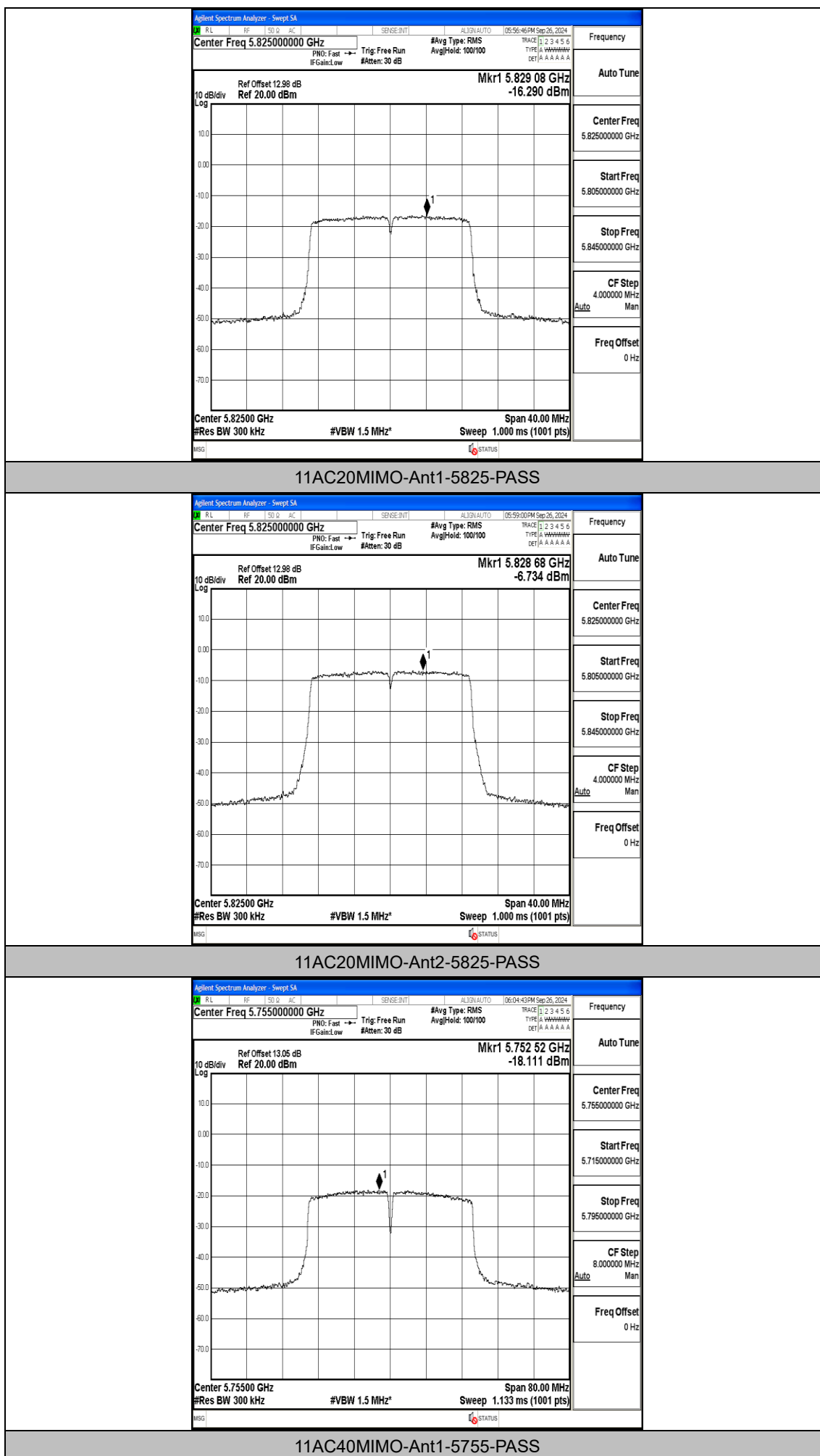
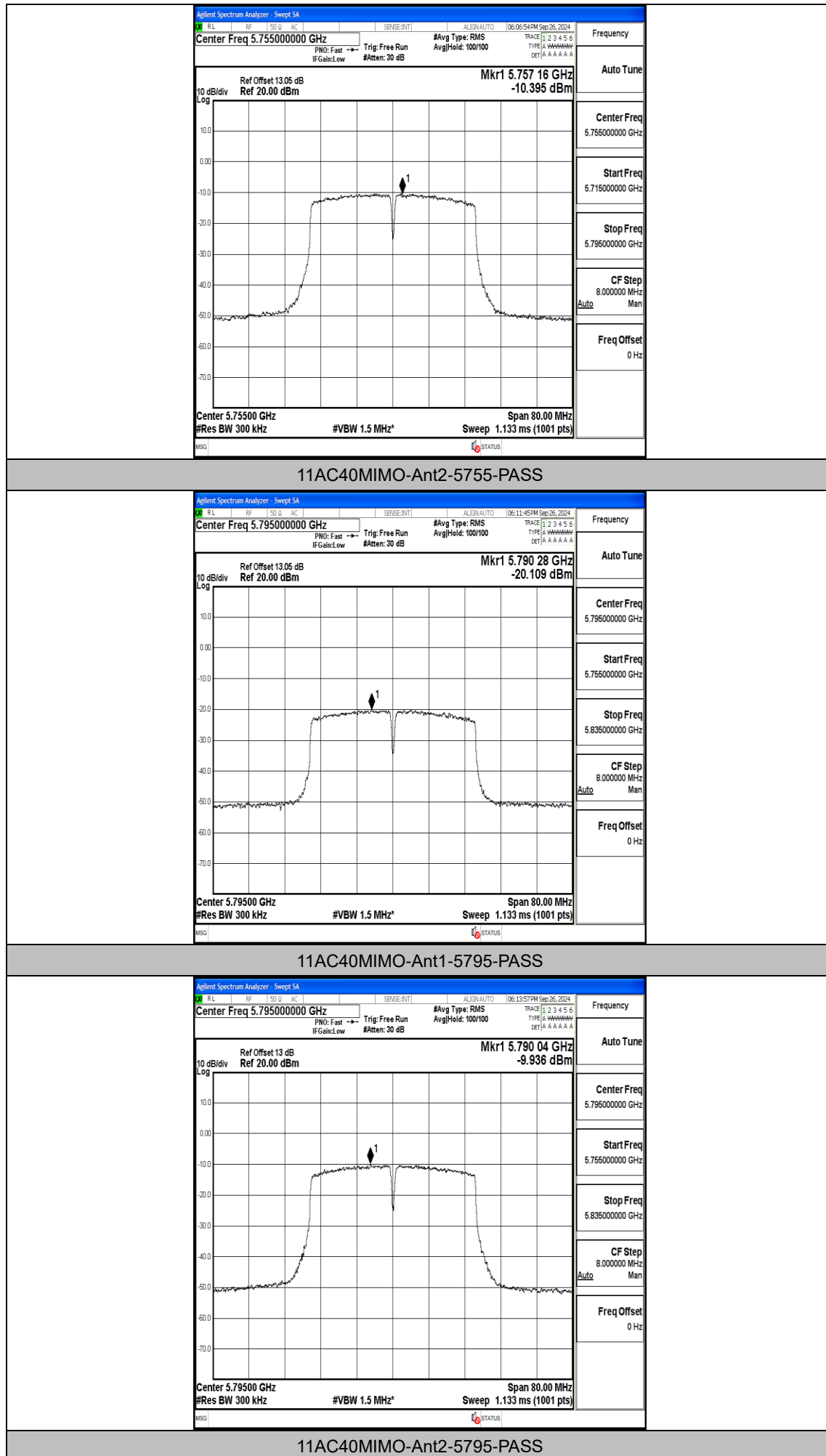
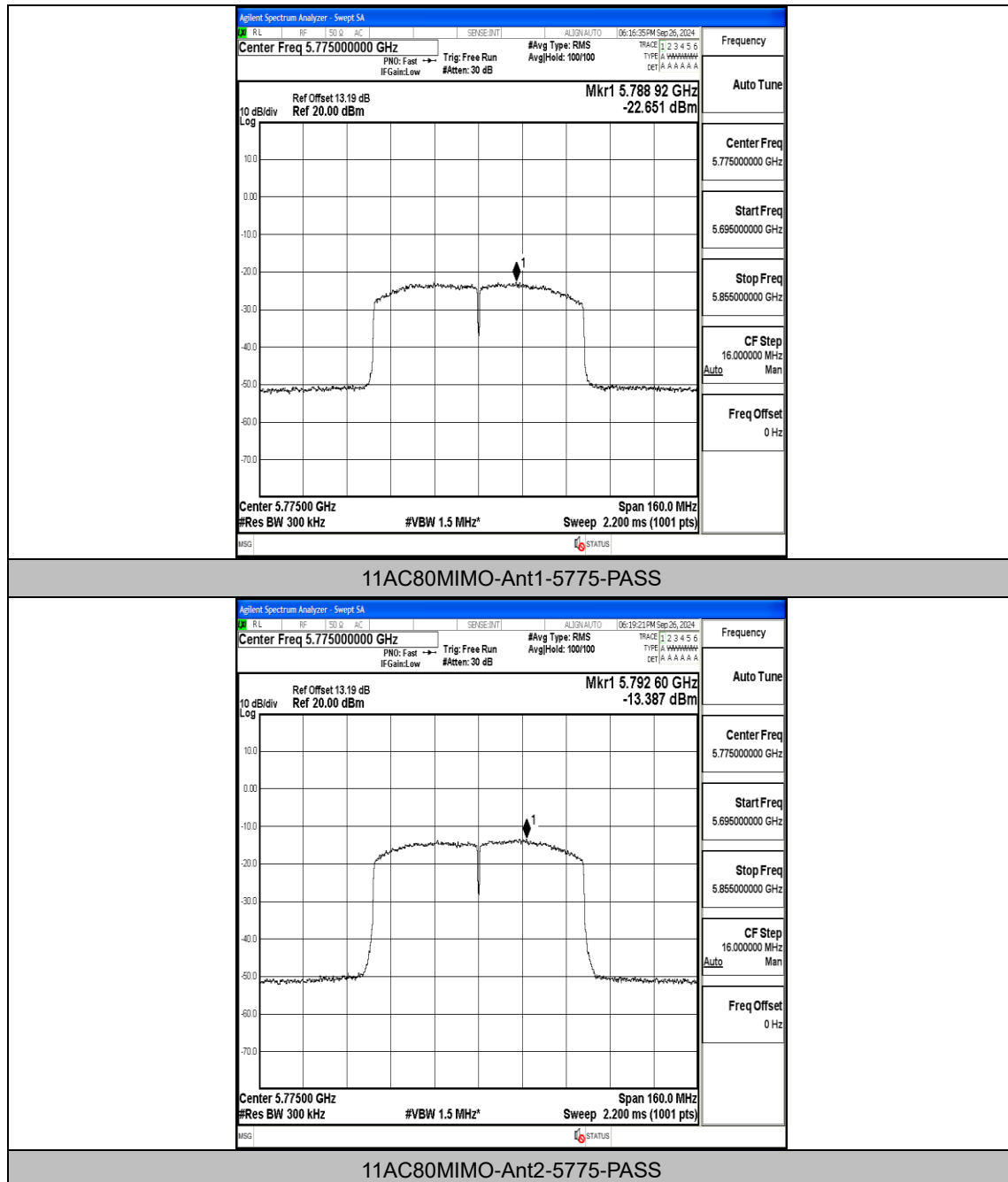








