



Appendix C

RF Test Data for 2.4GWIFI (Conducted Measurement)

Product Name: Smartphone

Test Model: CG65

Environmental Conditions

Temperature:	23.8° C
Relative Humidity:	52.1%
ATM Pressure:	100.0 kPa
Test Engineer:	Nick Peng
Supervised by:	Ling Zhu



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C.1 DTS Bandwidth

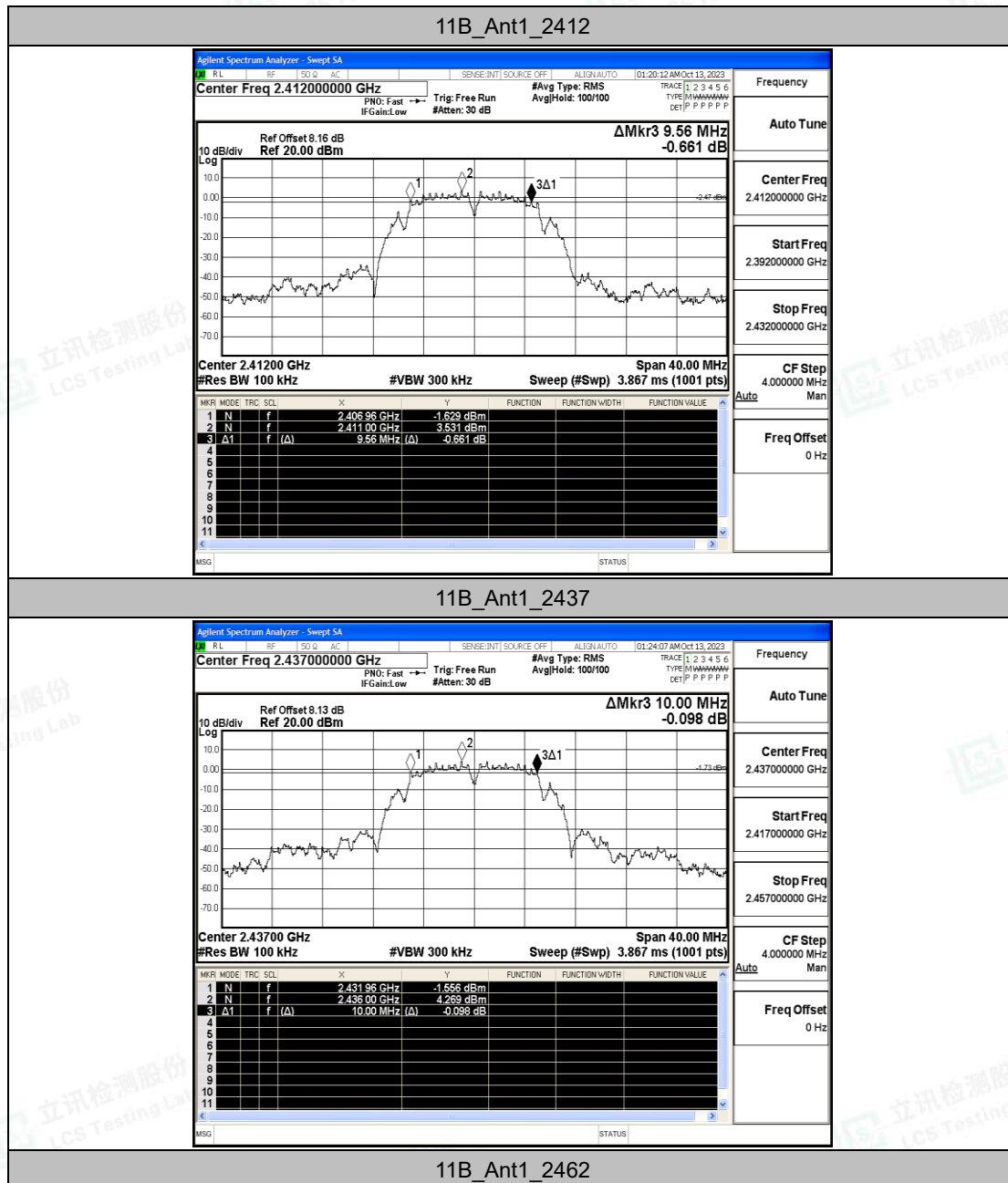
Test Result

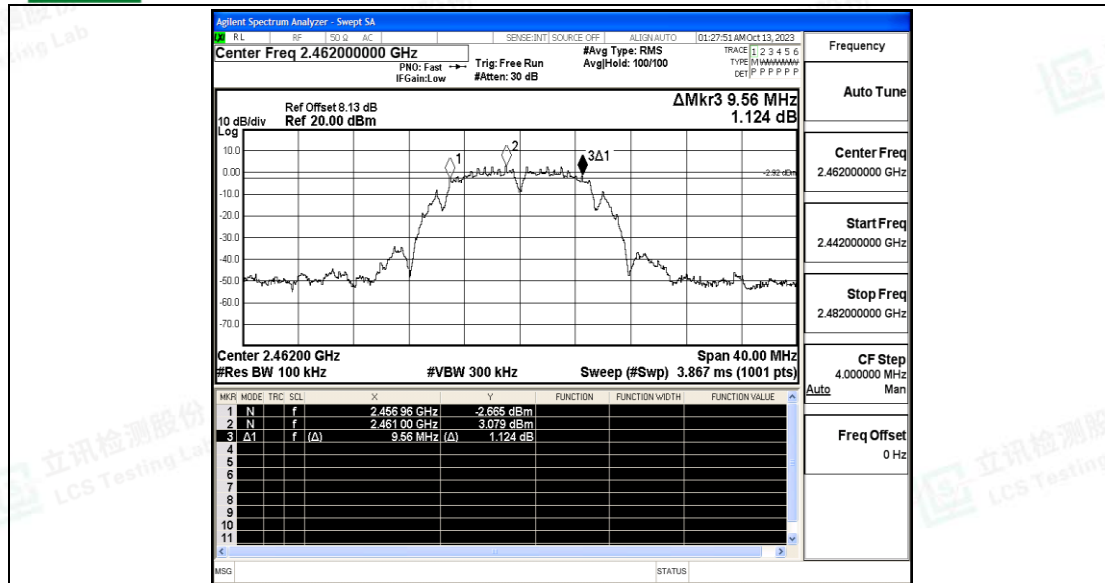
TestMode	Antenna	Freq(MHz)	DTS BW [MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
11B	Ant1	2412	9.560	2406.960	2416.520	0.5	PASS
		2437	10.000	2431.960	2441.960	0.5	PASS
		2462	9.560	2456.960	2466.520	0.5	PASS
11G	Ant1	2412	14.400	2405.760	2420.160	0.5	PASS
		2437	15.880	2428.840	2444.720	0.5	PASS
		2462	16.280	2453.880	2470.160	0.5	PASS
11N20SISO	Ant1	2412	16.200	2404.440	2420.640	0.5	PASS
		2437	16.320	2428.440	2444.760	0.5	PASS
		2462	16.800	2453.680	2470.480	0.5	PASS



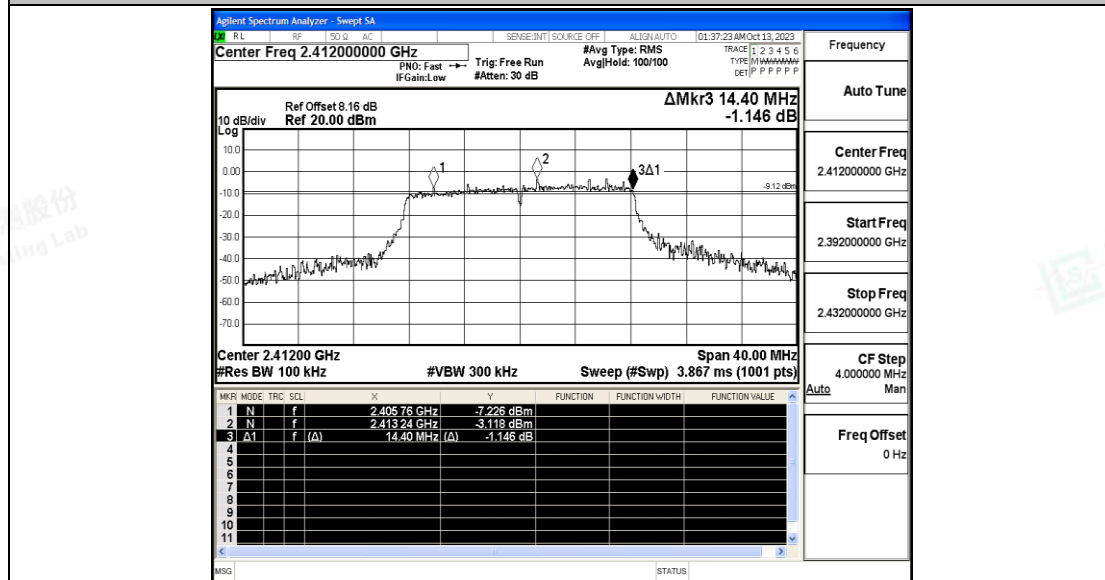


Test Graphs



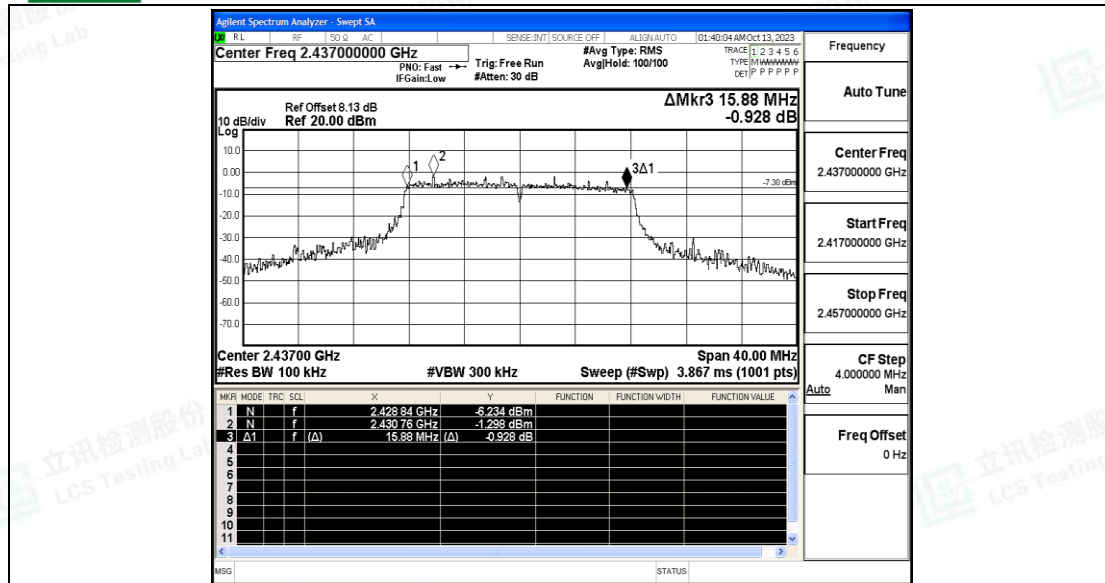


11G_Ant1_2412

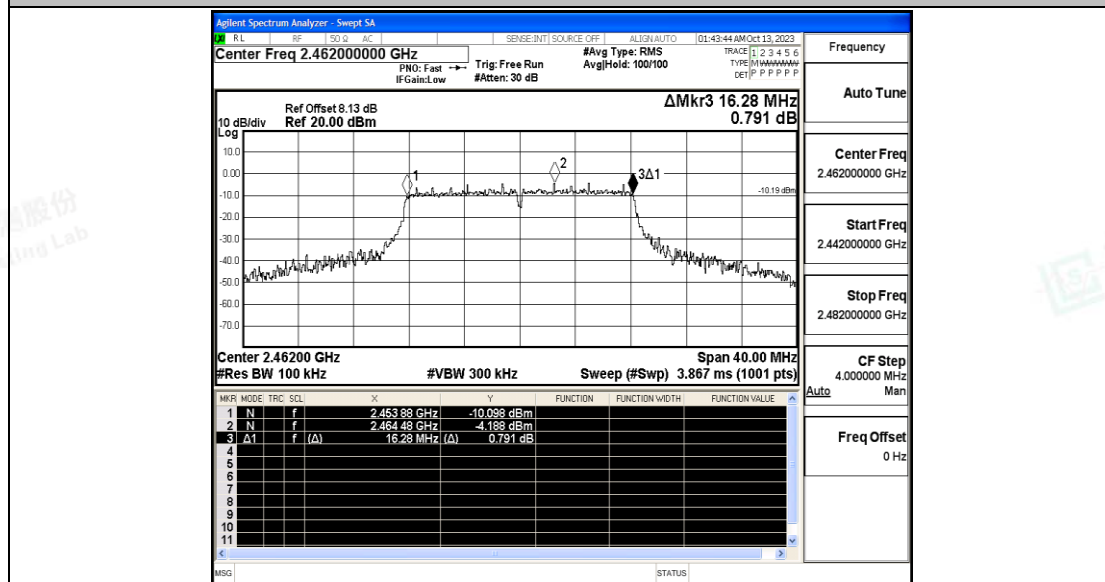


11G_Ant1_2437



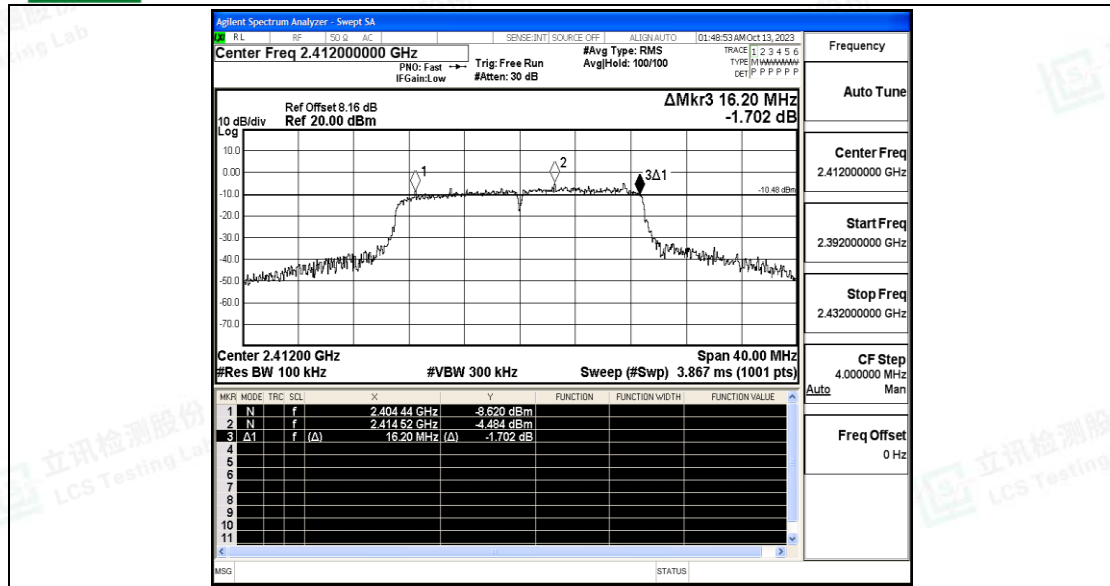


11G_Ant1_2462

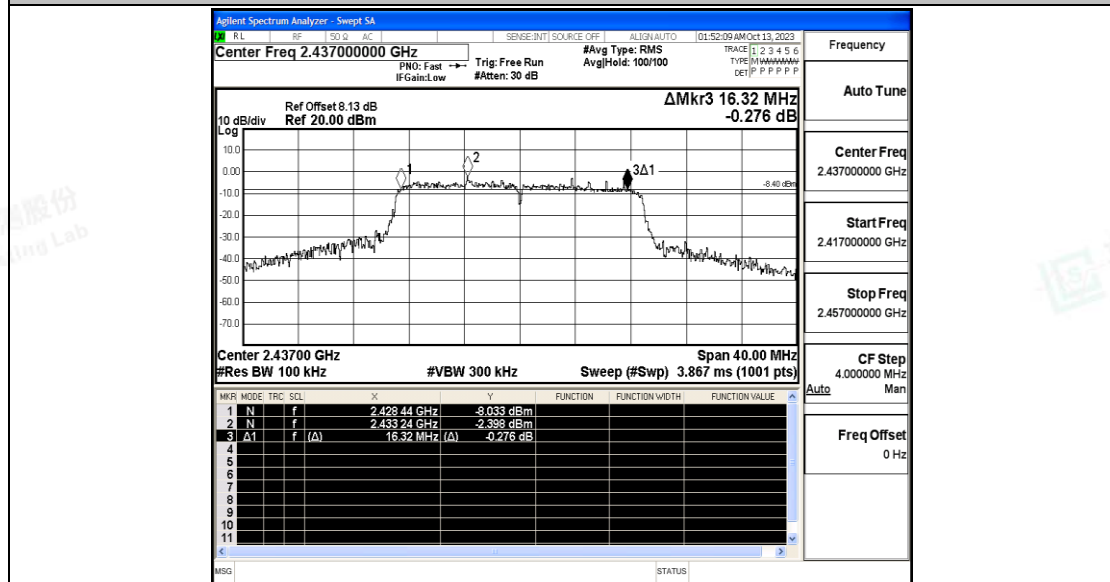


11N20SISO_Ant1_2412





11N20SISO_Ant1_2437



11N20SISO_Ant1_2462





C.2 Maximum conducted output power

Test Result Peak

TestMode	Antenna	Freq(MHz)	Peak Power[dBm]	Conducted Limit[dBm]	Verdict
11B	Ant1	2412	15.46	≤30.00	PASS
		2437	15.47	≤30.00	PASS
		2462	15.04	≤30.00	PASS
11G	Ant1	2412	14.21	≤30.00	PASS
		2437	14.75	≤30.00	PASS
		2462	14.09	≤30.00	PASS
11N20SISO	Ant1	2412	12.90	≤30.00	PASS
		2437	12.61	≤30.00	PASS
		2462	12.81	≤30.00	PASS





