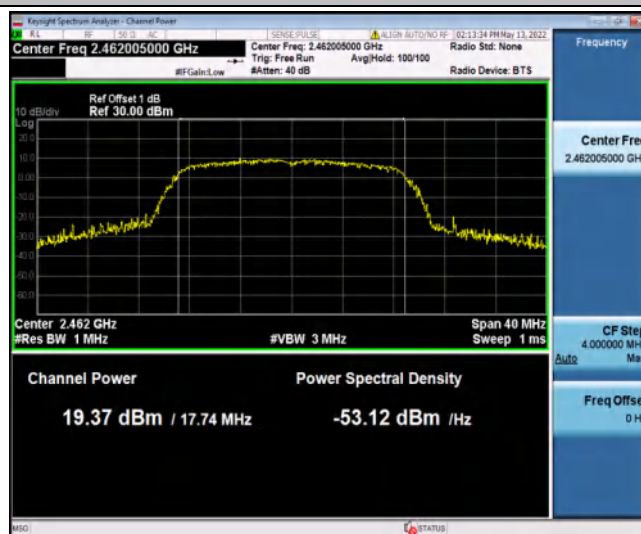
11G_Ant1_2462



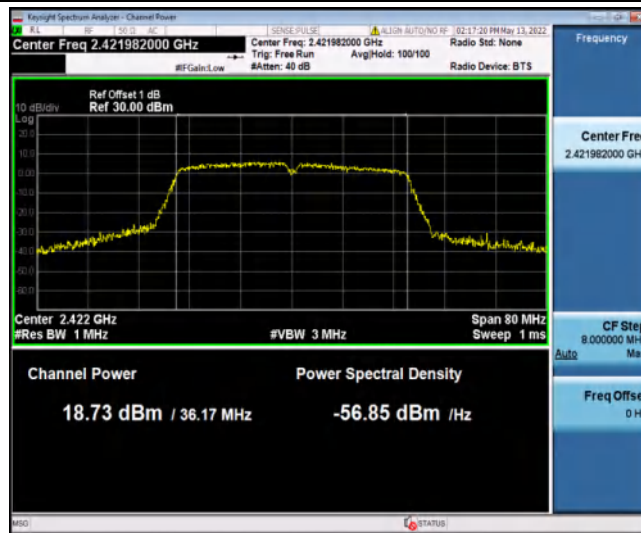
11N20SISO_Ant1_2412



11N20SISO_Ant1_2437



11N20SISO_Ant1_2462



11N40SISO_Ant1_2422



11N40SISO_Ant1_2437



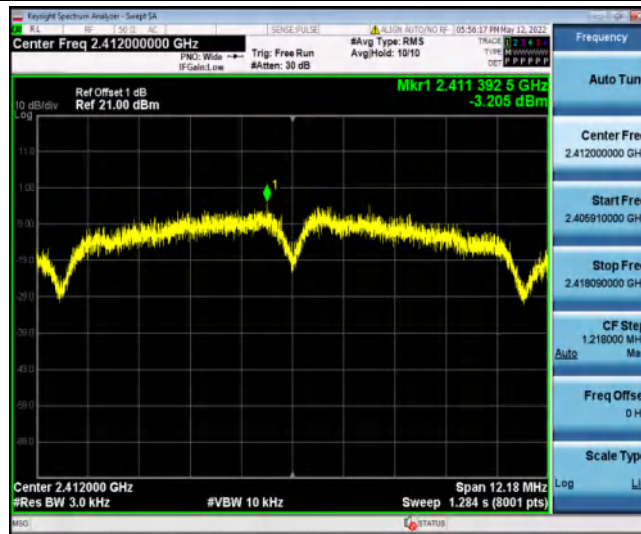
11N40SISO_Ant1_2452

Appendix D: Maximum power spectral density

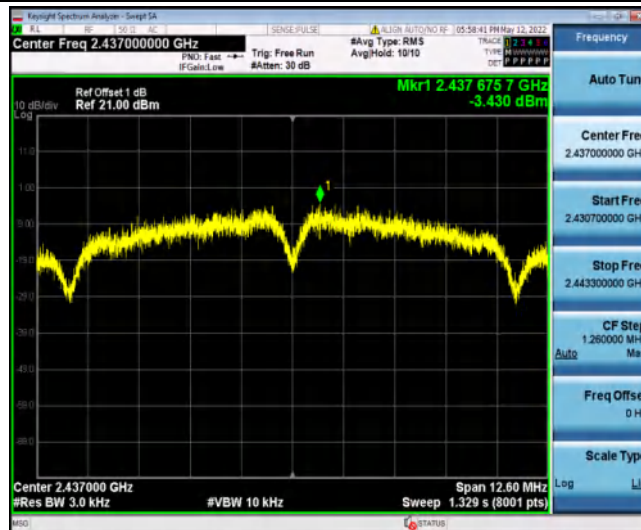
Test Result

TestMode	Antenna	Channel	Result[dBm/3-100kHz]	Limit[dBm/3kHz]	Verdict
11B	Ant1	2412	-3.21	≤8	PASS
		2437	-3.43	≤8	PASS
		2462	-2.6	≤8	PASS
11G	Ant1	2412	-9.41	≤8	PASS
		2437	-9.88	≤8	PASS
		2462	-9.7	≤8	PASS
11N20SISO	Ant1	2412	-9.72	≤8	PASS
		2437	-11.63	≤8	PASS
		2462	-11.67	≤8	PASS
11N40SISO	Ant1	2422	-15.73	≤8	PASS
		2437	-14.57	≤8	PASS
		2452	-13.02	≤8	PASS

