

Appendix Test Data for WLAN(2. 4G) (Conducted Measurement)

Product Name: Wanbo Projector

Trade Mark: Wanbo

Test Model: WPC14

FCC ID: 2A7PI-WPC14

Environmental Conditions

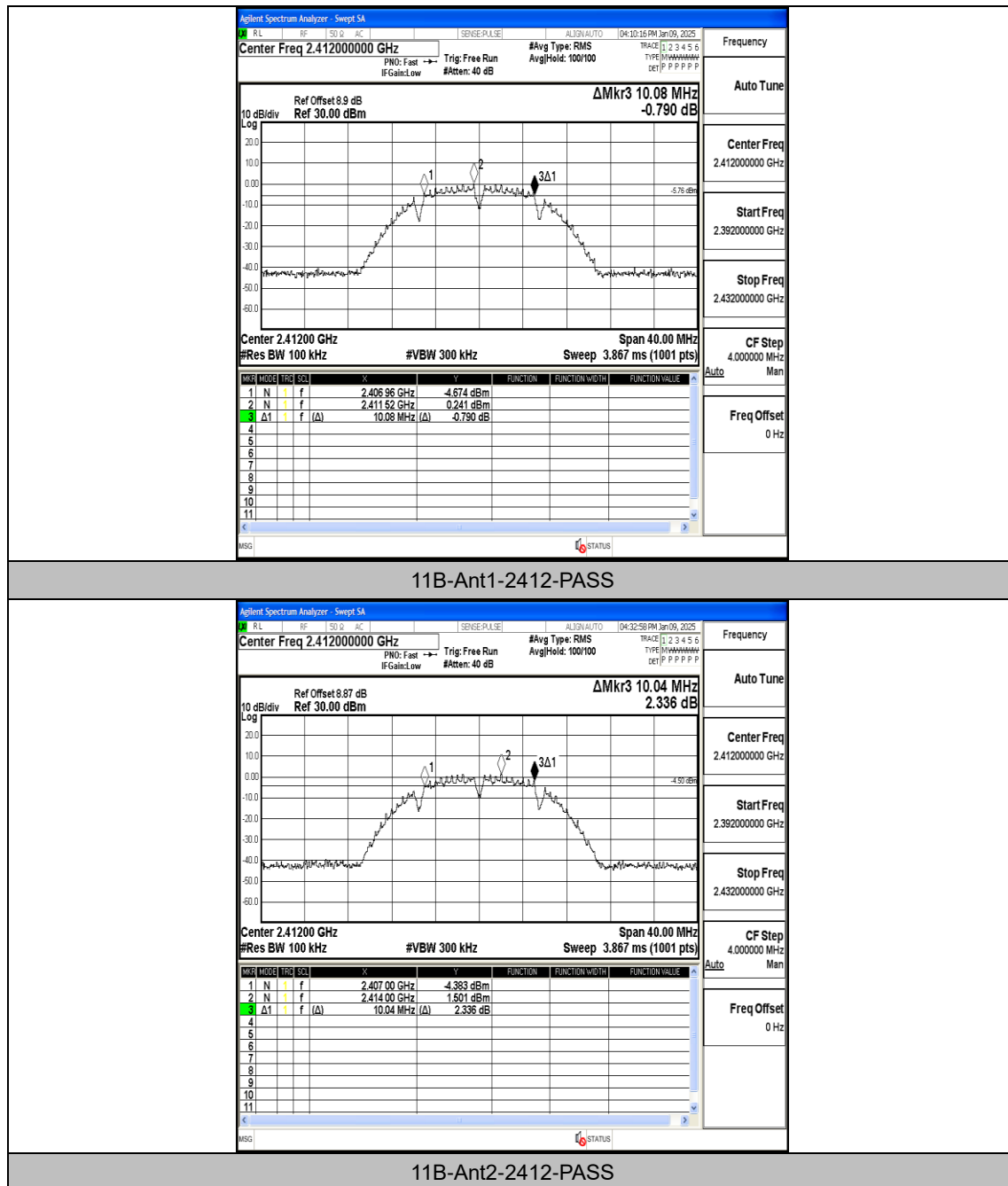
Temperature:	23.5℃
Relative Humidity:	58%
ATM Pressure:	100.0 kPa
Test Engineer:	Allen Lai
Supervised by:	Hugo Chen
NOTE	N/A

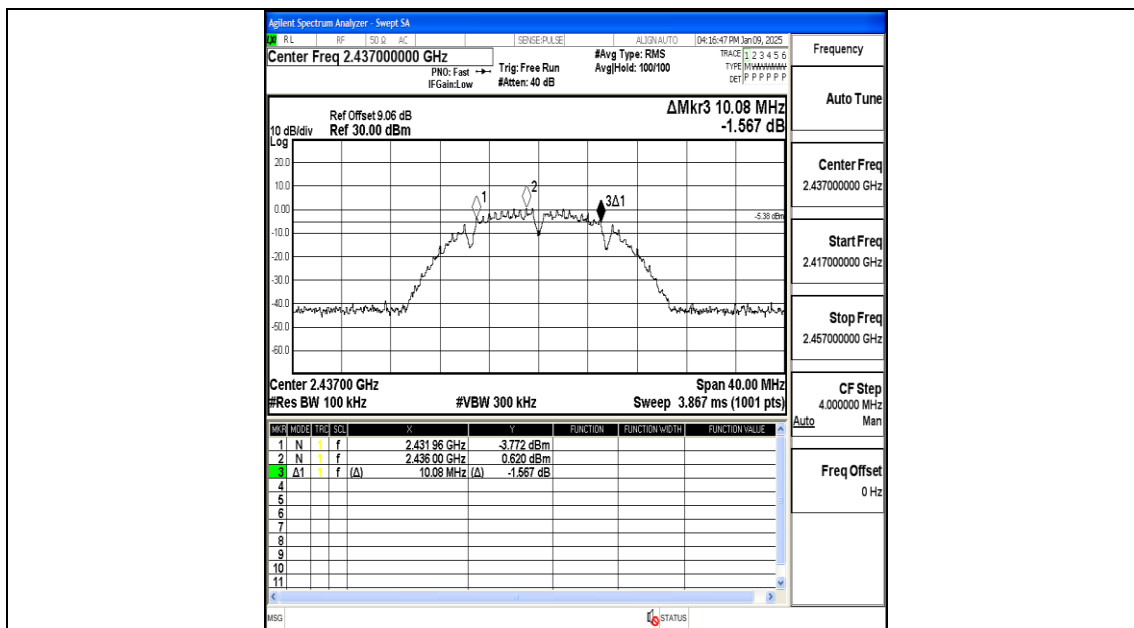
Appendix A: DTS Bandwidth

Test Result

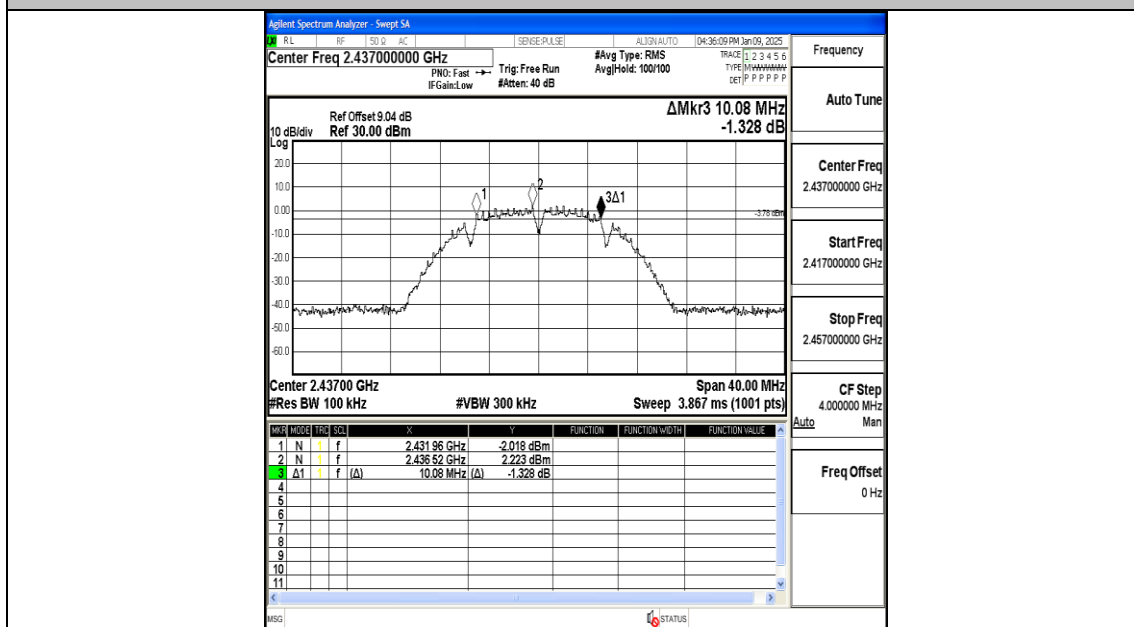
Test Mode	Antenna	Frequency [MHz]	DTS BW [MHz]	FL [MHz]	FH [MHz]	Limit [MHz]	Verdict
11B	Ant1	2412	10.080	2406.960	2417.040	0.5	PASS
11B	Ant2	2412	10.040	2407.000	2417.040	0.5	PASS
11B	Ant1	2437	10.080	2431.960	2442.040	0.5	PASS
11B	Ant2	2437	10.080	2431.960	2442.040	0.5	PASS
11B	Ant1	2462	10.080	2456.960	2467.040	0.5	PASS
11B	Ant2	2462	10.040	2457.000	2467.040	0.5	PASS
11G	Ant1	2412	16.320	2403.840	2420.160	0.5	PASS
11G	Ant2	2412	16.320	2403.840	2420.160	0.5	PASS
11G	Ant1	2437	16.080	2428.840	2444.920	0.5	PASS
11G	Ant2	2437	15.200	2429.520	2444.720	0.5	PASS
11G	Ant1	2462	16.320	2453.840	2470.160	0.5	PASS
11G	Ant2	2462	16.080	2454.080	2470.160	0.5	PASS
11N20MIMO	Ant1	2412	17.240	2403.480	2420.720	0.5	PASS
11N20MIMO	Ant2	2412	17.280	2403.480	2420.760	0.5	PASS
11N20MIMO	Ant1	2437	15.760	2428.800	2444.560	0.5	PASS
11N20MIMO	Ant2	2437	15.400	2429.160	2444.560	0.5	PASS
11N20MIMO	Ant1	2462	17.160	2453.520	2470.680	0.5	PASS
11N20MIMO	Ant2	2462	17.000	2453.640	2470.640	0.5	PASS
11N40MIMO	Ant1	2422	35.200	2404.400	2439.600	0.5	PASS
11N40MIMO	Ant2	2422	35.120	2404.480	2439.600	0.5	PASS
11N40MIMO	Ant1	2437	34.960	2419.560	2454.520	0.5	PASS
11N40MIMO	Ant2	2437	35.040	2419.480	2454.520	0.5	PASS
11N40MIMO	Ant1	2452	35.920	2434.240	2470.160	0.5	PASS
11N40MIMO	Ant2	2452	35.360	2434.240	2469.600	0.5	PASS

