



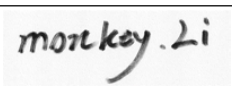
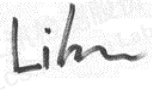
Appendix C

RF Test Data for 2.4G WIFI (Conducted Measurement)

Product Name: Smart switch

Test Model: Shelly PRO 3

Environmental Conditions

Temperature:	23.8 ° C
Relative Humidity:	52.1%
ATM Pressure:	100.0 kPa
Test Engineer:	 Monkey Li
Supervised by:	 Li Huan





C.1 DTS Bandwidth

Test Result

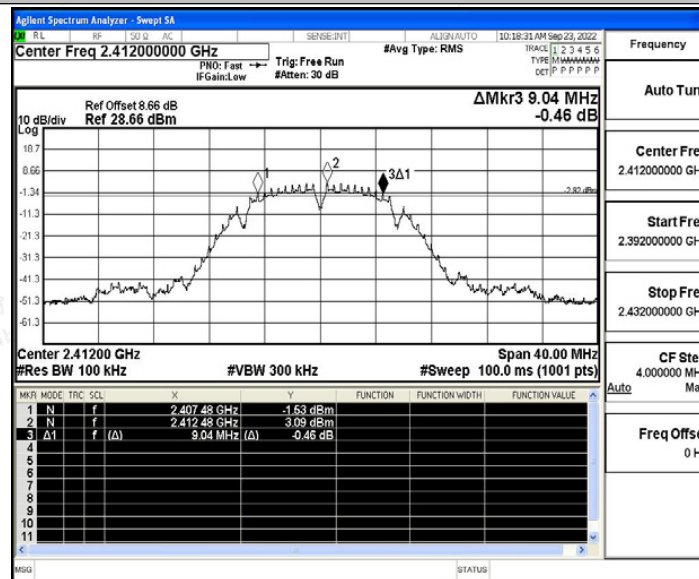
TestMode	Antenna	Freq(MHz)	DTS BW [MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
11B	Ant1	2412	9.040	2407.480	2416.520	0.5	PASS
		2437	9.080	2432.440	2441.520	0.5	PASS
		2462	9.040	2457.480	2466.520	0.5	PASS
11G	Ant1	2412	16.320	2403.840	2420.160	0.5	PASS
		2437	16.320	2428.840	2445.160	0.5	PASS
		2462	16.320	2453.840	2470.160	0.5	PASS
11N20SISO	Ant1	2412	17.600	2403.200	2420.800	0.5	PASS
		2437	17.600	2428.200	2445.800	0.5	PASS
		2462	17.560	2453.200	2470.760	0.5	PASS
11N40SISO	Ant1	2422	35.920	2404.240	2440.160	0.5	PASS
		2437	36.000	2419.160	2455.160	0.5	PASS
		2452	35.840	2434.080	2469.920	0.5	PASS



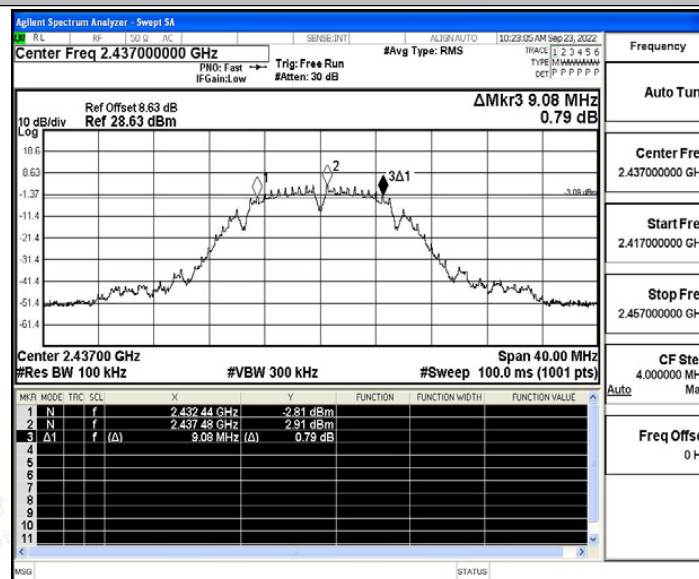


Test Graphs

11B_Ant1_2412

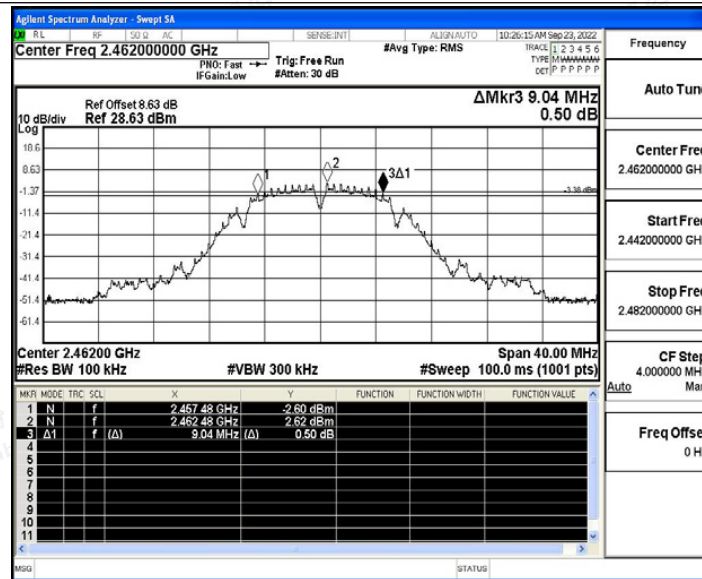


11B_Ant1_2437

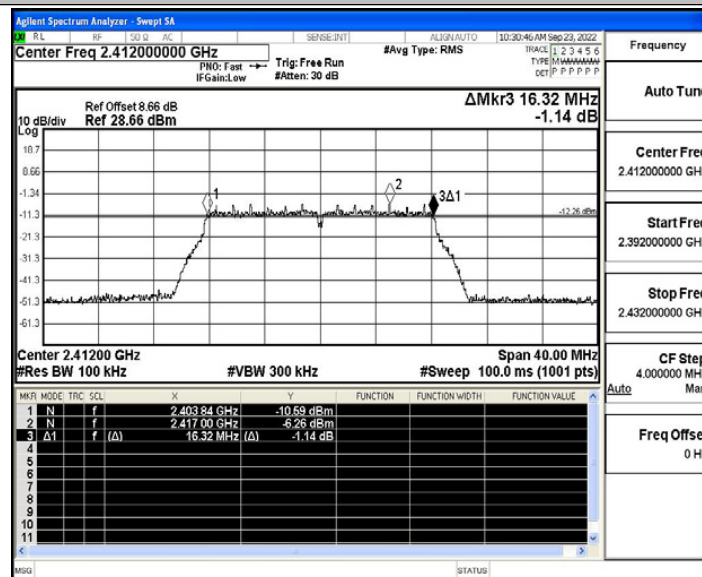


11B_Ant1_2462





11G_Ant1_2412



11G_Ant1_2437

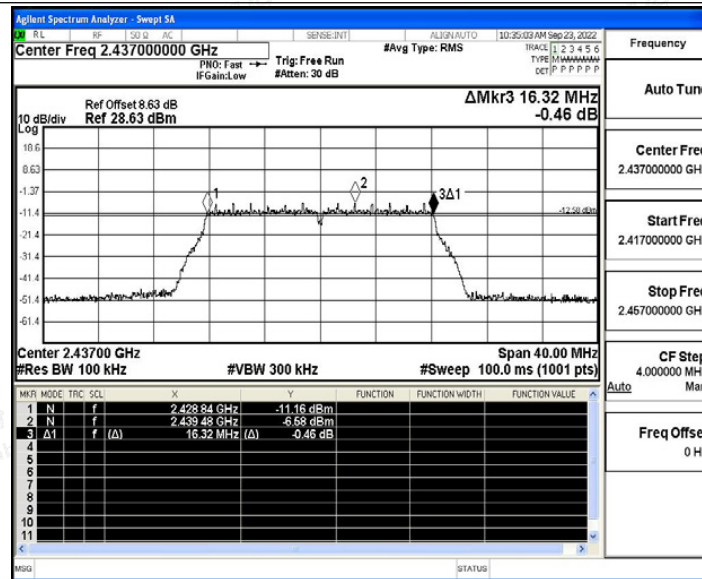


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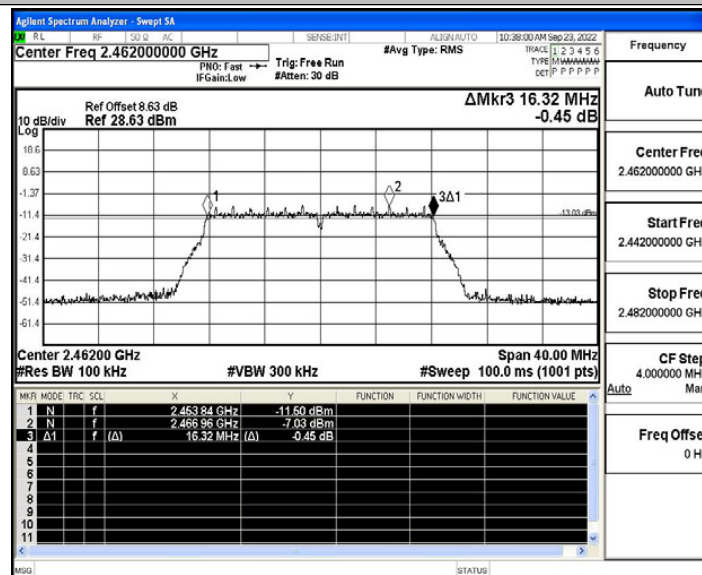
Add: 101, 201 Bldg A & 301 Bldg C, Juji Industrial Park Yabianxueziwei, Shajing Street, Baoan District, Shenzhen, 518000, China

