



Appendix B

RF Test Data for 2.4G WIFI (Conducted Measurement)

Product Name: LED recessed luminaire

Test Model: PL-D4-B09

Environmental Conditions

Temperature:	23.5 ° C
Relative Humidity:	52.2%
ATM Pressure:	100.0 kPa
Test Engineer:	 Nick Peng
Supervised by:	 Li Huan



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B.1 DTS Bandwidth

Test Result

TestMode	Antenna	Frequency[MHz]	DTS BW [MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
11B	Ant	2412	9.560	2406.960	2416.520	0.5	PASS
		2437	10.000	2432.000	2442.000	0.5	PASS
		2462	9.960	2457.000	2466.960	0.5	PASS
11G	Ant	2412	15.320	2404.440	2419.760	0.5	PASS
		2437	15.120	2429.440	2444.560	0.5	PASS
		2462	15.400	2454.440	2469.840	0.5	PASS
11N20SISO	Ant	2412	15.920	2404.440	2420.360	0.5	PASS
		2437	15.440	2429.440	2444.880	0.5	PASS
		2462	15.080	2454.440	2469.520	0.5	PASS
11N40SISO	Ant	2422	35.120	2404.400	2439.520	0.5	PASS
		2437	35.120	2419.400	2454.520	0.5	PASS
		2452	35.120	2434.400	2469.520	0.5	PASS



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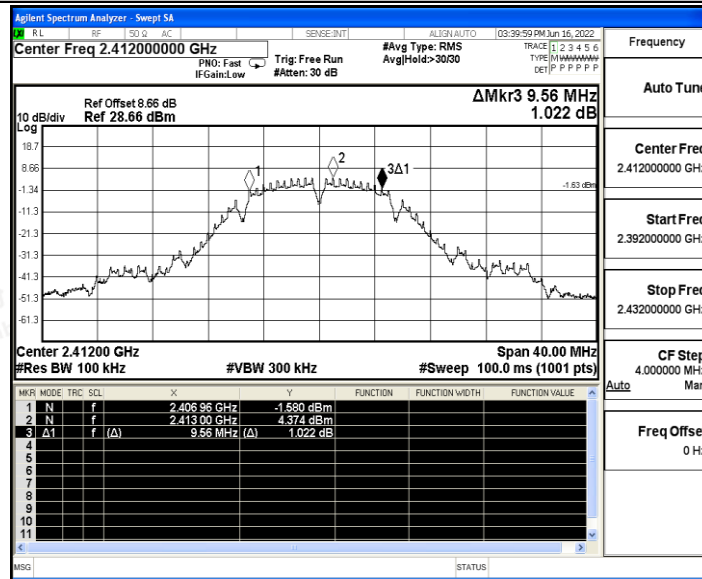
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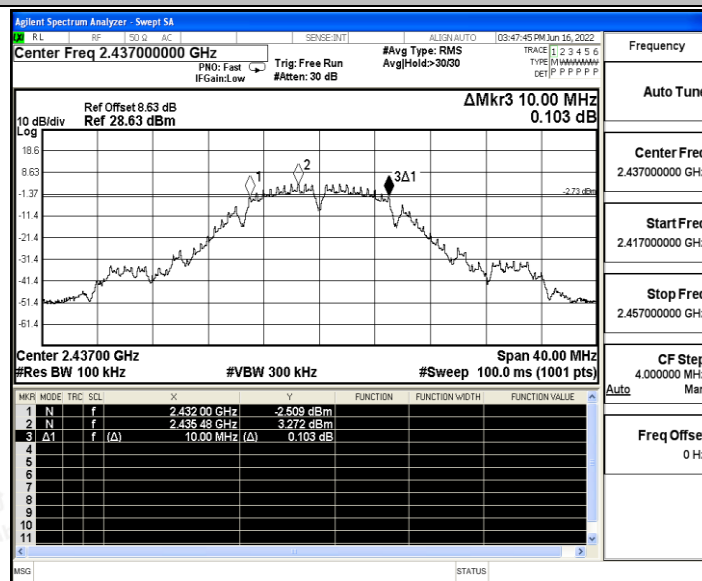


Test Graphs

11B_Ant_2412



11B_Ant_2437



11B_Ant_2462

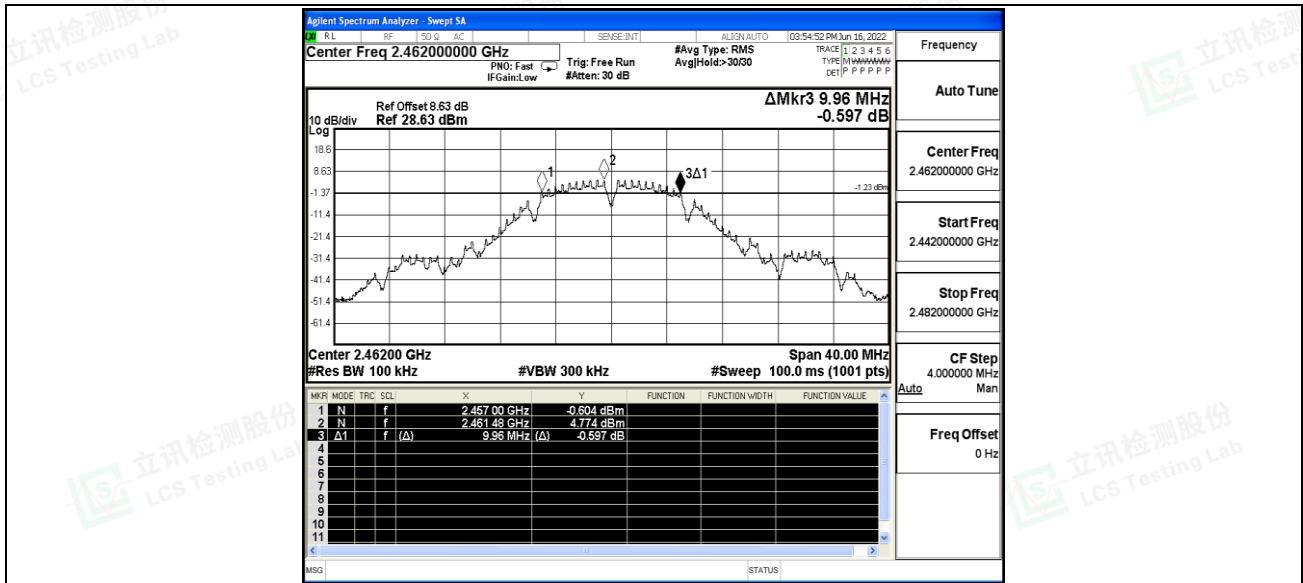


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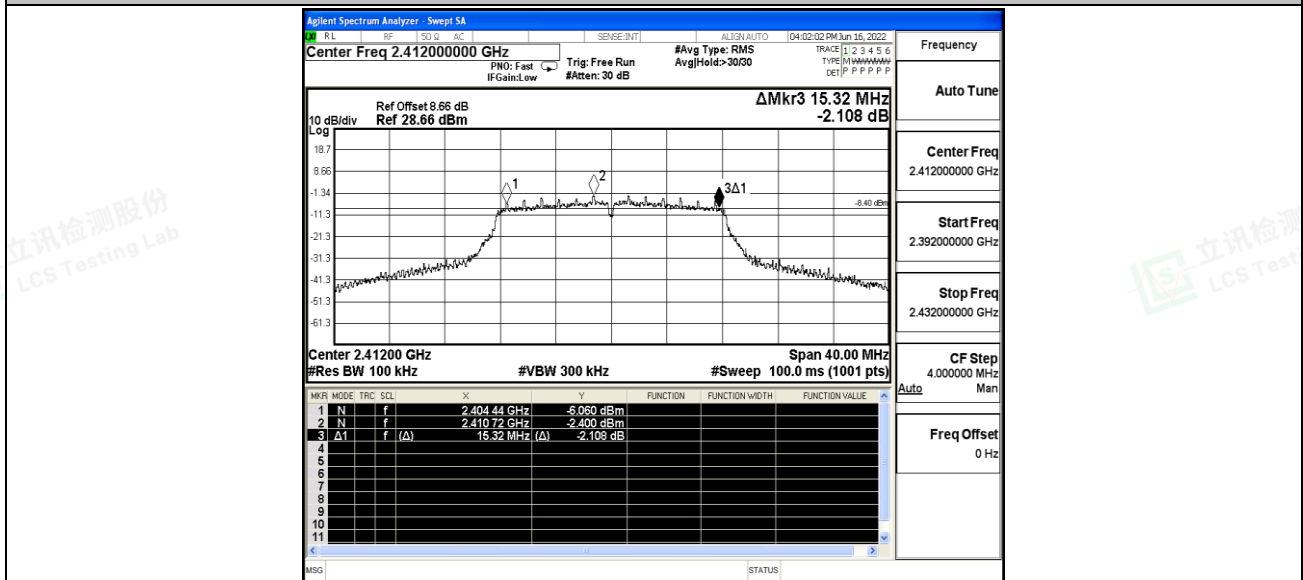
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11G_Ant_2412



11G_Ant_2437

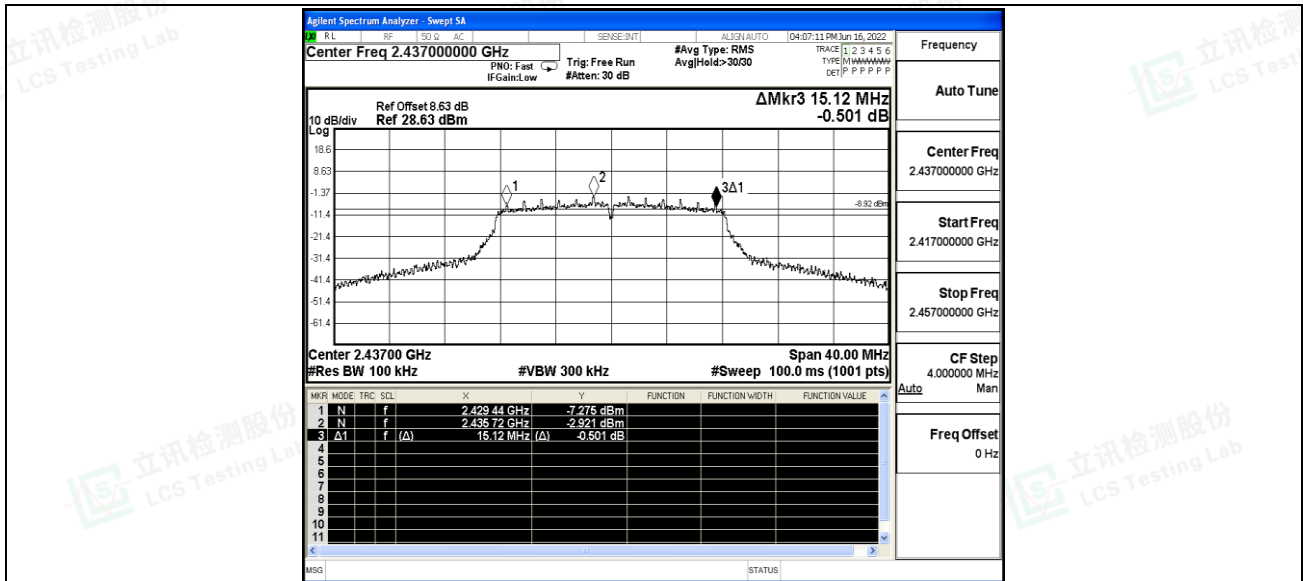


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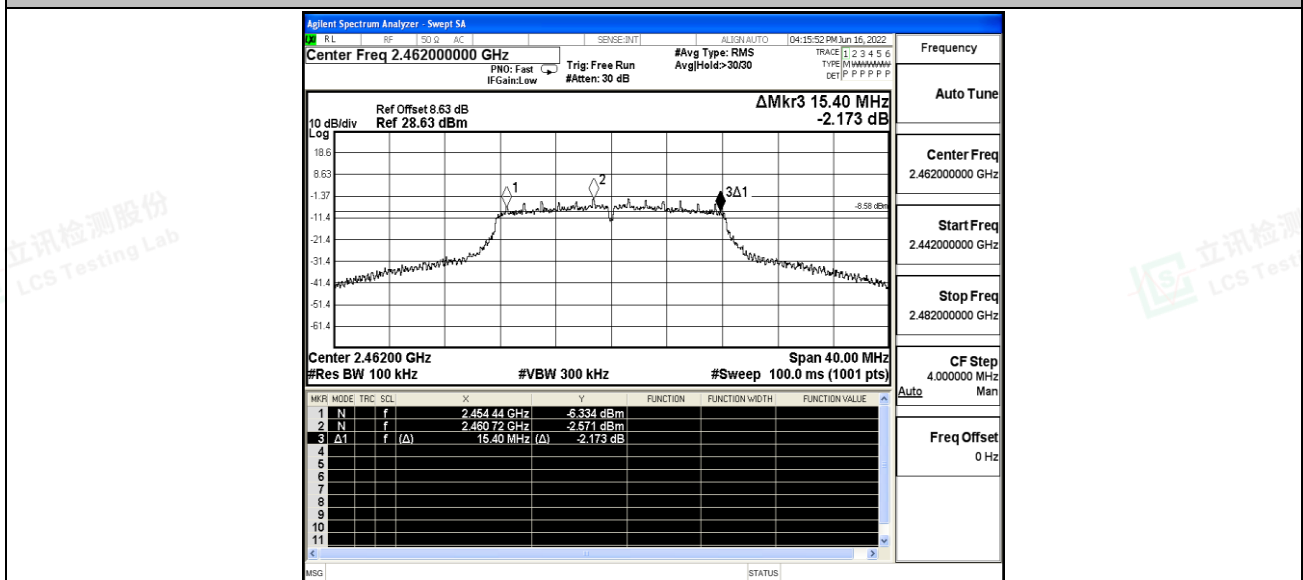
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11G_Ant_2462



