

RF Test Data for WLAN(2.4G) (Conducted Measurement)

Product Name: Granary Automatic Pet Feeder - Camera Monitoring 5L

Trade Mark: Petlibro

Test Model: PLAF203

FCC ID: 2A3DE-PLAF203

Environmental Conditions

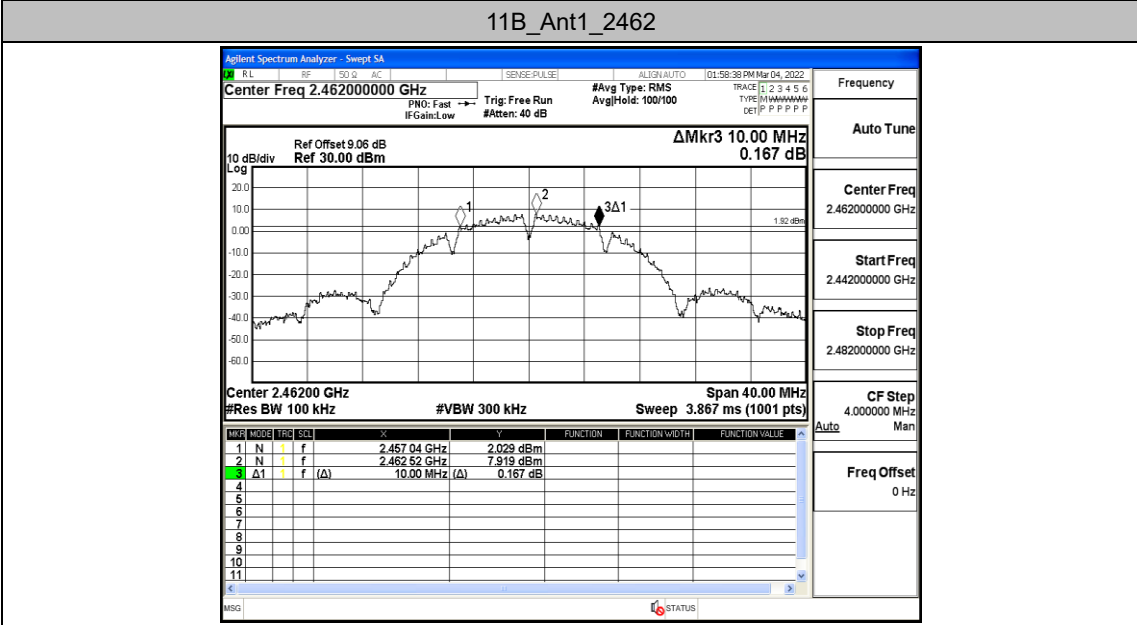
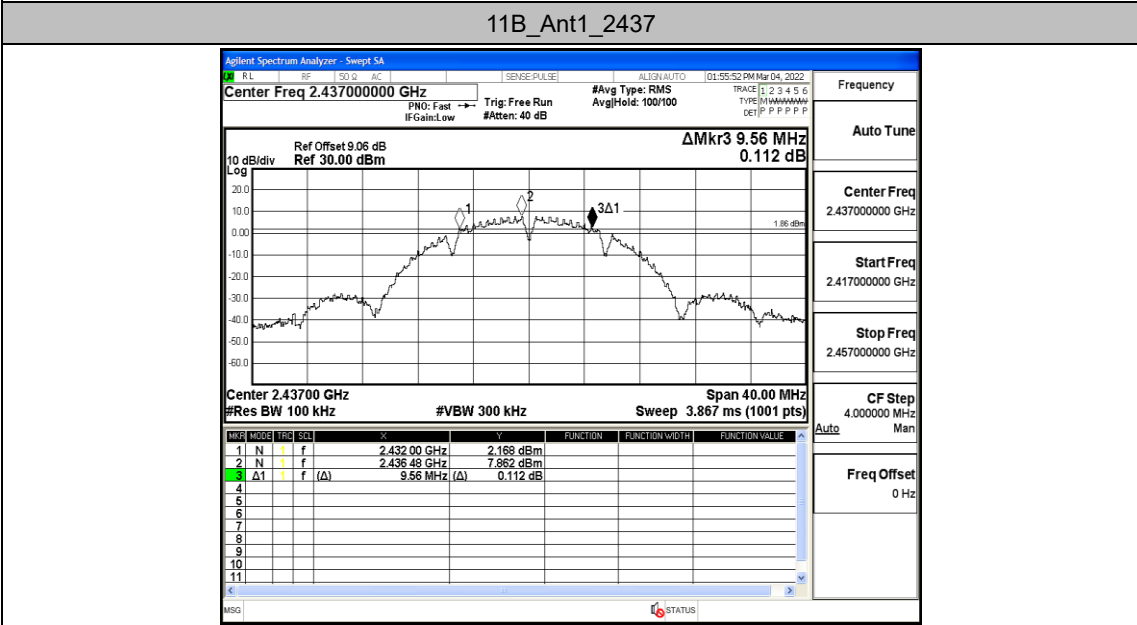
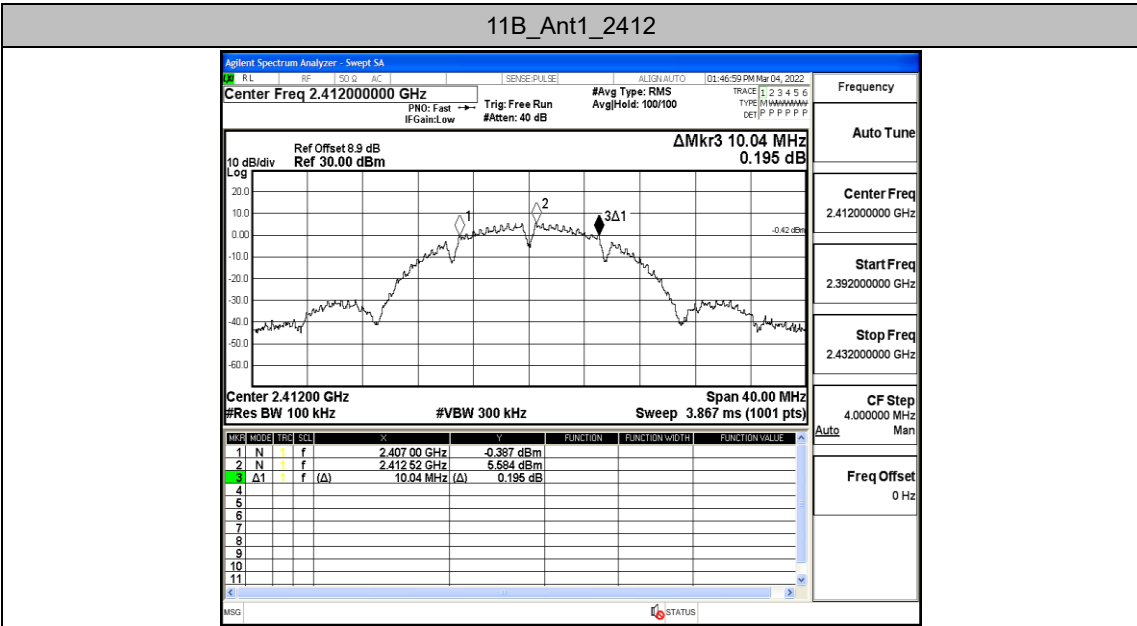
Temperature:	25.5°C
Relative Humidity:	55%
ATM Pressure:	100.0 kPa
Test Engineer:	Anna Hu
Supervised by:	Hugo Chen
NOTE	N/A

Appendix A: DTS Bandwidth

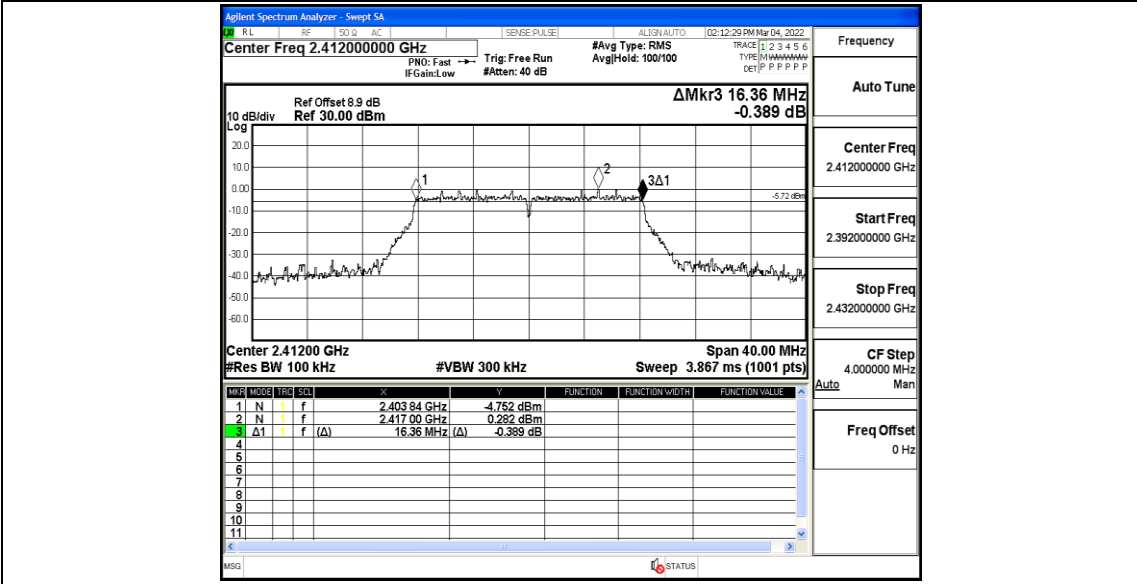
Test Result

TestMode	Antenna	Channel	DTS BW [MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
11B	Ant1	2412	10.040	2407.000	2417.040	0.5	PASS
		2437	9.560	2432.000	2441.560	0.5	PASS
		2462	10.000	2457.040	2467.040	0.5	PASS
11G	Ant1	2412	16.360	2403.840	2420.200	0.5	PASS
		2437	16.360	2428.840	2445.200	0.5	PASS
		2462	16.400	2453.840	2470.240	0.5	PASS
11N20SISO	Ant1	2412	17.640	2403.200	2420.840	0.5	PASS
		2437	17.600	2428.200	2445.800	0.5	PASS
		2462	17.640	2453.200	2470.840	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