C.3 Maximum power spectral density

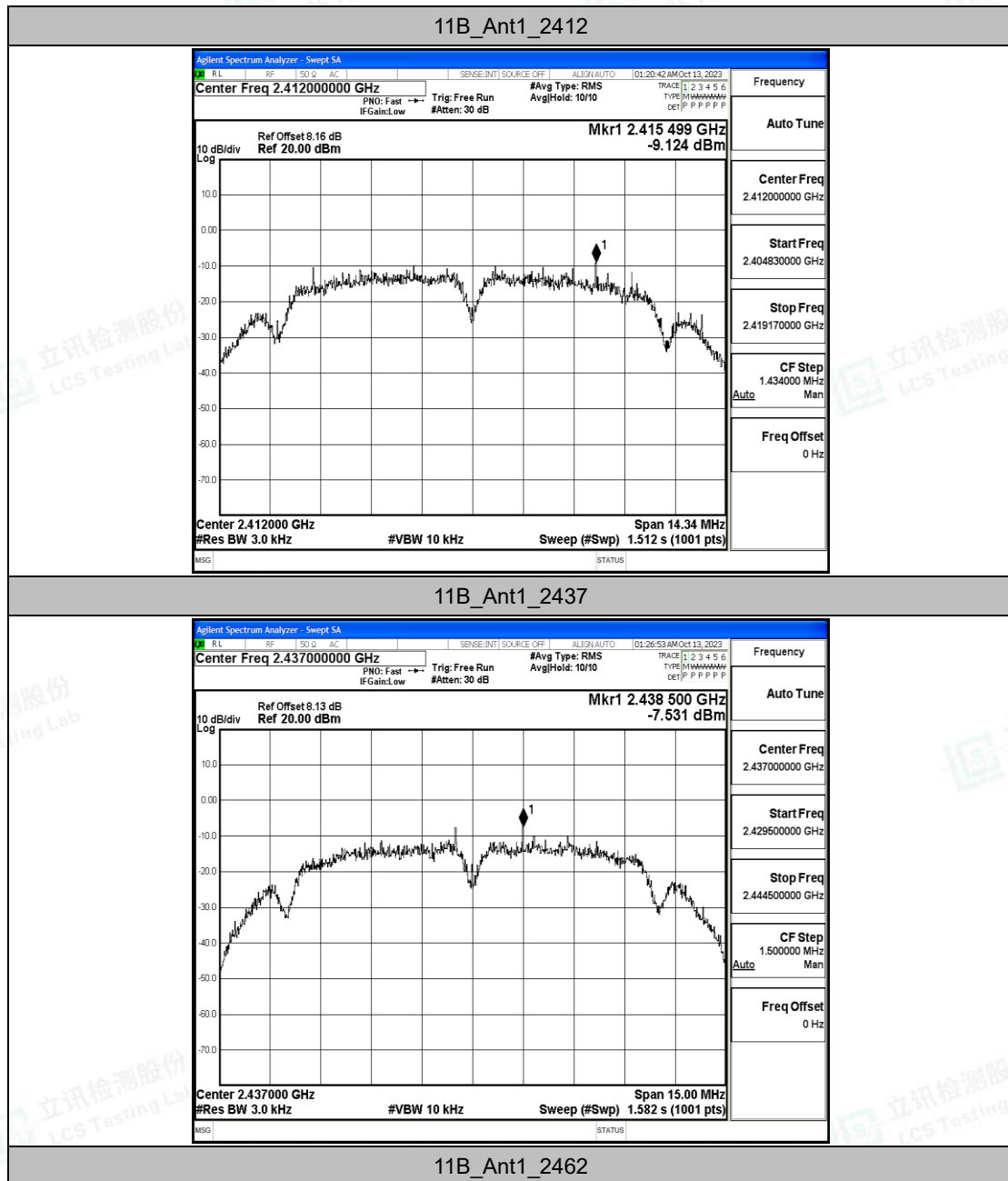
Test Result

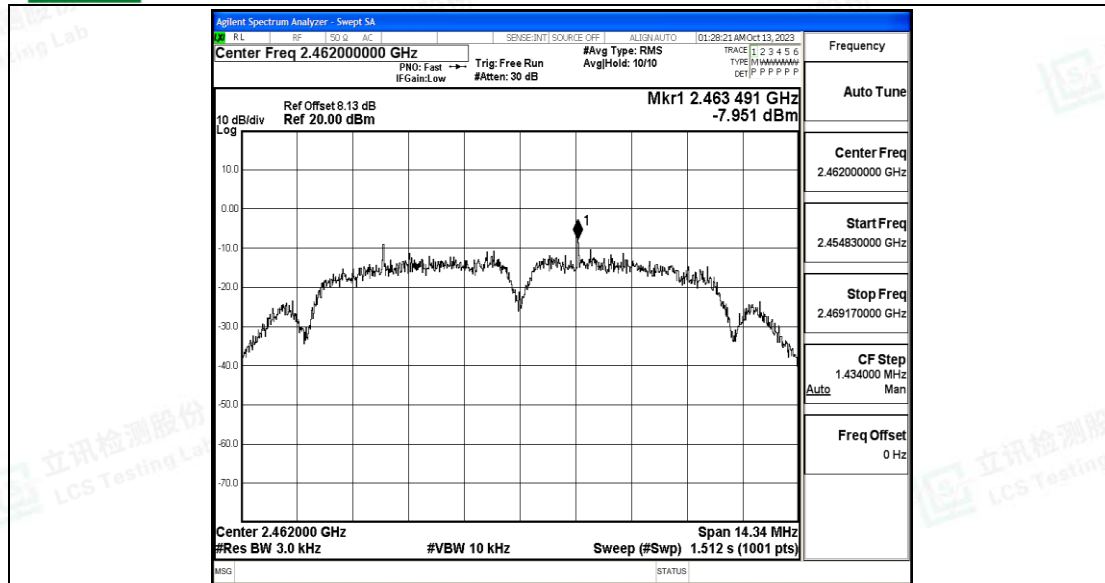
TestMode	Antenna	Freq(MHz)	Result [dBm/3-100kHz]	Limit [dBm/3kHz]	Gain [dBi]	EIRP [dBm/3-100kHz]	Limit [dBm/3kHz]	Verdict
11B	Ant1	2412	-9.12	≤8.00	0.00	-9.12	---	PASS
		2437	-7.53	≤8.00	0.00	-7.53	---	PASS
		2462	-7.95	≤8.00	0.00	-7.95	---	PASS
11G	Ant1	2412	-17.65	≤8.00	0.00	-17.65	---	PASS
		2437	-17.13	≤8.00	0.00	-17.13	---	PASS
		2462	-17.89	≤8.00	0.00	-17.89	---	PASS
11N20SISO	Ant1	2412	-18.44	≤8.00	0.00	-18.44	---	PASS
		2437	-19.39	≤8.00	0.00	-19.39	---	PASS
		2462	-20.08	≤8.00	0.00	-20.08	---	PASS



