



### Appendix C

#### RF Test Data for 2.4GWIFI (Conducted Measurement)

Product Name: Smart Projector

Test Model: D061AQ

##### Environmental Conditions

Temperature:	23.1° C
Relative Humidity:	52.3%
ATM Pressure:	100.0 kPa
Test Engineer:	<i>Nick Peng</i>
	Nick Peng
Supervised by:	<i>Taylor Hu</i>
	Taylor Hu



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Scan code to check authenticity



### C.1 DTS Bandwidth

#### Test Result

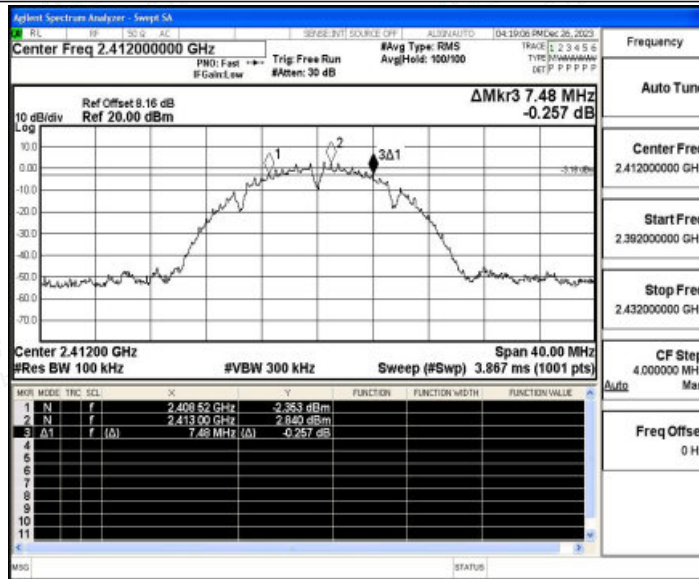
TestMode	Antenna	Freq(MHz)	DTS BW [MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
11B	Ant0	2412	7.480	2408.520	2416.000	0.5	PASS
		2437	8.080	2433.440	2441.520	0.5	PASS
		2462	7.600	2457.960	2465.560	0.5	PASS
11G	Ant0	2412	14.760	2405.360	2420.120	0.5	PASS
		2437	14.160	2429.440	2443.600	0.5	PASS
		2462	15.440	2454.120	2469.560	0.5	PASS
11N20SISO	Ant0	2412	16.040	2404.480	2420.520	0.5	PASS
		2437	15.080	2429.480	2444.560	0.5	PASS
		2462	15.160	2454.280	2469.440	0.5	PASS
11N40SISO	Ant0	2422	33.760	2405.760	2439.520	0.5	PASS
		2437	32.560	2421.960	2454.520	0.5	PASS
		2452	32.480	2434.480	2466.960	0.5	PASS



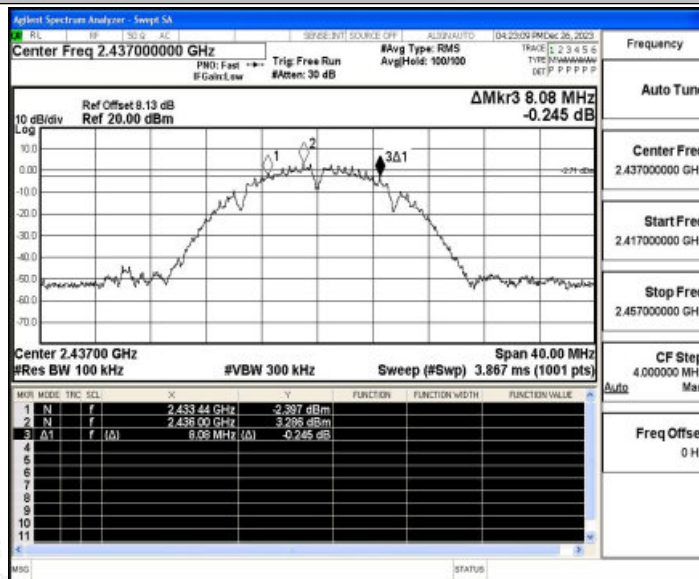


### Test Graphs

11B\_Ant0\_2412



11B\_Ant0\_2437



11B\_Ant0\_2462

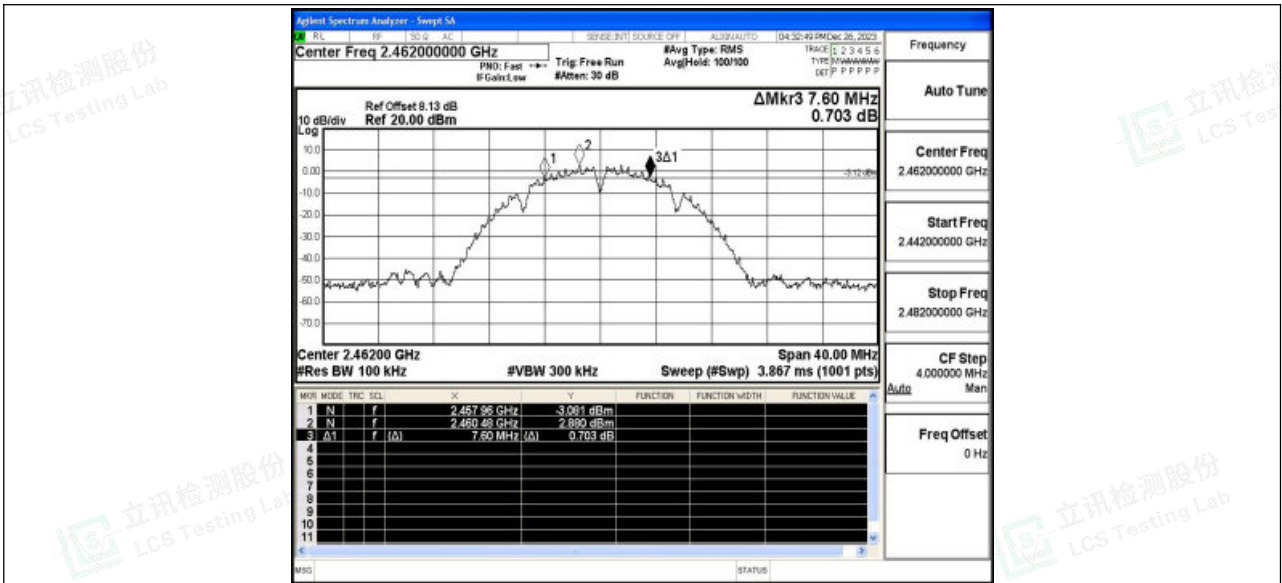


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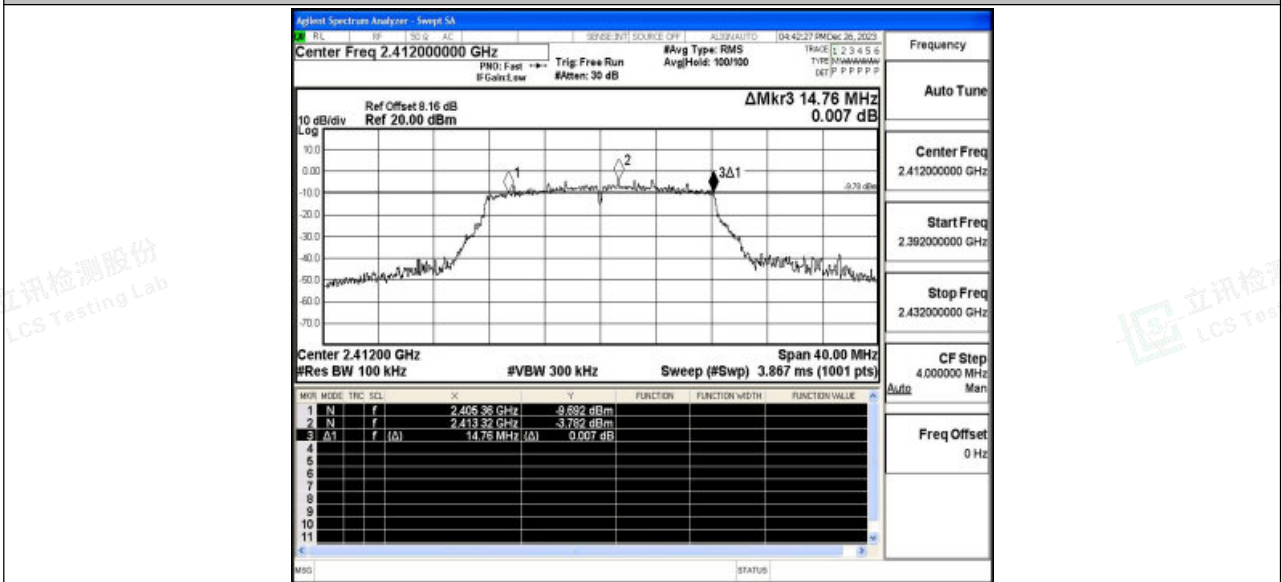
Add: 101, 201 Bldg A & 301 Bldg C, Juji Industrial Park Yabianxueziwei, Shajing Street, Baoan District, Shenzhen, 518000, China

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

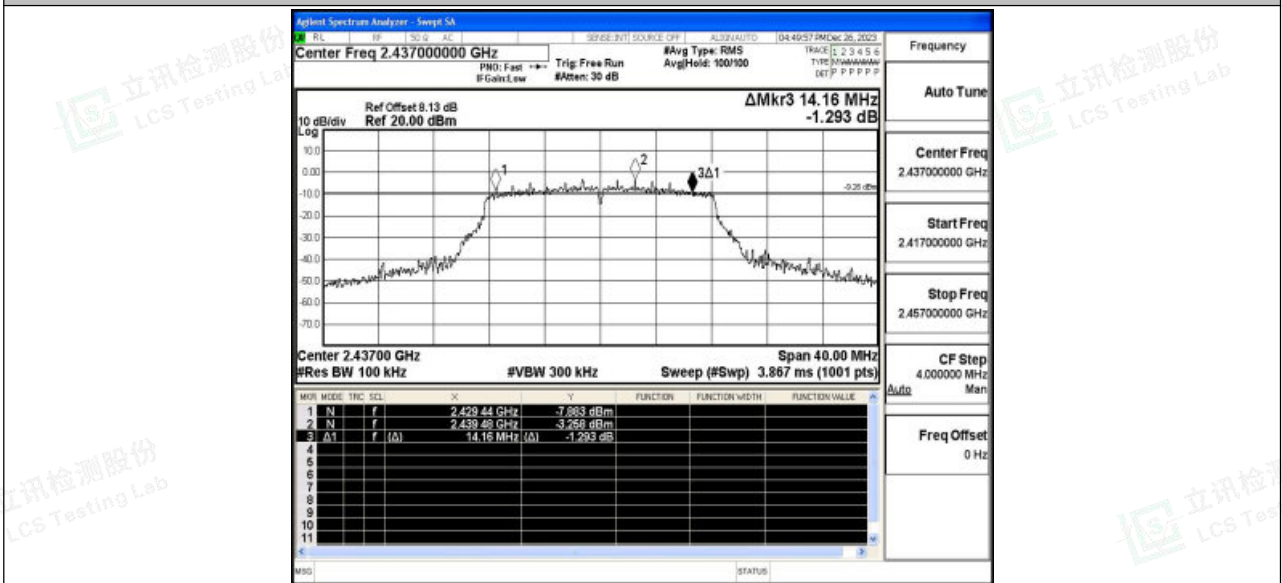
Scan code to check authenticity



11G\_Ant0\_2412

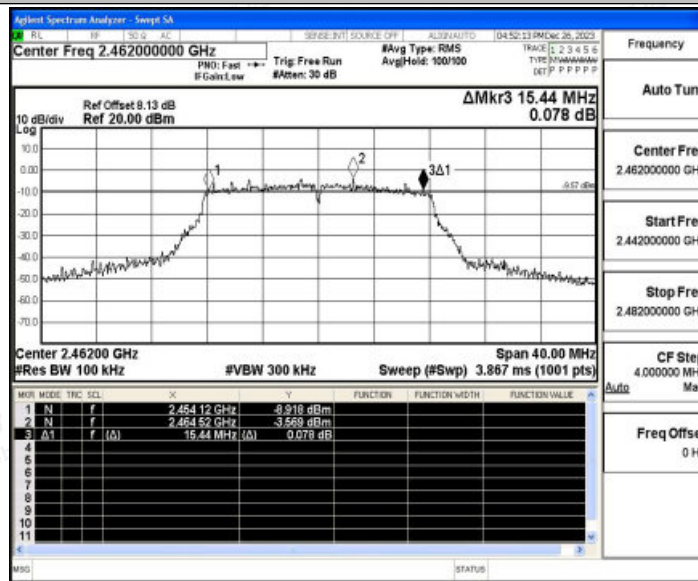


11G\_Ant0\_2437

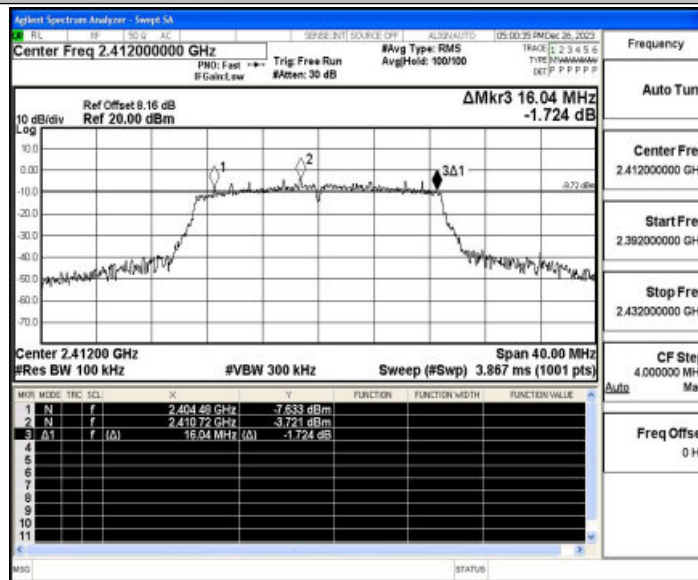




11G\_Ant0\_2462



11N20SISO\_Ant0\_2412



11N20SISO\_Ant0\_2437



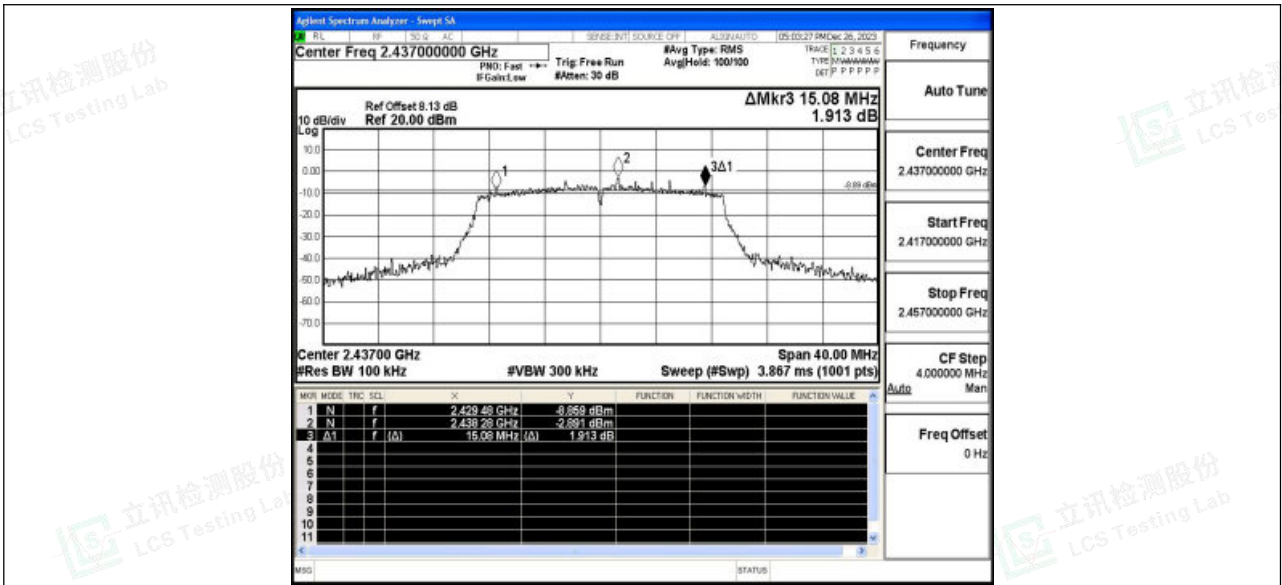
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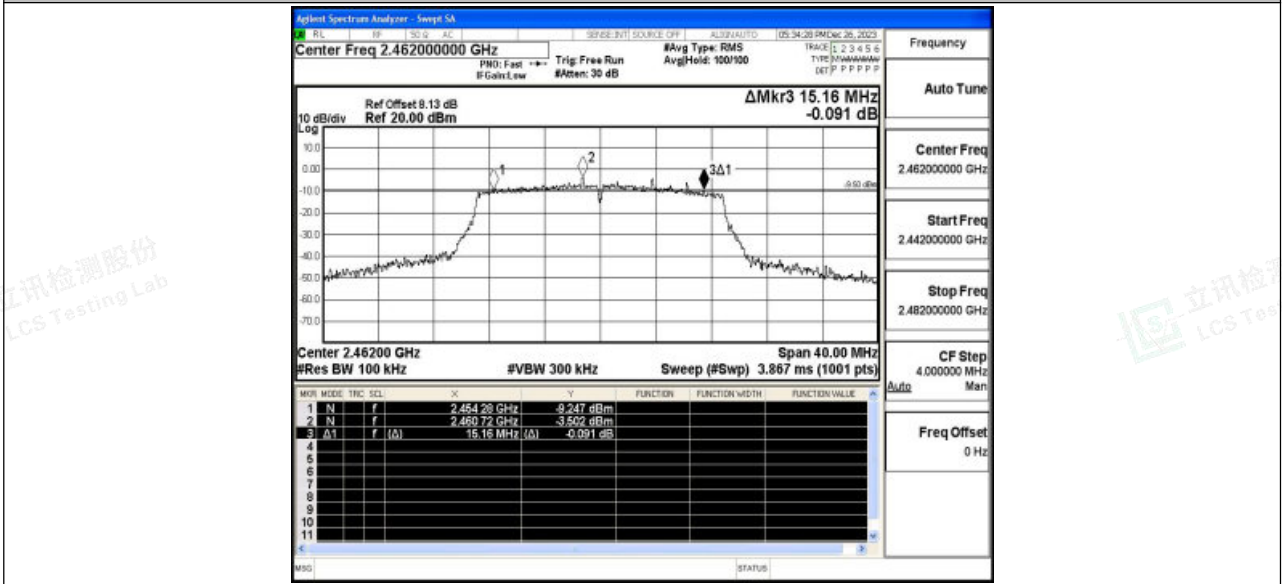
Tel: +(86) 0755-82591330 | E-mail: webmaster@lcs-cert.com | Web: www.lcs-cert.com

Scan code to check authenticity

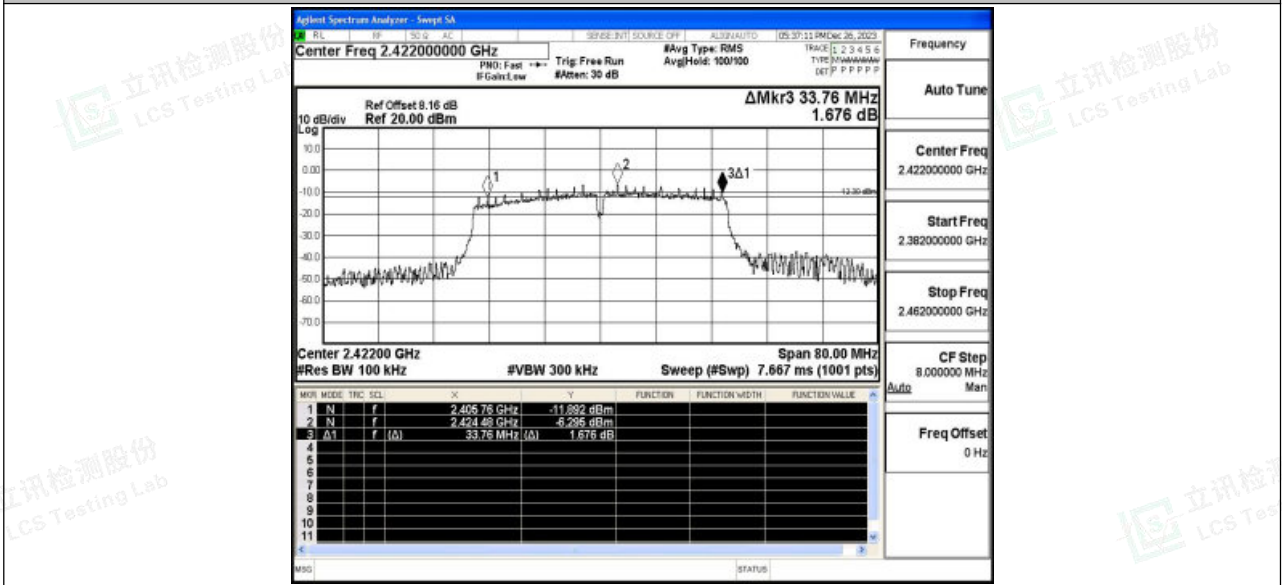




11N20SISO\_Ant0\_2462

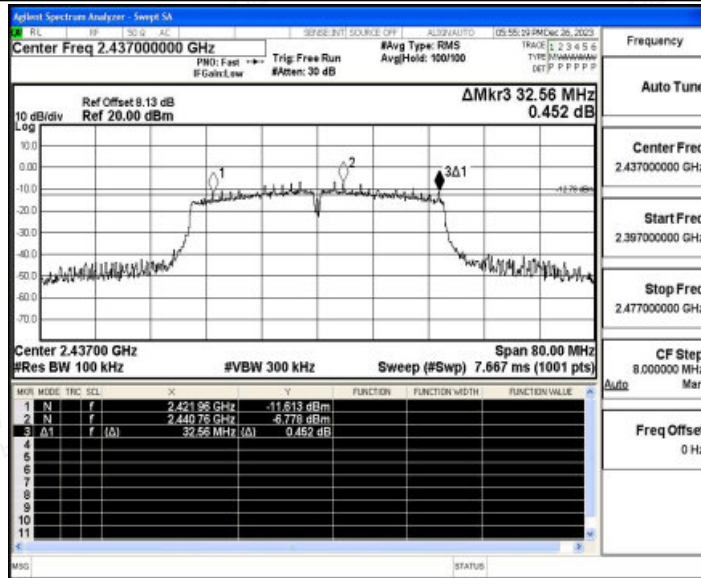


11N40SISO\_Ant0\_2422

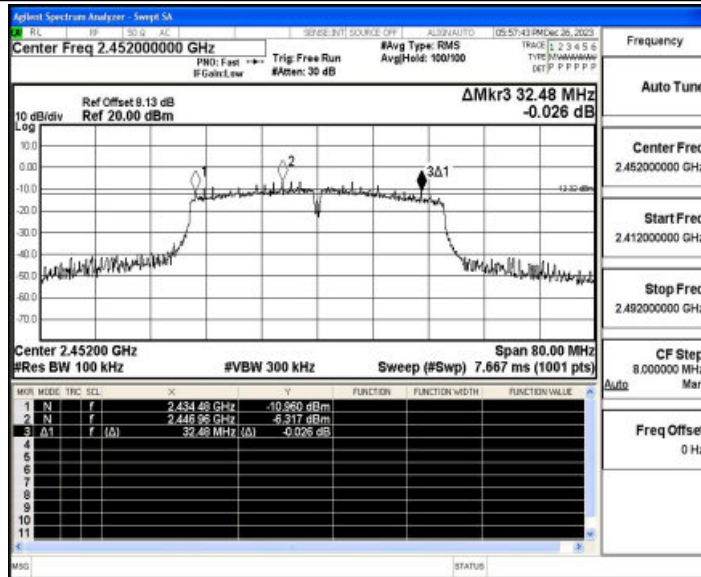




11N40SISO\_Ant0\_2437



11N40SISO\_Ant0\_2452





### Test Result

TestMode	Antenna	Freq(MHz)	DTS BW [MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
11B	Ant1	2412	8.080	2407.960	2416.040	0.5	PASS
		2437	8.040	2433.000	2441.040	0.5	PASS
		2462	8.040	2457.960	2466.000	0.5	PASS
11G	Ant1	2412	15.680	2404.480	2420.160	0.5	PASS
		2437	13.560	2430.960	2444.520	0.5	PASS
		2462	15.080	2454.440	2469.520	0.5	PASS
11N20SISO	Ant1	2412	15.120	2404.440	2419.560	0.5	PASS
		2437	15.440	2429.440	2444.880	0.5	PASS
		2462	15.080	2454.480	2469.560	0.5	PASS
11N40SISO	Ant1	2422	32.560	2406.960	2439.520	0.5	PASS
		2437	33.760	2419.480	2453.240	0.5	PASS
		2452	35.040	2434.480	2469.520	0.5	PASS



