

FCC Appendix RF Test Data for 2.4GWIFI

FCC ID : 2BWPV-FL-31MY-TYWF

Company : TAIXING LOCK INDUSTRY MANUFACTURING CO., LTD

EUT : Smart lock

Model Number : FL-31MY-TYWF

Report No. : CTA26052601201

Reviewed By : Eric Wang

Appendix A: DTS Bandwidth

Test Result

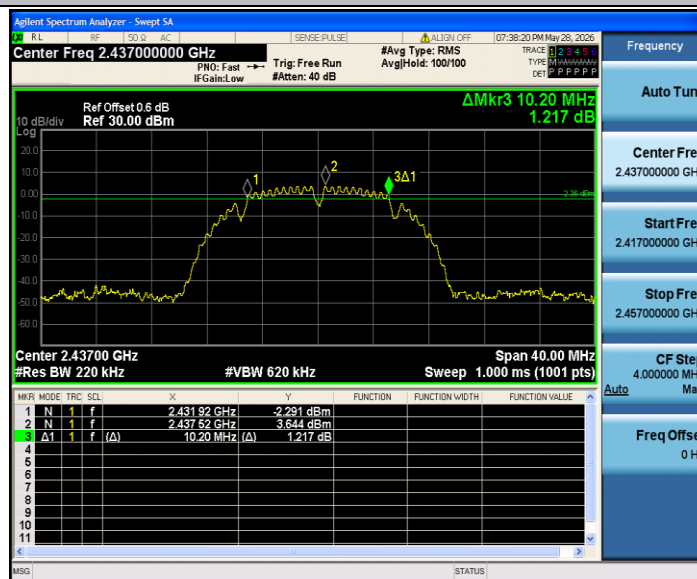
TestMode	Antenna	Frequency[MHz]	DTS BW [MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
11B	Ant1	2412	10.160	2406.960	2417.120	0.5	PASS
		2437	10.200	2431.920	2442.120	0.5	PASS
		2462	10.240	2456.920	2467.160	0.5	PASS
11G	Ant1	2412	16.000	2404.040	2420.040	0.5	PASS
		2437	15.800	2429.040	2444.840	0.5	PASS
		2462	15.920	2454.080	2470.000	0.5	PASS
11N20SISO	Ant1	2412	15.520	2404.160	2419.680	0.5	PASS
		2437	16.800	2428.800	2445.600	0.5	PASS
		2462	16.840	2453.400	2470.240	0.5	PASS
11N40SISO	Ant1	2422	35.920	2404.160	2440.080	0.5	PASS
		2437	34.720	2420.200	2454.920	0.5	PASS
		2452	35.680	2434.320	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



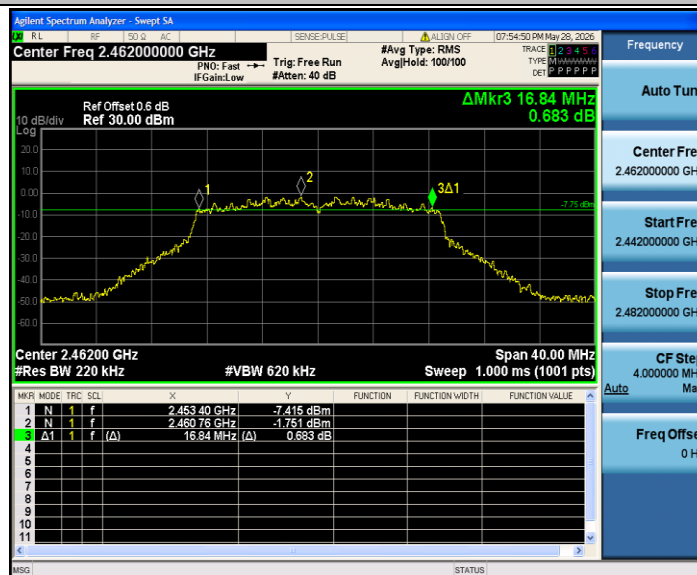
11N20SISO_Ant1_2412



11N20SISO_Ant1_2437



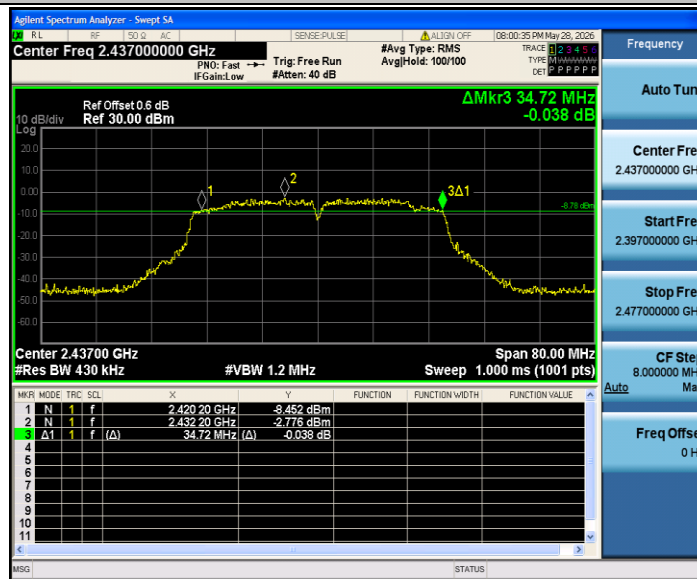
11N20SISO_Ant1_2462



11N40SISO_Ant1_2422



11N40SISO_Ant1_2437



11N40SISO_Ant1_2452



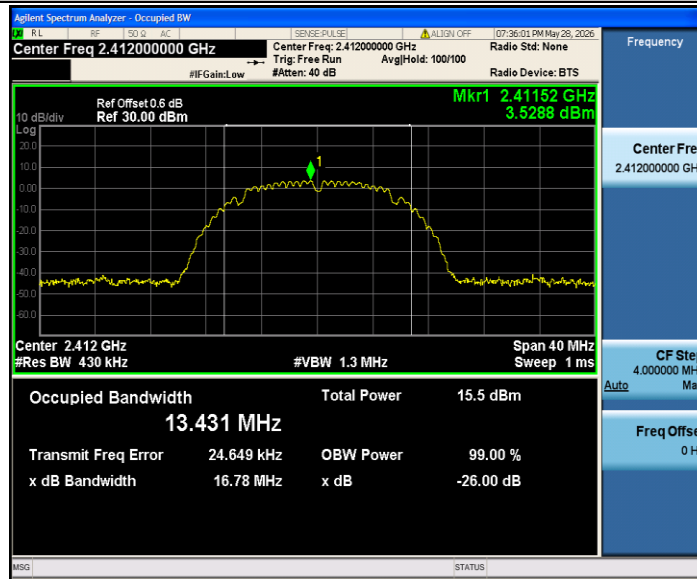
Appendix B: Occupied Channel Bandwidth

Test Result

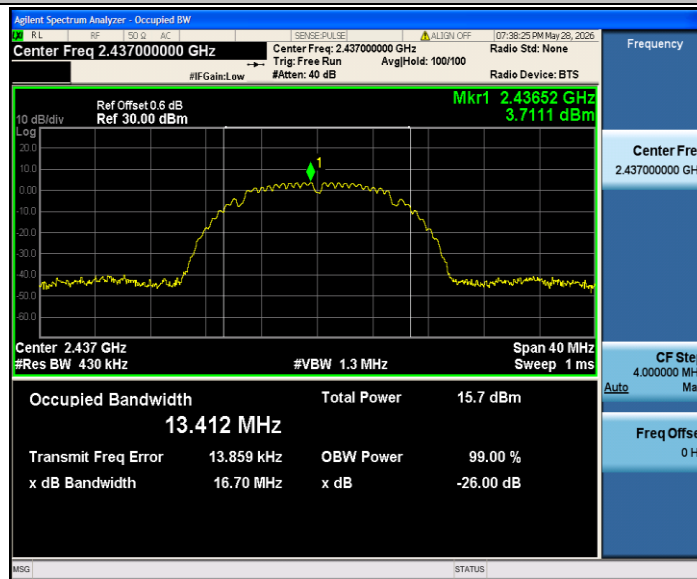
TestMode	Antenna	Channel Frequency[MHz]	OCB [MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
11B	Ant1	2412	13.431	2405.3092	2418.7402	---	---
		2437	13.412	2430.3079	2443.7199	---	---
		2462	13.433	2455.2924	2468.7254	---	---
11G	Ant1	2412	16.850	2403.6193	2420.4693	---	---
		2437	16.891	2428.5776	2445.4686	---	---
		2462	16.821	2453.5953	2470.4163	---	---
11N20SISO	Ant1	2412	17.851	2403.1057	2420.9567	---	---
		2437	17.851	2428.0814	2445.9324	---	---
		2462	17.966	2453.0100	2470.9760	---	---
11N40SISO	Ant1	2422	36.063	2404.0686	2440.1316	---	---
		2437	36.029	2419.0762	2455.1052	---	---
		2452	36.118	2434.0461	2470.1641	---	---

