



Appendix B

RF Test Data for 2.4GWIFI (Conducted Measurement)

Product Name: Advertising Display

Test Model: AYS907

Environmental Conditions

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





B.1 DTS Bandwidth

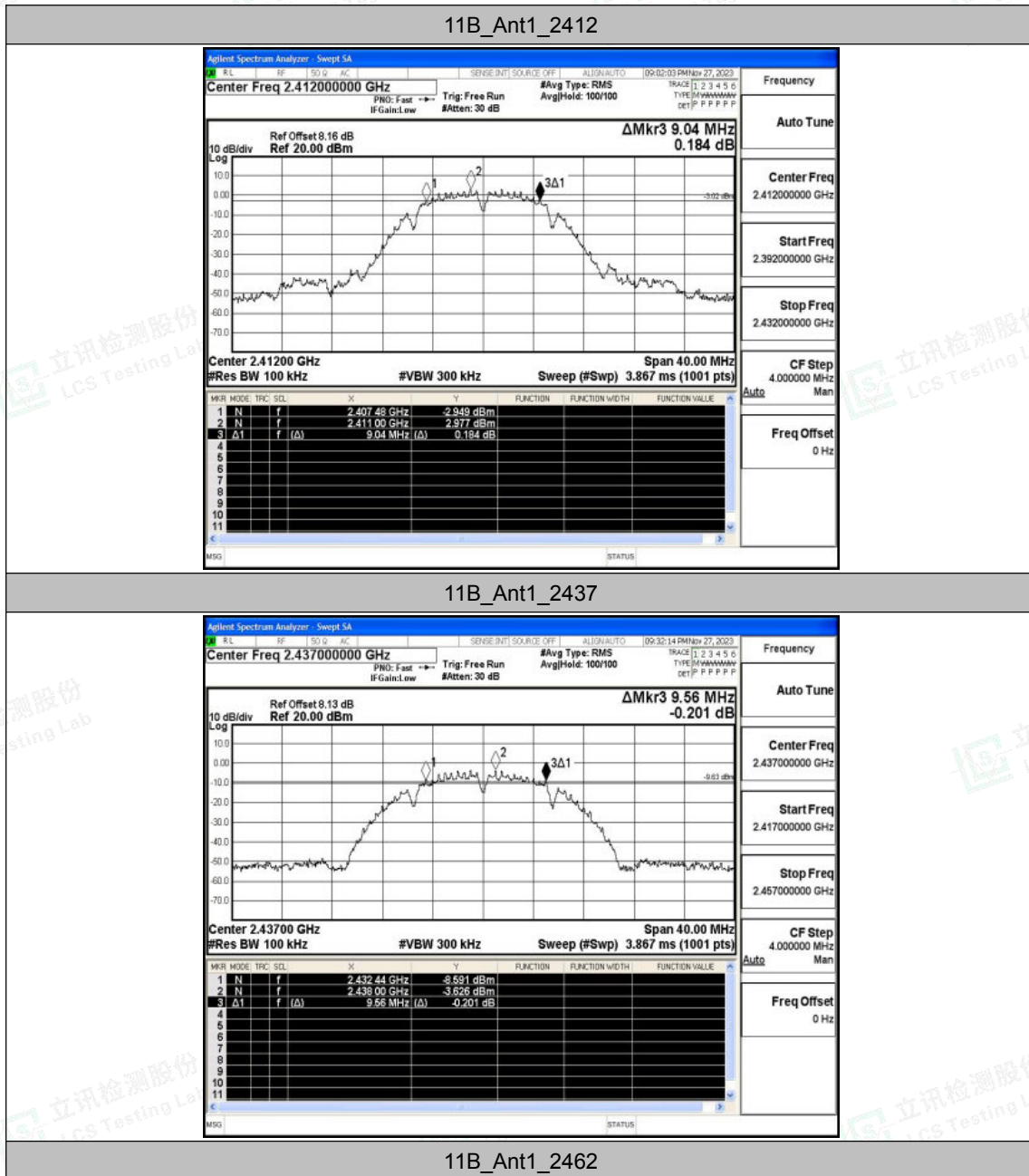
Test Result

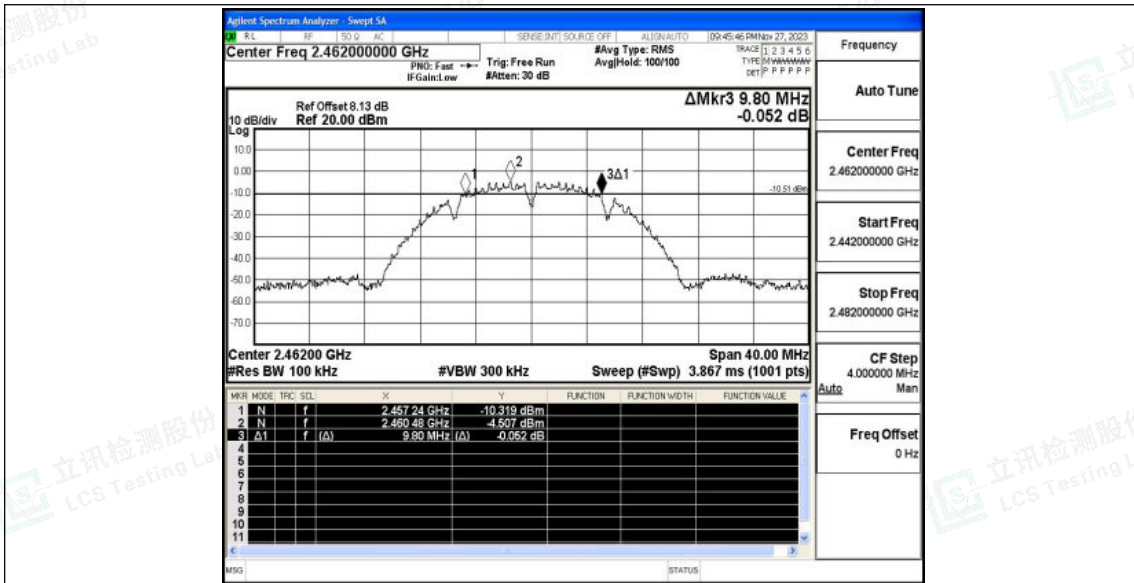
TestMode	Antenna	Freq(MHz)	DTS BW [MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
11B	Ant1	2412	9.040	2407.480	2416.520	0.5	PASS
		2437	9.560	2432.440	2442.000	0.5	PASS
		2462	9.800	2457.240	2467.040	0.5	PASS
11G	Ant1	2412	16.400	2403.800	2420.200	0.5	PASS
		2437	16.360	2428.800	2445.160	0.5	PASS
		2462	16.360	2453.800	2470.160	0.5	PASS
11N20SISO	Ant1	2412	17.600	2403.200	2420.800	0.5	PASS
		2437	17.560	2428.200	2445.760	0.5	PASS
		2462	17.600	2453.200	2470.800	0.5	PASS



