



Appendix D

RF Test Data for 5.2GWIFI (Conducted Measurement)

Product Name: Tablet

Test Model: 10LA2

Environmental Conditions

Temperature:	23.8° C
Relative Humidity:	52.1%
ATM Pressure:	100.0 kPa
Test Engineer:	Nick Peng
Supervised by:	Ling Zhu





D.1 Emission Bandwidth

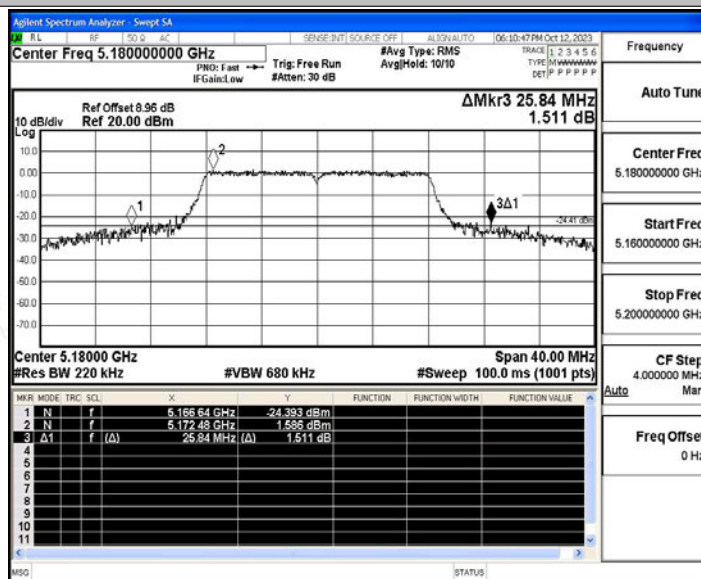
Test Result

TestMode	Antenna	Frequency[MHz]	26db EBW [MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
11A	Ant1	5180	25.840	5166.640	5192.480	---	---
		5220	28.120	5205.400	5233.520	---	---
		5240	27.800	5225.160	5252.960	---	---
11N20SISO	Ant1	5180	31.640	5164.120	5195.760	---	---
		5220	29.280	5205.840	5235.120	---	---
		5240	28.760	5225.560	5254.320	---	---
11N40SISO	Ant1	5190	46.400	5167.280	5213.680	---	---
		5230	47.440	5206.800	5254.240	---	---
11AC20SISO	Ant1	5180	31.440	5164.240	5195.680	---	---
		5220	30.200	5205.160	5235.360	---	---
		5240	29.560	5225.360	5254.920	---	---
11AC40SISO	Ant1	5190	50.000	5164.640	5214.640	---	---
		5230	47.120	5206.960	5254.080	---	---
11AC80SISO	Ant1	5210	84.800	5168.560	5253.360	---	---

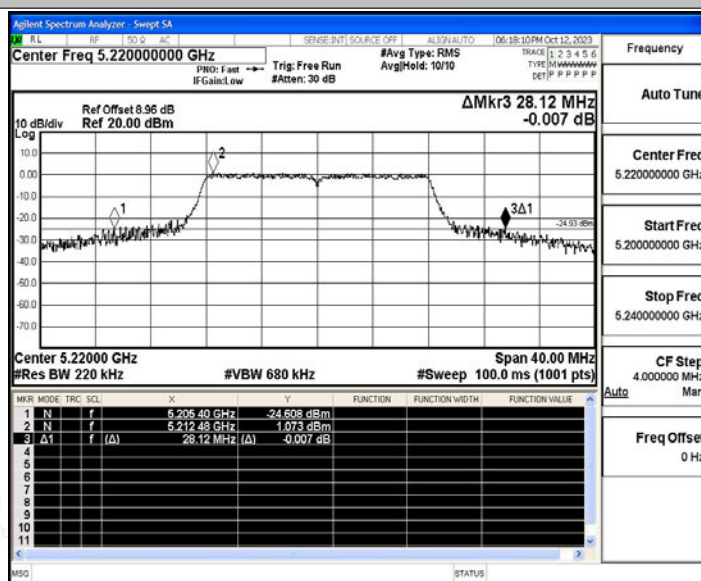




11A Ant1 5180



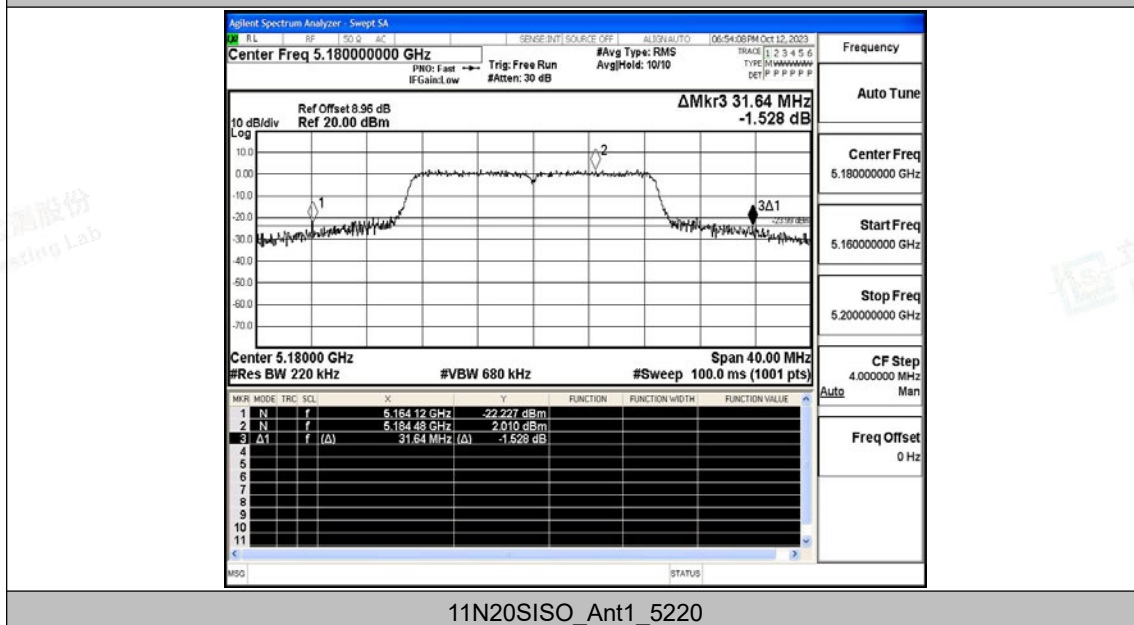
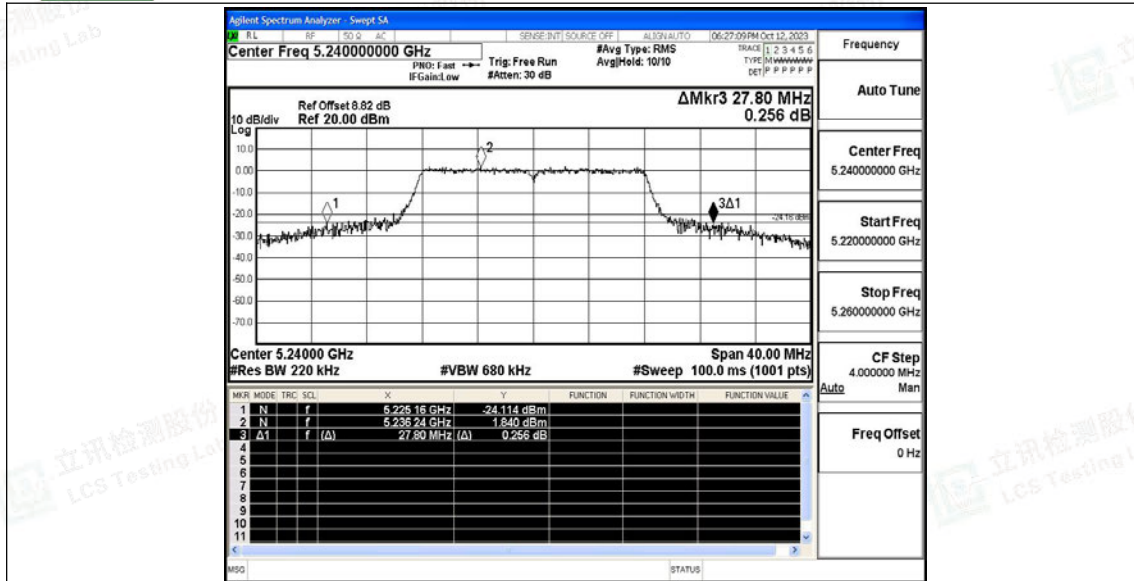
11A Ant1 5220

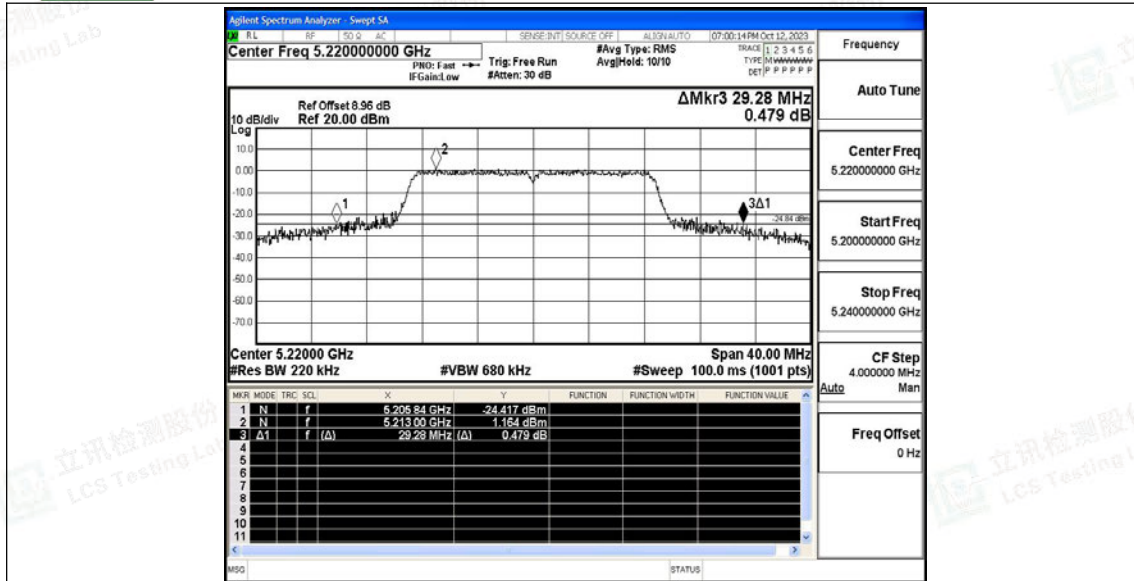


11A Ant1 5240

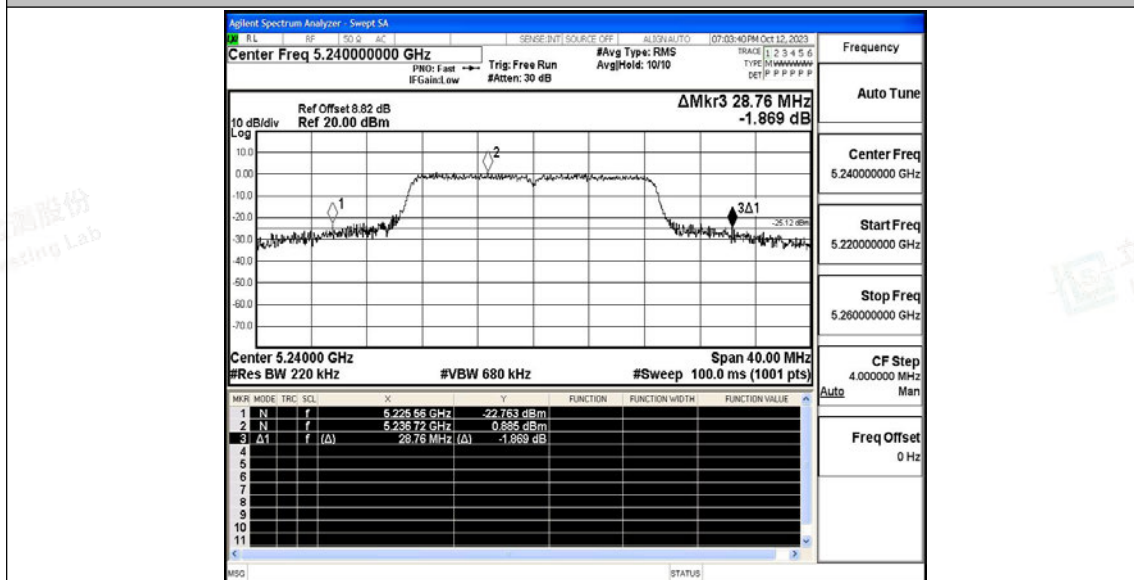


Shenzhen LCS Compliance Testing Laboratory Ltd.
Add: 101, 201 Bldg A & 301 Bldg C, Juji Industrial Park Yabianxueziwei, Shajing Street, Baoan District, Shenzhen,
518000, China
Tel: +(86) 0755-82591330 | E-mail: webmaster@lcs-cert.com | Web: www.lcs-cert.com
Scan code to check authenticity



