

Case No. : <u>CTA24070301803</u>	
Ambient Condition: <u>23</u> °C, <u>51</u> %RH,	
Test Date: <u>2024.6.9-2024.7.10</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	7.560	2407.960	2415.520	0.5	PASS
		2437	8.040	2433.000	2441.040	0.5	PASS
		2462	8.040	2458.000	2466.040	0.5	PASS
11G	Ant1	2412	16.280	2403.880	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	17.600	2403.200	2420.800	0.5	PASS
		2437	17.600	2428.200	2445.800	0.5	PASS
		2462	17.600	2453.200	2470.800	0.5	PASS
11N40SISO	Ant1	2422	36.080	2404.080	2440.160	0.5	PASS
		2437	36.320	2418.840	2455.160	0.5	PASS
		2452	35.280	2434.480	2469.760	0.5	PASS

Test Graphs

11B_Ant1_2412



11B_Ant1_2437



11B_Ant1_2462



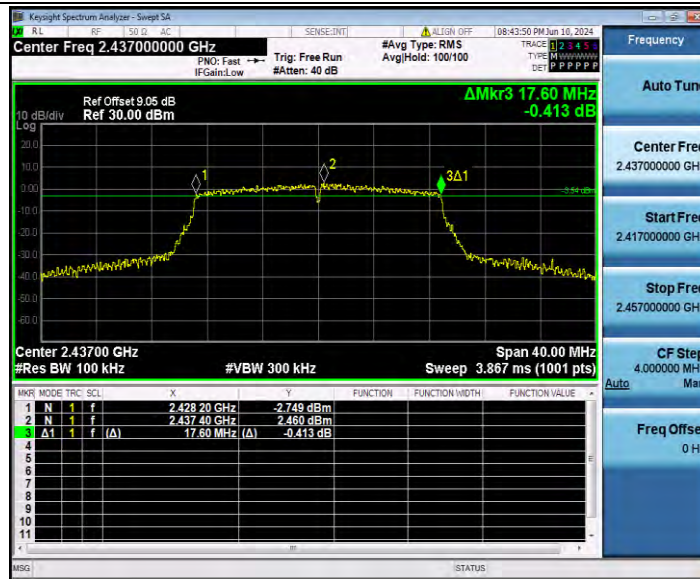
11G_Ant1_2462



11N20SISO_Ant1_2412



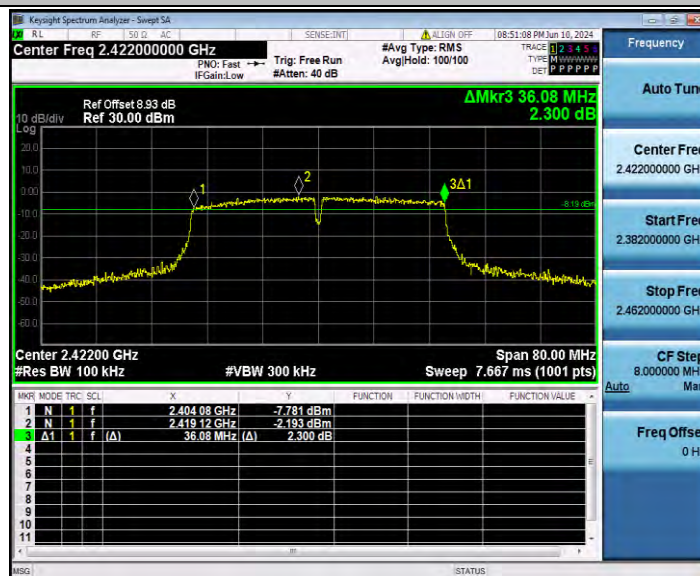
11N20SISO_Ant1_2437



11N20SISO_Ant1_2462



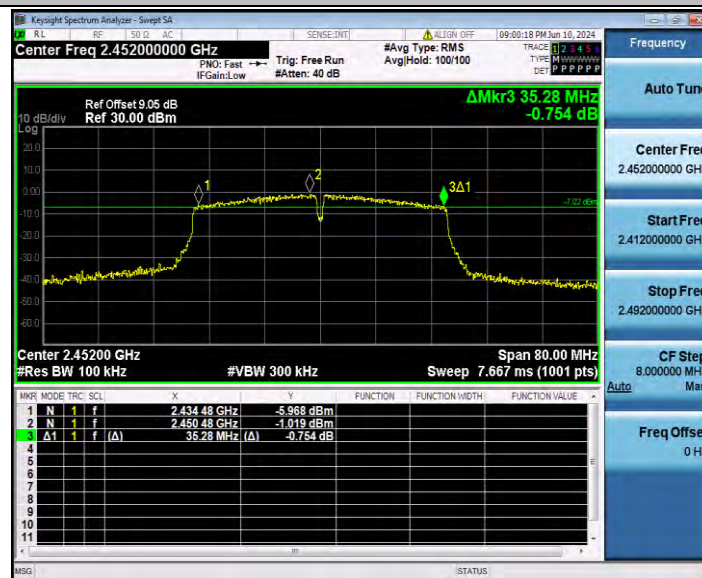
11N40SISO_Ant1_2422



11N40SISO_Ant1_2437



11N40SISO_Ant1_2452



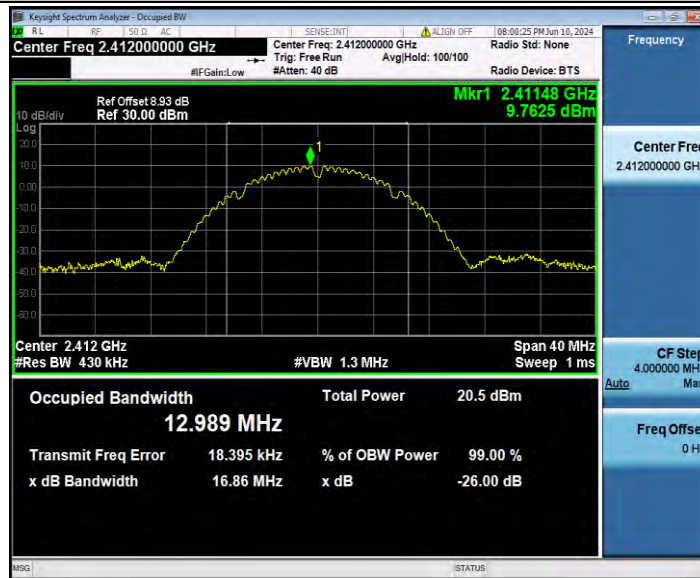
Appendix C.2: Occupied Channel Bandwidth

Test Result

TestMode	Antenna	Channel Frequency[MHz]	OCB [MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
11B	Ant1	2412	12.989	2405.5239	2418.5129	---	---
		2437	13.075	2430.5101	2443.5851	---	---
		2462	13.158	2455.3417	2468.4997	---	---
11G	Ant1	2412	16.805	2403.6022	2420.4072	---	---
		2437	16.814	2428.6157	2445.4297	---	---
		2462	16.920	2453.5154	2470.4354	---	---
11N20SISO	Ant1	2412	17.838	2403.1171	2420.9551	---	---
		2437	17.814	2428.1248	2445.9388	---	---
		2462	17.958	2452.9998	2470.9578	---	---
11N40SISO	Ant1	2422	36.139	2404.0948	2440.2338	---	---
		2437	36.233	2418.8656	2455.0986	---	---
		2452	35.907	2434.0172	2469.9242	---	---

