



Appendix B

RF Test Data for 2.4G WIFI (Conducted Measurement)

Product Name: Pawfit Location and Activity Tracker (Pawfit pet Tracker)

Test Model: TR3A

Environmental Conditions

Temperature:	23.8° C
Relative Humidity:	52.2%
ATM Pressure:	100.0 kPa
Test Engineer:	Ling Zhu
Supervised by:	Li Huan



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Scan code to check authenticity



B.1 DTS Bandwidth

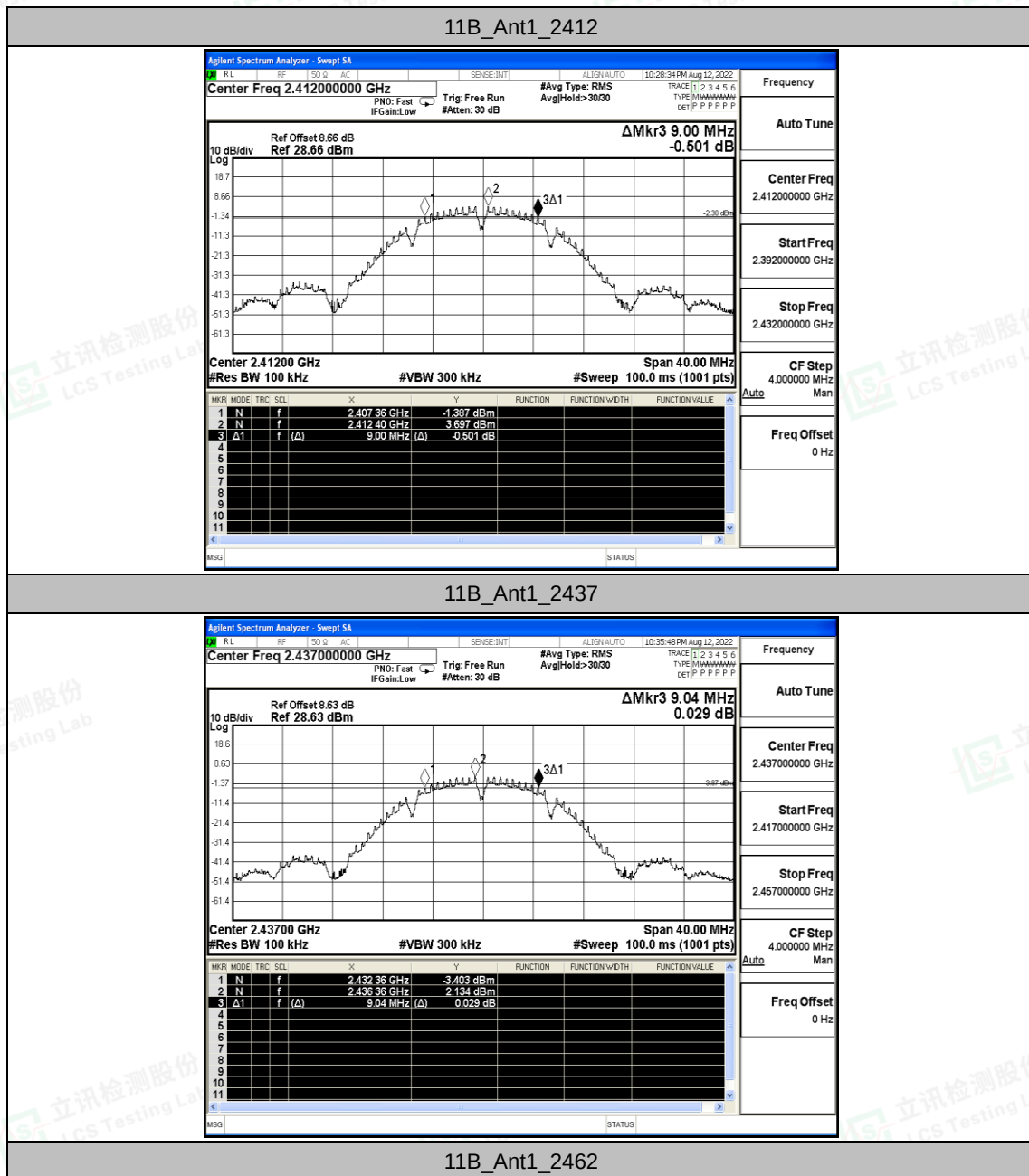
Test Result

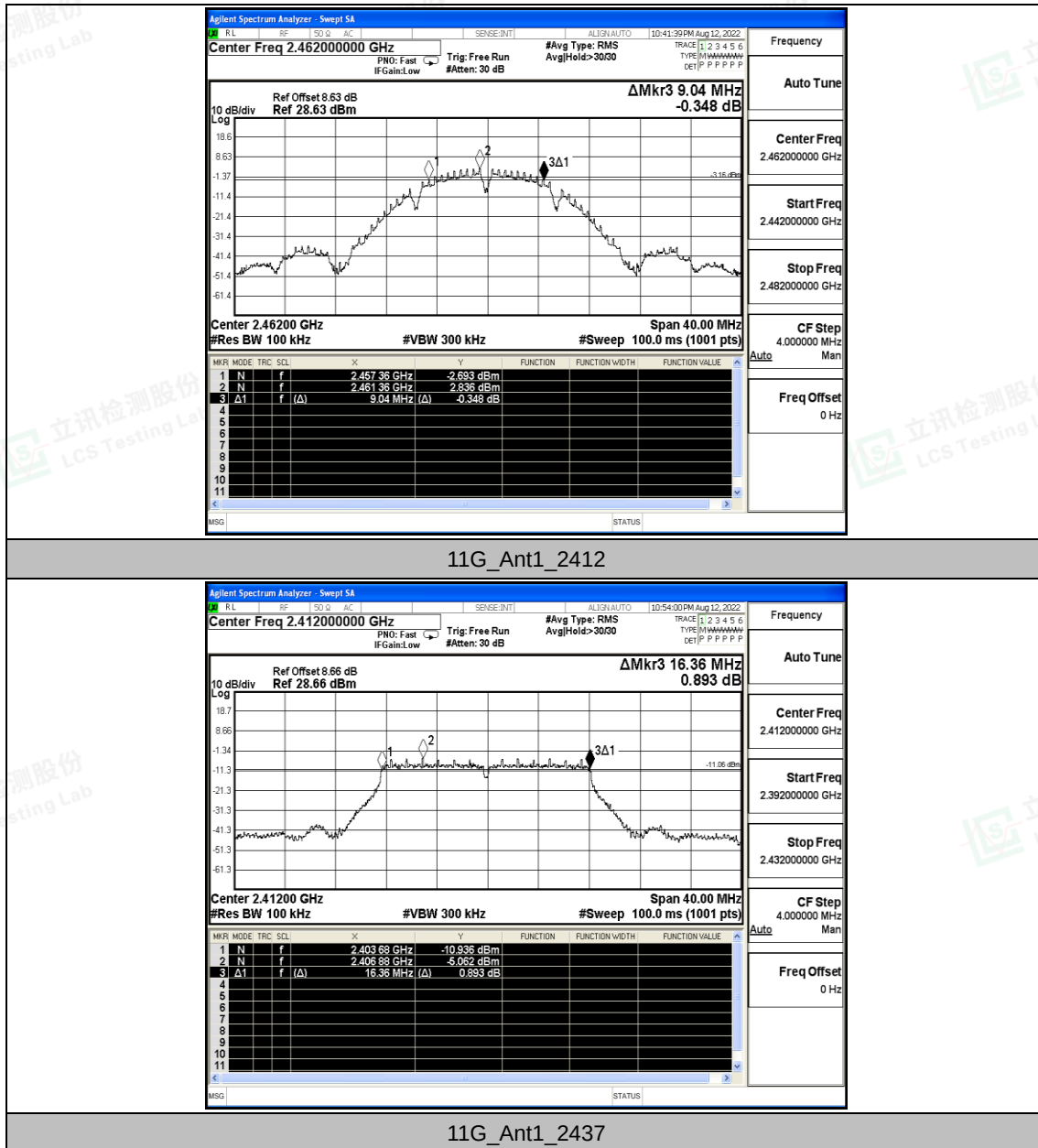
TestMode	Antenna	Channel	DTS BW [MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
11B	Ant1	2412	9.000	2407.360	2416.360	0.5	PASS
		2437	9.040	2432.360	2441.400	0.5	PASS
		2462	9.040	2457.360	2466.400	0.5	PASS
11G	Ant1	2412	16.360	2403.680	2420.040	0.5	PASS
		2437	16.360	2428.680	2445.040	0.5	PASS
		2462	16.320	2453.720	2470.040	0.5	PASS
11N20SISO	Ant1	2412	17.560	2403.080	2420.640	0.5	PASS
		2437	17.560	2428.080	2445.640	0.5	PASS
		2462	17.560	2453.080	2470.640	0.5	PASS

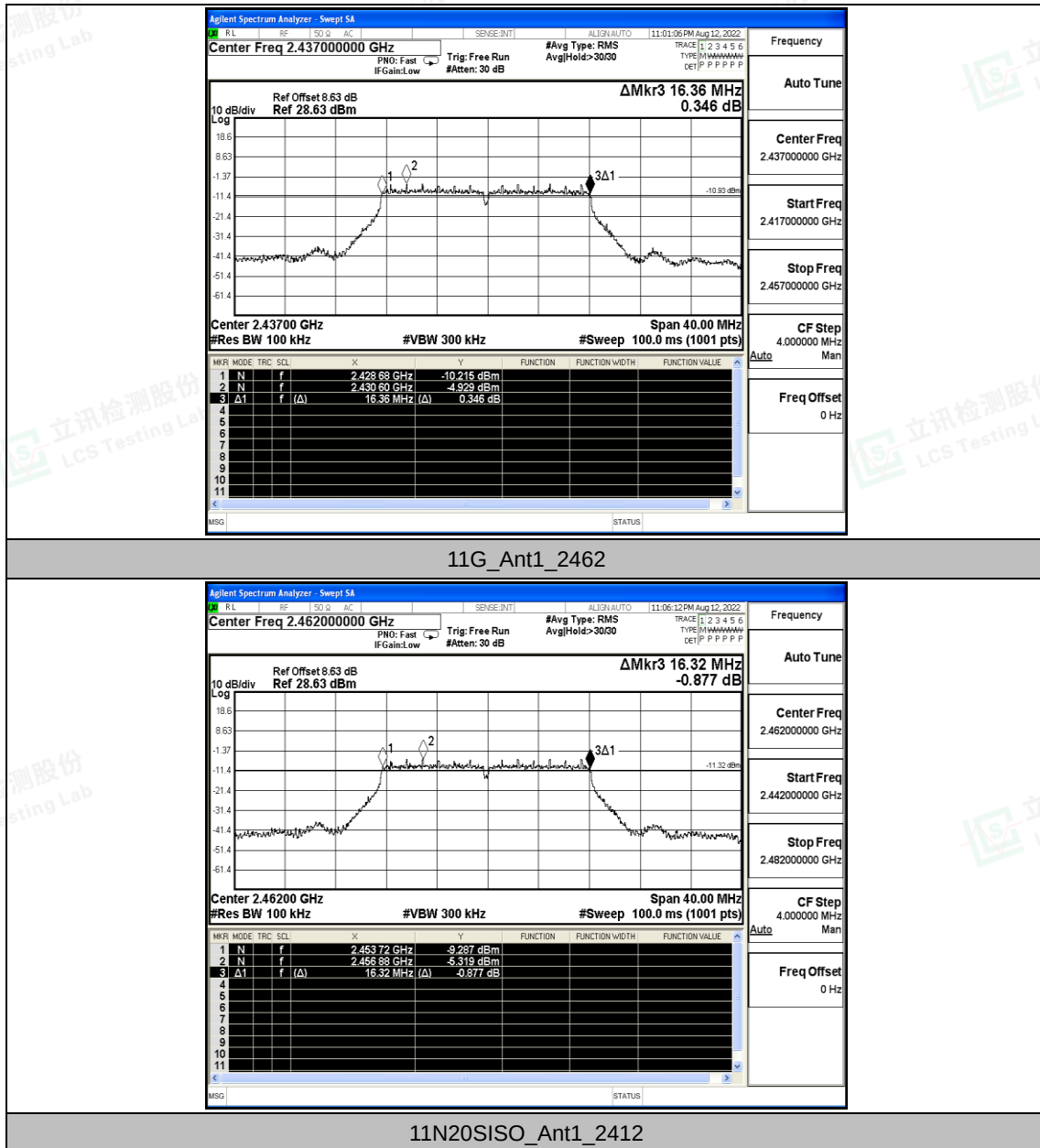


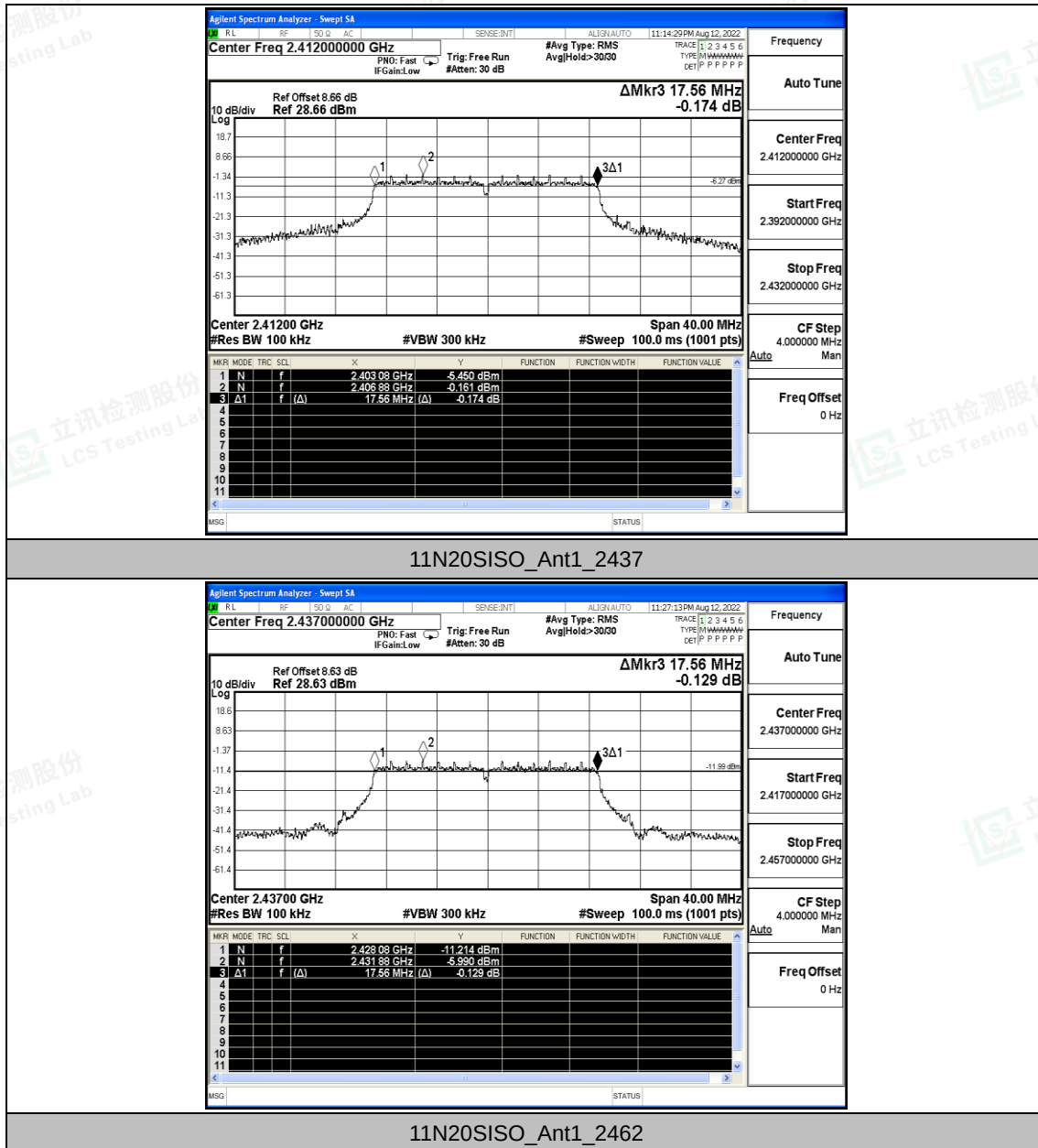


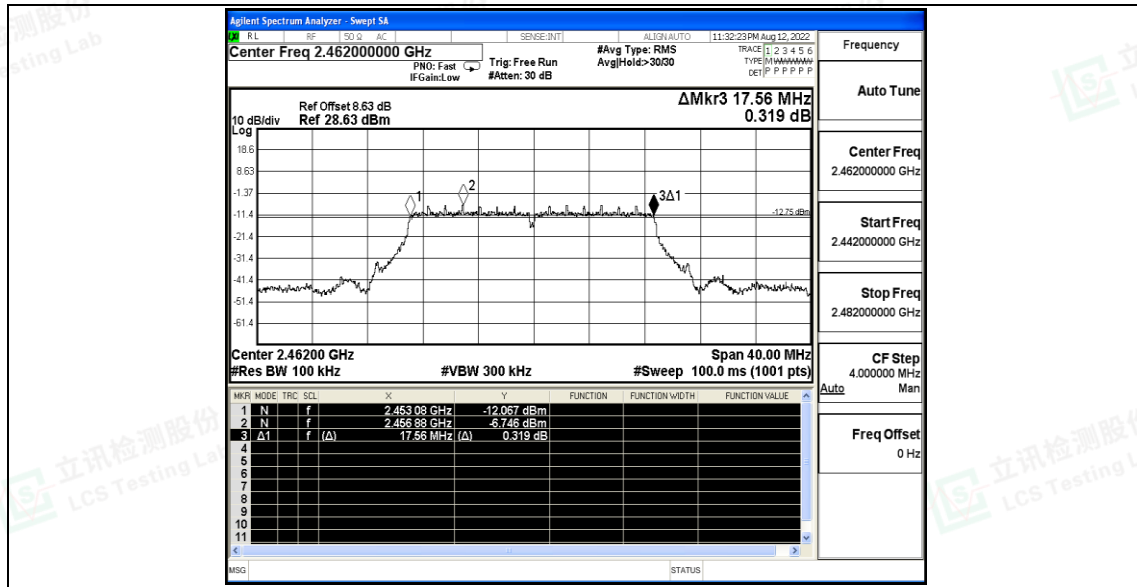
Test Graphs













B.2 Occupied Channel Bandwidth

Test Result

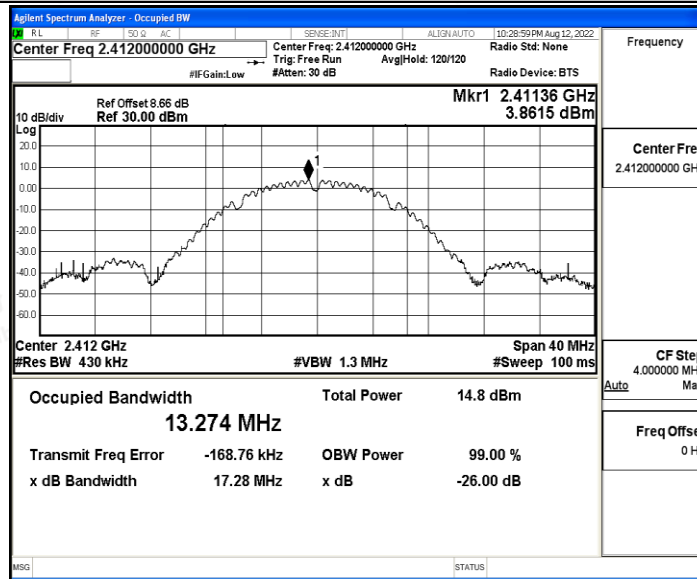
TestMode	Antenna	Channel	OCB [MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
11B	Ant1	2412	13.274	2405.194	2418.468	---	---
		2437	13.238	2430.211	2443.449	---	---
		2462	13.274	2455.220	2468.494	---	---
11G	Ant1	2412	17.064	2403.300	2420.364	---	---
		2437	17.015	2428.340	2445.355	---	---
		2462	17.077	2453.332	2470.409	---	---
11N20SISO	Ant1	2412	18.117	2402.795	2420.912	---	---
		2437	18.027	2427.827	2445.854	---	---
		2462	18.003	2452.862	2470.865	---	---



