

Appendix : 2.4G WIFI

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Appendix A: DTS Bandwidth

Test Result

Test Mode	Antenna	Channel	DTS BW [MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
11B	Ant1	2412	8.120	2407.440	2415.560	0.5	PASS
		2437	8.120	2433.440	2441.560	0.5	PASS
		2462	8.600	2456.960	2465.560	0.5	PASS
11G	Ant1	2412	11.560	2404.240	2415.800	0.5	PASS
		2437	15.760	2429.440	2445.200	0.5	PASS
		2462	13.240	2453.800	2467.040	0.5	PASS
11N20SISO	Ant1	2412	15.720	2403.840	2419.560	0.5	PASS
		2437	12.720	2433.120	2445.840	0.5	PASS
		2462	13.880	2453.200	2467.080	0.5	PASS
11N40SISO	Ant1	2422	35.760	2403.760	2439.520	0.5	PASS
		2437	26.800	2428.120	2454.920	0.5	PASS
		2452	21.440	2443.120	2464.560	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



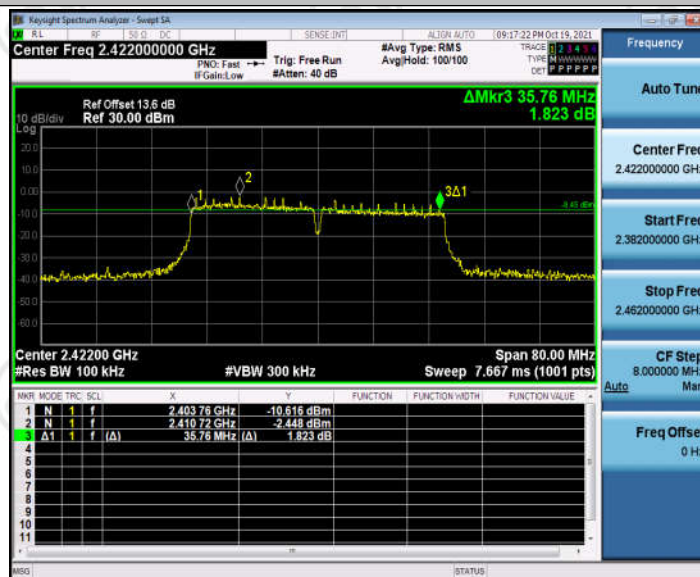
11N20SISO_Ant1_2437



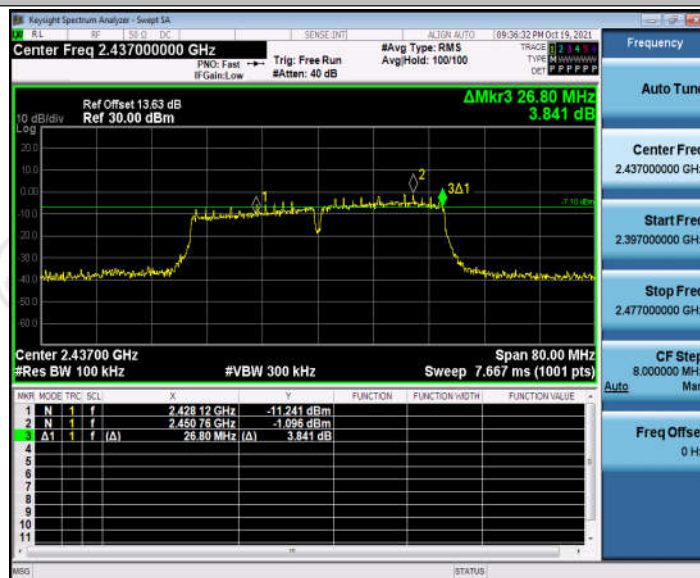
11N20SISO_Ant1_2462



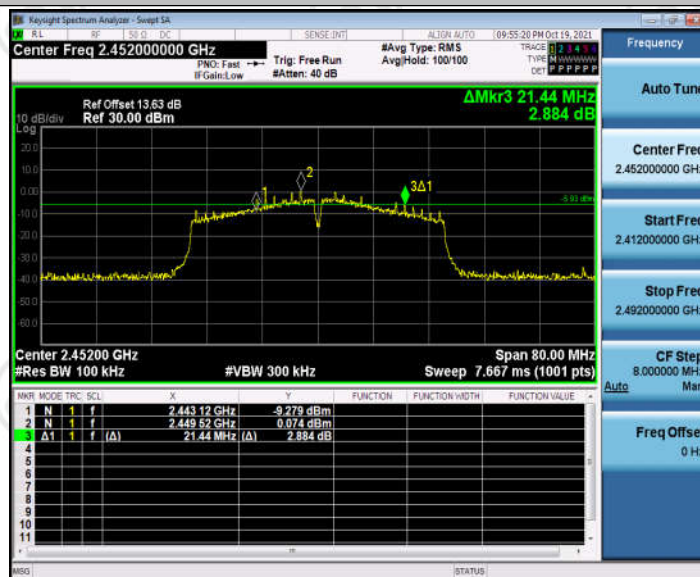
11N40SISO_Ant1_2422



11N40SISO_Ant1_2437



11N40SISO_Ant1_2452

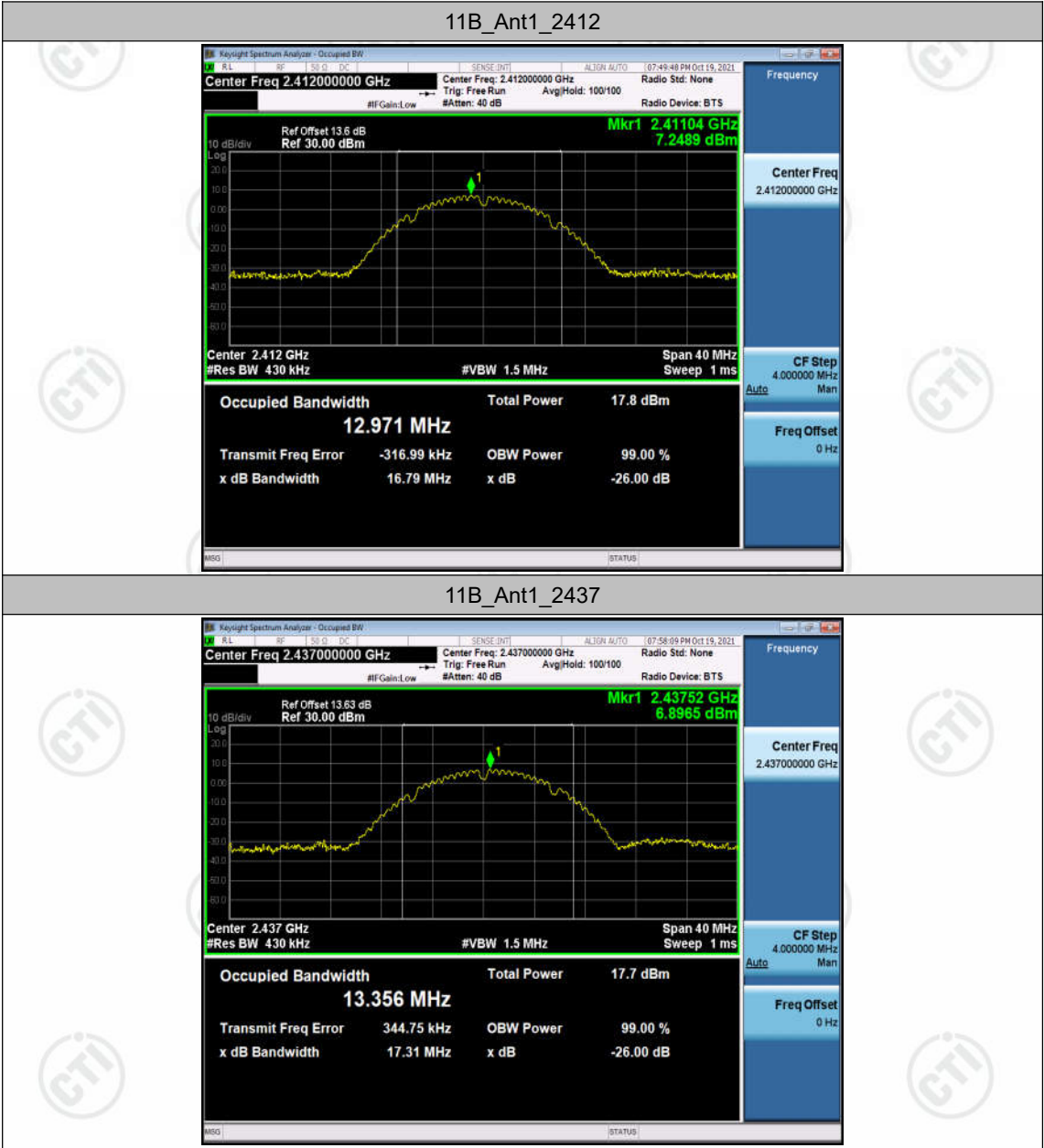


Appendix B: Occupied Channel Bandwidth

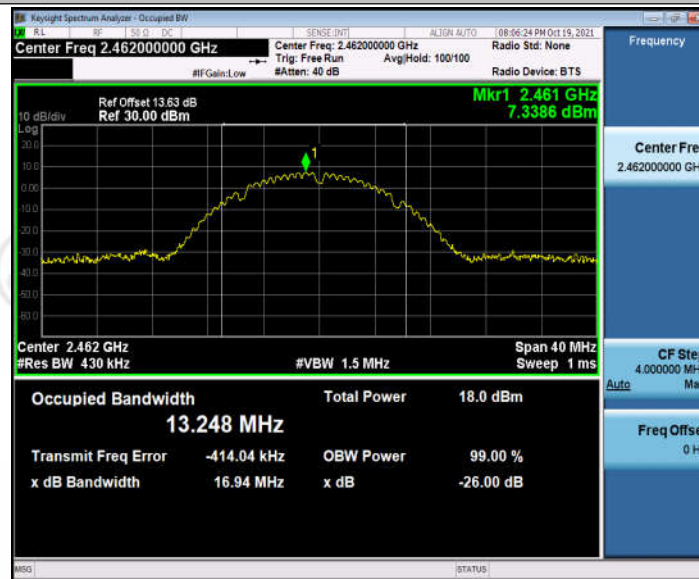
Test Result

Test Mode	Antenna	Channel	OCB [MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
11B	Ant1	2412	12.971	2405.198	2418.169	---	PASS
		2437	13.356	2430.667	2444.023	---	PASS
		2462	13.248	2454.962	2468.210	---	PASS
11G	Ant1	2412	16.731	2403.419	2420.150	---	PASS
		2437	17.150	2428.711	2445.861	---	PASS
		2462	17.036	2453.155	2470.191	---	PASS
11N20SIS O	Ant1	2412	17.726	2402.979	2420.705	---	PASS
		2437	18.060	2428.234	2446.294	---	PASS
		2462	17.884	2452.794	2470.678	---	PASS
11N40SIS O	Ant1	2422	36.632	2403.621	2440.253	---	PASS
		2437	36.365	2419.113	2455.478	---	PASS
		2452	35.174	2434.441	2469.615	---	PASS

