

Case No. : <u>CTA24071502103</u>
Ambient Condition: <u>24 °C, 51 %RH,</u>
Test Date: <u>2024.7.23</u> Test Engineer: <u>Lushan Kong</u>

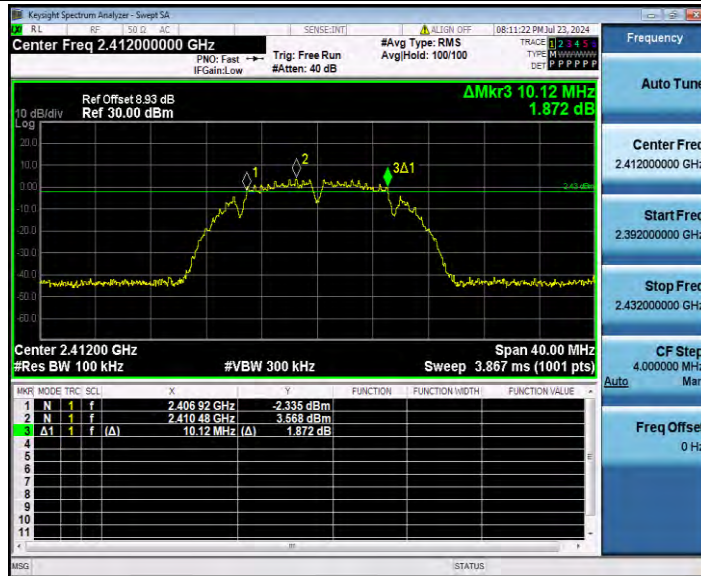
Appendix C.1: DTS Bandwidth

Test Result

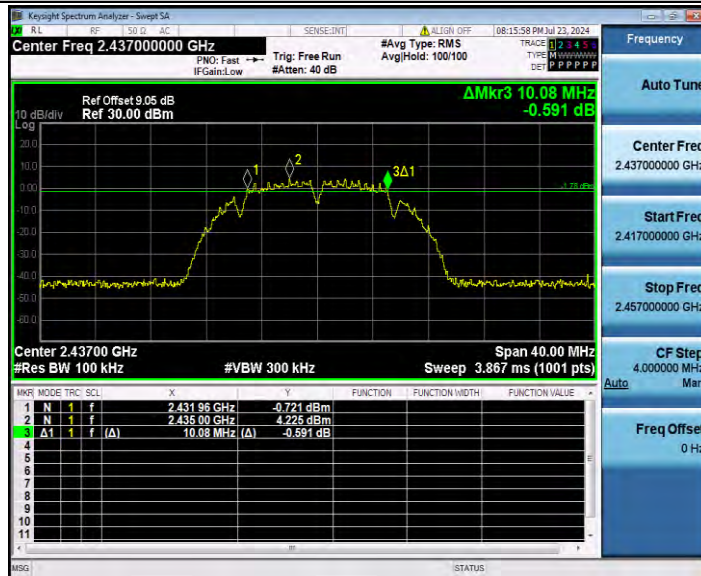
TestMode	Antenna	Frequency[MHz]	DTS BW [MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
11B	Ant1	2412	10.120	2406.920	2417.040	0.5	PASS
		2437	10.080	2431.960	2442.040	0.5	PASS
		2462	10.080	2456.960	2467.040	0.5	PASS
11G	Ant1	2412	16.320	2403.840	2420.160	0.5	PASS
		2437	16.360	2428.800	2445.160	0.5	PASS
		2462	16.360	2453.800	2470.160	0.5	PASS
11N20SISO	Ant1	2412	17.560	2403.200	2420.760	0.5	PASS
		2437	17.600	2428.200	2445.800	0.5	PASS
		2462	17.560	2453.200	2470.760	0.5	PASS
11N40SISO	Ant1	2422	36.320	2403.840	2440.160	0.5	PASS
		2437	36.320	2418.840	2455.160	0.5	PASS
		2452	36.320	2433.840	2470.160	0.5	PASS