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11G_Ant1_2462



11N20SISO_Ant1_2412

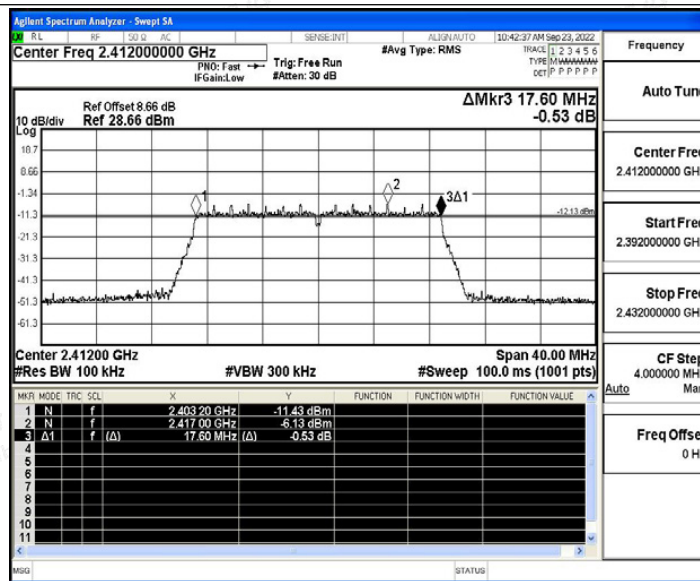


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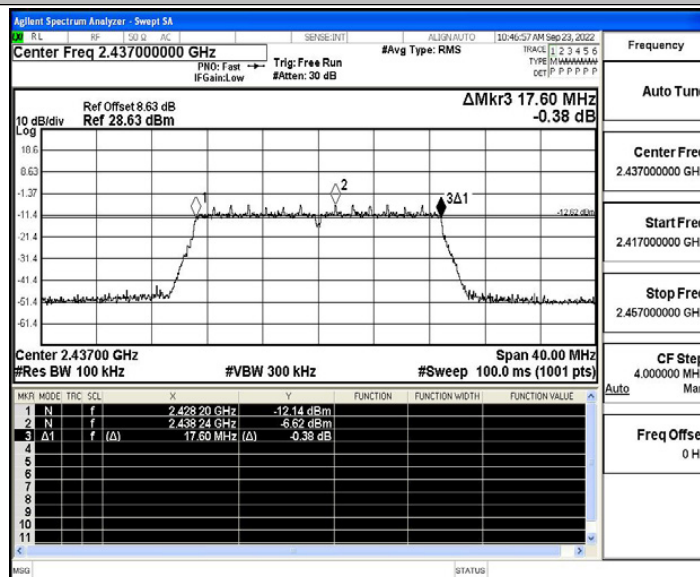
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11N20SISO_Ant1_2437



11N20SISO_Ant1_2462

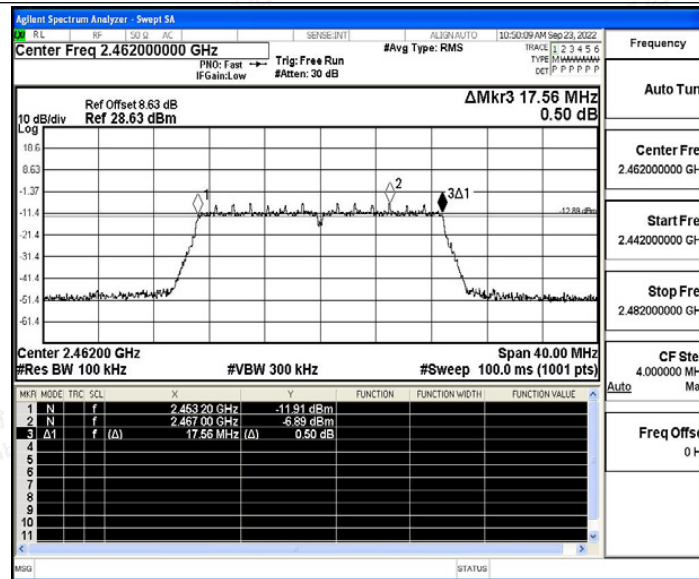


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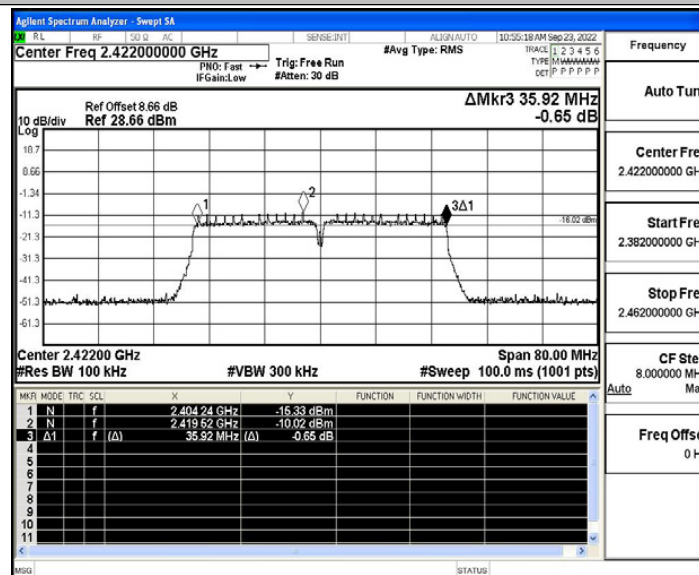
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11N40SISO_Ant1_2422



11N40SISO_Ant1_2437

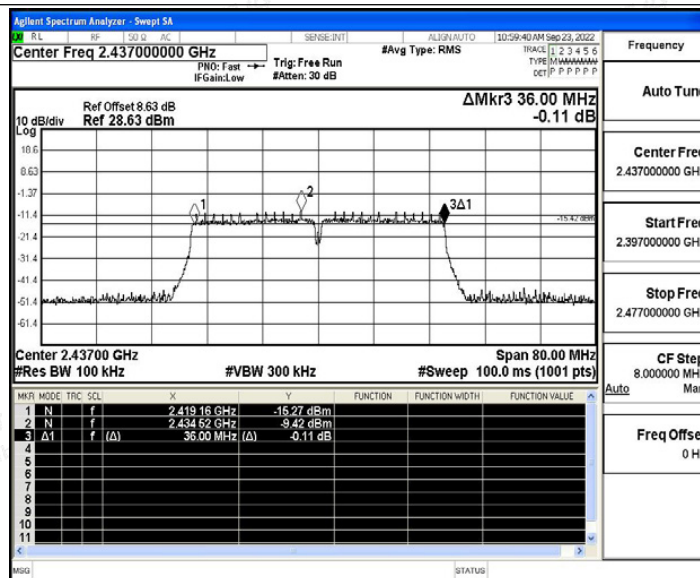


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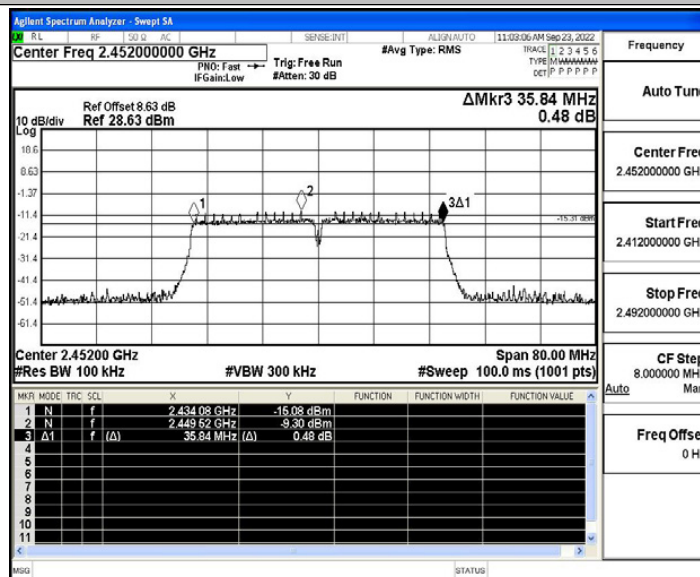
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11N40SISO_Ant1_2452



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C.2 Maximum conducted output power

Test Result

TestMode	Antenna	Freq(MHz)	Peak Power [dBm]	Conducted Limit[dBm]	Verdict
11B	Ant1	2412	15.69	≤30.00	PASS
		2437	15.68	≤30.00	PASS
		2462	15.33	≤30.00	PASS
11G	Ant1	2412	13.38	≤30.00	PASS
		2437	12.98	≤30.00	PASS
		2462	12.60	≤30.00	PASS
11N20SISO	Ant1	2412	13.37	≤30.00	PASS
		2437	12.99	≤30.00	PASS
		2462	12.64	≤30.00	PASS
11N40SISO	Ant1	2422	12.23	≤30.00	PASS
		2437	12.98	≤30.00	PASS
		2452	12.92	≤30.00	PASS