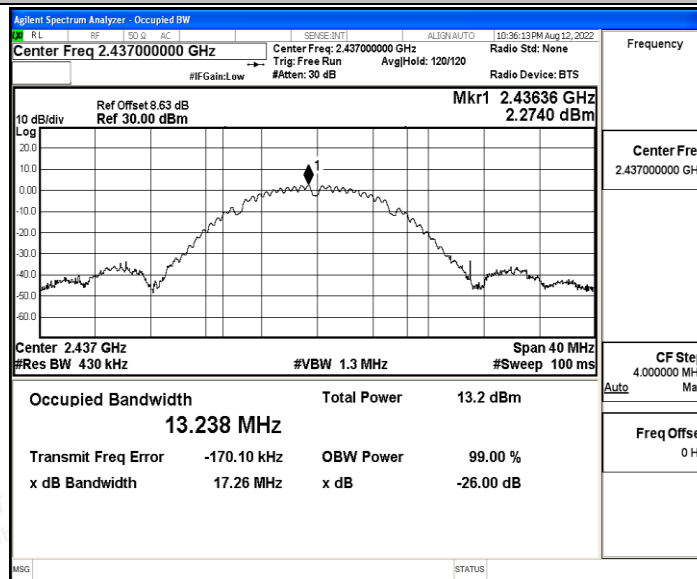


Test Graphs

11B_Ant1_2412

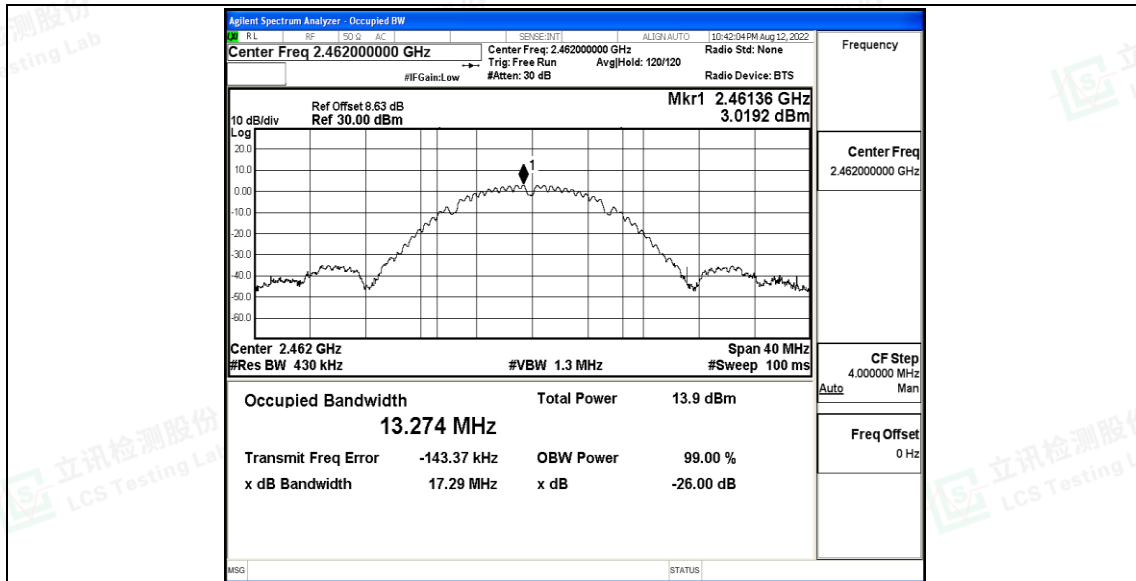


11B_Ant1_2437

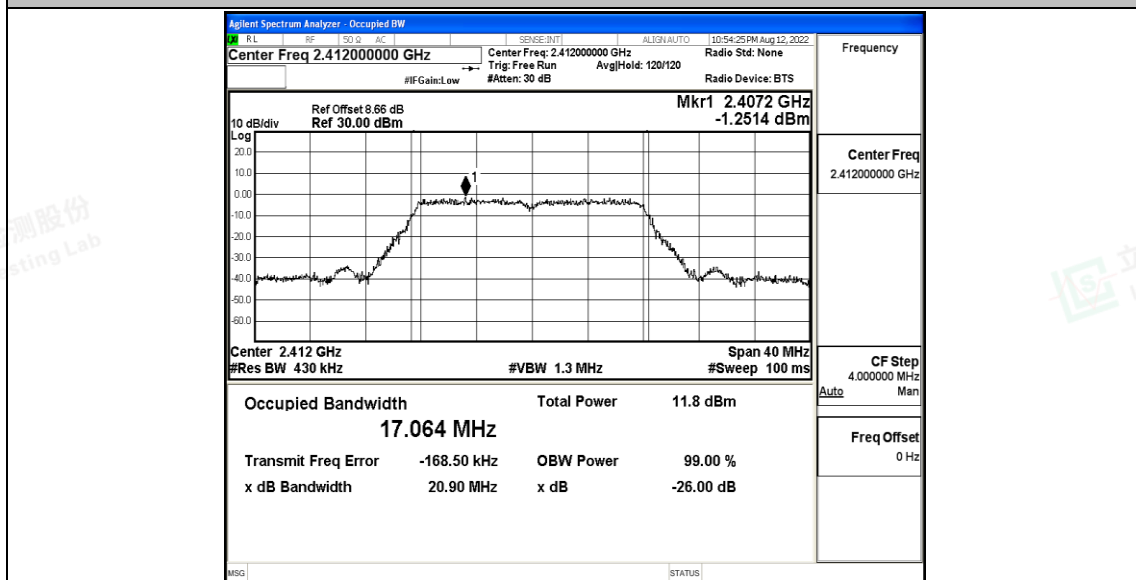


11B_Ant1_2462



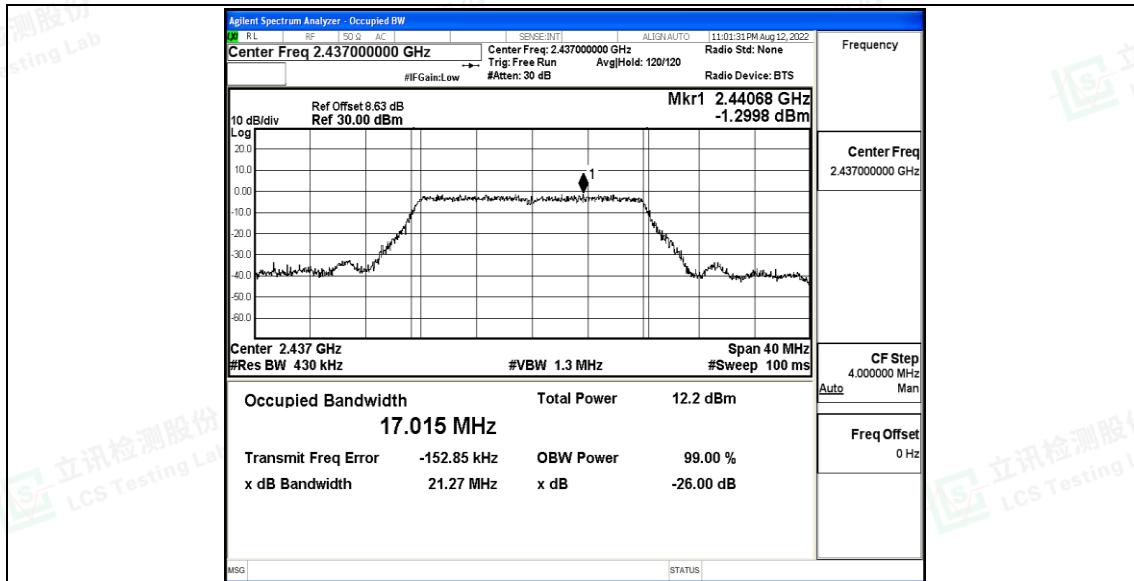


11G_Ant1_2412

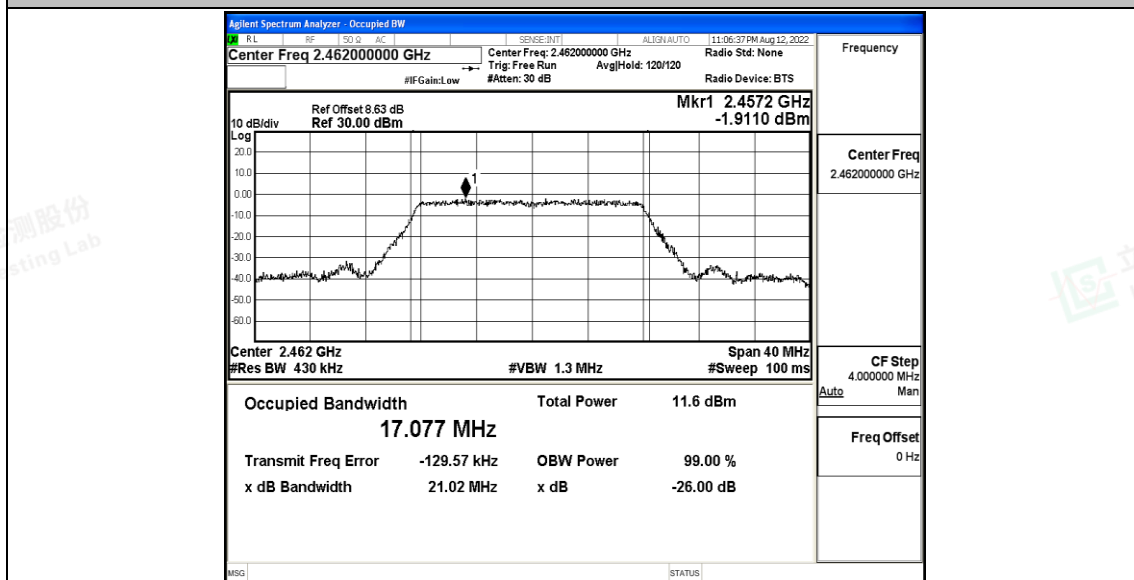


11G_Ant1_2437



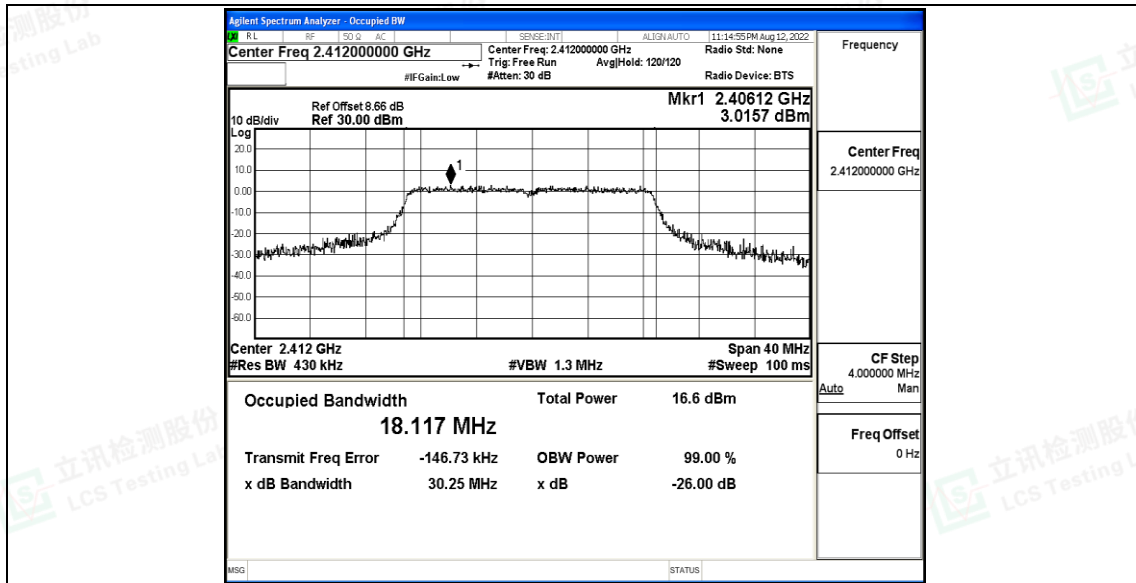


11G_Ant1_2462

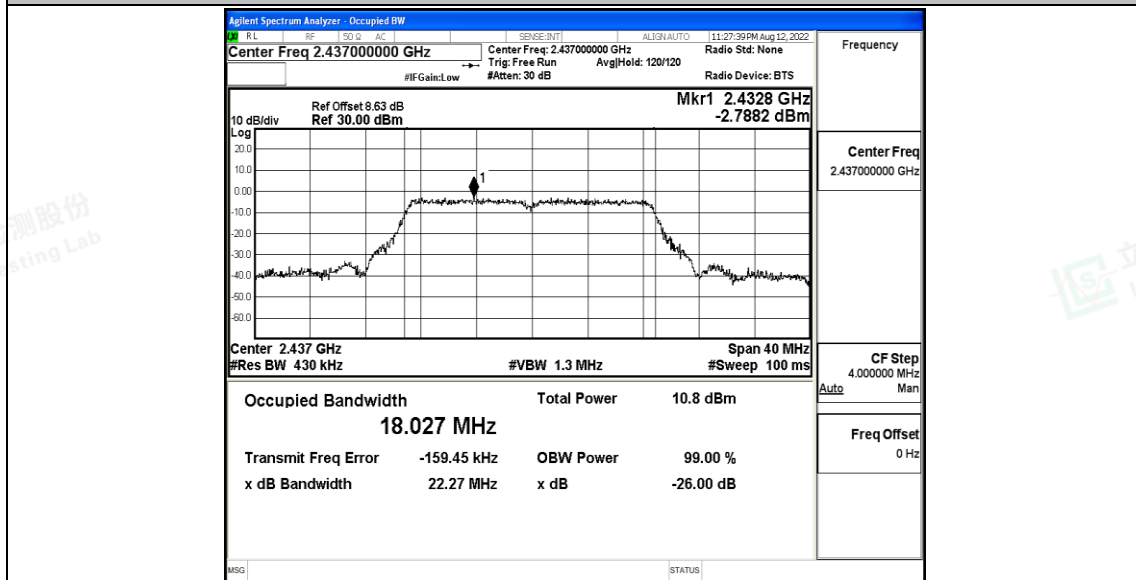


11N20SISO_Ant1_2412



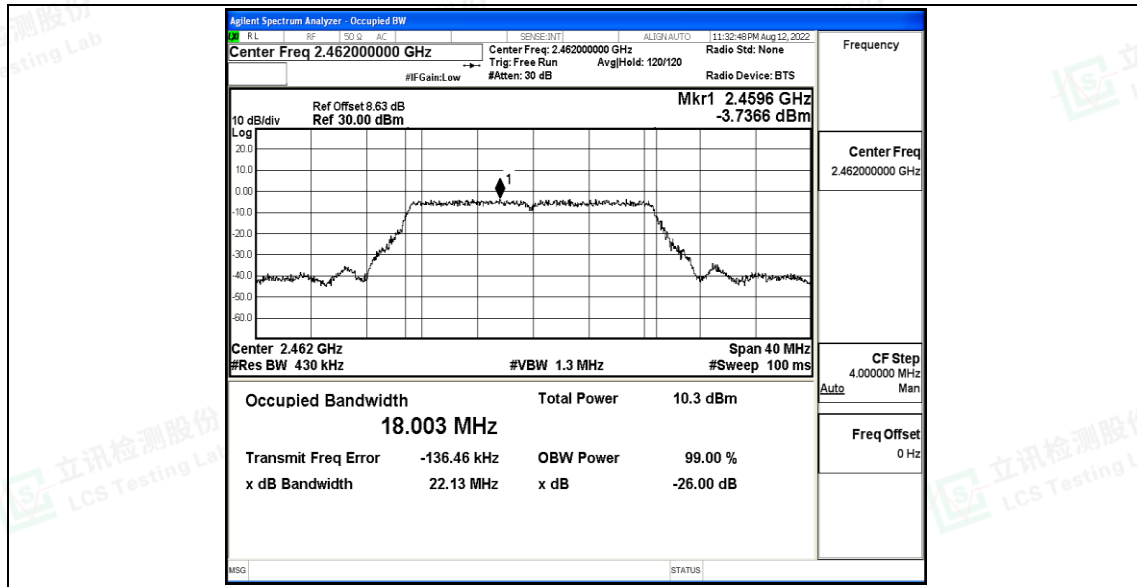


11N20SISO_Ant1_2437



11N20SISO_Ant1_2462







B.3 Maximum conducted output power

Test Result

TestMode	Antenna	Channel	Result[dBm]	Limit[dBm]	Verdict
11B	Ant1	2412	15.04	≤30.00	PASS
		2437	14.54	≤30.00	PASS
		2462	14.22	≤30.00	PASS
11G	Ant1	2412	14.41	≤30.00	PASS
		2437	14.56	≤30.00	PASS
		2462	14.08	≤30.00	PASS
11N20SISO	Ant1	2412	13.21	≤30.00	PASS
		2437	13.28	≤30.00	PASS
		2462	12.87	≤30.00	PASS





B.4 Maximum power spectral density

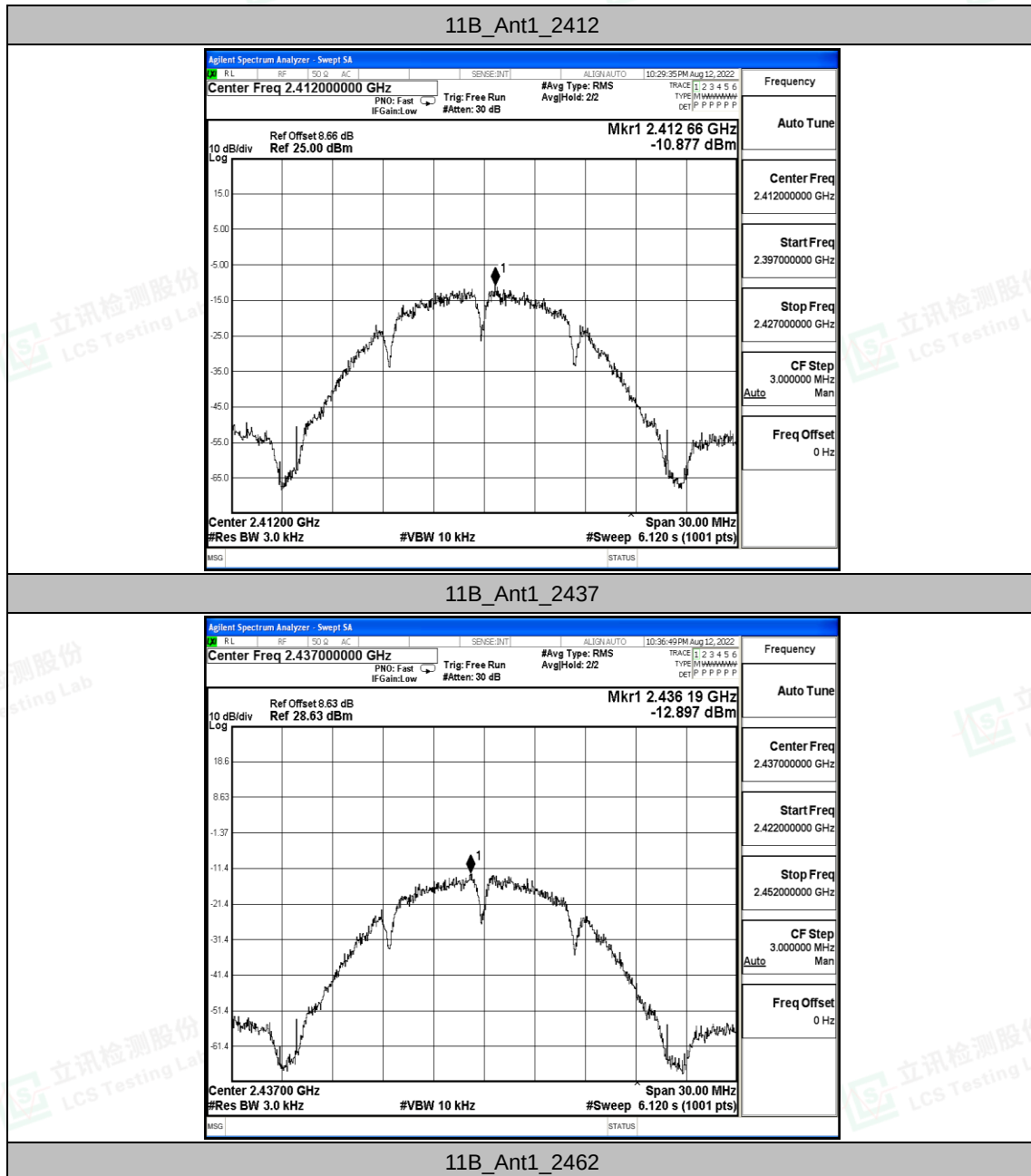
Test Result

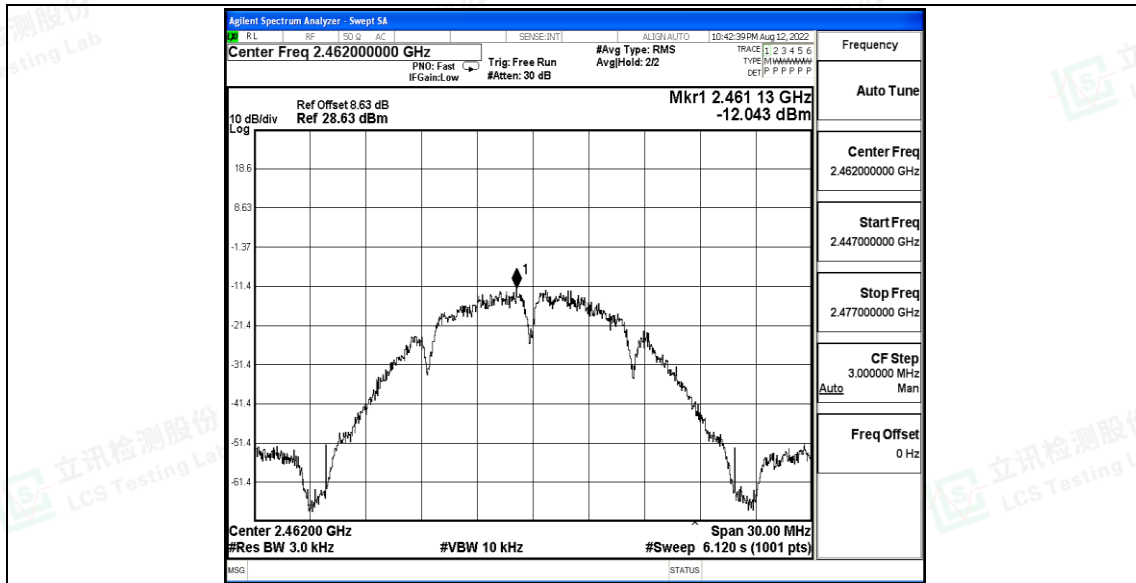
TestMode	Antenna	Channel	Result[dBm/3-100kHz]	Limit[dBm/3kHz]	Verdict
11B	Ant1	2412	-10.88	≤8.00	PASS
		2437	-12.9	≤8.00	PASS
		2462	-12.04	≤8.00	PASS
11G	Ant1	2412	-18.56	≤8.00	PASS
		2437	-19.13	≤8.00	PASS
		2462	-19.68	≤8.00	PASS
11N20SISO	Ant1	2412	-21	≤8.00	PASS
		2437	-20.62	≤8.00	PASS
		2462	-20.46	≤8.00	PASS



