

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

Product Name: DRONE

Trade Mark: /

Test Model: F11PRO 2

FCC ID: 2AXQL-F11PRO2

Environmental Conditions

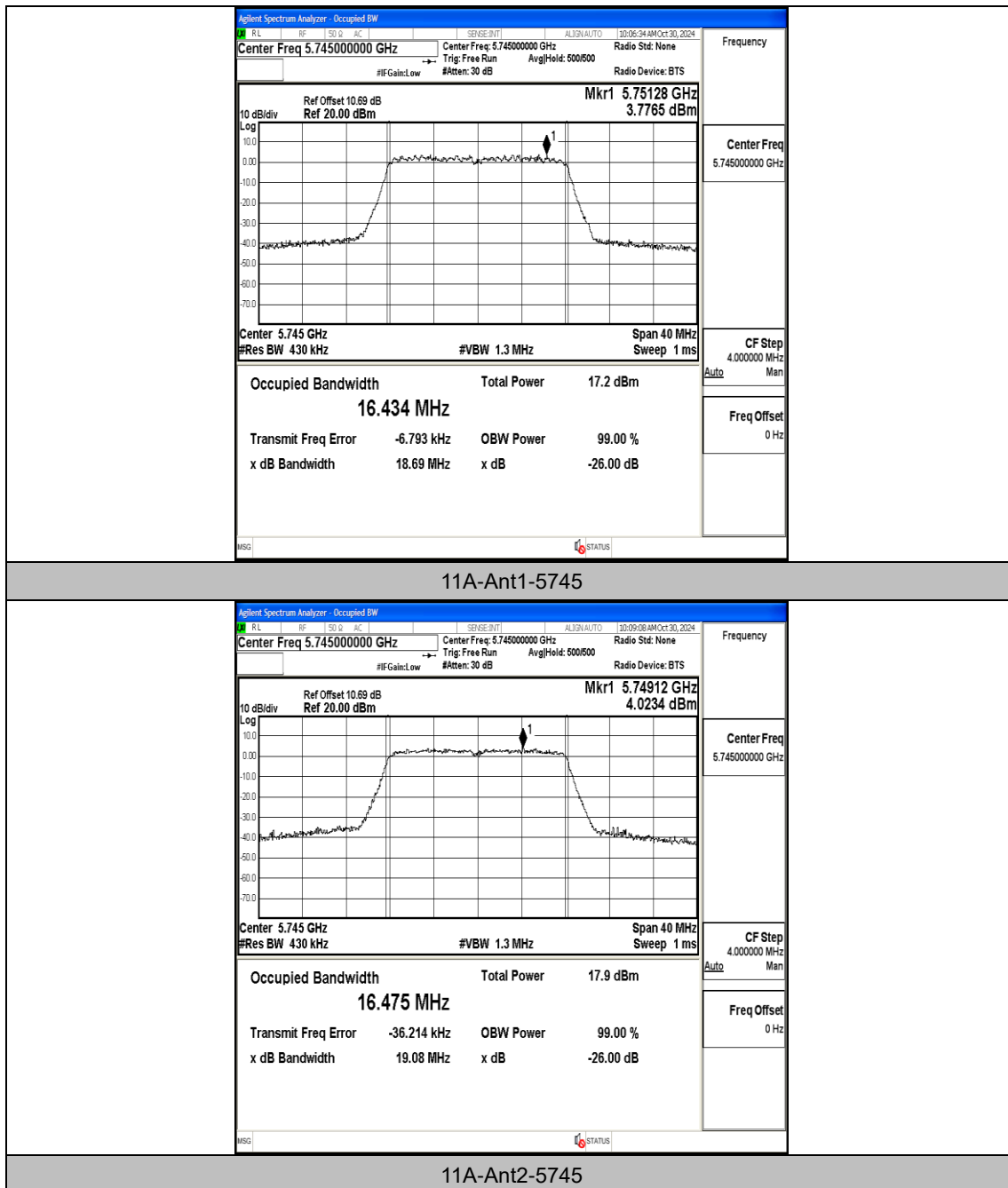
Temperature:	23.8℃
Relative Humidity:	58%
ATM Pressure:	100.0 kPa
Test Engineer:	Allen Lai
Supervised by:	Hugo Chen
NOTE	N/A