C.3 Maximum power spectral density

Test Result

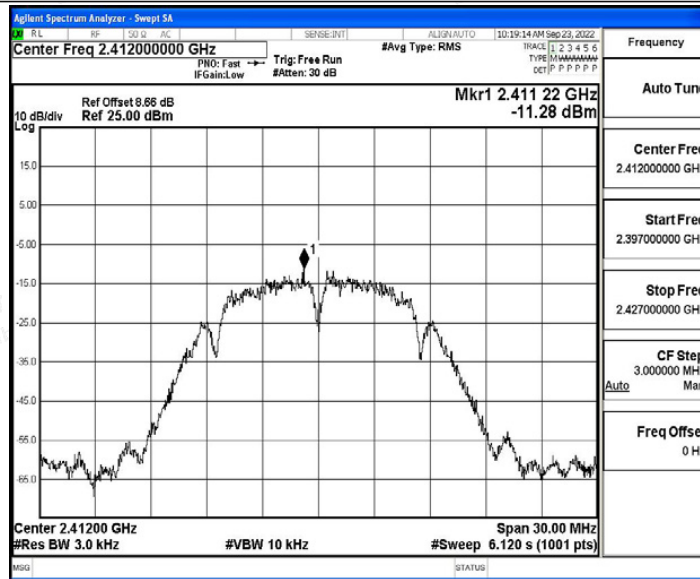
TestMode	Antenna	Freq(MHz)	Result [dBm/3kHz]	Limit [dBm/3kHz]	Verdict
11B	Ant1	2412	-11.28	≤8.00	PASS
		2437	-11.71	≤8.00	PASS
		2462	-6.52	≤8.00	PASS
11G	Ant1	2412	-19.07	≤8.00	PASS
		2437	-20.38	≤8.00	PASS
		2462	-21.72	≤8.00	PASS
11N20SISO	Ant1	2412	-21.13	≤8.00	PASS
		2437	-21.63	≤8.00	PASS
		2462	-20.88	≤8.00	PASS
11N40SISO	Ant1	2422	-24.54	≤8.00	PASS
		2437	-22.85	≤8.00	PASS
		2452	-22.95	≤8.00	PASS