Test Graphs

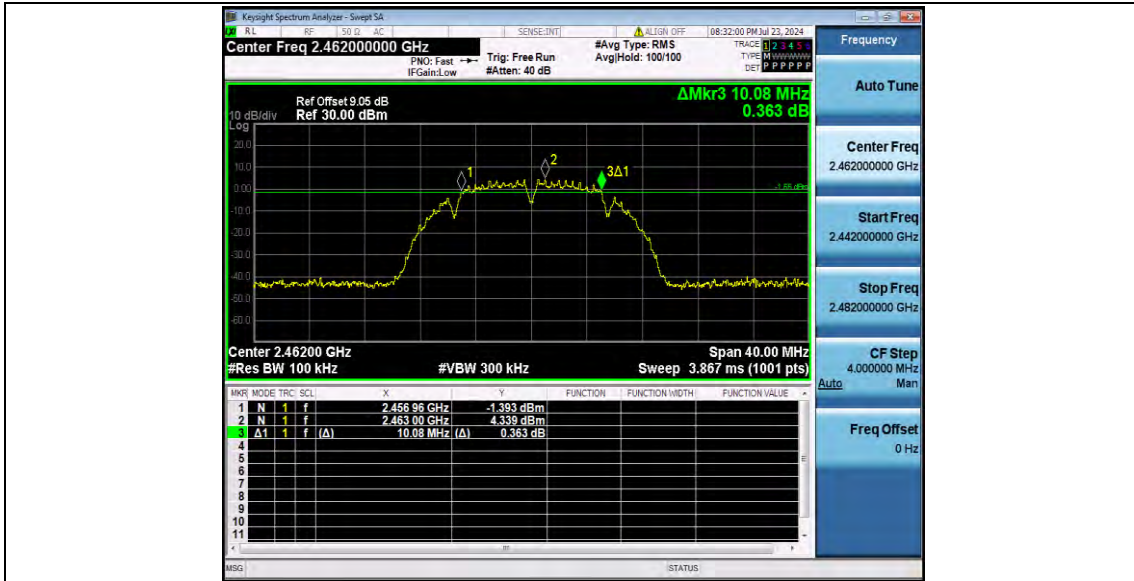
11B_Ant1_2412



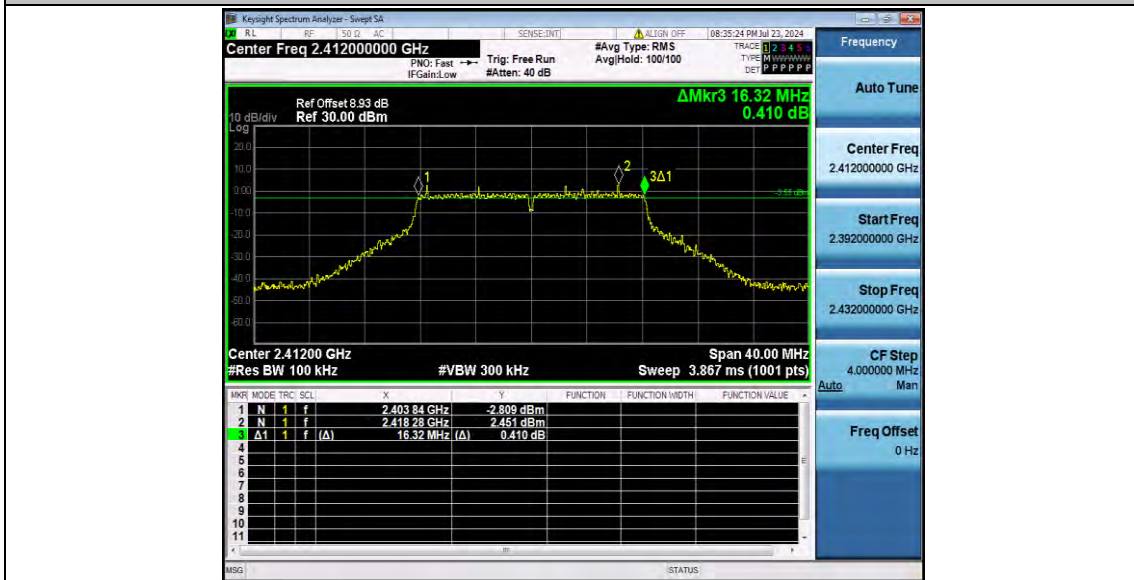
11B_Ant1_2437



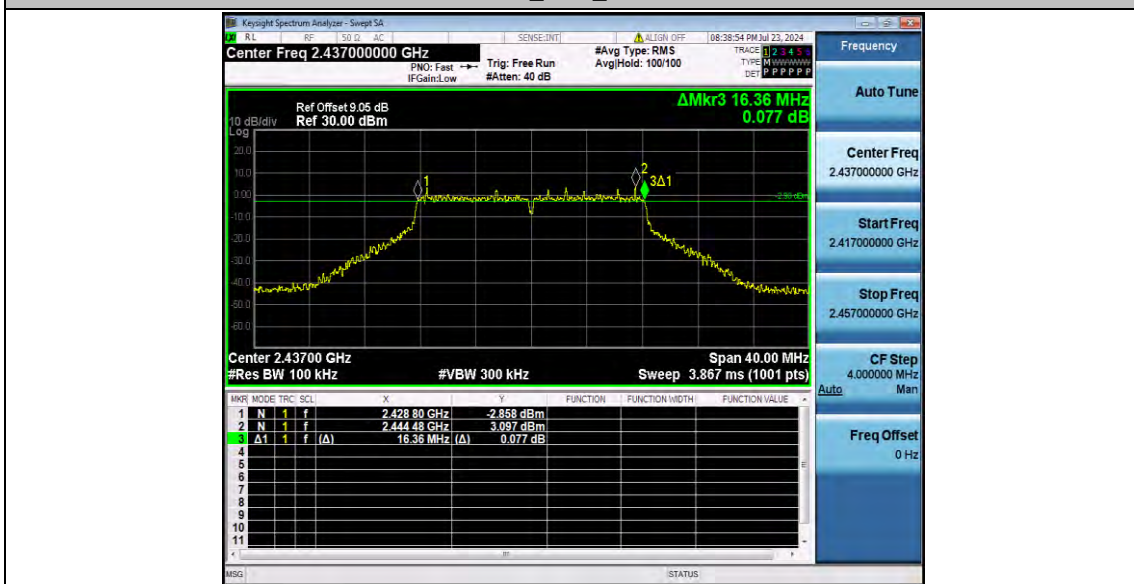
11B_Ant1_2462



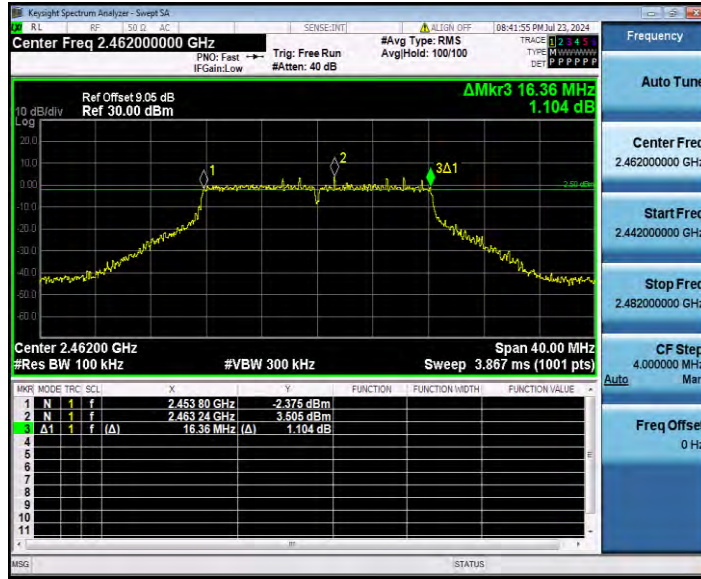
11G_Ant1_2412



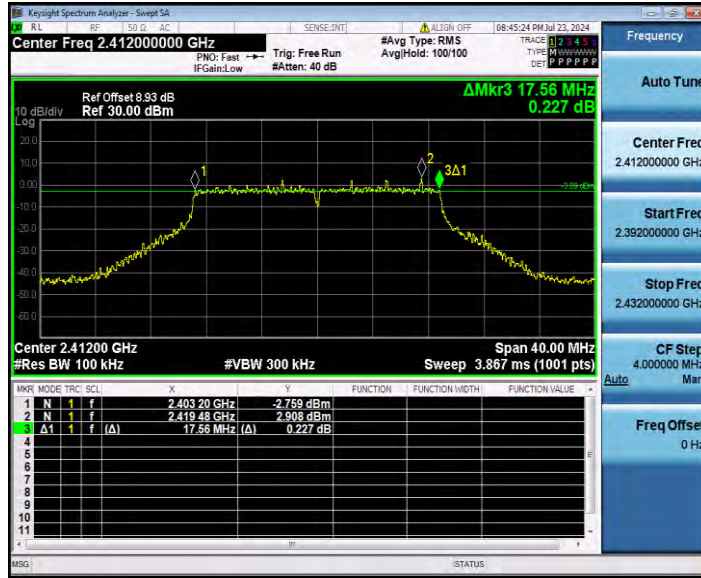
11G_Ant1_2437



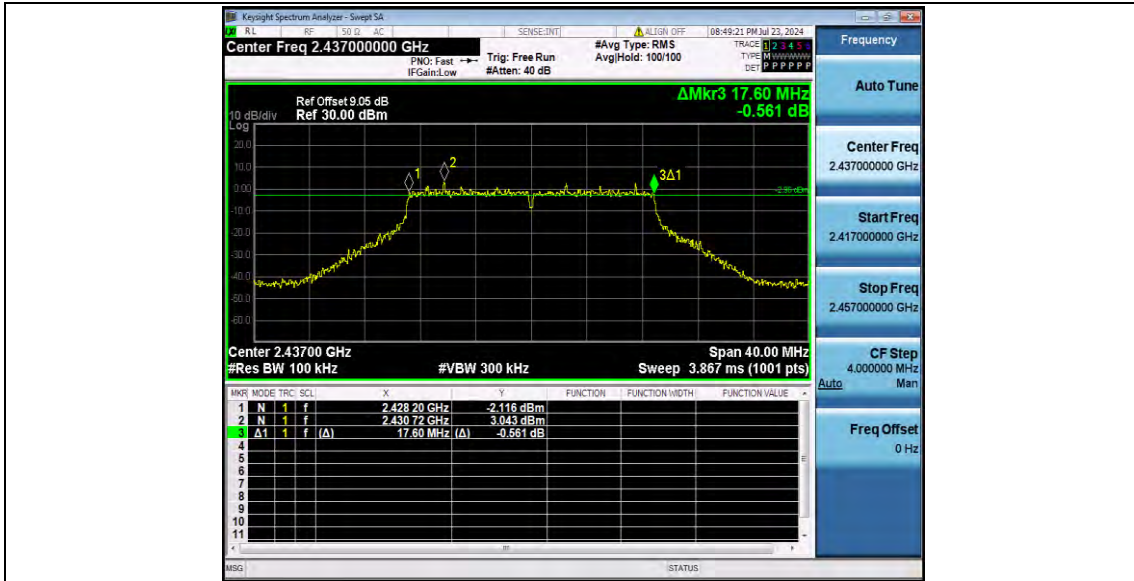
11G_Ant1_2462



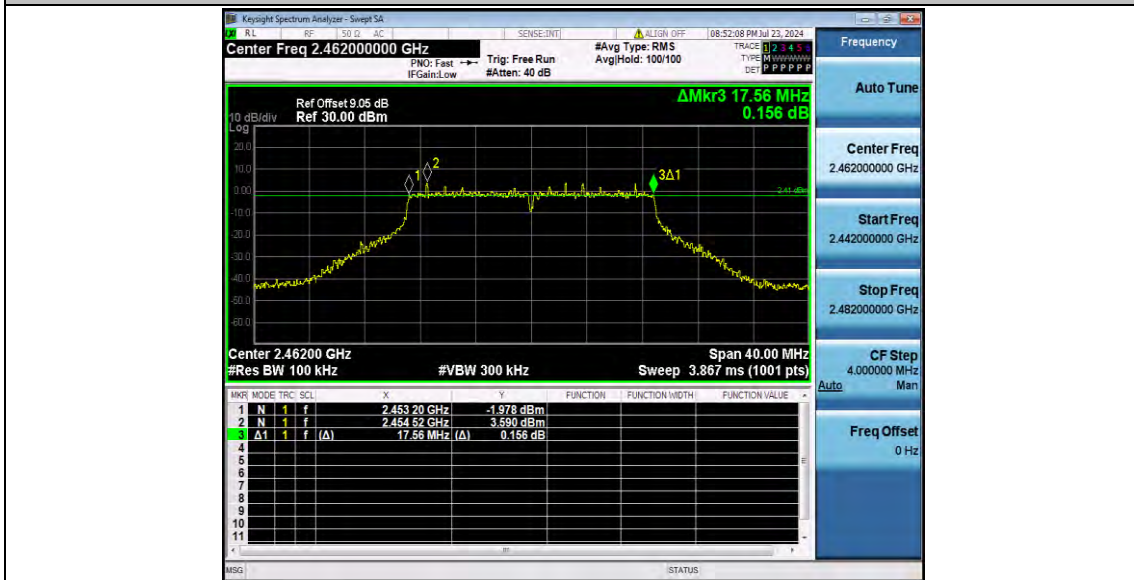
11N20SISO_Ant1_2412



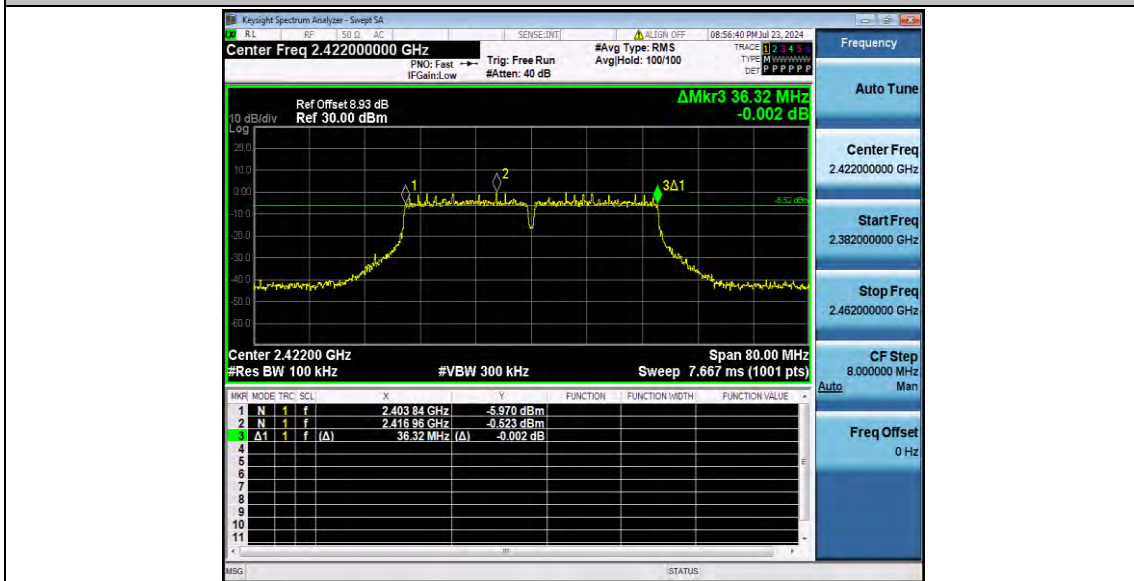
11N20SISO_Ant1_2437



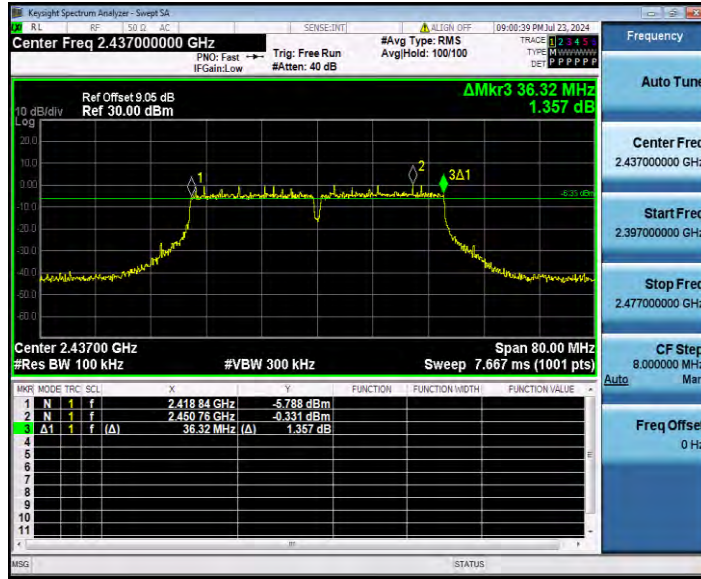
11N20SISO_Ant1_2462



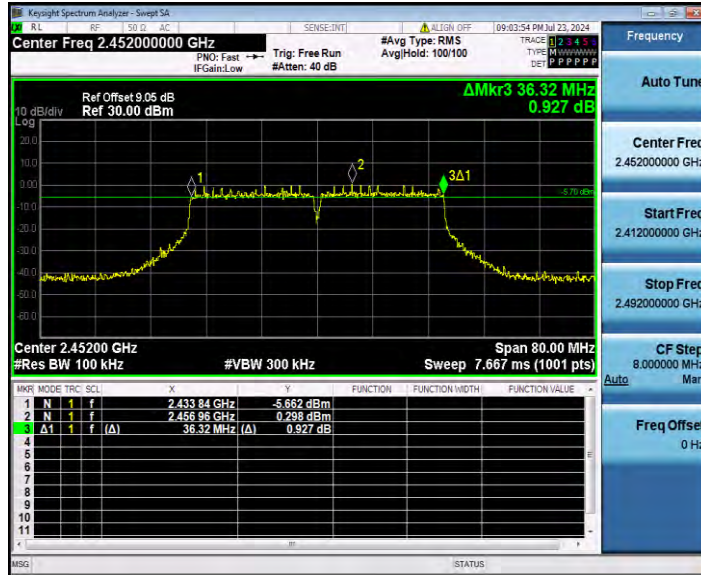
11N40SISO_Ant1_2422



11N40SISO_Ant1_2437



11N40SISO_Ant1_2452

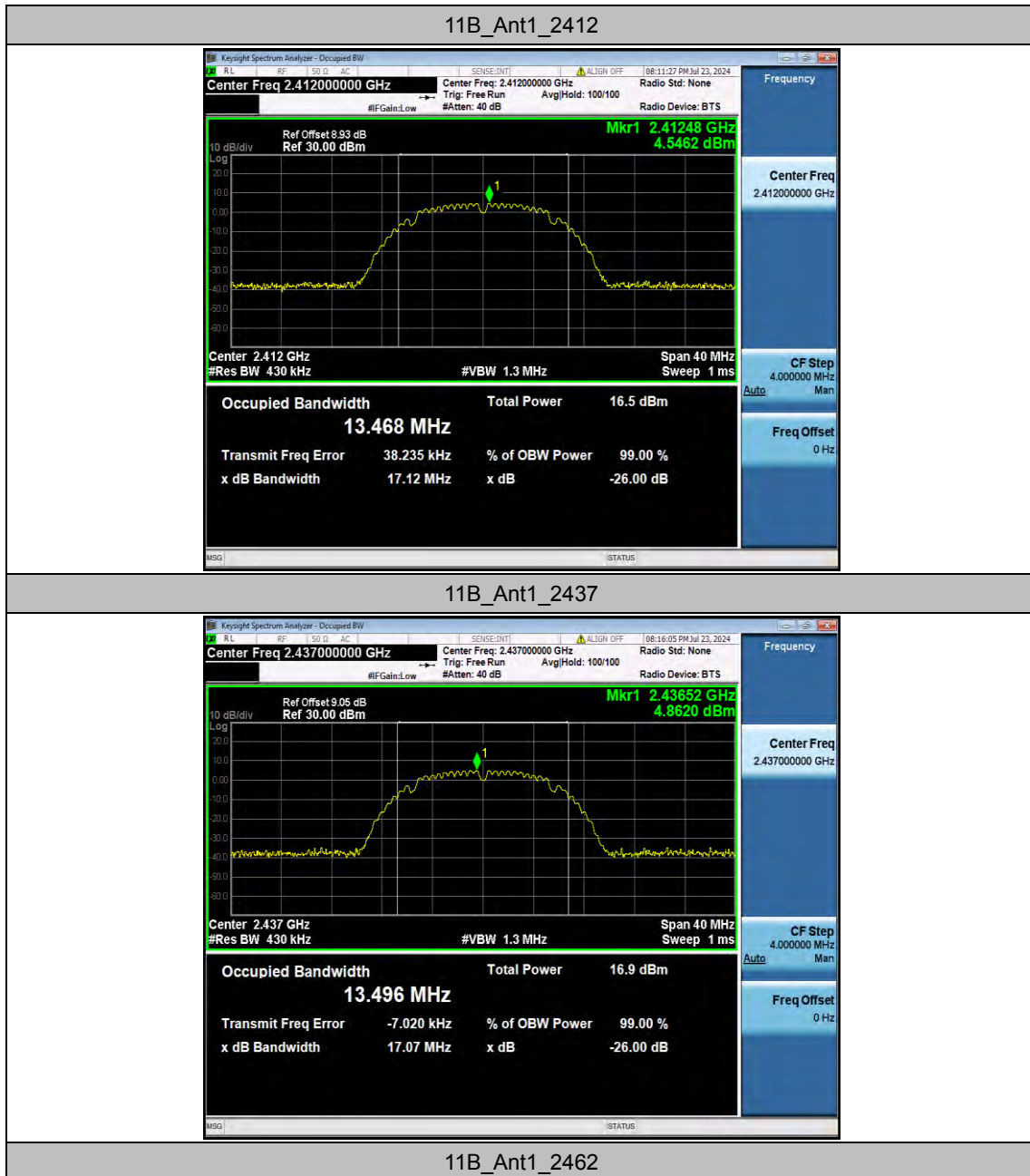


Appendix C.2: Occupied Channel Bandwidth

Test Result

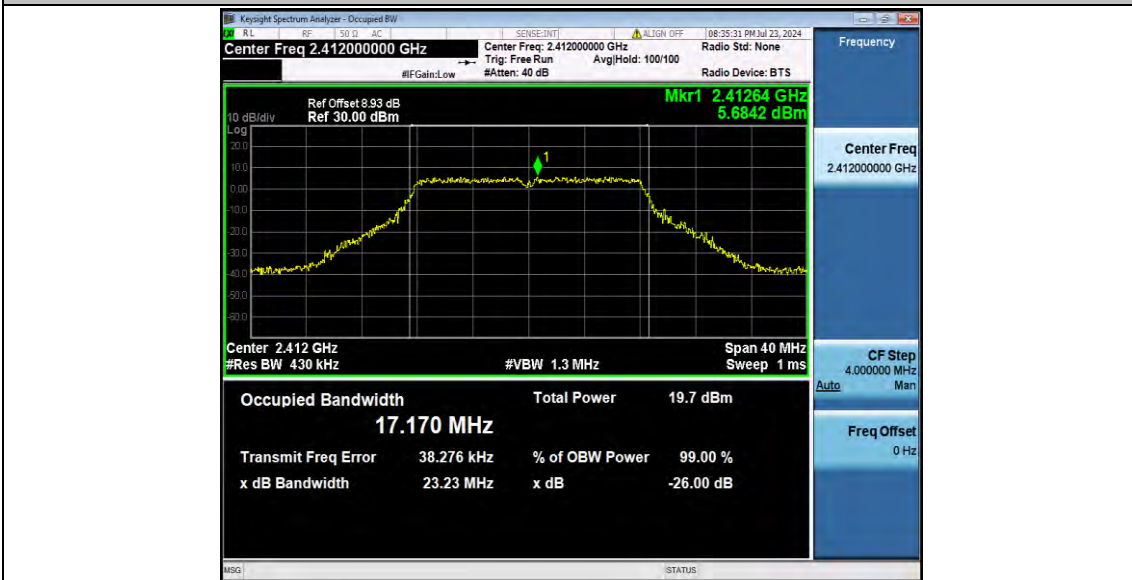
TestMode	Antenna	Channel Frequency[MHz]	OCB [MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
11B	Ant1	2412	13.468	2405.3042	2418.7722	---	---
		2437	13.496	2430.2450	2443.7410	---	---
		2462	13.473	2455.2504	2468.7234	---	---
11G	Ant1	2412	17.170	2403.4533	2420.6233	---	---
		2437	17.169	2428.4095	2445.5785	---	---
		2462	17.182	2453.3957	2470.5777	---	---
11N20SISO	Ant1	2412	18.228	2402.9291	2421.1571	---	---
		2437	18.263	2427.8860	2446.1490	---	---
		2462	18.158	2452.8899	2471.0479	---	---
11N40SISO	Ant1	2422	36.455	2403.7738	2440.2288	---	---
		2437	36.579	2418.7270	2455.3060	---	---
		2452	36.529	2433.7989	2470.3279	---	---

