

Appendix B: Test Results of 2.4GHz SDR

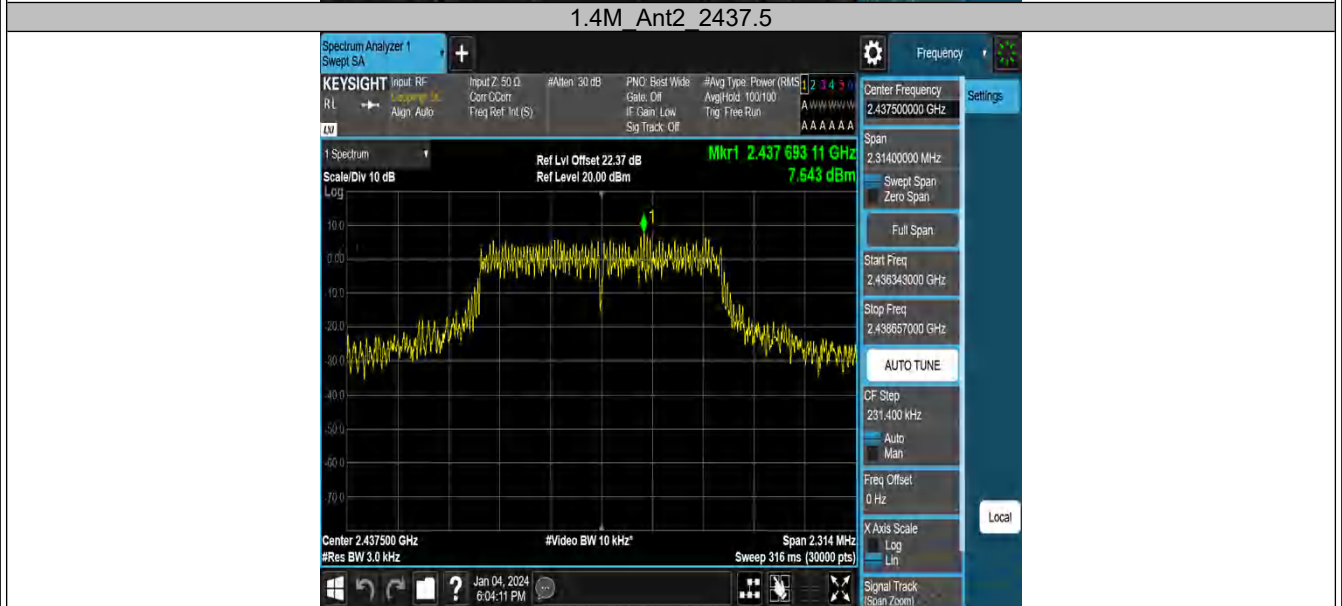
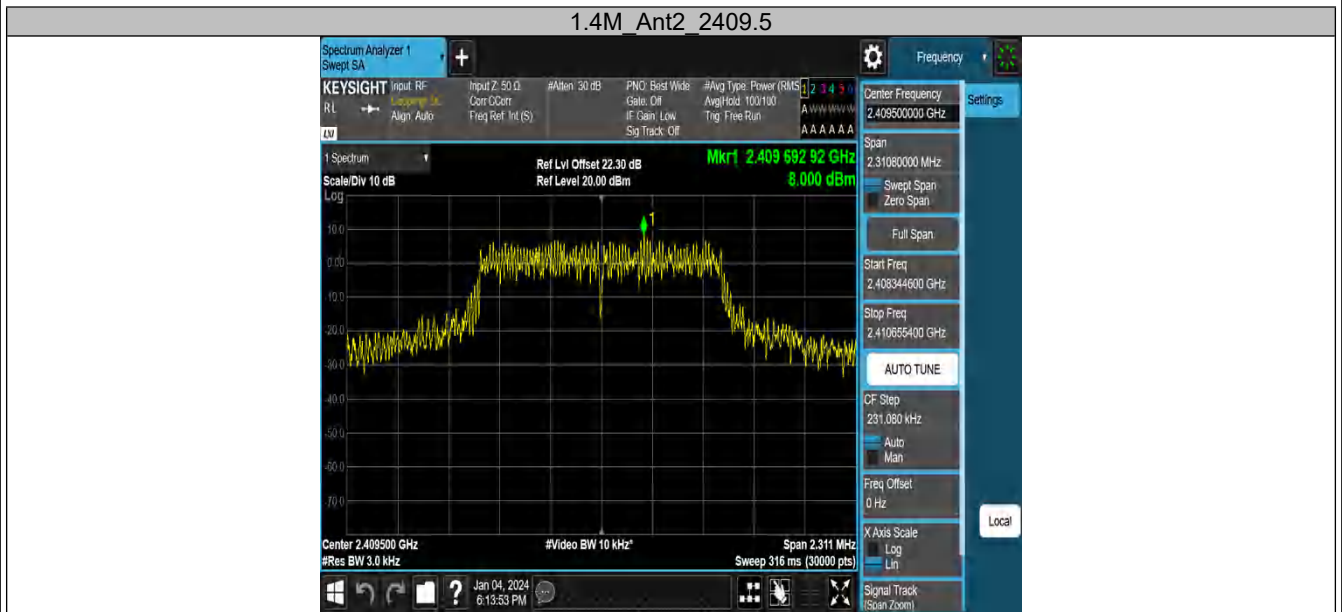
APPENDIX B: TEST RESULTS OF 2.4GHZ SDR	1
APPENDIX A.1: TEST RESULTS OF CONDUCTED POWER SPECTRAL DENSITY	2
2.4GHz SDR, 1.4MHz BW	2
2.4GHz SDR, 1.4MHz BW CA mode.....	7
2.4GHz SDR, 3MHz BW	12
2.4GHz SDR, 3MHz BW CA mode.....	17
2.4GHz SDR, 10MHz BW	22
2.4GHz SDR, 20MHz BW	27
2.4GHz SDR, 40MHz BW	32
APPENDIX A.2: TEST RESULTS OF 6DB BANDWIDTH	37
2.4GHz SDR, 1.4MHz BW	37
2.4GHz SDR, 1.4MHz BW CA mode.....	39
2.4GHz SDR, 3MHz BW	41
2.4GHz SDR, 3MHz BW CA mode.....	43
2.4GHz SDR, 10MHz BW	45
2.4GHz SDR, 20MHz BW	47
2.4GHz SDR, 40MHz BW	49
APPENDIX A.3: TEST RESULTS OF 99% BANDWIDTH	51
2.4GHz SDR, 1.4MHz BW	51
2.4GHz SDR, 1.4MHz BW CA mode.....	53
2.4GHz SDR, 3MHz BW	55
2.4GHz SDR, 3MHz BW CA mode.....	57
2.4GHz SDR, 10MHz BW	59
2.4GHz SDR, 20MHz BW	61
2.4GHz SDR, 40MHz BW	63
APPENDIX A.4: TEST RESULTS OF CONDUCTED SPURIOUS EMISSIONS MEASURED IN 100 KHz BANDWIDTH	65
Bandedge.....	65
Conducted Spurious Emission.....	72
APPENDIX A.5: TEST RESULTS OF RADIATED SPURIOUS EMISSIONS	100
30MHz - 1GHz	100
1GHz - 18GHz	102
APPENDIX B.6: TEST RESULTS OF RADIATED EMISSIONS IN RESTRICTED BANDS.....	122
2.4GHz SDR, 1.4MHz BW	122
2.4GHz SDR, 3MHz BW	126
2.4GHz SDR, 10MHz BW	130
2.4GHz SDR, 20MHz BW	136
2.4GHz SDR, 40MHz BW	143
APPENDIX B.7: TEST RESULTS OF CONDUCTED EMISSION ON AC MAINS	149

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

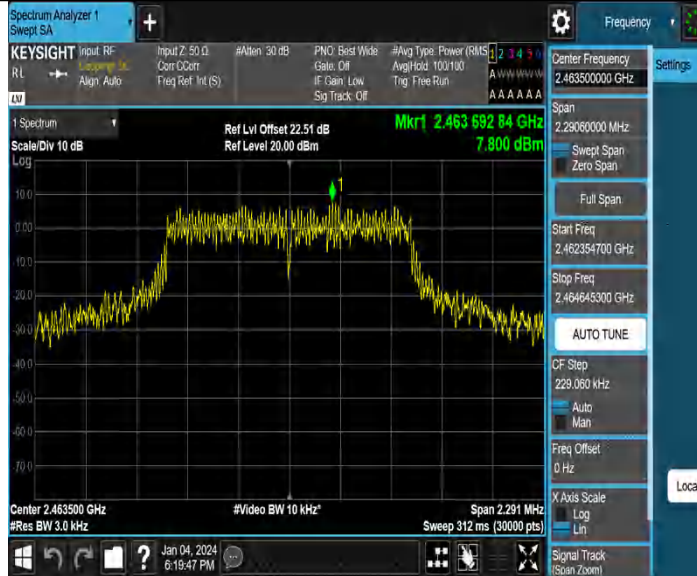
2.4GHz SDR, 1.4MHz BW

SISO mode (Worst case_ANT2)

TestMode	Antenna	Channel	Result[dBm/3-100kHz]	Limit[dBm/3kHz]	Verdict
1.4M	Ant2	2409.5	8.00	≤8.00	PASS
		2437.5	7.64	≤8.00	PASS
		2463.5	7.80	≤8.00	PASS



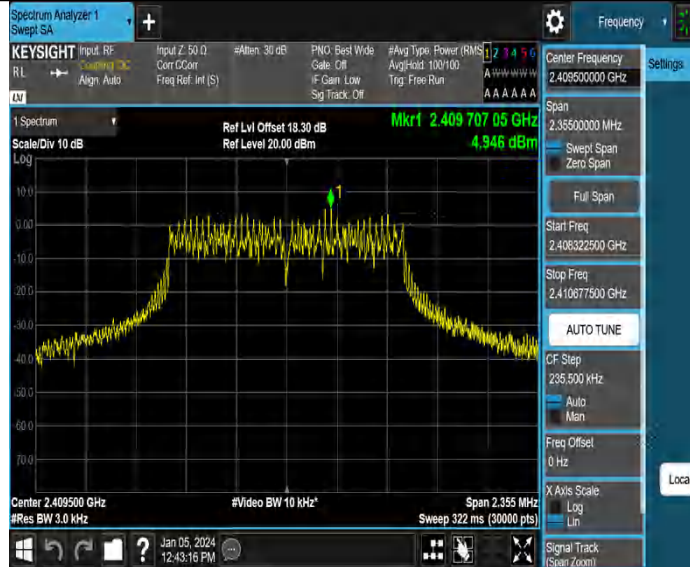
1.4M Ant2_2463.5



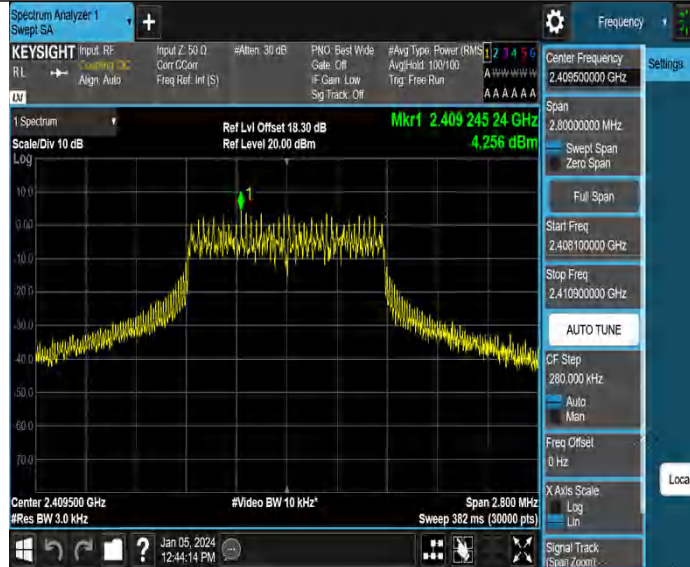
MIMO mode (Worst case_ANT0+ANT3)

TestMode	Antenna	Channel	Result[dBm/3-100kHz]	Limit[dBm/3kHz]	Verdict
1.4M	Ant0	2409.5	4.95	≤8.00	PASS
	Ant3	2409.5	4.26	≤8.00	PASS
	total	2409.5	7.7	≤8.00	PASS
	Ant0	2437.5	4.80	≤8.00	PASS
	Ant3	2437.5	4.38	≤8.00	PASS
	total	2437.5	7.27	≤8.00	PASS
	Ant0	2463.5	4.39	≤8.00	PASS
	Ant3	2463.5	4.72	≤8.00	PASS
	total	2463.5	7.4	≤8.00	PASS

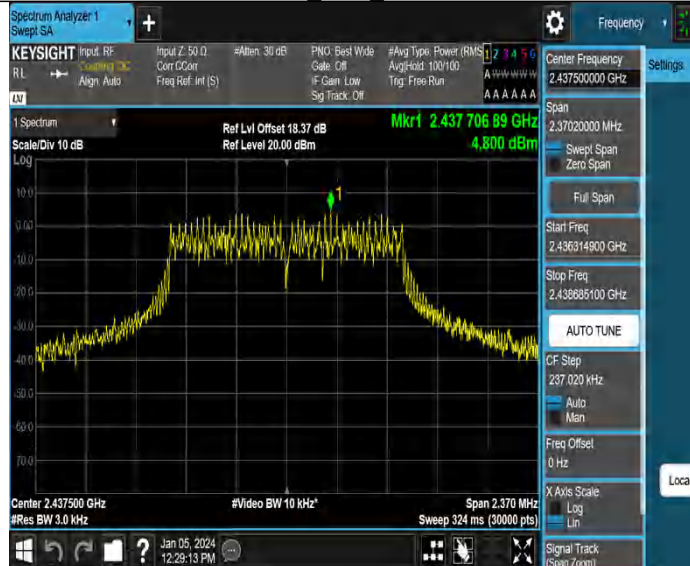
1.4M Ant0 2409.5



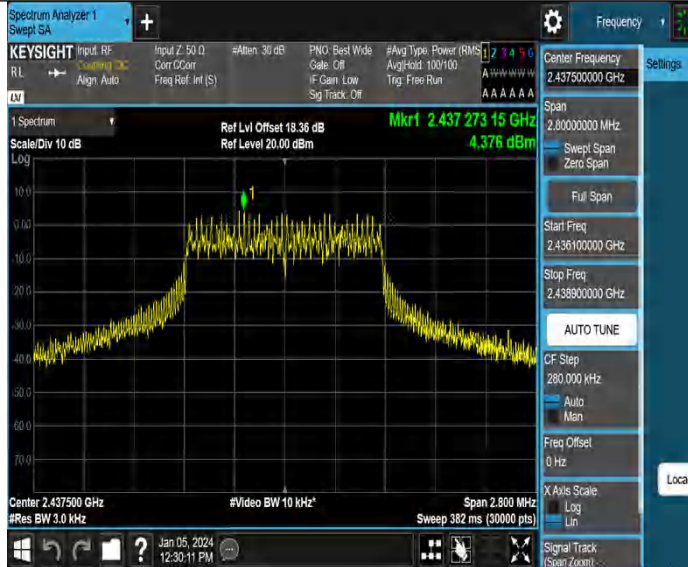
1.4M Ant3 2409.5



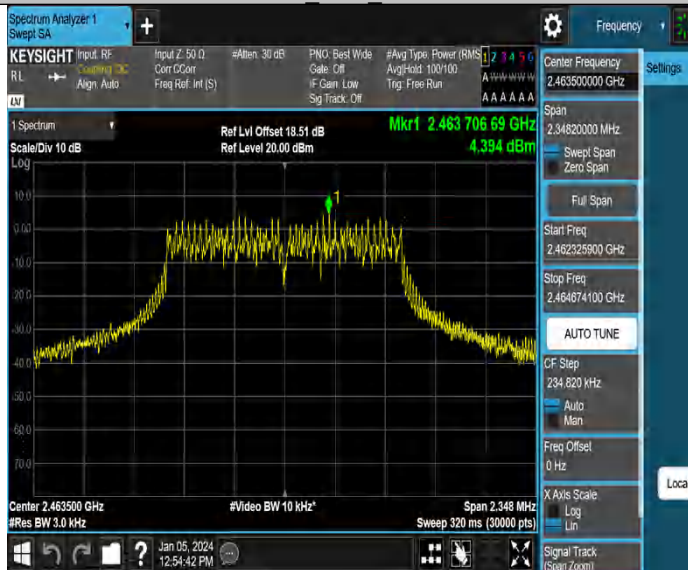
1.4M Ant0 2437.5



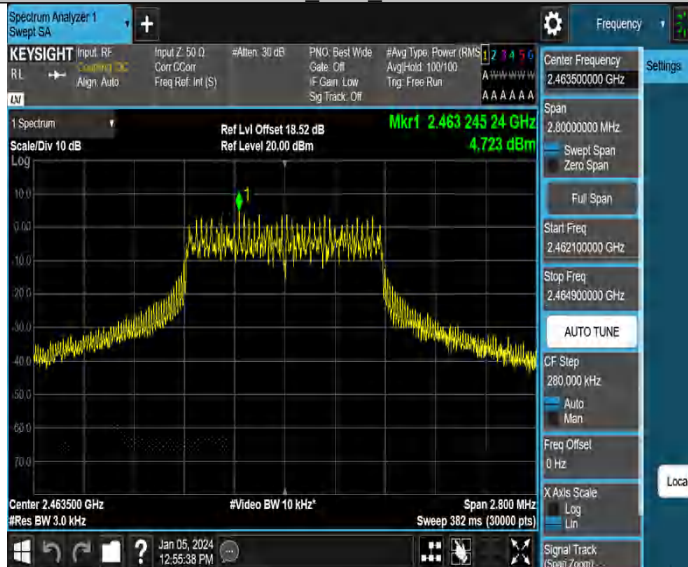
1.4M Ant3 2437.5



1.4M Ant0 2463.5



1.4M Ant3 2463.5

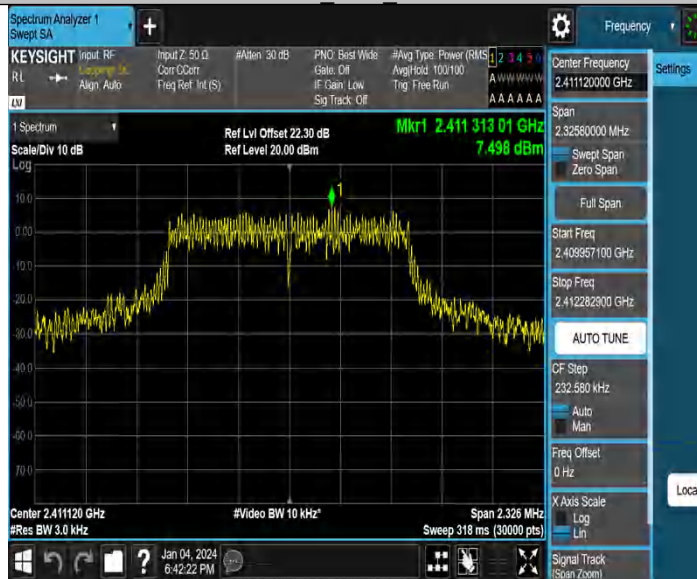


2.4GHz SDR, 1.4MHz BW CA mode

SISO mode (Worst case_ANT2)

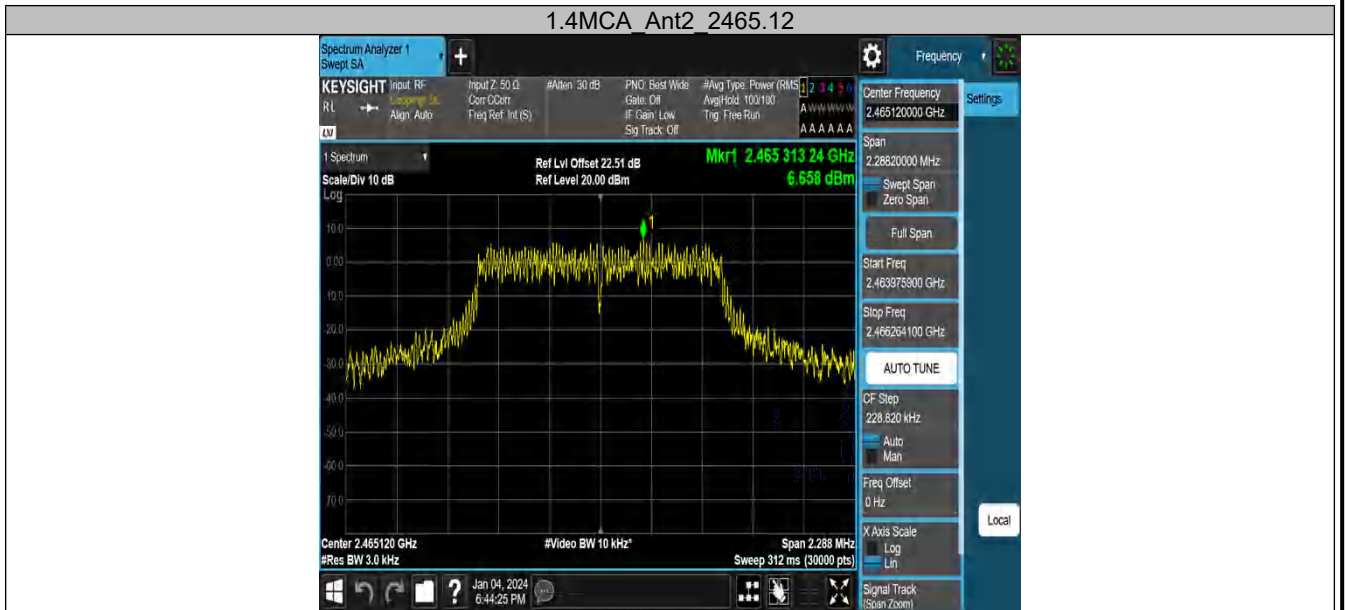
TestMode	Antenna	Channel	Result[dBm/3-100kHz]	Limit[dBm/3kHz]	Verdict
1.4MCA	Ant2	2411.12	7.50	≤8.00	PASS
		2439.12	7.22	≤8.00	PASS
		2465.12	6.66	≤8.00	PASS

1.4MCA_Ant2_2411.12



1.4MCA_Ant2_2439.12





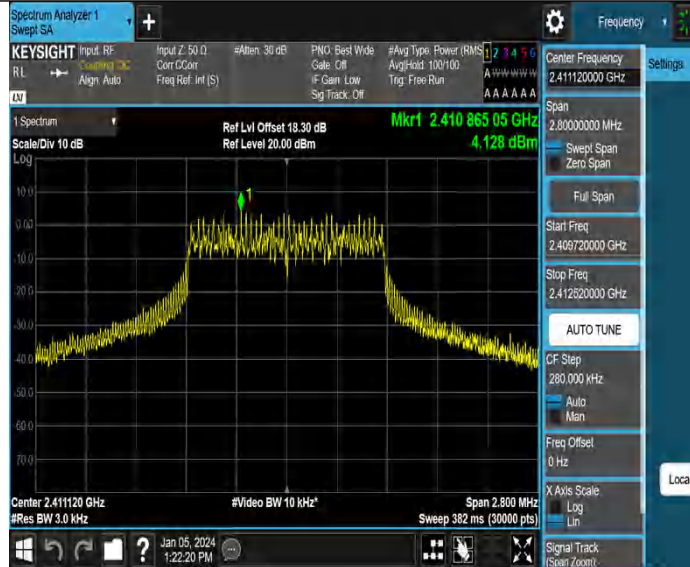
MIMO mode (Worst case_ANT0+ANT3)