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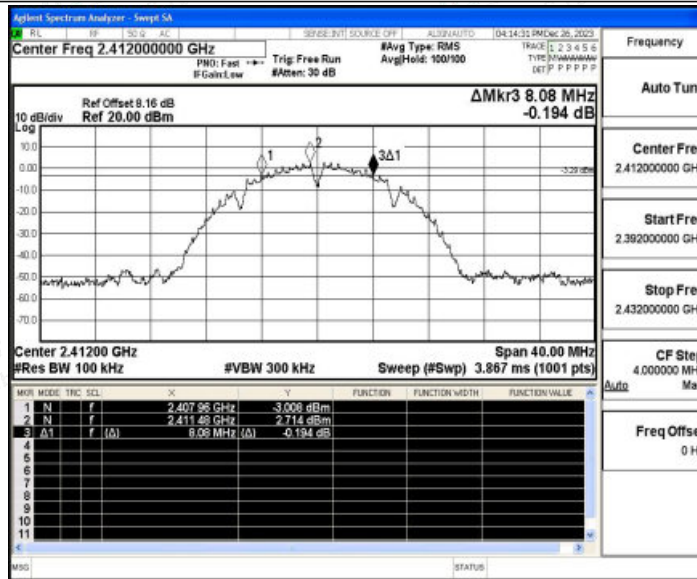
Scan code to check authenticity



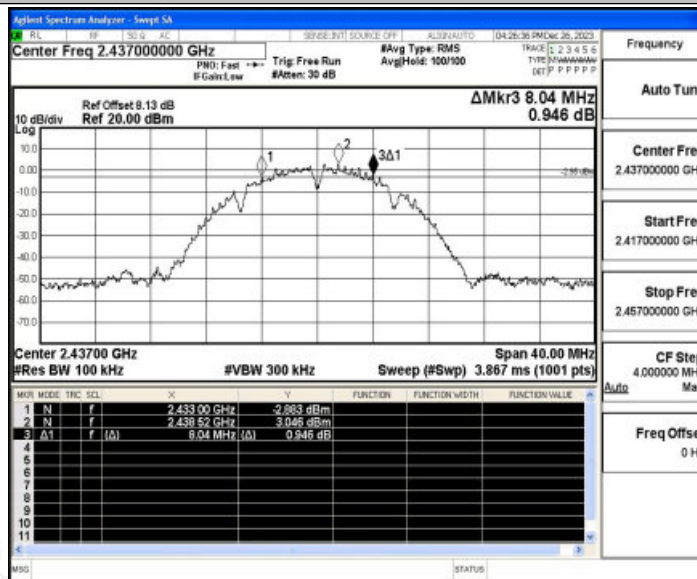


### Test Graphs

11B\_Ant1\_2412



11B\_Ant1\_2437



11B\_Ant1\_2462

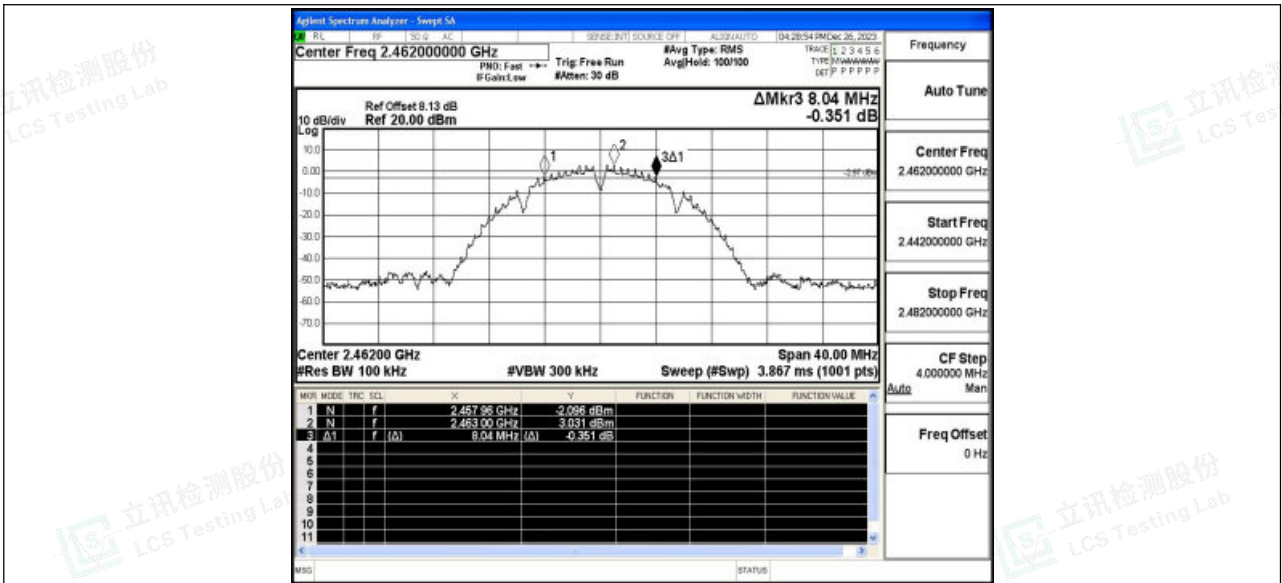


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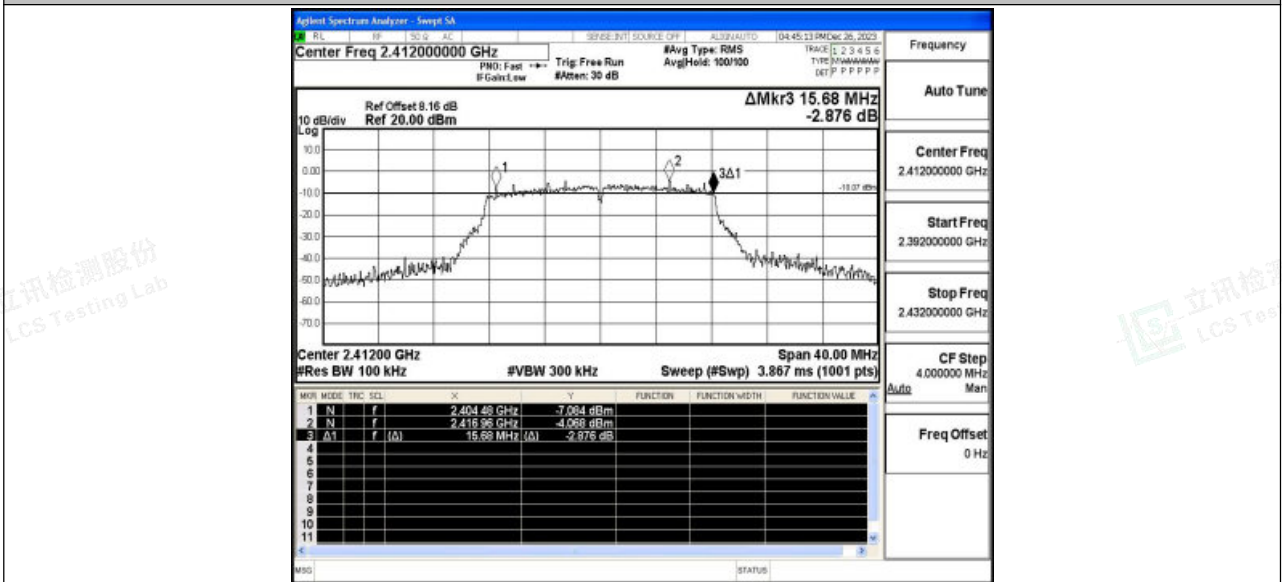
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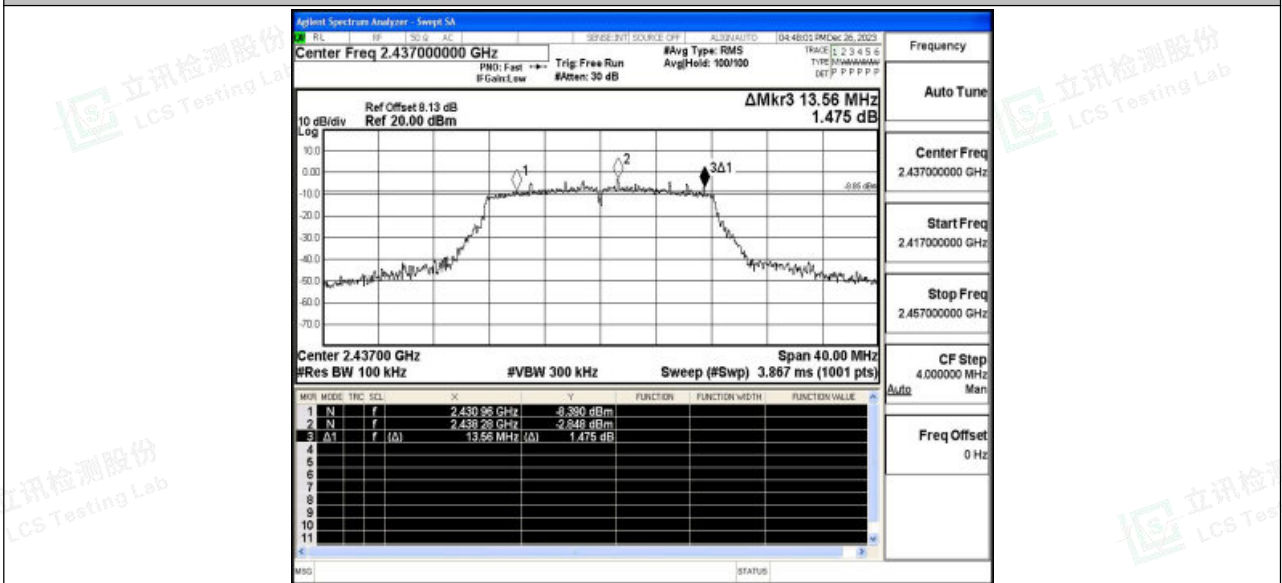
Scan code to check authenticity



11G\_Ant1\_2412

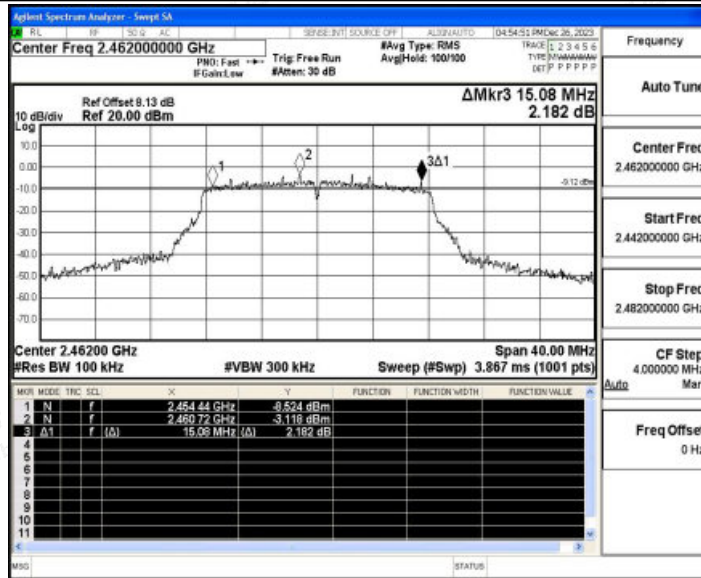


11G\_Ant1\_2437

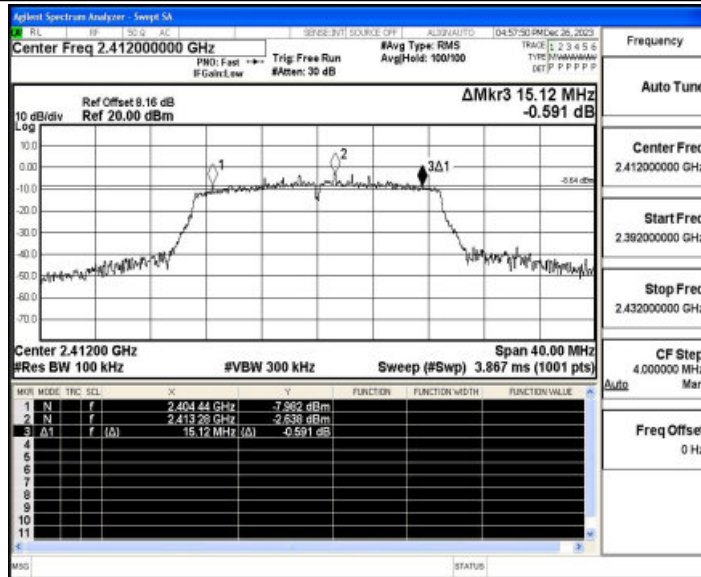




11G\_Ant1\_2462



11N20SISO\_Ant1\_2412



11N20SISO\_Ant1\_2437

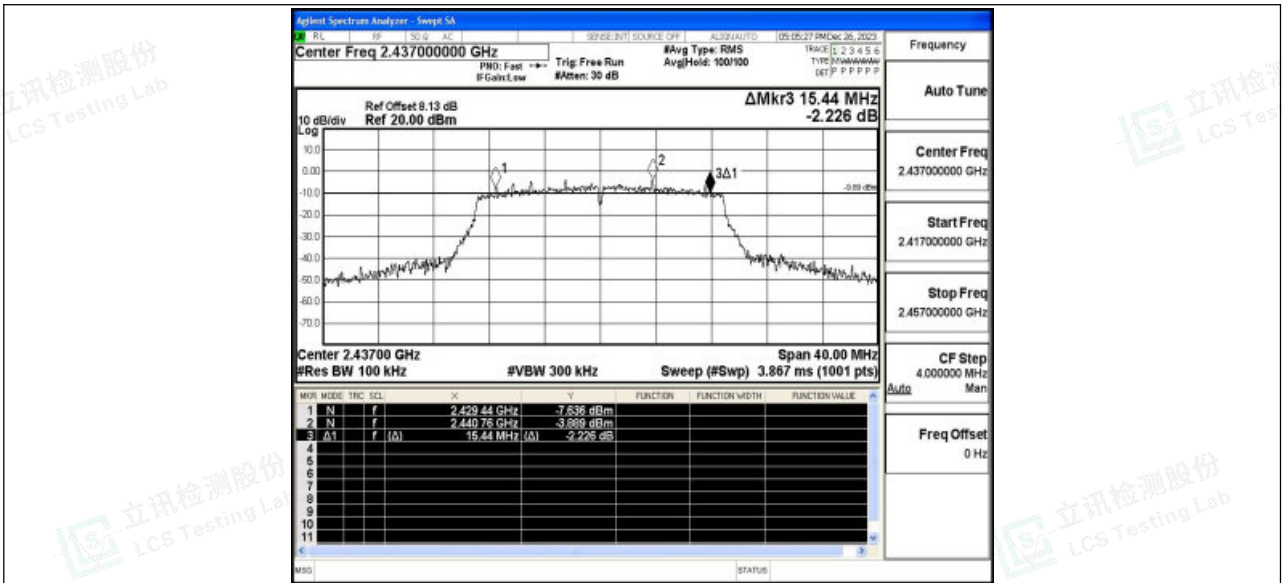


Shenzhen LCS Compliance Testing Laboratory Ltd.

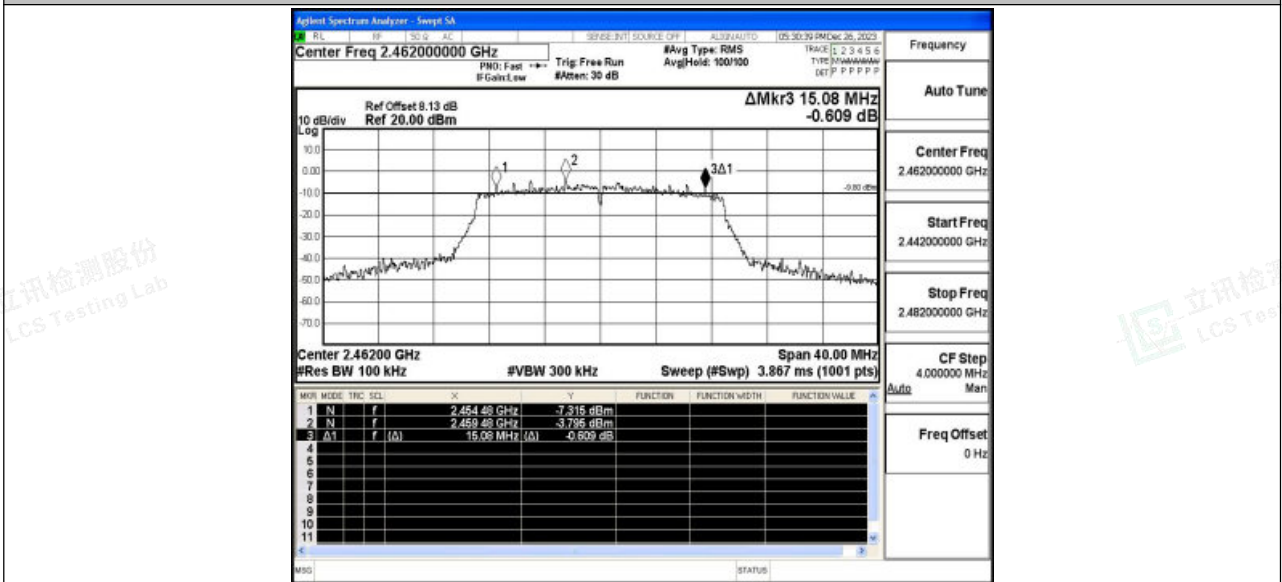
Add: 101, 201 Bldg A & 301 Bldg C, Juji Industrial Park Yabianxueziwei, Shajing Street, Baoan District, Shenzhen, 518000, China

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

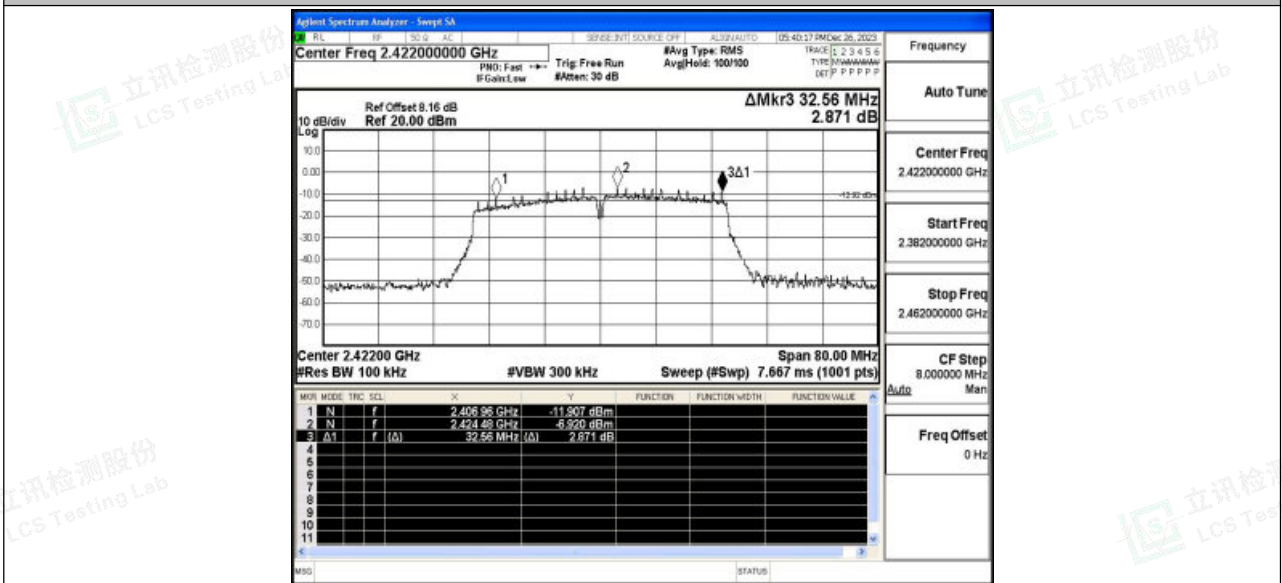
Scan code to check authenticity



11N20SISO\_Ant1\_2462



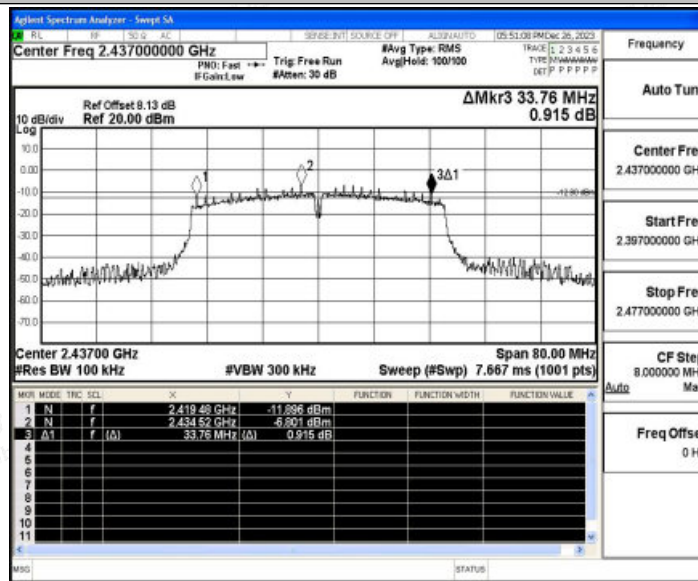
11N40SISO\_Ant1\_2422



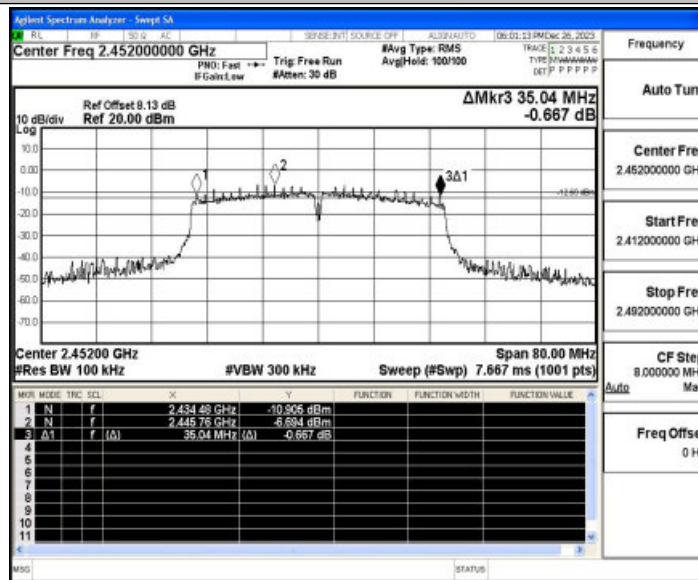




11N40SISO\_Ant1\_2437



11N40SISO\_Ant1\_2452







### C.2 Maximum conducted output power

#### Test Result Peak

TestMode	Antenna	Freq(MHz)	Peak Power[dBm]	Conducted Limit[dBm]	Verdict
11B	Ant0	2412	14.66	≤30.00	PASS
		2437	14.39	≤30.00	PASS
		2462	14.39	≤30.00	PASS
11G	Ant0	2412	13.73	≤30.00	PASS
		2437	13.38	≤30.00	PASS
		2462	13.64	≤30.00	PASS
11N20SISO	Ant0	2412	13.78	≤30.00	PASS
		2437	13.60	≤30.00	PASS
		2462	13.50	≤30.00	PASS
11N40SISO	Ant0	2422	12.45	≤30.00	PASS
		2437	12.50	≤30.00	PASS
		2452	12.78	≤30.00	PASS

TestMode	Antenna	Freq(MHz)	Peak Power[dBm]	Conducted Limit[dBm]	Verdict
11B	Ant1	2412	13.82	≤30.00	PASS
		2437	14.58	≤30.00	PASS
		2462	14.28	≤30.00	PASS
11G	Ant1	2412	13.73	≤30.00	PASS
		2437	13.62	≤30.00	PASS
		2462	13.72	≤30.00	PASS
11N20SISO	Ant1	2412	13.59	≤30.00	PASS
		2437	13.57	≤30.00	PASS
		2462	13.38	≤30.00	PASS
11N40SISO	Ant1	2422	12.95	≤30.00	PASS
		2437	12.45	≤30.00	PASS
		2452	12.69	≤30.00	PASS





MIMO

Condition	Mode	Frequency (MHz)	Total Power (dBm)			Limit (dBm)	Verdict
			Ant0	Ant1	Ant0+Ant1		
NVNT	n20	2412	13.78	13.59	16.70	30	Pass
NVNT	n20	2437	13.60	13.57	16.60	30	Pass
NVNT	n20	2462	13.50	13.38	16.45	30	Pass
NVNT	n40	2422	12.45	12.95	15.72	30	Pass
NVNT	n40	2437	12.50	12.45	15.49	30	Pass
NVNT	n40	2452	12.78	12.69	15.75	30	Pass





### C.3 Maximum power spectral density

#### Test Result

TestMode	Antenna	Freq(MHz)	Result [dBm/3kHz]	Limit [dBm/3kHz]	Verdict
11B	Ant0	2412	-11.29	≤8.00	PASS
		2437	-9.47	≤8.00	PASS
		2462	-10.65	≤8.00	PASS
11G	Ant0	2412	-16.57	≤8.00	PASS
		2437	-15.89	≤8.00	PASS
		2462	-16.62	≤8.00	PASS
11N20SISO	Ant0	2412	-15.58	≤8.00	PASS
		2437	-16.13	≤8.00	PASS
		2462	-17.04	≤8.00	PASS
11N40SISO	Ant0	2422	-19.95	≤8.00	PASS
		2437	-17.09	≤8.00	PASS
		2452	-17.15	≤8.00	PASS