Test Graphs

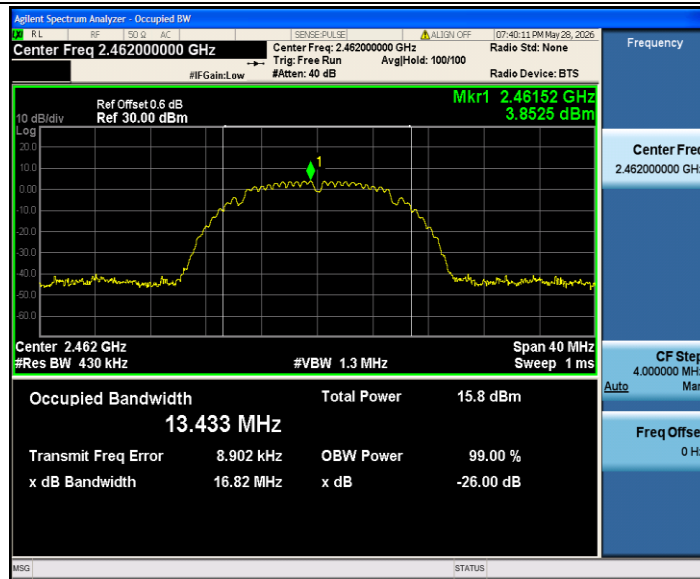
11B_Ant1_2412



11B_Ant1_2437



11B_Ant1_2462



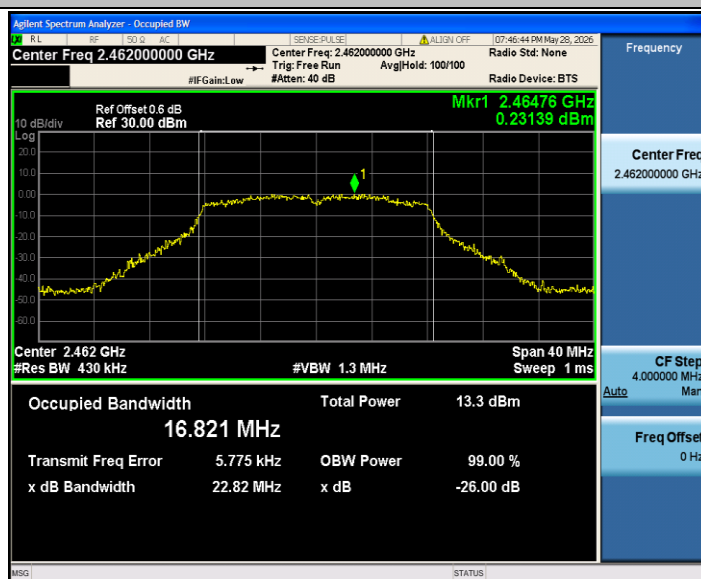
11G_Ant1_2412



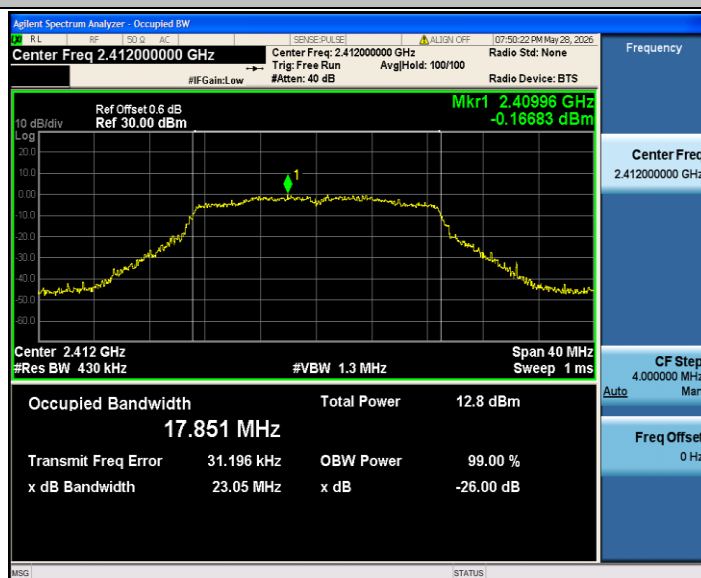
11G_Ant1_2437



11G_Ant1_2462



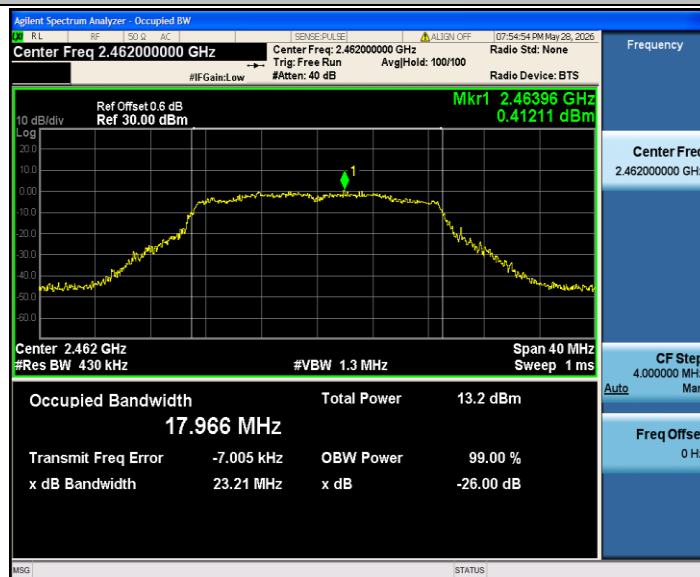
11N20SISO_Ant1_2412



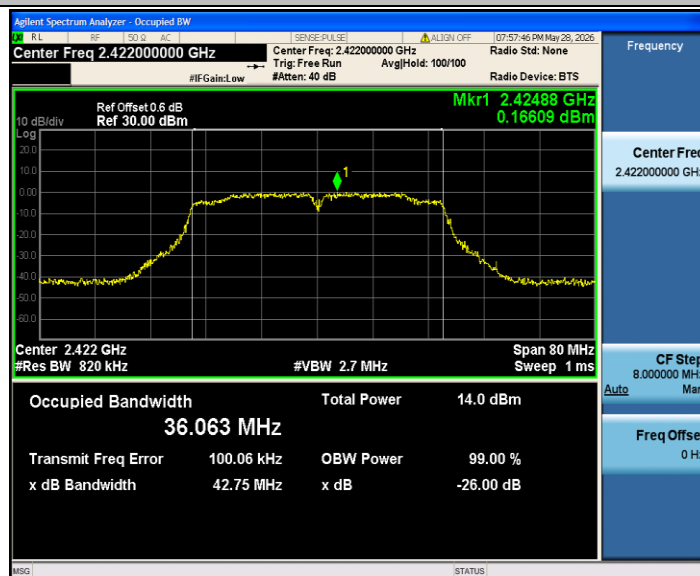
11N20SISO_Ant1_2437



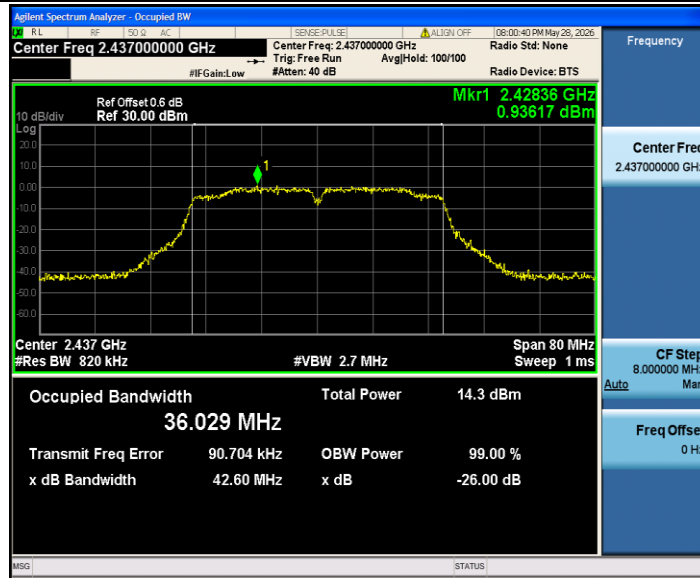
11N20SISO_Ant1_2462



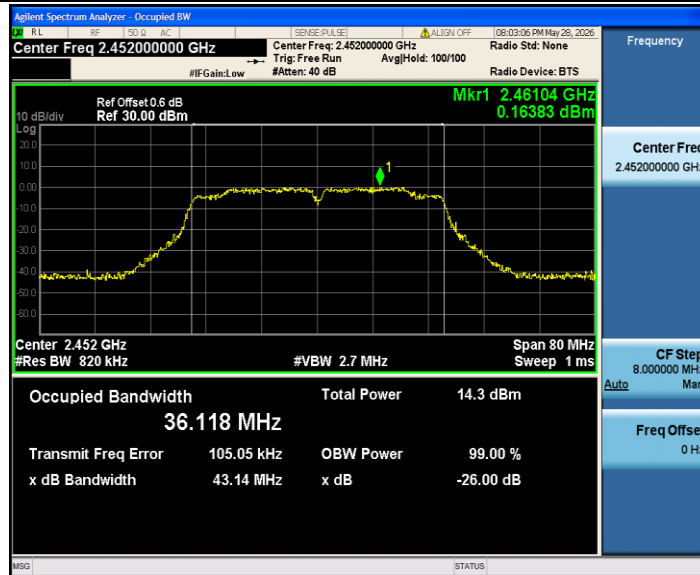
11N40SISO_Ant1_2422



11N40SISO_Ant1_2437



11N40SISO_Ant1_2452



Appendix C: Maximum conducted output power

Test Result

Test Mode	Antenna	Frequency[M Hz]	Result [dBm]	Limit [dBm]	Verdict
11B	Ant1	2412	15.19	≤30.00	PASS
		2437	15.35	≤30.00	PASS
		2462	15.49	≤30.00	PASS
11G	Ant1	2412	13.90	≤30.00	PASS
		2437	14.13	≤30.00	PASS
		2462	14.25	≤30.00	PASS
11N20SISO	Ant1	2412	13.56	≤30.00	PASS
		2437	13.94	≤30.00	PASS
		2462	14.03	≤30.00	PASS
11N40SISO	Ant1	2422	14.15	≤30.00	PASS
		2437	14.33	≤30.00	PASS
		2452	14.39	≤30.00	PASS

Appendix D: Maximum power spectral density

Test Result

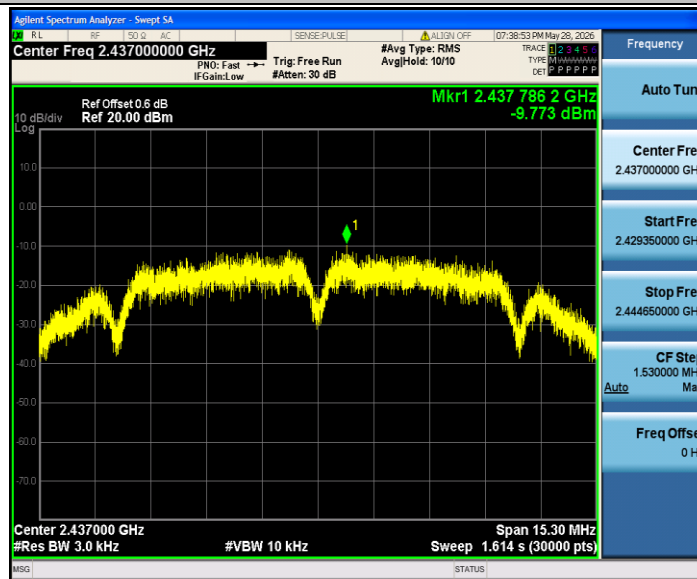
TestMode	Antenna	Frequency[MHz]	Result[dBm/3-100kHz]	Limit[dBm/3kHz]	Verdict
11B	Ant1	2412	-10.90	≤8.00	PASS
		2437	-9.77	≤8.00	PASS
		2462	-9.71	≤8.00	PASS
11G	Ant1	2412	-18.52	≤8.00	PASS
		2437	-17.72	≤8.00	PASS
		2462	-17.86	≤8.00	PASS
11N20SISO	Ant1	2412	-17.51	≤8.00	PASS
		2437	-18.24	≤8.00	PASS
		2462	-17.52	≤8.00	PASS
11N40SISO	Ant1	2422	-20.22	≤8.00	PASS
		2437	-19.63	≤8.00	PASS
		2452	-20.56	≤8.00	PASS

