

RF Test Data for WLAN(2.4G) (Conducted Measurement)

Product Name:PCIE Wireless Card

Trade Mark:N/A

Test Model:PCE-3100

FCC ID: 2AYYXPCE-3100

Environmental Conditions

Temperature:	25.5°C
Relative Humidity:	55.2%
ATM Pressure:	100.0 kPa
Test Engineer:	Anna Hu
Supervised by:	Hugo Chen
NOTE	N/A

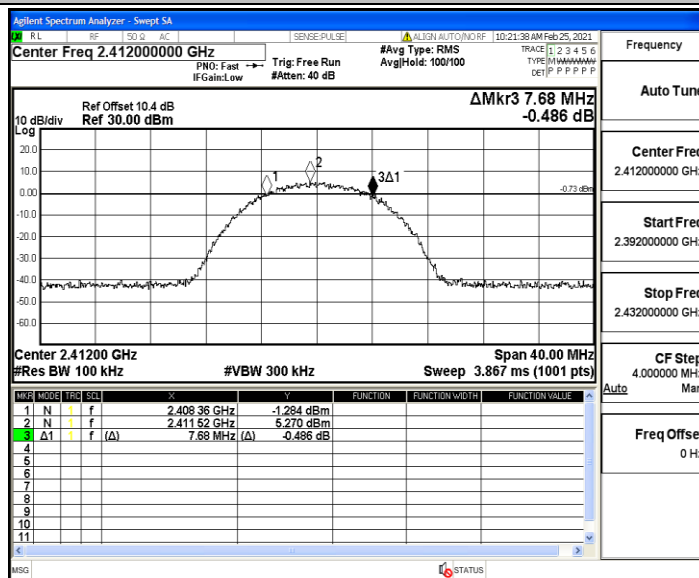
Appendix A: DTS Bandwidth

Test Result

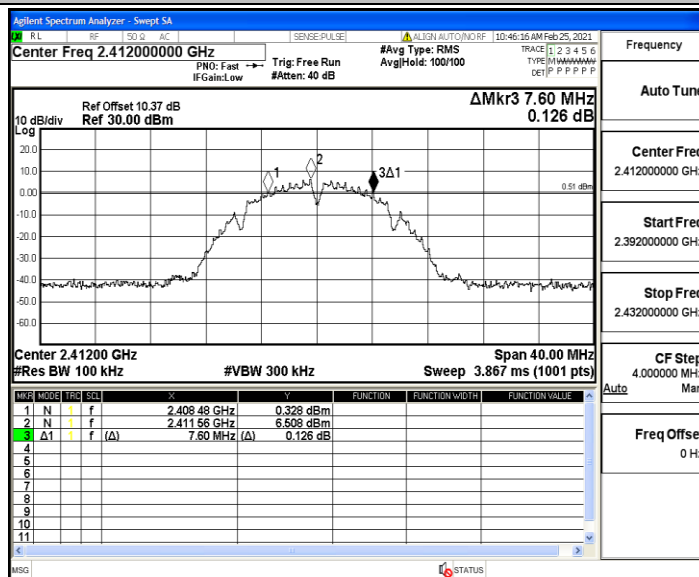
TestMode	Antenna	Channel	DTS BW [MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
11B	Ant1	2412	7.680	2408.360	2416.040	0.5	PASS
	Ant2	2412	7.600	2408.480	2416.080	0.5	PASS
	Ant1	2437	7.680	2433.320	2441.000	0.5	PASS
	Ant2	2437	7.200	2433.440	2440.640	0.5	PASS
	Ant1	2462	7.120	2458.480	2465.600	0.5	PASS
	Ant2	2462	6.960	2458.480	2465.440	0.5	PASS
11G	Ant1	2412	16.400	2403.840	2420.240	0.5	PASS
	Ant2	2412	16.400	2403.840	2420.240	0.5	PASS
	Ant1	2437	16.400	2428.840	2445.240	0.5	PASS
	Ant2	2437	16.400	2428.840	2445.240	0.5	PASS
	Ant1	2462	16.400	2453.840	2470.240	0.5	PASS
	Ant2	2462	16.400	2453.840	2470.240	0.5	PASS
11N20MIMO	Ant1	2412	17.720	2403.160	2420.880	0.5	PASS
	Ant2	2412	17.760	2403.160	2420.920	0.5	PASS
	Ant1	2437	17.720	2428.160	2445.880	0.5	PASS
	Ant2	2437	17.760	2428.160	2445.920	0.5	PASS
	Ant1	2462	17.680	2453.240	2470.920	0.5	PASS
	Ant2	2462	17.760	2453.120	2470.880	0.5	PASS
11N40MIMO	Ant1	2422	35.200	2404.400	2439.600	0.5	PASS
	Ant2	2422	34.560	2405.680	2440.240	0.5	PASS
	Ant1	2437	33.920	2420.680	2454.600	0.5	PASS
	Ant2	2437	35.200	2419.400	2454.600	0.5	PASS
	Ant1	2452	35.200	2434.400	2469.600	0.5	PASS
	Ant2	2452	34.000	2434.400	2468.400	0.5	PASS