Test Graphs

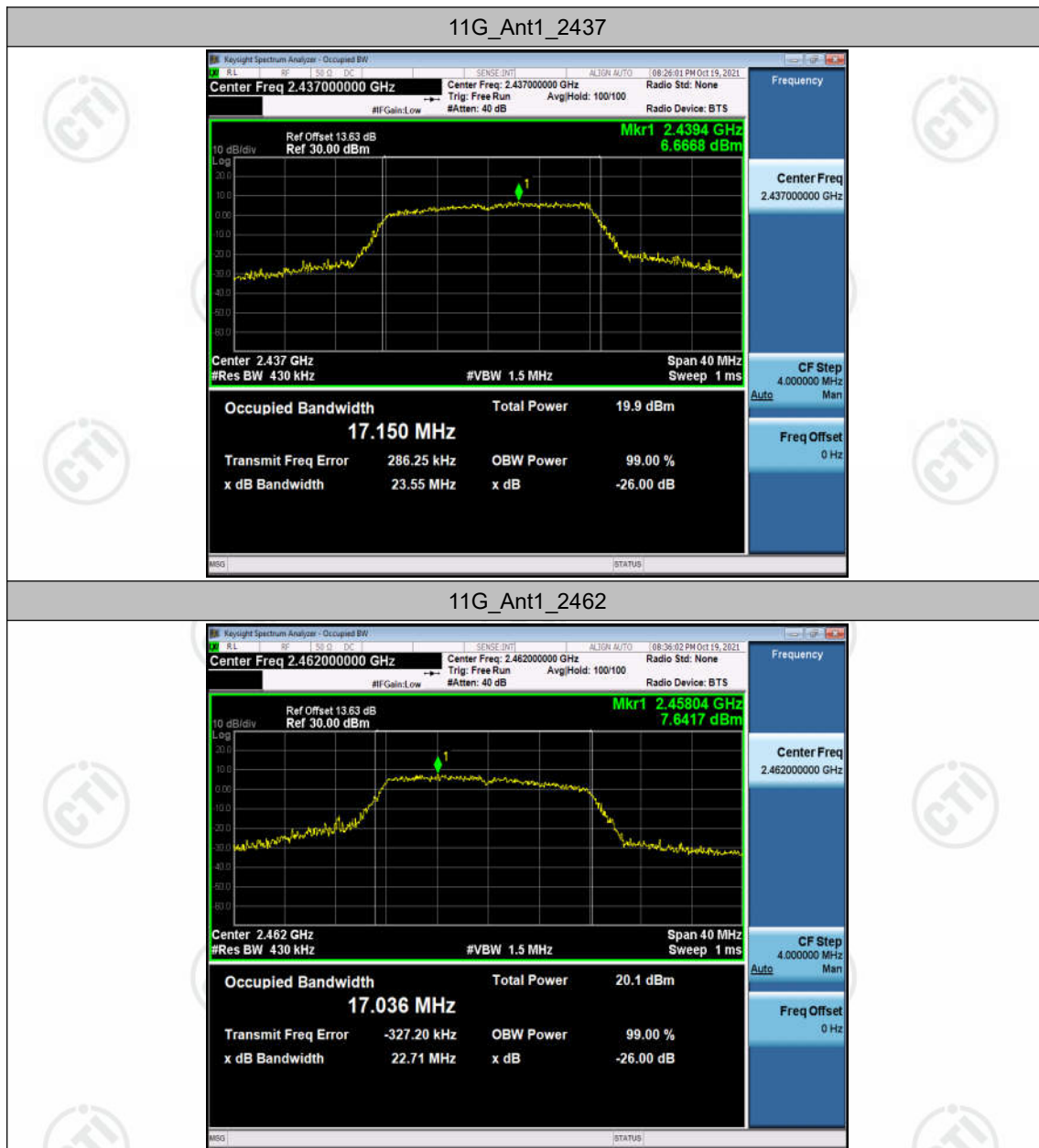


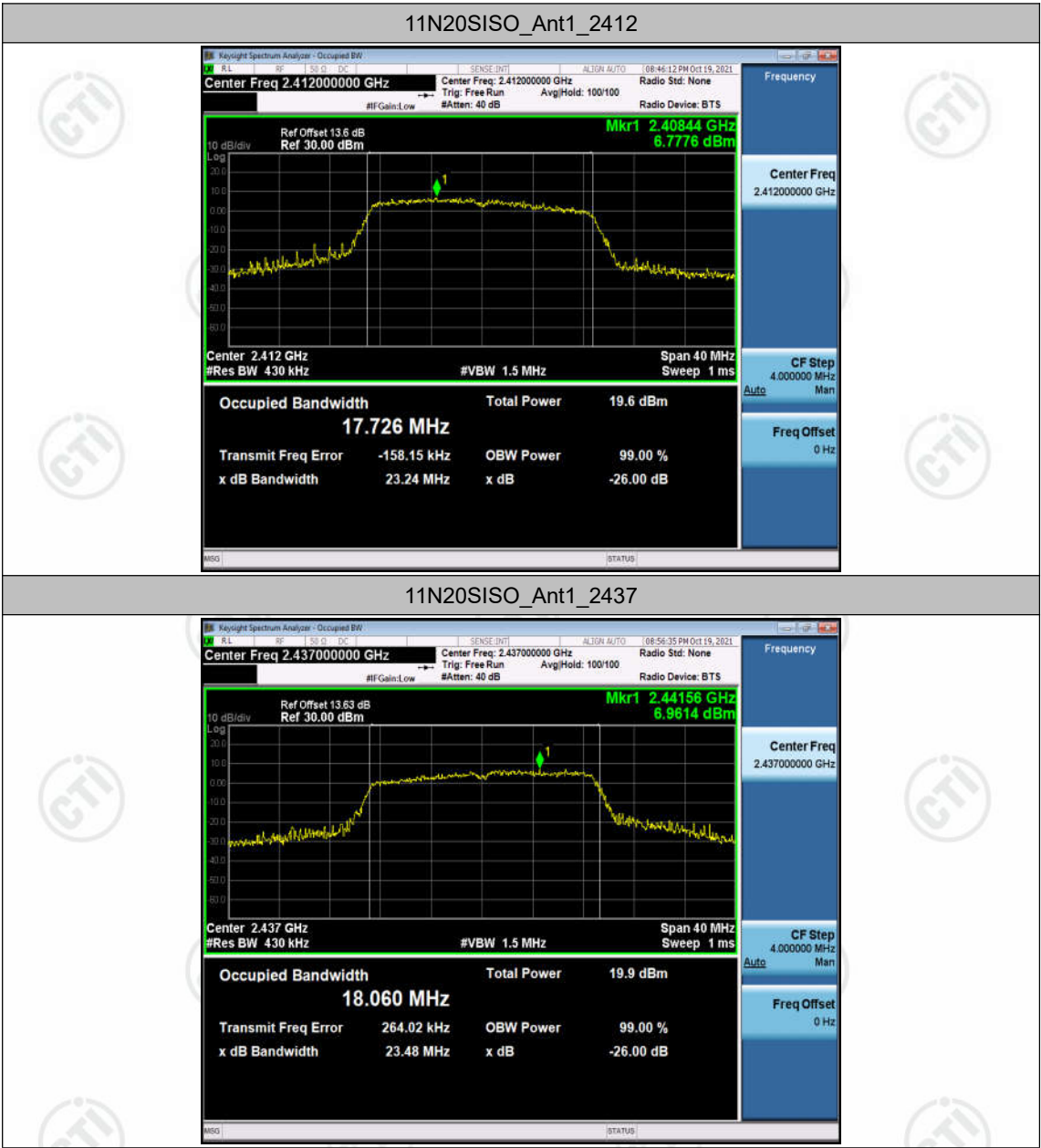
11B_Ant1_2462

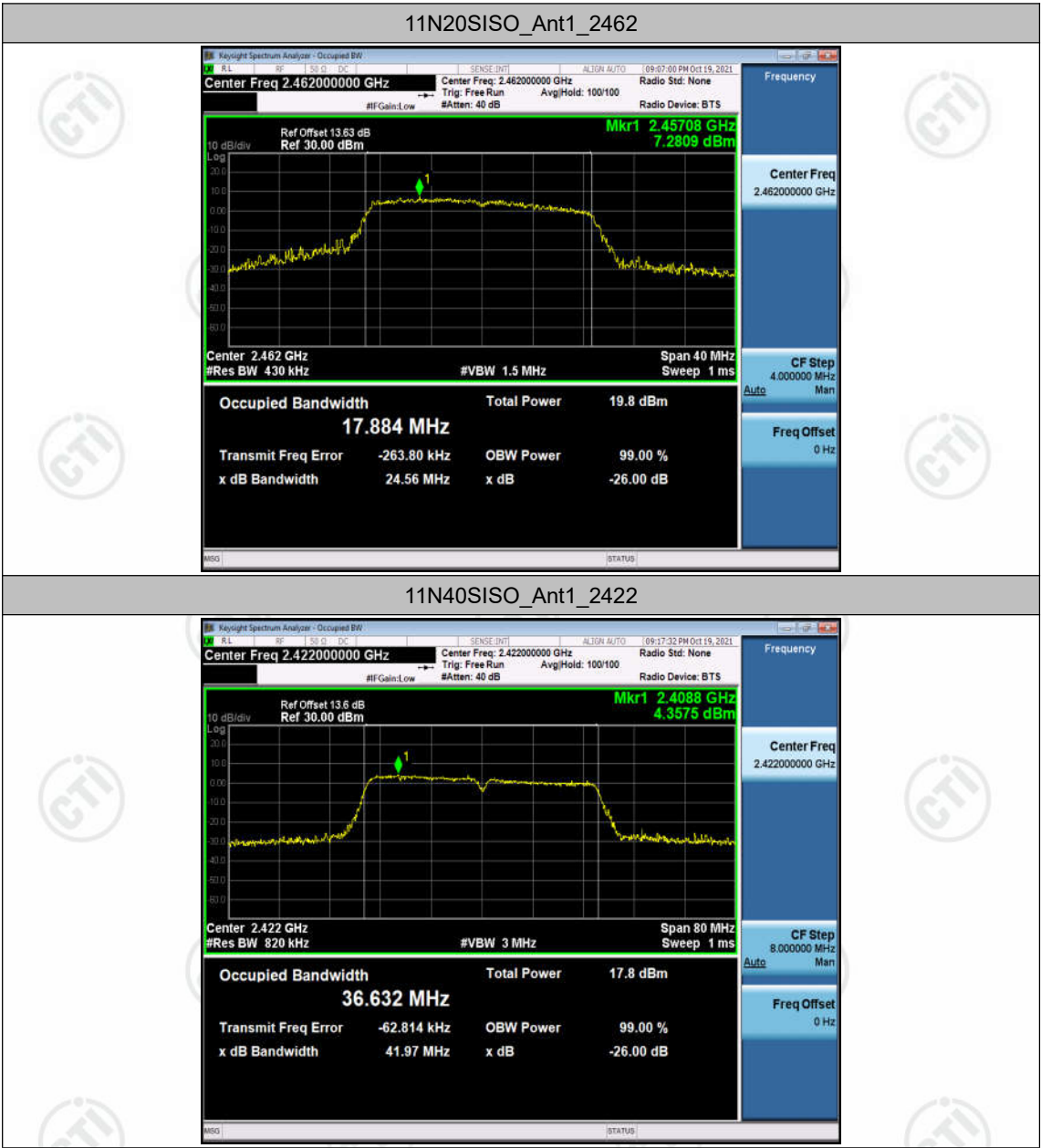


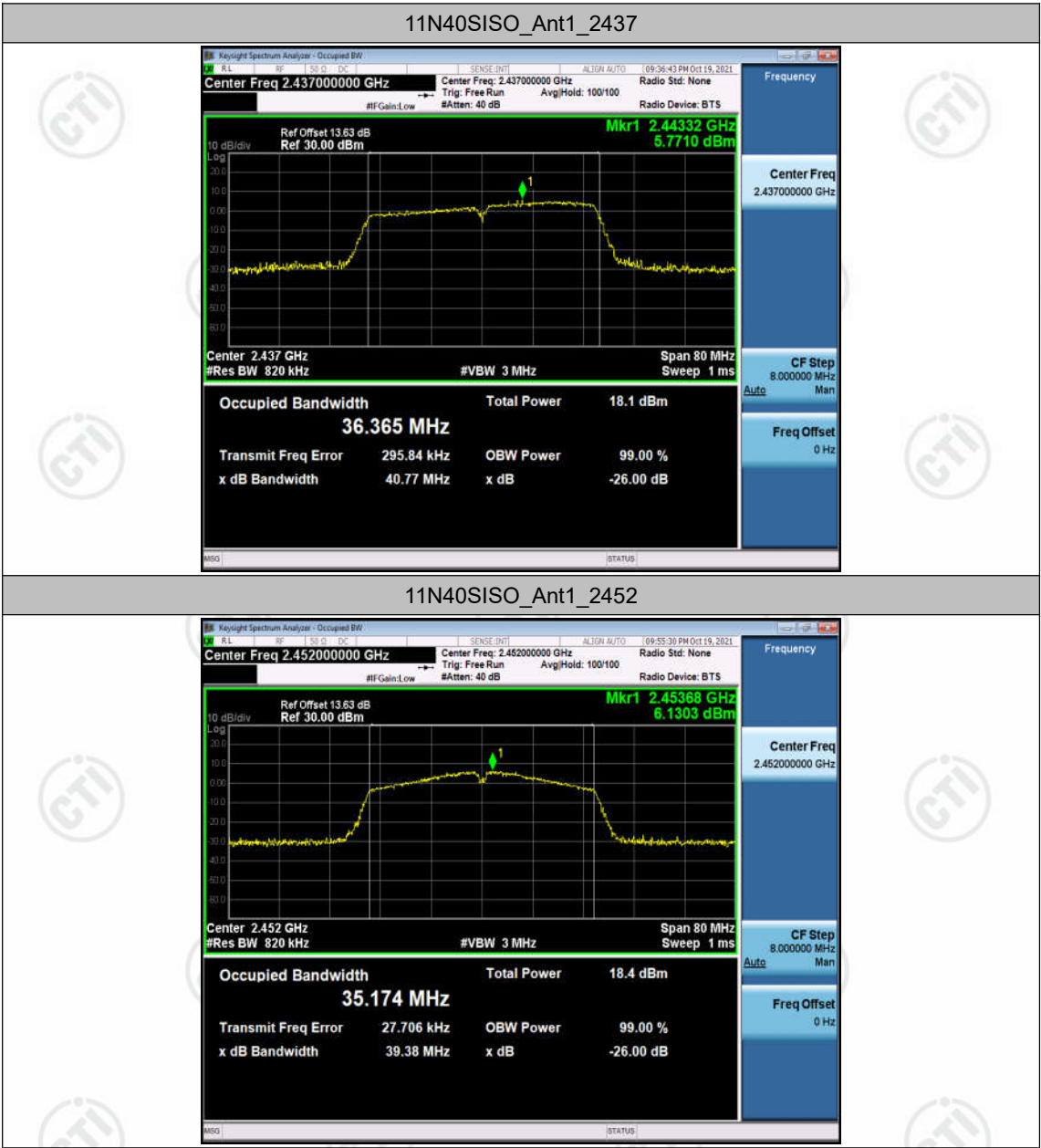
11G_Ant1_2412











Appendix C: Maximum conducted output power

Test Result

Test Mode	Antenna	Channel	Result[dBm]	Limit[dBm]	Verdict
11B	Ant1	2412	14.77	<=30	PASS
		2437	14.72	<=30	PASS
		2462	15.02	<=30	PASS
11G	Ant1	2412	13.81	<=30	PASS
		2437	13.76	<=30	PASS
		2462	13.95	<=30	PASS
11N20SISO	Ant1	2412	13.53	<=30	PASS
		2437	13.77	<=30	PASS
		2462	13.68	<=30	PASS
11N40SISO	Ant1	2422	10.91	<=30	PASS
		2437	11.25	<=30	PASS
		2452	11.59	<=30	PASS

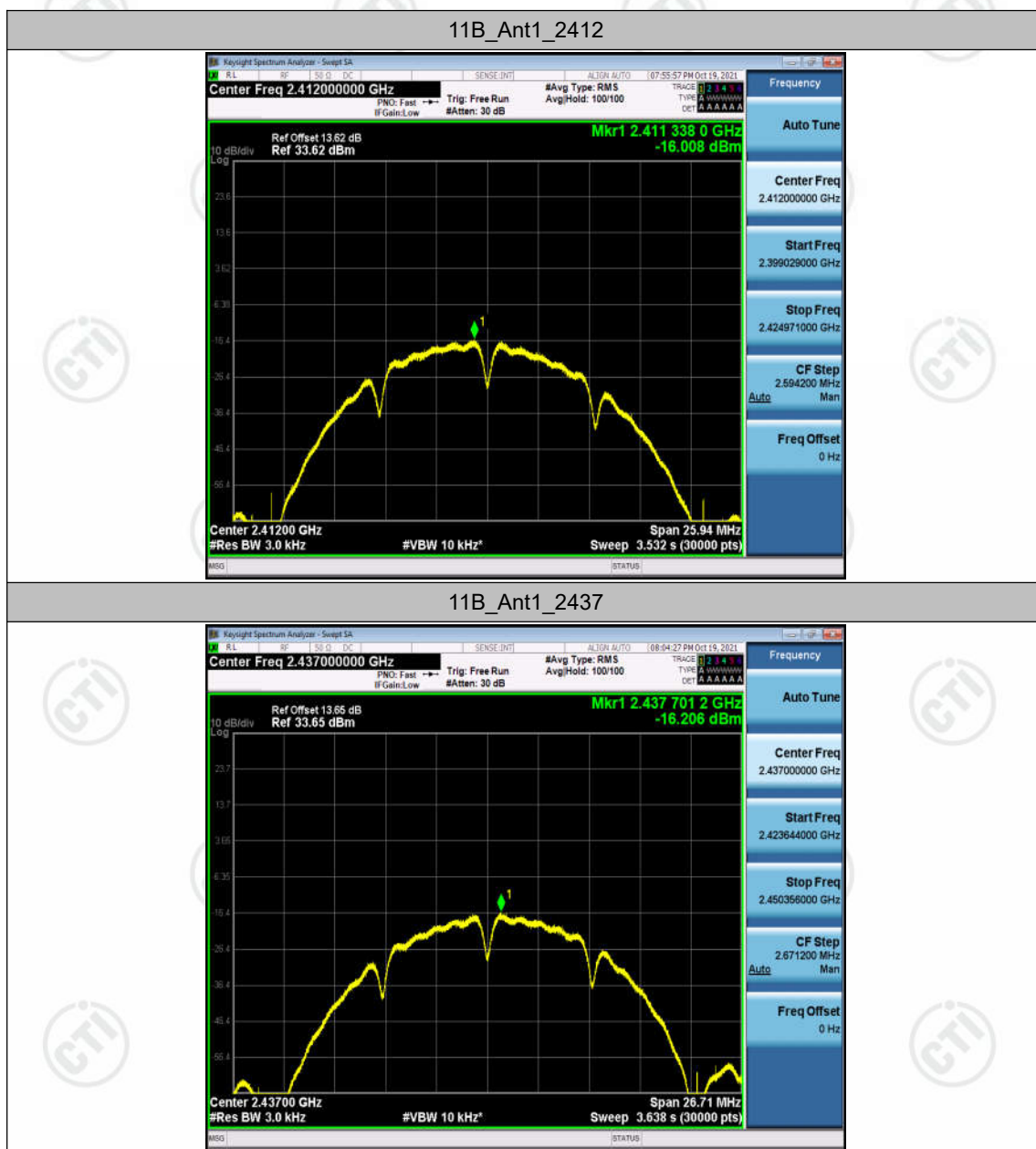
Note: The Duty Cycle Factor is compensated in the graph.

