

RF Test Data for RLAN(5.2G) (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

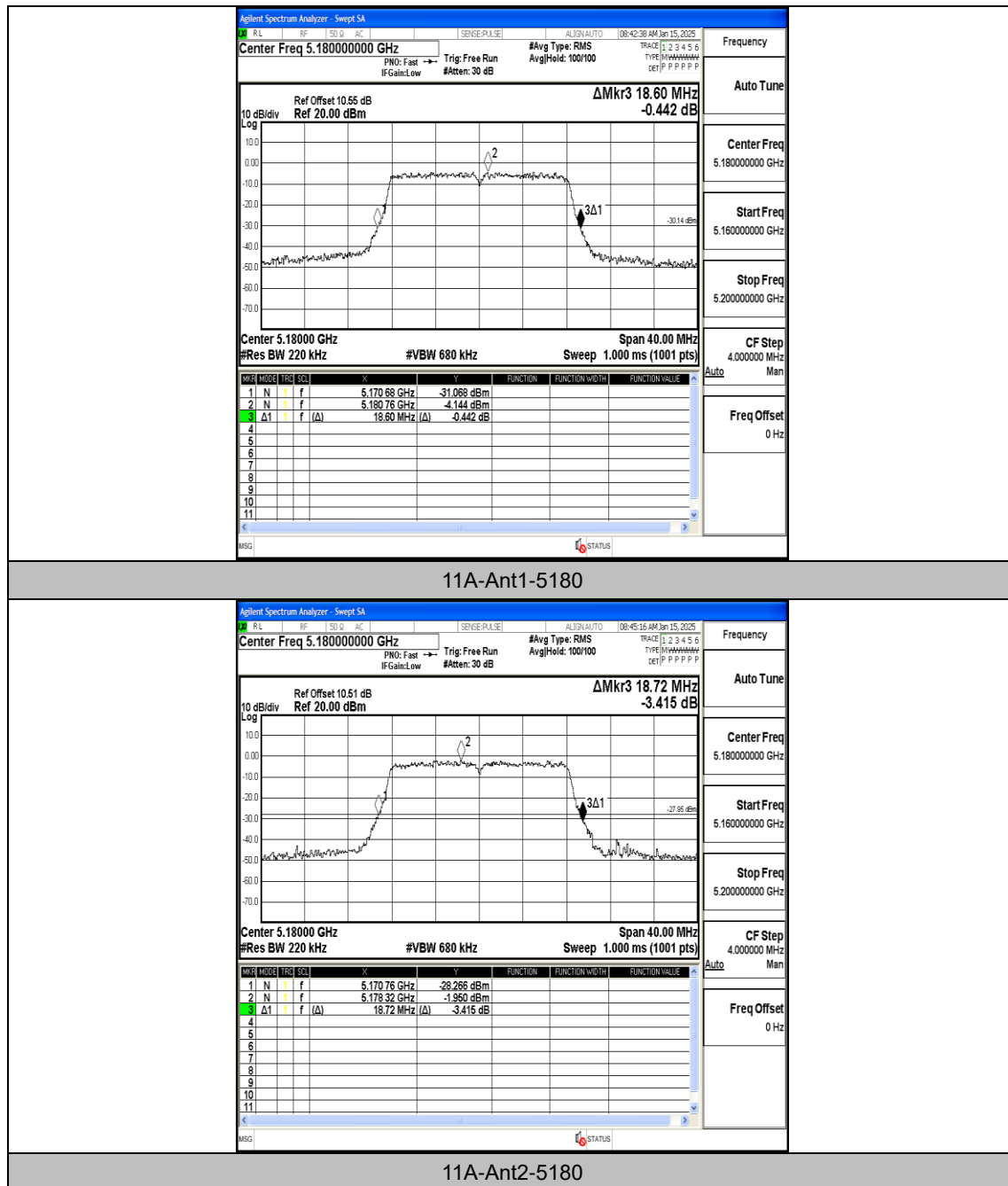
Appendix A1: Emission Bandwidth

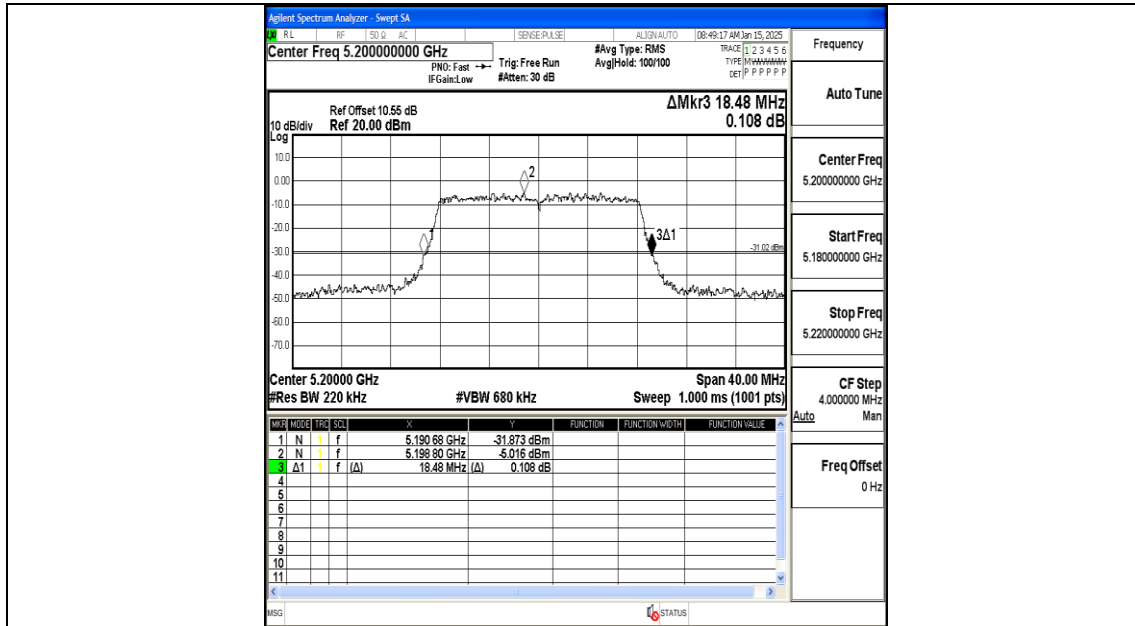
Test Result

Test Mode	Antenna	Frequency [MHz]	26db EBW [MHz]	FL [MHz]	FH [MHz]	Limit [MHz]	Verdict
11A	Ant1	5180	18.600	5170.680	5189.280	---	---
11A	Ant2	5180	18.720	5170.760	5189.480	---	---
11A	Ant1	5200	18.480	5190.680	5209.160	---	---
11A	Ant2	5200	18.400	5190.880	5209.280	---	---
11A	Ant1	5240	18.280	5230.960	5249.240	---	---
11A	Ant2	5240	18.400	5230.960	5249.360	---	---
11N20MIMO	Ant1	5180	19.280	5170.320	5189.600	---	---
11N20MIMO	Ant2	5180	19.080	5170.440	5189.520	---	---
11N20MIMO	Ant1	5200	19.320	5190.360	5209.680	---	---
11N20MIMO	Ant2	5200	19.320	5190.400	5209.720	---	---
11N20MIMO	Ant1	5240	19.240	5230.440	5249.680	---	---
11N20MIMO	Ant2	5240	19.280	5230.320	5249.600	---	---
11N40MIMO	Ant1	5190	40.720	5169.760	5210.480	---	---
11N40MIMO	Ant2	5190	39.760	5170.480	5210.240	---	---
11N40MIMO	Ant1	5230	40.560	5209.520	5250.080	---	---
11N40MIMO	Ant2	5230	40.240	5210.000	5250.240	---	---
11AC20MIMO	Ant1	5180	19.280	5170.360	5189.640	---	---
11AC20MIMO	Ant2	5180	19.320	5170.360	5189.680	---	---
11AC20MIMO	Ant1	5200	19.280	5190.440	5209.720	---	---
11AC20MIMO	Ant2	5200	19.360	5190.320	5209.680	---	---
11AC20MIMO	Ant1	5240	19.200	5230.400	5249.600	---	---
11AC20MIMO	Ant2	5240	19.080	5230.480	5249.560	---	---
11AC40MIMO	Ant1	5190	40.000	5169.760	5209.760	---	---
11AC40MIMO	Ant2	5190	40.480	5169.760	5210.240	---	---
11AC40MIMO	Ant1	5230	40.080	5209.680	5249.760	---	---

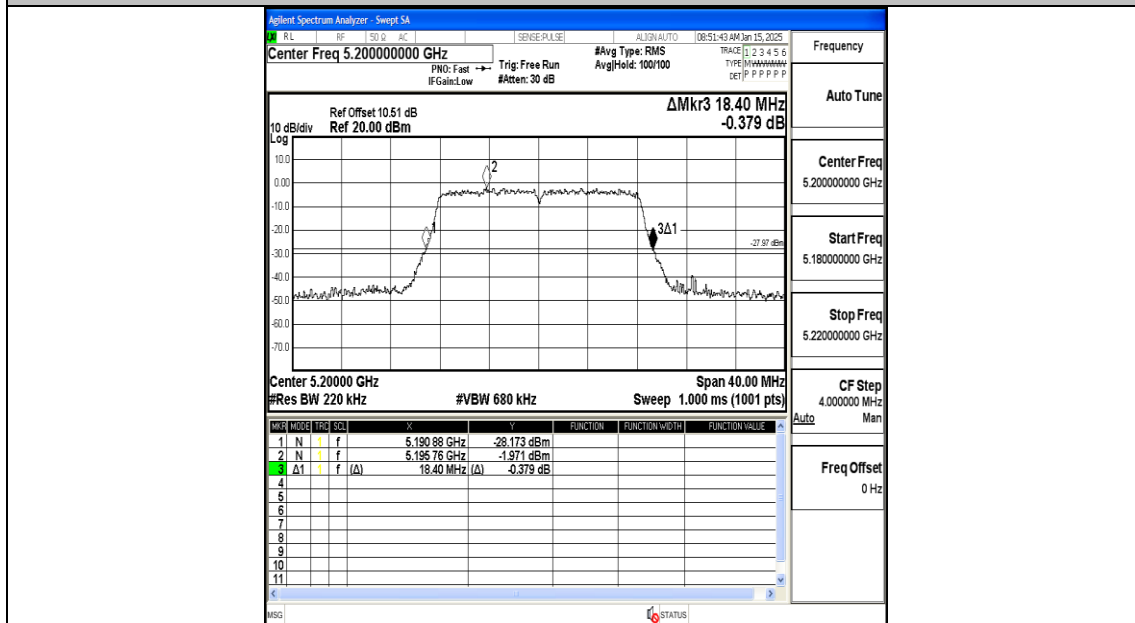
11AC40MIMO	Ant2	5230	40.080	5209.840	5249.920	---	---
11AC80MIMO	Ant1	5210	79.840	5170.320	5250.160	---	---
11AC80MIMO	Ant2	5210	80.960	5170.000	5250.960	---	---