Test Graphs

11B_Ant1_2412

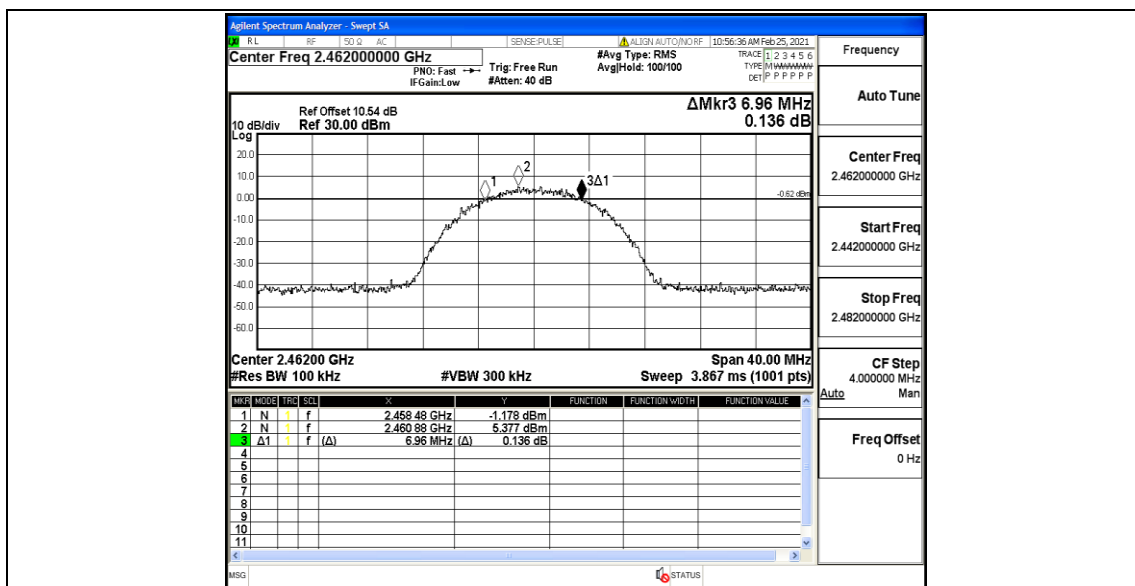


11B_Ant2_2412

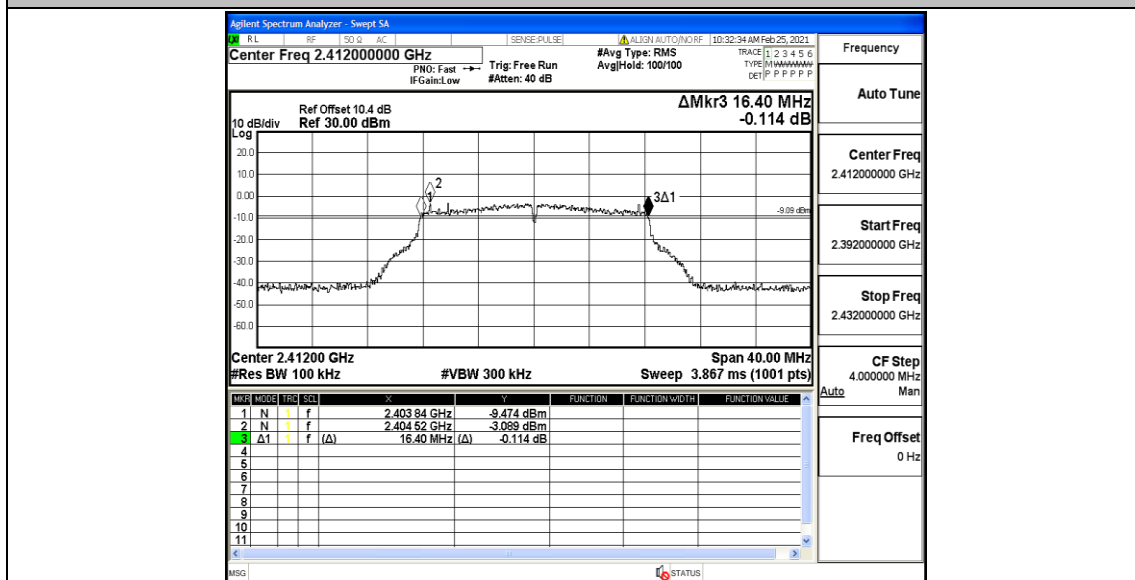


11B_Ant1_2437

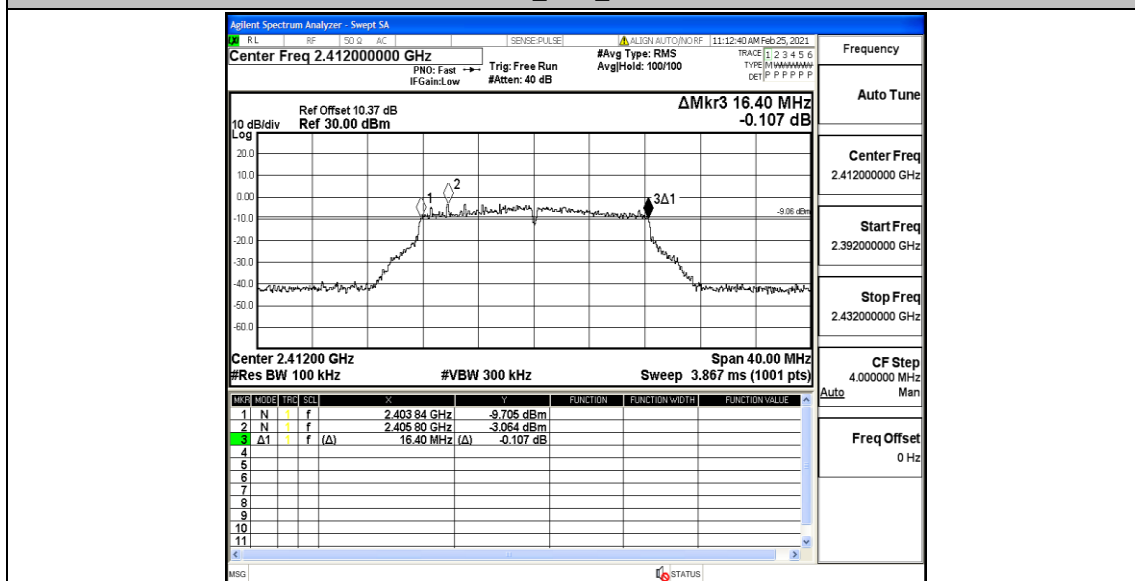




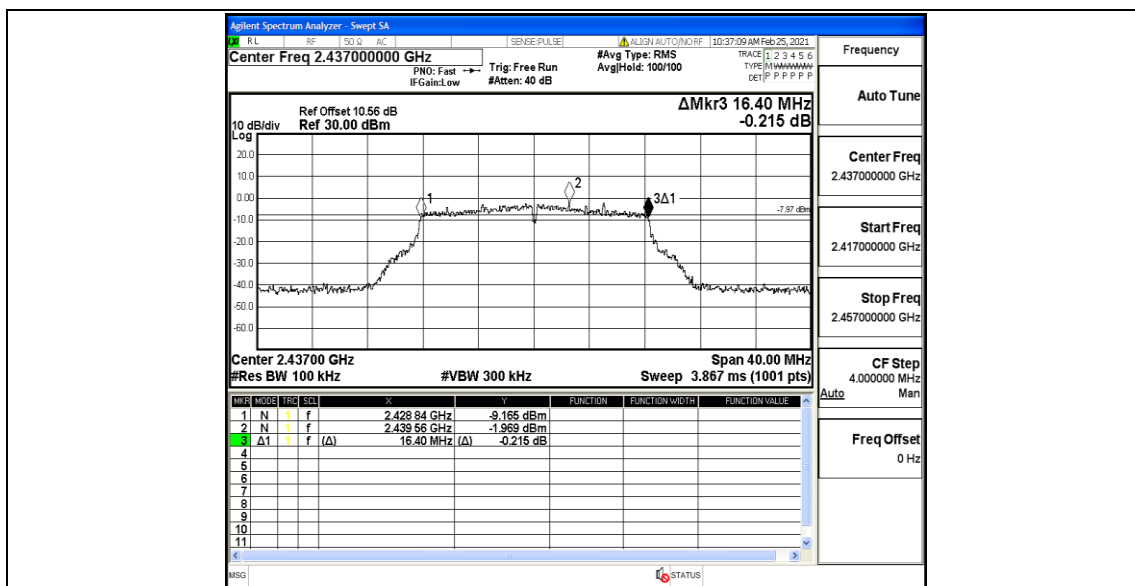
11G_Ant1_2412



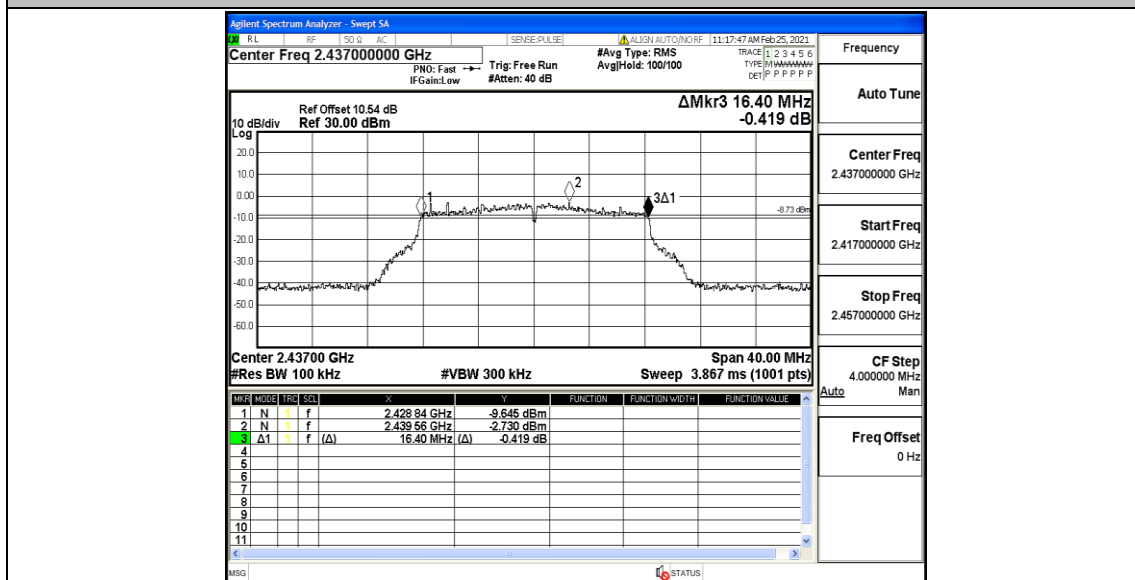
11G_Ant2_2412



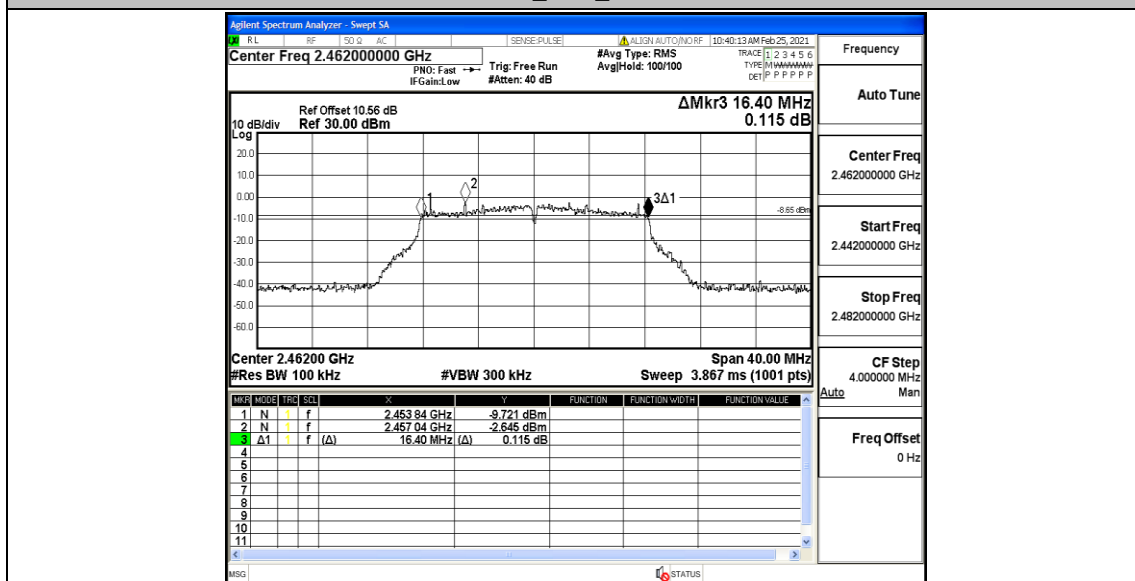
11G_Ant1_2437



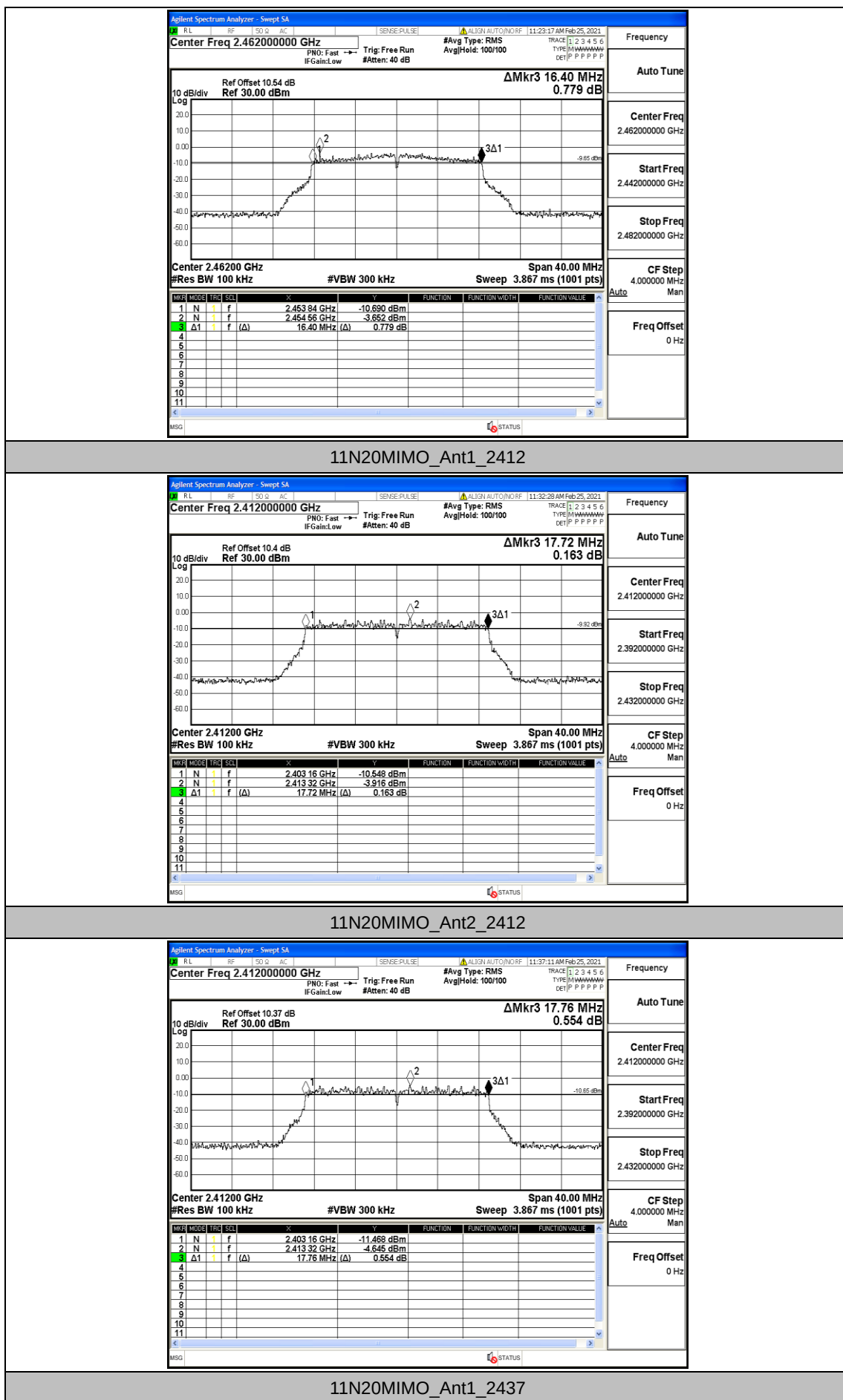
11G_Ant2_2437

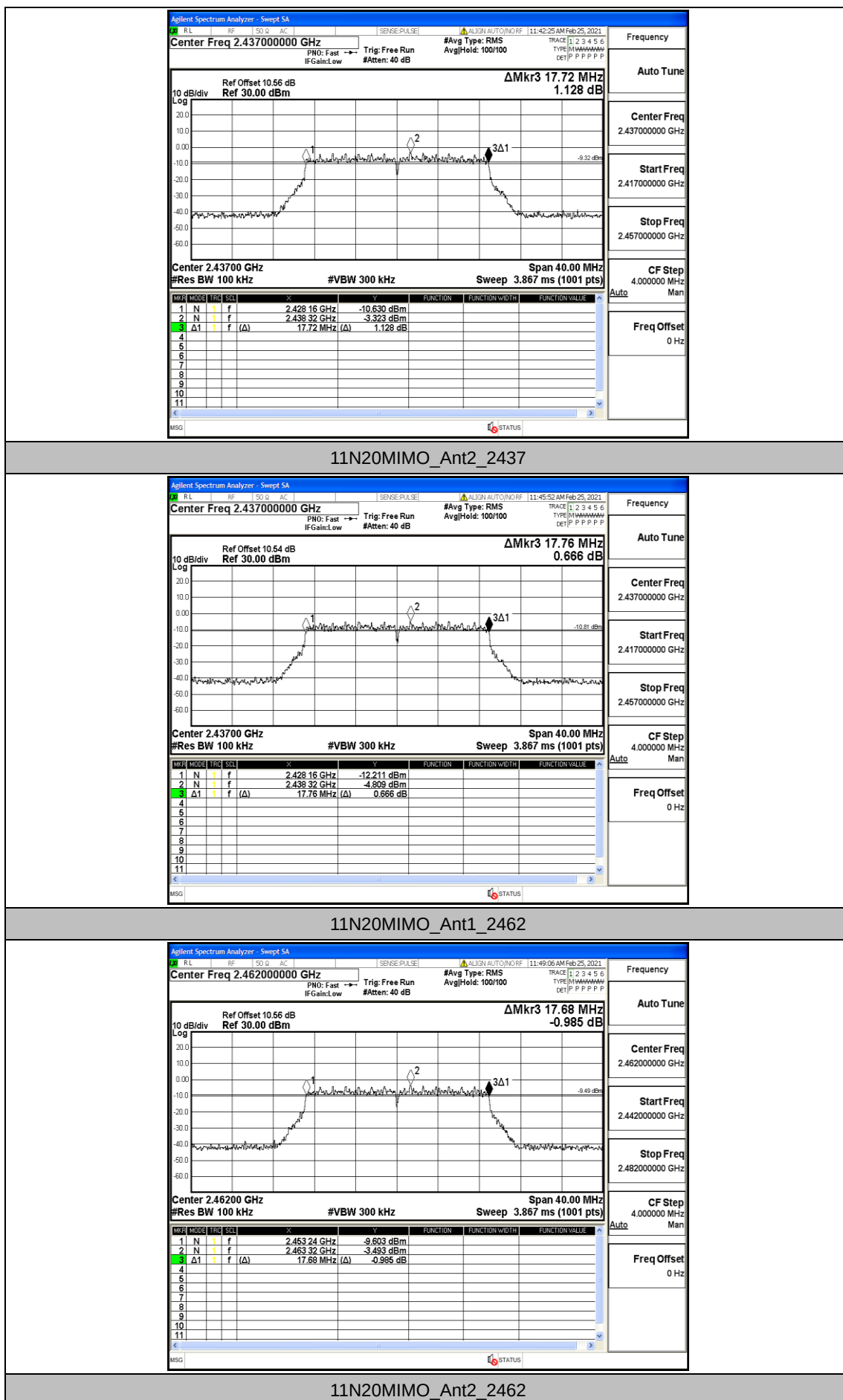


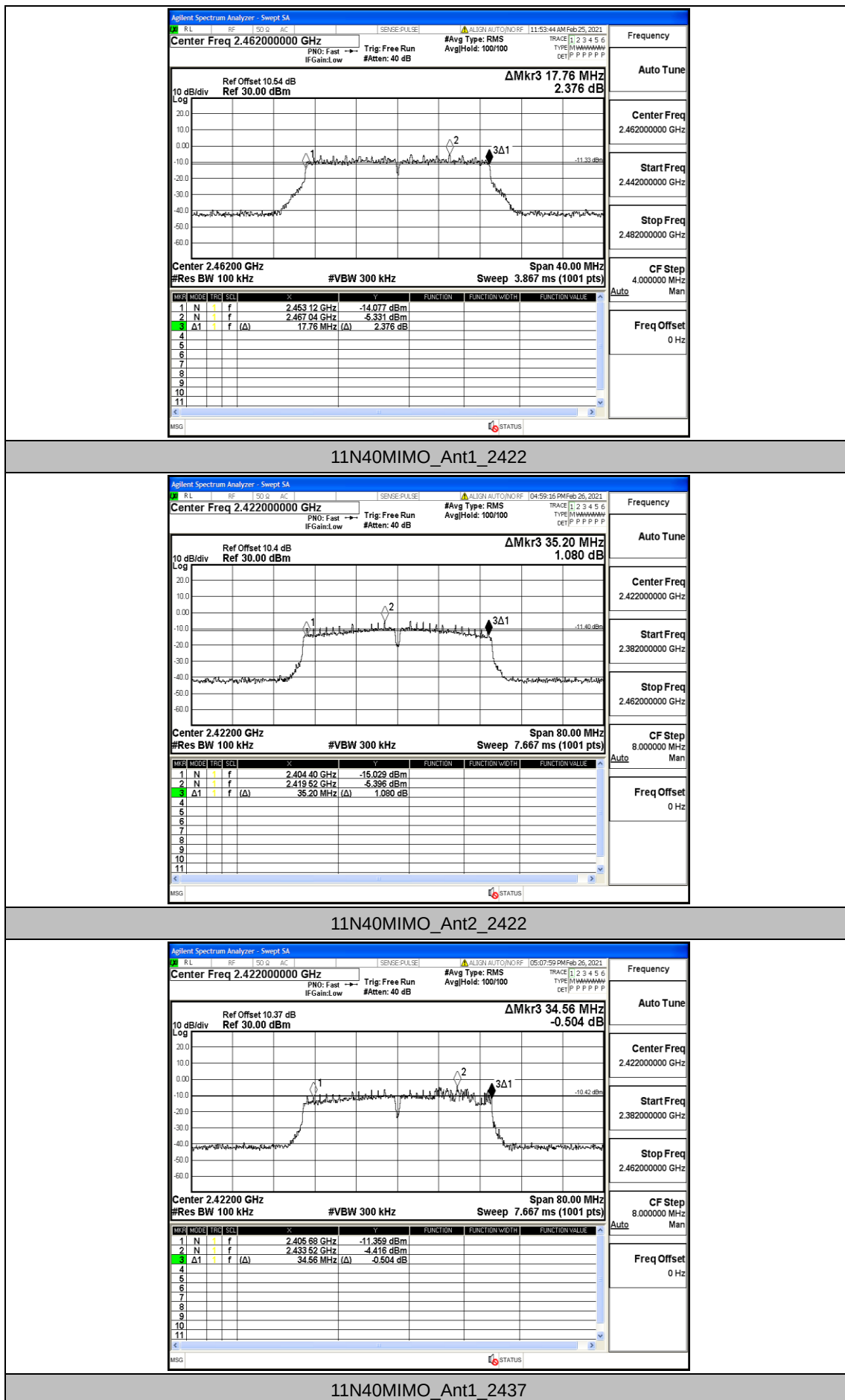
11G_Ant1_2462

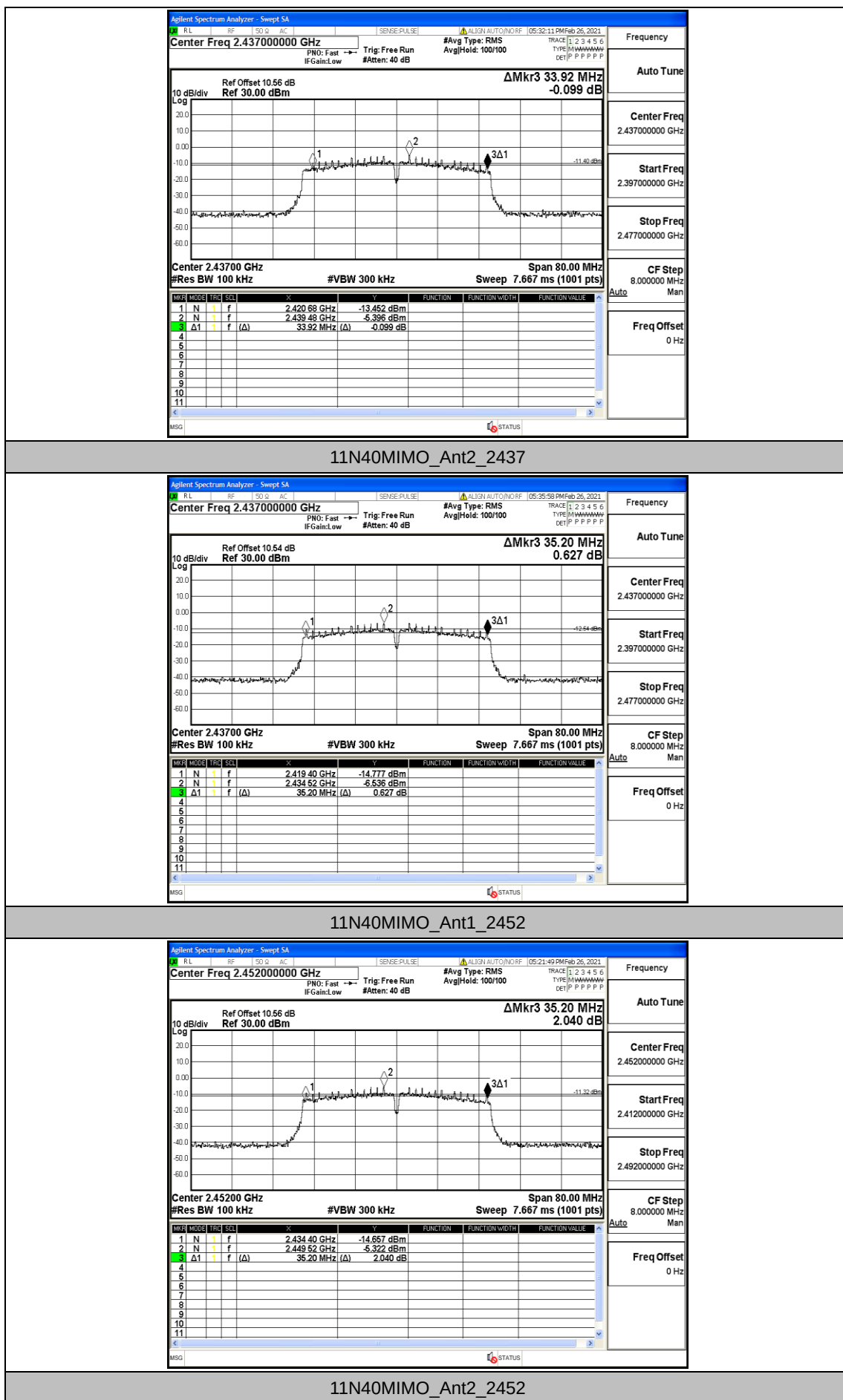


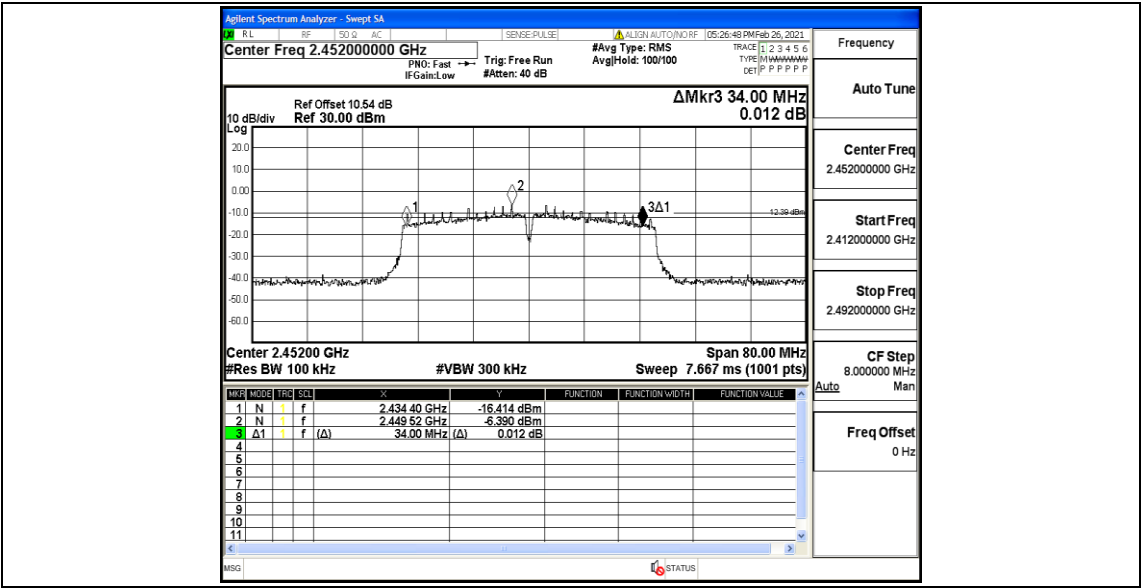
11G_Ant2_2462











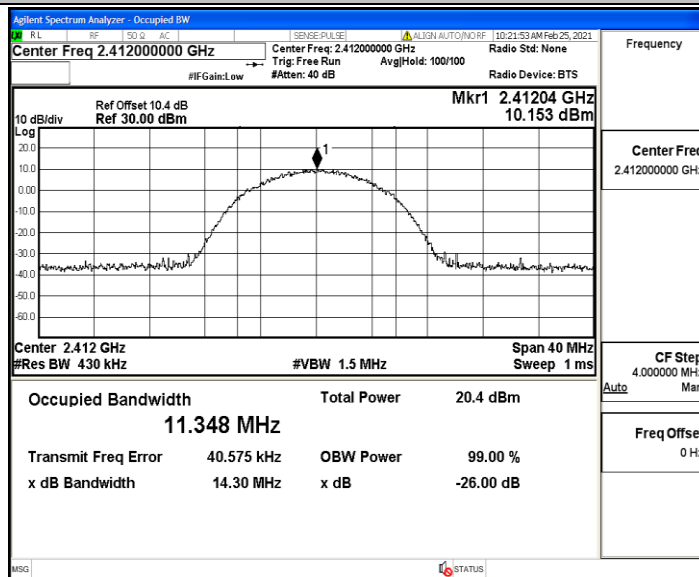
Appendix B: Occupied Channel Bandwidth

Test Result

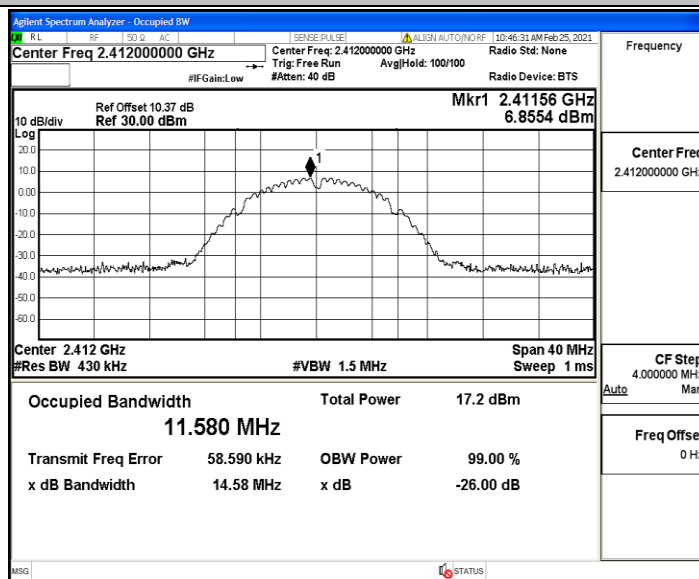
TestMode	Antenna	Channel	OCB [MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
11B	Ant1	2412	11.348	2406.367	2417.715	---	PASS
	Ant2	2412	11.580	2406.269	2417.849	---	PASS
	Ant1	2437	11.300	2431.418	2442.718	---	PASS
	Ant2	2437	11.533	2431.291	2442.824	---	PASS
	Ant1	2462	11.420	2456.364	2467.784	---	PASS
	Ant2	2462	11.351	2456.411	2467.762	---	PASS
11G	Ant1	2412	16.995	2403.530	2420.525	---	PASS
	Ant2	2412	17.037	2403.512	2420.549	---	PASS
	Ant1	2437	17.017	2428.554	2445.571	---	PASS
	Ant2	2437	17.039	2428.491	2445.530	---	PASS
	Ant1	2462	17.112	2453.498	2470.610	---	PASS
	Ant2	2462	17.053	2453.531	2470.584	---	PASS
11N20MIMO	Ant1	2412	18.139	2403.016	2421.155	---	PASS
	Ant2	2412	18.129	2403.015	2421.144	---	PASS
	Ant1	2437	18.204	2427.968	2446.172	---	PASS
	Ant2	2437	18.109	2428.009	2446.118	---	PASS
	Ant1	2462	18.075	2452.983	2471.058	---	PASS
	Ant2	2462	18.168	2453.015	2471.183	---	PASS
11N40MIMO	Ant1	2422	36.003	2404.059	2440.062	---	PASS
	Ant2	2422	36.000	2404.002	2440.002	---	PASS
	Ant1	2437	35.981	2418.993	2454.974	---	PASS
	Ant2	2437	36.007	2419.075	2455.082	---	PASS
	Ant1	2452	36.108	2433.928	2470.036	---	PASS
	Ant2	2452	36.120	2434.028	2470.148	---	PASS

