

Appendix B: Test Results of Wi-Fi 802.11 b/g/n/ax

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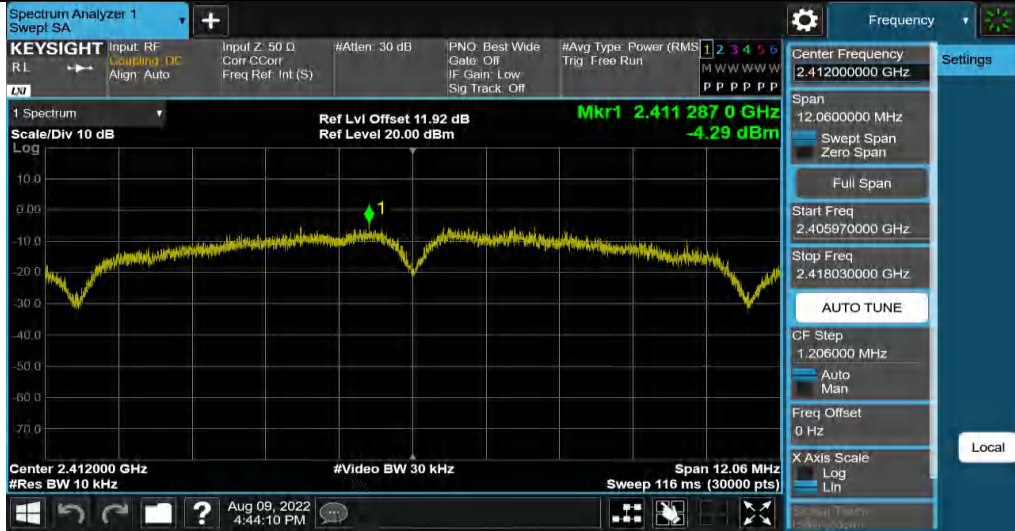
Appendix B.1: Test Results of Conducted Power Spectral Density

TestMode	Antenna	Channel	Result[dBm/3-100kHz]	Limit[dBm/3kHz]	Verdict
11B-CDD	Ant1	2412	-4.29	≤8.00	PASS
		2437	-3.76	≤8.00	PASS
		2462	-3.52	≤8.00	PASS
11G-CDD	Ant1	2412	0.53	≤8.00	PASS
		2437	-0.17	≤8.00	PASS
		2462	0.29	≤8.00	PASS
11B-CDD	Ant2	2412	-4.61	≤8.00	PASS
		2437	-4.49	≤8.00	PASS
		2462	-4.21	≤8.00	PASS
11G-CDD	Ant2	2412	0.30	≤8.00	PASS
		2437	0.42	≤8.00	PASS
		2462	-0.19	≤8.00	PASS
11N20MIMO	Ant1	2412	-2.01	≤8.00	PASS
	Ant2	2412	-1.32	≤8.00	PASS
	total	2412	1.36	≤6.00*	PASS
	Ant1	2437	-2.27	≤8.00	PASS
	Ant2	2437	-2.23	≤8.00	PASS
	total	2437	0.76	≤6.00*	PASS
	Ant1	2462	-2.75	≤8.00	PASS
	Ant2	2462	-1.23	≤8.00	PASS
total	2462	1.09	≤6.00*	PASS	
11N40MIMO	Ant1	2422	-3.27	≤8.00	PASS
	Ant2	2422	-3.25	≤8.00	PASS
	total	2422	-0.25	≤6.00*	PASS
	Ant1	2437	-5.19	≤8.00	PASS
	Ant2	2437	-4.31	≤8.00	PASS
	total	2437	-1.72	≤6.00*	PASS
	Ant1	2452	-7.04	≤8.00	PASS
	Ant2	2452	-5.73	≤8.00	PASS
total	2452	-3.33	≤6.00*	PASS	
11AX20MIMO	Ant1	2412	-3.37	≤8.00	PASS
	Ant2	2412	-3.71	≤8.00	PASS
	total	2412	-0.53	≤6.00*	PASS
	Ant1	2437	-3.73	≤8.00	PASS
	Ant2	2437	-1.92	≤8.00	PASS
	total	2437	0.28	≤6.00*	PASS
	Ant1	2462	-3.49	≤8.00	PASS
	Ant2	2462	-1.19	≤8.00	PASS
total	2462	0.82	≤6.00*	PASS	
11AX40MIMO	Ant1	2422	-5.43	≤8.00	PASS
	Ant2	2422	-5.4	≤8.00	PASS
	total	2422	-2.40	≤6.00*	PASS
	Ant1	2437	-5.56	≤8.00	PASS
	Ant2	2437	-5.48	≤8.00	PASS
	total	2437	-2.51	≤6.00*	PASS
	Ant1	2452	-12.12	≤8.00	PASS
	Ant2	2452	-7.08	≤8.00	PASS
total	2452	-5.90	≤6.00*	PASS	

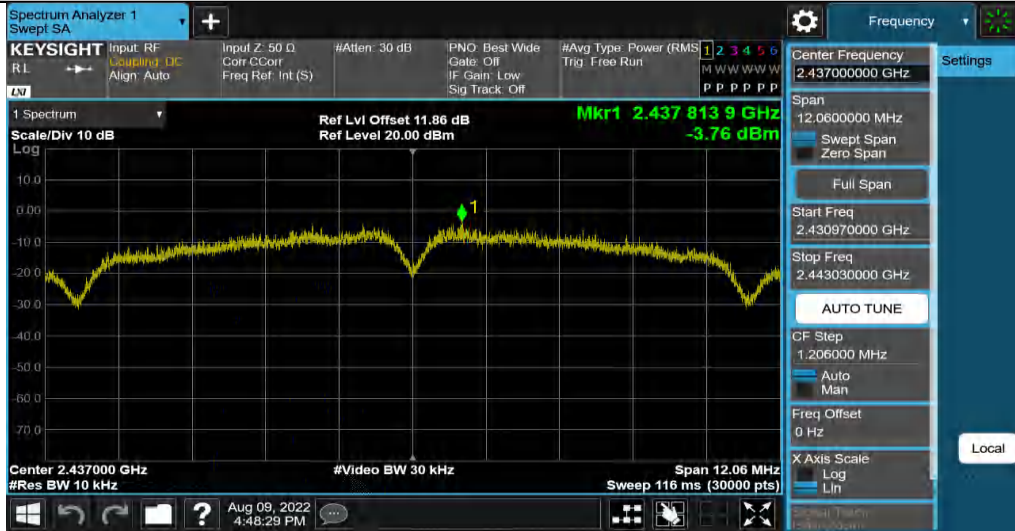
*: The directional gain for MIMO mode is 8dBi, which is 2dB higher than 6dBi, thus power density limit should be reduced to 6dBm.

The cable loss is taken into account in results.

