

Case No. : <u>CTA24080500101</u>	
Ambient Condition: <u>22</u> °C, <u>52</u> %RH, According Standard: ■Part15C	
Test Date: <u>2024.8.9</u>	Test Engineer: <u>Lushan Kong</u>

Appendix A.1: DTS Bandwidth

Test Result

TestMode	Antenna	Frequency[MHz]	DTS BW [MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
11B	Ant1	2412	10.040	2406.960	2417.000	0.5	PASS
		2437	10.120	2431.920	2442.040	0.5	PASS
		2462	10.040	2456.920	2466.960	0.5	PASS
11G	Ant1	2412	16.480	2403.760	2420.240	0.5	PASS
		2437	16.520	2428.720	2445.240	0.5	PASS
		2462	16.480	2453.760	2470.240	0.5	PASS
11N20SISO	Ant1	2412	17.680	2403.160	2420.840	0.5	PASS
		2437	17.600	2428.200	2445.800	0.5	PASS
		2462	17.600	2453.160	2470.760	0.5	PASS
11N40SISO	Ant1	2422	36.320	2403.840	2440.160	0.5	PASS
		2437	36.400	2418.840	2455.240	0.5	PASS
		2452	36.400	2433.760	2470.160	0.5	PASS

Test Graphs

11B_Ant1_2412



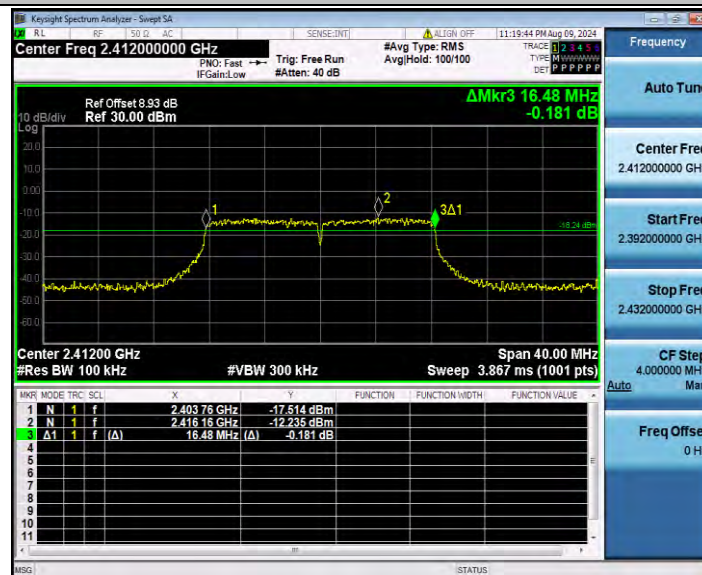
11B_Ant1_2437



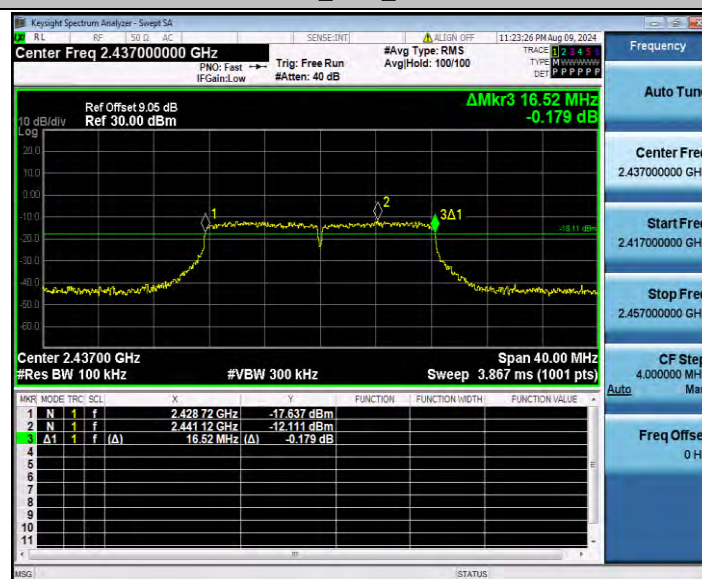
11B_Ant1_2462



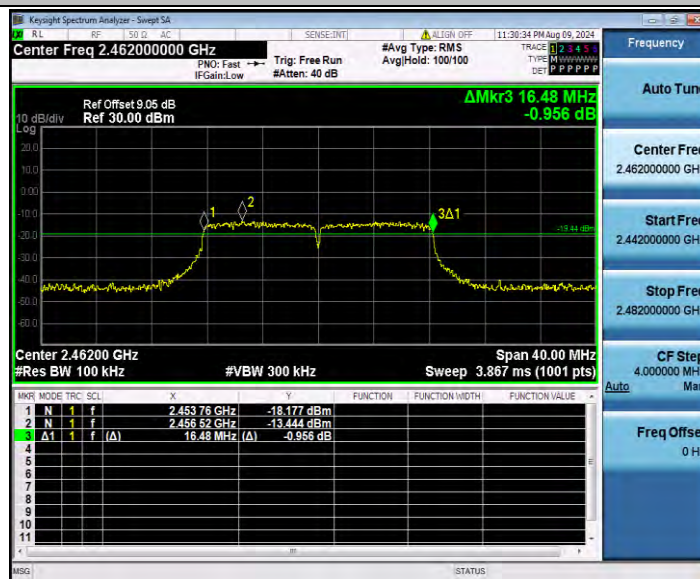
11G_Ant1_2412



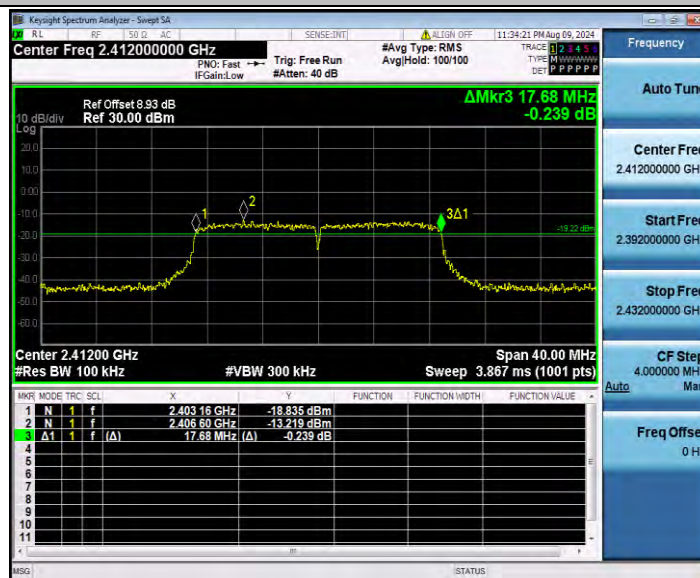
11G_Ant1_2437



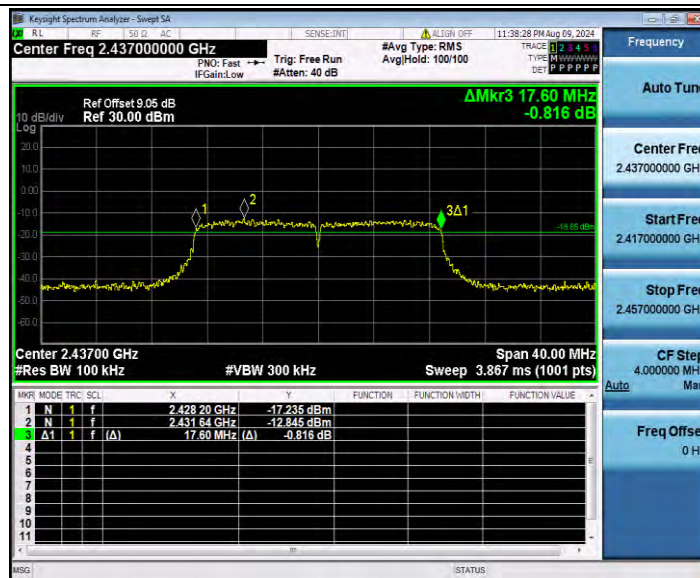
11G_Ant1_2462



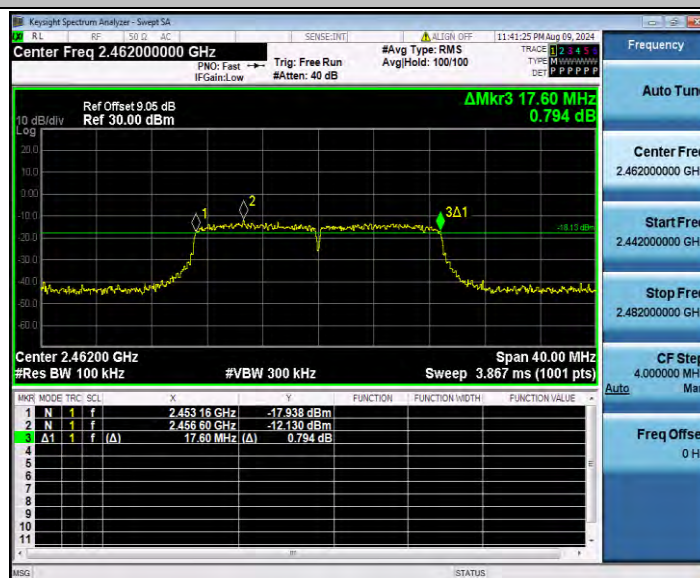
11N20SISO_Ant1_2412



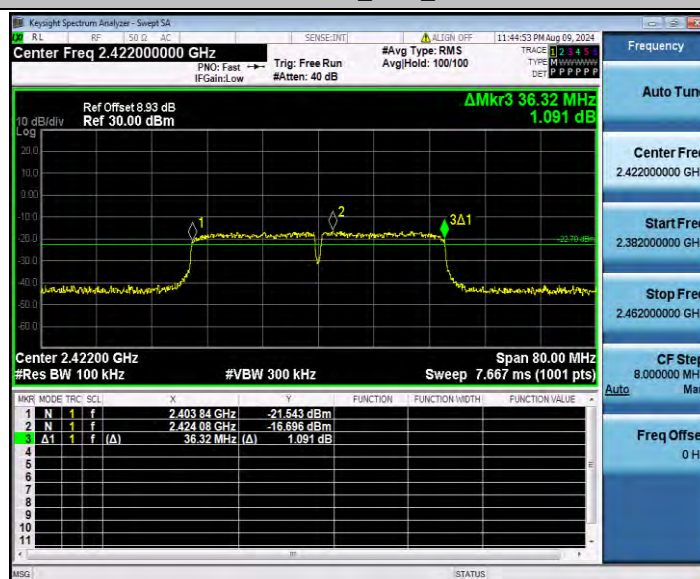
11N20SISO_Ant1_2437



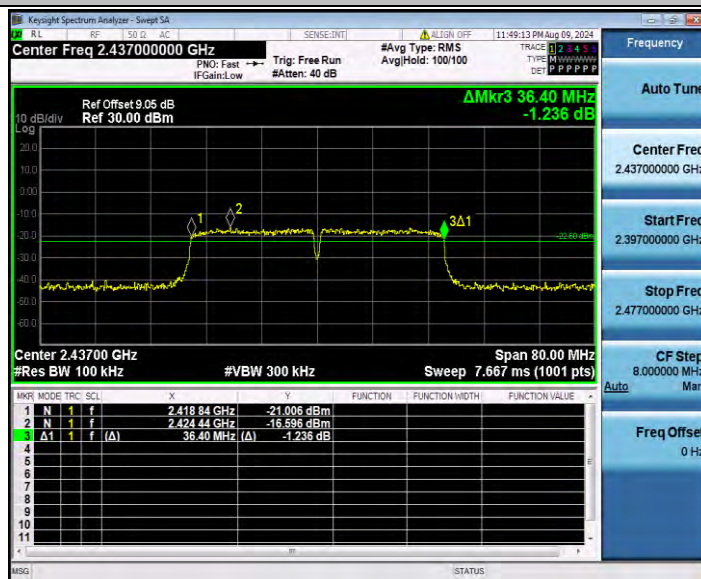
11N20SISO_Ant1_2462



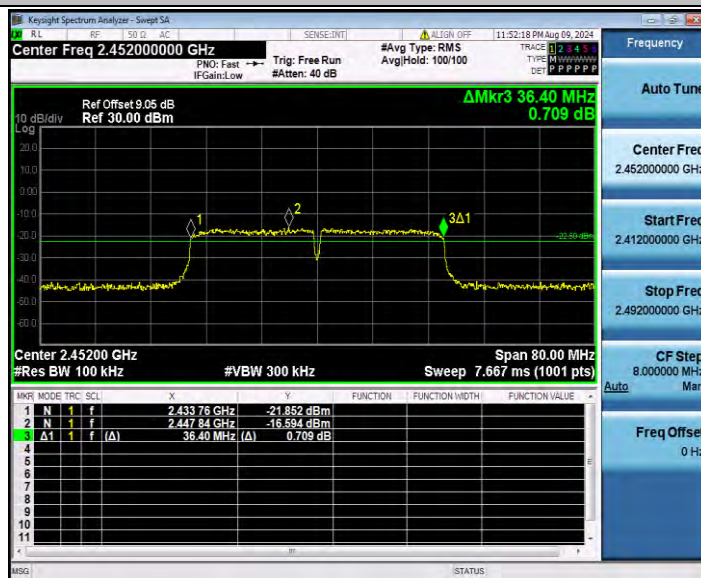
11N40SISO_Ant1_2422



11N40SISO_Ant1_2437



11N40SISO_Ant1_2452



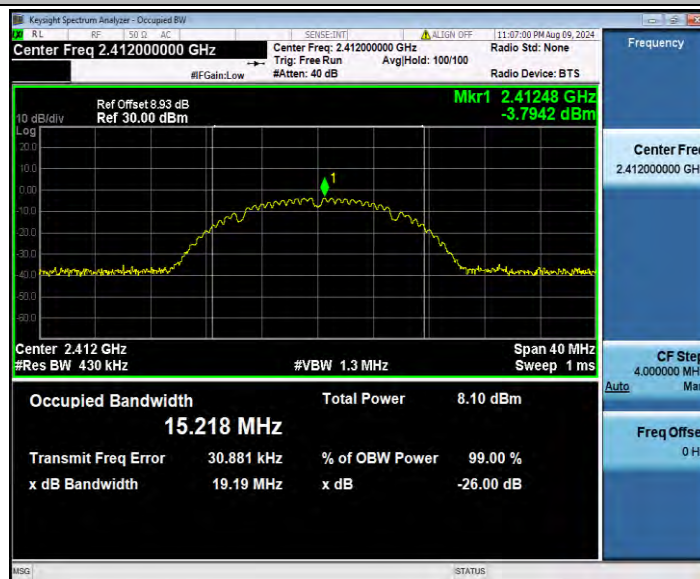
Appendix A.2: Occupied Channel Bandwidth