Test Graphs

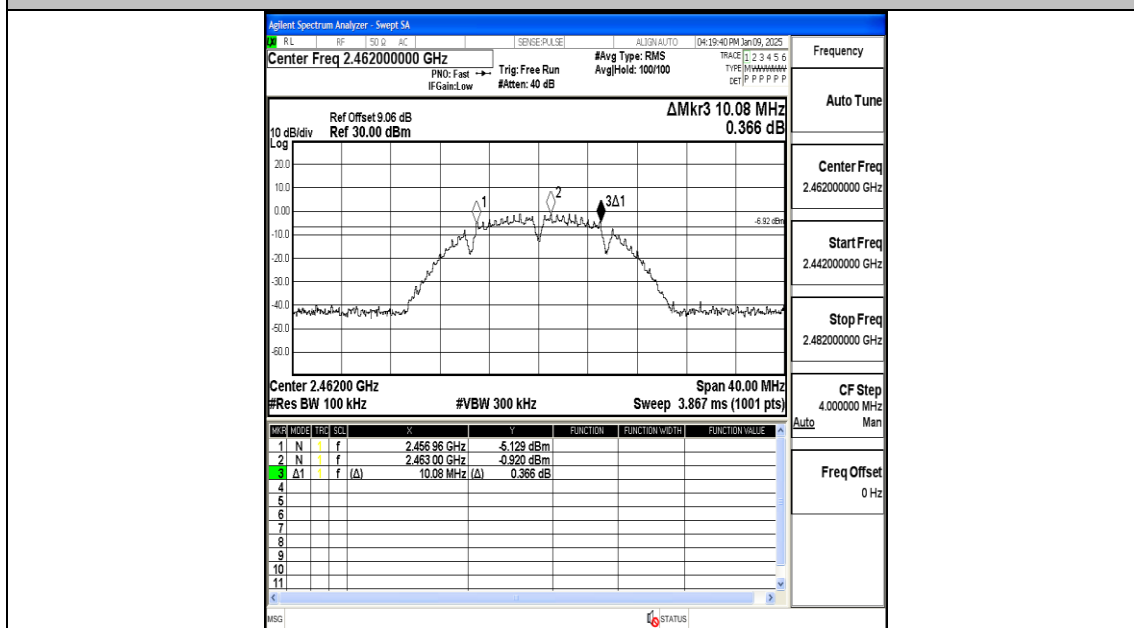




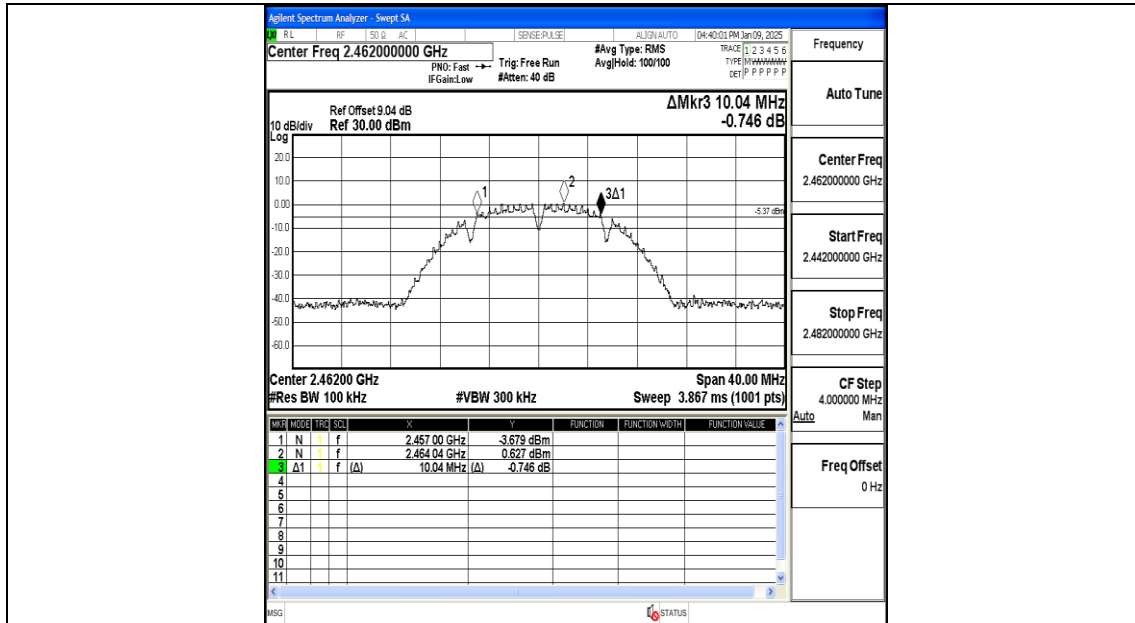
11B-Ant1-2437-PASS



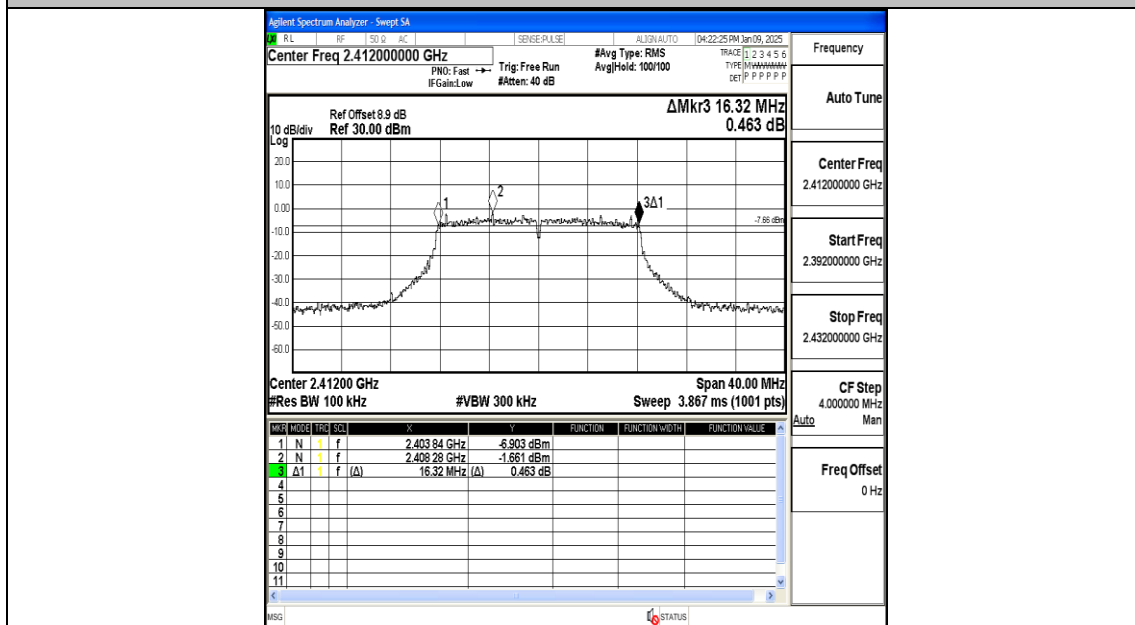
11B-Ant2-2437-PASS



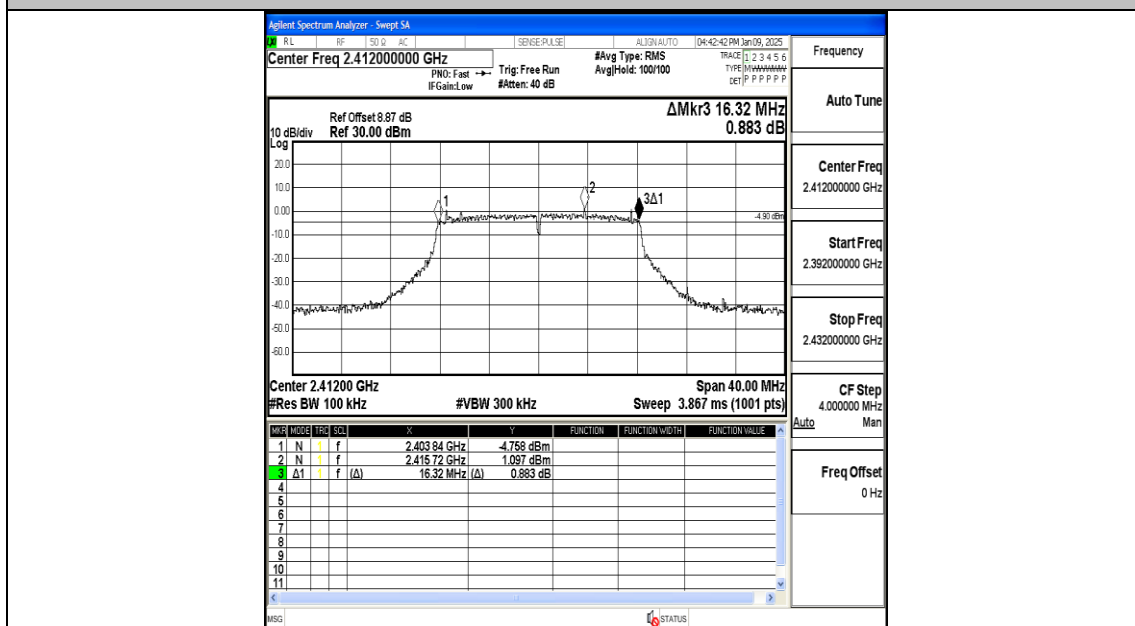
11B-Ant1-2462-PASS



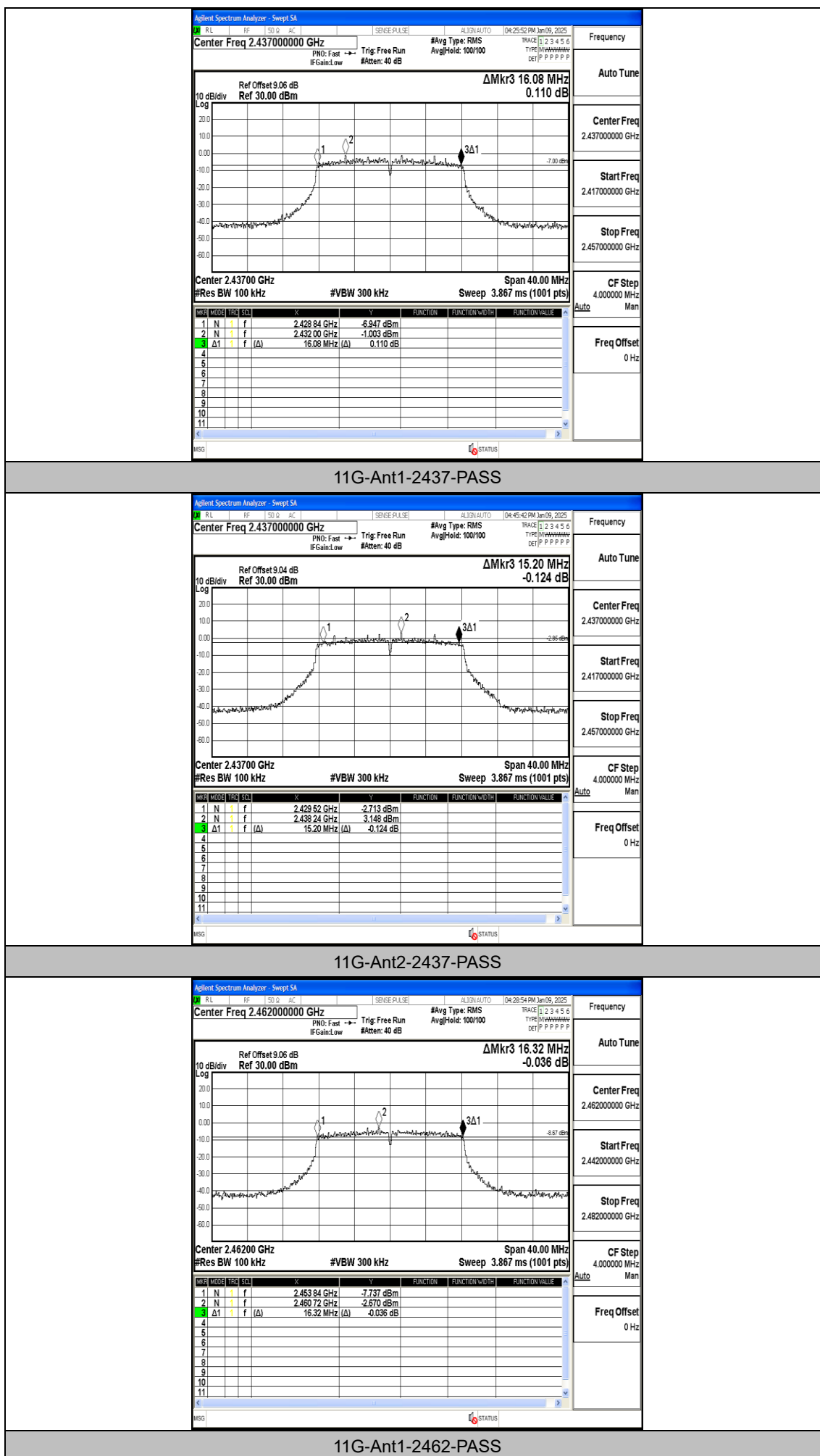
11B-Ant2-2462-PASS

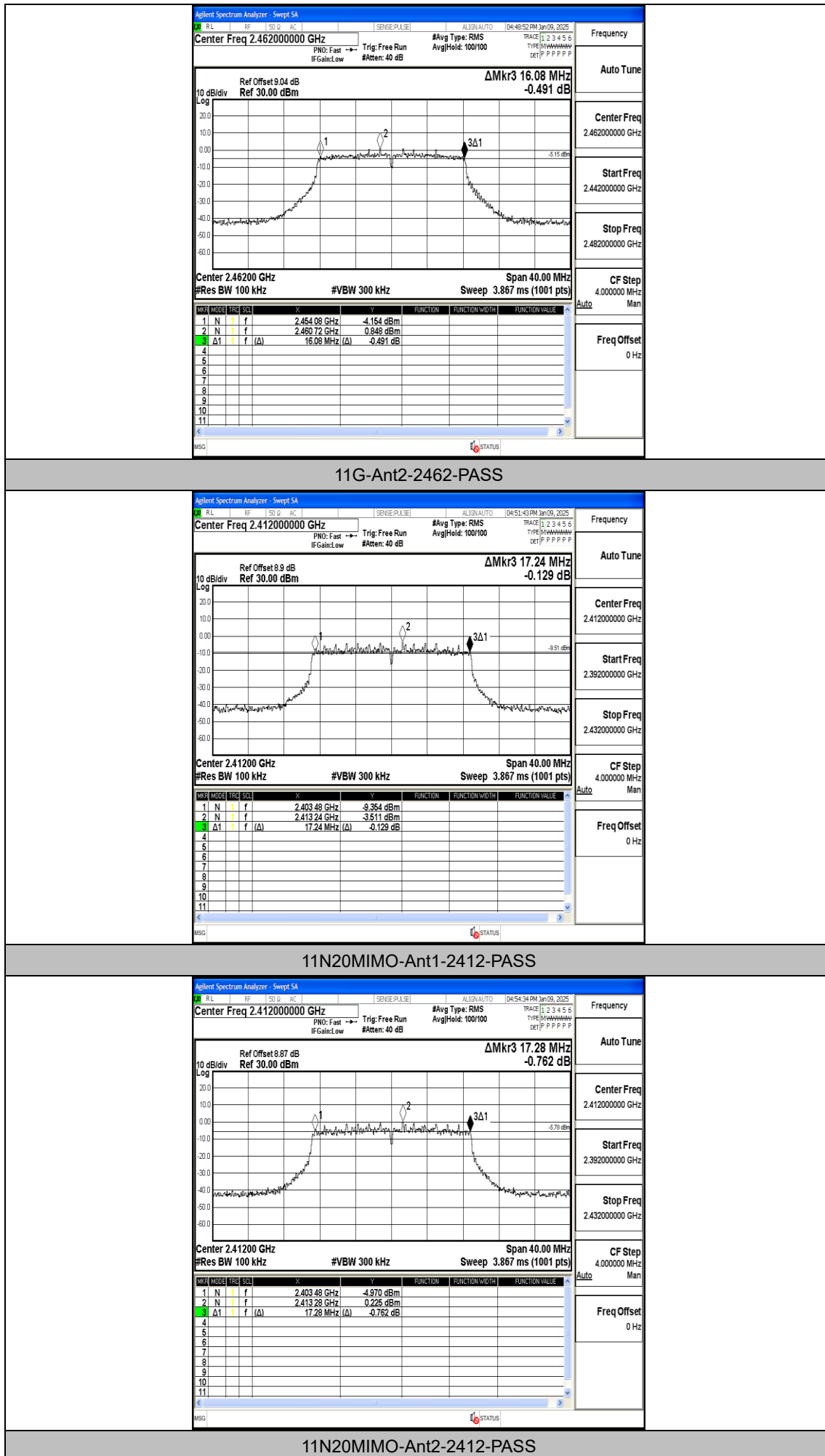


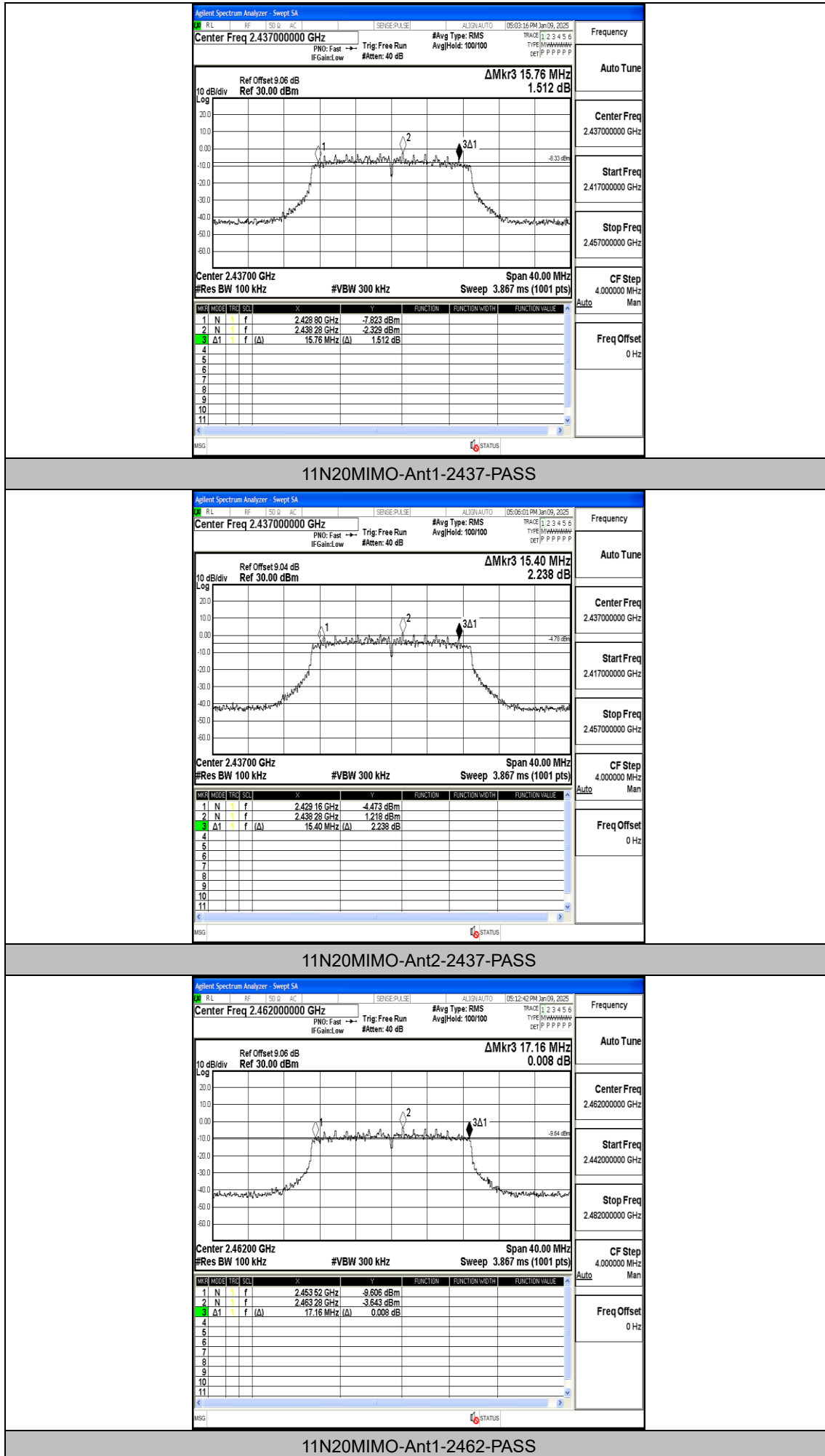
11G-Ant1-2412-PASS

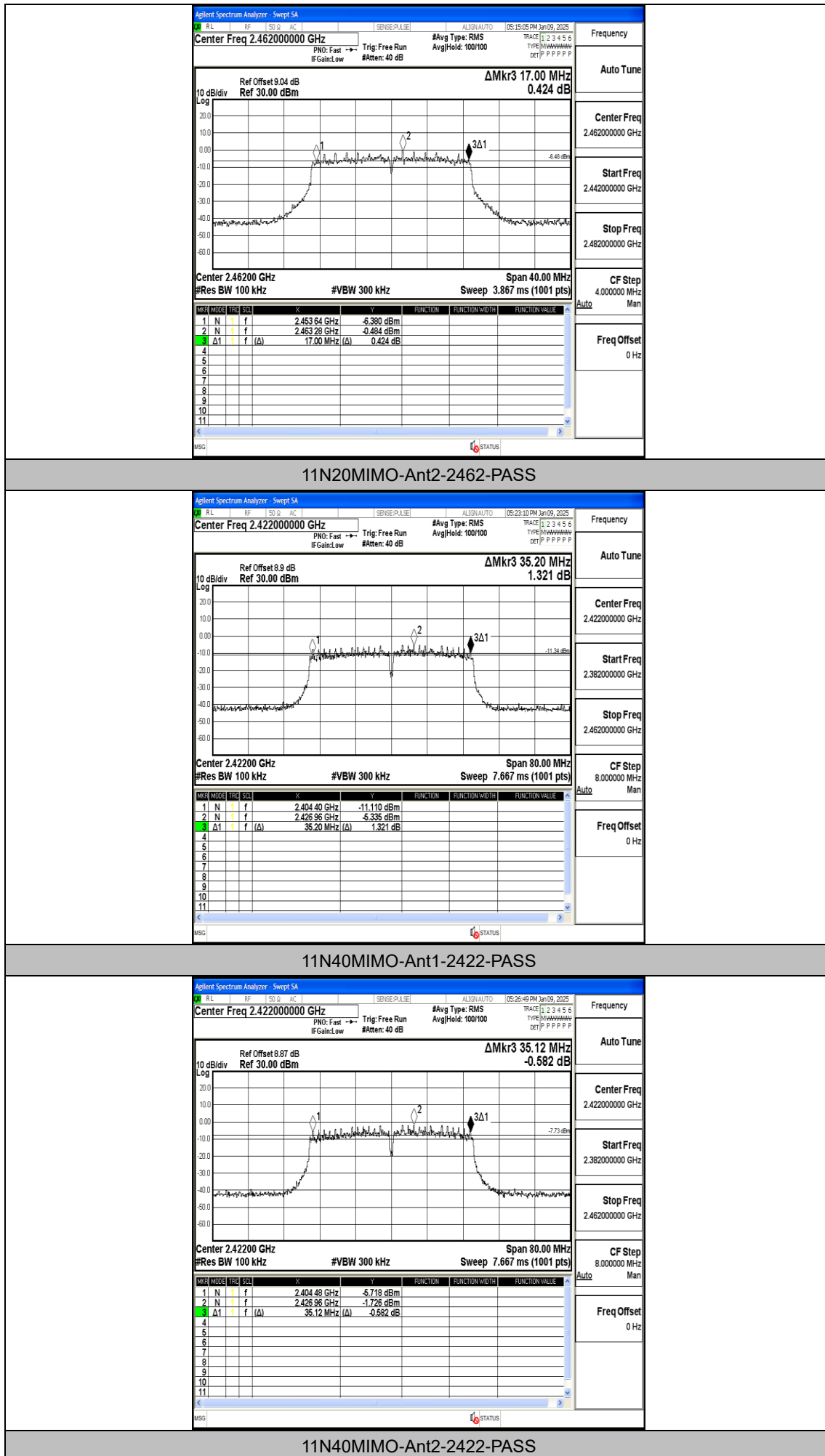


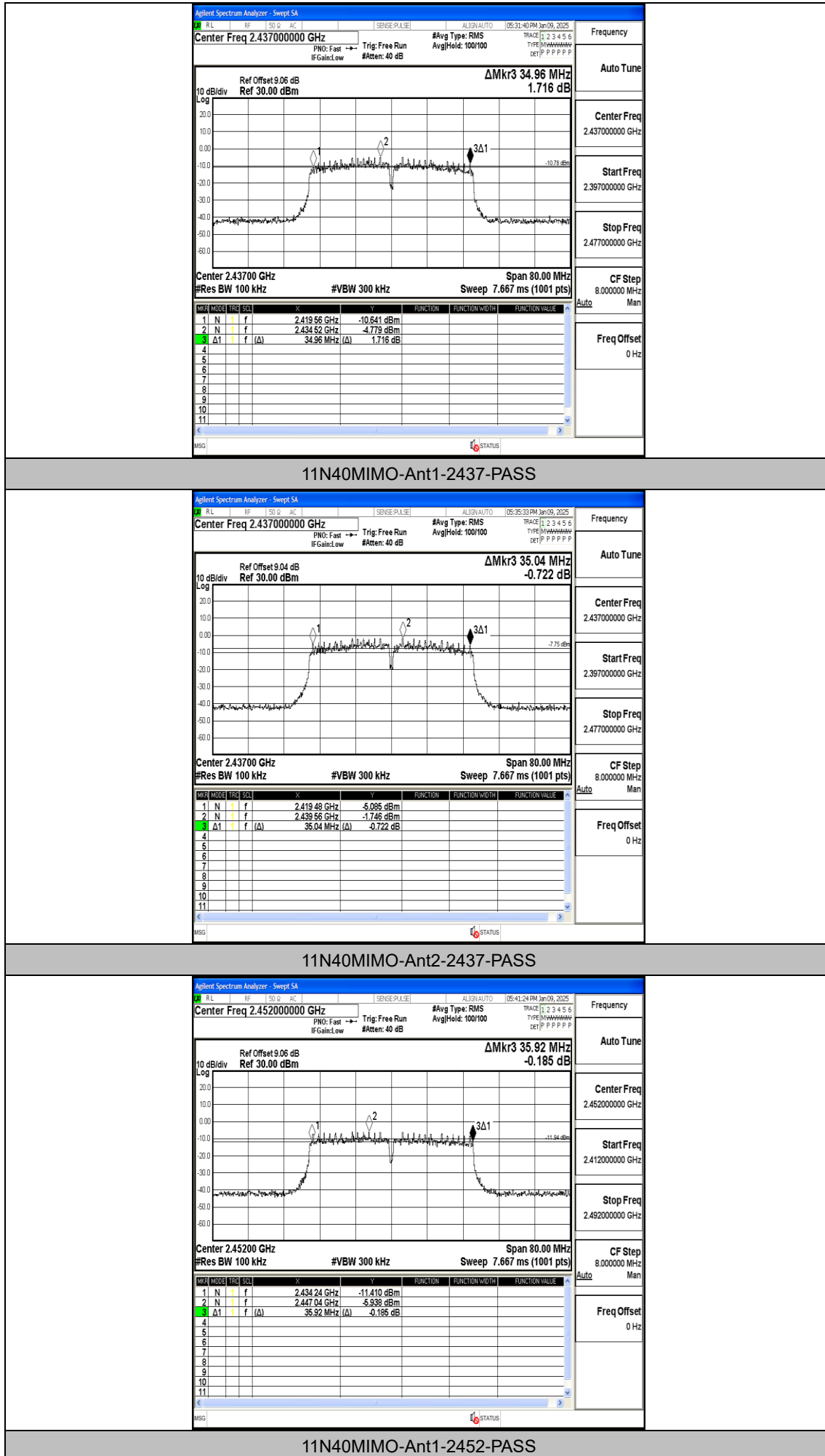
11G-Ant2-2412-PASS

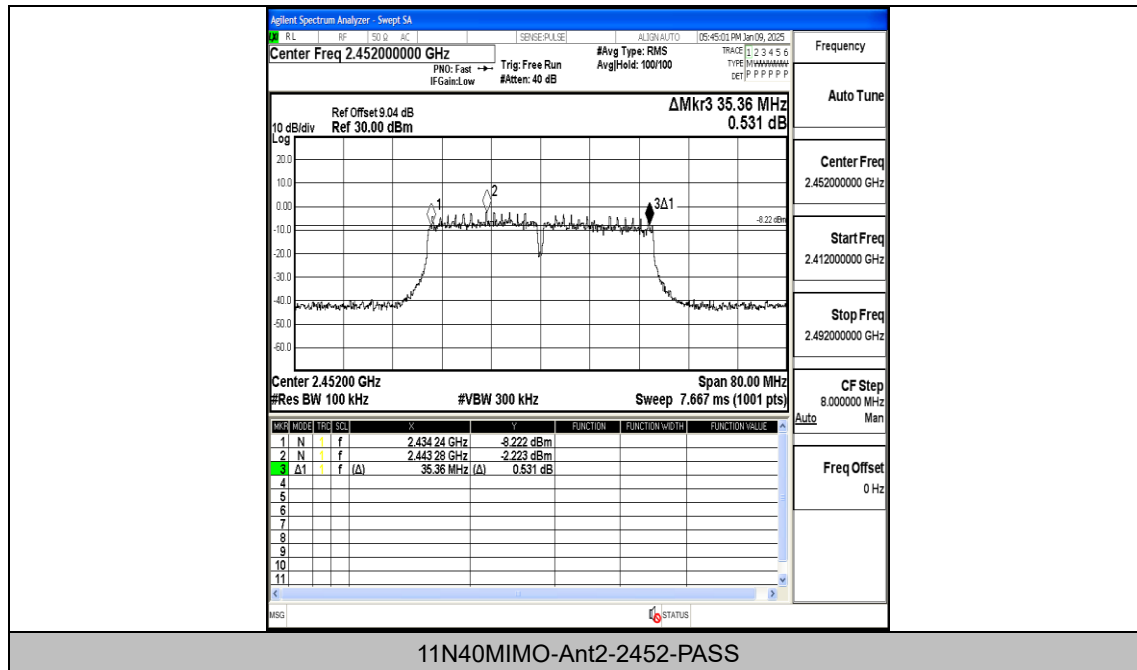










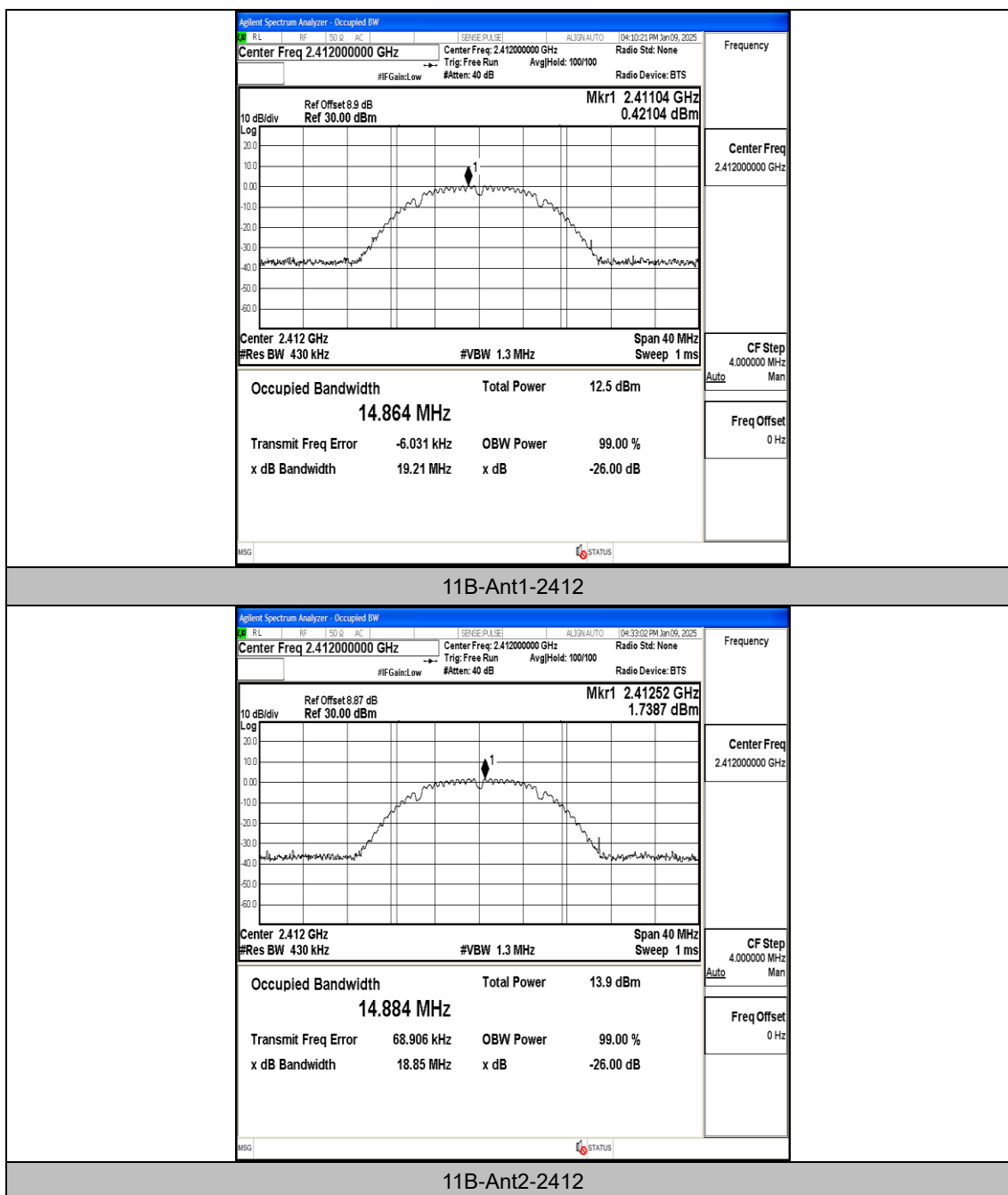


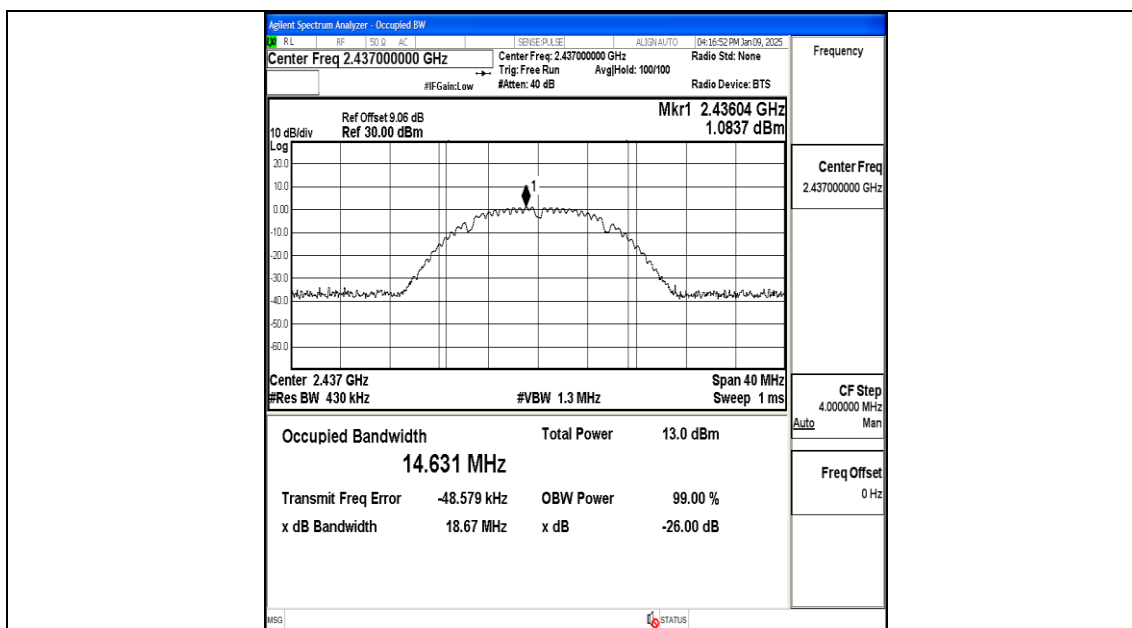
Appendix B: Occupied Channel Bandwidth

Test Result

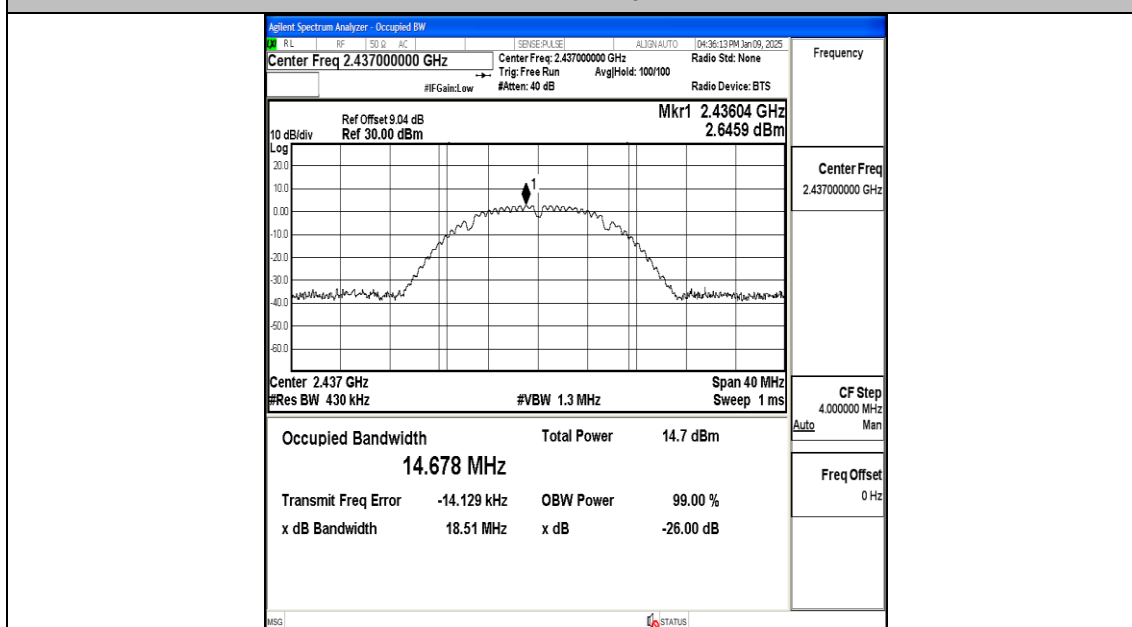
Test Mode	Antenna	Channel Frequency [MHz]	OCB [MHz]	FL [MHz]	FH [MHz]	Limit [MHz]	Verdict
11B	Ant1	2412	14.864	2404.5620	2419.4260	---	---
11B	Ant2	2412	14.884	2404.6269	2419.5109	---	---
11B	Ant1	2437	14.631	2429.6359	2444.2669	---	---
11B	Ant2	2437	14.678	2429.6469	2444.3249	---	---
