



Appendix A

RF Test Data for 2.4G WIFI (Conducted Measurement)

Product Name: Dashcam

Test Model: LS07D

Environmental Conditions

Temperature:	23.8 °C
Relative Humidity:	52.1%
ATM Pressure:	100.0 kPa
Test Engineer:	<i>Taylor Hu</i> Taylor Hu
Supervised by:	<i>Li Huan</i> Li Huan





A.1 DTS Bandwidth

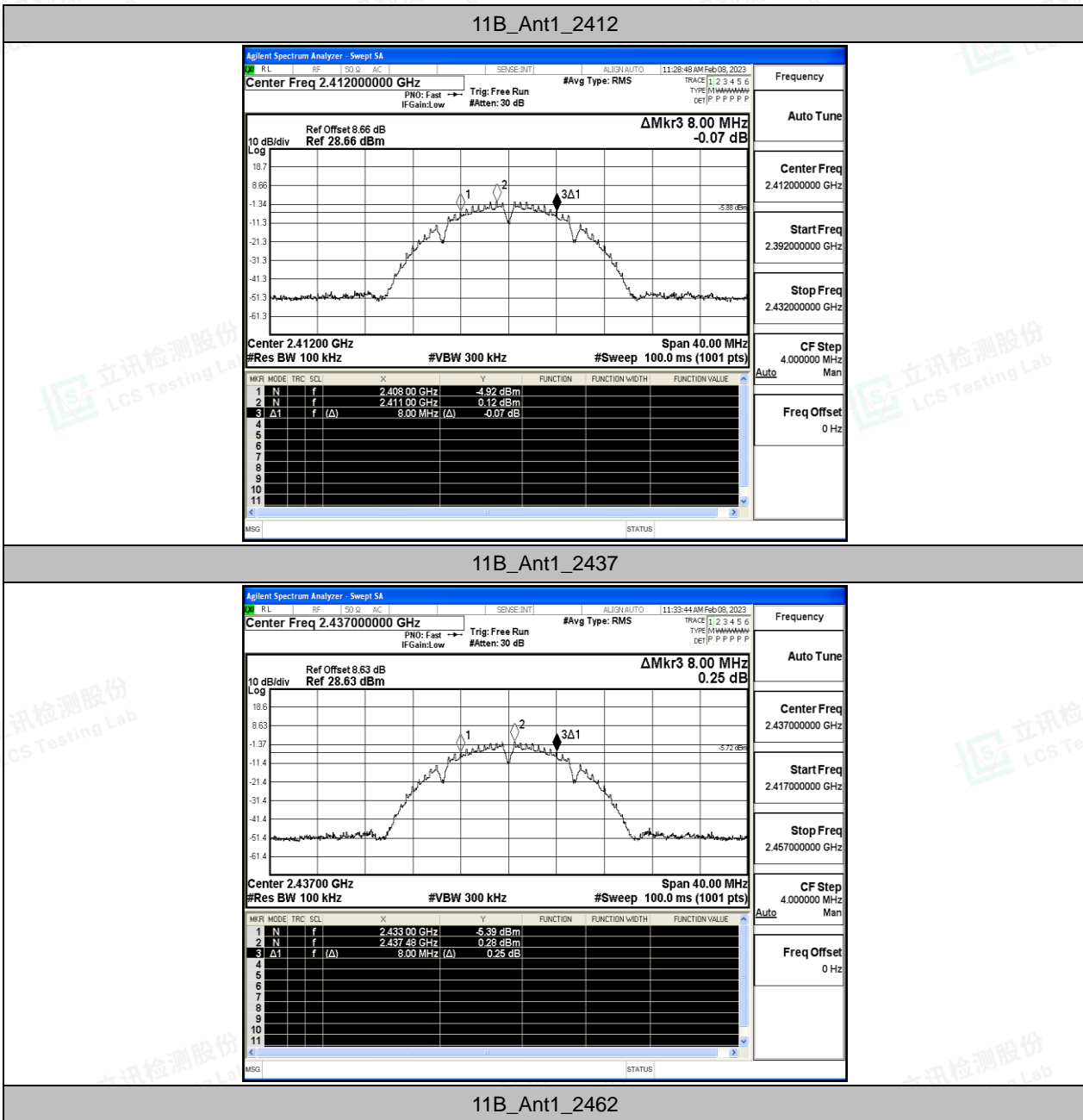
Test Result

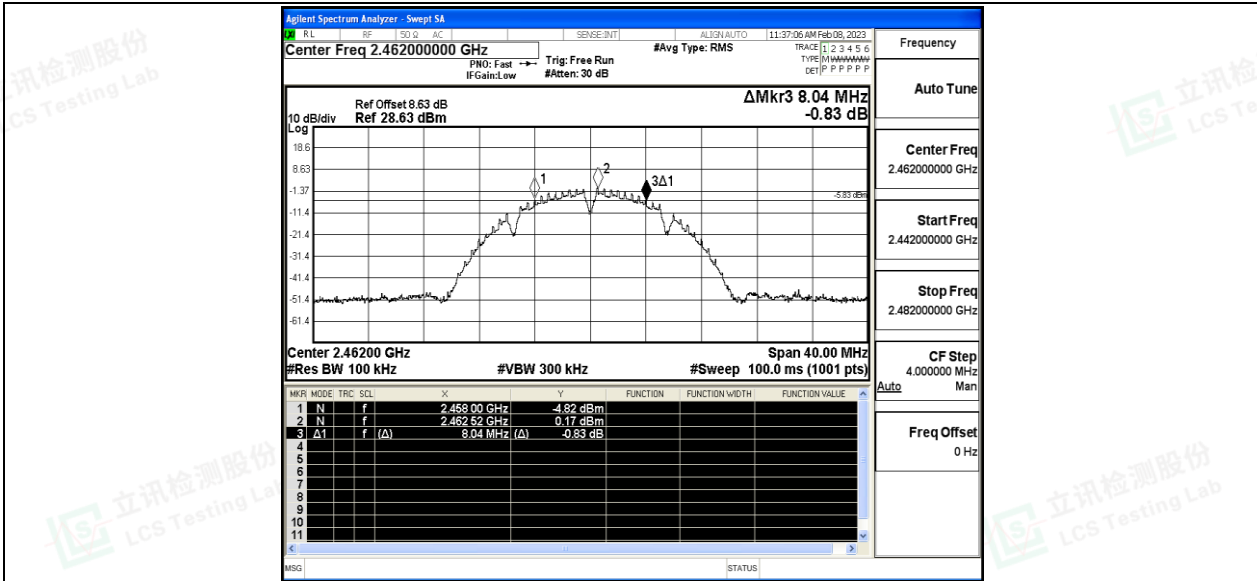
TestMode	Antenna	Freq(MHz)	DTS BW [MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
11B	Ant1	2412	8.000	2408.000	2416.000	0.5	PASS
		2437	8.000	2433.000	2441.000	0.5	PASS
		2462	8.040	2458.000	2466.040	0.5	PASS
11G	Ant1	2412	15.080	2404.480	2419.560	0.5	PASS
		2437	15.080	2429.440	2444.520	0.5	PASS
		2462	15.080	2454.440	2469.520	0.5	PASS
11N20SISO	Ant1	2412	15.080	2404.440	2419.520	0.5	PASS
		2437	15.320	2429.440	2444.760	0.5	PASS
		2462	15.440	2454.440	2469.880	0.5	PASS



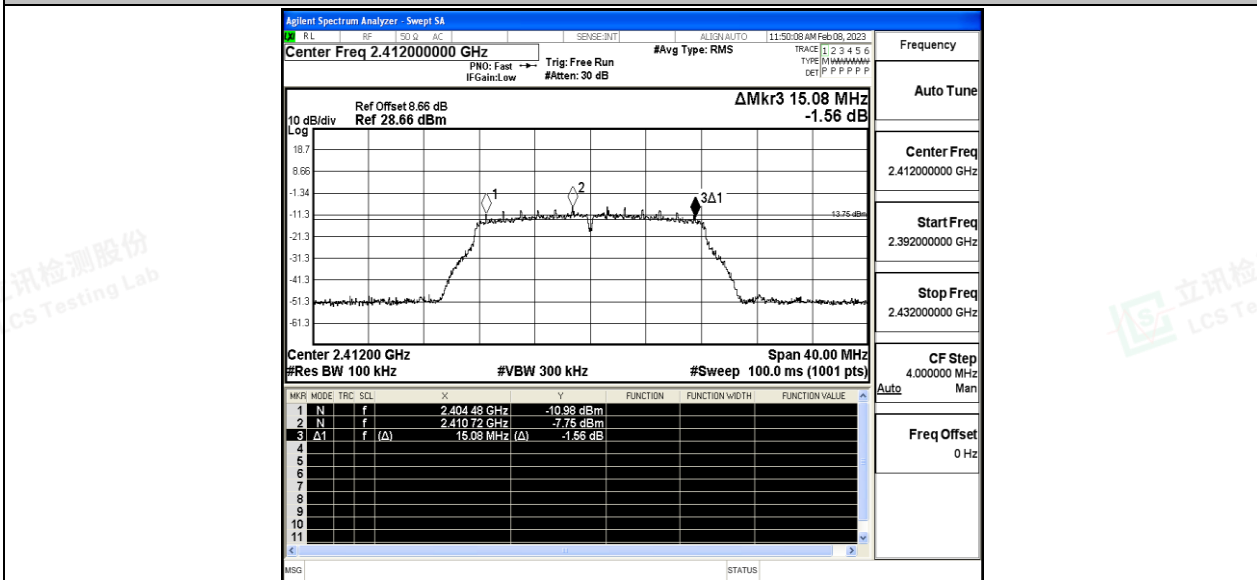


Test Graphs



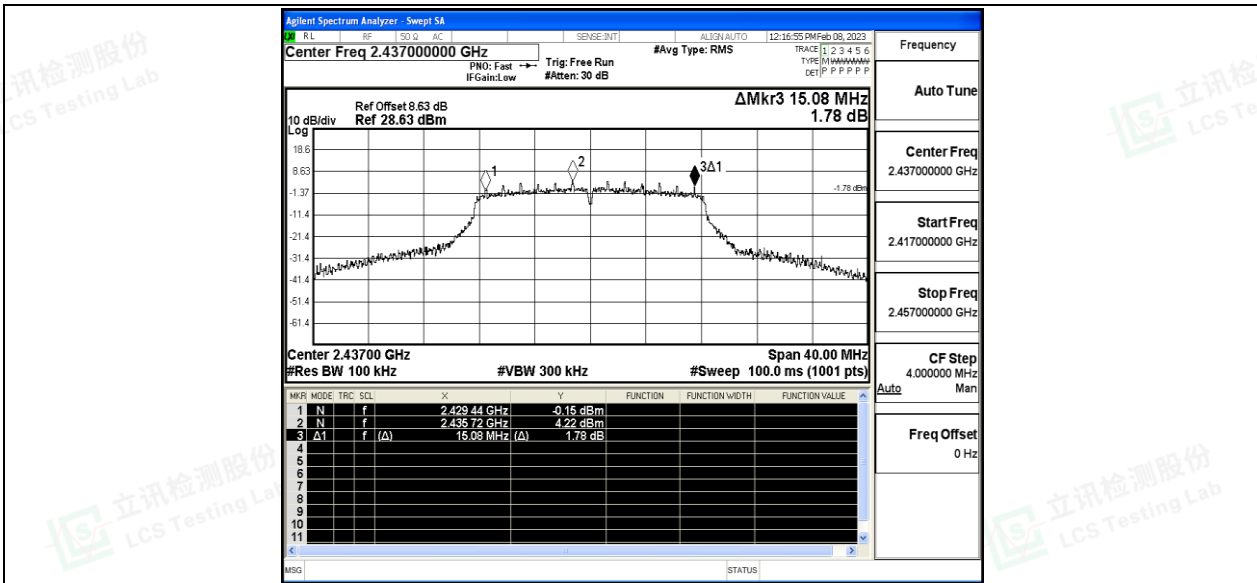


11G_Ant1_2412

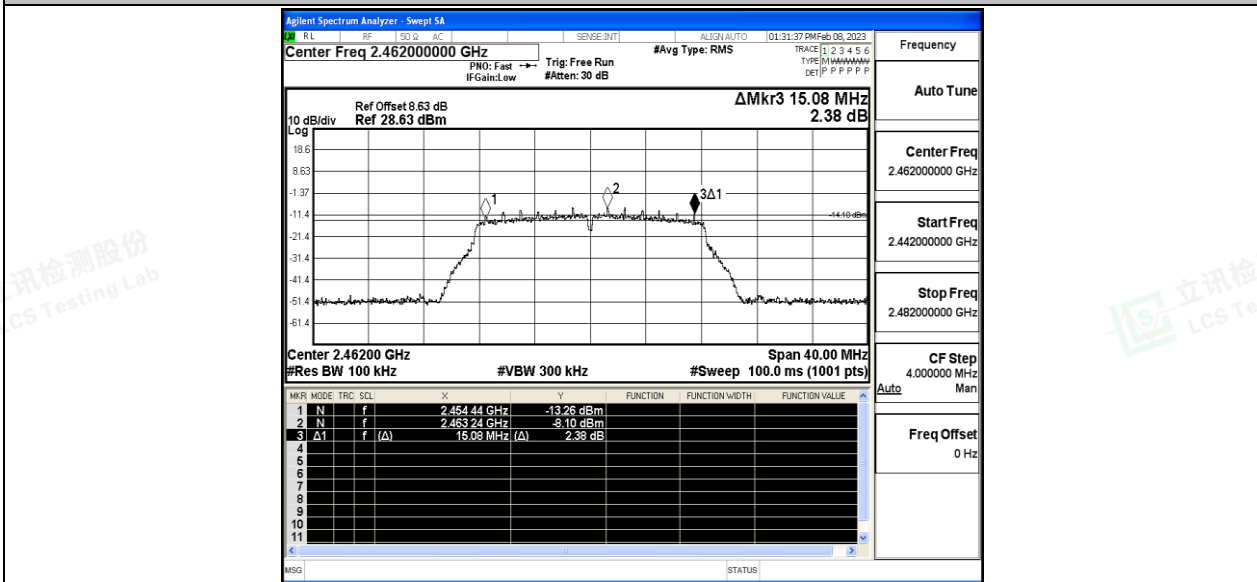


11G_Ant1_2437



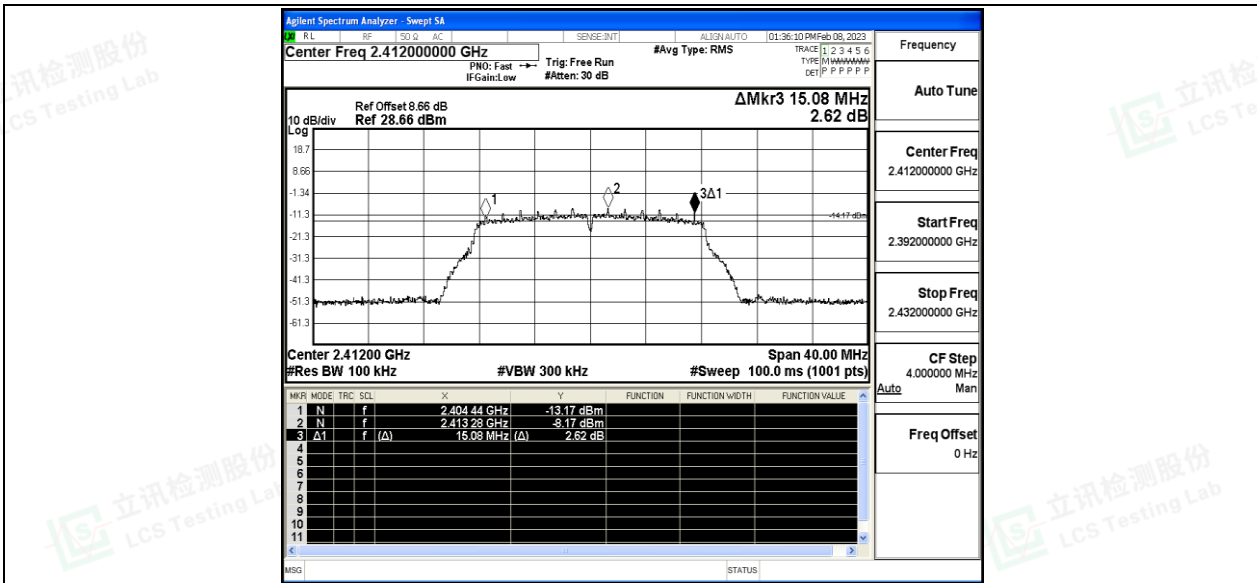


11G_Ant1_2462

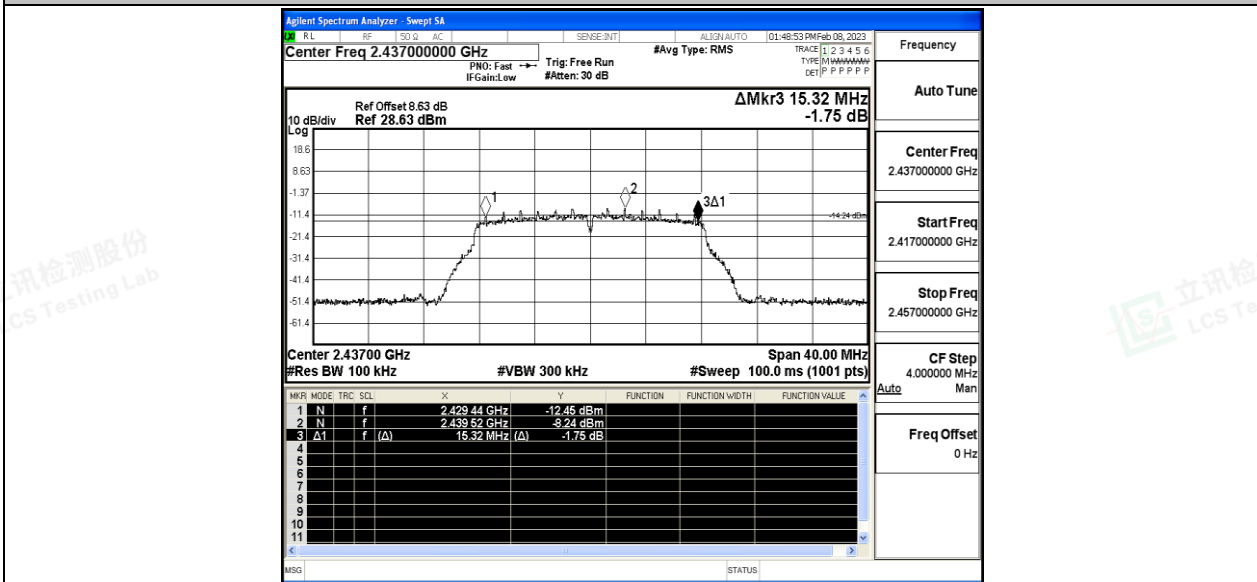


11N20SISO_Ant1_2412



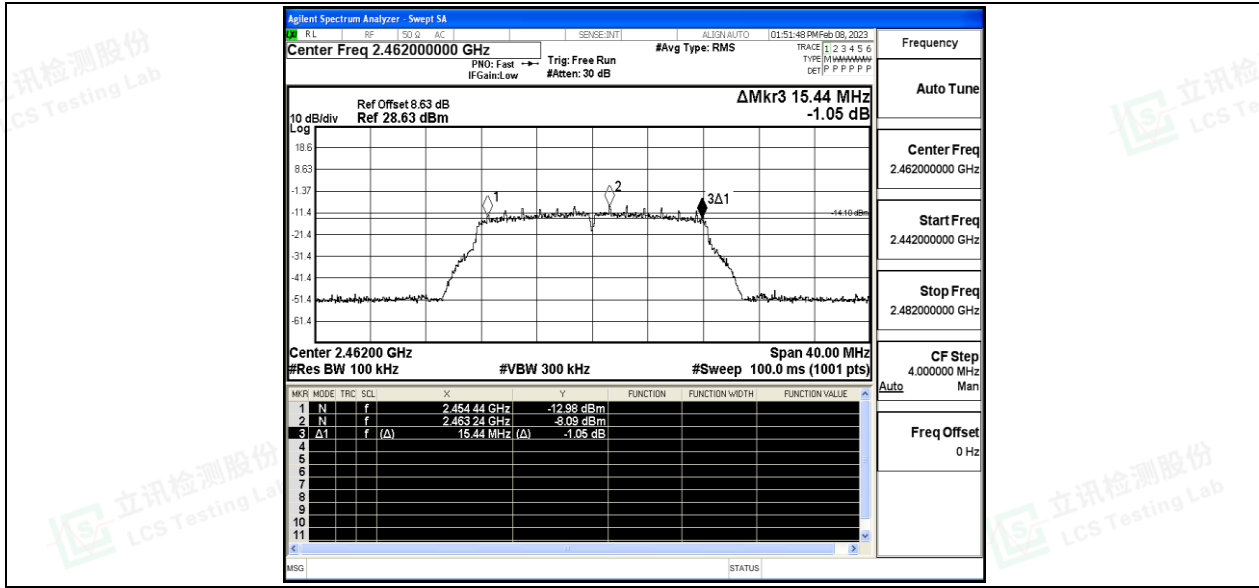


11N20SISO_Ant1_2437



11N20SISO_Ant1_2462







A.2 Maximum conducted output power

Test Result Peak

TestMode	Antenna	Freq(M Hz)	Set Power	Peak Power[dBm]	Conducted Limit[dBm]	Verdict
11B	Ant1	2412	---	11.69	≤30.00	PASS
		2437	---	11.44	≤30.00	PASS
		2462	---	11.49	≤30.00	PASS
11G	Ant1	2412	---	11.01	≤30.00	PASS
		2437	---	10.70	≤30.00	PASS
		2462	---	10.69	≤30.00	PASS
11N20SISO	Ant1	2412	---	10.77	≤30.00	PASS
		2437	---	10.64	≤30.00	PASS
		2462	---	10.66	≤30.00	PASS





