

RF Test Data for RLAN(5. 8G) (Conducted Measurement)

Product Name: Wanbo Projector

Trade Mark: wanbo

Test Model: WPF14

FCC ID: 2A7PI-WPF14

Environmental Conditions

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

Appendix A2: Occupied channel bandwidth

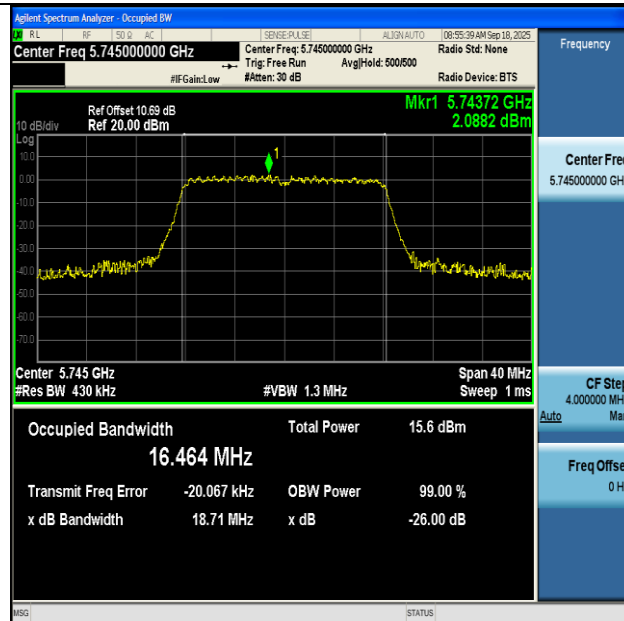
Test Result

Test Mode	Antenna	Frequency [MHz]	OCB [MHz]	FL [MHz]	FH [MHz]	Limit [MHz]	Verdict
11A	Ant1	5745	16.464	5736.7479	5753.2119	---	---
11A	Ant2	5745	16.488	5736.7236	5753.2116	---	---
11A	Ant1	5785	16.470	5776.7612	5793.2312	---	---
11A	Ant2	5785	16.484	5776.7397	5793.2237	---	---
11A	Ant1	5825	16.431	5816.7766	5833.2076	---	---
11A	Ant2	5825	16.467	5816.7793	5833.2463	---	---
11N20MIMO	Ant1	5745	17.691	5736.1335	5753.8245	---	---
11N20MIMO	Ant2	5745	17.743	5736.0851	5753.8281	---	---
11N20MIMO	Ant1	5785	17.763	5776.1212	5793.8842	---	---
11N20MIMO	Ant2	5785	17.775	5776.0634	5793.8384	---	---
11N20MIMO	Ant1	5825	17.726	5816.0879	5833.8139	---	---
11N20MIMO	Ant2	5825	17.663	5816.1648	5833.8278	---	---
11N40MIMO	Ant1	5755	36.384	5736.8682	5773.2522	---	---
11N40MIMO	Ant2	5755	36.305	5736.9545	5773.2595	---	---
11N40MIMO	Ant1	5795	36.373	5776.7951	5813.1681	---	---
11N40MIMO	Ant2	5795	36.279	5776.8810	5813.1600	---	---
11AC20MIMO	Ant1	5745	17.708	5736.1348	5753.8428	---	---
11AC20MIMO	Ant2	5745	17.720	5736.1290	5753.8490	---	---
11AC20MIMO	Ant1	5785	17.661	5776.1465	5793.8075	---	---
11AC20MIMO	Ant2	5785	17.654	5776.1438	5793.7978	---	---
11AC20MIMO	Ant1	5825	17.679	5816.1764	5833.8554	---	---
11AC20MIMO	Ant2	5825	17.683	5816.1850	5833.8680	---	---

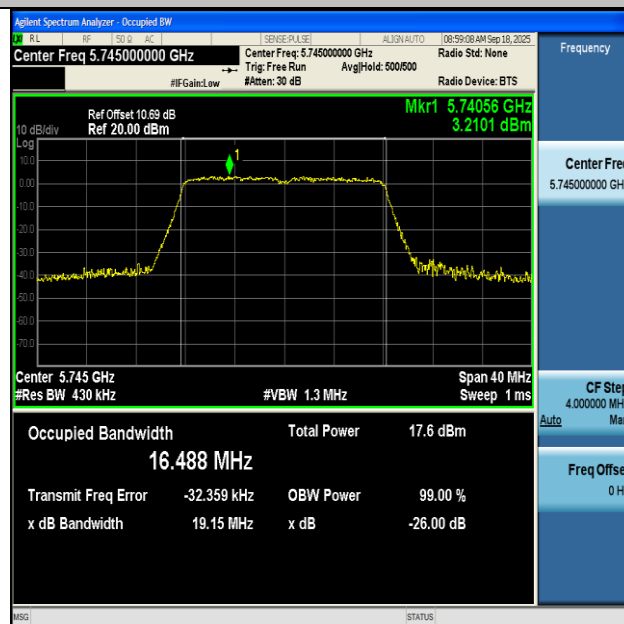
11AC40MIMO	Ant1	5755	36.336	5736.8168	5773.1528	---	---
11AC40MIMO	Ant2	5755	36.261	5736.8775	5773.1385	---	---
11AC40MIMO	Ant1	5795	36.190	5776.8656	5813.0556	---	---
11AC40MIMO	Ant2	5795	36.114	5776.8918	5813.0058	---	---
11AC80MIMO	Ant1	5775	75.260	5737.3358	5812.5958	---	---
11AC80MIMO	Ant2	5775	75.051	5737.4788	5812.5298	---	---

Note: offset(dB) = cable loss(dB) + attenuator factor(dB)