TestMode	Antenna	Freq(MHz)	Result [dBm/3kHz]	Limit [dBm/3kHz]	Verdict
11B	Ant1	2412	-10.47	≤8.00	PASS
		2437	-10.88	≤8.00	PASS
		2462	-10.58	≤8.00	PASS
11G	Ant1	2412	-16.78	≤8.00	PASS
		2437	-16.12	≤8.00	PASS
		2462	-15.68	≤8.00	PASS
11N20SISO	Ant1	2412	-16.93	≤8.00	PASS
		2437	-17.24	≤8.00	PASS
		2462	-17.14	≤8.00	PASS
11N40SISO	Ant1	2422	-16.03	≤8.00	PASS
		2437	-17.17	≤8.00	PASS
		2452	-17.65	≤8.00	PASS





MIMO

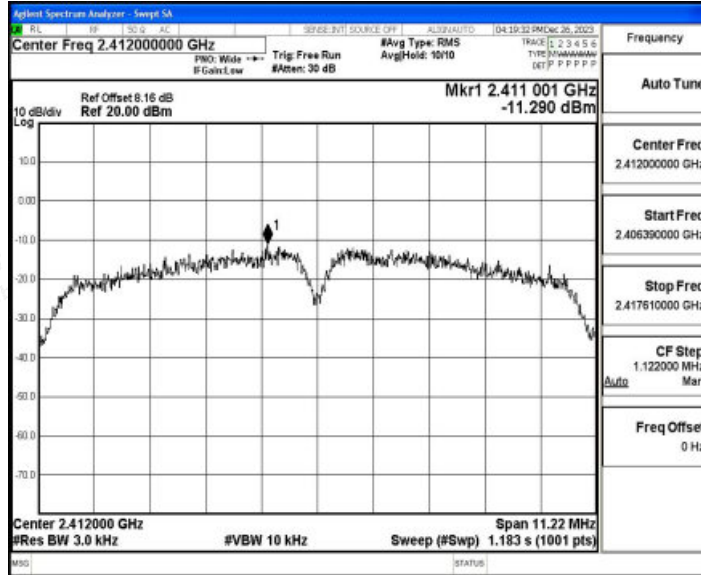
Condition	Mode	Frequency (MHz)	Total PSD (dBm/3kHz)			Limit (dBm)	Verdict
			Ant0	Ant1	Ant0+Ant1		
NVNT	n20	2412	-15.58	-16.93	-13.19	8	Pass
NVNT	n20	2437	-16.13	-17.24	-13.64	8	Pass
NVNT	n20	2462	-17.04	-17.14	-14.08	8	Pass
NVNT	n40	2422	-19.95	-16.03	-14.55	8	Pass
NVNT	n40	2437	-17.09	-17.17	-14.12	8	Pass
NVNT	n40	2452	-17.15	-17.65	-14.38	8	Pass



