



Appendix B

RF Test Data for 2.4GWIFI (Conducted Measurement)

Product Name: MID

Test Model: KIDS707A

Environmental Conditions

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





B.1 DTS Bandwidth

Test Result

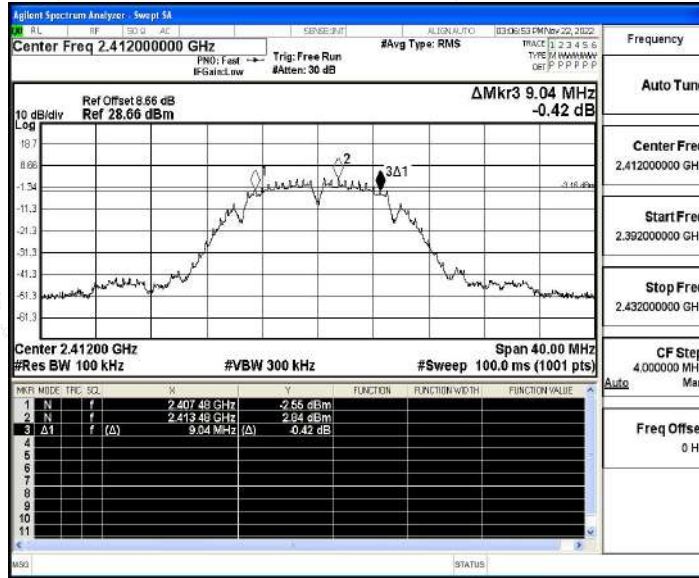
TestMode	Antenna	Freq(MHz)	DTS BW [MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
11B	Ant1	2412	9.040	2407.480	2416.520	0.5	PASS
		2437	10.000	2432.000	2442.000	0.5	PASS
		2462	9.560	2457.440	2467.000	0.5	PASS
11G	Ant1	2412	16.320	2403.840	2420.160	0.5	PASS
		2437	16.320	2428.840	2445.160	0.5	PASS
		2462	16.360	2453.800	2470.160	0.5	PASS
11N20SISO	Ant1	2412	17.560	2403.200	2420.760	0.5	PASS
		2437	17.560	2428.200	2445.760	0.5	PASS
		2462	17.560	2453.200	2470.760	0.5	PASS



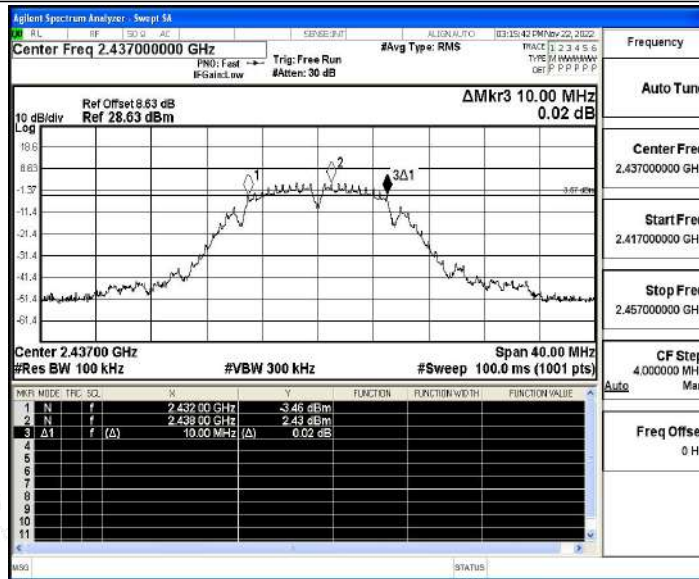


Test Graphs

11B_Ant1_2412

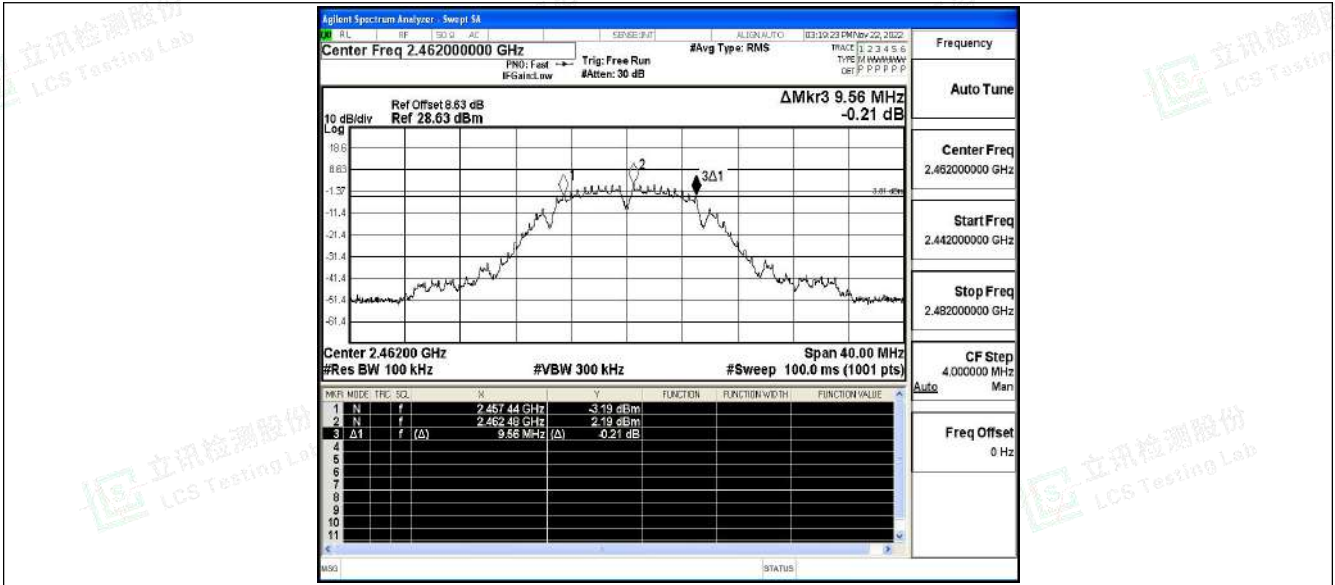


11B_Ant1_2437

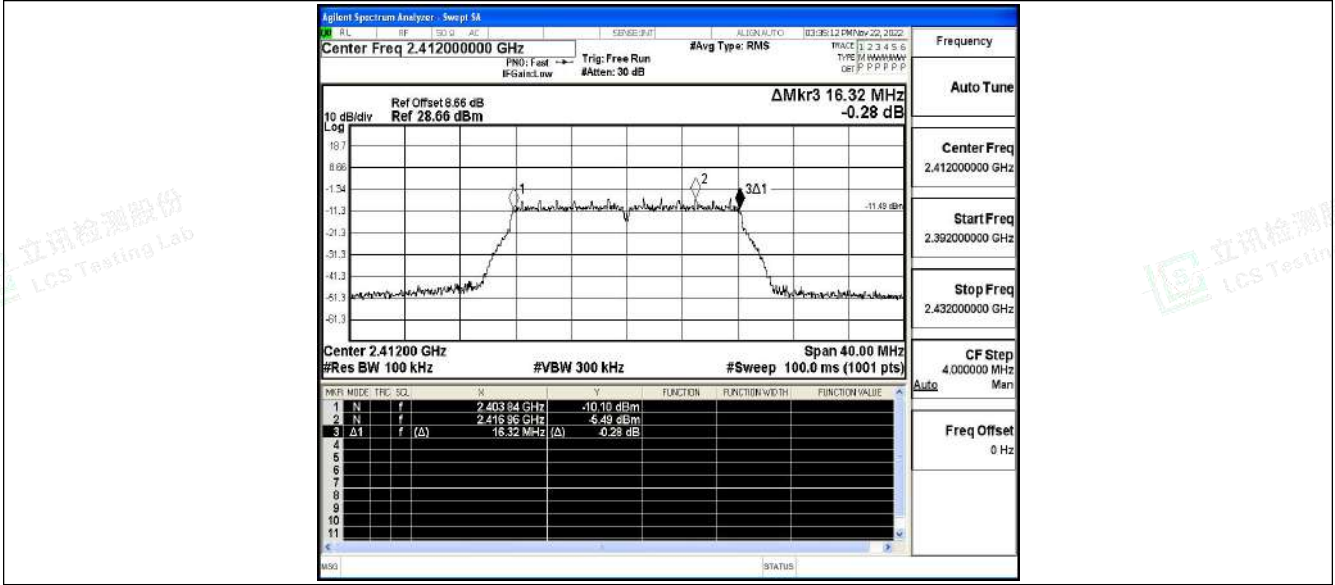


11B_Ant1_2462



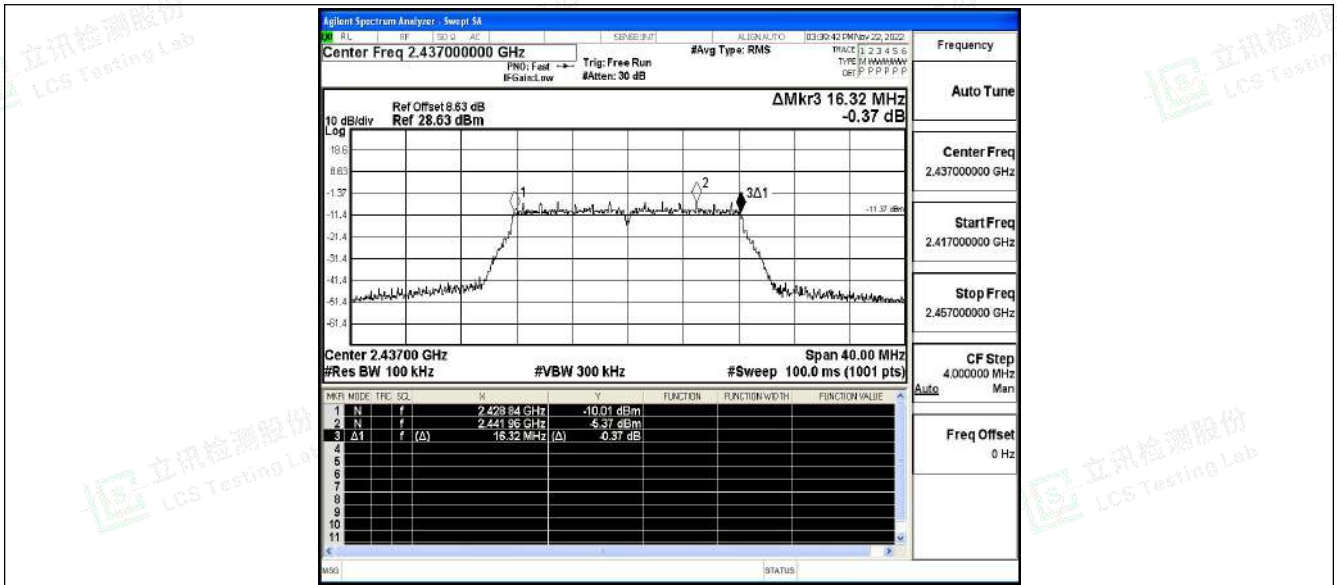


11G_Ant1_2412

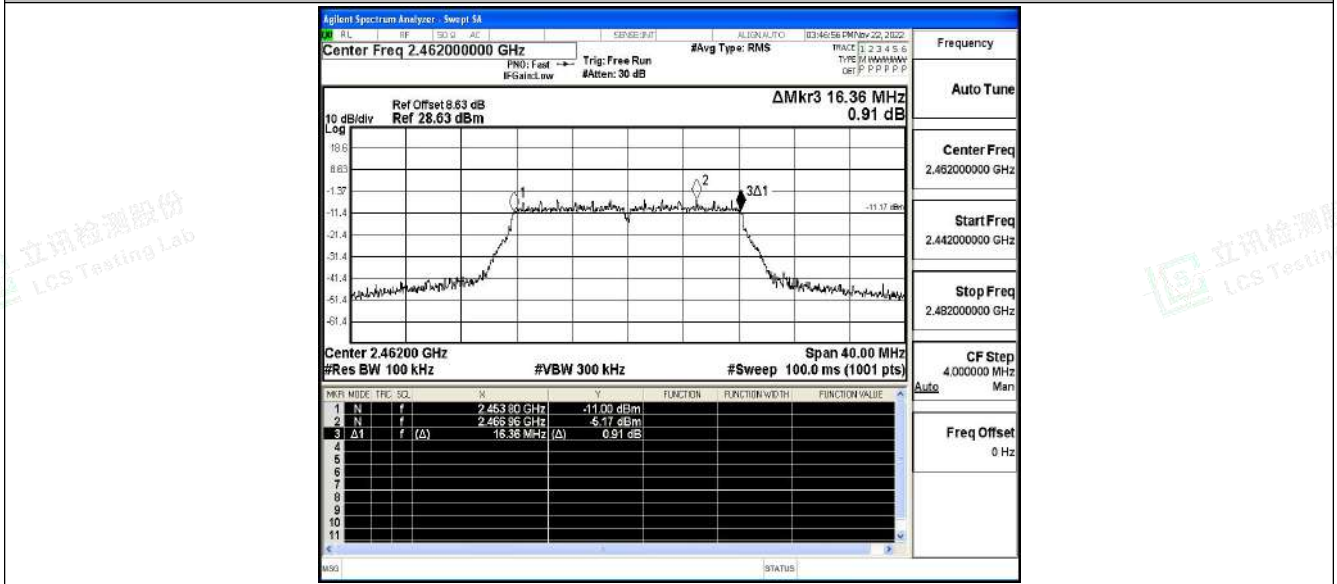


11G_Ant1_2437



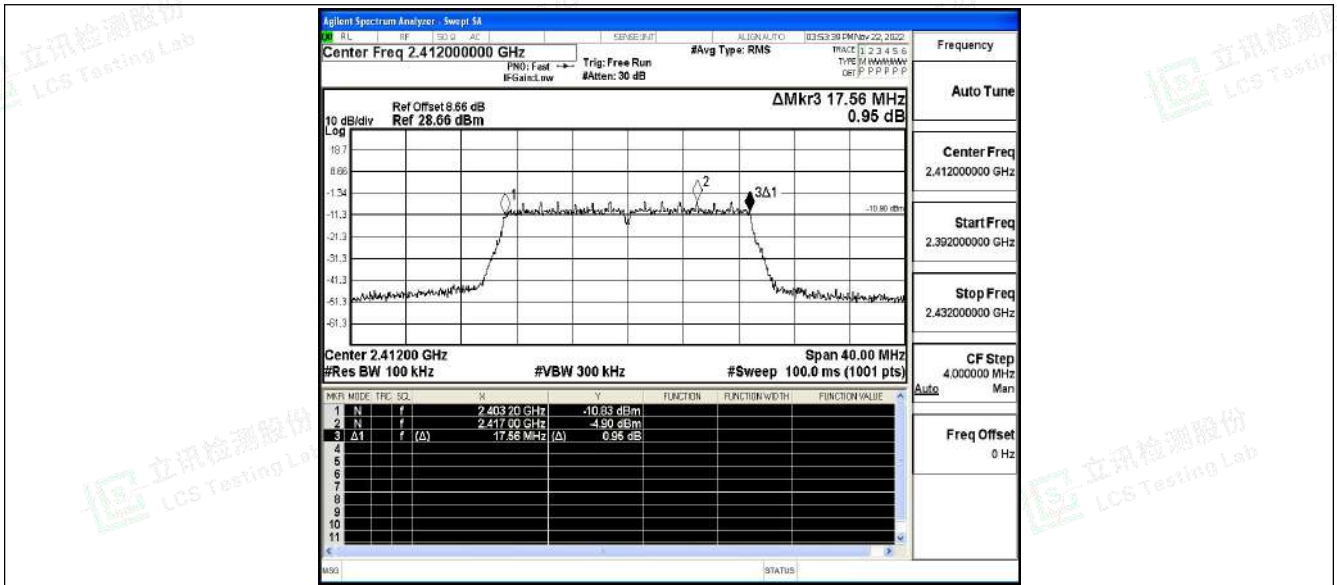


11G_Ant1_2462

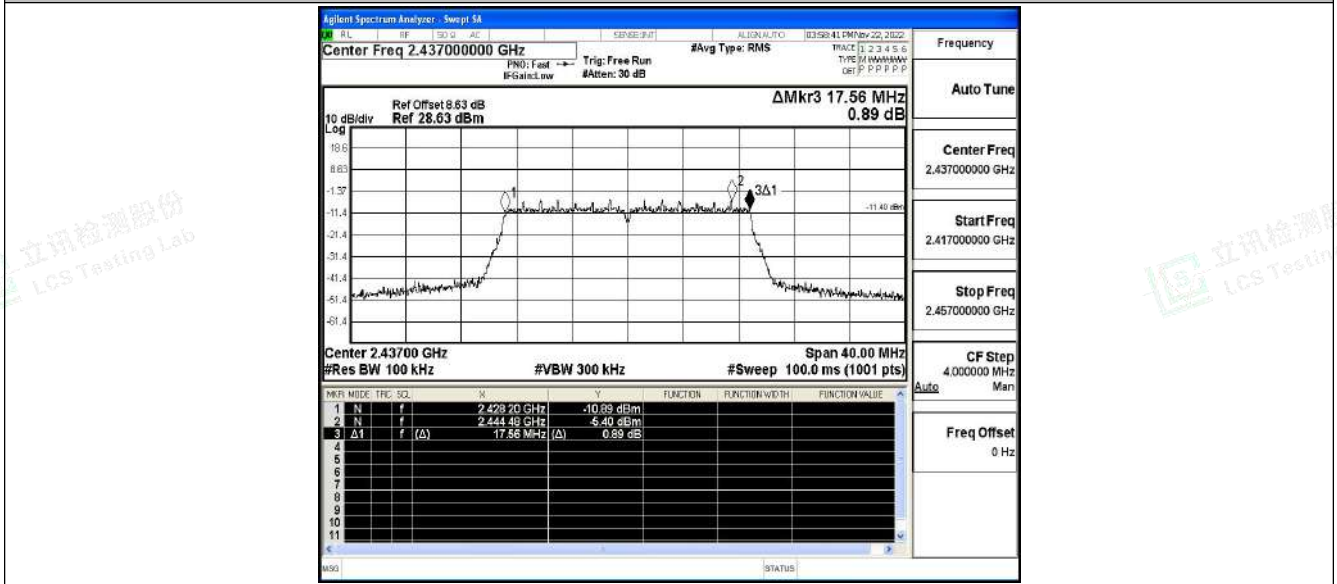


11N20SISO_Ant1_2412



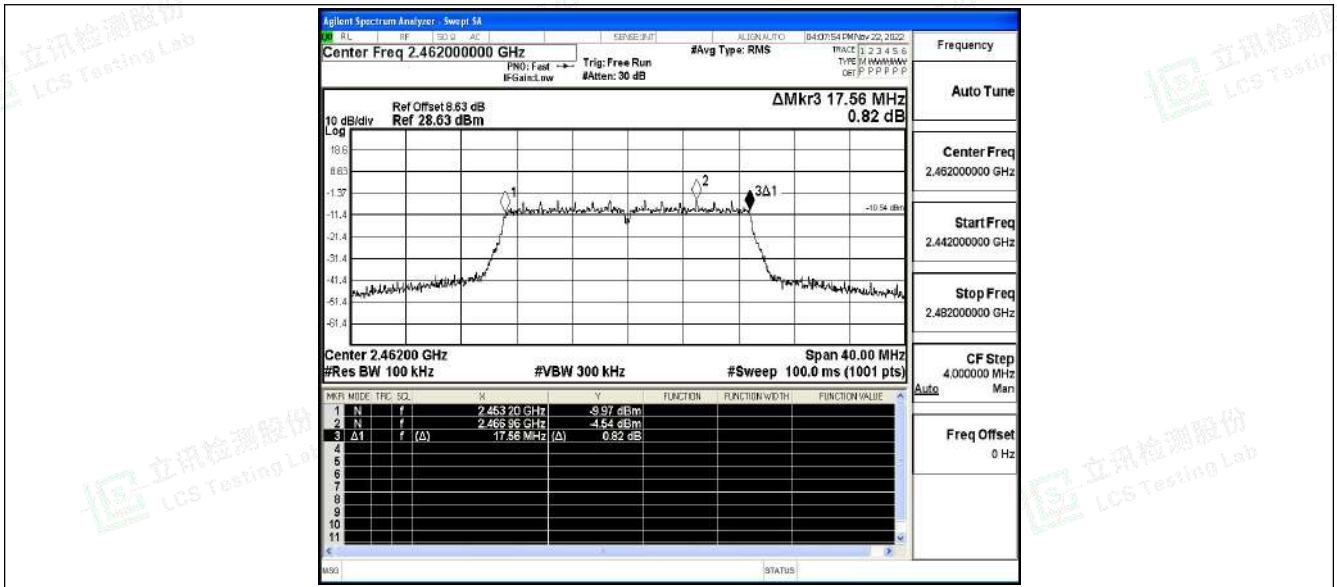


11N20SISO_Ant1_2437



11N20SISO_Ant1_2462







B.2 Maximum conducted output power

Test Result

TestMode	Antenna	Freq(MHz)	Peak Power[dBm]	Conducted Limit[dBm]	Verdict
11B	Ant1	2412	7.72	≤30.00	PASS
		2437	7.28	≤30.00	PASS
		2462	7.09	≤30.00	PASS
11G	Ant1	2412	7.02	≤30.00	PASS
		2437	7.26	≤30.00	PASS
		2462	7.42	≤30.00	PASS
11N20SISO	Ant1	2412	7.54	≤30.00	PASS
		2437	7.26	≤30.00	PASS
		2462	7.87	≤30.00	PASS