Test Result

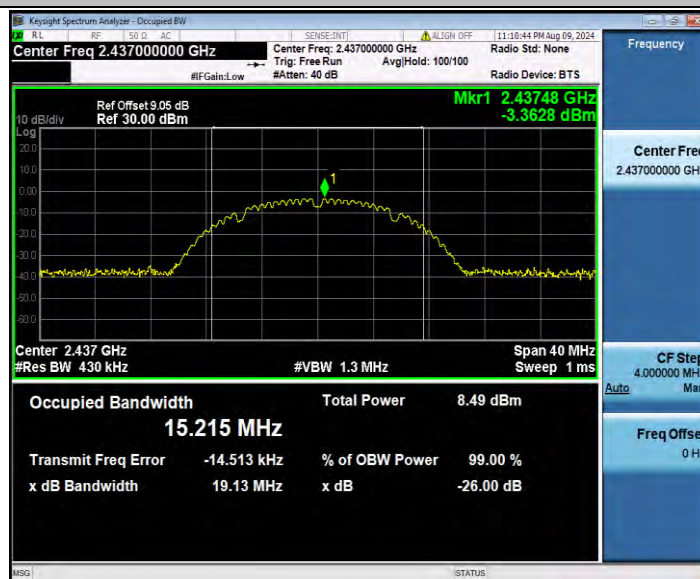
TestMode	Antenna	Channel Frequency[MHz]	OCB [MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
11B	Ant1	2412	15.218	2404.4219	2419.6399	---	---
		2437	15.215	2429.3780	2444.5930	---	---
		2462	15.191	2454.3831	2469.5741	---	---
11G	Ant1	2412	16.987	2403.4561	2420.4431	---	---
		2437	17.004	2428.3982	2445.4022	---	---
		2462	16.974	2453.4383	2470.4123	---	---
11N20SISO	Ant1	2412	17.949	2403.0398	2420.9888	---	---
		2437	18.003	2427.9812	2445.9842	---	---
		2462	17.967	2452.9895	2470.9565	---	---
11N40SISO	Ant1	2422	36.604	2403.7568	2440.3608	---	---
		2437	36.722	2418.6396	2455.3616	---	---
		2452	36.526	2433.6877	2470.2137	---	---