Appendix D: Band edge measurements

Test Result

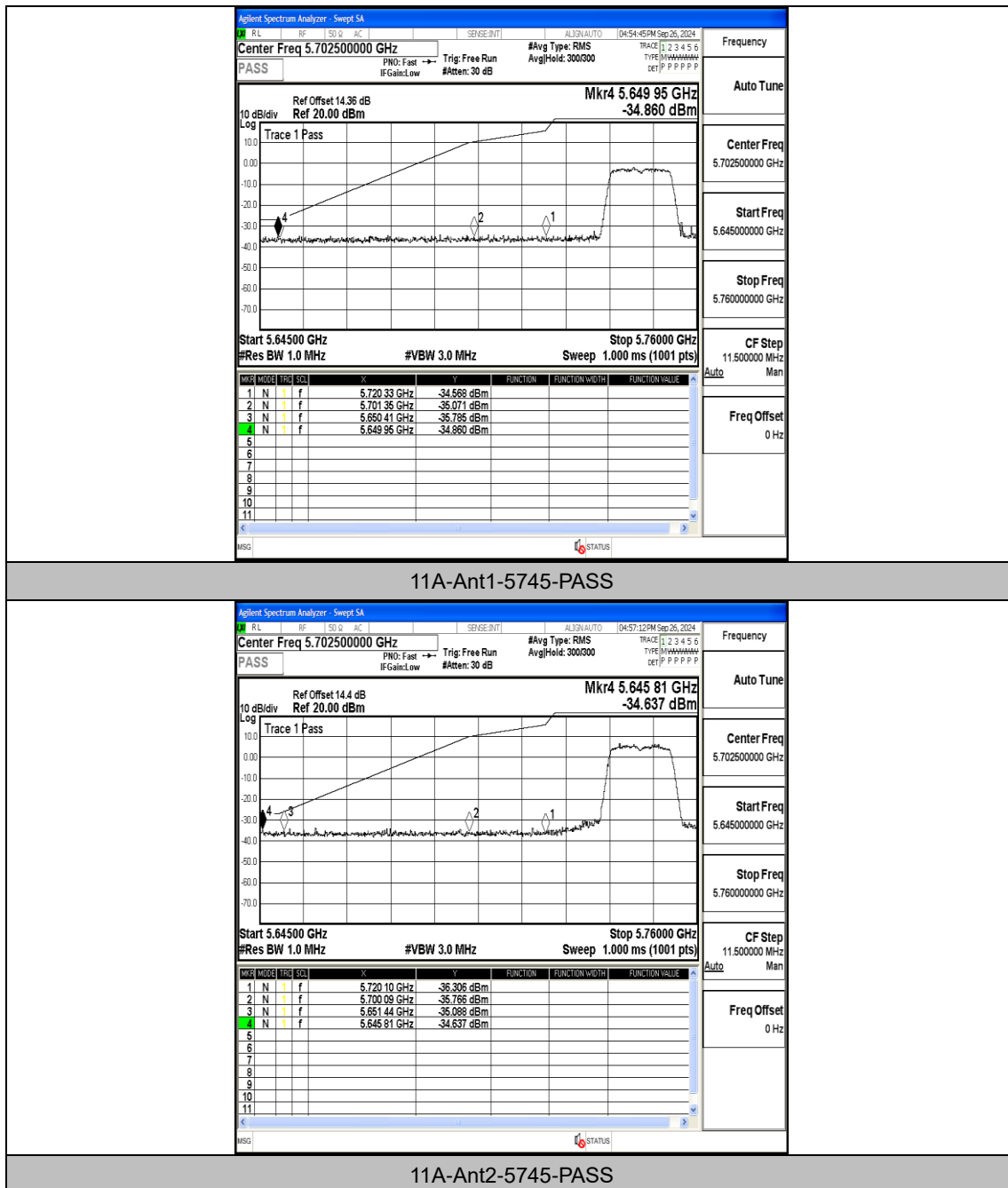
Test Mode	Antenna	Ch. Name	Frequency [MHz]	Freq. Range [MHz]	Result [dBm]	Limit [dBm]	Verdict
11A	Ant1	Low	5745	5720~5725	-34.57	≤16.34	PASS
11A	Ant1	Low	5745	5700~5720	-35.07	≤10.38	PASS
11A	Ant1	Low	5745	5650~5700	-35.79	≤-26.70	PASS
11A	Ant1	Low	5745	5760~5650	-34.86	≤-27	PASS
11A	Ant2	Low	5745	5720~5725	-36.31	≤15.82	PASS
11A	Ant2	Low	5745	5700~5720	-35.77	≤10.02	PASS
11A	Ant2	Low	5745	5650~5700	-35.09	≤-25.93	PASS
11A	Ant2	Low	5745	5760~5650	-34.64	≤-27	PASS
11A	Ant1	High	5825	5850~5855	-34.7	≤15.73	PASS
11A	Ant1	High	5825	5855~5875	-33.69	≤11.27	PASS
11A	Ant1	High	5825	5875~5925	-34.79	≤-26.51	PASS
11A	Ant1	High	5825	5925~5935	-33.88	≤-27	PASS
11A	Ant2	High	5825	5850~5855	-36.01	≤15.73	PASS
11A	Ant2	High	5825	5855~5875	-34.07	≤10.25	PASS
11A	Ant2	High	5825	5875~5925	-34.78	≤-26.61	PASS
11A	Ant2	High	5825	5925~5935	-34.74	≤-27	PASS
11N20MI MO	Ant1	Low	5745	5720~5725	-35.13	≤15.82	PASS
11N20MI MO	Ant1	Low	5745	5700~5720	-34.06	≤11.15	PASS
11N20MI MO	Ant1	Low	5745	5650~5700	-34.58	≤-25.51	PASS
11N20MI MO	Ant1	Low	5745	5760~5650	-35.22	≤-27	PASS
11N20MI MO	Ant2	Low	5745	5720~5725	-36.03	≤15.82	PASS
11N20MI MO	Ant2	Low	5745	5700~5720	-33.57	≤10.54	PASS
11N20MI MO	Ant2	Low	5745	5650~5700	-35.41	≤-26.62	PASS
11N20MI MO	Ant2	Low	5745	5760~5650	-34.74	≤-27	PASS
11N20MI MO	Ant1	High	5825	5850~5855	-35.64	≤16.03	PASS
11N20MI MO	Ant1	High	5825	5855~5875	-33.78	≤10.59	PASS
11N20MI MO	Ant1	High	5825	5875~5925	-35.59	≤-26.91	PASS
11N20MI MO	Ant1	High	5825	5925~5935	-33.7	≤-27	PASS
11N20MI	Ant2	High	5825	5850~5855	-35.56	≤16.03	PASS

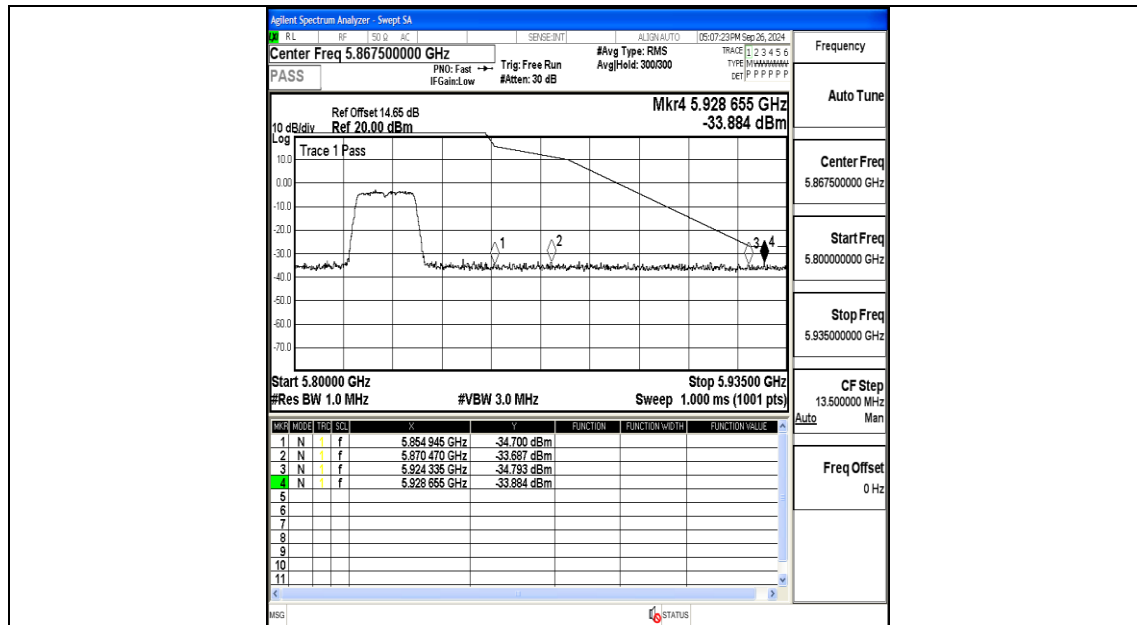
MO							
11N20MI MO	Ant2	High	5825	5855~5875	-34.7	≤10.25	PASS
11N20MI MO	Ant2	High	5825	5875~5925	-34.79	≤-26.81	PASS
11N20MI MO	Ant2	High	5825	5925~5935	-33.99	≤-27	PASS
11N40MI MO	Ant1	Low	5755	5720~5725	-33.87	≤17.28	PASS
11N40MI MO	Ant1	Low	5755	5700~5720	-34.73	≤10.29	PASS
11N40MI MO	Ant1	Low	5755	5650~5700	-35.69	≤-26.50	PASS
11N40MI MO	Ant1	Low	5755	5780~5650	-34.46	≤-27	PASS
11N40MI MO	Ant2	Low	5755	5720~5725	-35.34	≤15.74	PASS
11N40MI MO	Ant2	Low	5755	5700~5720	-34.53	≤10.40	PASS
11N40MI MO	Ant2	Low	5755	5650~5700	-34.77	≤-26.20	PASS
11N40MI MO	Ant2	Low	5755	5780~5650	-35.13	≤-27	PASS
11N40MI MO	Ant1	High	5795	5850~5855	-35.21	≤16.41	PASS
11N40MI MO	Ant1	High	5795	5855~5875	-33.93	≤10.89	PASS
11N40MI MO	Ant1	High	5795	5875~5925	-34.51	≤-26.46	PASS
11N40MI MO	Ant1	High	5795	5925~5935	-34.16	≤-27	PASS
11N40MI MO	Ant2	High	5795	5850~5855	-34.49	≤16.79	PASS
11N40MI MO	Ant2	High	5795	5855~5875	-33.08	≤10.39	PASS
11N40MI MO	Ant2	High	5795	5875~5925	-35.59	≤-26.34	PASS
11N40MI MO	Ant2	High	5795	5925~5935	-33.9	≤-27	PASS
11AC20M IMO	Ant1	Low	5745	5720~5725	-34.98	≤15.82	PASS
11AC20M IMO	Ant1	Low	5745	5700~5720	-34.59	≤10.28	PASS
11AC20M IMO	Ant1	Low	5745	5650~5700	-35.91	≤-26.96	PASS
11AC20M IMO	Ant1	Low	5745	5760~5650	-34.49	≤-27	PASS

11AC20M IMO	Ant2	Low	5745	5720~5725	-33.67	≤15.82	PASS
11AC20M IMO	Ant2	Low	5745	5700~5720	-33.52	≤10.31	PASS
11AC20M IMO	Ant2	Low	5745	5650~5700	-35.13	≤-26.96	PASS
11AC20M IMO	Ant2	Low	5745	5760~5650	-34.67	≤-27	PASS
11AC20M IMO	Ant1	High	5825	5850~5855	-33.82	≤16.96	PASS
11AC20M IMO	Ant1	High	5825	5855~5875	-33.32	≤11.91	PASS
11AC20M IMO	Ant1	High	5825	5875~5925	-34.29	≤-26.81	PASS
11AC20M IMO	Ant1	High	5825	5925~5935	-34.24	≤-27	PASS
11AC20M IMO	Ant2	High	5825	5850~5855	-34.67	≤16.65	PASS
11AC20M IMO	Ant2	High	5825	5855~5875	-34.77	≤10.02	PASS
11AC20M IMO	Ant2	High	5825	5875~5925	-34.78	≤-26.71	PASS
11AC20M IMO	Ant2	High	5825	5925~5935	-33.98	≤-27	PASS
11AC40M IMO	Ant1	Low	5755	5720~5725	-30.52	≤16.97	PASS
11AC40M IMO	Ant1	Low	5755	5700~5720	-34.6	≤10.25	PASS
11AC40M IMO	Ant1	Low	5755	5650~5700	-35.64	≤-26.90	PASS
11AC40M IMO	Ant1	Low	5755	5780~5650	-34.94	≤-27	PASS
11AC40M IMO	Ant2	Low	5755	5720~5725	-33.18	≤15.74	PASS
11AC40M IMO	Ant2	Low	5755	5700~5720	-32.95	≤10.55	PASS
11AC40M IMO	Ant2	Low	5755	5650~5700	-34.45	≤-26.00	PASS
11AC40M IMO	Ant2	Low	5755	5780~5650	-34.4	≤-27	PASS
11AC40M IMO	Ant1	High	5795	5850~5855	-35.16	≤16.41	PASS
11AC40M IMO	Ant1	High	5795	5855~5875	-35.09	≤10.16	PASS
11AC40M IMO	Ant1	High	5795	5875~5925	-33.92	≤-26.59	PASS
11AC40M	Ant1	High	5795	5925~5935	-33.96	≤-27	PASS

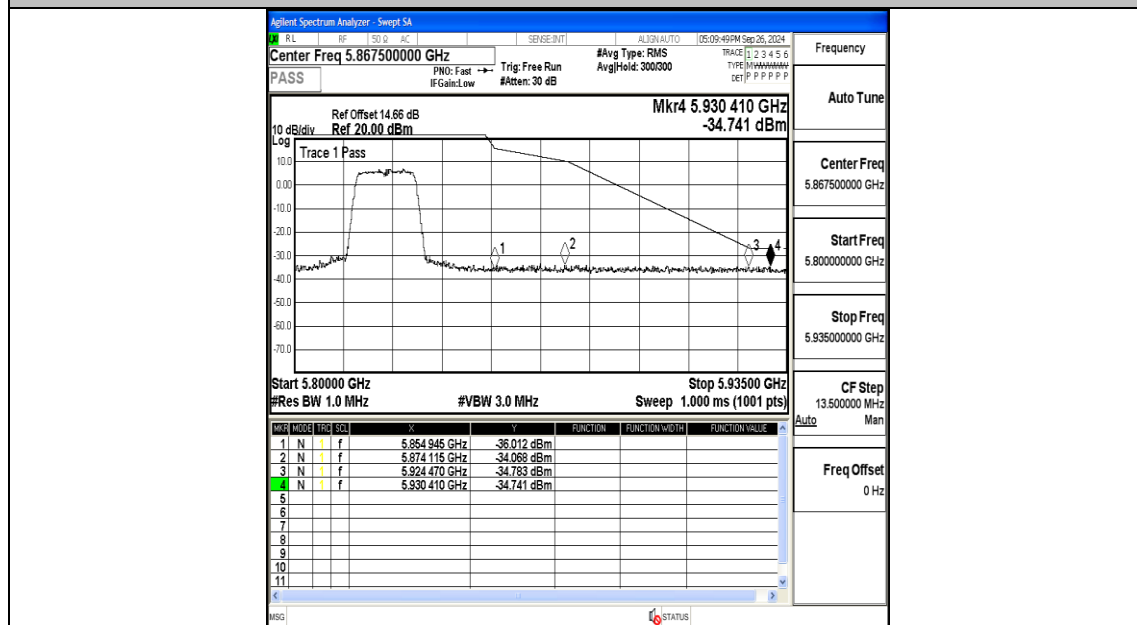
IMO							
11AC40M IMO	Ant2	High	5795	5850~5855	-34.79	≤16.03	PASS
11AC40M IMO	Ant2	High	5795	5855~5875	-34	≤10.02	PASS
11AC40M IMO	Ant2	High	5795	5875~5925	-34.79	≤-26.34	PASS
11AC40M IMO	Ant2	High	5795	5925~5935	-34.15	≤-27	PASS
11AC80M IMO	Ant1	Low	5775	5720~5725	-35.1	≤16.00	PASS
11AC80M IMO	Ant1	Low	5775	5700~5720	-33.4	≤10.14	PASS
11AC80M IMO	Ant1	Low	5775	5650~5700	-36.45	≤-26.57	PASS
11AC80M IMO	Ant1	Low	5775	5800~5650	-34.69	≤-27	PASS
11AC80M IMO	Ant1	High	5775	5850~5855	-34.48	≤16.68	PASS
11AC80M IMO	Ant1	High	5775	5855~5875	-34.02	≤10.40	PASS
11AC80M IMO	Ant1	High	5775	5875~5925	-35.33	≤-26.87	PASS
11AC80M IMO	Ant1	High	5775	5925~5935	-32.5	≤-27	PASS
11AC80M IMO	Ant2	Low	5775	5720~5725	-34.39	≤17.41	PASS
11AC80M IMO	Ant2	Low	5775	5700~5720	-34.45	≤10.27	PASS
11AC80M IMO	Ant2	Low	5775	5650~5700	-35.63	≤-26.91	PASS
11AC80M IMO	Ant2	Low	5775	5800~5650	-34.29	≤-27	PASS
11AC80M IMO	Ant2	High	5775	5850~5855	-35.64	≤15.84	PASS
11AC80M IMO	Ant2	High	5775	5855~5875	-34.58	≤10.04	PASS
11AC80M IMO	Ant2	High	5775	5875~5925	-35.6	≤-26.73	PASS
11AC80M IMO	Ant2	High	5775	5925~5935	-34.4	≤-27	PASS