Test Graphs

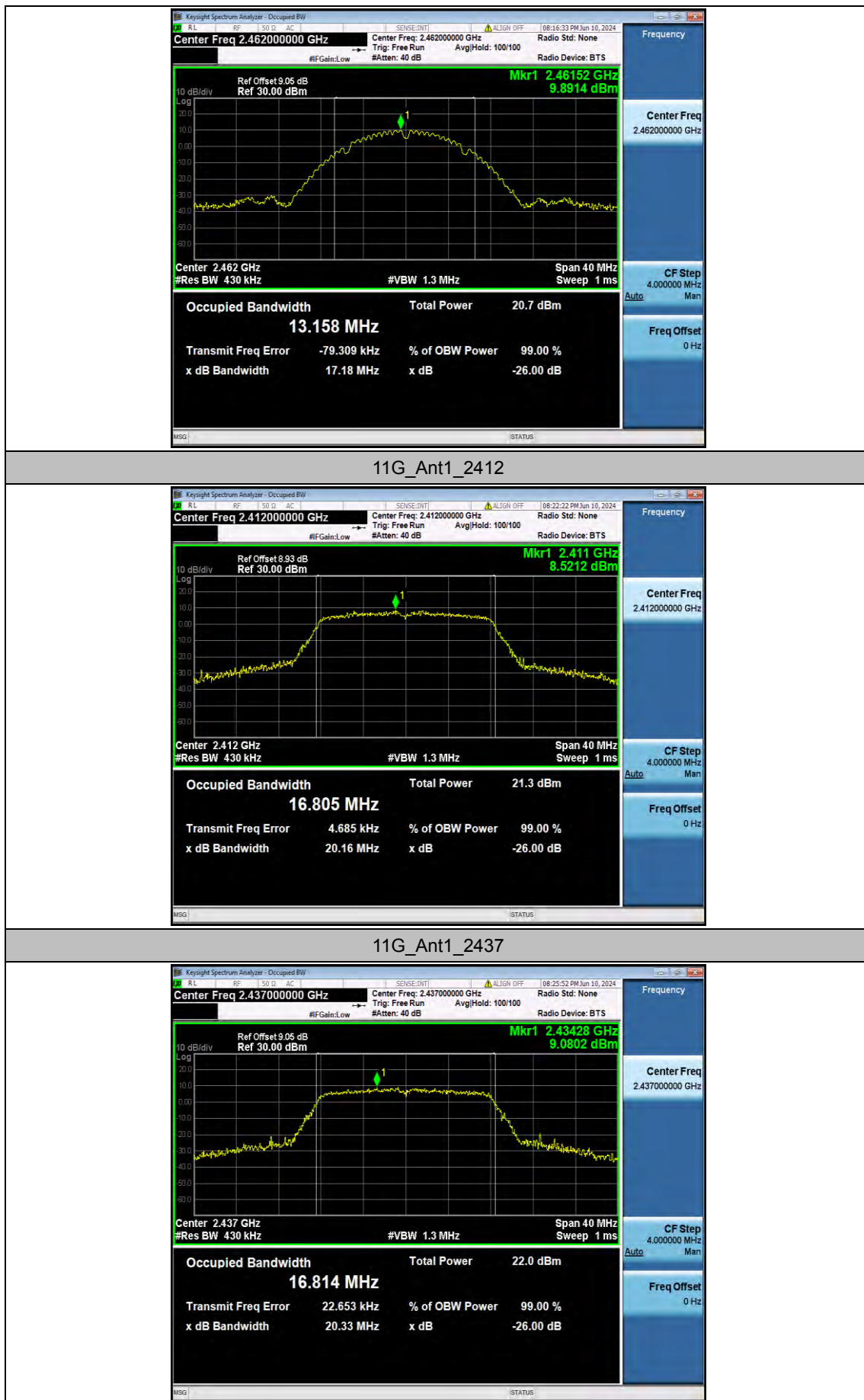
11B_Ant1_2412



11B_Ant1_2437



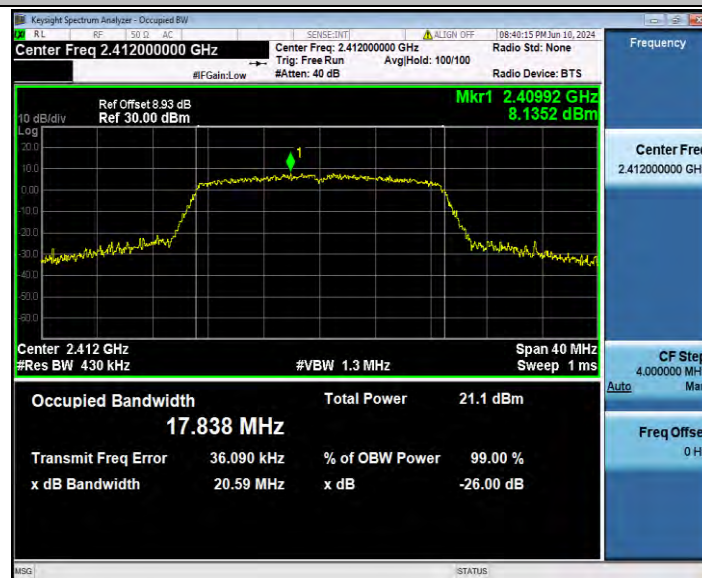
11B_Ant1_2462



11G_Ant1_2462



11N20SISO_Ant1_2412



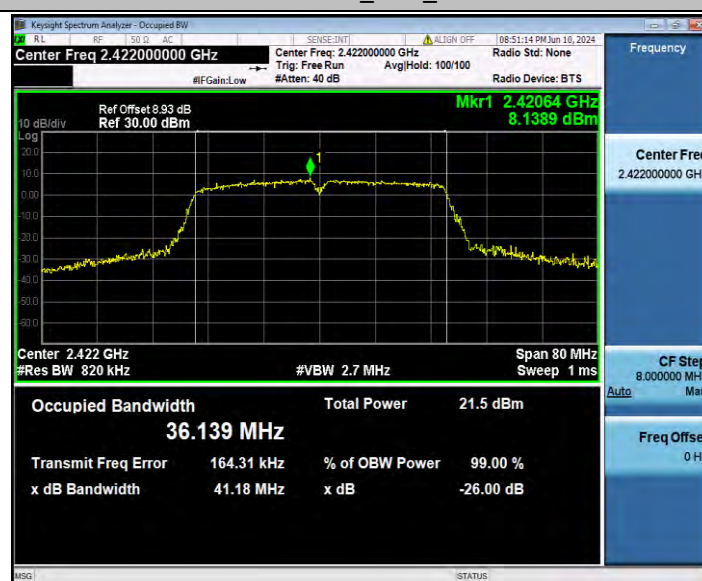
11N20SISO_Ant1_2437



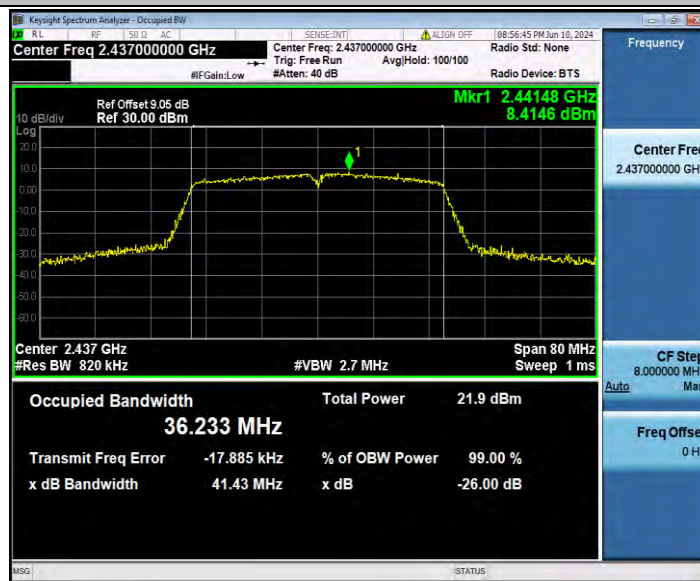
11N20SISO_Ant1_2462



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	20.48	≤30.00	PASS
		2437	21.13	≤30.00	PASS
		2462	20.72	≤30.00	PASS
11G	Ant1	2412	22.45	≤30.00	PASS
		2437	23.18	≤30.00	PASS
		2462	22.75	≤30.00	PASS
11N20SISO	Ant1	2412	22.22	≤30.00	PASS
		2437	23.12	≤30.00	PASS
		2462	20.99	≤30.00	PASS
11N40SISO	Ant1	2422	20.32	≤30.00	PASS
		2437	22.29	≤30.00	PASS
		2452	22.25	≤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	-5.33	≤8.00	PASS
		2437	-4.05	≤8.00	PASS
		2462	-4.74	≤8.00	PASS
11G	Ant1	2412	-9.63	≤8.00	PASS
		2437	-8.96	≤8.00	PASS
		2462	-9.42	≤8.00	PASS
11N20SISO	Ant1	2412	-9.79	≤8.00	PASS
		2437	-9.43	≤8.00	PASS
		2462	-8.94	≤8.00	PASS
11N40SISO	Ant1	2422	-12.66	≤8.00	PASS
		2437	-11.89	≤8.00	PASS
		2452	-11.94	≤8.00	PASS

Test Graphs

11B_Ant1_2412



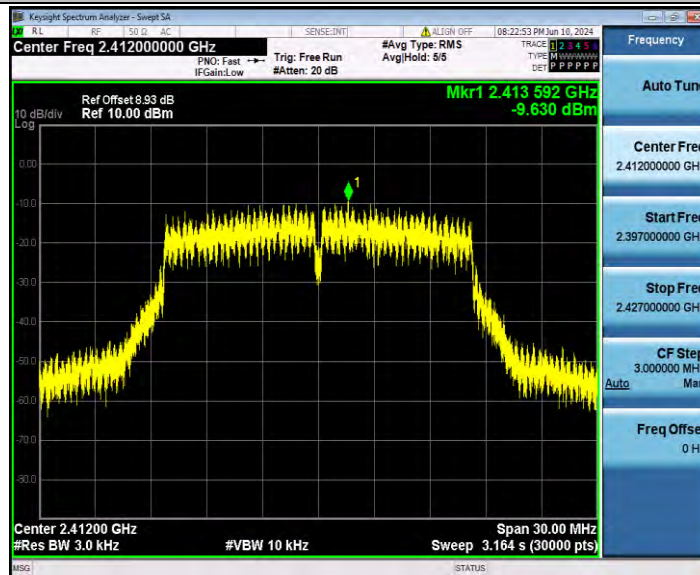
11B_Ant1_2437



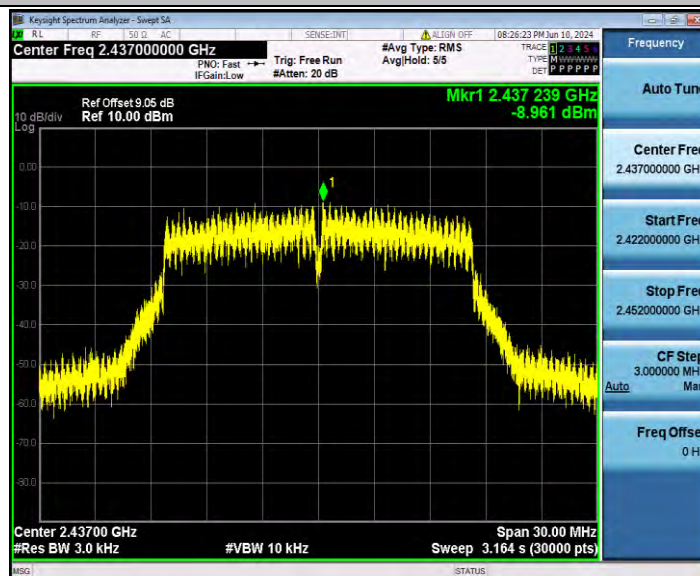
11B_Ant1_2462



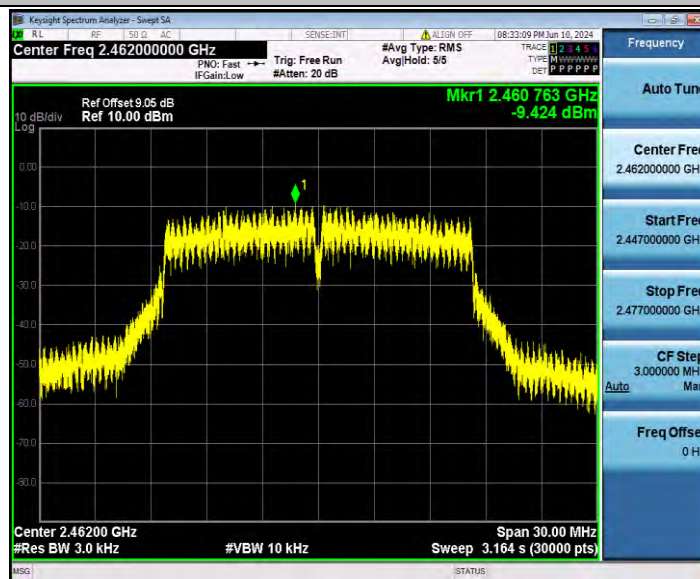
11G_Ant1_2412



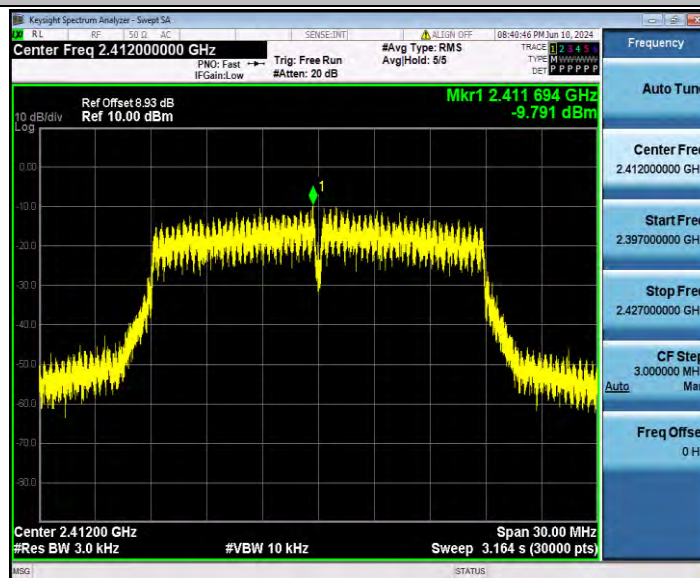
11G_Ant1_2437



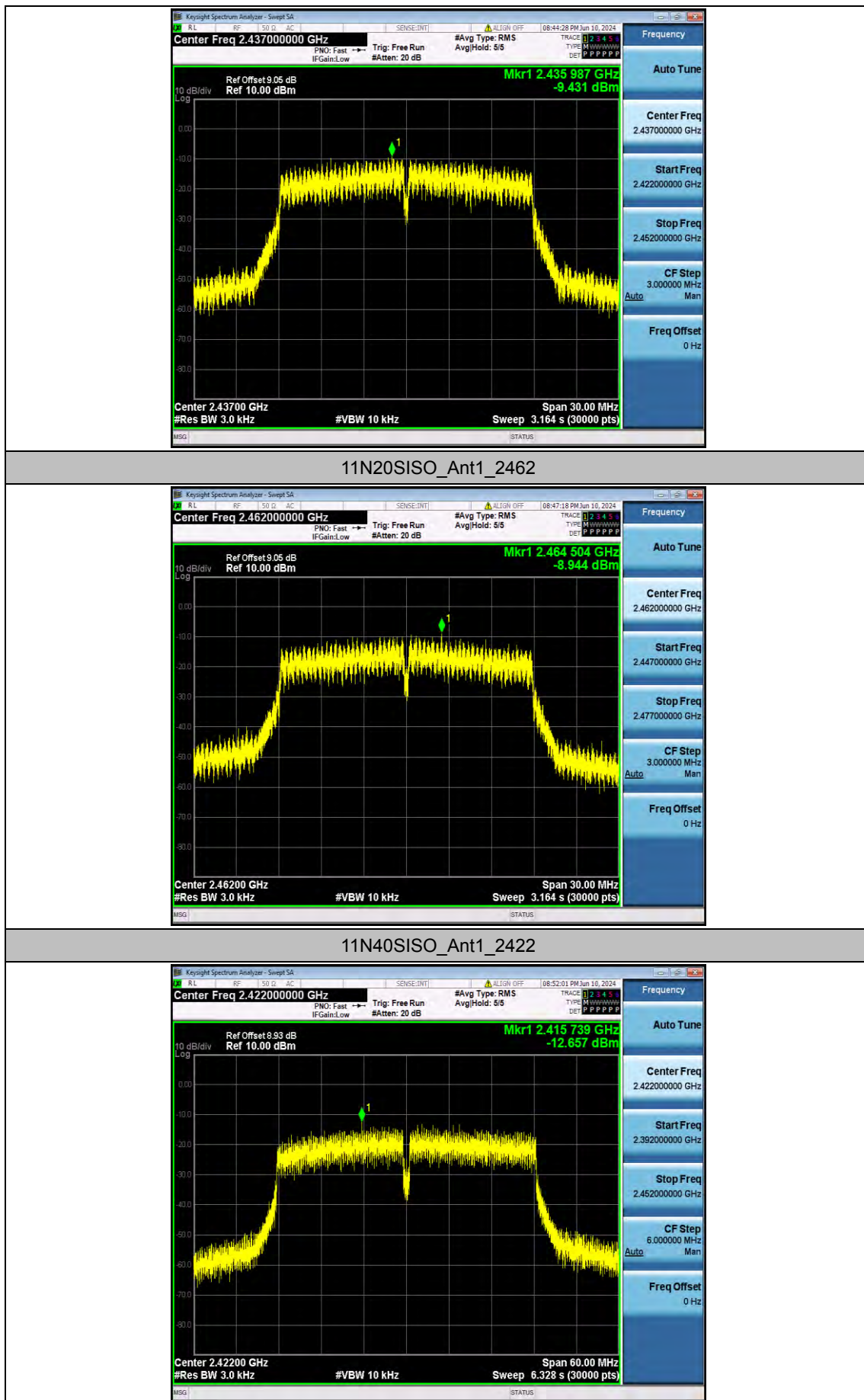
11G_Ant1_2462



11N20SISO_Ant1_2412



11N20SISO_Ant1_2437



11N40SISO_Ant1_2437



11N40SISO_Ant1_2452



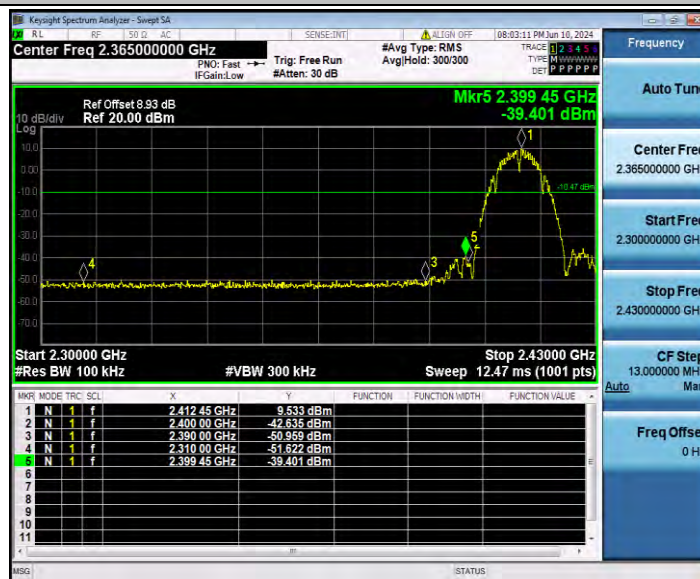
Appendix C.5: Band edge measurements

Test Result

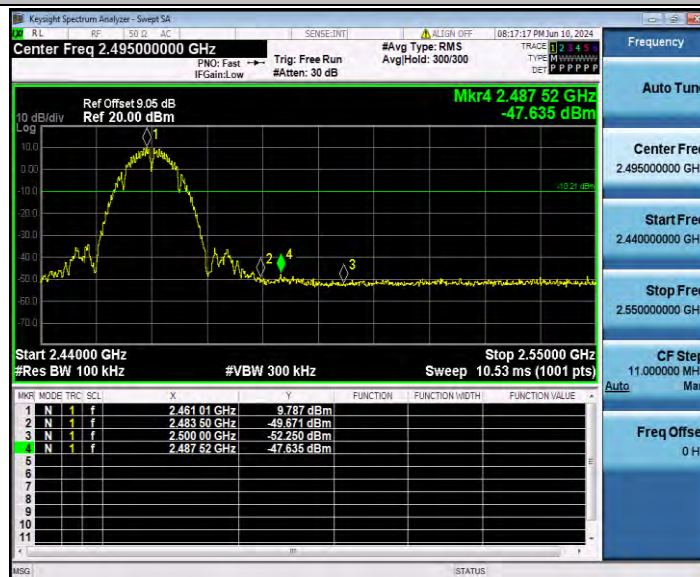
TestMode	Antenna	ChName	Frequency[MHz]	RefLevel[dBm]	Result[dBm]	Limit[dBm]	Verdict
11B	Ant1	Low	2412	9.53	-39.4	≤ -10.47	PASS
		High	2462	9.79	-47.64	≤ -10.21	PASS
11G	Ant1	Low	2412	2.27	-29.14	≤ -17.73	PASS
		High	2462	2.46	-45.14	≤ -17.54	PASS
11N20SISO	Ant1	Low	2412	1.58	-28.52	≤ -18.42	PASS
		High	2462	2.46	-42.58	≤ -17.54	PASS
11N40SISO	Ant1	Low	2422	-1.69	-34.42	≤ -21.69	PASS
		High	2452	-0.82	-39.39	≤ -20.82	PASS