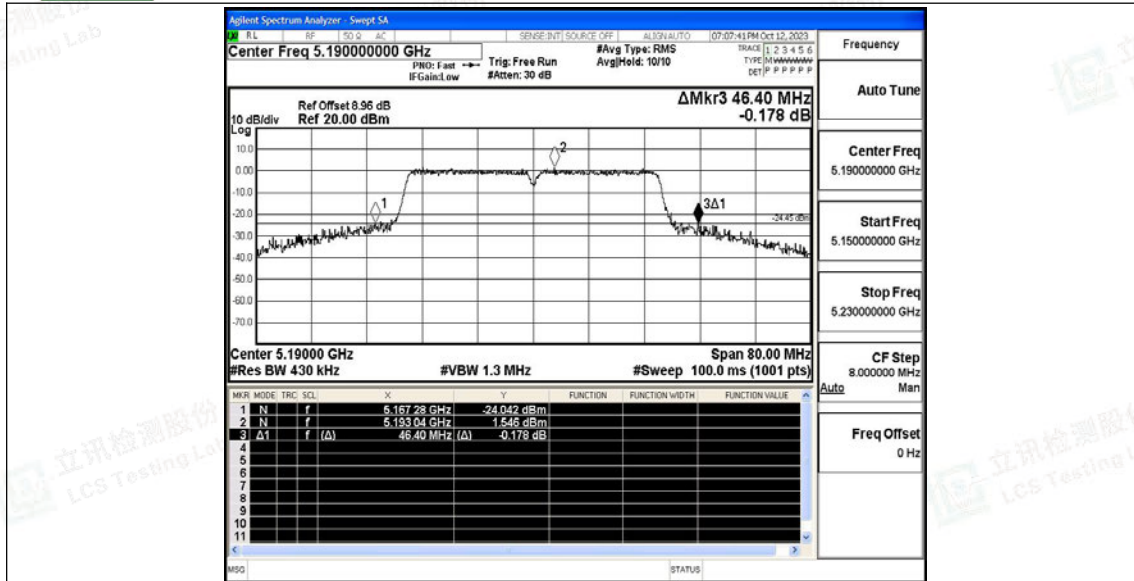


11N20SISO_Ant1_5240

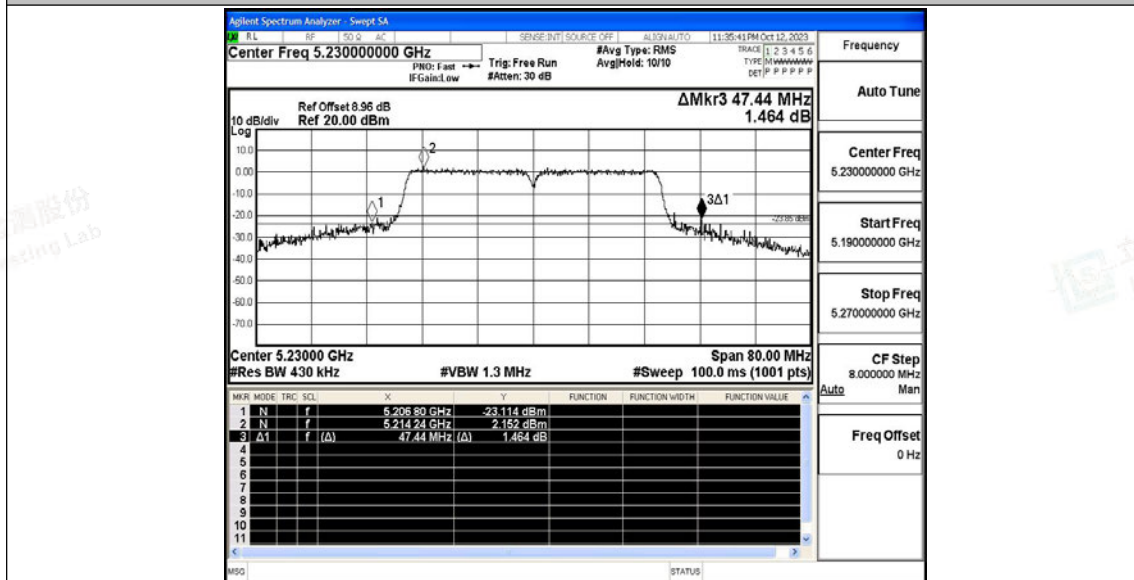


11N40SISO_Ant1_5190



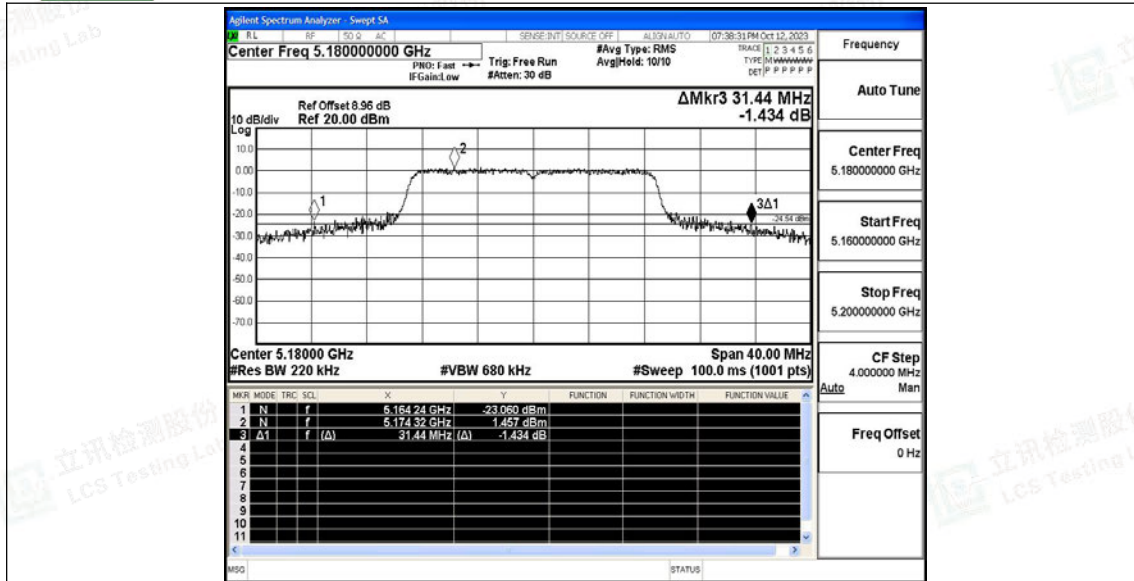


11N40SISO_Ant1_5230

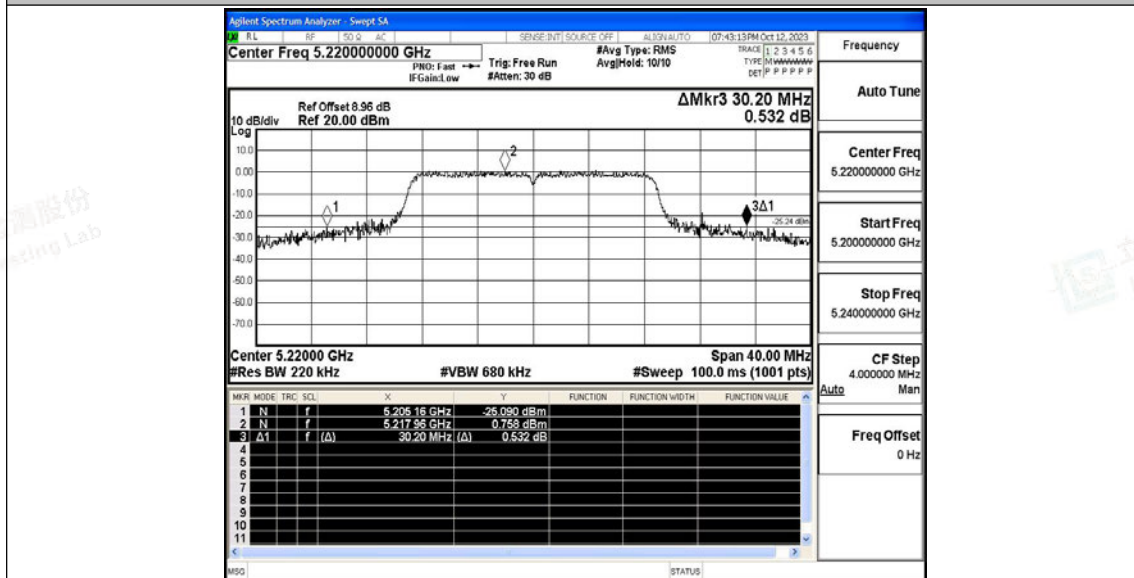


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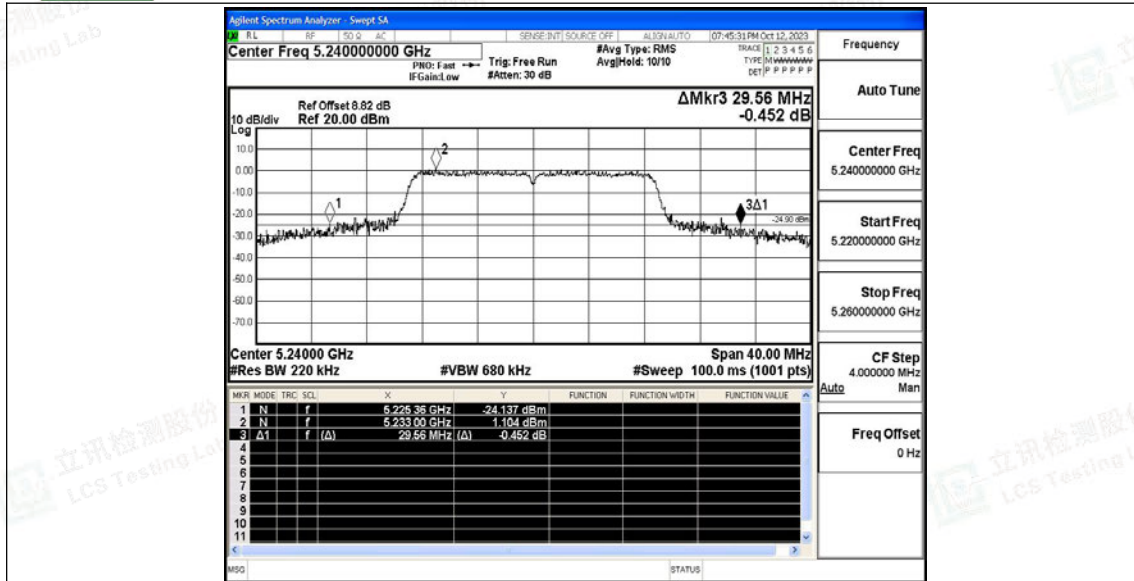


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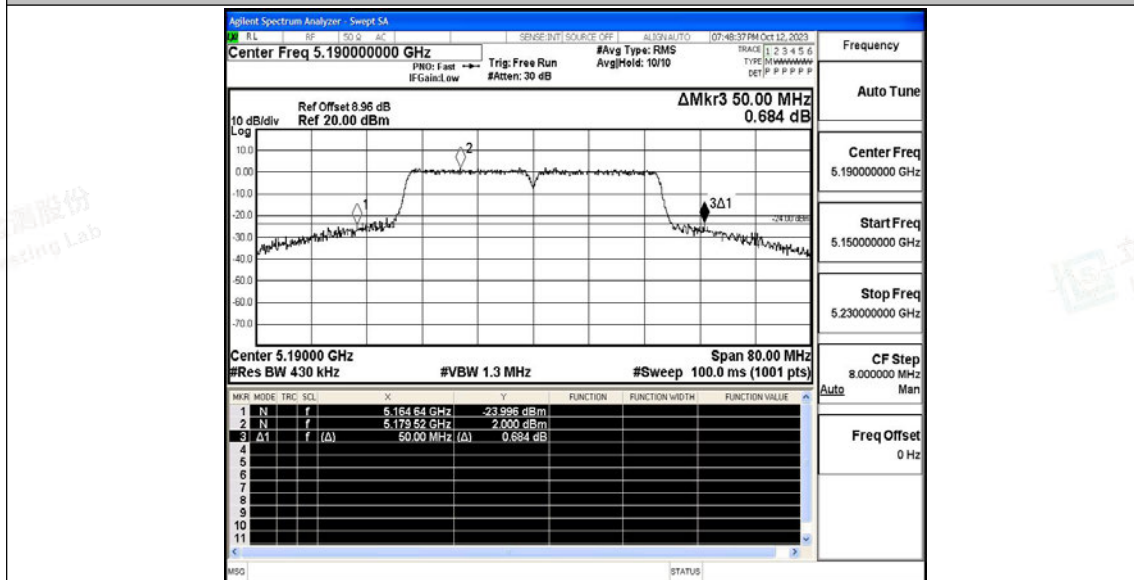


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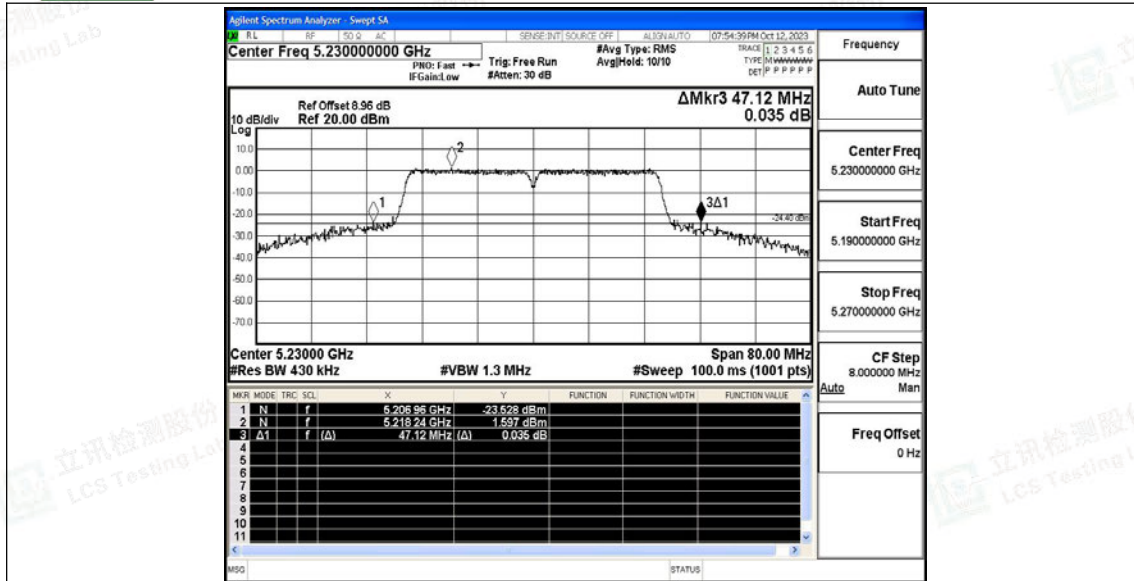


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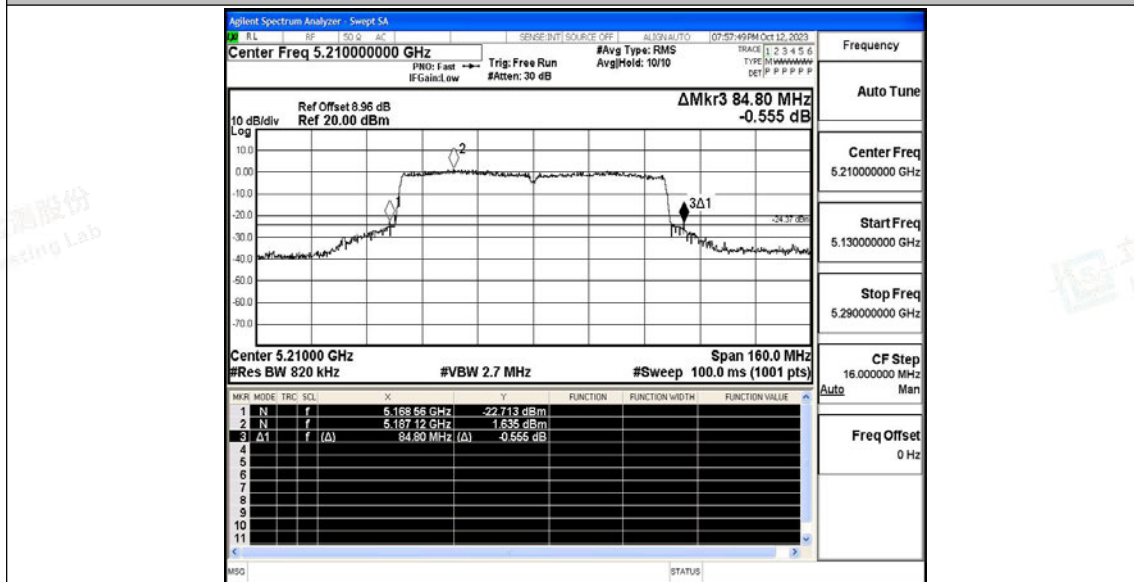


11AC40SISO_Ant1_5230





11AC80SISO_Ant1_5210





D.2 Maximum conducted output power

Test Result Channel Power

Test Mode	Antenna	Frequency[MHz]	Channel Power [dBm]	Duty Cycle [%]	DC Factor [dBm]	Result [dBm]	Limit [dBm]	Verdict
11A	Ant1	5180	12.74	96.55	0.15	12.89	≤23.98	PASS
		5220	12.36	95.89	0.18	12.54	≤23.98	PASS
		5240	12.08	96.53	0.15	12.23	≤23.98	PASS
11N20SISO	Ant1	5180	12.23	95.93	0.18	12.41	≤23.98	PASS
		5220	11.76	95.16	0.22	11.98	≤23.98	PASS
		5240	11.03	95.93	0.18	11.21	≤23.98	PASS
11N40SISO	Ant1	5190	11.03	92.19	0.35	11.38	≤23.98	PASS
		5230	10.95	92.19	0.35	11.30	≤23.98	PASS
11AC20SISO	Ant1	5180	11.88	95.97	0.18	12.06	≤23.98	PASS
		5220	11.01	95.97	0.18	11.19	≤23.98	PASS
		5240	10.72	95.97	0.18	10.90	≤23.98	PASS
11AC40SISO	Ant1	5190	11.17	92.19	0.35	11.52	≤23.98	PASS
		5230	10.64	92.19	0.35	10.99	≤23.98	PASS
11AC80SISO	Ant1	5210	9.62	85.71	0.67	10.29	≤23.98	PASS

Note: The Duty Cycle Factor is compensated in the graph.





D.3 Maximum power spectral density

Test Result

TestMode	Antenna	Frequency[MHz]	Result [dBm/MHz]	Limit[dBm/MHz]	Verdict
11A	Ant1	5180	1.7	≤11.00	PASS
		5220	1.09	≤11.00	PASS
		5240	0.81	≤11.00	PASS
11N20SISO	Ant1	5180	0.66	≤11.00	PASS
		5220	0.69	≤11.00	PASS
		5240	-0.37	≤11.00	PASS
11N40SISO	Ant1	5190	-3.13	≤11.00	PASS
		5230	-3.16	≤11.00	PASS
11AC20SISO	Ant1	5180	0.32	≤11.00	PASS
		5220	-0.48	≤11.00	PASS
		5240	-0.68	≤11.00	PASS
11AC40SISO	Ant1	5190	-2.9	≤11.00	PASS
		5230	-3.54	≤11.00	PASS
11AC80SISO	Ant1	5210	-6.67	≤11.00	PASS

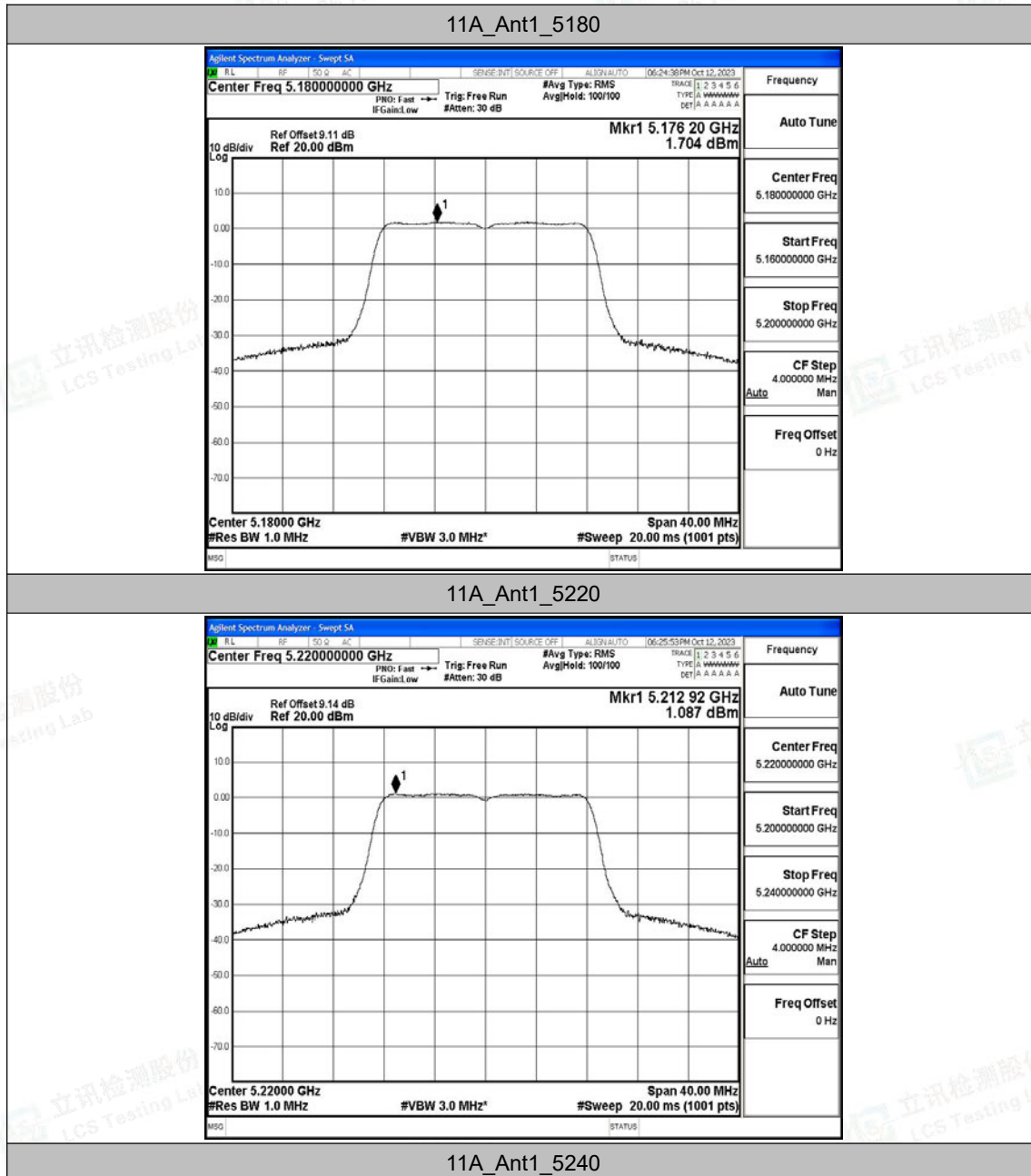
Note: 1.The Result and Limit Unit is dBm/500 kHz in the band 5.725–5.85 GHz.

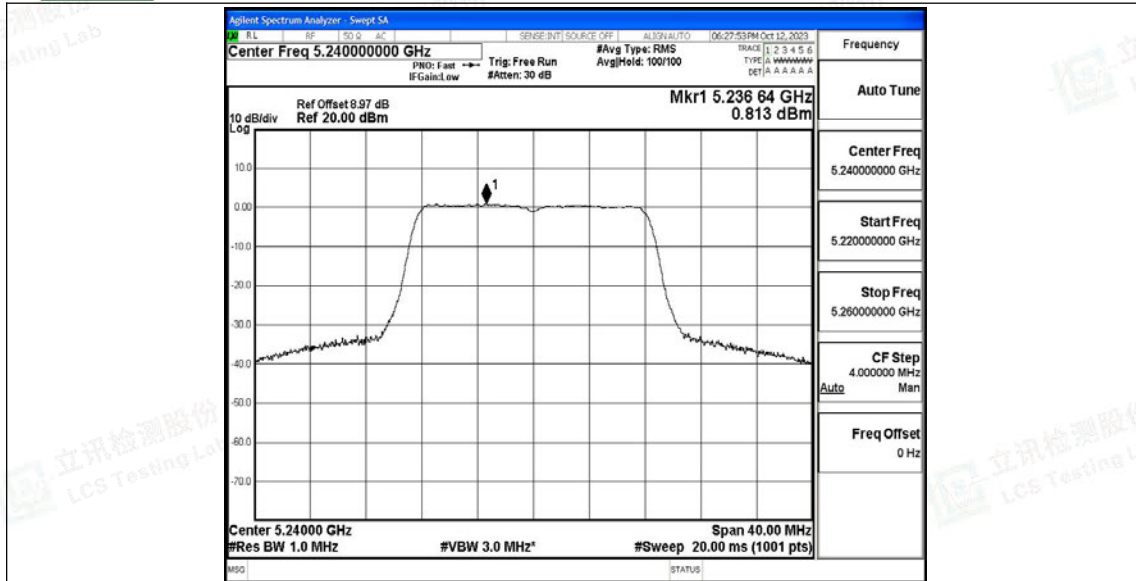
2.The Duty Cycle Factor and RBW Factor is compensated in the graph.



