

Appendix: 2.4G WIFI

Contents

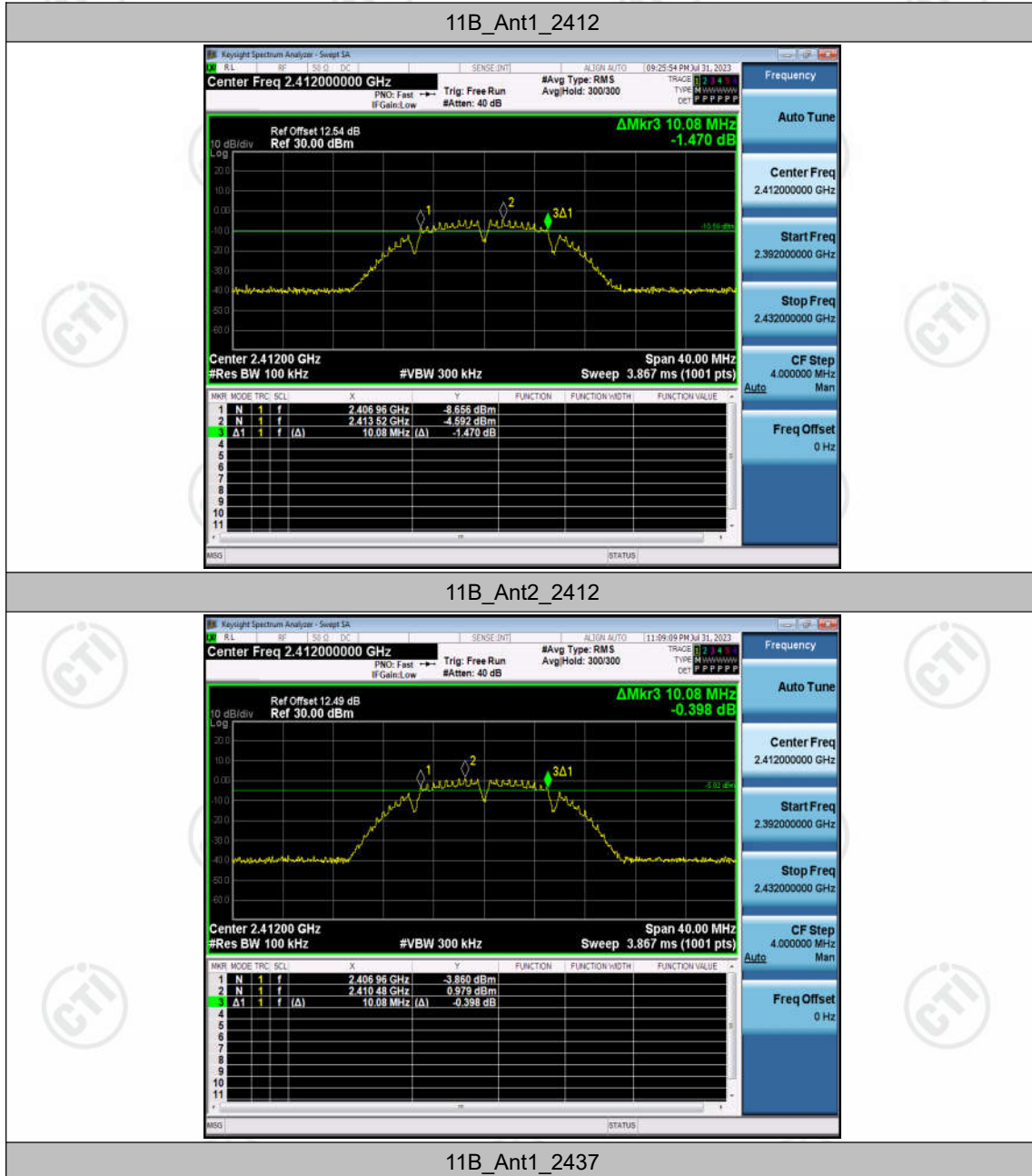
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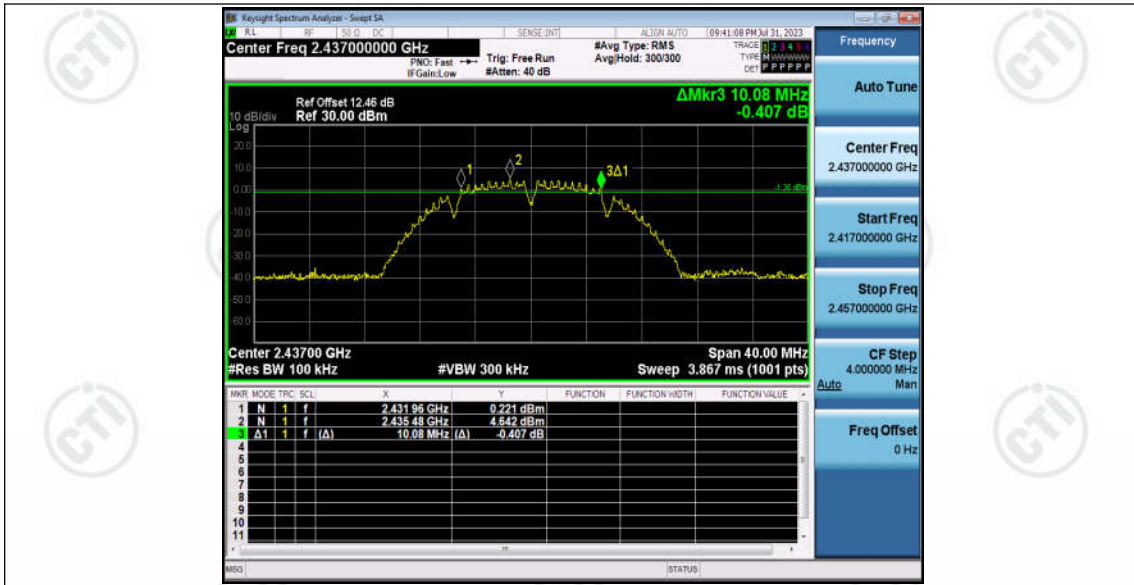
Appendix A: DTS Bandwidth

Test Result

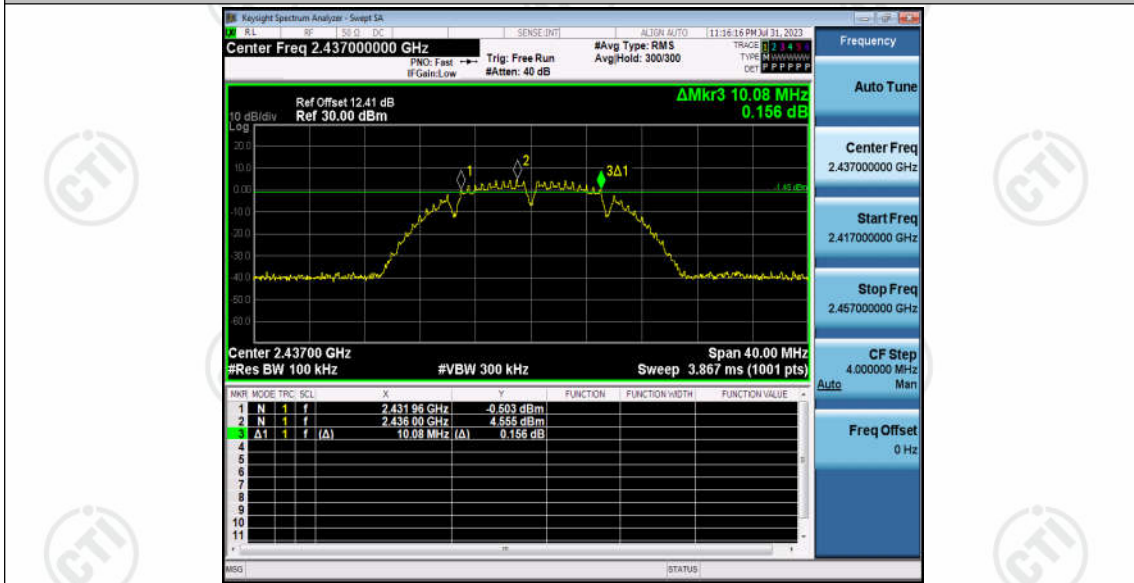
TestMode	Antenna	Frequency[MHz]	DTS BW [MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
11B	Ant1	2412	10.080	2406.960	2417.040	0.5	PASS
	Ant2	2412	10.080	2406.960	2417.040	0.5	PASS
	Ant1	2437	10.080	2431.960	2442.040	0.5	PASS
	Ant2	2437	10.080	2431.960	2442.040	0.5	PASS
	Ant1	2462	10.080	2456.960	2467.040	0.5	PASS
	Ant2	2462	10.080	2456.960	2467.040	0.5	PASS
11G	Ant1	2412	16.240	2403.880	2420.120	0.5	PASS
	Ant2	2412	16.080	2403.840	2419.920	0.5	PASS
	Ant1	2437	15.480	2429.080	2444.560	0.5	PASS
	Ant2	2437	16.040	2428.880	2444.920	0.5	PASS
	Ant1	2462	15.440	2454.120	2469.560	0.5	PASS
	Ant2	2462	16.040	2453.840	2469.880	0.5	PASS
11N20SI SO	Ant1	2412	15.120	2404.440	2419.560	0.5	PASS
	Ant2	2412	15.560	2404.160	2419.720	0.5	PASS
	Ant1	2437	16.560	2428.600	2445.160	0.5	PASS
	Ant2	2437	17.000	2428.520	2445.520	0.5	PASS
	Ant1	2462	16.920	2453.480	2470.400	0.5	PASS
	Ant2	2462	15.320	2454.440	2469.760	0.5	PASS
11N40SI SO	Ant1	2422	35.040	2404.480	2439.520	0.5	PASS
	Ant2	2422	35.120	2404.480	2439.600	0.5	PASS
	Ant1	2437	35.120	2419.480	2454.600	0.5	PASS
	Ant2	2437	35.200	2419.400	2454.600	0.5	PASS
	Ant1	2452	35.200	2434.400	2469.600	0.5	PASS
	Ant2	2452	35.200	2434.400	2469.600	0.5	PASS

Test Graphs





11B_Ant2_2437



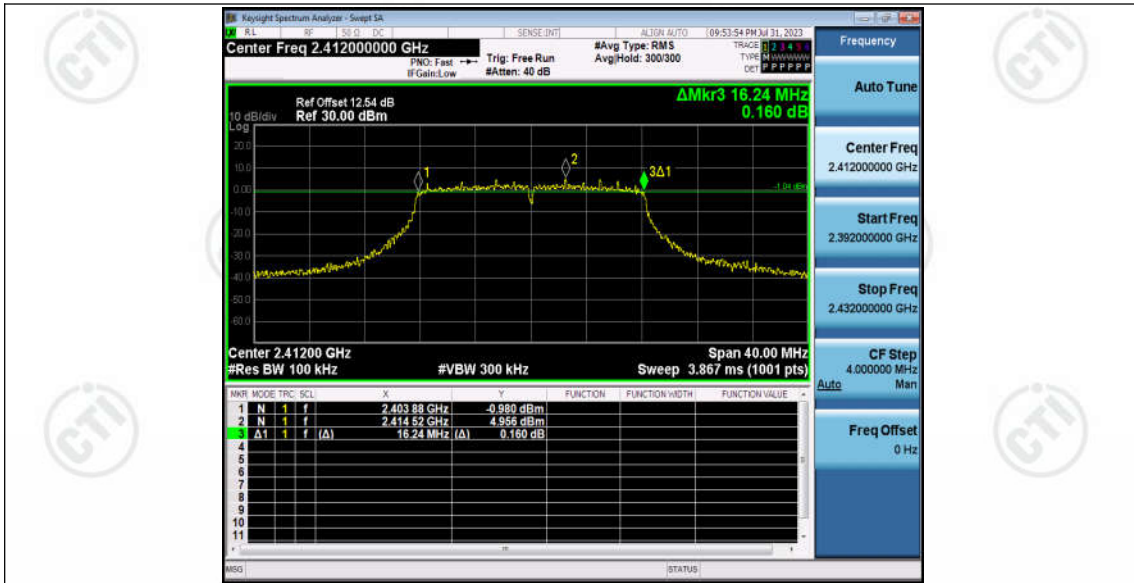
11B_Ant1_2462



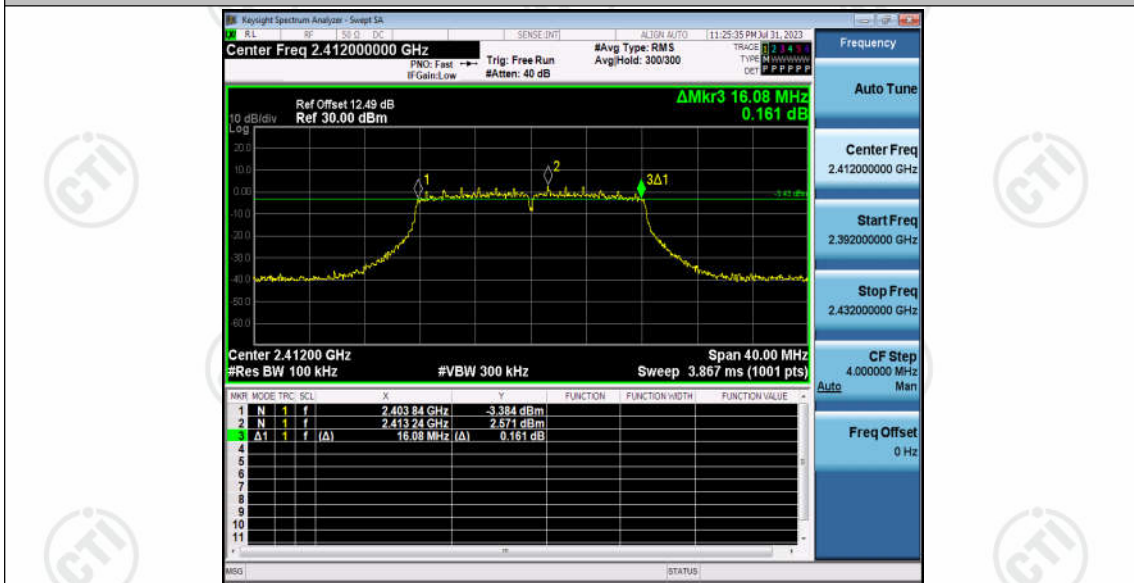
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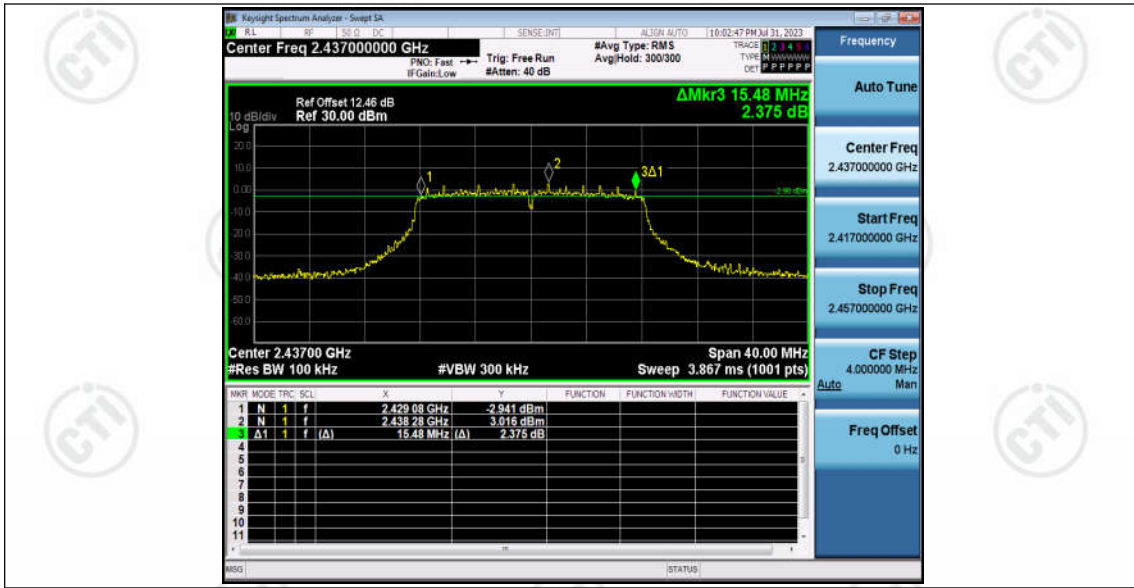
11G_Ant1_2412



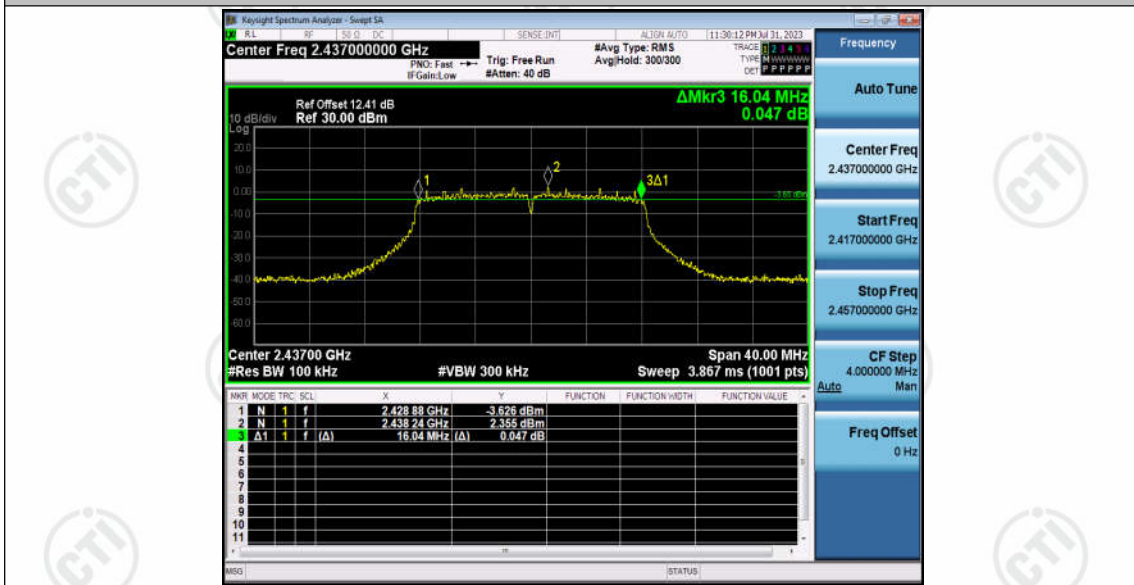
11G_Ant2_2412



11G_Ant1_2437



11G_Ant2_2437



11G_Ant1_2462



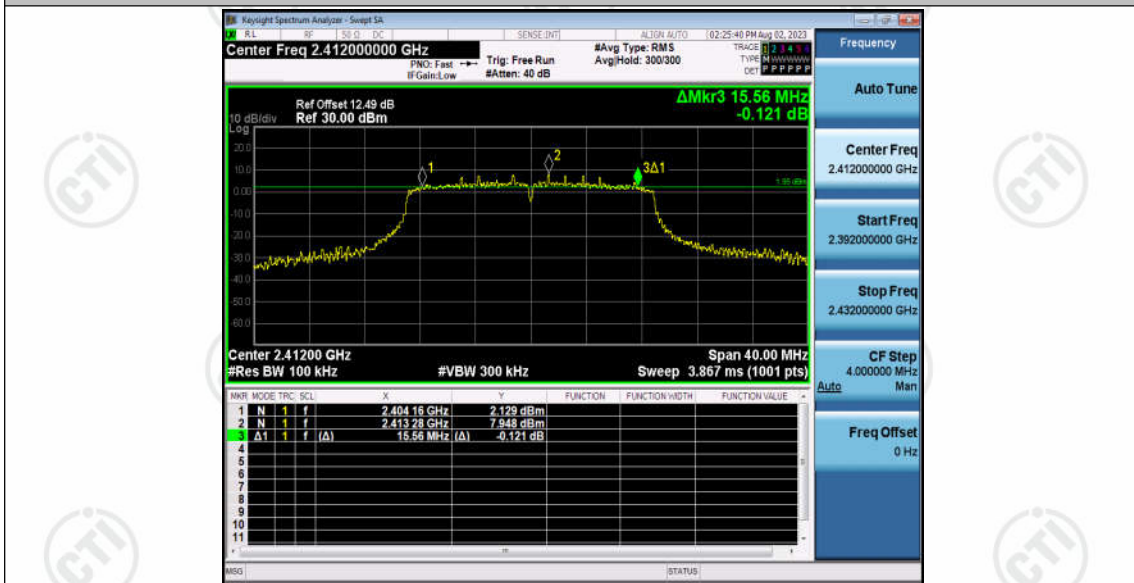
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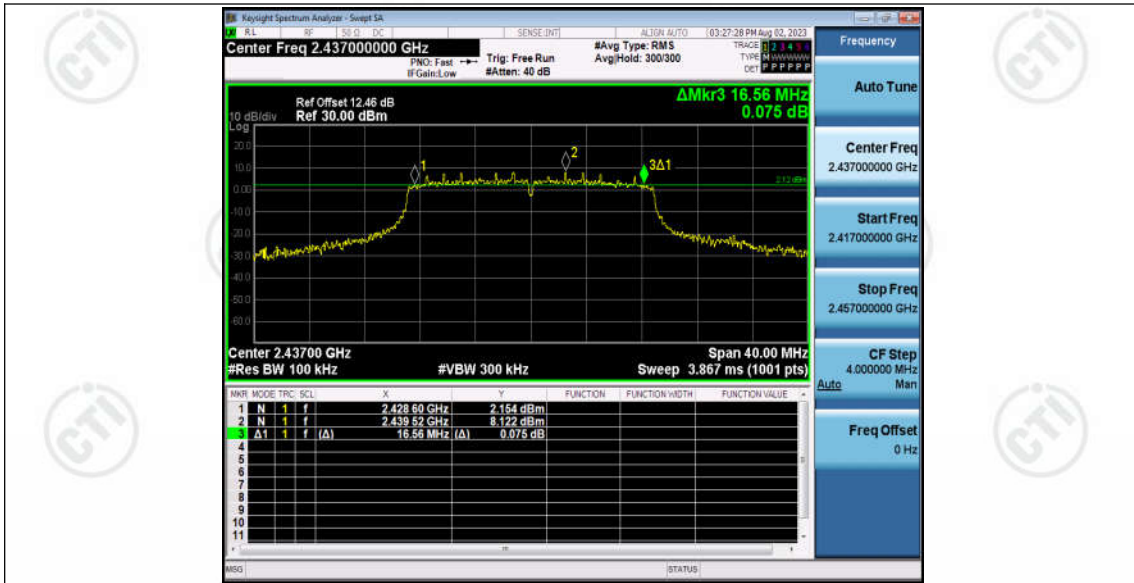
11N20SISO_Ant1_2412