TestMode	Antenna	Channel	Result[dBm/3-100kHz]	Limit[dBm/3kHz]	Verdict
1.4MCA	Ant0	2411.12	5.19	≤8.00	PASS
	Ant3	2411.12	4.13	≤8.00	PASS
	total	2411.12	7.63	≤8.00	PASS
	Ant0	2439.12	4.41	≤8.00	PASS
	Ant3	2439.12	4.11	≤8.00	PASS
	total	2439.12	7.61	≤8.00	PASS
	Ant0	2465.12	4.69	≤8.00	PASS
	Ant3	2465.12	4.07	≤8.00	PASS
	total	2465.12	7.57	≤8.00	PASS

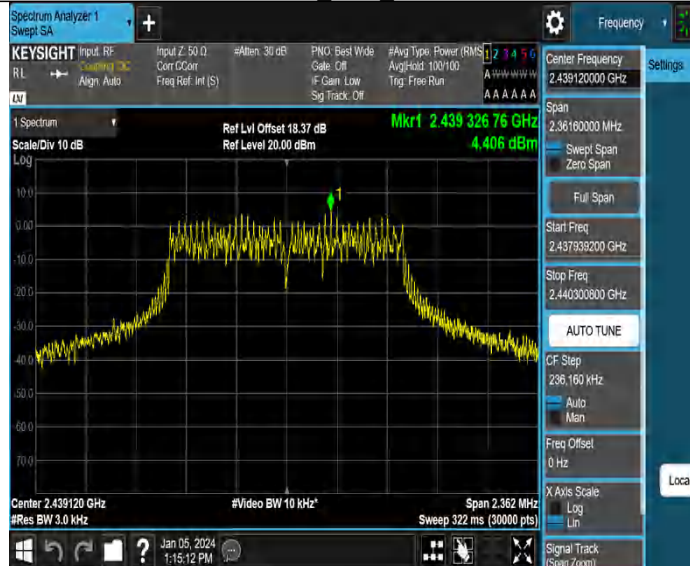
1.4MCA Ant0 2411.12



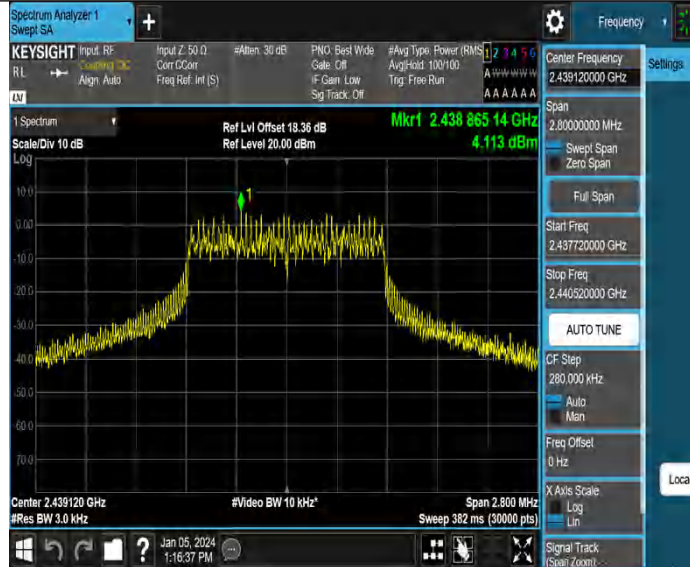
1.4MCA Ant3 2411.12



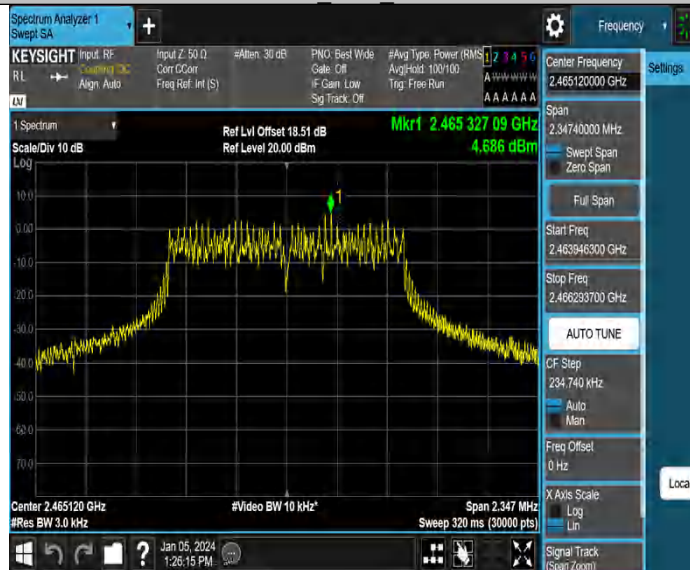
1.4MCA Ant0 2439.12



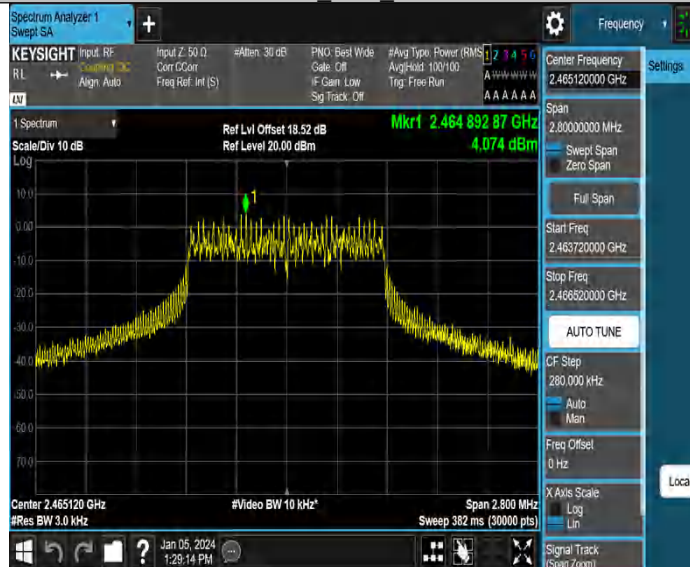
1.4MCA Ant3 2439.12



1.4MCA Ant0 2465.12



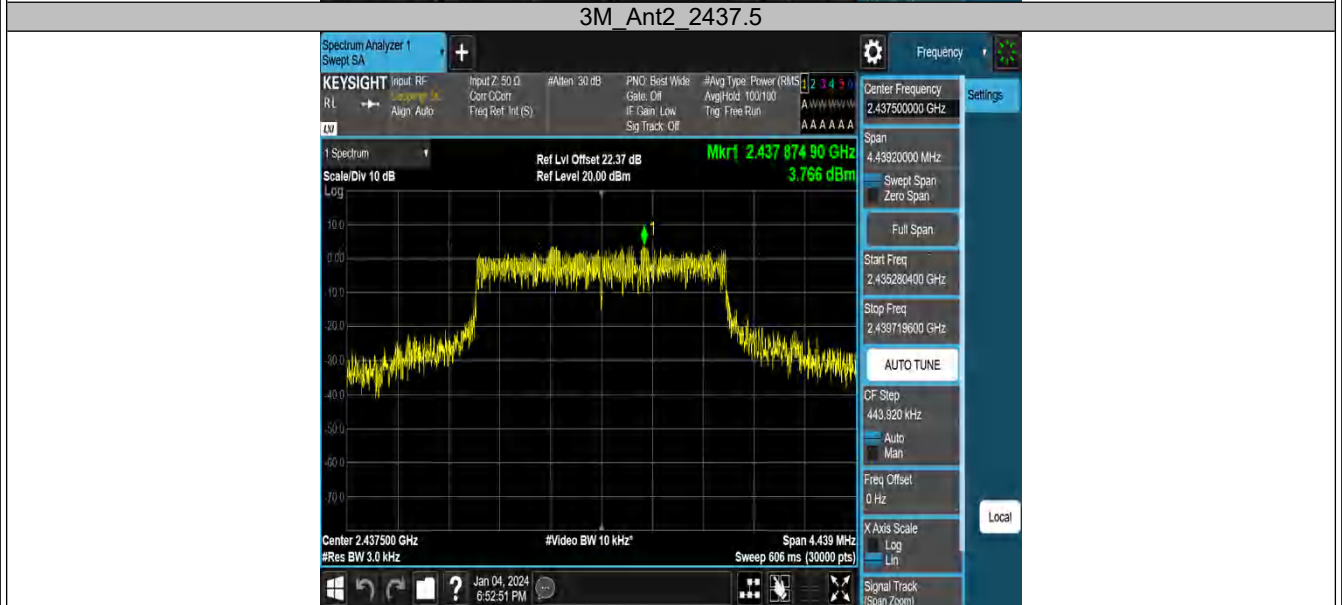
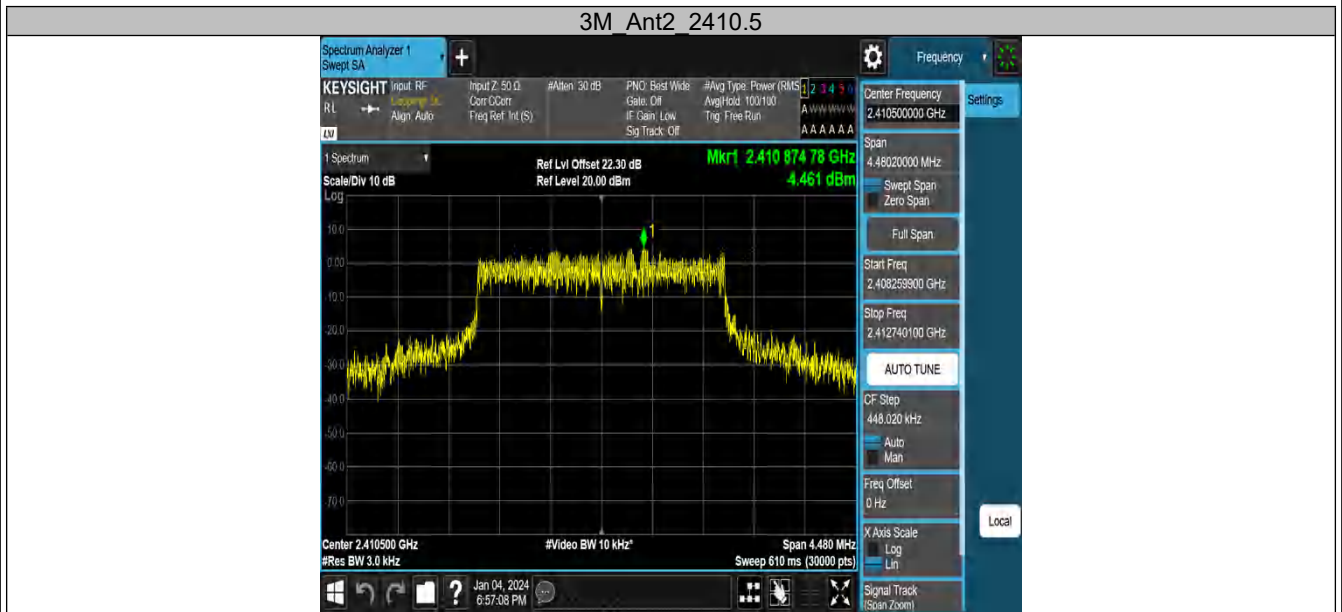
1.4MCA Ant3 2465.12

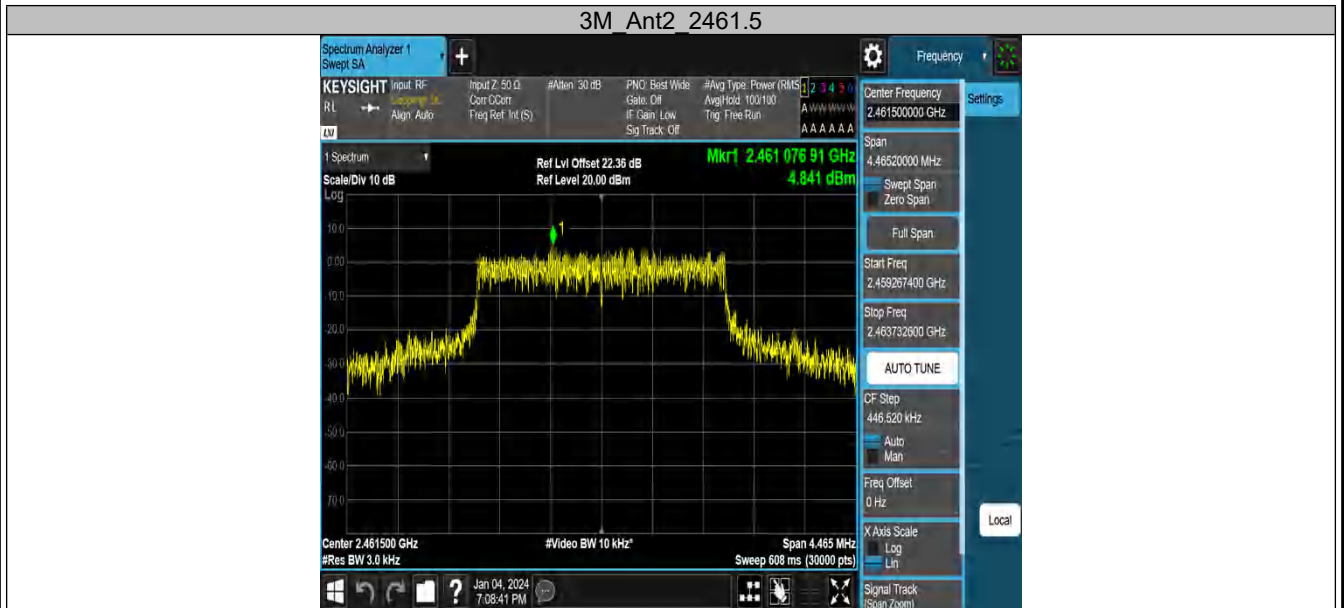


2.4GHz SDR, 3MHz BW

SISO mode (Worst case_ANT2)

TestMode	Antenna	Channel	Result[dBm/3-100kHz]	Limit[dBm/3kHz]	Verdict
3M	Ant2	2410.5	4.46	≤8.00	PASS
		2437.5	3.77	≤8.00	PASS
		2461.5	4.84	≤8.00	PASS





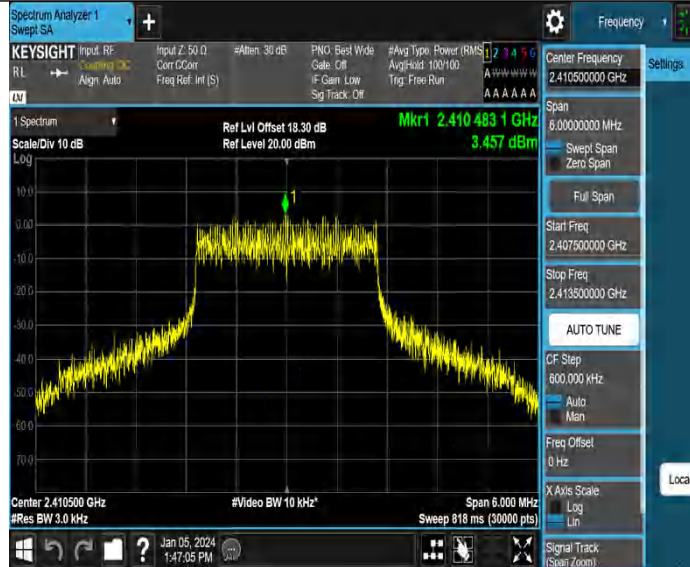
MIMO mode (Worst case_ANT0+ANT3)

TestMode	Antenna	Channel	Result[dBm/3-100kHz]	Limit[dBm/3kHz]	Verdict
3M	Ant0	2410.5	3.62	≤8.00	PASS
	Ant3	2410.5	3.46	≤8.00	PASS
	total	2410.5	6.55	≤8.00	PASS
	Ant0	2437.5	2.86	≤8.00	PASS
	Ant3	2437.5	2.20	≤8.00	PASS
	total	2437.5	5.55	≤8.00	PASS
	Ant0	2461.5	3.65	≤8.00	PASS
	Ant3	2461.5	3.37	≤8.00	PASS
	total	2461.5	6.52	≤8.00	PASS

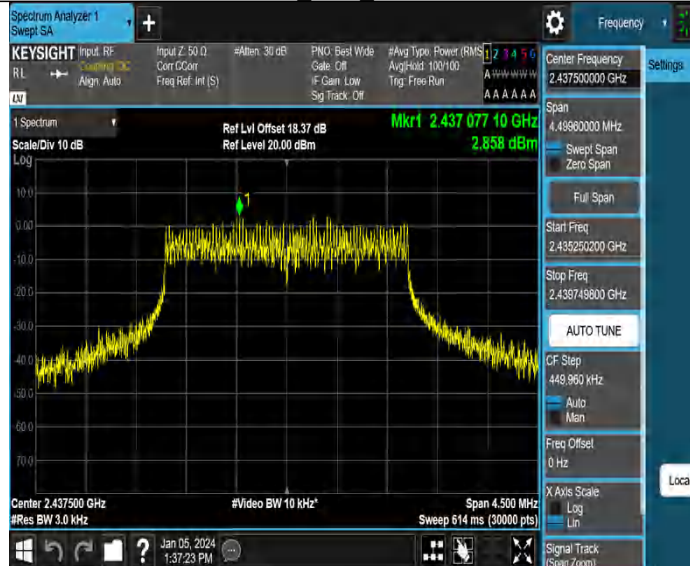
3M_Ant0_2410.5



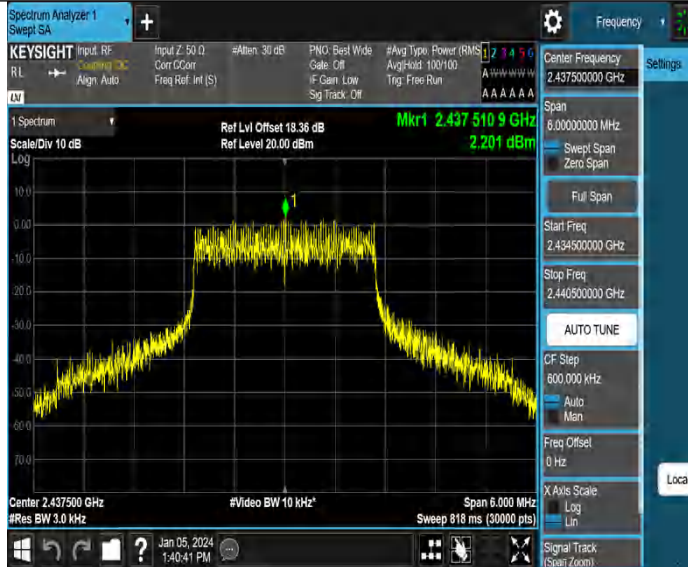
3M_Ant3_2410.5



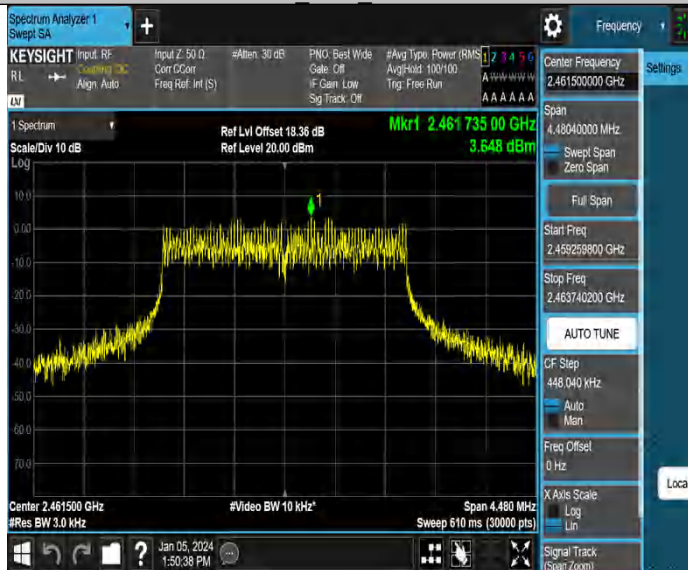
3M_Ant0_2437.5



3M Ant3 2437.5



3M Ant0 2461.5



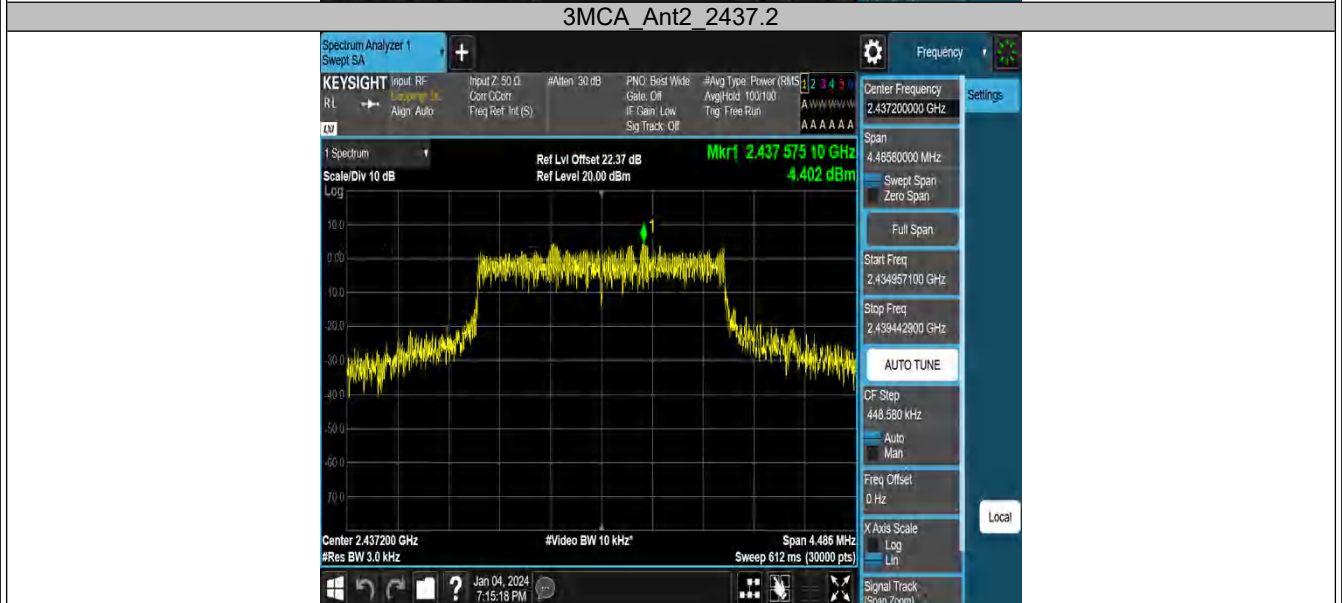
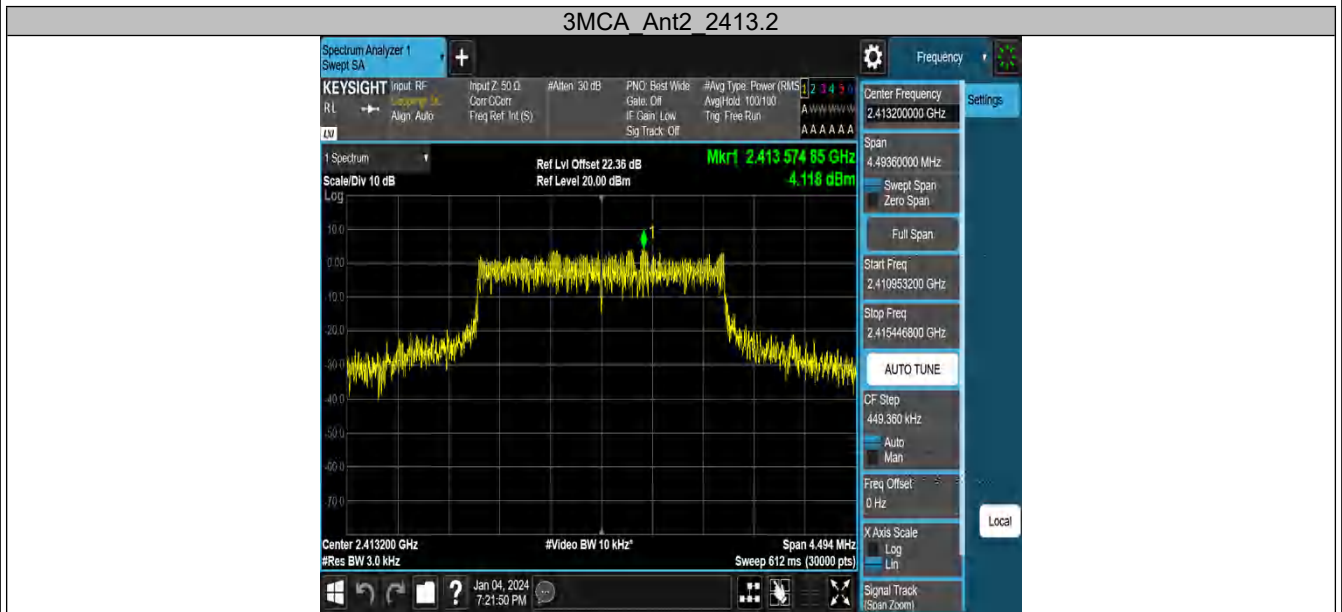
3M Ant3 2461.5