Appendix D: Maximum power spectral density

Test Result

Test Mode	Antenna	Channel	Result[dBm/3-100kHz]	Limit[dBm/3kHz]	Verdict
11B	Ant1	2412	-16.01	<=8	PASS
		2437	-16.21	<=8	PASS
		2462	-16.25	<=8	PASS
11G	Ant1	2412	-18.98	<=8	PASS
		2437	-19.51	<=8	PASS
		2462	-19.06	<=8	PASS
11N20SISO	Ant1	2412	-19.08	<=8	PASS
		2437	-19.40	<=8	PASS
		2462	-19.24	<=8	PASS
11N40SISO	Ant1	2422	-23.32	<=8	PASS
		2437	-23.17	<=8	PASS
		2452	-21.33	<=8	PASS

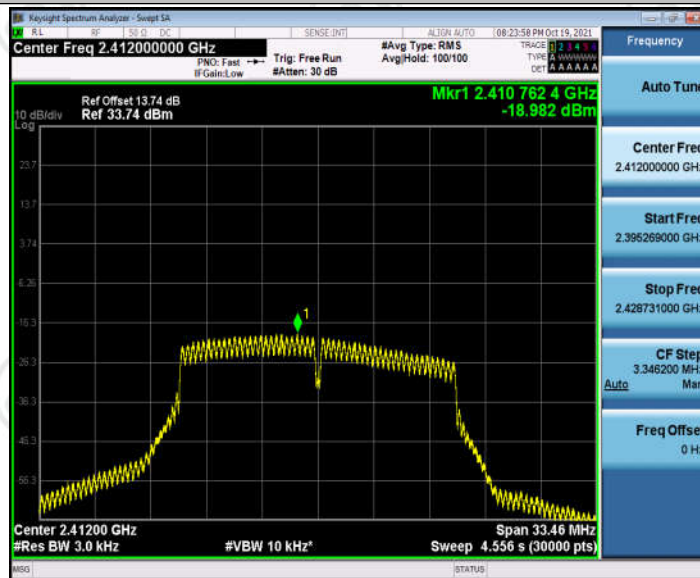
Test Graphs



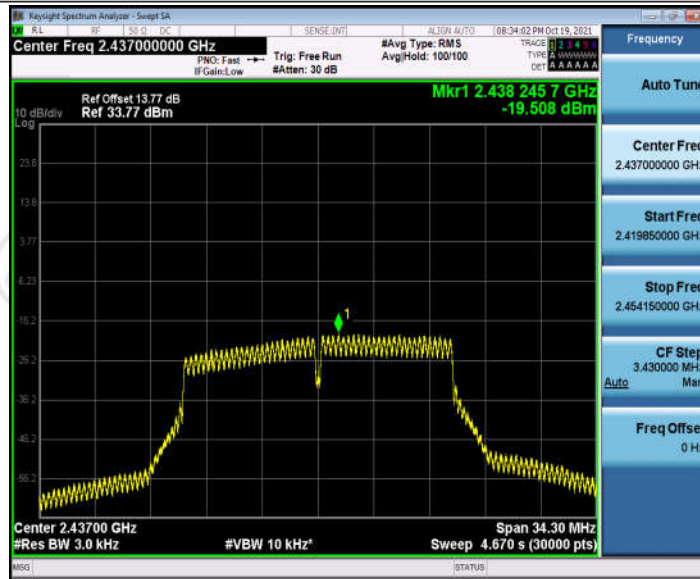
11B_Ant1_2462



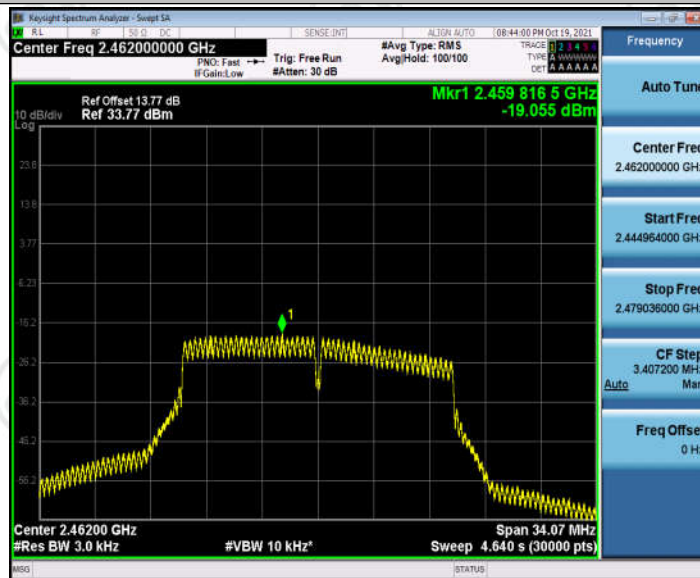
11G_Ant1_2412

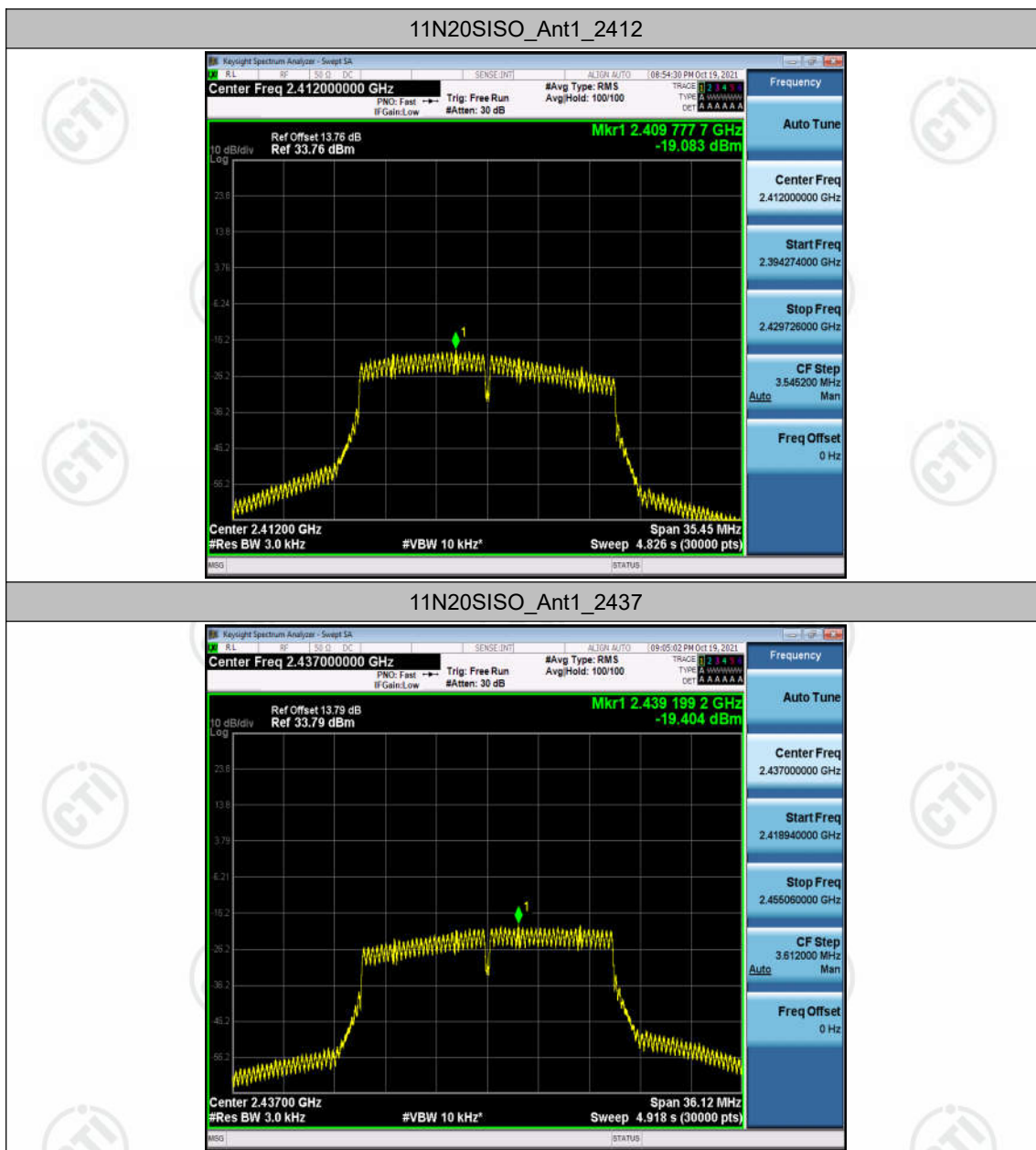


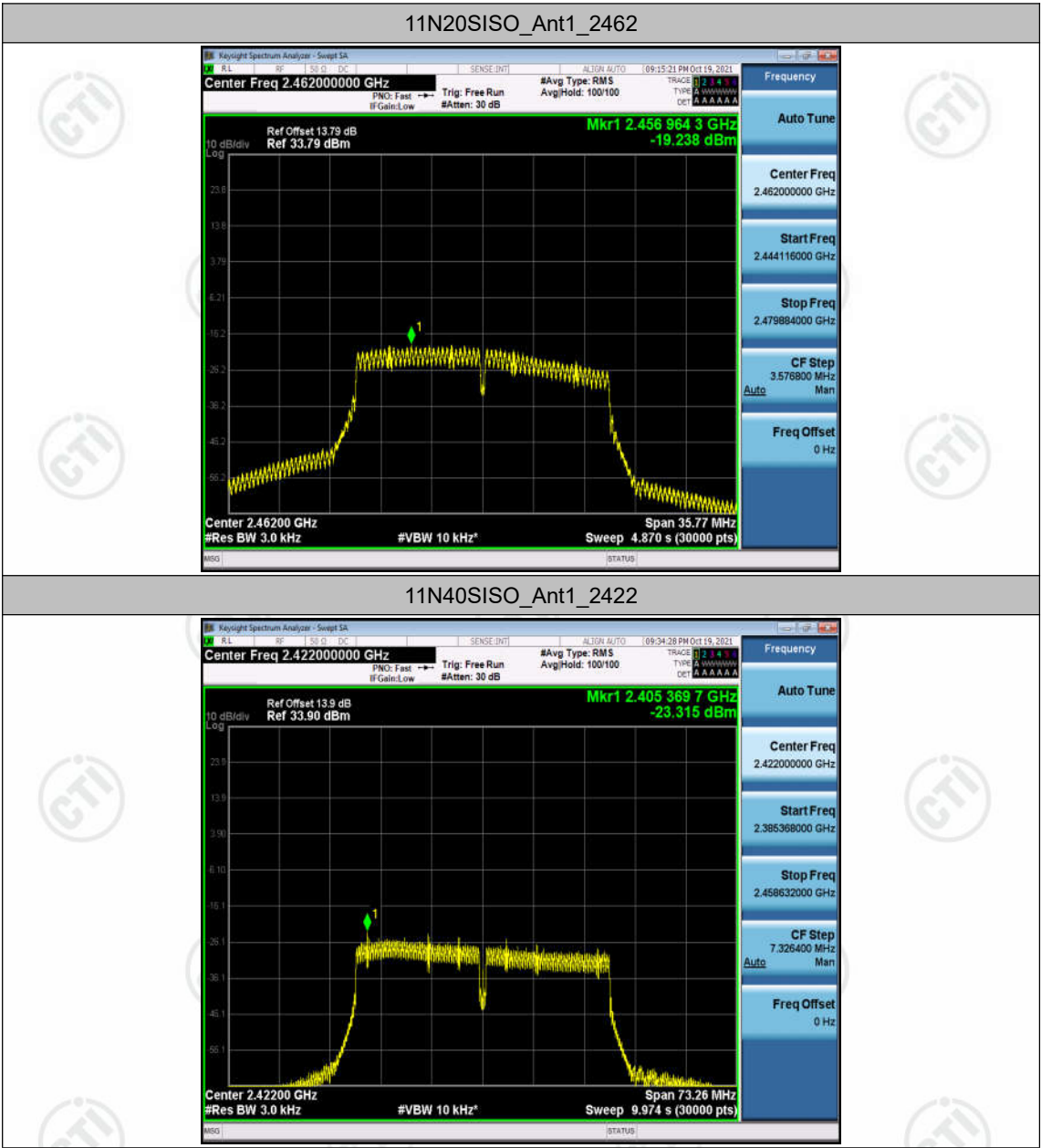
11G_Ant1_2437



11G_Ant1_2462



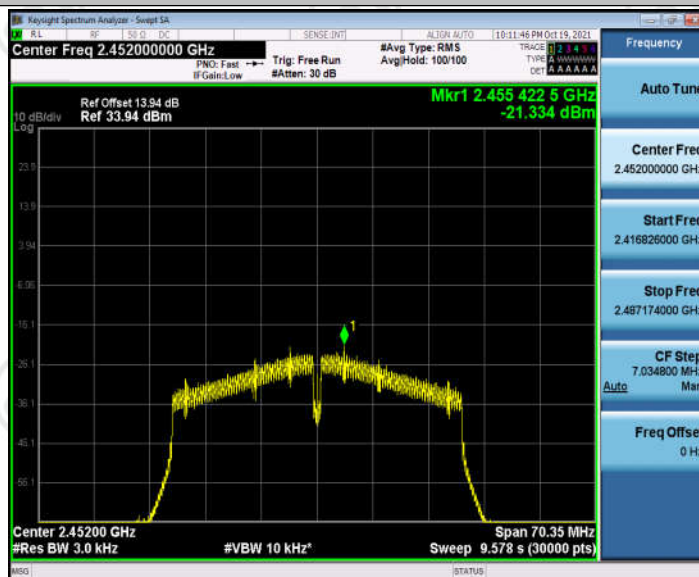




11N40SISO_Ant1_2437



11N40SISO_Ant1_2452



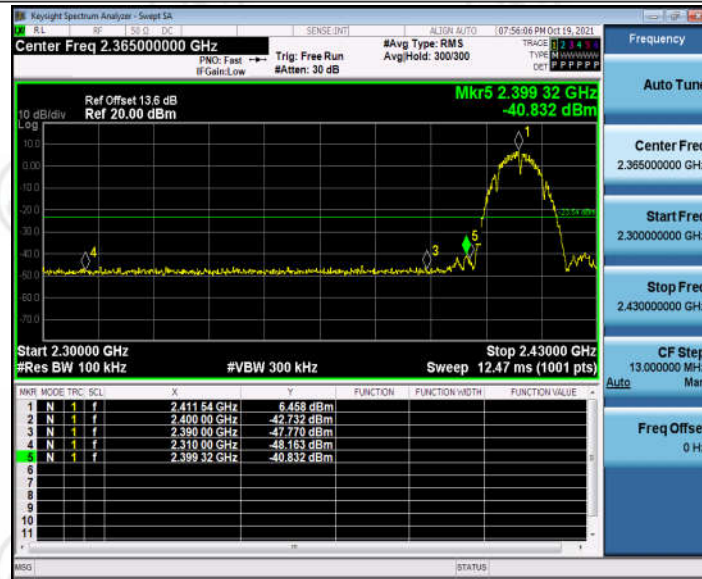
Appendix E:Band edge measurements

Test Result

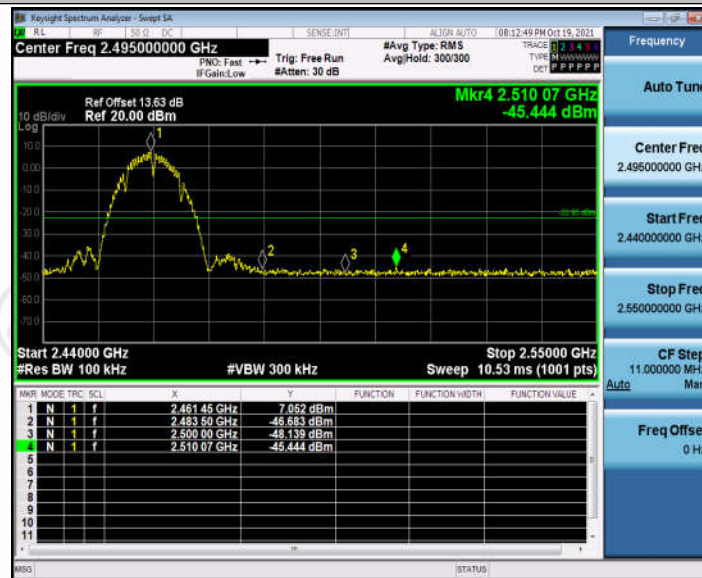
Test Mode	Antenna	ChName	Channel	RefLevel[dBm]	Result[dBm]	Limit[dBm]	Verdict
11B	Ant1	Low	2412	6.46	-40.83	<=-13.54	PASS
		High	2462	7.05	-45.44	<=-12.95	PASS
11G	Ant1	Low	2412	3.49	-28.56	<=-16.51	PASS
		High	2462	3.71	-43.31	<=-16.3	PASS
11N20SI SO	Ant1	Low	2412	3.43	-28.01	<=-16.57	PASS
		High	2462	3.98	-42.32	<=-16.02	PASS
11N40SI SO	Ant1	Low	2422	-1.97	-36.79	<=-21.97	PASS
		High	2452	0.13	-44.41	<=-19.87	PASS

Test Graphs

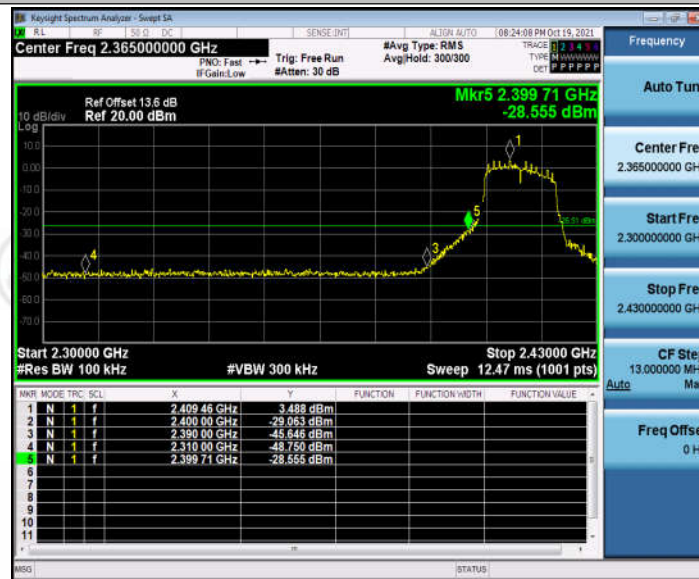
11B_Ant1_Low_2412



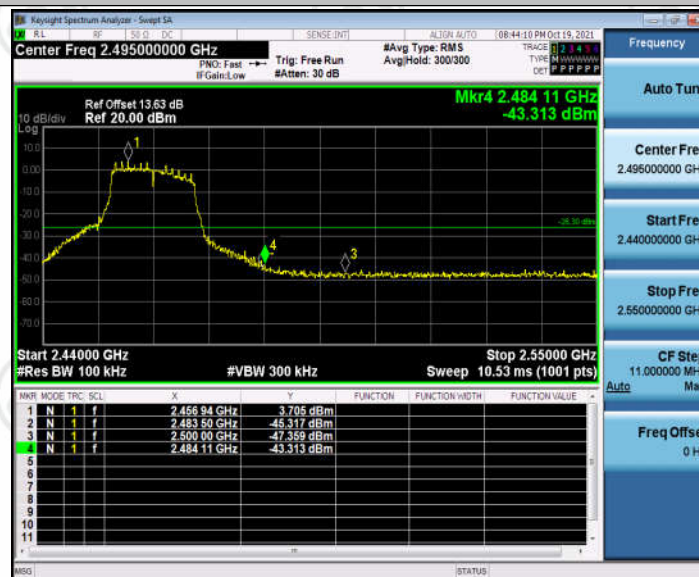
11B_Ant1_High_2462



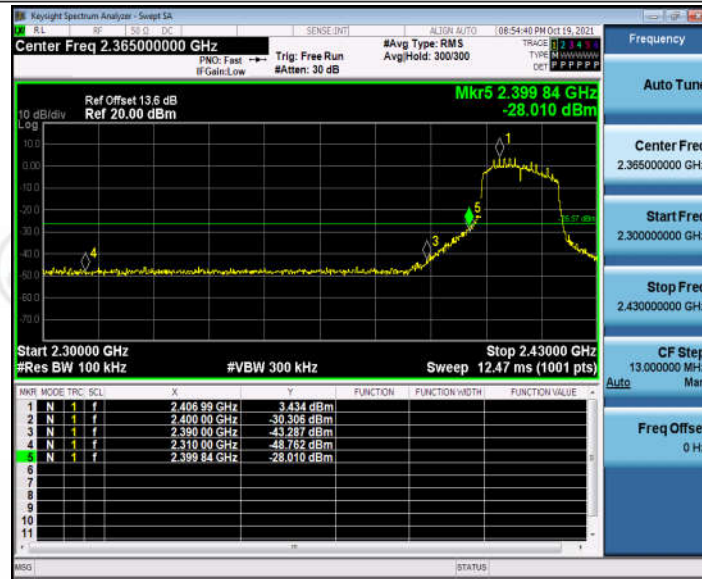
11G_Ant1_Low_2412



11G_Ant1_High_2462



11N20SISO_Ant1_Low_2412



11N20SISO_Ant1_High_2462