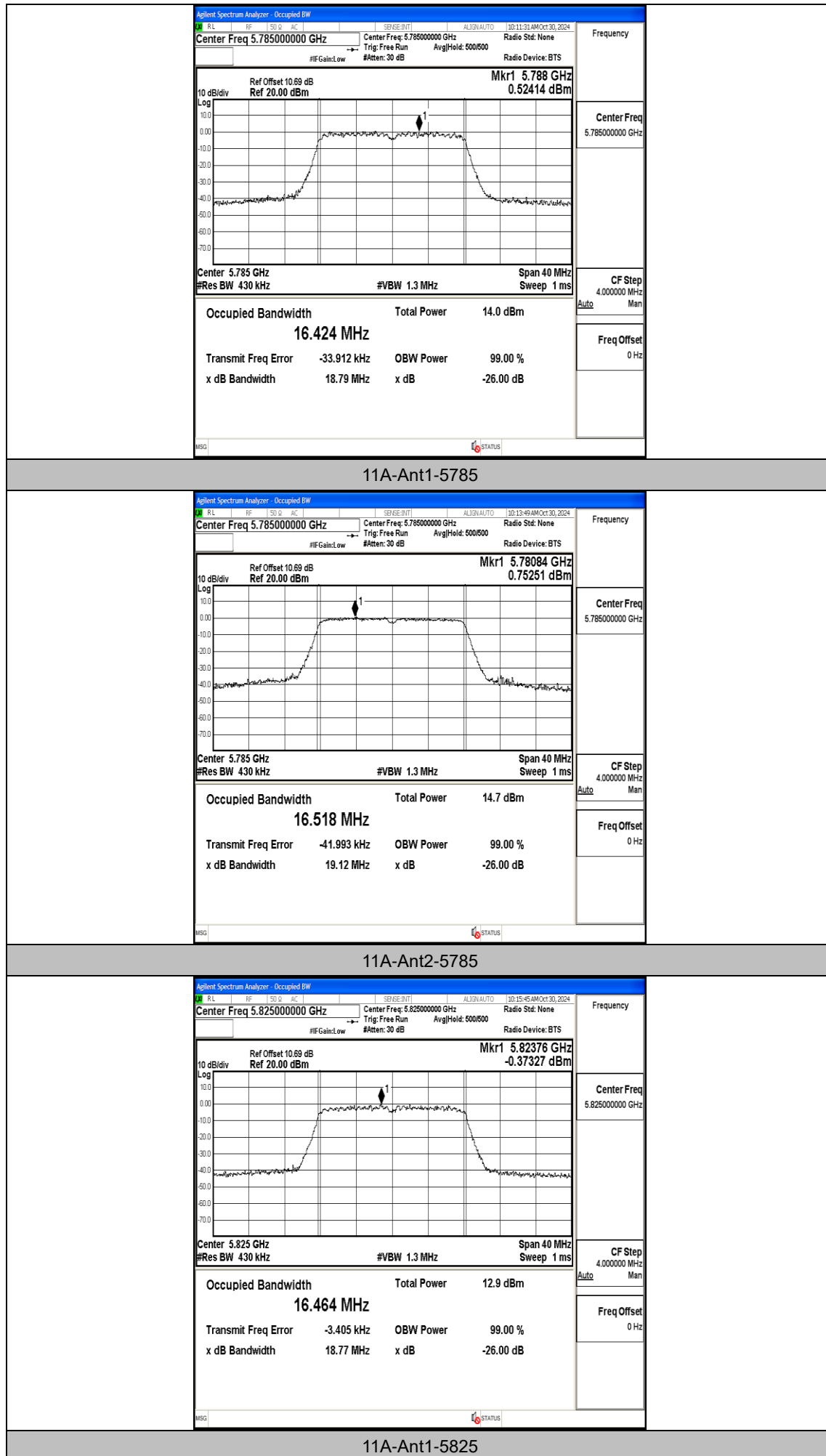
Appendix A2: Occupied channel bandwidth

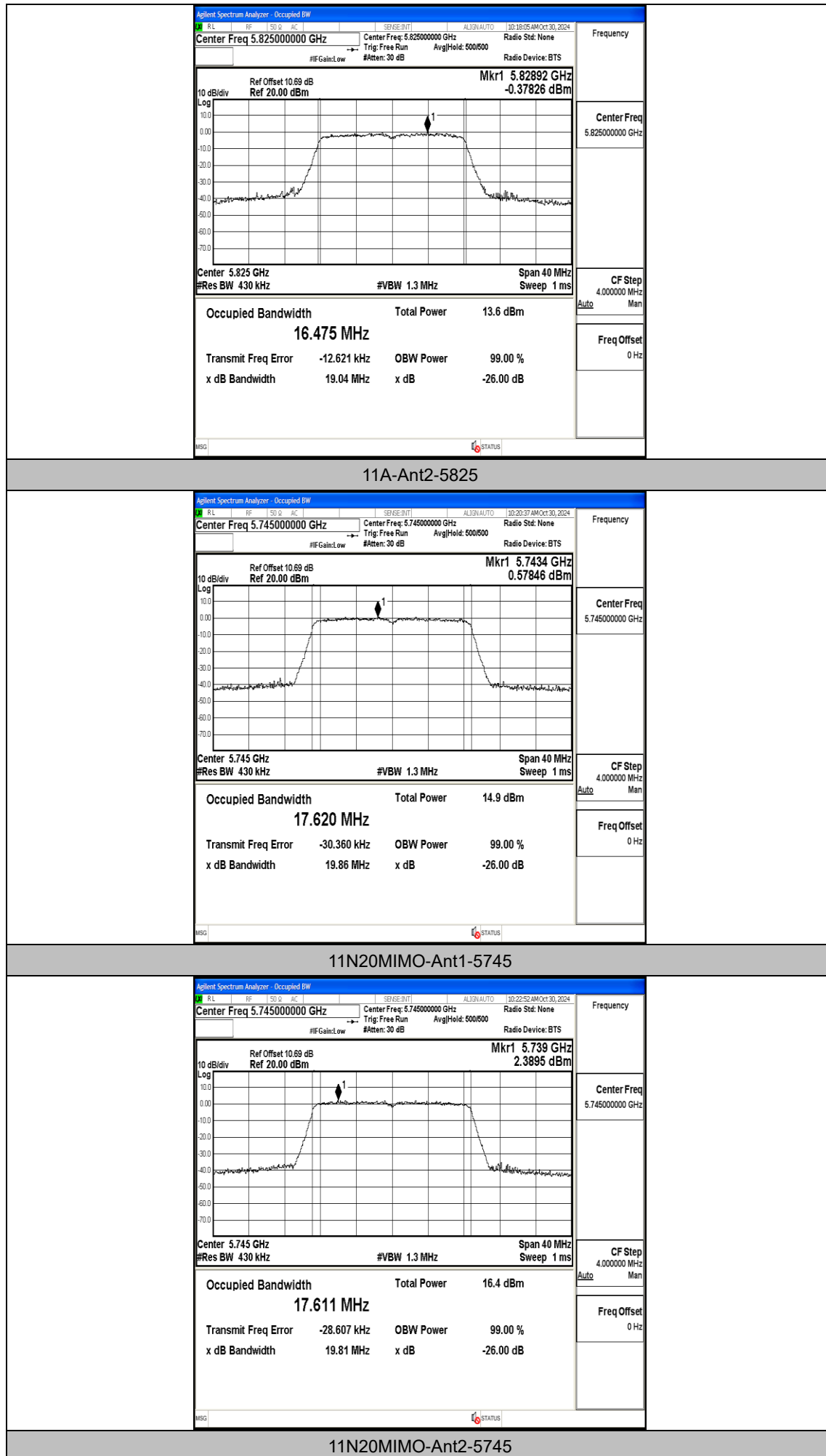
Test Result

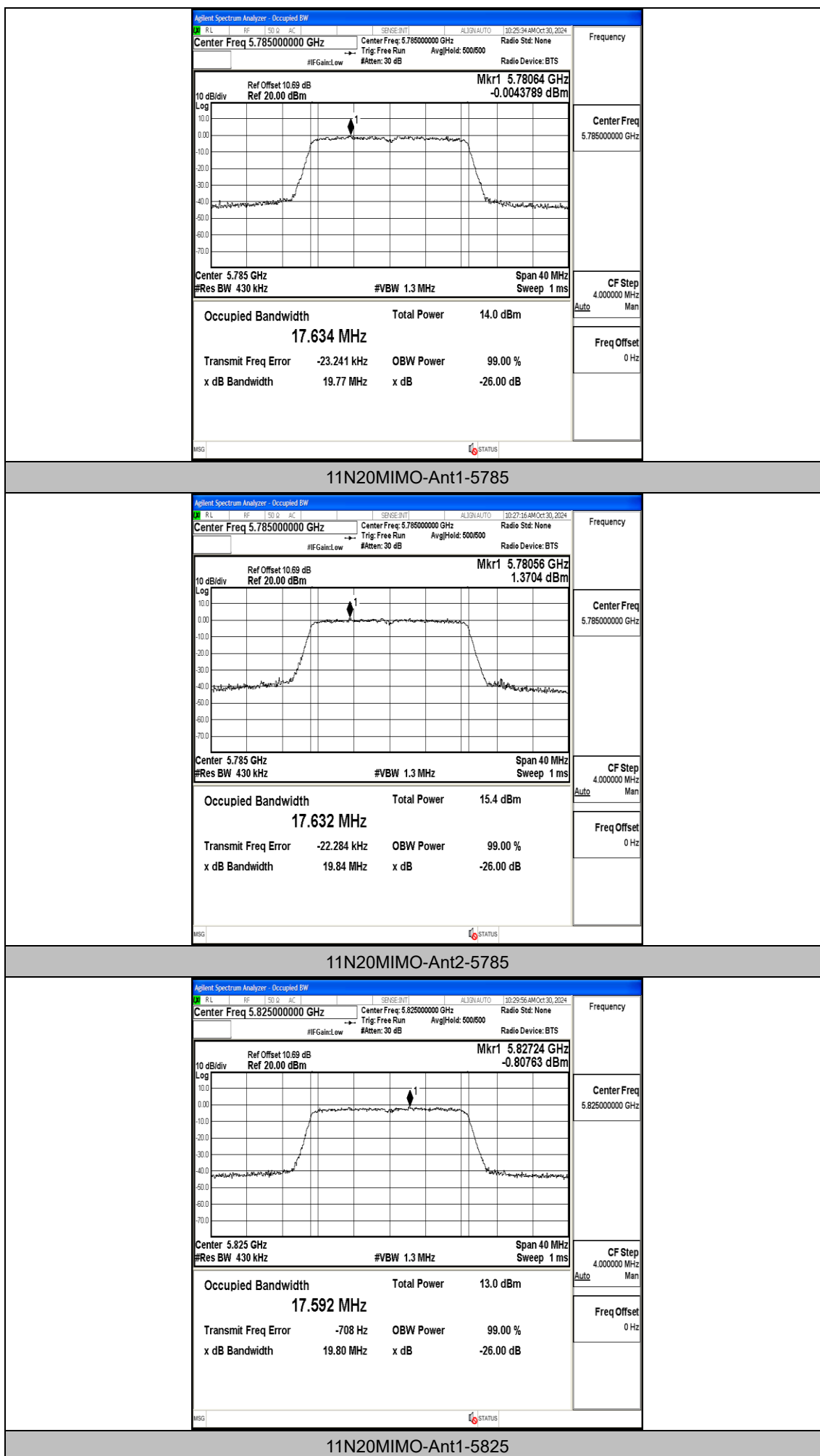
Test Mode	Antenna	Frequency [MHz]	OCB [MHz]	FL [MHz]	FH [MHz]	Limit [MHz]	Verdict
11A	Ant1	5745	16.434	5736.7762	5753.2102	---	---
11A	Ant2	5745	16.475	5736.7263	5753.2013	---	---
11A	Ant1	5785	16.424	5776.7541	5793.1781	---	---
11A	Ant2	5785	16.518	5776.6990	5793.2170	---	---
11A	Ant1	5825	16.464	5816.7646	5833.2286	---	---
11A	Ant2	5825	16.475	5816.7499	5833.2249	---	---
11N20MIMO	Ant1	5745	17.620	5736.1596	5753.7796	---	---
11N20MIMO	Ant2	5745	17.611	5736.1659	5753.7769	---	---
11N20MIMO	Ant1	5785	17.634	5776.1598	5793.7938	---	---
11N20MIMO	Ant2	5785	17.632	5776.1617	5793.7937	---	---
11N20MIMO	Ant1	5825	17.592	5816.2033	5833.7953	---	---
11N20MIMO	Ant2	5825	17.619	5816.1826	5833.8016	---	---
11AC20MIMO	Ant1	5745	17.643	5736.1601	5753.8031	---	---
11AC20MIMO	Ant2	5745	17.645	5736.1527	5753.7977	---	---
11AC20MIMO	Ant1	5785	17.644	5776.1840	5793.8280	---	---
11AC20MIMO	Ant2	5785	17.648	5776.1797	5793.8277	---	---
11AC20MIMO	Ant1	5825	17.596	5816.1817	5833.7777	---	---
11AC20MIMO	Ant2	5825	17.602	5816.1800	5833.7820	---	---