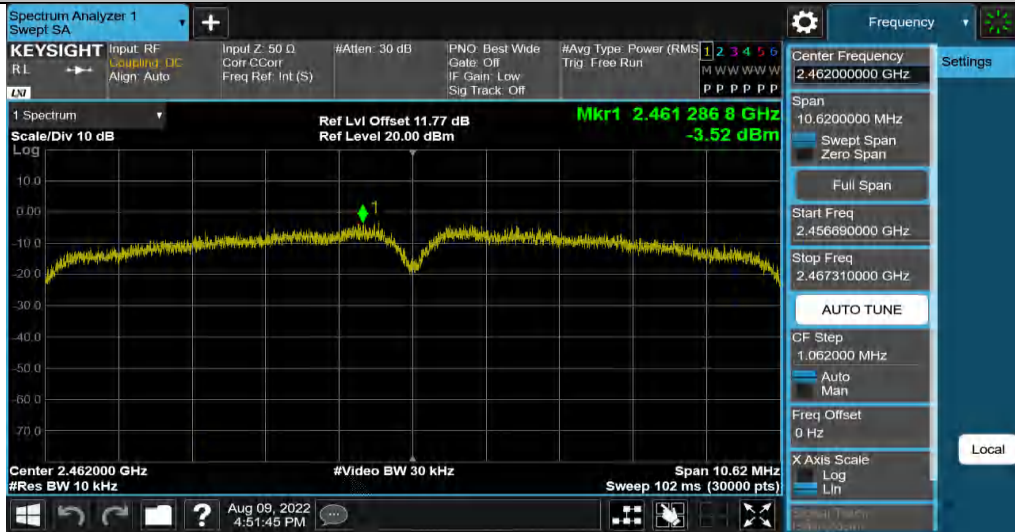
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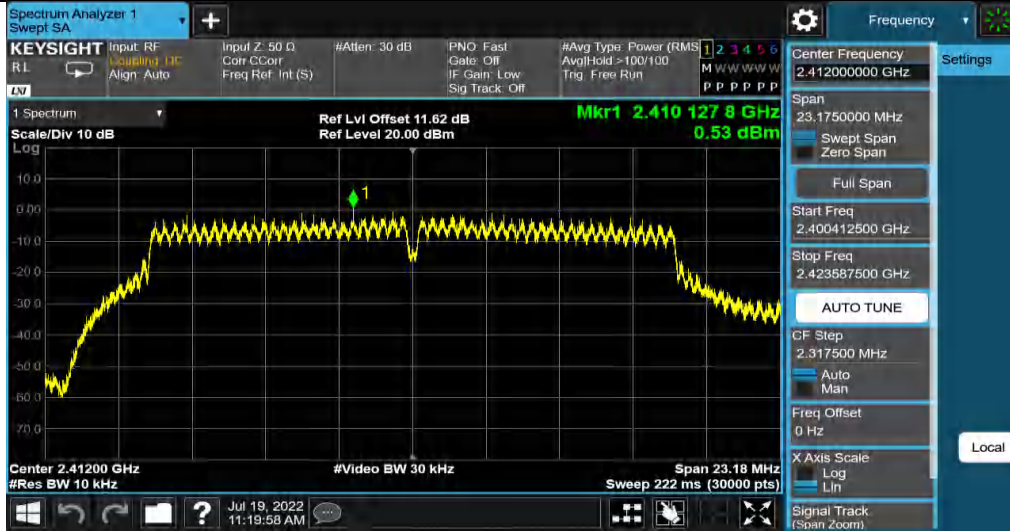
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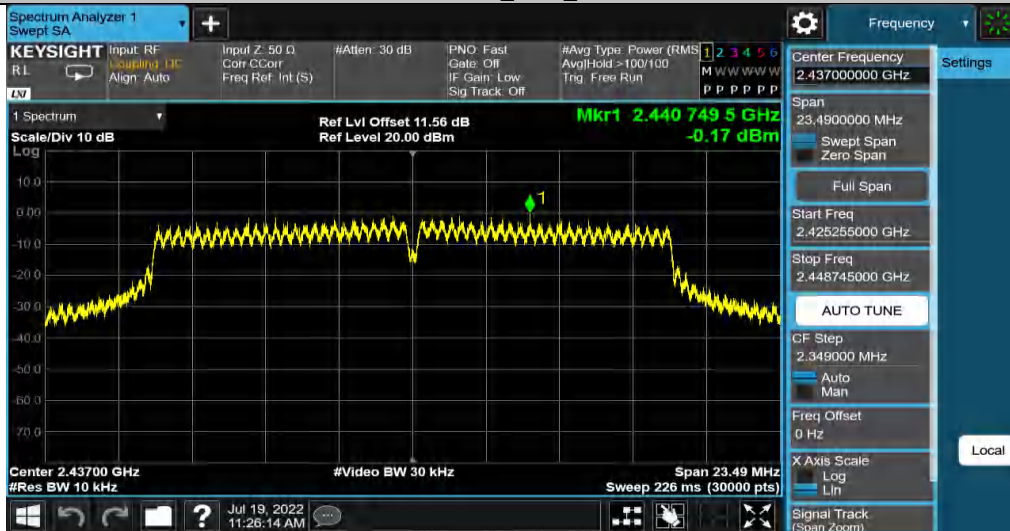
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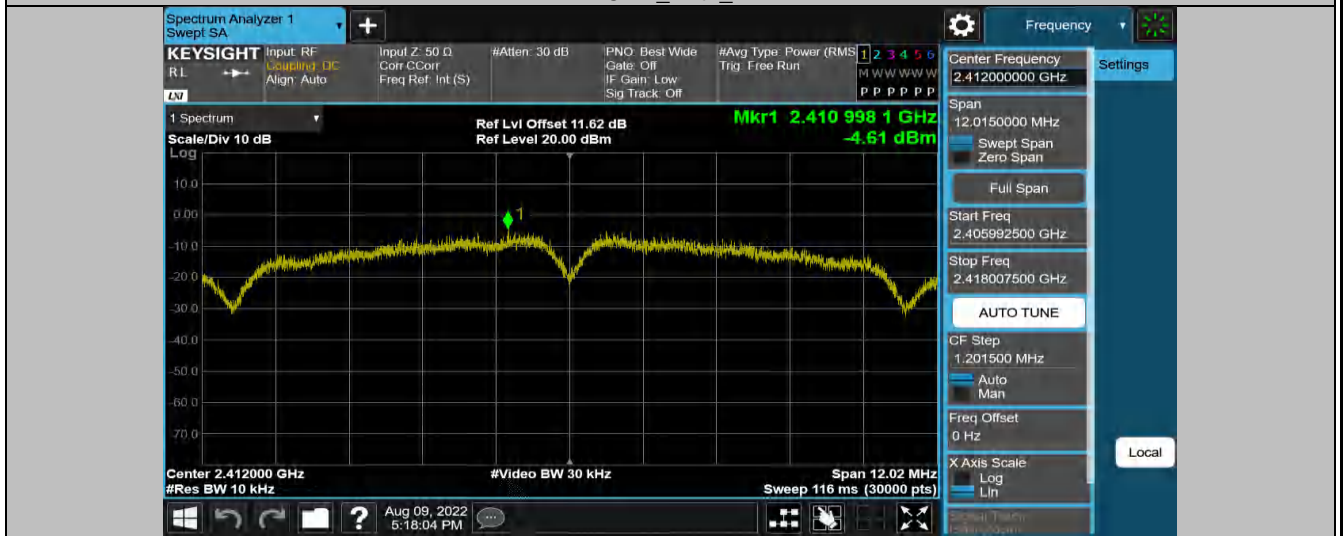
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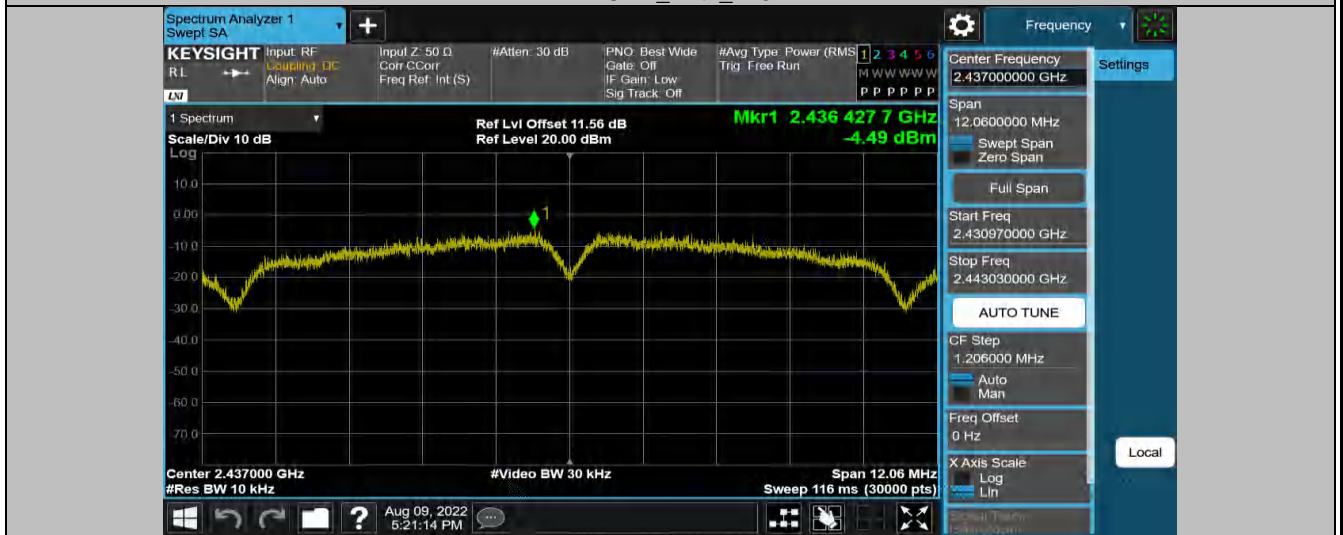
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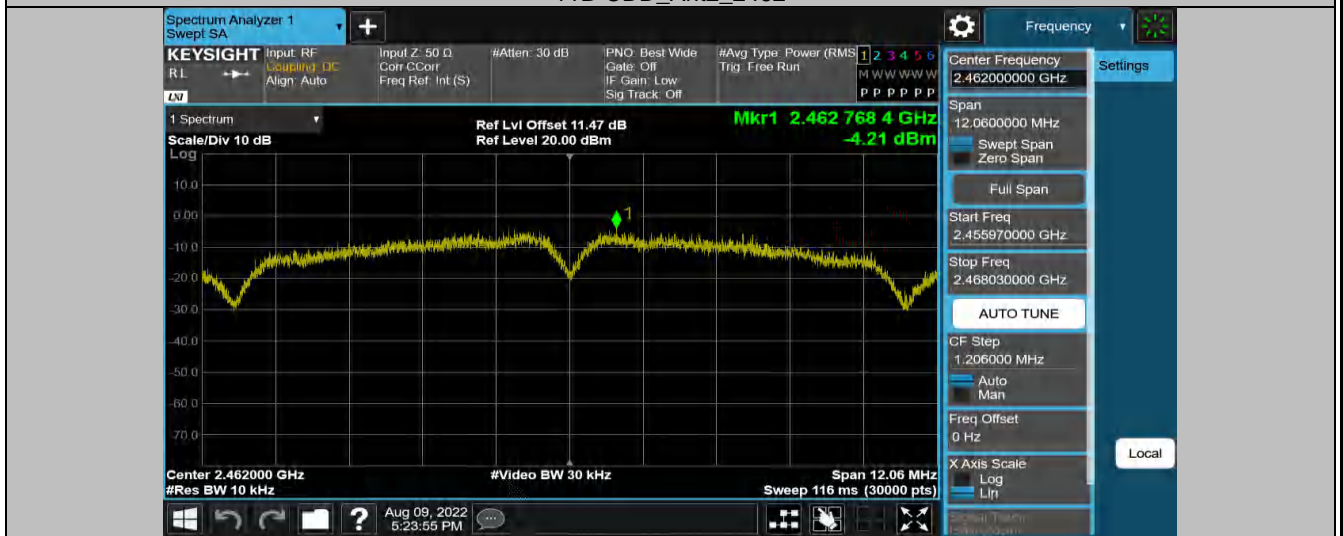
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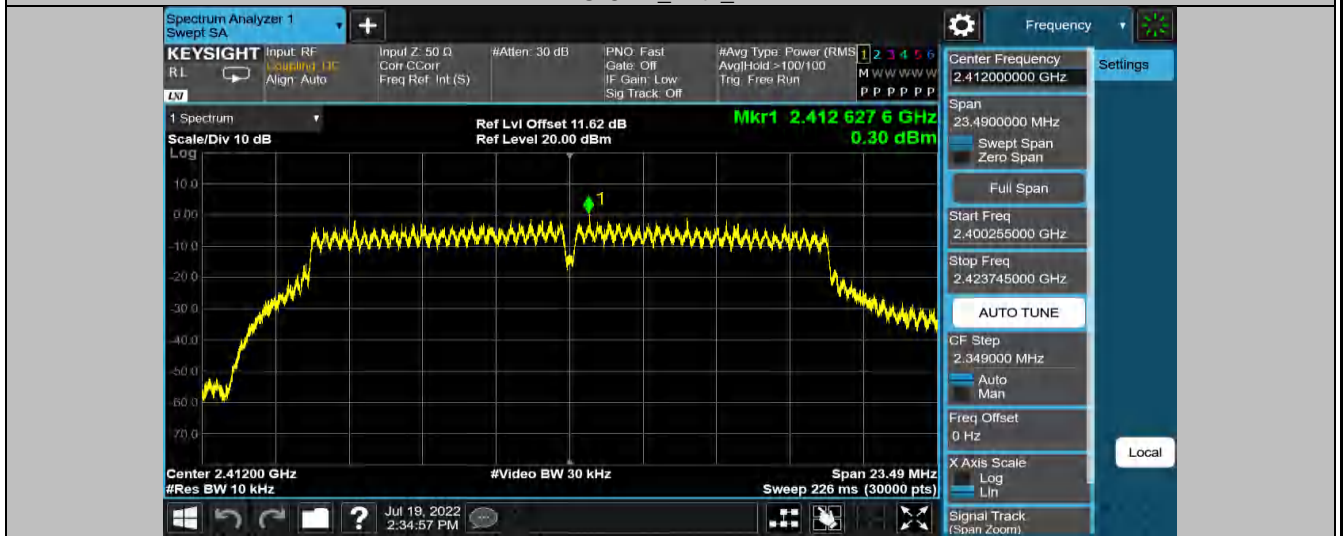
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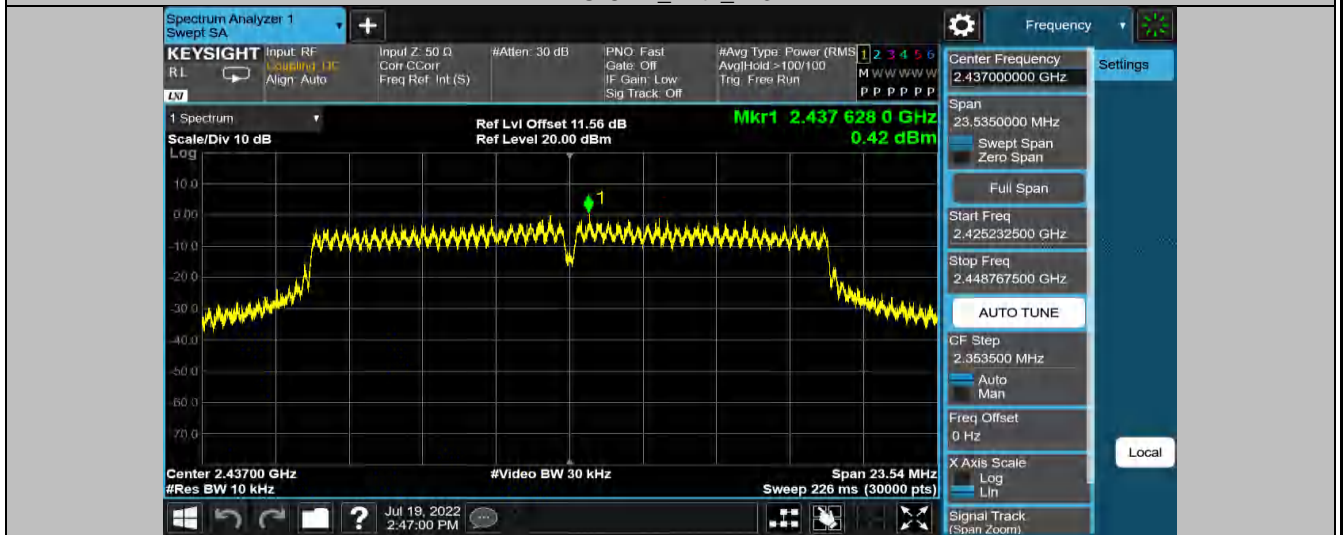
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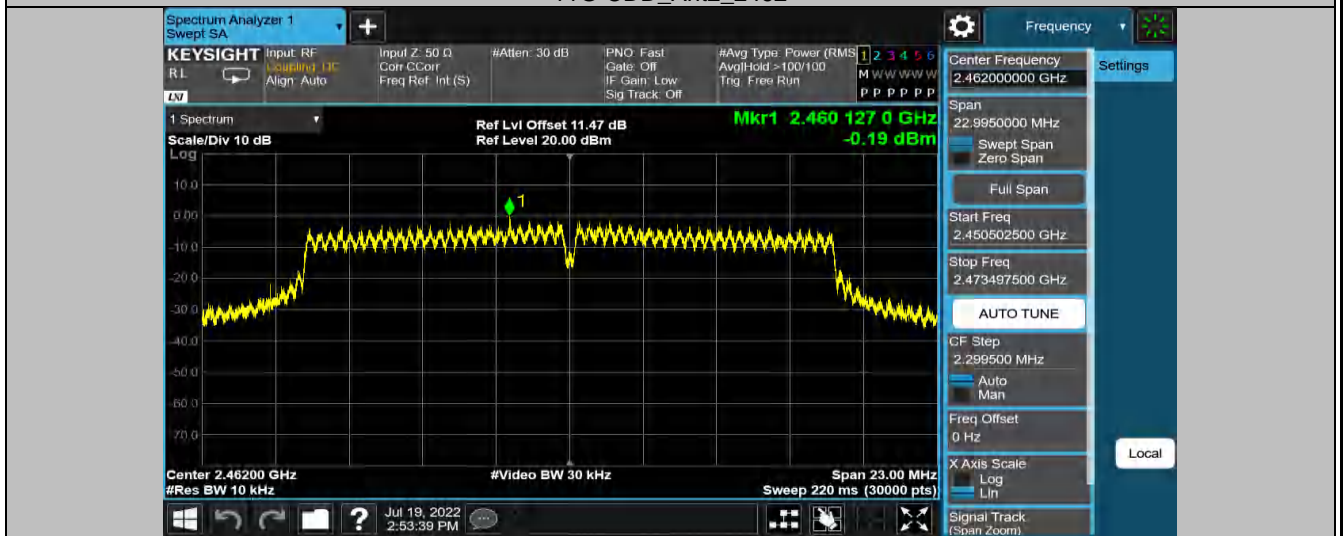
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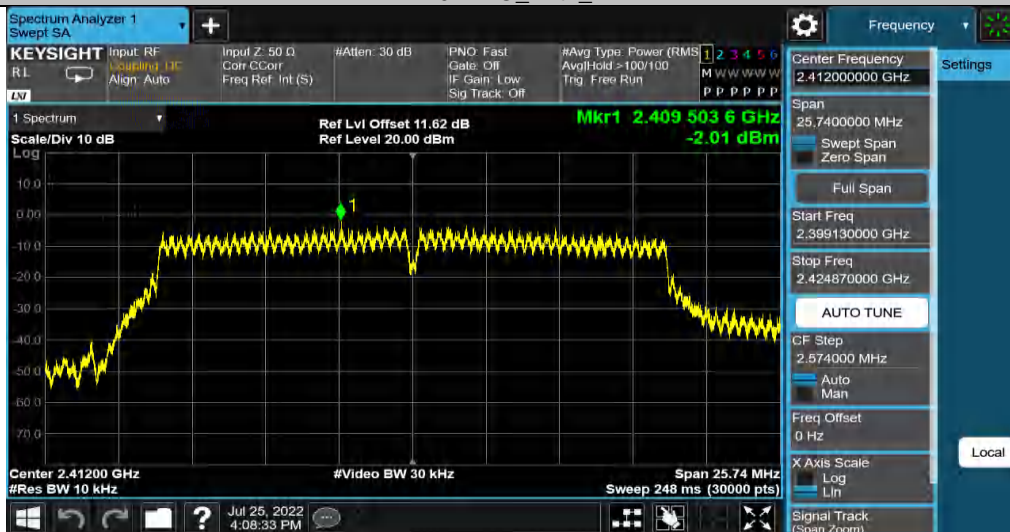
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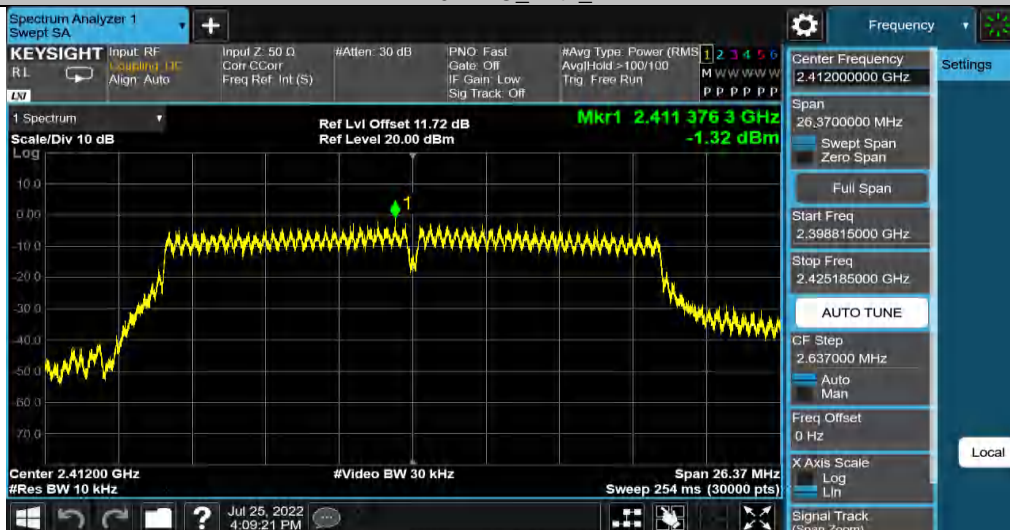
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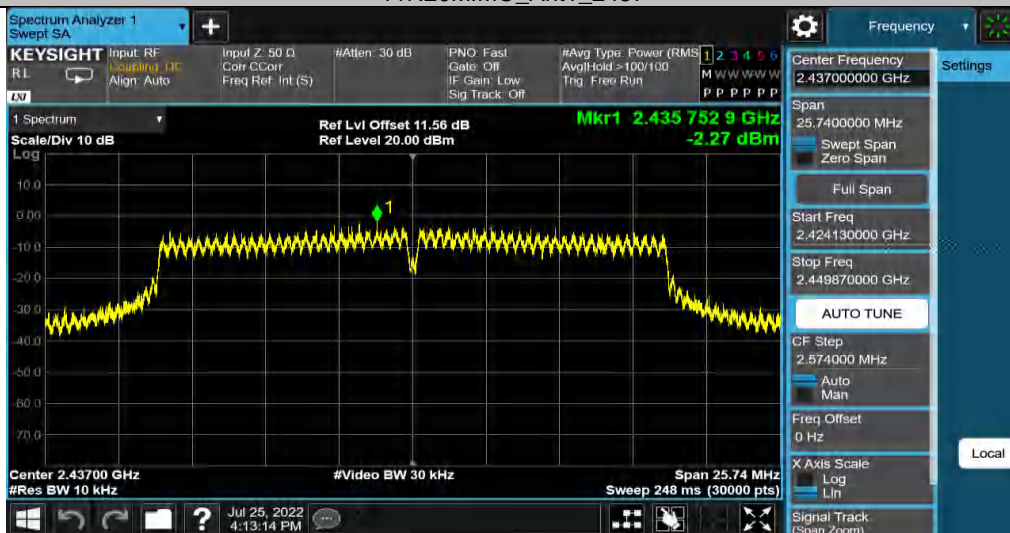
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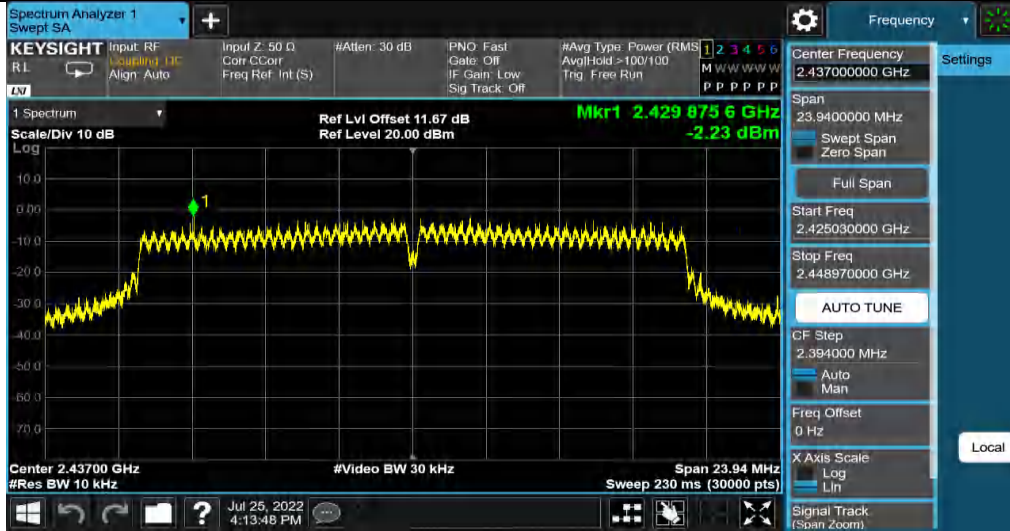
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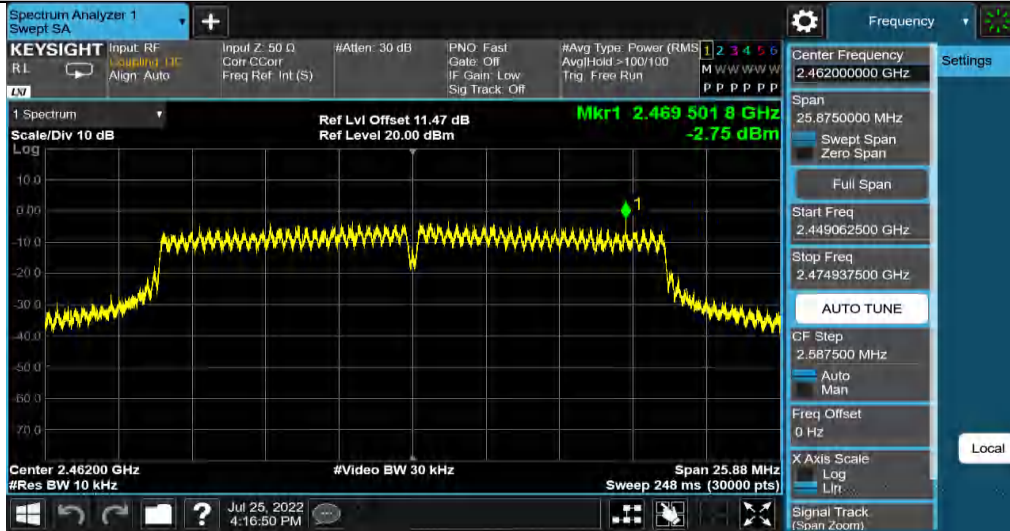
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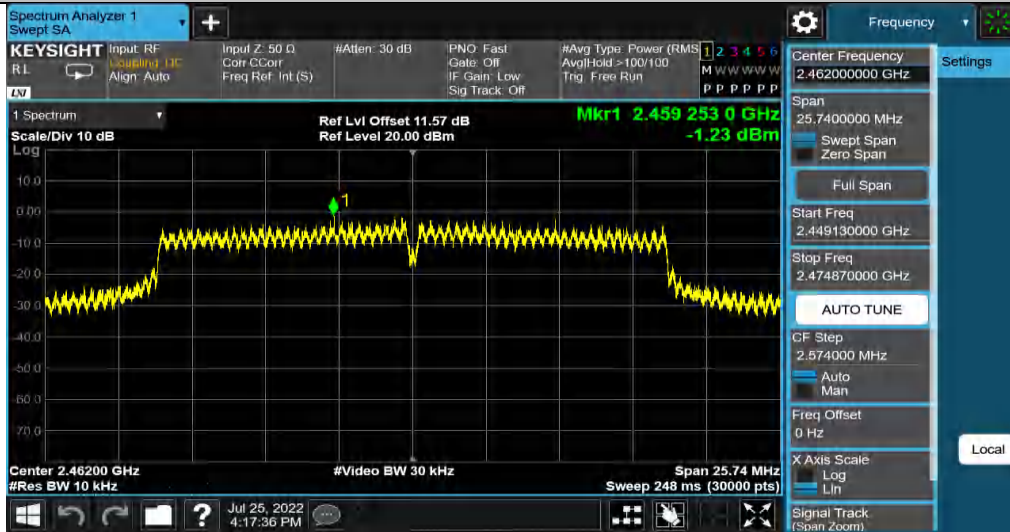
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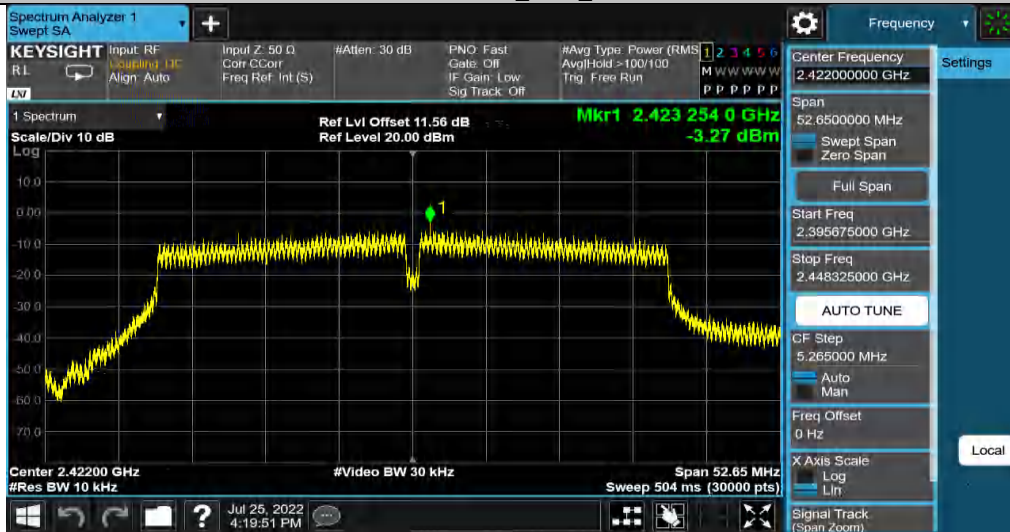
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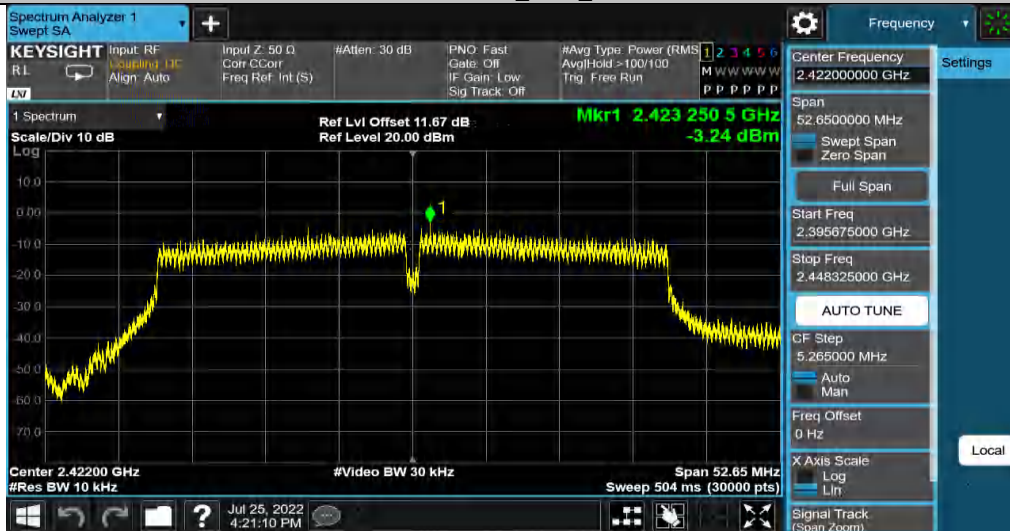
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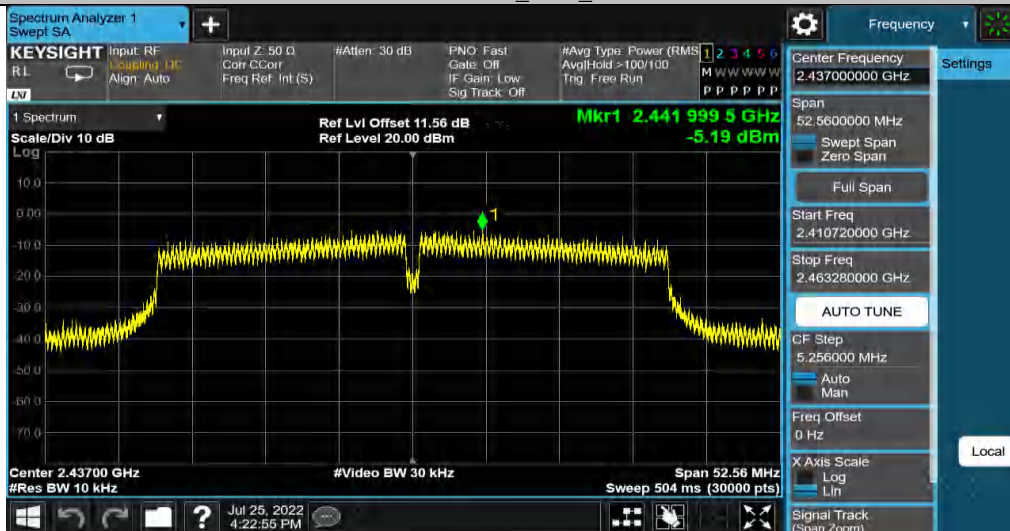
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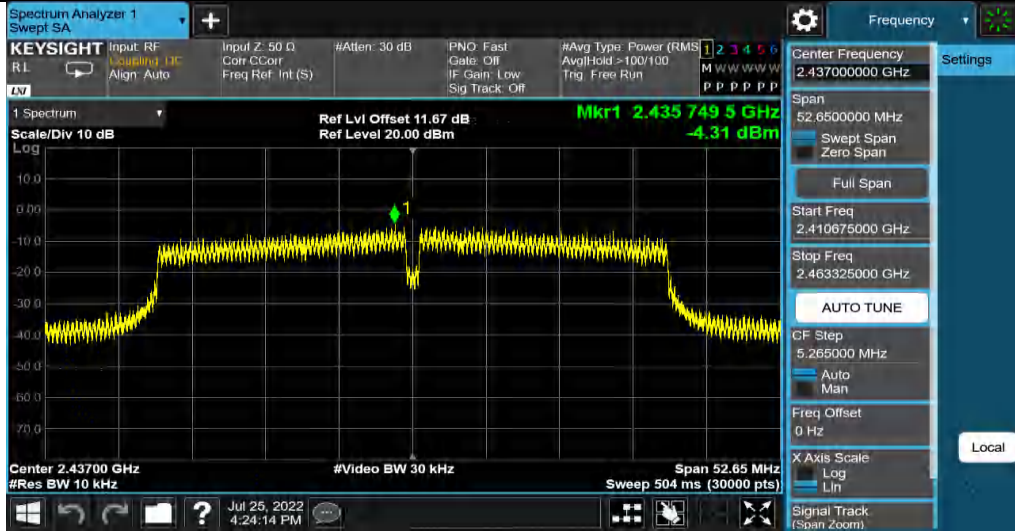
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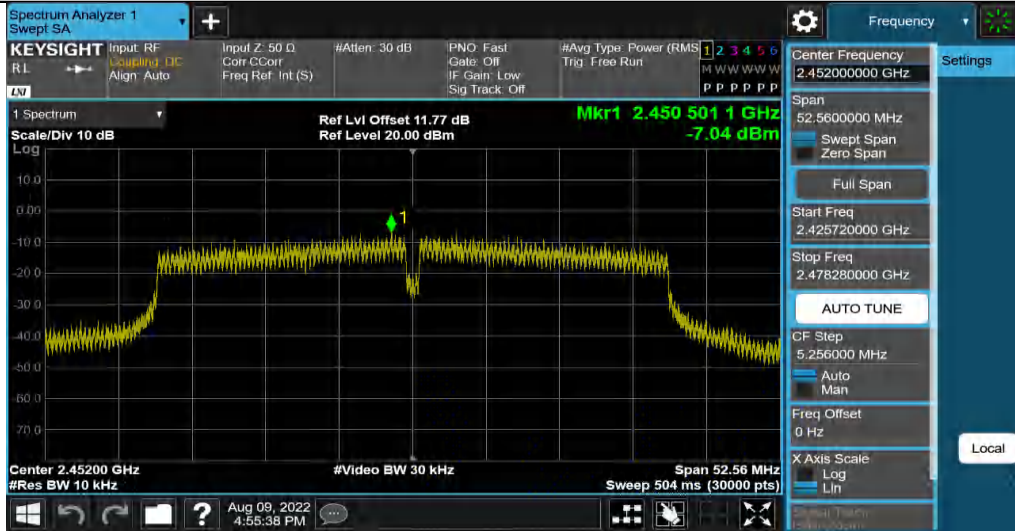
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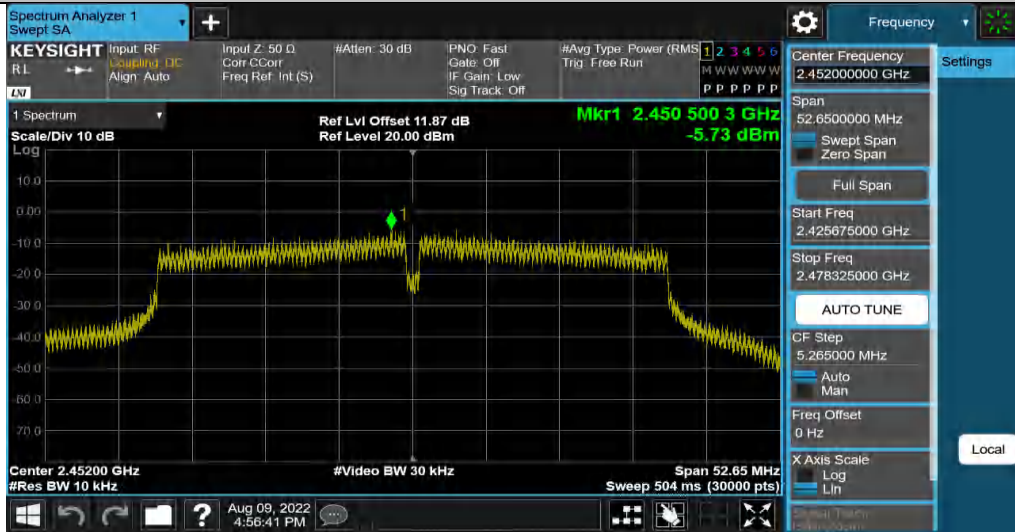
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11N40MIMO_Ant1_2452



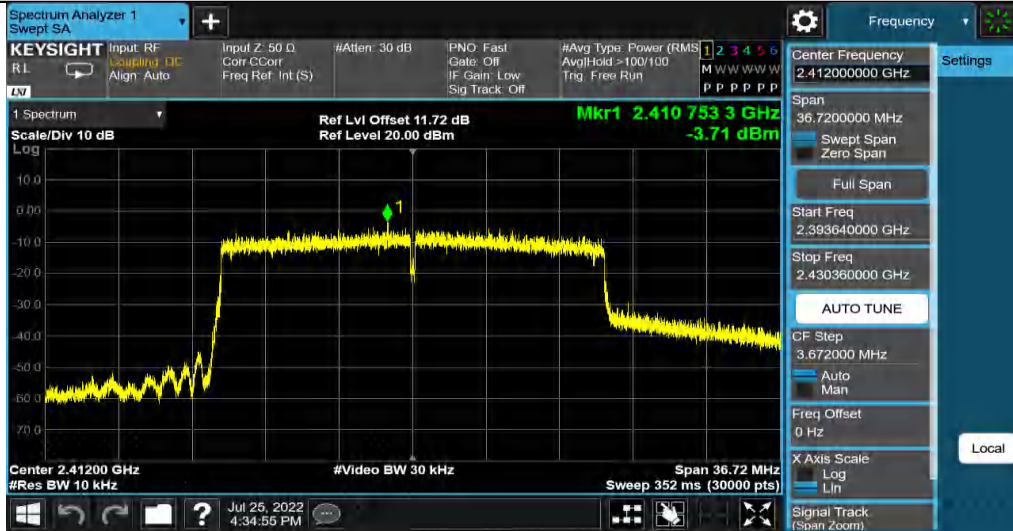
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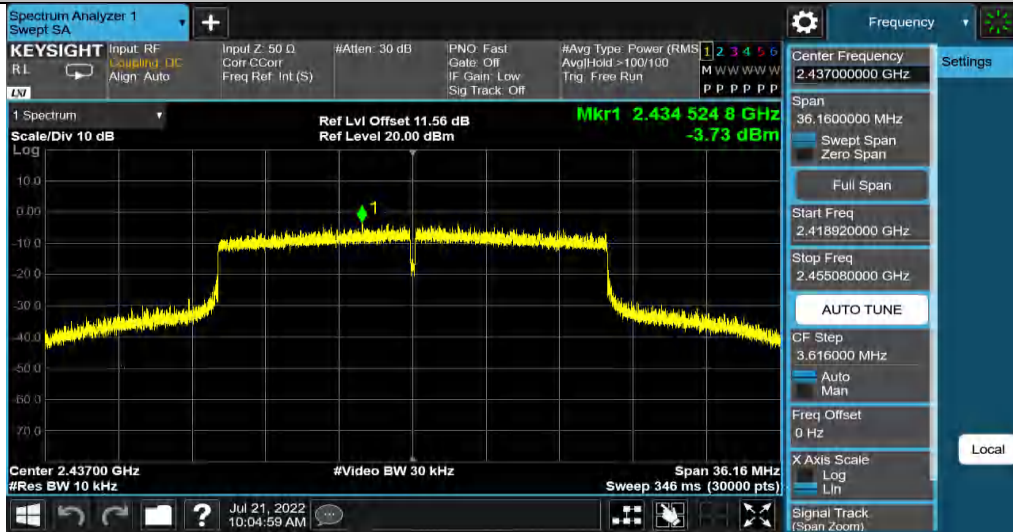
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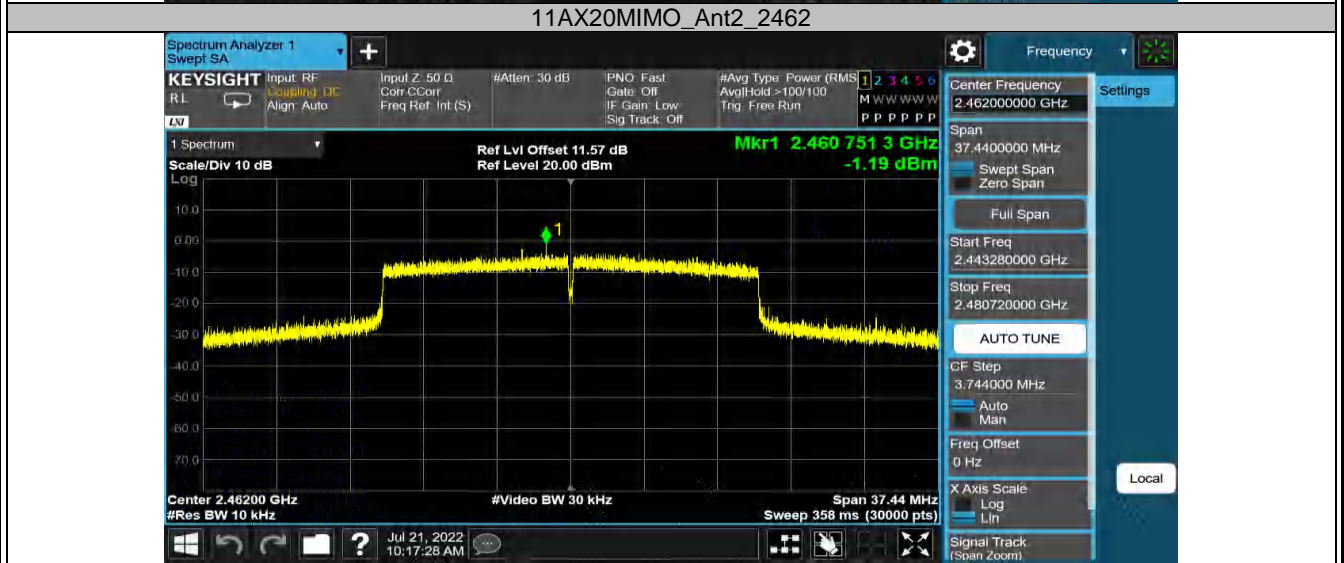
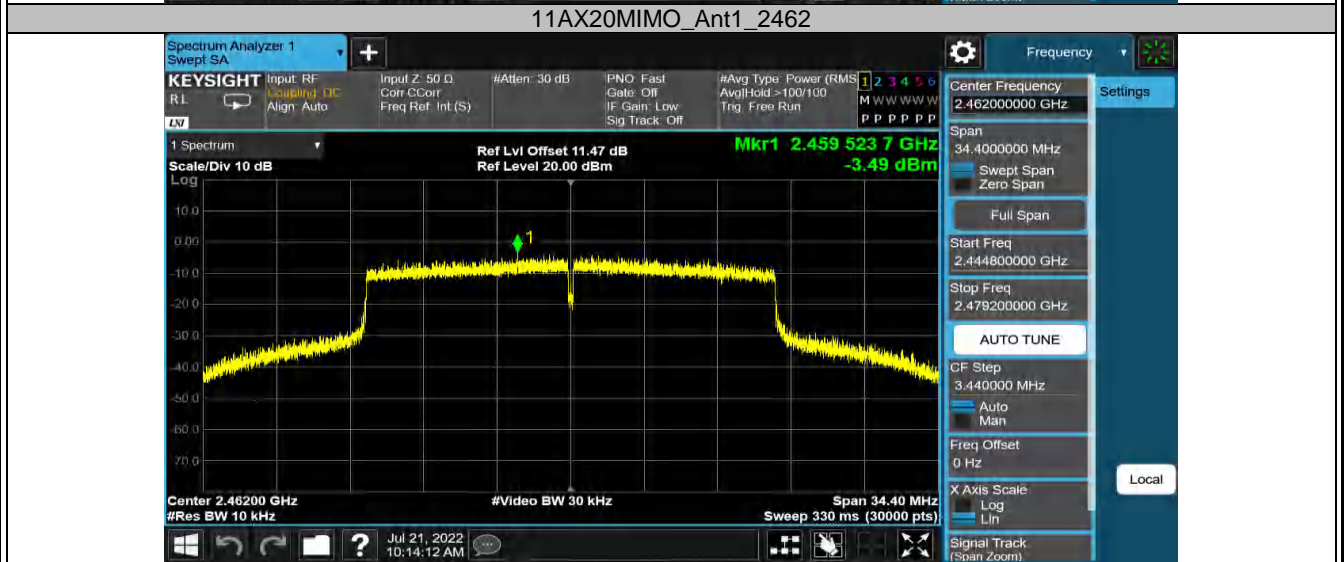
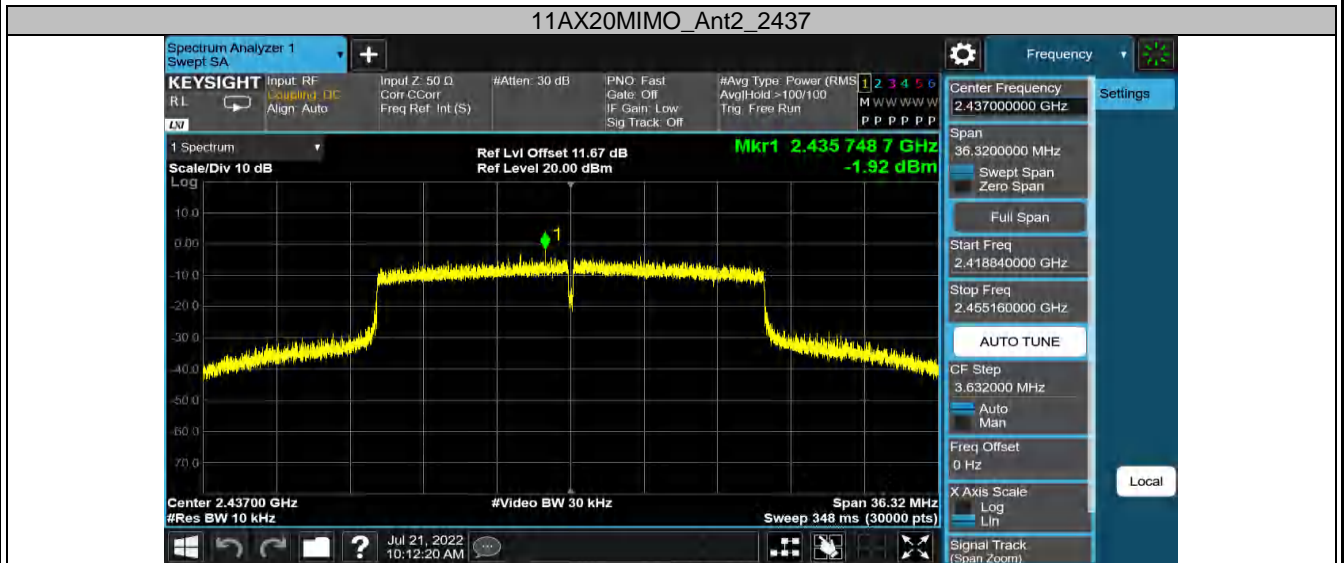