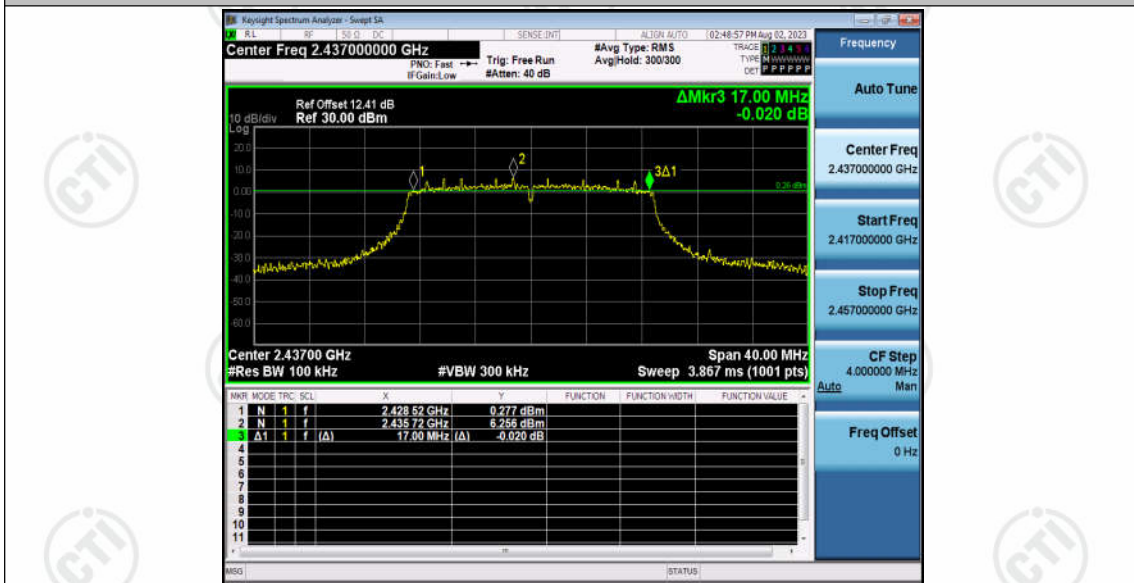
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11N20SISO_Ant1_2437



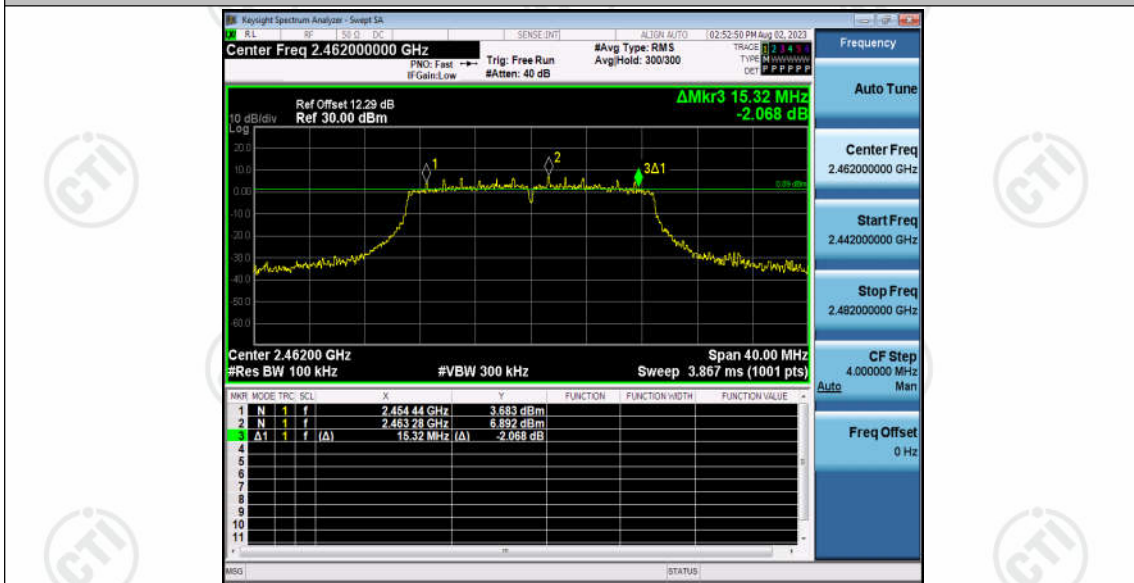
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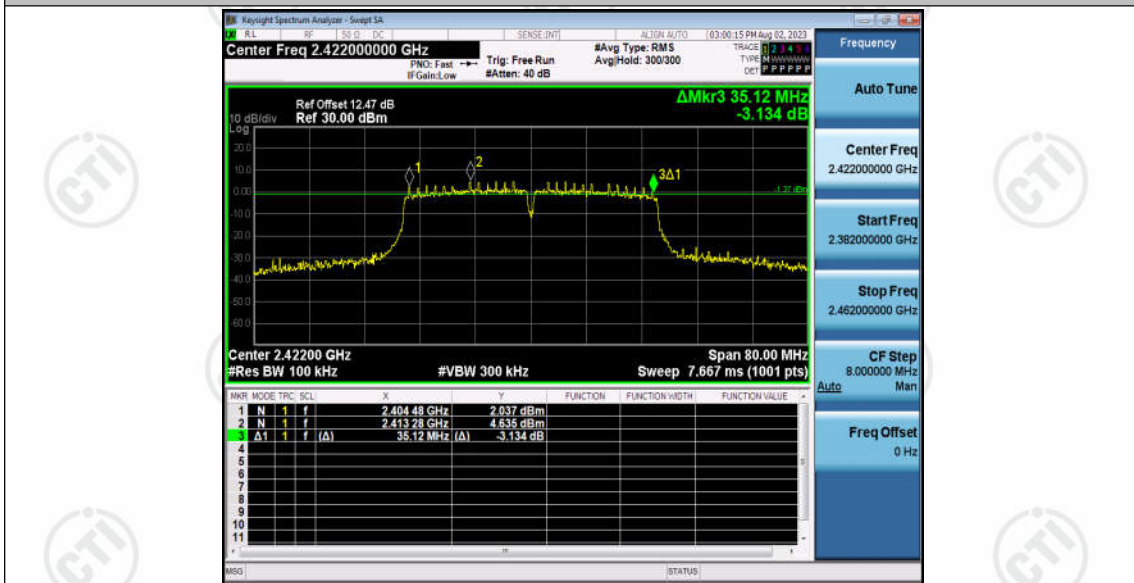
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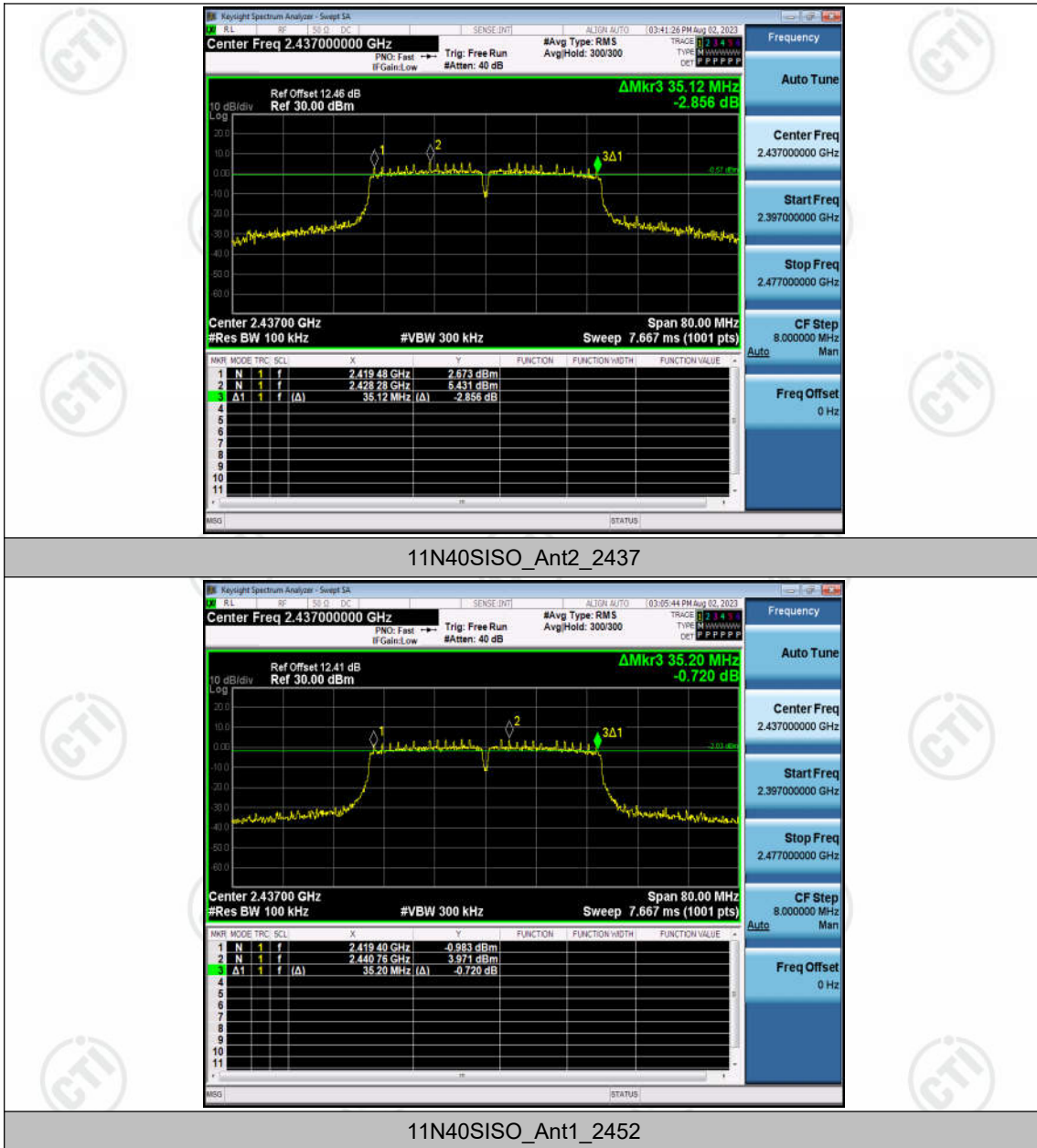
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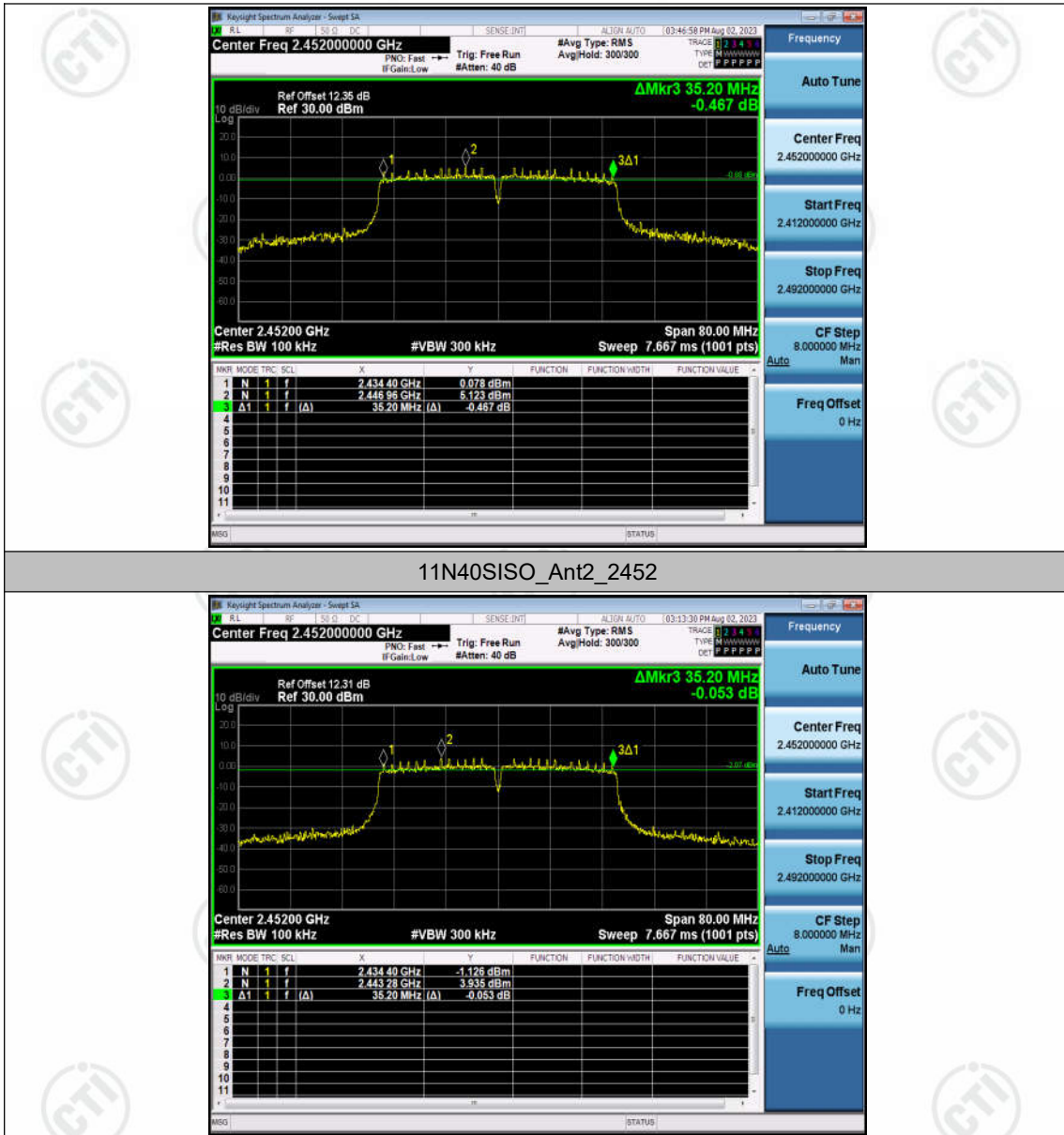


11N40SISO_Ant2_2422



11N40SISO_Ant1_2437



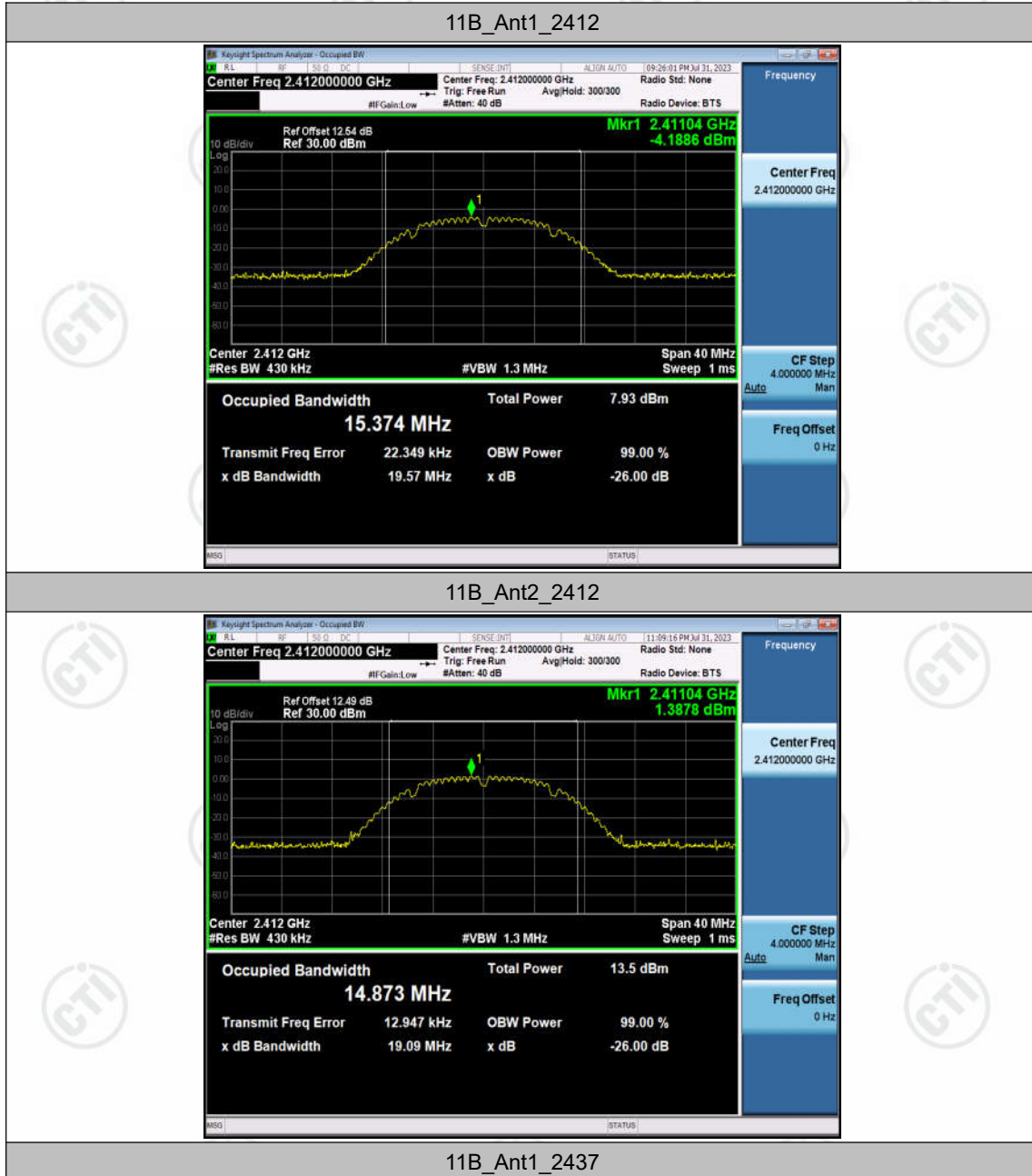


Appendix B: Occupied Channel Bandwidth

Test Result

TestMode	Antenna	Channel Frequency[MHz]	OCB [MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
11B	Ant1	2412	15.374	2404.3354	2419.7094	---	---
	Ant2	2412	14.873	2404.5765	2419.4495	---	---
	Ant1	2437	14.850	2429.5879	2444.4379	---	---
	Ant2	2437	14.766	2429.6028	2444.3688	---	---
	Ant1	2462	14.831	2454.5694	2469.4004	---	---
	Ant2	2462	14.789	2454.5928	2469.3818	---	---
11G	Ant1	2412	16.846	2403.5531	2420.3991	---	---
	Ant2	2412	16.752	2403.6487	2420.4007	---	---
	Ant1	2437	16.768	2428.6236	2445.3916	---	---
	Ant2	2437	16.776	2428.5975	2445.3735	---	---
	Ant1	2462	16.826	2453.5830	2470.4090	---	---
	Ant2	2462	16.867	2453.5571	2470.4241	---	---
11N20SI SO	Ant1	2412	18.076	2403.0150	2421.0910	---	---
	Ant2	2412	17.930	2403.0472	2420.9772	---	---
	Ant1	2437	18.059	2427.9663	2446.0253	---	---
	Ant2	2437	17.879	2428.0713	2445.9503	---	---
	Ant1	2462	18.090	2452.9622	2471.0522	---	---
	Ant2	2462	17.994	2453.0049	2470.9989	---	---
11N40SI SO	Ant1	2422	36.573	2403.7119	2440.2849	---	---
	Ant2	2422	36.335	2403.8402	2440.1752	---	---
	Ant1	2437	36.513	2418.7868	2455.2998	---	---
	Ant2	2437	36.318	2418.8355	2455.1535	---	---
	Ant1	2452	36.597	2433.7693	2470.3663	---	---
	Ant2	2452	36.243	2433.9158	2470.1588	---	---