11N40SISO_Ant1_Low_2422



11N40SISO_Ant1_High_2452

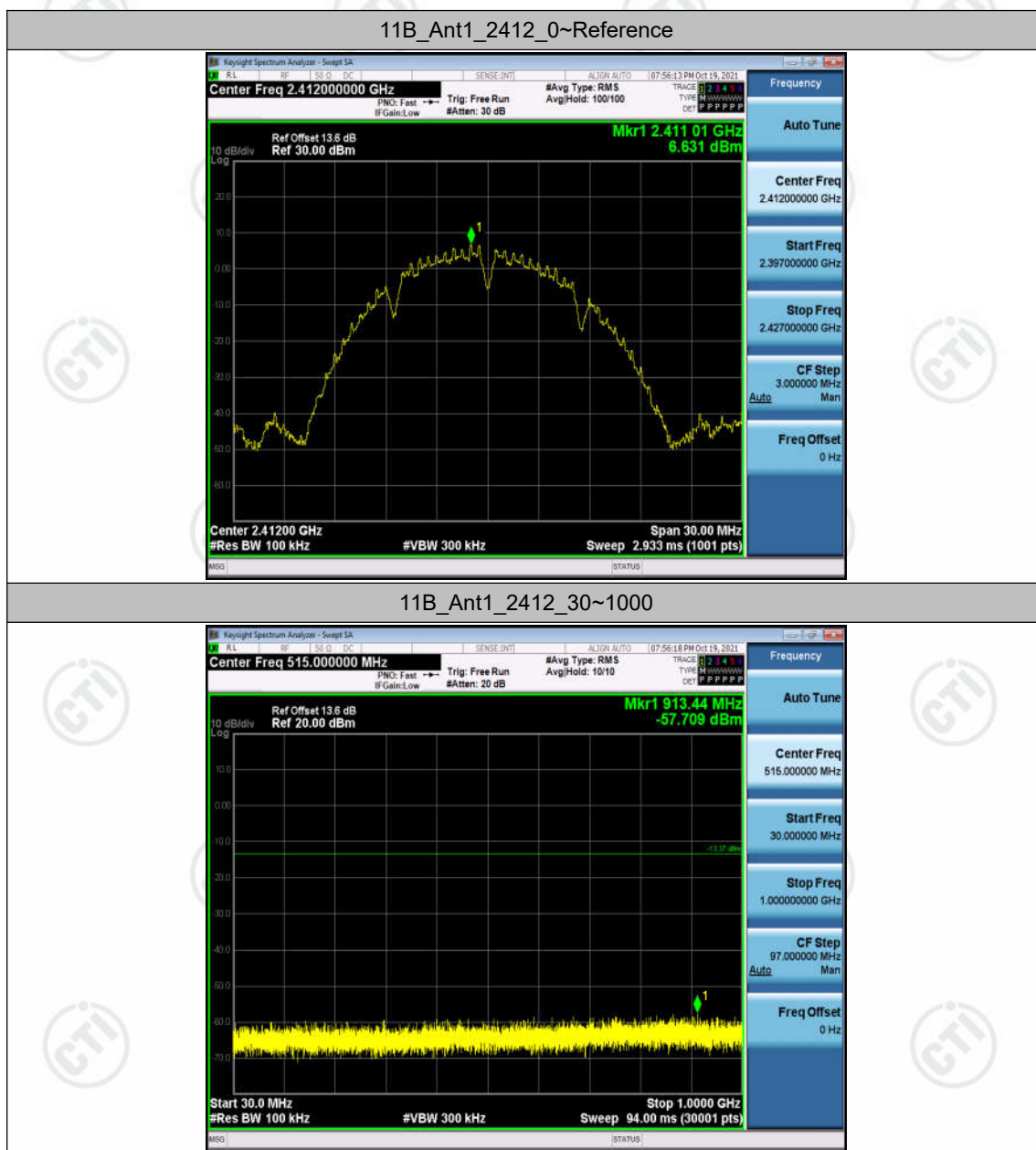


Appendix F: Conducted Spurious Emission

Test Result

Test Mode	Antenna	Channel	FreqRange [Mhz]	RefLevel [dBm]	Result [dBm]	Limit [dBm]	Verdict
11B	Ant1	2412	Reference	6.63	6.63	---	PASS
			30~1000	---	-57.709	<=-13.369	PASS
			1000~26500	---	-44.734	<=-13.369	PASS
		2437	Reference	6.66	6.66	---	PASS
			30~1000	---	-54.432	<=-13.336	PASS
			1000~26500	---	-43.578	<=-13.336	PASS
		2462	Reference	6.44	6.44	---	PASS
			30~1000	---	-57.37	<=-13.563	PASS
			1000~26500	---	-45.246	<=-13.563	PASS
11G	Ant1	2412	Reference	3.55	3.55	---	PASS
			30~1000	---	-57.762	<=-16.454	PASS
			1000~26500	---	-49.263	<=-16.454	PASS
		2437	Reference	3.31	3.31	---	PASS
			30~1000	---	-57.591	<=-16.693	PASS
			1000~26500	---	-49.13	<=-16.693	PASS
		2462	Reference	2.96	2.96	---	PASS
			30~1000	---	-57.686	<=-17.04	PASS
			1000~26500	---	-49.555	<=-17.04	PASS
11N20SIS O	Ant1	2412	Reference	3.62	3.62	---	PASS
			30~1000	---	-57.685	<=-16.38	PASS
			1000~26500	---	-49.242	<=-16.38	PASS
		2437	Reference	3.35	3.35	---	PASS
			30~1000	---	-57.271	<=-16.654	PASS
			1000~26500	---	-48.82	<=-16.654	PASS
		2462	Reference	3.88	3.88	---	PASS
			30~1000	---	-57.92	<=-16.121	PASS
			1000~26500	---	-49.555	<=-16.121	PASS
11N40SIS O	Ant1	2422	Reference	-1.87	-1.87	---	PASS
			30~1000	---	-57.61	<=-21.866	PASS
			1000~26500	---	-48.953	<=-21.866	PASS
		2437	Reference	-1.05	-1.05	---	PASS
			30~1000	---	-55.651	<=-21.049	PASS
			1000~26500	---	-50.028	<=-21.049	PASS
		2452	Reference	-0.02	-0.02	---	PASS
			30~1000	---	-57.506	<=-20.019	PASS
			1000~26500	---	-49.095	<=-20.019	PASS