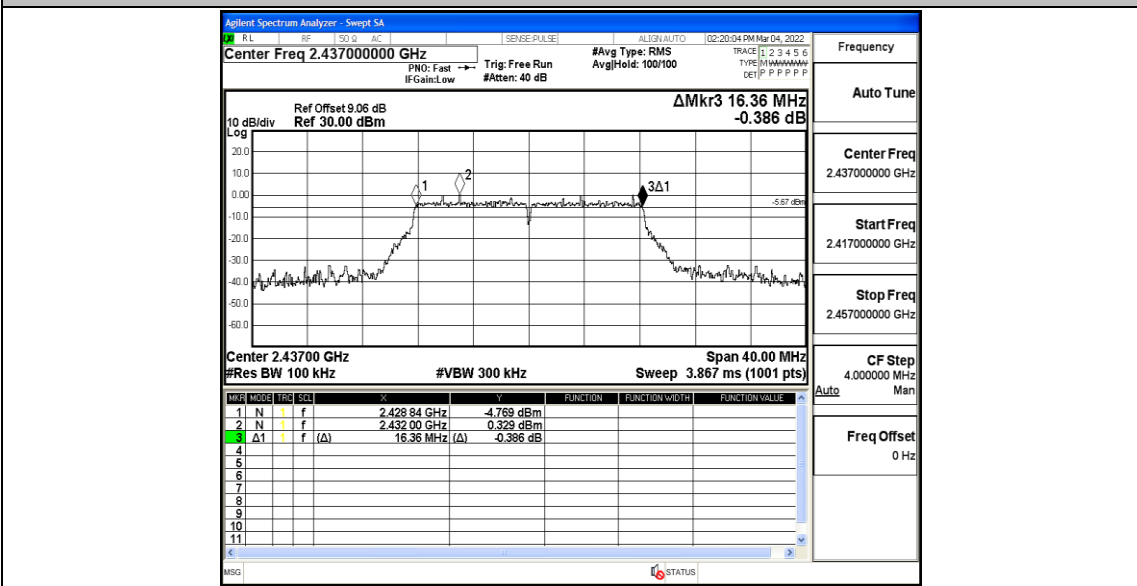
Test Graphs



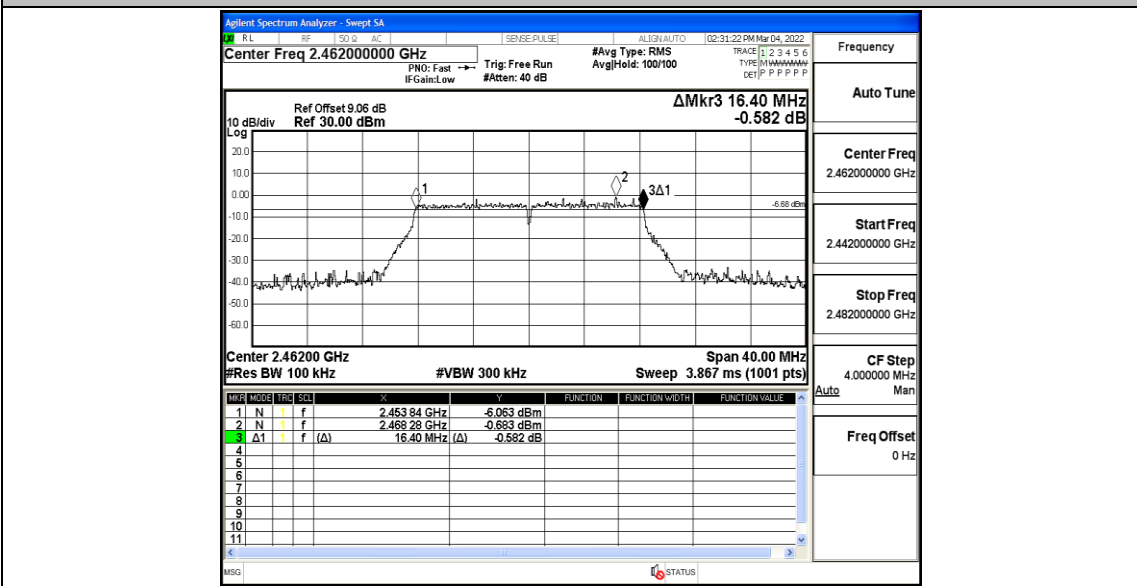
11G_Ant1_2412



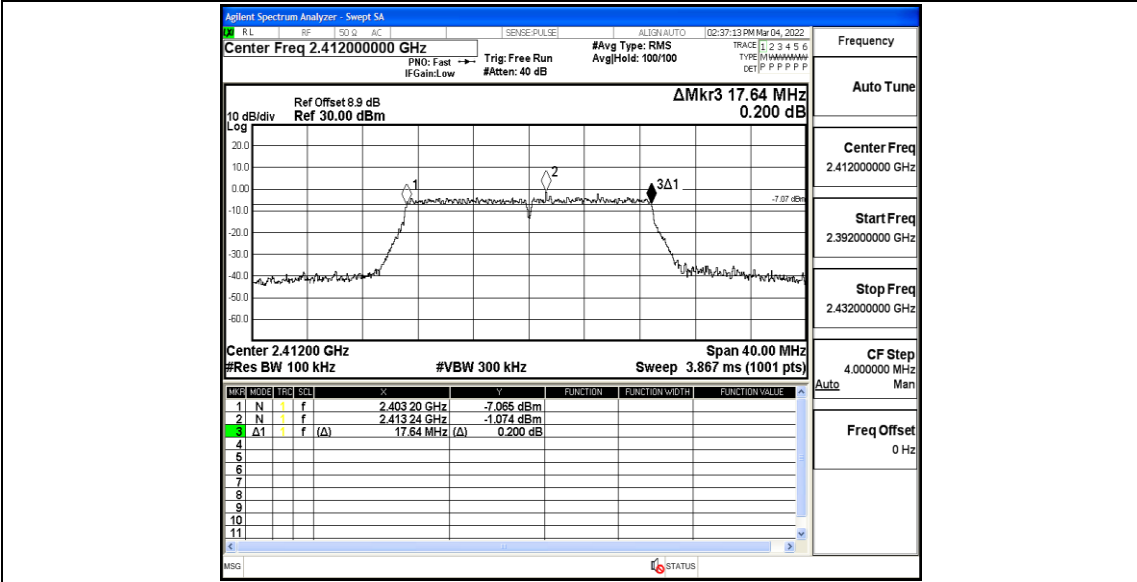
11G_Ant1_2437



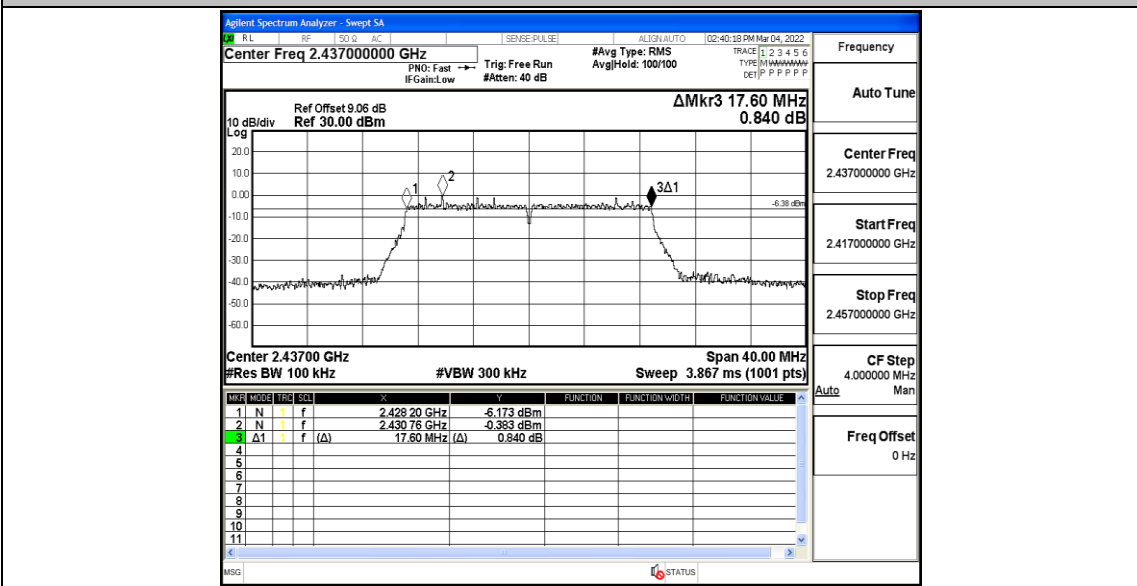
11G_Ant1_2462



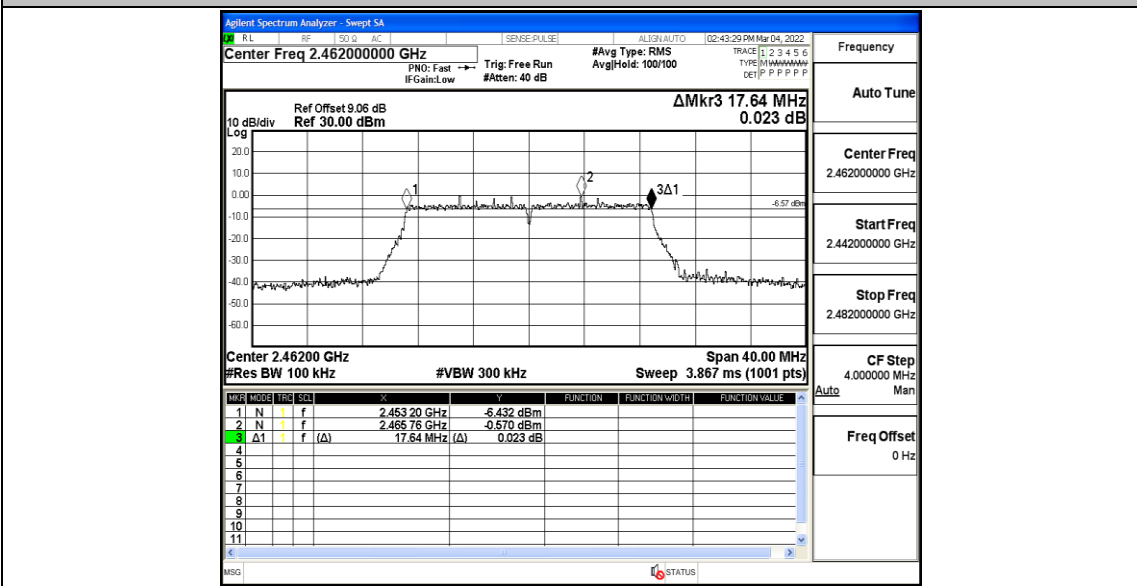
11N20SISO_Ant1_2412



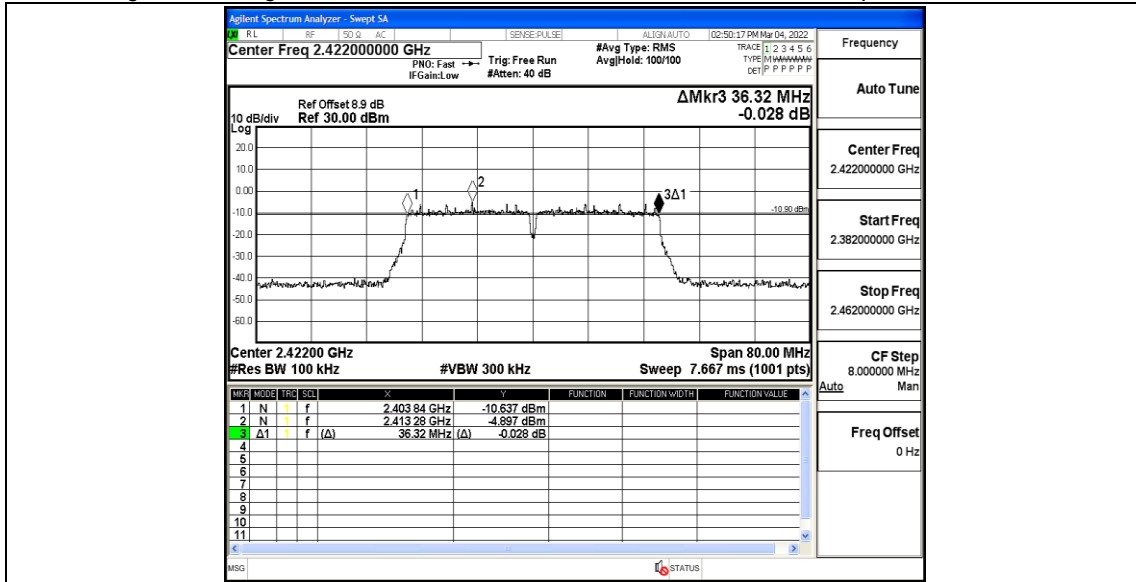
11N20SISO_Ant1_2437



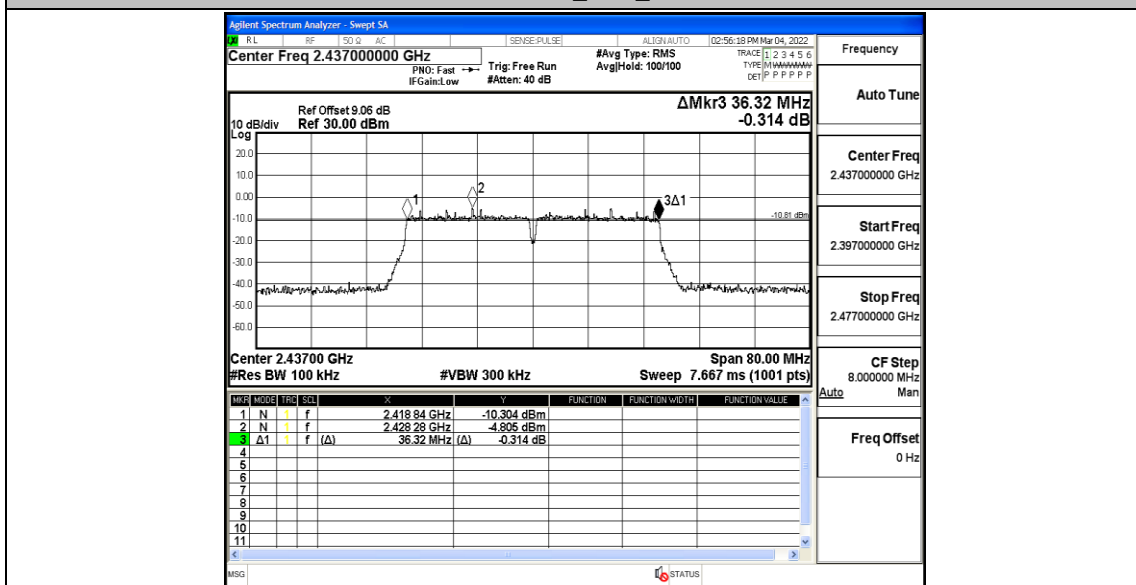
11N20SISO_Ant1_2462



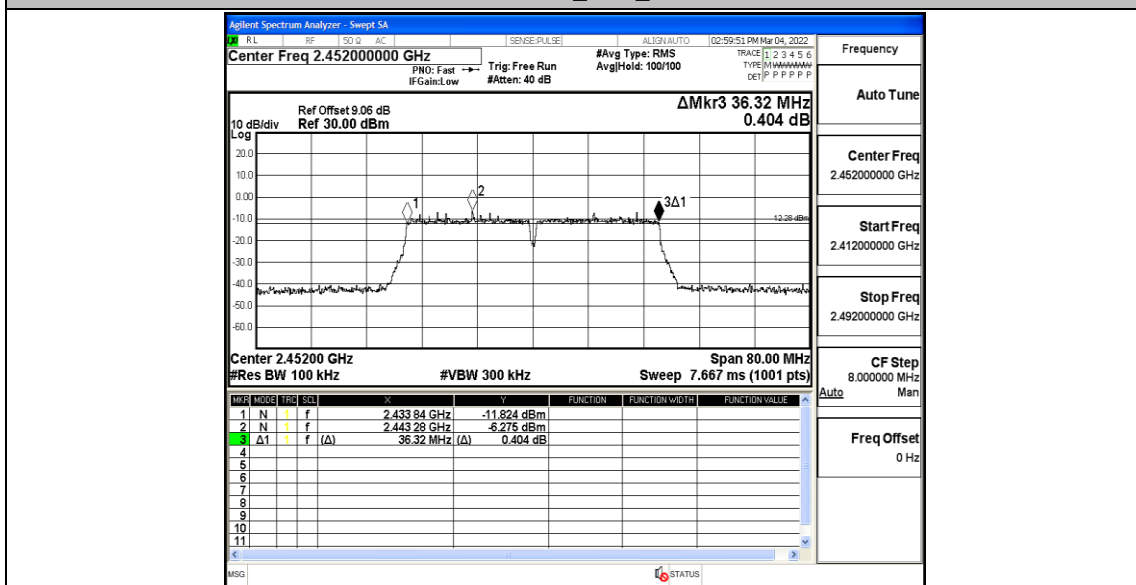
11N40SISO_Ant1_2422



11N40SISO_Ant1_2437



11N40SISO_Ant1_2452

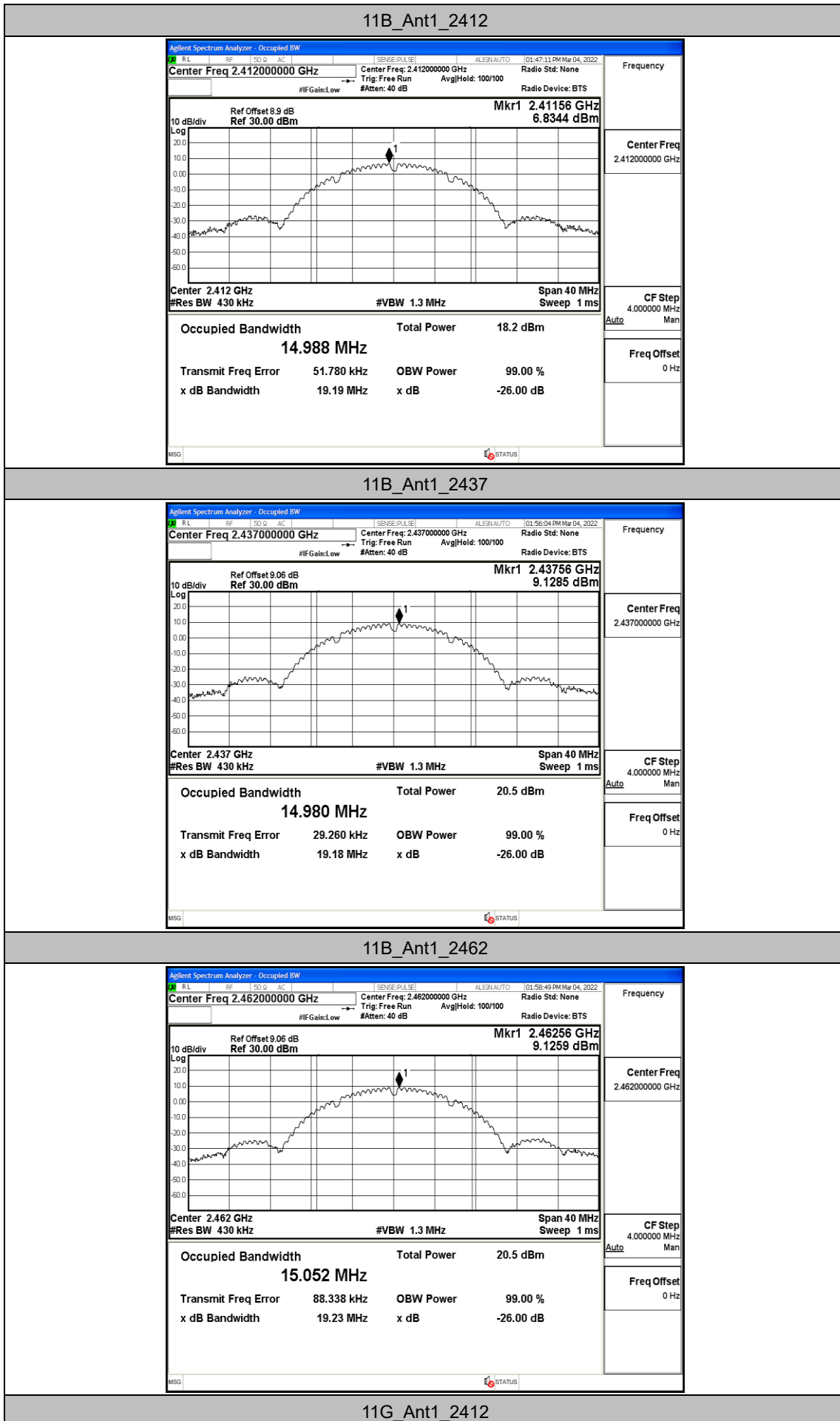


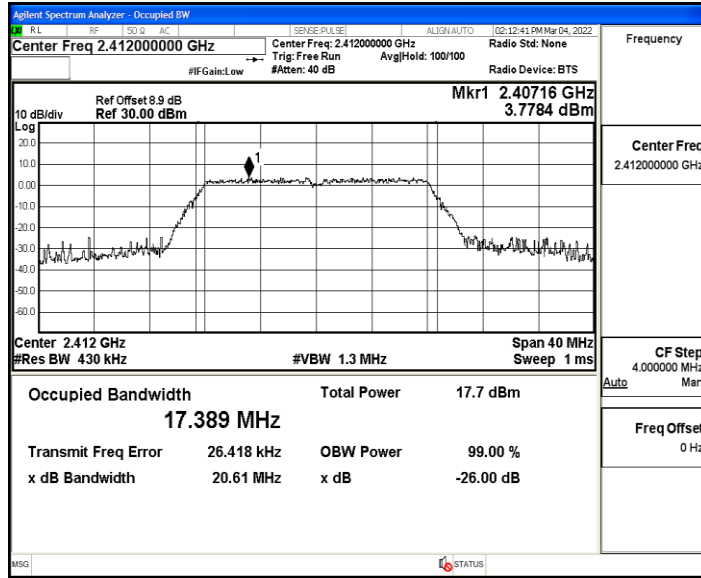
Appendix B: Occupied Channel Bandwidth

Test Result

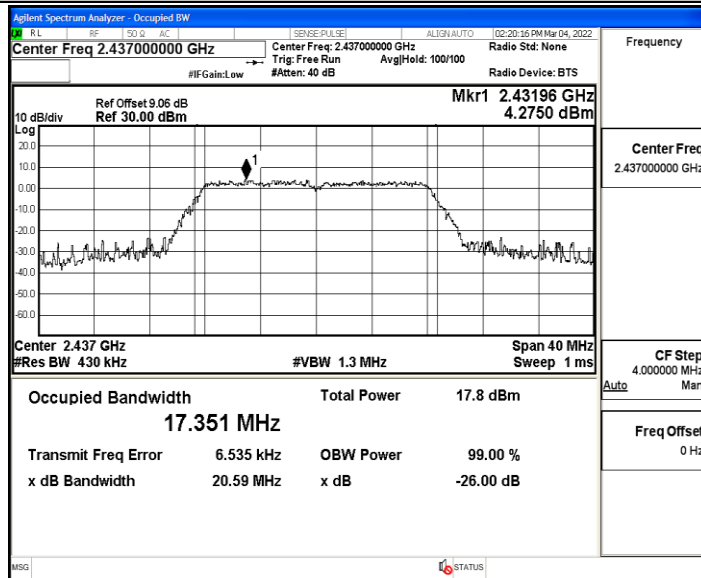
TestMode	Antenna	Channel	OCB [MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
11B	Ant1	2412	14.988	2404.558	2419.546	---	PASS
		2437	14.980	2429.539	2444.519	---	PASS
		2462	15.052	2454.562	2469.614	---	PASS
11G	Ant1	2412	17.389	2403.332	2420.721	---	PASS
		2437	17.351	2428.331	2445.682	---	PASS
		2462	17.287	2453.378	2470.665	---	PASS
11N20SISO	Ant1	2412	18.140	2403.005	2421.145	---	PASS
		2437	18.145	2427.987	2446.132	---	PASS
		2462	18.147	2453.016	2471.163	---	PASS
11N40SISO	Ant1	2422	36.581	2403.786	2440.367	---	PASS
		2437	36.661	2418.713	2455.374	---	PASS
		2452	36.624	2433.814	2470.438	---	PASS