11B	Ant1	2462	14.867	2454.6366	2469.5036	---	---
11B	Ant2	2462	14.922	2454.5888	2469.5108	---	---
11G	Ant1	2412	16.691	2403.6594	2420.3504	---	---
11G	Ant2	2412	16.870	2403.5955	2420.4655	---	---
11G	Ant1	2437	16.561	2428.7226	2445.2836	---	---
11G	Ant2	2437	16.723	2428.6744	2445.3974	---	---
11G	Ant1	2462	16.618	2453.7644	2470.3824	---	---
11G	Ant2	2462	16.831	2453.5830	2470.4140	---	---
11N20MIMO	Ant1	2412	17.876	2403.1067	2420.9827	---	---
11N20MIMO	Ant2	2412	17.756	2403.1416	2420.8976	---	---
11N20MIMO	Ant1	2437	17.775	2428.1125	2445.8875	---	---
11N20MIMO	Ant2	2437	17.732	2428.0997	2445.8317	---	---
11N20MIMO	Ant1	2462	17.733	2453.1730	2470.9060	---	---
11N20MIMO	Ant2	2462	17.763	2453.1500	2470.9130	---	---
11N40MIMO	Ant1	2422	36.397	2403.8315	2440.2285	---	---
11N40MIMO	Ant2	2422	36.318	2403.9335	2440.2515	---	---
11N40MIMO	Ant1	2437	36.021	2419.0196	2455.0406	---	---
11N40MIMO	Ant2	2437	35.972	2419.0039	2454.9759	---	---
11N40MIMO	Ant1	2452	36.483	2433.7391	2470.2221	---	---
11N40MIMO	Ant2	2452	36.343	2433.8653	2470.2083	---	---