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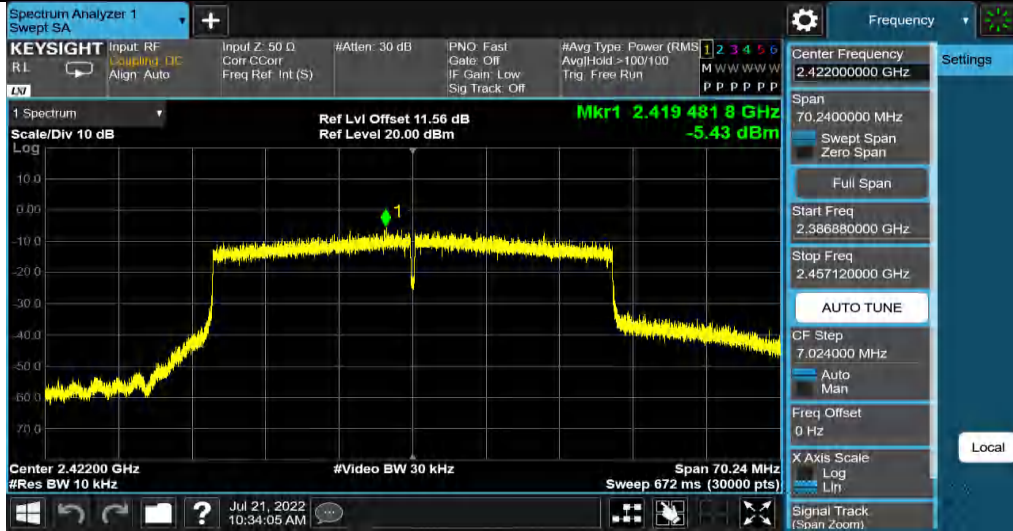


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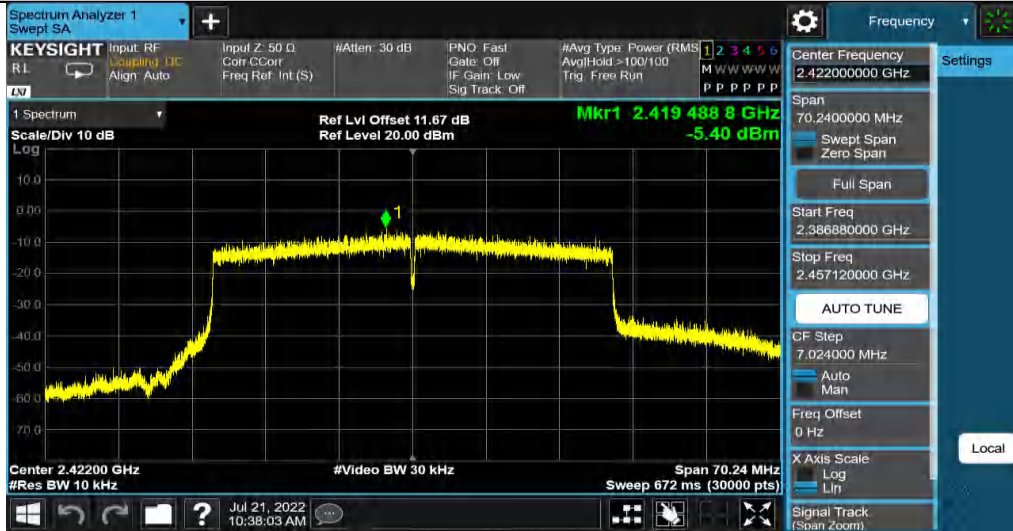




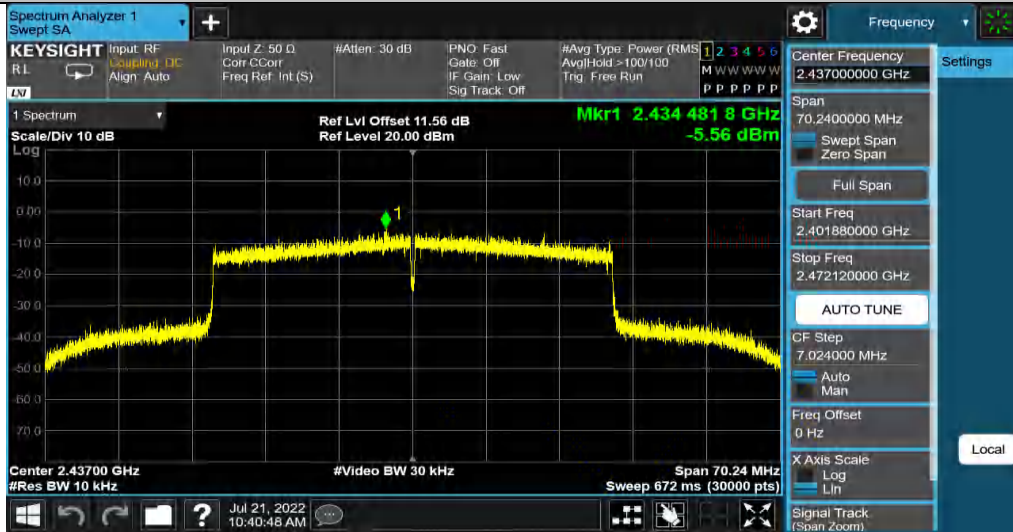
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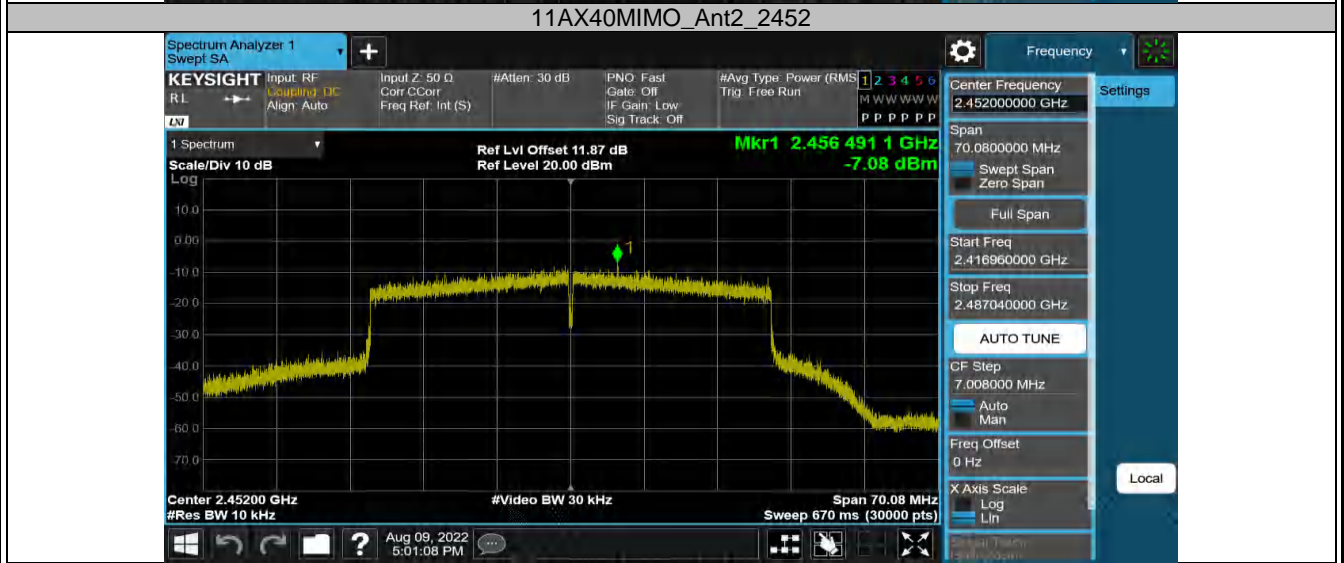
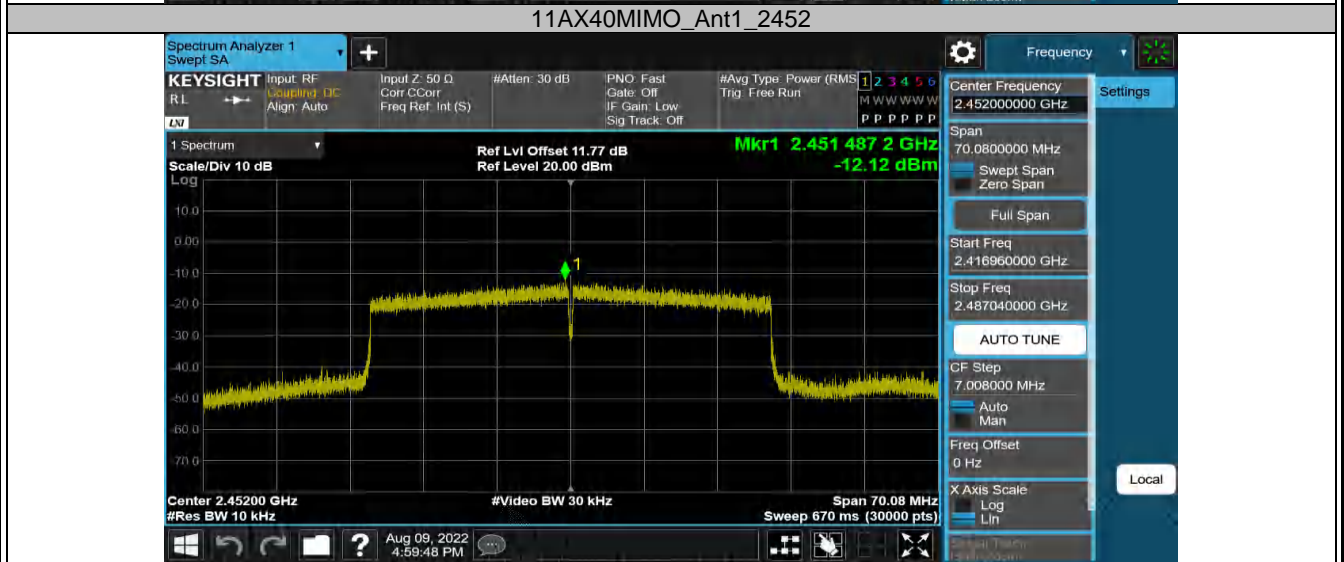
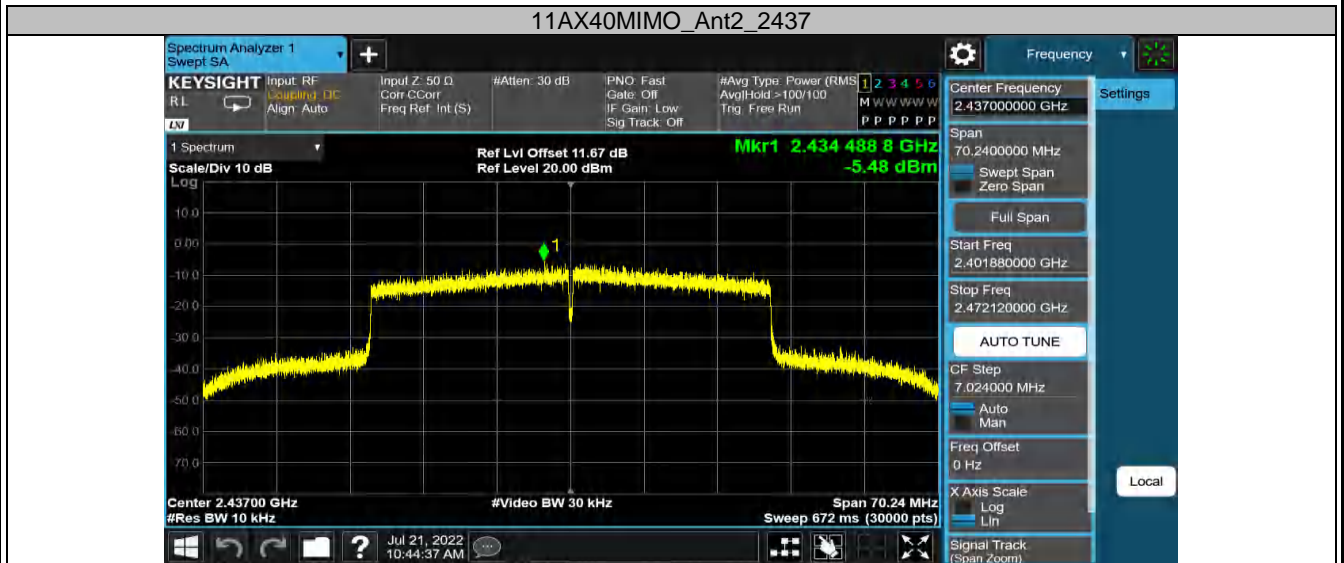


11AX40MIMO_Ant2_2422



11AX40MIMO_Ant1_2437





Appendix B.2: Test Results of 6dB Bandwidth

TestMode	Antenna	Channel	DTS BW [MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
11B-CDD	Ant1	2412	8.040	2407.980	2416.020	0.5	PASS
		2437	8.040	2433.010	2441.050	0.5	PASS
		2462	7.080	2458.460	2465.540	0.5	PASS
11G-CDD	Ant1	2412	15.450	2404.110	2419.560	0.5	PASS
		2437	15.660	2429.110	2444.770	0.5	PASS
		2462	15.780	2454.110	2469.890	0.5	PASS
11N20MIMO	Ant1	2412	17.160	2403.240	2420.400	0.5	PASS
	Ant2	2412	17.580	2403.210	2420.790	0.5	PASS
	Ant1	2437	17.160	2428.600	2445.760	0.5	PASS
	Ant2	2437	15.960	2429.440	2445.400	0.5	PASS
	Ant1	2462	17.250	2453.240	2470.490	0.5	PASS
	Ant2	2462	17.160	2453.240	2470.400	0.5	PASS
11N40MIMO	Ant1	2422	35.100	2404.480	2439.580	0.5	PASS
	Ant2	2422	35.100	2404.480	2439.580	0.5	PASS
	Ant1	2437	35.040	2419.480	2454.520	0.5	PASS
	Ant2	2437	35.100	2419.480	2454.580	0.5	PASS
	Ant1	2452	35.040	2434.480	2469.520	0.5	PASS
	Ant2	2452	35.100	2434.480	2469.580	0.5	PASS
11AX20MIMO	Ant1	2412	18.200	2402.680	2420.880	0.5	PASS
	Ant2	2412	18.360	2402.720	2421.080	0.5	PASS
	Ant1	2437	18.360	2427.920	2446.280	0.5	PASS
	Ant2	2437	18.160	2428.200	2446.360	0.5	PASS
	Ant1	2462	18.200	2452.760	2470.960	0.5	PASS
	Ant2	2462	18.200	2453.040	2471.240	0.5	PASS
11AX40MIMO	Ant1	2422	35.120	2404.480	2439.600	0.5	PASS
	Ant2	2422	35.120	2404.400	2439.520	0.5	PASS
	Ant1	2437	35.120	2419.480	2454.600	0.5	PASS
	Ant2	2437	35.120	2419.480	2454.600	0.5	PASS
	Ant1	2452	35.040	2434.480	2469.520	0.5	PASS
	Ant2	2452	35.040	2434.480	2469.520	0.5	PASS