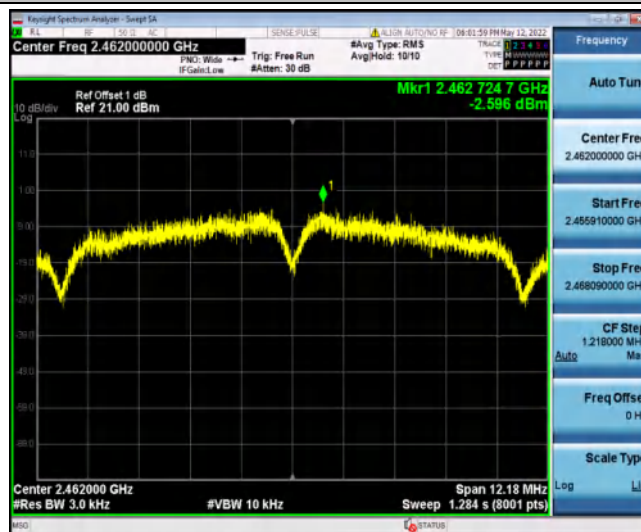
Test Graphs



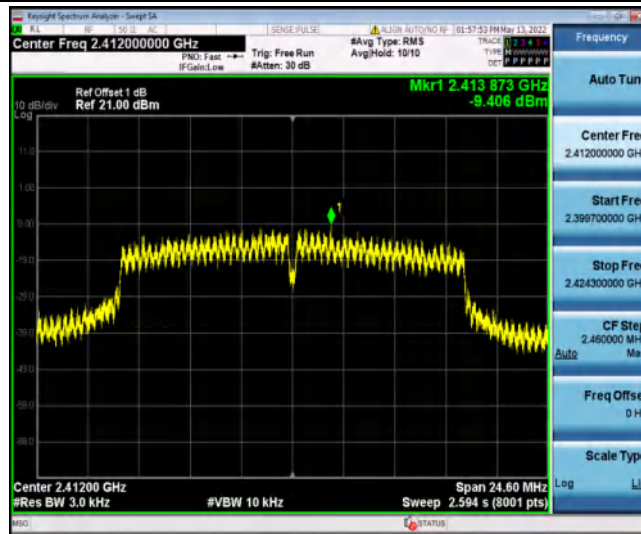
11B_Ant1_2412



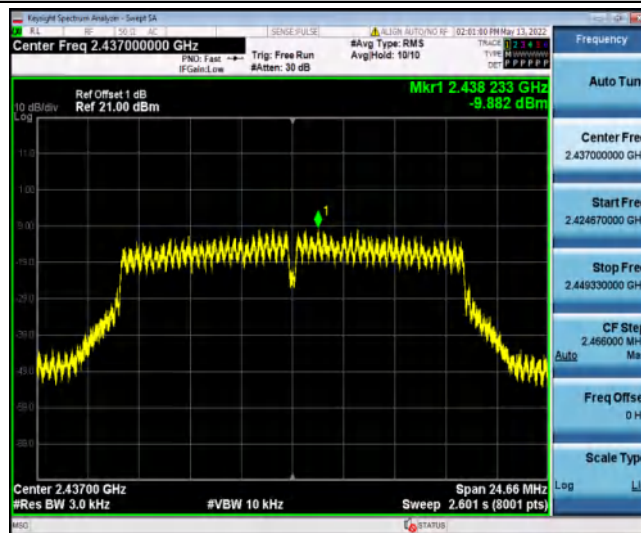
11B_Ant1_2437



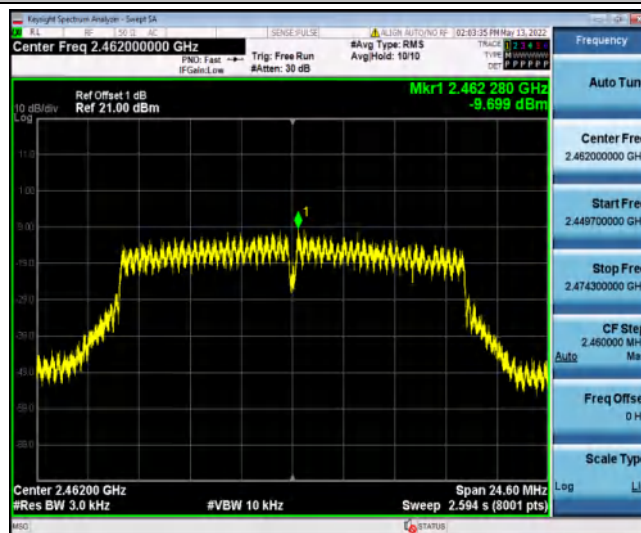
11B_Ant1_2462



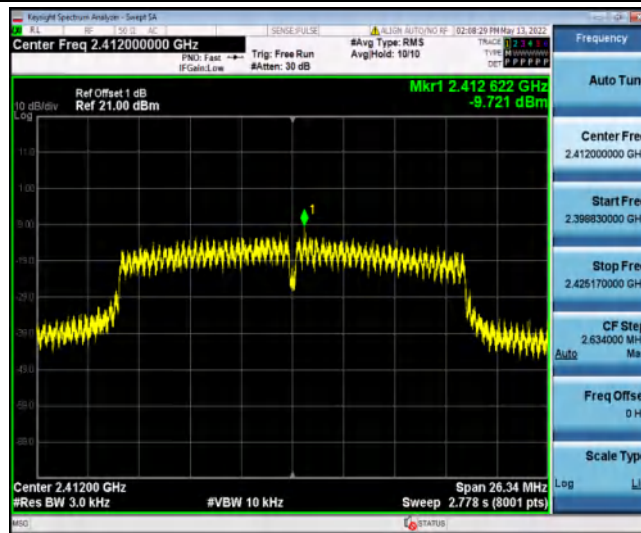
11G_Ant1_2412



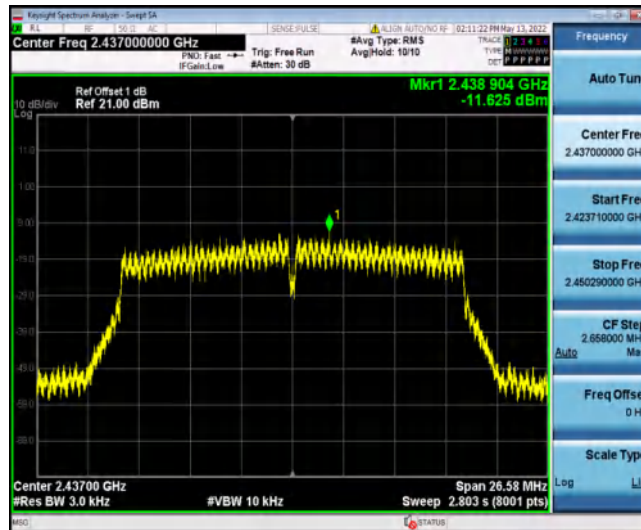
11G_Ant1_2437



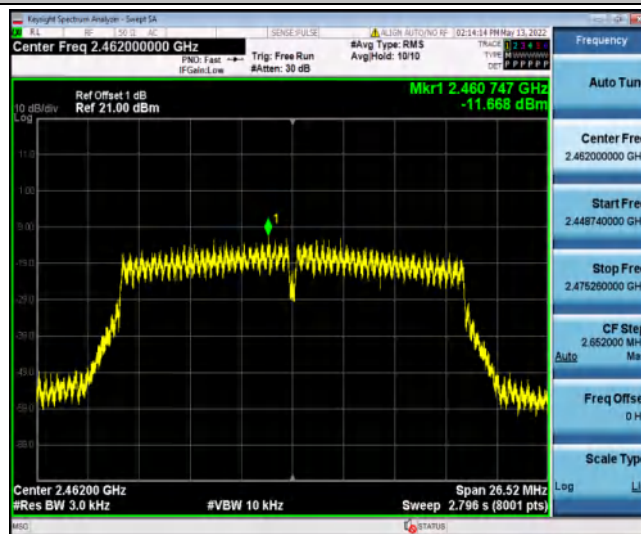
11G_Ant1_2462



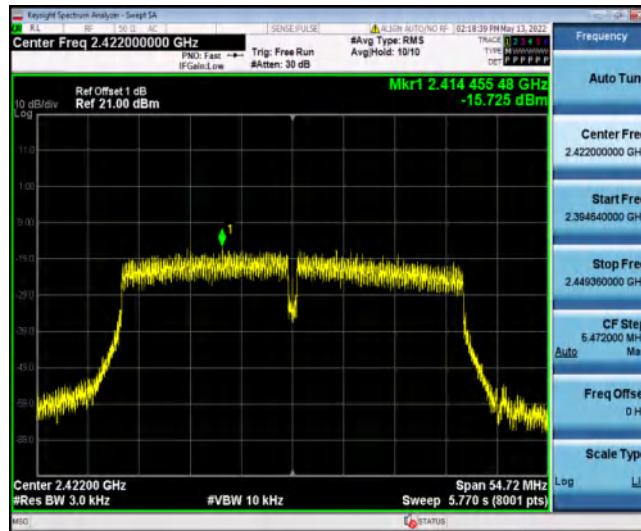
11N20SISO_Ant1_2412



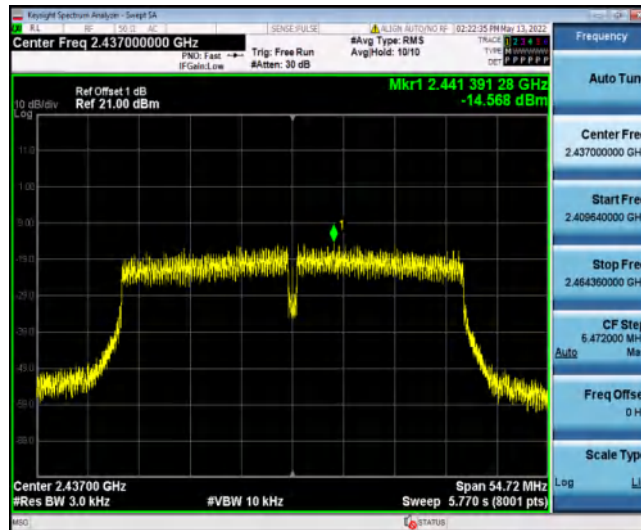
11N20SISO_Ant1_2437



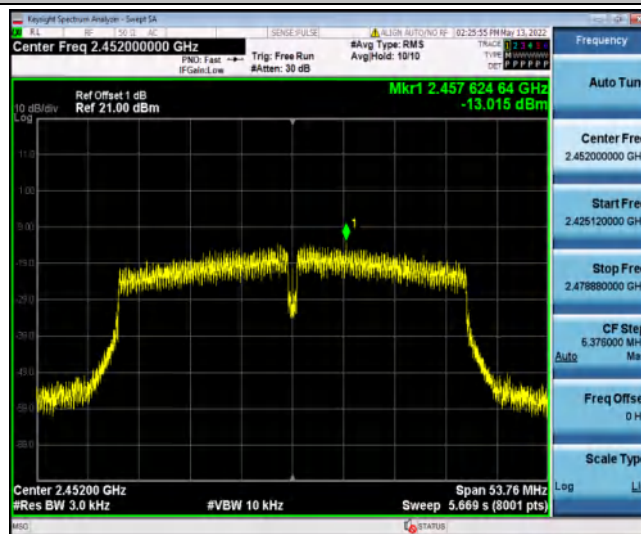
11N20SISO_Ant1_2462