Test Graphs

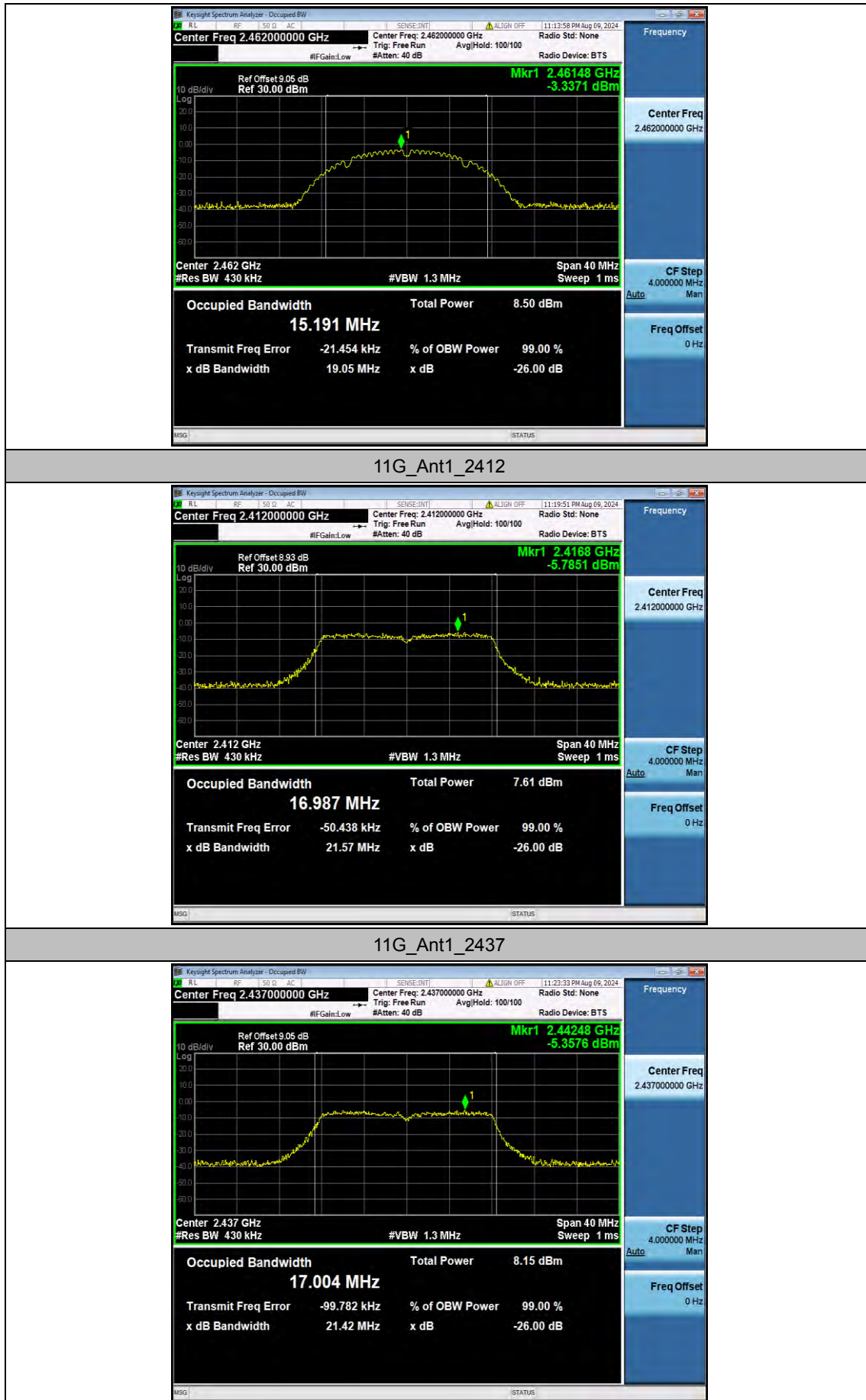
11B_Ant1_2412



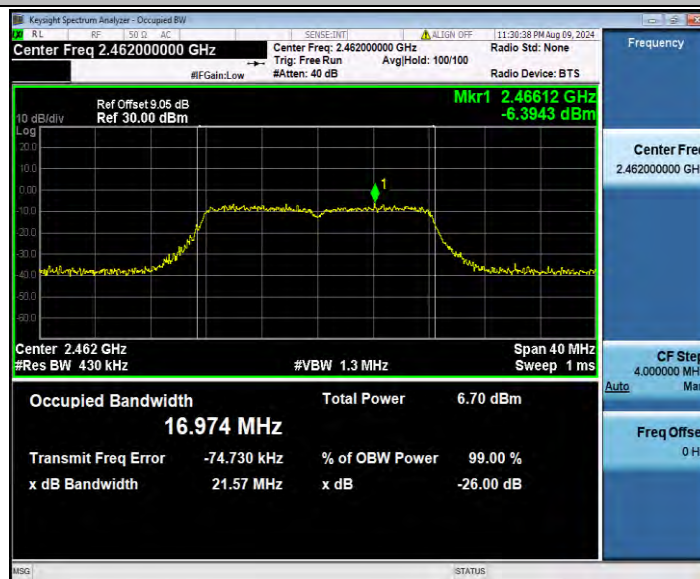
11B_Ant1_2437



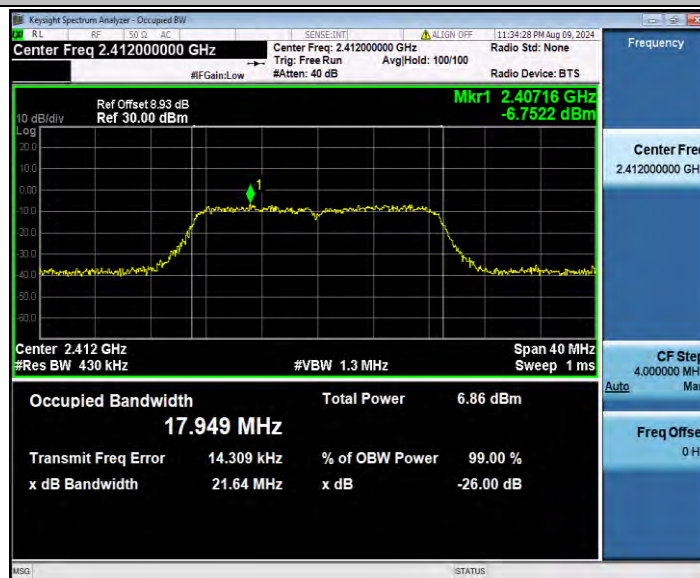
11B_Ant1_2462



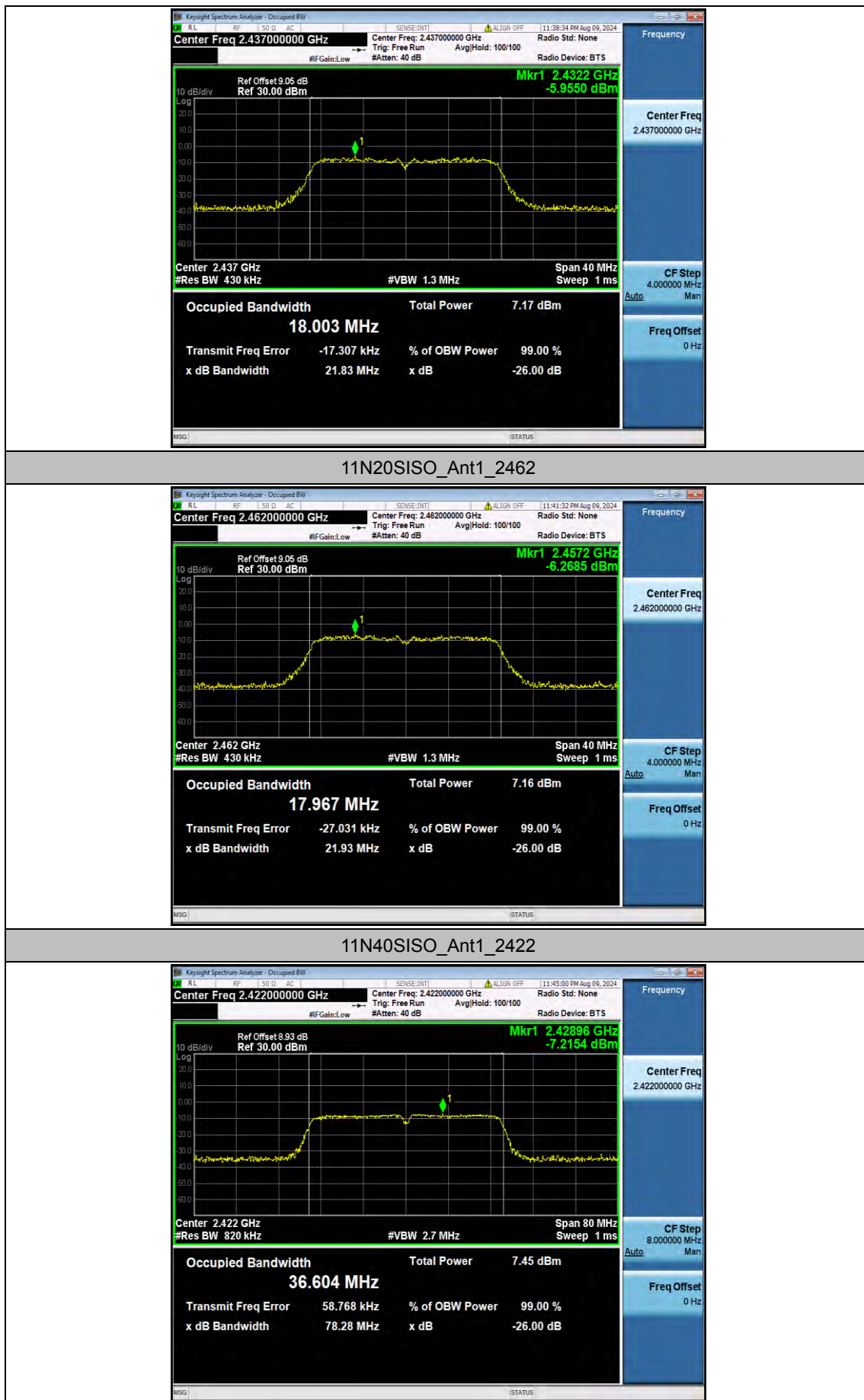
11G_Ant1_2462



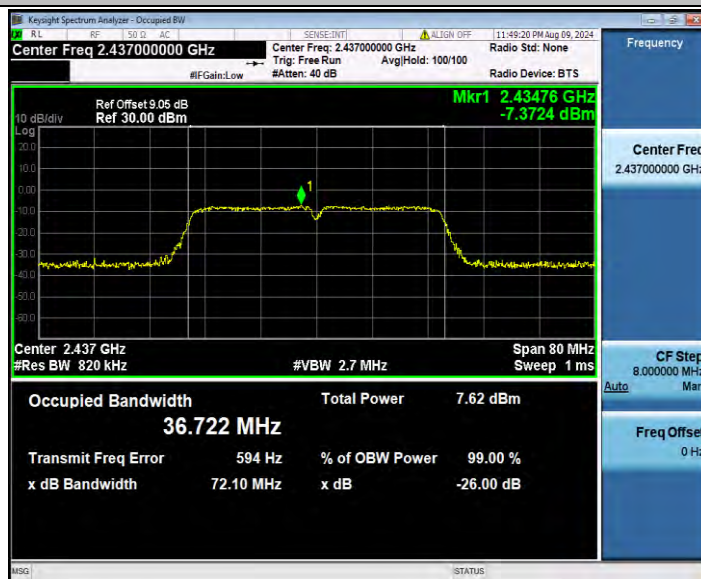
11N20SISO_Ant1_2412



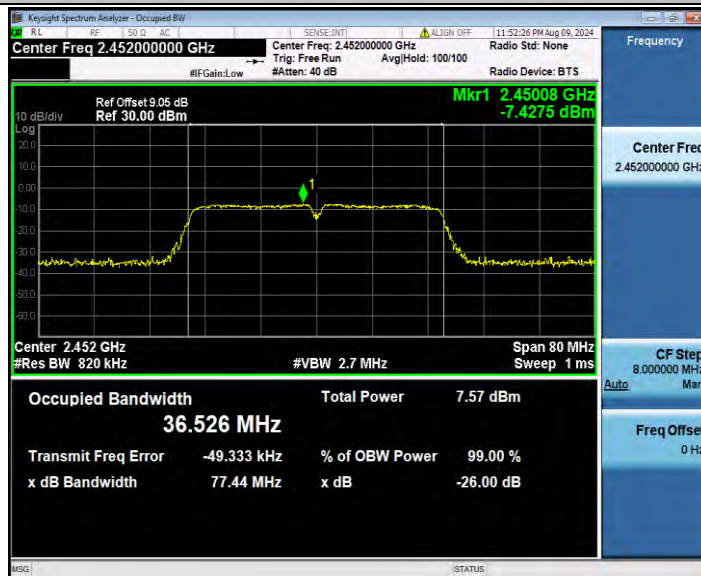
11N20SISO_Ant1_2437



11N40SISO_Ant1_2437



11N40SISO_Ant1_2452



Appendix A.3: Maximum conducted output power

Test Mode	Antenna	Frequency[MHz]	Peak power [dBm]	Limit [dBm]	Verdict
11B	Ant1	2412	8.27	≤30.00	PASS
		2437	8.63	≤30.00	PASS
		2462	8.63	≤30.00	PASS
11G	Ant1	2412	8.88	≤30.00	PASS
		2437	8.37	≤30.00	PASS
		2462	7.80	≤30.00	PASS
11N20SISO	Ant1	2412	8.21	≤30.00	PASS
		2437	8.64	≤30.00	PASS
		2462	8.52	≤30.00	PASS
11N40SISO	Ant1	2422	7.79	≤30.00	PASS
		2437	7.97	≤30.00	PASS
		2452	7.86	≤30.00	PASS

Appendix A.4: Maximum power spectral density

Test Result

TestMode	Antenna	Frequency[MHz]	Result[dBm/3-100kHz]	Limit[dBm/3kHz]	Verdict
11B	Ant1	2412	-25.14	≤8.00	PASS
		2437	-24.79	≤8.00	PASS
		2462	-24.75	≤8.00	PASS
11G	Ant1	2412	-26.82	≤8.00	PASS
		2437	-26.17	≤8.00	PASS
		2462	-28.06	≤8.00	PASS
11N20SISO	Ant1	2412	-26.32	≤8.00	PASS
		2437	-26.19	≤8.00	PASS
		2462	-26.91	≤8.00	PASS
11N40SISO	Ant1	2422	-29.27	≤8.00	PASS
		2437	-29.55	≤8.00	PASS
		2452	-28.22	≤8.00	PASS

