

Appendix: 2.4G WIFI

Contents

Appendix A: DTS Bandwidth.....	3
Test Result.....	3
Test Graphs.....	4
Appendix B: Occupied Channel Bandwidth.....	10
Test Result.....	10
Test Graphs.....	11
Appendix C: Maximum conducted output power.....	17
Test Result.....	17
Appendix D: Maximum power spectral density.....	18
Test Result.....	18
Test Graphs.....	19
Appendix E: Band edge measurements.....	25
Test Result.....	25
Test Graphs.....	26
Appendix F: Conducted Spurious Emission.....	30
Test Result.....	30
Test Graphs.....	31
Appendix G: Duty Cycle.....	49
Test Result.....	49
Test Graphs.....	50

Appendix A: DTS Bandwidth

Test Result

Test Mode	Antenna	Channel	DTS BW [MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
11B	Ant1	2412	9.120	2407.440	2416.560	0.5	PASS
		2437	9.120	2432.440	2441.560	0.5	PASS
		2462	8.640	2457.880	2466.520	0.5	PASS
11G	Ant1	2412	16.160	2404.040	2420.200	0.5	PASS
		2437	16.400	2428.800	2445.200	0.5	PASS
		2462	16.440	2453.760	2470.200	0.5	PASS
11N20SISO	Ant1	2412	17.360	2403.440	2420.800	0.5	PASS
		2437	17.520	2428.320	2445.840	0.5	PASS
		2462	17.640	2453.160	2470.800	0.5	PASS
11N40SISO	Ant1	2422	35.840	2404.400	2440.240	0.5	PASS
		2437	35.840	2419.400	2455.240	0.5	PASS
		2452	35.520	2434.400	2469.920	0.5	PASS

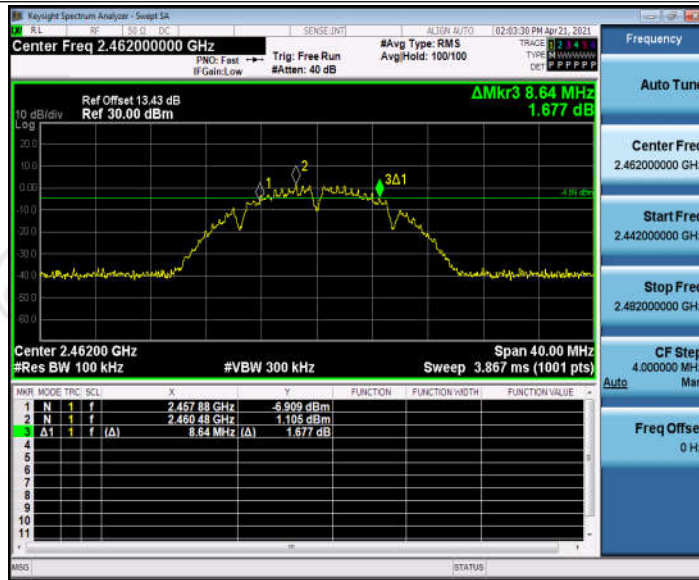
Test Graphs



11B_Ant1_2412



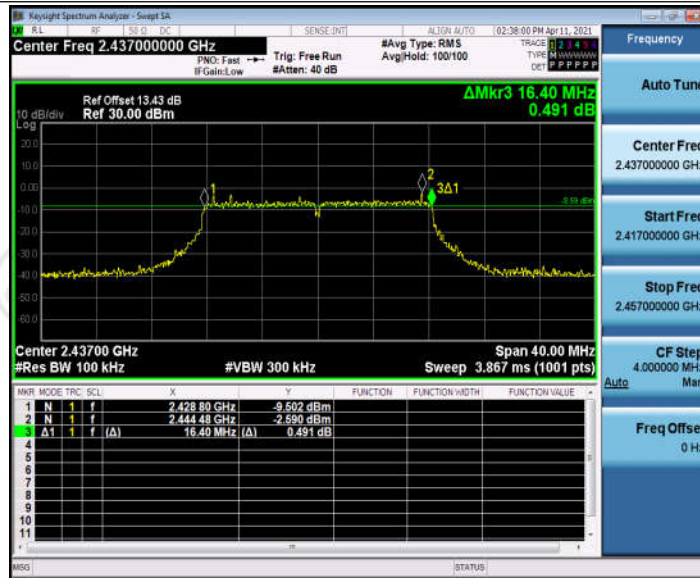
11B_Ant1_2437



11B_Ant1_2462



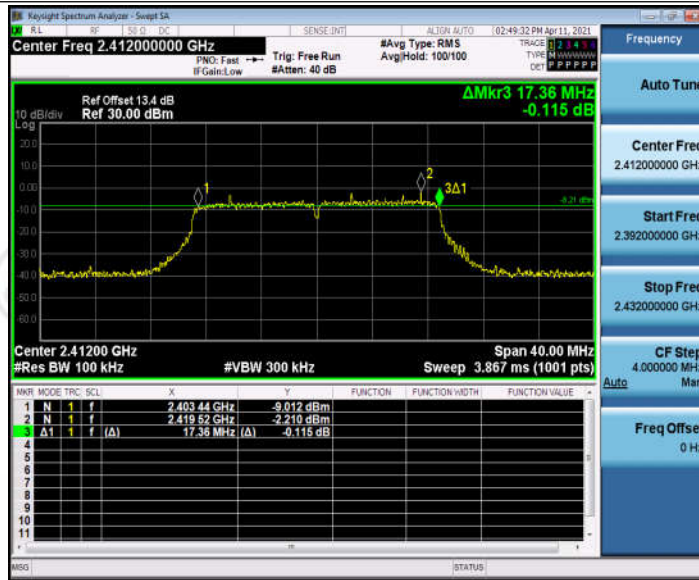
11G_Ant1_2412



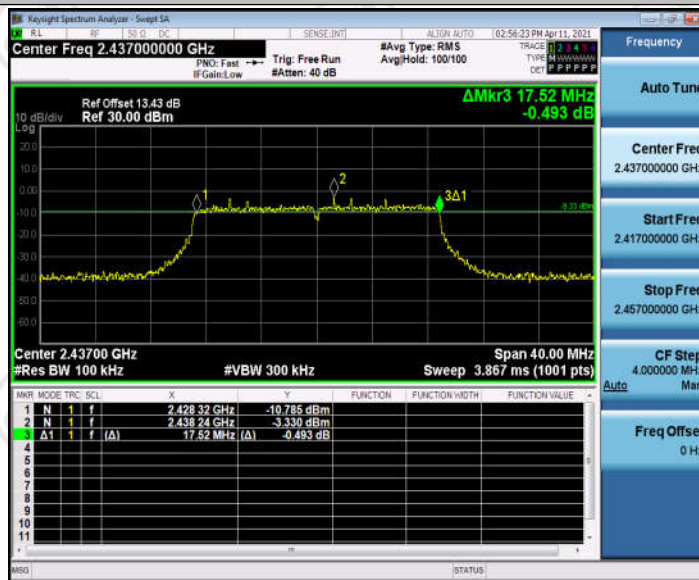
11G_Ant1_2437



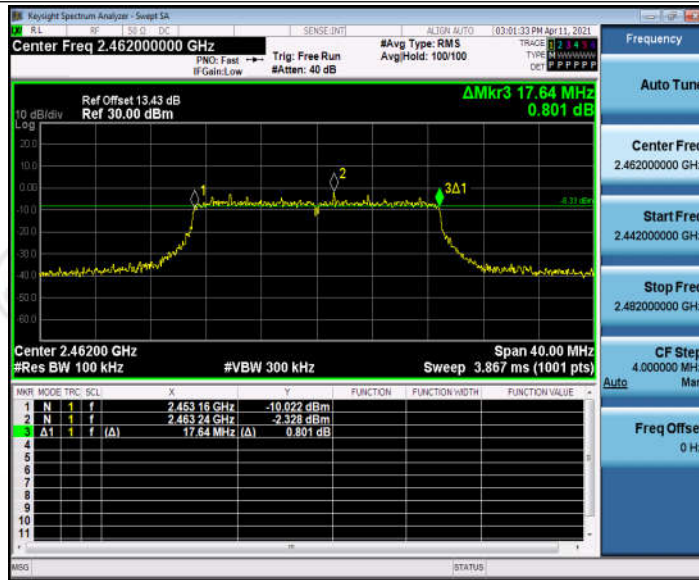
11G_Ant1_2462



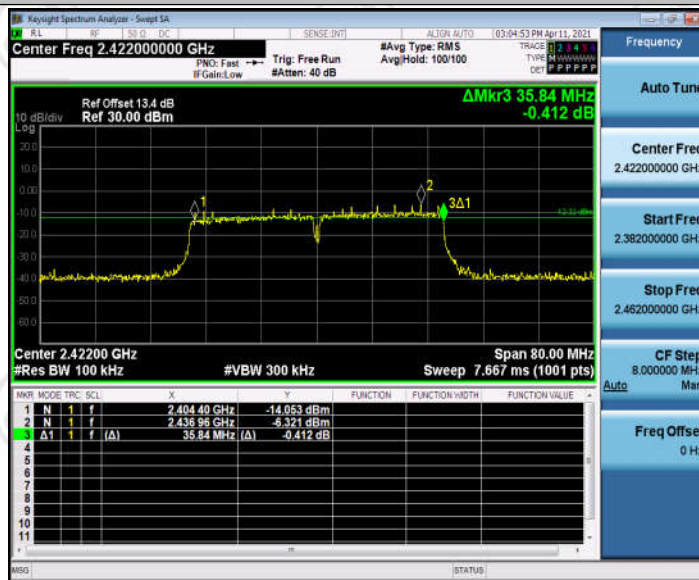
11N20SISO_Ant1_2412



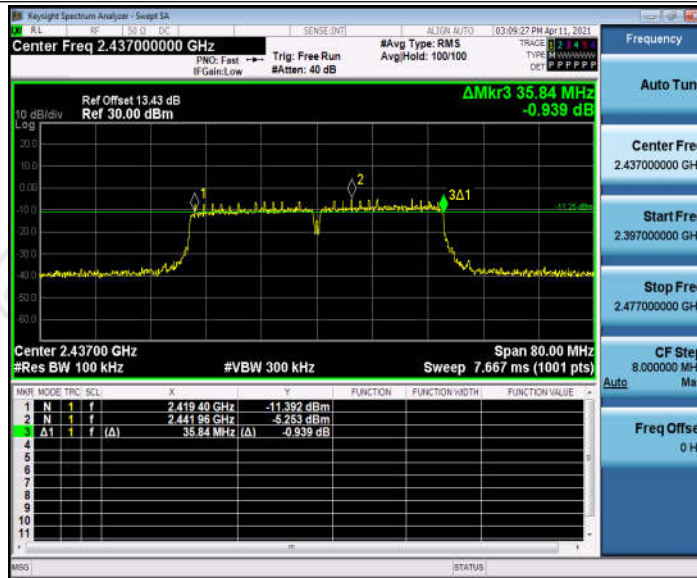
11N20SISO_Ant1_2437



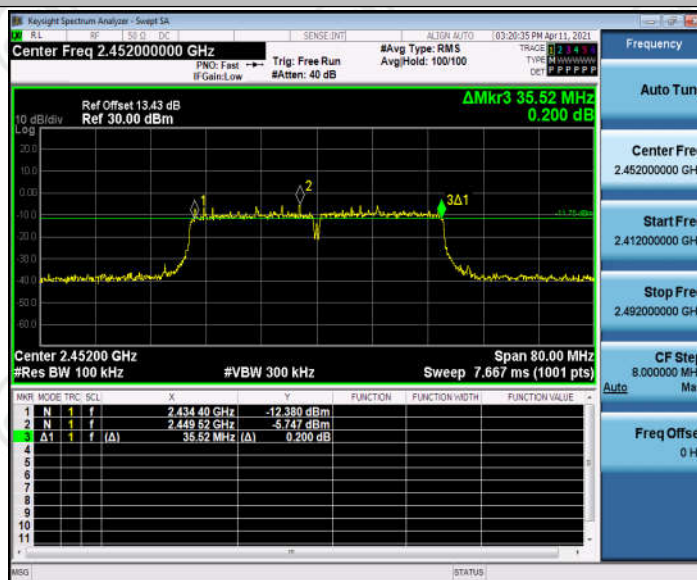
11N20SISO_Ant1_2462



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	13.997	2405.063	2419.060	---	PASS
		2437	13.889	2430.103	2443.992	---	PASS
		2462	13.840	2455.073	2468.913	---	PASS
11G	Ant1	2412	17.154	2403.544	2420.698	---	PASS
		2437	17.133	2428.474	2445.607	---	PASS
		2462	17.088	2453.432	2470.520	---	PASS
11N20SISO	Ant1	2412	18.155	2402.961	2421.116	---	PASS
		2437	18.116	2427.961	2446.077	---	PASS
		2462	18.192	2452.912	2471.104	---	PASS
11N40SISO	Ant1	2422	36.530	2403.942	2440.472	---	PASS
		2437	36.569	2418.899	2455.468	---	PASS
		2452	36.524	2433.829	2470.353	---	PASS