Test Graphs

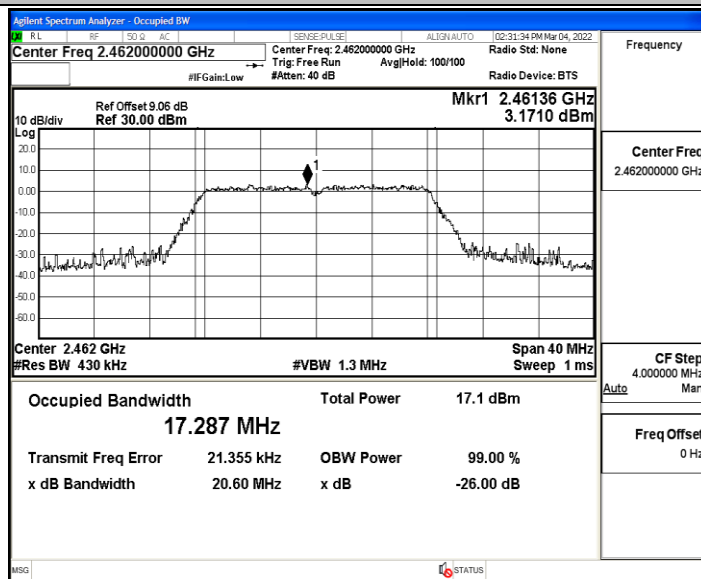




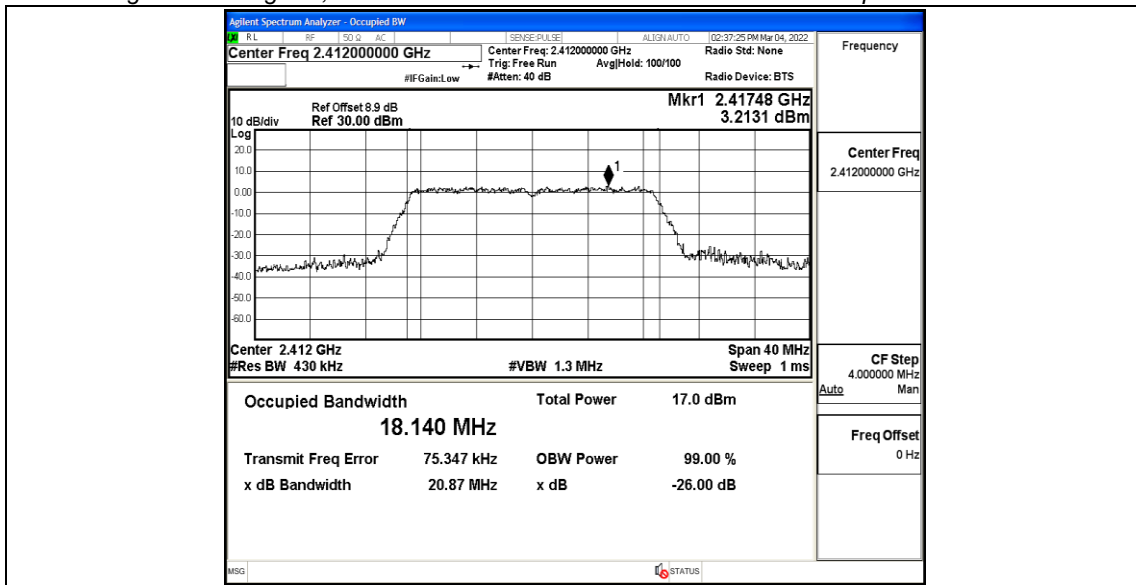
11G_Ant1_2437



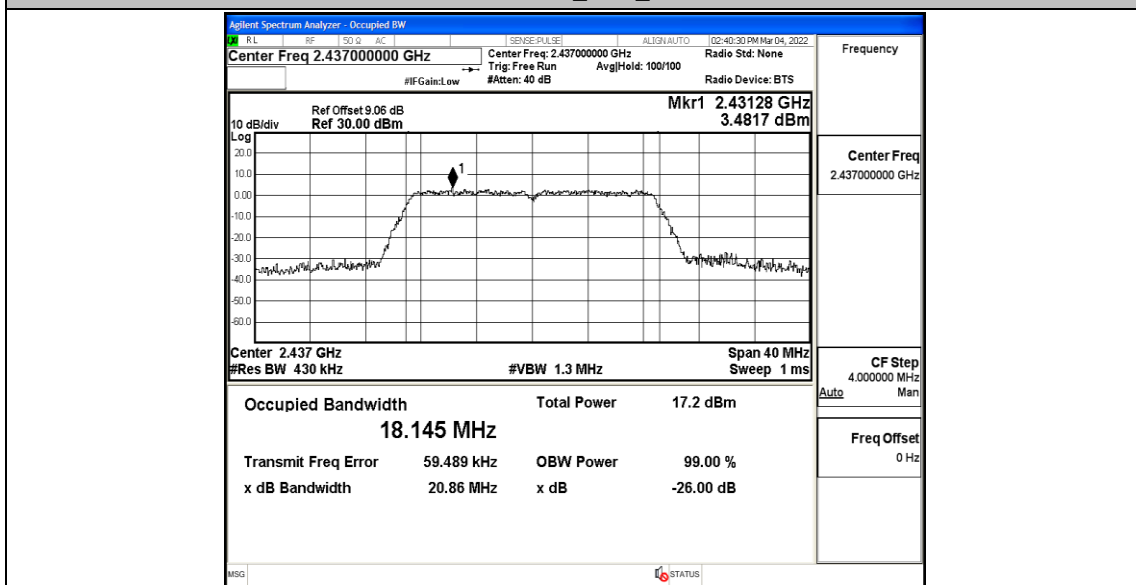
11G_Ant1_2462



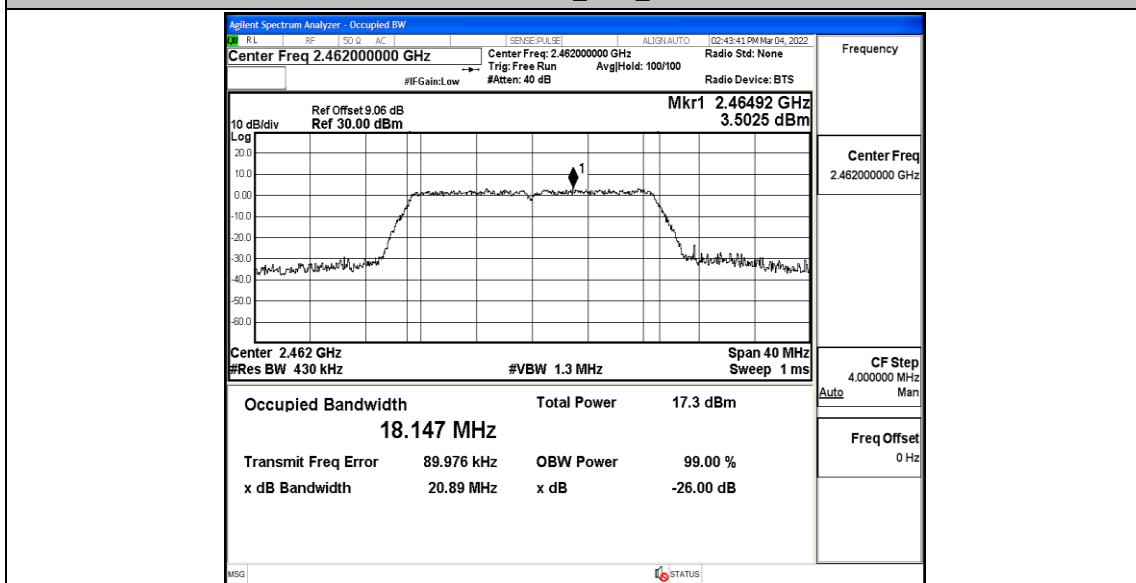
11N20SISO_Ant1_2412



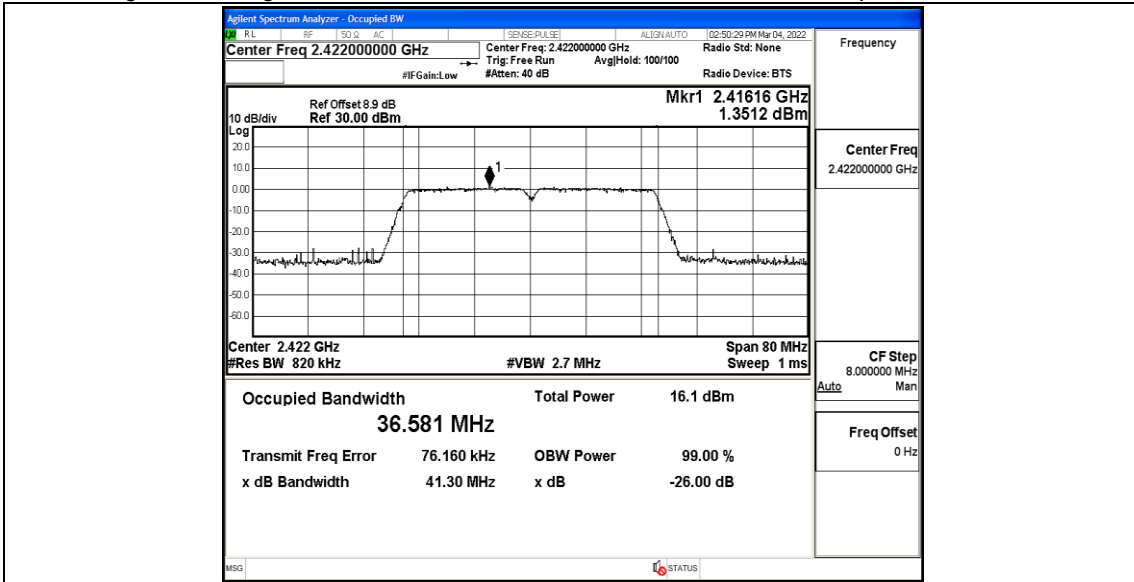
11N20SISO_Ant1_2437



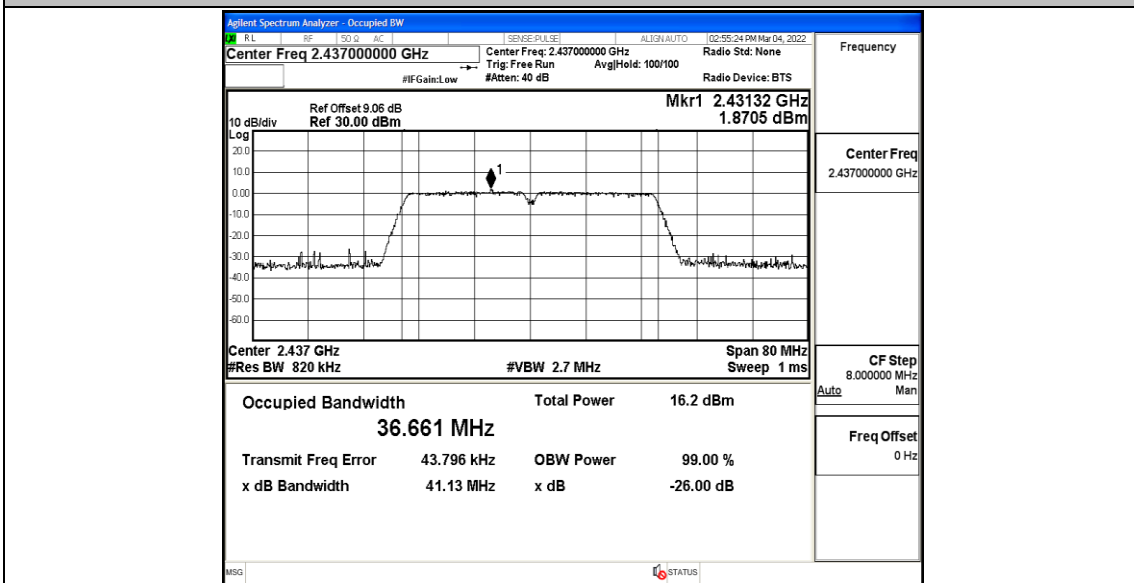
11N20SISO_Ant1_2462



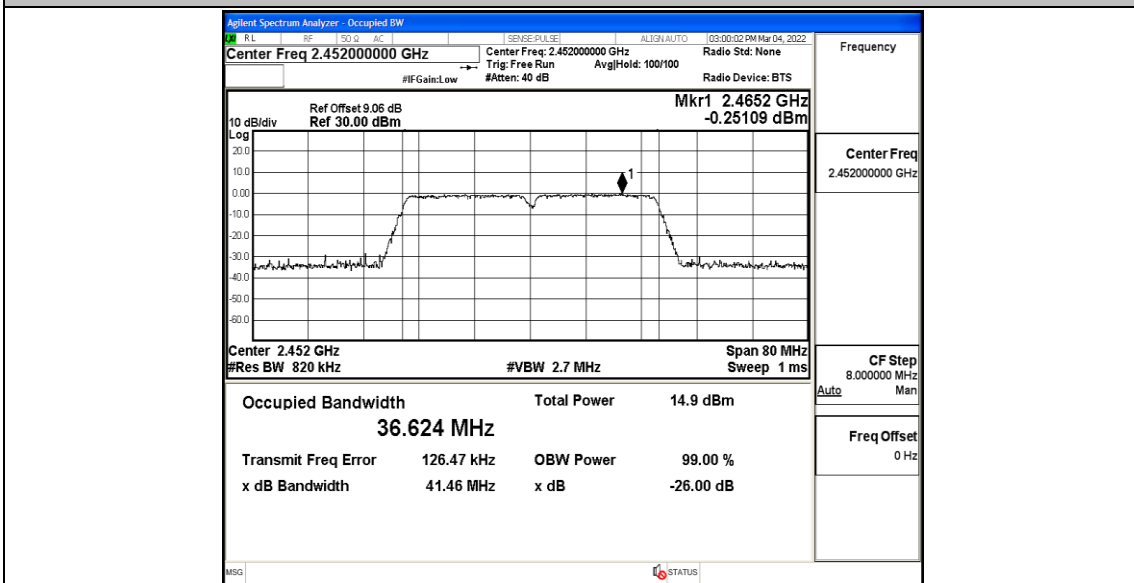
11N40SISO_Ant1_2422



11N40SISO_Ant1_2437



11N40SISO_Ant1_2452



Appendix C: Maximum conducted output power

Test Result

TestMode	Antenna	Channel	Result[dBm]	Limit[dBm]	Verdict
11B	Ant1	2412	15.26	≤30	PASS
		2437	17.56	≤30	PASS
		2462	17.53	≤30	PASS
11G	Ant1	2412	11.73	≤30	PASS
		2437	11.96	≤30	PASS
		2462	11.07	≤30	PASS
11N20SISO	Ant1	2412	10.85	≤30	PASS
		2437	11.05	≤30	PASS
		2462	11.13	≤30	PASS
11N40SISO	Ant1	2422	9.21	≤30	PASS
		2437	9.40	≤30	PASS
		2452	8.06	≤30	PASS

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

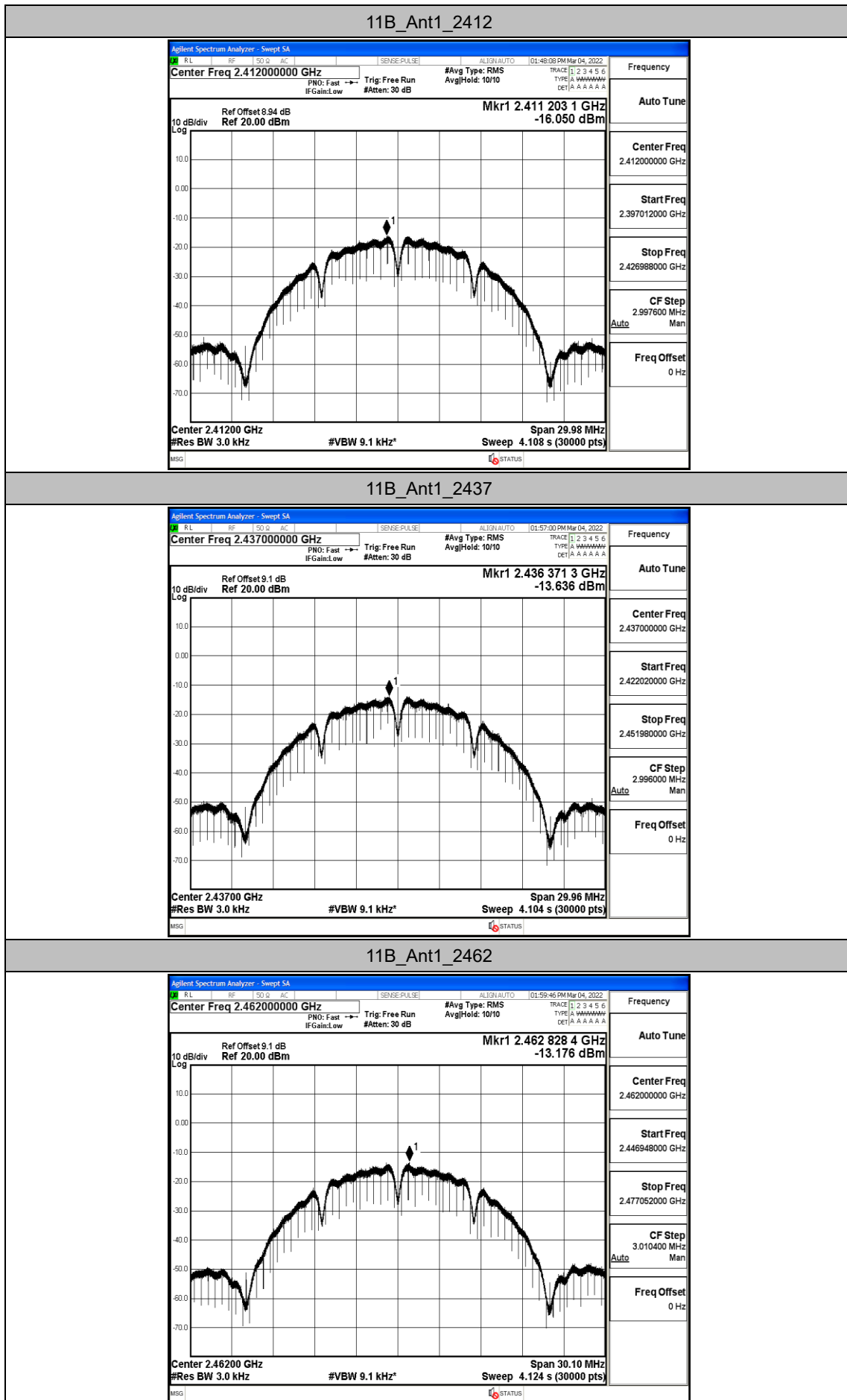
Appendix D: Maximum power spectral density

Test Result

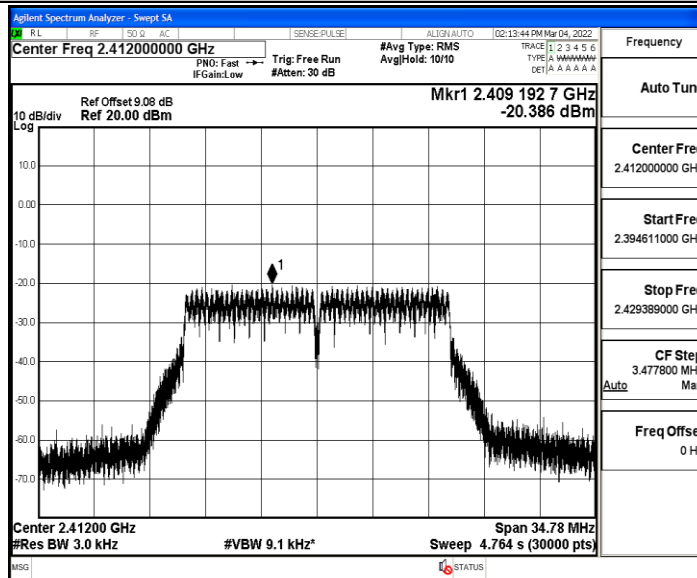
TestMode	Antenna	Channel	Result[dBm/3-100kHz]	Limit[dBm/3kHz]	Verdict
11B	Ant1	2412	-16.05	≤8	PASS
		2437	-13.64	≤8	PASS
		2462	-13.18	≤8	PASS
11G	Ant1	2412	-20.39	≤8	PASS
		2437	-19.47	≤8	PASS
		2462	-20.68	≤8	PASS
11N20SISO	Ant1	2412	-21.87	≤8	PASS
		2437	-21.86	≤8	PASS
		2462	-20.96	≤8	PASS
11N40SISO	Ant1	2422	-26.16	≤8	PASS
		2437	-25.9	≤8	PASS
		2452	-26.81	≤8	PASS