Test Graphs

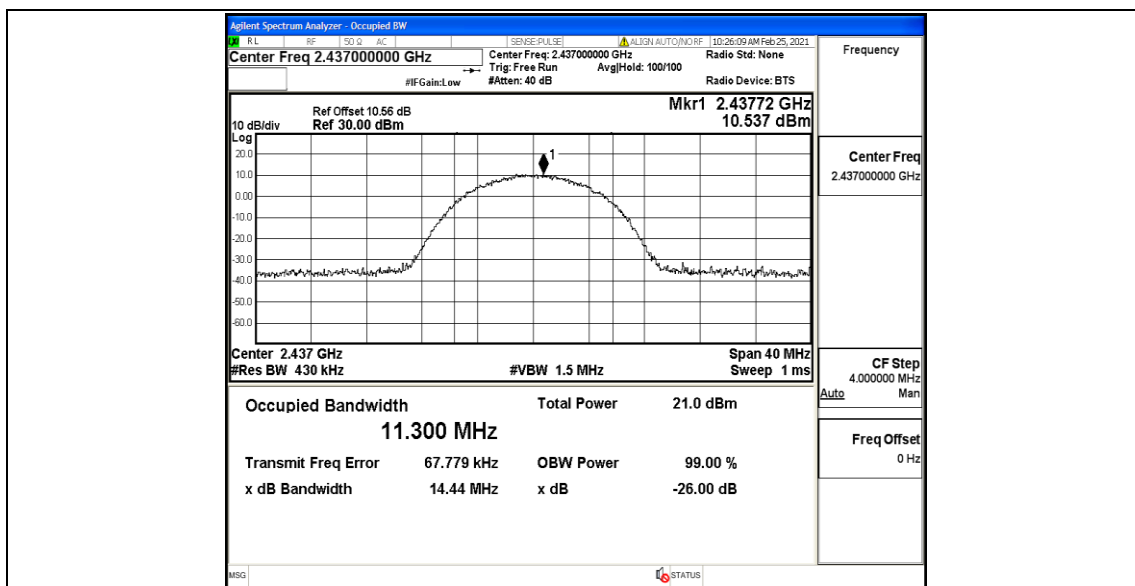
11B_Ant1_2412



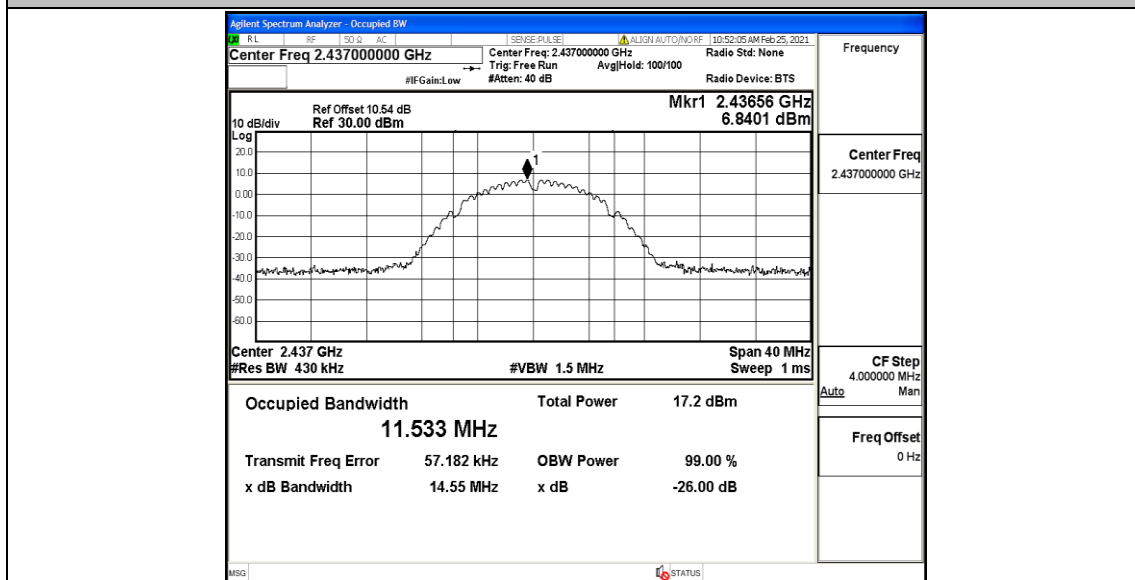
11B_Ant2_2412



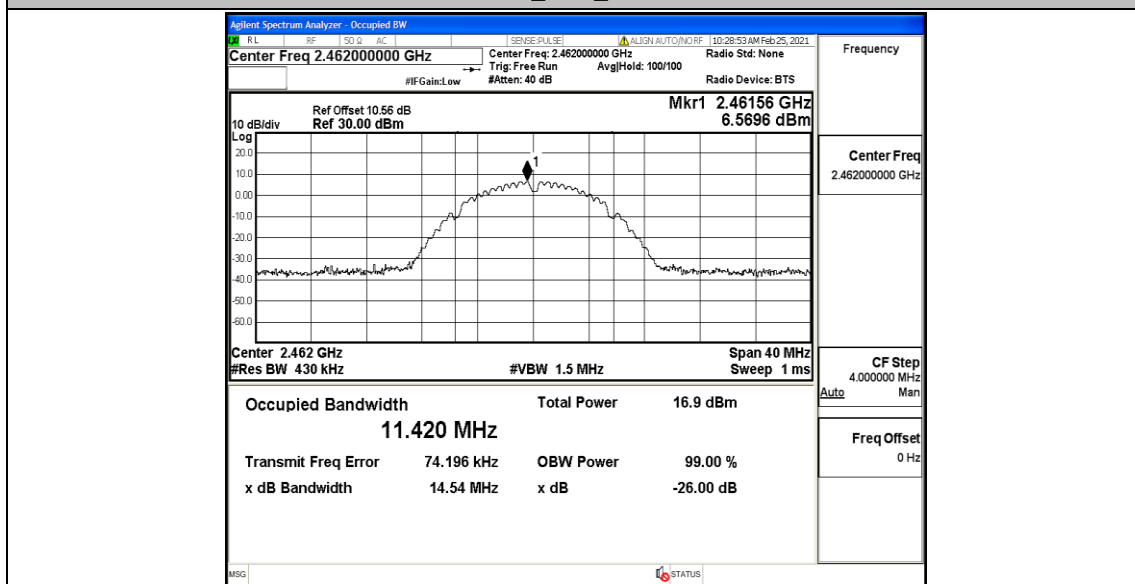
11B_Ant1_2437



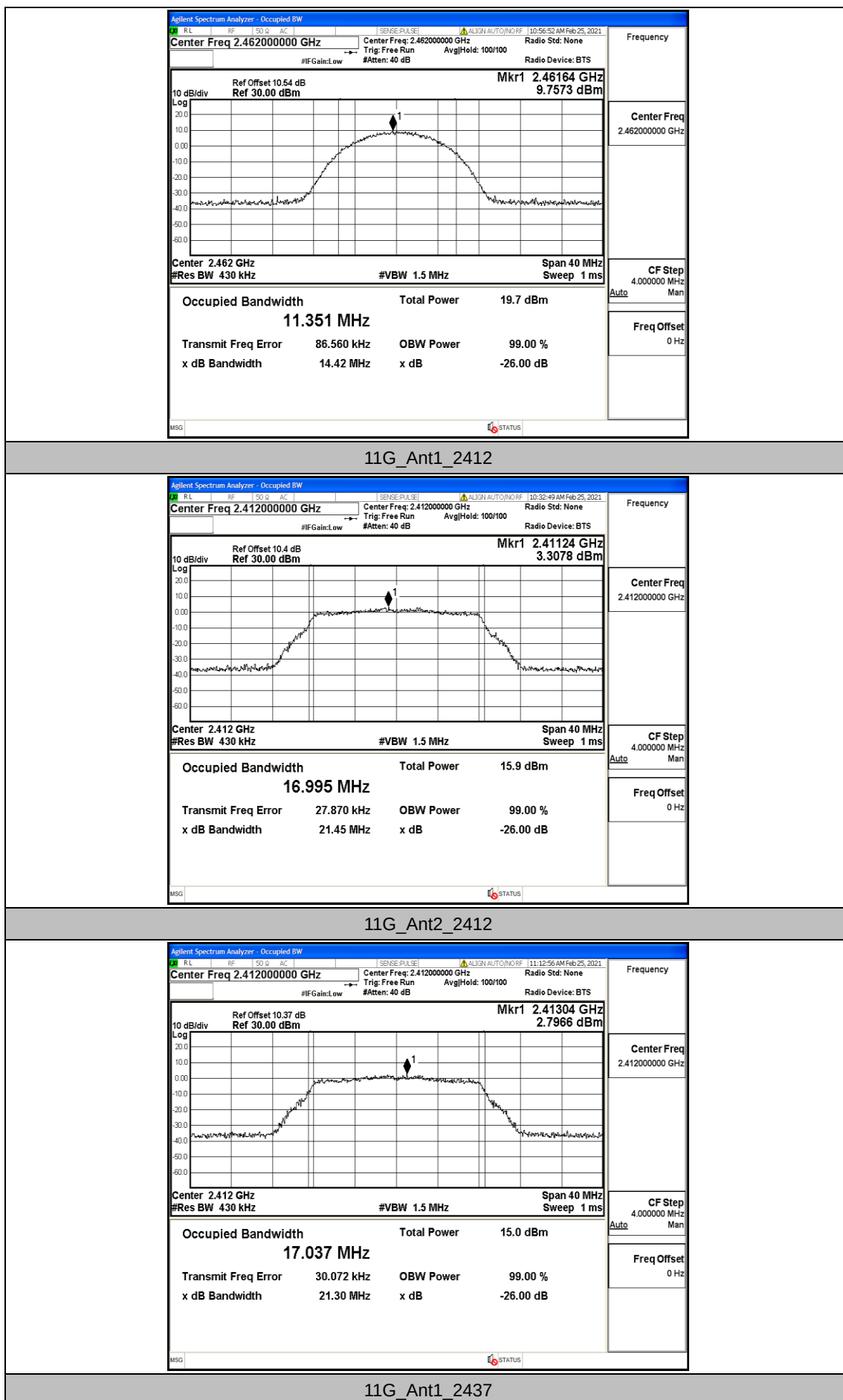
11B_Ant2_2437

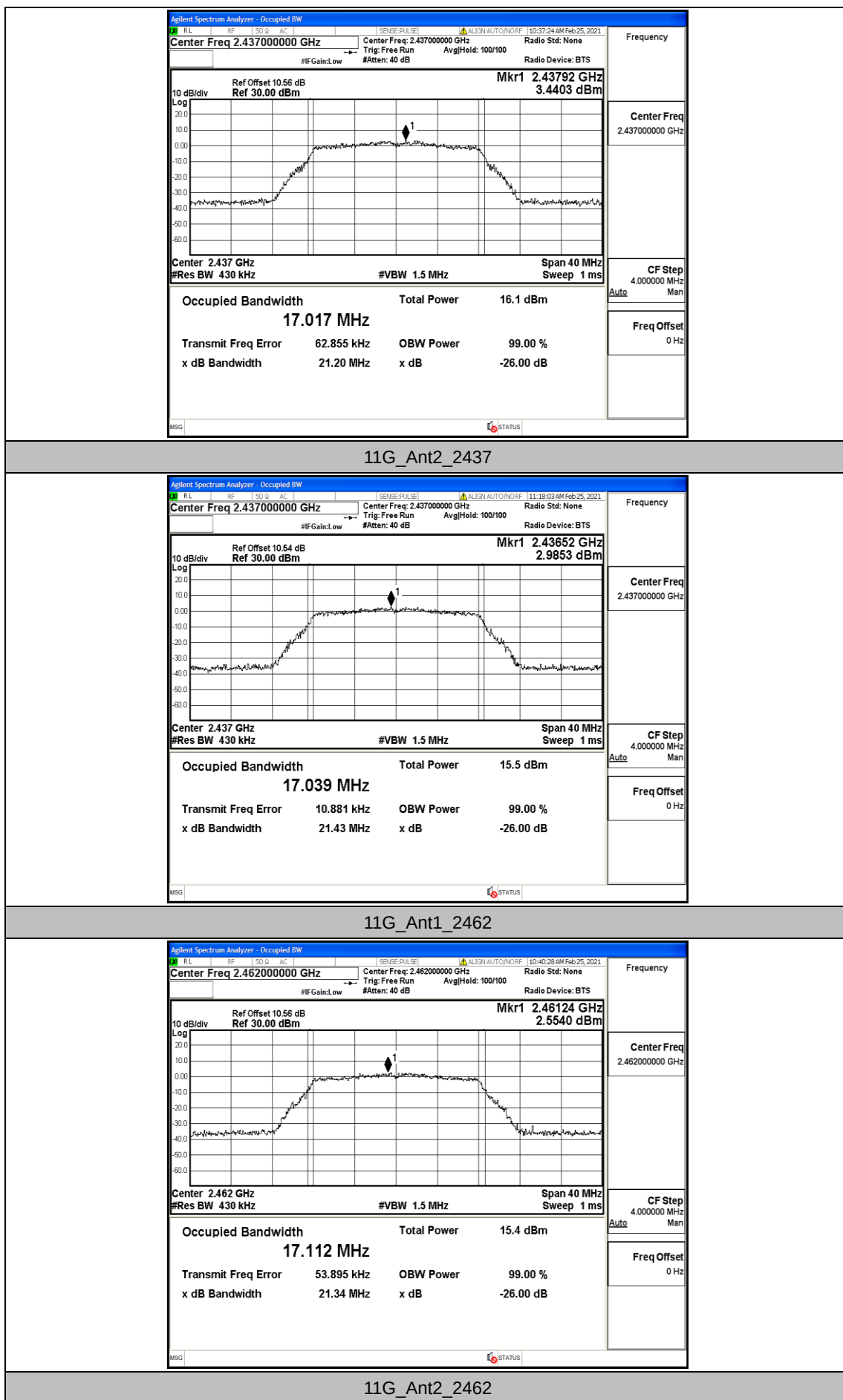


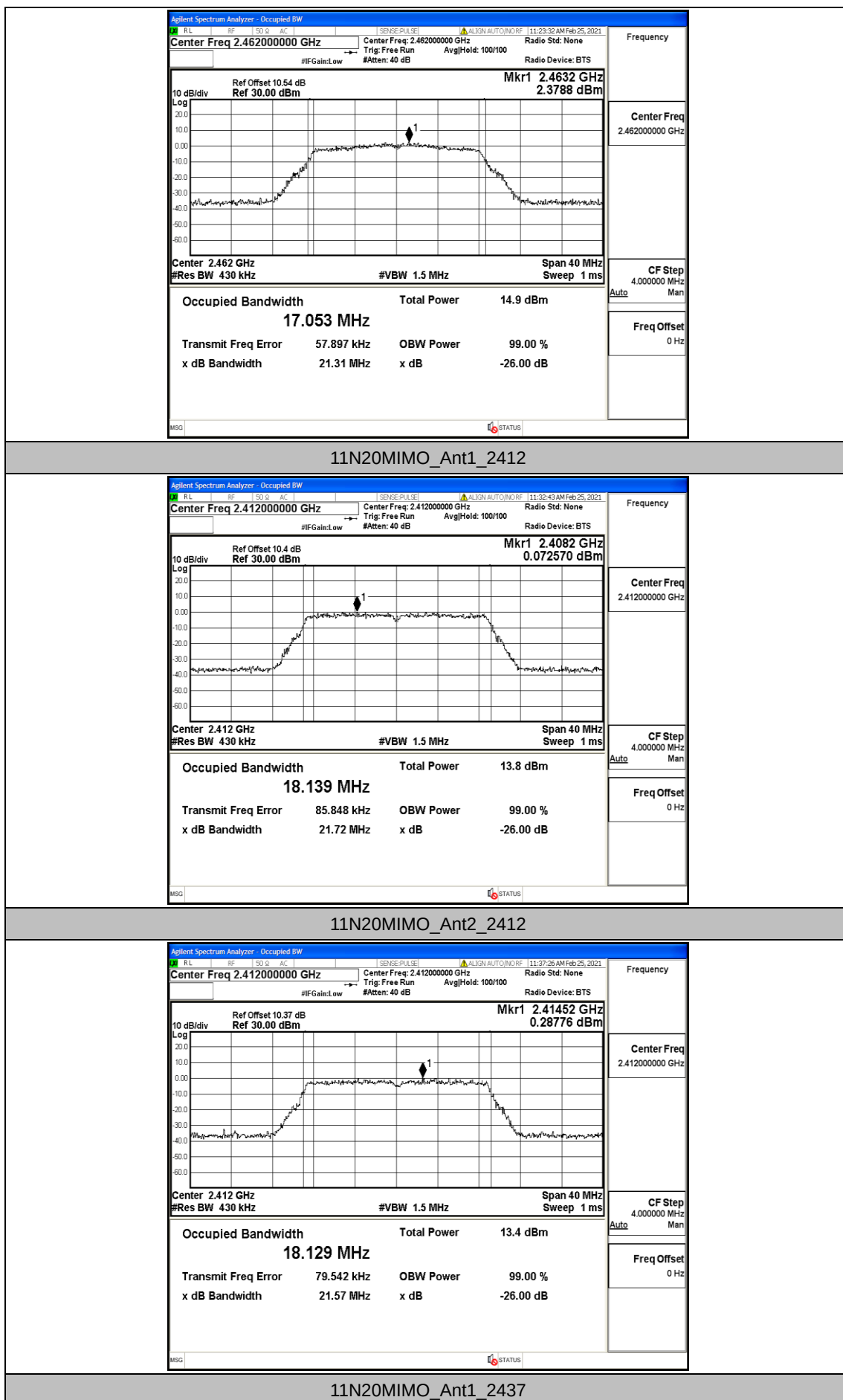
11B_Ant1_2462

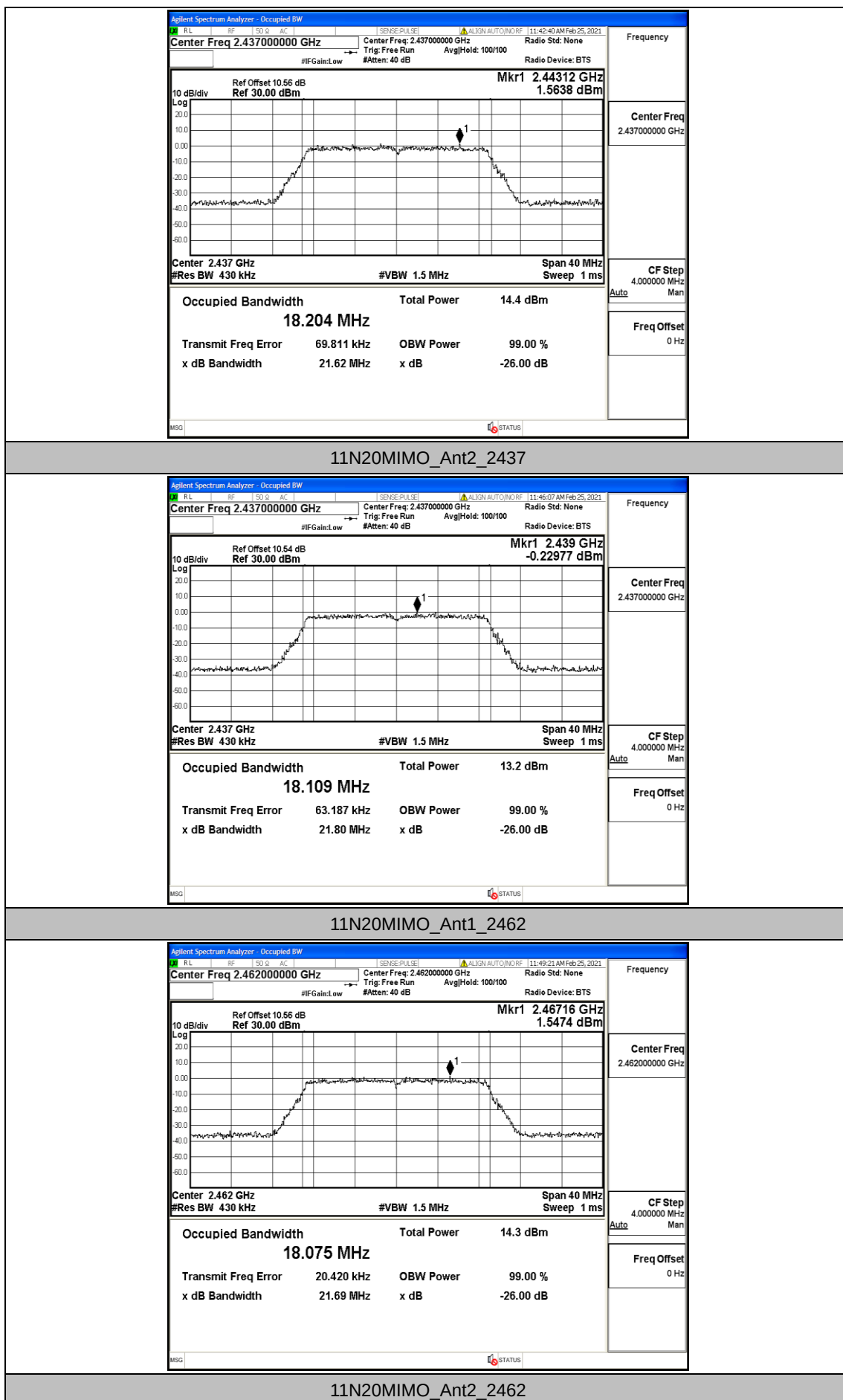


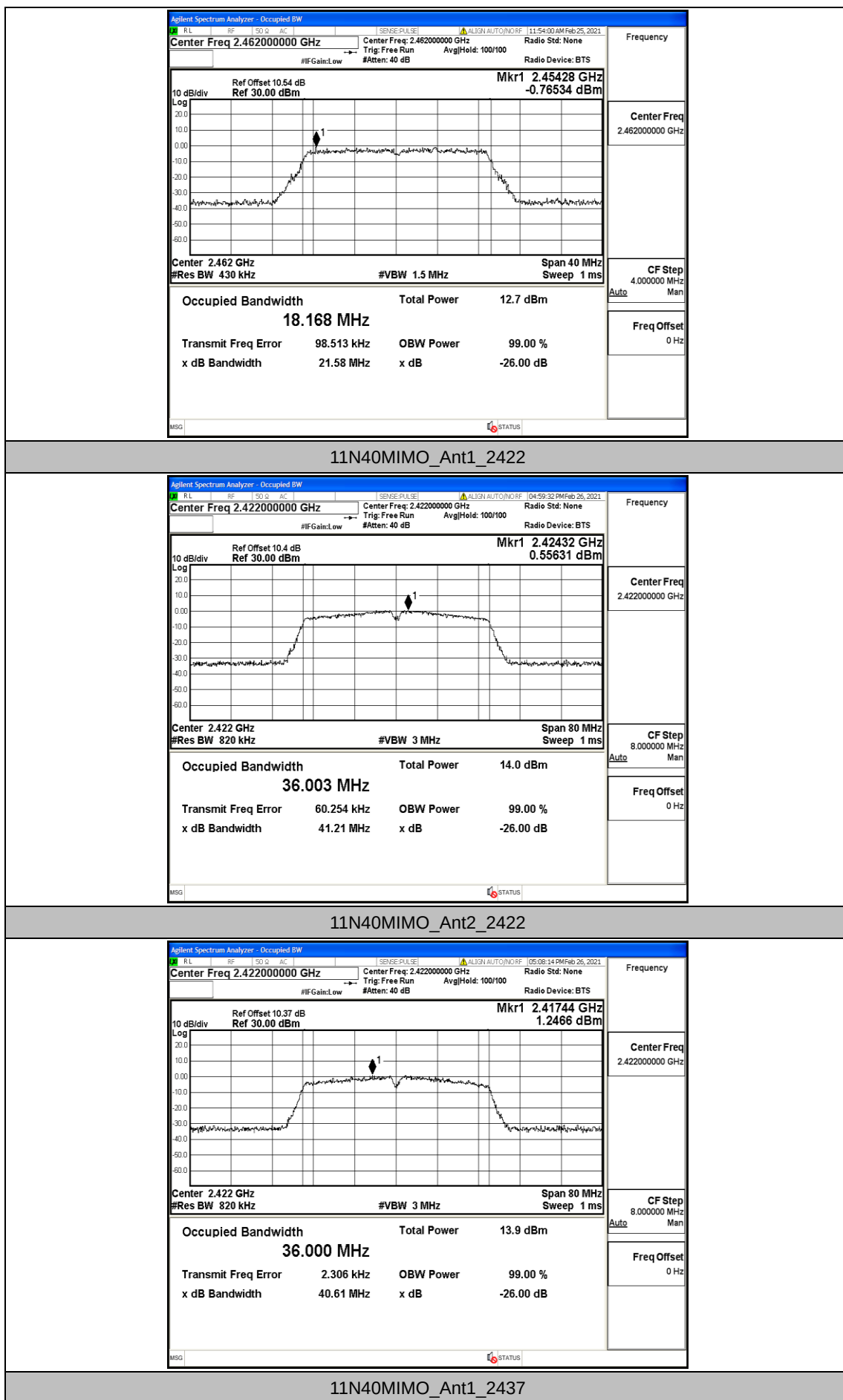
11B_Ant2_2462

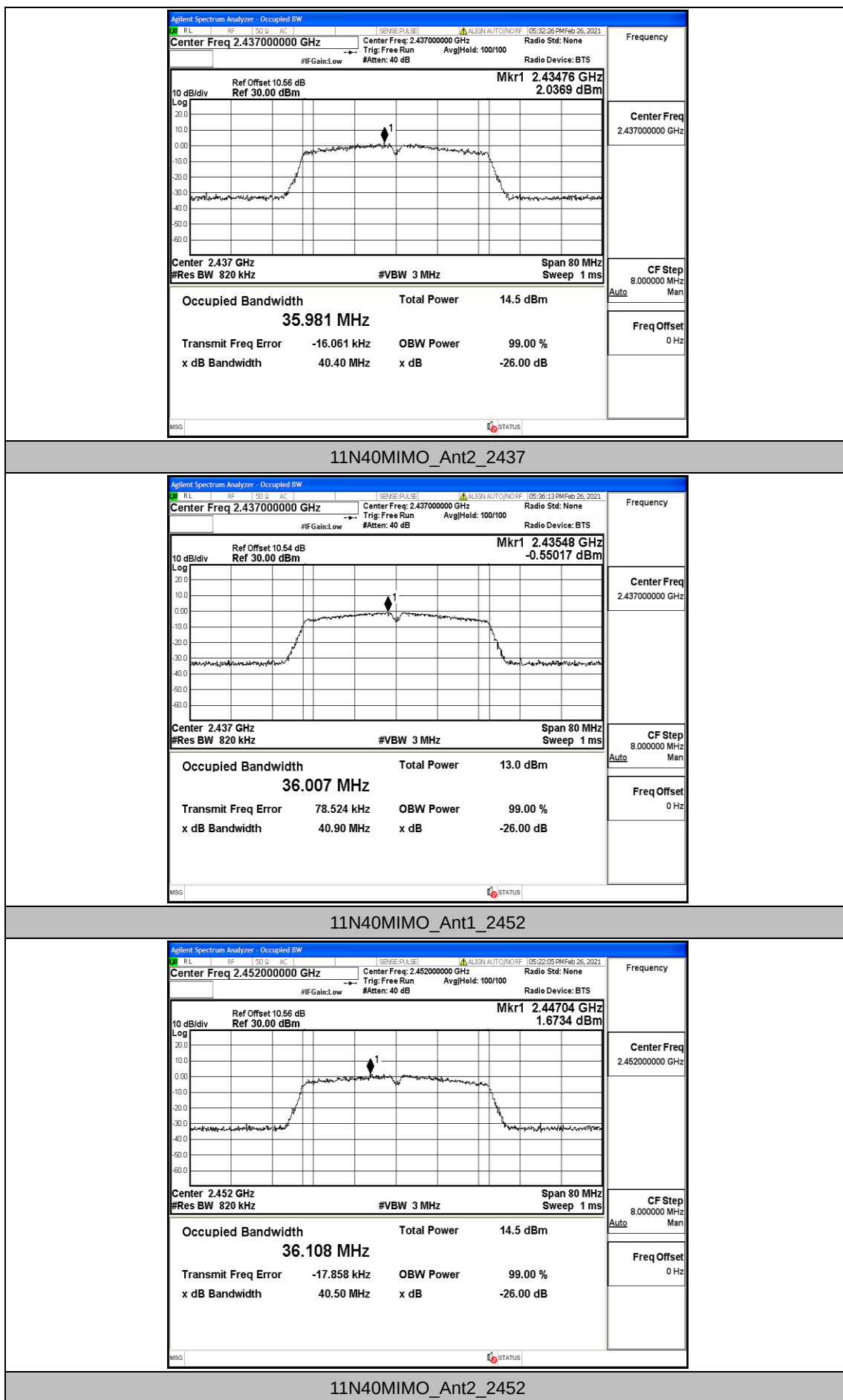


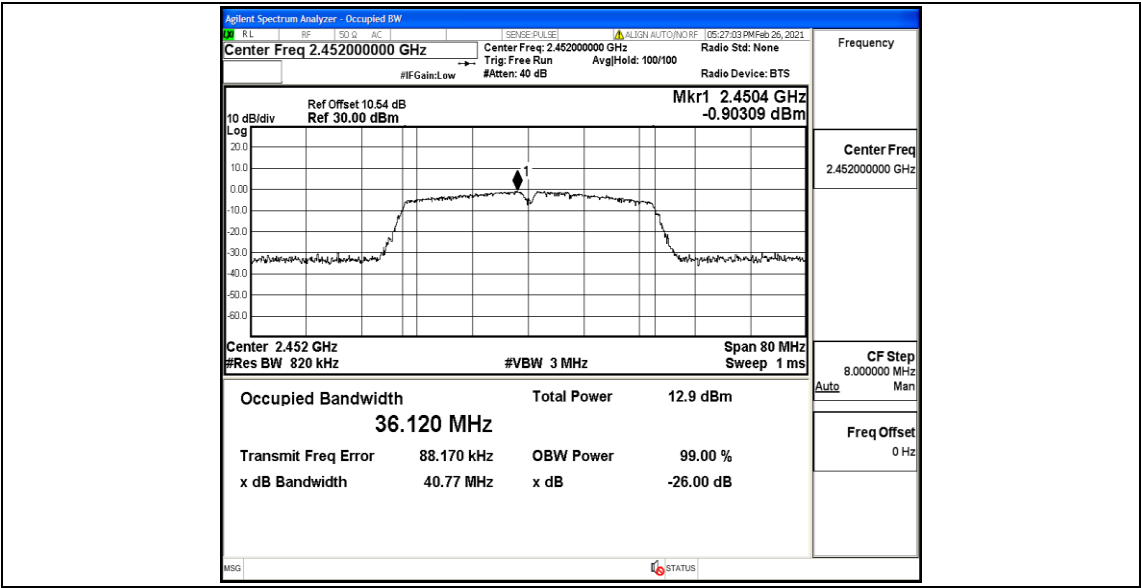












Appendix C: Maximum conducted output power

Test Result

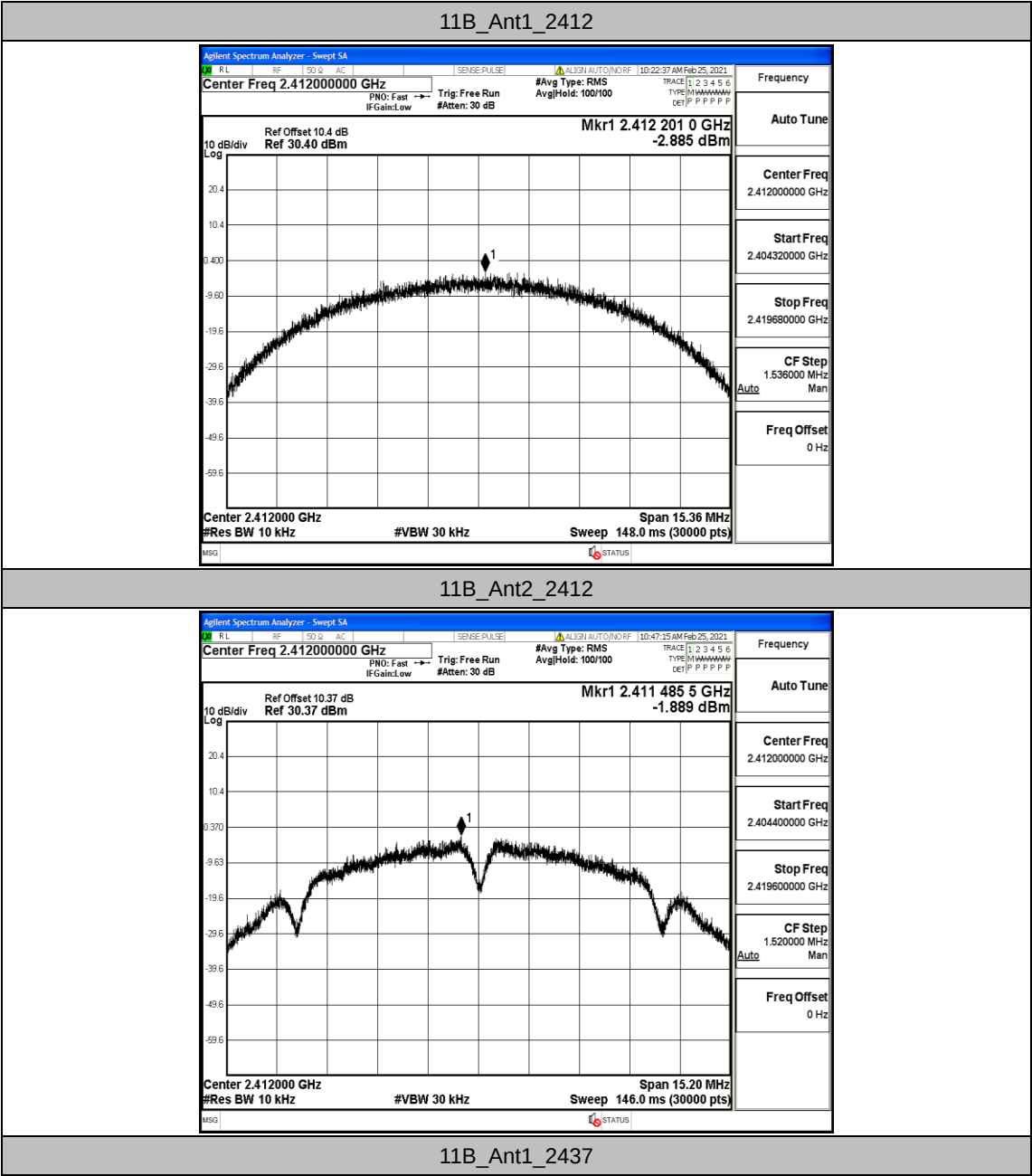
TestMode	Antenna	Channel	Result[dBm]	Limit[dBm]	Verdict
11B	Ant1	2412	19.48	<=30.00	PASS
	Ant2	2412	16.64	<=30.00	PASS
	Ant1	2437	20.02	<=30.00	PASS
	Ant2	2437	16.52	<=30.00	PASS