2.4GHz SDR, 3MHz BW CA mode

SISO mode (Worst case_ANT2)

TestMode	Antenna	Channel	Result[dBm/3-100kHz]	Limit[dBm/3kHz]	Verdict
3MCA	Ant2	2413.2	4.12	≤8.00	PASS
		2437.2	4.40	≤8.00	PASS
		2464.2	4.41	≤8.00	PASS



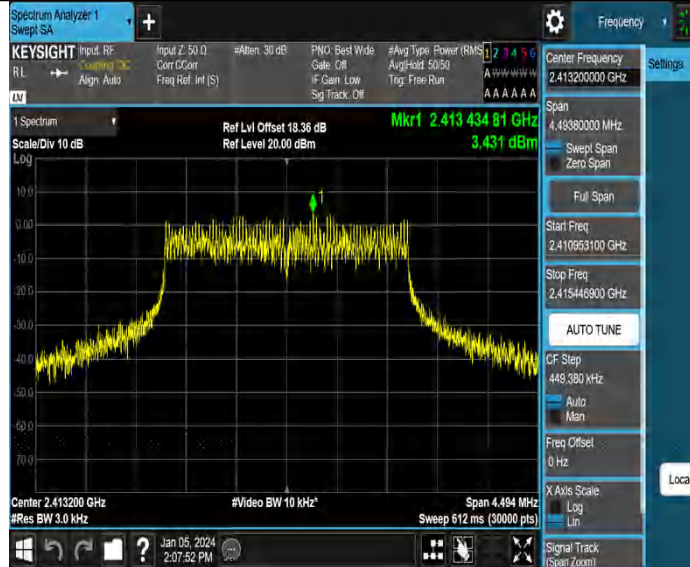
3MCA_Ant2_2464.2



MIMO mode (Worst case_ANT0+ANT3)

TestMode	Antenna	Channel	Result[dBm/3-100kHz]	Limit[dBm/3kHz]	Verdict
3MCA	Ant0	2413.2	3.43	≤8.00	PASS
	Ant3	2413.2	2.71	≤8.00	PASS
	total	2413.2	6.1	≤8.00	PASS
	Ant0	2437.2	3.00	≤8.00	PASS
	Ant3	2437.2	2.15	≤8.00	PASS
	total	2437.2	5.61	≤8.00	PASS
	Ant0	2464.2	3.73	≤8.00	PASS
	Ant3	2464.2	2.85	≤8.00	PASS
	total	2464.2	6.32	≤8.00	PASS

3MCA_Ant0_2413.2



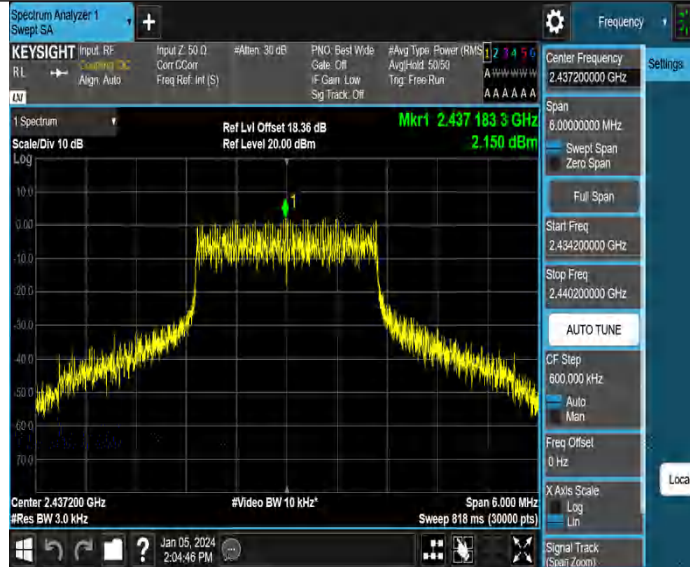
3MCA_Ant3_2413.2



3MCA_Ant0_2437.2



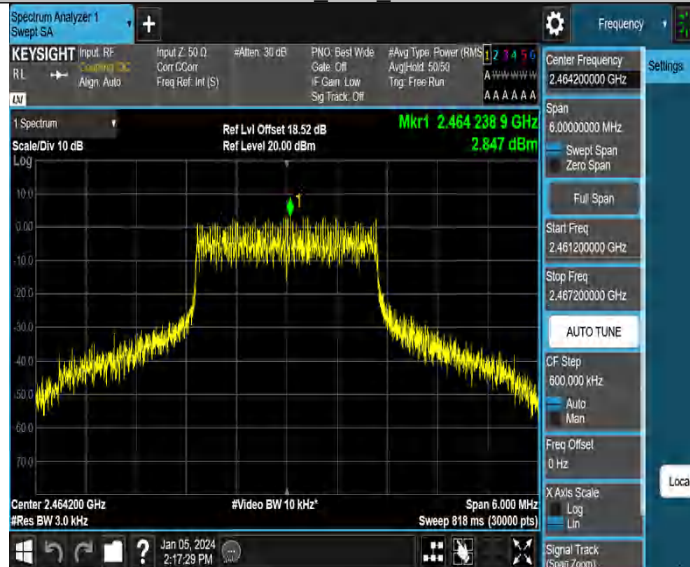
3MCA_Ant3_2437.2



3MCA_Ant0_2464.2



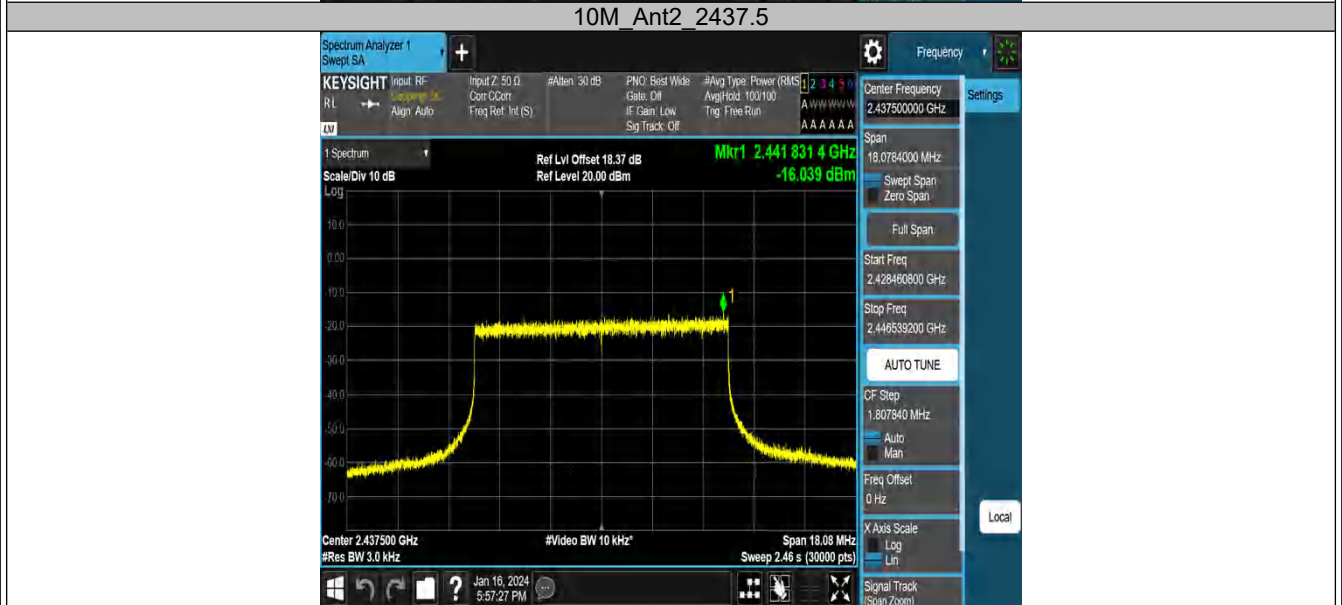
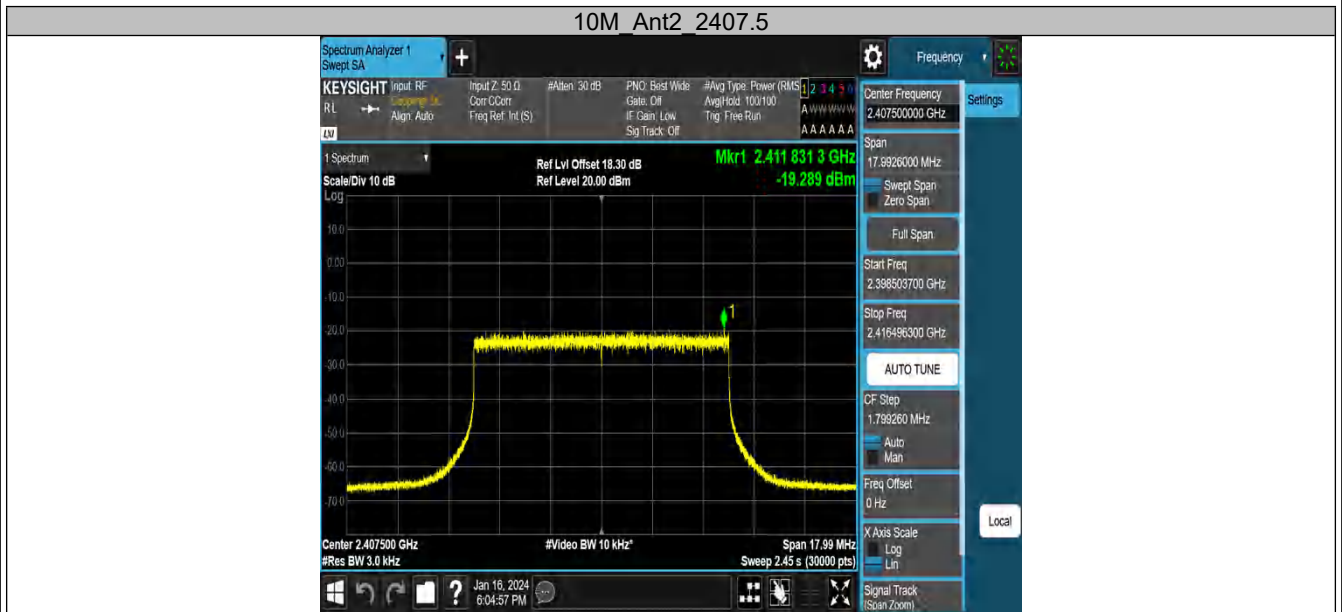
3MCA_Ant3_2464.2



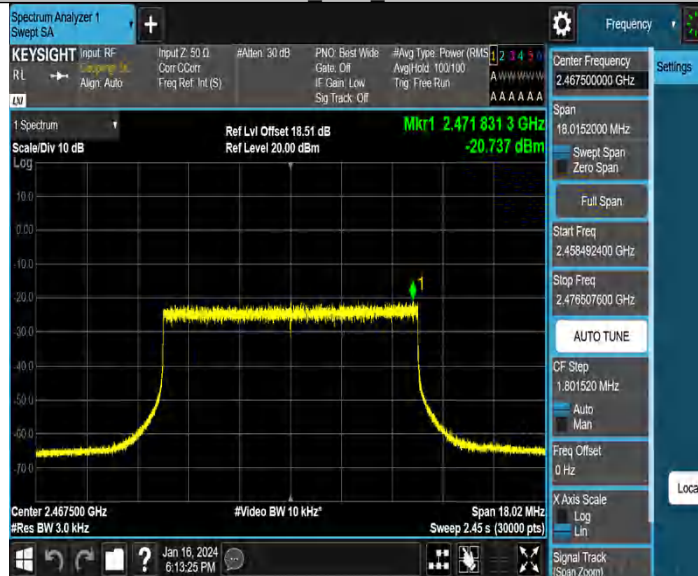
2.4GHz SDR, 10MHz BW

SISO mode (Worst case_ANT2)

TestMode	Antenna	Channel	Result[dBm/3-100kHz]	Limit[dBm/3kHz]	Verdict
10M	Ant2	2407.5	-19.29	≤8.00	PASS
		2437.5	-16.04	≤8.00	PASS
		2467.5	-20.74	≤8.00	PASS



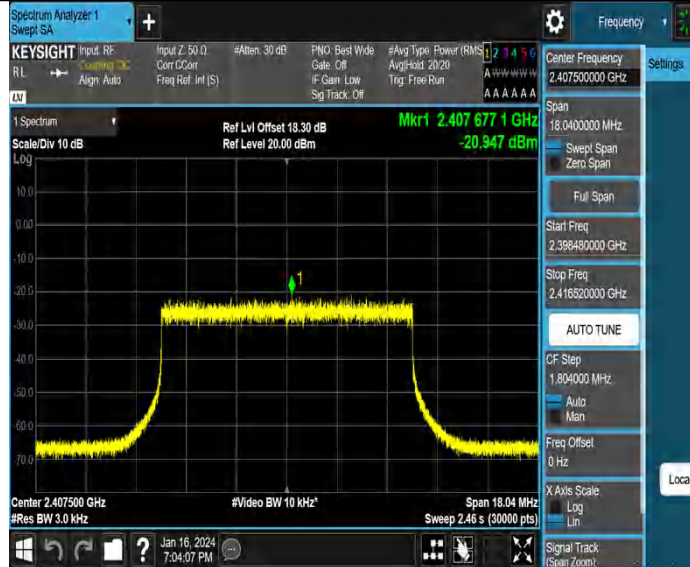
10M Ant2_2467.5



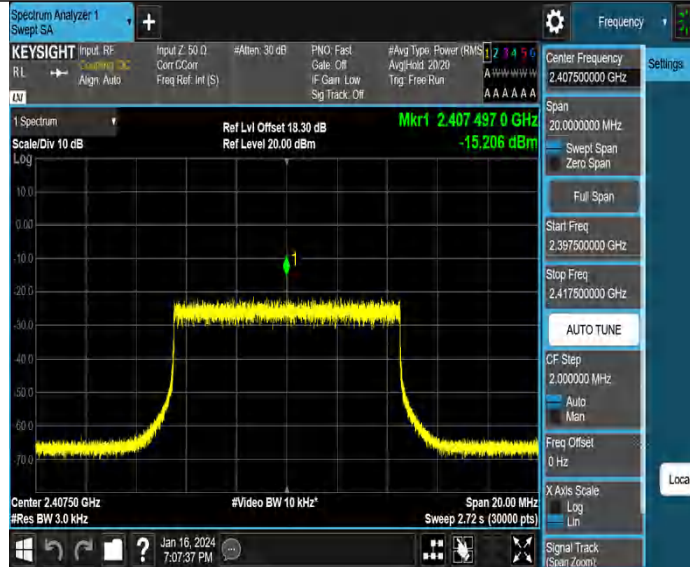
MIMO mode (Worst case_ANT0+ANT3)

TestMode	Antenna	Channel	Result[dBm/3-100kHz]	Limit[dBm/3kHz]	Verdict
10M	Ant0	2407.5	-20.95	≤8.00	PASS
	Ant3	2407.5	-15.21	≤8.00	PASS
	total	2407.5	-14.18	≤8.00	PASS
	Ant0	2437.5	-17.93	≤8.00	PASS
	Ant3	2437.5	-15.22	≤8.00	PASS
	total	2437.5	-13.36	≤8.00	PASS
	Ant0	2467.5	-22.23	≤8.00	PASS
	Ant3	2467.5	-16.10	≤8.00	PASS
	total	2467.5	-15.15	≤8.00	PASS