Test Graphs

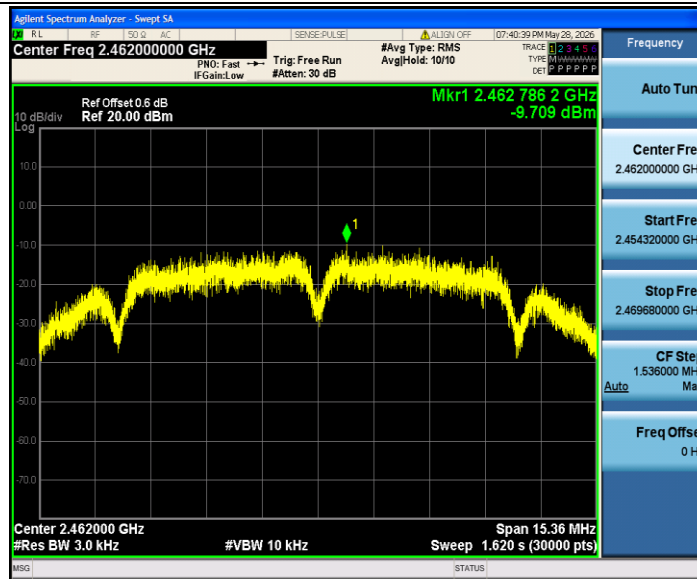
11B_Ant1_2412



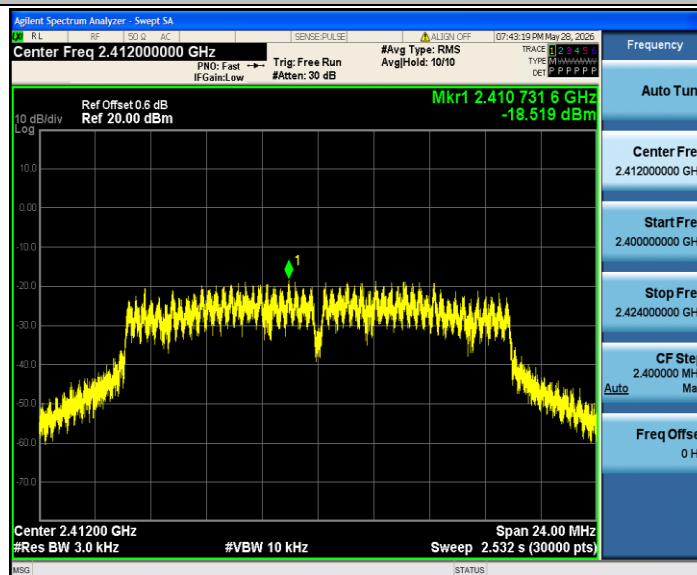
11B_Ant1_2437



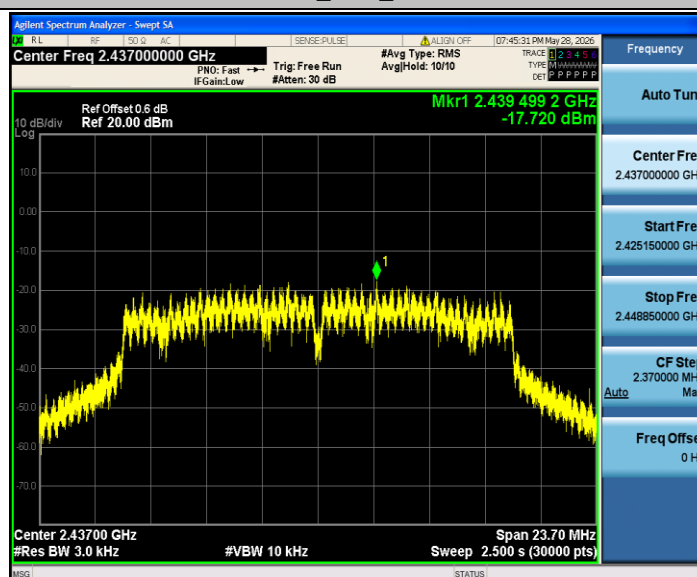
11B_Ant1_2462



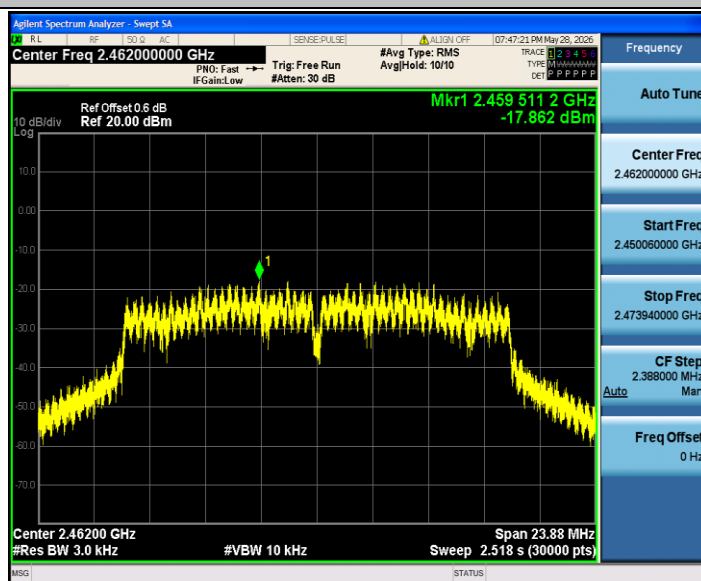
11G_Ant1_2412



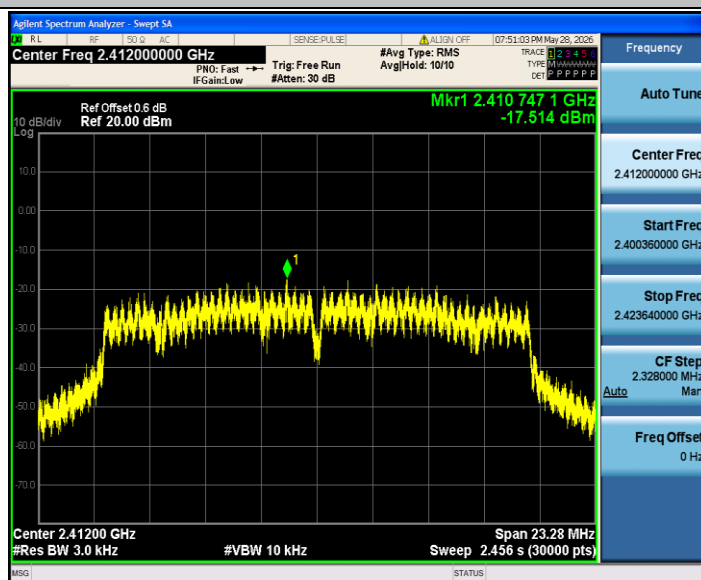
11G_Ant1_2437



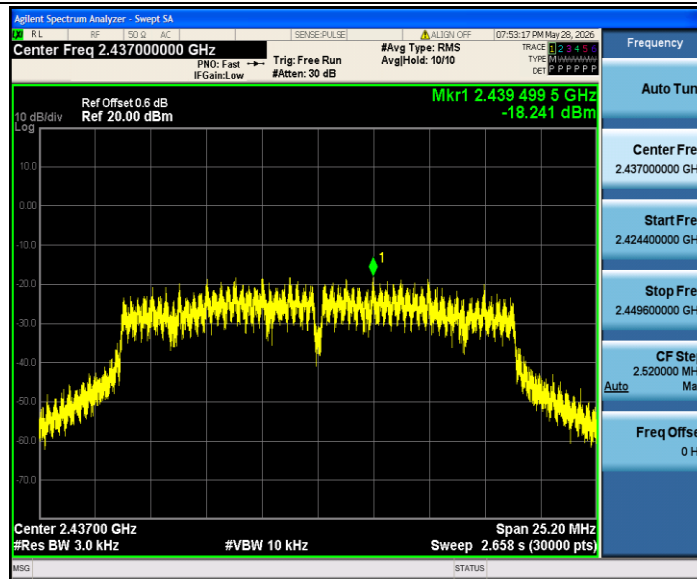
11G_Ant1_2462



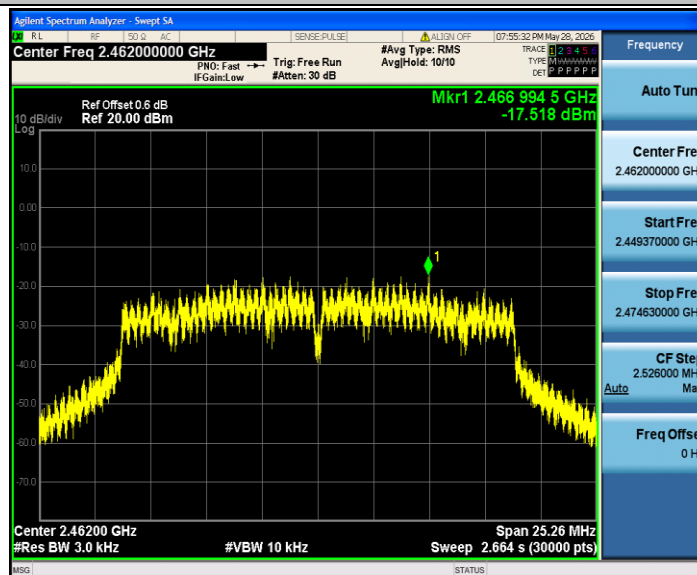
11N20SISO_Ant1_2412



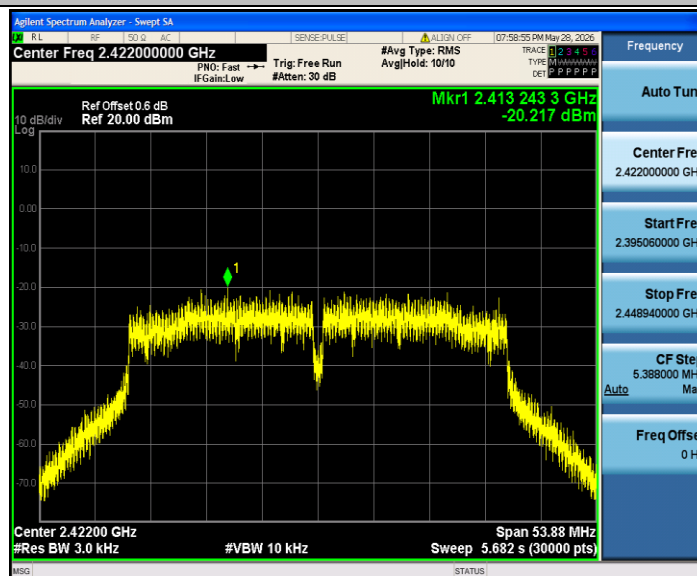
11N20SISO_Ant1_2437



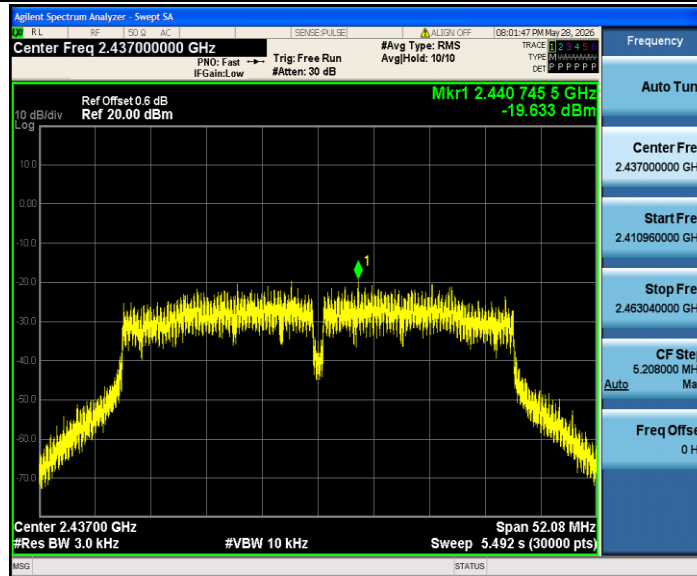
11N20SISO_Ant1_2462



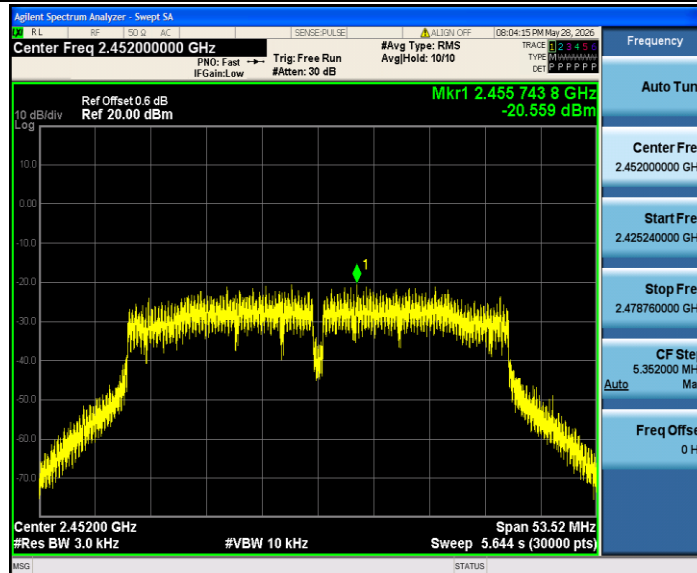
11N40SISO_Ant1_2422