Test Graphs

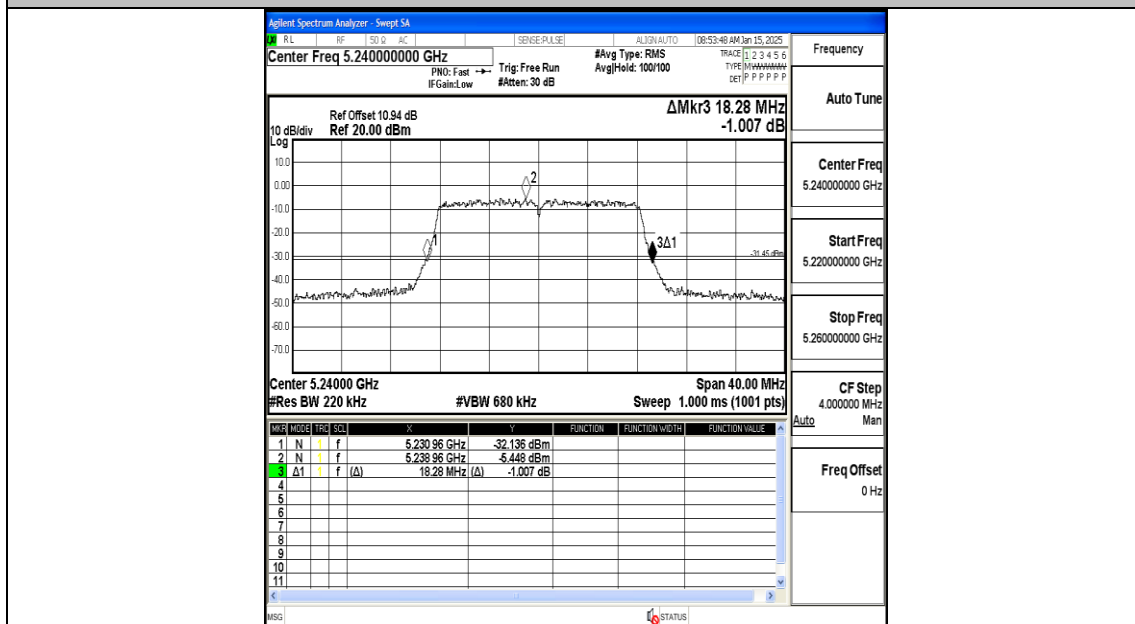




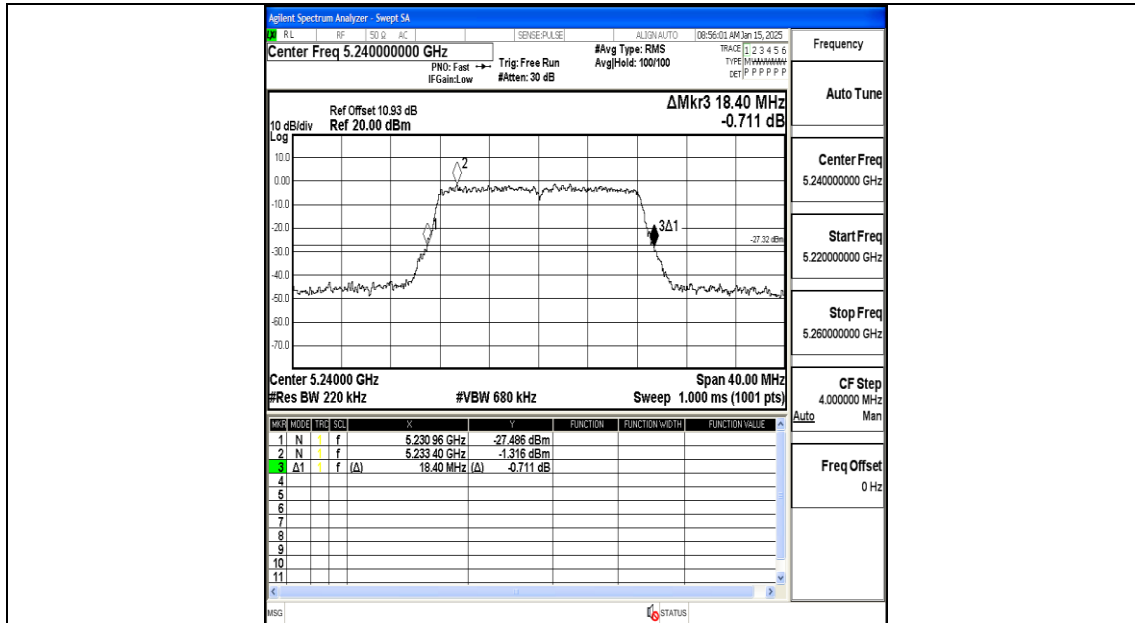
11A-Ant1-5200



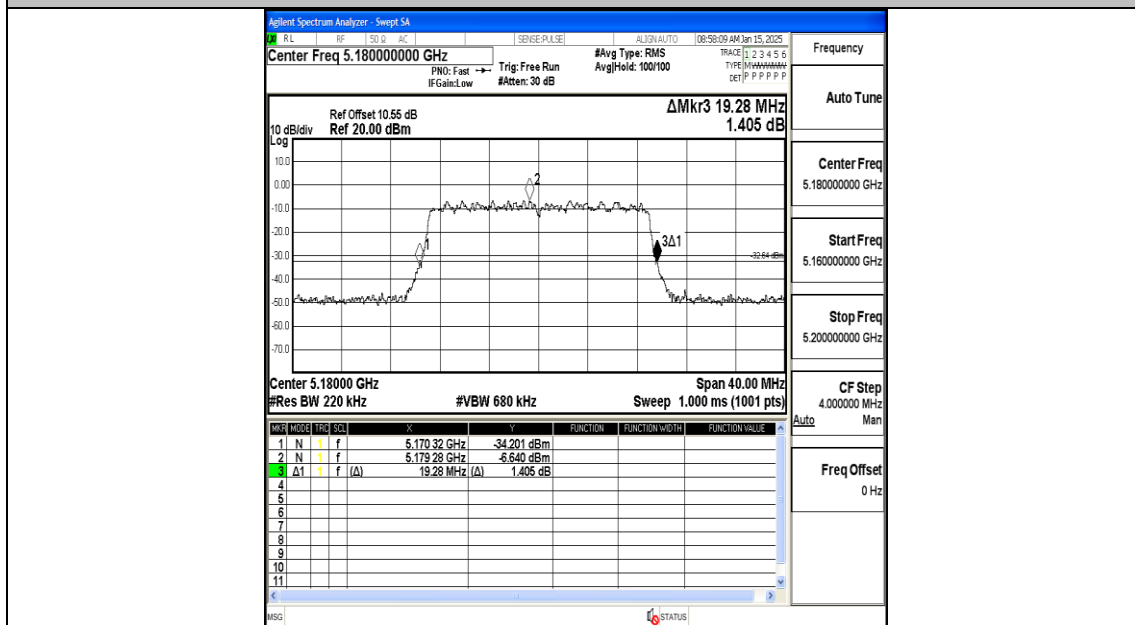
11A-Ant2-5200



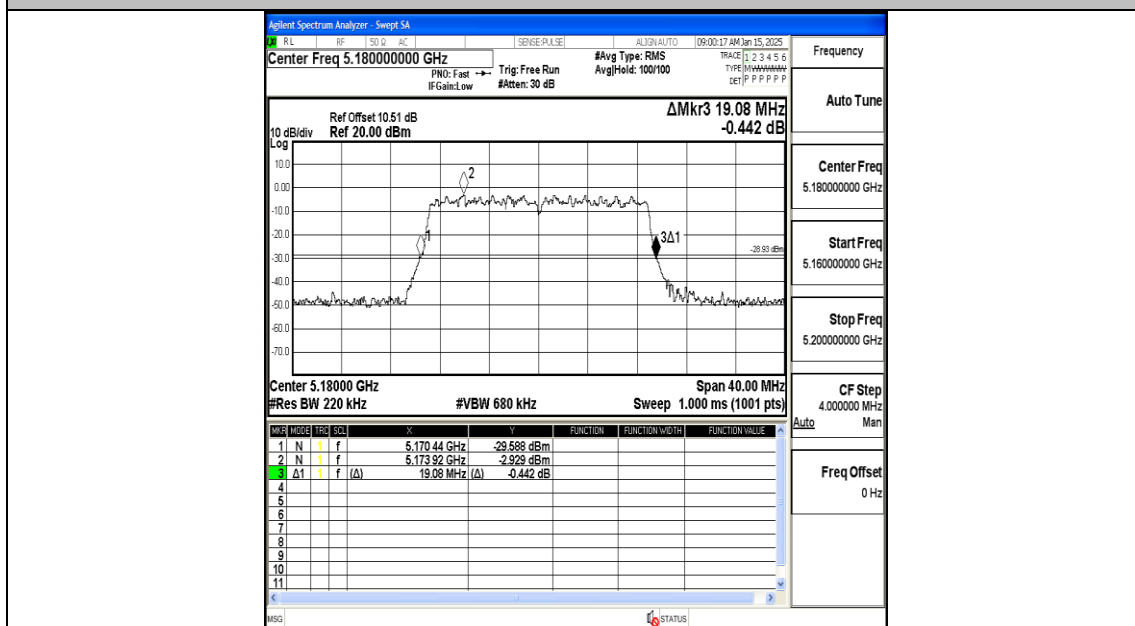
11A-Ant1-5240



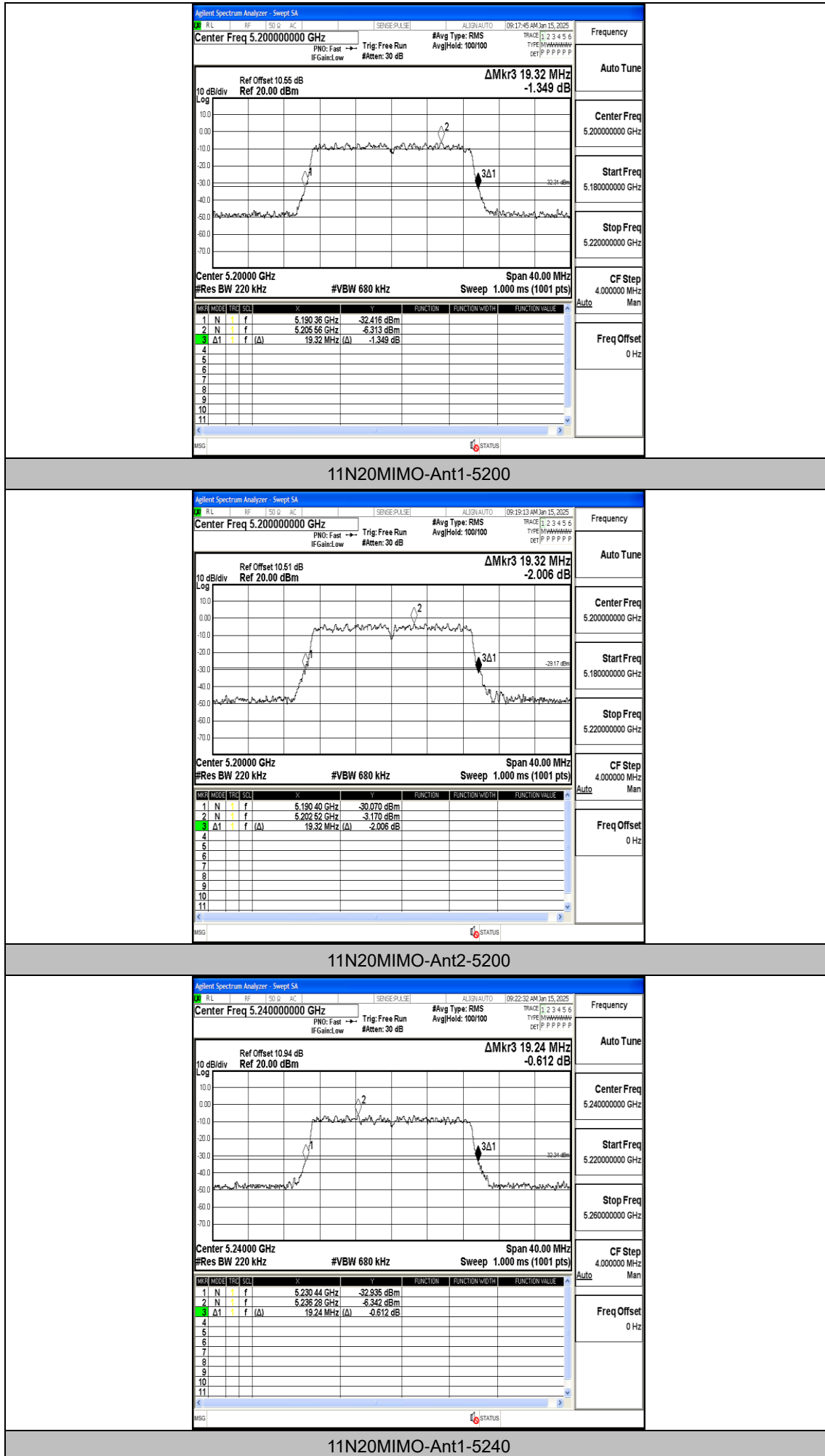
11A-Ant2-5240

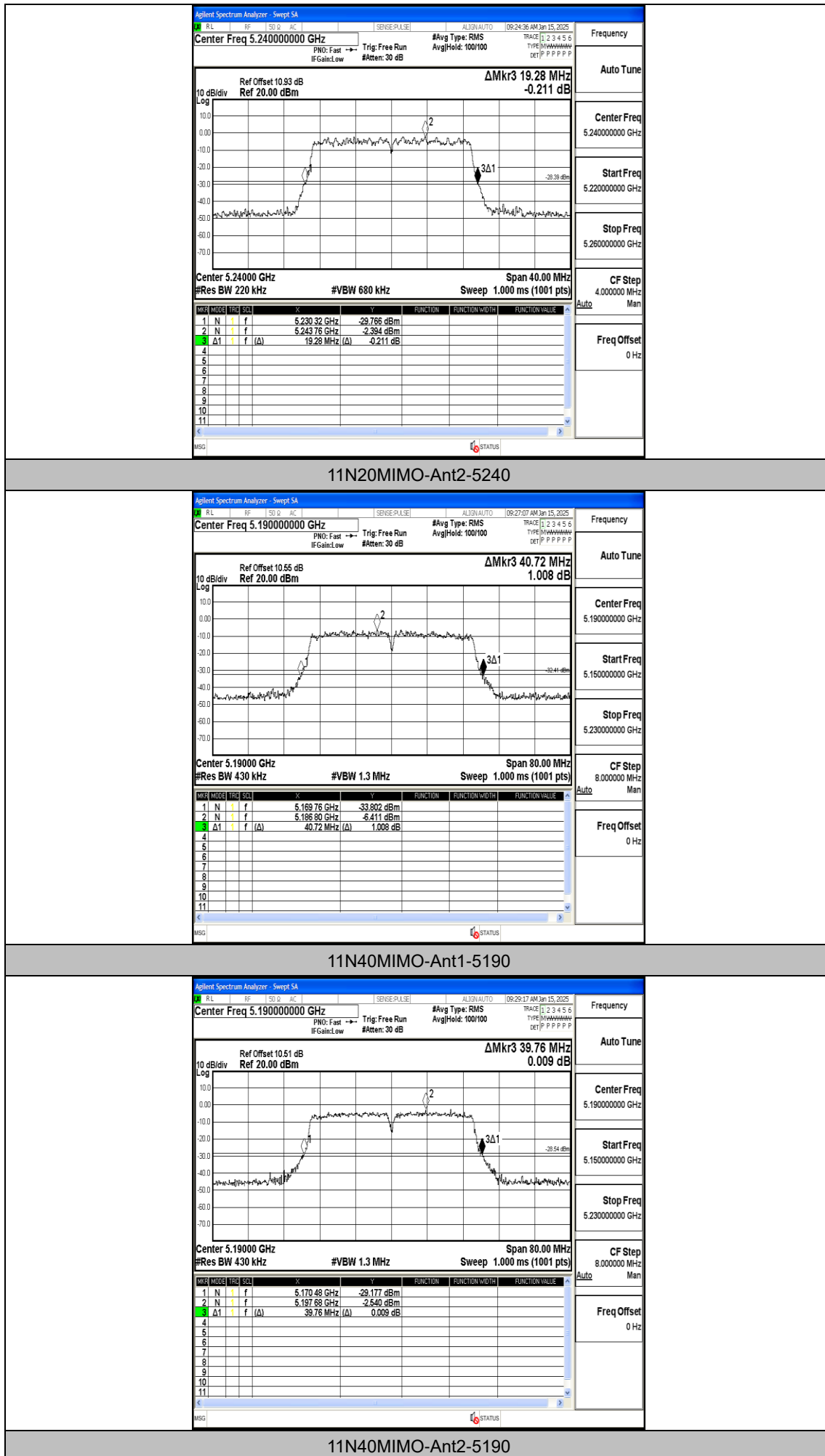


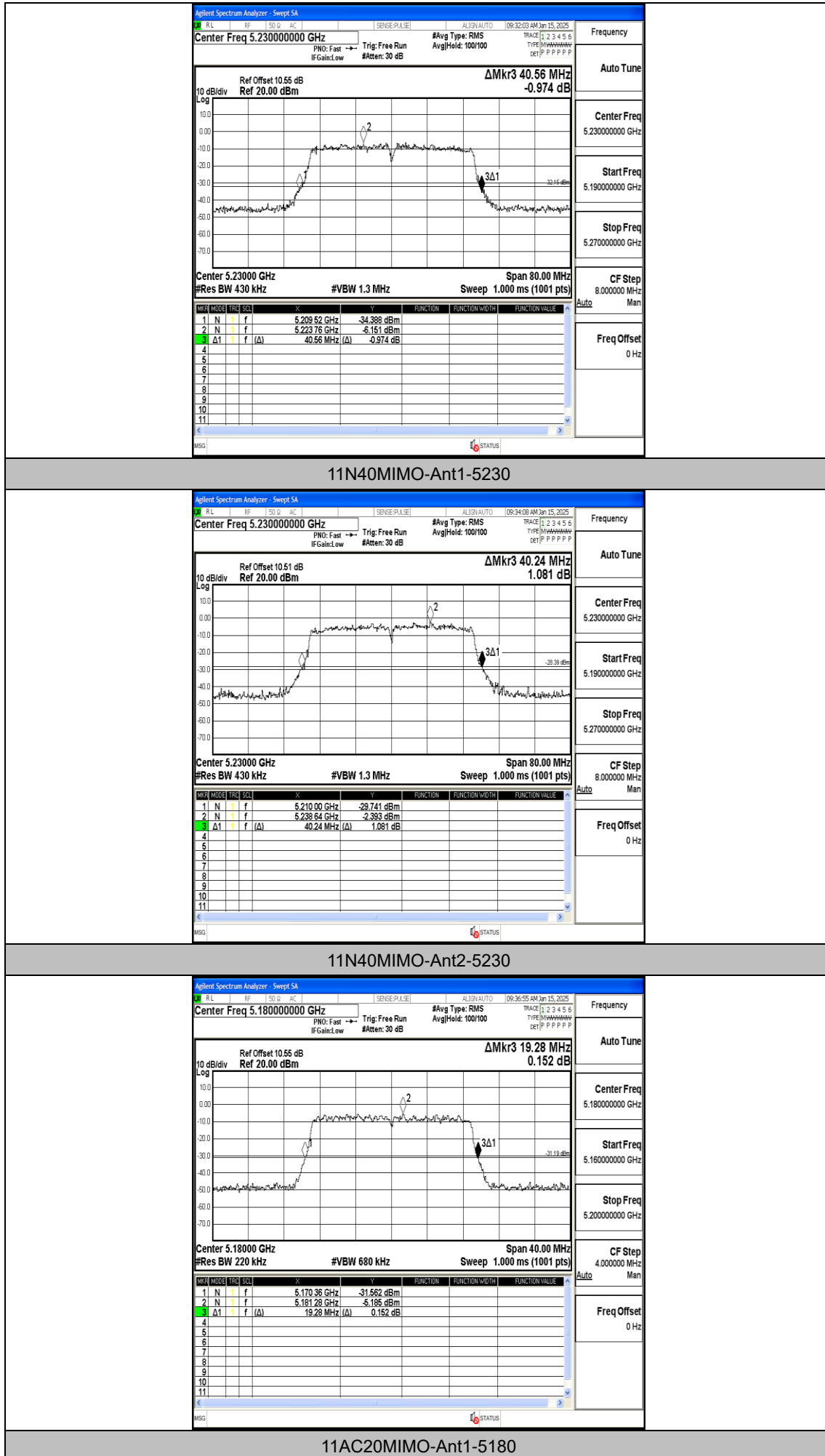
11N20MIMO-Ant1-5180

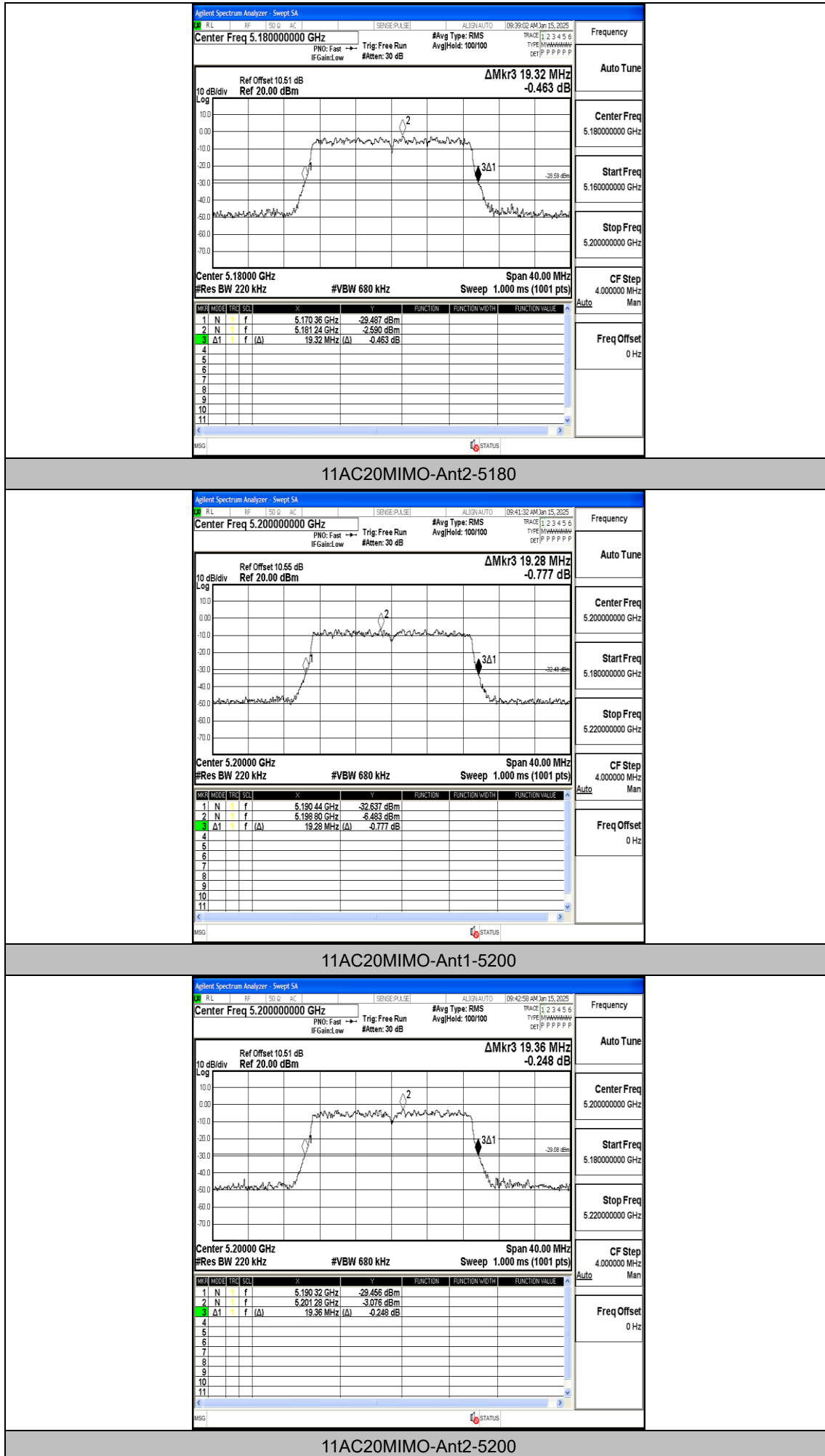


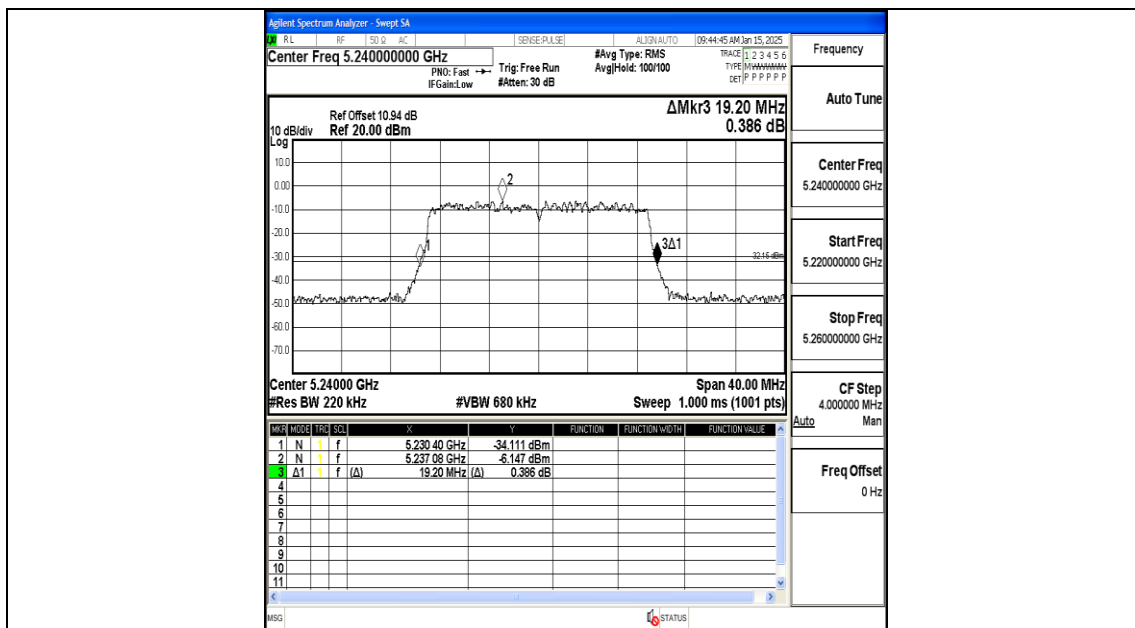
11N20MIMO-Ant2-5180



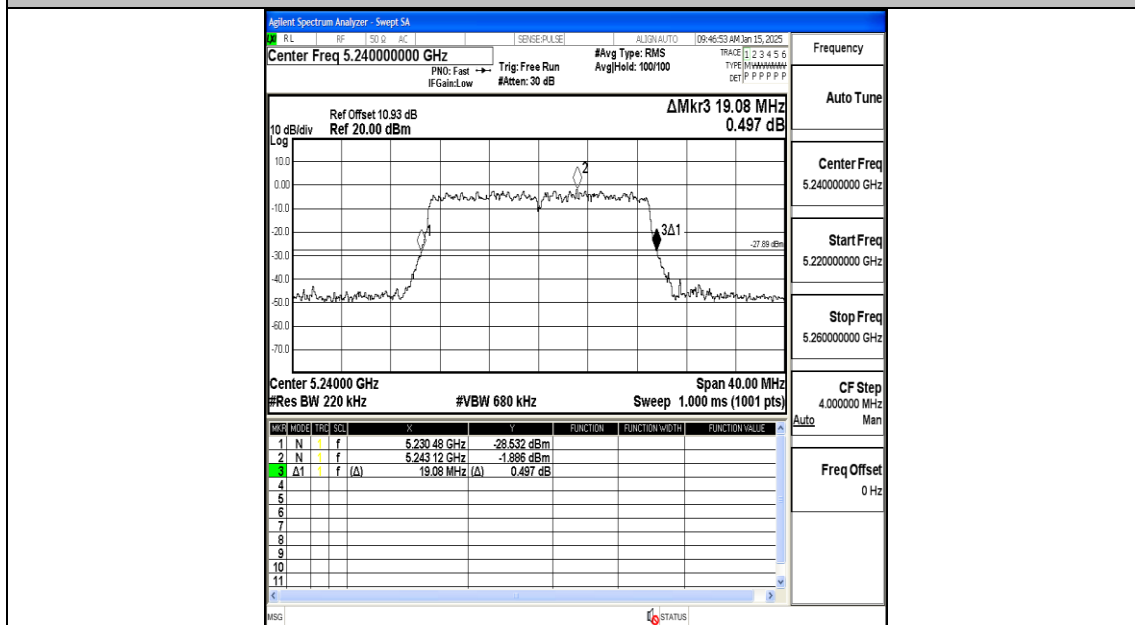




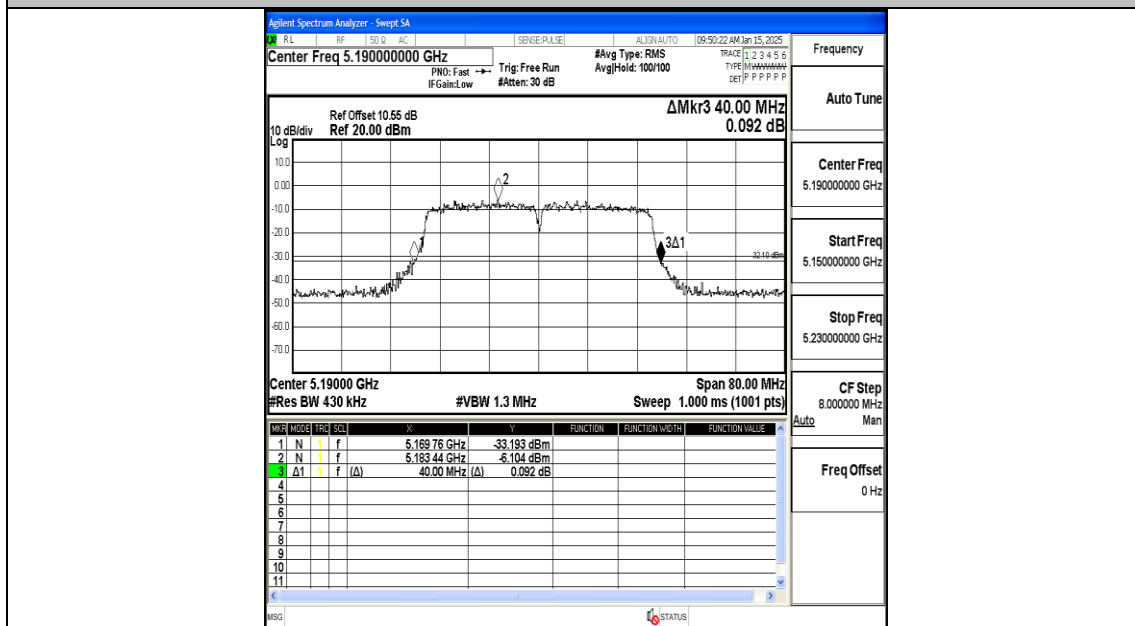




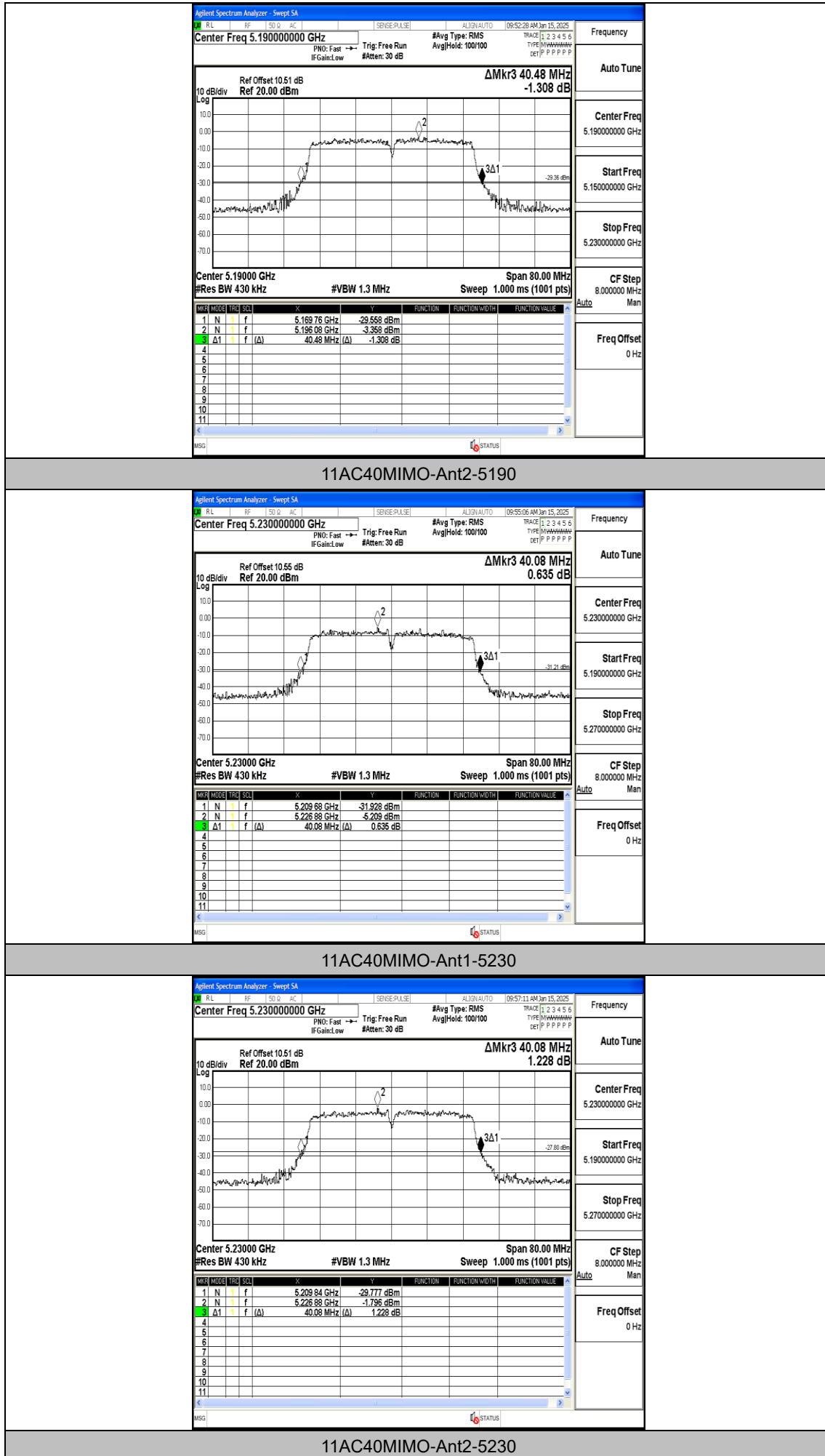
11AC20MIMO-Ant1-5240

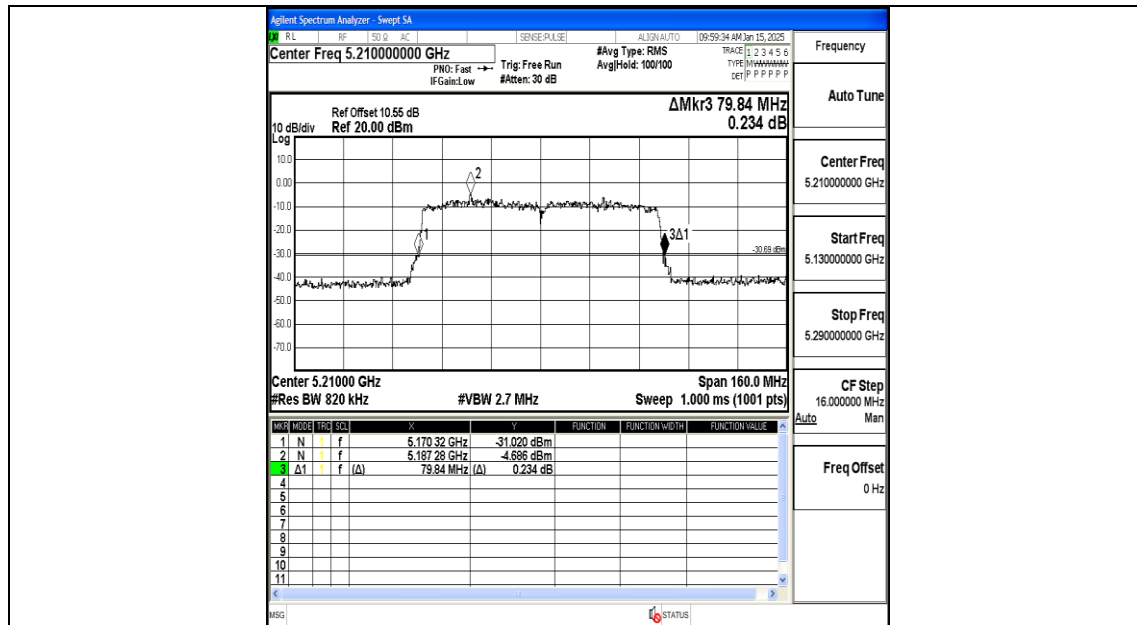


11AC20MIMO-Ant2-5240

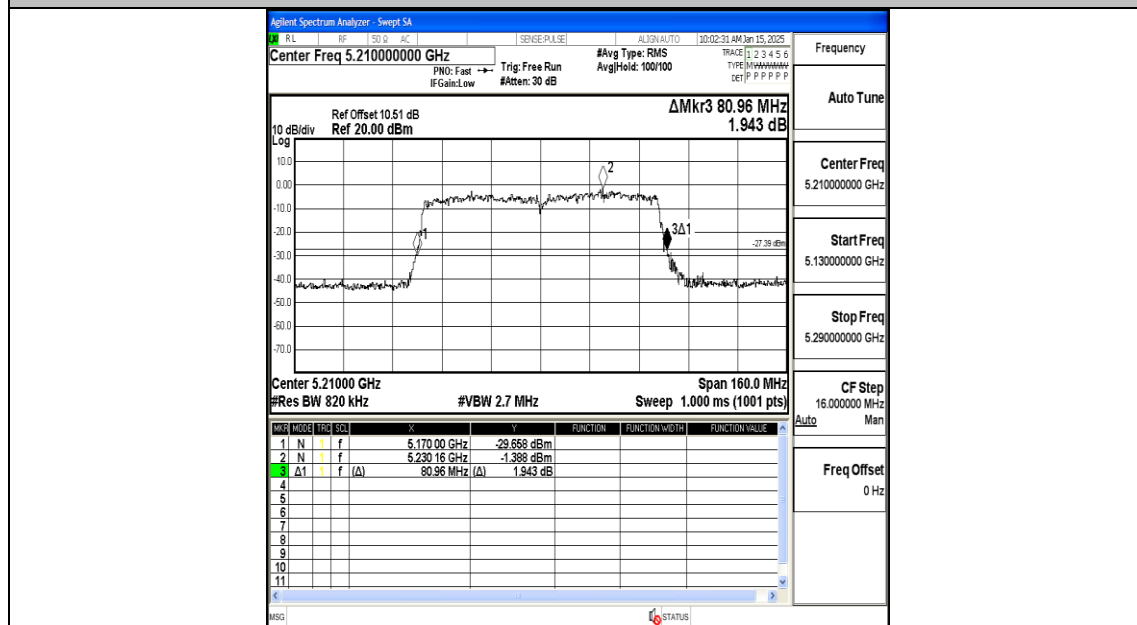


11AC40MIMO-Ant1-5190





11AC80MIMO-Ant1-5210



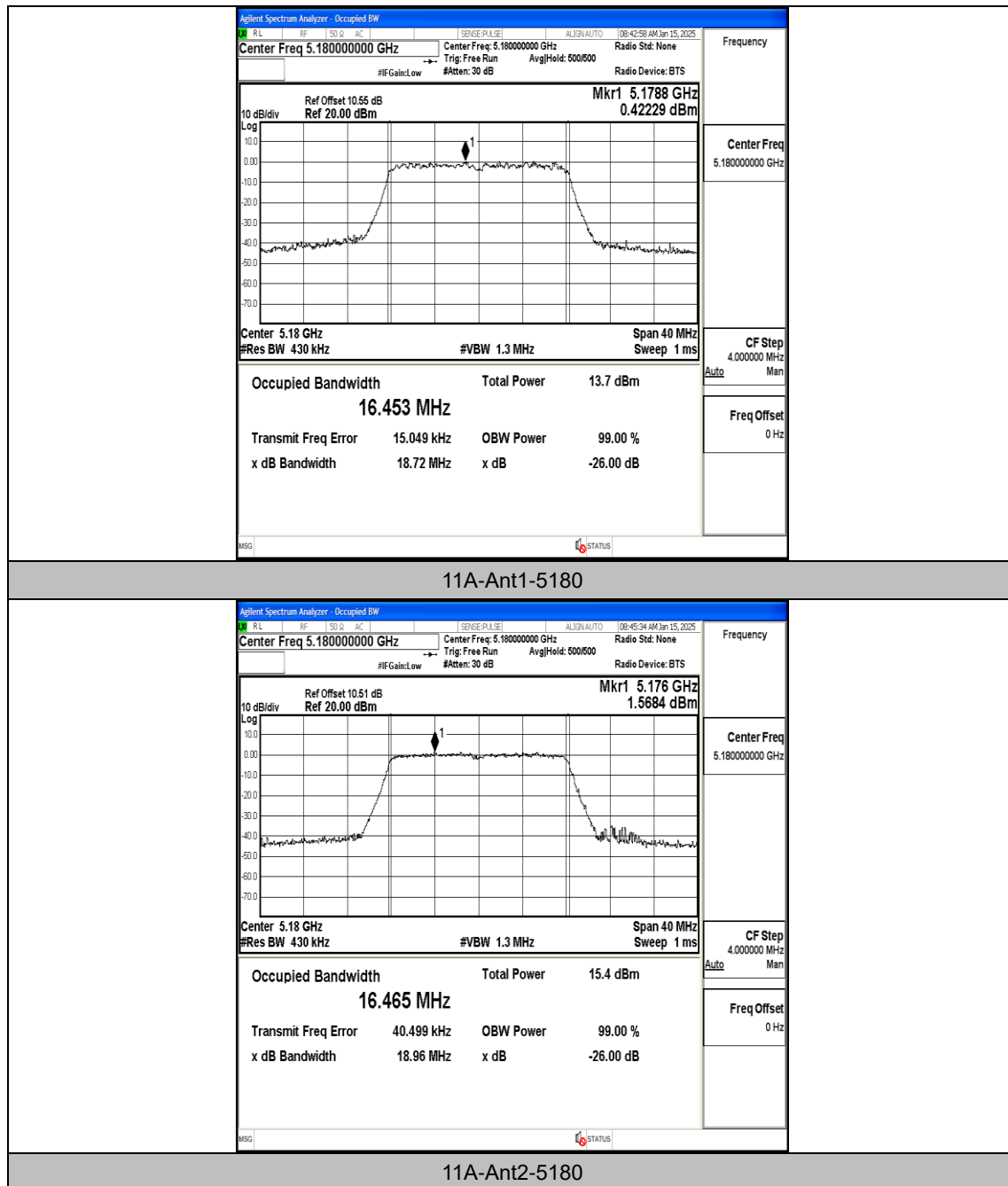
11AC80MIMO-Ant2-5210