Test Graphs

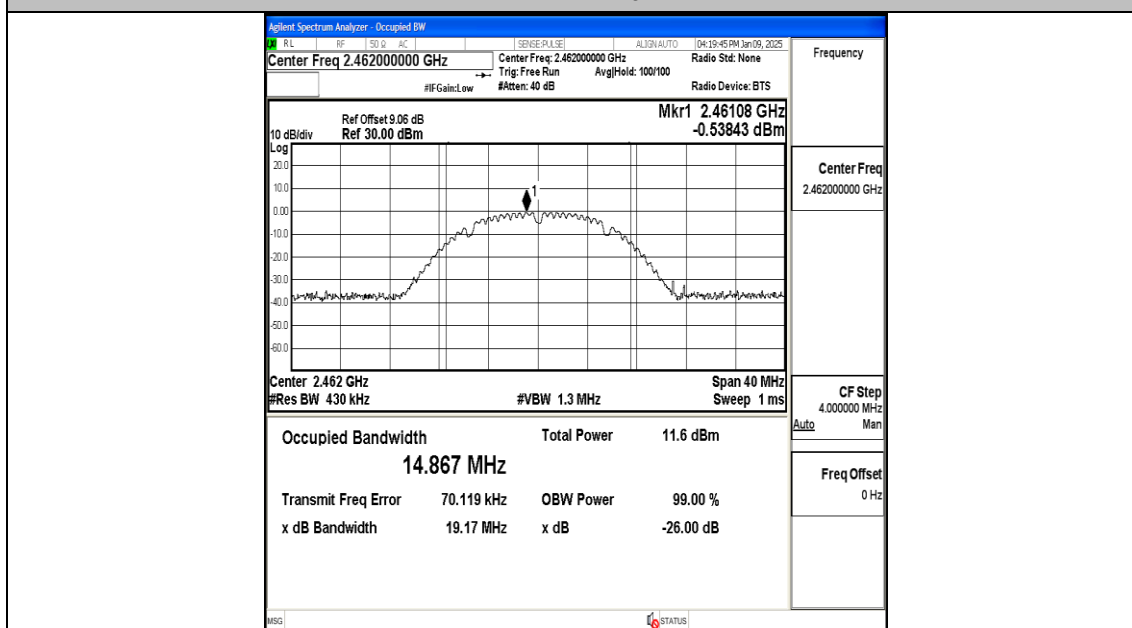




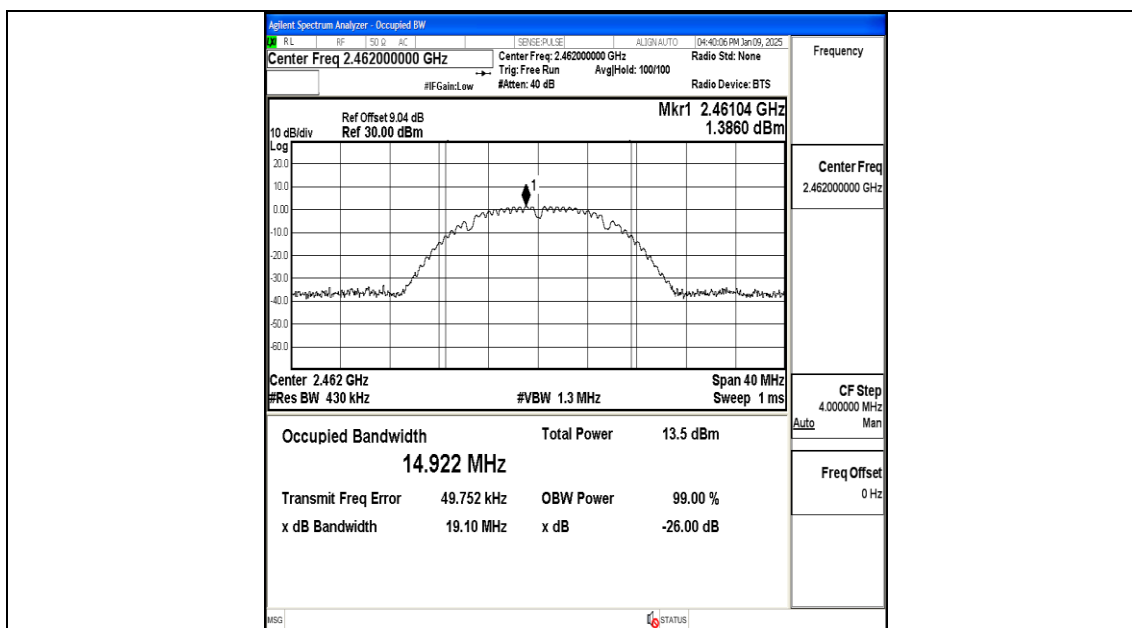
11B-Ant1-2437



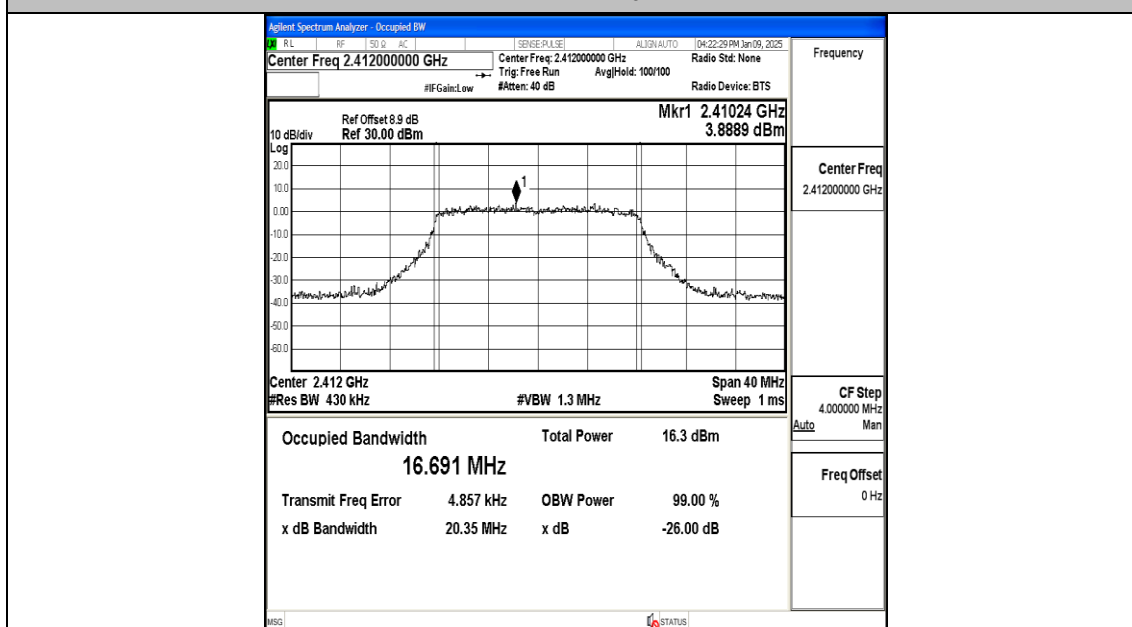
11B-Ant2-2437



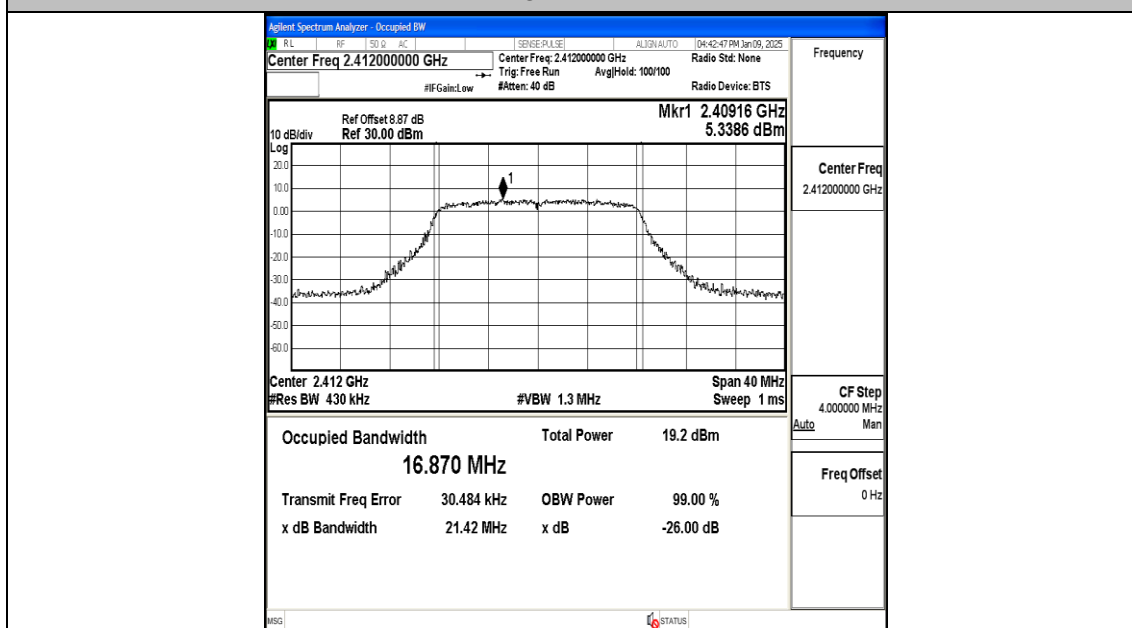
11B-Ant1-2462



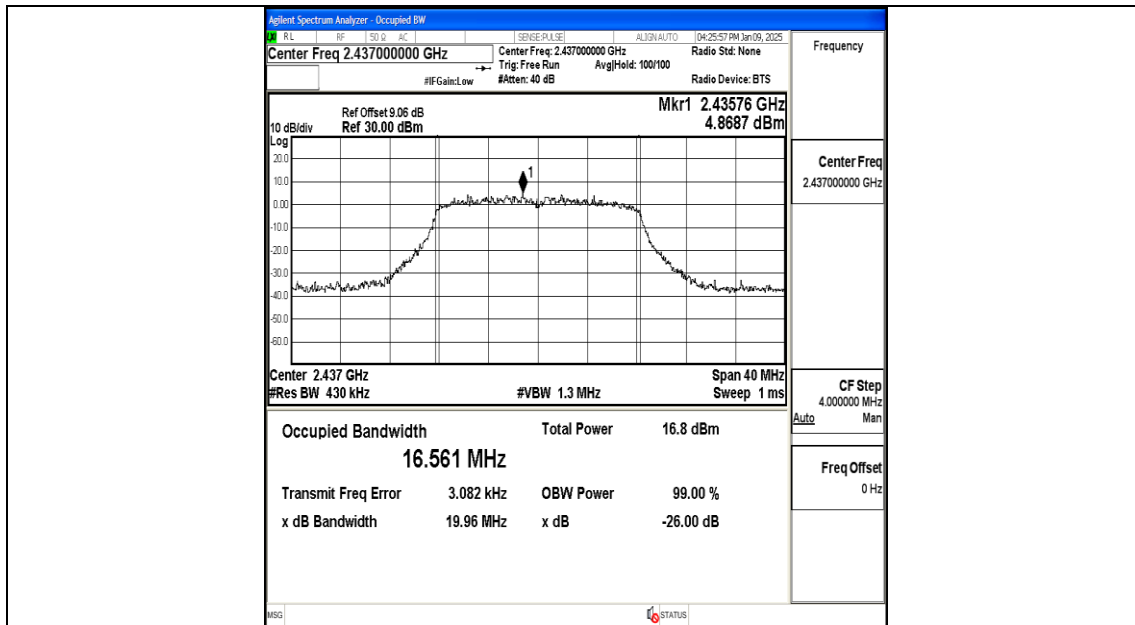
11B-Ant2-2462



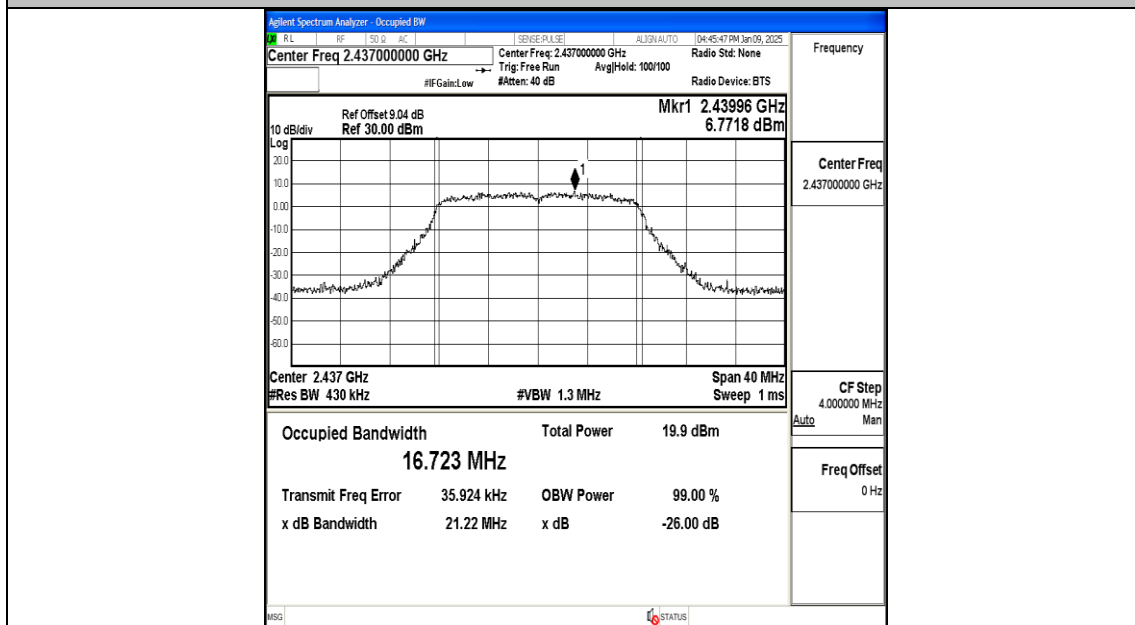
11G-Ant1-2412



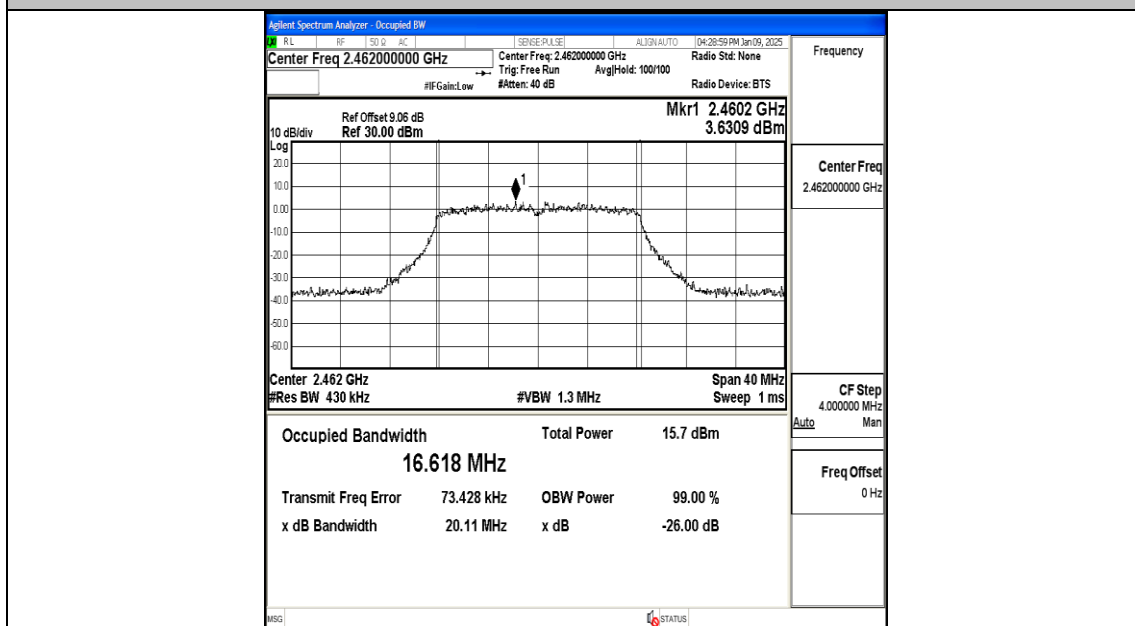
11G-Ant2-2412



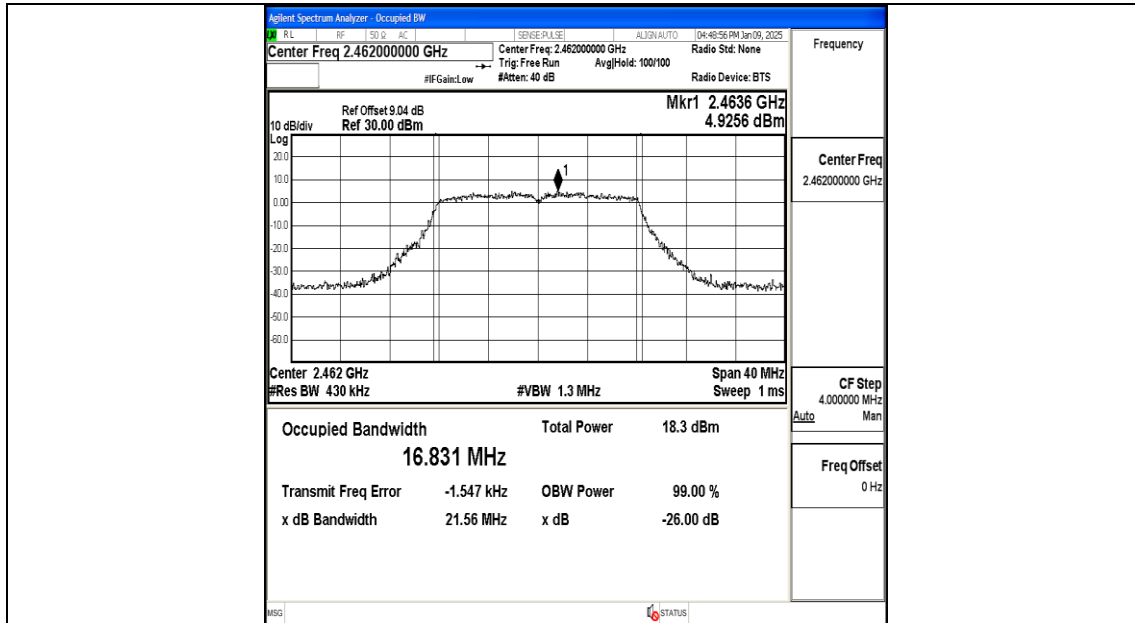
11G-Ant1-2437



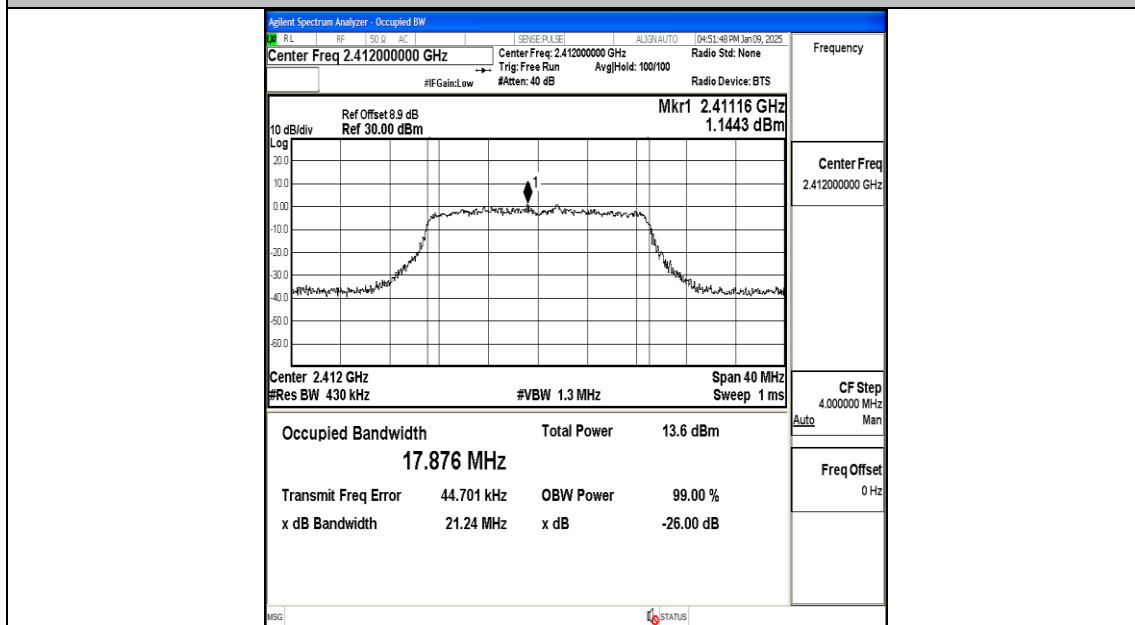
11G-Ant2-2437



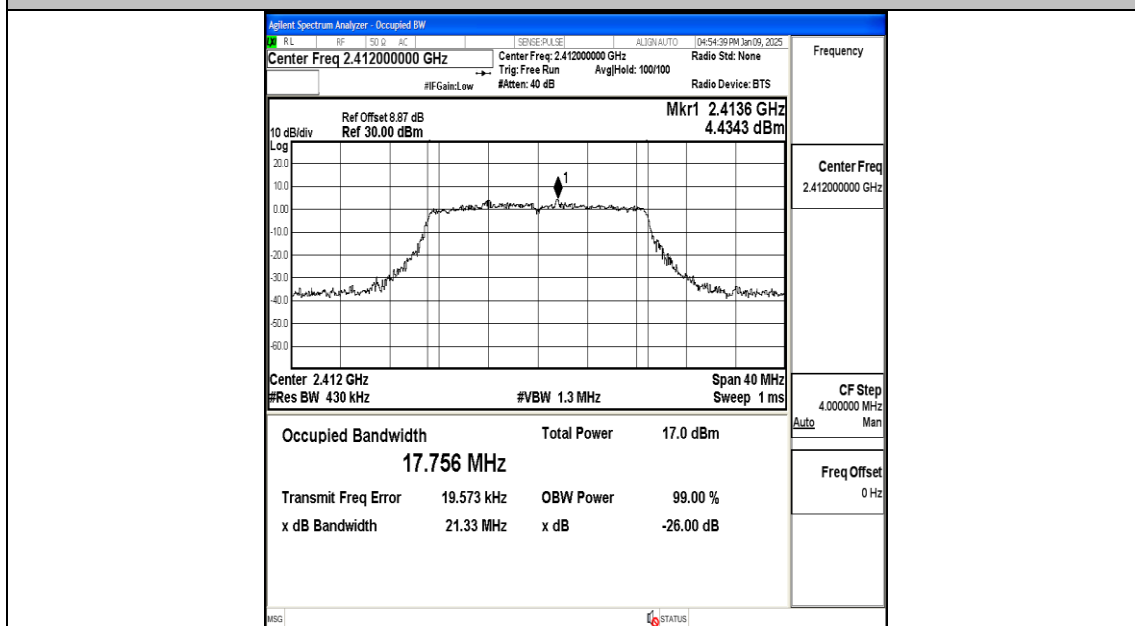
11G-Ant1-2462



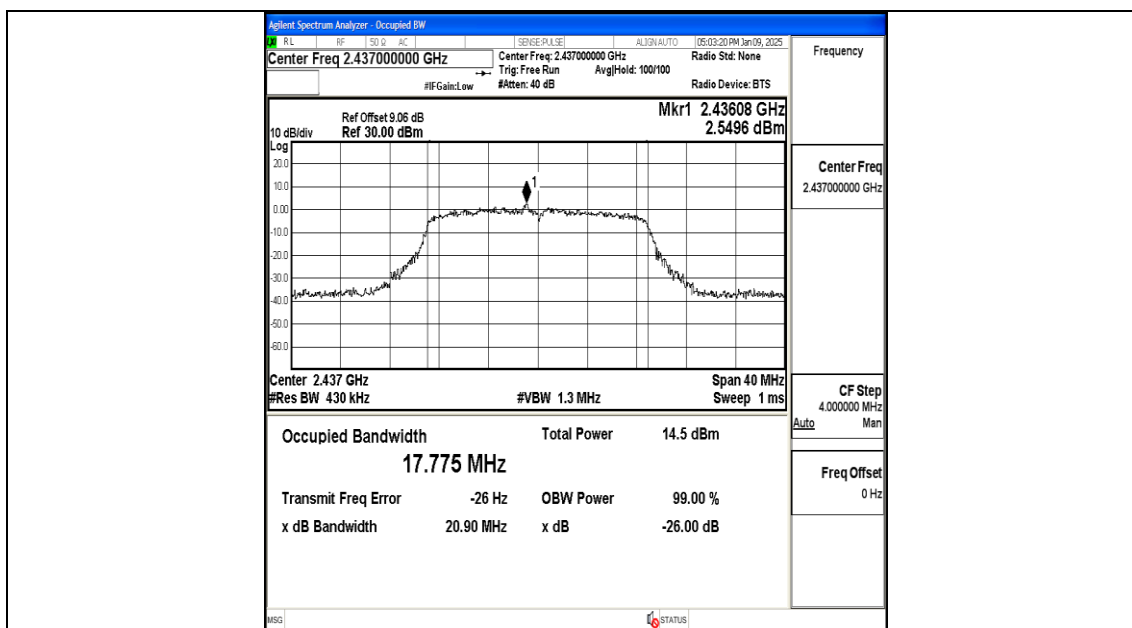
11G-Ant2-2462



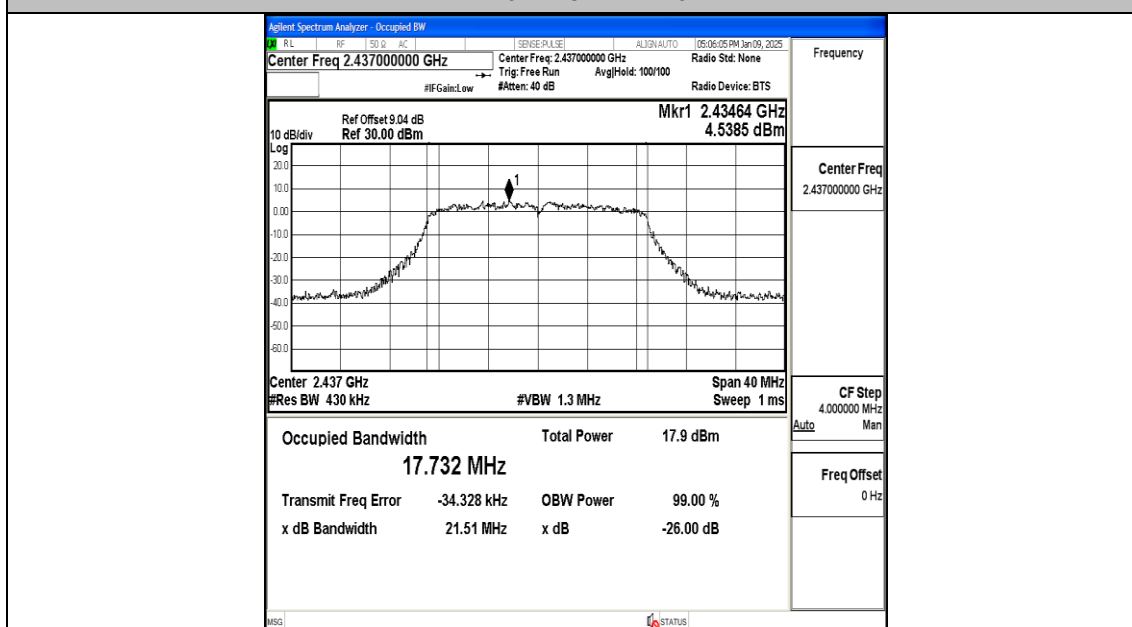
11N20MIMO-Ant1-2412



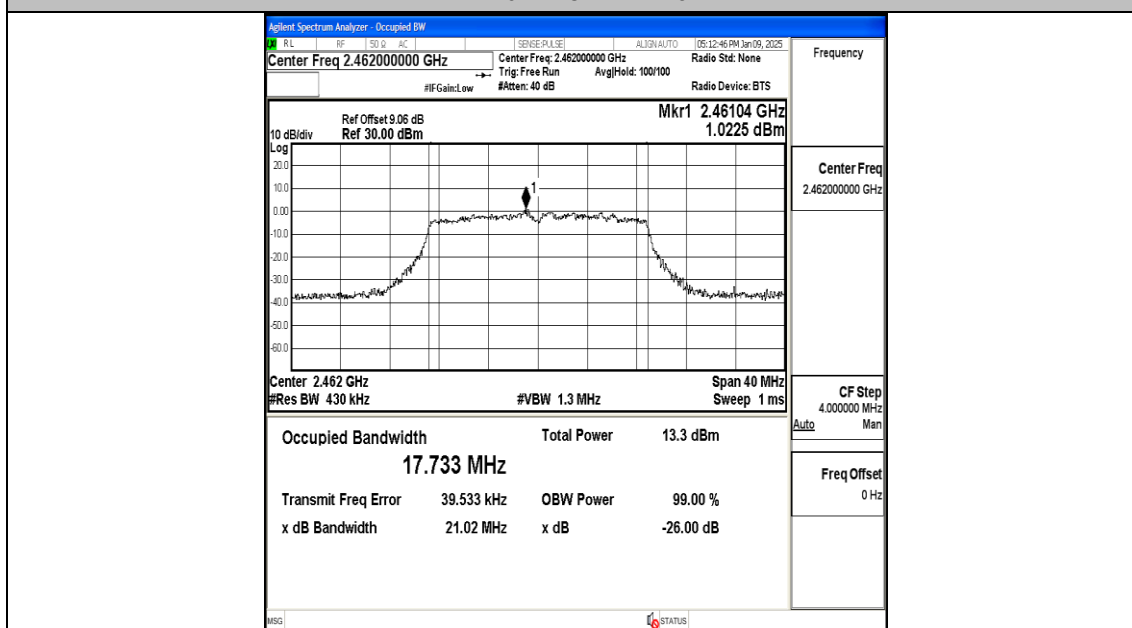
11N20MIMO-Ant2-2412



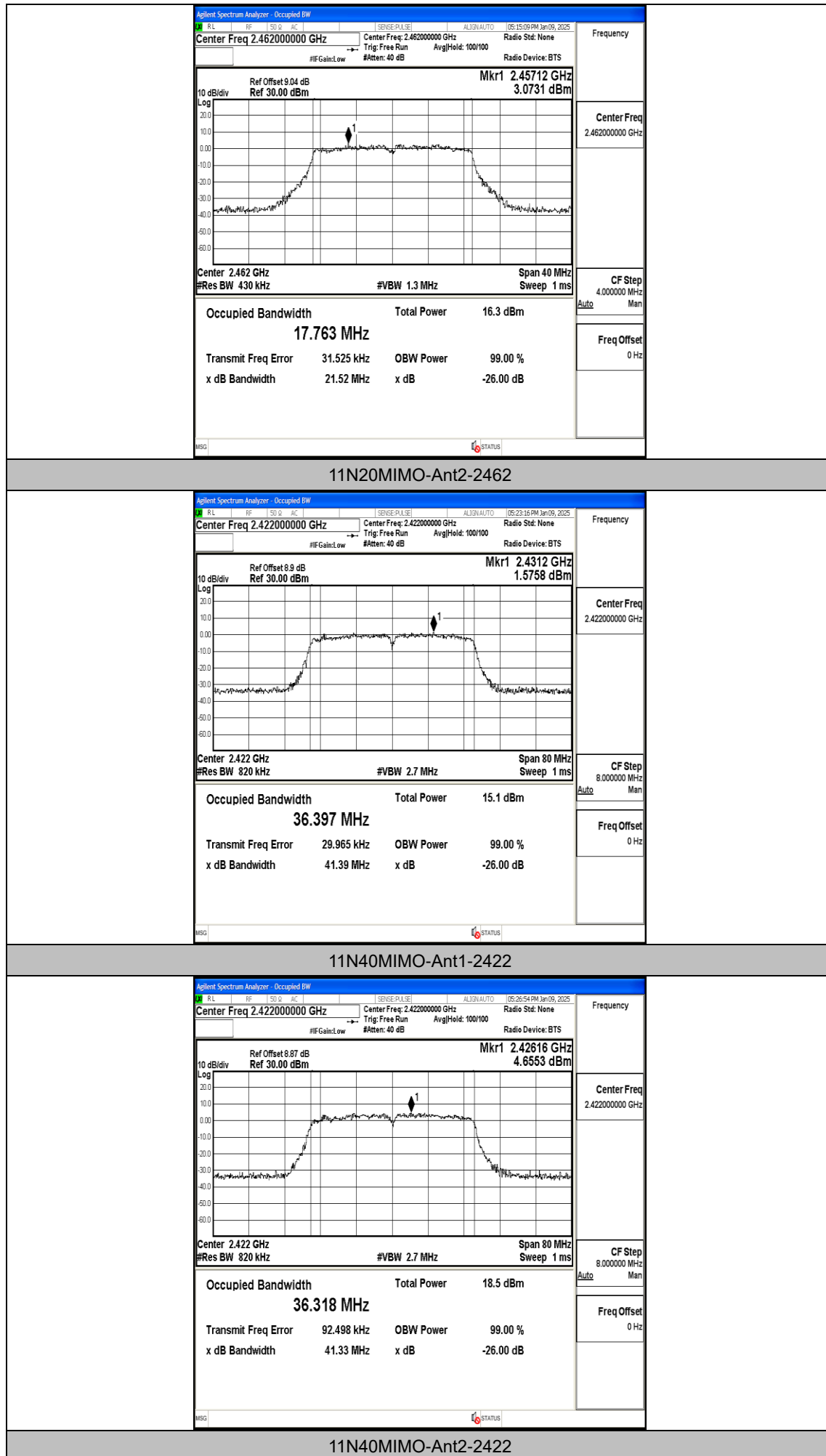
11N20MIMO-Ant1-2437

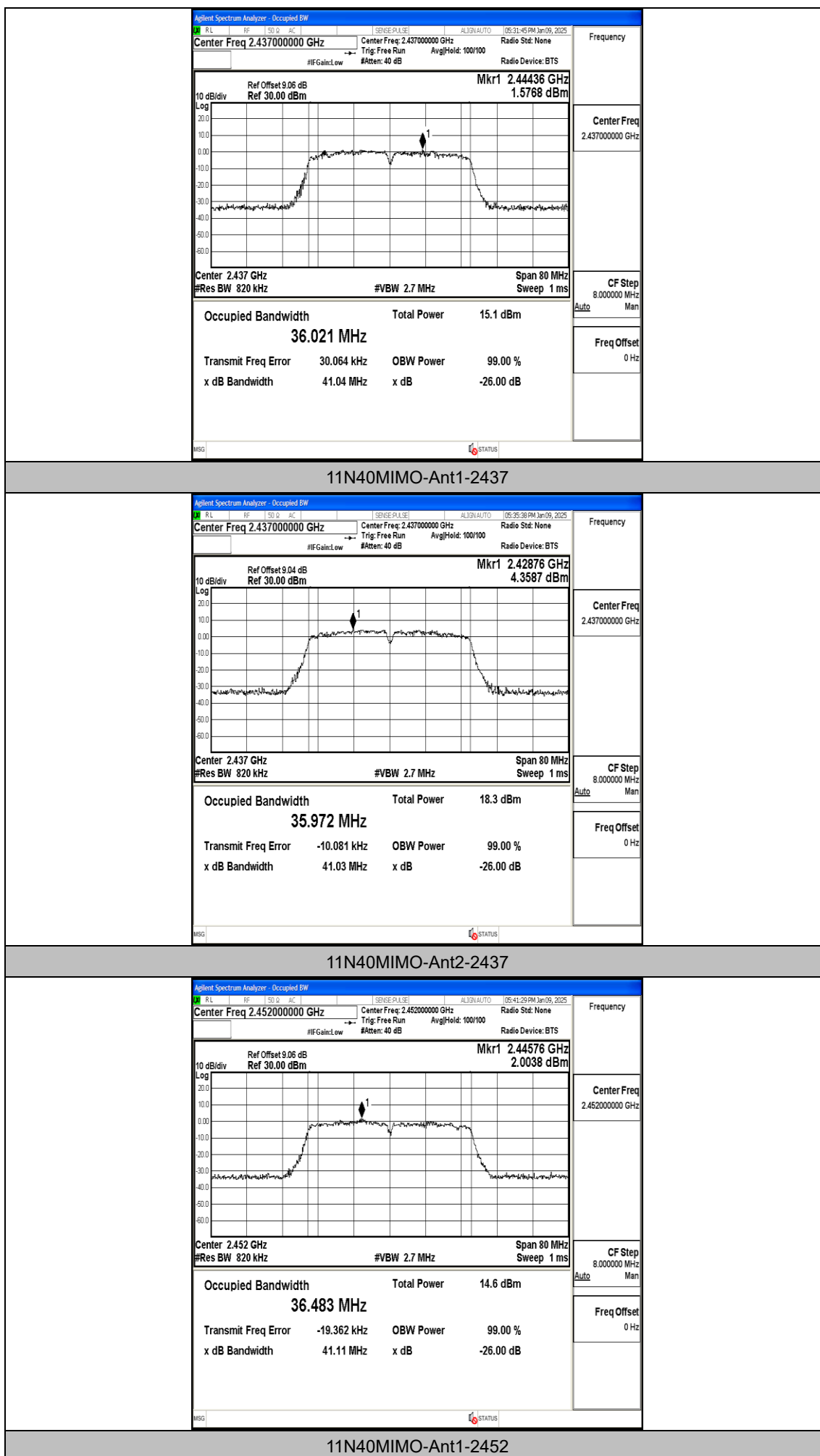


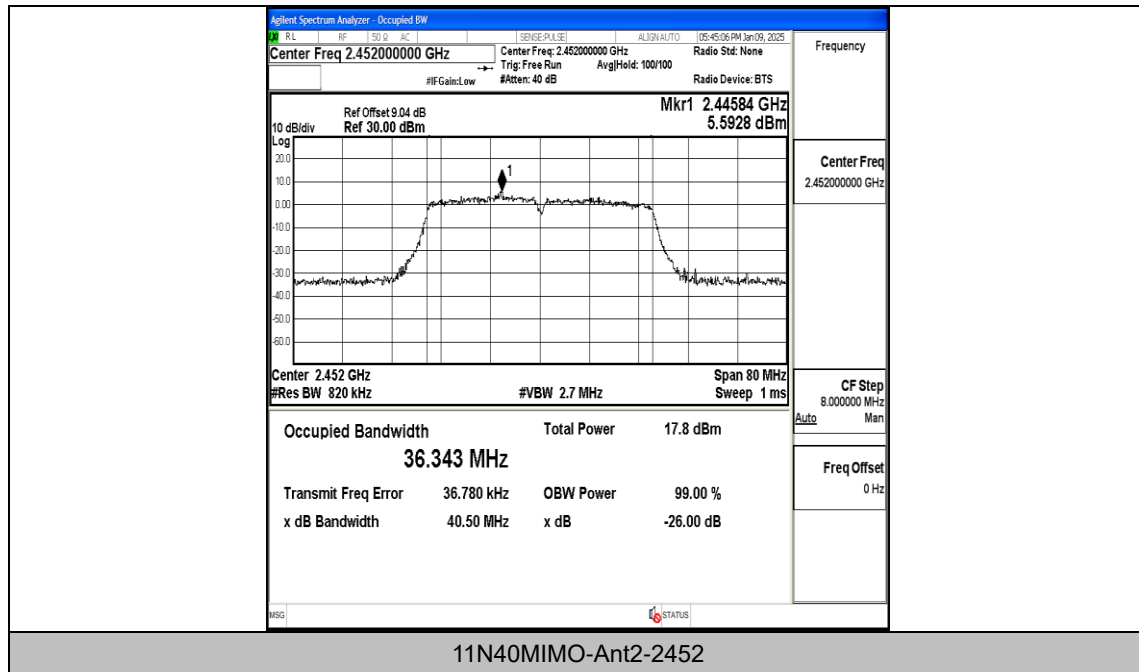
11N20MIMO-Ant2-2437



11N20MIMO-Ant1-2462







Appendix C: Maximum Average conducted output power

Test Result

Test Mode	Antenna	Frequency [MHz]	Conducted Power [dBm]	Conducted Limit [dBm]	Verdict
11B	Ant1	2412	9.47	≤30.00	PASS
11B	Ant2	2412	10.99	≤30.00	PASS
11B	Ant1	2437	10.16	≤30.00	PASS
11B	Ant2	2437	11.73	≤30.00	PASS
11B	Ant1	2462	8.56	≤30.00	PASS