Test Graphs

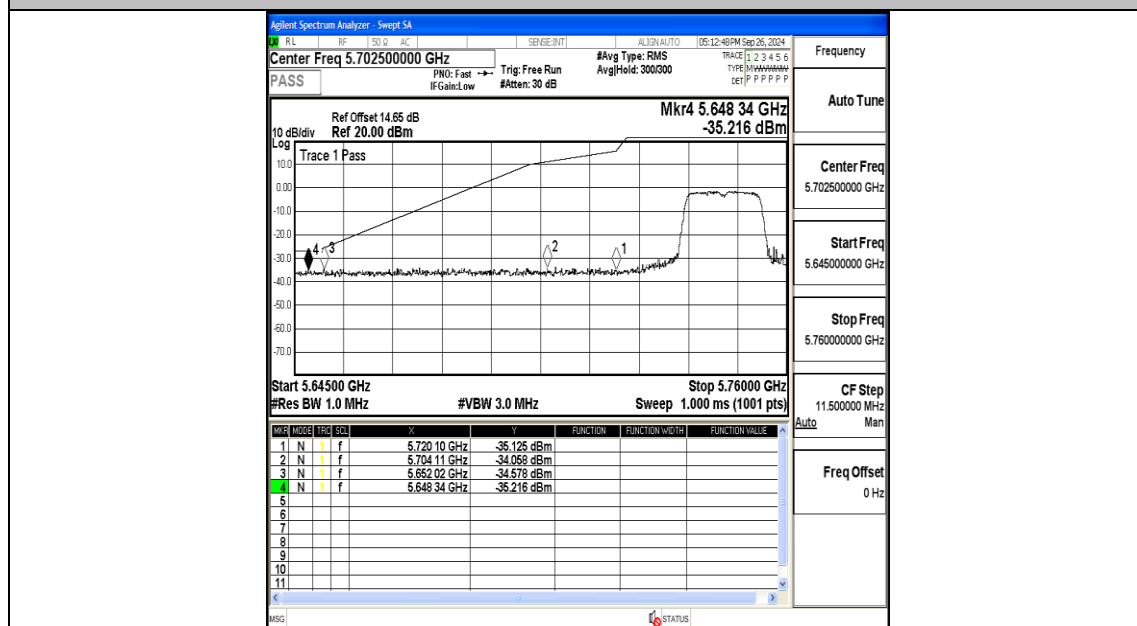




11A-Ant1-5825-PASS

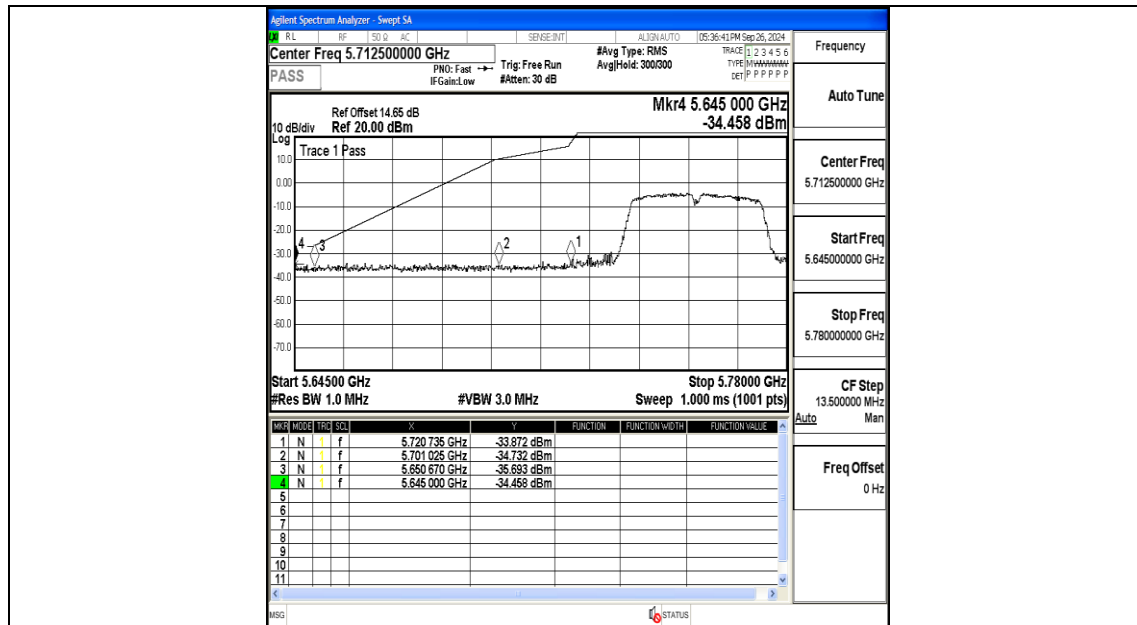


11A-Ant2-5825-PASS

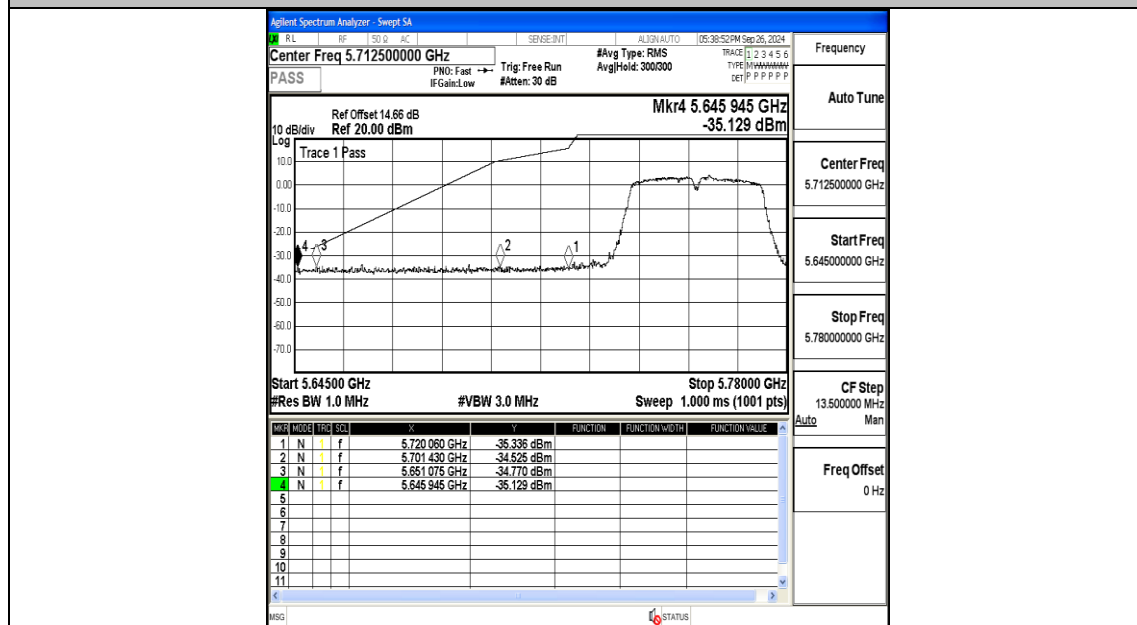


11N20MIMO-Ant1-5745-PASS

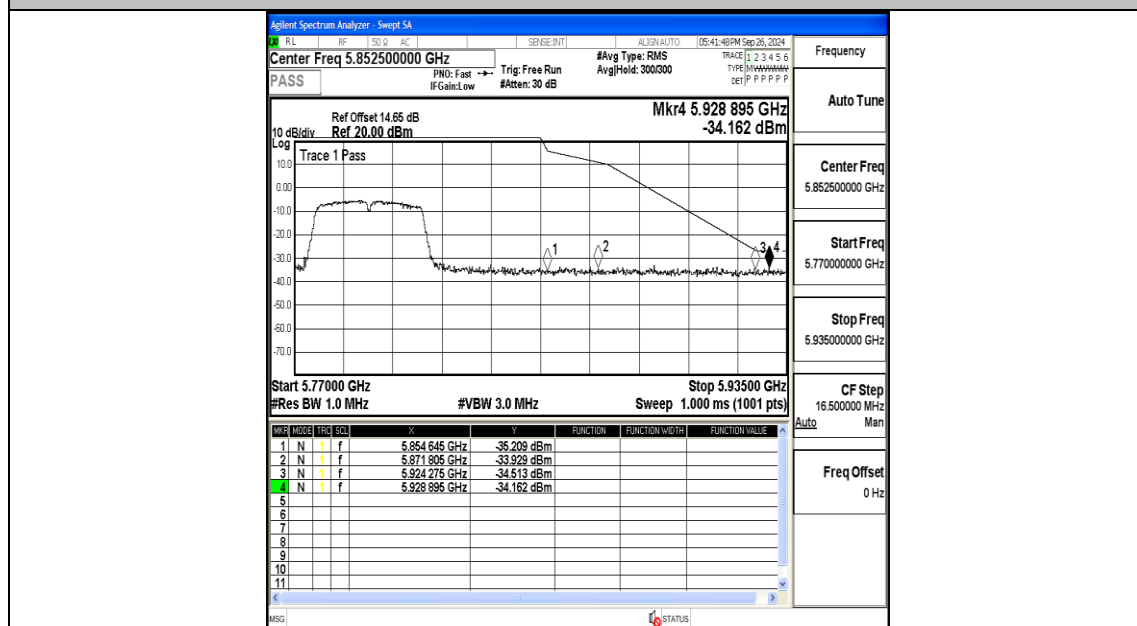




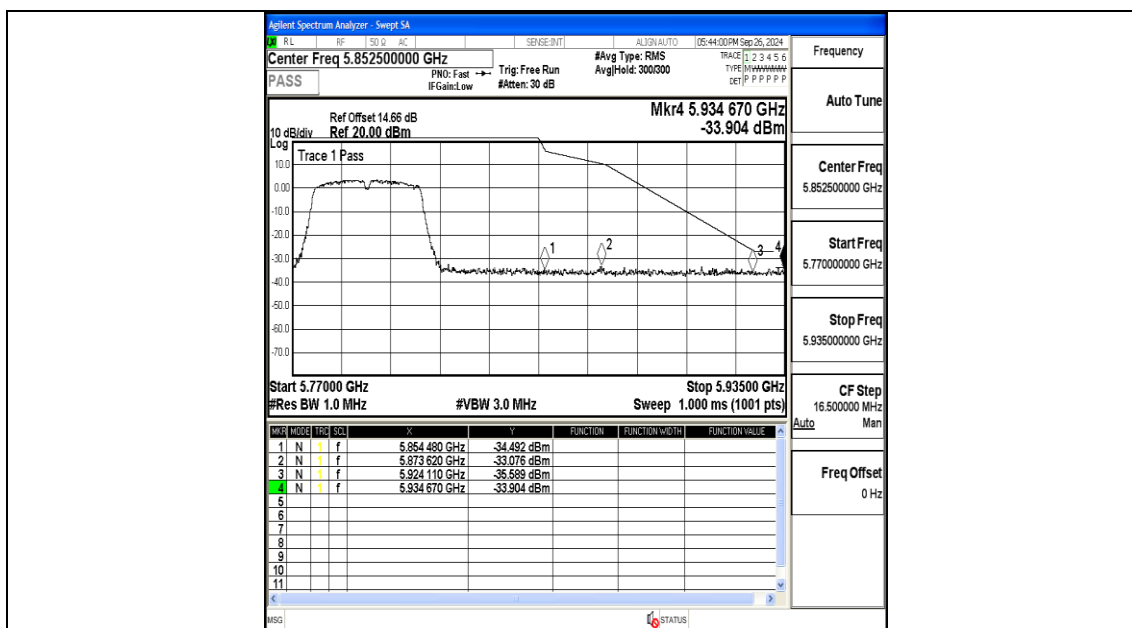
11N40MIMO-Ant1-5755-PASS



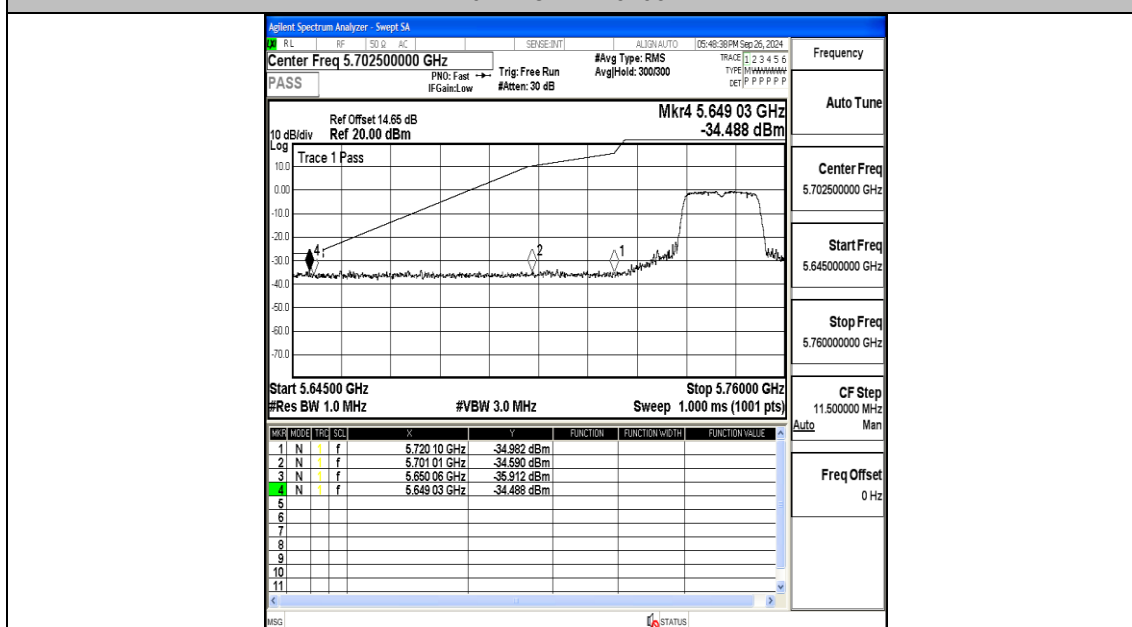
11N40MIMO-Ant2-5755-PASS



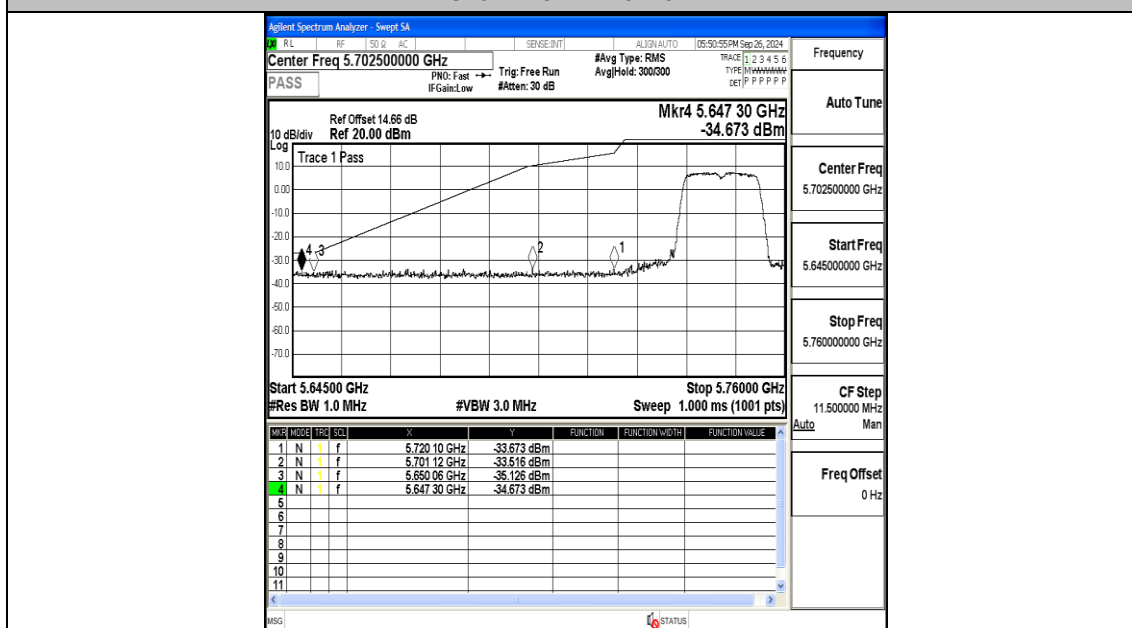
11N40MIMO-Ant1-5795-PASS



11N40MIMO-Ant2-5795-PASS

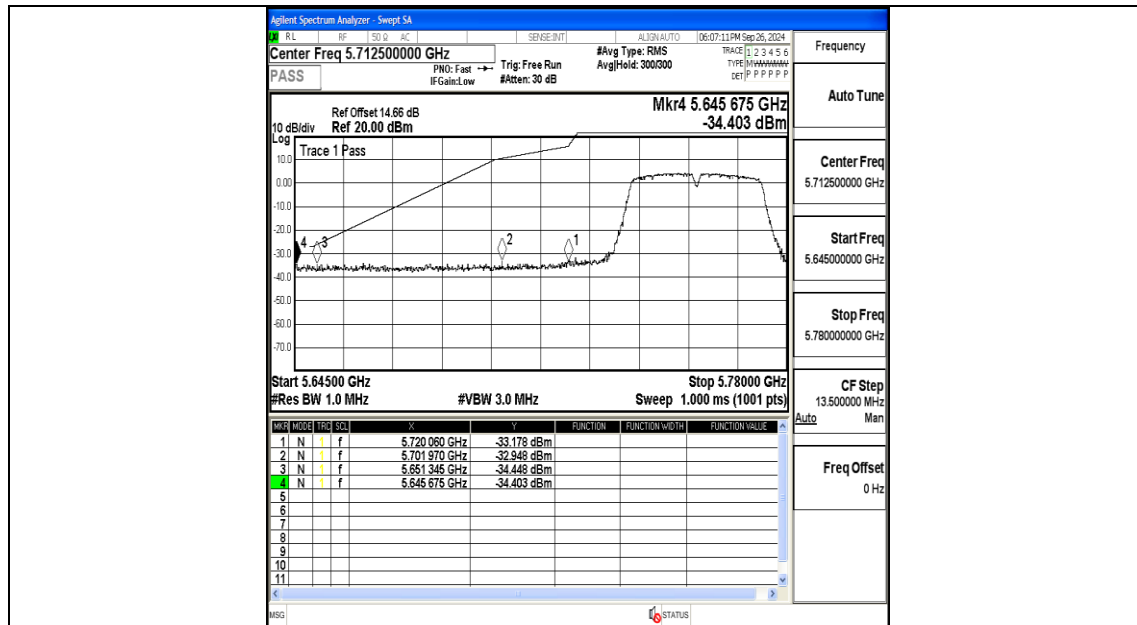


11AC20MIMO-Ant1-5745-PASS

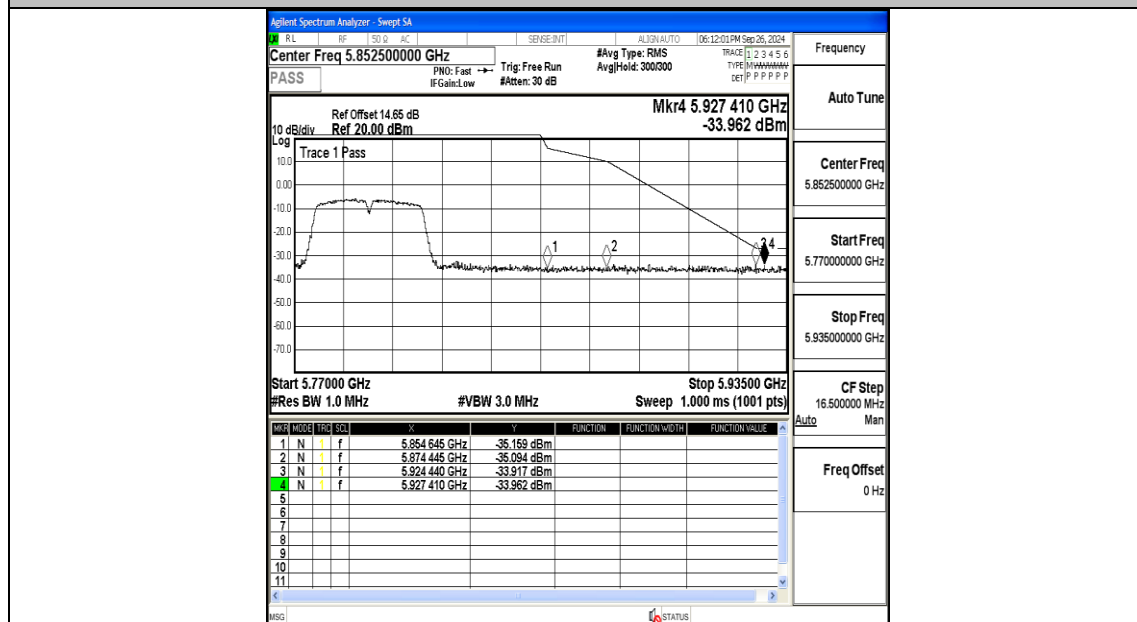


11AC20MIMO-Ant2-5745-PASS

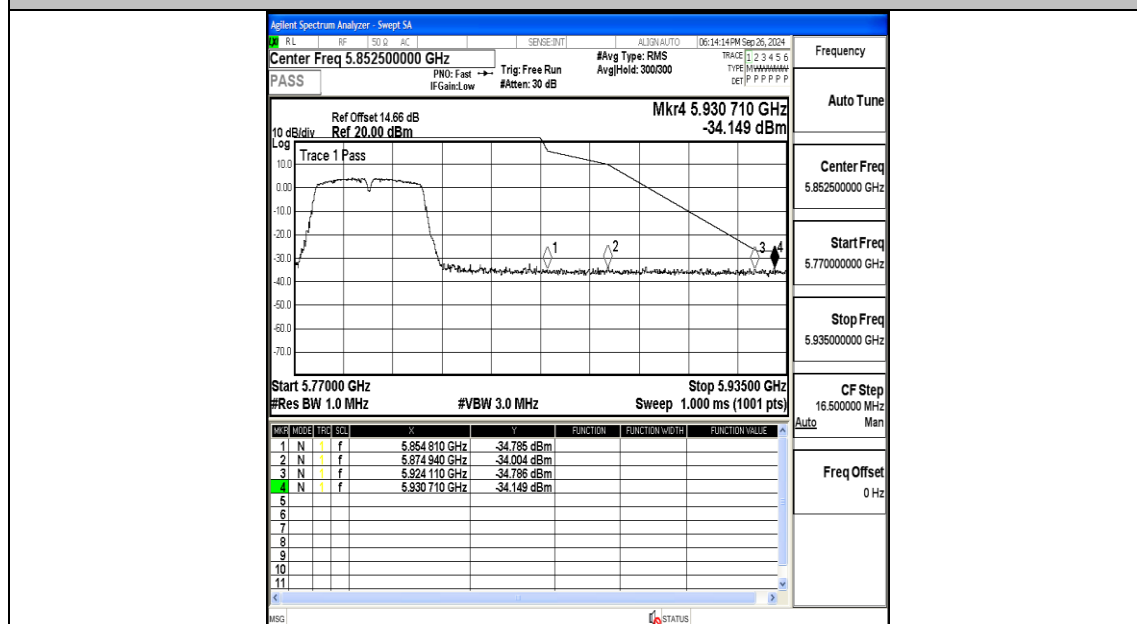




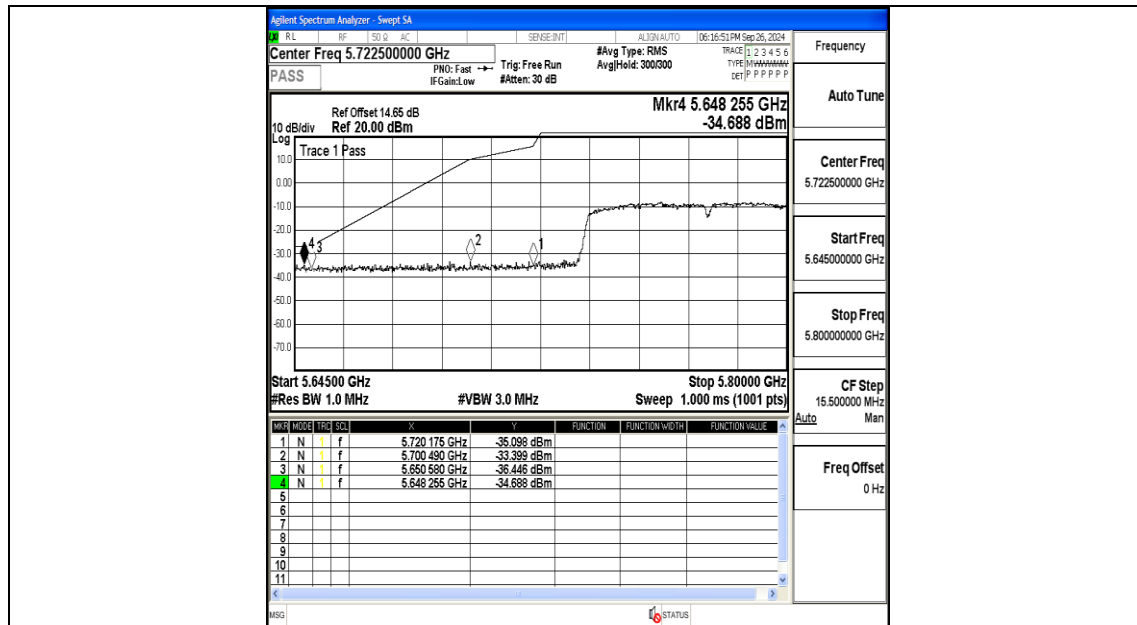
11AC40MIMO-Ant2-5755-PASS



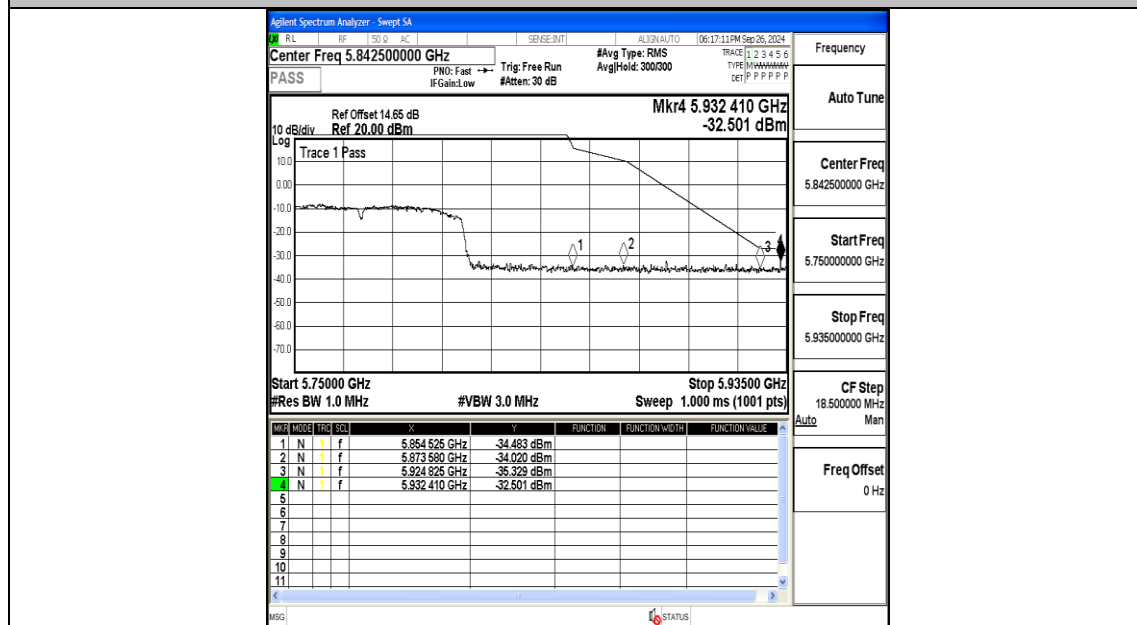
11AC40MIMO-Ant1-5795-PASS



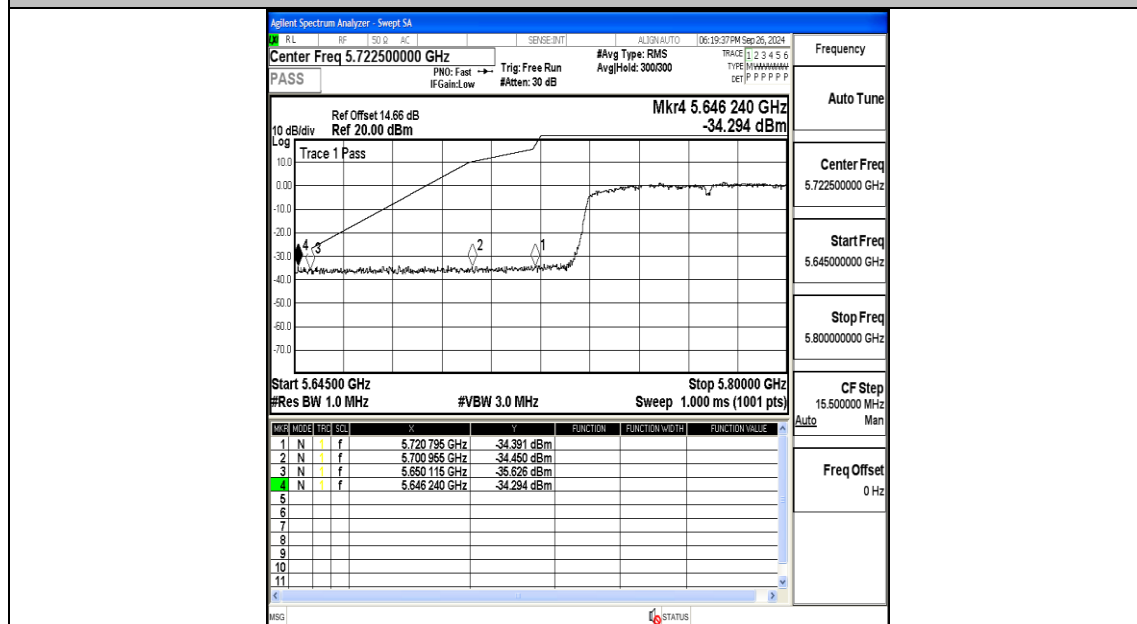
11AC40MIMO-Ant2-5795-PASS



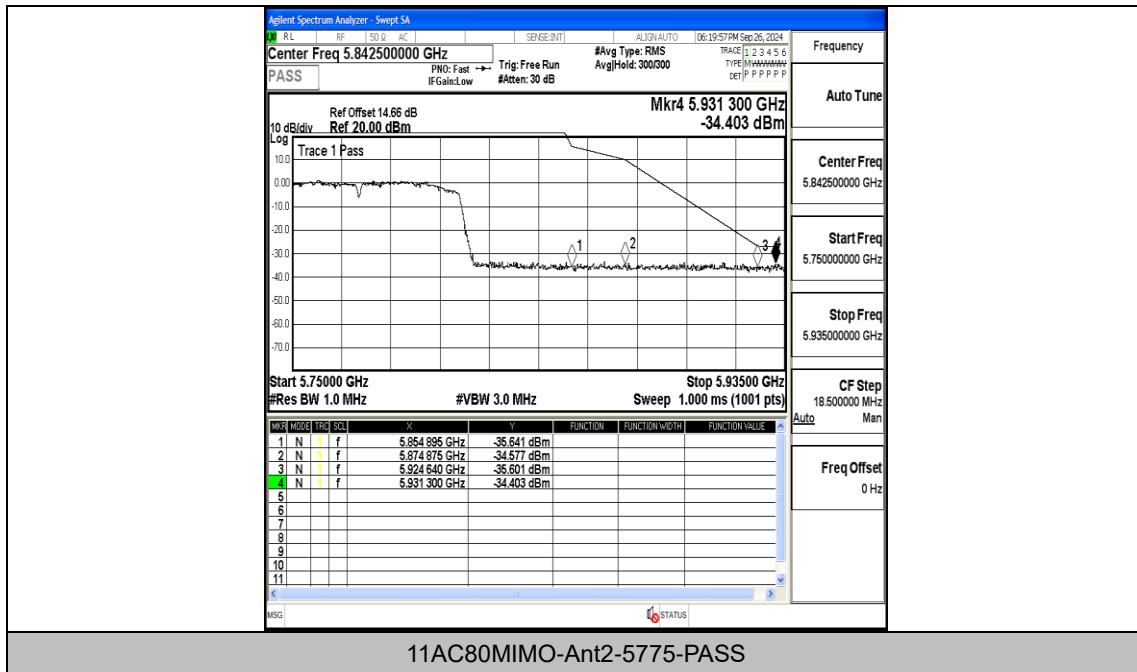
11AC80MIMO-Ant1-5775-PASS



11AC80MIMO-Ant1-5775-PASS



11AC80MIMO-Ant2-5775-PASS



Appendix E: Frequency Stability

Test Result

Ant1

Frequency (MHz)	Environment Temperature (Degree)	Voltage (VAC)	Measured Frequency (MHz)	Limit Range (MHz)	Test Results
5745	20	132	5744.900978	5745 – 5825	PASS
5745	20	108	5745.041039	5745 – 5825	PASS
5745	50	120	5744.933548	5745 – 5825	PASS
5745	40	120	5745.050945	5745 – 5825	PASS
5745	30	120	5745.009926	5745 – 5825	PASS
5745	20	120	5744.907202	5745 – 5825	PASS
5745	10	120	5745.076732	5745 – 5825	PASS
5745	0	120	5745.084333	5745 – 5825	PASS
5745	-10	120	5744.903159	5745 – 5825	PASS
5745	-20	120	5745.033055	5745 – 5825	PASS
5745	-30	120	5745.059729	5745 – 5825	PASS

Ant2

Frequency (MHz)	Environment Temperature (Degree)	Voltage (VAC)	Measured Frequency (MHz)	Limit Range (MHz)	Test Results
5745	20	132	5744.940474	5745 – 5825	PASS
5745	20	108	5744.916013	5745 – 5825	PASS
5745	50	120	5745.005464	5745 – 5825	PASS
5745	40	120	5744.999666	5745 – 5825	PASS
5745	30	120	5744.912172	5745 – 5825	PASS
5745	20	120	5745.005382	5745 – 5825	PASS
5745	10	120	5745.021796	5745 – 5825	PASS
5745	0	120	5744.910254	5745 – 5825	PASS