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

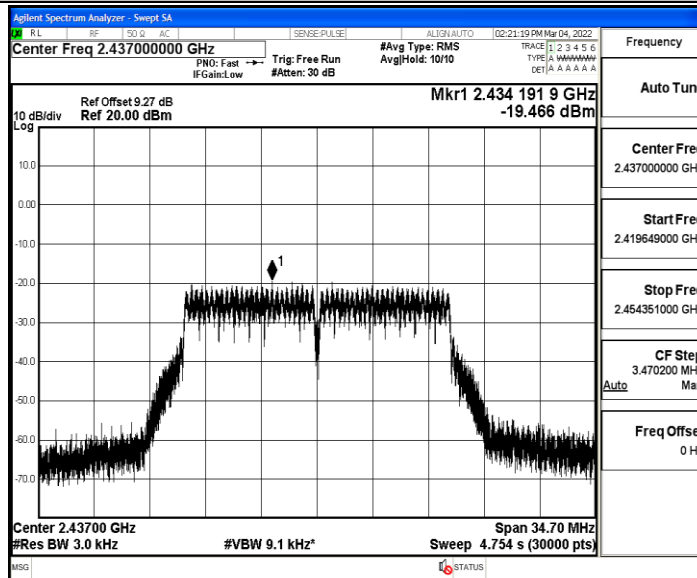
Test Graphs



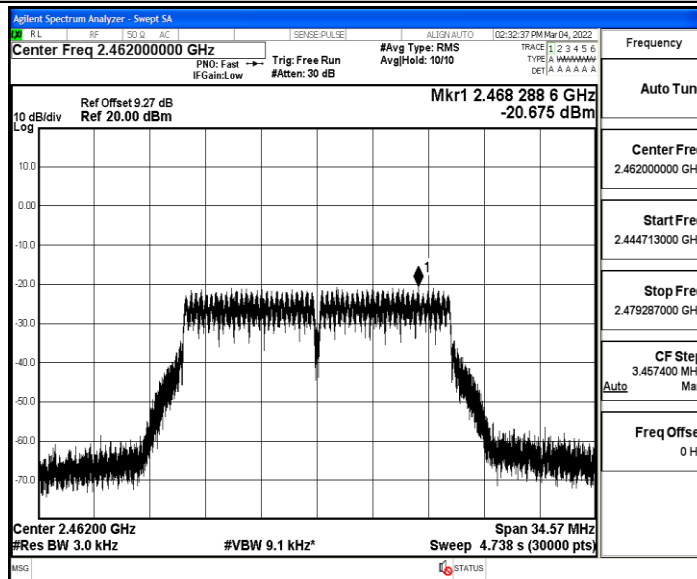
11G_Ant1_2412



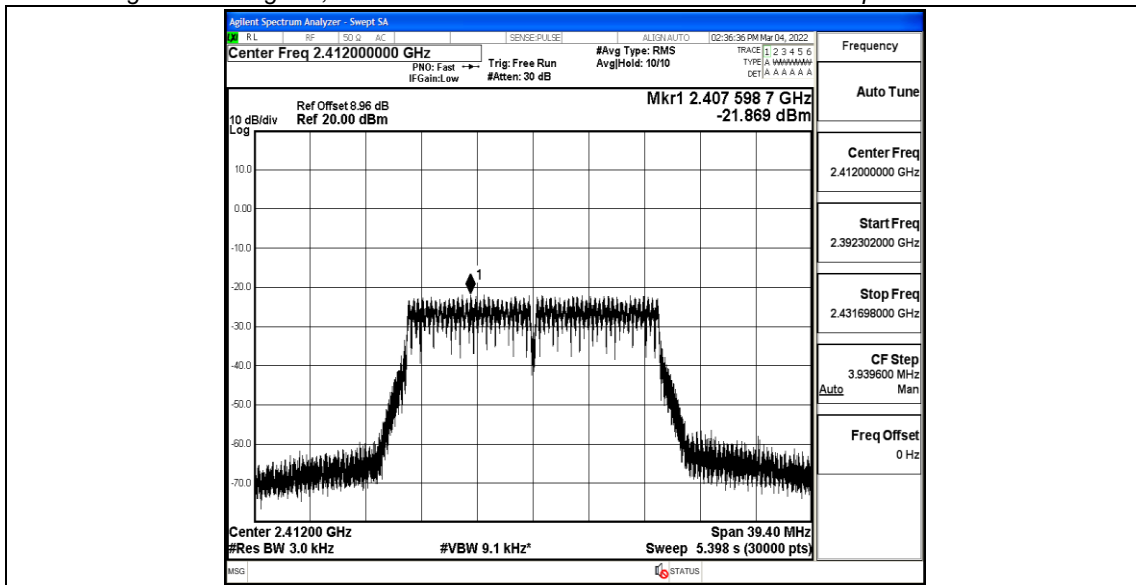
11G_Ant1_2437



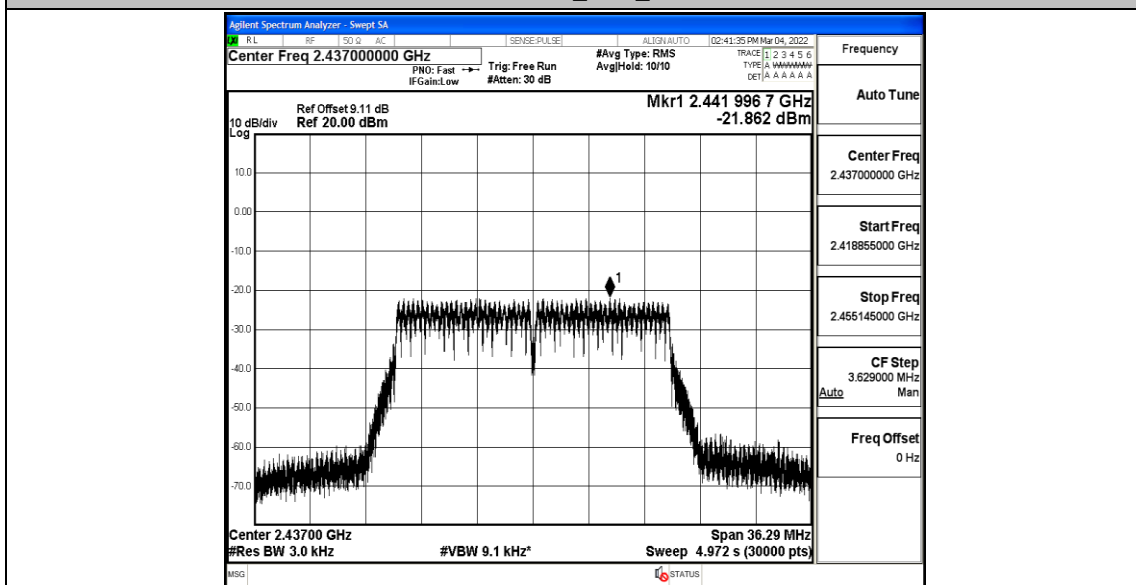
11G_Ant1_2462



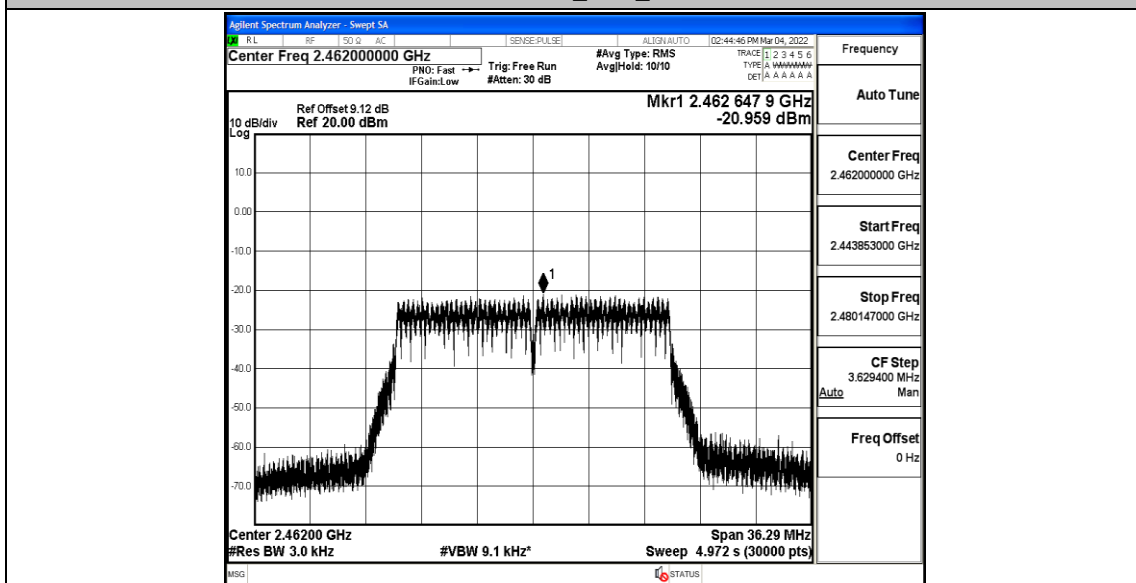
11N20SISO_Ant1_2412



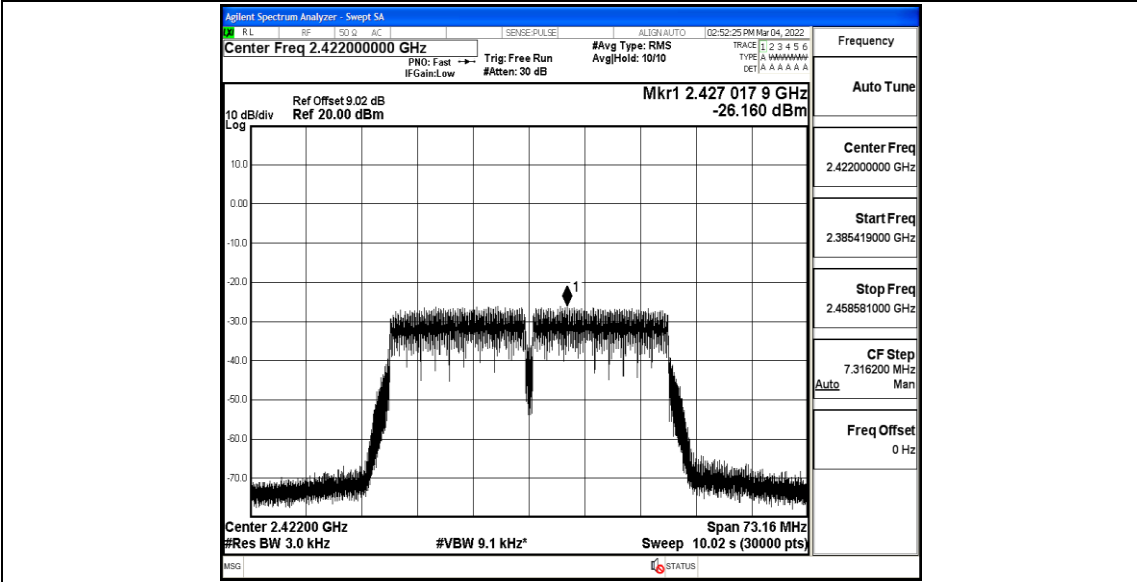
11N20SISO_Ant1_2437



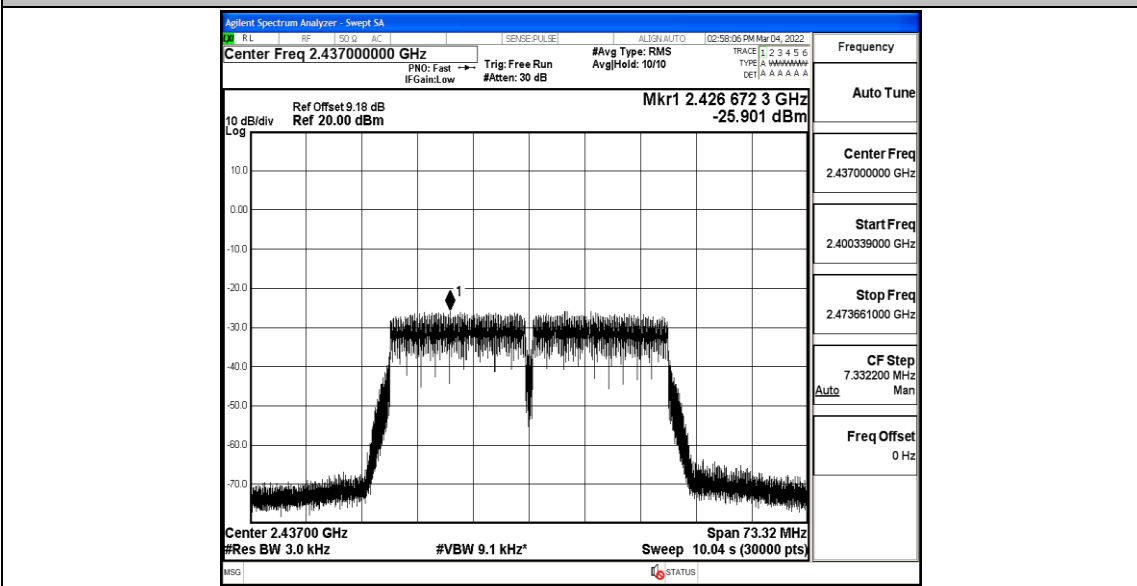
11N20SISO_Ant1_2462



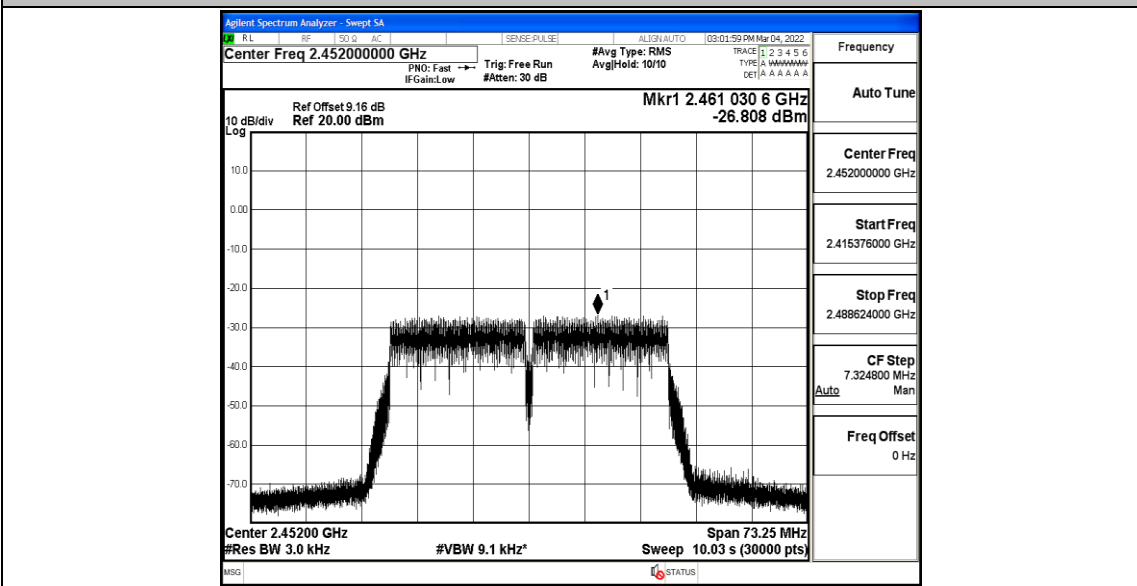
11N40SISO_Ant1_2422



11N40SISO_Ant1_2437



11N40SISO_Ant1_2452

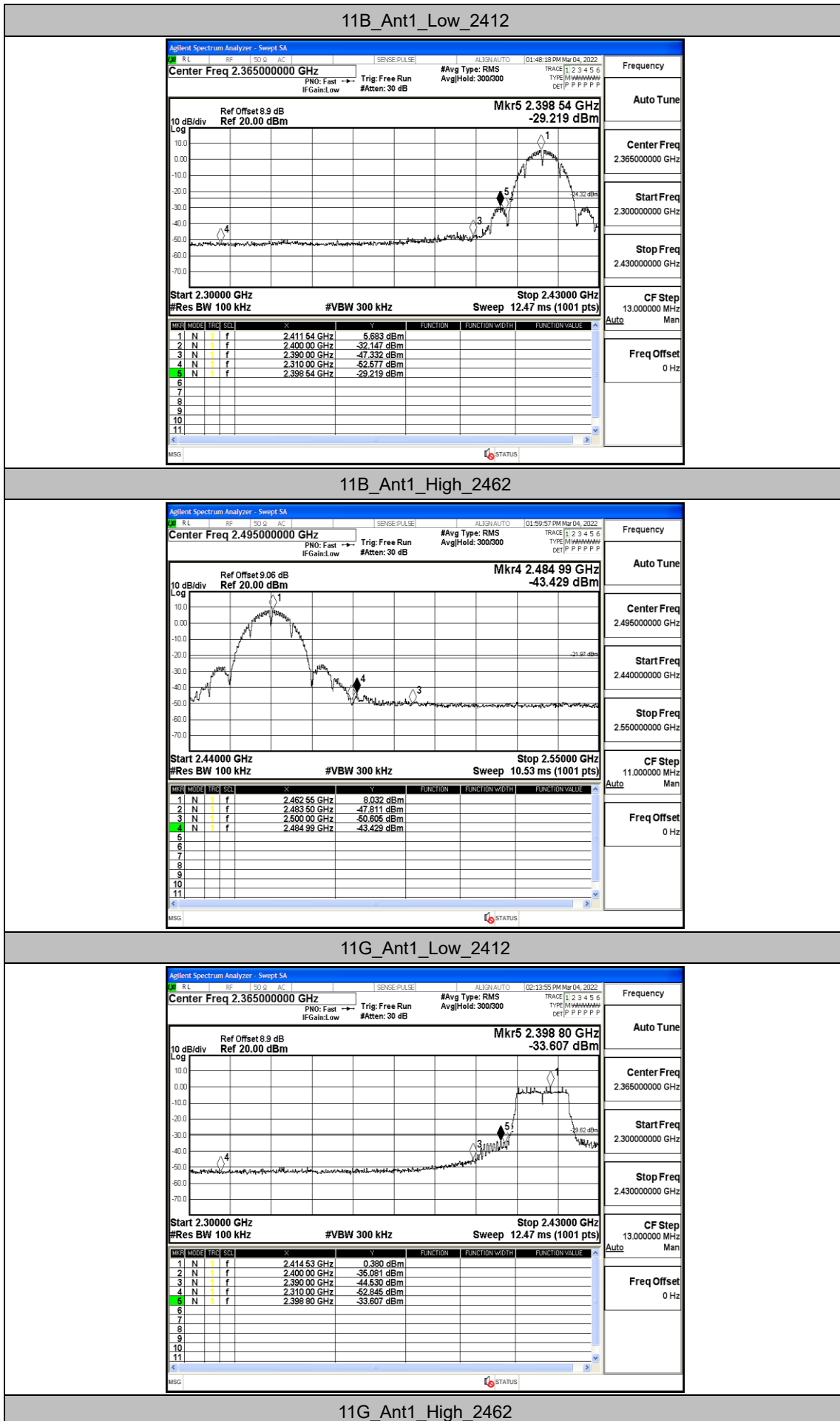


Appendix E: Band edge measurements

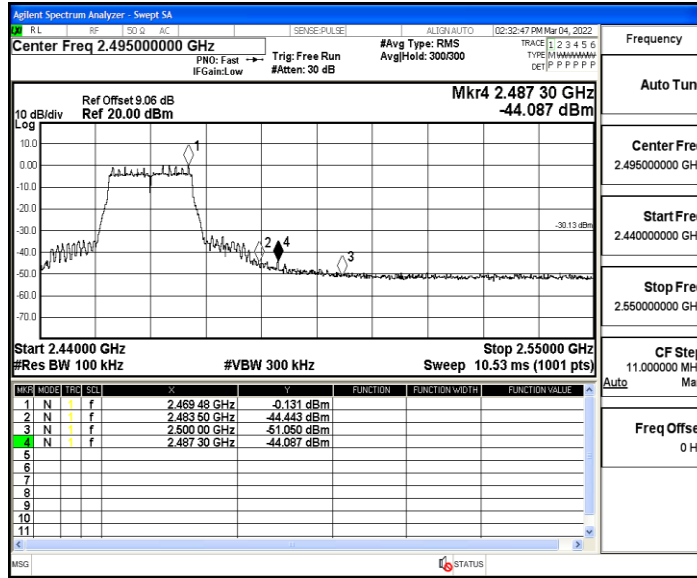
Test Result

TestMode	Antenna	ChName	Channel	RefLevel[dBm]	Result[dBm]	Limit[dBm]	Verdict
11B	Ant1	Low	2412	5.68	-29.22	≤-24.32	PASS
		High	2462	8.03	-43.43	≤-21.97	PASS
11G	Ant1	Low	2412	0.38	-33.61	≤-29.62	PASS
		High	2462	-0.13	-44.09	≤-30.13	PASS
11N20SISO	Ant1	Low	2412	-0.53	-39.54	≤-30.53	PASS
		High	2462	-0.15	-43.63	≤-30.15	PASS
11N40SISO	Ant1	Low	2422	-5.06	-40.5	≤-35.06	PASS
		High	2452	-6.15	-45.27	≤-36.15	PASS