Test Graphs

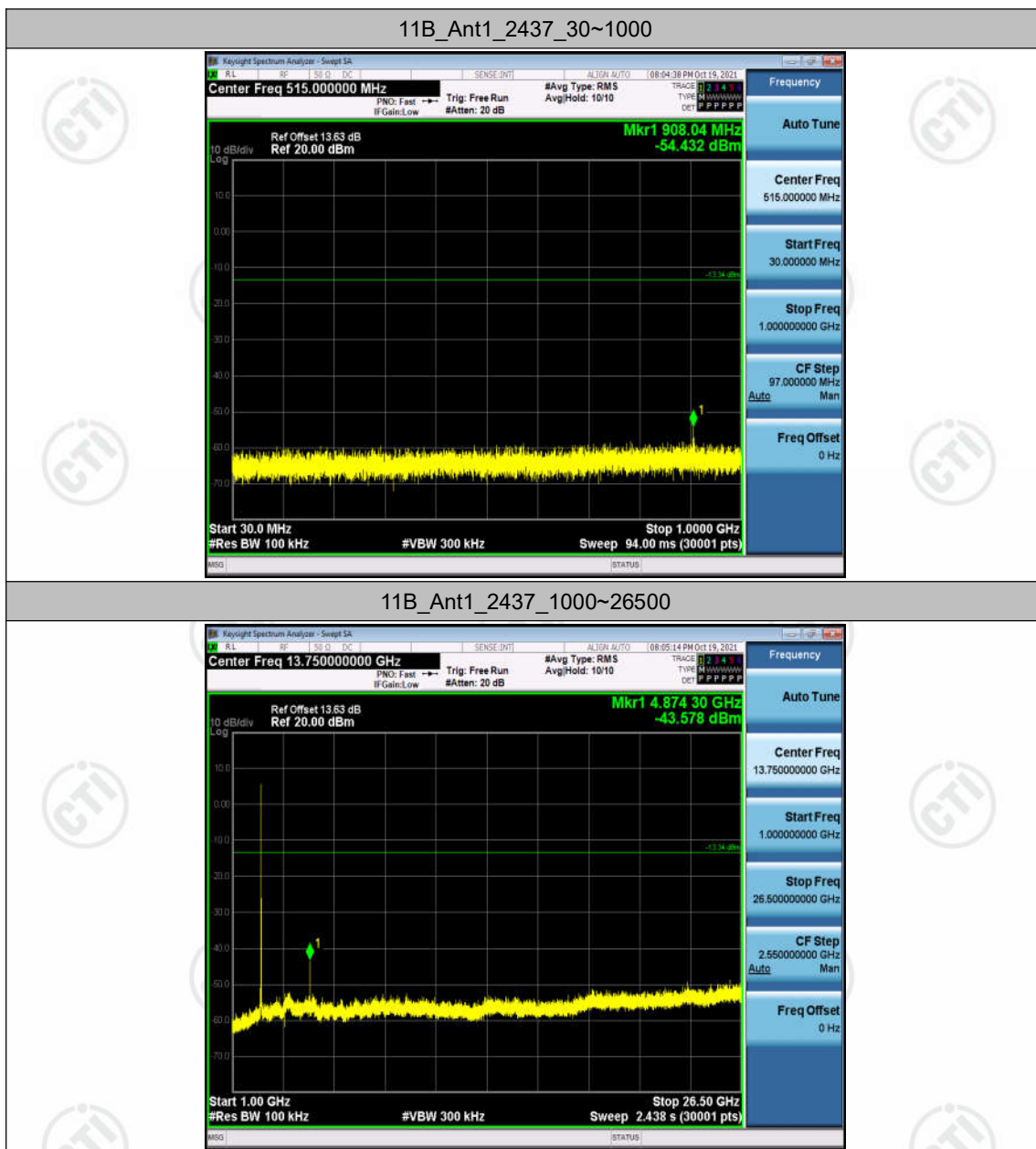


11B_Ant1_2412_1000~26500



11B_Ant1_2437_0~Reference

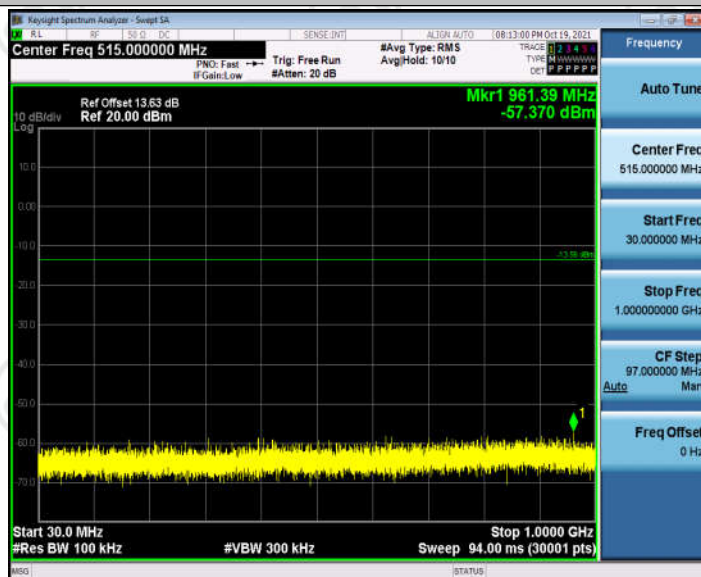


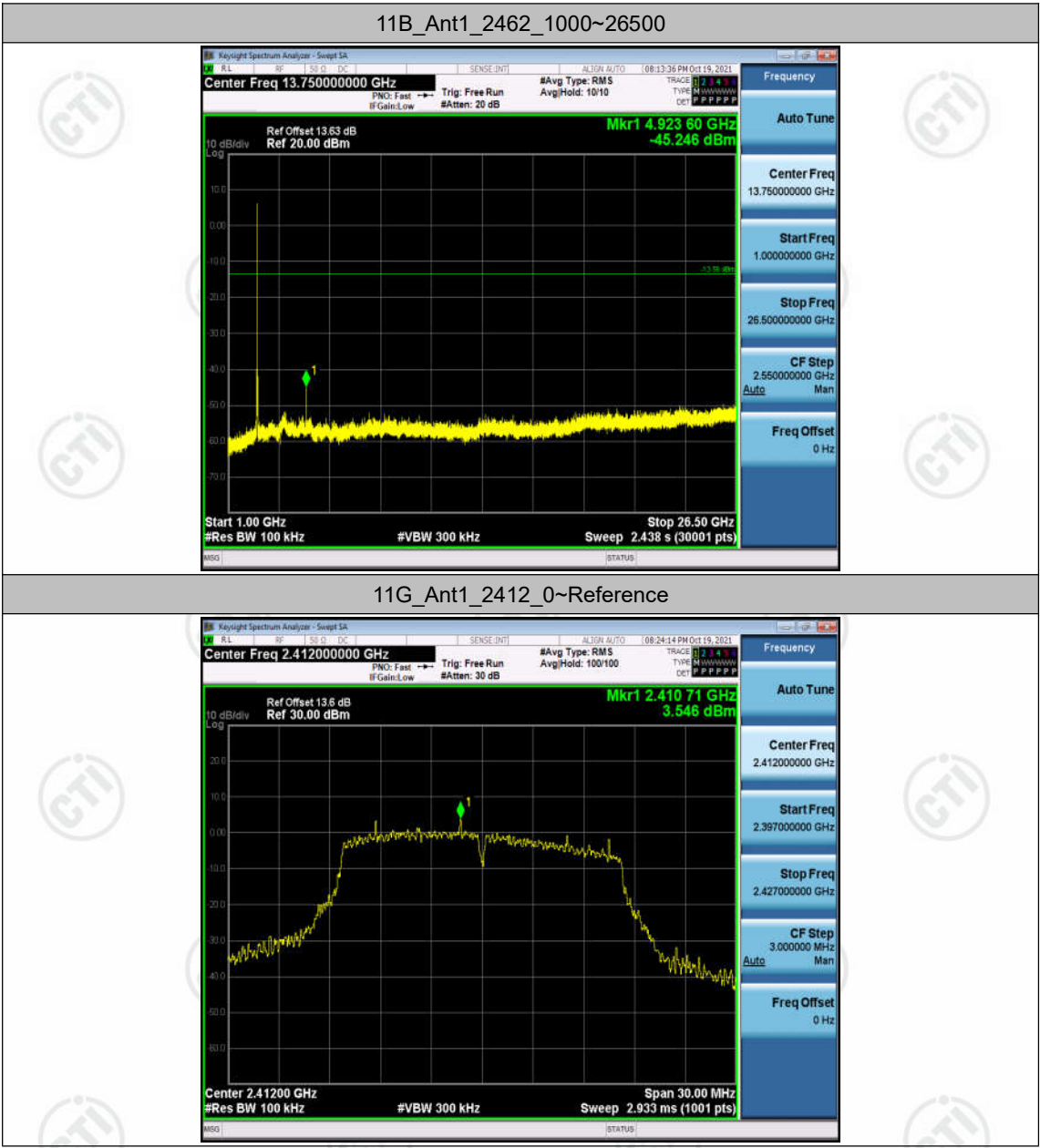


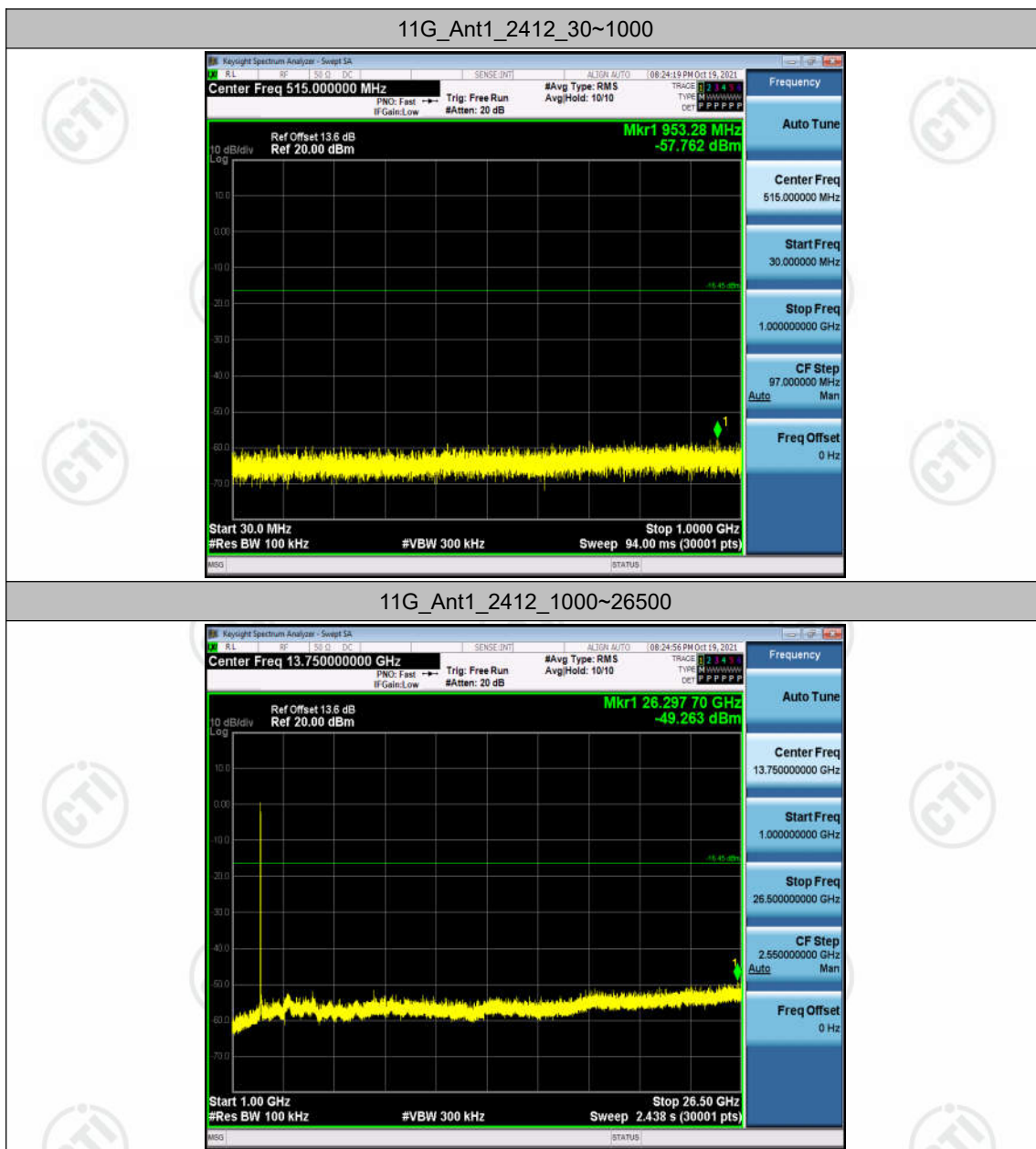
11B_Ant1_2462_0~Reference

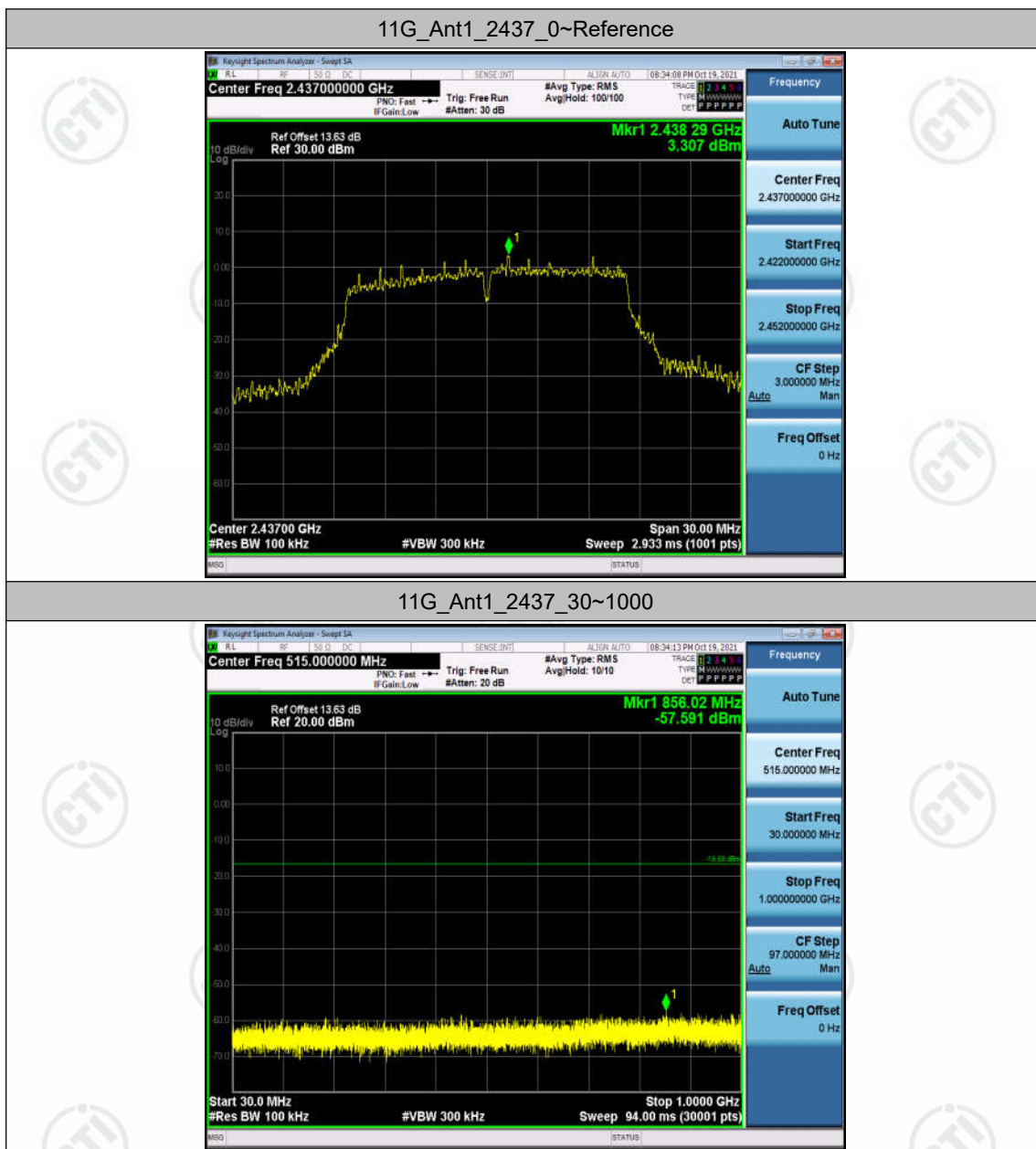


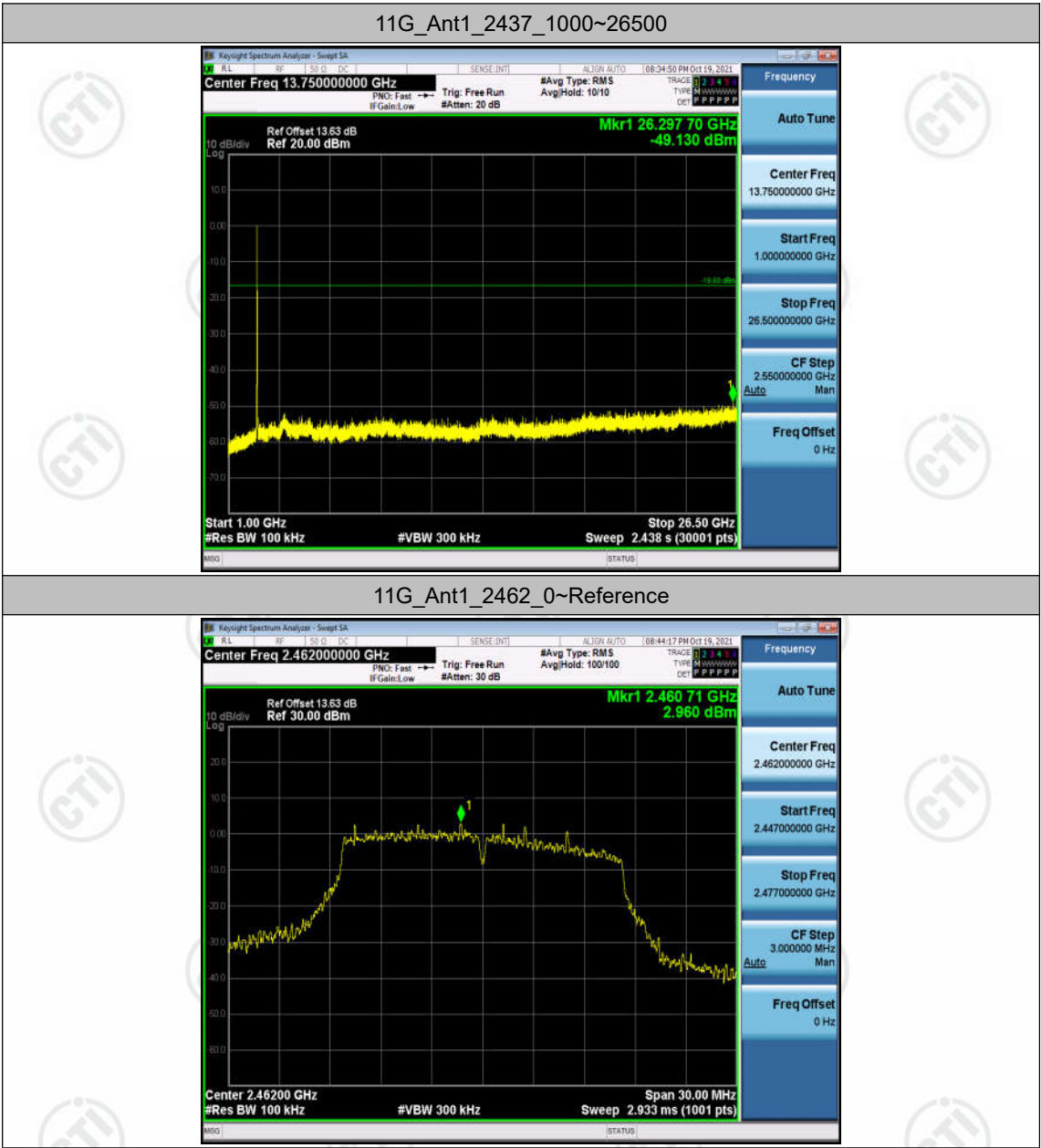
11B_Ant1_2462_30~1000

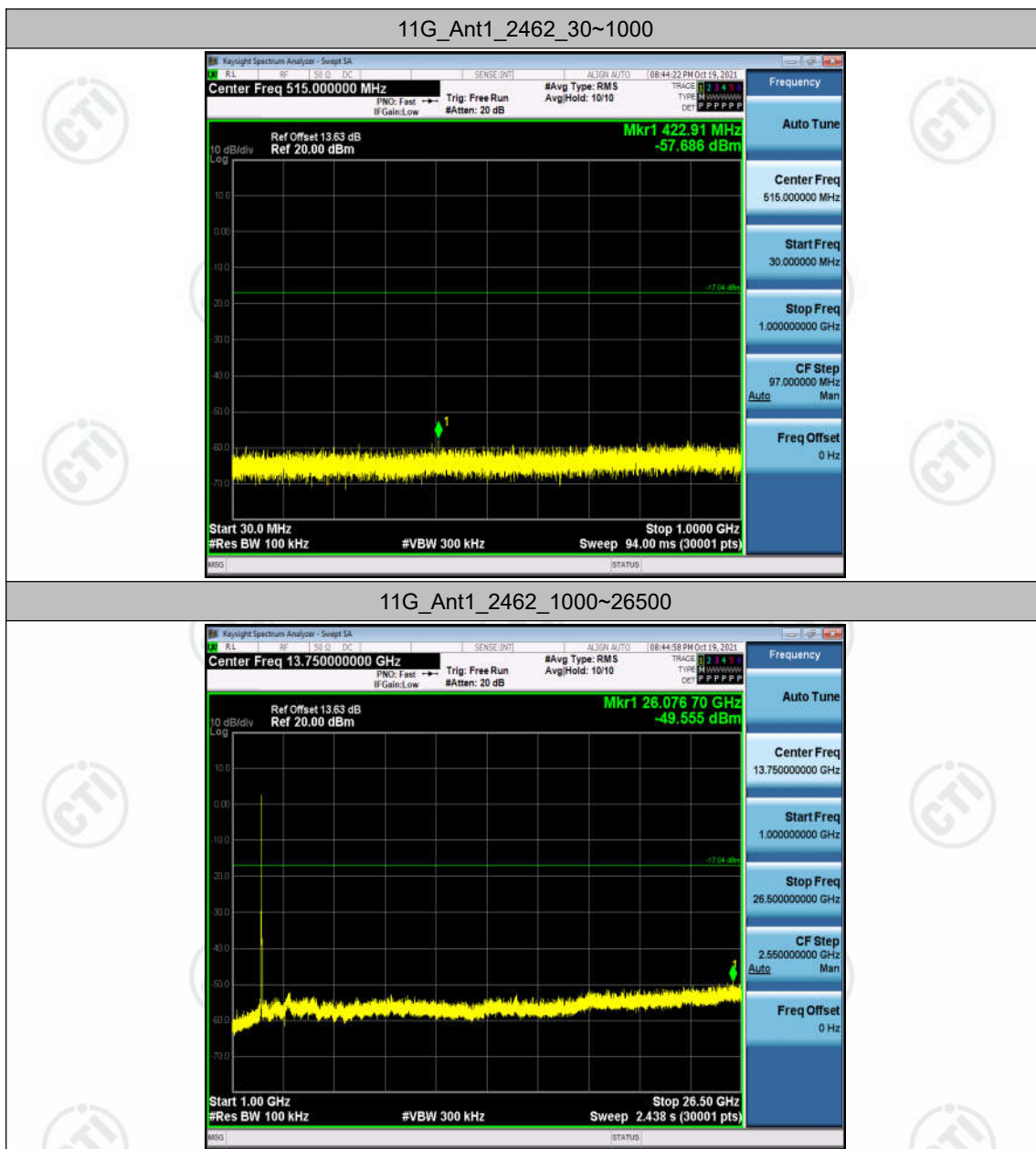








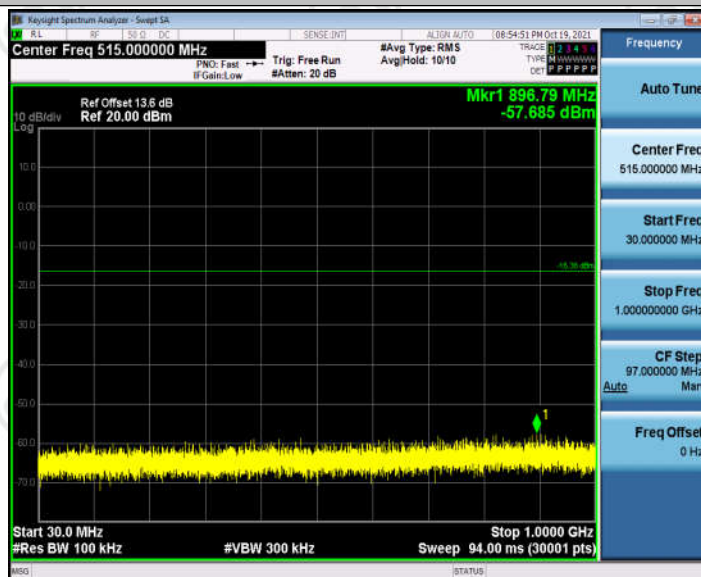




11N20SISO_Ant1_2412_0~Reference



11N20SISO_Ant1_2412_30~1000



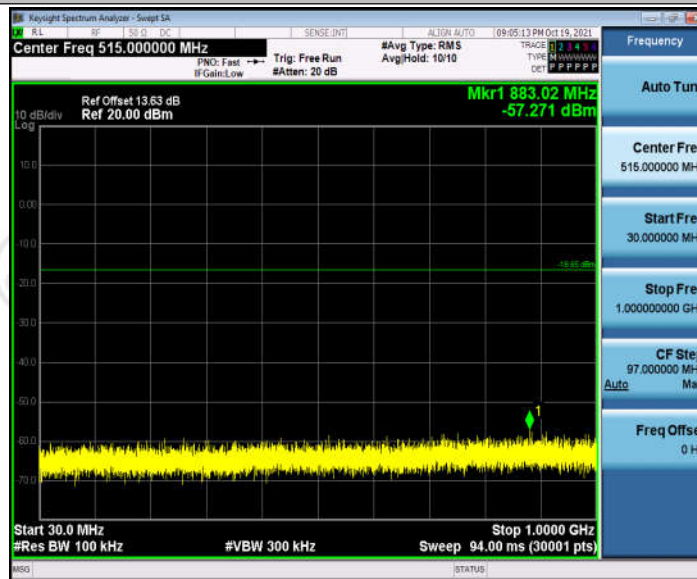
11N20SISO_Ant1_2412_1000~26500



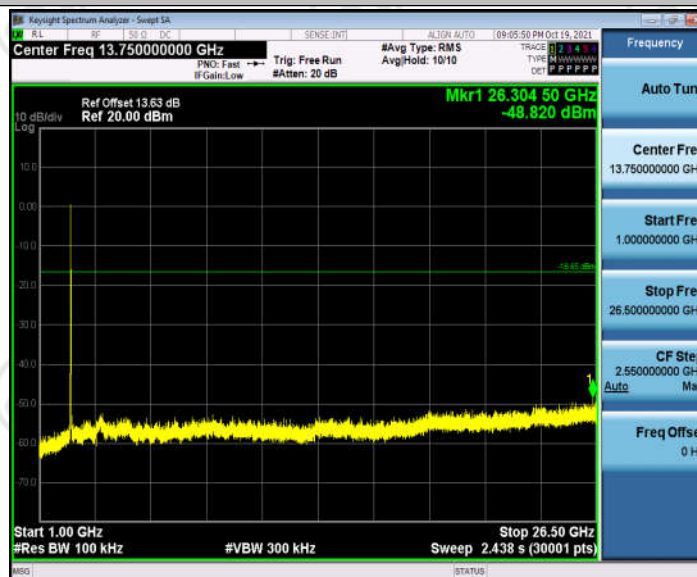
11N20SISO_Ant1_2437_0~Reference