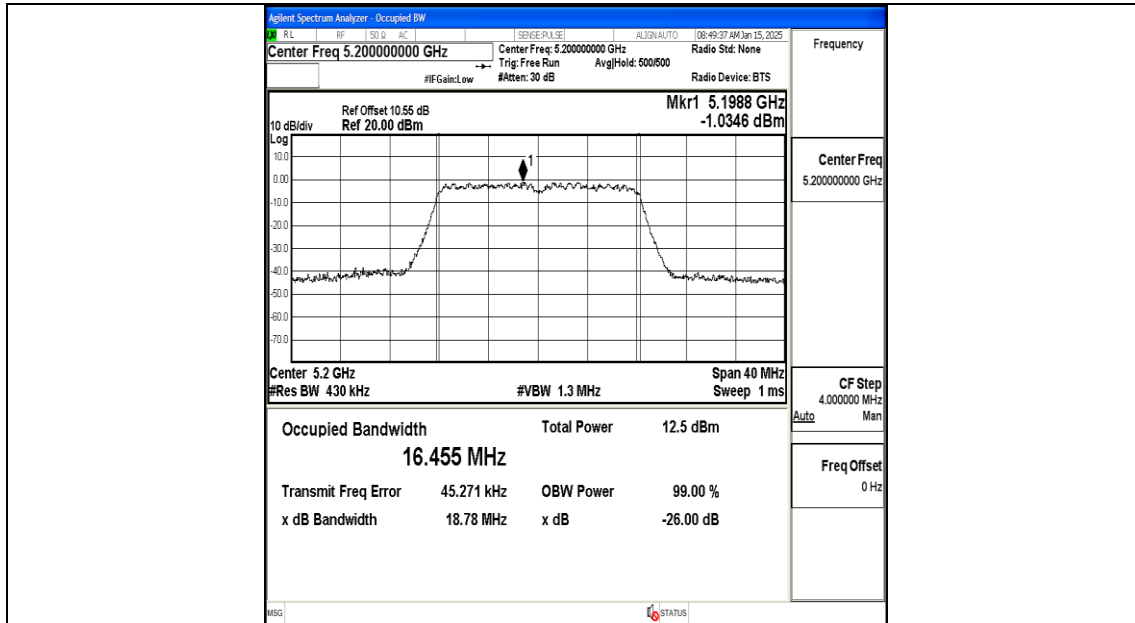
Appendix A2: Occupied channel bandwidth

Test Result

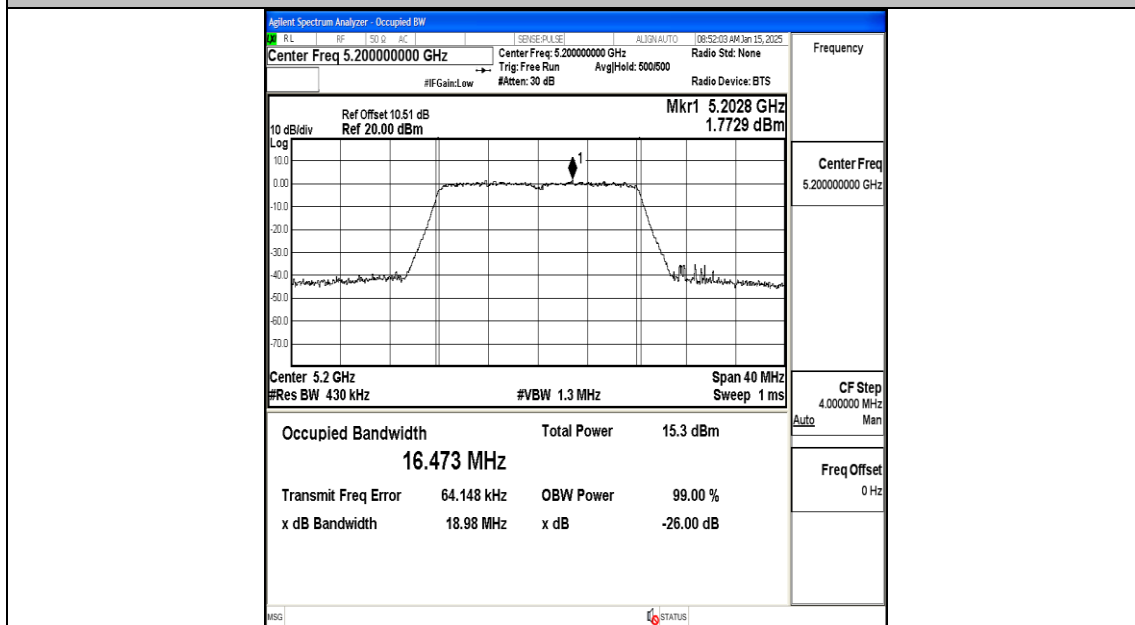
Test Mode	Antenna	Frequency [MHz]	OCB [MHz]	FL [MHz]	FH [MHz]	Limit [MHz]	Verdict
11A	Ant1	5180	16.453	5171.7886	5188.2416	---	---
11A	Ant2	5180	16.465	5171.8080	5188.2730	---	---
11A	Ant1	5200	16.455	5191.8178	5208.2728	---	---
11A	Ant2	5200	16.473	5191.8277	5208.3007	---	---
11A	Ant1	5240	16.452	5231.8269	5248.2789	---	---
11A	Ant2	5240	16.485	5231.8315	5248.3165	---	---
11N20MIMO	Ant1	5180	17.719	5171.1648	5188.8838	---	---
11N20MIMO	Ant2	5180	17.730	5171.1407	5188.8707	---	---
11N20MIMO	Ant1	5200	17.741	5191.1456	5208.8866	---	---
11N20MIMO	Ant2	5200	17.896	5191.0843	5208.9803	---	---
11N20MIMO	Ant1	5240	17.759	5231.1034	5248.8624	---	---
11N20MIMO	Ant2	5240	17.677	5231.1878	5248.8648	---	---