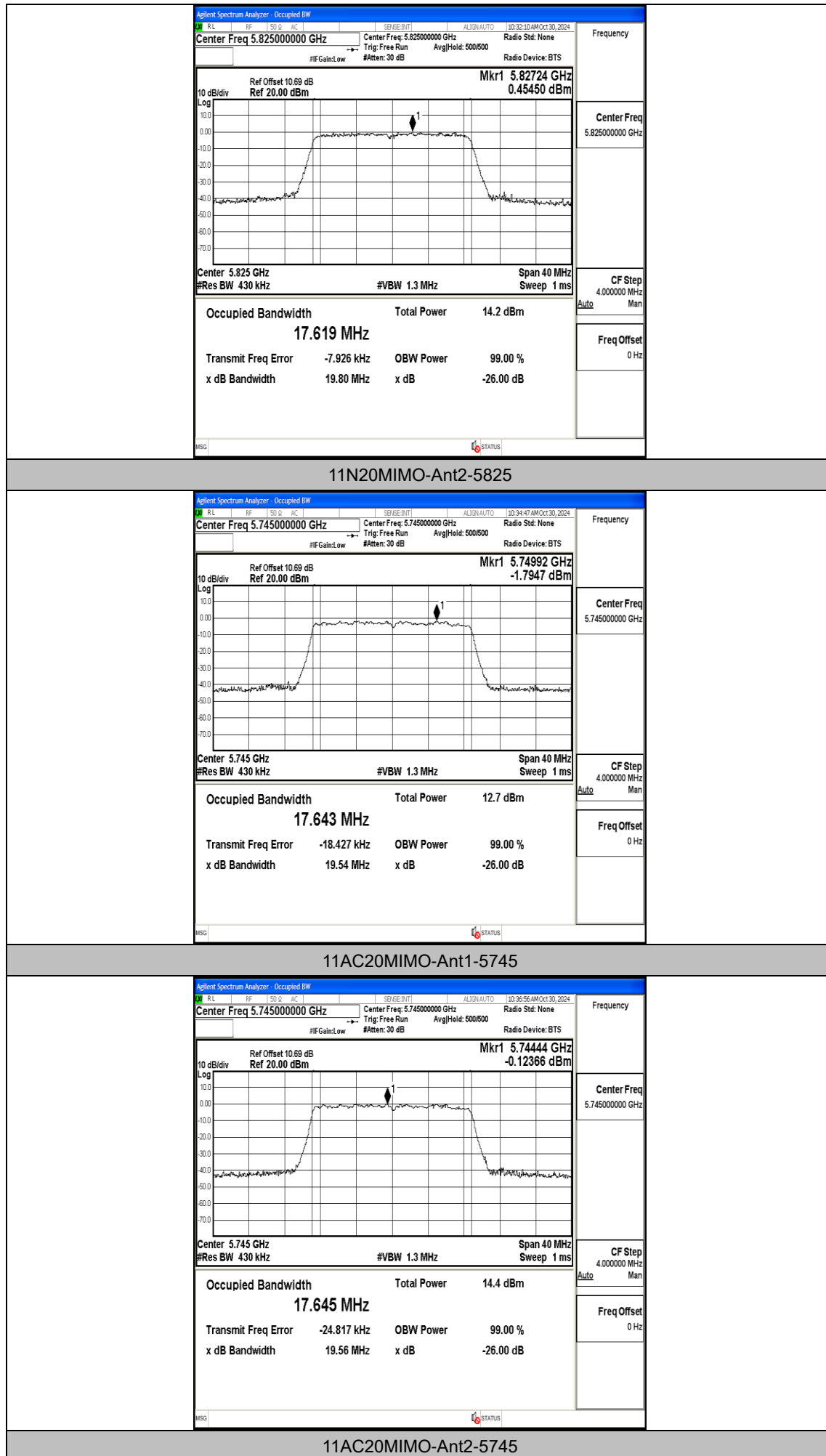
Test Graphs

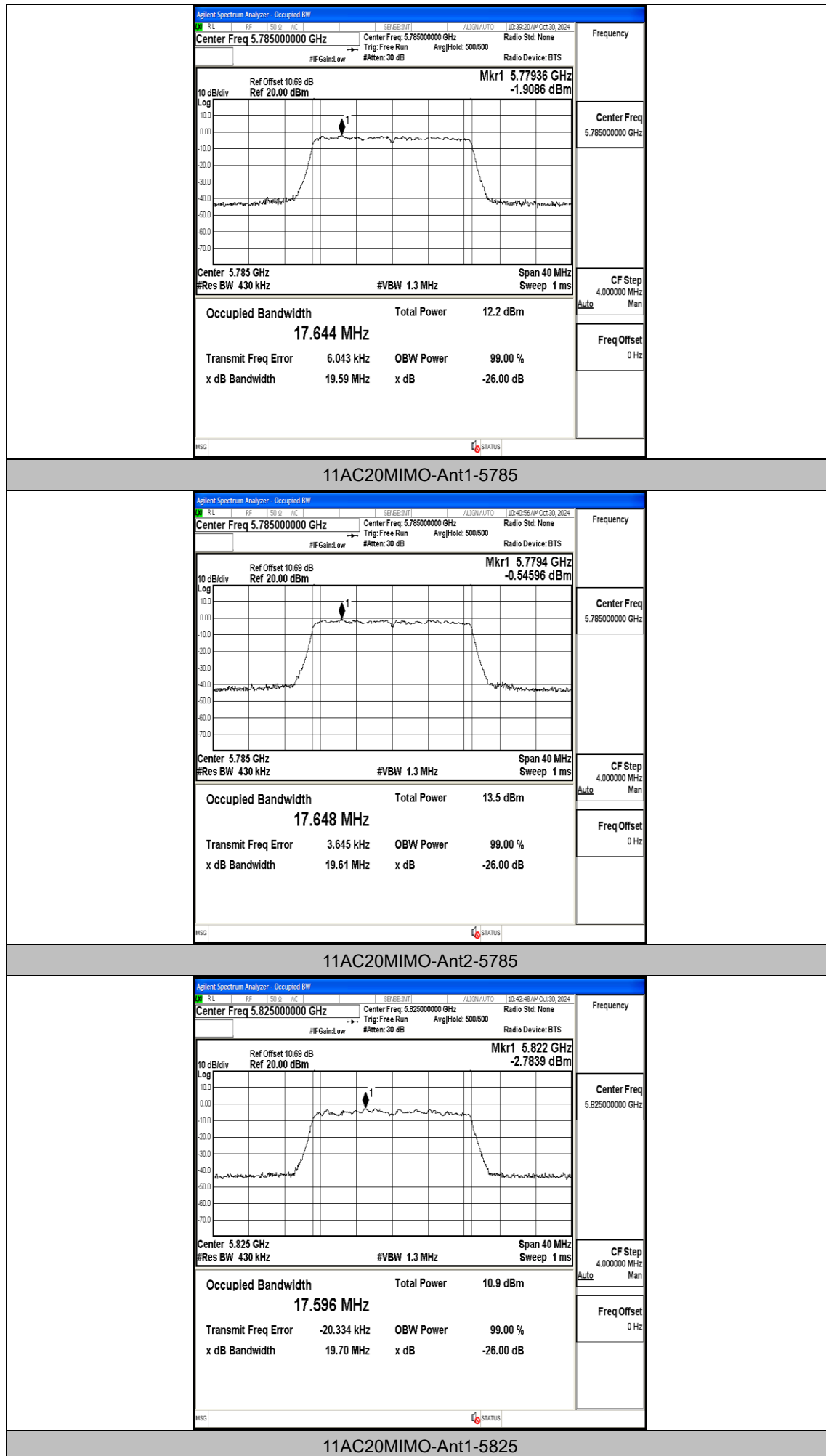


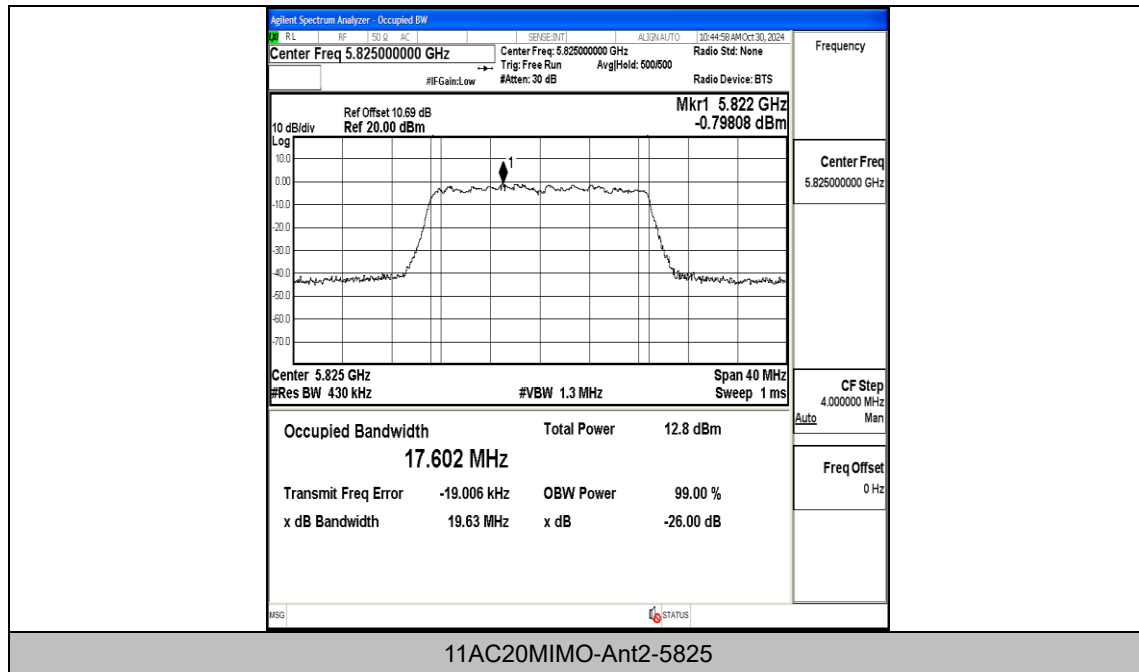










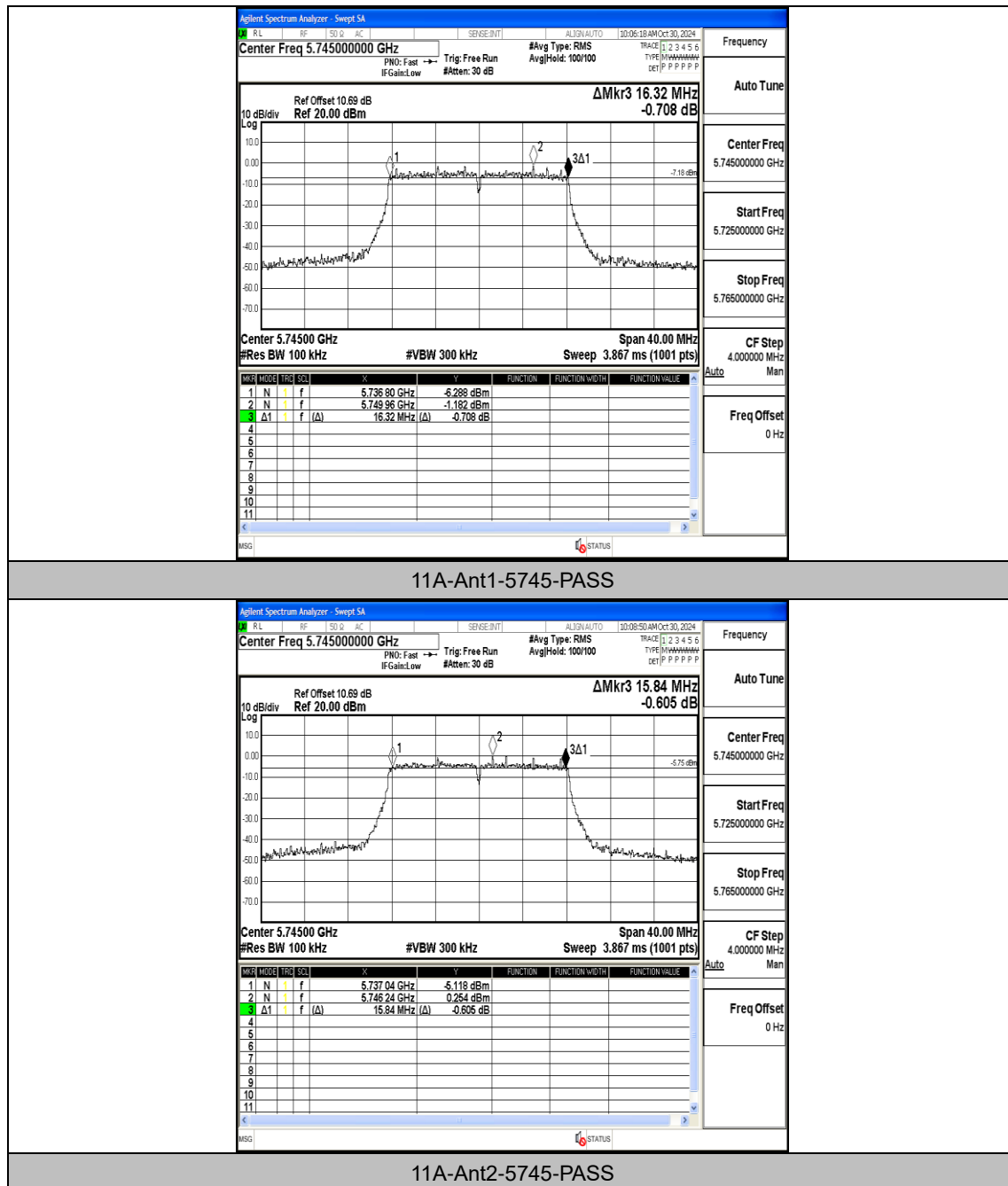