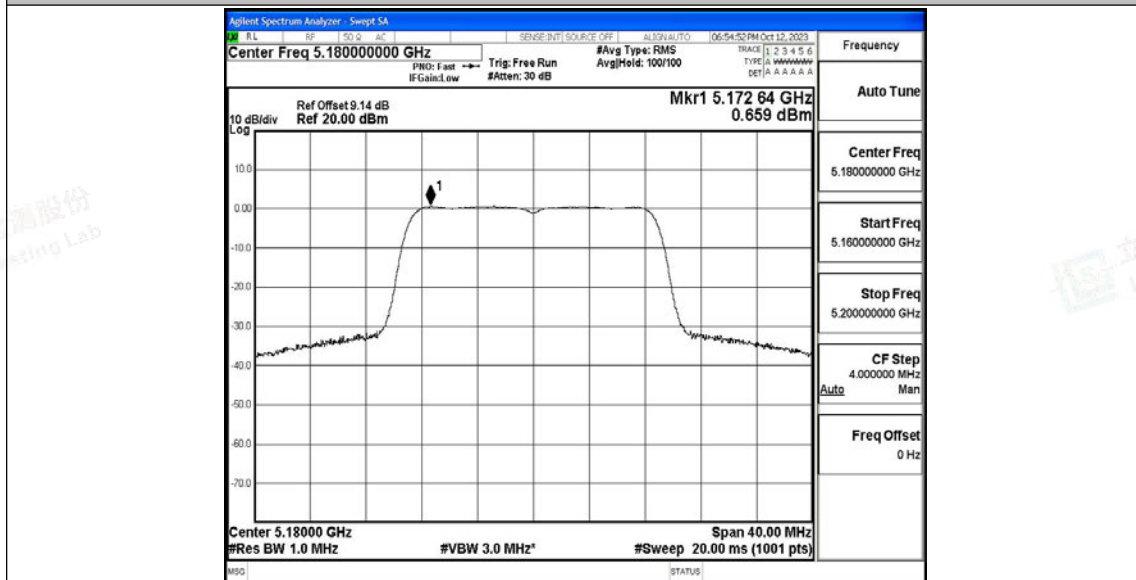


Test Graphs



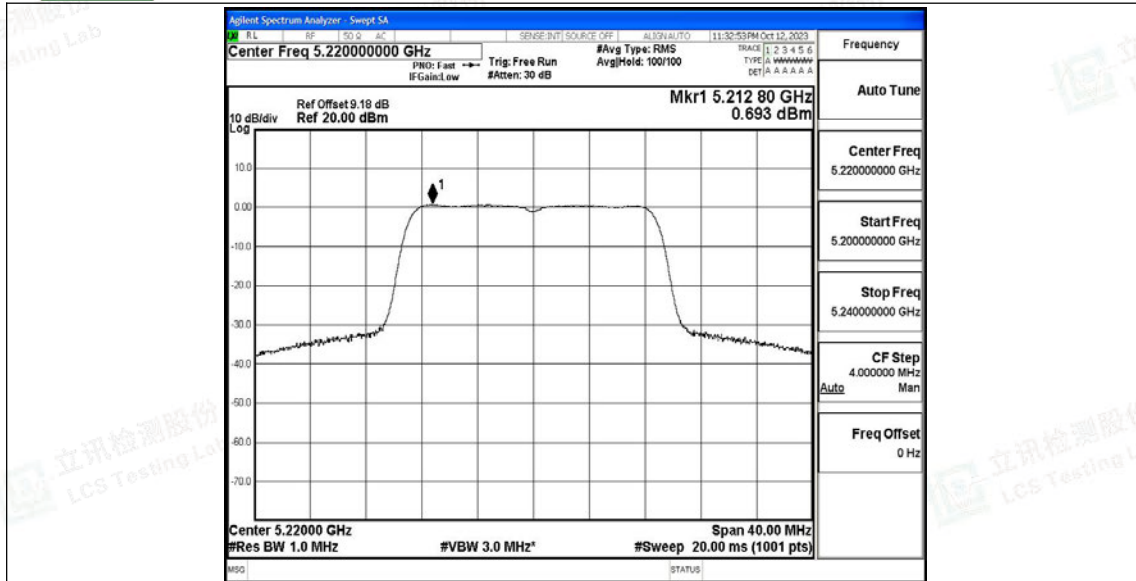


11N20SISO_Ant1_5180

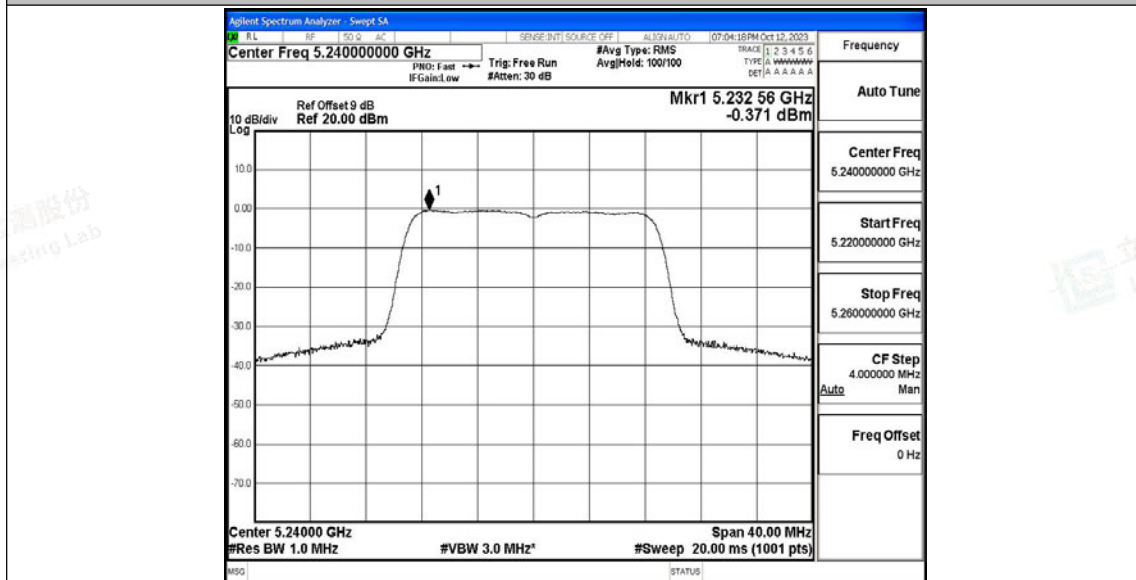


11N20SISO_Ant1_5220



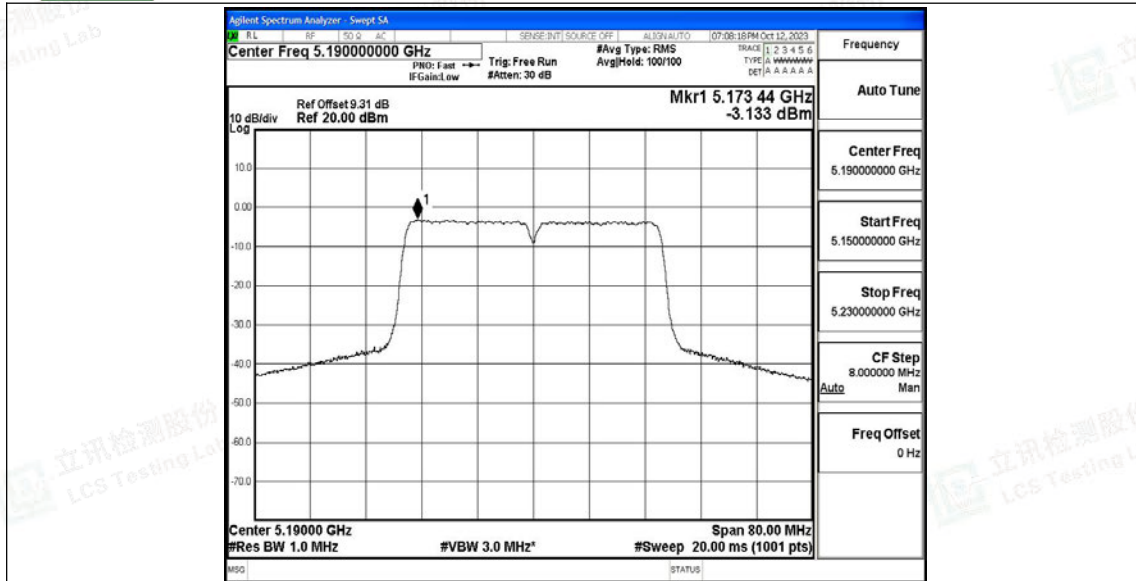


11N20SISO_Ant1_5240

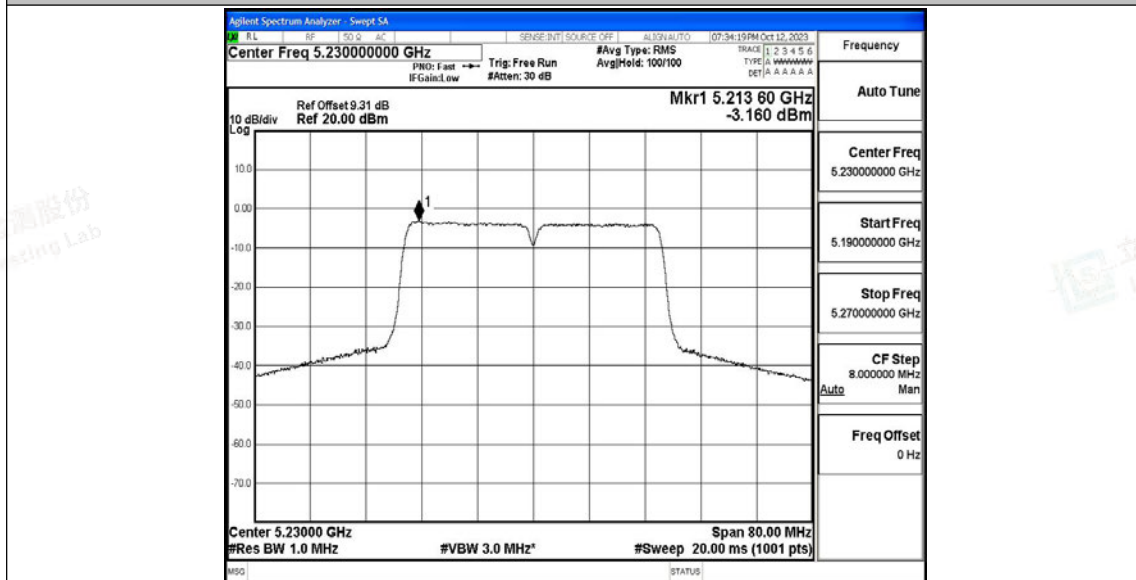


11N40SISO_Ant1_5190



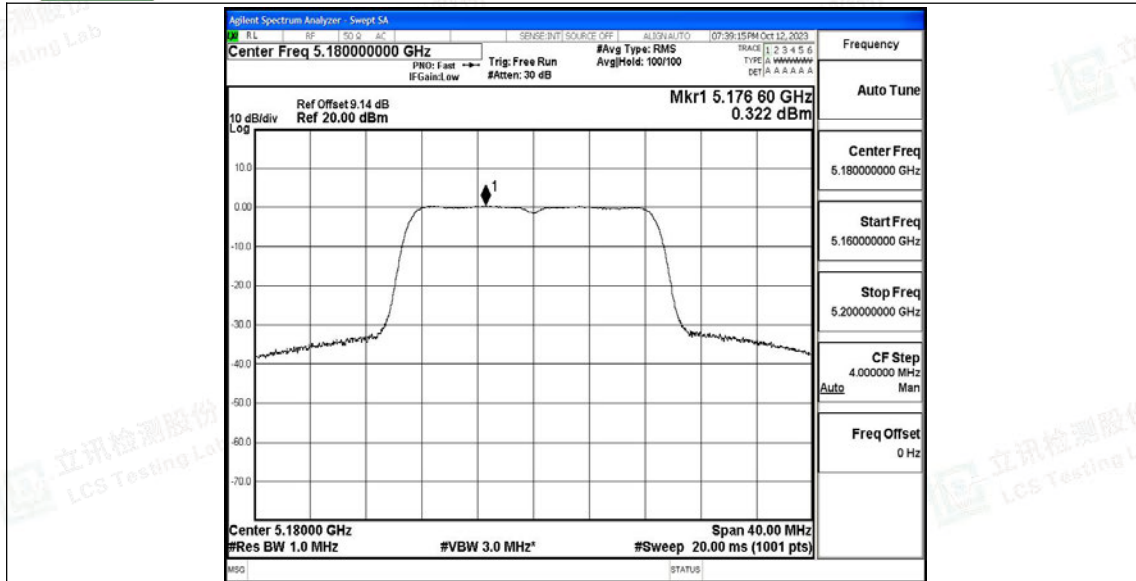


11N40SISO_Ant1_5230

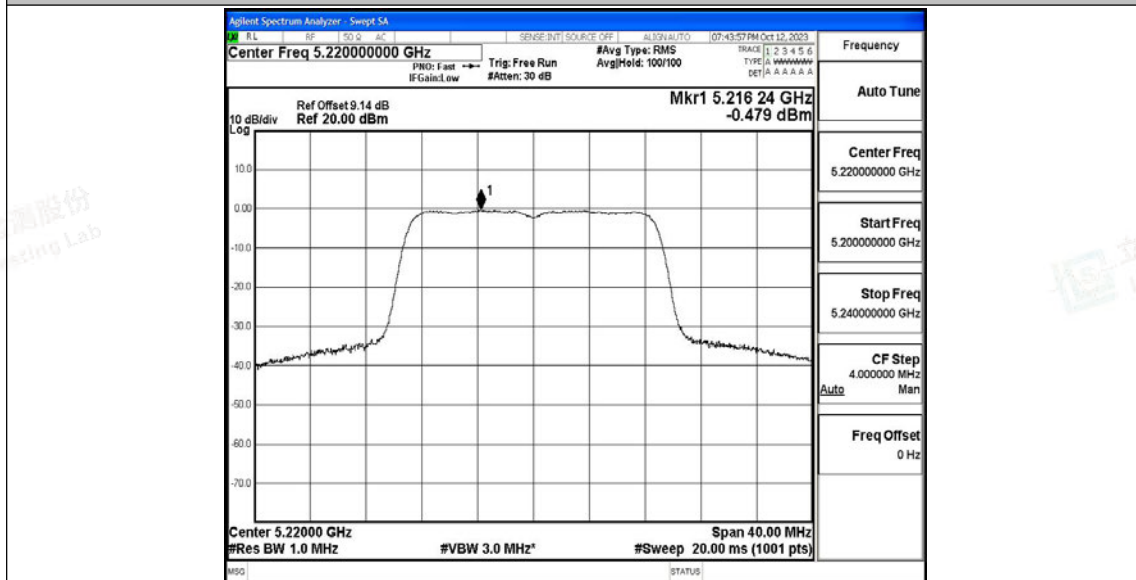


11AC20SISO_Ant1_5180



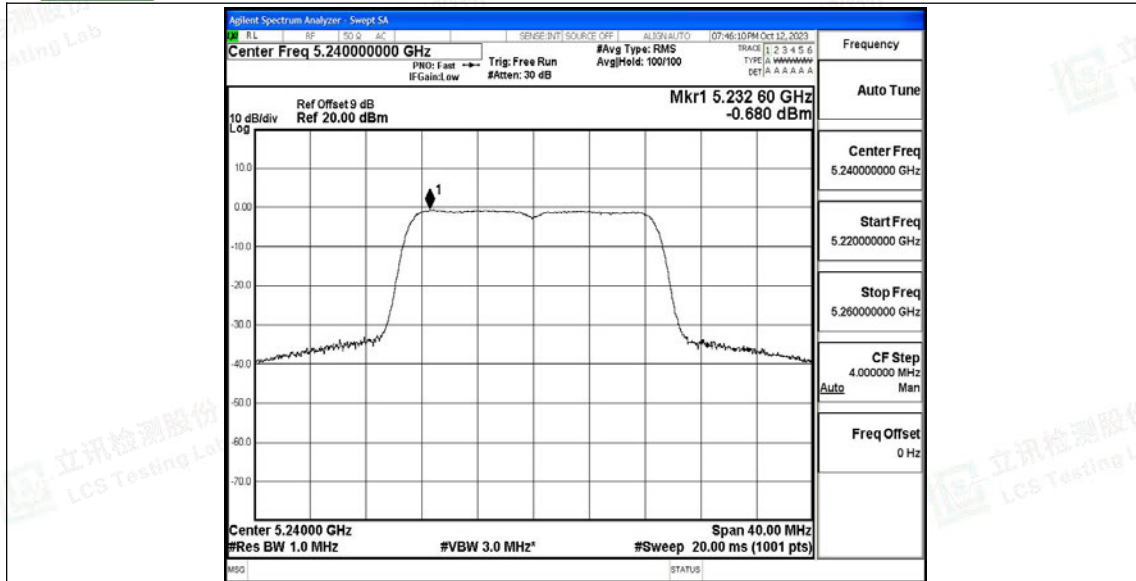


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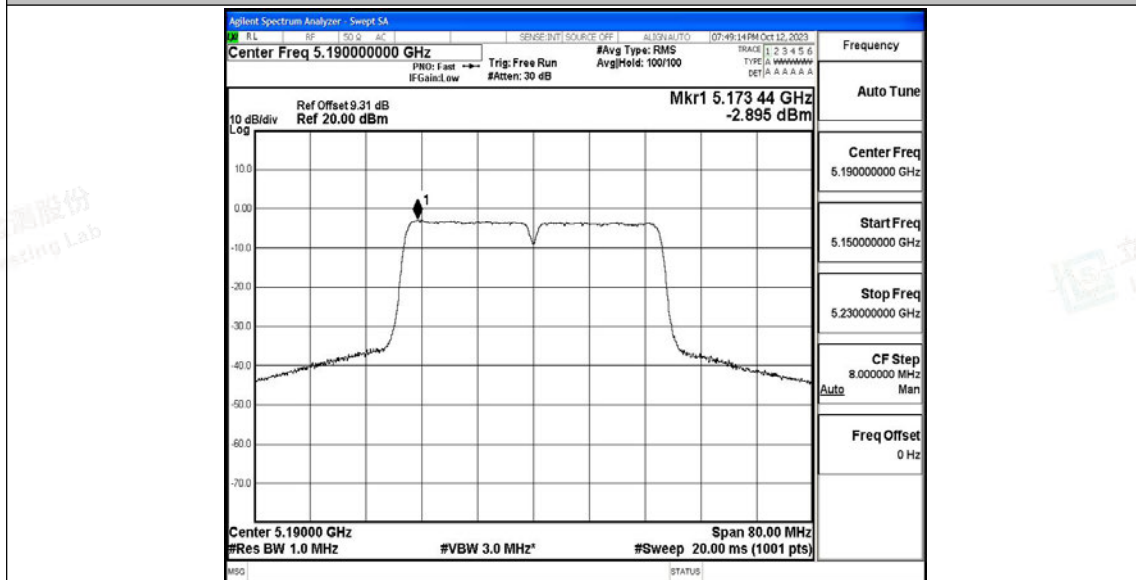


