

Appendix B: Test Results of 2.4GHz Wi-Fi for Module AP6275S

APPENDIX B: TEST RESULTS OF 2.4GHZ WI-FI FOR MODULE AP6275S	1
APPENDIX B.1: TEST RESULTS OF CONDUCTED POWER SPECTRAL DENSITY	2
APPENDIX B.2: TEST RESULTS OF 6dB BANDWIDTH.....	11
APPENDIX B.3: TEST RESULTS OF 99% BANDWIDTH	20
APPENDIX B.4: TEST RESULTS OF CONDUCTED SPURIOUS EMISSIONS MEASURED IN 100 kHz BANDWIDTH.....	25
<i>Band Edge</i>	25
<i>Conducted Spurious Emission</i>	28
APPENDIX B.5: TEST RESULTS OF RADIATED SPURIOUS EMISSIONS	41
30MHz - 1GHz (Worst case).....	41
1GHz - 18GHz	43
APPENDIX B.6: TEST RESULTS OF RADIATED EMISSIONS IN RESTRICTED BANDS	63
APPENDIX A.7: TEST RESULTS OF CONDUCTED EMISSION ON AC MAINS.....	79

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

TestMode	Antenna	Channel	Result[dBm/3-100kHz]	Limit[dBm/3kHz]	Verdict
11B	Ant1	2412	1.01	≤8.00	PASS
	Ant2	2412	-1.03	≤8.00	PASS
	Ant1	2437	1.21	≤8.00	PASS
	Ant2	2437	-0.01	≤8.00	PASS
	Ant1	2462	0.87	≤8.00	PASS
	Ant2	2462	-0.13	≤8.00	PASS
11G	Ant1	2412	-0.15	≤8.00	PASS
	Ant2	2412	-0.78	≤8.00	PASS
	Ant1	2437	-0.27	≤8.00	PASS
	Ant2	2437	-0.04	≤8.00	PASS
	Ant1	2462	-0.06	≤8.00	PASS
	Ant2	2462	-0.03	≤8.00	PASS
11N20MIMO	Ant1	2412	-4.78	≤8.00	PASS
	Ant2	2412	-5.44	≤8.00	PASS
	total	2412	-2.09	≤8.00	PASS
	Ant1	2437	-5.14	≤8.00	PASS
	Ant2	2437	-5.44	≤8.00	PASS
	total	2437	-2.28	≤8.00	PASS
	Ant1	2462	-5.26	≤8.00	PASS
	Ant2	2462	-4.65	≤8.00	PASS
11AX20MIMO	total	2462	-1.93	≤8.00	PASS
	Ant1	2412	-3.63	≤8.00	PASS
	Ant2	2412	-5.57	≤8.00	PASS
	total	2412	-1.48	≤8.00	PASS
	Ant1	2437	-3.75	≤8.00	PASS
	Ant2	2437	-5.33	≤8.00	PASS
	total	2437	-1.46	≤8.00	PASS
	Ant1	2462	-4.42	≤8.00	PASS
11AX20MIMO_26 tone_RU1	Ant2	2462	-5.07	≤8.00	PASS
	total	2462	-1.72	≤8.00	PASS
	total	2412	-0.55	≤8.00	PASS
11AX20MIMO_242 tone_RU1	total	2437	-0.83	≤8.00	PASS
	total	2462	-0.2	≤8.00	PASS
	total	2412	-10.3	≤8.00	PASS
	total	2437	-9.57	≤8.00	PASS
	total	2462	-10.39	≤8.00	PASS