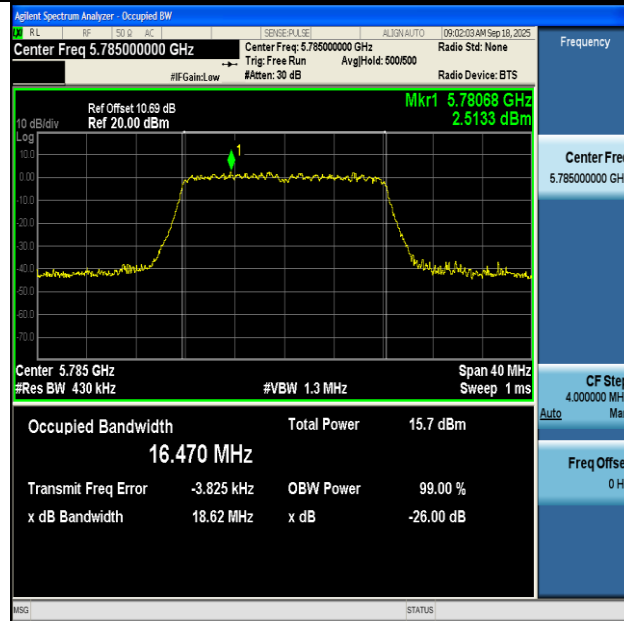
Test Graphs



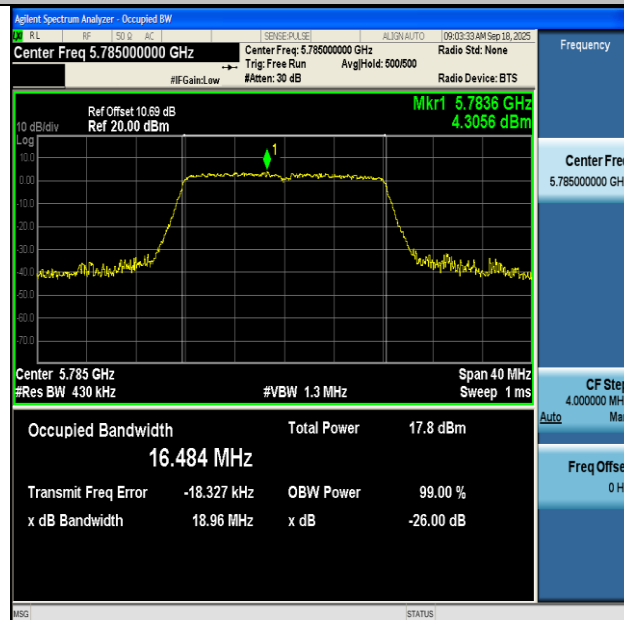
11A-Ant1-5745



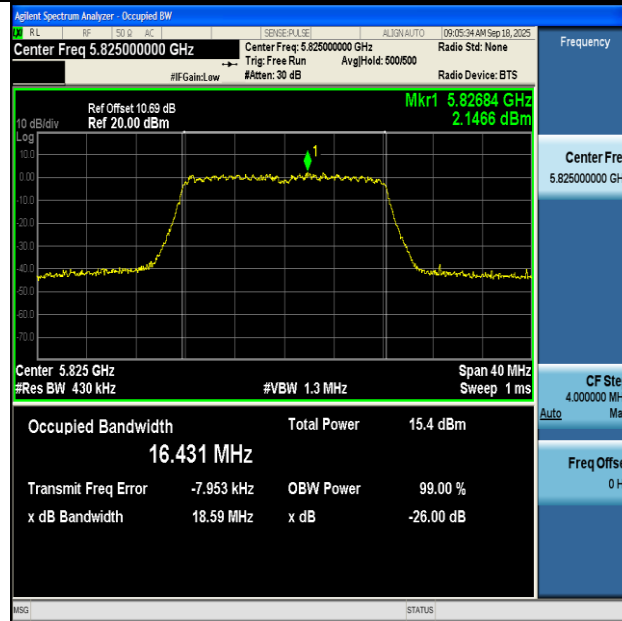
11A-Ant2-5745



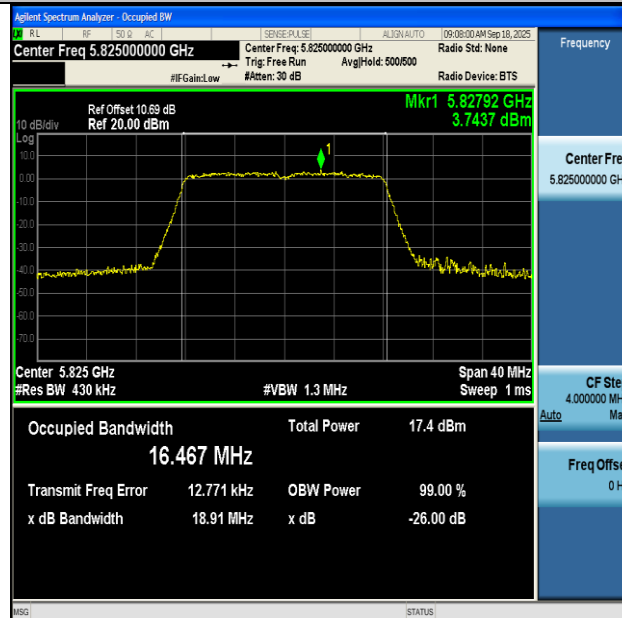
11A-Ant1-5785



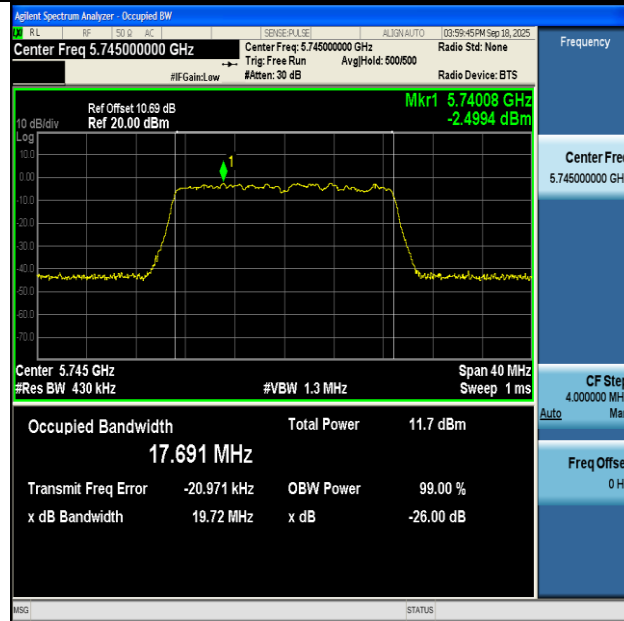
11A-Ant2-5785



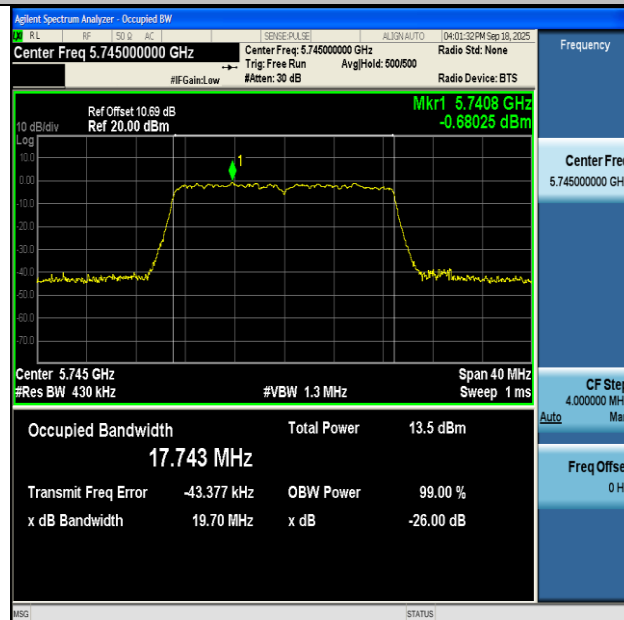
11A-Ant1-5825



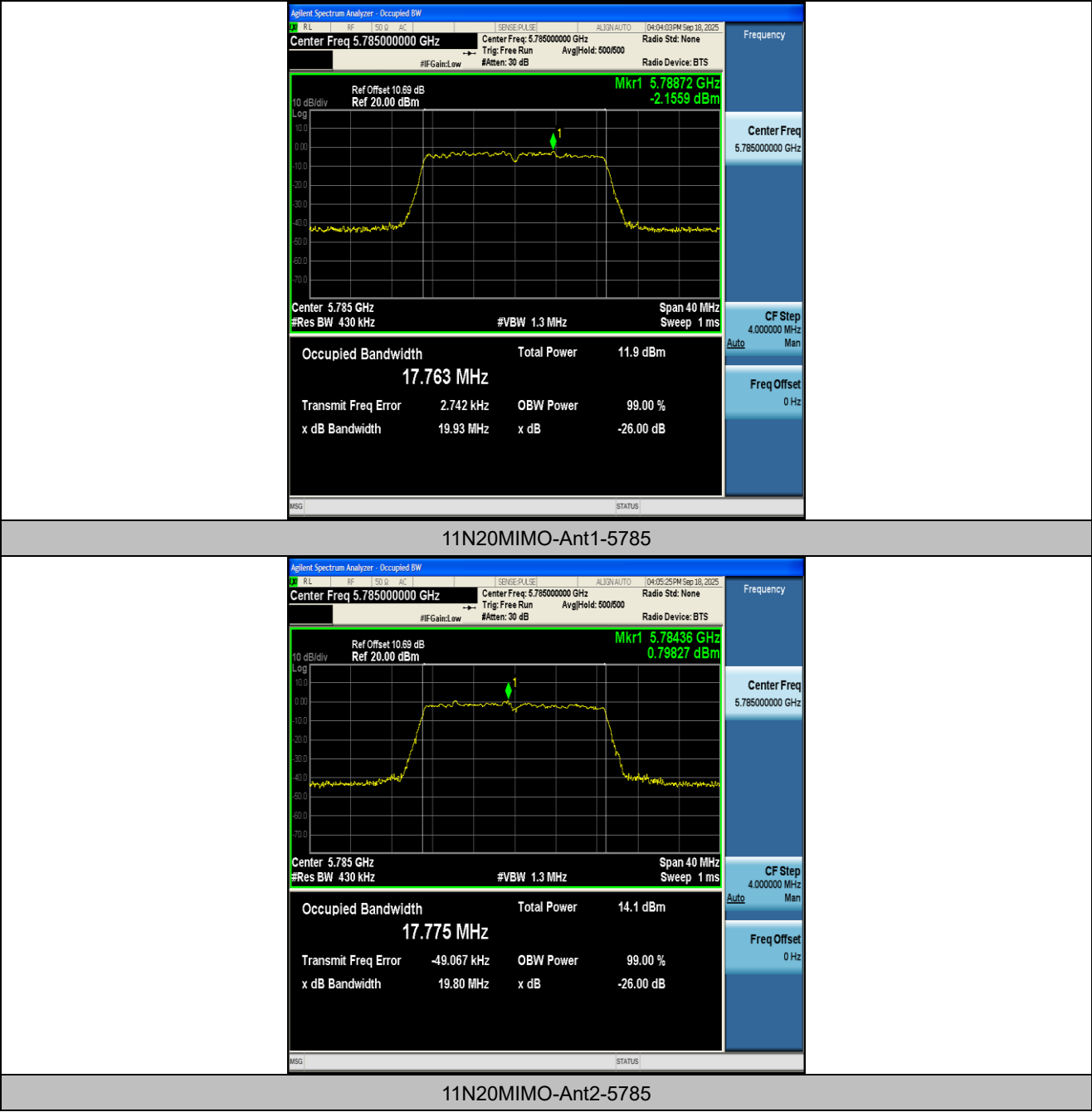
11A-Ant2-5825

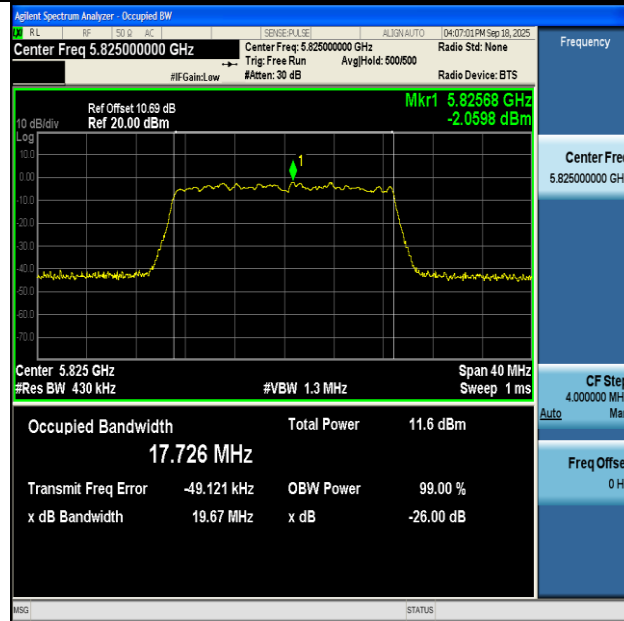


11N20MIMO-Ant1-5745

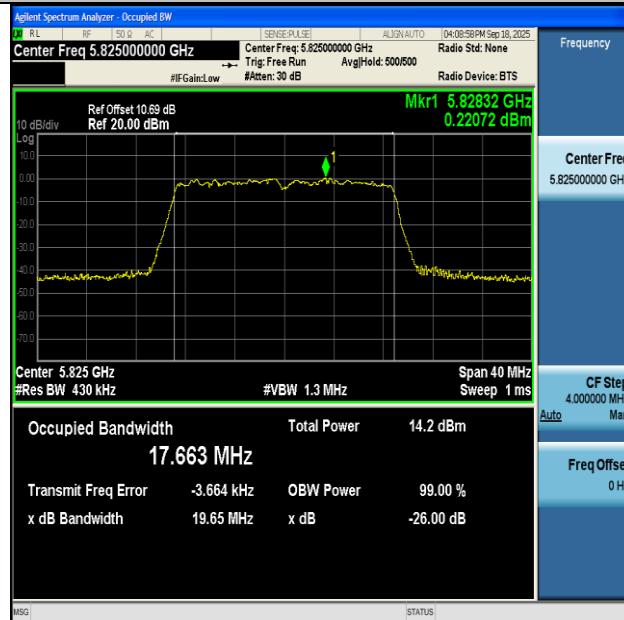


11N20MIMO-Ant2-5745

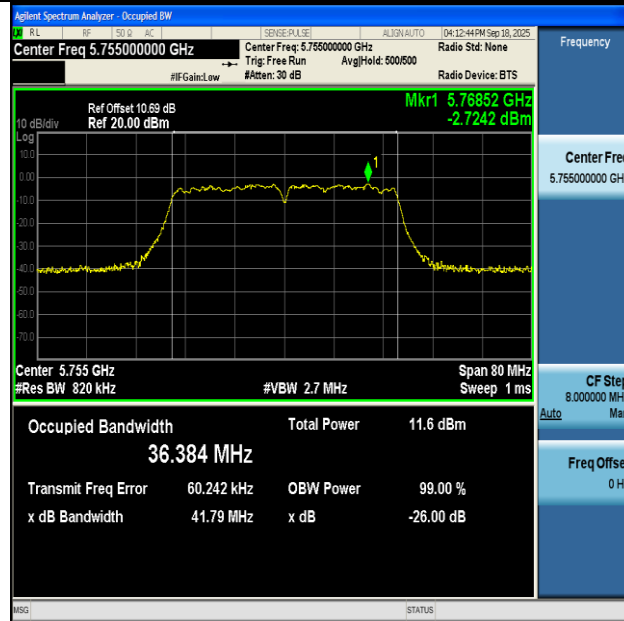




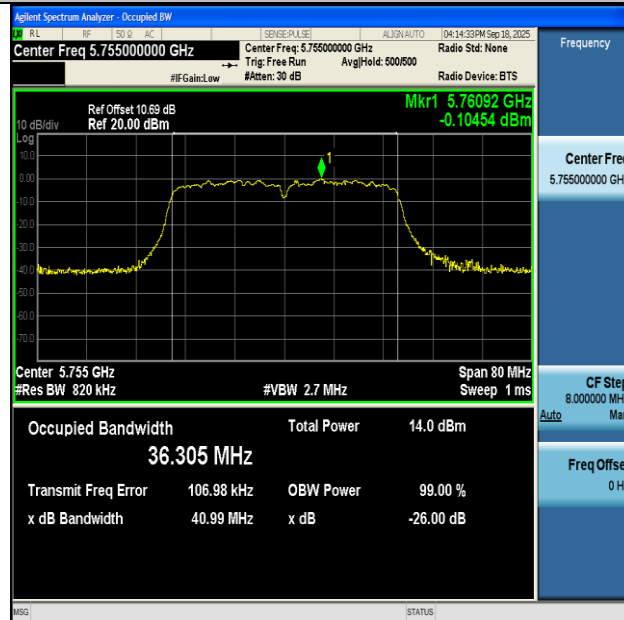
11N20MIMO-Ant1-5825



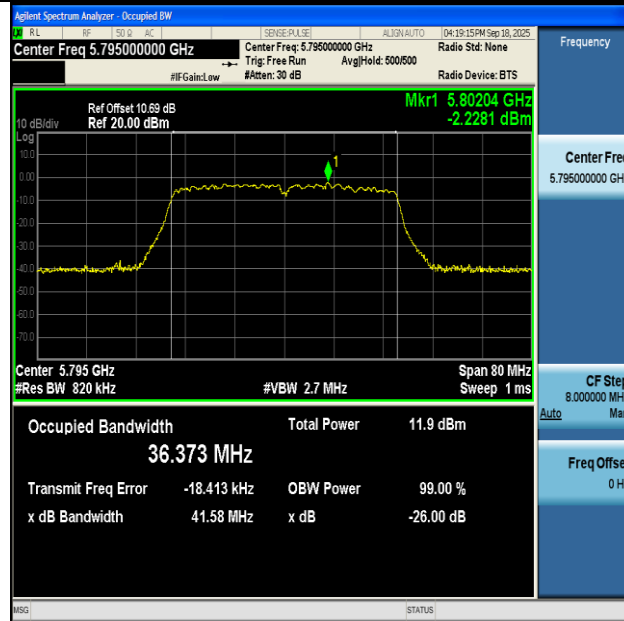
11N20MIMO-Ant2-5825



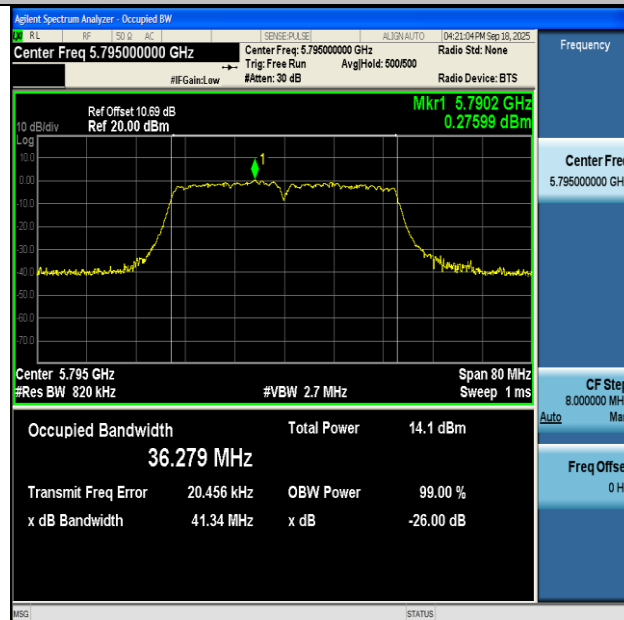
11N40MIMO-Ant1-5755



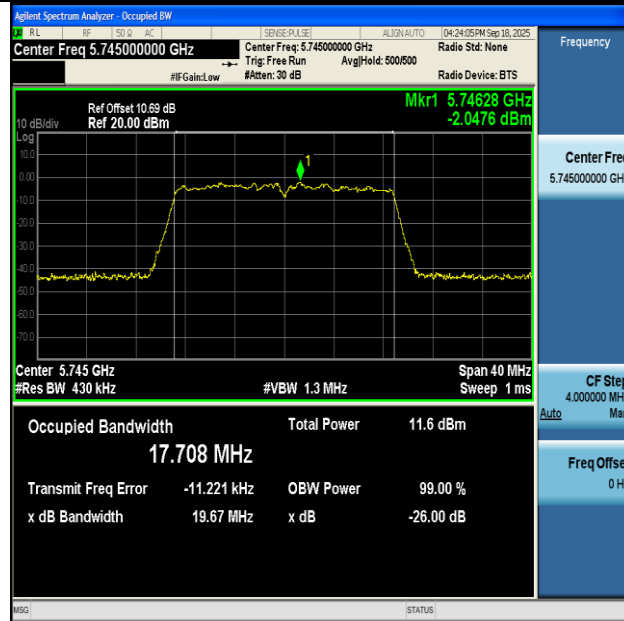
11N40MIMO-Ant2-5755



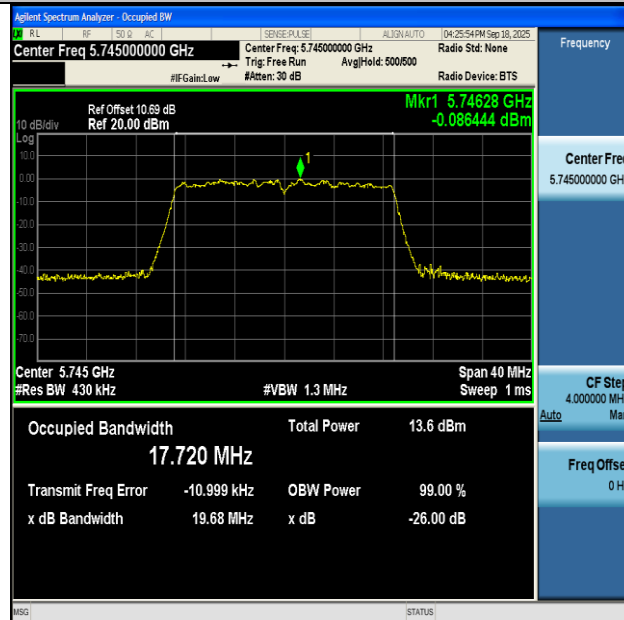
11N40MIMO-Ant1-5795



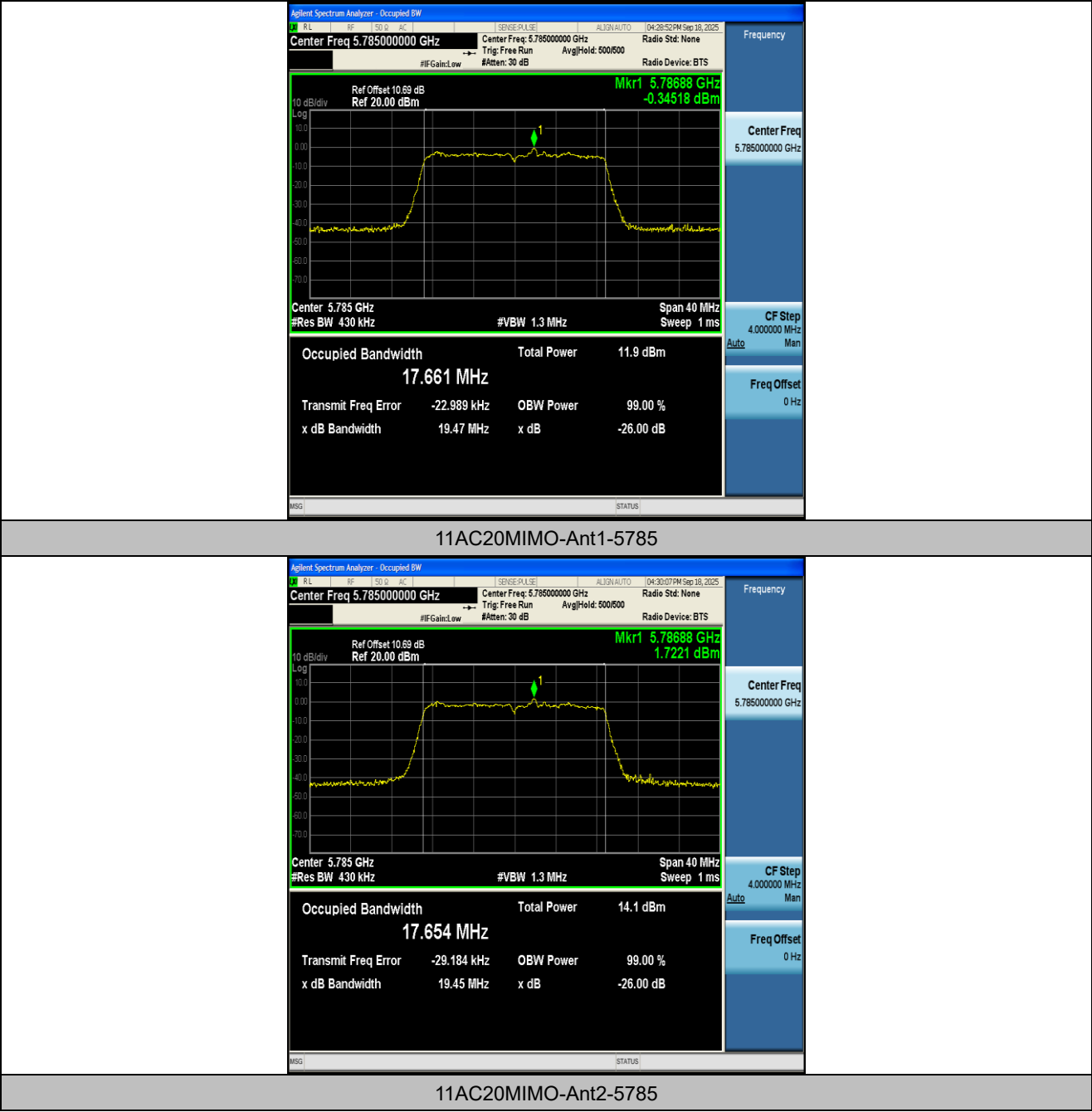
11N40MIMO-Ant2-5795

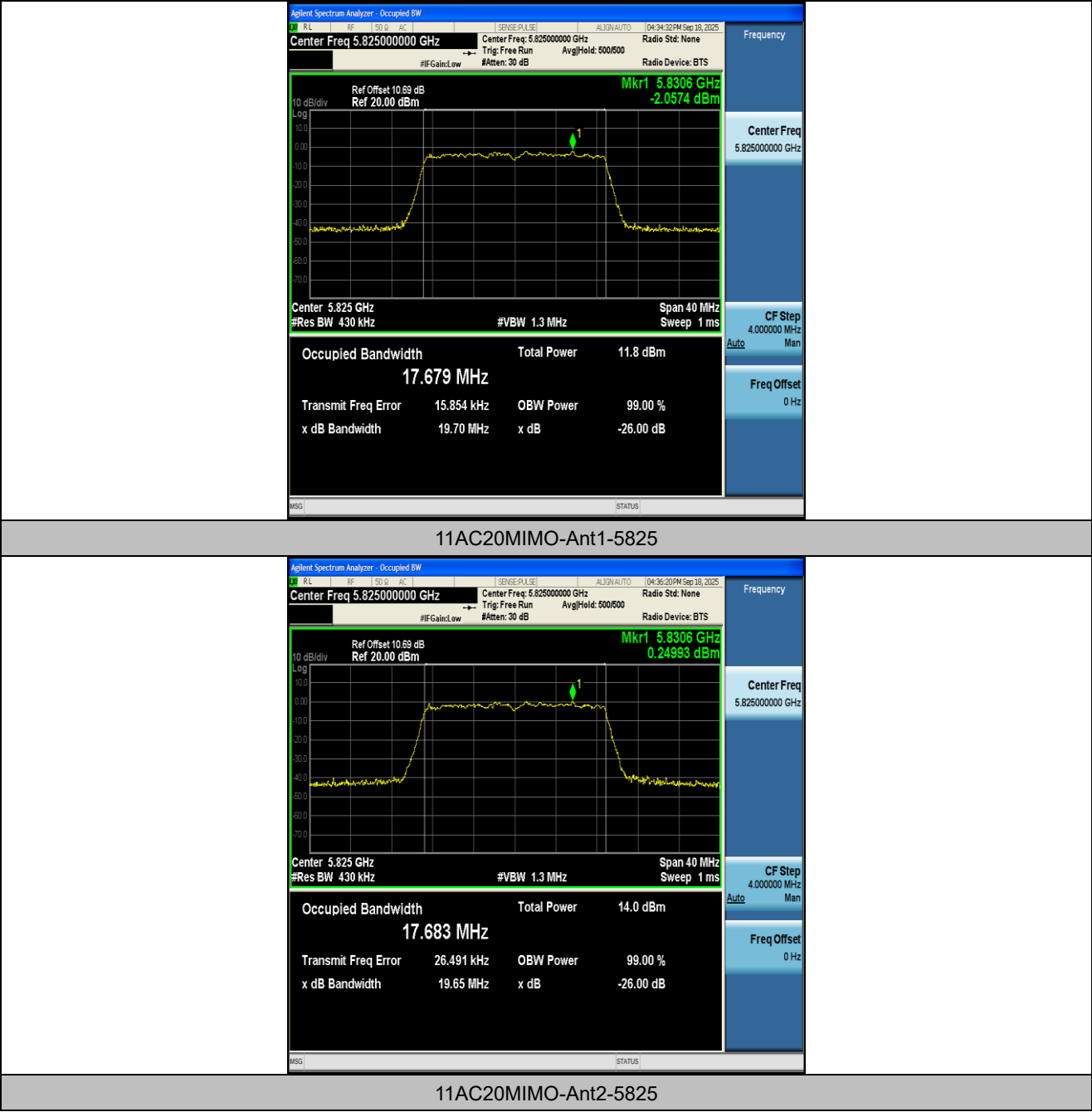