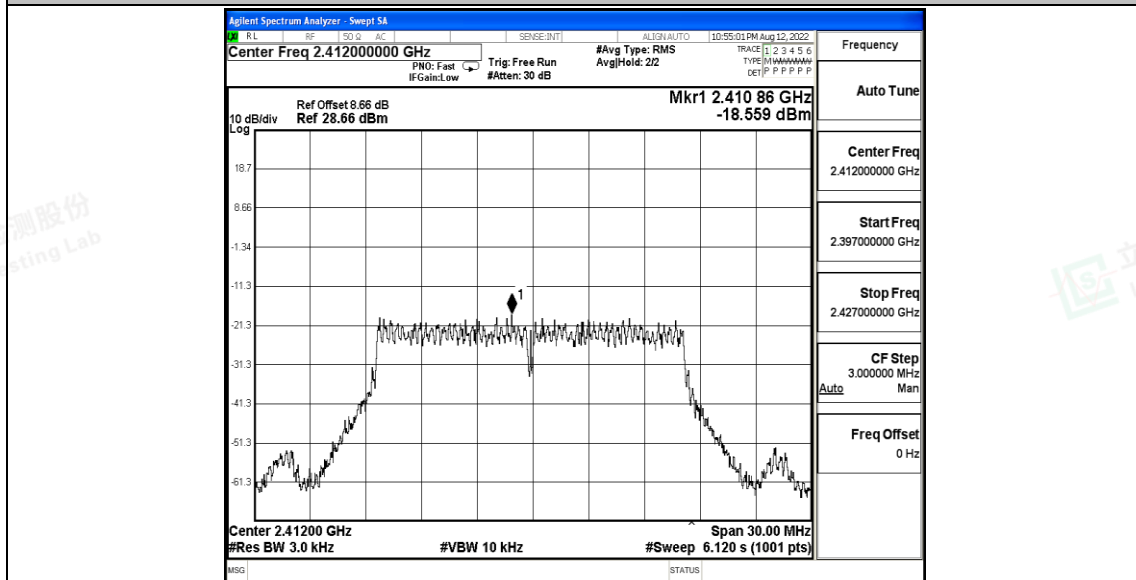


Test Graphs



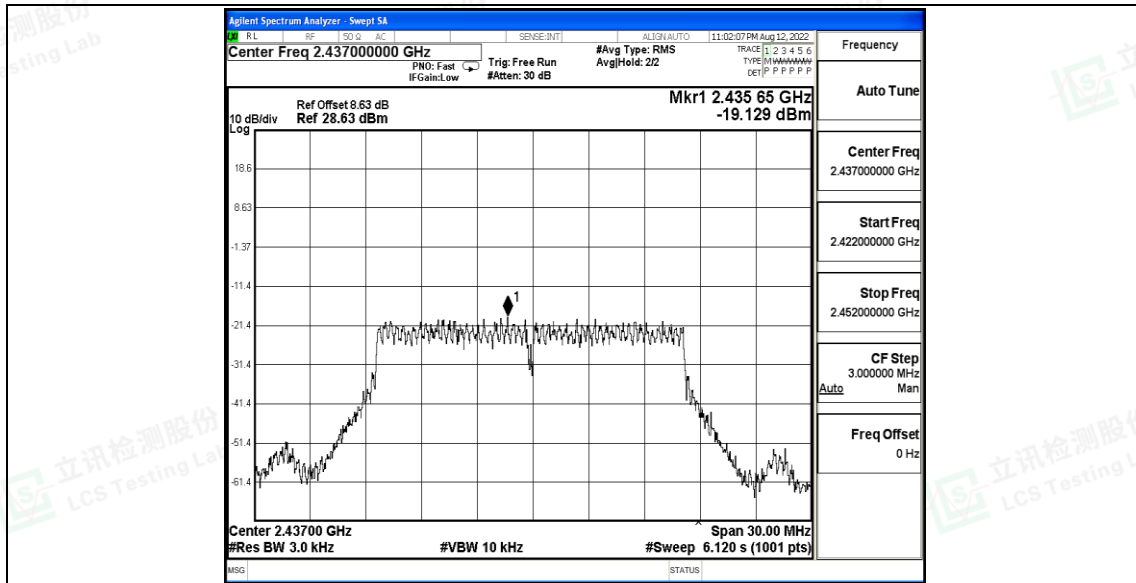


11G_Ant1_2412

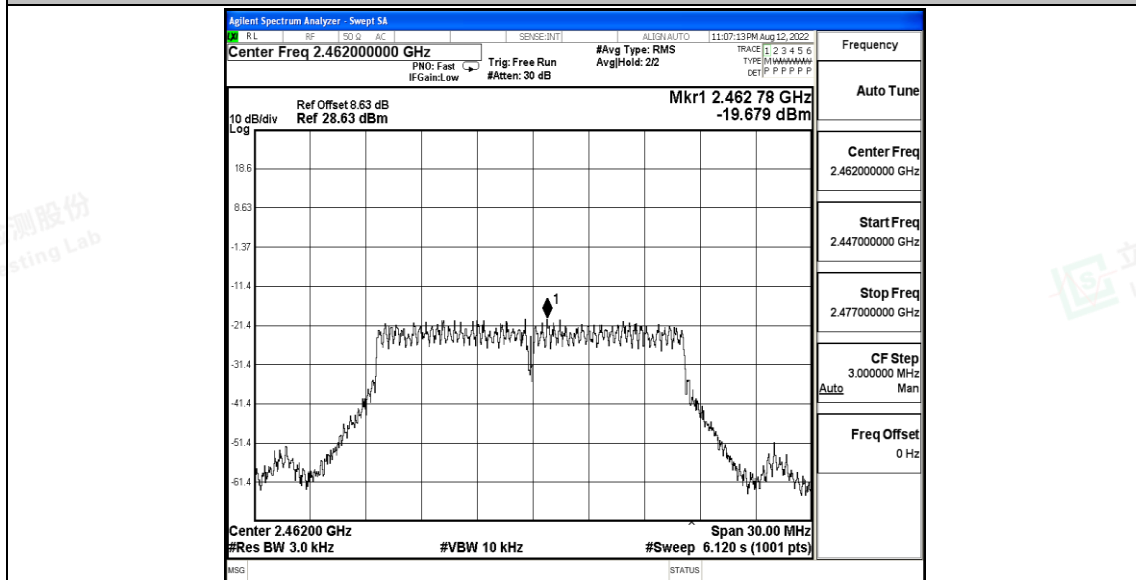


11G_Ant1_2437



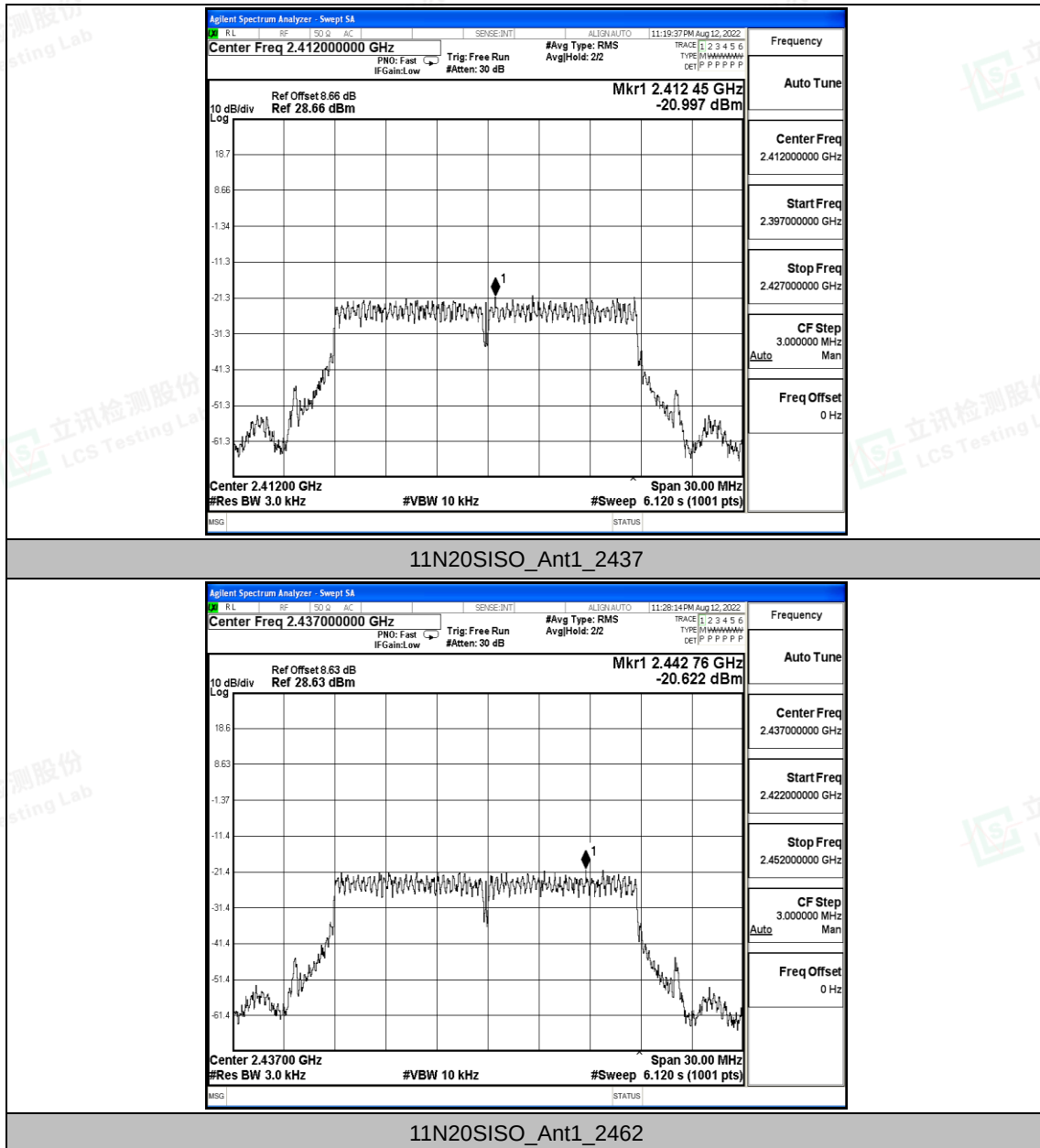


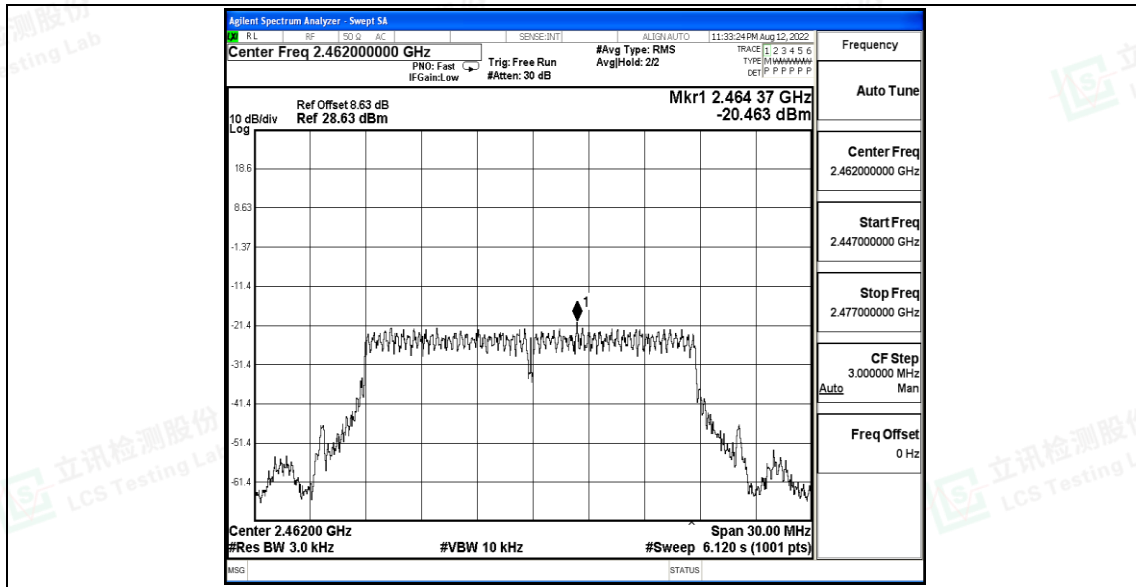
11G_Ant1_2462



11N20SISO_Ant1_2412









B.5 Band edge measurements

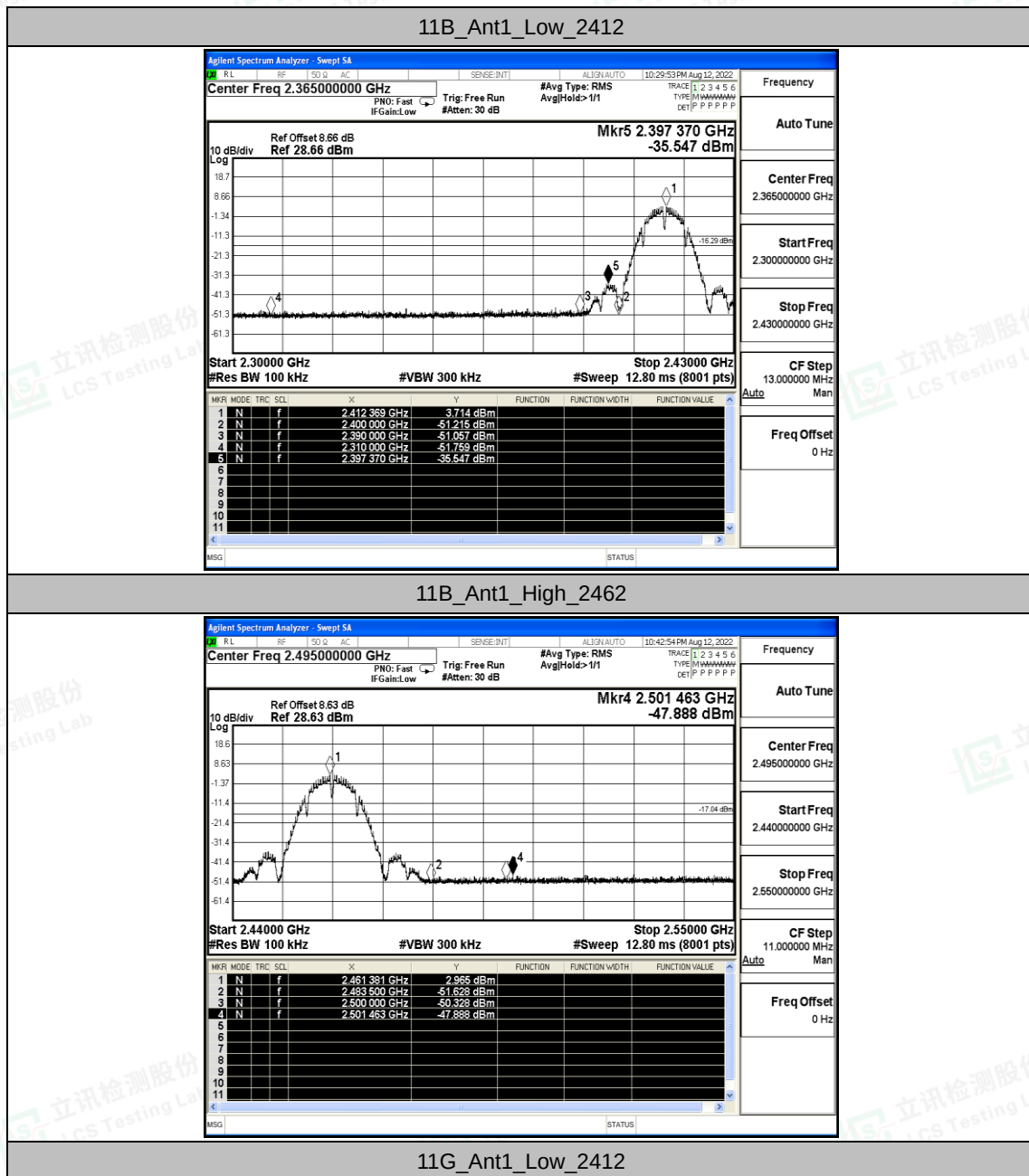
Test Result

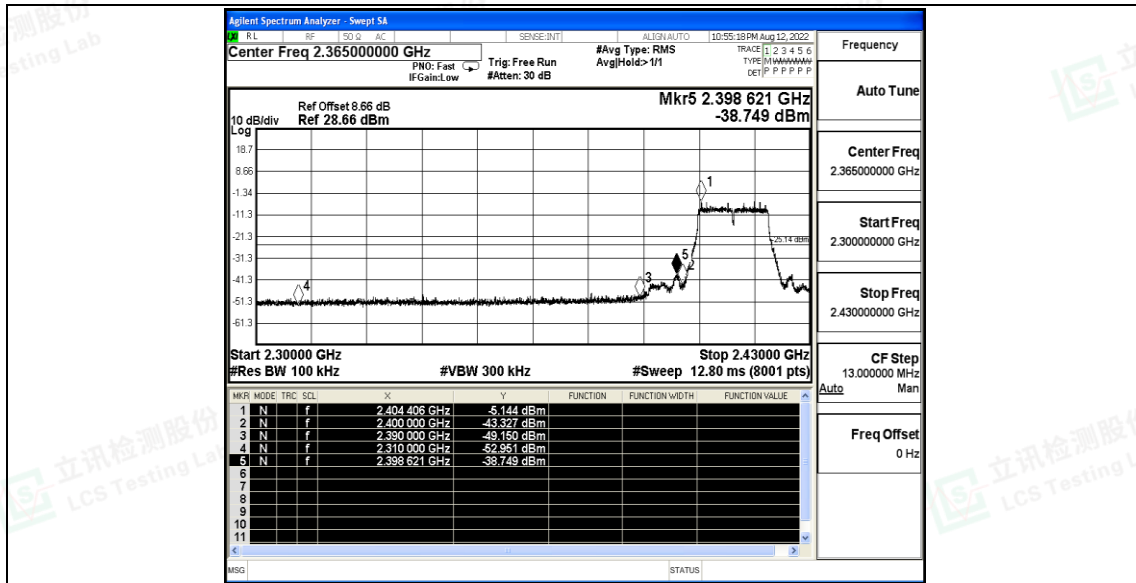
TestMode	Antenna	ChName	Channel	RefLevel[dBm]	Result[dBm]	Limit[dBm]	Verdict
11B	Ant1	Low	2412	3.71	-35.55	≤-16.29	PASS
		High	2462	2.97	-47.89	≤-17.04	PASS
11G	Ant1	Low	2412	-5.14	-38.75	≤-25.14	PASS
		High	2462	-5.53	-47.03	≤-25.53	PASS
11N20SISO	Ant1	Low	2412	-6.43	-39.45	≤-26.43	PASS
		High	2462	-6.71	-47.3	≤-26.71	PASS