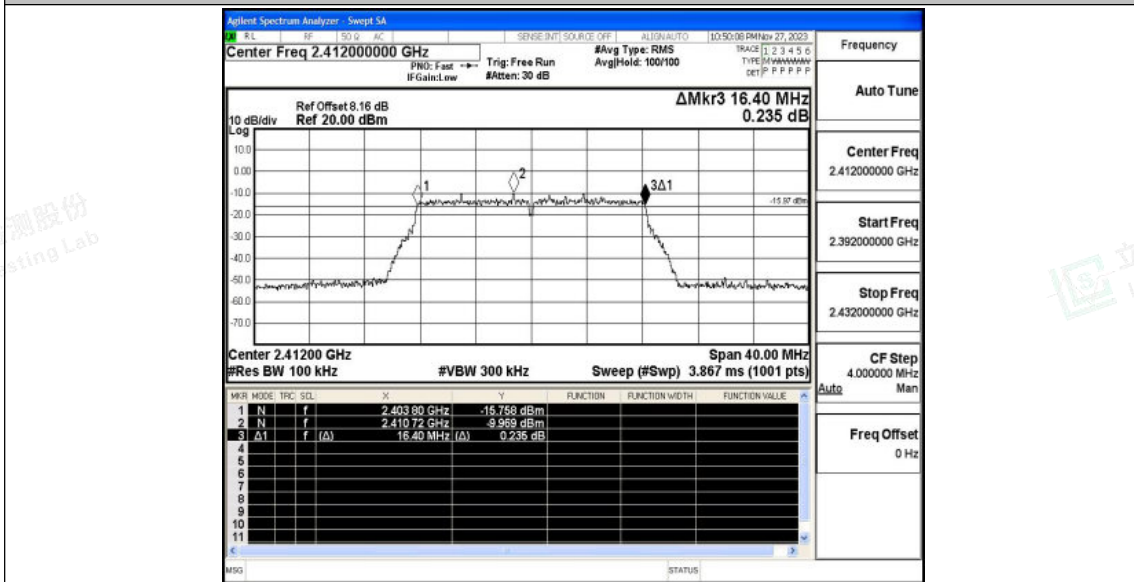


Test Graphs



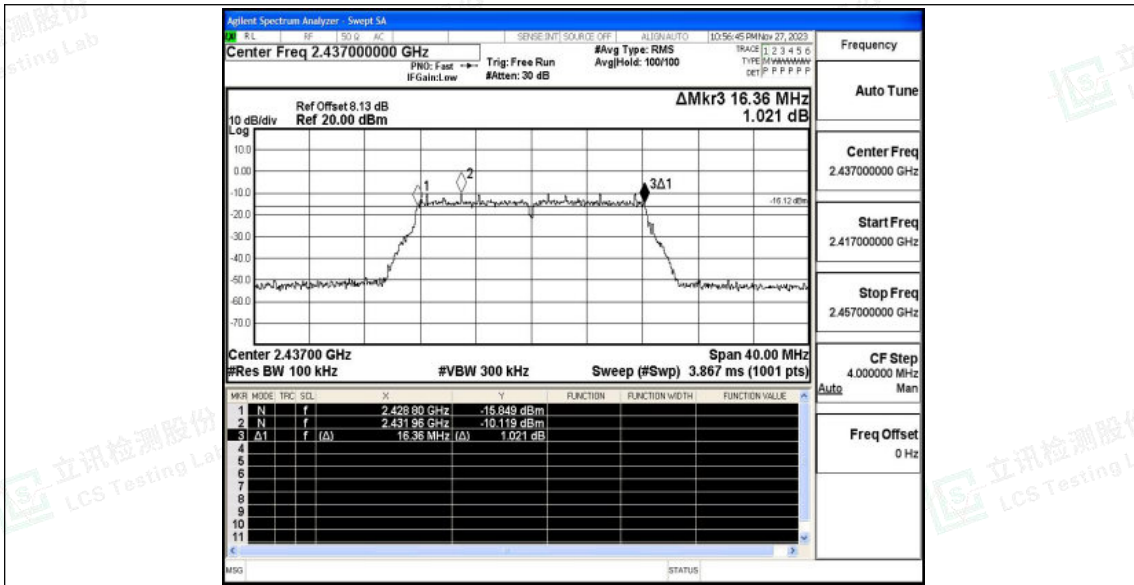


11G_Ant1_2412

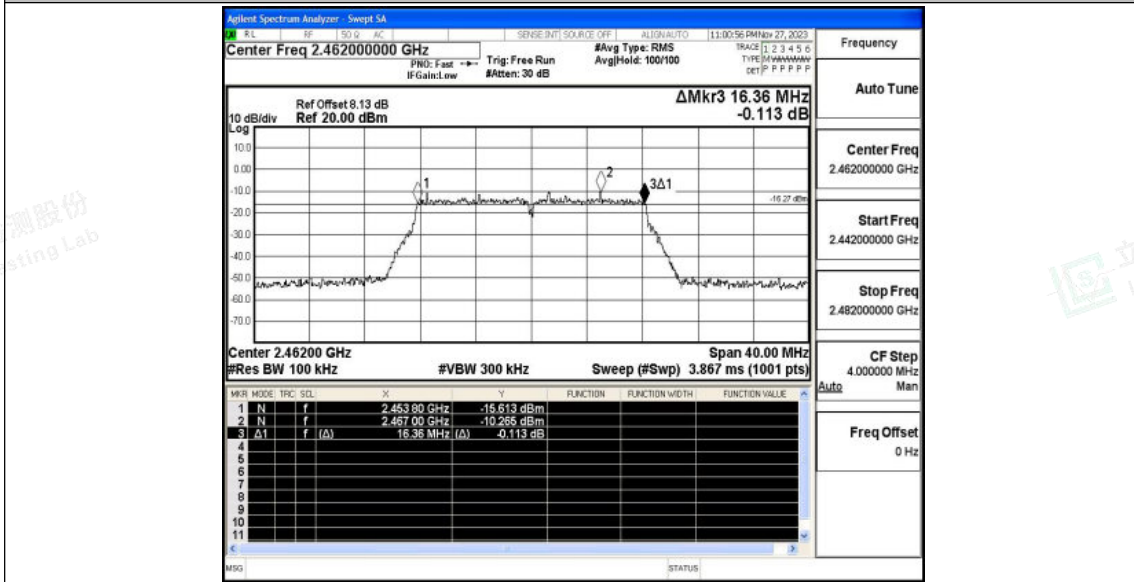


11G_Ant1_2437



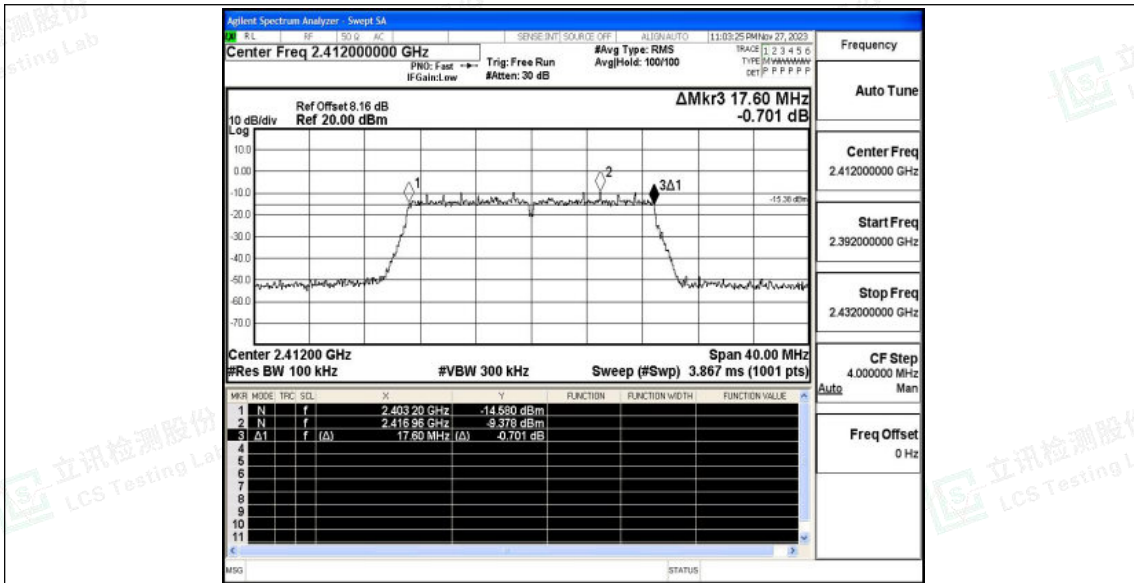


11G_Ant1_2462

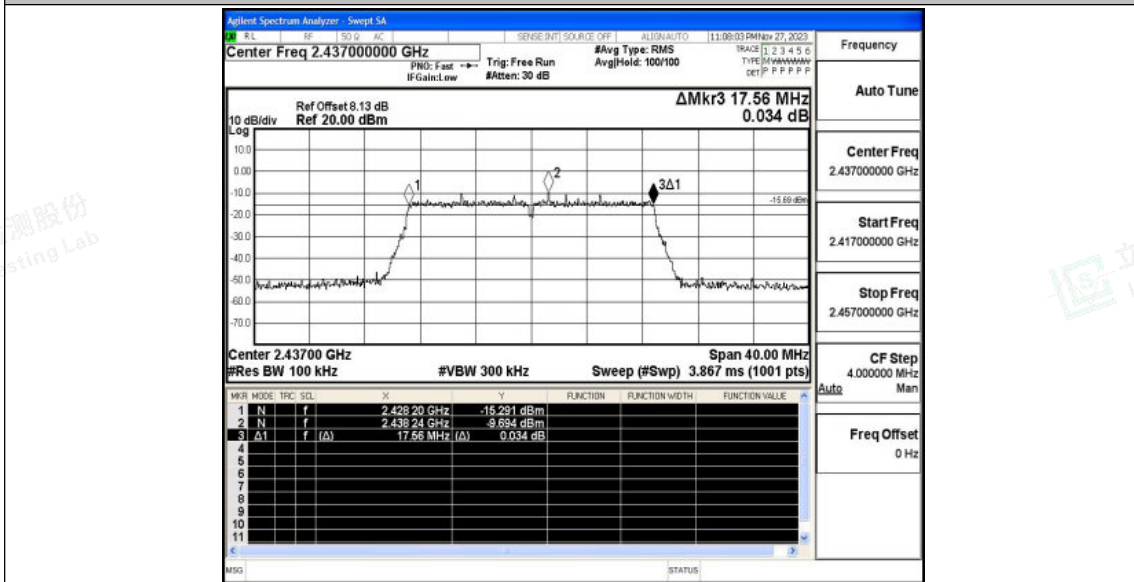


11N20SISO_Ant1_2412



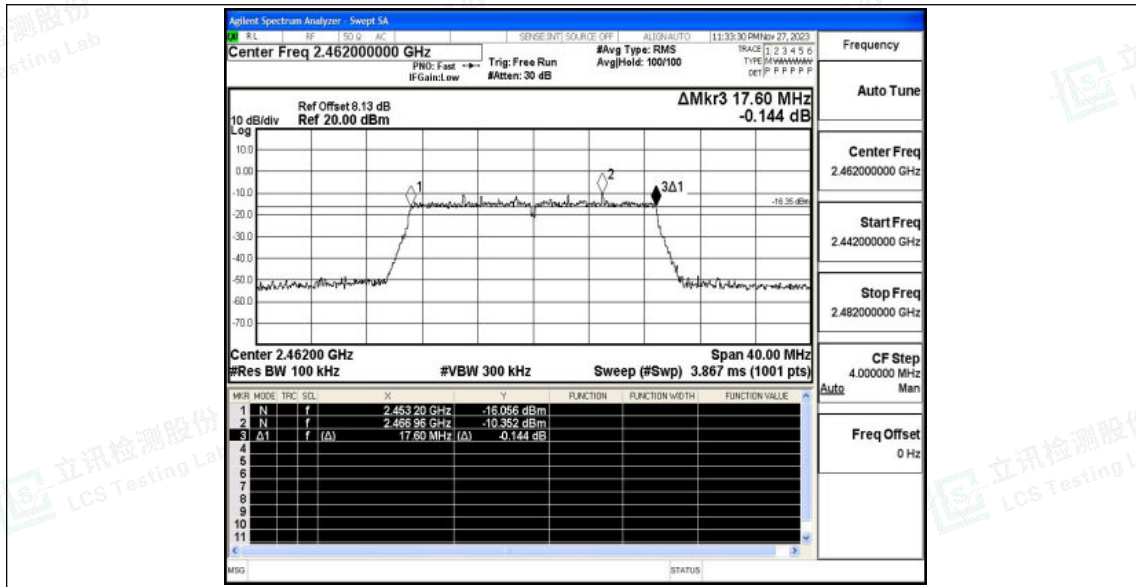


11N20SISO_Ant1_2437



11N20SISO_Ant1_2462







B.2 Maximum conducted output power

Test Result Peak

TestMode	Antenna	Freq(MHz)	Peak Power[dBm]	Conducted Limit[dBm]	Verdict
11B	Ant1	2412	8.12	≤30.00	PASS
		2437	8.29	≤30.00	PASS
		2462	8.01	≤30.00	PASS
11G	Ant1	2412	8.04	≤30.00	PASS
		2437	7.69	≤30.00	PASS
		2462	7.39	≤30.00	PASS
11N20SISO	Ant1	2412	8.31	≤30.00	PASS
		2437	7.72	≤30.00	PASS
		2462	7.45	≤30.00	PASS





B.3 Maximum power spectral density

Test Result

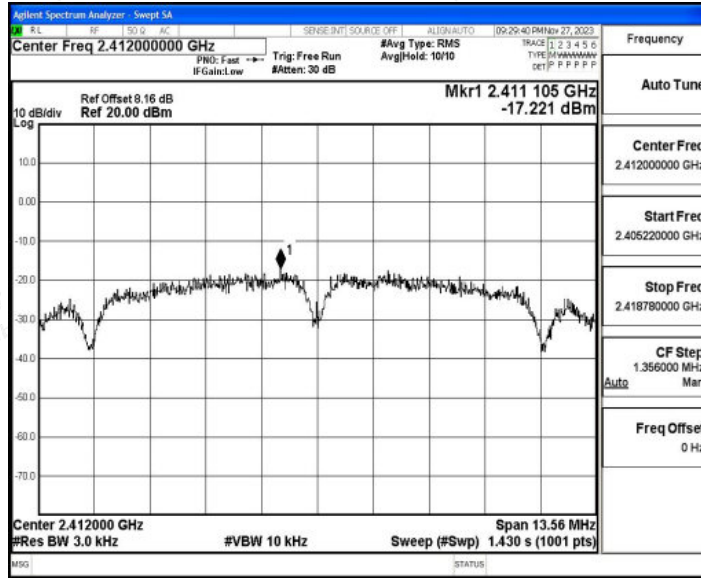
TestMode	Antenna	Freq(MHz)	Result [dBm/3kHz]	Limit [dBm/3kHz]	Verdict
11B	Ant1	2412	-17.22	≤8.00	PASS
		2437	-17.8	≤8.00	PASS
		2462	-8.88	≤8.00	PASS
11G	Ant1	2412	-22.45	≤8.00	PASS
		2437	-23.31	≤8.00	PASS
		2462	-23.95	≤8.00	PASS
11N20SISO	Ant1	2412	-23.56	≤8.00	PASS
		2437	-23.99	≤8.00	PASS
		2462	-23.74	≤8.00	PASS