	Ant1	2462	16.32	<=30.00	PASS
	Ant2	2462	18.45	<=30.00	PASS
11G	Ant1	2412	16.94	<=30.00	PASS
	Ant2	2412	16.13	<=30.00	PASS
	Ant1	2437	17.16	<=30.00	PASS
	Ant2	2437	16.62	<=30.00	PASS
	Ant1	2462	16.56	<=30.00	PASS
	Ant2	2462	15.95	<=30.00	PASS
11N20MIMO	Ant1	2412	14.55	<=30.00	PASS
	Ant2	2412	14.11	<=30.00	PASS
	total	2412	17.3	<=30.00	PASS
	Ant1	2437	15.16	<=30.00	PASS
	Ant2	2437	13.92	<=30.00	PASS
	total	2437	17.6	<=30.00	PASS
	Ant1	2462	14.96	<=30.00	PASS
	Ant2	2462	13.27	<=30.00	PASS
	total	2462	17.2	<=30.00	PASS
11N40MIMO	Ant1	2422	14.22	<=30.00	PASS
	Ant2	2422	14.02	<=30.00	PASS
	total	2422	17.1	<=30.00	PASS
	Ant1	2437	14.66	<=30.00	PASS
	Ant2	2437	13.21	<=30.00	PASS
	total	2437	17.0	<=30.00	PASS
	Ant1	2452	14.49	<=30.00	PASS
	Ant2	2452	13.02	<=30.00	PASS
	total	2452	16.8	<=30.00	PASS