Test Graphs





11B_Ant2_2437



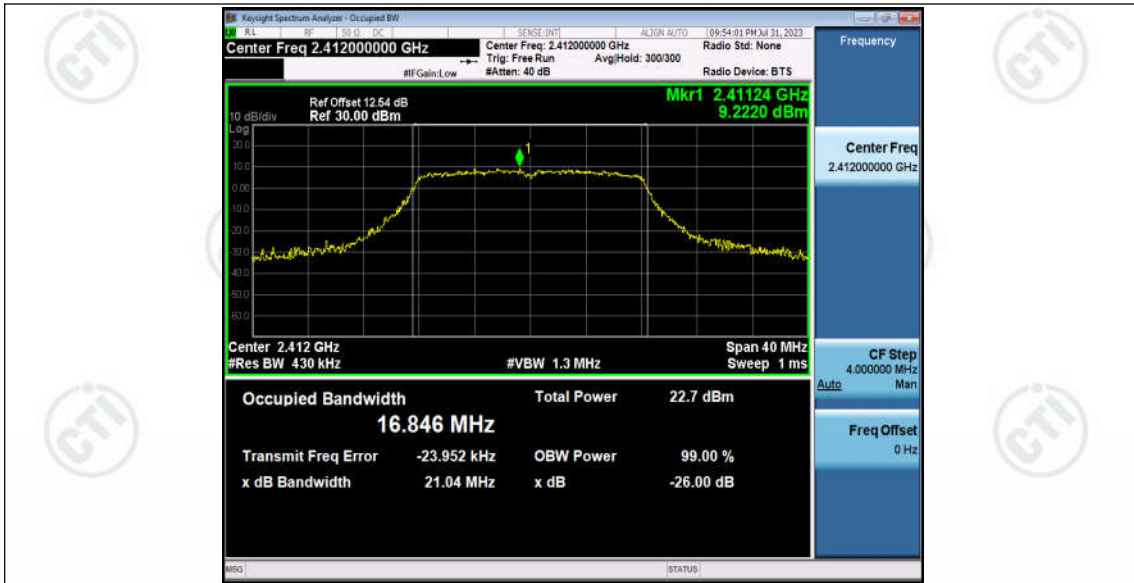
11B_Ant1_2462



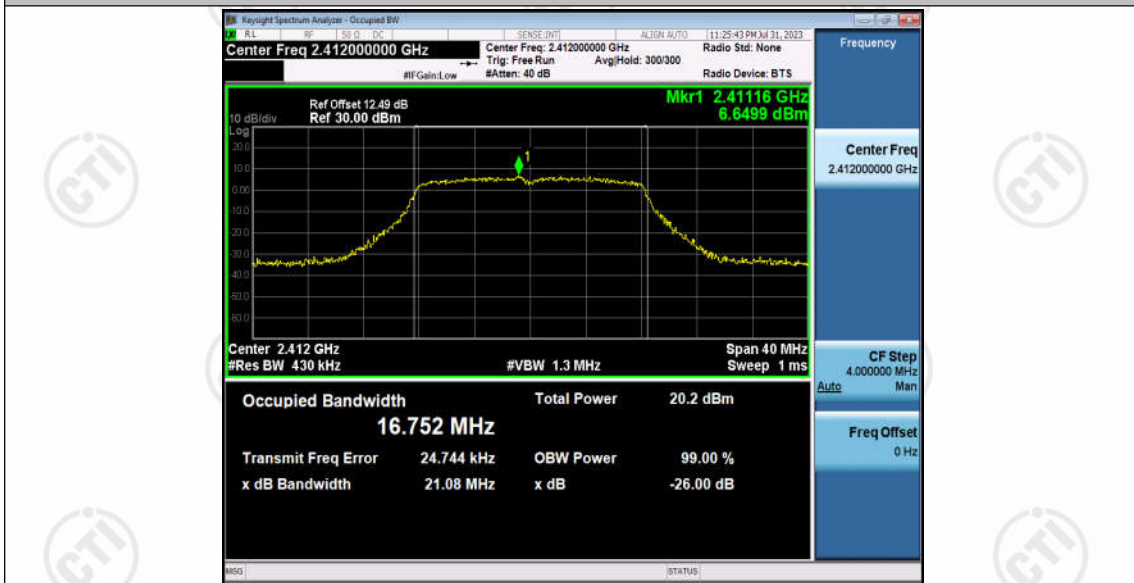
11B_Ant2_2462



11G_Ant1_2412



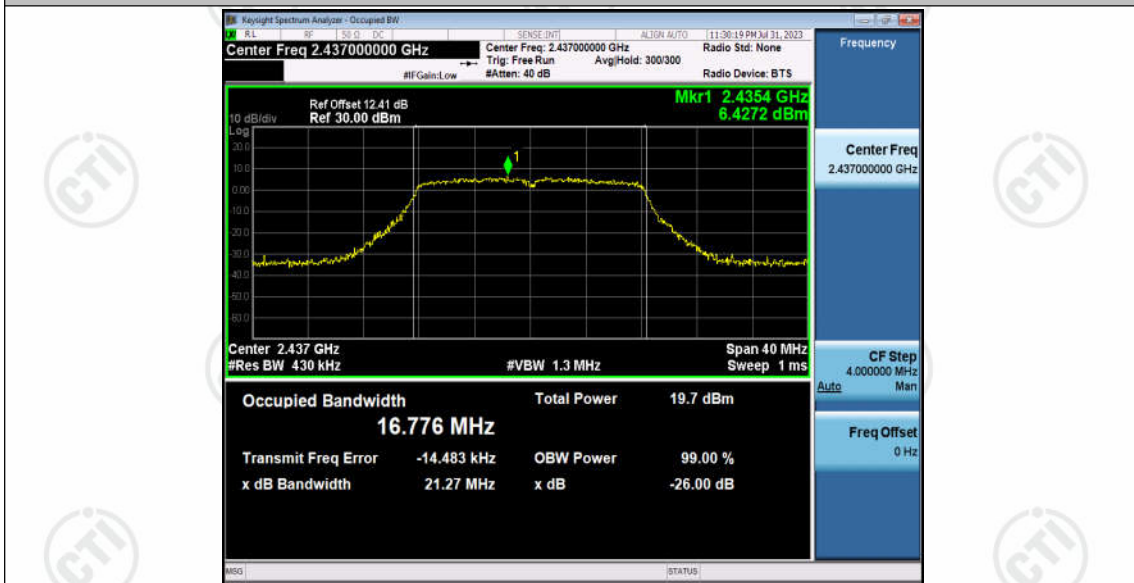
11G_Ant2_2412



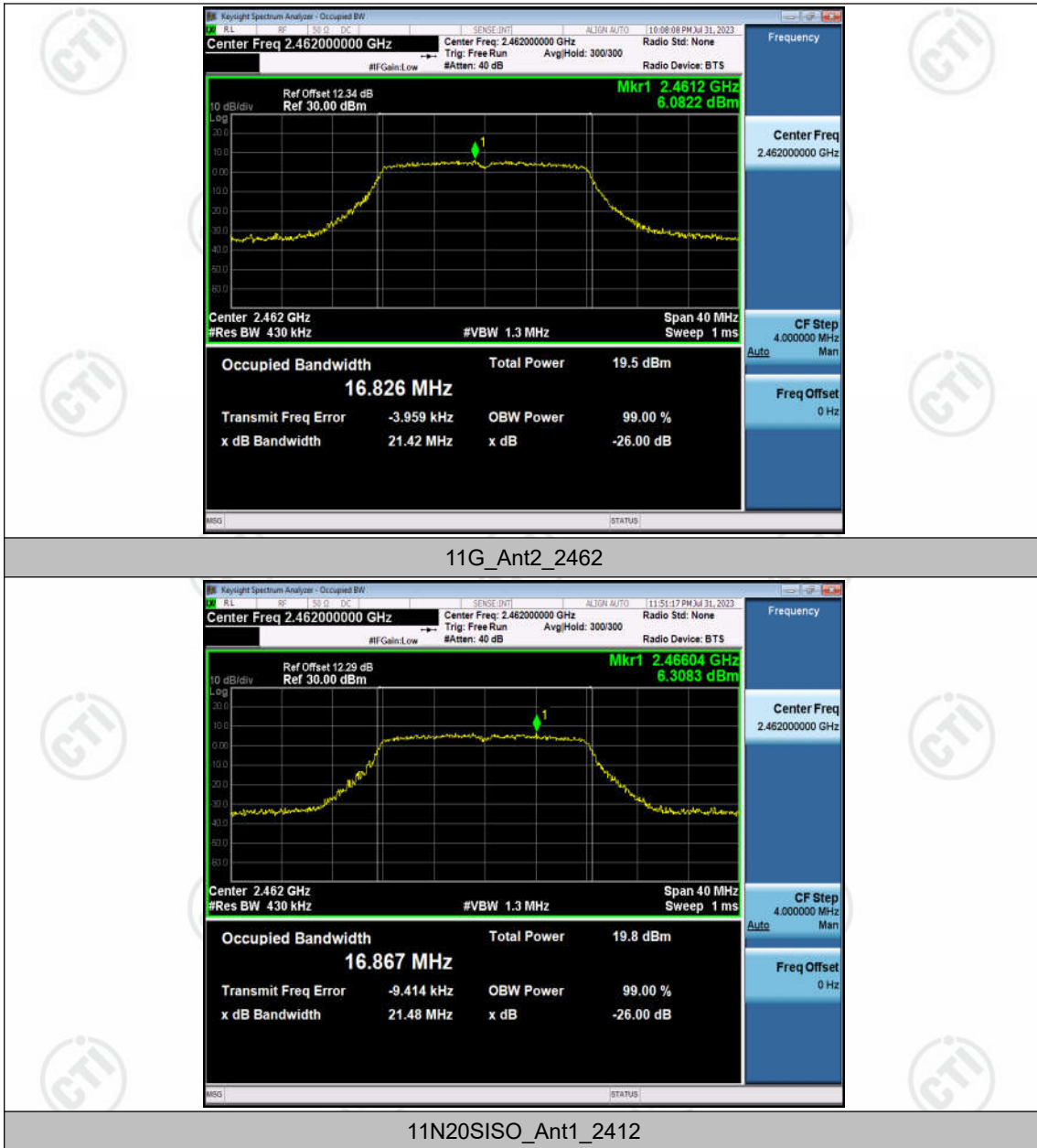
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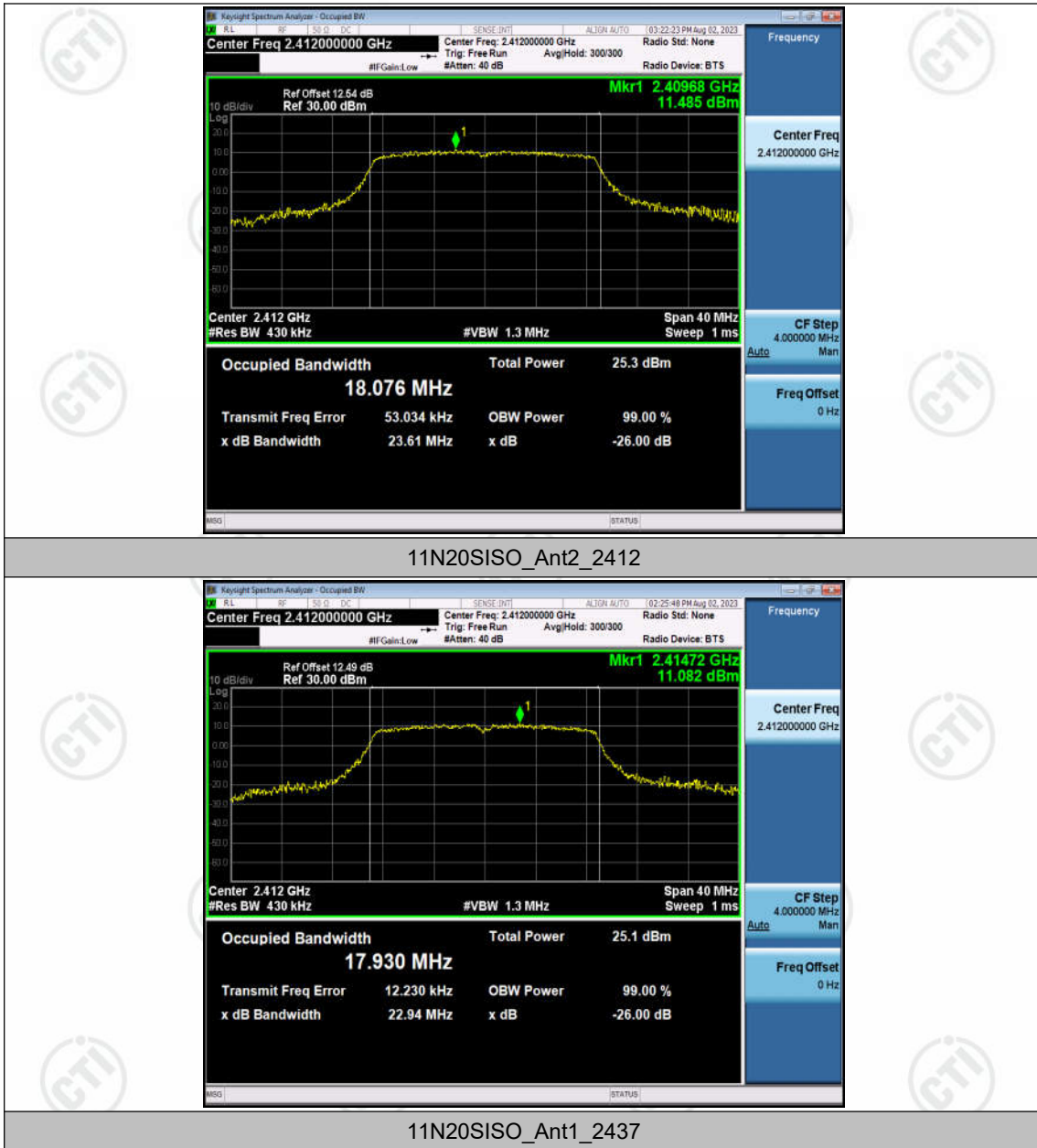


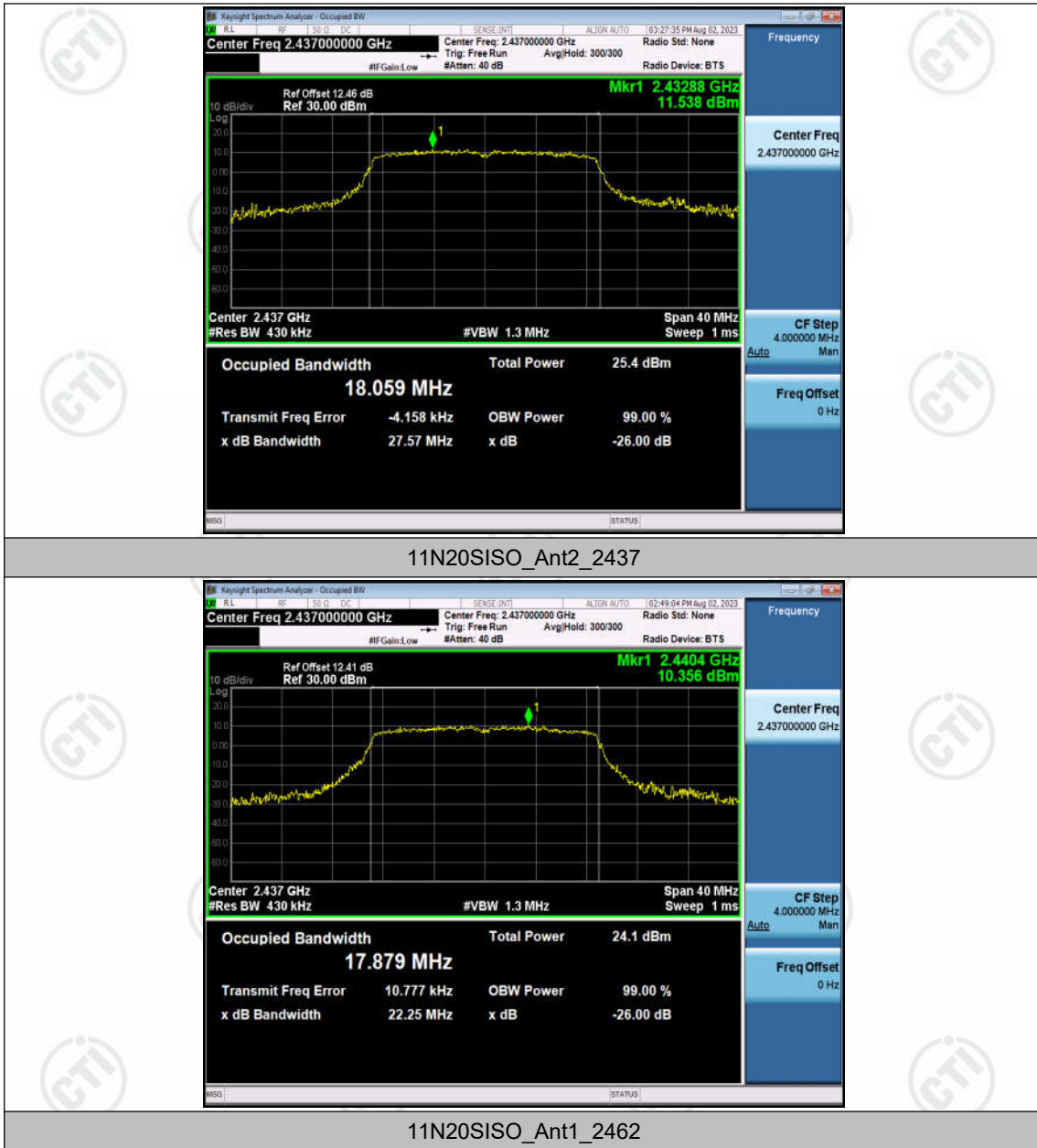
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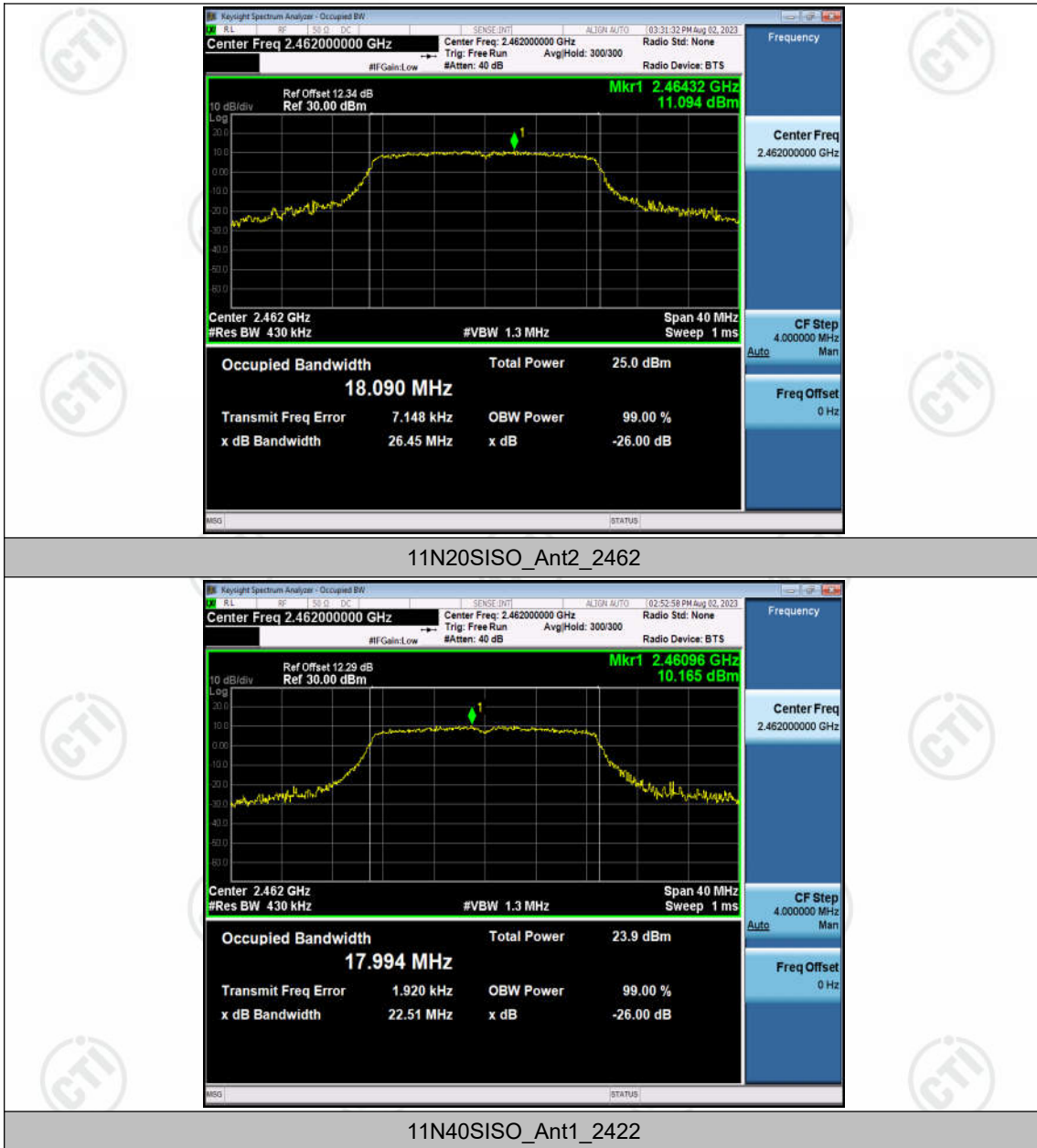