11N20SISO_Ant_2412

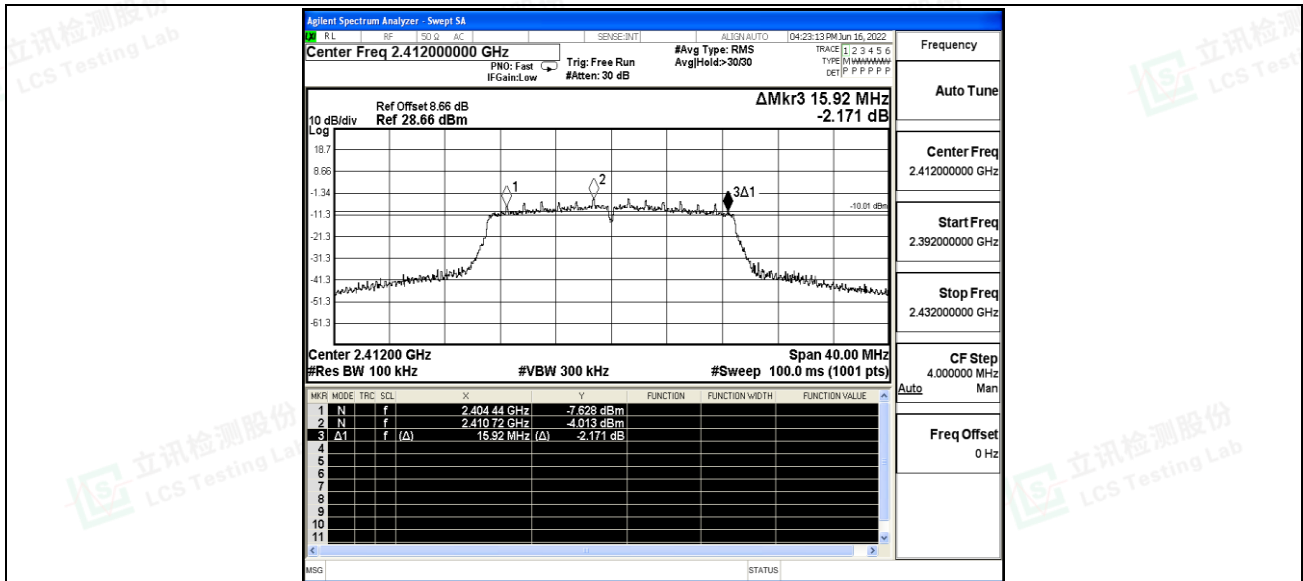


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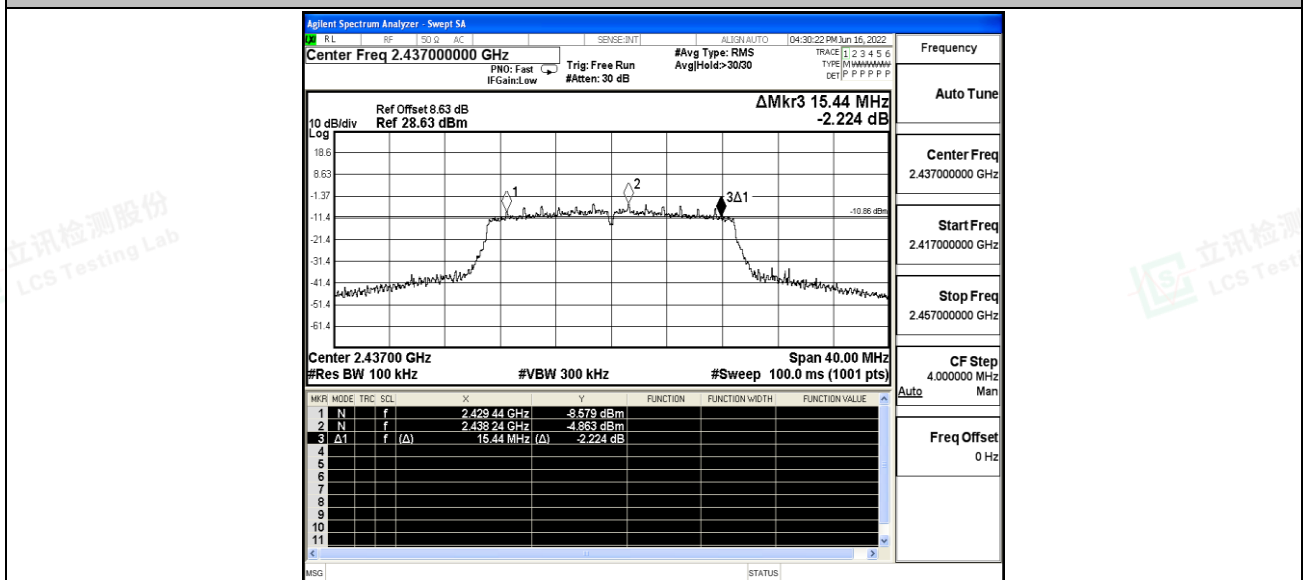
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11N20SISO_Ant_2437



11N20SISO_Ant_2462

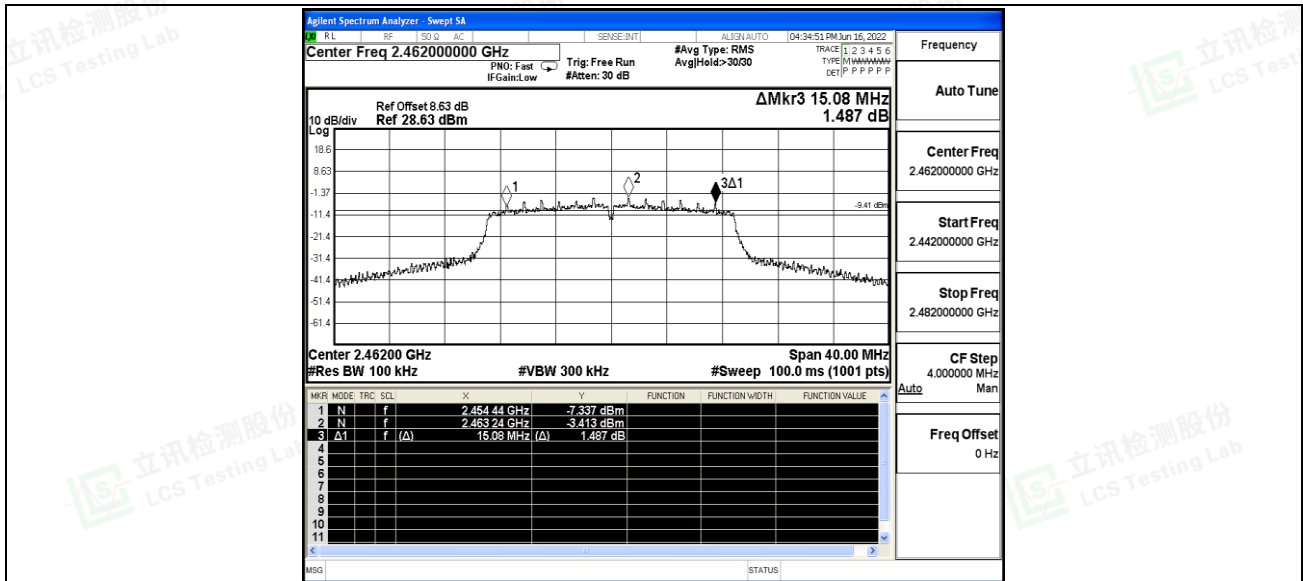


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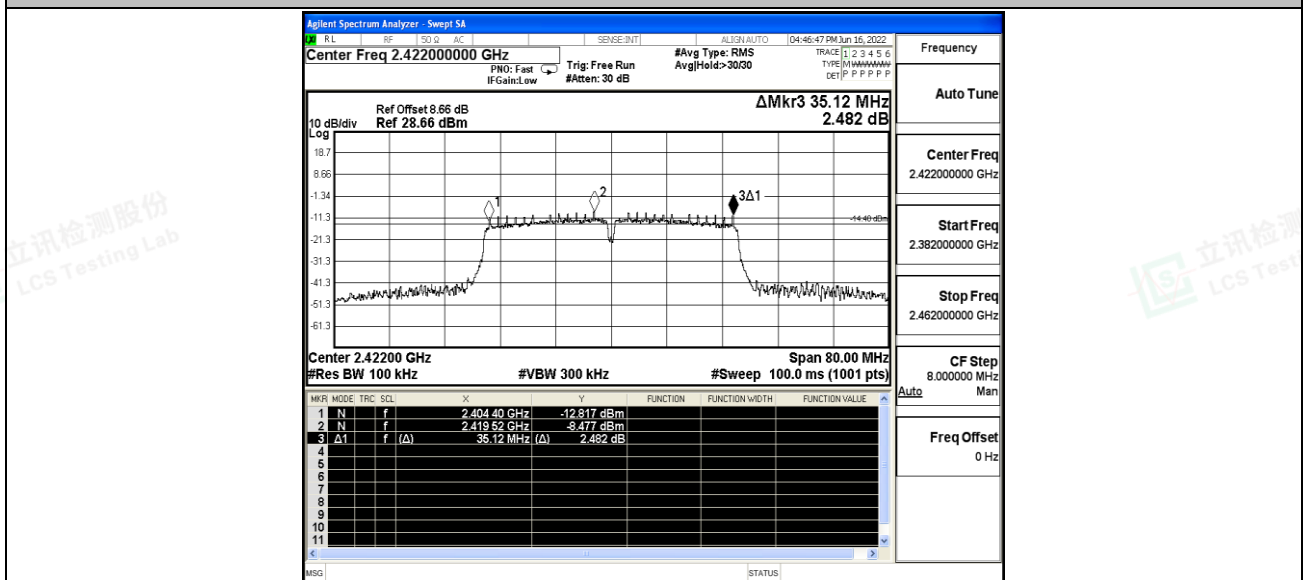
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11N40SISO_Ant_2422



11N40SISO_Ant_2437



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B.2 Maximum conducted output power

Test Result Peak

Test Mode	Antenna	Frequency [MHz]	Set Power	Peak Power [dBm]	Conducted Limit [dBm]	Verdict
11B	Ant	2412	---	16.23	≤30.00	PASS
		2437	---	15.23	≤30.00	PASS
		2462	---	16.74	≤30.00	PASS
11G	Ant	2412	---	16.17	≤30.00	PASS
		2437	---	15.56	≤30.00	PASS
		2462	---	15.89	≤30.00	PASS
11N20S ISO	Ant	2412	---	14.58	≤30.00	PASS
		2437	---	13.79	≤30.00	PASS
		2462	---	14.84	≤30.00	PASS
11N40S ISO	Ant	2422	---	13.15	≤30.00	PASS
		2437	---	13.07	≤30.00	PASS
		2452	---	13.20	≤30.00	PASS



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B.3 Maximum power spectral density

Test Result

TestMode	Antenna	Frequency[MHz]	Result[dBm/3kHz]	Limit[dBm/3kHz]	Verdict
11B	Ant	2412	-9.85	≤8.00	PASS
		2437	-10.96	≤8.00	PASS
		2462	-7.99	≤8.00	PASS
11G	Ant	2412	-16.7	≤8.00	PASS
		2437	-17.56	≤8.00	PASS
		2462	-15.51	≤8.00	PASS
11N20SISO	Ant	2412	-18.66	≤8.00	PASS
		2437	-19.25	≤8.00	PASS
		2462	-16.52	≤8.00	PASS
11N40SISO	Ant	2422	-23.67	≤8.00	PASS
		2437	-24.15	≤8.00	PASS
		2452	-23.34	≤8.00	PASS



