



Appendix B

RF Test Data for 2.4G WIFI (Conducted Measurement)

Product Name: LED strip

Test Model: CS213

Environmental Conditions

Temperature:	23.5°C
Relative Humidity:	52.2%
ATM Pressure:	100.0 kPa
Test Engineer:	<i>Y.M. Zhu</i>
Supervised by:	<i>Lih</i>





B.1 6dB Bandwidth

Test Result

Mode	Channel	6dB Bandwidth [MHz]	Limit [MHz]	Verdict
11B	LCH	10.11	≥ 0.5	PASS
	MCH	10.11	≥ 0.5	PASS
	HCH	10.10	≥ 0.5	PASS
11G	LCH	16.48	≥ 0.5	PASS
	MCH	16.47	≥ 0.5	PASS
	HCH	16.49	≥ 0.5	PASS
11N20SISO	LCH	17.62	≥ 0.5	PASS
	MCH	17.60	≥ 0.5	PASS
	HCH	17.61	≥ 0.5	PASS
11N40SISO	LCH	36.53	≥ 0.5	PASS
	MCH	36.50	≥ 0.5	PASS
	HCH	36.49	≥ 0.5	PASS



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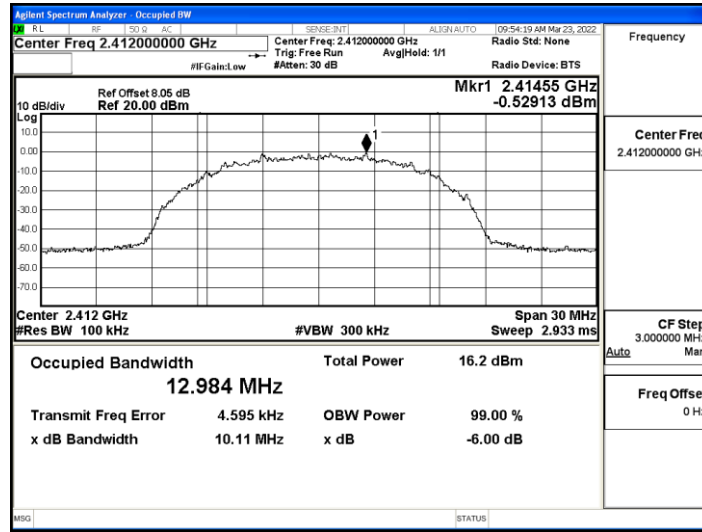
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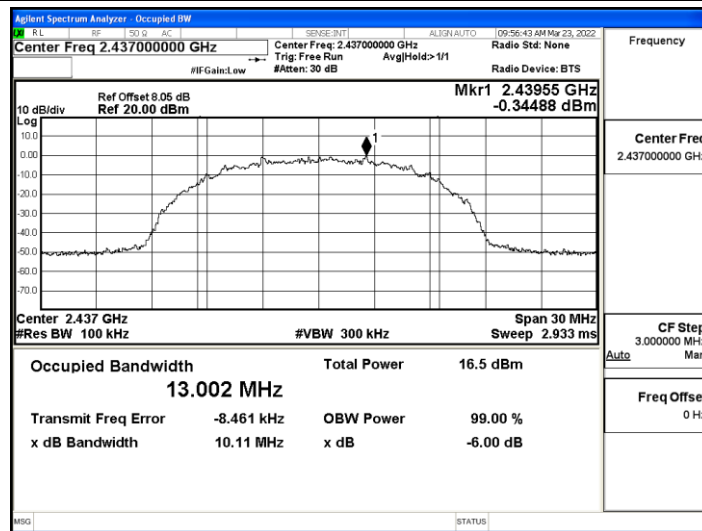