Test Graphs

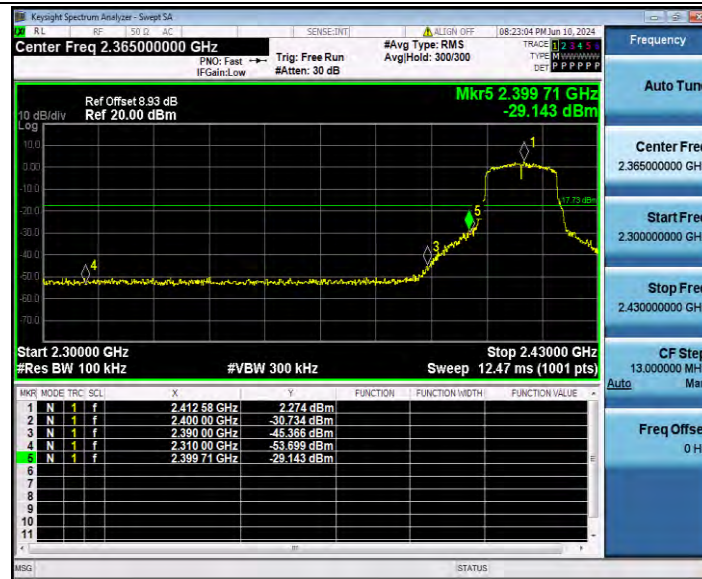
11B_Ant1_Low_2412



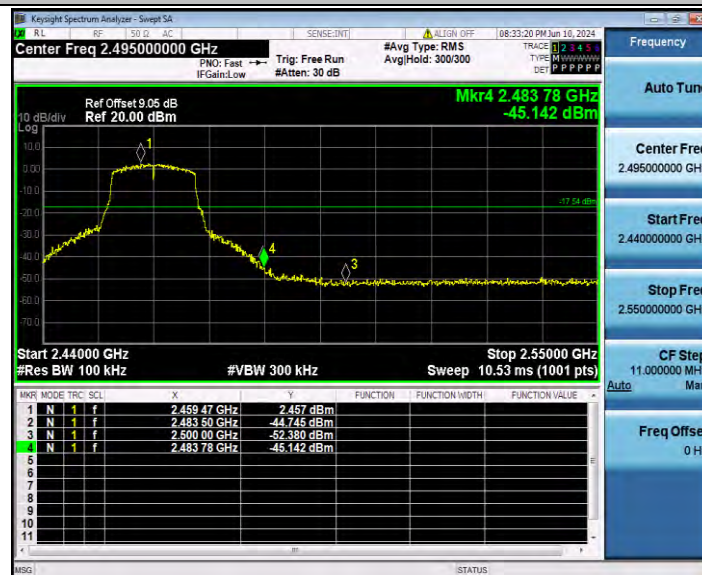
11B_Ant1_High_2462



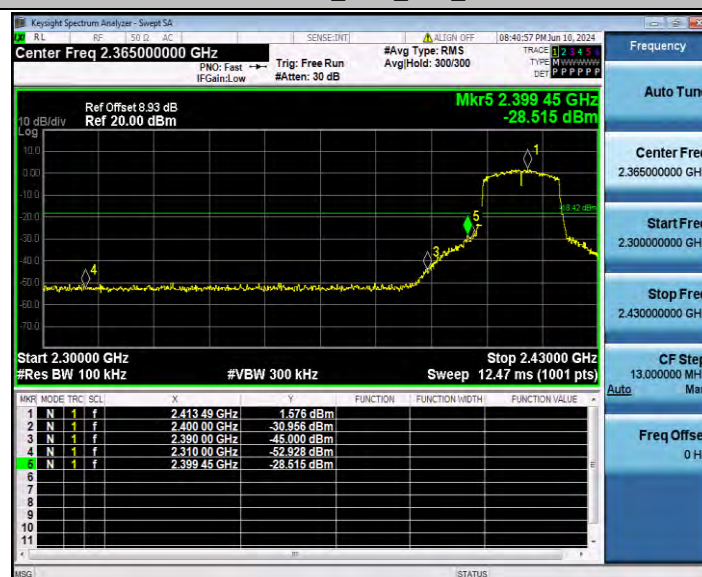
11G_Ant1_Low_2412



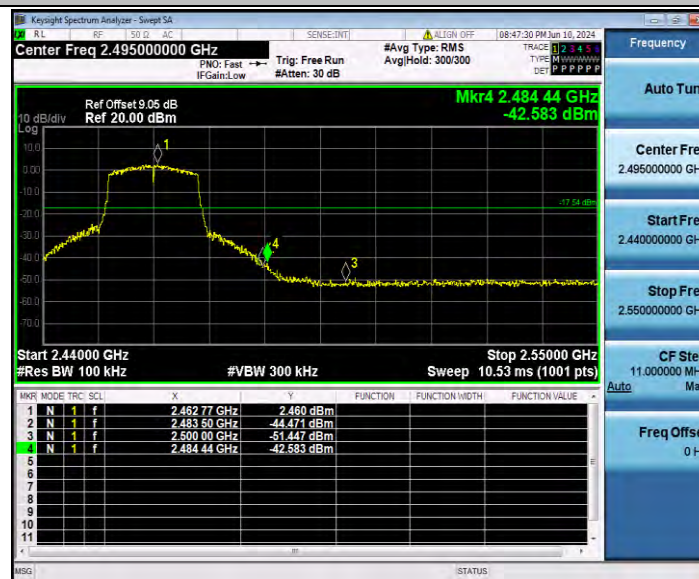
11G_Ant1_High_2462



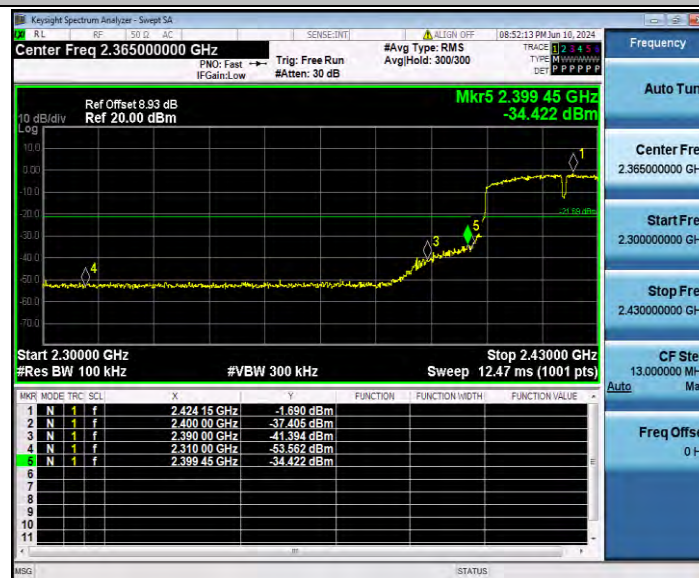
11N20SISO_Ant1_Low_2412



11N20SISO_Ant1_High_2462



11N40SISO_Ant1_Low_2422



11N40SISO_Ant1_High_2452

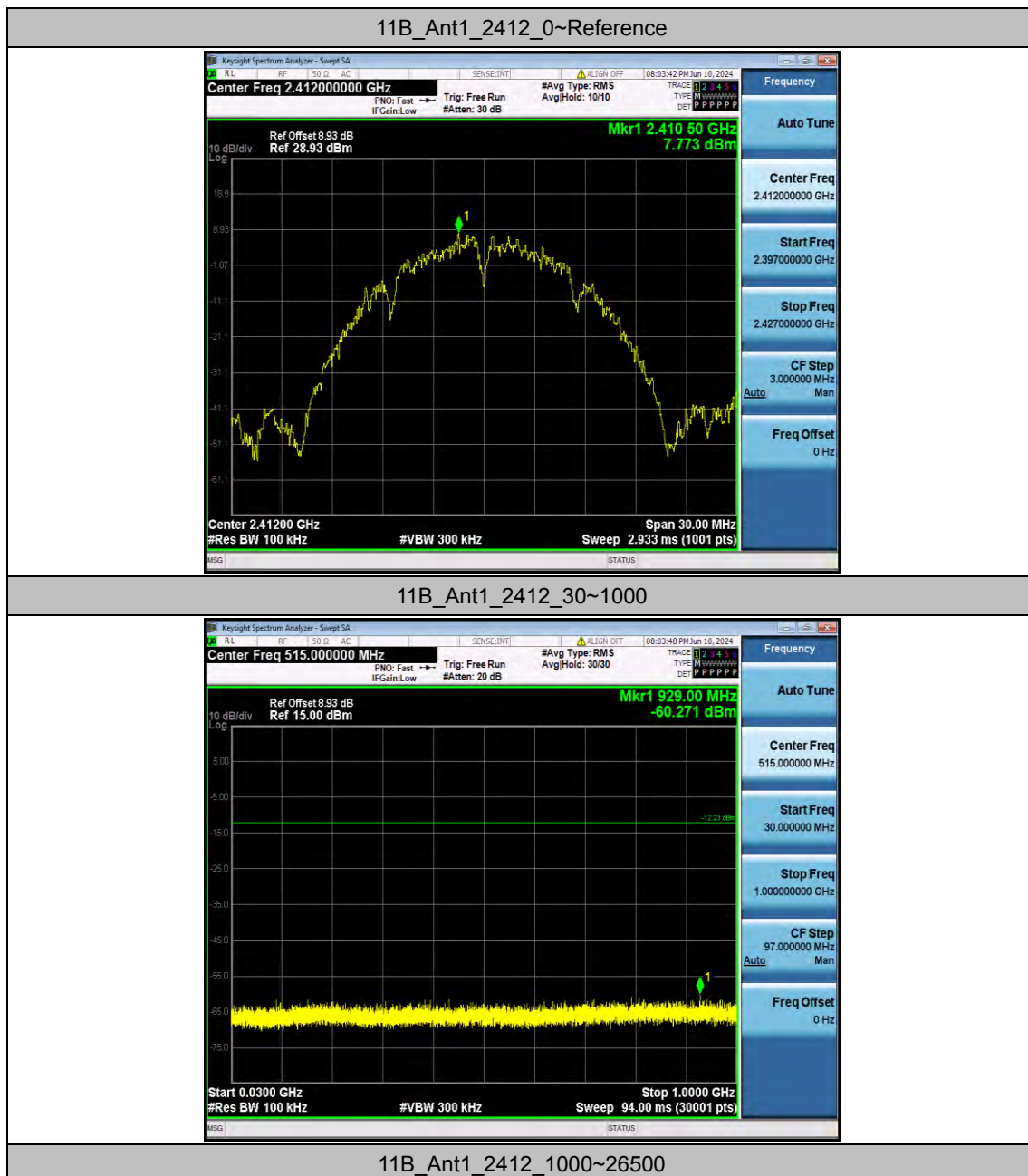


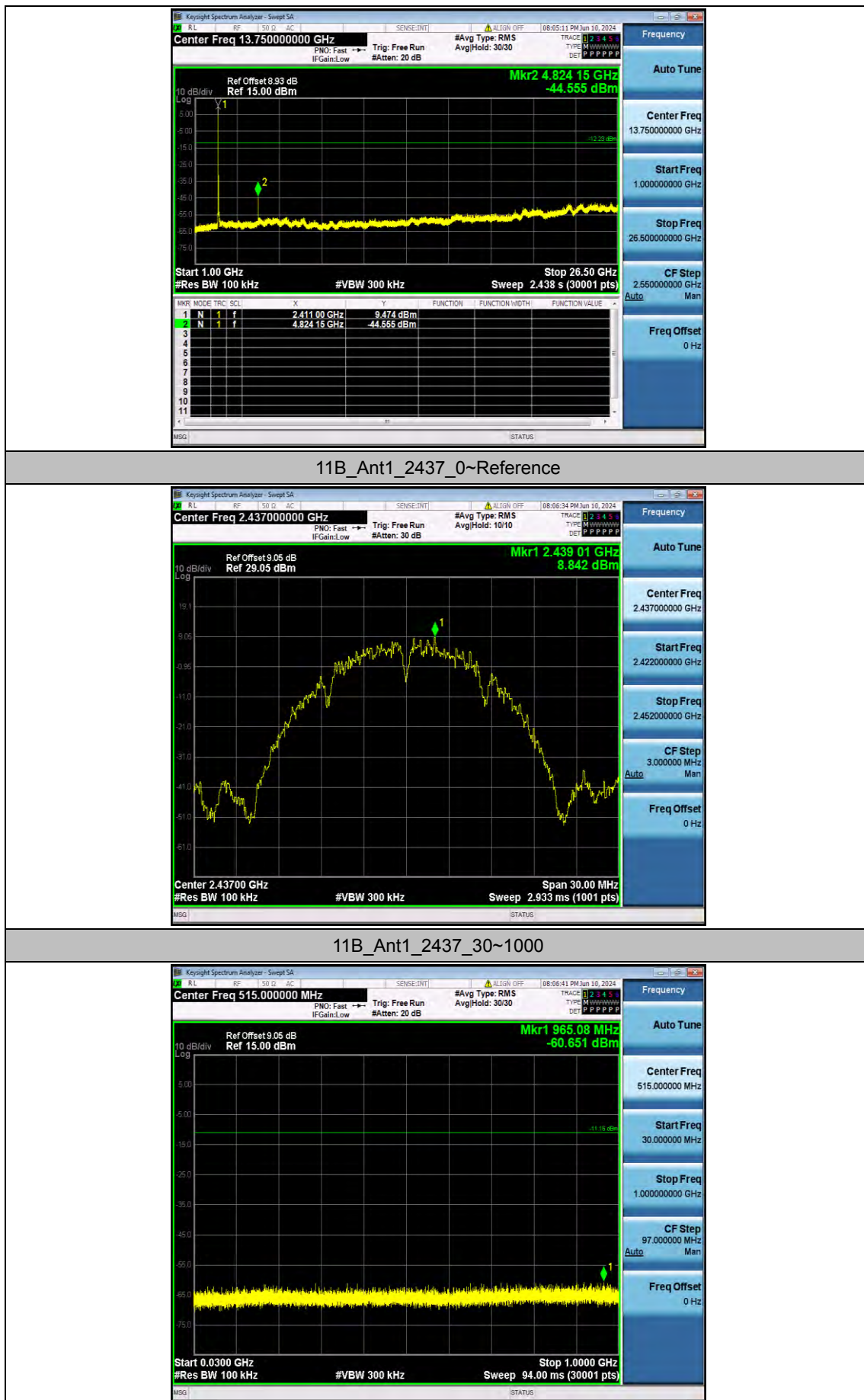
Appendix C.6: Conducted Spurious Emission

Test Result

TestMode	Antenna	Frequency[MHz]	FreqRange [Mhz]	RefLevel [dBm]	Result [dBm]	Limit [dBm]	Verdict
11B	Ant1	2412	Reference	7.77	7.77	---	PASS
			30~1000	7.77	-60.27	≤ -12.23	PASS
			1000~26500	7.77	-44.56	≤ -12.23	PASS
		2437	Reference	8.84	8.84	---	PASS
			30~1000	8.84	-60.65	≤ -11.16	PASS
			1000~26500	8.84	-44.42	≤ -11.16	PASS
		2462	Reference	9.51	9.51	---	PASS
			30~1000	9.51	-60.7	≤ -10.49	PASS
			1000~26500	9.51	-45.49	≤ -10.49	PASS
11G	Ant1	2412	Reference	1.60	1.60	---	PASS
			30~1000	1.60	-60.66	≤ -18.4	PASS
			1000~26500	1.60	-47.97	≤ -18.4	PASS
		2437	Reference	1.95	1.95	---	PASS
			30~1000	1.95	-60.41	≤ -18.05	PASS
			1000~26500	1.95	-47.92	≤ -18.05	PASS
		2462	Reference	1.70	1.70	---	PASS
			30~1000	1.70	-60.96	≤ -18.3	PASS
			1000~26500	1.70	-47.24	≤ -18.3	PASS
11N20SISO	Ant1	2412	Reference	1.03	1.03	---	PASS
			30~1000	1.03	-60.97	≤ -18.97	PASS
			1000~26500	1.03	-47.22	≤ -18.97	PASS
		2437	Reference	1.56	1.56	---	PASS
			30~1000	1.56	-60.2	≤ -18.44	PASS
			1000~26500	1.56	-47.91	≤ -18.44	PASS
		2462	Reference	1.58	1.58	---	PASS
			30~1000	1.58	-60.61	≤ -18.42	PASS
			1000~26500	1.58	-47.58	≤ -18.42	PASS
11N40SISO	Ant1	2422	Reference	-2.06	-2.06	---	PASS
			30~1000	-2.06	-60.86	≤ -22.06	PASS
			1000~26500	-2.06	-47.88	≤ -22.06	PASS
		2437	Reference	-1.43	-1.43	---	PASS
			30~1000	-1.43	-60.24	≤ -21.43	PASS
			1000~26500	-1.43	-47.55	≤ -21.43	PASS
		2452	Reference	-1.44	-1.44	---	PASS
			30~1000	-1.44	-60.28	≤ -21.44	PASS
			1000~26500	-1.44	-47.94	≤ -21.44	PASS