A.3 Maximum power spectral density

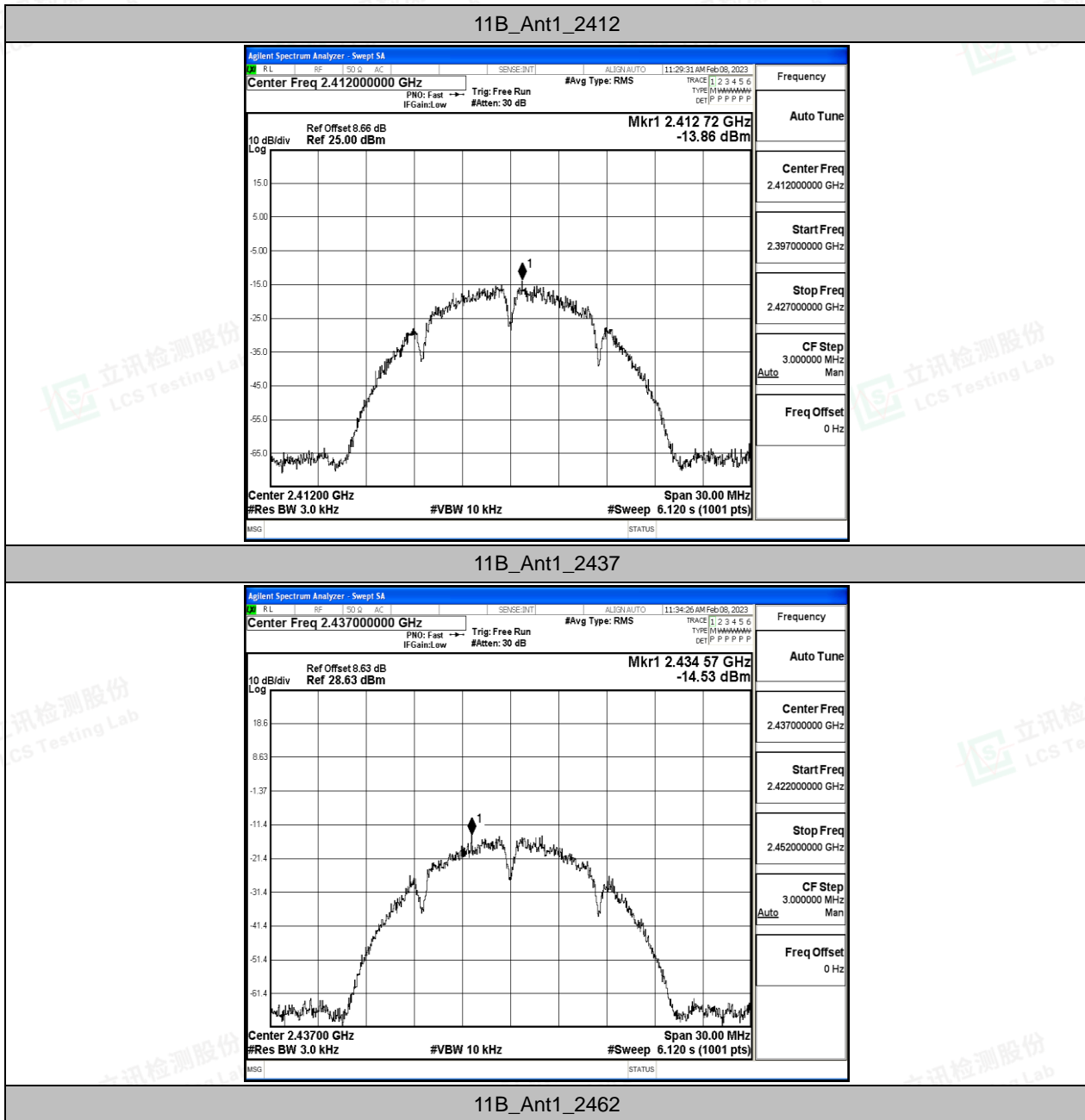
Test Result

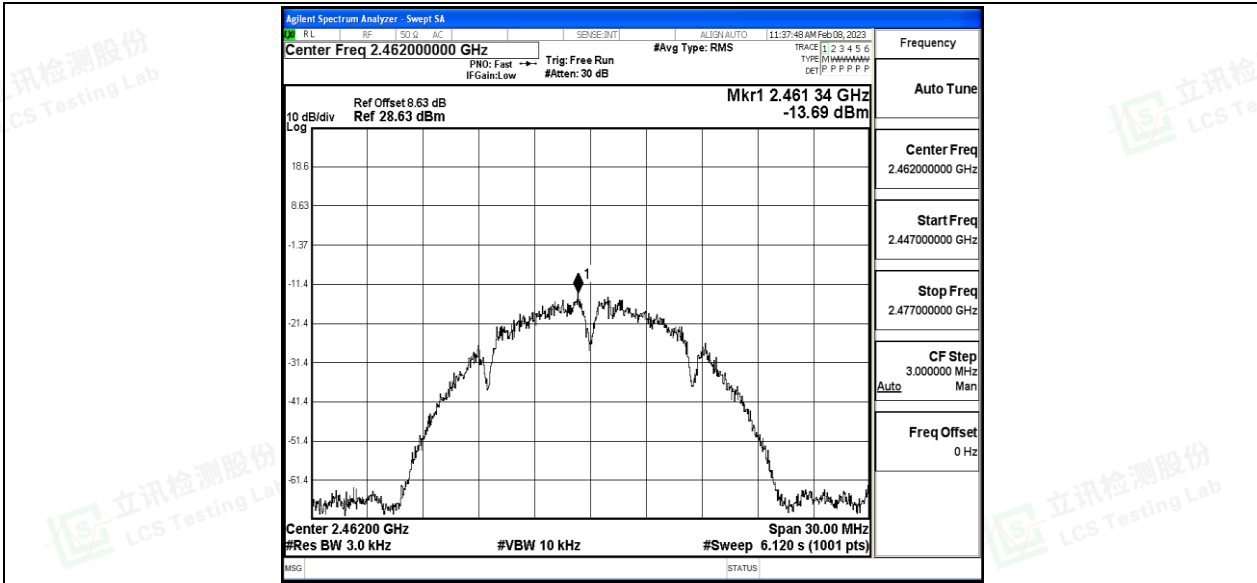
TestMode	Antenna	Freq(MHz)	Result [dBm/3-100kHz]	Limit [dBm/3kHz]	Verdict
11B	Ant1	2412	-13.86	≤8.00	PASS
		2437	-14.53	≤8.00	PASS
		2462	-13.69	≤8.00	PASS
11G	Ant1	2412	-21.64	≤8.00	PASS
		2437	-21.78	≤8.00	PASS
		2462	-22.61	≤8.00	PASS
11N20SISO	Ant1	2412	-22.77	≤8.00	PASS
		2437	-22.63	≤8.00	PASS
		2462	-22.66	≤8.00	PASS



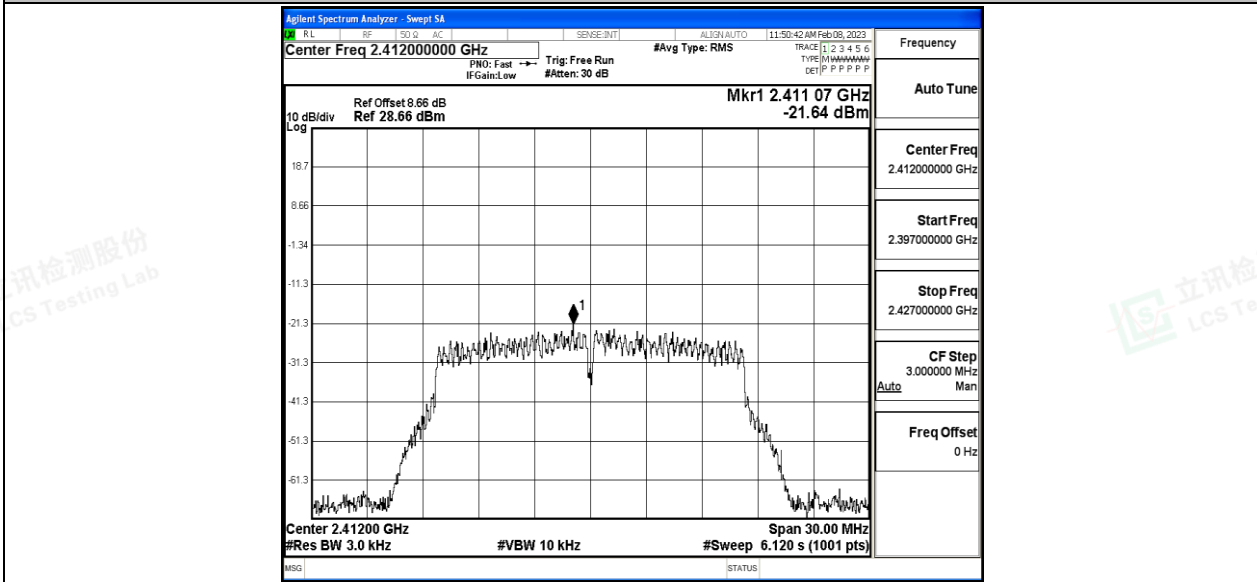


Test Graphs



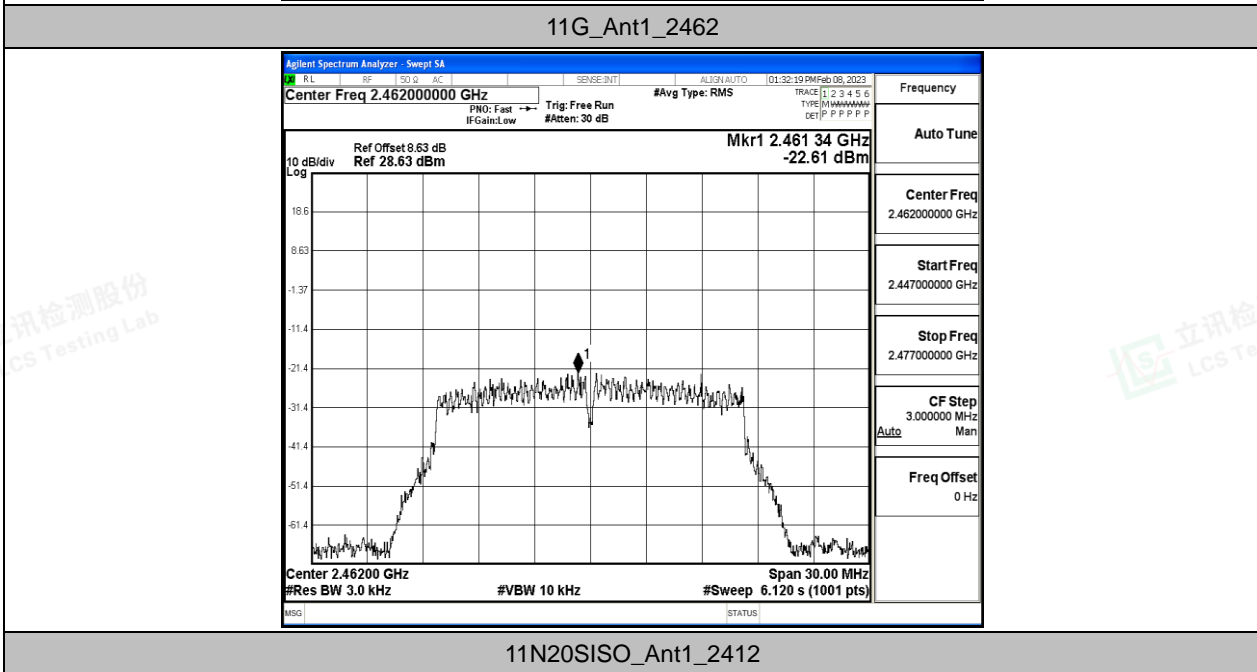
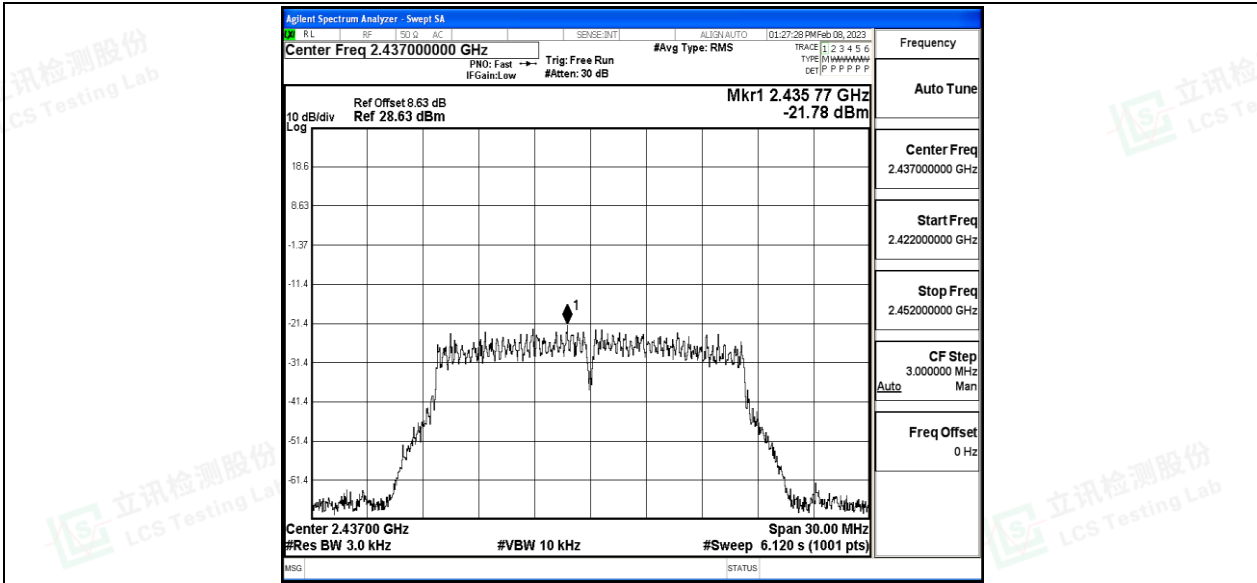