B.3 Maximum power spectral density

Test Result

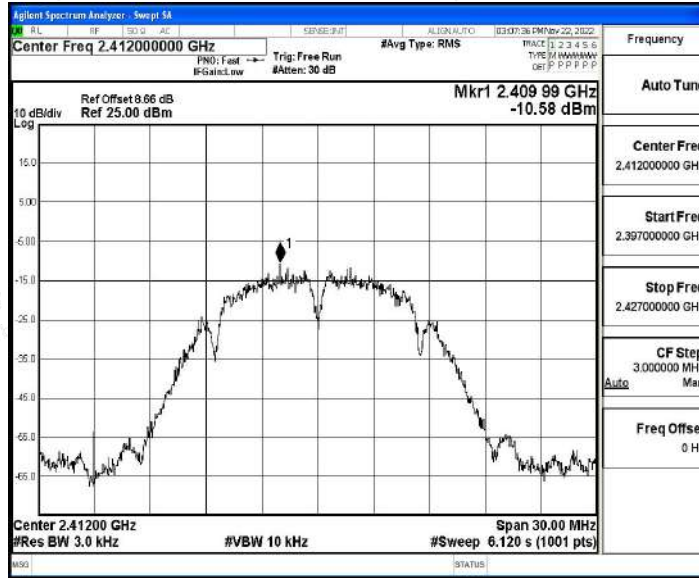
TestMode	Antenna	Freq(MHz)	Result [dBm/3kHz]	Limit [dBm/3kHz]	Verdict
11B	Ant1	2412	-10.58	≤8.00	PASS
		2437	-12.06	≤8.00	PASS
		2462	-12.81	≤8.00	PASS
11G	Ant1	2412	-19.79	≤8.00	PASS
		2437	-19.29	≤8.00	PASS
		2462	-19.06	≤8.00	PASS
11N20SISO	Ant1	2412	-19.59	≤8.00	PASS
		2437	-19.43	≤8.00	PASS
		2462	-19.44	≤8.00	PASS





Test Graphs

11B_Ant1_2412

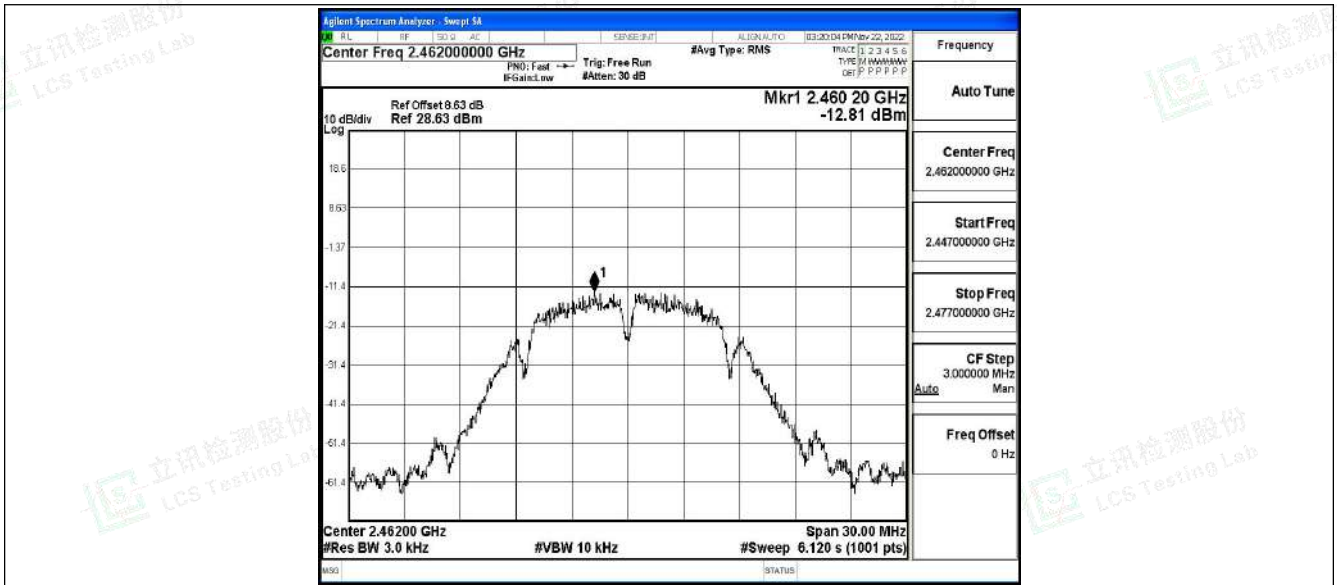


11B_Ant1_2437

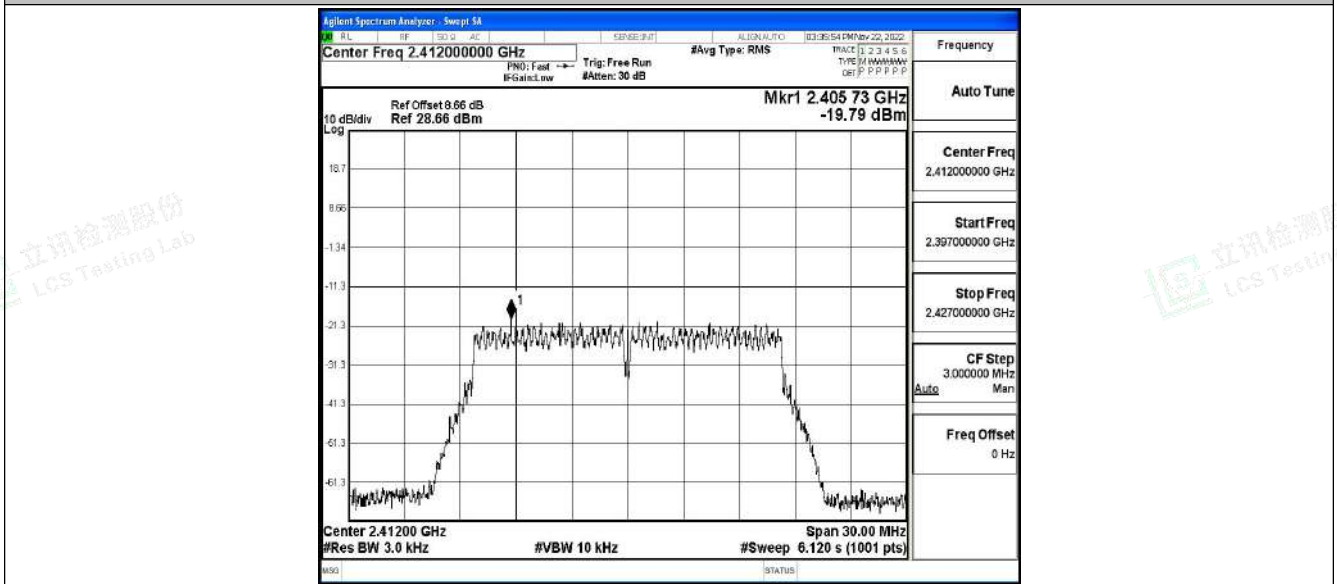


11B_Ant1_2462



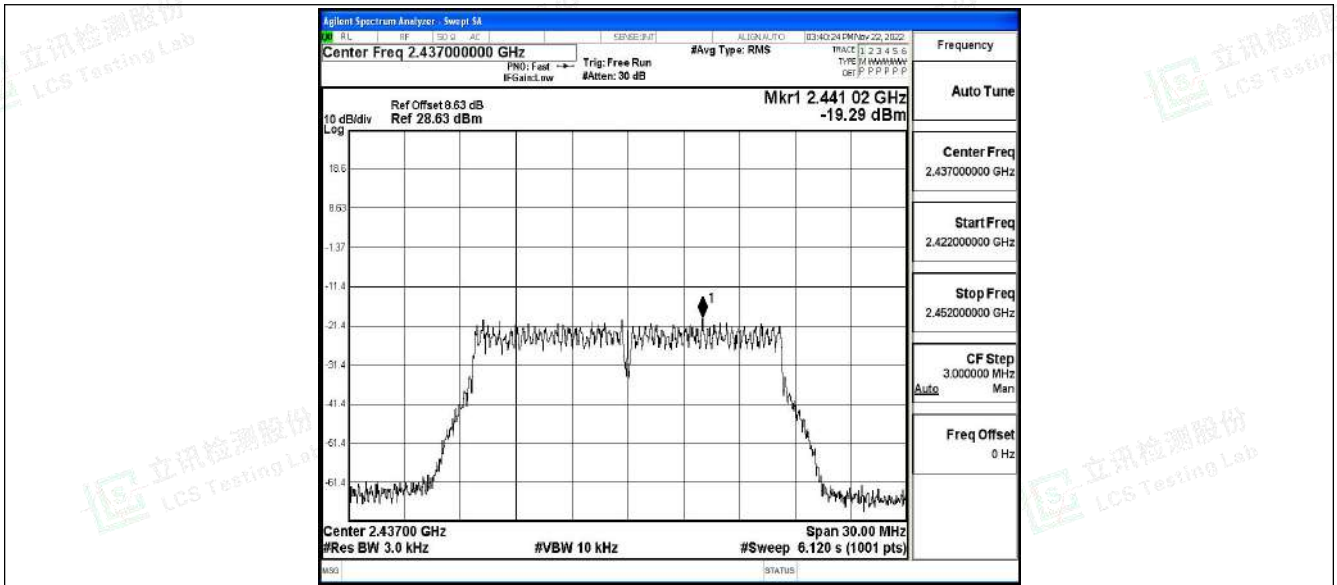


11G_Ant1_2412

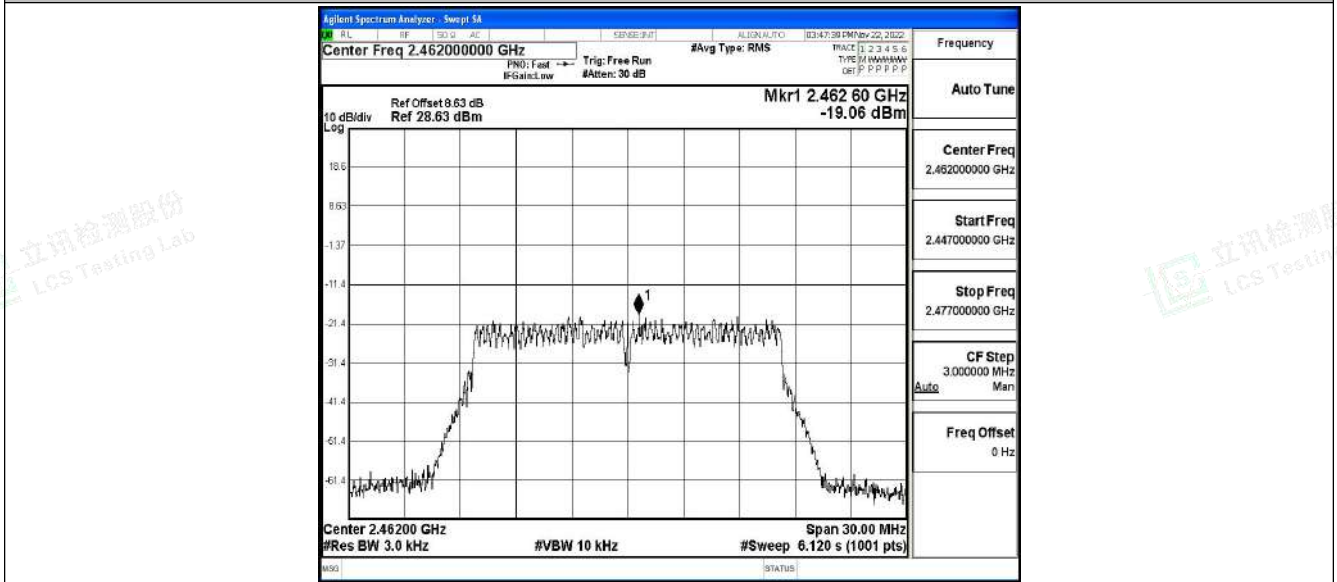


11G_Ant1_2437



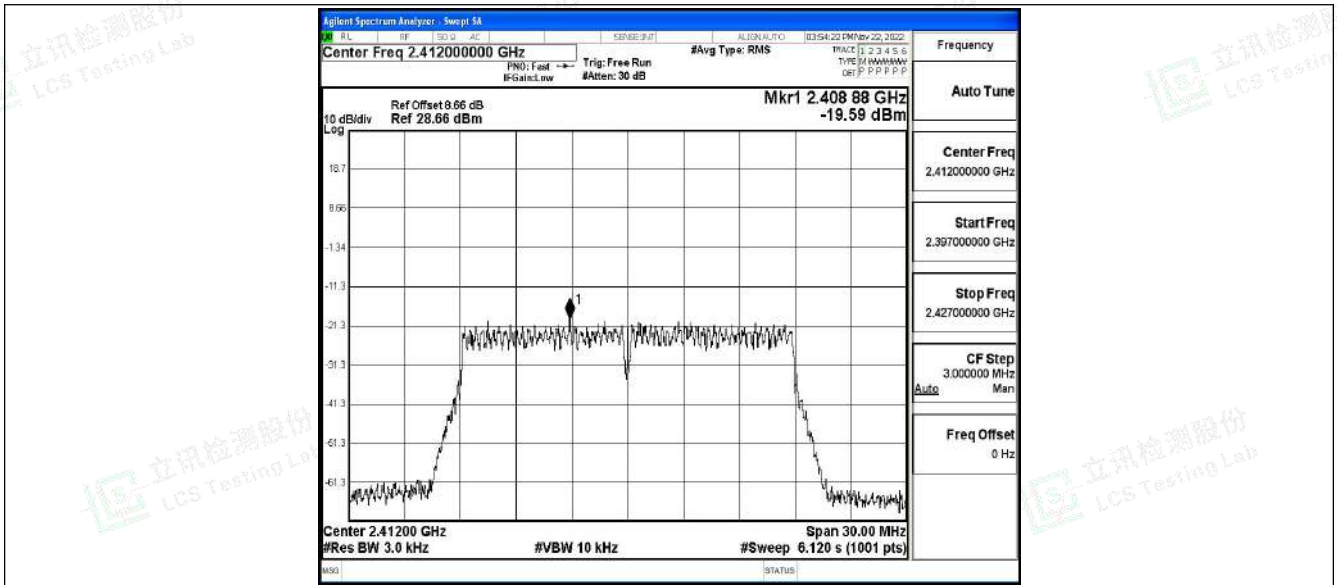


11G_Ant1_2462

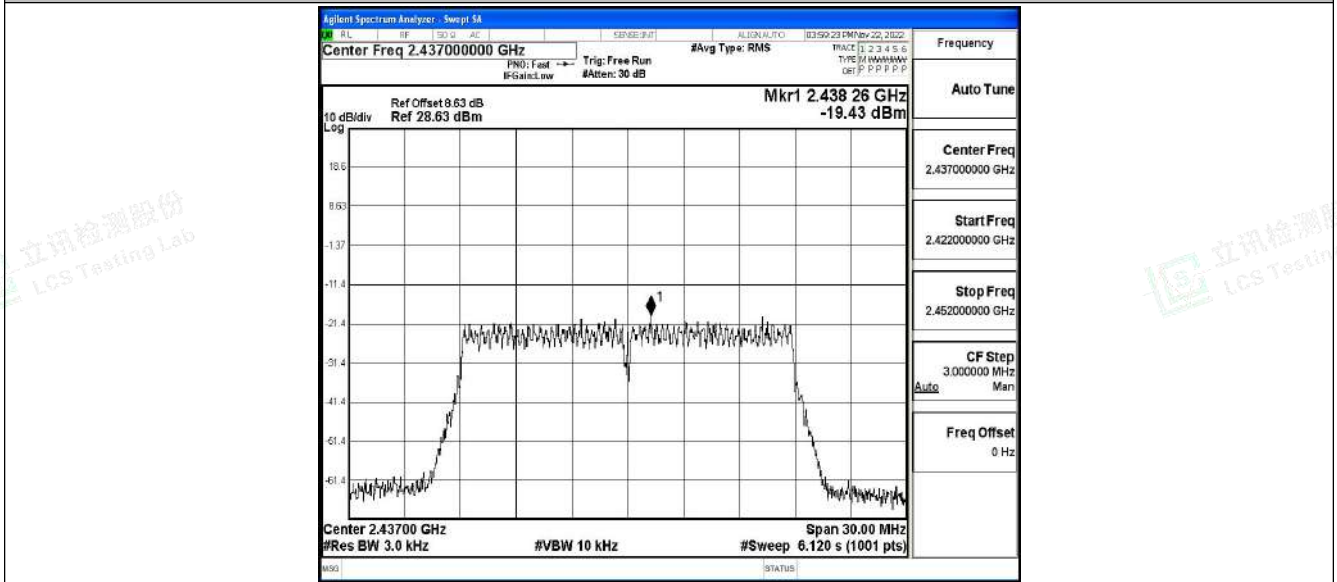


11N20SISO_Ant1_2412



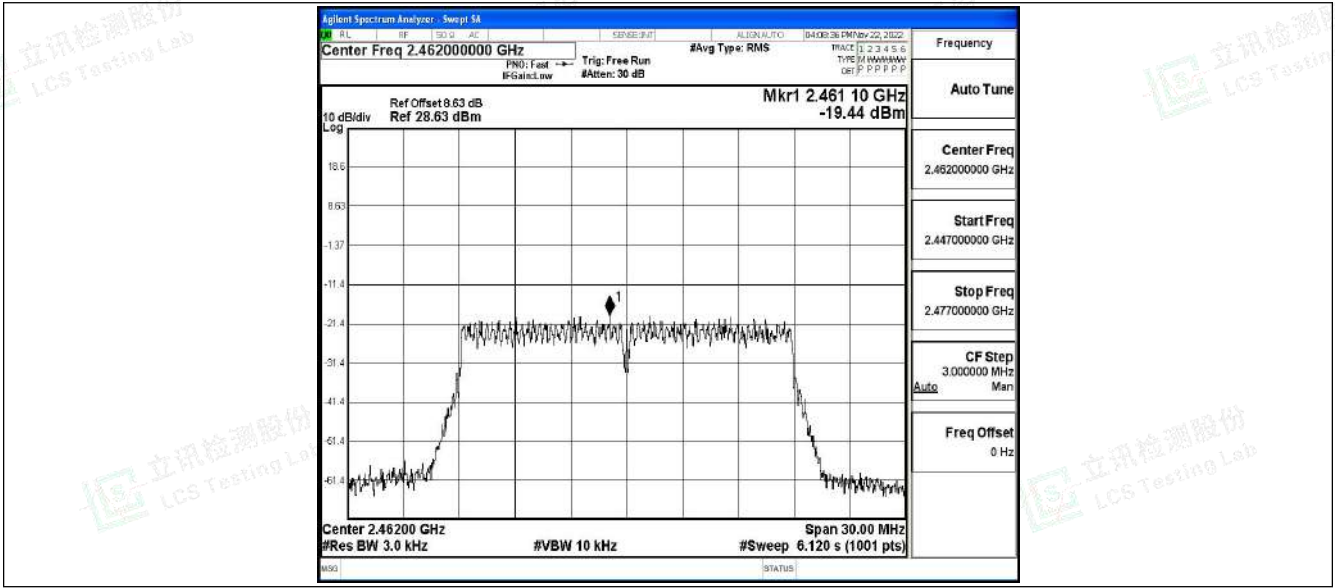


11N20SISO_Ant1_2437



11N20SISO_Ant1_2462







B.4 Band edge measurements

Test Result

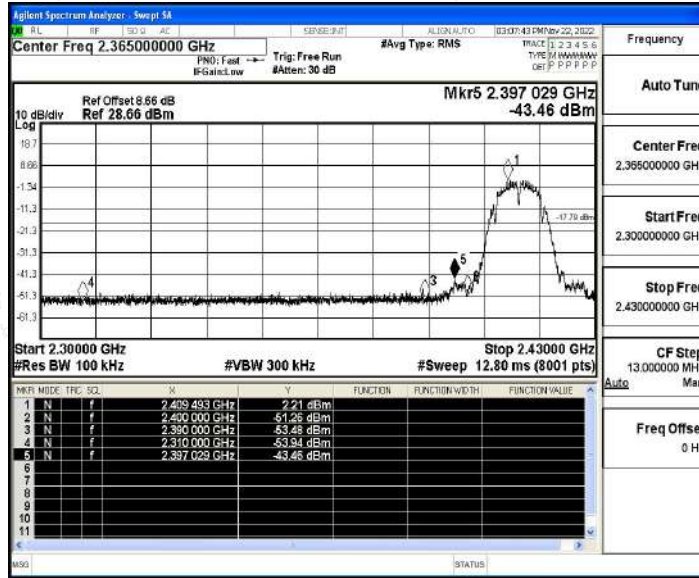
TestMode	Antenna	ChName	Freq(MHz)	RefLevel[dBm]	Result[dBm]	Limit[dBm]	Verdict
11B	Ant1	Low	2412	2.21	-43.46	≤-17.79	PASS
		High	2462	2.24	-48.39	≤-17.76	PASS
11G	Ant1	Low	2412	-5.47	-45.76	≤-25.47	PASS
		High	2462	-4.81	-48.18	≤-24.81	PASS
11N20SISO	Ant1	Low	2412	-5.00	-45.06	≤-25	PASS
		High	2462	-4.96	-47.33	≤-24.96	PASS