Test Graphs



11B_Ant1_2412



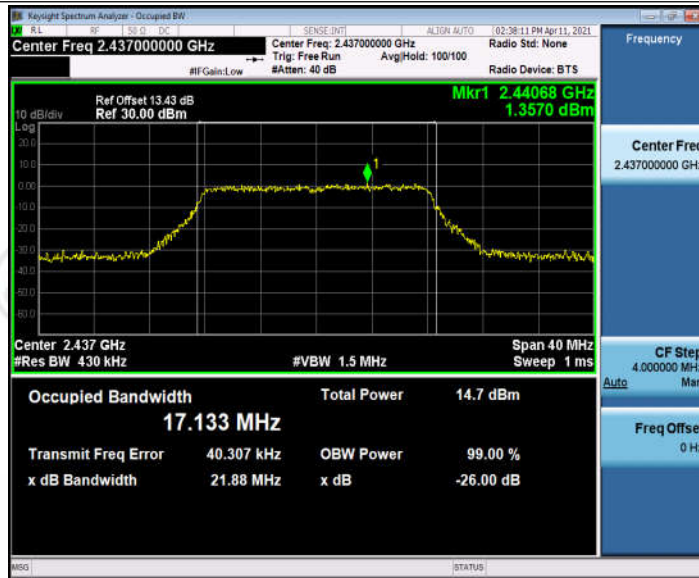
11B_Ant1_2437



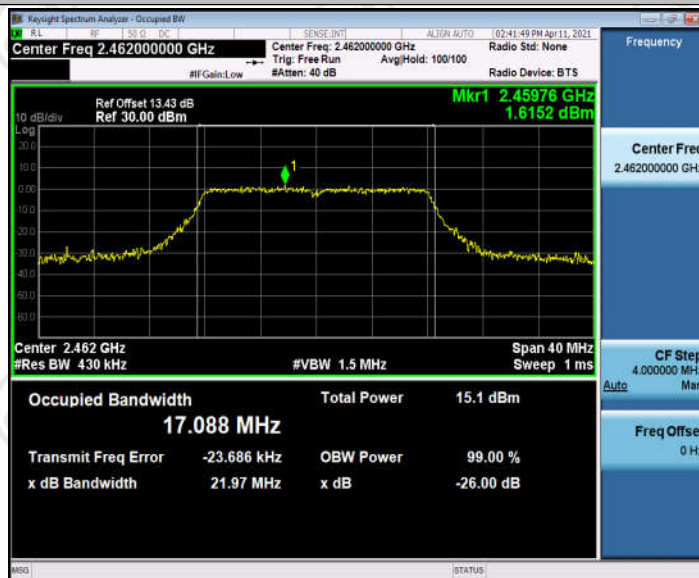
11B_Ant1_2462



11G_Ant1_2412



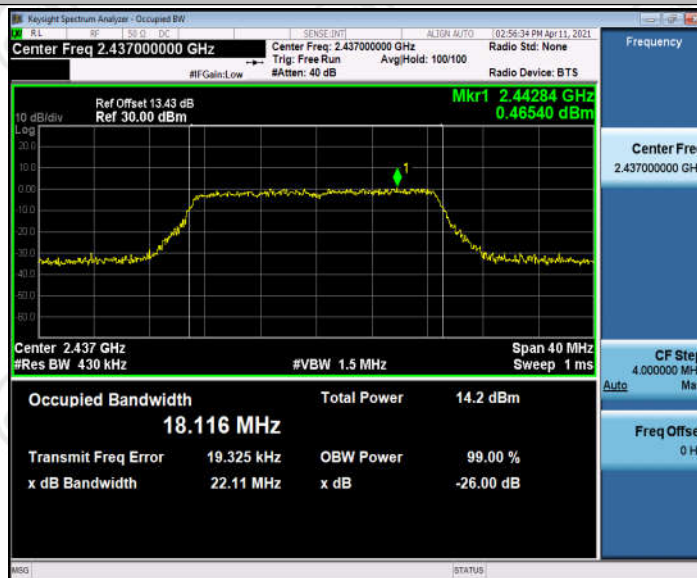
11G_Ant1_2437



11G_Ant1_2462



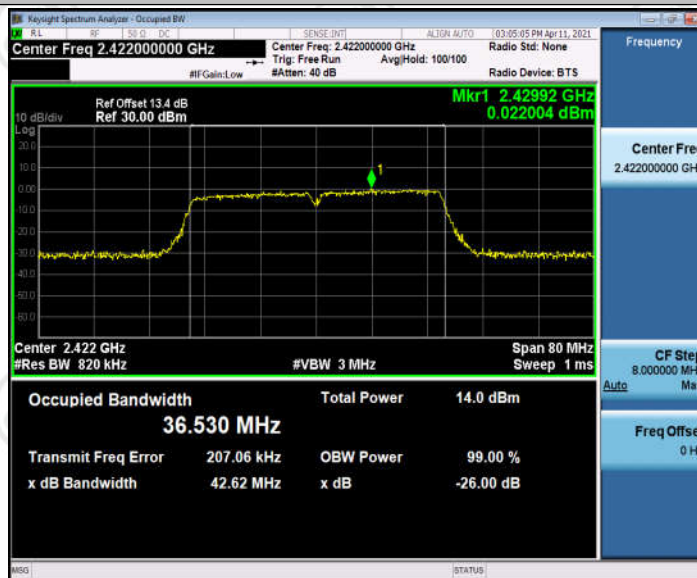
11N20SISO_Ant1_2412



11N20SISO_Ant1_2437



11N20SISO_Ant1_2462



11N40SISO_Ant1_2422



11N40SISO_Ant1_2437



11N40SISO_Ant1_2452

Appendix C: Maximum conducted output power

Test Result

Test Mode	Antenna	Channel	Result[dBm]	Limit[dBm]	Verdict
11B	Ant1	2412	12.53	<=30	PASS
		2437	12.92	<=30	PASS
		2462	12.85	<=30	PASS
11G	Ant1	2412	14.27	<=30	PASS
		2437	14.04	<=30	PASS
		2462	14.09	<=30	PASS
11N20SISO	Ant1	2412	13.60	<=30	PASS
		2437	13.56	<=30	PASS
		2462	13.40	<=30	PASS
11N40SISO	Ant1	2422	12.38	<=30	PASS
		2437	12.72	<=30	PASS
		2452	12.73	<=30	PASS

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

Appendix D: Maximum power spectral density

Test Result

Test Mode	Antenna	Channel	Result[dBm/3-100kHz]	Limit[dBm/3kHz]	Verdict
11B	Ant1	2412	-8.52	<=8	PASS
		2437	-7.33	<=8	PASS
		2462	-6.38	<=8	PASS
11G	Ant1	2412	-11.41	<=8	PASS
		2437	-11.25	<=8	PASS
		2462	-11.03	<=8	PASS
11N20SISO	Ant1	2412	-11.69	<=8	PASS
		2437	-11.38	<=8	PASS
		2462	-10.7	<=8	PASS
11N40SISO	Ant1	2422	-14.71	<=8	PASS
		2437	-12.25	<=8	PASS
		2452	-13.57	<=8	PASS