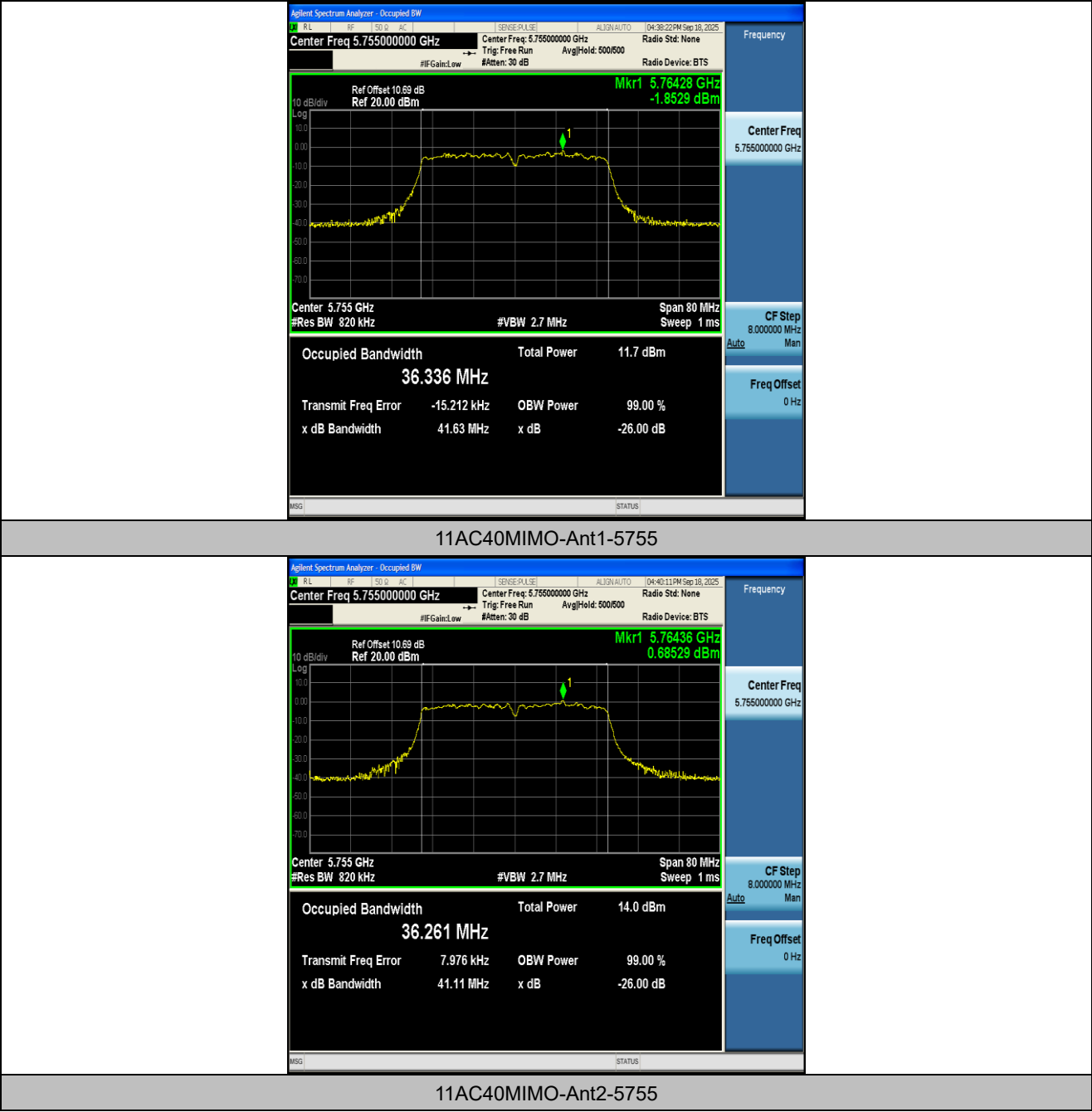
11AC20MIMO-Ant1-5745

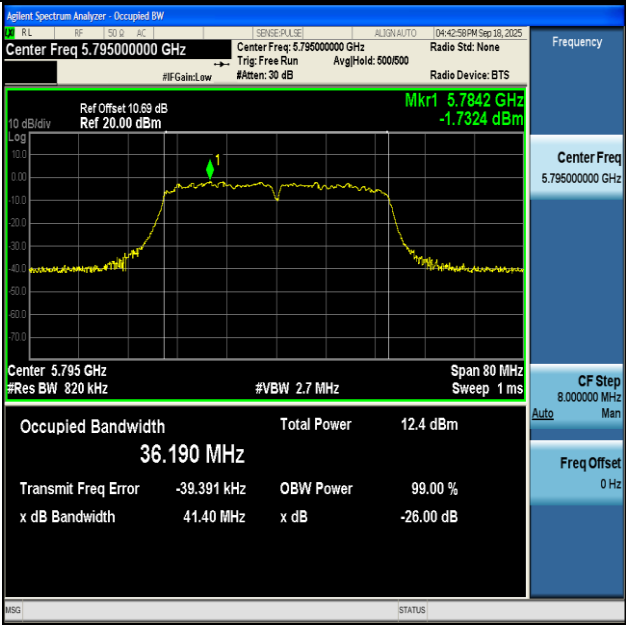


11AC20MIMO-Ant2-5745

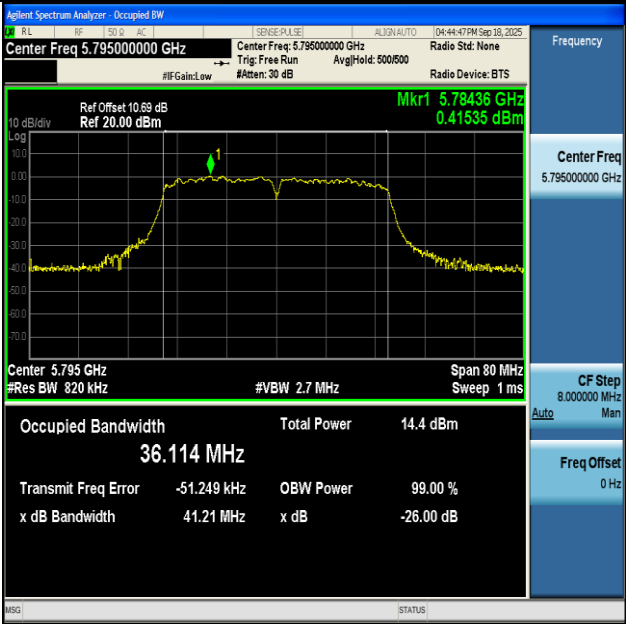




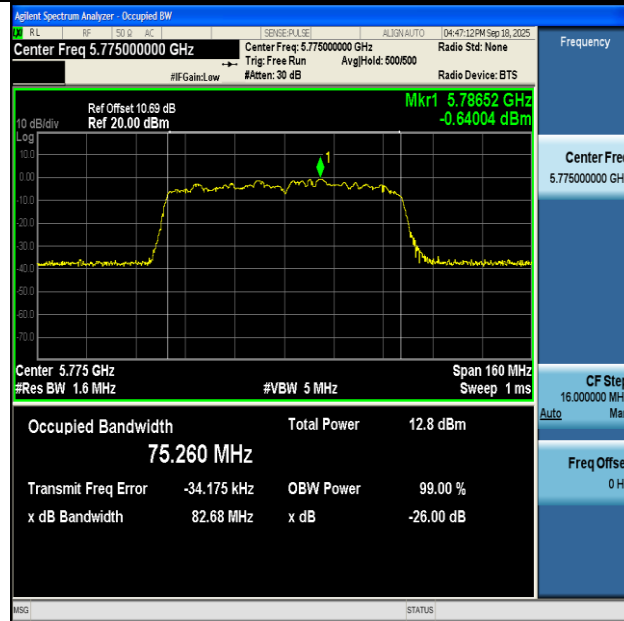




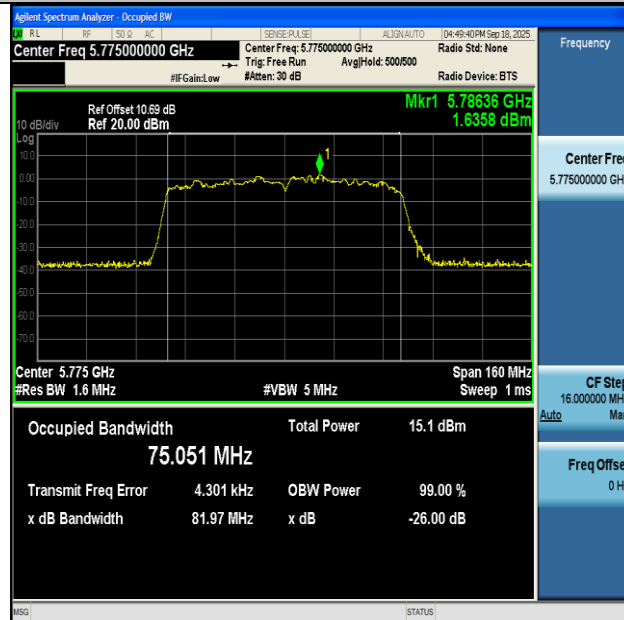
11AC40MIMO-Ant1-5795



11AC40MIMO-Ant2-5795



11AC80MIMO-Ant1-5775



11AC80MIMO-Ant2-5775

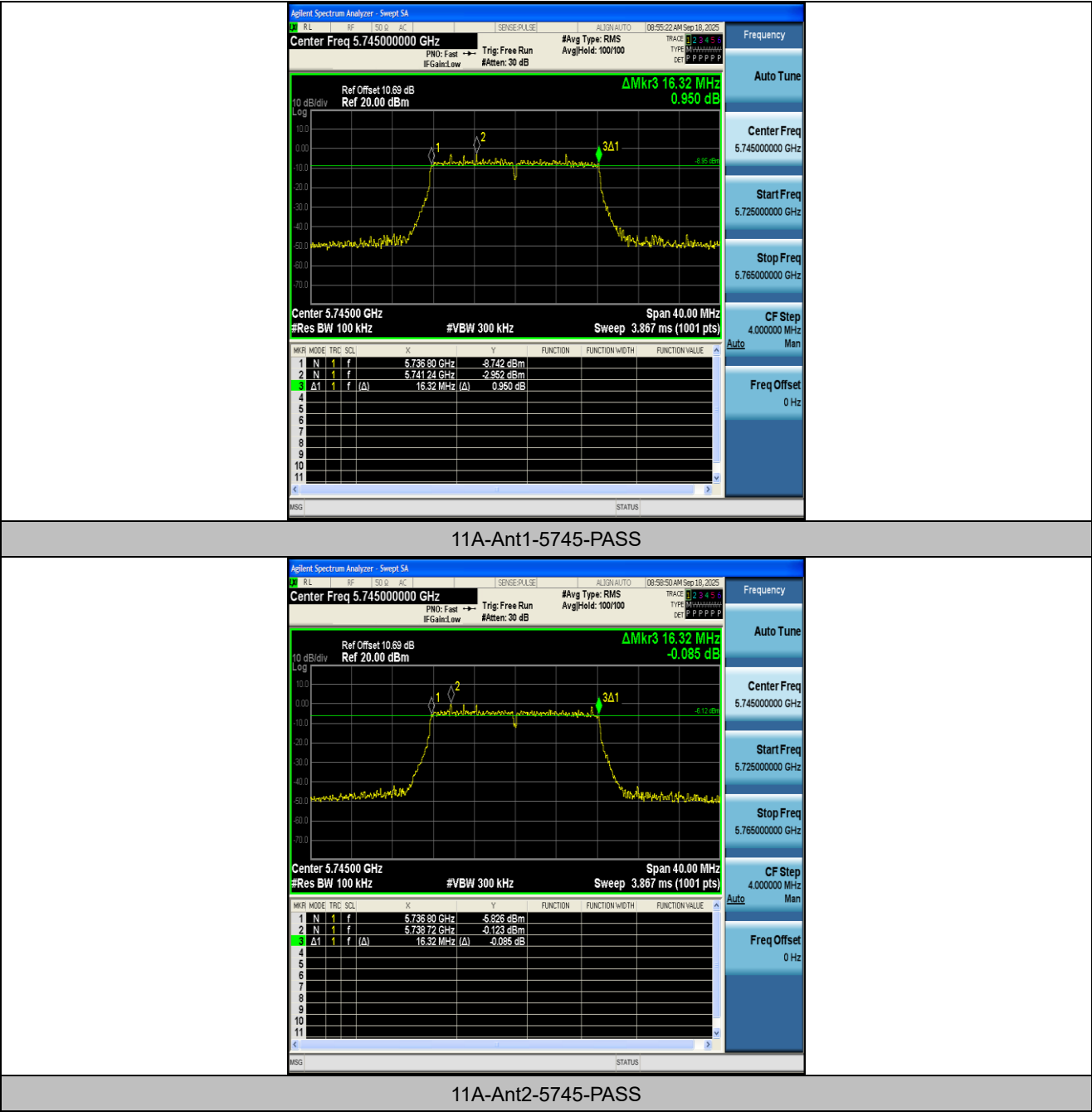
Appendix A: Min emission bandwidth

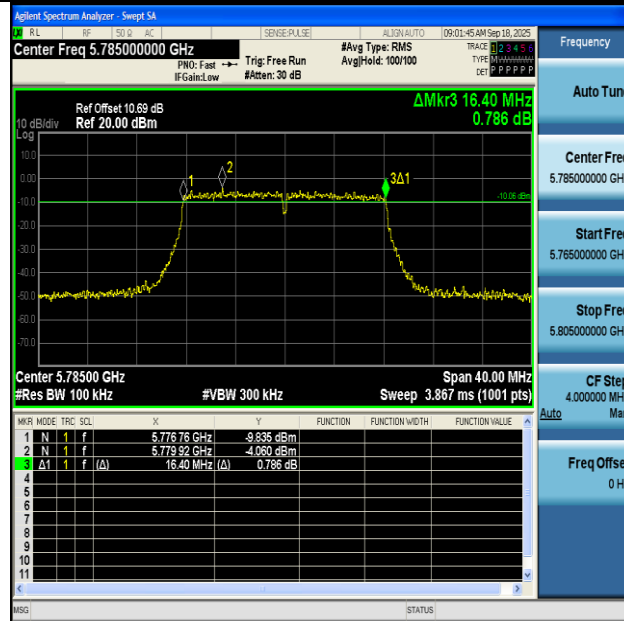
Test Result

Test Mode	Antenna	Frequency [MHz]	6db EBW [MHz]	FL [MHz]	FH [MHz]	Limit [MHz]	Verdict
11A	Ant1	5745	16.320	5736.800	5753.120	0.5	PASS
11A	Ant2	5745	16.320	5736.800	5753.120	0.5	PASS
11A	Ant1	5785	16.400	5776.760	5793.160	0.5	PASS
11A	Ant2	5785	16.000	5776.840	5792.840	0.5	PASS
11A	Ant1	5825	16.360	5816.800	5833.160	0.5	PASS
11A	Ant2	5825	16.360	5816.800	5833.160	0.5	PASS
11N20MIMO	Ant1	5745	17.520	5736.200	5753.720	0.5	PASS
11N20MIMO	Ant2	5745	17.280	5736.160	5753.440	0.5	PASS
11N20MIMO	Ant1	5785	17.400	5776.160	5793.560	0.5	PASS