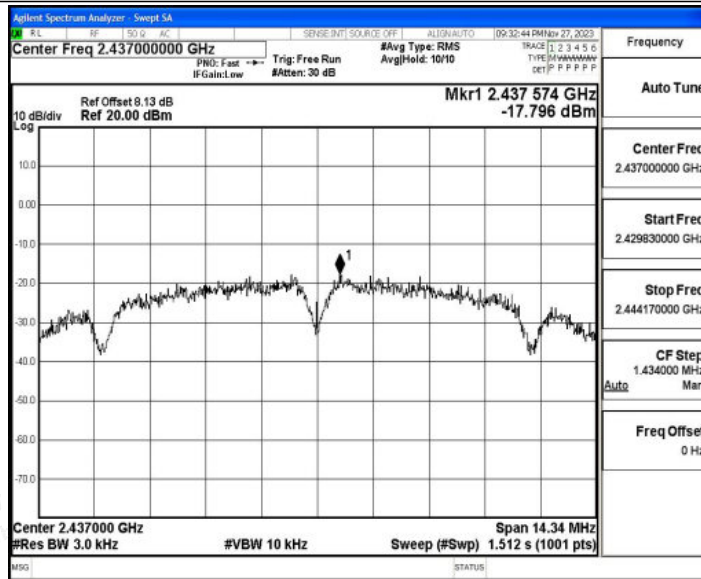


Test Graphs

11B_Ant1_2412

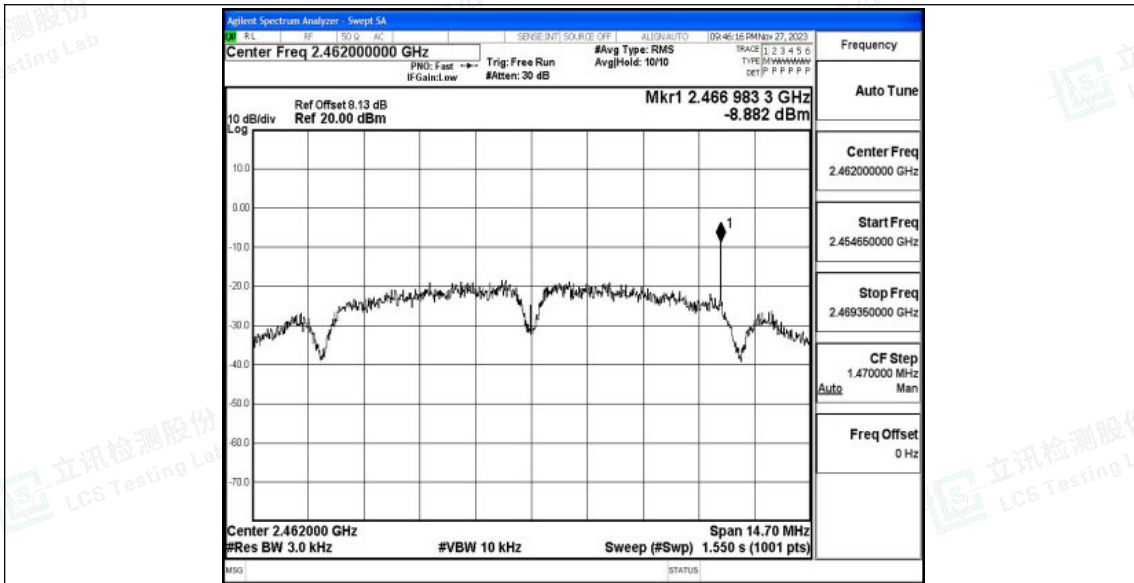


11B_Ant1_2437

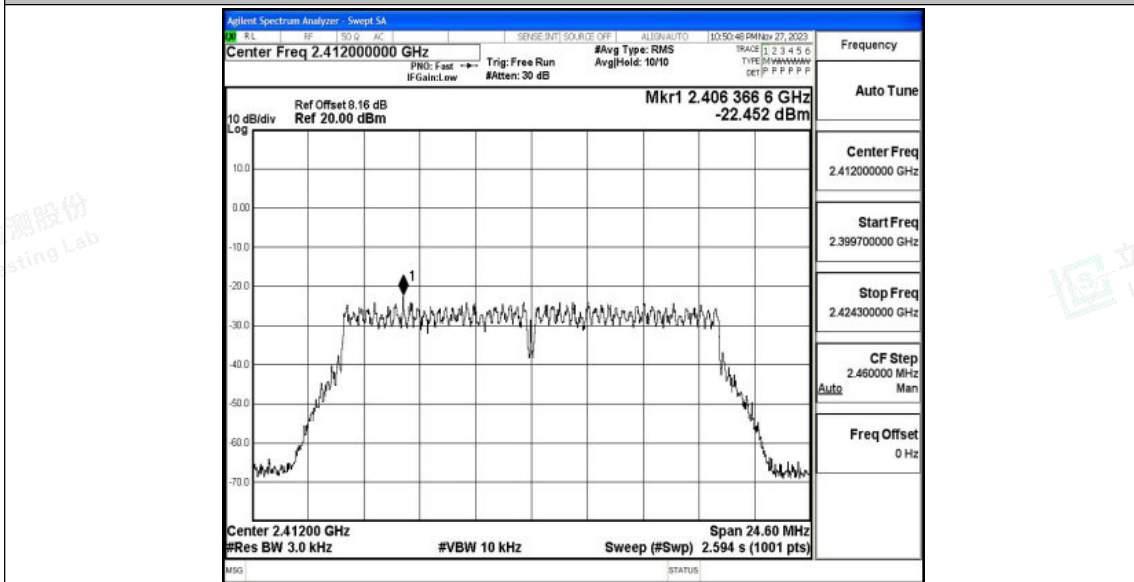


11B_Ant1_2462



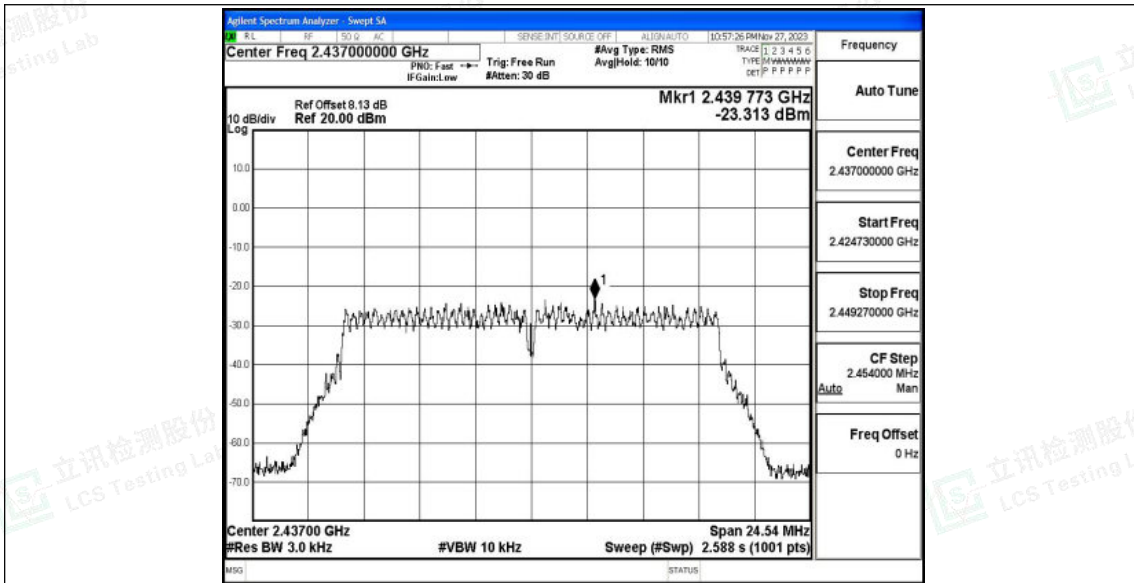


11G_Ant1_2412

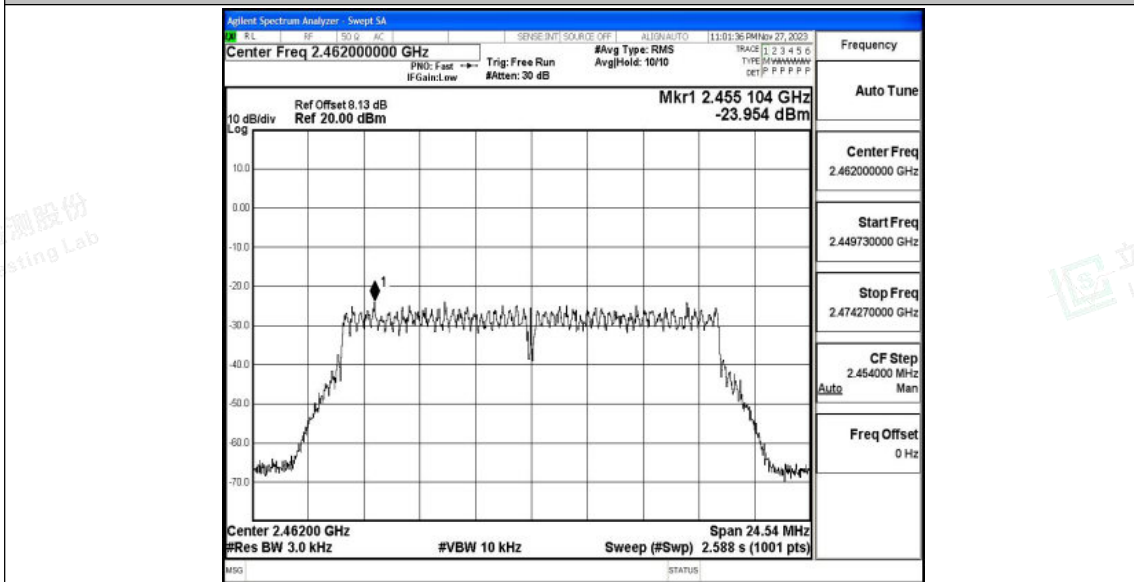


11G_Ant1_2437



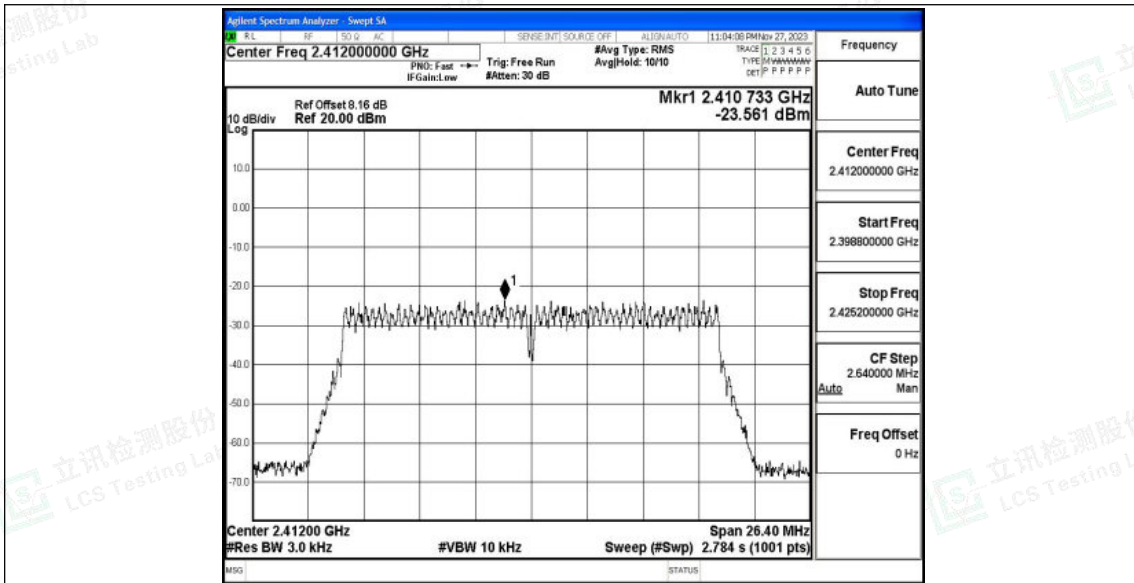


11G_Ant1_2462

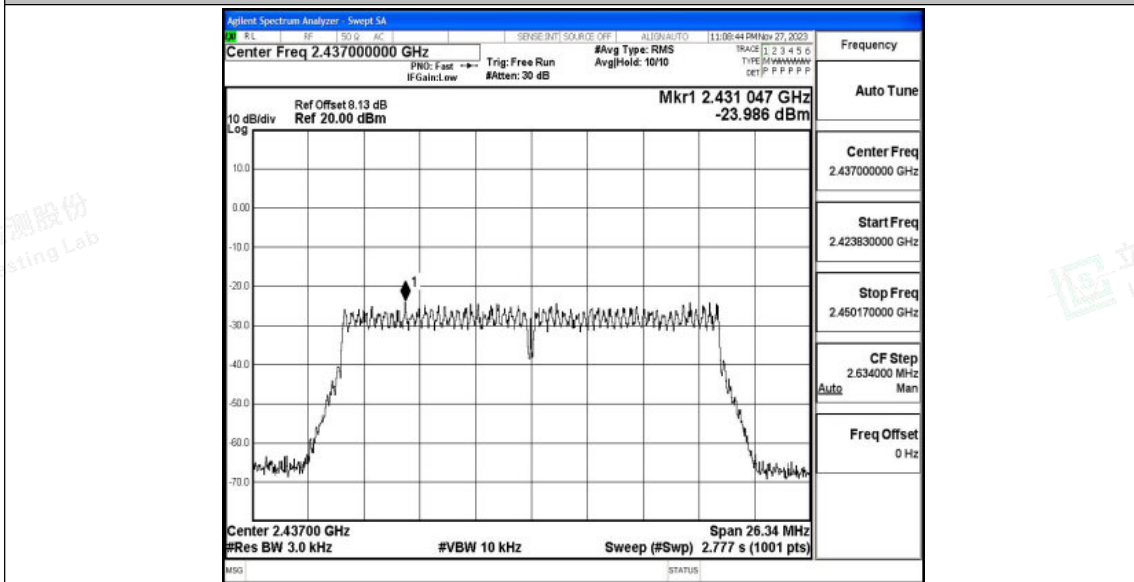


11N20SISO_Ant1_2412



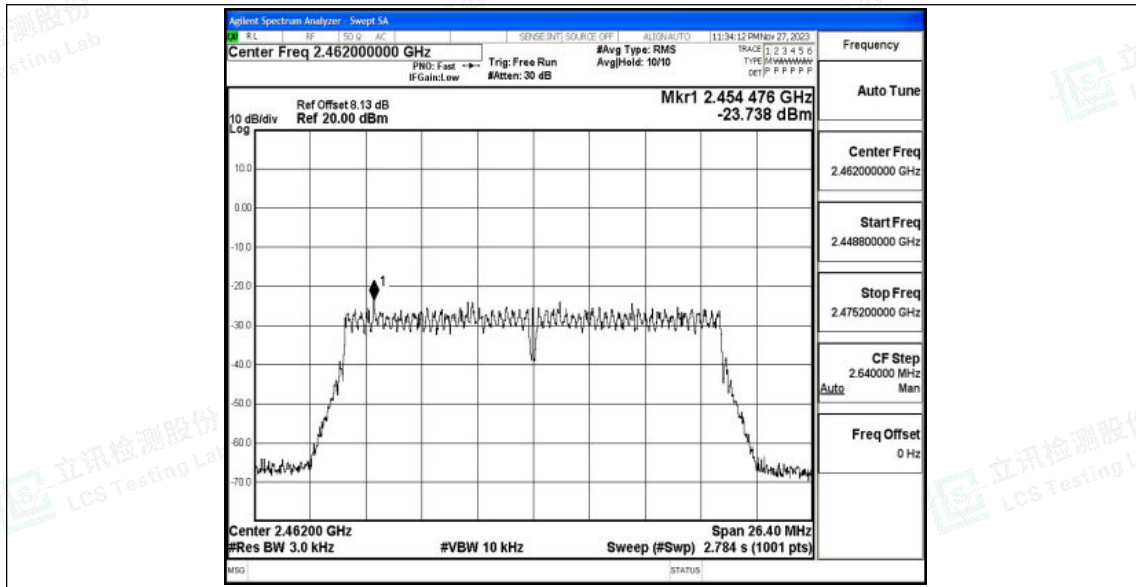


11N20SISO_Ant1_2437



11N20SISO_Ant1_2462







B.4 Band edge measurements

Test Result

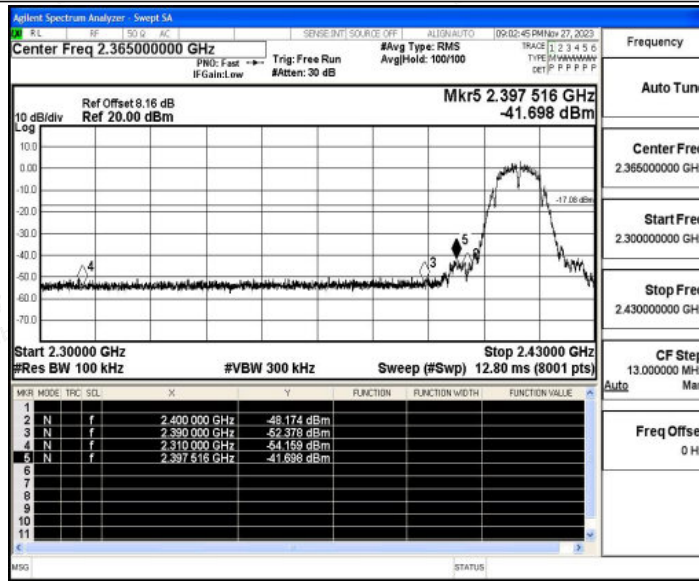
TestMode	Antenna	ChName	Freq(MHz)	RefLevel[dBm]	Result[dBm]	Limit[dBm]	Verdict
11B	Ant1	Low	2412	2.92	-41.7	≤-17.08	PASS
		High	2462	-4.46	-49.31	≤-24.46	PASS
11G	Ant1	Low	2412	-9.82	-48.5	≤-29.82	PASS
		High	2462	-10.51	-49.98	≤-30.51	PASS
11N20SISO	Ant1	Low	2412	-9.43	-48.69	≤-29.43	PASS
		High	2462	-10.44	-49.67	≤-30.44	PASS