11N40SISO_Ant1_2422



11N40SISO_Ant1_2437



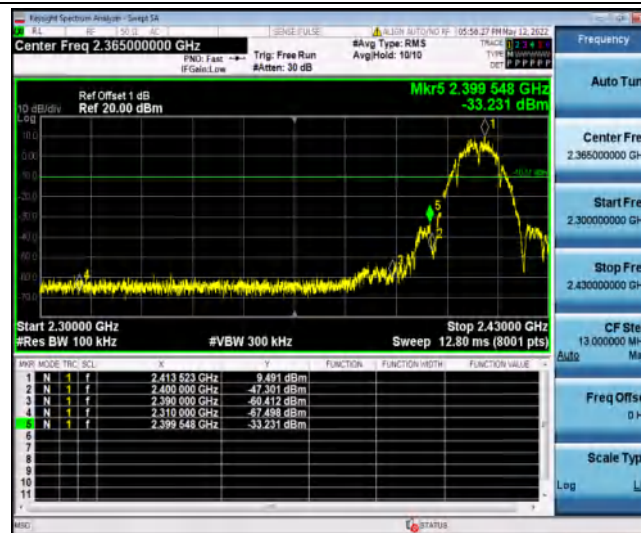
11N40SISO_Ant1_2452

Appendix E: Band edge measurements

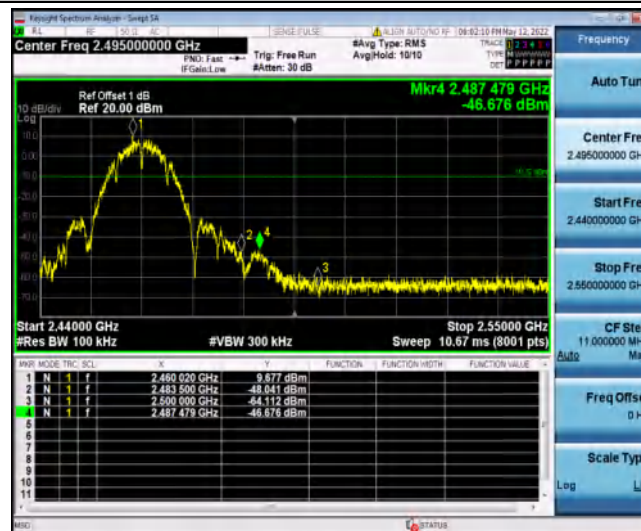
Test Result

TestMode	Antenna	ChName	Channel	RefLevel[dBm]	Result[dBm]	Limit[dBm]	Verdict
11B	Ant1	Low	2412	9.49	-33.23	≤-10.51	PASS
		High	2462	9.68	-46.68	≤-10.32	PASS
11G	Ant1	Low	2412	1.22	-21.01	≤-18.78	PASS
		High	2462	0.65	-47.85	≤-19.35	PASS
11N20SISO	Ant1	Low	2412	-0.33	-21.39	≤-20.33	PASS
		High	2462	-1.87	-49.6	≤-21.87	PASS
11N40SISO	Ant1	Low	2422	-5.74	-39.54	≤-25.74	PASS
		High	2452	-3.22	-39.64	≤-23.22	PASS