Test Graphs

11B_Ant1_2412



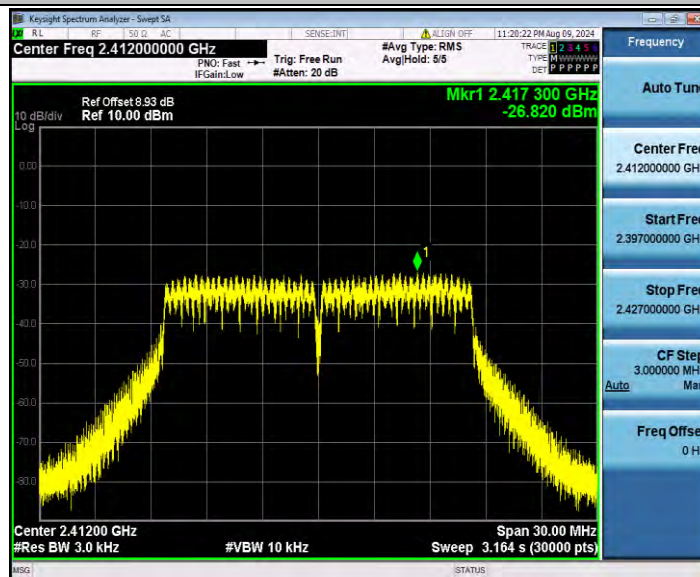
11B_Ant1_2437



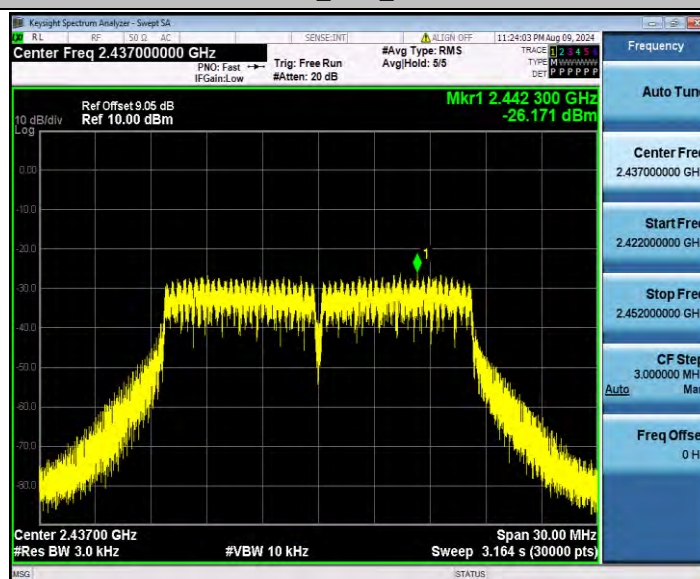
11B_Ant1_2462



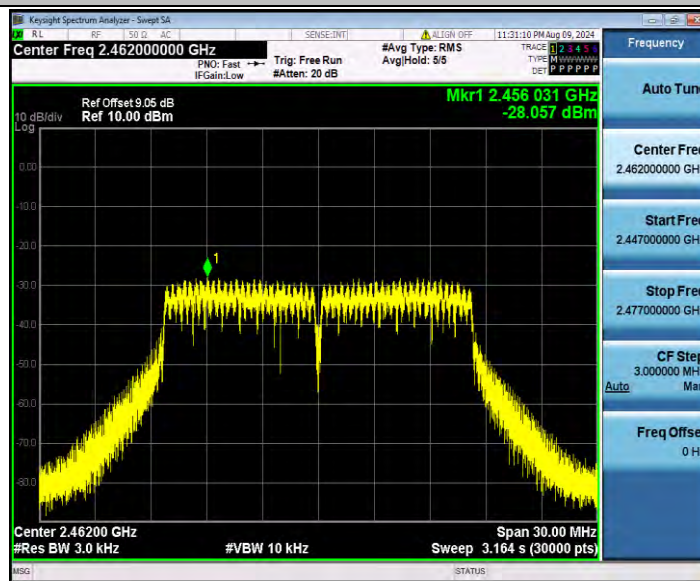
11G_Ant1_2412



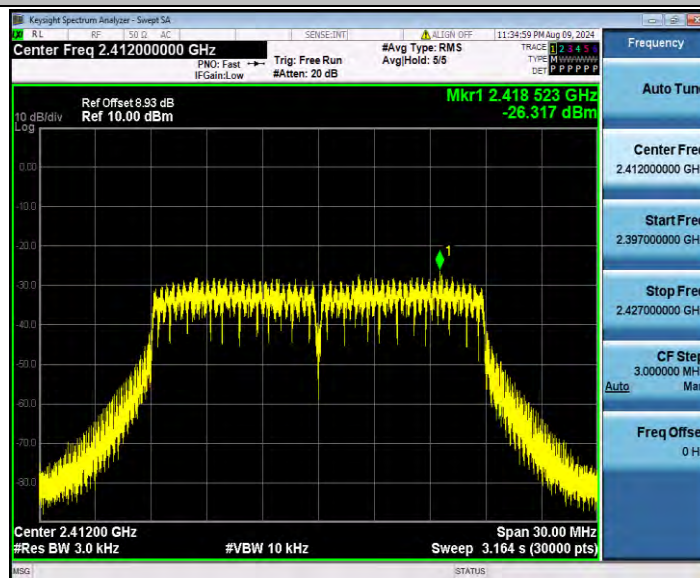
11G_Ant1_2437



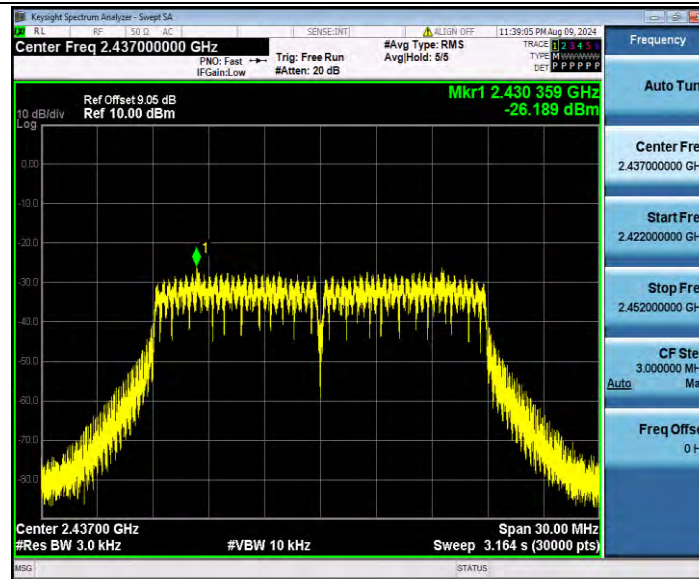
11G_Ant1_2462



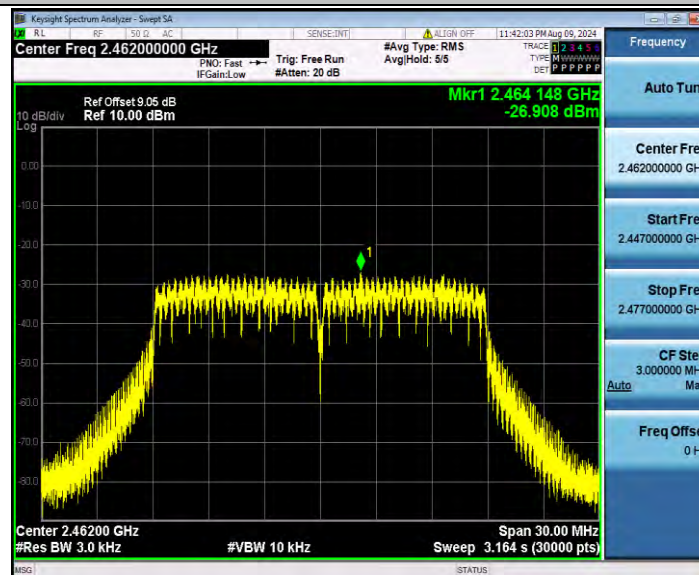
11N20SISO_Ant1_2412



11N20SISO_Ant1_2437



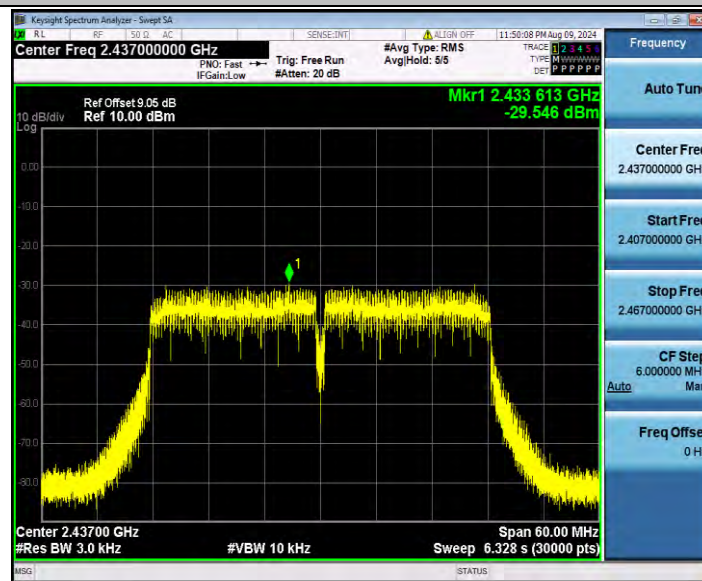
11N20SISO_Ant1_2462



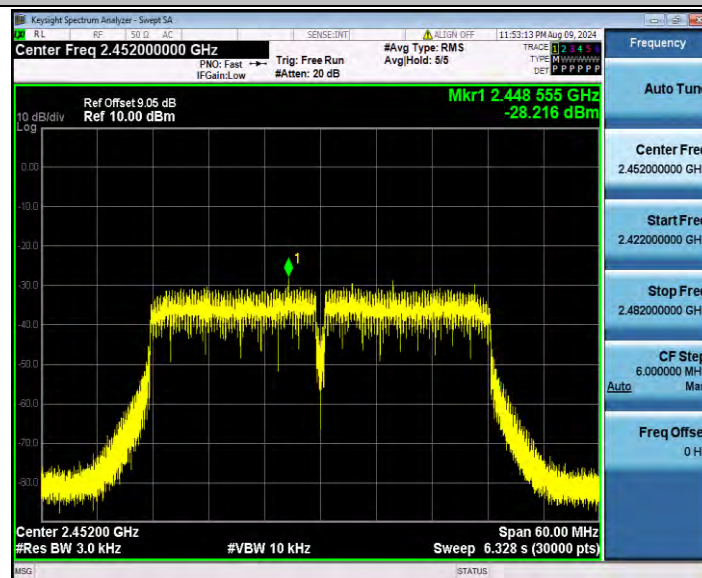
11N40SISO_Ant1_2422



11N40SISO_Ant1_2437



11N40SISO_Ant1_2452



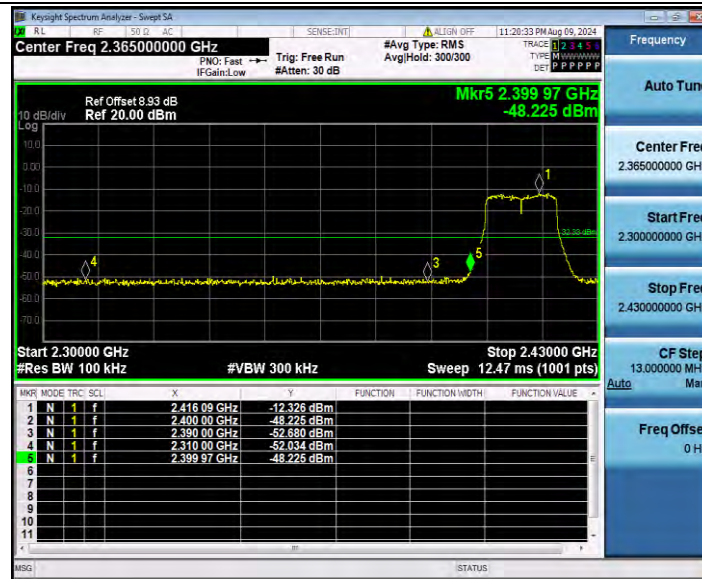
Appendix A.5: Band edge measurements

Test Result

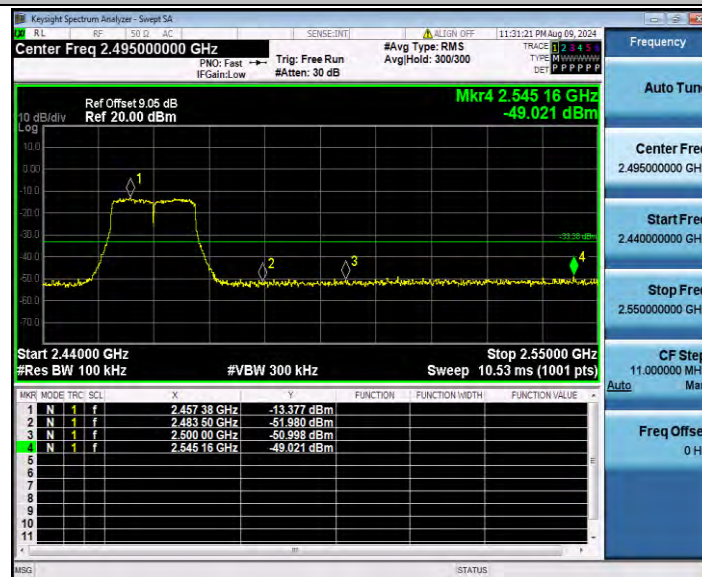
TestMode	Antenna	ChName	Frequency[MHz]	RefLevel[dBm]	Result[dBm]	Limit[dBm]	Verdict
11B	Ant1	Low	2412	-5.08	-47.84	≤ -25.08	PASS
		High	2462	-4.59	-49.03	≤ -24.59	PASS
11G	Ant1	Low	2412	-12.33	-48.23	≤ -32.33	PASS
		High	2462	-13.38	-49.02	≤ -33.38	PASS
11N20SISO	Ant1	Low	2412	-13.12	-48.2	≤ -33.12	PASS
		High	2462	-12.26	-49.61	≤ -32.26	PASS
11N40SISO	Ant1	Low	2422	-16.15	-49.22	≤ -36.15	PASS
		High	2452	-16.60	-50.03	≤ -36.6	PASS