Test Graphs





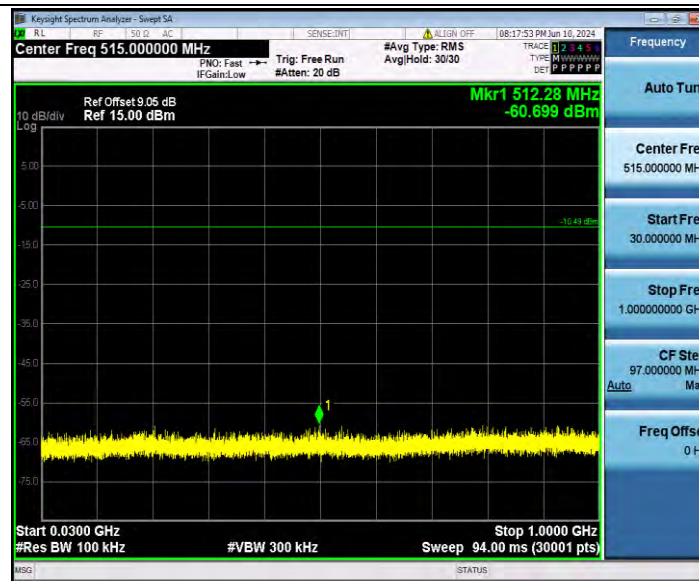
11B_Ant1_2437_1000~26500



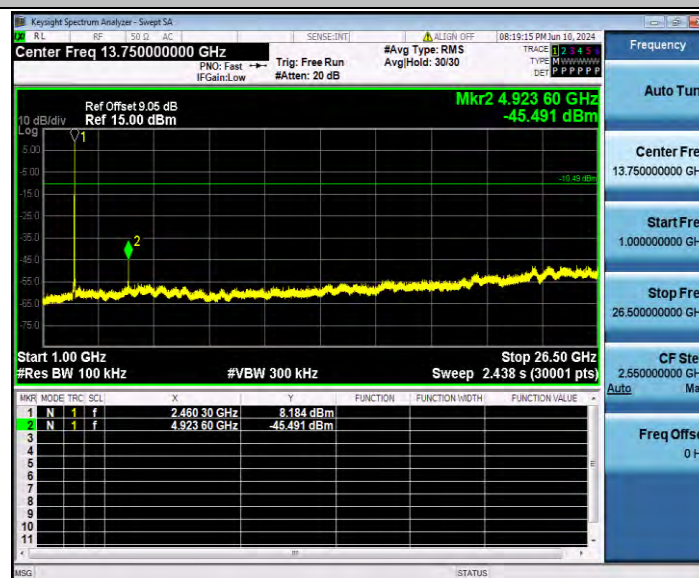
11B_Ant1_2462_0~Reference



11B_Ant1_2462_30~1000



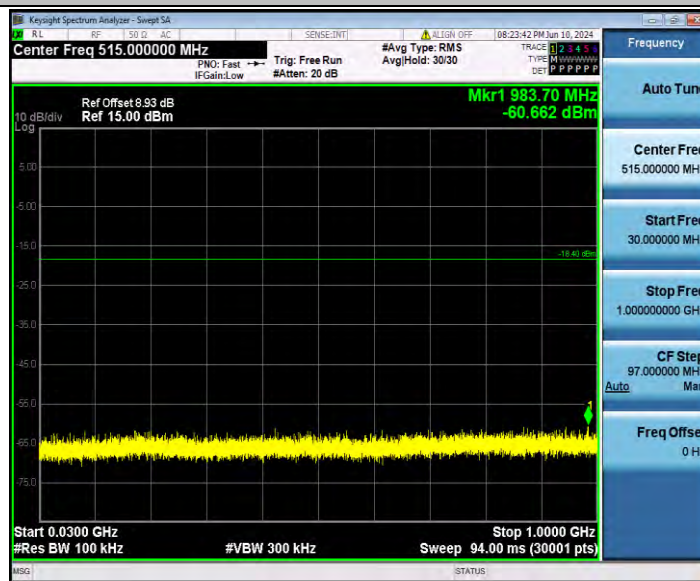
11B_Ant1_2462_1000~26500



11G_Ant1_2412_0~Reference



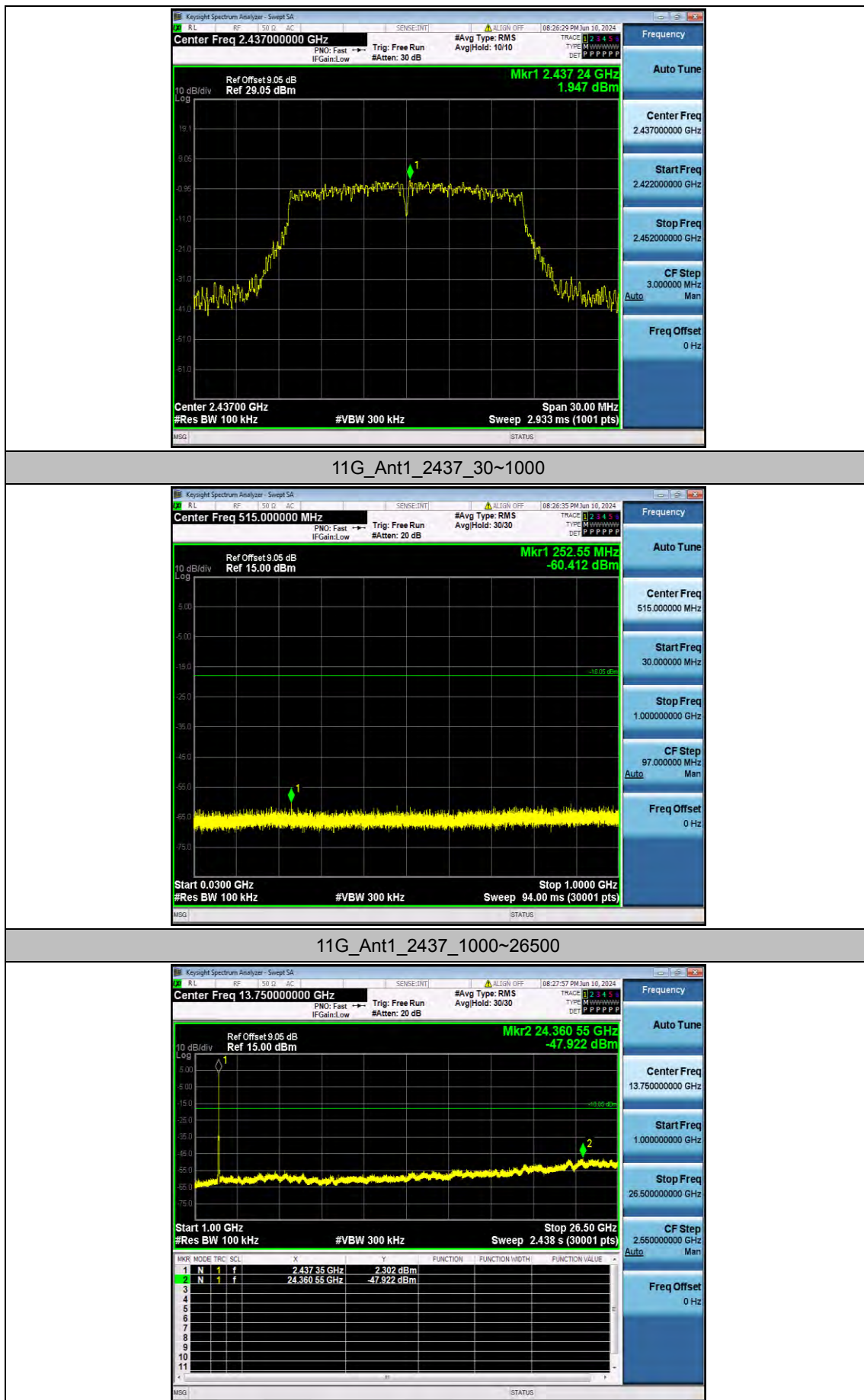
11G_Ant1_2412_30~1000



11G_Ant1_2412_1000~26500



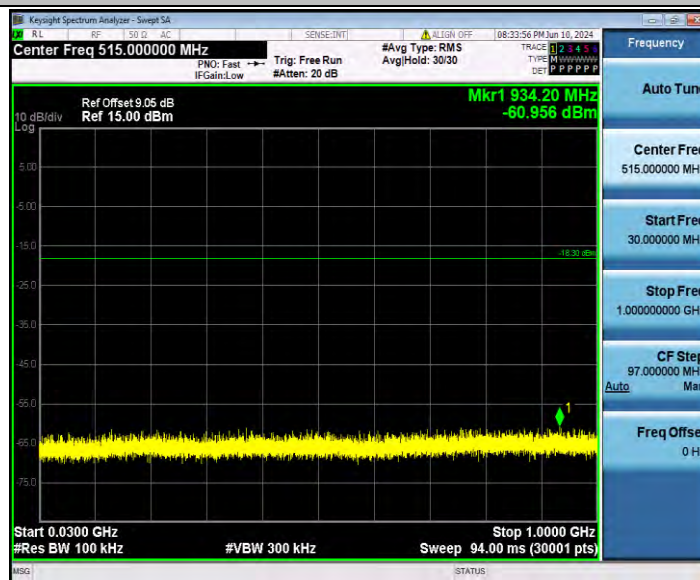
11G_Ant1_2437_0~Reference



11G_Ant1_2462_0~Reference



11G_Ant1_2462_30~1000



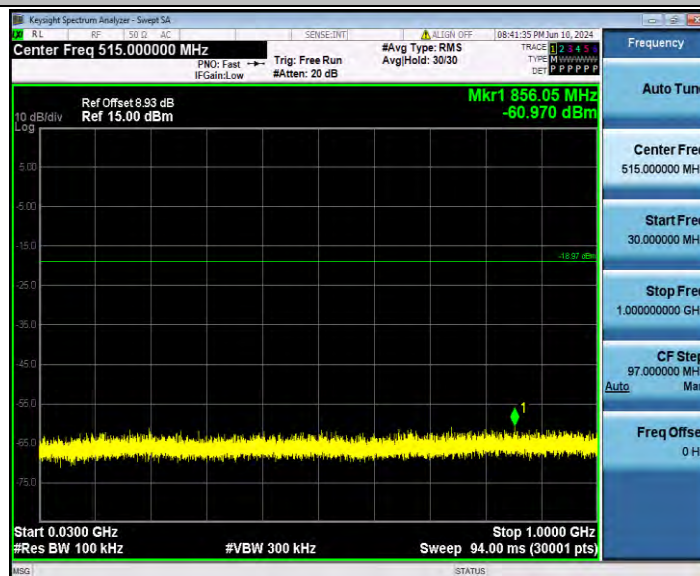
11G_Ant1_2462_1000~26500



11N20SISO_Ant1_2412_0~Reference



11N20SISO_Ant1_2412_30~1000



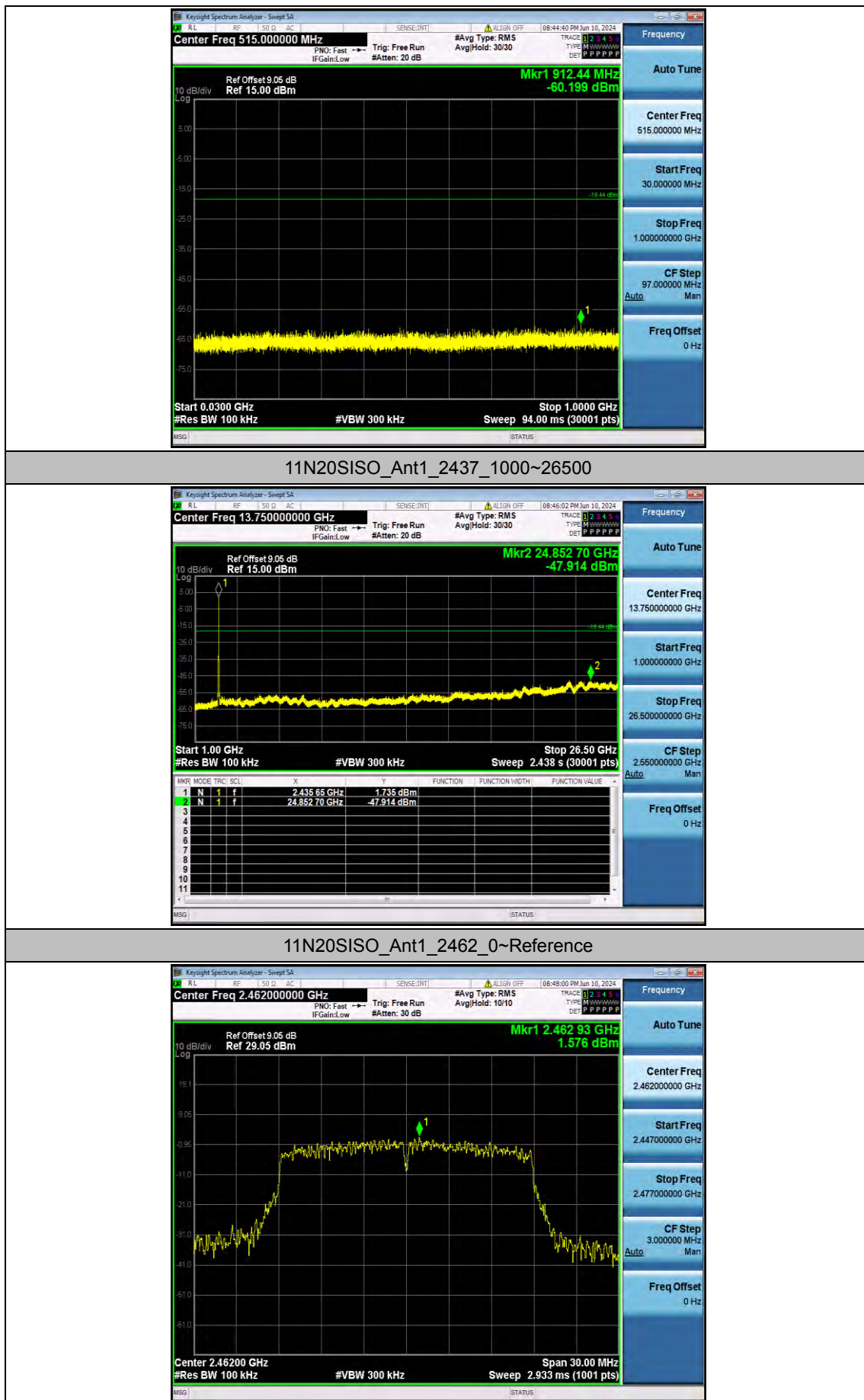
11N20SISO_Ant1_2412_1000~26500



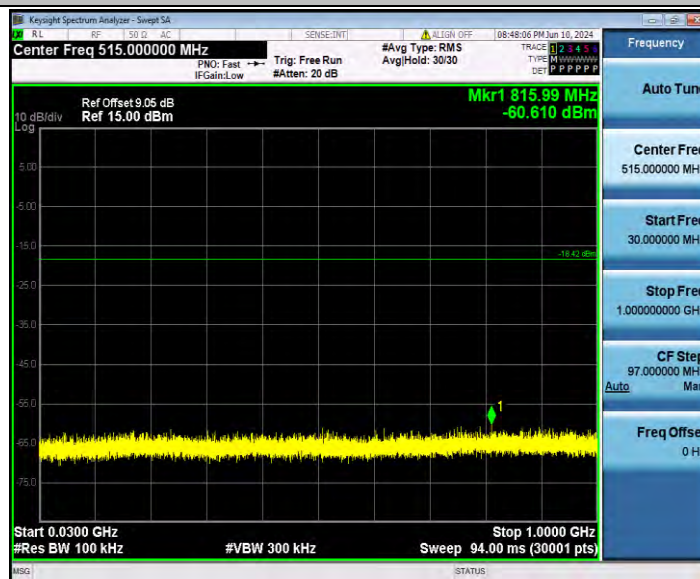
11N20SISO_Ant1_2437_0~Reference



11N20SISO_Ant1_2437_30~1000



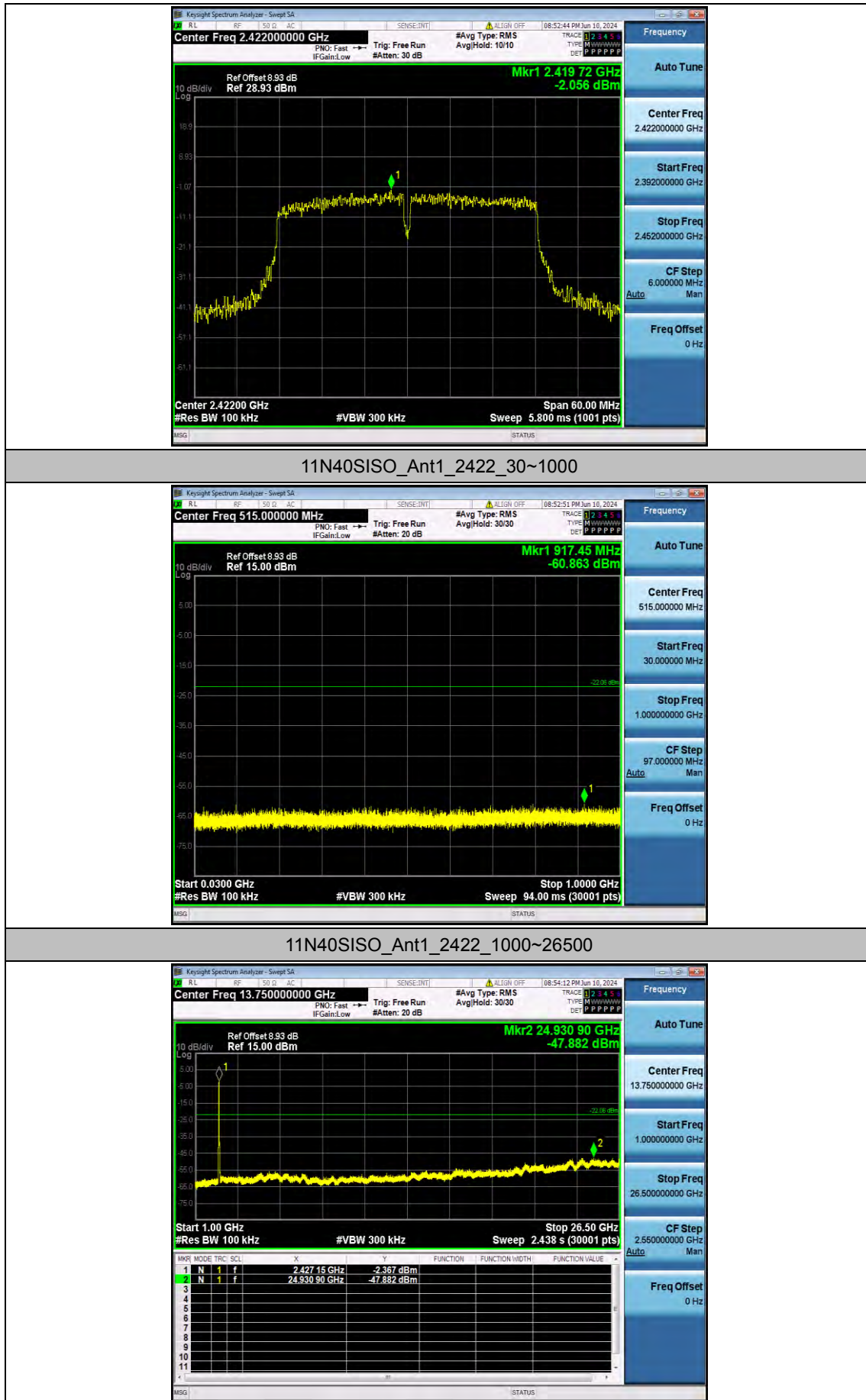
11N20SISO_Ant1_2462_30~1000



11N20SISO_Ant1_2462_1000~26500



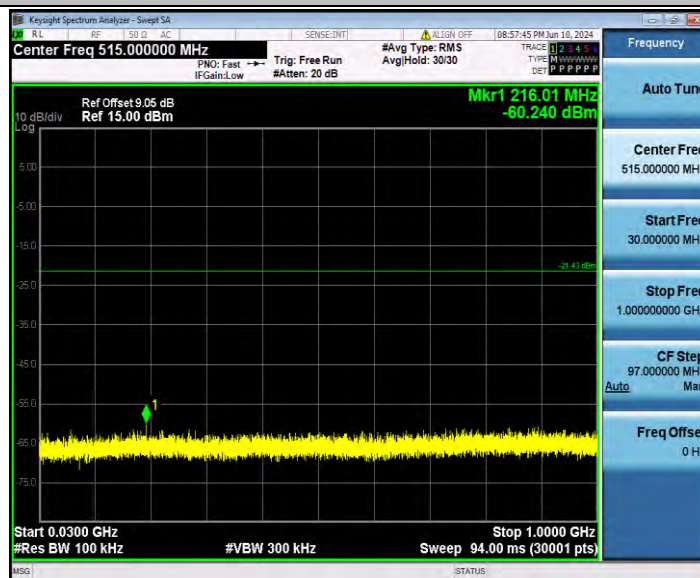
11N40SISO_Ant1_2422_0~Reference



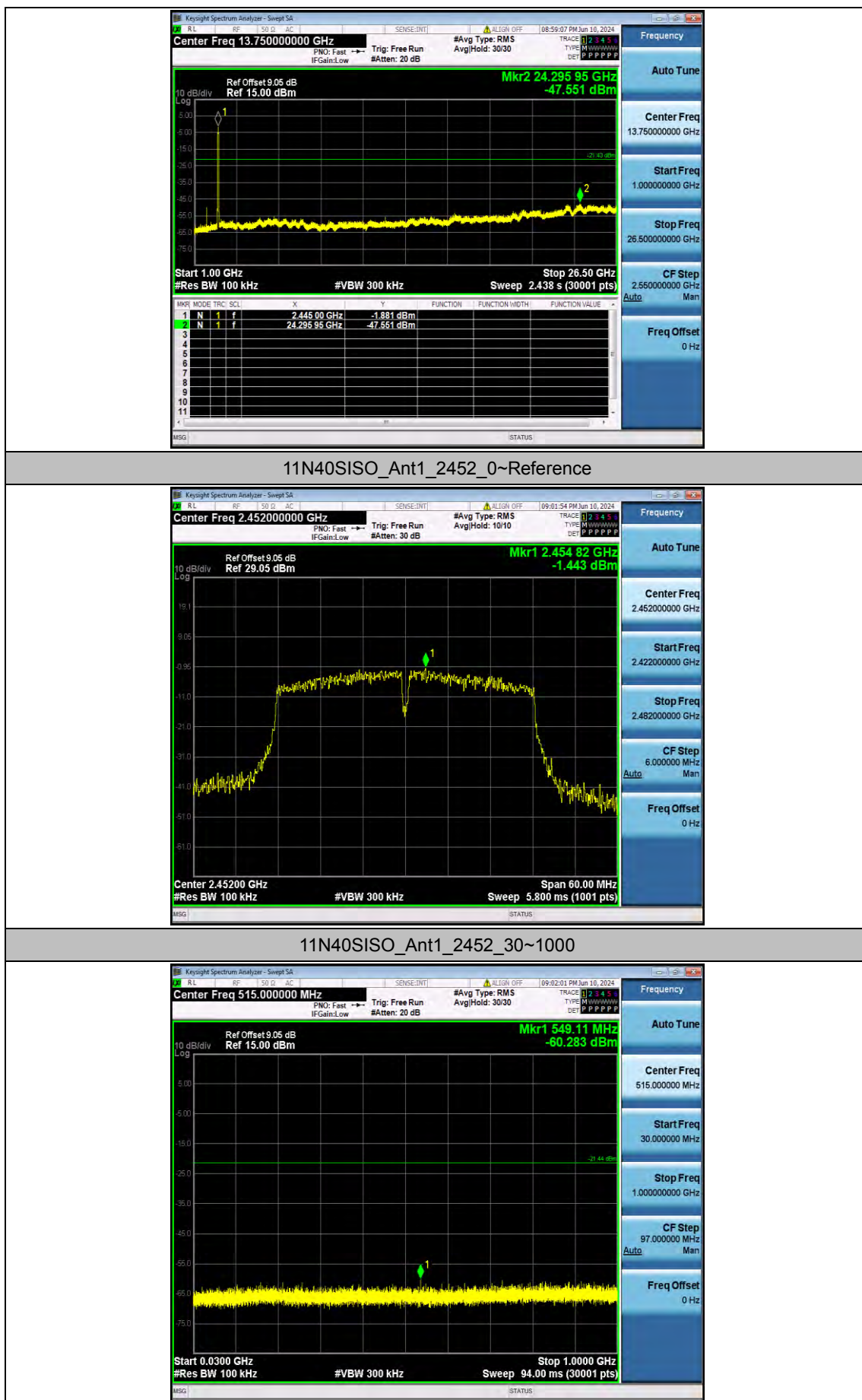
11N40SISO_Ant1_2437_0~Reference



11N40SISO_Ant1_2437_30~1000



11N40SISO_Ant1_2437_1000~26500





Appendix C.7: Emissions in Restricted Bands

Test Result

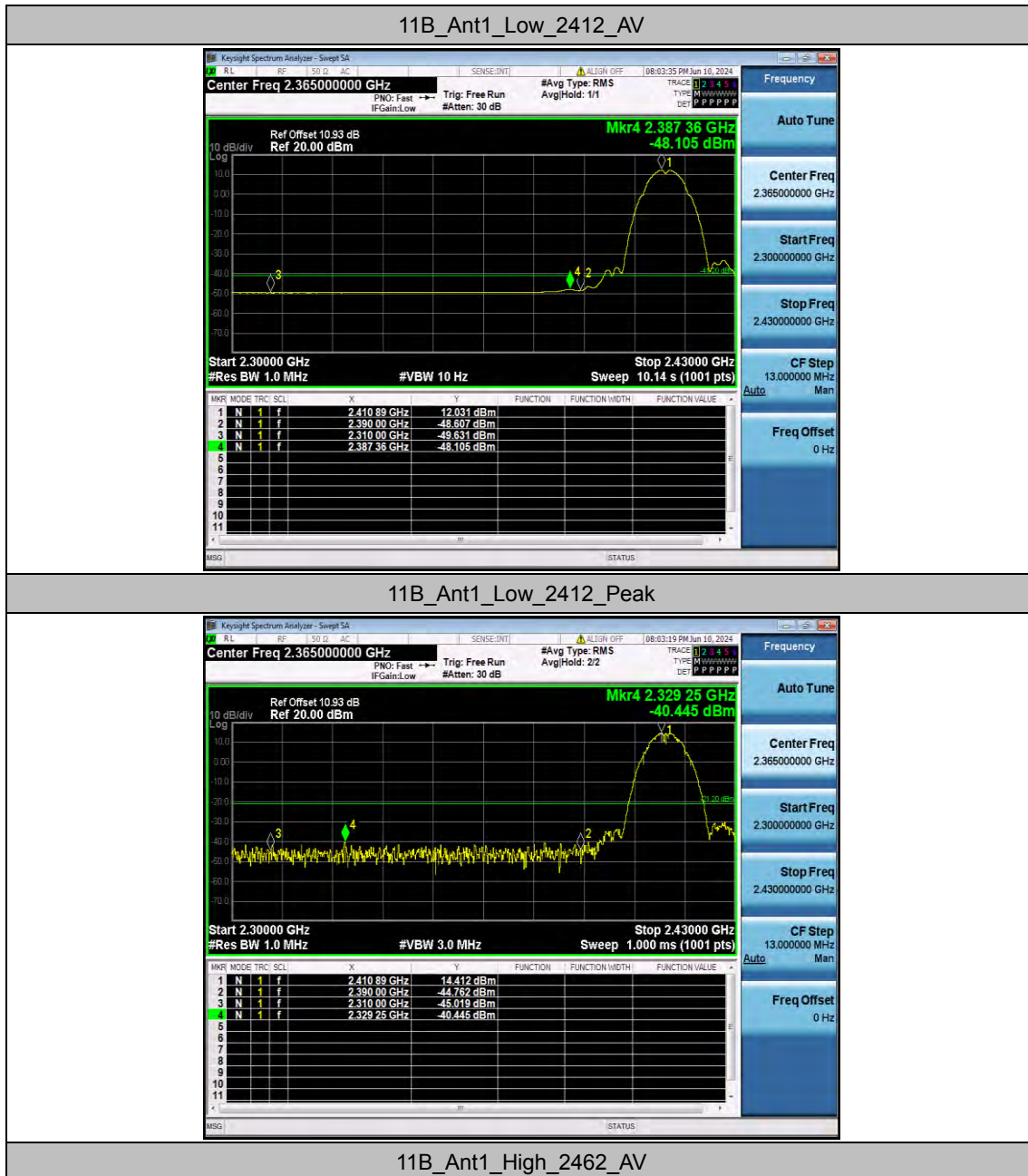