11N20MIMO	Ant2	5785	17.440	5776.280	5793.720	0.5	PASS
11N20MIMO	Ant1	5825	17.520	5816.160	5833.680	0.5	PASS
11N20MIMO	Ant2	5825	17.280	5816.480	5833.760	0.5	PASS
11N40MIMO	Ant1	5755	35.680	5737.400	5773.080	0.5	PASS
11N40MIMO	Ant2	5755	35.120	5737.400	5772.520	0.5	PASS
11N40MIMO	Ant1	5795	35.120	5777.400	5812.520	0.5	PASS
11N40MIMO	Ant2	5795	35.440	5777.320	5812.760	0.5	PASS
11AC20MIMO	Ant1	5745	17.600	5736.160	5753.760	0.5	PASS
11AC20MIMO	Ant2	5745	17.600	5736.160	5753.760	0.5	PASS
11AC20MIMO	Ant1	5785	17.320	5776.240	5793.560	0.5	PASS
11AC20MIMO	Ant2	5785	17.240	5776.200	5793.440	0.5	PASS
11AC20MIMO	Ant1	5825	17.280	5816.440	5833.720	0.5	PASS
11AC20MIMO	Ant2	5825	16.880	5816.840	5833.720	0.5	PASS
11AC40MIMO	Ant1	5755	35.120	5737.400	5772.520	0.5	PASS
11AC40MIMO	Ant2	5755	35.360	5737.400	5772.760	0.5	PASS
11AC40MIMO	Ant1	5795	35.760	5777.080	5812.840	0.5	PASS
11AC40MIMO	Ant2	5795	35.440	5777.080	5812.520	0.5	PASS
11AC80MIMO	Ant1	5775	75.040	5737.400	5812.440	0.5	PASS
11AC80MIMO	Ant2	5775	75.040	5737.400	5812.440	0.5	PASS