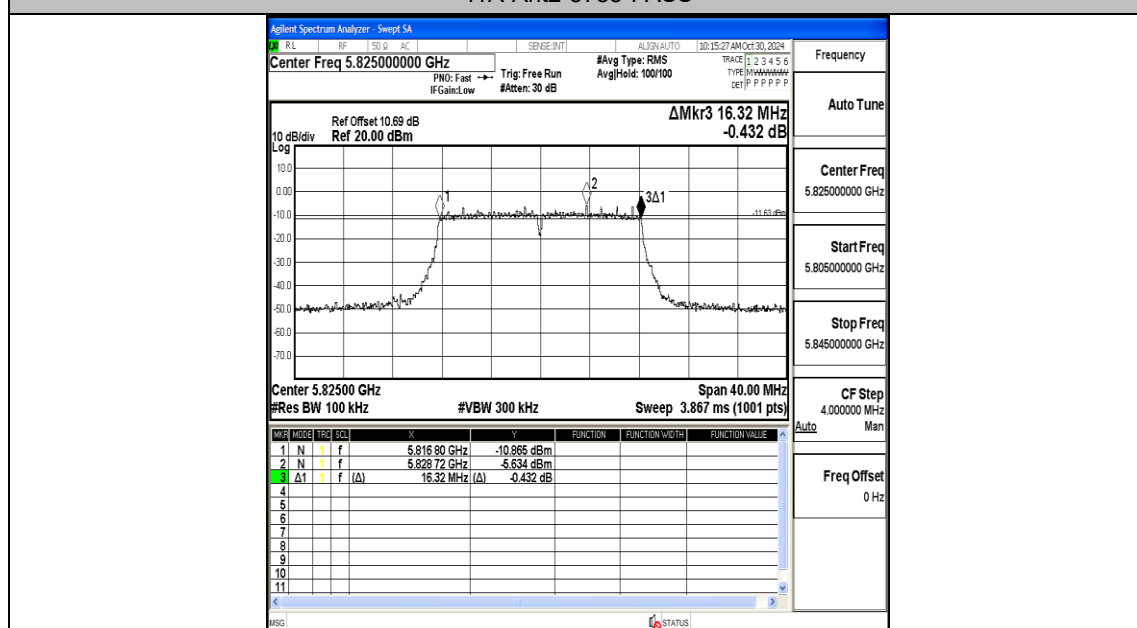
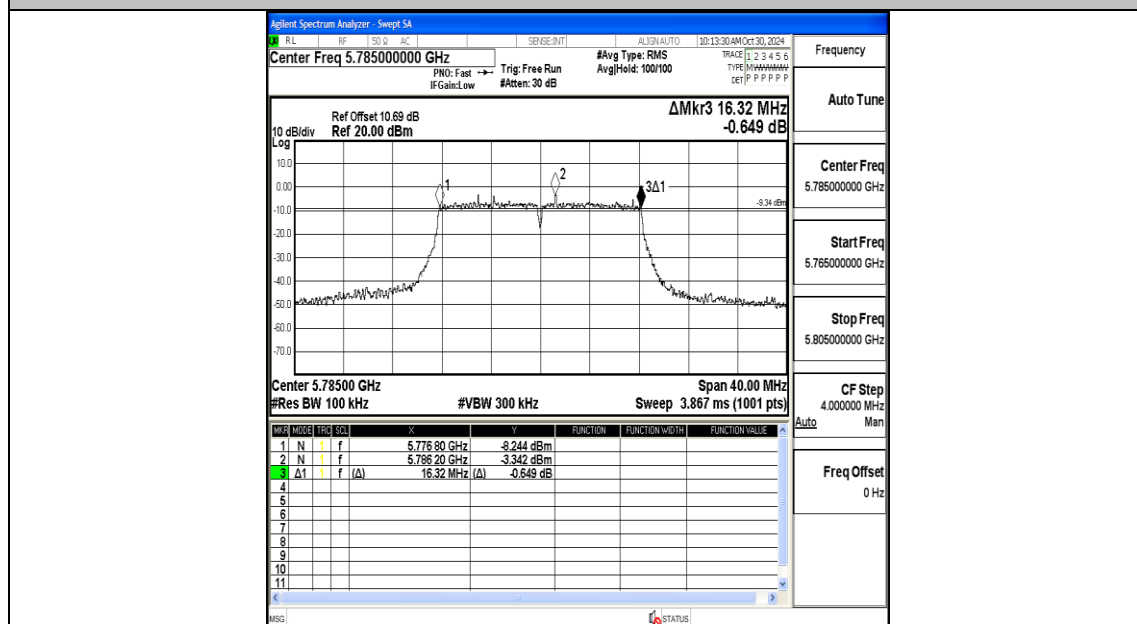
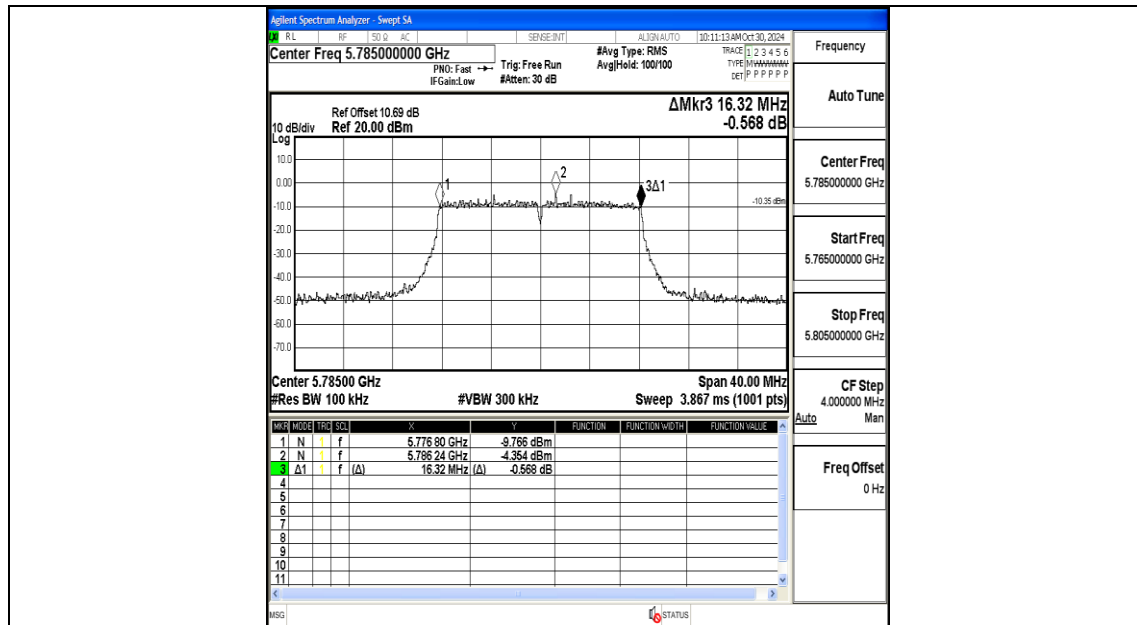
Appendix A: Min emission bandwidth