11B	Ant2	2462	10.57	≤30.00	PASS
11G	Ant1	2412	10.16	≤30.00	PASS
11G	Ant2	2412	13.14	≤30.00	PASS
11G	Ant1	2437	10.37	≤30.00	PASS
11G	Ant2	2437	13.90	≤30.00	PASS
11G	Ant1	2462	9.25	≤30.00	PASS
11G	Ant2	2462	12.34	≤30.00	PASS
11N20MIMO	Ant1	2412	7.55	≤30.00	PASS
11N20MIMO	Ant2	2412	10.63	≤30.00	PASS
11N20MIMO	total	2412	12.37	≤30.00	PASS
11N20MIMO	Ant1	2437	7.72	≤30.00	PASS
11N20MIMO	Ant2	2437	11.85	≤30.00	PASS
11N20MIMO	total	2437	13.27	≤30.00	PASS
11N20MIMO	Ant1	2462	7.49	≤30.00	PASS
11N20MIMO	Ant2	2462	9.59	≤30.00	PASS
11N20MIMO	total	2462	11.68	≤30.00	PASS
11N40MIMO	Ant1	2422	8.83	≤30.00	PASS
11N40MIMO	Ant2	2422	12.48	≤30.00	PASS
11N40MIMO	total	2422	14.04	≤30.00	PASS
11N40MIMO	Ant1	2437	9.05	≤30.00	PASS
11N40MIMO	Ant2	2437	11.98	≤30.00	PASS
11N40MIMO	total	2437	13.77	≤30.00	PASS
11N40MIMO	Ant1	2452	6.90	≤30.00	PASS
11N40MIMO	Ant2	2452	11.70	≤30.00	PASS
11N40MIMO	total	2452	12.94	≤30.00	PASS

Note: The Duty Cycle Factor is compensated in the result.

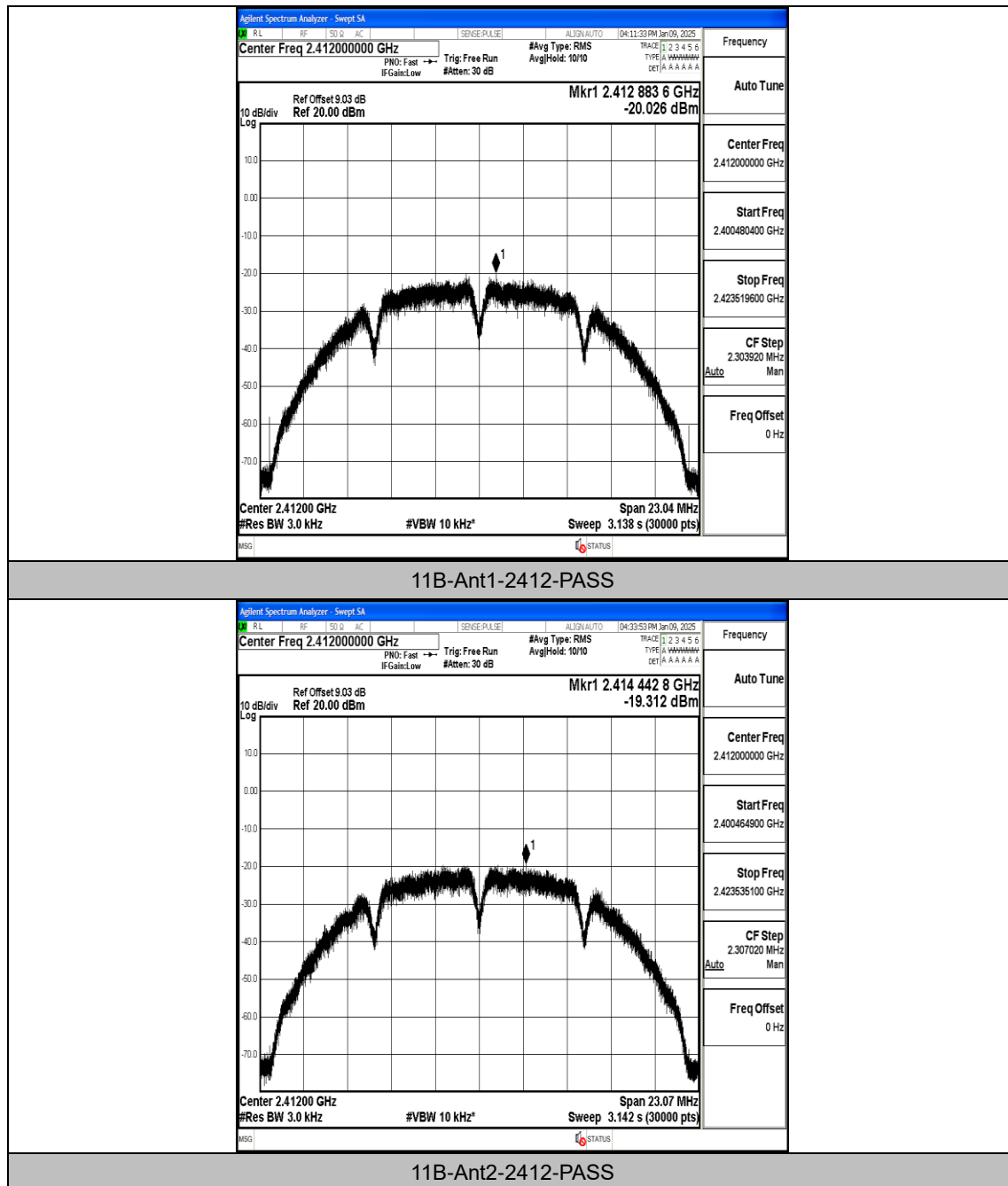
Appendix D: Maximum Average power spectral density

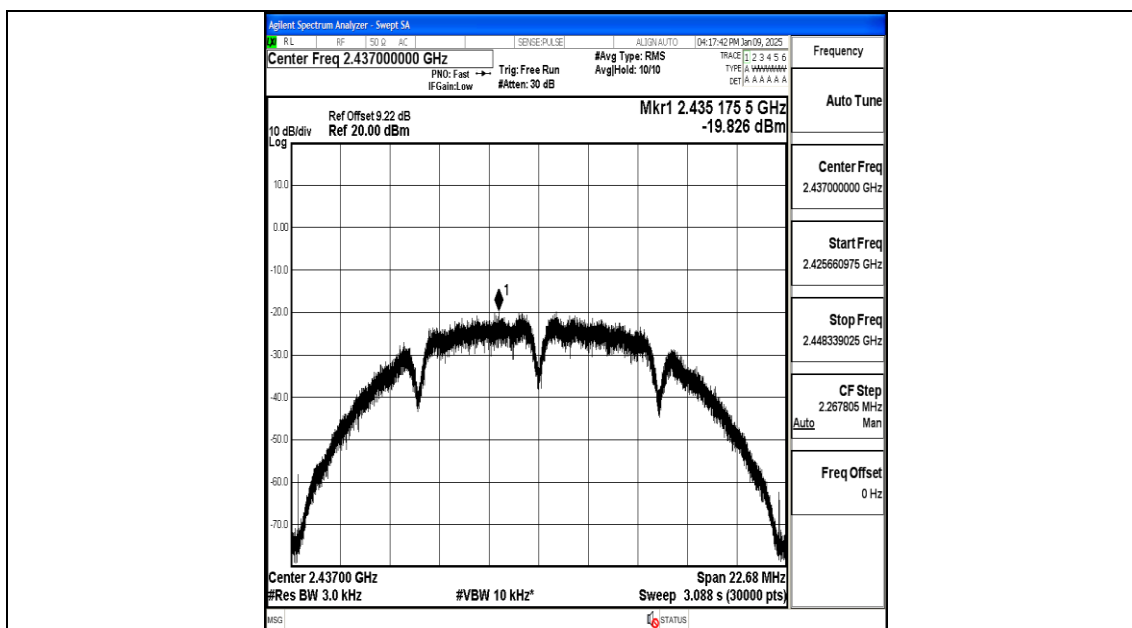
Test Result

Test Mode	Antenna	Frequency [MHz]	Raw. Data [dBm/3kHz]	Dc. Factor	Result [dBm/3kHz]	Limit [dBm/3kHz]	Verdict