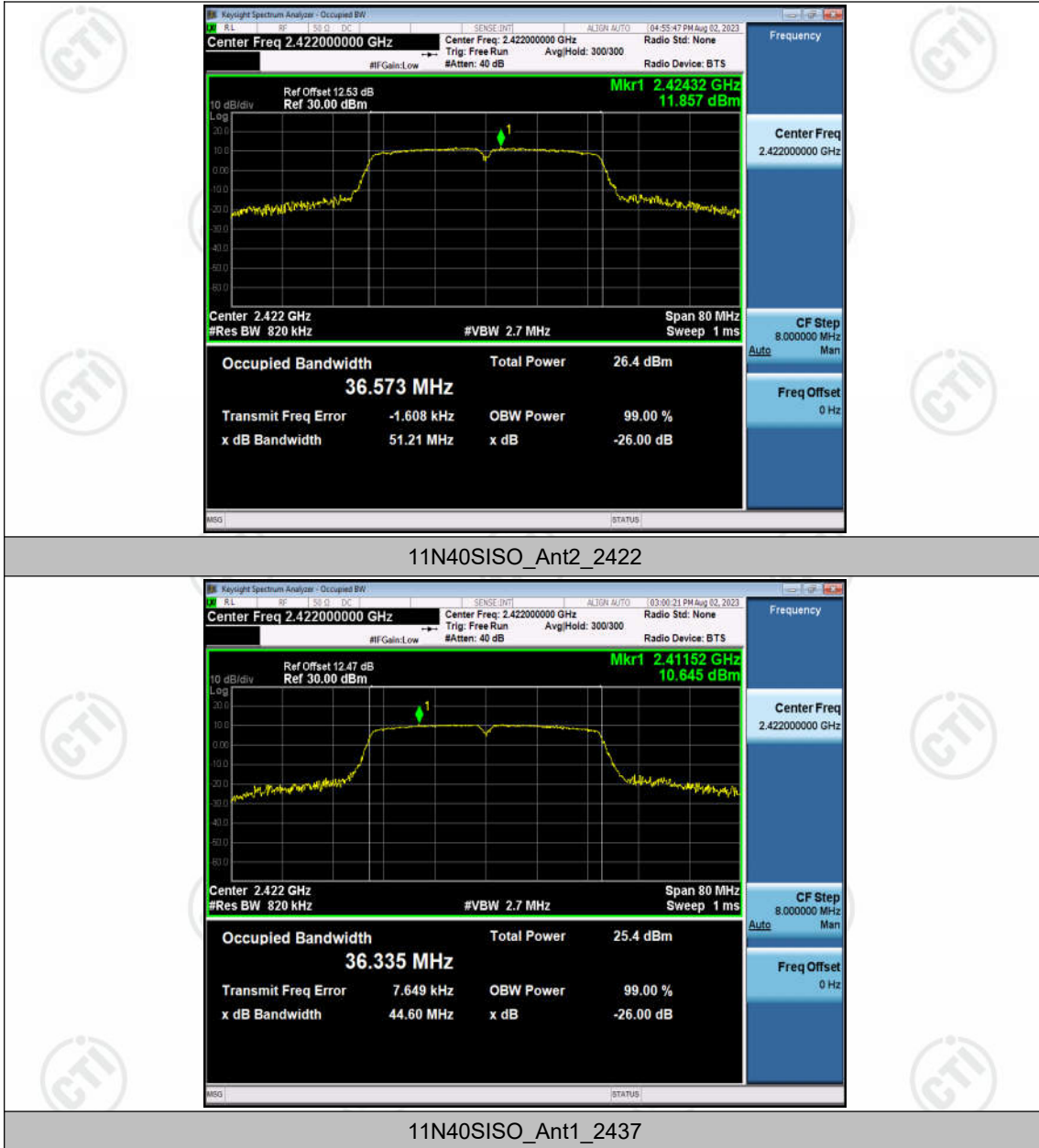
11G_Ant1_2462

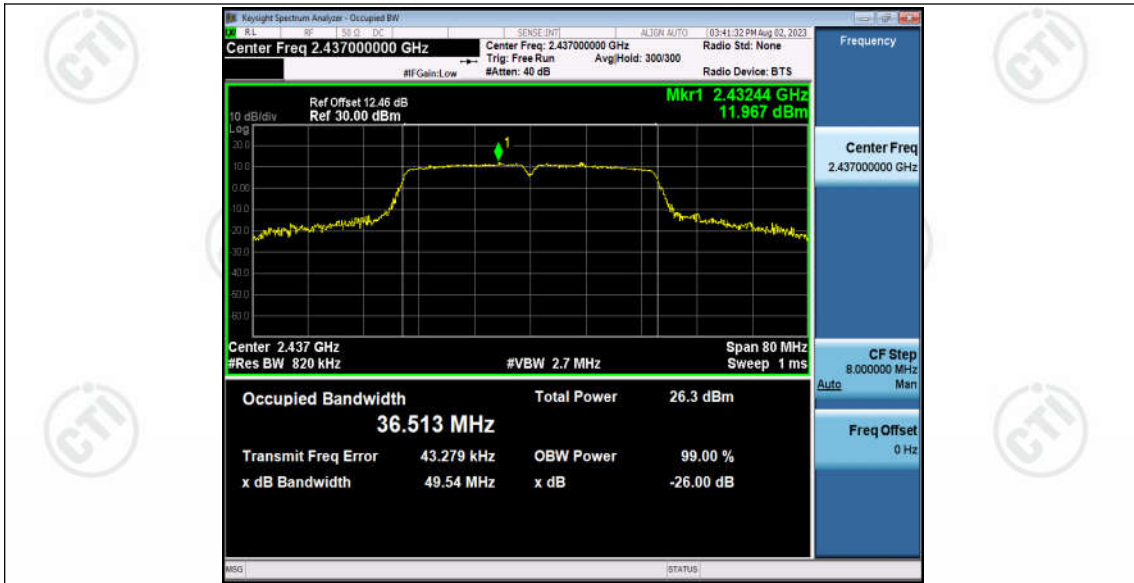




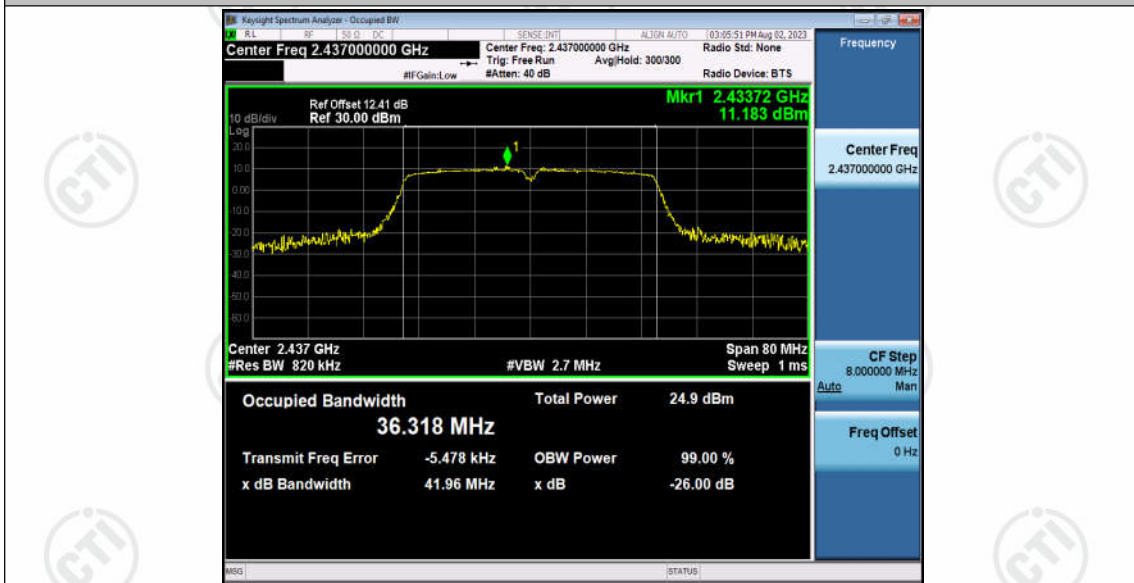




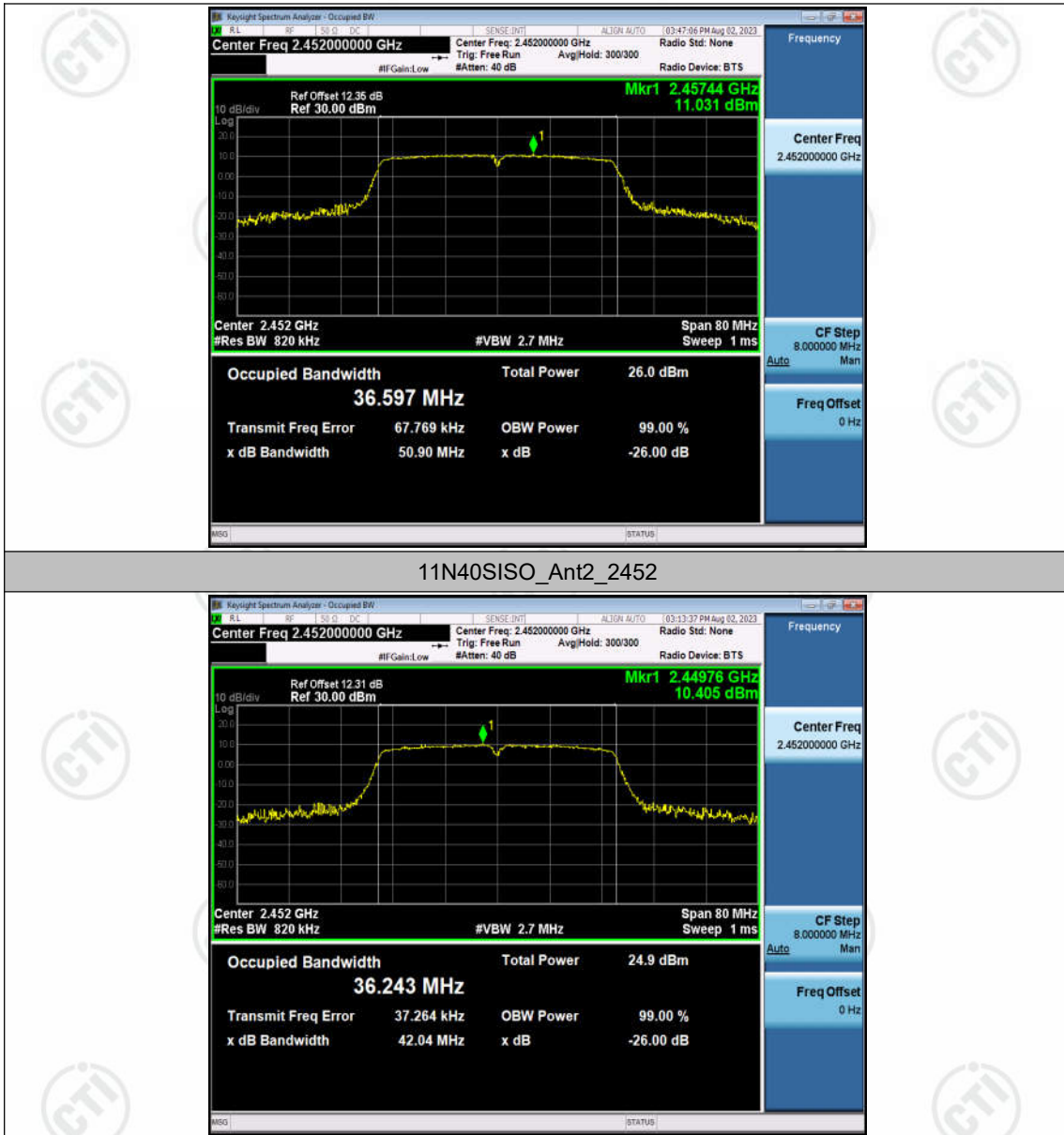




11N40SISO_Ant2_2437



11N40SISO_Ant1_2452



Appendix C: Maximum conducted output power

Test Result Peak

TestMode	Antenna	Frequency[MHz]	Set Power	Peak Power[dBm]	Conducted Limit[dBm]	Verdict
11B	Ant1	2412	---	14.54	≤30.00	PASS
	Ant2	2412	---	14.45	≤30.00	PASS
	Ant1	2437	---	14.25	≤30.00	PASS
	Ant2	2437	---	14.26	≤30.00	PASS
	Ant1	2462	---	13.86	≤30.00	PASS
	Ant2	2462	---	14.12	≤30.00	PASS
11G	Ant1	2412	---	14.07	≤30.00	PASS
	Ant2	2412	---	14.96	≤30.00	PASS
	Ant1	2437	---	13.66	≤30.00	PASS
	Ant2	2437	---	13.47	≤30.00	PASS
	Ant1	2462	---	13.77	≤30.00	PASS
	Ant2	2462	---	13.63	≤30.00	PASS
11N20SIS O	Ant1	2412	---	18.22	≤30.00	PASS
	Ant2	2412	---	18.52	≤30.00	PASS
	Ant1	2437	---	18.89	≤30.00	PASS
	Ant2	2437	---	17.77	≤30.00	PASS
	Ant1	2462	---	18.59	≤30.00	PASS
	Ant2	2462	---	17.60	≤30.00	PASS
11N40SIS O	Ant1	2422	---	19.21	≤30.00	PASS
	Ant2	2422	---	18.57	≤30.00	PASS
	Ant1	2437	---	19.32	≤30.00	PASS
	Ant2	2437	---	18.08	≤30.00	PASS
	Ant1	2452	---	19.09	≤30.00	PASS
	Ant2	2452	---	18.20	≤30.00	PASS
11N20MI MO	Ant1	2412	---	17.53	≤30.00	PASS
	Ant2	2412	---	17.08	≤30.00	PASS
	total	2412	---	20.32	≤30.00	PASS
	Ant1	2437	---	18.19	≤30.00	PASS
	Ant2	2437	---	16.77	≤30.00	PASS
	total	2437	---	20.55	≤30.00	PASS
	Ant1	2462	---	17.76	≤30.00	PASS
	Ant2	2462	---	16.49	≤30.00	PASS
	total	2462	---	20.18	≤30.00	PASS
11N40MI	Ant1	2422	---	18.40	≤30.00	PASS

MO	Ant2	2422	---	17.20	≤30.00	PASS
	total	2422	---	20.85	≤30.00	PASS
	Ant1	2437	---	18.19	≤30.00	PASS
	Ant2	2437	---	16.74	≤30.00	PASS
	total	2437	---	20.54	≤30.00	PASS
	Ant1	2452	---	18.40	≤30.00	PASS
	Ant2	2452	---	16.93	≤30.00	PASS
	total	2452	---	20.74	≤30.00	PASS

Note: The Peak Power has been added Duty Cycle Factor.

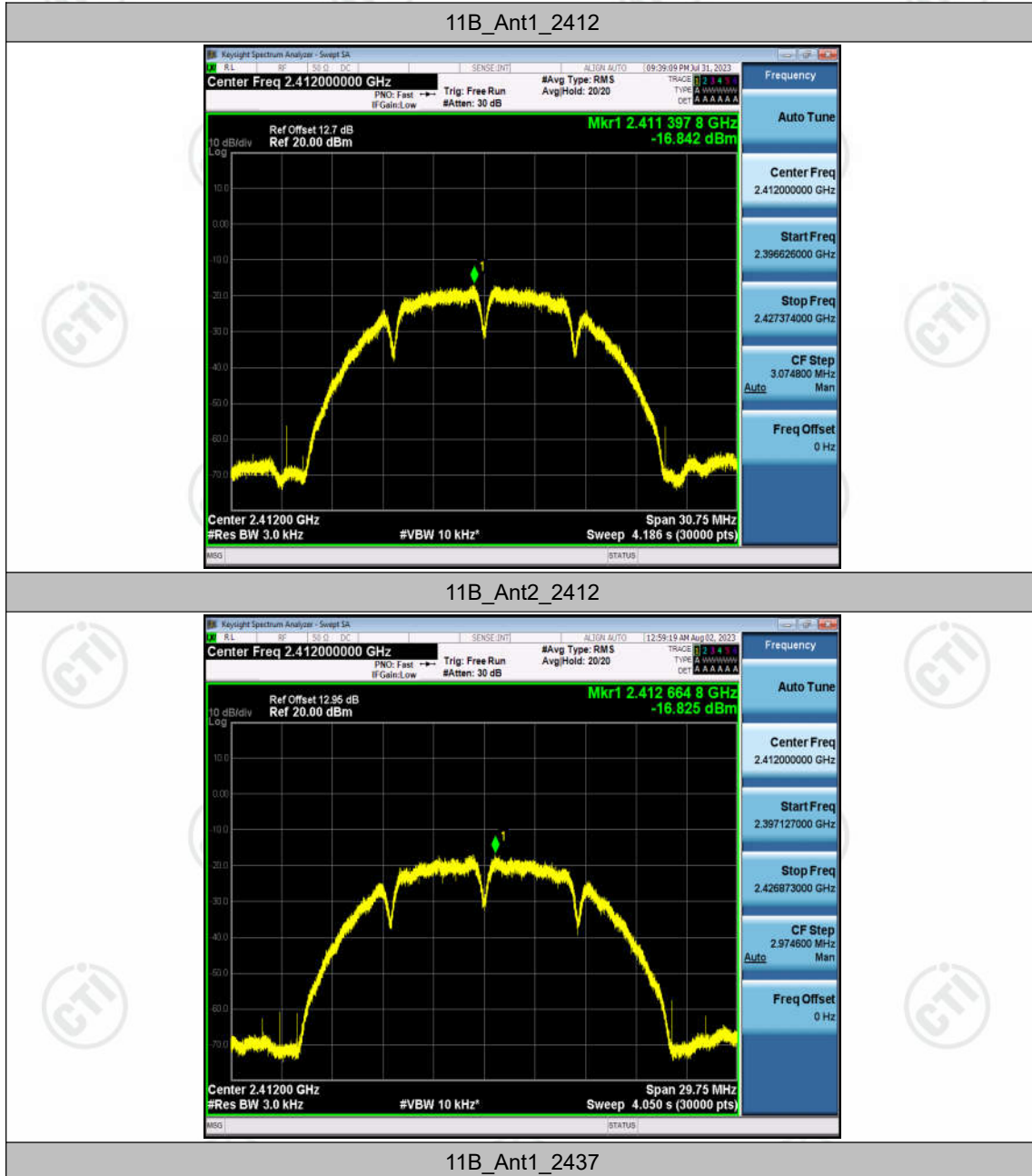
Appendix D: Maximum power spectral density

Test Result

TestMode	Antenna	Frequency[MHz]	Result[dBm/3-100kHz]	Limit[dBm/3kHz]	Verdict
11B	Ant1	2412	-16.84	≤8.00	PASS
	Ant2	2412	-16.83	≤8.00	PASS
	Ant1	2437	-17.24	≤8.00	PASS
	Ant2	2437	-17.32	≤8.00	PASS
	Ant1	2462	-17.94	≤8.00	PASS
	Ant2	2462	-16.64	≤8.00	PASS
11G	Ant1	2412	-17.04	≤8.00	PASS
	Ant2	2412	-15.37	≤8.00	PASS
	Ant1	2437	-17.21	≤8.00	PASS
	Ant2	2437	-17.88	≤8.00	PASS
	Ant1	2462	-16.29	≤8.00	PASS
	Ant2	2462	-16.75	≤8.00	PASS
11N20SISO	Ant1	2412	-12.23	≤8.00	PASS
	Ant2	2412	-12.74	≤8.00	PASS
	Ant1	2437	-12.15	≤8.00	PASS
	Ant2	2437	-12.11	≤8.00	PASS
	Ant1	2462	-12.14	≤8.00	PASS
	Ant2	2462	-13.71	≤8.00	PASS
11N40SISO	Ant1	2422	-13.65	≤8.00	PASS
	Ant2	2422	-14.82	≤8.00	PASS
	Ant1	2437	-13.79	≤8.00	PASS
	Ant2	2437	-14.78	≤8.00	PASS
	Ant1	2452	-14.15	≤8.00	PASS
	Ant2	2452	-15.39	≤8.00	PASS
11N20MIMO	Ant1	2412	-13.29	≤8.00	PASS
	Ant2	2412	-14.19	≤8.00	PASS
	total	2412	-10.71	≤8.00	PASS
	Ant1	2437	-13.01	≤8.00	PASS
	Ant2	2437	-13.99	≤8.00	PASS
	total	2437	-10.46	≤8.00	PASS
	Ant1	2462	-12.84	≤8.00	PASS
	Ant2	2462	-14.33	≤8.00	PASS
	total	2462	-10.51	≤8.00	PASS
11N40MIMO	Ant1	2422	-15.37	≤8.00	PASS
	Ant2	2422	-16.25	≤8.00	PASS

total	2422	-12.78	≤8.00	PASS
Ant1	2437	-14.74	≤8.00	PASS
Ant2	2437	-16.75	≤8.00	PASS
total	2437	-12.62	≤8.00	PASS
Ant1	2452	-15.1	≤8.00	PASS
Ant2	2452	-14.48	≤8.00	PASS
total	2452	-11.77	≤8.00	PASS