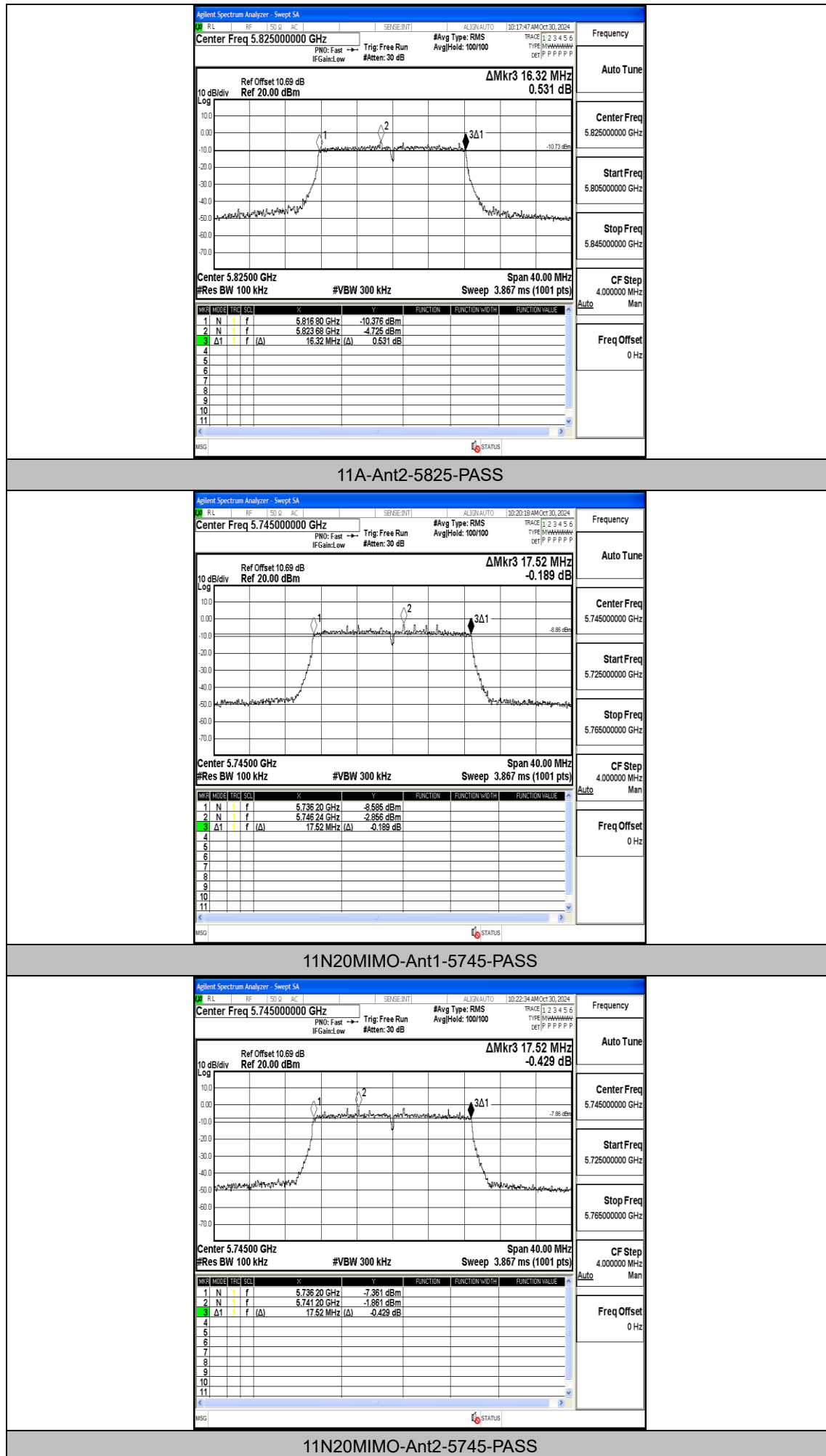
Test Result

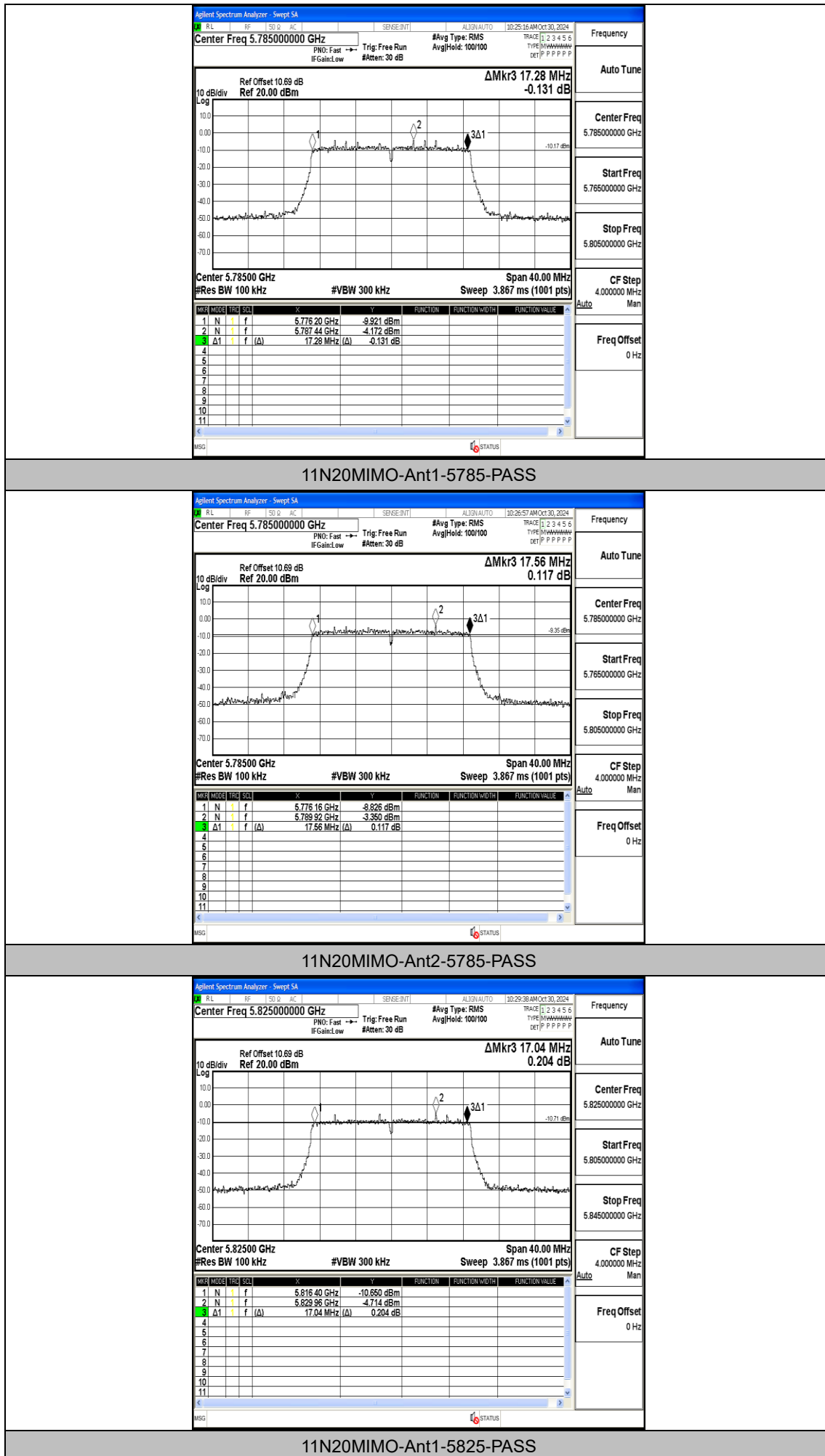
Test Mode	Antenna	Frequency [MHz]	6db EBW [MHz]	FL [MHz]	FH [MHz]	Limit [MHz]	Verdict
11A	Ant1	5745	16.320	5736.800	5753.120	0.5	PASS
11A	Ant2	5745	15.840	5737.040	5752.880	0.5	PASS
11A	Ant1	5785	16.320	5776.800	5793.120	0.5	PASS
11A	Ant2	5785	16.320	5776.800	5793.120	0.5	PASS
11A	Ant1	5825	16.320	5816.800	5833.120	0.5	PASS
11A	Ant2	5825	16.320	5816.800	5833.120	0.5	PASS
11N20MIMO	Ant1	5745	17.520	5736.200	5753.720	0.5	PASS
11N20MIMO	Ant2	5745	17.520	5736.200	5753.720	0.5	PASS
11N20MIMO	Ant1	5785	17.280	5776.200	5793.480	0.5	PASS
11N20MIMO	Ant2	5785	17.560	5776.160	5793.720	0.5	PASS
11N20MIMO	Ant1	5825	17.040	5816.400	5833.440	0.5	PASS
11N20MIMO	Ant2	5825	17.520	5816.200	5833.720	0.5	PASS
11AC20MIMO	Ant1	5745	17.440	5736.320	5753.760	0.5	PASS
11AC20MIMO	Ant2	5745	16.760	5736.480	5753.240	0.5	PASS
11AC20MIMO	Ant1	5785	17.480	5776.240	5793.720	0.5	PASS
11AC20MIMO	Ant2	5785	17.160	5776.240	5793.400	0.5	PASS
11AC20MIMO	Ant1	5825	17.480	5816.240	5833.720	0.5	PASS
11AC20MIMO	Ant2	5825	17.480	5816.240	5833.720	0.5	PASS