Note: offset(dB) = cable loss(dB) + attenuator factor(dB)

Test Graphs





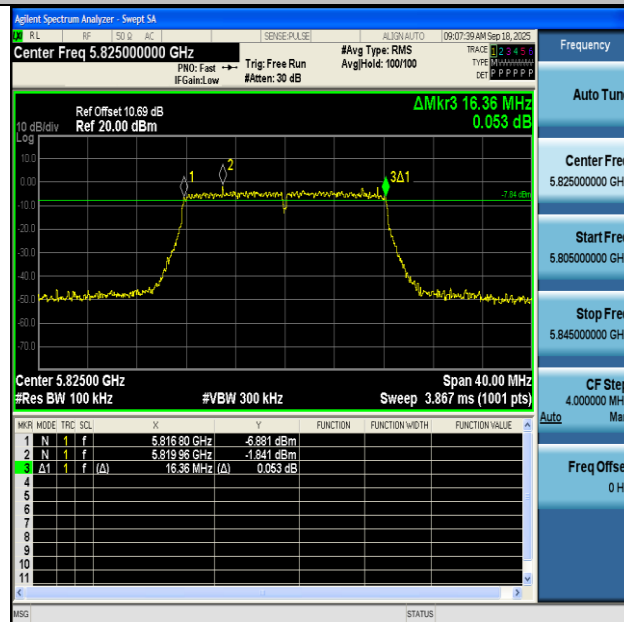
11A-Ant1-5785-PASS



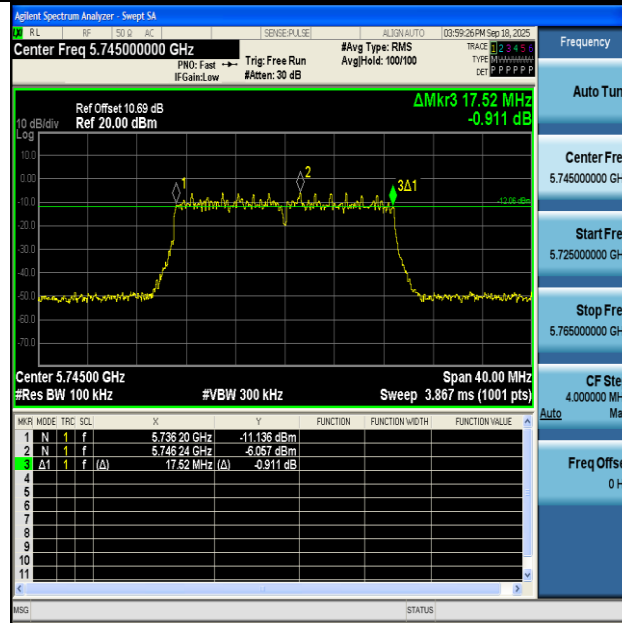
11A-Ant2-5785-PASS



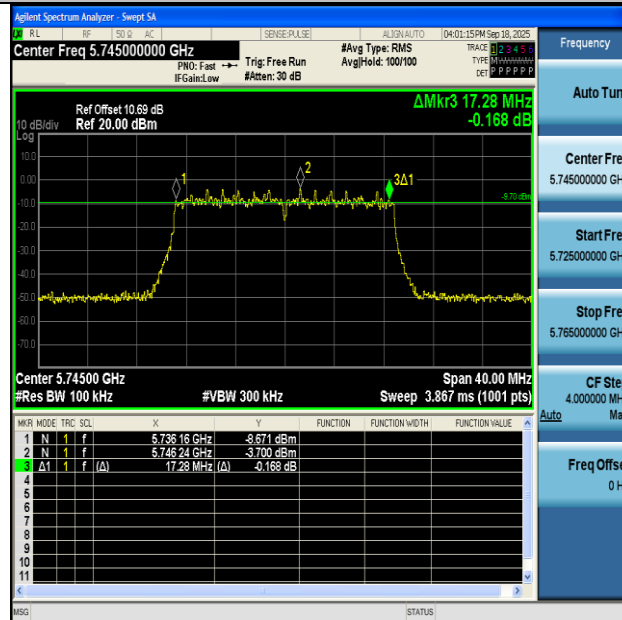
11A-Ant1-5825-PASS



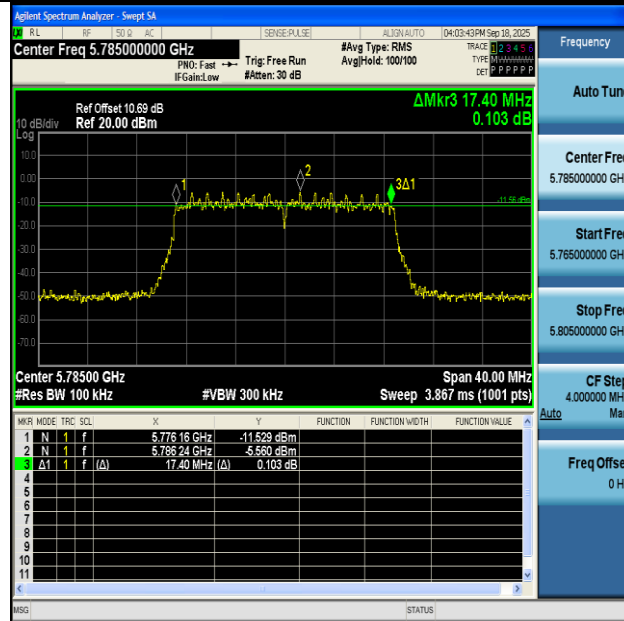
11A-Ant2-5825-PASS



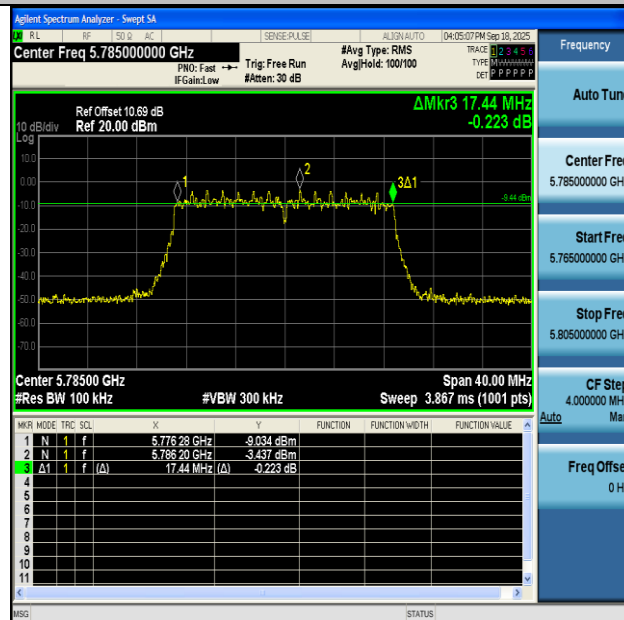
11N20MIMO-Ant1-5745-PASS



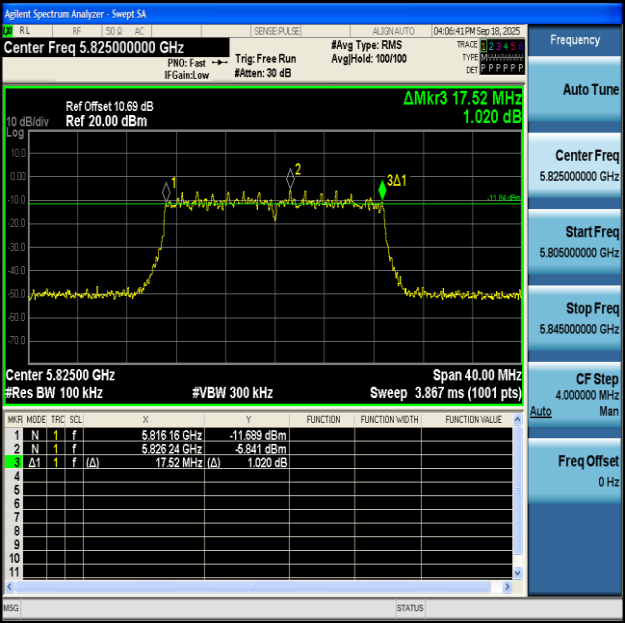
11N20MIMO-Ant2-5745-PASS



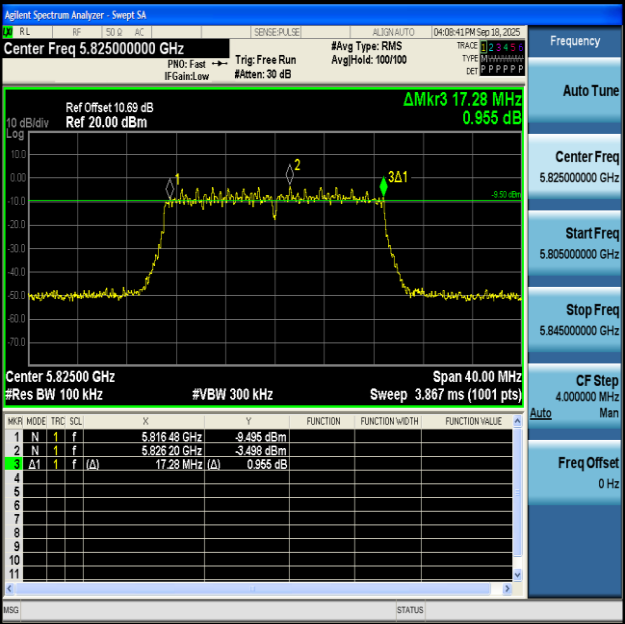
11N20MIMO-Ant1-5785-PASS



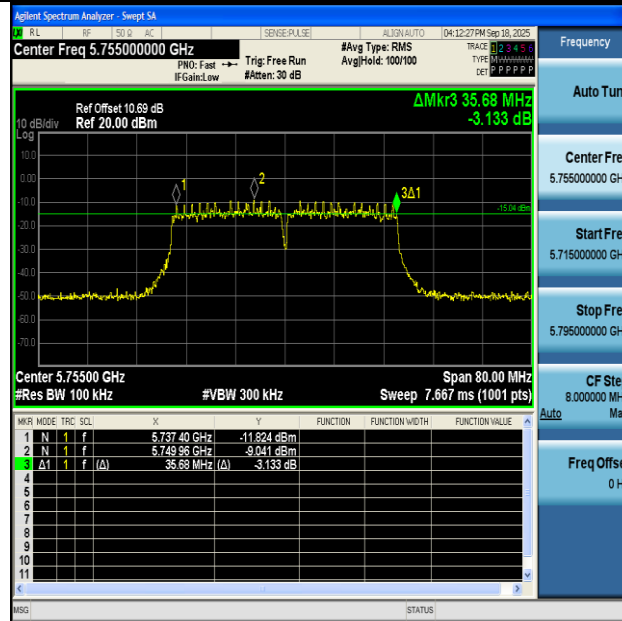
11N20MIMO-Ant2-5785-PASS



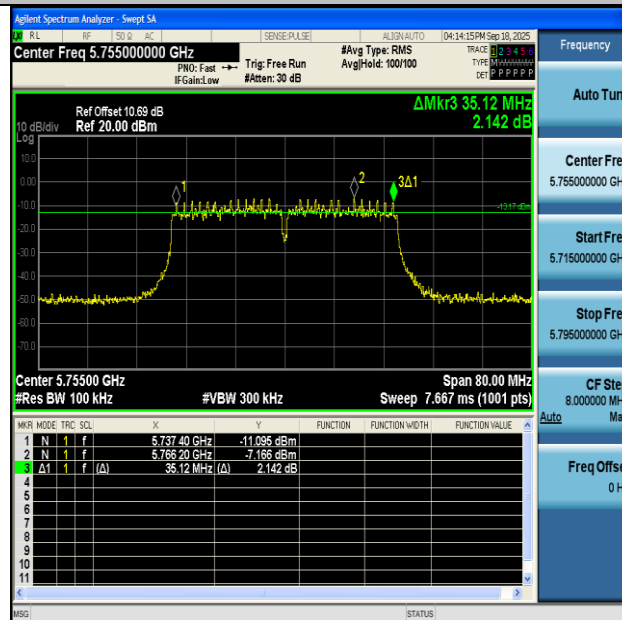
11N20MIMO-Ant1-5825-PASS



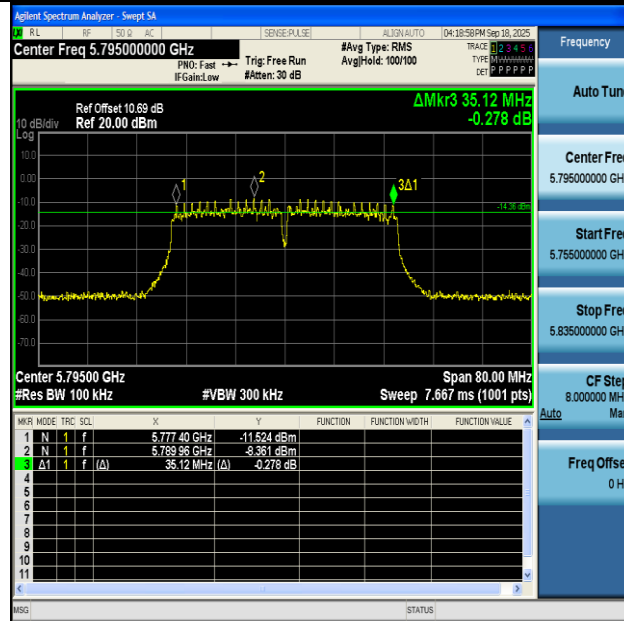
11N20MIMO-Ant2-5825-PASS



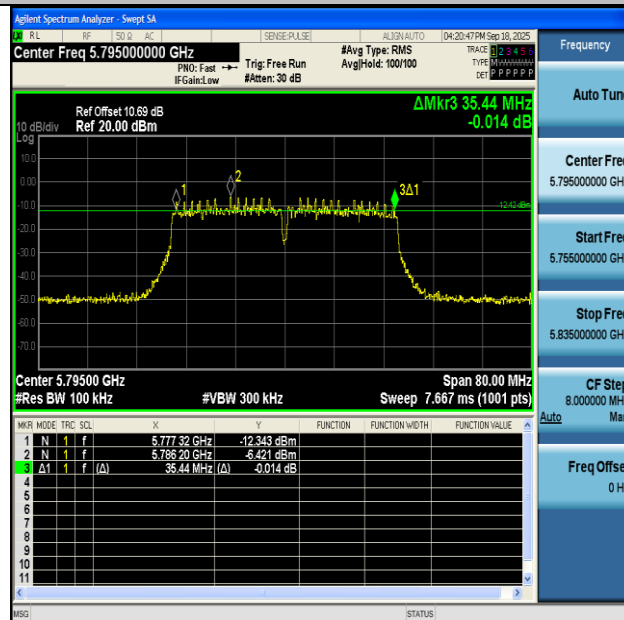
11N40MIMO-Ant1-5755-PASS



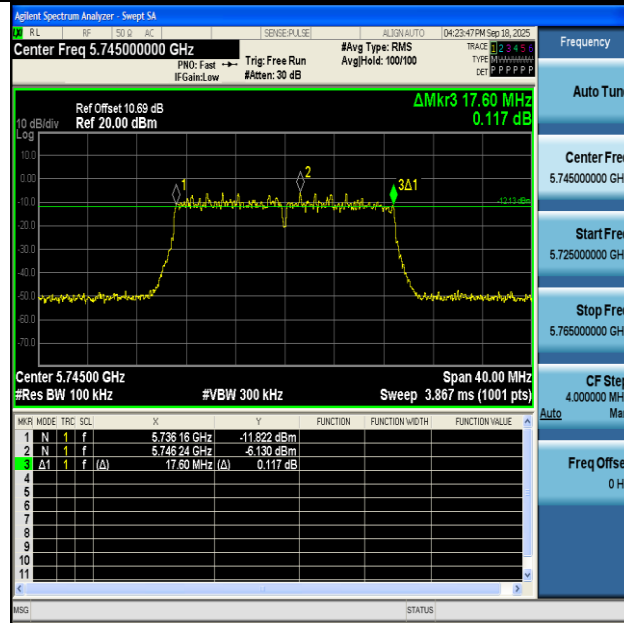
11N40MIMO-Ant2-5755-PASS



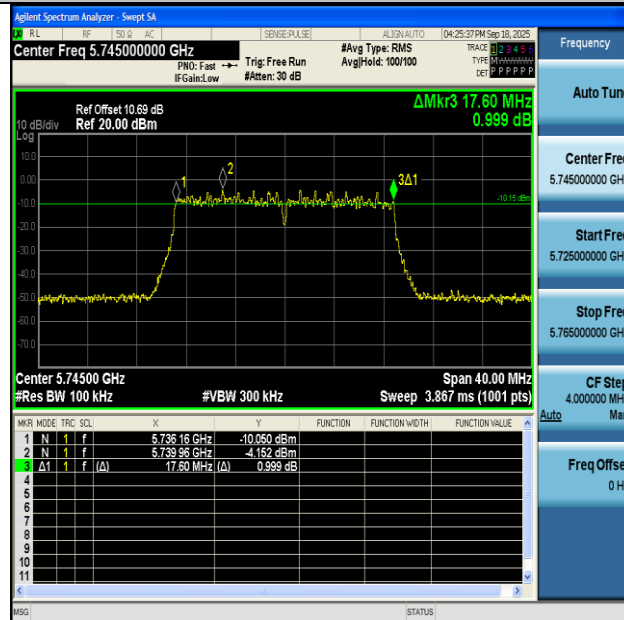
11N40MIMO-Ant1-5795-PASS



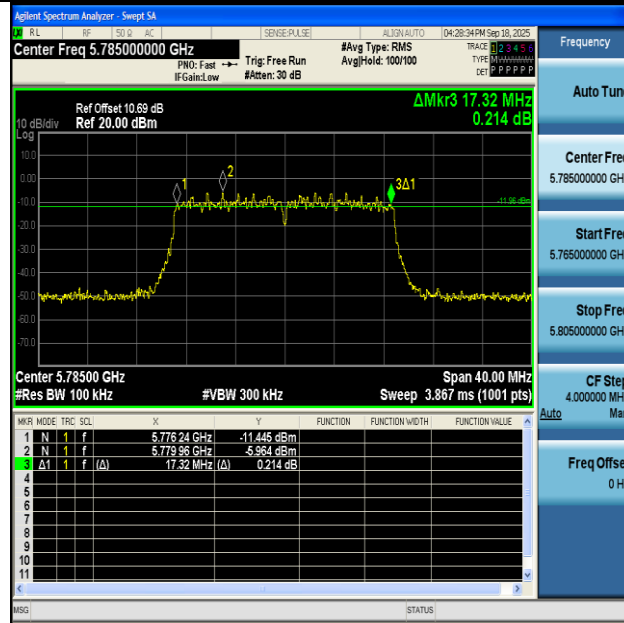
11N40MIMO-Ant2-5795-PASS



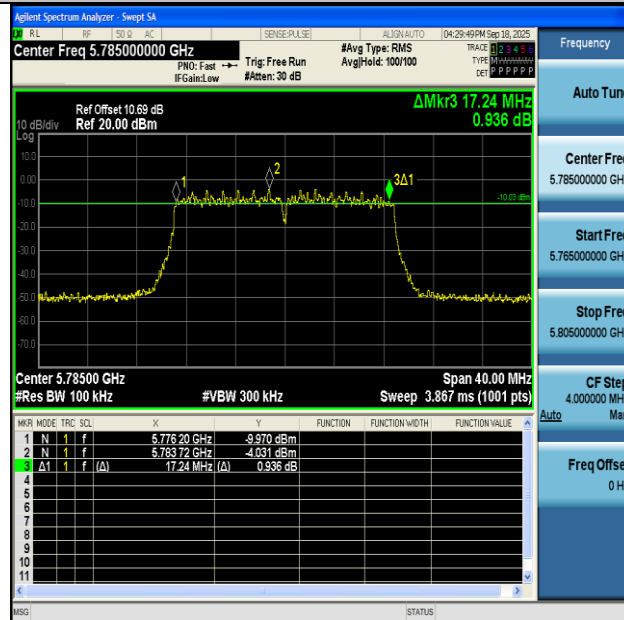
11AC20MIMO-Ant1-5745-PASS



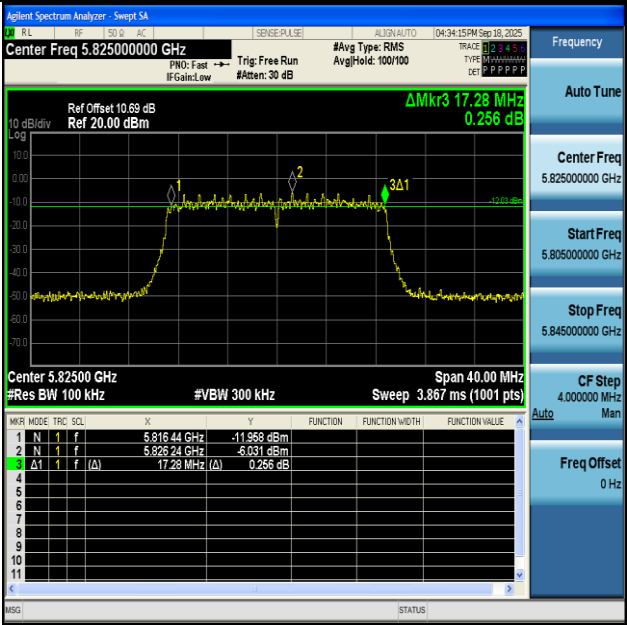
11AC20MIMO-Ant2-5745-PASS



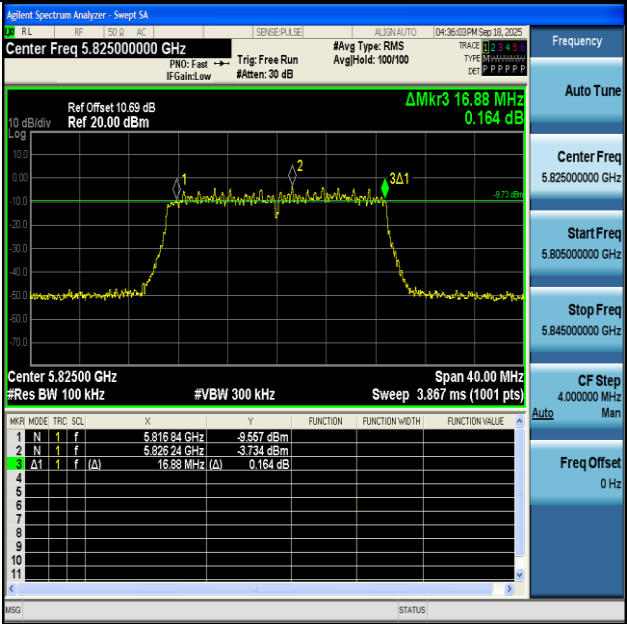
11AC20MIMO-Ant1-5785-PASS



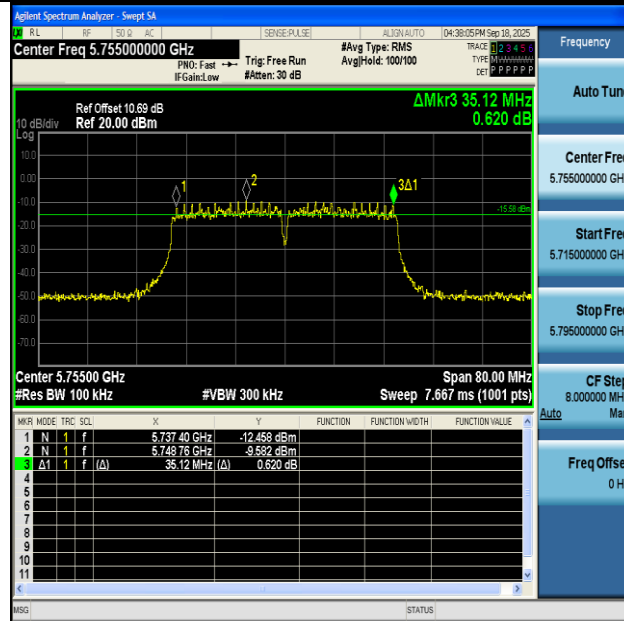
11AC20MIMO-Ant2-5785-PASS



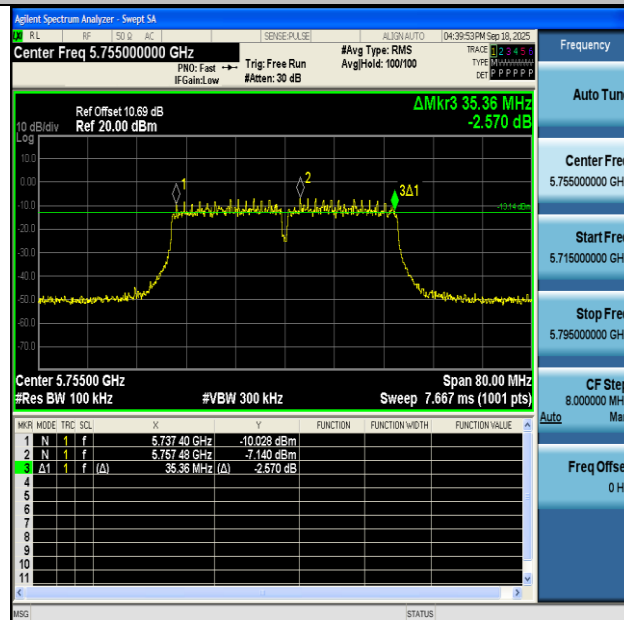
11AC20MIMO-Ant1-5825-PASS



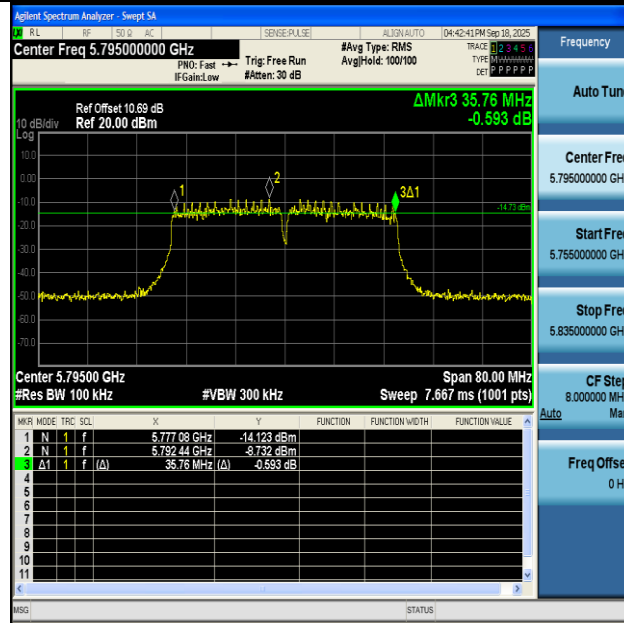
11AC20MIMO-Ant2-5825-PASS



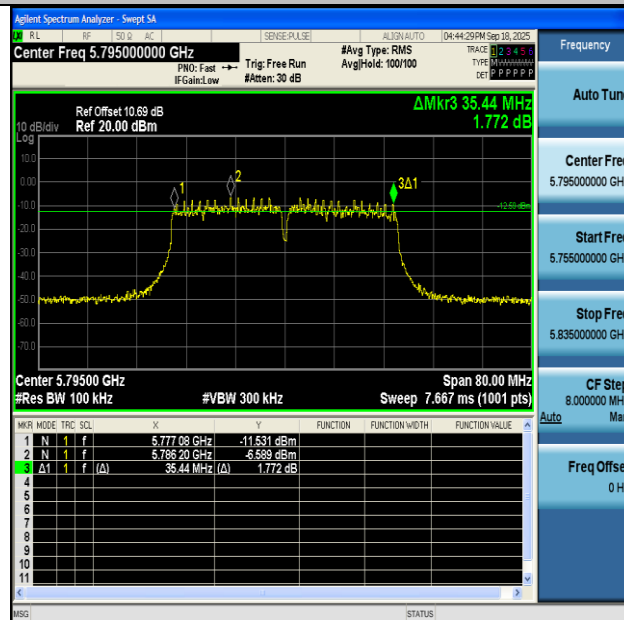
11AC40MIMO-Ant1-5755-PASS



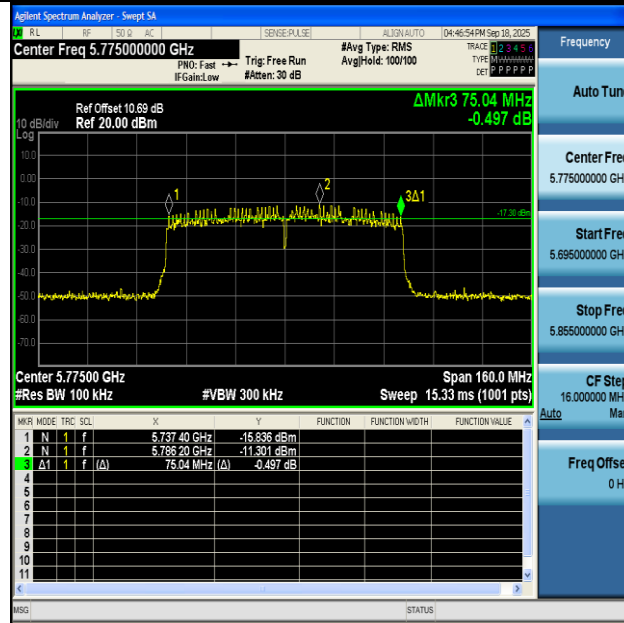
11AC40MIMO-Ant2-5755-PASS



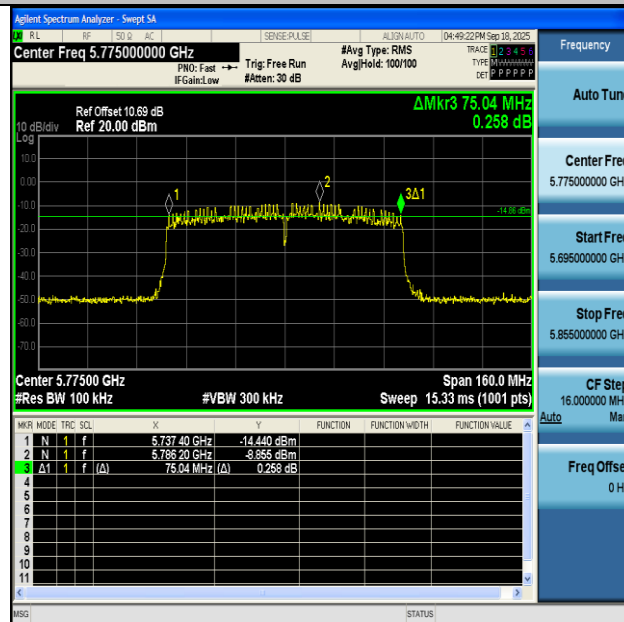
11AC40MIMO-Ant1-5795-PASS



11AC40MIMO-Ant2-5795-PASS



11AC80MIMO-Ant1-5775-PASS



11AC80MIMO-Ant2-5775-PASS

Appendix B: Maximum conducted output power

Test Result