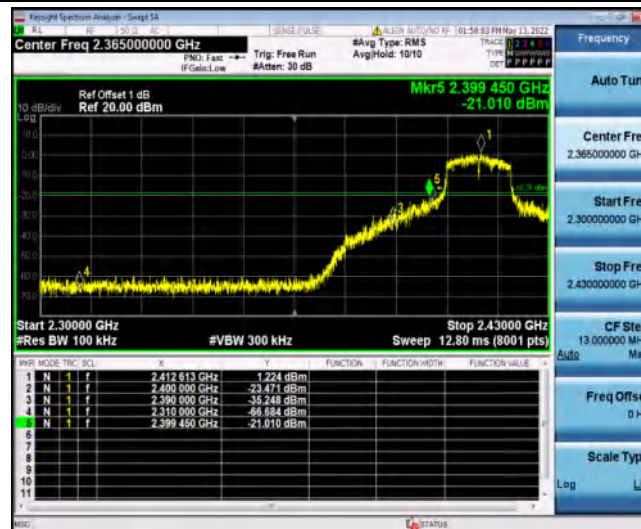
Test Graphs



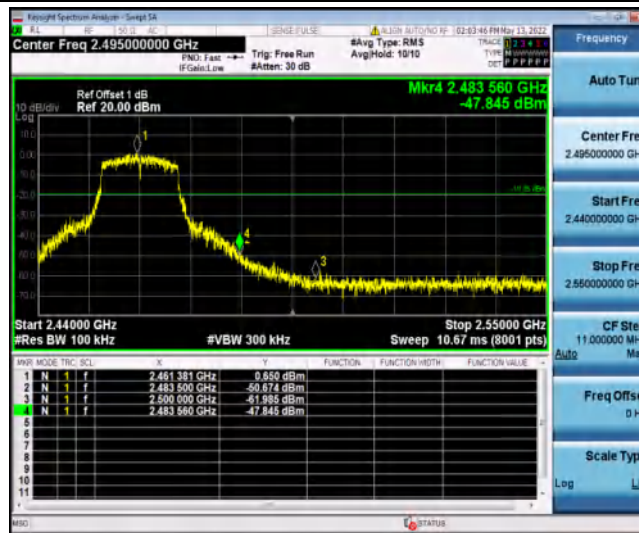
11B_Ant1_Low_2412



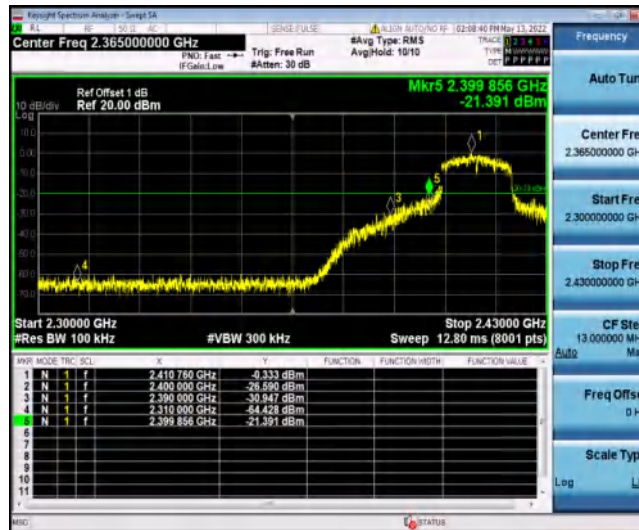
11B_Ant1_High_2462



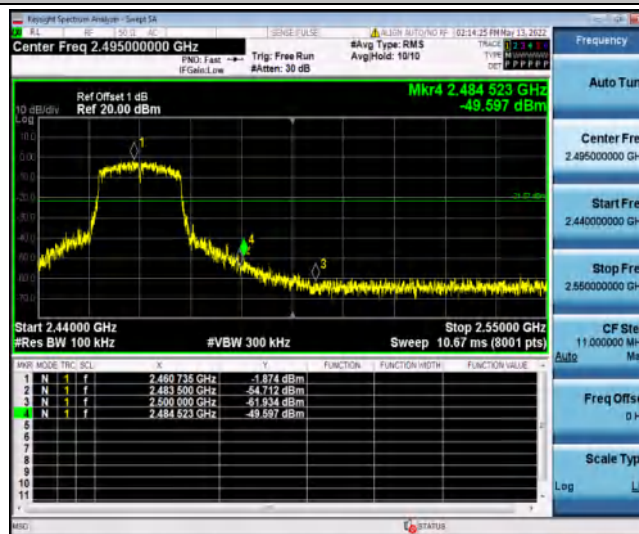
11G_Ant1_Low_2412



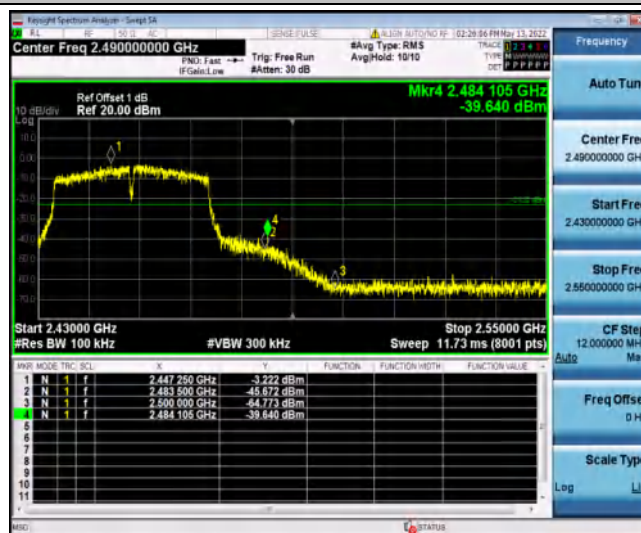
11G_Ant1_High_2462



11N20SISO_Ant1_Low_2412



11N20SISO_Ant1_High_2462

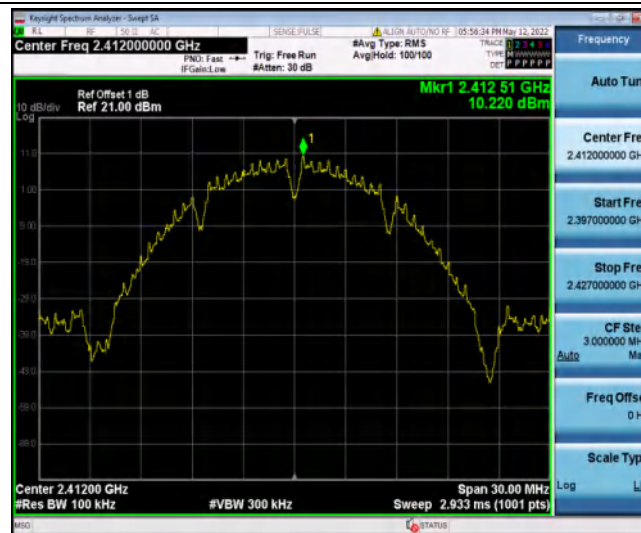
[illegible]

Appendix F: Conducted Spurious Emission

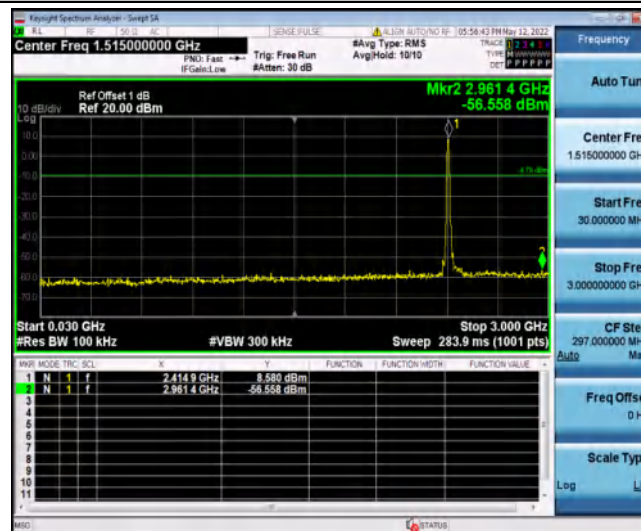
Test Result

TestMode	Antenna	Channel	FreqRange [Mhz]	RefLevel [dBm]	Result [dBm]	Limit [dBm]	Verdict
11B	Ant1	2412	Reference	10.22	10.22	---	PASS
			30~3000	10.22	-56.56	≤ -9.78	PASS
			3000~26500	10.22	-41.47	≤ -9.78	PASS
		2437	Reference	10.84	10.84	---	PASS
			30~3000	10.84	-56.45	≤ -9.16	PASS
			3000~26500	10.84	-38.09	≤ -9.16	PASS
		2462	Reference	10.34	10.34	---	PASS
			30~3000	10.34	-56.4	≤ -9.66	PASS
			3000~26500	10.34	-41	≤ -9.66	PASS
11G	Ant1	2412	Reference	1.62	1.62	---	PASS