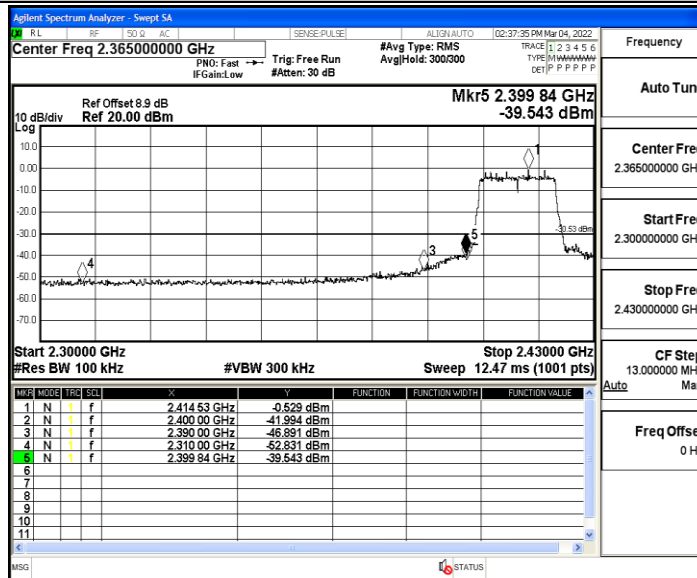
Test Graphs



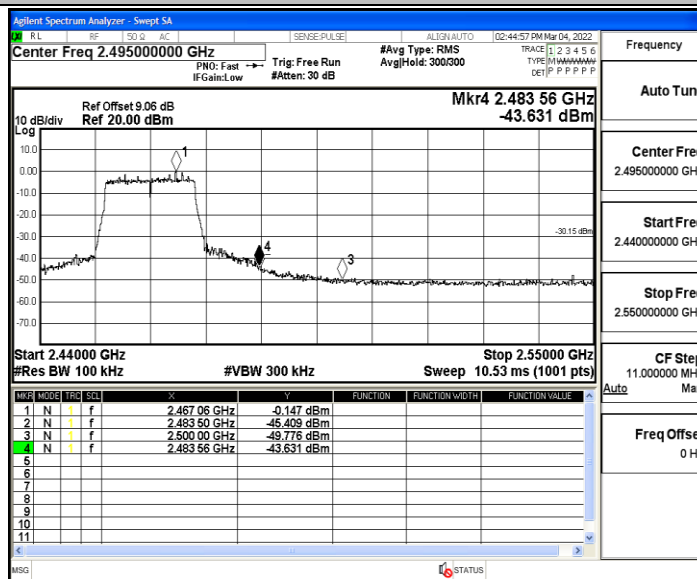
11G_Ant1_High_2462



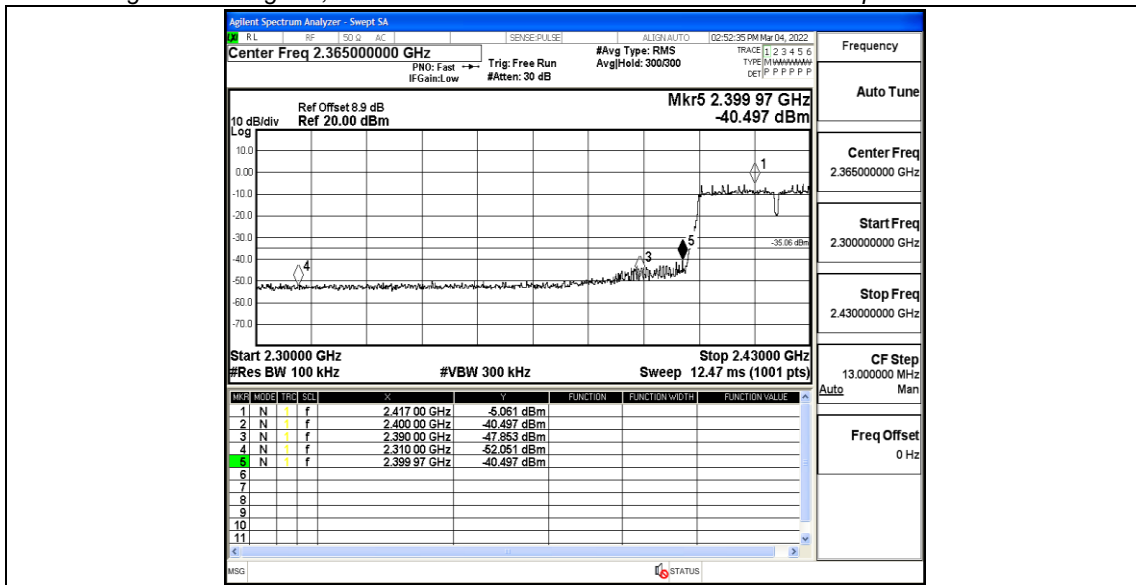
11N20SISO_Ant1_Low_2412



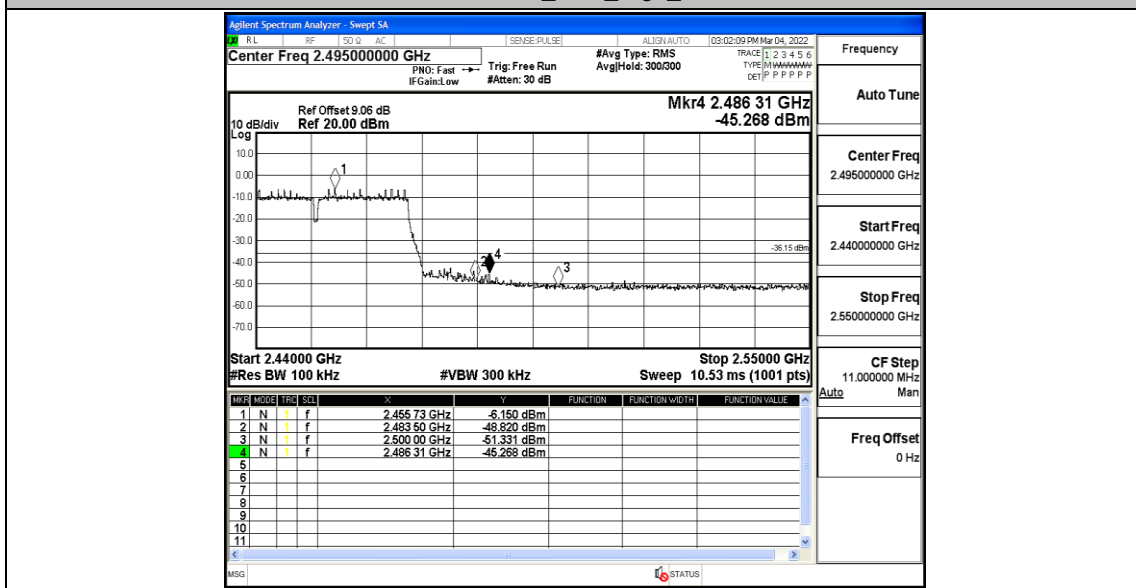
11N20SISO_Ant1_High_2462



11N40SISO_Ant1_Low_2422



11N40SISO_Ant1_High_2452

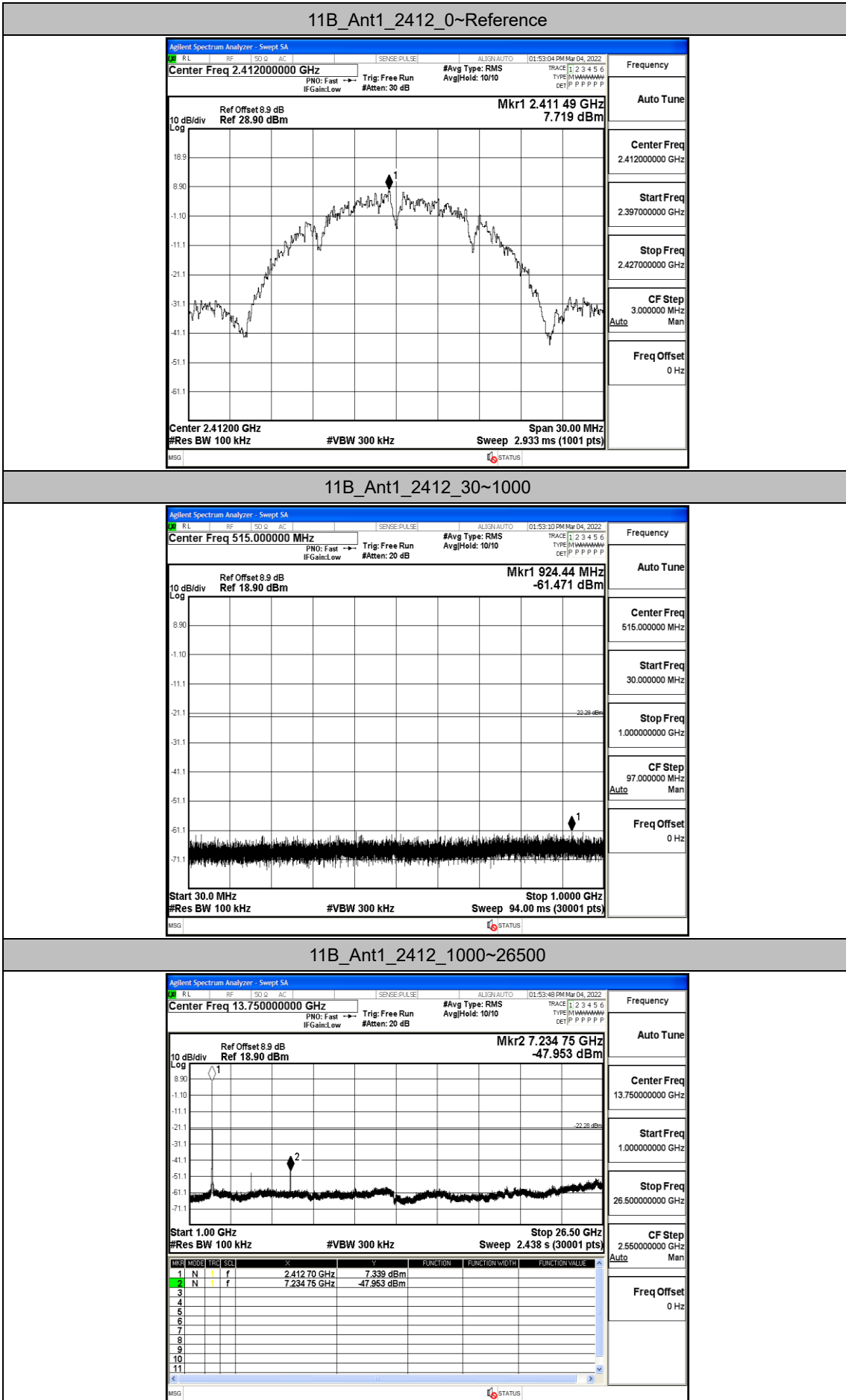


Appendix F: Conducted Spurious Emission

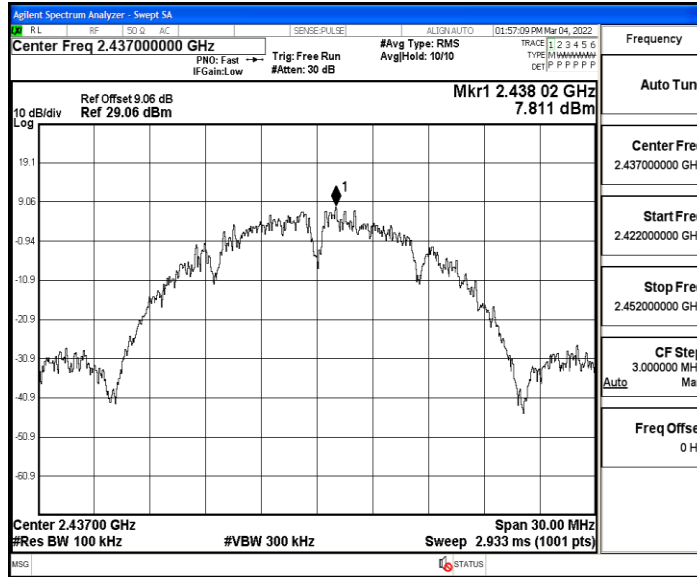
Test Result

TestMode	Antenna	Channel	FreqRange [Mhz]	RefLevel [dBm]	Result [dBm]	Limit [dBm]	Verdict
11B	Ant1	2412	Reference	7.72	7.72	---	PASS
			30~1000	7.72	-61.47	≤-22.28	PASS
			1000~26500	7.72	-47.95	≤-22.28	PASS
		2437	Reference	7.81	7.81	---	PASS
			30~1000	7.81	-61.86	≤-22.19	PASS
			1000~26500	7.81	-47.22	≤-22.19	PASS
		2462	Reference	7.86	7.86	---	PASS
			30~1000	7.86	-59.94	≤-22.14	PASS
			1000~26500	7.86	-45.94	≤-22.14	PASS
11G	Ant1	2412	Reference	-0.15	-0.15	---	PASS
			30~1000	-0.15	-61.39	≤-30.15	PASS
			1000~26500	-0.15	-50.76	≤-30.15	PASS
		2437	Reference	0.01	0.01	---	PASS
			30~1000	0.01	-61.29	≤-29.99	PASS
			1000~26500	0.01	-52.82	≤-29.99	PASS
		2462	Reference	-3.55	-3.55	---	PASS
			30~1000	-3.55	-62.04	≤-33.55	PASS
			1000~26500	-3.55	-52.82	≤-33.55	PASS
11N20SISO	Ant1	2412	Reference	-3.66	-3.66	---	PASS
			30~1000	-3.66	-62.02	≤-33.66	PASS
			1000~26500	-3.66	-52.98	≤-33.66	PASS
		2437	Reference	-4.40	-4.40	---	PASS
			30~1000	-4.40	-61.58	≤-34.4	PASS
			1000~26500	-4.40	-52.03	≤-34.4	PASS
		2462	Reference	-1.94	-1.94	---	PASS
			30~1000	-1.94	-61.52	≤-31.94	PASS
			1000~26500	-1.94	-51.98	≤-31.94	PASS
11N40SISO	Ant1	2422	Reference	-6.98	-6.98	---	PASS
			30~1000	-6.98	-61.54	≤-36.98	PASS
			1000~26500	-6.98	-52.05	≤-36.98	PASS
		2437	Reference	-4.85	-4.85	---	PASS
			30~1000	-4.85	-61.41	≤-34.85	PASS
			1000~26500	-4.85	-52.28	≤-34.85	PASS
		2452	Reference	-9.67	-9.67	---	PASS
			30~1000	-9.67	-61.58	≤-39.67	PASS
			1000~26500	-9.67	-52.1	≤-39.67	PASS