Test Graphs



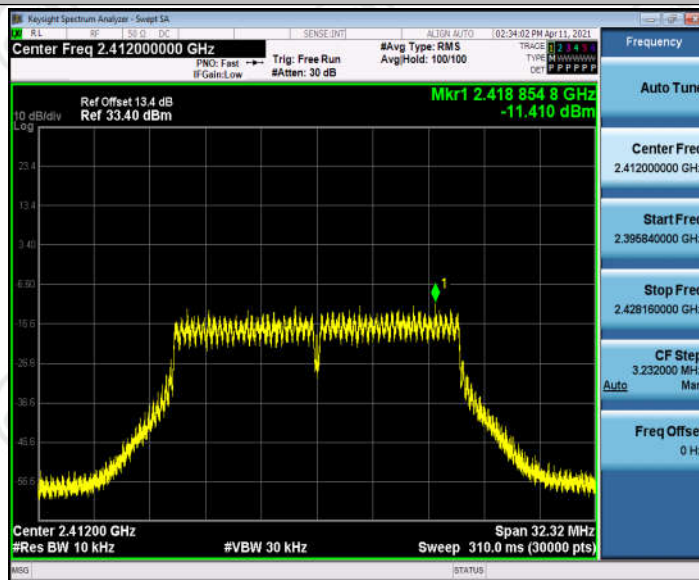
11B_Ant1_2412



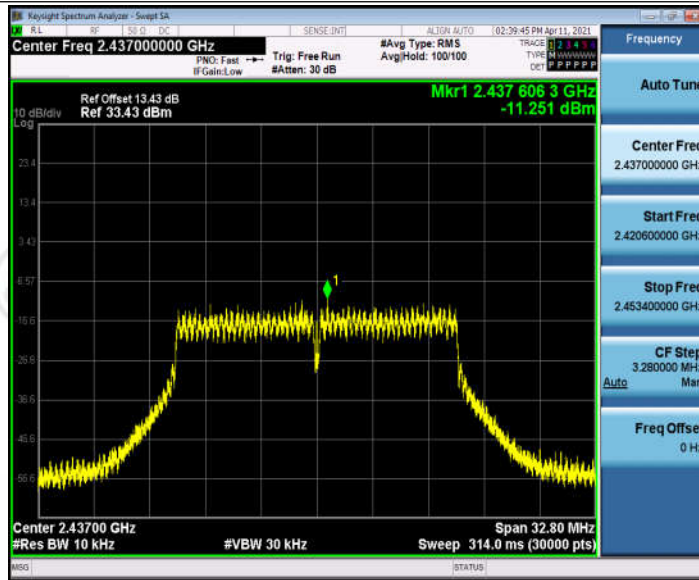
11B_Ant1_2437



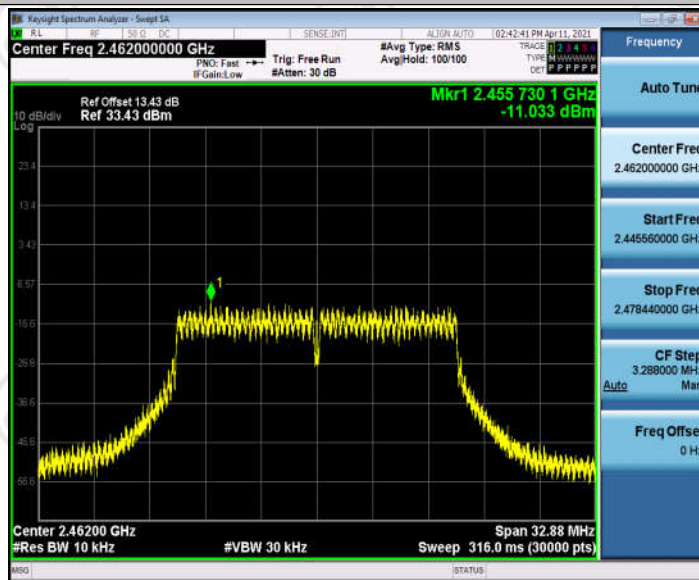
11B_Ant1_2462



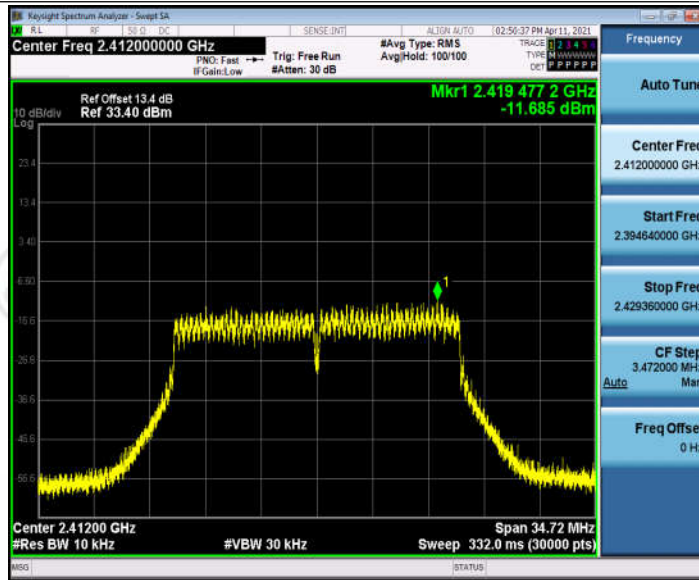
11G_Ant1_2412



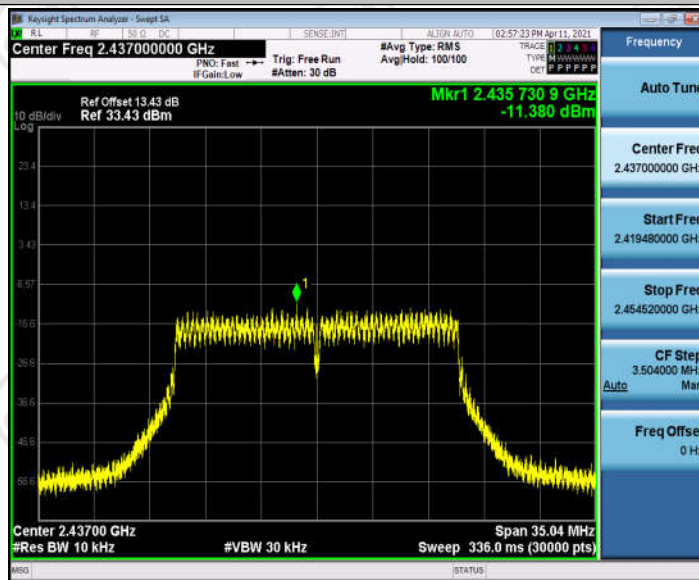
11G_Ant1_2437



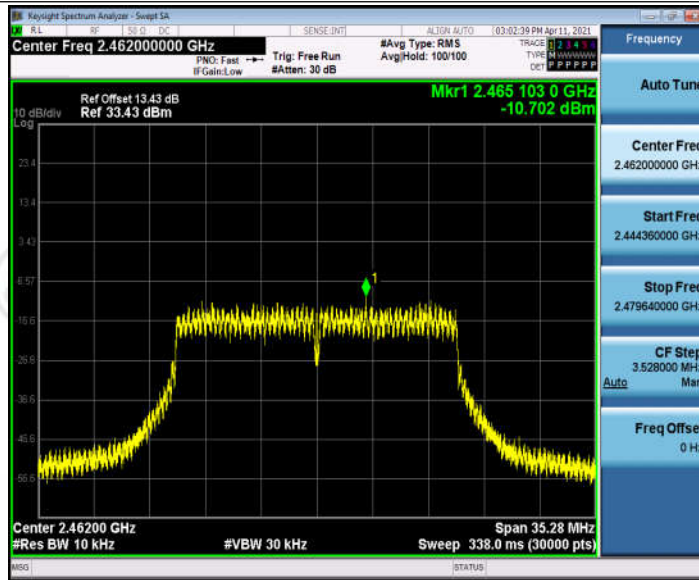
11G_Ant1_2462



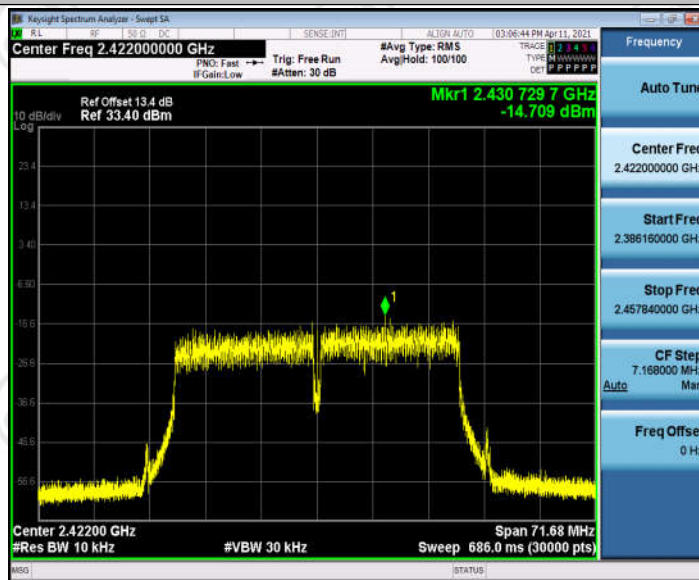
11N20SISO_Ant1_2412



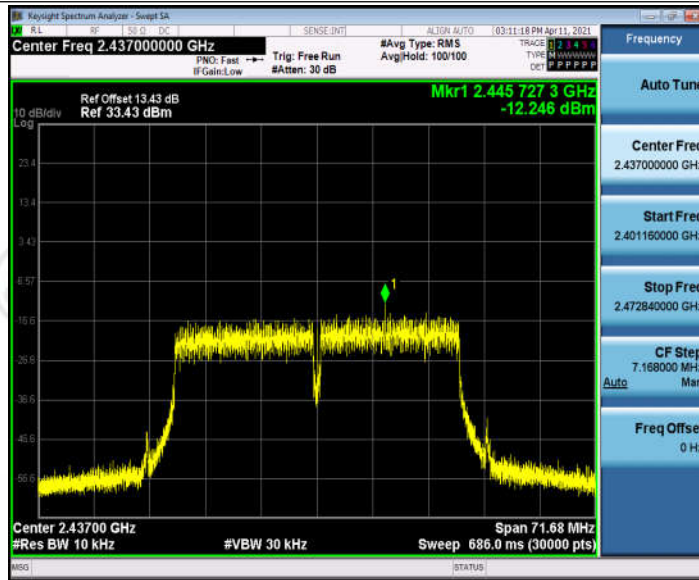
11N20SISO_Ant1_2437



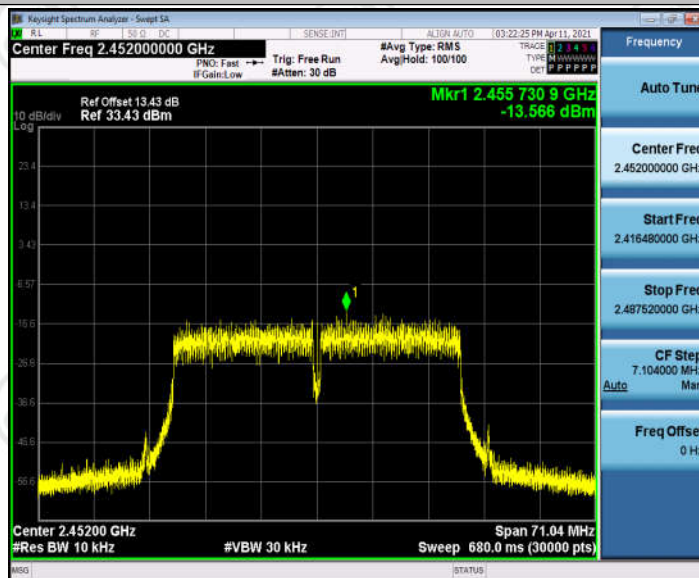
11N20SISO_Ant1_2462



11N40SISO_Ant1_2422



11N40SISO_Ant1_2437

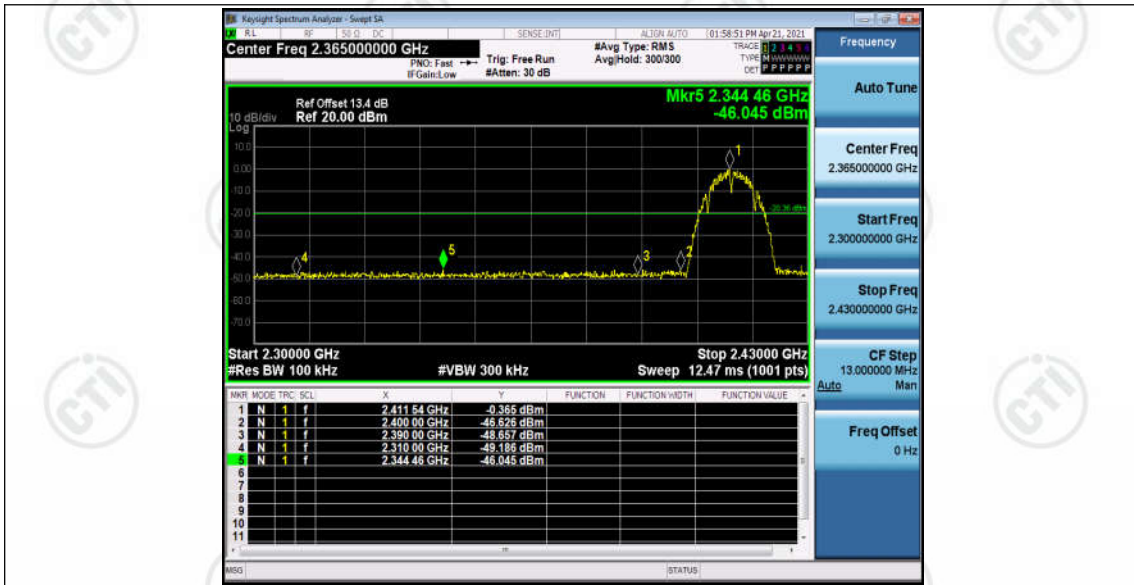


11N40SISO_Ant1_2452

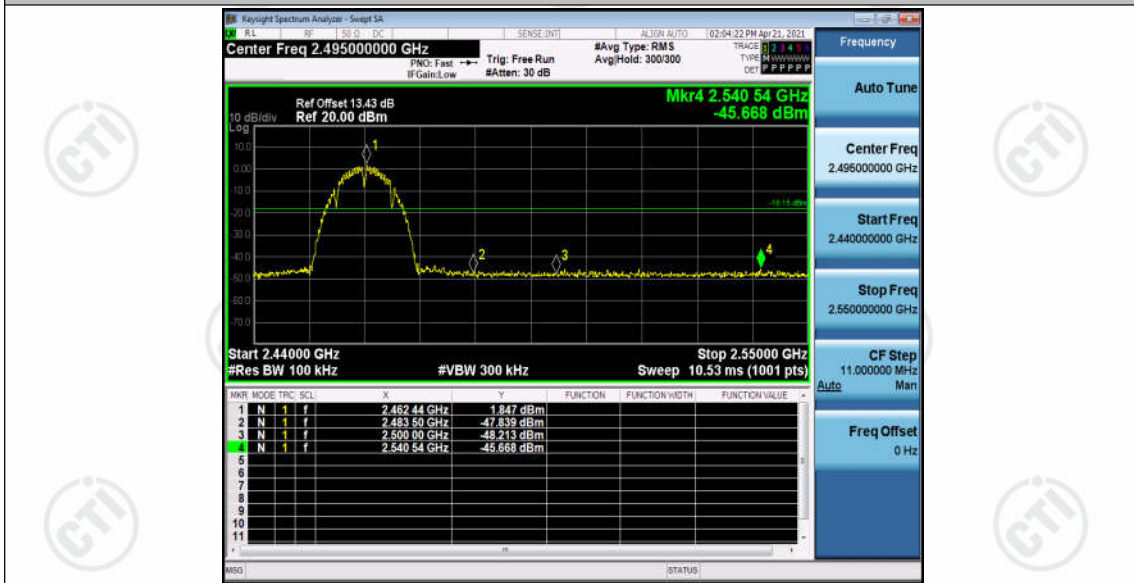
Appendix E:Band edge measurements**Test Result**