			30~3000	1.62	-54	≤ -18.38	PASS
			3000~26500	1.62	-44.31	≤ -18.38	PASS
		2437	Reference	1.35	1.35	---	PASS
			30~3000	1.35	-56.41	≤ -18.65	PASS
			3000~26500	1.35	-44.5	≤ -18.65	PASS
		2462	Reference	1.47	1.47	---	PASS
			30~3000	1.47	-56.13	≤ -18.53	PASS
			3000~26500	1.47	-44.25	≤ -18.53	PASS
11N20SISO	Ant1	2412	Reference	0.21	0.21	---	PASS
			30~3000	0.21	-53.8	≤ -19.79	PASS
			3000~26500	0.21	-45.08	≤ -19.79	PASS
		2437	Reference	-1.07	-1.07	---	PASS
			30~3000	-1.07	-56.57	≤ -21.07	PASS
			3000~26500	-1.07	-45.03	≤ -21.07	PASS
		2462	Reference	-1.28	-1.28	---	PASS
			30~3000	-1.28	-56.27	≤ -21.28	PASS
			3000~26500	-1.28	-44.71	≤ -21.28	PASS
11N40SISO	Ant1	2422	Reference	-4.90	-4.90	---	PASS
			30~3000	-4.90	-56.79	≤ -24.9	PASS
			3000~26500	-4.90	-45.6	≤ -24.9	PASS
		2437	Reference	-3.39	-3.39	---	PASS
			30~3000	-3.39	-56.08	≤ -23.39	PASS
			3000~26500	-3.39	-45.35	≤ -23.39	PASS
		2452	Reference	-2.55	-2.55	---	PASS
			30~3000	-2.55	-56.22	≤ -22.55	PASS
			3000~26500	-2.55	-45.59	≤ -22.55	PASS