Test Graphs

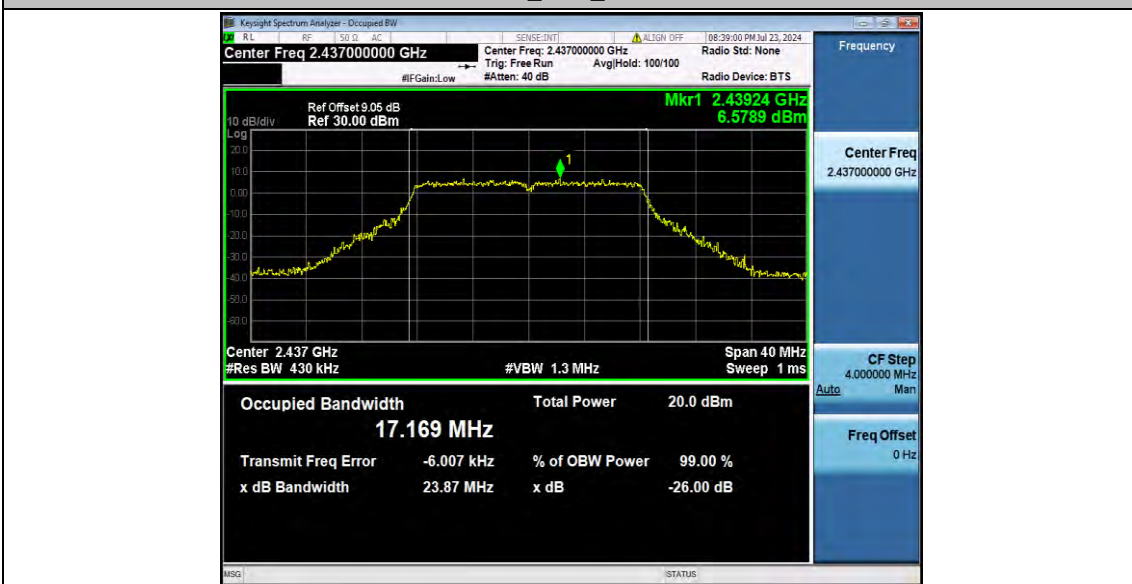




11G_Ant1_2412



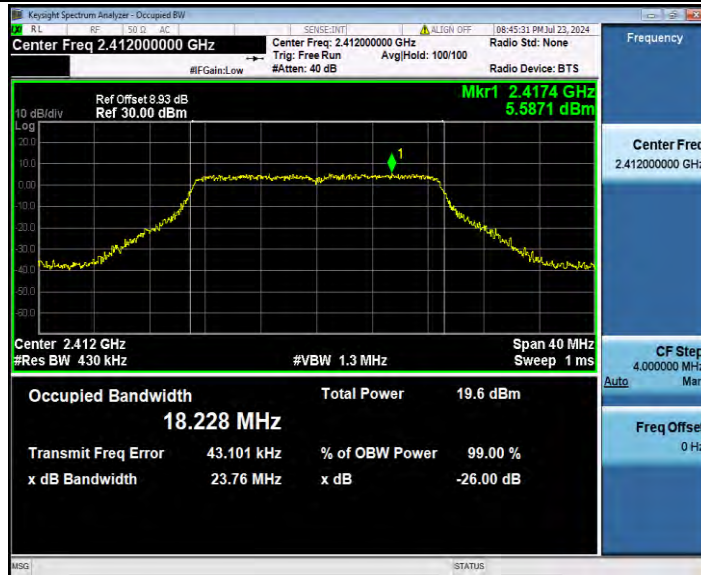
11G_Ant1_2437



11G_Ant1_2462



11N20SISO_Ant1_2412



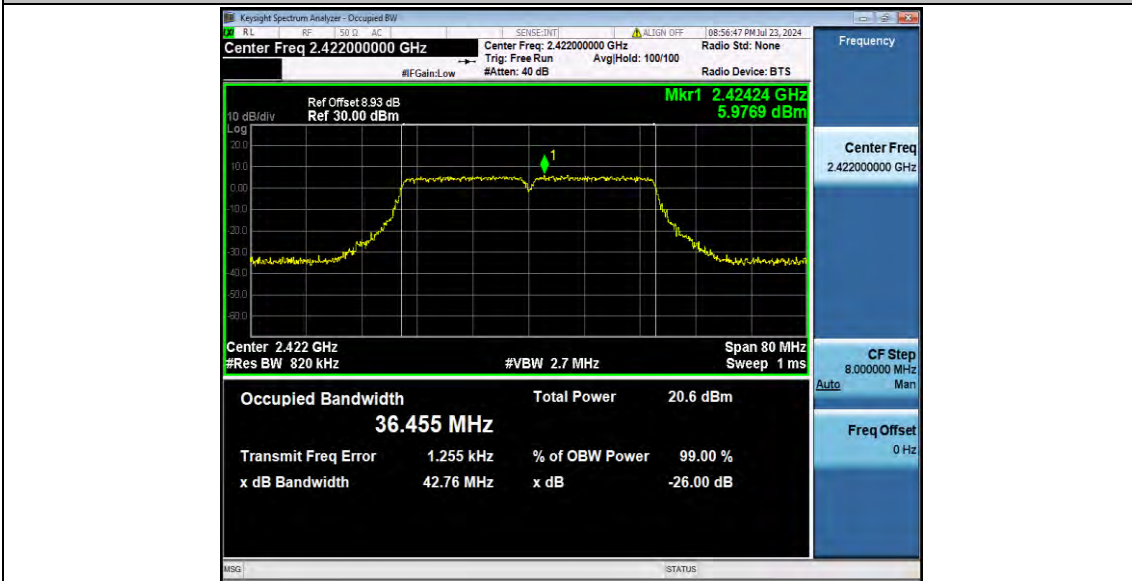
11N20SISO_Ant1_2437



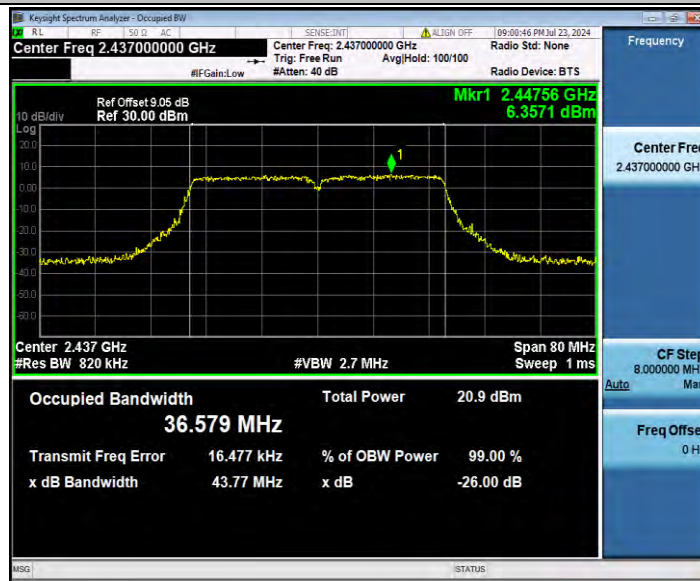
11N20SISO_Ant1_2462



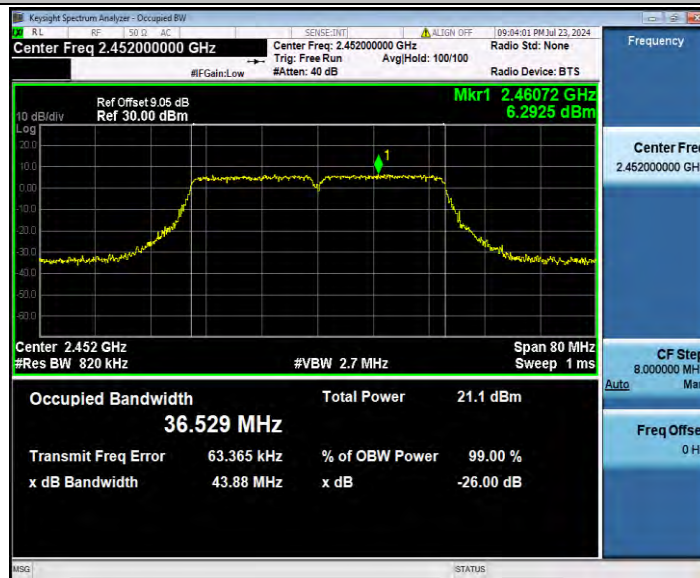
11N40SISO_Ant1_2422



11N40SISO_Ant1_2437



11N40SISO_Ant1_2452



Appendix C.3: Maximum conducted output power

Test Mode	Antenna	Frequency[MHz]	Peak power [dBm]	Limit [dBm]	Verdict
11B	Ant1	2412	16.58	≤30.00	PASS
		2437	16.90	≤30.00	PASS
		2462	17.29	≤30.00	PASS
11G	Ant1	2412	20.67	≤30.00	PASS
		2437	21.09	≤30.00	PASS
		2462	21.52	≤30.00	PASS
11N20SISO	Ant1	2412	20.63	≤30.00	PASS
		2437	21.10	≤30.00	PASS
		2462	21.45	≤30.00	PASS
11N40SISO	Ant1	2422	20.81	≤30.00	PASS
		2437	21.23	≤30.00	PASS
		2452	21.43	≤30.00	PASS

Appendix C.4: Maximum power spectral density

Test Result

TestMode	Antenna	Frequency[MHz]	Result[dBm/3-100kHz]	Limit[dBm/3kHz]	Verdict
11B	Ant1	2412	-9.76	≤8.00	PASS
		2437	-10.38	≤8.00	PASS
		2462	-9.81	≤8.00	PASS
11G	Ant1	2412	-11.19	≤8.00	PASS
		2437	-11.86	≤8.00	PASS
		2462	-10.70	≤8.00	PASS
11N20SISO	Ant1	2412	-12.34	≤8.00	PASS
		2437	-11.75	≤8.00	PASS
		2462	-11.36	≤8.00	PASS
11N40SISO	Ant1	2422	-14.71	≤8.00	PASS
		2437	-14.30	≤8.00	PASS
		2452	-13.73	≤8.00	PASS

Note:

1. The Duty Cycle Factor and RBW Factor is compensated in the graph.

Test Graphs

11B_Ant1_2412



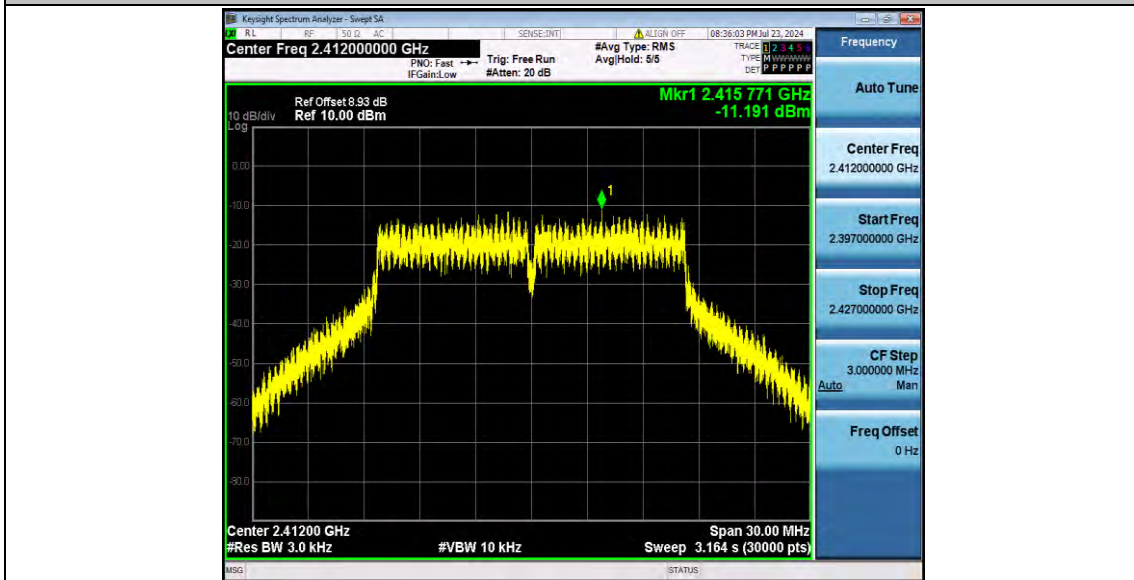
11B_Ant1_2437



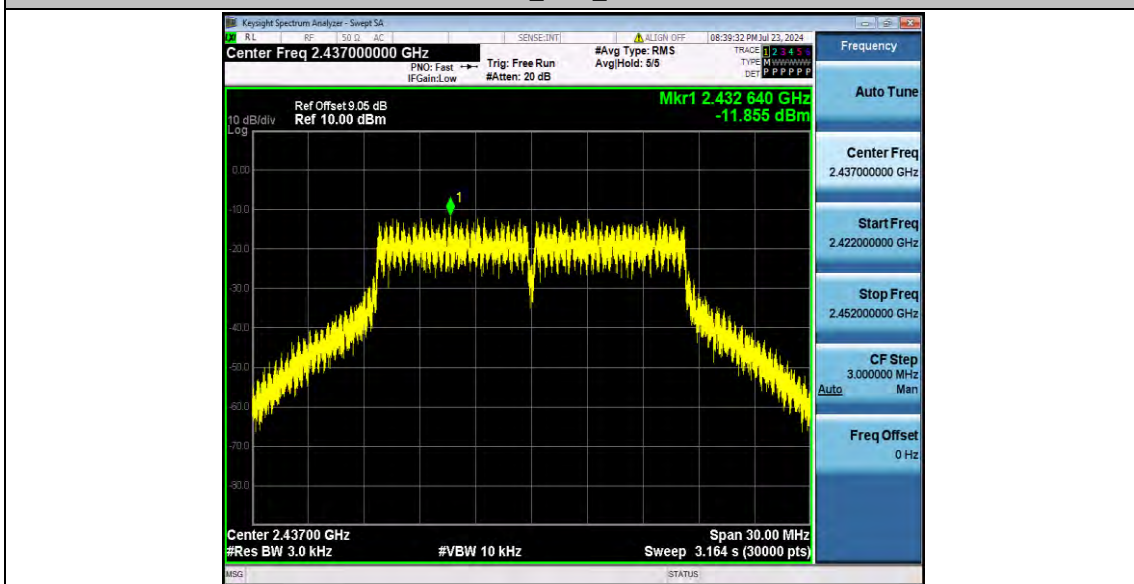
11B_Ant1_2462



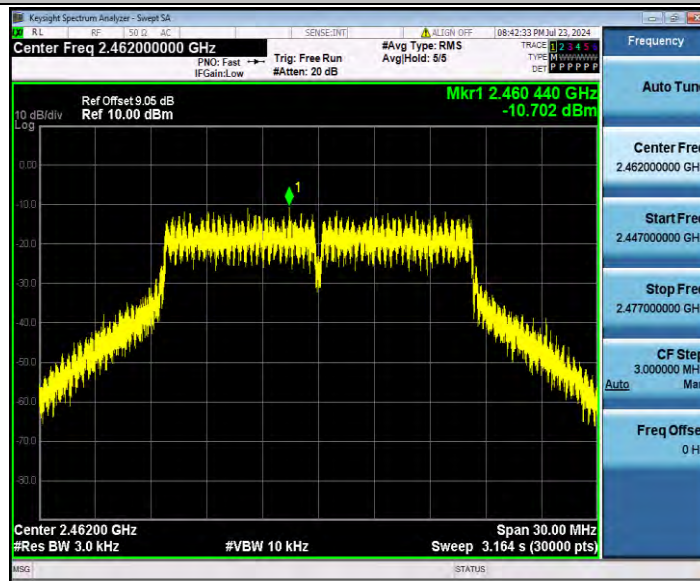
11G_Ant1_2412



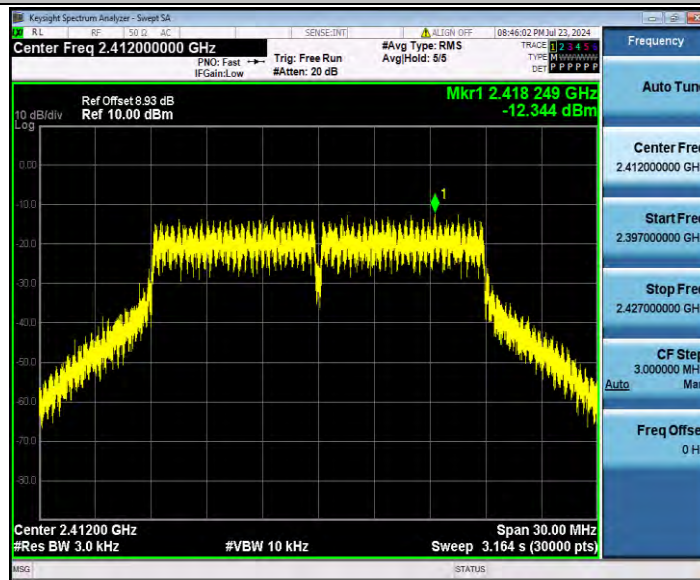
11G_Ant1_2437



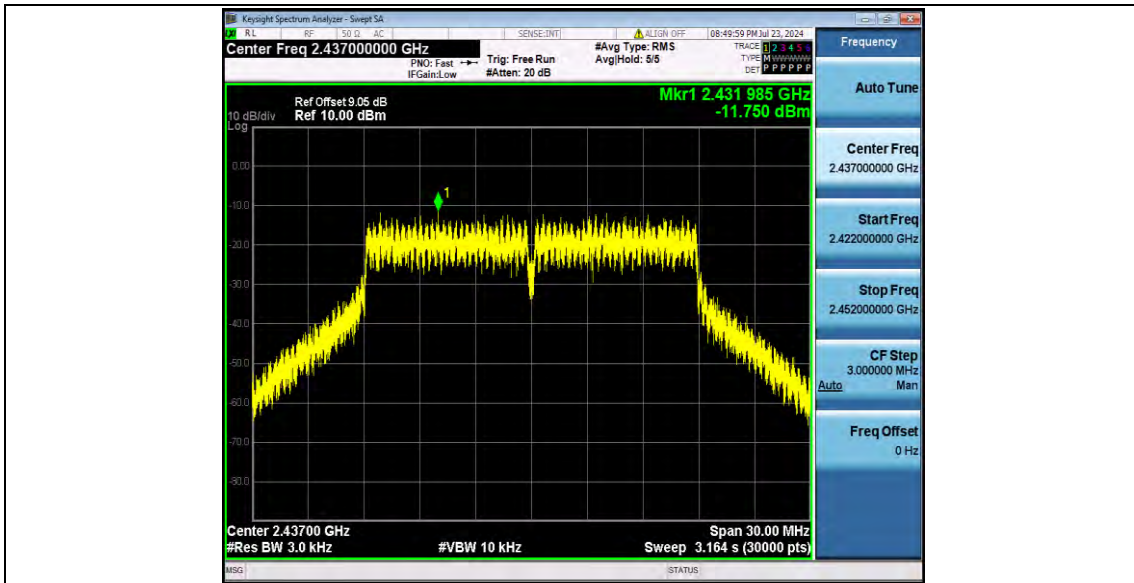
11G_Ant1_2462



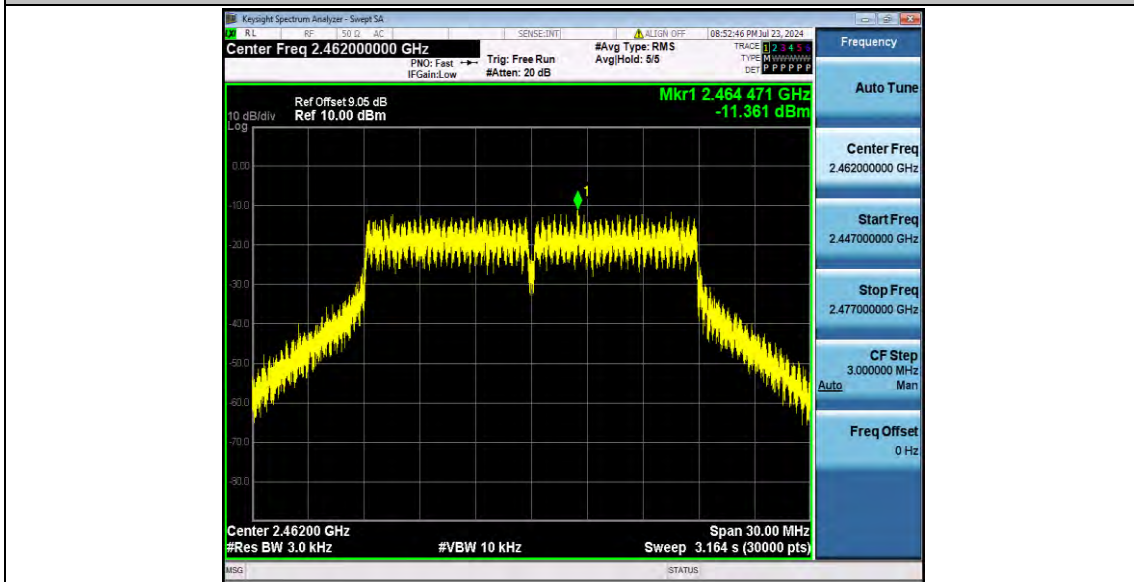
11N20SISO_Ant1_2412



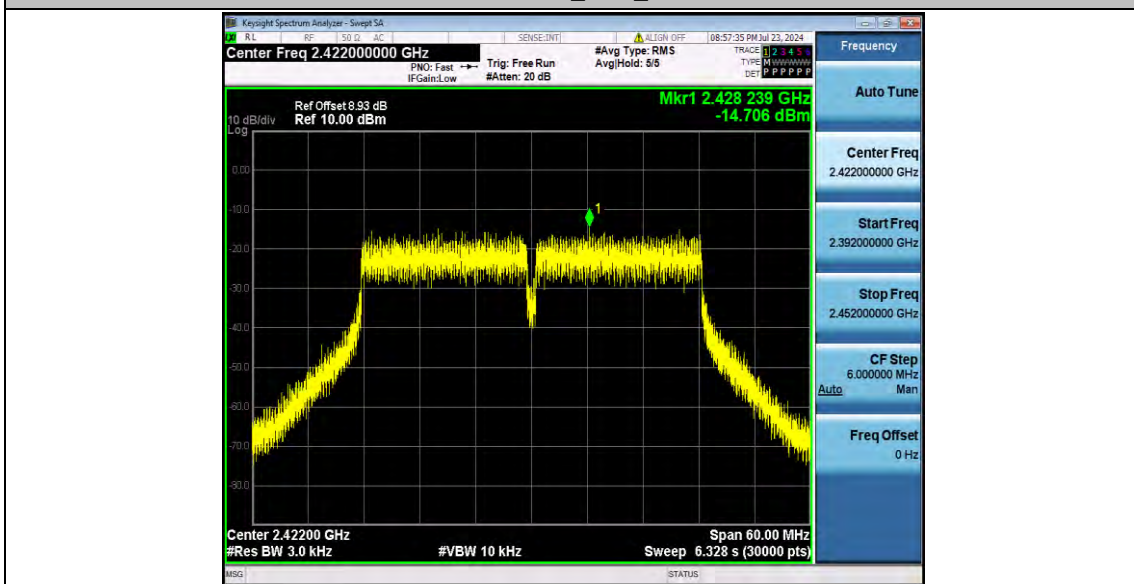
11N20SISO_Ant1_2437



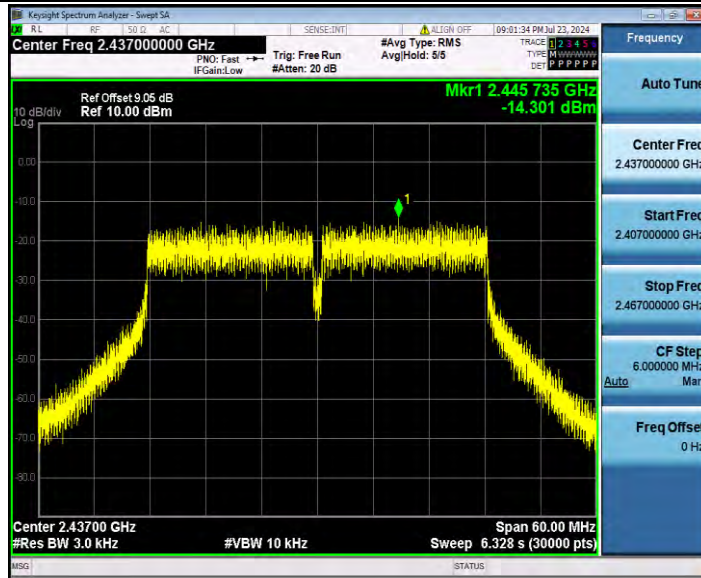
11N20SISO_Ant1_2462



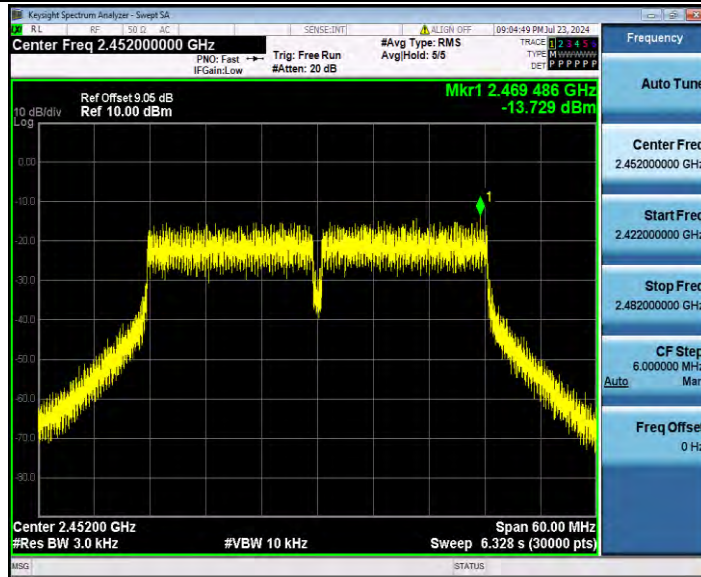
11N40SISO_Ant1_2422



11N40SISO_Ant1_2437



11N40SISO_Ant1_2452



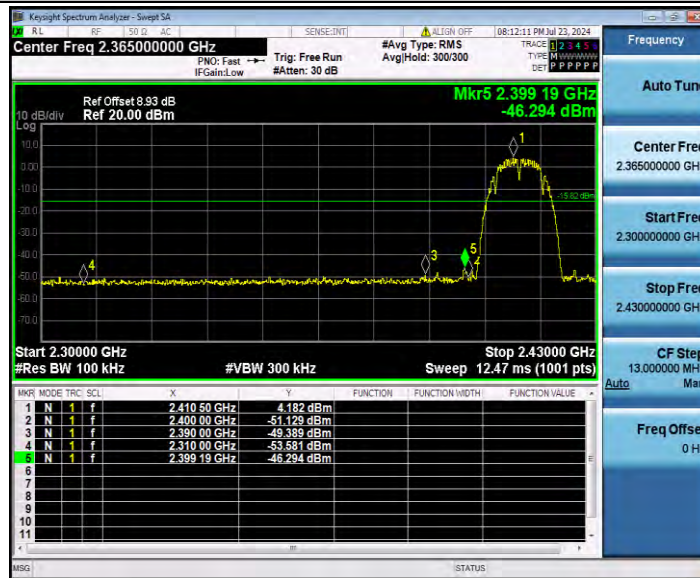
Appendix C.5: Band edge measurements

Test Result

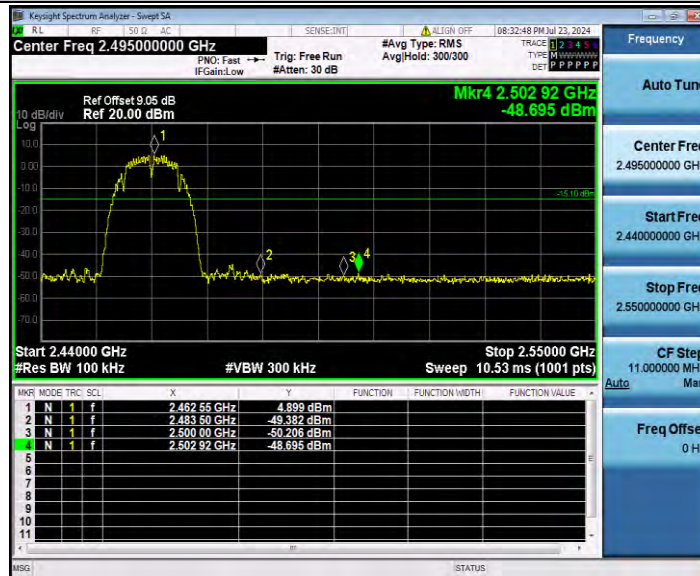
TestMode	Antenna	ChName	Frequency[MHz]	RefLevel[dBm]	Result[dBm]	Limit[dBm]	Verdict
11B	Ant1	Low	2412	4.18	-46.29	≤-15.82	PASS
		High	2462	4.90	-48.7	≤-15.1	PASS
11G	Ant1	Low	2412	2.61	-28.52	≤-17.39	PASS
		High	2462	3.60	-48.23	≤-16.4	PASS
11N20SISO	Ant1	Low	2412	2.74	-26.46	≤-17.27	PASS
		High	2462	3.90	-48.69	≤-16.1	PASS
11N40SISO	Ant1	Low	2422	-0.07	-28.33	≤-20.07	PASS
		High	2452	0.64	-42.55	≤-19.36	PASS

Test Graphs

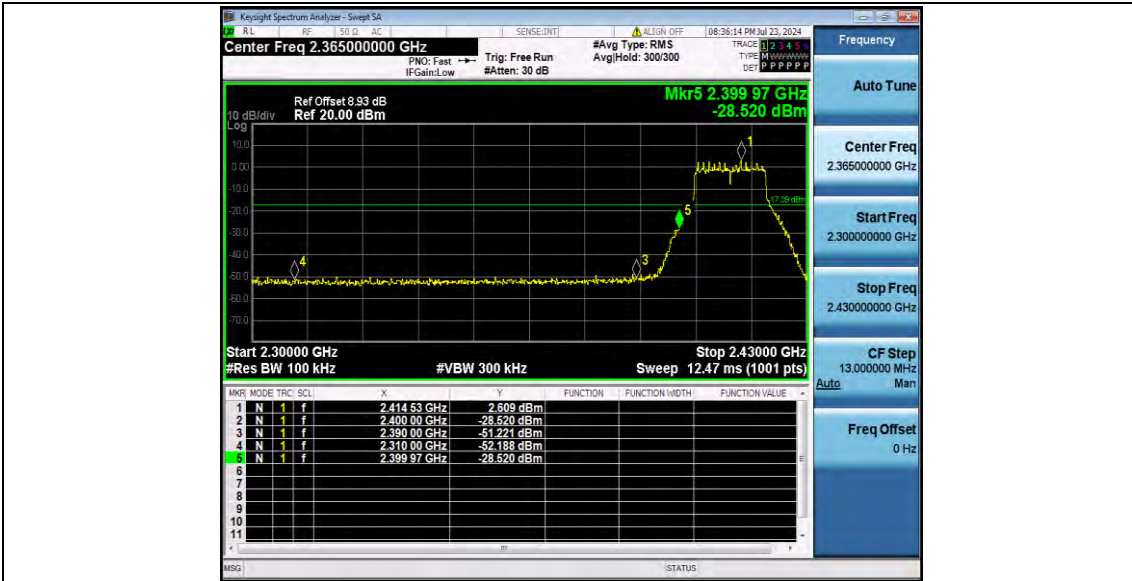
11B_Ant1_Low_2412



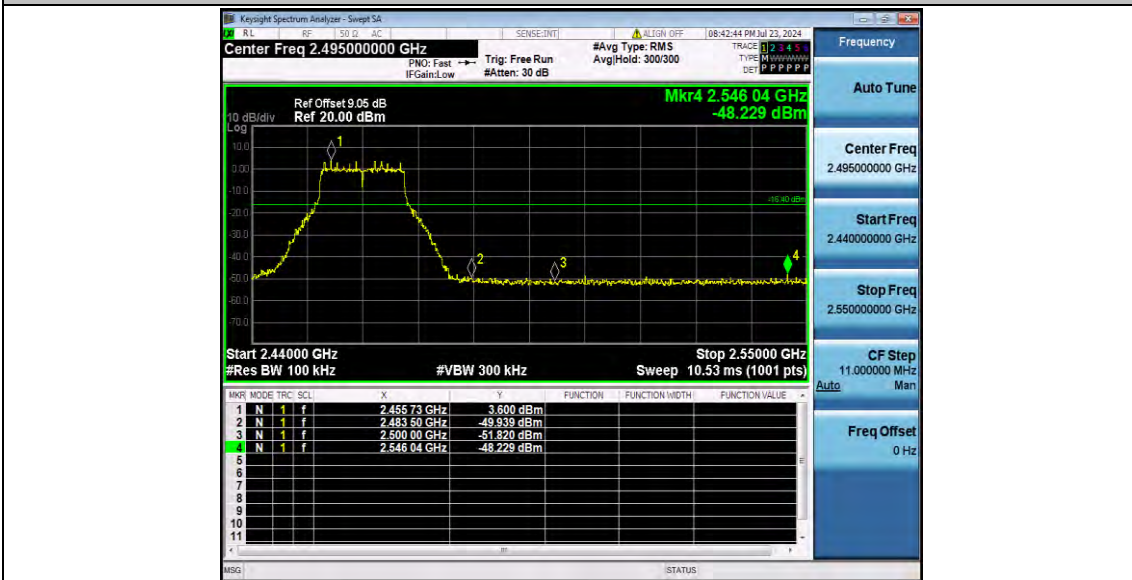
11B_Ant1_High_2462



11G_Ant1_Low_2412



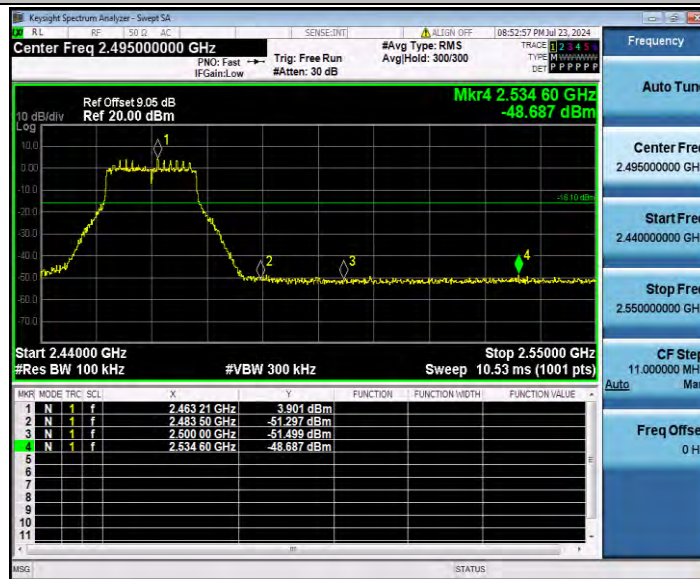
11G_Ant1_High_2462



11N20SISO_Ant1_Low_2412



11N20SISO_Ant1_High_2462



11N40SISO_Ant1_Low_2422



11N40SISO_Ant1_High_2452

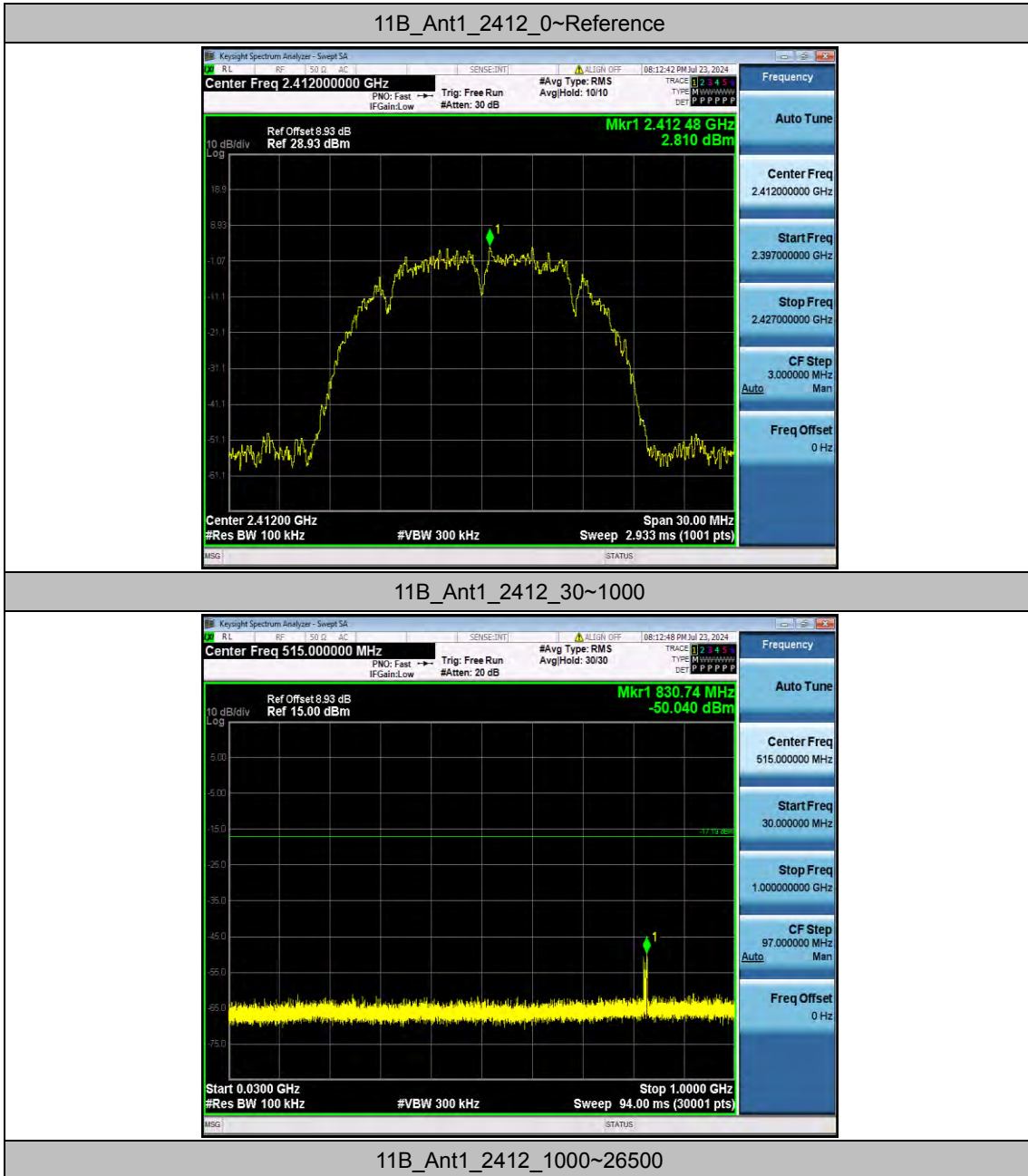


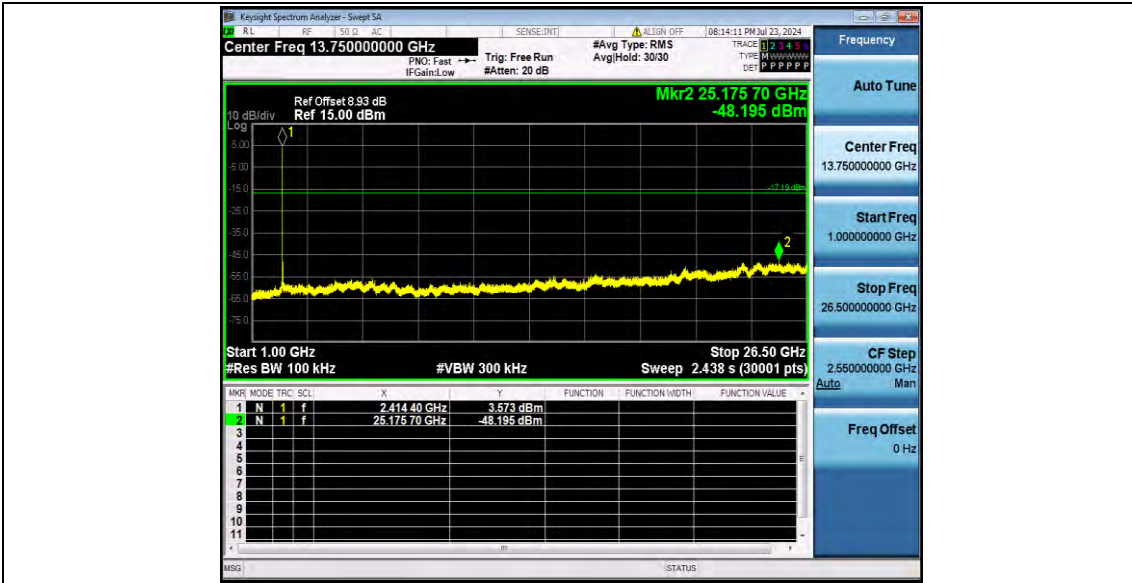
Appendix C.6: Conducted Spurious Emission