11B_Ant1_2412



11B_Ant2_2412



11B_Ant1_2437



11B_Ant2_2437



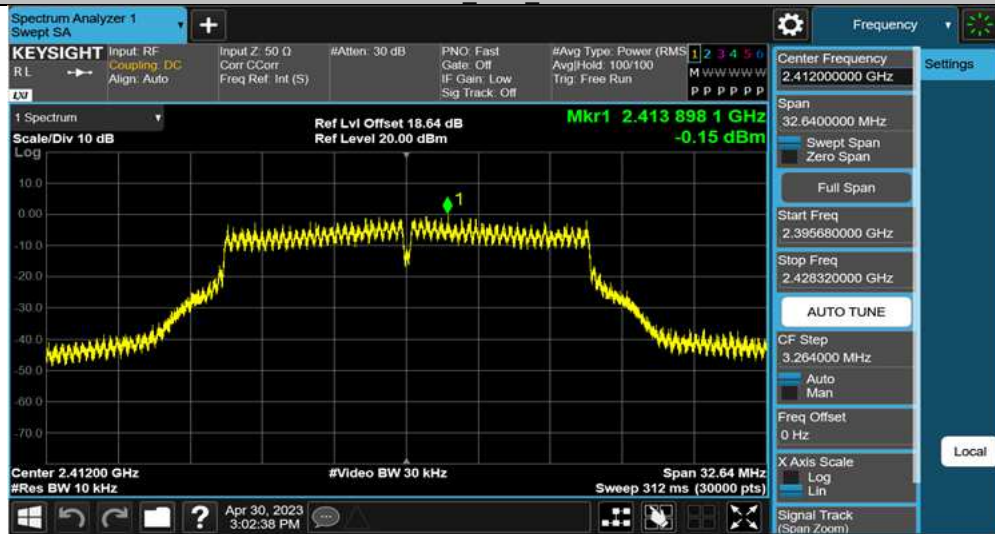
11B_Ant1_2462



11B_Ant2_2462



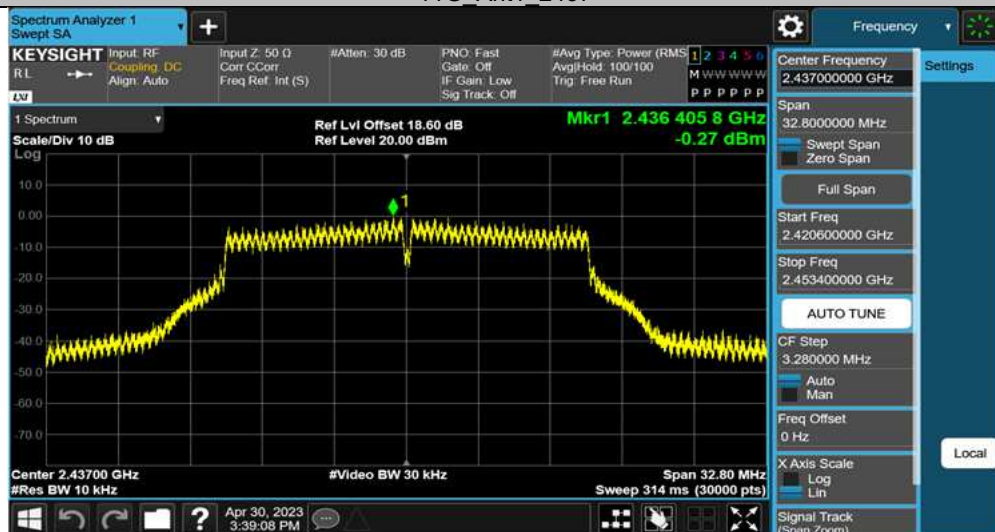
11G_Ant1_2412



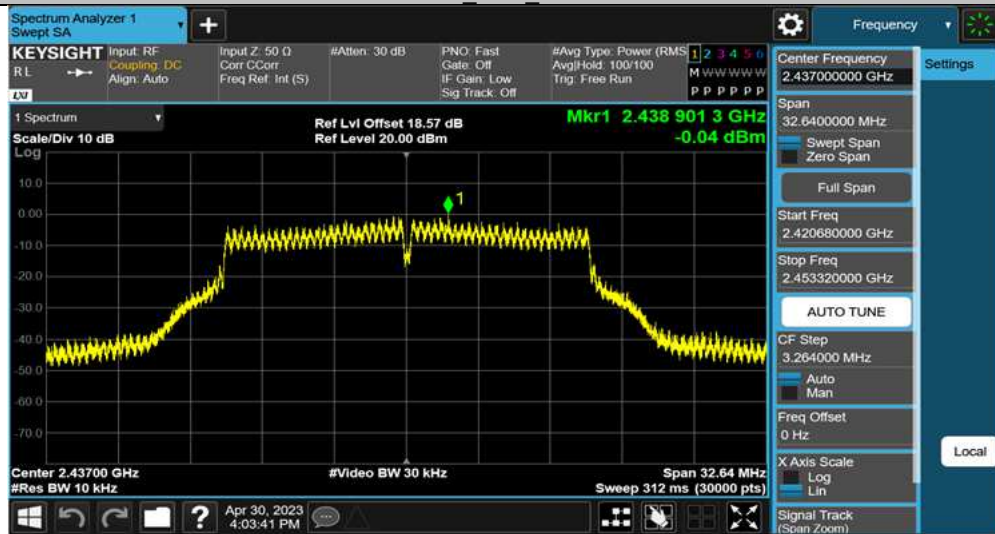
11G_Ant2_2412



11G_Ant1_2437



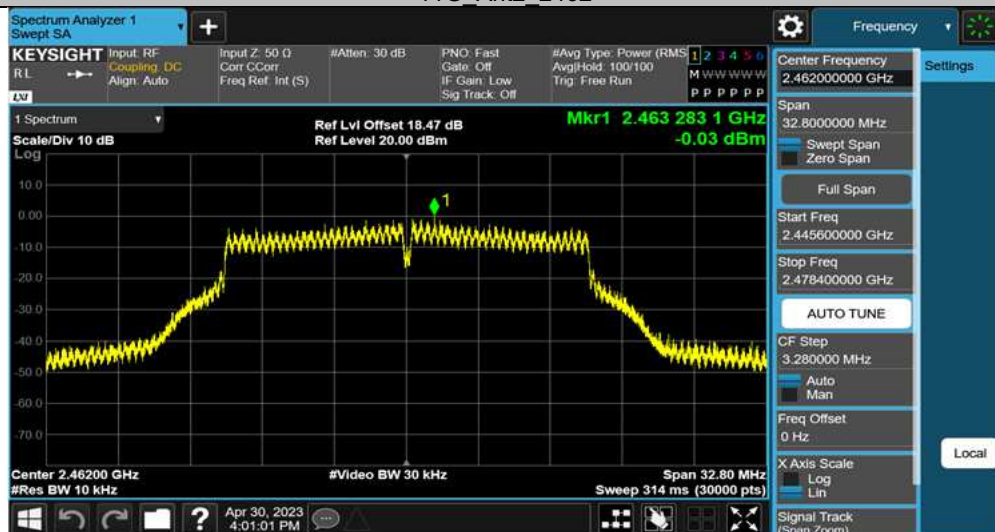
11G_Ant2_2437



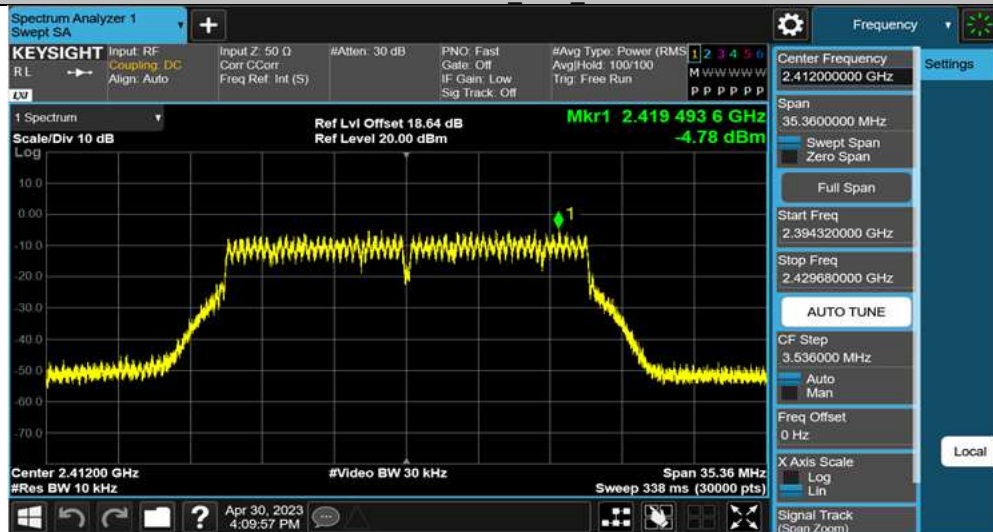
11G_Ant1_2462



11G_Ant2_2462



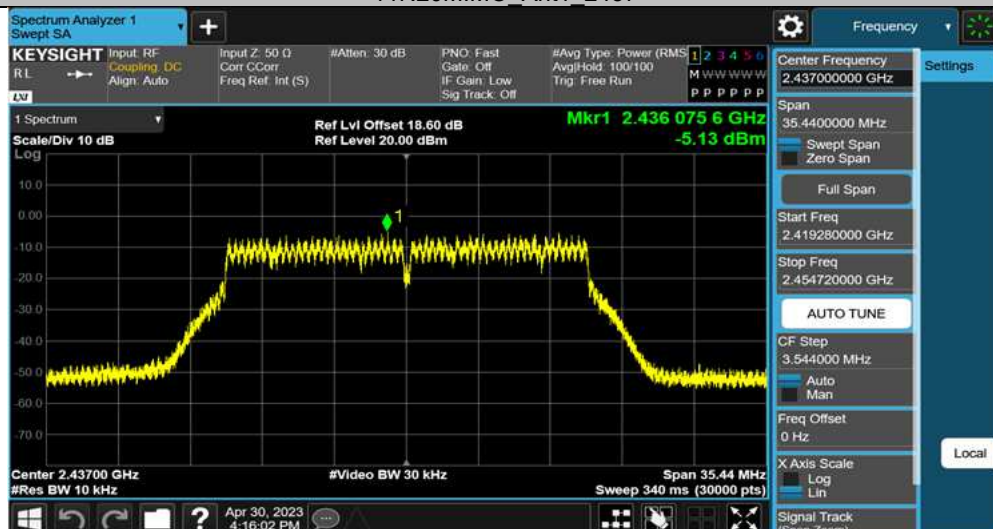
11N20MIMO_Ant1_2412

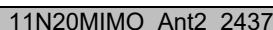


11N20MIMO_Ant2_2412

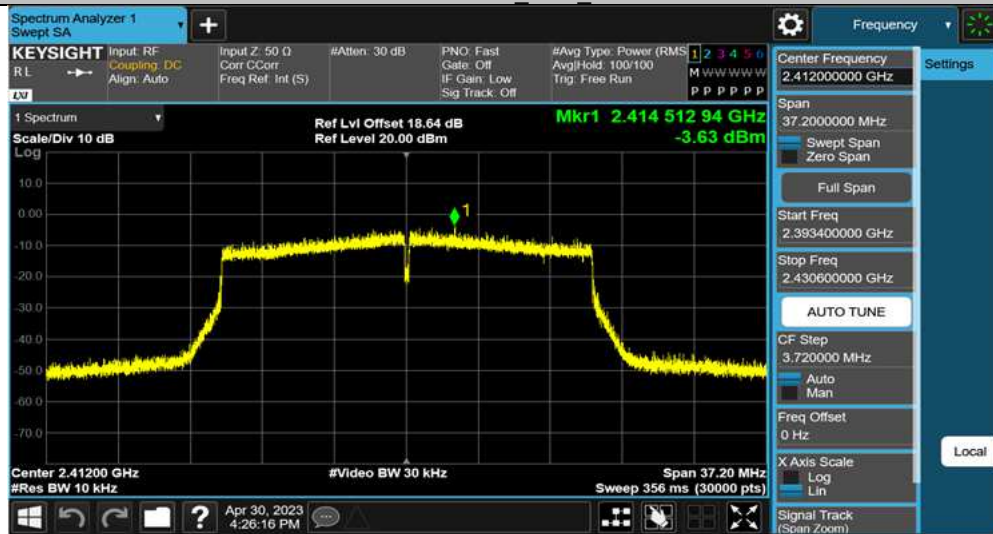


11N20MIMO_Ant1_2437

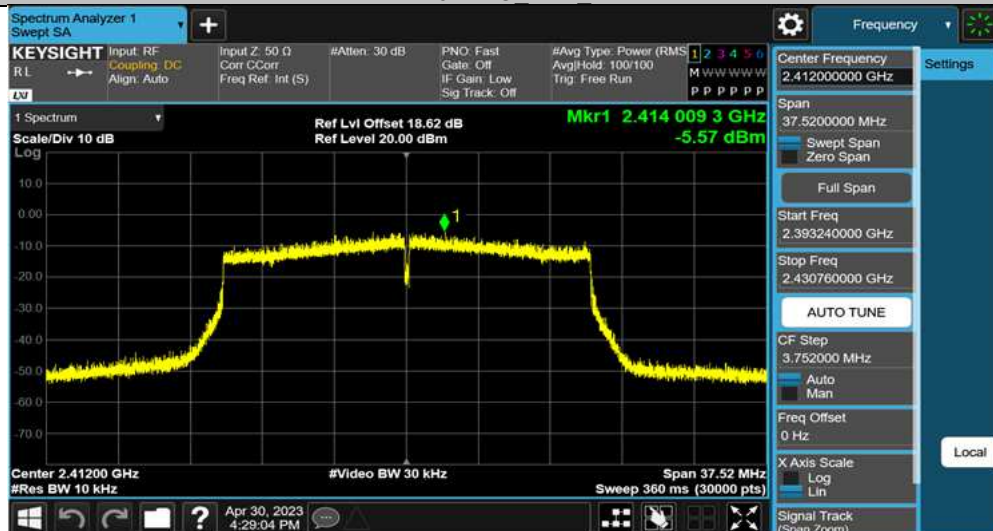




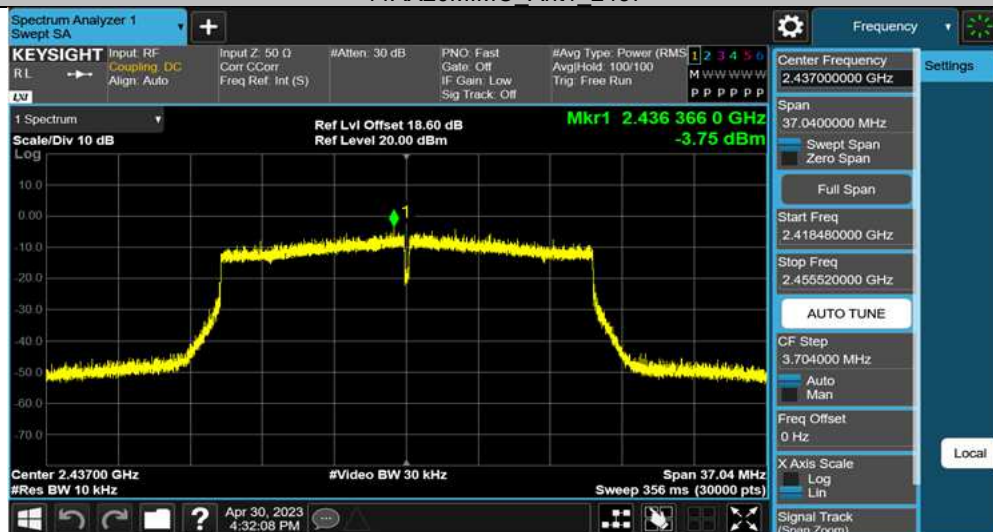
11AX20MIMO_Ant1_2412