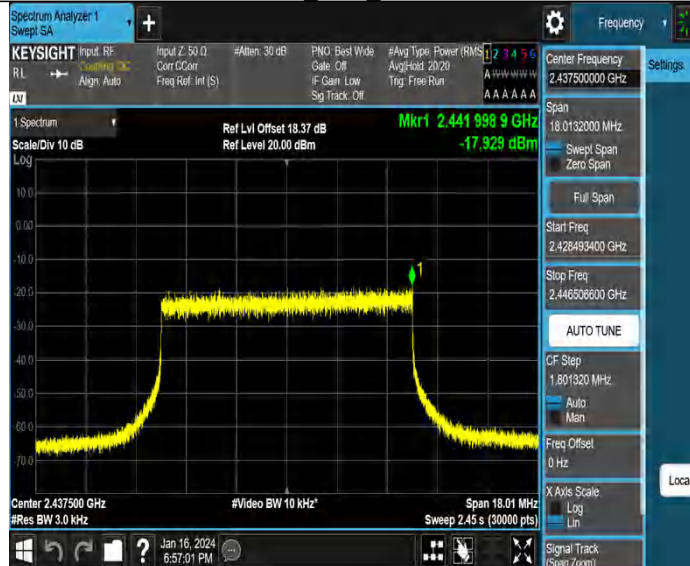
10M Ant0 2407.5



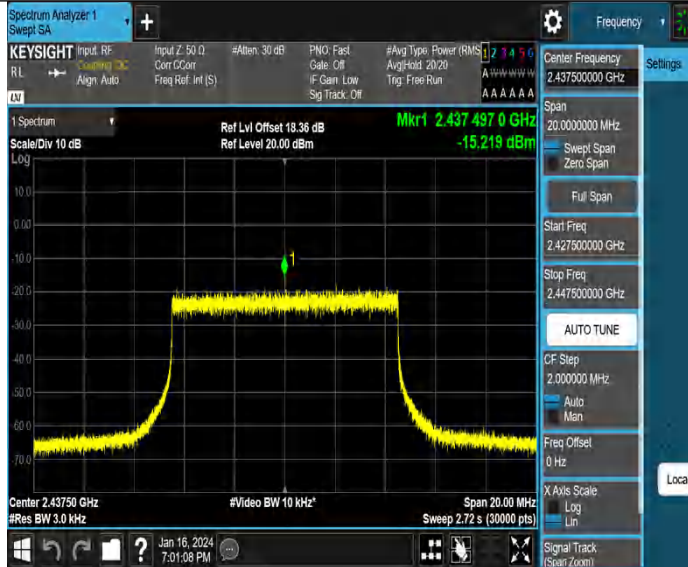
10M Ant3 2407.5



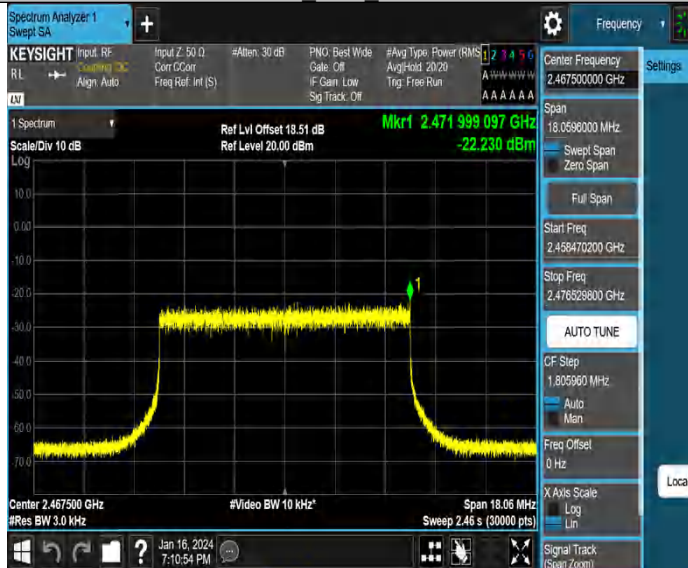
10M Ant0 2437.5



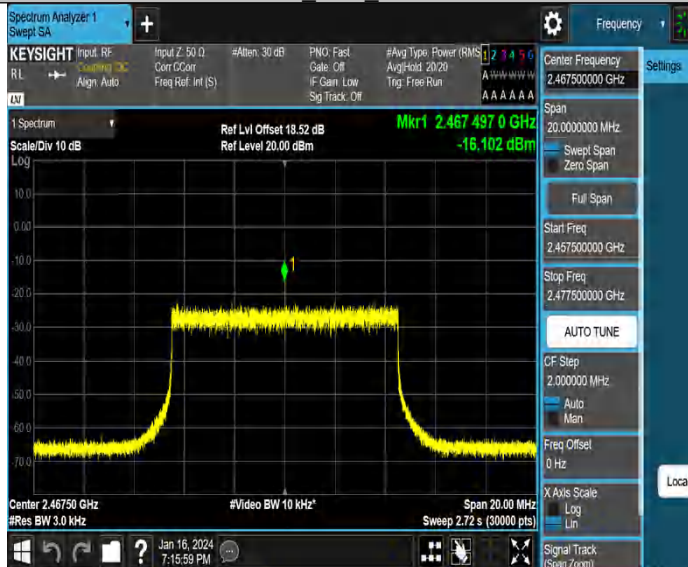
10M Ant3 2437.5



10M Ant0 2467.5



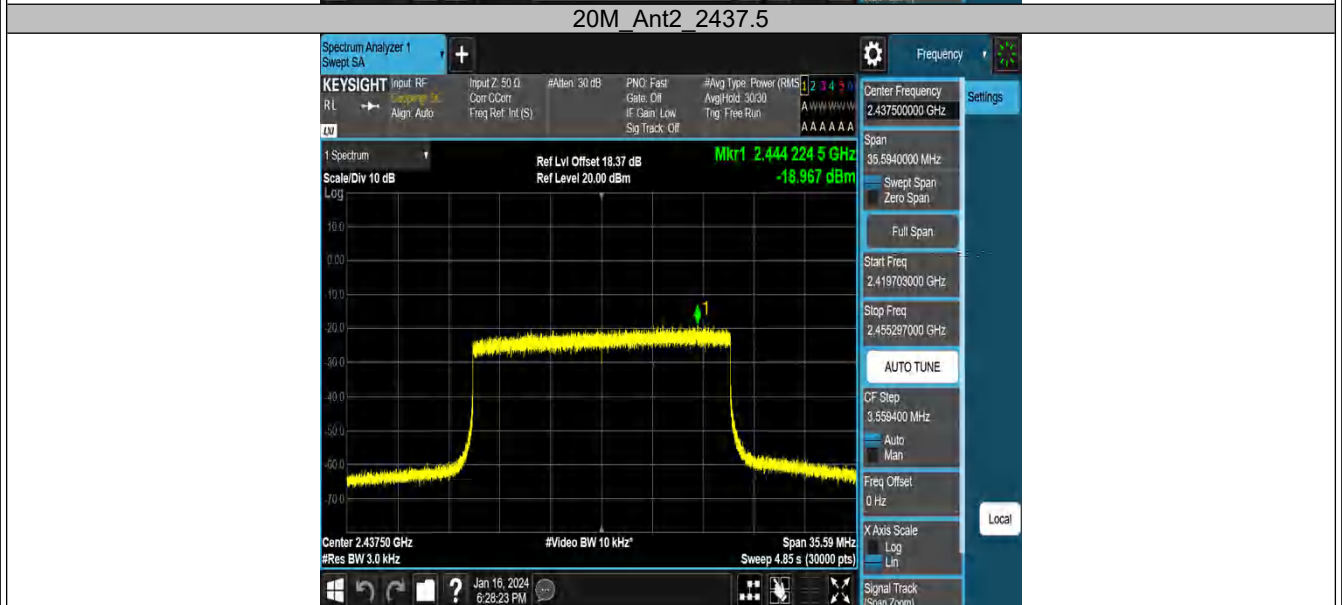
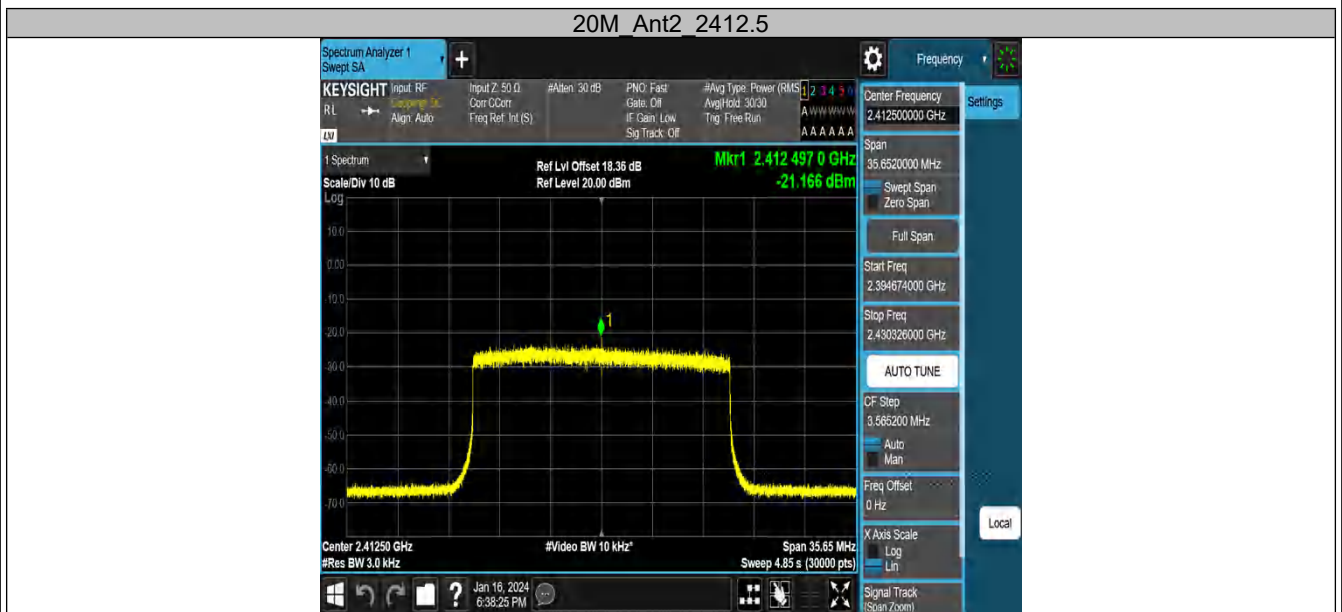
10M Ant3 2467.5



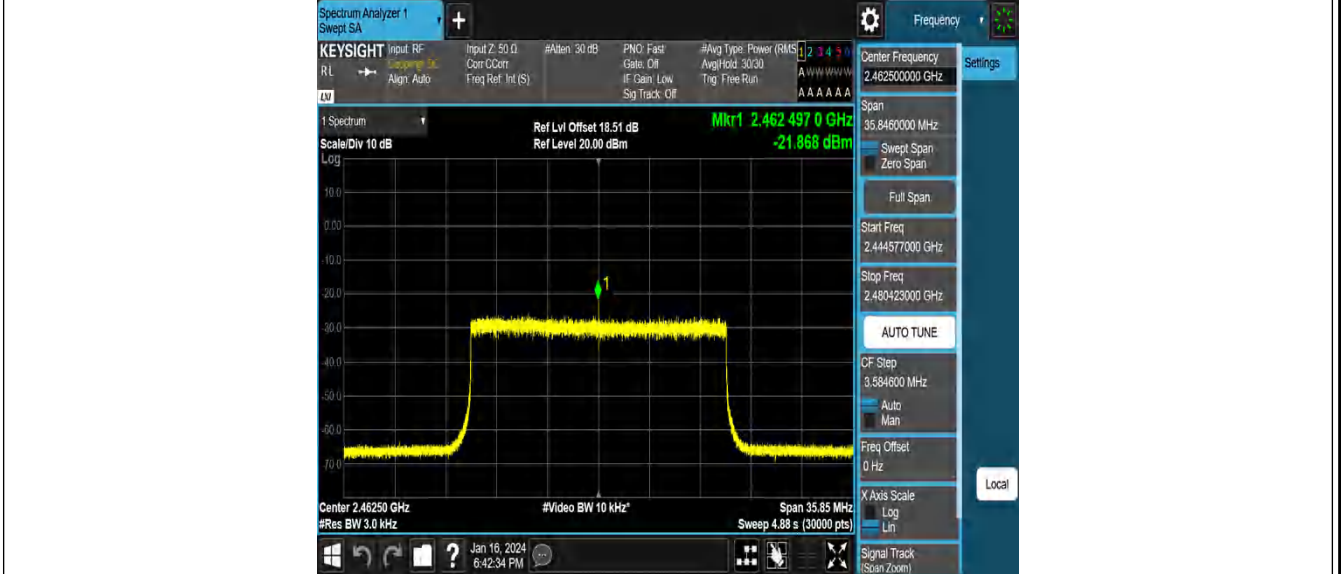
2.4GHz SDR, 20MHz BW

SISO mode (Worst case_ANT2)

TestMode	Antenna	Channel	Result[dBm/3-100kHz]	Limit[dBm/3kHz]	Verdict
20M	Ant2	2412.5	-21.17	≤8.00	PASS
		2437.5	-18.97	≤8.00	PASS
		2462.5	-21.87	≤8.00	PASS



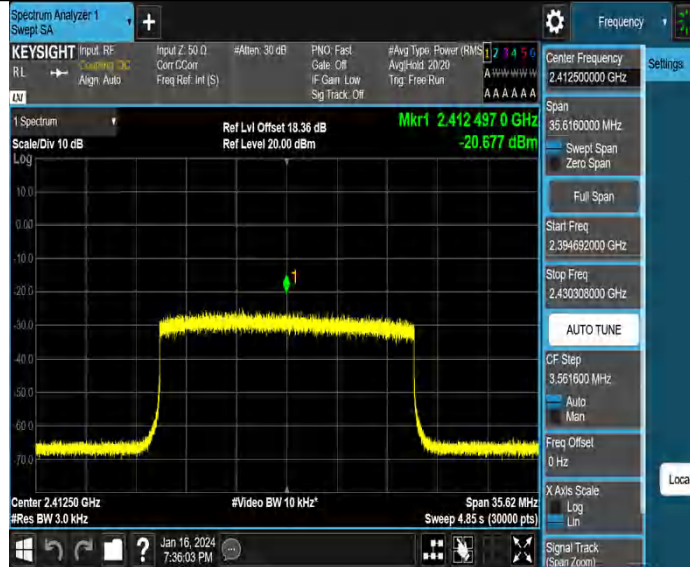
20M Ant2 2462.5



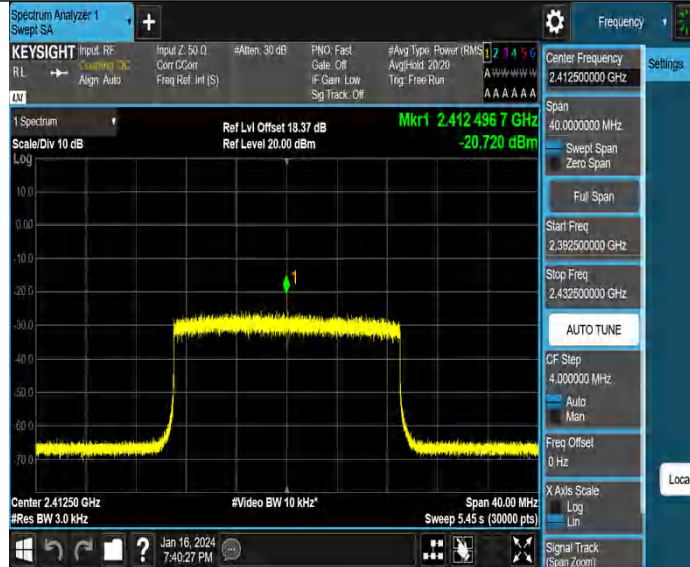
MIMO mode (Worst case_ANT0+ANT3)

TestMode	Antenna	Channel	Result[dBm/3-100kHz]	Limit[dBm/3kHz]	Verdict
20M	Ant0	2412.5	-20.68	≤8.00	PASS
	Ant3	2412.5	-20.72	≤8.00	PASS
	total	2412.5	-17.69	≤8.00	PASS
	Ant0	2437.5	-20.87	≤8.00	PASS
	Ant3	2437.5	-21.25	≤8.00	PASS
	total	2437.5	-18.05	≤8.00	PASS
	Ant0	2462.5	-25.68	≤8.00	PASS
	Ant3	2462.5	-19.96	≤8.00	PASS
	total	2462.5	-18.93	≤8.00	PASS

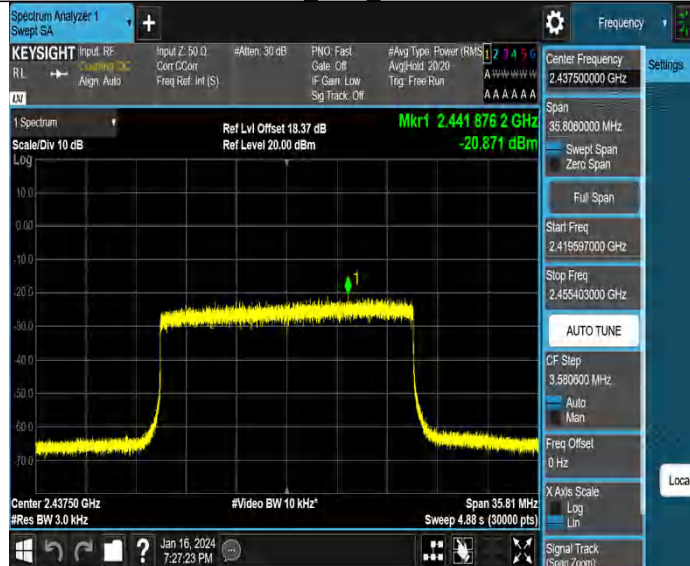
20M Ant0 2412.5



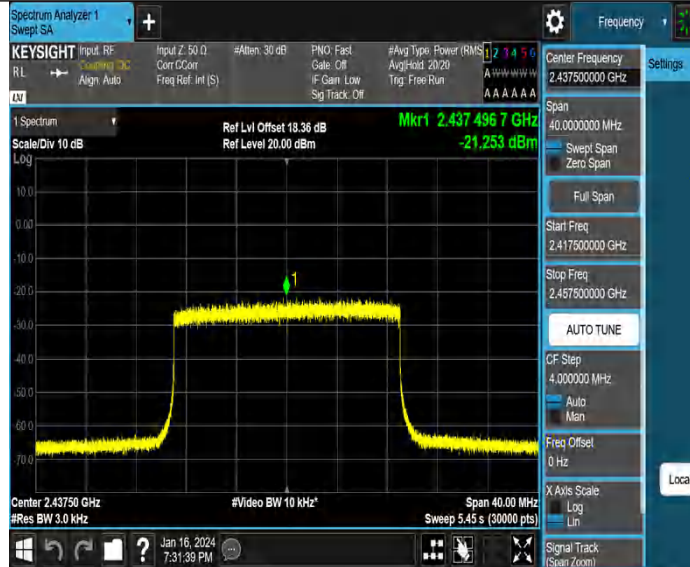
20M Ant3 2412.5



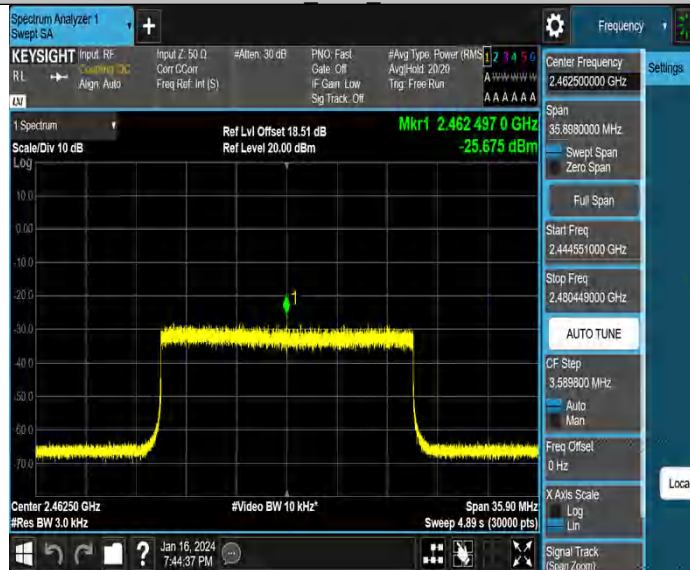
20M Ant0 2437.5



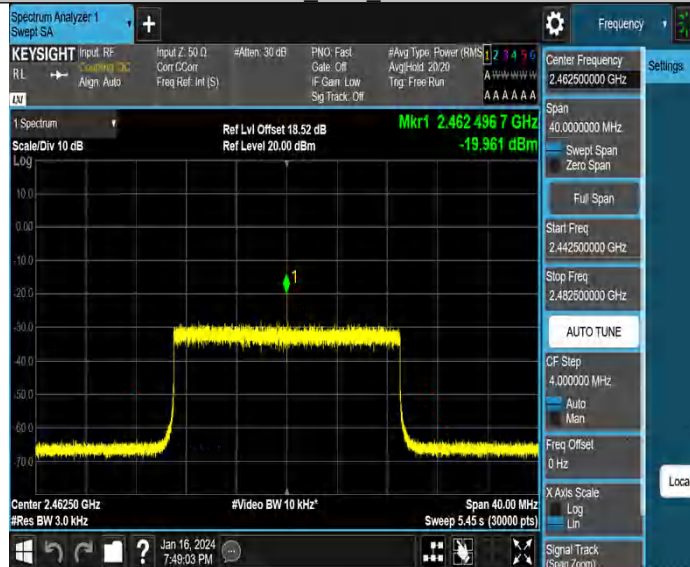
20M Ant3 2437.5



20M Ant0 2462.5



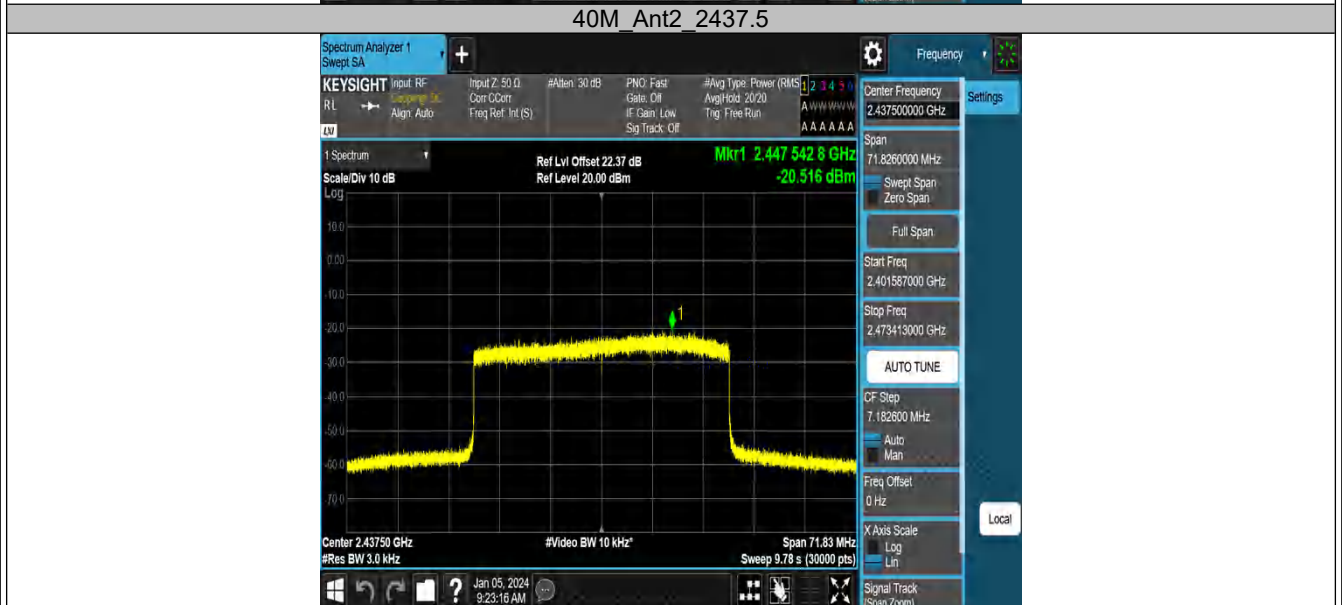
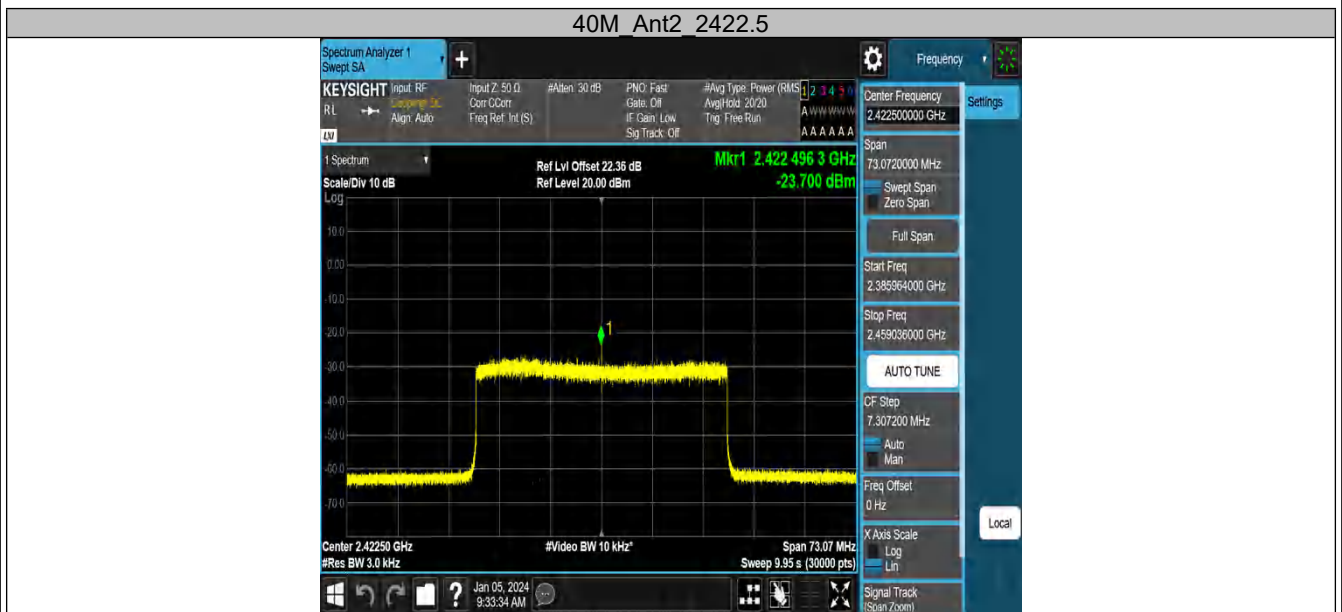
20M Ant3 2462.5



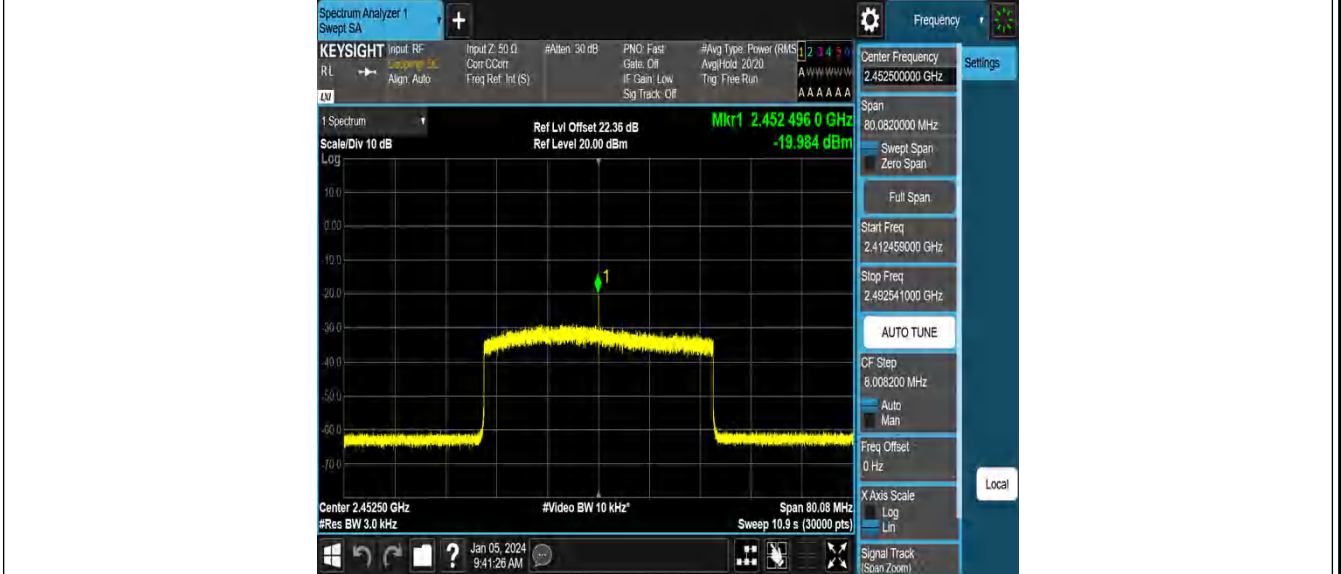
2.4GHz SDR, 40MHz BW

SISO mode (Worst case_ANT2)