11N40SISO_Ant1_2437



11N40SISO_Ant1_2452



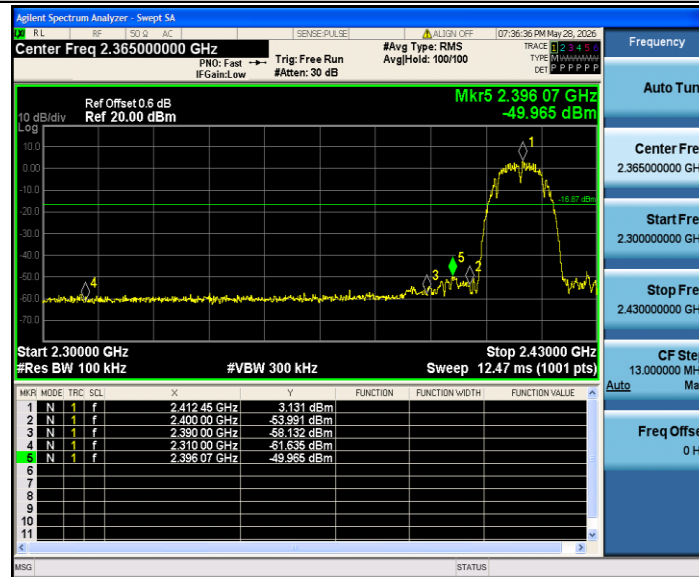
Appendix E: Band edge measurements

Test Result

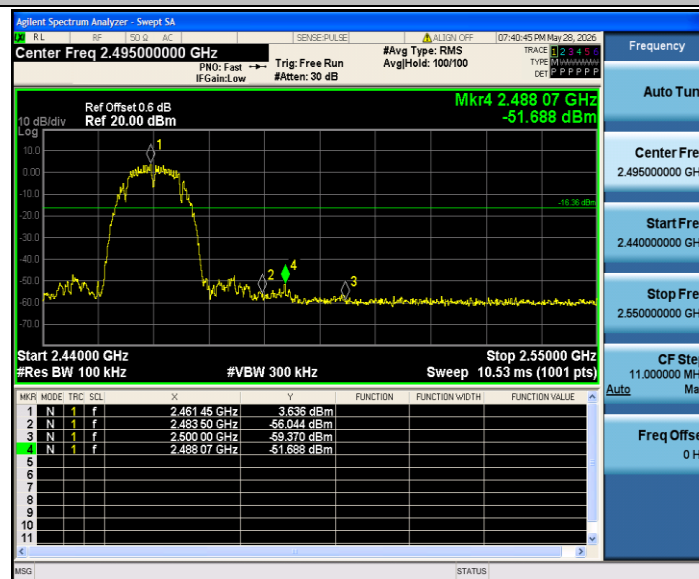
TestMode	Antenna	Channel Name	Frequency[MHz]	RefLevel[dBm]	Result[dBm]	Limit[dBm]	Verdict
11B	Ant1	Low	2412	3.13	-49.97	≤-16.87	PASS
		High	2462	3.64	-51.69	≤-16.36	PASS
11G	Ant1	Low	2412	-2.55	-33.88	≤-22.55	PASS
		High	2462	-2.26	-57.34	≤-22.26	PASS
11N20SISO	Ant1	Low	2412	-2.69	-33.83	≤-22.69	PASS
		High	2462	-2.64	-56.72	≤-22.64	PASS
11N40SISO	Ant1	Low	2422	-5.95	-33.58	≤-25.95	PASS
		High	2452	-5.65	-57.19	≤-25.65	PASS