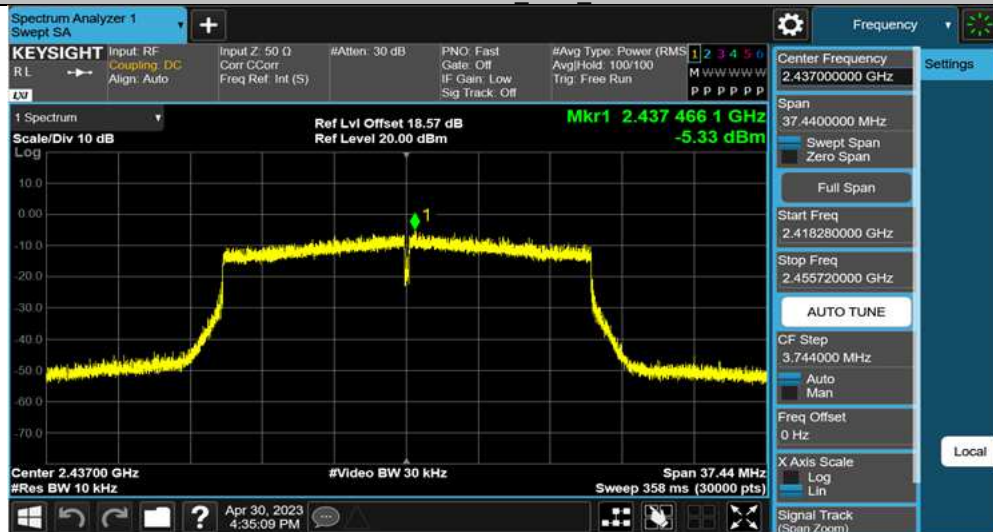
11AX20MIMO_Ant2_2412



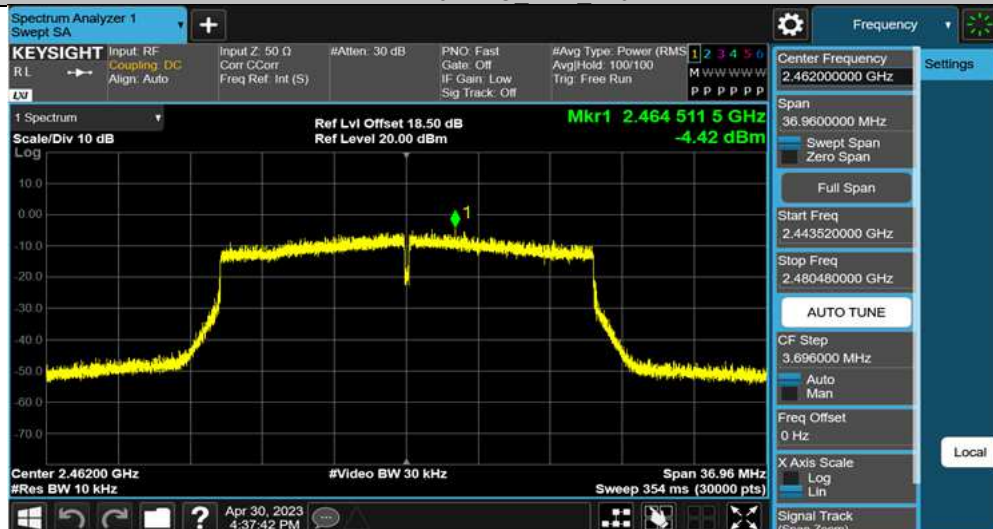
11AX20MIMO_Ant1_2437



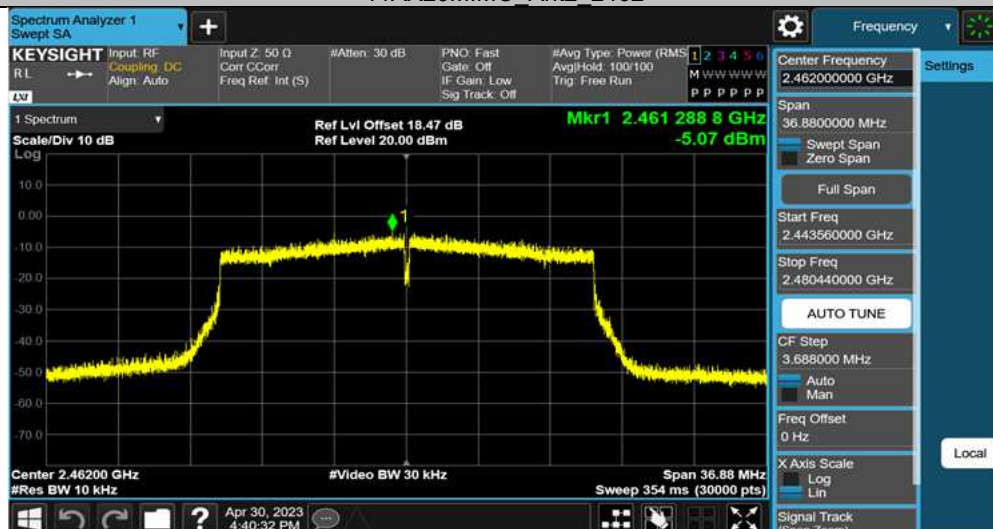
11AX20MIMO_Ant2_2437



11AX20MIMO_Ant1_2462



11AX20MIMO_Ant2_2462



Appendix B.2: Test Results of 6dB Bandwidth

TestMode	Antenna	Channel	DTS BW [MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
11B	Ant1	2412	6.560	2408.960	2415.520	0.5	PASS
	Ant2	2412	7.080	2408.480	2415.560	0.5	PASS
	Ant1	2437	7.560	2433.040	2440.600	0.5	PASS
	Ant2	2437	6.600	2433.960	2440.560	0.5	PASS
	Ant1	2462	7.080	2458.480	2465.560	0.5	PASS
	Ant2	2462	7.520	2458.040	2465.560	0.5	PASS
11G	Ant1	2412	16.320	2403.880	2420.200	0.5	PASS
	Ant2	2412	16.320	2403.880	2420.200	0.5	PASS
	Ant1	2437	16.400	2428.840	2445.240	0.5	PASS
	Ant2	2437	16.320	2428.880	2445.200	0.5	PASS
	Ant1	2462	16.320	2453.880	2470.200	0.5	PASS
	Ant2	2462	16.400	2453.840	2470.240	0.5	PASS
11N20MIMO	Ant1	2412	17.680	2403.200	2420.880	0.5	PASS
	Ant2	2412	17.640	2403.240	2420.880	0.5	PASS
	Ant1	2437	17.720	2428.200	2445.920	0.5	PASS
	Ant2	2437	17.680	2428.240	2445.920	0.5	PASS
	Ant1	2462	17.640	2453.240	2470.880	0.5	PASS
	Ant2	2462	17.680	2453.200	2470.880	0.5	PASS
11AX20MIMO	Ant1	2412	18.600	2402.880	2421.480	0.5	PASS
	Ant2	2412	18.760	2402.720	2421.480	0.5	PASS
	Ant1	2437	18.520	2427.960	2446.480	0.5	PASS
	Ant2	2437	18.720	2427.760	2446.480	0.5	PASS
	Ant1	2462	18.480	2453.000	2471.480	0.5	PASS
	Ant2	2462	18.440	2452.720	2471.160	0.5	PASS