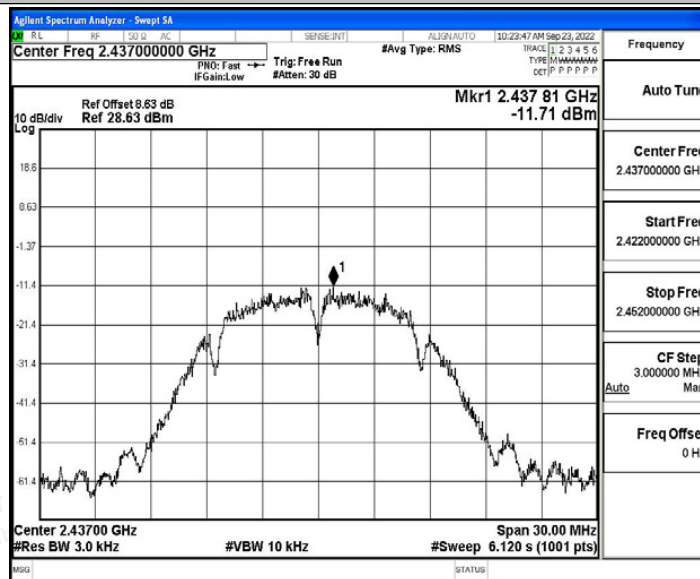


Test Graphs

11B_Ant1_2412

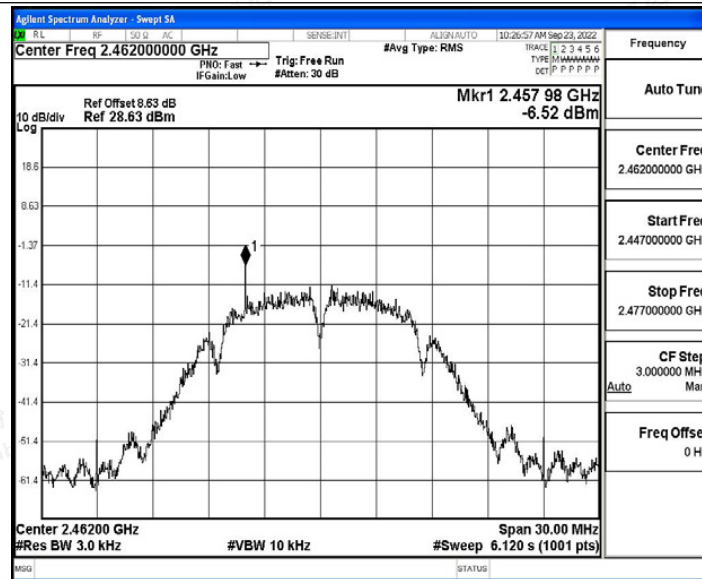


11B_Ant1_2437

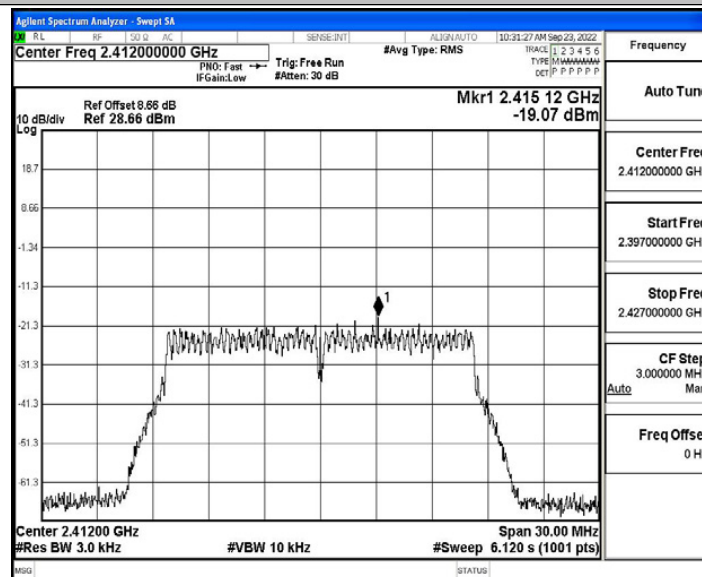


11B_Ant1_2462



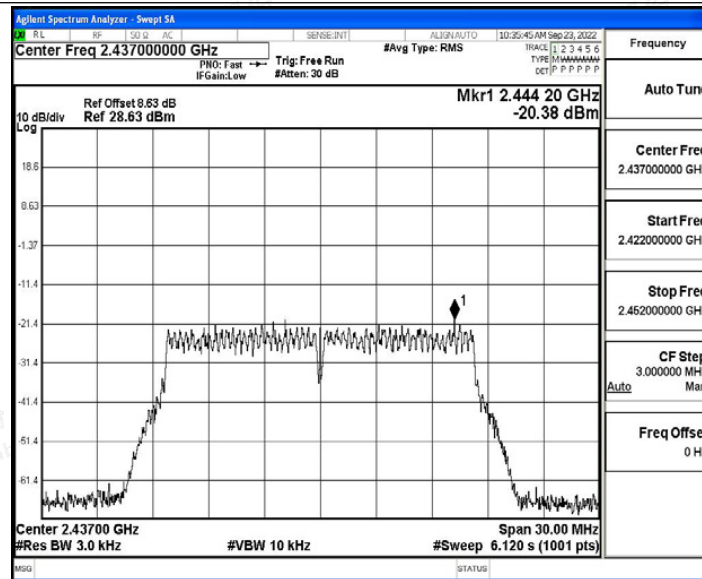


11G_Ant1_2412

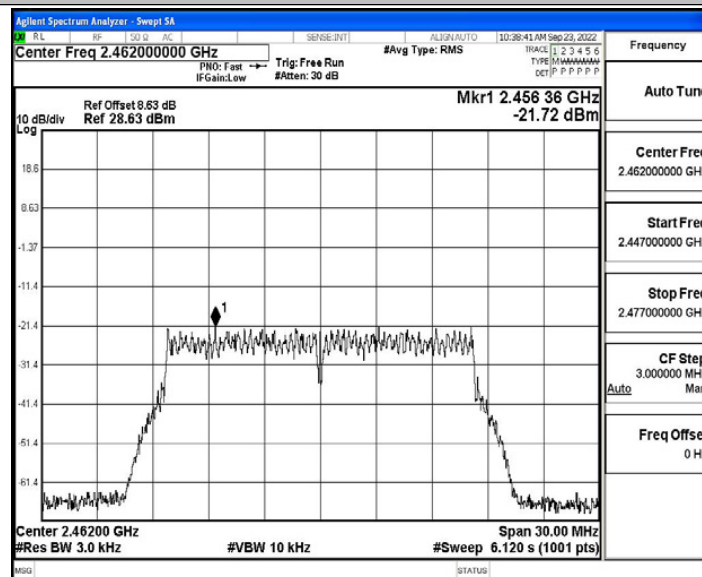


11G_Ant1_2437



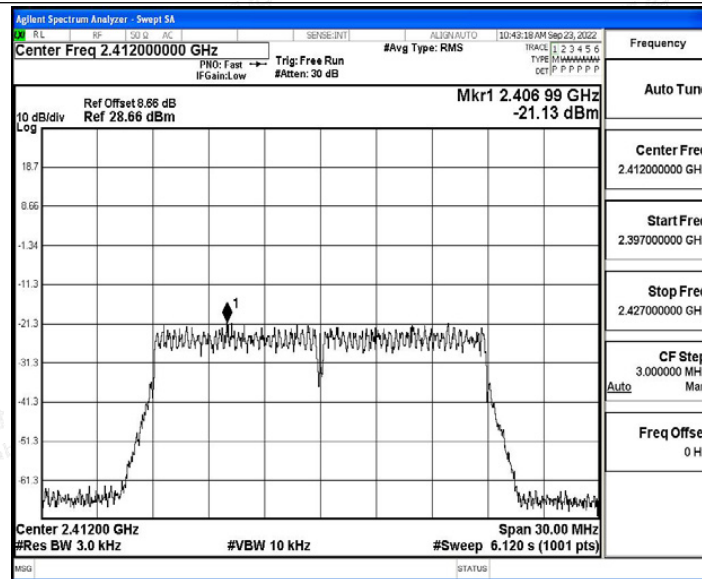


11G_Ant1_2462

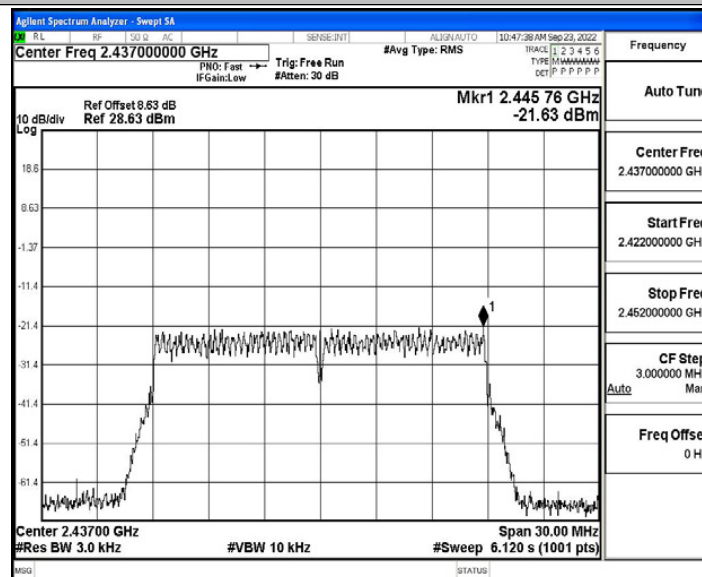


11N20SISO_Ant1_2412



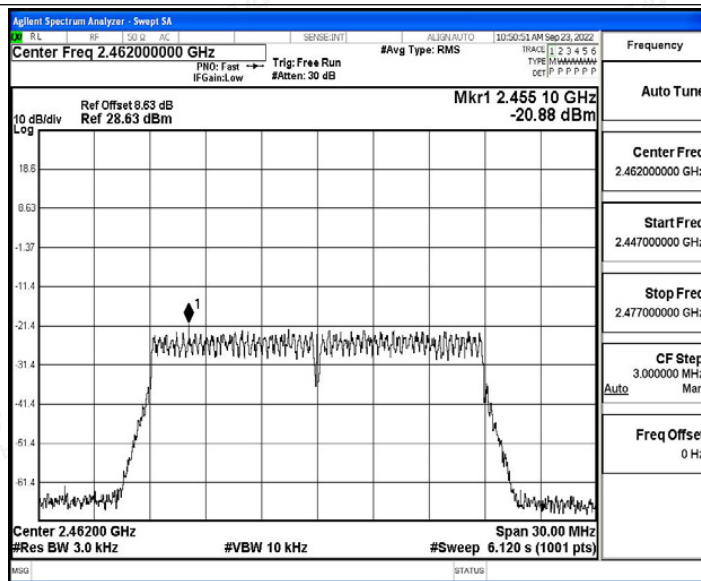


11N20SISO_Ant1_2437

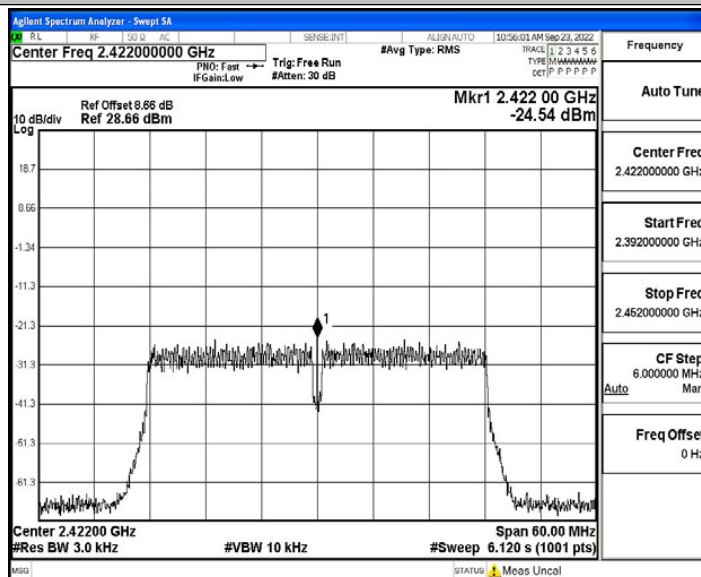


11N20SISO_Ant1_2462





11N40SISO_Ant1_2422



11N40SISO_Ant1_2437

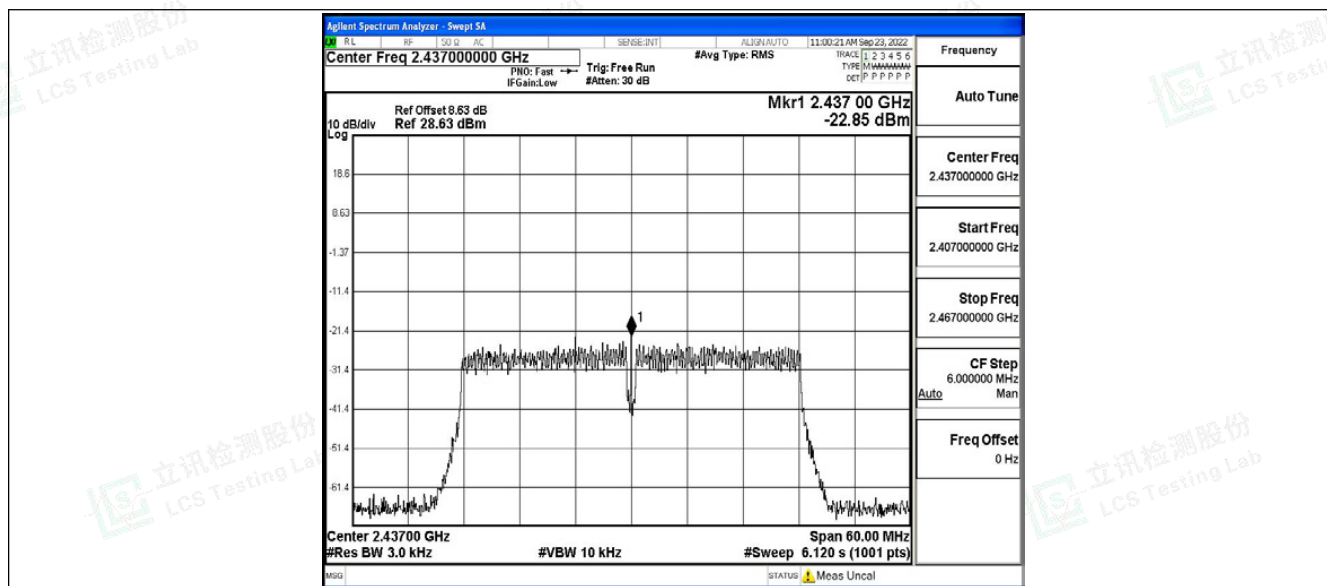


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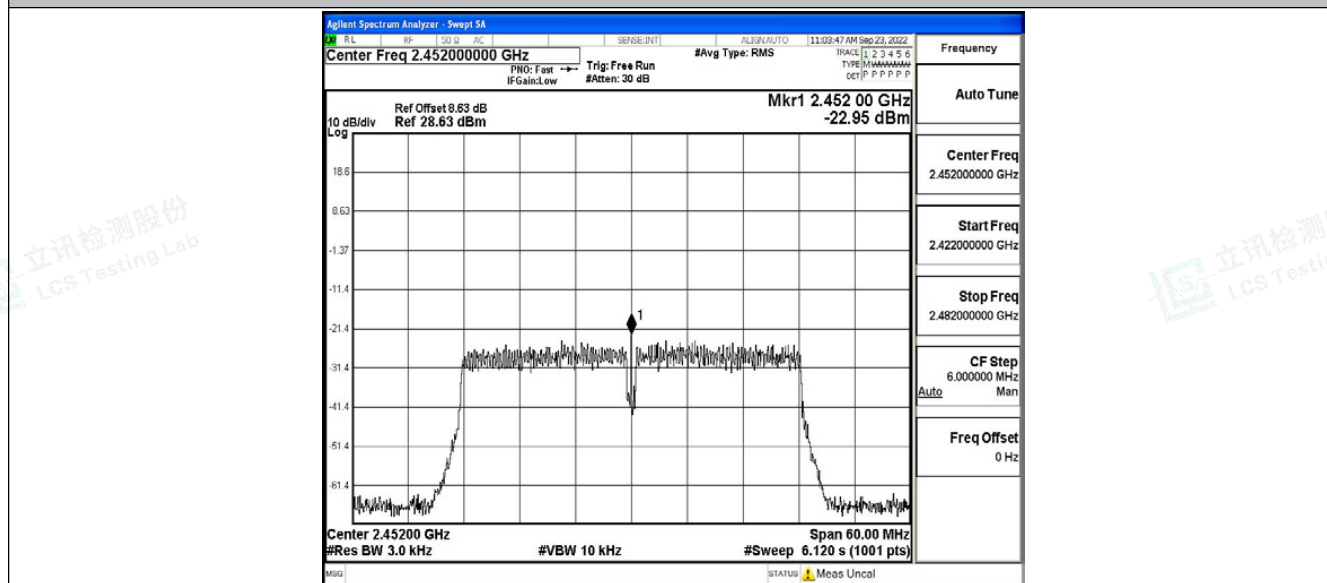
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11N40SISO_Ant1_2452