Test Result

TestMode	Antenna	Frequency[MHz]	FreqRange [Mhz]	RefLevel [dBm]	Result [dBm]	Limit [dBm]	Verdict
11B	Ant1	2412	Reference	2.81	2.81	---	PASS
			30~1000	2.81	-50.04	≤ -17.19	PASS
			1000~26500	2.81	-48.2	≤ -17.19	PASS
		2437	Reference	3.59	3.59	---	PASS
			30~1000	3.59	-60.08	≤ -16.41	PASS
			1000~26500	3.59	-47.28	≤ -16.41	PASS
		2462	Reference	3.08	3.08	---	PASS
			30~1000	3.08	-61.03	≤ -16.92	PASS
			1000~26500	3.08	-47.8	≤ -16.92	PASS
11G	Ant1	2412	Reference	-0.58	-0.58	---	PASS
			30~1000	-0.58	-52.9	≤ -20.58	PASS
			1000~26500	-0.58	-47.2	≤ -20.58	PASS
		2437	Reference	-0.35	-0.35	---	PASS
			30~1000	-0.35	-56.36	≤ -20.35	PASS
			1000~26500	-0.35	-47.71	≤ -20.35	PASS
		2462	Reference	0.49	0.49	---	PASS
			30~1000	0.49	-48.67	≤ -19.51	PASS
			1000~26500	0.49	-48.22	≤ -19.51	PASS
11N20SISO	Ant1	2412	Reference	0.30	0.30	---	PASS
			30~1000	0.30	-61.1	≤ -19.7	PASS
			1000~26500	0.30	-47.13	≤ -19.7	PASS
		2437	Reference	-0.66	-0.66	---	PASS
			30~1000	-0.66	-52.56	≤ -20.66	PASS
			1000~26500	-0.66	-47.95	≤ -20.66	PASS
		2462	Reference	0.55	0.55	---	PASS
			30~1000	0.55	-60.46	≤ -19.45	PASS
			1000~26500	0.55	-48.05	≤ -19.45	PASS
11N40SISO	Ant1	2422	Reference	-0.76	-0.76	---	PASS
			30~1000	-0.76	-53.49	≤ -20.76	PASS
			1000~26500	-0.76	-47.63	≤ -20.76	PASS
		2437	Reference	-0.24	-0.24	---	PASS
			30~1000	-0.24	-60.82	≤ -20.24	PASS
			1000~26500	-0.24	-48.31	≤ -20.24	PASS
		2452	Reference	0.10	0.10	---	PASS
			30~1000	0.10	-60.58	≤ -19.9	PASS
			1000~26500	0.10	-47.48	≤ -19.9	PASS