Test Mode	Antenna	ChName	Channel	RefLevel[dBm]	Result[dBm]	Limit[dBm]	Verdict
11B	Ant1	Low	2412	-0.37	-46.05	<=-20.36	PASS
		High	2462	1.85	-45.67	<=-18.15	PASS
11G	Ant1	Low	2412	-3.30	-40.27	<=-23.3	PASS
		High	2462	-1.93	-45.66	<=-21.93	PASS
11N20SISO	Ant1	Low	2412	-2.77	-41.59	<=-22.77	PASS
		High	2462	-2.26	-42.83	<=-22.26	PASS
11N40SISO	Ant1	Low	2422	-7.02	-41.4	<=-27.02	PASS
		High	2452	-5.40	-42.95	<=-25.4	PASS

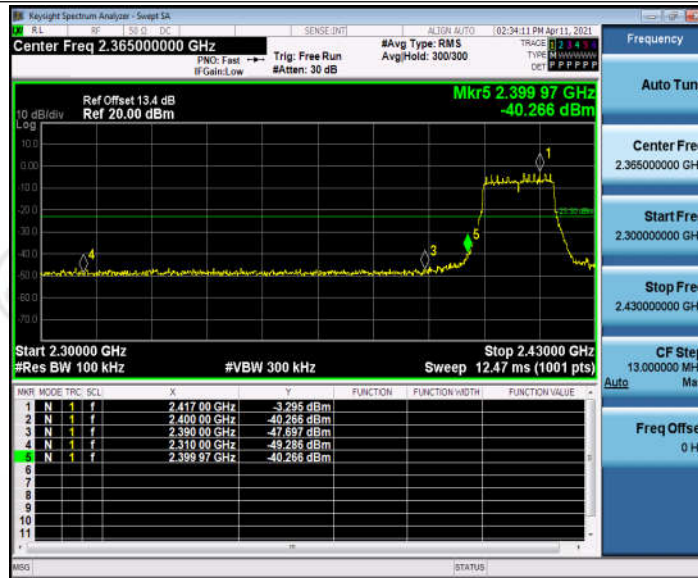
Test Graphs



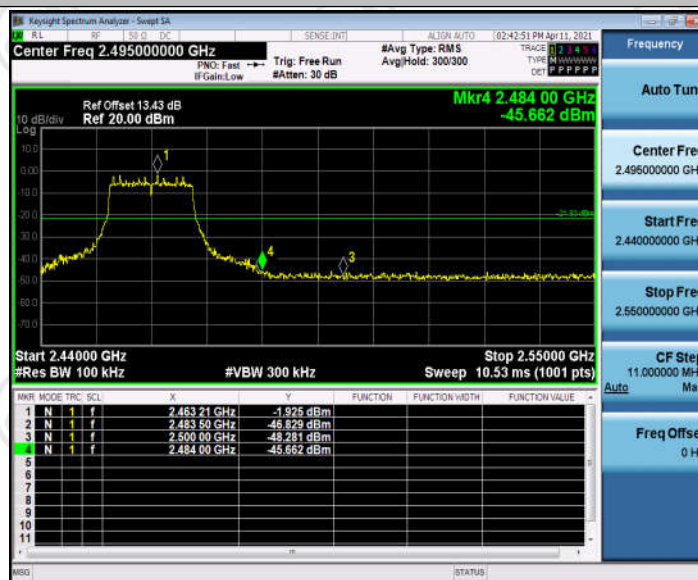
11B_Ant1_Low_2412



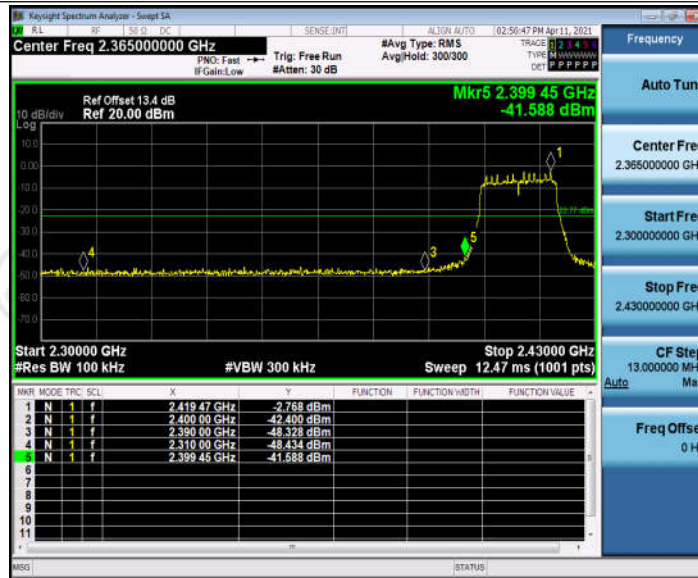
11B_Ant1_High_2462



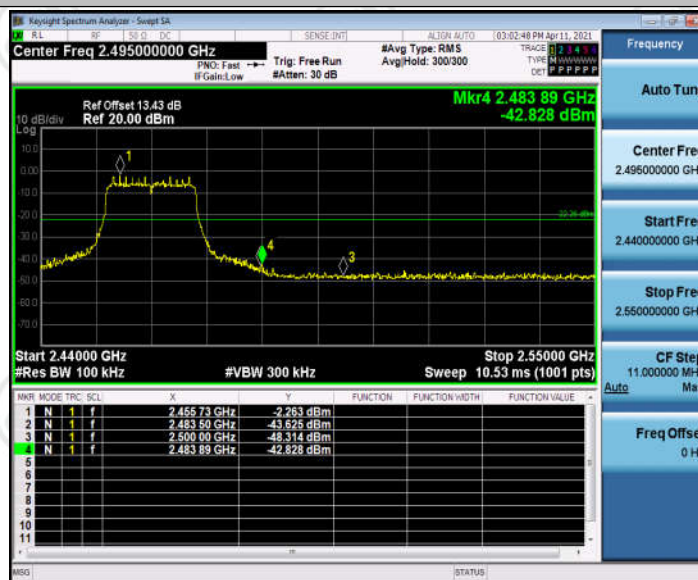
11G_Ant1_Low_2412



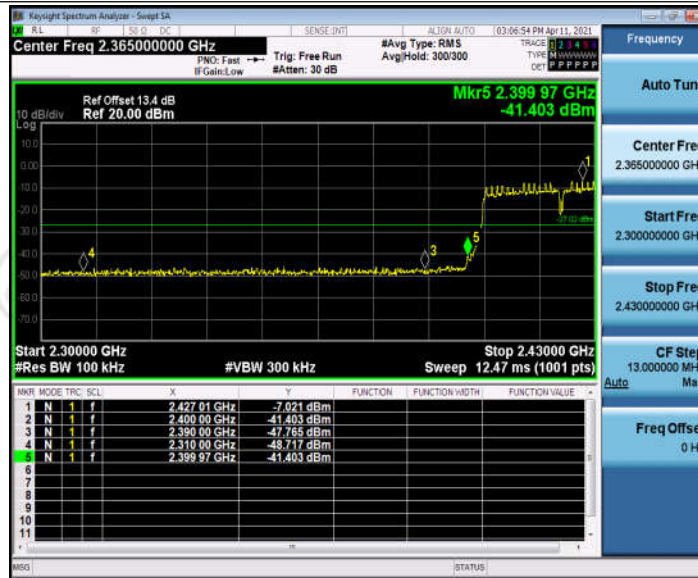
11G_Ant1_High_2462



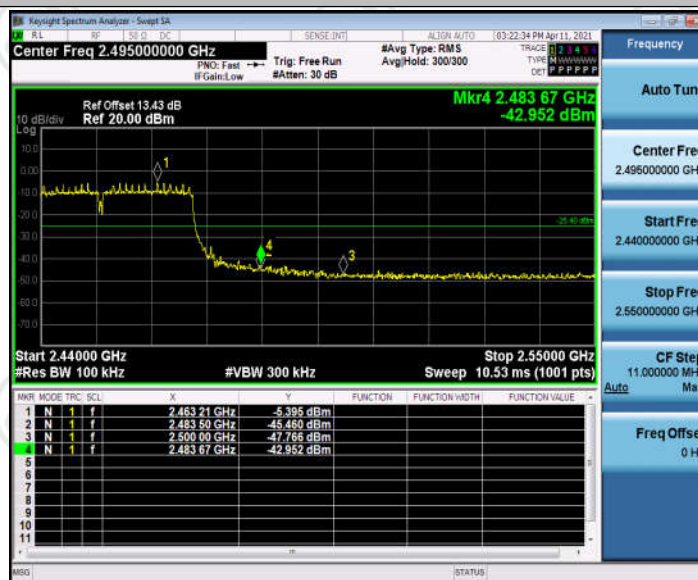
11N20SISO_Ant1_Low_2412



11N20SISO_Ant1_High_2462



11N40SISO_Ant1_Low_2422



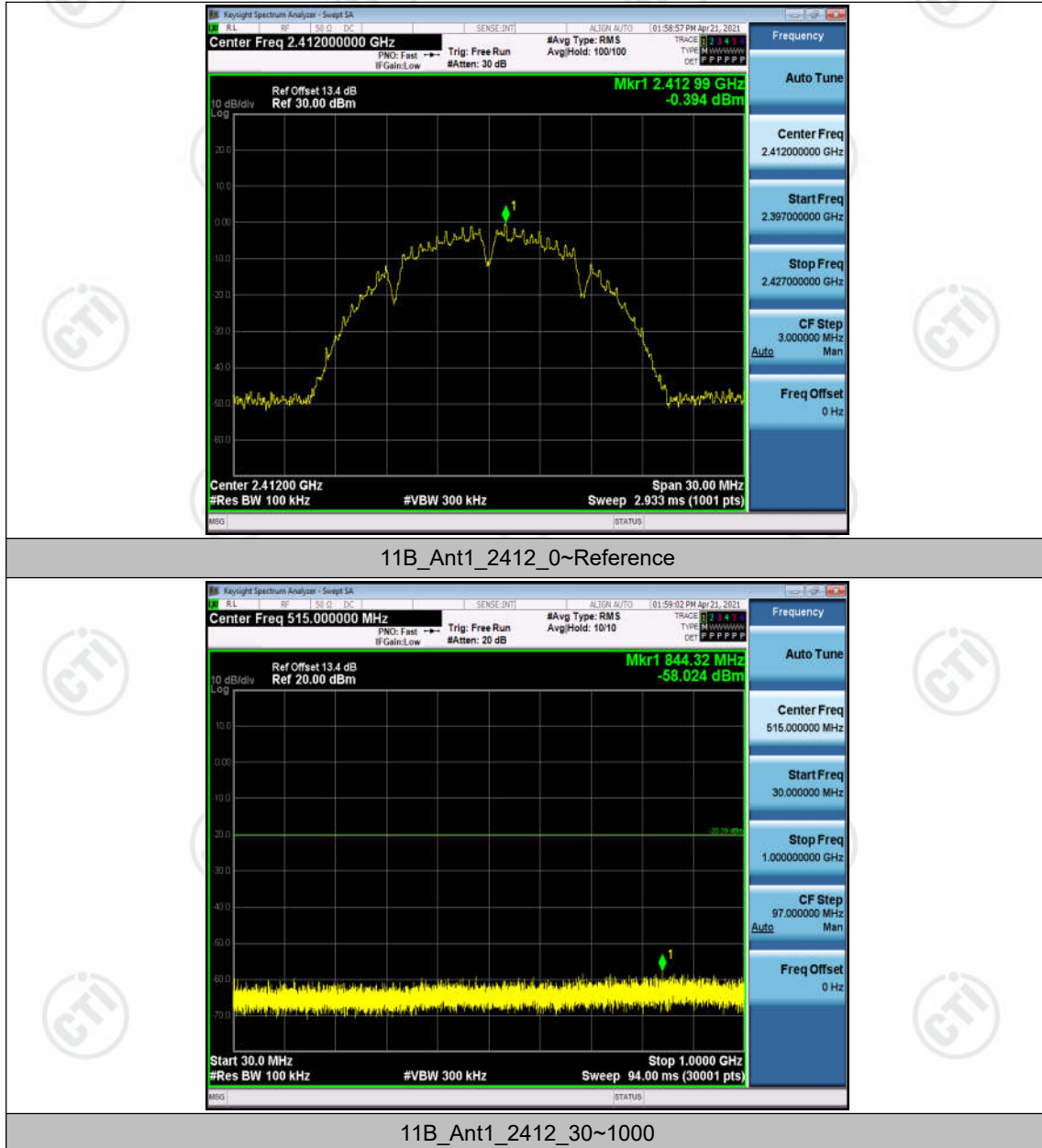
11N40SISO_Ant1_High_2452

Appendix F: Conducted Spurious Emission

Test Result

Test Mode	Antenna	Channel	Freq Range [Mhz]	RefLevel [dBm]	Result [dBm]	Limit [dBm]	Verdict
11B	Ant1	2412	Reference	-0.39	-0.39	---	PASS
			30~1000	30~1000	-58.024	<=-20.394	PASS
			1000~26500	1000~26500	-39.505	<=-20.394	PASS
		2437	Reference	0.59	0.59	---	PASS
			30~1000	30~1000	-58.144	<=-19.406	PASS
			1000~26500	1000~26500	-37.457	<=-19.406	PASS
		2462	Reference	1.73	1.73	---	PASS
			30~1000	30~1000	-58.01	<=-18.273	PASS
			1000~26500	1000~26500	-37.455	<=-18.273	PASS
11G	Ant1	2412	Reference	-3.55	-3.55	---	PASS
			30~1000	30~1000	-57.307	<=-23.546	PASS
			1000~26500	1000~26500	-45.512	<=-23.546	PASS
		2437	Reference	-3.26	-3.26	---	PASS
			30~1000	30~1000	-58.389	<=-23.262	PASS
			1000~26500	1000~26500	-46.862	<=-23.262	PASS
		2462	Reference	-1.94	-1.94	---	PASS
			30~1000	30~1000	-57.519	<=-21.94	PASS
			1000~26500	1000~26500	-46.453	<=-21.94	PASS
11N20SISO	Ant1	2412	Reference	-2.94	-2.94	---	PASS
			30~1000	30~1000	-58.061	<=-22.936	PASS
			1000~26500	1000~26500	-45.453	<=-22.936	PASS
		2437	Reference	-4.68	-4.68	---	PASS
			30~1000	30~1000	-58.086	<=-24.683	PASS
			1000~26500	1000~26500	-47.189	<=-24.683	PASS
		2462	Reference	-2.86	-2.86	---	PASS
			30~1000	30~1000	-57.613	<=-22.863	PASS
			1000~26500	1000~26500	-47.77	<=-22.863	PASS
11N40SISO	Ant1	2422	Reference	-7.48	-7.48	---	PASS
			30~1000	30~1000	-57.335	<=-27.475	PASS
			1000~26500	1000~26500	-45.848	<=-27.475	PASS
		2437	Reference	-5.73	-5.73	---	PASS
			30~1000	30~1000	-58.231	<=-25.731	PASS
			1000~26500	1000~26500	-46.06	<=-25.731	PASS
		2452	Reference	-5.62	-5.62	---	PASS
			30~1000	30~1000	-57.131	<=-25.619	PASS
			1000~26500	1000~26500	-49.221	<=-25.619	PASS