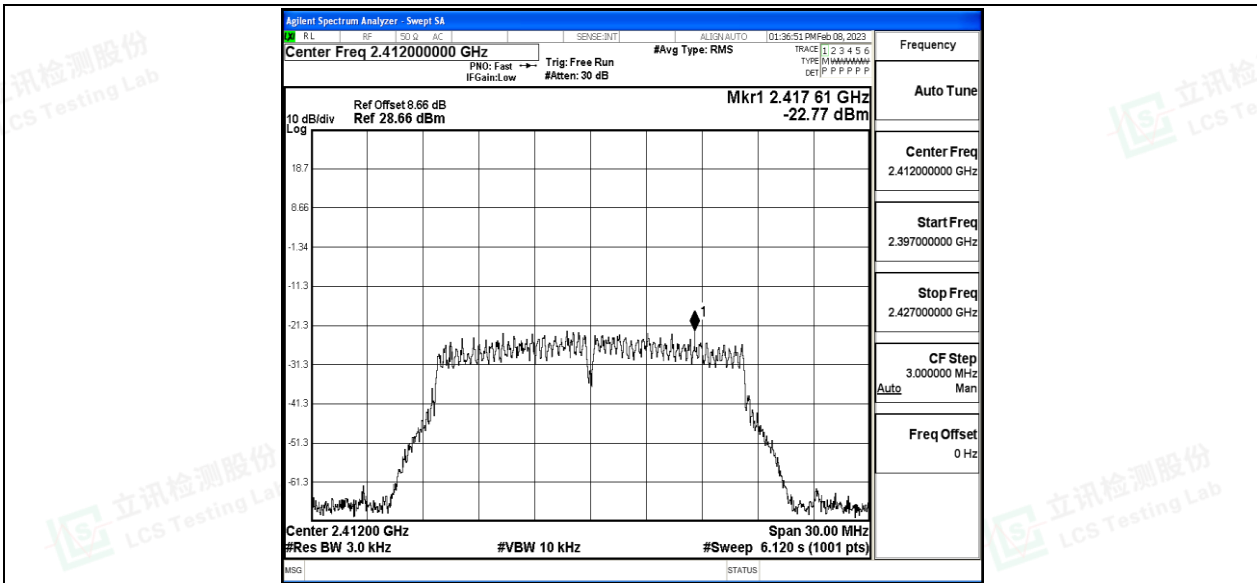
11G_Ant1_2412



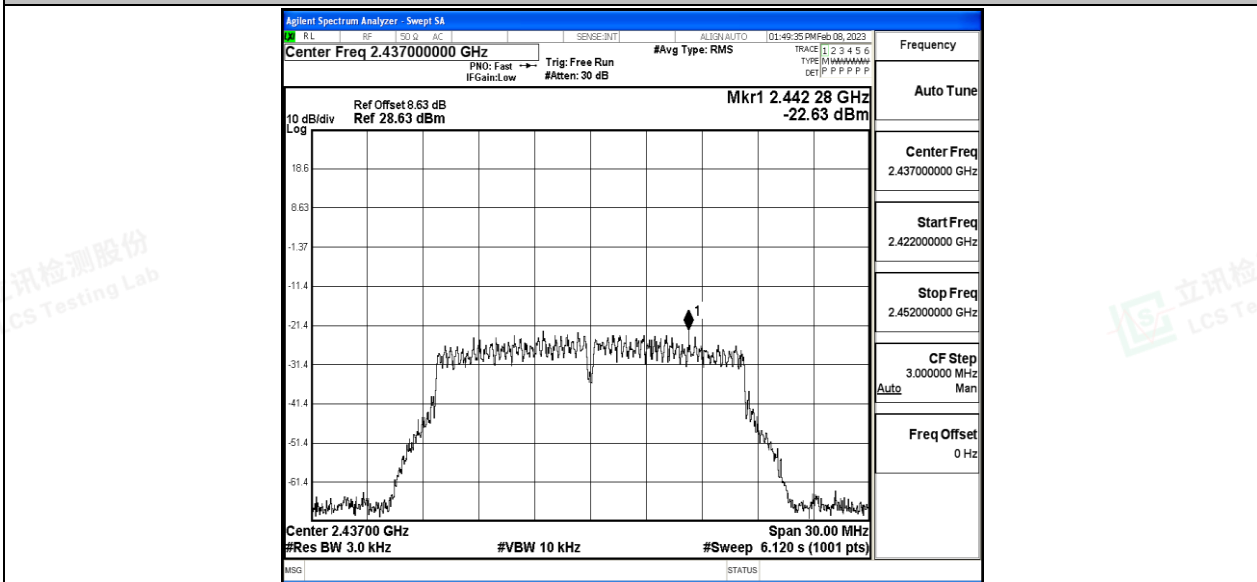
11G_Ant1_2437





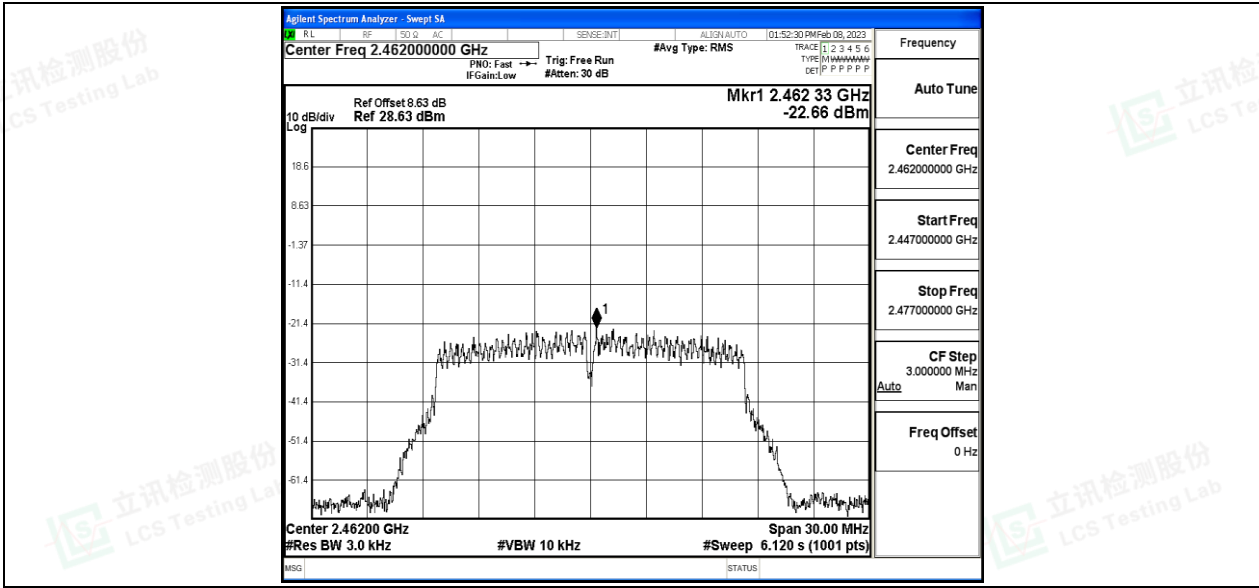


11N20SISO_Ant1_2437



11N20SISO_Ant1_2462







A.4 Band edge measurements

Test Result

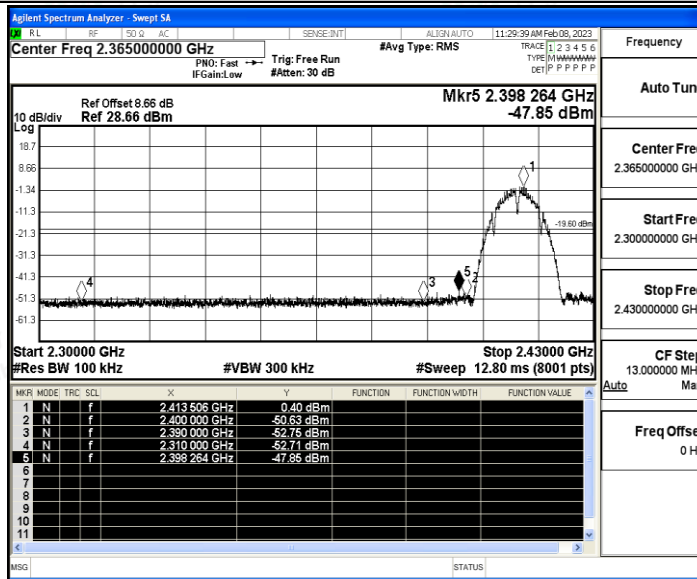
TestMode	Antenna	ChName	Freq(MHz)	RefLevel[dBm]	Result[dBm]	Limit[dBm]	Verdict
11B	Ant1	Low	2412	0.41	-47.85	≤-19.6	PASS
		High	2462	0.05	-48.18	≤-19.95	PASS
11G	Ant1	Low	2412	-8.15	-49.56	≤-28.15	PASS
		High	2462	-8.85	-47.62	≤-28.85	PASS
11N20SISO	Ant1	Low	2412	-7.96	-48.79	≤-27.96	PASS
		High	2462	-8.24	-48.58	≤-28.24	PASS



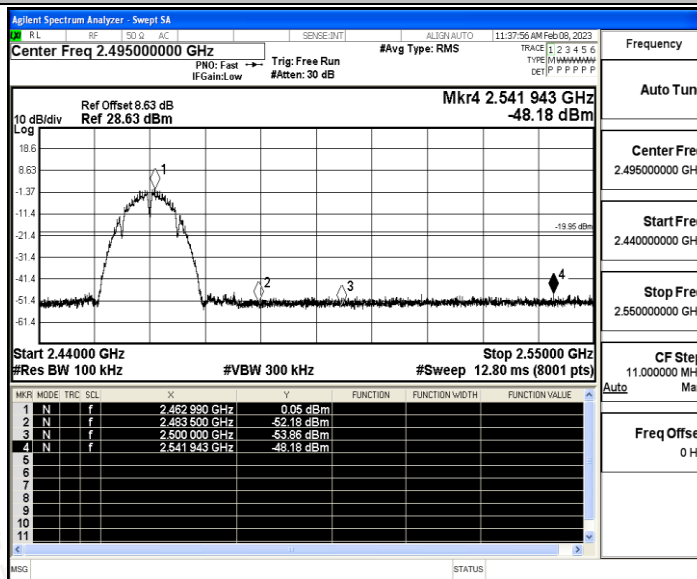


Test Graphs

11B_Ant1_Low_2412

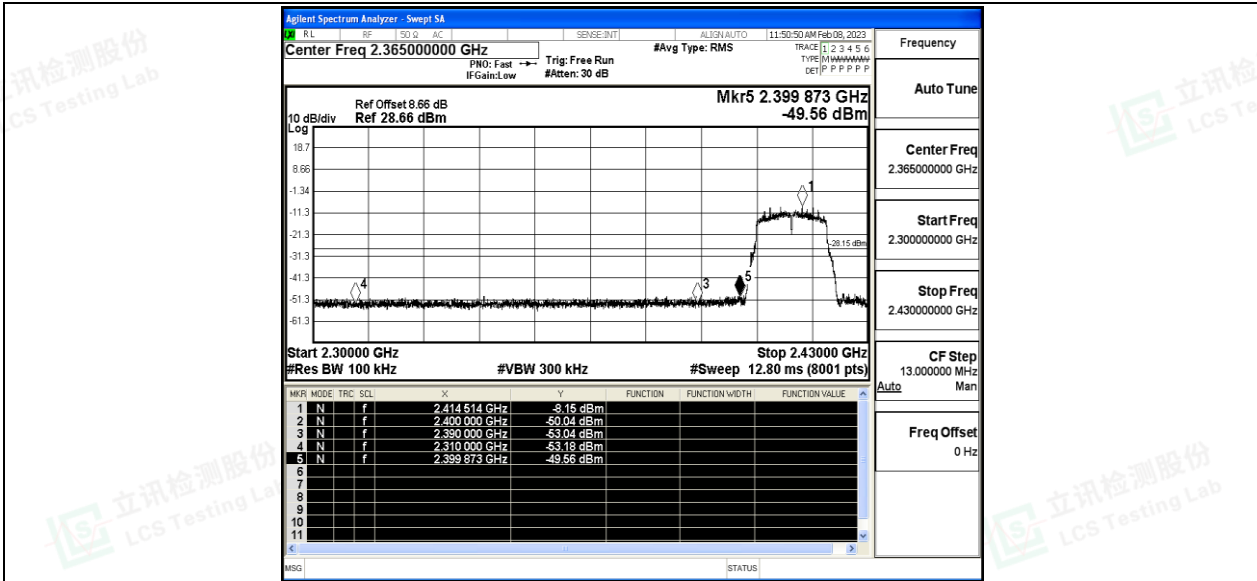


11B_Ant1_High_2462

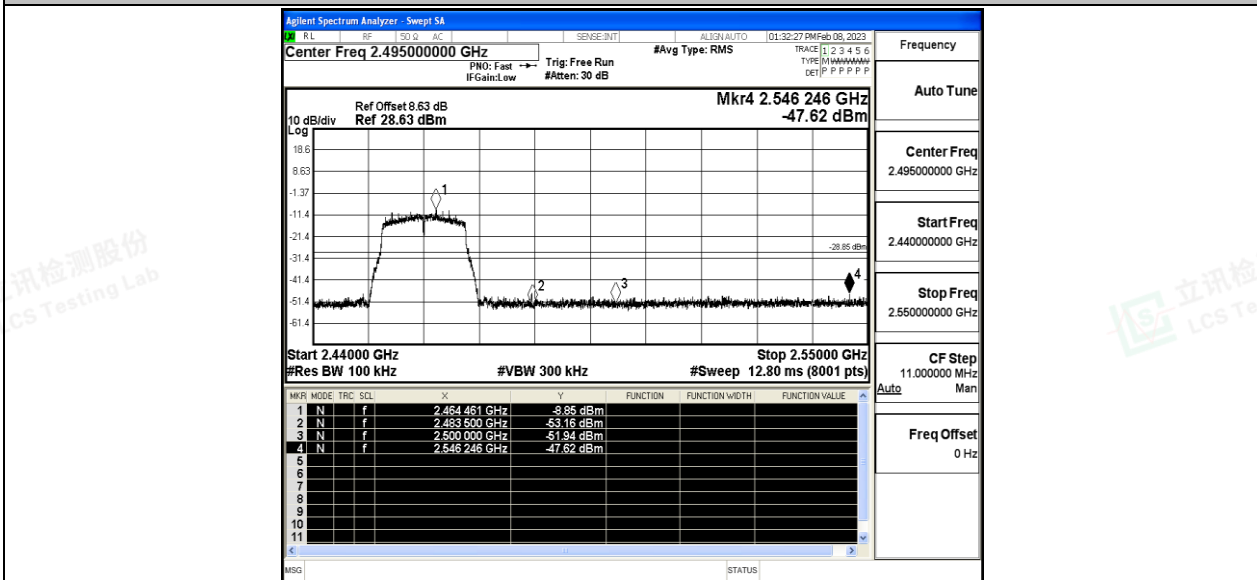


11G_Ant1_Low_2412



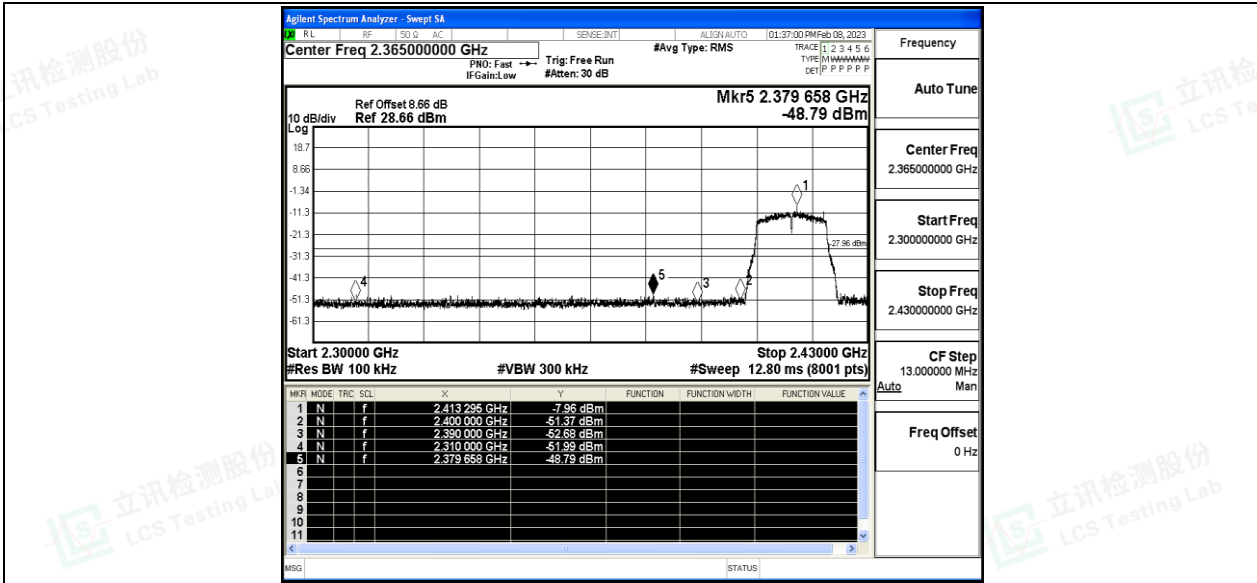


11G_Ant1_High_2462

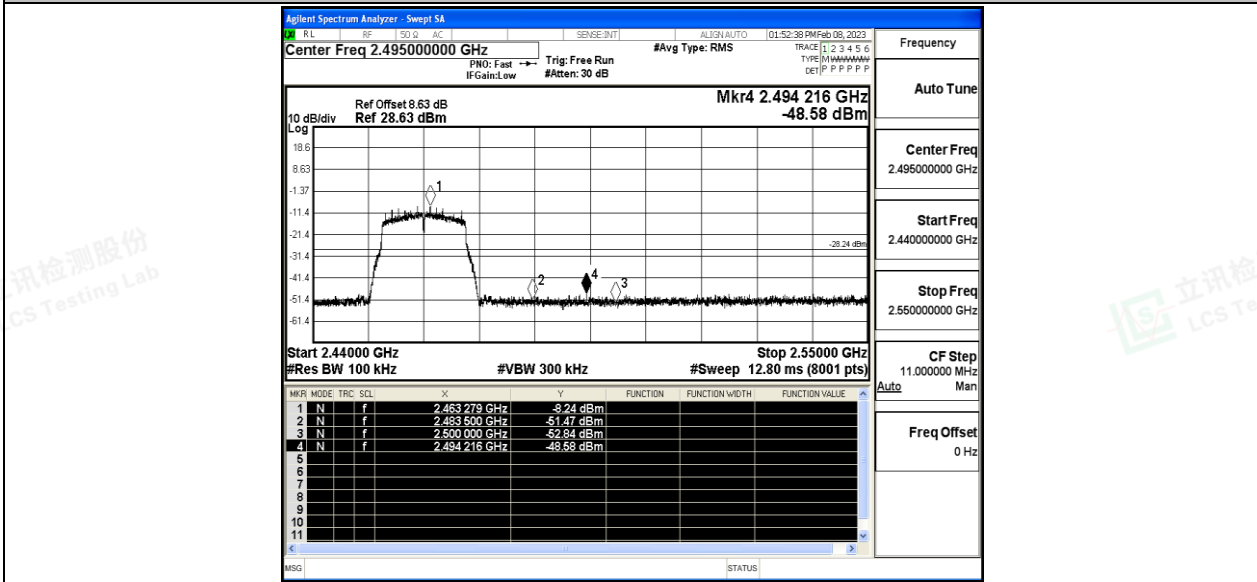


11N20SISO_Ant1_Low_2412





11N20SISO_Ant1_High_2462





A.5 Conducted Spurious Emission

Test Result

TestMode	Antenna	Freq(MHz)	FreqRange [Mhz]	RefLevel [dBm]	Result [dBm]	Limit [dBm]	Verdict
11B	Ant1	2412	Reference	-1.07	-1.07	---	PASS
			30~1000	-1.07	-61.1	≤-21.07	PASS
			1000~26500	-1.07	-46.21	≤-21.07	PASS
		2437	Reference	-1.41	-1.41	---	PASS
			30~1000	-1.41	-60.63	≤-21.41	PASS
			1000~26500	-1.41	-46.29	≤-21.41	PASS
		2462	Reference	-1.38	-1.38	---	PASS
			30~1000	-1.38	-61.07	≤-21.38	PASS
			1000~26500	-1.38	-46.55	≤-21.38	PASS
11G	Ant1	2412	Reference	-10.84	-10.84	---	PASS
			30~1000	-10.84	-60.63	≤-30.84	PASS
			1000~26500	-10.84	-46.42	≤-30.84	PASS
		2437	Reference	-9.09	-9.09	---	PASS
			30~1000	-9.09	-60.54	≤-29.09	PASS
			1000~26500	-9.09	-45.69	≤-29.09	PASS
		2462	Reference	-11.48	-11.48	---	PASS
			30~1000	-11.48	-60.62	≤-31.48	PASS
			1000~26500	-11.48	-45.78	≤-31.48	PASS
11N20SISO	Ant1	2412	Reference	-10.30	-10.30	---	PASS
			30~1000	-10.30	-60.35	≤-30.3	PASS
			1000~26500	-10.30	-45.29	≤-30.3	PASS
		2437	Reference	-8.87	-8.87	---	PASS
			30~1000	-8.87	-50.09	≤-28.87	PASS
			1000~26500	-8.87	-45.87	≤-28.87	PASS
		2462	Reference	-9.44	-9.44	---	PASS
			30~1000	-9.44	-60.24	≤-29.44	PASS
			1000~26500	-9.44	-46.32	≤-29.44	PASS



Shenzhen LCS Compliance Testing Laboratory Ltd.

Add: 101, 201 Bldg A & 301 Bldg C, Juji Industrial Park Yabianxueziwei, Shajing Street, Baoan District, Shenzhen, 518000, China

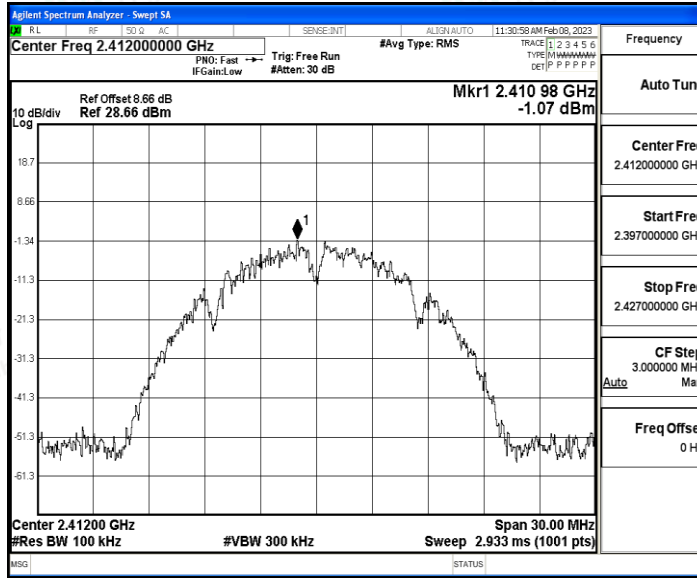
Tel: +(86) 0755-82591330 | E-mail: webmaster@lcs-cert.com | Web: www.lcs-cert.com