11N40MIMO	Ant1	5190	36.500	5171.8563	5208.3563	---	---
11N40MIMO	Ant2	5190	36.373	5171.9315	5208.3045	---	---
11N40MIMO	Ant1	5230	36.359	5211.8708	5248.2298	---	---
11N40MIMO	Ant2	5230	36.295	5211.9735	5248.2685	---	---
11AC20MIMO	Ant1	5180	17.756	5171.1509	5188.9069	---	---
11AC20MIMO	Ant2	5180	17.756	5171.1643	5188.9203	---	---
11AC20MIMO	Ant1	5200	17.783	5191.1457	5208.9287	---	---
11AC20MIMO	Ant2	5200	17.787	5191.1615	5208.9485	---	---
11AC20MIMO	Ant1	5240	17.760	5231.1373	5248.8973	---	---
11AC20MIMO	Ant2	5240	17.760	5231.1653	5248.9253	---	---
11AC40MIMO	Ant1	5190	36.334	5171.8053	5208.1393	---	---
11AC40MIMO	Ant2	5190	36.297	5171.8987	5208.1957	---	---
11AC40MIMO	Ant1	5230	36.297	5211.8186	5248.1156	---	---
11AC40MIMO	Ant2	5230	36.247	5211.9541	5248.2011	---	---
11AC80MIMO	Ant1	5210	75.849	5171.9537	5247.8027	---	---
11AC80MIMO	Ant2	5210	75.825	5172.3721	5248.1971	---	---