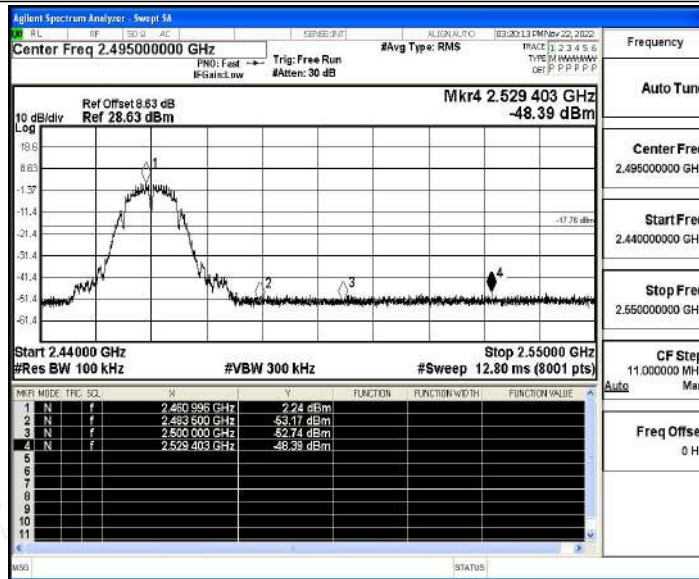


Test Graphs

11B_Ant1_Low_2412

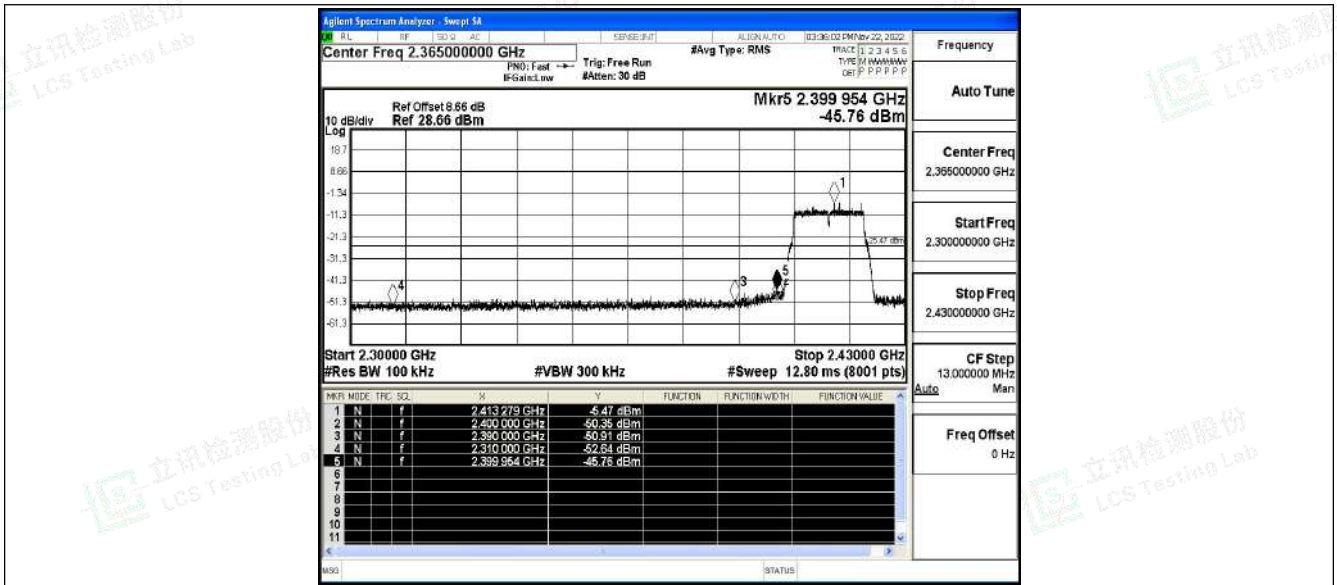


11B_Ant1_High_2462

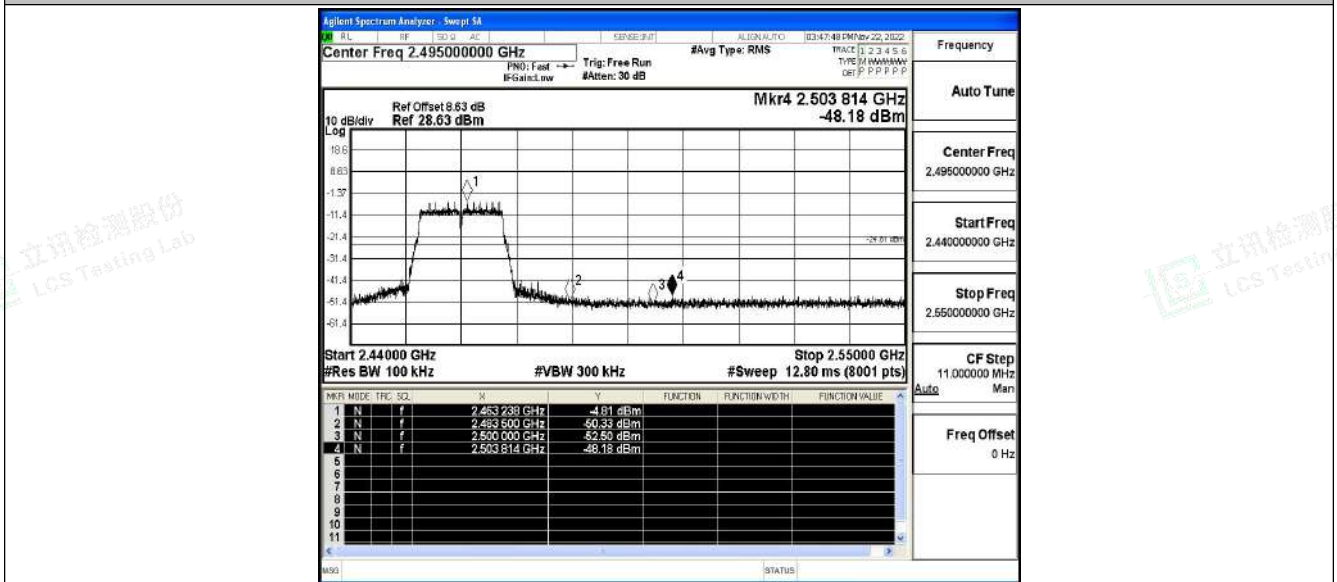


11G_Ant1_Low_2412



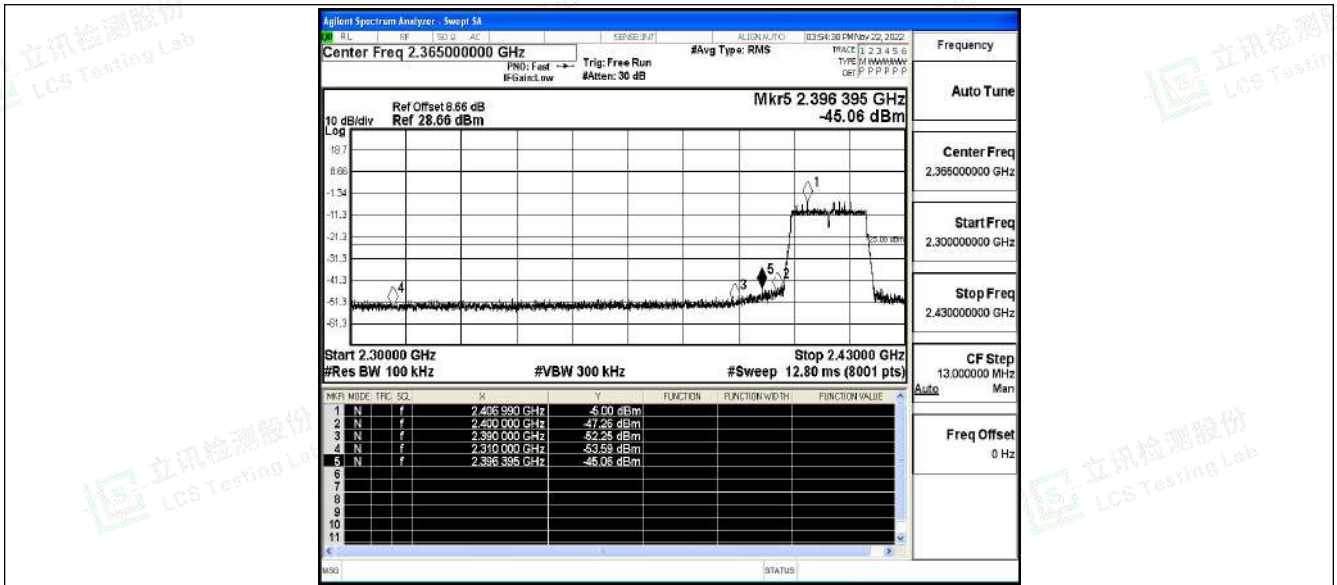


11G_Ant1_High_2462

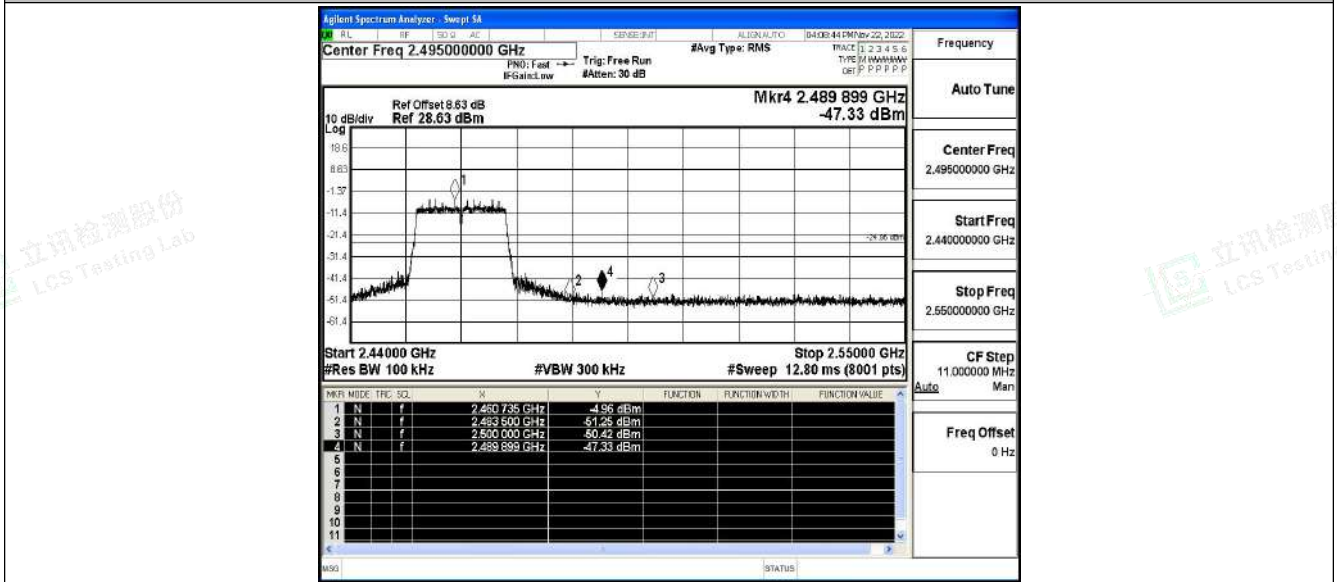


11N20SISO_Ant1_Low_2412





11N20SISO_Ant1_High_2462





B.5 Conducted Spurious Emission

Test Result

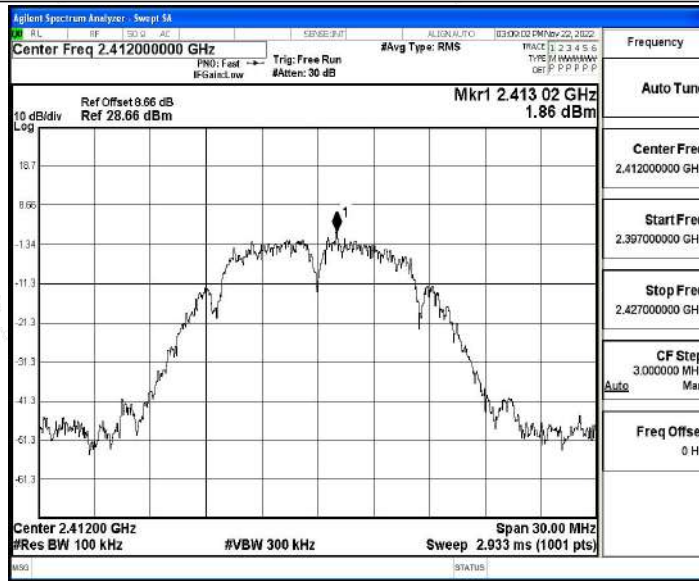
TestMode	Antenna	Freq(MHz)	FreqRange [Mhz]	RefLevel [dBm]	Result [dBm]	Limit [dBm]	Verdict
11B	Ant1	2412	Reference	1.86	1.86	---	PASS
			30~1000	1.86	-60.68	≤-18.14	PASS
			1000~26500	1.86	-46.03	≤-18.14	PASS
		2437	Reference	1.81	1.81	---	PASS
			30~1000	1.81	-60.79	≤-18.19	PASS
			1000~26500	1.81	-45.8	≤-18.19	PASS
		2462	Reference	1.00	1.00	---	PASS
			30~1000	1.00	-60.63	≤-19	PASS
			1000~26500	1.00	-46.29	≤-19	PASS
11G	Ant1	2412	Reference	-8.02	-8.02	---	PASS
			30~1000	-8.02	-60.4	≤-28.02	PASS
			1000~26500	-8.02	-45.82	≤-28.02	PASS
		2437	Reference	-5.78	-5.78	---	PASS
			30~1000	-5.78	-60.21	≤-25.78	PASS
			1000~26500	-5.78	-45.72	≤-25.78	PASS
		2462	Reference	-5.59	-5.59	---	PASS
			30~1000	-5.59	-60.88	≤-25.59	PASS
			1000~26500	-5.59	-46.15	≤-25.59	PASS
11N20SISO	Ant1	2412	Reference	-5.12	-5.12	---	PASS
			30~1000	-5.12	-53.39	≤-25.12	PASS
			1000~26500	-5.12	-46.73	≤-25.12	PASS
		2437	Reference	-6.48	-6.48	---	PASS
			30~1000	-6.48	-60.24	≤-26.48	PASS
			1000~26500	-6.48	-45.87	≤-26.48	PASS
		2462	Reference	-6.41	-6.41	---	PASS
			30~1000	-6.41	-60.01	≤-26.41	PASS
			1000~26500	-6.41	-46.21	≤-26.41	PASS