11N20SISO_Ant1_2437_30~1000



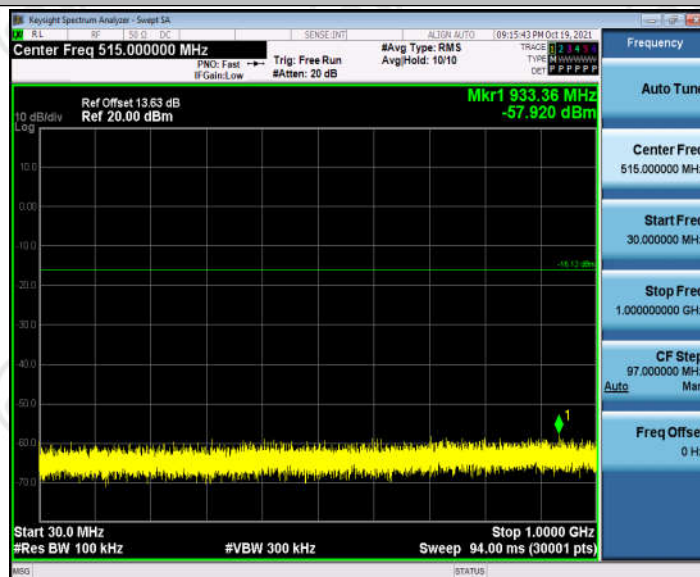
11N20SISO_Ant1_2437_1000~26500



11N20SISO_Ant1_2462_0~Reference



11N20SISO_Ant1_2462_30~1000



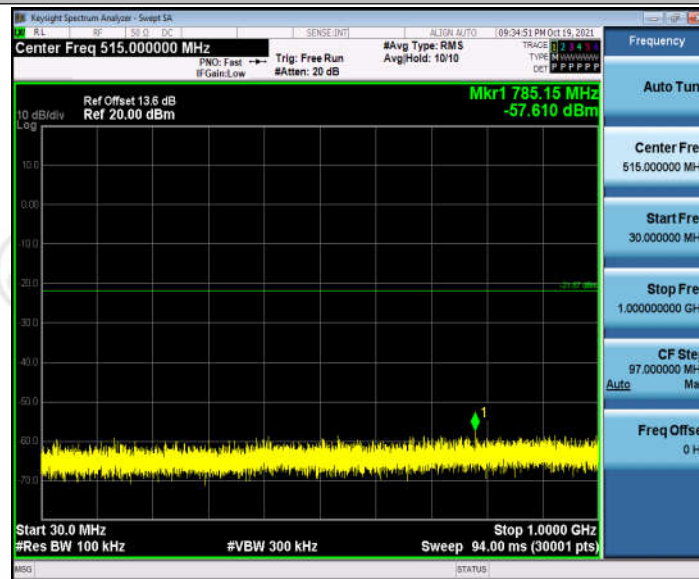
11N20SISO_Ant1_2462_1000~26500



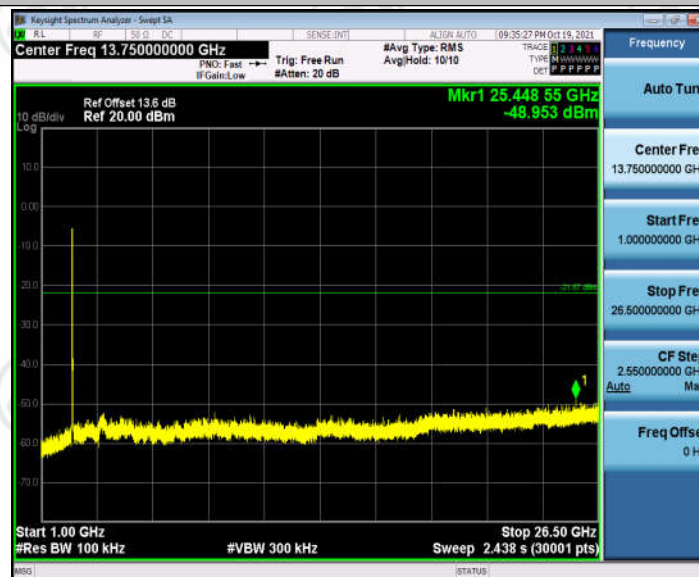
11N40SISO_Ant1_2422_0~Reference



11N40SISO_Ant1_2422_30~1000



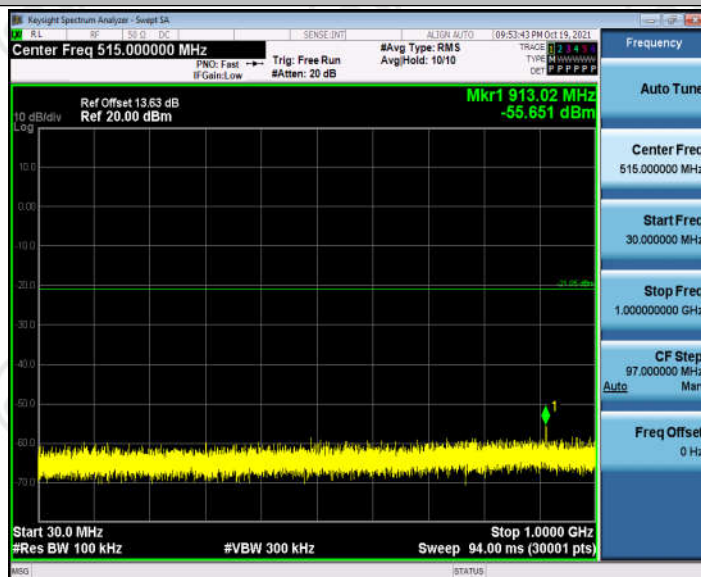
11N40SISO_Ant1_2422_1000~26500



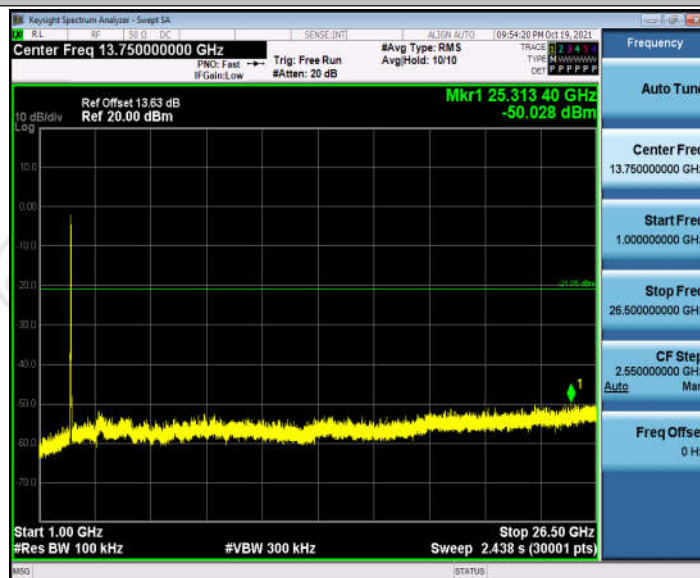
11N40SISO_Ant1_2437_0~Reference



11N40SISO_Ant1_2437_30~1000



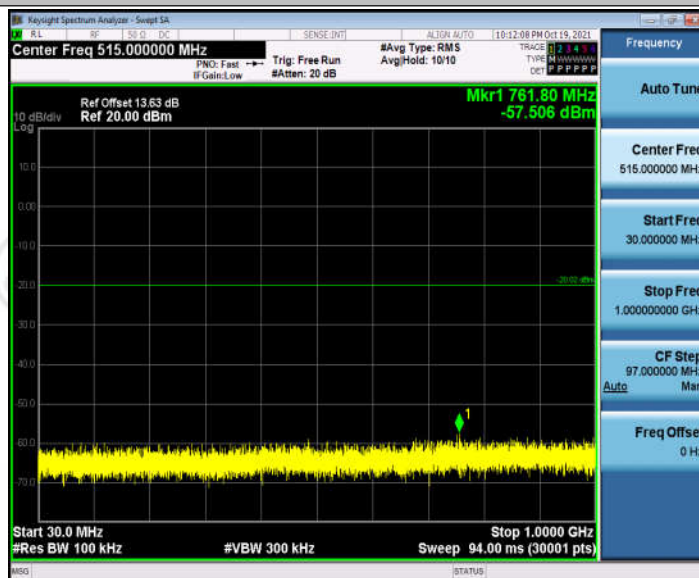
11N40SISO_Ant1_2437_1000~26500



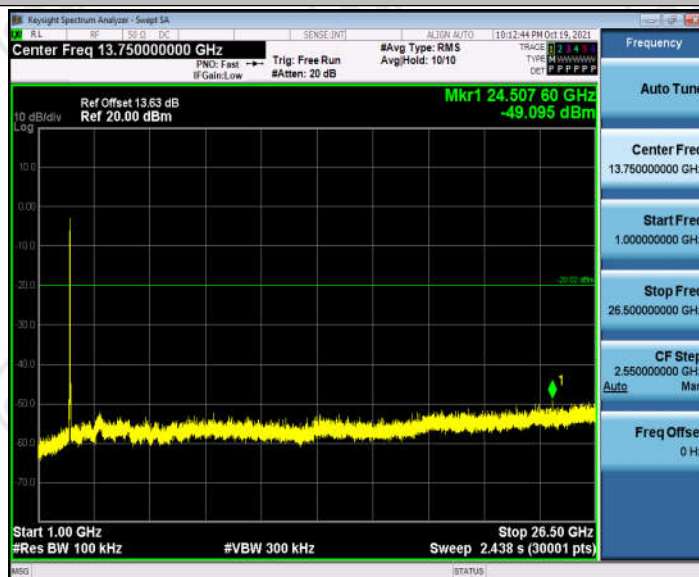
11N40SISO_Ant1_2452_0~Reference



11N40SISO_Ant1_2452_30~1000