Test Graphs

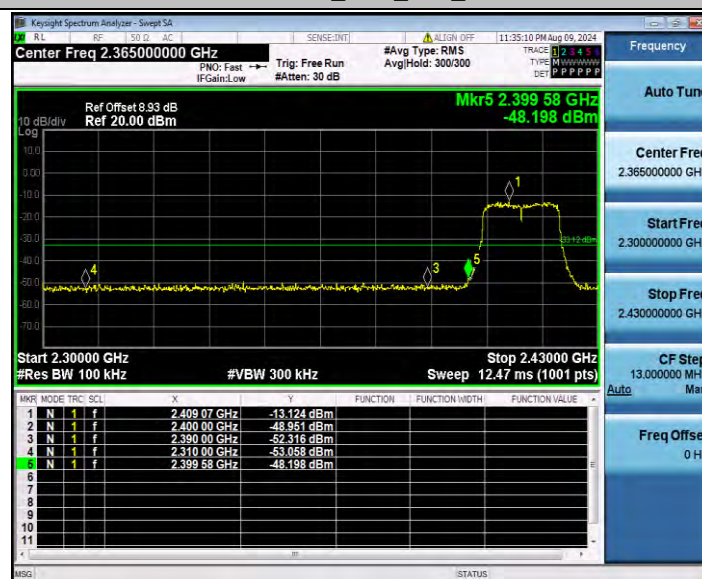




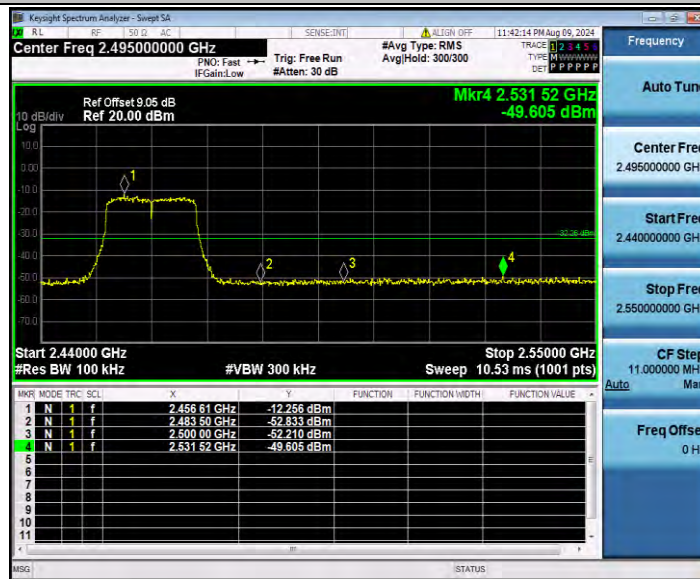
11G_Ant1_High_2462



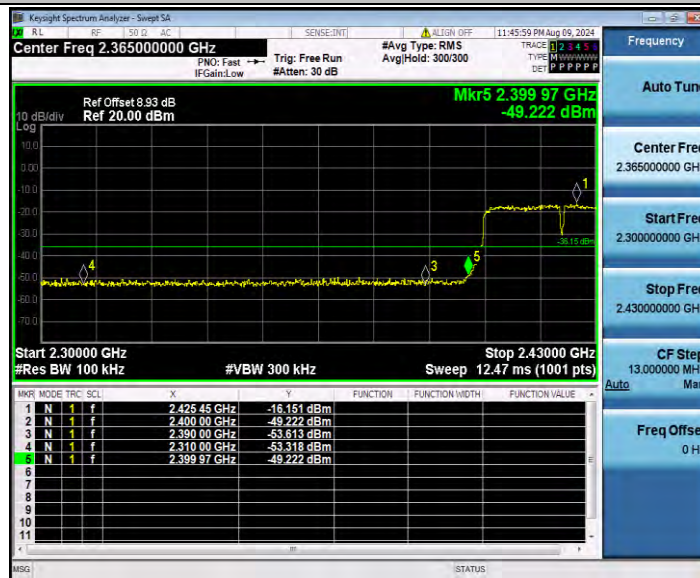
11N20SISO_Ant1_Low_2412



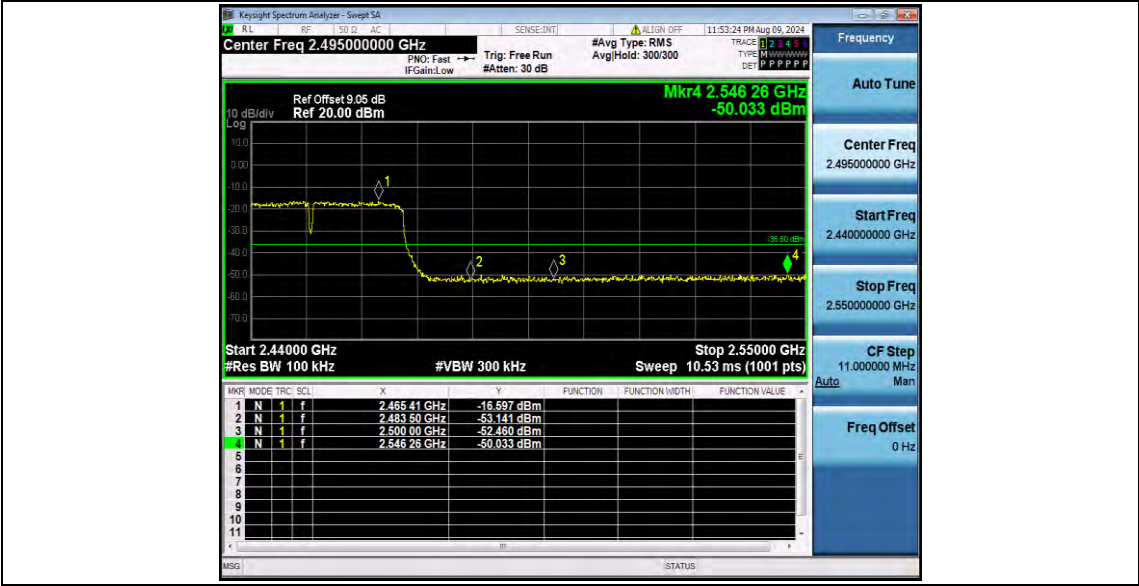
11N20SISO_Ant1_High_2462



11N40SISO_Ant1_Low_2422



11N40SISO_Ant1_High_2452

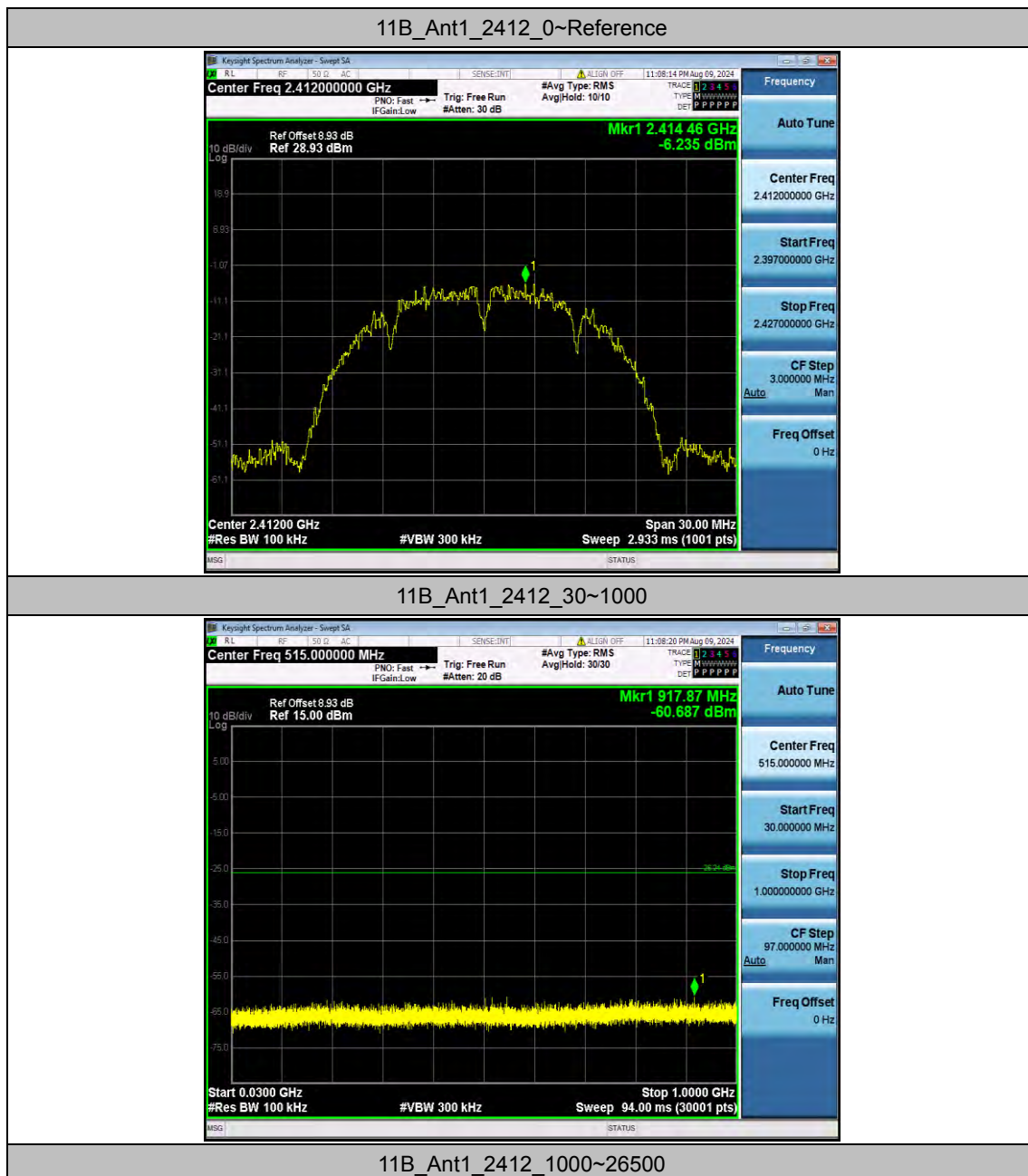


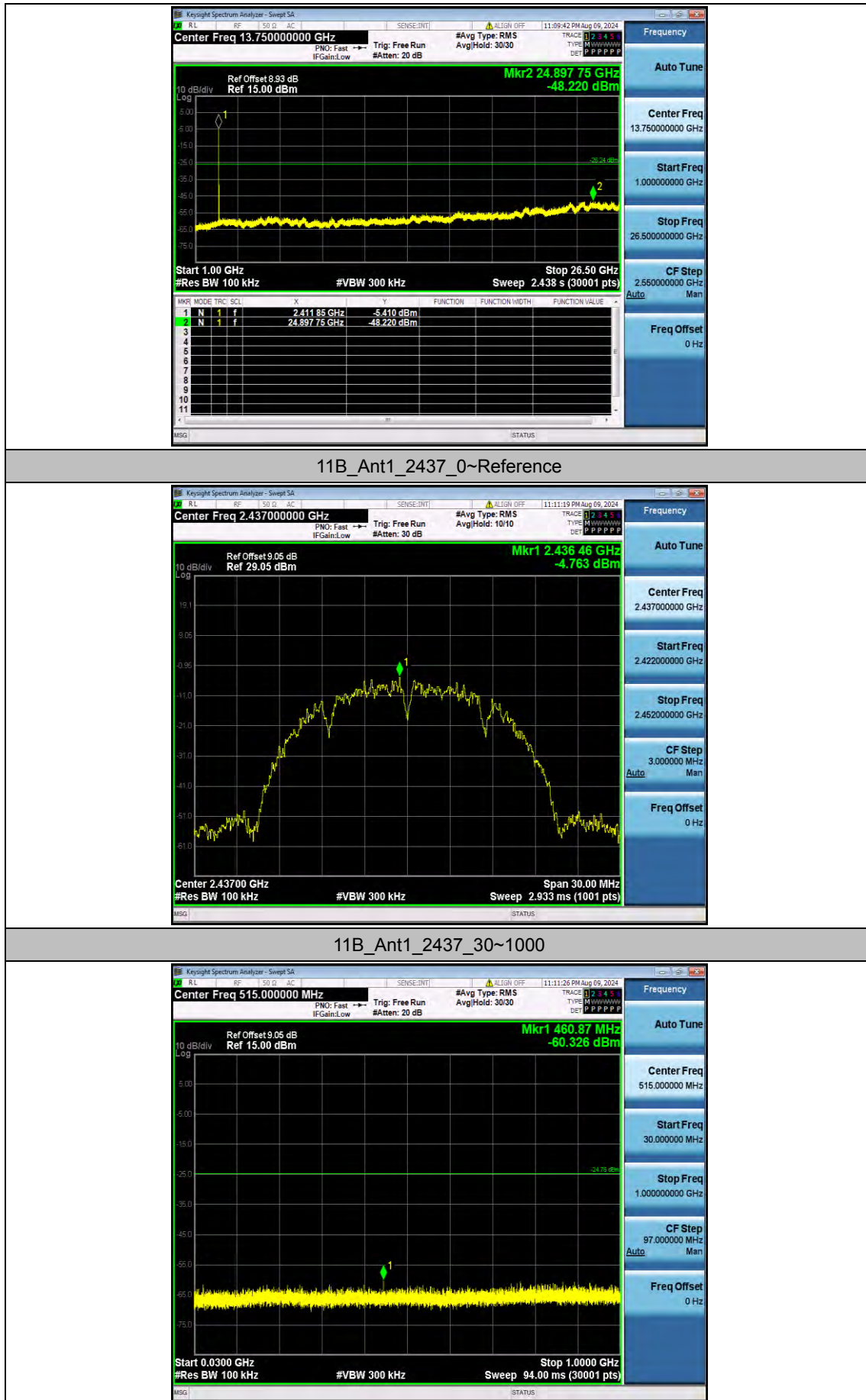
Appendix A.6: Conducted Spurious Emission

Test Result

TestMode	Antenna	Frequency[MHz]	FreqRange [Mhz]	RefLevel [dBm]	Result [dBm]	Limit [dBm]	Verdict
11B	Ant1	2412	Reference	-6.24	-6.24	---	PASS
			30~1000	-6.24	-60.69	≤ -26.24	PASS
			1000~26500	-6.24	-48.22	≤ -26.24	PASS
		2437	Reference	-4.76	-4.76	---	PASS
			30~1000	-4.76	-60.33	≤ -24.76	PASS
			1000~26500	-4.76	-46.29	≤ -24.76	PASS
		2462	Reference	-5.17	-5.17	---	PASS
			30~1000	-5.17	-60.88	≤ -25.17	PASS
			1000~26500	-5.17	-47.74	≤ -25.17	PASS
11G	Ant1	2412	Reference	-13.16	-13.16	---	PASS
			30~1000	-13.16	-60.65	≤ -33.16	PASS
			1000~26500	-13.16	-47.56	≤ -33.16	PASS
		2437	Reference	-12.10	-12.10	---	PASS
			30~1000	-12.10	-61	≤ -32.1	PASS
			1000~26500	-12.10	-47.76	≤ -32.1	PASS
		2462	Reference	-13.68	-13.68	---	PASS
			30~1000	-13.68	-61	≤ -33.68	PASS
			1000~26500	-13.68	-47.68	≤ -33.68	PASS
11N20SISO	Ant1	2412	Reference	-14.04	-14.04	---	PASS
			30~1000	-14.04	-60.63	≤ -34.04	PASS
			1000~26500	-14.04	-47.76	≤ -34.04	PASS
		2437	Reference	-13.85	-13.85	---	PASS
			30~1000	-13.85	-60.94	≤ -33.85	PASS
			1000~26500	-13.85	-47.5	≤ -33.85	PASS
		2462	Reference	-13.77	-13.77	---	PASS
			30~1000	-13.77	-60.95	≤ -33.77	PASS
			1000~26500	-13.77	-47.78	≤ -33.77	PASS
11N40SISO	Ant1	2422	Reference	-17.54	-17.54	---	PASS
			30~1000	-17.54	-60.87	≤ -37.54	PASS
			1000~26500	-17.54	-48.1	≤ -37.54	PASS
		2437	Reference	-16.57	-16.57	---	PASS
			30~1000	-16.57	-59.74	≤ -36.57	PASS
			1000~26500	-16.57	-47.92	≤ -36.57	PASS
		2452	Reference	-16.93	-16.93	---	PASS
			30~1000	-16.93	-60.73	≤ -36.93	PASS
			1000~26500	-16.93	-47.43	≤ -36.93	PASS