11B-CDD_Ant1_2412



11B-CDD_Ant1_2437



11B-CDD_Ant1_2462



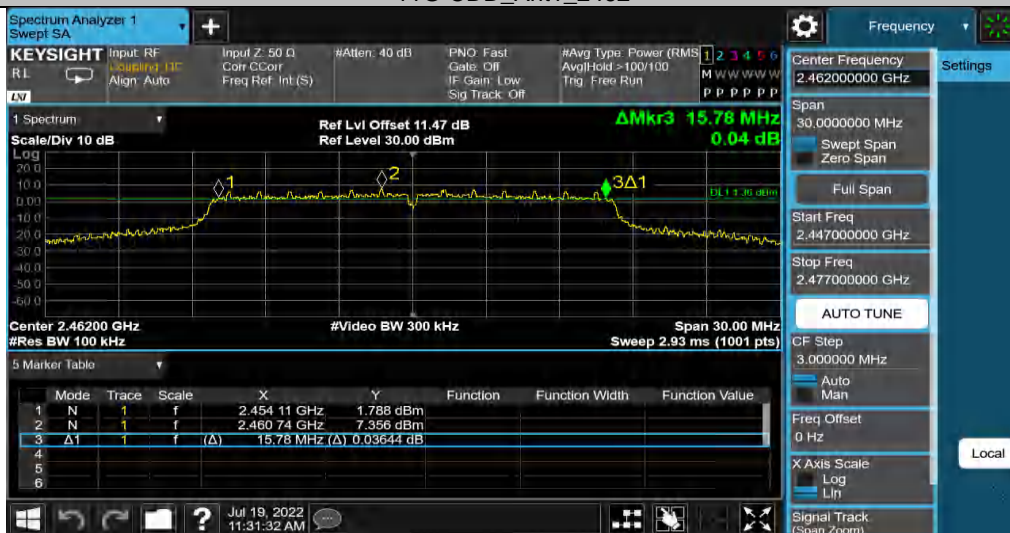
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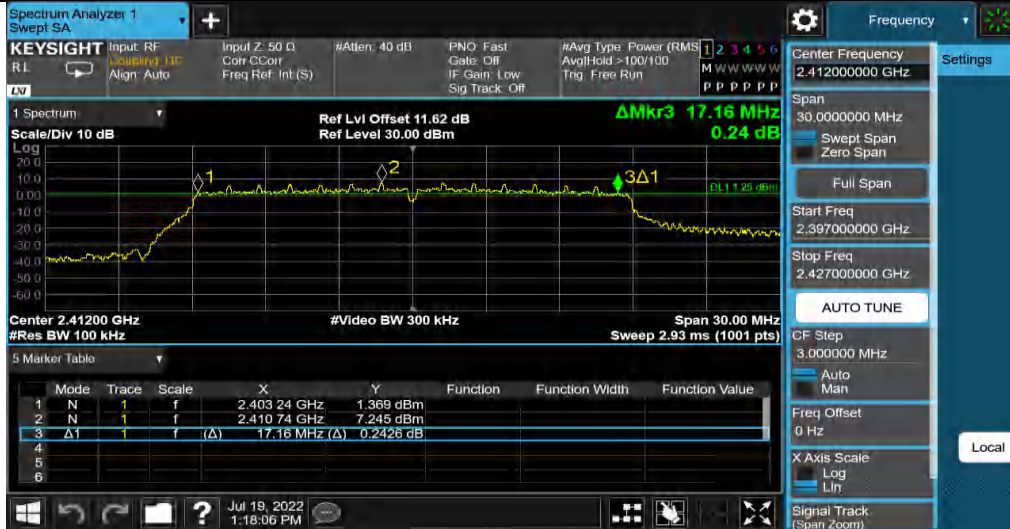
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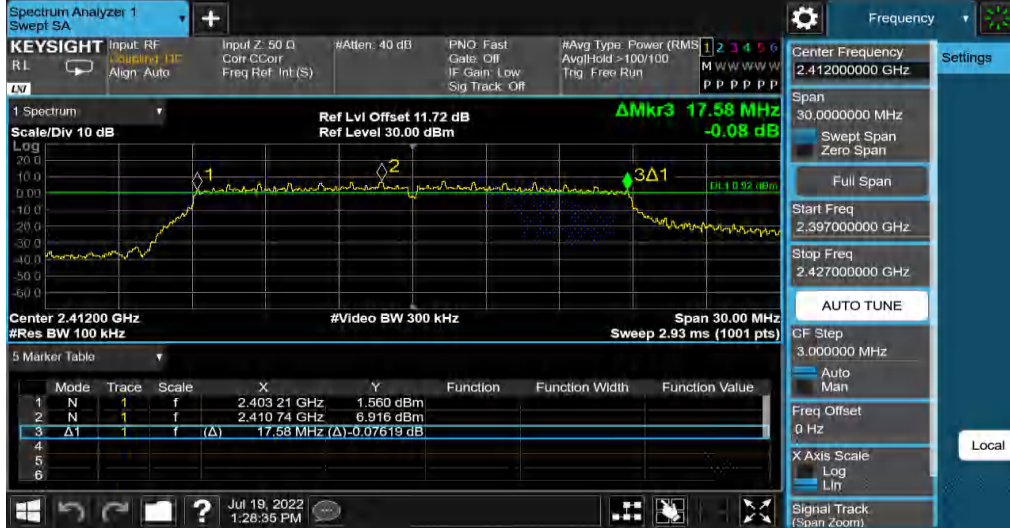
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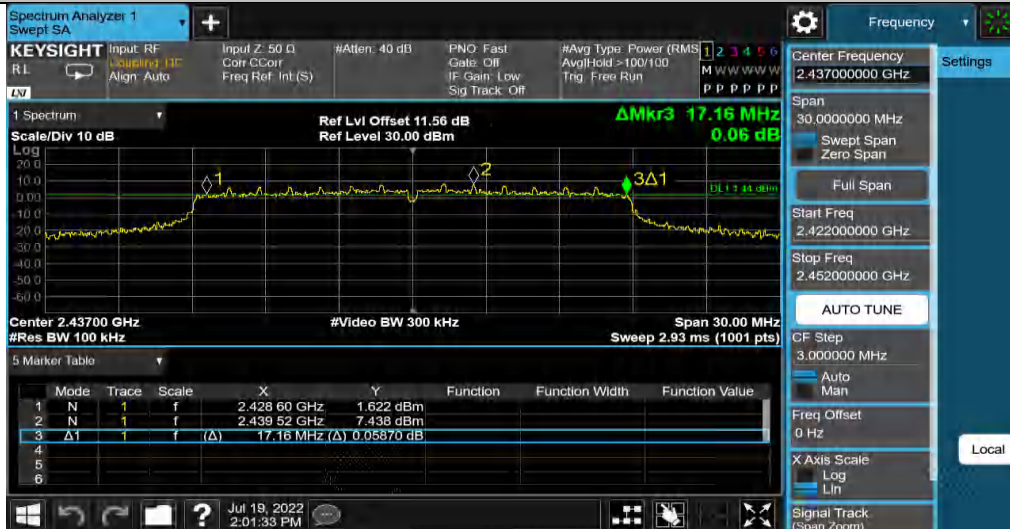
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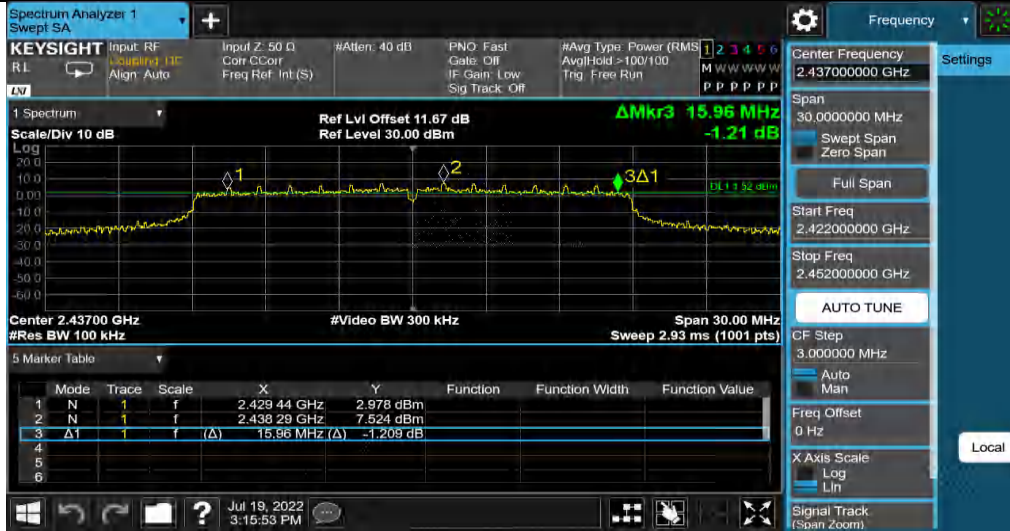
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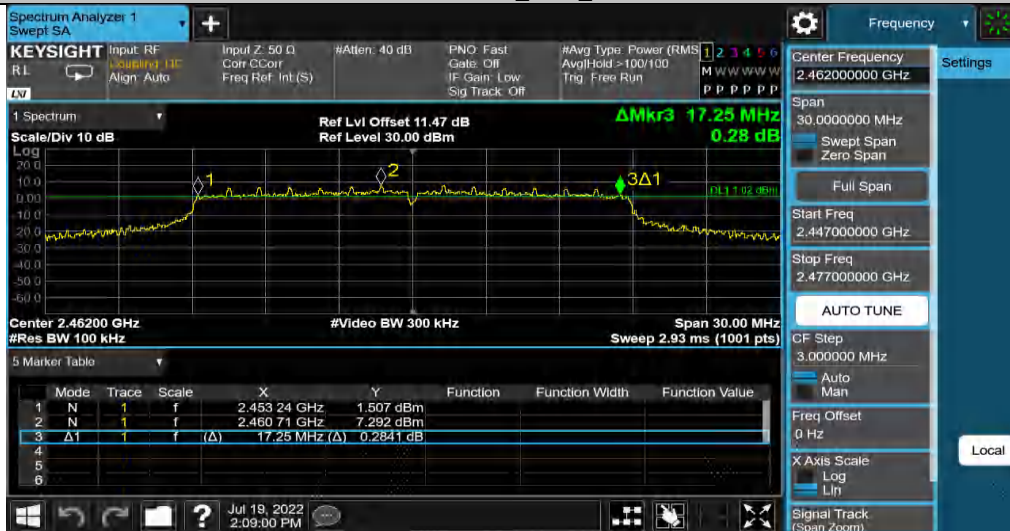
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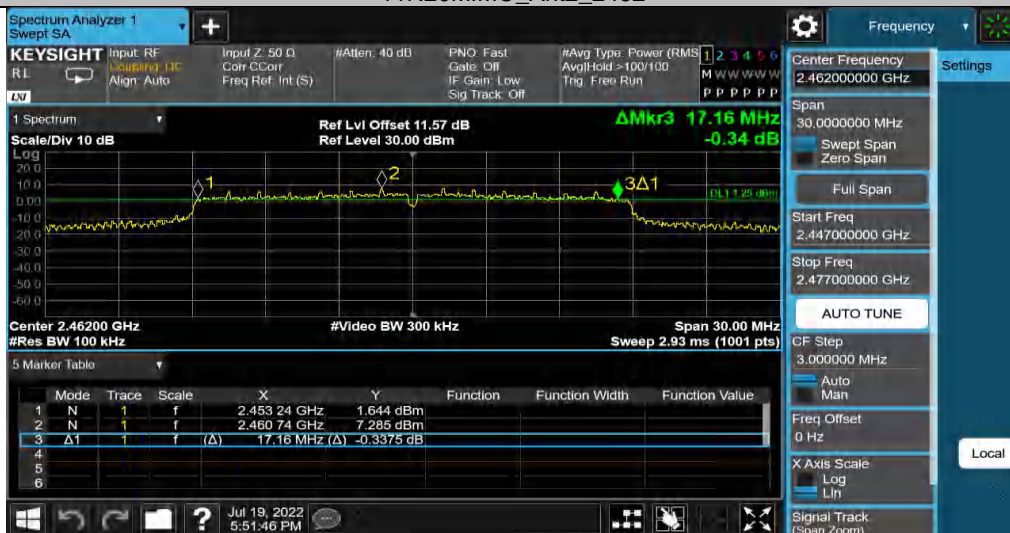
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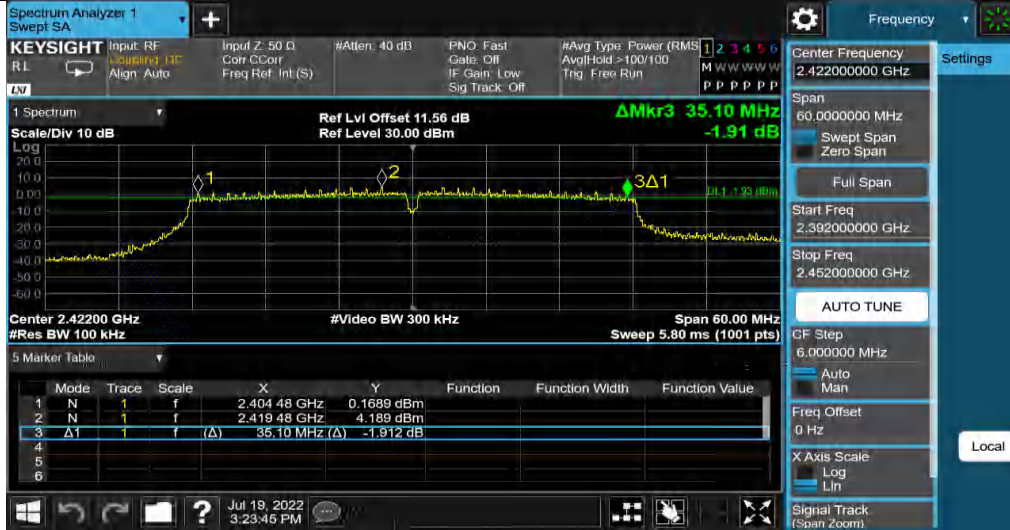
11N20MIMO_Ant1_2462



11N20MIMO_Ant2_2462



11N40MIMO_Ant1_2422



11N40MIMO_Ant2_2422



11N40MIMO_Ant1_2437



11N40MIMO_Ant2_2437



11N40MIMO_Ant1_2452



11N40MIMO_Ant2_2452



11AX20MIMO_Ant1_2412



11AX20MIMO_Ant2_2412



11AX20MIMO_Ant1_2437



11AX20MIMO_Ant2_2437



11AX20MIMO_Ant1_2462



11AX20MIMO_Ant2_2462



11AX40MIMO_Ant1_2422



11AX40MIMO_Ant2_2422



11AX40MIMO_Ant1_2437



11AX40MIMO_Ant2_2437



11AX40MIMO_Ant1_2452



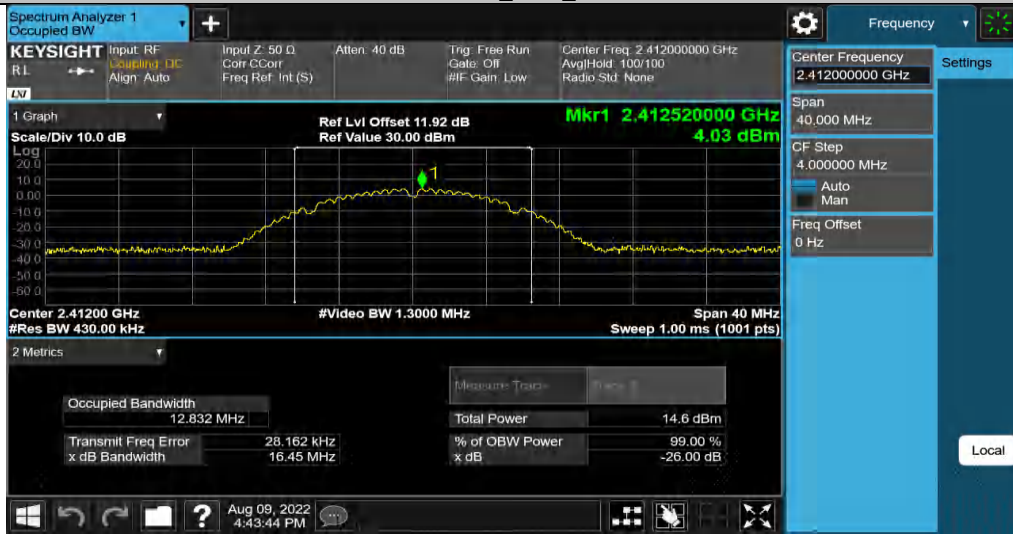
11AX40MIMO_Ant2_2452



Appendix B.3: Test Results of 99% Bandwidth

TestMode	Antenna	Channel	OCB [MHz]	FL[MHz]	FH[MHz]
11B-CDD	Ant1	2412	12.832	2405.6122	2418.4442
		2437	12.478	2430.827	2443.305
		2462	14.184	2454.8125	2468.9965
11G-CDD	Ant1	2412	17.331	2403.448	2420.779
		2437	17.323	2428.388	2445.711
		2462	17.317	2453.317	2470.634
11N20MIMO	Ant1	2412	18.258	2402.959	2421.217
		2437	18.443	2427.807	2446.250
		2462	18.369	2452.803	2471.172
11N40MIMO	Ant1	2422	36.439	2403.931	2440.370
		2437	36.462	2418.834	2455.296
		2452	36.370	2433.849	2470.219
11AX20MIMO	Ant1	2412	18.963	2402.541	2421.504
		2437	19.224	2427.432	2446.656
		2462	19.186	2452.415	2471.601
11AX40MIMO	Ant1	2422	37.802	2403.170	2440.972
		2437	37.838	2418.092	2455.930
		2452	37.695	2433.124	2470.819

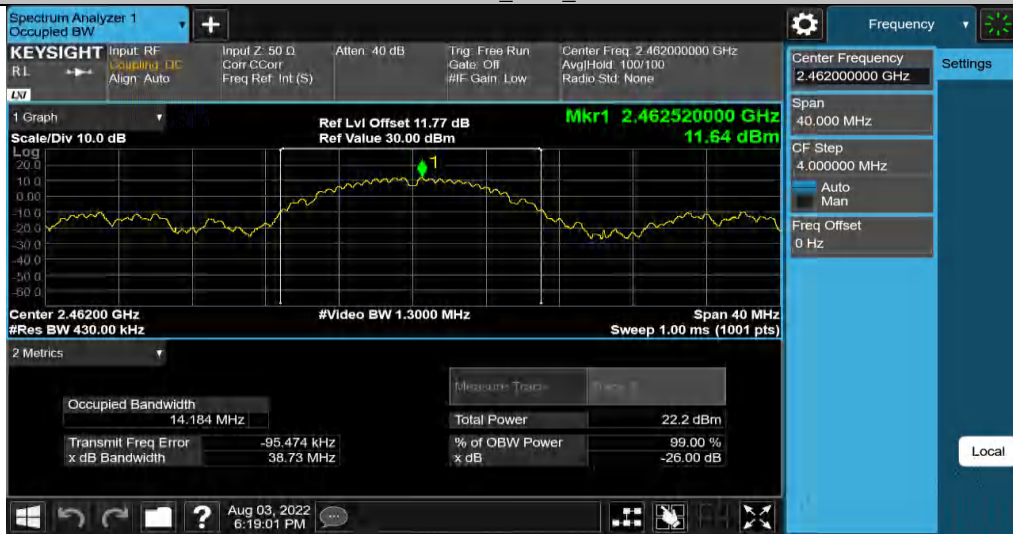
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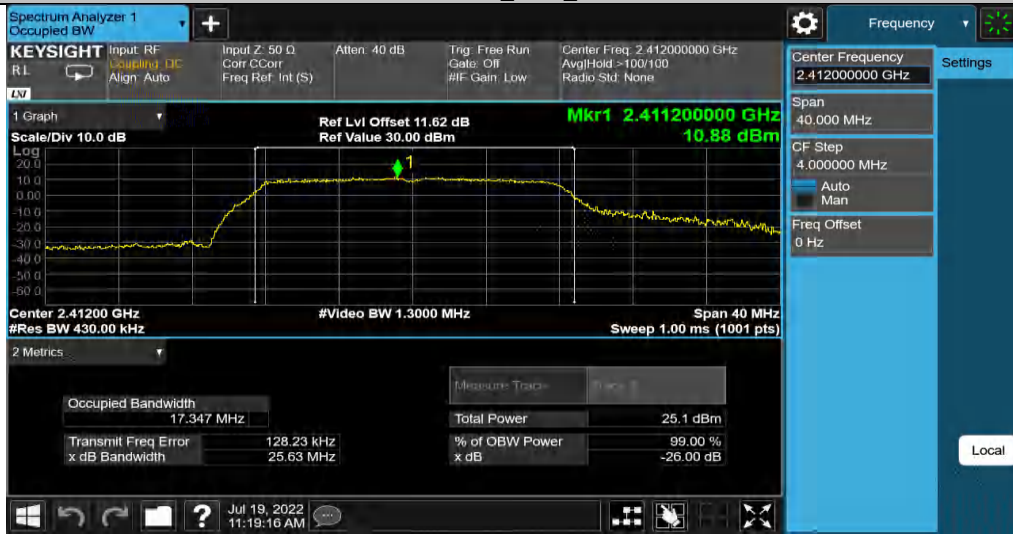
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11B-CDD_Ant1_2462



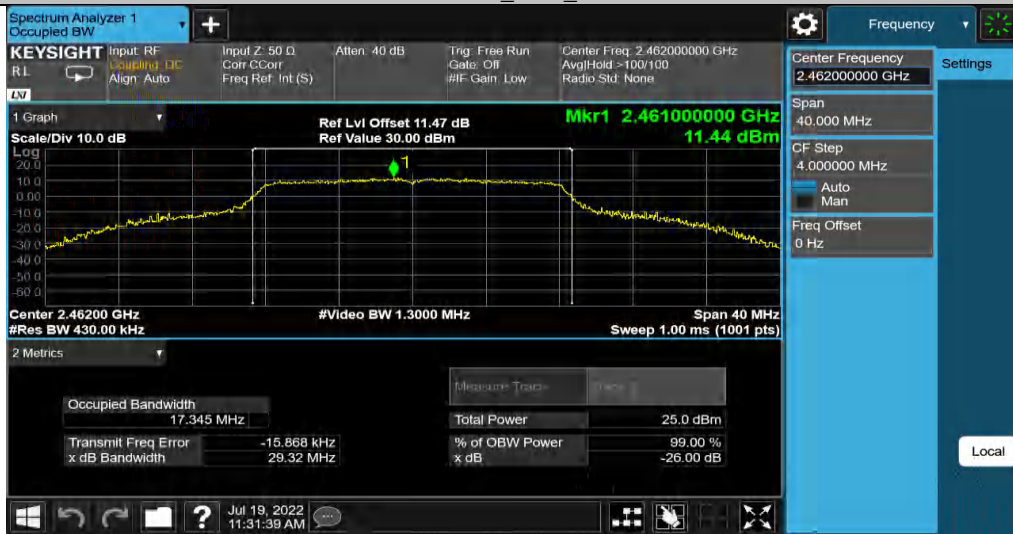
11G-CDD_Ant1_2412



11G-CDD_Ant1_2437



11G-CDD_Ant1_2462



11N20MIMO_Ant1_2412



11N20MIMO_Ant1_2437



11N20MIMO_Ant1_2462



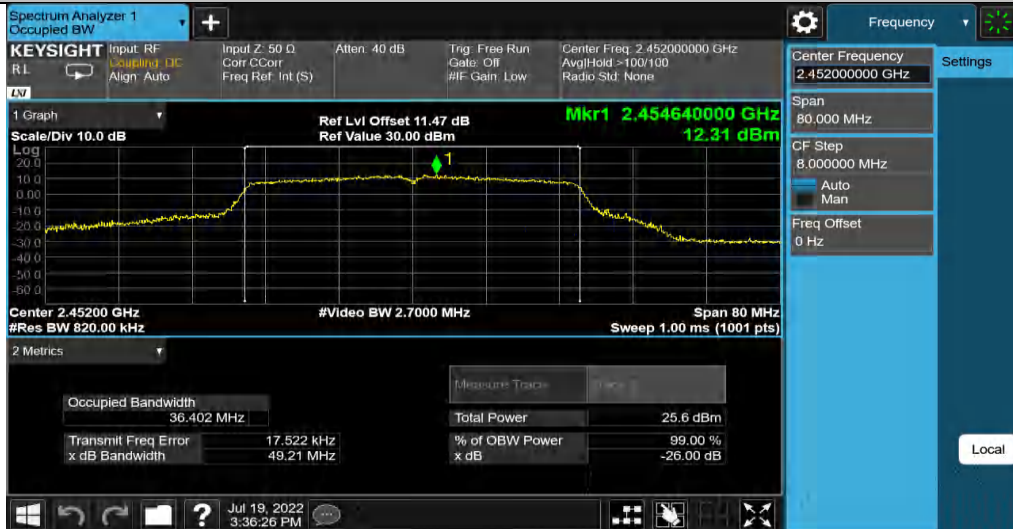
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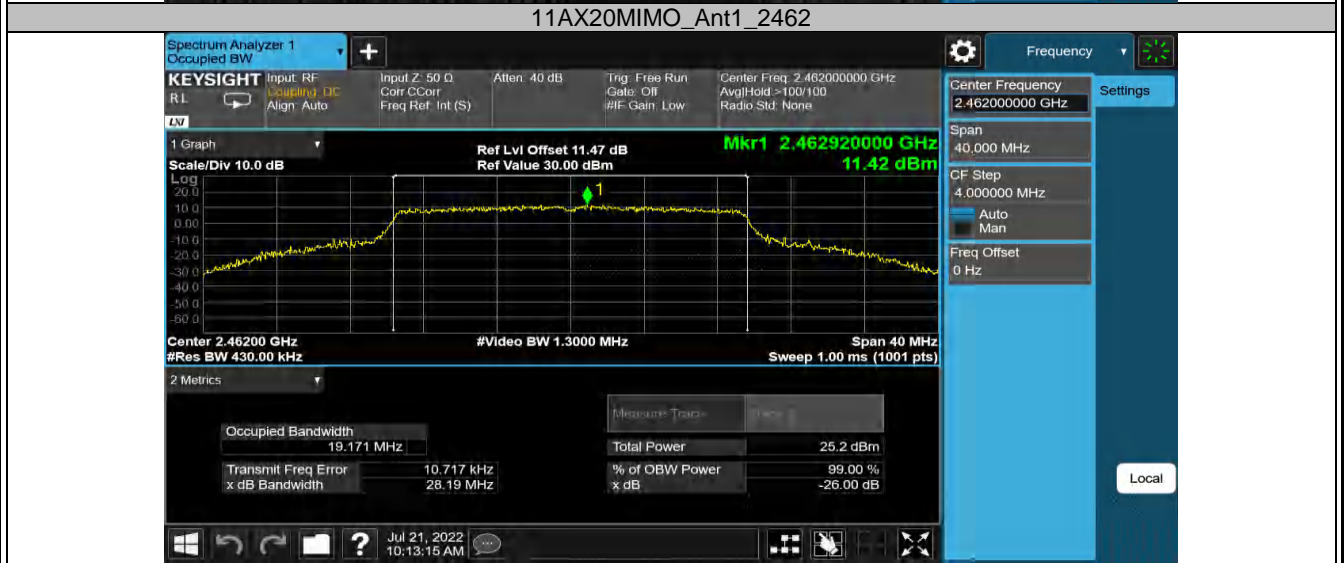
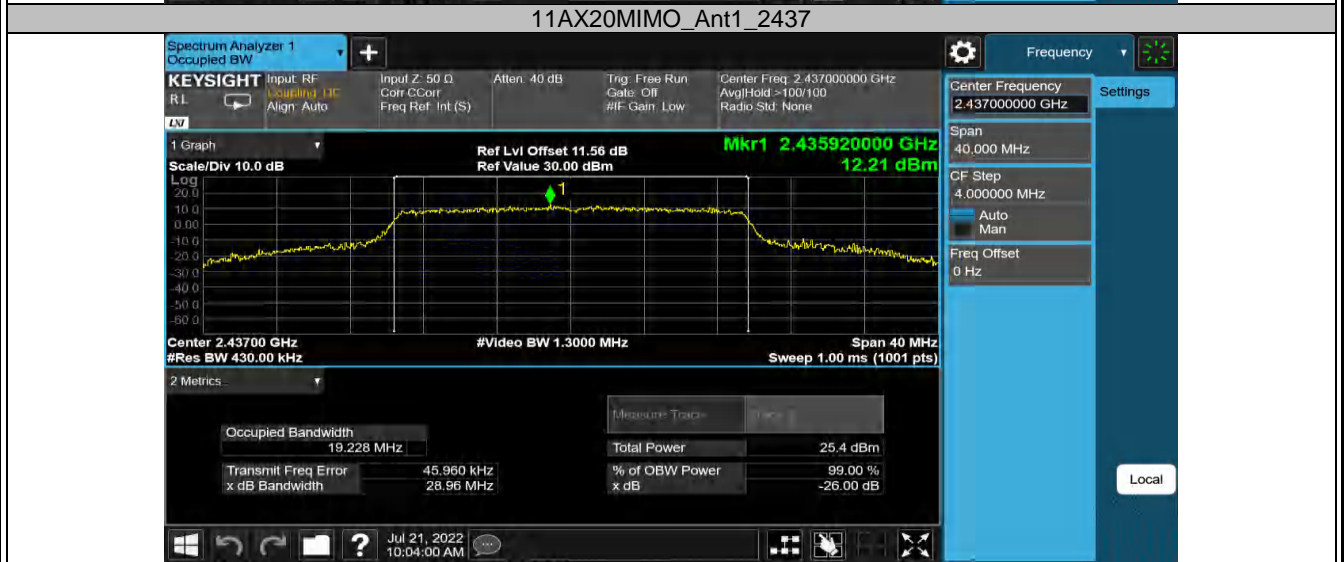
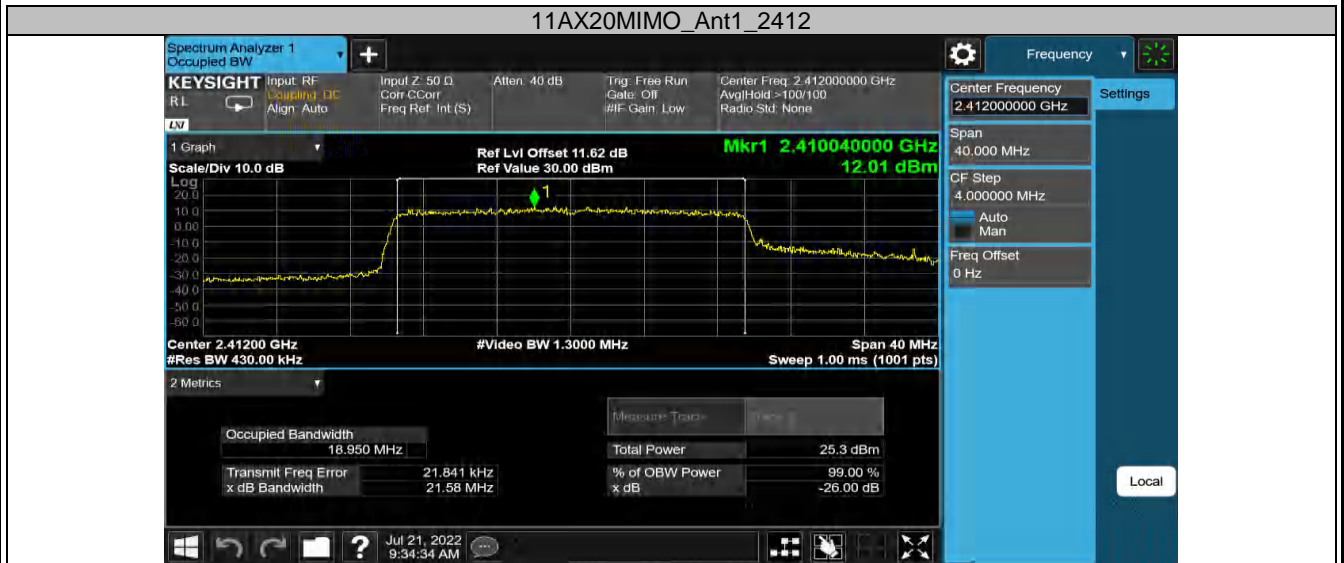