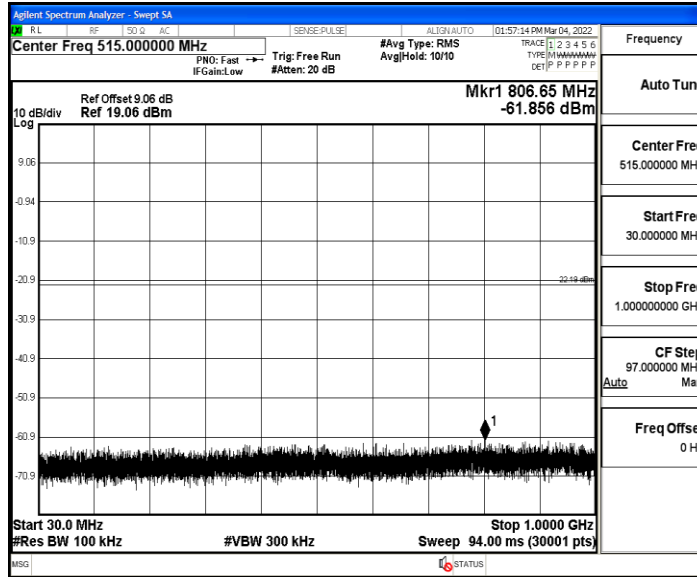
Test Graphs



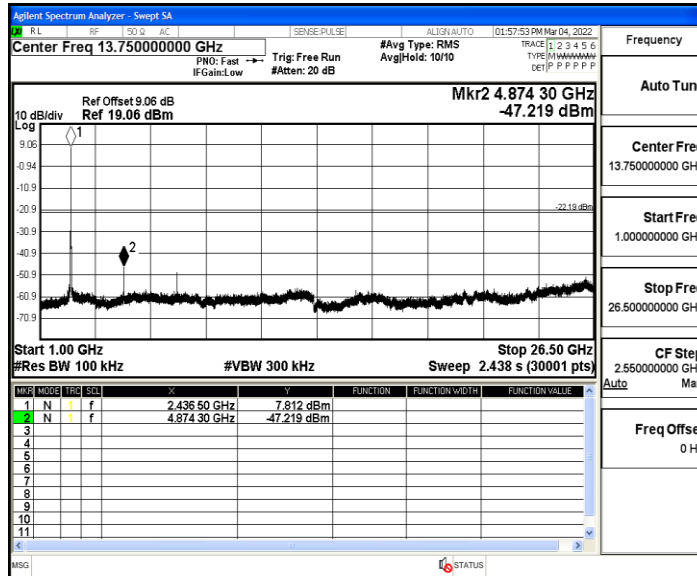
11B_Ant1_2437_0~Reference



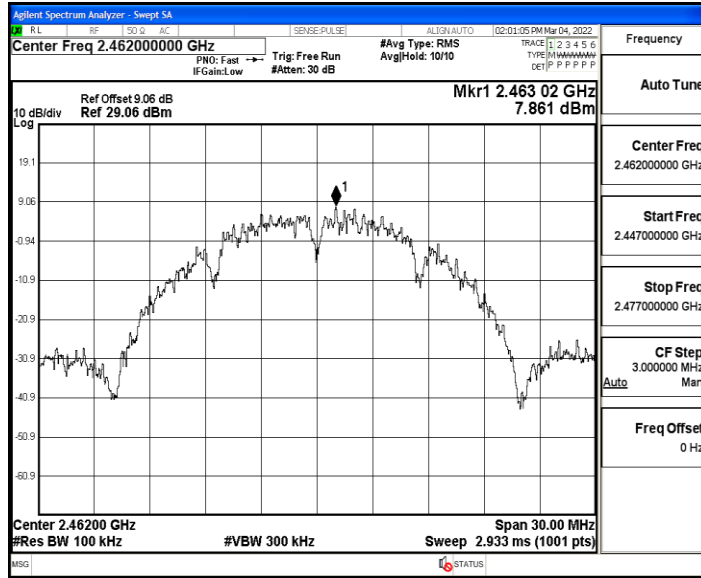
11B_Ant1_2437_30~1000



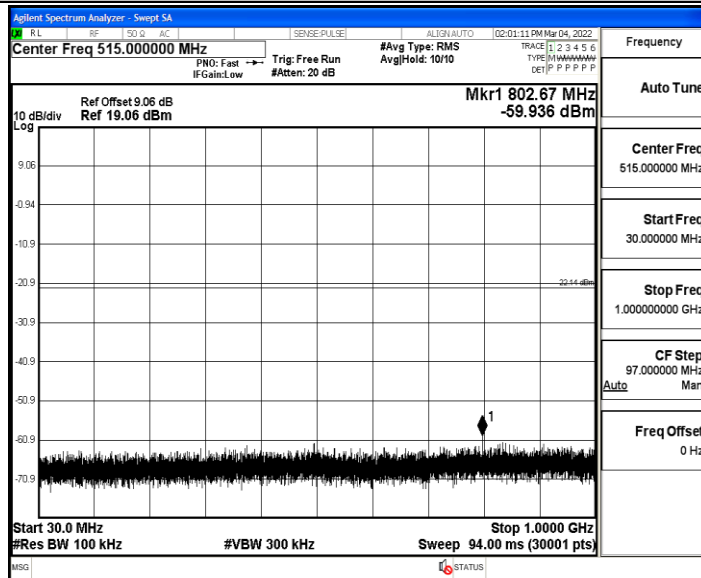
11B_Ant1_2437_1000~26500



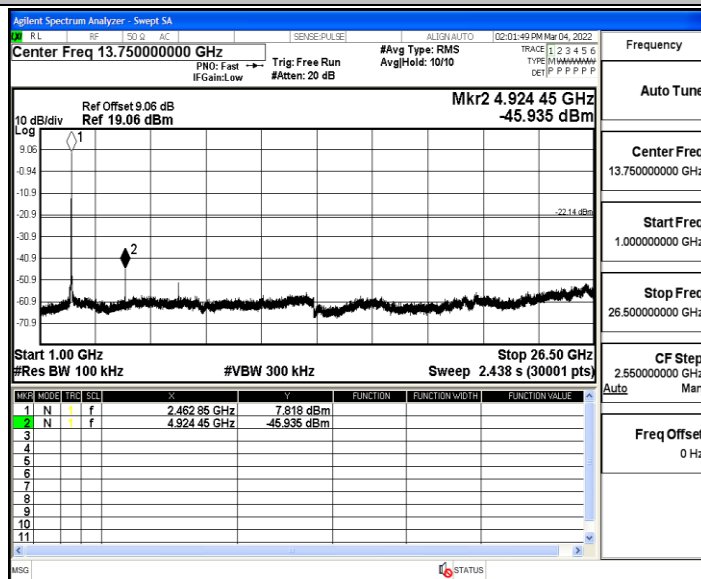
11B_Ant1_2462_0~Reference



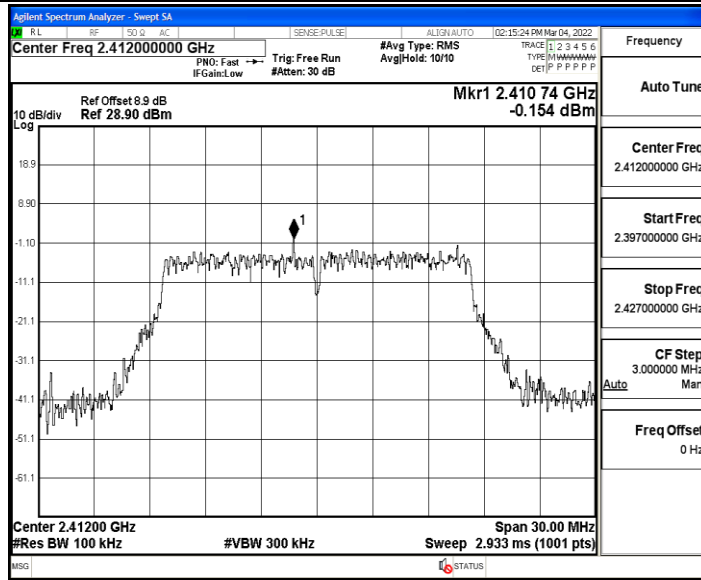
11B_Ant1_2462_30~1000



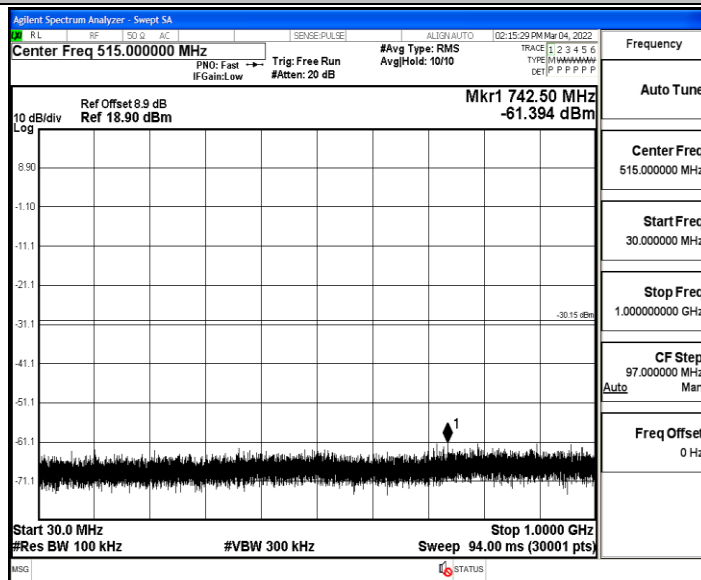
11B_Ant1_2462_1000~26500



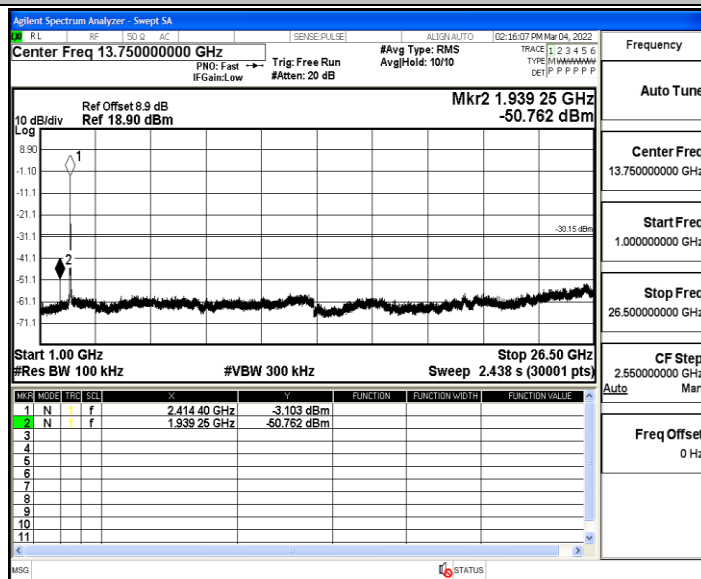
11G_Ant1_2412_0~Reference



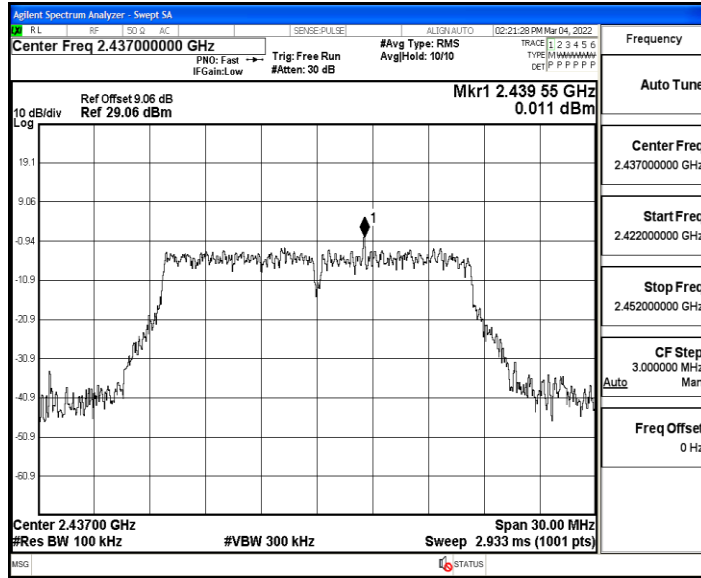
11G_Ant1_2412_30~1000



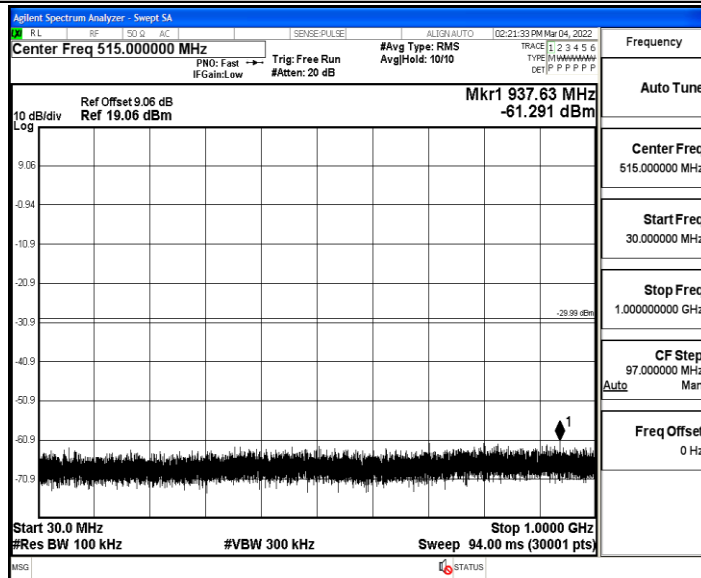
11G_Ant1_2412_1000~26500



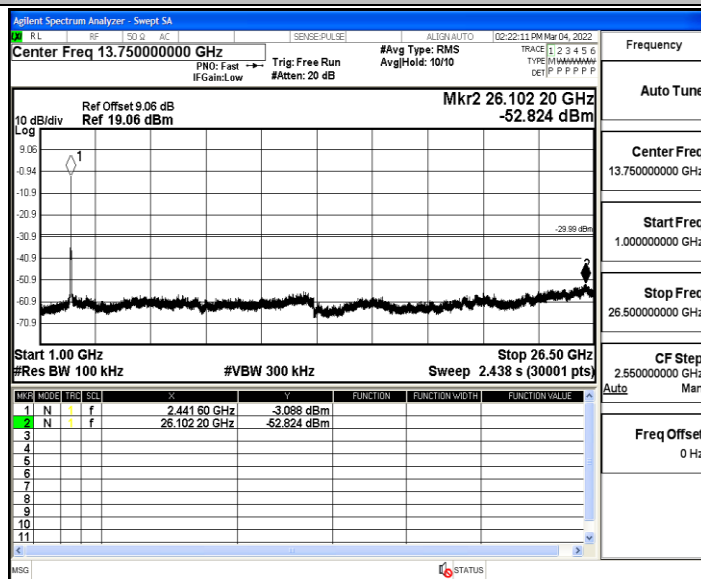
11G_Ant1_2437_0~Reference



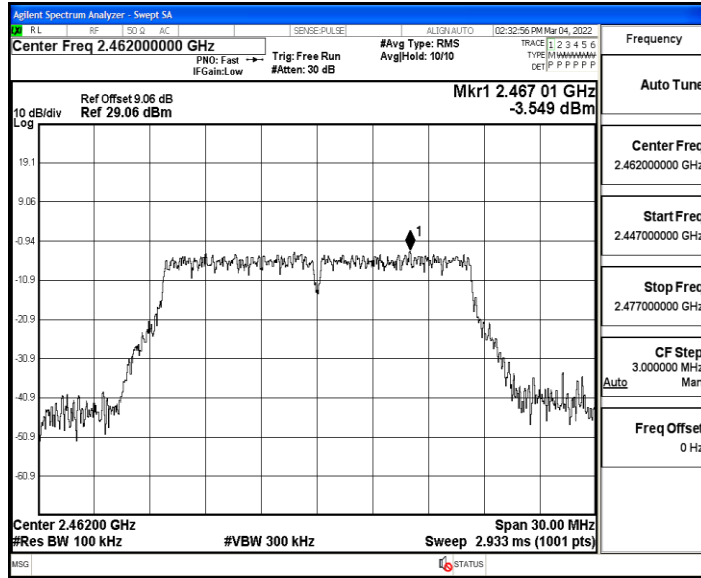
11G_Ant1_2437_30~1000



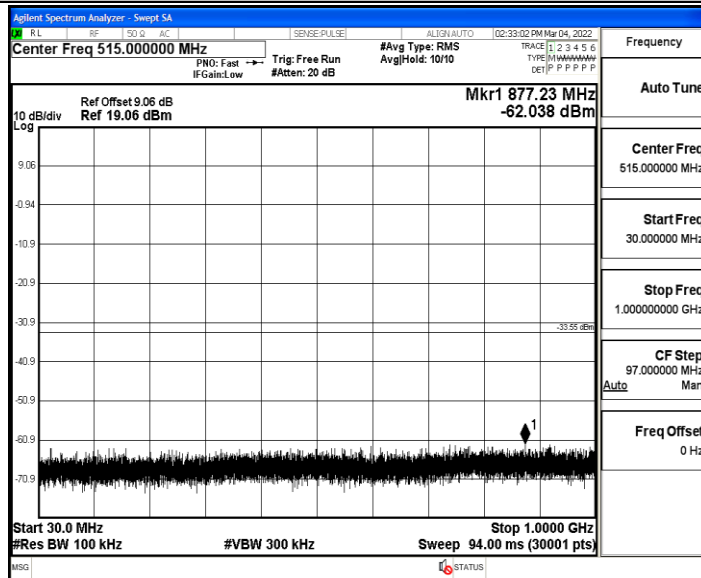
11G_Ant1_2437_1000~26500



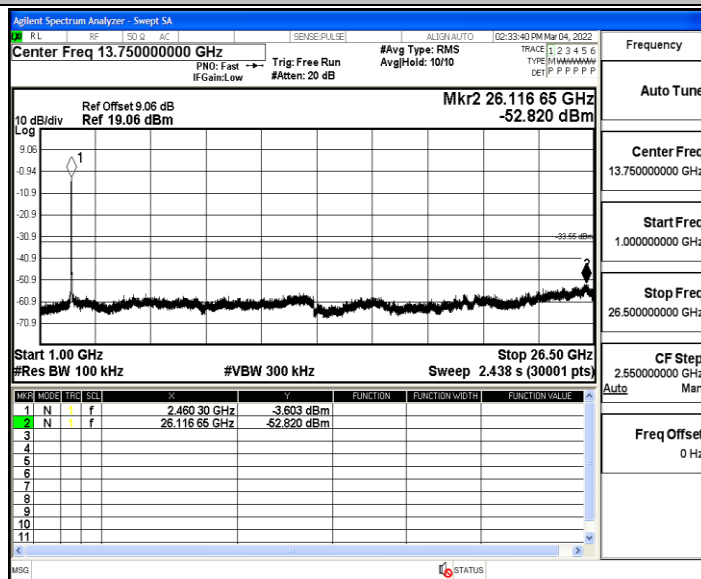
11G_Ant1_2462_0~Reference



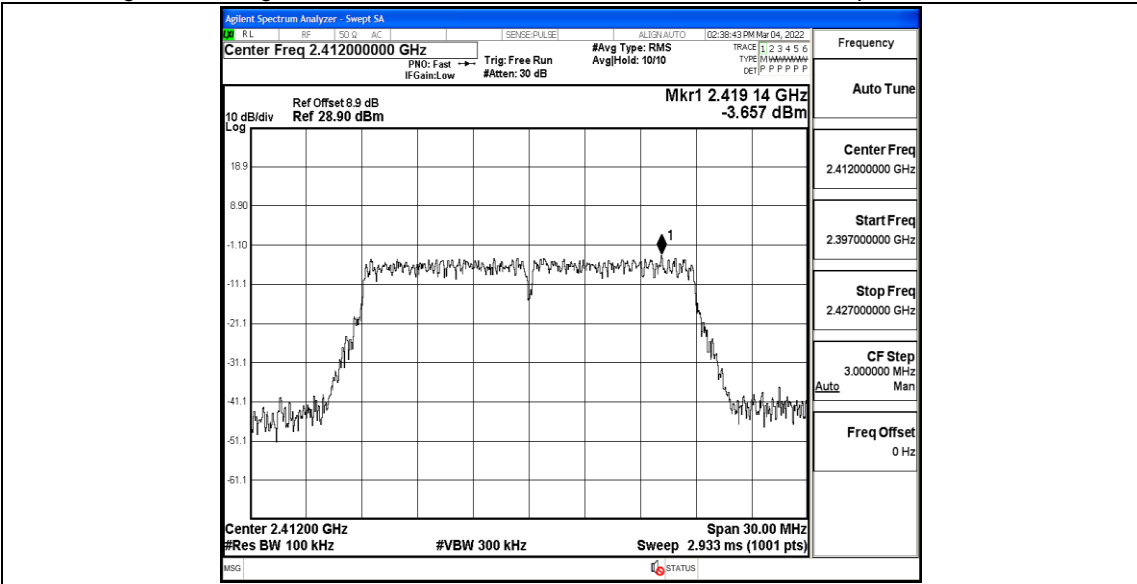
11G_Ant1_2462_30~1000



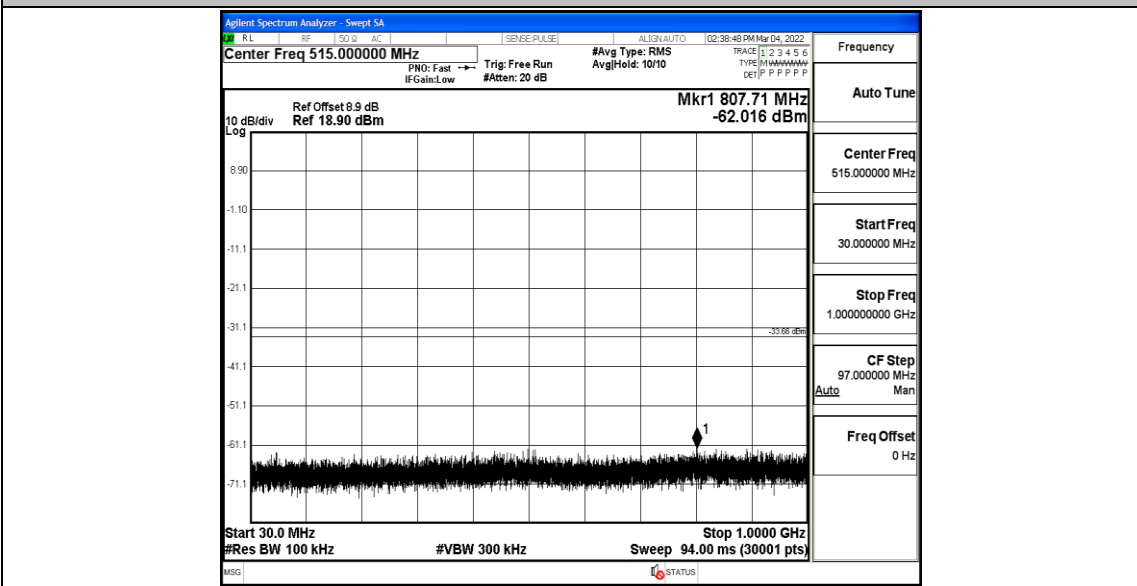
11G_Ant1_2462_1000~26500



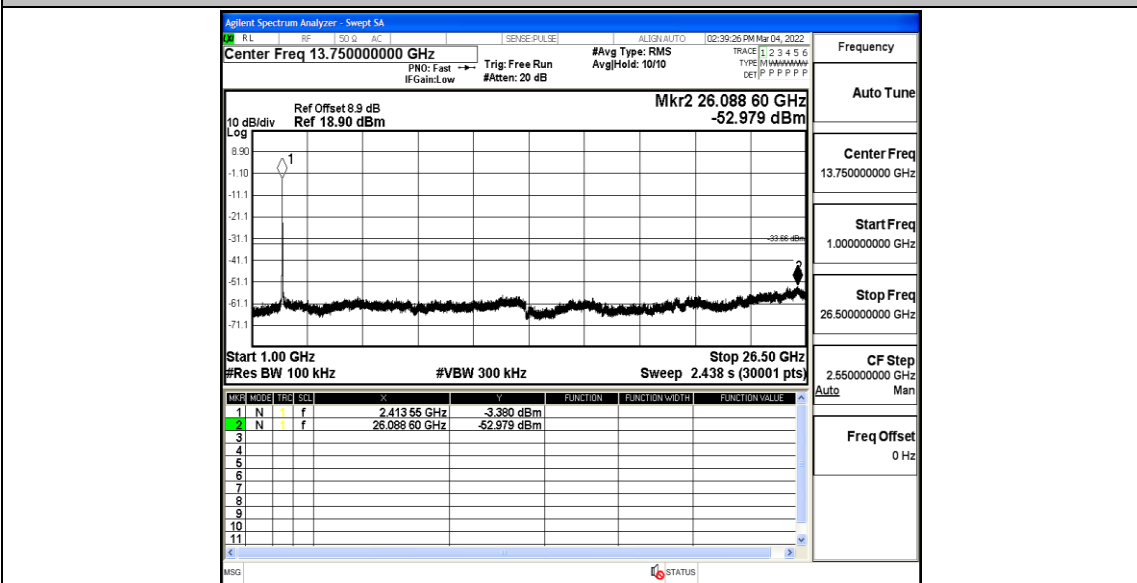
11N20SISO_Ant1_2412_0~Reference



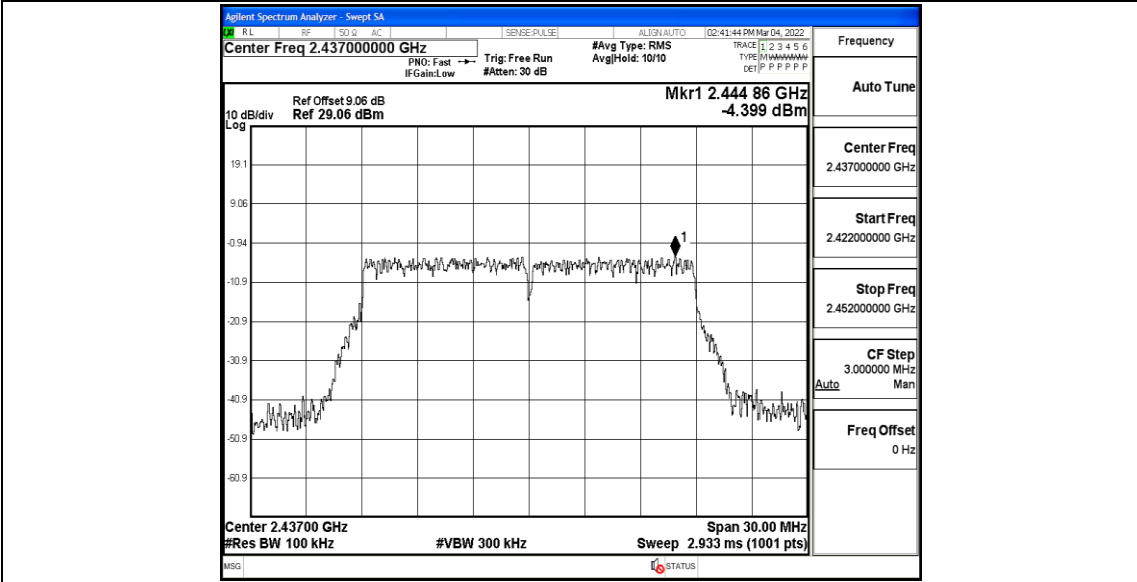
11N20SISO_Ant1_2412_30~1000



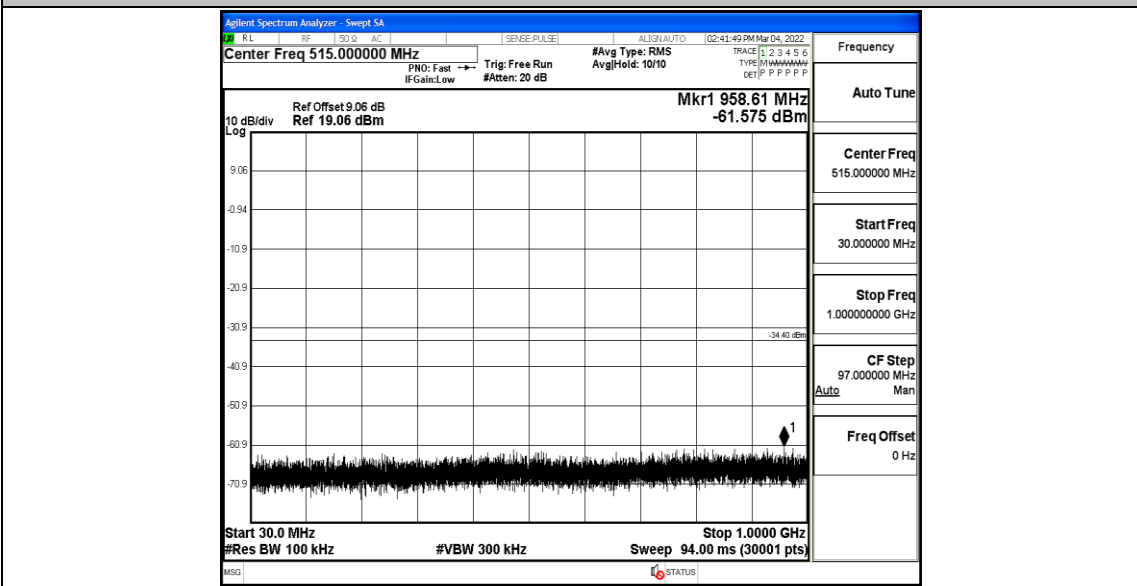
11N20SISO_Ant1_2412_1000~26500



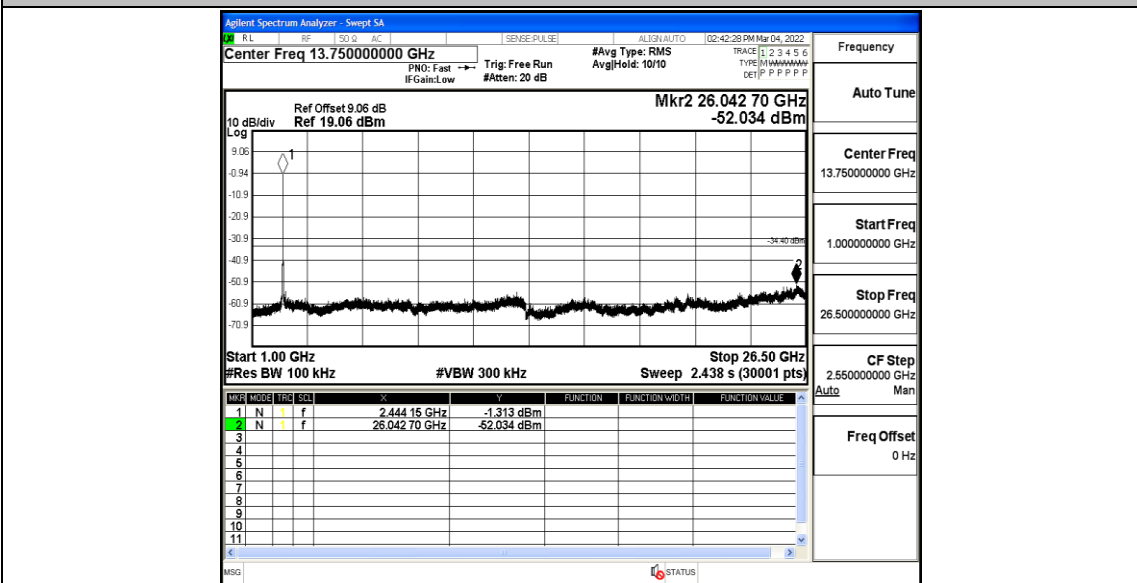
11N20SISO_Ant1_2437_0~Reference



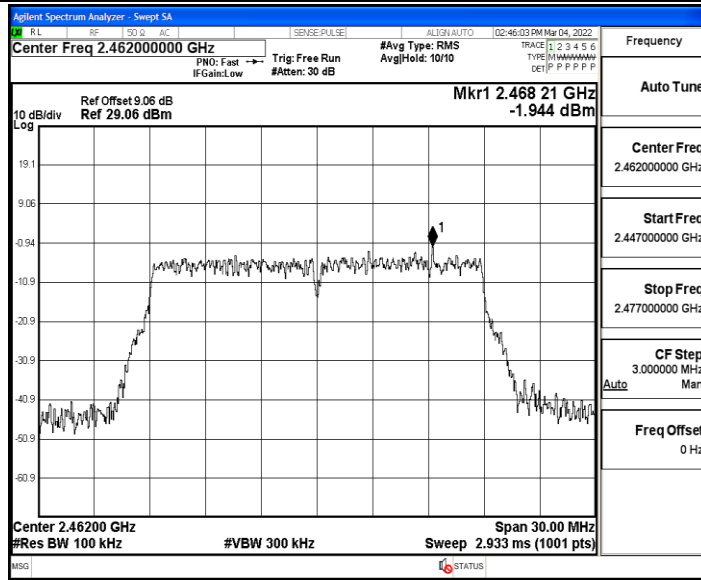
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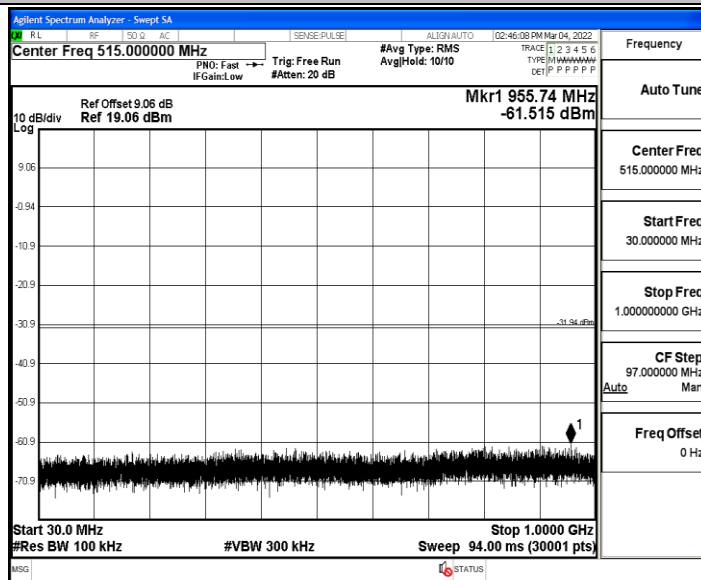
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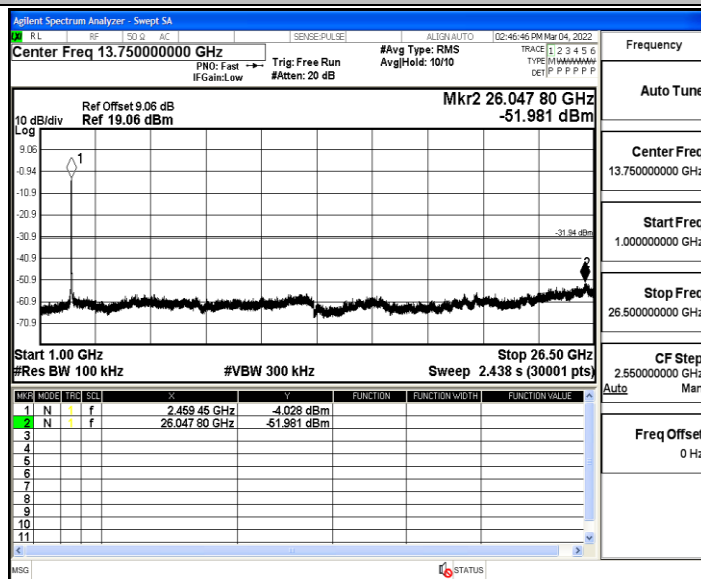
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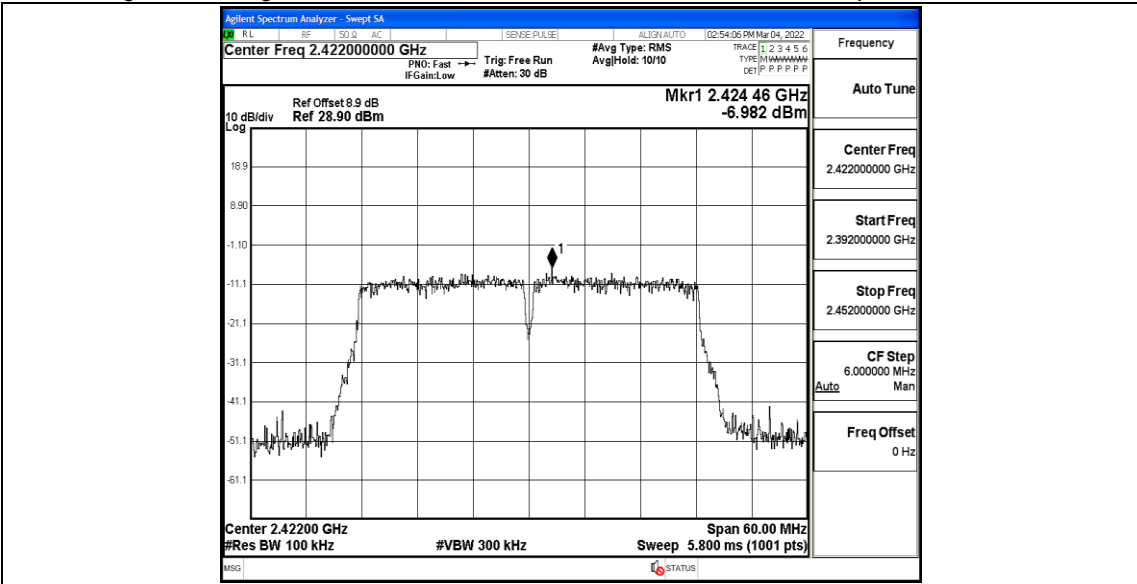
11N20SISO_Ant1_2462_30~1000