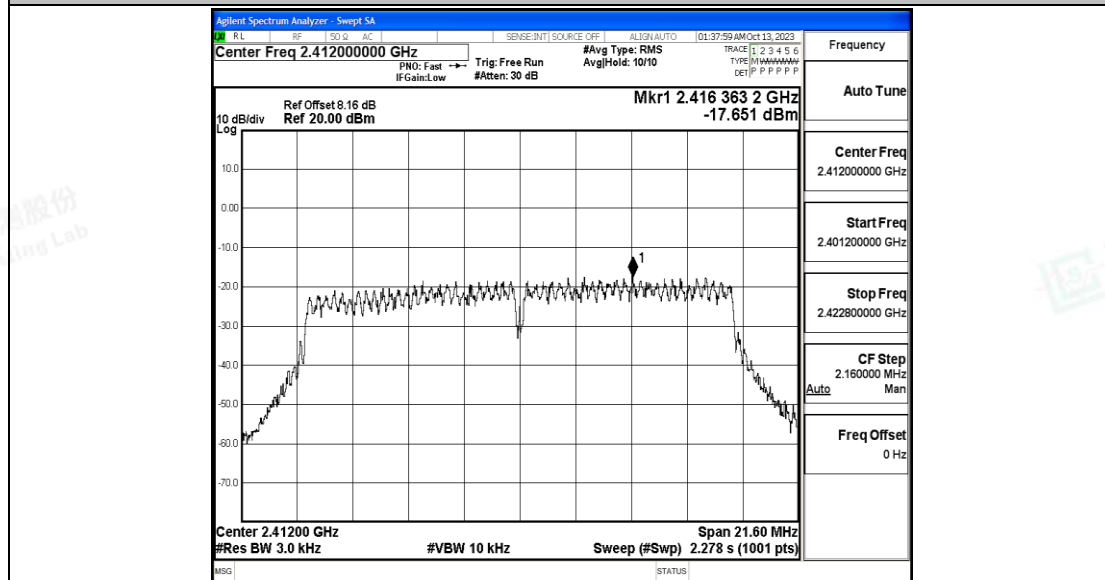


Test Graphs



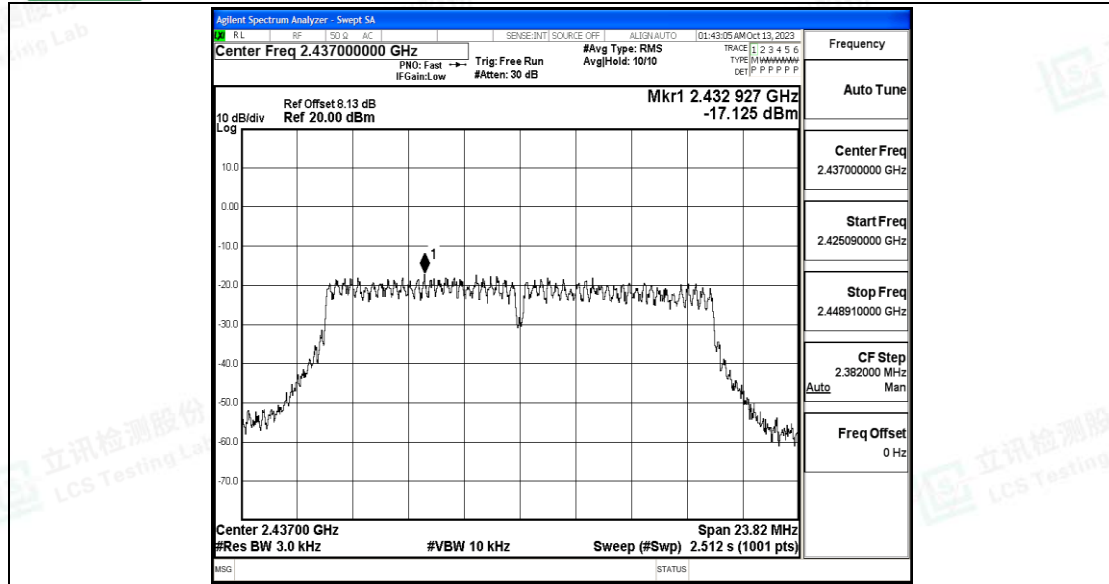


11G_Ant1_2412

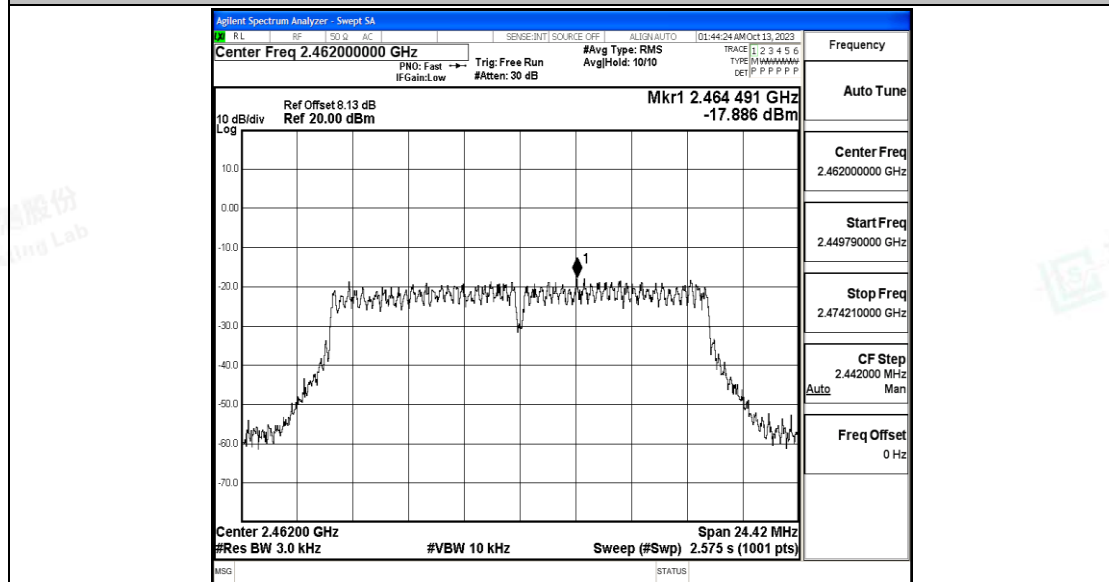


11G_Ant1_2437



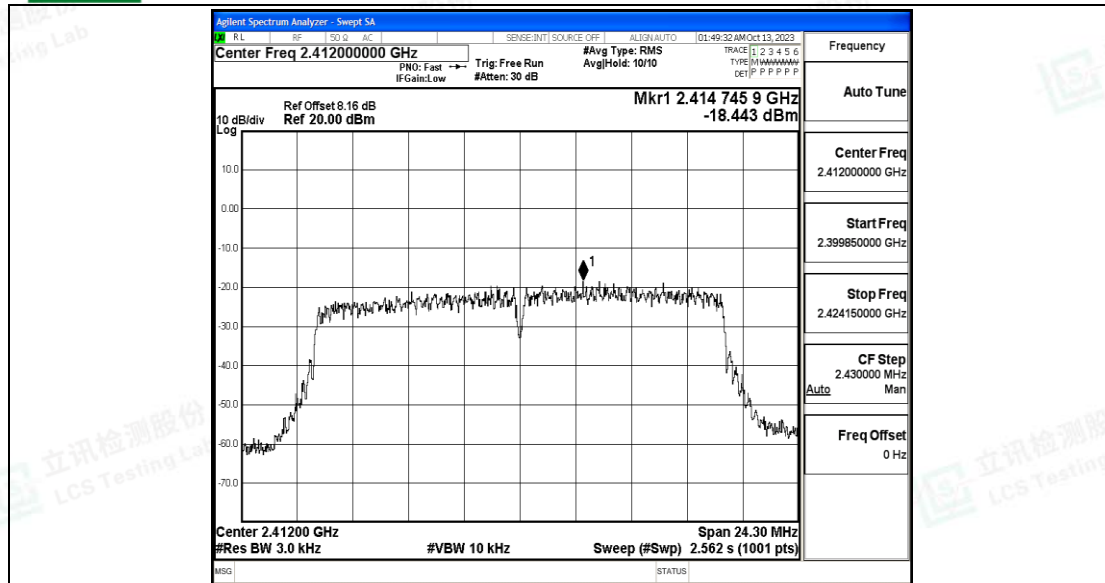


11G_Ant1_2462

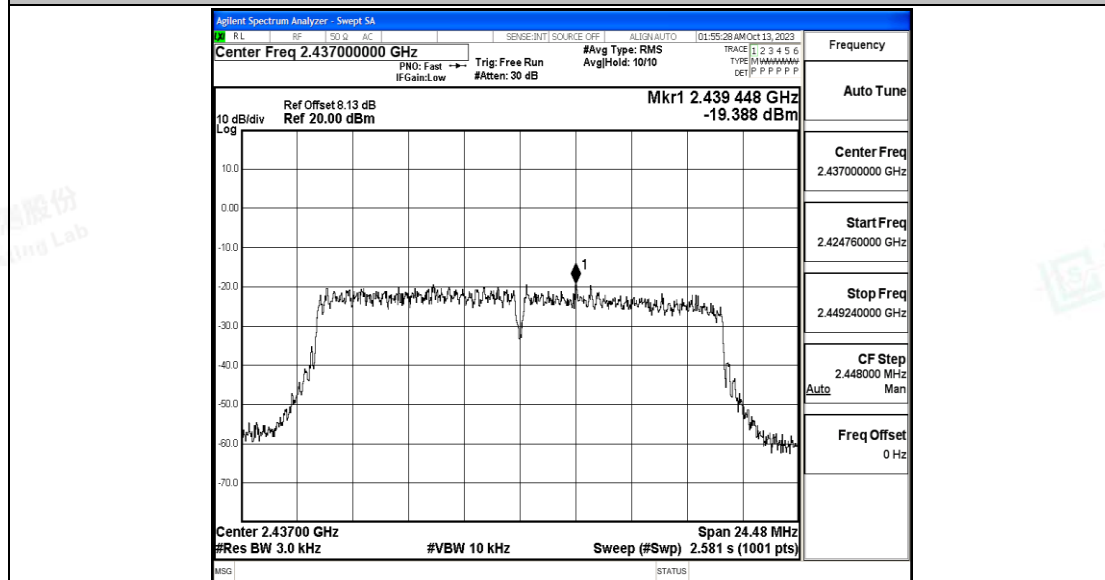


11N20SISO_Ant1_2412





11N20SISO_Ant1_2437



11N20SISO_Ant1_2462





C.4 Band edge measurements

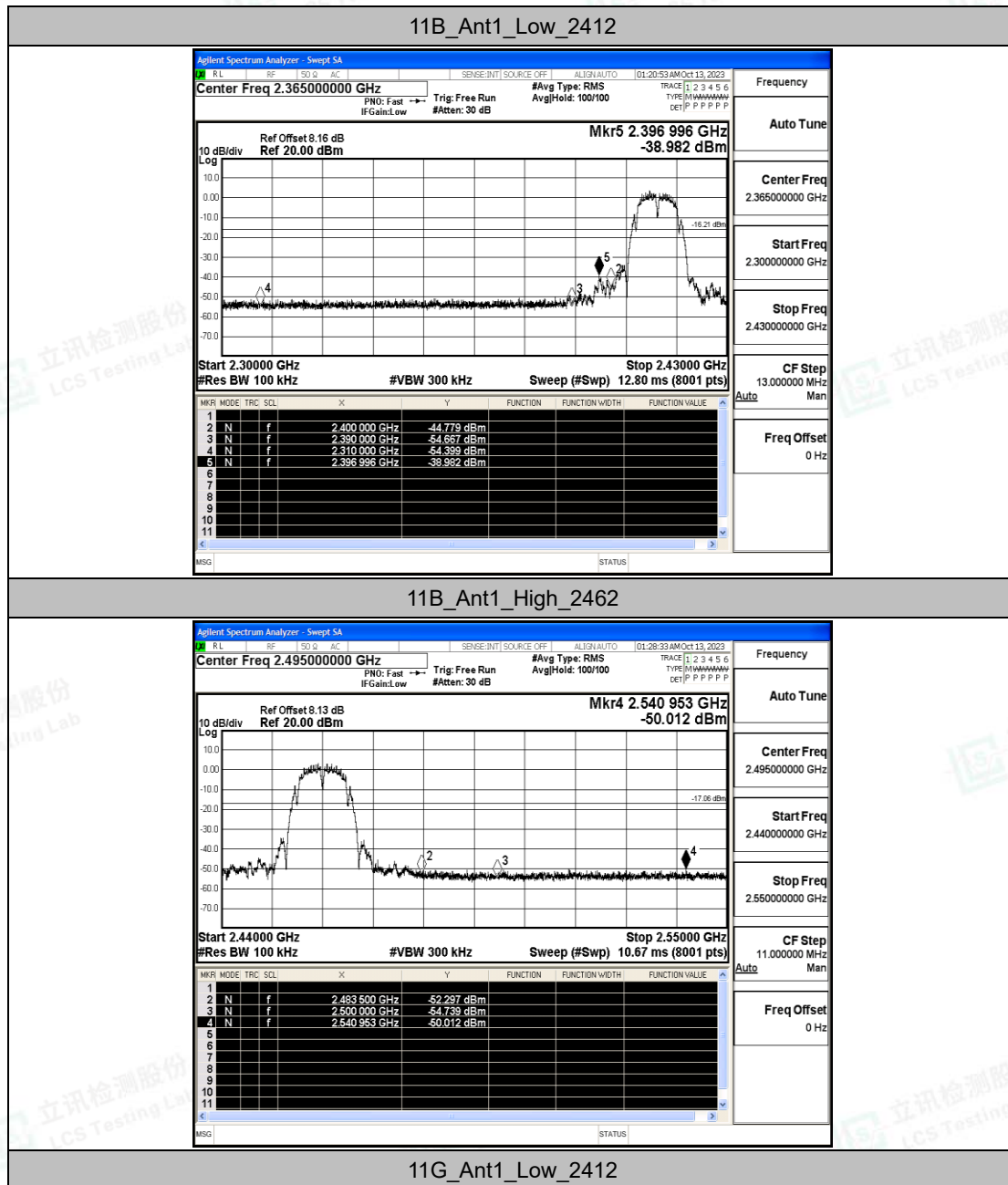
Test Result

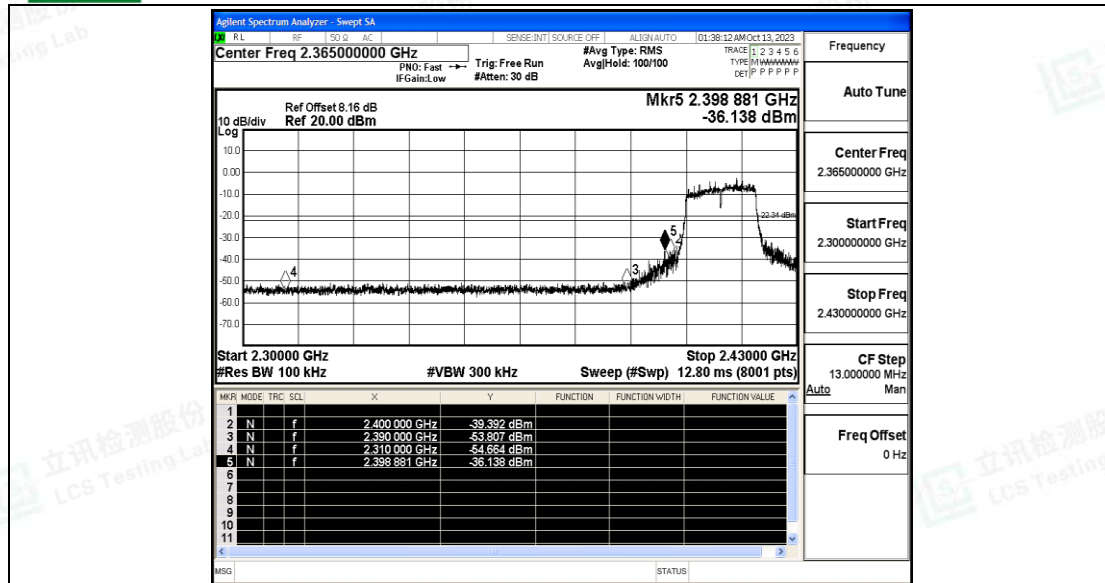
TestMode	Antenna	ChName	Freq(MHz)	RefLevel[dBm]	Result[dBm]	Limit[dBm]	Verdict
11B	Ant1	Low	2412	3.79	-38.98	≤ -16.21	PASS
		High	2462	2.94	-50.01	≤ -17.06	PASS
11G	Ant1	Low	2412	-2.34	-36.14	≤ -22.34	PASS
		High	2462	-3.30	-46.98	≤ -23.3	PASS
11N20SISO	Ant1	Low	2412	-4.20	-36.93	≤ -24.2	PASS
		High	2462	-4.64	-49.09	≤ -24.64	PASS