Test Graphs





11B_Ant2_2437



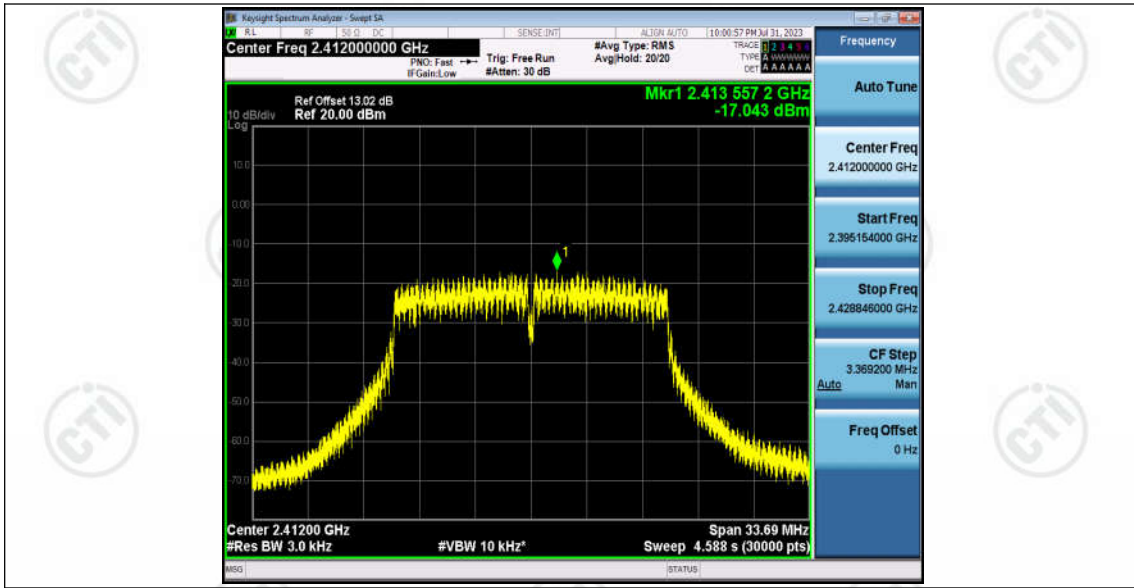
11B_Ant1_2462



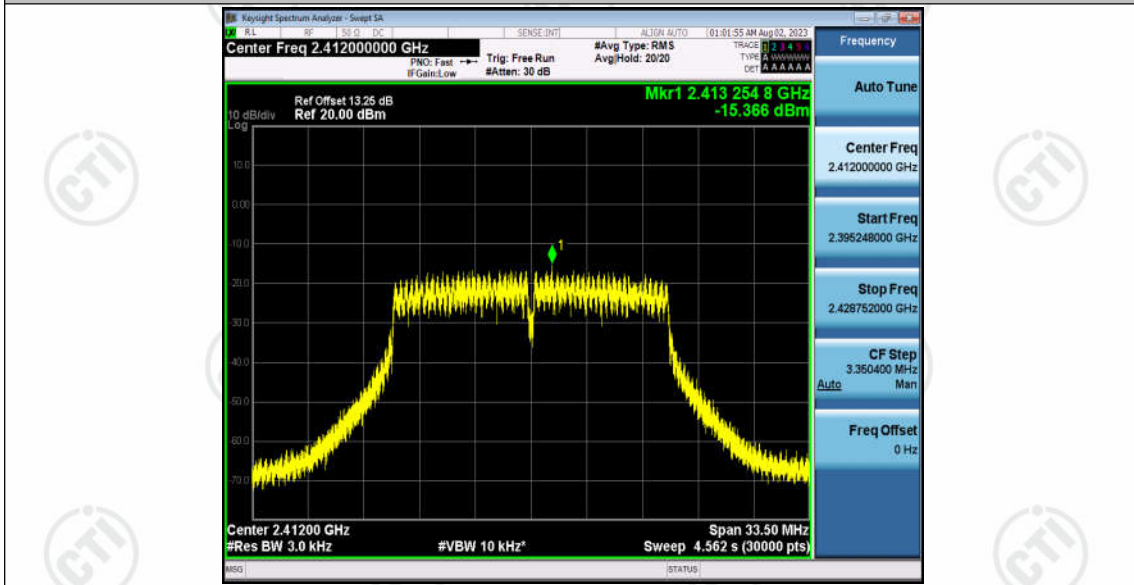
11B_Ant2_2462



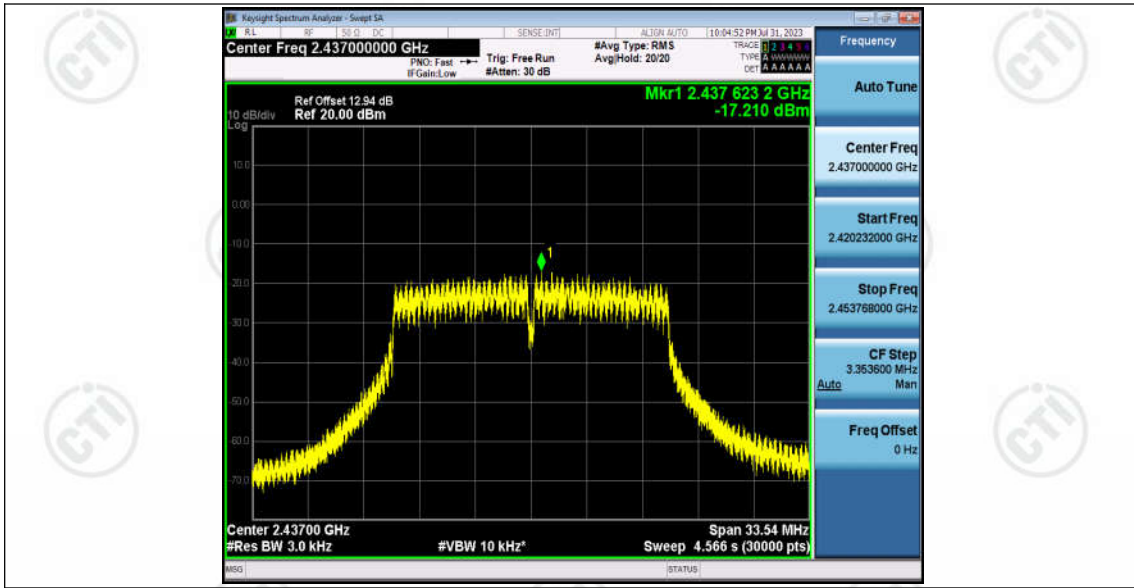
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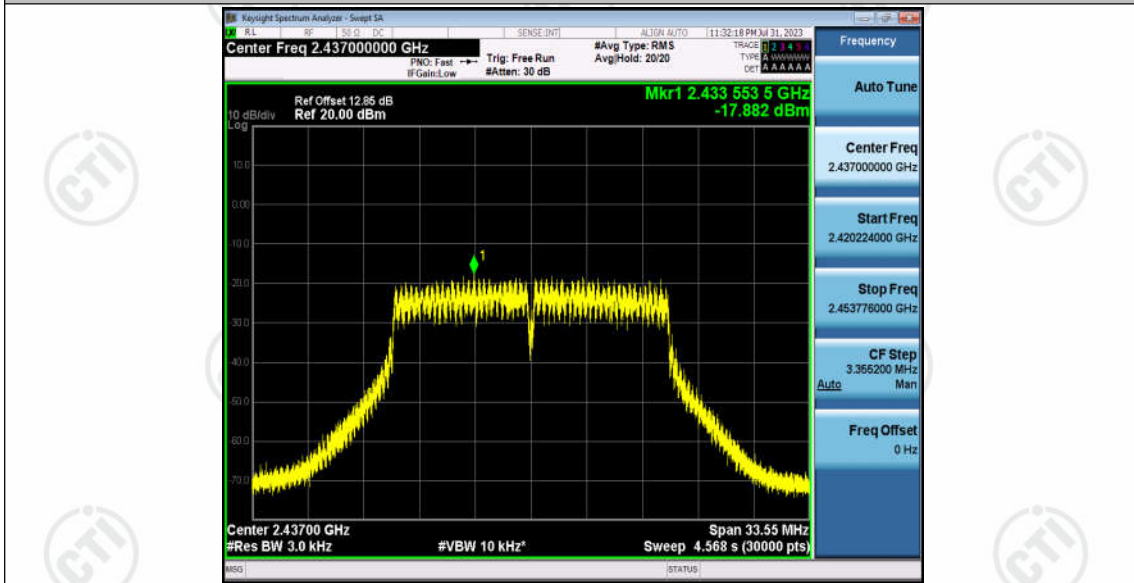
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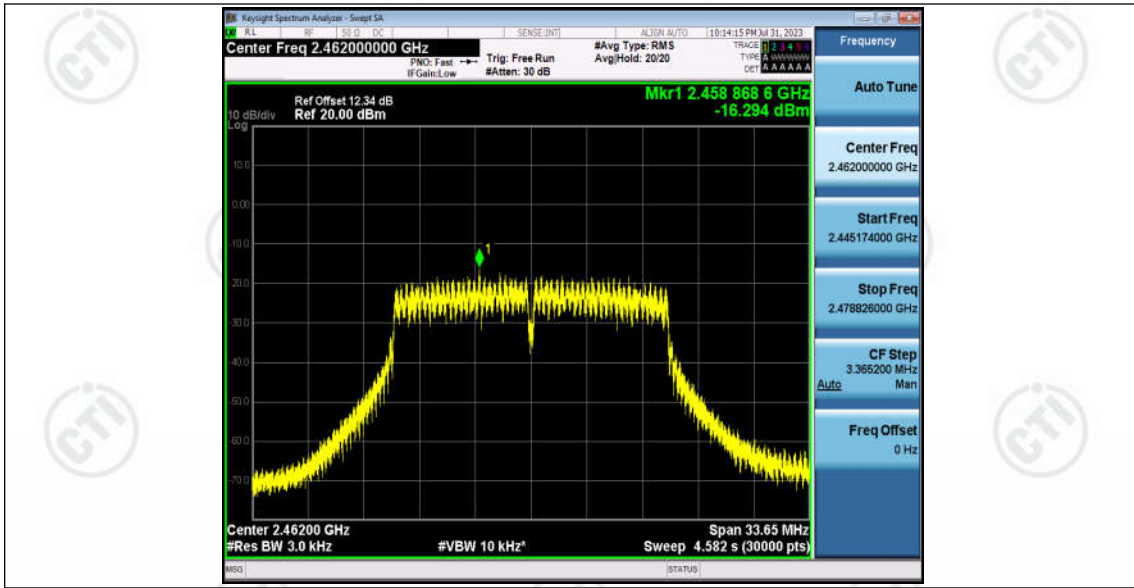
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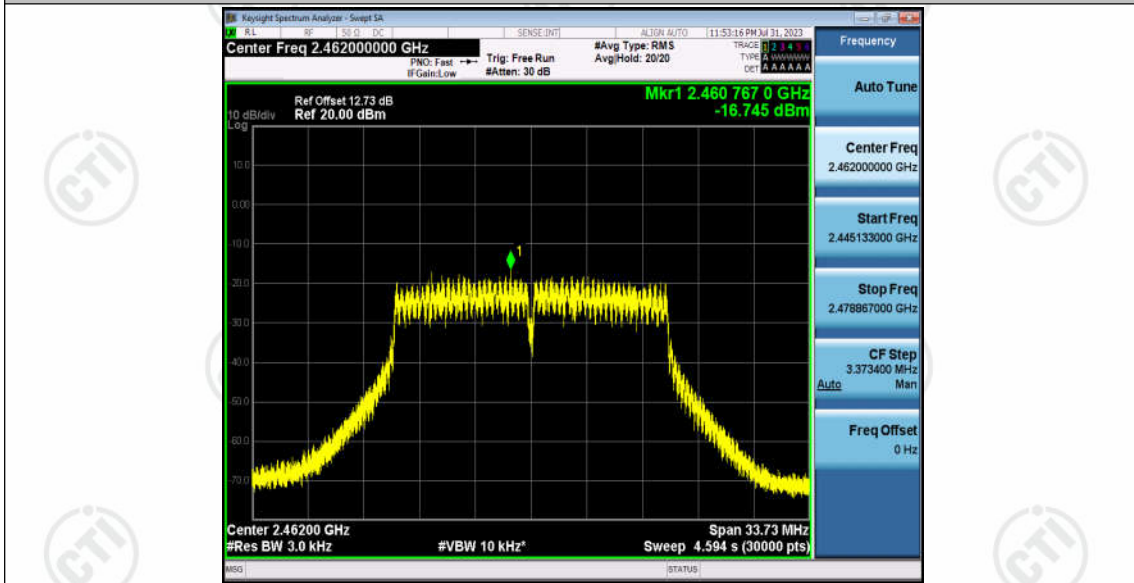
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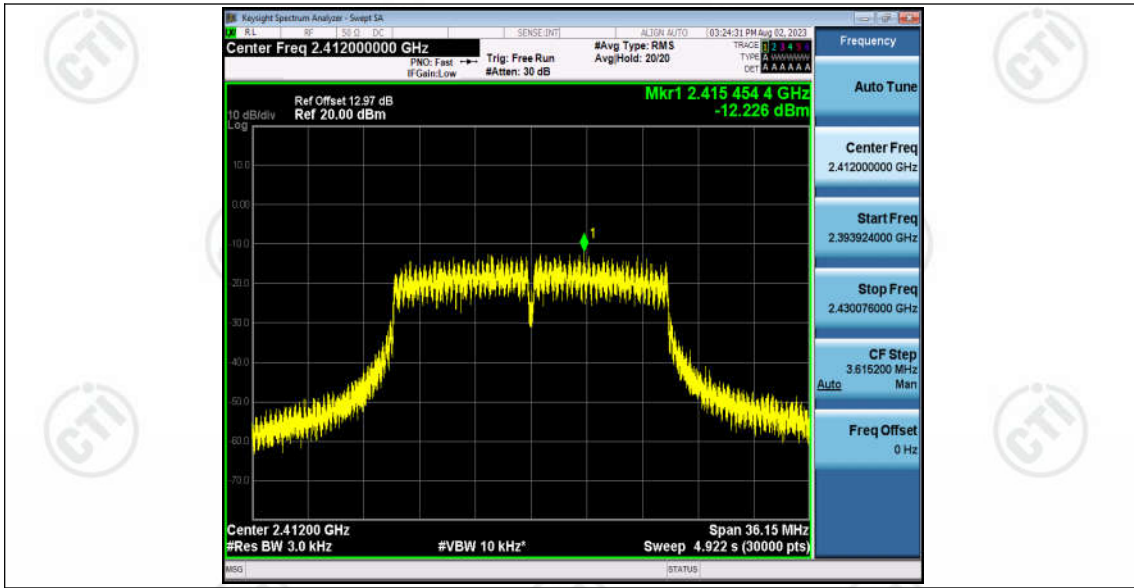
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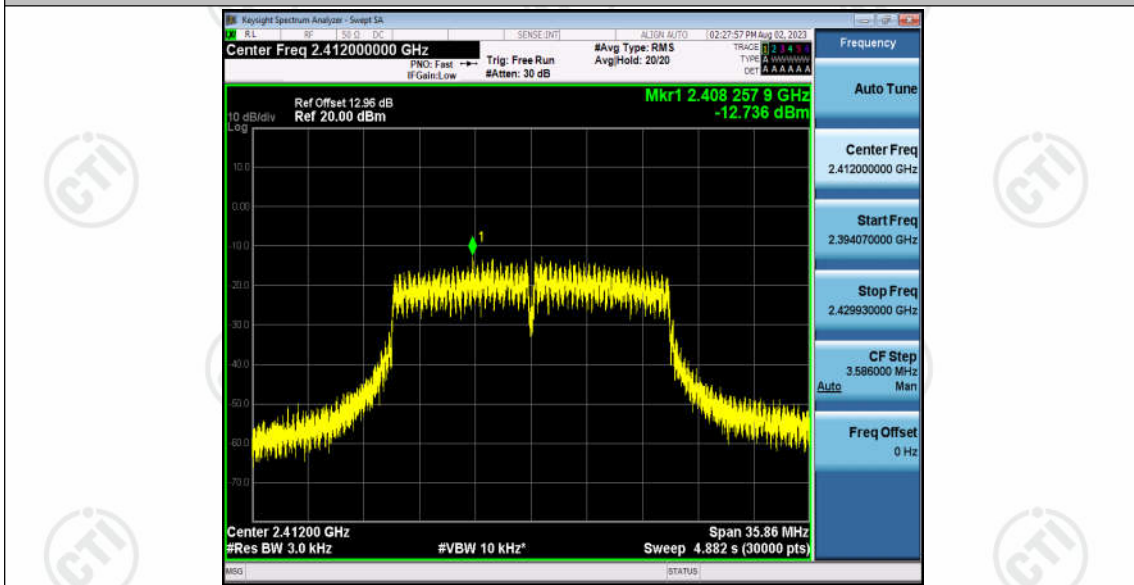
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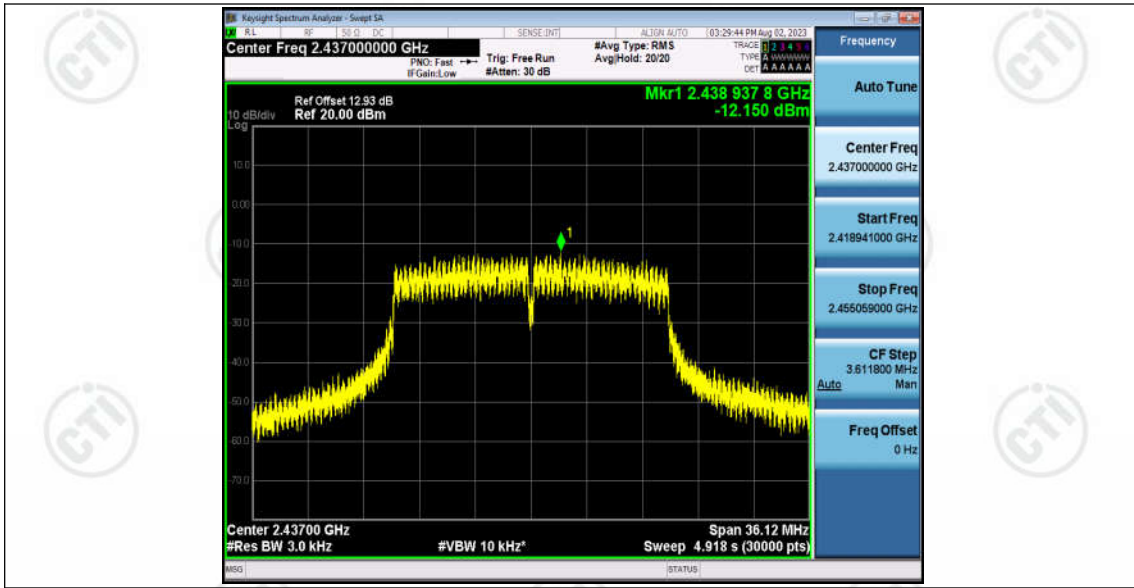
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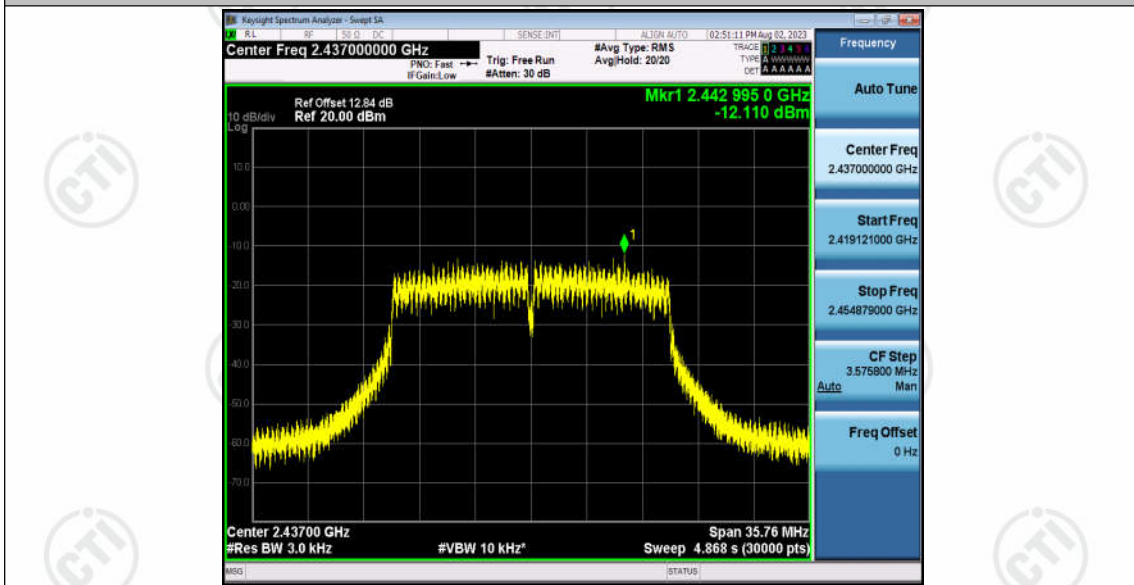
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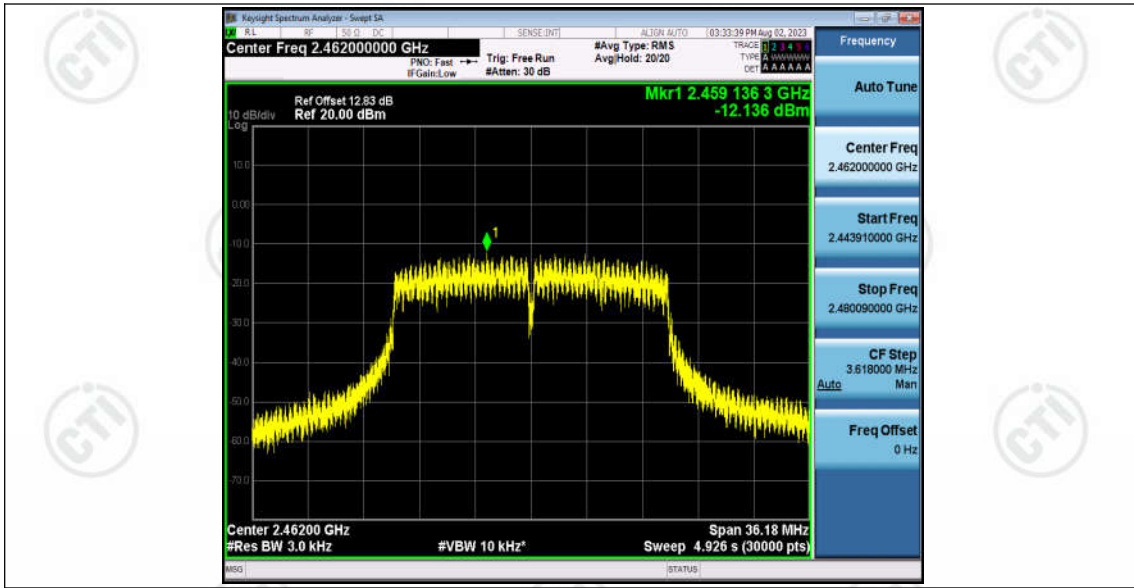
11N20SISO_Ant1_2437



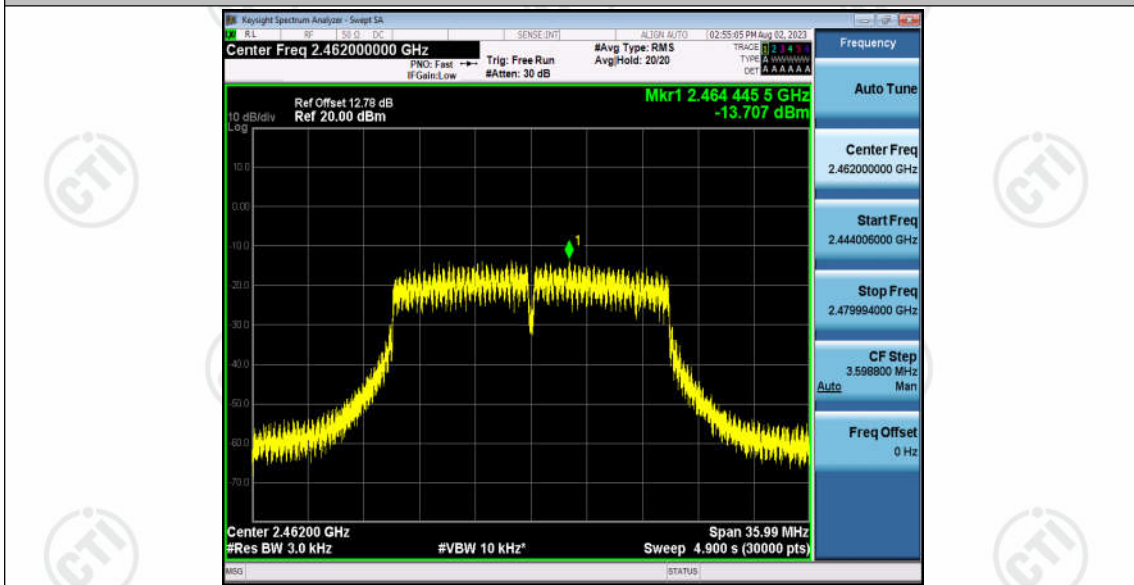
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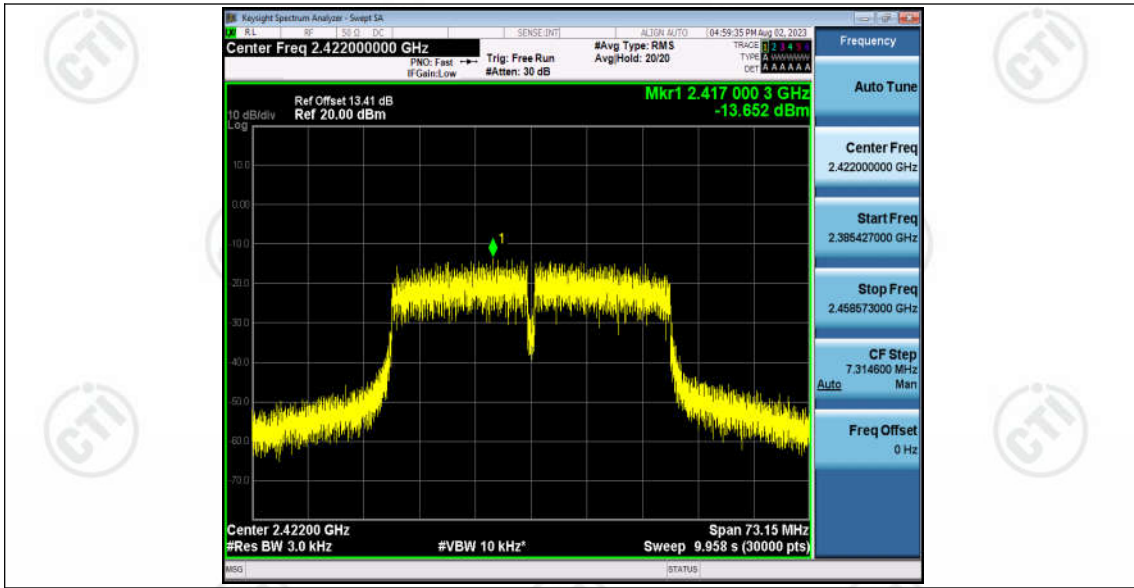
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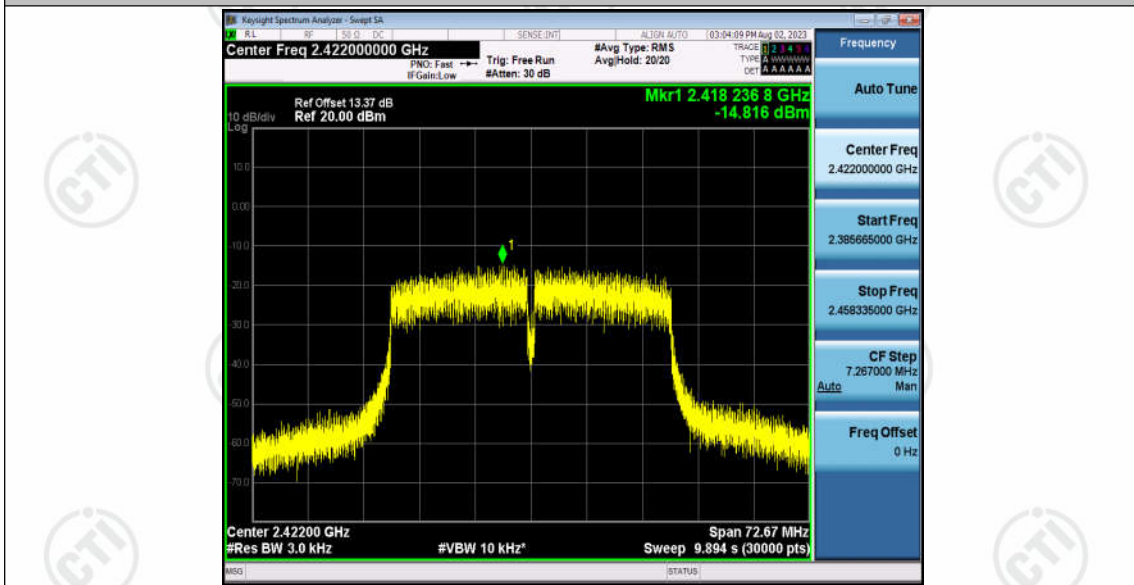
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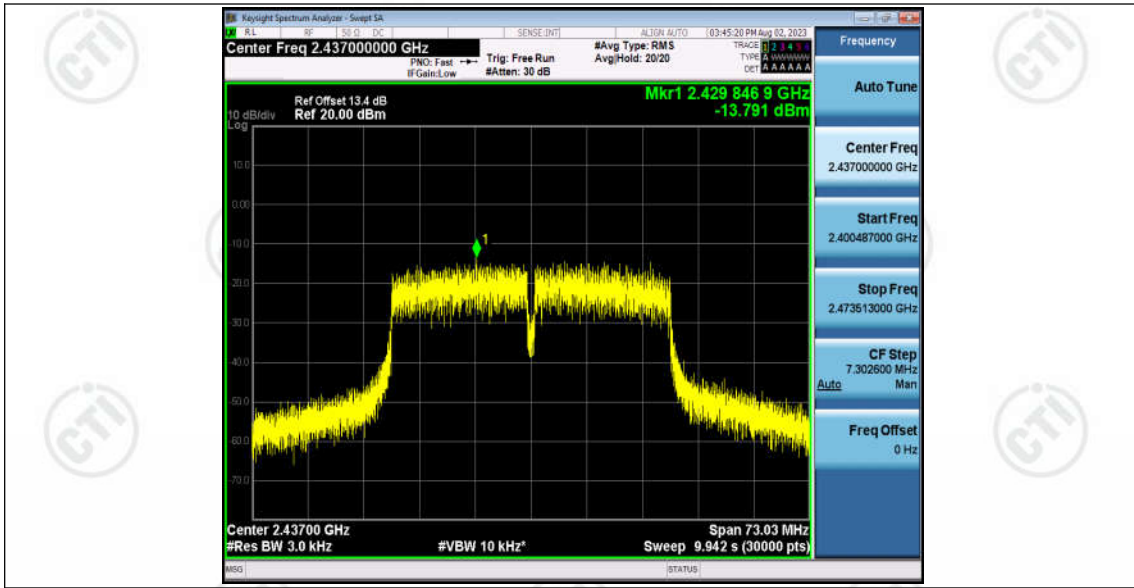
11N40SISO_Ant1_2422