5745	-10	120	5745.072852	5745 – 5825	PASS
5745	-20	120	5744.909069	5745 – 5825	PASS
5745	-30	120	5744.965065	5745 – 5825	PASS

Ant1

Frequency (MHz)	Environment Temperature (Degree)	Voltage (VAC)	Measured Frequency (MHz)	Limit Range (MHz)	Test Results
5785	20	132	5784.918658	5745 – 5825	PASS
5785	20	108	5784.976167	5745 – 5825	PASS
5785	50	120	5785.027551	5745 – 5825	PASS
5785	40	120	5784.962090	5745 – 5825	PASS
5785	30	120	5784.990629	5745 – 5825	PASS
5785	20	120	5784.998354	5745 – 5825	PASS
5785	10	120	5785.012681	5745 – 5825	PASS
5785	0	120	5785.059765	5745 – 5825	PASS
5785	-10	120	5784.912339	5745 – 5825	PASS
5785	-20	120	5785.074352	5745 – 5825	PASS
5785	-30	120	5784.912952	5745 – 5825	PASS

Ant2

Frequency (MHz)	Environment Temperature (Degree)	Voltage (VAC)	Measured Frequency (MHz)	Limit Range (MHz)	Test Results
5785	20	132	5785.055904	5745 – 5825	PASS
5785	20	108	5785.023417	5745 – 5825	PASS
5785	50	120	5784.982052	5745 – 5825	PASS
5785	40	120	5785.092825	5745 – 5825	PASS
5785	30	120	5785.091799	5745 – 5825	PASS
5785	20	120	5785.069784	5745 – 5825	PASS
5785	10	120	5784.950614	5745 – 5825	PASS
5785	0	120	5785.077447	5745 – 5825	PASS
5785	-10	120	5785.042768	5745 – 5825	PASS
5785	-20	120	5784.974367	5745 – 5825	PASS
5785	-30	120	5785.003993	5745 – 5825	PASS

Ant1

Frequency (MHz)	Environment Temperature (Degree)	Voltage (VAC)	Measured Frequency (MHz)	Limit Range (MHz)	Test Results
5825	20	132	5824.902968	5745 – 5825	PASS
5825	20	108	5824.910994	5745 – 5825	PASS
5825	50	120	5824.955446	5745 – 5825	PASS
5825	40	120	5824.950636	5745 – 5825	PASS
5825	30	120	5824.982370	5745 – 5825	PASS
5825	20	120	5825.085909	5745 – 5825	PASS
5825	10	120	5824.906989	5745 – 5825	PASS
5825	0	120	5825.008848	5745 – 5825	PASS
5825	-10	120	5824.975844	5745 – 5825	PASS
5825	-20	120	5824.953194	5745 – 5825	PASS
5825	-30	120	5825.032182	5745 – 5825	PASS

Ant2

Frequency (MHz)	Environment Temperature (Degree)	Voltage (VAC)	Measured Frequency (MHz)	Limit Range (MHz)	Test Results
5825	20	132	5824.940325	5745 – 5825	PASS
5825	20	108	5825.074161	5745 – 5825	PASS