Test Graphs

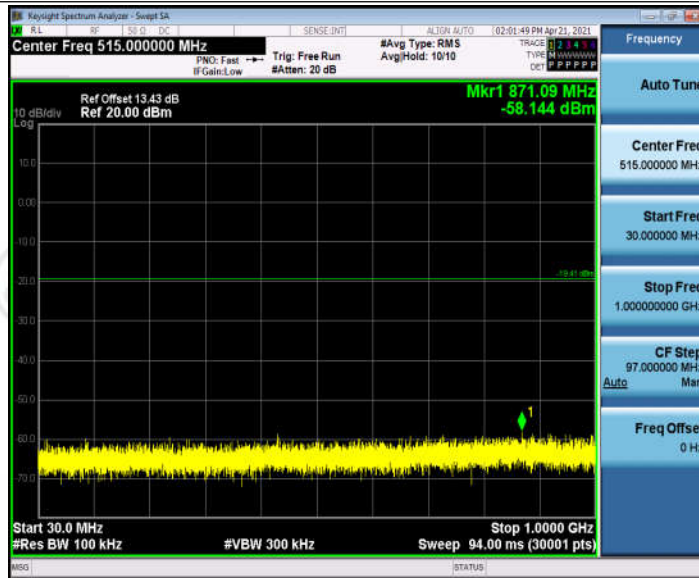




11B_Ant1_2412_1000~26500



11B_Ant1_2437_0~Reference



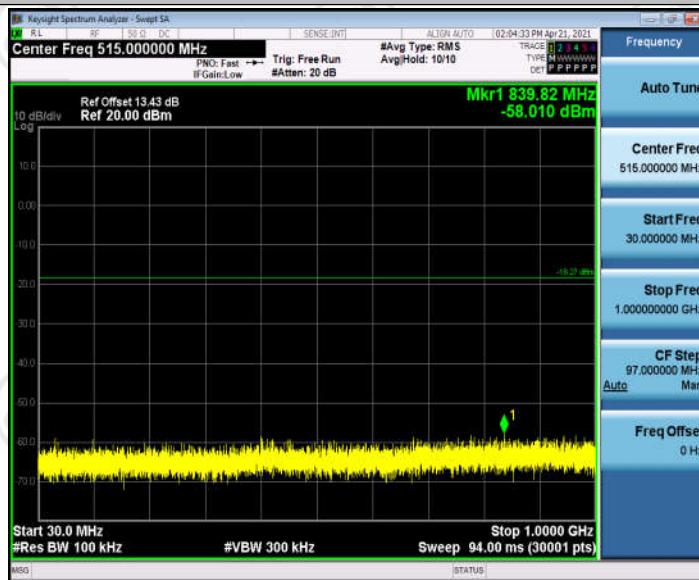
11B_Ant1_2437_30~1000



11B_Ant1_2437_1000~26500



11B_Ant1_2462_0~Reference



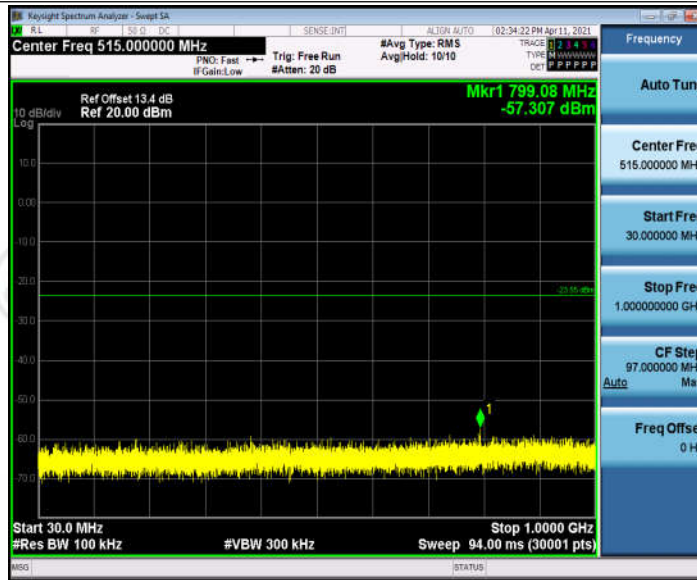
11B_Ant1_2462_30~1000



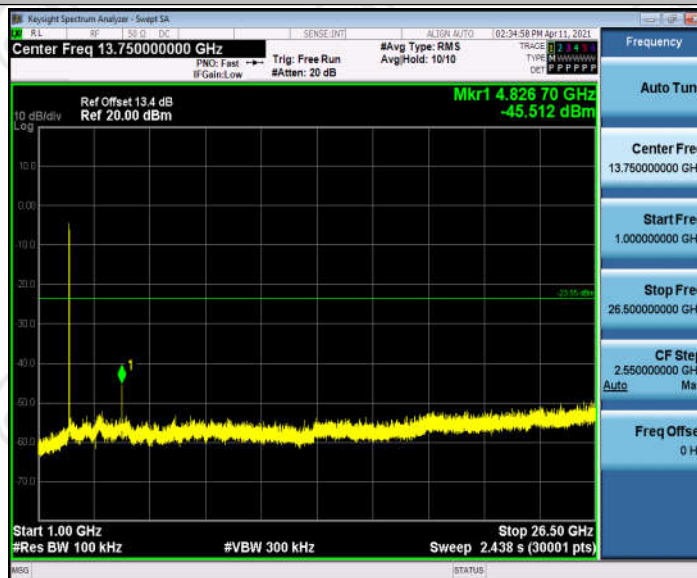
11B_Ant1_2462_1000~26500



11G_Ant1_2412_0~Reference



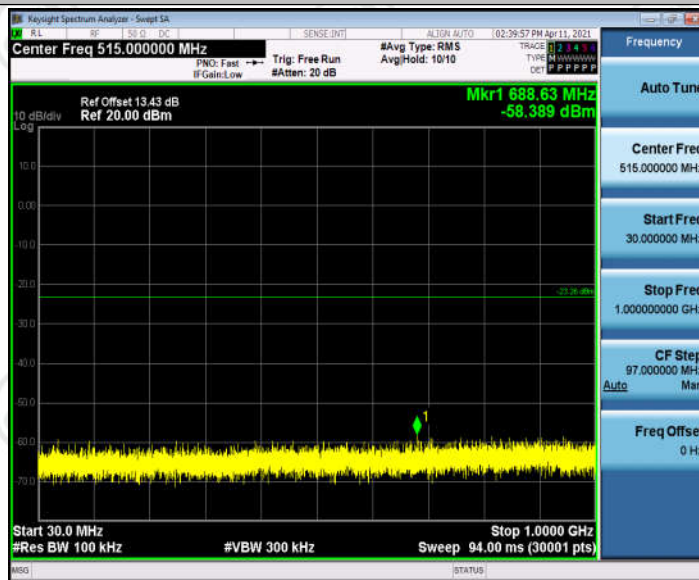
11G_Ant1_2412_30~1000



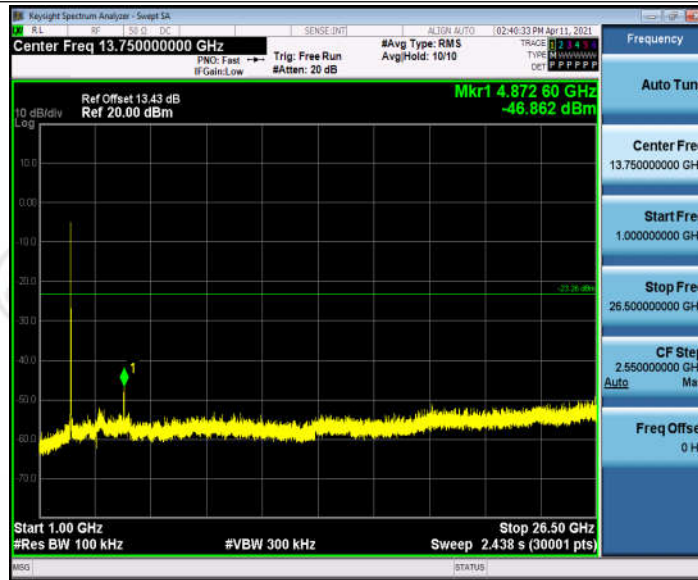
11G_Ant1_2412_1000~26500



11G_Ant1_2437_0~Reference



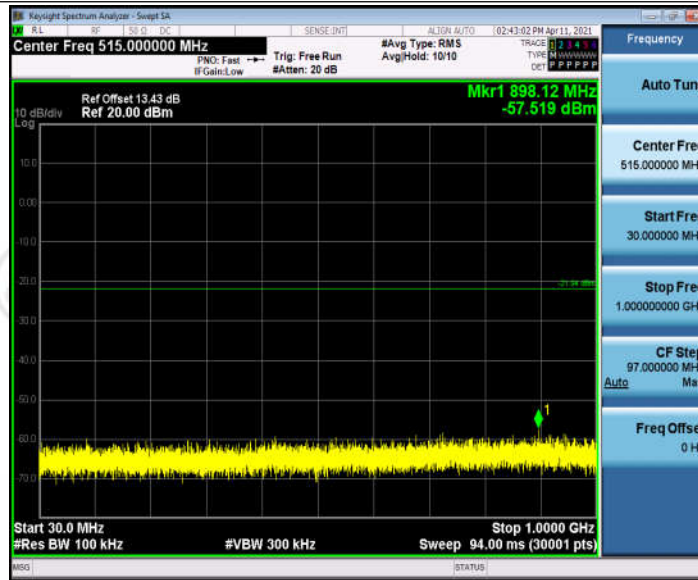
11G_Ant1_2437_30~1000



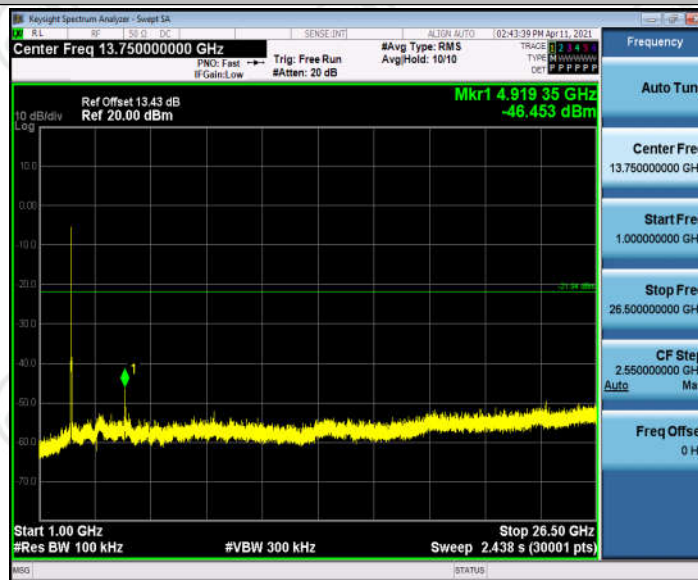
11G_Ant1_2437_1000~26500



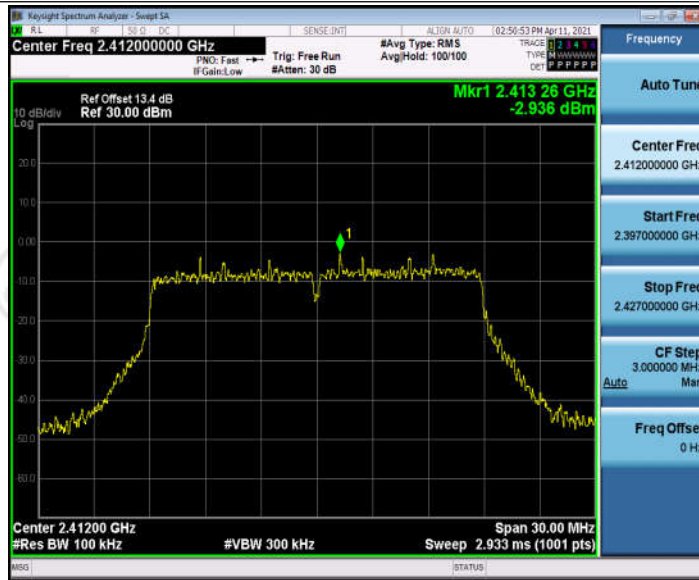
11G_Ant1_2462_0~Reference



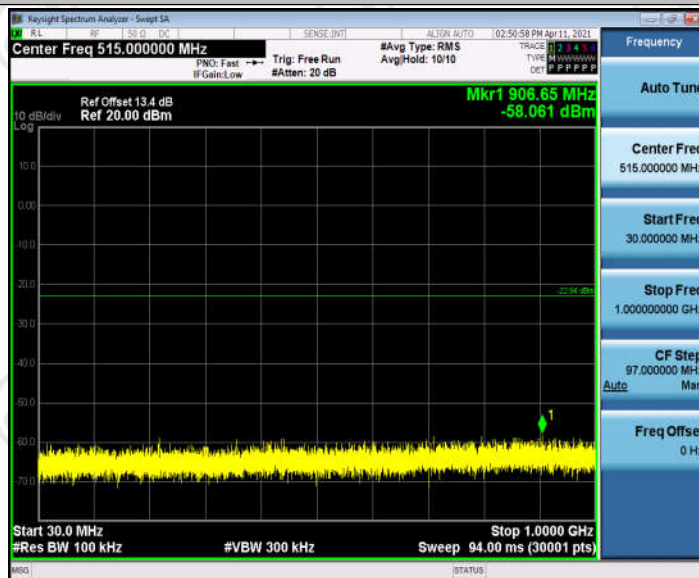
11G_Ant1_2462_30~1000