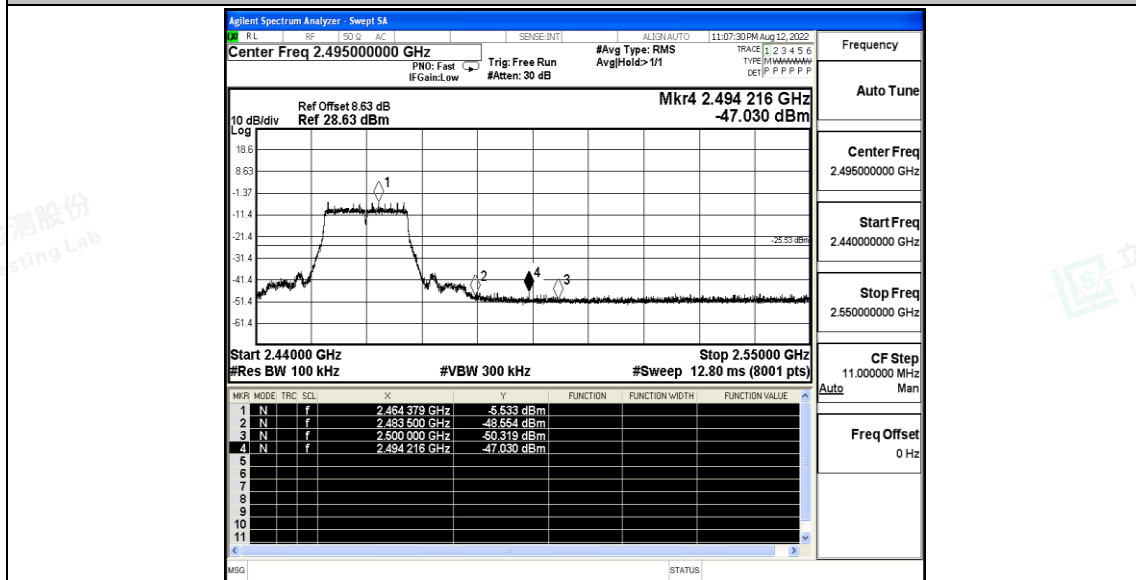


Test Graphs



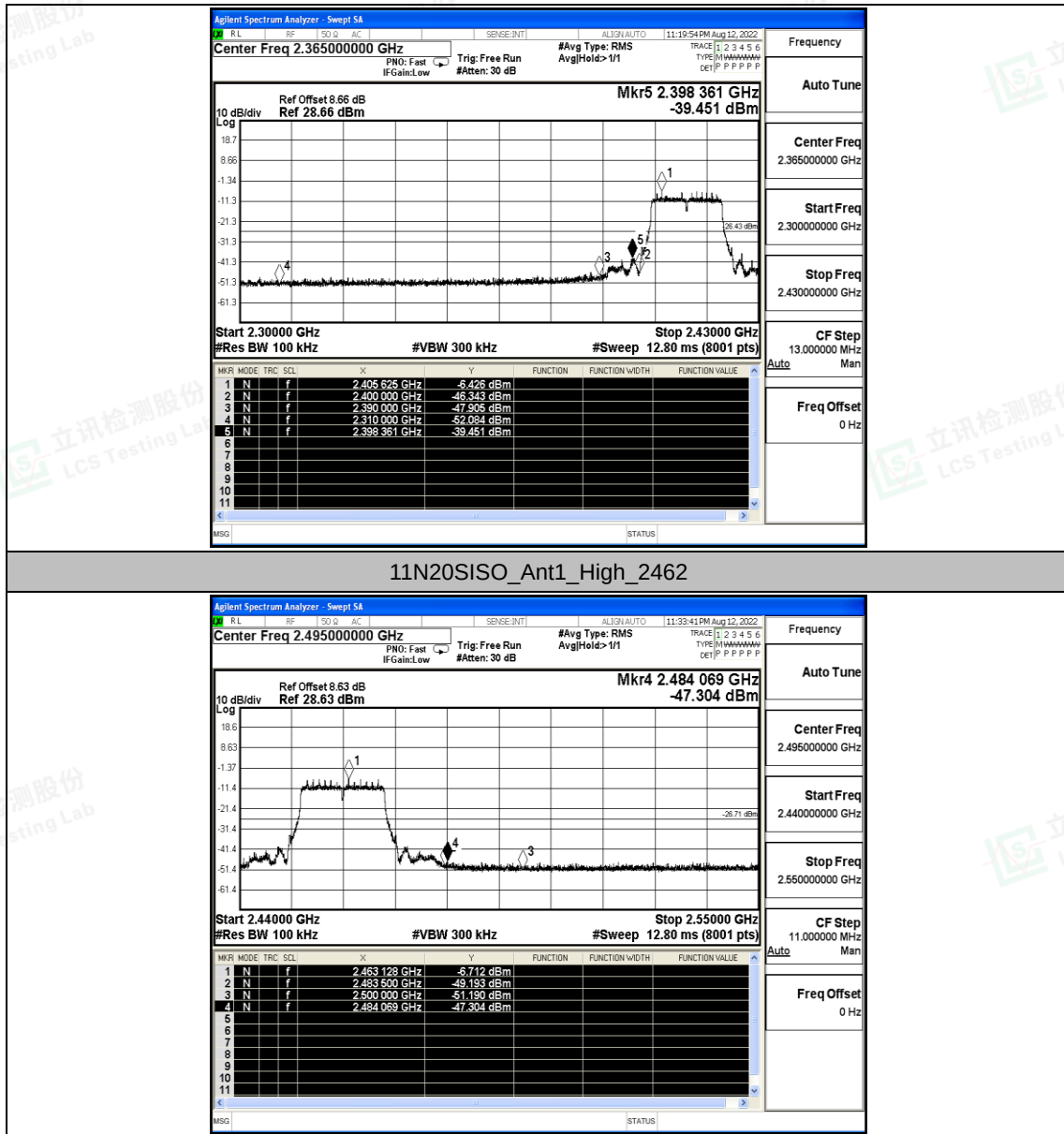


11G_Ant1_High_2462



11N20SISO_Ant1_Low_2412







B.6 Conducted Spurious Emission

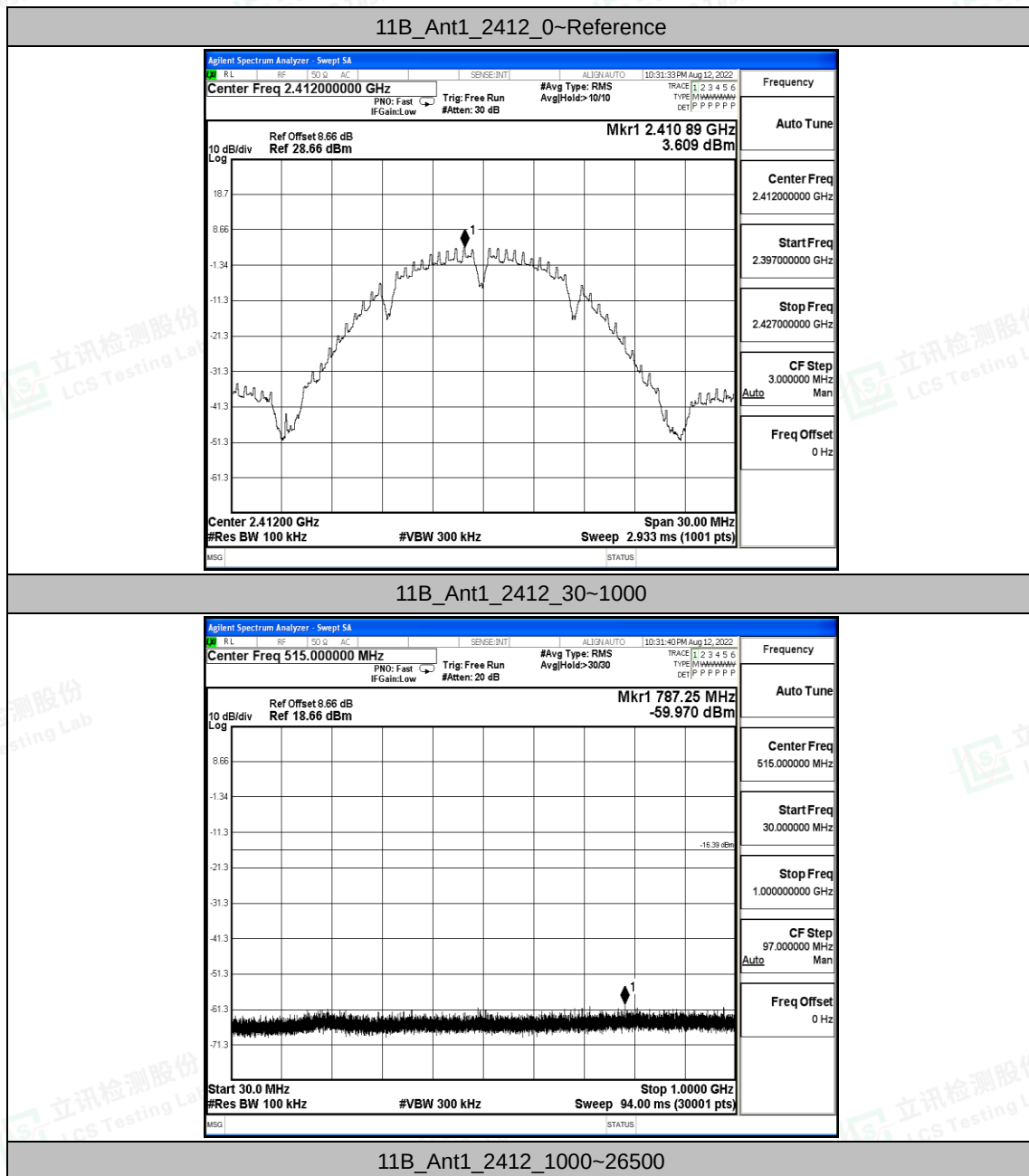
Test Result

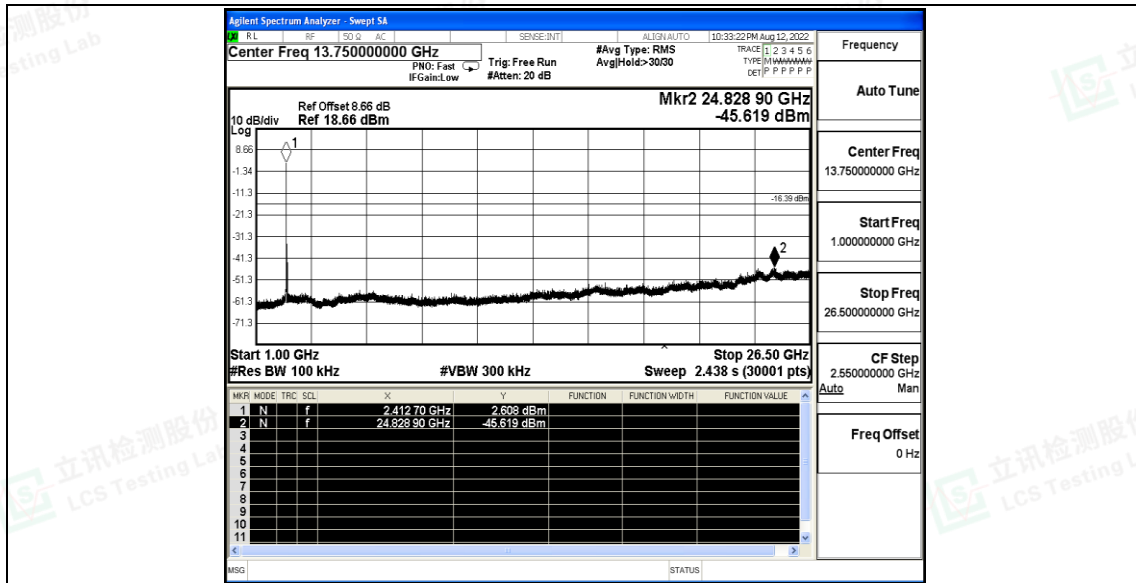
TestMode	Antenna	Channel	FreqRange [Mhz]	RefLevel [dBm]	Result [dBm]	Limit [dBm]	Verdict
11B	Ant1	2412	Reference	3.61	3.61	---	PASS
			30~1000	3.61	-59.97	≤-16.39	PASS
			1000~26500	3.61	-45.62	≤-16.39	PASS
		2437	Reference	1.91	1.91	---	PASS
			30~1000	1.91	-60.55	≤-18.09	PASS
			1000~26500	1.91	-45.76	≤-18.09	PASS
		2462	Reference	2.52	2.52	---	PASS
			30~1000	2.52	-60.21	≤-17.48	PASS
			1000~26500	2.52	-45.73	≤-17.48	PASS
11G	Ant1	2412	Reference	-4.95	-4.95	---	PASS
			30~1000	-4.95	-60.38	≤-24.95	PASS
			1000~26500	-4.95	-45.8	≤-24.95	PASS
		2437	Reference	-4.72	-4.72	---	PASS
			30~1000	-4.72	-60.43	≤-24.72	PASS
			1000~26500	-4.72	-45.71	≤-24.72	PASS
		2462	Reference	-5.42	-5.42	---	PASS
			30~1000	-5.42	-60.38	≤-25.42	PASS
			1000~26500	-5.42	-45.52	≤-25.42	PASS
11N20SISO	Ant1	2412	Reference	-6.35	-6.35	---	PASS
			30~1000	-6.35	-60.32	≤-26.35	PASS
			1000~26500	-6.35	-45.53	≤-26.35	PASS
		2437	Reference	-5.93	-5.93	---	PASS
			30~1000	-5.93	-59.9	≤-25.93	PASS
			1000~26500	-5.93	-45.58	≤-25.93	PASS
		2462	Reference	-6.71	-6.71	---	PASS
			30~1000	-6.71	-60.22	≤-26.71	PASS
			1000~26500	-6.71	-45.75	≤-26.71	PASS