Test Graphs

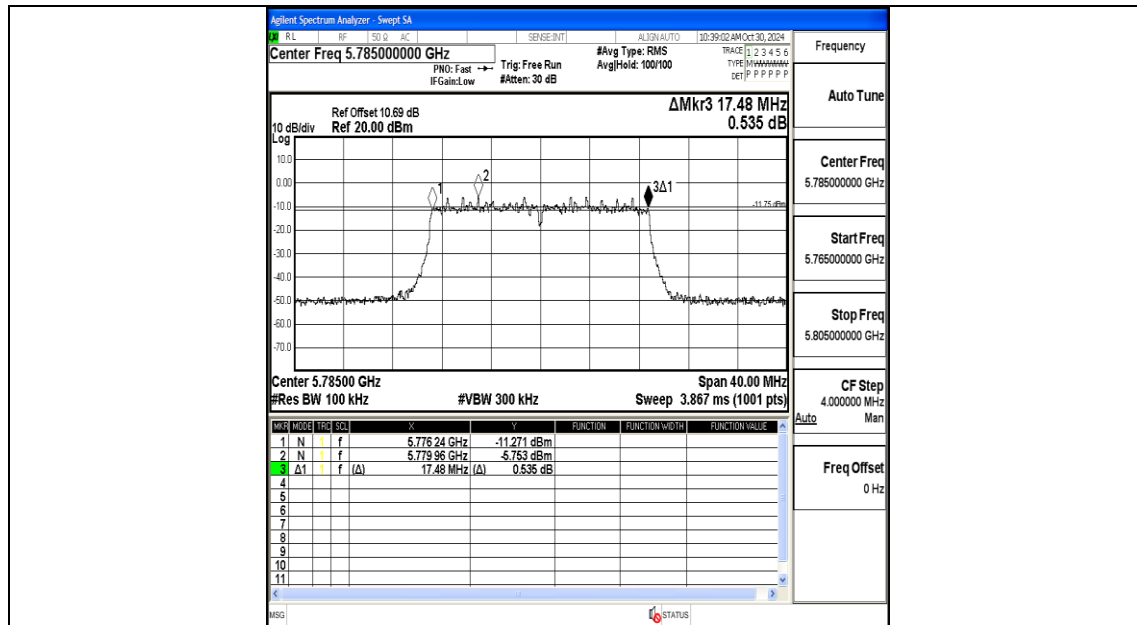




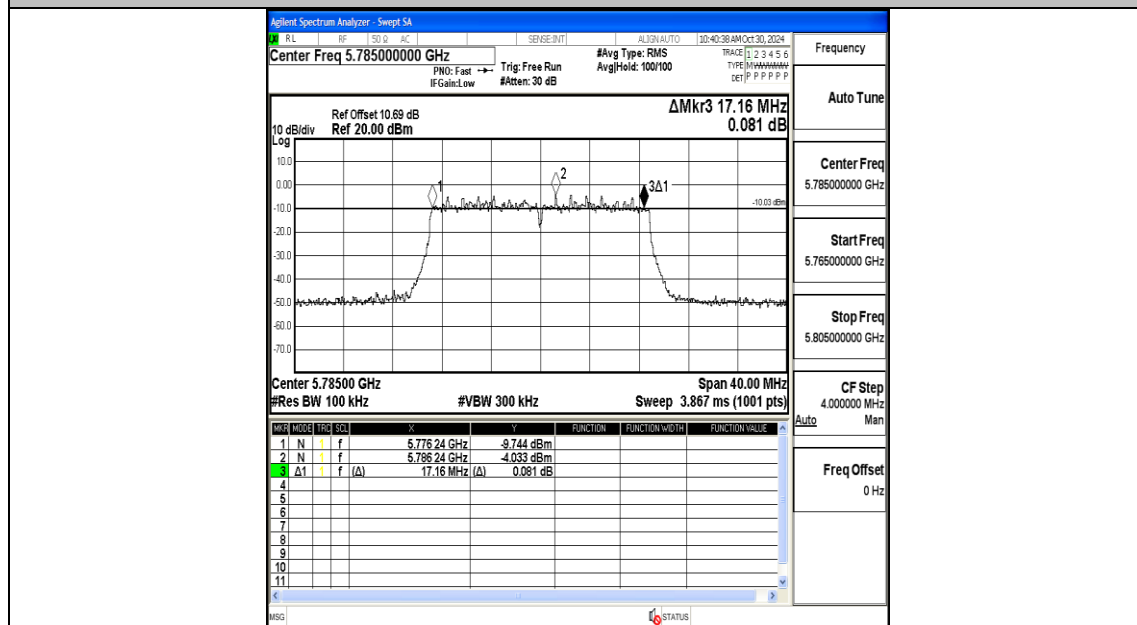




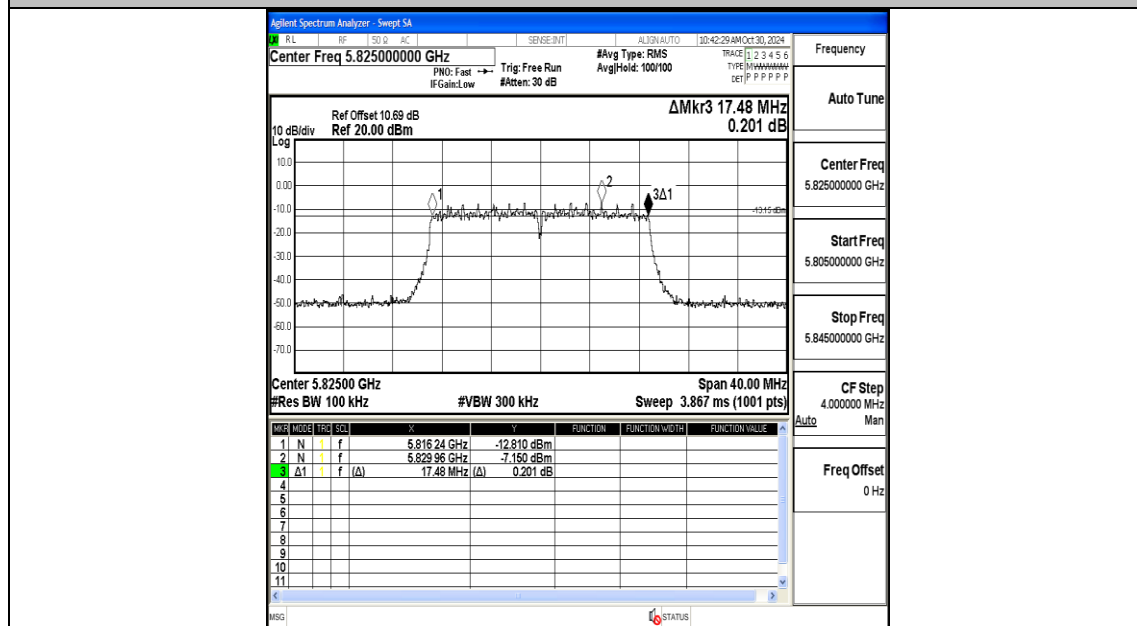




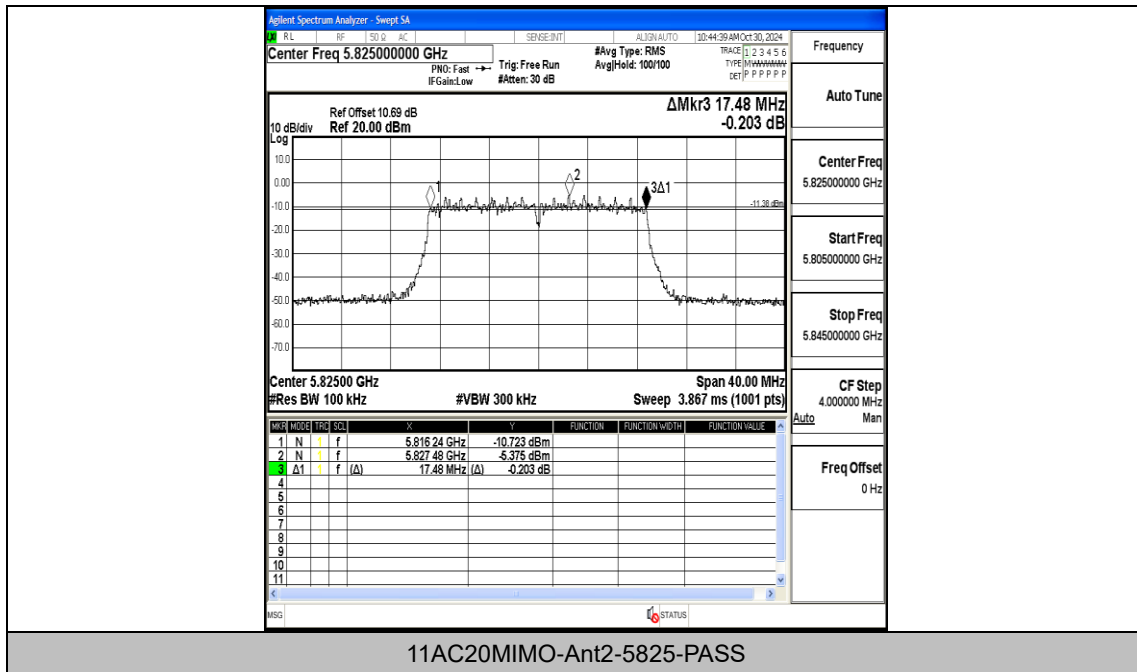
11AC20MIMO-Ant1-5785-PASS



11AC20MIMO-Ant2-5785-PASS



11AC20MIMO-Ant1-5825-PASS



Appendix B: Maximum conducted output power

Test Result

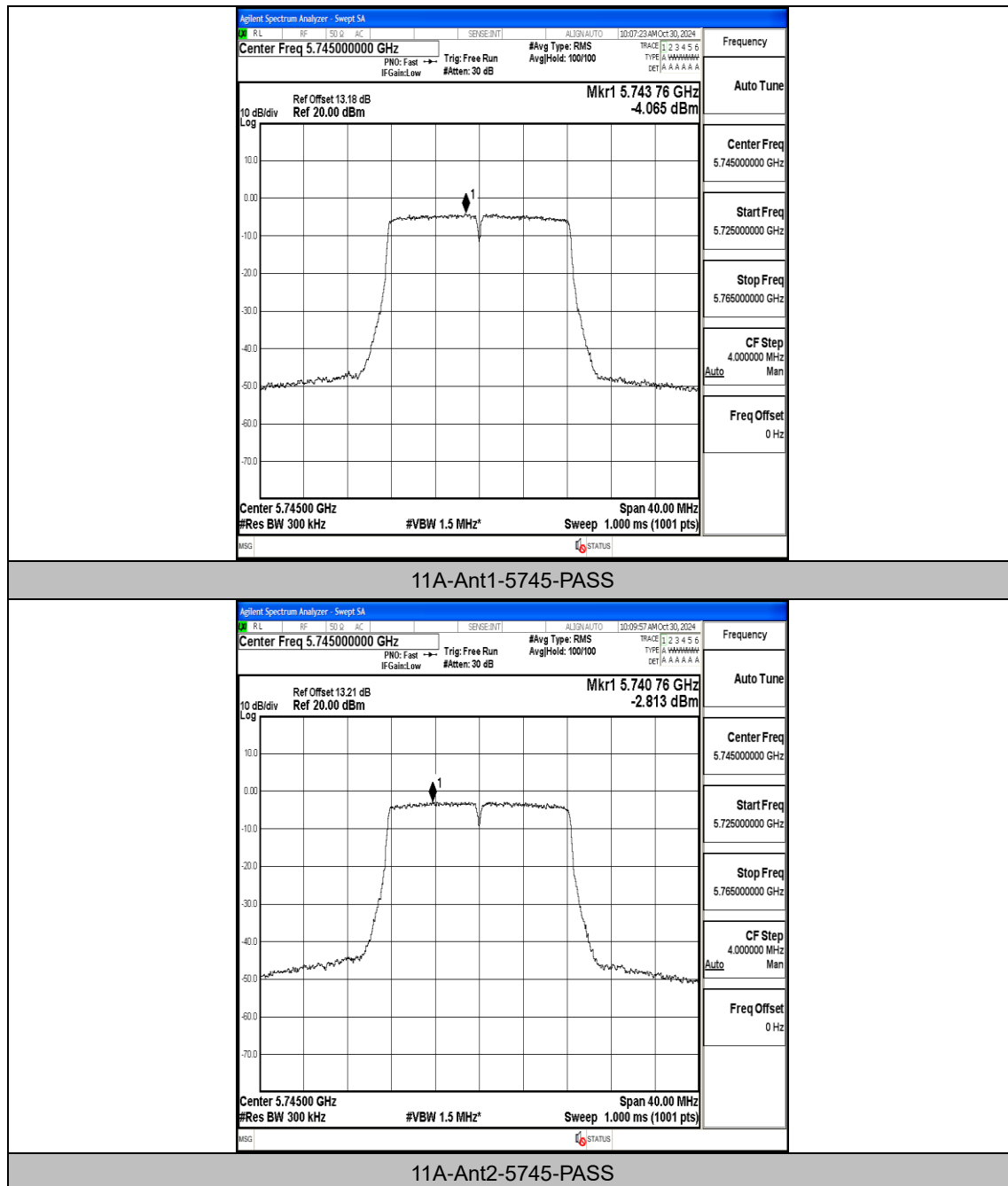
Test Mode	Antenna	Frequency [MHz]	Conducted Power [dBm]	Conducted Limit [dBm]	Verdict
11A	Ant1	5745	9.80	≤30.00	PASS
11A	Ant2	5745	11.05	≤30.00	PASS
11A	Ant1	5785	6.93	≤30.00	PASS
11A	Ant2	5785	8.16	≤30.00	PASS
11A	Ant1	5825	5.88	≤30.00	PASS
11A	Ant2	5825	7.11	≤30.00	PASS
11N20MIMO	Ant1	5745	8.24	≤30.00	PASS
11N20MIMO	Ant2	5745	9.70	≤30.00	PASS
11N20MIMO	total	5745	12.04	≤30.00	PASS
11N20MIMO	Ant1	5785	7.20	≤30.00	PASS
11N20MIMO	Ant2	5785	8.71	≤30.00	PASS
11N20MIMO	total	5785	11.03	≤30.00	PASS
11N20MIMO	Ant1	5825	6.45	≤30.00	PASS
11N20MIMO	Ant2	5825	7.61	≤30.00	PASS
11N20MIMO	total	5825	10.08	≤30.00	PASS
11AC20MIMO	Ant1	5745	6.90	≤30.00	PASS
11AC20MIMO	Ant2	5745	7.70	≤30.00	PASS
11AC20MIMO	total	5745	10.33	≤30.00	PASS
11AC20MIMO	Ant1	5785	6.01	≤30.00	PASS
11AC20MIMO	Ant2	5785	7.78	≤30.00	PASS
11AC20MIMO	total	5785	9.99	≤30.00	PASS
11AC20MIMO	Ant1	5825	4.64	≤30.00	PASS
11AC20MIMO	Ant2	5825	5.98	≤30.00	PASS
11AC20MIMO	total	5825	8.37	≤30.00	PASS

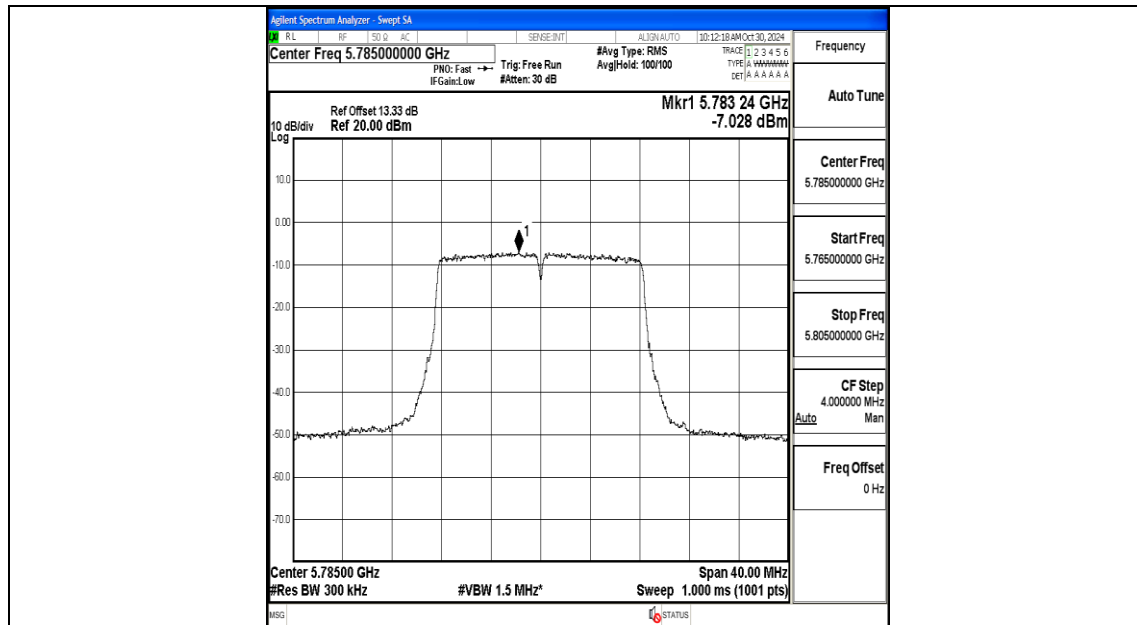
Appendix C: Maximum power spectral density