Test Graphs





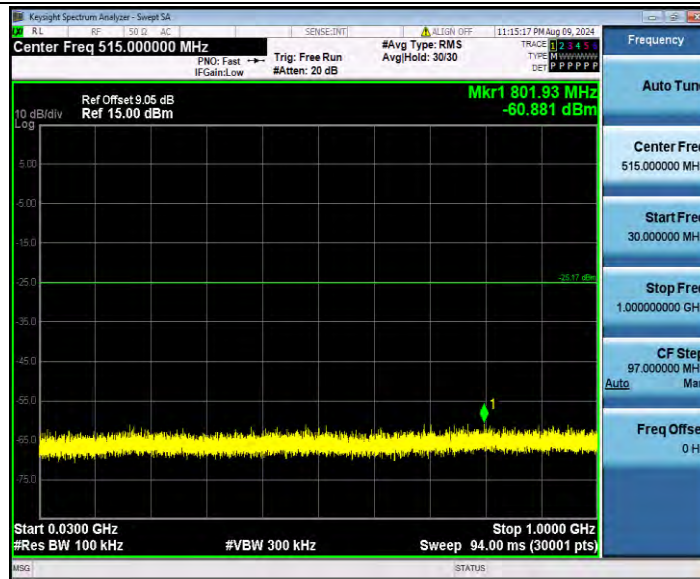
11B_Ant1_2437_1000~26500



11B_Ant1_2462_0~Reference



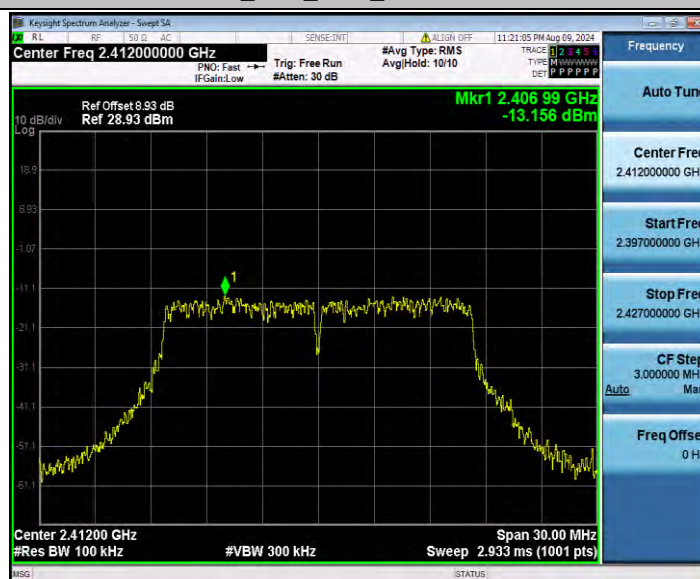
11B_Ant1_2462_30~1000



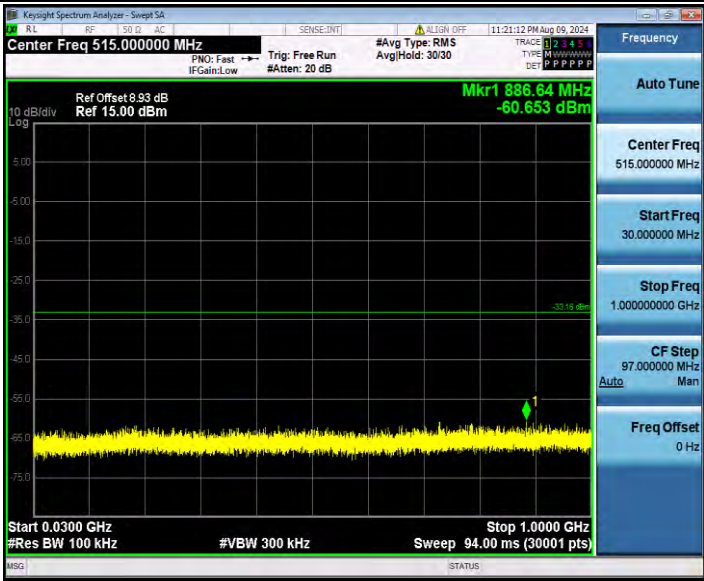
11B_Ant1_2462_1000~26500



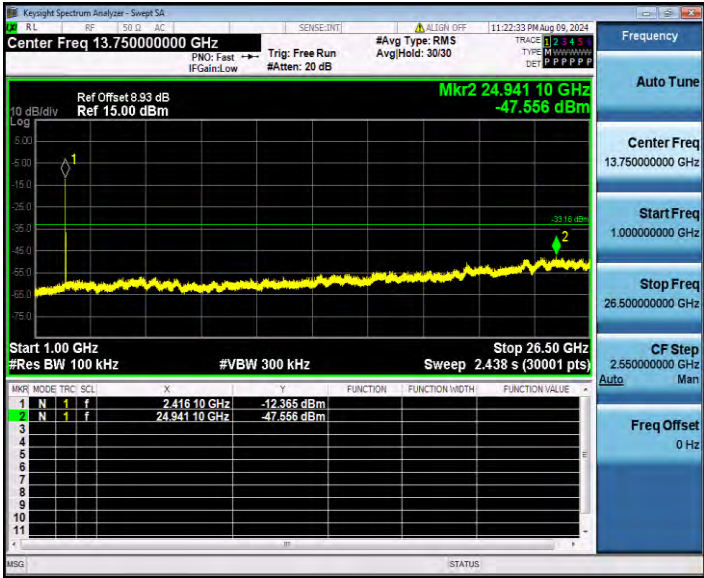
11G_Ant1_2412_0~Reference



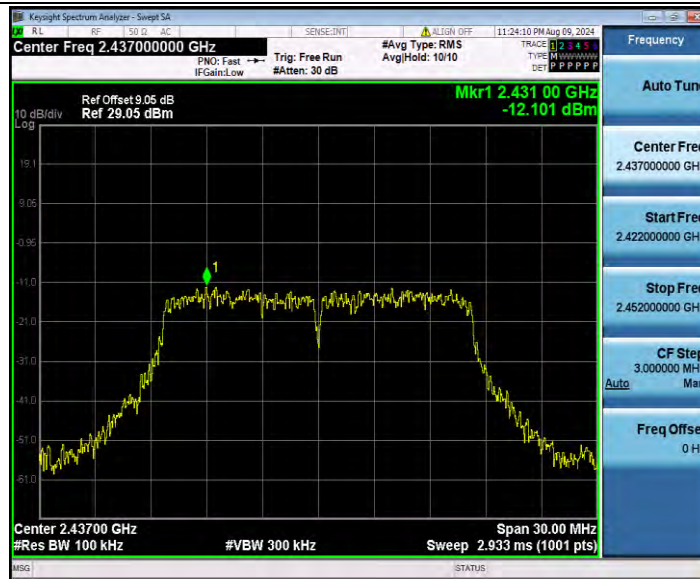
11G_Ant1_2412_30~1000



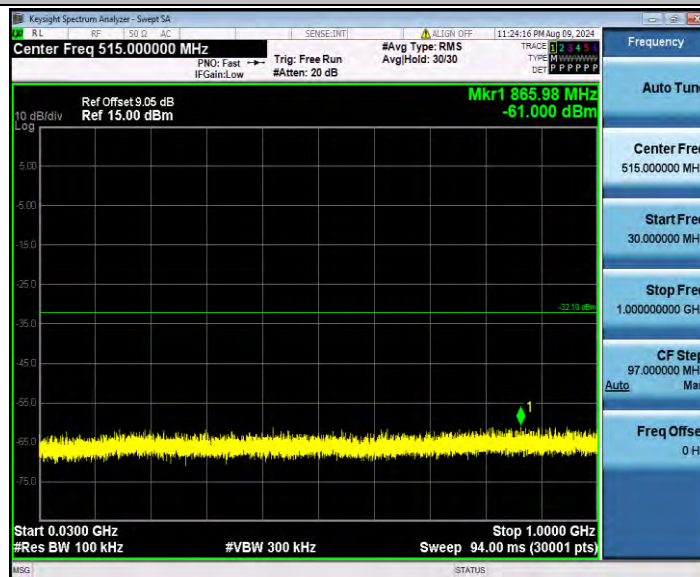
11G_Ant1_2412_1000~26500



11G_Ant1_2437_0~Reference



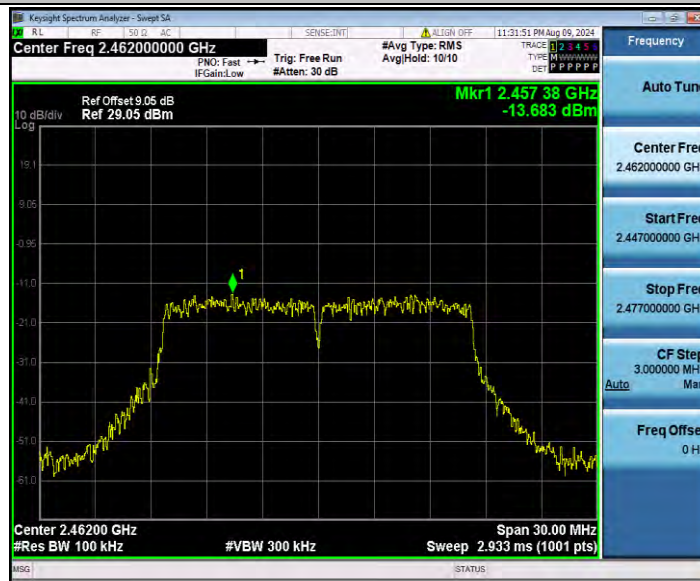
11G_Ant1_2437_30~1000



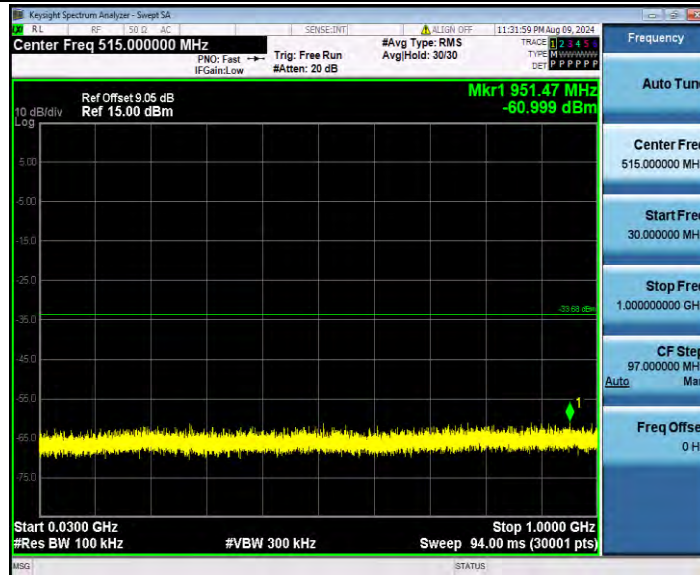
11G_Ant1_2437_1000~26500



11G_Ant1_2462_0~Reference



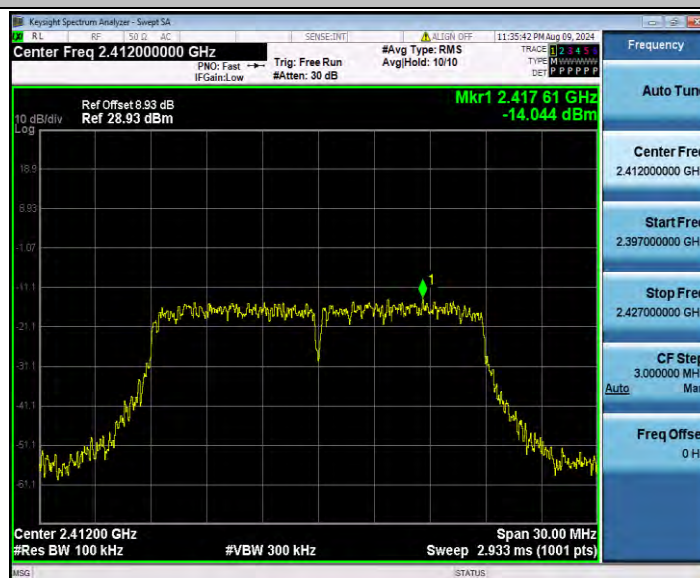
11G_Ant1_2462_30~1000



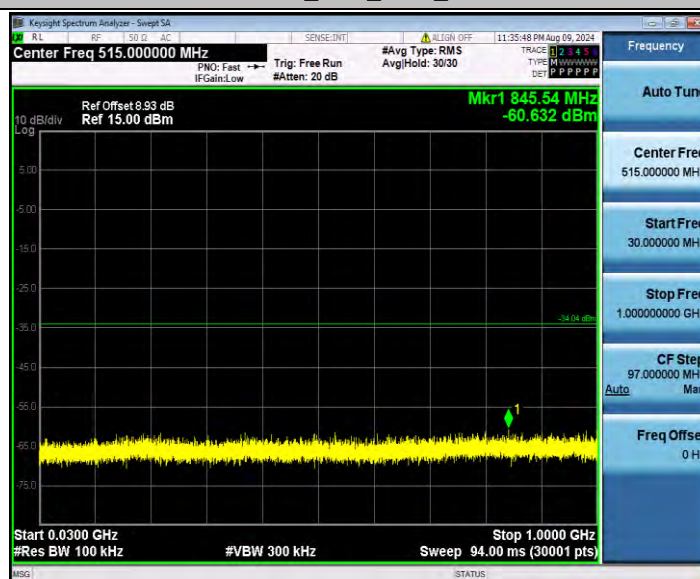
11G_Ant1_2462_1000~26500



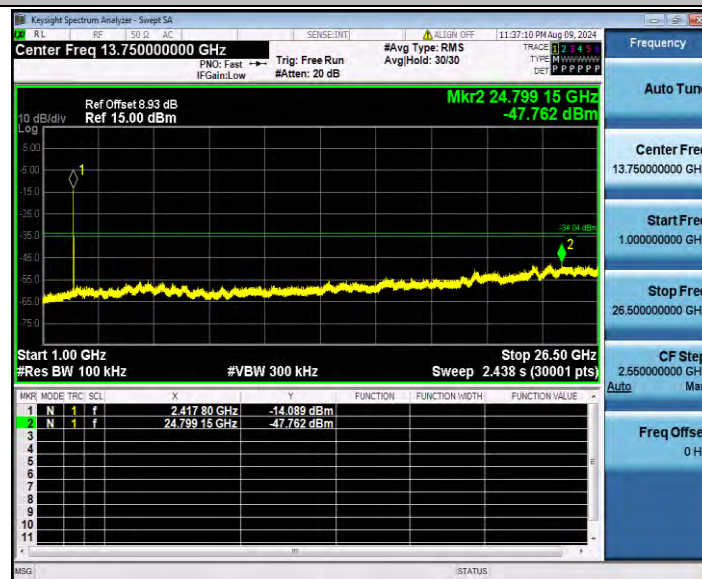
11N20SISO_Ant1_2412_0~Reference



11N20SISO_Ant1_2412_30~1000



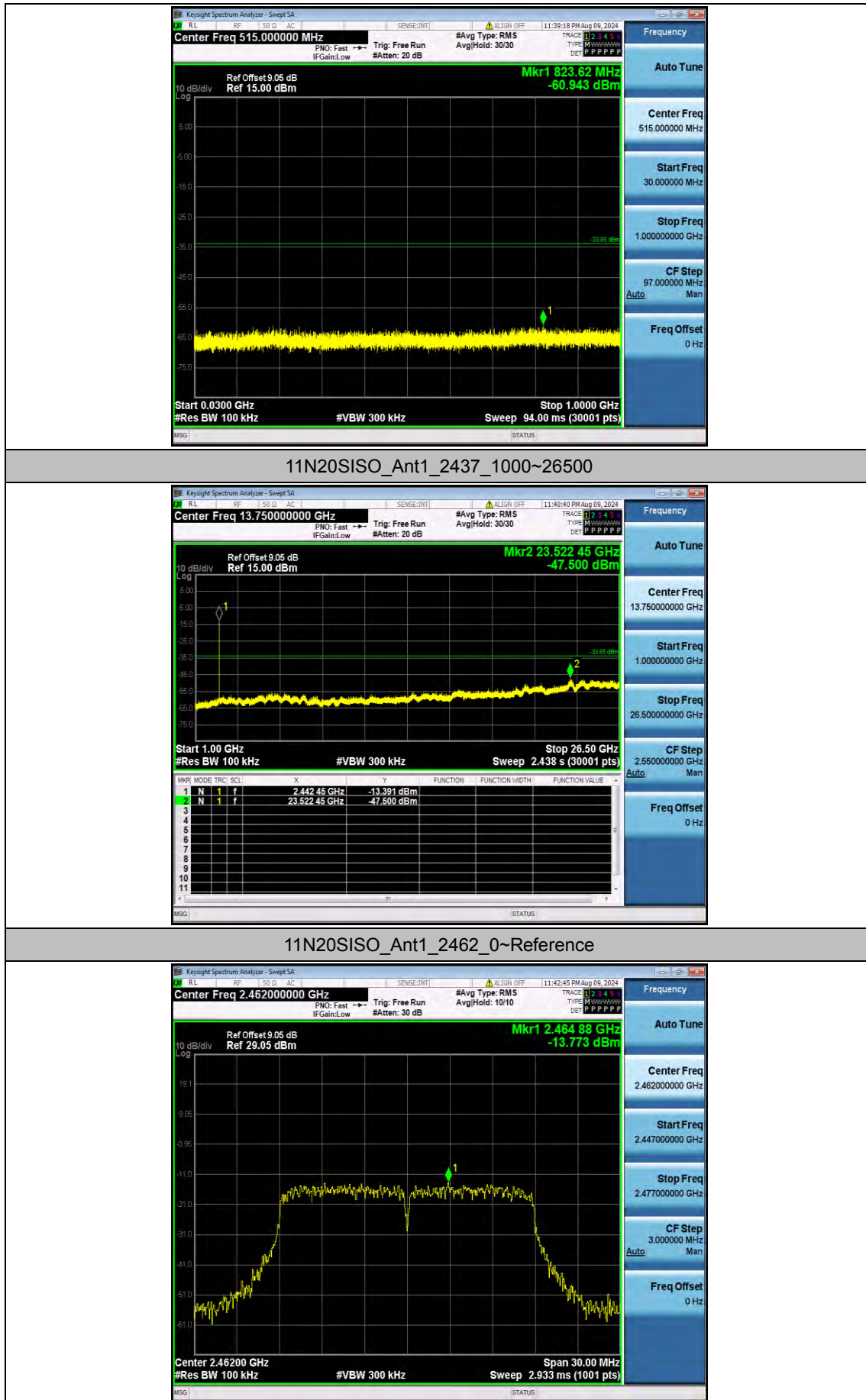
11N20SISO_Ant1_2412_1000~26500



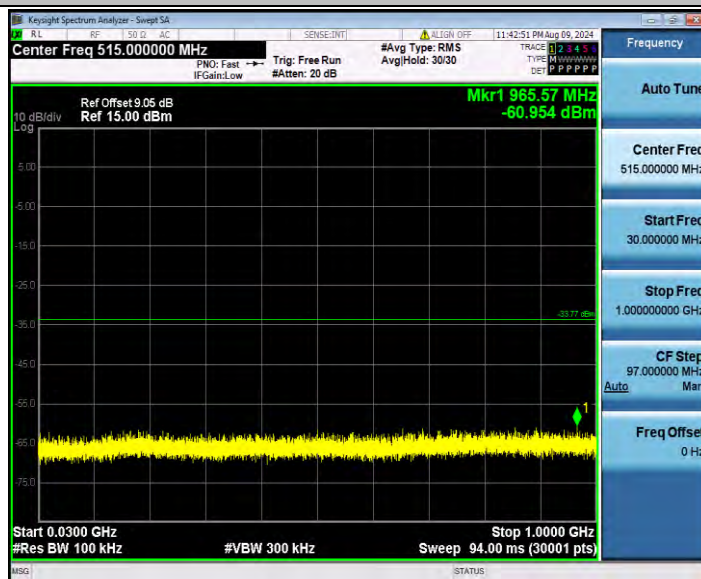
11N20SISO_Ant1_2437_0~Reference



11N20SISO_Ant1_2437_30~1000



11N20SISO_Ant1_2462_30~1000



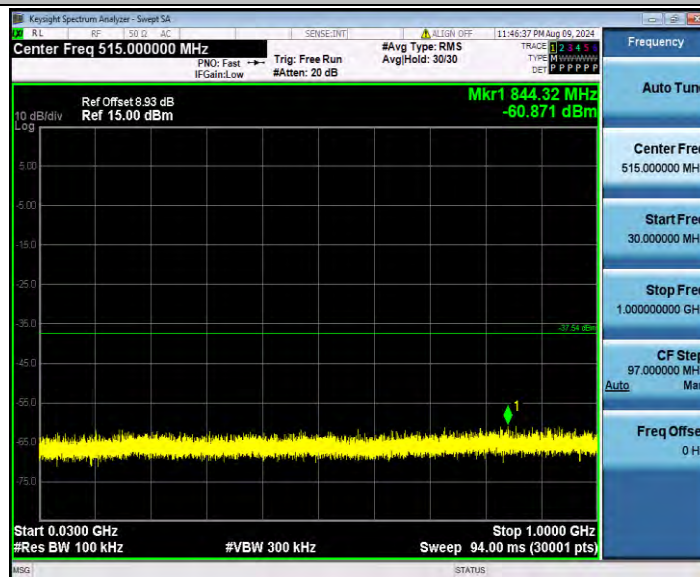
11N20SISO_Ant1_2462_1000~26500



11N40SISO_Ant1_2422_0~Reference



11N40SISO_Ant1_2422_30~1000



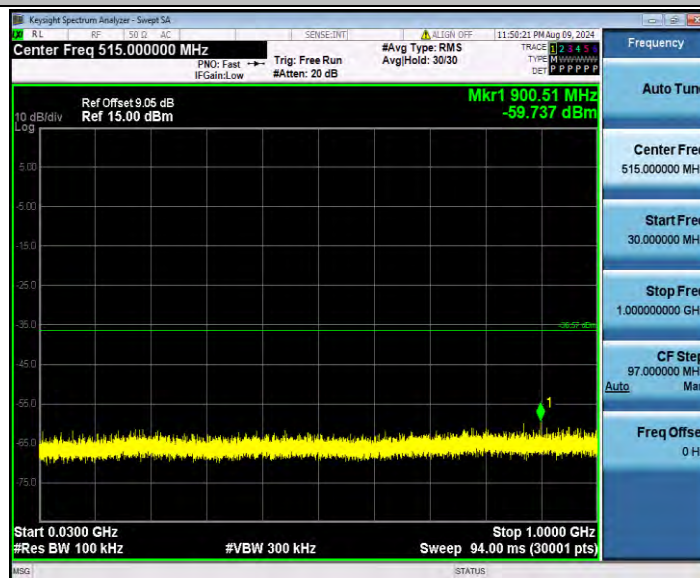
11N40SISO_Ant1_2422_1000~26500



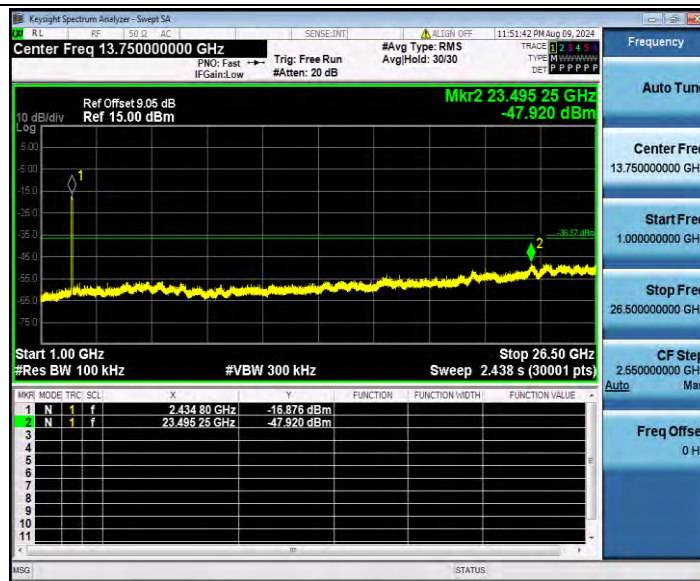
11N40SISO_Ant1_2437_0~Reference



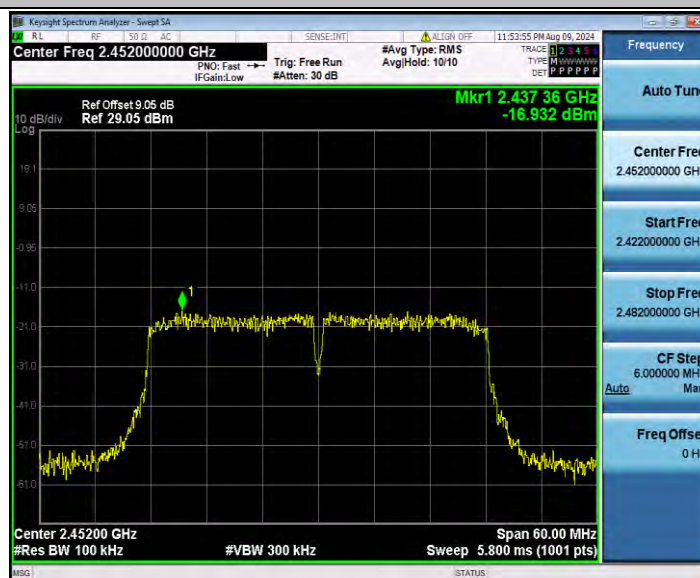
11N40SISO_Ant1_2437_30~1000



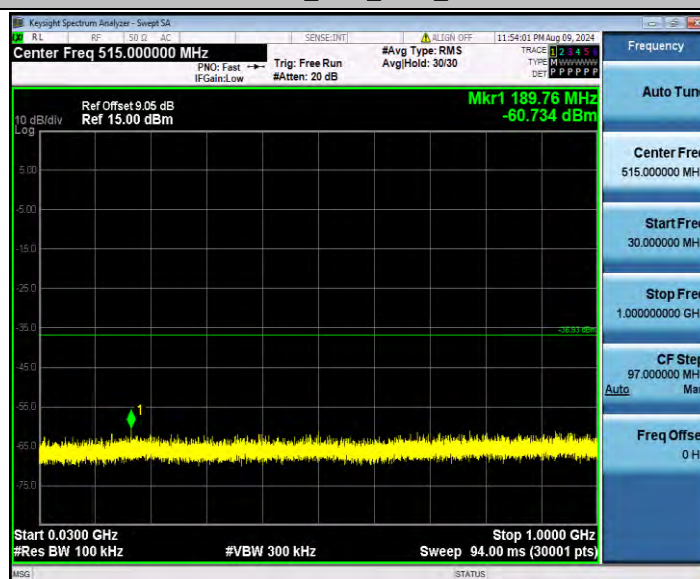
11N40SISO_Ant1_2437_1000~26500



11N40SISO_Ant1_2452_0~Reference



11N40SISO_Ant1_2452_30~1000





Appendix A.7: Emissions in Restricted Bands

Test Result

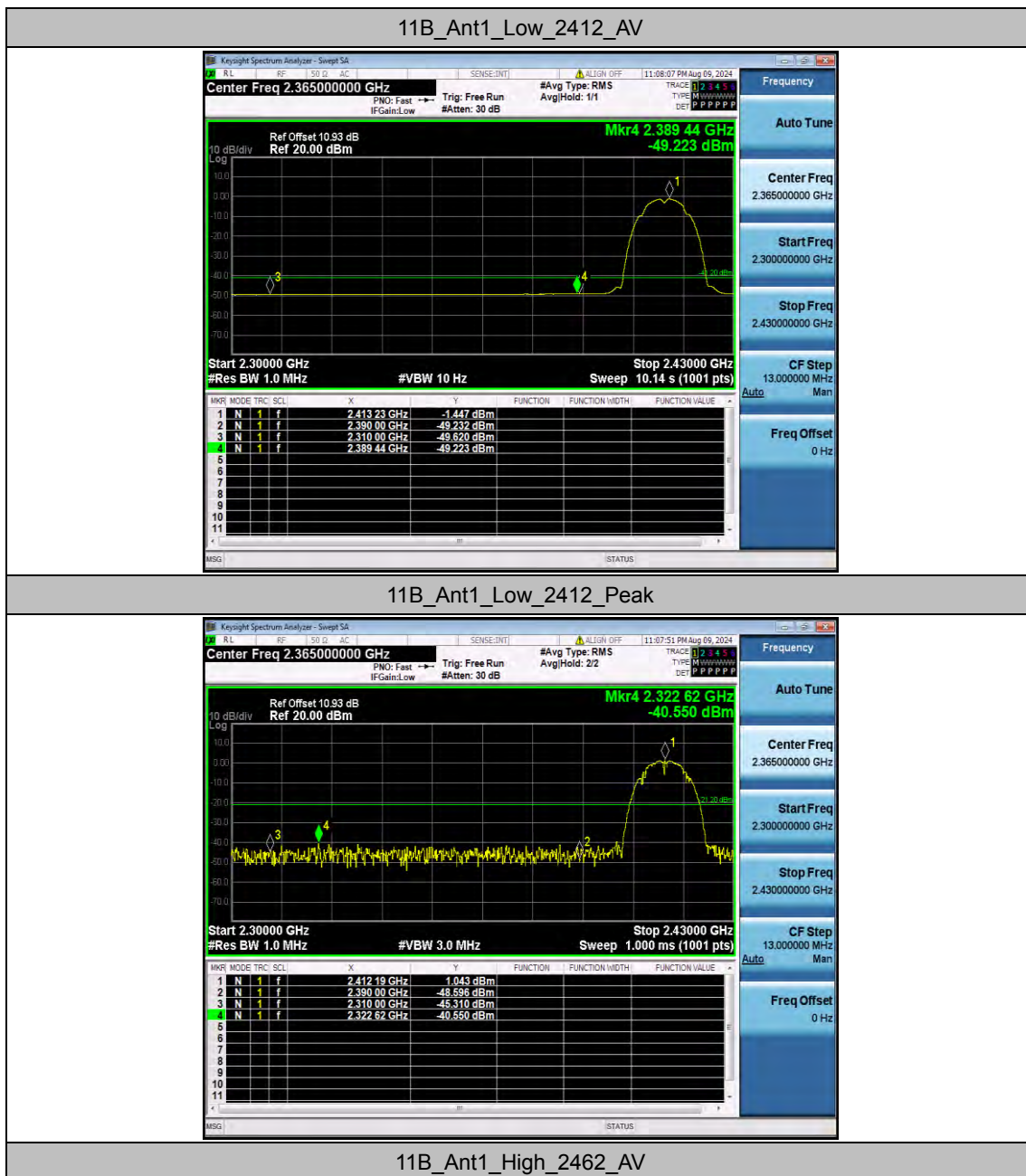
TestMode	Antenna	ChName	Frequency [MHz]	Detector	Freq [MHz]	Result [dBm]	Limit [dBm]	Result [dBuV/m]	Limit [dBuV/m]	Verdict