Scan code to check authenticity

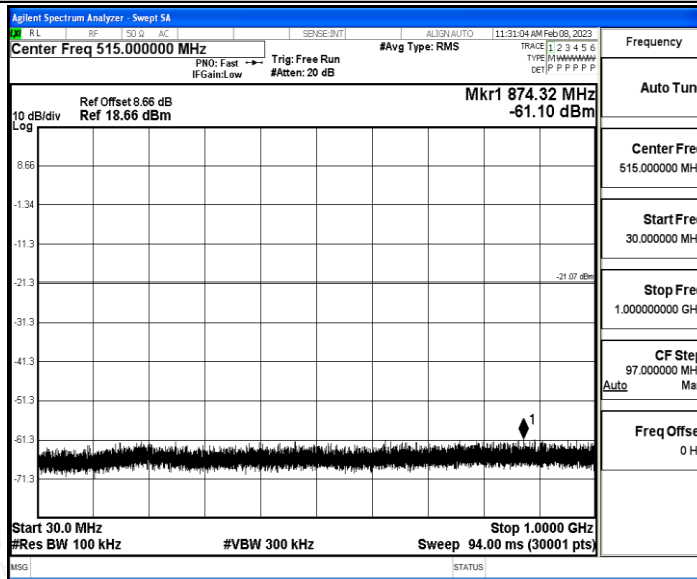


Test Graphs

11B_Ant1_2412_0-Reference

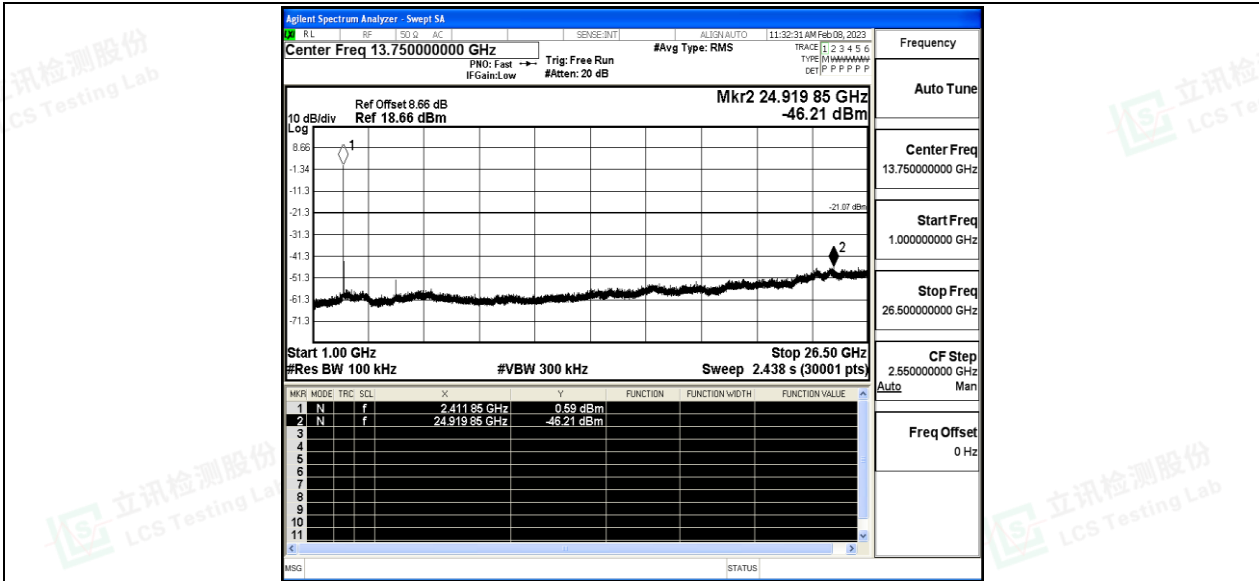


11B_Ant1_2412_30~1000

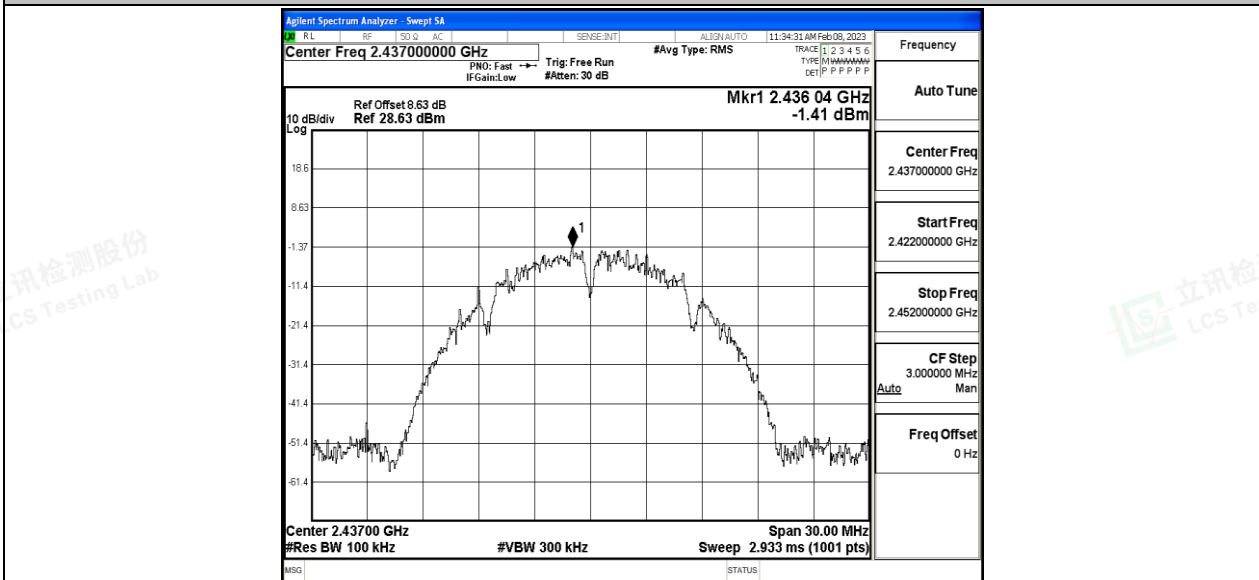


11B_Ant1_2412_1000~26500





11B_Ant1_2437_0-Reference



11B_Ant1_2437_30~1000

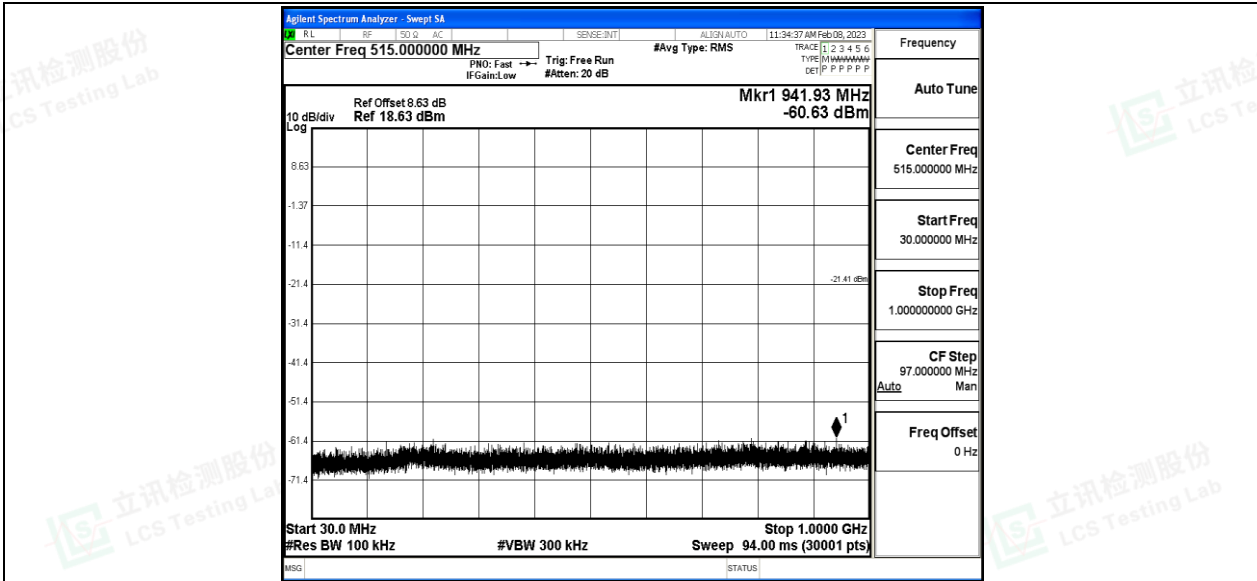


Shenzhen LCS Compliance Testing Laboratory Ltd.

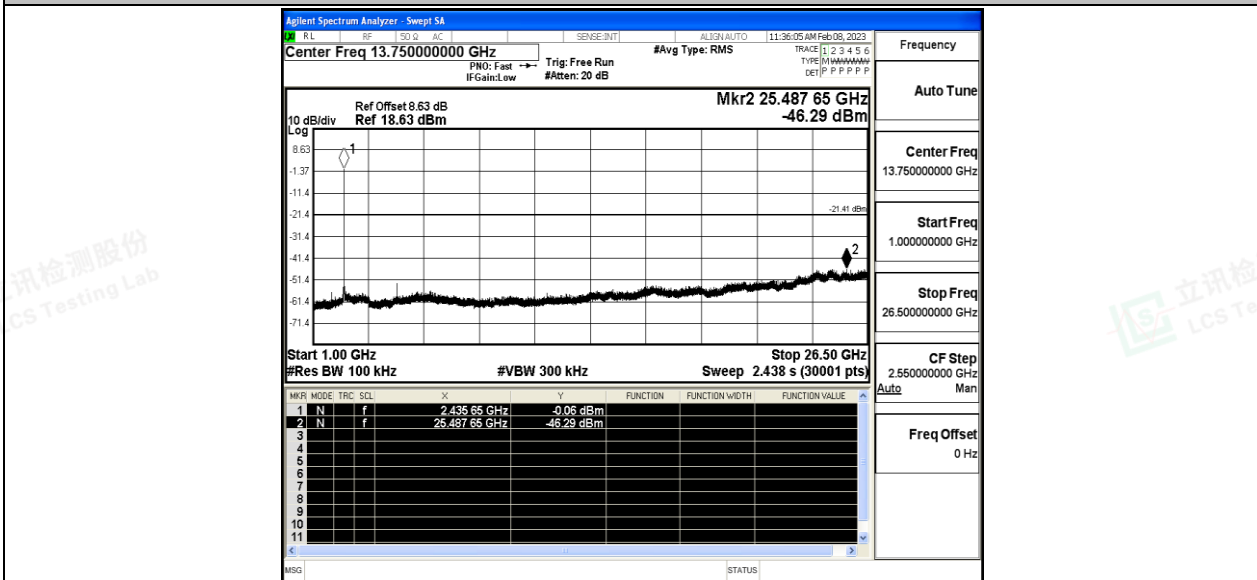
Add: 101, 201 Bldg A & 301 Bldg C, Juji Industrial Park Yabianxueziwei, Shajing Street, Baoan District, Shenzhen, 518000, China

Tel: +(86) 0755-82591330 | E-mail: webmaster@lcs-cert.com | Web: www.lcs-cert.com

Scan code to check authenticity

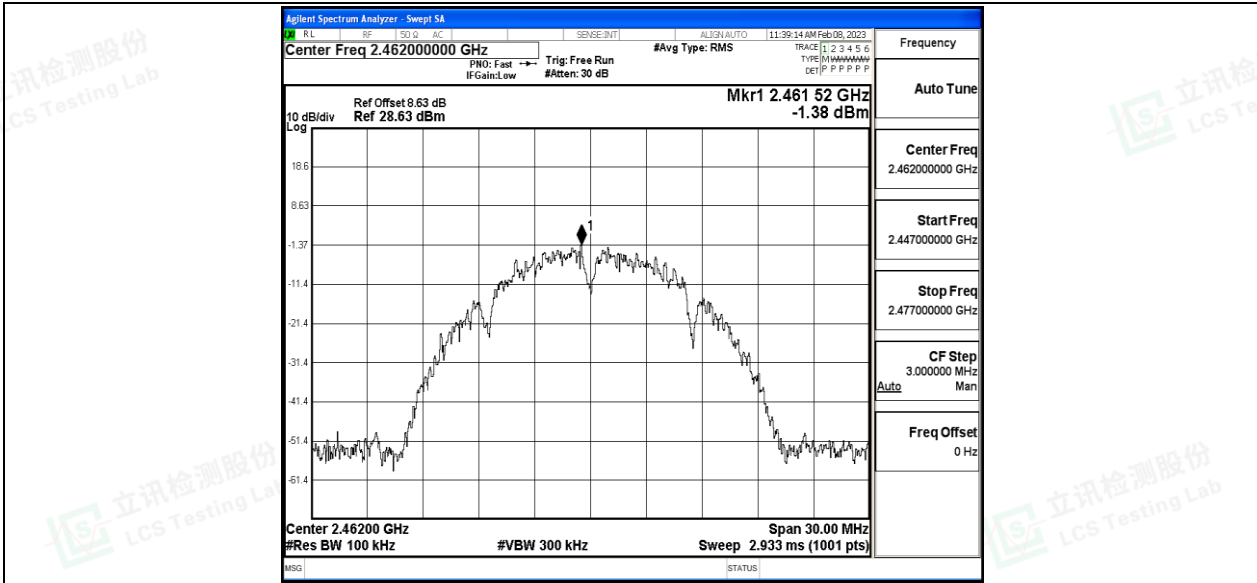


11B_Ant1_2437_1000~26500

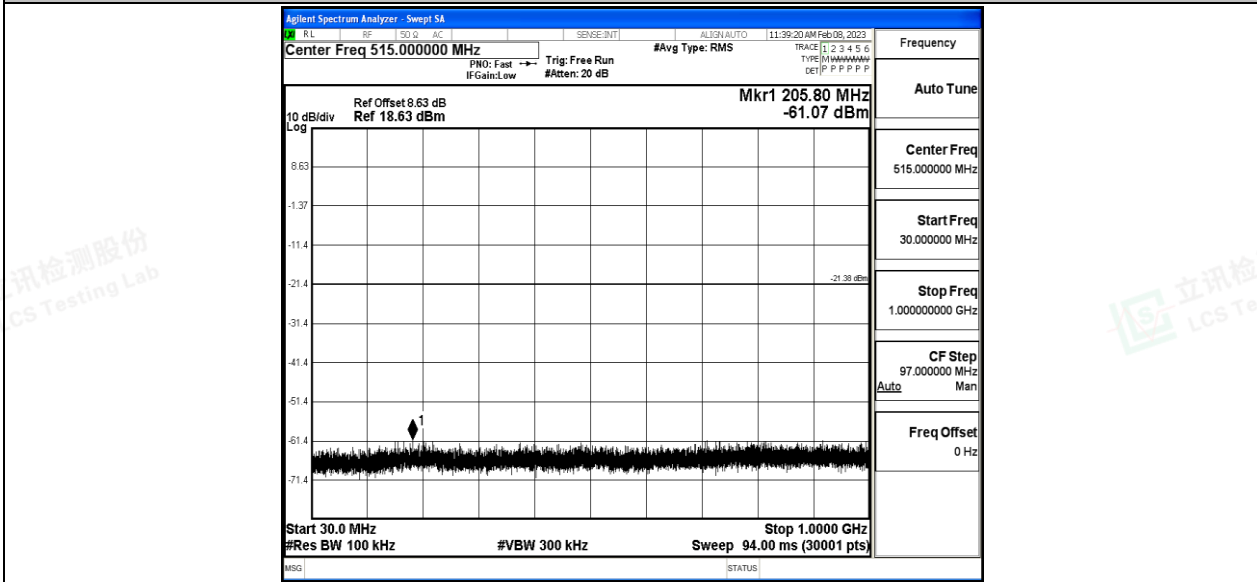


11B_Ant1_2462_0~Reference



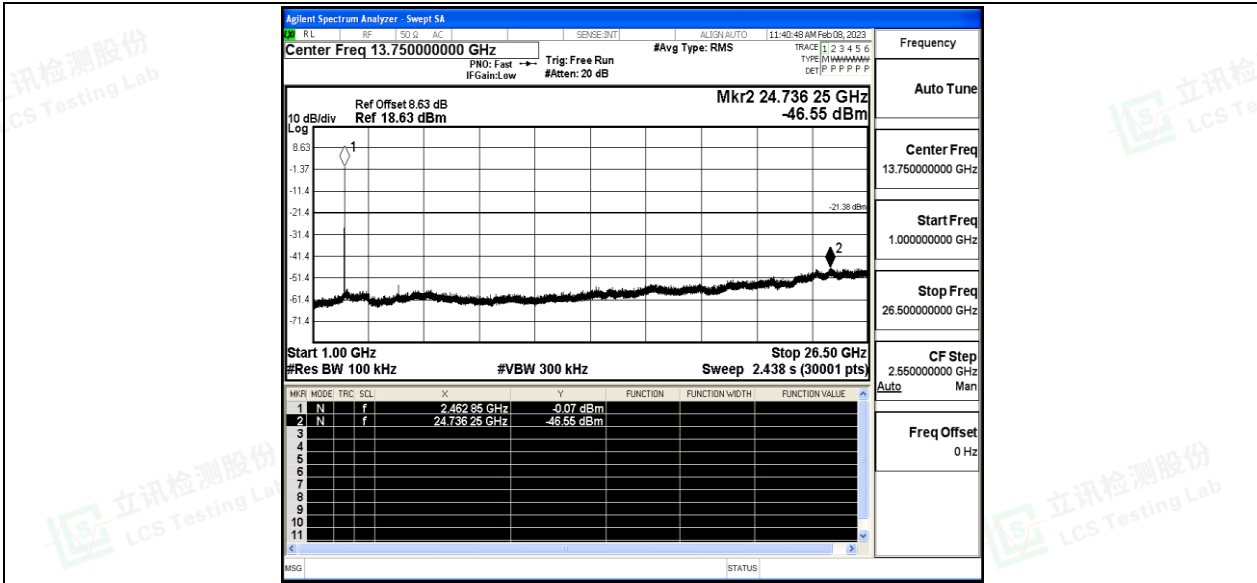


11B_Ant1_2462_30~1000

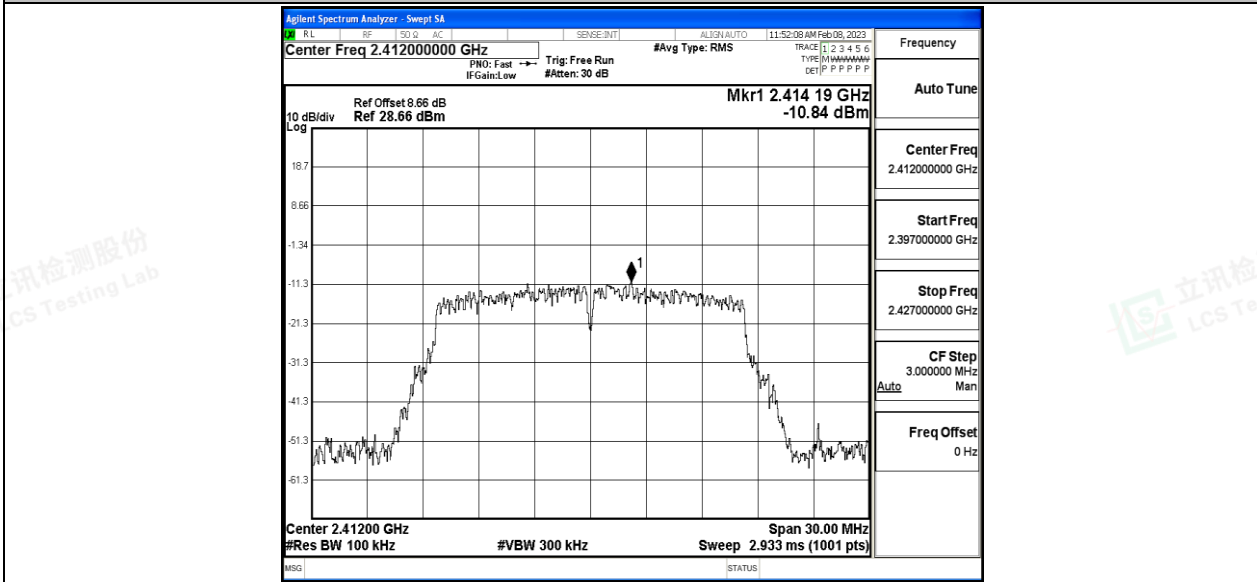


11B_Ant1_2462_1000~26500





11G_Ant1_2412_0-Reference



11G_Ant1_2412_30~1000

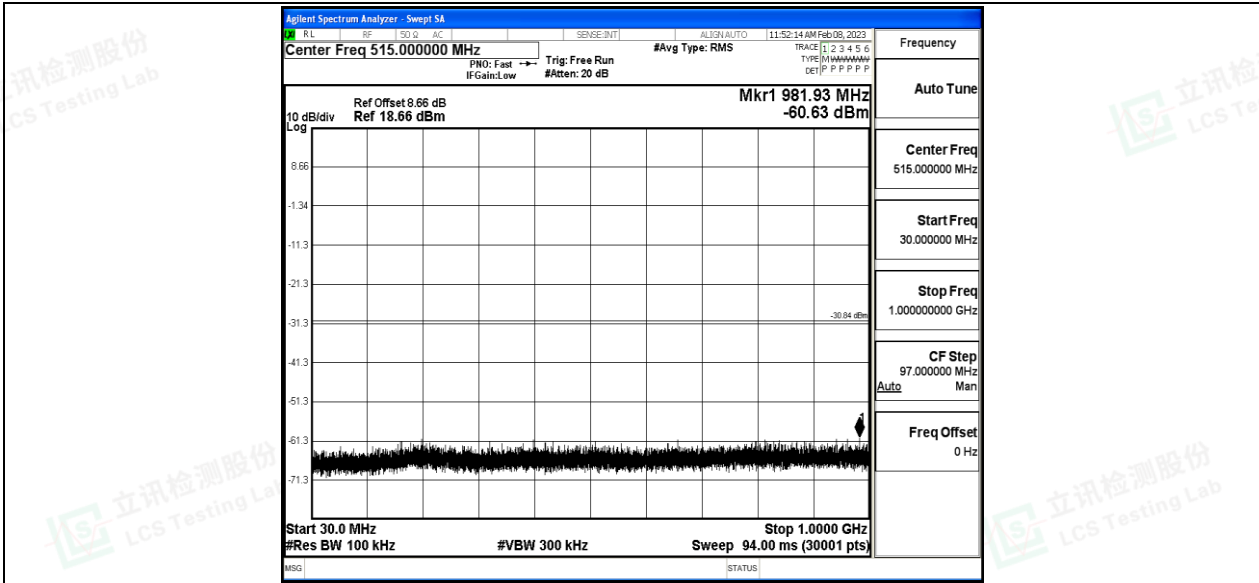


Shenzhen LCS Compliance Testing Laboratory Ltd.