Test Graphs

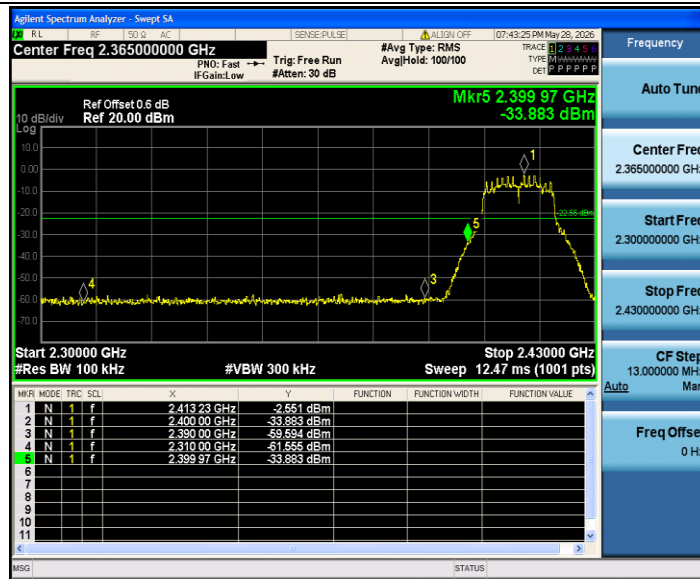
11B_Ant1_Low_2412



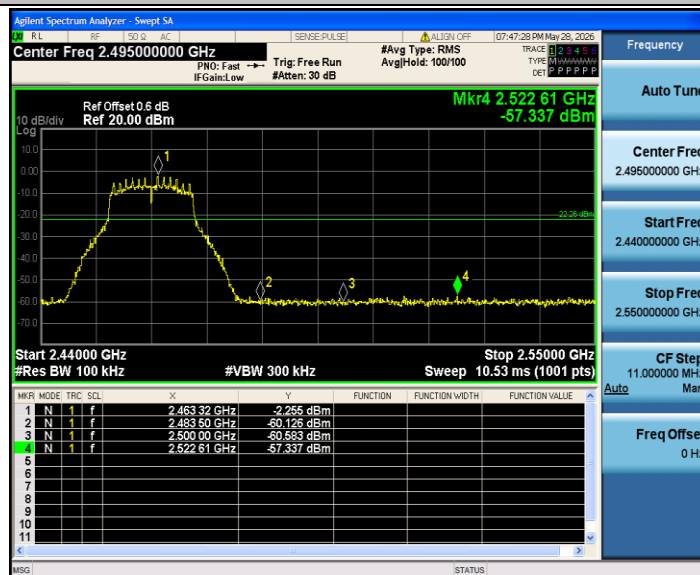
11B_Ant1_High_2462



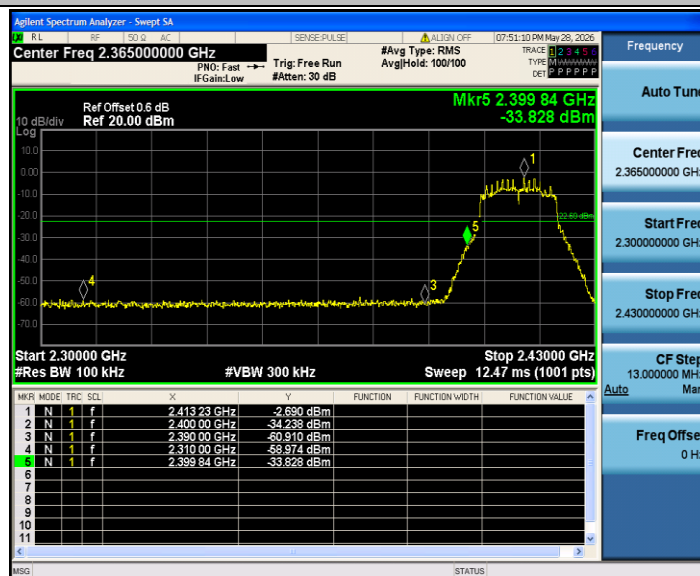
11G_Ant1_Low_2412



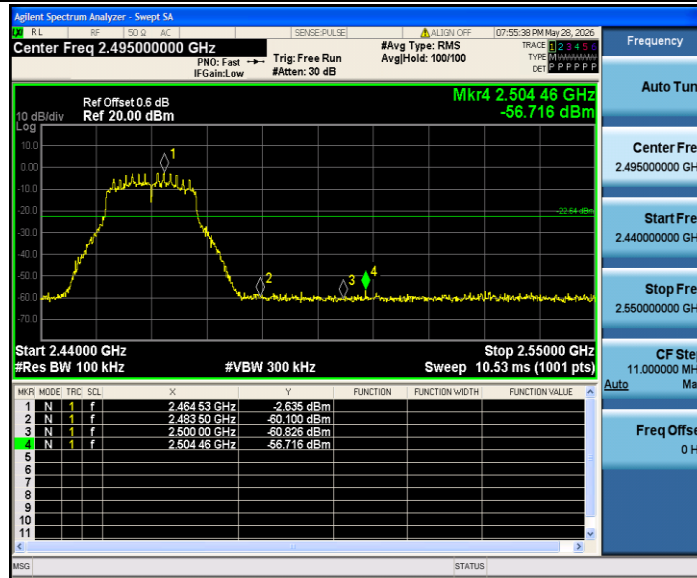
11G_Ant1_High_2462



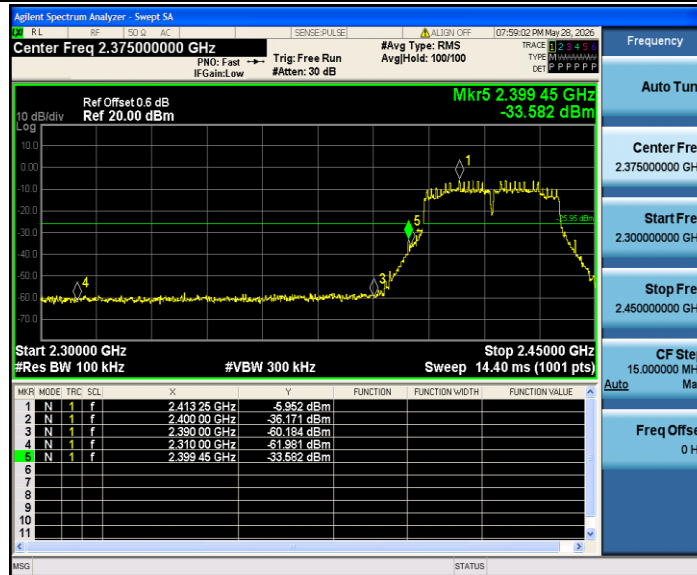
11N20SISO_Ant1_Low_2412



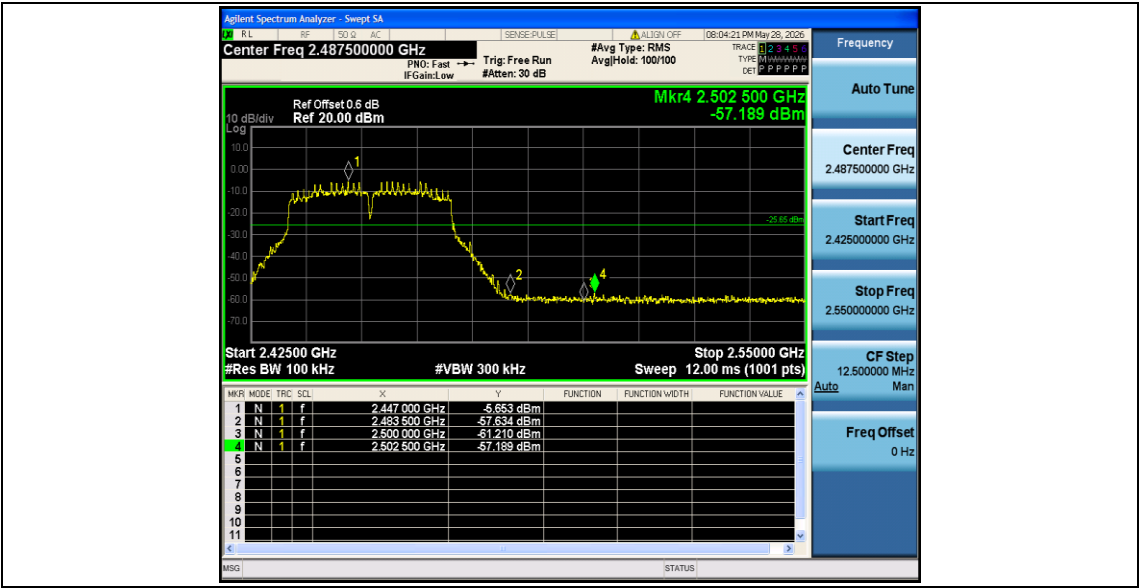
11N20SISO_Ant1_High_2462



11N40SISO_Ant1_Low_2422



11N40SISO_Ant1_High_2452



Appendix F: Conducted Spurious Emission

Test Result

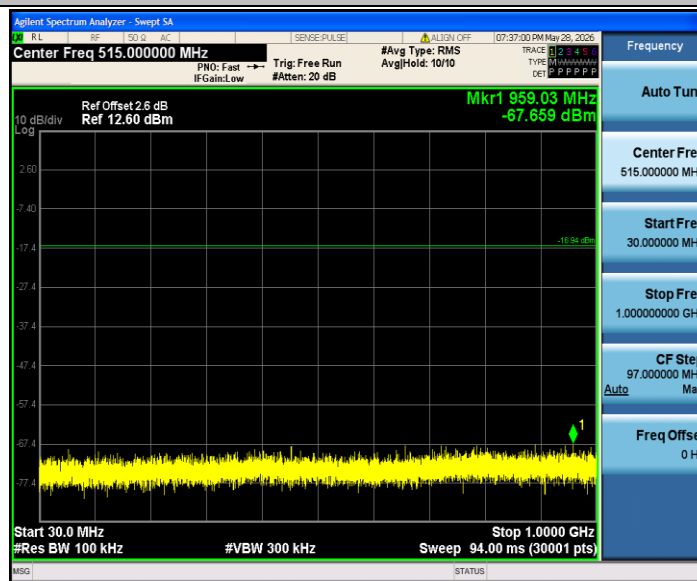
TestMode	Antenna	Frequency[MHz]	FreqRange [Mhz]	RefLevel [dBm]	Result [dBm]	Limit [dBm]	Verdict
11B	Ant1	2412	Reference	3.06	3.06	---	PASS
			30~1000	3.06	-67.66	≤-16.94	PASS
			1000~26500	3.06	-53.59	≤-16.94	PASS
		2437	Reference	2.24	2.24	---	PASS
			30~1000	2.24	-67.55	≤-17.76	PASS
			1000~26500	2.24	-53.63	≤-17.76	PASS
		2462	Reference	3.21	3.21	---	PASS
			30~1000	3.21	-67.45	≤-16.79	PASS
			1000~26500	3.21	-52.08	≤-16.79	PASS
11G	Ant1	2412	Reference	-3.96	-3.96	---	PASS