Test Graphs



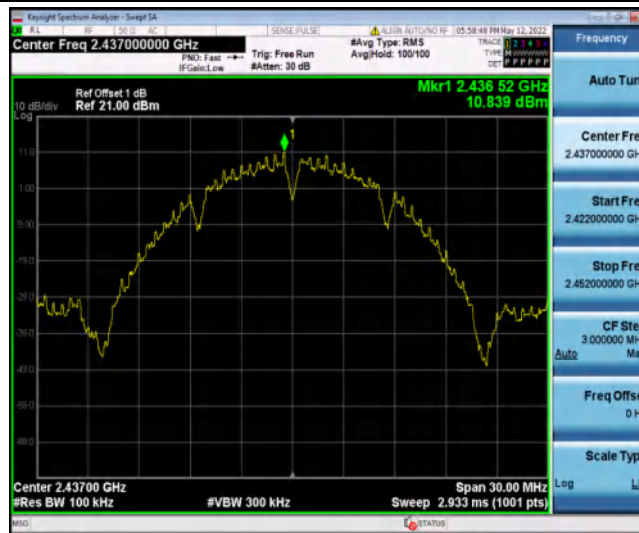
11B_Ant1_2412_0~Reference



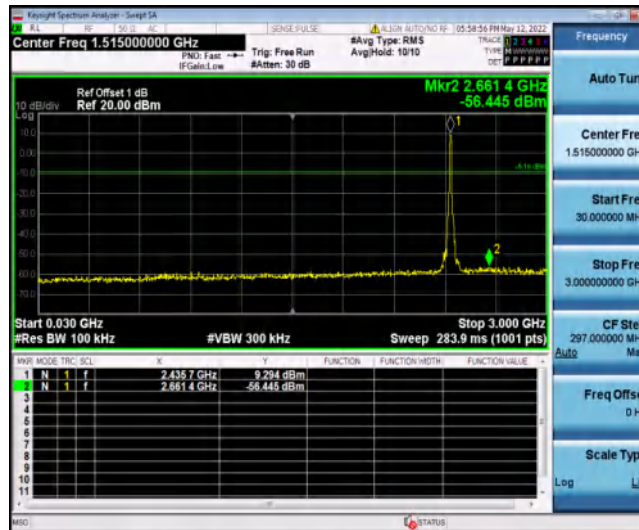
11B_Ant1_2412_30~3000



11B_Ant1_2412_3000~26500



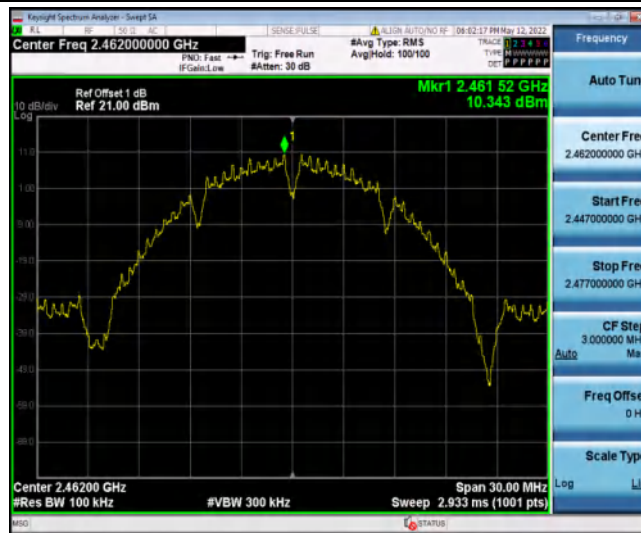
11B_Ant1_2437_0~Reference



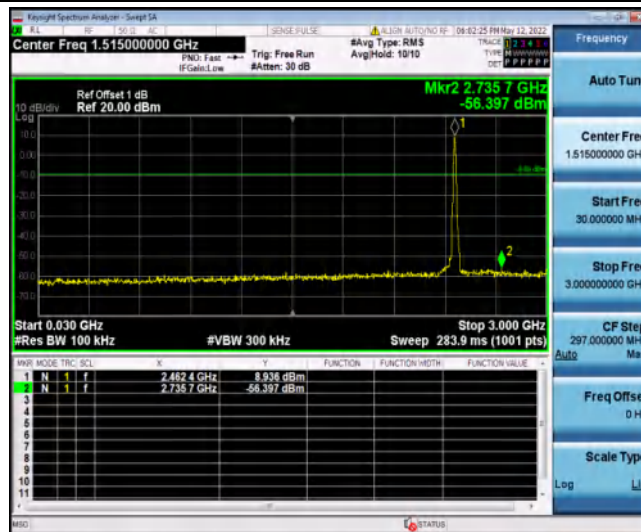
11B_Ant1_2437_30~3000



11B_Ant1_2437_3000~26500



11B_Ant1_2462_0~Reference



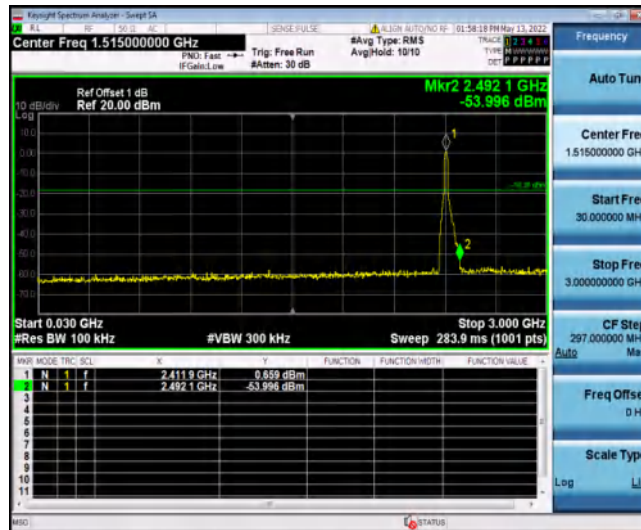
11B_Ant1_2462_30~3000



11B_Ant1_2462_3000~26500



11G_Ant1_2412_0~Reference



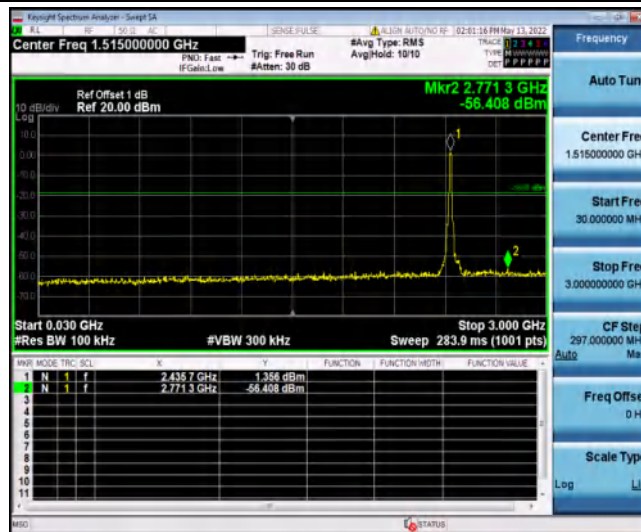
11G_Ant1_2412_30~3000



11G_Ant1_2412_3000~26500