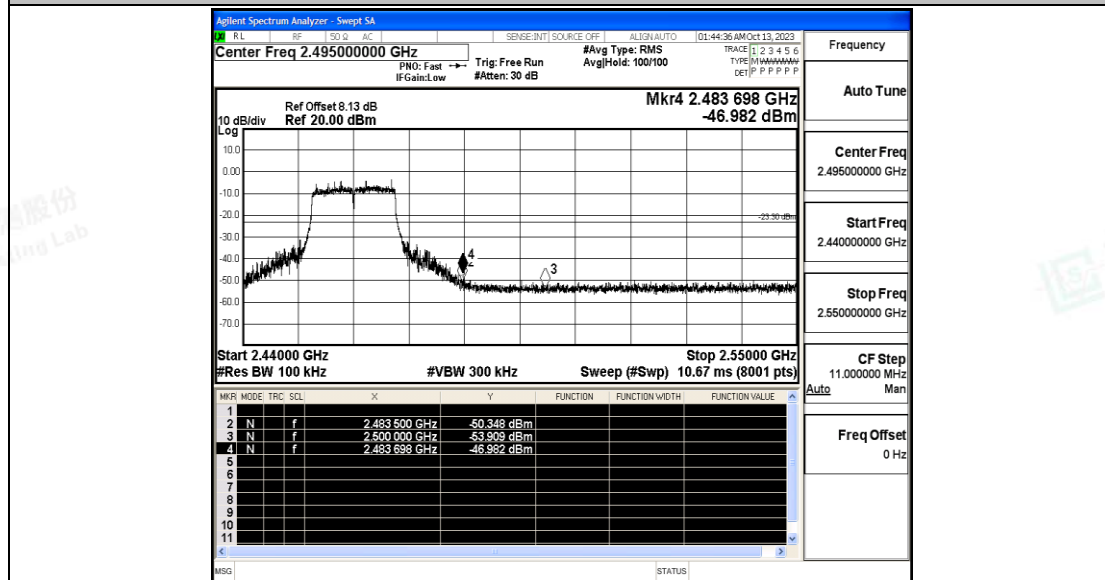


Test Graphs



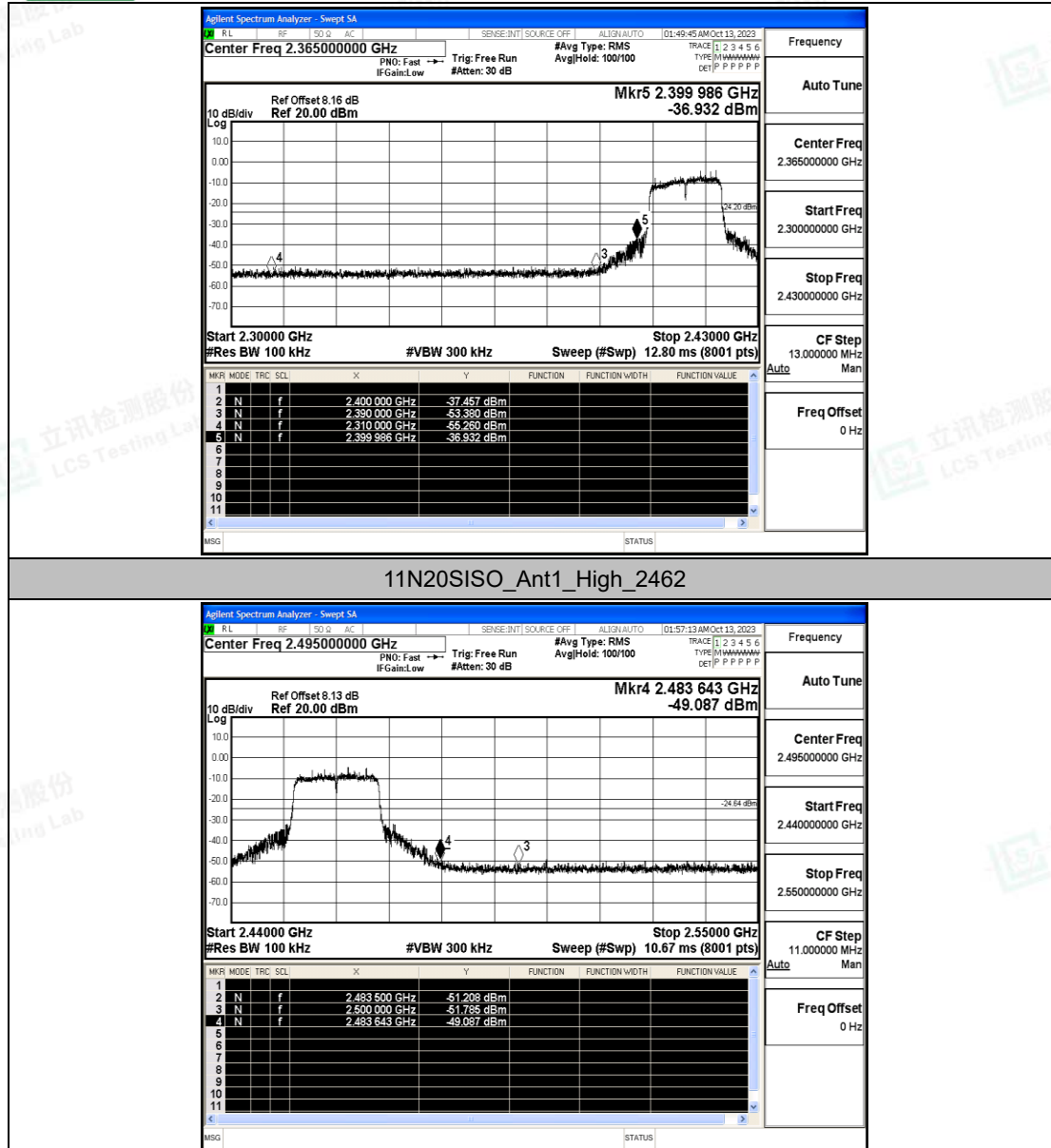


11G_Ant1_High_2462



11N20SISO_Ant1_Low_2412







C.5 Conducted Spurious Emission

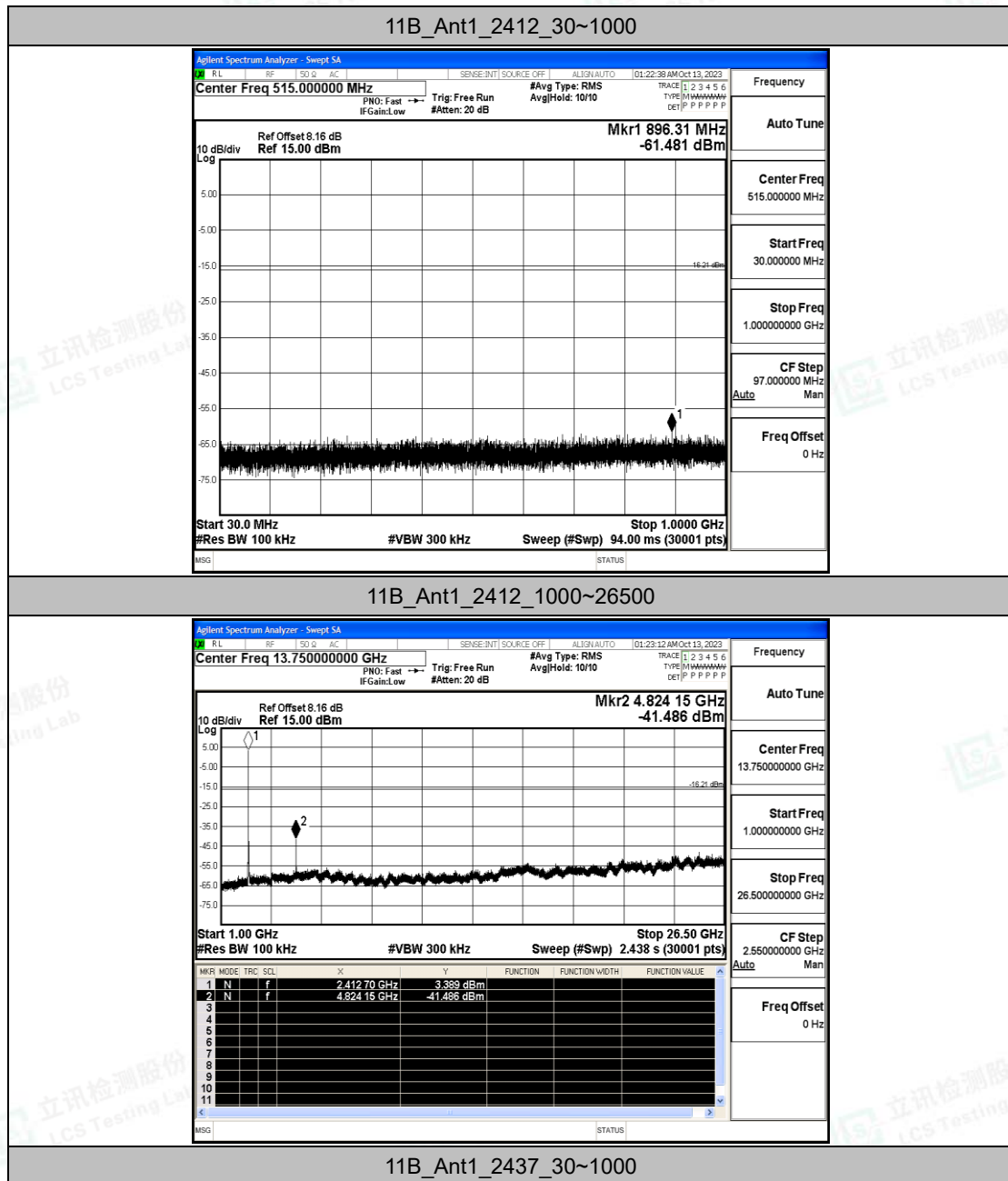
Test Result

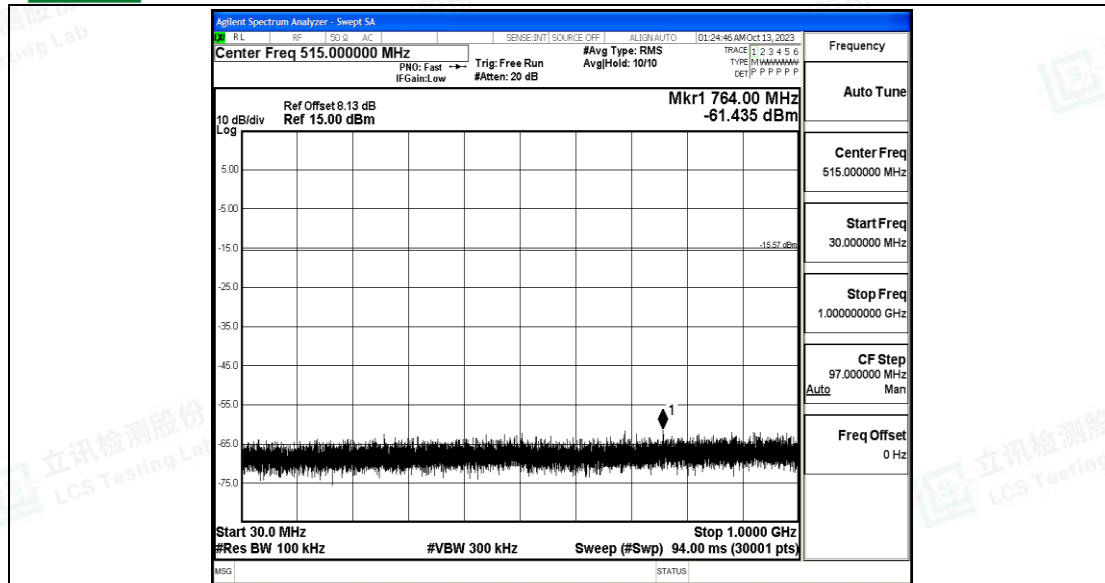
TestMode	Antenna	Freq(MHz)	FreqRange [Mhz]	RefLevel [dBm]	Result [dBm]	Limit [dBm]	Verdict
11B	Ant1	2412	30~1000	3.79	-61.48	≤-16.21	PASS
			1000~26500	3.79	-41.49	≤-16.21	PASS
		2437	30~1000	4.43	-61.44	≤-15.57	PASS
			1000~26500	4.43	-41.17	≤-15.57	PASS
		2462	30~1000	2.94	-61.01	≤-17.06	PASS
			1000~26500	2.94	-40.93	≤-17.06	PASS
11G	Ant1	2412	30~1000	-2.34	-61.6	≤-22.34	PASS
			1000~26500	-2.34	-49.3	≤-22.34	PASS
		2437	30~1000	-1.39	-62.12	≤-21.39	PASS
			1000~26500	-1.39	-49.39	≤-21.39	PASS
		2462	30~1000	-3.30	-61.78	≤-23.3	PASS
			1000~26500	-3.30	-49.07	≤-23.3	PASS
11N20SISO	Ant1	2412	30~1000	-4.20	-61.51	≤-24.2	PASS
			1000~26500	-4.20	-49.17	≤-24.2	PASS
		2437	30~1000	-2.51	-62.07	≤-22.51	PASS
			1000~26500	-2.51	-48.72	≤-22.51	PASS
		2462	30~1000	-4.64	-61.56	≤-24.64	PASS
			1000~26500	-4.64	-48.95	≤-24.64	PASS