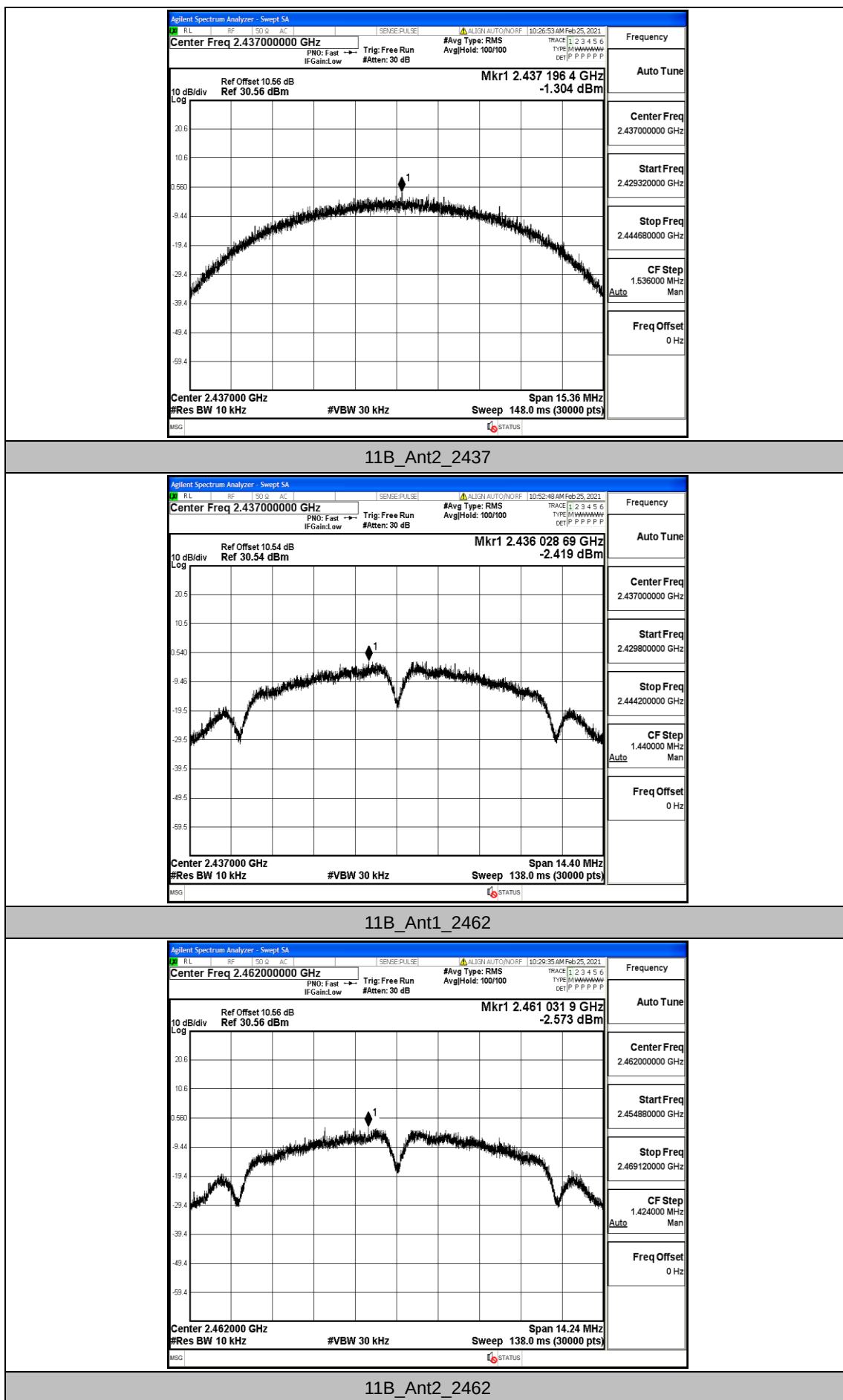
Appendix D: Maximum power spectral density

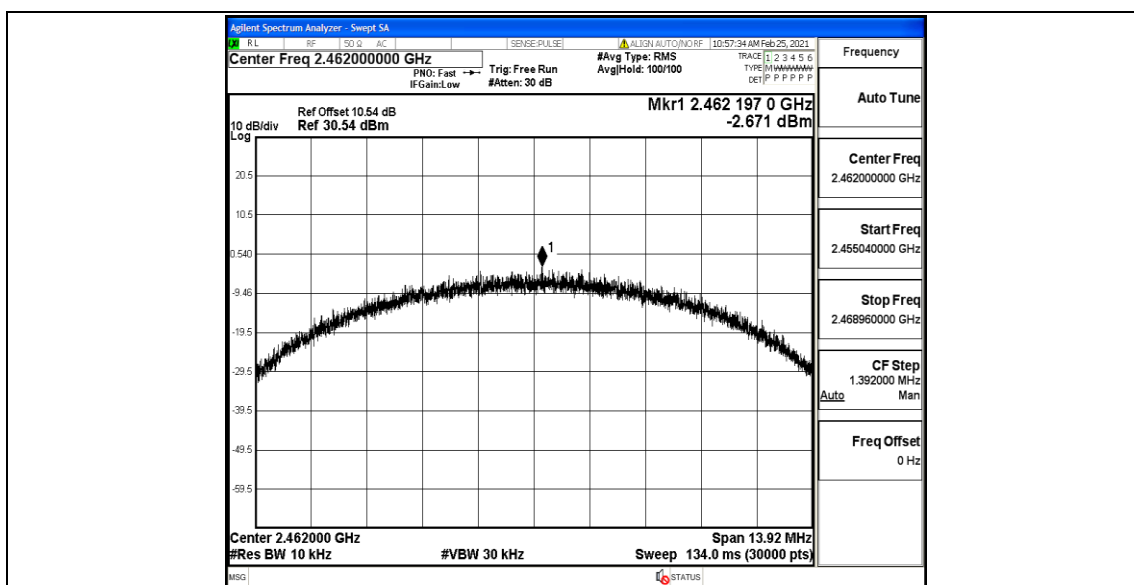
Test Result

TestMode	Antenna	Channel	Result[dBm/3-100kHz]	Limit[dBm/3kHz]	Verdict
11B	Ant1	2412	-2.89	<=8	PASS
	Ant2	2412	-1.89	<=8	PASS
	Ant1	2437	-1.3	<=8	PASS
	Ant2	2437	-2.42	<=8	PASS
	Ant1	2462	-2.57	<=8	PASS
	Ant2	2462	-2.67	<=8	PASS
11G	Ant1	2412	-8.69	<=8	PASS
	Ant2	2412	-10.02	<=8	PASS
	Ant1	2437	-8.44	<=8	PASS
	Ant2	2437	-9.14	<=8	PASS
	Ant1	2462	-9.02	<=8	PASS
	Ant2	2462	-9.62	<=8	PASS
11N20MIMO	Ant1	2412	-12.36	<=8	PASS
	Ant2	2412	-12.1	<=8	PASS
	total	2412	-9.22	<=8	PASS
	Ant1	2437	-11.32	<=8	PASS
	Ant2	2437	-12.01	<=8	PASS
	total	2437	-8.64	<=8	PASS
	Ant1	2462	-11.71	<=8	PASS
	Ant2	2462	-11.92	<=8	PASS
	total	2462	-8.80	<=8	PASS
11N40MIMO	Ant1	2422	-14.89	<=8	PASS
	Ant2	2422	-10.05	<=8	PASS
	total	2422	-8.82	<=8	PASS
	Ant1	2437	-14.64	<=8	PASS
	Ant2	2437	-16.04	<=8	PASS
	total	2437	-12.27	<=8	PASS
	Ant1	2452	-14.14	<=8	PASS
	Ant2	2452	-16.27	<=8	PASS
	total	2452	-12.07	<=8	PASS