11B	Ant1	Low	2412	AV	2310.000	-49.62	≤-41.20	45.58	≤54	PASS
				AV	2389.440	-49.22	≤-41.20	45.98	≤54	PASS
				AV	2390.000	-49.23	≤-41.20	45.97	≤54	PASS
				Peak	2310.000	-45.31	≤-21.20	49.89	≤74	PASS
				Peak	2322.620	-40.55	≤-21.20	54.65	≤74	PASS
				Peak	2390.000	-48.6	≤-21.20	46.60	≤74	PASS
		High	2462	AV	2483.500	-49.14	≤-41.20	46.06	≤54	PASS
				AV	2499.180	-48.86	≤-41.20	46.34	≤54	PASS
				AV	2500.000	-48.89	≤-41.20	46.31	≤54	PASS
				Peak	2483.500	-48.11	≤-21.20	47.09	≤74	PASS
				Peak	2493.900	-41.8	≤-21.20	53.40	≤74	PASS
				Peak	2500.000	-45.99	≤-21.20	49.21	≤74	PASS
11G	Ant1	Low	2412	AV	2310.000	-49.63	≤-41.20	45.57	≤54	PASS
				AV	2389.830	-49.21	≤-41.20	45.99	≤54	PASS
				AV	2390.000	-49.23	≤-41.20	45.97	≤54	PASS
				Peak	2310.000	-47.22	≤-21.20	47.98	≤74	PASS
				Peak	2385.280	-40.87	≤-21.20	54.33	≤74	PASS
				Peak	2390.000	-50.48	≤-21.20	44.72	≤74	PASS
		High	2462	AV	2483.500	-49.15	≤-41.20	46.05	≤54	PASS
				AV	2498.850	-48.9	≤-41.20	46.30	≤54	PASS
				AV	2500.000	-48.93	≤-41.20	46.27	≤54	PASS
				Peak	2483.500	-45.14	≤-21.20	50.06	≤74	PASS
				Peak	2494.120	-38.93	≤-21.20	56.27	≤74	PASS
				Peak	2500.000	-45.25	≤-21.20	49.95	≤74	PASS
11N20SISO	Ant1	Low	2412	AV	2310.000	-49.64	≤-41.20	45.56	≤54	PASS
				AV	2389.570	-49.23	≤-41.20	45.97	≤54	PASS
				AV	2390.000	-49.26	≤-41.20	45.94	≤54	PASS
				Peak	2310.000	-50.89	≤-21.20	44.31	≤74	PASS
				Peak	2385.800	-40.32	≤-21.20	54.88	≤74	PASS
				Peak	2390.000	-47.42	≤-21.20	47.78	≤74	PASS
		High	2462	AV	2483.500	-49.12	≤-41.20	46.08	≤54	PASS
				AV	2499.730	-48.9	≤-41.20	46.30	≤54	PASS
				AV	2500.000	-48.92	≤-41.20	46.28	≤54	PASS
				Peak	2483.500	-47.02	≤-21.20	48.18	≤74	PASS
				Peak	2491.920	-40.94	≤-21.20	54.26	≤74	PASS