Test Mode	Antenna	Frequency [MHz]	Conducted Power [dBm]	Conducted Limit [dBm]	Verdict
11A	Ant1	5745	8.52	≤30.00	PASS
11A	Ant2	5745	10.96	≤30.00	PASS
11A	Ant1	5785	8.65	≤30.00	PASS
11A	Ant2	5785	11.32	≤30.00	PASS
11A	Ant1	5825	8.36	≤30.00	PASS
11A	Ant2	5825	10.84	≤30.00	PASS
11N20MIMO	Ant1	5745	5.94	≤30.00	PASS
11N20MIMO	Ant2	5745	7.81	≤30.00	PASS
11N20MIMO	total	5745	9.99	≤30.00	PASS
11N20MIMO	Ant1	5785	6.03	≤30.00	PASS
11N20MIMO	Ant2	5785	8.17	≤30.00	PASS
11N20MIMO	total	5785	10.24	≤30.00	PASS
11N20MIMO	Ant1	5825	6.09	≤30.00	PASS
11N20MIMO	Ant2	5825	7.59	≤30.00	PASS
11N20MIMO	total	5825	9.91	≤30.00	PASS
11N40MIMO	Ant1	5755	5.52	≤30.00	PASS
11N40MIMO	Ant2	5755	7.92	≤30.00	PASS
11N40MIMO	total	5755	9.89	≤30.00	PASS
11N40MIMO	Ant1	5795	6.04	≤30.00	PASS
11N40MIMO	Ant2	5795	8.26	≤30.00	PASS
11N40MIMO	total	5795	10.30	≤30.00	PASS
11AC20MIMO	Ant1	5745	5.28	≤30.00	PASS
11AC20MIMO	Ant2	5745	7.08	≤30.00	PASS
11AC20MIMO	total	5745	9.28	≤30.00	PASS
11AC20MIMO	Ant1	5785	6.07	≤30.00	PASS
11AC20MIMO	Ant2	5785	8.01	≤30.00	PASS
11AC20MIMO	total	5785	10.16	≤30.00	PASS
11AC20MIMO	Ant1	5825	5.92	≤30.00	PASS
11AC20MIMO	Ant2	5825	7.67	≤30.00	PASS
11AC20MIMO	total	5825	9.89	≤30.00	PASS
11AC40MIMO	Ant1	5755	5.21	≤30.00	PASS
11AC40MIMO	Ant2	5755	7.81	≤30.00	PASS
11AC40MIMO	total	5755	9.71	≤30.00	PASS
11AC40MIMO	Ant1	5795	6.06	≤30.00	PASS
11AC40MIMO	Ant2	5795	7.92	≤30.00	PASS
11AC40MIMO	total	5795	10.10	≤30.00	PASS
11AC80MIMO	Ant1	5775	6.01	≤30.00	PASS

11AC80MIMO	Ant2	5775	8.55	≤30.00	PASS
11AC80MIMO	total	5775	10.47	≤30.00	PASS

Note: offset(dB) = cable loss(dB) + attenuator factor(dB) + Duty Cycle Factor(dB)

Appendix C: Maximum power spectral density

Test Result

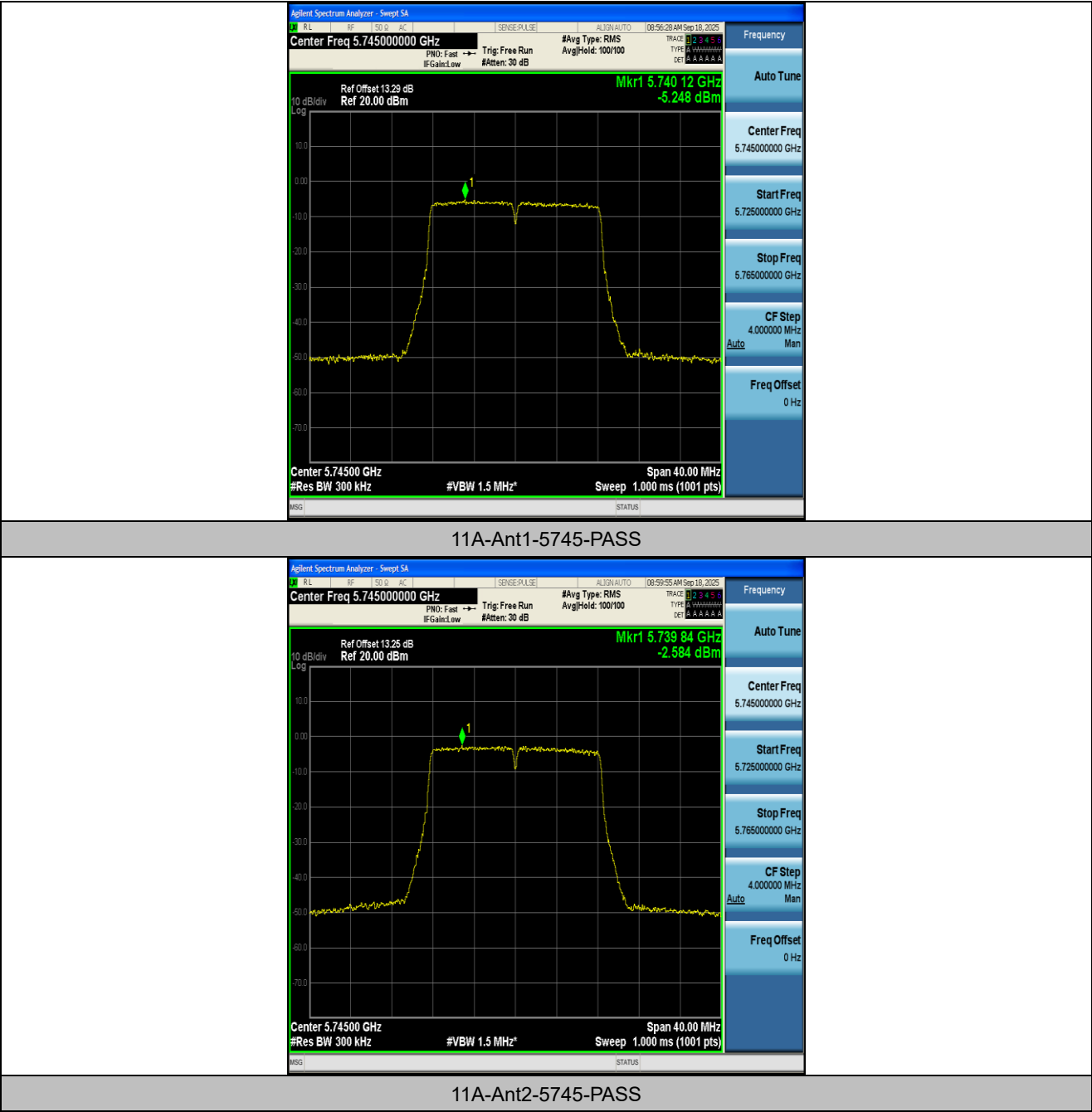
Frequency [MHz]	Test Mode	Antenna	Result [dBm/300KHz]	RBW Factor [dB]	Result [dBm/500KHz]	Limit [dBm/500KHz]	Verdict