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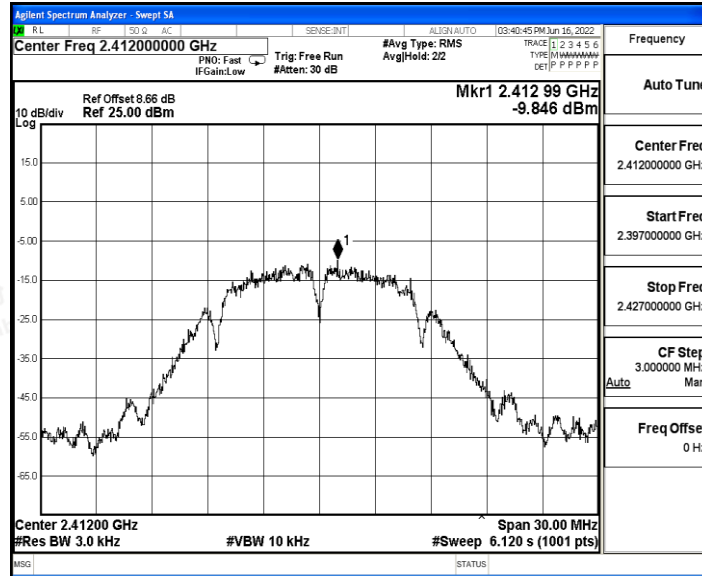
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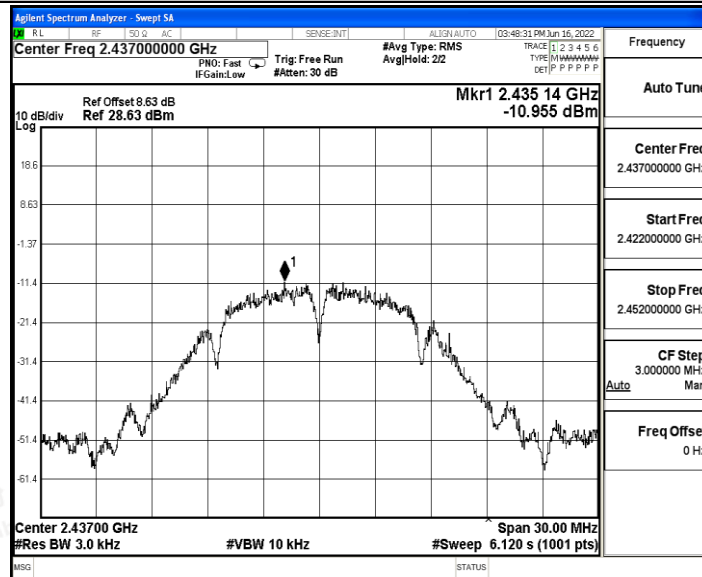


Test Graphs

11B_Ant_2412



11B_Ant_2437



11B_Ant_2462

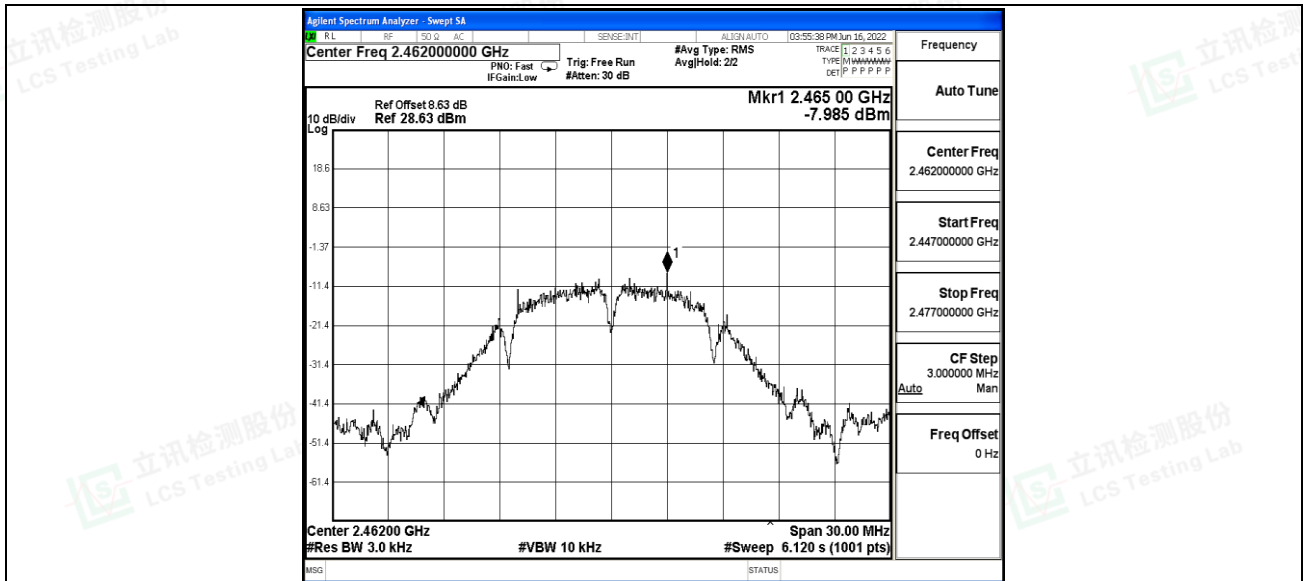


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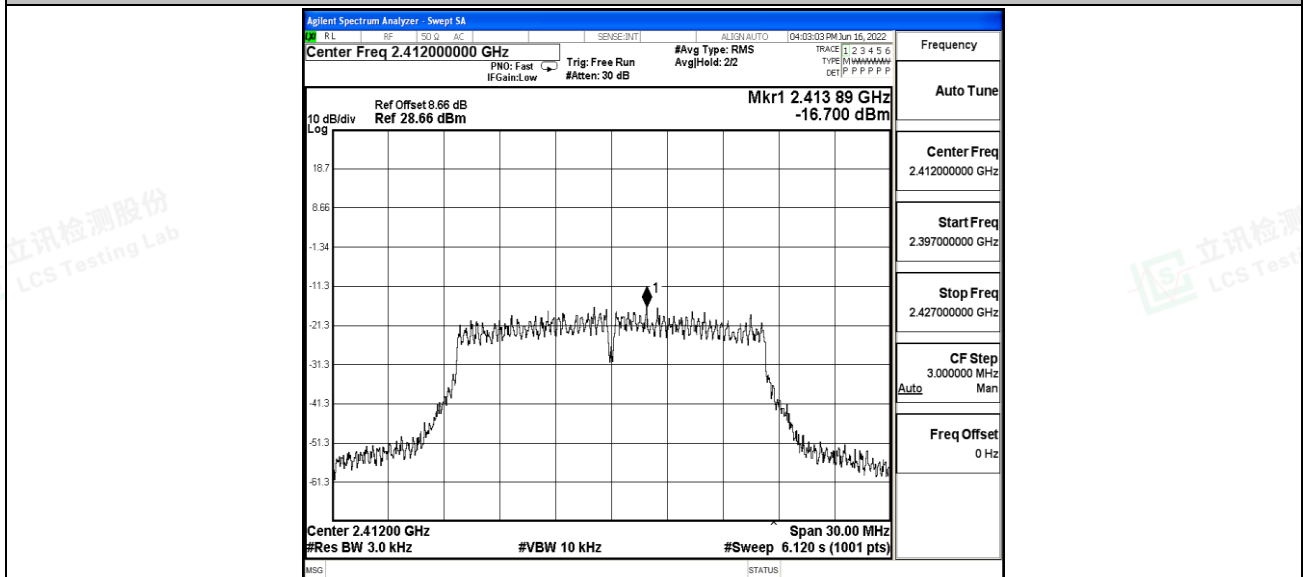
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11G_Ant_2412



11G_Ant_2437

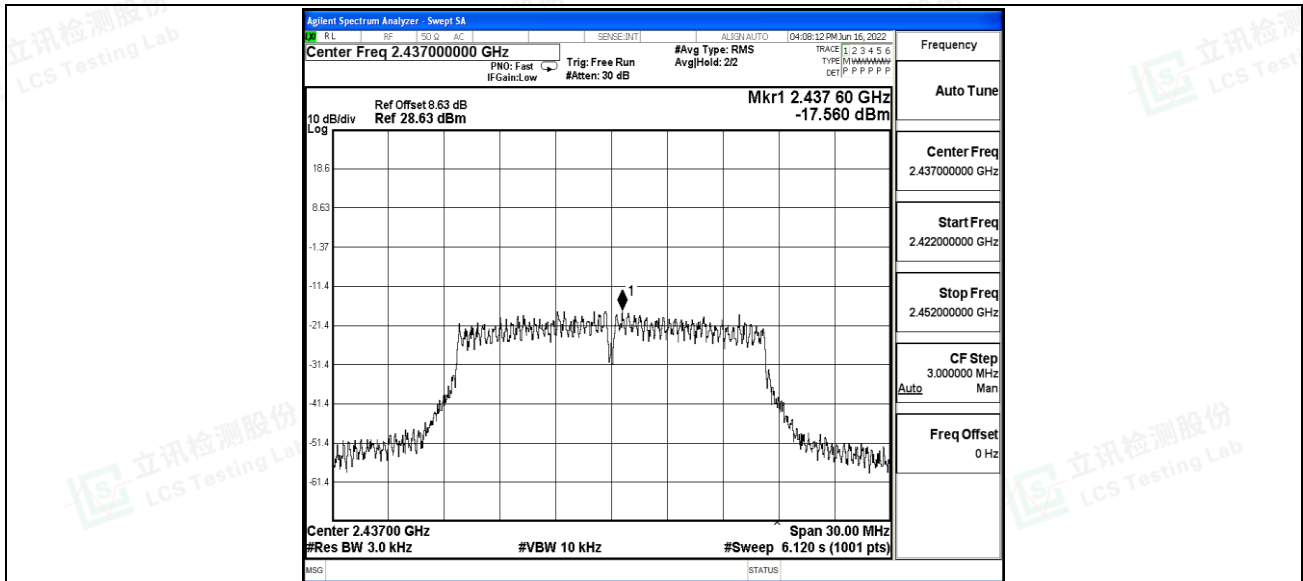


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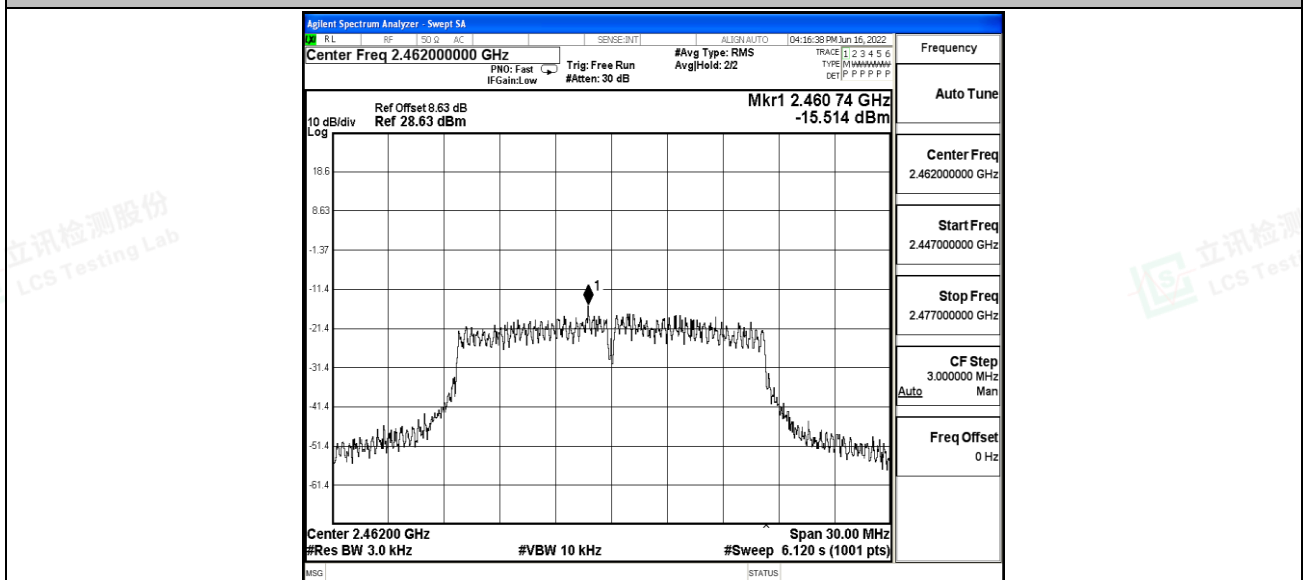
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11G_Ant_2462