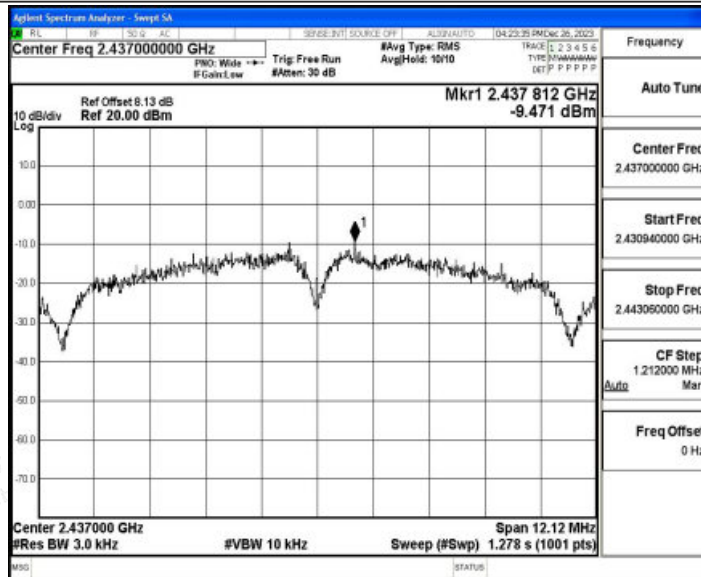


### Test Graphs

11B\_Ant0\_2412



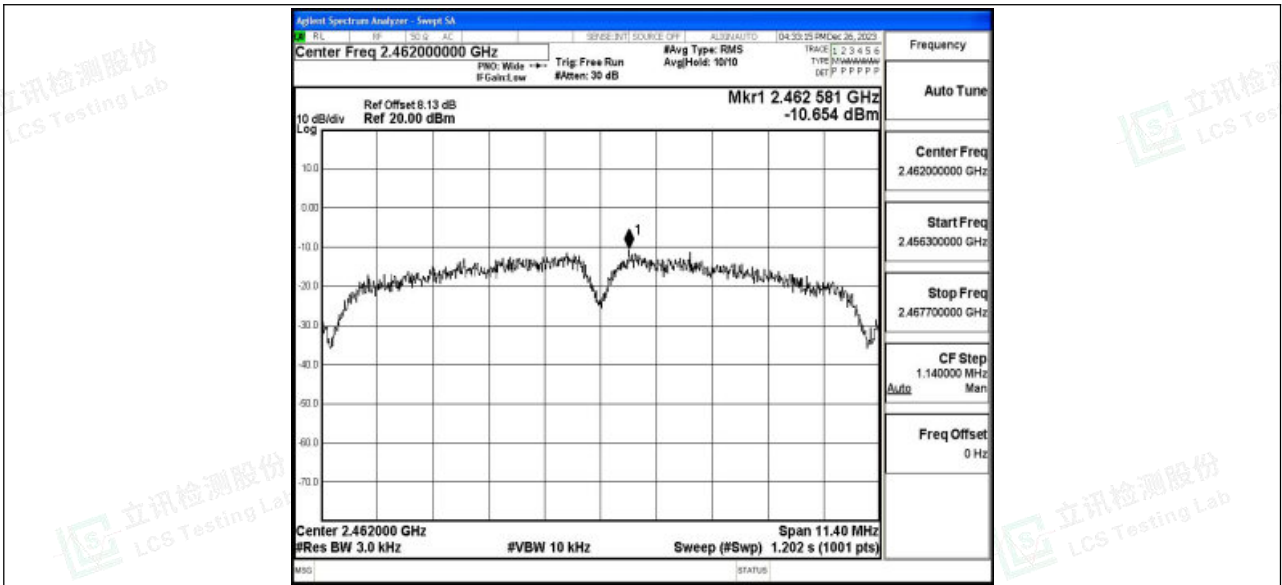
11B\_Ant0\_2437



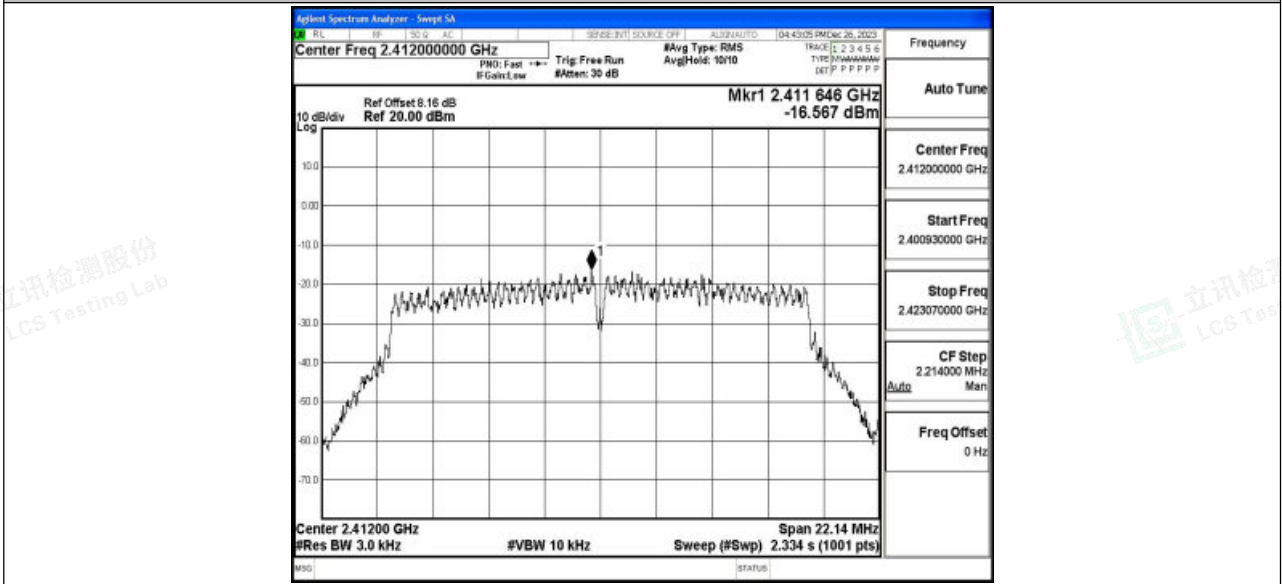
11B\_Ant0\_2462



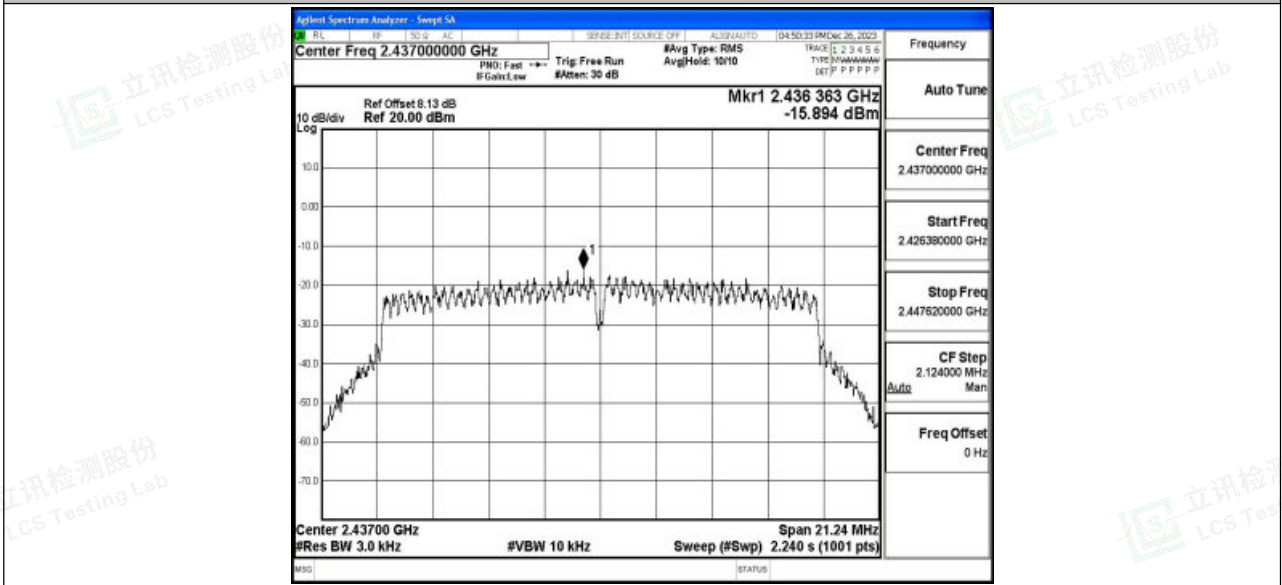




11G\_Ant0\_2412

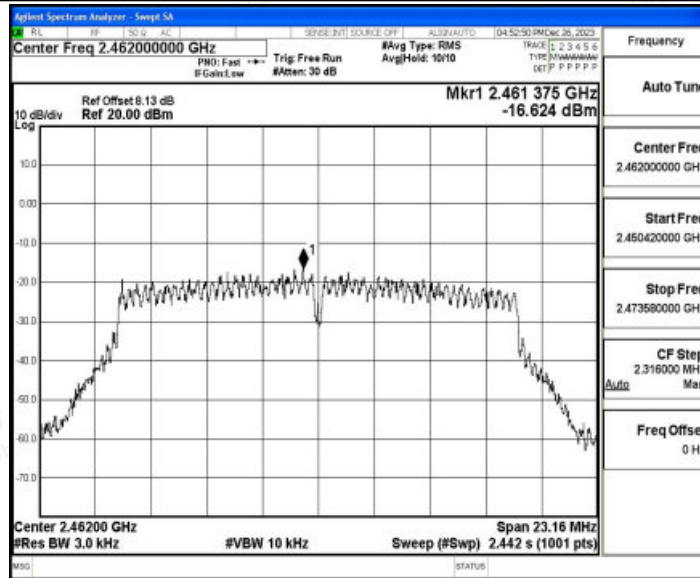


11G\_Ant0\_2437

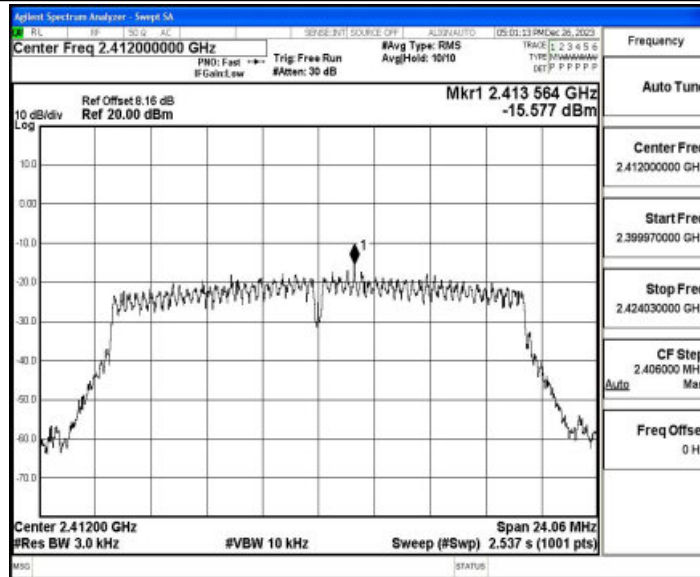




11G\_Ant0\_2462

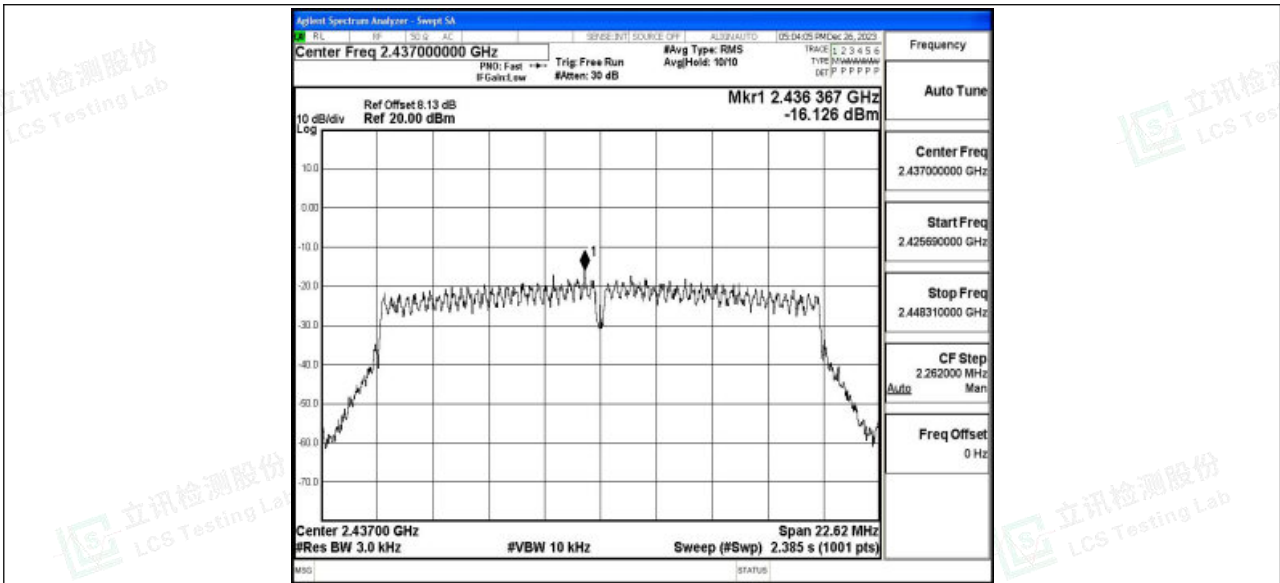


11N20SISO\_Ant0\_2412

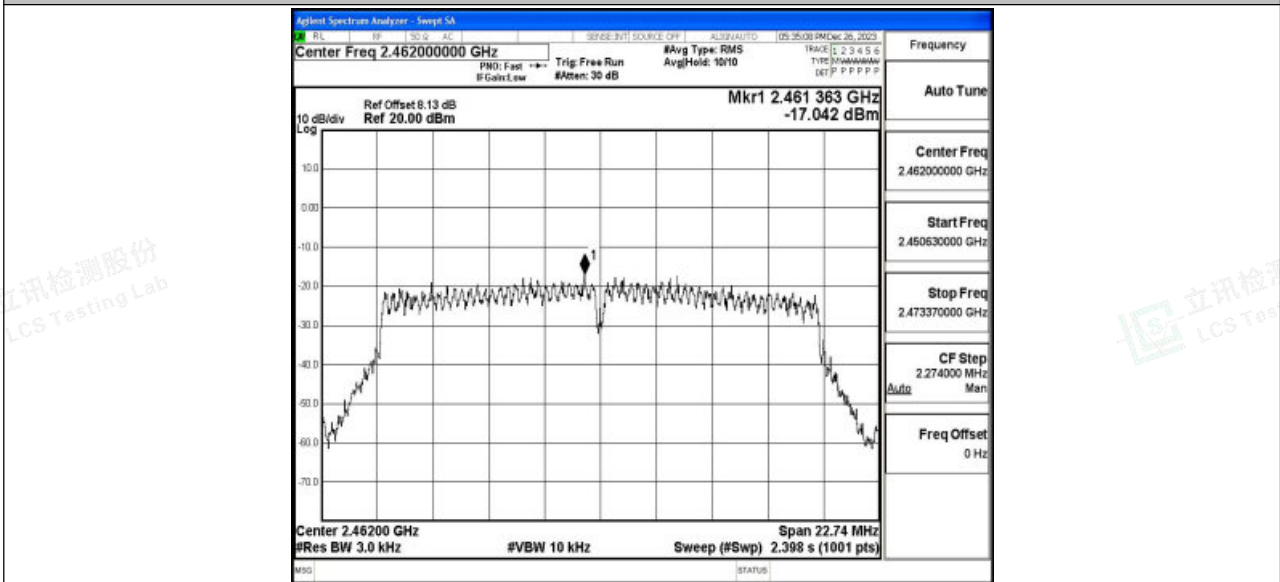


11N20SISO\_Ant0\_2437

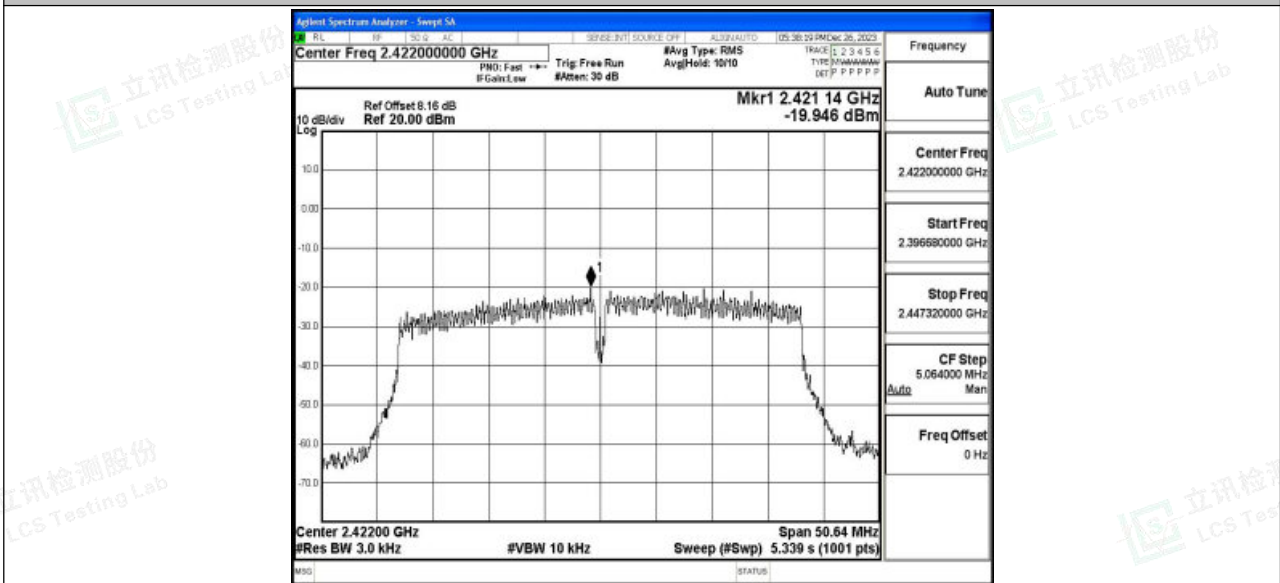




11N20SISO\_Ant0\_2462

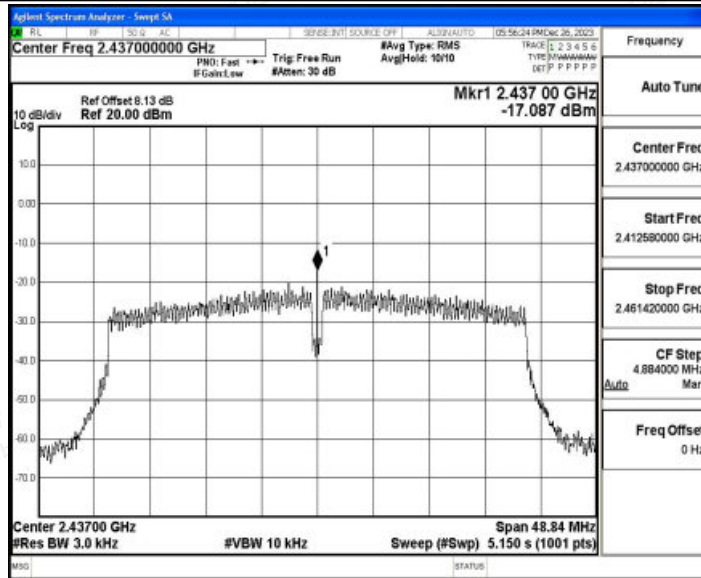


11N40SISO\_Ant0\_2422

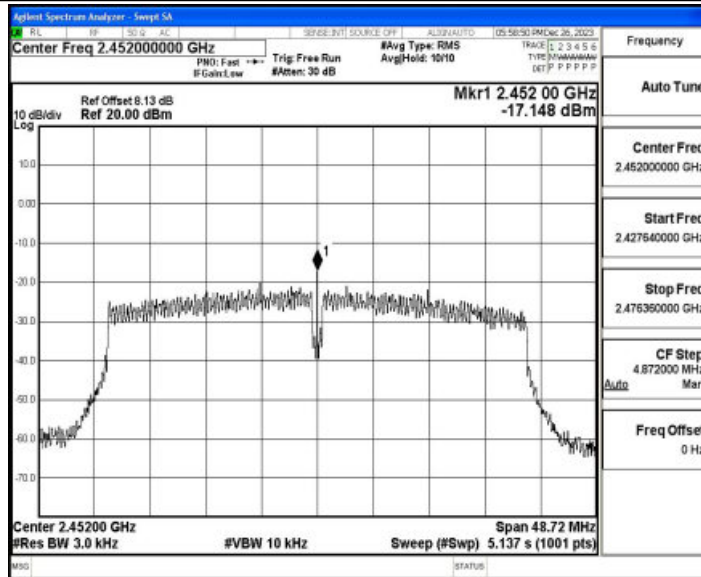




11N40SISO\_Ant0\_2437



11N40SISO\_Ant0\_2452

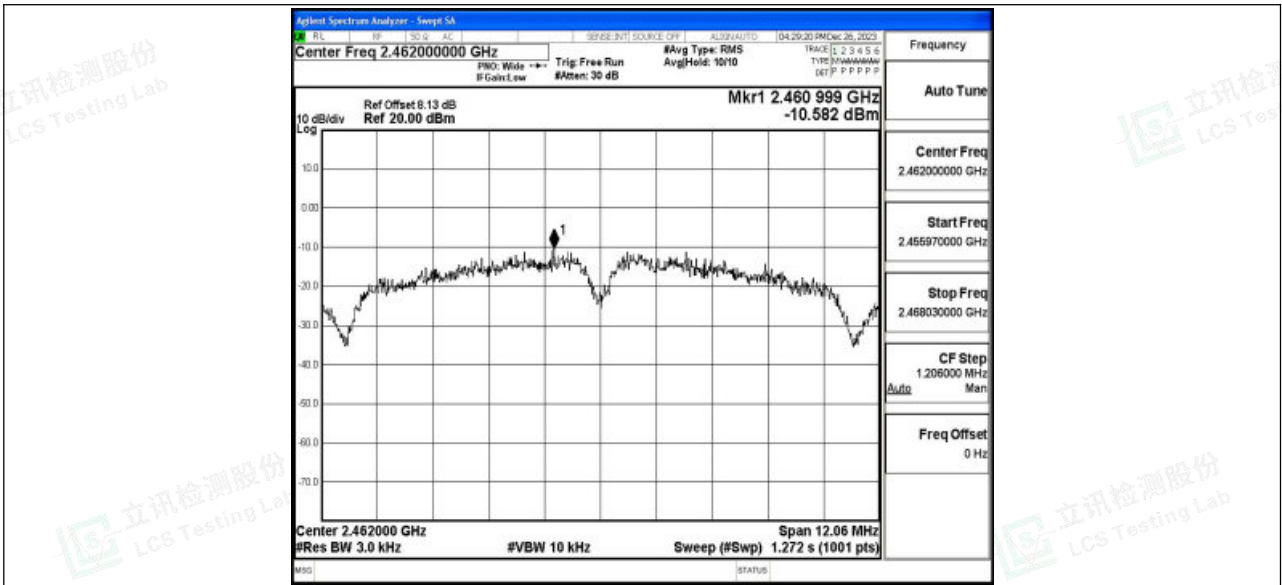




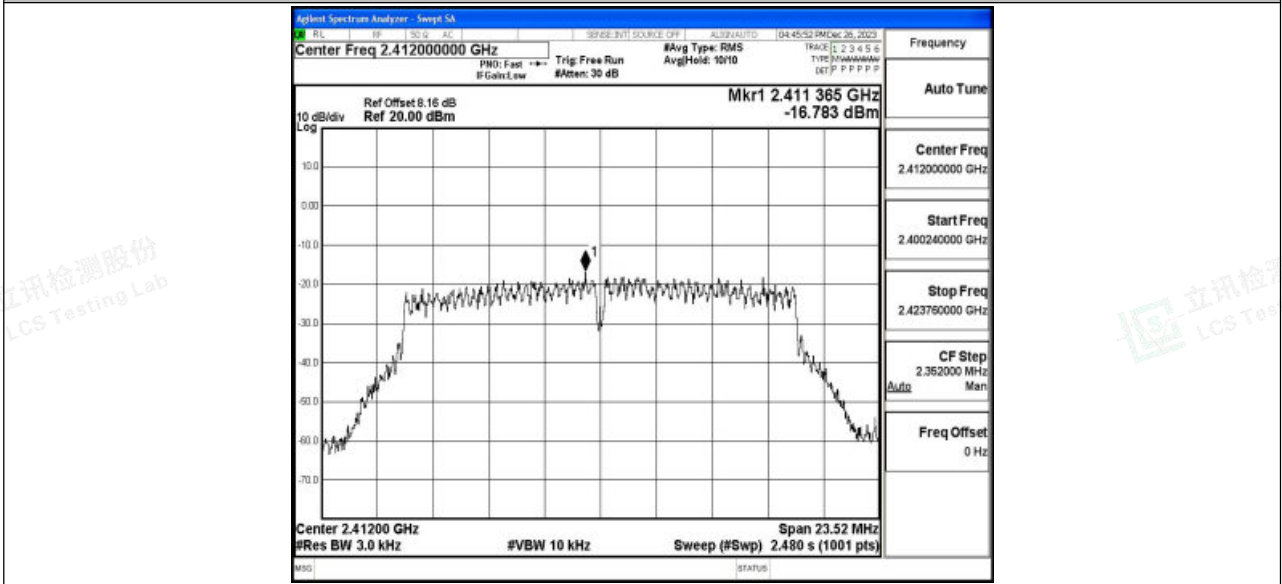
### Test Graphs



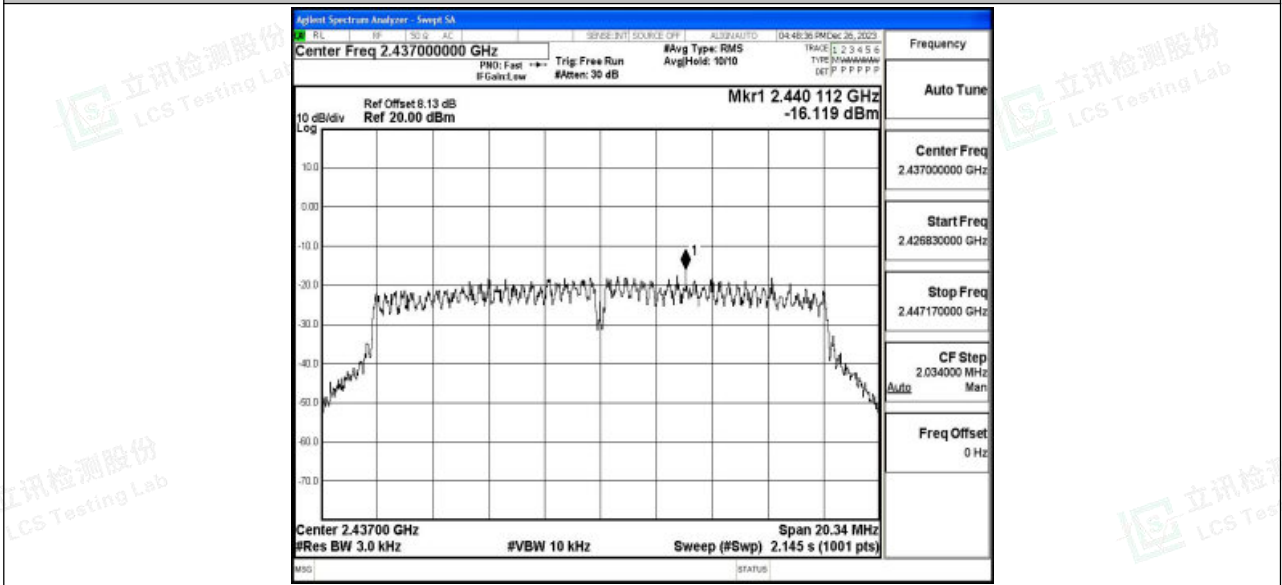




11G\_Ant1\_2412

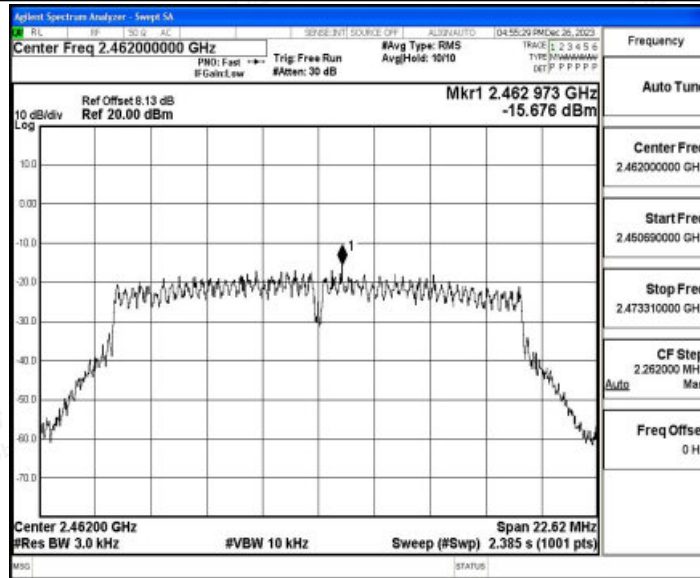


11G\_Ant1\_2437

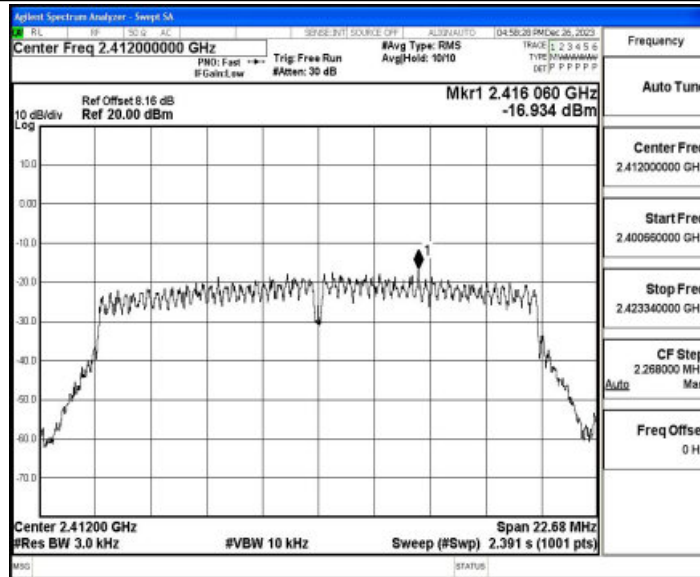




11G\_Ant1\_2462

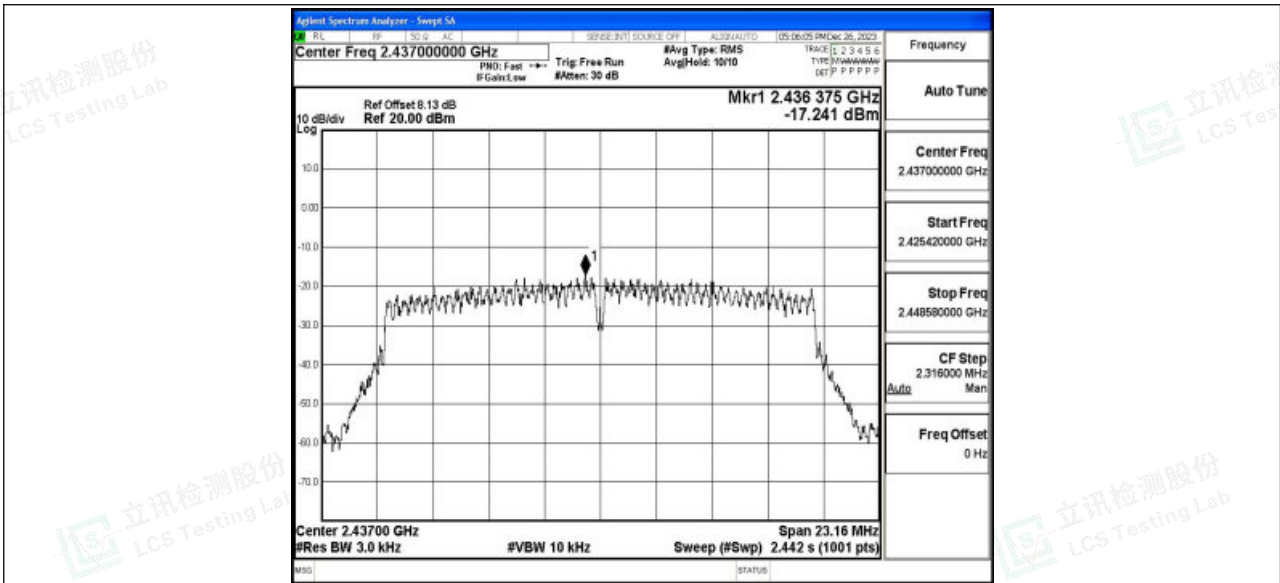


11N20SISO\_Ant1\_2412

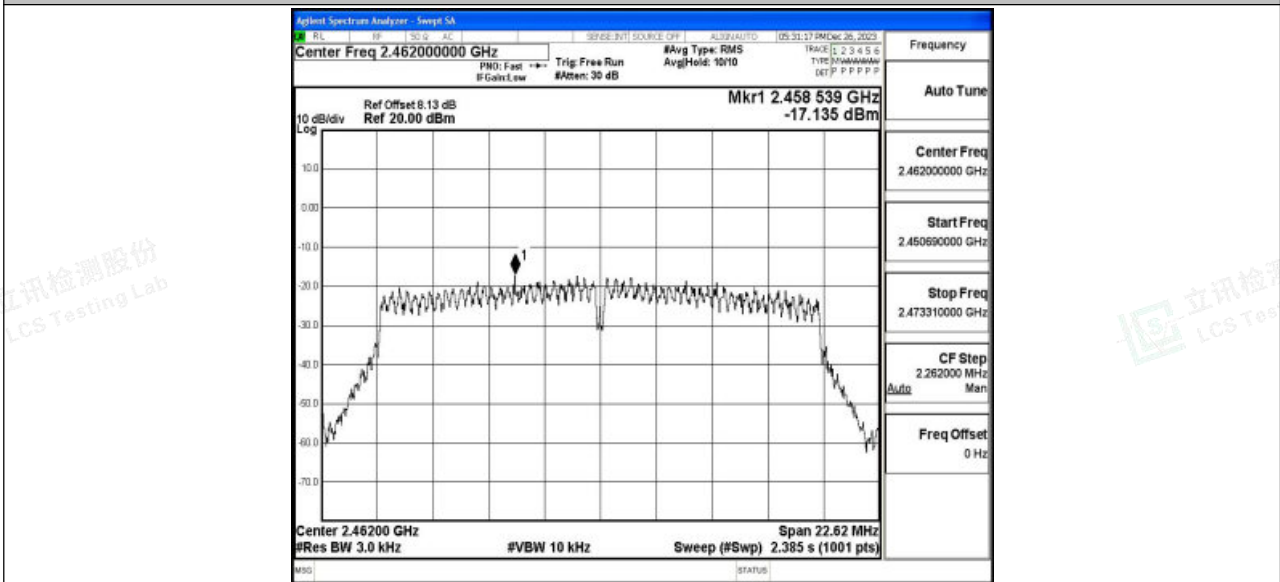


11N20SISO\_Ant1\_2437

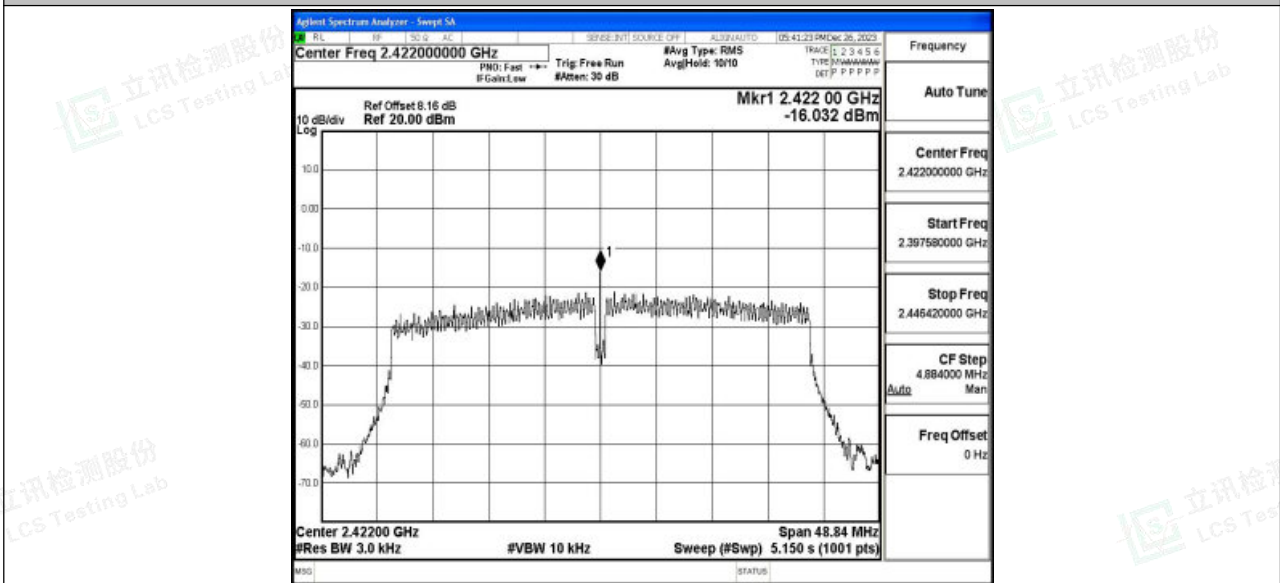




11N20SISO\_Ant1\_2462

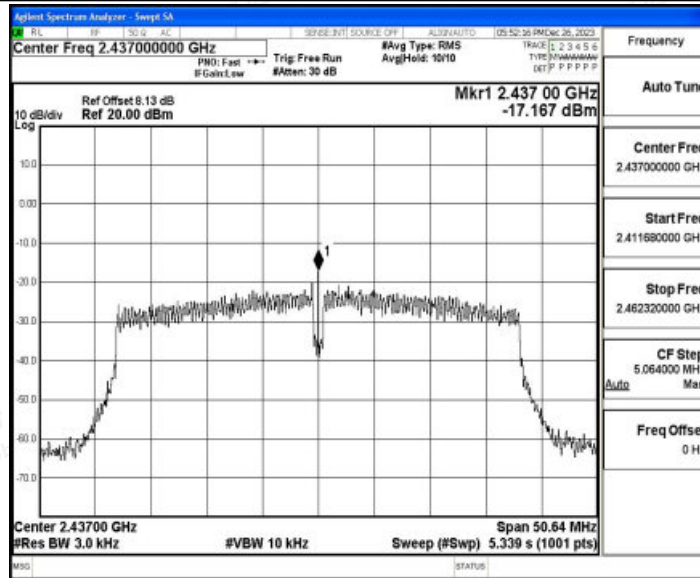


11N40SISO\_Ant1\_2422

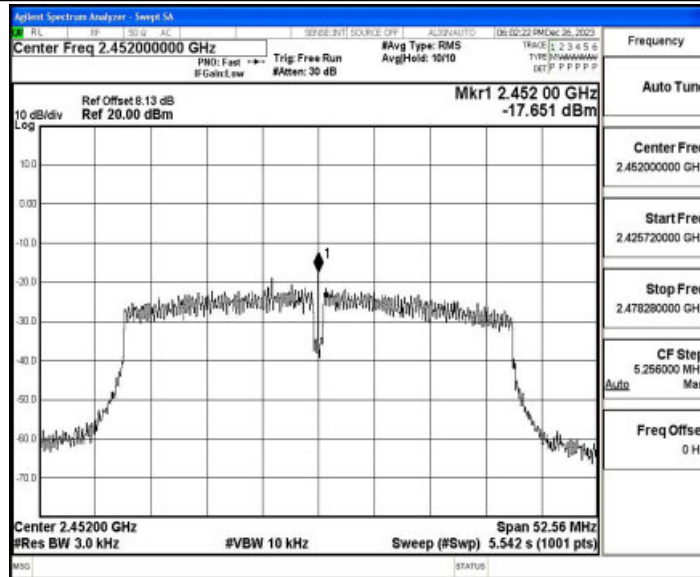




11N40SISO\_Ant1\_2437



11N40SISO\_Ant1\_2452





### C.4 Band edge measurements

#### Test Result

TestMode	Antenna	ChName	Freq(MHz)	RefLevel[dBm]	Result[dBm]	Limit[dBm]	Verdict
11B	Ant0	Low	2412	2.51	-46.69	≤-17.49	PASS
		High	2462	3.06	-50.23	≤-16.94	PASS
11G	Ant0	Low	2412	-4.17	-40.66	≤-24.17	PASS
		High	2462	-2.76	-49.62	≤-22.76	PASS
11N20SISO	Ant0	Low	2412	-3.79	-40.74	≤-23.79	PASS
		High	2462	-2.84	-49.83	≤-22.84	PASS
11N40SISO	Ant0	Low	2422	-6.20	-42.83	≤-26.2	PASS
		High	2452	-6.48	-43.91	≤-26.48	PASS