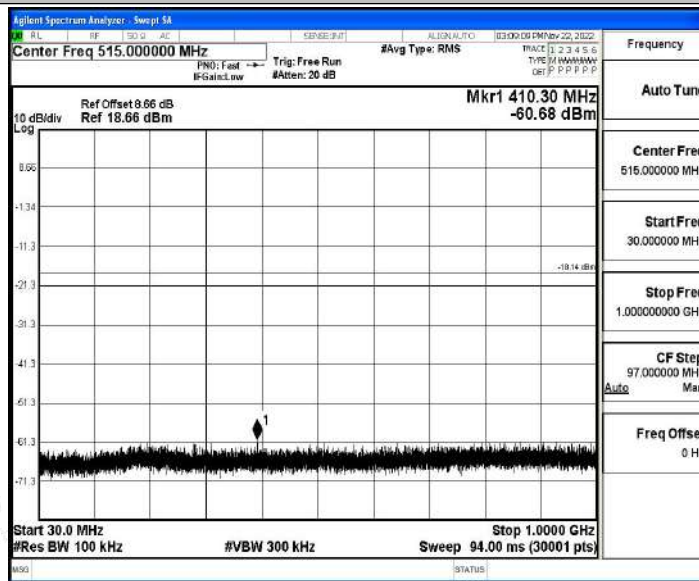


Test Graphs

11B_Ant1_2412_0~Reference

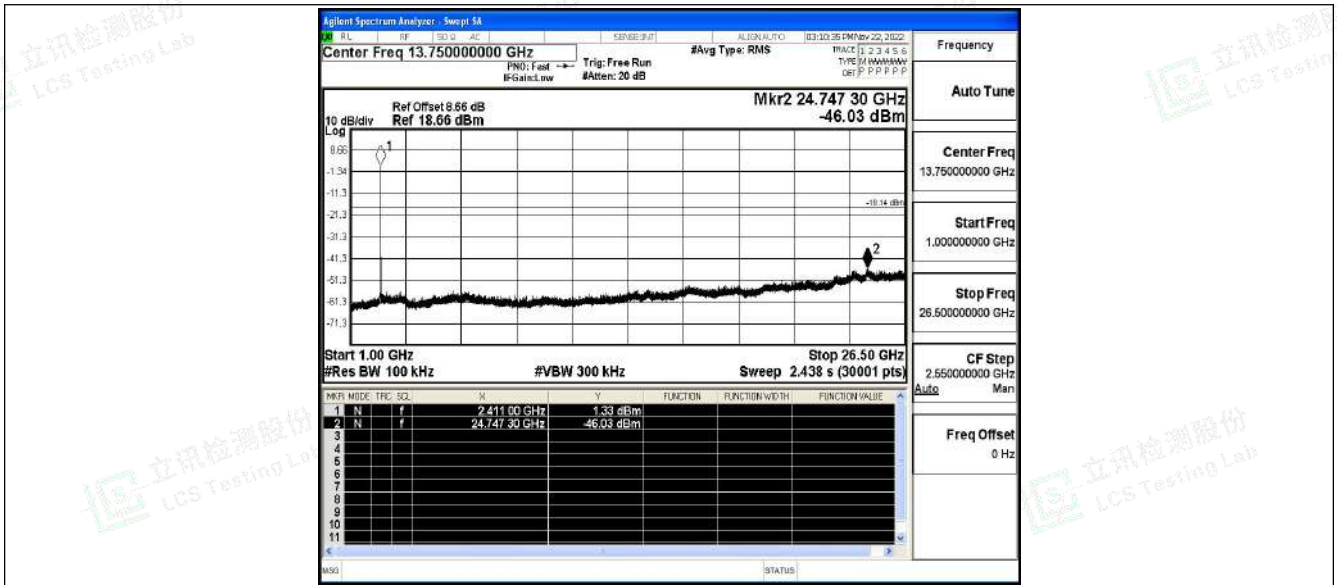


11B_Ant1_2412_30~1000

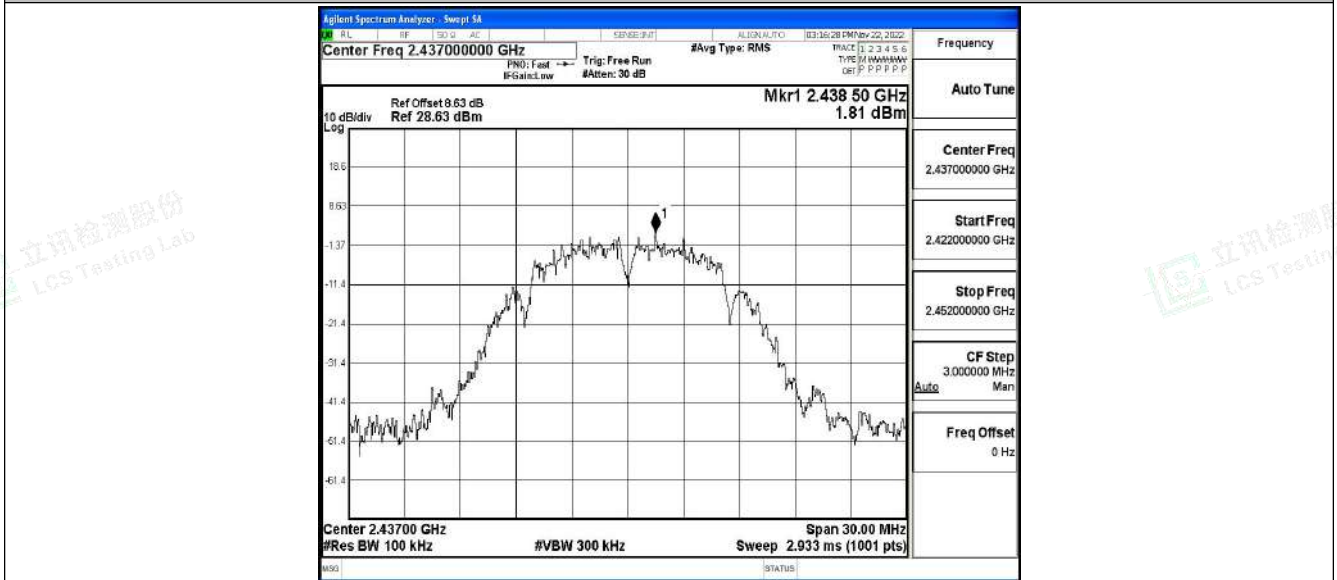


11B_Ant1_2412_1000~26500



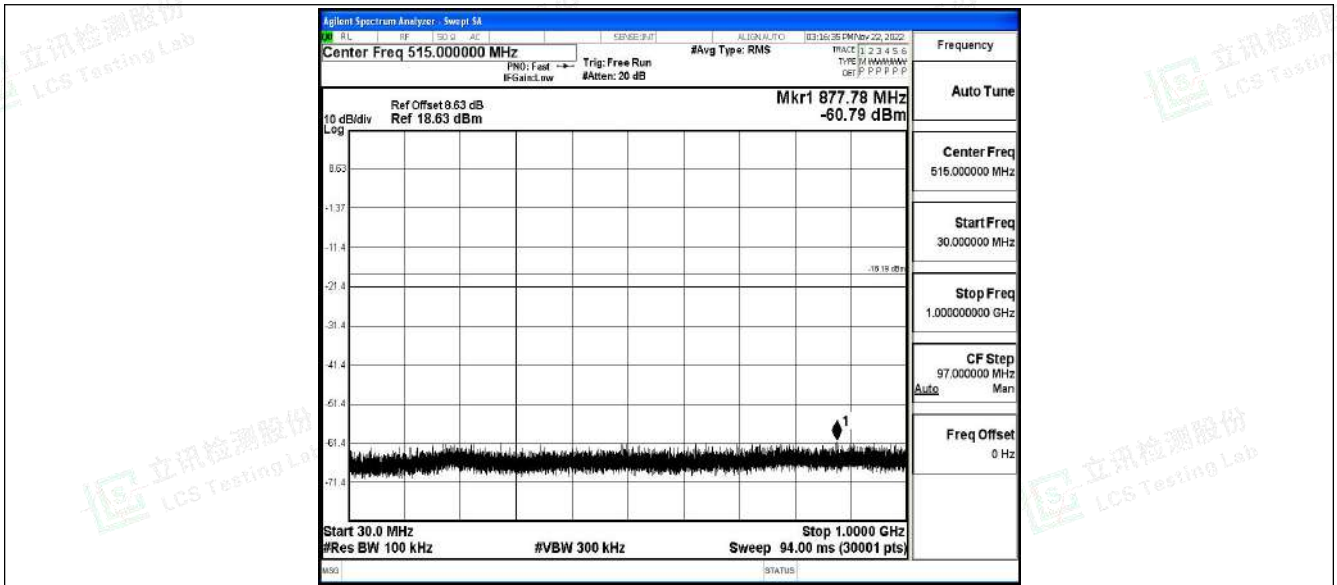


11B_Ant1_2437_0~Reference

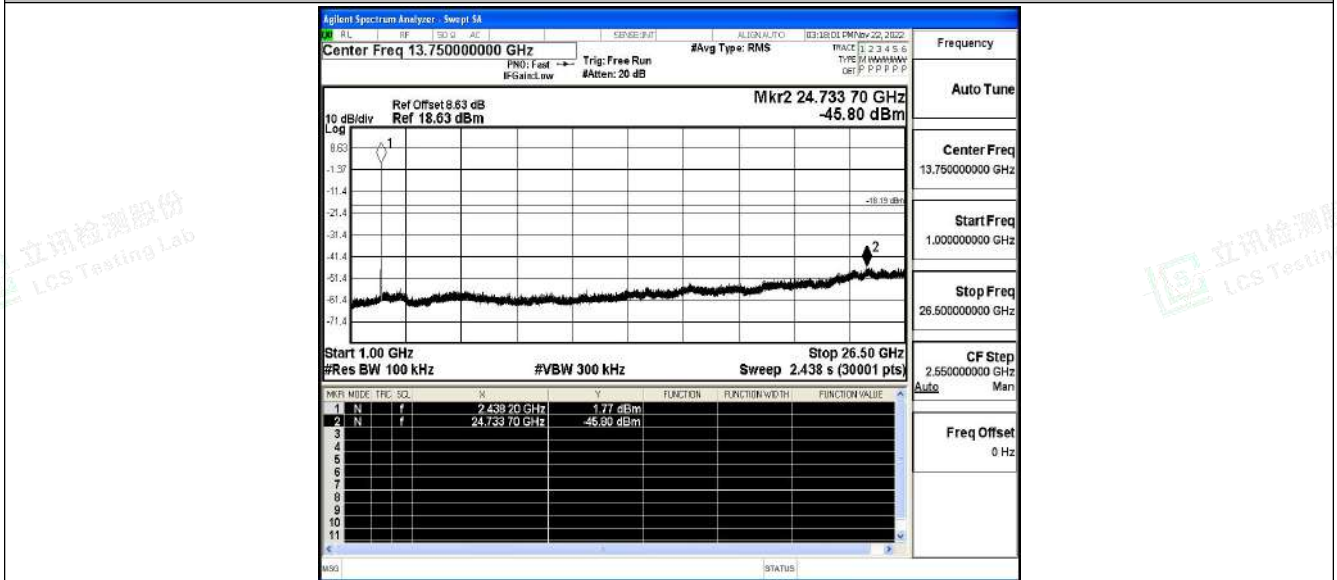


11B_Ant1_2437_30~1000



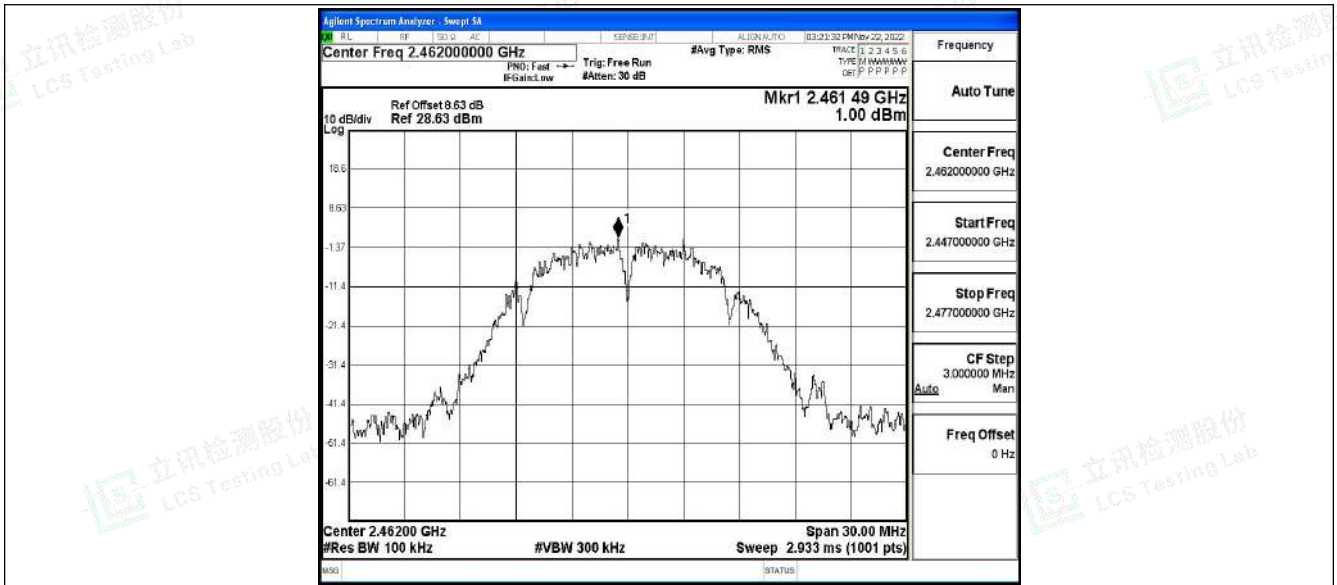


11B_Ant1_2437_1000~26500

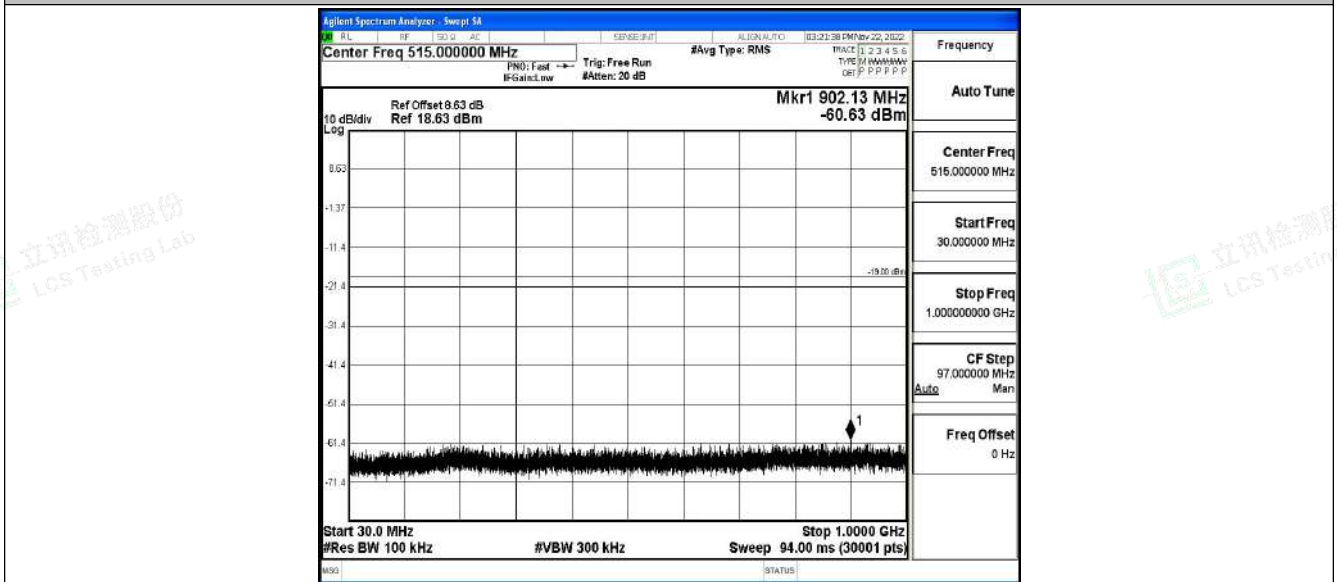


11B_Ant1_2462_0~Reference



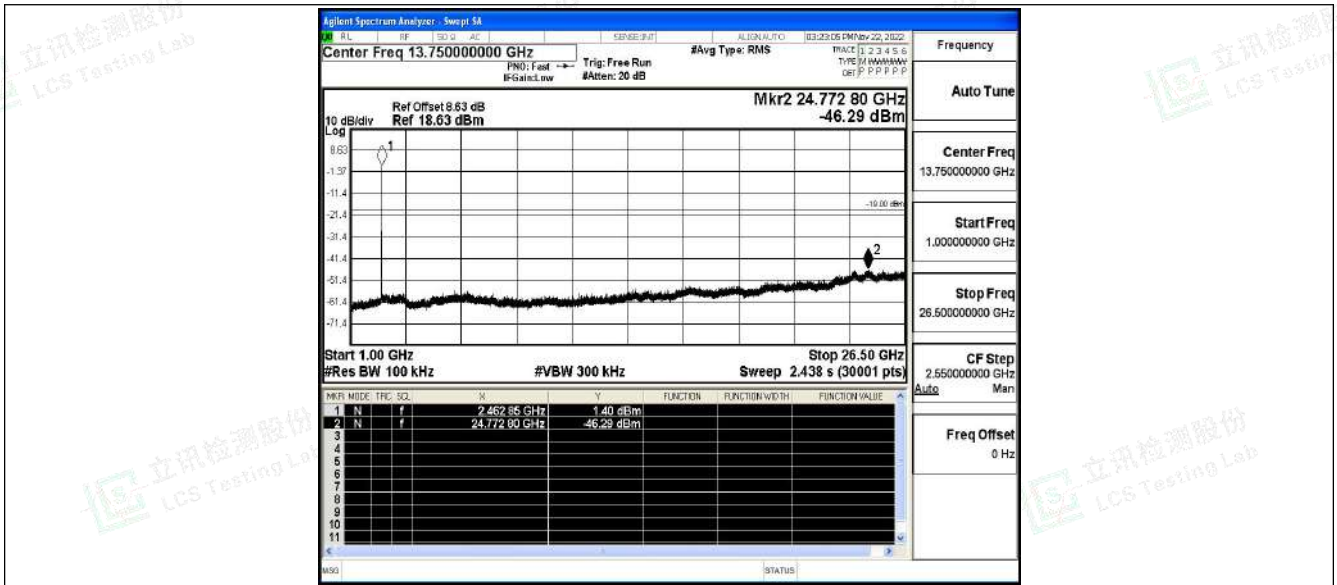


11B_Ant1_2462_30~1000

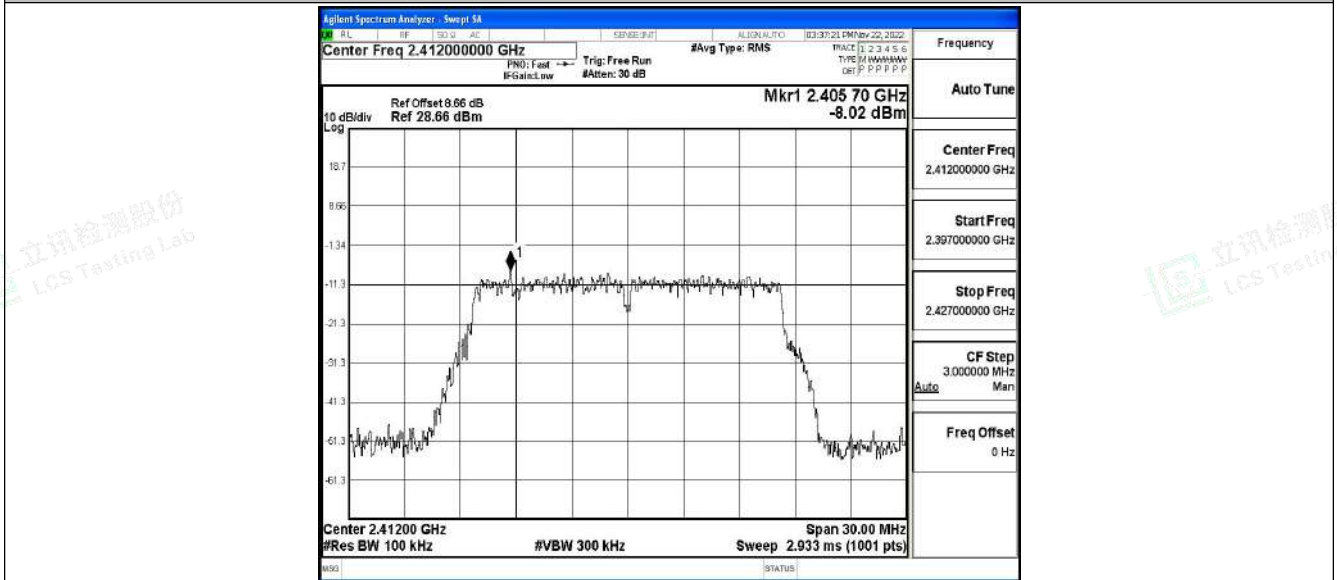


11B_Ant1_2462_1000~26500



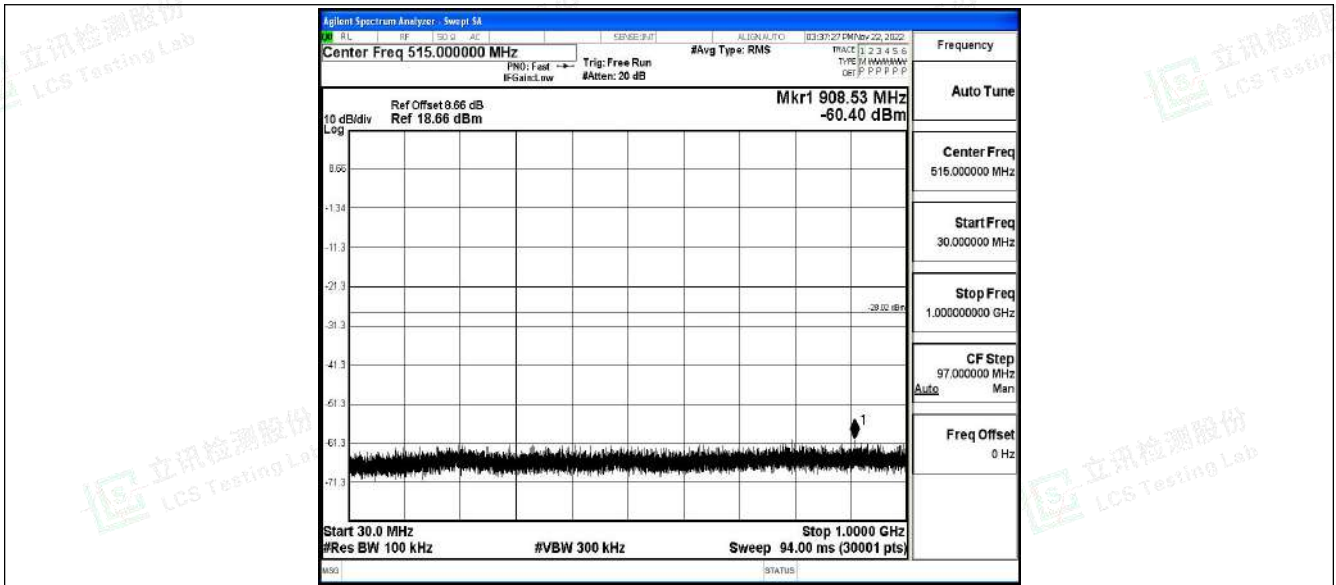


11G_Ant1_2412_0~Reference

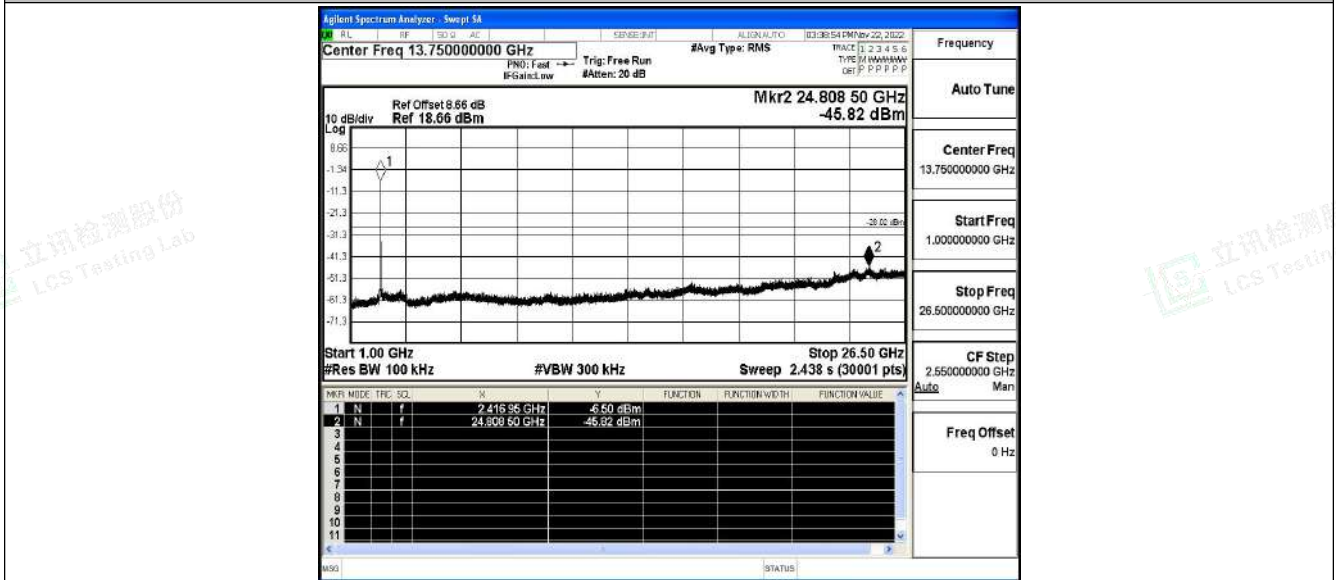


11G_Ant1_2412_30~1000



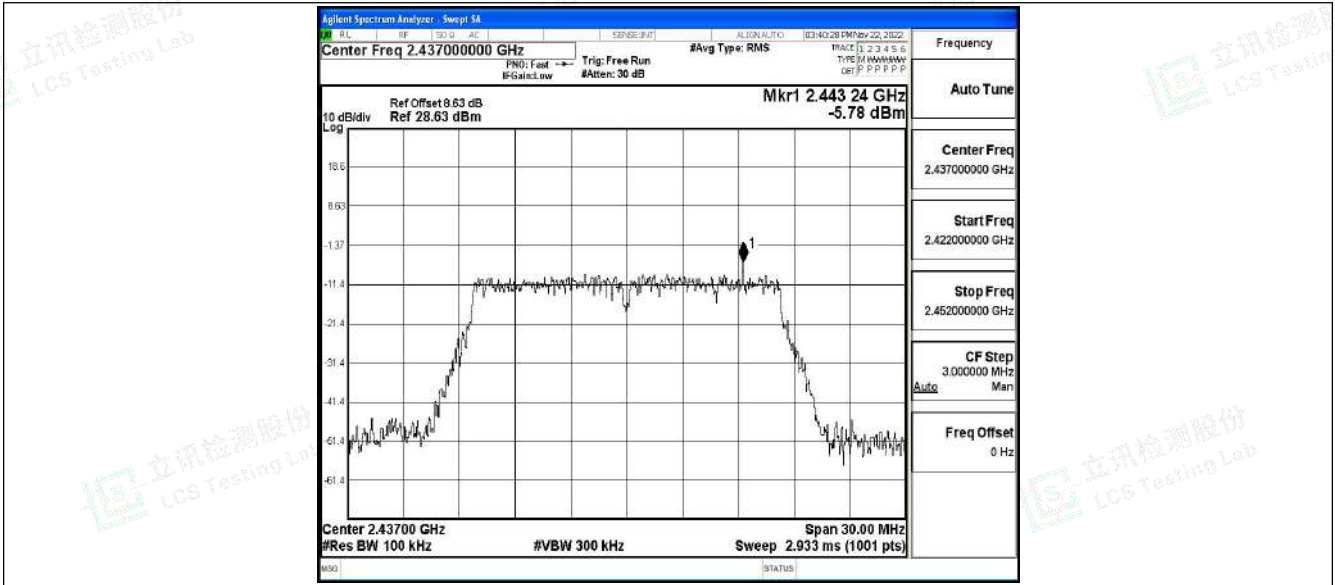