TestMode	Antenna	ChName	Frequency [MHz]	Detector	Freq [MHz]	Result [dBm]	Limit [dBm]	Result [dBuV/m]	Limit [dBuV/m]	Verdict
11B	Ant1	Low	2412	AV	2310.000	-49.63	≤-41.20	45.57	≤54	PASS
				AV	2387.360	-48.11	≤-41.20	47.09	≤54	PASS
				AV	2390.000	-48.61	≤-41.20	46.59	≤54	PASS
				Peak	2310.000	-45.02	≤-21.20	50.18	≤74	PASS
				Peak	2329.250	-40.45	≤-21.20	54.75	≤74	PASS
				Peak	2390.000	-44.76	≤-21.20	50.44	≤74	PASS
		High	2462	AV	2483.500	-46.84	≤-41.20	48.36	≤54	PASS
				AV	2483.560	-47.02	≤-41.20	48.18	≤54	PASS
				AV	2500.000	-48.93	≤-41.20	46.27	≤54	PASS
				Peak	2483.500	-42.66	≤-21.20	52.54	≤74	PASS
				Peak	2486.530	-39.21	≤-21.20	55.99	≤74	PASS
				Peak	2500.000	-43.96	≤-21.20	51.24	≤74	PASS
11G	Ant1	Low	2412	AV	2310.000	-49.62	≤-41.20	45.58	≤54	PASS
				AV	2389.960	-44.22	≤-41.20	50.98	≤54	PASS
				AV	2390.000	-44.22	≤-41.20	50.98	≤54	PASS
				Peak	2310.000	-44.33	≤-21.20	50.87	≤74	PASS
				Peak	2389.960	-36.57	≤-21.20	58.63	≤74	PASS
				Peak	2390.000	-36.57	≤-21.20	58.63	≤74	PASS
		High	2462	AV	2483.500	-42.1	≤-41.20	53.10	≤54	PASS
				AV	2483.560	-42.28	≤-41.20	52.92	≤54	PASS
				AV	2500.000	-48.91	≤-41.20	46.29	≤54	PASS
				Peak	2483.500	-34.52	≤-21.20	60.68	≤74	PASS
				Peak	2484.550	-35.78	≤-21.20	59.42	≤74	PASS
				Peak	2500.000	-46.8	≤-21.20	48.40	≤74	PASS