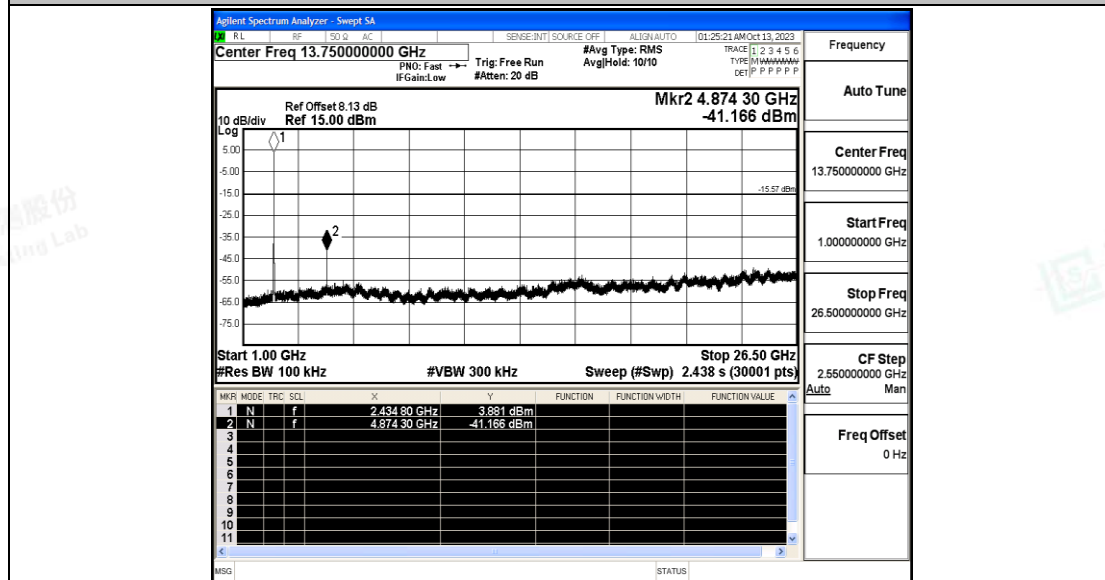


Test Graphs



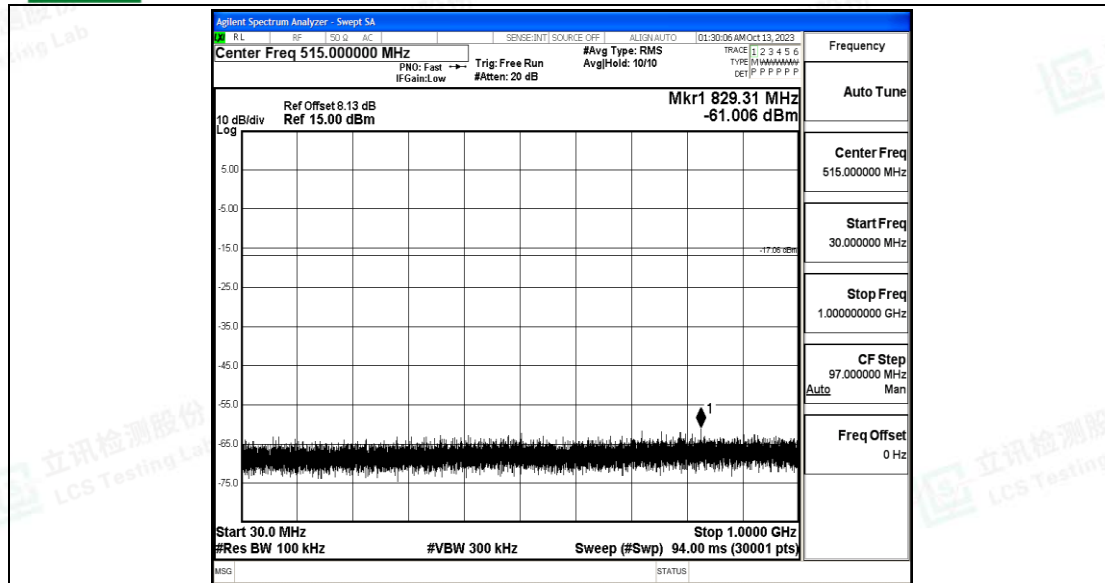


11B_Ant1_2437_1000~26500

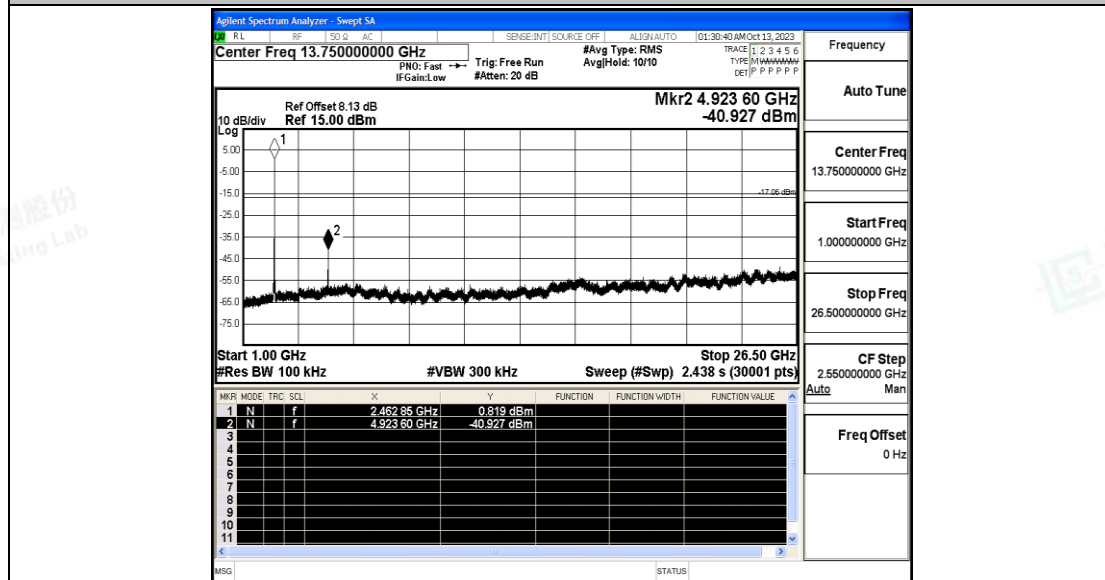


11B_Ant1_2462_30~1000



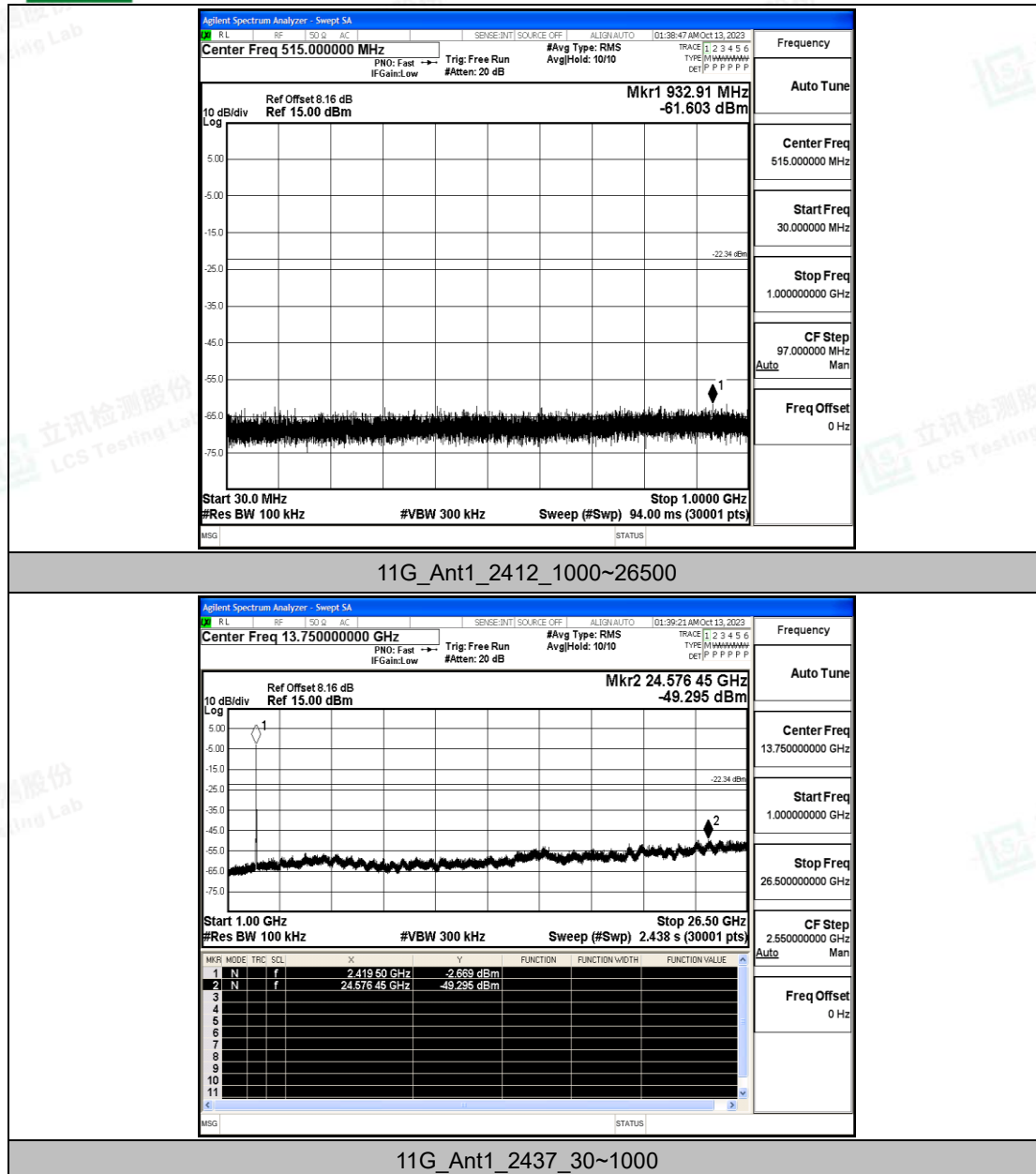


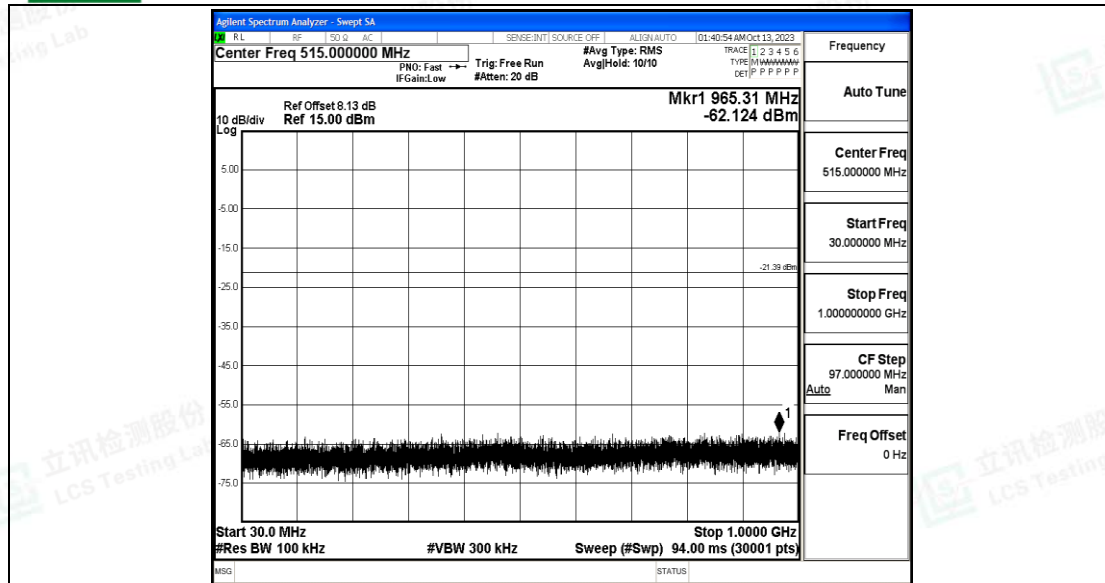
11B_Ant1_2462_1000~26500



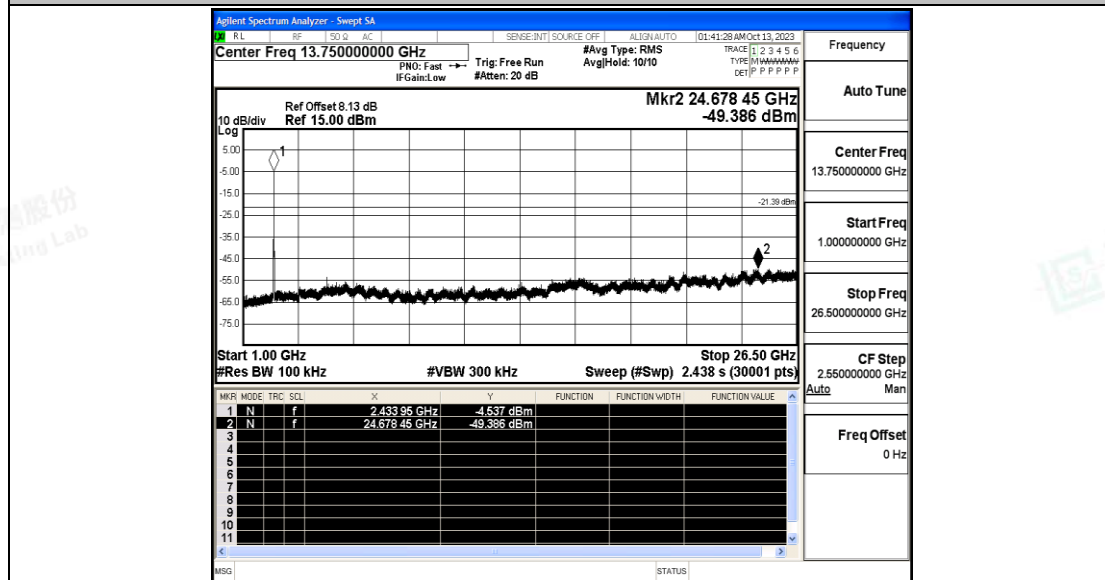
11G_Ant1_2412_30~1000





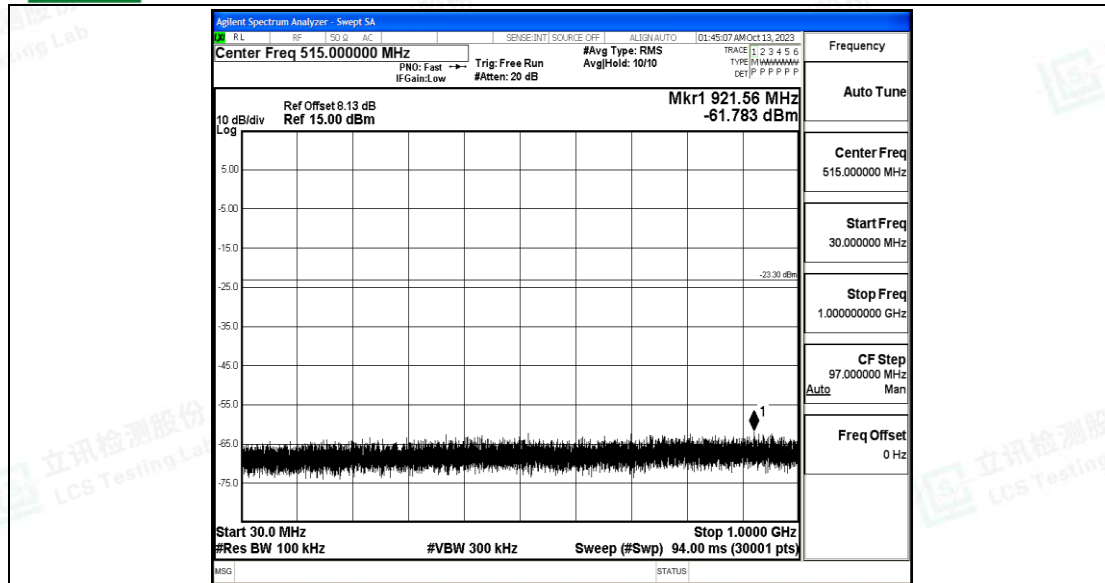


11G_Ant1_2437_1000~26500

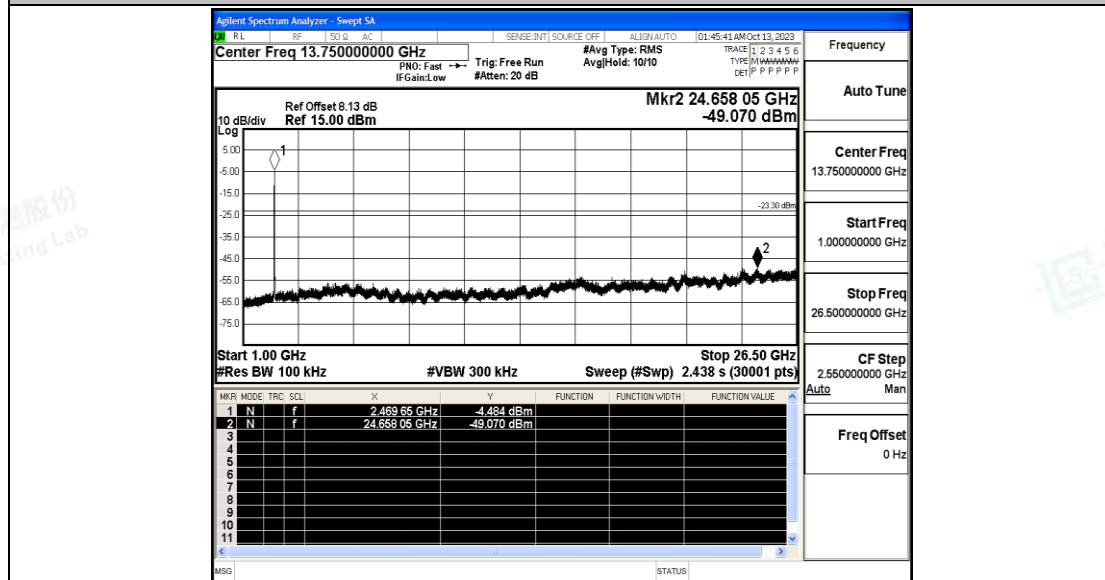


11G_Ant1_2462_30~1000



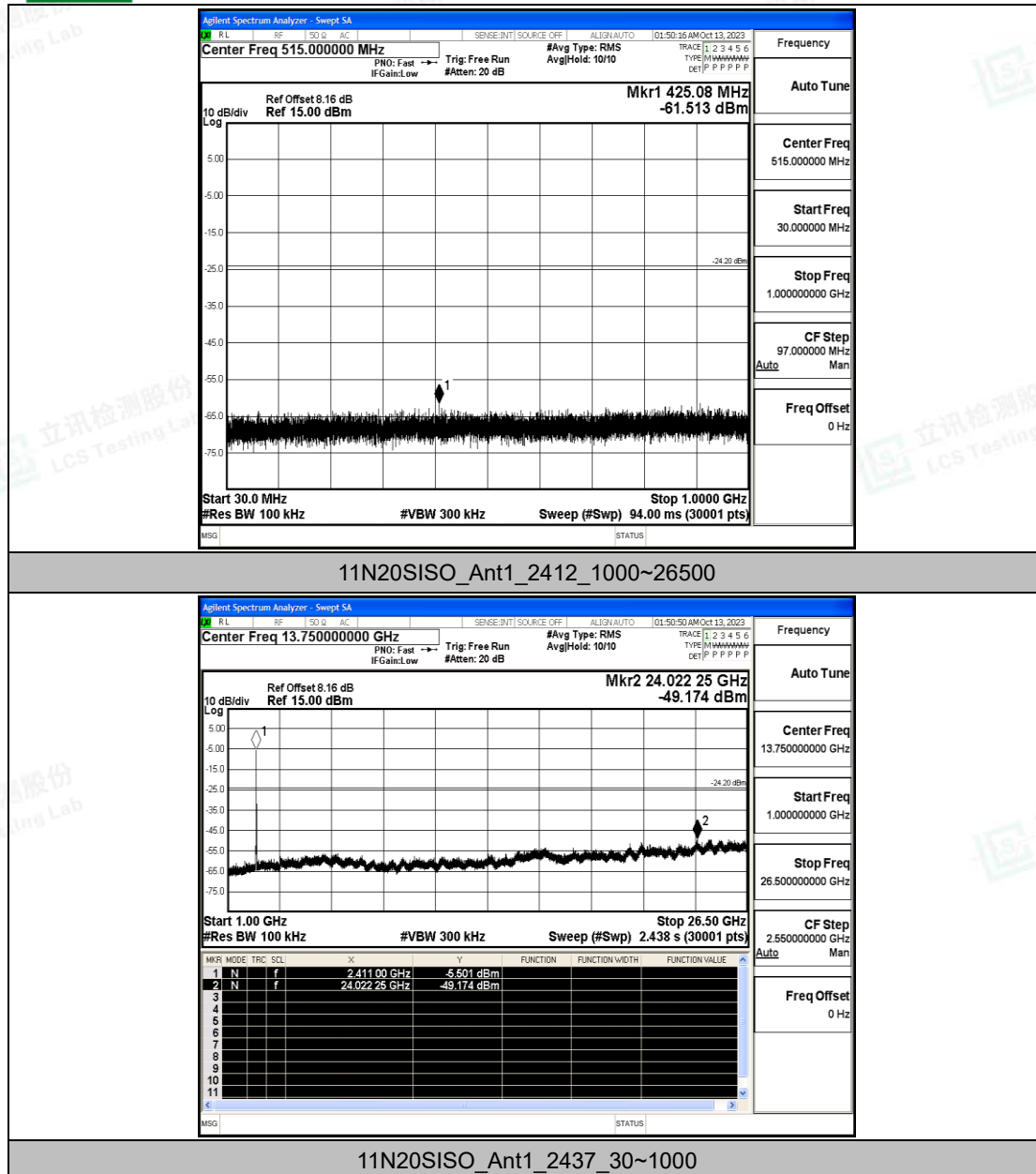


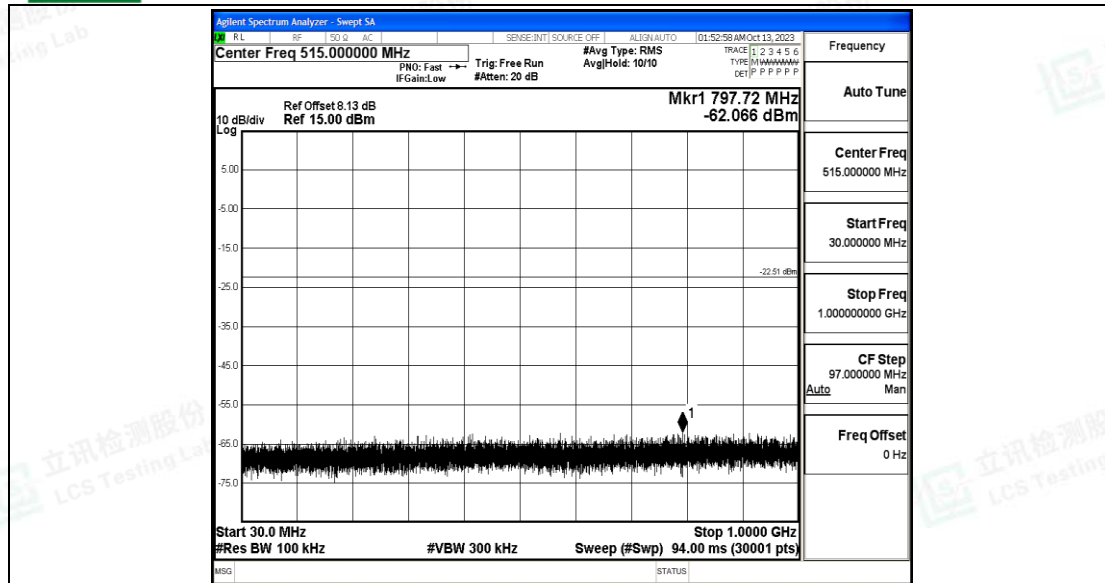
11G_Ant1_2462_1000~26500



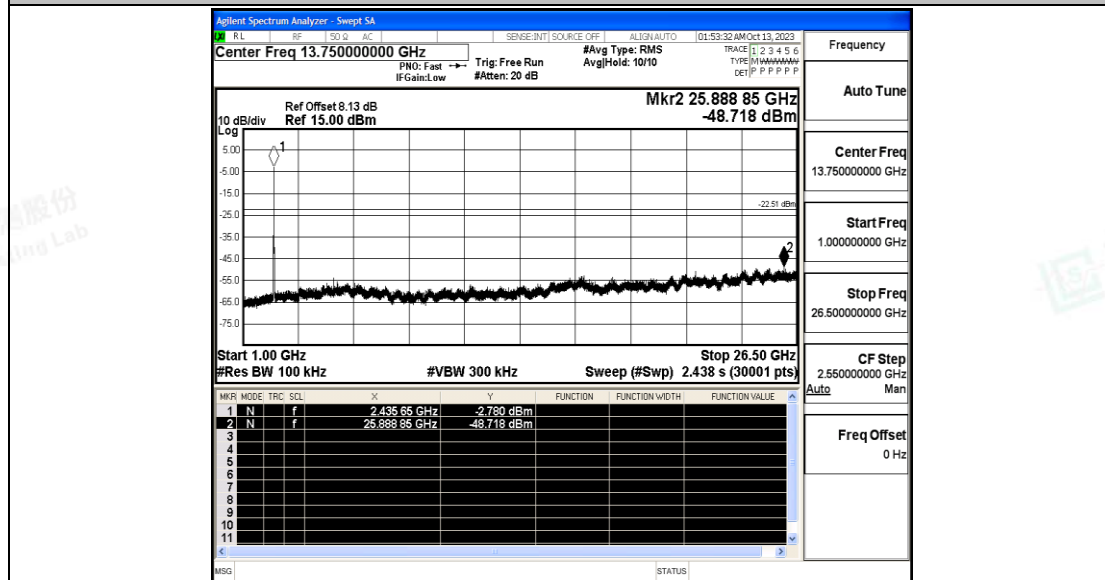