11N20SISO_Ant_2412

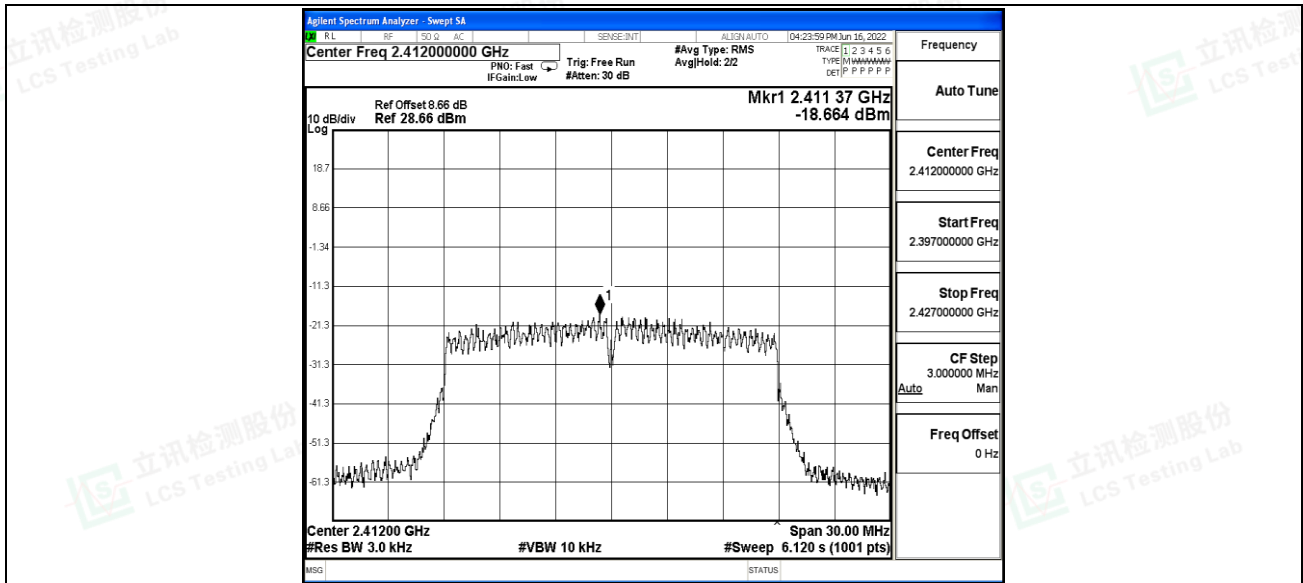


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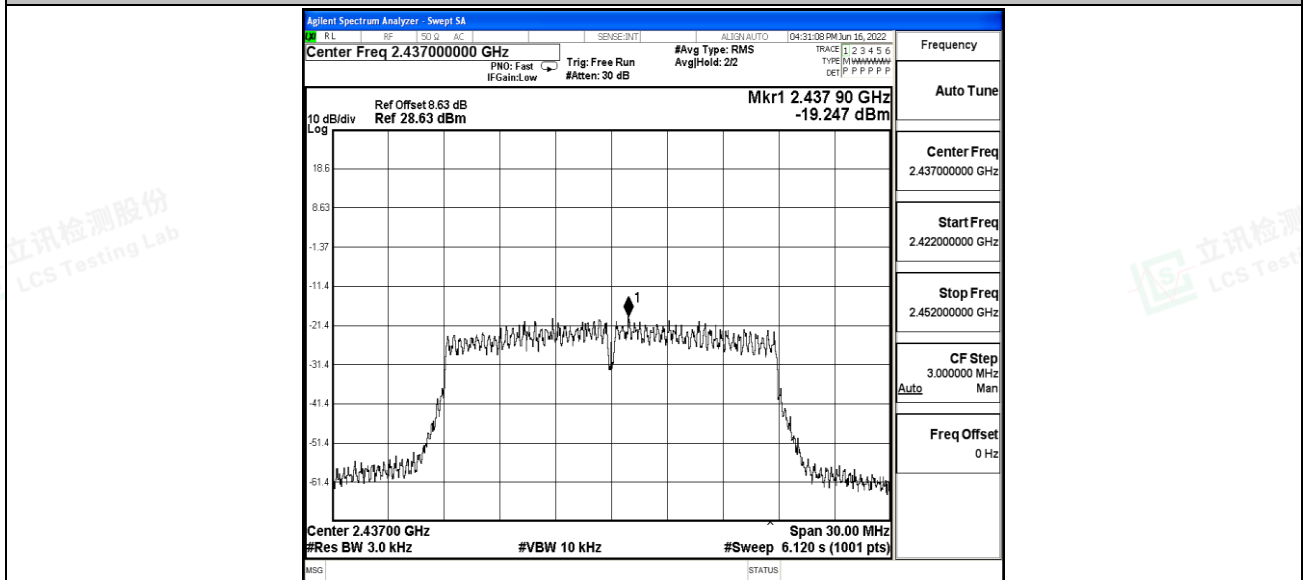
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11N20SISO_Ant_2437



11N20SISO_Ant_2462

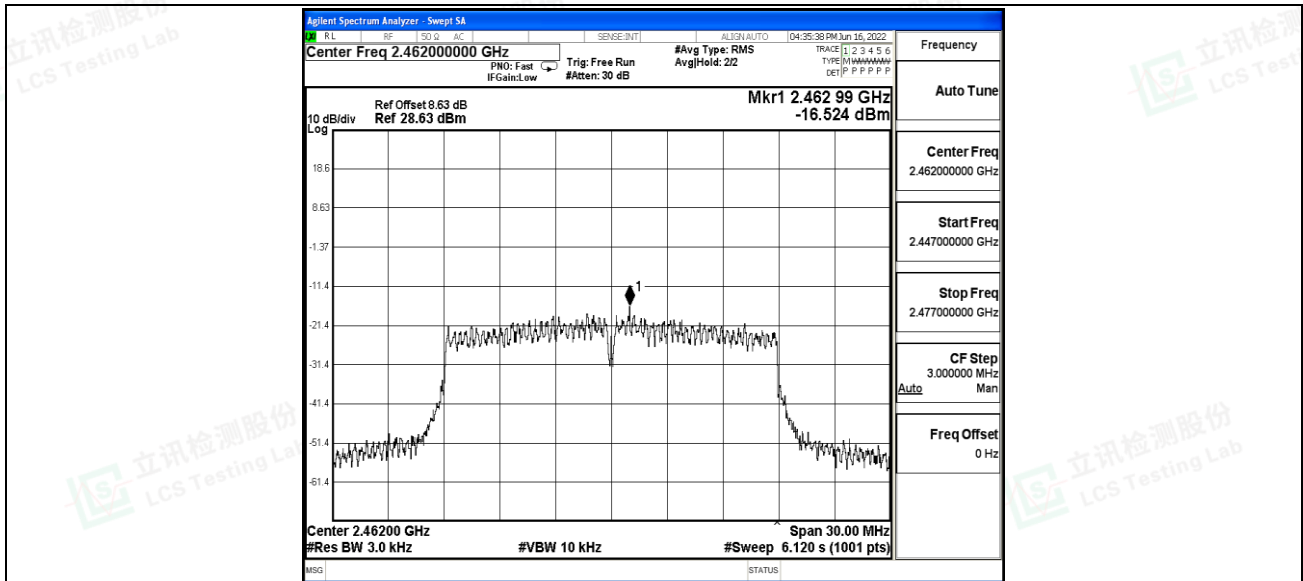


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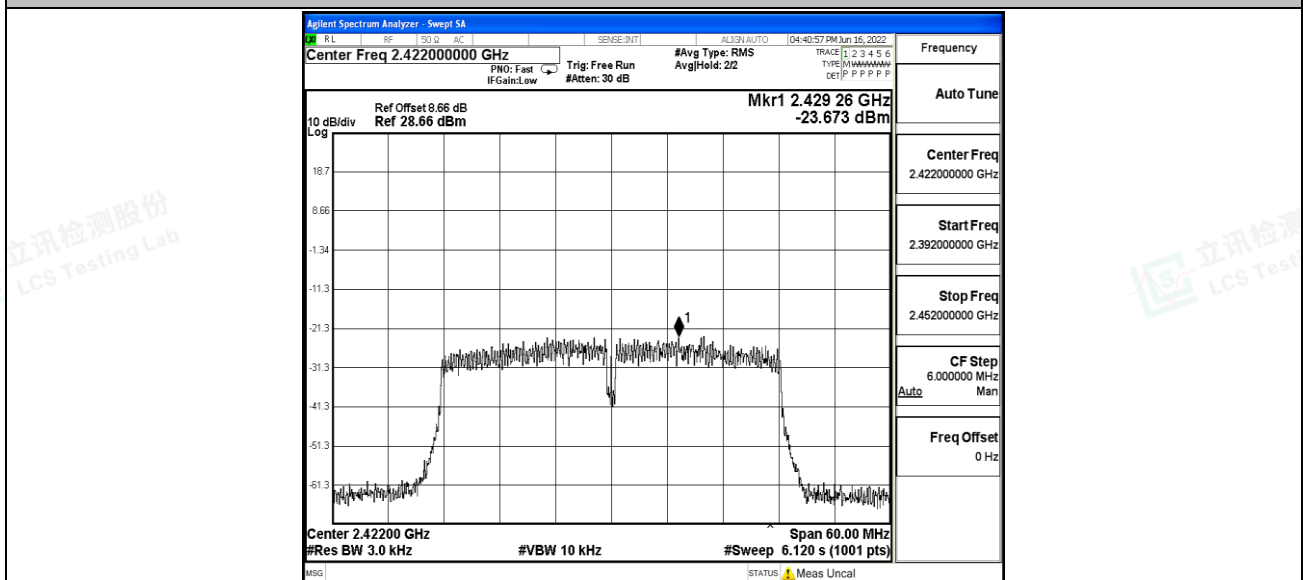
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11N40SISO_Ant_2422



11N40SISO_Ant_2437

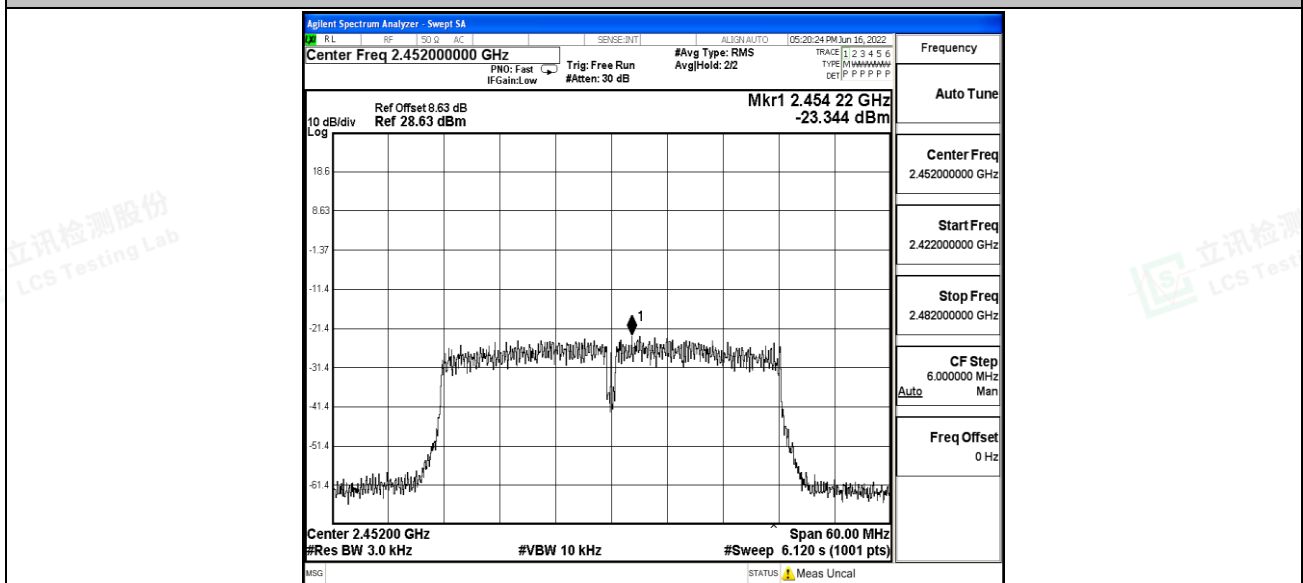
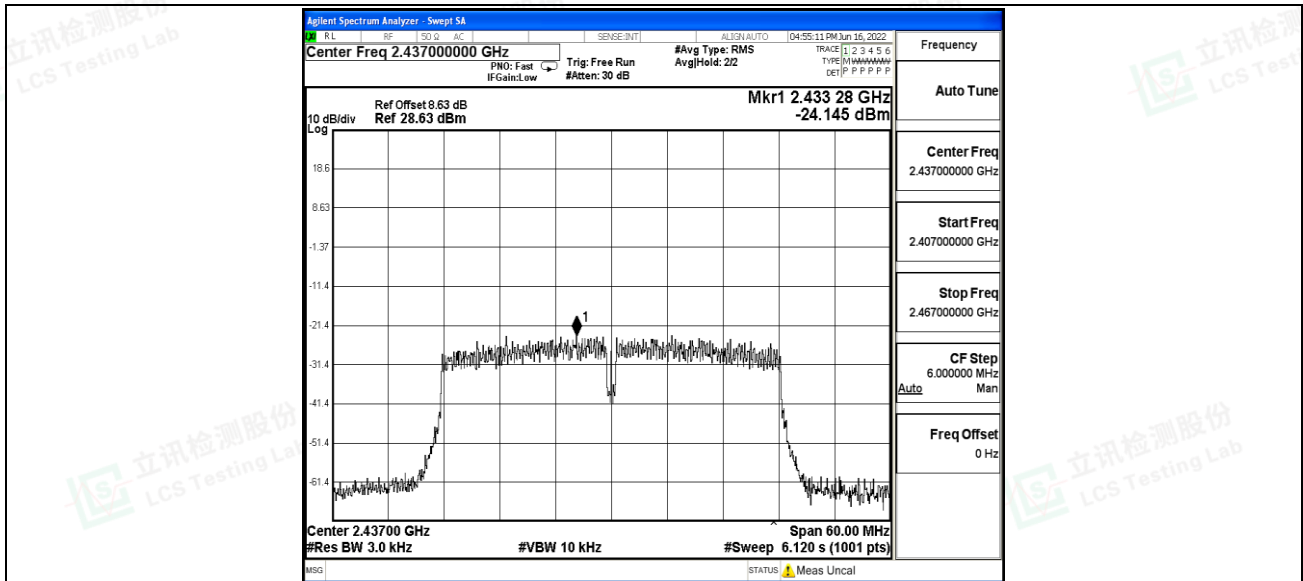


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B.4 Band edge measurements

Test Result

TestMode	Antenna	ChName	Frequency[MHz]	RefLevel[dBm]	Result[dBm]	Limit[dBm]	Verdict
11B	Ant	Low	2412	4.24	-36.85	≤-15.76	PASS
		High	2462	4.40	-44.56	≤-15.6	PASS
11G	Ant	Low	2412	-1.76	-34.12	≤-21.76	PASS
		High	2462	-2.59	-44.84	≤-22.59	PASS
11N20SISO	Ant	Low	2412	-3.53	-37.2	≤-23.53	PASS
		High	2462	-3.09	-43.18	≤-23.09	PASS
11N40SISO	Ant	Low	2422	-8.46	-41.47	≤-28.46	PASS
		High	2452	-8.42	-41.21	≤-28.42	PASS