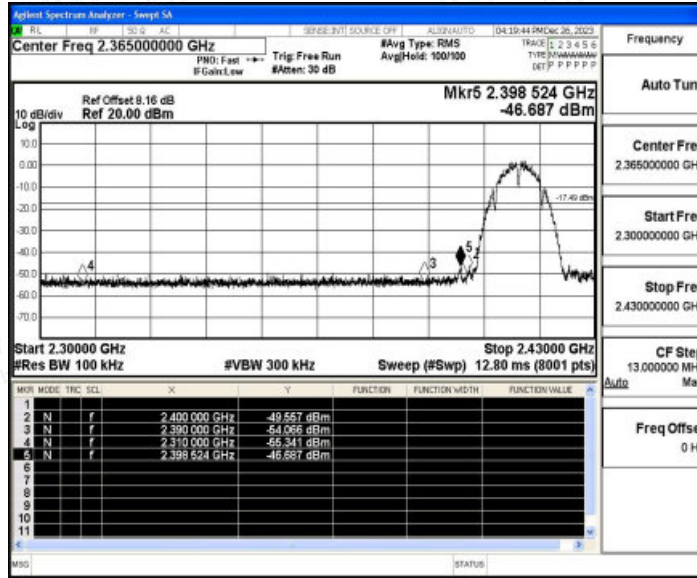




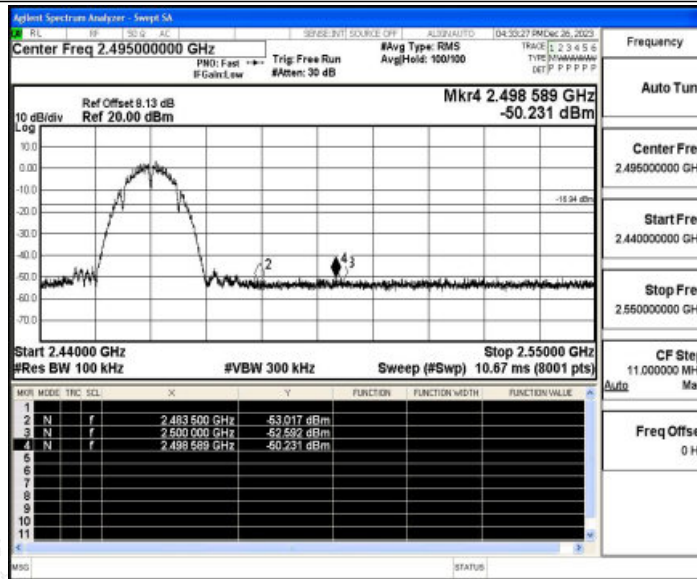


### Test Graphs

11B\_Ant0\_Low\_2412

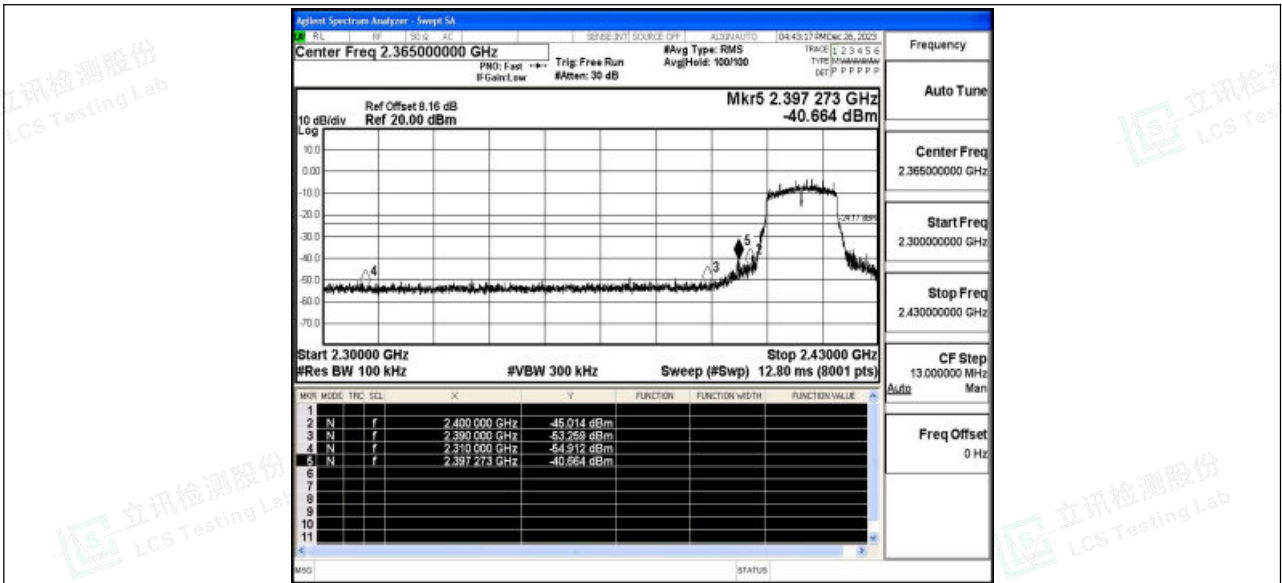


11B\_Ant0\_High\_2462

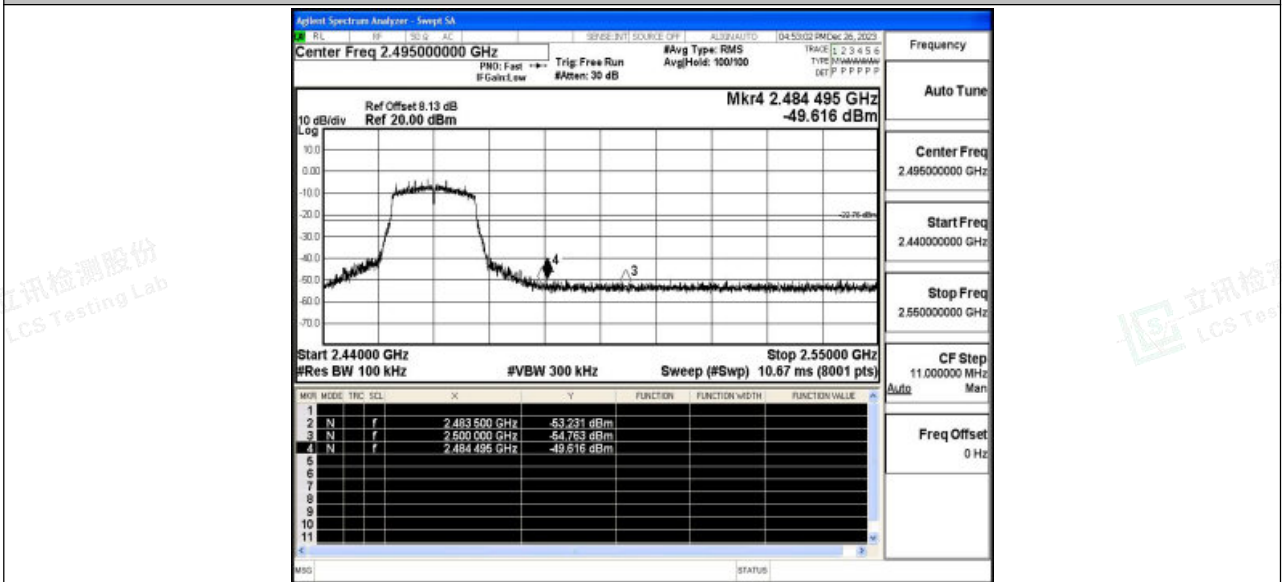


11G\_Ant0\_Low\_2412

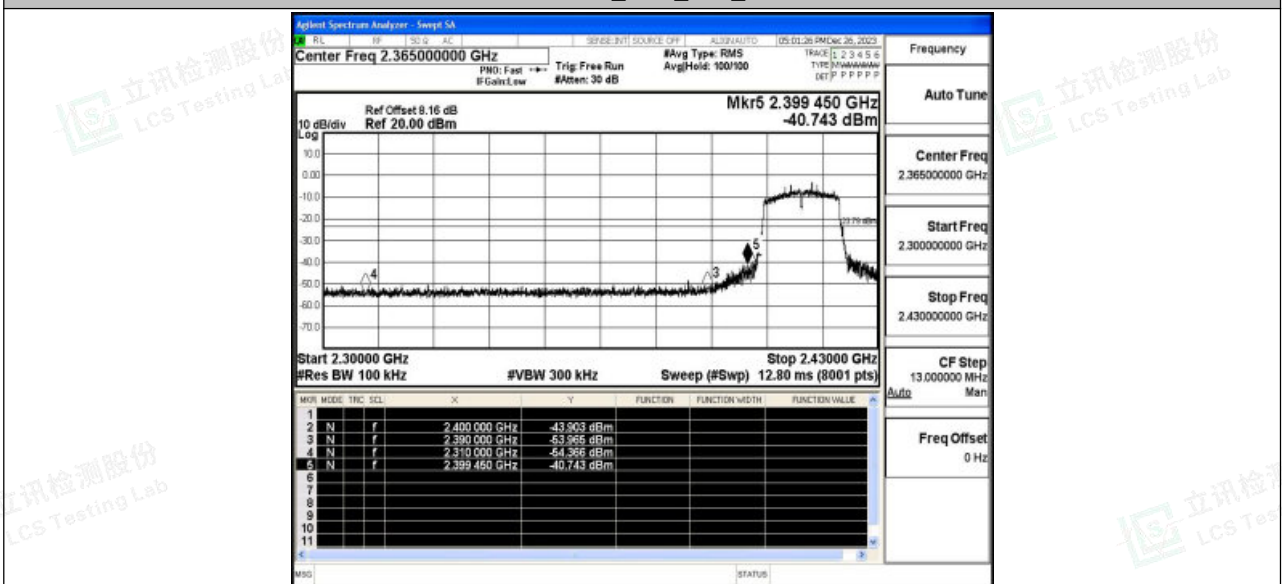




11G\_Ant0\_High\_2462

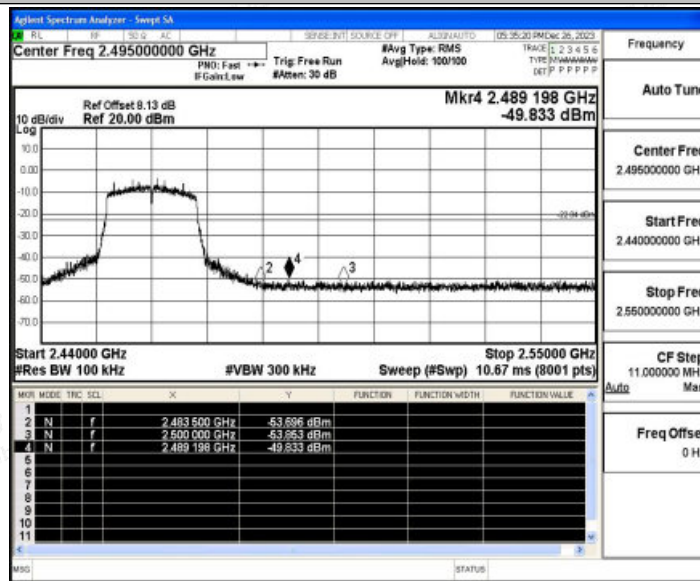


11N20SISO\_Ant0\_Low\_2412

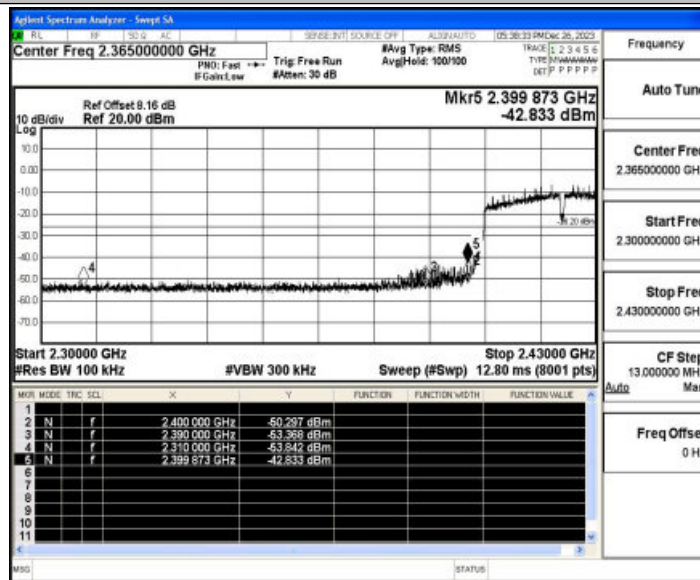




11N20SISO\_Ant0\_High\_2462



11N40SISO\_Ant0\_Low\_2422



11N40SISO\_Ant0\_High\_2452

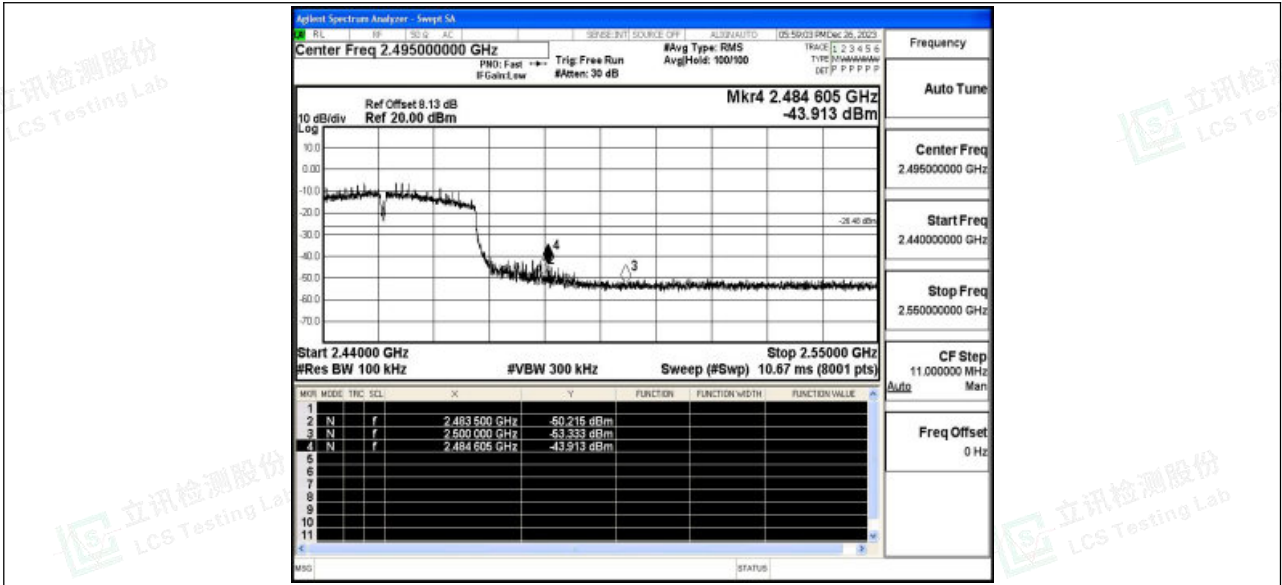


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### Test Result

TestMode	Antenna	ChName	Freq(MHz)	RefLevel[dBm]	Result[dBm]	Limit[dBm]	Verdict
11B	Ant1	Low	2412	3.04	-46.63	≤-16.96	PASS
		High	2462	2.89	-50.39	≤-17.11	PASS
11G	Ant1	Low	2412	-3.87	-38.03	≤-23.87	PASS
		High	2462	-4.65	-49.58	≤-24.65	PASS
11N20SISO	Ant1	Low	2412	-3.08	-40.33	≤-23.08	PASS
		High	2462	-3.51	-49.85	≤-23.51	PASS
11N40SISO	Ant1	Low	2422	-6.97	-48.59	≤-26.97	PASS
		High	2452	-6.43	-43.48	≤-26.43	PASS

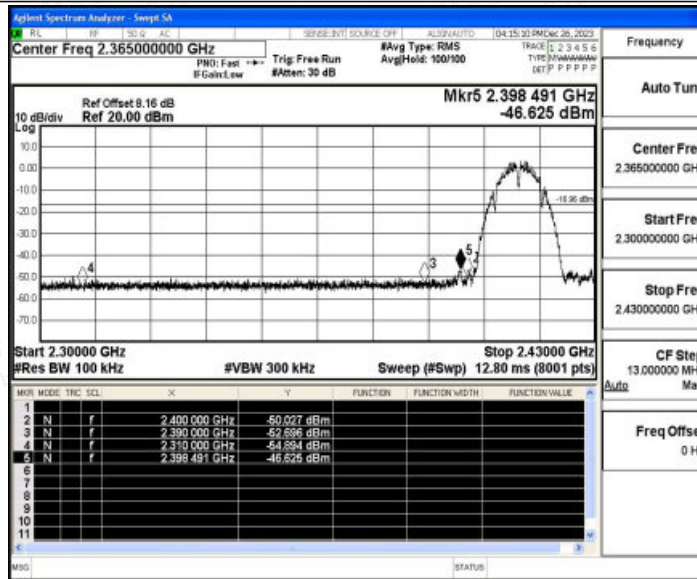




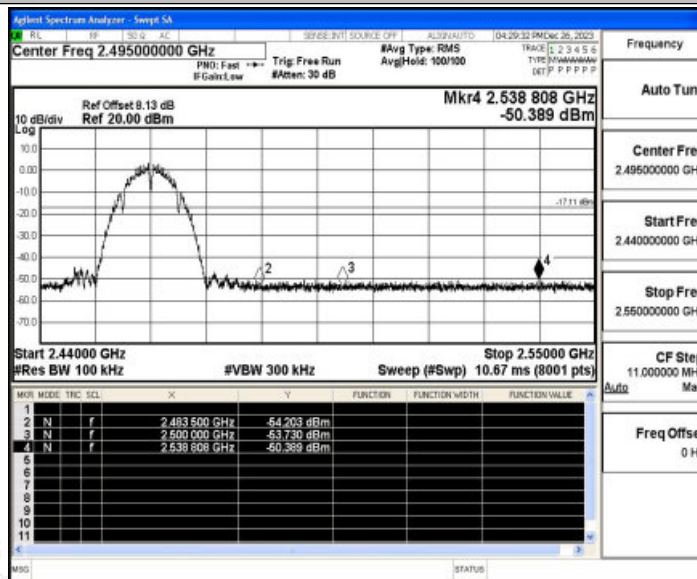


### Test Graphs

11B\_Ant1\_Low\_2412



11B\_Ant1\_High\_2462



11G\_Ant1\_Low\_2412

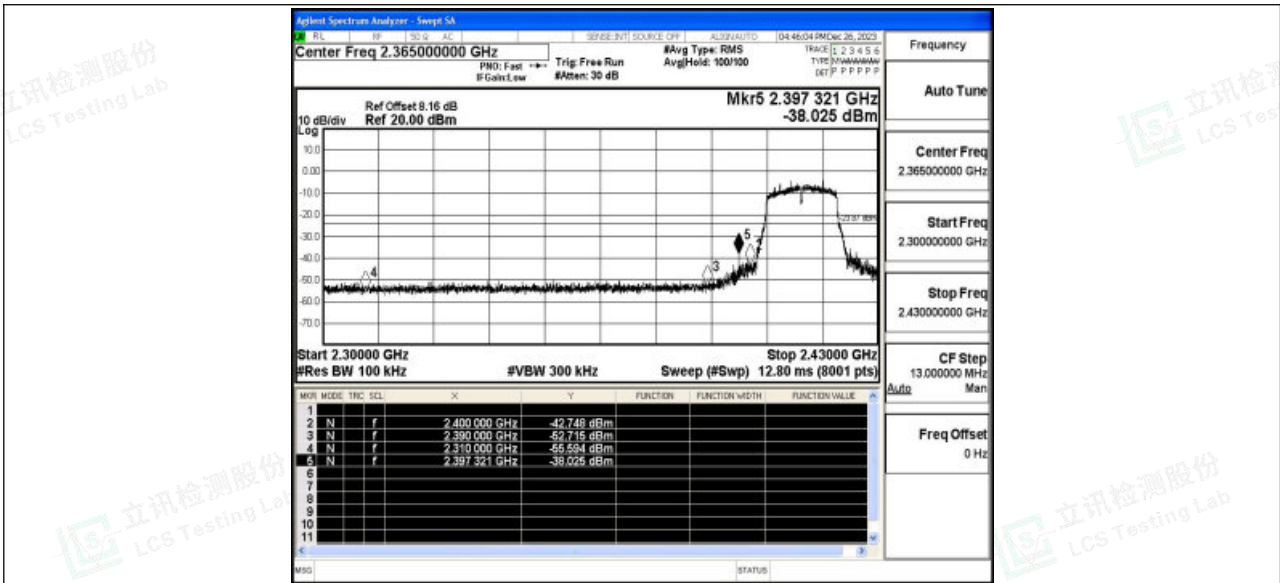


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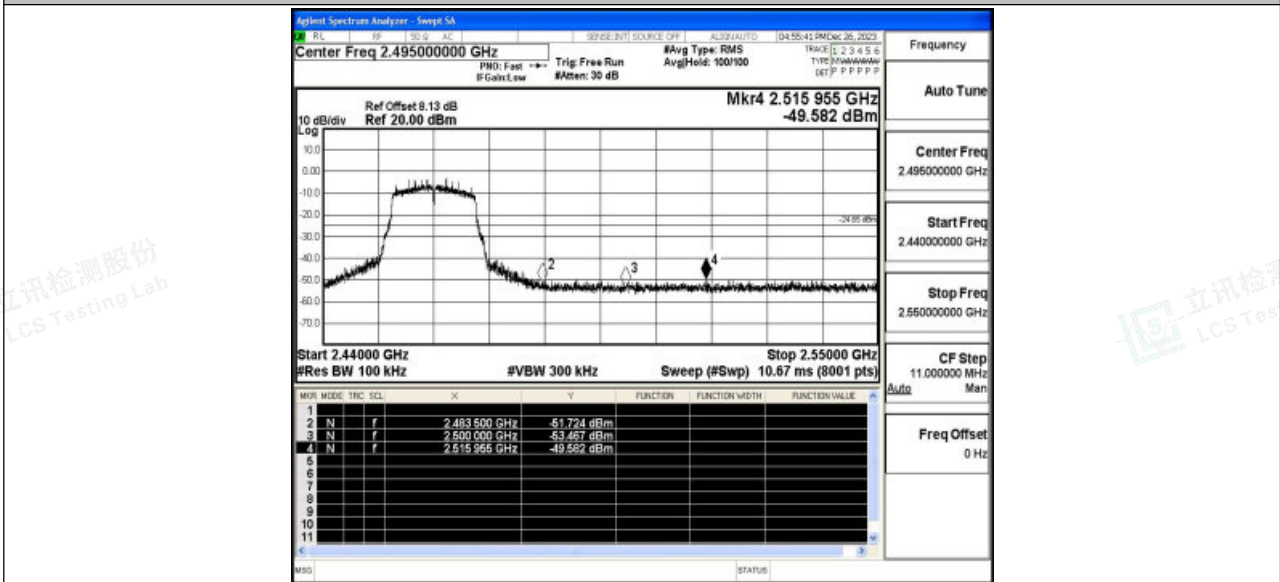
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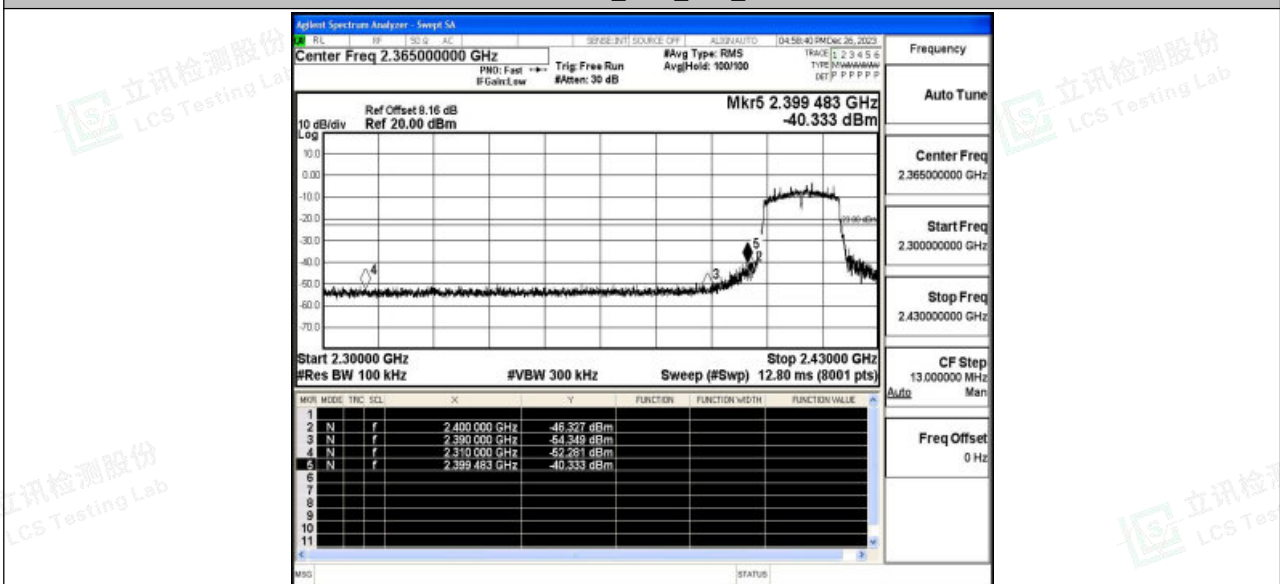
Scan code to check authenticity



11G\_Ant1\_High\_2462

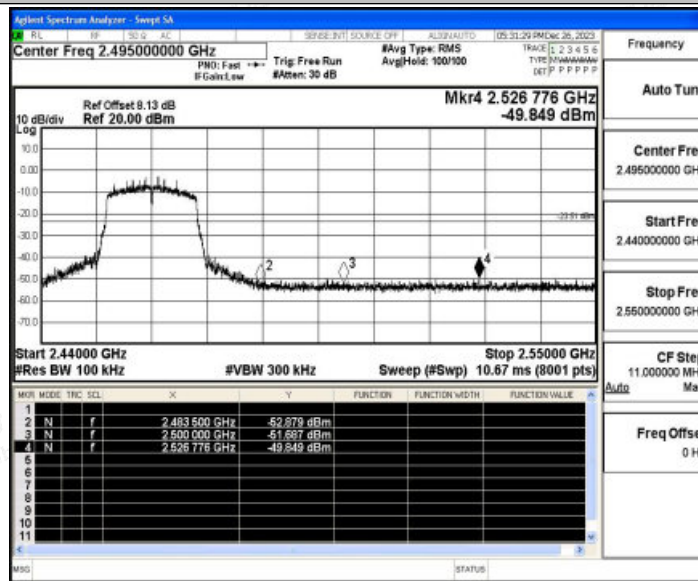


11N20SISO\_Ant1\_Low\_2412

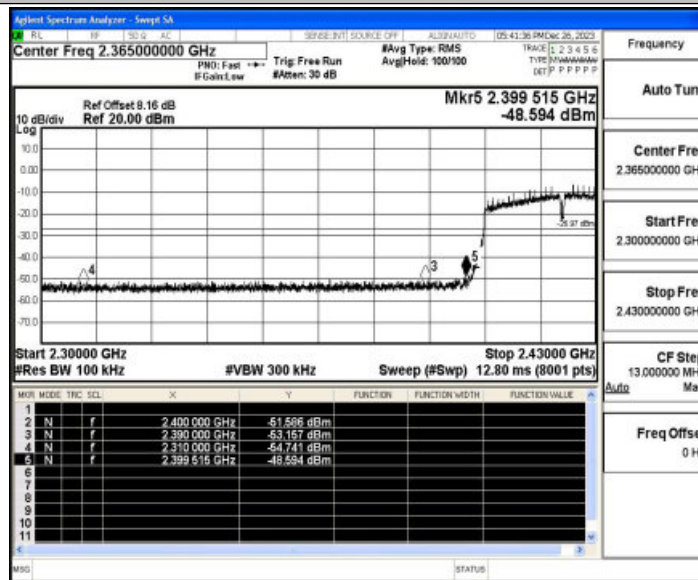




11N20SISO\_Ant1\_High\_2462

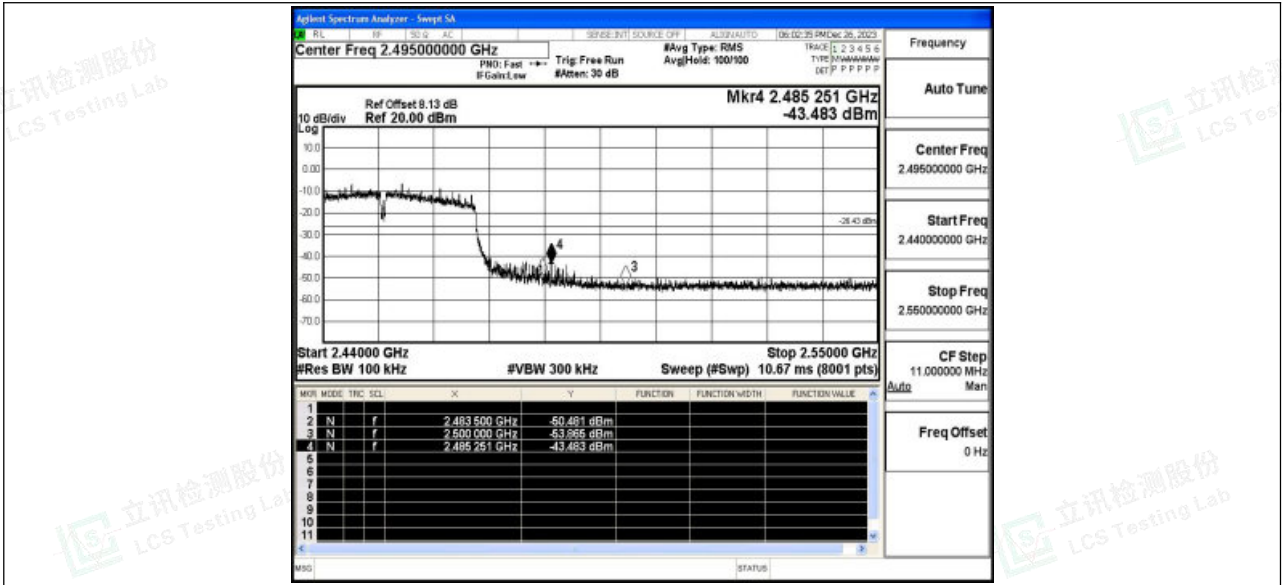


11N40SISO\_Ant1\_Low\_2422



11N40SISO\_Ant1\_High\_2452







### C.5 Conducted Spurious Emission

#### Test Result

TestMode	Antenna	Freq(MHz)	FreqRange [Mhz]	RefLevel [dBm]	Result [dBm]	Limit [dBm]	Verdict
11B	Ant0	2412	30~1000	2.51	-60.15	≤-17.49	PASS
			1000~26500	2.51	-48.28	≤-17.49	PASS
		2437	30~1000	3.06	-61.42	≤-16.94	PASS
			1000~26500	3.06	-49.64	≤-16.94	PASS
		2462	30~1000	3.06	-61.19	≤-16.94	PASS
			1000~26500	3.06	-48.56	≤-16.94	PASS
11G	Ant0	2412	30~1000	-4.17	-61.94	≤-24.17	PASS
			1000~26500	-4.17	-49.59	≤-24.17	PASS
		2437	30~1000	-2.73	-61.78	≤-22.73	PASS
			1000~26500	-2.73	-49.6	≤-22.73	PASS
		2462	30~1000	-2.76	-61.54	≤-22.76	PASS
			1000~26500	-2.76	-49.31	≤-22.76	PASS
11N20SISO	Ant0	2412	30~1000	-3.79	-62.2	≤-23.79	PASS
			1000~26500	-3.79	-48.8	≤-23.79	PASS
		2437	30~1000	-3.12	-61.46	≤-23.12	PASS
			1000~26500	-3.12	-49.38	≤-23.12	PASS
		2462	30~1000	-2.84	-60.87	≤-22.84	PASS
			1000~26500	-2.84	-48.48	≤-22.84	PASS
11N40SISO	Ant0	2422	30~1000	-6.20	-48.33	≤-26.2	PASS
			1000~26500	-6.20	-49.15	≤-26.2	PASS
		2437	30~1000	-7.07	-61.95	≤-27.07	PASS
			1000~26500	-7.07	-48.93	≤-27.07	PASS
		2452	30~1000	-6.48	-61.29	≤-26.48	PASS
			1000~26500	-6.48	-49.34	≤-26.48	PASS