Test Graphs

11B_Ant1_2412

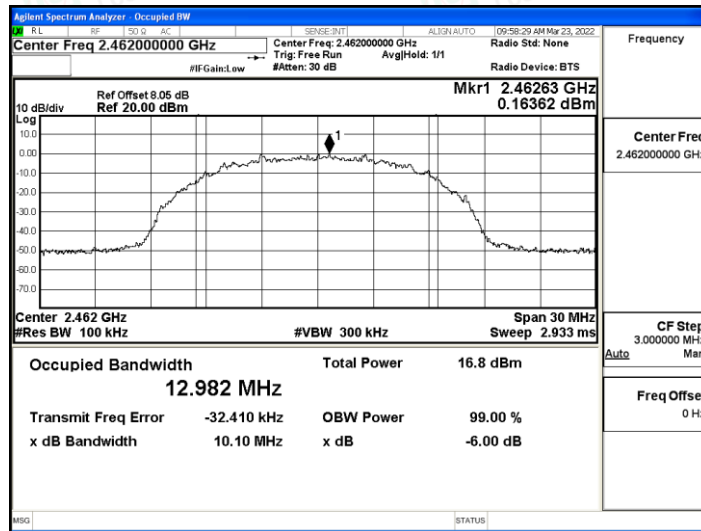


11B_Ant1_2437

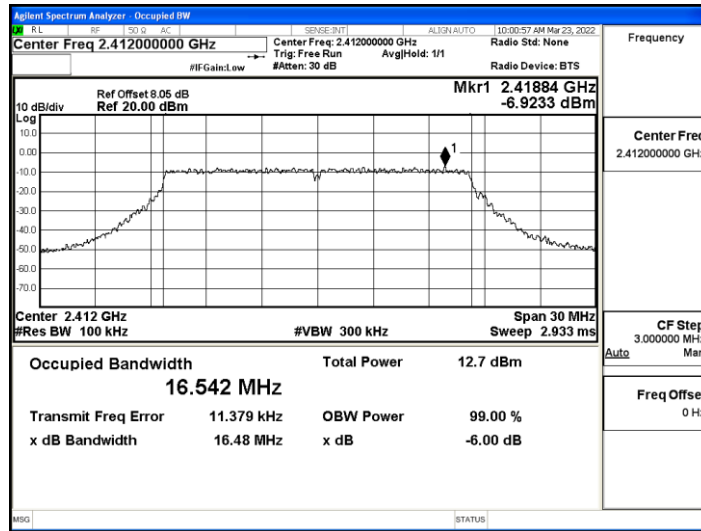


11B_Ant1_2462

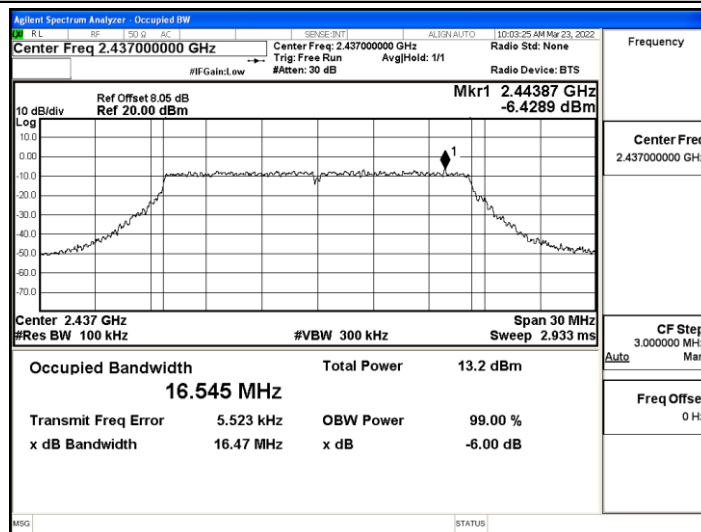




11G_Ant1_2412

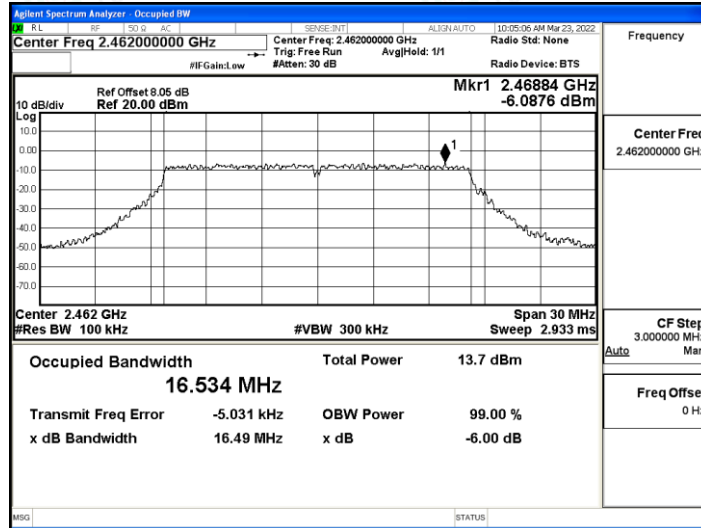


11G_Ant1_2437

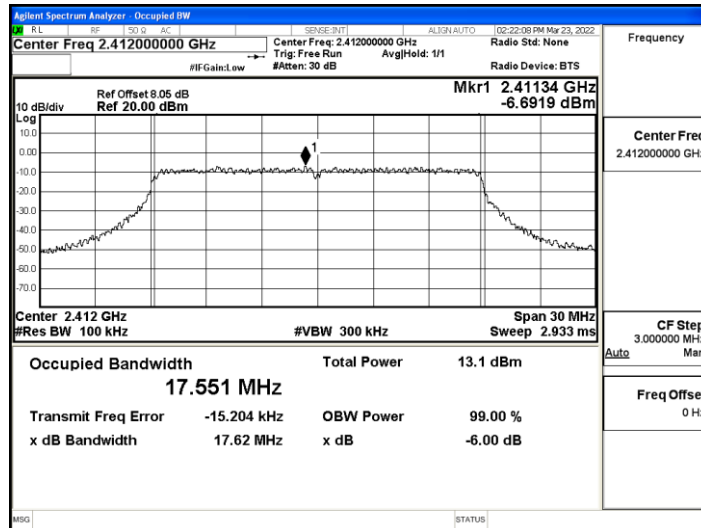


11G_Ant1_2462

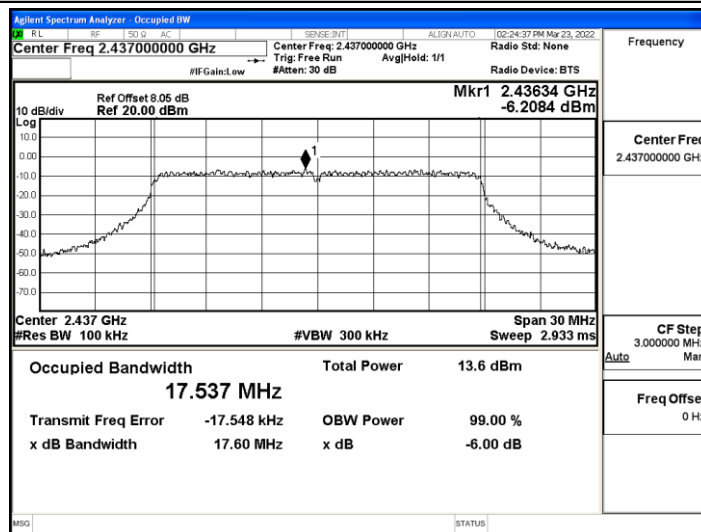




11N20SISO_Ant1_2412

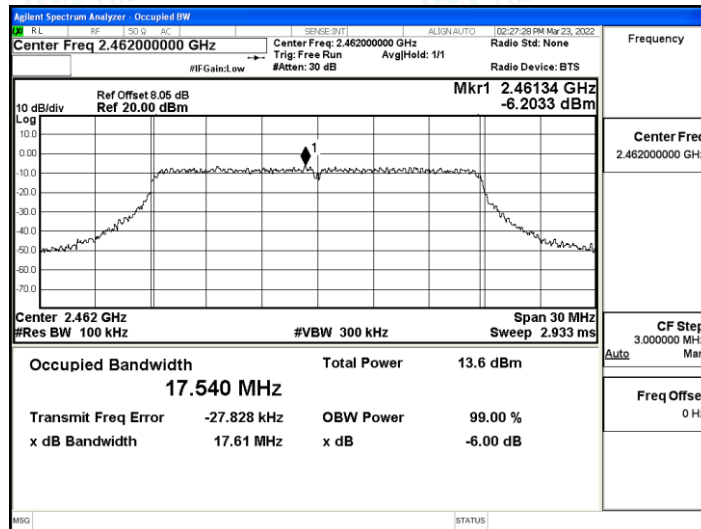


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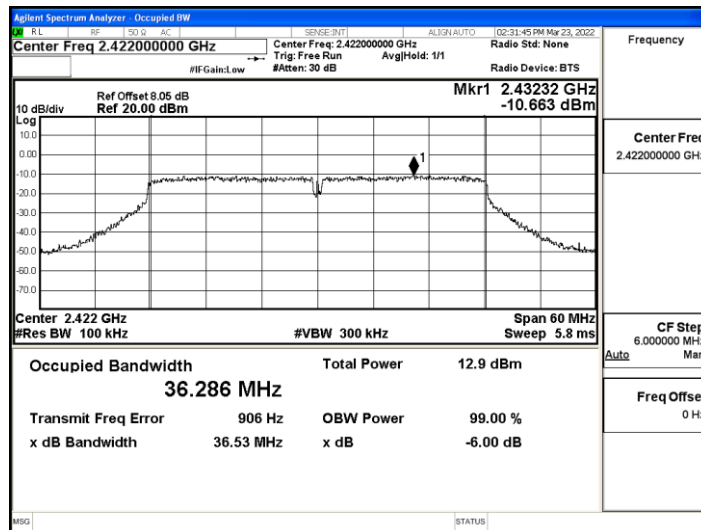


11N20SISO_Ant1_2462

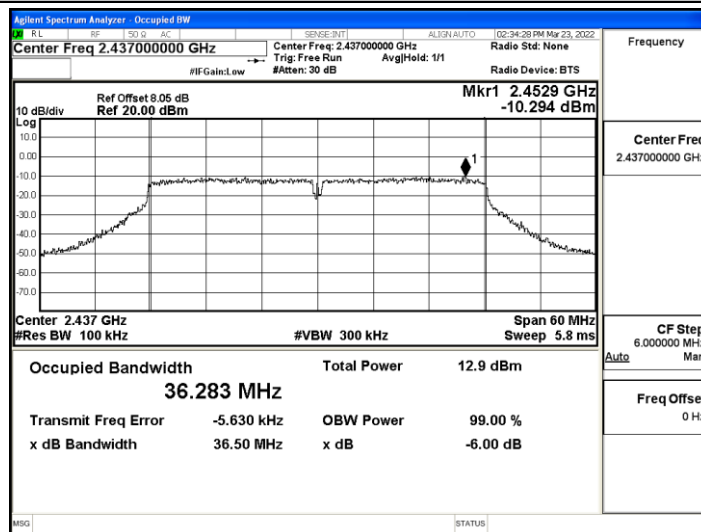




11N40SISO_Ant1_2422

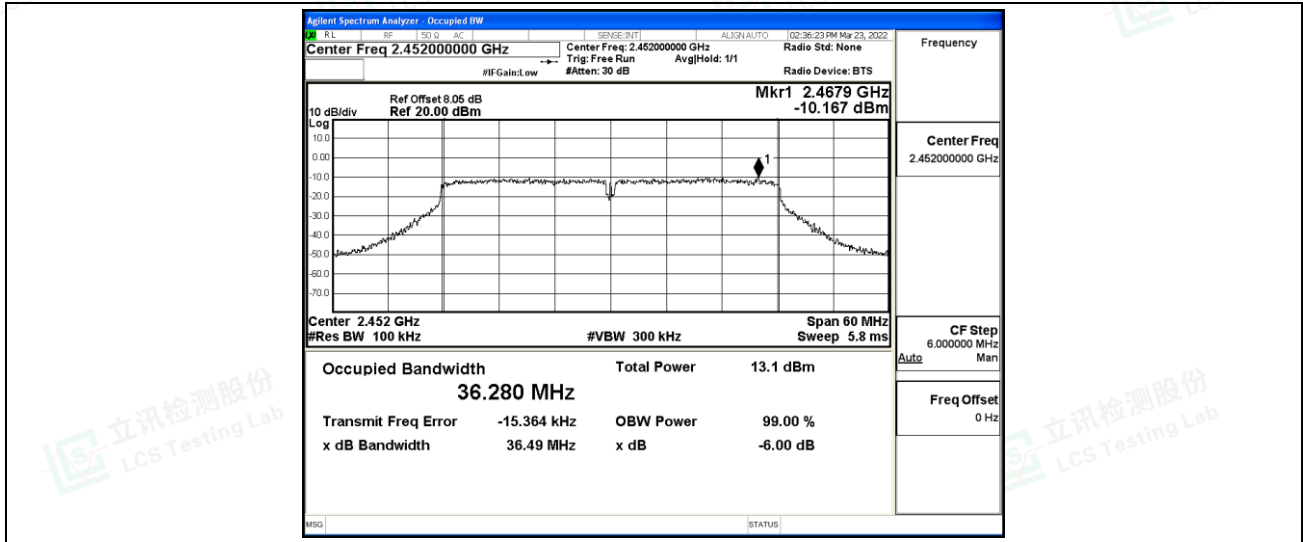


11N40SISO_Ant1_2437



11N40SISO_Ant1_2452







B.2 Maximum conducted output power

Test Result

TestMode	Antenna	Channel	Result[dBm]	Limit[dBm]	Verdict
11B	Ant1	2412	12.41	≤30.00	PASS
		2437	11.64	≤30.00	PASS
		2462	11.76	≤30.00	PASS
11G	Ant1	2412	14.08	≤30.00	PASS
		2437	17.33	≤30.00	PASS
		2462	14.70	≤30.00	PASS
11N20SISO	Ant1	2412	16.25	≤30.00	PASS
		2437	14.76	≤30.00	PASS
		2462	16.95	≤30.00	PASS
11N40SISO	Ant1	2422	14.56	≤30.00	PASS
		2437	16.32	≤30.00	PASS
		2452	15.71	≤30.00	PASS



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B.3 Maximum power spectral density

Test Result

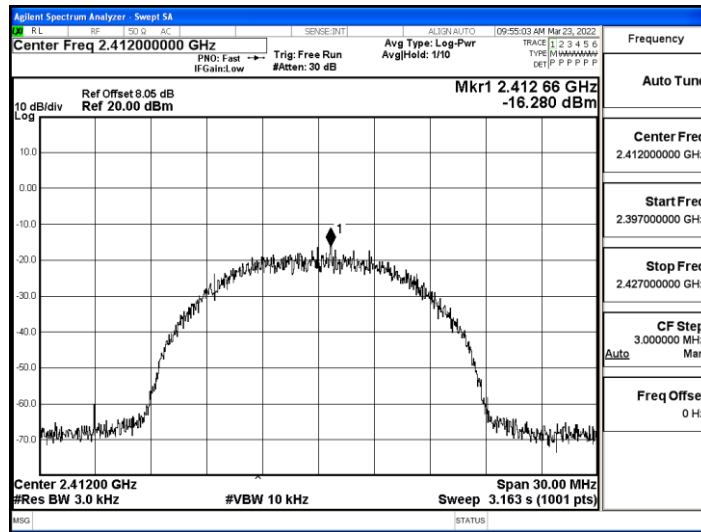
TestMode	Antenna	Channel	Result[dBm/3kHz]	Limit[dBm/3kHz]	Verdict
11B	Ant1	2412	-16.280	≤8.00	PASS
		2437	-16.453	≤8.00	PASS
		2462	-16.375	≤8.00	PASS
11G	Ant1	2412	-17.521	≤8.00	PASS
		2437	-17.685	≤8.00	PASS
		2462	-16.392	≤8.00	PASS
11N20SISO	Ant1	2412	-18.942	≤8.00	PASS
		2437	-18.315	≤8.00	PASS
		2462	-17.680	≤8.00	PASS
11N40SISO	Ant1	2422	-18.054	≤8.00	PASS
		2437	-17.430	≤8.00	PASS
		2452	-16.731	≤8.00	PASS