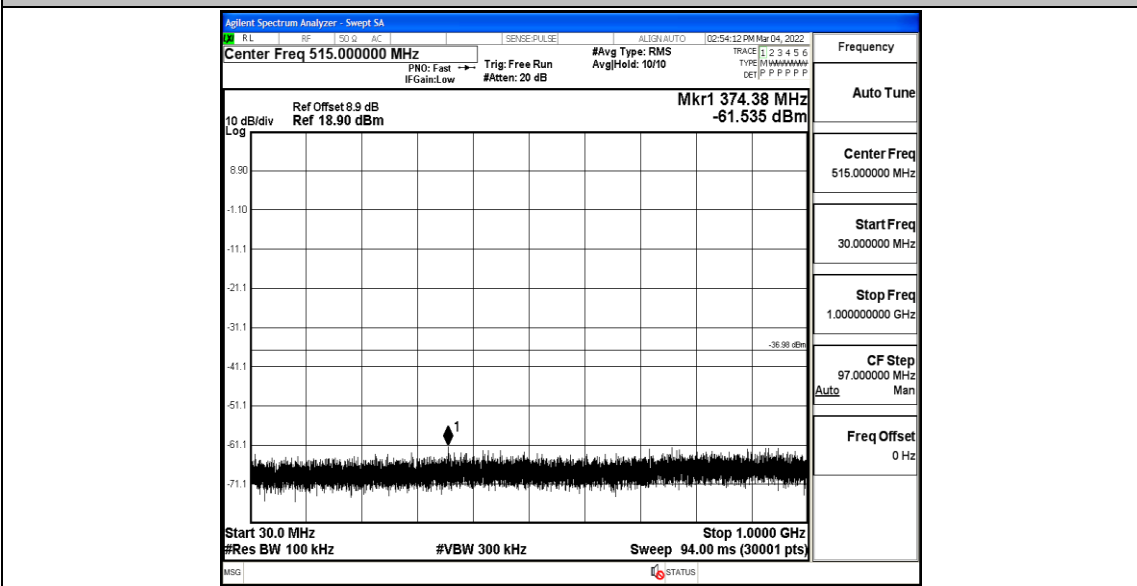
11N20SISO_Ant1_2462_1000~26500



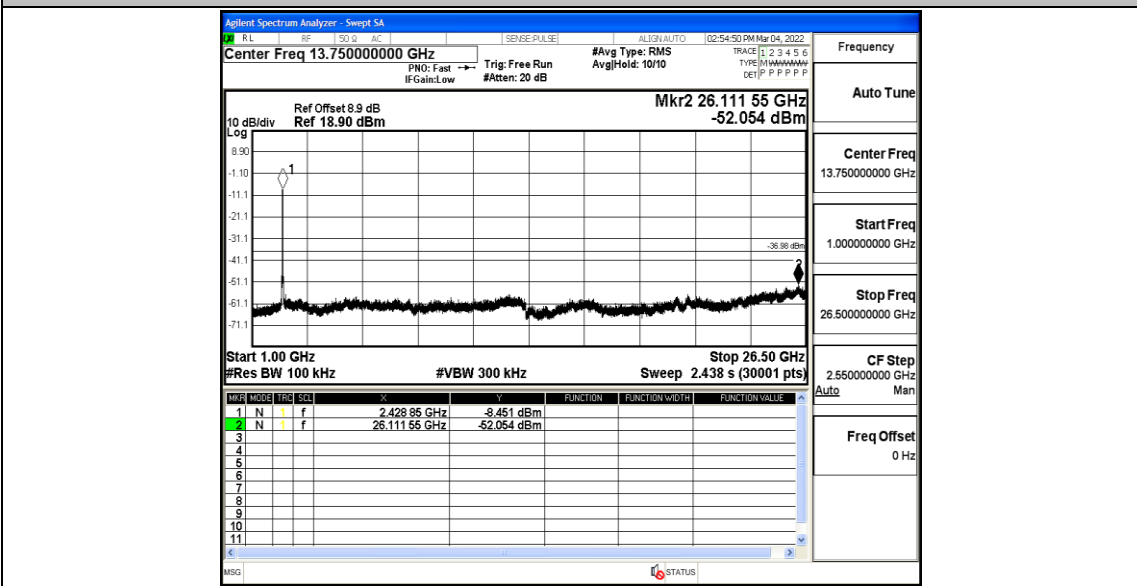
11N40SISO_Ant1_2422_0~Reference



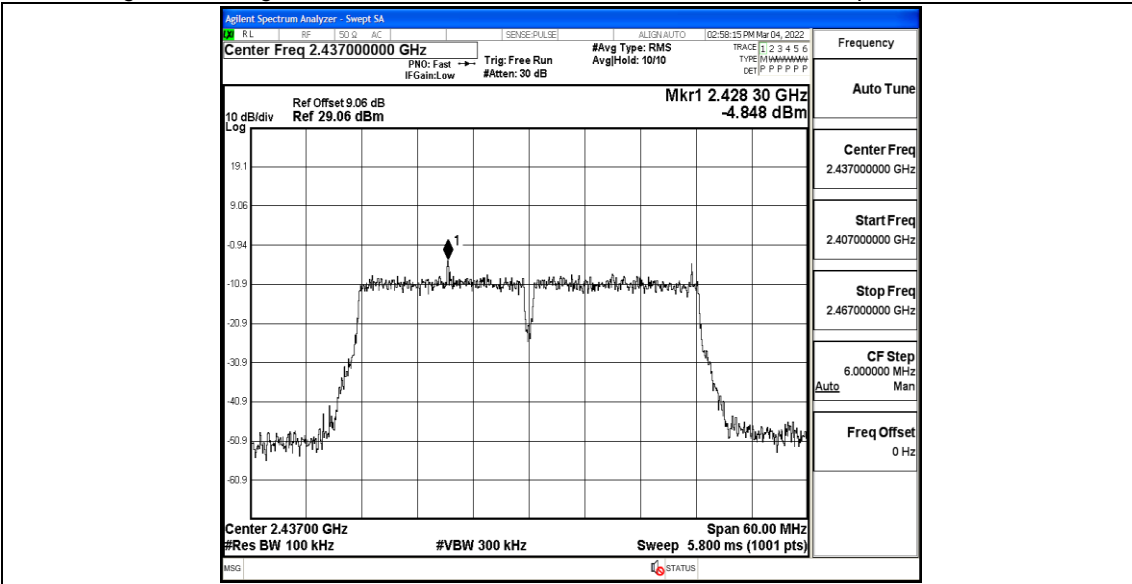
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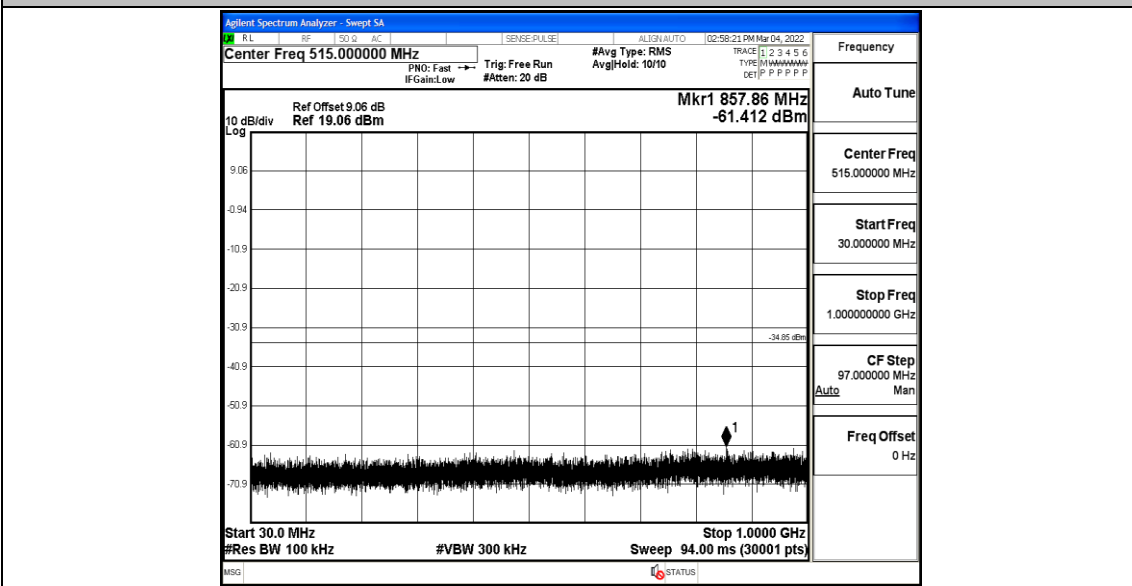
11N40SISO_Ant1_2422_1000~26500