Test Graphs

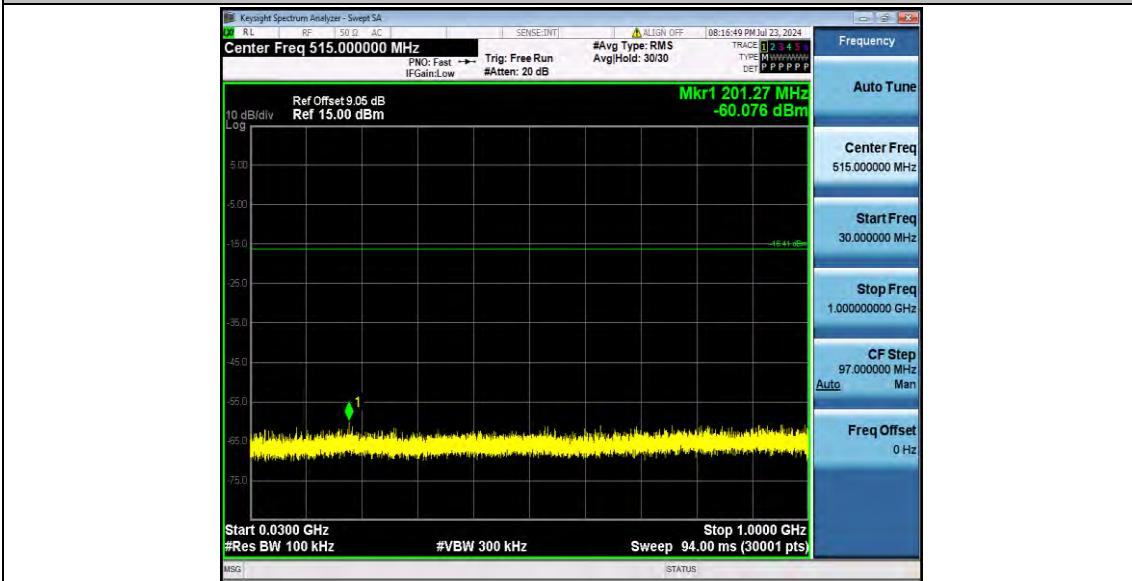




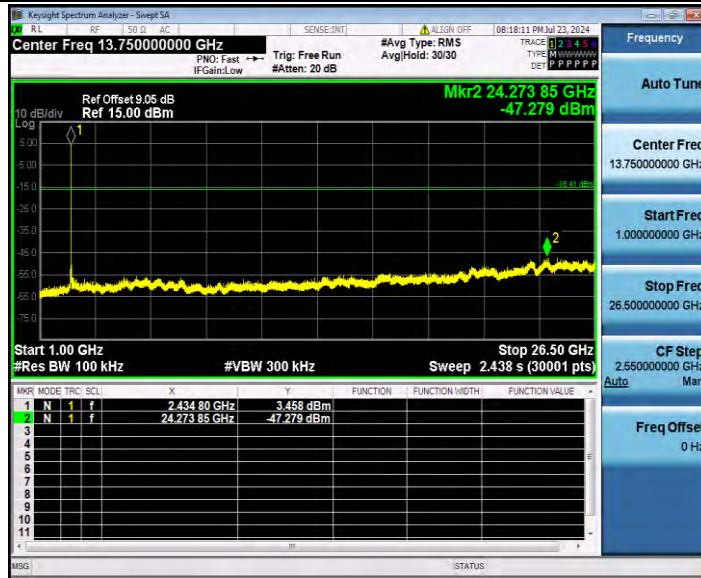
11B_Ant1_2437_0~Reference



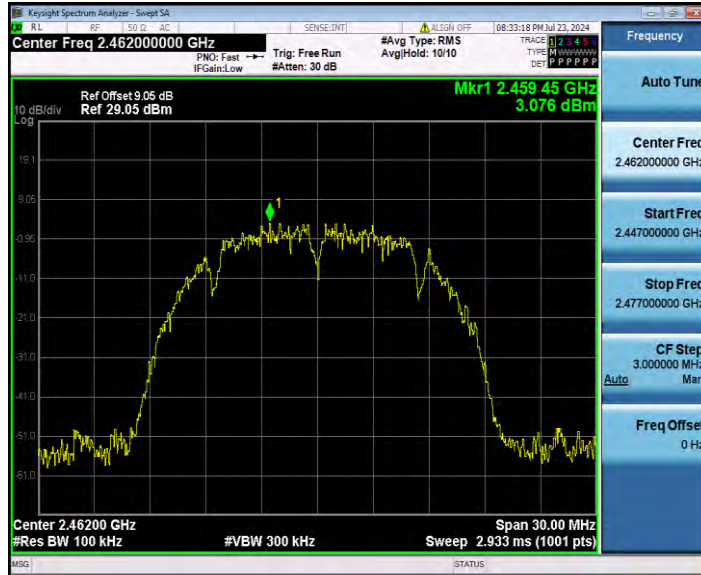
11B_Ant1_2437_30~1000



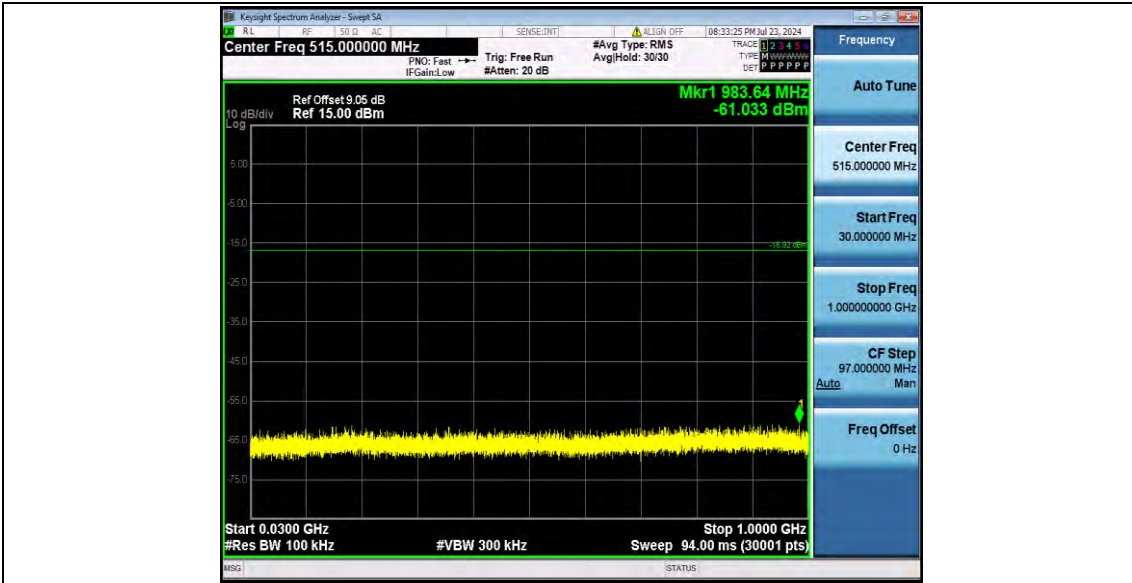
11B_Ant1_2437_1000~26500



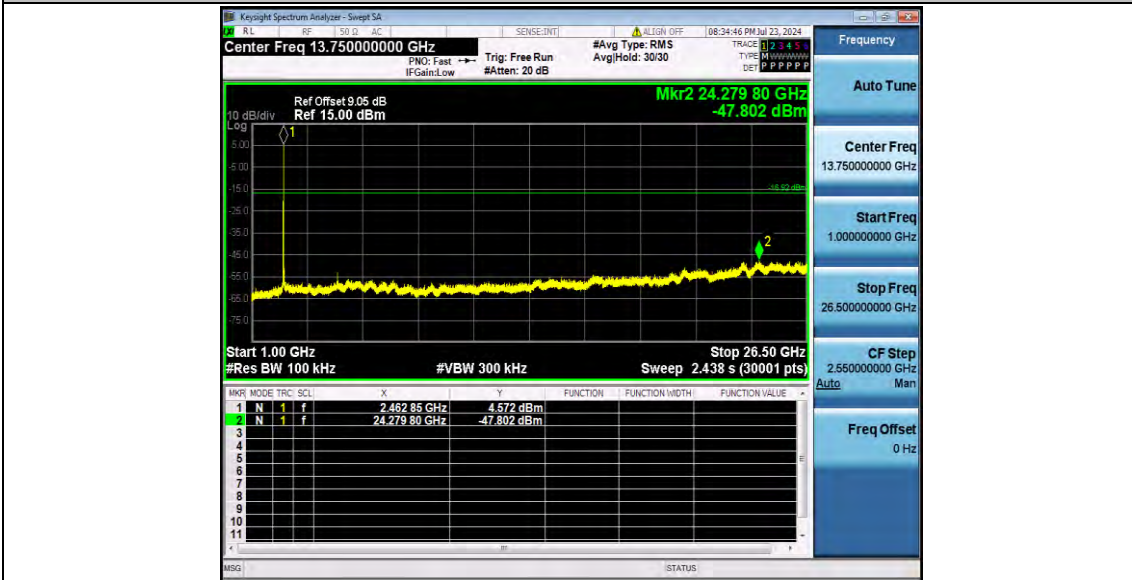
11B_Ant1_2462_0~Reference



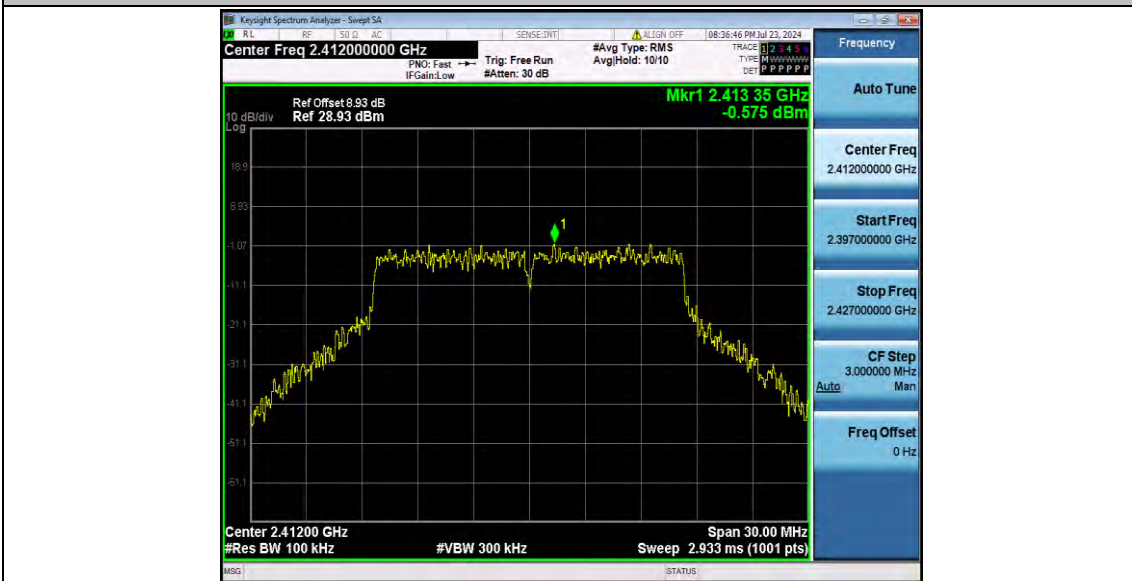
11B_Ant1_2462_30~1000



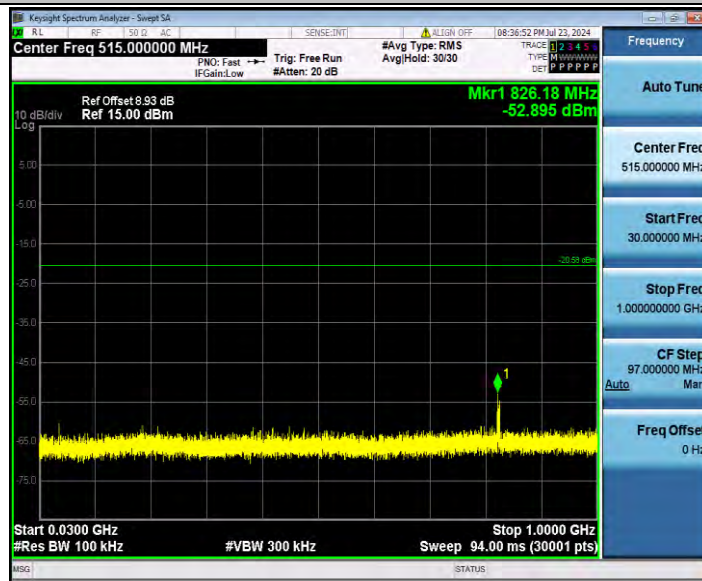
11B_Ant1_2462_1000~26500



11G_Ant1_2412_0~Reference



11G_Ant1_2412_30~1000



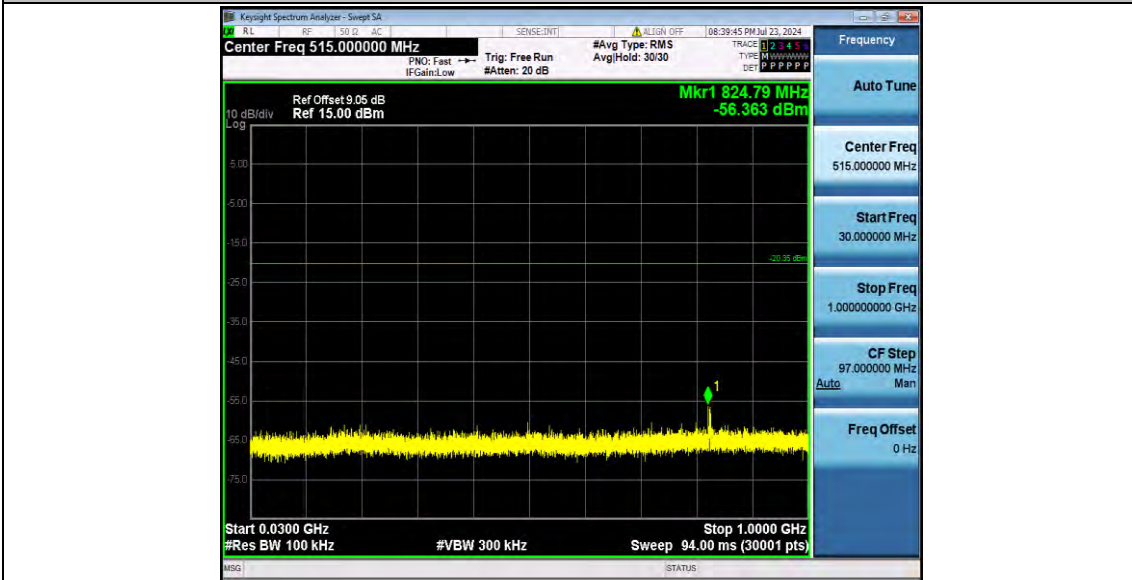
11G_Ant1_2412_1000~26500



11G_Ant1_2437_0~Reference



11G_Ant1_2437_30~1000



11G_Ant1_2437_1000~26500



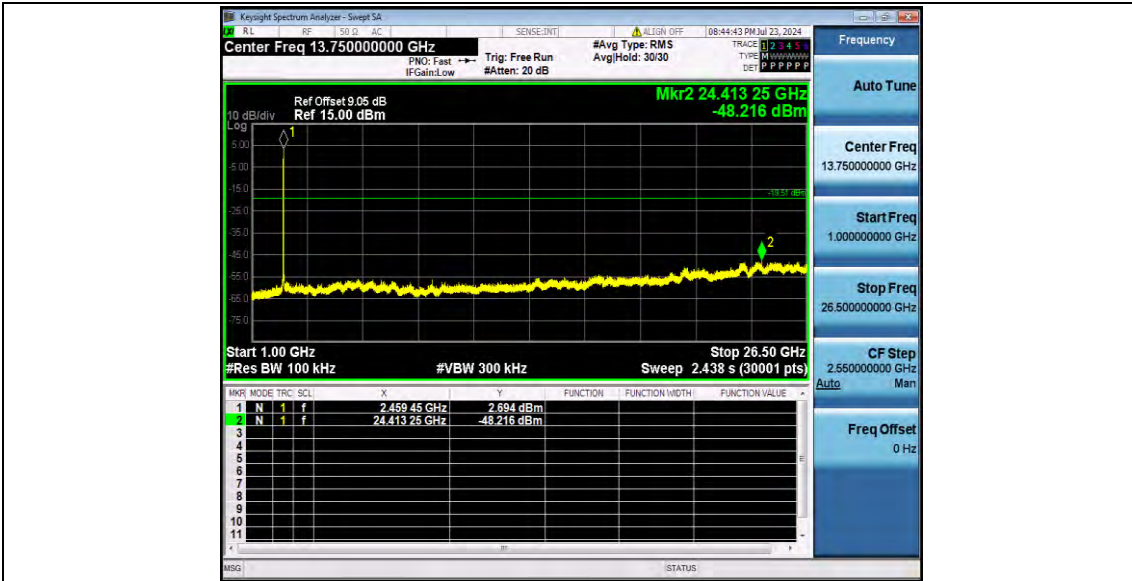
11G_Ant1_2462_0~Reference



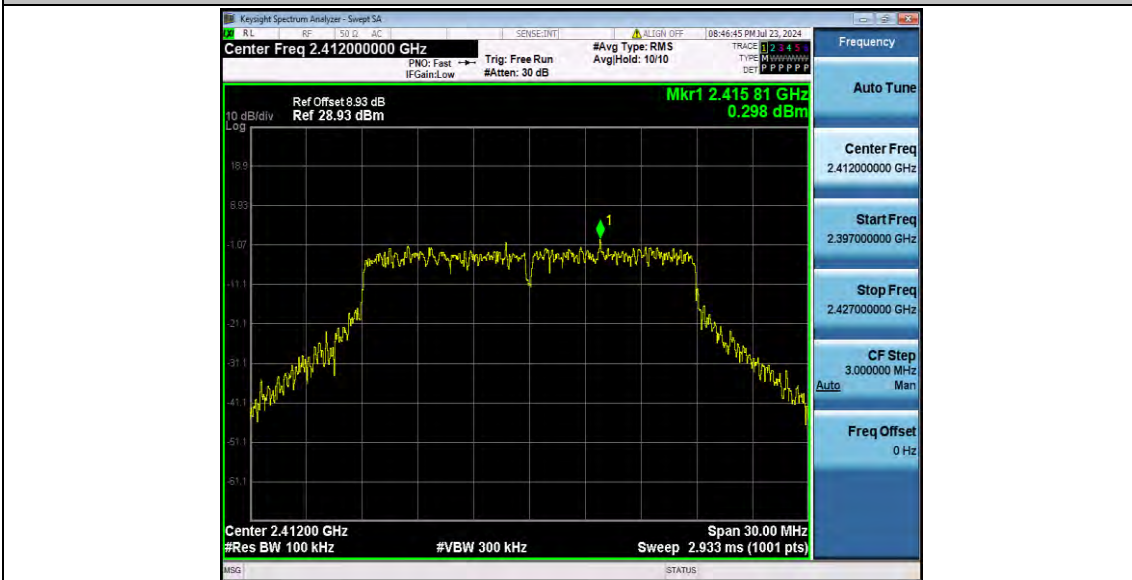
11G_Ant1_2462_30~1000



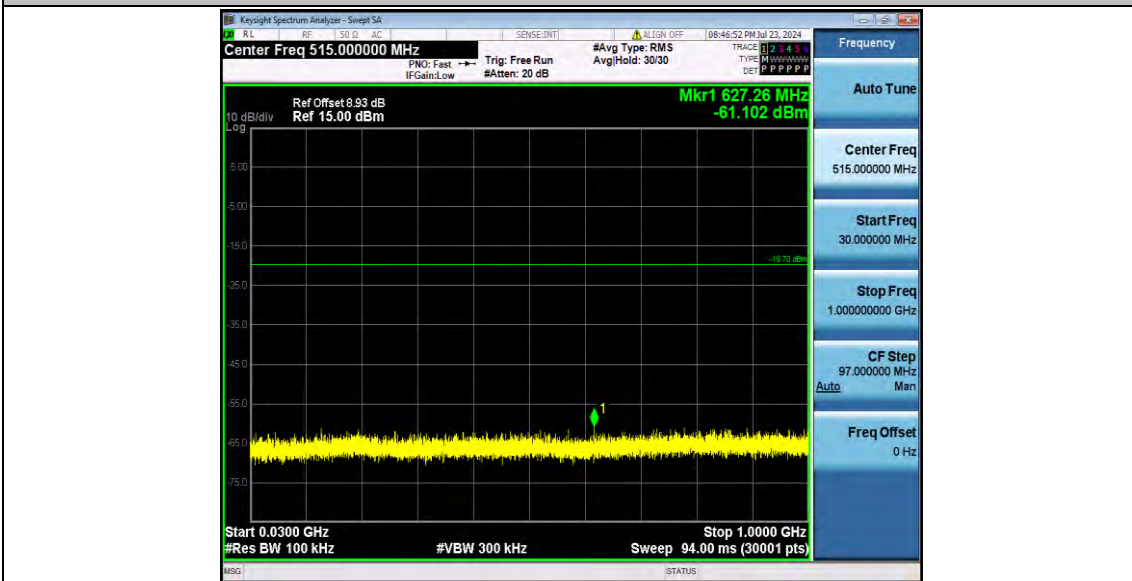
11G_Ant1_2462_1000~26500



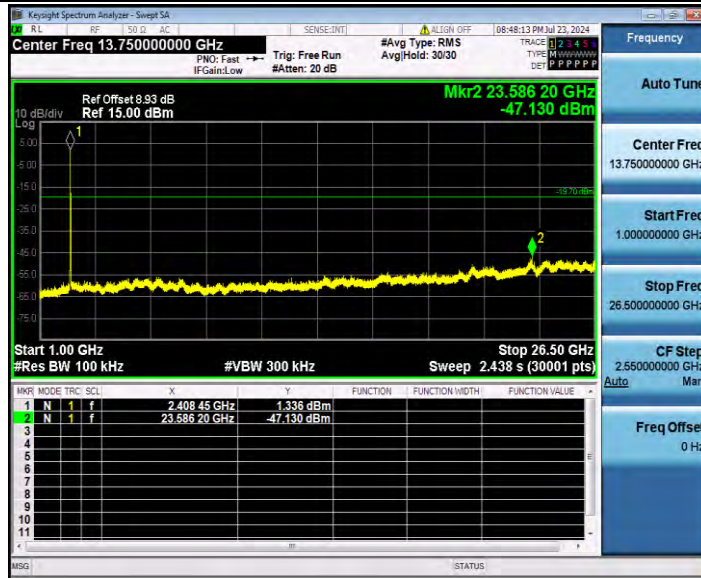
11N20SISO_Ant1_2412_0~Reference



11N20SISO_Ant1_2412_30~1000



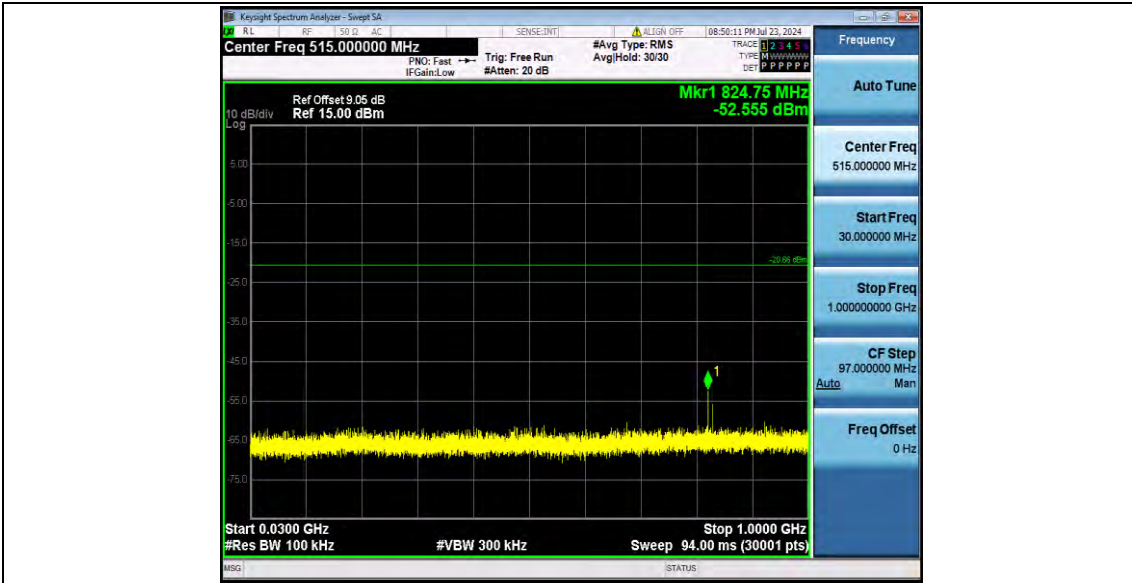
11N20SISO_Ant1_2412_1000~26500



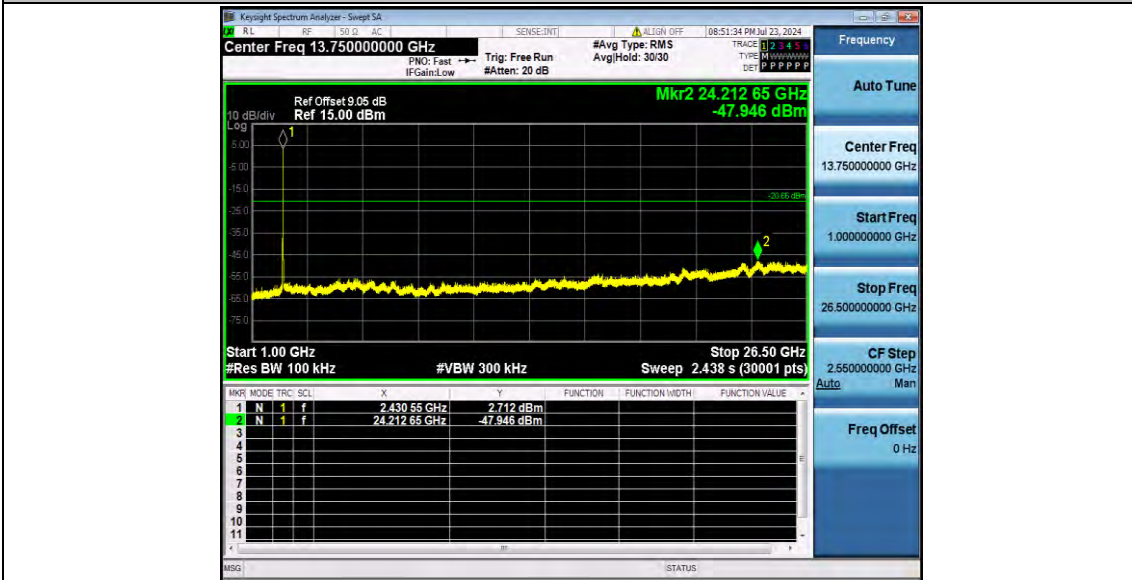
11N20SISO_Ant1_2437_0~Reference



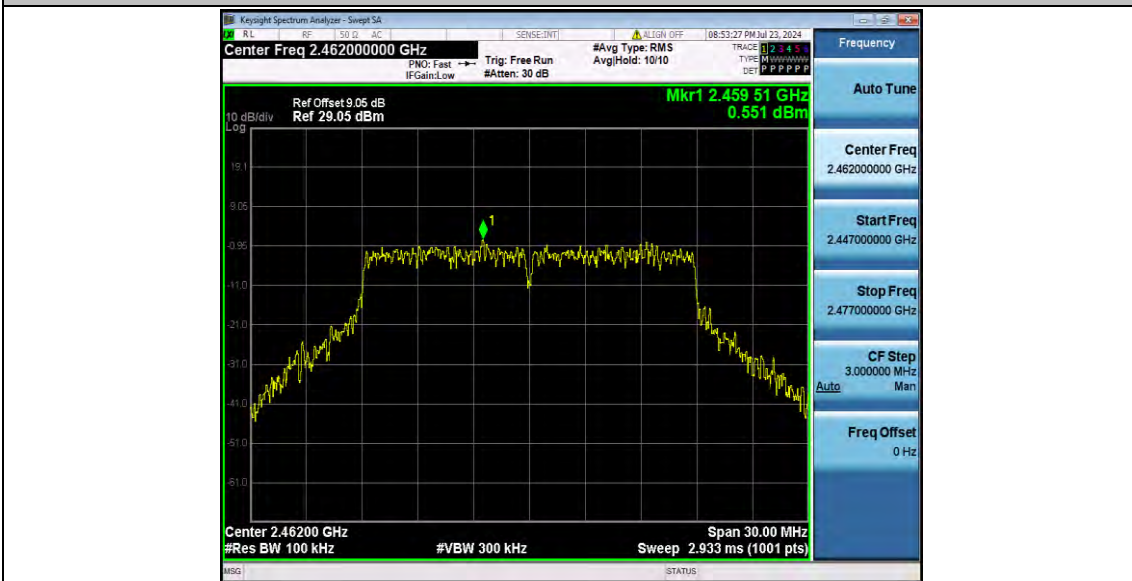
11N20SISO_Ant1_2437_30~1000



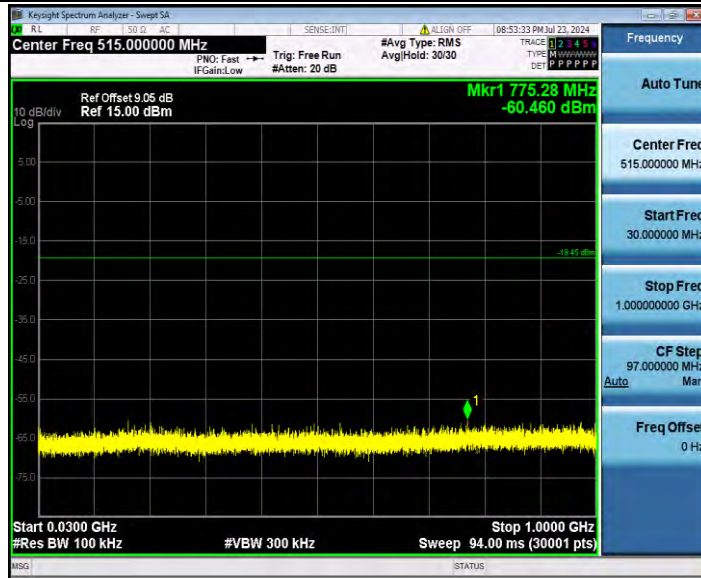
11N20SISO_Ant1_2437_1000~26500



11N20SISO_Ant1_2462_0~Reference



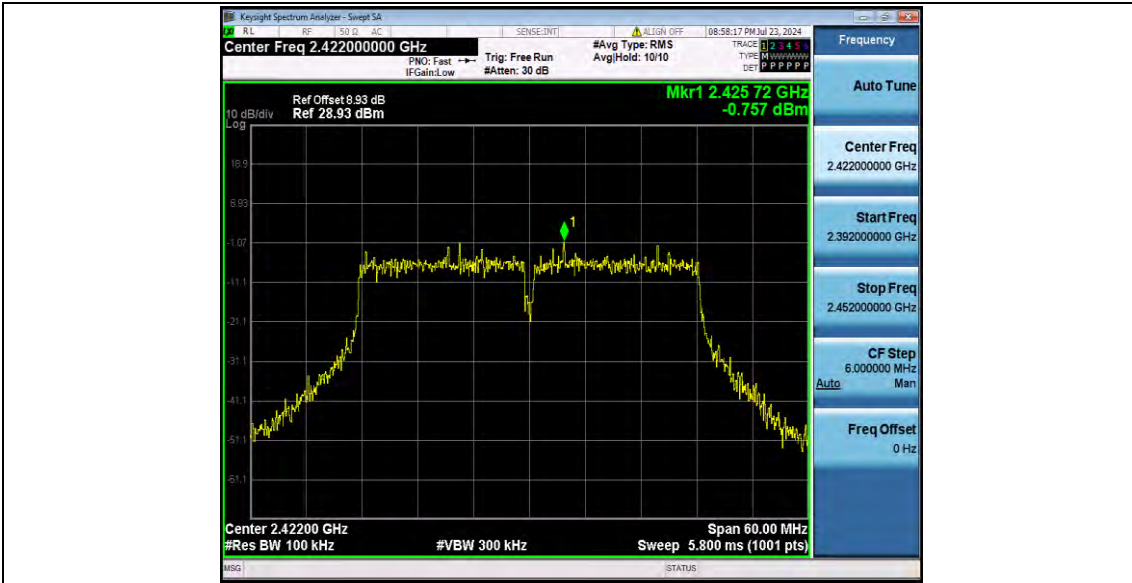
11N20SISO_Ant1_2462_30~1000



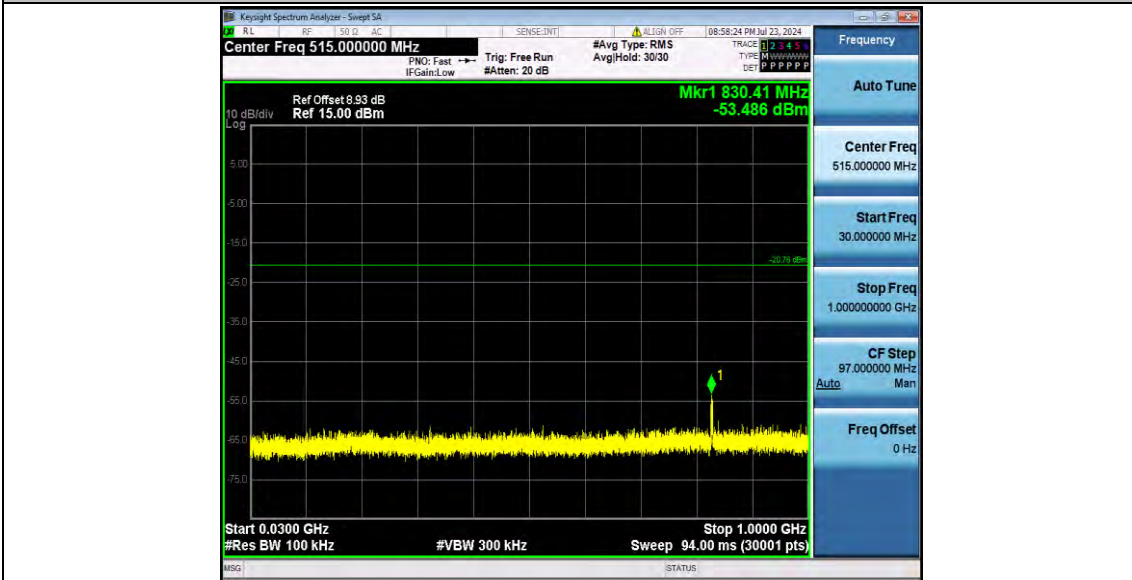
11N20SISO_Ant1_2462_1000~26500



11N40SISO_Ant1_2422_0~Reference



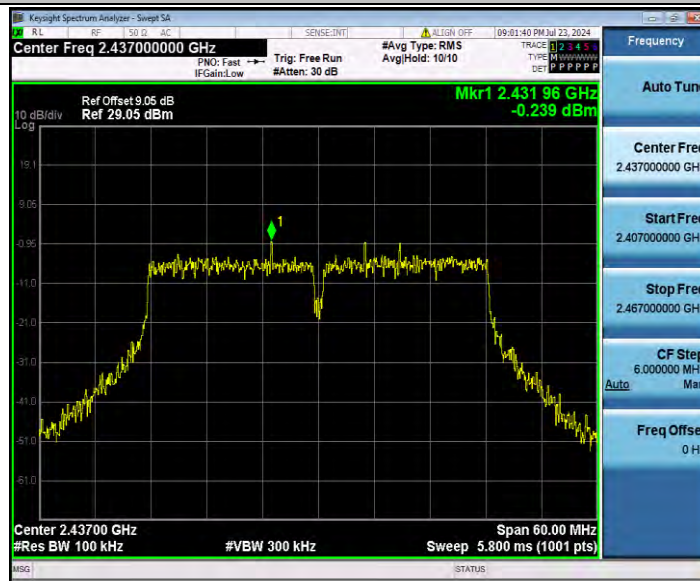
11N40SISO_Ant1_2422_30~1000



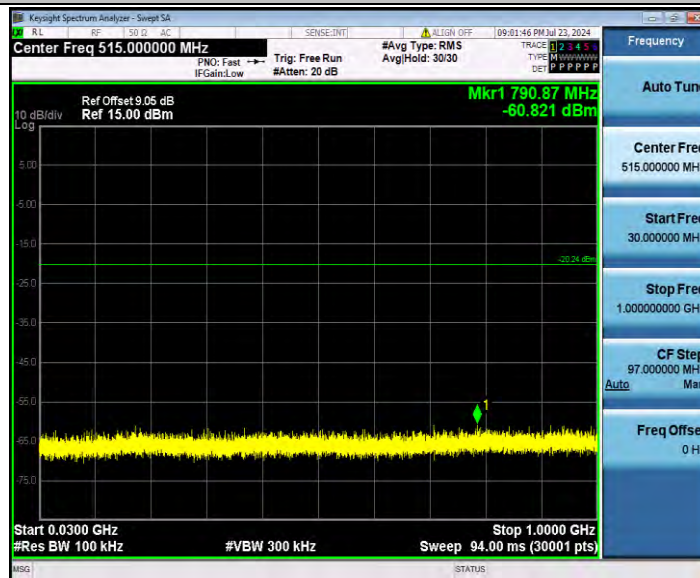
11N40SISO_Ant1_2422_1000~26500



11N40SISO_Ant1_2437_0~Reference



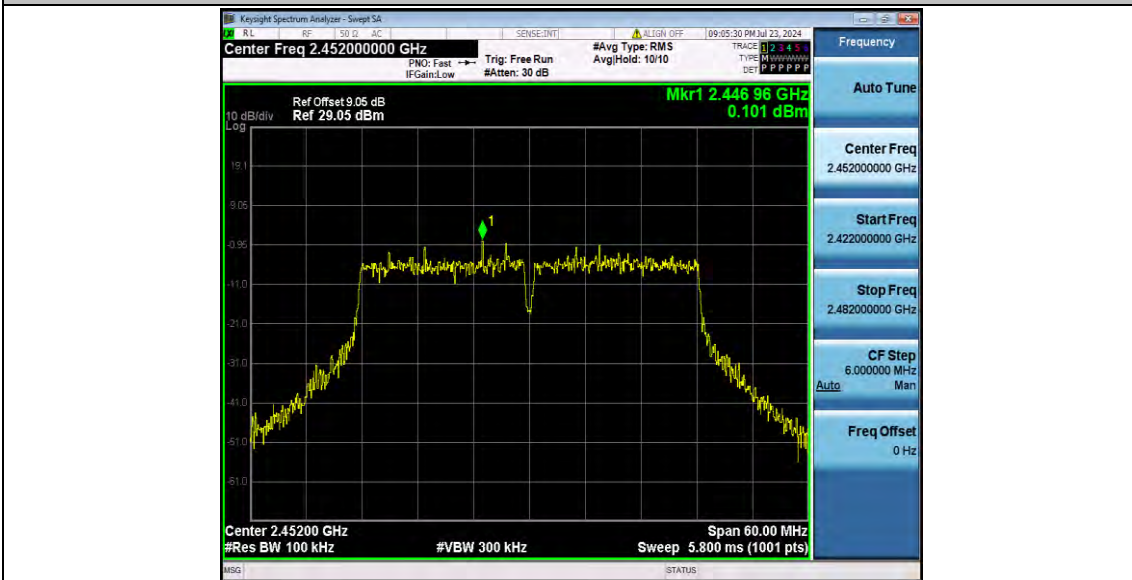
11N40SISO_Ant1_2437_30~1000



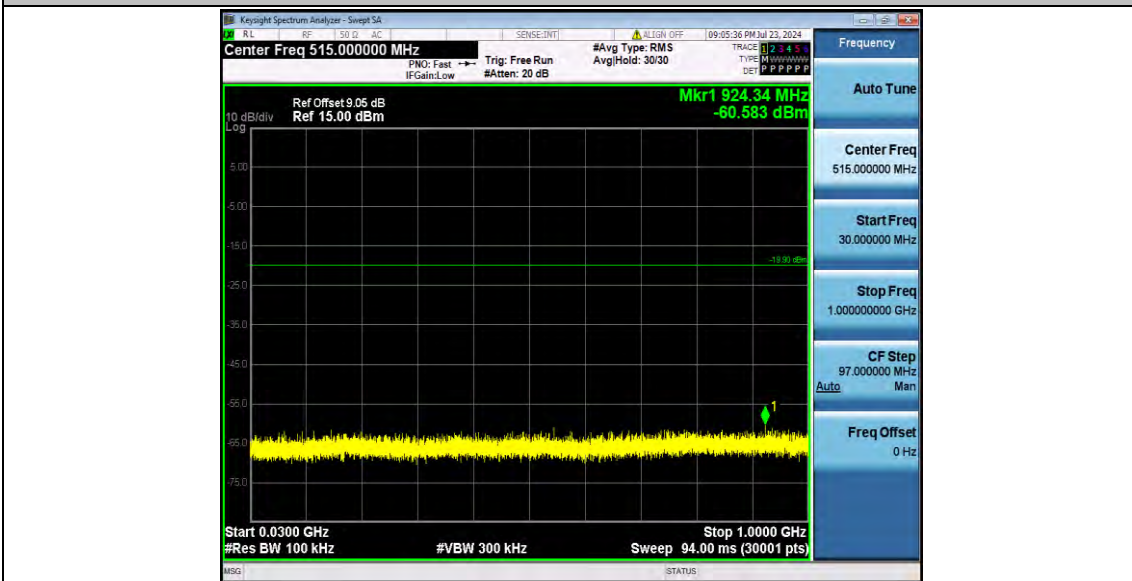
11N40SISO_Ant1_2437_1000~26500



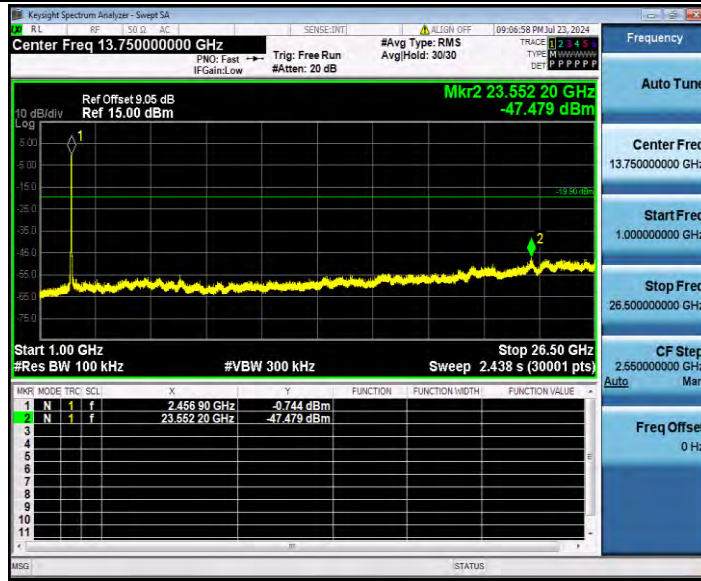
11N40SISO_Ant1_2452_0~Reference



11N40SISO_Ant1_2452_30~1000



11N40SISO_Ant1_2452_1000~26500