11N20SISO	Ant1	Low	2412	AV	2310.000	-49.63	≤-41.20	45.57	≤54	PASS
				AV	2389.960	-42.27	≤-41.20	52.93	≤54	PASS
				AV	2390.000	-42.28	≤-41.20	52.92	≤54	PASS
				Peak	2310.000	-47.52	≤-21.20	47.68	≤74	PASS
				Peak	2389.960	-32.45	≤-21.20	62.75	≤74	PASS
				Peak	2390.000	-32.45	≤-21.20	62.75	≤74	PASS
		High	2462	AV	2483.500	-44.1	≤-41.20	51.10	≤54	PASS
				AV	2483.560	-44.26	≤-41.20	50.94	≤54	PASS
				AV	2500.000	-48.99	≤-41.20	46.21	≤54	PASS
				Peak	2483.500	-40.89	≤-21.20	54.31	≤74	PASS
				Peak	2483.780	-36.91	≤-21.20	58.29	≤74	PASS

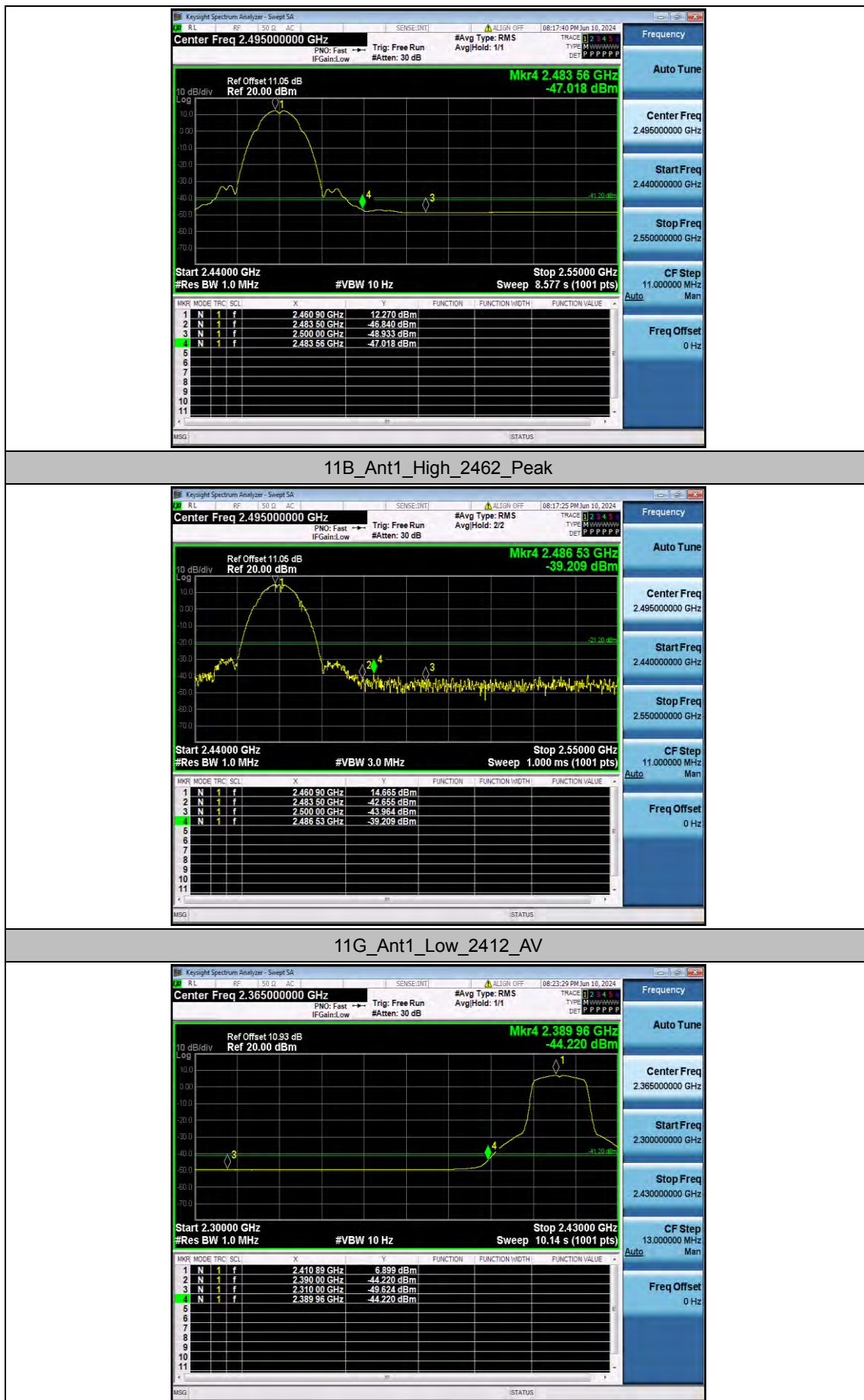
				Peak	2500.000	-46.68	≤ -21.20	48.52	≤ 74	PASS
11N40SIS O	Ant1	Low	2422	AV	2310.000	-49.63	≤ -41.20	45.57	≤ 54	PASS
				AV	2389.960	-43.79	≤ -41.20	51.41	≤ 54	PASS
				AV	2390.000	-43.79	≤ -41.20	51.41	≤ 54	PASS
				Peak	2310.000	-44.43	≤ -21.20	50.77	≤ 74	PASS
				Peak	2389.700	-37.99	≤ -21.20	57.21	≤ 74	PASS
				Peak	2390.000	-44.03	≤ -21.20	51.17	≤ 74	PASS
		High	2452	AV	2483.500	-41.56	≤ -41.20	53.64	≤ 54	PASS
				AV	2483.560	-41.61	≤ -41.20	53.59	≤ 54	PASS
				AV	2500.000	-48.93	≤ -41.20	46.27	≤ 54	PASS
				Peak	2483.500	-40.36	≤ -21.20	54.84	≤ 74	PASS
				Peak	2483.890	-34.46	≤ -21.20	60.74	≤ 74	PASS
				Peak	2500.000	-44.43	≤ -21.20	50.77	≤ 74	PASS