11N40MIMO_Ant1_2437



11N40MIMO_Ant1_2452

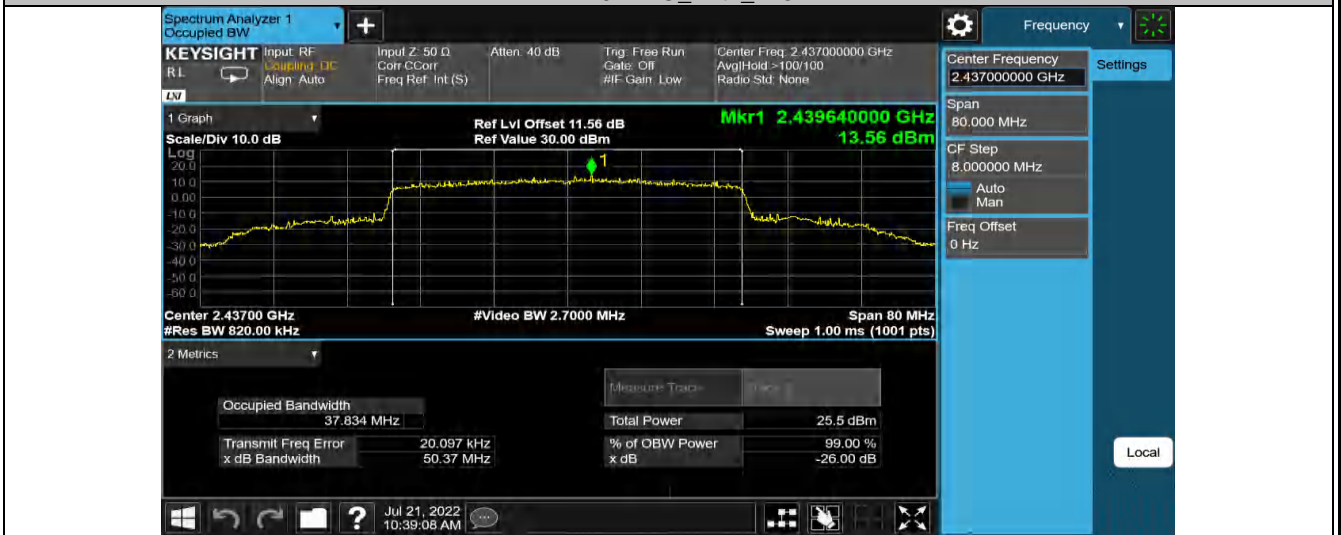




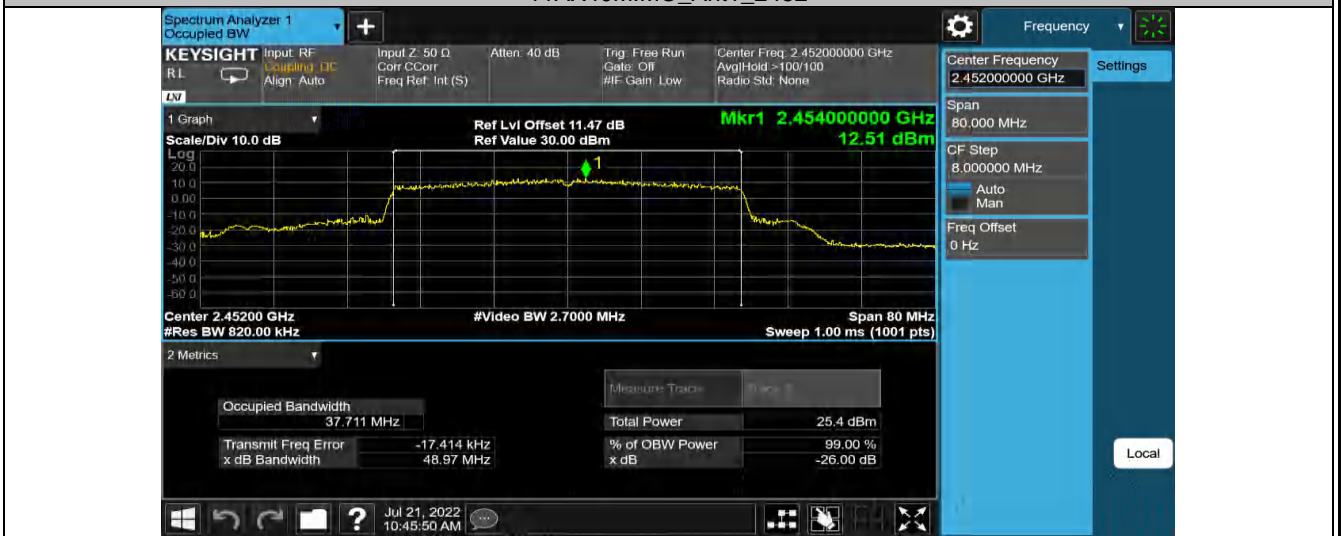
11AX40MIMO_Ant1_2422



11AX40MIMO_Ant1_2437



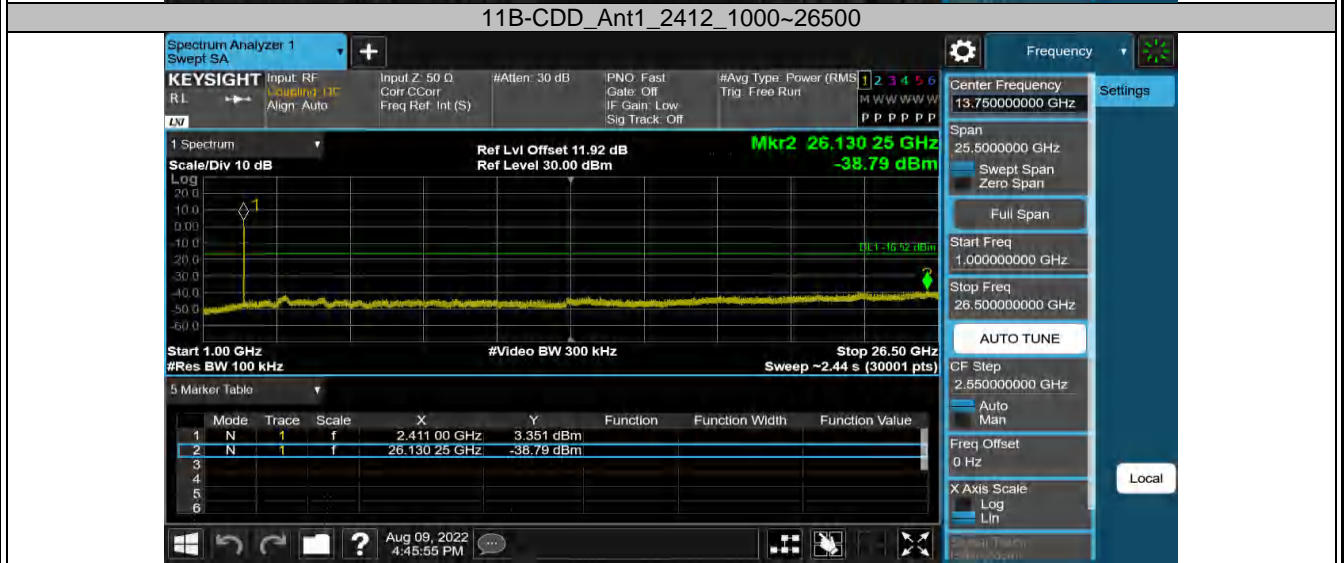
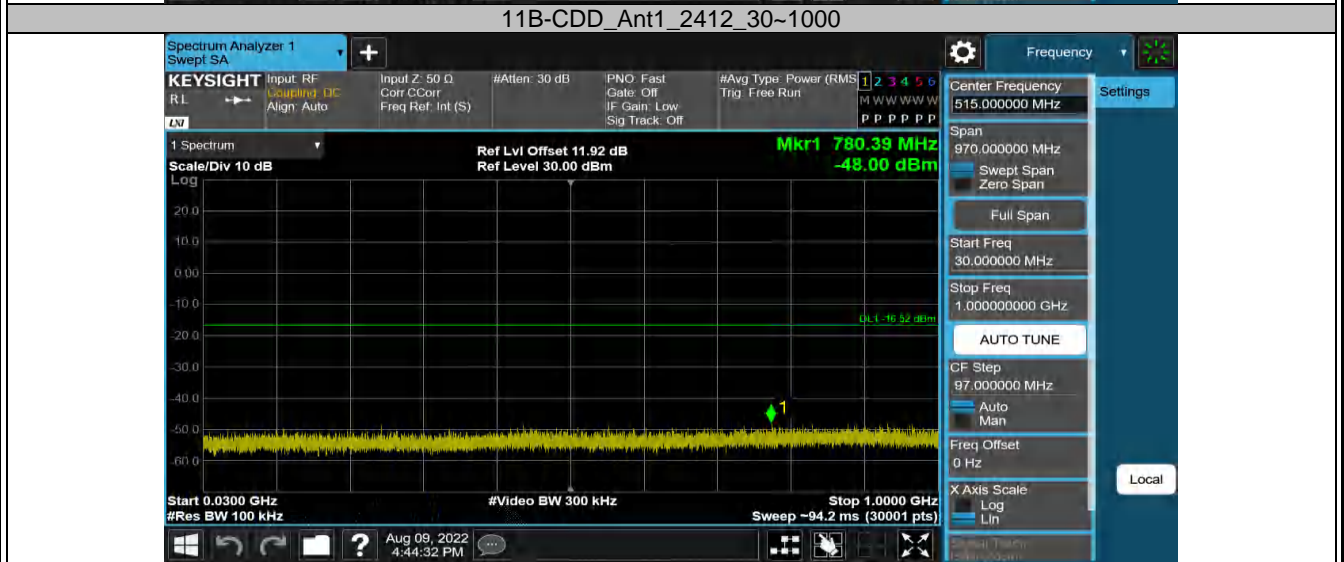
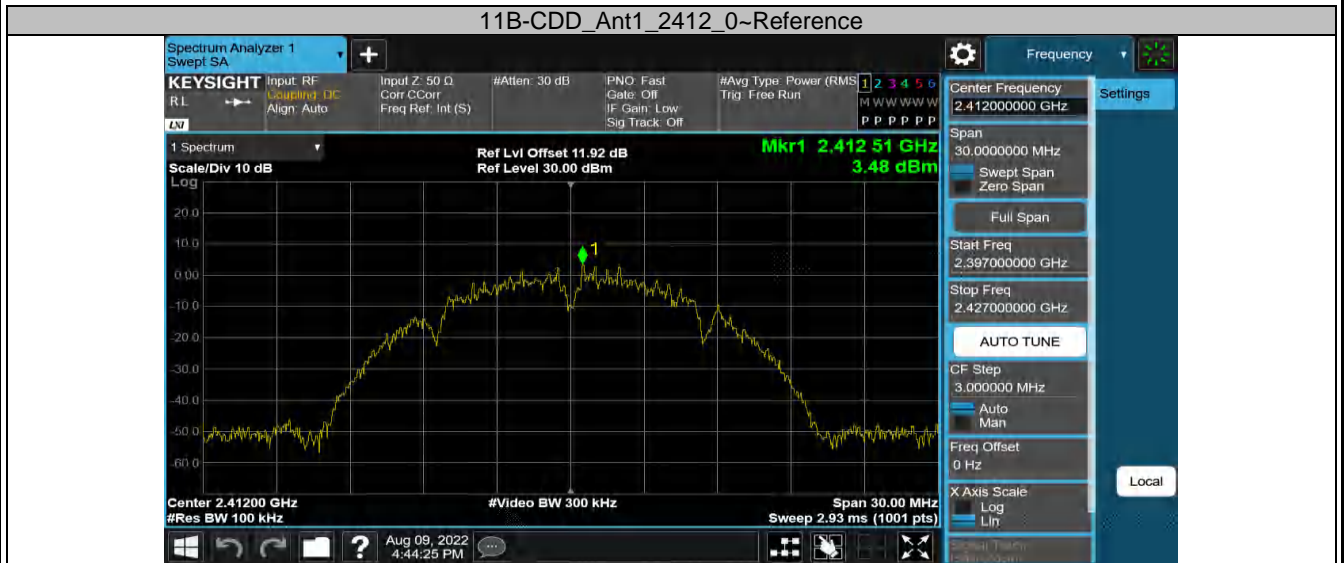
11AX40MIMO_Ant1_2452

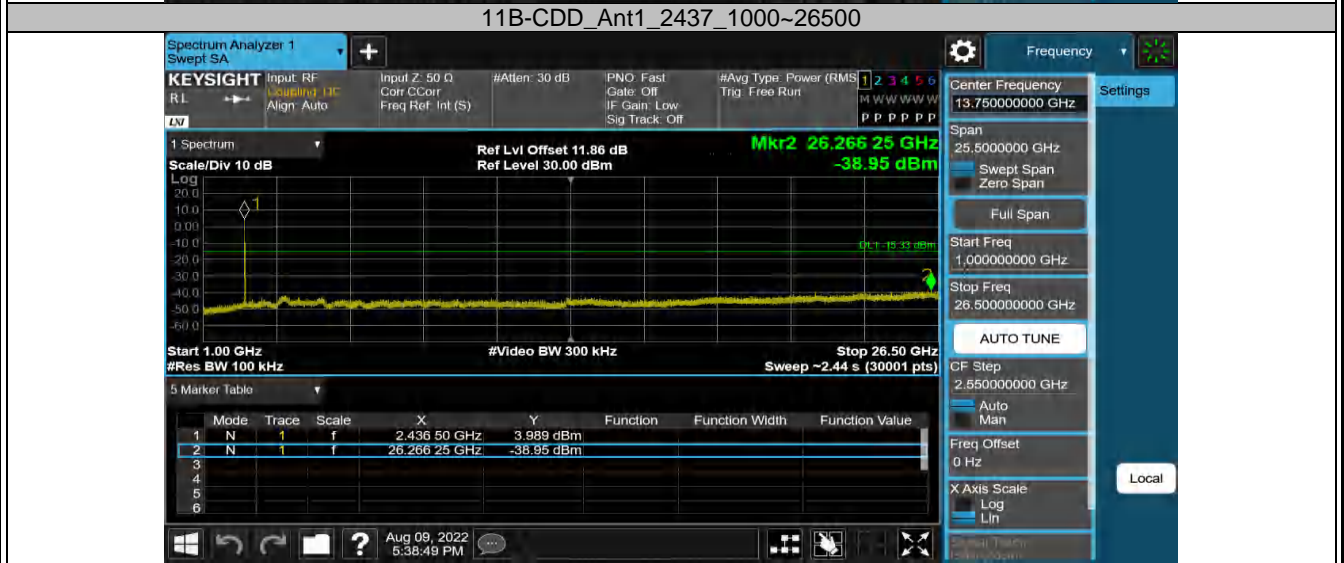
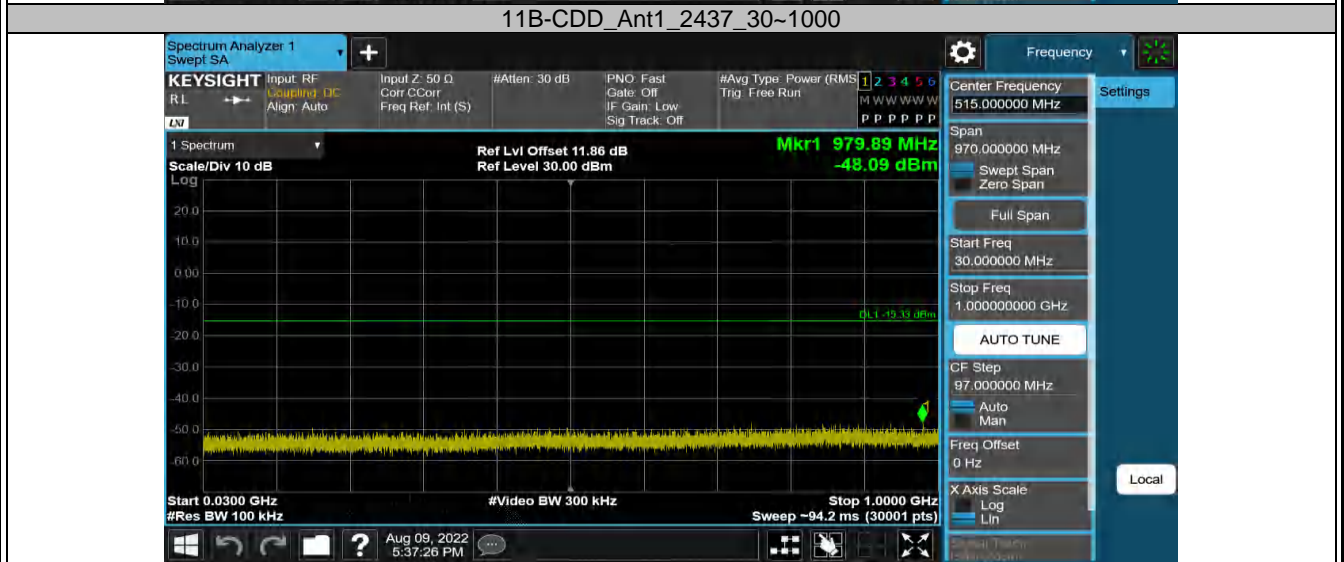
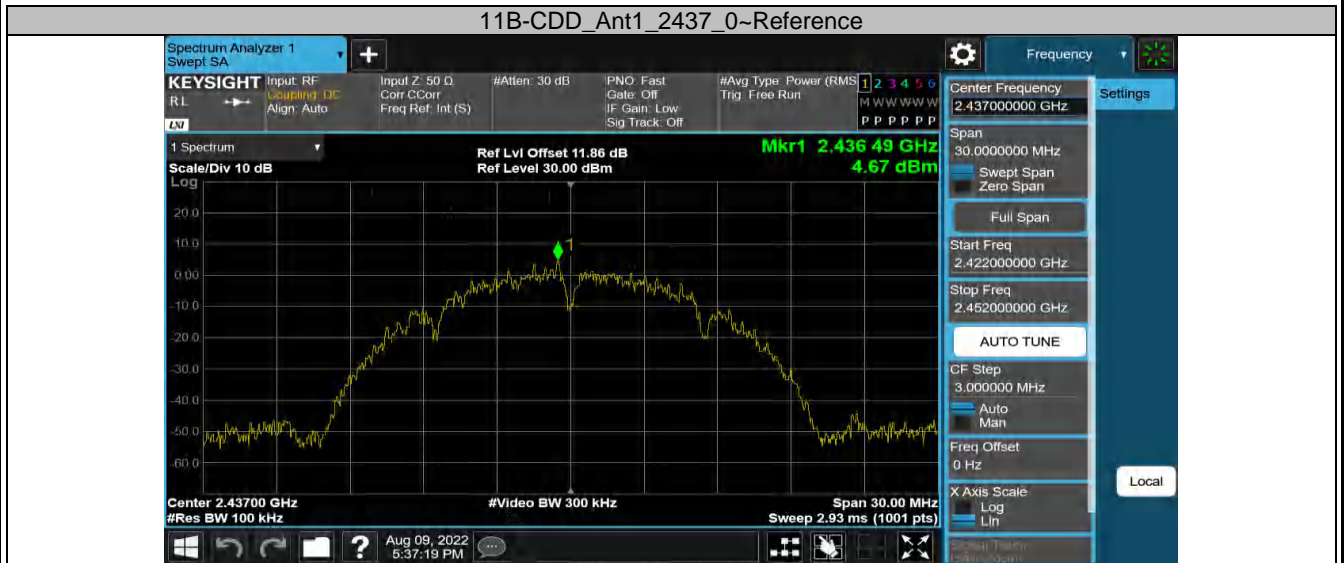


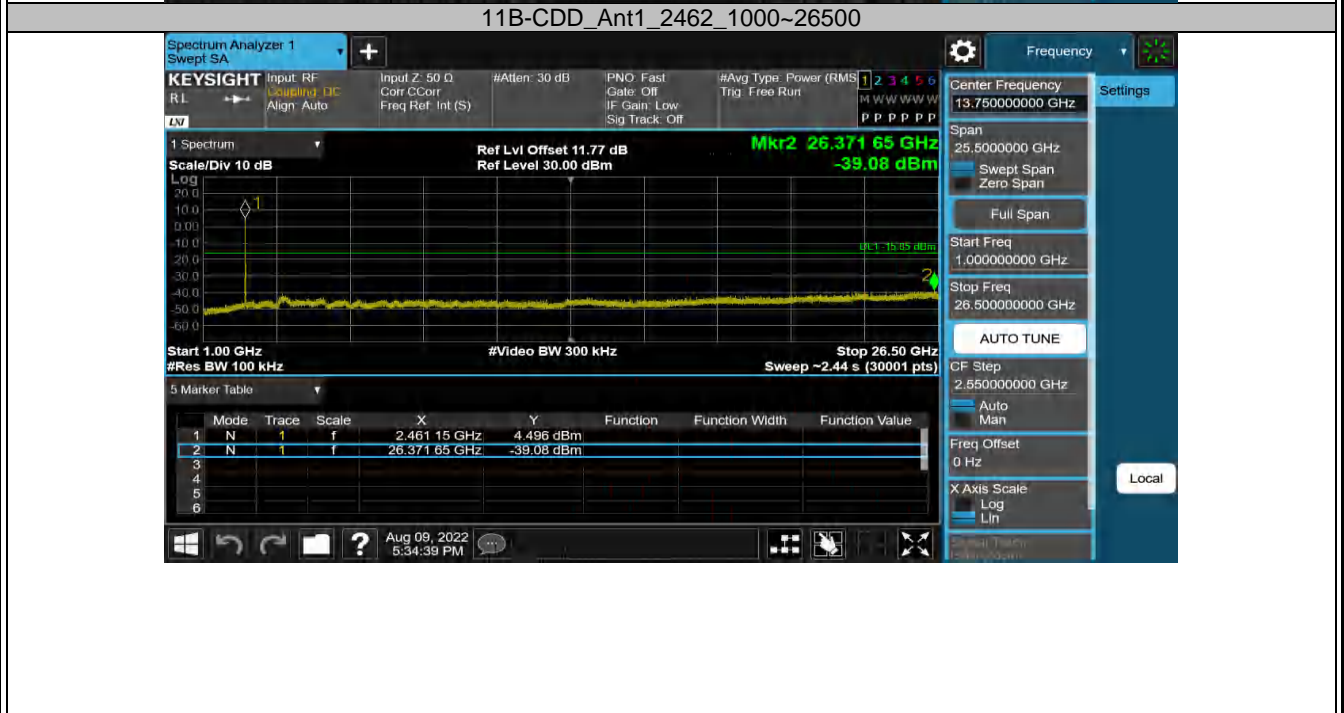
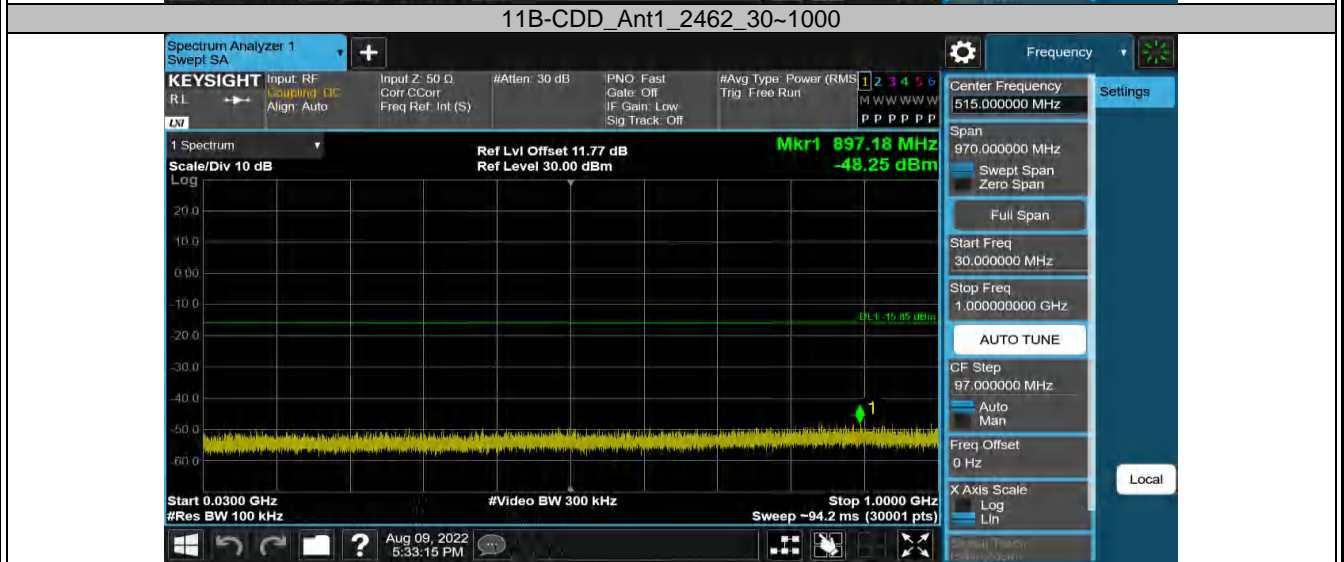
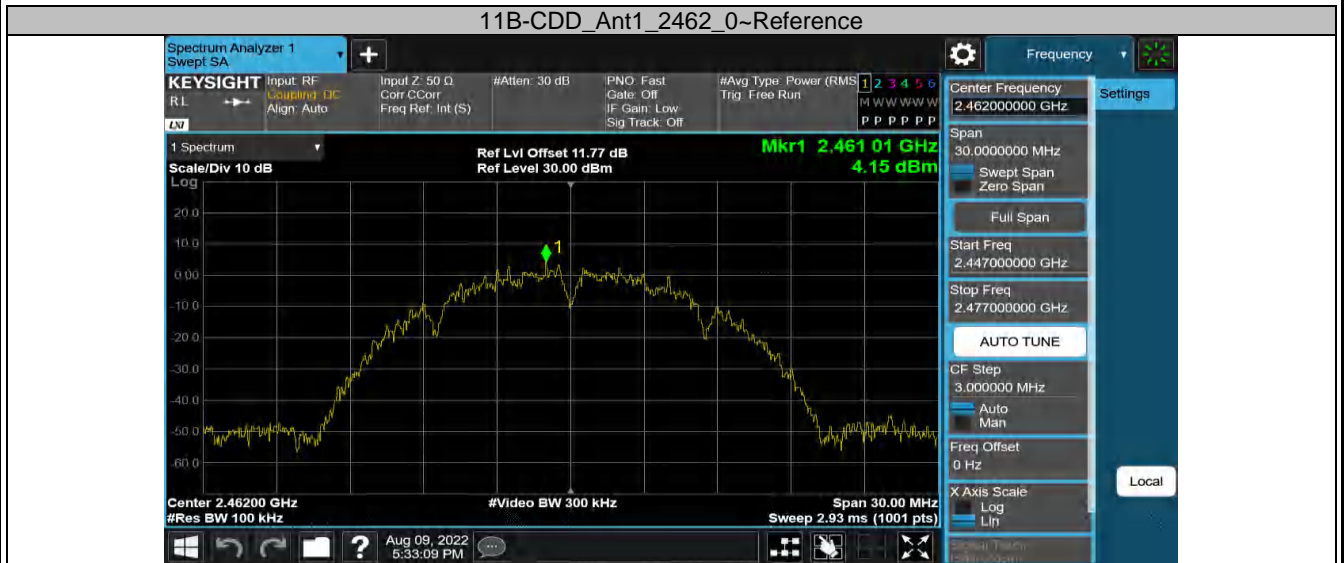
Appendix B.4: Test Results of Conducted Spurious Emissions Measured in 100 kHz Bandwidth