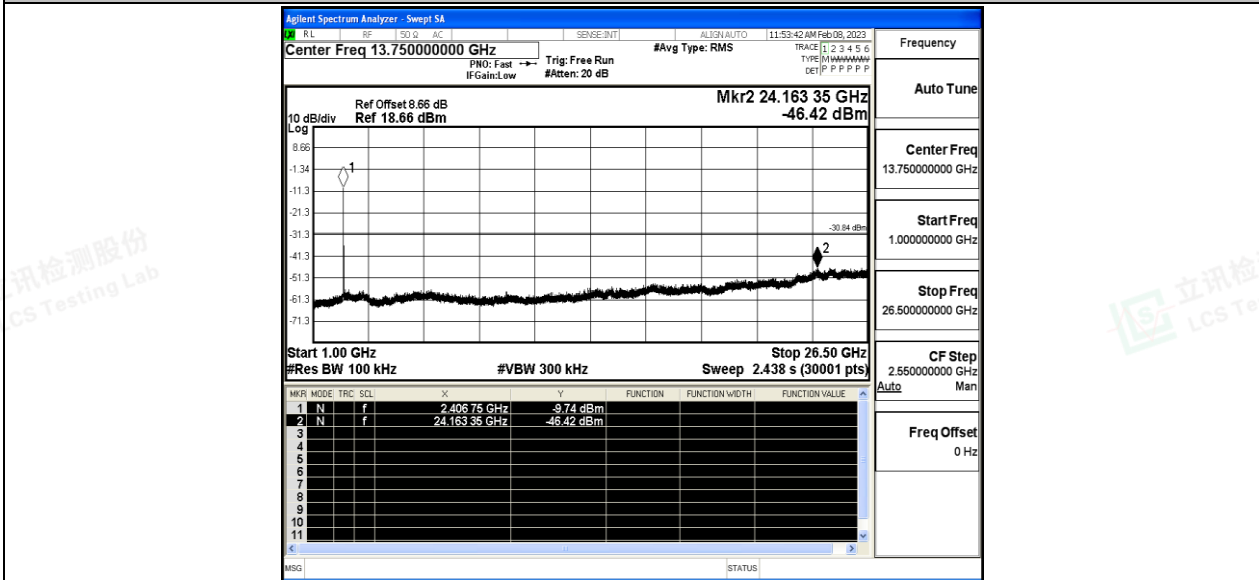
Add: 101, 201 Bldg A & 301 Bldg C, Juji Industrial Park Yabianxueziwei, Shajing Street, Baoan District, Shenzhen, 518000, China

Tel: +(86) 0755-82591330 | E-mail: webmaster@lcs-cert.com | Web: www.lcs-cert.com