11N40SISO_Ant1_2452_1000~26500



Appendix G: DutyCycle

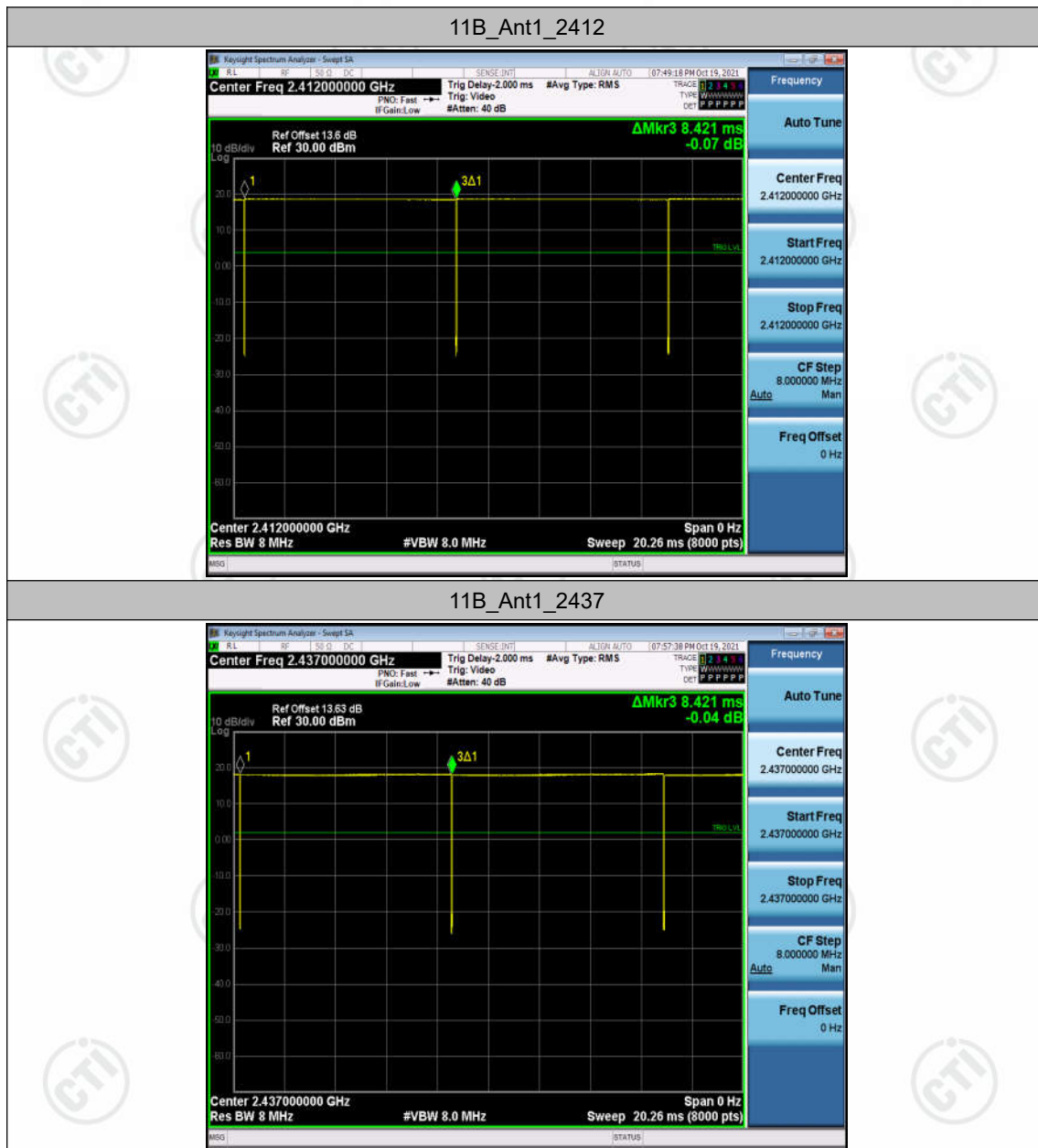
Test Result

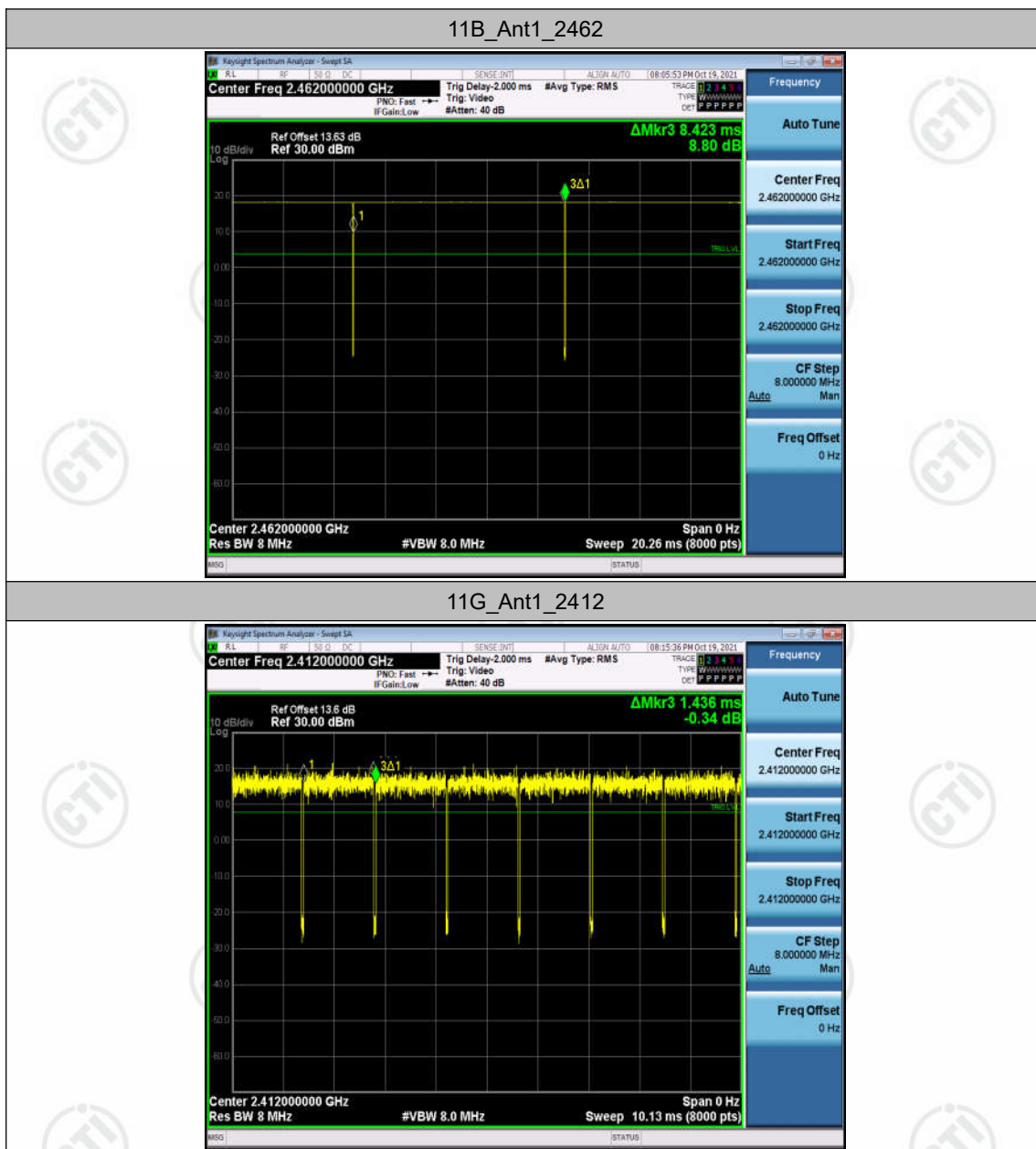
Test Mode	Antenna	Channel	TransmissionDuration [ms]	Transmission Period [ms]	Duty Cycle [%]	Limit	Verdict
11B	Ant1	2412	8.38	8.42	99.49	---	PASS
		2437	8.38	8.42	99.49	---	PASS
		2462	8.38	8.42	99.49	---	PASS
11G	Ant1	2412	1.39	1.44	96.74	---	PASS
		2437	1.39	1.44	96.74	---	PASS
		2462	1.39	1.44	96.74	---	PASS
11N20SIS O	Ant1	2412	1.28	1.33	96.39	---	PASS
		2437	1.29	1.33	96.48	---	PASS
		2462	1.28	1.33	96.39	---	PASS
11N40SIS O	Ant1	2422	0.63	0.68	93.30	---	PASS
		2437	0.63	0.68	93.11	---	PASS
		2452	0.63	0.68	93.11	---	PASS