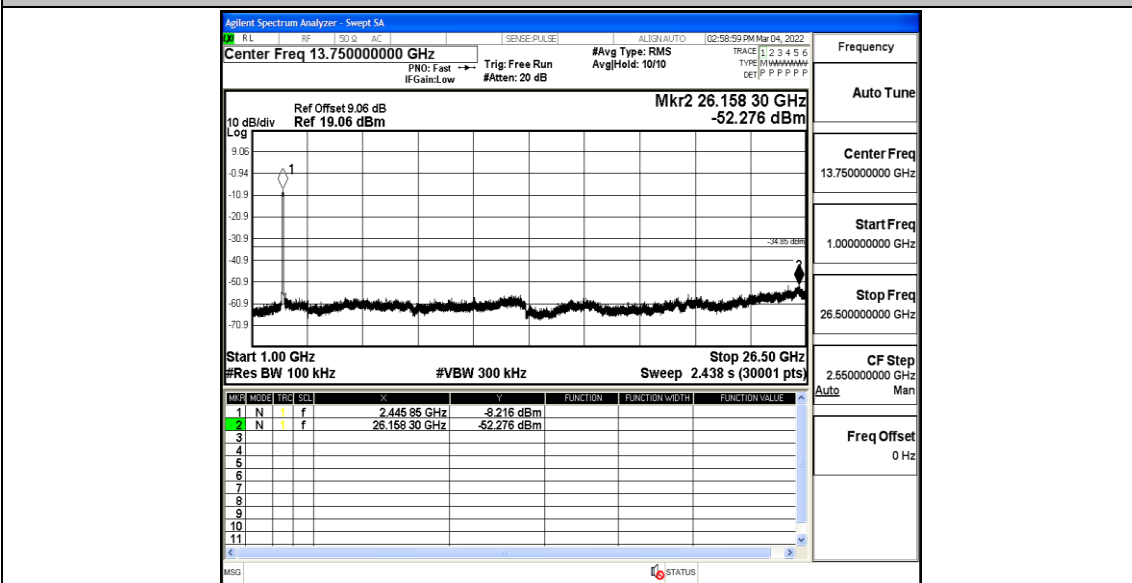
11N40SISO_Ant1_2437_0~Reference



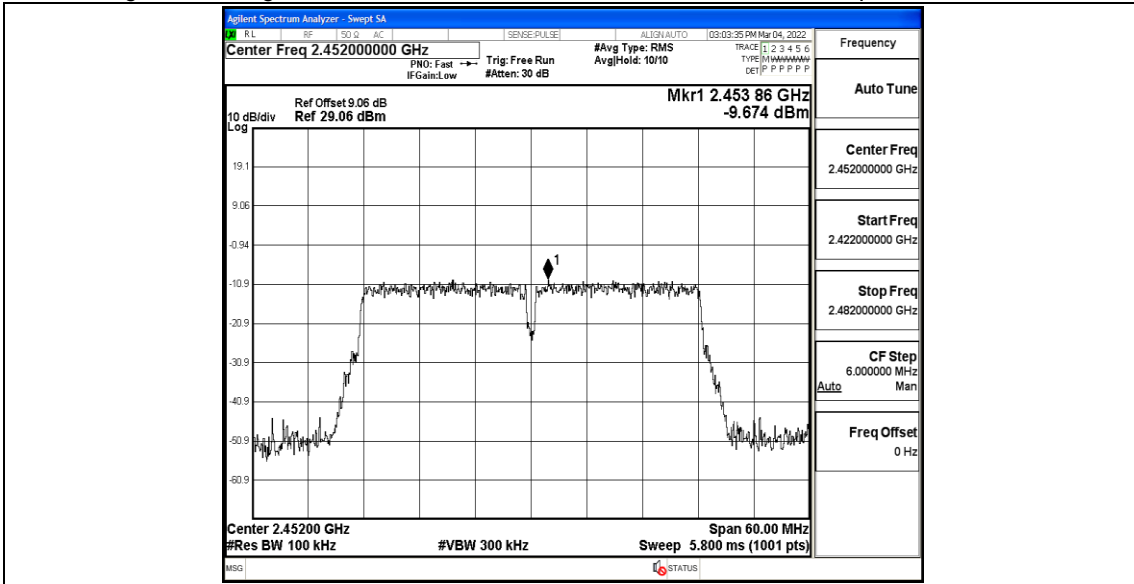
11N40SISO_Ant1_2437_30~1000



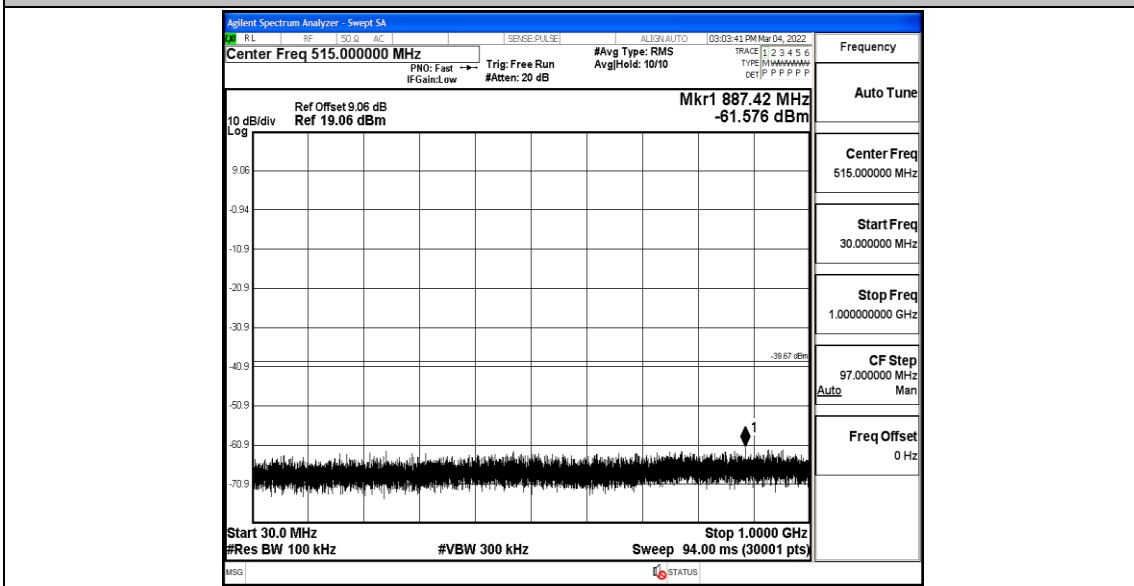
11N40SISO_Ant1_2437_1000~26500



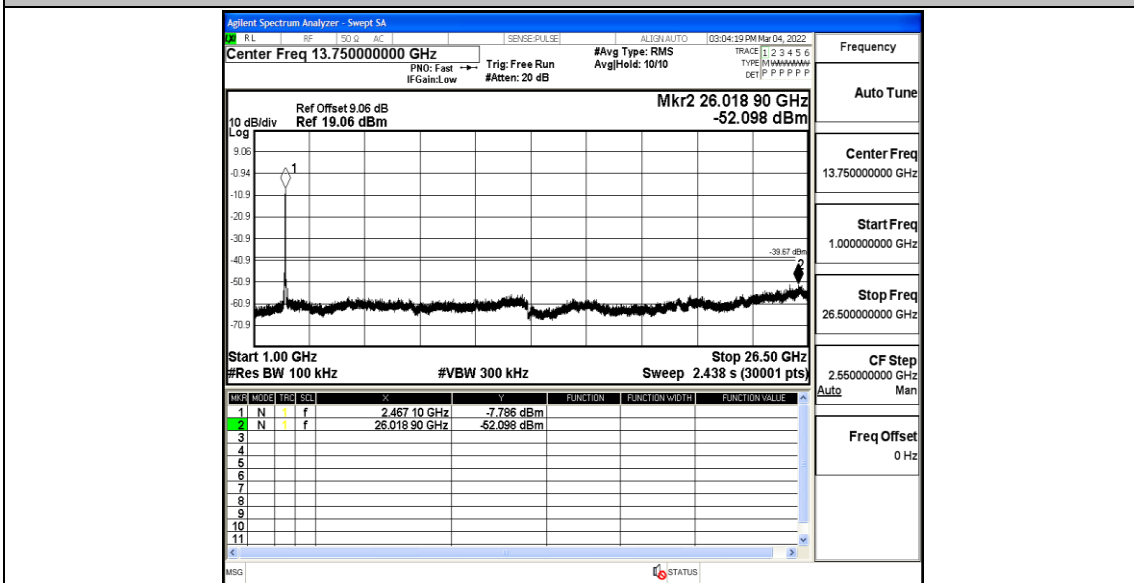
11N40SISO_Ant1_2452_0~Reference



11N40SISO_Ant1_2452_30~1000



11N40SISO_Ant1_2452_1000~26500

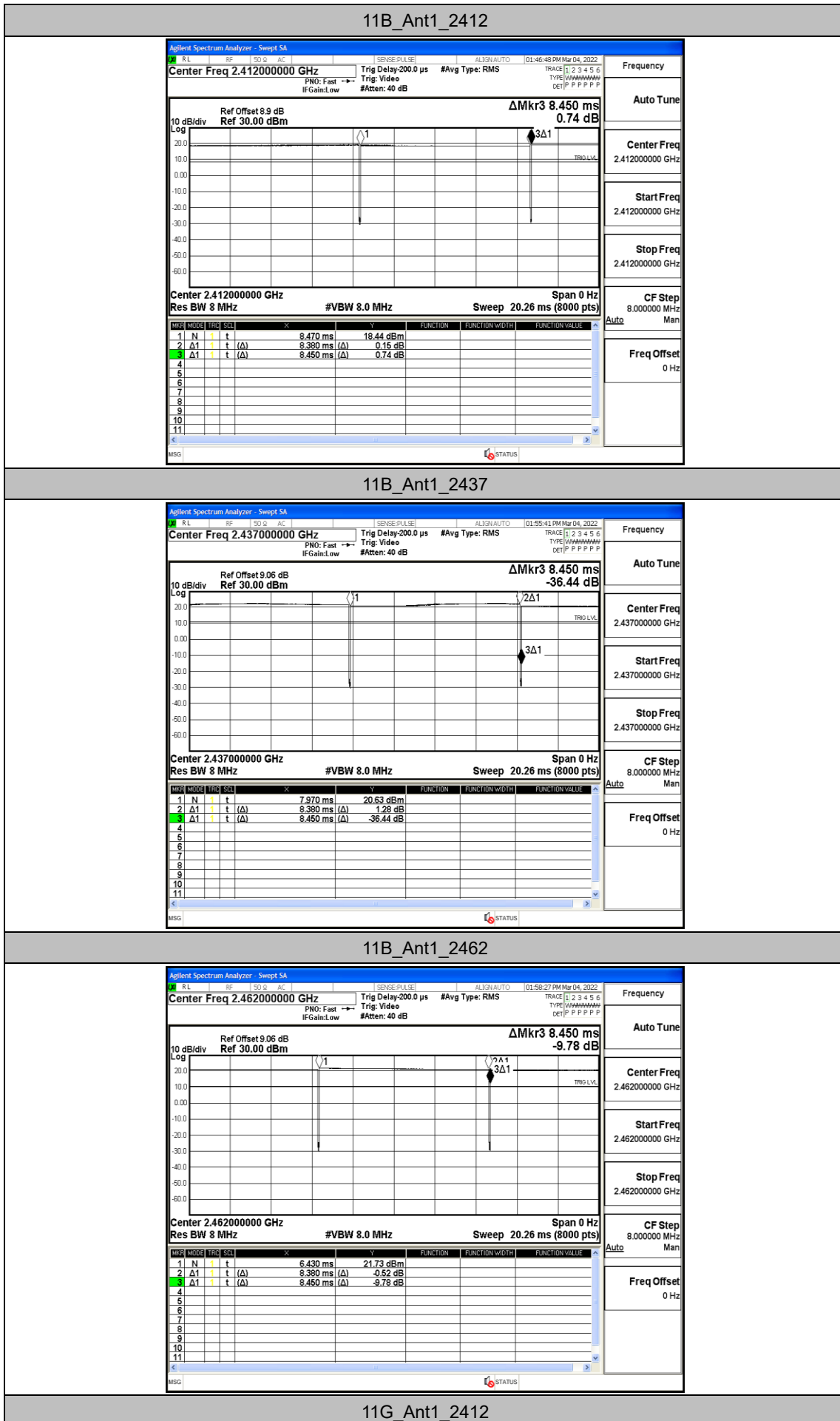


Appendix G: Duty Cycle

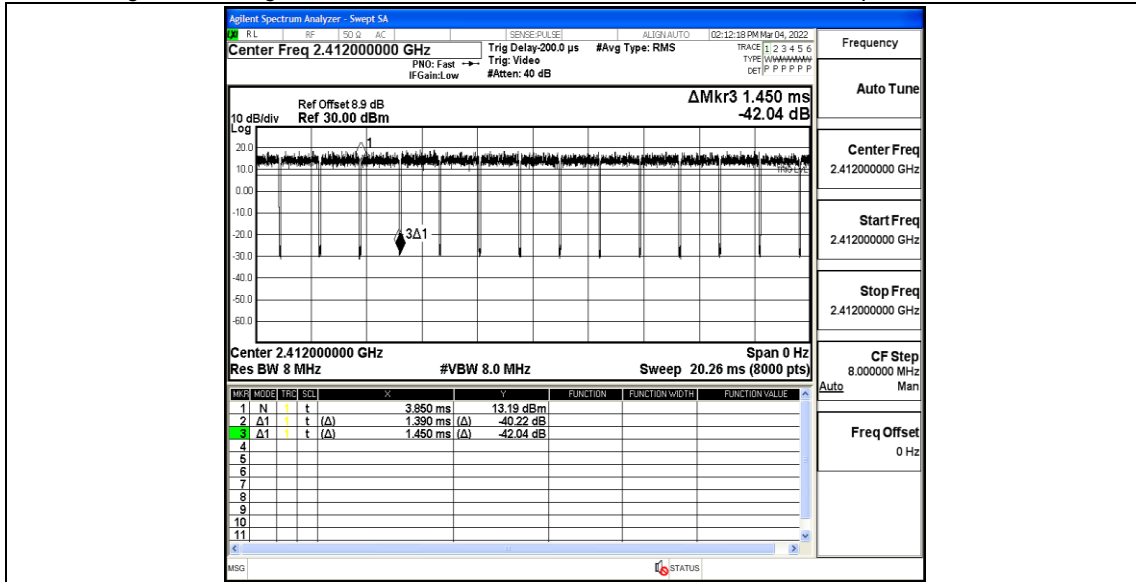
Test Result

TestMode	Antenna	Channel	Transmission Duration [ms]	Transmission Period [ms]	Duty Cycle [%]	1/B [kHz]
11B	Ant1	2412	8.38	8.45	99.17	0.12
		2437	8.38	8.45	99.17	0.12
		2462	8.38	8.45	99.17	0.12
11G	Ant1	2412	1.39	1.45	95.86	0.72
		2437	1.39	1.46	95.21	0.72
		2462	1.39	1.46	95.21	0.72
11N20SISO	Ant1	2412	5.08	5.15	98.64	0.20
		2437	5.09	5.15	98.83	0.20
		2462	5.08	5.15	98.64	0.20
11N40SISO	Ant1	2422	2.47	2.54	97.24	0.40
		2437	2.47	2.54	97.24	0.40
		2452	2.47	2.53	97.63	0.40

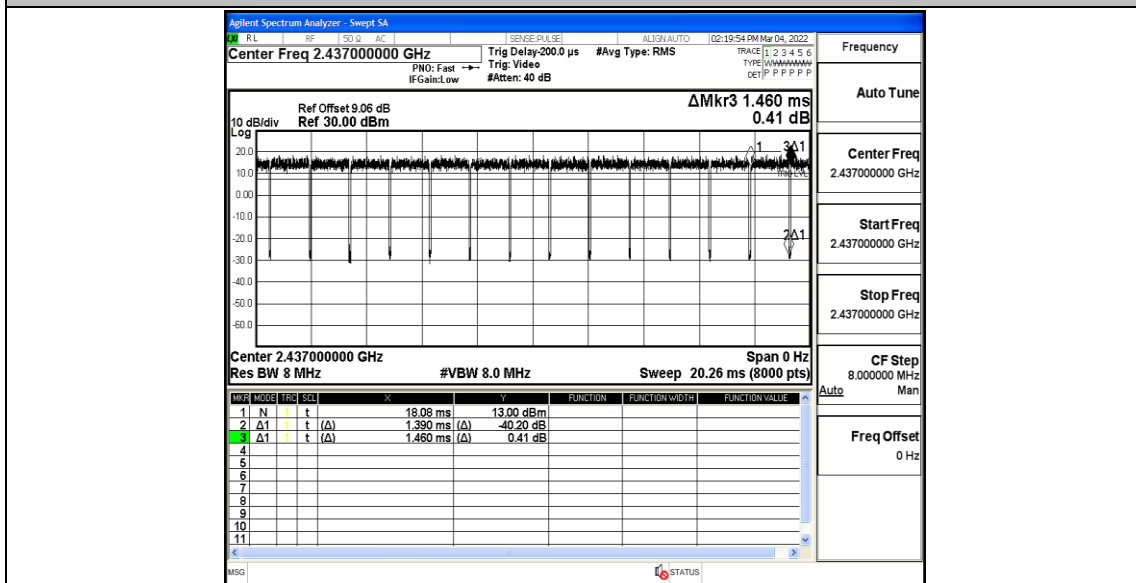
Test Graphs



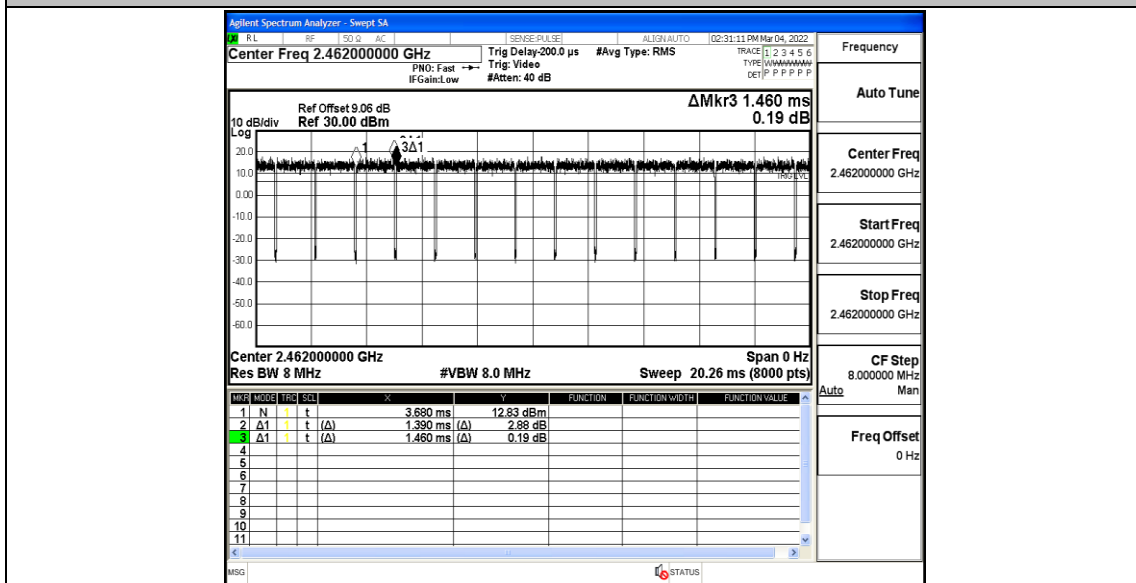
11G_Ant1_2412



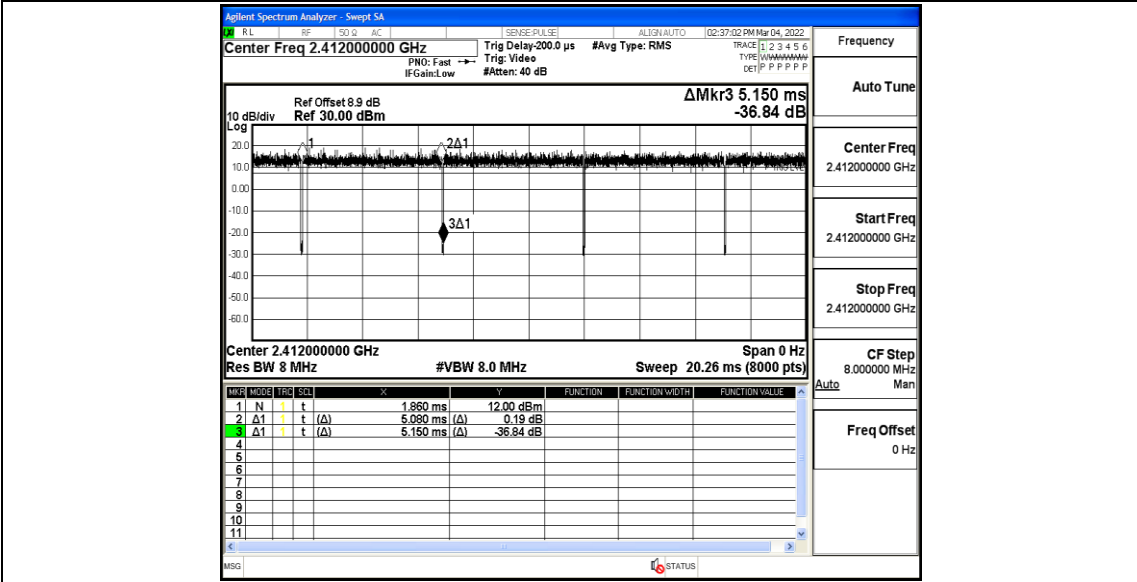
11G_Ant1_2437



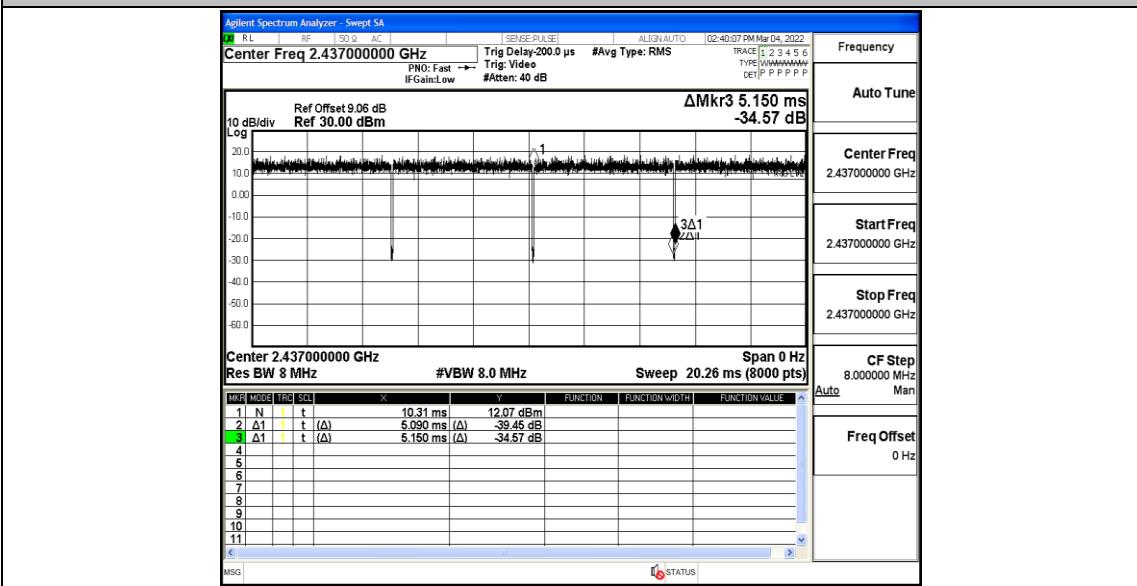
11G_Ant1_2462



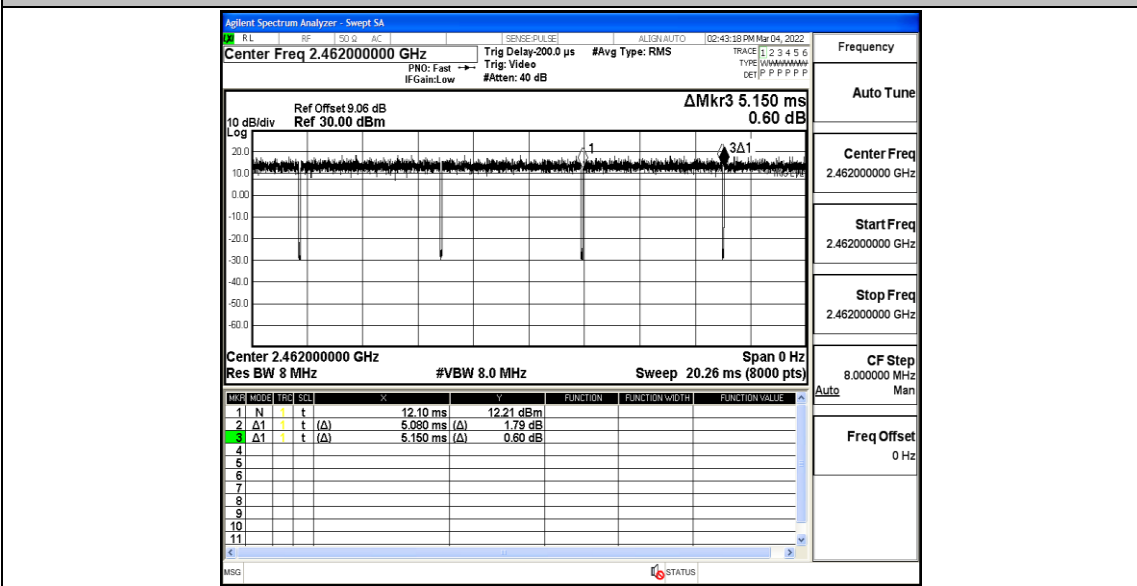
11N20SISO_Ant1_2412



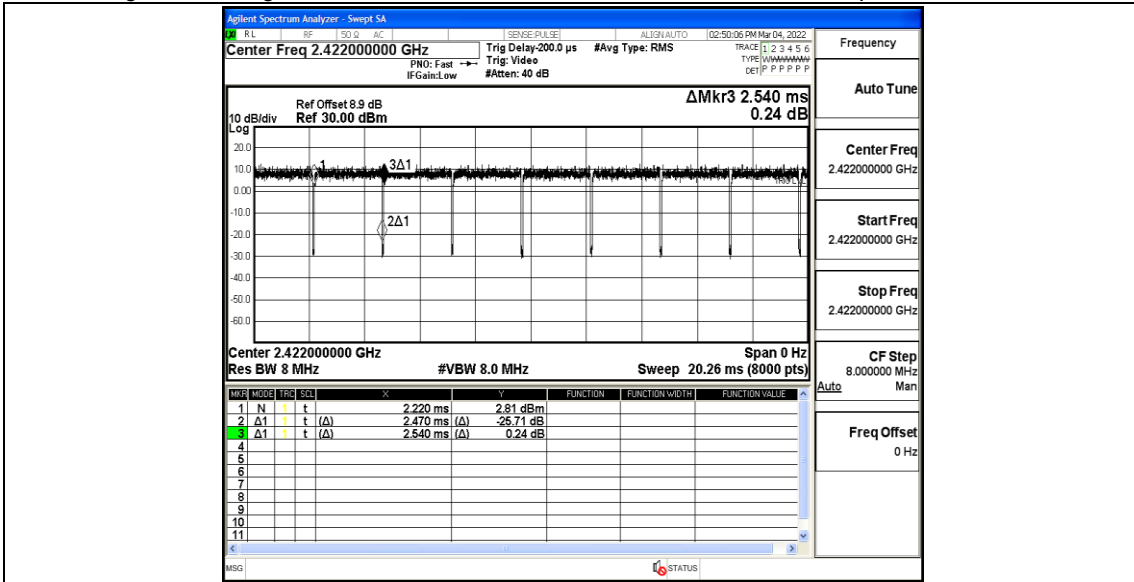
11N20SISO_Ant1_2437



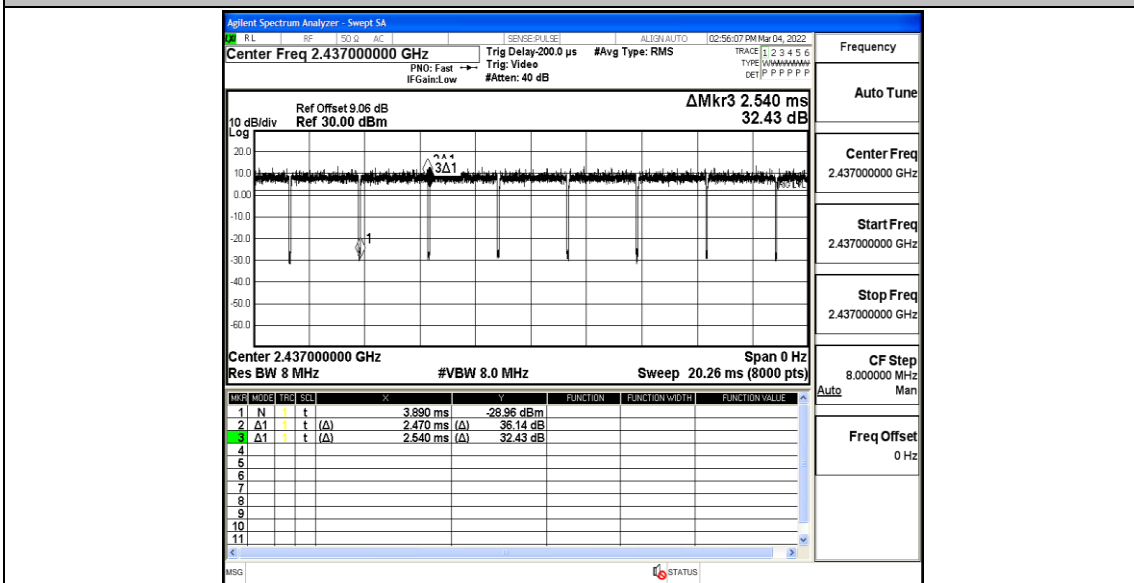
11N20SISO_Ant1_2462



11N40SISO_Ant1_2422



11N40SISO_Ant1_2437



11N40SISO_Ant1_2452