11G_Ant1_2437_0~Reference



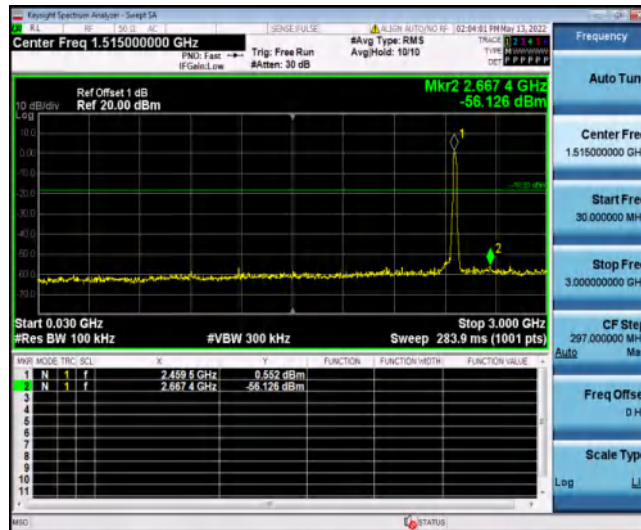
11G_Ant1_2437_30~3000



11G_Ant1_2437_3000~26500



11G_Ant1_2462_0~Reference



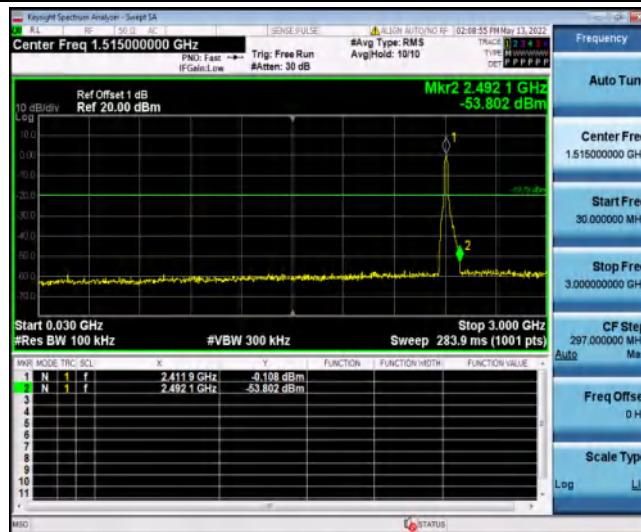
11G_Ant1_2462_30~3000



11G_Ant1_2462_3000~26500



11N20SISO_Ant1_2412_0~Reference



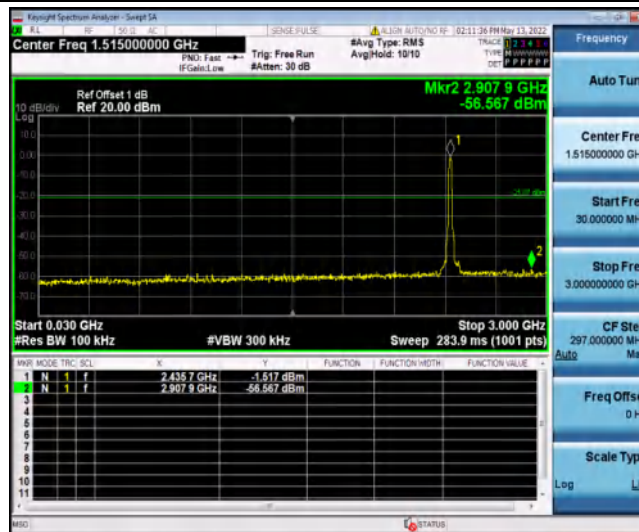
11N20SISO_Ant1_2412_30~3000



11N20SISO_Ant1_2412_3000~26500



11N20SISO_Ant1_2437_0~Reference



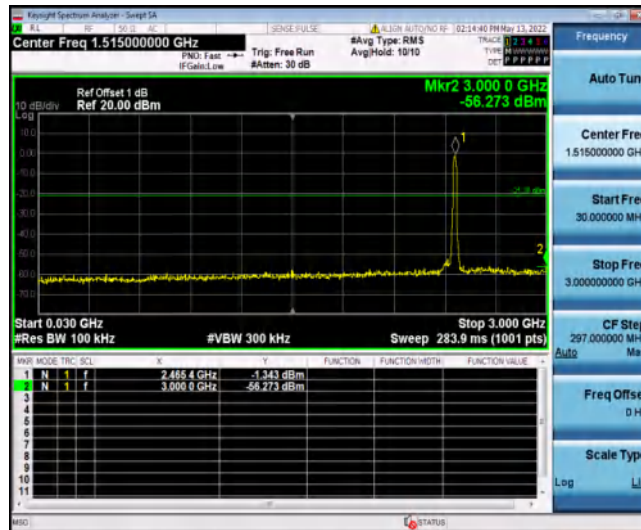
11N20SISO_Ant1_2437_30~3000



11N20SISO_Ant1_2437_3000~26500



11N20SISO_Ant1_2462_0~Reference