Test Graphs

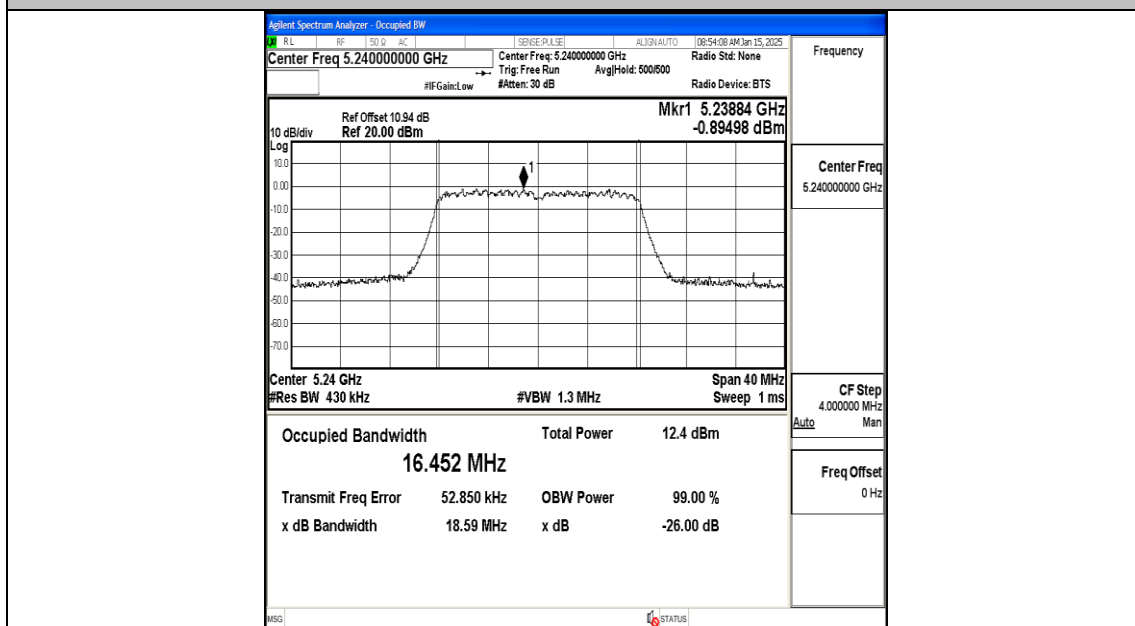




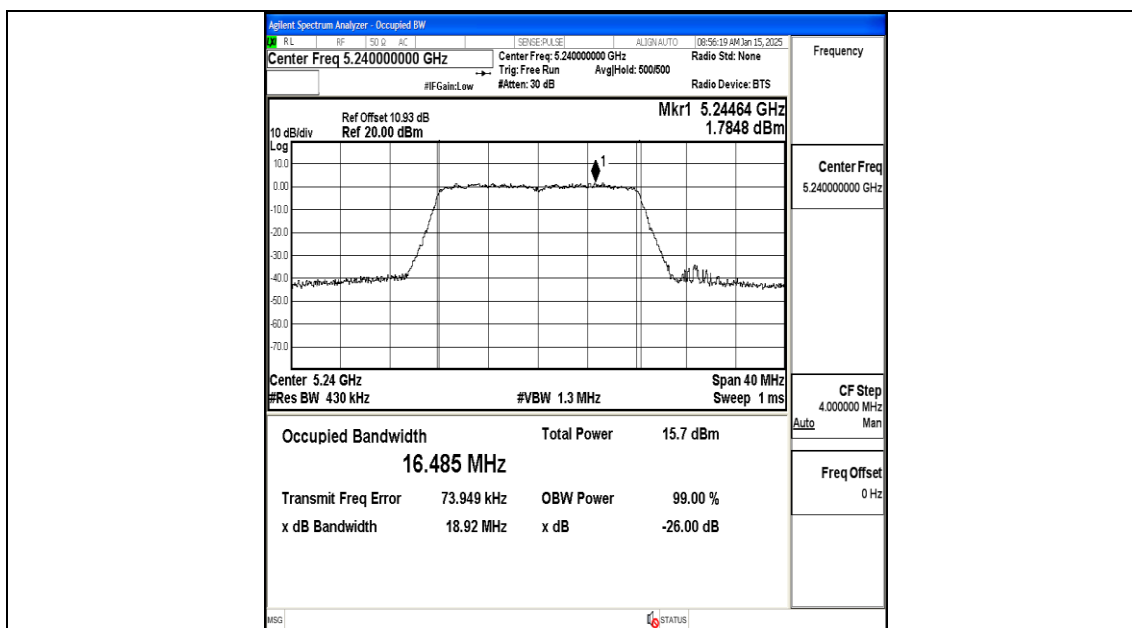
11A-Ant1-5200



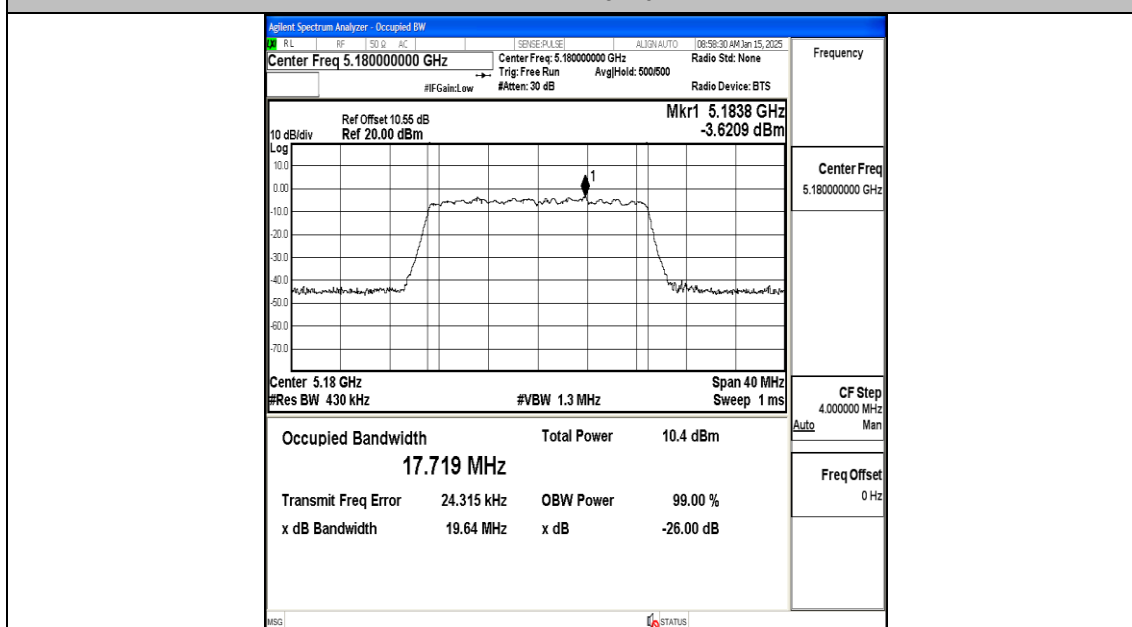
11A-Ant2-5200



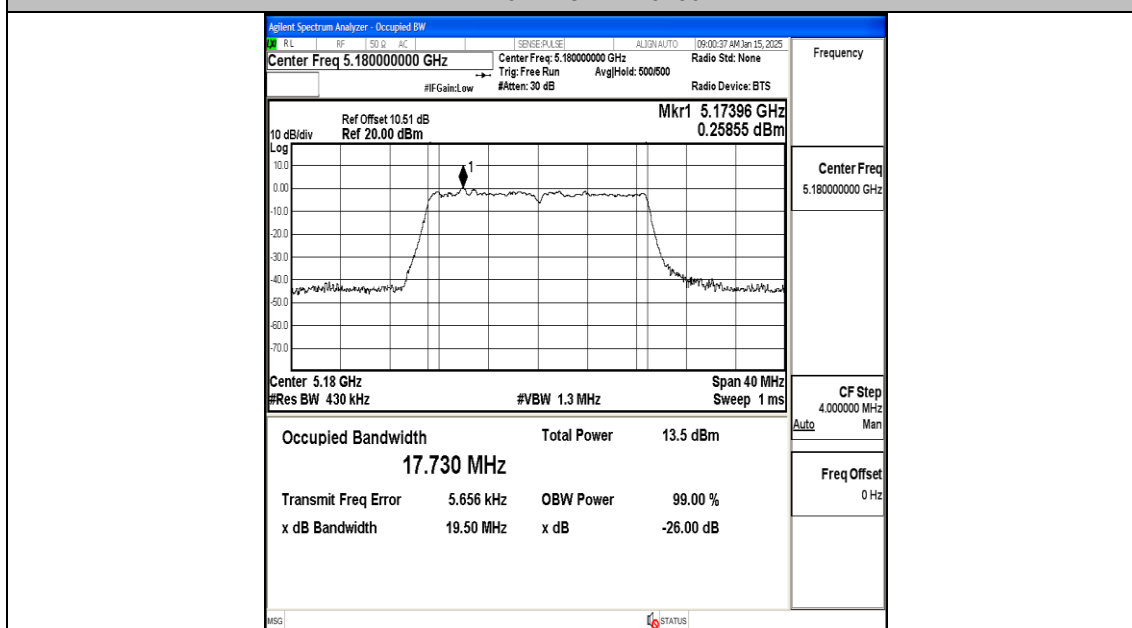
11A-Ant1-5240



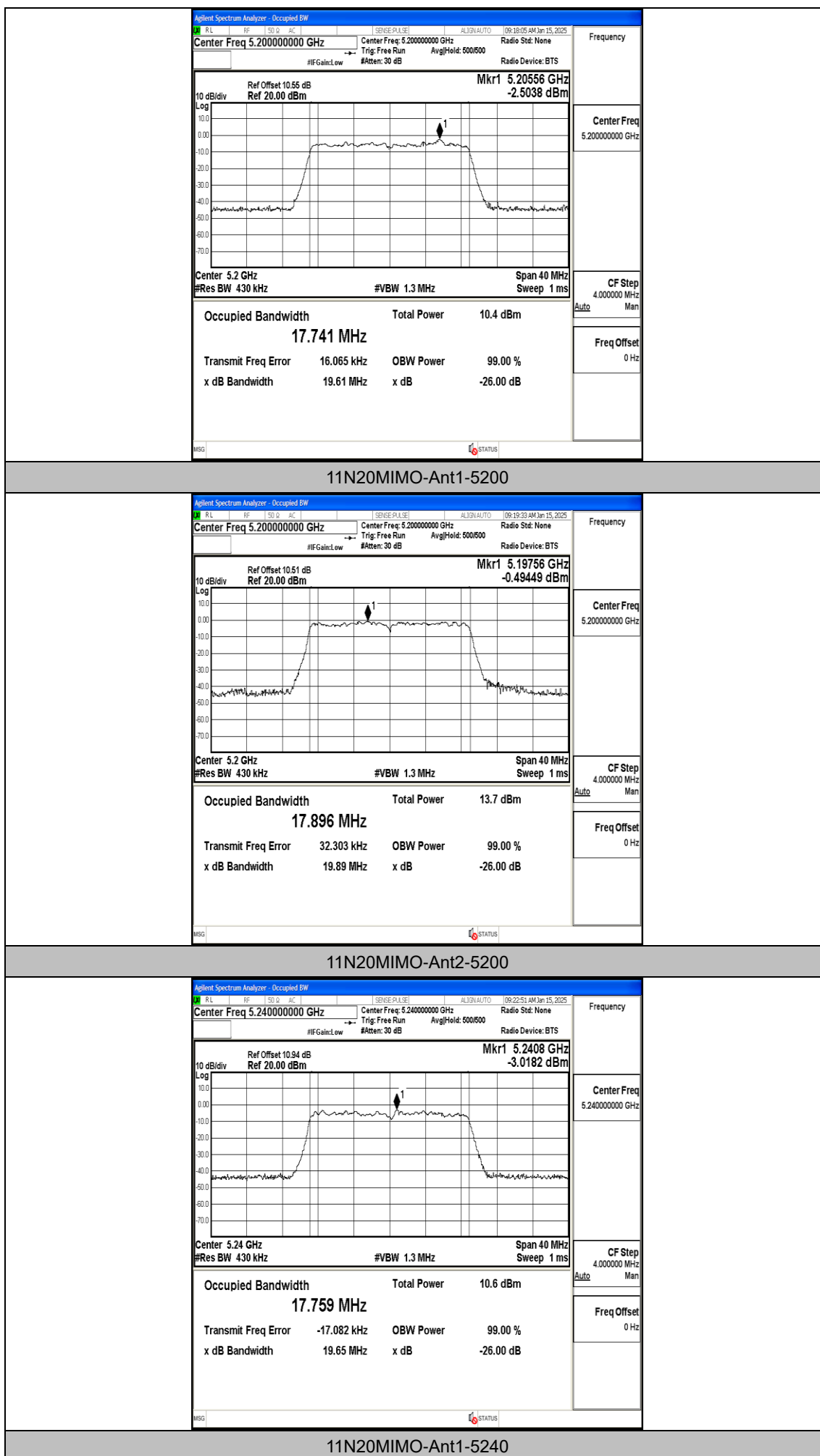
11A-Ant2-5240

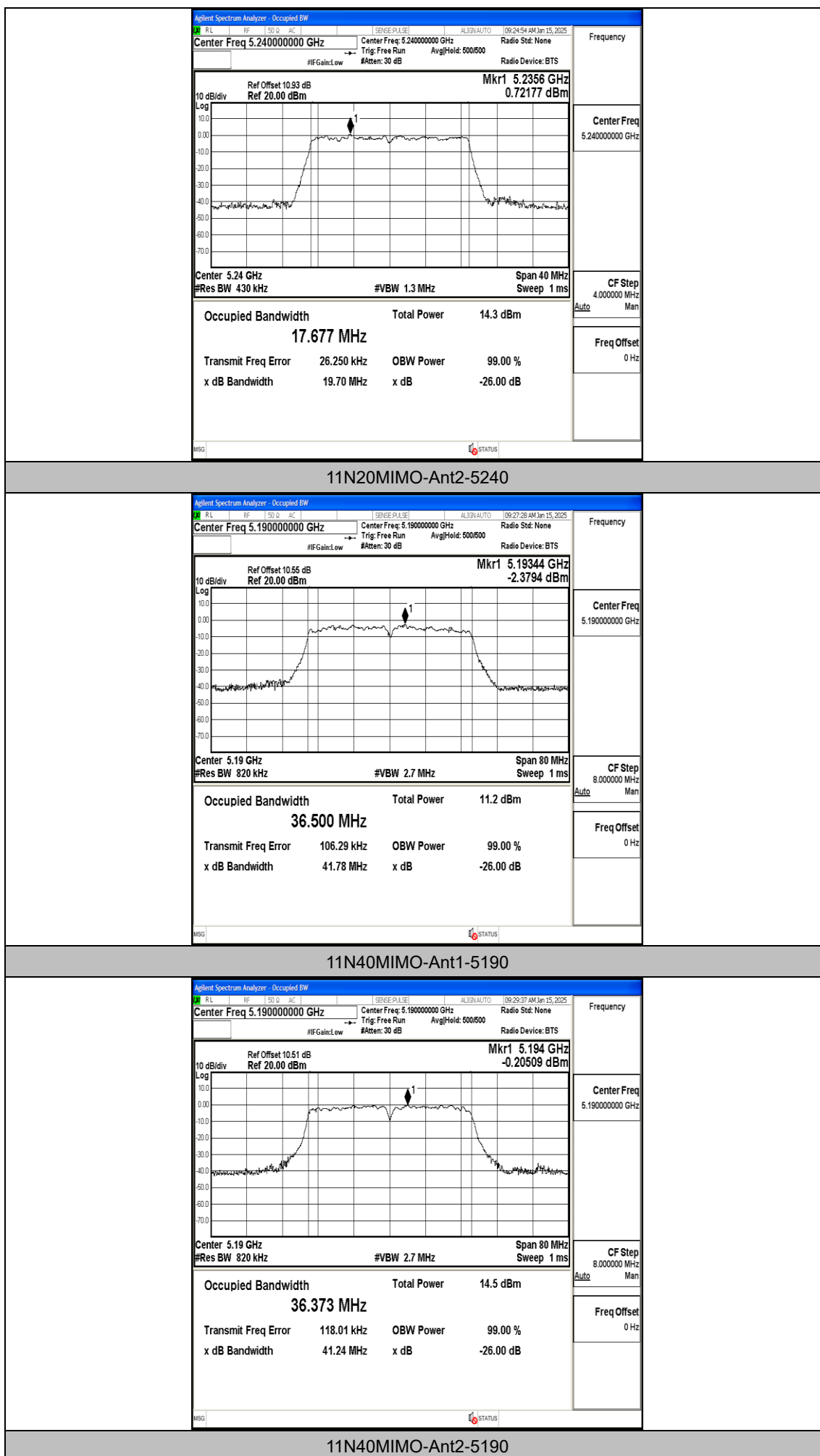


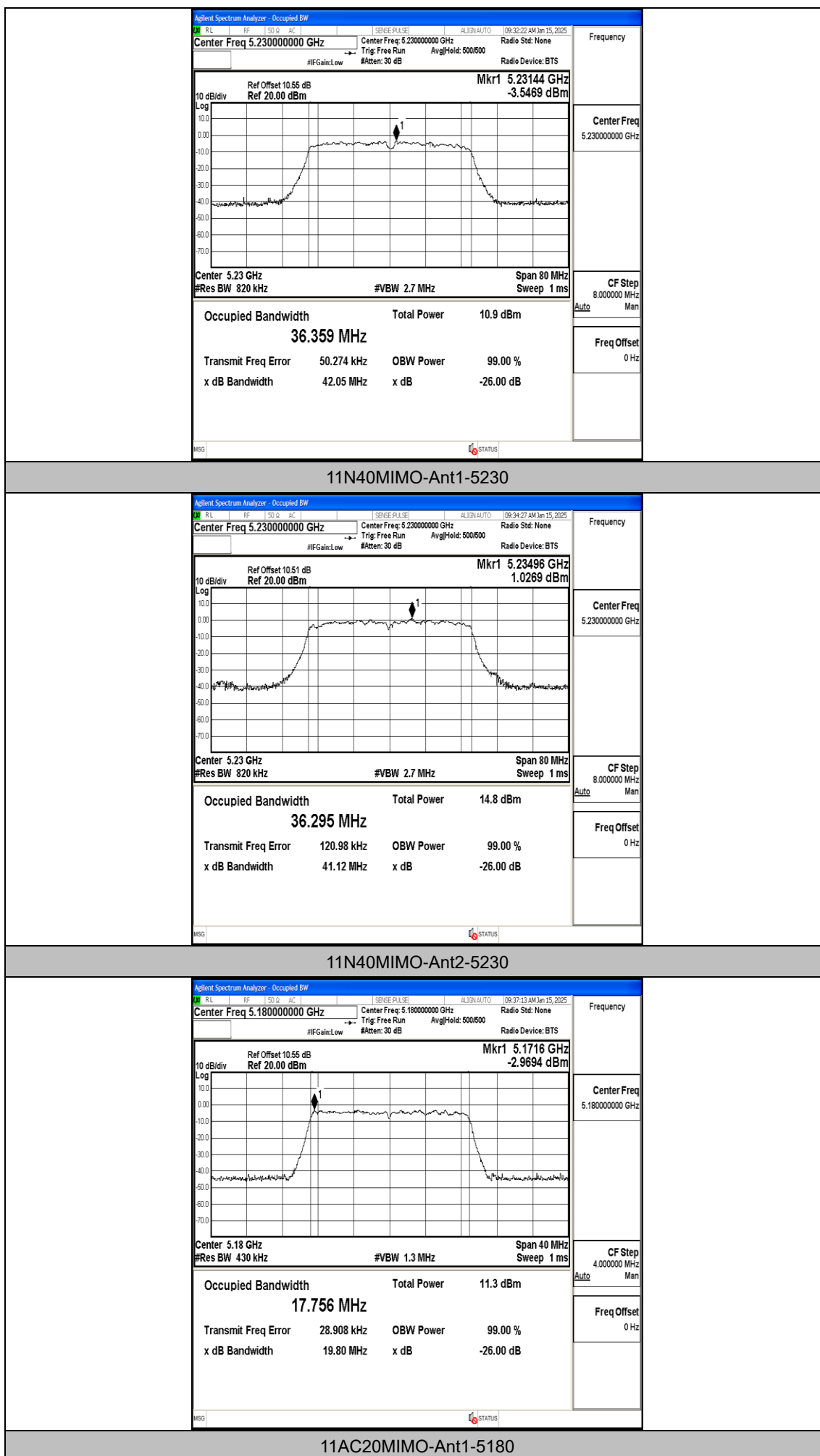
11N20MIMO-Ant1-5180

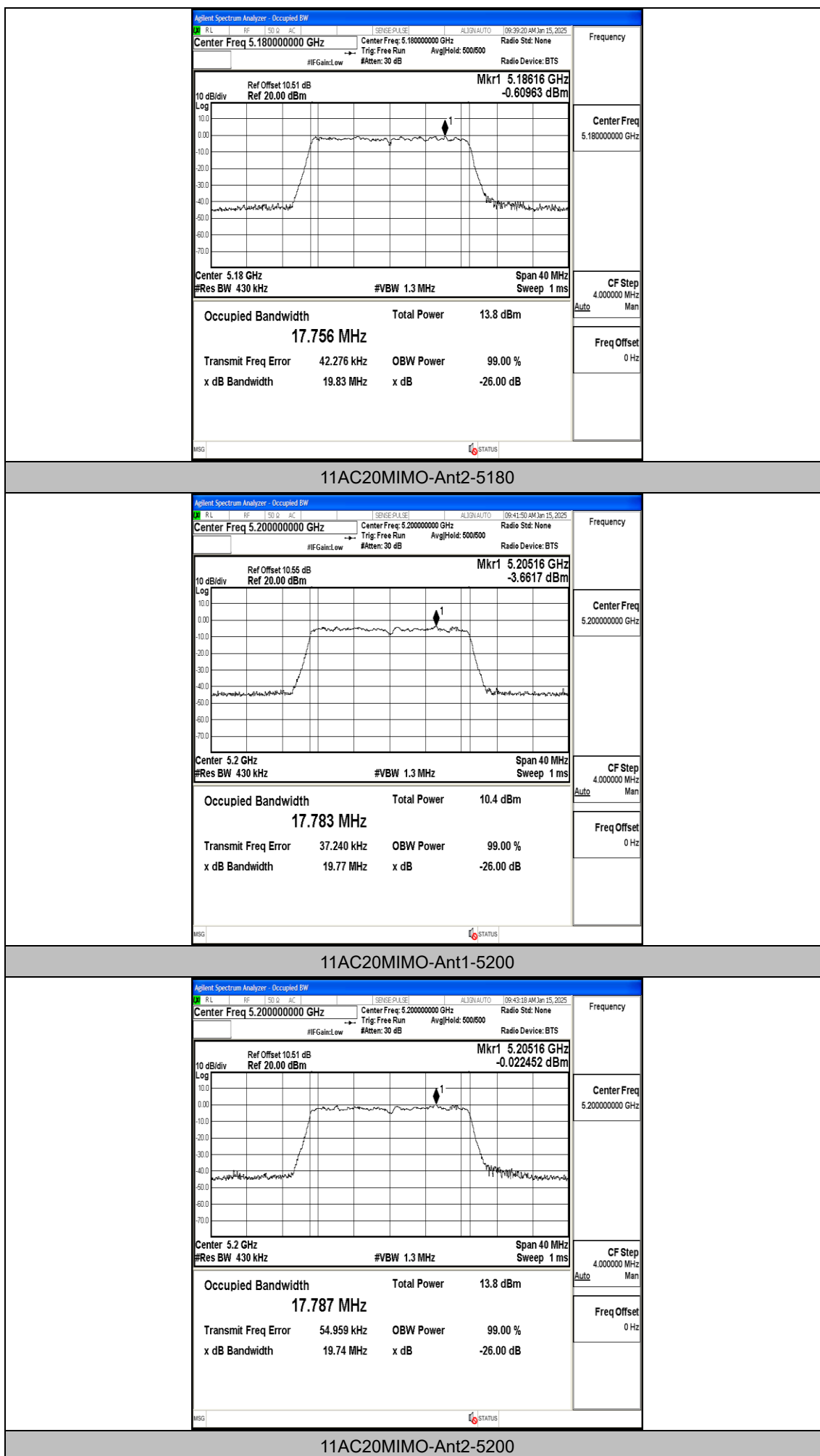


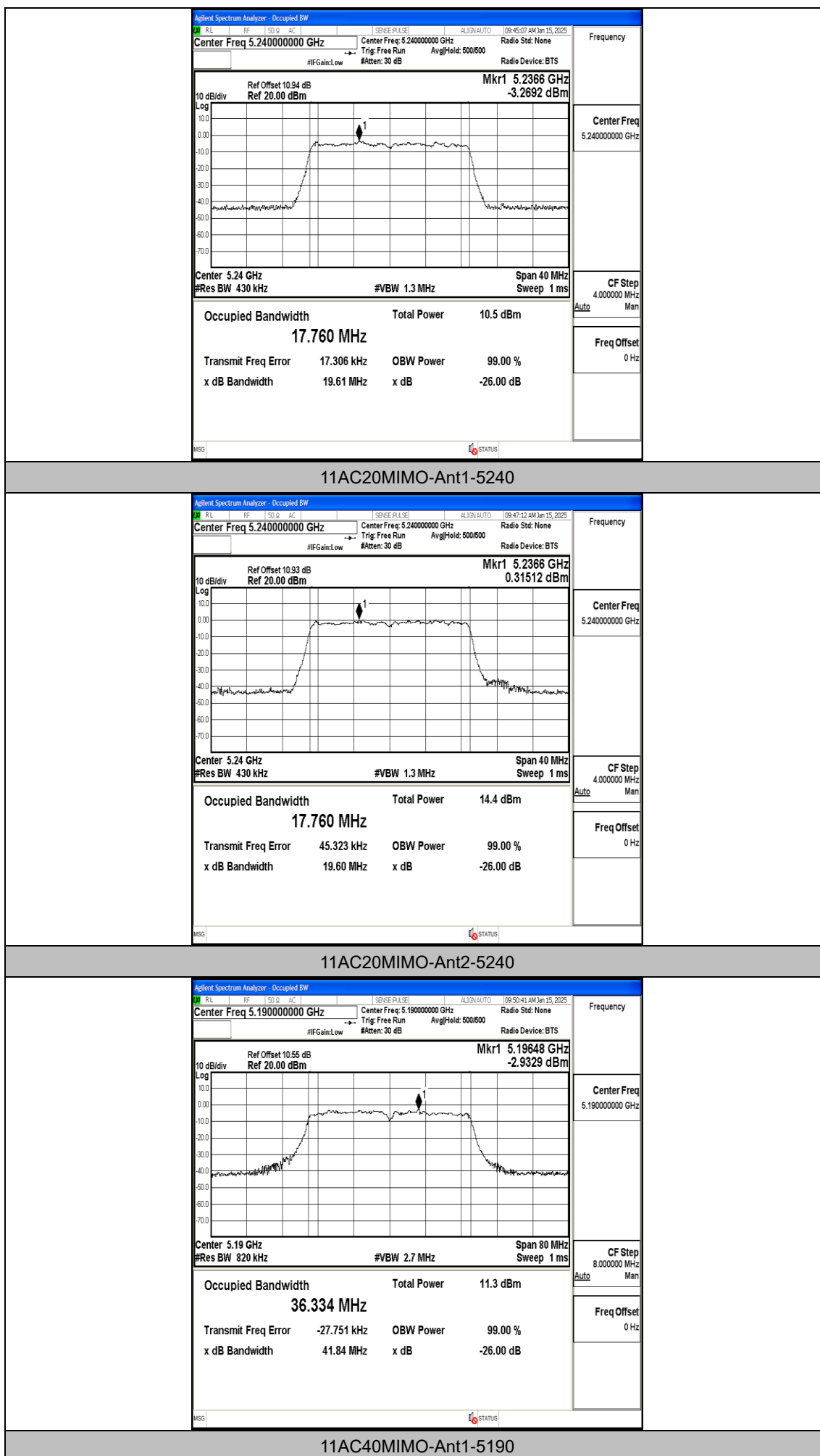
11N20MIMO-Ant2-5180

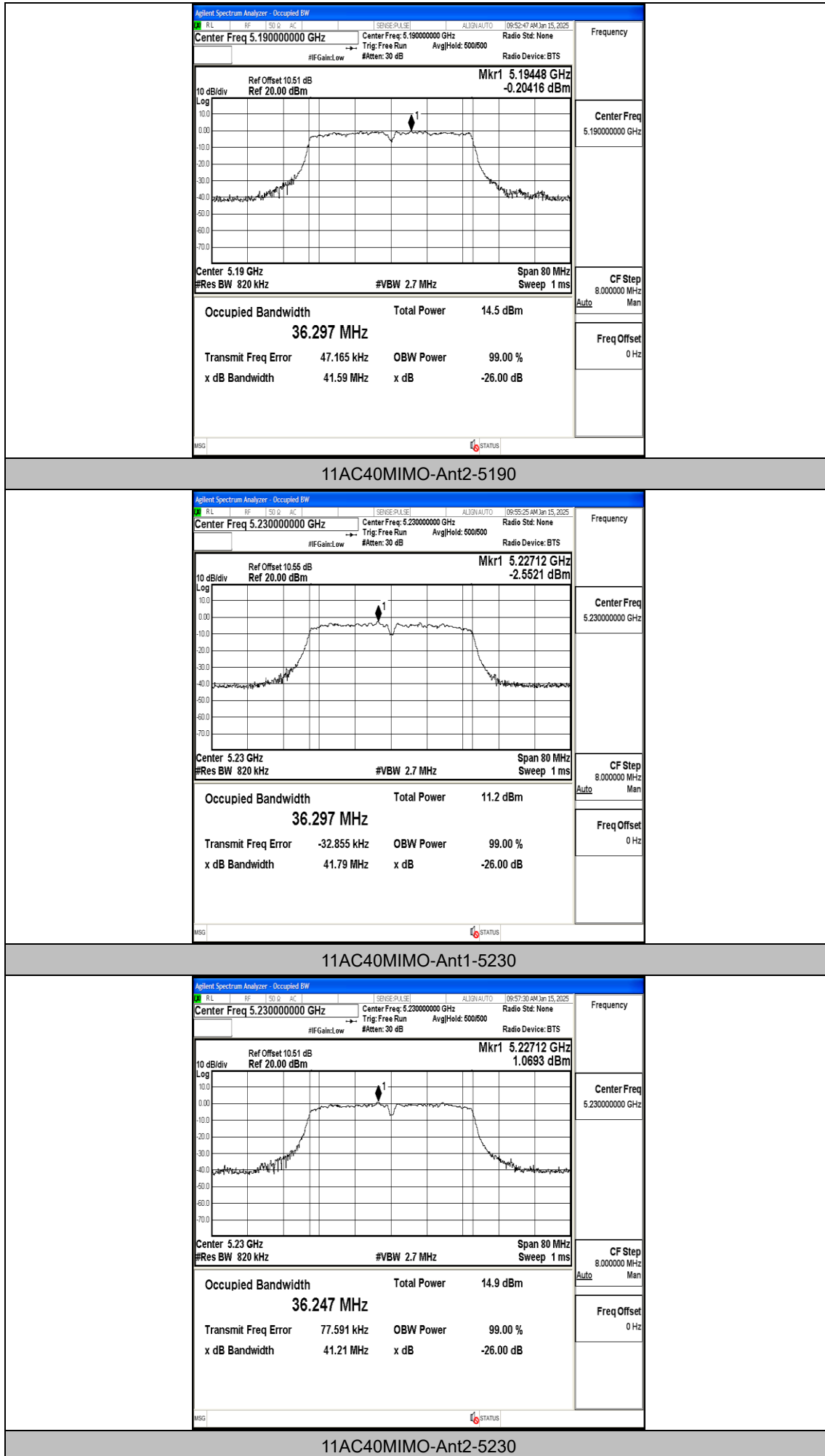


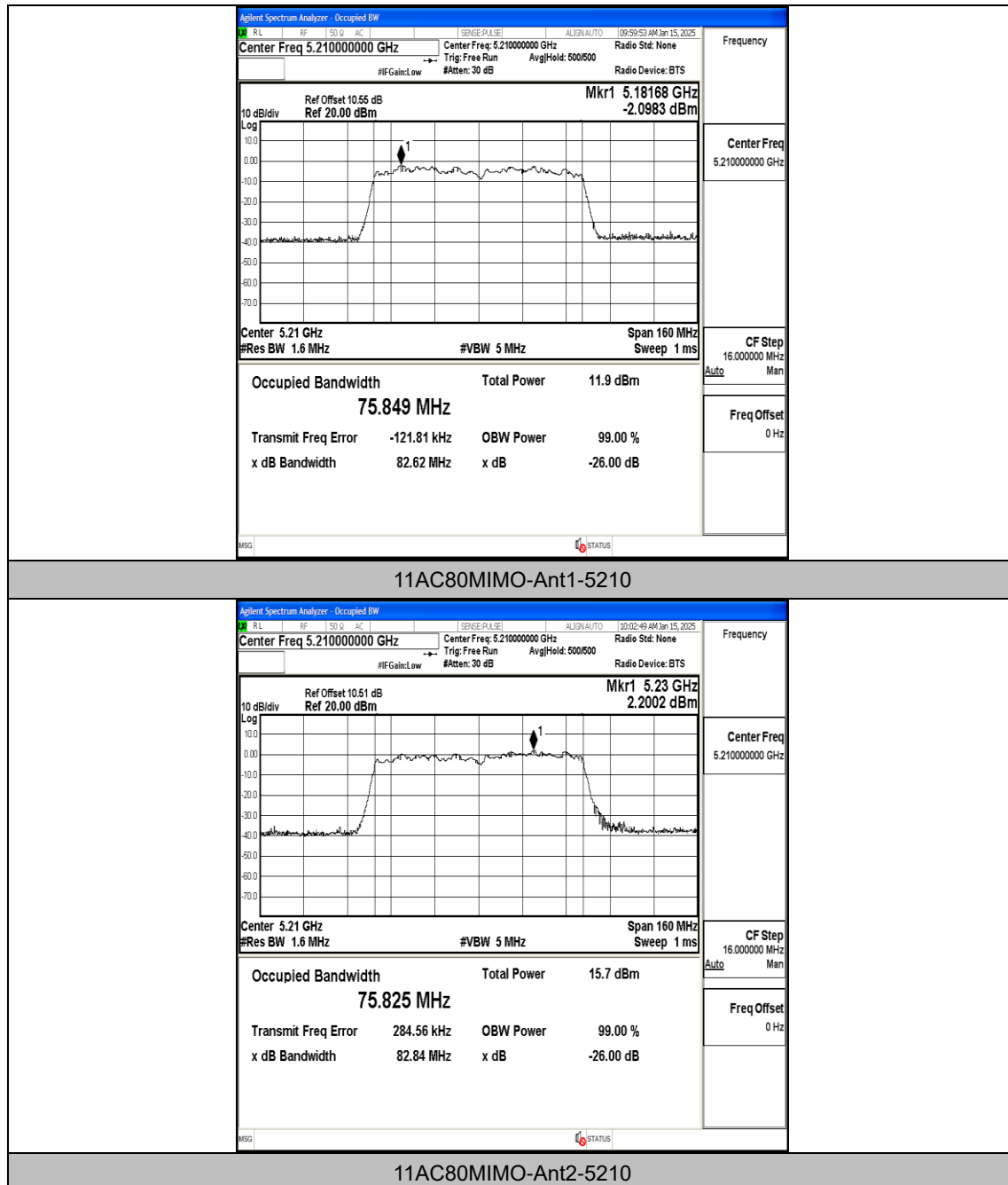












Appendix B: Maximum conducted output power

Test Result

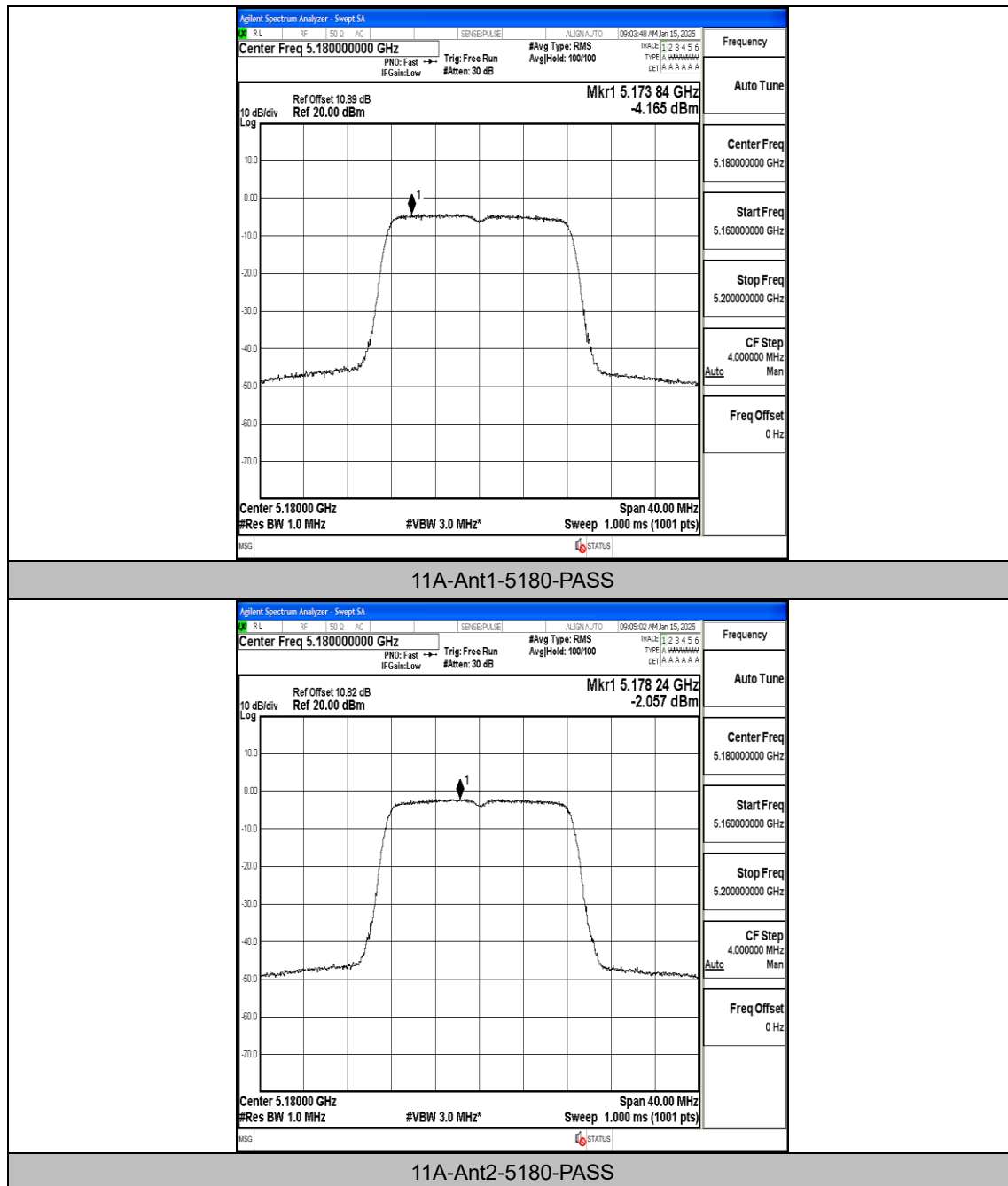
Test Mode	Antenna	Frequency [MHz]	Conducted Power [dBm]	Conducted Limit [dBm]	Verdict