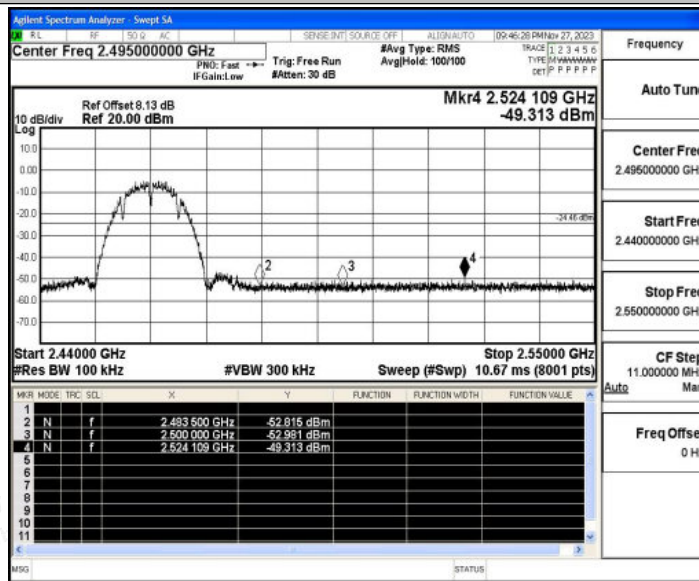


Test Graphs

11B_Ant1_Low_2412

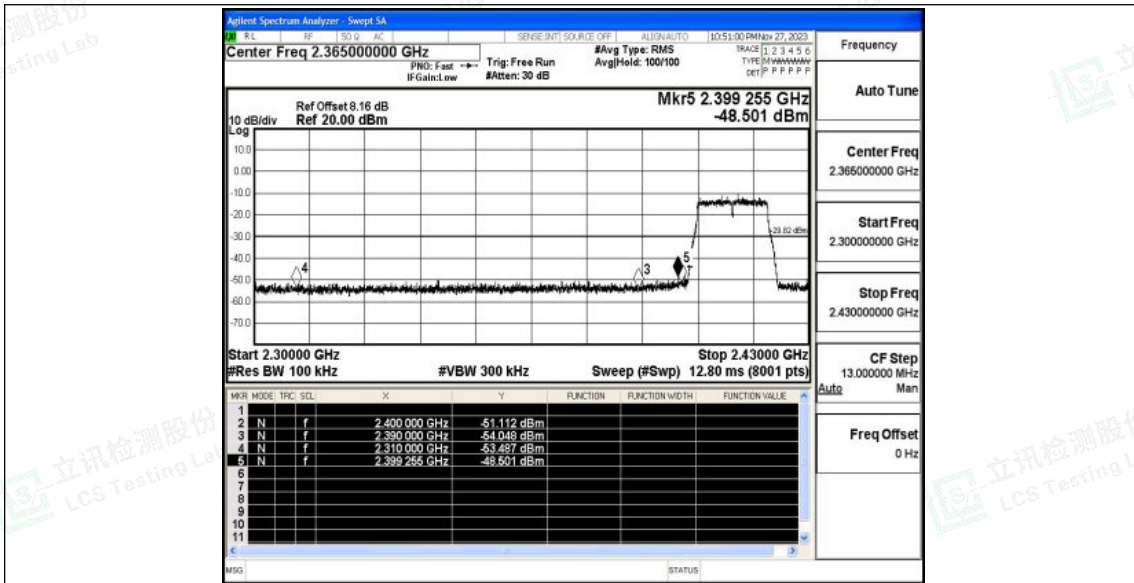


11B_Ant1_High_2462

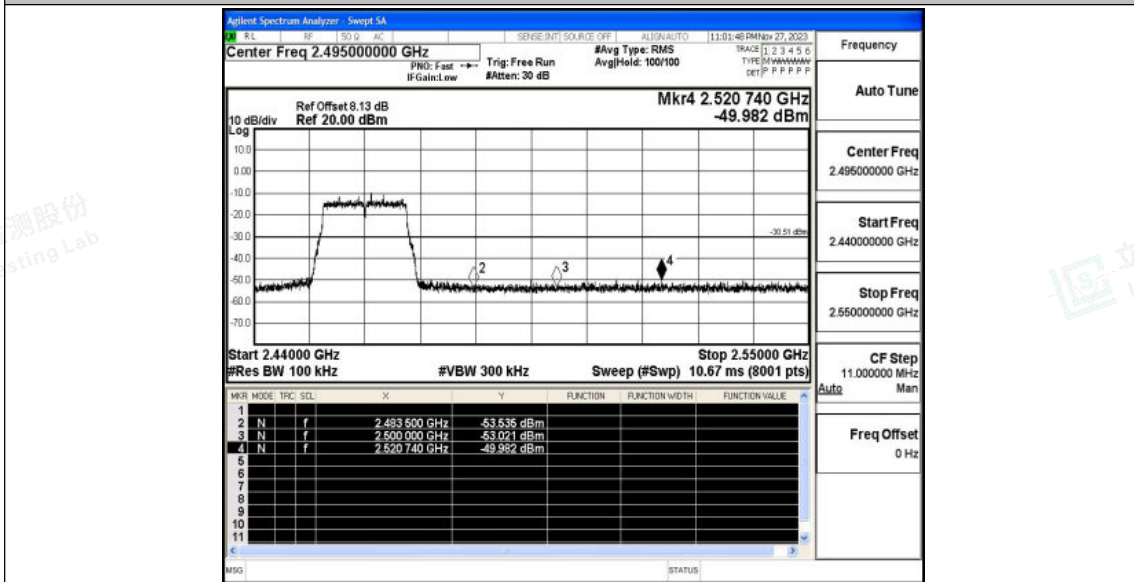


11G_Ant1_Low_2412



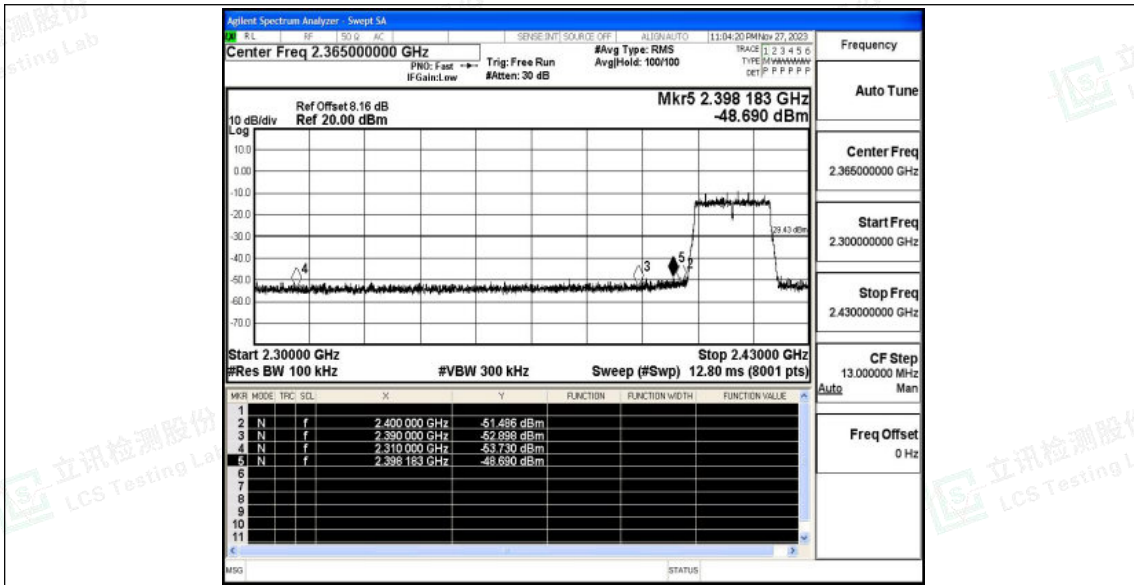


11G_Ant1_High_2462

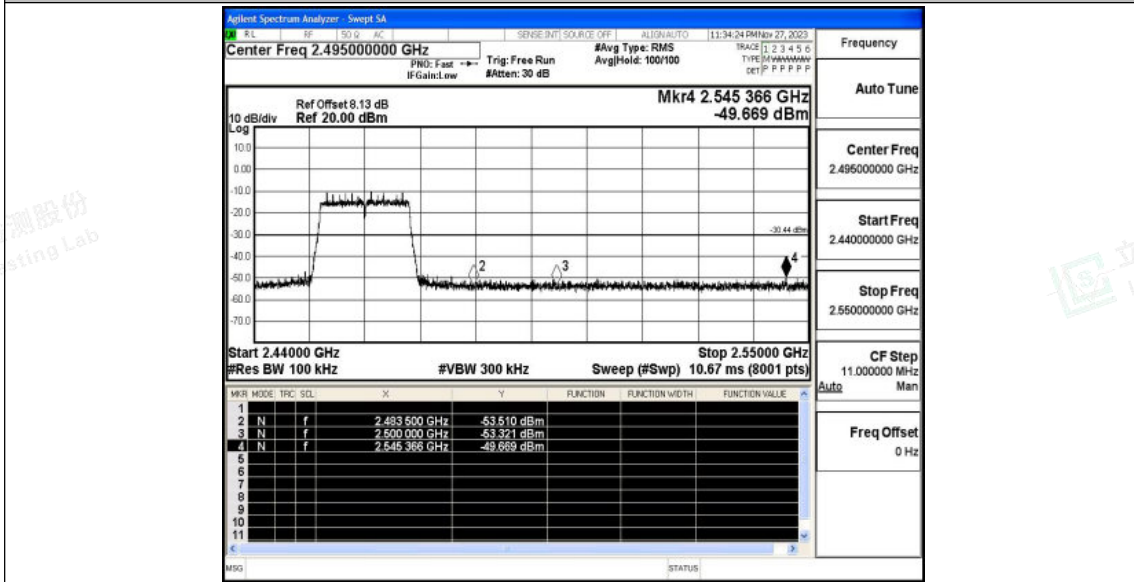


11N20SISO_Ant1_Low_2412





11N20SISO_Ant1_High_2462





B.5 Conducted Spurious Emission

Test Result

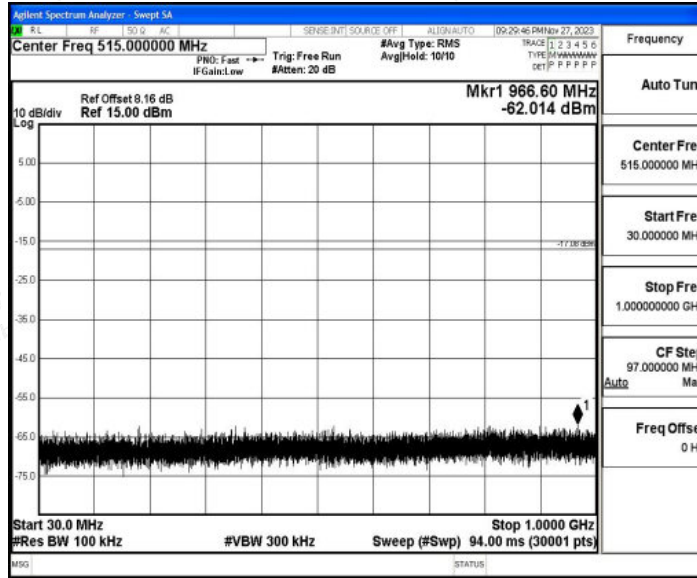
TestMode	Antenna	Freq(MHz)	FreqRange [Mhz]	RefLevel [dBm]	Result [dBm]	Limit [dBm]	Verdict
11B	Ant1	2412	30~1000	2.92	-62.01	≤-17.08	PASS
			1000~26500	2.92	-47.71	≤-17.08	PASS
		2437	30~1000	-4.24	-61.68	≤-24.24	PASS
			1000~26500	-4.24	-48.93	≤-24.24	PASS
		2462	30~1000	-4.46	-61.84	≤-24.46	PASS
			1000~26500	-4.46	-49.04	≤-24.46	PASS
11G	Ant1	2412	30~1000	-9.82	-62.01	≤-29.82	PASS
			1000~26500	-9.82	-49.07	≤-29.82	PASS
		2437	30~1000	-10.36	-61.75	≤-30.36	PASS
			1000~26500	-10.36	-48.71	≤-30.36	PASS
		2462	30~1000	-10.51	-59.77	≤-30.51	PASS
			1000~26500	-10.51	-49	≤-30.51	PASS
11N20SISO	Ant1	2412	30~1000	-9.43	-61.9	≤-29.43	PASS
			1000~26500	-9.43	-48.68	≤-29.43	PASS
		2437	30~1000	-9.84	-61.89	≤-29.84	PASS
			1000~26500	-9.84	-48.45	≤-29.84	PASS
		2462	30~1000	-10.44	-61.46	≤-30.44	PASS
			1000~26500	-10.44	-49.64	≤-30.44	PASS