5825	50	120	5825.026472	5745 – 5825	PASS
5825	40	120	5824.983524	5745 – 5825	PASS
5825	30	120	5824.918209	5745 – 5825	PASS
5825	20	120	5825.060073	5745 – 5825	PASS
5825	10	120	5825.005428	5745 – 5825	PASS
5825	0	120	5824.983522	5745 – 5825	PASS
5825	-10	120	5825.083726	5745 – 5825	PASS
5825	-20	120	5824.988826	5745 – 5825	PASS
5825	-30	120	5825.095740	5745 – 5825	PASS

Ant1

Frequency (MHz)	Environment Temperature (Degree)	Voltage (VAC)	Measured Frequency (MHz)	Limit Range (MHz)	Test Results
5755	20	132	5755.085781	5745 – 5825	PASS
5755	20	108	5755.018576	5745 – 5825	PASS
5755	50	120	5754.997551	5745 – 5825	PASS
5755	40	120	5755.045244	5745 – 5825	PASS
5755	30	120	5755.005085	5745 – 5825	PASS
5755	20	120	5754.993754	5745 – 5825	PASS
5755	10	120	5755.045784	5745 – 5825	PASS
5755	0	120	5754.938192	5745 – 5825	PASS
5755	-10	120	5755.050014	5745 – 5825	PASS
5755	-20	120	5754.939851	5745 – 5825	PASS
5755	-30	120	5755.084397	5745 – 5825	PASS

Ant2

Frequency (MHz)	Environment Temperature (Degree)	Voltage (VAC)	Measured Frequency (MHz)	Limit Range (MHz)	Test Results
5755	20	132	5755.014028	5745 – 5825	PASS
5755	20	108	5755.015417	5745 – 5825	PASS
5755	50	120	5755.008464	5745 – 5825	PASS
5755	40	120	5755.065361	5745 – 5825	PASS
5755	30	120	5754.946955	5745 – 5825	PASS
5755	20	120	5755.040249	5745 – 5825	PASS
5755	10	120	5754.952173	5745 – 5825	PASS
5755	0	120	5754.908350	5745 – 5825	PASS
5755	-10	120	5754.970679	5745 – 5825	PASS
5755	-20	120	5754.976887	5745 – 5825	PASS
5755	-30	120	5755.079372	5745 – 5825	PASS

Ant1

Frequency (MHz)	Environment Temperature (Degree)	Voltage (VAC)	Measured Frequency (MHz)	Limit Range (MHz)	Test Results
5795	20	132	5794.976560	5745 – 5825	PASS
5795	20	108	5794.980464	5745 – 5825	PASS
5795	50	120	5795.053547	5745 – 5825	PASS
5795	40	120	5795.071755	5745 – 5825	PASS
5795	30	120	5794.989789	5745 – 5825	PASS
5795	20	120	5794.909062	5745 – 5825	PASS
5795	10	120	5795.070606	5745 – 5825	PASS
5795	0	120	5794.943231	5745 – 5825	PASS
5795	-10	120	5794.943866	5745 – 5825	PASS
5795	-20	120	5795.024793	5745 – 5825	PASS
5795	-30	120	5795.006434	5745 – 5825	PASS