11A	Ant1	5180	6.36	≤23.98	PASS
11A	Ant2	5180	8.65	≤23.98	PASS
11A	Ant1	5200	5.36	≤23.98	PASS
11A	Ant2	5200	8.80	≤23.98	PASS
11A	Ant1	5240	5.45	≤23.98	PASS
11A	Ant2	5240	9.16	≤23.98	PASS
11N20MIMO	Ant1	5180	5.14	≤23.98	PASS
11N20MIMO	Ant2	5180	7.99	≤23.98	PASS
11N20MIMO	total	5180	9.81	≤23.98	PASS
11N20MIMO	Ant1	5200	5.44	≤23.98	PASS
11N20MIMO	Ant2	5200	7.66	≤23.98	PASS
11N20MIMO	total	5200	9.70	≤23.98	PASS
11N20MIMO	Ant1	5240	4.90	≤23.98	PASS
11N20MIMO	Ant2	5240	9.03	≤23.98	PASS
11N20MIMO	total	5240	10.45	≤23.98	PASS
11N40MIMO	Ant1	5190	5.38	≤23.98	PASS
11N40MIMO	Ant2	5190	8.28	≤23.98	PASS
11N40MIMO	total	5190	10.08	≤23.98	PASS
11N40MIMO	Ant1	5230	4.79	≤23.98	PASS
11N40MIMO	Ant2	5230	8.50	≤23.98	PASS
11N40MIMO	total	5230	10.04	≤23.98	PASS