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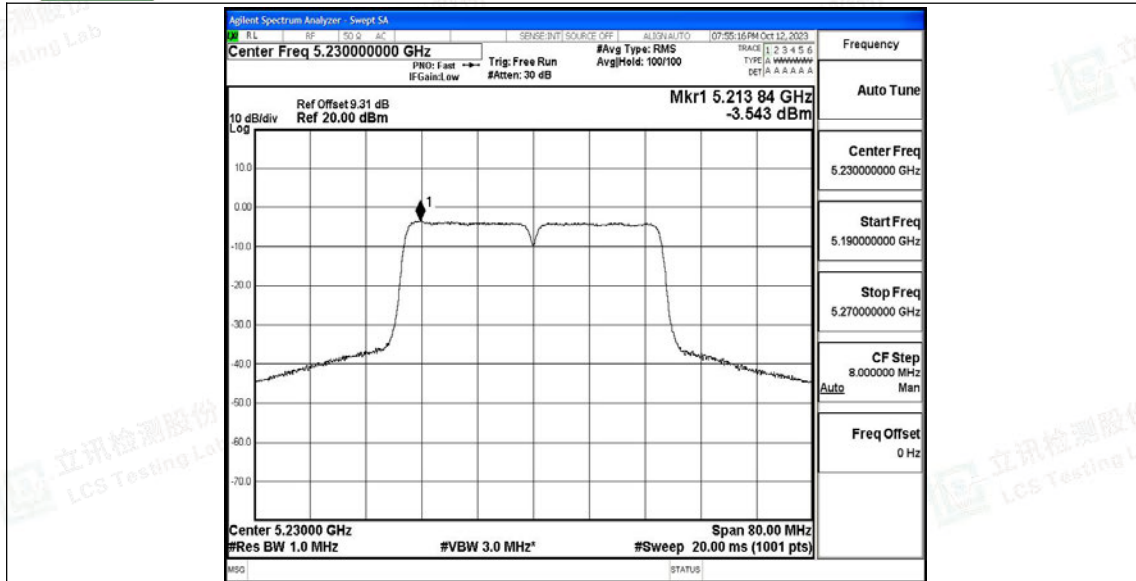


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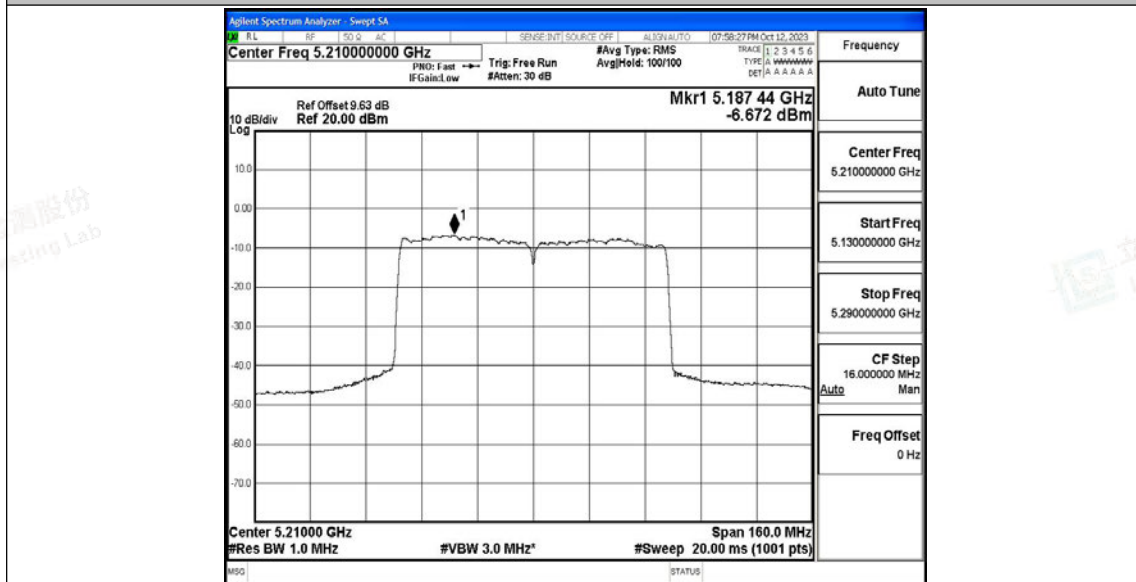


11AC40SISO_Ant1_5230





11AC80SISO_Ant1_5210





D.4 Emissions in Restricted Bands

Test Result

TestMode	Antenna	ChName	Frequenc y[MHz]	Detector	Freq [MHz]	Result [dBm]	Limit [dBm]	Verdict
11A	Ant1	Low	5180	AV	4500.000	-57.55	≤-41.20	PASS
				AV	5149.600	-44.89	≤-41.20	PASS
				AV	5150.000	-44.41	≤-41.20	PASS
				Peak	4500.000	-53.3	≤-21.20	PASS
				Peak	5148.900	-37.07	≤-21.20	PASS
				Peak	5150.000	-34.66	≤-21.20	PASS
		High	5240	AV	5350.000	-55.81	≤-41.20	PASS
				AV	5361.120	-55.66	≤-41.20	PASS
				AV	5460.000	-56.43	≤-41.20	PASS
				Peak	5350.000	-49.83	≤-21.20	PASS
				Peak	5411.520	-46.8	≤-21.20	PASS
				Peak	5460.000	-52.12	≤-21.20	PASS
				Peak	5700.000	-45.84	≤10.00	PASS
				Peak	5720.000	-32.39	≤15.60	PASS
				Peak	5725.000	-29.76	≤27.00	PASS
11N20SIS O	Ant1	Low	5180	AV	4500.000	-56.99	≤-41.20	PASS
				AV	5149.600	-46.41	≤-41.20	PASS
				AV	5150.000	-46.74	≤-41.20	PASS
				Peak	4500.000	-49.52	≤-21.20	PASS
				Peak	5149.600	-31.63	≤-21.20	PASS
				Peak	5150.000	-40.39	≤-21.20	PASS
		High	5240	AV	5350.000	-55.84	≤-41.20	PASS
				AV	5351.760	-55.75	≤-41.20	PASS
				AV	5460.000	-56.41	≤-41.20	PASS
				Peak	5350.000	-48.08	≤-21.20	PASS
11N40SIS O	Ant1	Low	5190	Peak	5394.240	-46.55	≤-21.20	PASS
				Peak	5460.000	-50.9	≤-21.20	PASS
				AV	4500.000	-57.29	≤-41.20	PASS
				AV	5148.900	-47.76	≤-41.20	PASS
				AV	5150.000	-48.15	≤-41.20	PASS
				Peak	4500.000	-51.29	≤-21.20	PASS
				Peak	5149.600	-34.53	≤-21.20	PASS
		High	5230	AV	5350.000	-55.31	≤-41.20	PASS





				AV	5350.280	-55.21	≤-41.20	PASS
				AV	5460.000	-56.07	≤-41.20	PASS
				Peak	5350.000	-49.45	≤-21.20	PASS
				Peak	5396.040	-46.48	≤-21.20	PASS
				Peak	5460.000	-49.27	≤-21.20	PASS
11AC20SI SO	Ant1	Low	5180	AV	4500.000	-57.48	≤-41.20	PASS
				AV	5149.600	-43.7	≤-41.20	PASS
				AV	5150.000	-43.13	≤-41.20	PASS
				Peak	4500.000	-51.39	≤-21.20	PASS
				Peak	5149.600	-33.7	≤-21.20	PASS
				Peak	5150.000	-31.54	≤-21.20	PASS
		High	5240	AV	5350.000	-55.83	≤-41.20	PASS
				AV	5352.000	-55.74	≤-41.20	PASS
				AV	5460.000	-56.52	≤-41.20	PASS
				Peak	5350.000	-49.64	≤-21.20	PASS
				Peak	5402.160	-46.65	≤-21.20	PASS
				Peak	5460.000	-49.83	≤-21.20	PASS
11AC40SI SO	Ant1	Low	5190	AV	4500.000	-57.04	≤-41.20	PASS
				AV	5149.600	-46.23	≤-41.20	PASS
				AV	5150.000	-46.17	≤-41.20	PASS
				Peak	4500.000	-51.03	≤-21.20	PASS
				Peak	5149.600	-36.55	≤-21.20	PASS
				Peak	5150.000	-37.38	≤-21.20	PASS
		High	5230	AV	5350.000	-55.57	≤-41.20	PASS
				AV	5433.740	-55.05	≤-41.20	PASS
				AV	5460.000	-56	≤-41.20	PASS
				Peak	5350.000	-51.44	≤-21.20	PASS
				Peak	5415.020	-46.81	≤-21.20	PASS
				Peak	5460.000	-50.69	≤-21.20	PASS
11AC80SI SO	Ant1	Low	5210	AV	4500.000	-56.91	≤-41.20	PASS
				AV	5148.750	-44.49	≤-41.20	PASS
				AV	5150.000	-44.74	≤-41.20	PASS
				Peak	4500.000	-51.25	≤-21.20	PASS
				Peak	5149.500	-36.72	≤-21.20	PASS
				Peak	5150.000	-37.11	≤-21.20	PASS
		High	5210	AV	5350.000	-54.01	≤-41.20	PASS
				AV	5351.640	-53.81	≤-41.20	PASS
				AV	5460.000	-55.62	≤-41.20	PASS
				Peak	5350.000	-48.47	≤-21.20	PASS
				Peak	5453.280	-45.46	≤-21.20	PASS





			Peak	5460.000	-51.6	≤-21.20	PASS
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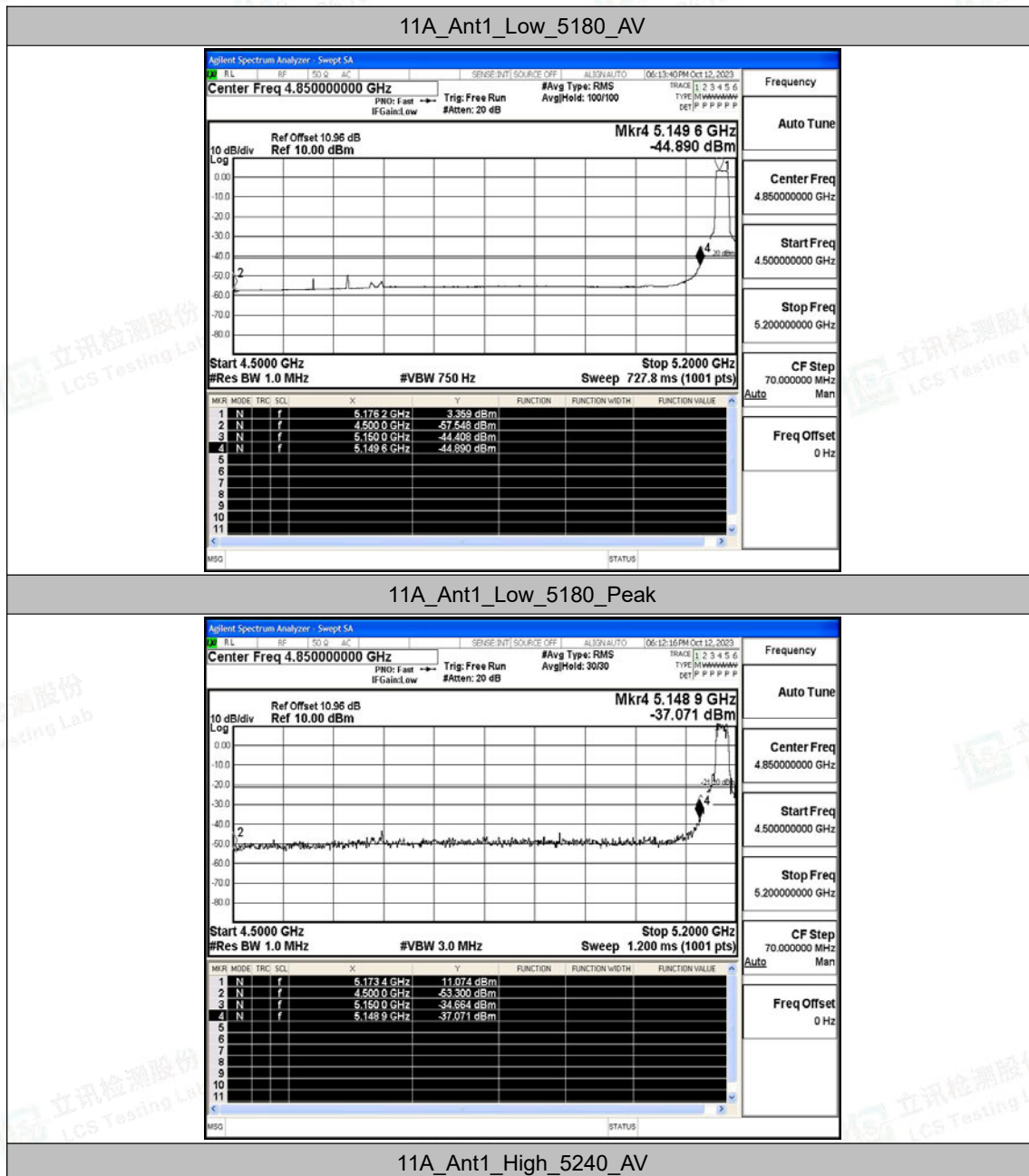
Note:

1. The Antenna Gain is compensated in the graph.
2. For transmitters operating in 5150-5350 GHz band and 5470-5725 GHz band: 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

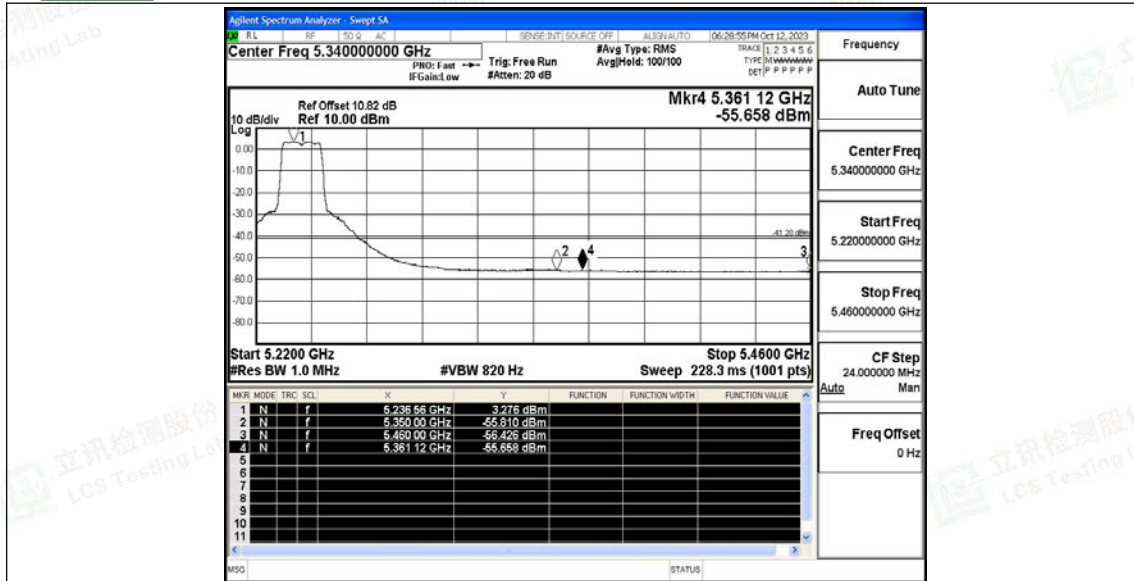


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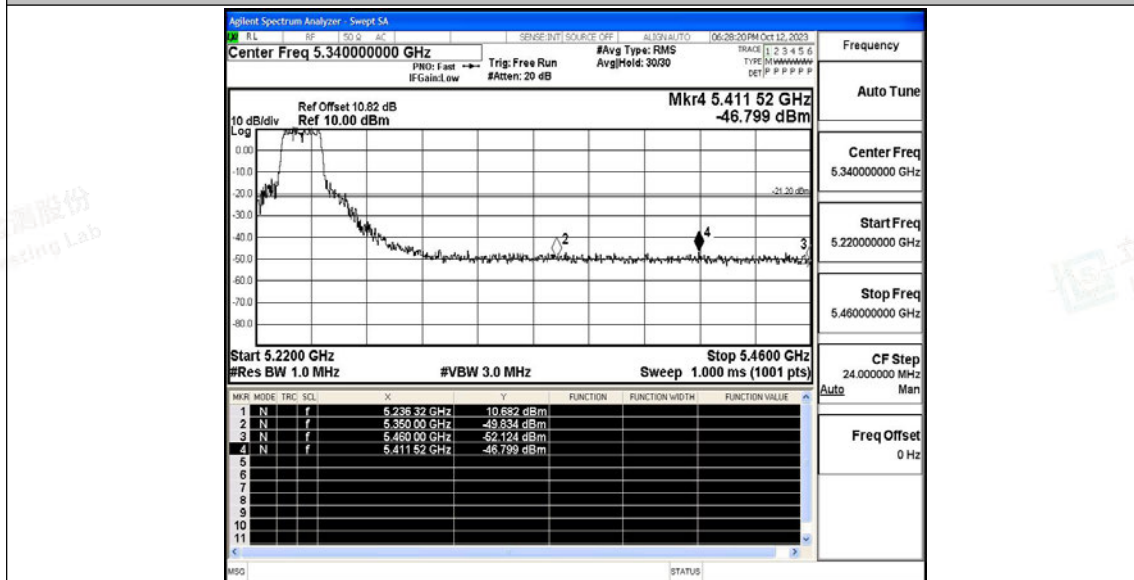
Add: 101, 201 Bldg A & 301 Bldg C, Juji Industrial Park Yabianxueziwei, Shajing Street, Baoan District, Shenzhen, 518000, China