Scan code to check authenticity

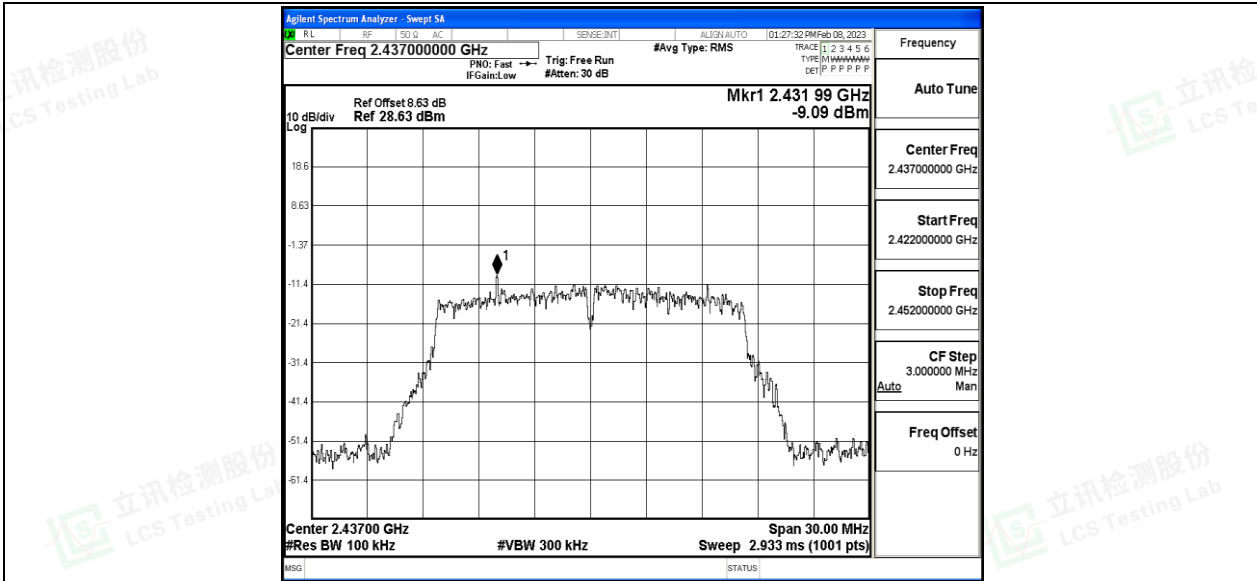


11G_Ant1_2412_1000~26500

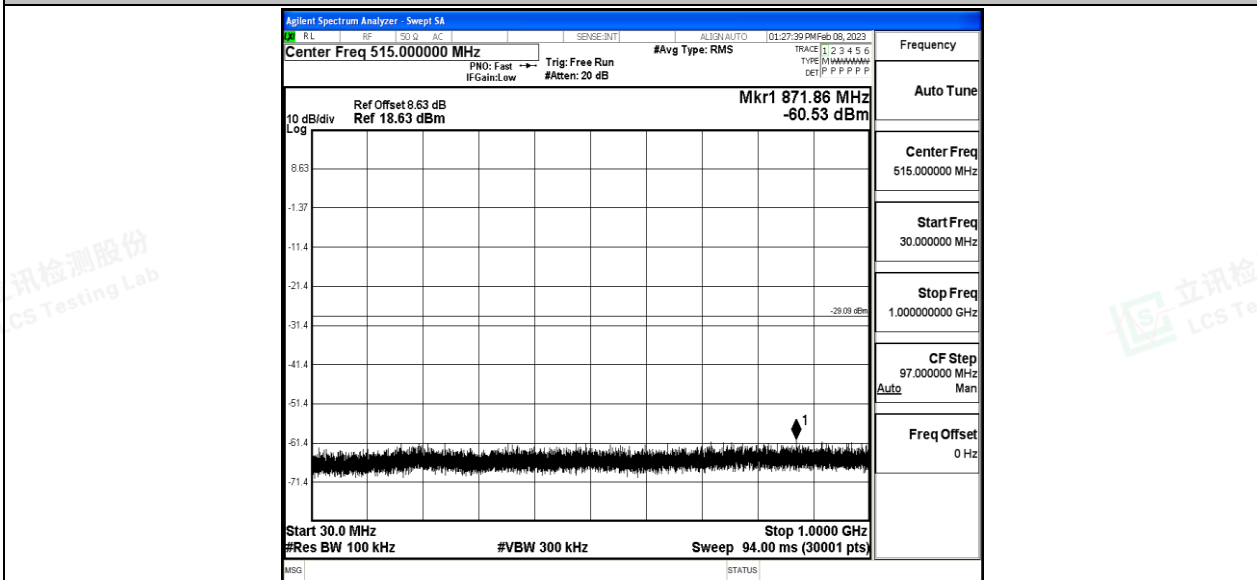


11G_Ant1_2437_0~Reference



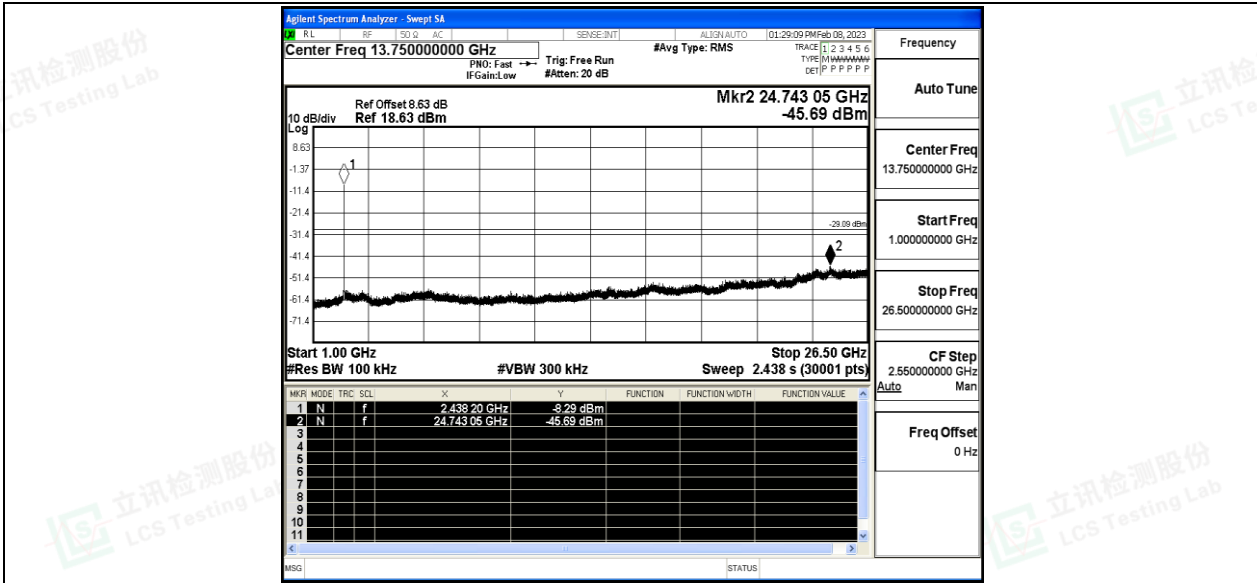


11G_Ant1_2437_30~1000

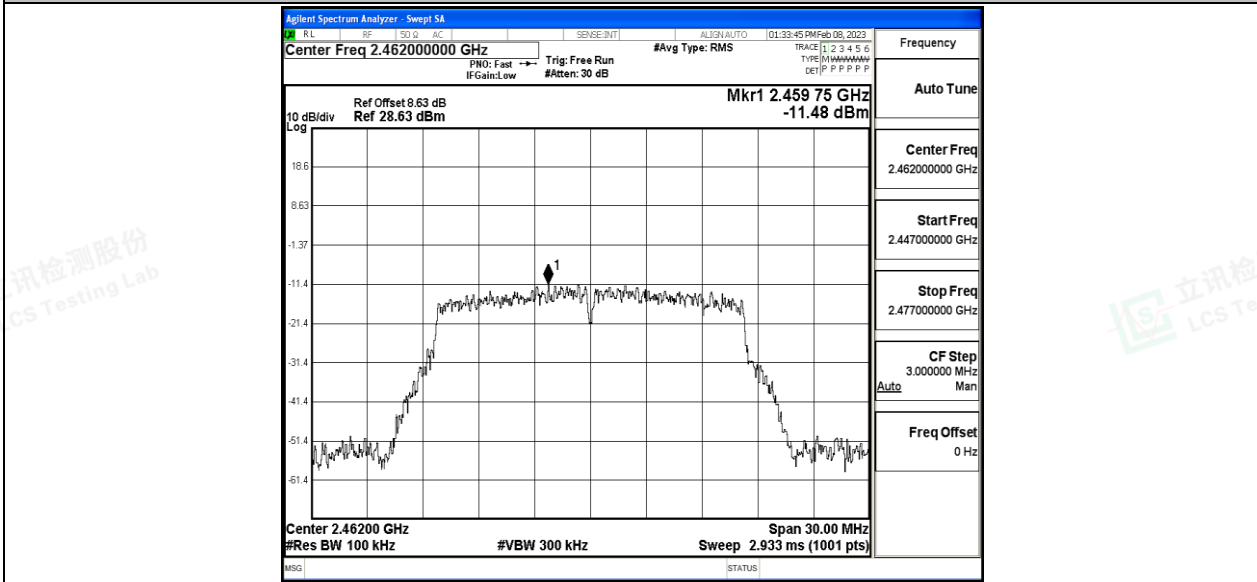


11G_Ant1_2437_1000~26500



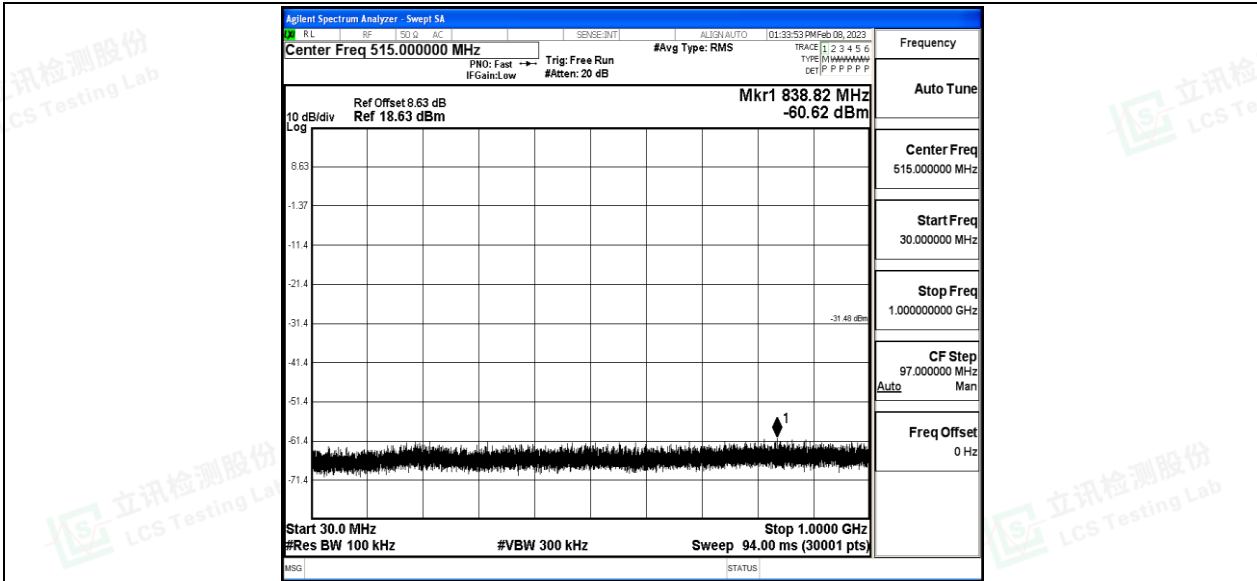


11G_Ant1_2462_0-Reference

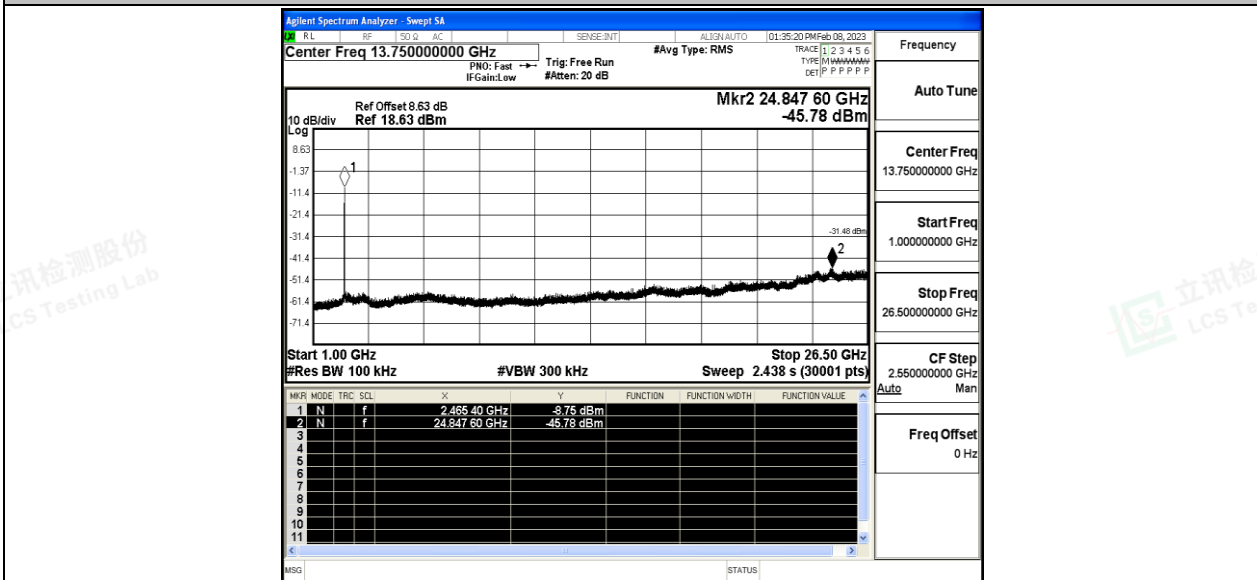


11G_Ant1_2462_30~1000



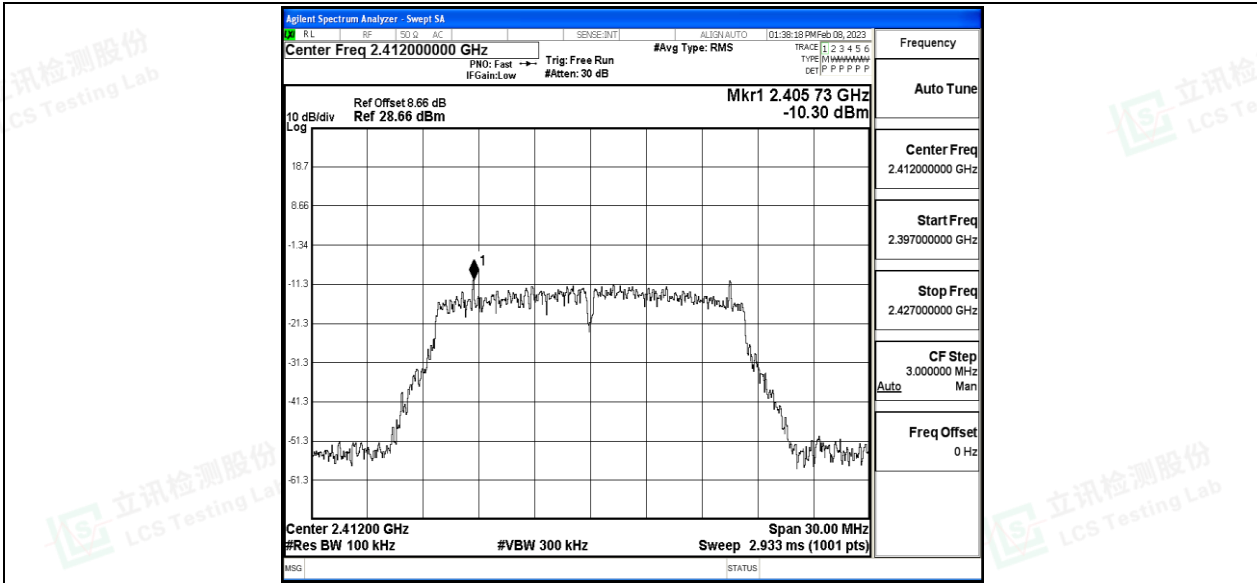


11G_Ant1_2462_1000~26500

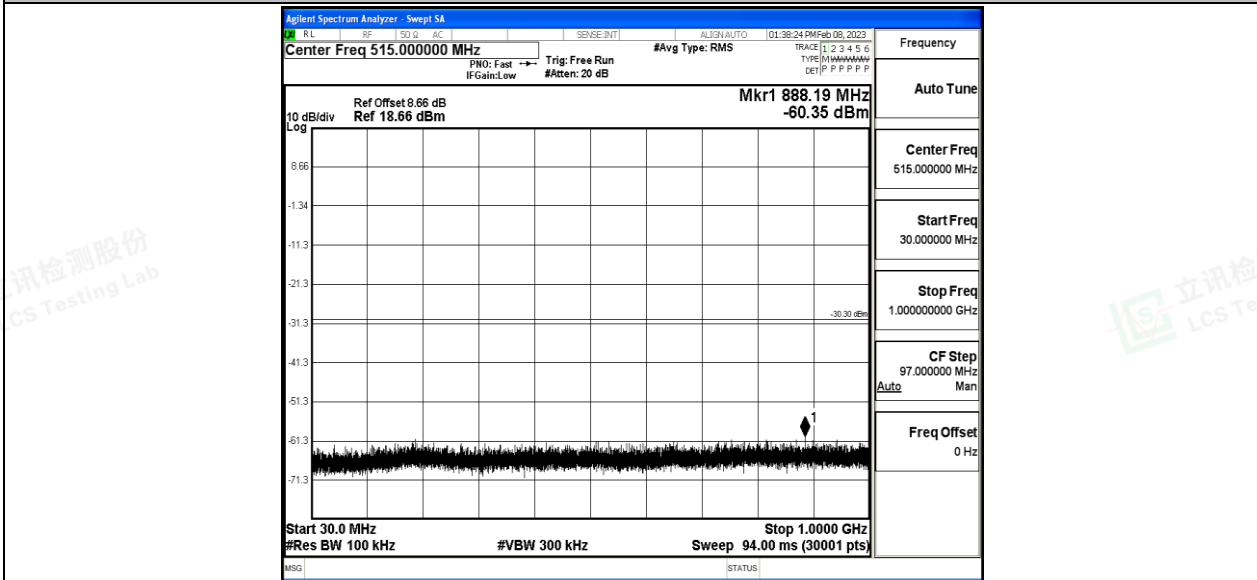


11N20SISO_Ant1_2412_0~Reference



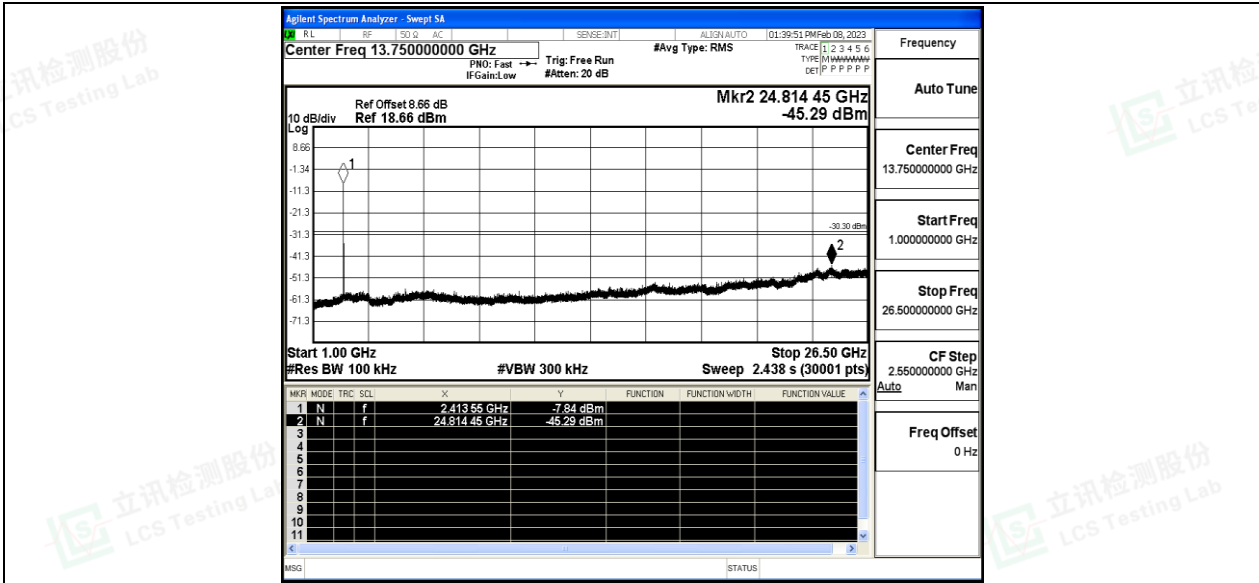


11N20SISO_Ant1_2412_30~1000

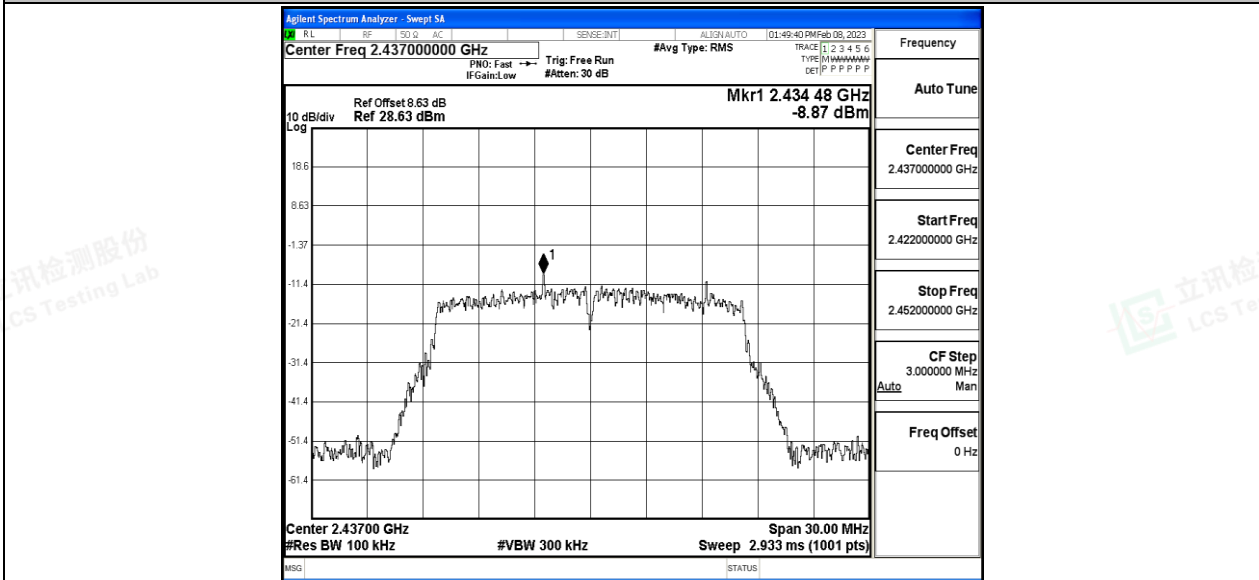


11N20SISO_Ant1_2412_1000~26500



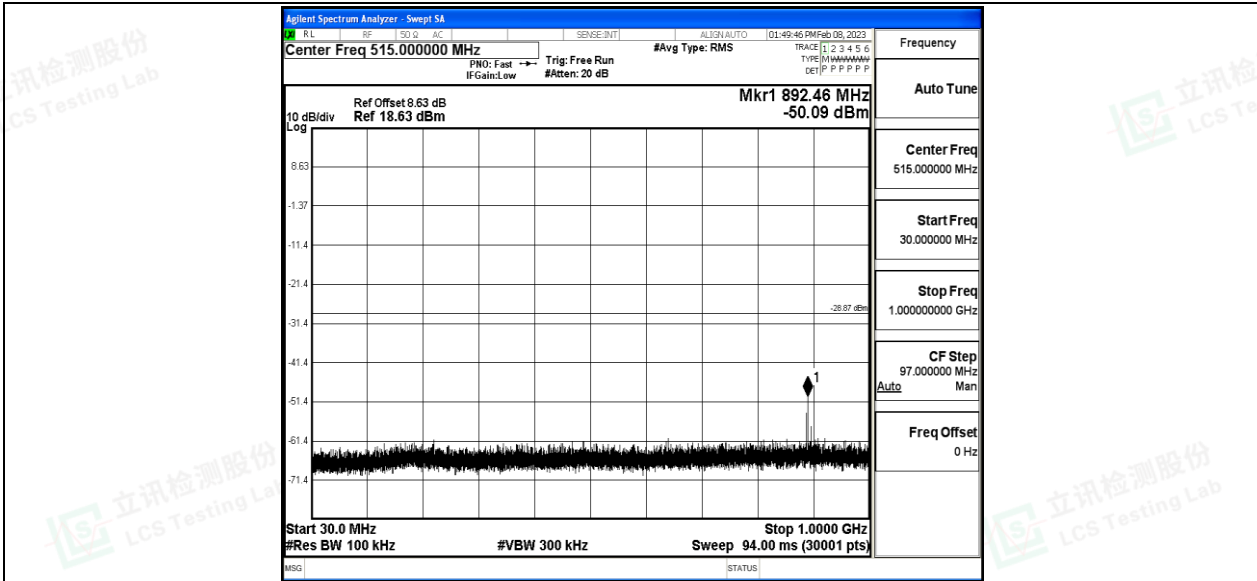


11N20SISO_Ant1_2437_0~Reference

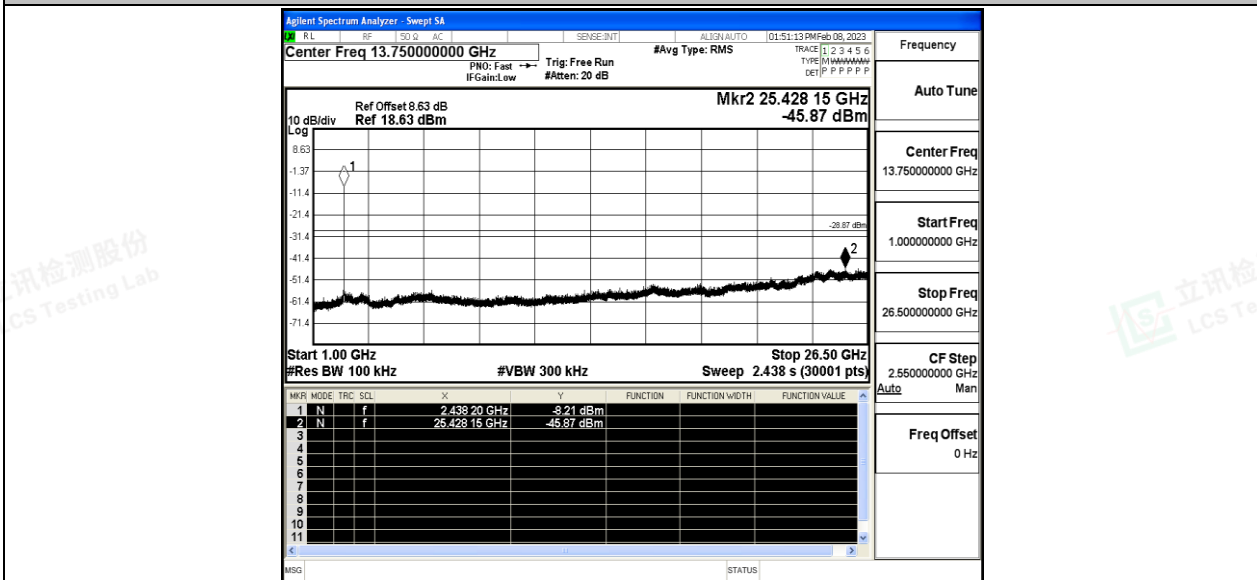


11N20SISO_Ant1_2437_30~1000



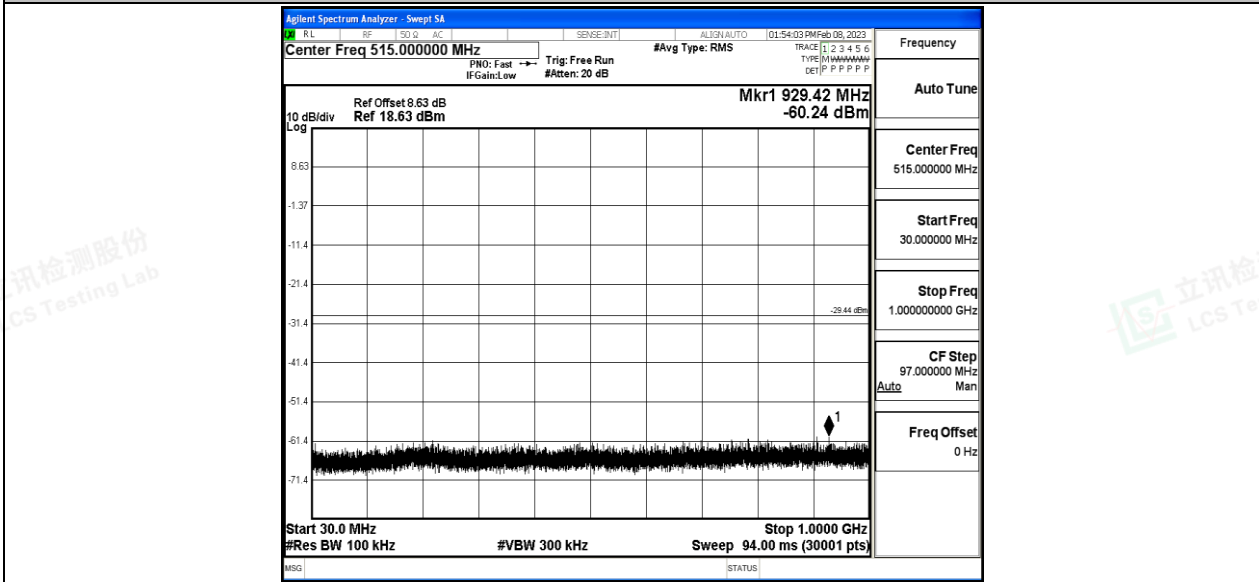
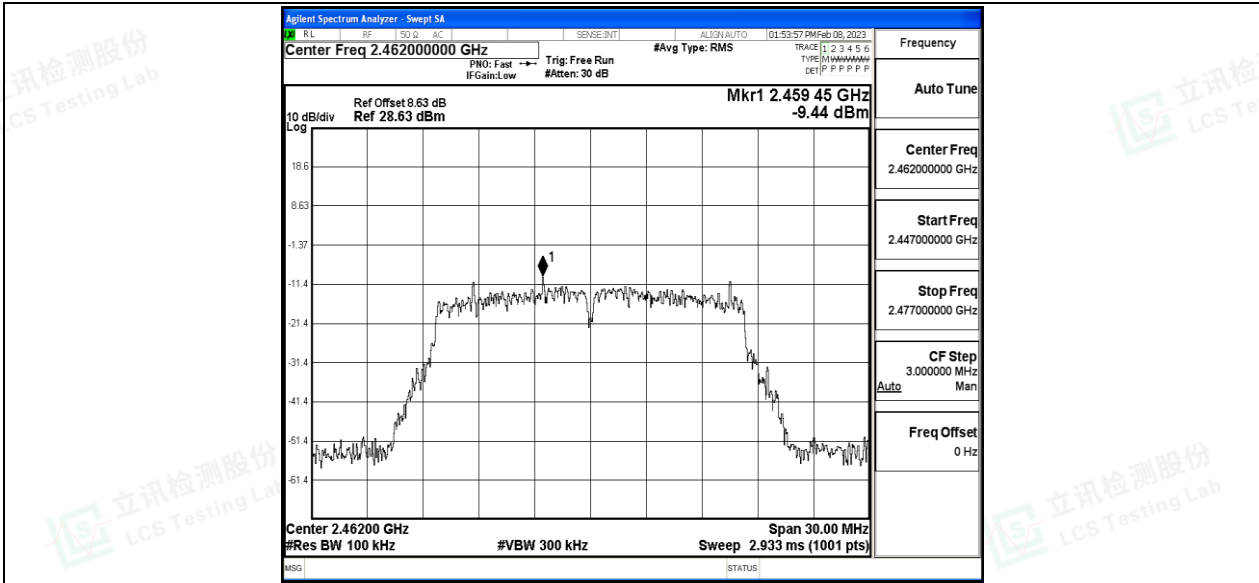


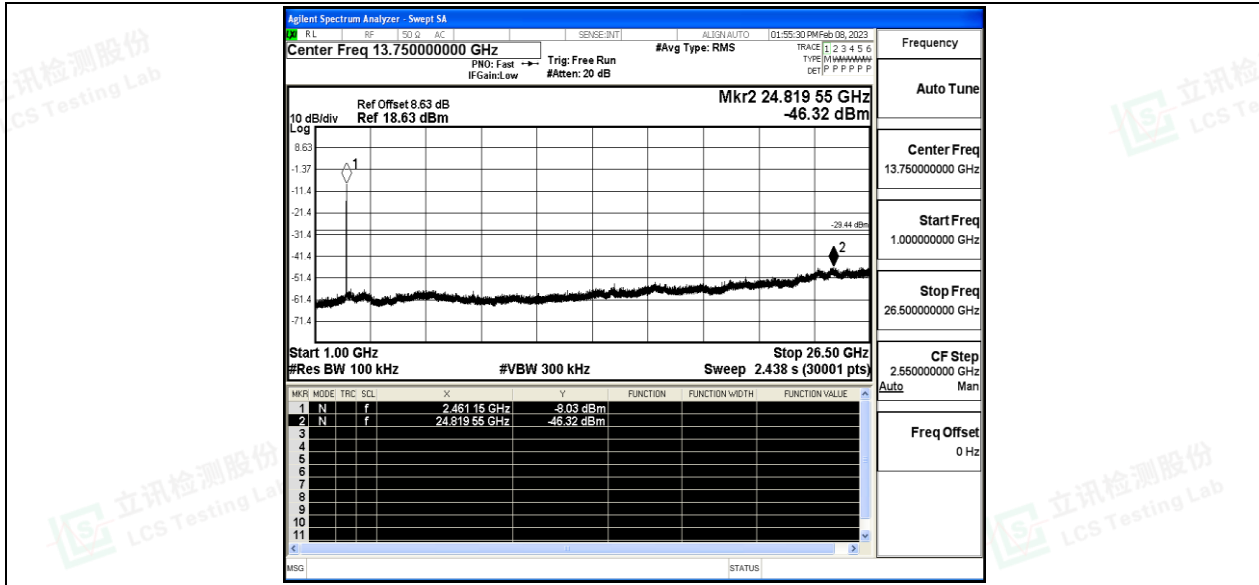
11N20SISO_Ant1_2437_1000~26500



11N20SISO_Ant1_2462_0~Reference









A.6 Duty Cycle

Test Result

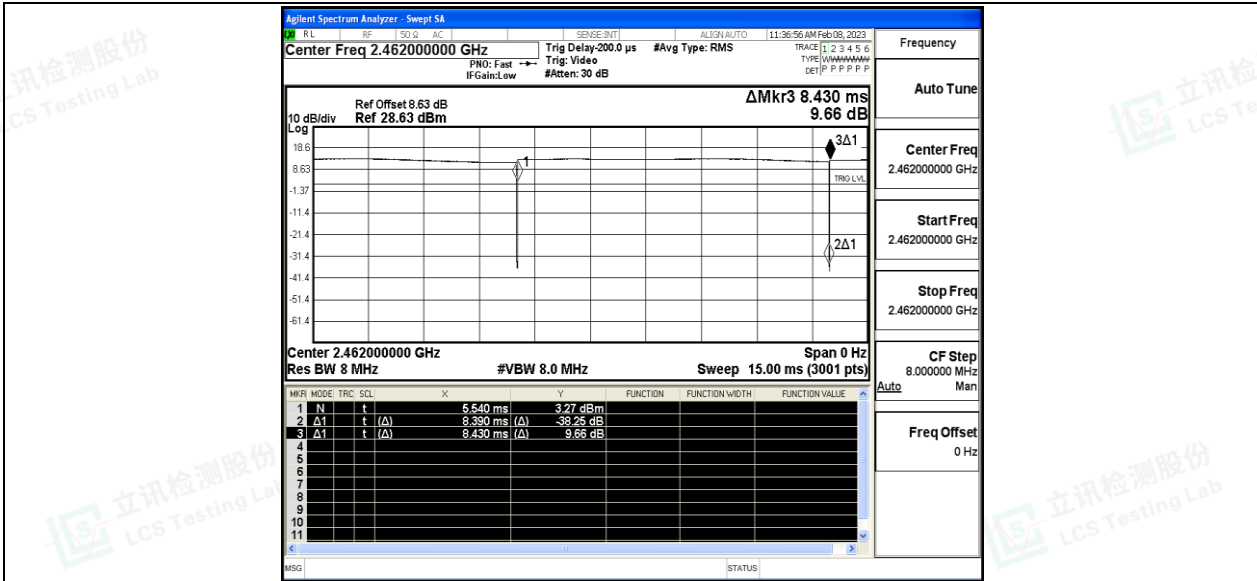
TestMode	Antenna	Freq(MHz)	Transmission Duration [ms]	Transmission Period [ms]	Duty Cycle [%]	Factor	Verdict
11B	Ant1	2412	8.39	8.43	99.53	0.02	---
		2437	8.39	8.43	99.53	0.02	---
		2462	8.39	8.43	99.53	0.02	---
11G	Ant1	2412	1.39	1.43	97.20	0.12	---
		2437	1.39	1.43	97.20	0.12	---
		2462	1.39	1.43	97.20	0.12	---
11N20SISO	Ant1	2412	1.39	1.43	97.20	0.12	---
		2437	1.39	1.44	96.53	0.15	---
		2462	1.40	1.44	97.22	0.12	---