			30~1000	-3.96	-67.71	≤-23.96	PASS
			1000~26500	-3.96	-54.9	≤-23.96	PASS
		2437	Reference	-3.19	-3.19	---	PASS
			30~1000	-3.19	-67.55	≤-23.19	PASS
			1000~26500	-3.19	-54.86	≤-23.19	PASS
		2462	Reference	-3.07	-3.07	---	PASS
			30~1000	-3.07	-67.41	≤-23.07	PASS
			1000~26500	-3.07	-54.15	≤-23.07	PASS
11N20SISO	Ant1	2412	Reference	-3.85	-3.85	---	PASS
			30~1000	-3.85	-67.9	≤-23.85	PASS
			1000~26500	-3.85	-55.04	≤-23.85	PASS
		2437	Reference	-2.86	-2.86	---	PASS
			30~1000	-2.86	-67.53	≤-22.86	PASS
			1000~26500	-2.86	-54.88	≤-22.86	PASS
		2462	Reference	-2.57	-2.57	---	PASS
			30~1000	-2.57	-63.27	≤-22.57	PASS
			1000~26500	-2.57	-55.31	≤-22.57	PASS
11N40SISO	Ant1	2422	Reference	-6.46	-6.46	---	PASS
			30~1000	-6.46	-62.51	≤-26.46	PASS
			1000~26500	-6.46	-54.65	≤-26.46	PASS
		2437	Reference	-5.50	-5.50	---	PASS
			30~1000	-5.50	-66.9	≤-25.5	PASS
			1000~26500	-5.50	-55.09	≤-25.5	PASS
		2452	Reference	-6.05	-6.05	---	PASS
			30~1000	-6.05	-67.66	≤-26.05	PASS
			1000~26500	-6.05	-55.23	≤-26.05	PASS