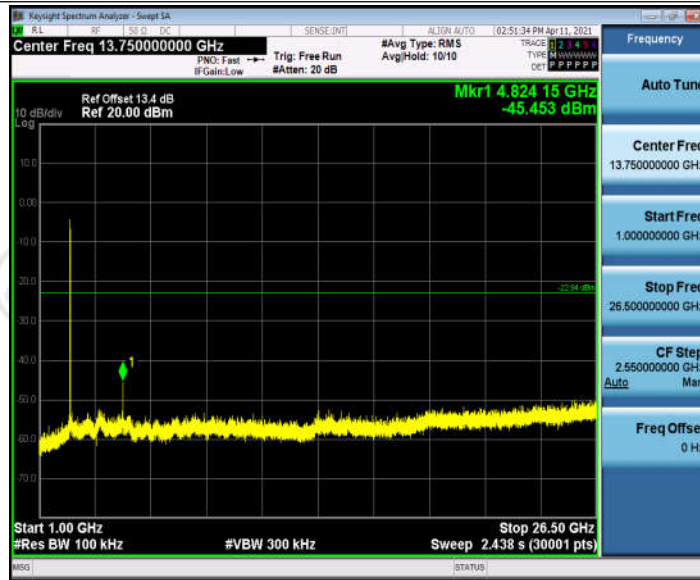
11G_Ant1_2462_1000~26500



11N20SISO_Ant1_2412_0~Reference



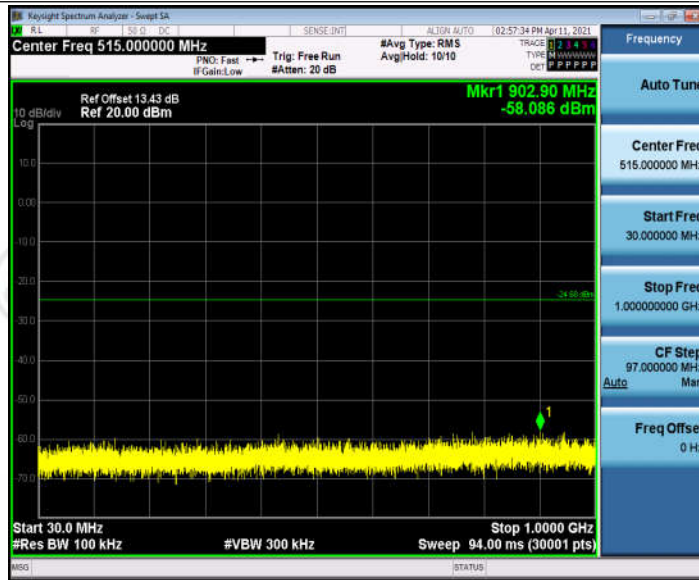
11N20SISO_Ant1_2412_30~1000



11N20SISO_Ant1_2412_1000~26500



11N20SISO_Ant1_2437_0~Reference



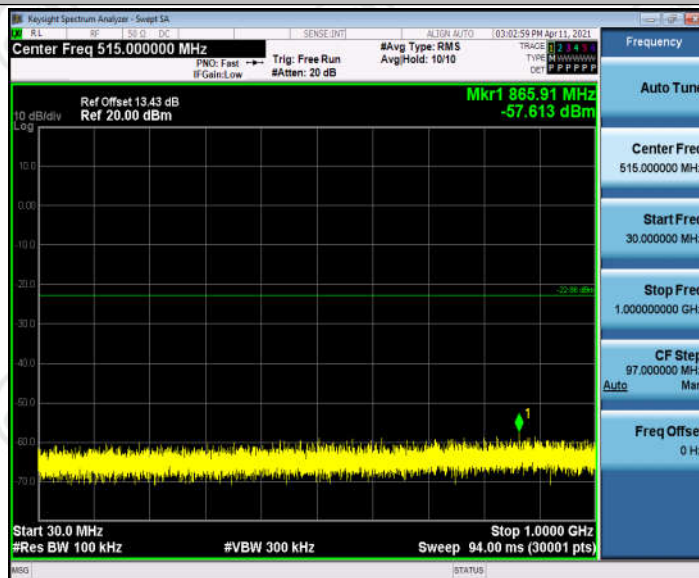
11N20SISO_Ant1_2437_30~1000



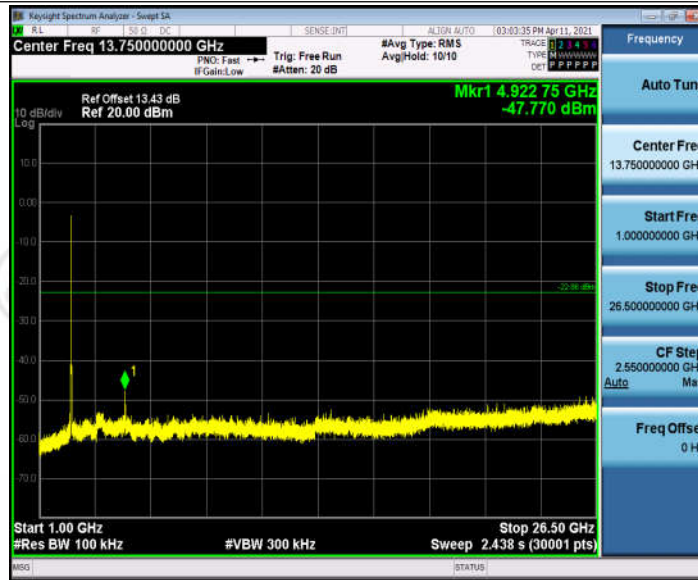
11N20SISO_Ant1_2437_1000~26500



11N20SISO_Ant1_2462_0~Reference



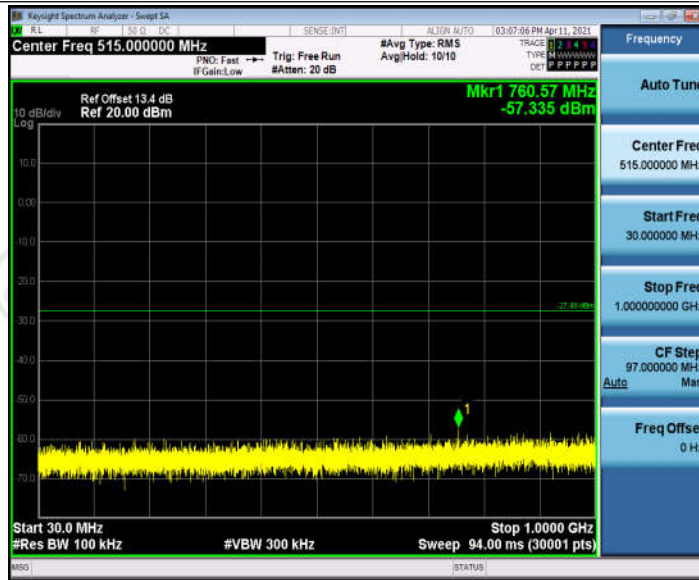
11N20SISO_Ant1_2462_30~1000



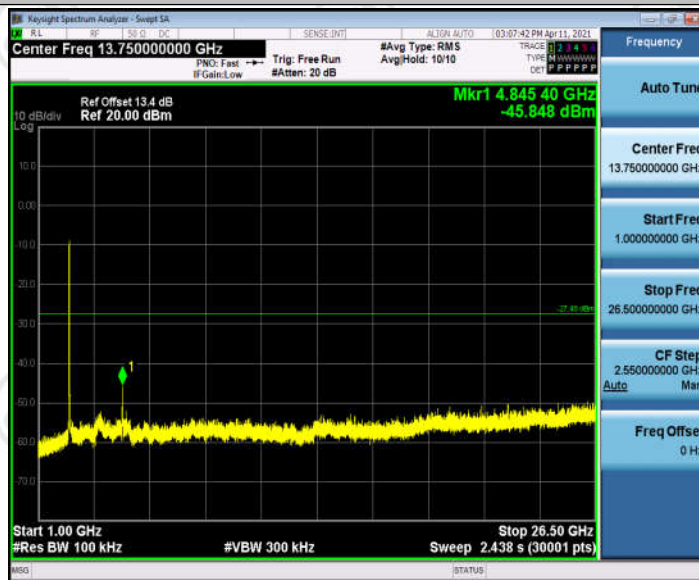
11N20SISO_Ant1_2462_1000~26500



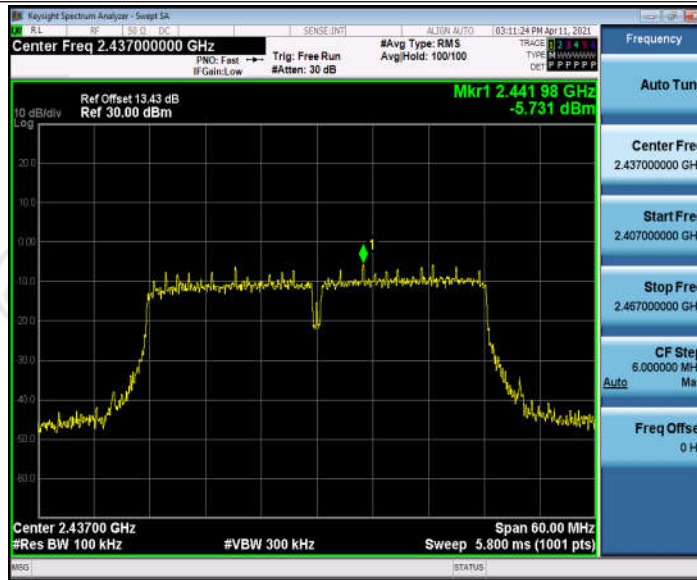
11N40SISO_Ant1_2422_0~Reference



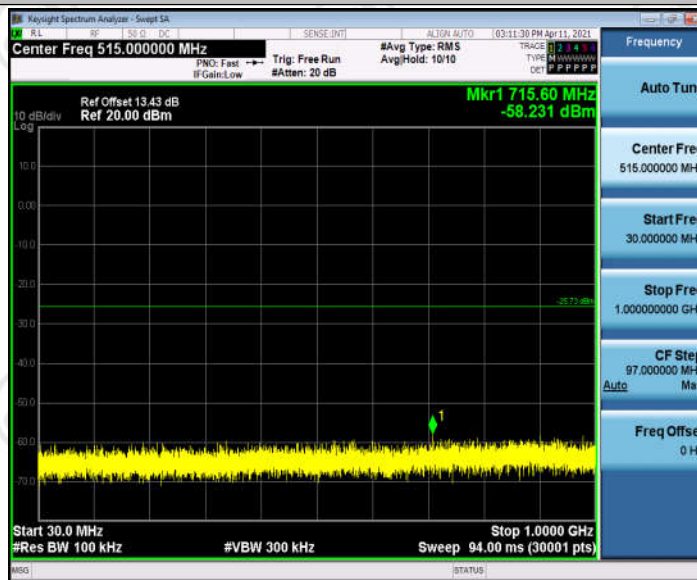
11N40SISO_Ant1_2422_30~1000



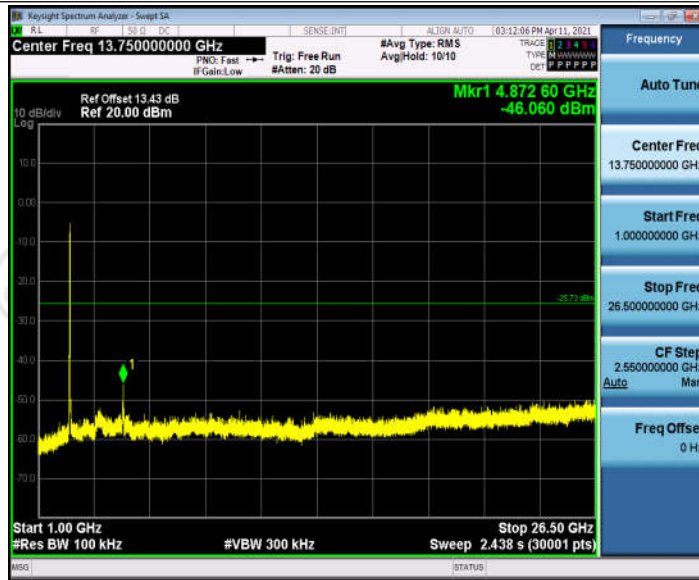
11N40SISO_Ant1_2422_1000~26500



11N40SISO_Ant1_2437_0~Reference