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

Scan code to check authenticity

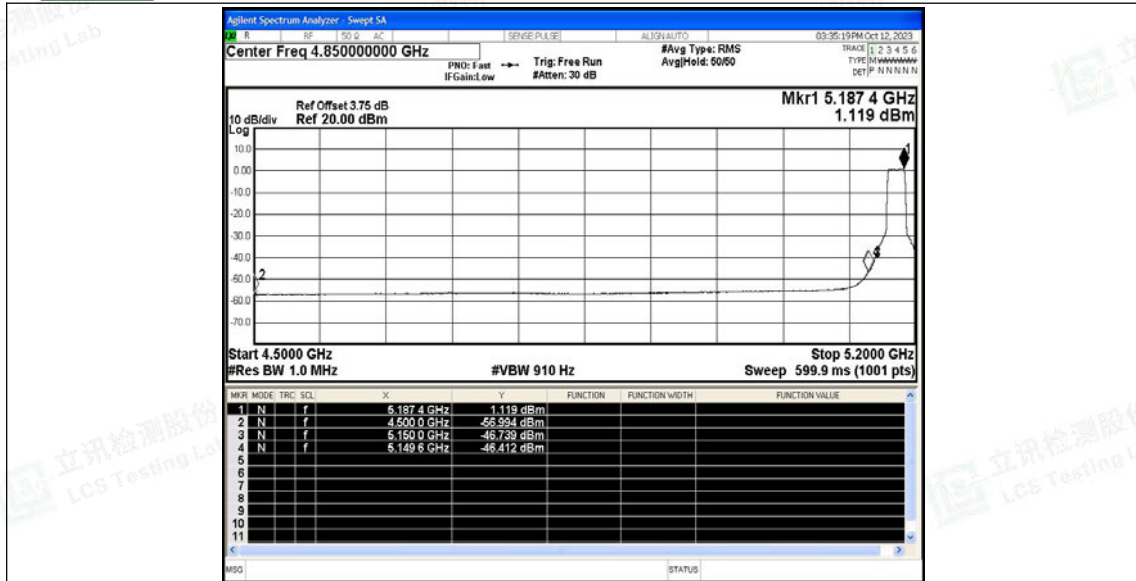


11A_Ant1_High_5240_Peak

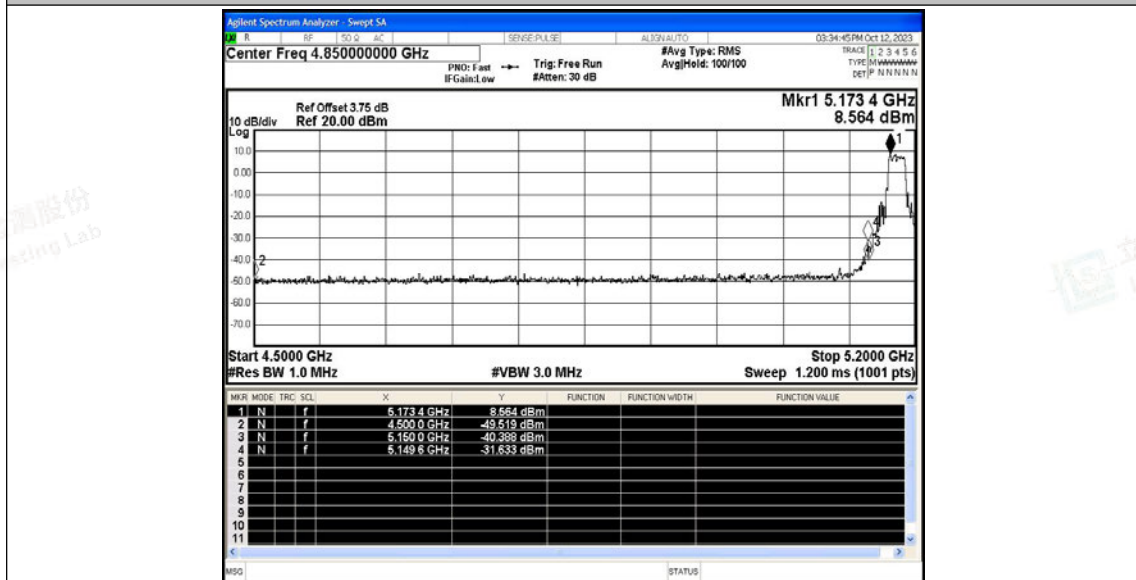


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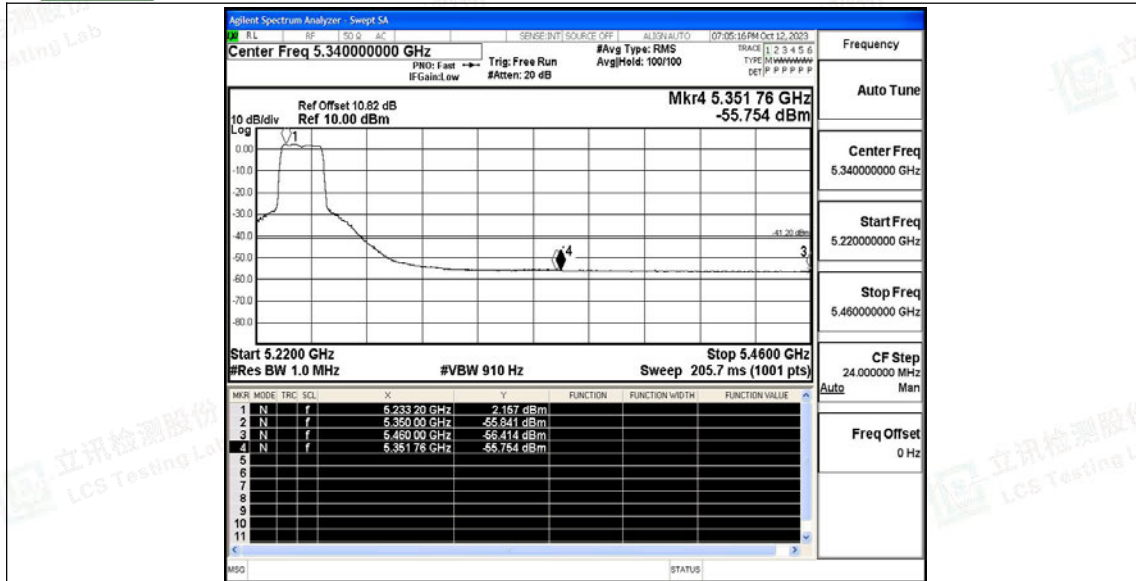


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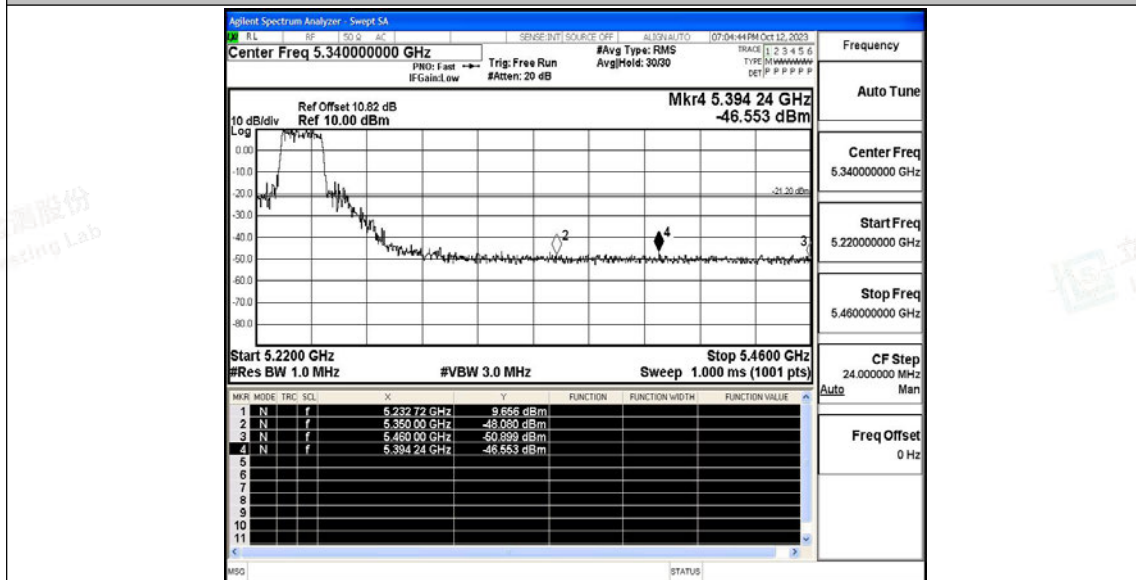


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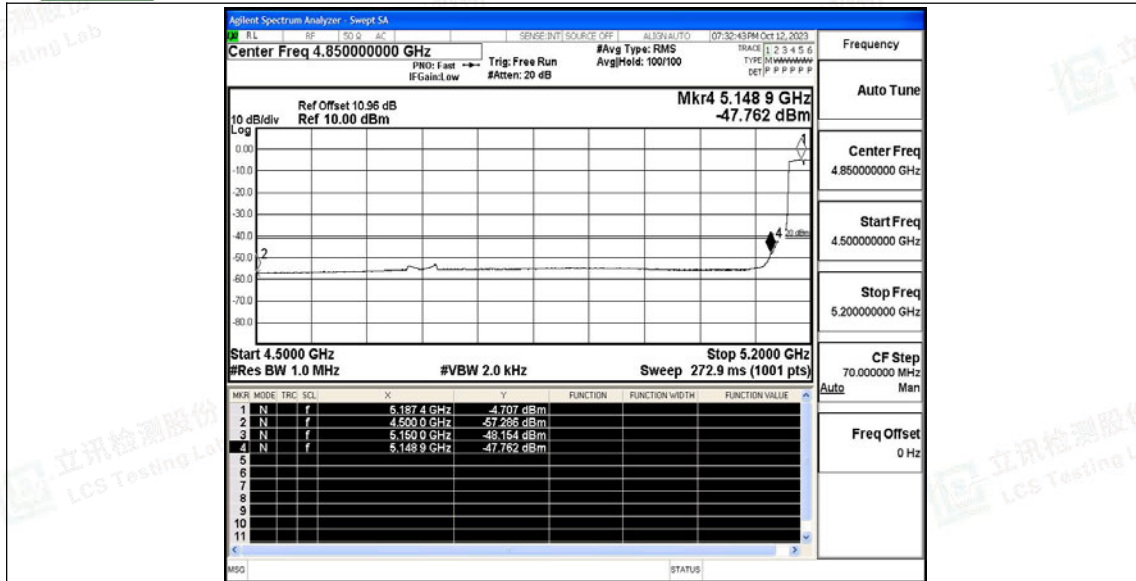


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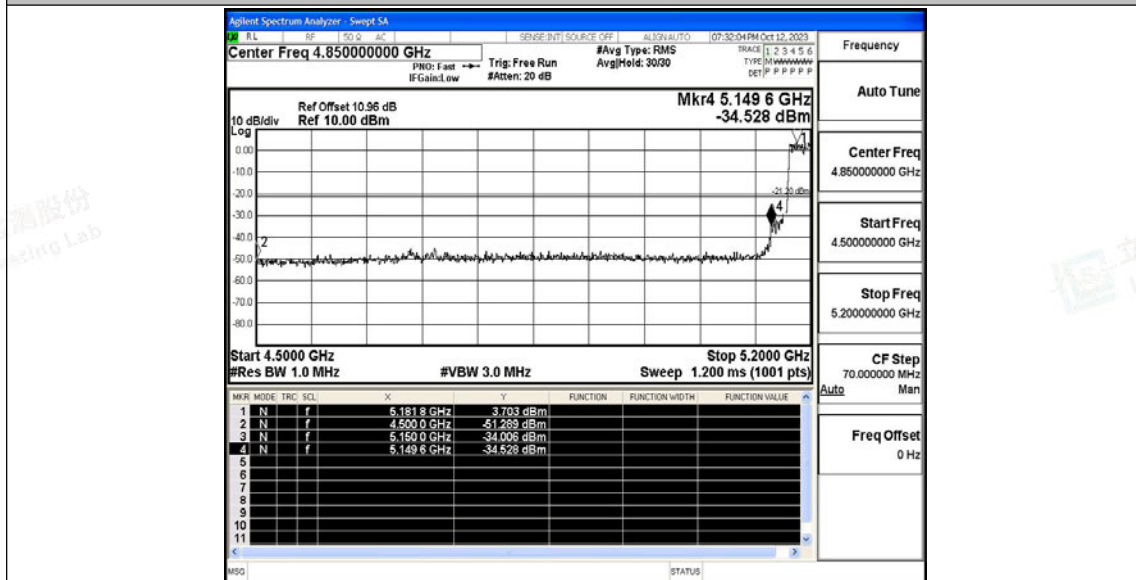


11N40SISO_Ant1_Low_5190_AV



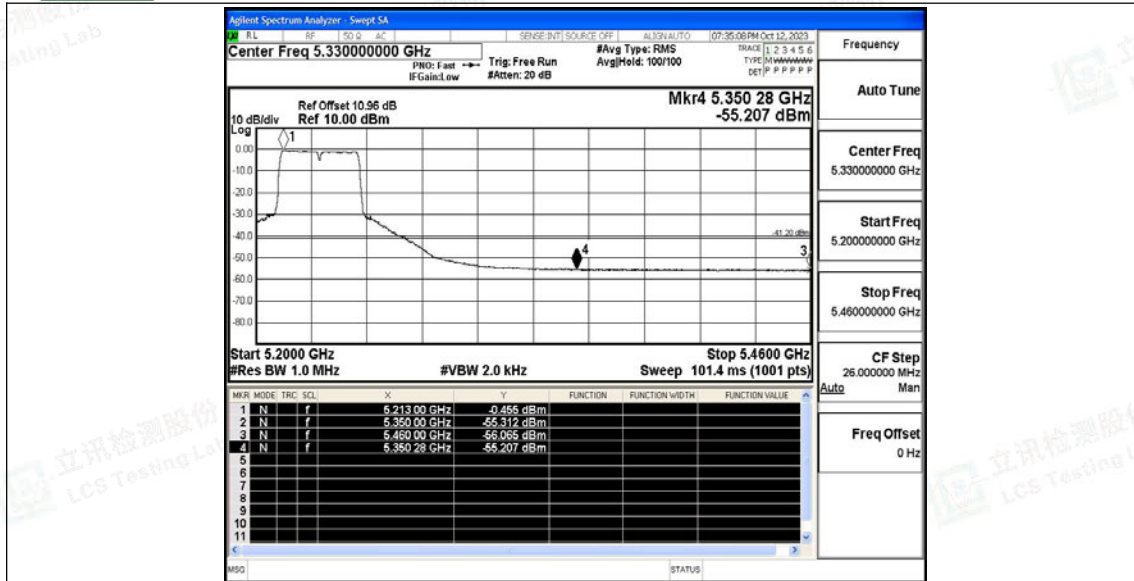


11N40SISO_Ant1_Low_5190_Peak

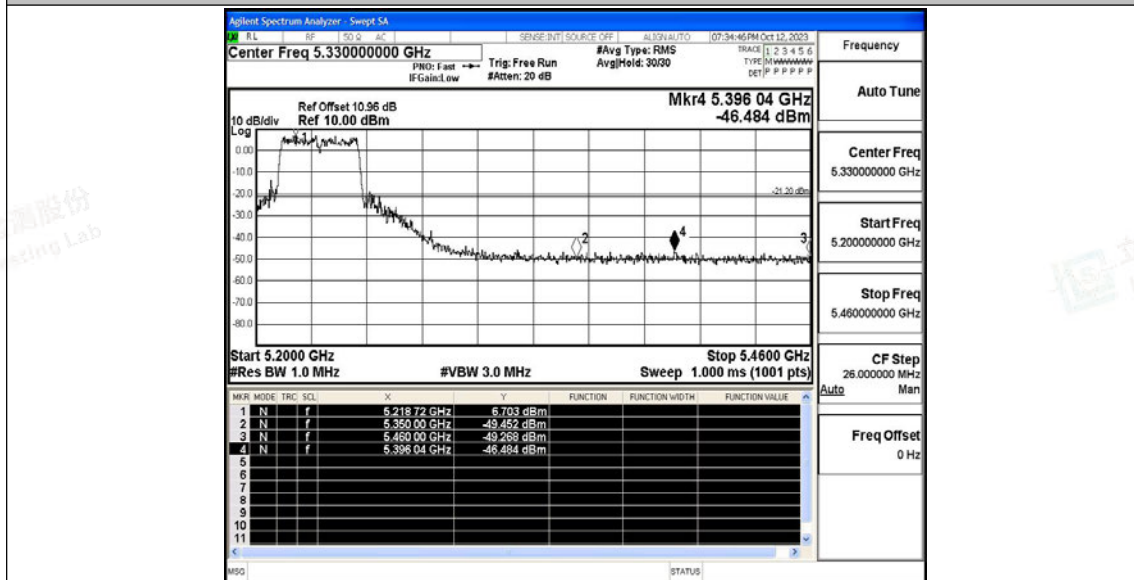


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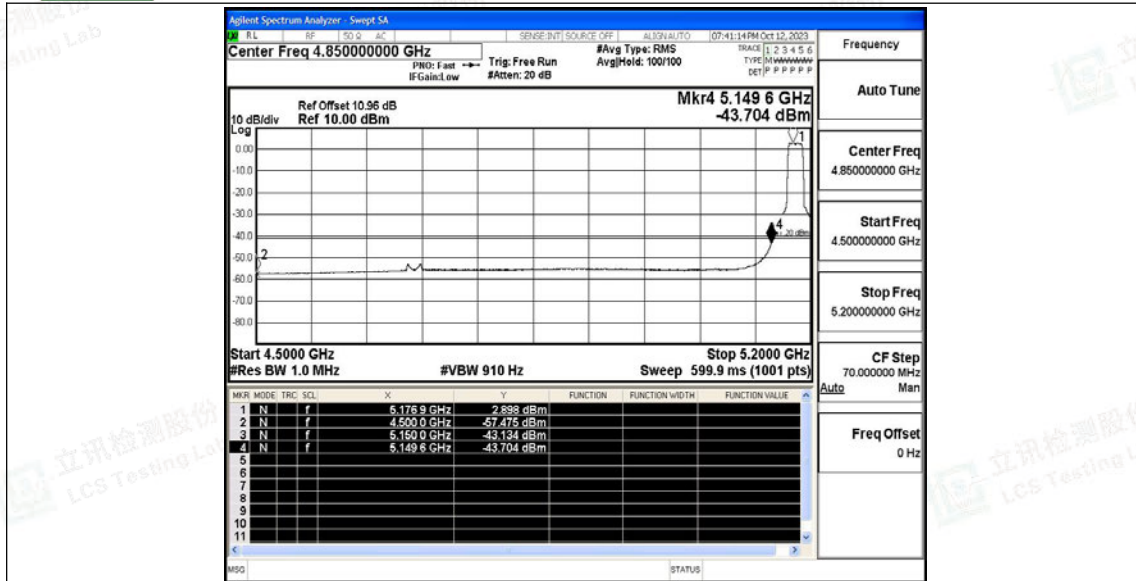