11AC20MIMO	Ant1	5180	5.24	≤23.98	PASS
11AC20MIMO	Ant2	5180	7.71	≤23.98	PASS
11AC20MIMO	total	5180	9.66	≤23.98	PASS
11AC20MIMO	Ant1	5200	4.53	≤23.98	PASS
11AC20MIMO	Ant2	5200	7.95	≤23.98	PASS
11AC20MIMO	total	5200	9.58	≤23.98	PASS
11AC20MIMO	Ant1	5240	4.47	≤23.98	PASS
11AC20MIMO	Ant2	5240	7.61	≤23.98	PASS
11AC20MIMO	total	5240	9.33	≤23.98	PASS
11AC40MIMO	Ant1	5190	4.69	≤23.98	PASS
11AC40MIMO	Ant2	5190	8.29	≤23.98	PASS
11AC40MIMO	total	5190	9.86	≤23.98	PASS
11AC40MIMO	Ant1	5230	4.53	≤23.98	PASS
11AC40MIMO	Ant2	5230	8.67	≤23.98	PASS
11AC40MIMO	total	5230	10.09	≤23.98	PASS
11AC80MIMO	Ant1	5210	4.52	≤23.98	PASS
11AC80MIMO	Ant2	5210	8.45	≤23.98	PASS
11AC80MIMO	total	5210	9.93	≤23.98	PASS

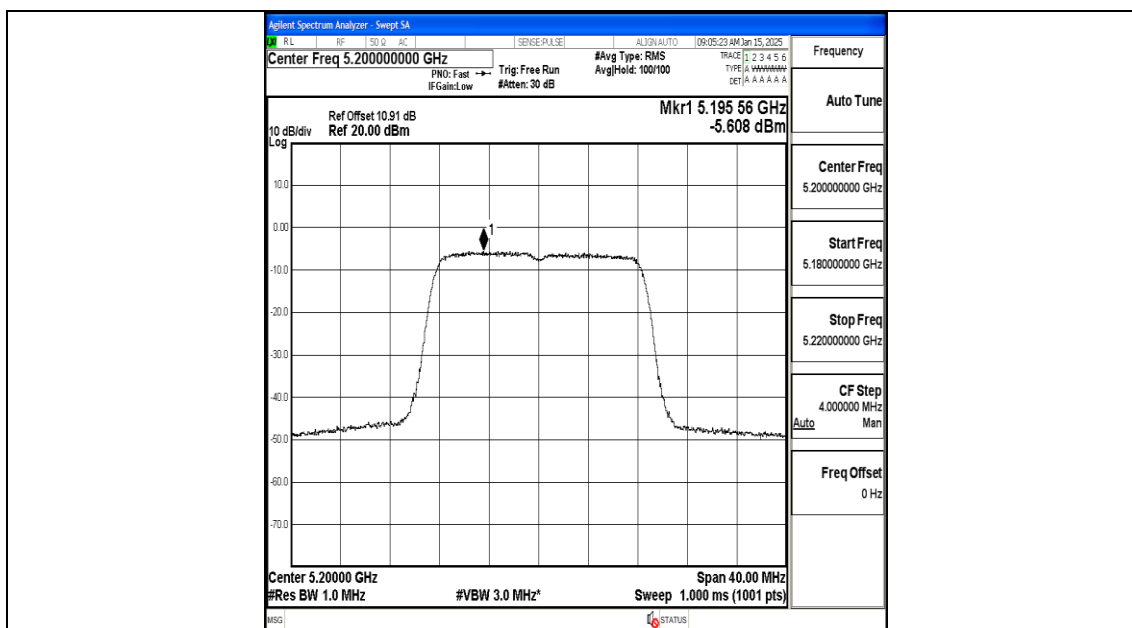
Appendix C: Maximum power spectral density