Appendix C.7: Emissions in Restricted Bands

Test Result

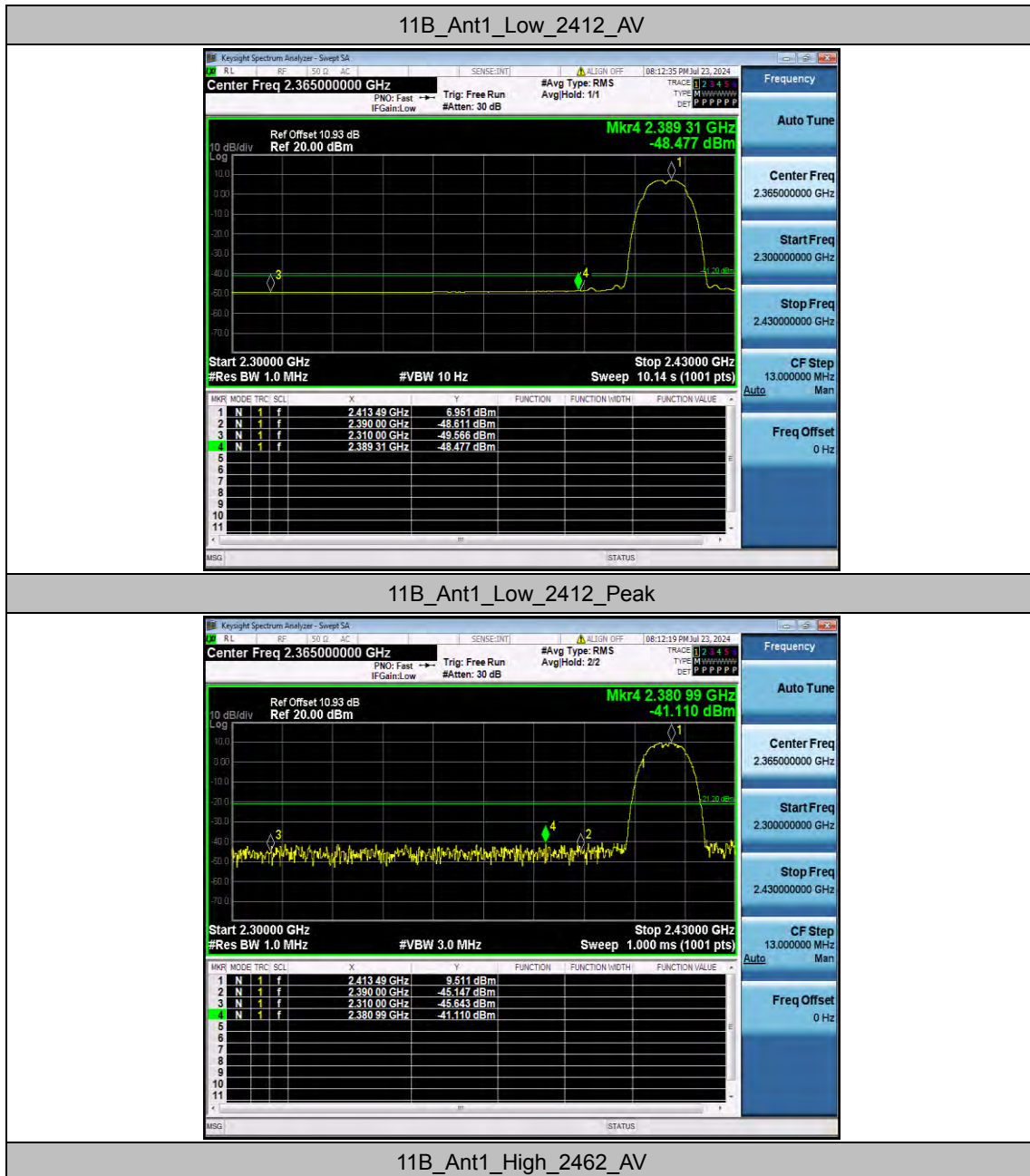
TestMode	Antenna	ChName	Frequency [MHz]	Detector	Freq [MHz]	Result [dBm]	Limit [dBm]	Result [dBuV/m]	Limit [dBuV/m]	Verdict
11B	Ant1	Low	2412	AV	2310.000	-49.57	≤-41.20	45.63	≤54	PASS
				AV	2389.310	-48.48	≤-41.20	46.72	≤54	PASS
				AV	2390.000	-48.61	≤-41.20	46.59	≤54	PASS
				Peak	2310.000	-45.64	≤-21.20	49.56	≤74	PASS
				Peak	2380.990	-41.11	≤-21.20	54.09	≤74	PASS
				Peak	2390.000	-45.15	≤-21.20	50.05	≤74	PASS
		High	2462	AV	2483.500	-47.68	≤-41.20	47.52	≤54	PASS
				AV	2488.510	-46.4	≤-41.20	48.80	≤54	PASS
				AV	2500.000	-47.96	≤-41.20	47.24	≤54	PASS
				Peak	2483.500	-41.92	≤-21.20	53.28	≤74	PASS
				Peak	2488.950	-39.2	≤-21.20	56.00	≤74	PASS
				Peak	2500.000	-43.89	≤-21.20	51.31	≤74	PASS
11G	Ant1	Low	2412	AV	2310.000	-49.56	≤-41.20	45.64	≤54	PASS
				AV	2389.960	-48.03	≤-41.20	47.17	≤54	PASS
				AV	2390.000	-48.03	≤-41.20	47.17	≤54	PASS
				Peak	2310.000	-45.4	≤-21.20	49.80	≤74	PASS
				Peak	2378.000	-39.65	≤-21.20	55.55	≤74	PASS
				Peak	2390.000	-41.61	≤-21.20	53.59	≤74	PASS
		High	2462	AV	2483.500	-47.7	≤-41.20	47.50	≤54	PASS
				AV	2483.560	-47.72	≤-41.20	47.48	≤54	PASS
				AV	2500.000	-48.47	≤-41.20	46.73	≤54	PASS
				Peak	2483.500	-45.64	≤-21.20	49.56	≤74	PASS
				Peak	2491.810	-40.01	≤-21.20	55.19	≤74	PASS
				Peak	2500.000	-45.19	≤-21.20	50.01	≤74	PASS
11N20SIS O	Ant1	Low	2412	AV	2310.000	-49.52	≤-41.20	45.68	≤54	PASS
				AV	2389.960	-47.51	≤-41.20	47.69	≤54	PASS
				AV	2390.000	-47.51	≤-41.20	47.69	≤54	PASS
				Peak	2310.000	-44.96	≤-21.20	50.24	≤74	PASS
				Peak	2337.830	-40.58	≤-21.20	54.62	≤74	PASS
				Peak	2390.000	-42.45	≤-21.20	52.75	≤74	PASS
		High	2462	AV	2483.500	-47.41	≤-41.20	47.79	≤54	PASS
				AV	2483.560	-47.42	≤-41.20	47.78	≤54	PASS
				AV	2500.000	-48.43	≤-41.20	46.77	≤54	PASS
				Peak	2483.500	-48.13	≤-21.20	47.07	≤74	PASS
				Peak	2486.090	-40.59	≤-21.20	54.61	≤74	PASS
				Peak	2486.090	-40.59	≤-21.20	54.61	≤74	PASS