Test Graphs

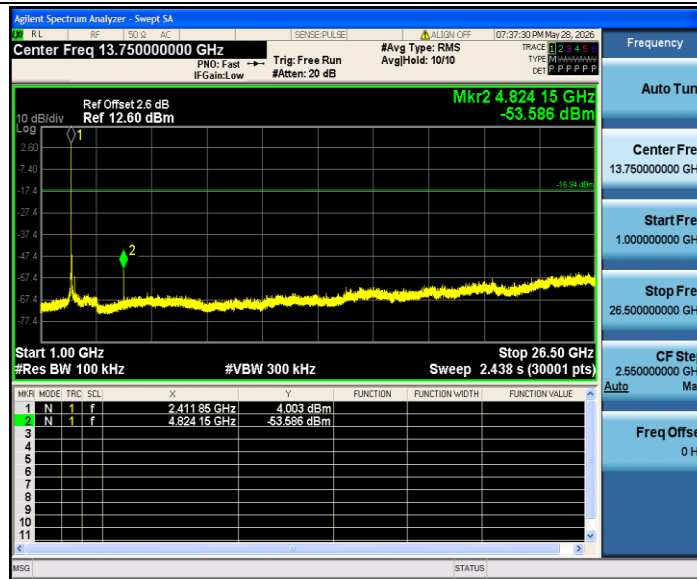
11B_Ant1_2412_0~Reference



11B_Ant1_2412_30~1000



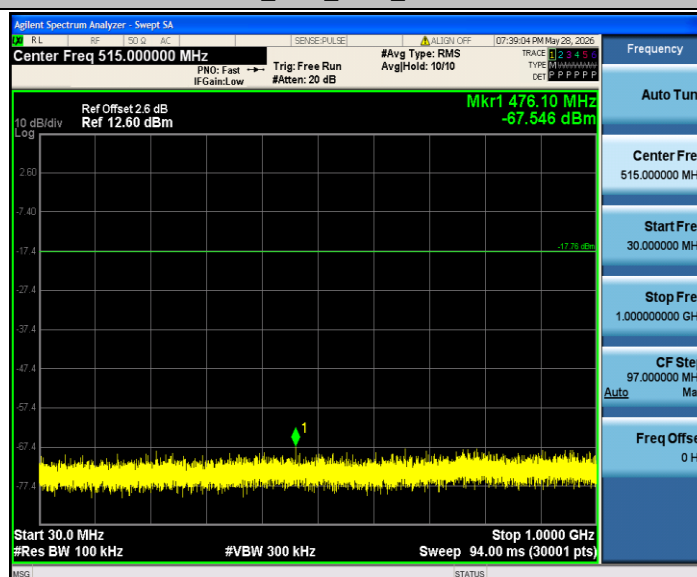
11B_Ant1_2412_1000~26500



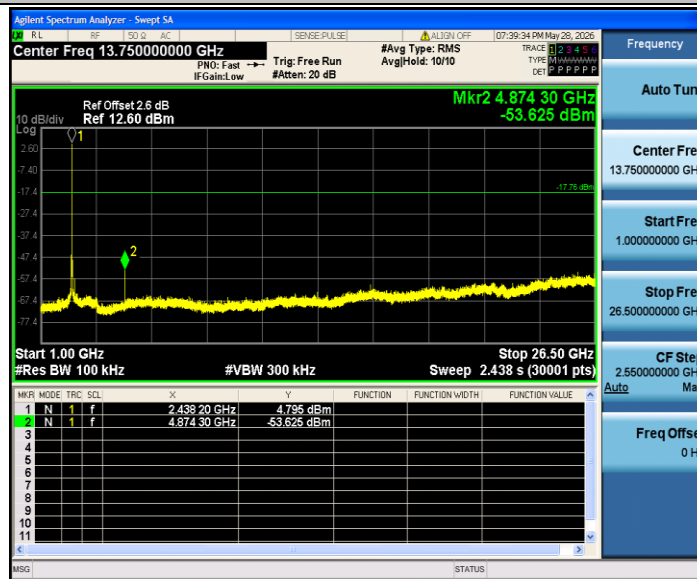
11B_Ant1_2437_0~Reference



11B_Ant1_2437_30~1000



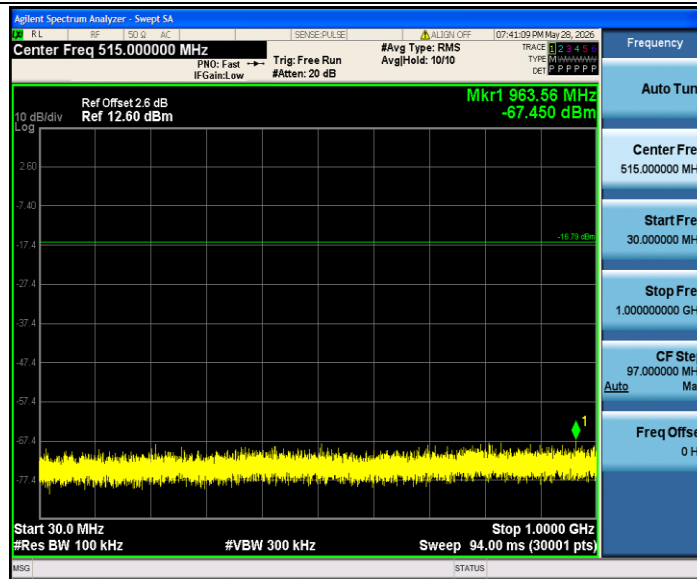
11B_Ant1_2437_1000~26500



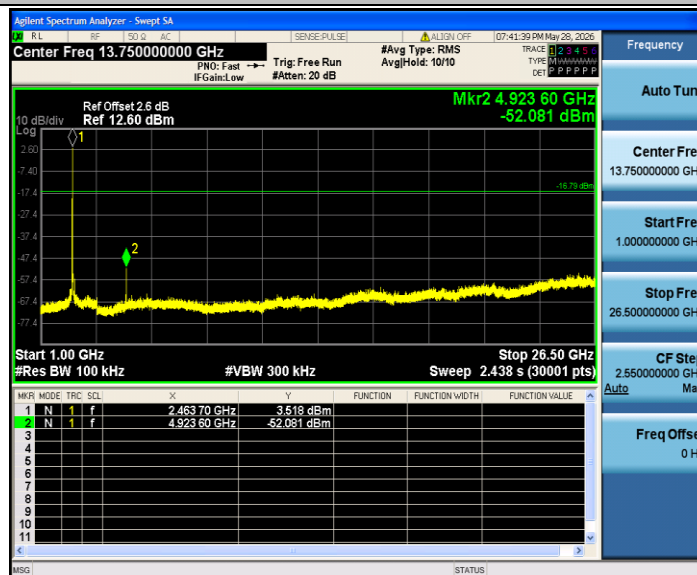
11B_Ant1_2462_0~Reference



11B_Ant1_2462_30~1000



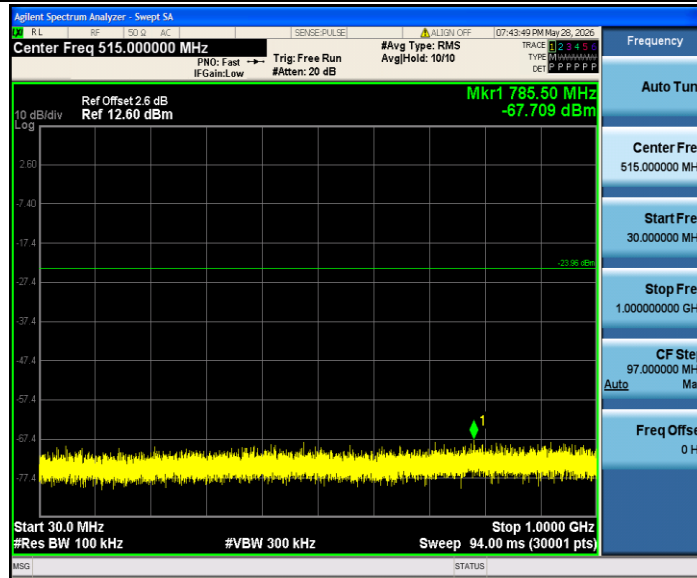
11B_Ant1_2462_1000~26500



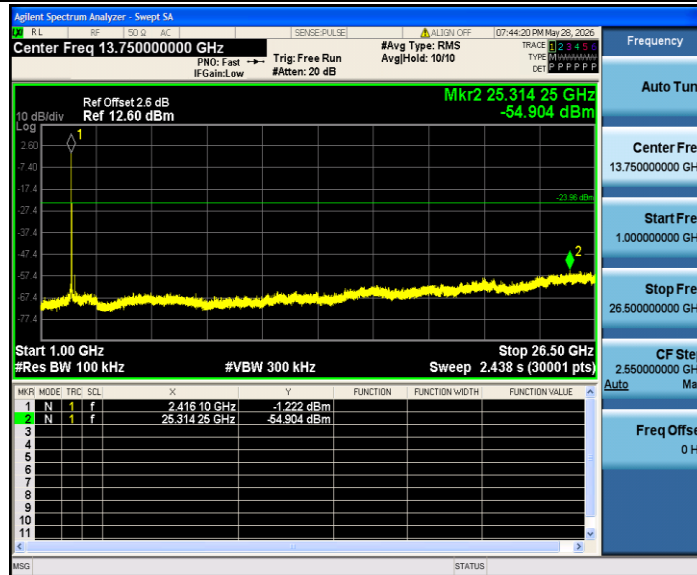