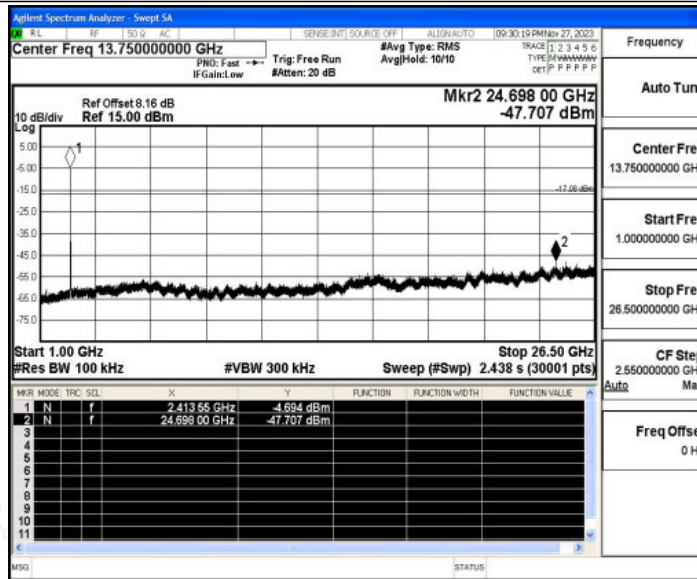


Test Graphs

11B_Ant1_2412_30~1000

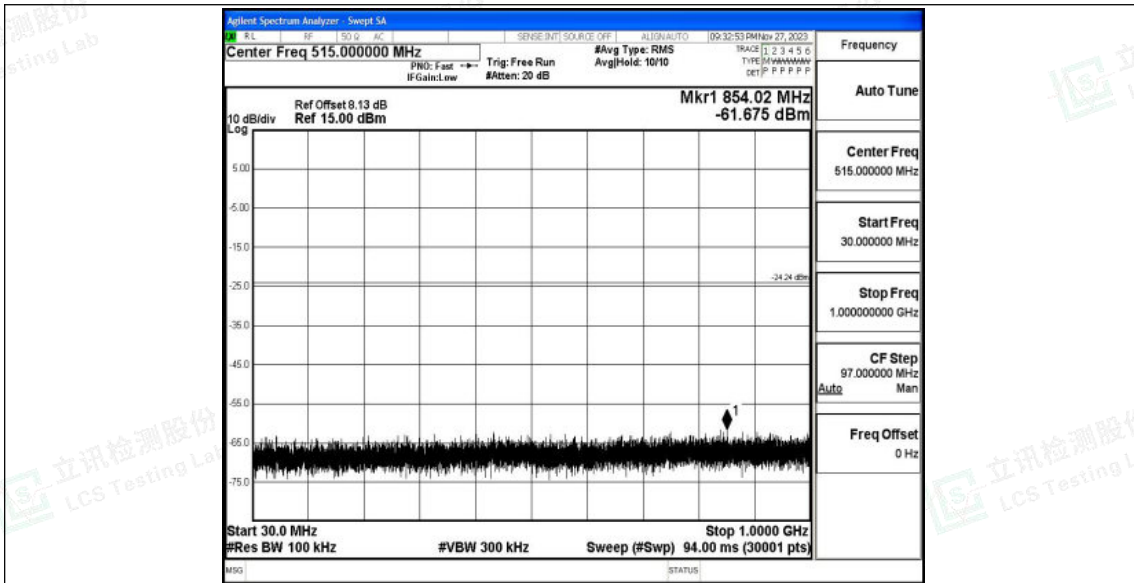


11B_Ant1_2412_1000~26500

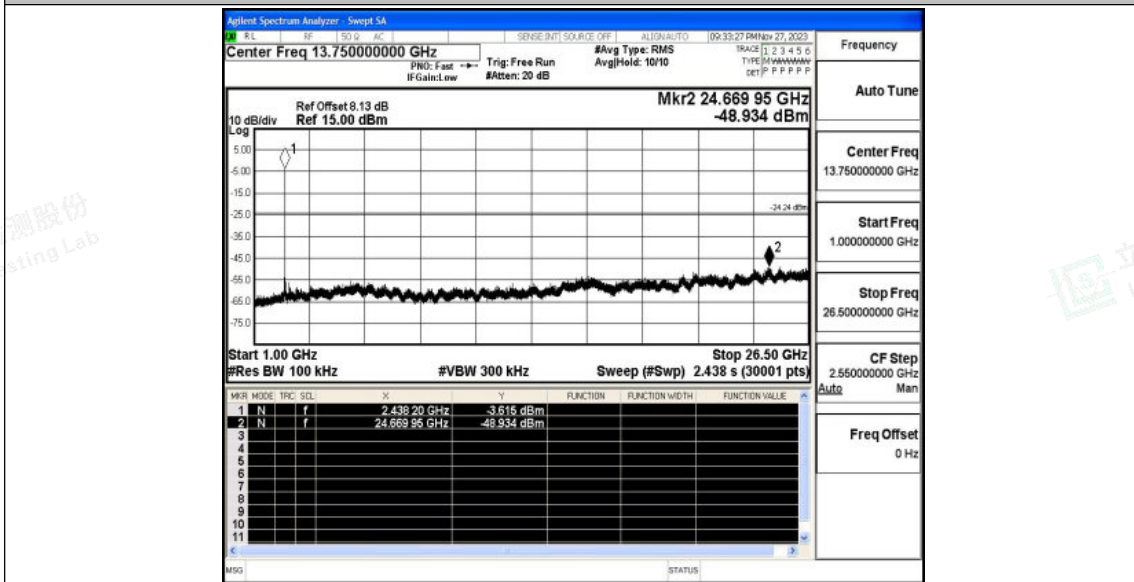


11B_Ant1_2437_30~1000



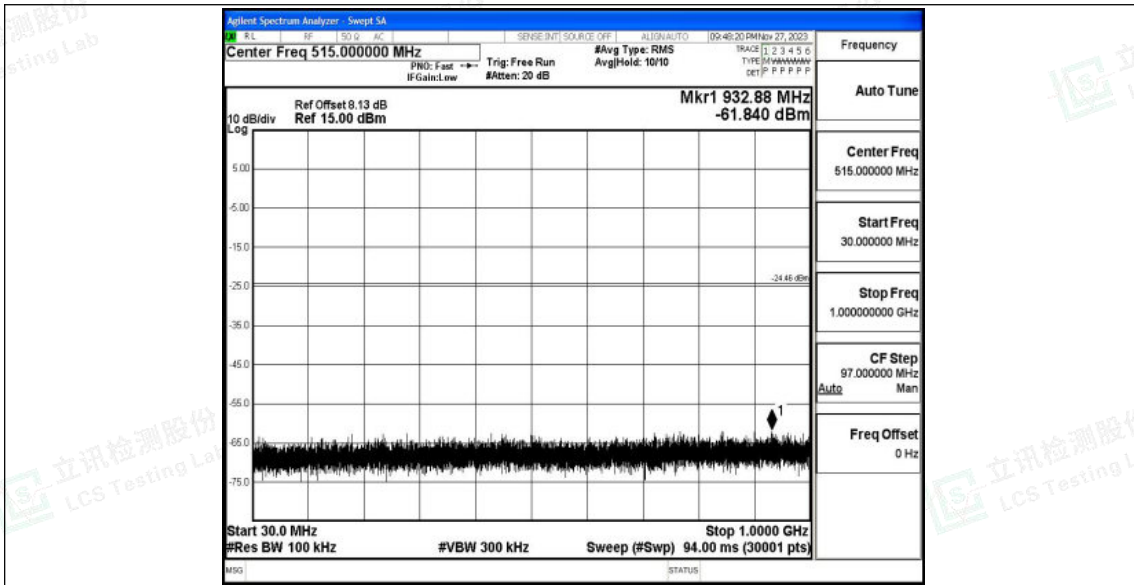


11B_Ant1_2437_1000~26500

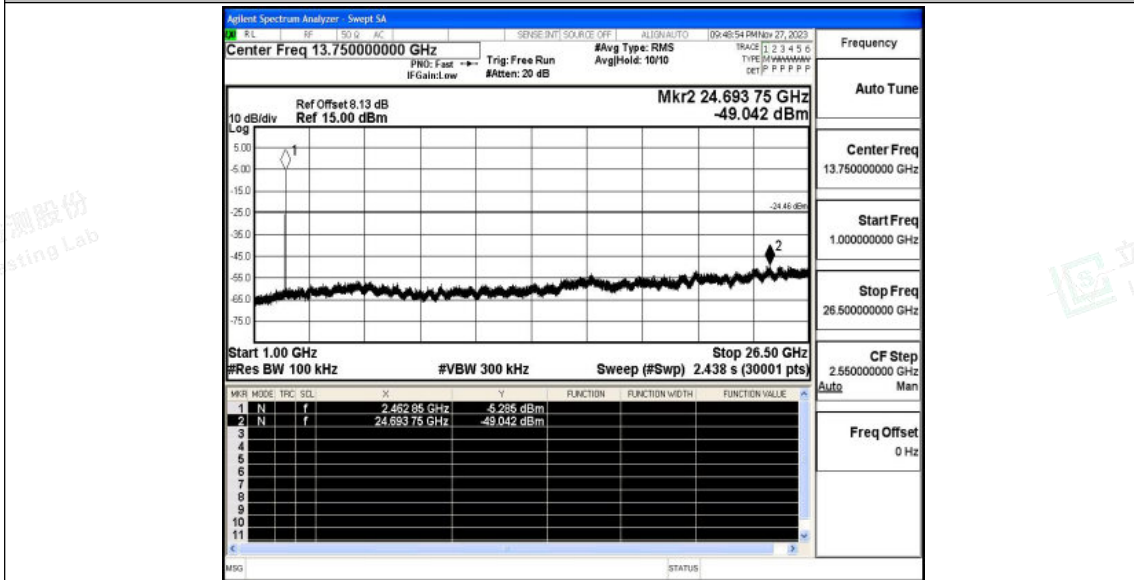


11B_Ant1_2462_30~1000



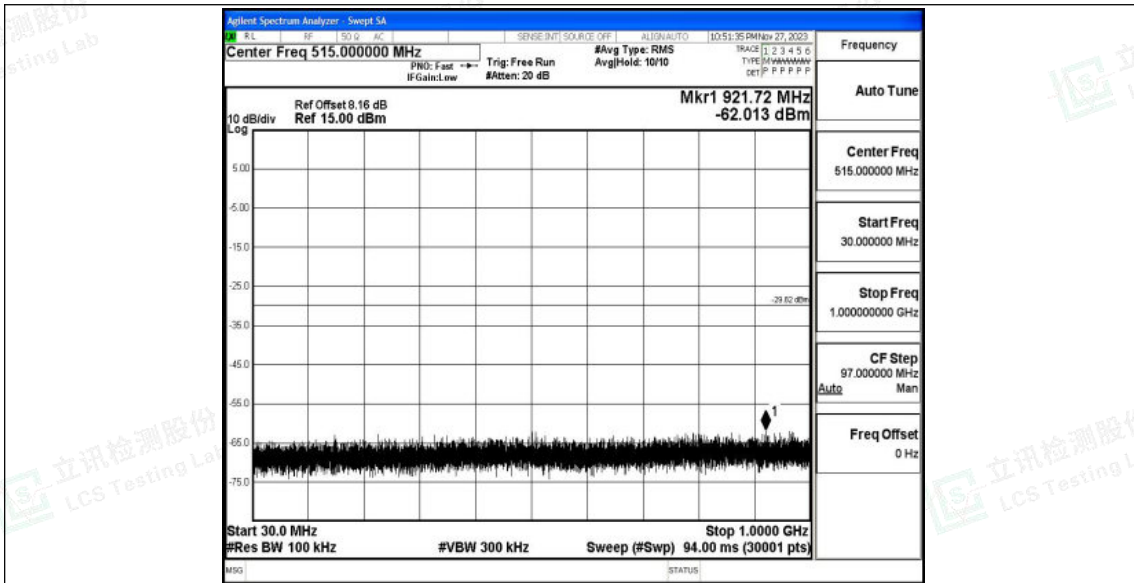


11B_Ant1_2462_1000~26500

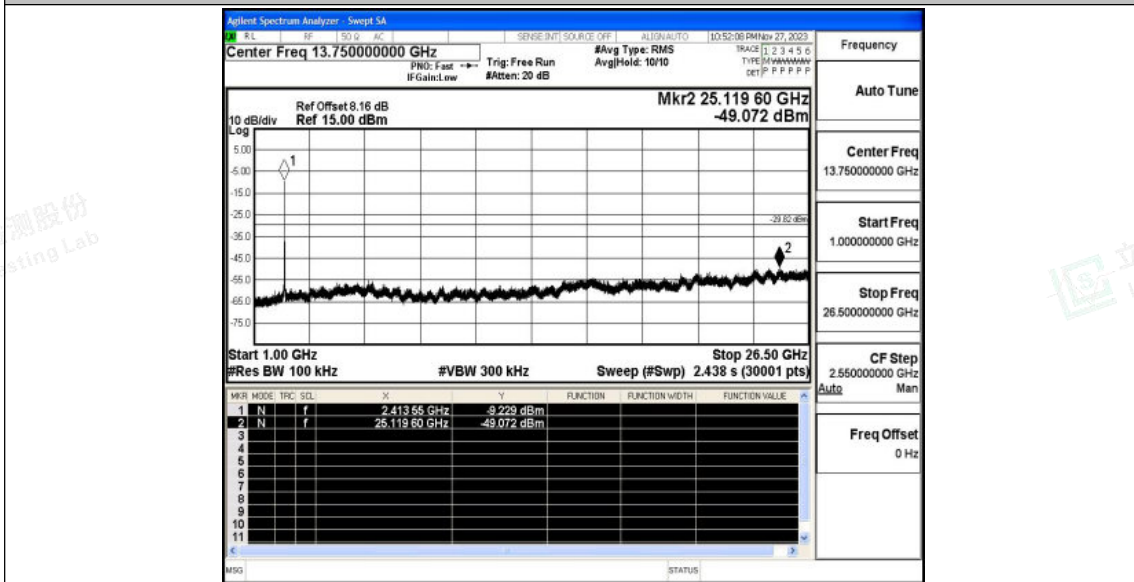


11G_Ant1_2412_30~1000



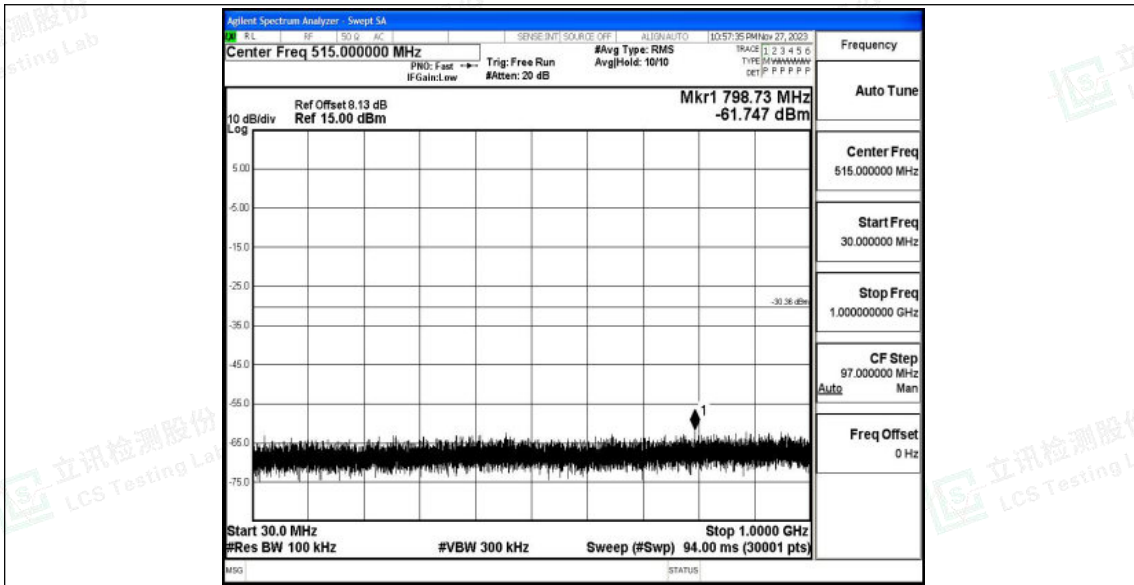


11G_Ant1_2412_1000~26500

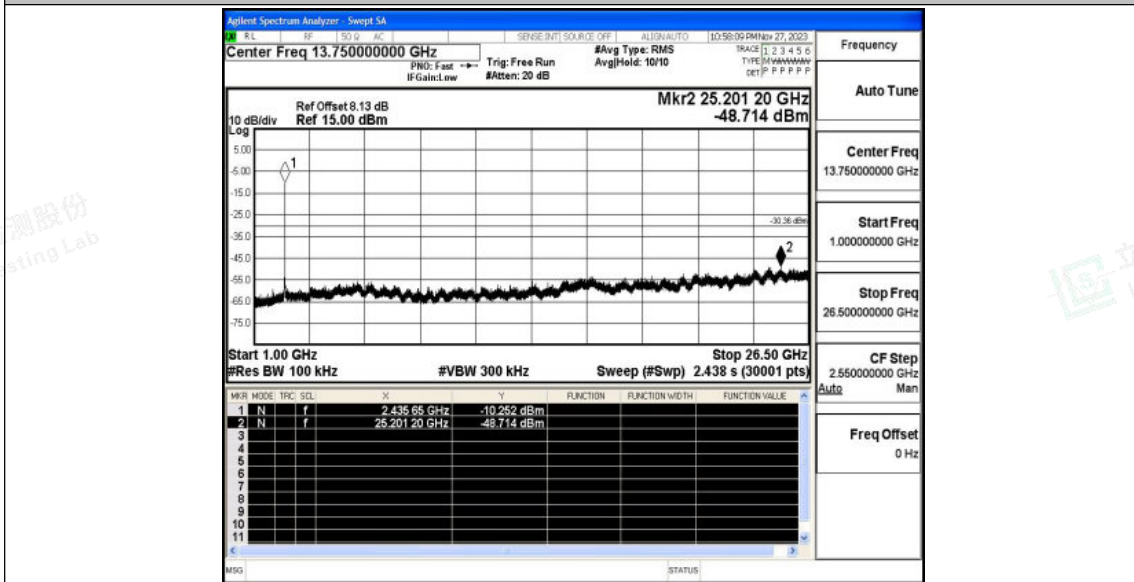


11G_Ant1_2437_30~1000



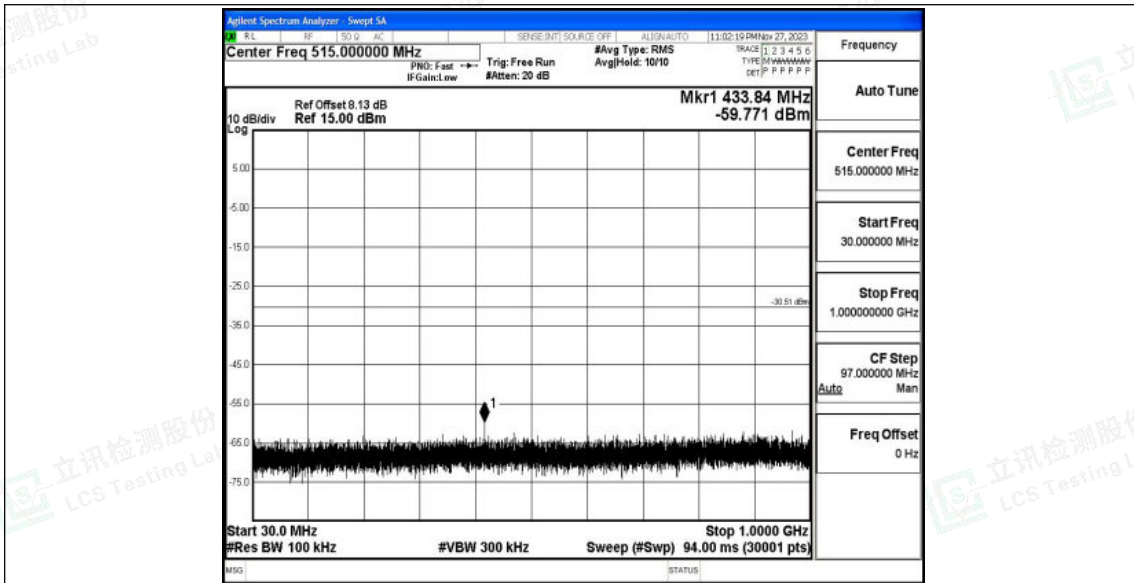


11G_Ant1_2437_1000~26500

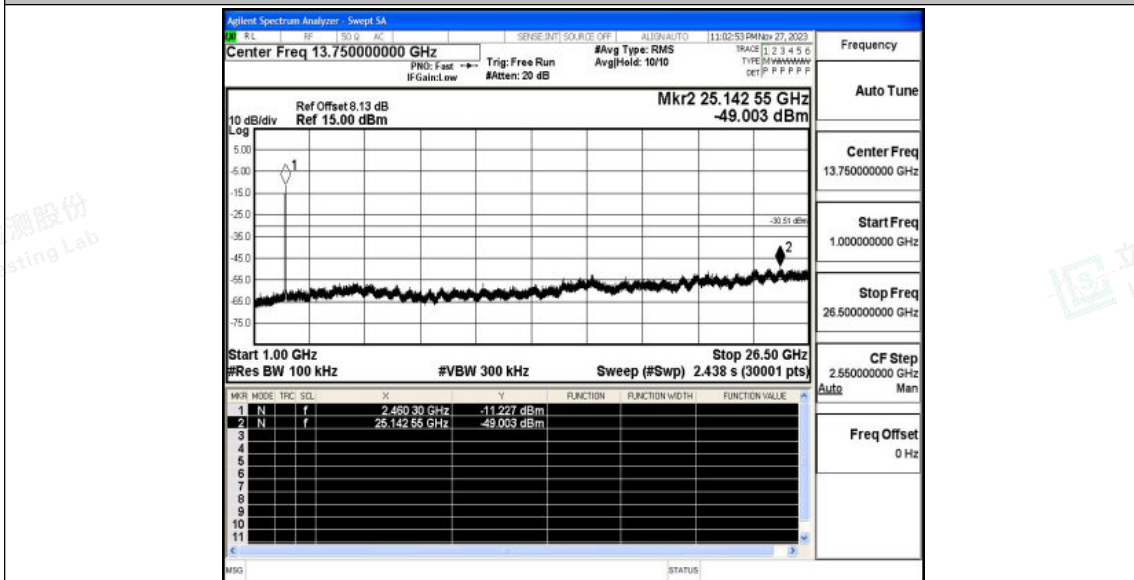


11G_Ant1_2462_30~1000



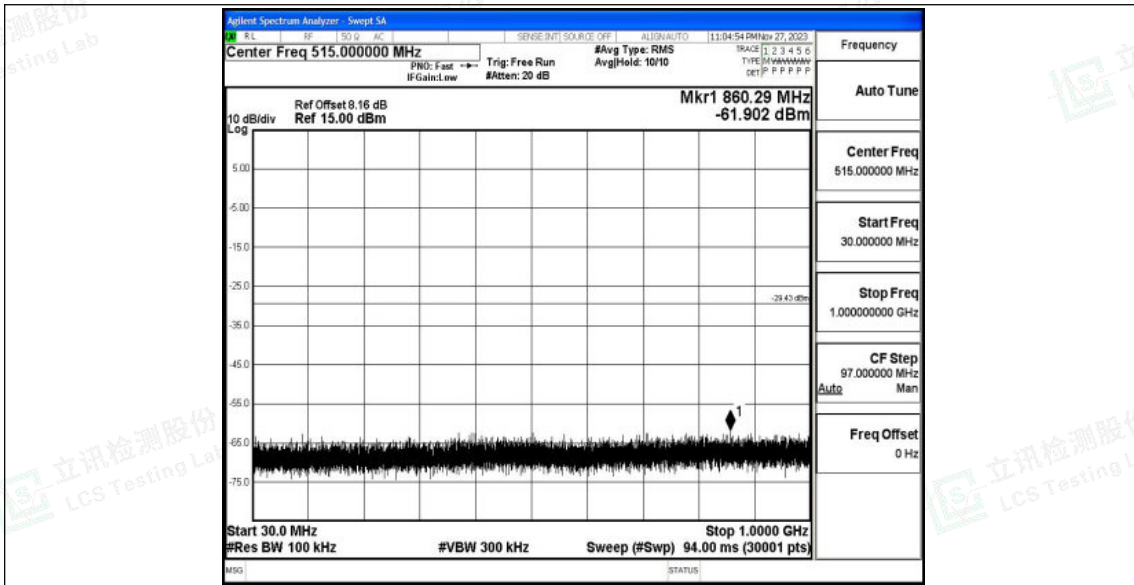


11G_Ant1_2462_1000~26500

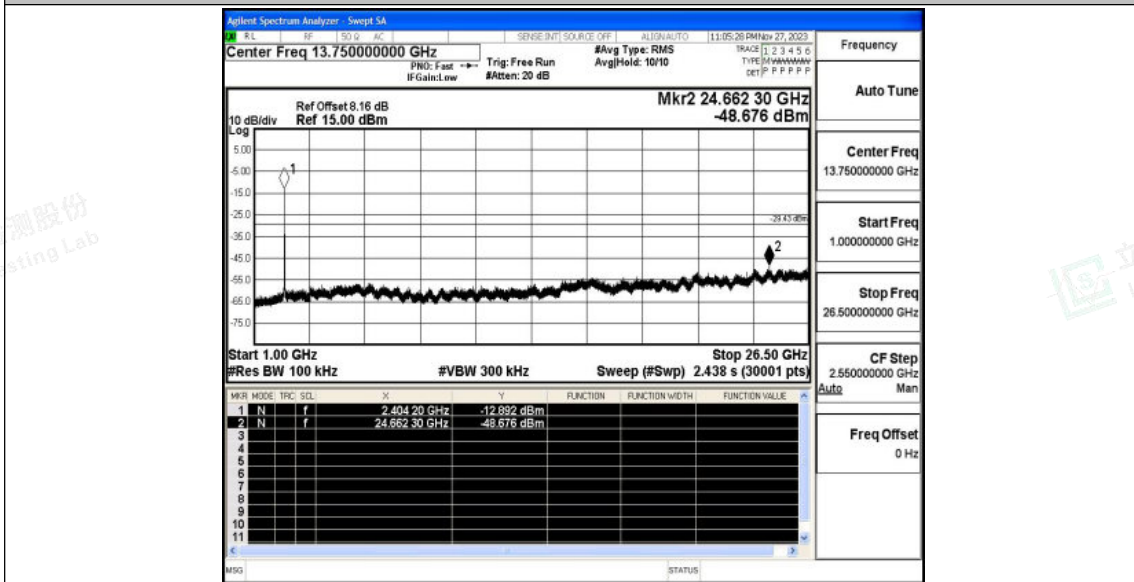


11N20SISO_Ant1_2412_30~1000