TestMode	Antenna	Channel	Result[dBm/3-100kHz]	Limit[dBm/3kHz]	Verdict
40M	Ant2	2422.5	-23.70	≤8.00	PASS
		2437.5	-20.52	≤8.00	PASS
		2452.5	-19.98	≤8.00	PASS



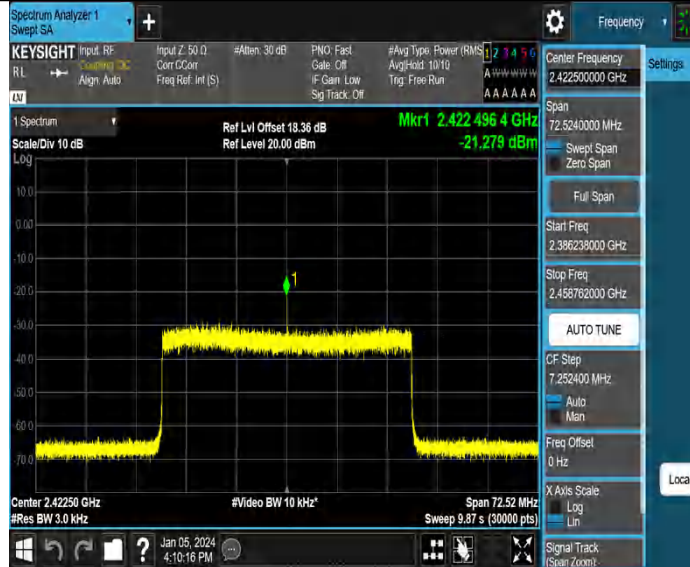
40M Ant2_2452.5



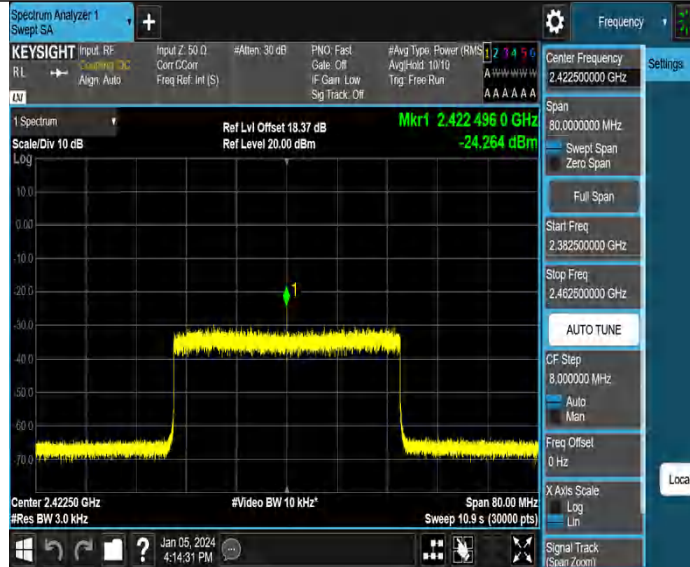
MIMO mode (Worst case_ANT0+ANT3)

TestMode	Antenna	Channel	Result[dBm/3-100kHz]	Limit[dBm/3kHz]	Verdict
40M	Ant0	2422.5	-21.28	≤8.00	PASS
	Ant3	2422.5	-24.26	≤8.00	PASS
	total	2422.5	-19.51	≤8.00	PASS
	Ant0	2437.5	-21.81	≤8.00	PASS
	Ant3	2437.5	-17.95	≤8.00	PASS
	total	2437.5	-16.45	≤8.00	PASS
	Ant0	2452.5	-20.48	≤8.00	PASS
	Ant3	2452.5	-26.18	≤8.00	PASS
	total	2452.5	-19.44	≤8.00	PASS

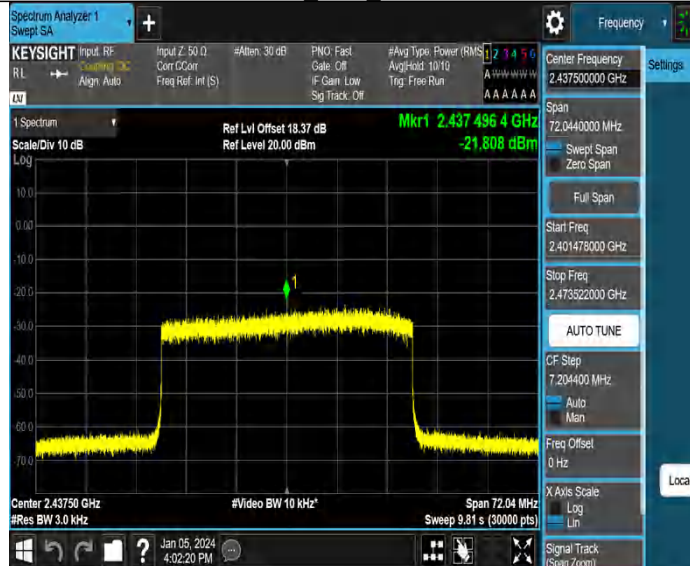
40M Ant0 2422.5



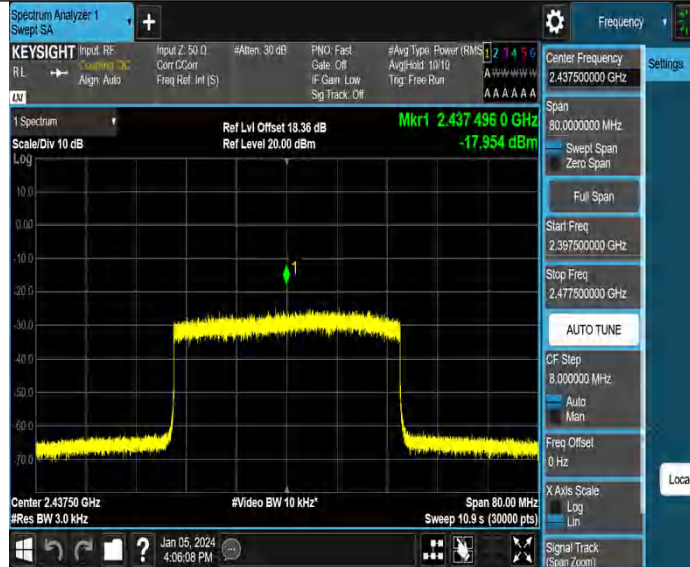
40M Ant3 2422.5



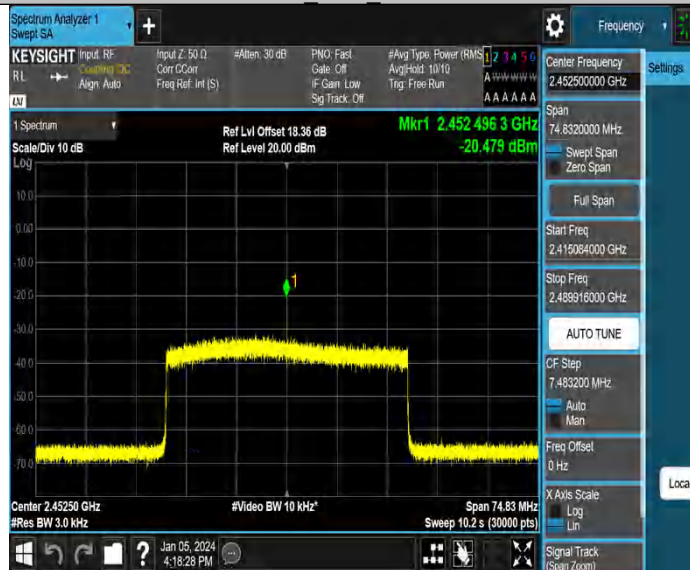
40M Ant0 2437.5



40M Ant3 2437.5



40M Ant0 2452.5



40M Ant3 2452.5



Appendix B.2: Test Results of 6dB Bandwidth

Note: This testing was carried out on SISO mode and MIMO mode, but only the worst case (MIMO mode ANT0+3) was presented in this report.

2.4GHz SDR, 1.4MHz BW

TestMode	Antenna	Channel	DTS BW[MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
1.4M	Ant0	2409.5	1.089	2408.954	2410.043	0.5	PASS
		2437.5	1.092	2436.954	2438.046	0.5	PASS
		2463.5	1.095	2462.948	2464.043	0.5	PASS

1.4M_Ant0_2409.5



1.4M_Ant0_2437.5

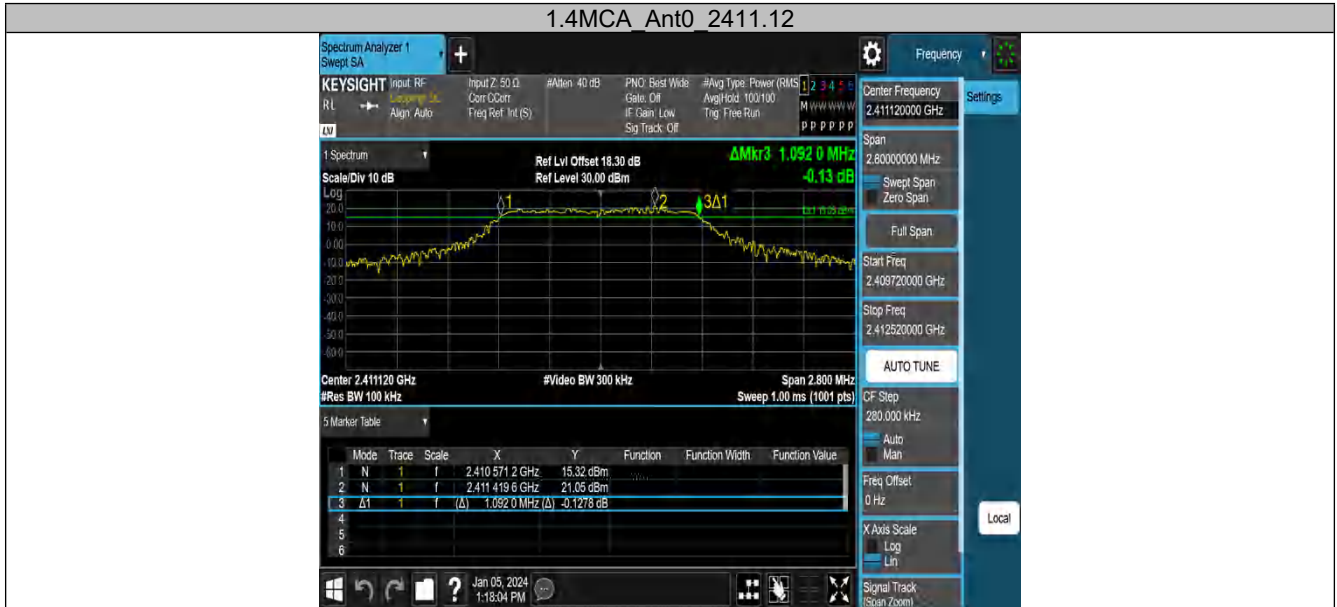


1.4M Ant0 2463.5



2.4GHz SDR, 1.4MHz BW CA mode

TestMode	Antenna	Channel	DTS BW[MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
1.4MCA	Ant0	2411.12	1.092	2410.571	2411.663	0.5	PASS
		2439.12	1.095	2438.568	2439.663	0.5	PASS
		2465.12	1.095	2464.568	2465.663	0.5	PASS

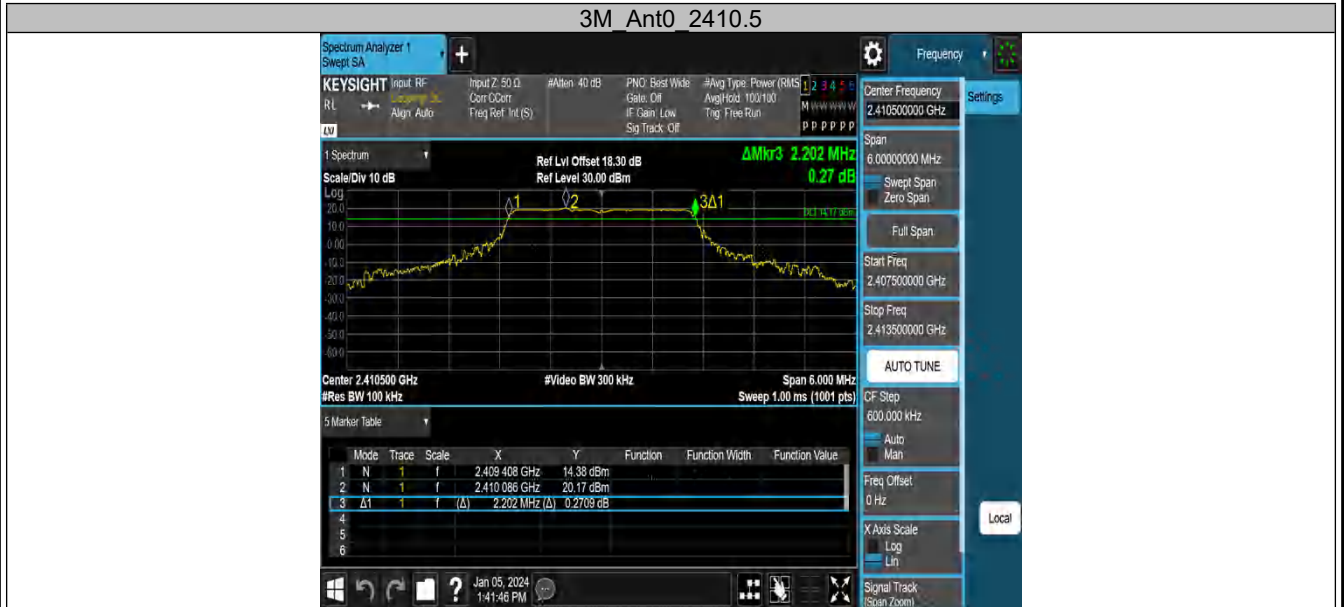


1.4MCA Ant0 2465.12



2.4GHz SDR, 3MHz BW

TestMode	Antenna	Channel	DTS BW[MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
3M	Ant0	2410.5	2.202	2409.408	2411.610	0.5	PASS
		2437.5	2.184	2436.414	2438.598	0.5	PASS
		2461.5	2.202	2460.408	2462.610	0.5	PASS



3M_Ant0_2461.5



2.4GHz SDR, 3MHz BW CA mode

TestMode	Antenna	Channel	DTS BW[MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
3MCA	Ant0	2413.2	2.196	2412.102	2414.298	0.5	PASS
		2437.2	2.160	2436.126	2438.286	0.5	PASS
		2464.2	2.202	2463.108	2465.310	0.5	PASS

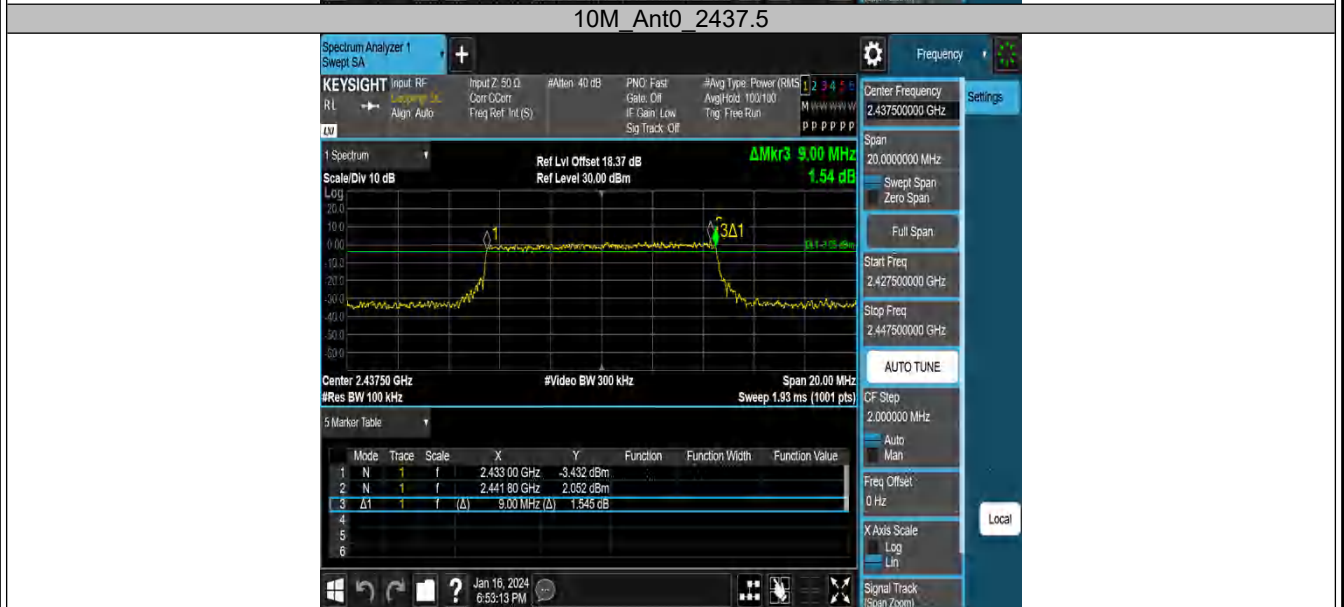
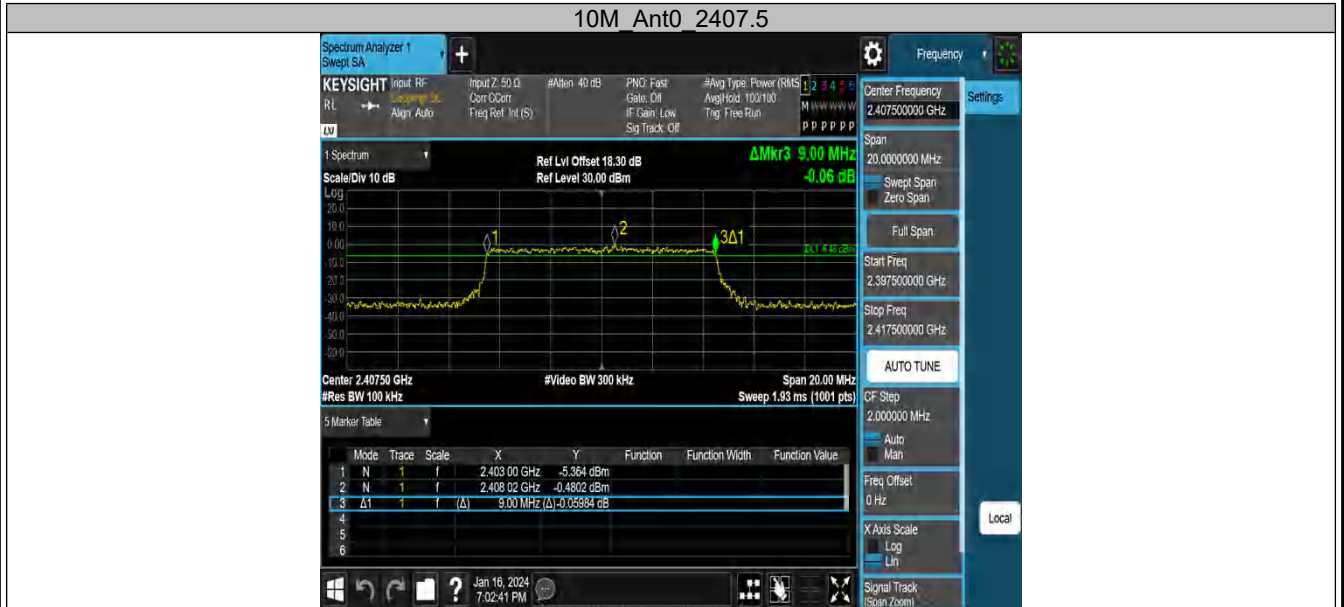


3MCA_Ant0_2464.2



2.4GHz SDR, 10MHz BW

TestMode	Antenna	Channel	DTS BW[MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
10M	Ant0	2407.5	9.000	2403.000	2412.000	0.5	PASS
		2437.5	9.000	2433.000	2442.000	0.5	PASS
		2467.5	8.920	2463.040	2471.960	0.5	PASS

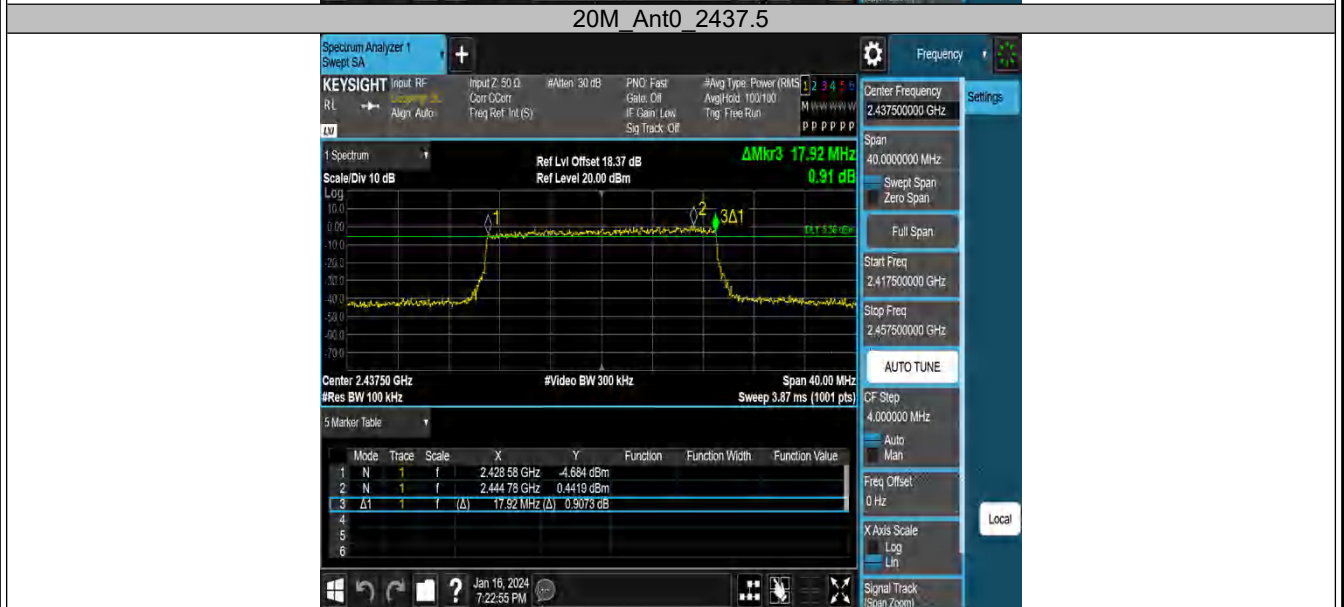
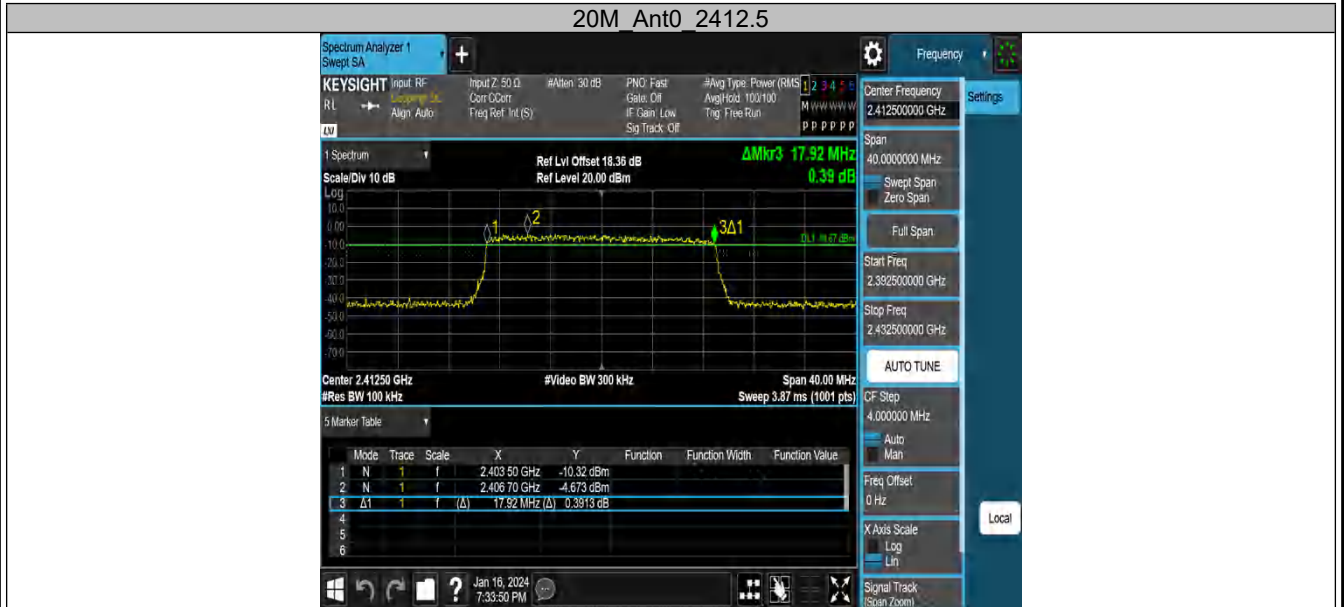