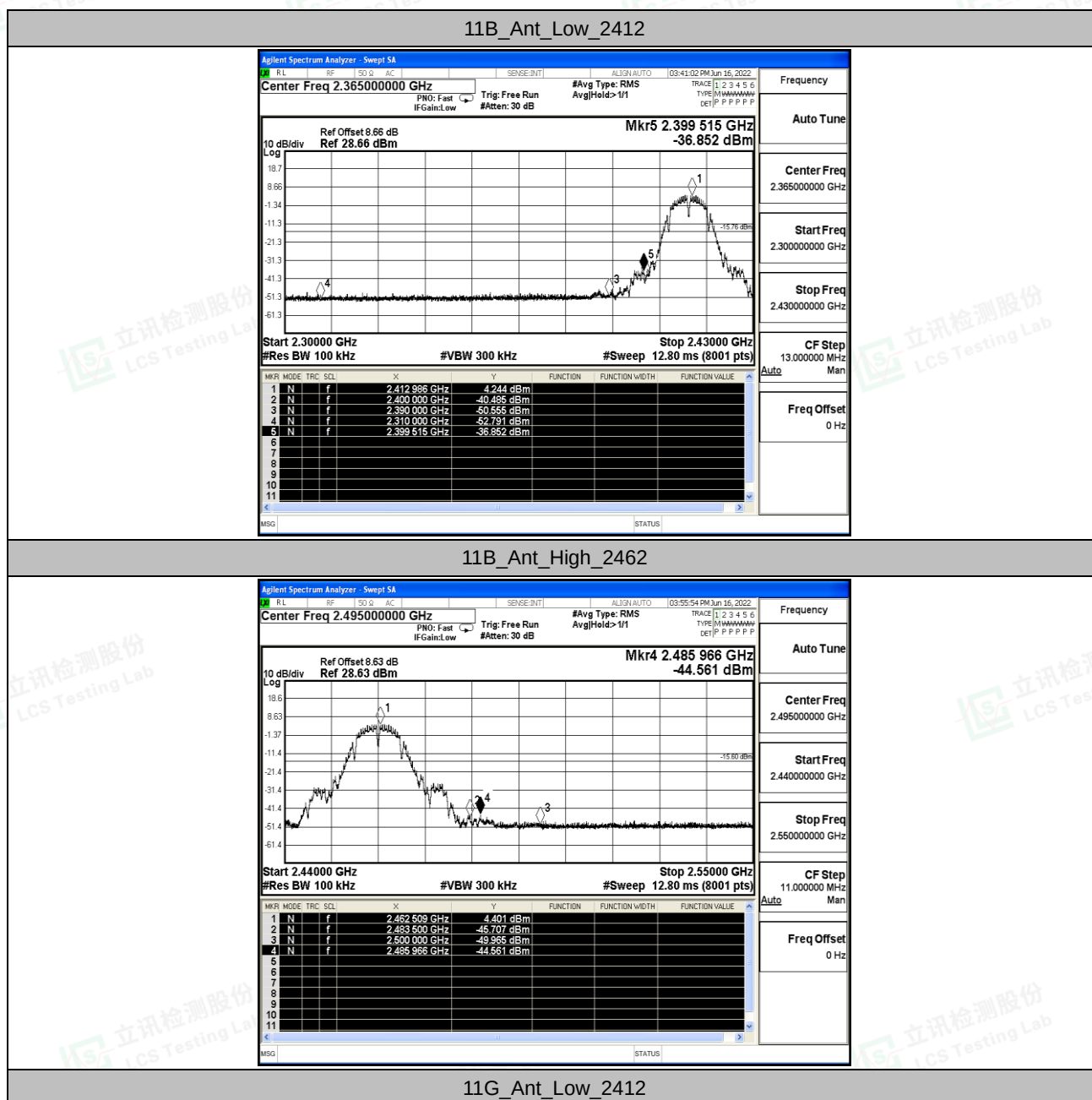
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Test Graphs

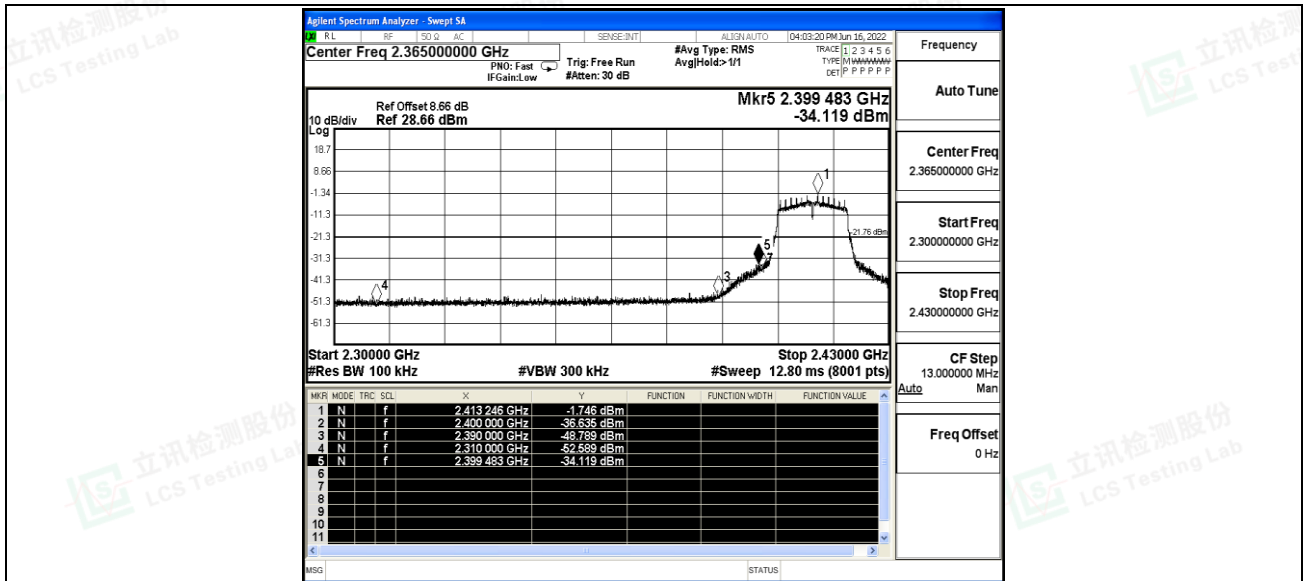


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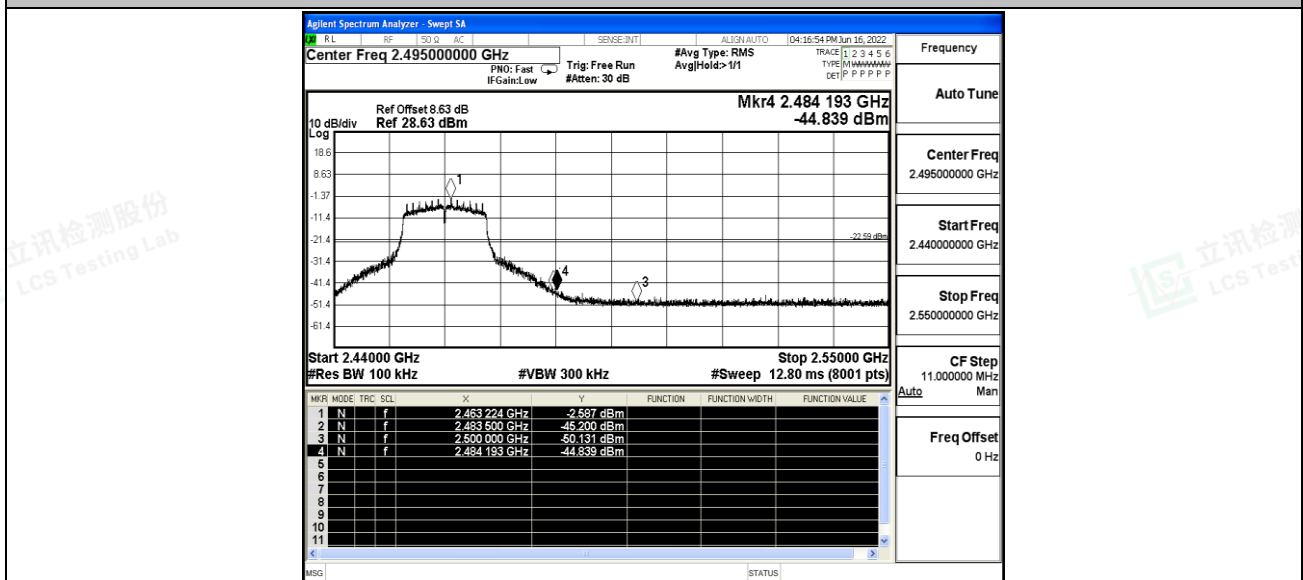
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11G_Ant_High_2462



11N20SISO_Ant_Low_2412

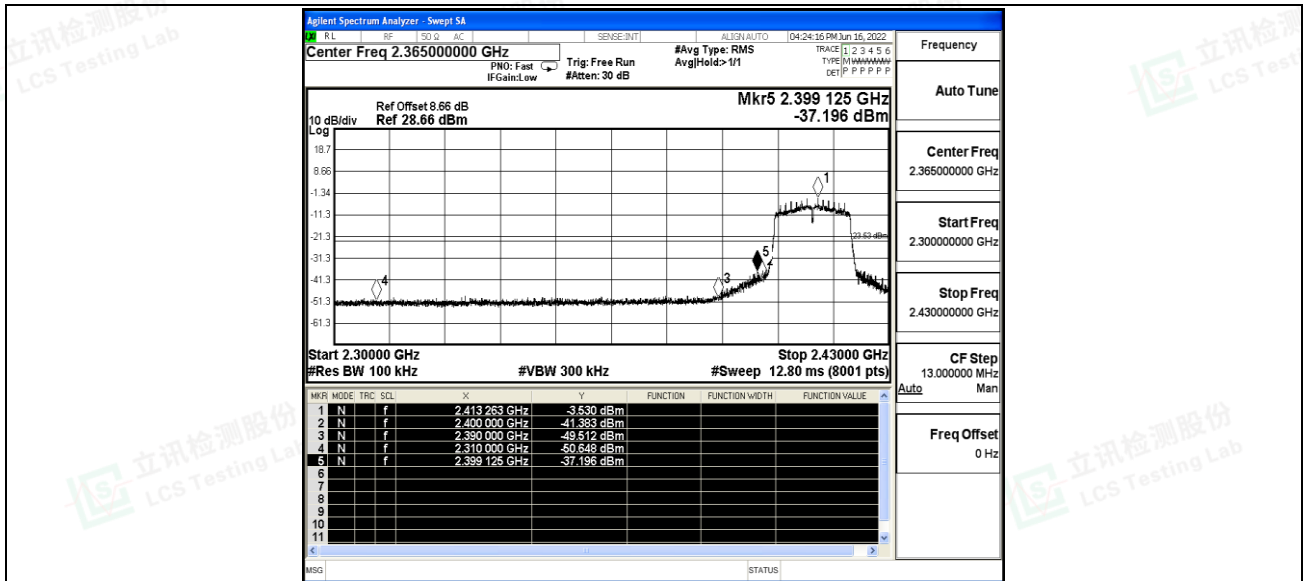


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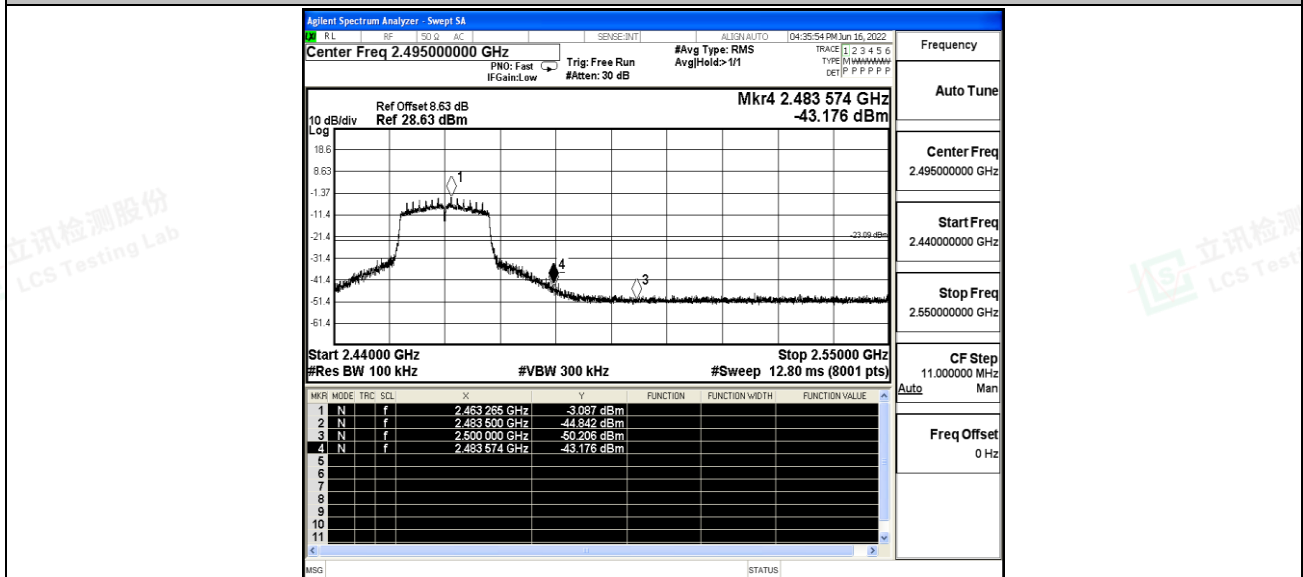
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11N20SISO_Ant_High_2462