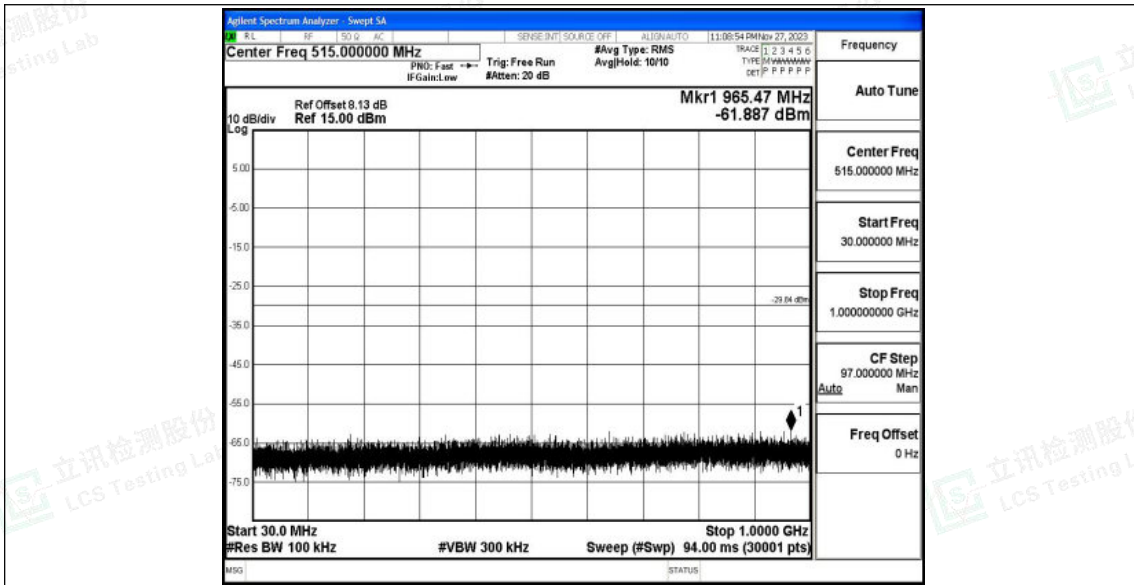


11N20SISO_Ant1_2412_1000~26500

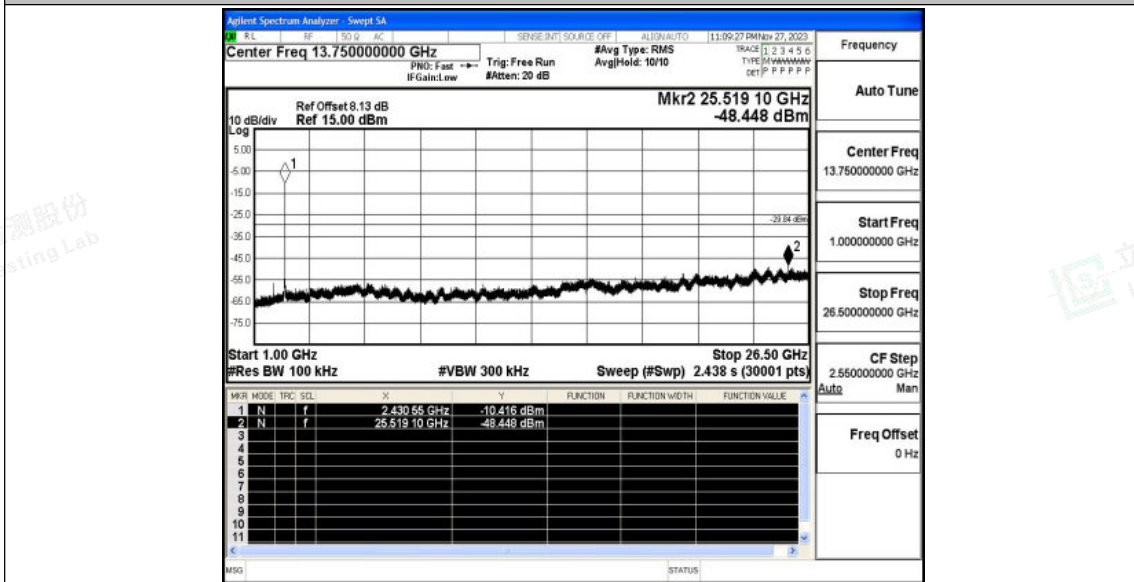


11N20SISO_Ant1_2437_30~1000



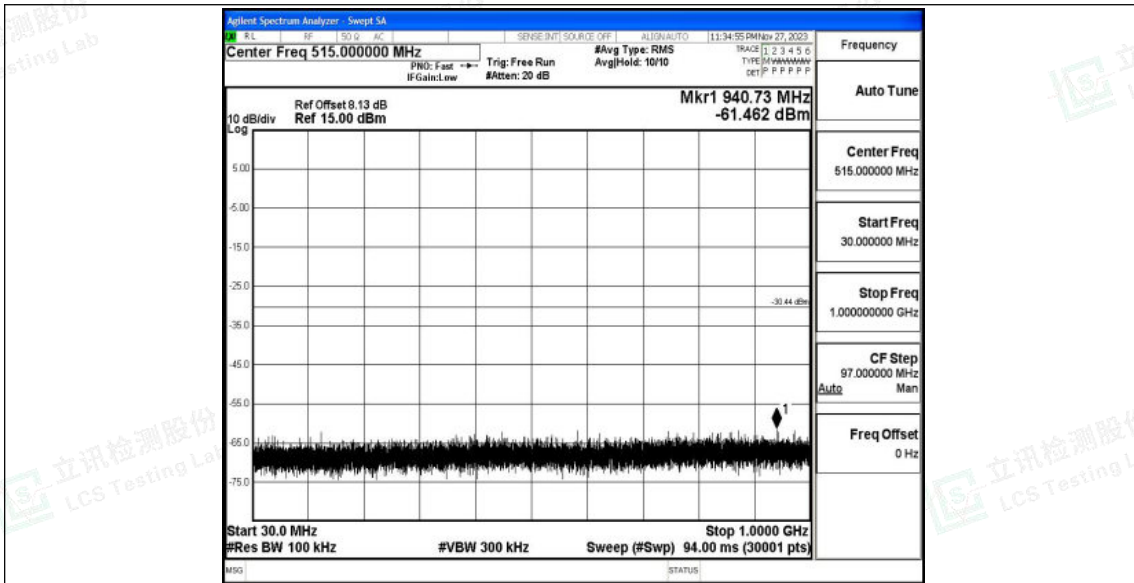


11N20SISO_Ant1_2437_1000~26500

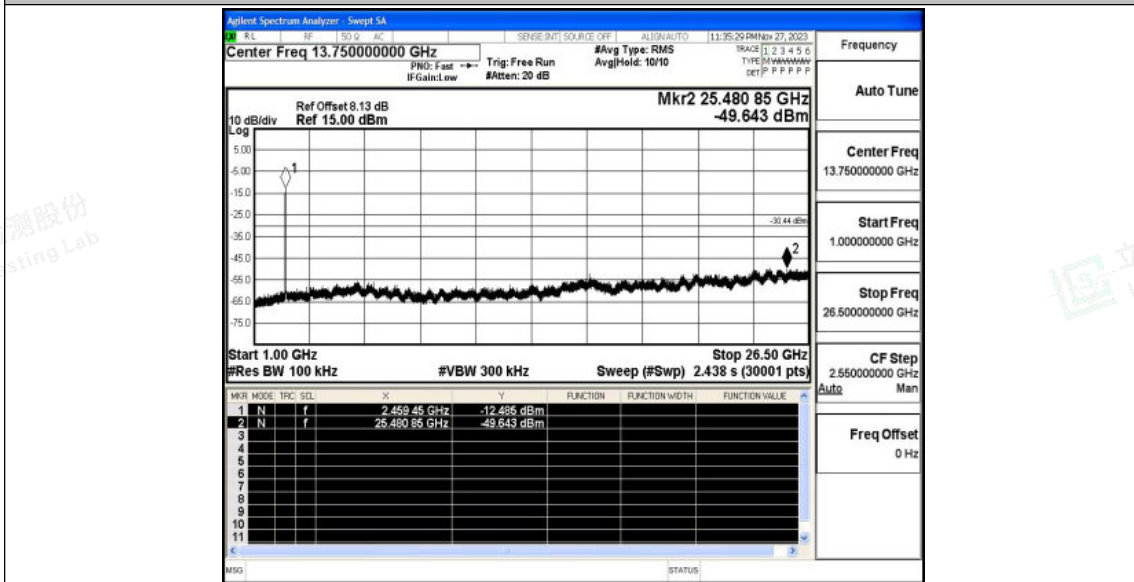


11N20SISO_Ant1_2462_30~1000





11N20SISO_Ant1_2462_1000~26500





B.6 Duty Cycle

Test Result

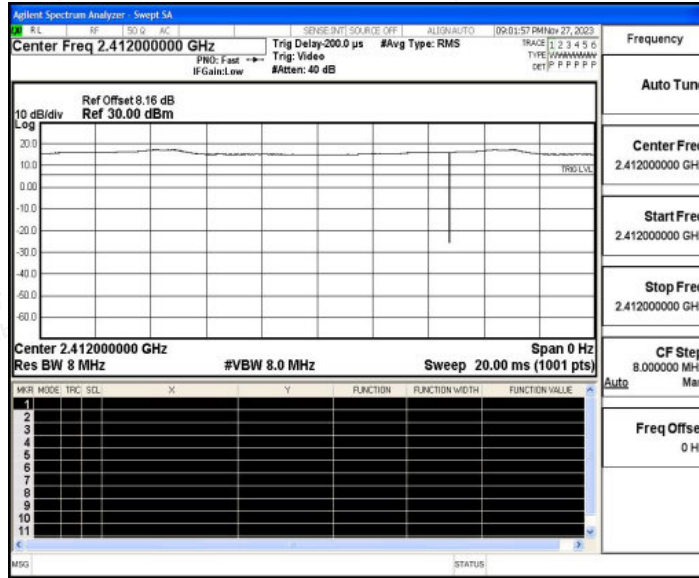
TestMode	Antenna	Freq(MHz)	Transmission Duration [ms]	Transmission Period [ms]	Duty Cycle [%]	Factor	1/T (kHz)	Verdict
11B	Ant1	2412	20.00	20.00	100.00	0.00	0.01	---
		2437	8.39	8.42	99.64	0.02	0.01	---
		2462	20.00	20.00	100.00	0.00	0.01	---
11G	Ant1	2412	1.39	1.43	97.20	0.12	0.72	---
		2437	1.39	1.43	97.20	0.12	0.72	---
		2462	1.39	1.42	97.89	0.09	0.72	---
11N20SISO	Ant1	2412	1.30	1.34	97.01	0.13	0.77	---
		2437	1.30	1.34	97.01	0.13	0.77	---
		2462	1.30	1.34	97.01	0.13	0.77	---