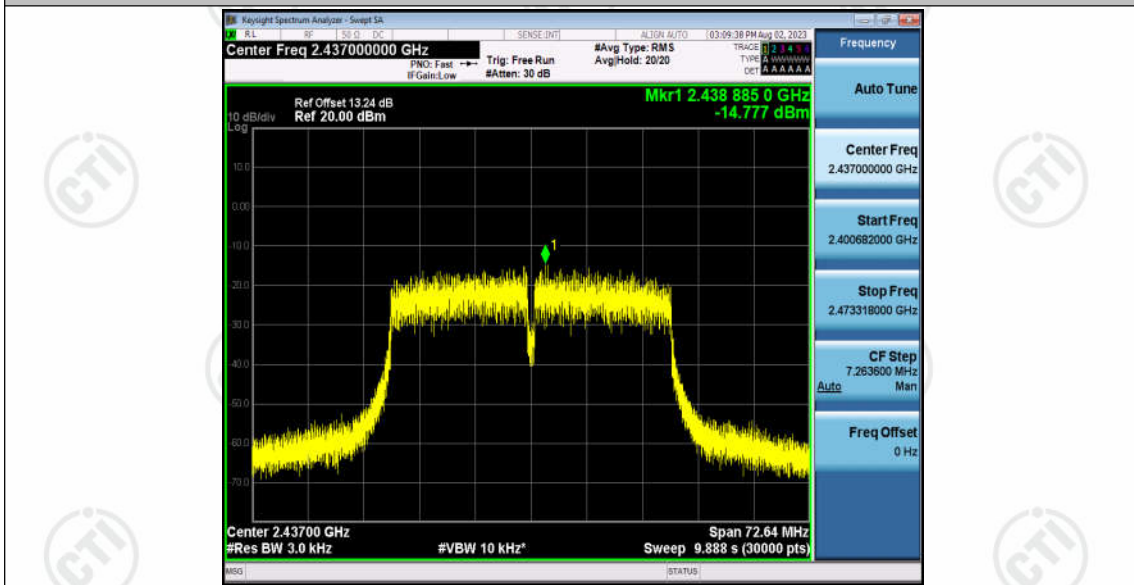
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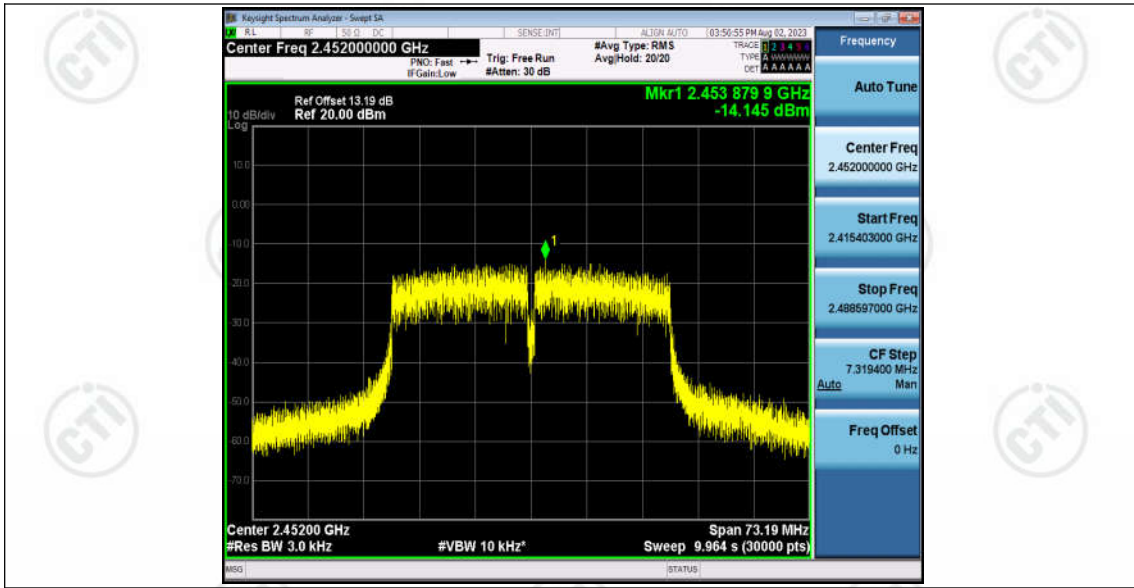
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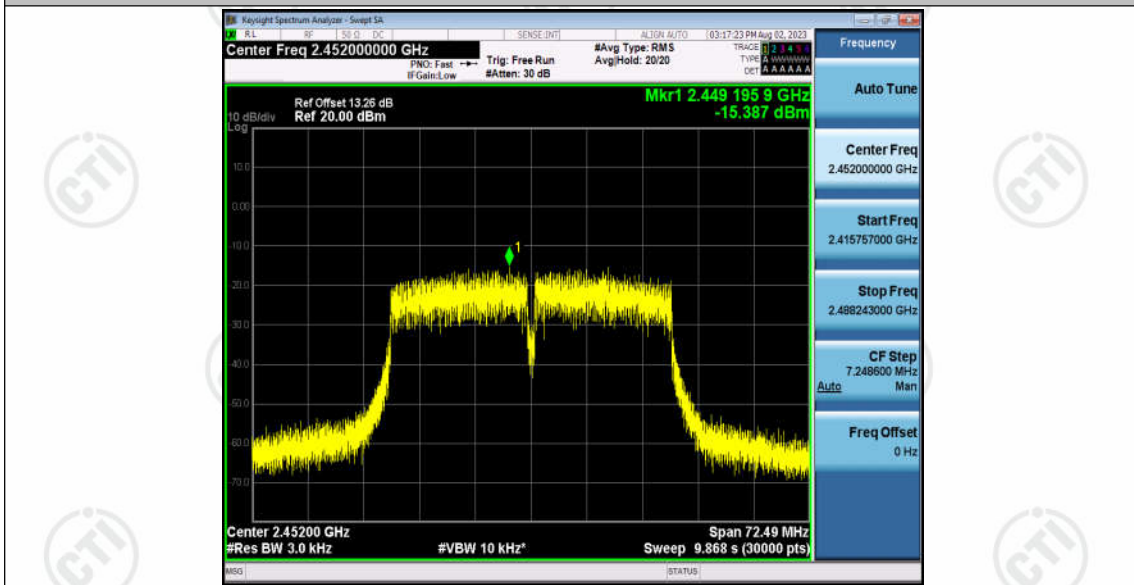
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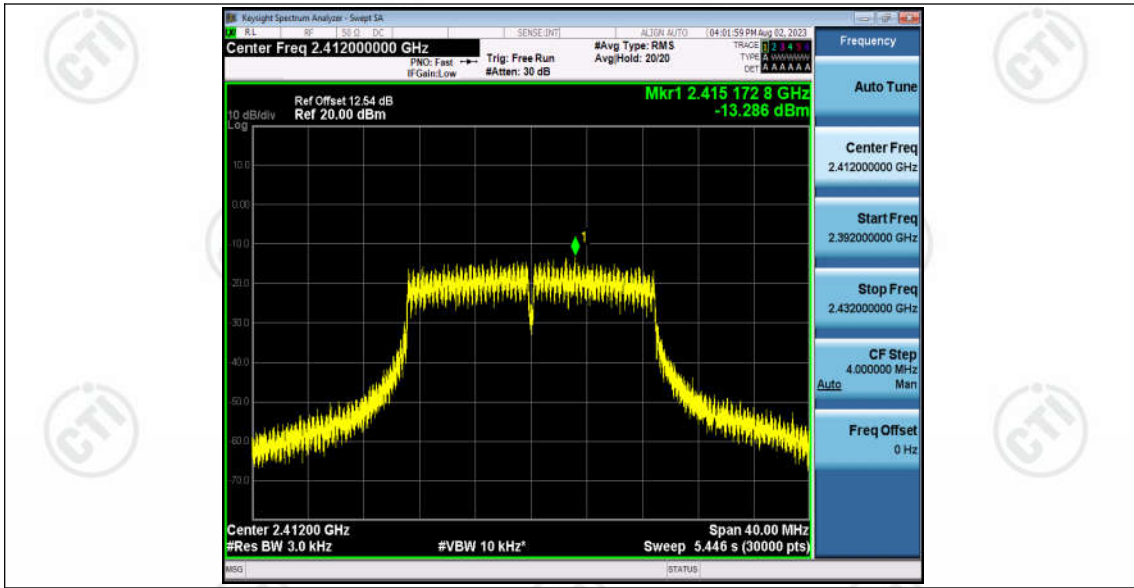
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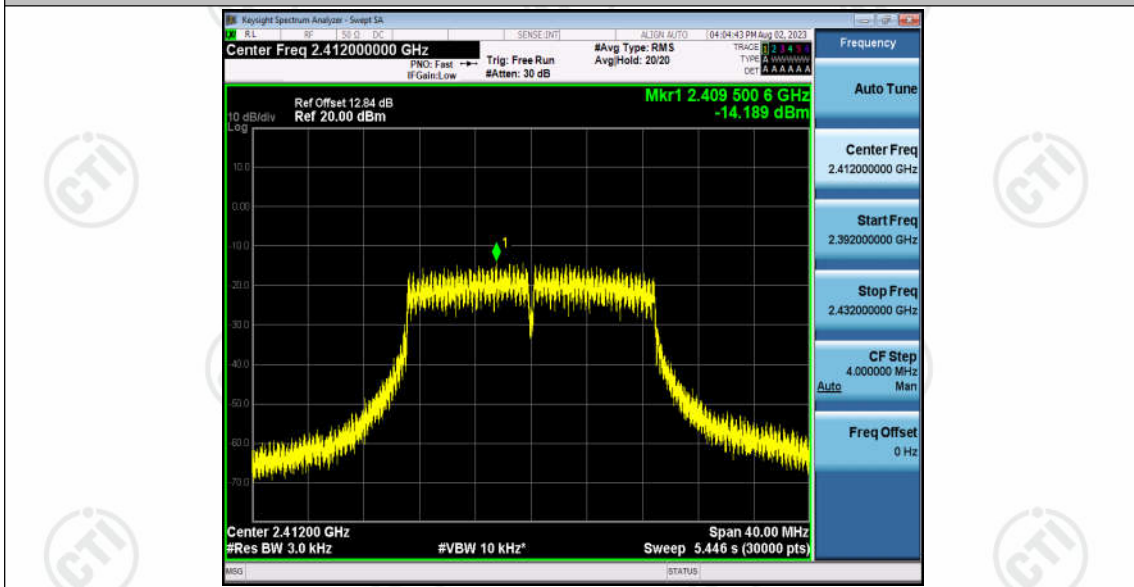
11N40SISO_Ant2_2452