11G_Ant1_2412_1000~26500

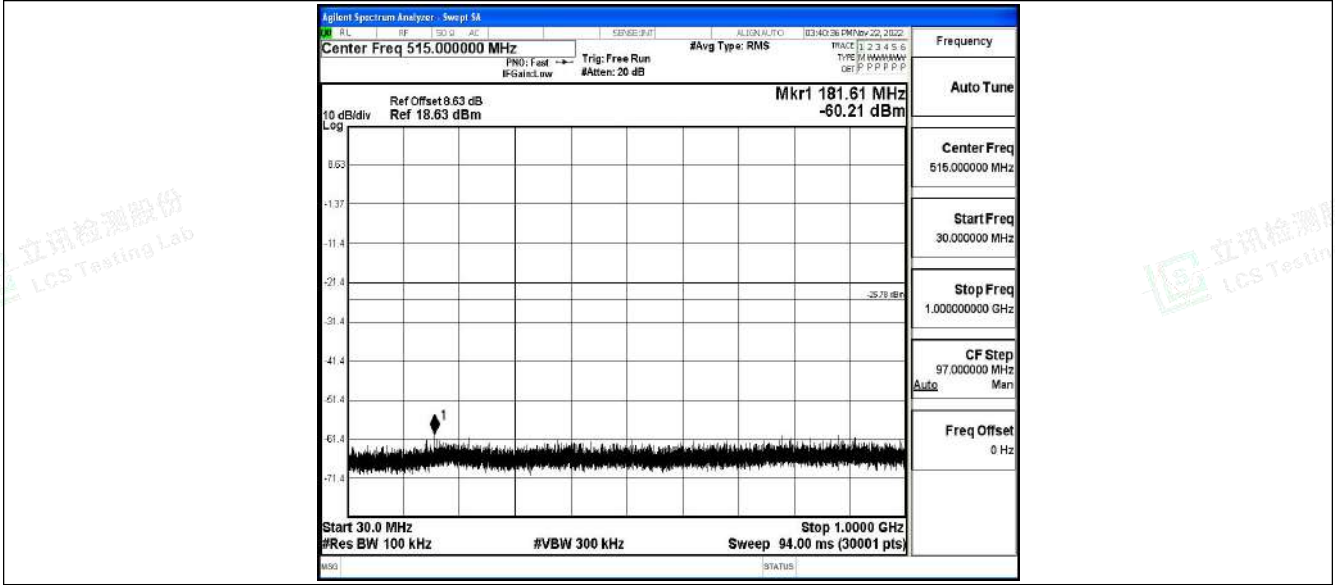


11G_Ant1_2437_0~Reference



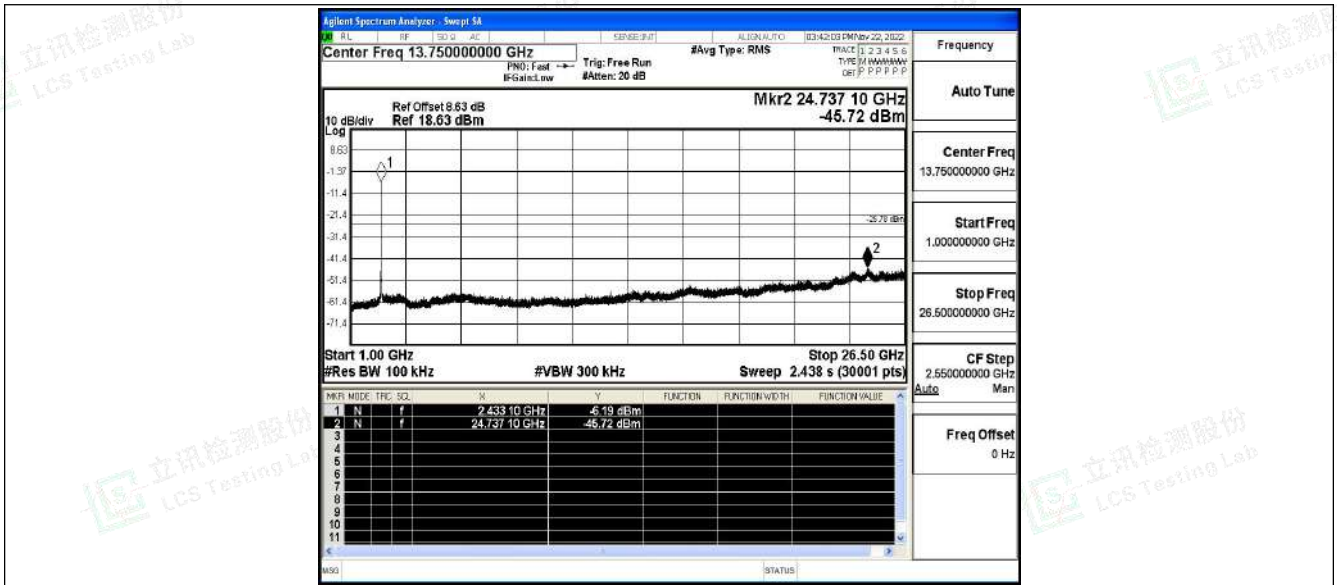


11G_Ant1_2437_30~1000

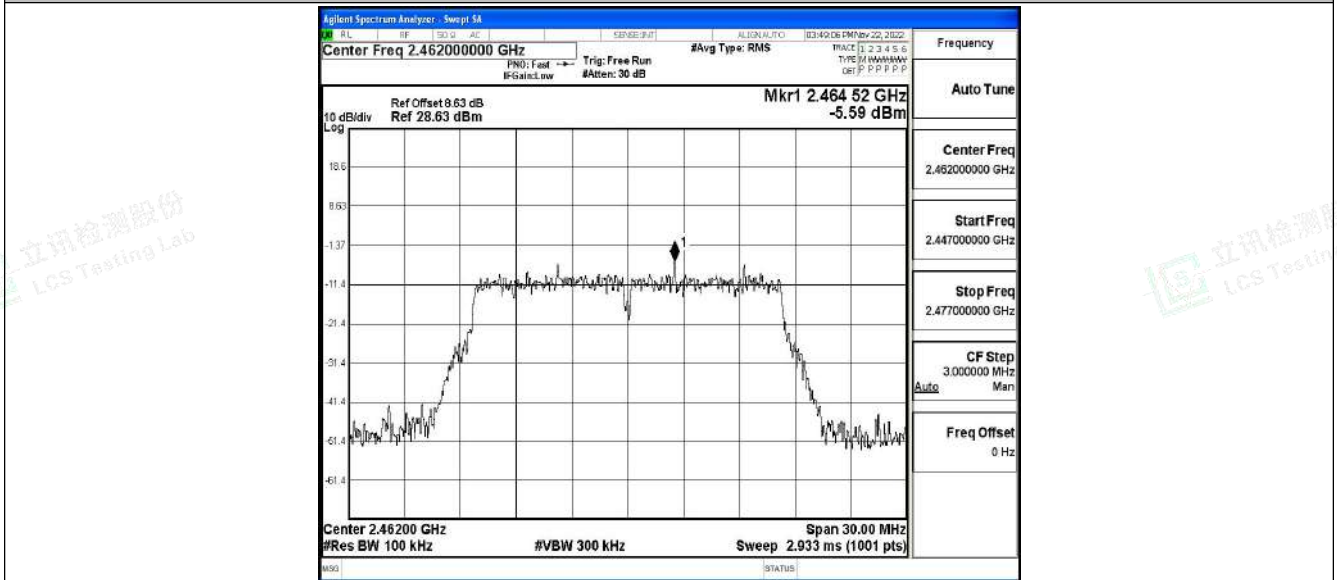


11G_Ant1_2437_1000~26500



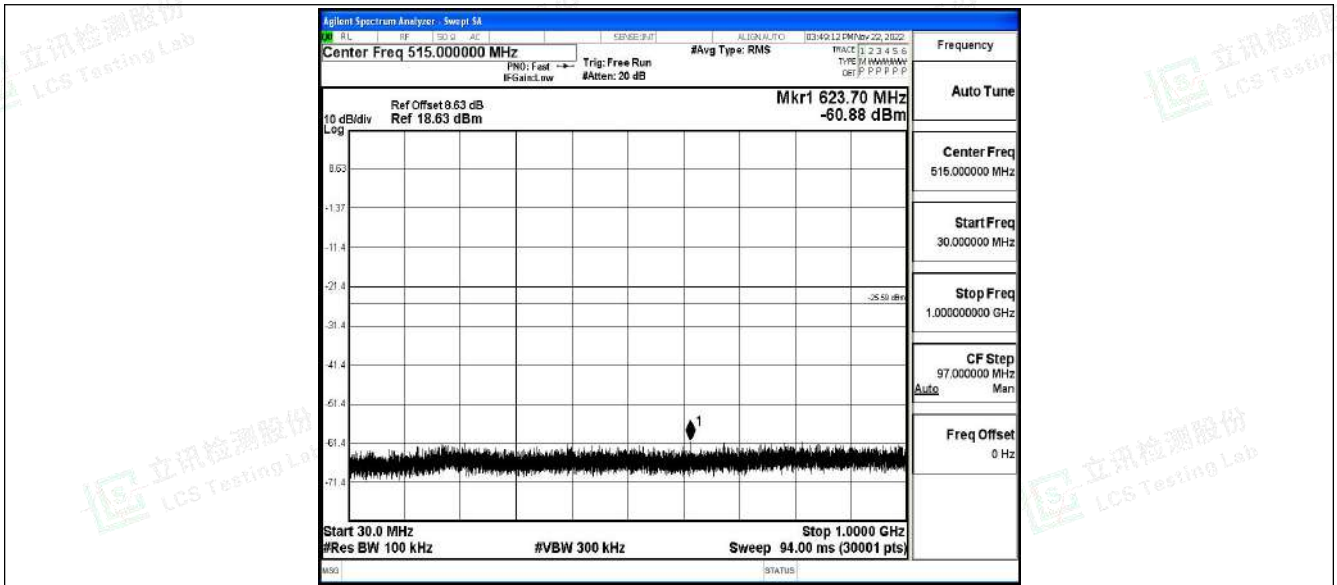


11G_Ant1_2462_0~Reference

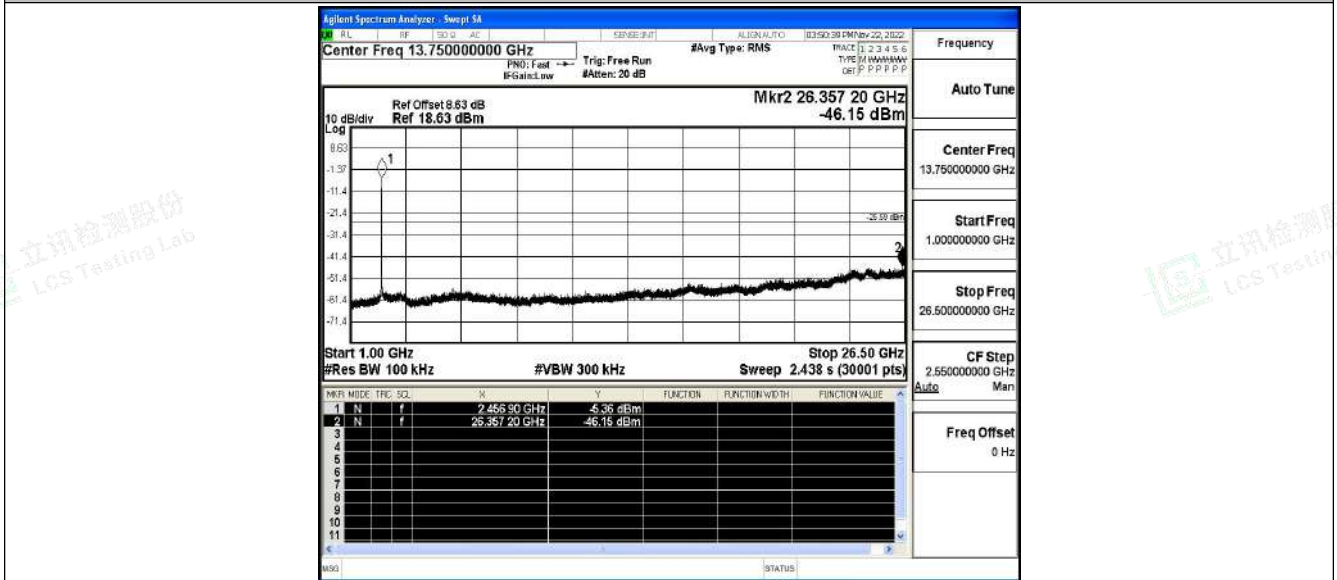


11G_Ant1_2462_30~1000



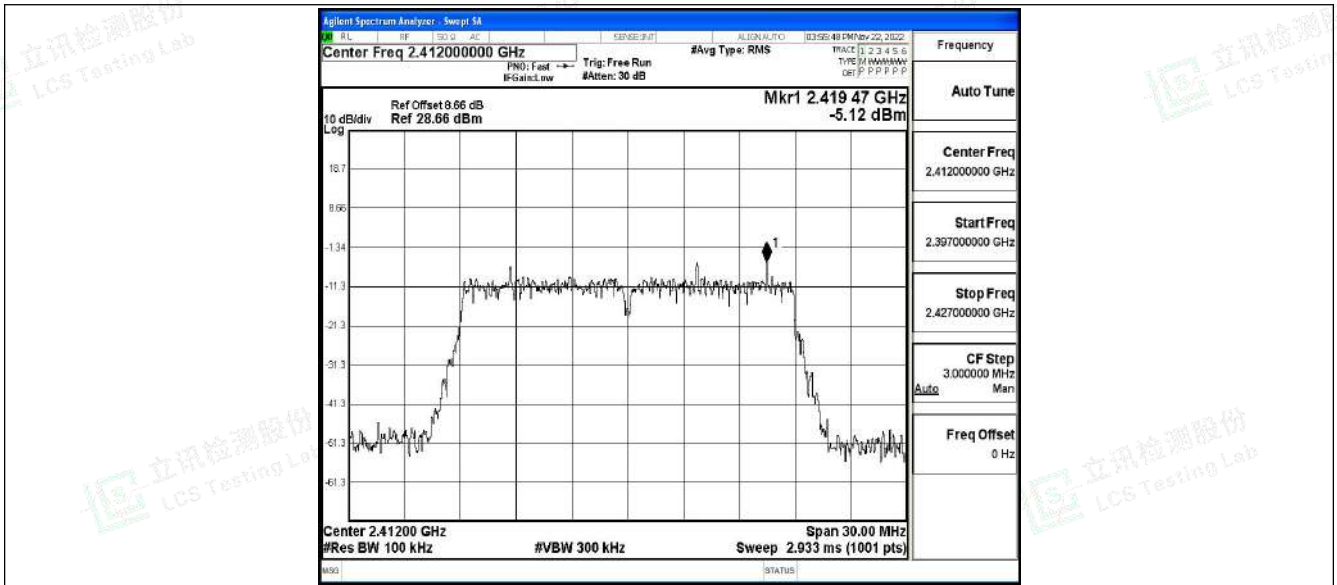


11G_Ant1_2462_1000~26500

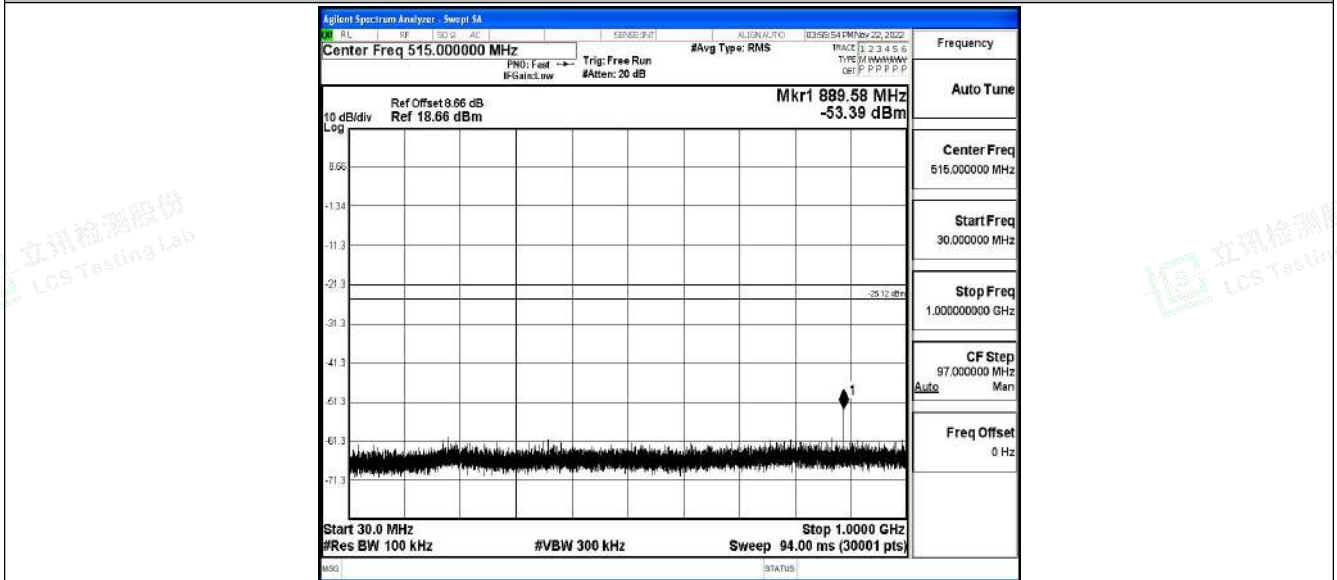


11N20SISO_Ant1_2412_0~Reference



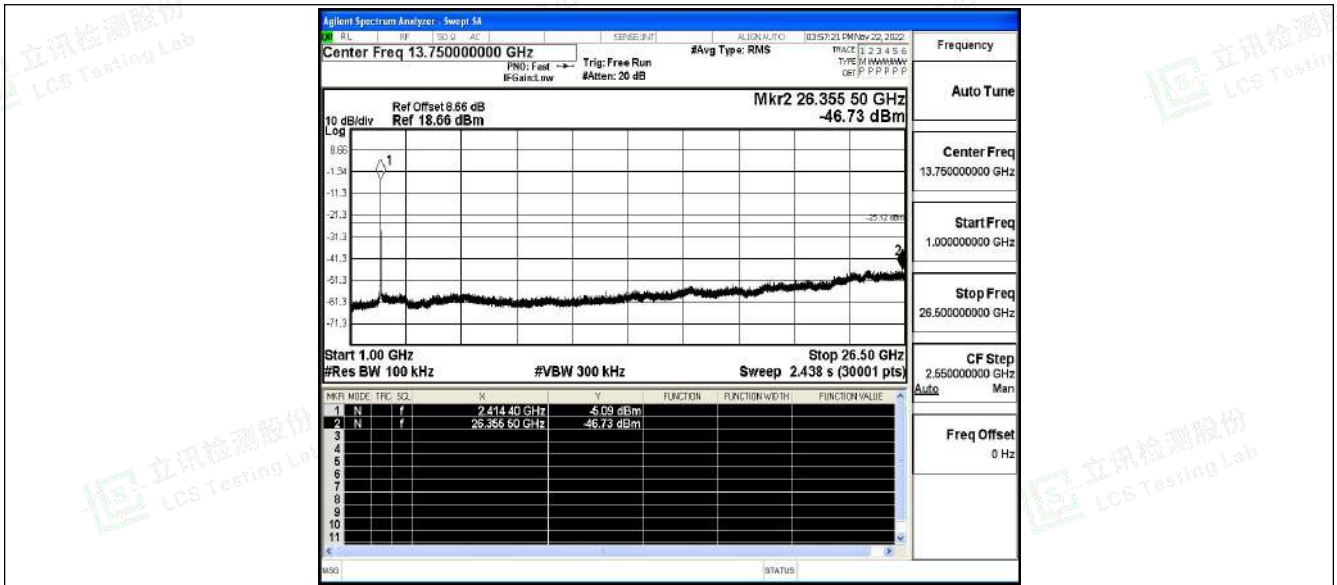


11N20SISO_Ant1_2412_30~1000

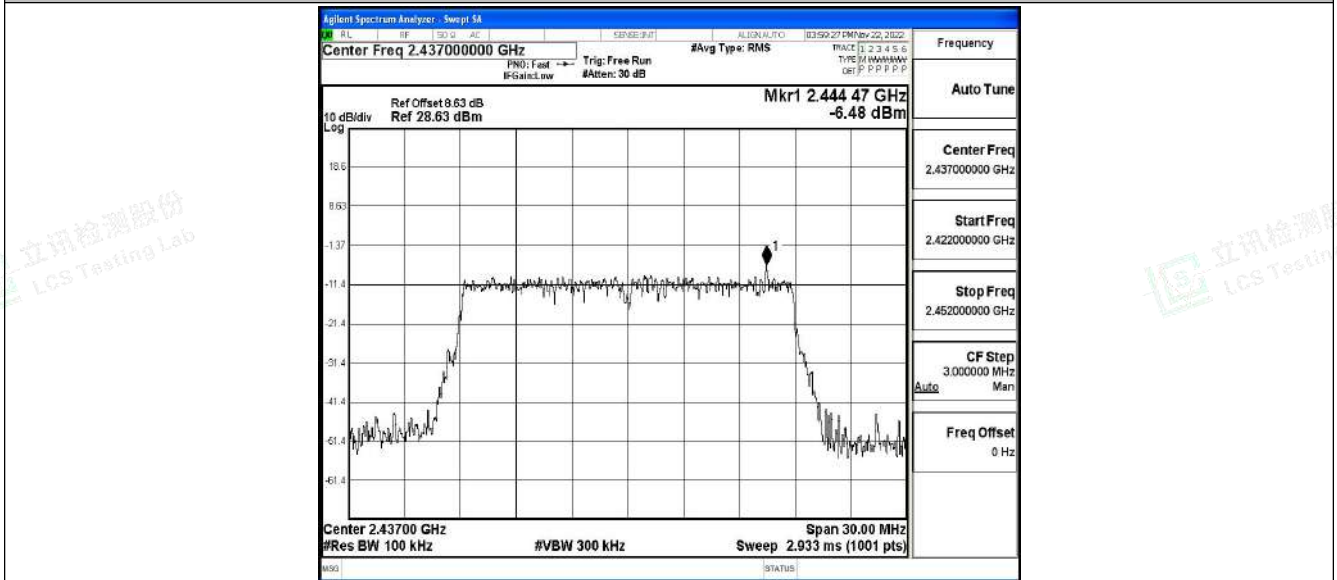


11N20SISO_Ant1_2412_1000~26500



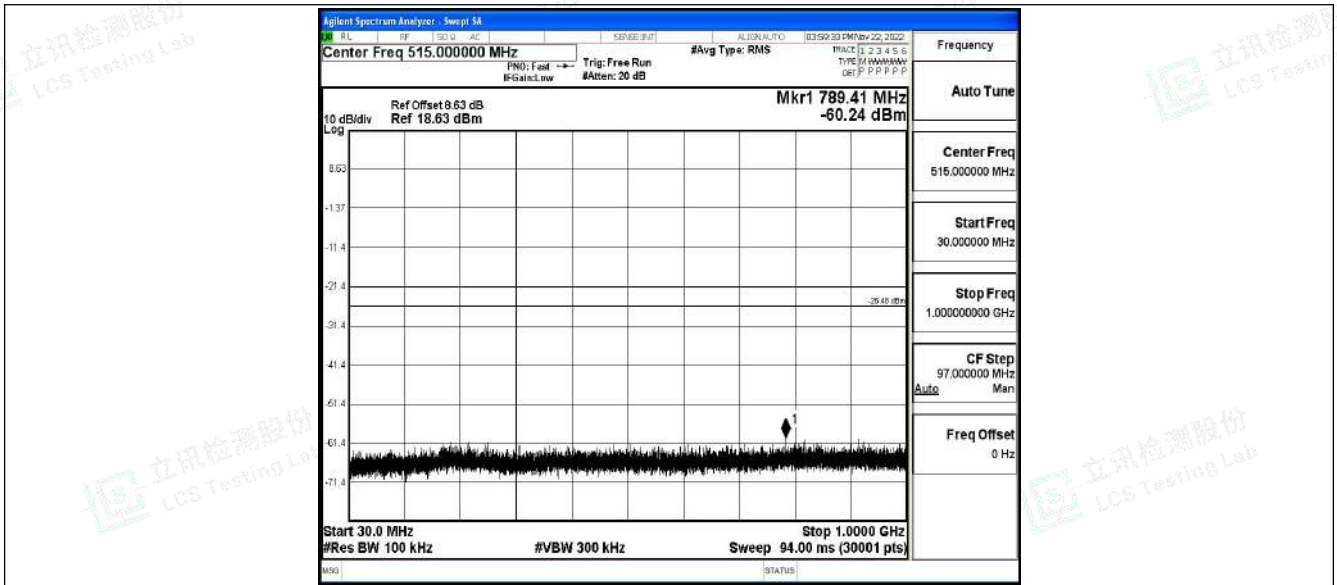


11N20SISO_Ant1_2437_0~Reference

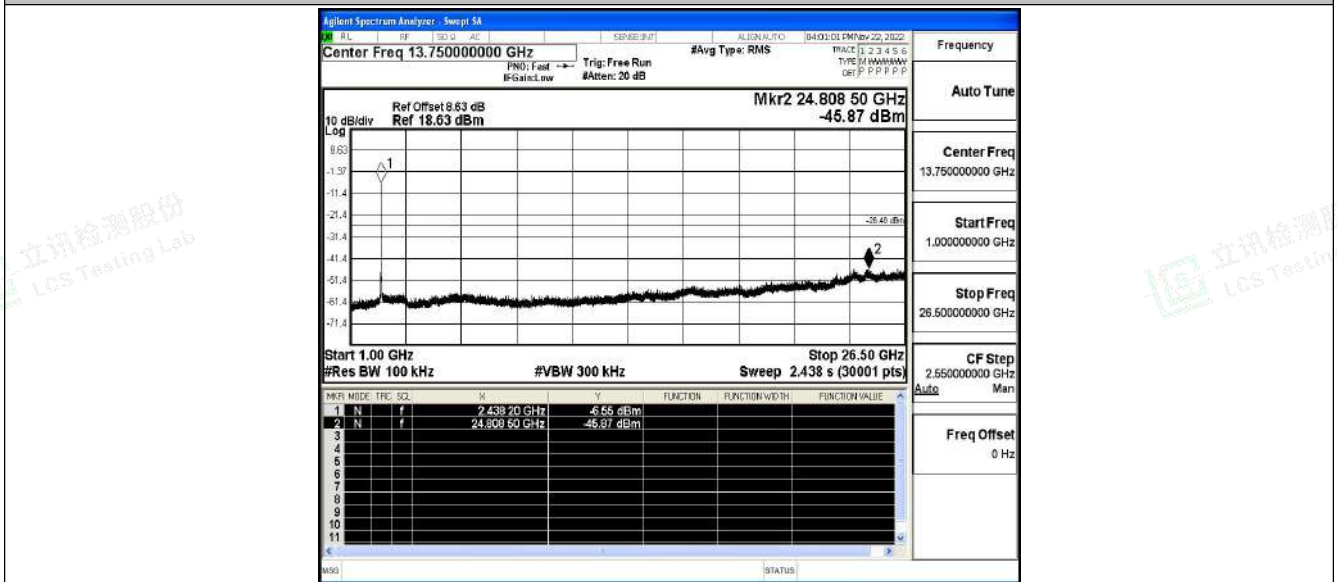


11N20SISO_Ant1_2437_30~1000