10M Ant0_2467.5



2.4GHz SDR, 20MHz BW

TestMode	Antenna	Channel	DTS BW[MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
20M	Ant0	2412.5	17.920	2403.500	2421.420	0.5	PASS
		2437.5	17.920	2428.580	2446.500	0.5	PASS
		2462.5	18.000	2453.500	2471.500	0.5	PASS

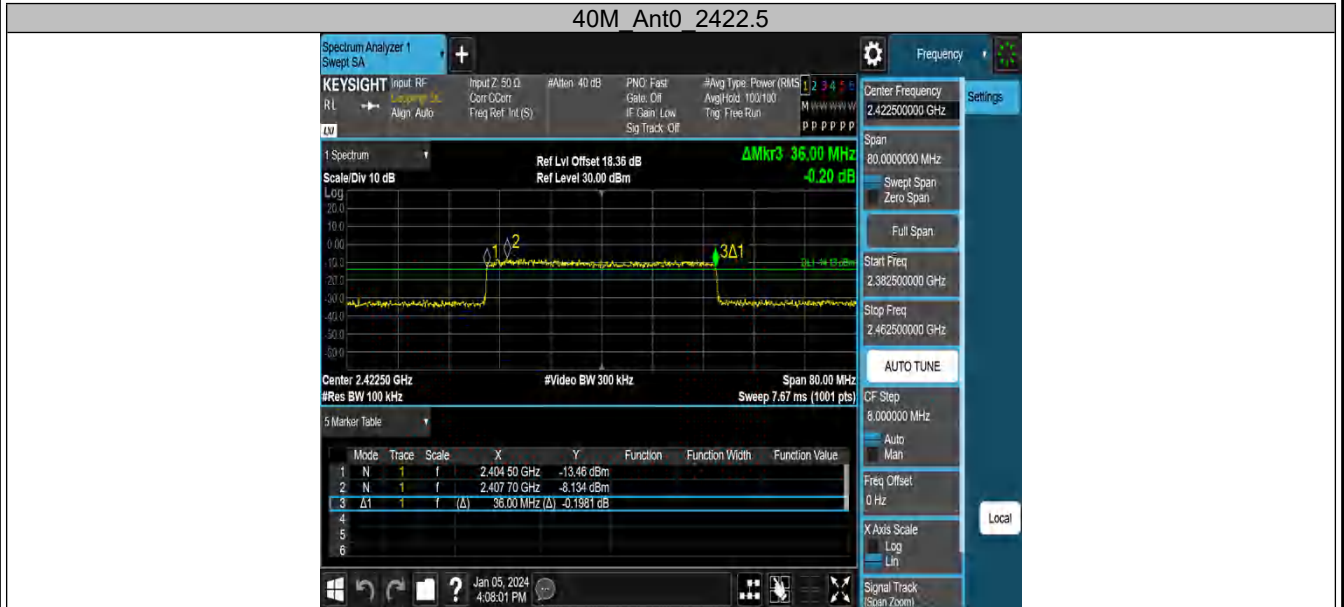


20M Ant0_2462.5



2.4GHz SDR, 40MHz BW

TestMode	Antenna	Channel	DTS BW[MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
40M	Ant0	2422.5	36.000	2404.500	2440.500	0.5	PASS
		2437.5	35.600	2419.820	2455.420	0.5	PASS
		2452.5	35.680	2434.740	2470.420	0.5	PASS



40M Ant0_2452.5

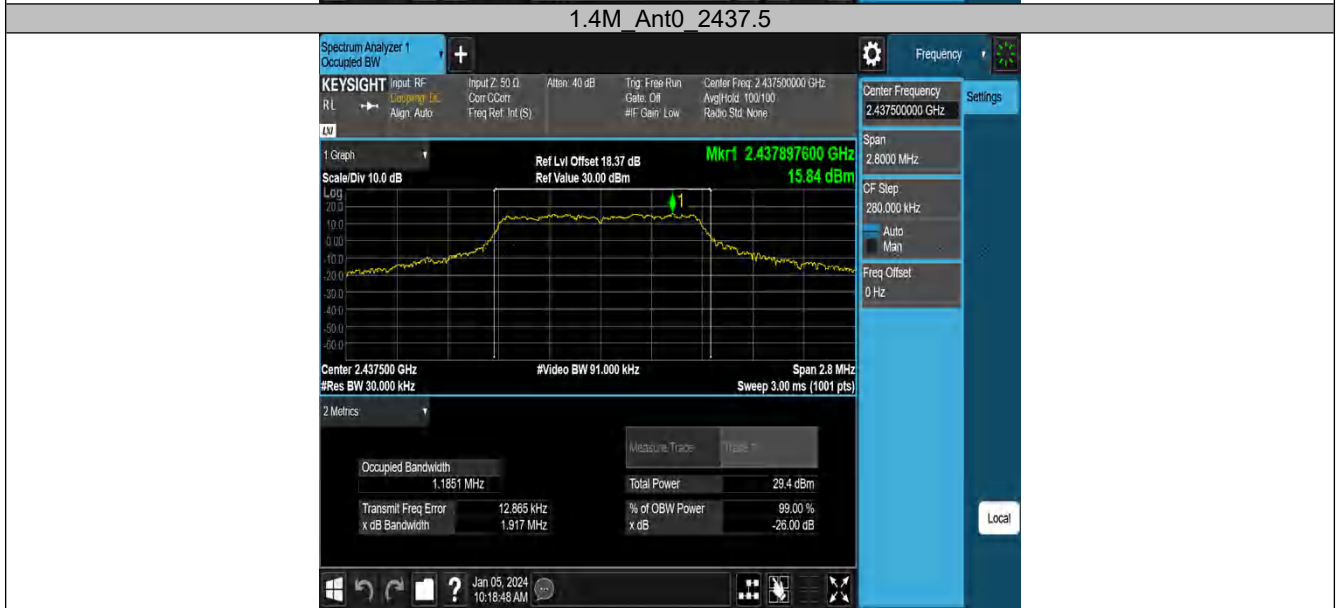
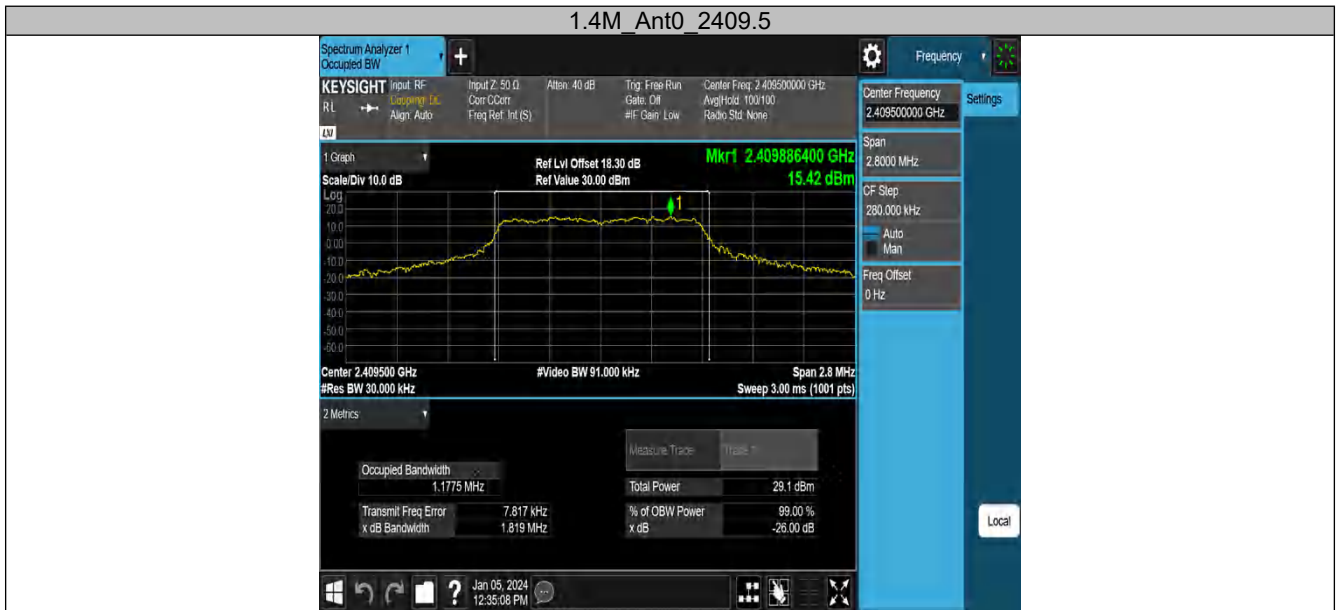


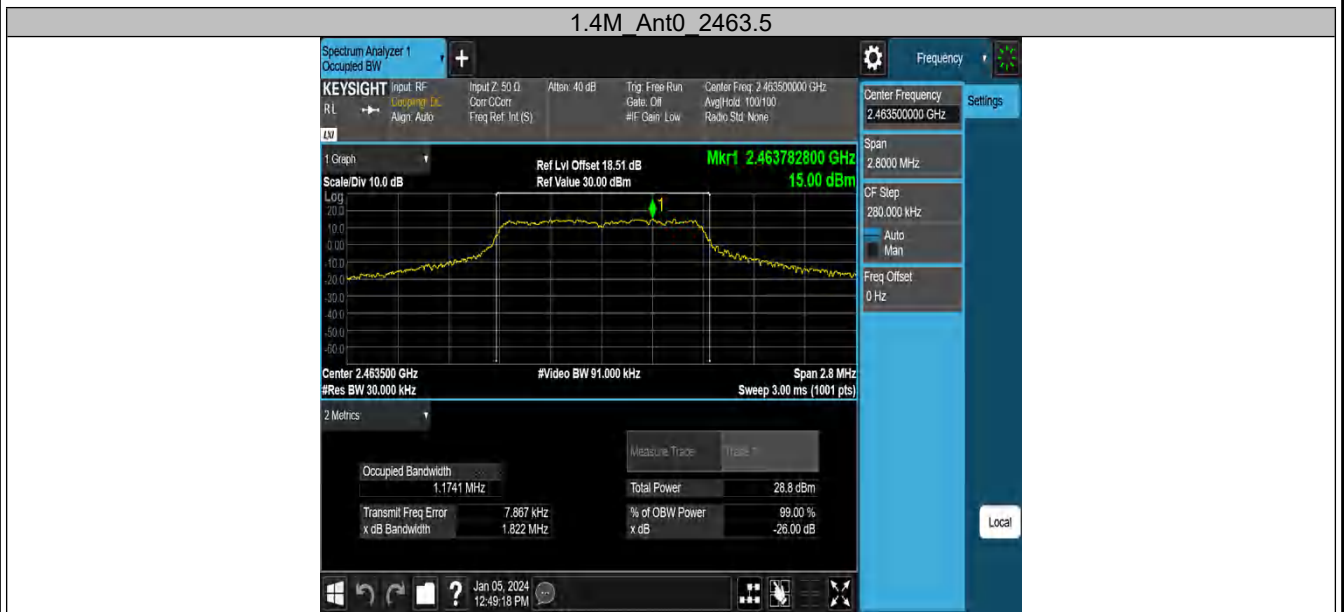
Appendix B.3: Test Results of 99% Bandwidth

Note: This testing was carried out on SISO mode and MIMO mode, but only the worst case (MIMO mode ANT0+3) was presented in this report.

2.4GHz SDR, 1.4MHz BW

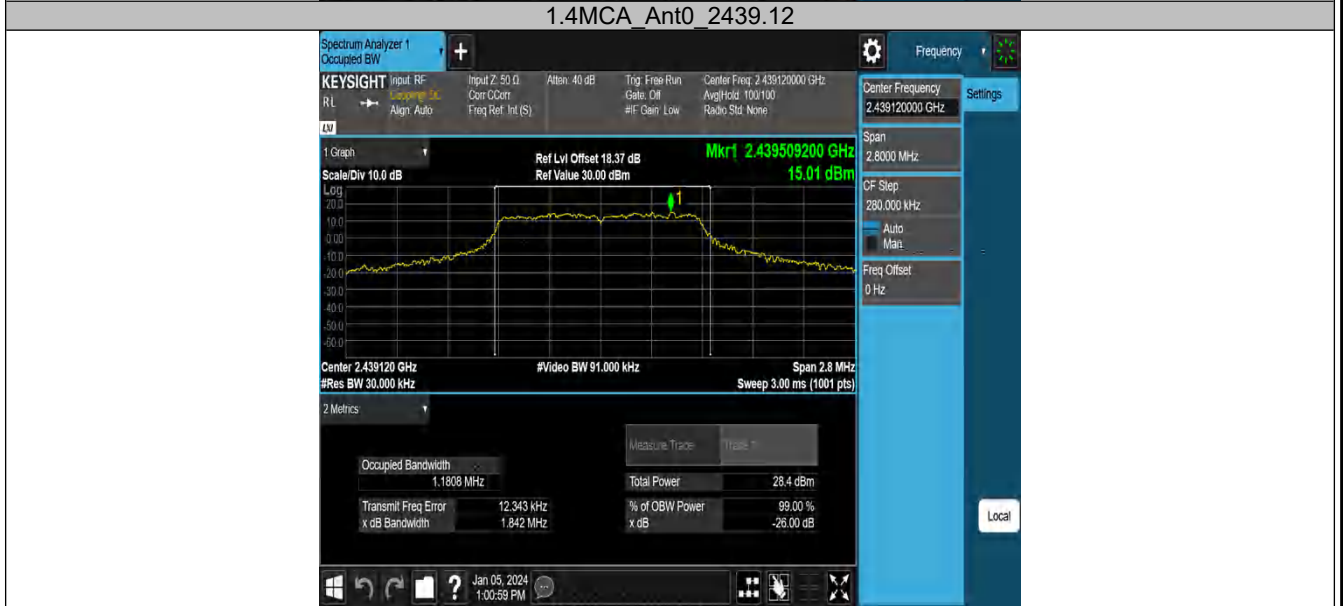
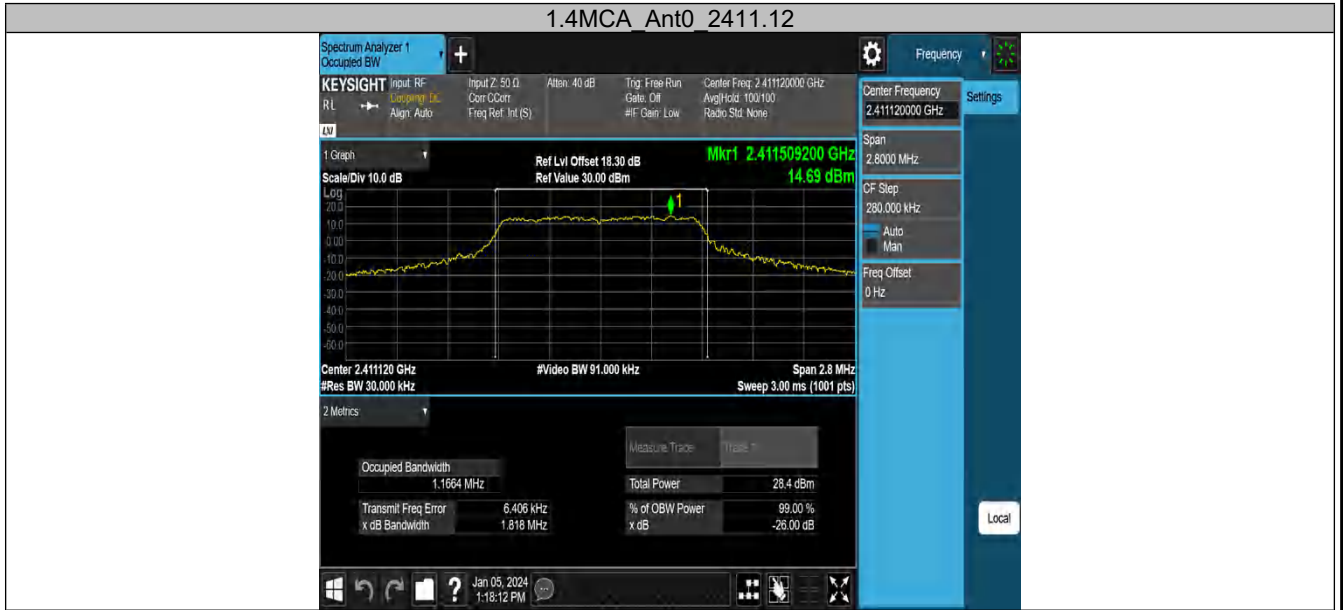
TestMode	Antenna	Channel	OCB [MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
1.4M	Ant0	2409.5	1.1775	2408.9191	2410.0966	---	PASS
		2437.5	1.1851	2436.9203	2438.1054	---	PASS
		2463.5	1.1741	2462.9208	2464.0949	---	PASS