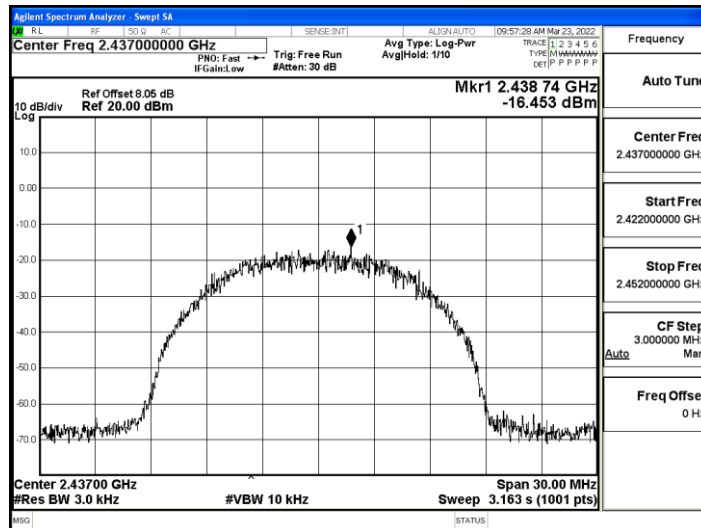


Test Graphs

11B_Ant1_2412

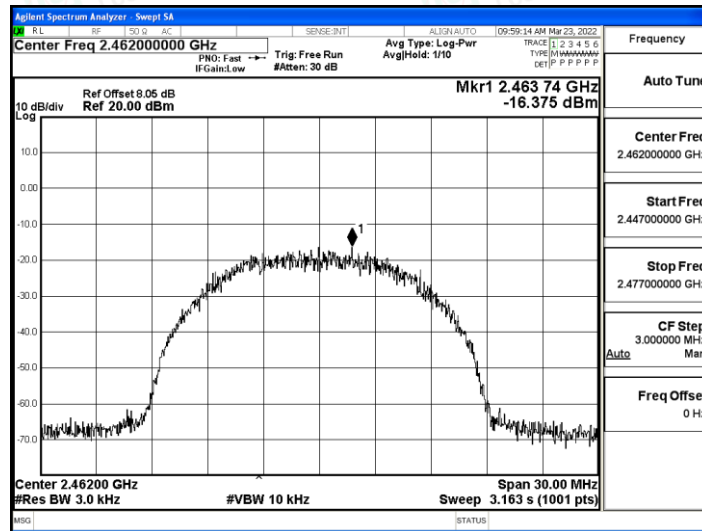


11B_Ant1_2437

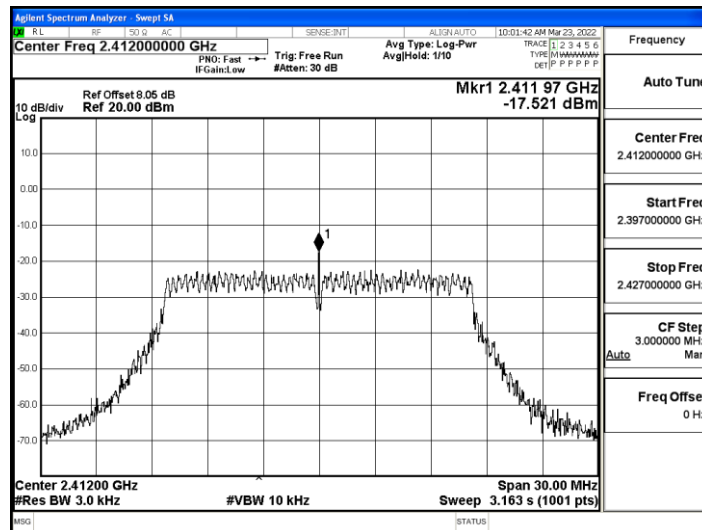


11B_Ant1_2462

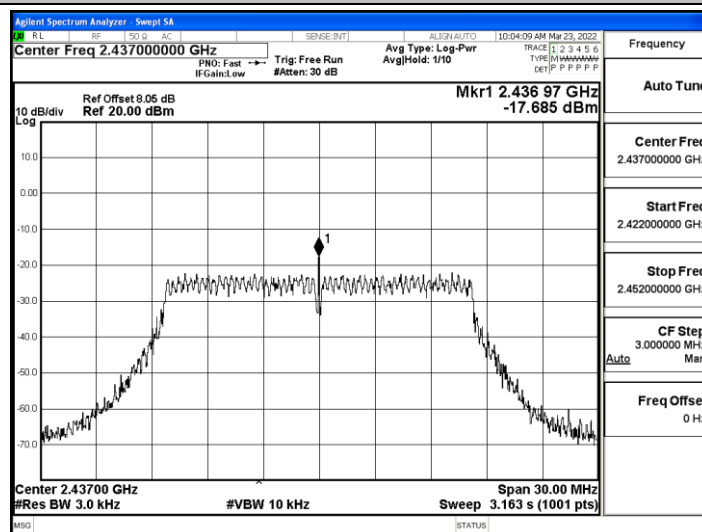




11G_Ant1_2412

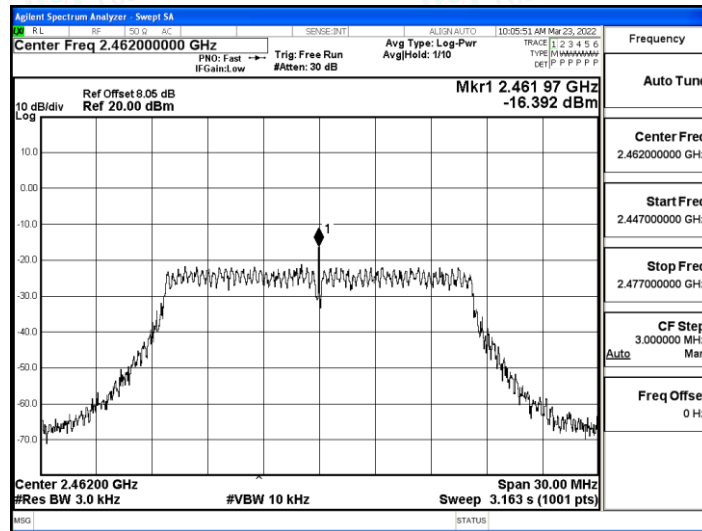


11G_Ant1_2437

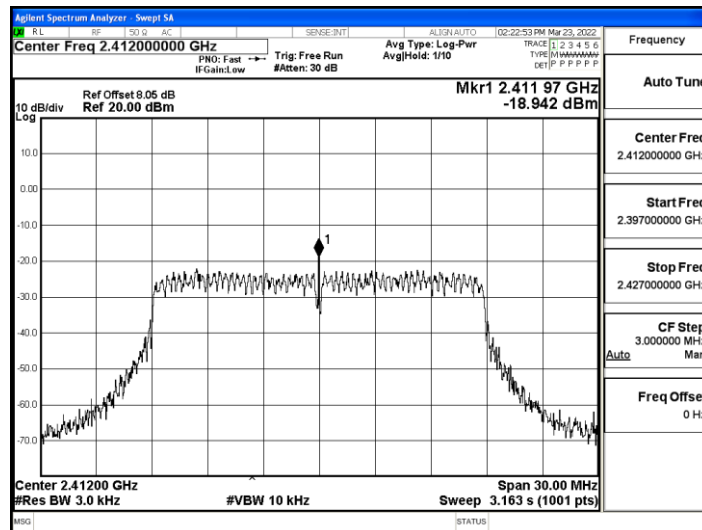


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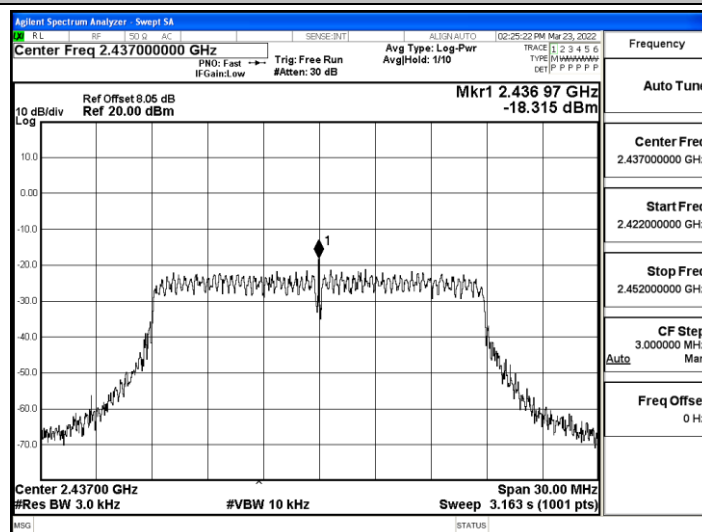




11N20SISO_Ant1_2412

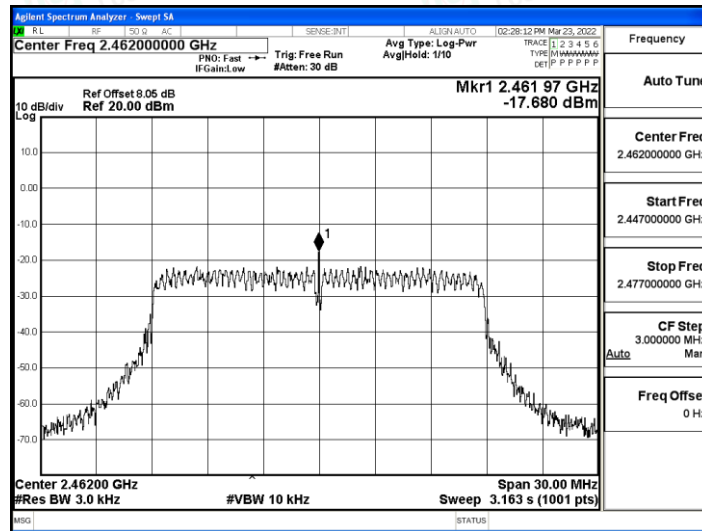


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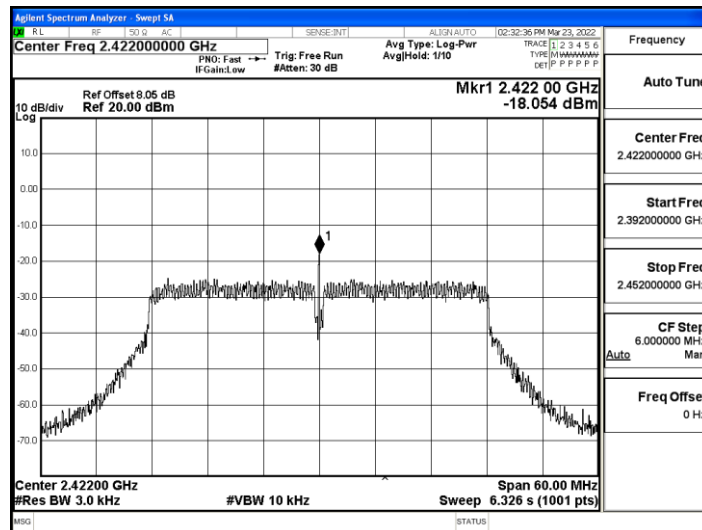


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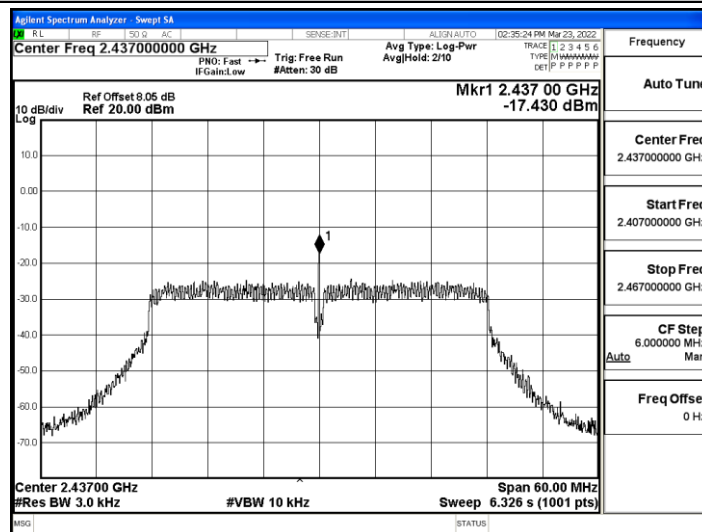