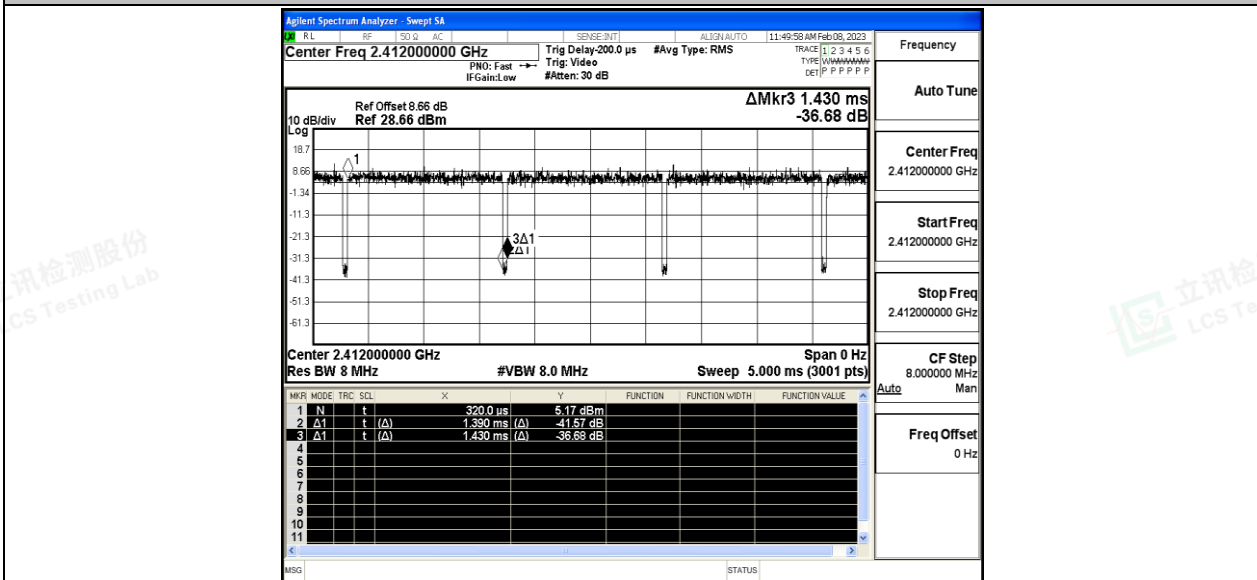


Test Graphs



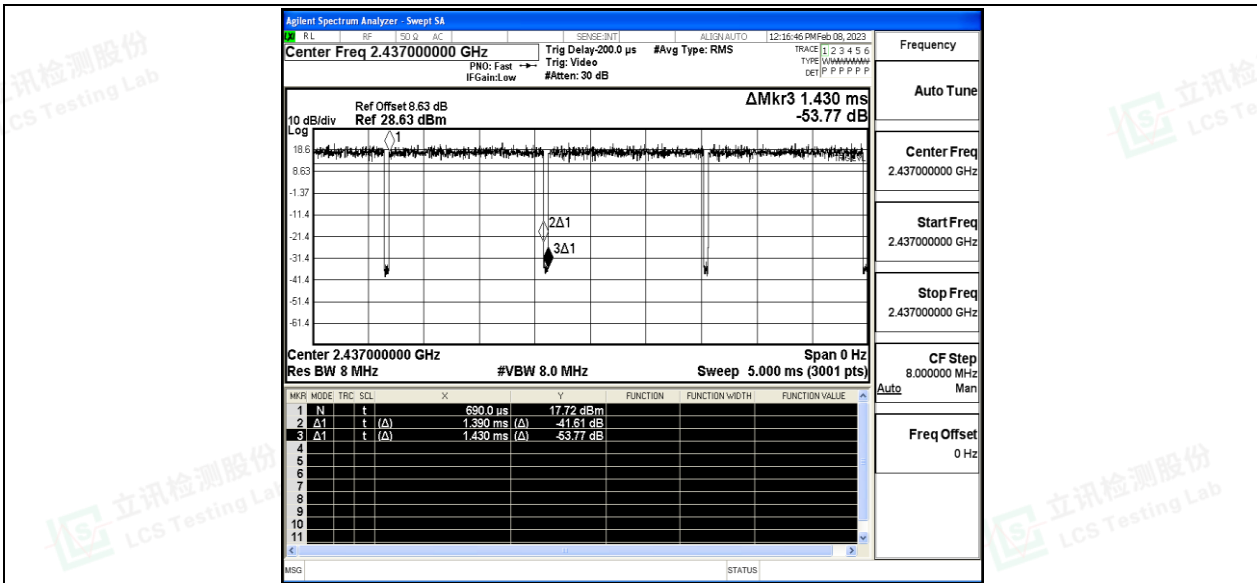


11G_Ant1_2412

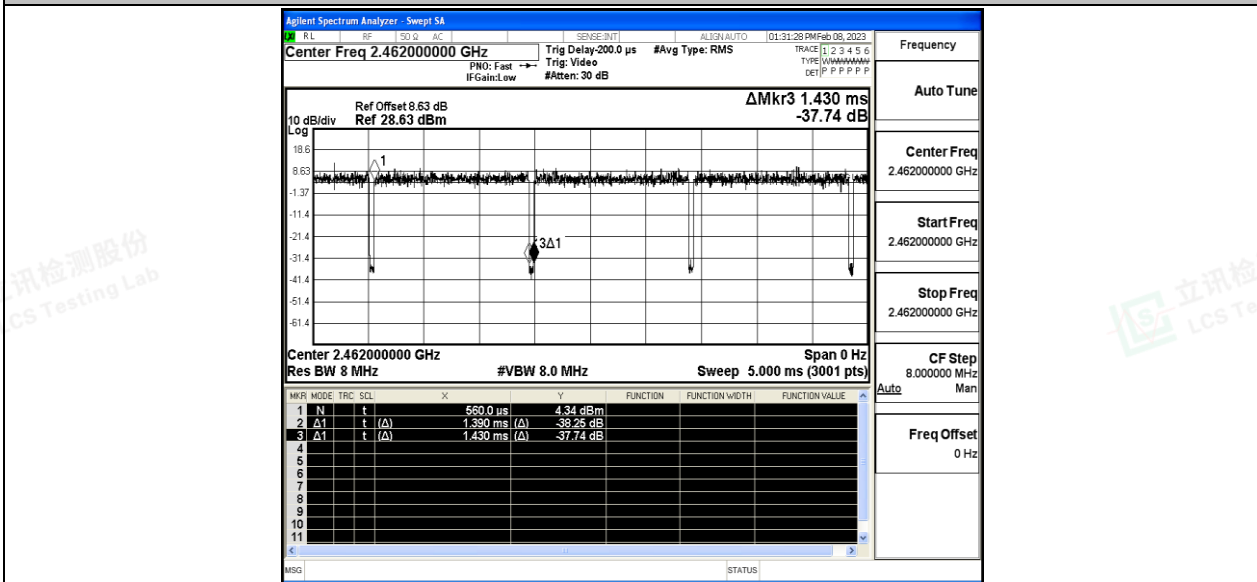


11G_Ant1_2437





11G_Ant1_2462

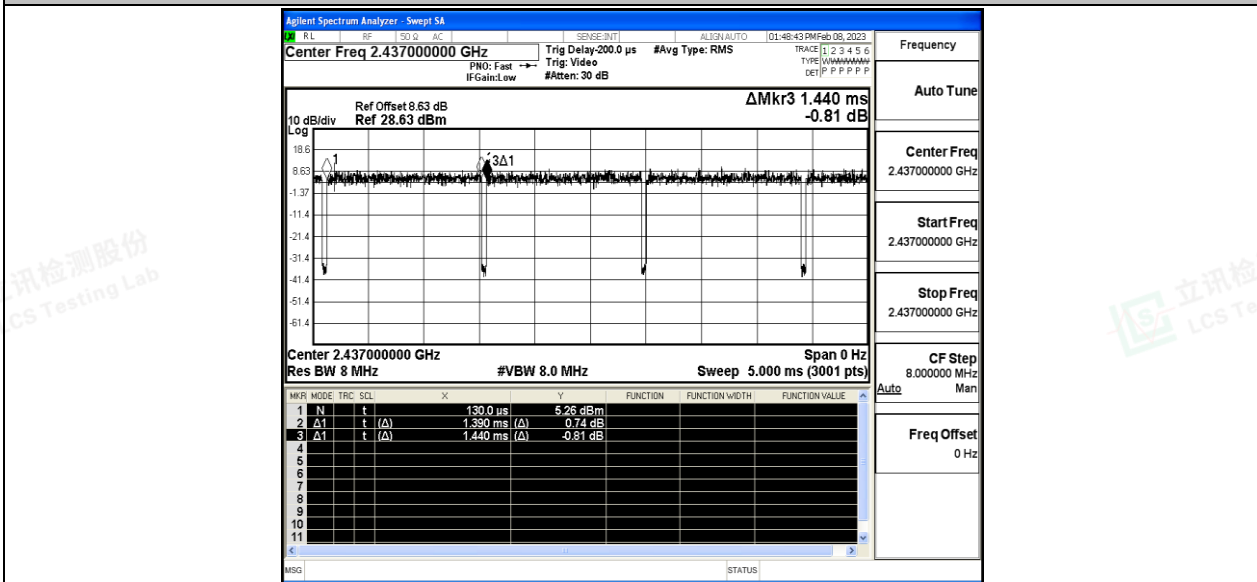


11N20SISO_Ant1_2412



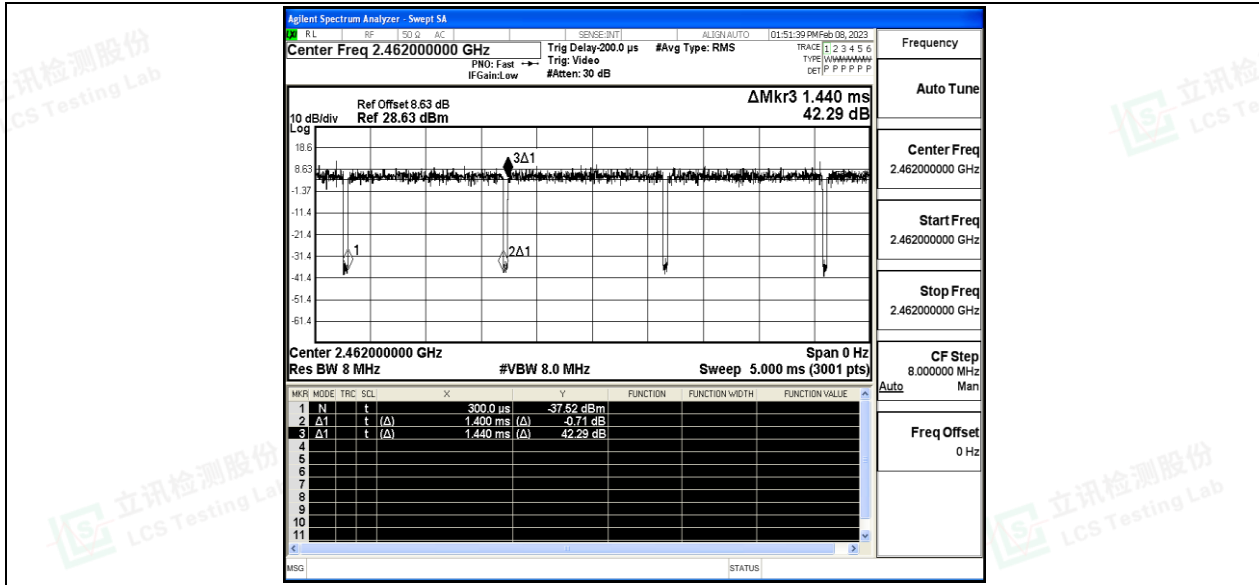


11N20SISO_Ant1_2437



11N20SISO_Ant1_2462







A.7 Emissions in Restricted Bands

Test Result

TestMode	Antenna	ChName	Freq(M Hz)	Detector	Freq [MHz]	Result [dBm]	Limit [dBm]	Result [dBuV/m]	Limit [dBuV/m]	Verdict
11B	Ant1	Low	2412	AV	2310.000	-58.23	≤-41.20	36.97	≤54	PASS
				AV	2384.370	-56.87	≤-41.20	38.33	≤54	PASS
				AV	2390.000	-57.1	≤-41.20	38.10	≤54	PASS
				Peak	2310.000	-47.58	≤-21.20	47.62	≤74	PASS
				Peak	2373.320	-44.83	≤-21.20	50.37	≤74	PASS
				Peak	2390.000	-46.69	≤-21.20	48.51	≤74	PASS
		High	2462	AV	2483.500	-56.51	≤-41.20	38.69	≤54	PASS
				AV	2498.410	-56.34	≤-41.20	38.86	≤54	PASS
				AV	2500.000	-56.52	≤-41.20	38.68	≤54	PASS
				Peak	2483.500	-45.81	≤-21.20	49.39	≤74	PASS
				Peak	2496.100	-43.91	≤-21.20	51.29	≤74	PASS
				Peak	2500.000	-46.32	≤-21.20	48.88	≤74	PASS
11G	Ant1	Low	2412	AV	2310.000	-58.06	≤-41.20	37.14	≤54	PASS
				AV	2389.960	-56.33	≤-41.20	38.87	≤54	PASS
				AV	2390.000	-56.33	≤-41.20	38.87	≤54	PASS
				Peak	2310.000	-48.28	≤-21.20	46.92	≤74	PASS
				Peak	2386.060	-45.19	≤-21.20	50.01	≤74	PASS
				Peak	2390.000	-45.73	≤-21.20	49.47	≤74	PASS
		High	2462	AV	2483.500	-55.93	≤-41.20	39.27	≤54	PASS
				AV	2483.670	-55.67	≤-41.20	39.53	≤54	PASS
				AV	2500.000	-56.13	≤-41.20	39.07	≤54	PASS
				Peak	2483.500	-46.26	≤-21.20	48.94	≤74	PASS
				Peak	2486.970	-43.68	≤-21.20	51.52	≤74	PASS
				Peak	2500.000	-45.28	≤-21.20	49.92	≤74	PASS
11N20SISO	Ant1	Low	2412	AV	2310.000	-57.85	≤-41.20	37.35	≤54	PASS
				AV	2389.830	-56.33	≤-41.20	38.87	≤54	PASS
				AV	2390.000	-56.54	≤-41.20	38.66	≤54	PASS
				Peak	2310.000	-47.49	≤-21.20	47.71	≤74	PASS
				Peak	2389.960	-45.09	≤-21.20	50.11	≤74	PASS
				Peak	2390.000	-45.09	≤-21.20	50.11	≤74	PASS
		High	2462	AV	2483.500	-55.77	≤-41.20	39.43	≤54	PASS
				AV	2486.420	-55.87	≤-41.20	39.33	≤54	PASS
				AV	2500.000	-56.21	≤-41.20	38.99	≤54	PASS
				Peak	2483.500	-45.86	≤-21.20	49.34	≤74	PASS
				Peak	2486.200	-44.25	≤-21.20	50.95	≤74	PASS
				Peak	2500.000	-46.28	≤-21.20	48.92	≤74	PASS





Note:

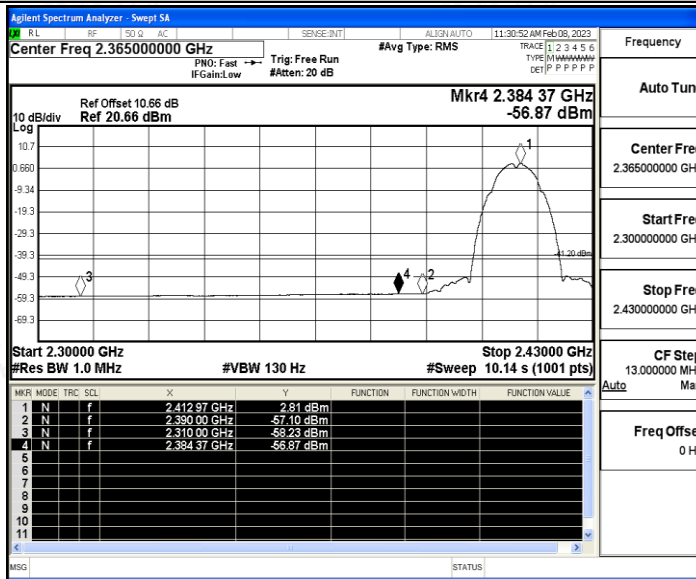
1. The Antenna Gain is compensated in the graph.
2. The limit in dBm for average detector is conversion from 54dBuV/m, according to 15.209(a). The limit in dBm for peak detector is 20dB above the limit of average detector in dBm.