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C.4 Band edge measurements

Test Result

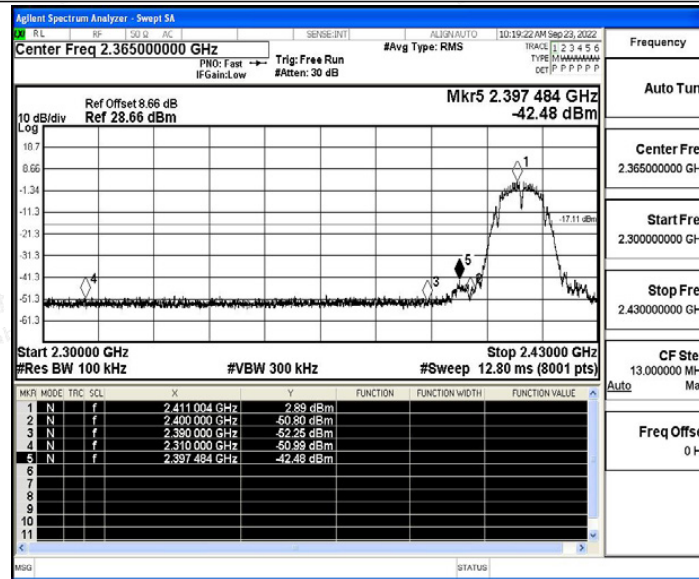
TestMode	Antenna	ChName	Freq(MHz)	RefLevel[dBm]	Result[dBm]	Limit[dBm]	Verdict
11B	Ant1	Low	2412	2.89	-42.48	≤ -17.11	PASS
		High	2462	2.54	-47.97	≤ -17.46	PASS
11G	Ant1	Low	2412	-6.35	-44.98	≤ -26.35	PASS
		High	2462	-6.95	-48.37	≤ -26.95	PASS
11N20SISO	Ant1	Low	2412	-6.09	-47.53	≤ -26.09	PASS
		High	2462	-6.95	-48.59	≤ -26.95	PASS
11N40SISO	Ant1	Low	2422	-9.99	-48.42	≤ -29.99	PASS
		High	2452	-9.24	-47.51	≤ -29.24	PASS



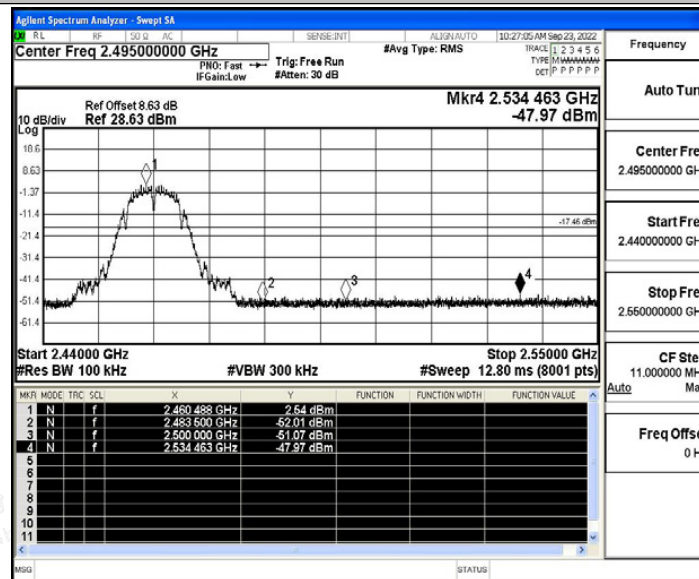


Test Graphs

11B_Ant1_Low_2412



11B_Ant1_High_2462



11G_Ant1_Low_2412

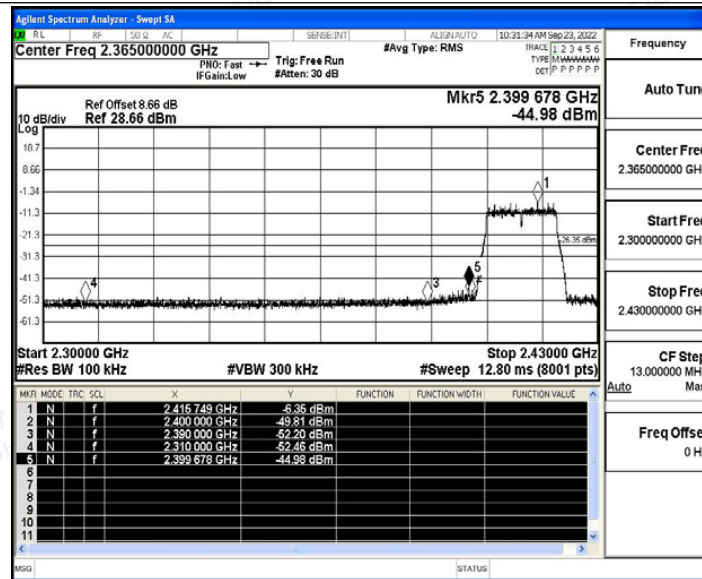


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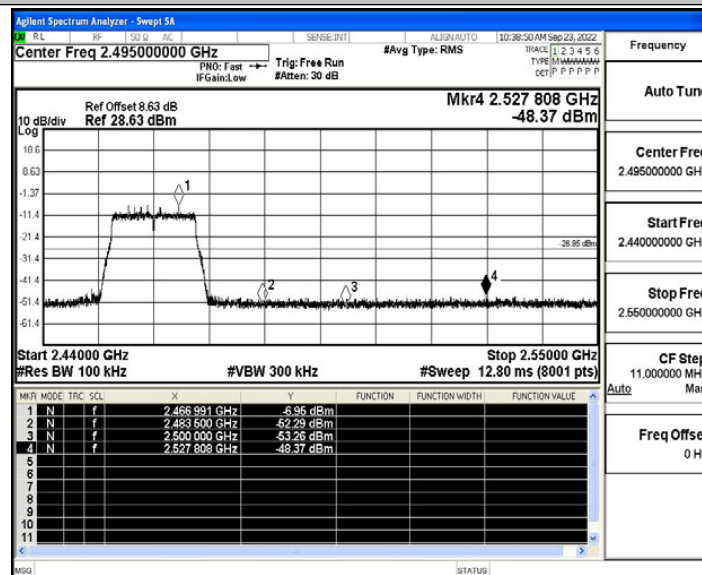
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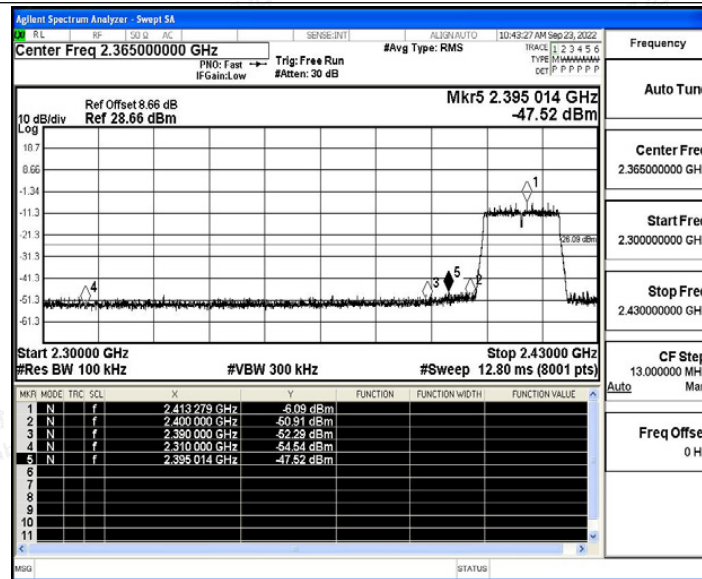