Test Result

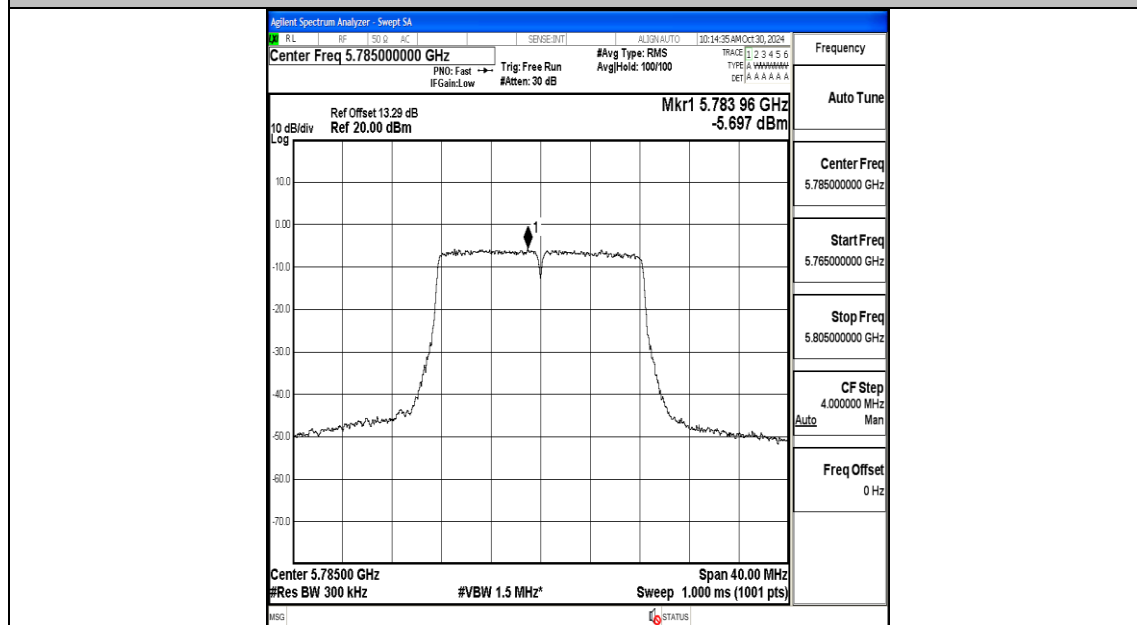
Frequency [MHz]	Test Mode	Antenna	Result [dBm/MHz]	Limit [dBm/MHz]	Verdict
5745	11A	Ant1	-4.07	≤30.00	PASS
5745	11A	Ant2	-2.81	≤30.00	PASS
5785	11A	Ant1	-7.03	≤30.00	PASS
5785	11A	Ant2	-5.70	≤30.00	PASS
5825	11A	Ant1	-8.25	≤30.00	PASS
5825	11A	Ant2	-6.96	≤30.00	PASS
5745	11N20MIMO	Ant1	-5.64	≤30.00	PASS
5745	11N20MIMO	Ant2	-4.27	≤30.00	PASS
5745	11N20MIMO	total	-1.89	≤30.00	PASS
5785	11N20MIMO	Ant1	-6.63	≤30.00	PASS
5785	11N20MIMO	Ant2	-5.22	≤30.00	PASS
5785	11N20MIMO	total	-2.86	≤30.00	PASS
5825	11N20MIMO	Ant1	-7.70	≤30.00	PASS
5825	11N20MIMO	Ant2	-6.47	≤30.00	PASS
5825	11N20MIMO	total	-4.03	≤30.00	PASS
5745	11AC20MIMO	Ant1	-6.23	≤30.00	PASS
5745	11AC20MIMO	Ant2	-5.17	≤30.00	PASS
5745	11AC20MIMO	total	-2.66	≤30.00	PASS
5785	11AC20MIMO	Ant1	-6.49	≤30.00	PASS
5785	11AC20MIMO	Ant2	-5.08	≤30.00	PASS
5785	11AC20MIMO	total	-2.72	≤30.00	PASS
5825	11AC20MIMO	Ant1	-7.96	≤30.00	PASS
5825	11AC20MIMO	Ant2	-6.53	≤30.00	PASS
5825	11AC20MIMO	total	-4.18	≤30.00	PASS