11N20SISO_Ant1_2412_30~1000





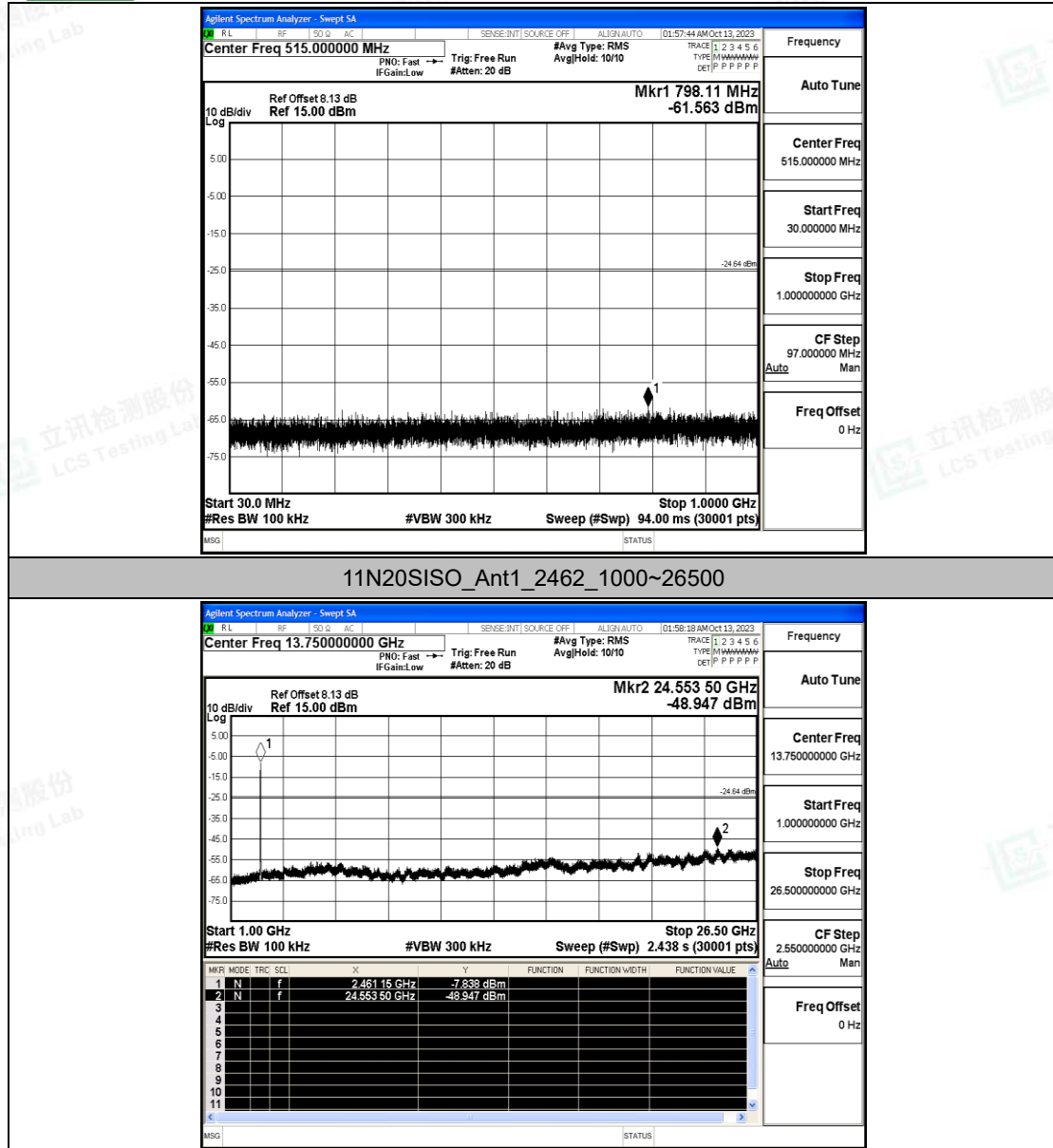


11N20SISO_Ant1_2437_1000~26500



11N20SISO_Ant1_2462_30~1000







C.6 Duty Cycle

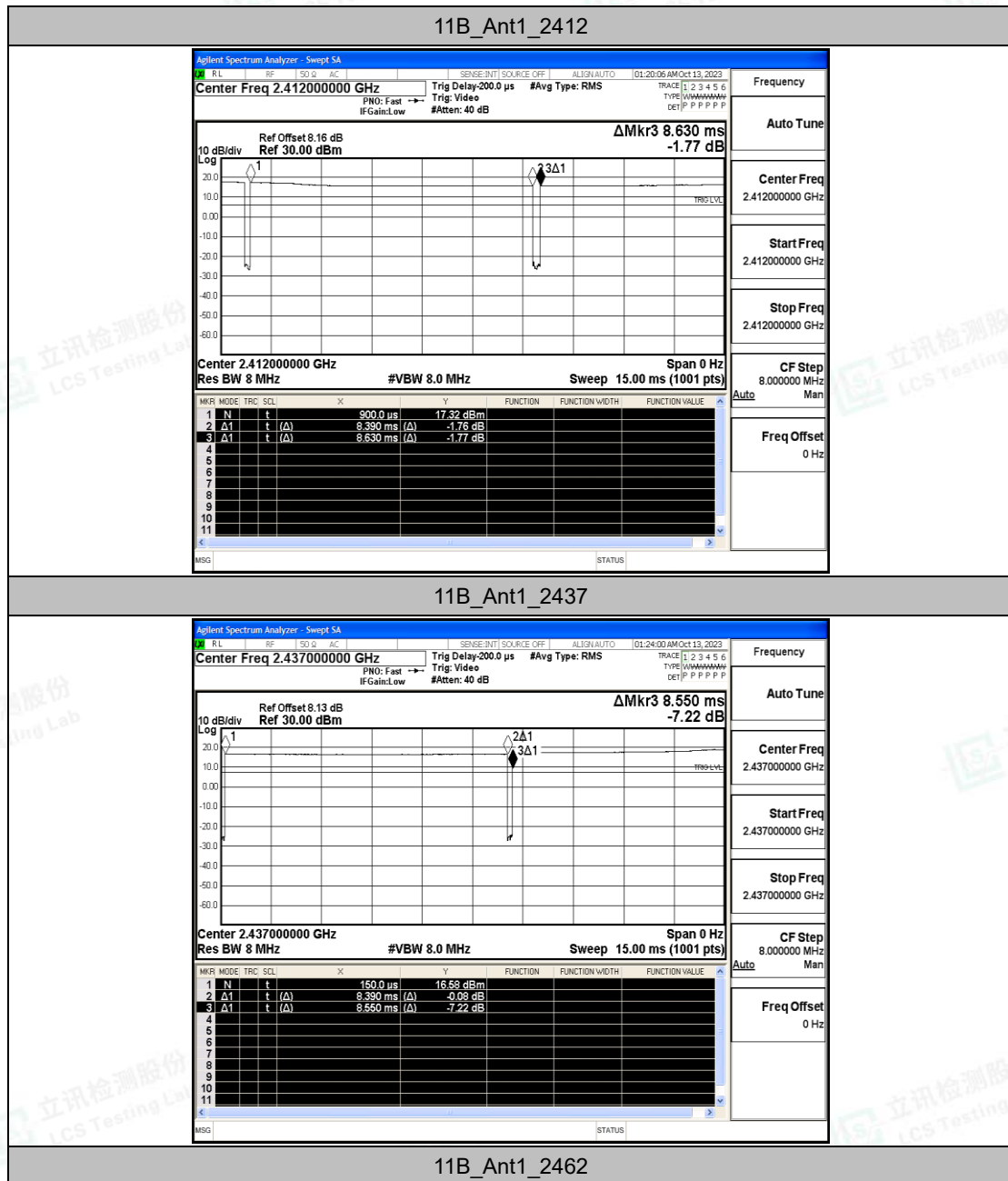
Test Result

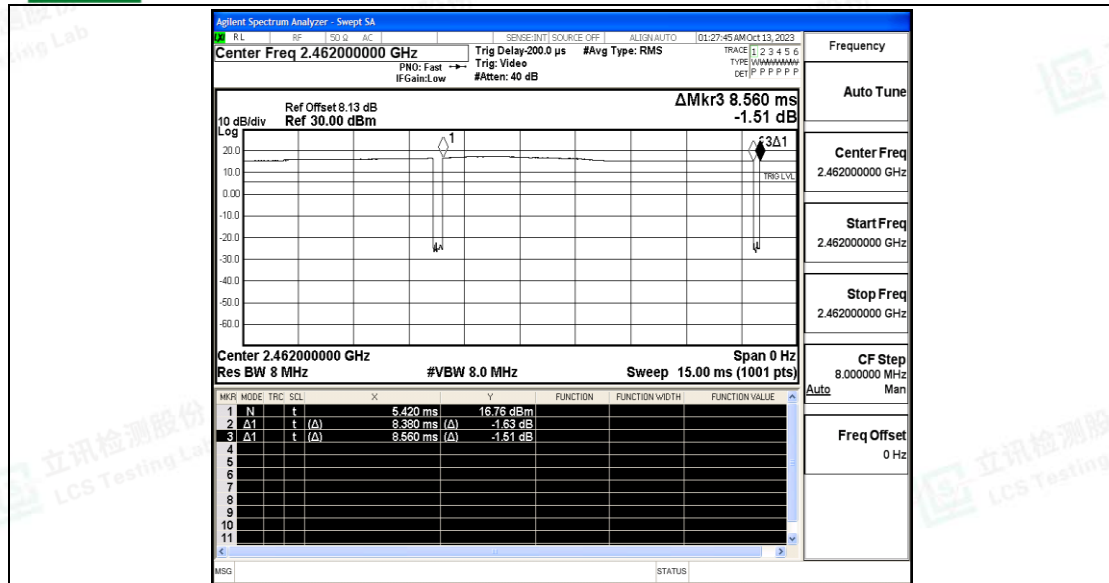
TestMode	Antenna	Freq(MHz)	Transmission Duration [ms]	Transmission Period [ms]	Duty Cycle [%]	Factor	Verdict
11B	Ant1	2412	8.39	8.63	97.22	0.12	---
		2437	8.39	8.55	98.13	0.08	---
		2462	8.38	8.56	97.90	0.09	---
11G	Ant1	2412	1.39	1.57	88.54	0.53	---
		2437	1.39	1.64	84.76	0.72	---
		2462	1.39	1.64	84.76	0.72	---
11N20SISO	Ant1	2412	1.17	1.35	86.67	0.62	---
		2437	1.18	1.35	87.41	0.58	---
		2462	1.17	1.35	86.67	0.62	---