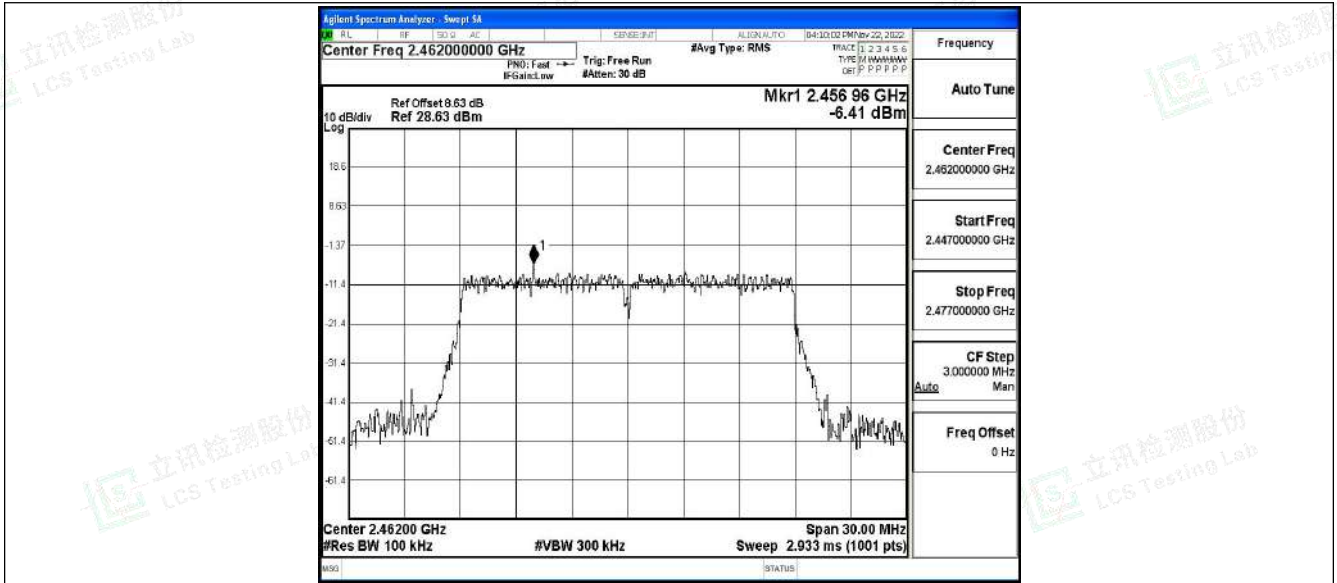


11N20SISO_Ant1_2437_1000~26500

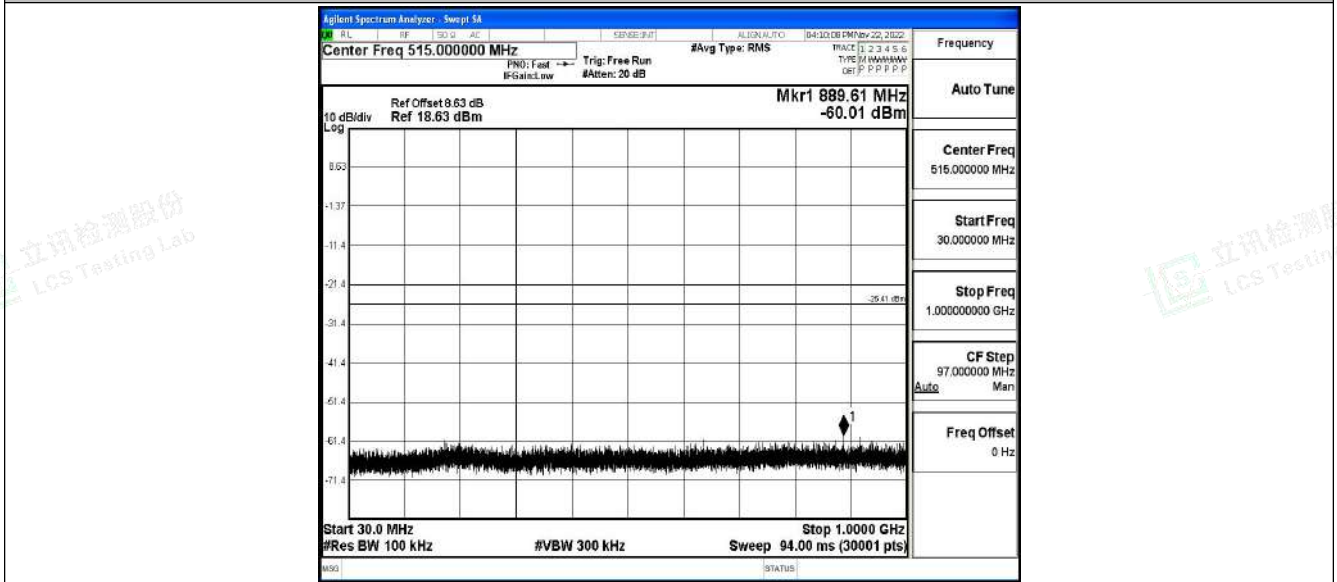


11N20SISO_Ant1_2462_0~Reference



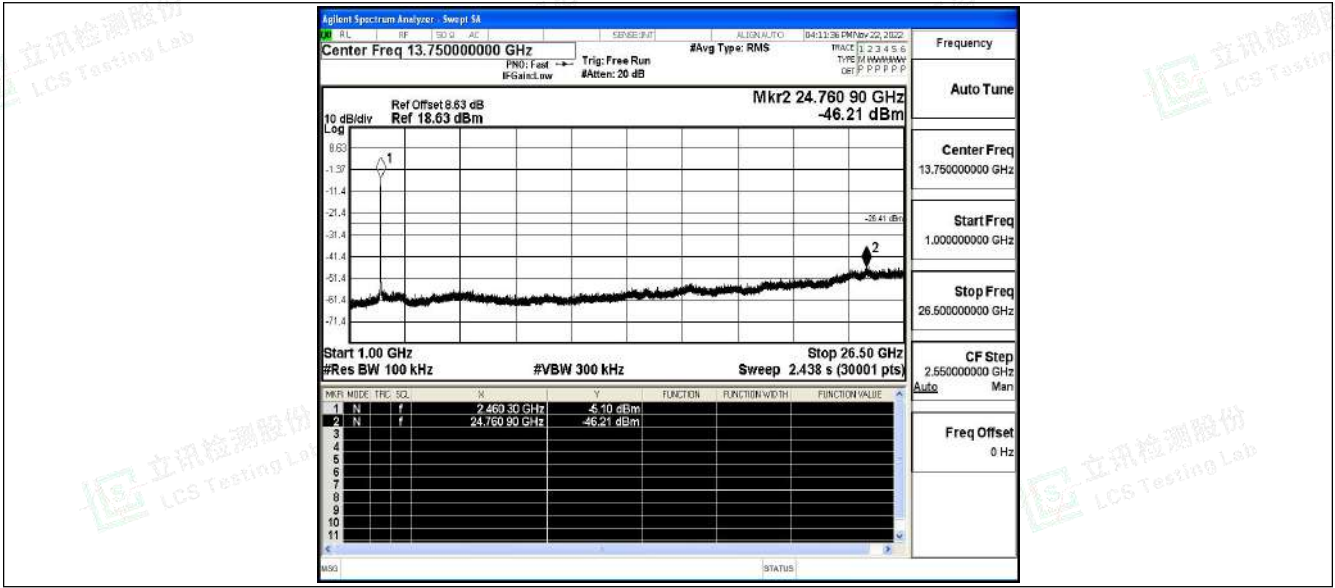


11N20SISO_Ant1_2462_30~1000



11N20SISO_Ant1_2462_1000~26500







B.6 Duty Cycle

Test Result

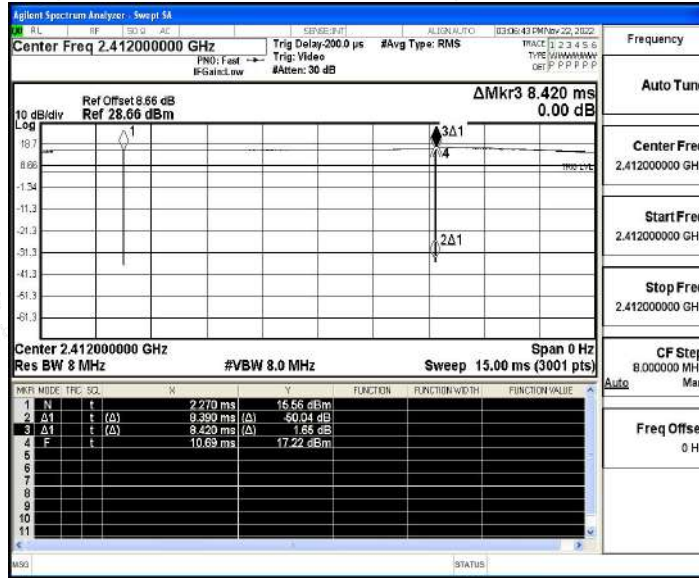
TestMode	Antenna	Freq(MHz)	Transmission Duration [ms]	Transmission Period [ms]	Duty Cycle [%]	Factor	1/T	Verdict
11B	Ant1	2412	8.39	8.42	99.64	0.02	0.01	---
		2437	8.38	8.41	99.64	0.02	0.01	---
		2462	8.39	8.42	99.64	0.02	0.01	---
11G	Ant1	2412	1.39	1.43	97.20	0.12	0.72	---
		2437	1.39	1.43	97.20	0.12	0.72	---
		2462	1.39	1.43	97.20	0.12	0.72	---
11N20SISO	Ant1	2412	1.28	1.32	96.97	0.13	0.78	---
		2437	1.28	1.32	96.97	0.13	0.78	---
		2462	1.29	1.32	97.73	0.10	0.78	---