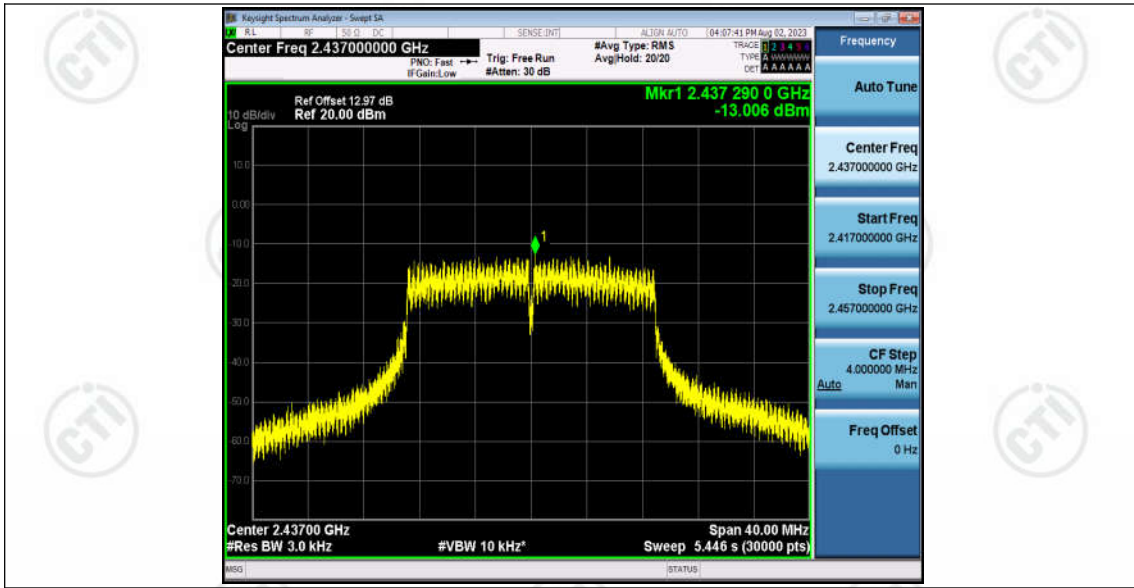
11N20MIMO_Ant1_2412



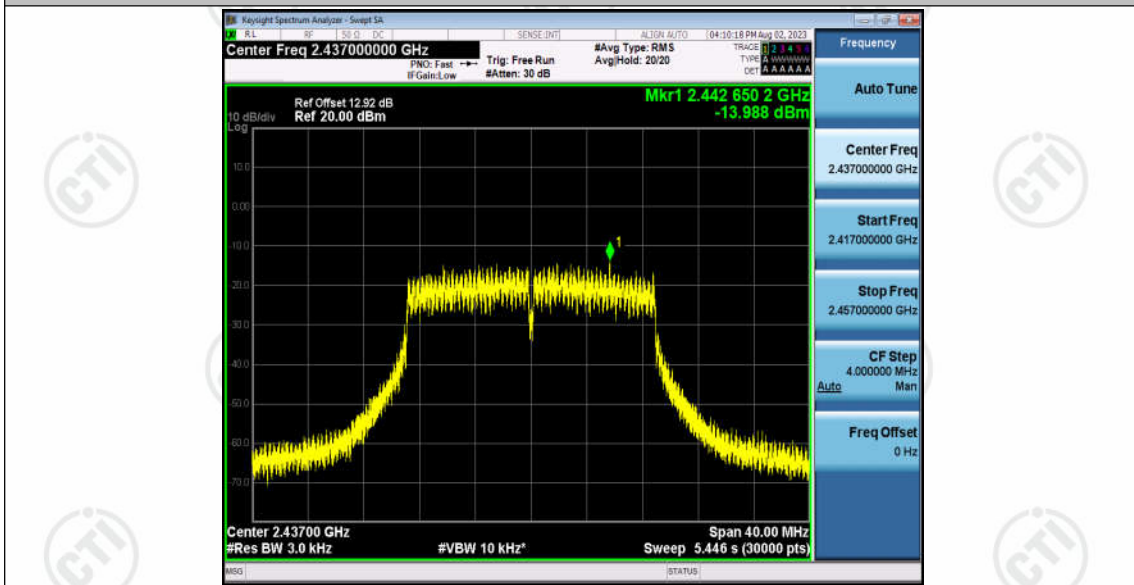
11N20MIMO_Ant2_2412



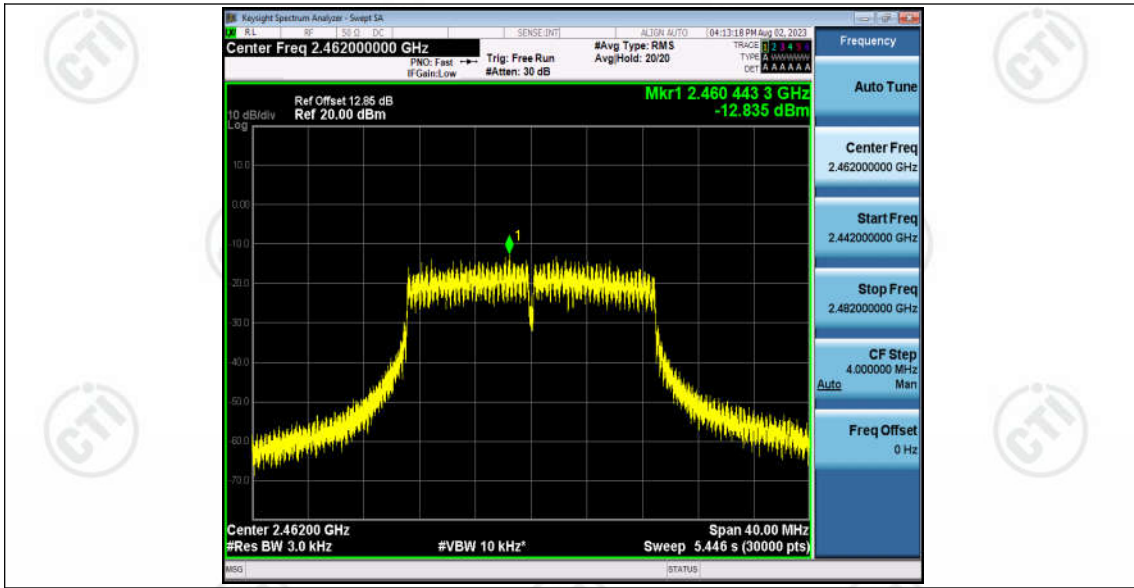
11N20MIMO_Ant1_2437



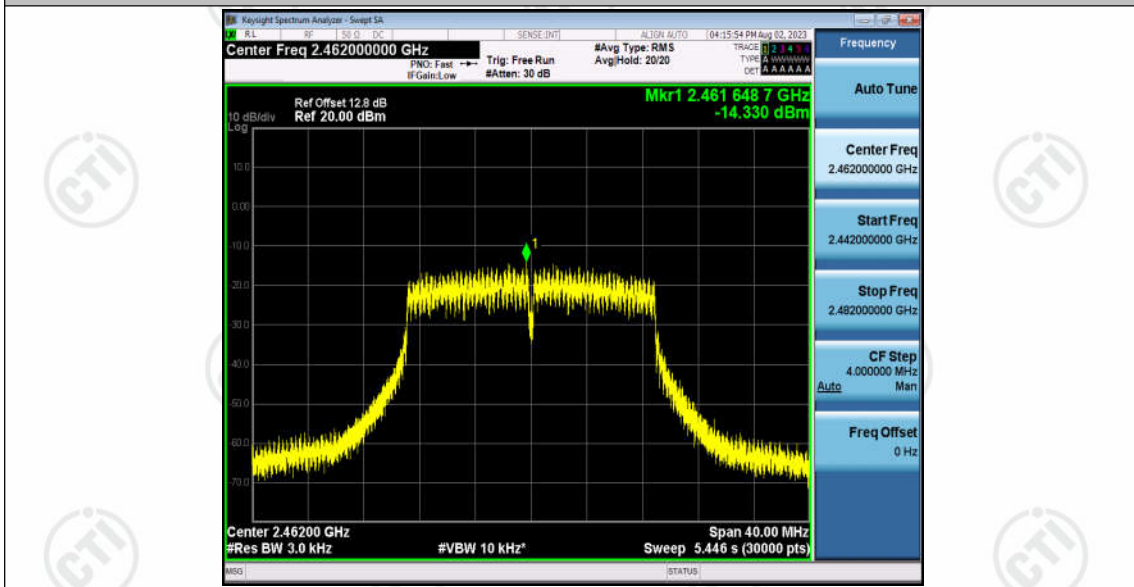
11N20MIMO_Ant2_2437



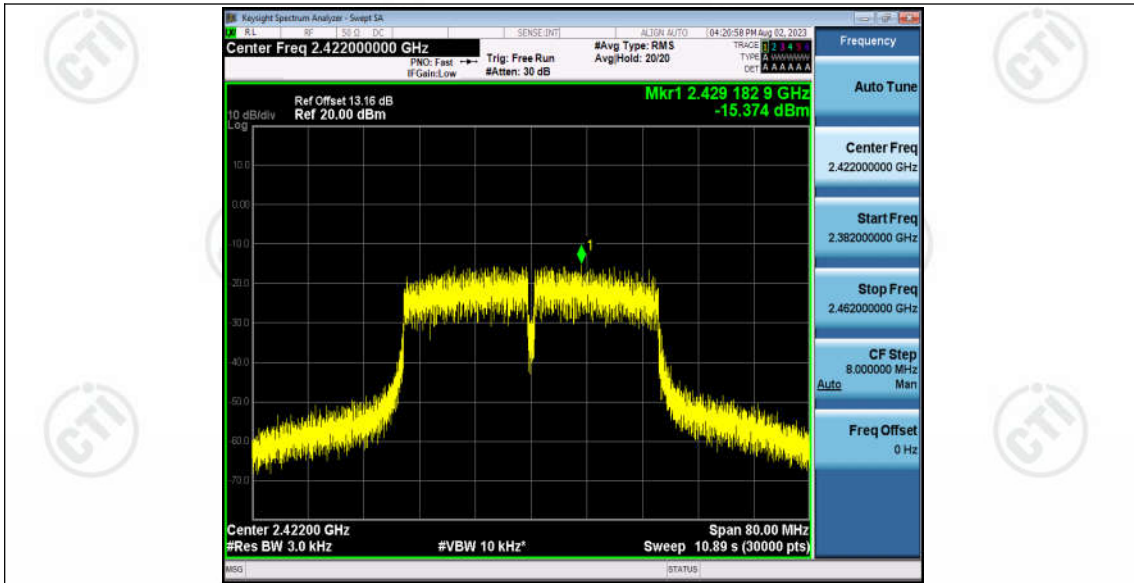
11N20MIMO_Ant1_2462



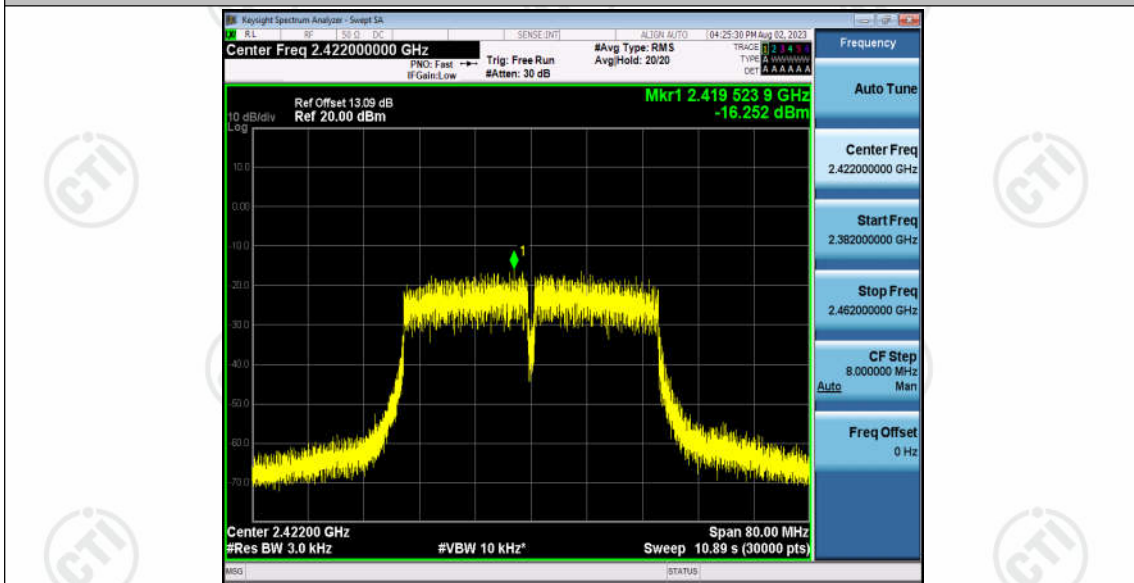
11N20MIMO_Ant2_2462



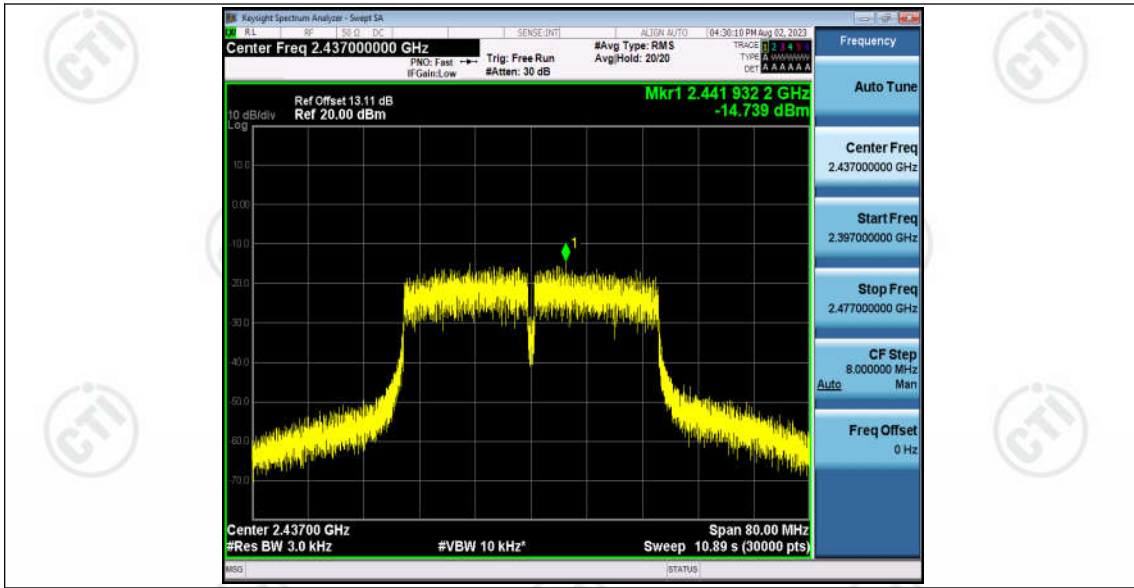
11N40MIMO_Ant1_2422



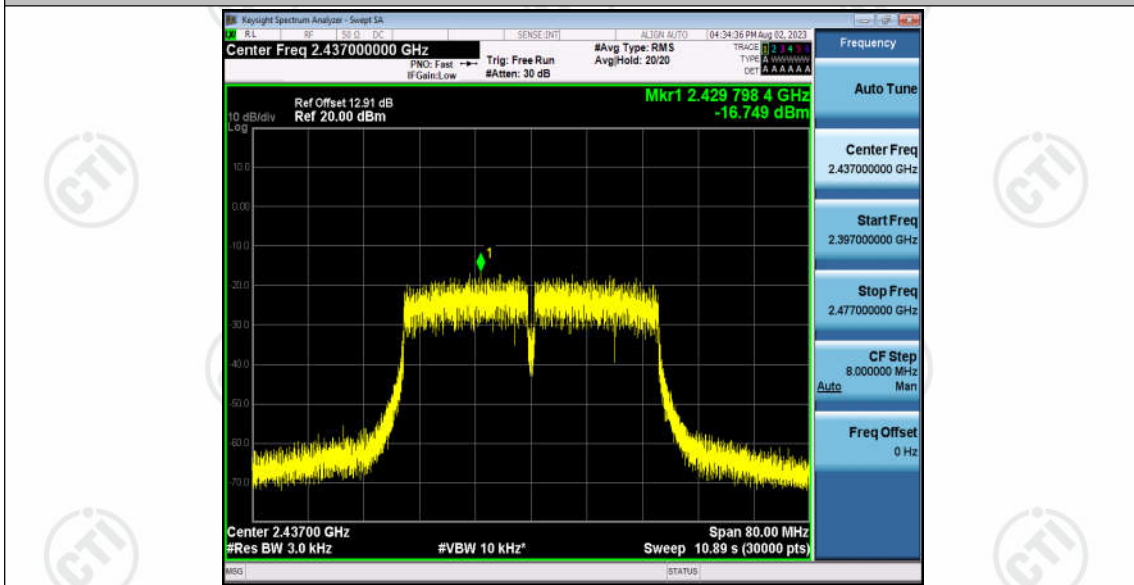
11N40MIMO_Ant2_2422



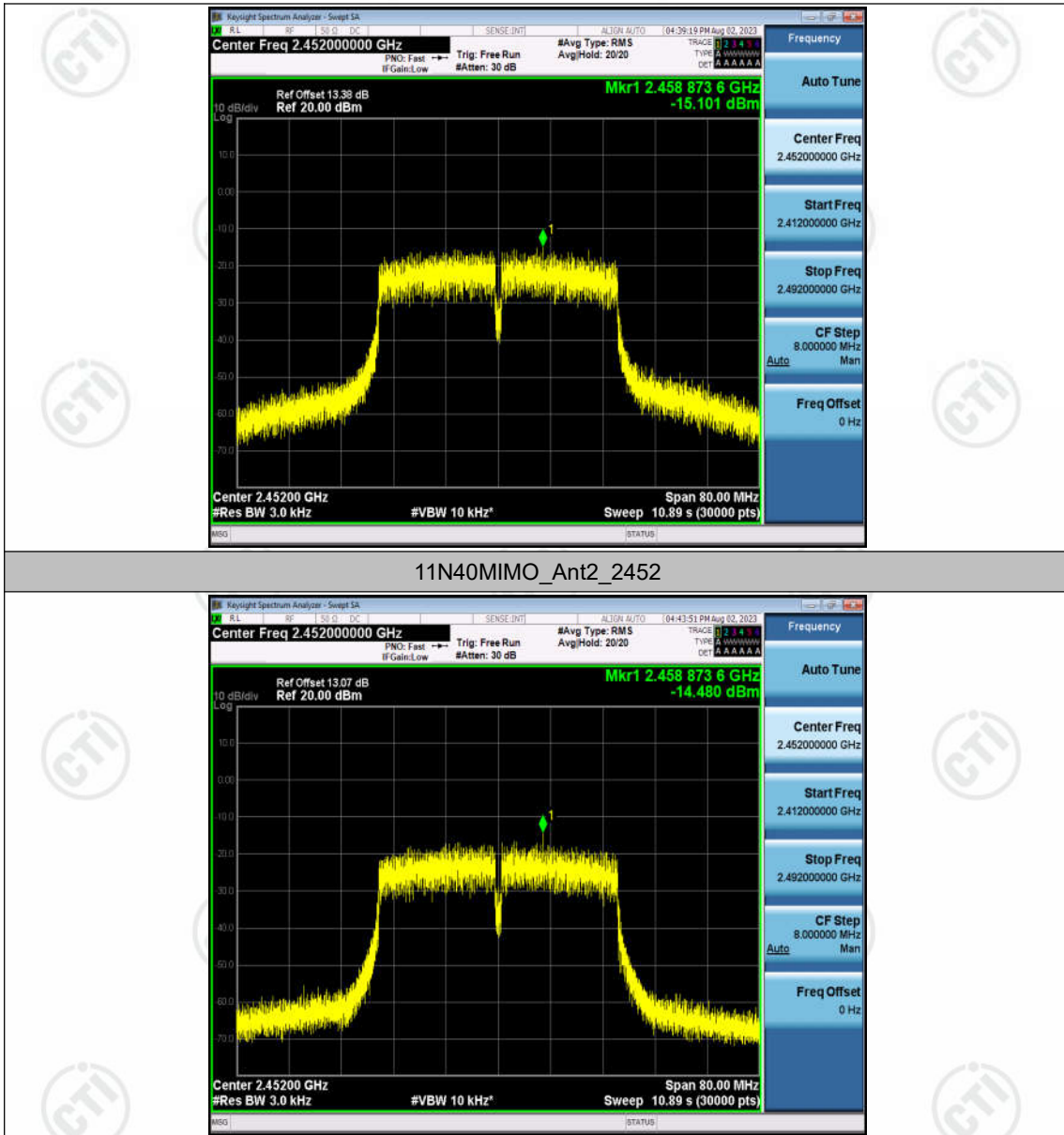
11N40MIMO_Ant1_2437



11N40MIMO_Ant2_2437



11N40MIMO_Ant1_2452

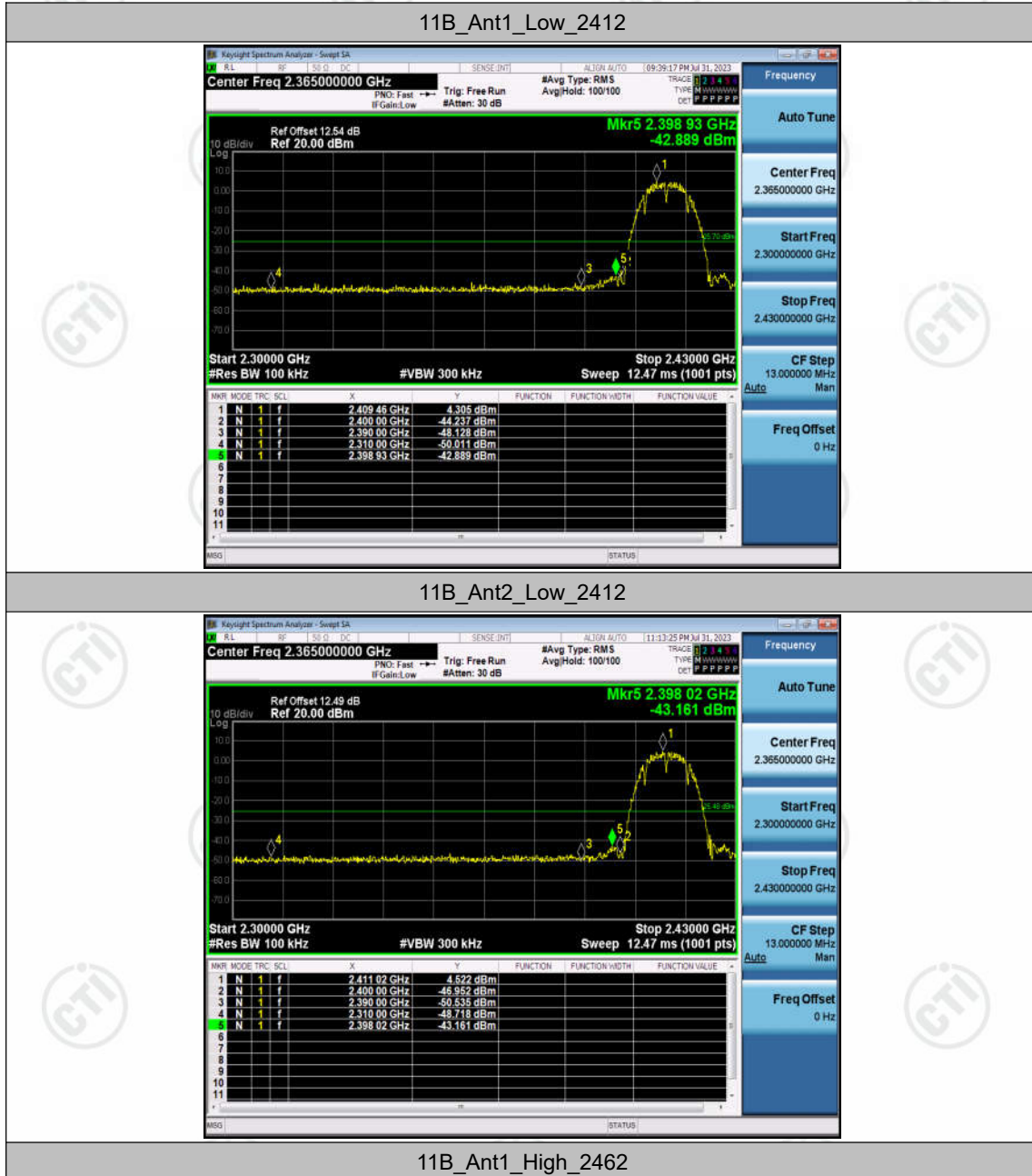


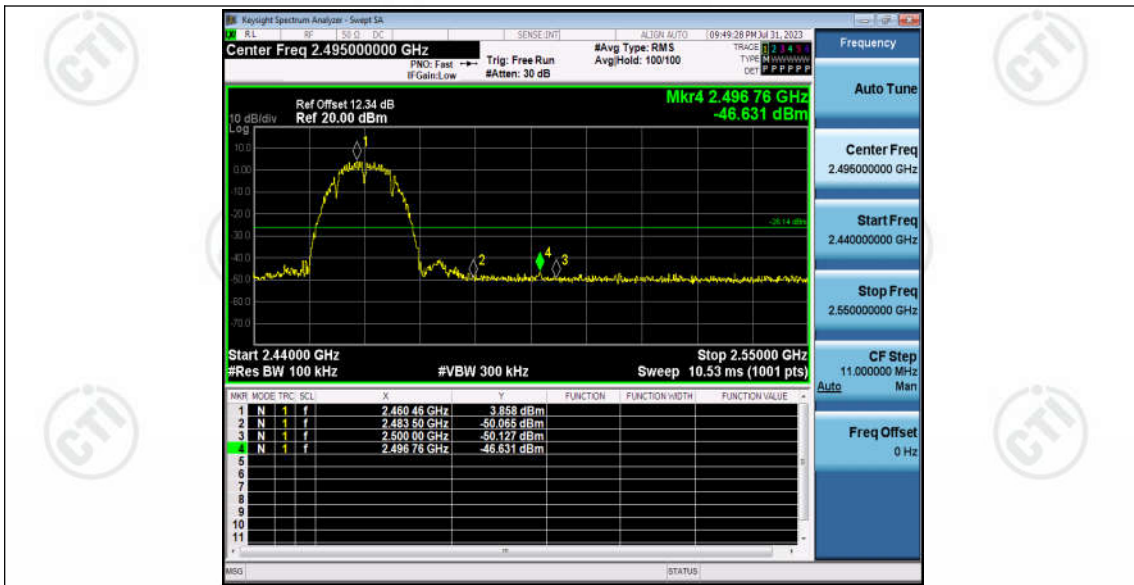
Appendix E: Band edge measurements

Test Result

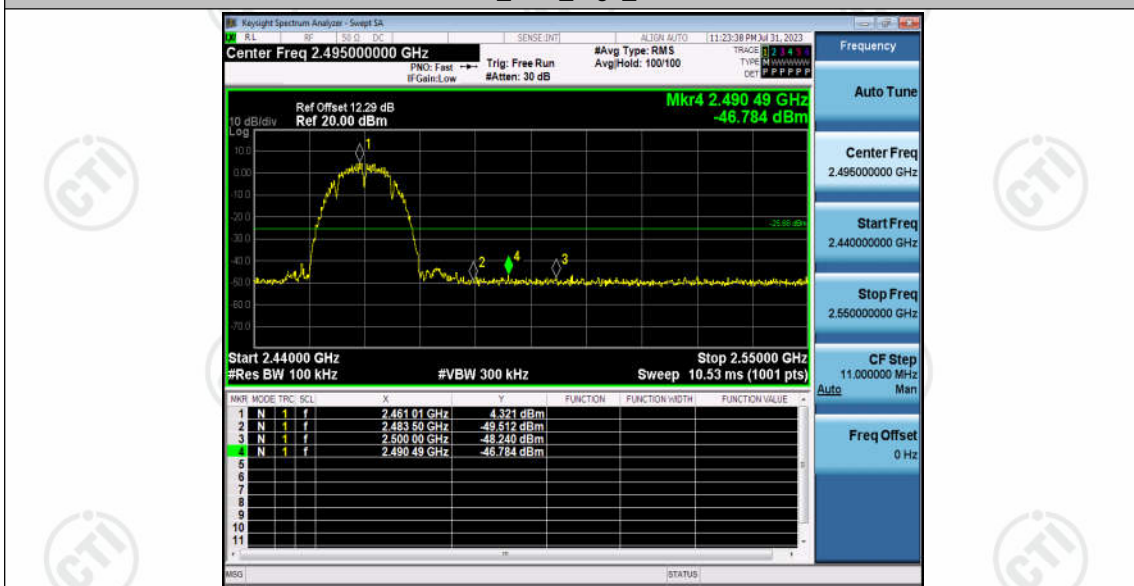
TestMode	Antenna	ChName	Frequency [MHz]	RefLevel [dBm]	Result [dBm]	Limit [dBm]	Verdict
11B	Ant1	Low	2412	4.31	-42.89	≤-25.7	PASS
	Ant2	Low	2412	4.52	-43.16	≤-25.48	PASS
	Ant1	High	2462	3.86	-46.63	≤-26.14	PASS
	Ant2	High	2462	4.32	-46.78	≤-25.68	PASS
11G	Ant1	Low	2412	2.24	-36.13	≤-27.76	PASS
	Ant2	Low	2412	2.27	-37.48	≤-27.73	PASS
	Ant1	High	2462	2.87	-46.06	≤-27.14	PASS
	Ant2	High	2462	2.82	-46.82	≤-27.18	PASS
11N20SISO	Ant1	Low	2412	7.67	-25.64	≤-22.33	PASS
	Ant2	Low	2412	6.05	-24.57	≤-23.96	PASS
	Ant1	High	2462	7.17	-34.57	≤-22.84	PASS
	Ant2	High	2462	6.00	-35.87	≤-24.01	PASS
11N40SISO	Ant1	Low	2422	5.50	-25.45	≤-24.5	PASS
	Ant2	Low	2422	4.52	-28.75	≤-25.48	PASS
	Ant1	High	2452	4.96	-27.51	≤-25.04	PASS
	Ant2	High	2452	4.04	-33.92	≤-25.96	PASS