11N40SISO_Ant_Low_2422

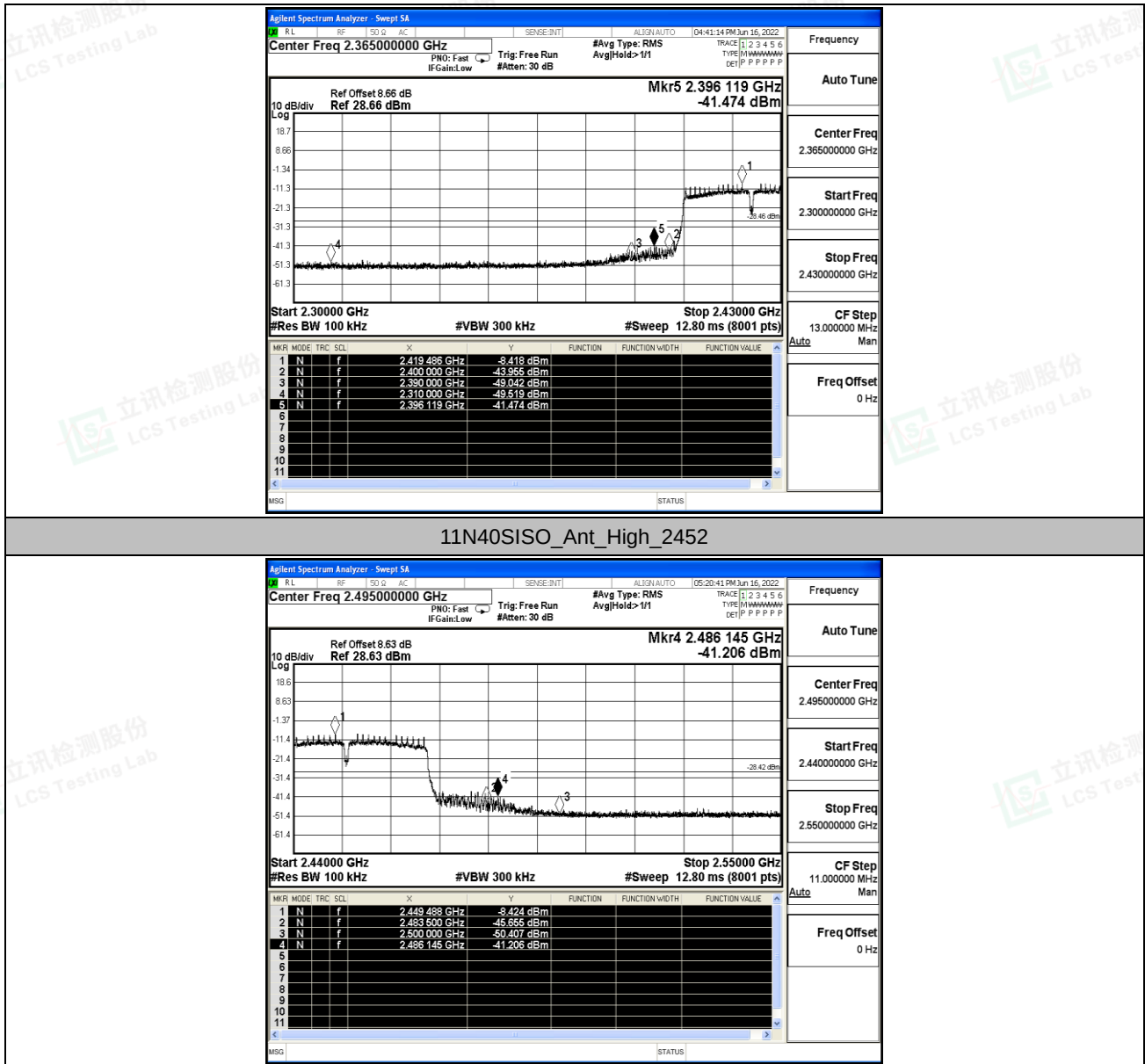


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B.5 Conducted Spurious Emission

Test Result

TestMode	Antenna	Frequency[MHz]	FreqRange [Mhz]	RefLevel [dBm]	Result [dBm]	Limit [dBm]	Verdict
11B	Ant	2412	Reference	4.38	4.38	---	PASS
			30~1000	4.38	-57.31	≤-15.62	PASS
			1000~26500	4.38	-46.3	≤-15.62	PASS
		2437	Reference	3.21	3.21	---	PASS
			30~1000	3.21	-55.05	≤-16.79	PASS
			1000~26500	3.21	-46.18	≤-16.79	PASS
		2462	Reference	4.96	4.96	---	PASS
			30~1000	4.96	-51.57	≤-15.04	PASS
			1000~26500	4.96	-45.81	≤-15.04	PASS
11G	Ant	2412	Reference	-1.96	-1.96	---	PASS
			30~1000	-1.96	-51.15	≤-21.96	PASS
			1000~26500	-1.96	-46.25	≤-21.96	PASS
		2437	Reference	-2.61	-2.61	---	PASS
			30~1000	-2.61	-47.56	≤-22.61	PASS
			1000~26500	-2.61	-42.13	≤-22.61	PASS
		2462	Reference	-2.19	-2.19	---	PASS
			30~1000	-2.19	-51.11	≤-22.19	PASS
			1000~26500	-2.19	-45.99	≤-22.19	PASS
11N20SISO	Ant	2412	Reference	-3.51	-3.51	---	PASS
			30~1000	-3.51	-40.09	≤-23.51	PASS
			1000~26500	-3.51	-46.02	≤-23.51	PASS
		2437	Reference	-4.44	-4.44	---	PASS
			30~1000	-4.44	-56.5	≤-24.44	PASS
			1000~26500	-4.44	-46.18	≤-24.44	PASS
		2462	Reference	-2.81	-2.81	---	PASS
			30~1000	-2.81	-43.29	≤-22.81	PASS
			1000~26500	-2.81	-45.74	≤-22.81	PASS
11N40SISO	Ant	2422	Reference	-8.36	-8.36	---	PASS
			30~1000	-8.36	-56.48	≤-28.36	PASS
			1000~26500	-8.36	-46.12	≤-28.36	PASS
		2437	Reference	-8.70	-8.70	---	PASS
			30~1000	-8.70	-57.15	≤-28.7	PASS
			1000~26500	-8.70	-45.22	≤-28.7	PASS
		2452	Reference	-8.32	-8.32	---	PASS
			30~1000	-8.32	-58.03	≤-28.32	PASS



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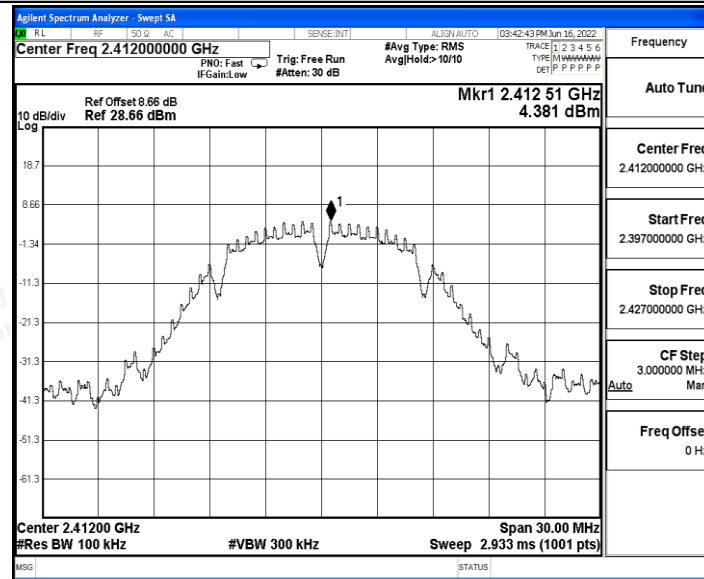
			1000~26500	-8.32	-45.71	≤-28.32	PASS
--	--	--	------------	-------	--------	---------	------



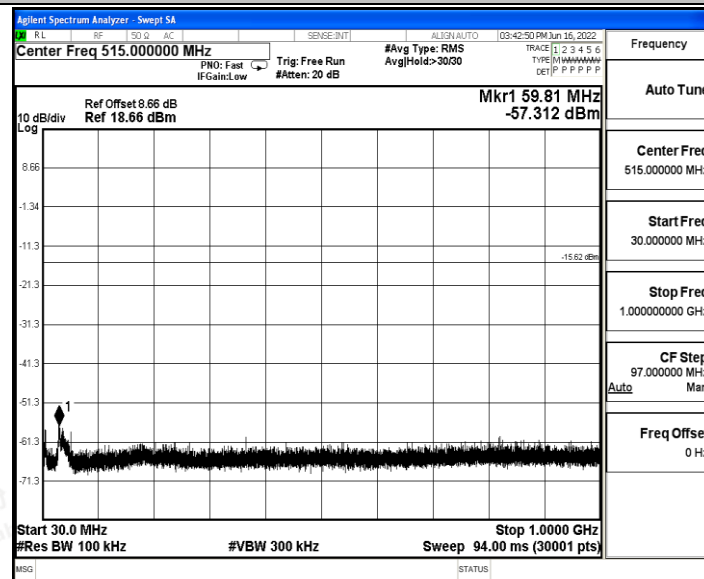


Test Graphs

11B_Ant_2412_0~Reference



11B_Ant_2412_30~1000



11B_Ant_2412_1000~26500

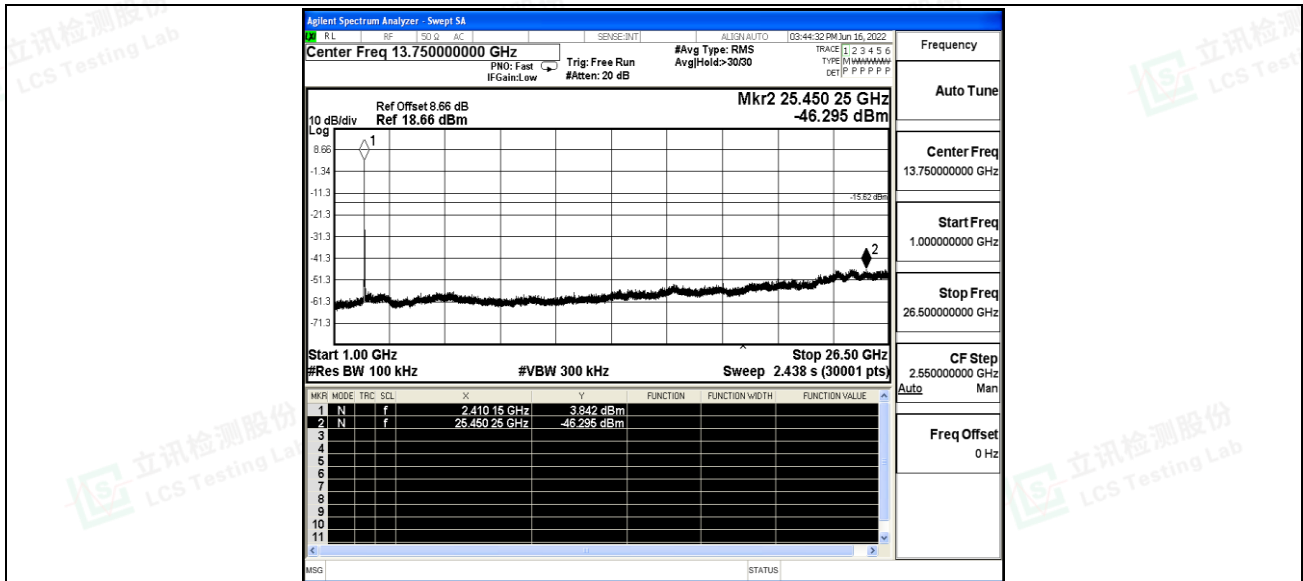


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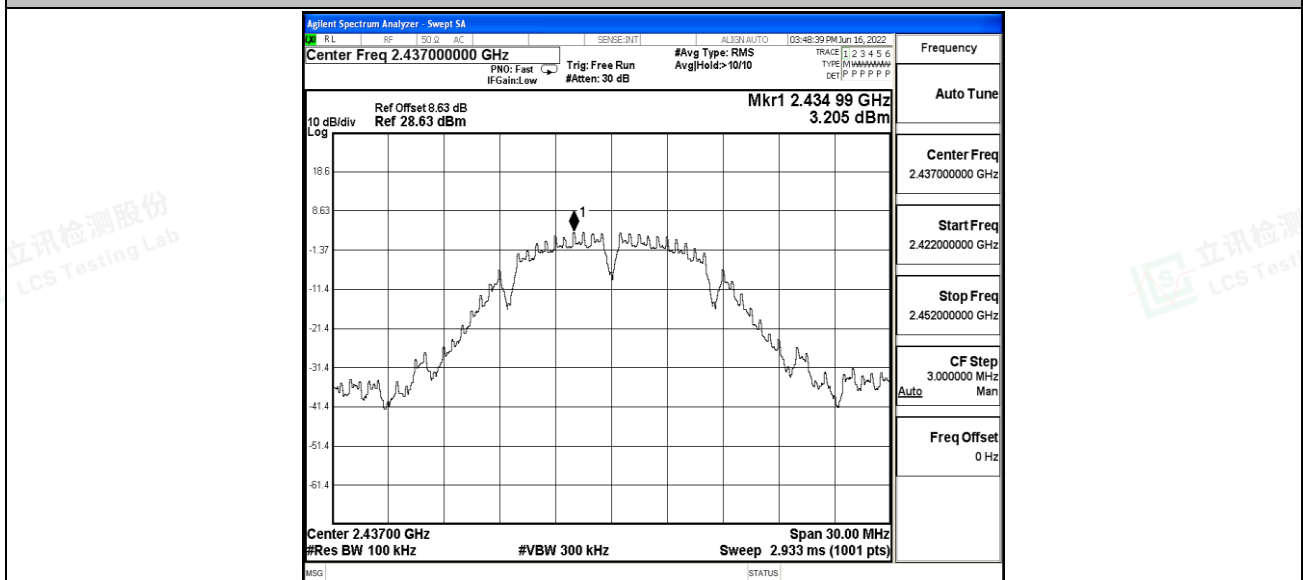
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11B_Ant_2437_0~Reference