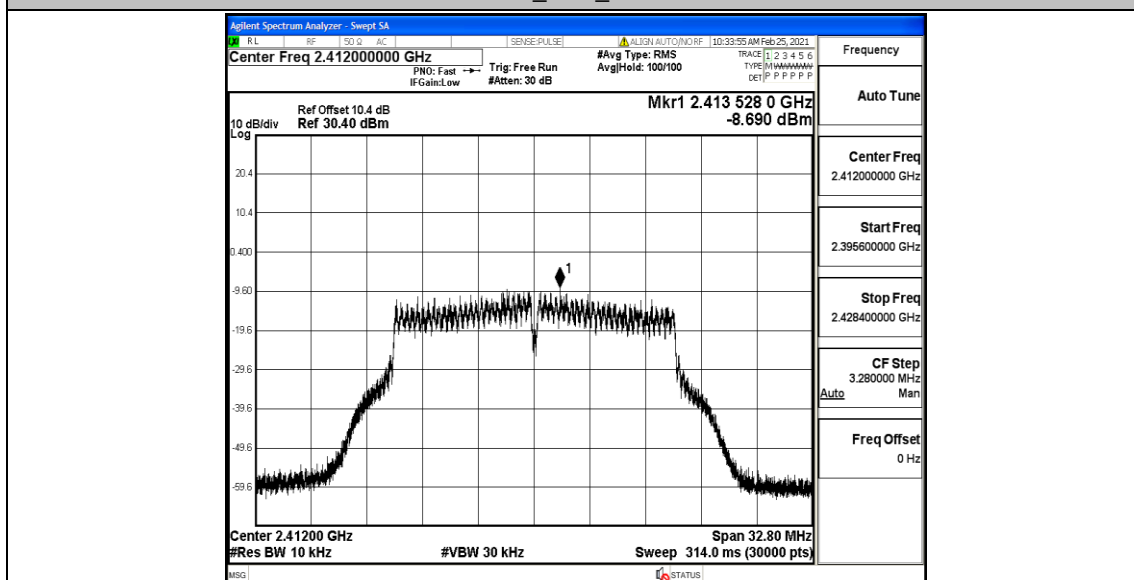
Test Graphs



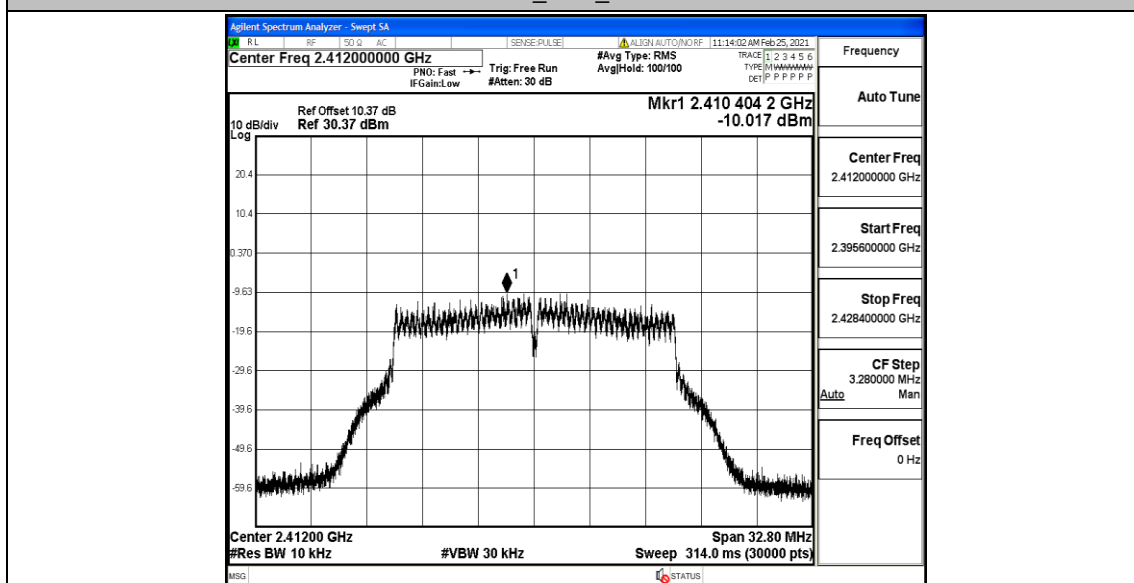




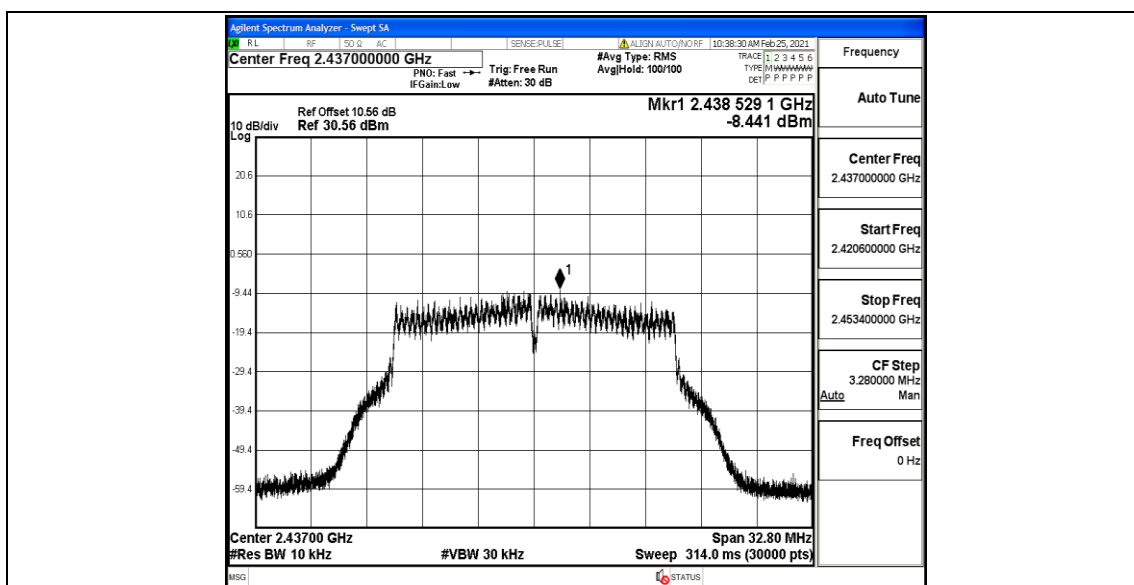
11G_Ant1_2412



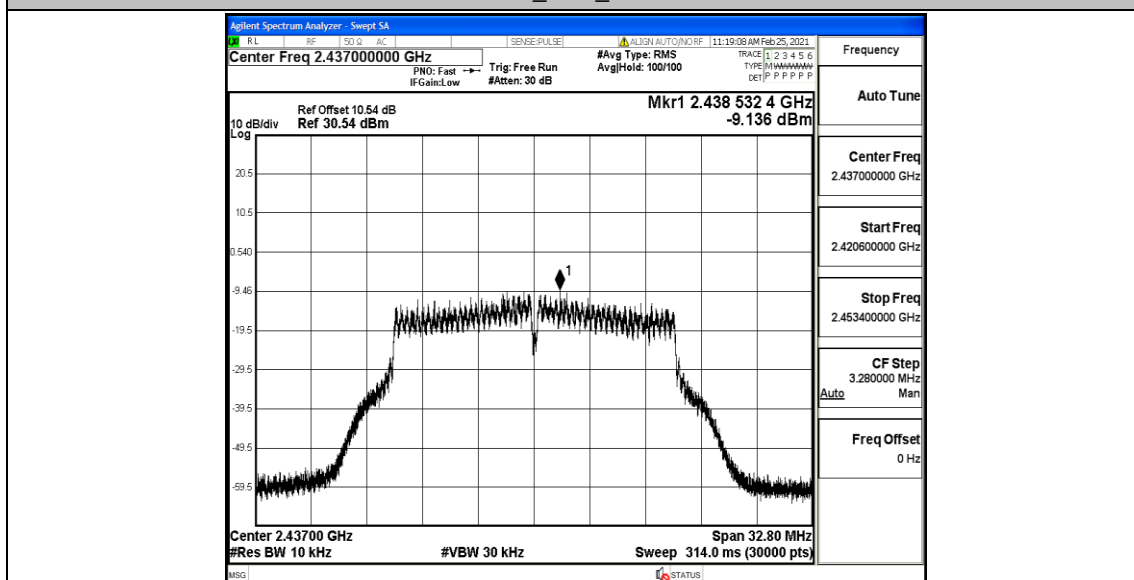
11G_Ant2_2412



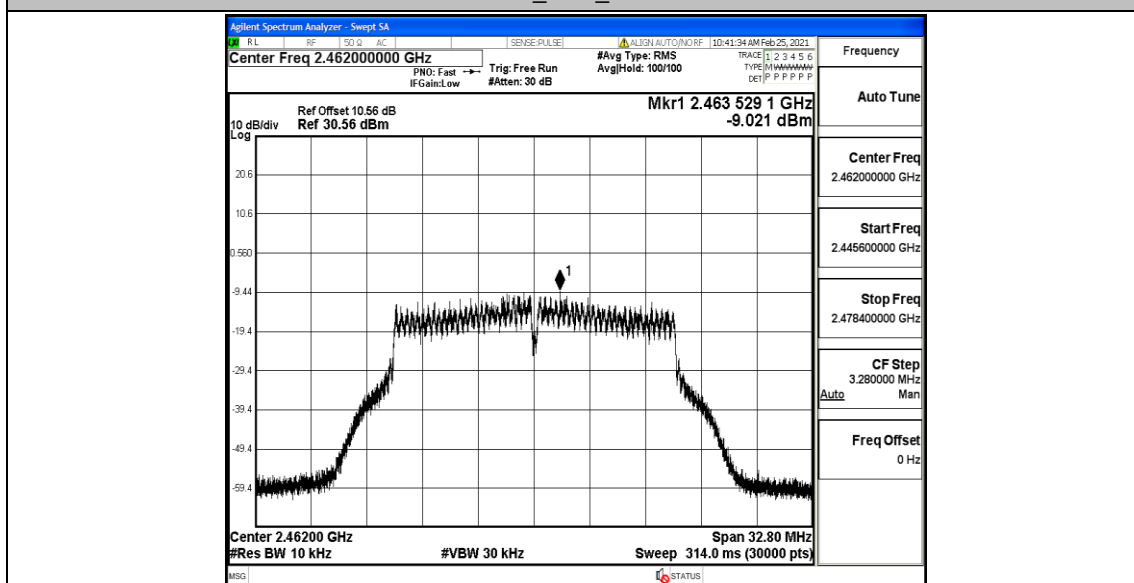
11G_Ant1_2437



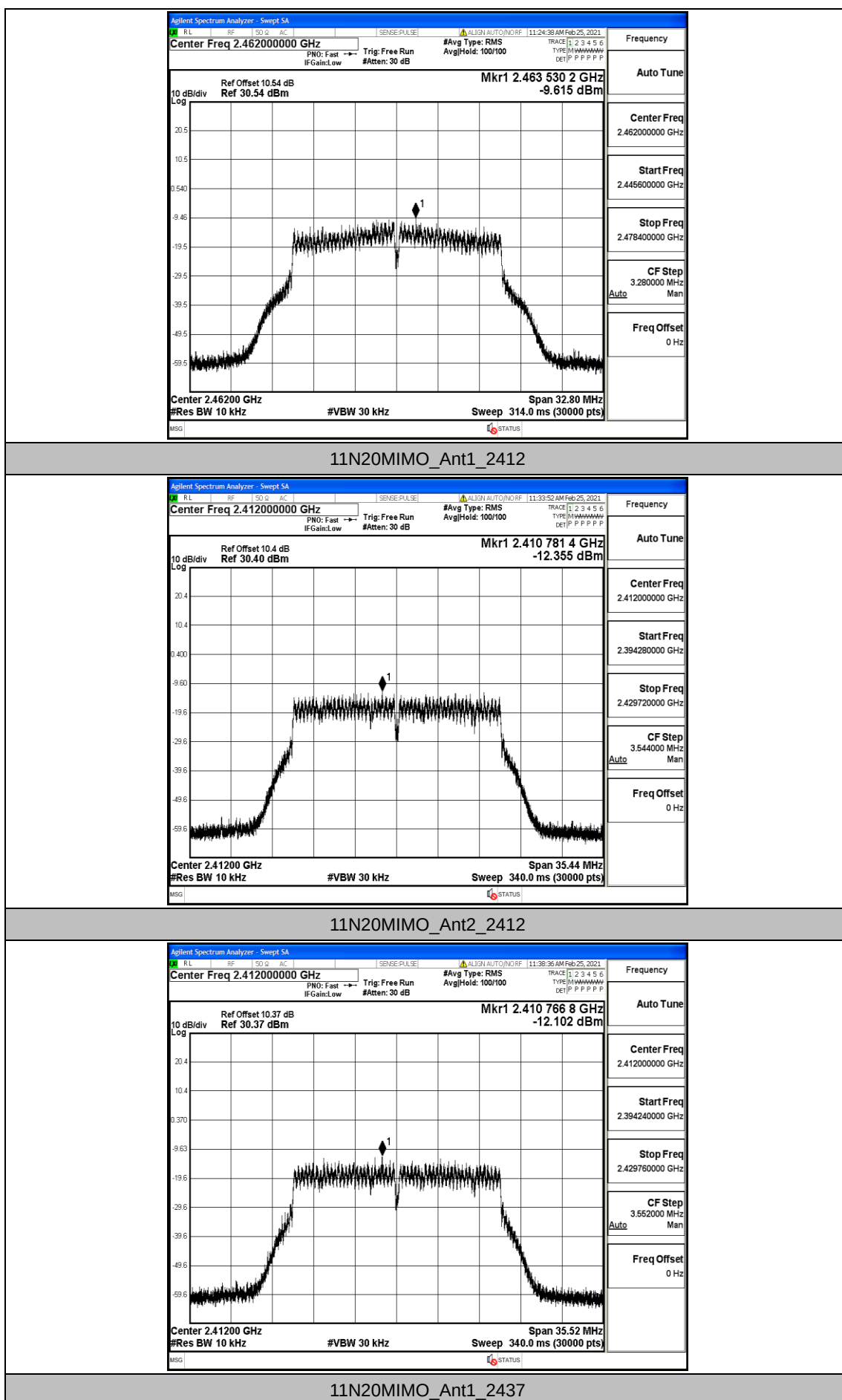
11G_Ant2_2437

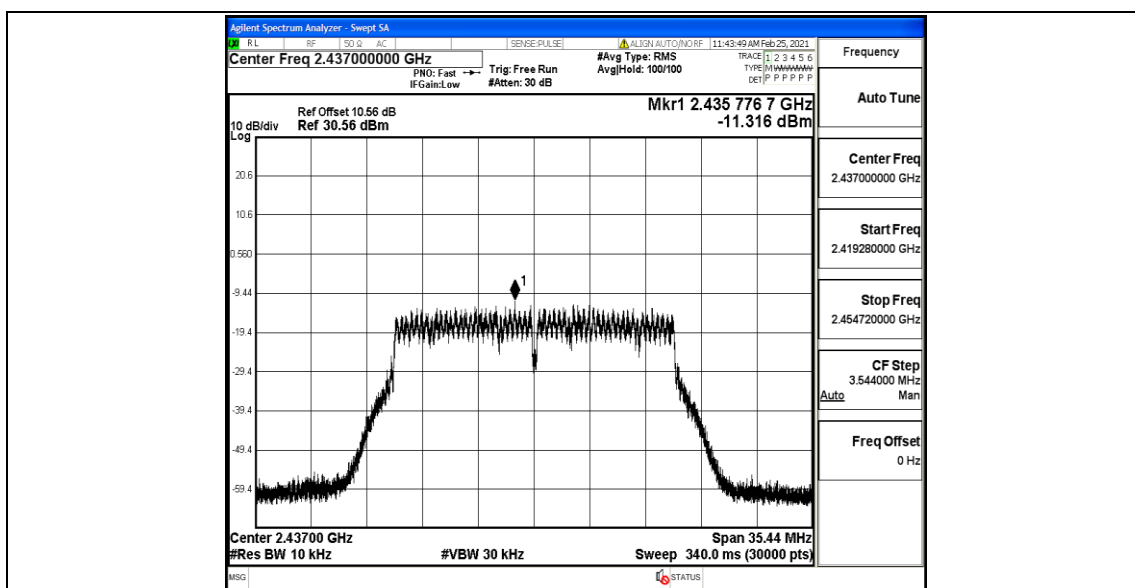


11G_Ant1_2462

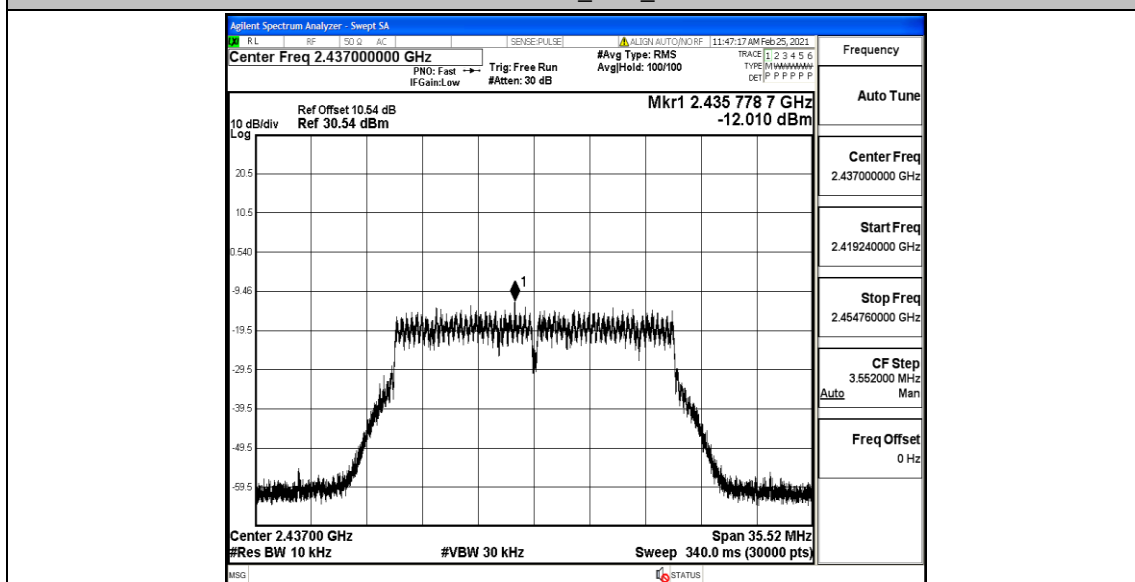


11G_Ant2_2462

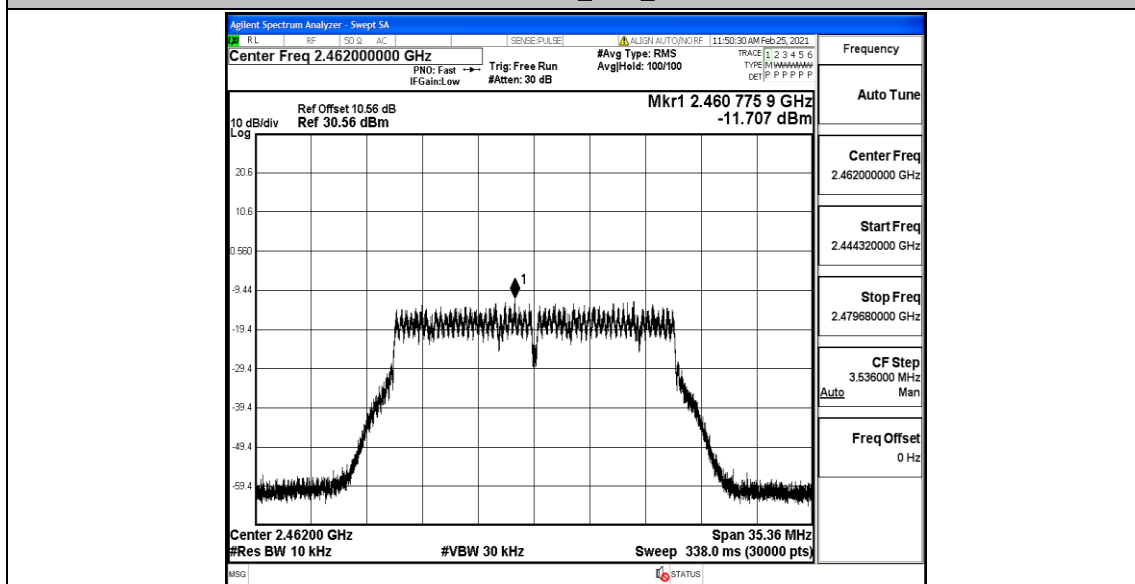




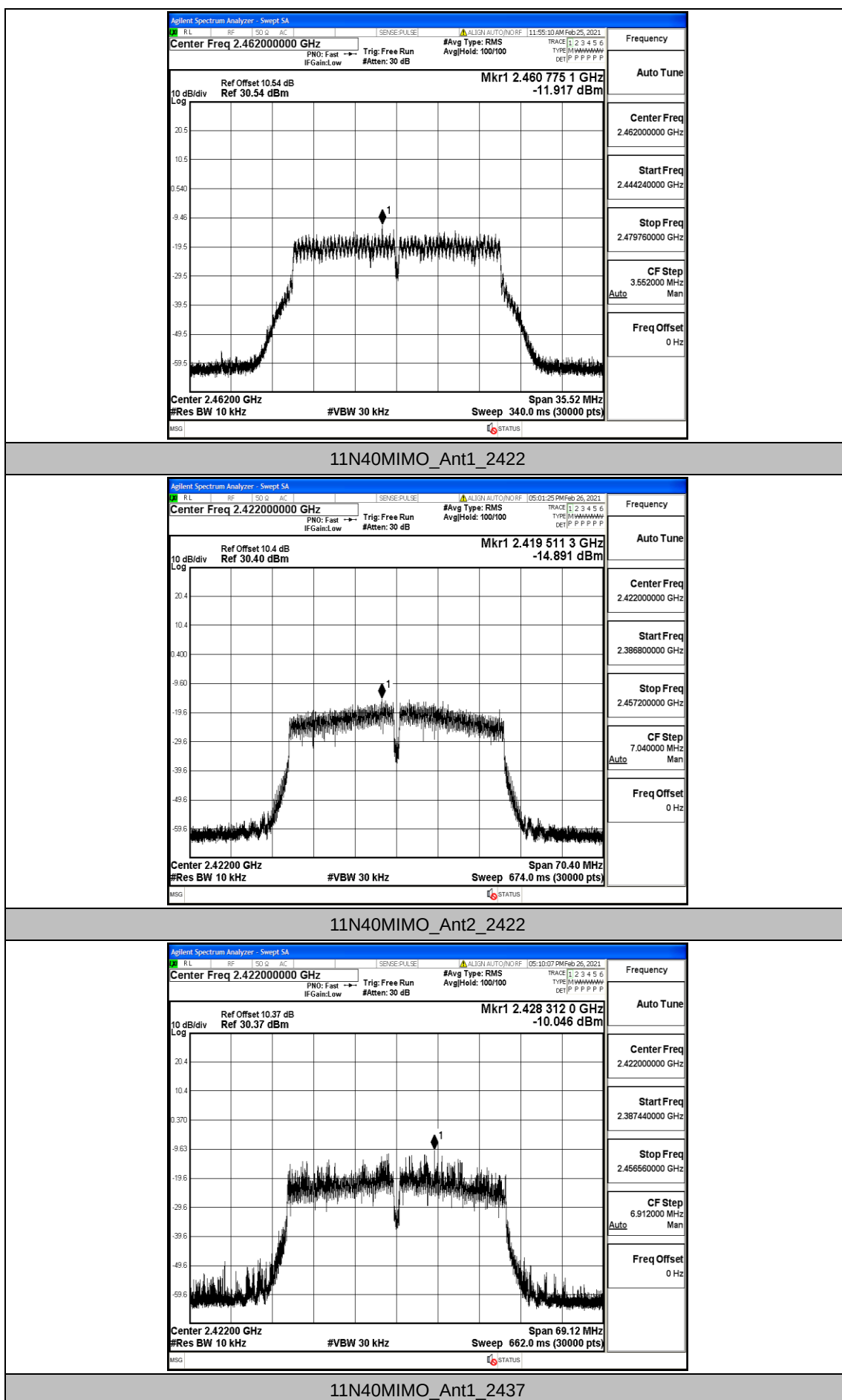
11N20MIMO_Ant2_2437

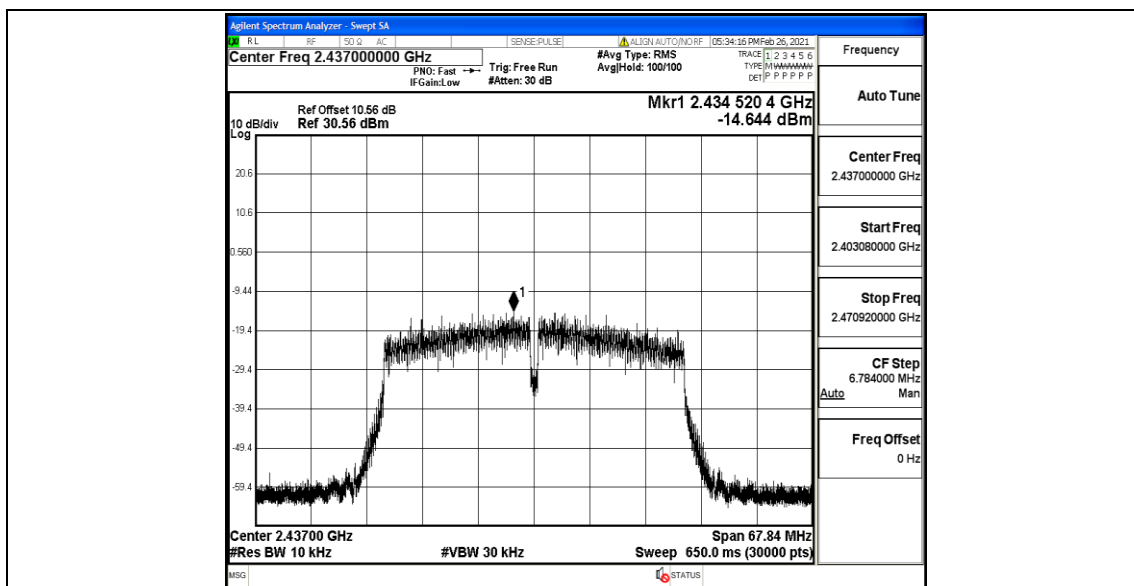


11N20MIMO_Ant1_2462

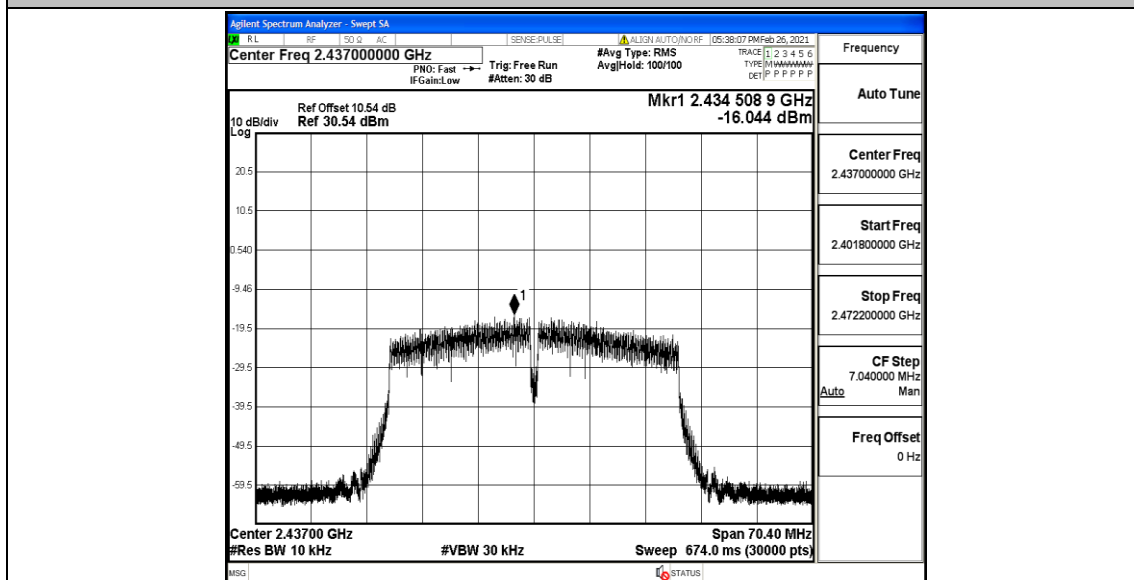


11N20MIMO_Ant2_2462

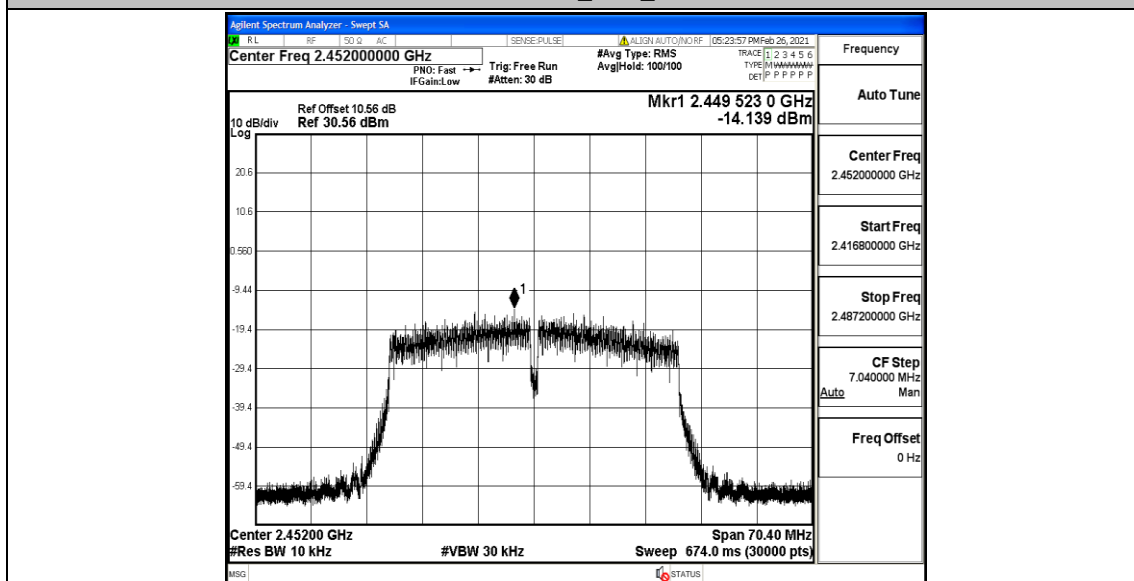




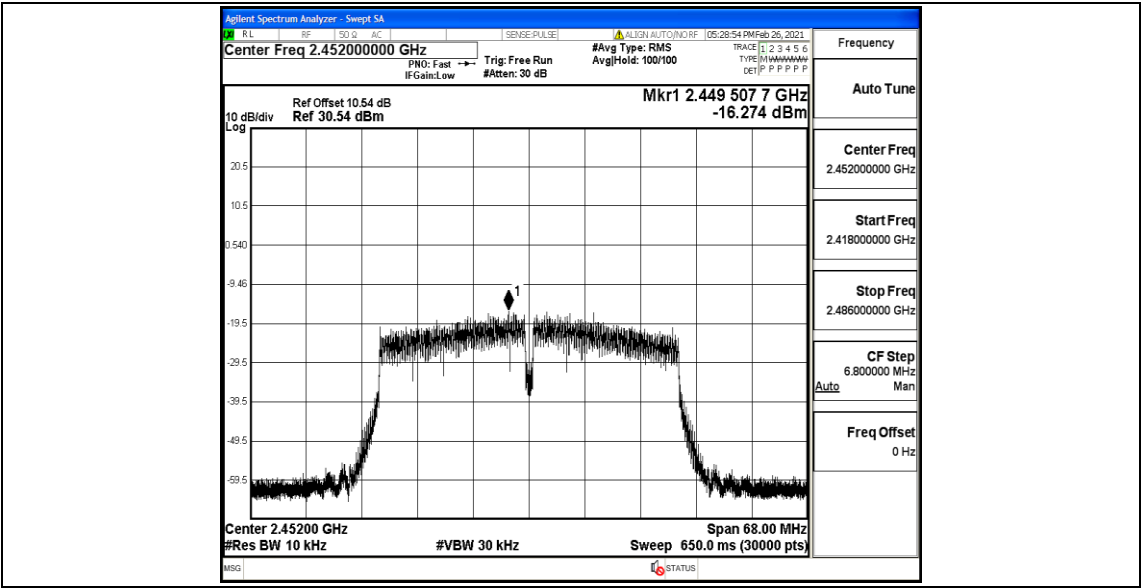
11N40MIMO_Ant2_2437



11N40MIMO_Ant1_2452



11N40MIMO_Ant2_2452



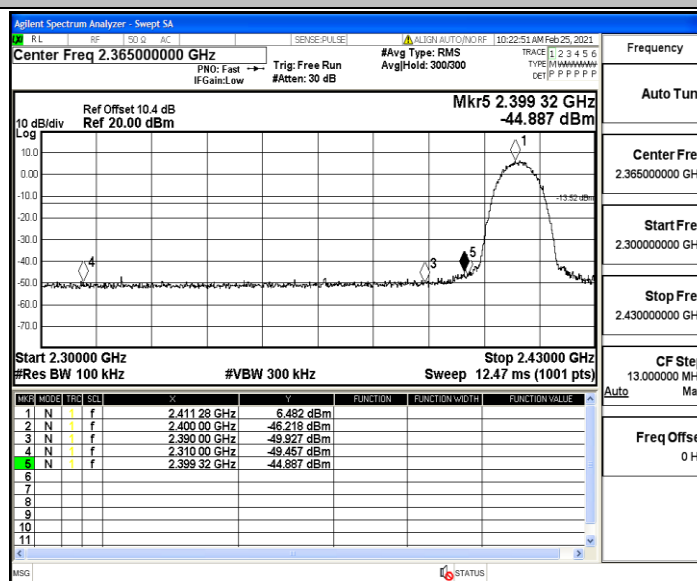