5745	11A	Ant1	-7.85	2.22	-5.25	≤30.00	PASS
5745	11A	Ant2	-5.14	2.22	-2.58	≤30.00	PASS
5785	11A	Ant1	-7.76	2.22	-5.22	≤30.00	PASS
5785	11A	Ant2	-4.86	2.22	-2.22	≤30.00	PASS
5825	11A	Ant1	-8.15	2.22	-5.49	≤30.00	PASS
5825	11A	Ant2	-5.76	2.22	-3.16	≤30.00	PASS
5745	11N20MIMO	Ant1	-13.23	2.22	-6.84	≤30.00	PASS
5745	11N20MIMO	Ant2	-11.18	2.22	-4.98	≤30.00	PASS
5745	11N20MIMO	total	---	---	-2.80	≤28.63	PASS
5785	11N20MIMO	Ant1	-13.21	2.22	-7.01	≤30.00	PASS
5785	11N20MIMO	Ant2	-11.31	2.22	-5.24	≤30.00	PASS
5785	11N20MIMO	total	---	---	-3.03	≤28.63	PASS
5825	11N20MIMO	Ant1	-13.20	2.22	-6.76	≤30.00	PASS
5825	11N20MIMO	Ant2	-10.46	2.22	-4.93	≤30.00	PASS
5825	11N20MIMO	total	---	---	-2.74	≤28.63	PASS
5755	11N40MIMO	Ant1	-17.19	2.22	-9.74	≤30.00	PASS
5755	11N40MIMO	Ant2	-15.27	2.22	-7.68	≤30.00	PASS
5755	11N40MIMO	total	---	---	-5.58	≤28.63	PASS
5795	11N40MIMO	Ant1	-16.28	2.22	-8.69	≤30.00	PASS
5795	11N40MIMO	Ant2	-14.93	2.22	-7.34	≤30.00	PASS
5795	11N40MIMO	total	---	---	-4.95	≤28.63	PASS
5745	11AC20MIMO	Ant1	-13.00	2.22	-7.46	≤30.00	PASS
5745	11AC20MIMO	Ant2	-10.44	2.22	-5.21	≤30.00	PASS
5745	11AC20MIMO	total	---	---	-3.18	≤28.63	PASS
5785	11AC20MIMO	Ant1	-13.15	2.22	-7.31	≤30.00	PASS
5785	11AC20MIMO	Ant2	-10.69	2.22	-5.05	≤30.00	PASS
5785	11AC20MIMO	total	---	---	-3.02	≤28.63	PASS
5825	11AC20MIMO	Ant1	-12.83	2.22	-7.09	≤30.00	PASS
5825	11AC20MIMO	Ant2	-10.67	2.22	-5.33	≤30.00	PASS
5825	11AC20MIMO	total	---	---	-3.11	≤28.63	PASS
5755	11AC40MIMO	Ant1	-16.58	2.22	-9.47	≤30.00	PASS
5755	11AC40MIMO	Ant2	-14.13	2.22	-6.76	≤30.00	PASS
5755	11AC40MIMO	total	---	---	-4.90	≤28.63	PASS
5795	11AC40MIMO	Ant1	-15.71	2.22	-8.34	≤30.00	PASS
5795	11AC40MIMO	Ant2	-13.66	2.22	-6.54	≤30.00	PASS
5795	11AC40MIMO	total	---	---	-4.34	≤28.63	PASS
5775	11AC80MIMO	Ant1	-19.62	2.22	-10.94	≤30.00	PASS