11G_Ant1_High_2462

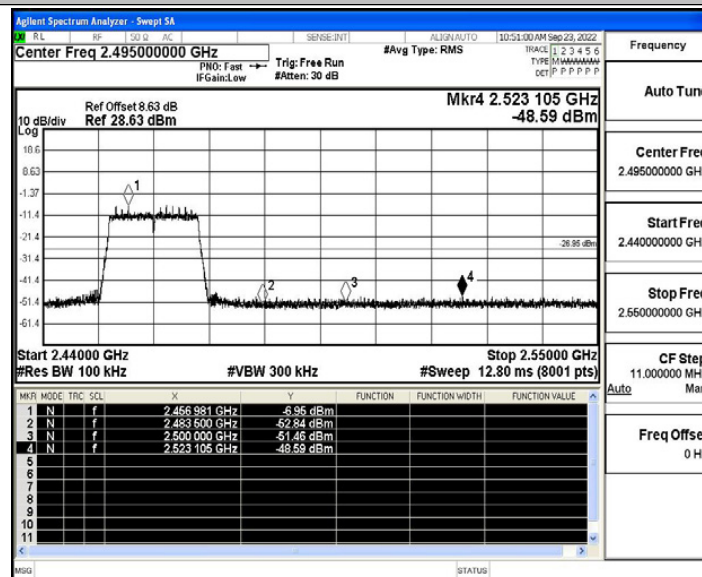


11N20SISO_Ant1_Low_2412





11N20SISO_Ant1_High_2462



11N40SISO_Ant1_Low_2422

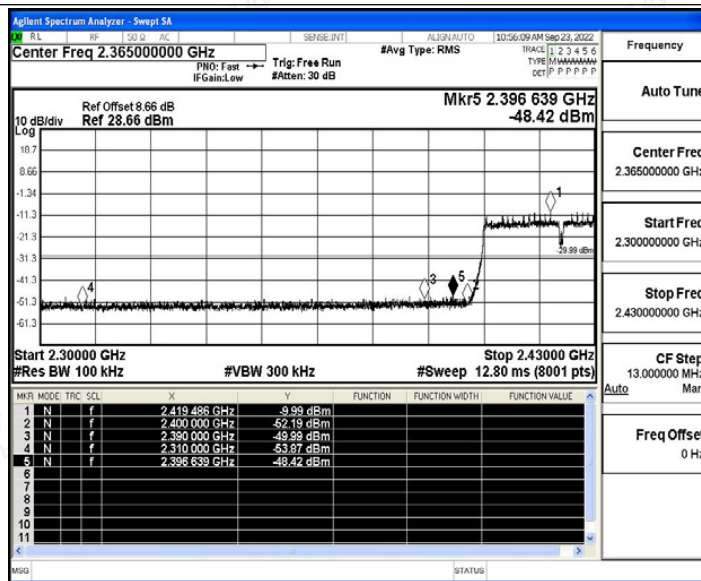


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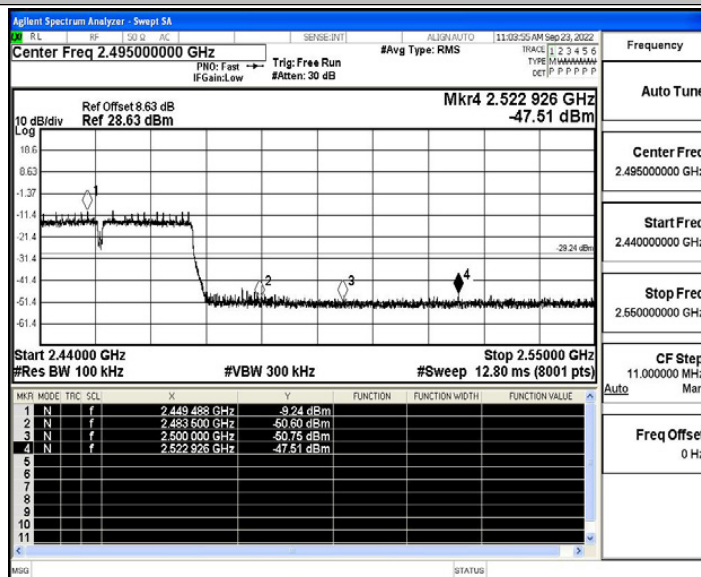
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11N40SISO_Ant1_High_2452



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C.5 Conducted Spurious Emission

Test Result

TestMode	Antenna	Freq(MHz)	FreqRange [Mhz]	RefLevel [dBm]	Result [dBm]	Limit [dBm]	Verdict
11B	Ant1	2412	Reference	1.14	1.14	---	PASS
			30~1000	1.14	-60.59	≤-18.86	PASS
			1000~26500	1.14	-45.88	≤-18.86	PASS
		2437	Reference	1.37	1.37	---	PASS
			30~1000	1.37	-60.33	≤-18.63	PASS
			1000~26500	1.37	-45.23	≤-18.63	PASS
		2462	Reference	0.80	0.80	---	PASS
			30~1000	0.80	-59.89	≤-19.2	PASS
			1000~26500	0.80	-46.04	≤-19.2	PASS
11G	Ant1	2412	Reference	-7.18	-7.18	---	PASS
			30~1000	-7.18	-60.48	≤-27.18	PASS
			1000~26500	-7.18	-46.01	≤-27.18	PASS
		2437	Reference	-7.19	-7.19	---	PASS
			30~1000	-7.19	-60.78	≤-27.19	PASS
			1000~26500	-7.19	-45.61	≤-27.19	PASS
		2462	Reference	-9.26	-9.26	---	PASS
			30~1000	-9.26	-60.77	≤-29.26	PASS
			1000~26500	-9.26	-45.24	≤-29.26	PASS
11N20SISO	Ant1	2412	Reference	-9.29	-9.29	---	PASS
			30~1000	-9.29	-52.24	≤-29.29	PASS
			1000~26500	-9.29	-46.09	≤-29.29	PASS
		2437	Reference	-9.09	-9.09	---	PASS
			30~1000	-9.09	-53.78	≤-29.09	PASS
			1000~26500	-9.09	-46.09	≤-29.09	PASS
		2462	Reference	-7.05	-7.05	---	PASS
			30~1000	-7.05	-60.71	≤-27.05	PASS
			1000~26500	-7.05	-45.88	≤-27.05	PASS
11N40SISO	Ant1	2422	Reference	-11.04	-11.04	---	PASS
			30~1000	-11.04	-60.87	≤-31.04	PASS
			1000~26500	-11.04	-46.6	≤-31.04	PASS
		2437	Reference	-9.28	-9.28	---	PASS
			30~1000	-9.28	-60.15	≤-29.28	PASS
			1000~26500	-9.28	-46.18	≤-29.28	PASS
		2452	Reference	-9.46	-9.46	---	PASS
			30~1000	-9.46	-60.82	≤-29.46	PASS



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			1000~26500	-9.46	-45.89	≤-29.46	PASS
--	--	--	------------	-------	--------	---------	------

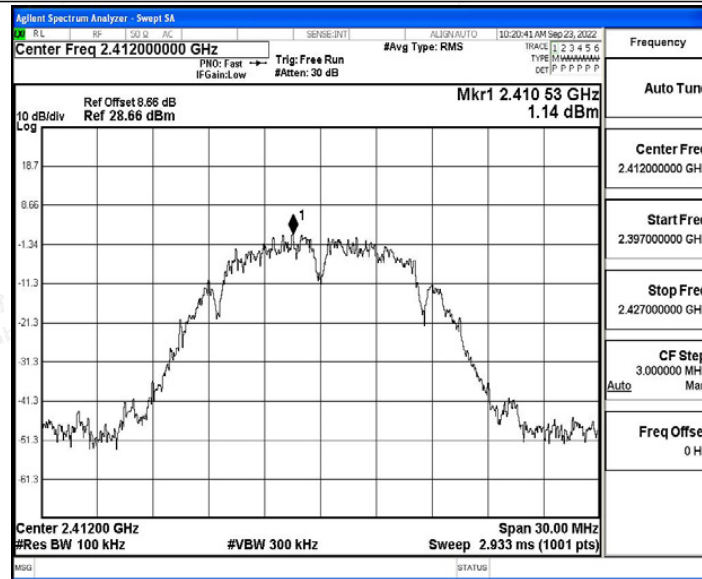


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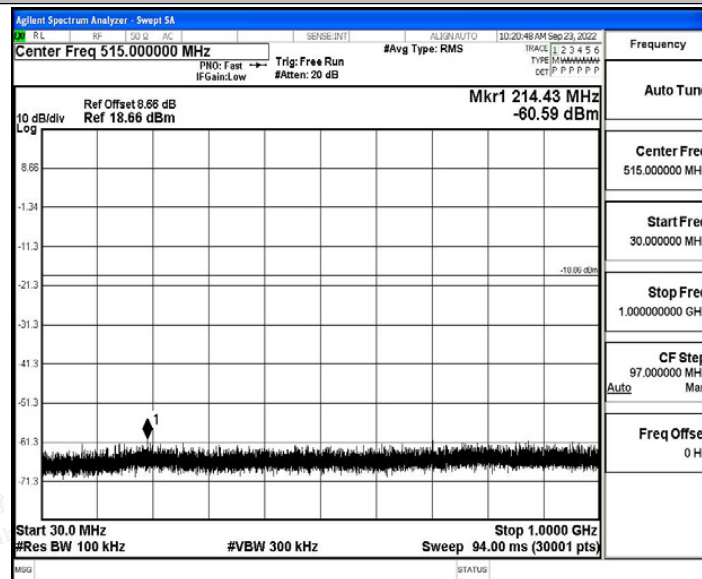