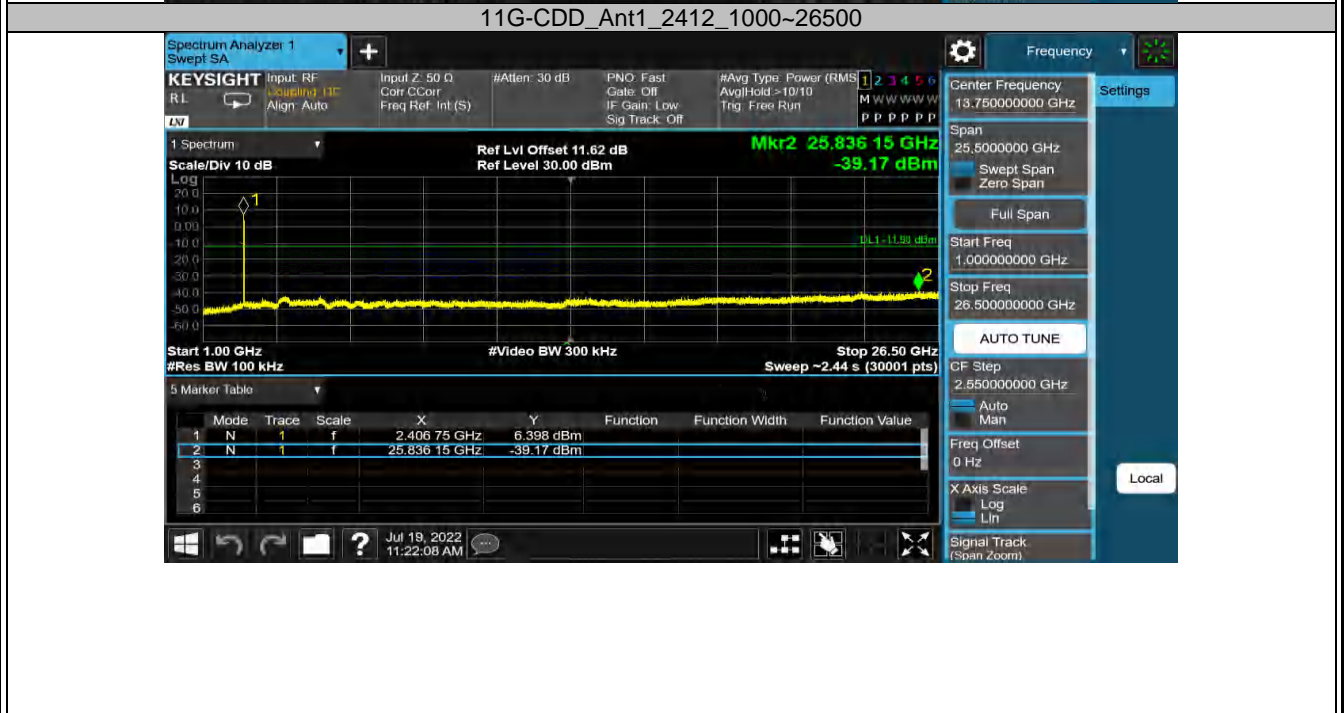
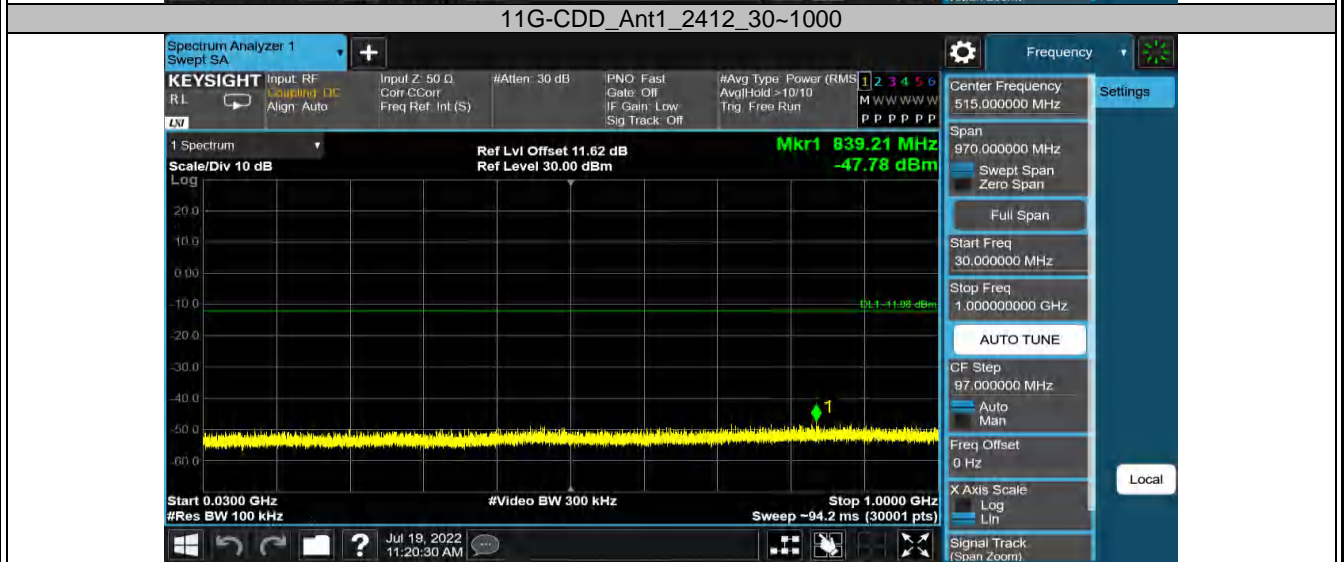
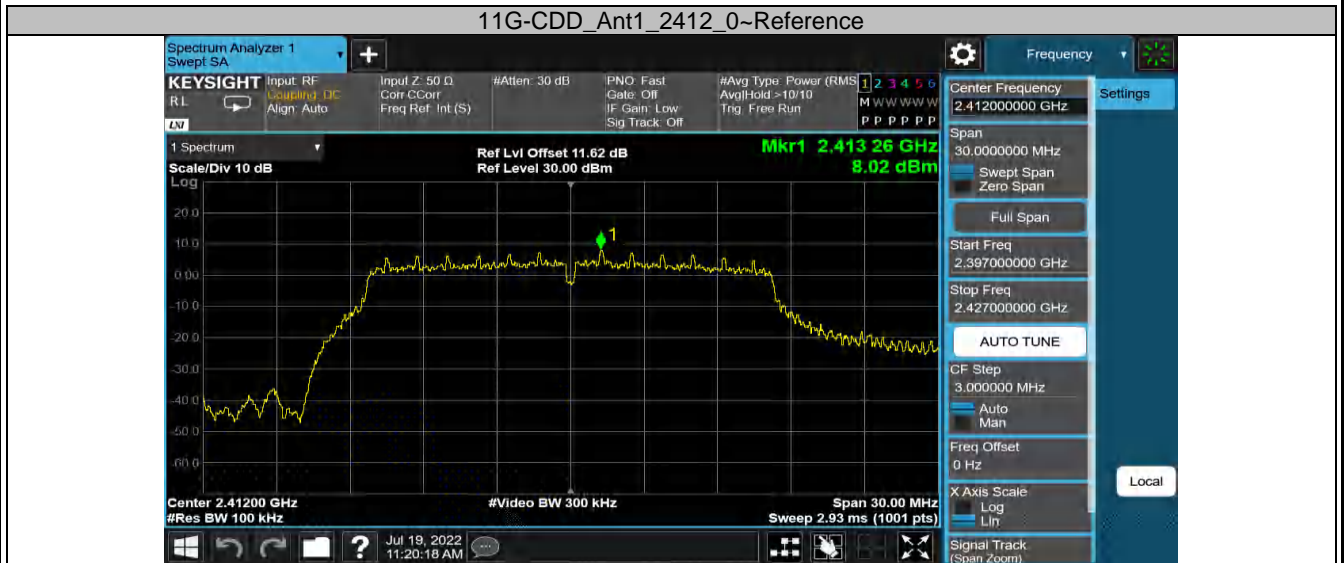
Conducted Spurious Emission

TestMode	Channel	FreqRange [Mhz]	RefLevel [dBm]	Result [dBm]	Limit [dBm]	Verdict
11B-CDD	2412	Reference	3.48	3.48	---	PASS
		30~1000	3.48	-48	≤-16.52	PASS
		1000~26500	3.48	-38.8	≤-16.52	PASS
	2437	Reference	4.67	4.67	---	PASS
		30~1000	4.67	-48.09	≤-15.33	PASS
		1000~26500	4.67	-38.95	≤-15.33	PASS
	2462	Reference	4.15	4.15	---	PASS
		30~1000	4.15	-48.25	≤-15.85	PASS
		1000~26500	4.15	-39.08	≤-15.85	PASS
11G-CDD	2412	Reference	8.02	8.02	---	PASS
		30~1000	8.02	-47.78	≤-11.98	PASS
		1000~26500	8.02	-39.17	≤-11.98	PASS
	2437	Reference	8.18	8.18	---	PASS
		30~1000	8.18	-48.16	≤-11.82	PASS
		1000~26500	8.18	-38.82	≤-11.82	PASS
	2462	Reference	8.03	8.03	---	PASS
		30~1000	8.03	-48.37	≤-11.97	PASS
		1000~26500	8.03	-38.88	≤-11.97	PASS
11N20MIMO	2412	Reference	7.93	7.93	---	PASS
		30~1000	7.93	-47.81	≤-12.07	PASS
		1000~26500	7.93	-39.11	≤-12.07	PASS
	2437	Reference	8.53	8.53	---	PASS
		30~1000	8.53	-47.89	≤-11.47	PASS
		1000~26500	8.53	-39.53	≤-11.47	PASS
	2462	Reference	7.88	7.88	---	PASS
		30~1000	7.88	-47.97	≤-12.12	PASS
		1000~26500	7.88	-38.98	≤-12.12	PASS
11N40MIMO	2422	Reference	4.37	4.37	---	PASS
		30~1000	4.37	-47.84	≤-15.63	PASS
		1000~26500	4.37	-39.1	≤-15.63	PASS
	2437	Reference	4.68	4.68	---	PASS
		30~1000	4.68	-47.53	≤-15.32	PASS
		1000~26500	4.68	-39.06	≤-15.32	PASS
	2452	Reference	4.17	4.17	---	PASS
		30~1000	4.17	-48.55	≤-15.83	PASS
		1000~26500	4.17	-39.43	≤-15.83	PASS
11AX20MIMO	2412	Reference	6.79	6.79	---	PASS
		30~1000	6.79	-47.8	≤-13.21	PASS
		1000~26500	6.79	-39.81	≤-13.21	PASS
	2437	Reference	6.71	6.71	---	PASS
		30~1000	6.71	-47.79	≤-13.29	PASS
		1000~26500	6.71	-38.95	≤-13.29	PASS
	2462	Reference	6.75	6.75	---	PASS
		30~1000	6.75	-48.62	≤-13.25	PASS
		1000~26500	6.75	-38.85	≤-13.25	PASS
11AX40MIMO	2422	Reference	3.80	3.80	---	PASS
		30~1000	3.80	-48.51	≤-16.2	PASS
		1000~26500	3.80	-38.95	≤-16.2	PASS
	2437	Reference	3.67	3.67	---	PASS
		30~1000	3.67	-48.28	≤-16.33	PASS
		1000~26500	3.67	-39.49	≤-16.33	PASS
	2452	Reference	3.67	3.67	---	PASS
		30~1000	3.67	-47.11	≤-16.33	PASS
		1000~26500	3.67	-38.99	≤-16.33	PASS





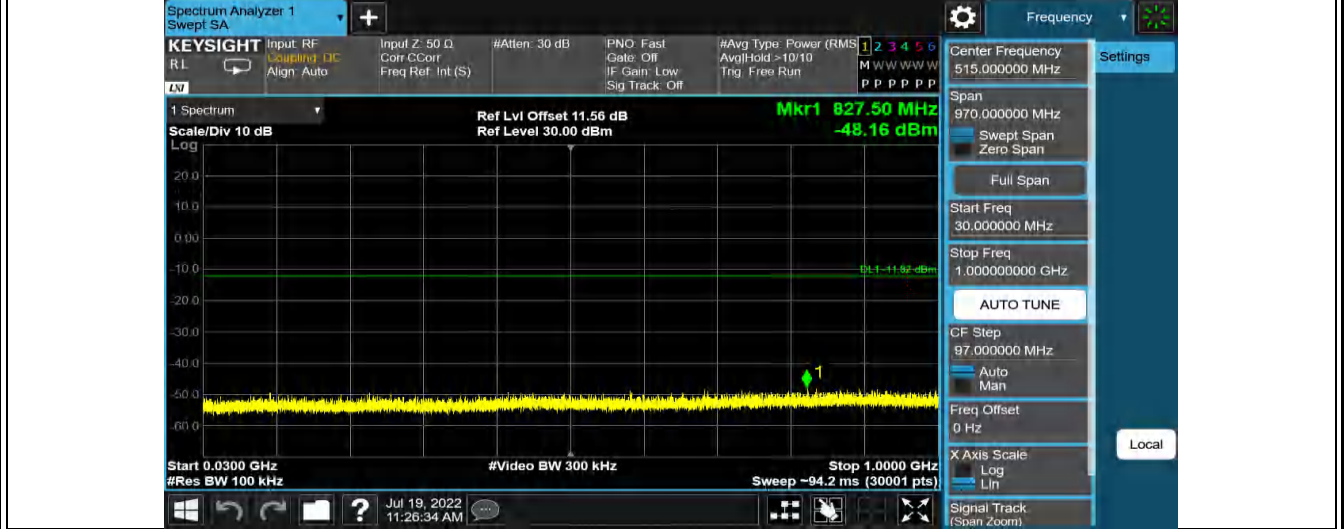




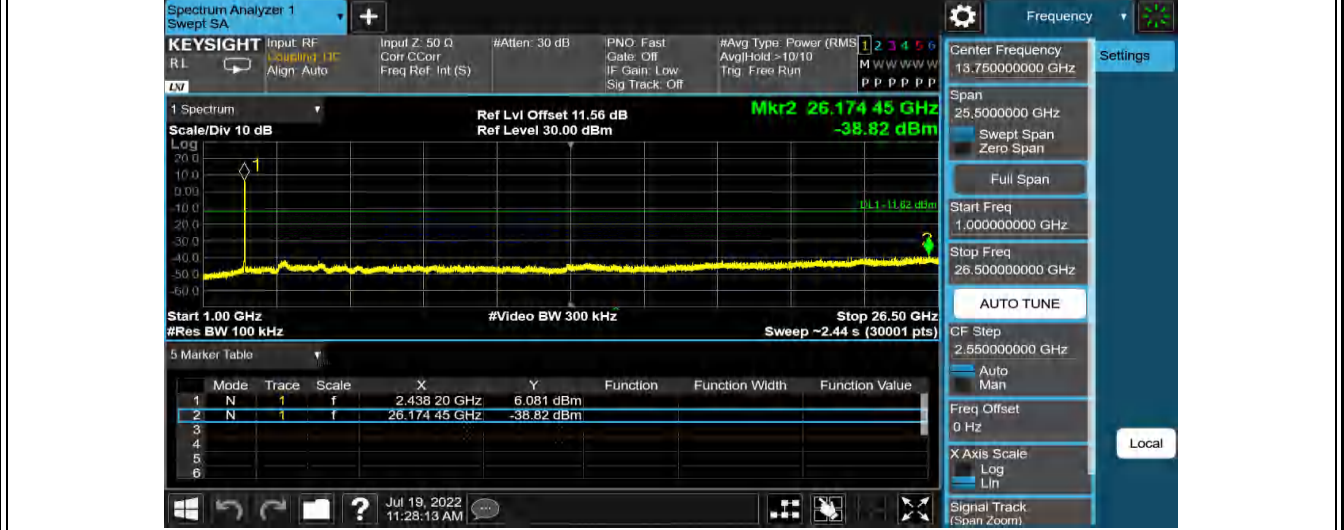
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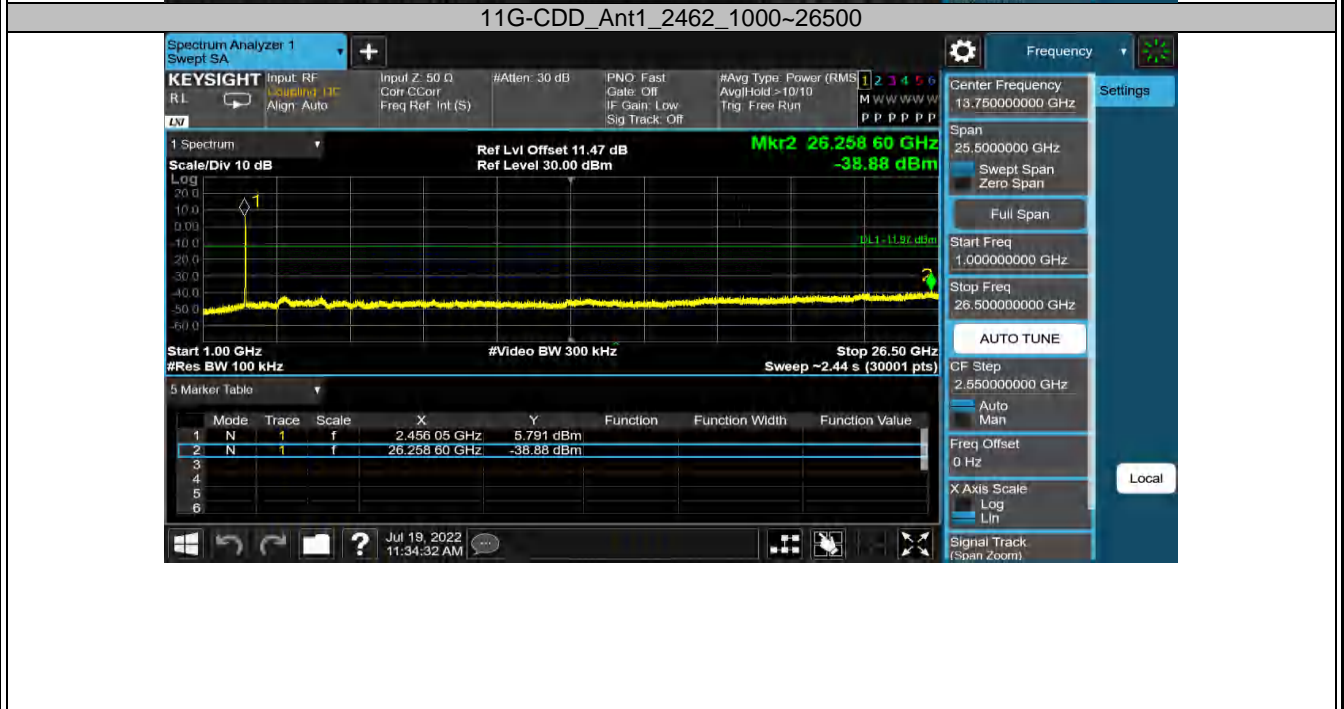
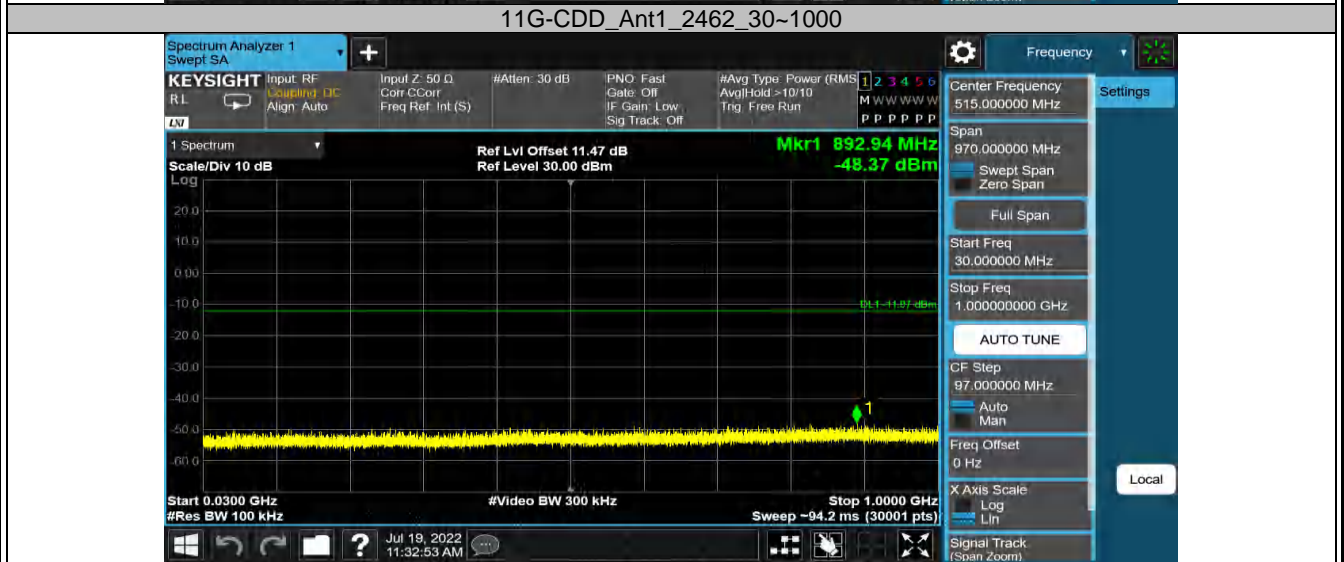
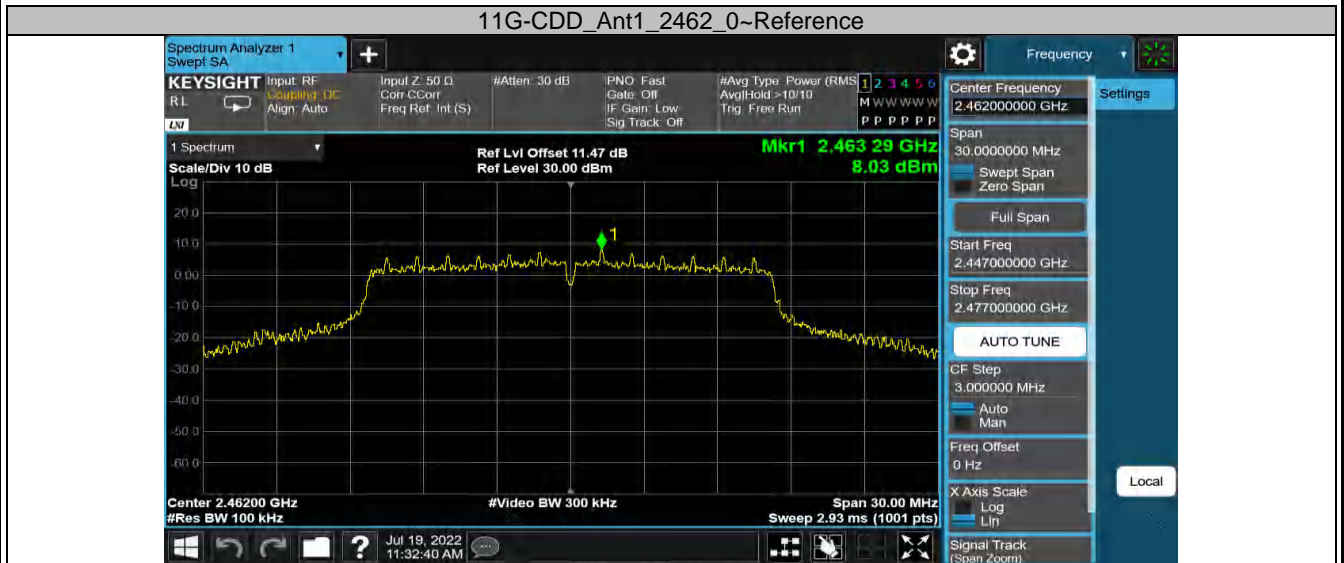