11B_Ant1_2412



11B_Ant2_2412



11B_Ant1_2437



11B_Ant2_2437



11B_Ant1_2462



11B_Ant2_2462



11G_Ant1_2412



11G_Ant2_2412



11G_Ant1_2437



11G_Ant2_2437



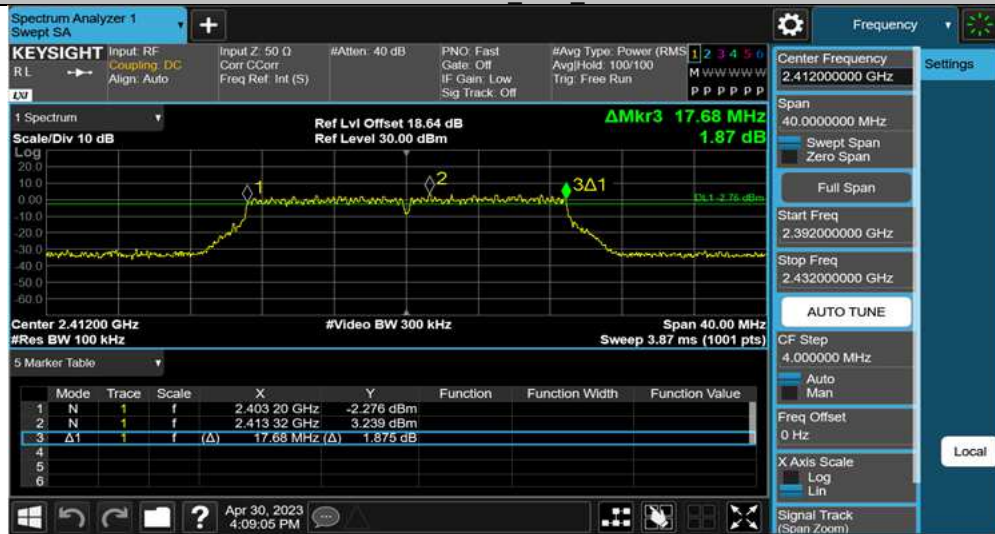
11G_Ant1_2462



11G_Ant2_2462



11N20MIMO_Ant1_2412



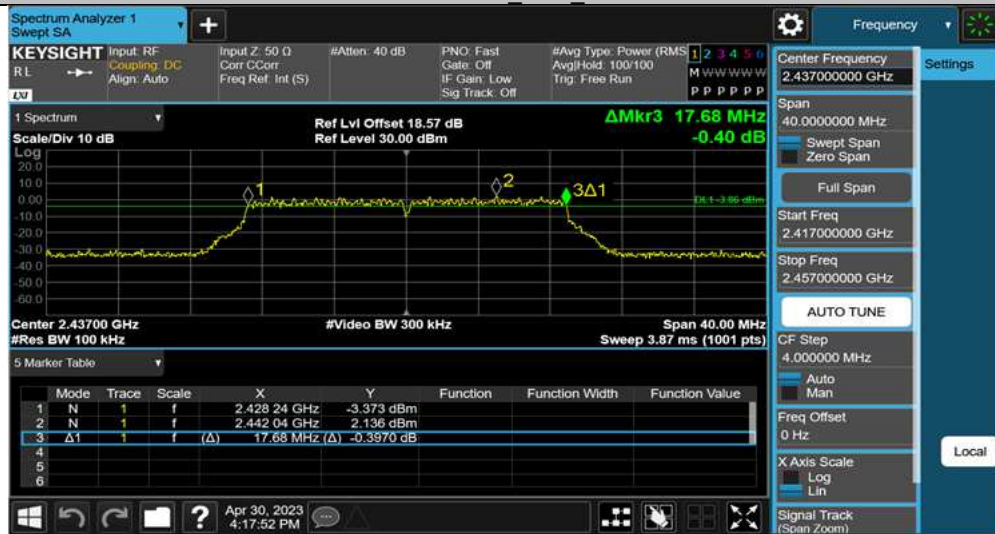
11N20MIMO_Ant2_2412



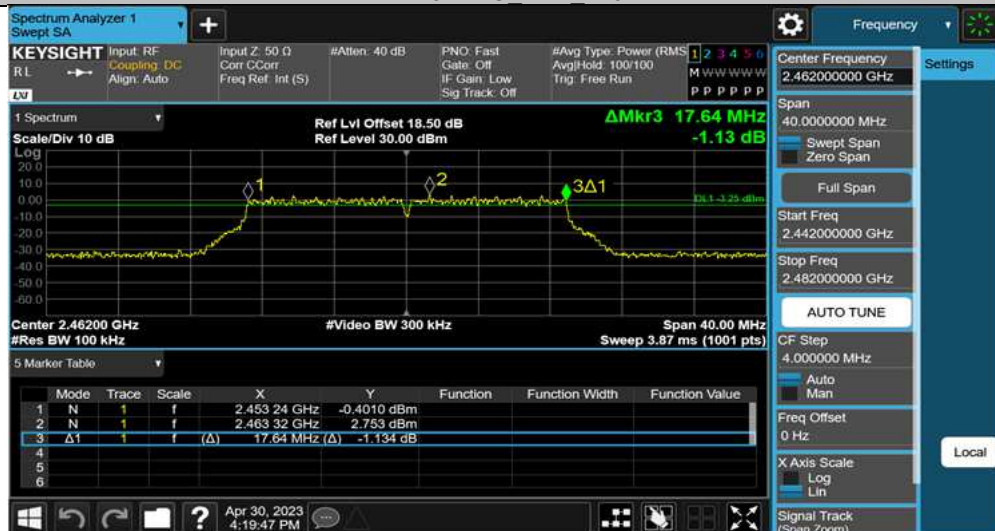
11N20MIMO_Ant1_2437



11N20MIMO_Ant2_2437



11N20MIMO_Ant1_2462



11N20MIMO_Ant2_2462



11AX20MIMO_Ant1_2412



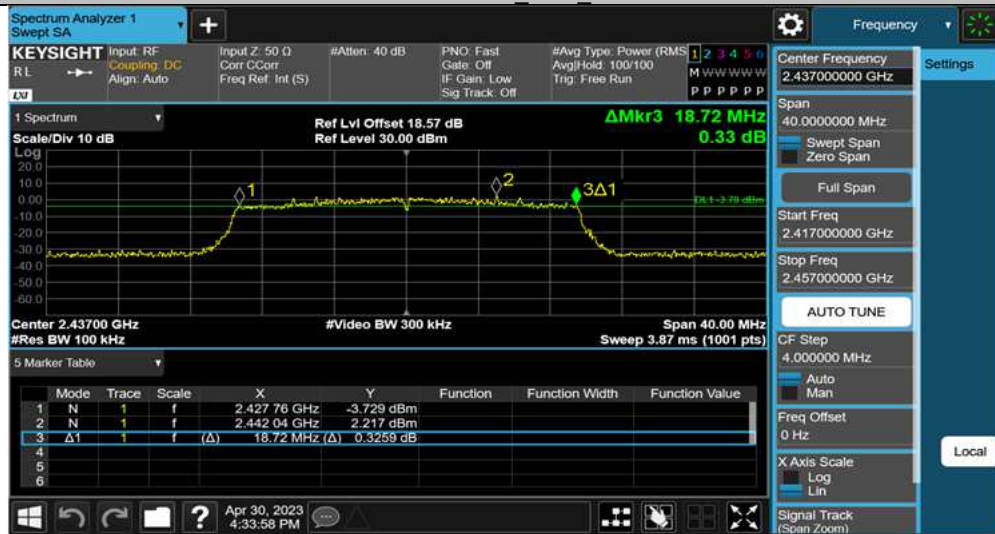
11AX20MIMO_Ant2_2412



11AX20MIMO_Ant1_2437



11AX20MIMO_Ant2_2437



11AX20MIMO_Ant1_2462



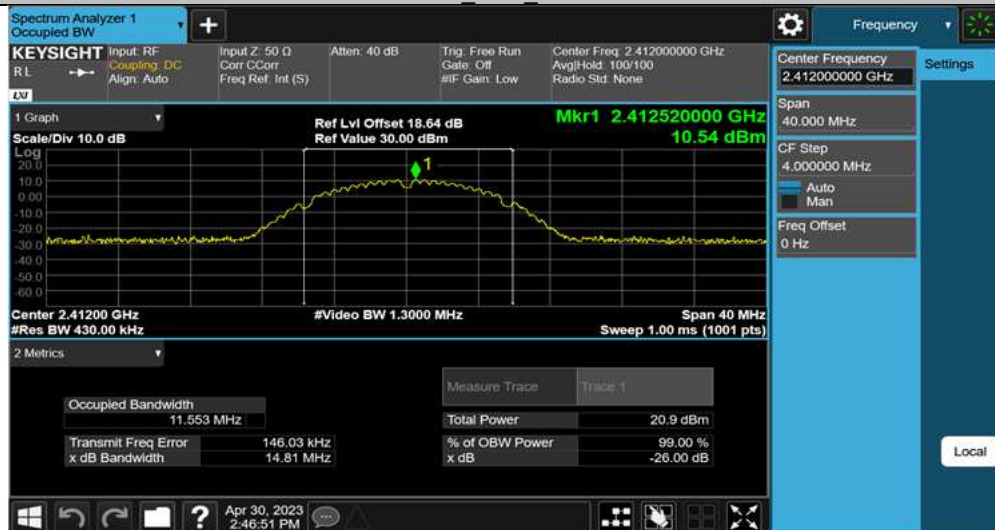
11AX20MIMO_Ant2_2462