11N40SISO_Ant1_2422

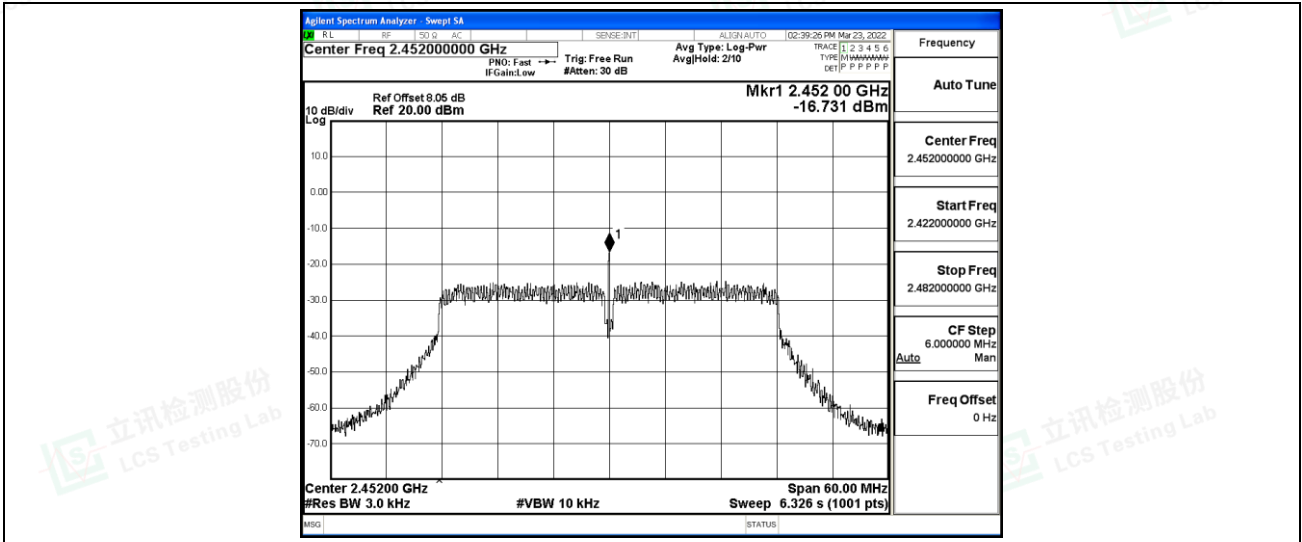


11N40SISO_Ant1_2437



11N40SISO_Ant1_2452







B.4 Band edge measurements

Test Result

TestMode	Antenna	ChName	Channel	RefLevel[dBm]	Result[dBm]	Limit[dBm]	Verdict
11B	Ant1	Low	2412	0.02	-47.57	≤-19.98	PASS
		High	2462	-0.78	-48.7	≤-20.78	PASS
11G	Ant1	Low	2412	-3.36	-43.16	≤-23.36	PASS
		High	2462	-2.10	-47.11	≤-22.1	PASS
11N20SISO	Ant1	Low	2412	-3.68	-39.53	≤-23.68	PASS
		High	2462	-2.67	-34.76	≤-22.67	PASS
11N40SISO	Ant1	Low	2422	-7.59	-39.47	≤-27.59	PASS
		High	2452	-5.38	-39.26	≤-25.38	PASS



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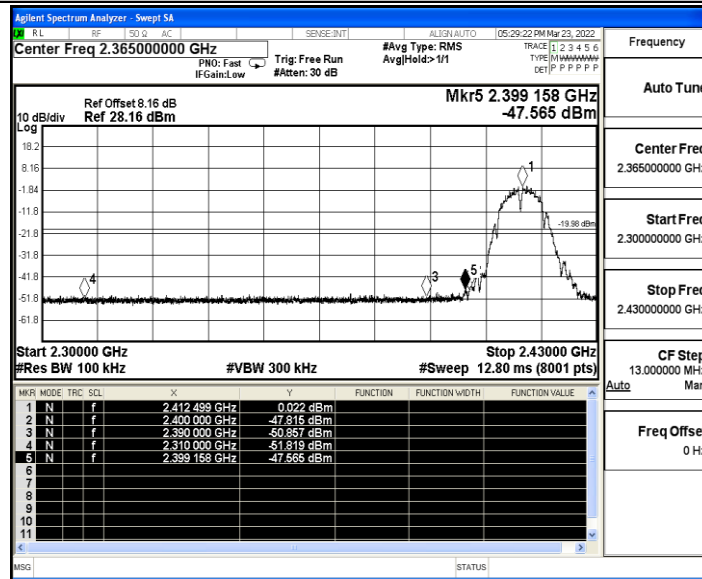
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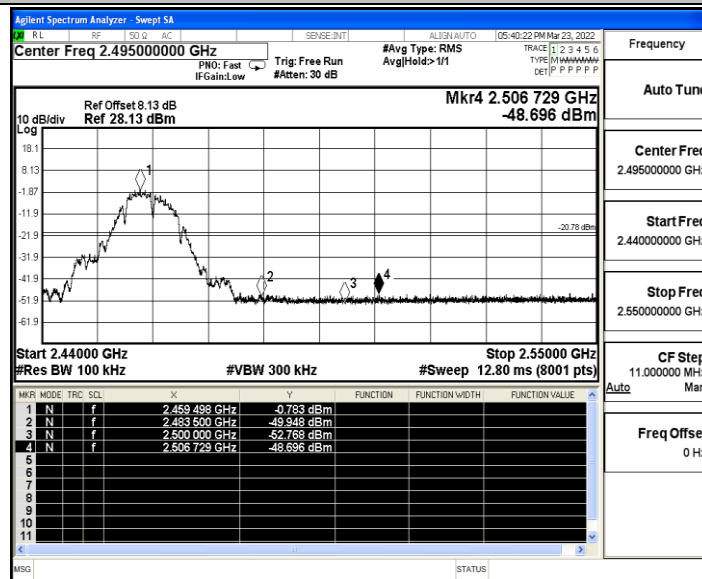