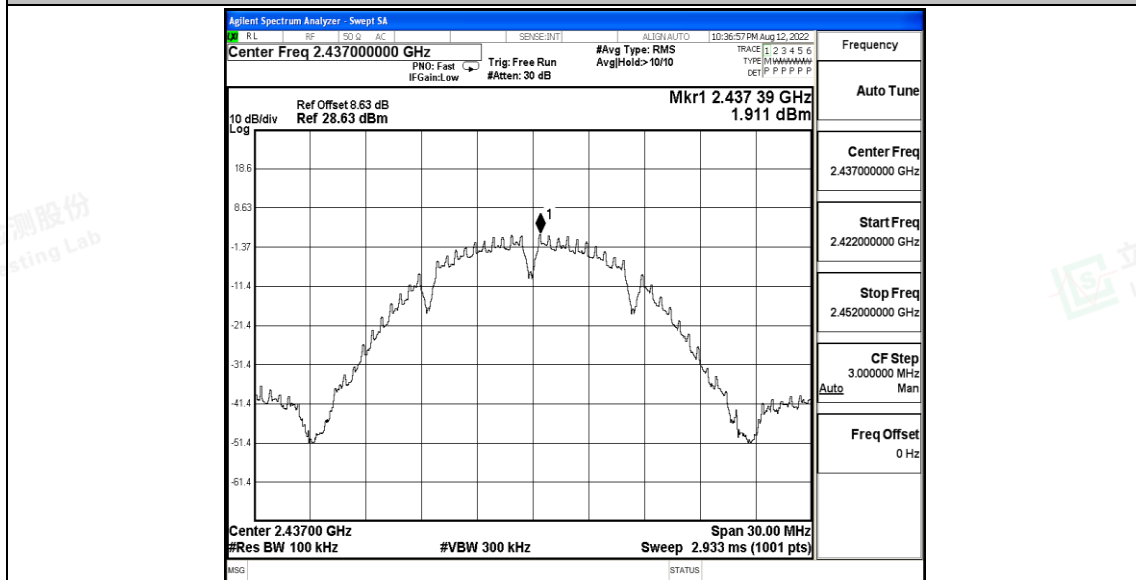


Test Graphs



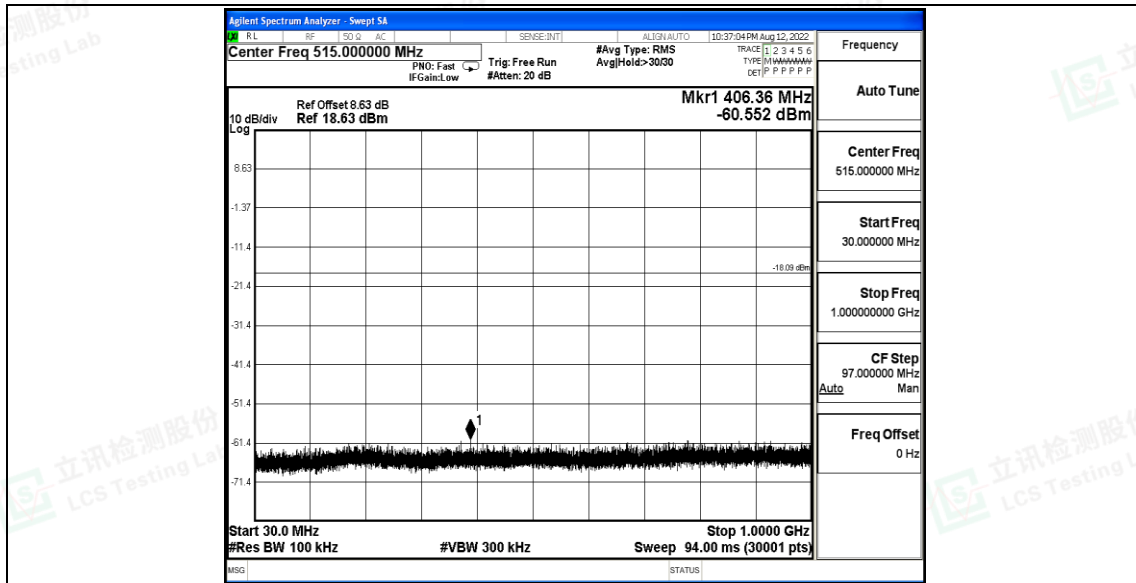


11B_Ant1_2437_0~Reference

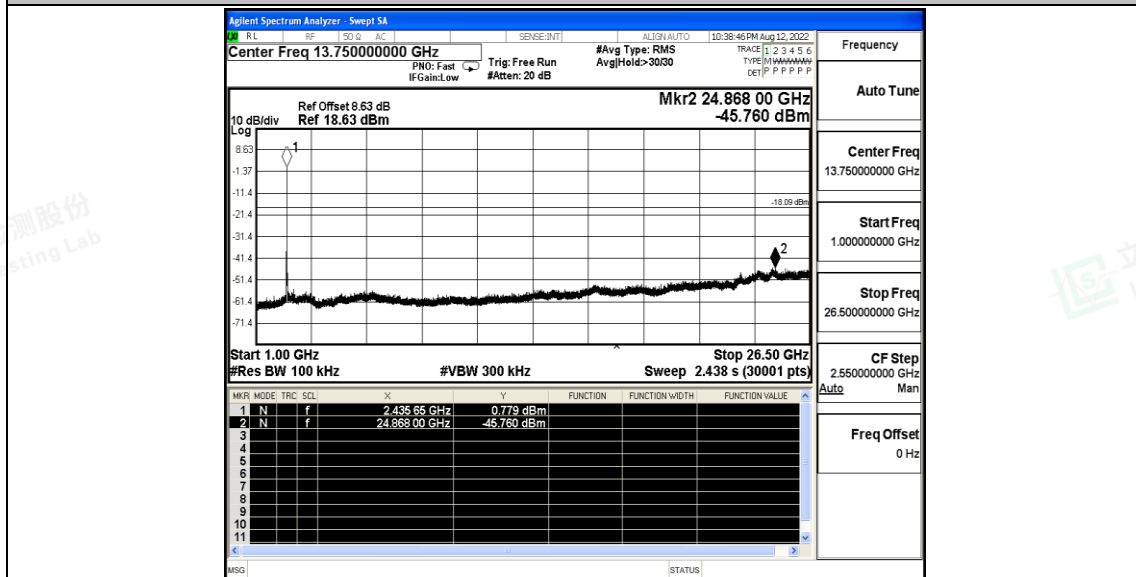


11B_Ant1_2437_30~1000



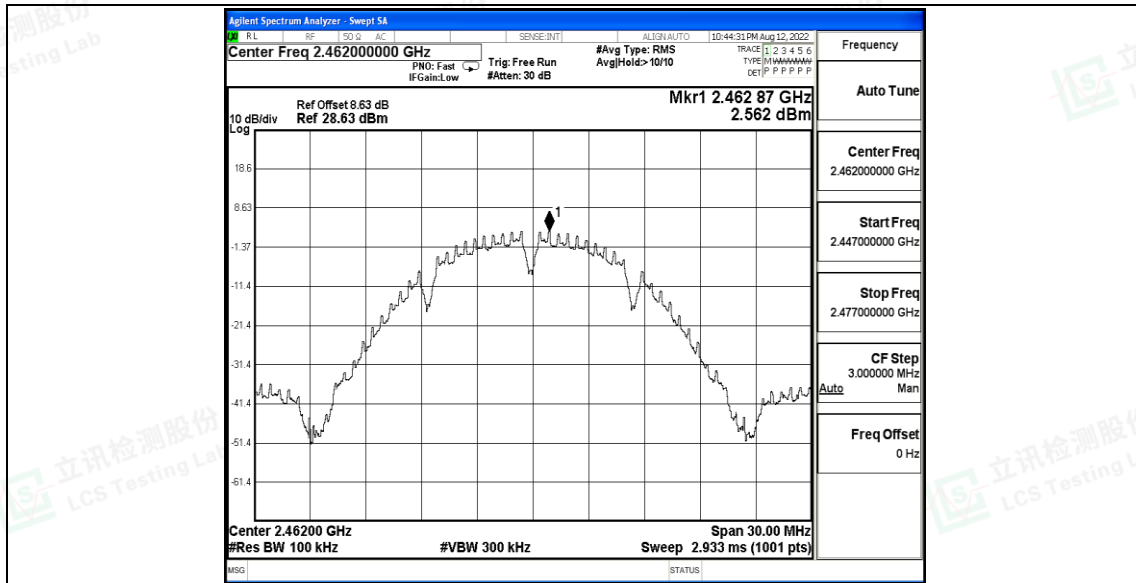


11B_Ant1_2437_1000~26500

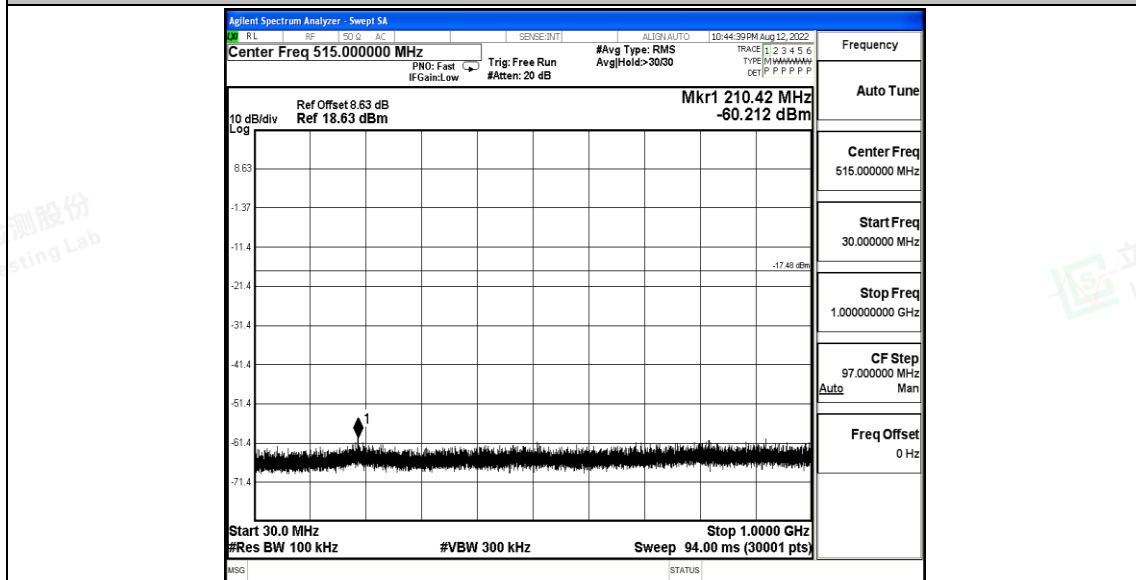


11B_Ant1_2462_0~Reference



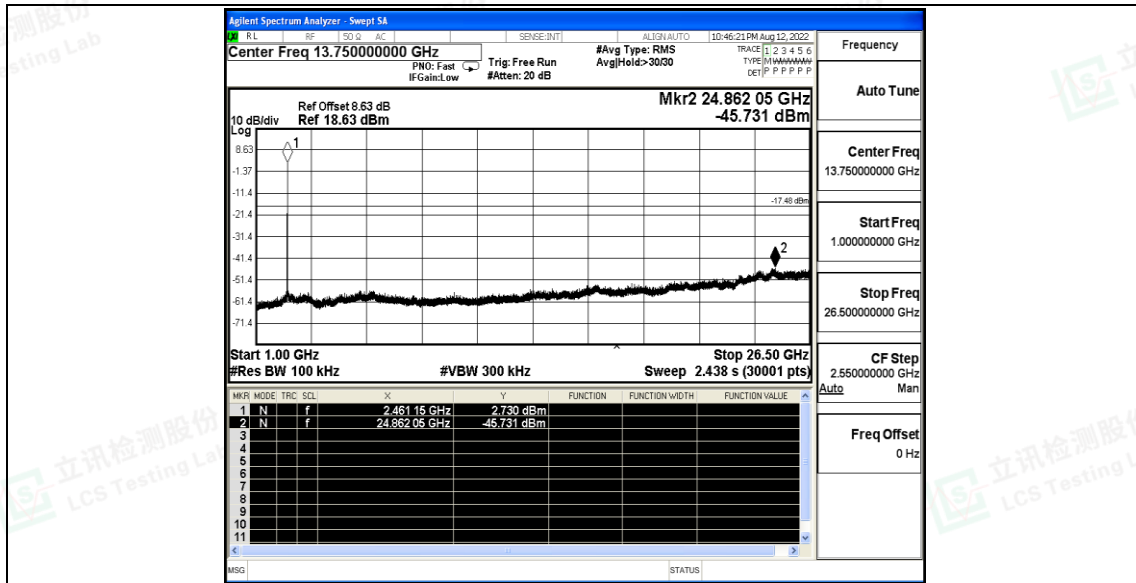


11B_Ant1_2462_30~1000

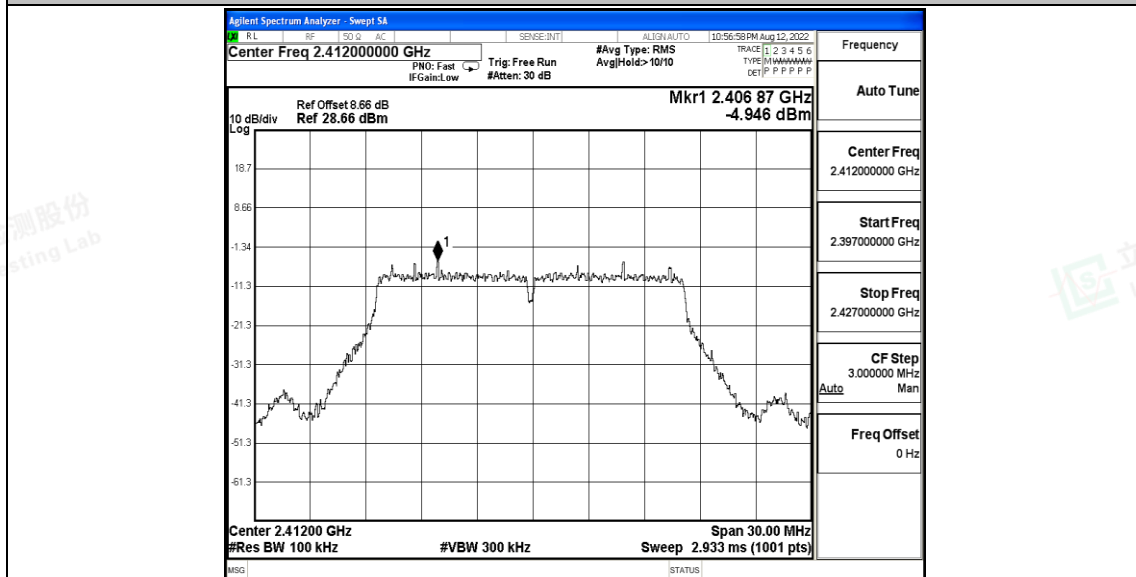


11B_Ant1_2462_1000~26500



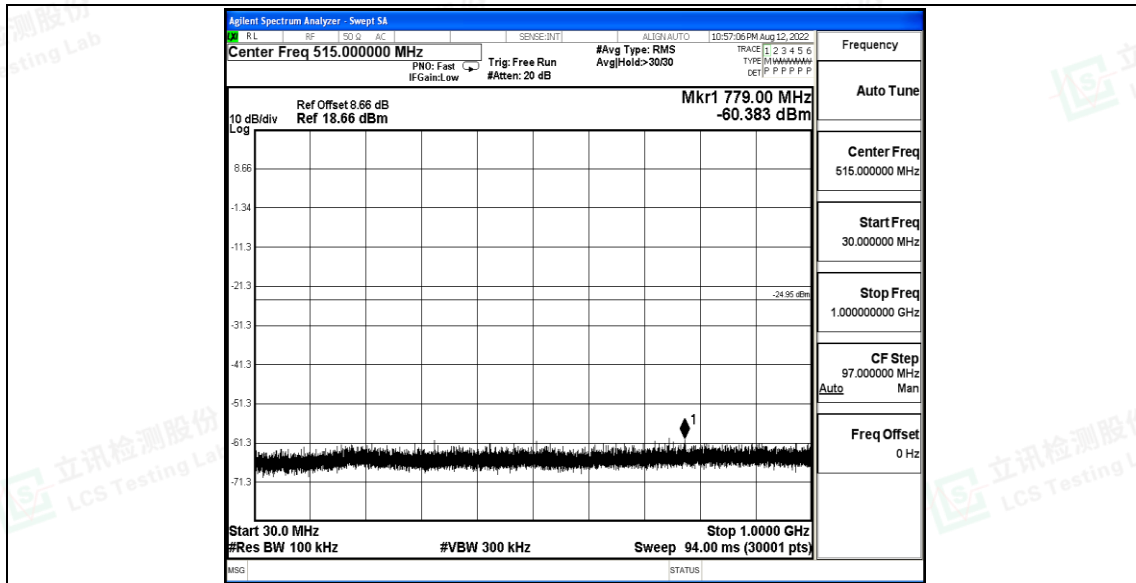


11G_Ant1_2412_0~Reference

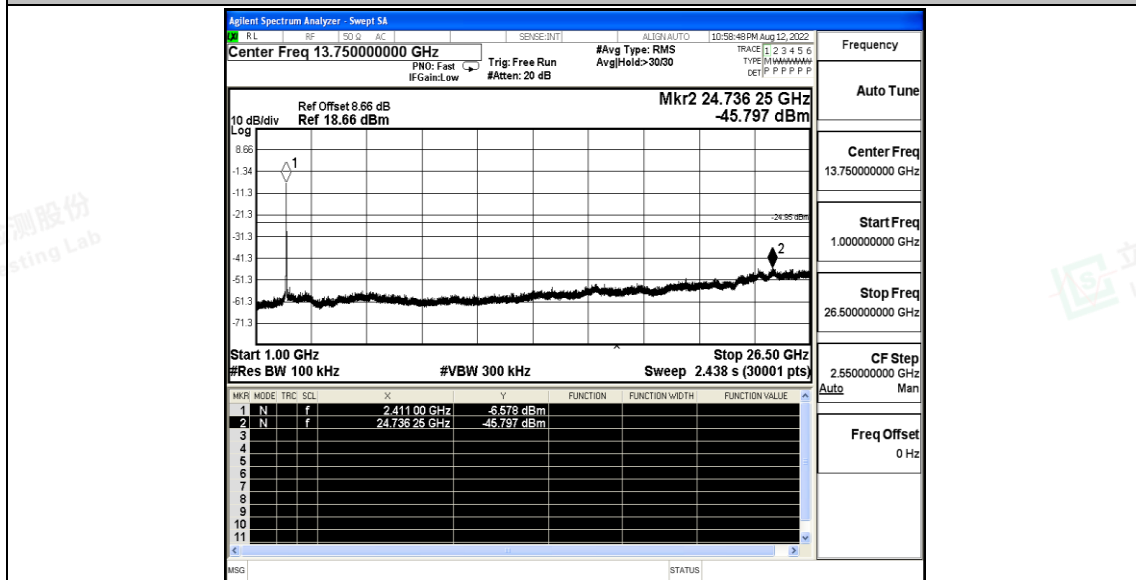


11G_Ant1_2412_30~1000



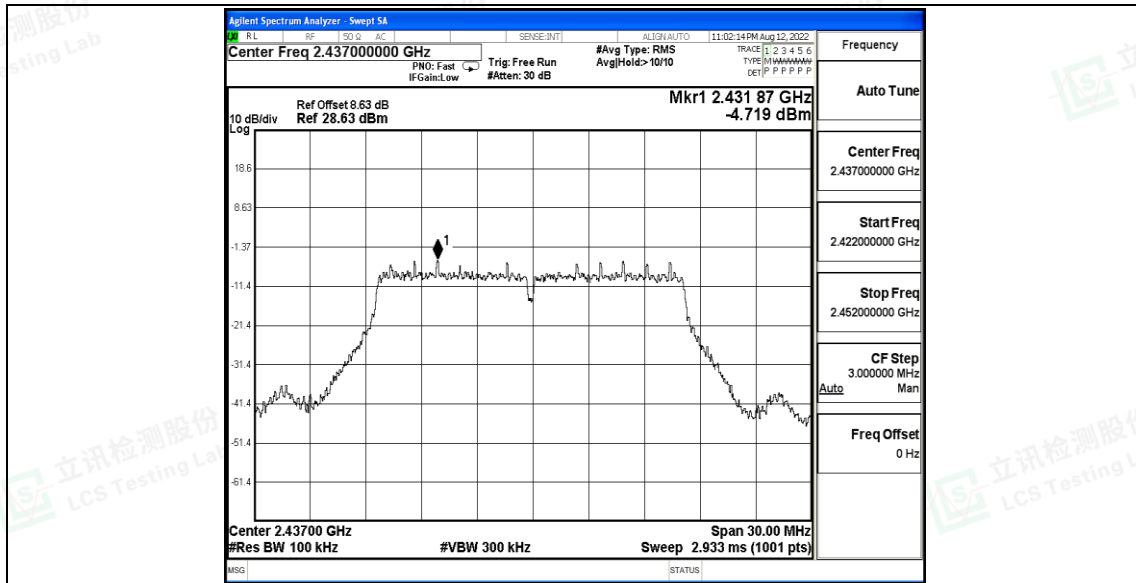


11G_Ant1_2412_1000~26500

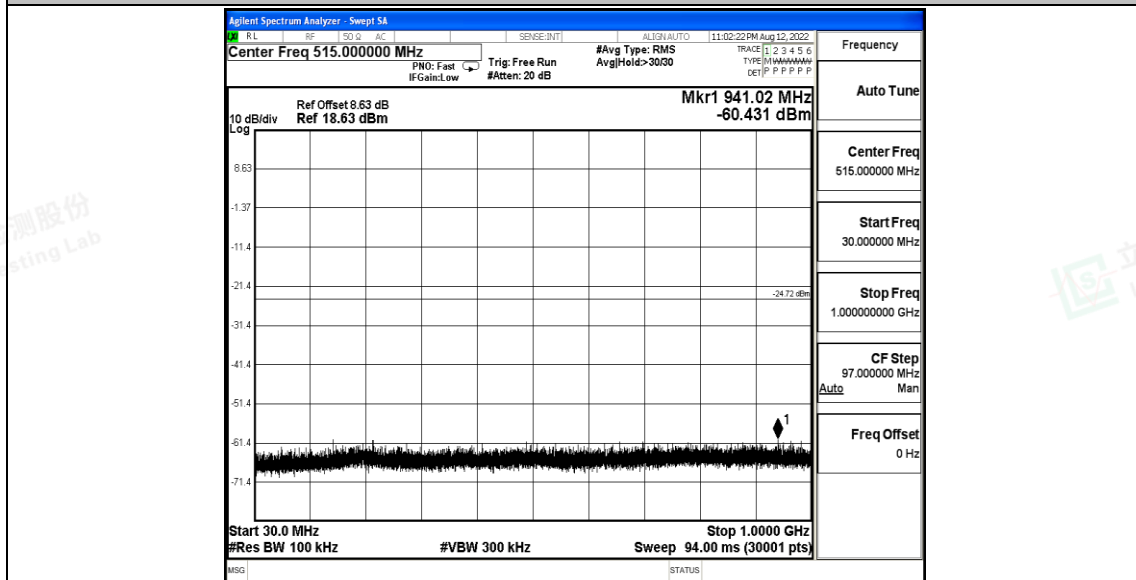


11G_Ant1_2437_0~Reference



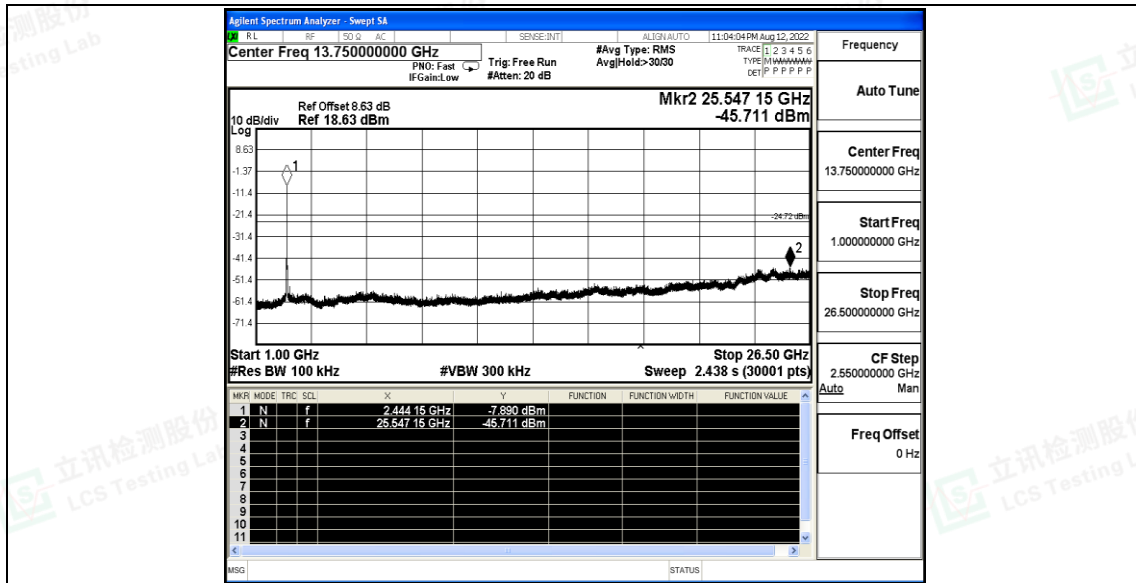


11G_Ant1_2437_30~1000

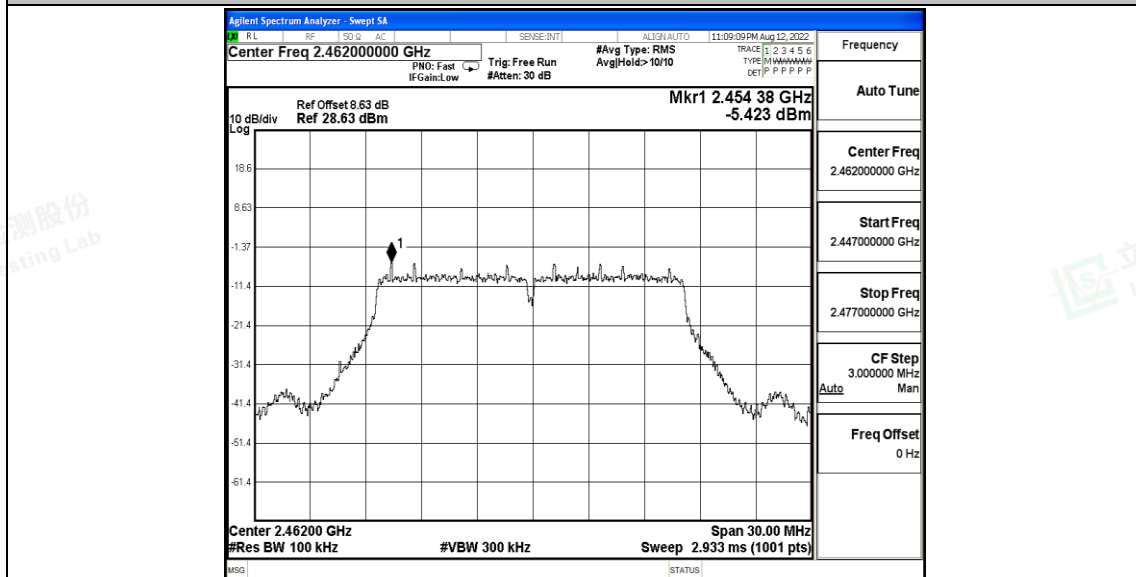


11G_Ant1_2437_1000~26500



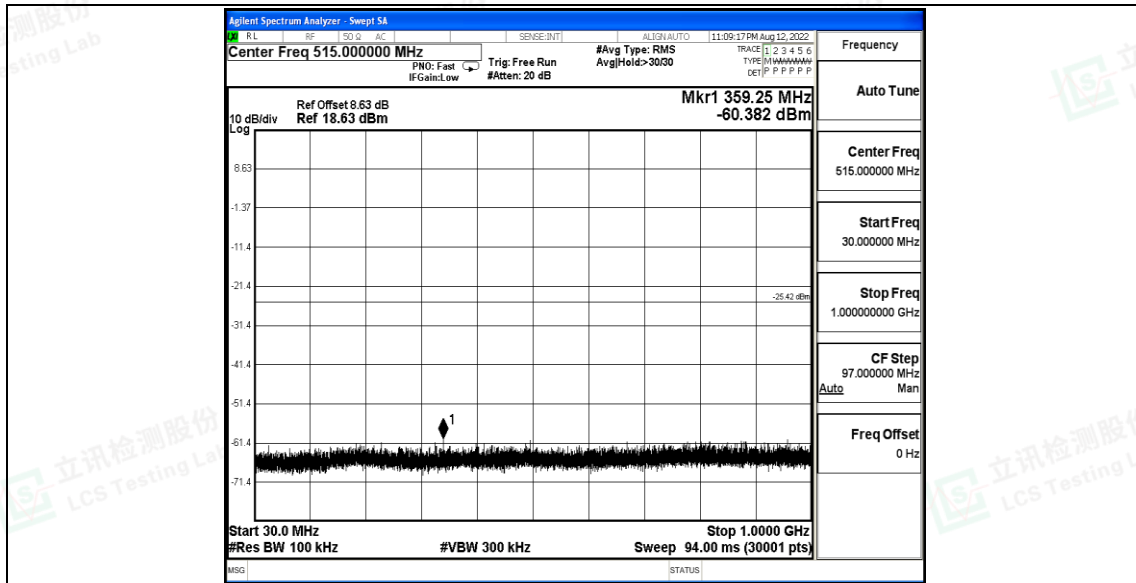


11G_Ant1_2462_0~Reference

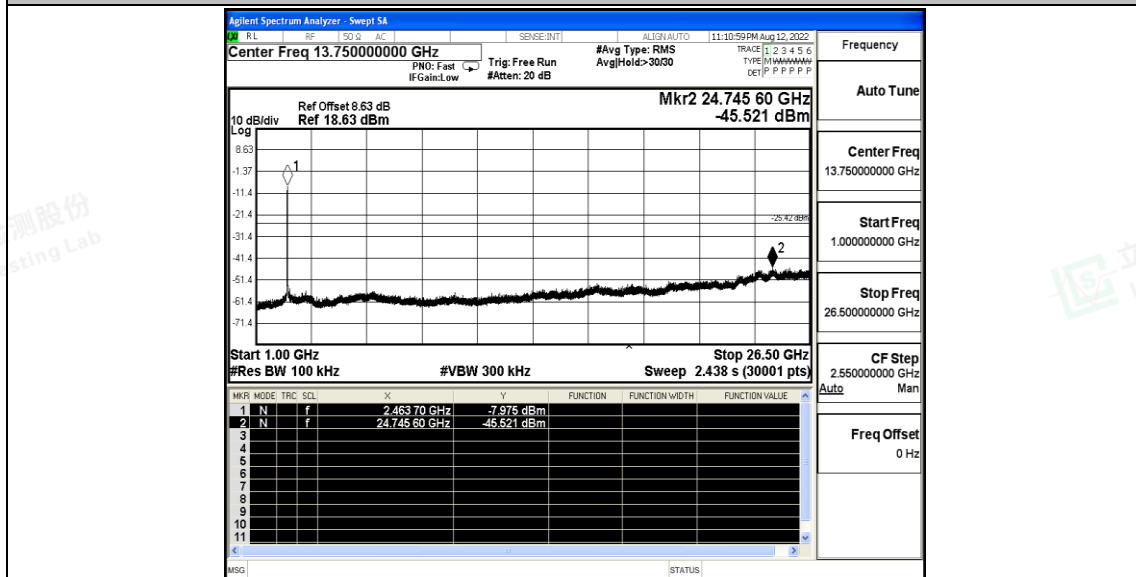


11G_Ant1_2462_30~1000



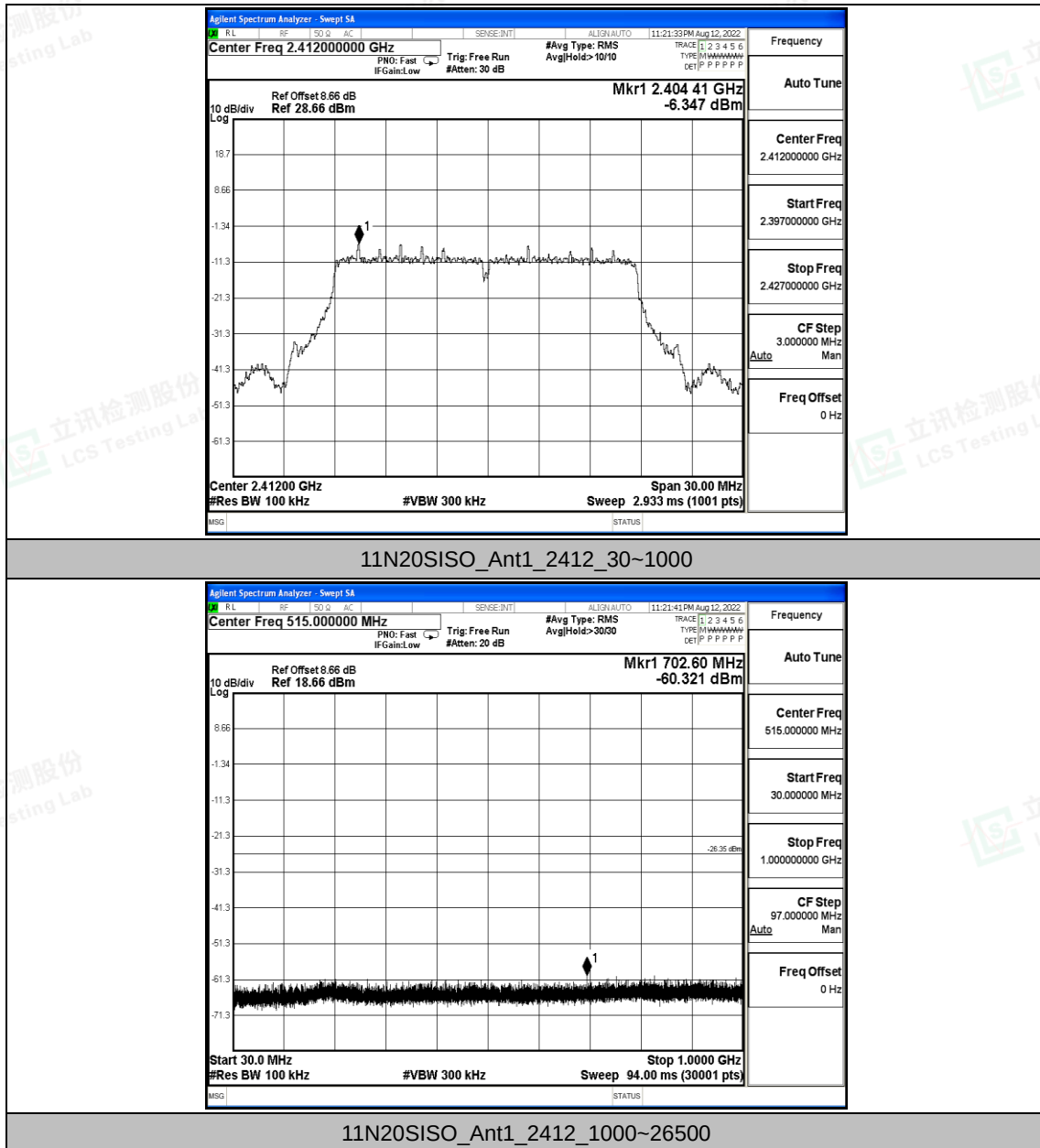


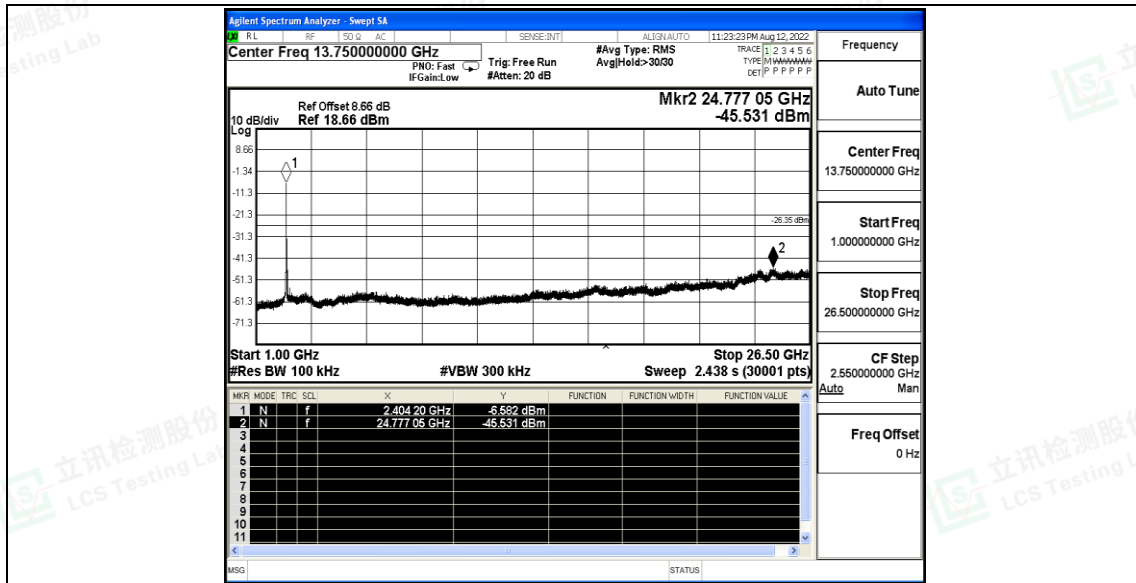
11G_Ant1_2462_1000~26500



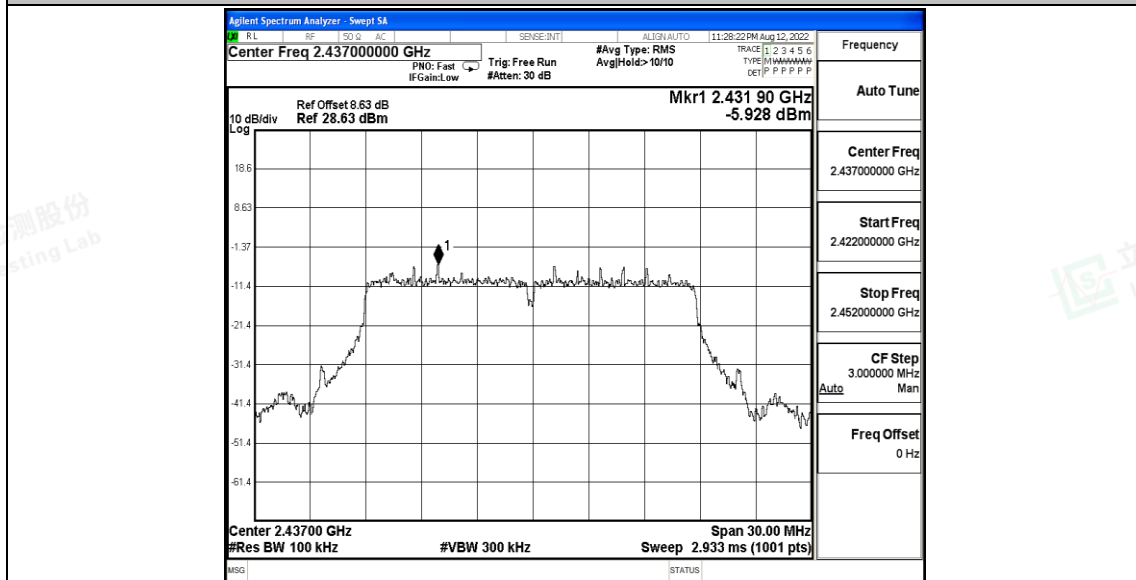
11N20SISO_Ant1_2412_0~Reference





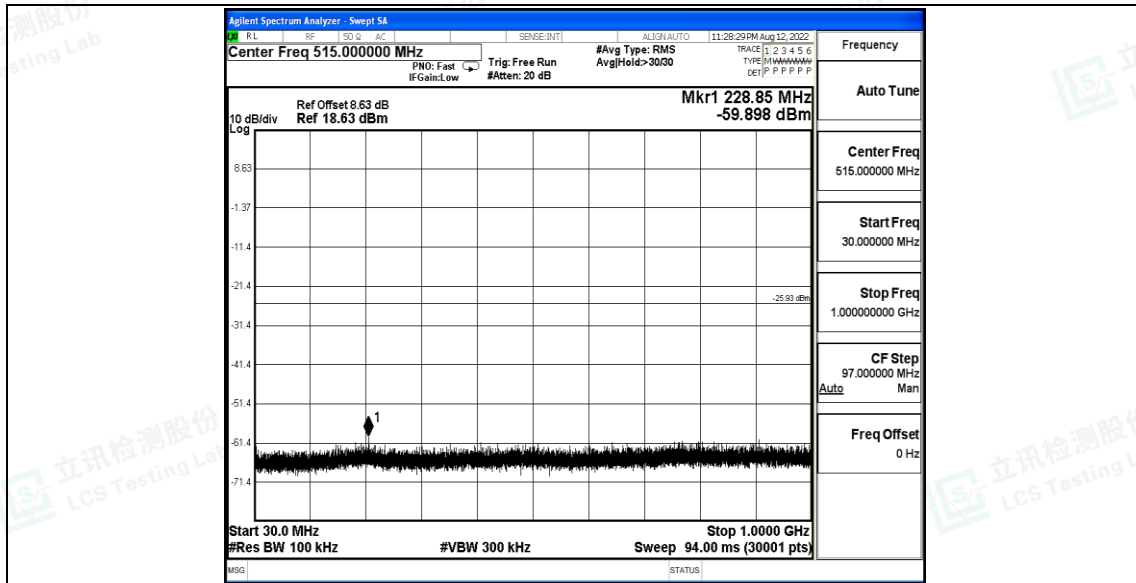


11N20SISO_Ant1_2437_0~Reference

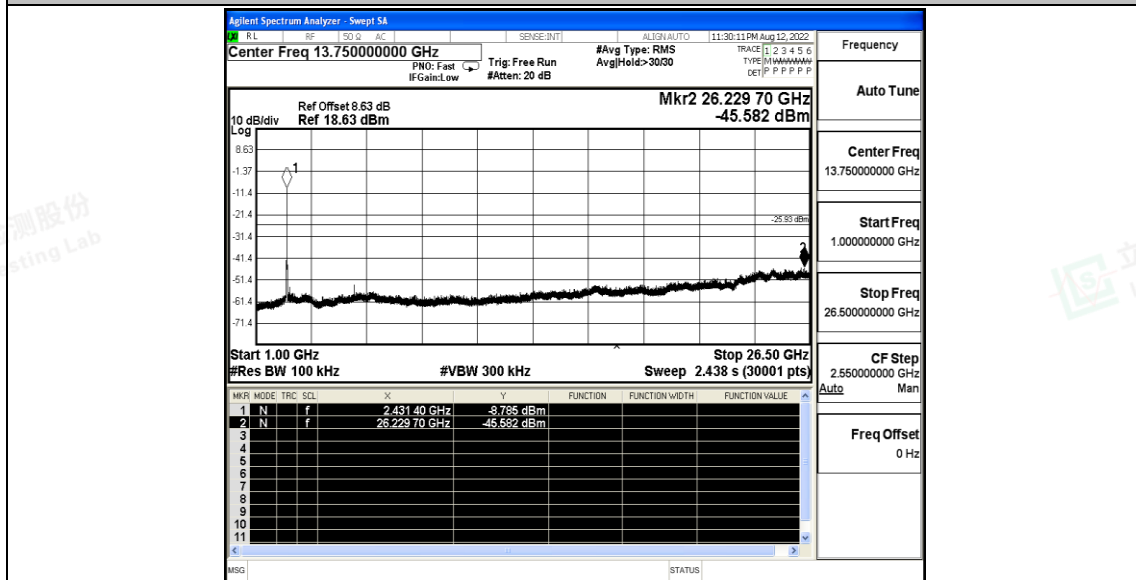


11N20SISO_Ant1_2437_30~1000



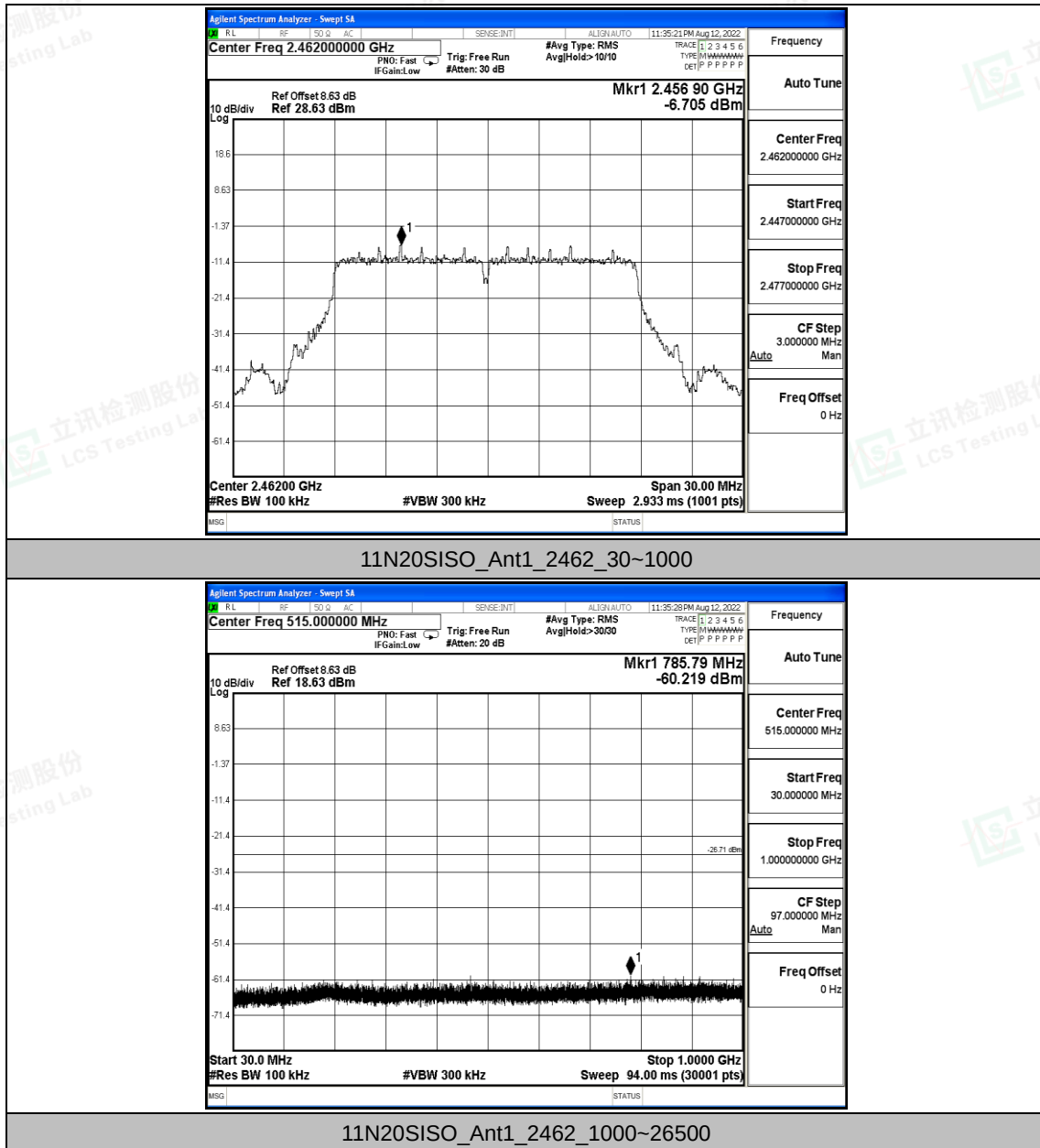


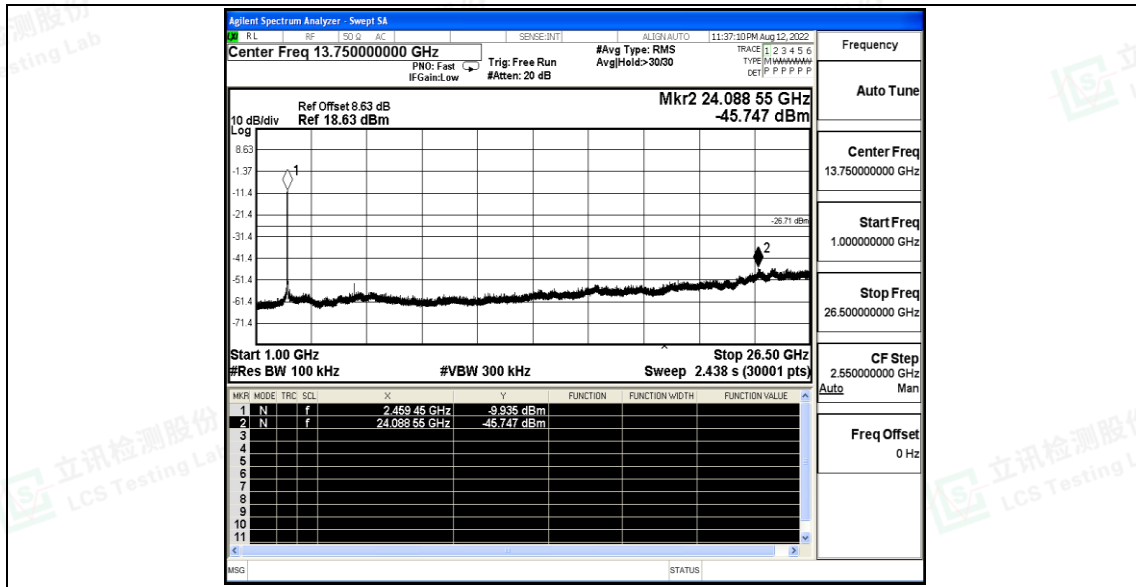
11N20SISO_Ant1_2437_1000~26500