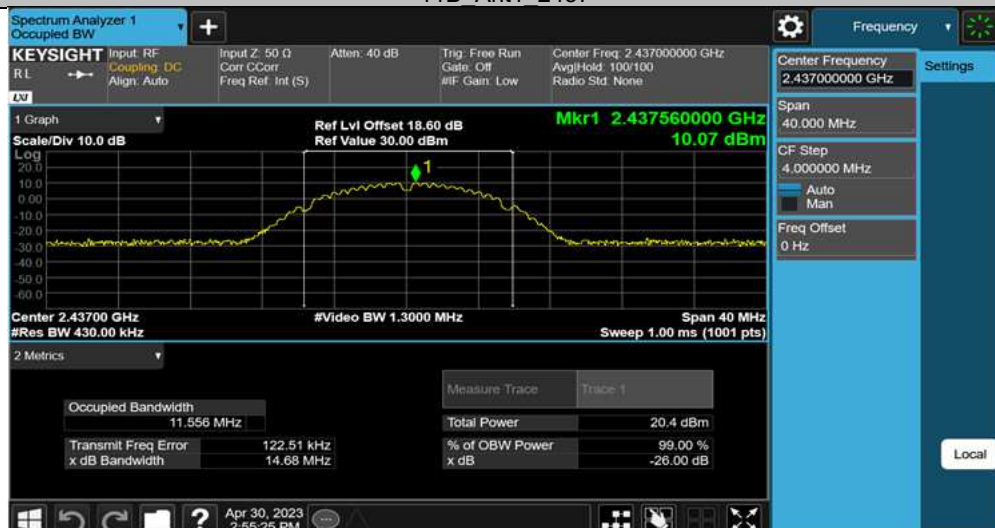
Appendix B.3: Test Results of 99% Bandwidth

TestMode	Antenna	Channel	OCB [MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
11B	Ant1	2412	11.553	2406.3695	2417.9225	---	PASS
		2437	11.556	2431.3445	2442.9005	---	PASS
		2462	11.537	2456.3311	2467.8681	---	PASS
11G	Ant1	2412	17.202	2403.5111	2420.7131	---	PASS
		2437	17.233	2428.4464	2445.6794	---	PASS
		2462	17.197	2453.4493	2470.6463	---	PASS
11N20MIMO	Ant1	2412	18.170	2403.0245	2421.1945	---	PASS
		2437	18.185	2427.9758	2446.1608	---	PASS
		2462	18.132	2453.0015	2471.1335	---	PASS
11AX20MIMO	Ant1	2412	19.015	2402.5631	2421.5781	---	PASS
		2437	18.960	2427.5631	2446.5231	---	PASS
		2462	18.973	2452.5666	2471.5396	---	PASS