11G-CDD_Ant1_2437_30~1000

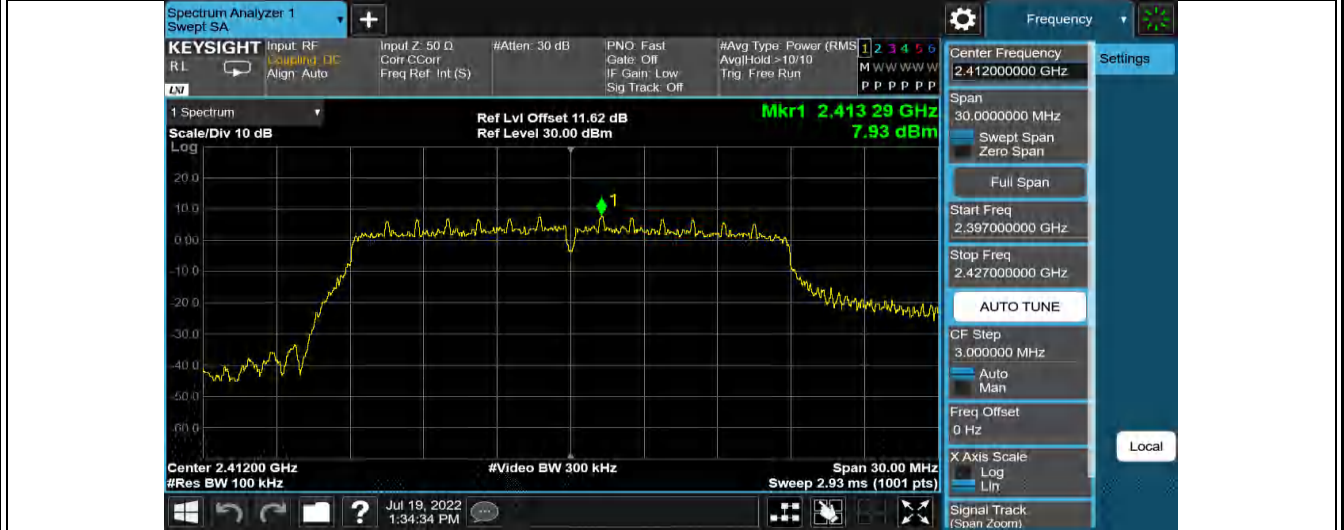


11G-CDD_Ant1_2437_1000~26500

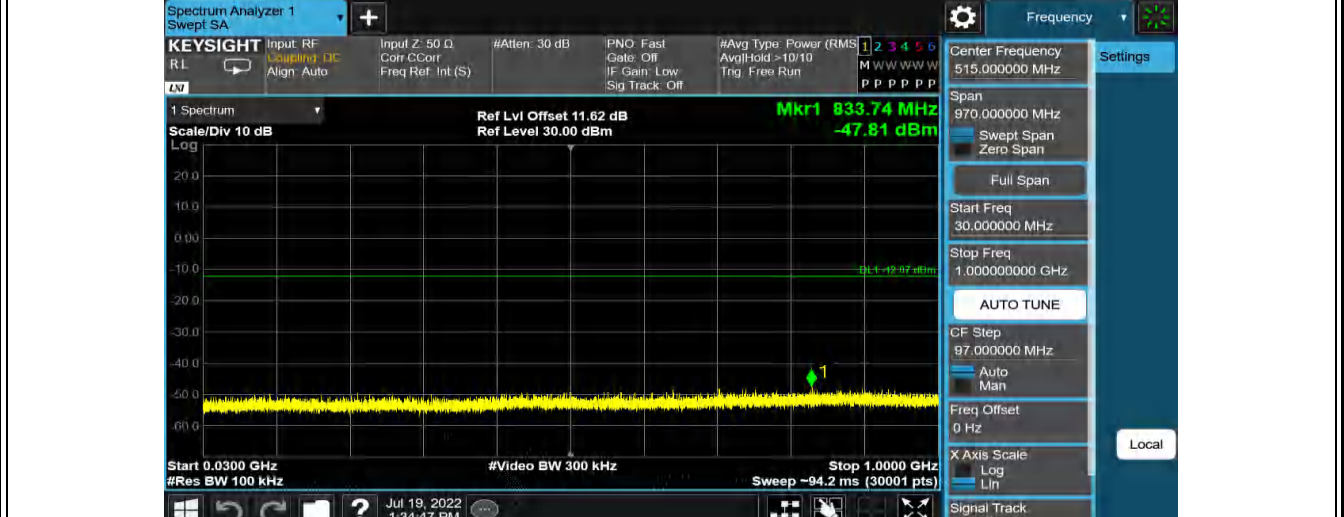




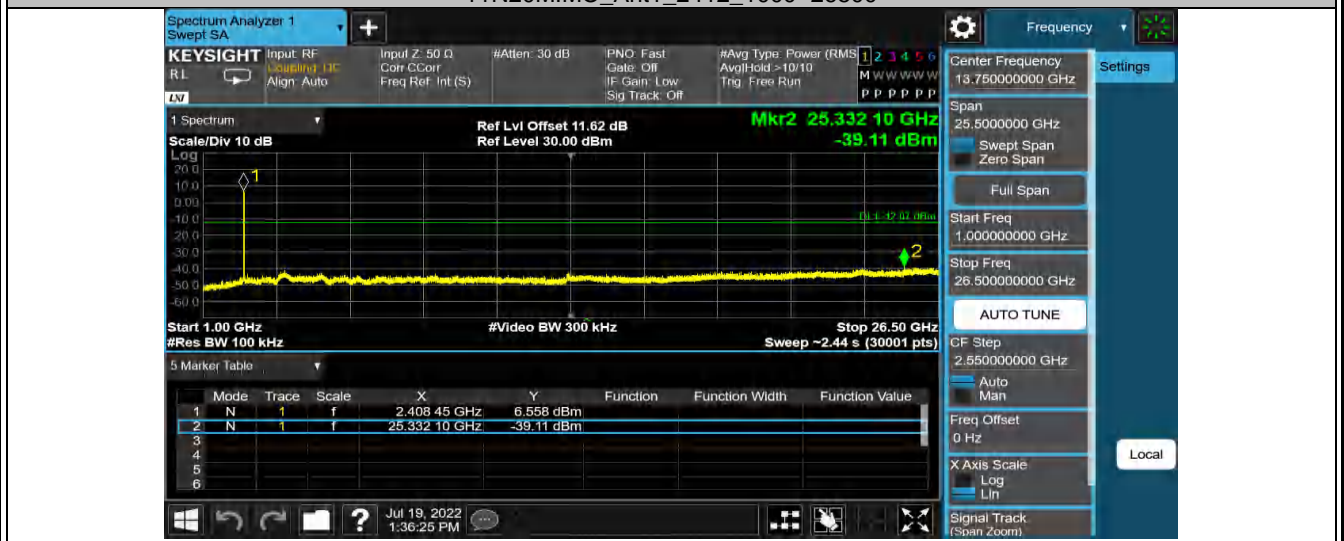
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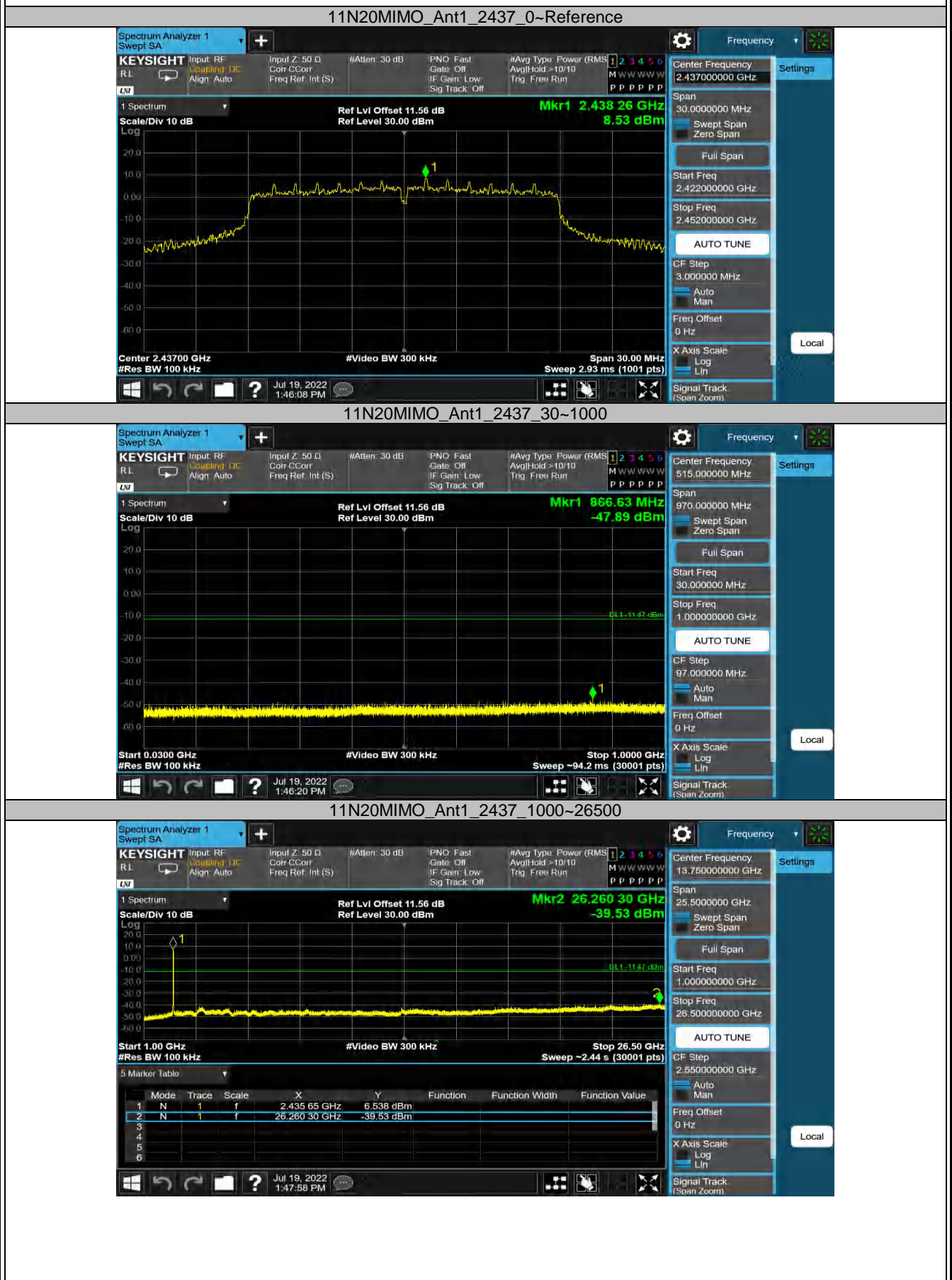


11N20MIMO_Ant1_2412_30~1000



11N20MIMO_Ant1_2412_1000~26500

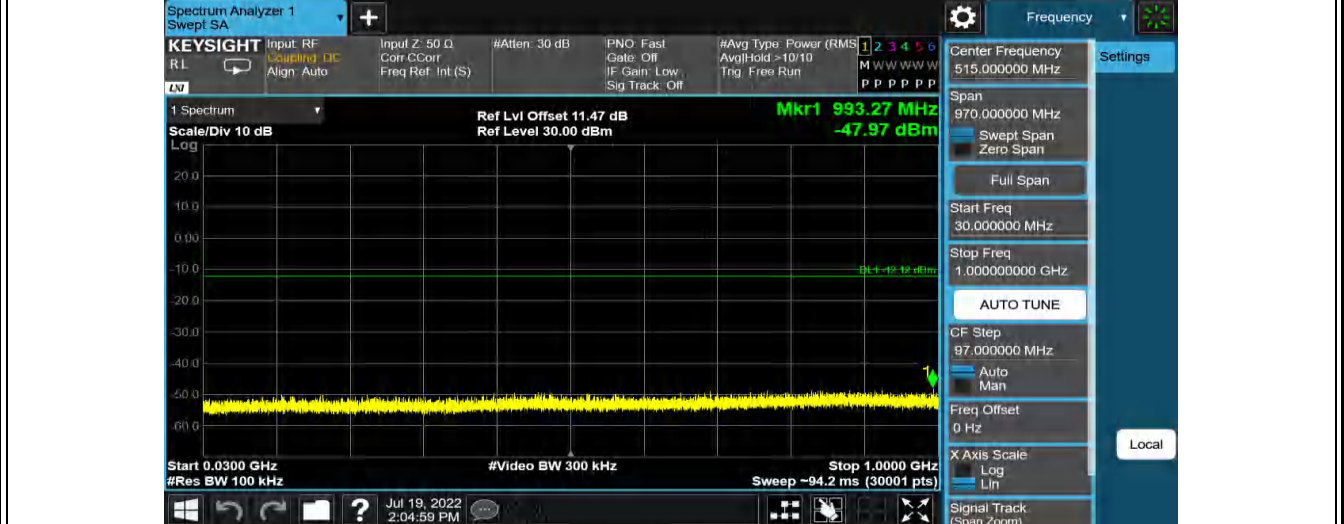




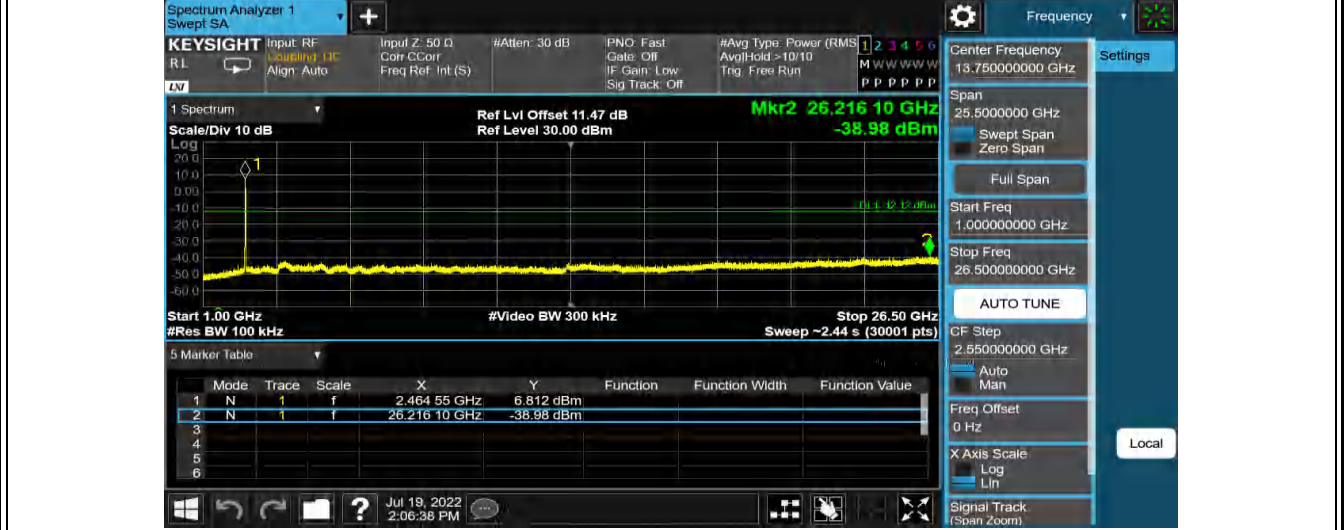
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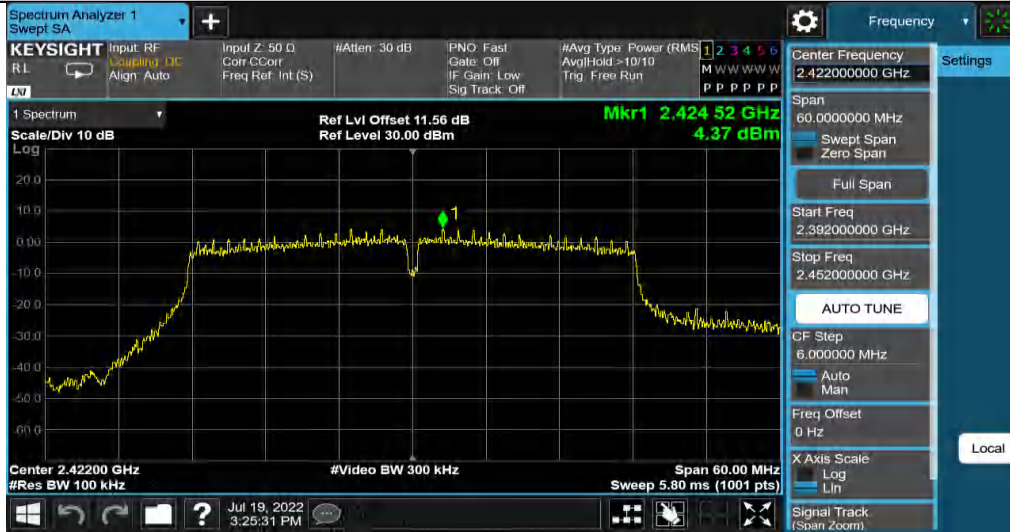
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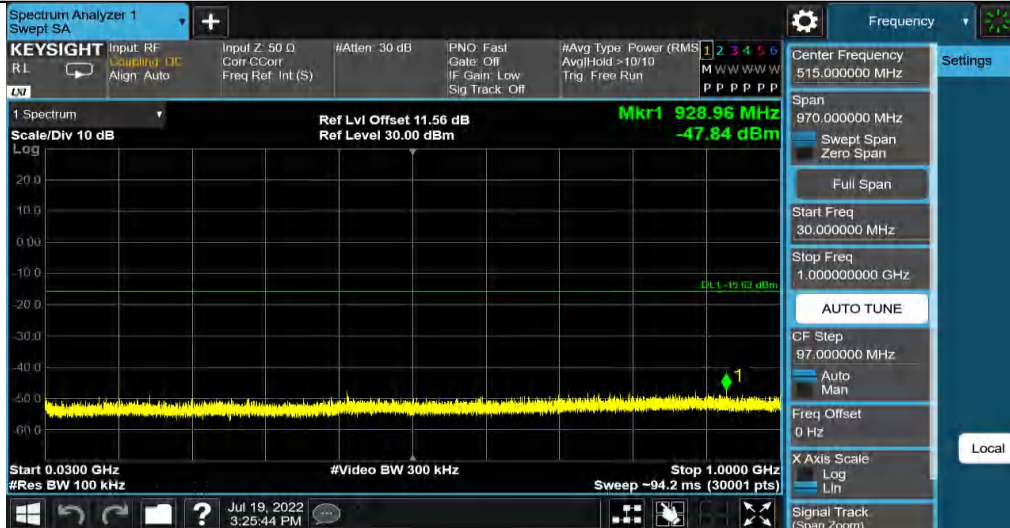
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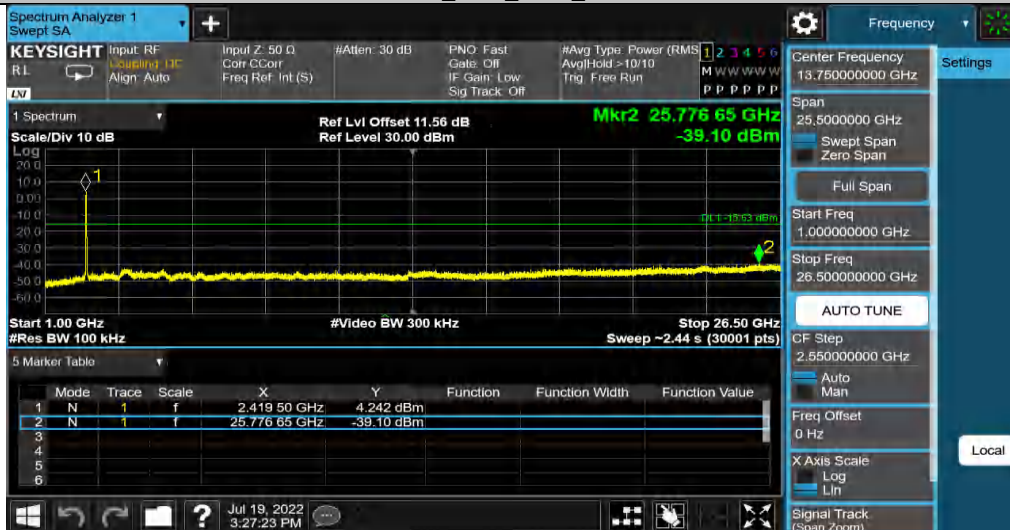
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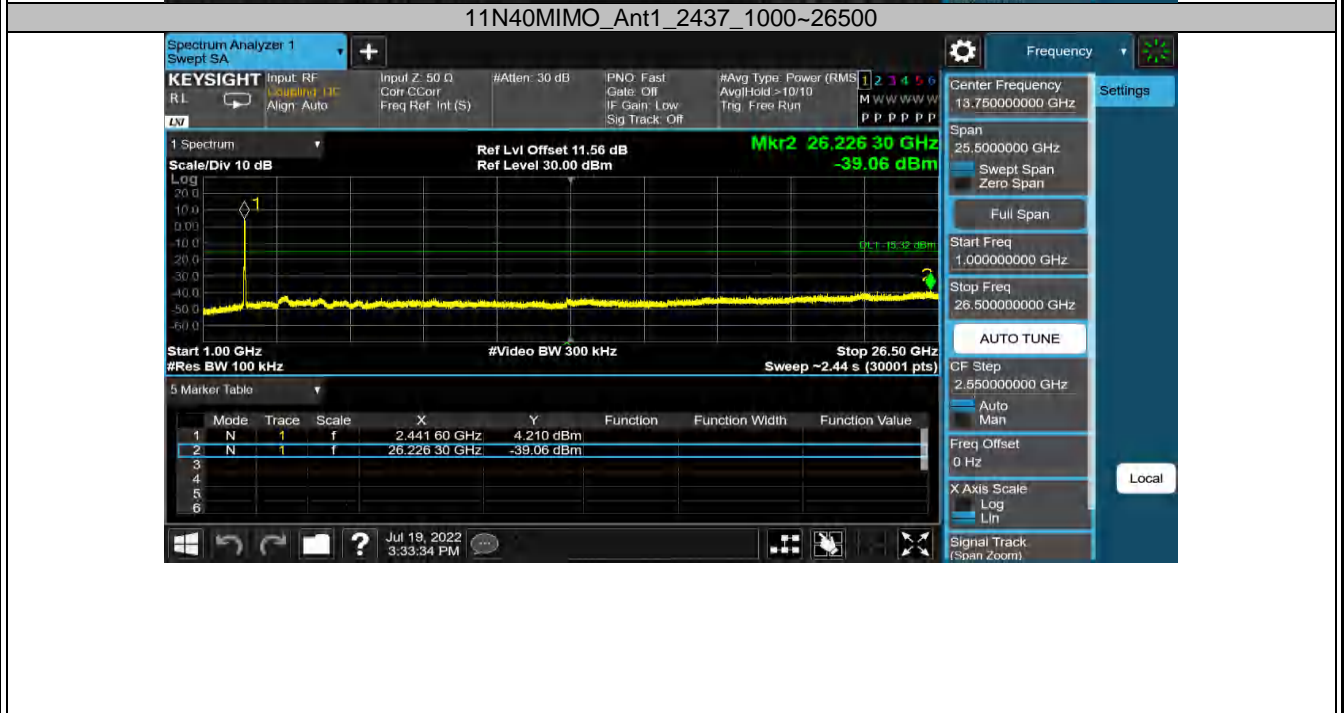
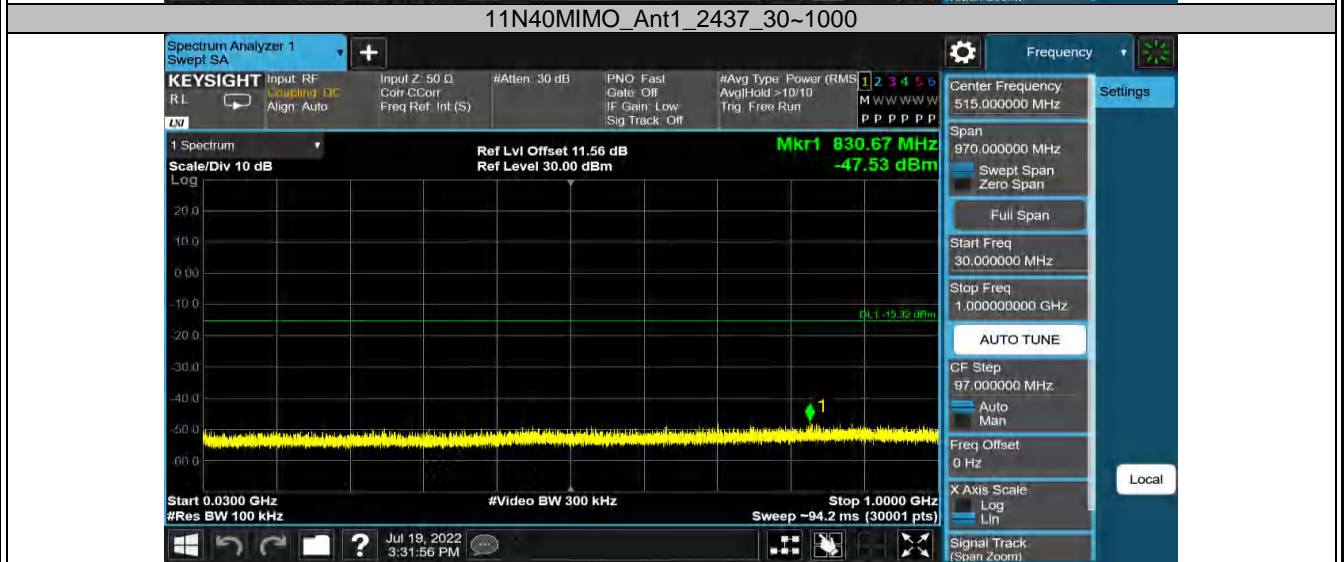
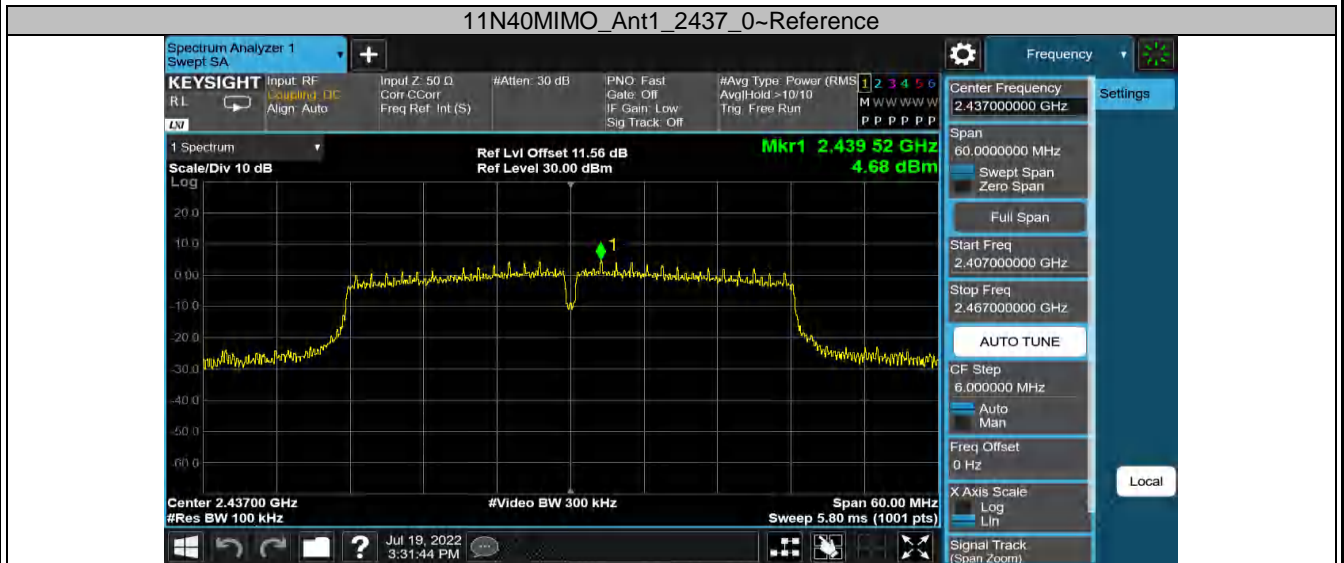