Appendix E: Band edge measurements

Test Result

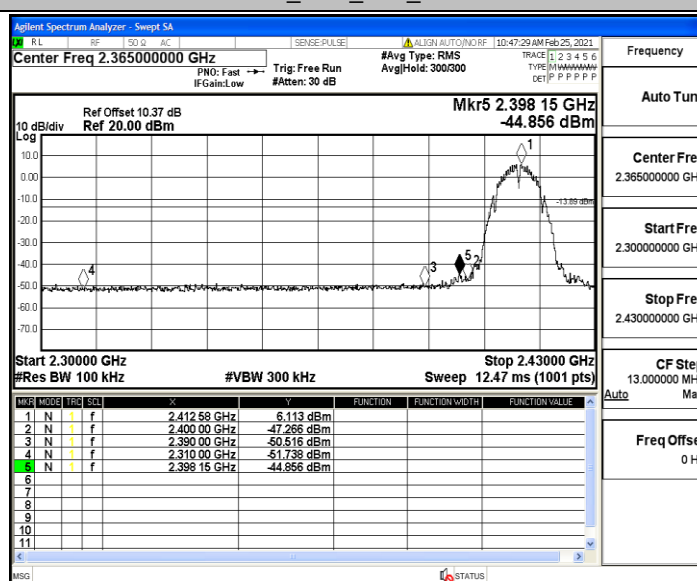
TestMode	Antenna	ChName	Channel	RefLevel[dBm]	Result[dBm]	Limit[dBm]	Verdict
11B	Ant1	Low	2412	6.48	-44.89	<=-13.52	PASS
	Ant2	Low	2412	6.11	-44.86	<=-13.89	PASS
	Ant1	High	2462	6.51	-47.58	<=-13.49	PASS
	Ant2	High	2462	5.98	-47.39	<=-14.02	PASS
11G	Ant1	Low	2412	-1.50	-43.96	<=-21.5	PASS
	Ant2	Low	2412	-2.74	-43.59	<=-22.74	PASS
	Ant1	High	2462	-2.47	-46.85	<=-22.47	PASS
	Ant2	High	2462	-2.63	-47.38	<=-22.63	PASS
11N20MIMO	Ant1	Low	2412	-3.97	-43.85	<=-23.97	PASS
	Ant2	Low	2412	-4.62	-44.84	<=-24.62	PASS
	Ant1	High	2462	-3.47	-47.56	<=-23.47	PASS
	Ant2	High	2462	-5.27	-47.56	<=-25.27	PASS
11N40MIMO	Ant1	Low	2422	-5.17	-45.15	<=-25.17	PASS
	Ant2	Low	2422	-3.94	-37.35	<=-23.94	PASS
	Ant1	High	2452	-5.31	-47.66	<=-25.31	PASS
	Ant2	High	2452	-6.45	-47.71	<=-26.45	PASS