Note:

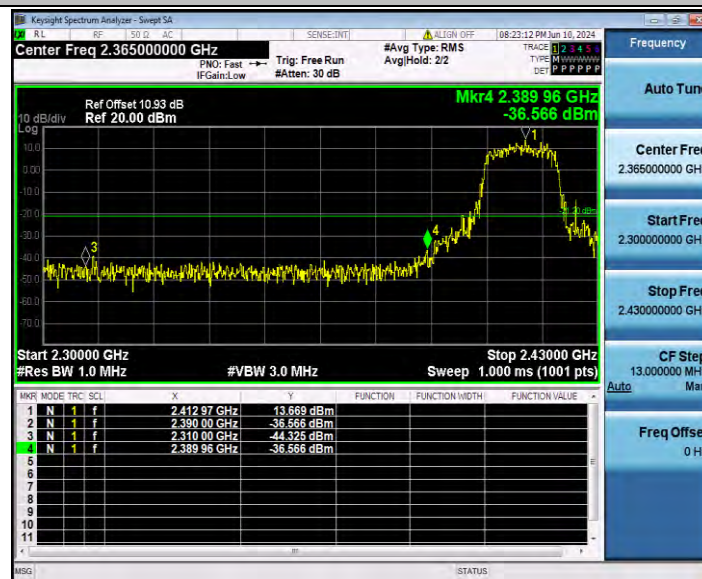
1. The Antenna Gain is compensated in the graph.
2. The Duty Cycle Factor and RBW Factor is compensated in the graph.
3. The limit in dBm for average detector is conversion from 54dBuV/m, according to 15.209(a). The limit in dBm for peak detector is 20dB above the limit of average detector in dBm.

Test Graphs

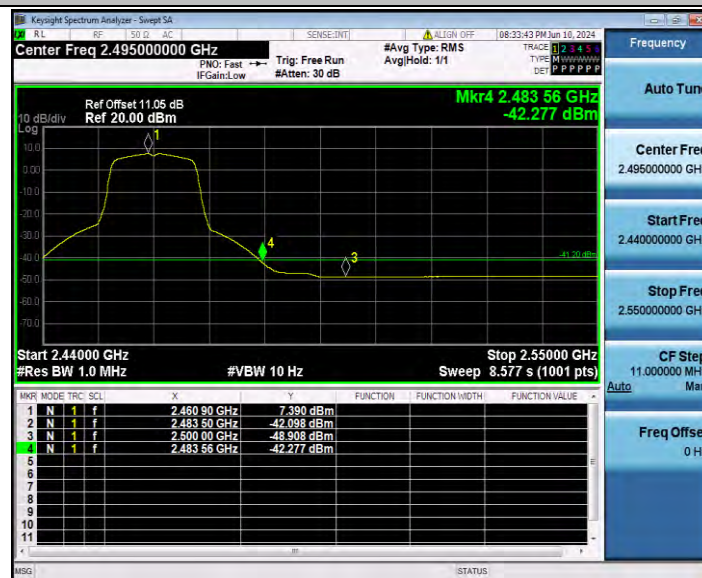




11G_Ant1_Low_2412_Peak



11G_Ant1_High_2462_AV



11G_Ant1_High_2462_Peak



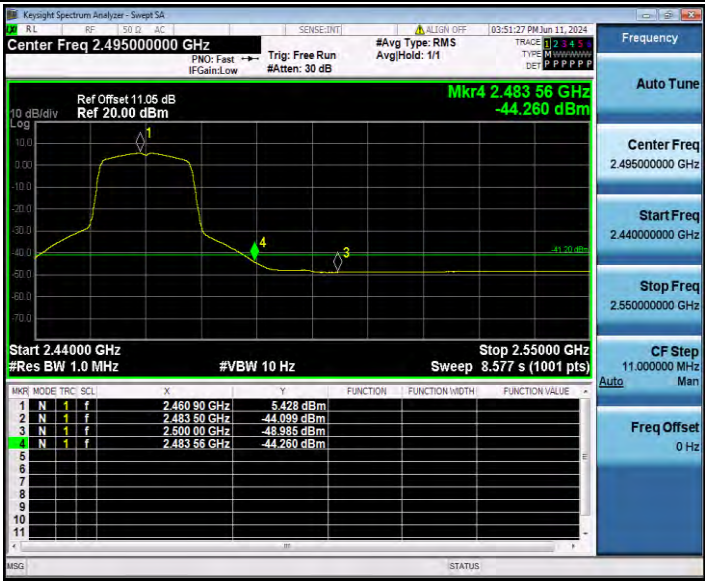
11N20SISO_Ant1_Low_2412_AV



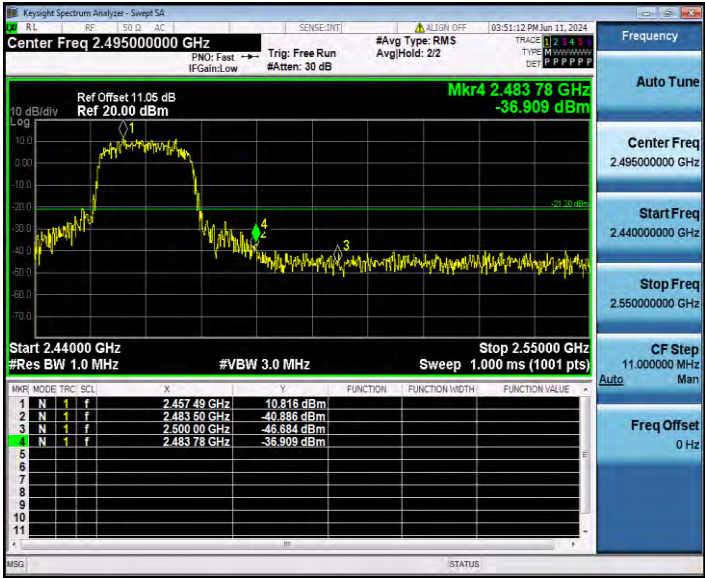
11N20SISO_Ant1_Low_2412_Peak



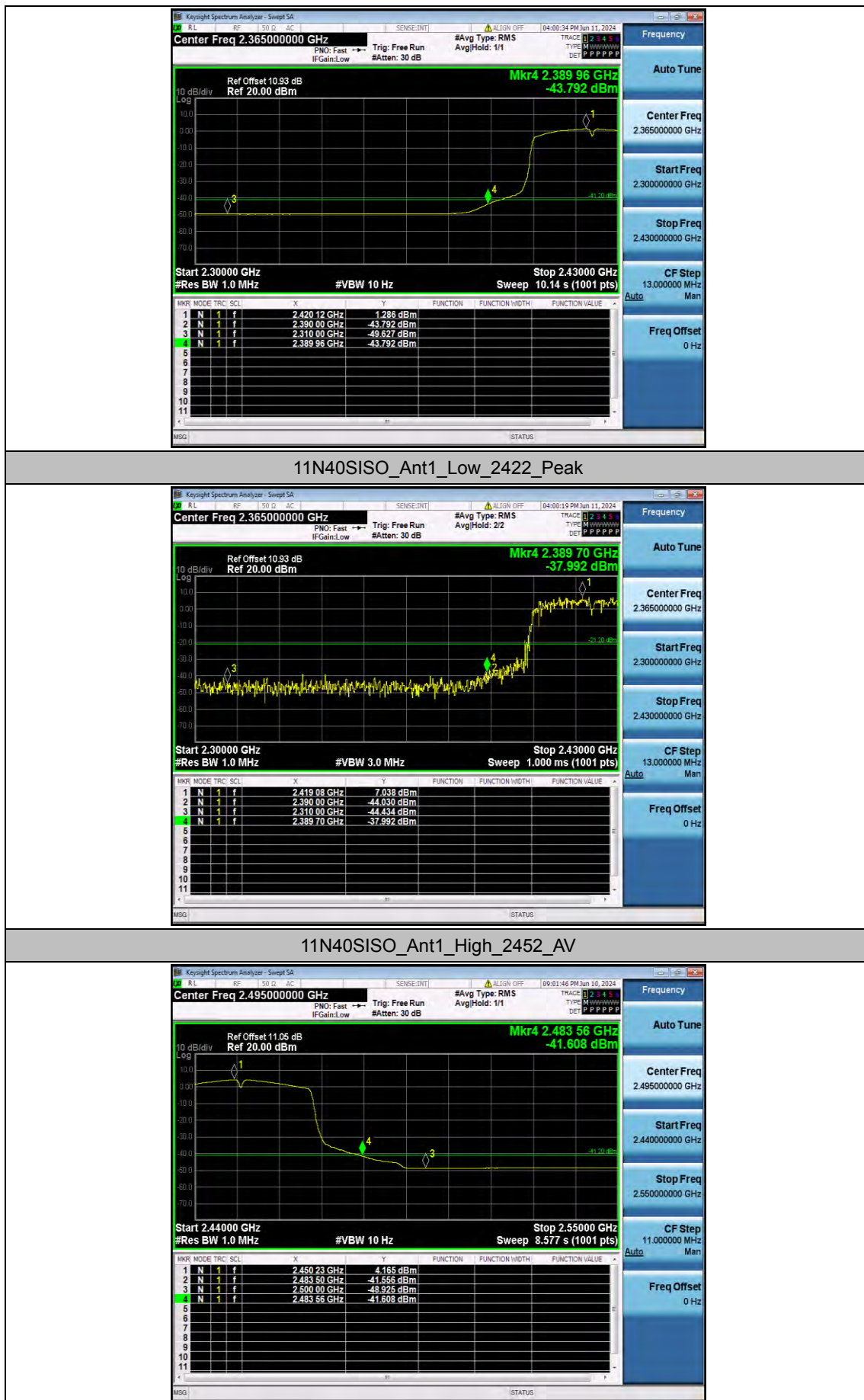
11N20SISO_Ant1_High_2462_AV



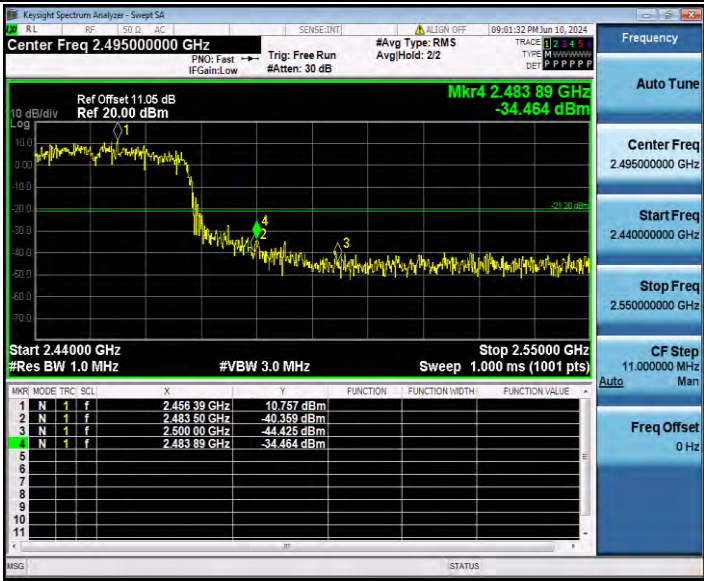
11N20SISO_Ant1_High_2462_Peak



11N40SISO_Ant1_Low_2422_AV



11N40SISO_Ant1_High_2452_Peak



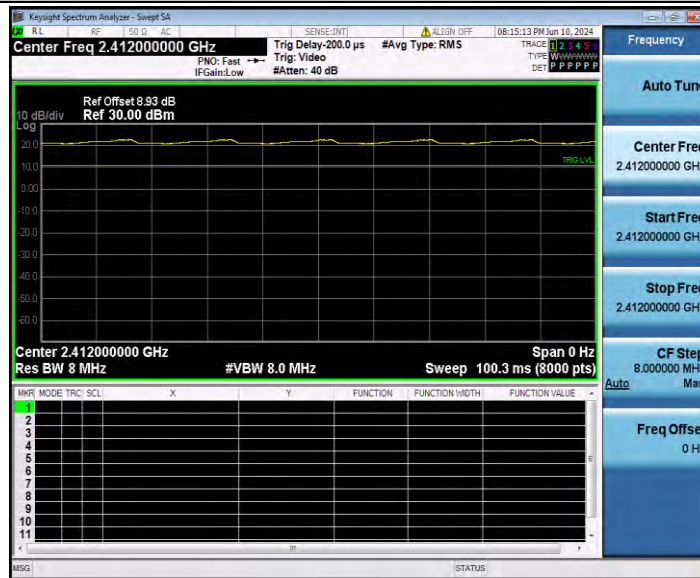
Appendix C.7: Duty Cycle

Test Result

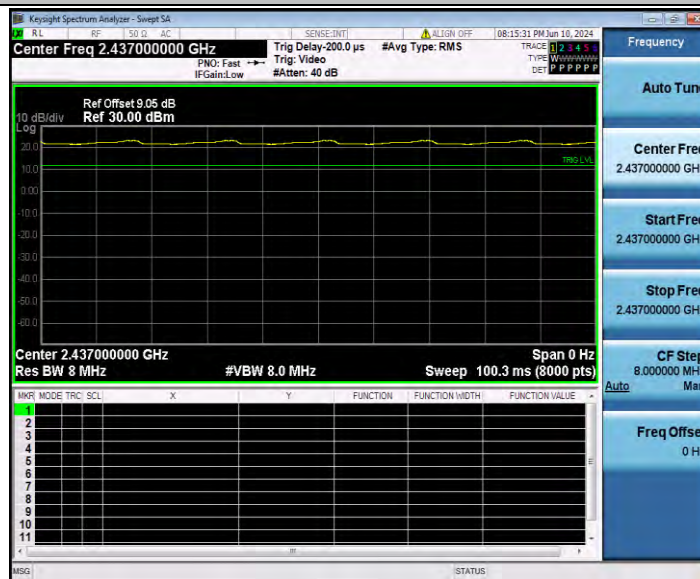
TestMode	Antenna	Frequency[MHz]	Transmission Duration [ms]	Transmission Period [ms]	Duty Cycle [%]	Duty Cycle Factor[dB]	1/T Factor[KHz]
11B	Ant1	2412	100.00	100.00	100.00	0.00	0.01
		2437	100.00	100.00	100.00	0.00	0.01
		2462	100.00	100.00	100.00	0.00	0.01
11G	Ant1	2412	100.00	100.00	100.00	0.00	0.01
		2437	100.00	100.00	100.00	0.00	0.01
		2462	100.00	100.00	100.00	0.00	0.01
11N20SISO	Ant1	2412	100.00	100.00	100.00	0.00	0.01
		2437	100.00	100.00	100.00	0.00	0.01
		2462	100.00	100.00	100.00	0.00	0.01
11N40SISO	Ant1	2422	100.00	100.00	100.00	0.00	0.01
		2437	100.00	100.00	100.00	0.00	0.01
		2452	100.00	100.00	100.00	0.00	0.01