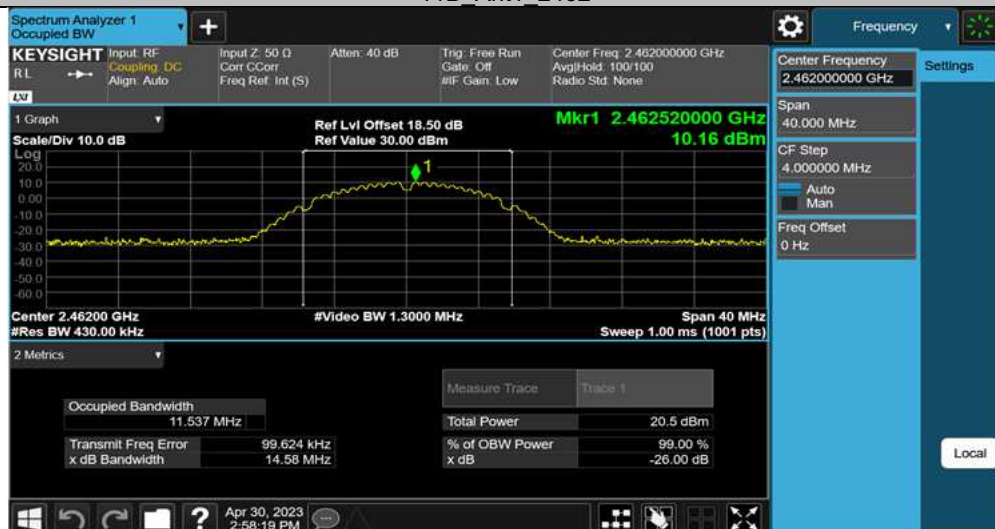
11B_Ant1_2412



11B_Ant1_2437



11B_Ant1_2462



11G_Ant1_2412



11G_Ant1_2437



11G_Ant1_2462



11N20MIMO_Ant1_2412



11N20MIMO_Ant1_2437



11N20MIMO_Ant1_2462



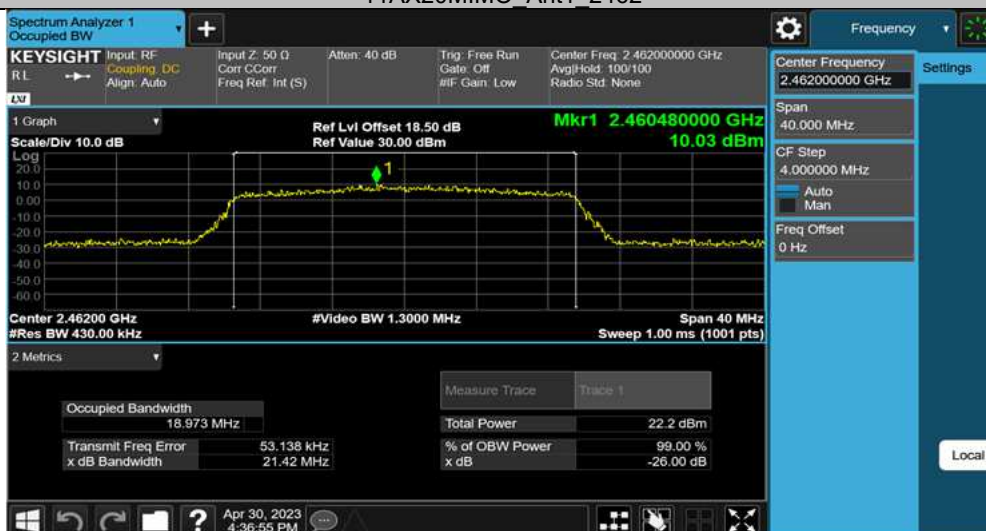
11AX20MIMO_Ant1_2412



11AX20MIMO_Ant1_2437



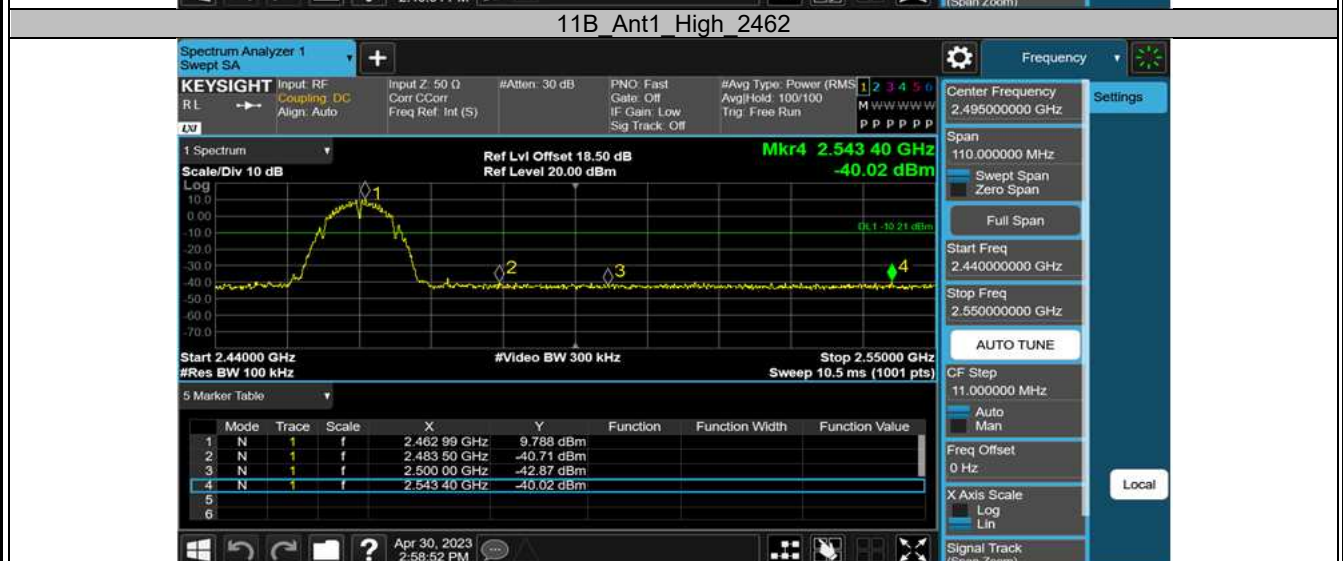
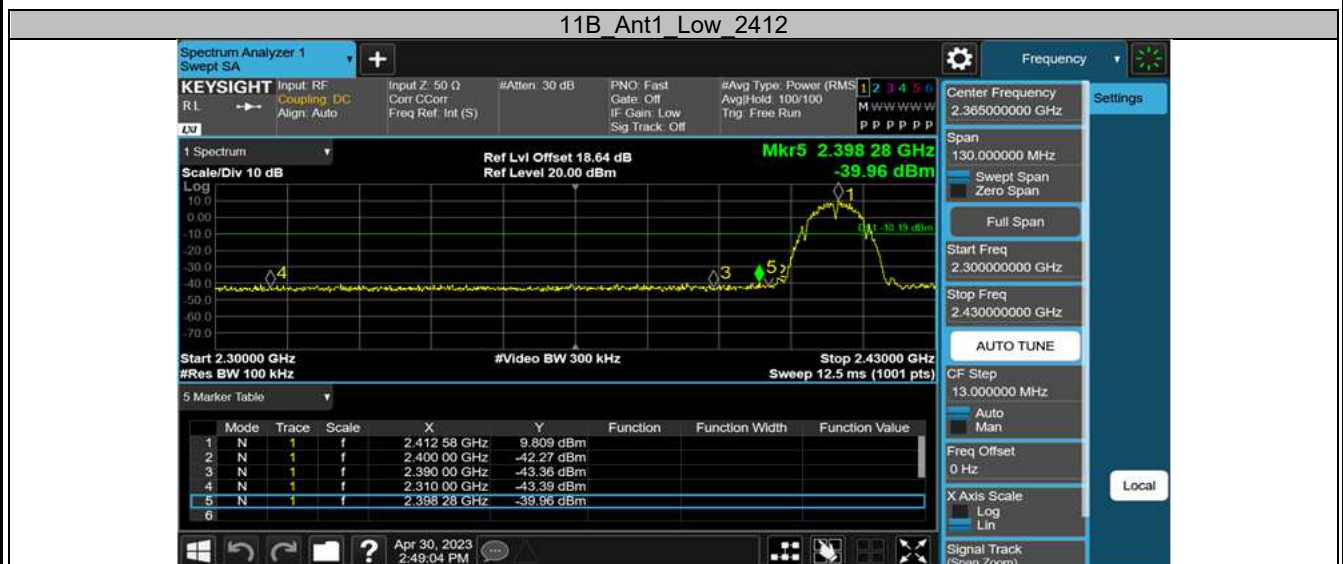
11AX20MIMO_Ant1_2462



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

Band Edge

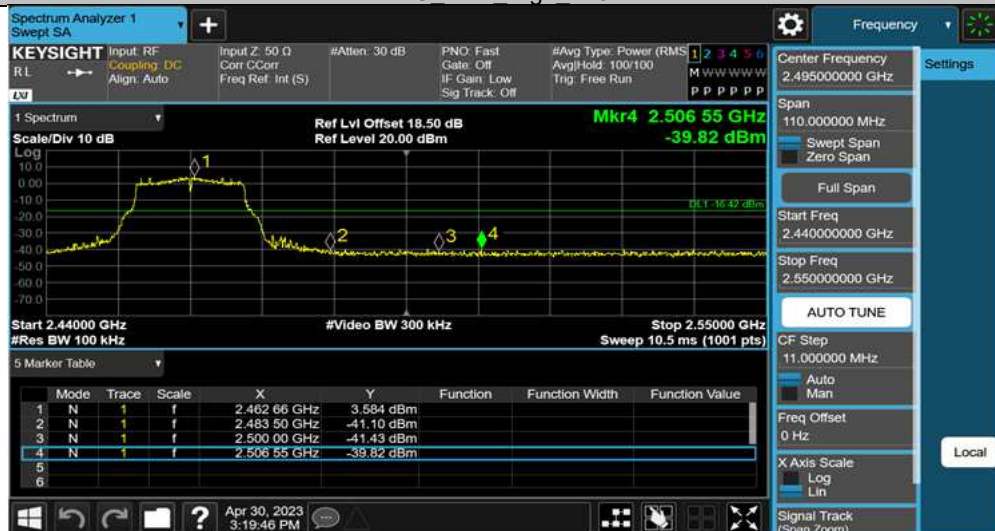
TestMode	Antenna	ChName	Channel	RefLevel[dBm]	Result[dBm]	Limit[dBm]	Verdict
11B	Ant1	Low	2412	9.81	-39.96	≤-10.19	PASS
		High	2462	9.79	-40.03	≤-10.21	PASS
11G	Ant1	Low	2412	6.26	-26.45	≤-13.74	PASS
		High	2462	3.58	-39.82	≤-16.42	PASS
11N20MIMO	Ant1	Low	2412	3.18	-36.06	≤-16.82	PASS
		High	2462	2.49	-39.37	≤-17.52	PASS
11AX20MIMO	Ant1	Low	2412	3.59	-33.98	≤-16.42	PASS
		High	2462	3.25	-38.22	≤-16.75	PASS