11B_Ant_2437_30~1000

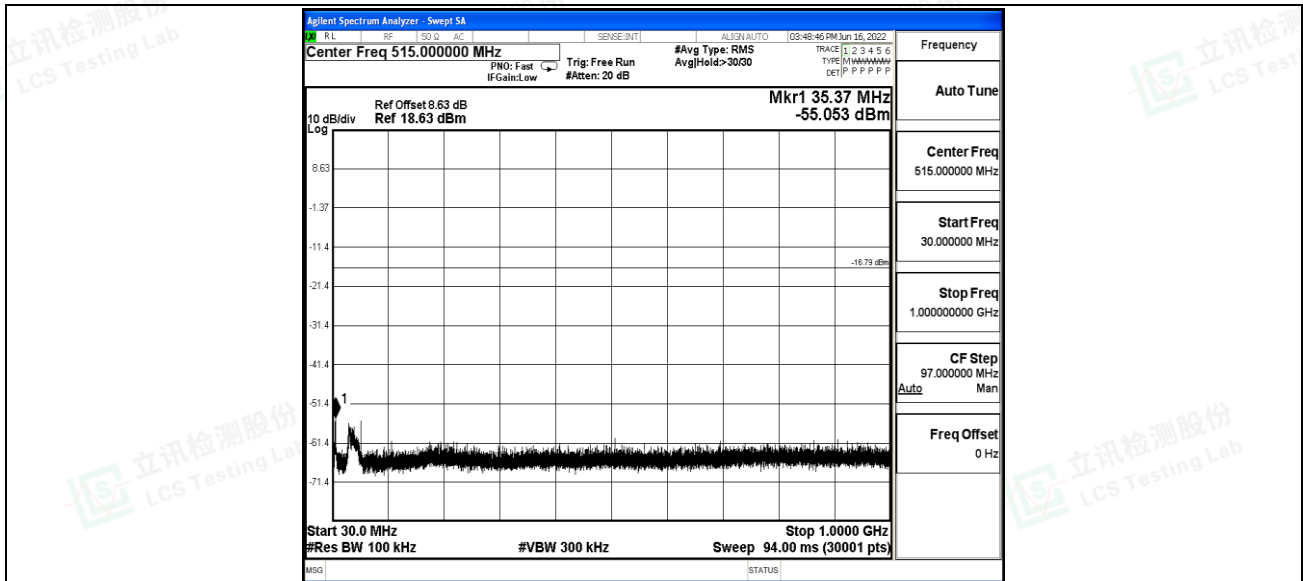


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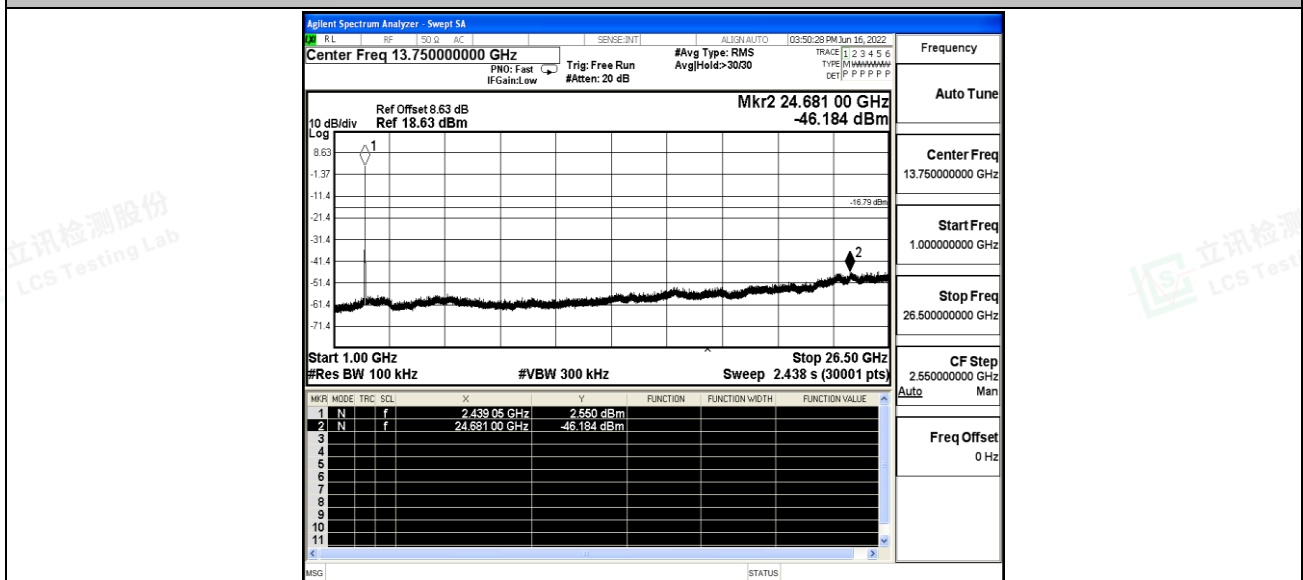
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11B_Ant_2437_1000~26500



11B_Ant_2462_0~Reference

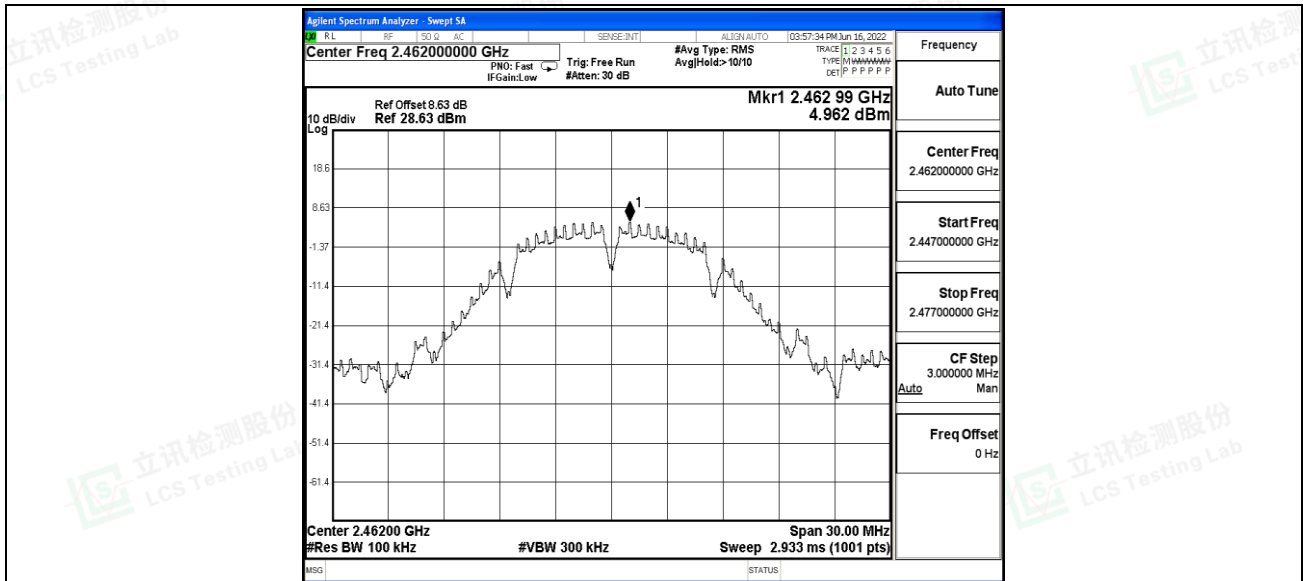


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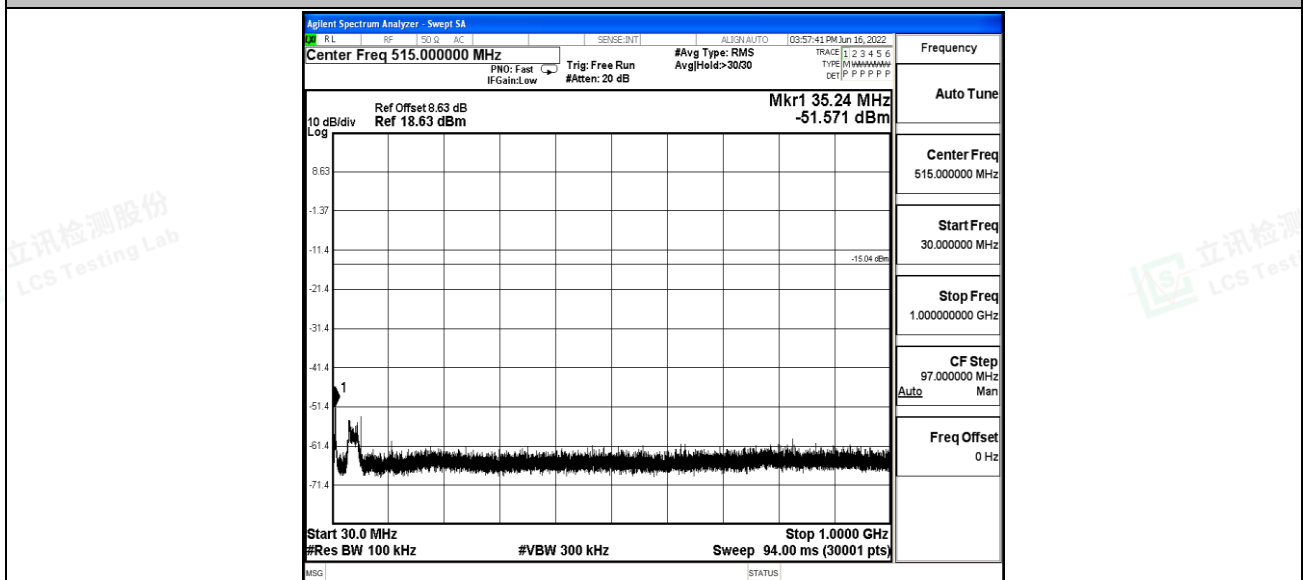
Add: 101, 201 Bldg A & 301 Bldg C, Juji Industrial Park Yabianxueziwei, Shajing Street, Baoan District, Shenzhen, 518000, China