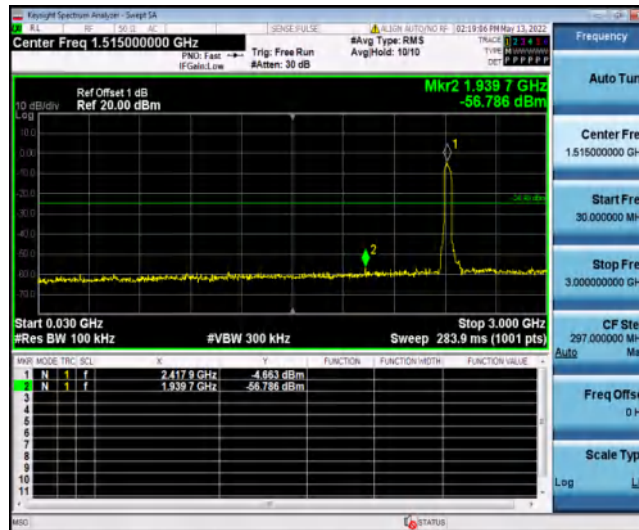
11N20SISO_Ant1_2462_30~3000



11N20SISO_Ant1_2462_3000~26500



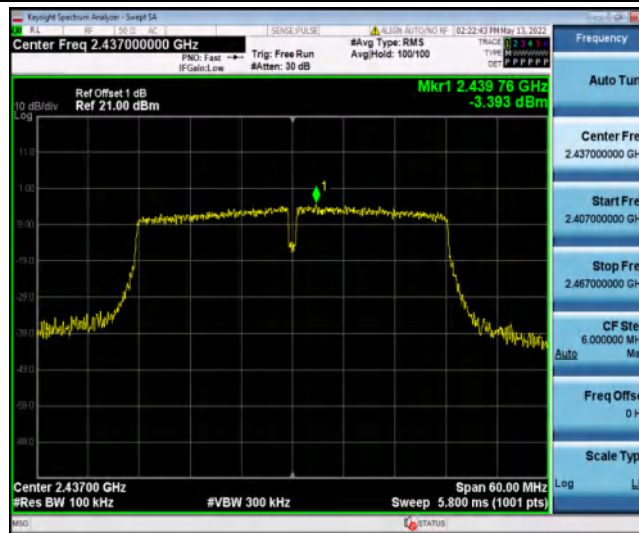
11N40SISO_Ant1_2422_0~Reference



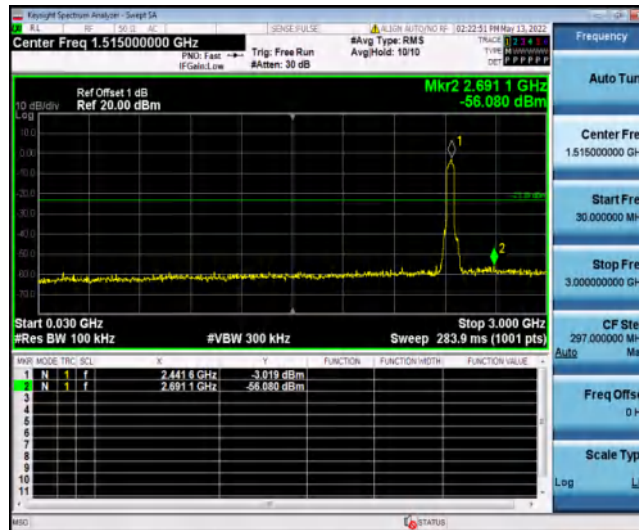
11N40SISO_Ant1_2422_30~3000



11N40SISO_Ant1_2422_3000~26500



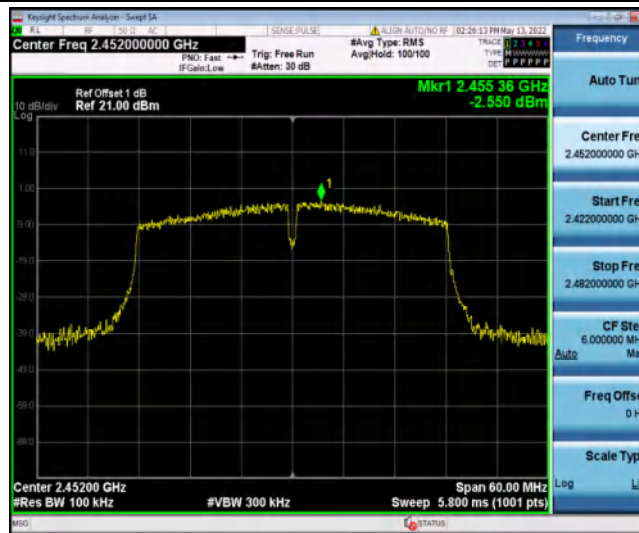
11N40SISO_Ant1_2437_0~Reference



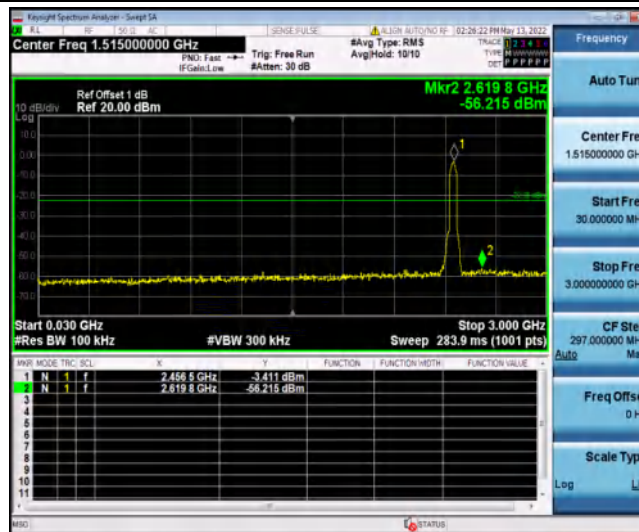
11N40SISO_Ant1_2437_30~3000



11N40SISO_Ant1_2437_3000~26500



11N40SISO_Ant1_2452_0~Reference



11N40SISO_Ant1_2452_30~3000



11N40SISO_Ant1_2452_3000~26500

***** End *****