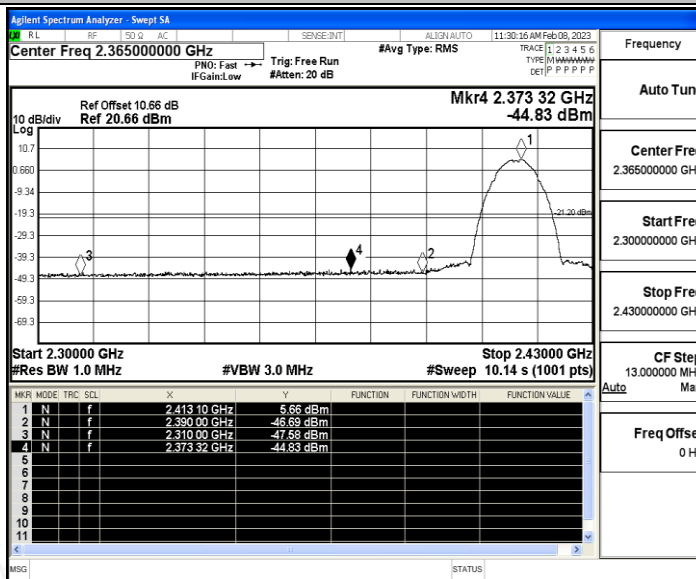


Test Graphs

11B_Ant1_Low_2412_AV

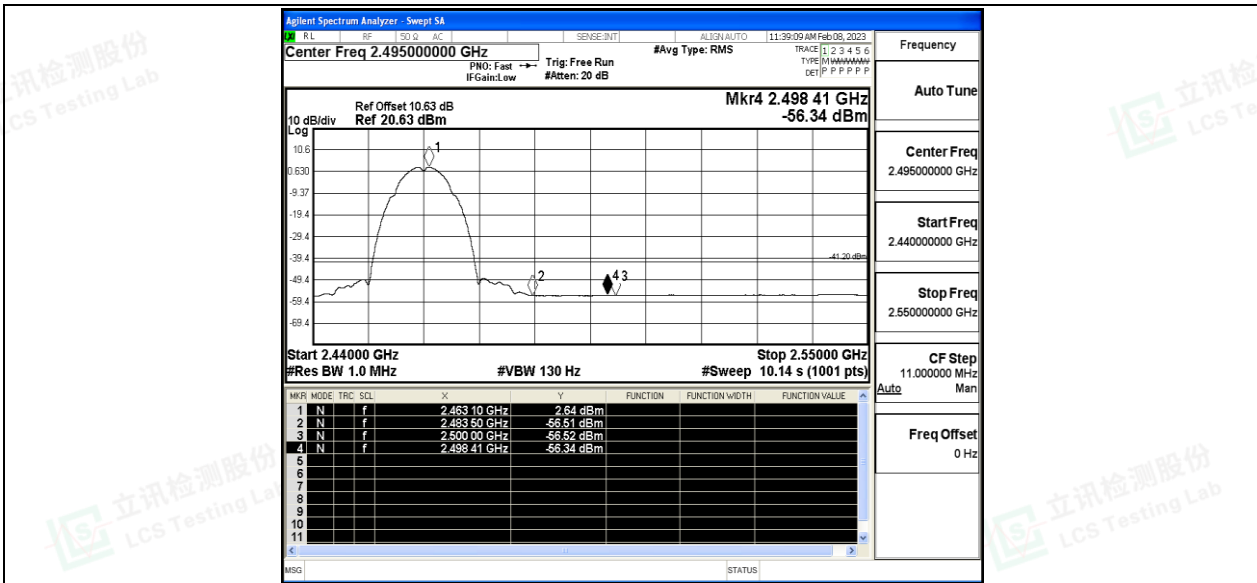


11B_Ant1_Low_2412_Peak

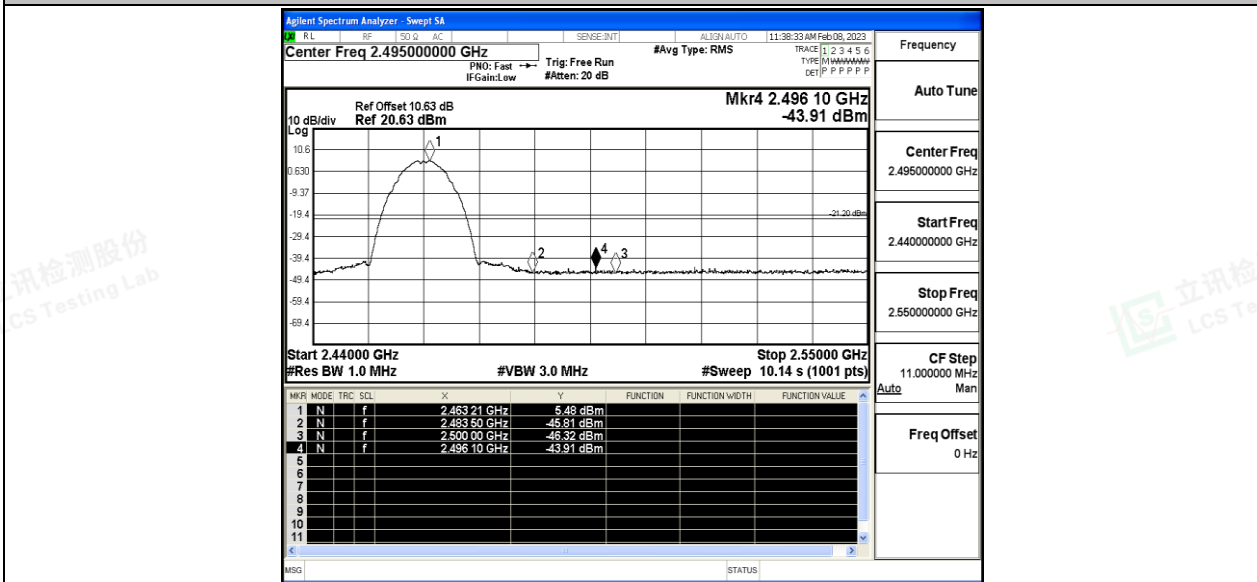


11B_Ant1_High_2462_AV



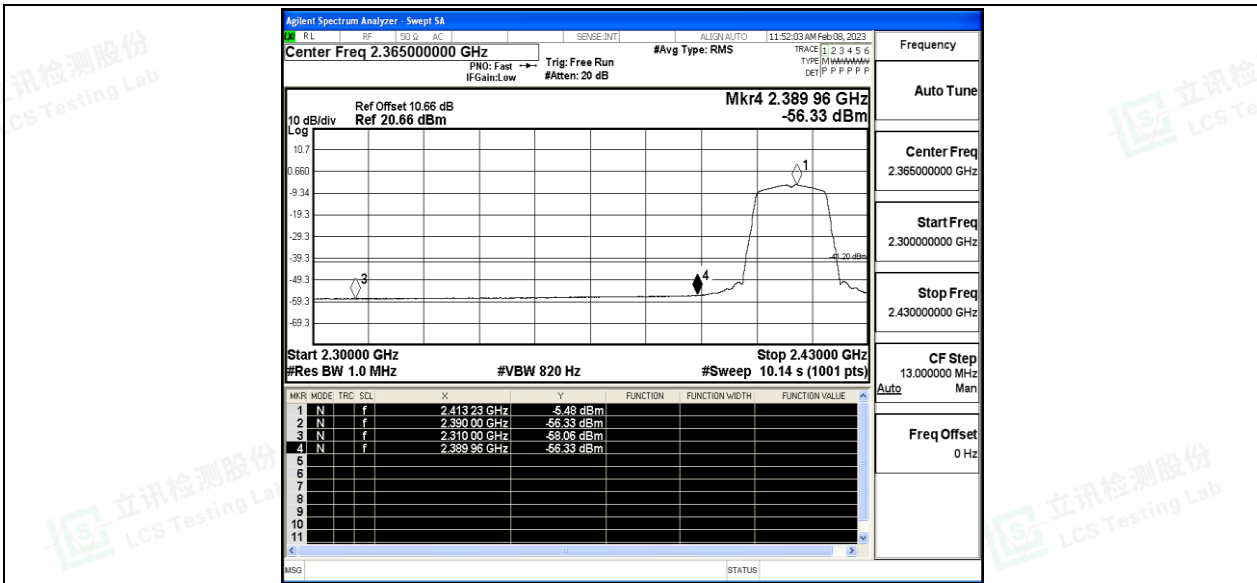


11B_Ant1_High_2462_Peak

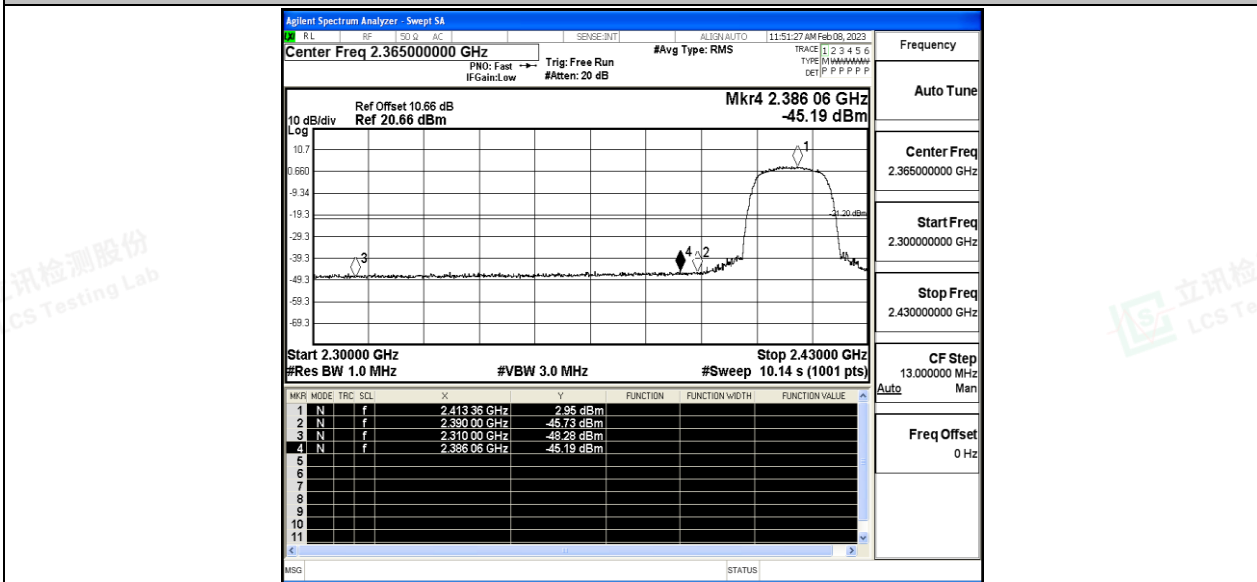


11G_Ant1_Low_2412_AV



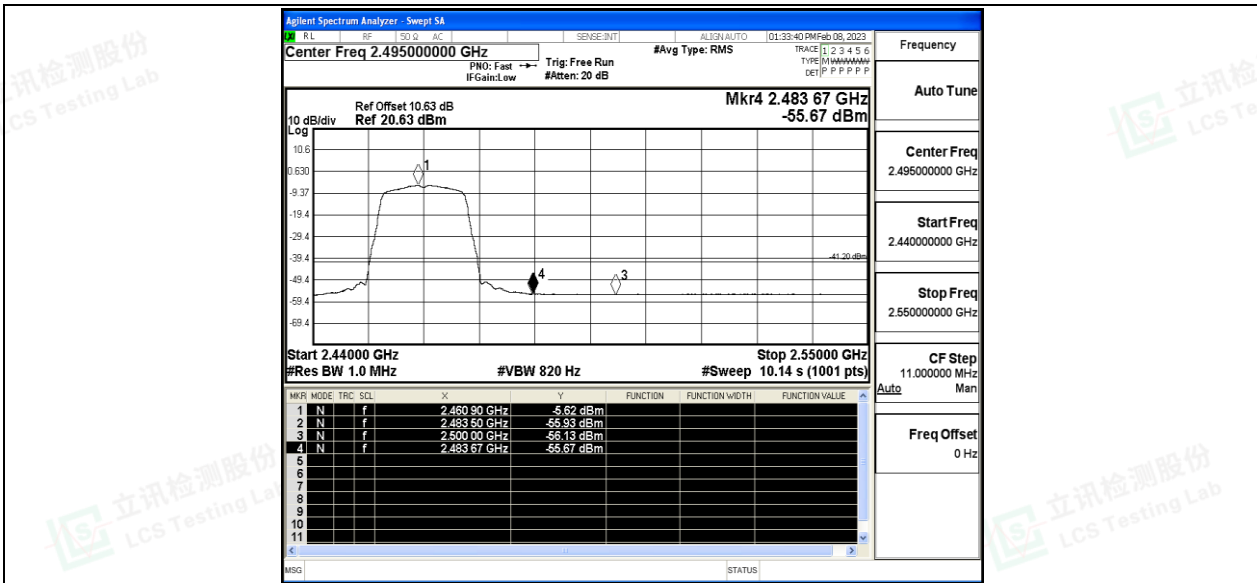


11G_Ant1_Low_2412_Peak

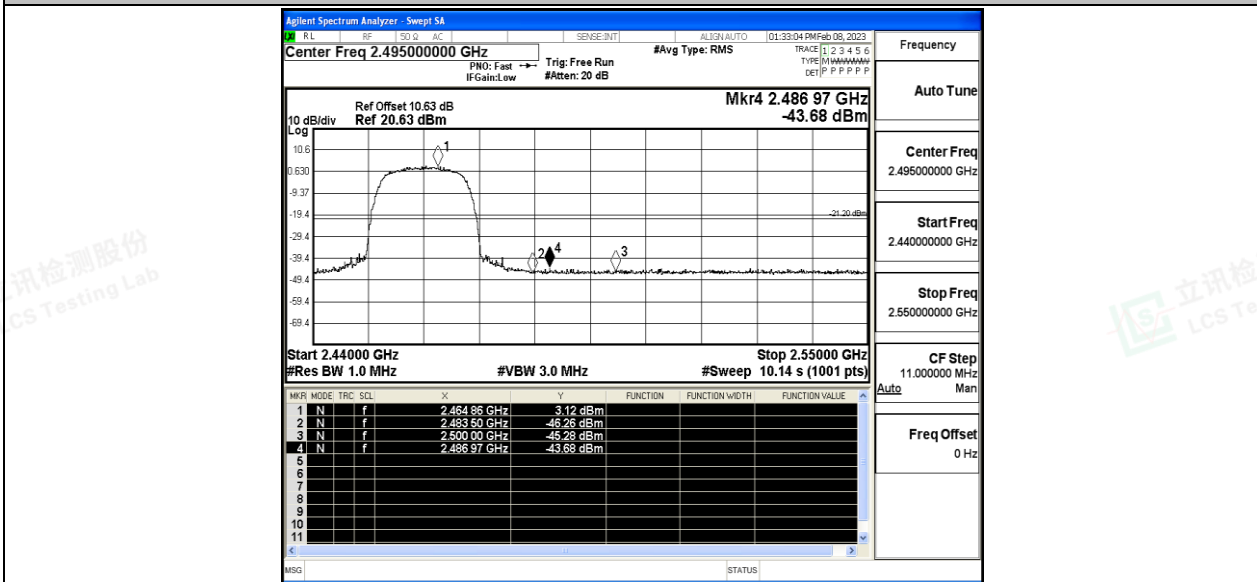


11G_Ant1_High_2462_AV



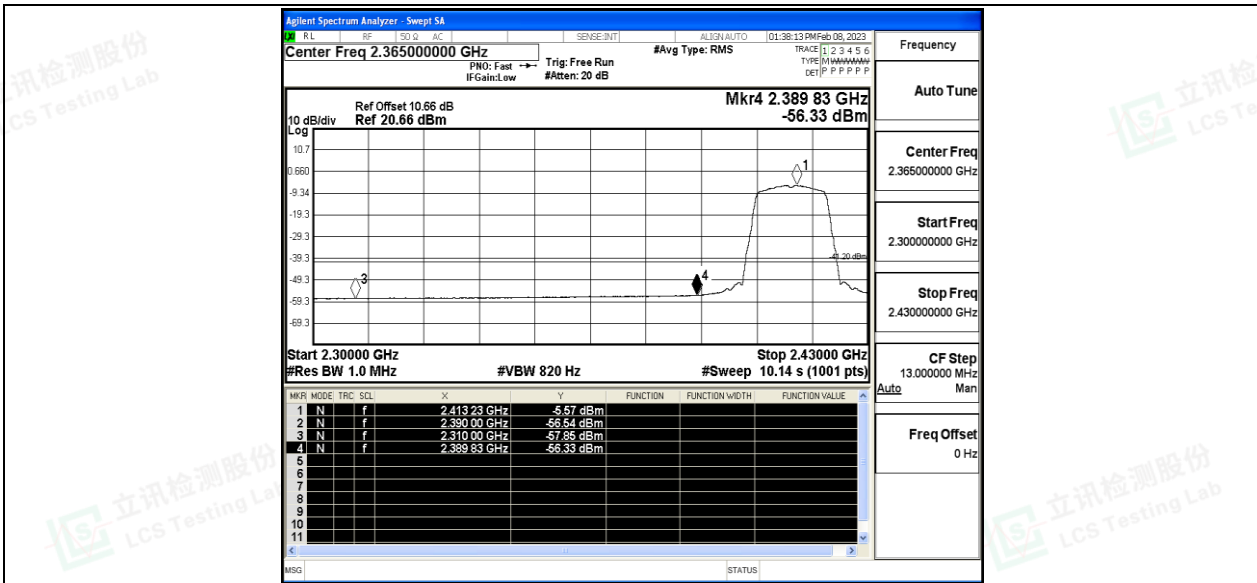


11G_Ant1_High_2462_Peak

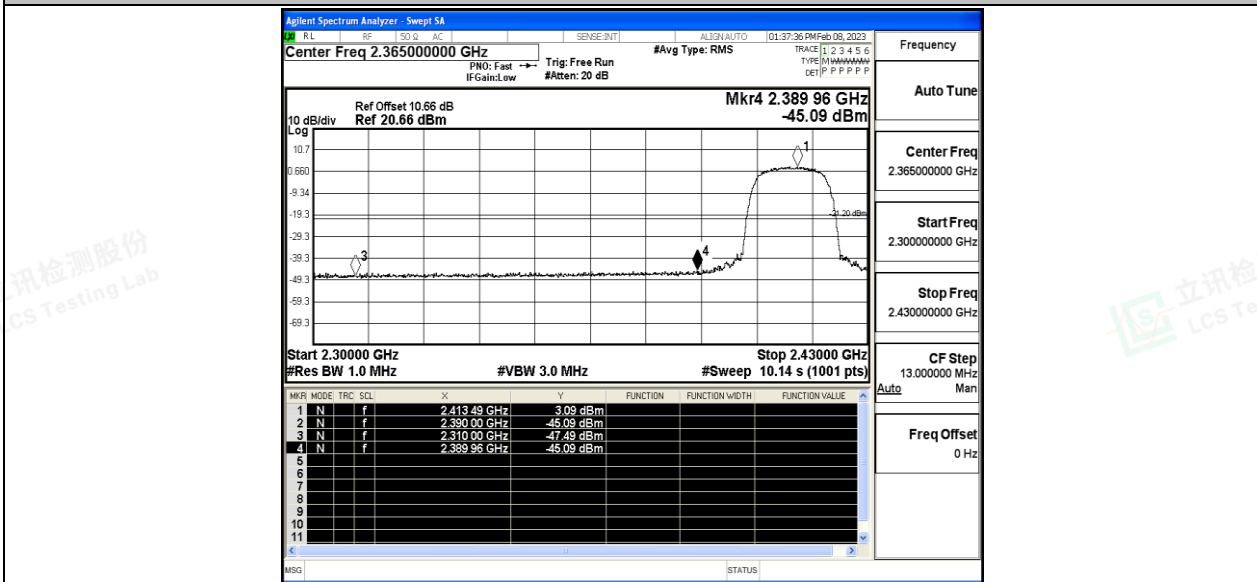


11N20SISO_Ant1_Low_2412_AV



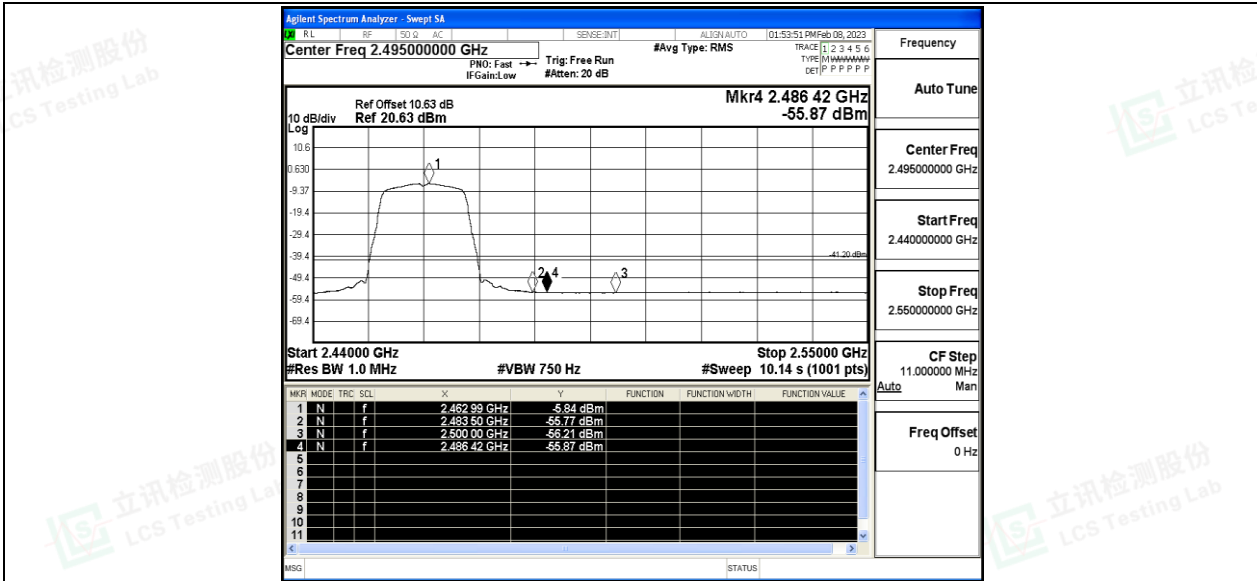


11N20SISO_Ant1_Low_2412_Peak



11N20SISO_Ant1_High_2462_AV





11N20SISO_Ant1_High_2462_Peak