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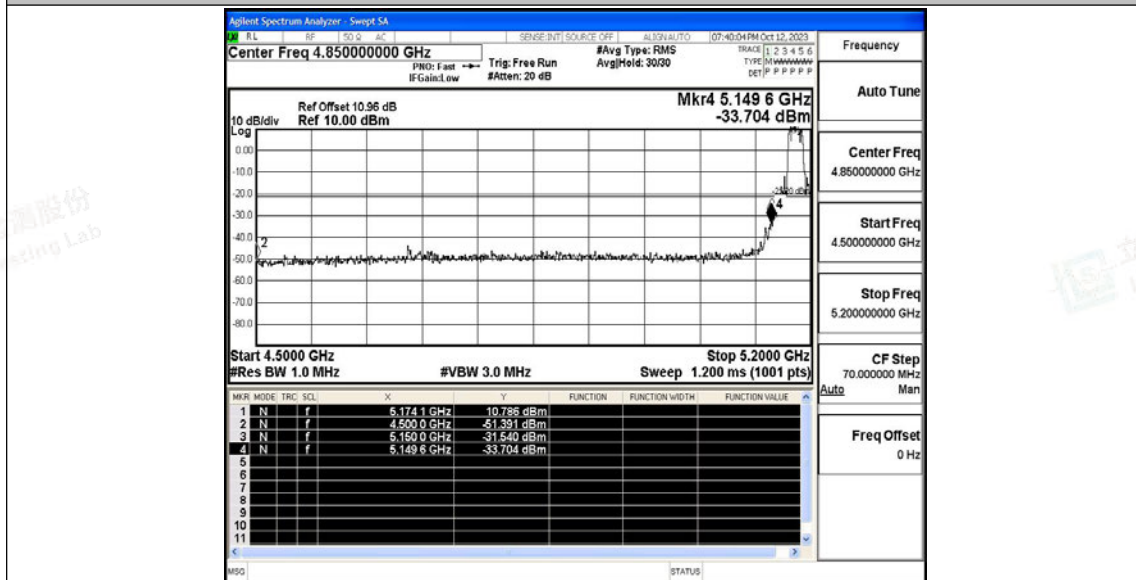


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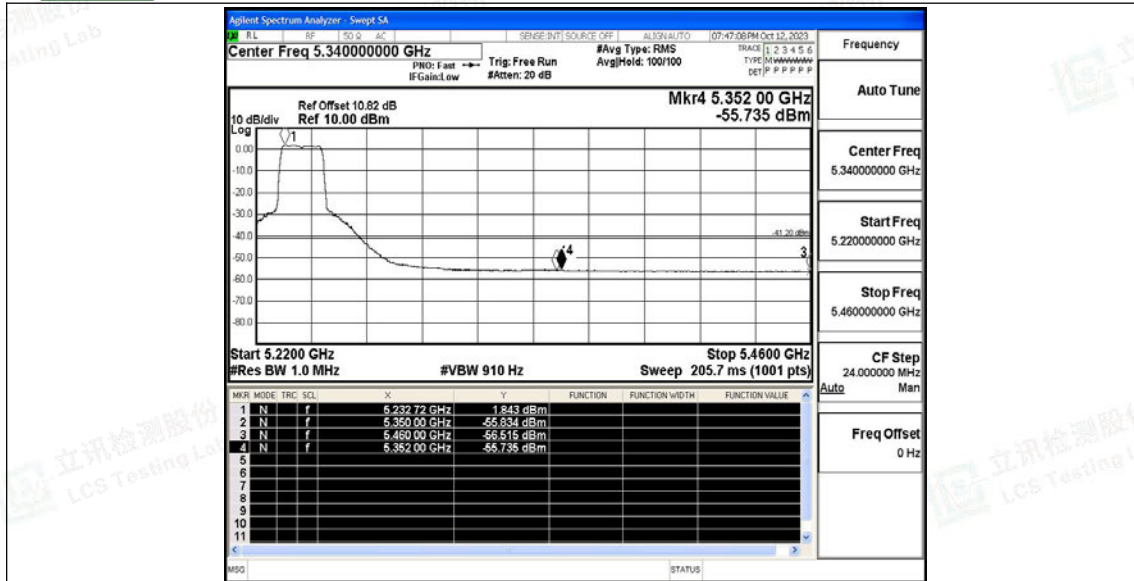


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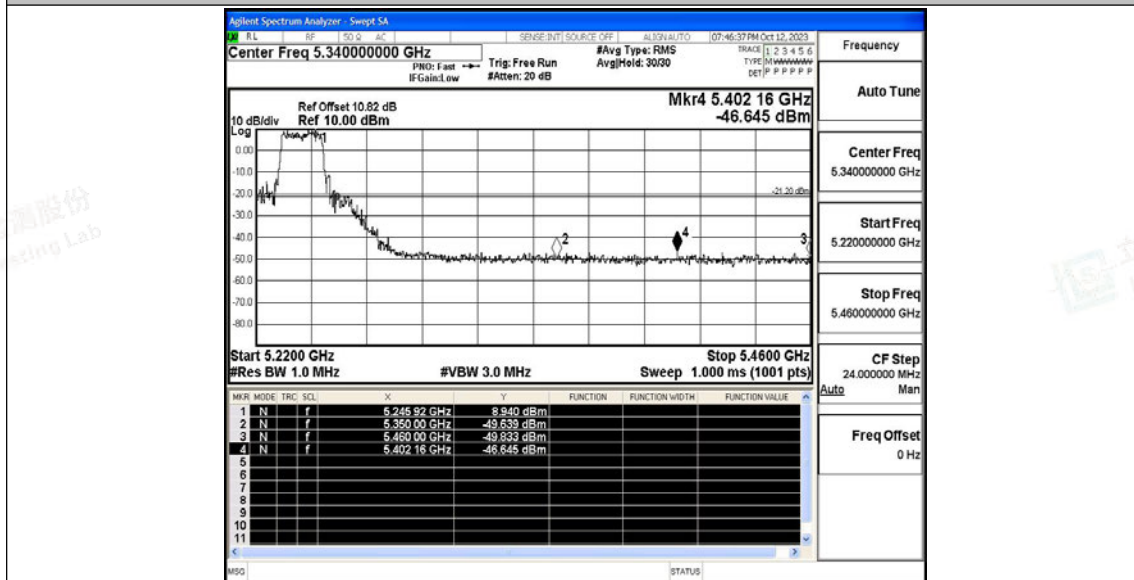


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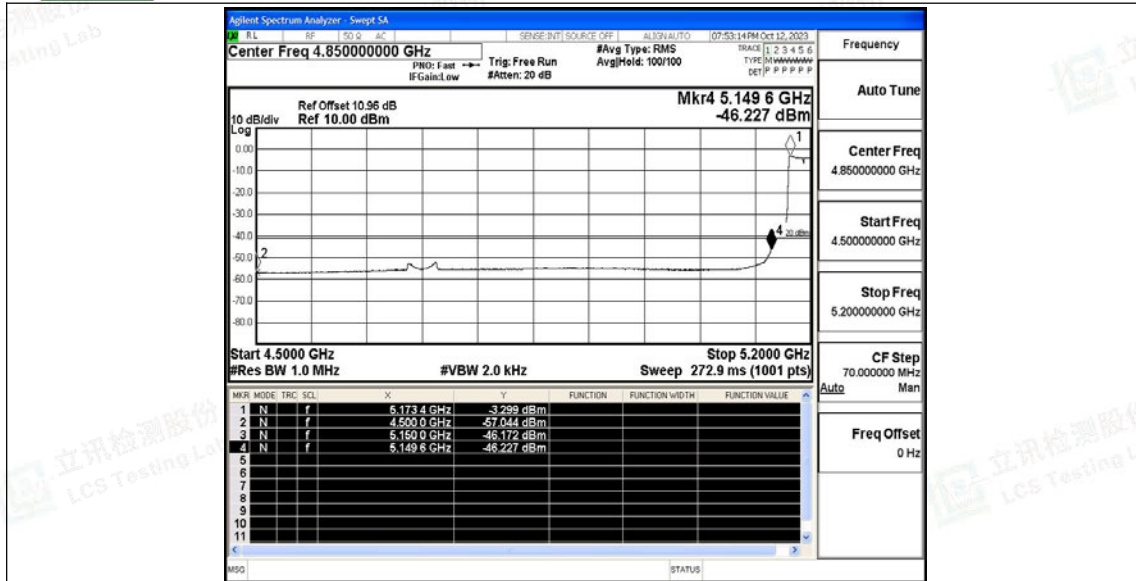


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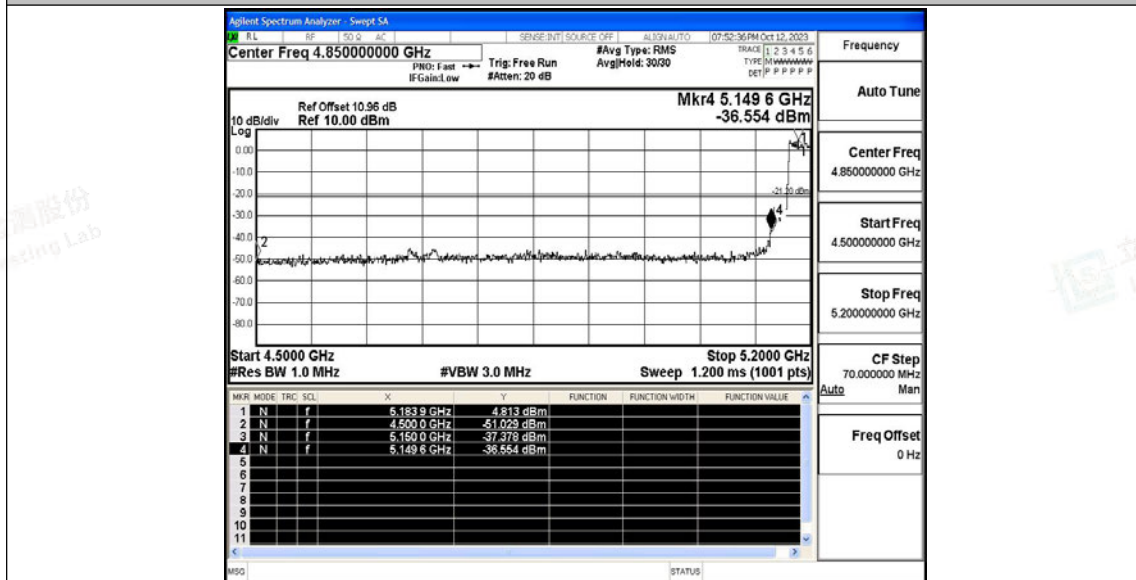


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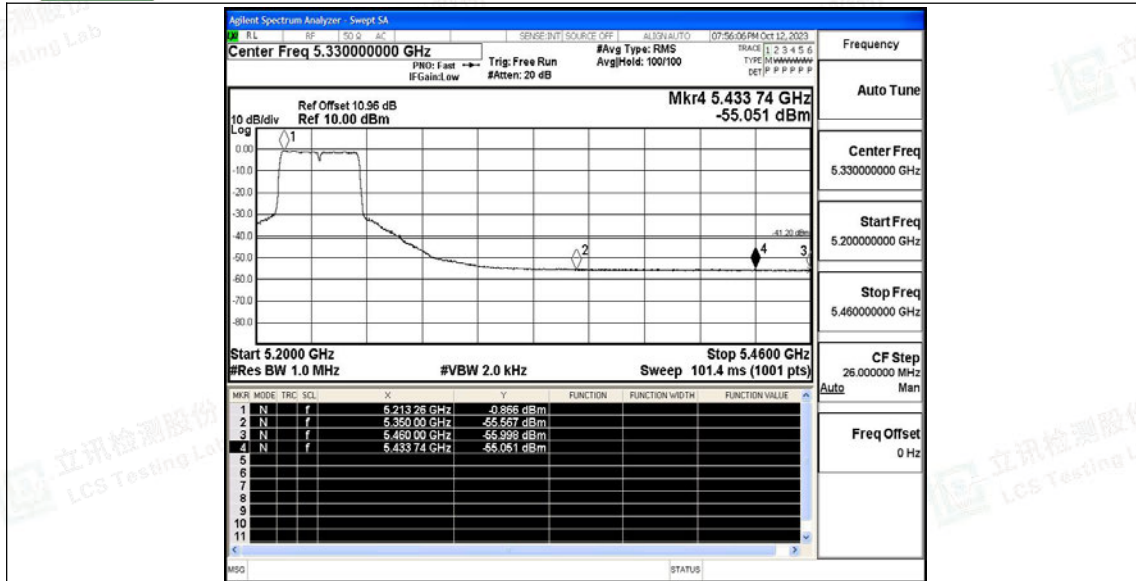


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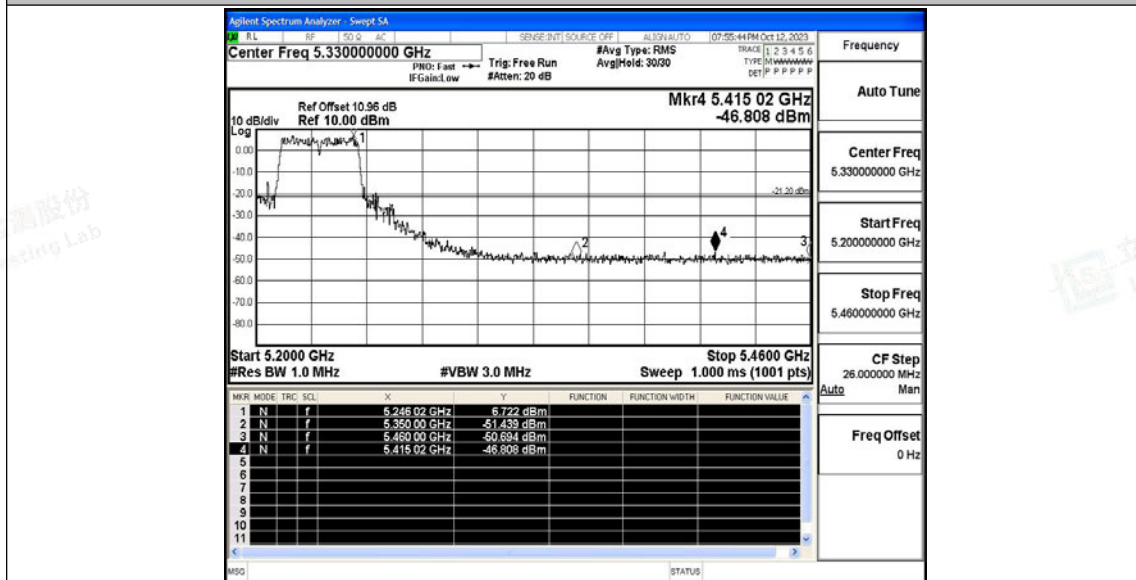


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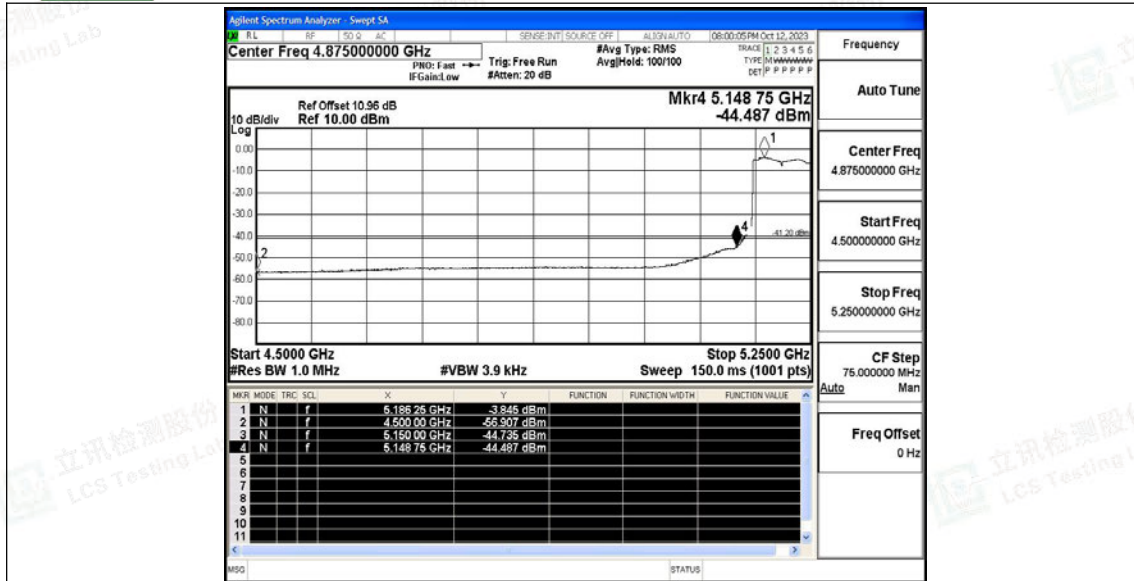