11N20SISO_Ant1_2462_0~Reference









B.7 Duty Cycle

Test Result

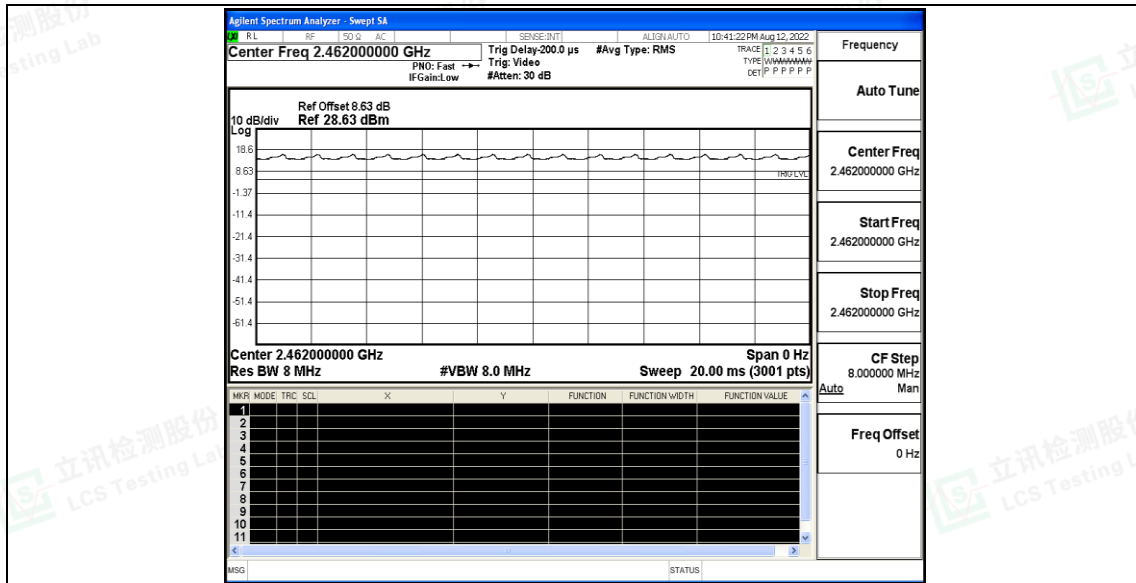
TestMode	Antenna	Channel	Transmission Duration [ms]	Transmission Period [ms]	Duty Cycle [%]	Limit	Verdict
11B	Ant1	2412	20.00	20.00	100.00	---	---
		2437	20.00	20.00	100.00	---	---
		2462	20.00	20.00	100.00	---	---
11G	Ant1	2412	20.00	20.00	100.00	---	---
		2437	20.00	20.00	100.00	---	---
		2462	20.00	20.00	100.00	---	---
11N20SISO	Ant1	2412	20.00	20.00	100.00	---	---
		2437	20.00	20.00	100.00	---	---
		2462	20.00	20.00	100.00	---	---



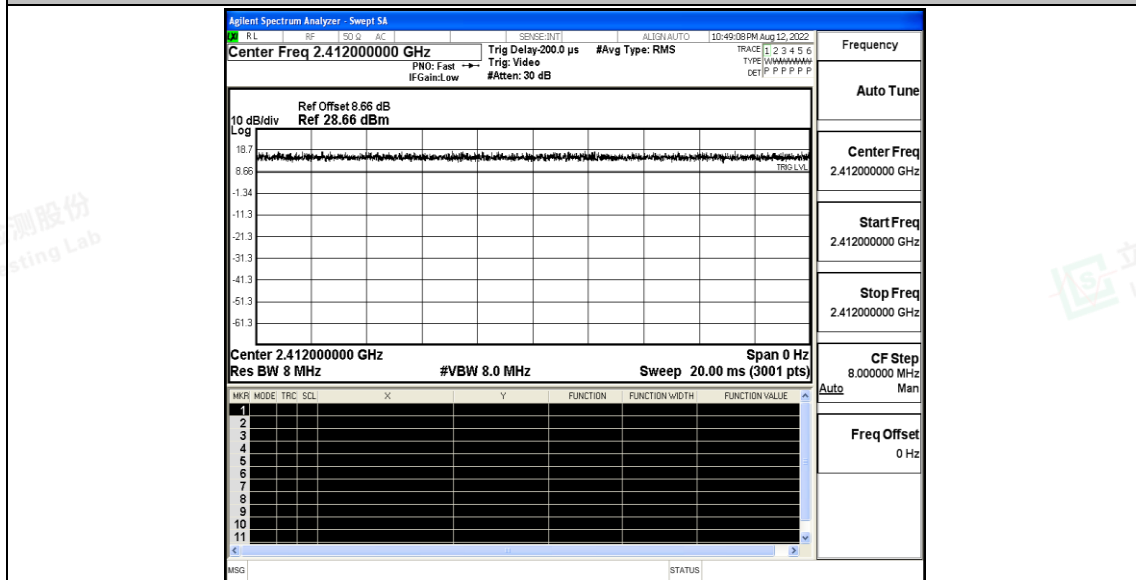


Test Graphs



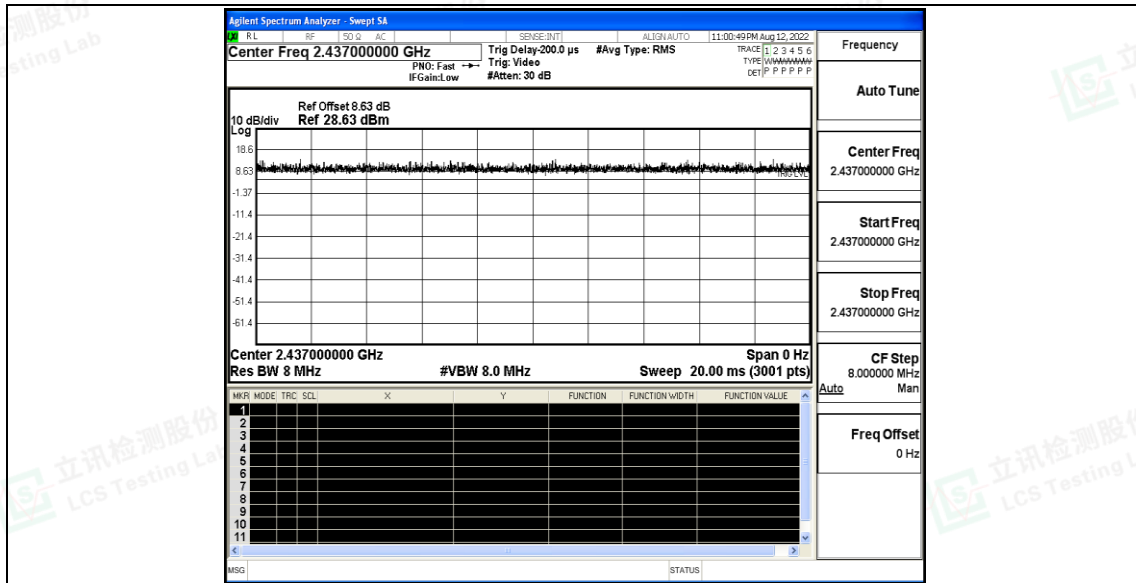


11G_Ant1_2412

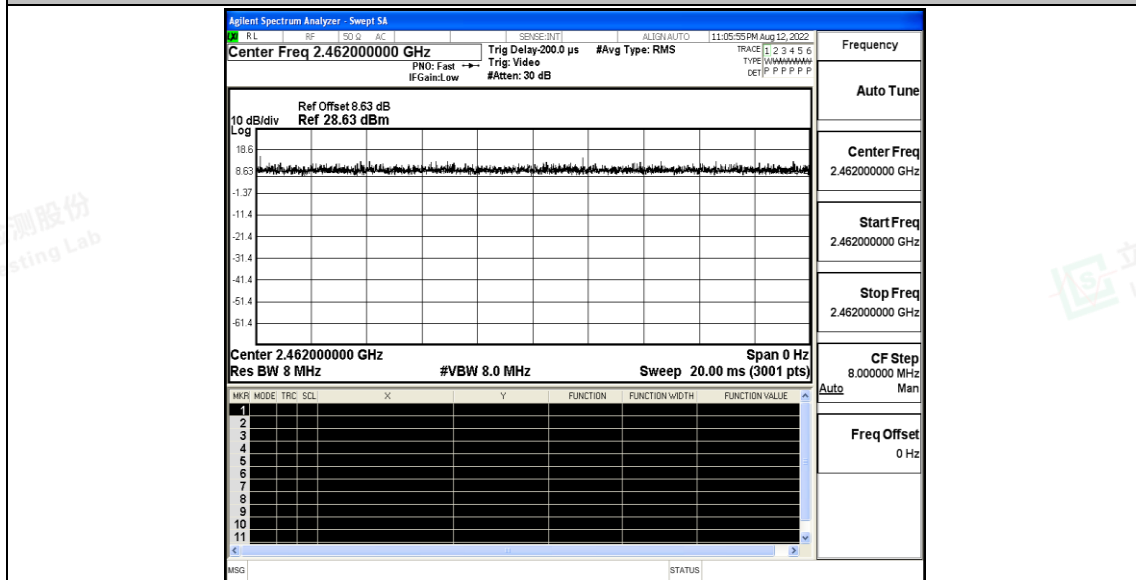


11G_Ant1_2437



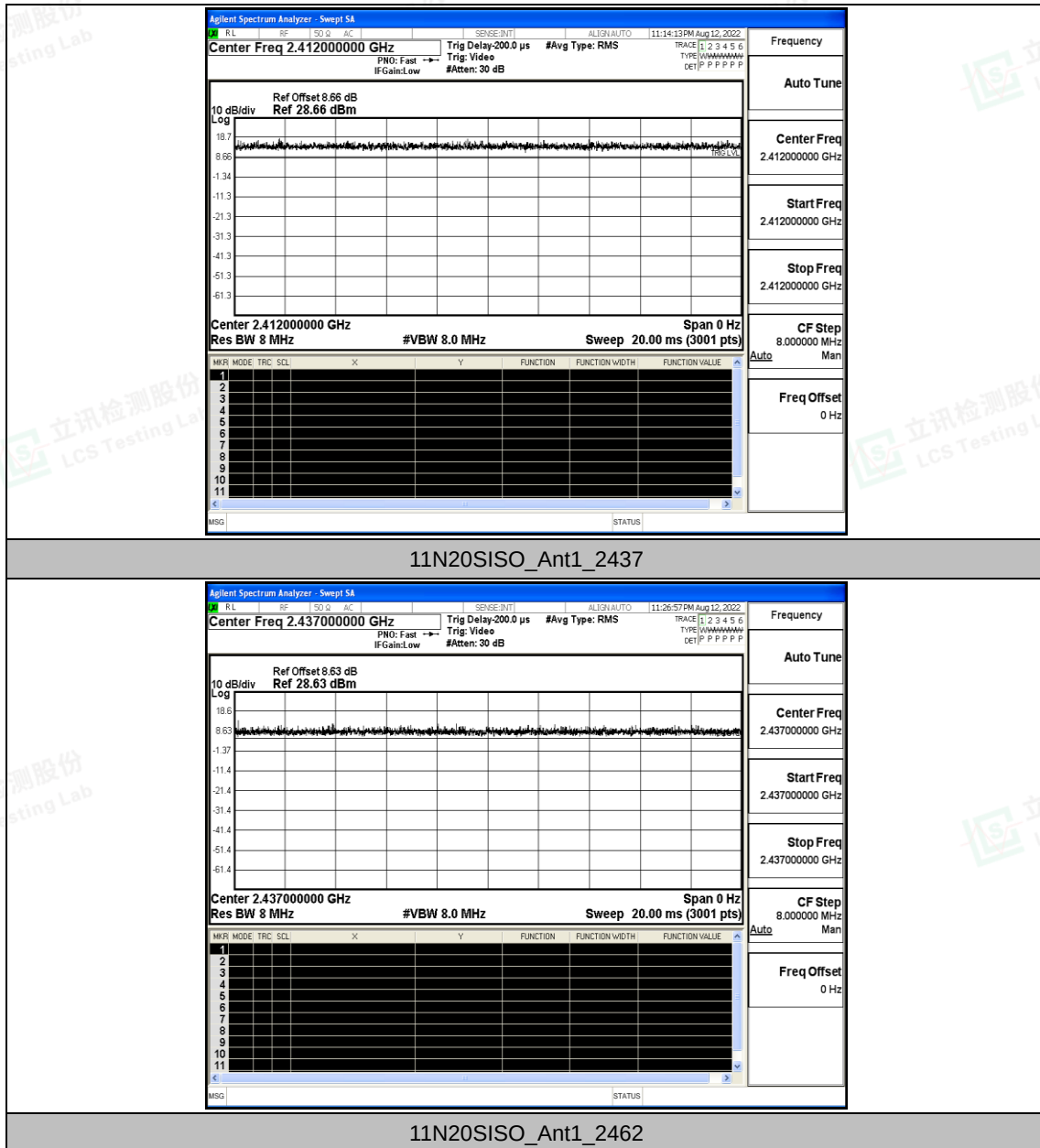


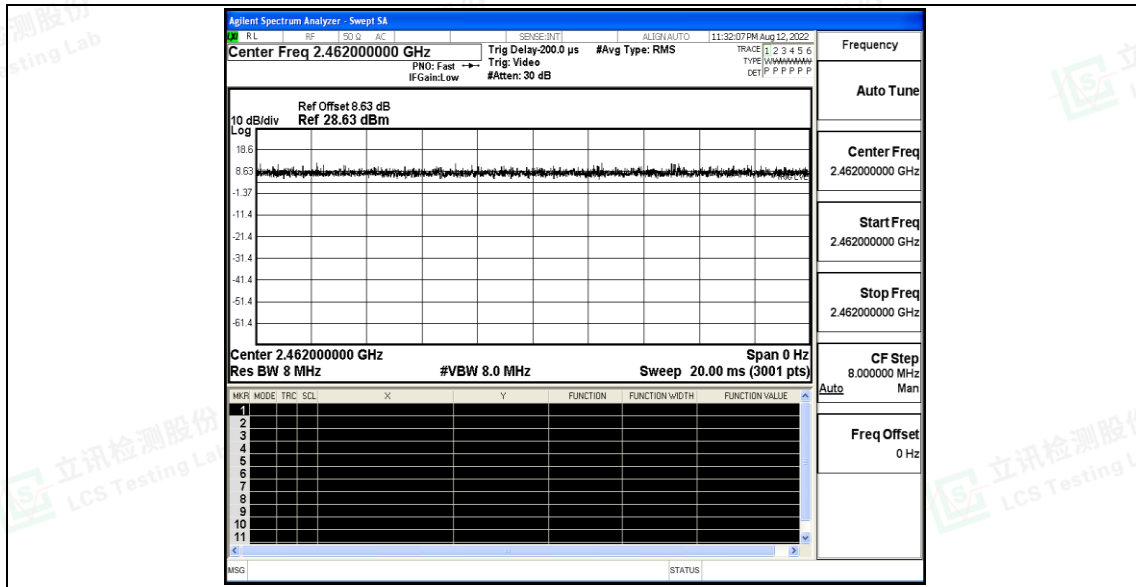
11G_Ant1_2462



11N20SISO_Ant1_2412









B.8 Emissions in Restricted Bands

Test Result

TestMode	Antenna	ChName	Channel	Detector	Freq. [MHz]	Result [dBm]	Limit [dBm]	Result [dBuV/m]	Limit [dBuV/m]	Verdict
11B	Ant1	Low	2412	AV	2310.000	-57.16	≤-41.20	38.04	≤54	PASS
				AV	2373.970	-52.62	≤-41.20	42.58	≤54	PASS
				AV	2390.000	-54.84	≤-41.20	40.36	≤54	PASS
				Peak	2310.000	-46.62	≤-21.20	48.58	≤74	PASS
				Peak	2376.960	-42.8	≤-21.20	52.40	≤74	PASS
				Peak	2390.000	-44.68	≤-21.20	50.52	≤74	PASS
		High	2462	AV	2483.500	-55.4	≤-41.20	39.80	≤54	PASS
				AV	2499.840	-54.09	≤-41.20	41.11	≤54	PASS
				AV	2500.000	-54.2	≤-41.20	41.00	≤54	PASS