Test Graphs

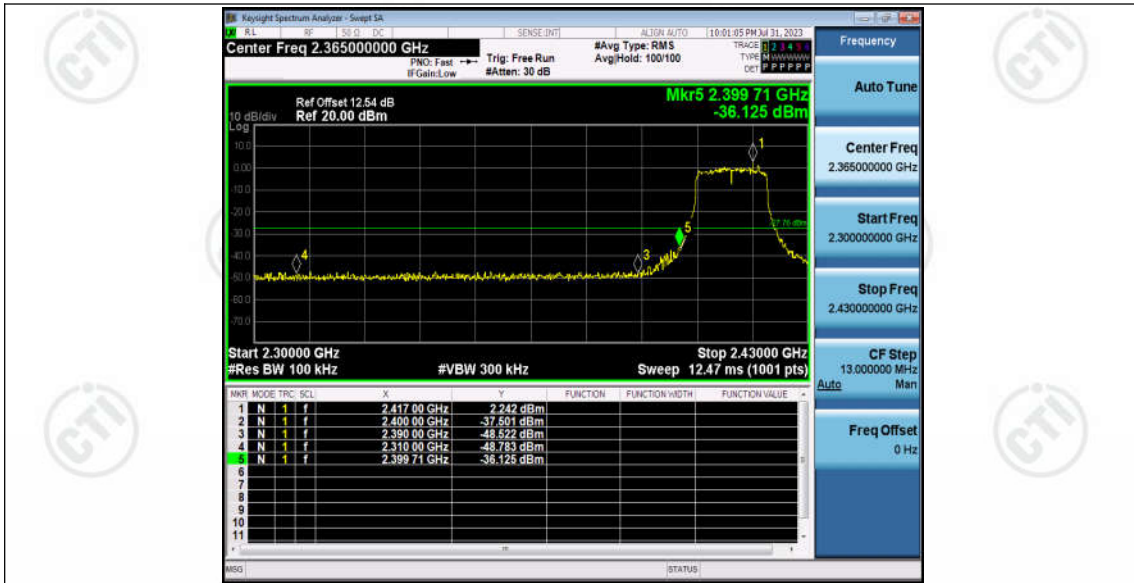




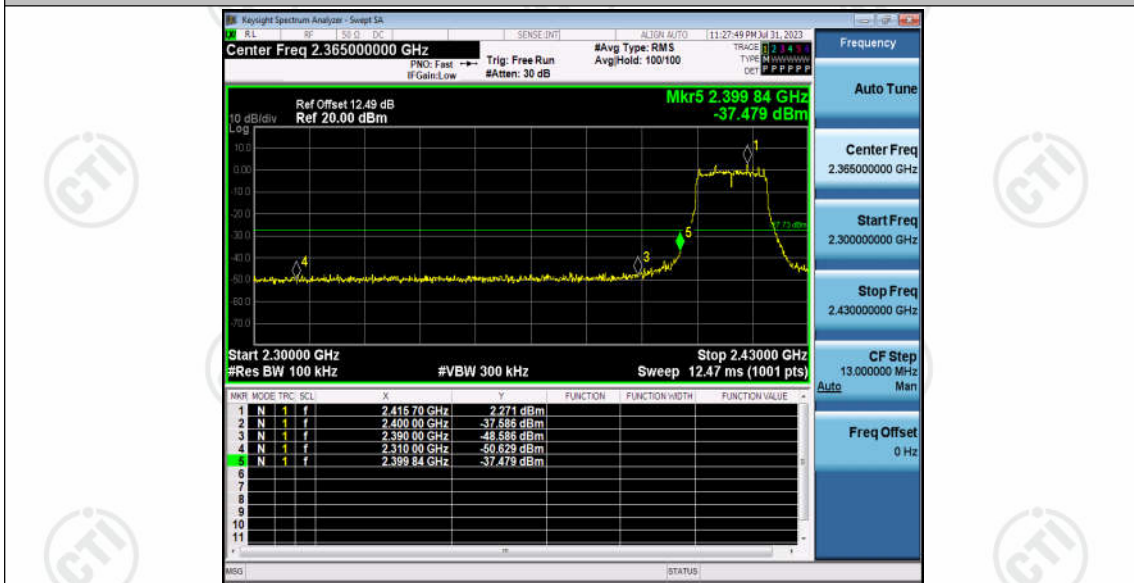
11B_Ant2_High_2462



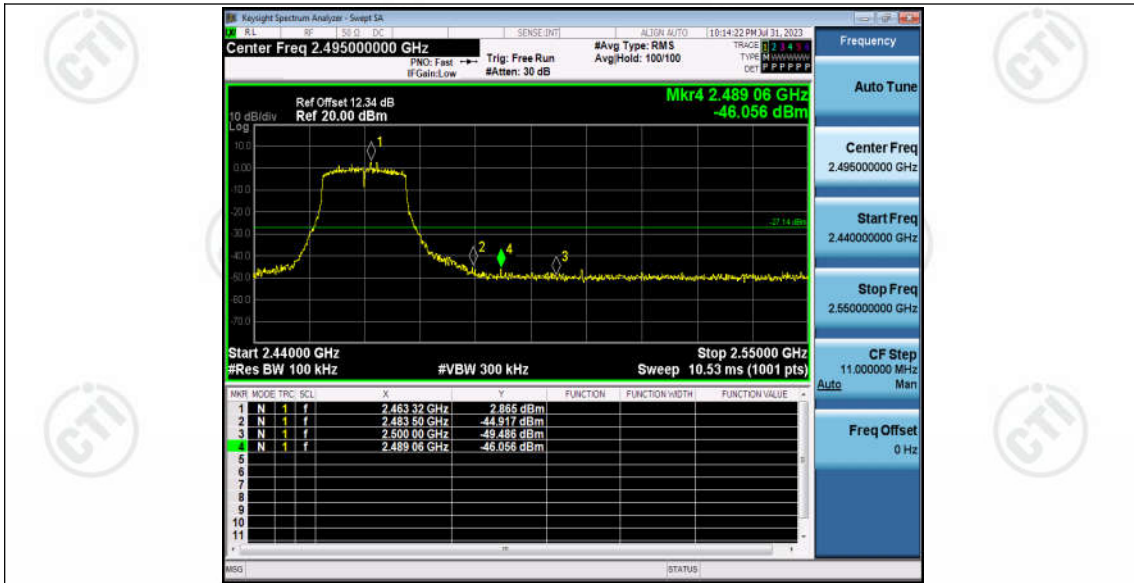
11G_Ant1_Low_2412



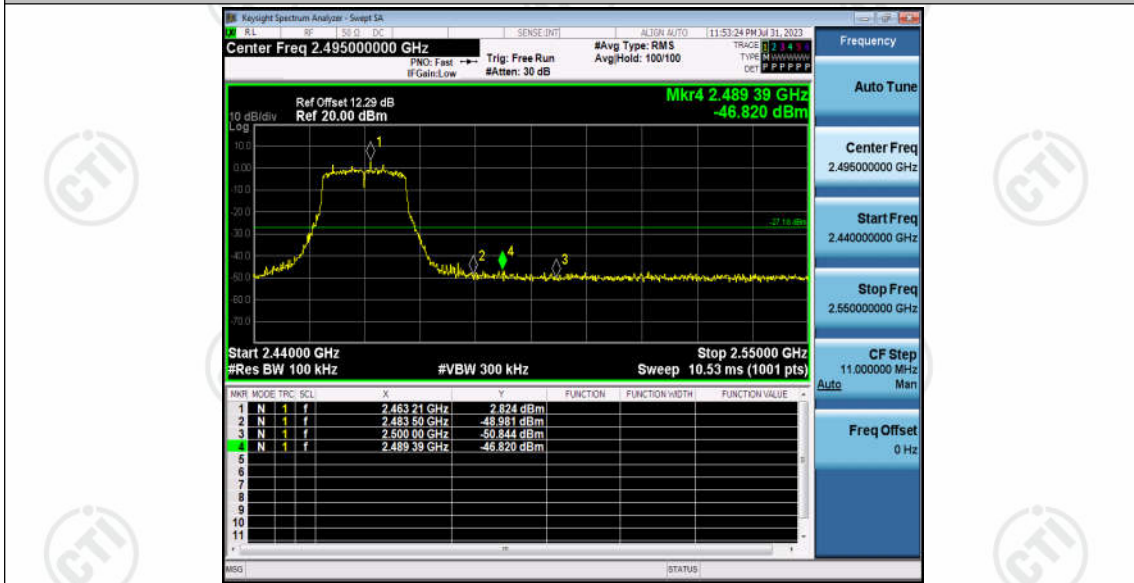
11G_Ant2_Low_2412



11G_Ant1_High_2462



11G_Ant2_High_2462



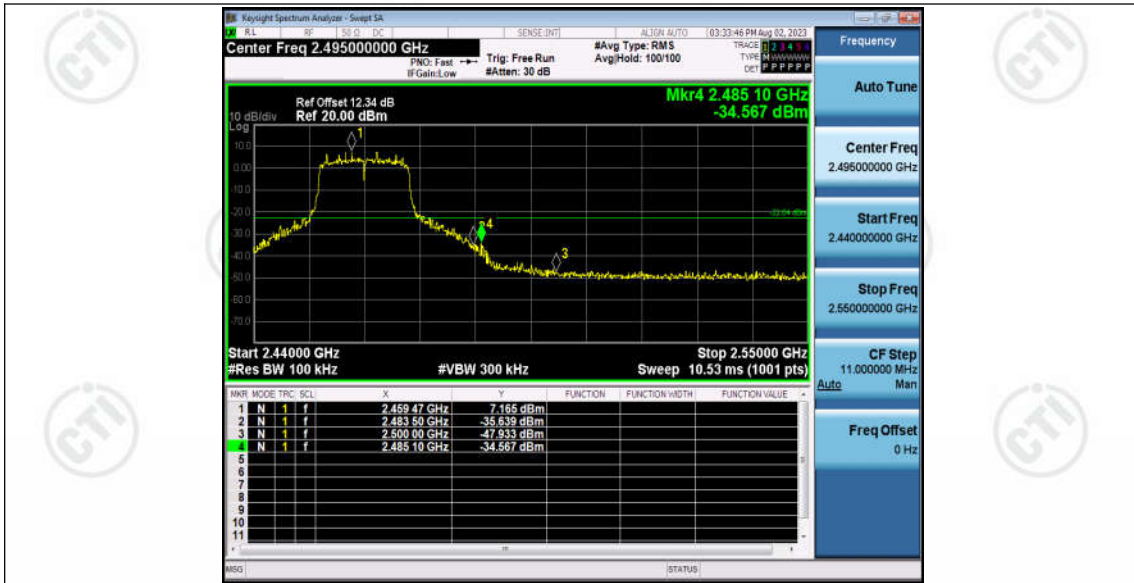
11N20SISO_Ant1_Low_2412



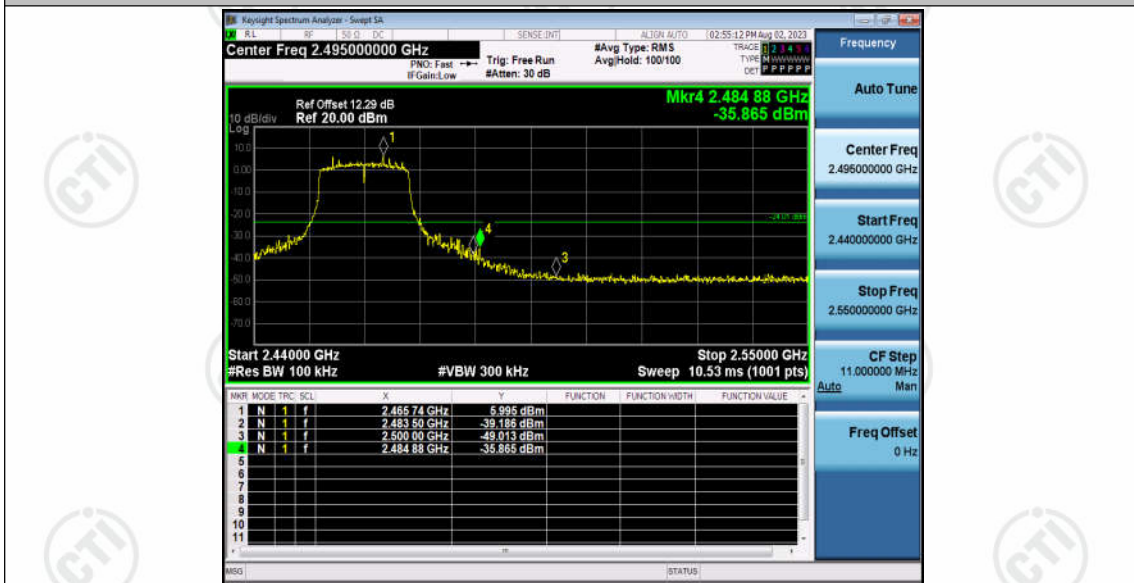
11N20SISO_Ant2_Low_2412



11N20SISO_Ant1_High_2462



11N20SISO_Ant2_High_2462



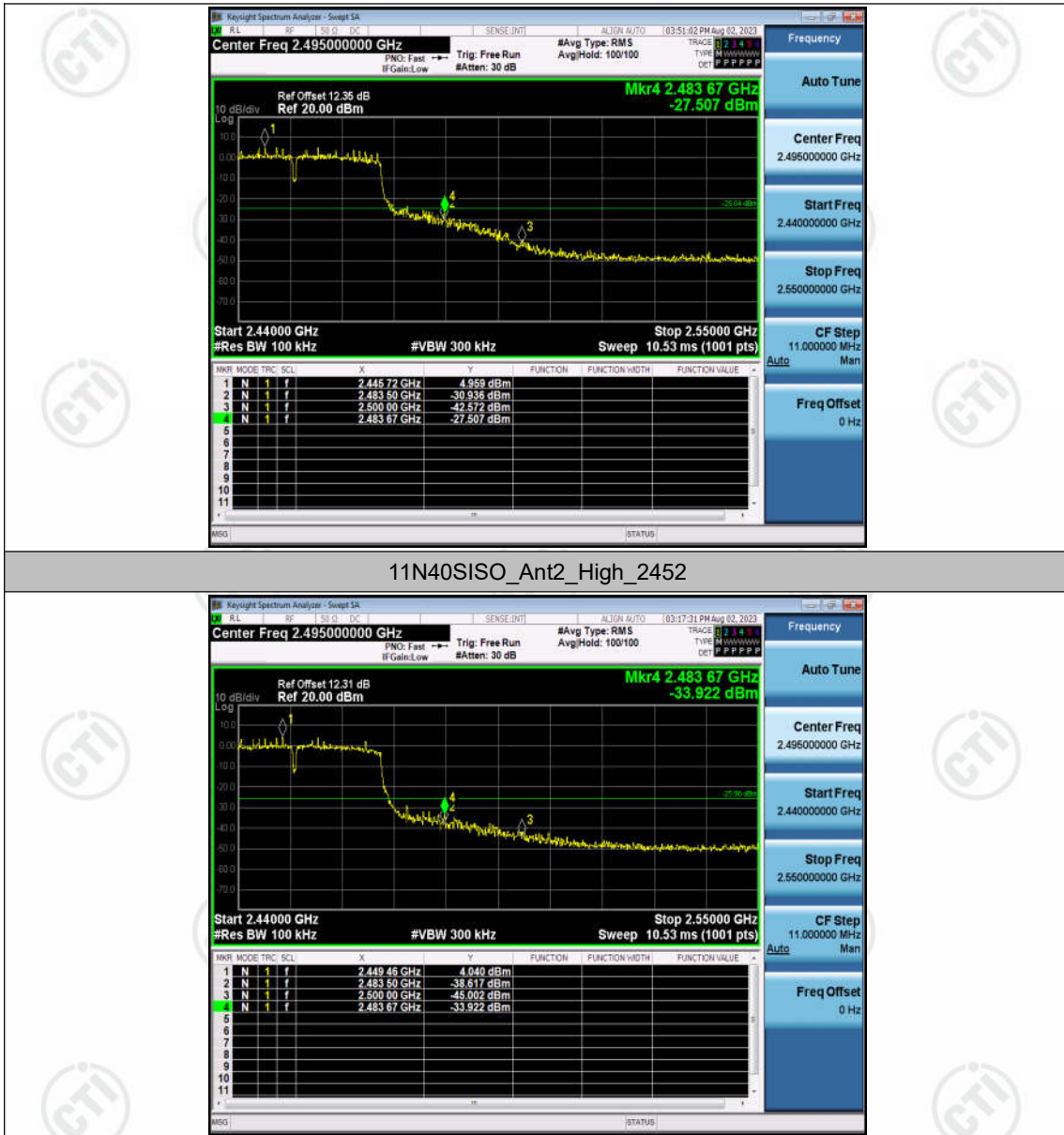
11N40SISO_Ant1_Low_2422



11N40SISO_Ant2_Low_2422



11N40SISO_Ant1_High_2452



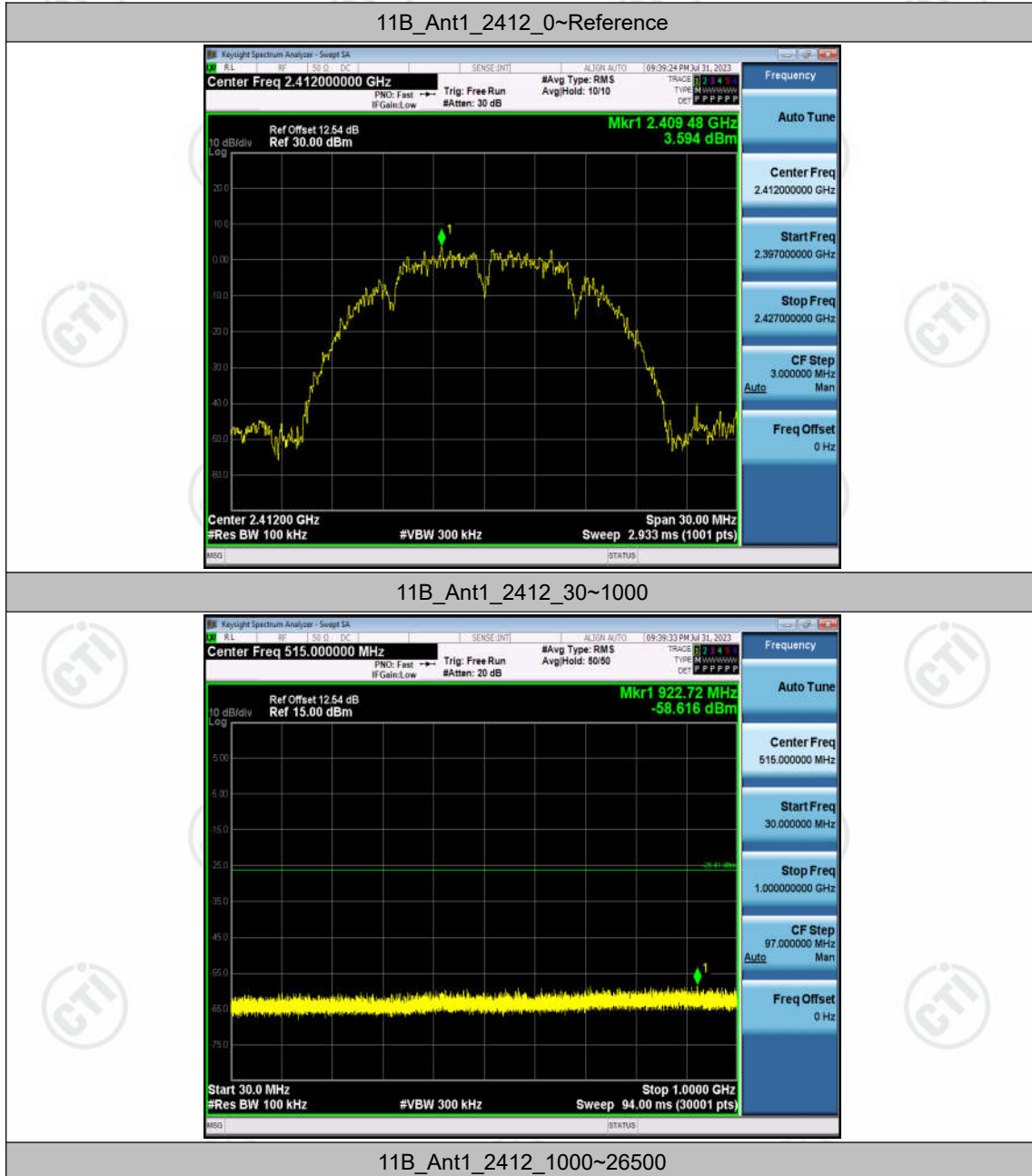
Appendix F: Conducted Spurious Emission

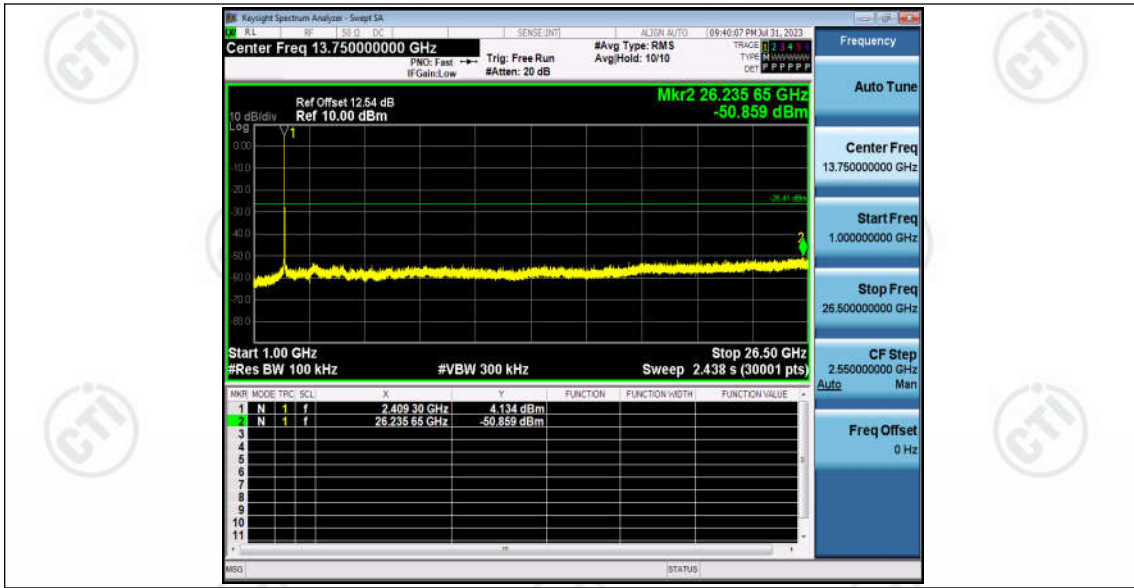
Test Result

TestMode	Antenna	Frequency[MHz]	FreqRange [Mhz]	RefLevel [dBm]	Result [dBm]	Limit [dBm]	Verdict
11B	Ant1	2412	Reference	3.59	3.59	---	PASS
			30~1000	3.59	-58.62	≤-26.41	PASS
			1000~26500	3.59	-50.86	≤-26.41	PASS
	Ant2	2412	Reference	4.41	4.41	---	PASS
			30~1000	4.41	-58.42	≤-25.59	PASS
			1000~26500	4.41	-50.96	≤-25.59	PASS
	Ant1	2437	Reference	3.31	3.31	---	PASS
			30~1000	3.31	-58.44	≤-26.69	PASS
			1000~26500	3.31	-50.52	≤-26.69	PASS
	Ant2	2437	Reference	3.30	3.30	---	PASS
			30~1000	3.30	-57.5	≤-26.7	PASS
			1000~26500	3.30	-50.8	≤-26.7	PASS
	Ant1	2462	Reference	2.88	2.88	---	PASS
			30~1000	2.88	-58.3	≤-27.12	PASS
			1000~26500	2.88	-50.84	≤-27.12	PASS
	Ant2	2462	Reference	2.65	2.65	---	PASS
			30~1000	2.65	-57.63	≤-27.35	PASS
			1000~26500	2.65	-50.66	≤-27.35	PASS
11G	Ant1	2412	Reference	2.42	2.42	---	PASS
			30~1000	2.42	-57.39	≤-27.58	PASS
			1000~26500	2.42	-50.43	≤-27.58	PASS
	Ant2	2412	Reference	-0.75	-0.75	---	PASS
			30~1000	-0.75	-58.1	≤-30.75	PASS
			1000~26500	-0.75	-50.32	≤-30.75	PASS
	Ant1	2437	Reference	2.19	2.19	---	PASS
			30~1000	2.19	-58.12	≤-27.81	PASS
			1000~26500	2.19	-50.95	≤-27.81	PASS
	Ant2	2437	Reference	1.72	1.72	---	PASS
			30~1000	1.72	-57.6	≤-28.28	PASS
			1000~26500	1.72	-50.25	≤-28.28	PASS
	Ant1	2462	Reference	-0.22	-0.22	---	PASS
			30~1000	-0.22	-58.08	≤-30.22	PASS
			1000~26500	-0.22	-50.46	≤-30.22	PASS
Ant2	2462	Reference	-1.28	-1.28	---	PASS	

			30~1000	-1.28	-57.55	≤-31.28	PASS
			1000~26500	-1.28	-50.91	≤-31.28	PASS
11N20SI SO	Ant1	2412	Reference	6.43	6.43	---	PASS
			30~1000	6.43	-49.6	≤-23.57	PASS
			1000~26500	6.43	-51.14	≤-23.57	PASS
	Ant2	2412	Reference	3.86	3.86	---	PASS
			30~1000	3.86	-57.44	≤-26.14	PASS
			1000~26500	3.86	-50.39	≤-26.14	PASS
	Ant1	2437	Reference	7.11	7.11	---	PASS
			30~1000	7.11	-56.99	≤-22.89	PASS
			1000~26500	7.11	-49.96	≤-22.89	PASS
	Ant2	2437	Reference	4.77	4.77	---	PASS
			30~1000	4.77	-58.16	≤-25.23	PASS
			1000~26500	4.77	-50.63	≤-25.23	PASS
	Ant1	2462	Reference	6.93	6.93	---	PASS
			30~1000	6.93	-52.2	≤-23.07	PASS
			1000~26500	6.93	-50.11	≤-23.07	PASS
	Ant2	2462	Reference	5.44	5.44	---	PASS
			30~1000	5.44	-58.1	≤-24.56	PASS
			1000~26500	5.44	-50.57	≤-24.56	PASS
11N40SI SO	Ant1	2422	Reference	3.57	3.57	---	PASS
			30~1000	3.57	-56.22	≤-26.43	PASS
			1000~26500	3.57	-50.9	≤-26.43	PASS
	Ant2	2422	Reference	3.01	3.01	---	PASS
			30~1000	3.01	-57.69	≤-26.99	PASS
			1000~26500	3.01	-50.07	≤-26.99	PASS
	Ant1	2437	Reference	3.45	3.45	---	PASS
			30~1000	3.45	-56.79	≤-26.55	PASS
			1000~26500	3.45	-51.05	≤-26.55	PASS
	Ant2	2437	Reference	1.62	1.62	---	PASS
			30~1000	1.62	-58.98	≤-28.38	PASS
			1000~26500	1.62	-50.06	≤-28.38	PASS
	Ant1	2452	Reference	4.91	4.91	---	PASS
			30~1000	4.91	-50.57	≤-25.09	PASS
			1000~26500	4.91	-51.08	≤-25.09	PASS
	Ant2	2452	Reference	1.96	1.96	---	PASS
			30~1000	1.96	-58.54	≤-28.04	PASS
			1000~26500	1.96	-50.75	≤-28.04	PASS

Test Graphs

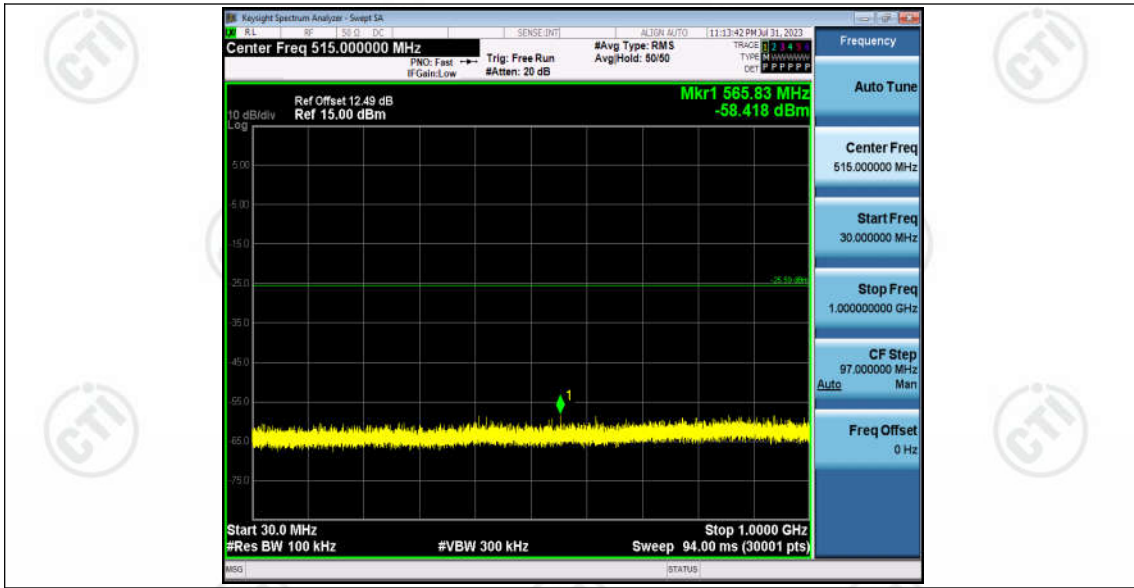




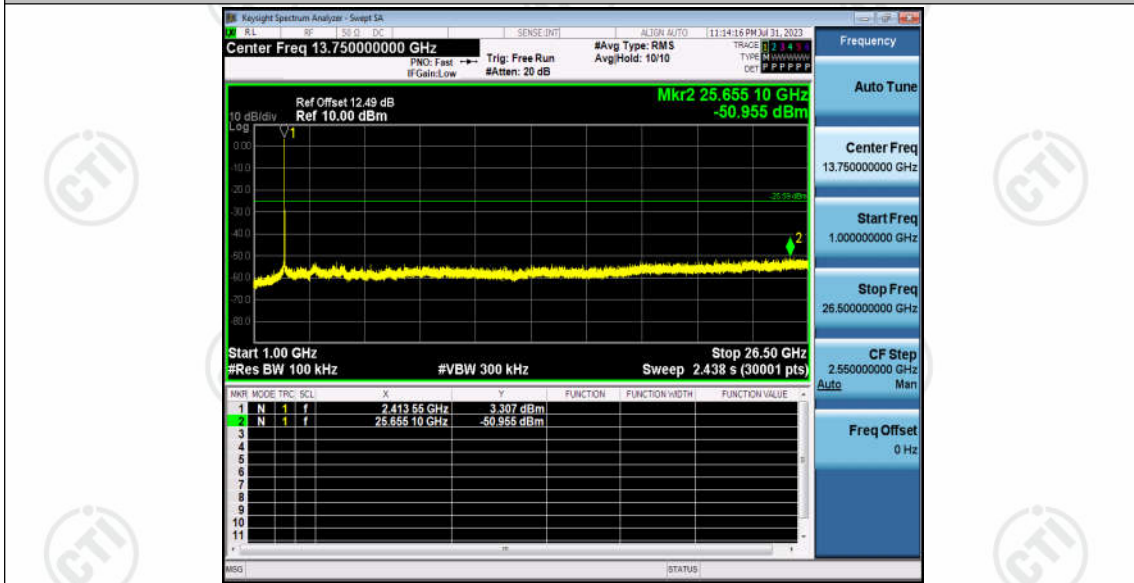
11B_Ant2_2412_0~Reference



11B_Ant2_2412_30~1000



11B_Ant2_2412_1000~26500



11B_Ant1_2437_0~Reference