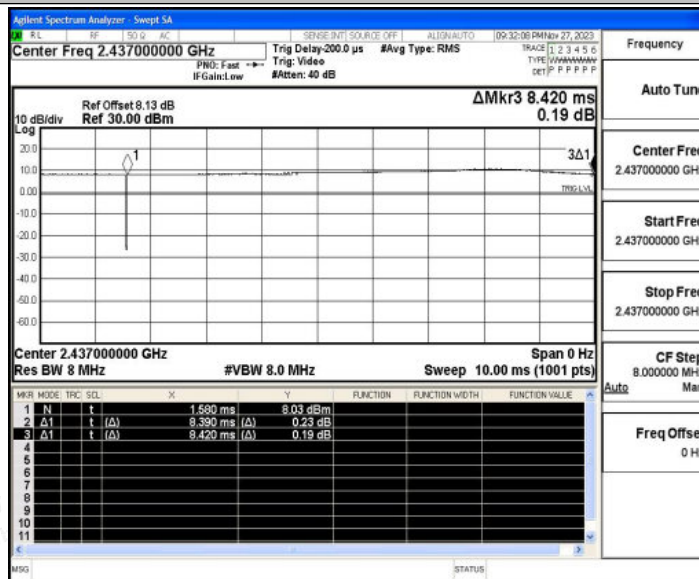


Test Graphs

11B_Ant1_2412

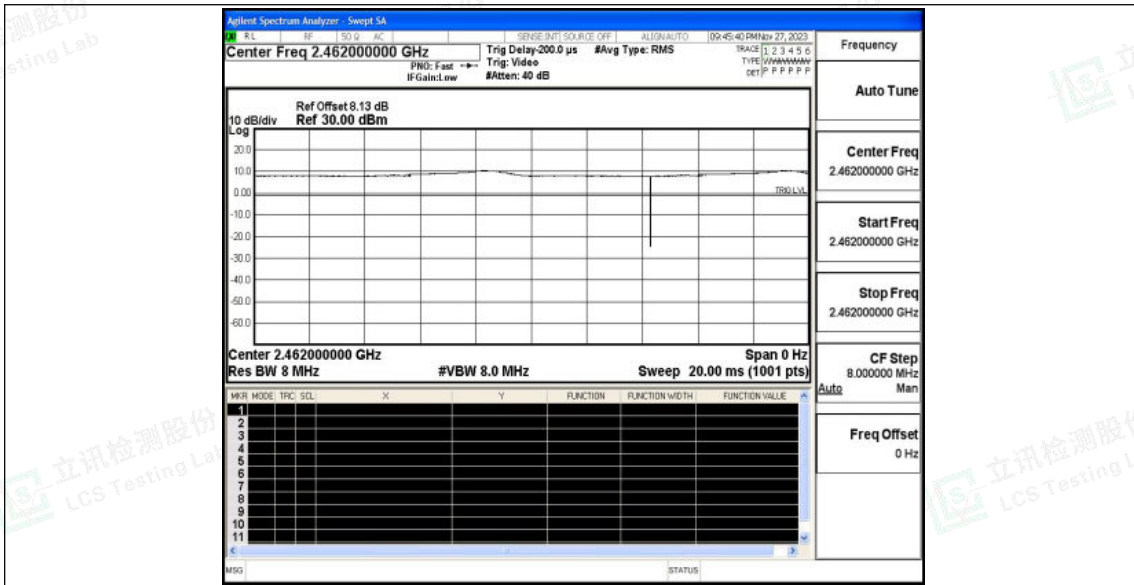


11B_Ant1_2437

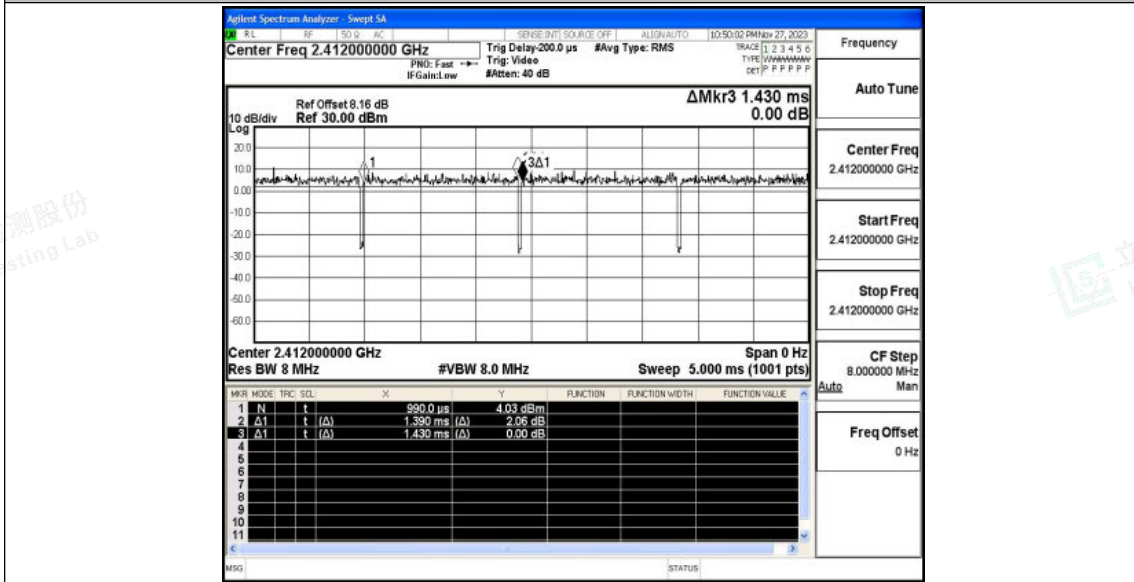


11B_Ant1_2462



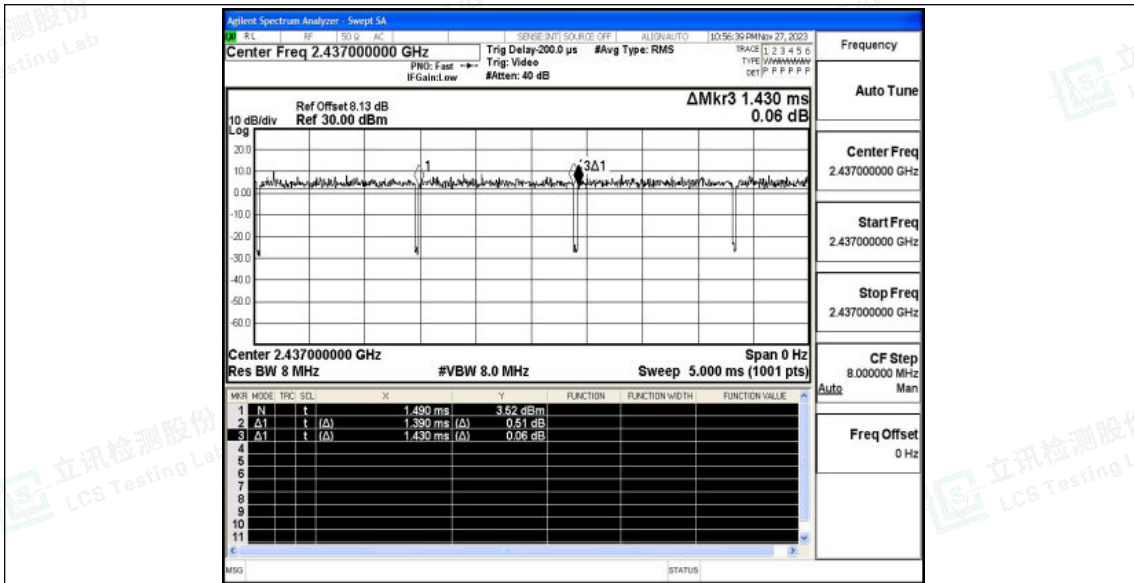


11G_Ant1_2412

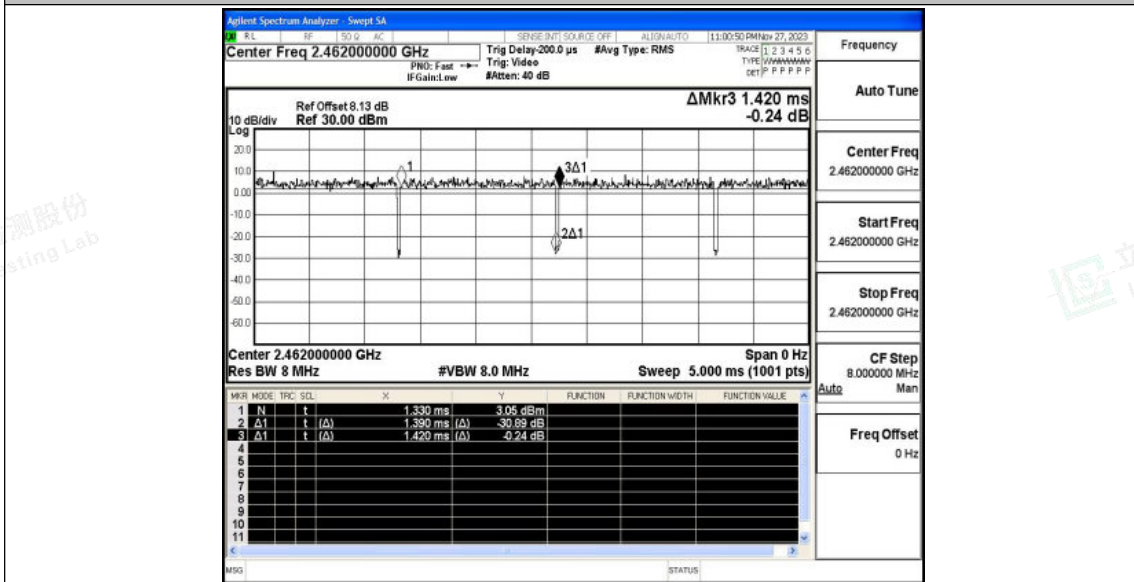


11G_Ant1_2437



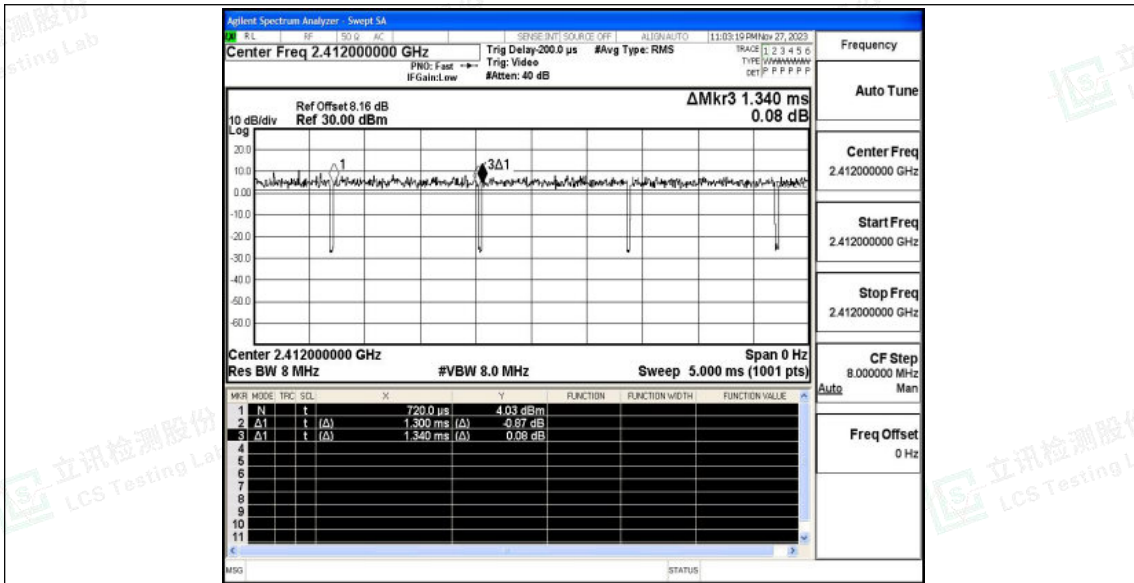


11G_Ant1_2462

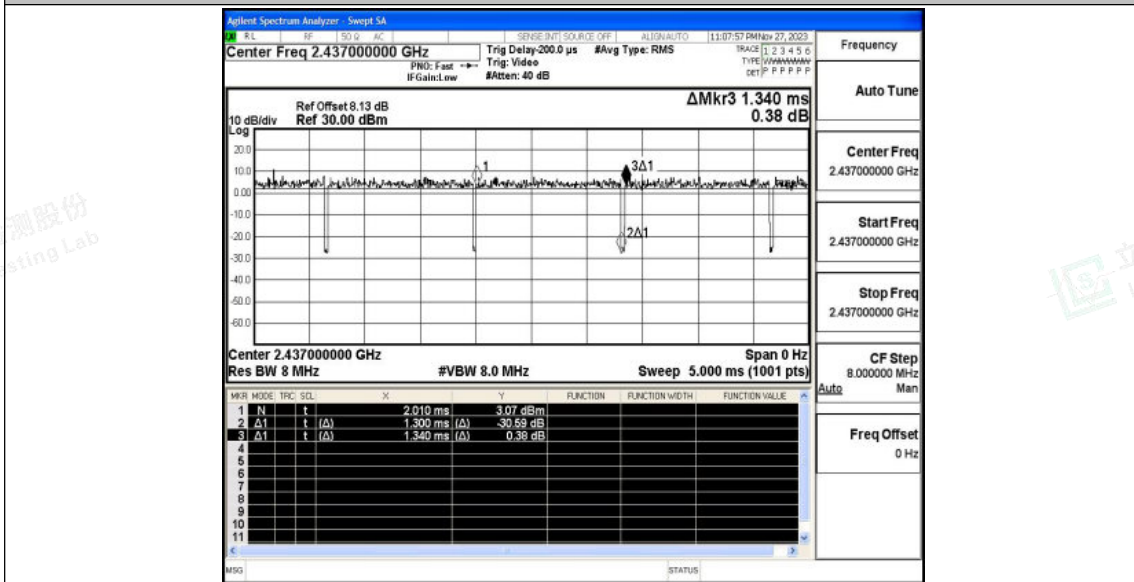


11N20SISO_Ant1_2412



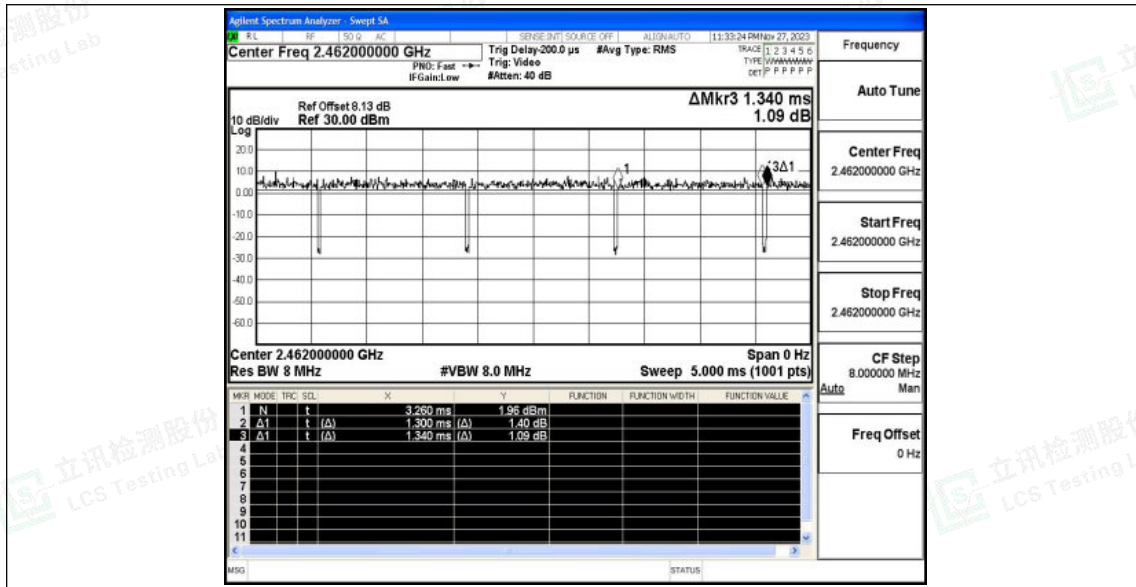


11N20SISO_Ant1_2437



11N20SISO_Ant1_2462







B.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	-49.4	≤-41.20	45.80	≤54	PASS
				AV	2389.960	-48.41	≤-41.20	46.79	≤54	PASS
				AV	2390.000	-48.41	≤-41.20	46.79	≤54	PASS
				Peak	2310.000	-42.18	≤-21.20	53.02	≤74	PASS
				Peak	2389.180	-38.67	≤-21.20	56.53	≤74	PASS
				Peak	2390.000	-40.98	≤-21.20	54.22	≤74	PASS
		High	2462	AV	2483.500	-49.03	≤-41.20	46.17	≤54	PASS
				AV	2499.840	-48.92	≤-41.20	46.28	≤54	PASS
				AV	2500.000	-48.92	≤-41.20	46.28	≤54	PASS
				Peak	2483.500	-42.35	≤-21.20	52.85	≤74	PASS
				Peak	2490.160	-39.42	≤-21.20	55.78	≤74	PASS
				Peak	2500.000	-43.22	≤-21.20	51.98	≤74	PASS
11G	Ant1	Low	2412	AV	2310.000	-48.91	≤-41.20	46.29	≤54	PASS
				AV	2378.520	-48.24	≤-41.20	46.96	≤54	PASS
				AV	2390.000	-48.26	≤-41.20	46.94	≤54	PASS
				Peak	2310.000	-42.08	≤-21.20	53.12	≤74	PASS
				Peak	2333.280	-39.38	≤-21.20	55.82	≤74	PASS
				Peak	2390.000	-43.38	≤-21.20	51.82	≤74	PASS
		High	2462	AV	2483.500	-48.41	≤-41.20	46.79	≤54	PASS
				AV	2487.080	-48.17	≤-41.20	47.03	≤54	PASS
				AV	2500.000	-48.4	≤-41.20	46.80	≤54	PASS
				Peak	2483.500	-43.02	≤-21.20	52.18	≤74	PASS
				Peak	2487.410	-37.81	≤-21.20	57.39	≤74	PASS
				Peak	2500.000	-43.37	≤-21.20	51.83	≤74	PASS
11N20SIS O	Ant1	Low	2412	AV	2310.000	-48.94	≤-41.20	46.26	≤54	PASS
				AV	2389.830	-47.81	≤-41.20	47.39	≤54	PASS
				AV	2390.000	-48.08	≤-41.20	47.12	≤54	PASS
				Peak	2310.000	-39.91	≤-21.20	55.29	≤74	PASS
				Peak	2314.690	-38.83	≤-21.20	56.37	≤74	PASS
				Peak	2390.000	-39.26	≤-21.20	55.94	≤74	PASS
		High	2462	AV	2483.500	-48.32	≤-41.20	46.88	≤54	PASS
				AV	2483.670	-48.18	≤-41.20	47.02	≤54	PASS
				AV	2500.000	-48.43	≤-41.20	46.77	≤54	PASS
				Peak	2483.500	-43.95	≤-21.20	51.25	≤74	PASS
				Peak	2491.480	-39.81	≤-21.20	55.39	≤74	PASS
				Peak	2491.480	-39.81	≤-21.20	55.39	≤74	PASS



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Scan code to check authenticity



				Peak	2500.000	-43.91	≤-21.20	51.29	≤74	PASS
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Note:

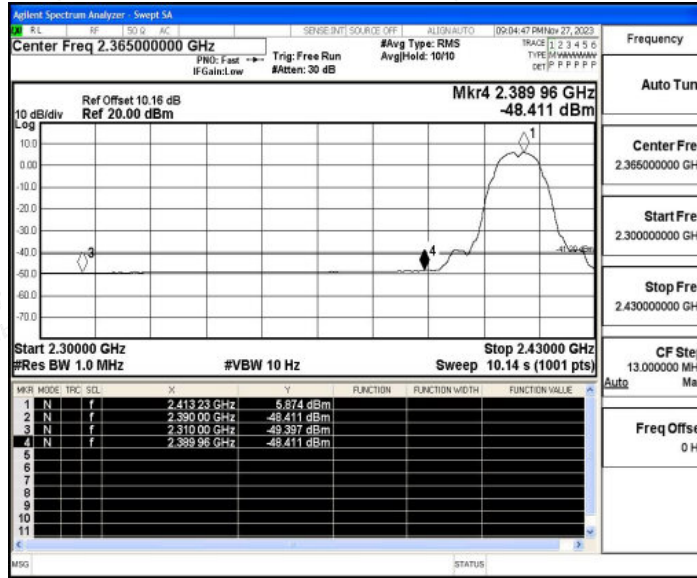
1. The Antenna Gain is compensated in the graph.
2. The limit in dBm for average detector is conversion from 54dBuV/m, according to 15.209(a). The limit in dBm for peak detector is 20dB above the limit of average detector in dBm.