Test Graphs

11B_Ant1_Low_2412

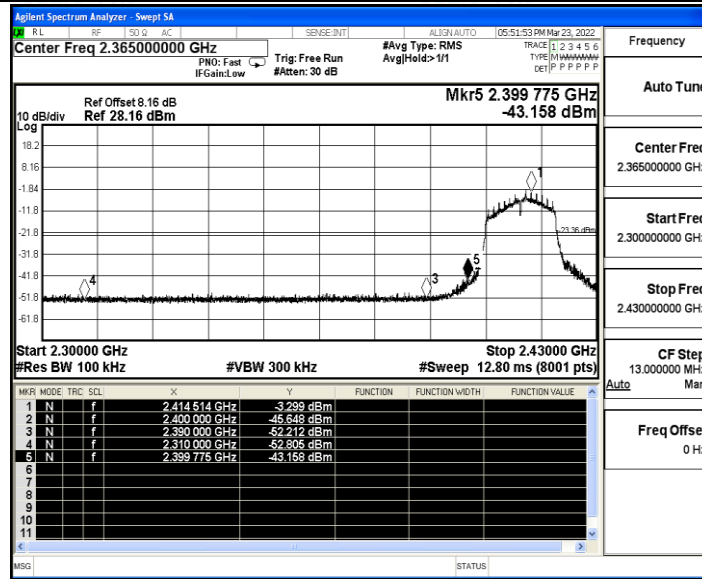


11B_Ant1_High_2462

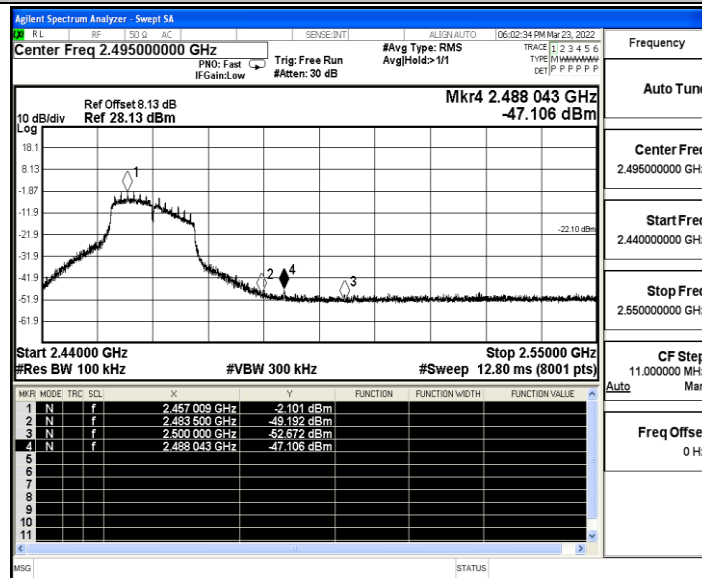


11G_Ant1_Low_2412



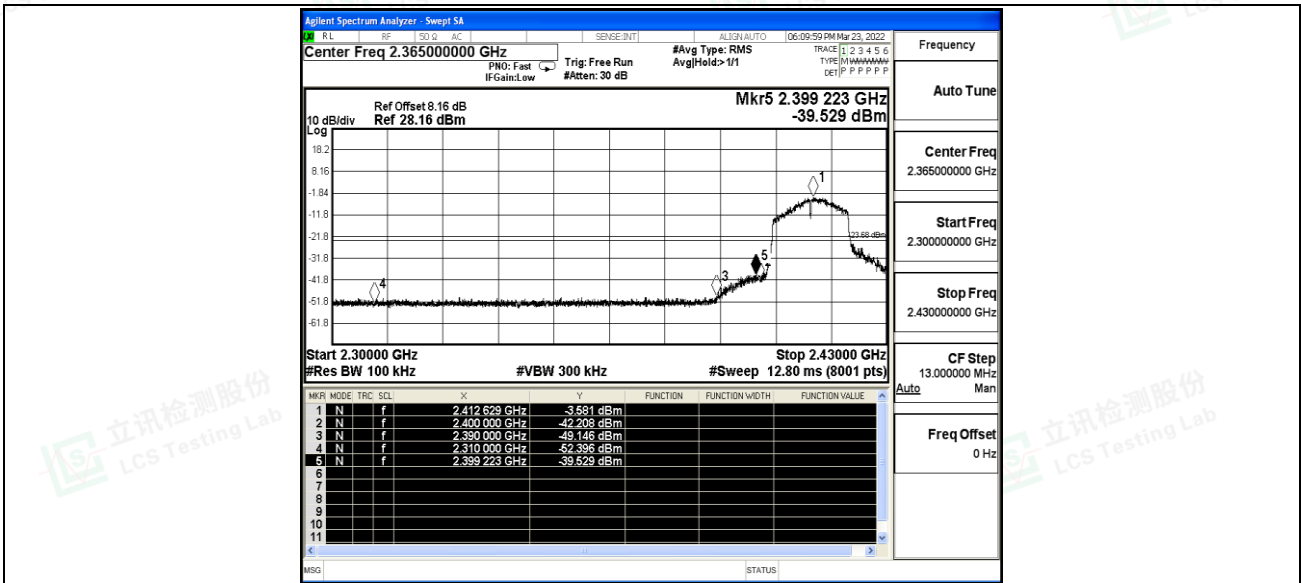


11G_Ant1_High_2462

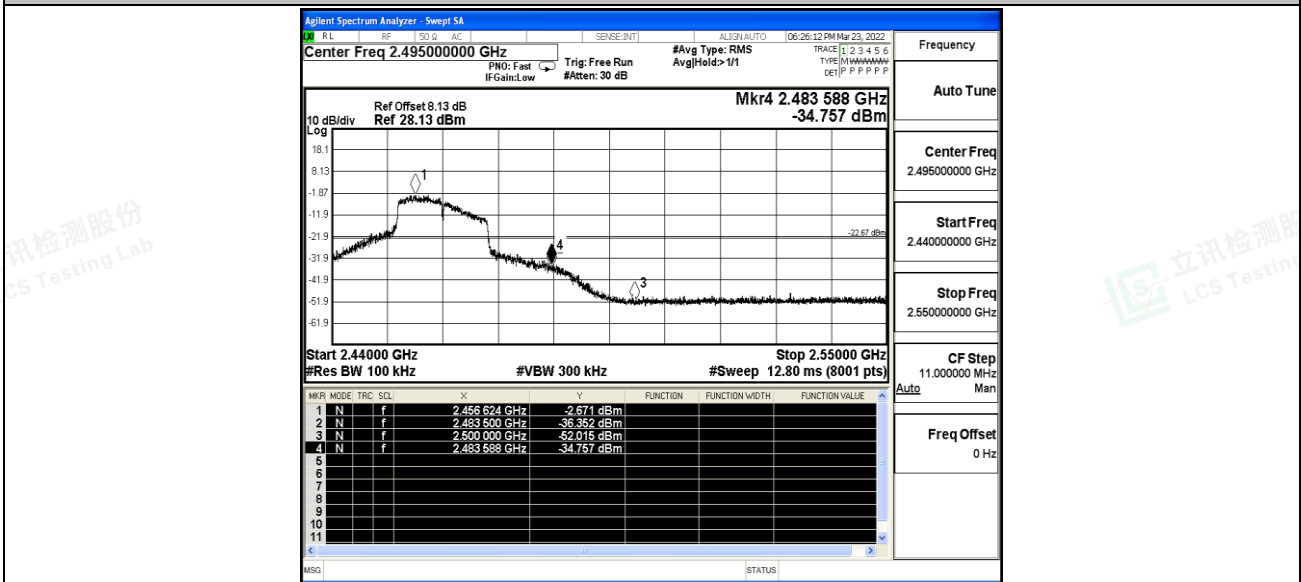


11N20SISO_Ant1_Low_2412



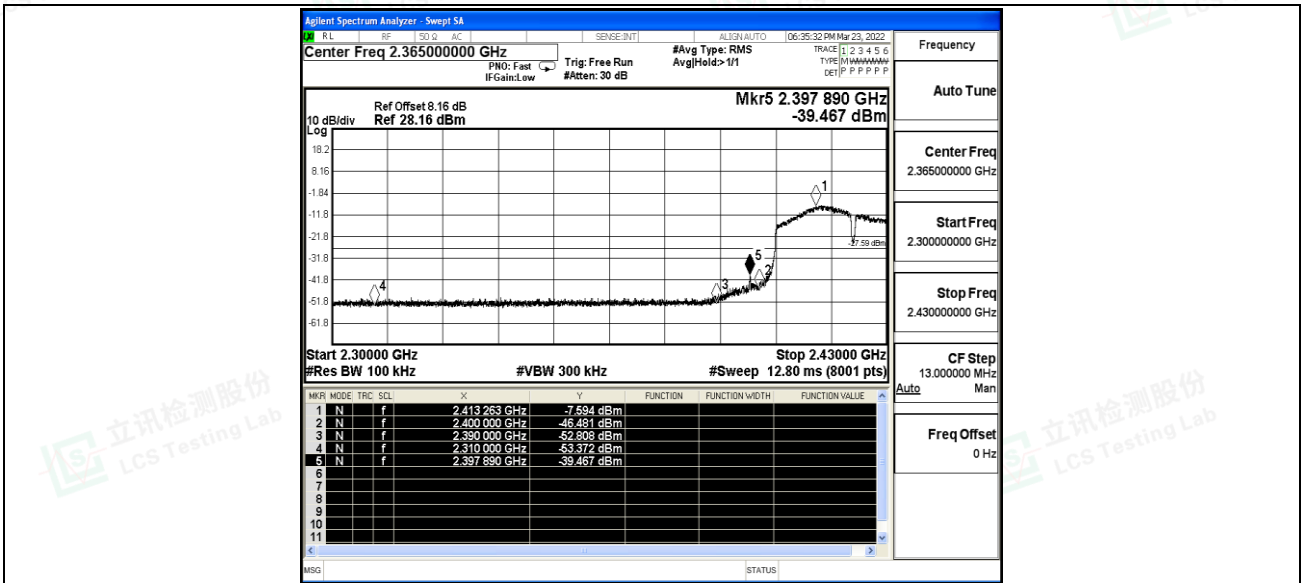


11N20SISO_Ant1_High_2462

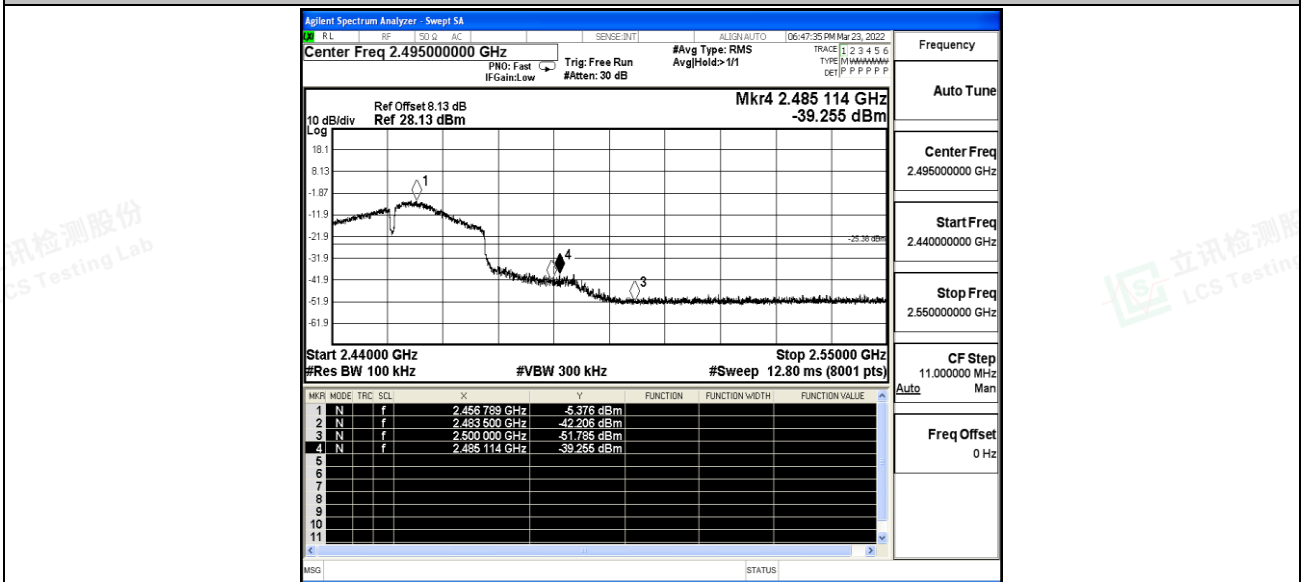


11N40SISO_Ant1_Low_2422





11N40SISO_Ant1_High_2452





B.5 Conducted Spurious Emission

Test Result

TestMode	Antenna	Channel	FreqRange [Mhz]	RefLevel [dBm]	Result [dBm]	Limit [dBm]	Verdict
11B	Ant1	2412	Reference	0.03	0.03	---	PASS
			30~1000	0.03	-61.05	≤-19.97	PASS
			1000~26500	0.03	-47.14	≤-19.97	PASS
		2437	Reference	-1.52	-1.52	---	PASS
			30~1000	-1.52	-60.81	≤-21.52	PASS
			1000~26500	-1.52	-47	≤-21.52	PASS
		2462	Reference	-0.67	-0.67	---	PASS
			30~1000	-0.67	-59.89	≤-20.67	PASS
			1000~26500	-0.67	-46.54	≤-20.67	PASS
11G	Ant1	2412	Reference	-2.86	-2.86	---	PASS
			30~1000	-2.86	-61.49	≤-22.86	PASS
			1000~26500	-2.86	-46.76	≤-22.86	PASS
		2437	Reference	-1.74	-1.74	---	PASS
			30~1000	-1.74	-50.71	≤-21.74	PASS
			1000~26500	-1.74	-46.87	≤-21.74	PASS
		2462	Reference	-2.09	-2.09	---	PASS
			30~1000	-2.09	-49.96	≤-22.09	PASS
			1000~26500	-2.09	-47.17	≤-22.09	PASS
11N20SISO	Ant1	2412	Reference	-3.66	-3.66	---	PASS
			30~1000	-3.66	-61.1	≤-23.66	PASS
			1000~26500	-3.66	-46.67	≤-23.66	PASS
		2437	Reference	-6.87	-6.87	---	PASS
			30~1000	-6.87	-60.69	≤-26.87	PASS
			1000~26500	-6.87	-46.61	≤-26.87	PASS
		2462	Reference	-4.50	-4.50	---	PASS
			30~1000	-4.50	-60.14	≤-24.5	PASS
			1000~26500	-4.50	-45.83	≤-24.5	PASS
11N40SISO	Ant1	2422	Reference	-7.58	-7.58	---	PASS
			30~1000	-7.58	-47.4	≤-27.58	PASS
			1000~26500	-7.58	-46.29	≤-27.58	PASS
		2437	Reference	-5.28	-5.28	---	PASS
			30~1000	-5.28	-60.77	≤-25.28	PASS
			1000~26500	-5.28	-46.8	≤-25.28	PASS
		2452	Reference	-5.12	-5.12	---	PASS
			30~1000	-5.12	-32.01	≤-25.12	PASS