11B	Ant1	2412	-20.16	0.13	-20.03	≤8.00	PASS
11B	Ant2	2412	-19.47	0.16	-19.31	≤8.00	PASS
11B	Ant1	2437	-19.99	0.16	-19.83	≤8.00	PASS
11B	Ant2	2437	-18.16	0.14	-18.02	≤8.00	PASS
11B	Ant1	2462	-21.50	0.16	-21.34	≤8.00	PASS
11B	Ant2	2462	-19.96	0.12	-19.84	≤8.00	PASS
11G	Ant1	2412	-20.95	0.44	-20.51	≤8.00	PASS
11G	Ant2	2412	-17.40	0.23	-17.17	≤8.00	PASS
11G	Ant1	2437	-20.05	0.23	-19.82	≤8.00	PASS
11G	Ant2	2437	-16.41	0.34	-16.07	≤8.00	PASS
11G	Ant1	2462	-20.52	0.24	-20.28	≤8.00	PASS
11G	Ant2	2462	-17.60	0.29	-17.31	≤8.00	PASS
11N20MI MO	Ant1	2412	-19.11	2.51	-16.60	≤8.00	PASS
11N20MI MO	Ant2	2412	-16.23	2.18	-14.05	≤8.00	PASS
11N20MI MO	total	2412	---	---	-12.13	≤7.31	PASS
11N20MI MO	Ant1	2437	-20.06	1.70	-18.36	≤8.00	PASS
11N20MI MO	Ant2	2437	-16.45	2.51	-13.94	≤8.00	PASS
11N20MI MO	total	2437	---	---	-12.60	≤7.31	PASS
11N20MI MO	Ant1	2462	-22.15	2.72	-19.43	≤8.00	PASS
11N20MI MO	Ant2	2462	-19.49	1.82	-17.67	≤8.00	PASS
11N20MI MO	total	2462	---	---	-15.45	≤7.31	PASS
11N40MI MO	Ant1	2422	-23.86	3.77	-20.09	≤8.00	PASS
11N40MI MO	Ant2	2422	-21.31	4.30	-17.01	≤8.00	PASS
11N40MI MO	total	2422	---	---	-15.27	≤7.31	PASS
11N40MI MO	Ant1	2437	-24.28	4.30	-19.98	≤8.00	PASS
11N40MI MO	Ant2	2437	-21.23	3.63	-17.60	≤8.00	PASS
11N40MI MO	total	2437	---	---	-15.62	≤7.31	PASS