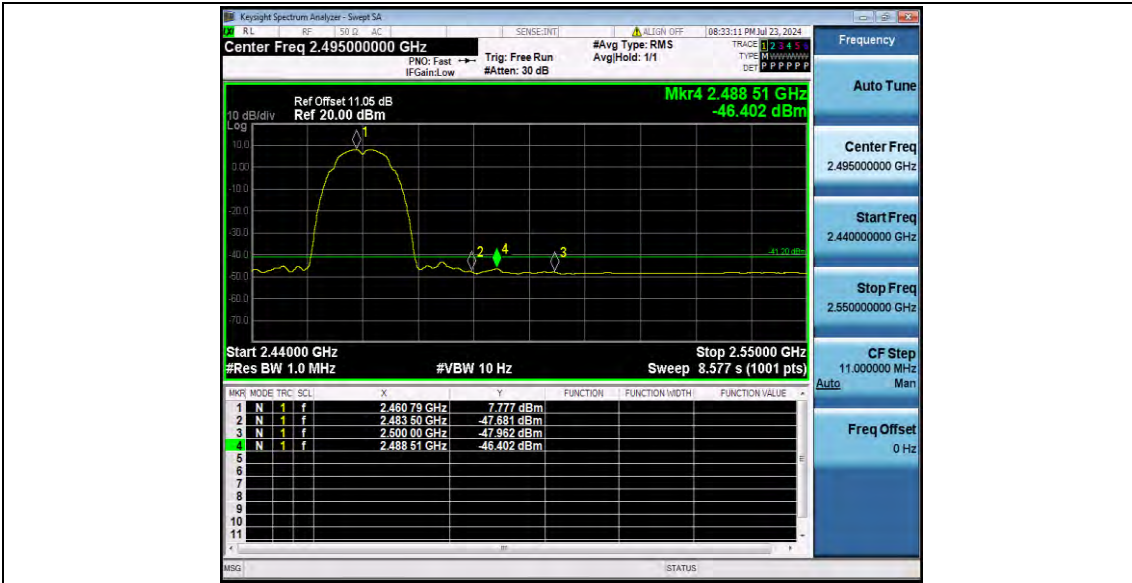
				Peak	2500.000	-52.07	≤-21.20	43.13	≤74	PASS
11N40SIS O	Ant1	Low	2422	AV	2310.000	-49.52	≤-41.20	45.68	≤54	PASS
				AV	2389.960	-44.16	≤-41.20	51.04	≤54	PASS
				AV	2390.000	-44.16	≤-41.20	51.04	≤54	PASS
				Peak	2310.000	-44.44	≤-21.20	50.76	≤74	PASS
				Peak	2378.130	-37.22	≤-21.20	57.98	≤74	PASS
				Peak	2390.000	-43.73	≤-21.20	51.47	≤74	PASS
		High	2452	AV	2483.500	-43.87	≤-41.20	51.33	≤54	PASS
				AV	2483.560	-43.92	≤-41.20	51.28	≤54	PASS
				AV	2500.000	-46.98	≤-41.20	48.22	≤54	PASS
				Peak	2483.500	-42.58	≤-21.20	52.62	≤74	PASS
				Peak	2493.790	-36.1	≤-21.20	59.10	≤74	PASS
				Peak	2500.000	-41.61	≤-21.20	53.59	≤74	PASS

Note:

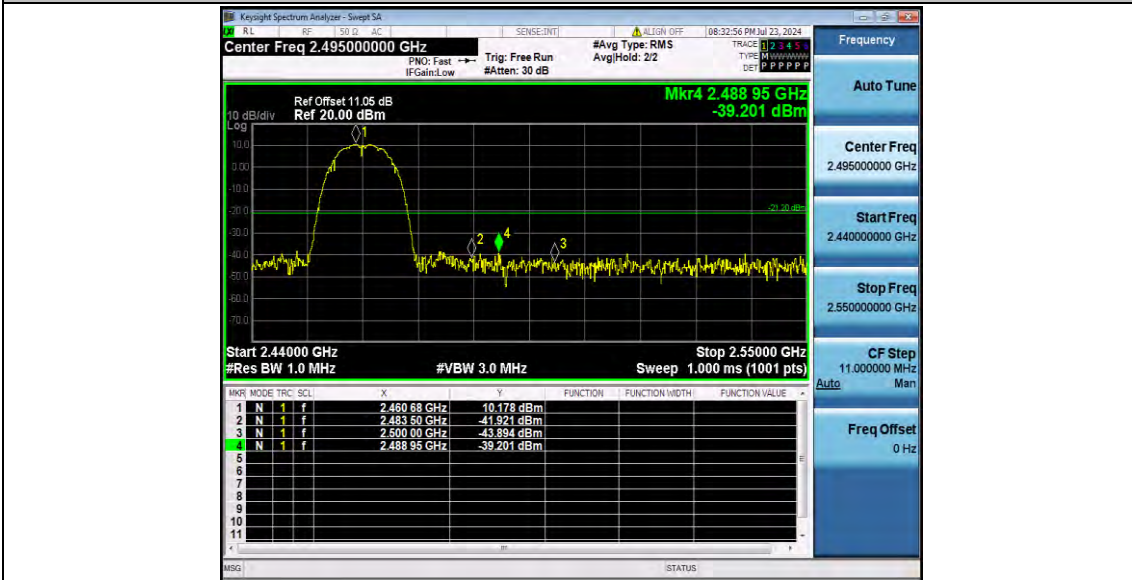
1. The Antenna Gain is compensated in the graph.
2. The Duty Cycle Factor and RBW Factor is compensated in the graph.
3. The limit in dBm for average detector is conversion from 54dBuV/m, according to 15.209(a). The limit in dBm for peak detector is 20dB above the limit of average detector in dBm.

Test Graphs





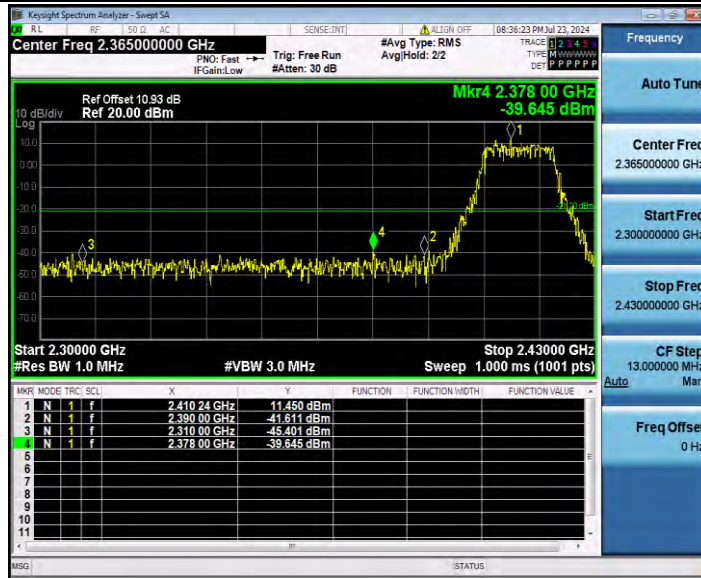
11B_Ant1_High_2462_Peak



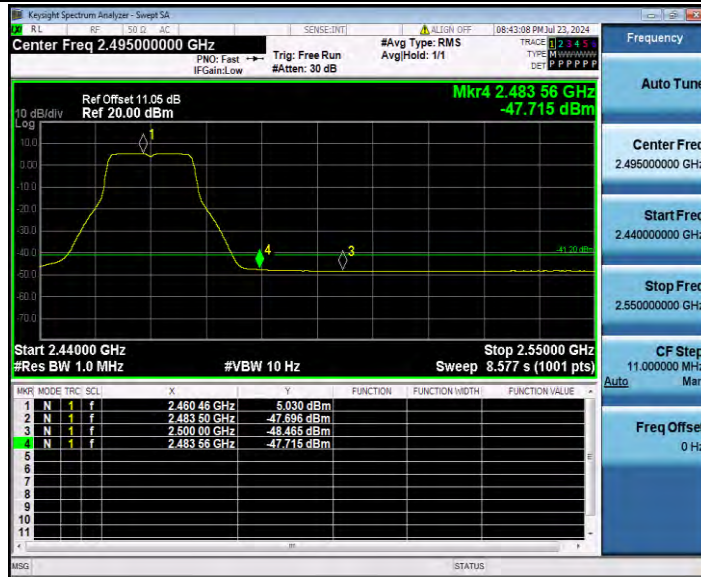
11G_Ant1_Low_2412_AV



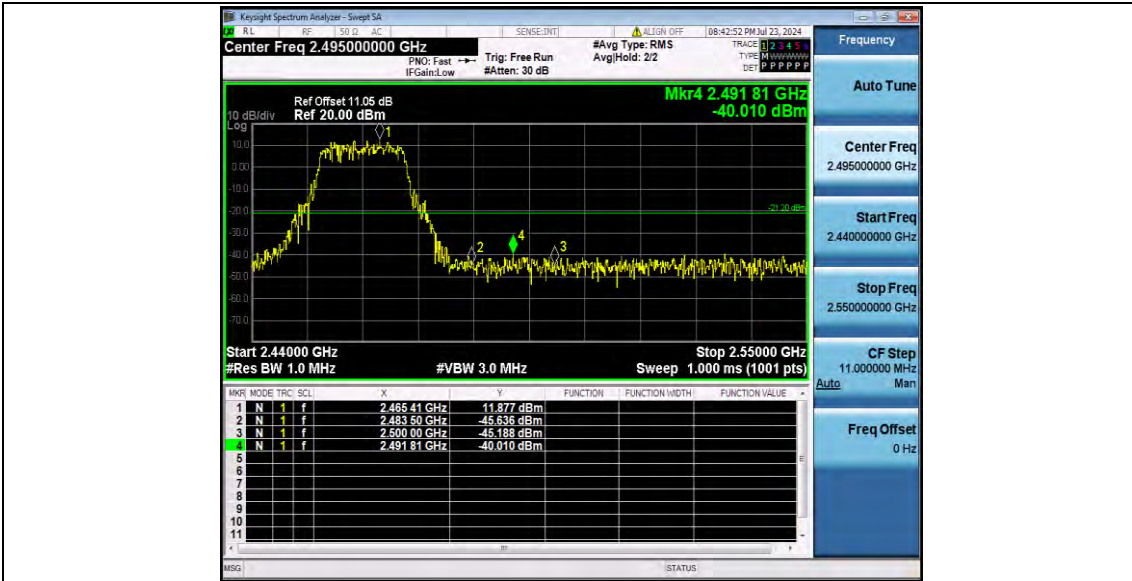
11G_Ant1_Low_2412_Peak



11G_Ant1_High_2462_AV



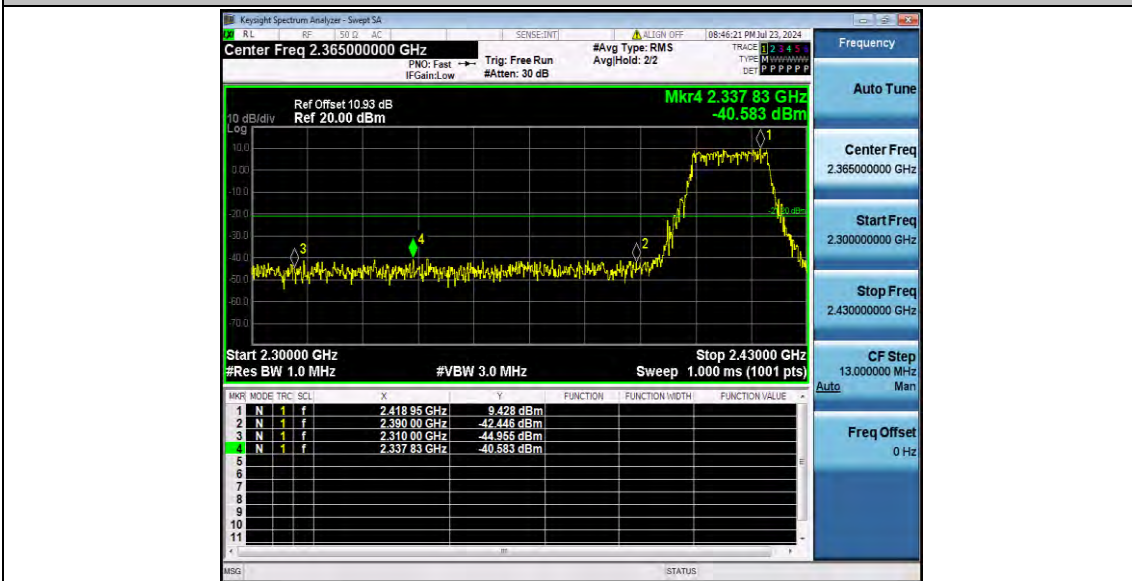
11G_Ant1_High_2462_Peak



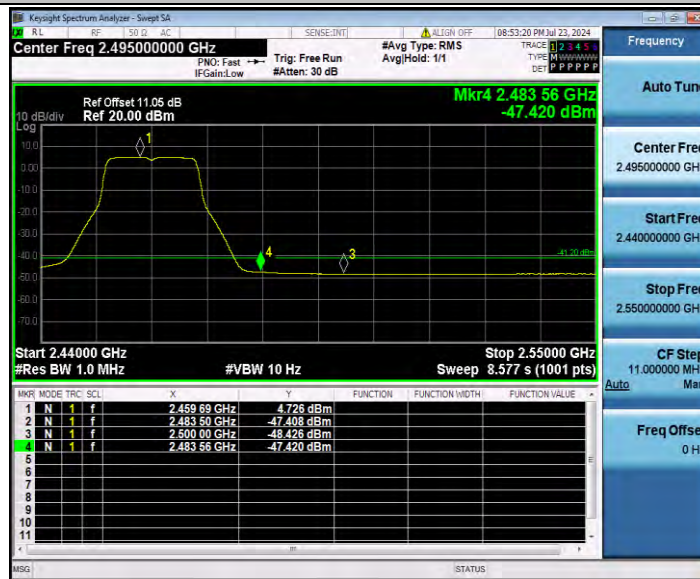
11N20SISO_Ant1_Low_2412_AV



11N20SISO_Ant1_Low_2412_Peak



11N20SISO_Ant1_High_2462_AV



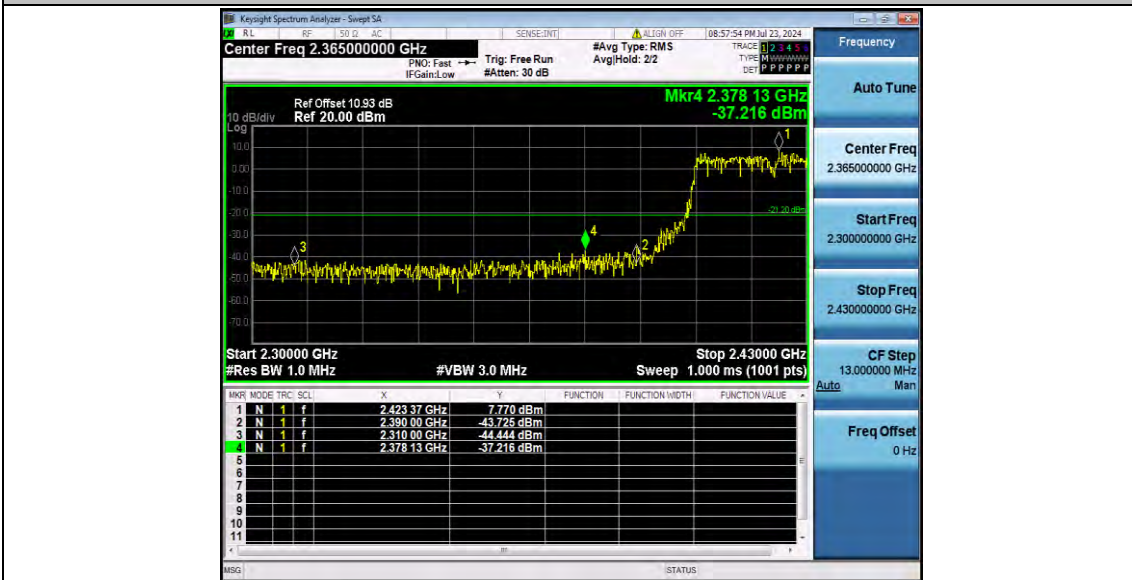
11N20SISO_Ant1_High_2462_Peak



11N40SISO_Ant1_Low_2422_AV



11N40SISO_Ant1_Low_2422_Peak



11N40SISO_Ant1_High_2452_AV



11N40SISO_Ant1_High_2452_Peak