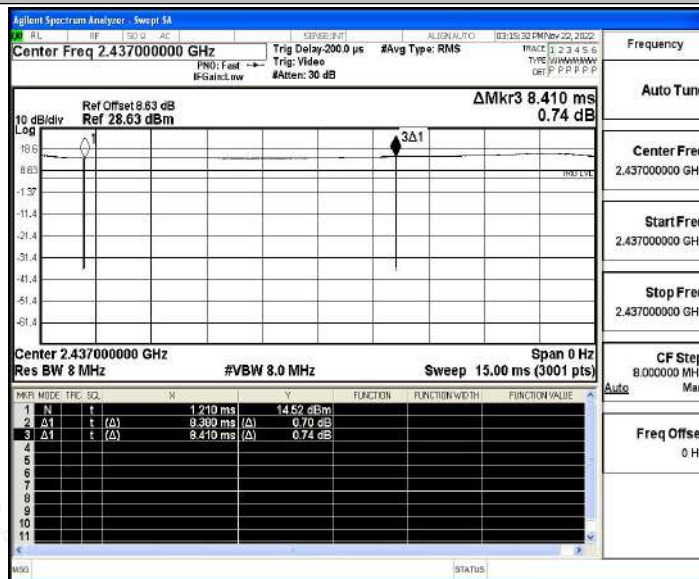


Test Graphs

11B_Ant1_2412

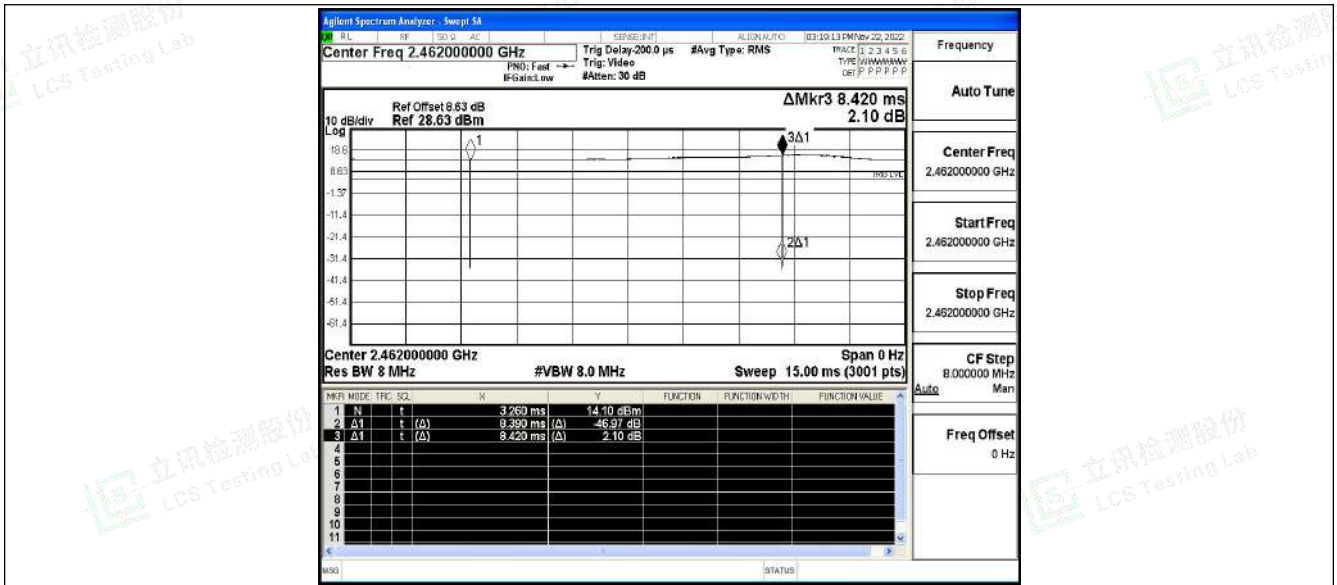


11B_Ant1_2437

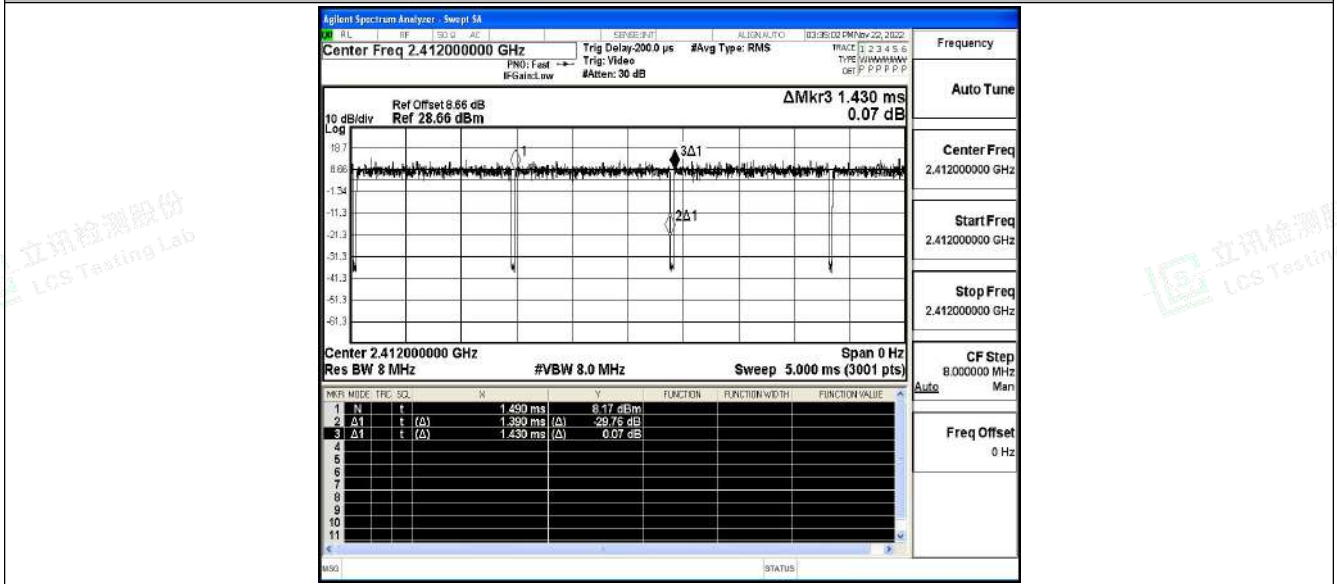


11B_Ant1_2462



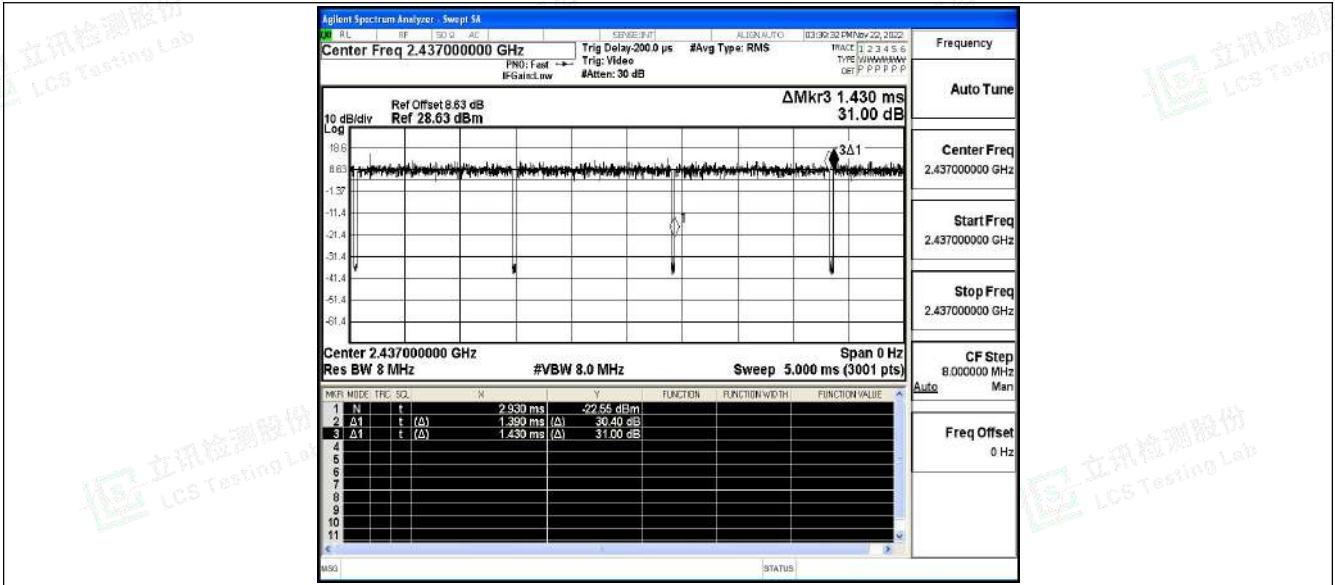


11G_Ant1_2412

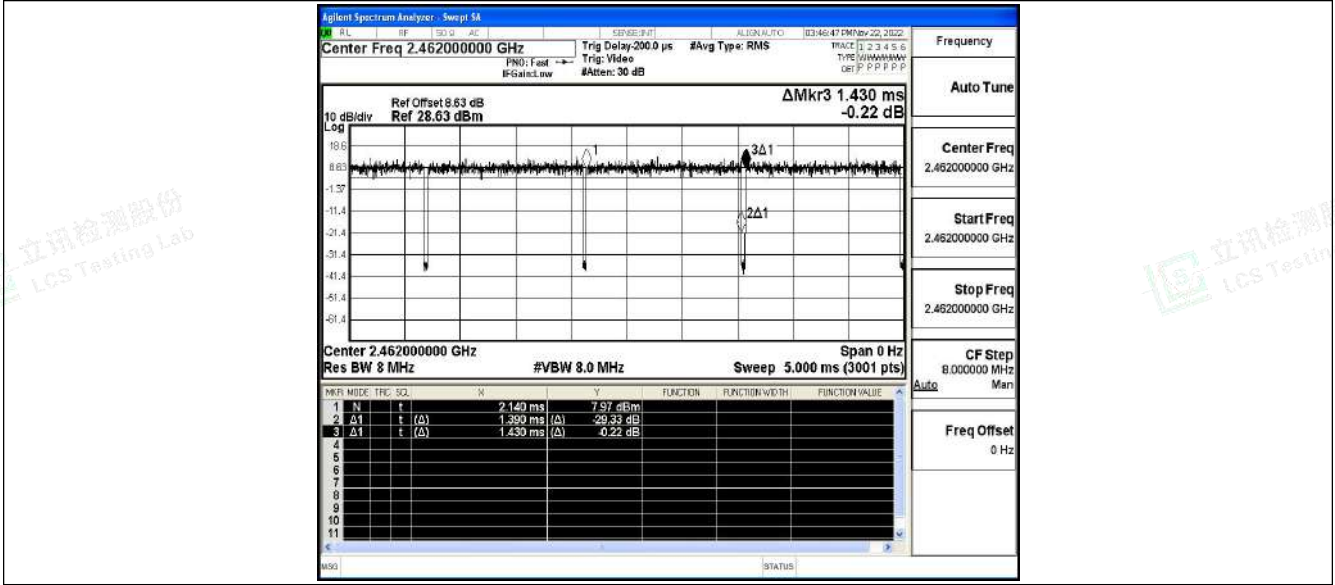


11G_Ant1_2437



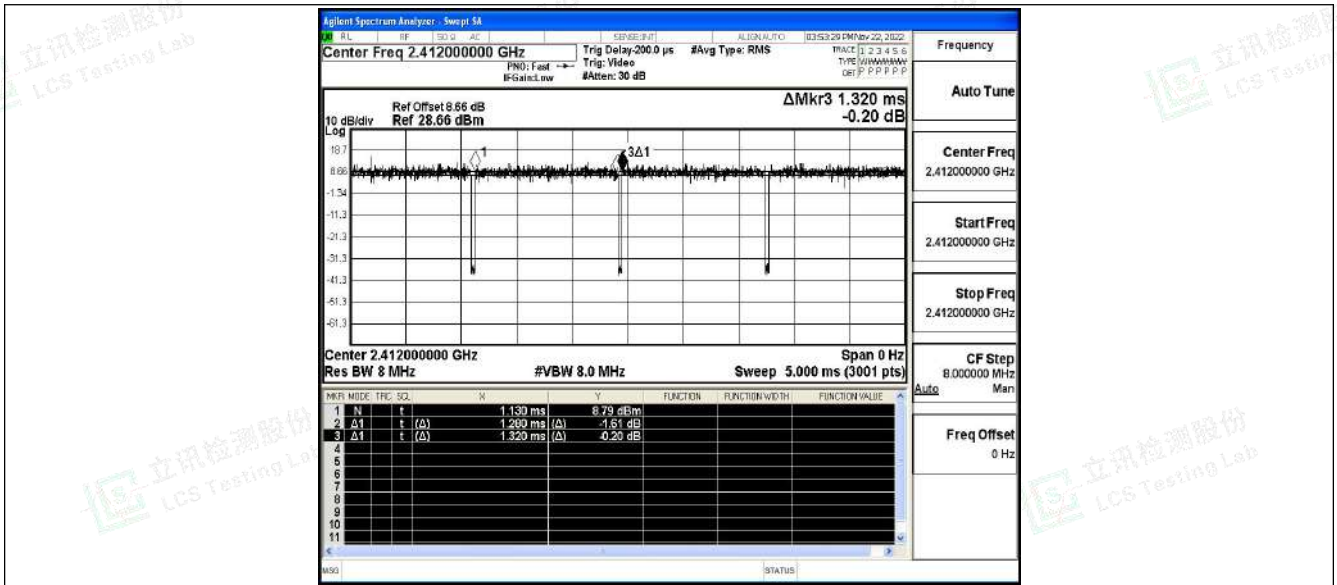


11G_Ant1_2462

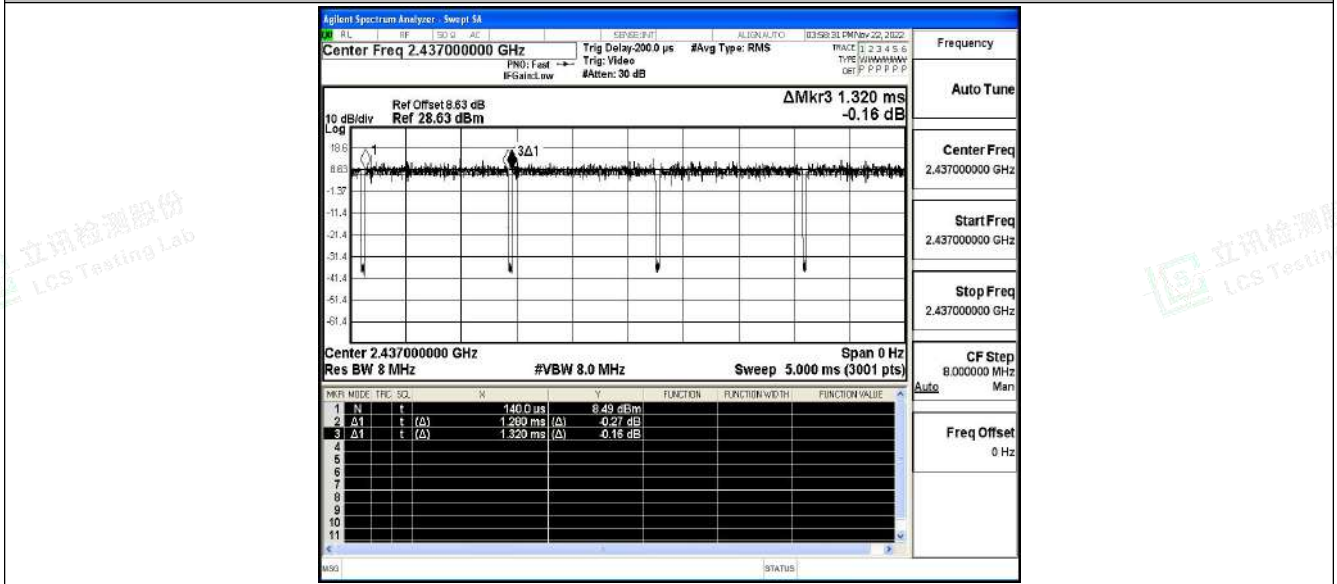


11N20SISO_Ant1_2412



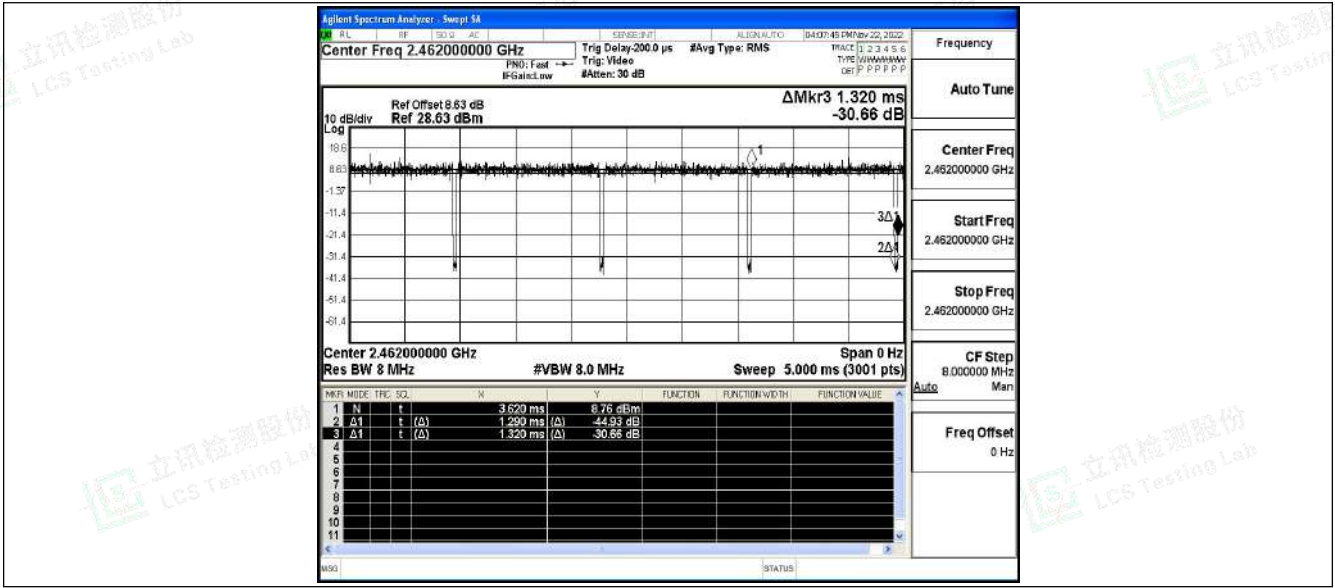


11N20SISO_Ant1_2437



11N20SISO_Ant1_2462





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



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	-58.56	≤-41.20	36.64	≤54	PASS
				AV	2389.960	-55.29	≤-41.20	39.91	≤54	PASS
				AV	2390.000	-55.3	≤-41.20	39.90	≤54	PASS
				Peak	2310.000	-47.86	≤-21.20	47.34	≤74	PASS
				Peak	2389.960	-44.48	≤-21.20	50.72	≤74	PASS
				Peak	2390.000	-44.48	≤-21.20	50.72	≤74	PASS
		High	2462	AV	2483.500	-54.94	≤-41.20	40.26	≤54	PASS
				AV	2483.560	-54.89	≤-41.20	40.31	≤54	PASS
				AV	2500.000	-57.08	≤-41.20	38.12	≤54	PASS
				Peak	2483.500	-44.94	≤-21.20	50.26	≤74	PASS
				Peak	2487.300	-43.92	≤-21.20	51.28	≤74	PASS
				Peak	2500.000	-45.91	≤-21.20	49.29	≤74	PASS
11G	Ant1	Low	2412	AV	2310.000	-57.65	≤-41.20	37.55	≤54	PASS
				AV	2389.960	-52.97	≤-41.20	42.23	≤54	PASS
				AV	2390.000	-52.97	≤-41.20	42.23	≤54	PASS
				Peak	2310.000	-47.77	≤-21.20	47.43	≤74	PASS
				Peak	2389.700	-39.01	≤-21.20	56.19	≤74	PASS
				Peak	2390.000	-40.56	≤-21.20	54.64	≤74	PASS
		High	2462	AV	2483.500	-50.78	≤-41.20	44.42	≤54	PASS
				AV	2483.560	-50.11	≤-41.20	45.09	≤54	PASS
				AV	2500.000	-54.08	≤-41.20	41.12	≤54	PASS
				Peak	2483.500	-34.92	≤-21.20	60.28	≤74	PASS
				Peak	2483.670	-33.46	≤-21.20	61.74	≤74	PASS
				Peak	2500.000	-43.92	≤-21.20	51.28	≤74	PASS
11N20SI SO	Ant1	Low	2412	AV	2310.000	-57.73	≤-41.20	37.47	≤54	PASS
				AV	2389.960	-51.07	≤-41.20	44.13	≤54	PASS
				AV	2390.000	-51.07	≤-41.20	44.13	≤54	PASS
				Peak	2310.000	-47.49	≤-21.20	47.71	≤74	PASS
				Peak	2389.960	-34.46	≤-21.20	60.74	≤74	PASS
				Peak	2390.000	-34.46	≤-21.20	60.74	≤74	PASS
		High	2462	AV	2483.500	-48.45	≤-41.20	46.75	≤54	PASS
				AV	2484.220	-48.54	≤-41.20	46.66	≤54	PASS
				AV	2500.000	-54.05	≤-41.20	41.15	≤54	PASS
				Peak	2483.500	-31.03	≤-21.20	64.17	≤74	PASS
				Peak	2484.220	-28.82	≤-21.20	66.38	≤74	PASS
				Peak	2500.000	-48.82	≤-41.20	46.66	≤54	PASS





				Peak	2500.000	-43.55	≤-21.20	51.65	≤74	PASS
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Note:

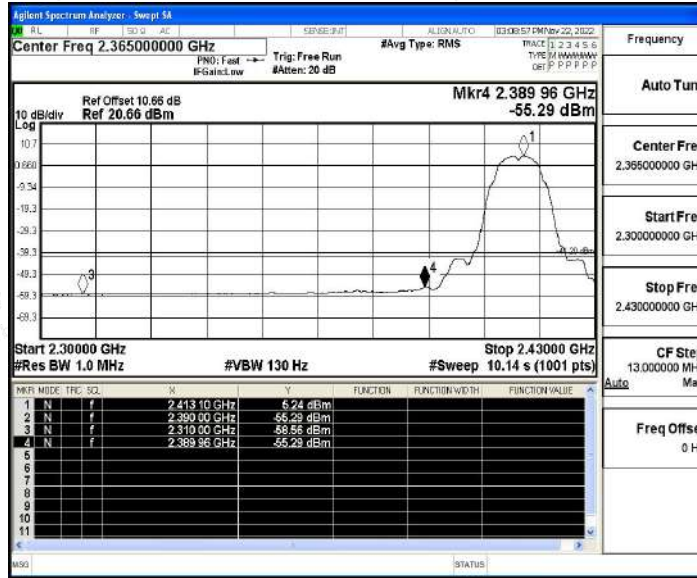
1. The Antenna Gain is compensated in the graph.
2. The limit in dBm for average detector is conversion from 54dBuV/m, according to 15.209(a). The limit in dBm for peak detector is 20dB above the limit of average detector in dBm.