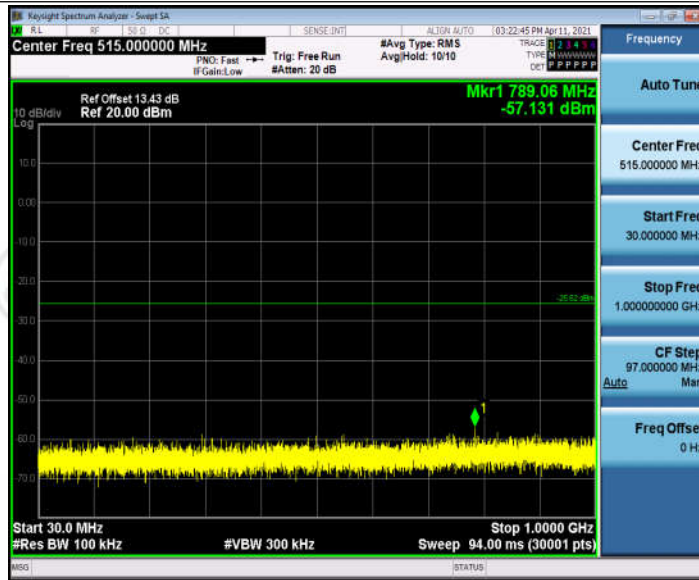
11N40SISO_Ant1_2437_30~1000



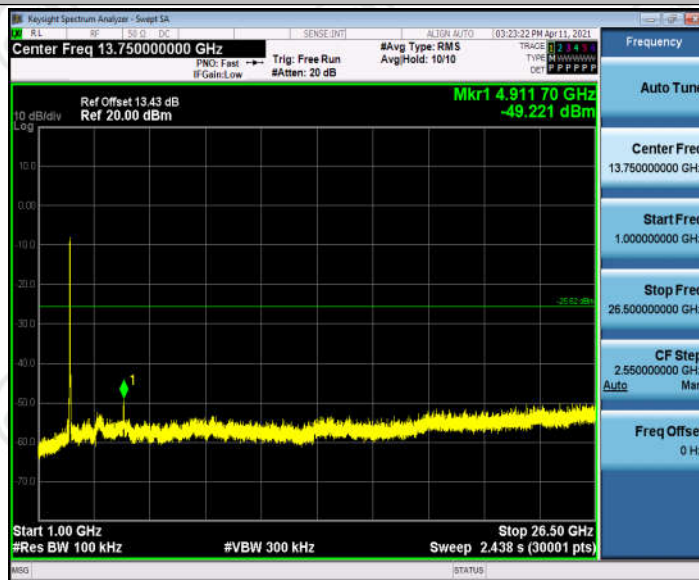
11N40SISO_Ant1_2437_1000~26500



11N40SISO_Ant1_2452_0~Reference



11N40SISO_Ant1_2452_30~1000



11N40SISO_Ant1_2452_1000~26500

Appendix G: Duty Cycle

Test Result

Test Mode	Antenna	Channel	Transmission Duration [ms]	Transmission Period [ms]	Duty Cycle [%]	Limit	Verdict
11B	Ant1	2412	12.41	12.45	99.67	---	PASS
		2437	12.41	12.55	98.95	---	PASS
		2462	12.41	12.46	99.59	---	PASS
11G	Ant1	2412	2.06	2.10	98.13	---	PASS
		2437	2.06	2.23	92.60	---	PASS
		2462	2.06	2.22	92.97	---	PASS
11N20SISO	Ant1	2412	1.92	2.08	92.09	---	PASS
		2437	1.92	2.06	93.28	---	PASS
		2462	1.92	1.99	96.25	---	PASS
11N40SISO	Ant1	2422	0.94	1.08	87.21	---	PASS
		2437	0.94	1.06	88.78	---	PASS
		2452	0.94	1.02	91.84	---	PASS