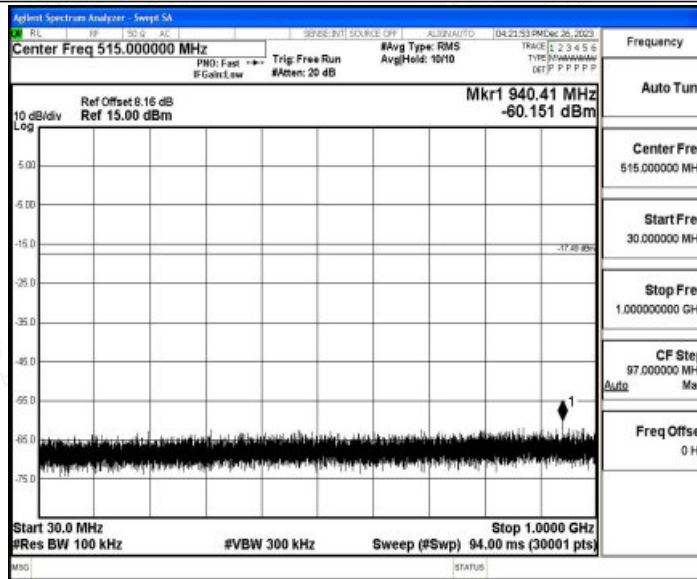




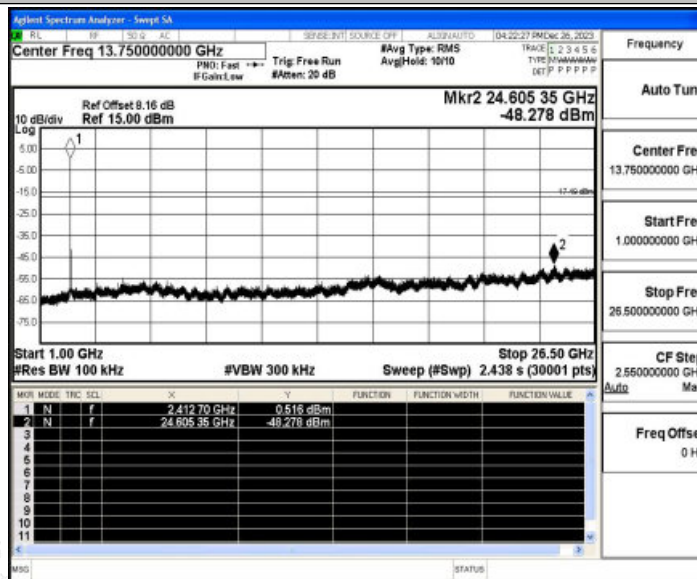


### Test Graphs

11B\_Ant0\_2412\_30~1000

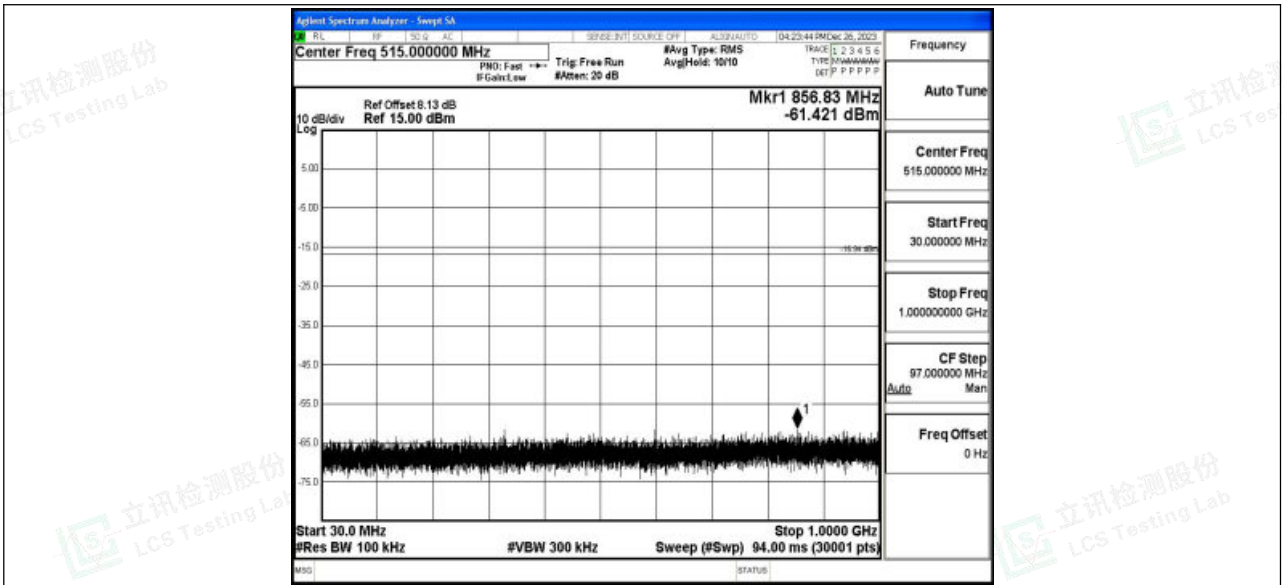


11B\_Ant0\_2412\_1000~26500

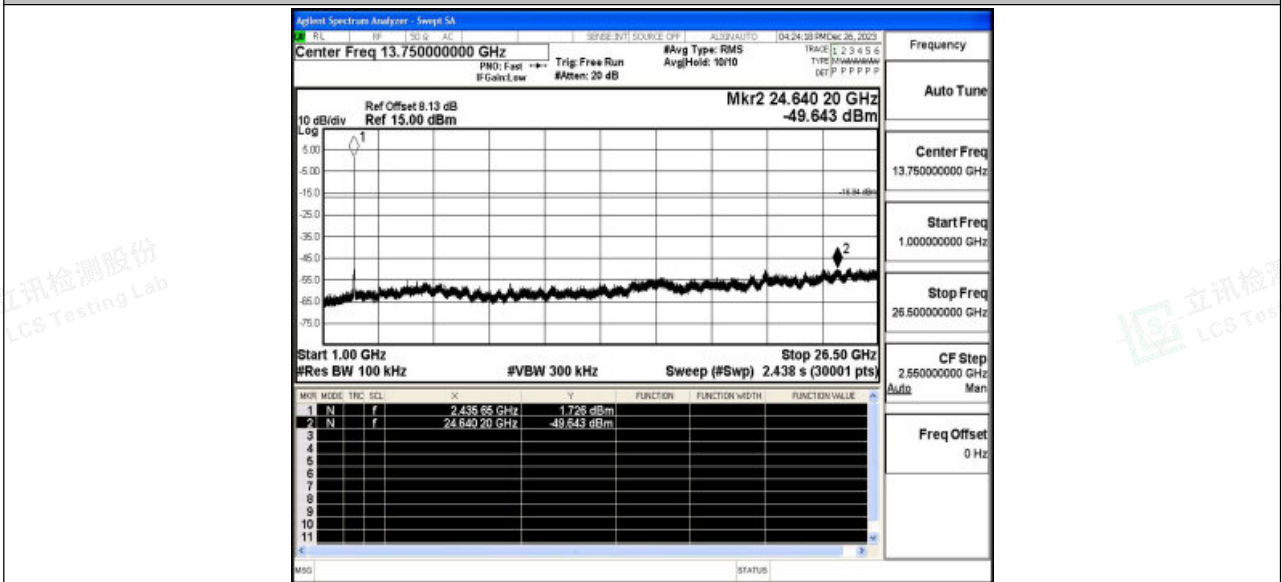


11B\_Ant0\_2437\_30~1000

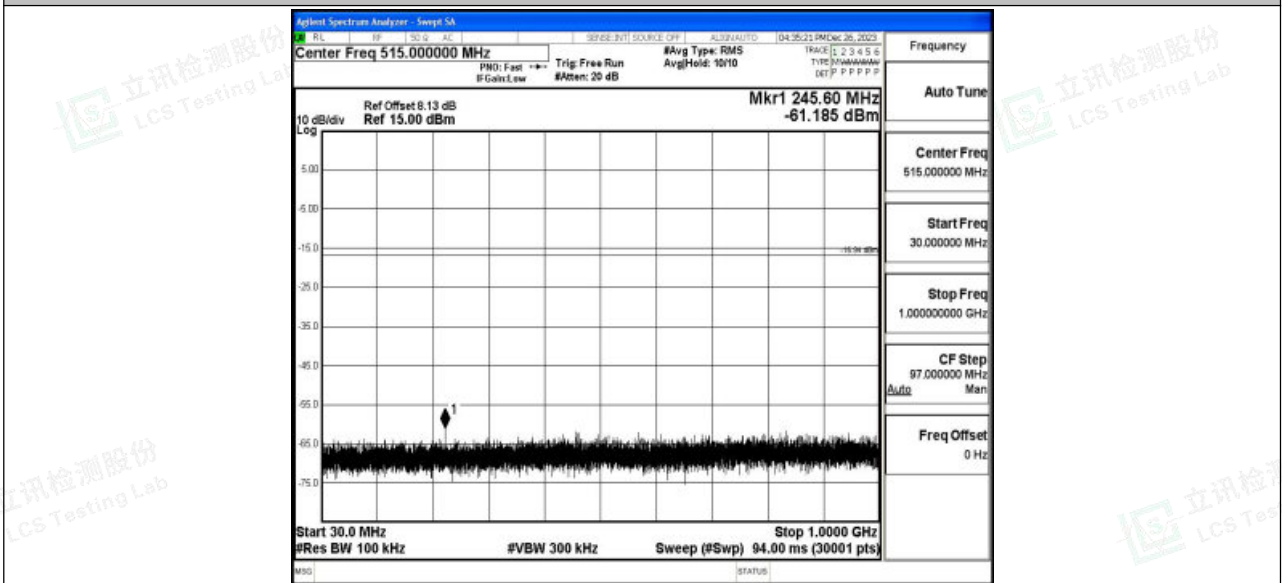




11B\_Ant0\_2437\_1000~26500

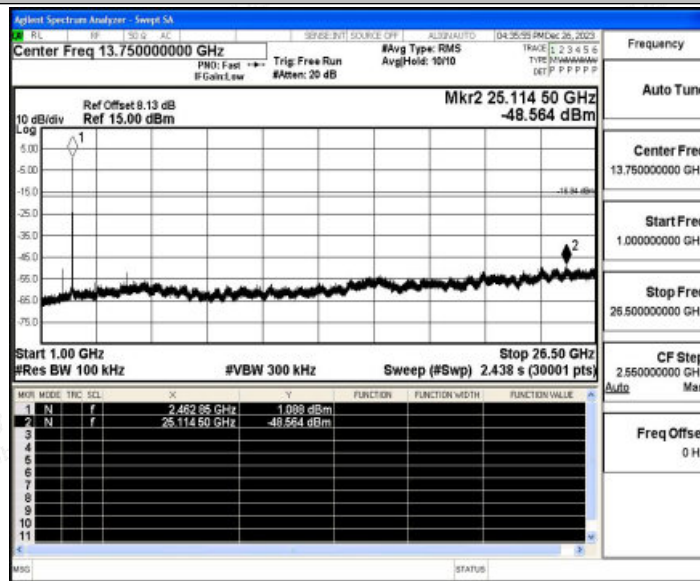


11B\_Ant0\_2462\_30~1000

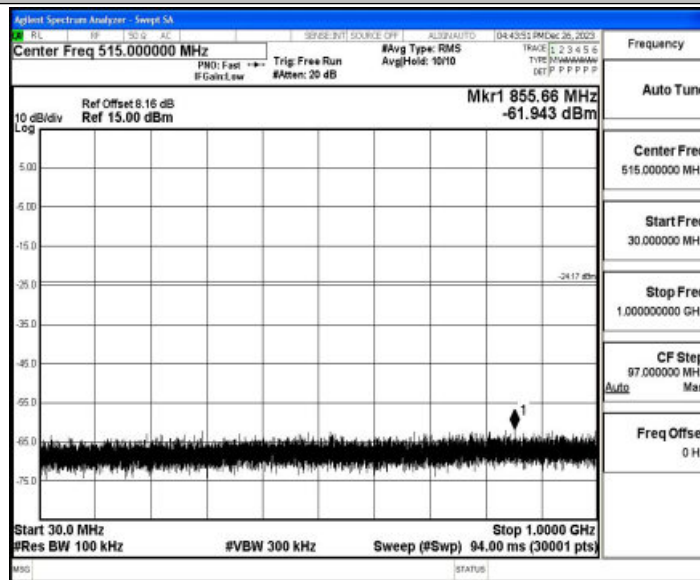




11B\_Ant0\_2462\_1000~26500

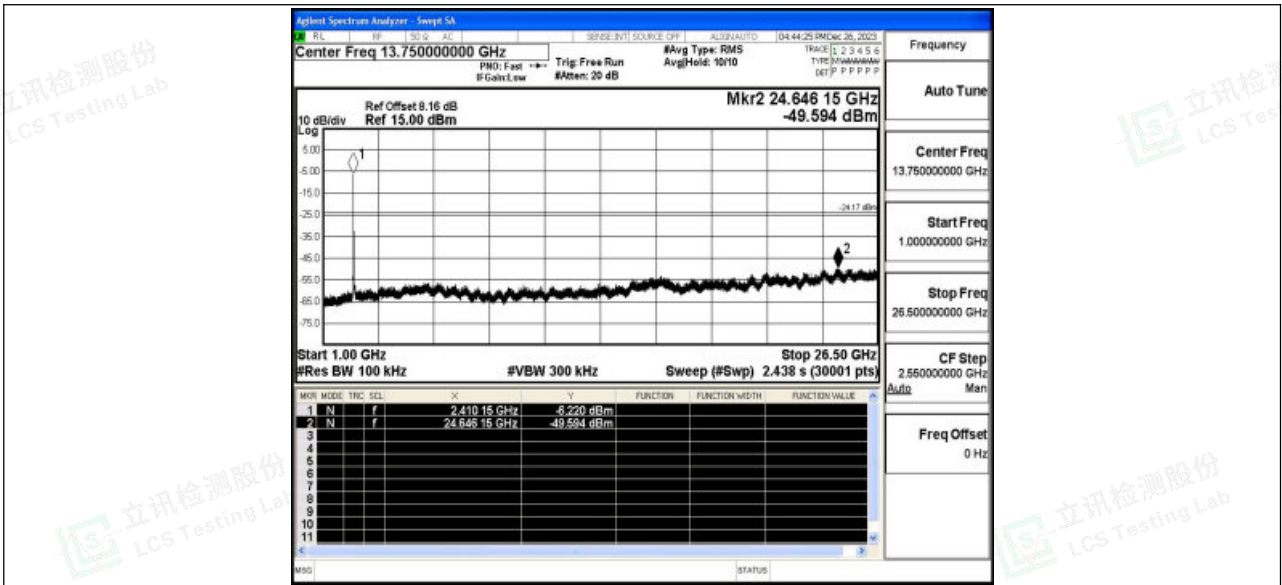


11G\_Ant0\_2412\_30~1000

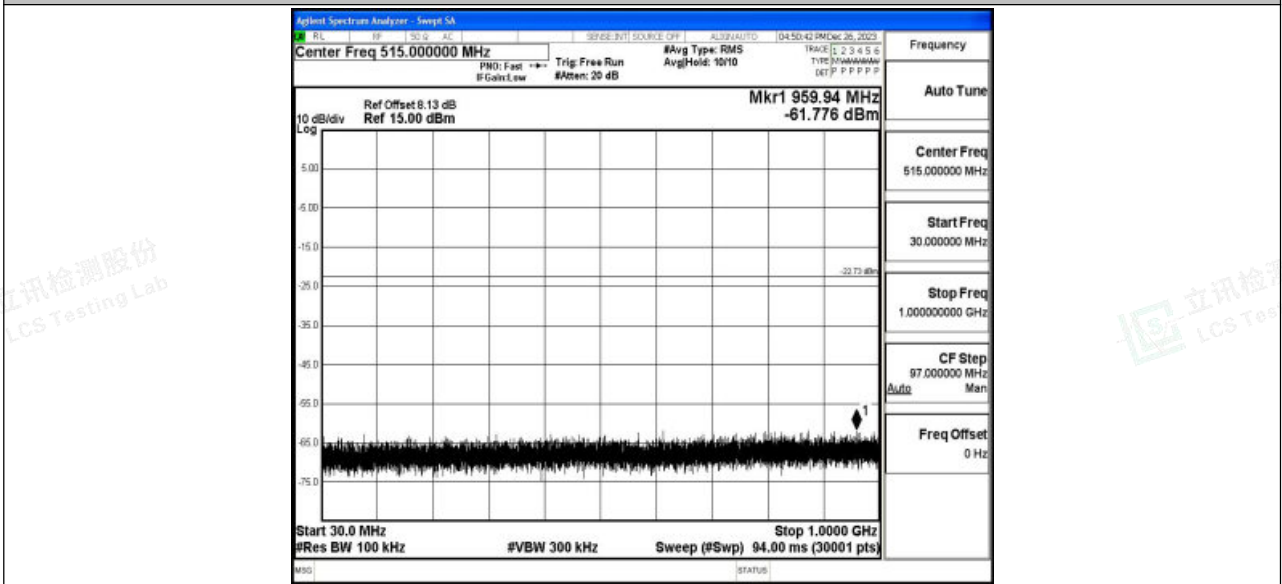


11G\_Ant0\_2412\_1000~26500

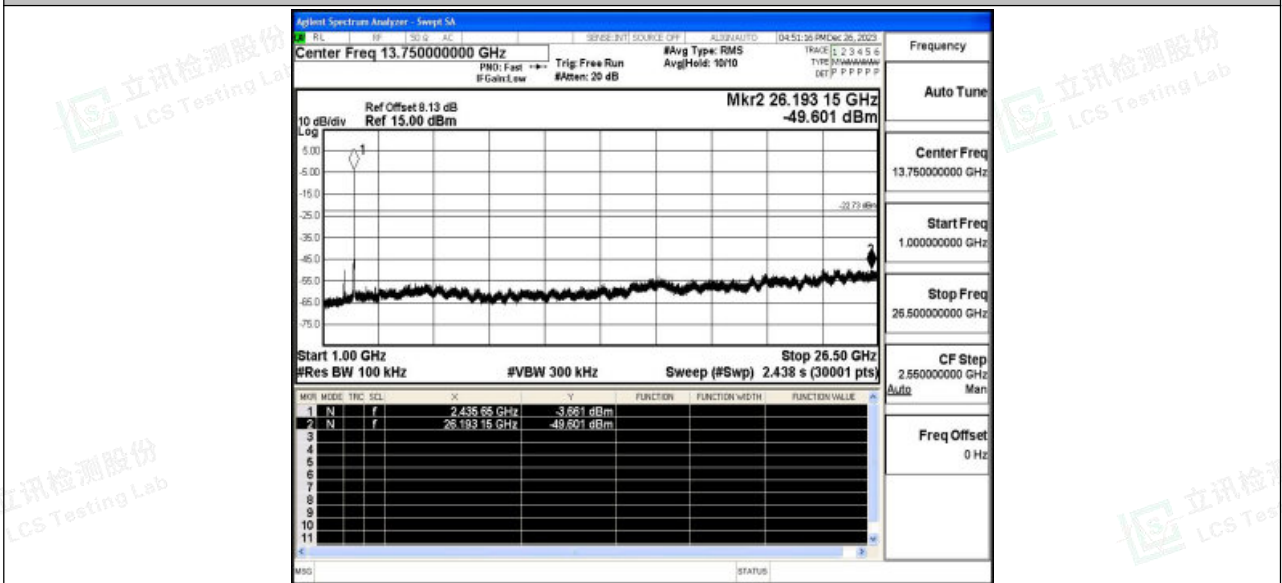




11G\_Ant0\_2437\_30~1000



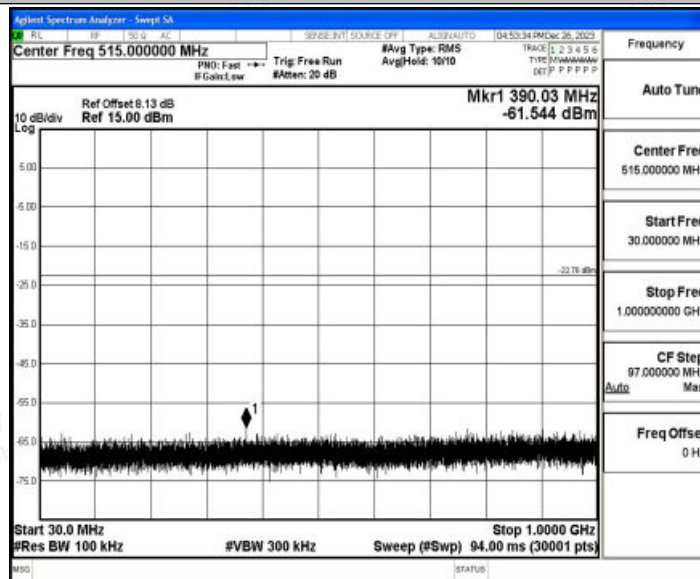
11G\_Ant0\_2437\_1000~26500



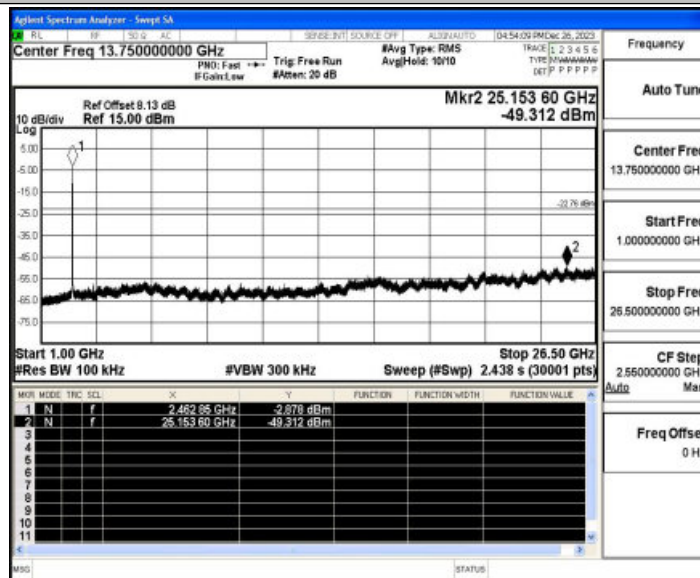




11G\_Ant0\_2462\_30~1000



11G\_Ant0\_2462\_1000~26500



11N20SISO\_Ant0\_2412\_30~1000



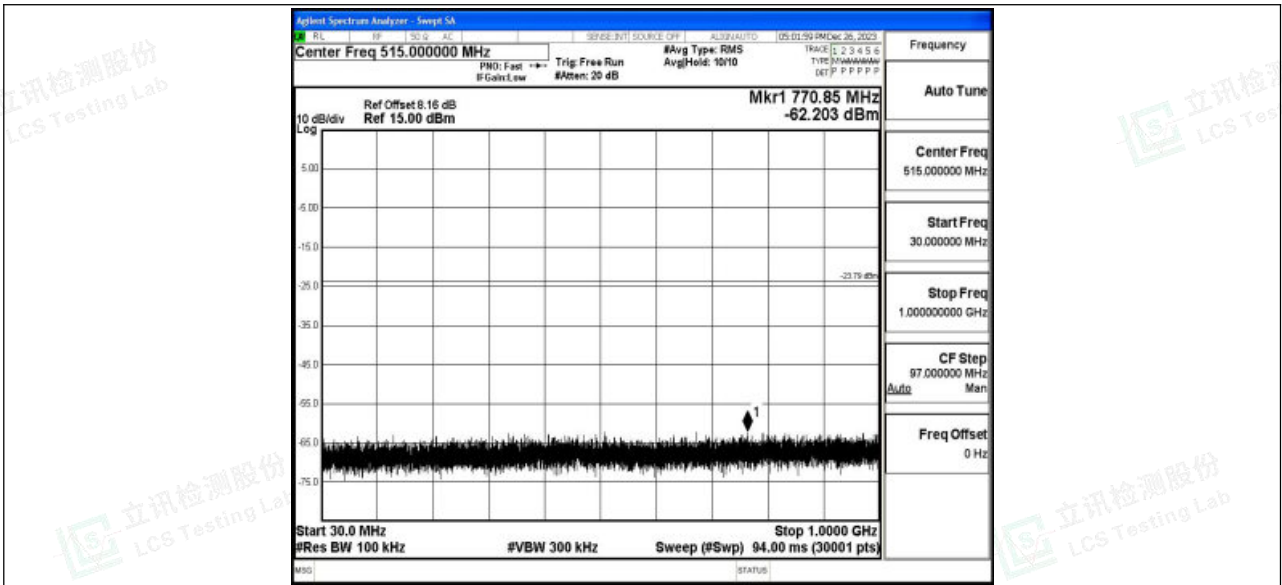
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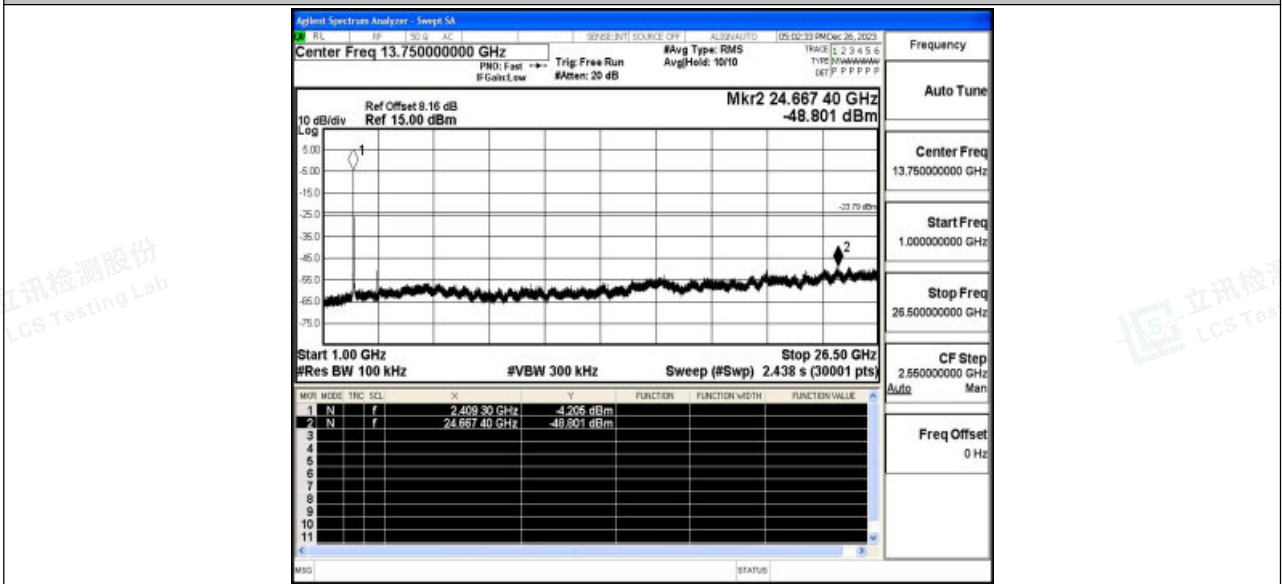
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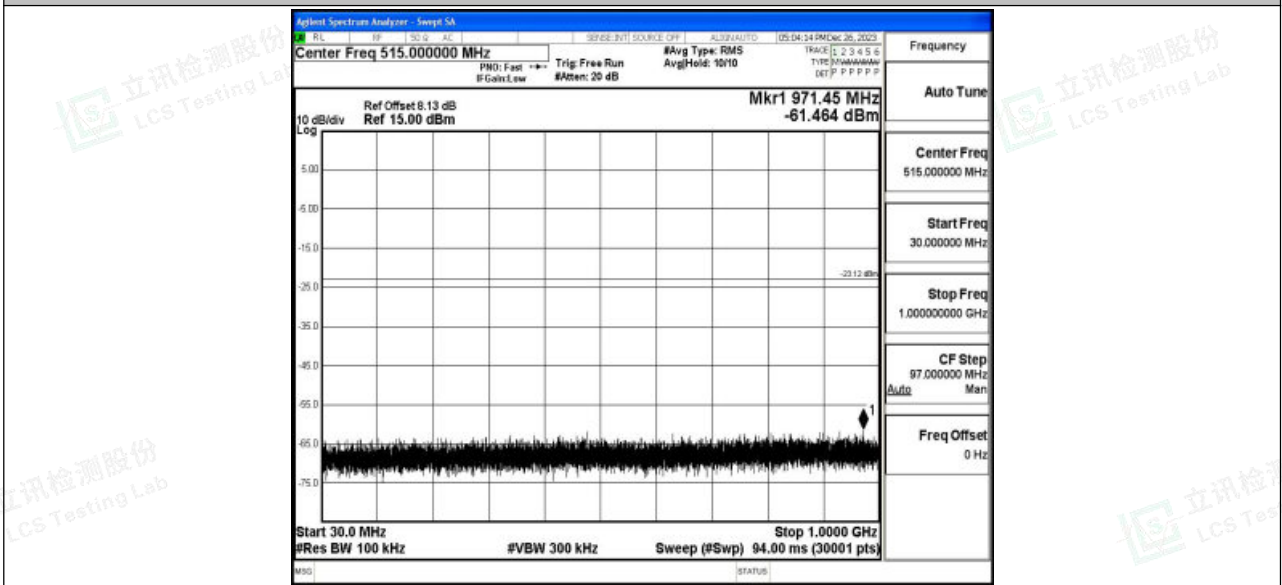




11N20SISO\_Ant0\_2412\_1000~26500

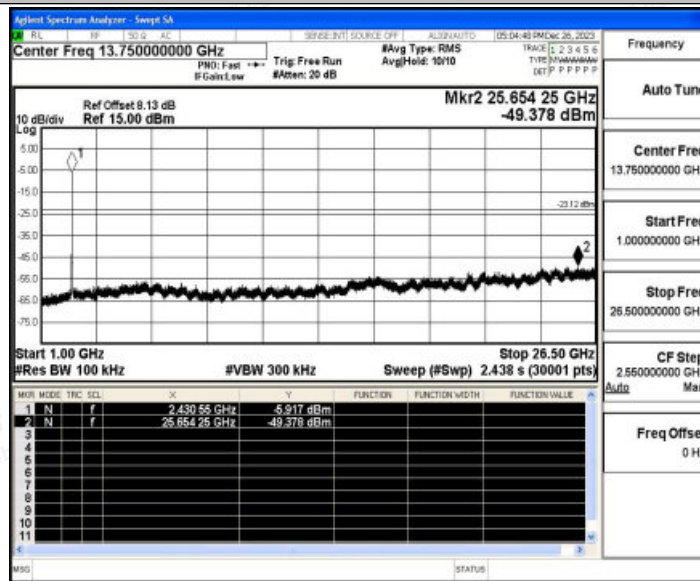


11N20SISO\_Ant0\_2437\_30~1000

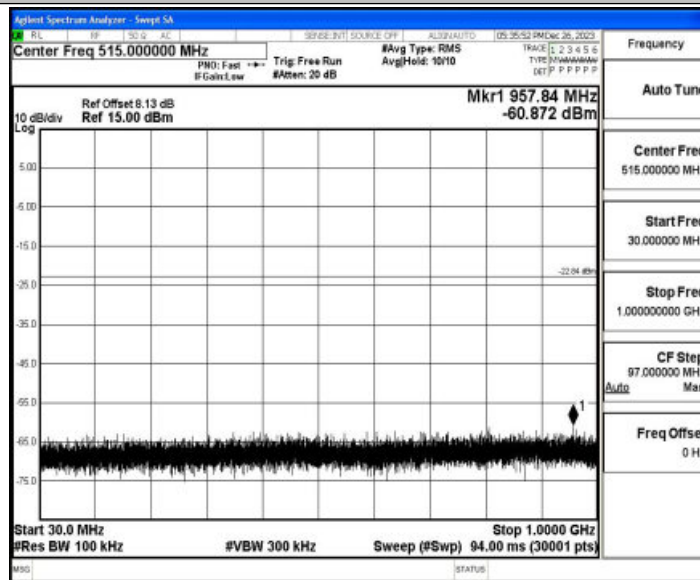




11N20SISO\_Ant0\_2437\_1000~26500

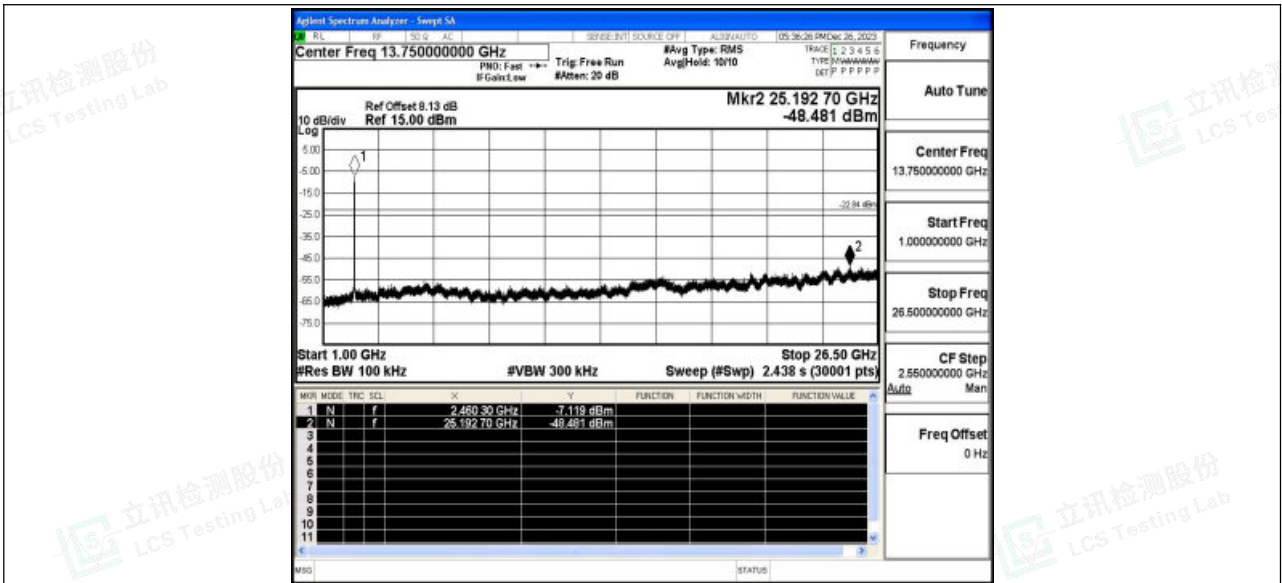


11N20SISO\_Ant0\_2462\_30~1000

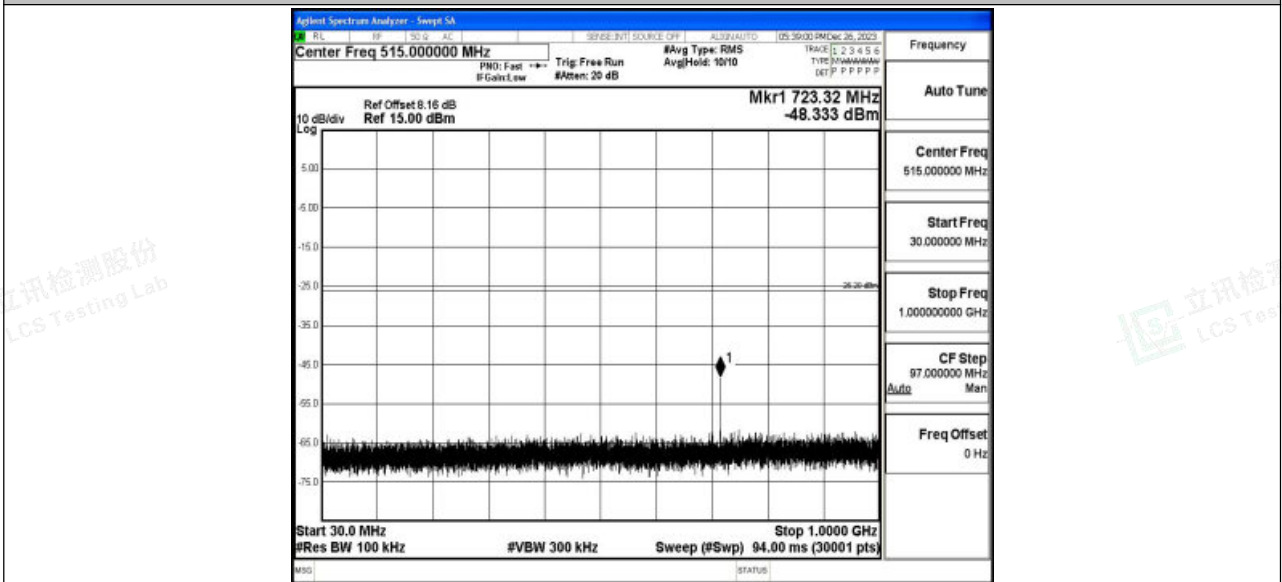


11N20SISO\_Ant0\_2462\_1000~26500

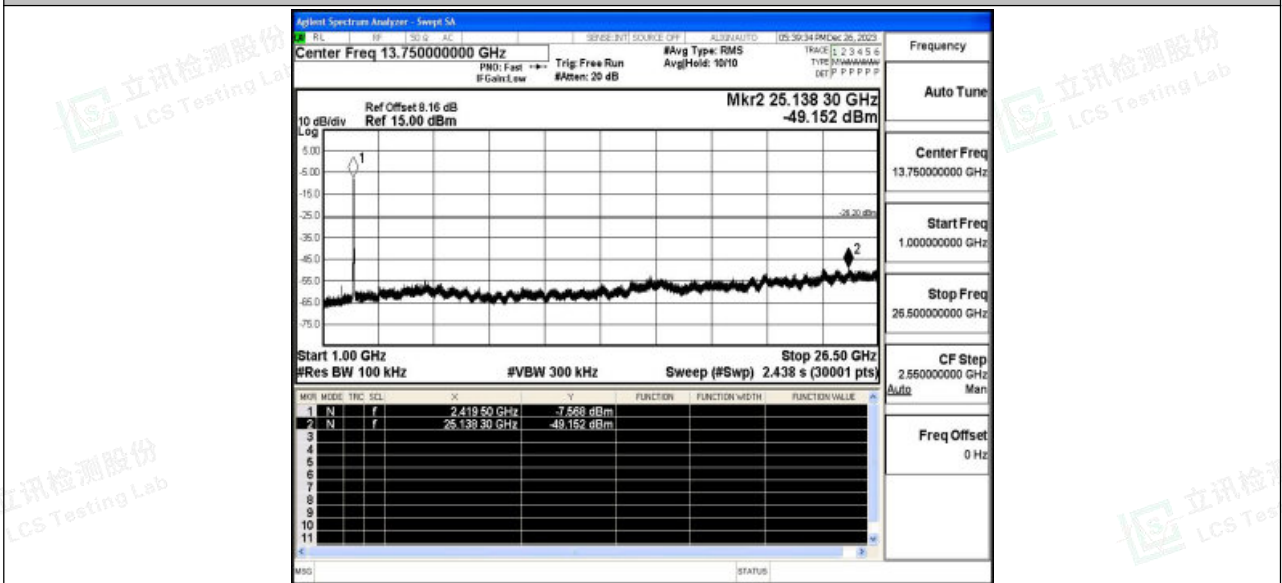