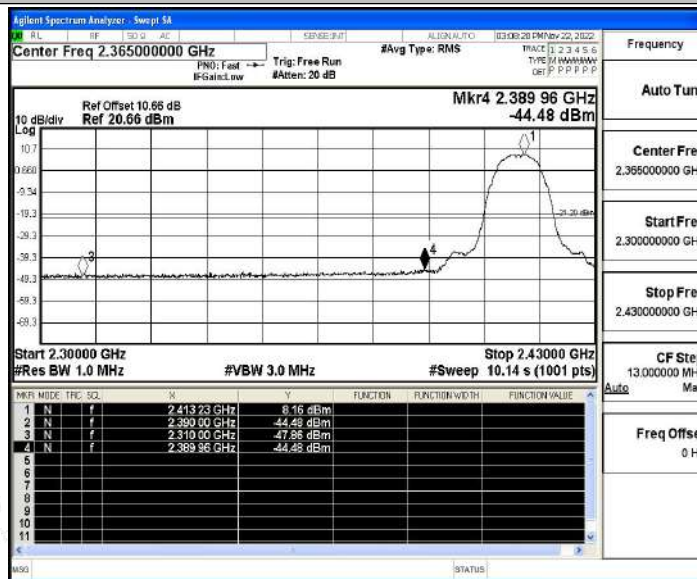


Test Graphs

11B_Ant1_Low_2412_AV

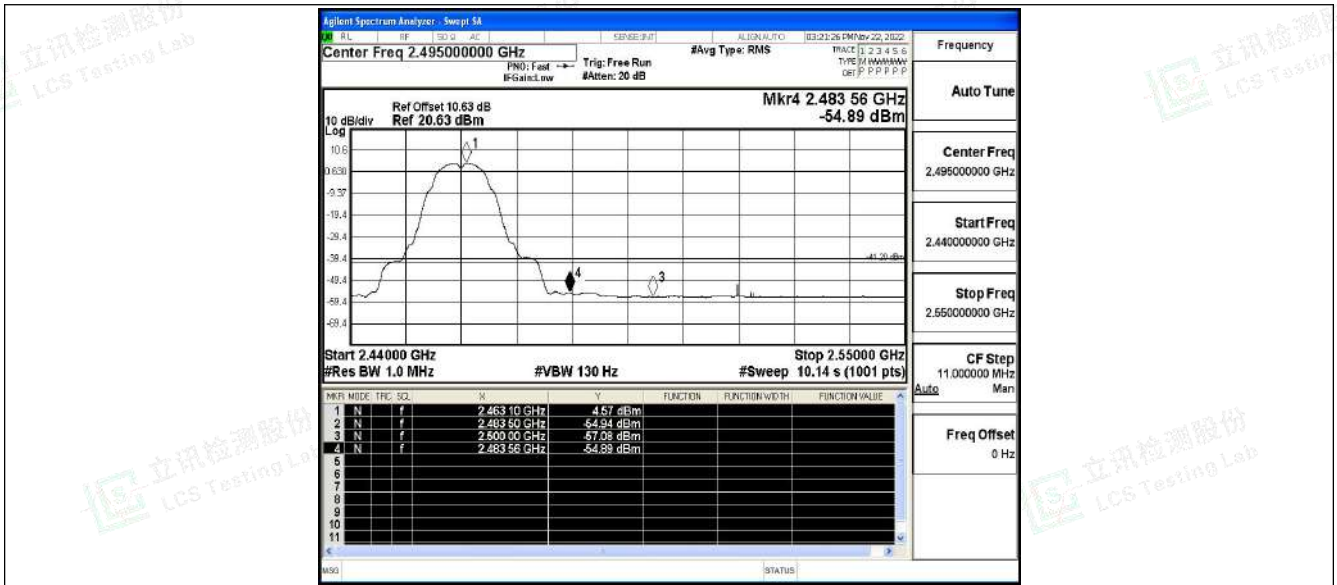


11B_Ant1_Low_2412_Peak

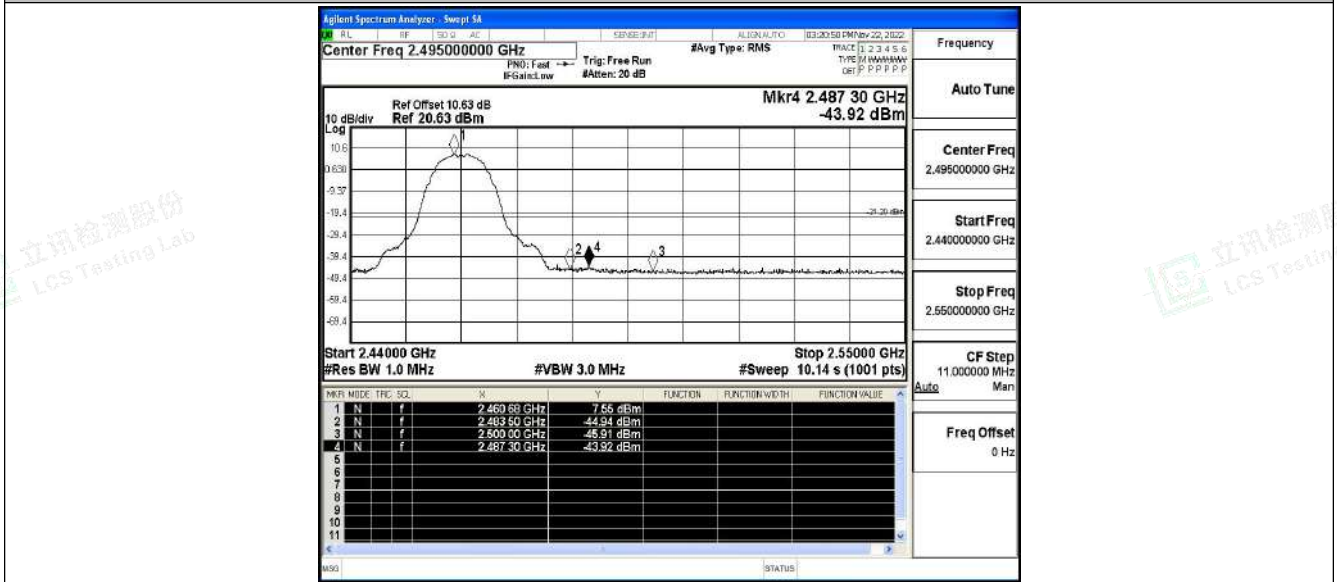


11B_Ant1_High_2462_AV



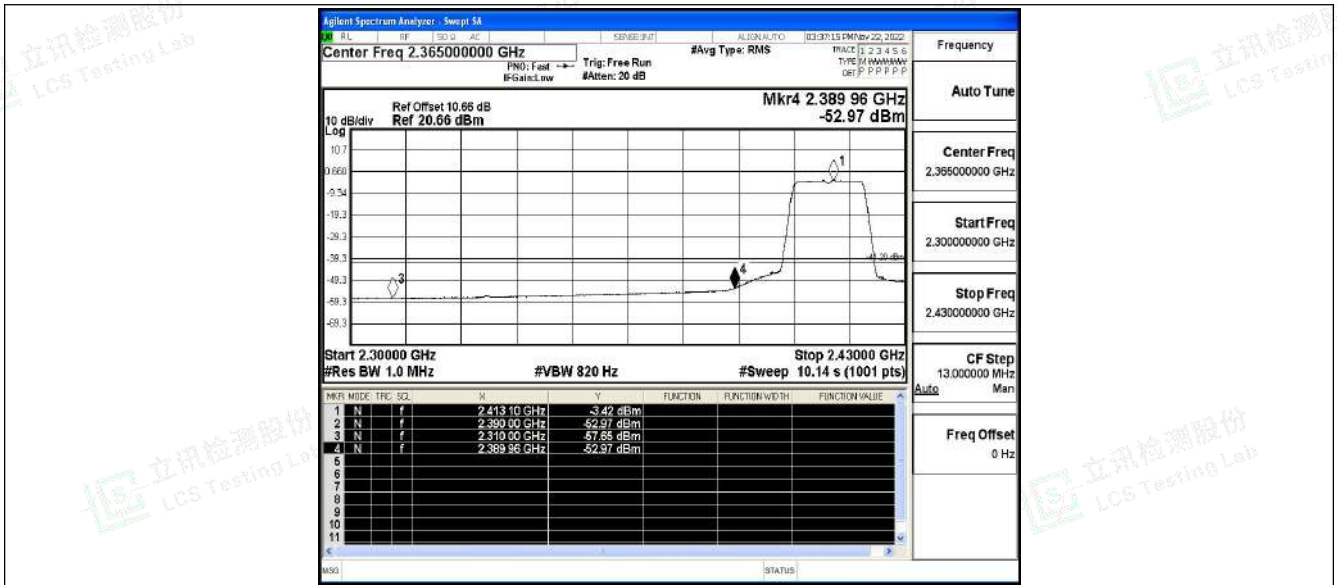


11B_Ant1_High_2462_Peak

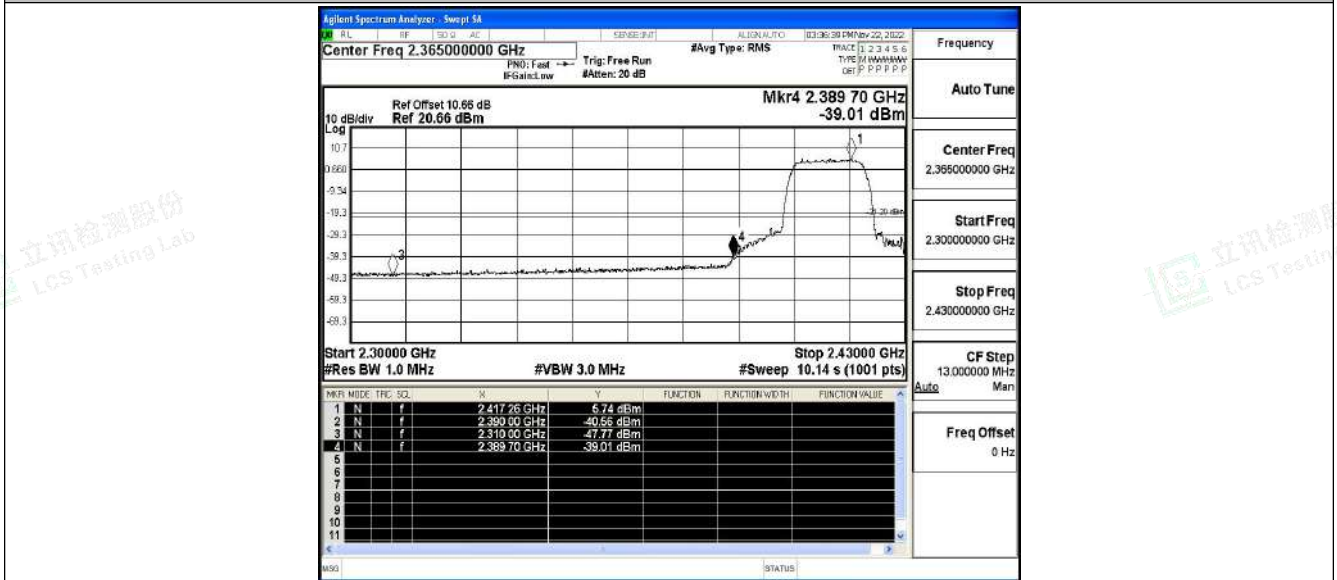


11G_Ant1_Low_2412_AV



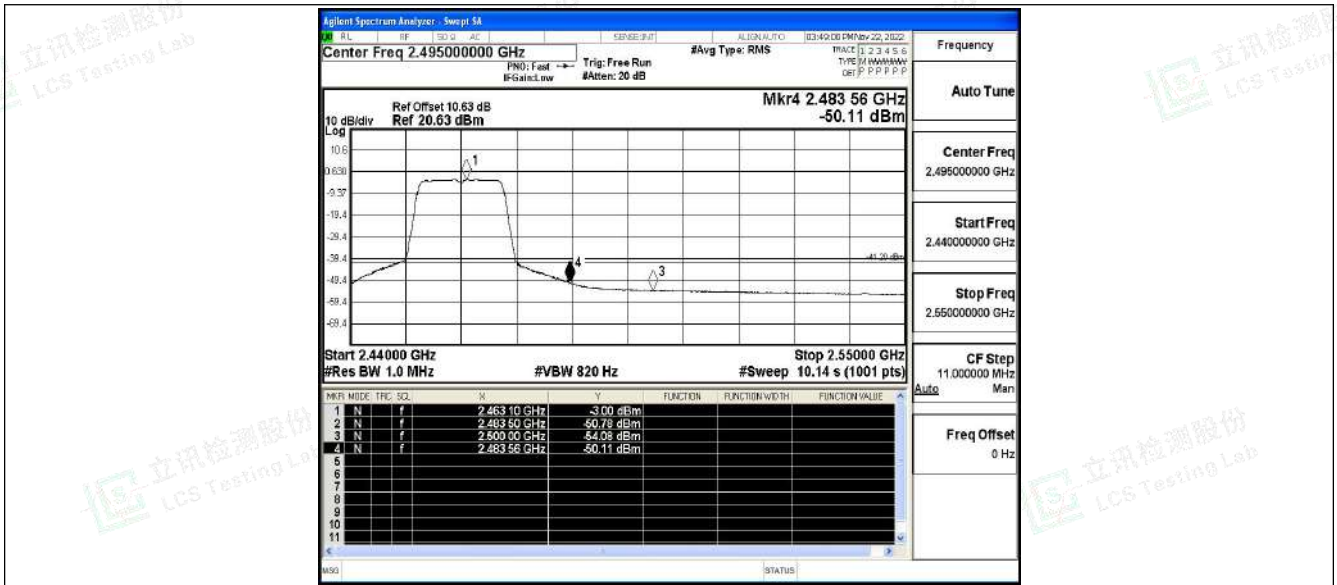


11G_Ant1_Low_2412_Peak

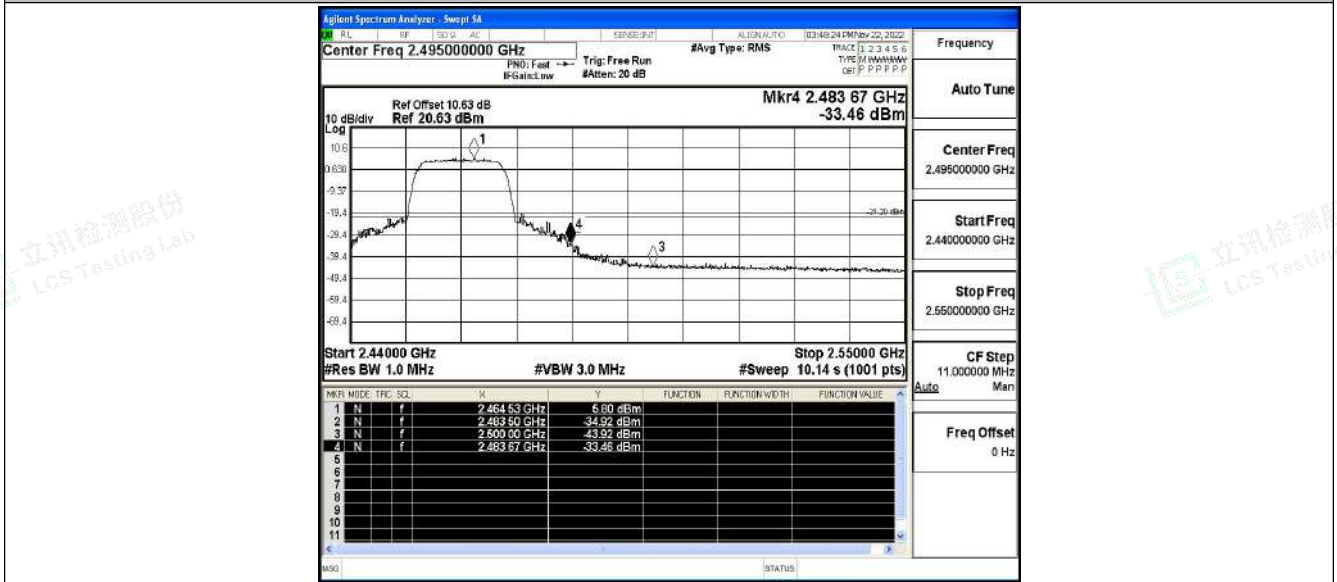


11G_Ant1_High_2462_AV



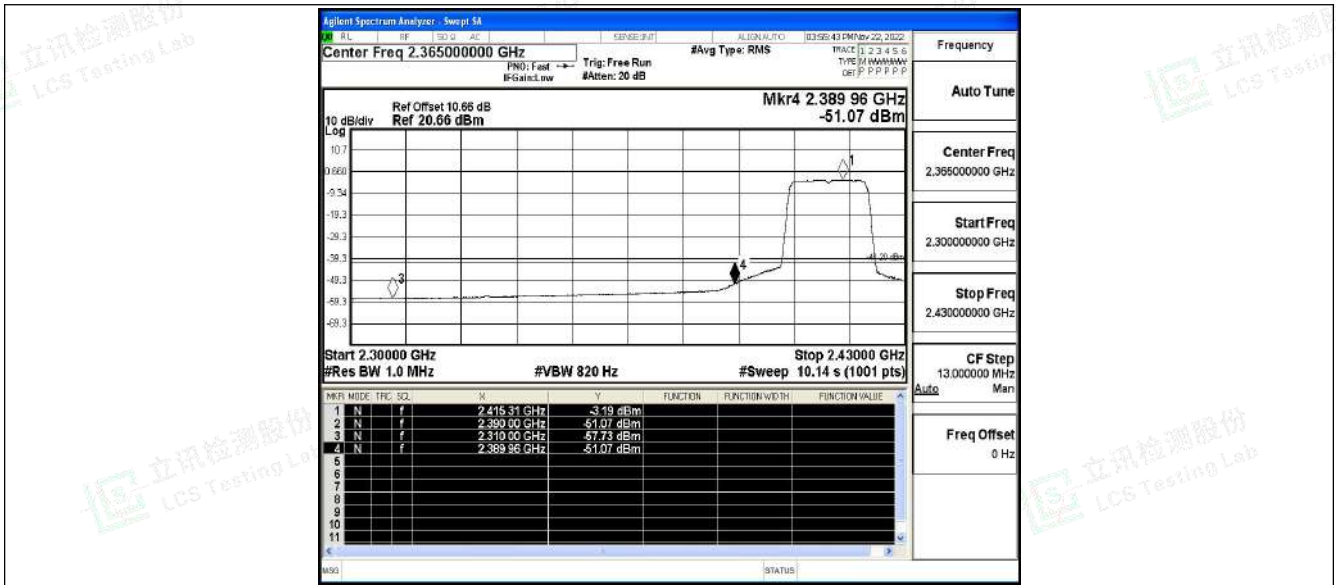


11G_Ant1_High_2462_Peak

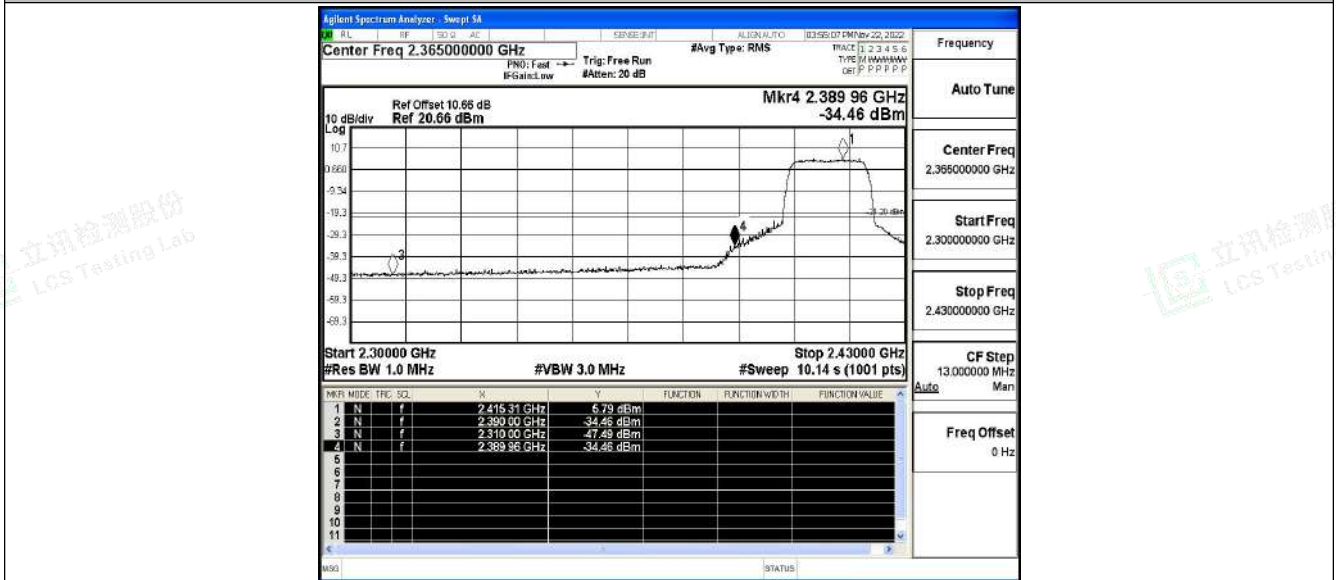


11N20SISO_Ant1_Low_2412_AV



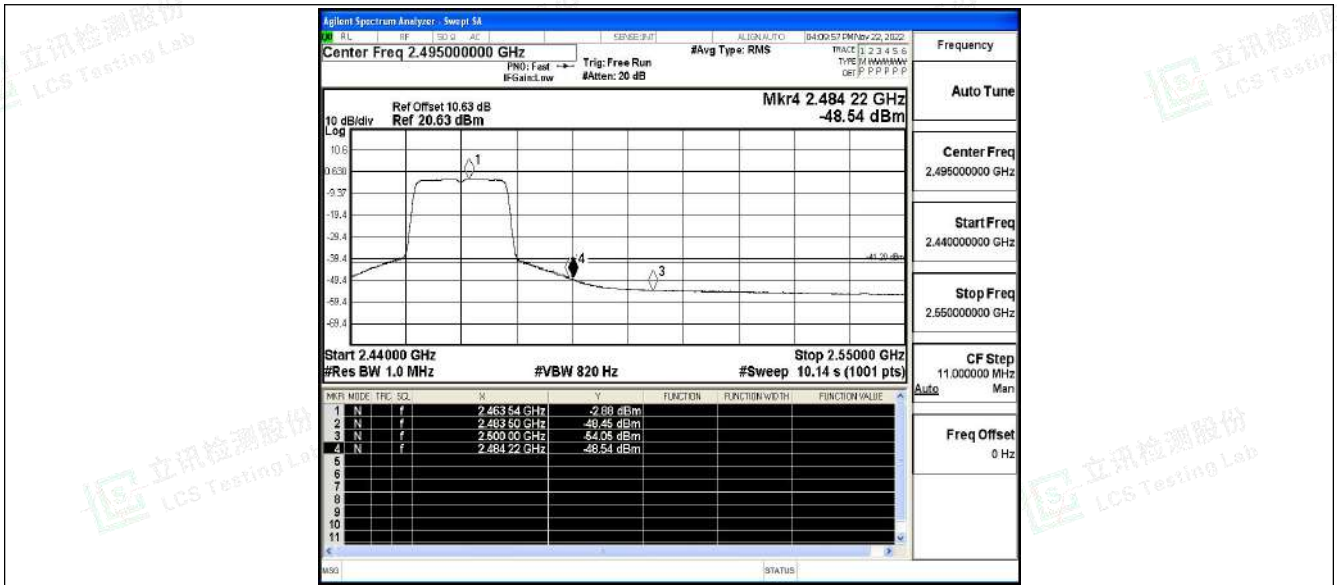


11N20SISO_Ant1_Low_2412_Peak



11N20SISO_Ant1_High_2462_AV





11N20SISO_Ant1_High_2462_Peak