11AC40SISO_Ant1_High_5230_Peak

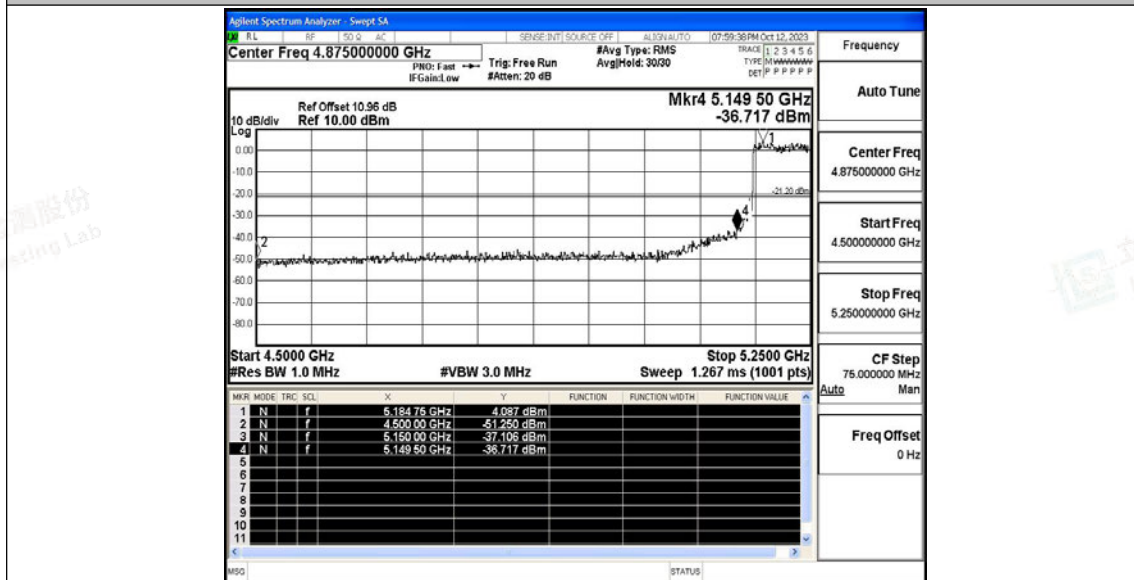


11AC80SISO_Ant1_Low_5210_AV



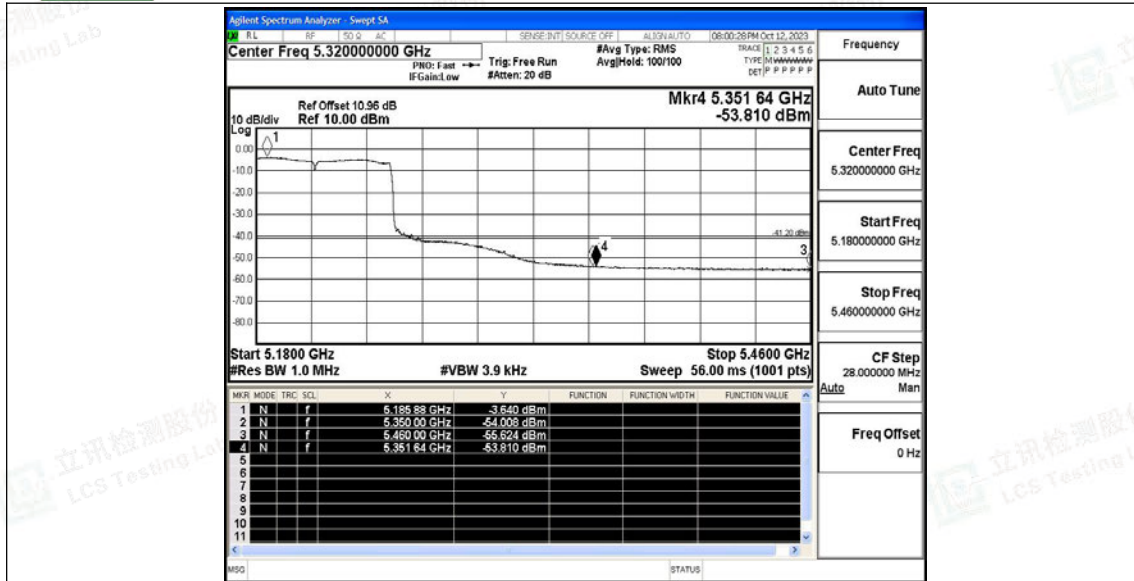


11AC80SISO_Ant1_Low_5210_Peak

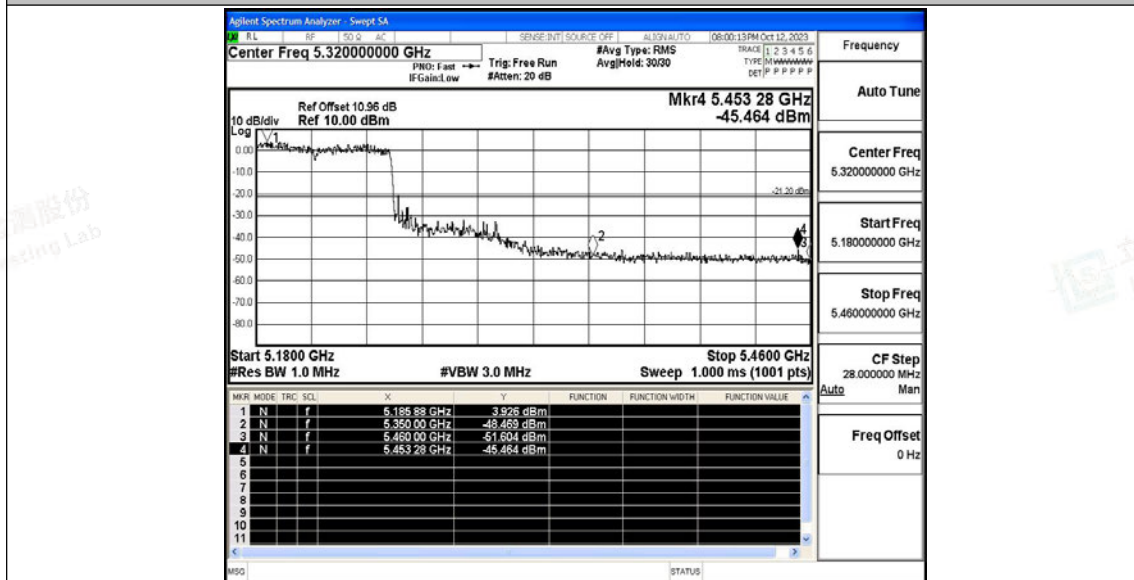


11AC80SISO_Ant1_High_5210_AV





11AC80SISO_Ant1_High_5210_Peak





D.5 Frequency Stability

Test Result

Voltage								
TestMode	Antenna	Frequen cy[MHz]	Voltage [Vdc]	Temper ature (°C)	Deviation (Hz)	Deviation (ppm)	Limit (ppm)	Verdict
11A	Ant1	5180	NV	NT	-20000.00	-3.861004	20	PASS
			LV	NT	0.00	0.000000	20	PASS
			HV	NT	-20000.00	-3.861004	20	PASS
		5220	NV	NT	-20000.00	-3.831418	20	PASS
			LV	NT	-20000.00	-3.831418	20	PASS
			HV	NT	0.00	0.000000	20	PASS
		5240	NV	NT	-20000.00	-3.816794	20	PASS
			LV	NT	0.00	0.000000	20	PASS
			HV	NT	0.00	0.000000	20	PASS
11N40SI SO	Ant1	5190	NV	NT	0.00	0.000000	20	PASS
			LV	NT	0.00	0.000000	20	PASS
			HV	NT	0.00	0.000000	20	PASS
		5230	NV	NT	0.00	0.000000	20	PASS
			LV	NT	-40000.00	-7.648184	20	PASS
			HV	NT	-40000.00	-7.648184	20	PASS
11AC80S ISO	Ant1	5210	NV	NT	0.00	0.000000	20	PASS
			LV	NT	-80000.00	-15.355086	20	PASS
			HV	NT	-80000.00	-15.355086	20	PASS

Temperature								
TestMode	Antenna	Frequen cy[MHz]	Voltage [Vdc]	Temper ature (°C)	Deviation (Hz)	Deviation (ppm)	Limit (ppm)	Verdict
11A	Ant1	5180	NV	-30	0.00	0.000000	20	PASS
			NV	-20	0.00	0.000000	20	PASS
			NV	-10	-40000.00	-7.722008	20	PASS
			NV	0	-20000.00	-3.861004	20	PASS
			NV	10	-20000.00	-3.861004	20	PASS
			NV	20	0.00	0.000000	20	PASS
			NV	30	-20000.00	-3.861004	20	PASS
			NV	40	-20000.00	-3.861004	20	PASS
			NV	50	-20000.00	-3.861004	20	PASS
		5220	NV	-30	0.00	0.000000	20	PASS
			NV	-20	-20000.00	-3.831418	20	PASS





			NV	-10	-20000.00	-3.831418	20	PASS
			NV	0	-5360000.0 0	-1026.8199 23	20	FAIL
			NV	10	0.00	0.000000	20	PASS
			NV	20	0.00	0.000000	20	PASS
			NV	30	0.00	0.000000	20	PASS
			NV	40	0.00	0.000000	20	PASS
			NV	50	0.00	0.000000	20	PASS
		5240	NV	-30	-20000.00	-3.816794	20	PASS
			NV	-20	-20000.00	-3.816794	20	PASS
			NV	-10	0.00	0.000000	20	PASS
			NV	0	-20000.00	-3.816794	20	PASS
			NV	10	-20000.00	-3.816794	20	PASS
			NV	20	-20000.00	-3.816794	20	PASS
			NV	30	-20000.00	-3.816794	20	PASS
			NV	40	-20000.00	-3.816794	20	PASS
			NV	50	-20000.00	-3.816794	20	PASS
11N40SI SO	Ant1	5190	NV	-30	0.00	0.000000	20	PASS
			NV	-20	0.00	0.000000	20	PASS
			NV	-10	-80000.00	-15.414258	20	PASS
			NV	0	0.00	0.000000	20	PASS
			NV	10	0.00	0.000000	20	PASS
			NV	20	0.00	0.000000	20	PASS
			NV	30	0.00	0.000000	20	PASS
			NV	40	-40000.00	-7.707129	20	PASS
			NV	50	0.00	0.000000	20	PASS
		5230	NV	-30	0.00	0.000000	20	PASS
			NV	-20	0.00	0.000000	20	PASS
			NV	-10	-40000.00	-7.648184	20	PASS
			NV	0	0.00	0.000000	20	PASS
			NV	10	0.00	0.000000	20	PASS
			NV	20	-40000.00	-7.648184	20	PASS
			NV	30	0.00	0.000000	20	PASS
			NV	40	0.00	0.000000	20	PASS
			NV	50	0.00	0.000000	20	PASS
11AC80S ISO	Ant1	5210	NV	-30	-80000.00	-15.355086	20	PASS
			NV	-20	0.00	0.000000	20	PASS
			NV	-10	0.00	0.000000	20	PASS
			NV	0	0.00	0.000000	20	PASS
			NV	10	-80000.00	-15.355086	20	PASS



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Scan code to check authenticity



			NV	20	0.00	0.000000	20	PASS
			NV	30	-80000.00	-15.355086	20	PASS
			NV	40	0.00	0.000000	20	PASS
			NV	50	80000.00	15.355086	20	PASS





D.6 Duty Cycle

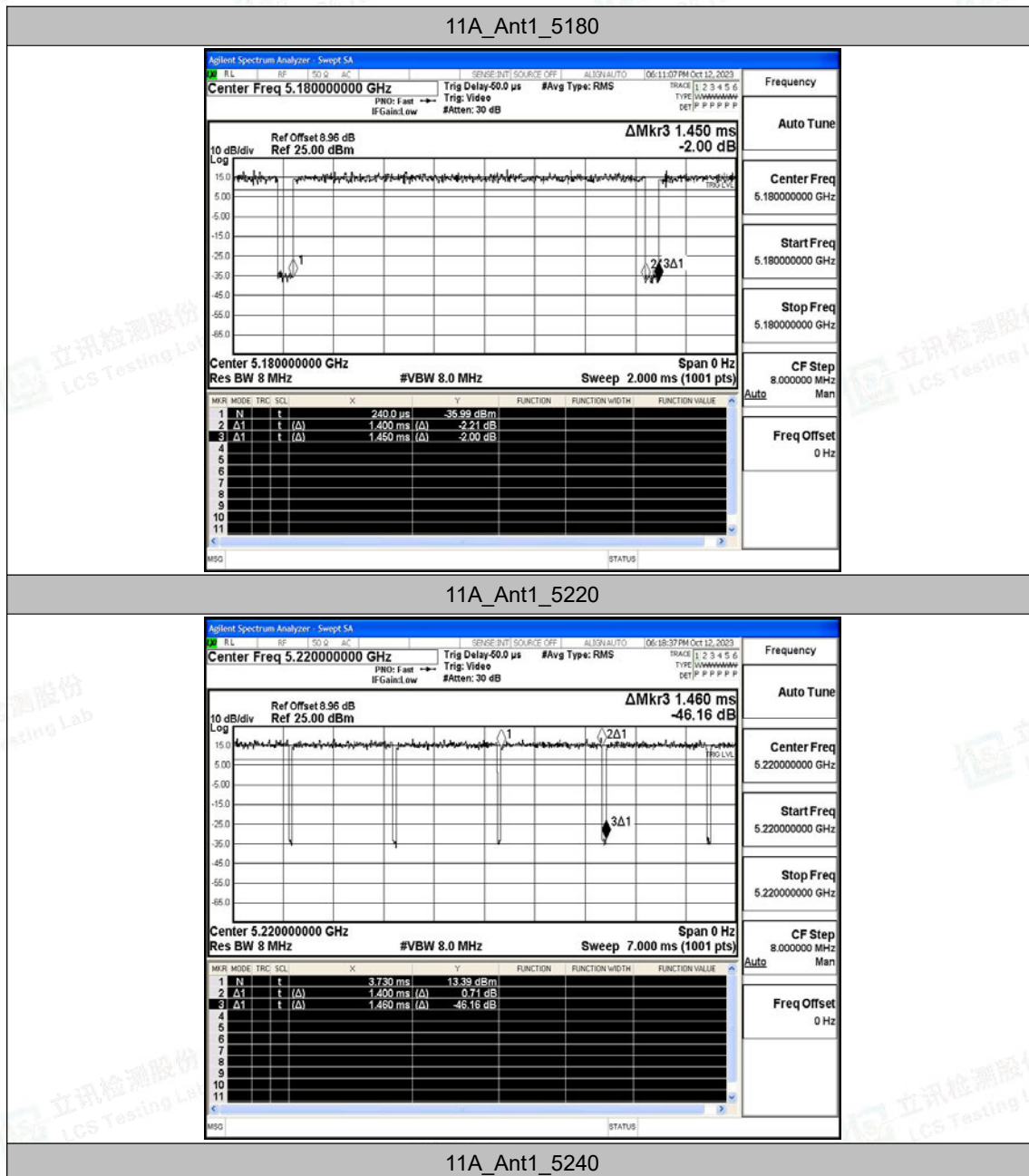
Test Result

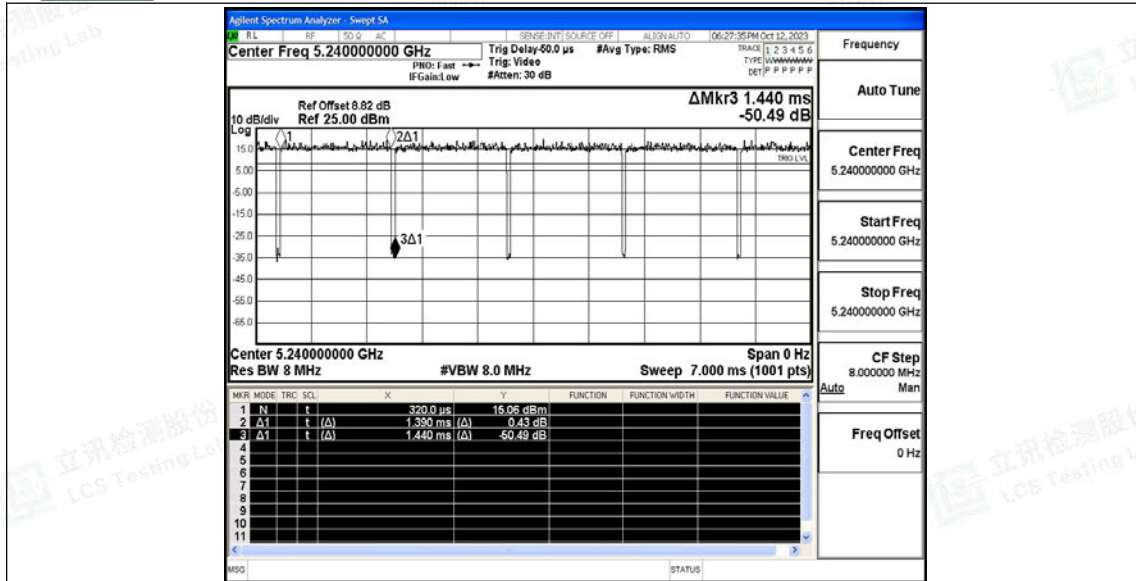
TestMode	Antenna	Frequency[MHz]	Transmission Duration [ms]	Transmission Period [ms]	Duty Cycle [%]
11A	Ant1	5180	1.40	1.45	96.55
		5220	1.40	1.46	95.89
		5240	1.39	1.44	96.53
11N20SISO	Ant1	5180	1.18	1.23	95.93
		5220	1.18	1.24	95.16
		5240	1.18	1.23	95.93
11N40SISO	Ant1	5190	0.59	0.64	92.19
		5230	0.59	0.64	92.19
11AC20SISO	Ant1	5180	1.19	1.24	95.97
		5220	1.19	1.24	95.97
		5240	1.19	1.24	95.97
11AC40SISO	Ant1	5190	0.59	0.64	92.19
		5230	0.59	0.64	92.19
11AC80SISO	Ant1	5210	0.30	0.35	85.71