Ant2

Frequency (MHz)	Environment Temperature (Degree)	Voltage (VAC)	Measured Frequency (MHz)	Limit Range (MHz)	Test Results
5795	20	132	5794.904908	5745 – 5825	PASS
5795	20	108	5794.998064	5745 – 5825	PASS
5795	50	120	5795.073749	5745 – 5825	PASS
5795	40	120	5794.964862	5745 – 5825	PASS
5795	30	120	5795.096738	5745 – 5825	PASS
5795	20	120	5794.966031	5745 – 5825	PASS
5795	10	120	5794.973044	5745 – 5825	PASS
5795	0	120	5795.007922	5745 – 5825	PASS
5795	-10	120	5795.091900	5745 – 5825	PASS
5795	-20	120	5795.050427	5745 – 5825	PASS
5795	-30	120	5795.051496	5745 – 5825	PASS

Ant1

Frequency (MHz)	Enviroment Temperature (Degree)	Voltage (VAC)	Measured Frequency (MHz)	Limit Range (MHz)	Test Results
5775	20	132	5775.069852	5745 – 5825	PASS
5775	20	108	5774.910218	5745 – 5825	PASS
5775	50	120	5775.038829	5745 – 5825	PASS
5775	40	120	5774.992270	5745 – 5825	PASS
5775	30	120	5774.948452	5745 – 5825	PASS
5775	20	120	5774.953492	5745 – 5825	PASS
5775	10	120	5774.903603	5745 – 5825	PASS
5775	0	120	5774.973904	5745 – 5825	PASS
5775	-10	120	5775.010758	5745 – 5825	PASS
5775	-20	120	5774.908281	5745 – 5825	PASS
5775	-30	120	5775.090681	5745 – 5825	PASS

Ant2

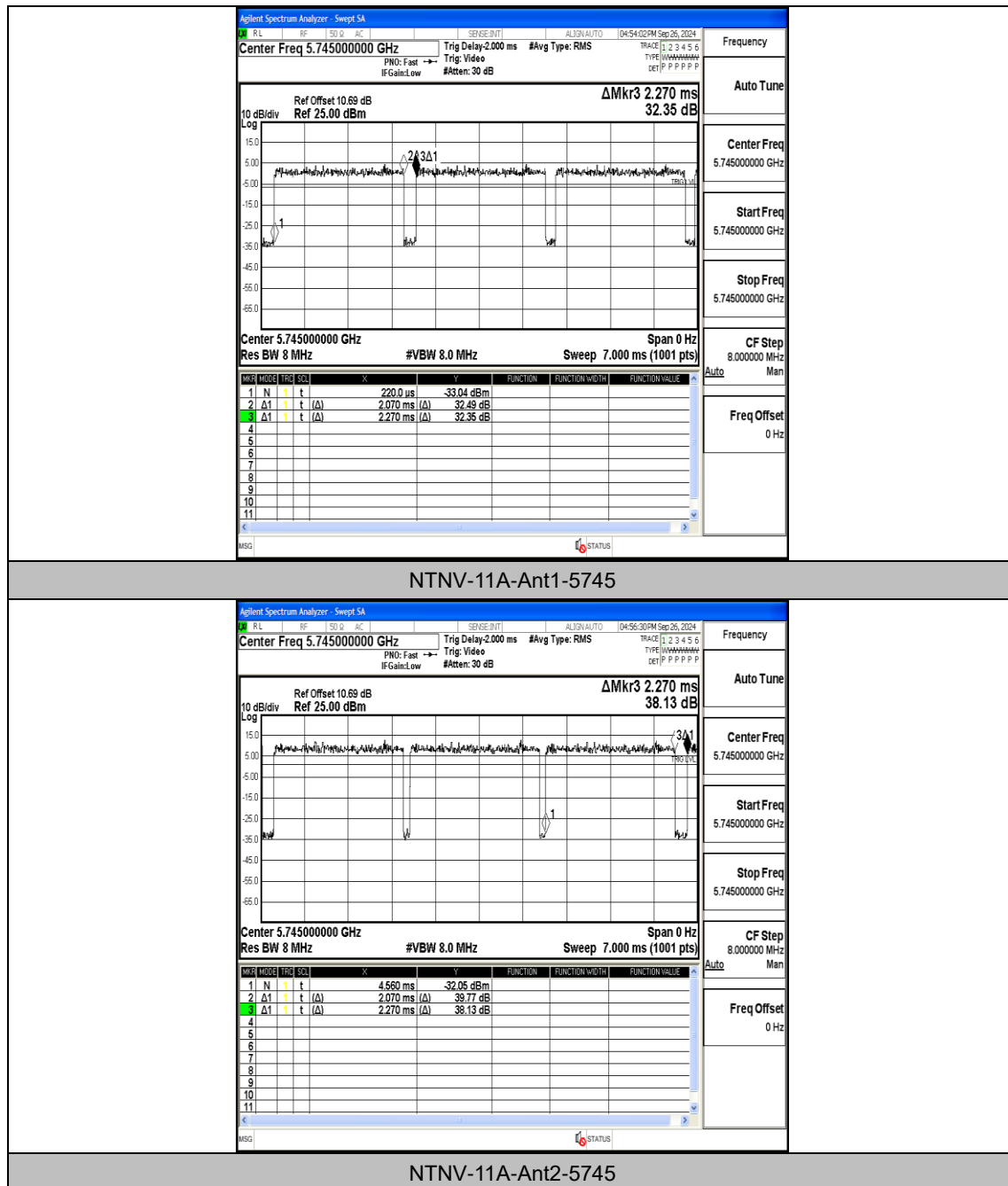
Frequency (MHz)	Enviroment Temperature (Degree)	Voltage (VAC)	Measured Frequency (MHz)	Limit Range (MHz)	Test Results
5775	20	132	5774.943664	5745 – 5825	PASS
5775	20	108	5775.070948	5745 – 5825	PASS
5775	50	120	5774.948059	5745 – 5825	PASS
5775	40	120	5774.960877	5745 – 5825	PASS
5775	30	120	5774.996562	5745 – 5825	PASS
5775	20	120	5774.907191	5745 – 5825	PASS
5775	10	120	5774.979900	5745 – 5825	PASS
5775	0	120	5775.013251	5745 – 5825	PASS
5775	-10	120	5775.066229	5745 – 5825	PASS
5775	-20	120	5774.993625	5745 – 5825	PASS
5775	-30	120	5775.062617	5745 – 5825	PASS