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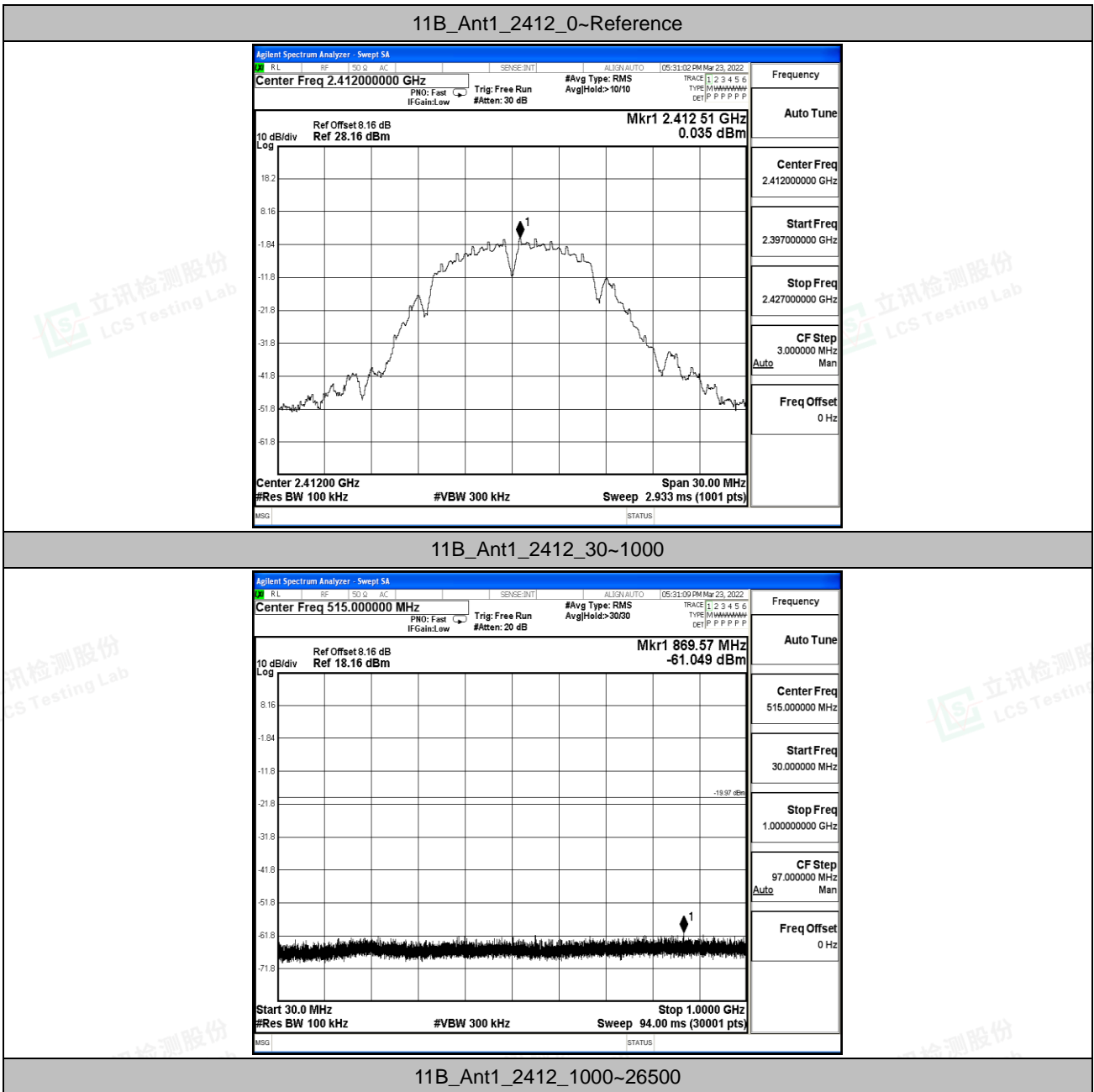


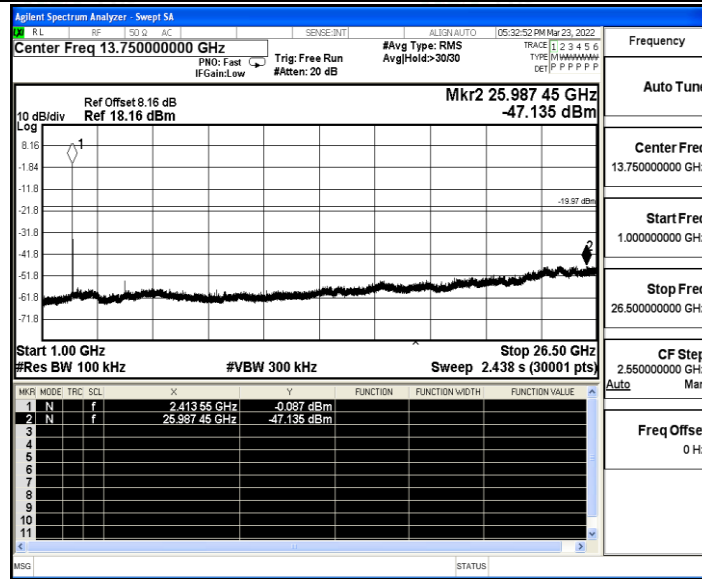
			1000~26500	-5.12	-46.41	≤-25.12	PASS
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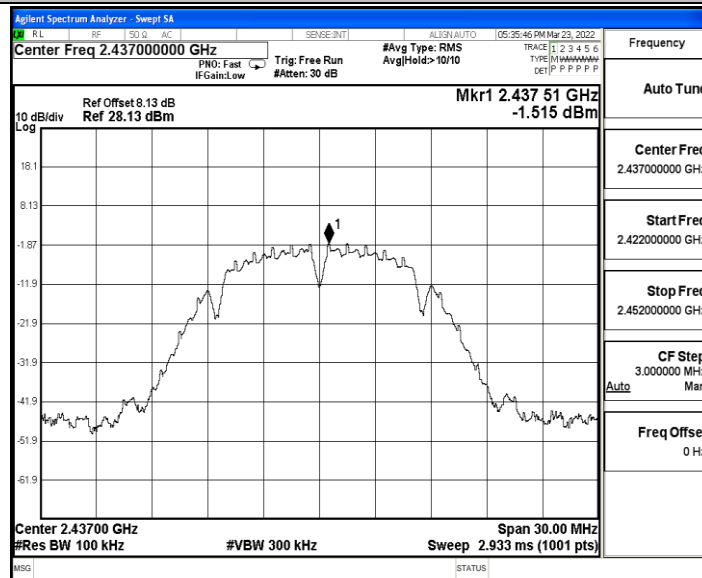