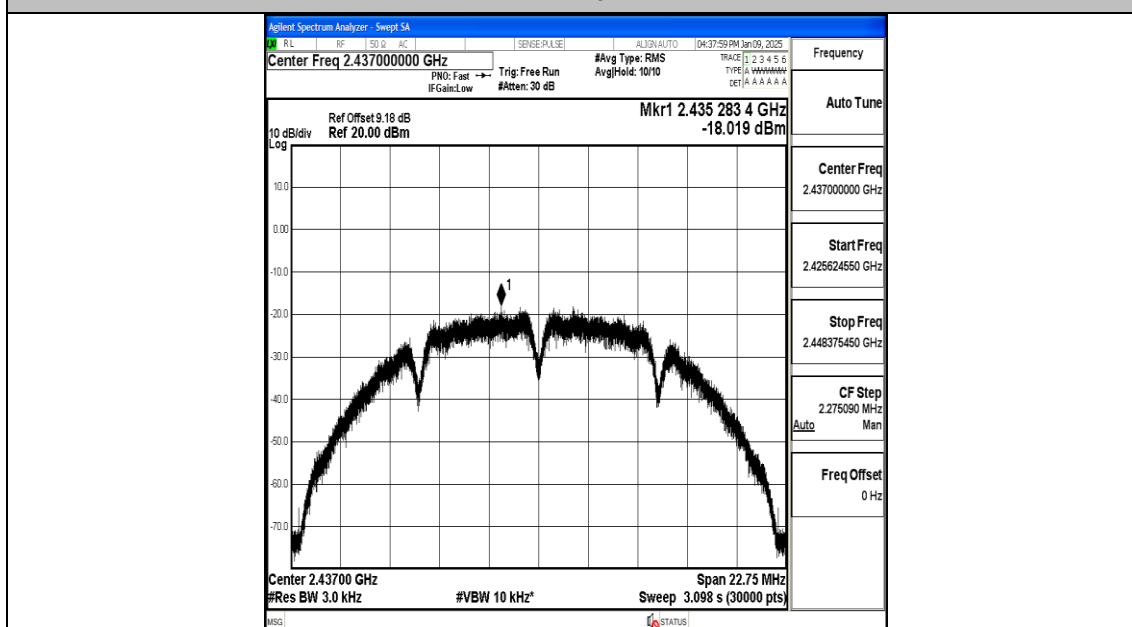
MO							
11N40MI MO	Ant1	2452	-26.18	3.33	-22.85	≤8.00	PASS
11N40MI MO	Ant2	2452	-21.94	4.30	-17.64	≤8.00	PASS
11N40MI MO	total	2452	---	---	-16.50	≤7.31	PASS