Test Graphs

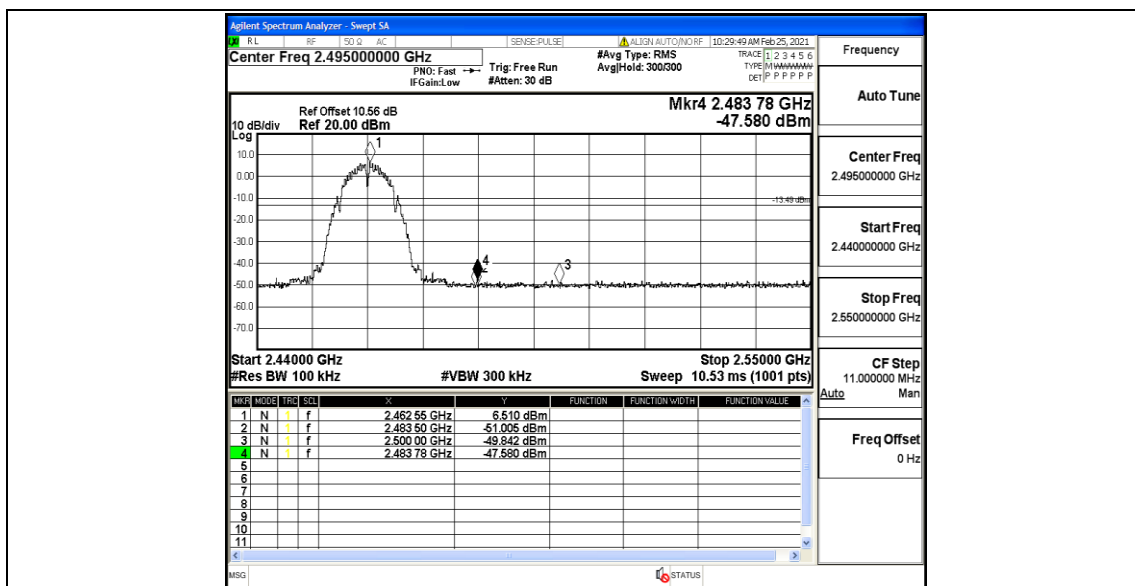
11B_Ant1_Low_2412



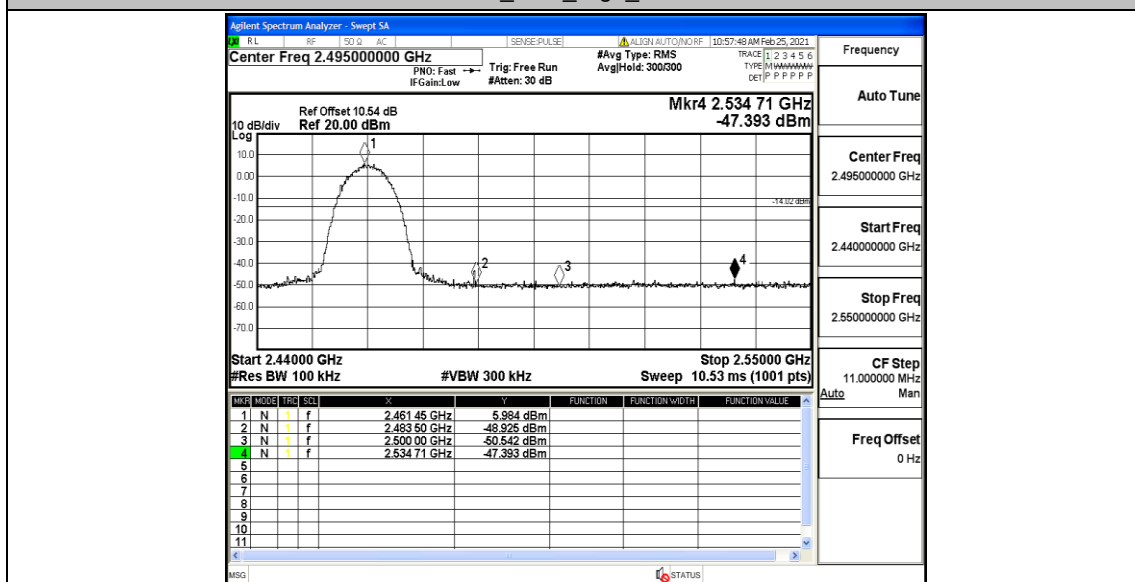
11B_Ant2_Low_2412



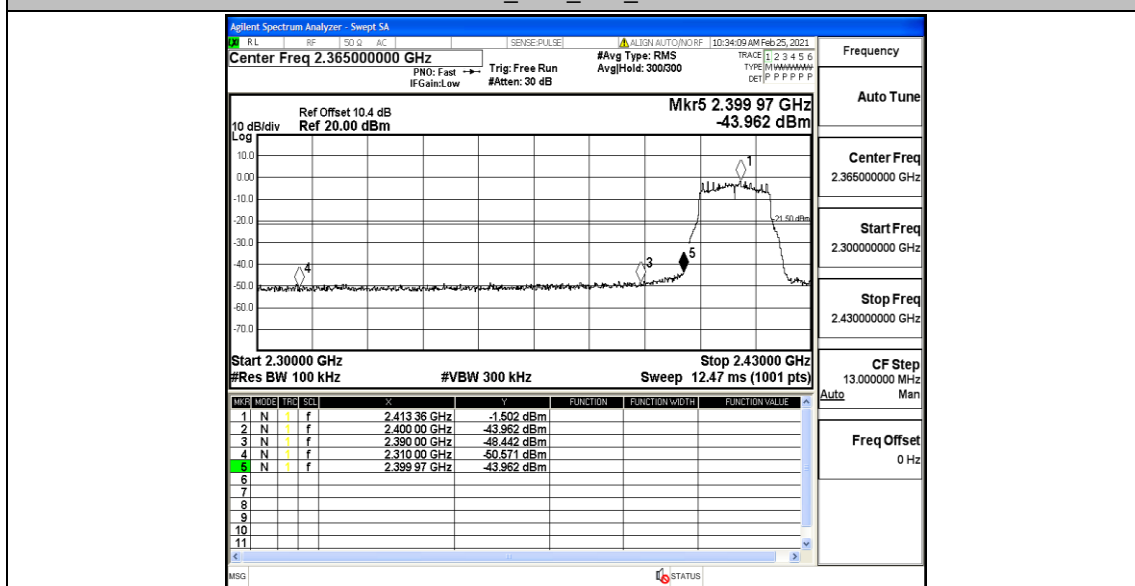
11B_Ant1_High_2462



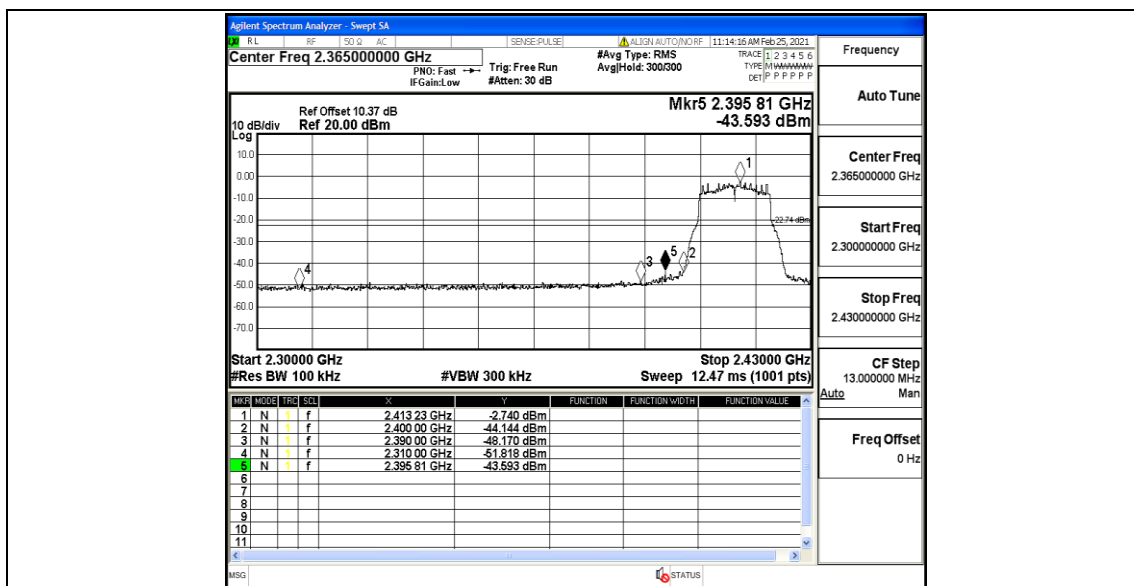
11B_Ant2_High_2462



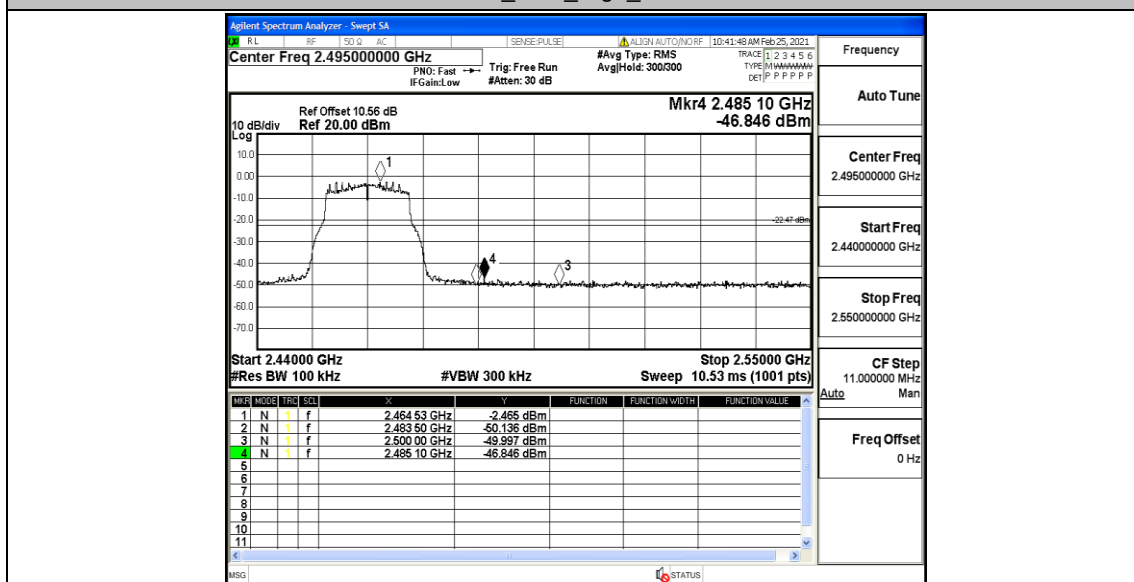
11G_Ant1_Low_2412



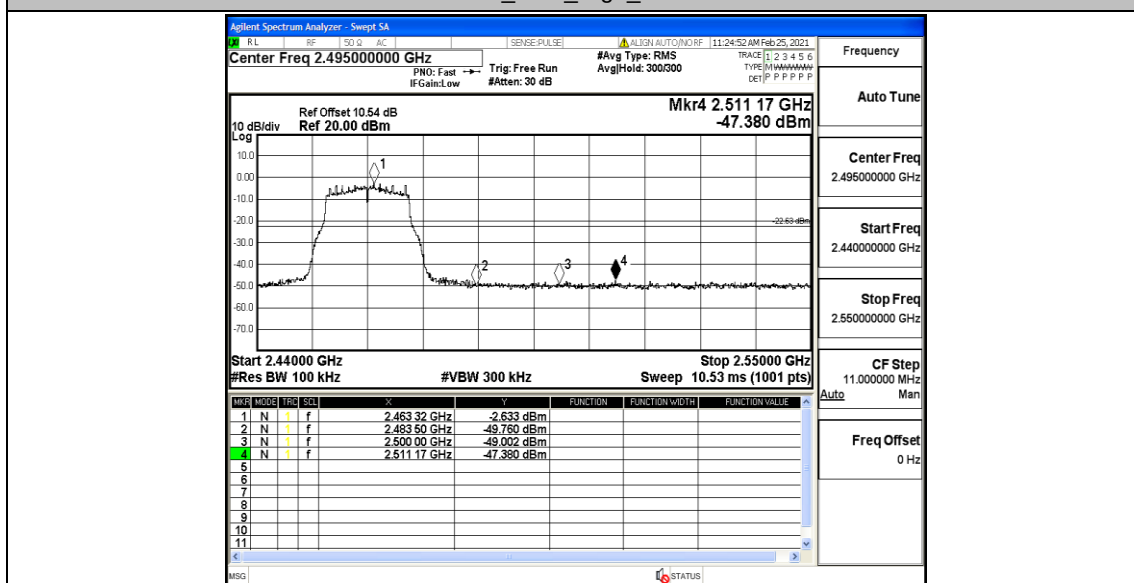
11G_Ant2_Low_2412



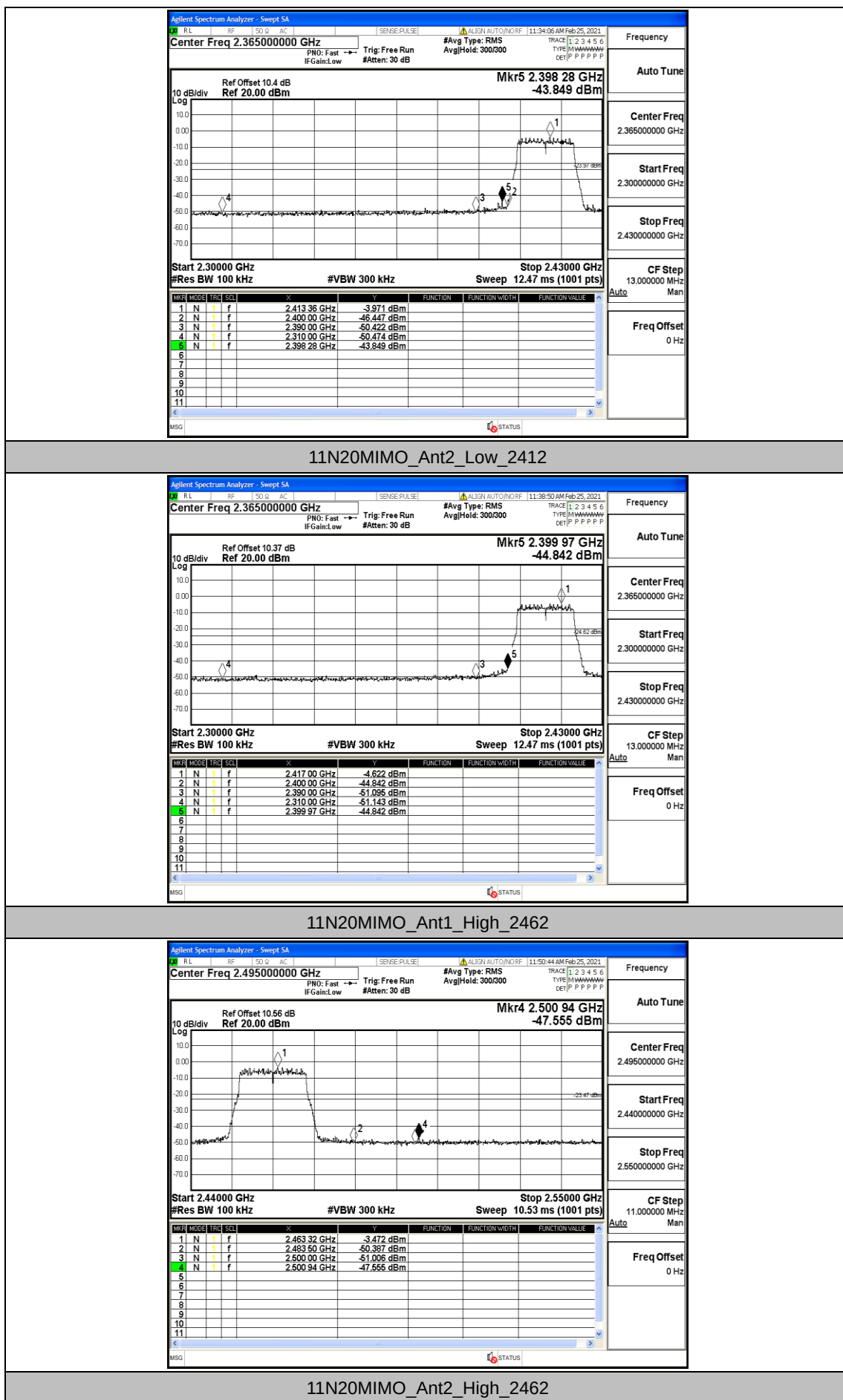
11G_Ant1_High_2462

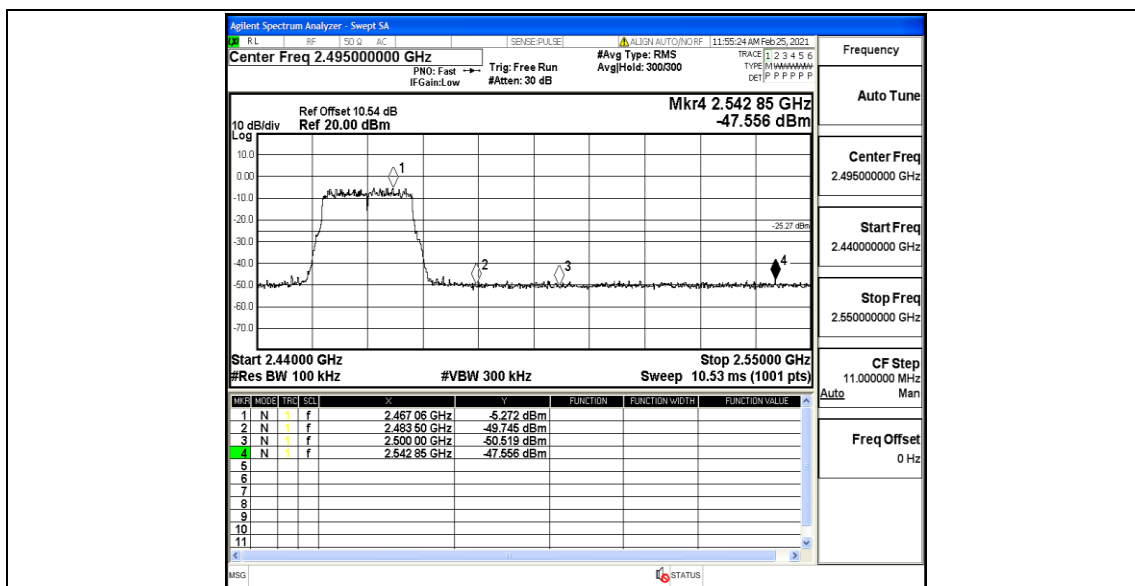


11G_Ant2_High_2462

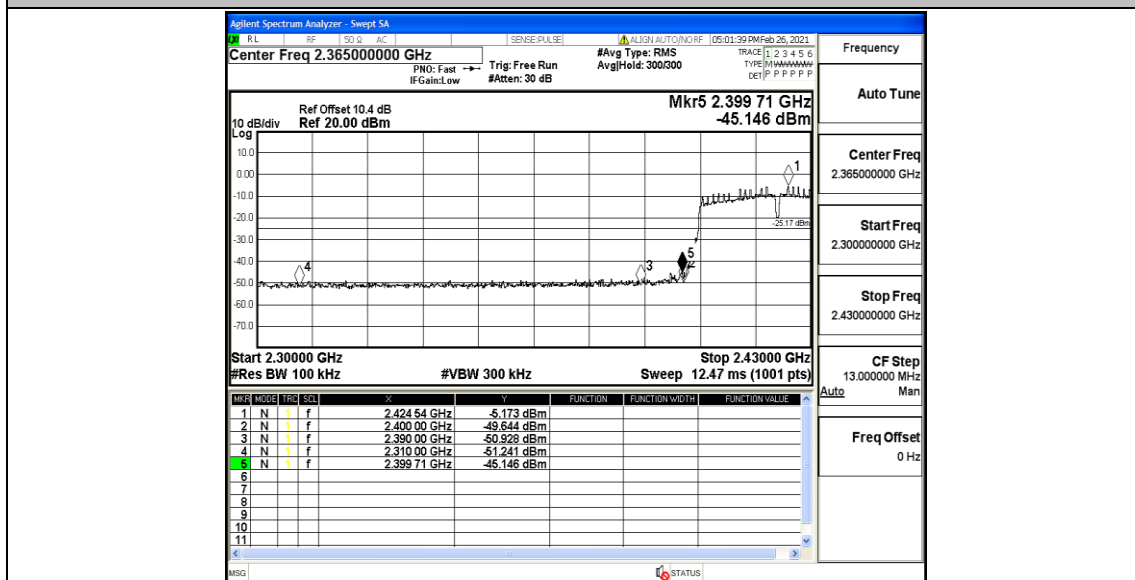


11N20MIMO_Ant1_Low_2412

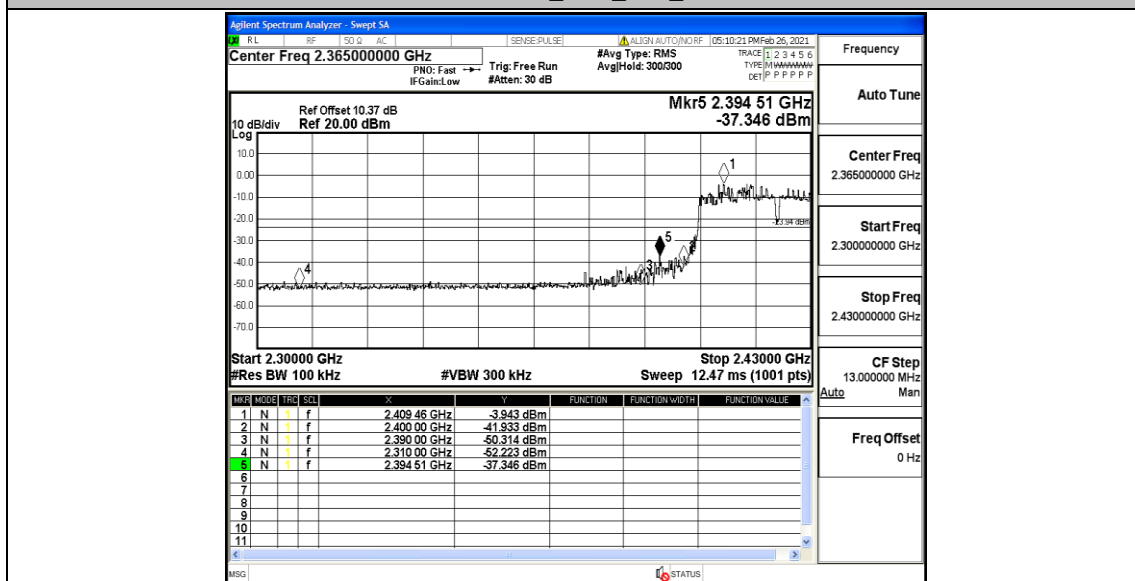




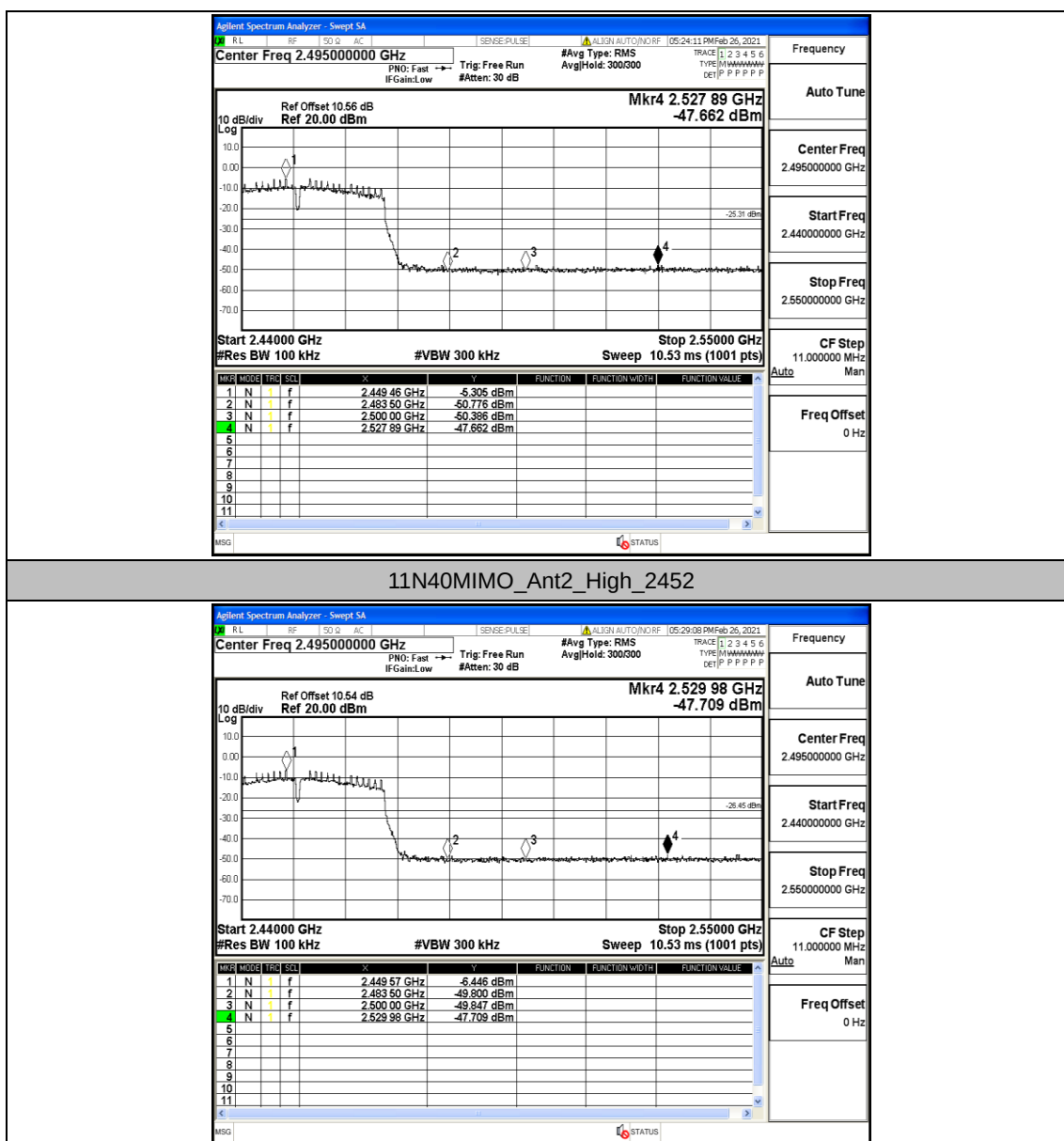
11N40MIMO_Ant1_Low_2422



11N40MIMO_Ant2_Low_2422



11N40MIMO_Ant1_High_2452



Appendix F: Conducted Spurious Emission

Test Result

TestMode	Antenna	Channel	FreqRange [Mhz]	RefLevel [dBm]	Result [dBm]	Limit [dBm]	Verdict
11B	Ant1	2412	Reference	5.78	5.78	---	PASS
			30~1000	5.78	-59.95	<=-14.22	PASS
			1000~26500	5.78	-23.27	<=-14.22	PASS
	Ant2	2412	Reference	5.86	5.86	---	PASS
			30~1000	5.86	-60.41	<=-14.14	PASS
			1000~26500	5.86	-50.74	<=-14.14	PASS
	Ant1	2437	Reference	6.06	6.06	---	PASS
			30~1000	6.06	-59.27	<=-13.94	PASS
			1000~26500	6.06	-50.06	<=-13.94	PASS
	Ant2	2437	Reference	6.72	6.72	---	PASS
			30~1000	6.72	-59.76	<=-13.28	PASS
			1000~26500	6.72	-50.95	<=-13.28	PASS
	Ant1	2462	Reference	5.83	5.83	---	PASS
			30~1000	5.83	-59.54	<=-14.17	PASS
			1000~26500	5.83	-50.87	<=-14.17	PASS
	Ant2	2462	Reference	5.13	5.13	---	PASS
			30~1000	5.13	-59.85	<=-14.87	PASS
			1000~26500	5.13	-49.52	<=-14.87	PASS
11G	Ant1	2412	Reference	-1.54	-1.54	---	PASS
			30~1000	-1.54	-60.2	<=-21.54	PASS
			1000~26500	-1.54	-49.31	<=-21.54	PASS
	Ant2	2412	Reference	-2.89	-2.89	---	PASS
			30~1000	-2.89	-60.19	<=-22.89	PASS
			1000~26500	-2.89	-51.25	<=-22.89	PASS
	Ant1	2437	Reference	-1.56	-1.56	---	PASS
			30~1000	-1.56	-58.46	<=-21.56	PASS
			1000~26500	-1.56	-50.77	<=-21.56	PASS
	Ant2	2437	Reference	-2.74	-2.74	---	PASS
			30~1000	-2.74	-59.69	<=-22.74	PASS
			1000~26500	-2.74	-50.89	<=-22.74	PASS
	Ant1	2462	Reference	-2.65	-2.65	---	PASS
			30~1000	-2.65	-59.91	<=-22.65	PASS
			1000~26500	-2.65	-50.54	<=-22.65	PASS
	Ant2	2462	Reference	-2.65	-2.65	---	PASS
			30~1000	-2.65	-60.05	<=-22.65	PASS
			1000~26500	-2.65	-50.86	<=-22.65	PASS
11N20MIMO	Ant1	2412	Reference	-4.35	-4.35	---	PASS

TestMode	Antenna	Channel	FreqRange [Mhz]	RefLevel [dBm]	Result [dBm]	Limit [dBm]	Verdict
			30~1000	-4.35	-59.48	<=-24.35	PASS
			1000~26500	-4.35	-49.3	<=-24.35	PASS
	Ant2	2412	Reference	-4.63	-4.63	---	PASS
			30~1000	-4.63	-59.37	<=-24.63	PASS
			1000~26500	-4.63	-50.75	<=-24.63	PASS
	Ant1	2437	Reference	-3.86	-3.86	---	PASS
			30~1000	-3.86	-60.21	<=-23.86	PASS
			1000~26500	-3.86	-50.59	<=-23.86	PASS
	Ant2	2437	Reference	-4.80	-4.80	---	PASS
			30~1000	-4.80	-59.53	<=-24.8	PASS
			1000~26500	-4.80	-50.46	<=-24.8	PASS
	Ant1	2462	Reference	-3.82	-3.82	---	PASS
			30~1000	-3.82	-60.64	<=-23.82	PASS
			1000~26500	-3.82	-51.01	<=-23.82	PASS
	Ant2	2462	Reference	-5.25	-5.25	---	PASS
			30~1000	-5.25	-60.02	<=-25.25	PASS
			1000~26500	-5.25	-50.54	<=-25.25	PASS
11N40MIMO	Ant1	2422	Reference	-5.21	-5.21	---	PASS
			30~1000	-5.21	-52.49	<=-25.21	PASS
			1000~26500	-5.21	-51.11	<=-25.21	PASS
	Ant2	2422	Reference	-6.07	-6.07	---	PASS
			30~1000	-6.07	-57.02	<=-26.07	PASS
			1000~26500	-6.07	-51.08	<=-26.07	PASS
	Ant1	2437	Reference	-5.04	-5.04	---	PASS
			30~1000	-5.04	-57.14	<=-25.04	PASS
			1000~26500	-5.04	-51.11	<=-25.04	PASS
	Ant2	2437	Reference	-6.30	-6.30	---	PASS
			30~1000	-6.30	-51.88	<=-26.3	PASS
			1000~26500	-6.30	-51.2	<=-26.3	PASS
	Ant1	2452	Reference	-5.58	-5.58	---	PASS
			30~1000	-5.58	-57.47	<=-25.58	PASS
			1000~26500	-5.58	-41.5	<=-25.58	PASS
	Ant2	2452	Reference	-6.50	-6.50	---	PASS
			30~1000	-6.50	-52.82	<=-26.5	PASS
			1000~26500	-6.50	-40.3	<=-26.5	PASS

Test Graphs