Test Graphs



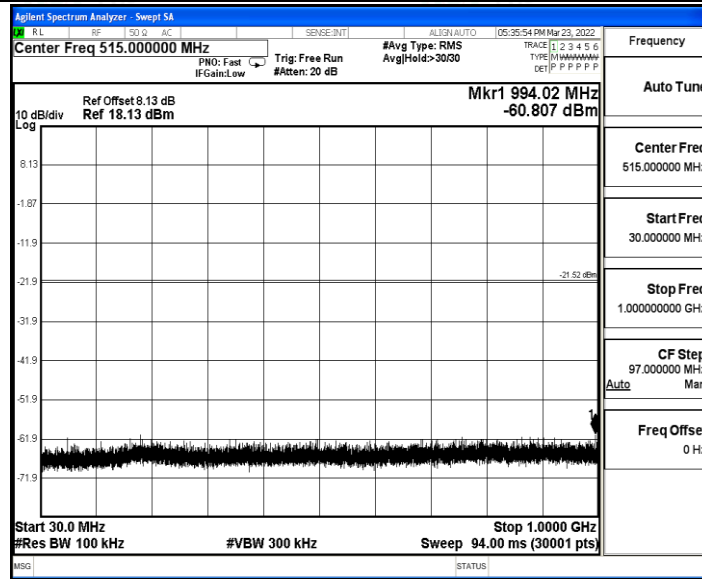


11B_Ant1_2437_0~Reference

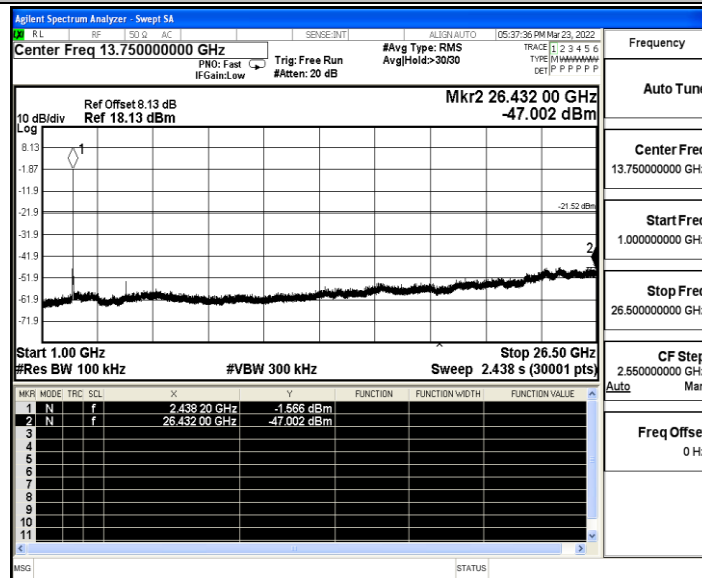


11B_Ant1_2437_30~100



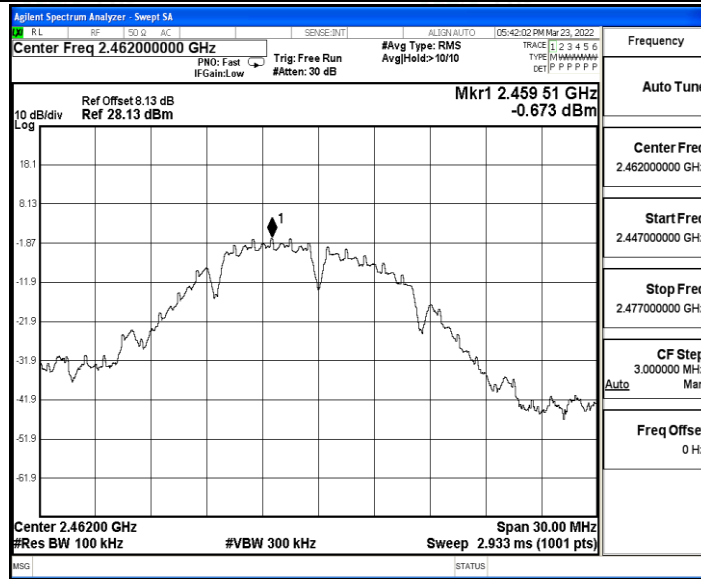


11B_Ant1_2437_1000-26500

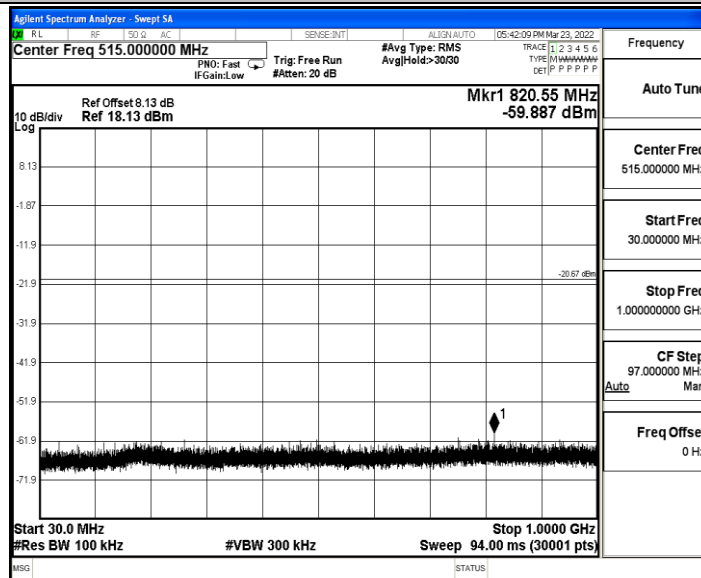


11B_Ant1_2462_0-Reference



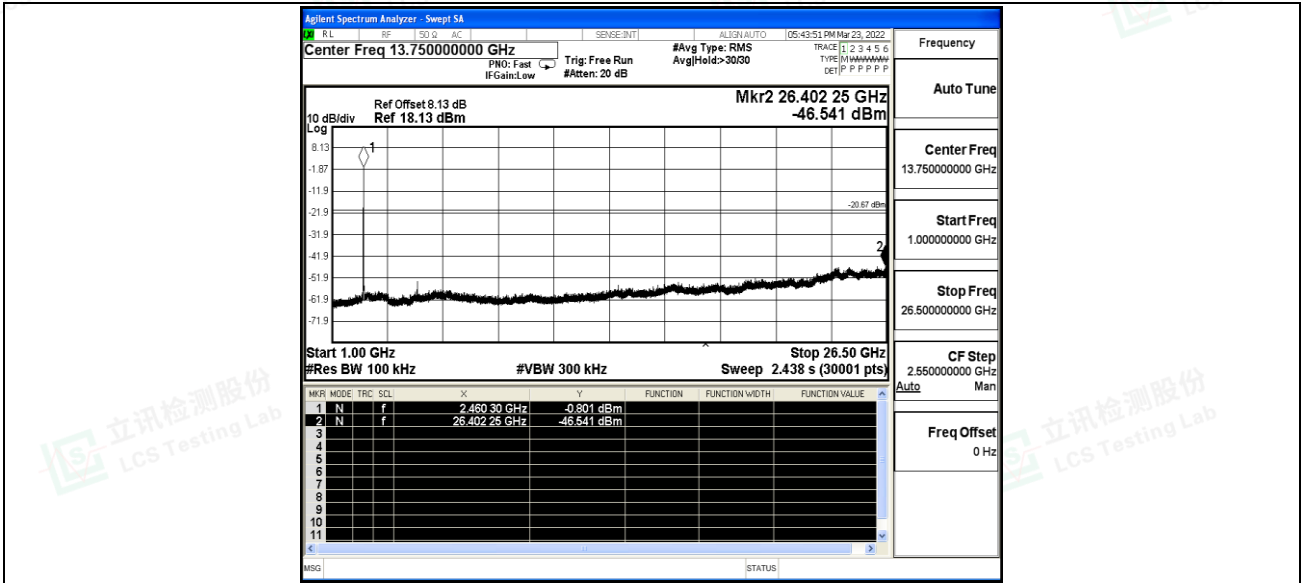


11B_Ant1_2462_30~1000

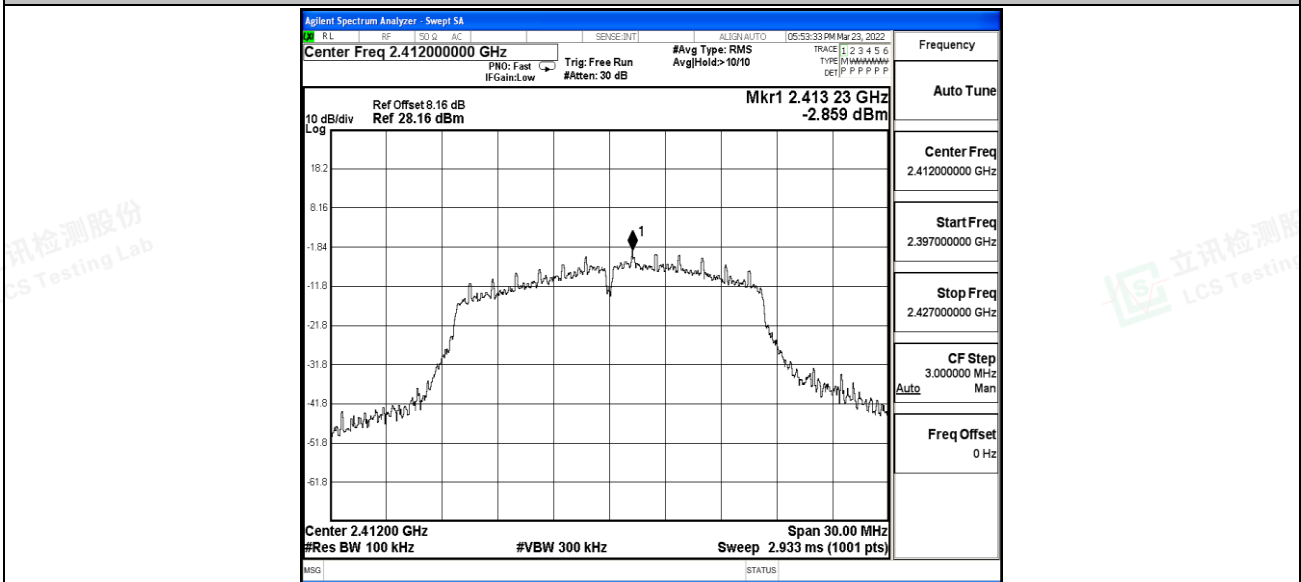


11B_Ant1_2462_1000~26500



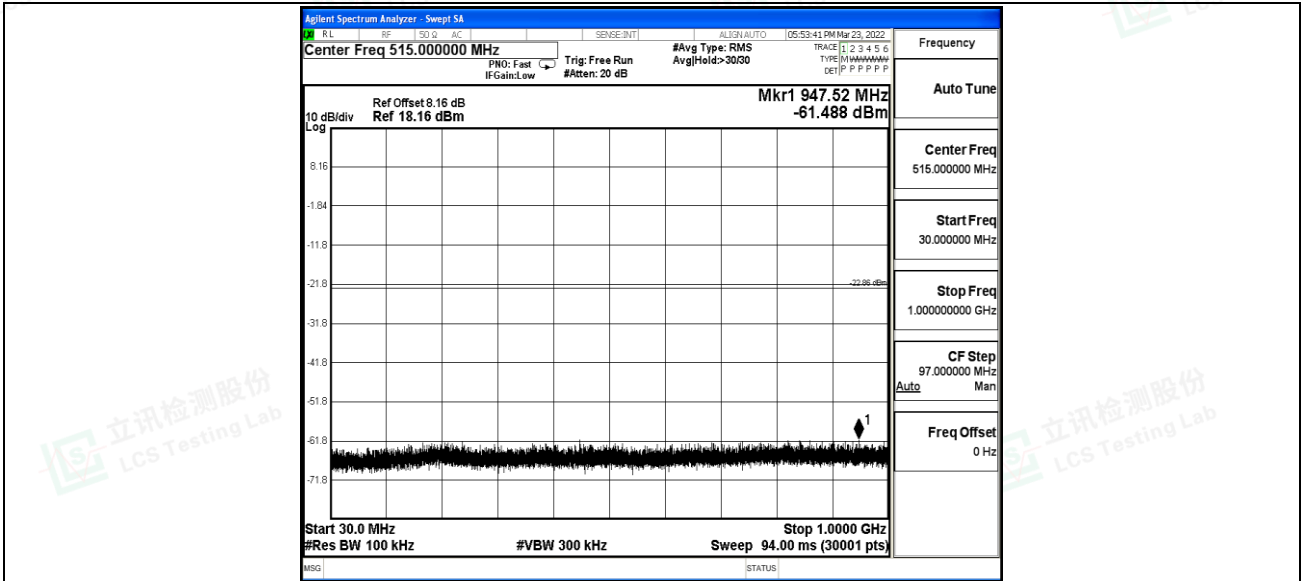


11G_Ant1_2412_0~Reference

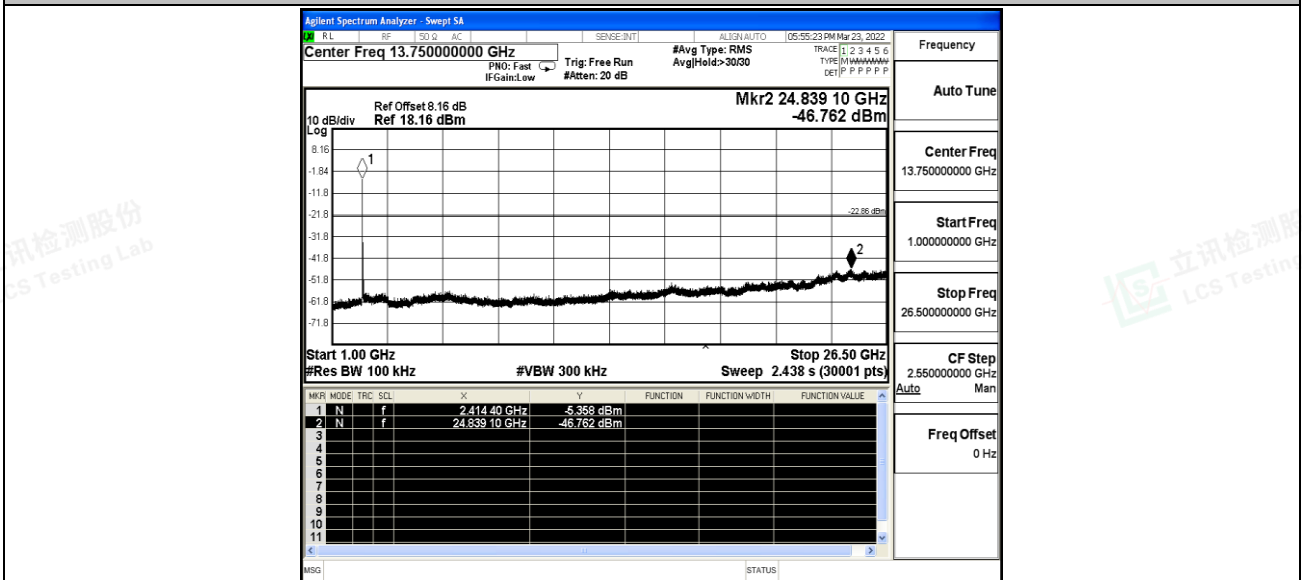