Test Graphs

11B_Ant1_2412_0~Reference

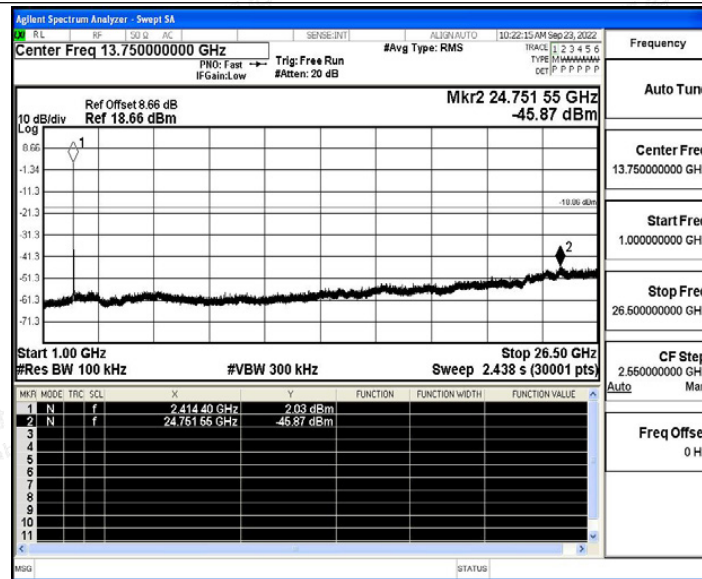


11B_Ant1_2412_30~1000

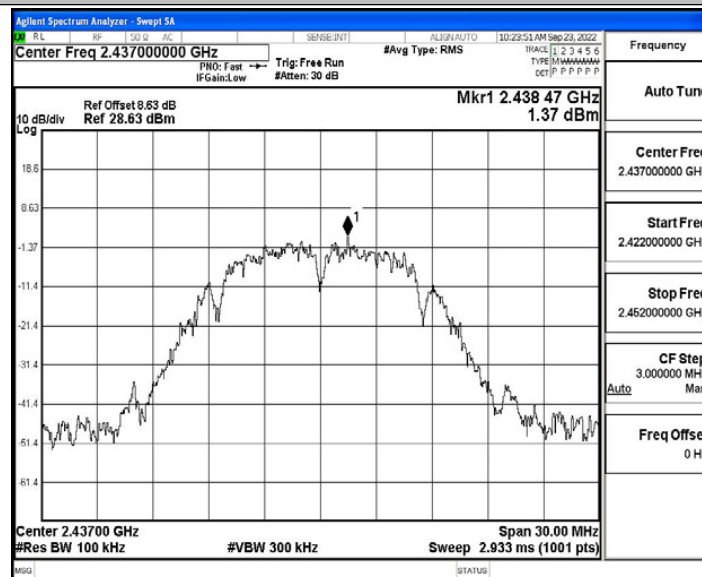


11B_Ant1_2412_1000~26500





11B_Ant1_2437_0~Reference



11B_Ant1_2437_30~1000

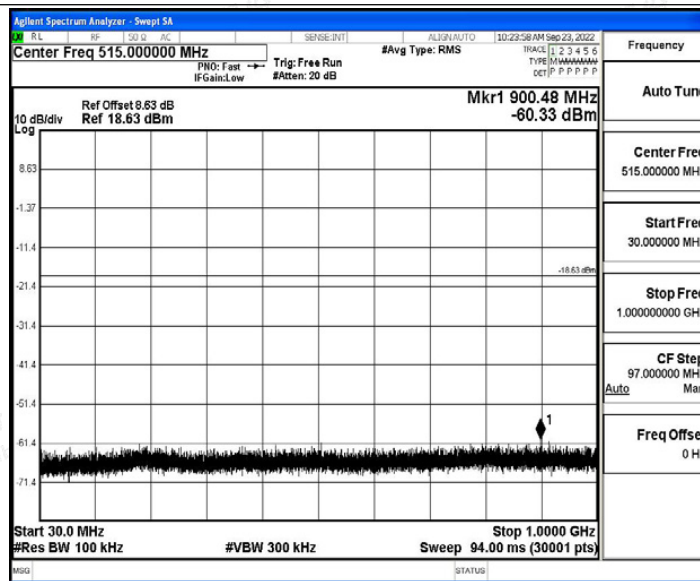


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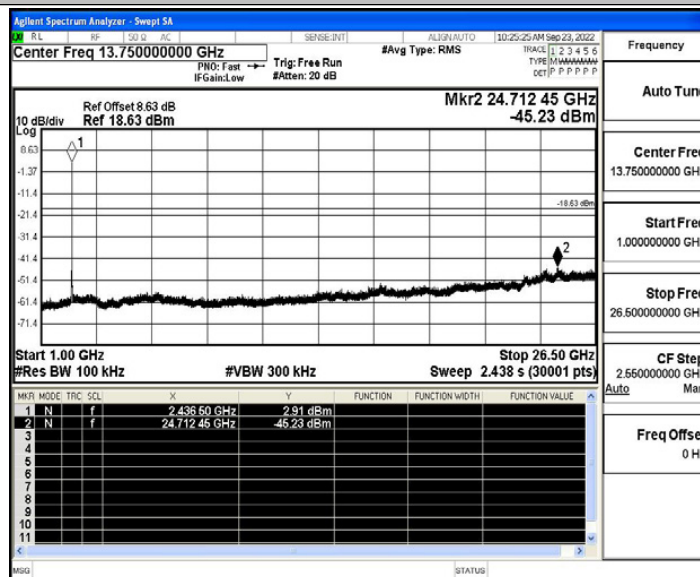
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11B_Ant1_2437_1000~26500



11B_Ant1_2462_0~Reference

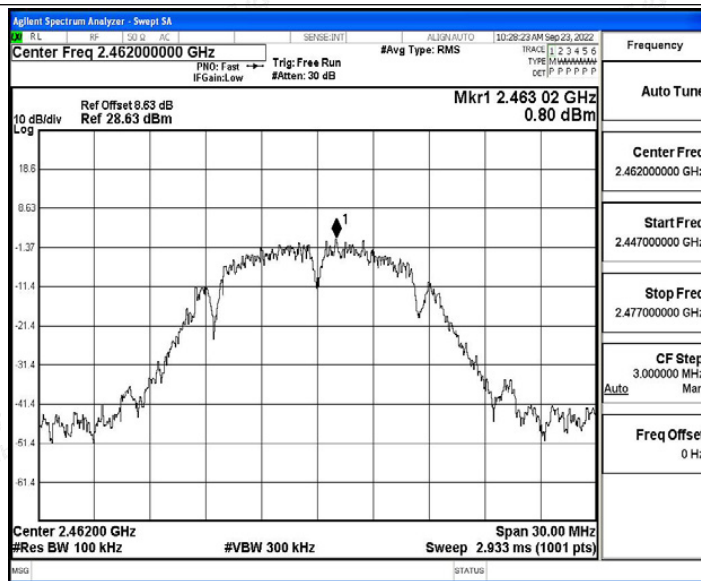


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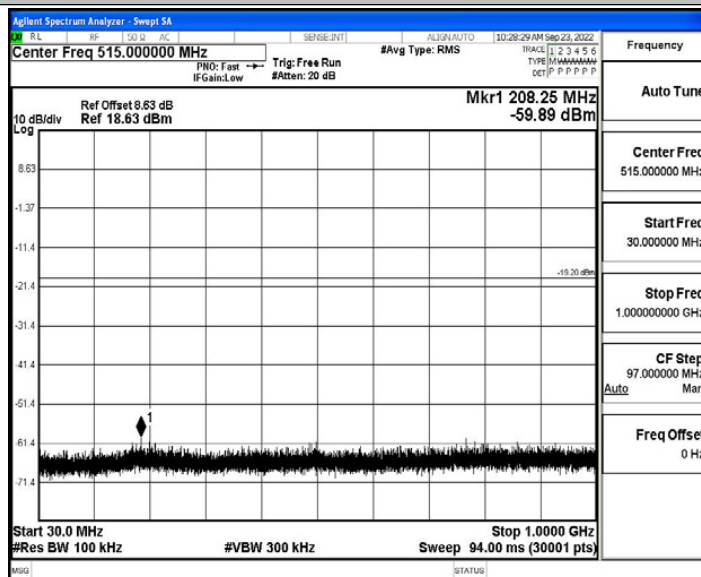
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11B_Ant1_2462_30~1000



11B_Ant1_2462_1000~26500

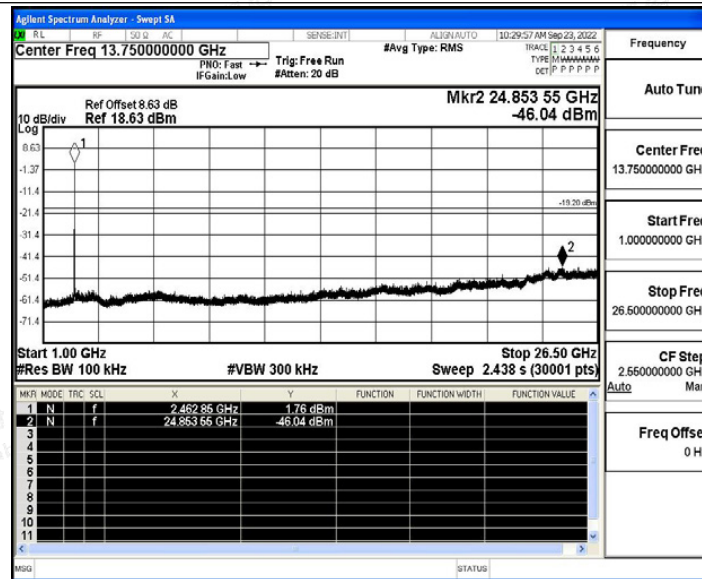


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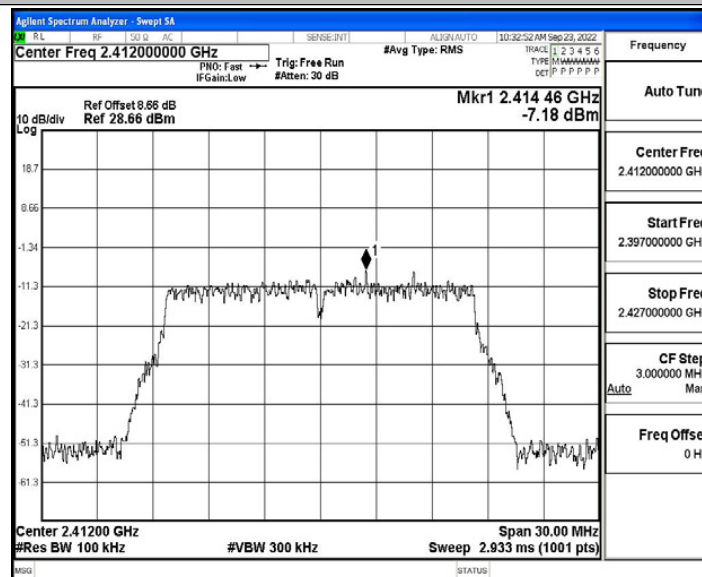
Add: 101, 201 Bldg A & 301 Bldg C, Juji Industrial Park Yabianxueziwei, Shajing Street, Baoan District, Shenzhen, 518000, China