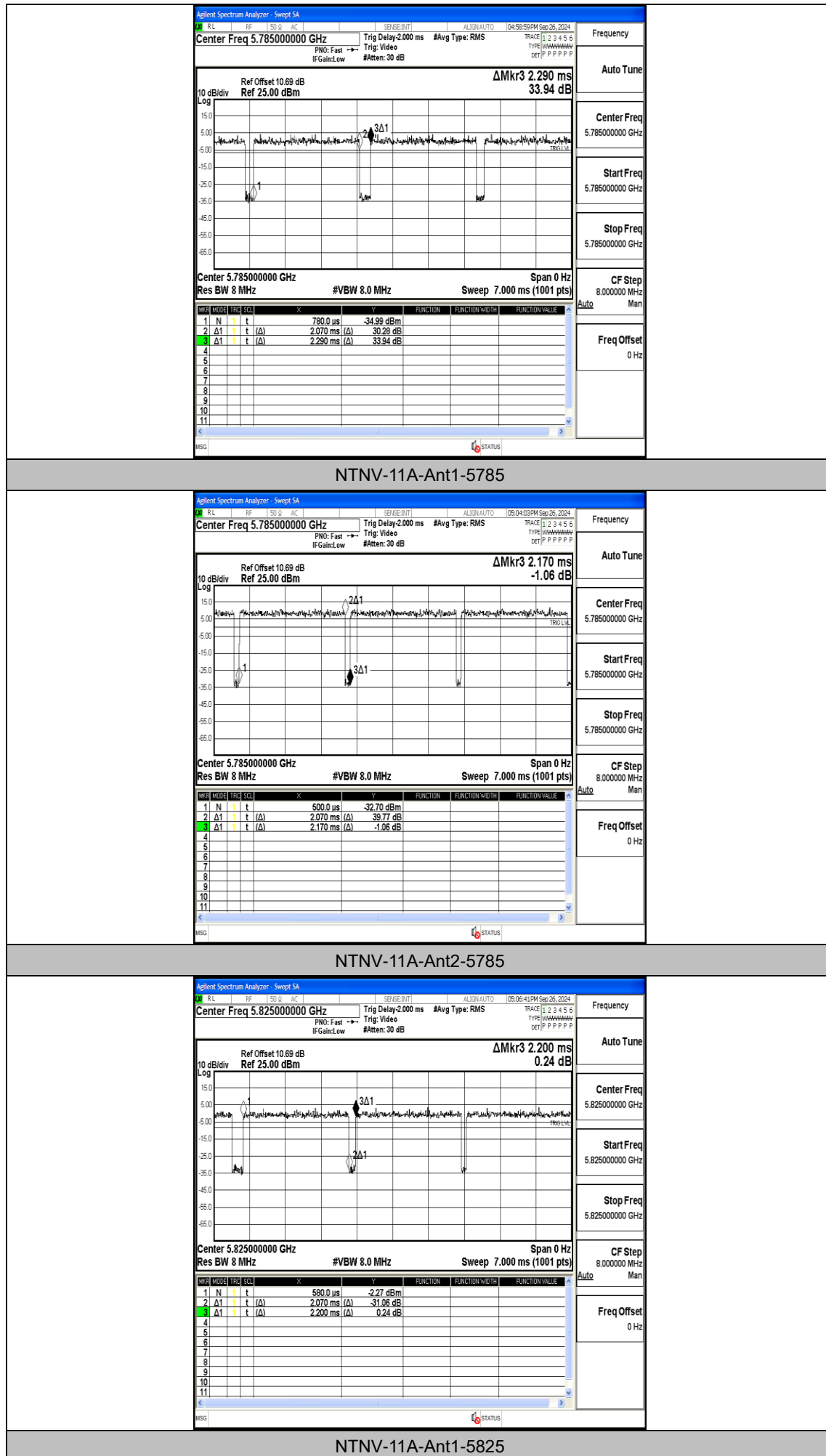
Appendix F: Duty Cycle

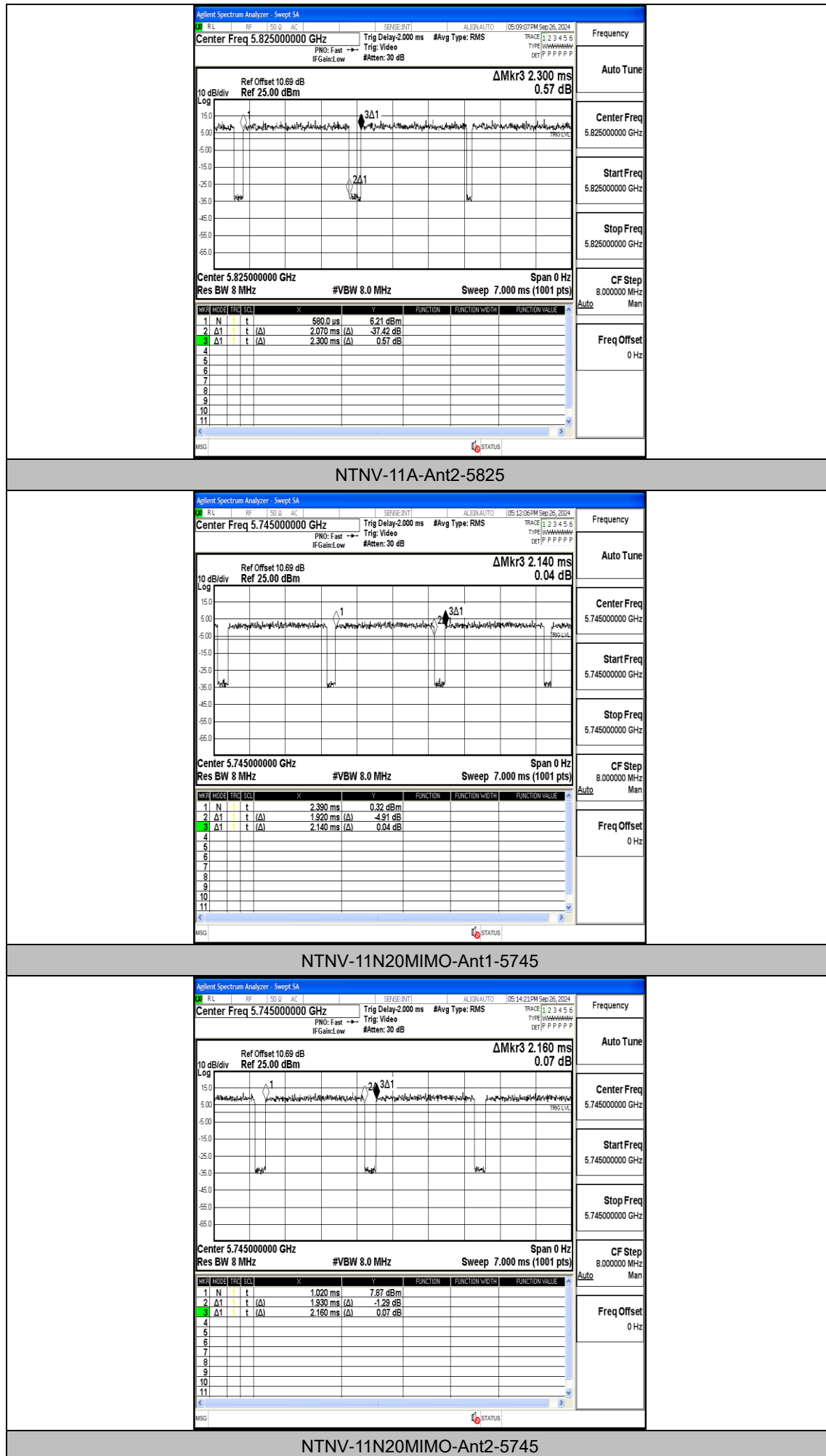
Test Result

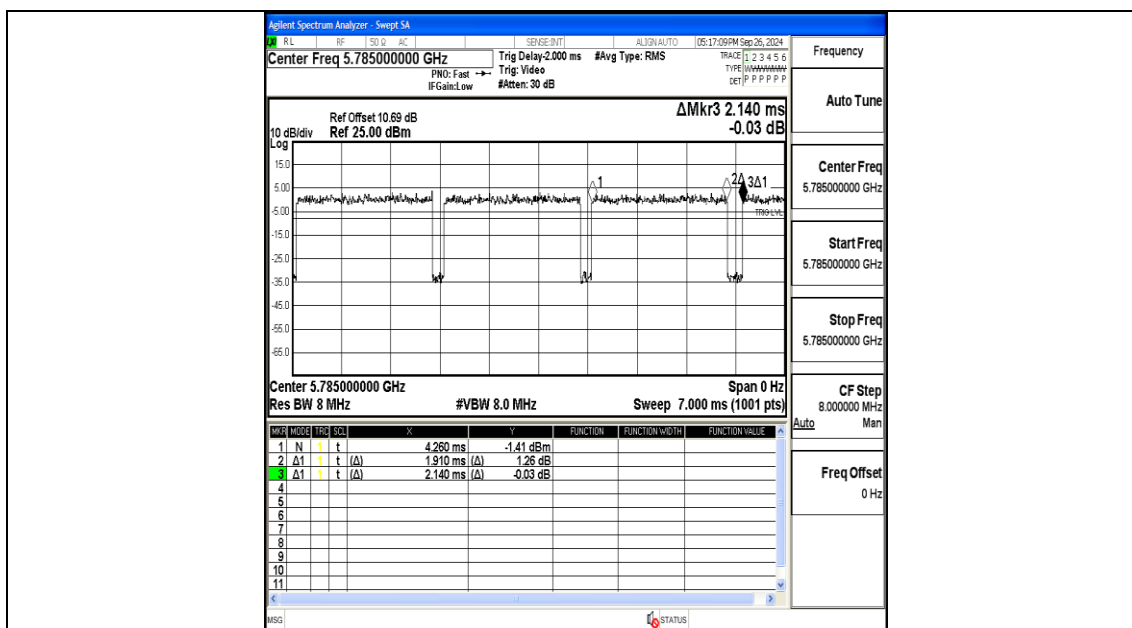
Test Mode	Antenna	Frequency [MHz]	Transmission Duration [ms]	Transmission Period [ms]	Duty Cycle [%]	Dc. Factor [%]	1/T
11A	Ant1	5745	2.07	2.27	91.19	0.40	0.48
11A	Ant2	5745	2.07	2.27	91.19	0.40	0.48
11A	Ant1	5785	2.07	2.29	90.39	0.44	0.48
11A	Ant2	5785	2.07	2.17	95.39	0.20	0.48
11A	Ant1	5825	2.07	2.20	94.09	0.26	0.48
11A	Ant2	5825	2.07	2.30	90.00	0.46	0.48
11N20MIMO	Ant1	5745	1.92	2.14	89.72	0.47	0.52
11N20MIMO	Ant2	5745	1.93	2.16	89.35	0.49	0.52
11N20MIMO	Ant1	5785	1.91	2.14	89.25	0.49	0.52
11N20MIMO	Ant2	5785	1.93	2.13	90.61	0.43	0.52
11N20MIMO	Ant1	5825	1.91	2.11	90.52	0.43	0.52
11N20MIMO	Ant2	5825	1.92	2.11	91.00	0.41	0.52
11N40MIMO	Ant1	5755	0.95	1.10	86.36	0.64	1.05
11N40MIMO	Ant2	5755	0.95	1.13	84.07	0.75	1.05
11N40MIMO	Ant1	5795	0.94	1.15	81.74	0.88	1.06
11N40MIMO	Ant2	5795	0.95	1.11	85.59	0.68	1.05
11AC20MIMO	Ant1	5745	1.89	1.92	98.44	0.07	0.53
11AC20MIMO	Ant2	5745	1.89	1.92	98.44	0.07	0.53
11AC20MIMO	Ant1	5785	1.89	1.92	98.44	0.07	0.53
11AC20MIMO	Ant2	5785	1.89	1.92	98.44	0.07	0.53
11AC20MIMO	Ant1	5825	1.89	1.92	98.44	0.07	0.53
11AC20MIMO	Ant2	5825	1.89	1.92	98.44	0.07	0.53
11AC40MIMO	Ant1	5755	0.93	0.96	96.88	0.14	1.08
11AC40MIMO	Ant2	5755	0.93	0.96	96.88	0.14	1.08
11AC40MIMO	Ant1	5795	0.93	0.96	96.88	0.14	1.08
11AC40MIMO	Ant2	5795	0.94	0.96	97.92	0.09	1.06
11AC80MIMO	Ant1	5775	0.45	0.48	93.75	0.28	2.22
11AC80MIMO	Ant2	5775	0.45	0.48	93.75	0.28	2.22