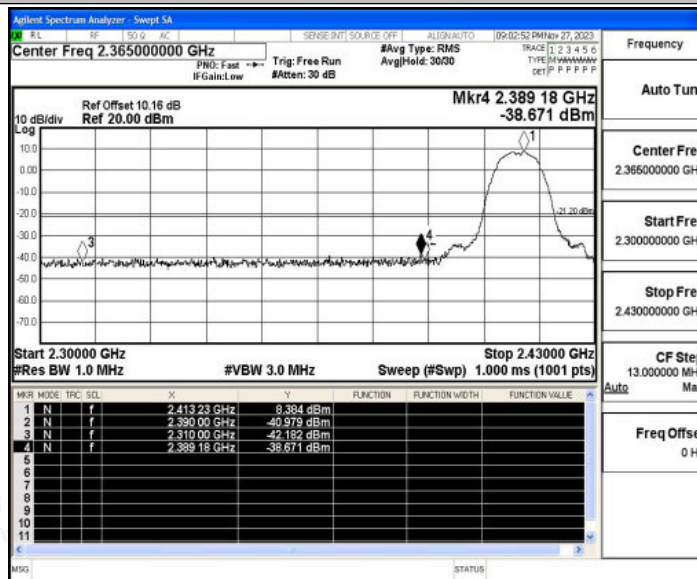


Test Graphs

11B_Ant1_Low_2412_AV

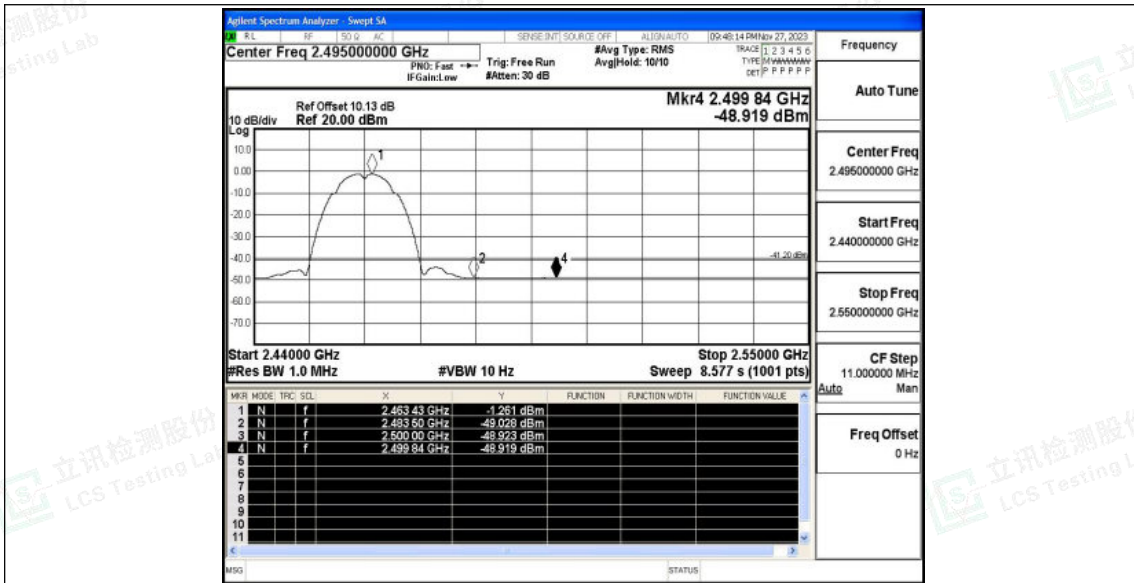


11B_Ant1_Low_2412_Peak

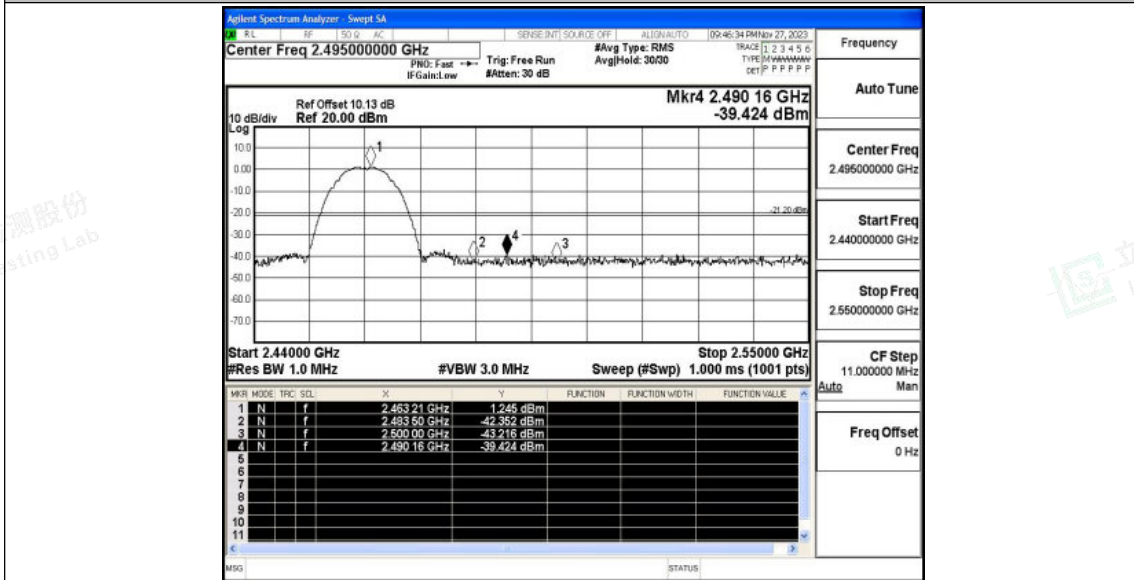


11B_Ant1_High_2462_AV



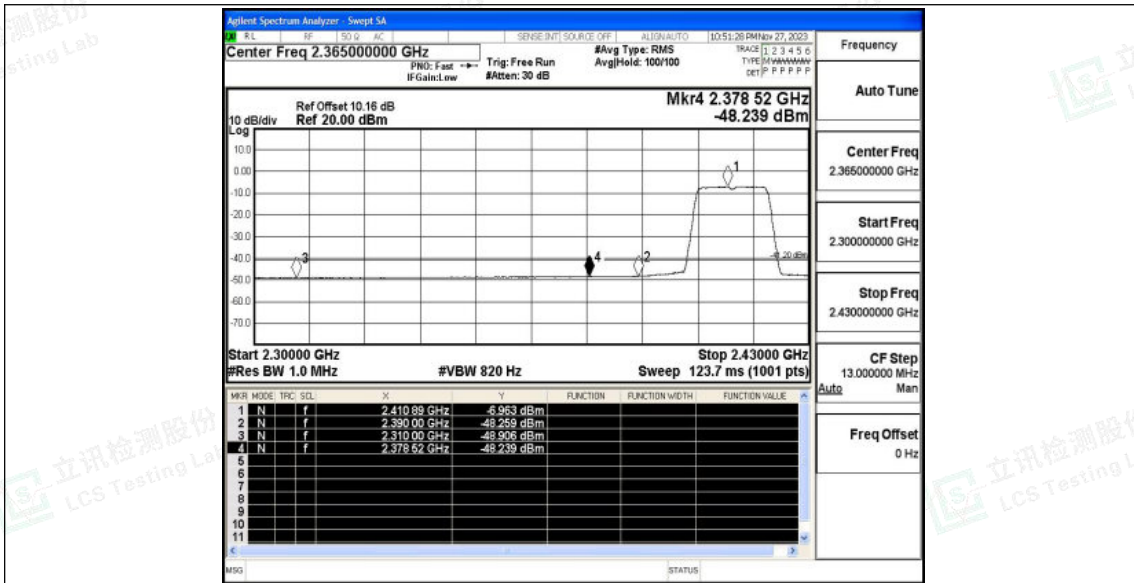


11B_Ant1_High_2462_Peak

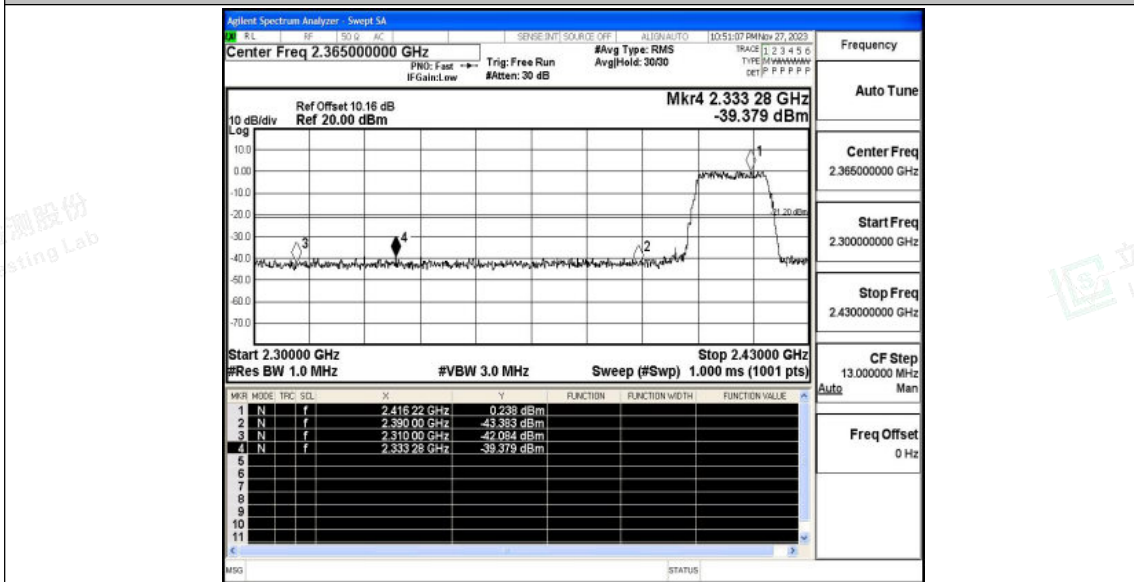


11G_Ant1_Low_2412_AV



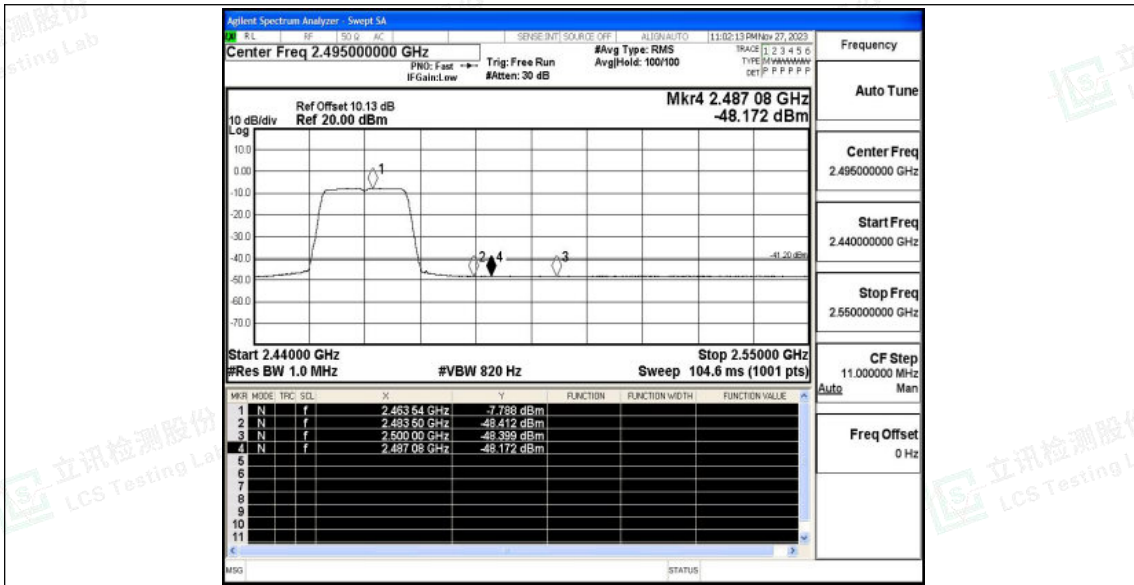


11G_Ant1_Low_2412_Peak

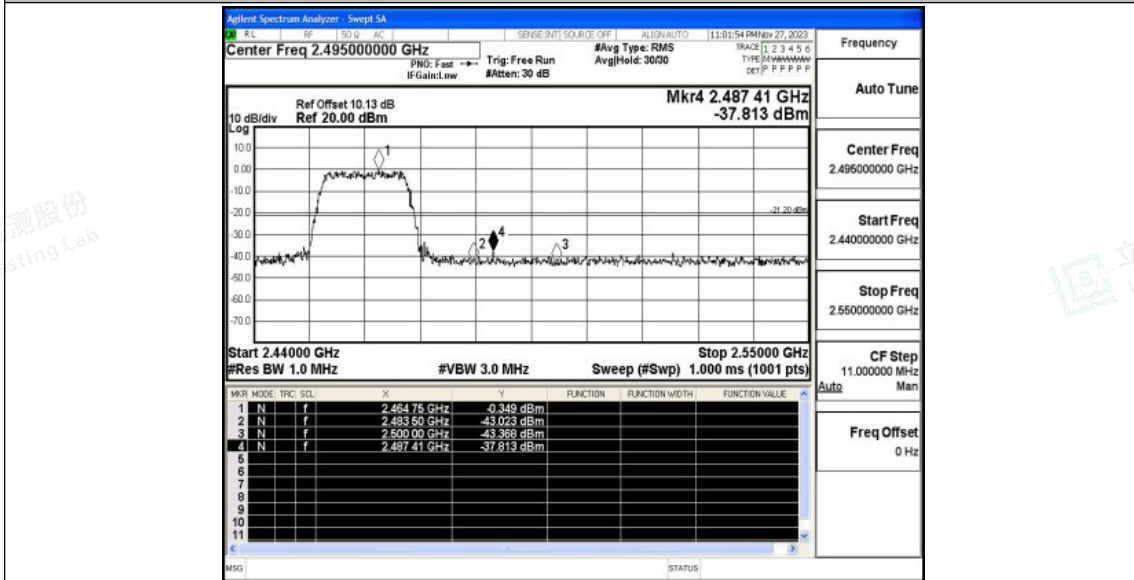


11G_Ant1_High_2462_AV



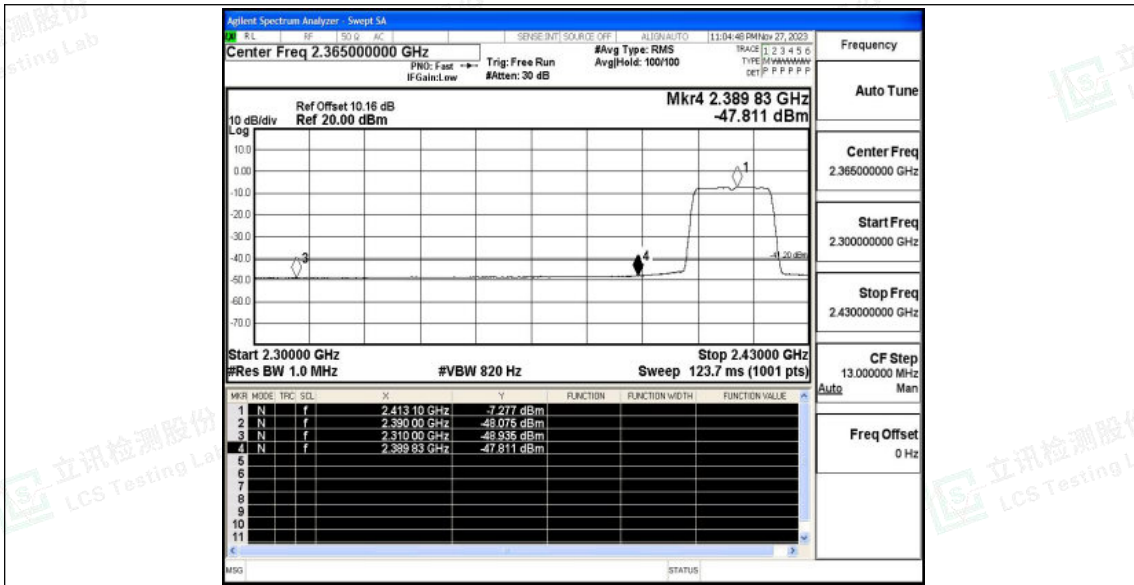


11G_Ant1_High_2462_Peak

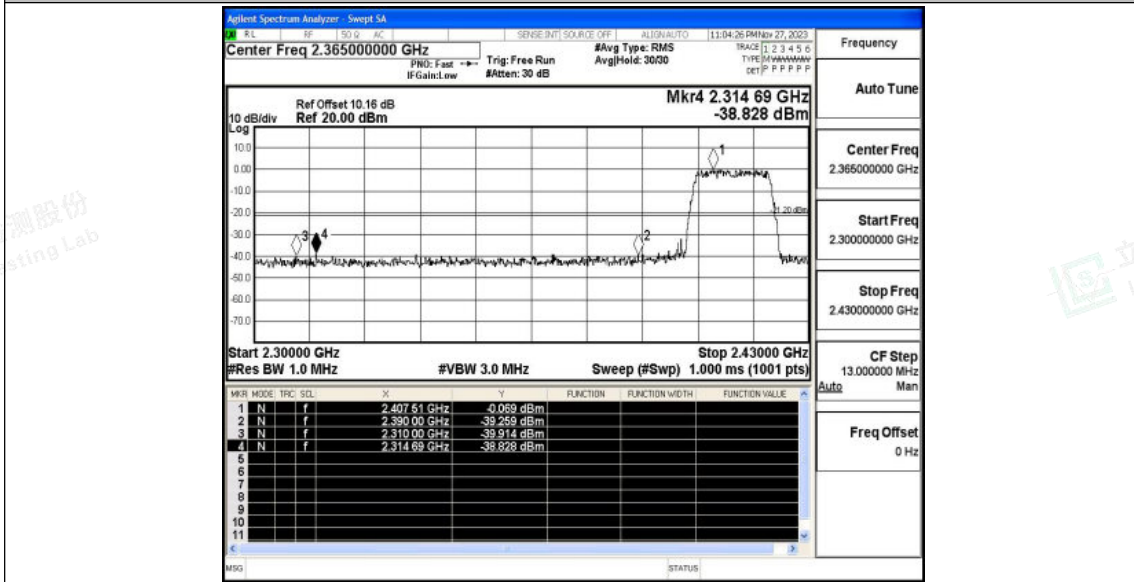


11N20SISO_Ant1_Low_2412_AV



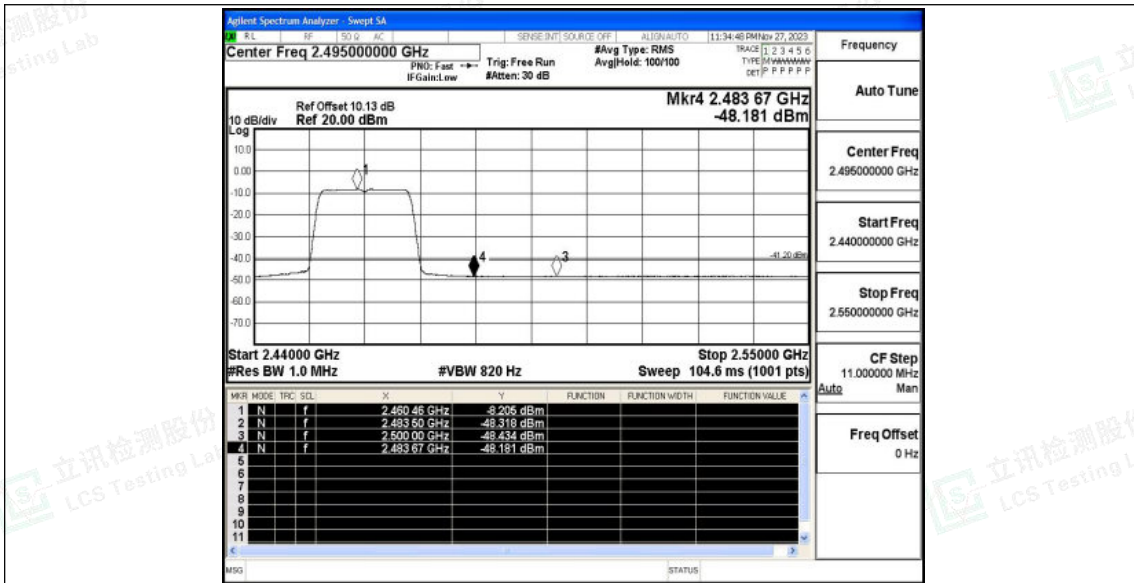


11N20SISO_Ant1_Low_2412_Peak



11N20SISO_Ant1_High_2462_AV





11N20SISO_Ant1_High_2462_Peak