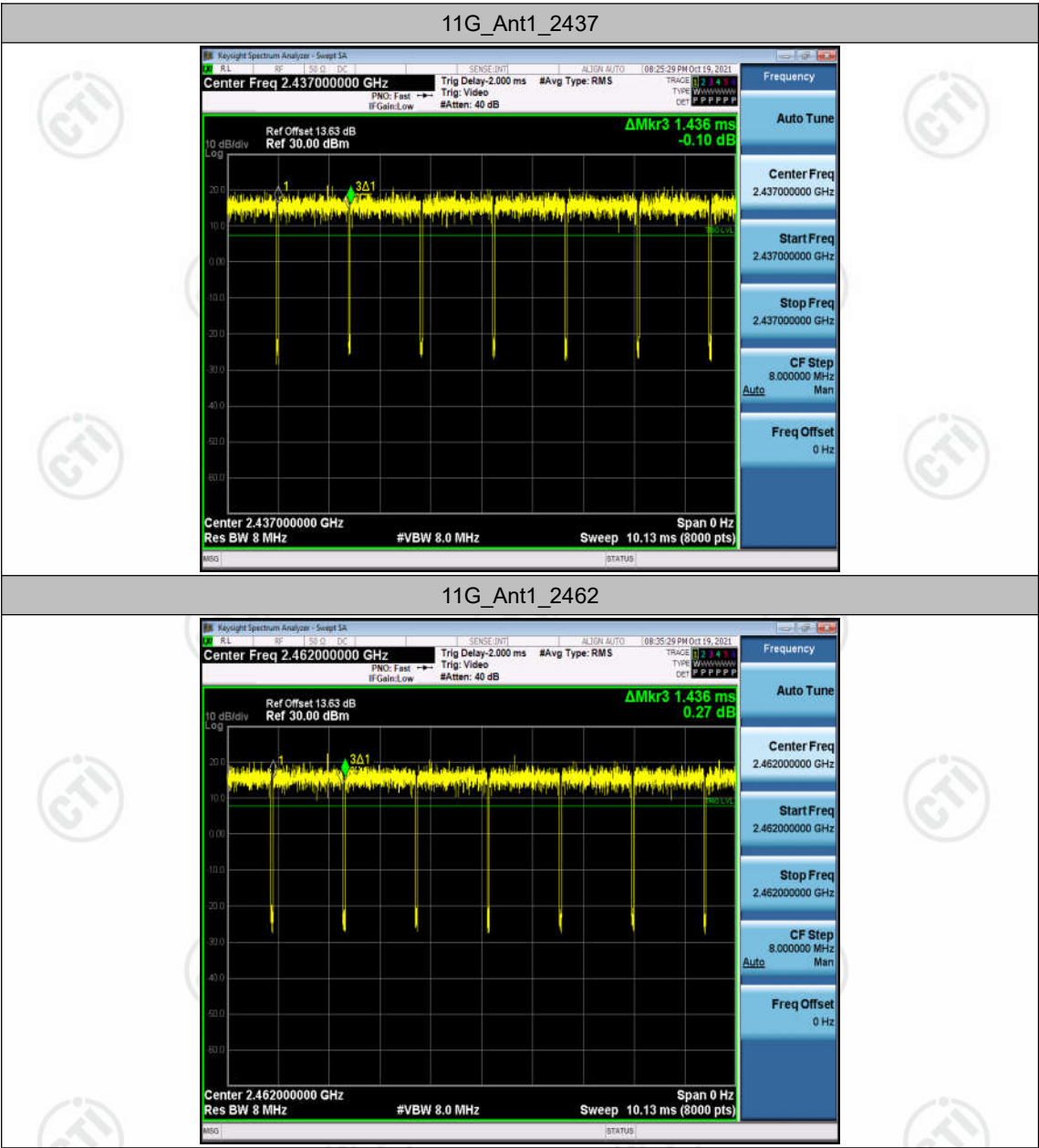
Remark:

- 1) Duty cycle= On Time/ Period;
- 2) Duty Cycle factor= $10 \times (1/\text{Duty cycle})$;

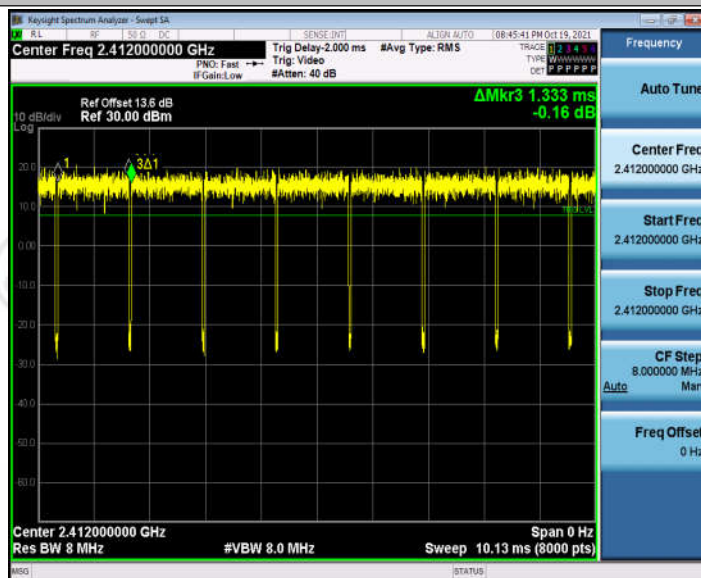
Test Graphs



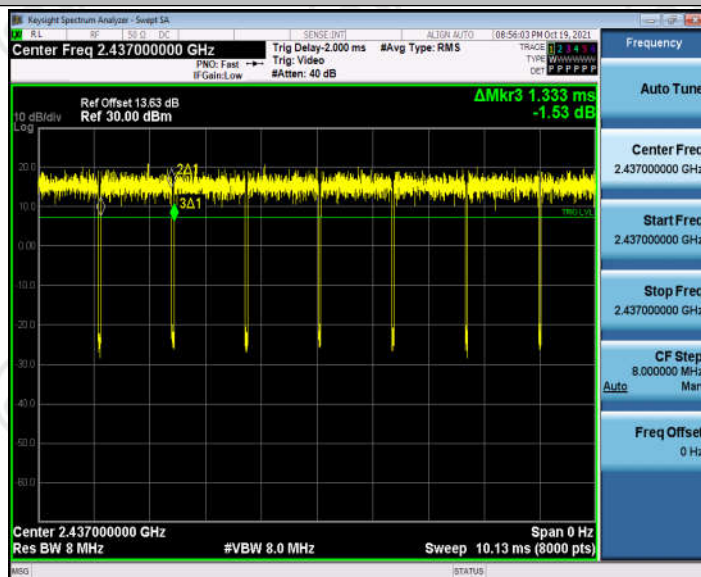


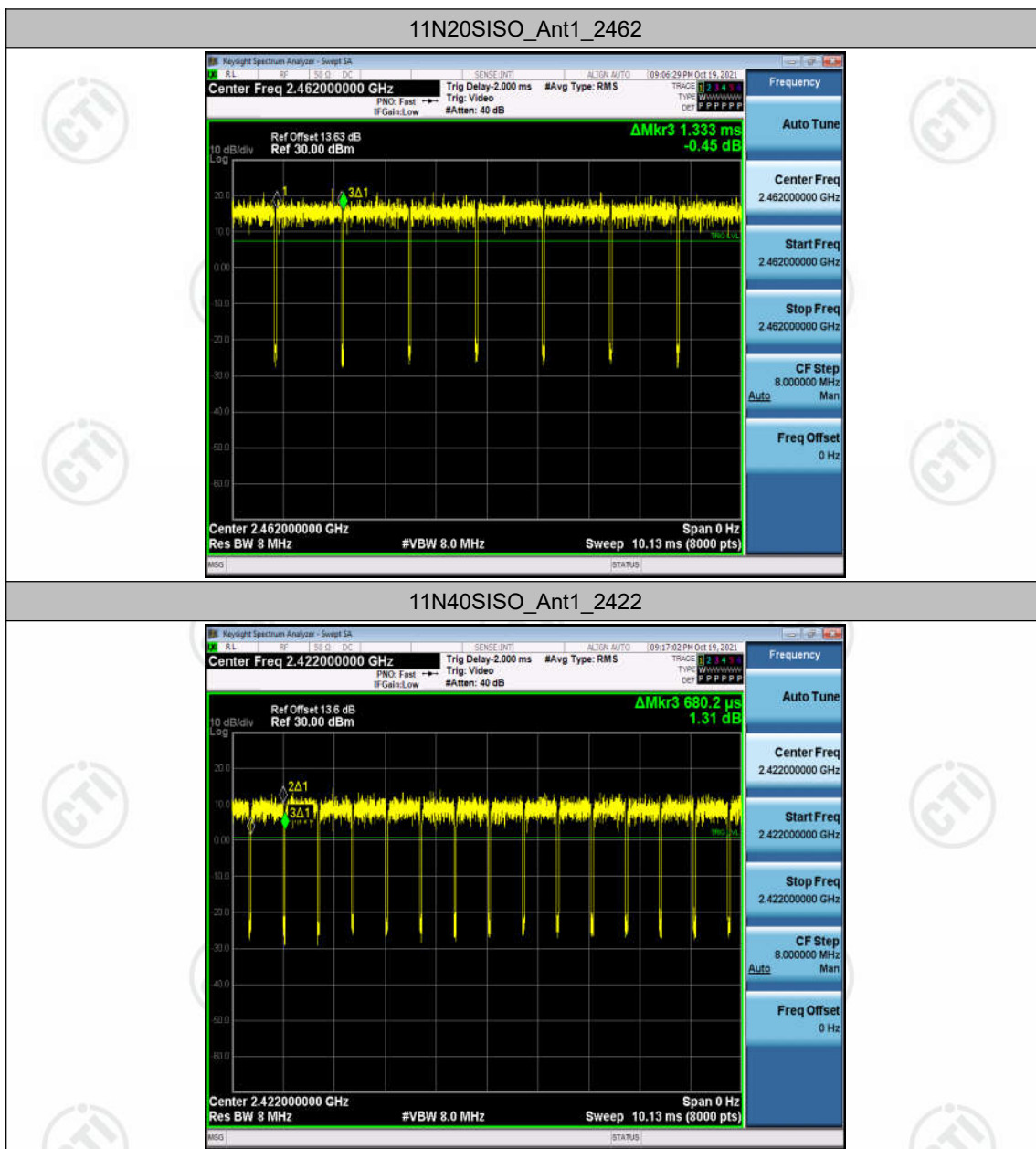


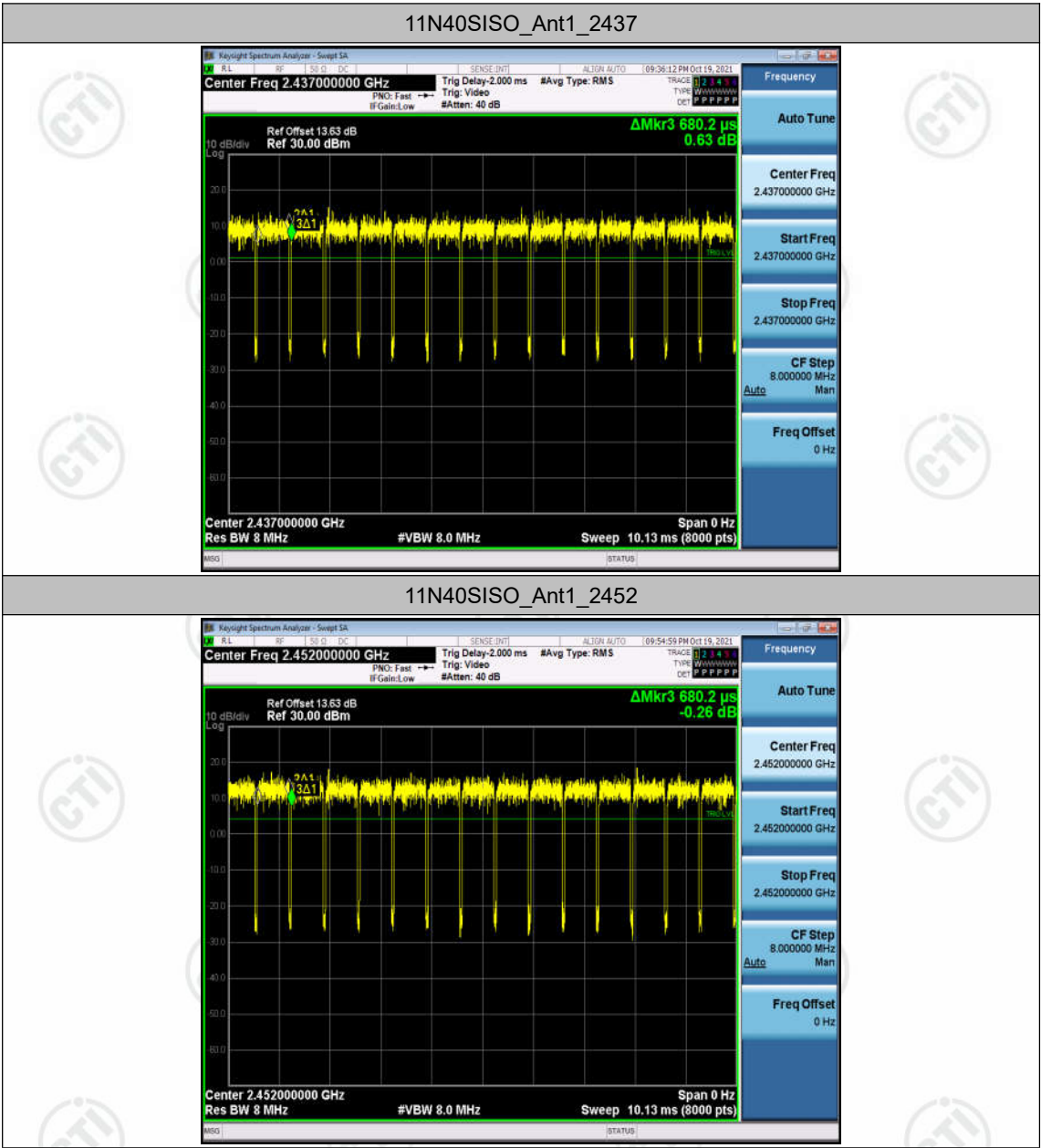
11N20SISO_Ant1_2412



11N20SISO_Ant1_2437







*** End of Report ***