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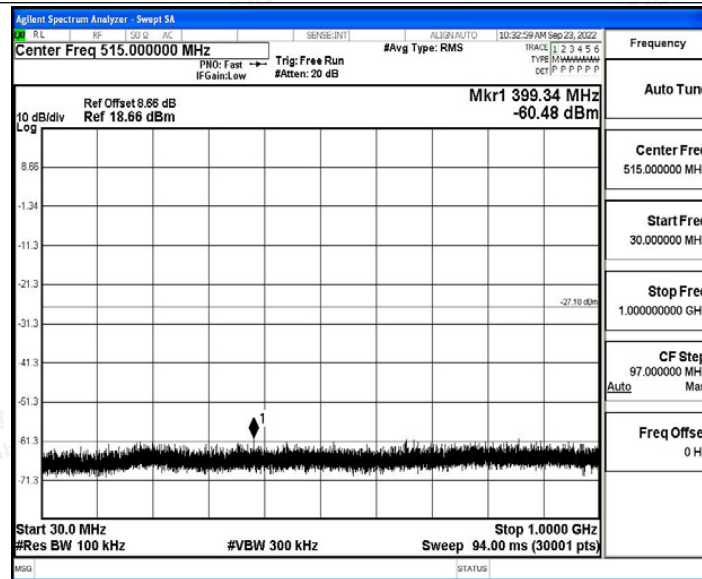


11G_Ant1_2412_0~Reference

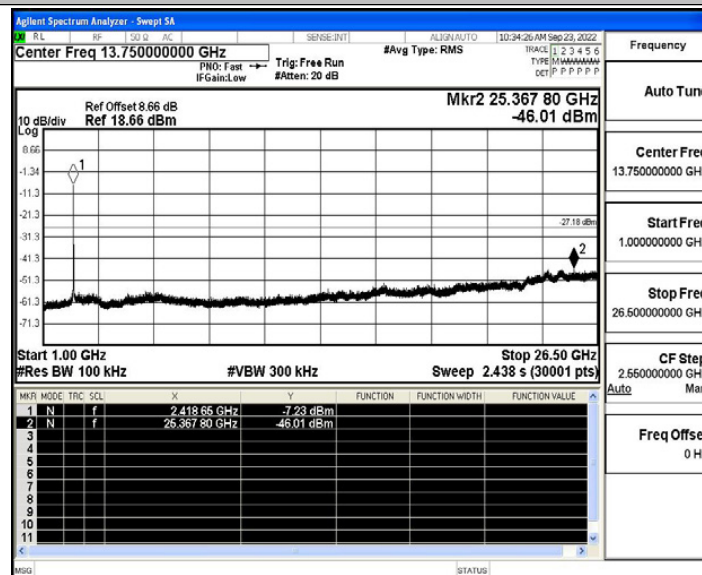


11G_Ant1_2412_30~1000



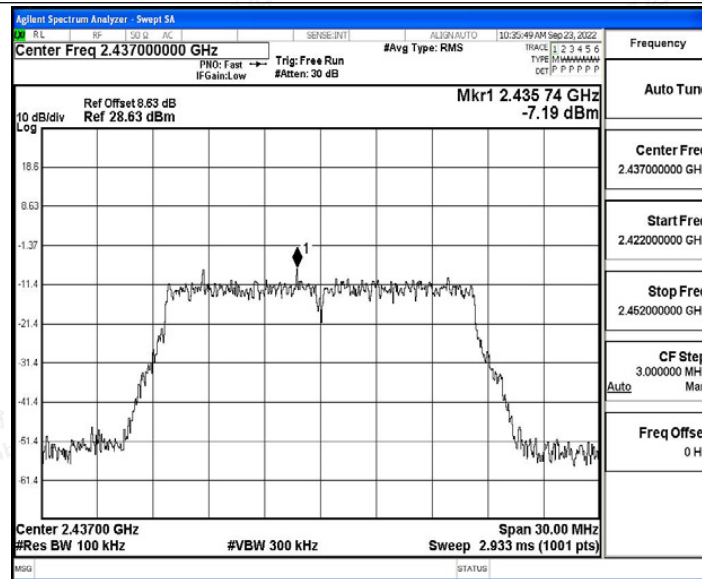


11G_Ant1_2412_1000~26500

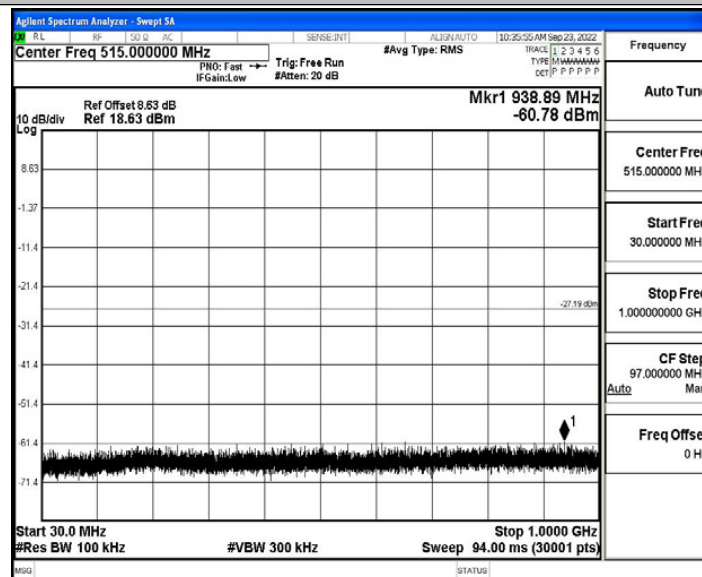


11G_Ant1_2437_0~Reference



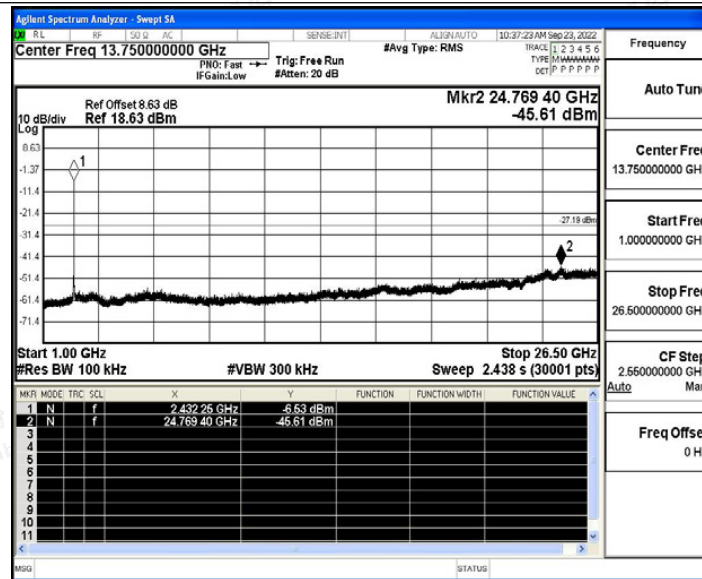


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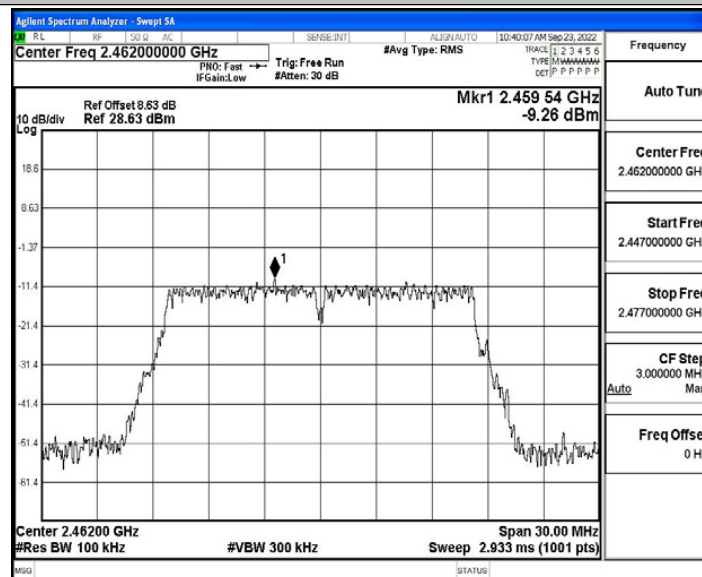


11G_Ant1_2437_1000~26500





11G_Ant1_2462_0~Reference



11G_Ant1_2462_30~1000