Test Graphs

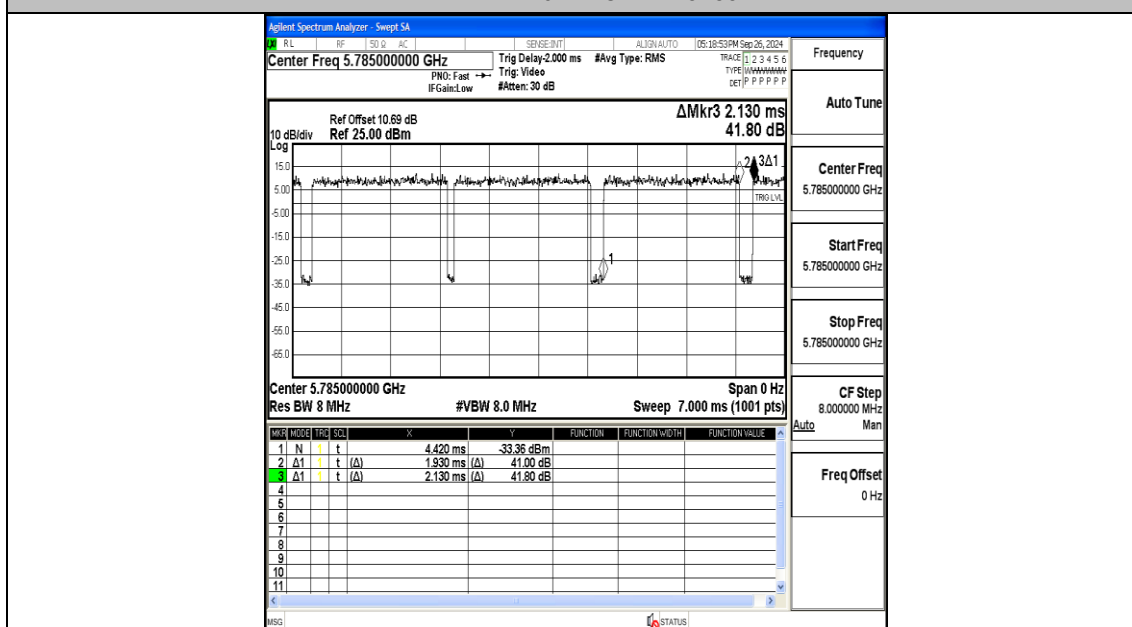




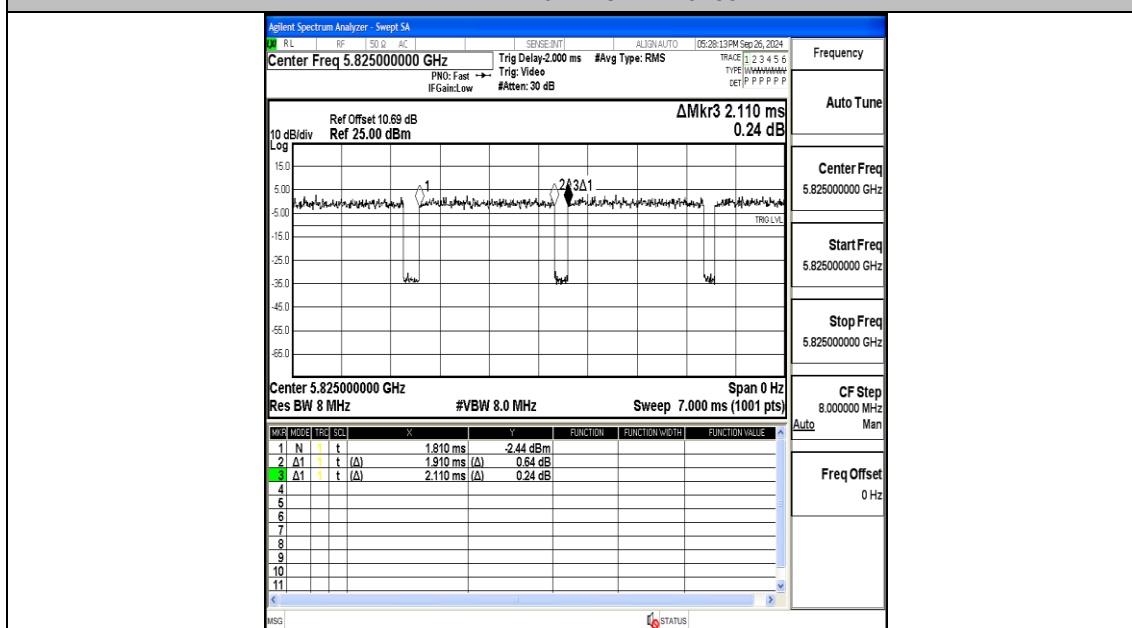




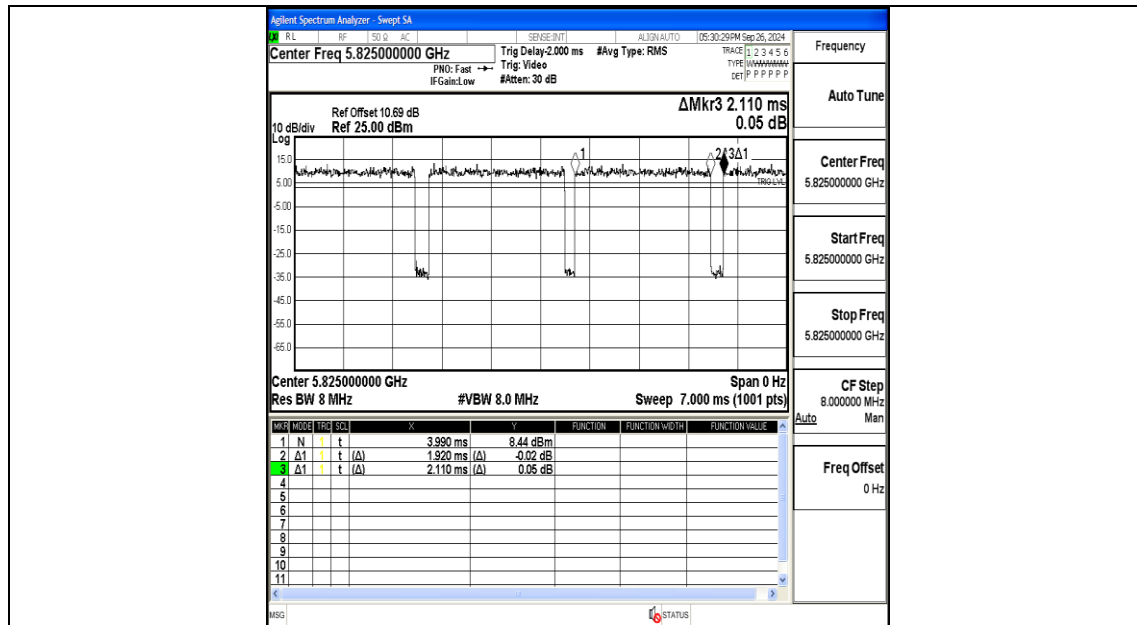
NTNV-11N20MIMO-Ant1-5785



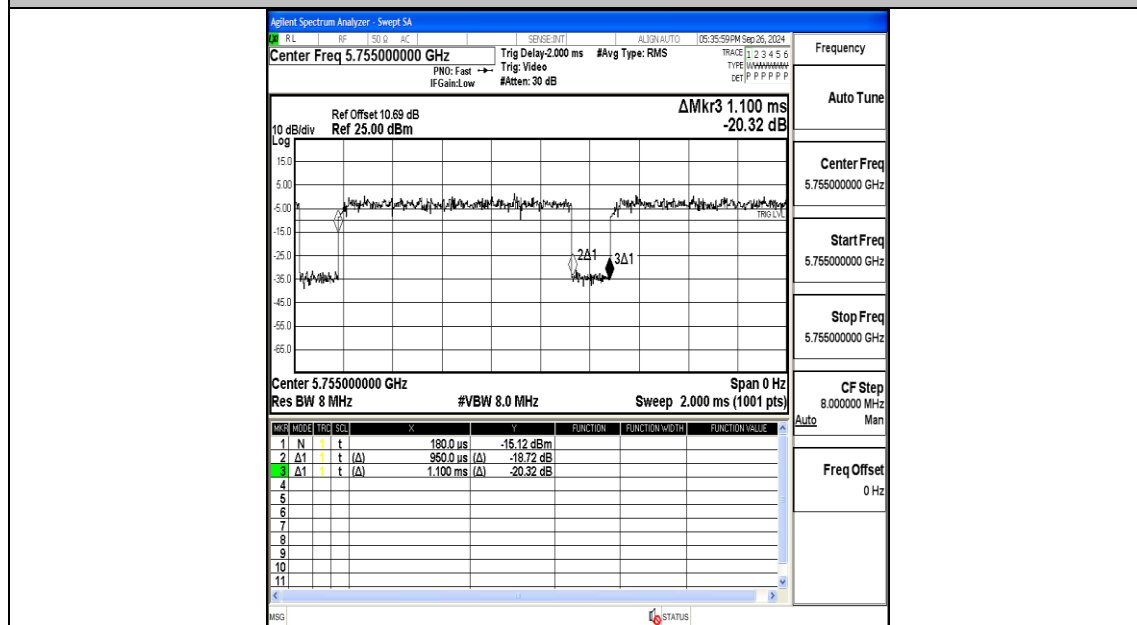
NTNV-11N20MIMO-Ant2-5785



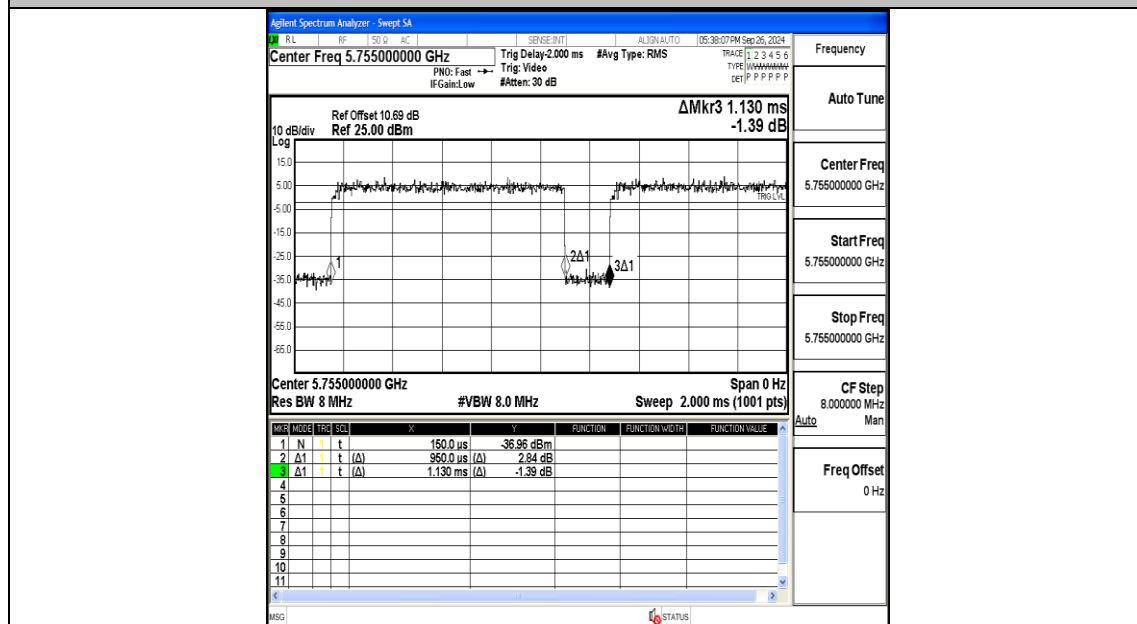
NTNV-11N20MIMO-Ant1-5825



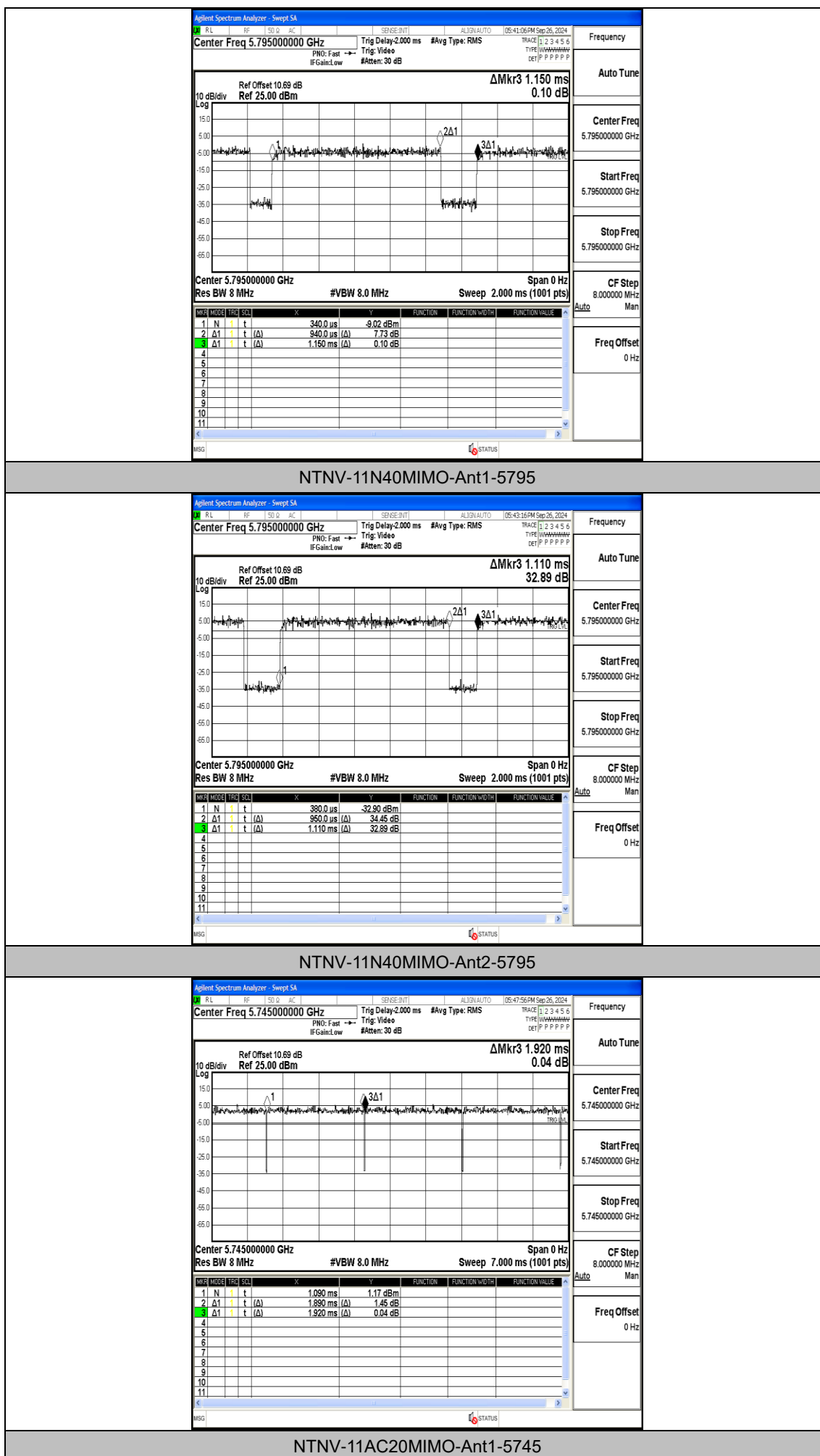
NTNV-11N20MIMO-Ant2-5825

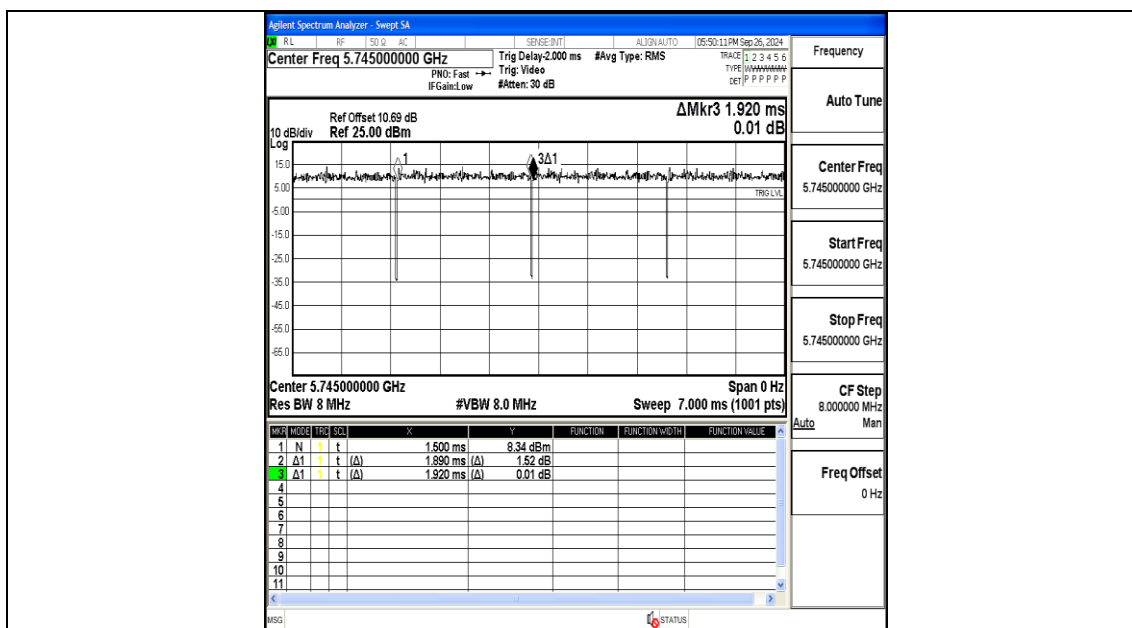


NTNV-11N40MIMO-Ant1-5755

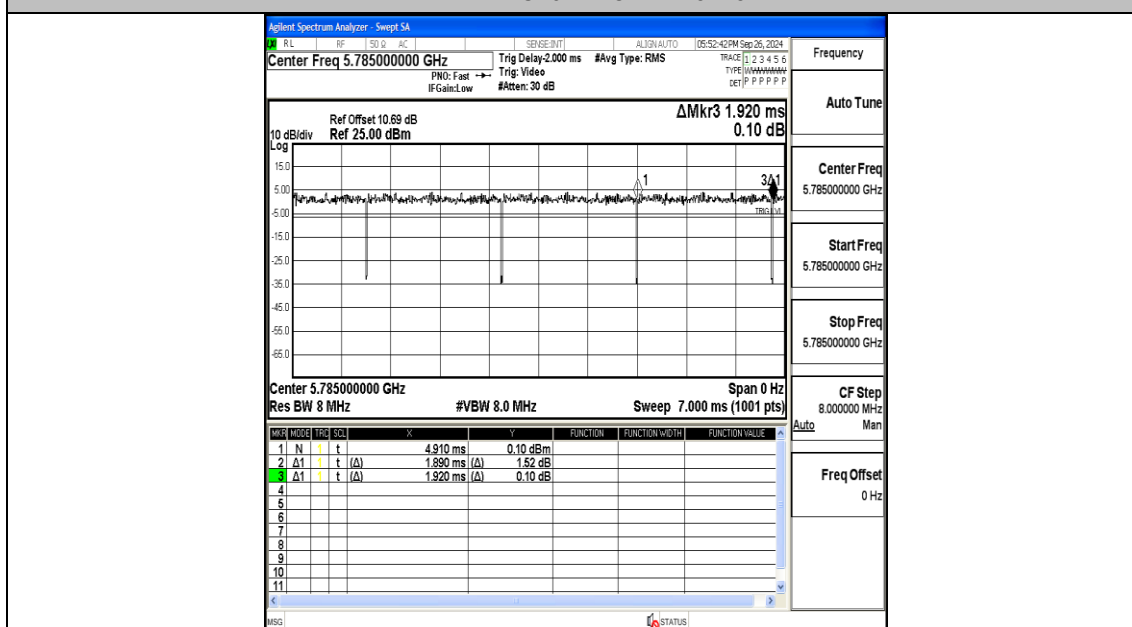


NTNV-11N40MIMO-Ant2-5755

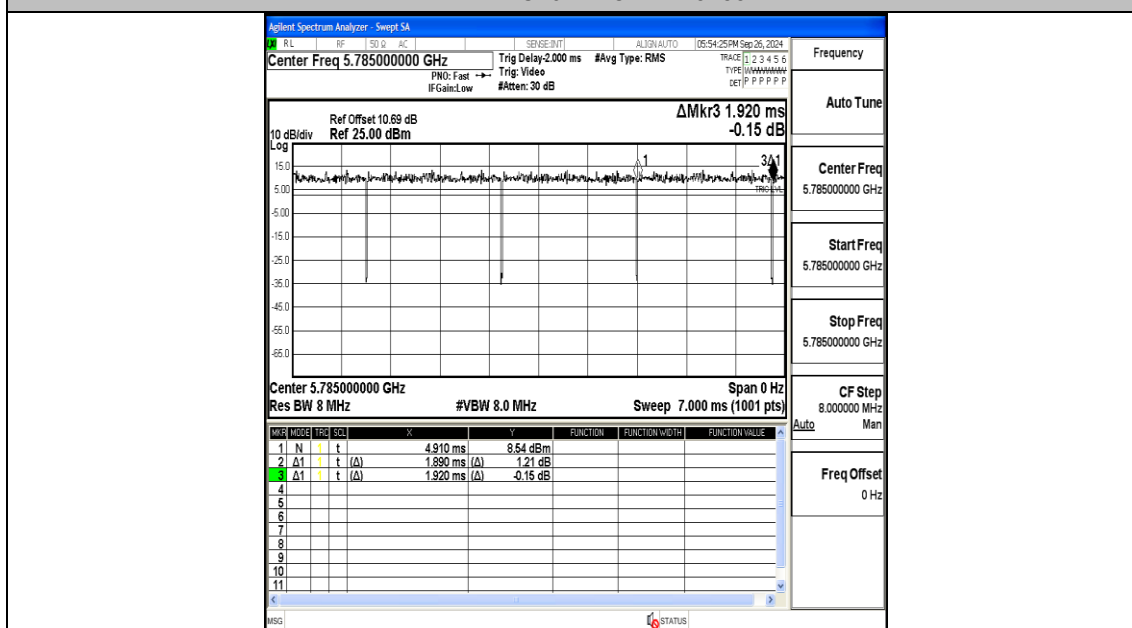




NTNV-11AC20MIMO-Ant2-5745



NTNV-11AC20MIMO-Ant1-5785



NTNV-11AC20MIMO-Ant2-5785