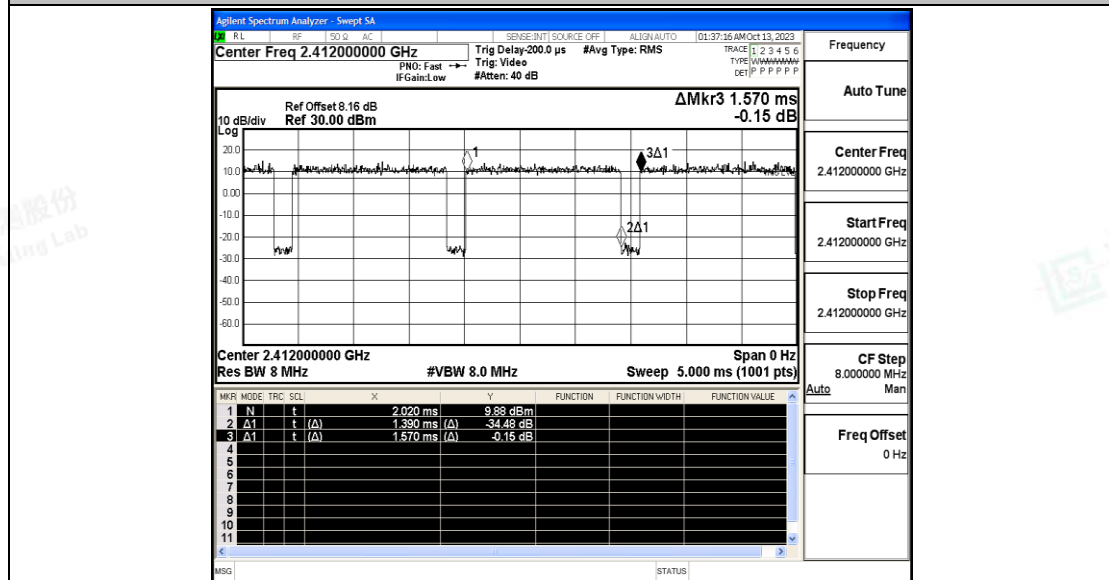


Test Graphs



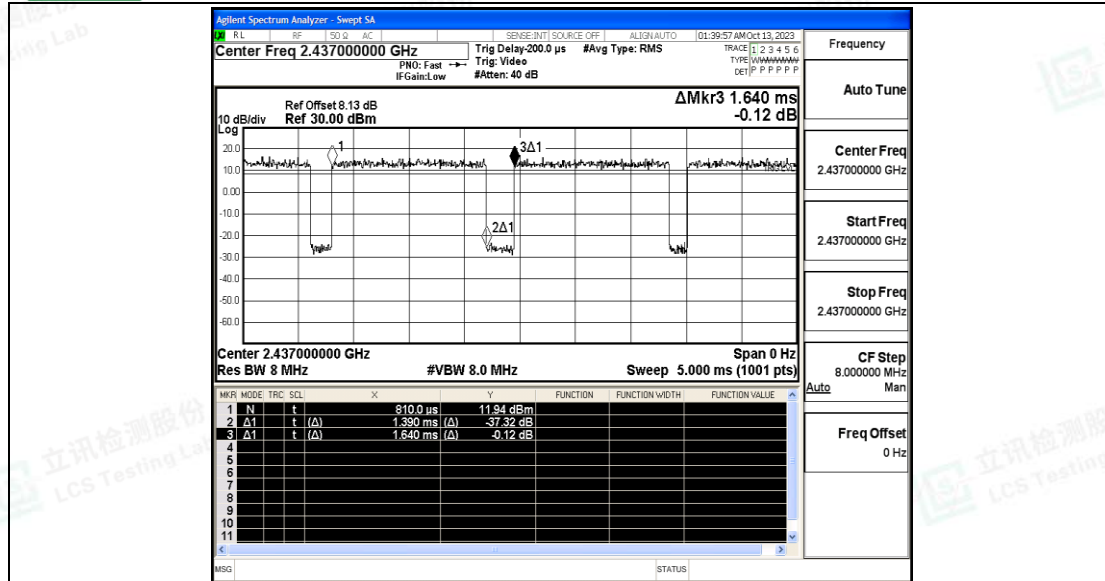


11G_Ant1_2412

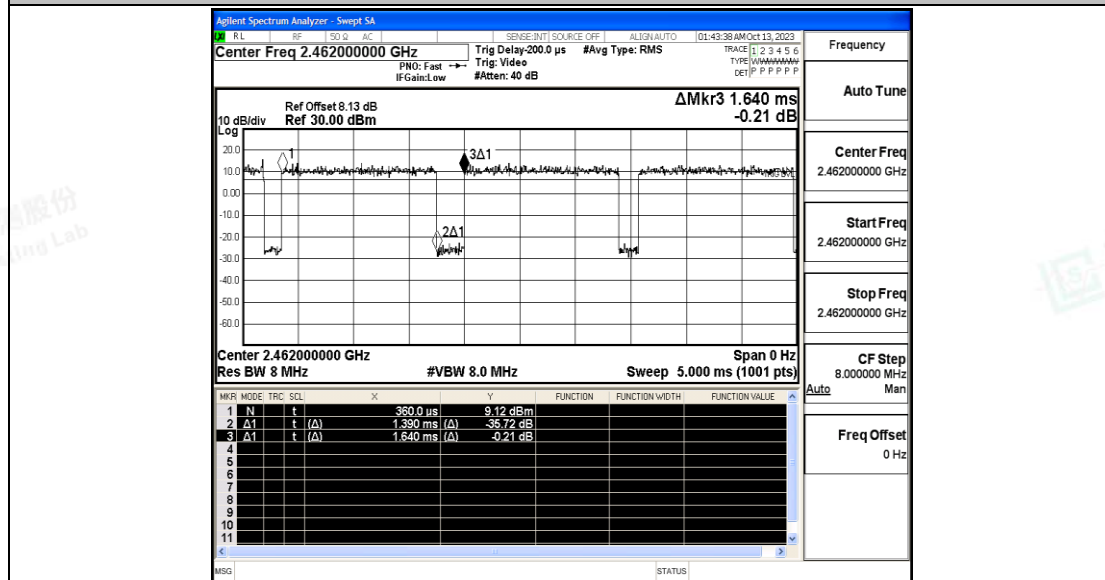


11G_Ant1_2437



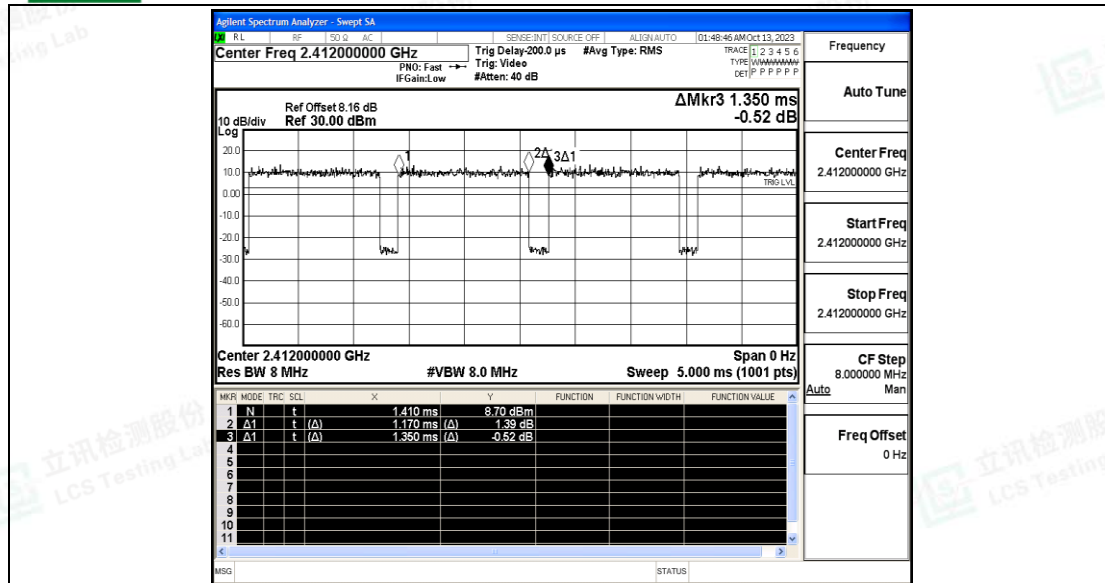


11G_Ant1_2462

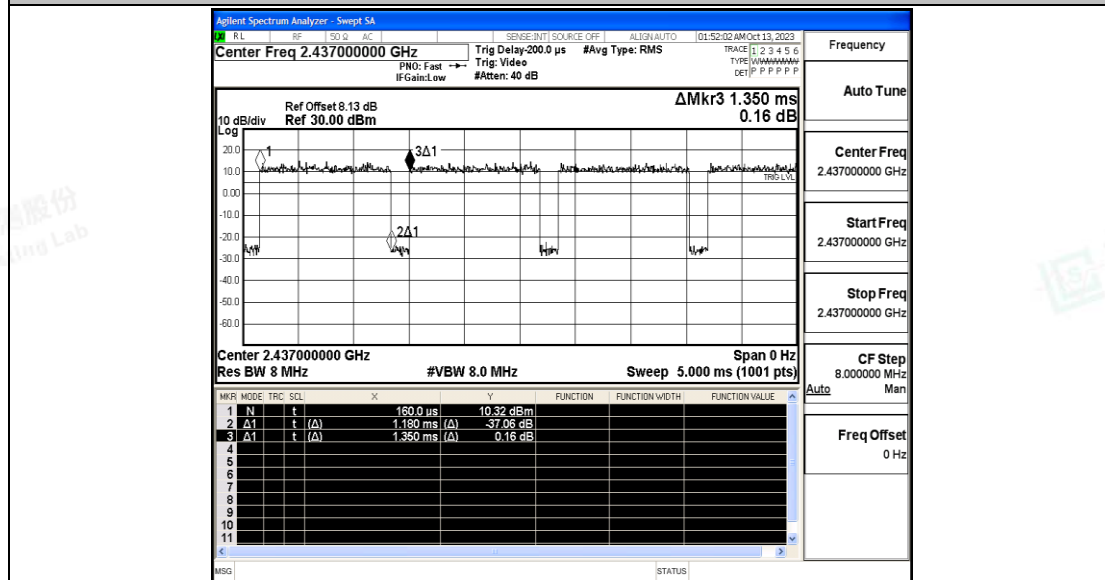


11N20SISO_Ant1_2412



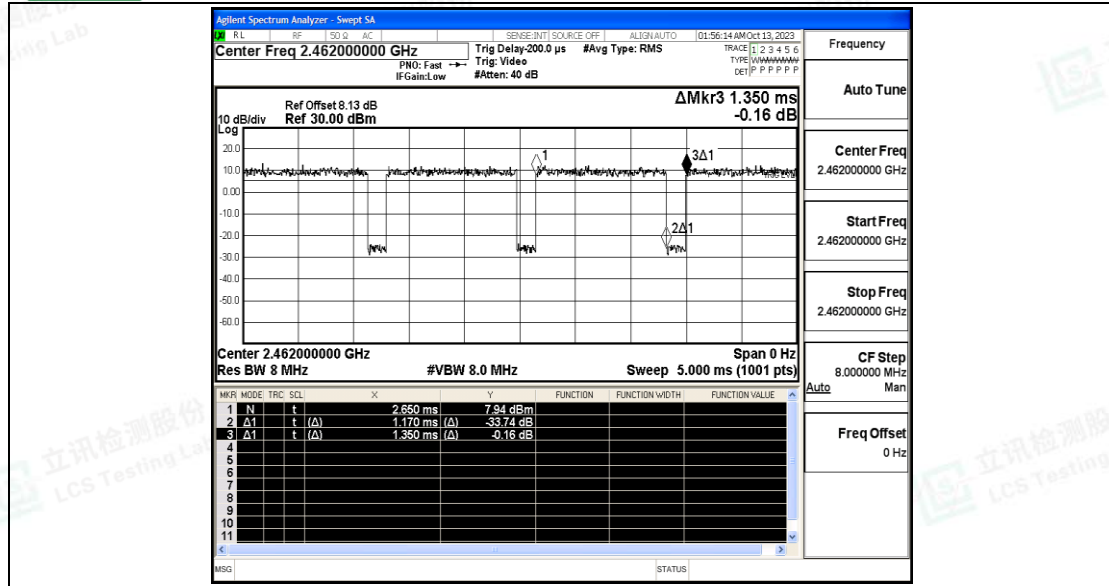


11N20SISO_Ant1_2437



11N20SISO_Ant1_2462







C.7 Emissions in Restricted Bands

Test Result

TestMode	Antenna	ChName	Freq(MHz)	Detector	Freq [MHz]	Result [dBm]	Limit [dBm]	Result [dBuV/m]	Limit [dBuV/m]	Verdict
11B	Ant1	Low	2412	AV	2310.000	-49.21	≤-41.20	45.99	≤54	PASS
				AV	2389.310	-45.87	≤-41.20	49.33	≤54	PASS
				AV	2390.000	-46.6	≤-41.20	48.60	≤54	PASS
				Peak	2310.000	-43.59	≤-21.20	51.61	≤74	PASS
				Peak	2389.440	-38.64	≤-21.20	56.56	≤74	PASS
				Peak	2390.000	-39.34	≤-21.20	55.86	≤74	PASS
		High	2462	AV	2483.500	-47.89	≤-41.20	47.31	≤54	PASS
				AV	2486.530	-47.92	≤-41.20	47.28	≤54	PASS
				AV	2500.000	-48.78	≤-41.20	46.42	≤54	PASS
				Peak	2483.500	-40.8	≤-21.20	54.40	≤74	PASS
				Peak	2484.330	-38.03	≤-21.20	57.17	≤74	PASS
				Peak	2500.000	-39.54	≤-21.20	55.66	≤74	PASS
11G	Ant1	Low	2412	AV	2310.000	-48.9	≤-41.20	46.30	≤54	PASS
				AV	2389.960	-47.21	≤-41.20	47.99	≤54	PASS
				AV	2390.000	-47.21	≤-41.20	47.99	≤54	PASS
				Peak	2310.000	-41.09	≤-21.20	54.11	≤74	PASS
				Peak	2389.180	-38.88	≤-21.20	56.32	≤74	PASS
				Peak	2390.000	-40.56	≤-21.20	54.64	≤74	PASS
		High	2462	AV	2483.500	-46.12	≤-41.20	49.08	≤54	PASS
				AV	2483.670	-46.18	≤-41.20	49.02	≤54	PASS
				AV	2500.000	-48.55	≤-41.20	46.65	≤54	PASS
				Peak	2483.500	-34.1	≤-21.20	61.10	≤74	PASS
				Peak	2483.780	-34.64	≤-21.20	60.56	≤74	PASS
				Peak	2500.000	-42.19	≤-21.20	53.01	≤74	PASS
11N20SI SO	Ant1	Low	2412	AV	2310.000	-48.65	≤-41.20	46.55	≤54	PASS
				AV	2389.960	-47.37	≤-41.20	47.83	≤54	PASS
				AV	2390.000	-47.37	≤-41.20	47.83	≤54	PASS
				Peak	2310.000	-43.1	≤-21.20	52.10	≤74	PASS
				Peak	2389.440	-36.13	≤-21.20	59.07	≤74	PASS
				Peak	2390.000	-42.38	≤-21.20	52.82	≤74	PASS
		High	2462	AV	2483.500	-45.97	≤-41.20	49.23	≤54	PASS
				AV	2483.670	-45.92	≤-41.20	49.28	≤54	PASS
				AV	2500.000	-48.38	≤-41.20	46.82	≤54	PASS
				Peak	2483.500	-33.68	≤-21.20	61.52	≤74	PASS
				Peak	2483.560	-34.08	≤-21.20	61.12	≤74	PASS



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			Peak	2500.000	-42.67	≤-21.20	52.53	≤74	PASS
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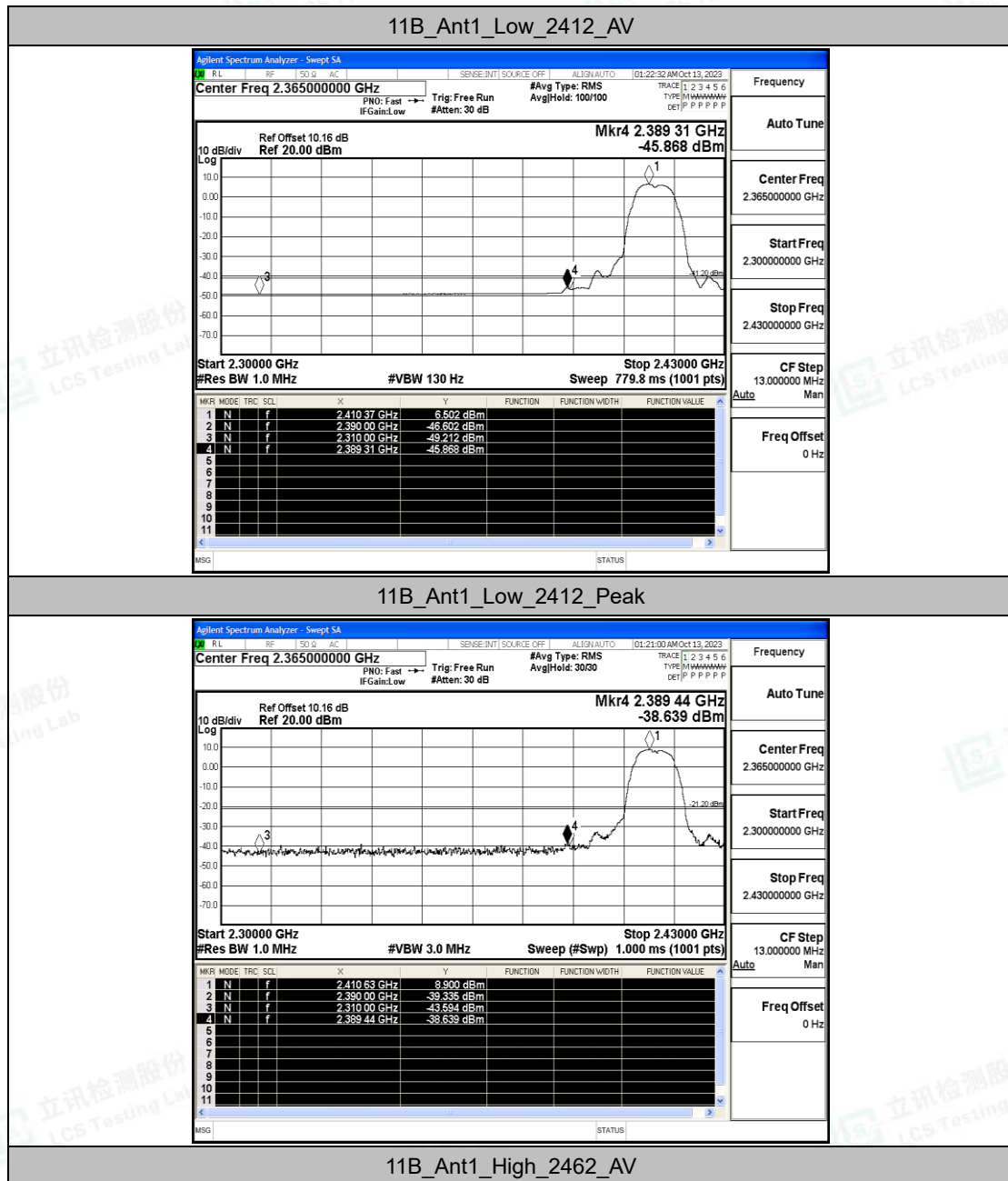
Note:

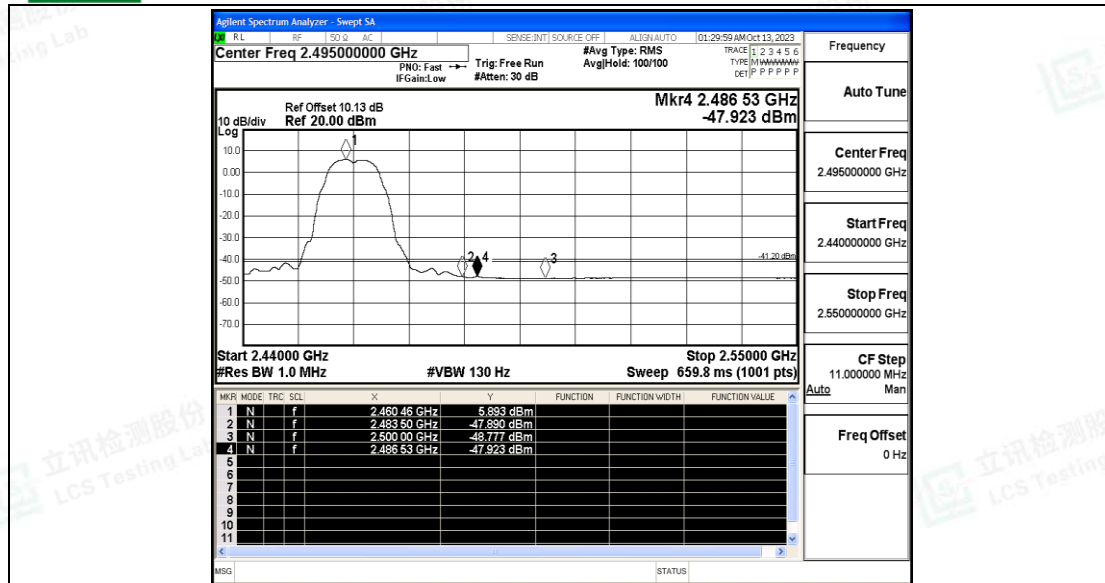
- 1. The Antenna Gain is compensated in the graph.
- 2. The limit in dBm for average detector is conversion from 54dBuV/m, according to 15.209(a). The limit in dBm for peak detector is 20dB above the limit of average detector in dBm.