11N40SISO\_Ant0\_2422\_30~1000

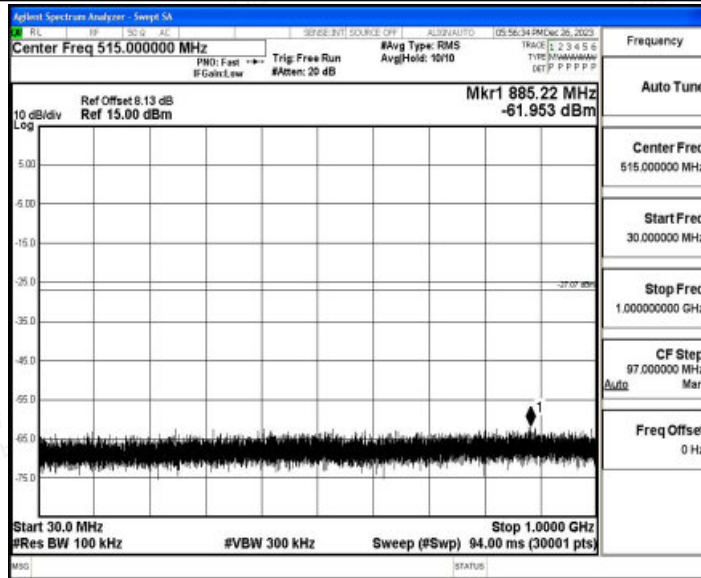


11N40SISO\_Ant0\_2422\_1000~26500

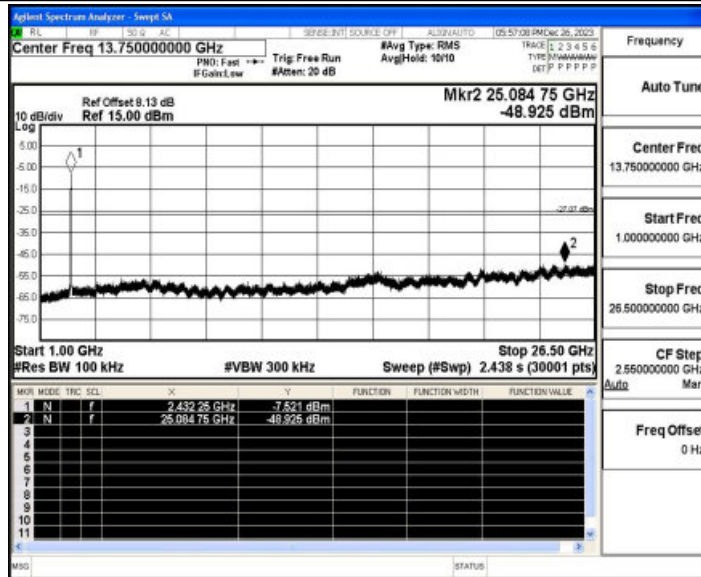




11N40SISO\_Ant0\_2437\_30~1000



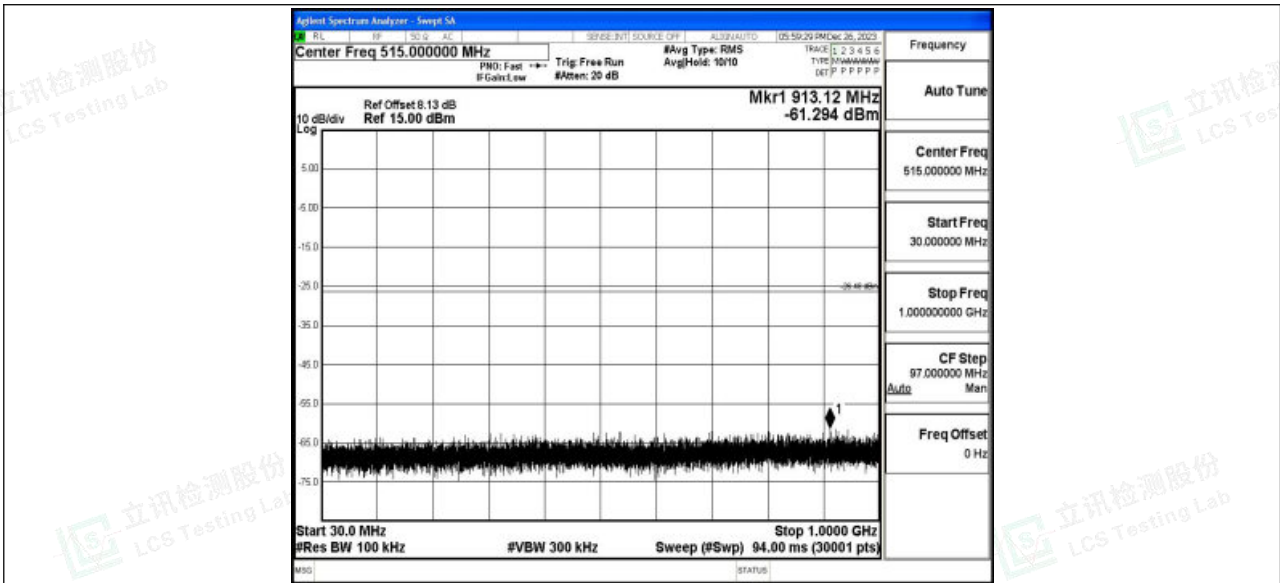
11N40SISO\_Ant0\_2437\_1000~26500



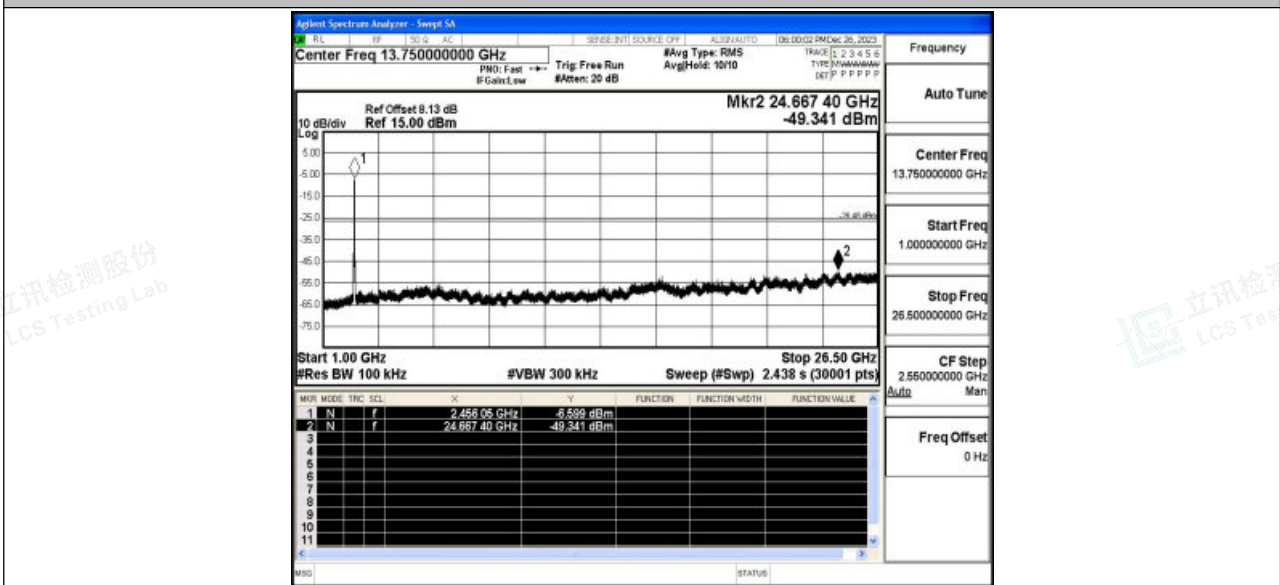
11N40SISO\_Ant0\_2452\_30~1000







11N40SISO\_Ant0\_2452\_1000~26500







### Test Result

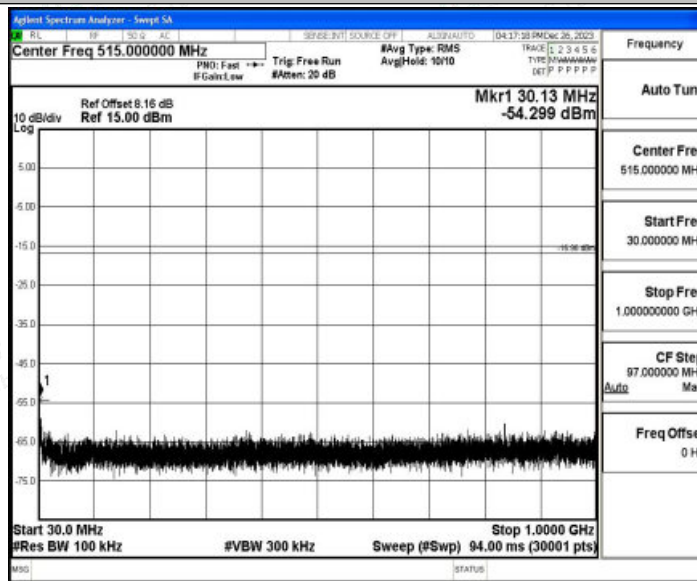
TestMode	Antenna	Freq(MHz)	FreqRange [Mhz]	RefLevel [dBm]	Result [dBm]	Limit [dBm]	Verdict
11B	Ant1	2412	30~1000	3.04	-54.3	≤-16.96	PASS
			1000~26500	3.04	-49.15	≤-16.96	PASS
		2437	30~1000	3.49	-42.47	≤-16.51	PASS
			1000~26500	3.49	-49.8	≤-16.51	PASS
		2462	30~1000	2.89	-61.56	≤-17.11	PASS
			1000~26500	2.89	-48.77	≤-17.11	PASS
11G	Ant1	2412	30~1000	-3.87	-61.84	≤-23.87	PASS
			1000~26500	-3.87	-49.2	≤-23.87	PASS
		2437	30~1000	-3.36	-61.73	≤-23.36	PASS
			1000~26500	-3.36	-49.25	≤-23.36	PASS
		2462	30~1000	-4.65	-61.14	≤-24.65	PASS
			1000~26500	-4.65	-49.17	≤-24.65	PASS
11N20SISO	Ant1	2412	30~1000	-3.08	-60.89	≤-23.08	PASS
			1000~26500	-3.08	-49.17	≤-23.08	PASS
		2437	30~1000	-3.76	-61.74	≤-23.76	PASS
			1000~26500	-3.76	-49.22	≤-23.76	PASS
		2462	30~1000	-3.51	-61.07	≤-23.51	PASS
			1000~26500	-3.51	-49.54	≤-23.51	PASS
11N40SISO	Ant1	2422	30~1000	-6.97	-61.01	≤-26.97	PASS
			1000~26500	-13.67	-48.46	≤-33.67	PASS
		2437	30~1000	-7.32	-61.5	≤-27.32	PASS
			1000~26500	-7.32	-48.54	≤-27.32	PASS
		2452	30~1000	-6.43	-61.43	≤-26.43	PASS
			1000~26500	-6.43	-49.74	≤-26.43	PASS