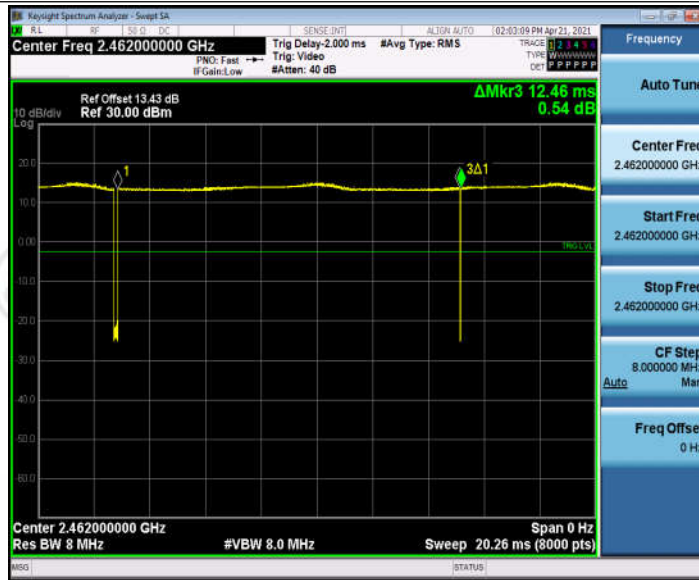
Test Graphs



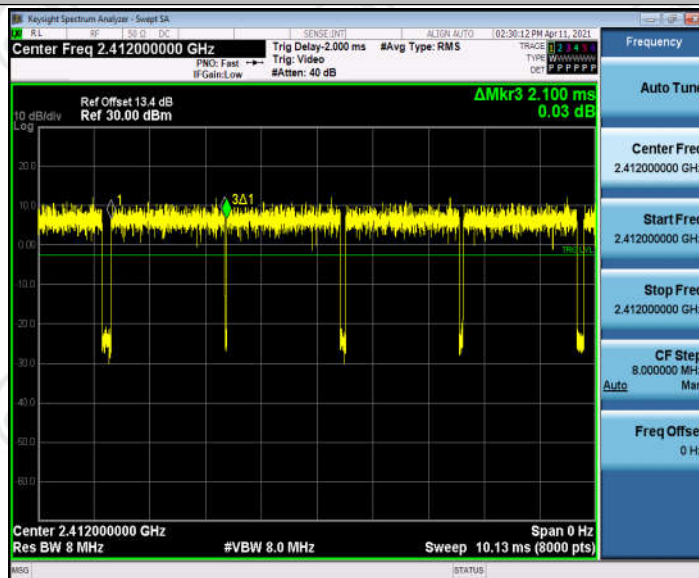
11B_Ant1_2412



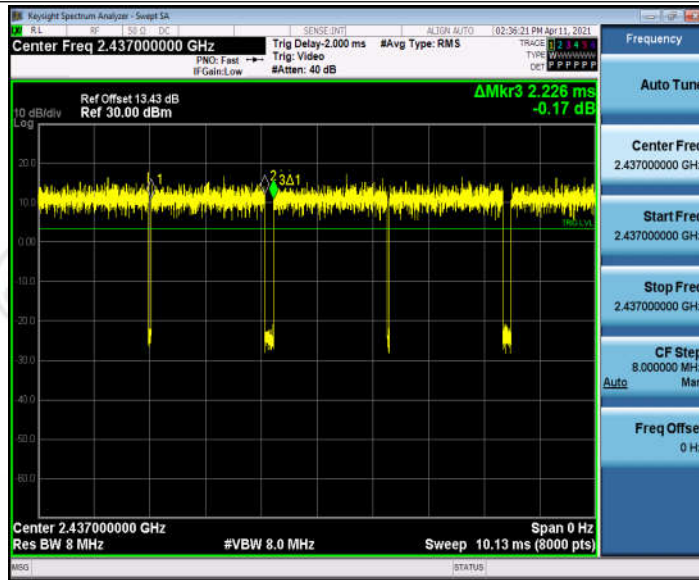
11B_Ant1_2437



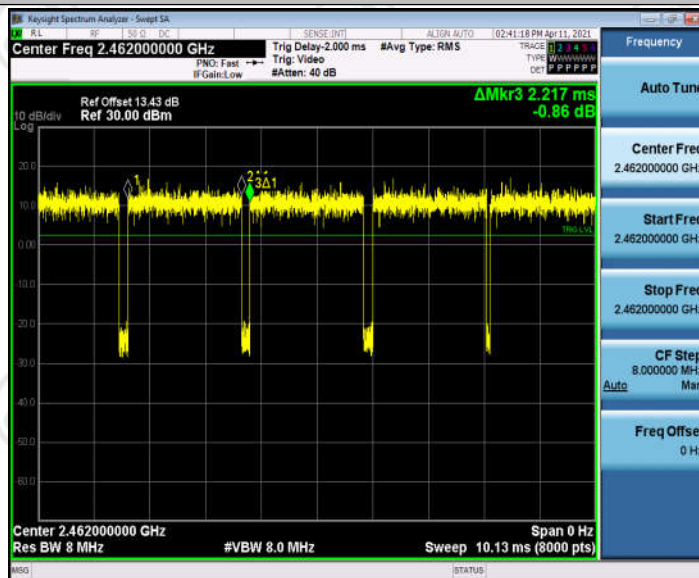
11B_Ant1_2462



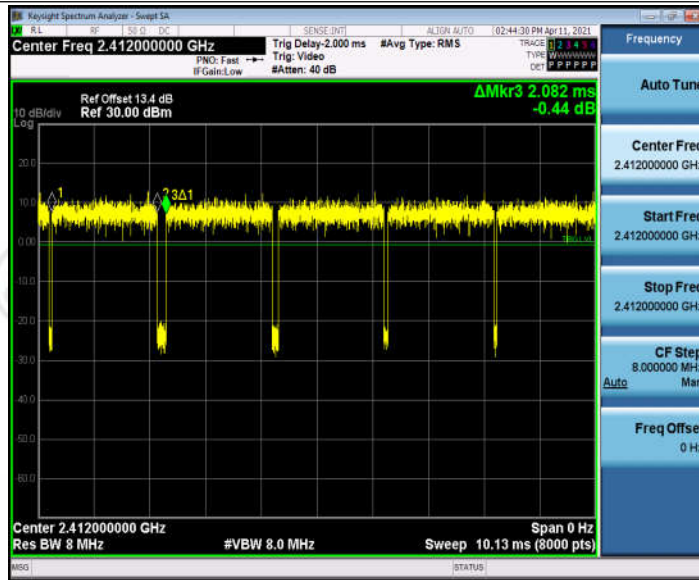
11G_Ant1_2412



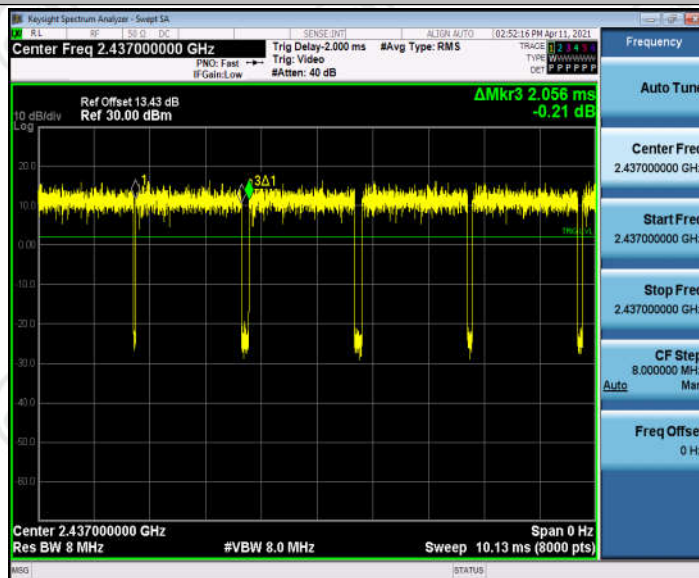
11G_Ant1_2437



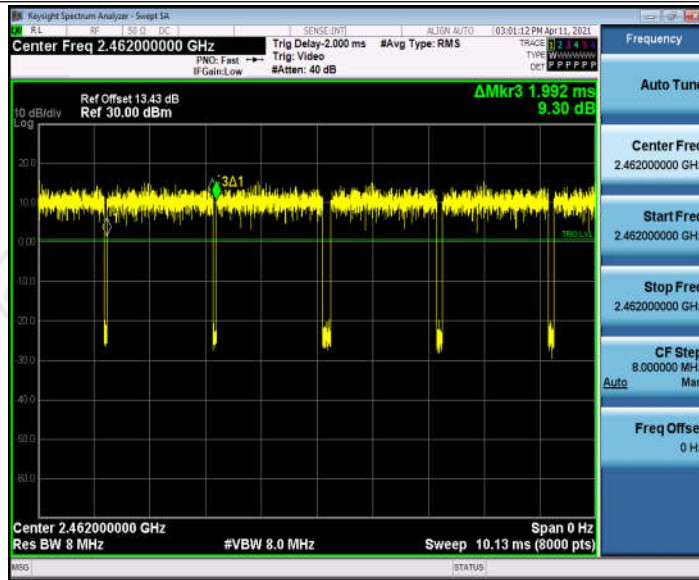
11G_Ant1_2462



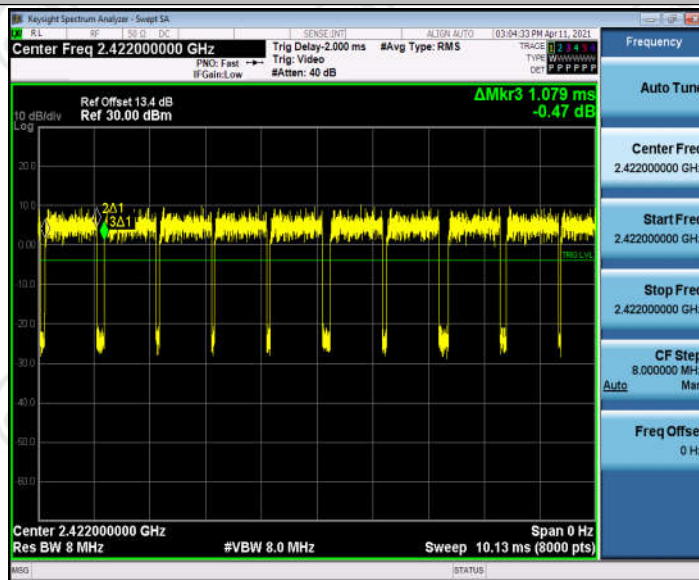
11N20SISO_Ant1_2412



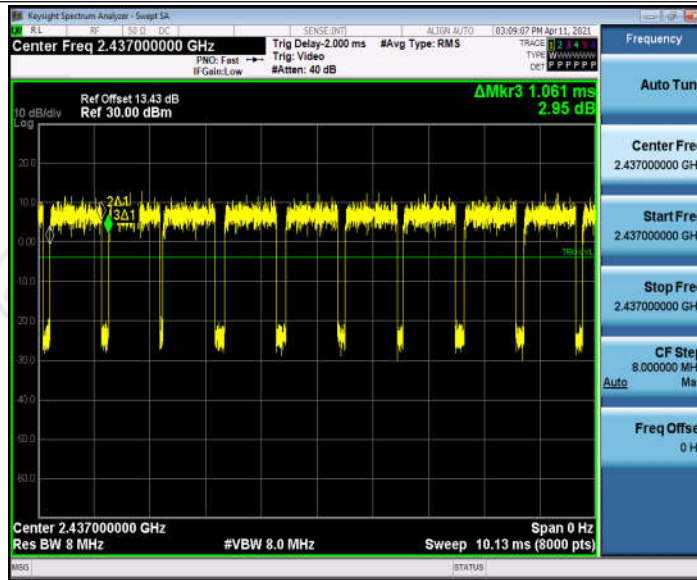
11N20SISO_Ant1_2437



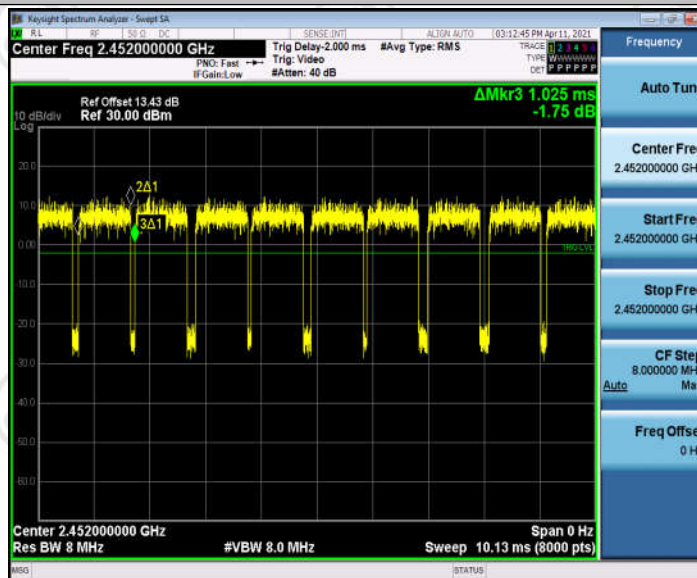
11N20SISO_Ant1_2462



11N40SISO_Ant1_2422



11N40SISO_Ant1_2437



11N40SISO_Ant1_2452

*** End of Report ***