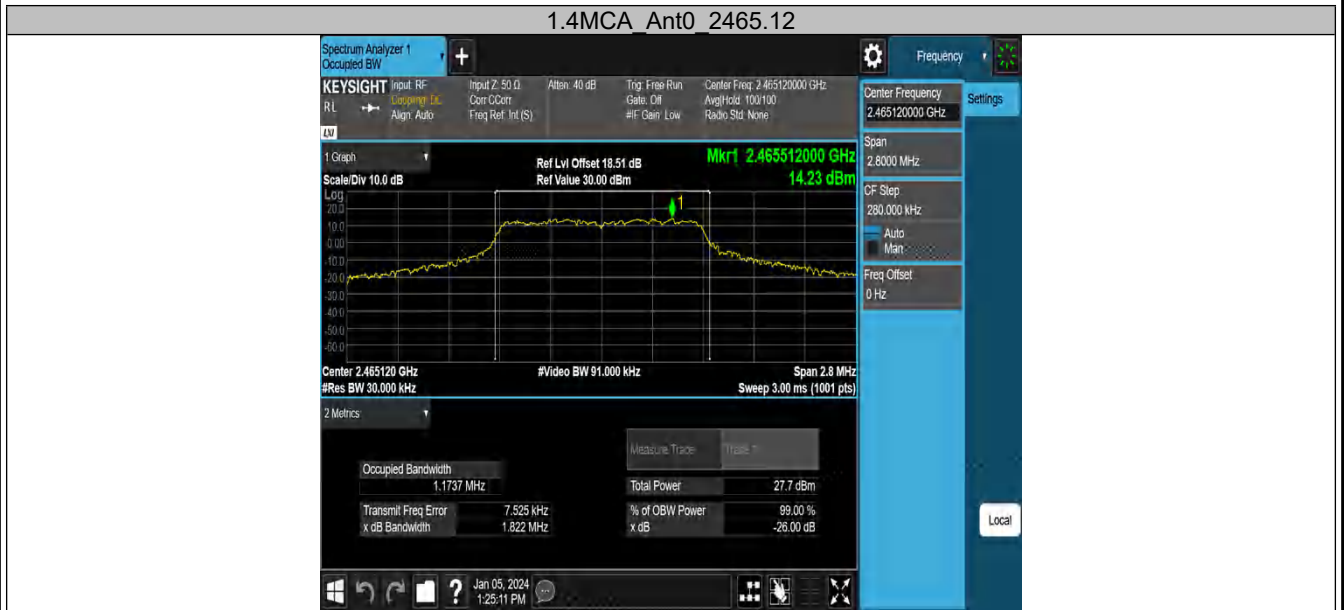




2.4GHz SDR, 1.4MHz BW CA mode

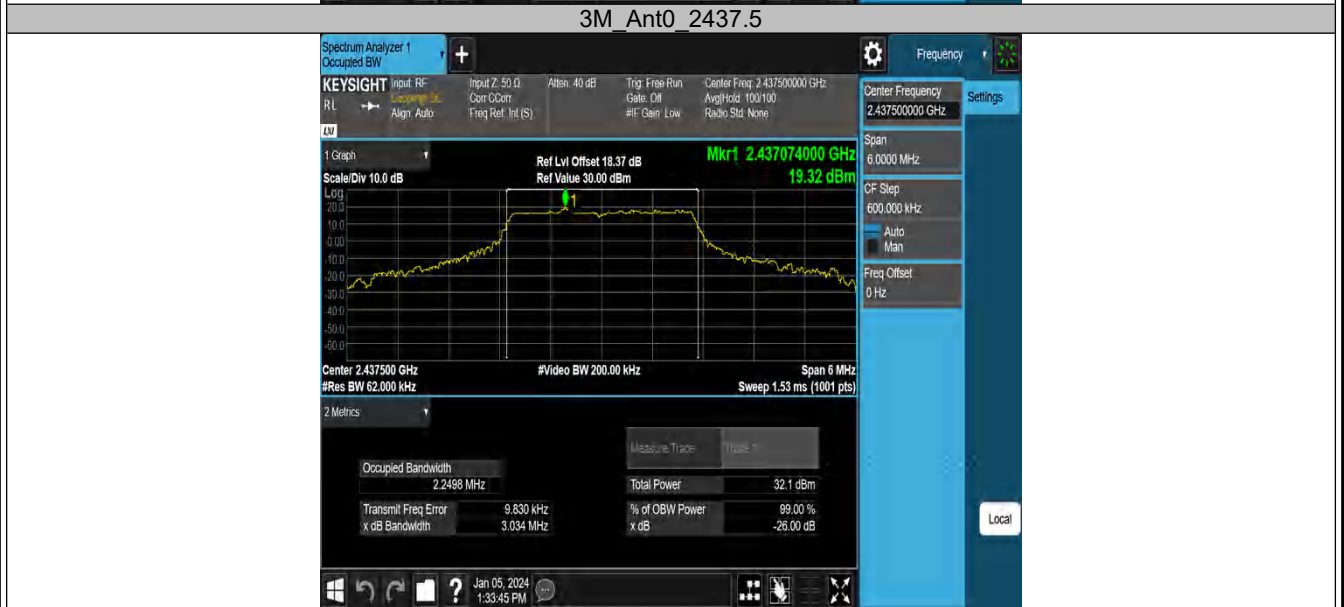
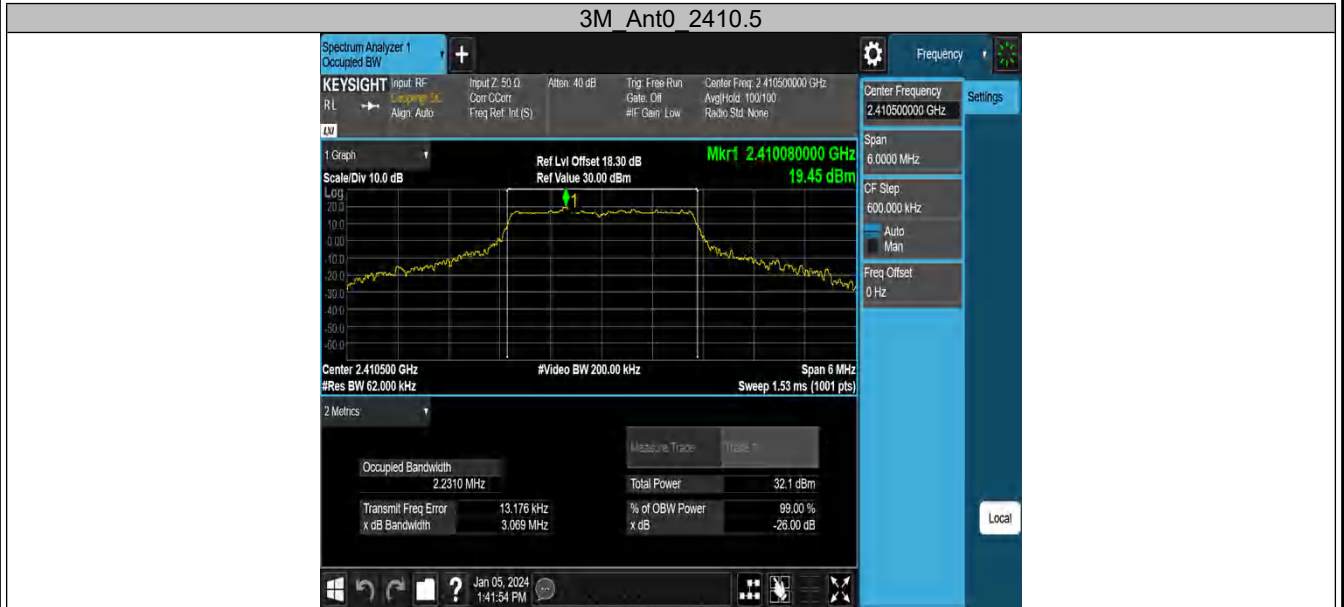
TestMode	Antenna	Channel	OCB [MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
1.4MCA	Ant0	2411.12	1.1664	2410.5432	2411.7096	---	PASS
		2439.12	1.1808	2438.5419	2439.7227	---	PASS
		2465.12	1.1737	2464.5407	2465.7144	---	PASS

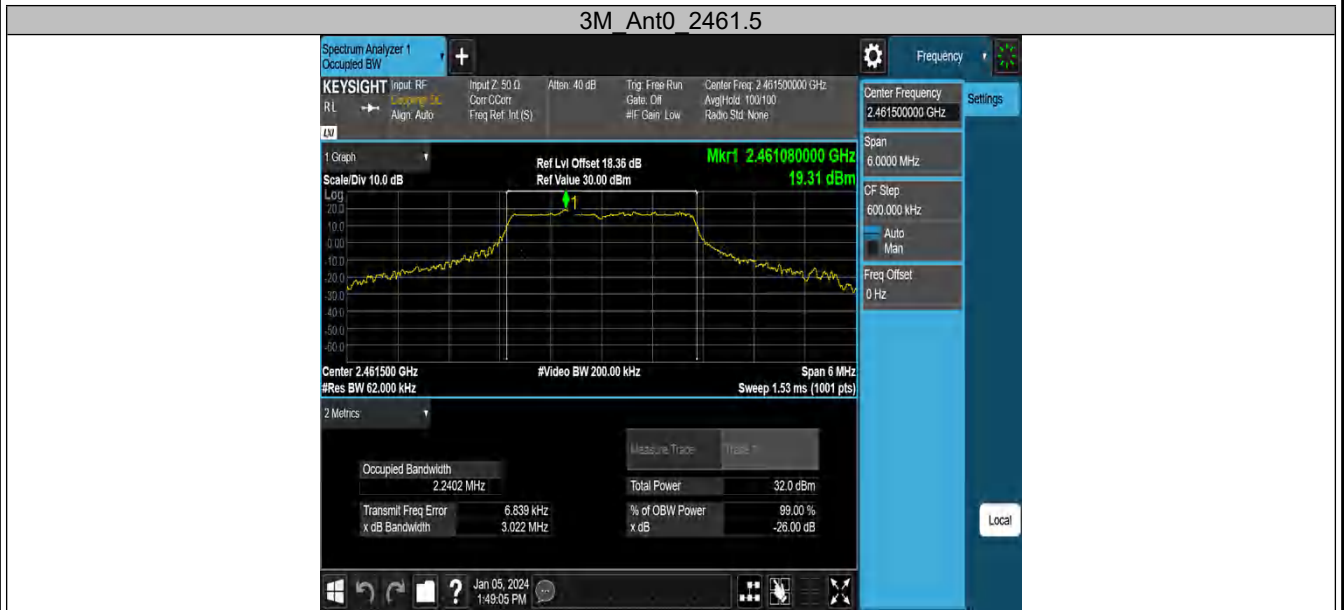




2.4GHz SDR, 3MHz BW

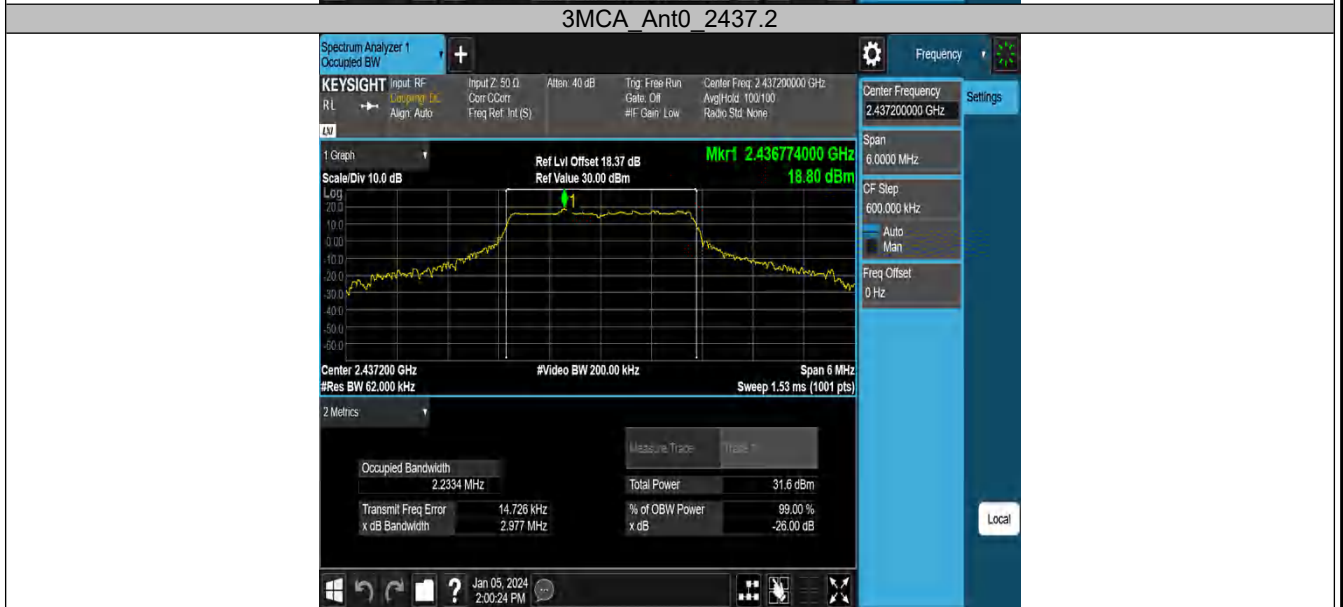
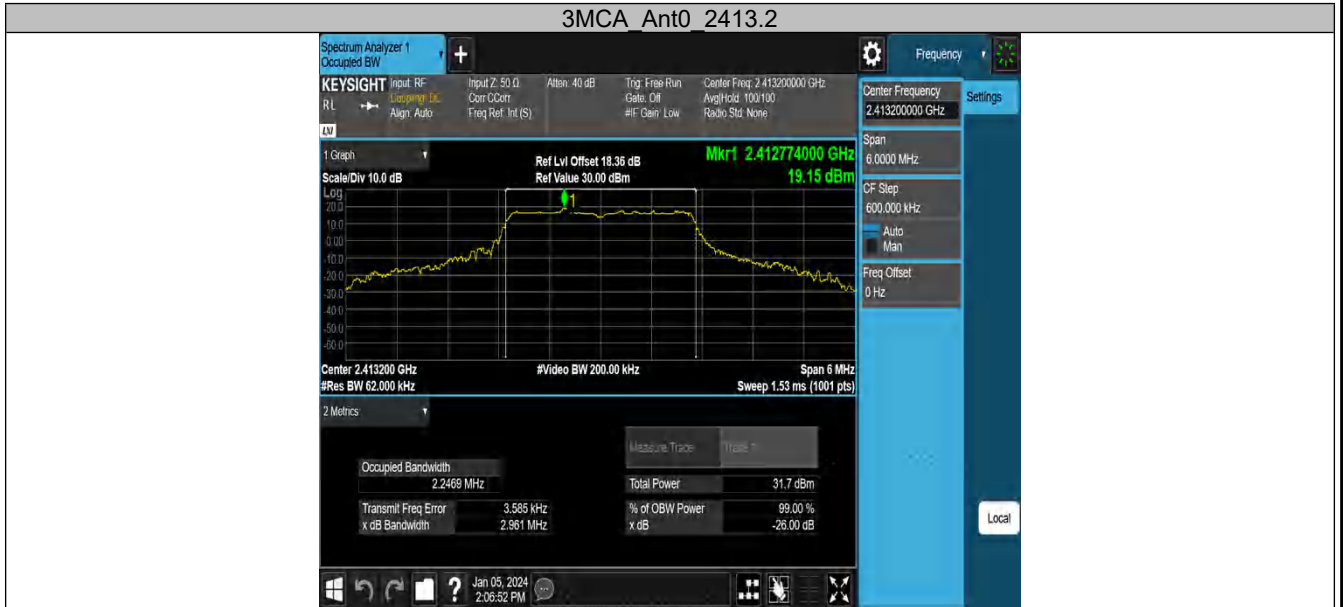
TestMode	Antenna	Channel	OCB [MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
3M	Ant0	2410.5	2.2310	2409.3977	2411.6287	---	PASS
		2437.5	2.2498	2436.3849	2438.6347	---	PASS
		2461.5	2.2402	2460.3867	2462.6269	---	PASS





2.4GHz SDR, 3MHz BW CA mode

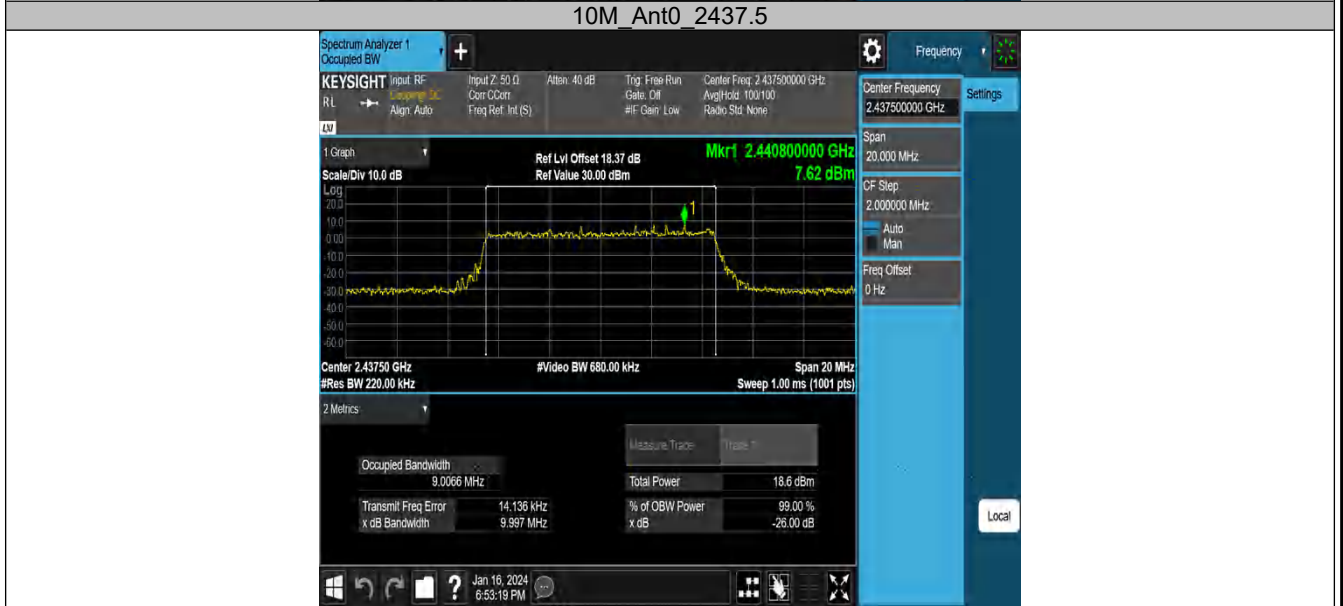
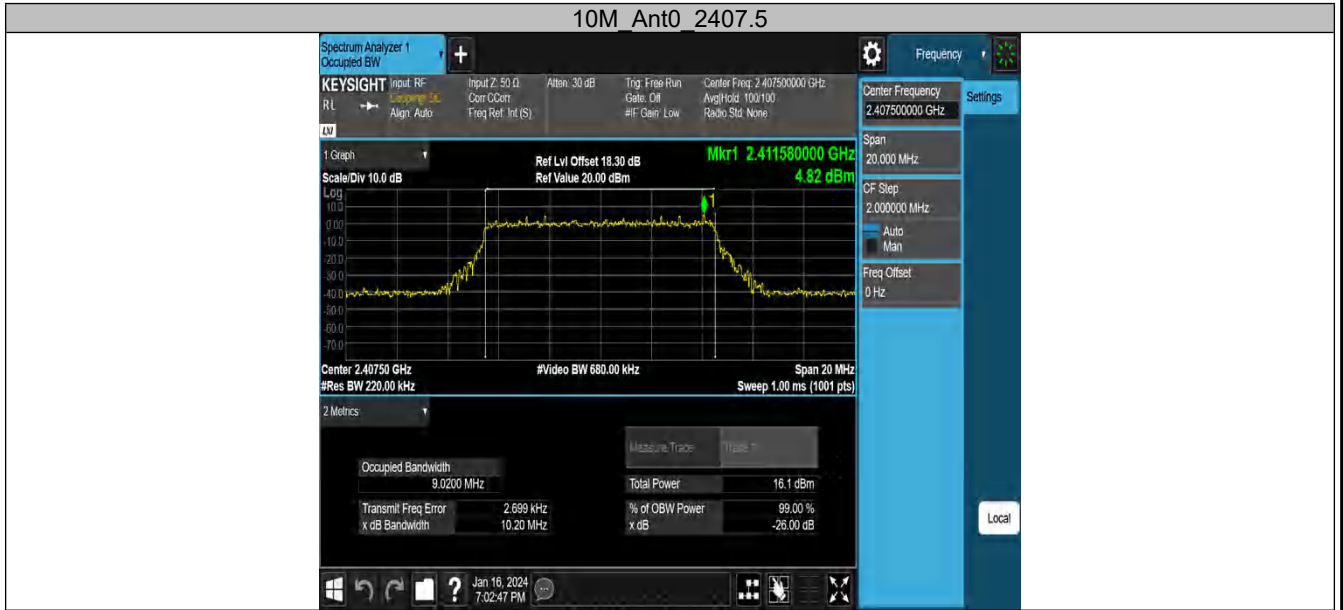
TestMode	Antenna	Channel	OCB [MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
3MCA	Ant0	2413.2	2.2469	2412.0801	2414.3270	---	PASS
		2437.2	2.2334	2436.0980	2438.3314	---	PASS
		2464.2	2.2442	2463.0819	2465.3261	---	PASS

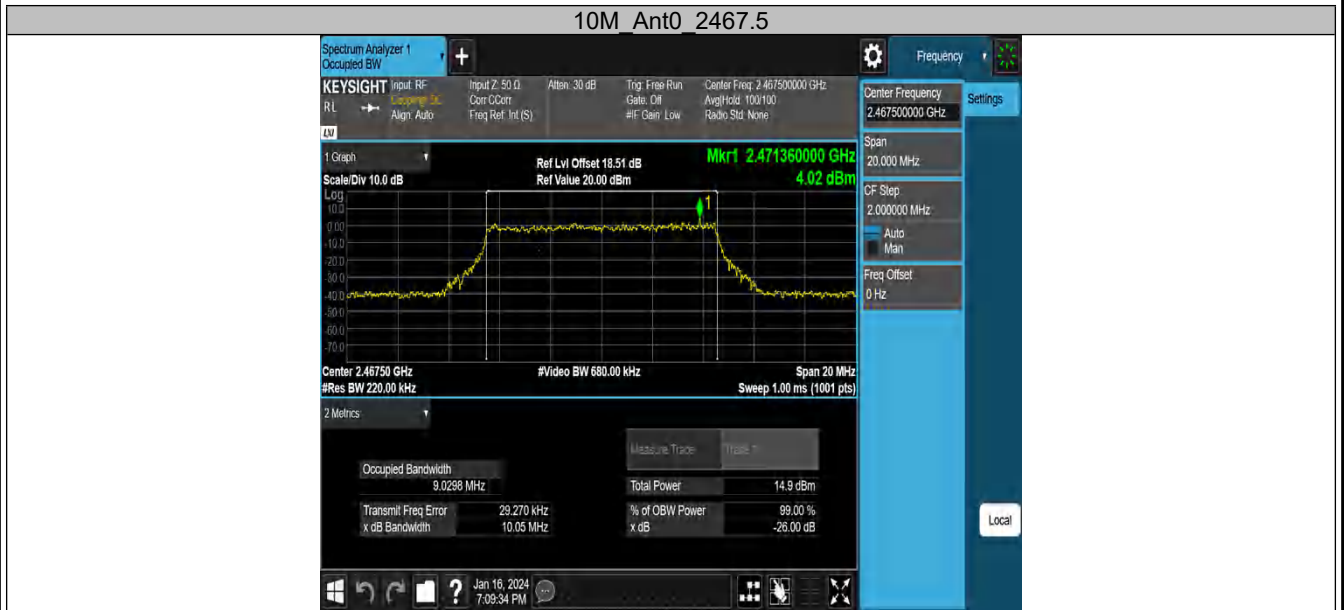




2.4GHz SDR, 10MHz BW

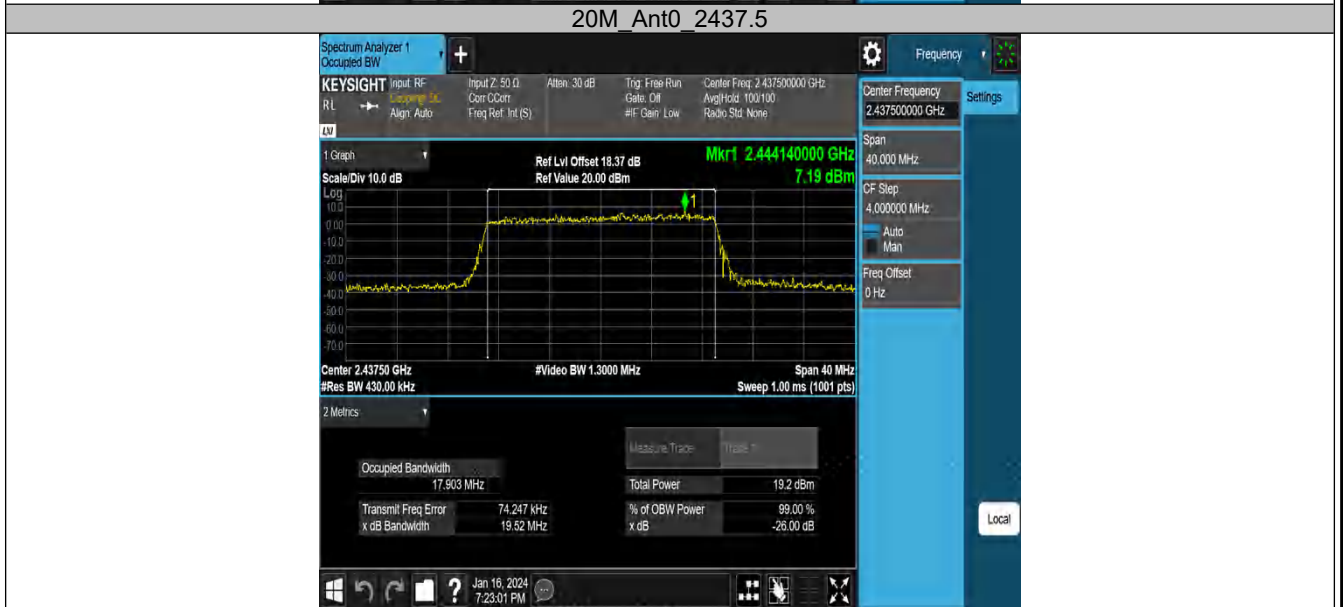
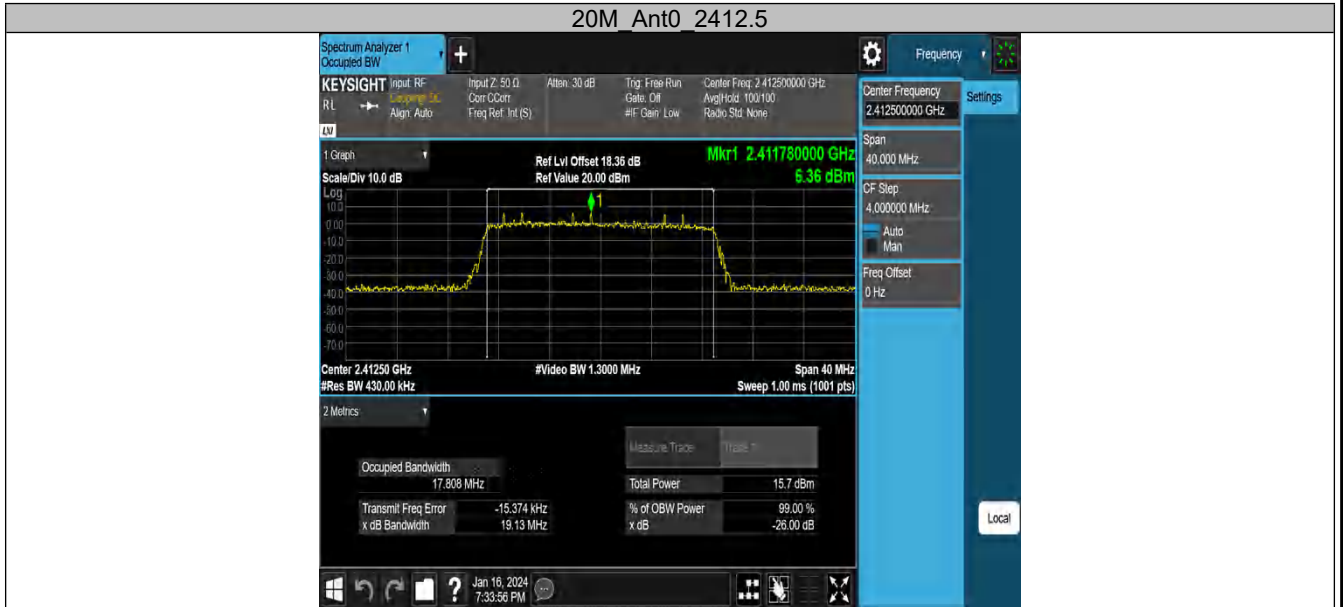
TestMode	Antenna	Channel	OCB [MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
10M	Ant0	2407.5	9.0200	2402.9927	2412.0127	---	PASS
		2437.5	9.0066	2433.0108	2442.0174	---	PASS
		2467.5	9.0298	2463.0144	2472.0442	---	PASS