Test Graphs

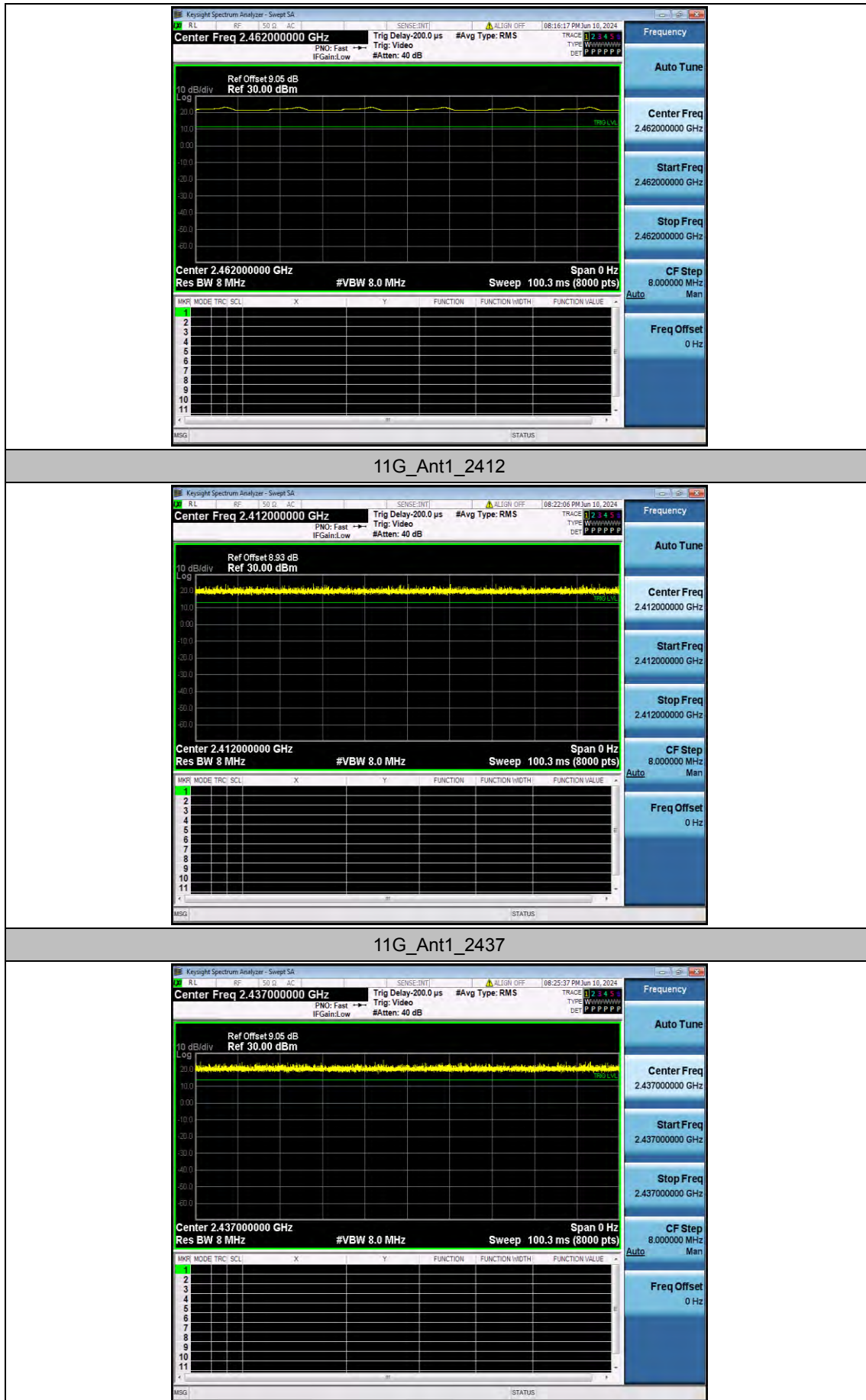
11B_Ant1_2412



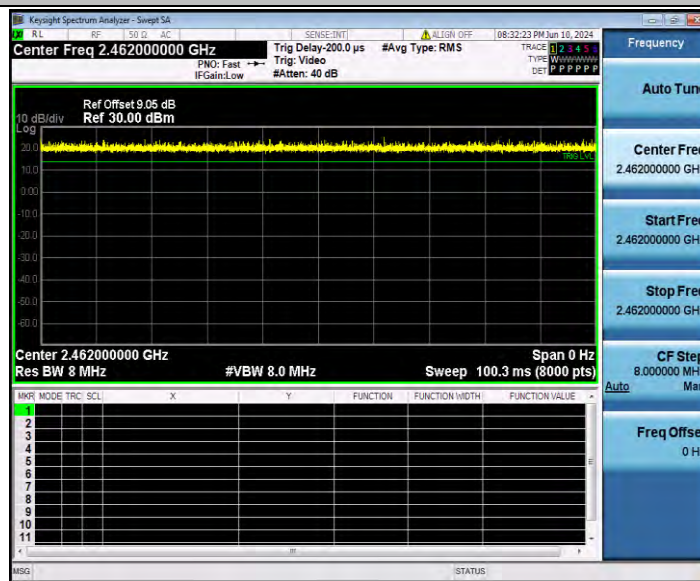
11B_Ant1_2437



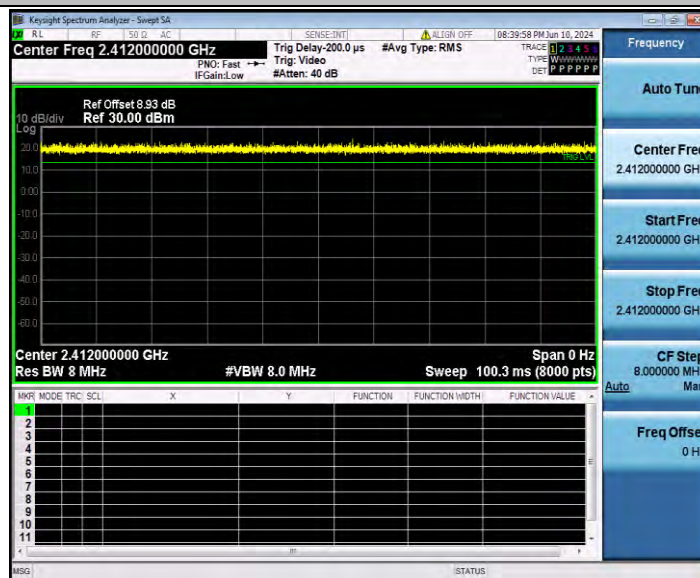
11B_Ant1_2462



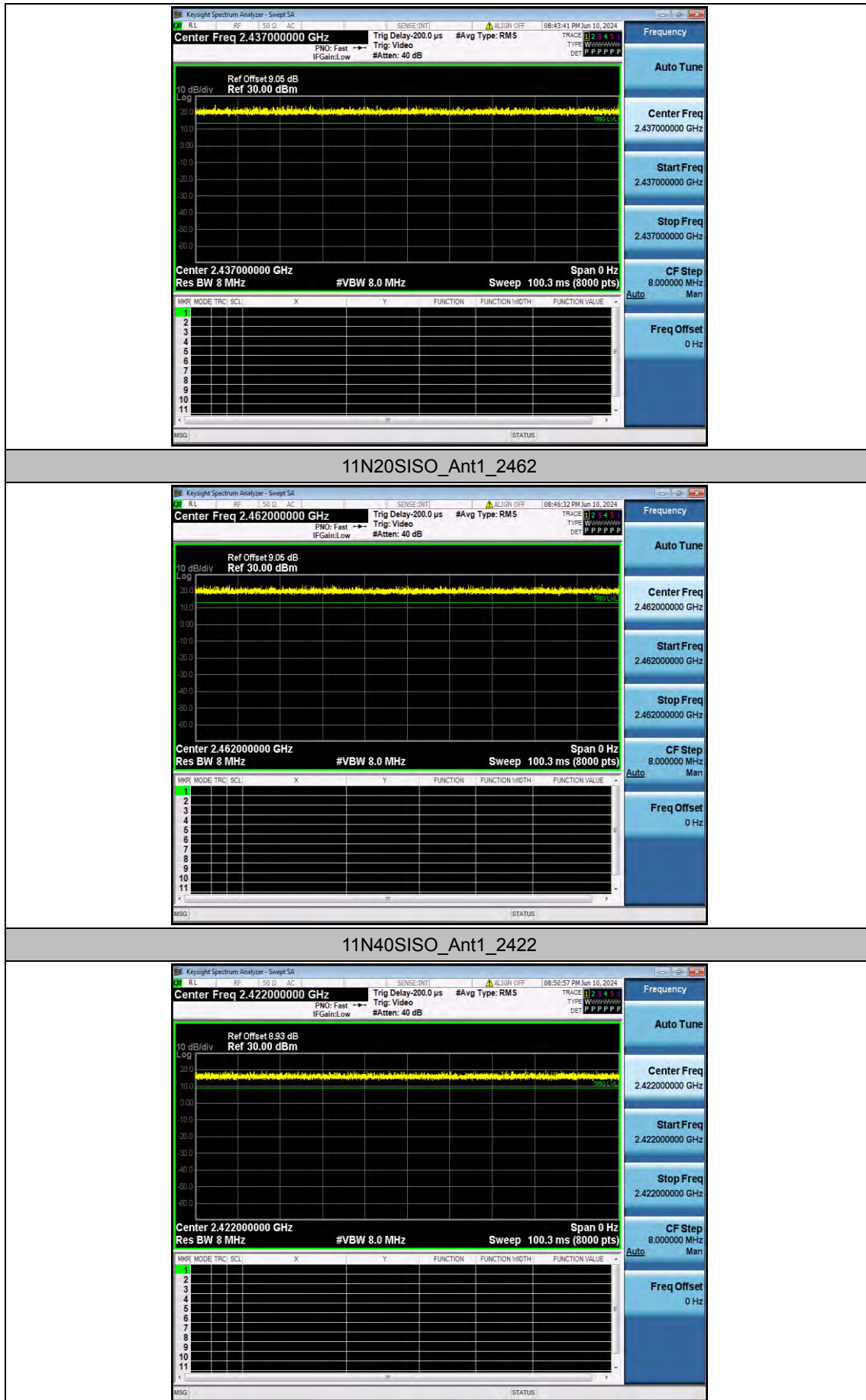
11G_Ant1_2462



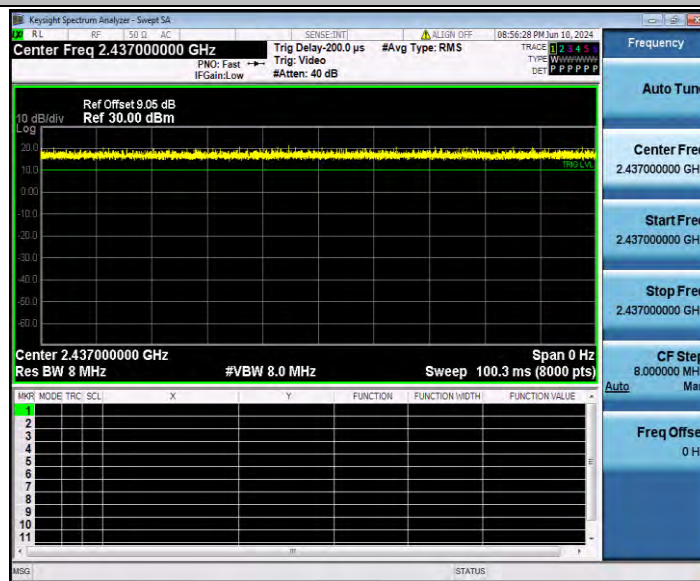
11N20SISO_Ant1_2412



11N20SISO_Ant1_2437



11N40SISO_Ant1_2437



11N40SISO_Ant1_2452