11G_Ant1_2412_0~Reference



11G_Ant1_2412_30~1000



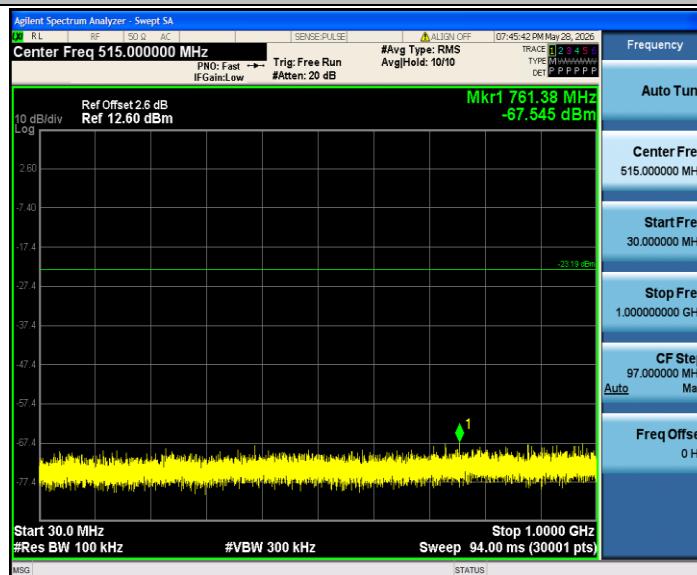
11G_Ant1_2412_1000~26500



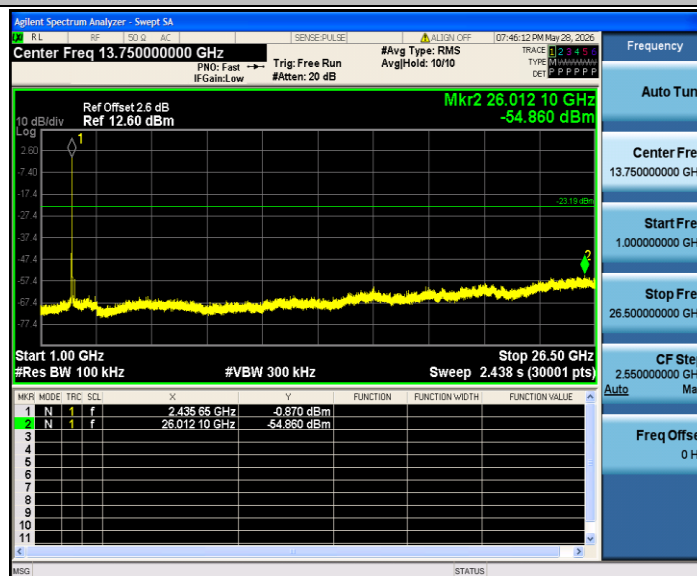
11G_Ant1_2437_0~Reference



11G_Ant1_2437_30~1000



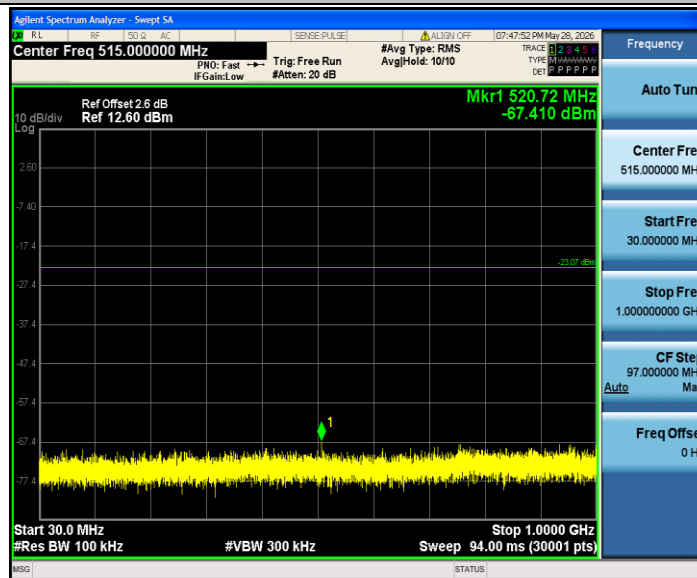
11G_Ant1_2437_1000~26500



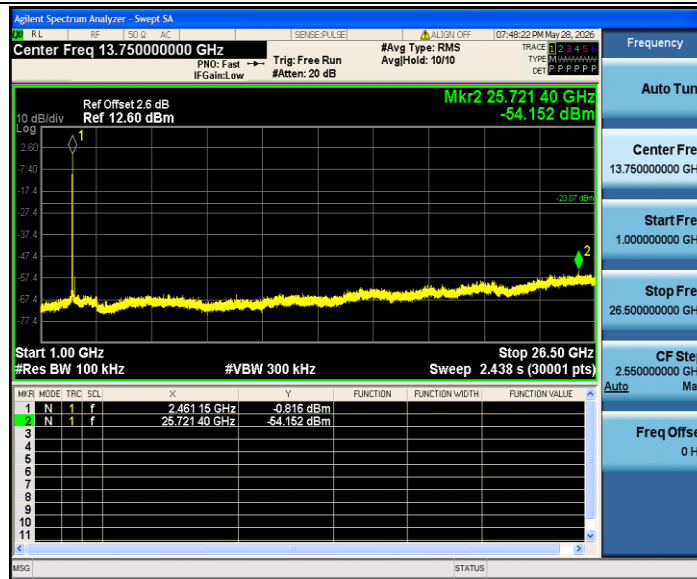
11G_Ant1_2462_0~Reference



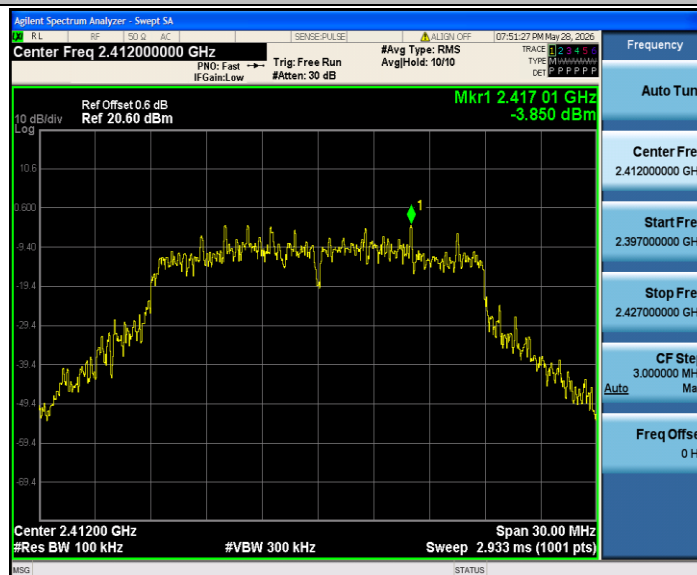
11G_Ant1_2462_30~1000



11G_Ant1_2462_1000~26500



11N20SISO_Ant1_2412_0~Reference



11N20SISO_Ant1_2412_30~1000