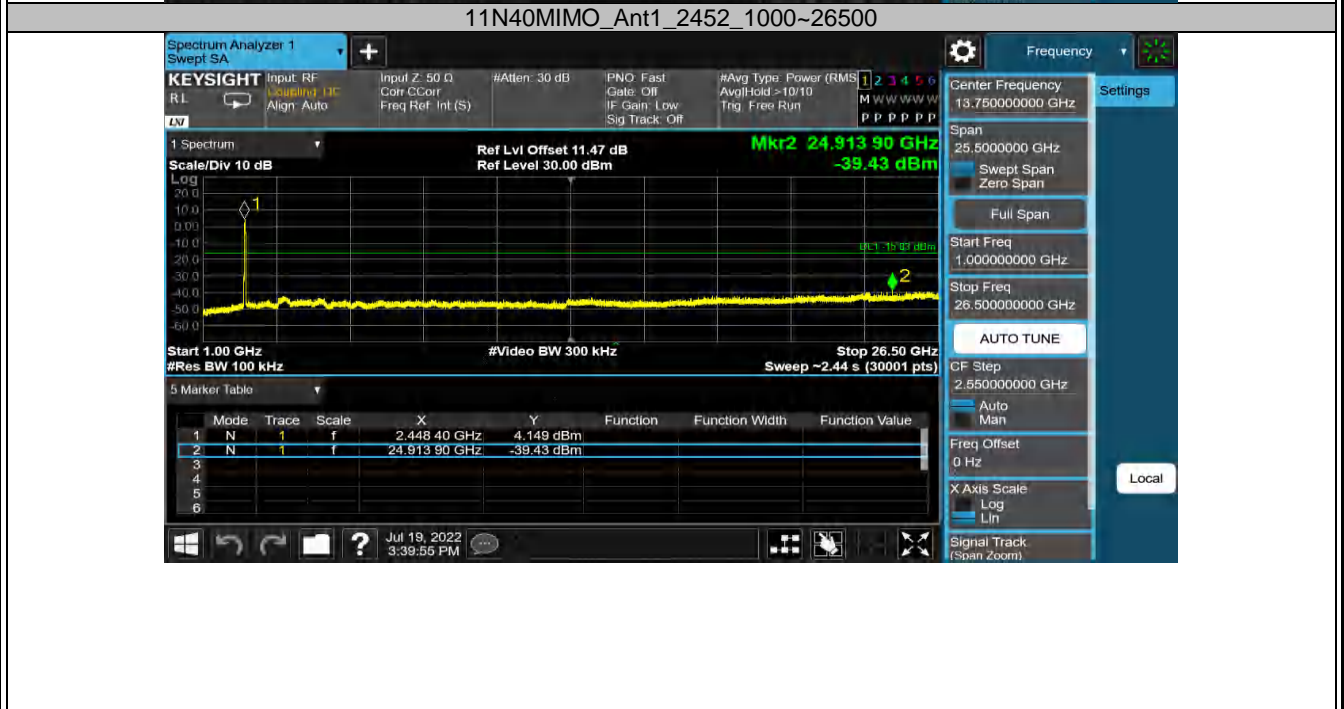
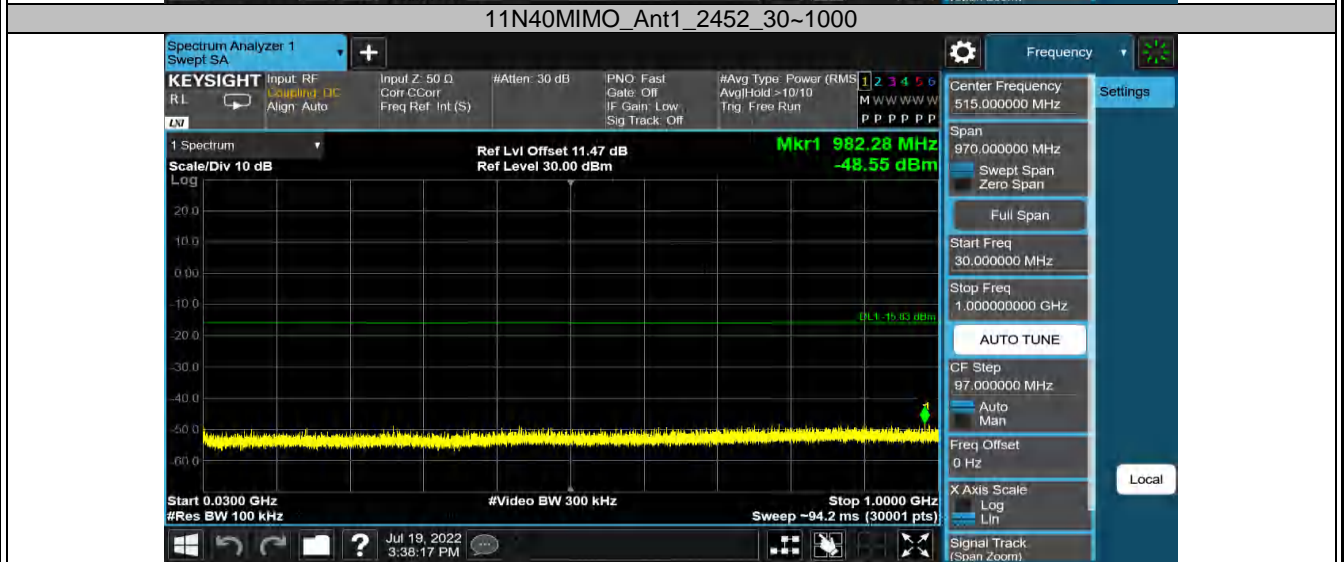
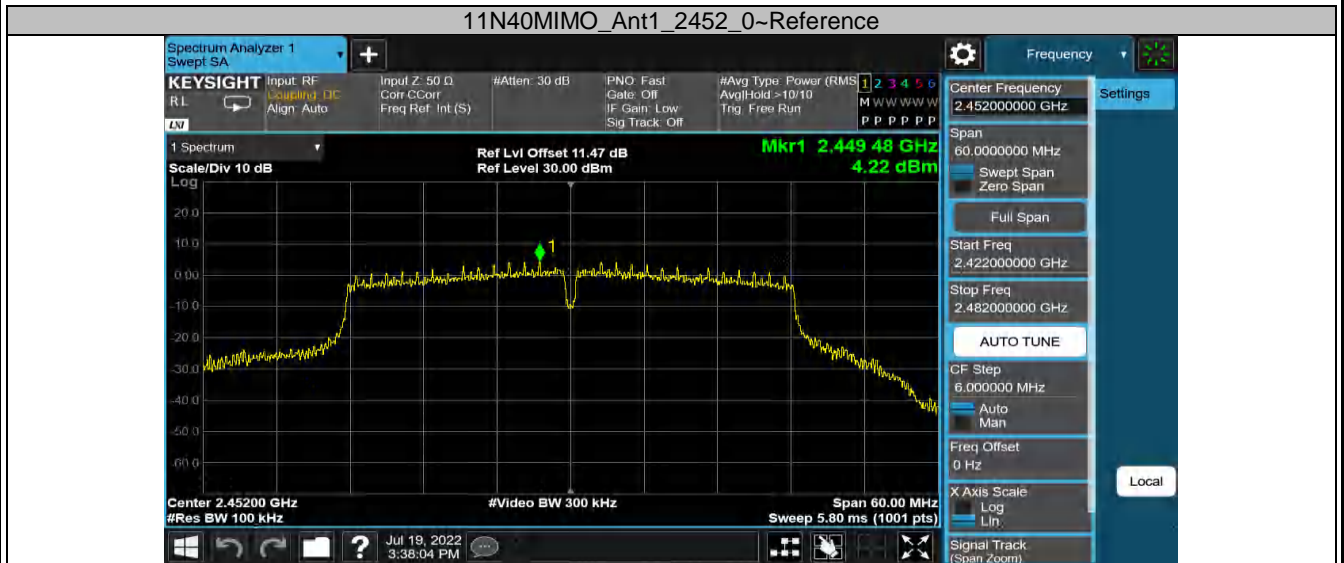
11N40MIMO_Ant1_2422_30~1000

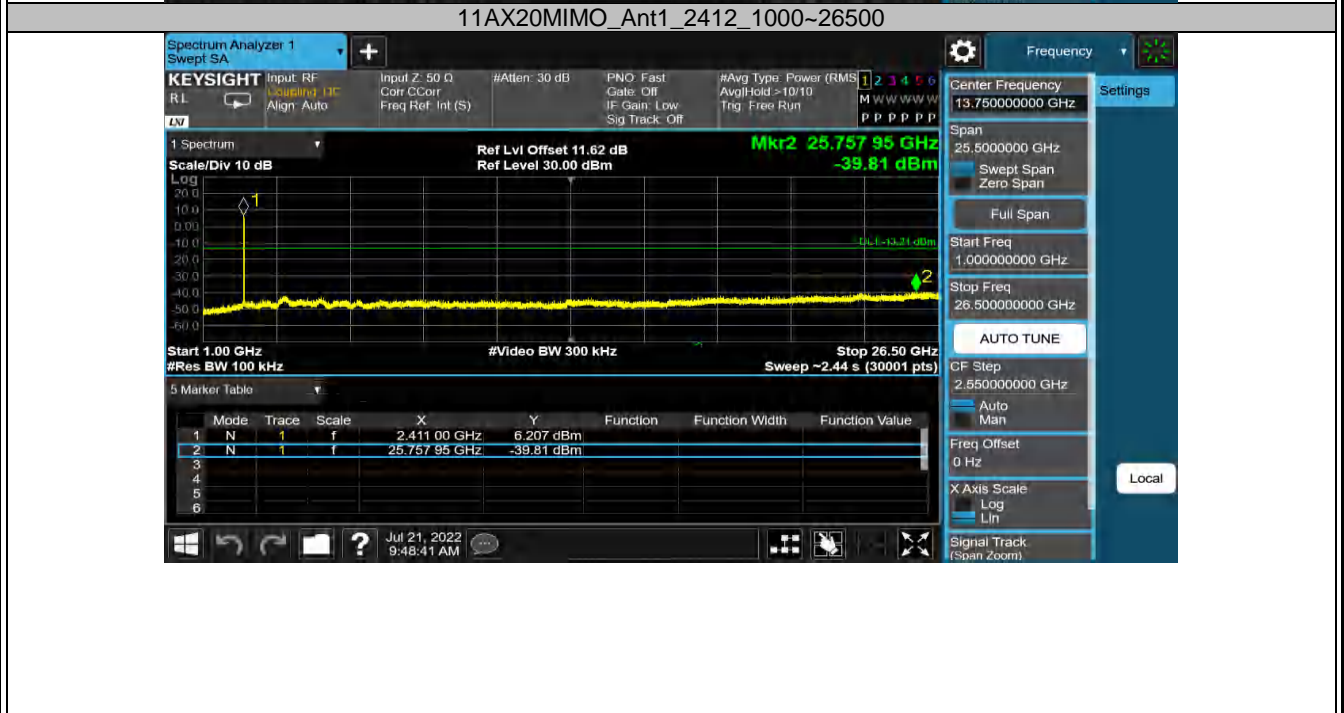
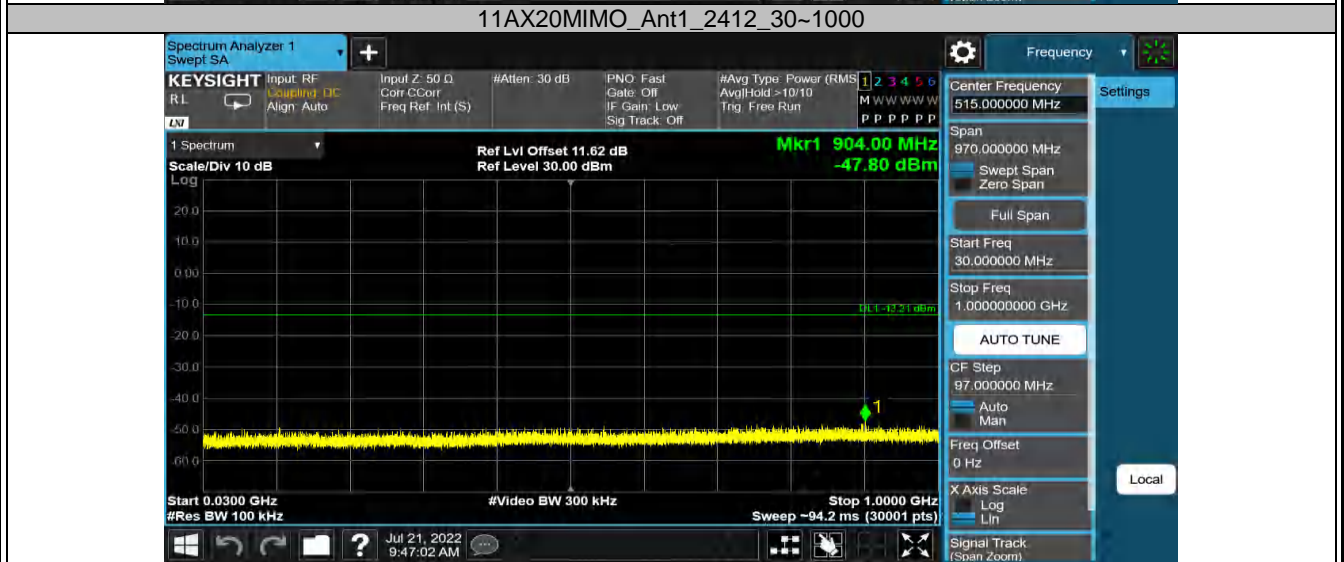
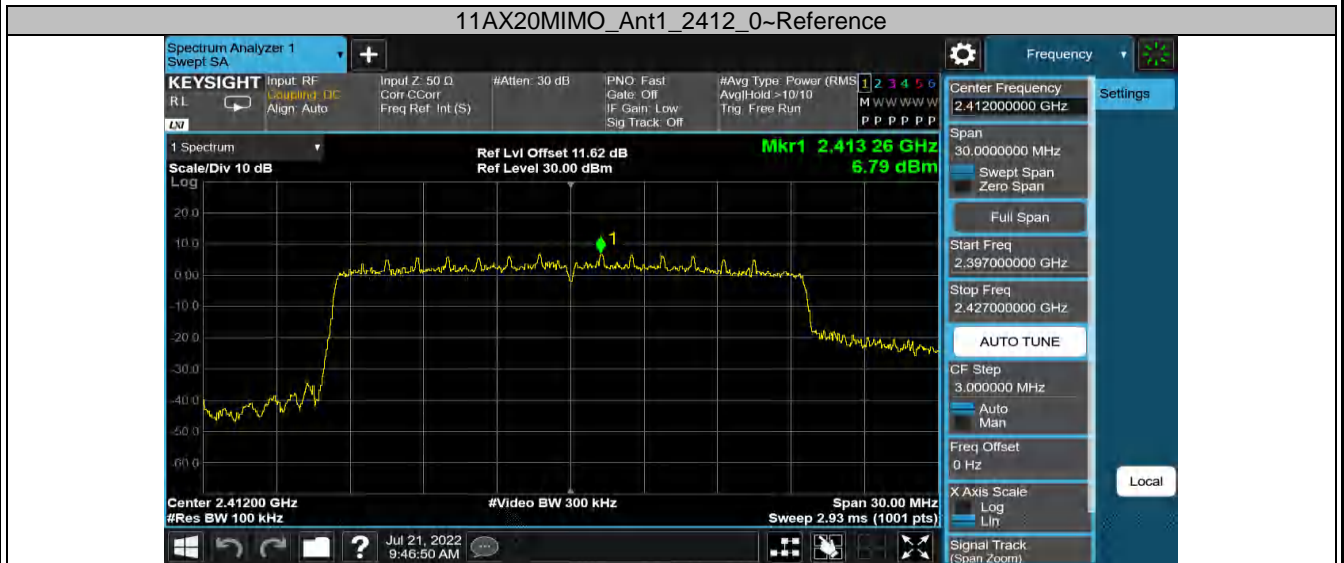


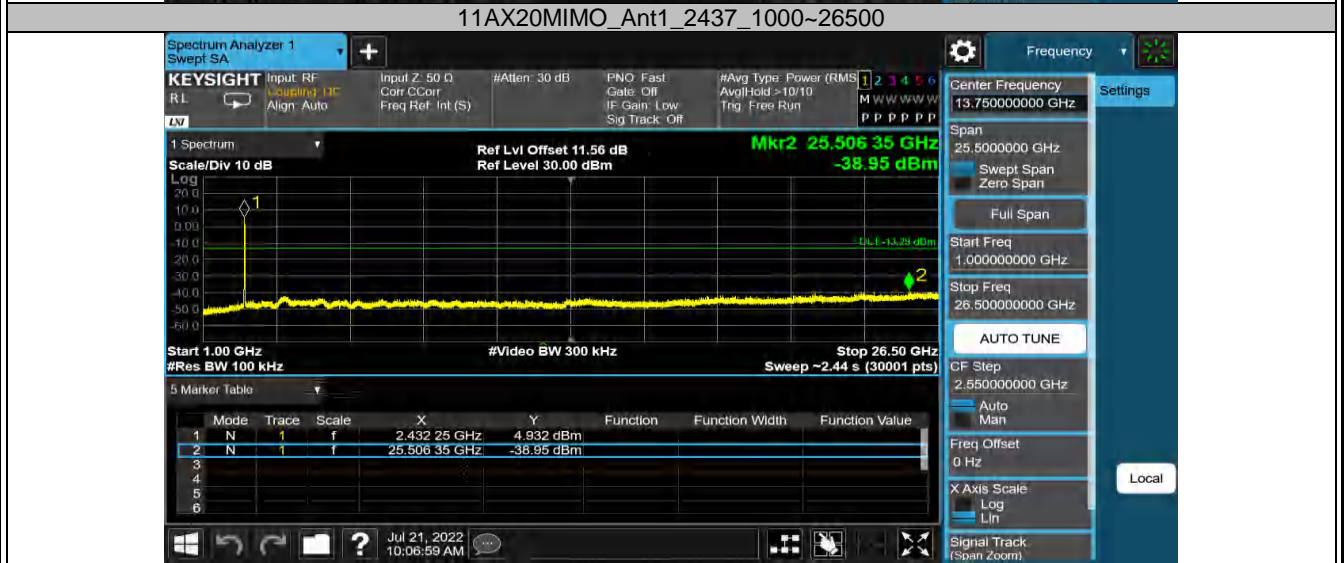
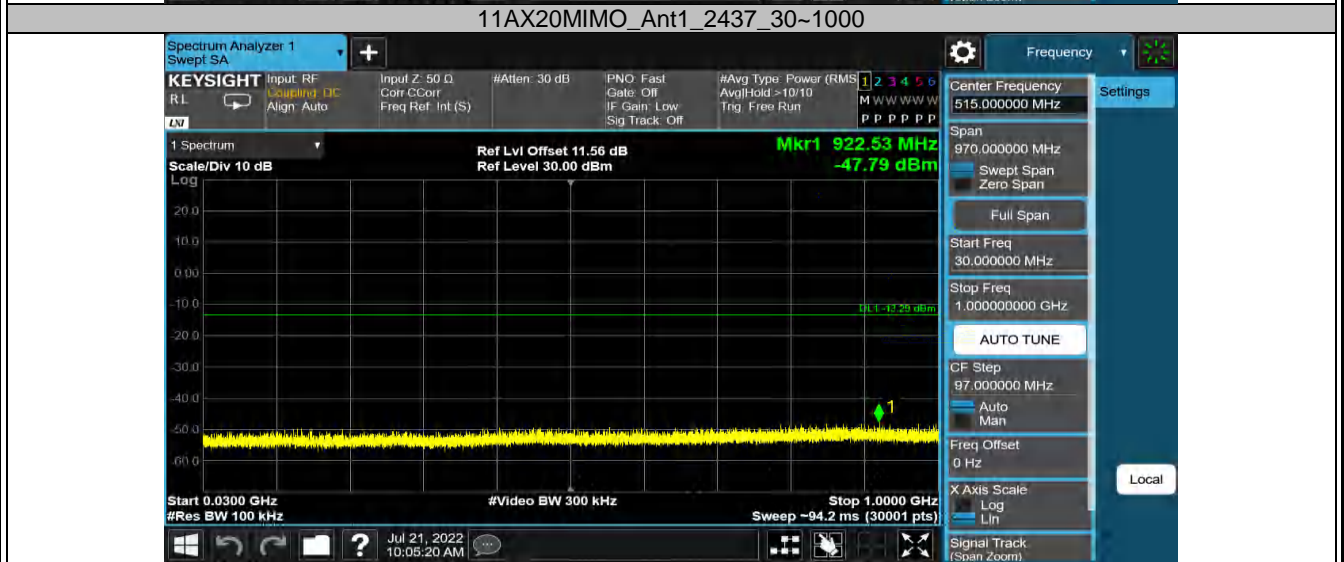
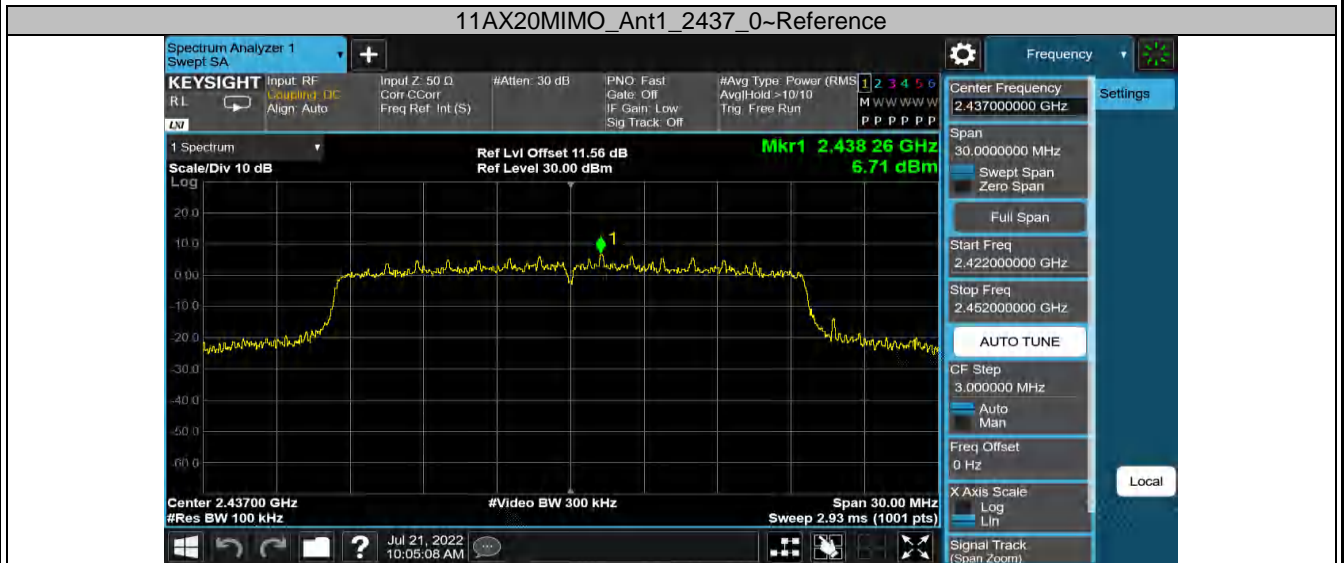
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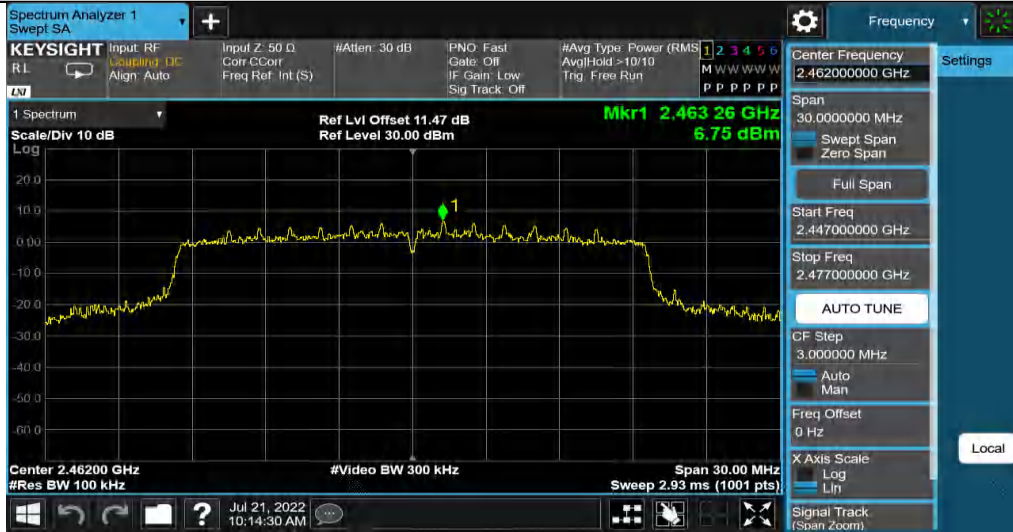




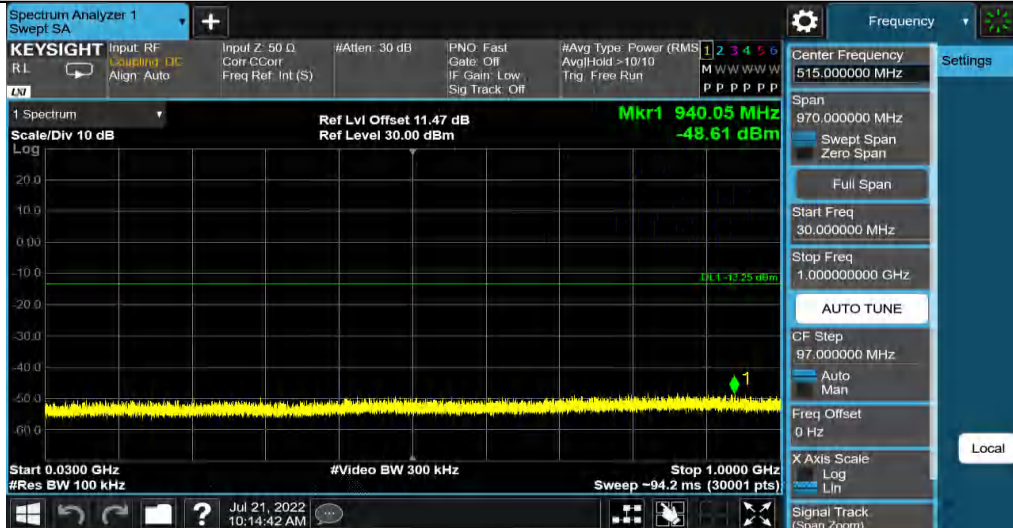




11AX20MIMO_Ant1_2462_0-Reference



11AX20MIMO_Ant1_2462_30-1000



11AX20MIMO_Ant1_2462_1000-26500