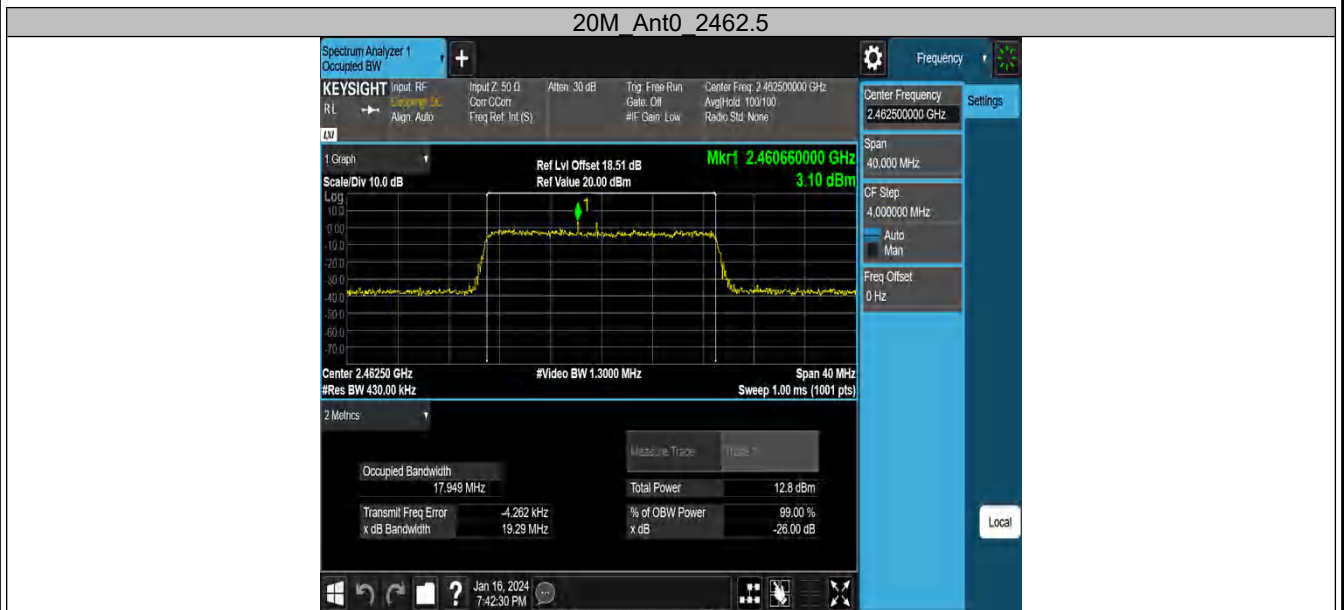




2.4GHz SDR, 20MHz BW

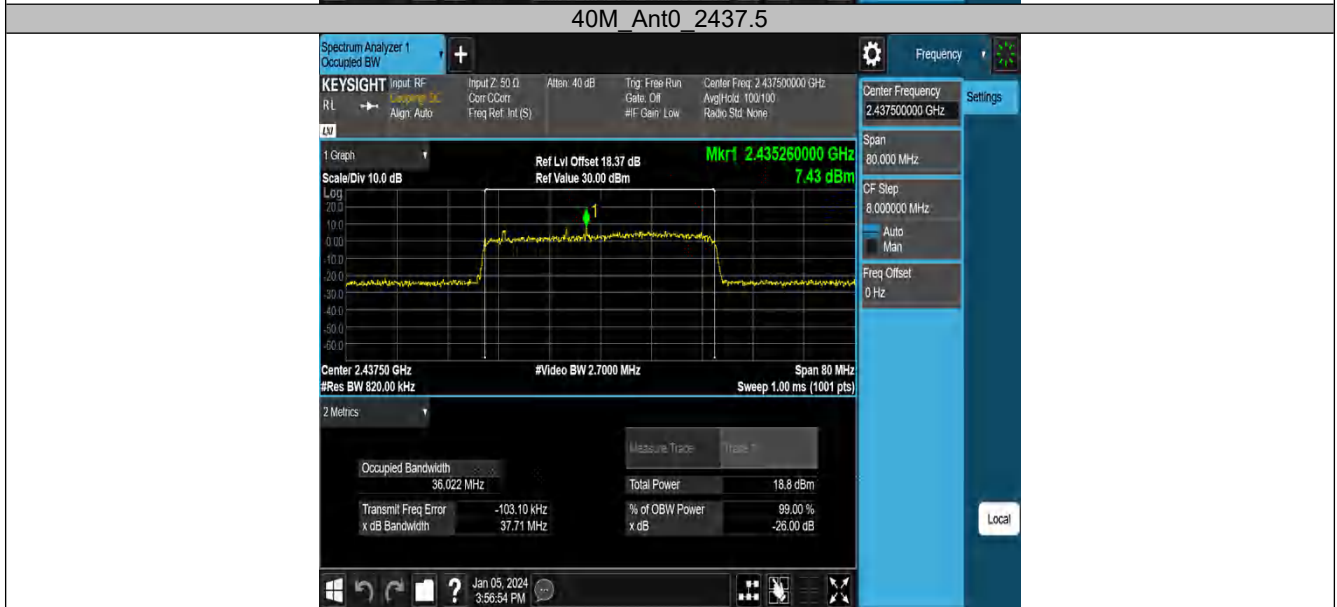
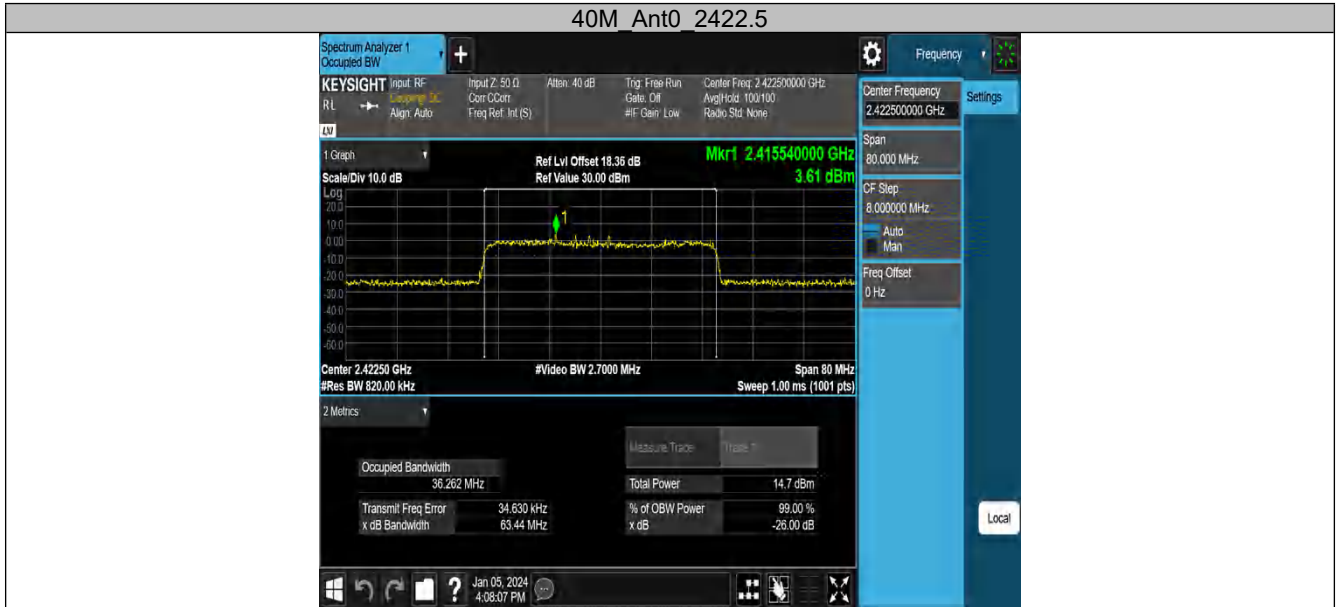
TestMode	Antenna	Channel	OCB [MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
20M	Ant0	2412.5	17.808	2403.5806	2421.3886	---	PASS
		2437.5	17.903	2428.6228	2446.5258	---	PASS
		2462.5	17.949	2453.5212	2471.4702	---	PASS

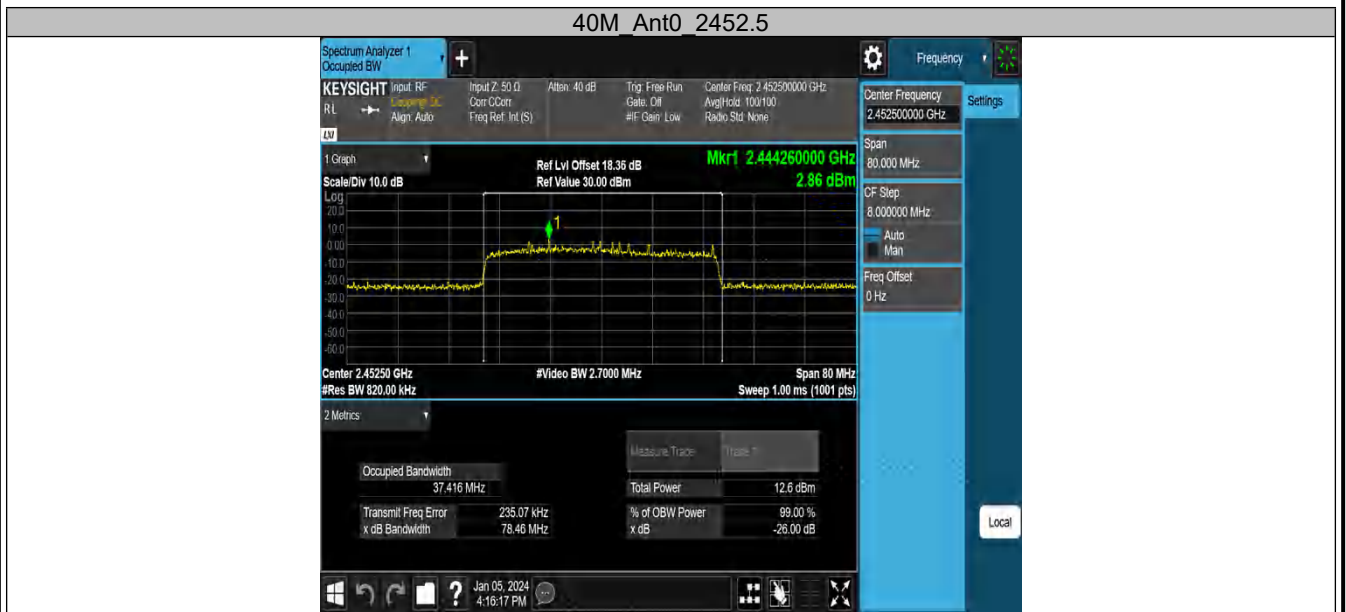




2.4GHz SDR, 40MHz BW

TestMode	Antenna	Channel	OCB [MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
40M	Ant0	2422.5	36.262	2404.4036	2440.6656	---	PASS
		2437.5	36.022	2419.3859	2455.4079	---	PASS
		2452.5	37.416	2434.0271	2471.4431	---	PASS





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

Note: This testing was carried out on SISO mode and MIMO mode, but only the worst case (MIMO mode ANT0+3) was presented in this report.

Bandedge

2.4GHz SDR, 1.4MHz BW

TestMode	Antenna	ChName	Channel	RefLevel [dBm]	Result [dBm]	Limit [dBm]	Verdict
1.4M	Ant0	Low	2409.5	20.36	-41.04	≤-9.64	PASS
		High	2463.5	21.55	-40.97	≤-8.45	PASS



2.4GHz SDR, 1.4MHz BW CA mode

TestMode	Antenna	ChName	Channel	RefLevel [dBm]	Result [dBm]	Limit [dBm]	Verdict
1.4MCA	Ant0	Low	2411.12	20.87	-42.31	≤-9.13	PASS
		High	2465.12	20.8	-41.53	≤-9.21	PASS



2.4GHz SDR, 3MHz BW

TestMode	Antenna	ChName	Channel	RefLevel [dBm]	Result [dBm]	Limit [dBm]	Verdict
3M	Ant0	Low	2410.5	20.14	-41.42	≤-9.86	PASS
		High	2461.5	19.94	-43.75	≤-10.06	PASS



2.4GHz SDR, 3MHz BW CA mode

TestMode	Antenna	ChName	Channel	RefLevel [dBm]	Result [dBm]	Limit [dBm]	Verdict
3MCA	Ant0	Low	2413.2	20.12	-42.09	≤-9.88	PASS
		High	2464.2	21.34	-42.62	≤-8.66	PASS



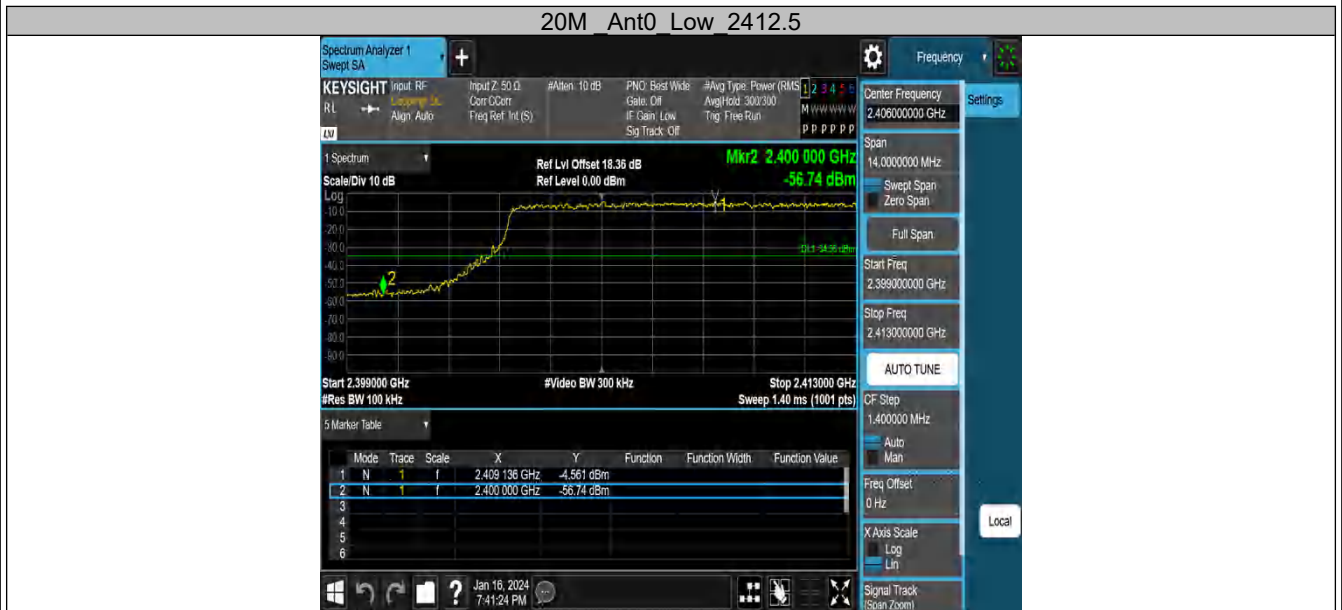
2.4GHz SDR, 10MHz BW

TestMode	Antenna	ChName	Channel	RefLevel [dBm]	Result [dBm]	Limit [dBm]	Verdict
10M	Ant0	Low	2407.5	-0.6999	-43.22	≤-30.7	PASS
		High	2467.5	-1.652	-42.72	≤-31.65	PASS



2.4GHz SDR, 20MHz BW

TestMode	Antenna	ChName	Channel	RefLevel [dBm]	Result [dBm]	Limit [dBm]	Verdict
20M	Ant0	Low	2412.5	-4.561	-56.74	≤-34.56	PASS
		High	2462.5	-8.172	-51.86	≤-38.17	PASS



2.4GHz SDR, 40MHz BW

TestMode	Antenna	ChName	Channel	RefLevel [dBm]	Result [dBm]	Limit [dBm]	Verdict
40M	Ant0	Low	2422.5	-8.02	-43.3	≤-38.02	PASS
		High	2452.5	-9.7	-40.82	≤-39.7	PASS

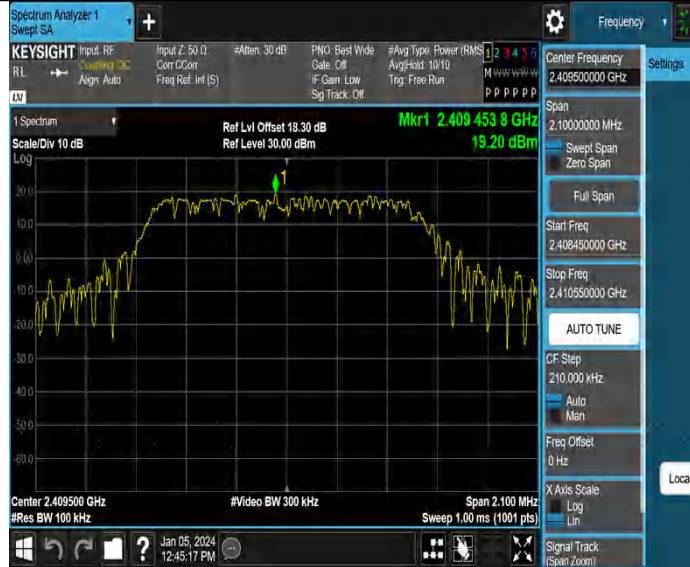


Conducted Spurious Emission

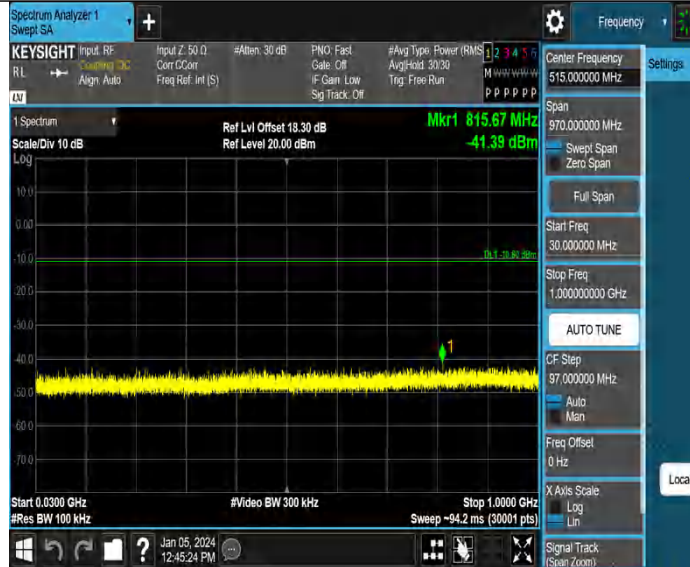
2.4GHz SDR, 1.4MHz BW

TestMode	Antenna	Channel	FreqRange [MHz]	RefLevel [dBm]	Result [dBm]	Limit [dBm]	Verdict
1.4M	Ant0	2409.5	Reference	19.20	19.20	---	PASS
			30~1000	19.20	-41.39	≤-10.8	PASS
			1000~26500	19.20	-32.45	≤-10.8	PASS
		2437.5	Reference	19.75	19.75	---	PASS
			30~1000	19.75	-51.98	≤-10.25	PASS
			1000~26500	19.75	-41.85	≤-10.25	PASS
		2463.5	Reference	19.97	19.97	---	PASS
			30~1000	19.97	-41.6	≤-10.03	PASS
			1000~26500	19.97	-32.21	≤-10.03	PASS

1.4M Ant0 2409.5 0~Reference



1.4M Ant0 2409.5 30~1000



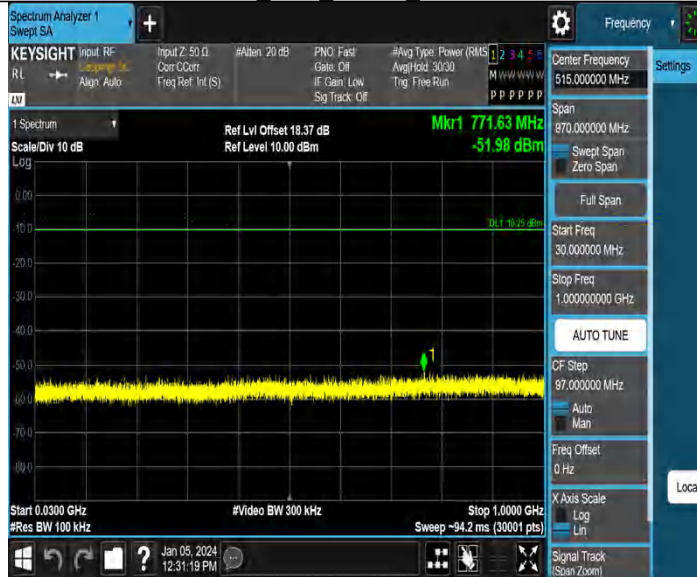
1.4M Ant0 2409.5 1000~26500



1.4M_Ant0_2437.5_0~Reference



1.4M_Ant0_2437.5_30~1000



1.4M_Ant0_2437.5_1000~26500



1.4M Ant0 2463.5 0~Reference



1.4M Ant0 2463.5 30~1000



1.4M Ant0 2463.5 1000~26500