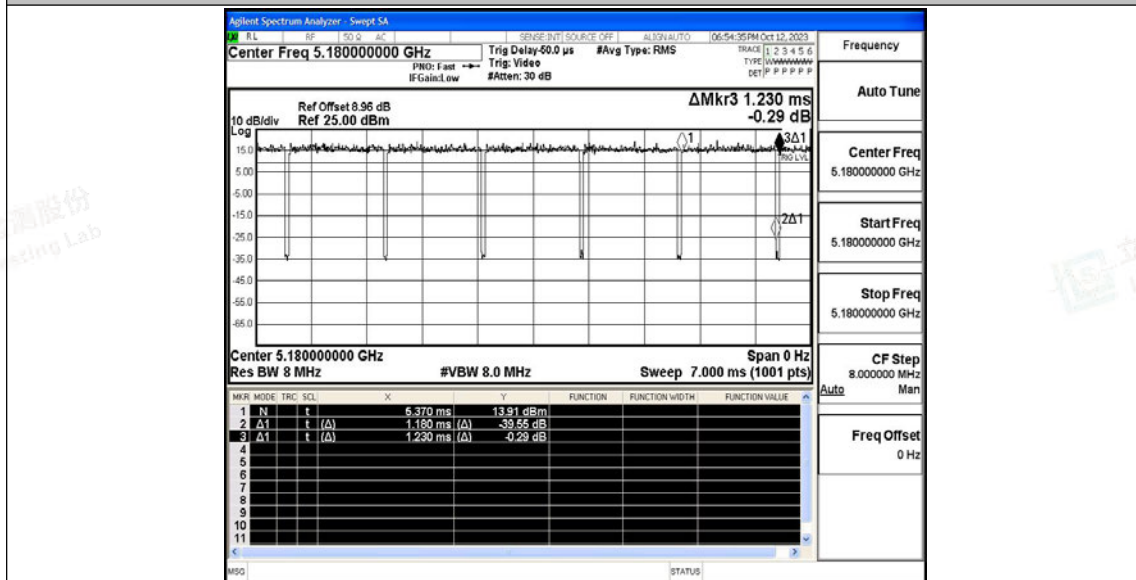


Test Graphs



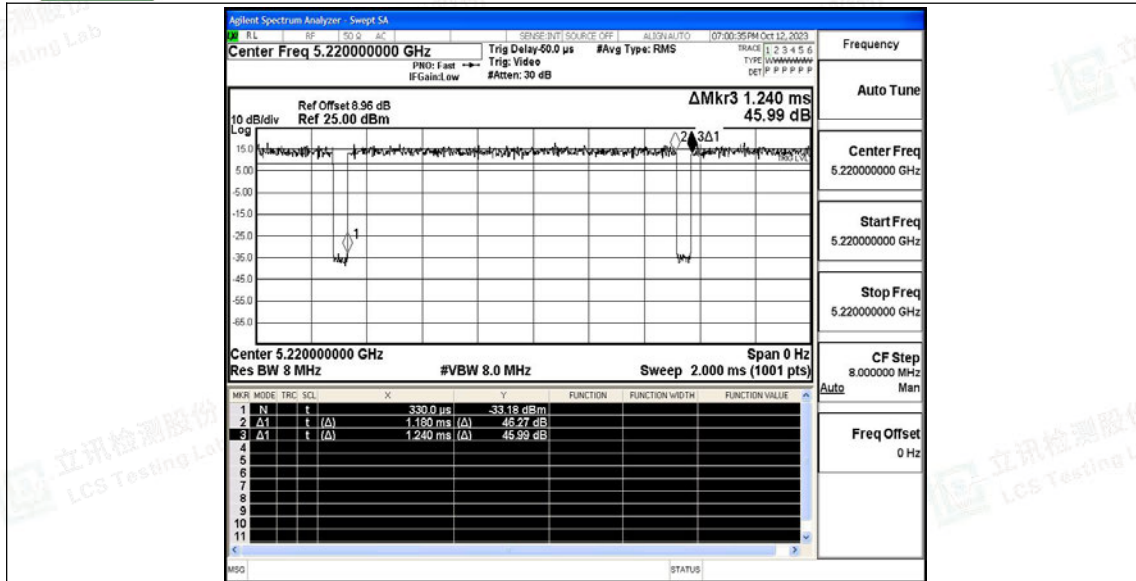


11N20SISO_Ant1_5180

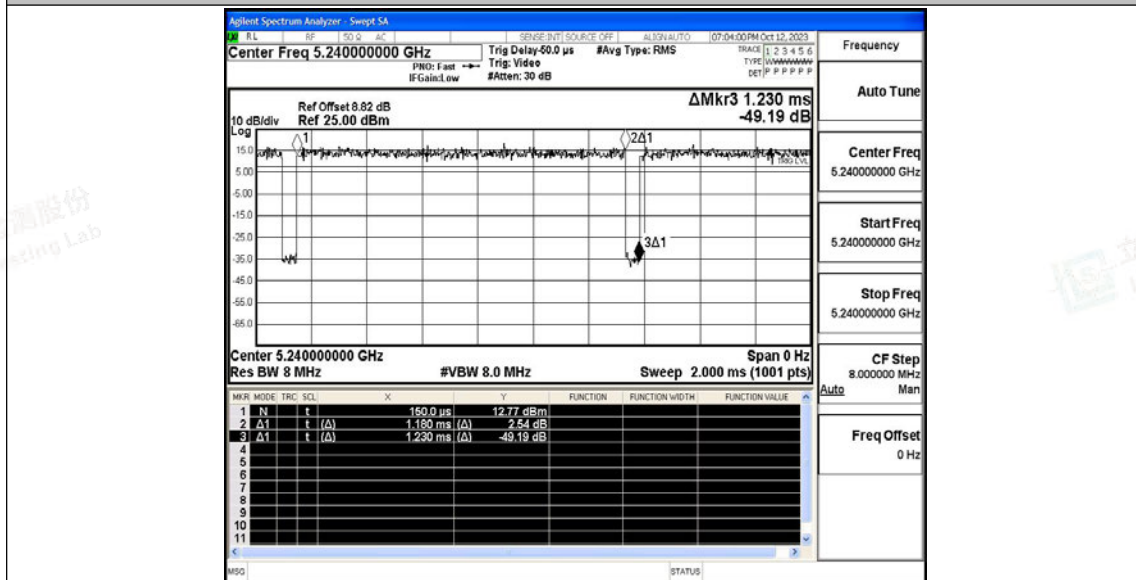


11N20SISO_Ant1_5220



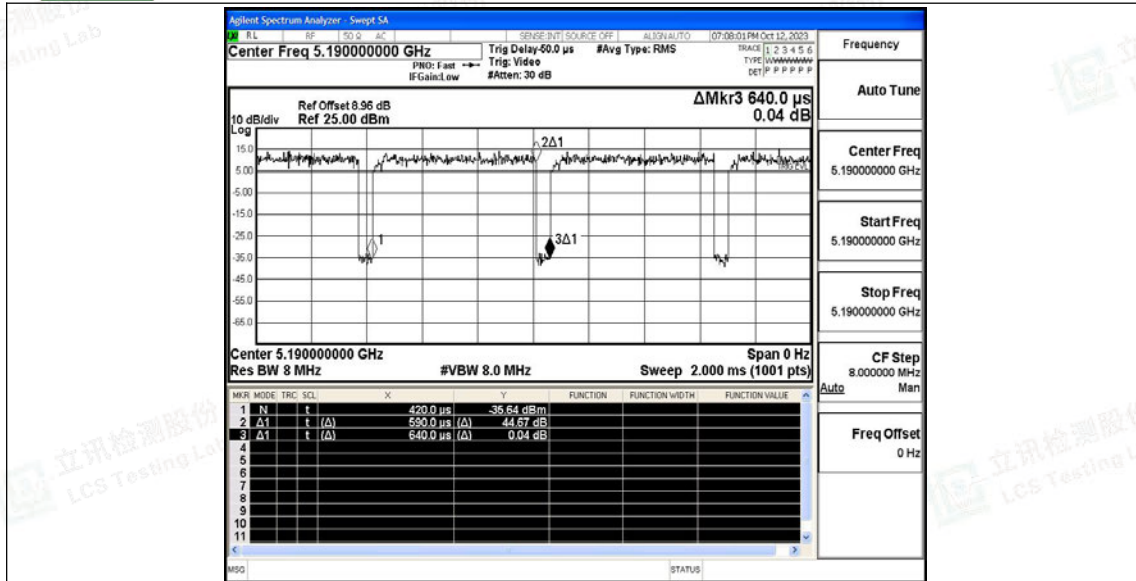


11N20SISO_Ant1_5240

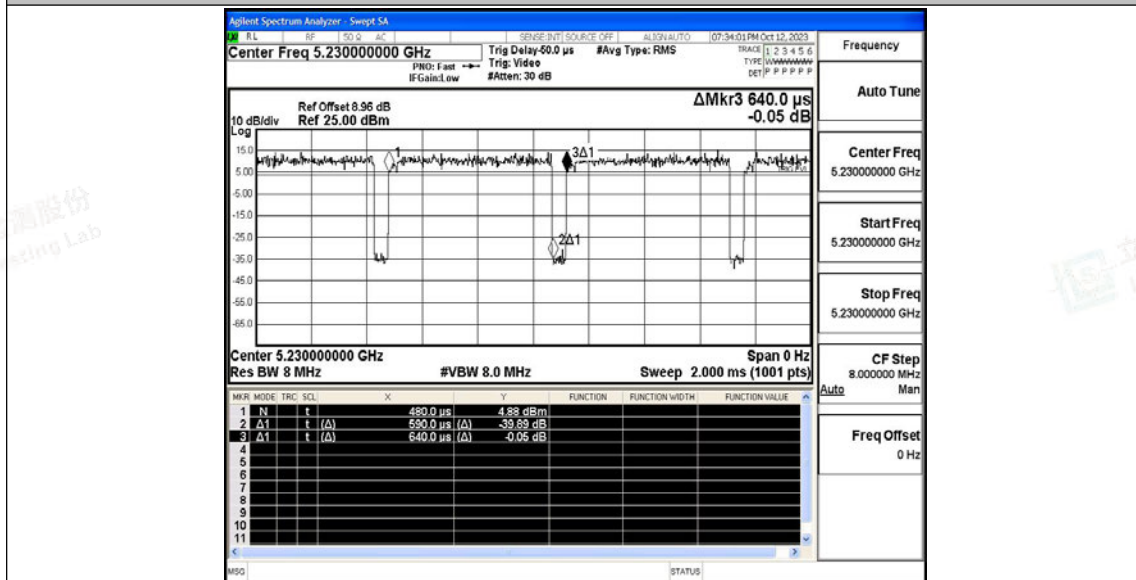


11N40SISO_Ant1_5190



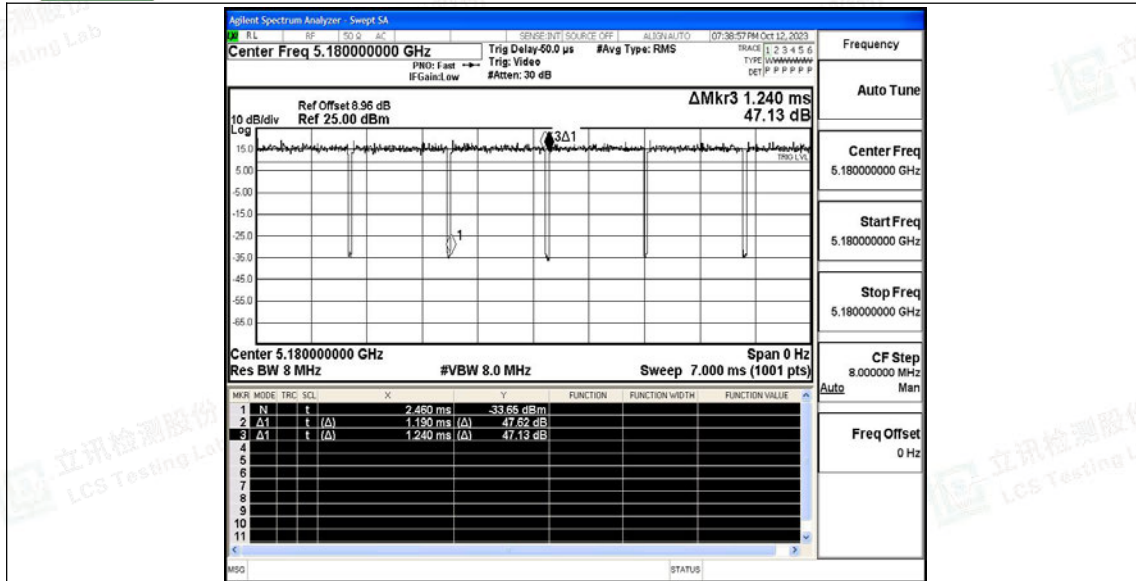


11N40SISO_Ant1_5230

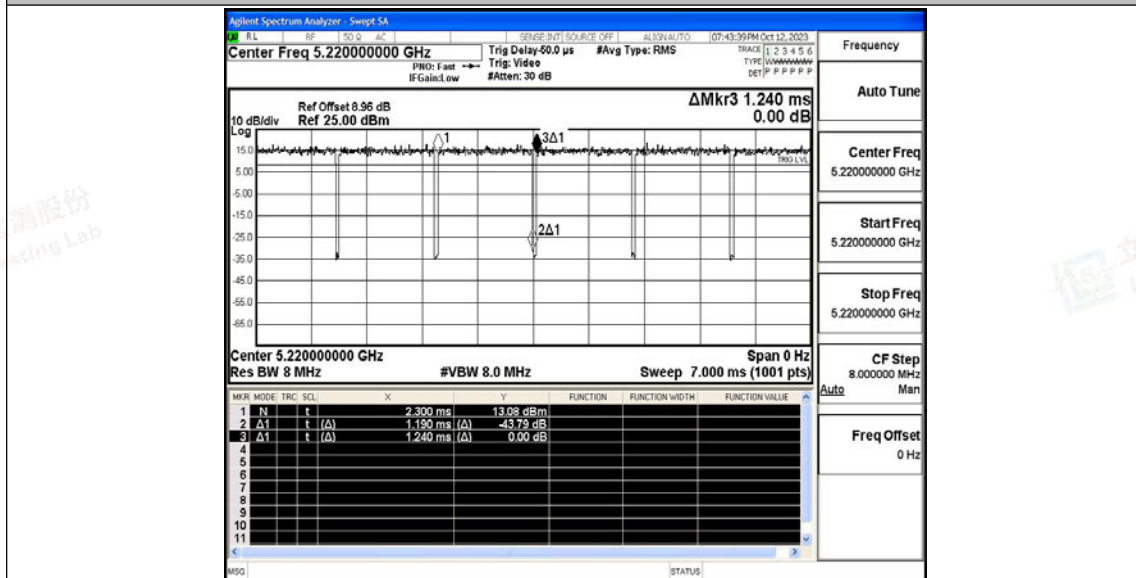


11AC20SISO_Ant1_5180



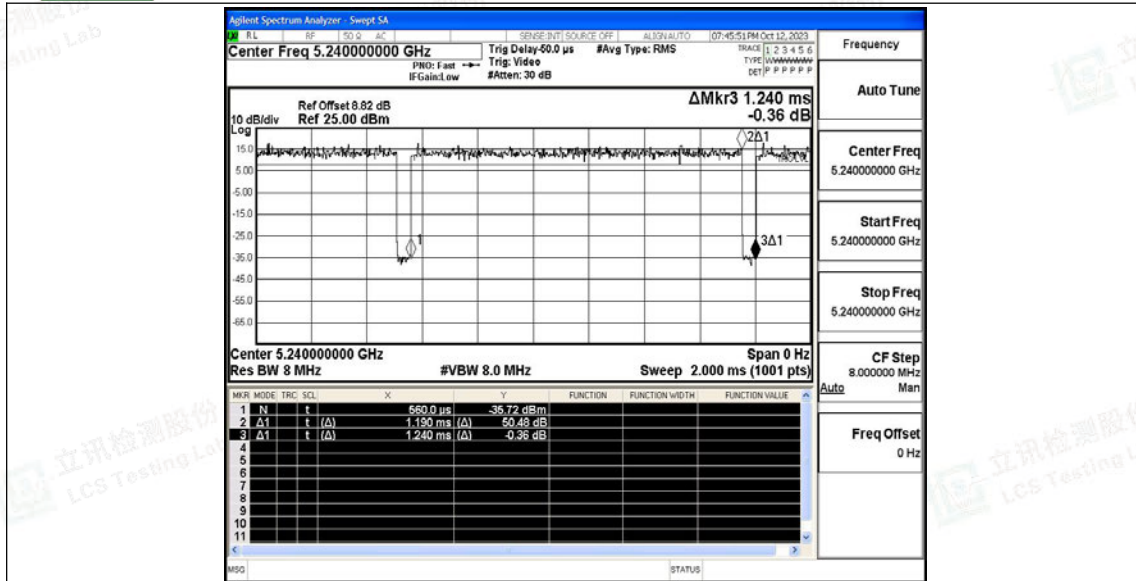


11AC20SISO_Ant1_5220

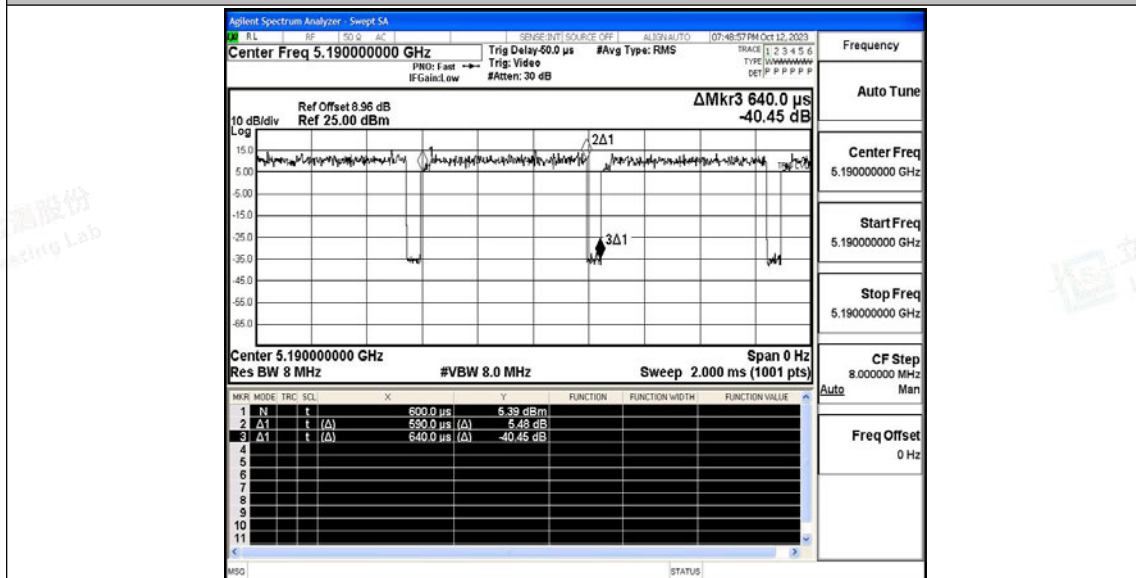


11AC20SISO_Ant1_5240



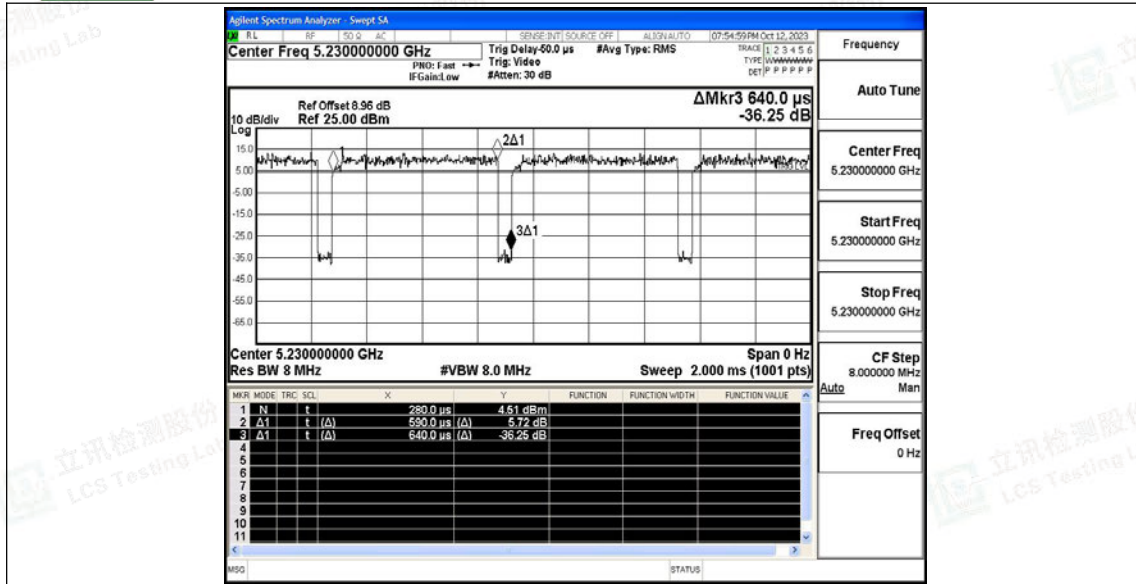


11AC40SISO_Ant1_5190



11AC40SISO_Ant1_5230





11AC80SISO_Ant1_5210