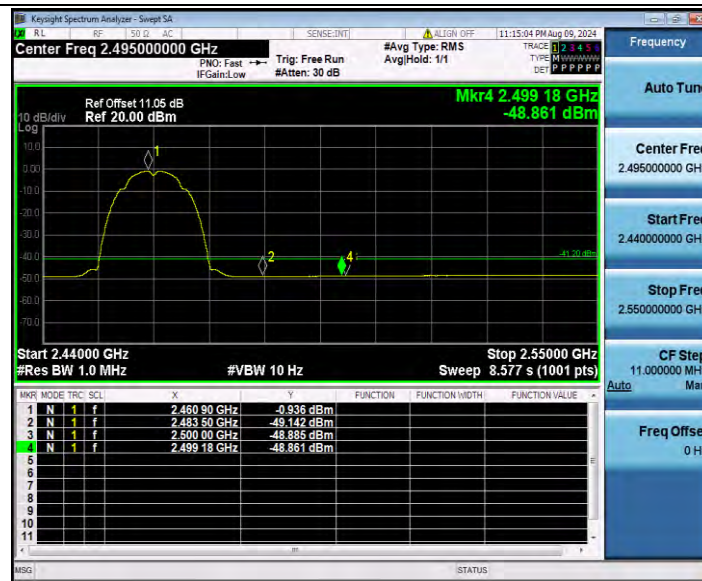
				Peak	2500.000	-50.38	≤ -21.20	44.82	≤ 74	PASS
11N40SIS O	Ant1	Low	2422	AV	2310.000	-49.58	≤ -41.20	45.62	≤ 54	PASS
				AV	2389.310	-49.21	≤ -41.20	45.99	≤ 54	PASS
				AV	2390.000	-49.23	≤ -41.20	45.97	≤ 54	PASS
				Peak	2310.000	-45.09	≤ -21.20	50.11	≤ 74	PASS
				Peak	2340.430	-40.82	≤ -21.20	54.38	≤ 74	PASS
				Peak	2390.000	-43.98	≤ -21.20	51.22	≤ 74	PASS
		High	2452	AV	2483.500	-49.15	≤ -41.20	46.05	≤ 54	PASS
				AV	2499.950	-48.9	≤ -41.20	46.30	≤ 54	PASS
				AV	2500.000	-48.9	≤ -41.20	46.30	≤ 54	PASS
				Peak	2483.500	-45.88	≤ -21.20	49.32	≤ 74	PASS
				Peak	2496.540	-40.24	≤ -21.20	54.96	≤ 74	PASS
				Peak	2500.000	-44.07	≤ -21.20	51.13	≤ 74	PASS

Note:

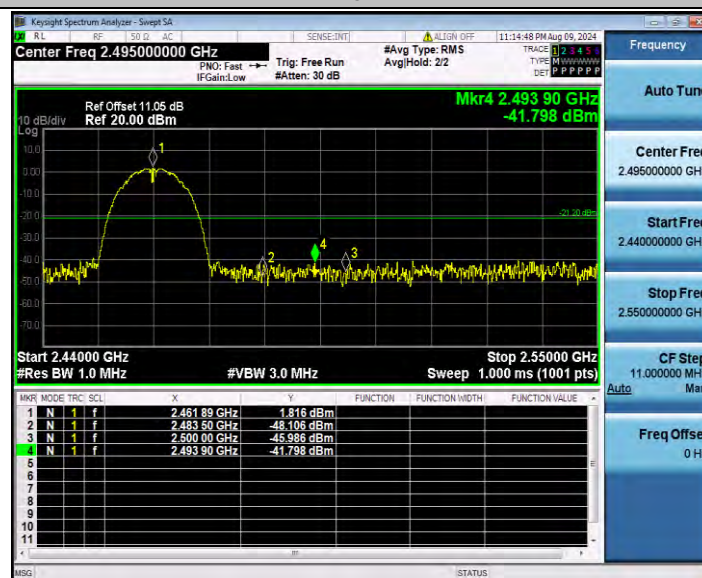
1. The Antenna Gain is compensated in the graph.
2. The Duty Cycle Factor and RBW Factor is compensated in the graph.
3. The limit in dBm for average detector is conversion from 54dBuV/m, according to 15.209(a). The limit in dBm for peak detector is 20dB above the limit of average detector in dBm.

Test Graphs

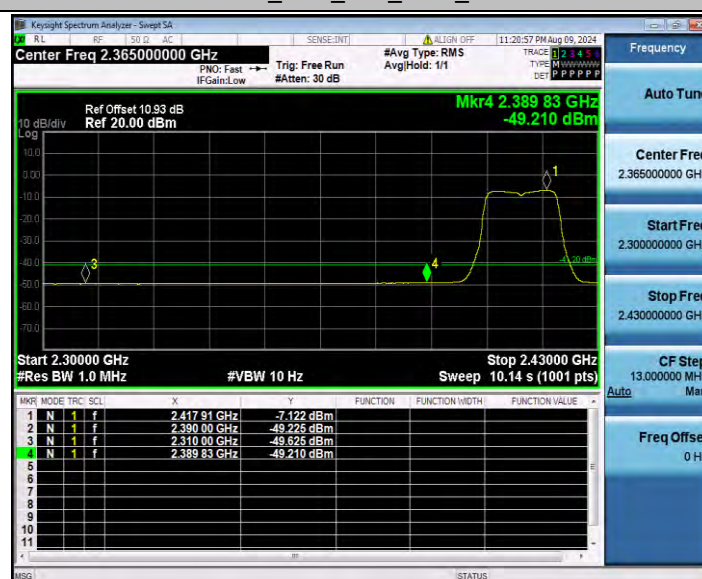




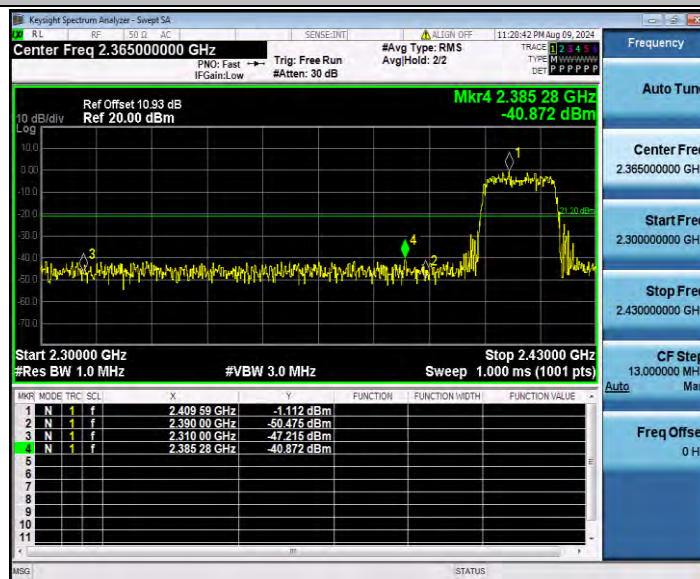
11B_Ant1_High_2462_Peak



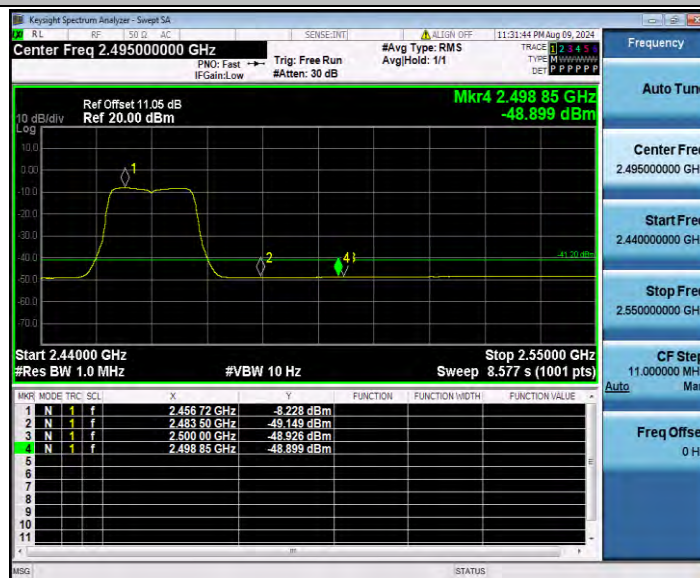
11G_Ant1_Low_2412_AV



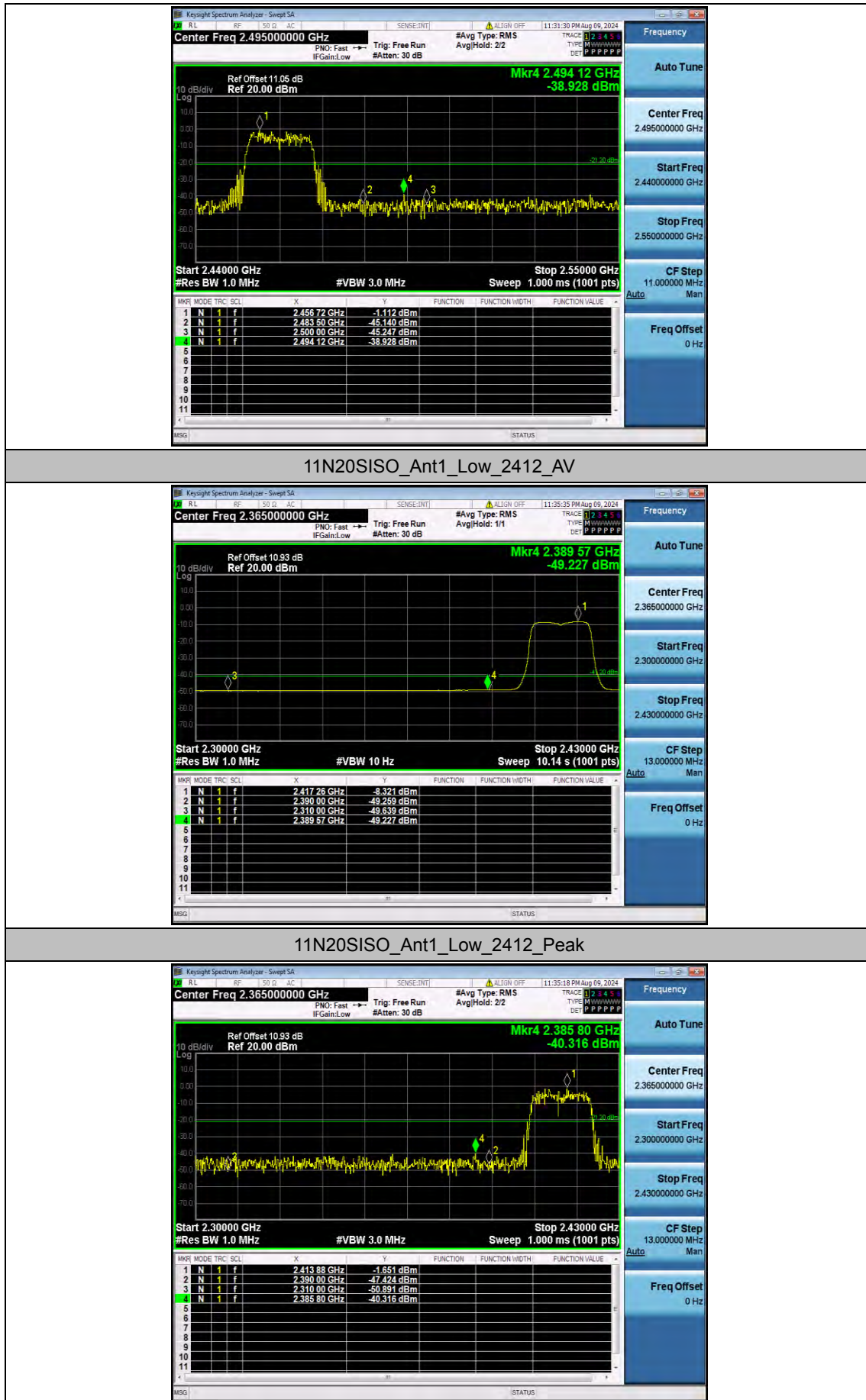
11G_Ant1_Low_2412_Peak



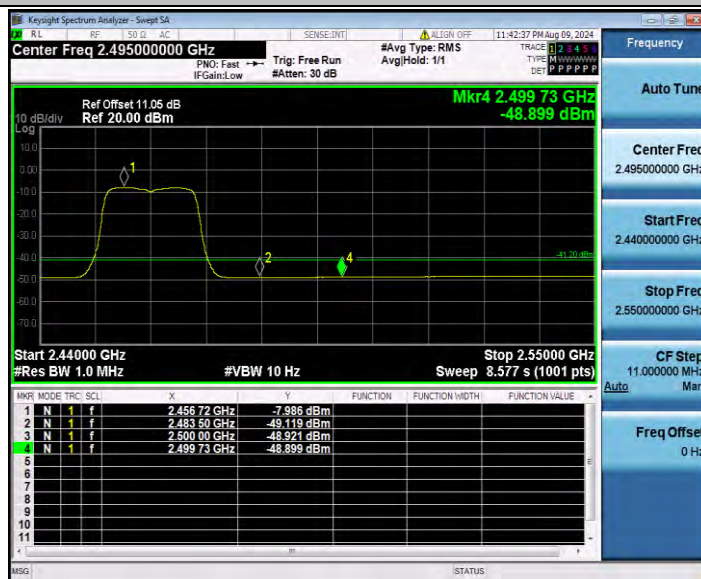
11G_Ant1_High_2462_AV



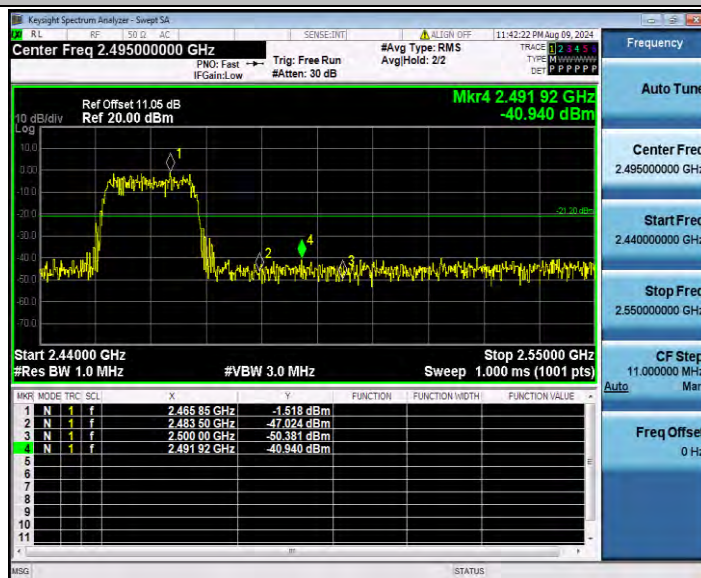
11G_Ant1_High_2462_Peak



11N20SISO_Ant1_High_2462_AV



11N20SISO_Ant1_High_2462_Peak



11N40SISO_Ant1_Low_2422_AV