11G_Ant1_2412_30~1000



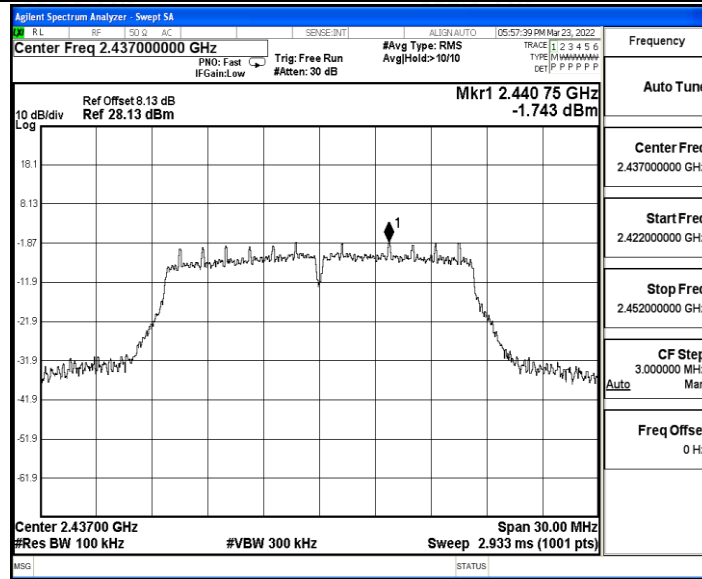


11G_Ant1_2412_1000~26500

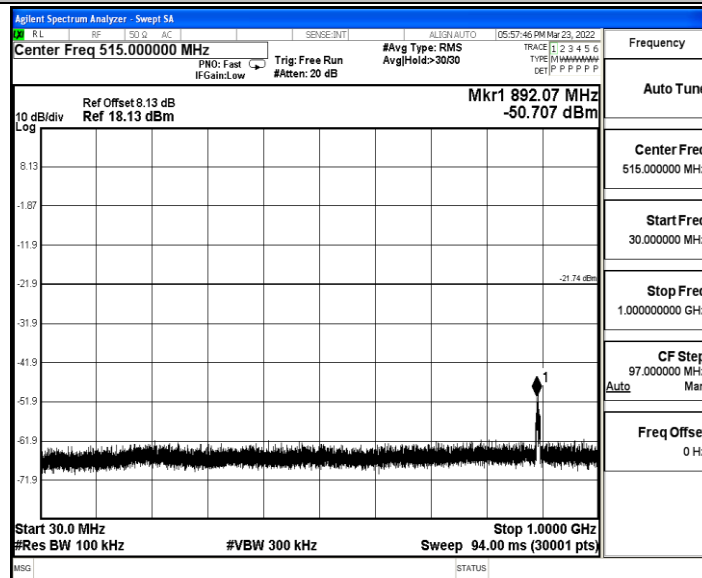


11G_Ant1_2437_0~Reference



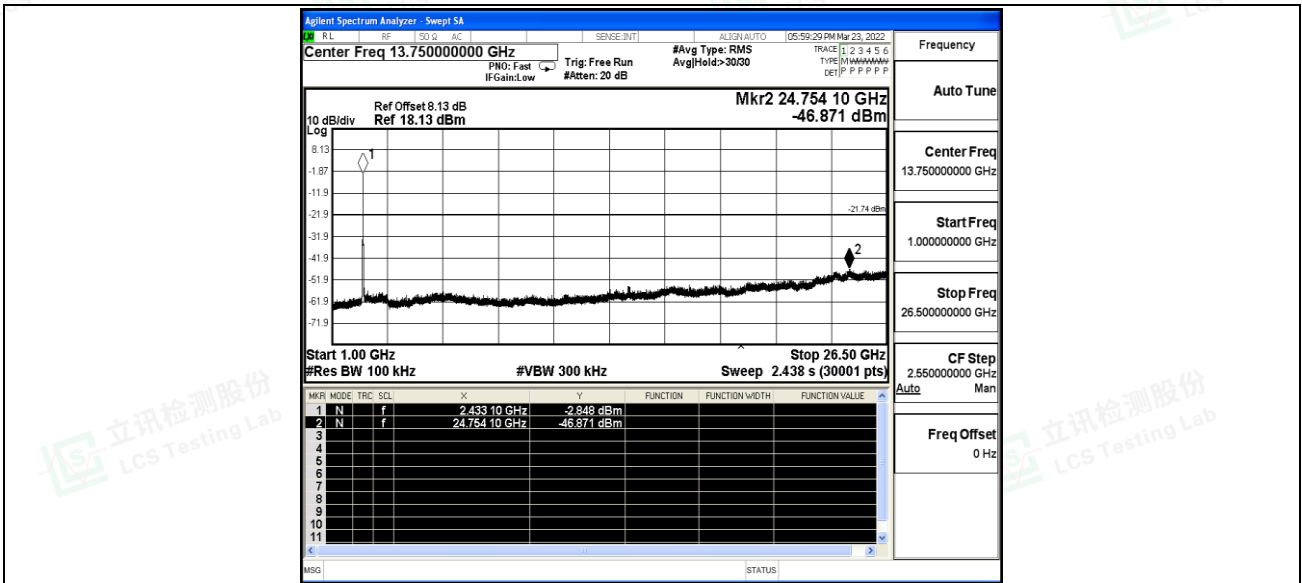


11G_Ant1_2437_30~1000

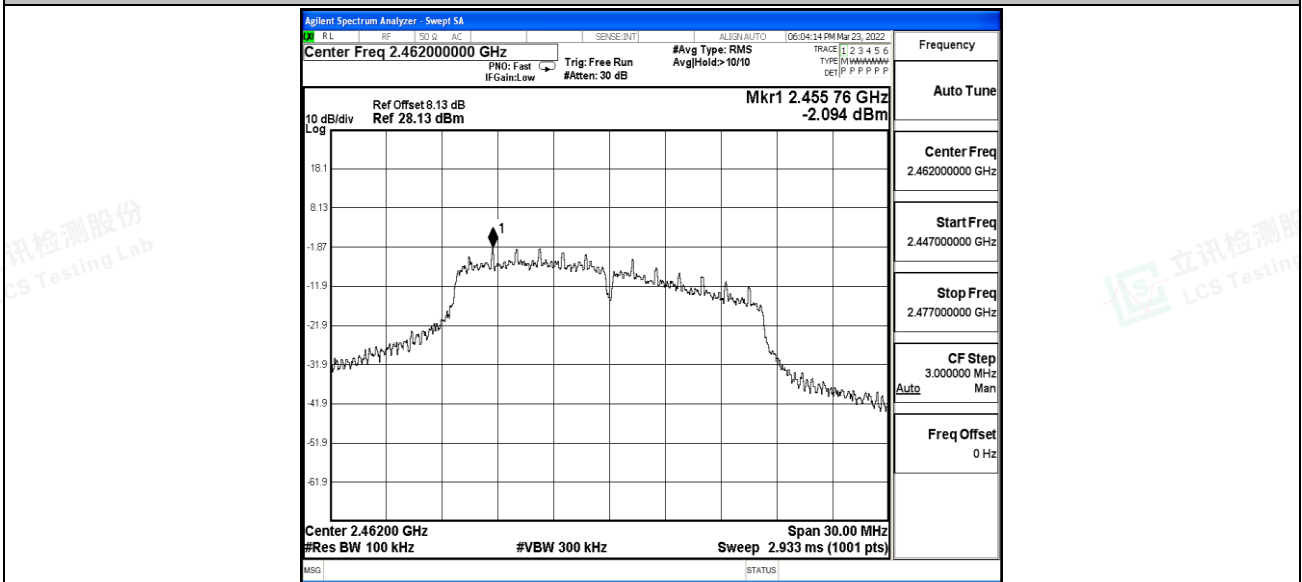


11G_Ant1_2437_1000~26500



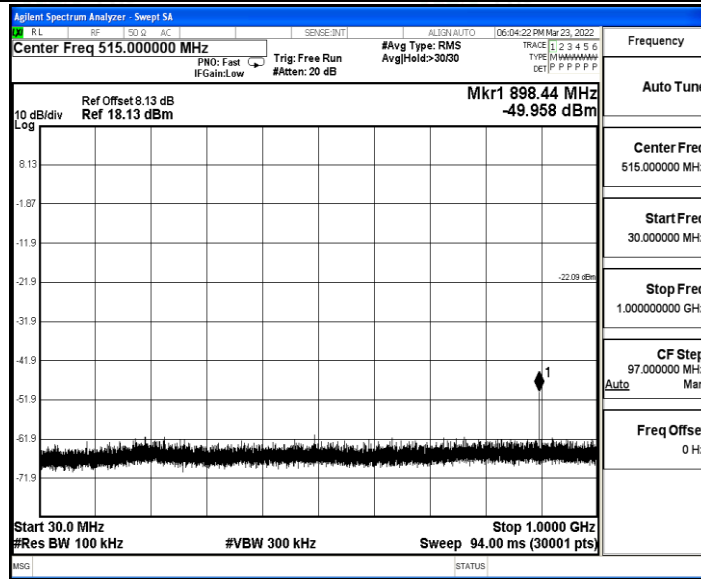


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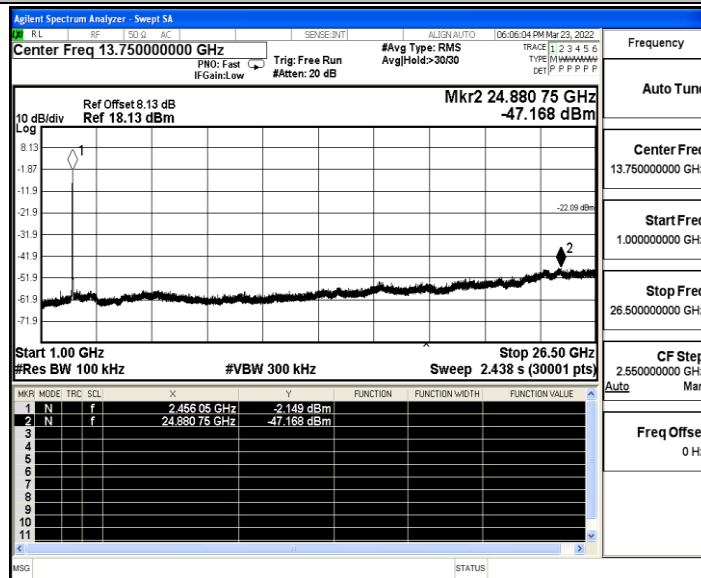


11G_Ant1_2462_30~1000





11G_Ant1_2462_1000~26500



11N20SISO_Ant1_2412_0~Reference