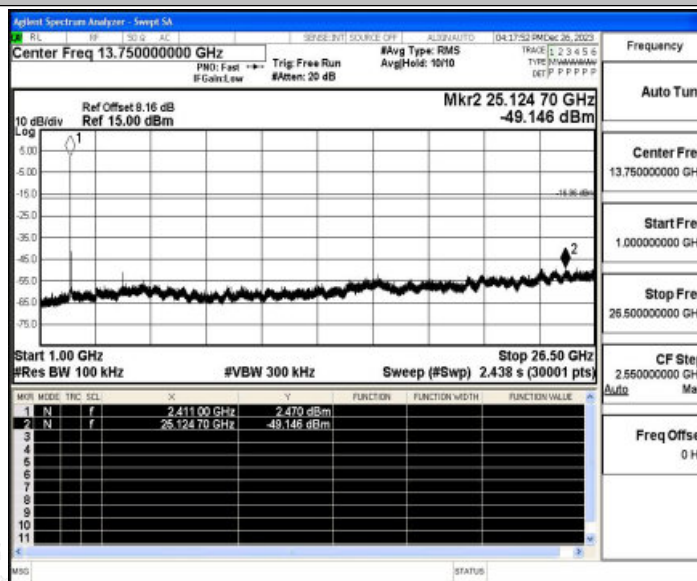


### Test Graphs

11B\_Ant1\_2412\_30~1000

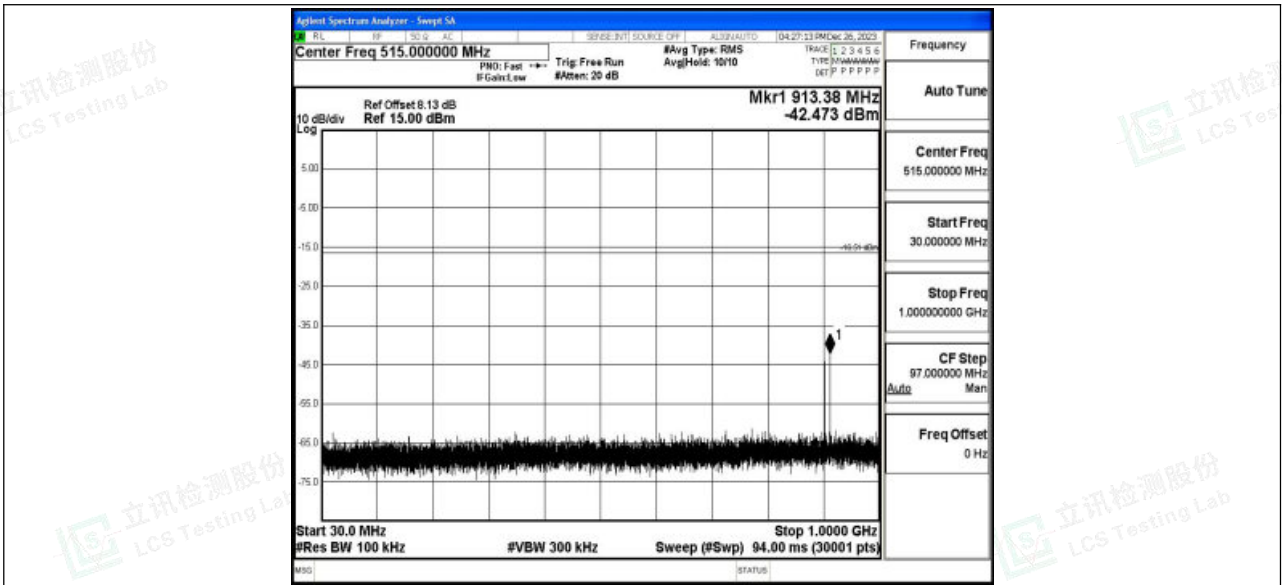


11B\_Ant1\_2412\_1000~26500

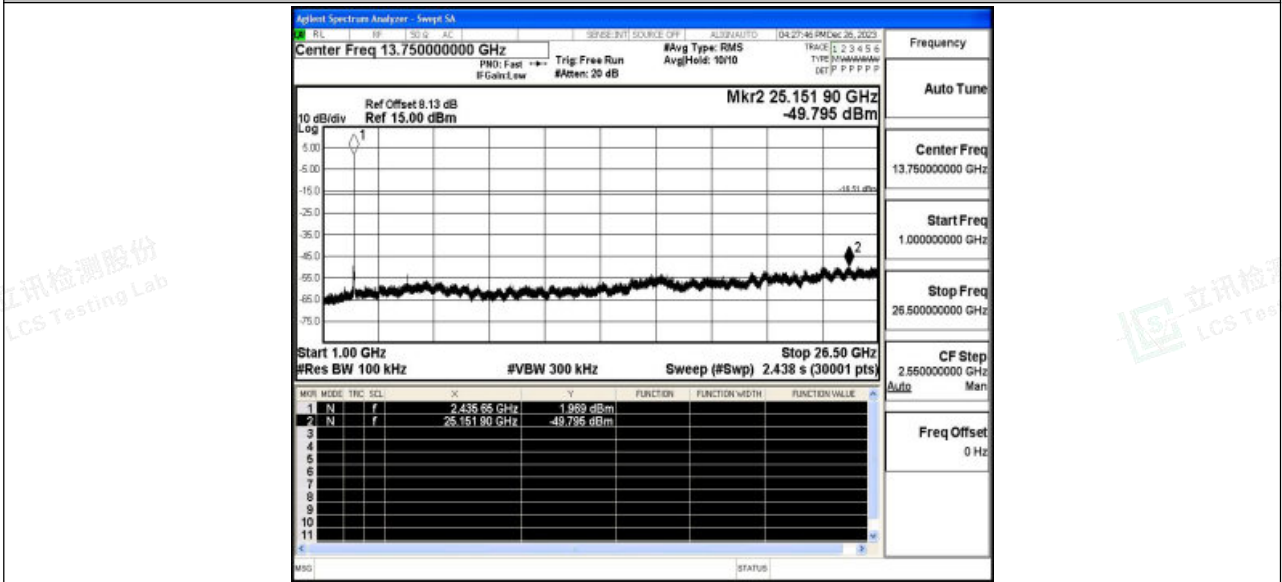


11B\_Ant1\_2437\_30~1000

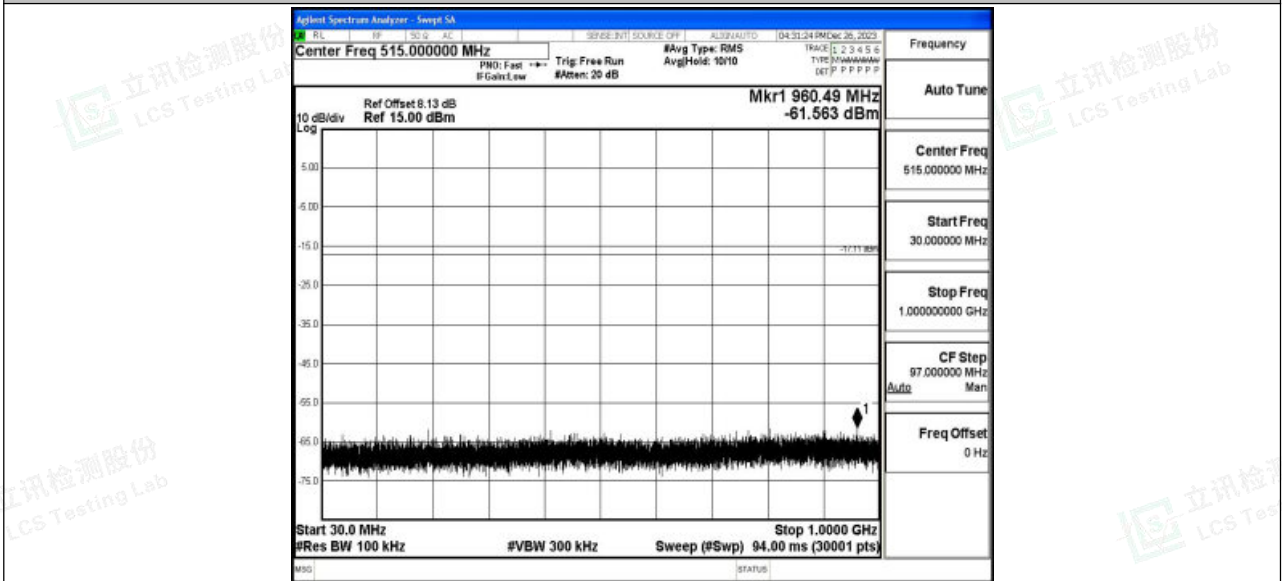




11B\_Ant1\_2437\_1000~26500

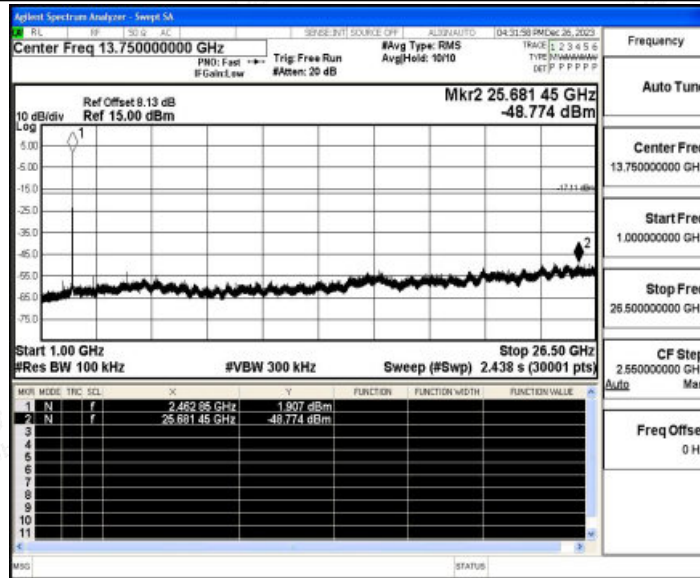


11B\_Ant1\_2462\_30~1000

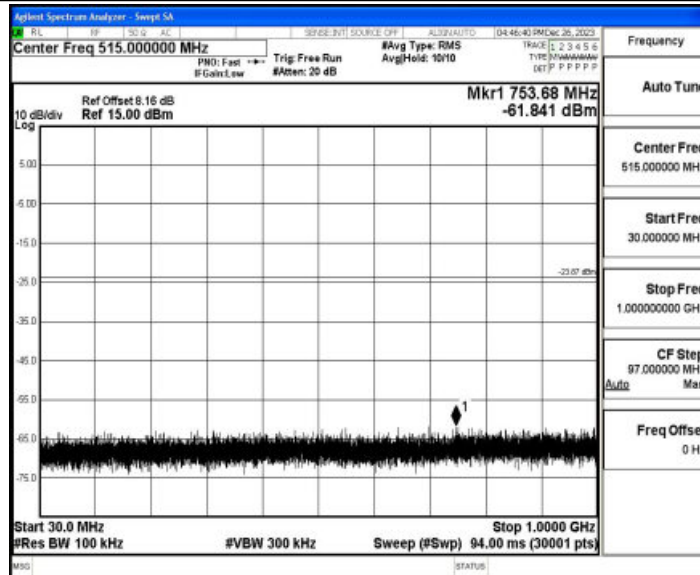




11B\_Ant1\_2462\_1000~26500



11G\_Ant1\_2412\_30~1000



11G\_Ant1\_2412\_1000~26500

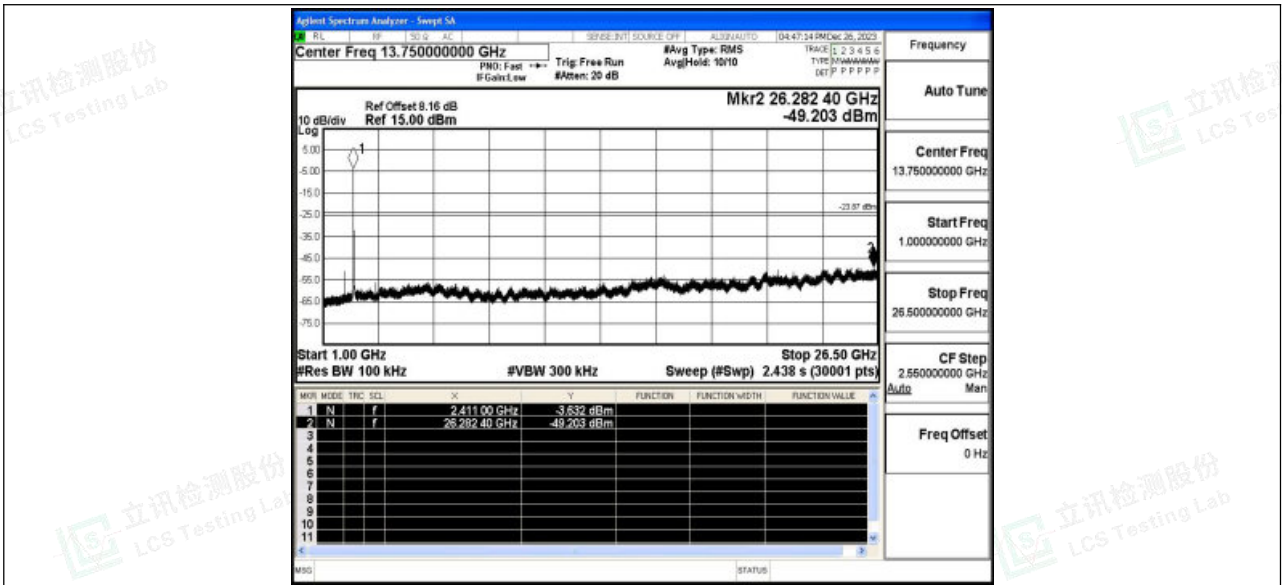


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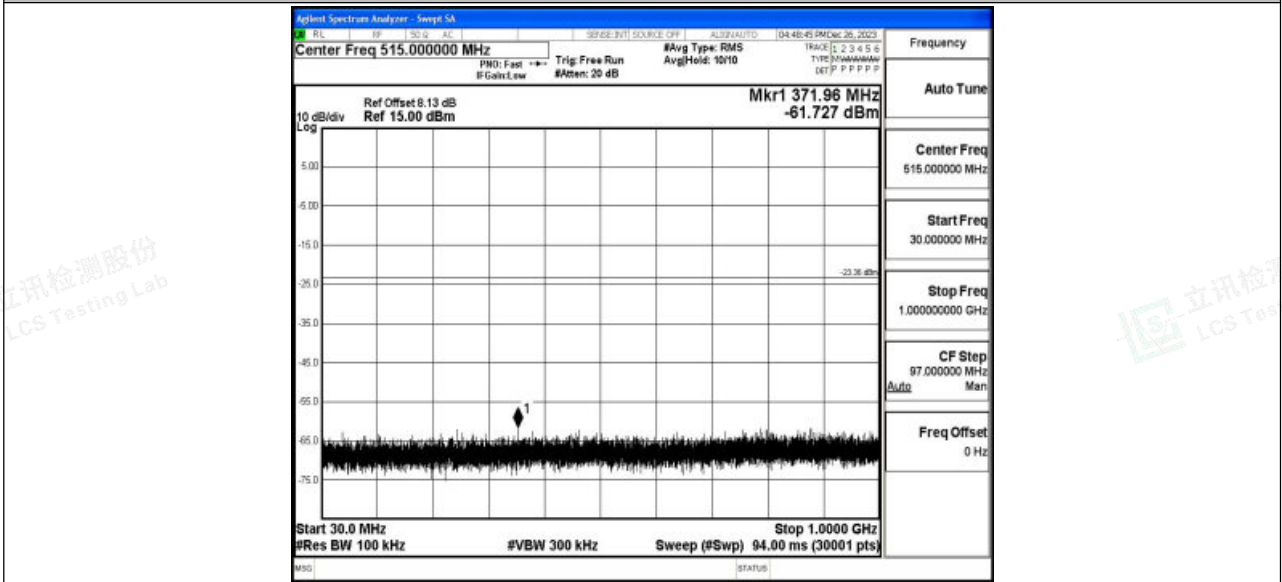
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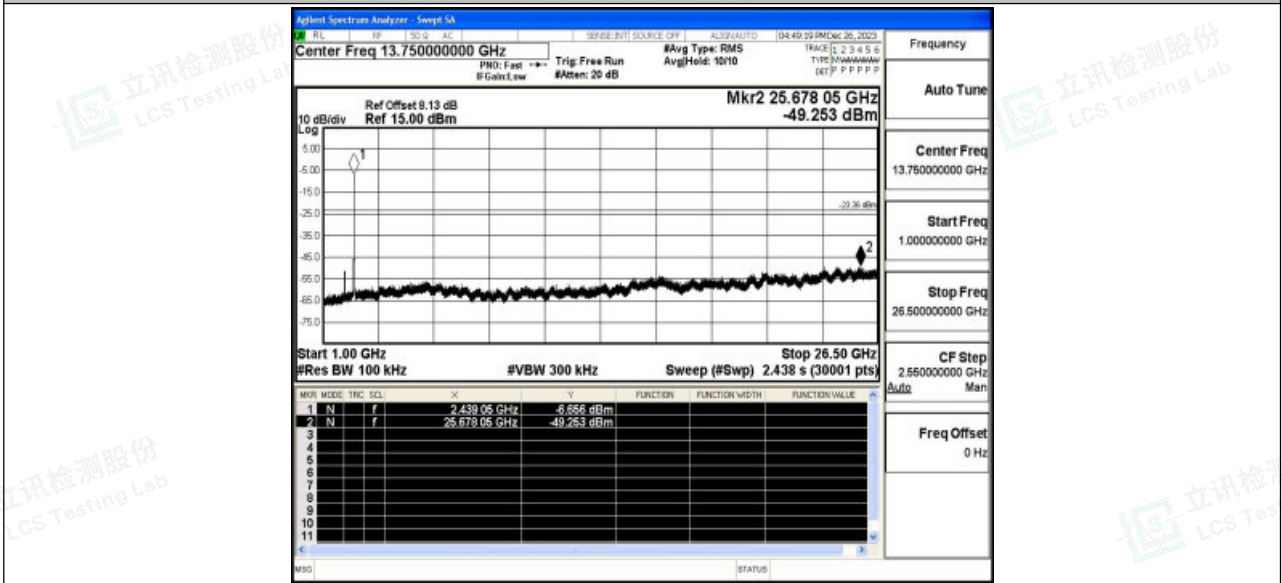
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11G\_Ant1\_2437\_30~1000



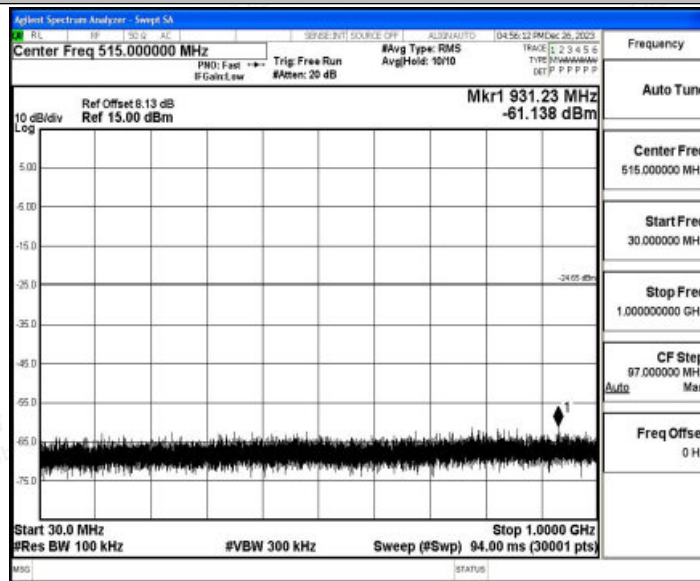
11G\_Ant1\_2437\_1000~26500



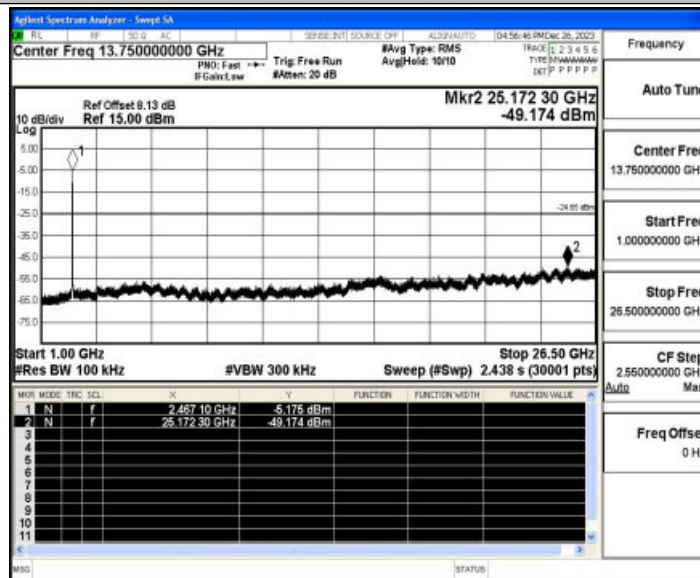




11G\_Ant1\_2462\_30~1000



11G\_Ant1\_2462\_1000~26500



11N20SISO\_Ant1\_2412\_30~1000

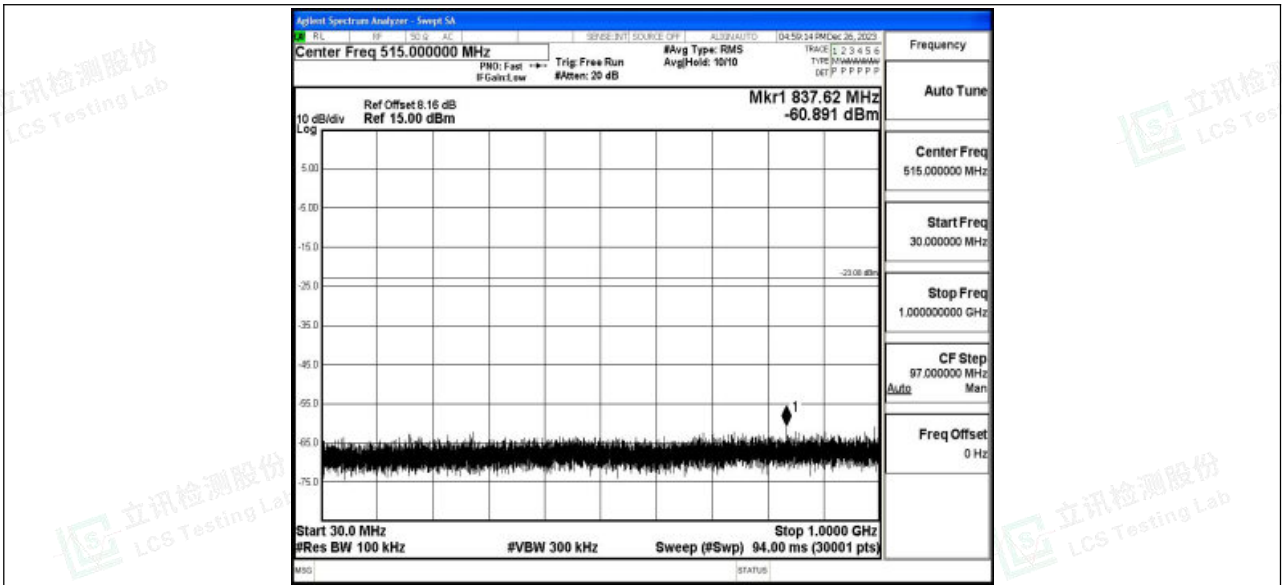


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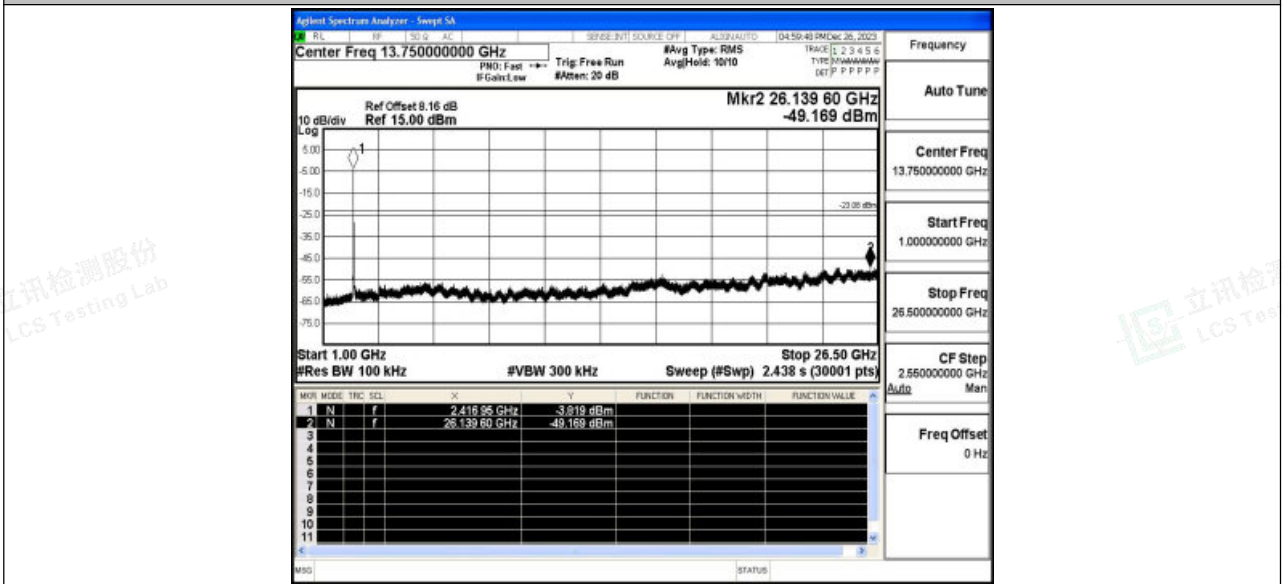
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11N20SISO\_Ant1\_2412\_1000~26500



11N20SISO\_Ant1\_2437\_30~1000