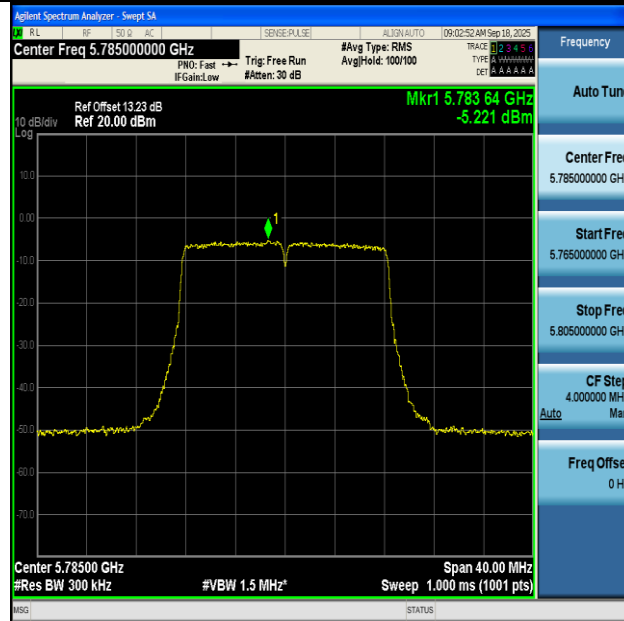
5775	11AC80MIMO	Ant2	-18.50	2.22	-9.55	≤30.00	PASS
5775	11AC80MIMO	total	---	---	-7.18	≤28.63	PASS

Note: offset(dB) = cable loss(dB) + attenuator factor(dB) + Duty Cycle Factor(dB)

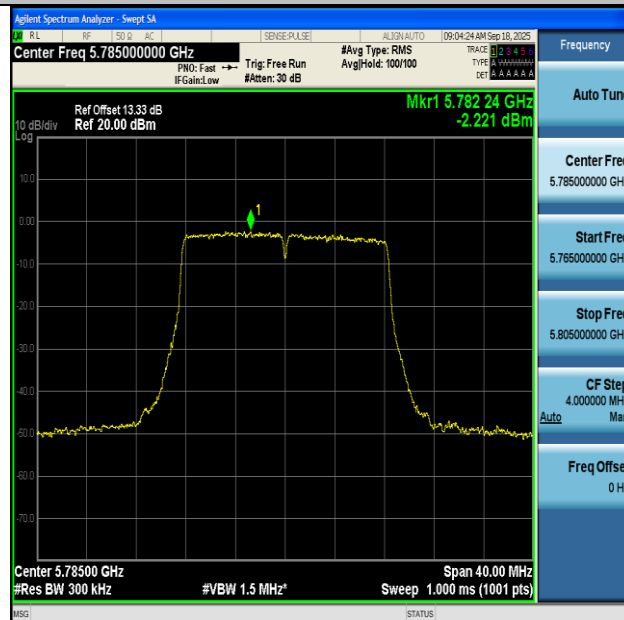
Result[dBm/500KHz] = Result[dBm/300KHz] + RB Factor(dB)

Test Graphs

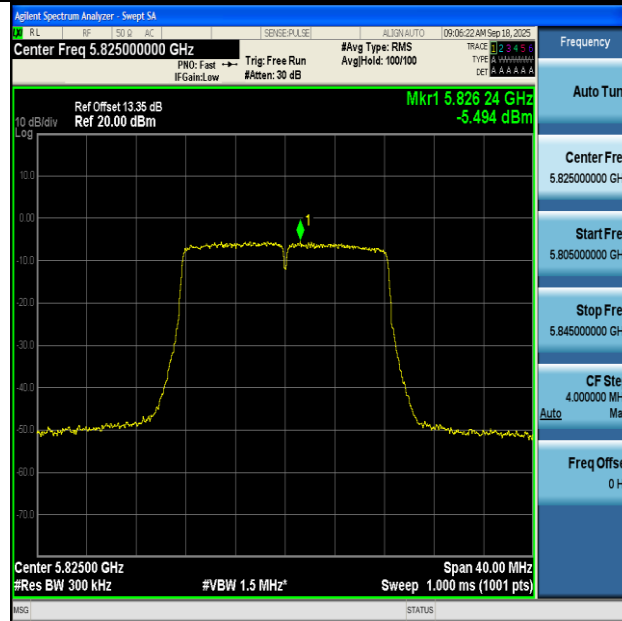




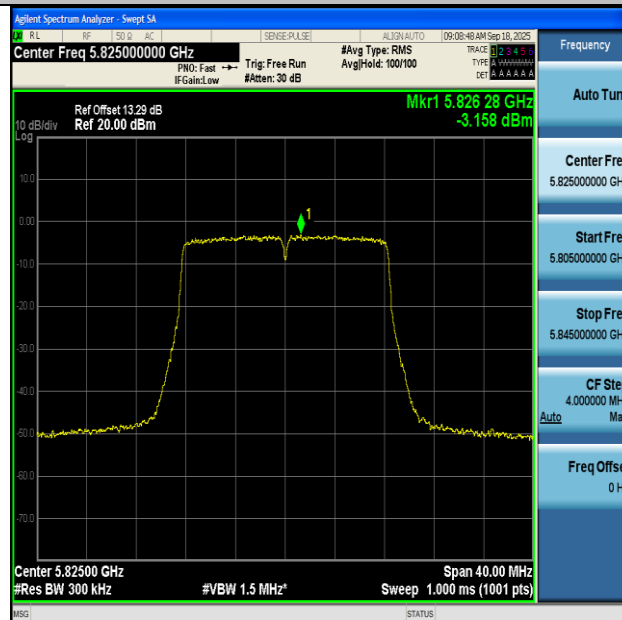
11A-Ant1-5785-PASS



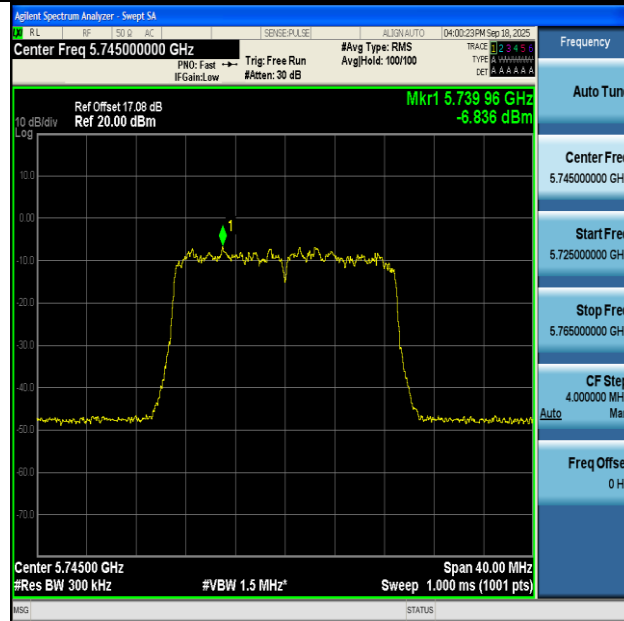
11A-Ant2-5785-PASS



11A-Ant1-5825-PASS



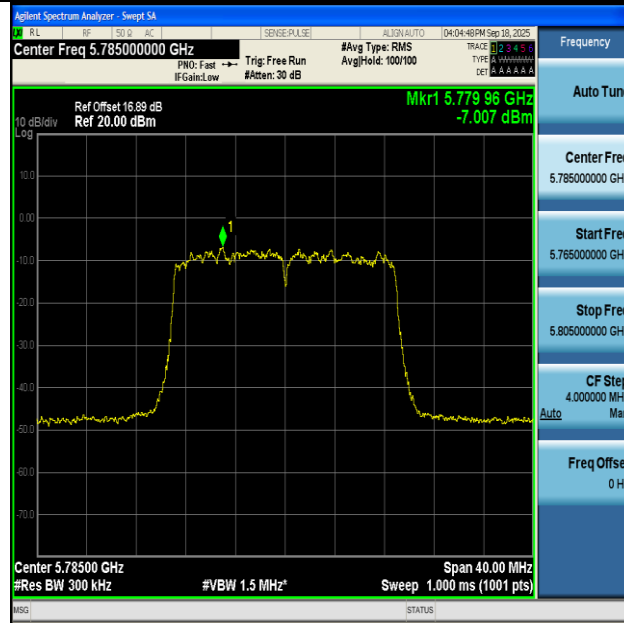
11A-Ant2-5825-PASS



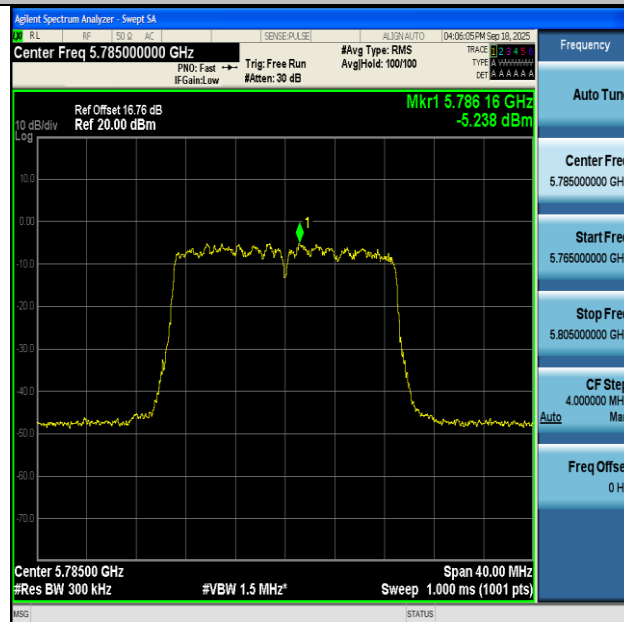
11N20MIMO-Ant1-5745-PASS



11N20MIMO-Ant2-5745-PASS



11N20MIMO-Ant1-5785-PASS



11N20MIMO-Ant2-5785-PASS