11G Ant1 Low 2412



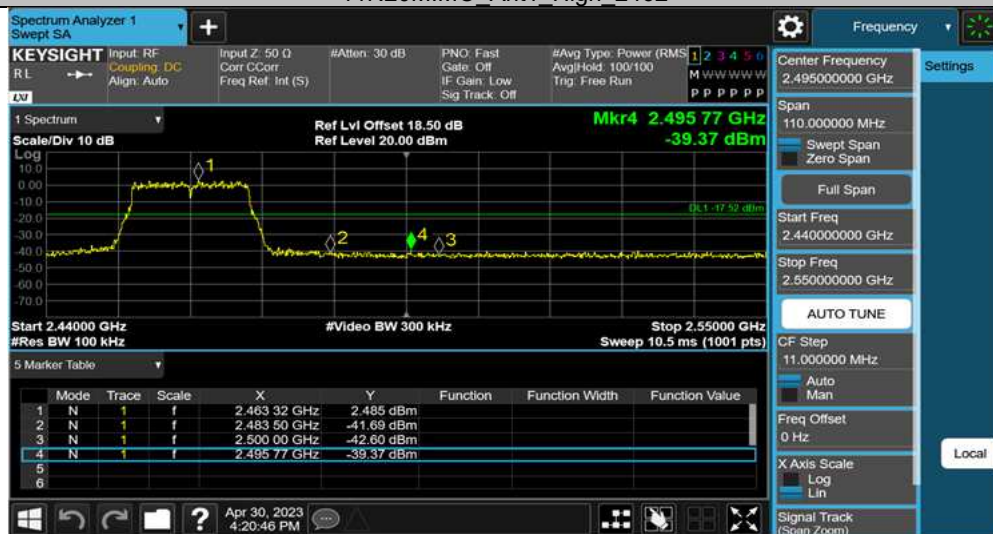
11G Ant1 High 2462



11N20MIMO Ant1 Low 2412



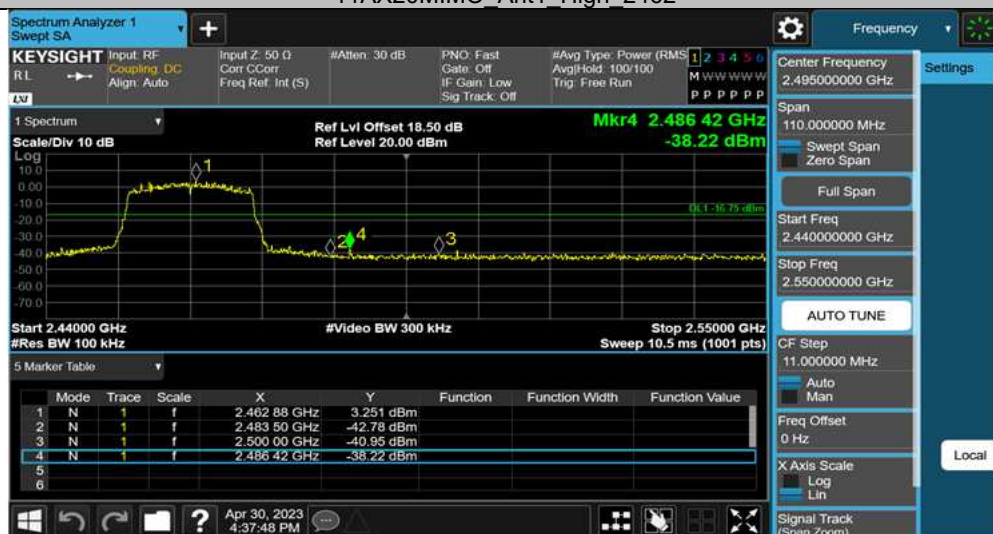
11N20MIMO_Ant1_High_2462



11AX20MIMO_Ant1_Low_2412



11AX20MIMO_Ant1_High_2462



Conducted Spurious Emission

TestMode	Antenna	Channel	FreqRange [Mhz]	RefLevel [dBm]	Result [dBm]	Limit [dBm]	Verdict
11B	Ant1	2412	Reference	8.24	8.24	---	PASS
			30~1000	8.24	-41.55	≤-11.76	PASS
			1000~26500	8.24	-32.54	≤-11.76	PASS
		2437	Reference	8.39	8.39	---	PASS
			30~1000	8.39	-41.84	≤-11.61	PASS
			1000~26500	8.39	-31.57	≤-11.61	PASS
		2462	Reference	7.88	7.88	---	PASS
			30~1000	7.88	-41.17	≤-12.12	PASS
			1000~26500	7.88	-32.6	≤-12.12	PASS
11G	Ant1	2412	Reference	4.61	4.61	---	PASS
			30~1000	4.61	-41.83	≤-15.39	PASS
			1000~26500	4.61	-33	≤-15.39	PASS
		2437	Reference	3.43	3.43	---	PASS
			30~1000	3.43	-41.49	≤-16.57	PASS
			1000~26500	3.43	-32.7	≤-16.57	PASS
		2462	Reference	2.84	2.84	---	PASS
			30~1000	2.84	-42.34	≤-17.16	PASS
			1000~26500	2.84	-32.58	≤-17.16	PASS
11N20MIMO	Ant1	2412	Reference	2.55	2.55	---	PASS
			30~1000	2.55	-41.52	≤-17.45	PASS
			1000~26500	2.55	-32.01	≤-17.45	PASS
		2437	Reference	2.20	2.20	---	PASS
			30~1000	2.20	-41.16	≤-17.8	PASS
			1000~26500	2.20	-32.71	≤-17.8	PASS
		2462	Reference	2.49	2.49	---	PASS
			30~1000	2.49	-42.19	≤-17.51	PASS
			1000~26500	2.49	-32.82	≤-17.51	PASS
11AX20MIMO	Ant1	2412	Reference	3.05	3.05	---	PASS
			30~1000	3.05	-41.48	≤-16.95	PASS
			1000~26500	3.05	-32.57	≤-16.95	PASS
		2437	Reference	2.24	2.24	---	PASS
			30~1000	2.24	-41.29	≤-17.76	PASS
			1000~26500	2.24	-32.27	≤-17.76	PASS
		2462	Reference	2.15	2.15	---	PASS
			30~1000	2.15	-40.73	≤-17.85	PASS
			1000~26500	2.15	-32.36	≤-17.85	PASS

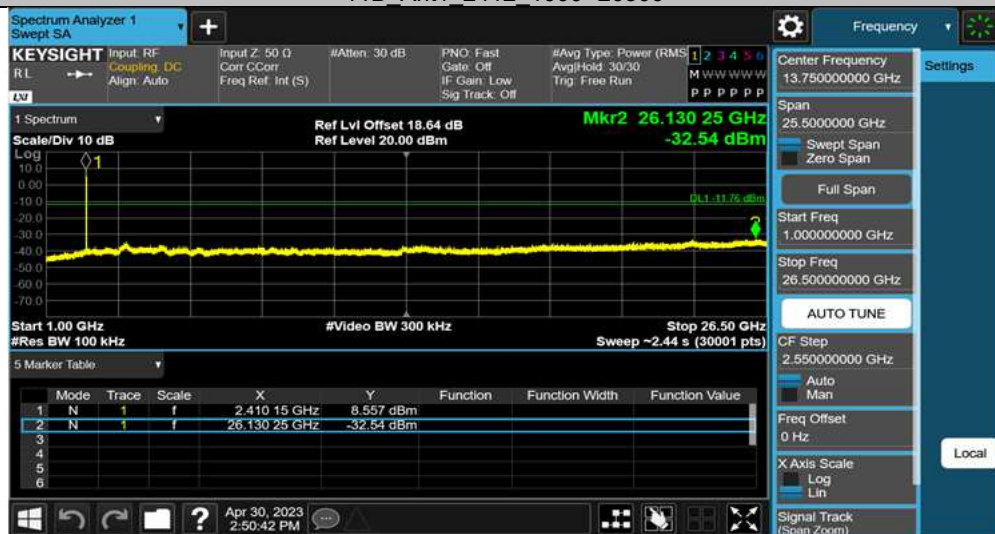
11B_Ant1_2412_0~Reference



11B_Ant1_2412_30~1000



11B_Ant1_2412_1000~26500



11B_Ant1_2437_0~Reference



11B_Ant1_2437_30~1000



11B_Ant1_2437_1000~26500