				Peak	2483.500	-42.56	≤-21.20	52.64	≤74	PASS
				Peak	2483.560	-43.09	≤-21.20	52.11	≤74	PASS
				Peak	2500.000	-45.01	≤-21.20	50.19	≤74	PASS
11G	Ant1	Low	2412	AV	2310.000	-56.49	≤-41.20	38.71	≤54	PASS
				AV	2389.960	-49.55	≤-41.20	45.65	≤54	PASS
				AV	2390.000	-49.55	≤-41.20	45.65	≤54	PASS
				Peak	2310.000	-46.23	≤-21.20	48.97	≤74	PASS
				Peak	2389.960	-37.1	≤-21.20	58.10	≤74	PASS
				Peak	2390.000	-37.1	≤-21.20	58.10	≤74	PASS
		High	2462	AV	2483.500	-49.26	≤-41.20	45.94	≤54	PASS
				AV	2483.560	-49.44	≤-41.20	45.76	≤54	PASS
				AV	2500.000	-54.47	≤-41.20	40.73	≤54	PASS
				Peak	2483.500	-36.59	≤-21.20	58.61	≤74	PASS
				Peak	2483.890	-35.78	≤-21.20	59.42	≤74	PASS
				Peak	2500.000	-44.33	≤-21.20	50.87	≤74	PASS
11N20SIS O	Ant1	Low	2412	AV	2310.000	-56.49	≤-41.20	38.71	≤54	PASS
				AV	2389.960	-48.84	≤-41.20	46.36	≤54	PASS
				AV	2390.000	-48.85	≤-41.20	46.35	≤54	PASS
				Peak	2310.000	-45.88	≤-21.20	49.32	≤74	PASS
				Peak	2389.180	-36.85	≤-21.20	58.35	≤74	PASS
				Peak	2390.000	-37.48	≤-21.20	57.72	≤74	PASS
		High	2462	AV	2483.500	-49.66	≤-41.20	45.54	≤54	PASS
				AV	2483.560	-49.78	≤-41.20	45.42	≤54	PASS
				AV	2500.000	-54.51	≤-41.20	40.69	≤54	PASS
				Peak	2483.500	-36.25	≤-21.20	58.95	≤74	PASS
				Peak	2499.070	-31.57	≤-21.20	63.63	≤74	PASS



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Scan code to check authenticity



				Peak	2500.000	-43.96	≤-21.20	51.24	≤74	PASS
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Note:

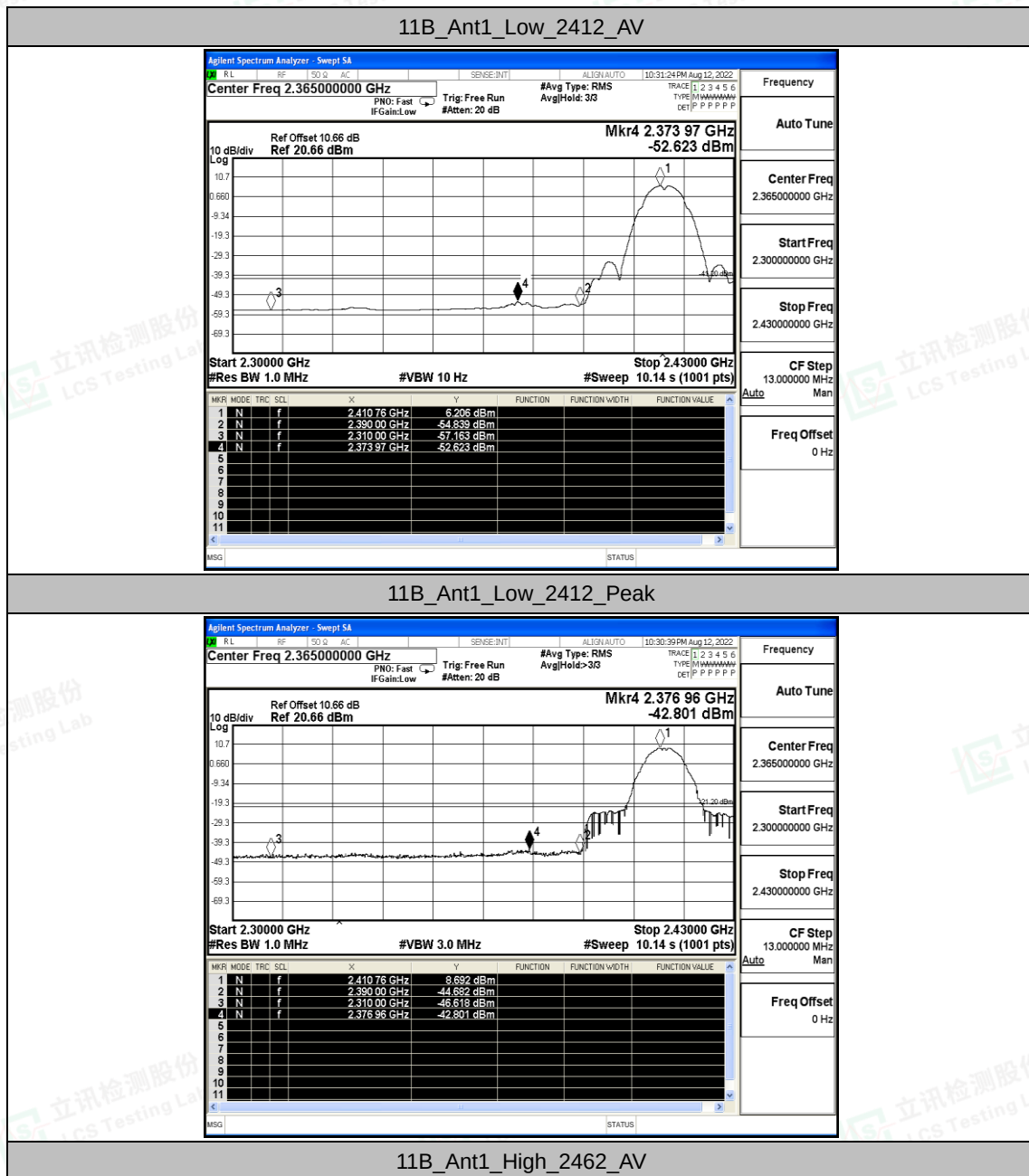
- 1. The Antenna Gain is compensated in the graph.
- 2. The limit in dBm for average detector is conversion from 54dBuV/m, according to 15.209(a). The limit in dBm for peak detector is 20dB above the limit of average detector in dBm.

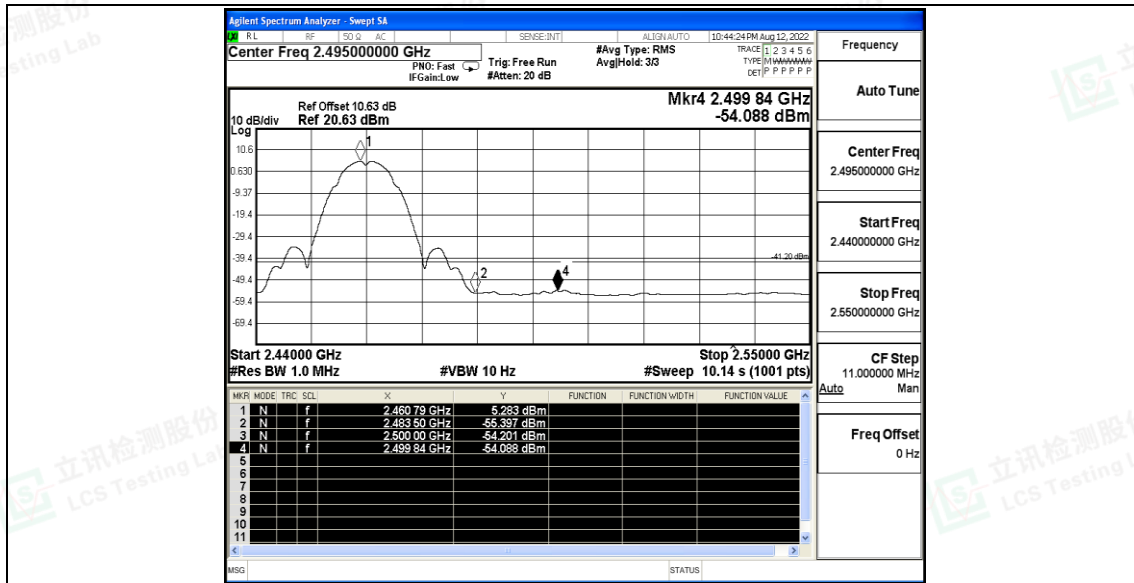


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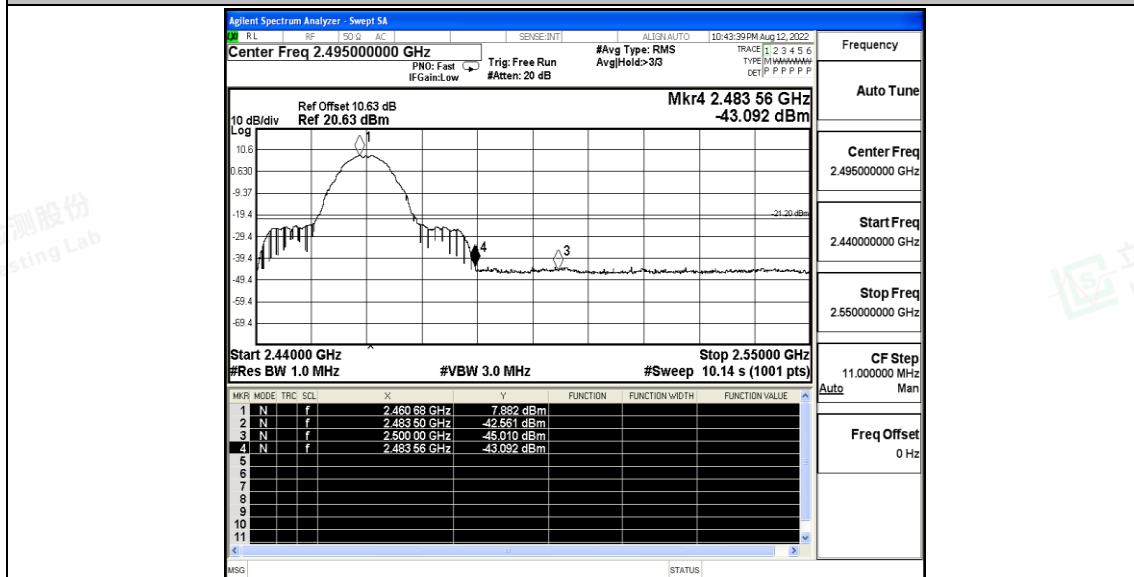


Test Graphs



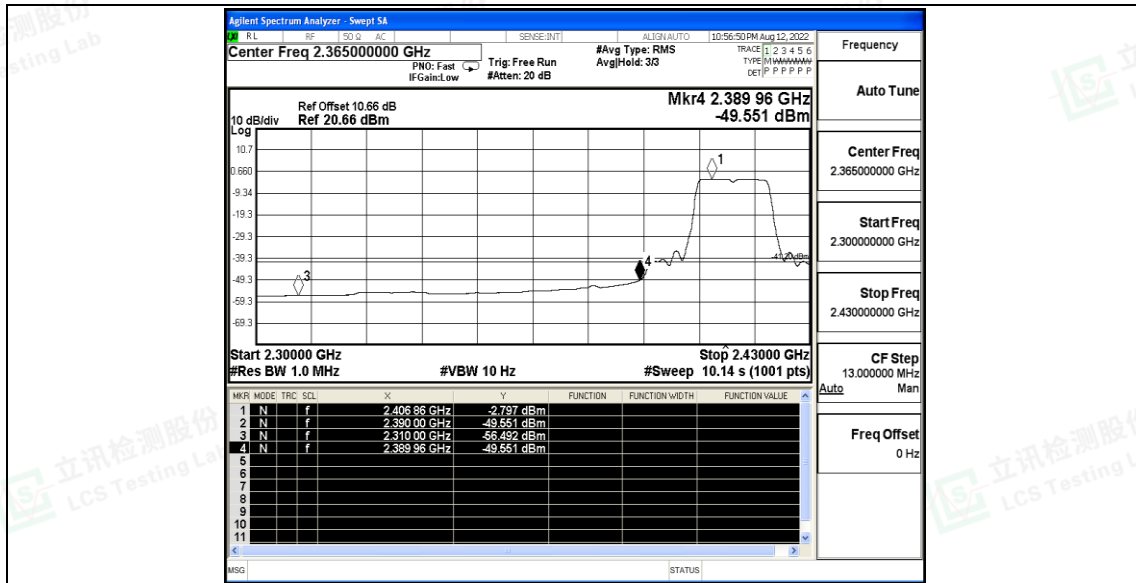


11B_Ant1_High_2462_Peak

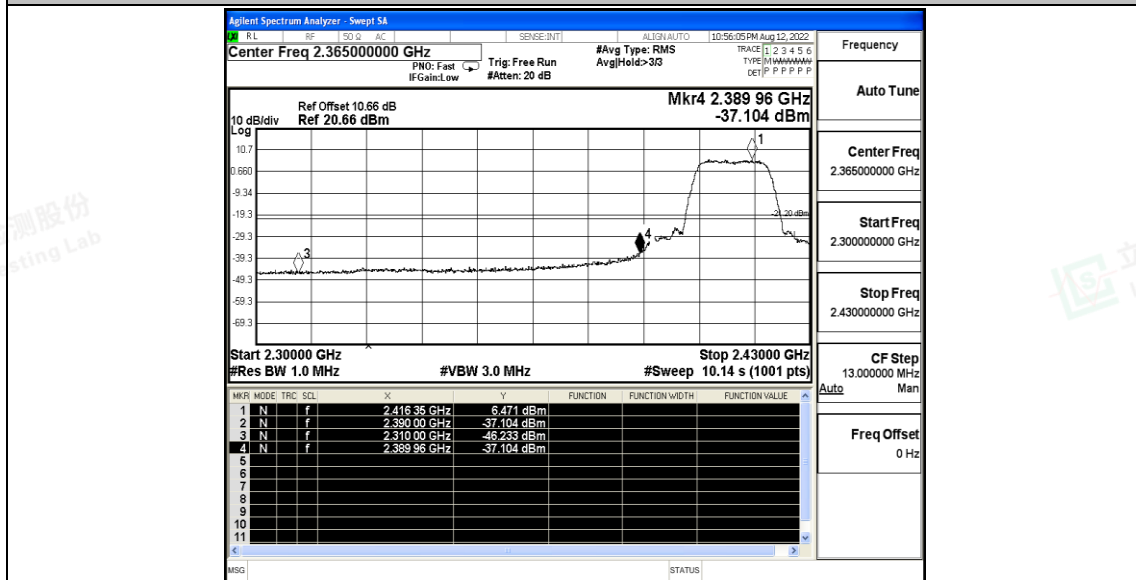


11G_Ant1_Low_2412_AV



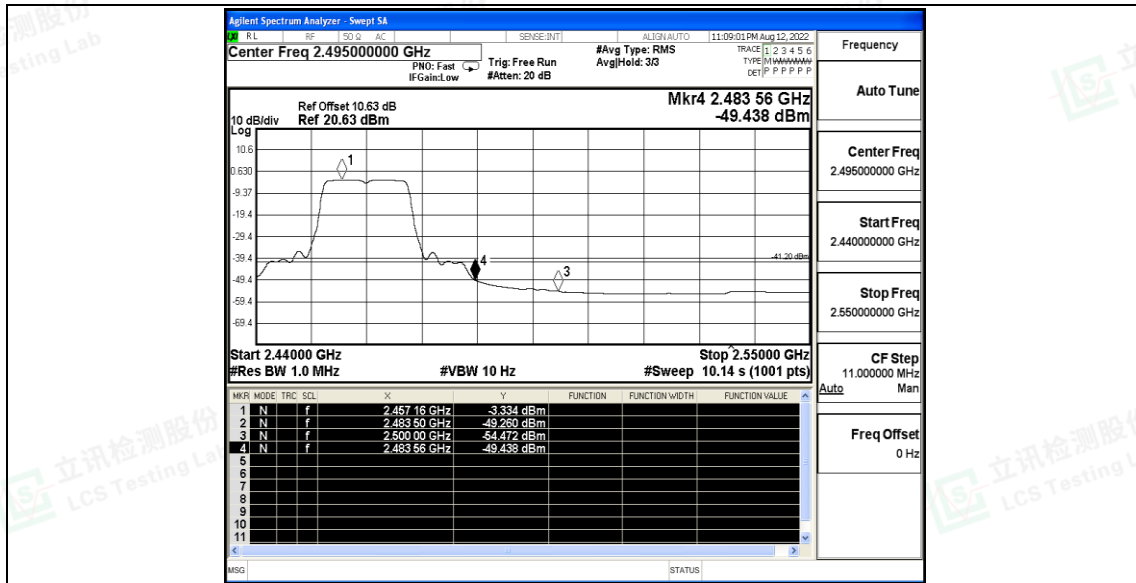


11G_Ant1_Low_2412_Peak

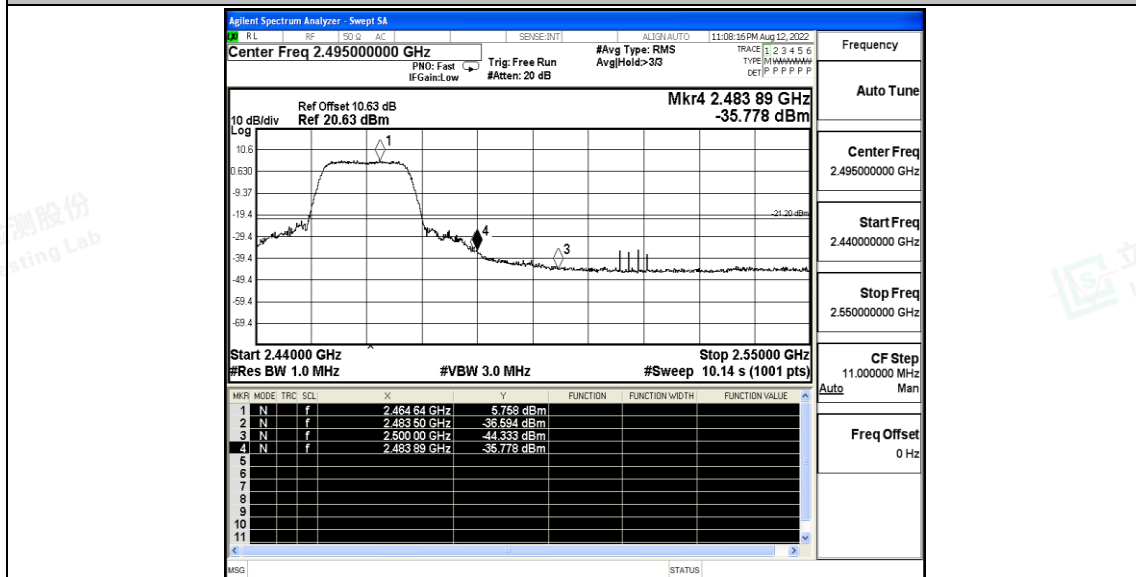


11G_Ant1_High_2462_AV



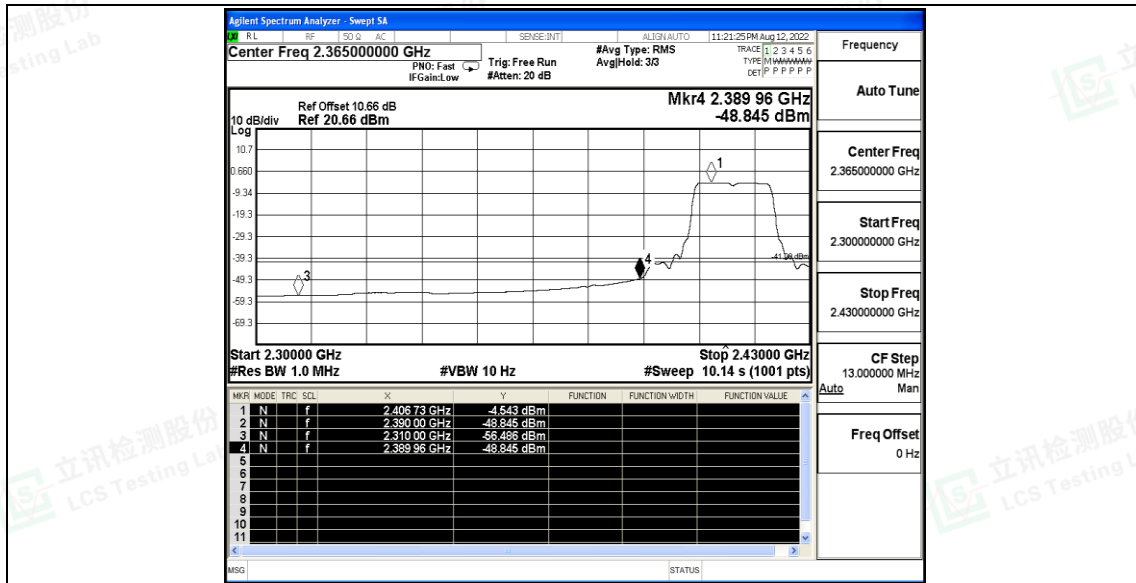


11G_Ant1_High_2462_Peak

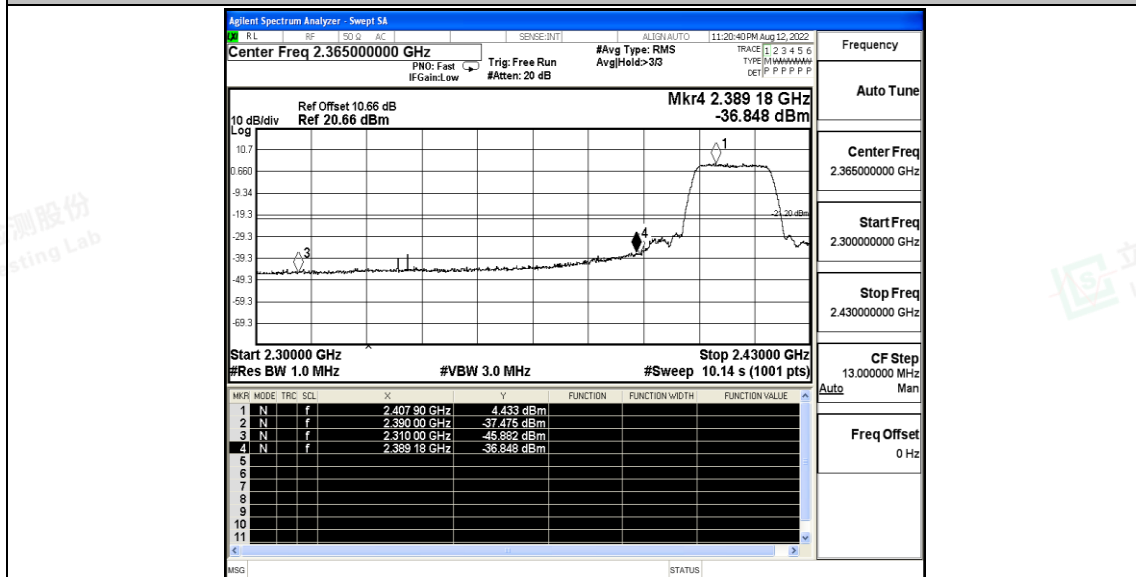


11N20SISO_Ant1_Low_2412_AV





11N20SISO_Ant1_Low_2412_Peak



11N20SISO_Ant1_High_2462_AV