Test Graphs

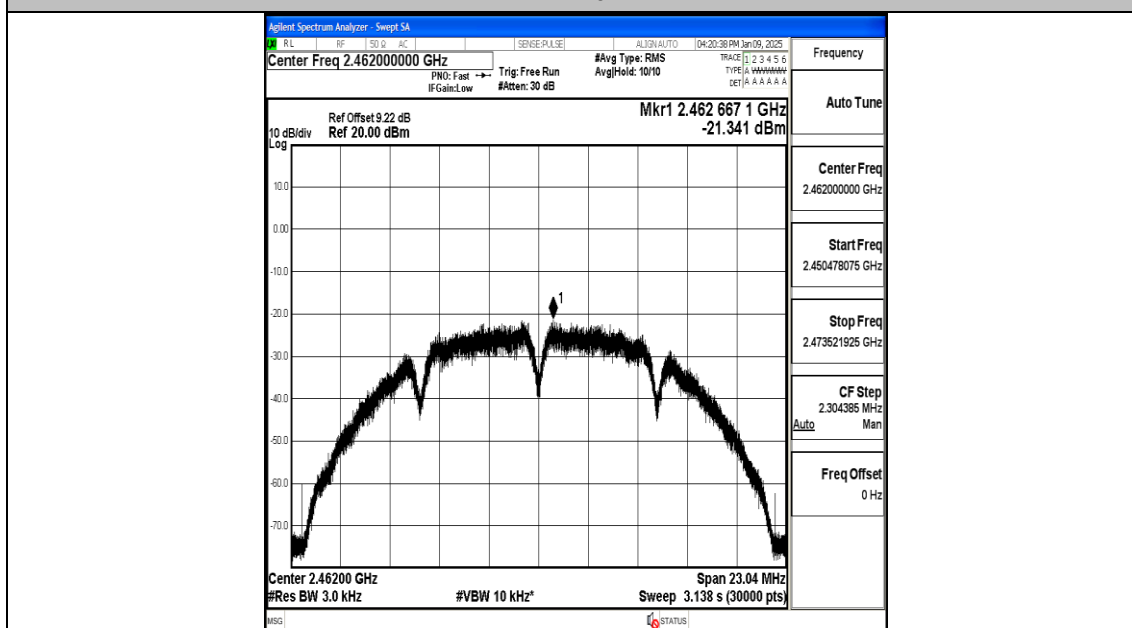




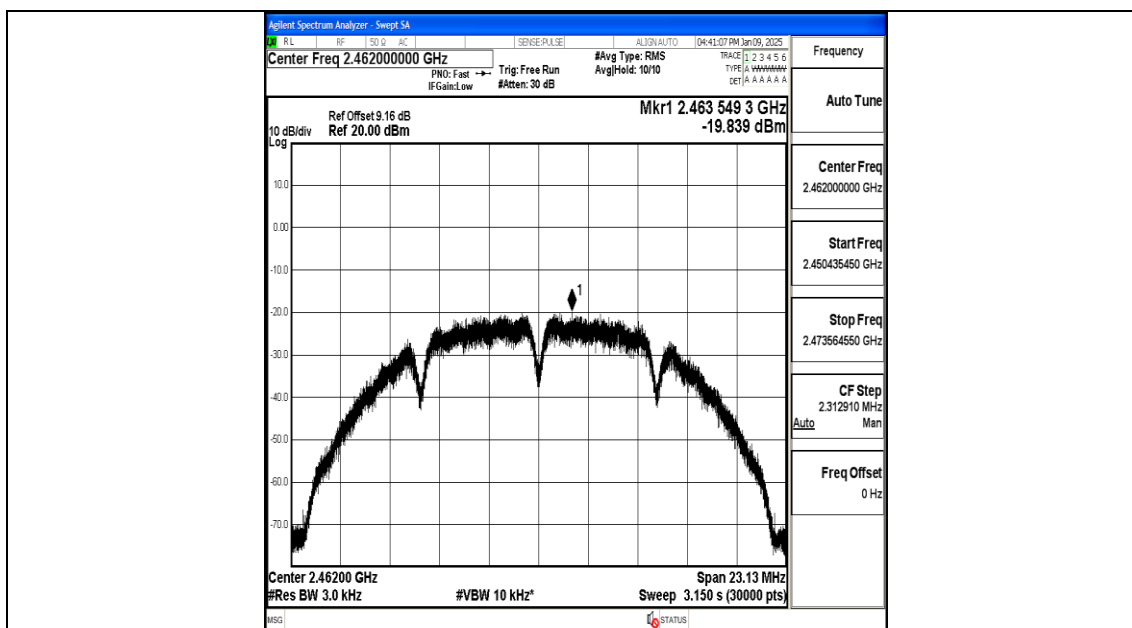
11B-Ant1-2437-PASS



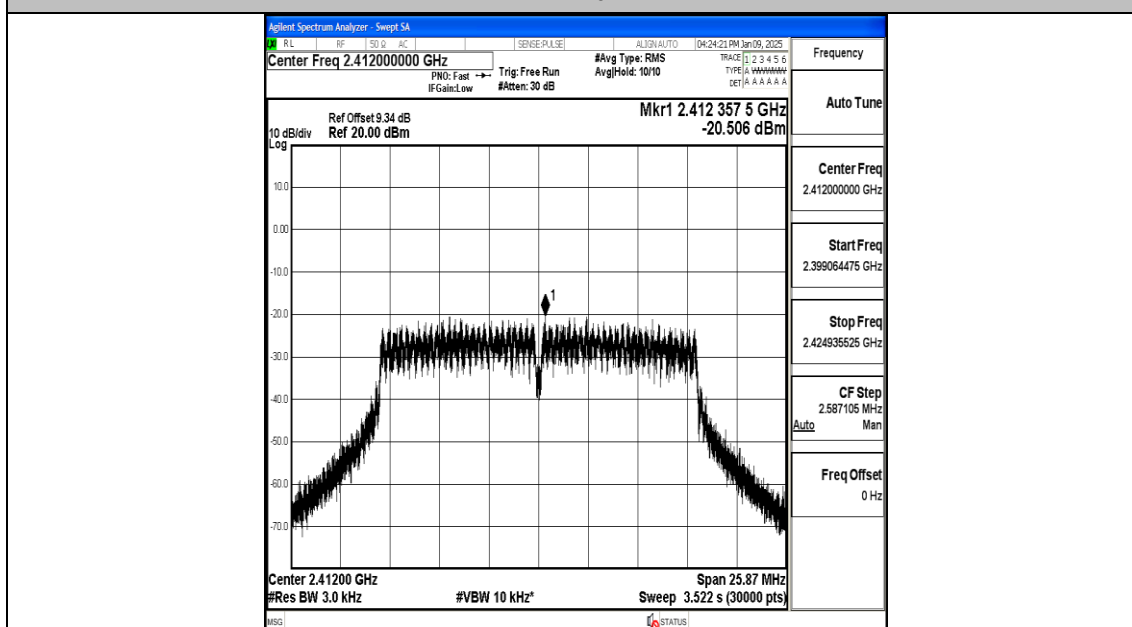
11B-Ant2-2437-PASS



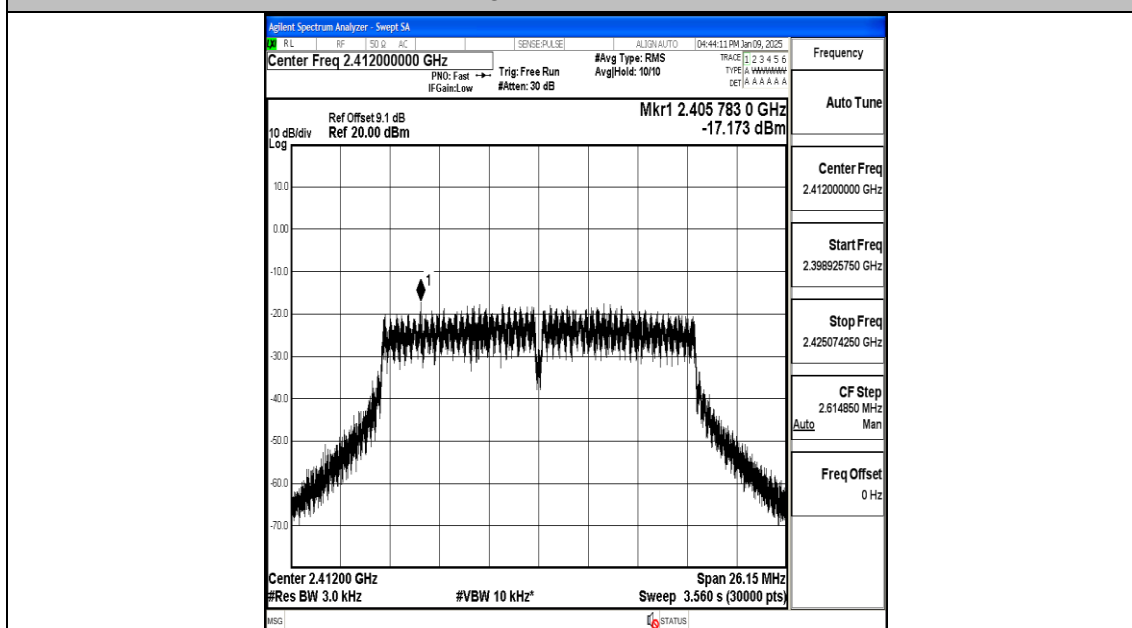
11B-Ant1-2462-PASS



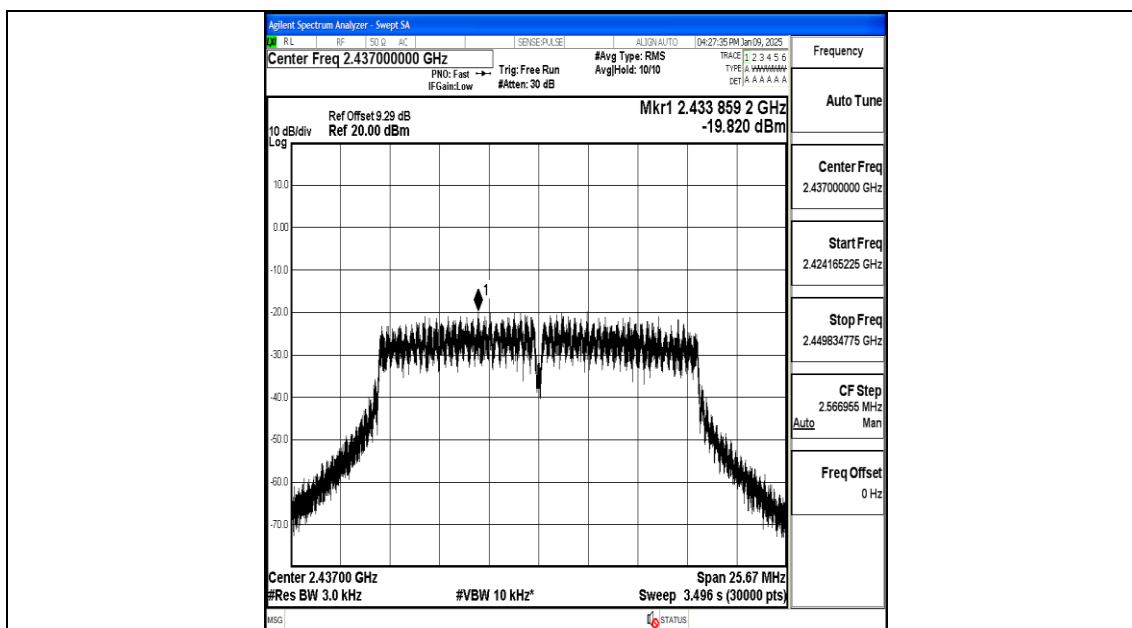
11B-Ant2-2462-PASS



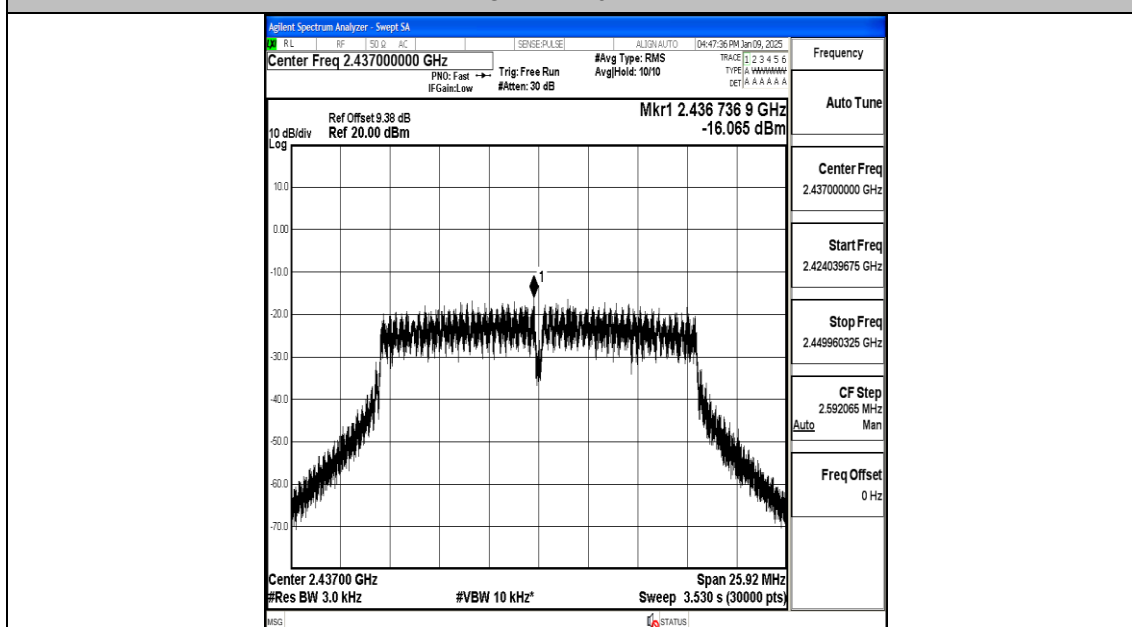
11G-Ant1-2412-PASS



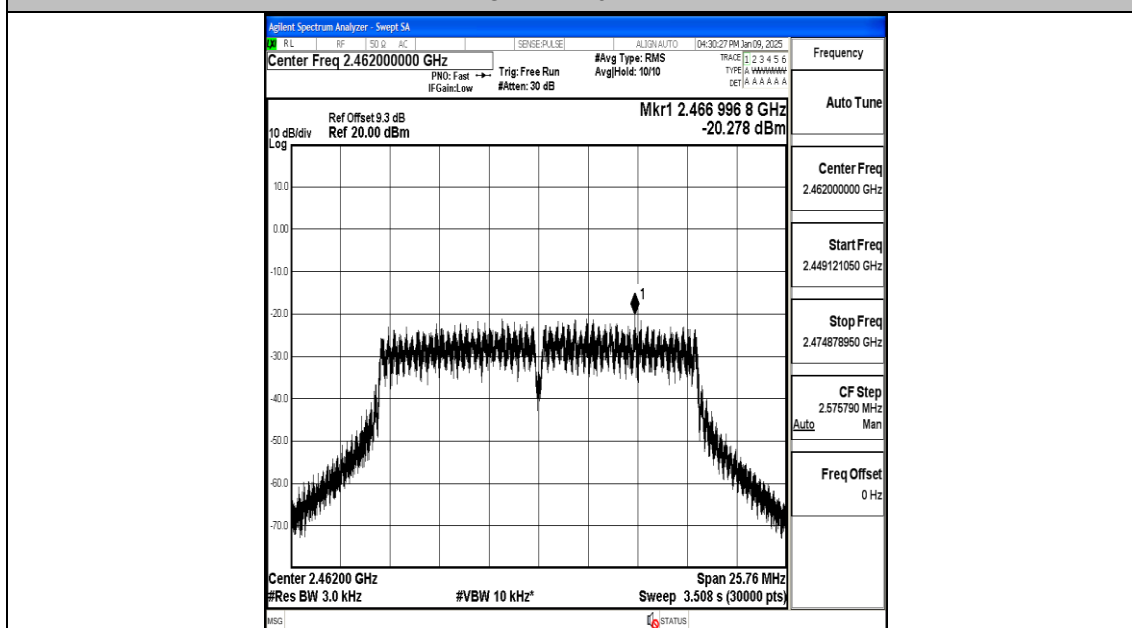
11G-Ant2-2412-PASS



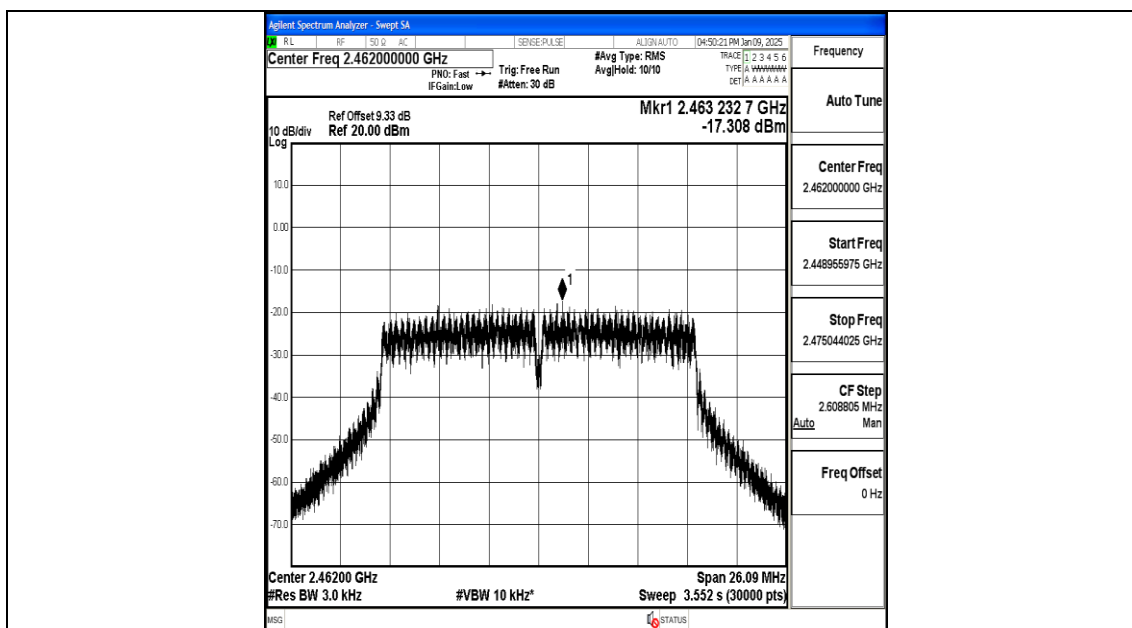
11G-Ant1-2437-PASS



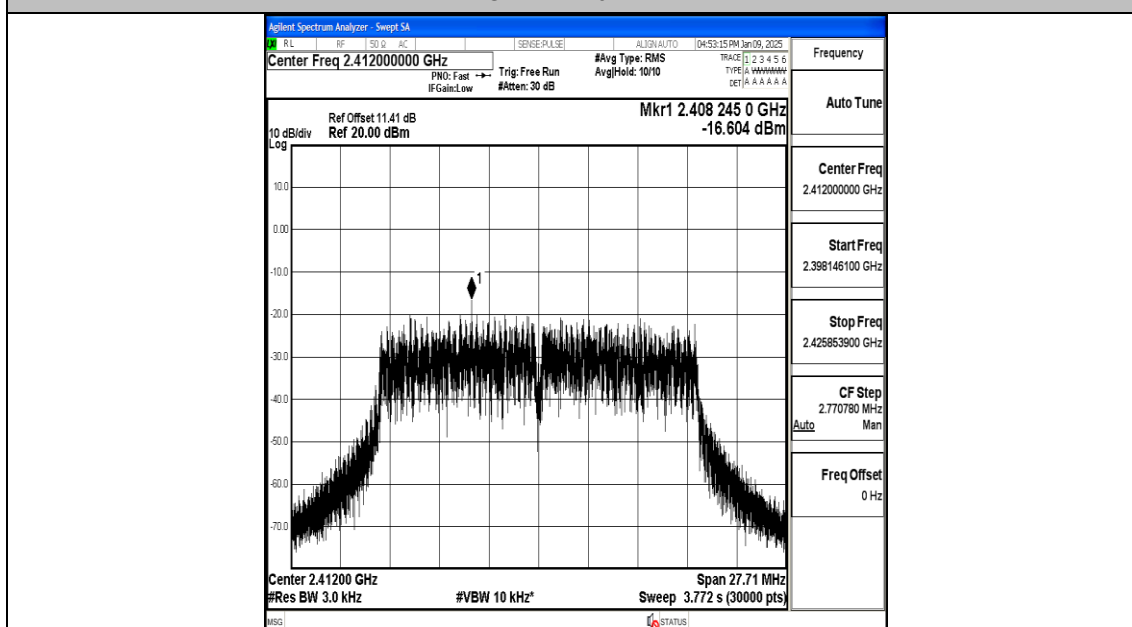
11G-Ant2-2437-PASS



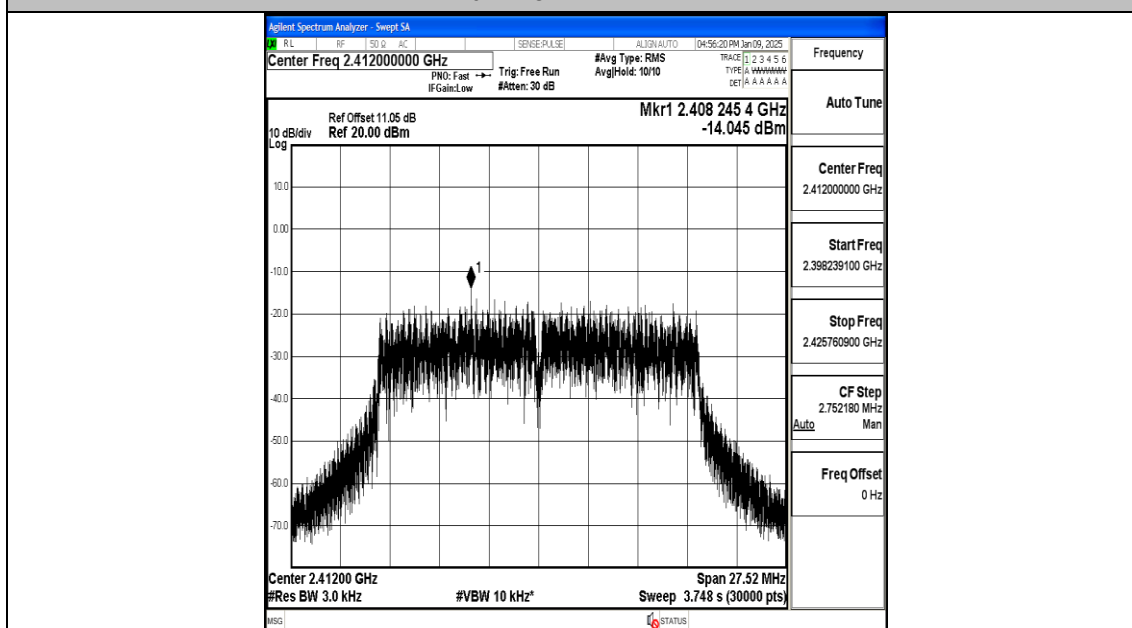
11G-Ant1-2462-PASS



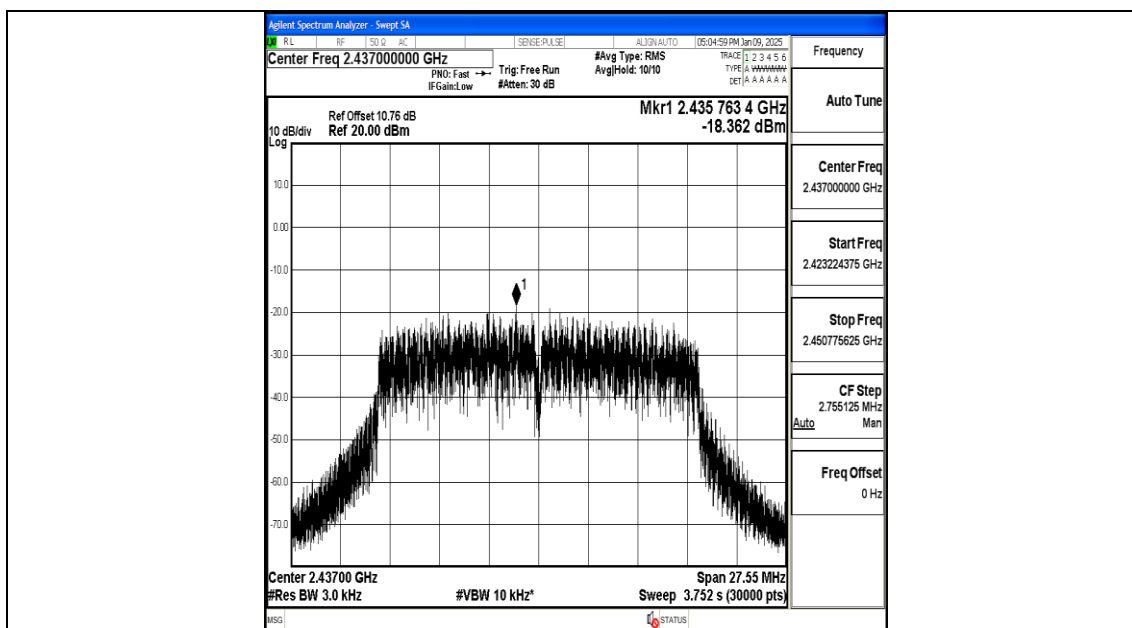
11G-Ant2-2462-PASS



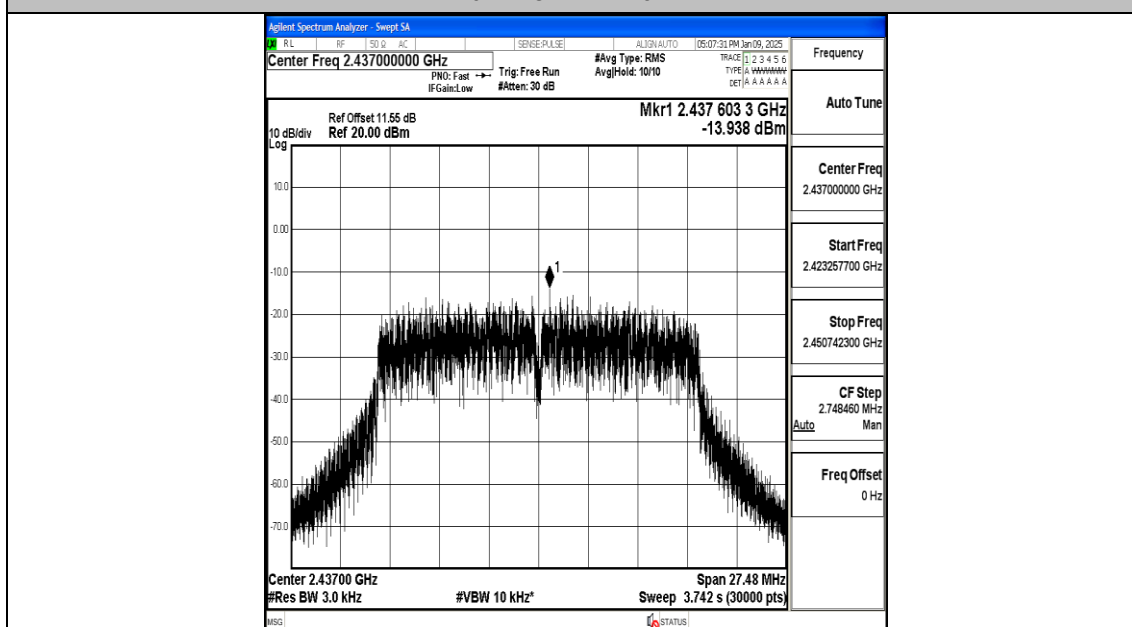
11N20MIMO-Ant1-2412-PASS



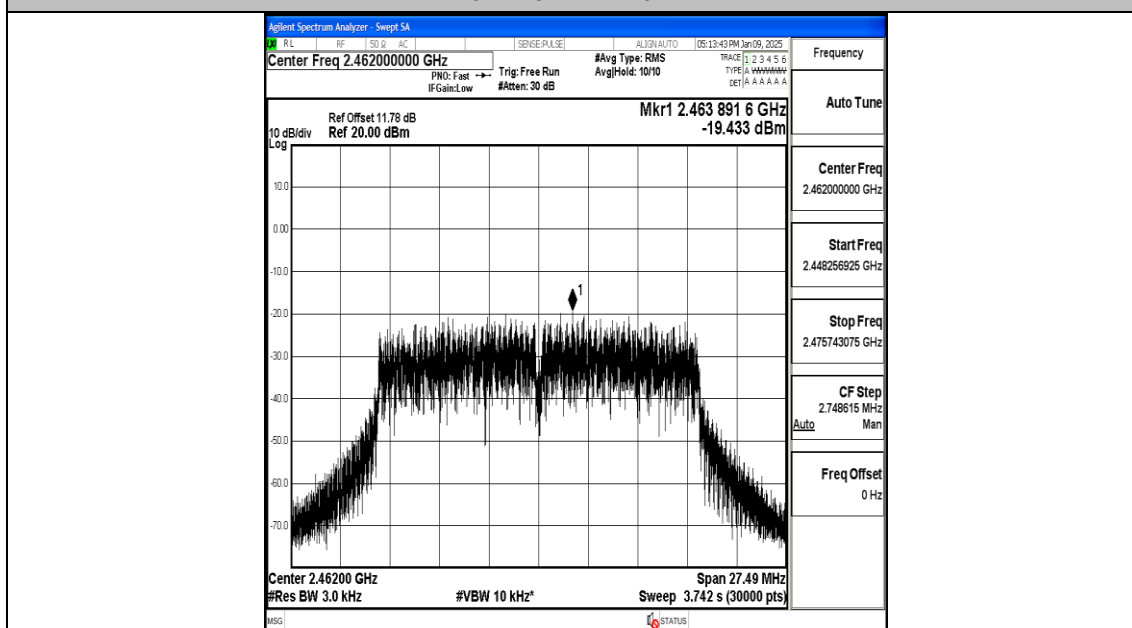
11N20MIMO-Ant2-2412-PASS



11N20MIMO-Ant1-2437-PASS



11N20MIMO-Ant2-2437-PASS



11N20MIMO-Ant1-2462-PASS