Test Result

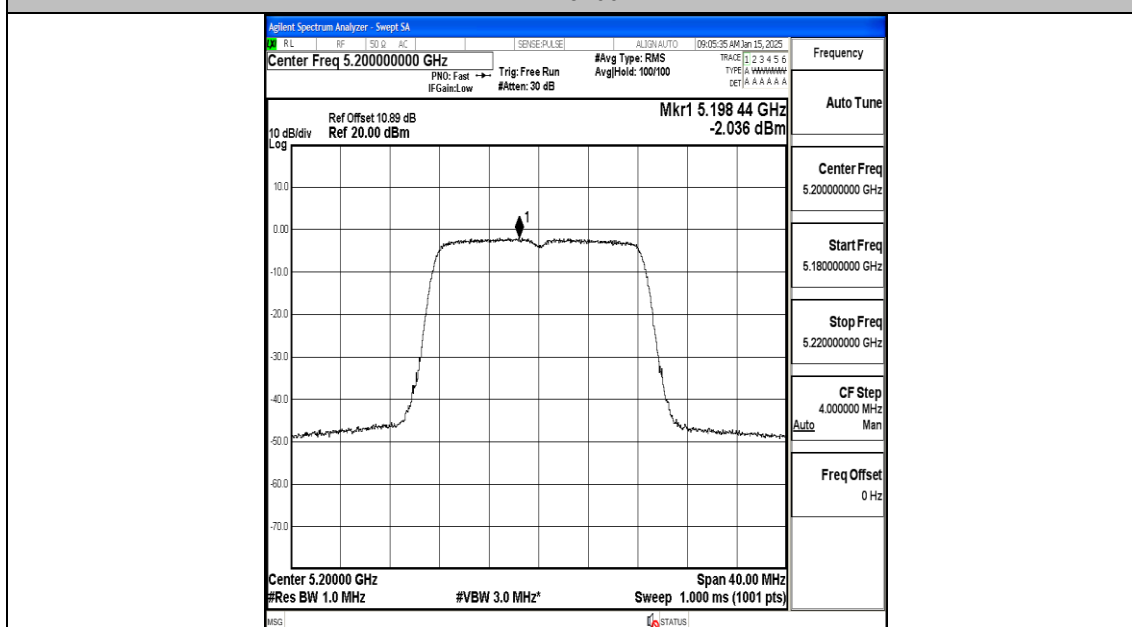
Test Mode	Antenna	Frequency [MHz]	Result [dBm/MHz]	Limit [dBm/MHz]	Verdict
11A	Ant1	5180	-4.17	≤11.00	PASS
11A	Ant2	5180	-2.06	≤11.00	PASS
11A	Ant1	5200	-5.61	≤11.00	PASS
11A	Ant2	5200	-2.04	≤11.00	PASS
11A	Ant1	5240	-5.37	≤11.00	PASS
11A	Ant2	5240	-1.84	≤11.00	PASS
11N20MIMO	Ant1	5180	-5.99	≤11.00	PASS
11N20MIMO	Ant2	5180	-3.39	≤11.00	PASS
11N20MIMO	total	5180	-1.49	≤10.64	PASS
11N20MIMO	Ant1	5200	-5.06	≤11.00	PASS
11N20MIMO	Ant2	5200	-2.46	≤11.00	PASS
11N20MIMO	total	5200	-0.56	≤10.64	PASS
11N20MIMO	Ant1	5240	-5.51	≤11.00	PASS
11N20MIMO	Ant2	5240	-1.81	≤11.00	PASS
11N20MIMO	total	5240	-0.27	≤10.64	PASS
11N40MIMO	Ant1	5190	-7.40	≤11.00	PASS
11N40MIMO	Ant2	5190	-4.91	≤11.00	PASS
11N40MIMO	total	5190	-2.97	≤10.64	PASS
11N40MIMO	Ant1	5230	-8.41	≤11.00	PASS
11N40MIMO	Ant2	5230	-4.70	≤11.00	PASS
11N40MIMO	total	5230	-3.16	≤10.64	PASS
11AC20MIMO	Ant1	5180	-5.18	≤11.00	PASS
11AC20MIMO	Ant2	5180	-3.05	≤11.00	PASS
11AC20MIMO	total	5180	-0.98	≤10.64	PASS
11AC20MIMO	Ant1	5200	-6.51	≤11.00	PASS
11AC20MIMO	Ant2	5200	-3.08	≤11.00	PASS
11AC20MIMO	total	5200	-1.45	≤10.64	PASS
11AC20MIMO	Ant1	5240	-6.17	≤11.00	PASS
11AC20MIMO	Ant2	5240	-2.77	≤11.00	PASS
11AC20MIMO	total	5240	-1.14	≤10.64	PASS
11AC40MIMO	Ant1	5190	-8.49	≤11.00	PASS
11AC40MIMO	Ant2	5190	-4.36	≤11.00	PASS
11AC40MIMO	total	5190	-2.94	≤10.64	PASS
11AC40MIMO	Ant1	5230	-8.92	≤11.00	PASS
11AC40MIMO	Ant2	5230	-4.40	≤11.00	PASS
11AC40MIMO	total	5230	-3.09	≤10.64	PASS
11AC80MIMO	Ant1	5210	-11.65	≤11.00	PASS
11AC80MIMO	Ant2	5210	-7.15	≤11.00	PASS
11AC80MIMO	total	5210	-5.83	≤10.64	PASS

Test Graphs

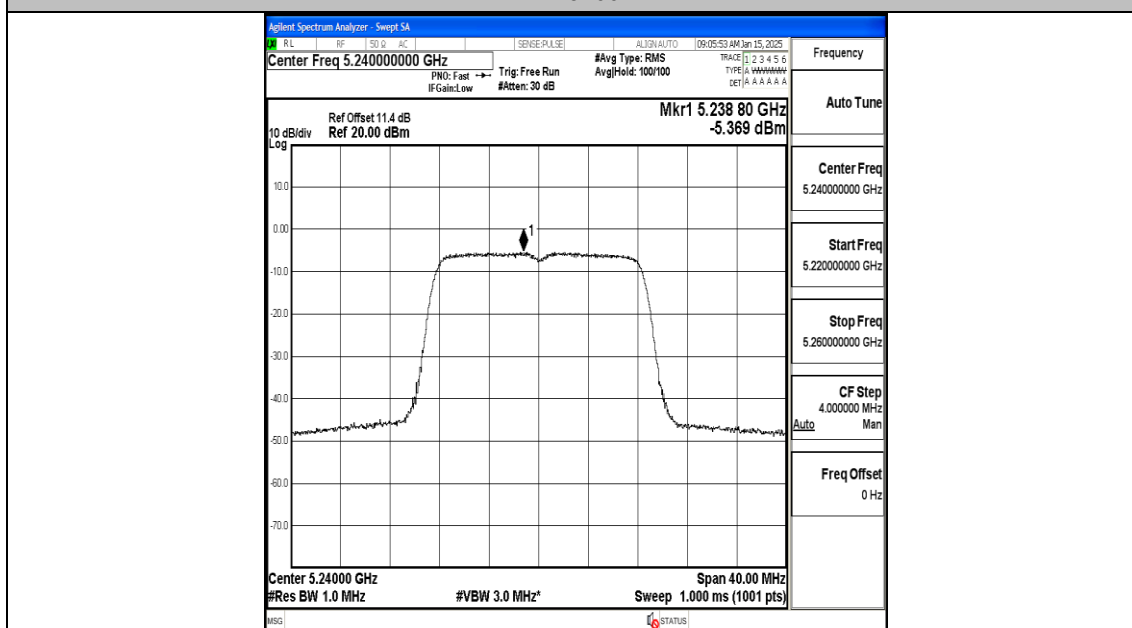




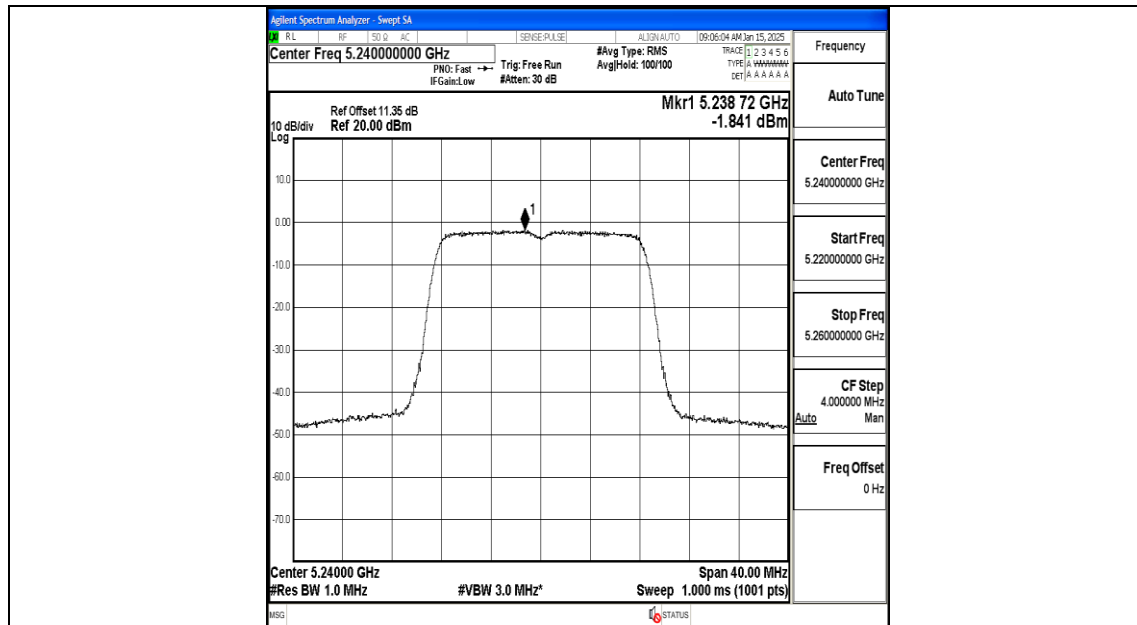
11A-Ant1-5200-PASS



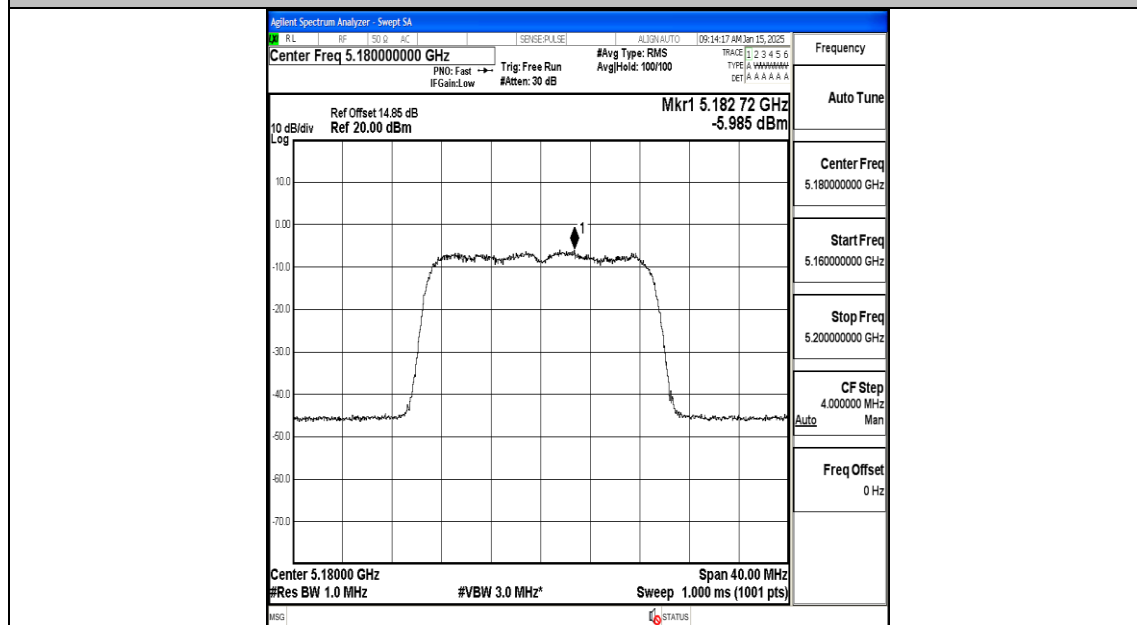
11A-Ant2-5200-PASS



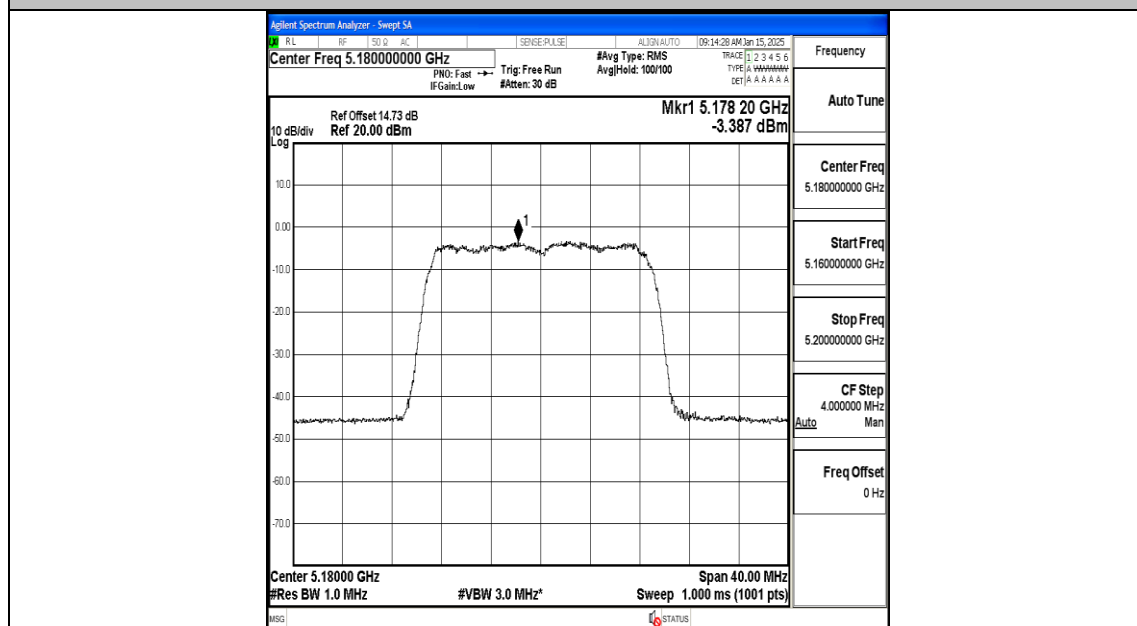
11A-Ant1-5240-PASS



11A-Ant2-5240-PASS



11N20MIMO-Ant1-5180-PASS



11N20MIMO-Ant2-5180-PASS