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11B_Ant_2462_30~1000



11B_Ant_2462_1000~26500

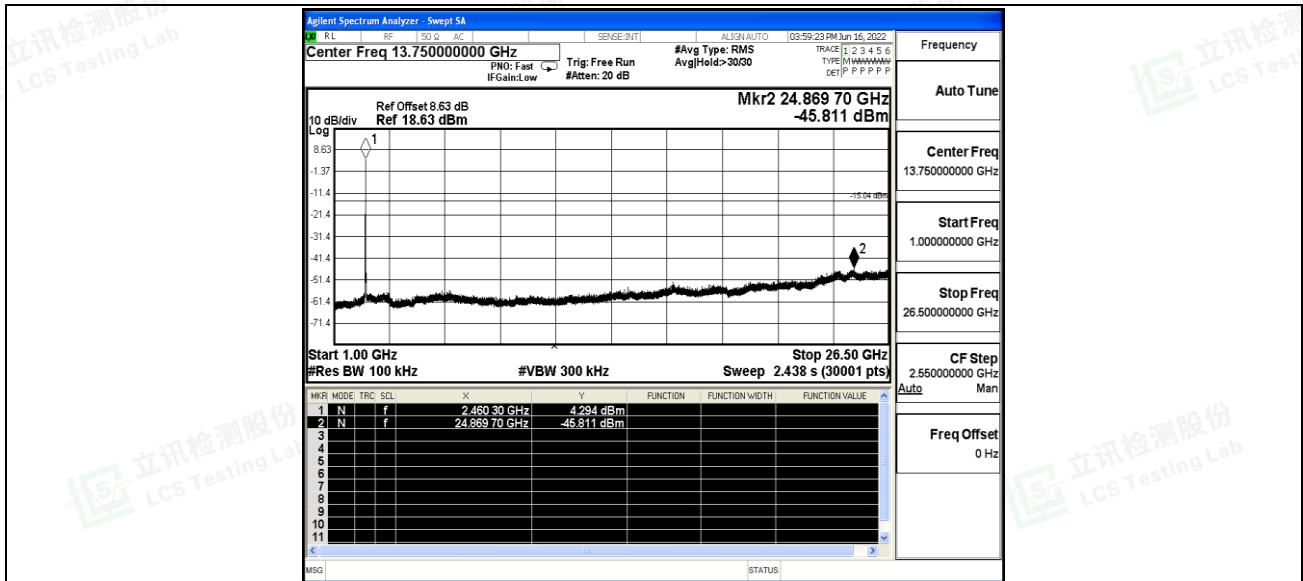


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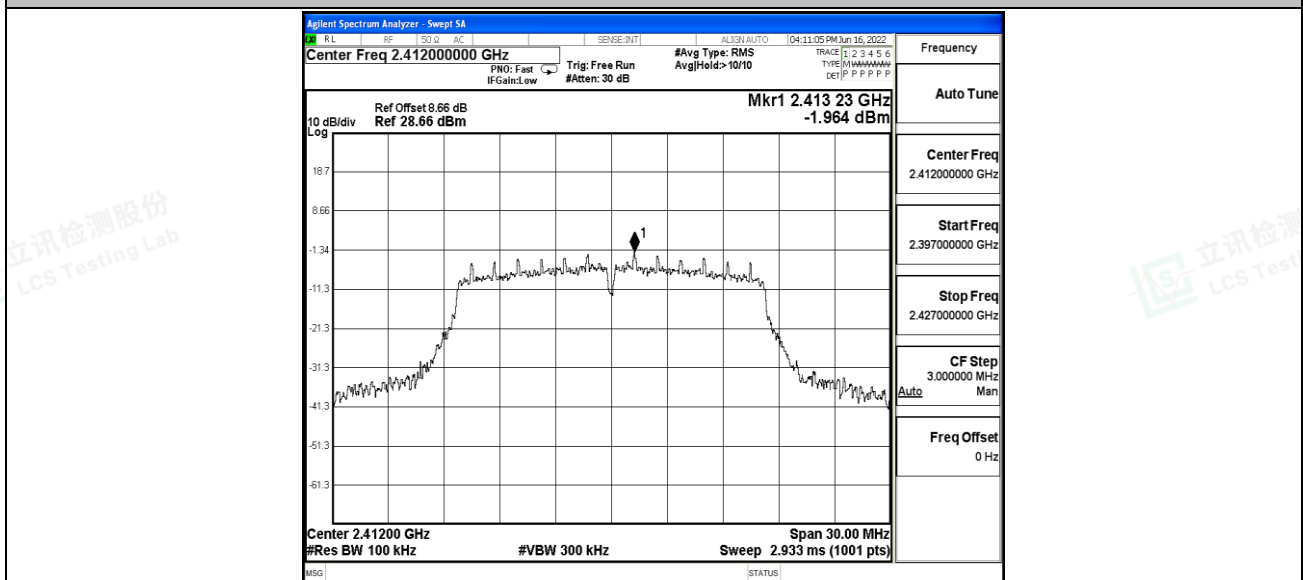
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11G_Ant_2412_0-Reference



11G_Ant_2412_30~1000

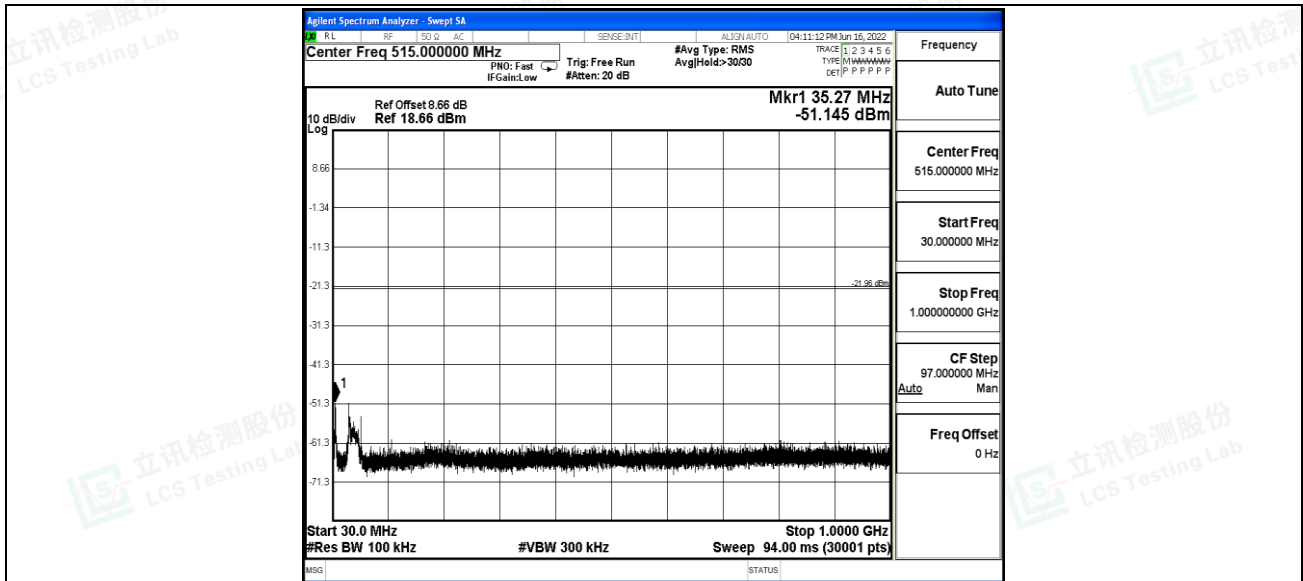


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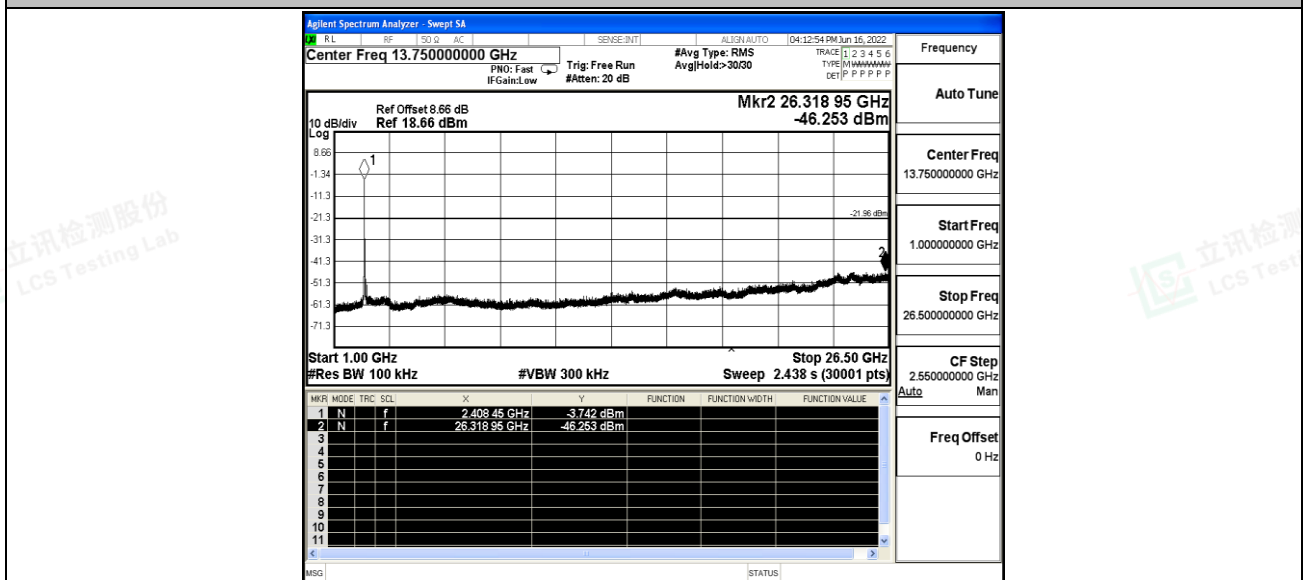
Add: 101, 201 Bldg A & 301 Bldg C, Juji Industrial Park Yabianxueziwei, Shajing Street, Baoan District, Shenzhen, 518000, China

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11G_Ant_2412_1000~26500



11G_Ant_2437_0~Reference

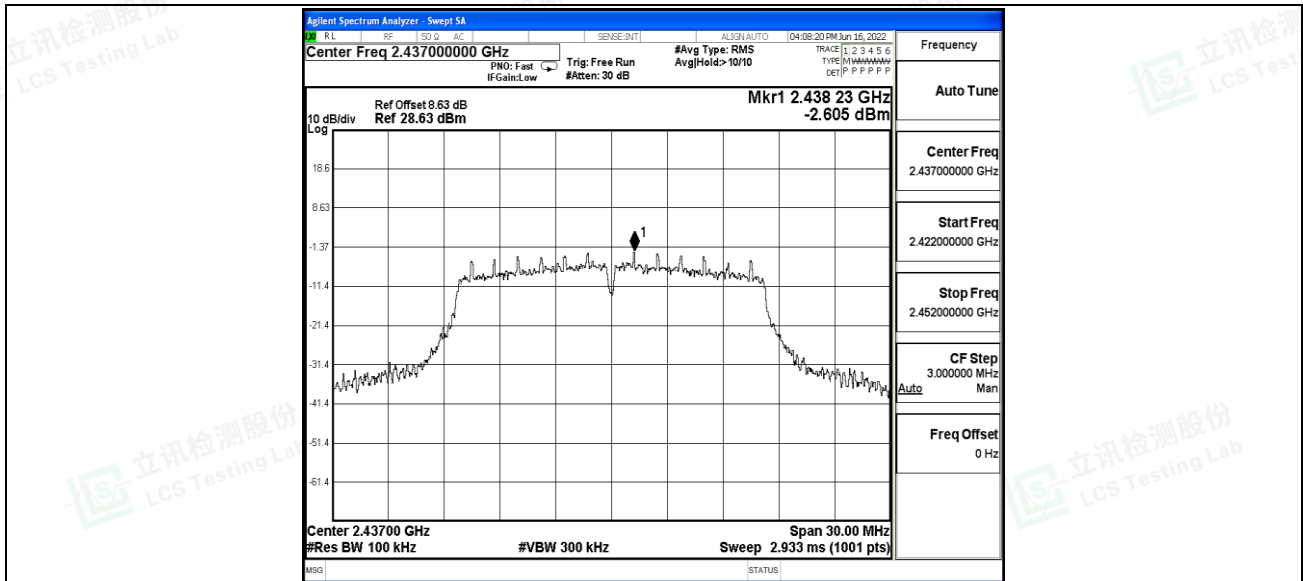


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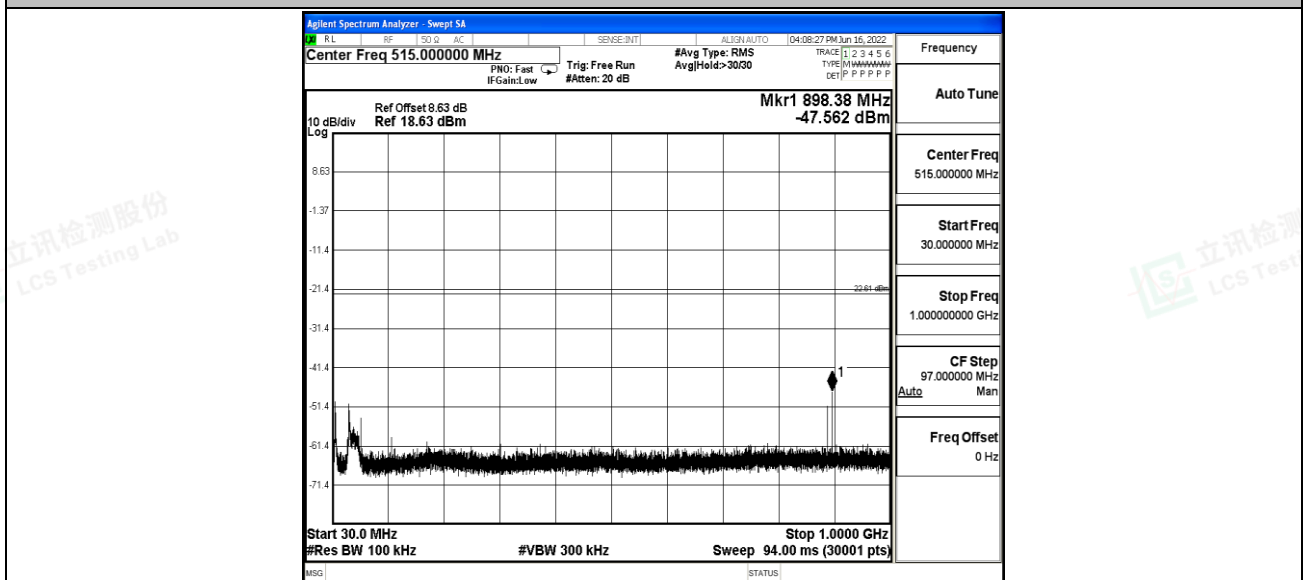
Add: 101, 201 Bldg A & 301 Bldg C, Juji Industrial Park Yabianxueziwei, Shajing Street, Baoan District, Shenzhen, 518000, China

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11G_Ant_2437_30~1000



11G_Ant_2437_1000~26500



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