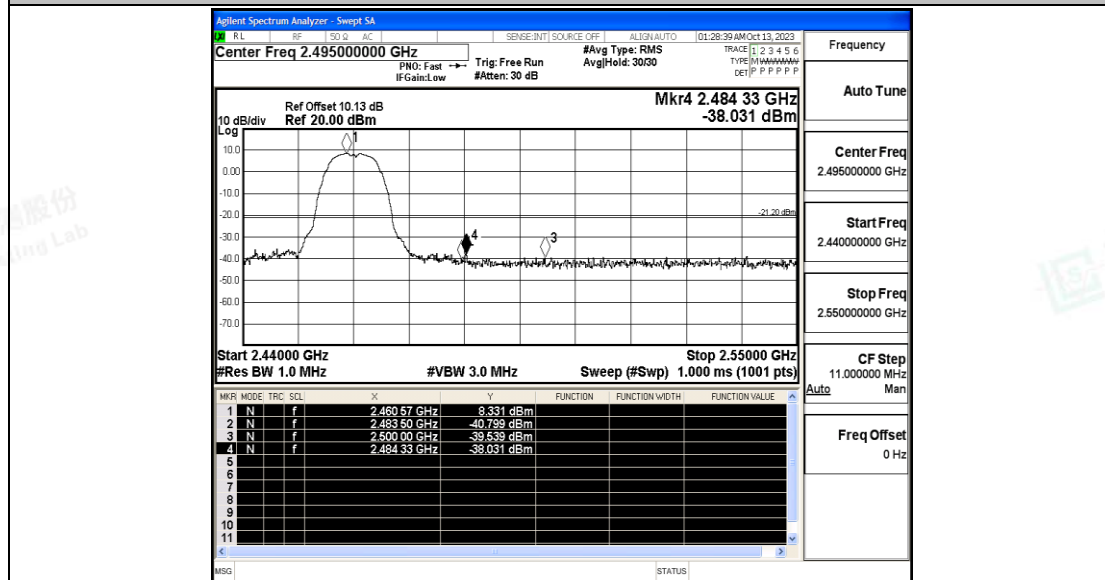


Test Graphs



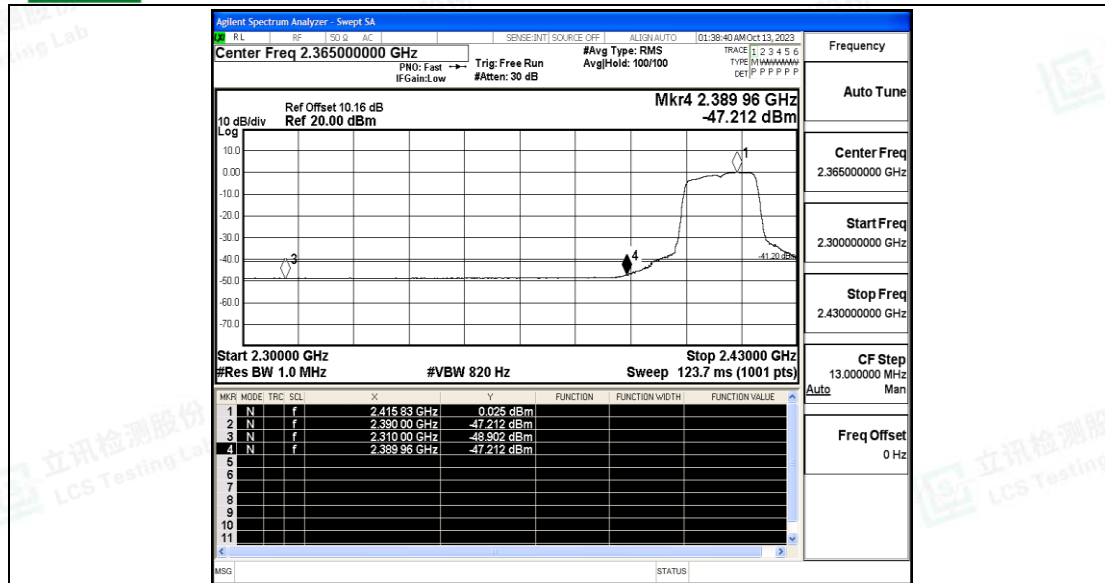


11B_Ant1_High_2462_Peak

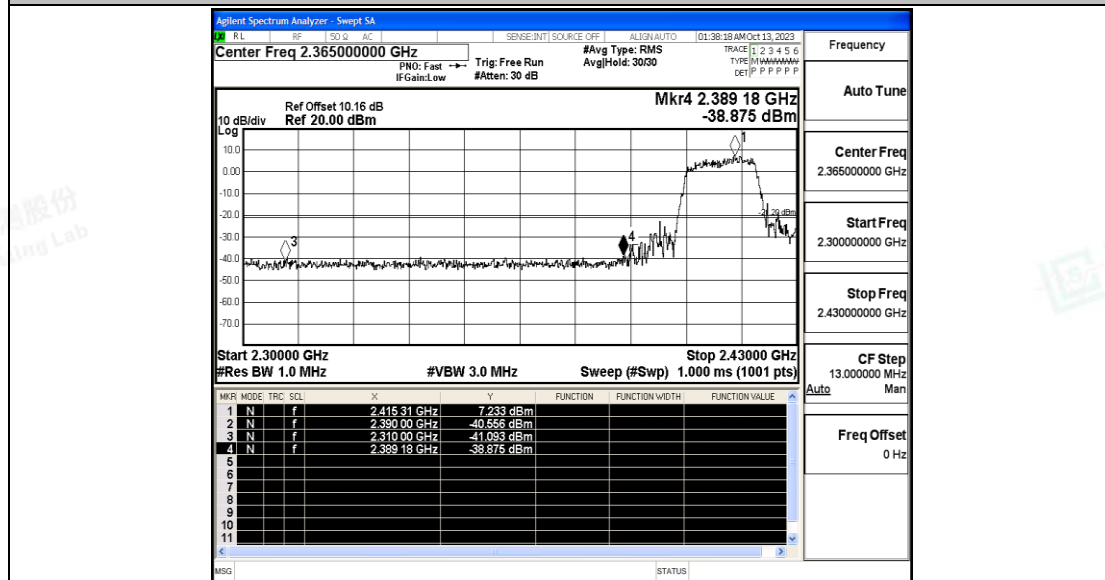


11G_Ant1_Low_2412_AV



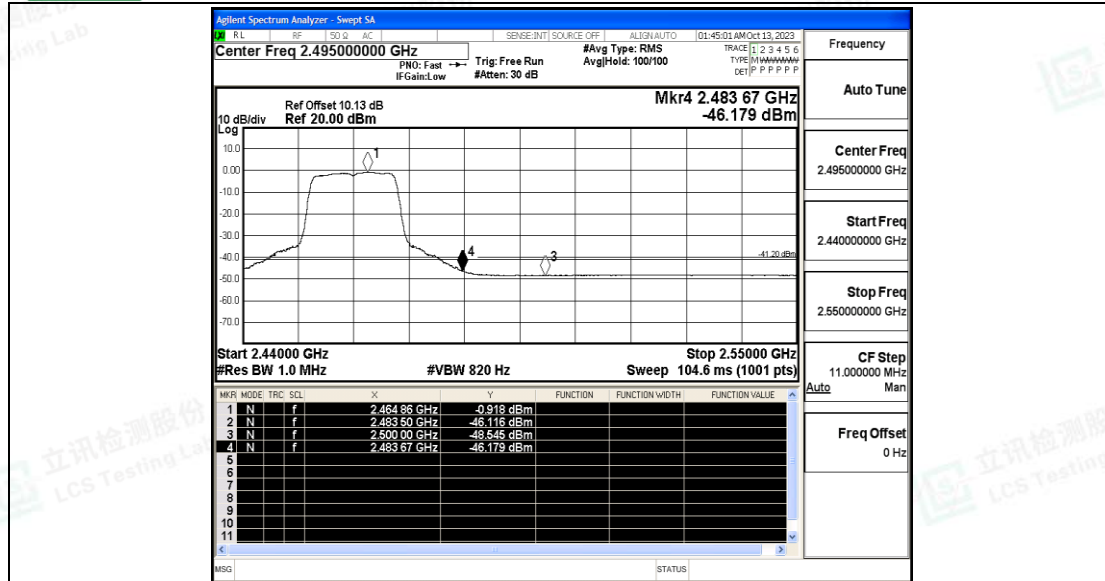


11G_Ant1_Low_2412_Peak

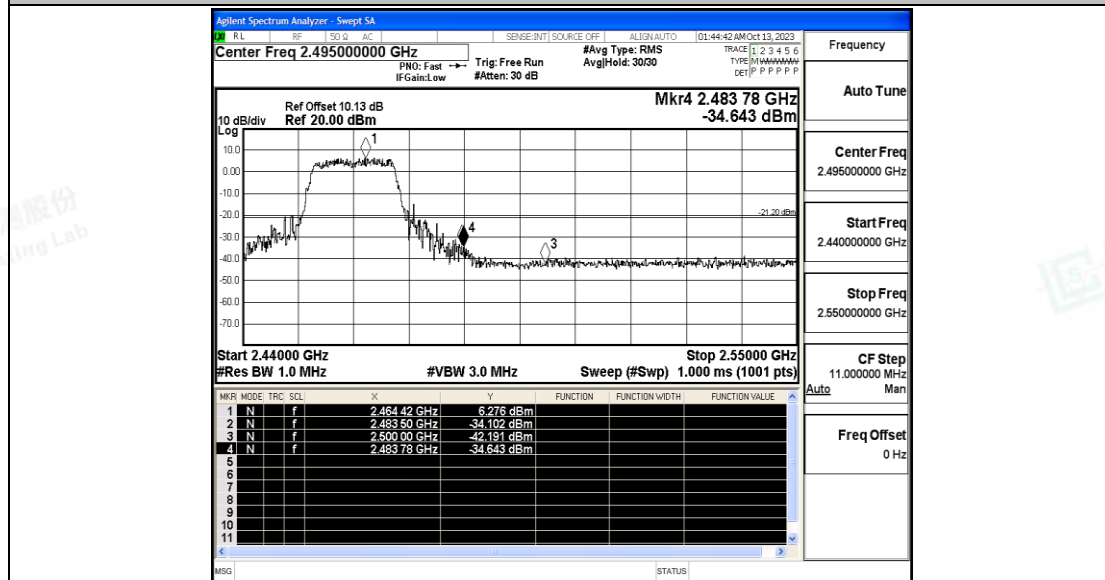


11G_Ant1_High_2462_AV



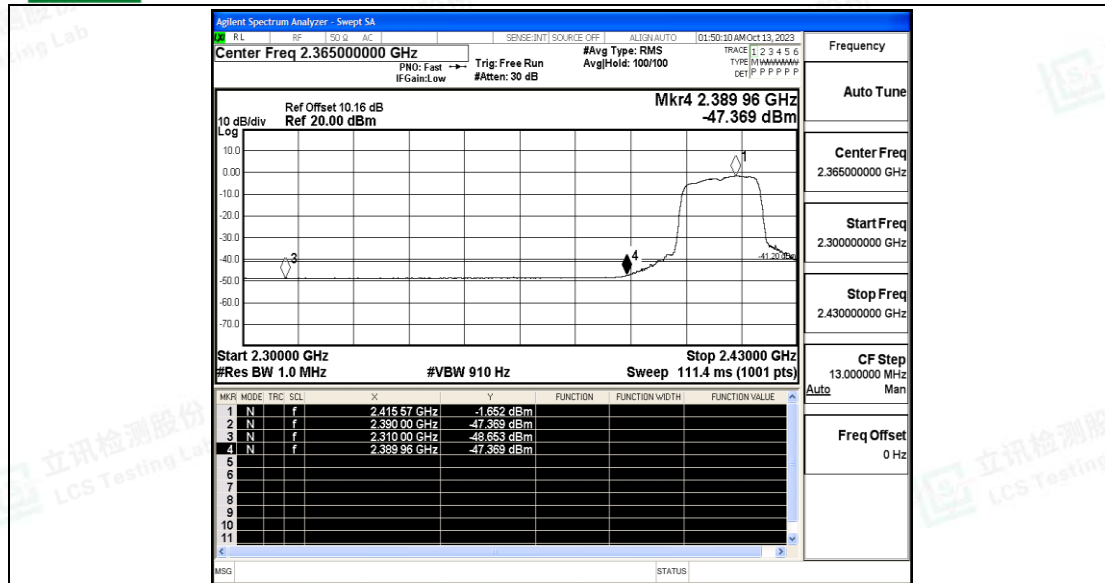


11G_Ant1_High_2462_Peak

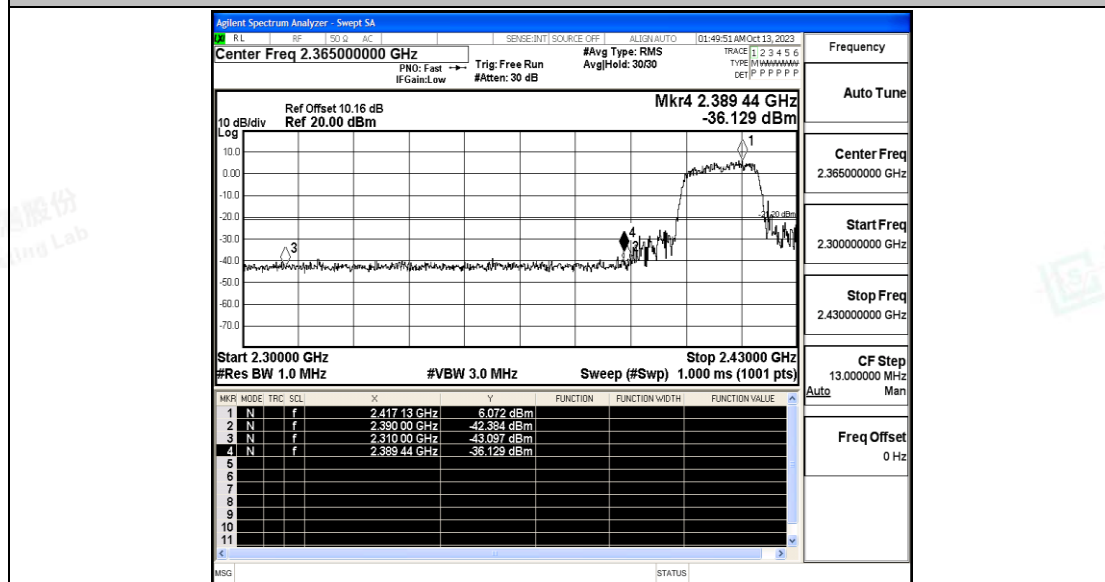


11N20SISO_Ant1_Low_2412_AV



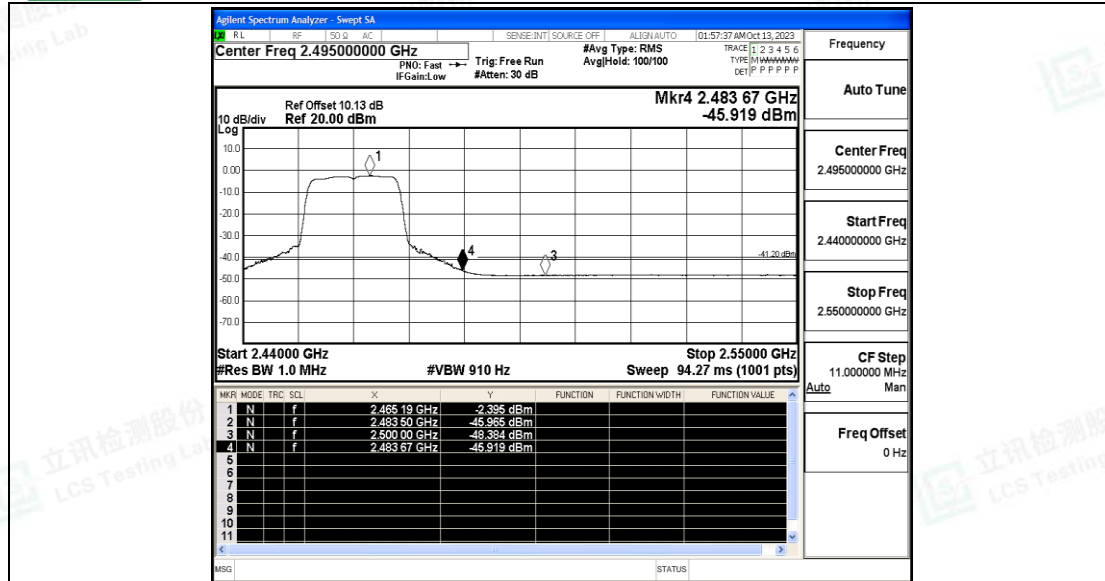


11N20SISO_Ant1_Low_2412_Peak



11N20SISO_Ant1_High_2462_AV





11N20SISO_Ant1_High_2462_Peak