Test Graphs

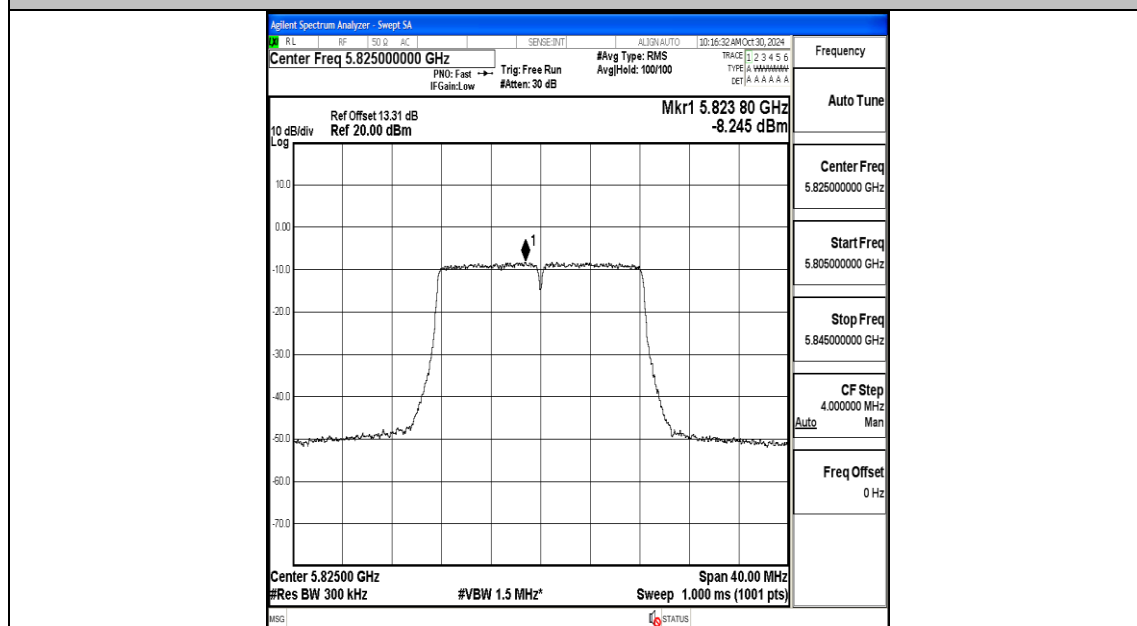




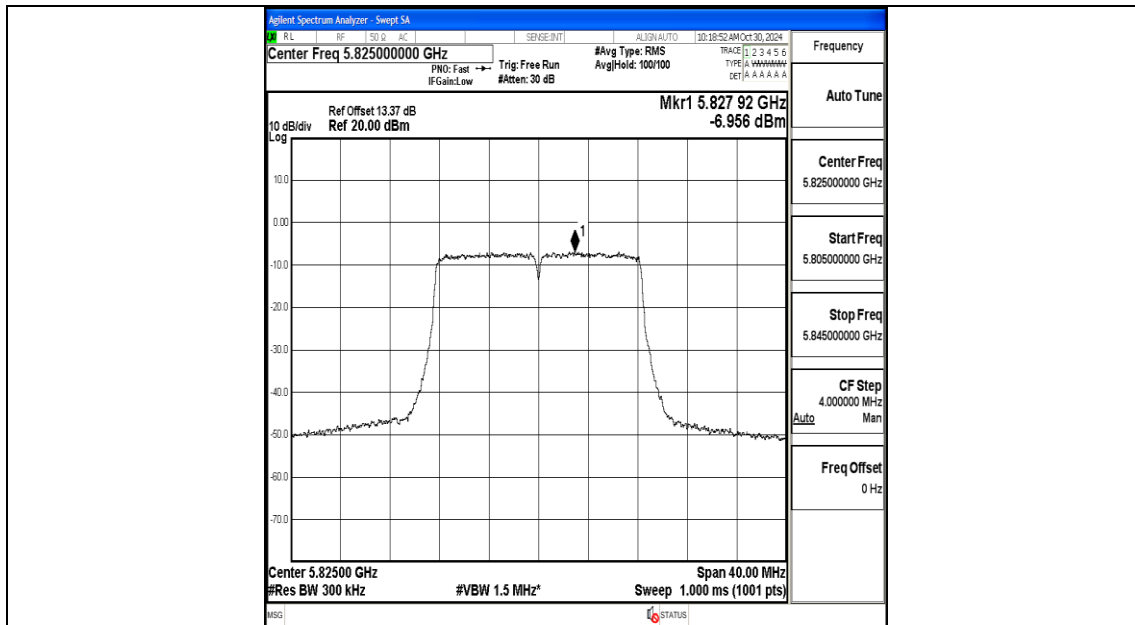
11A-Ant1-5785-PASS



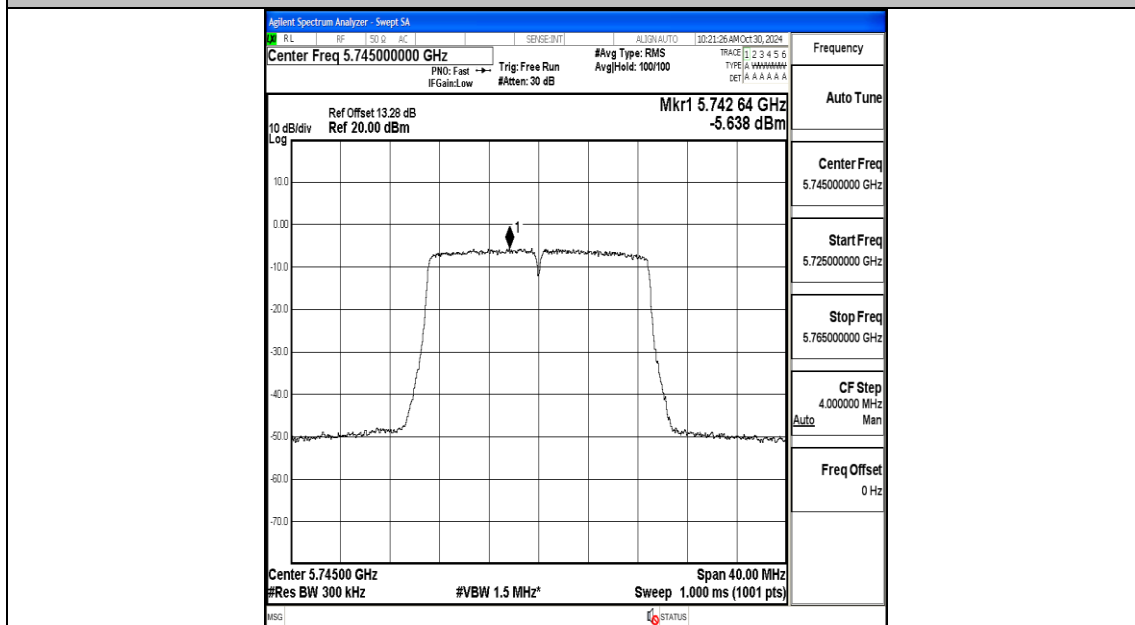
11A-Ant2-5785-PASS



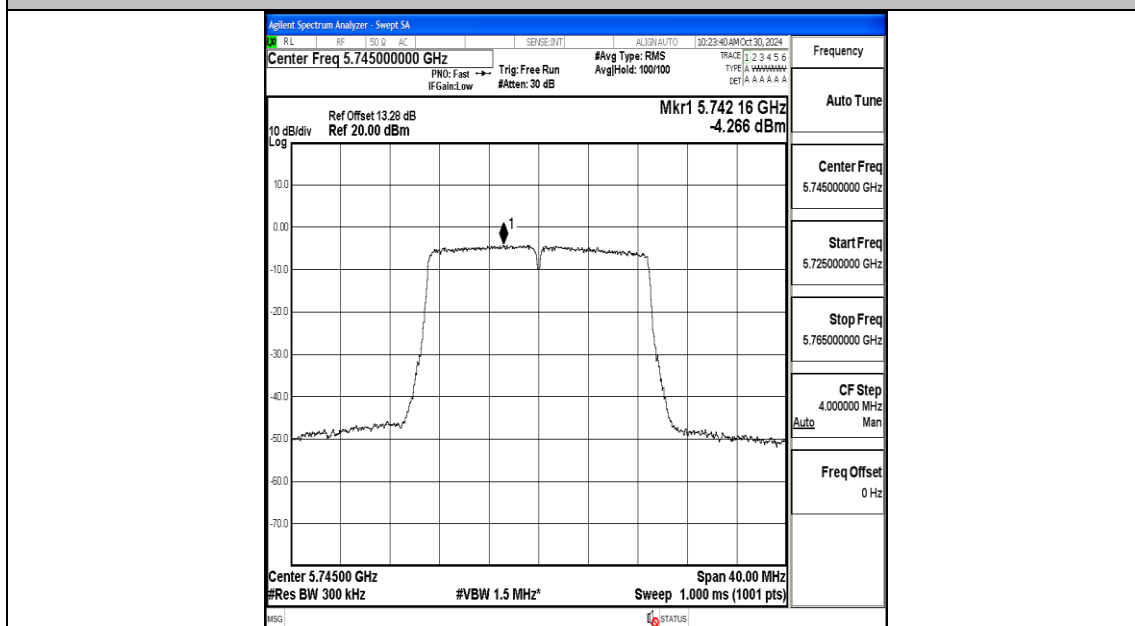
11A-Ant1-5825-PASS



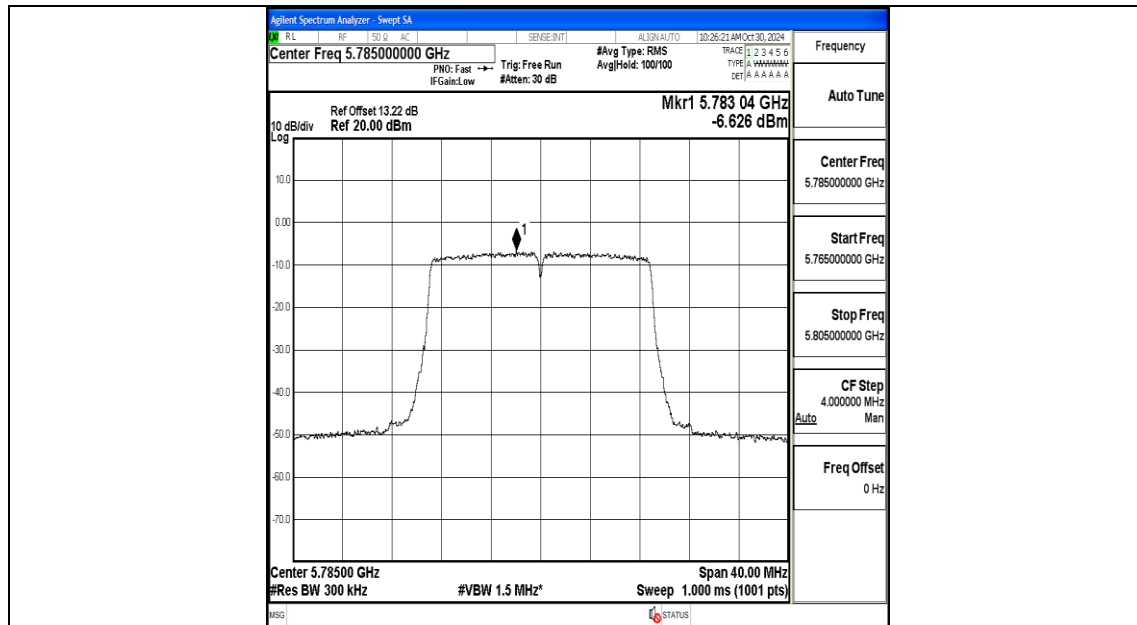
11A-Ant2-5825-PASS



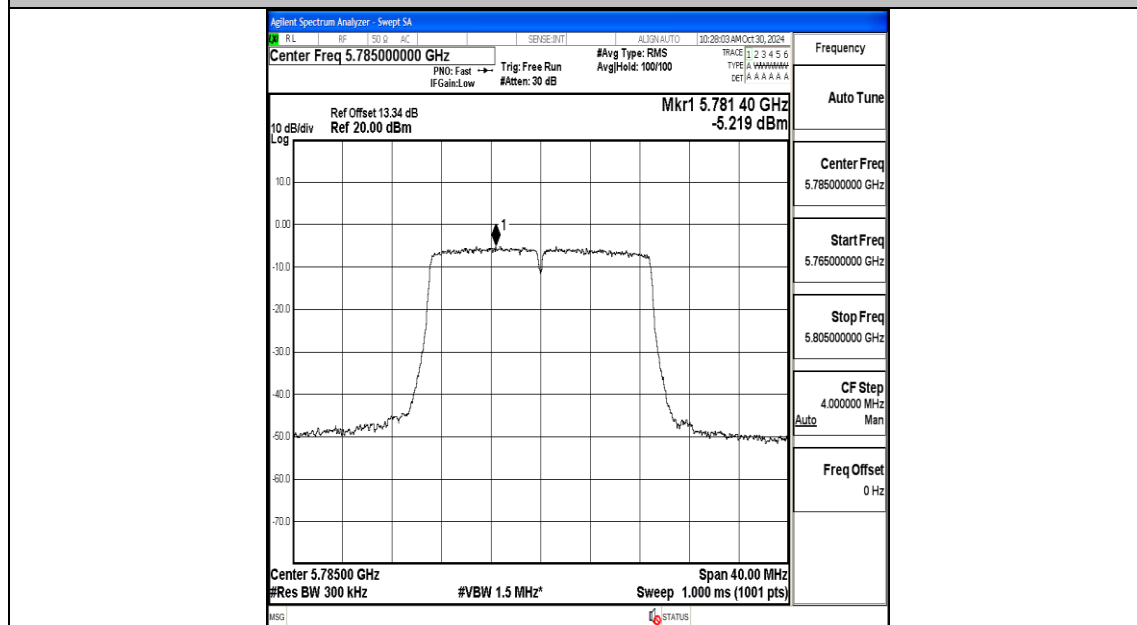
11N20MIMO-Ant1-5745-PASS



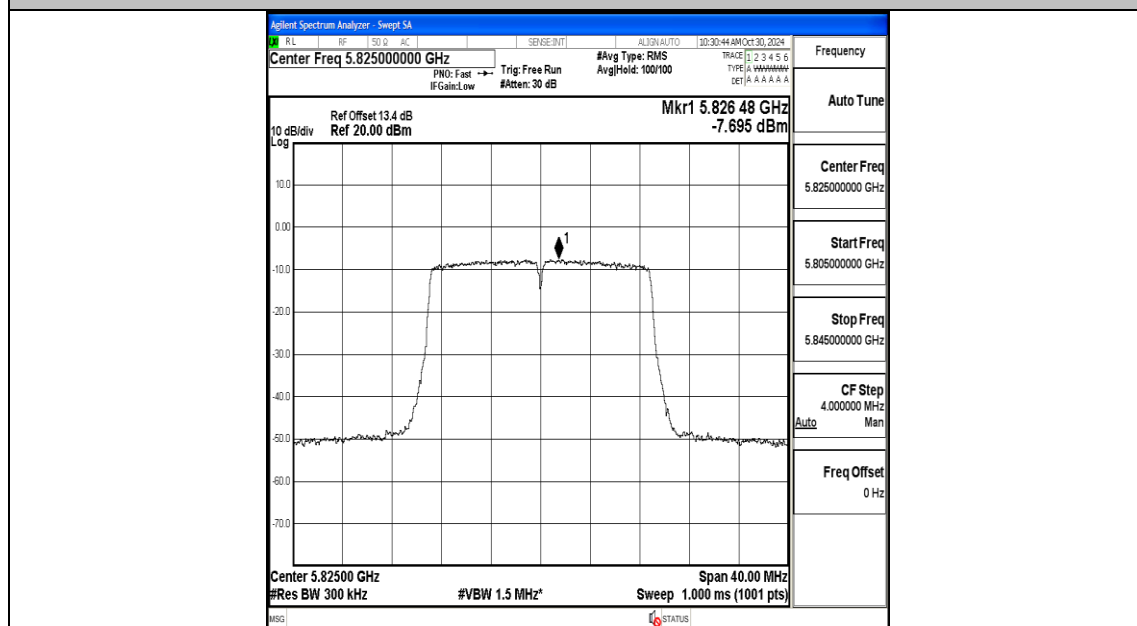
11N20MIMO-Ant2-5745-PASS



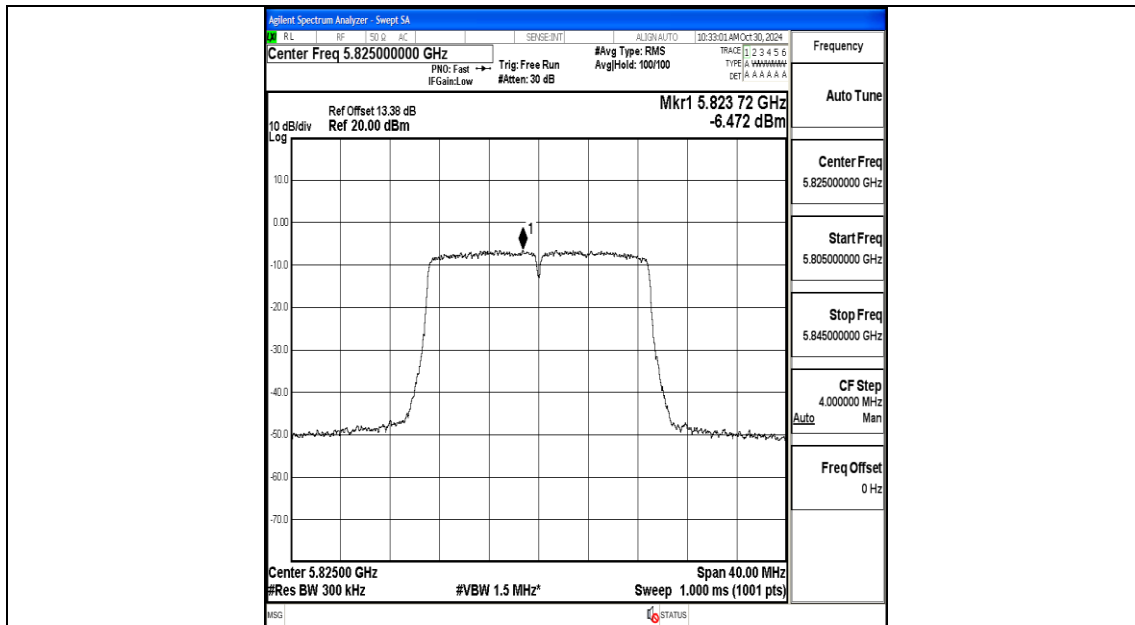
11N20MIMO-Ant1-5785-PASS



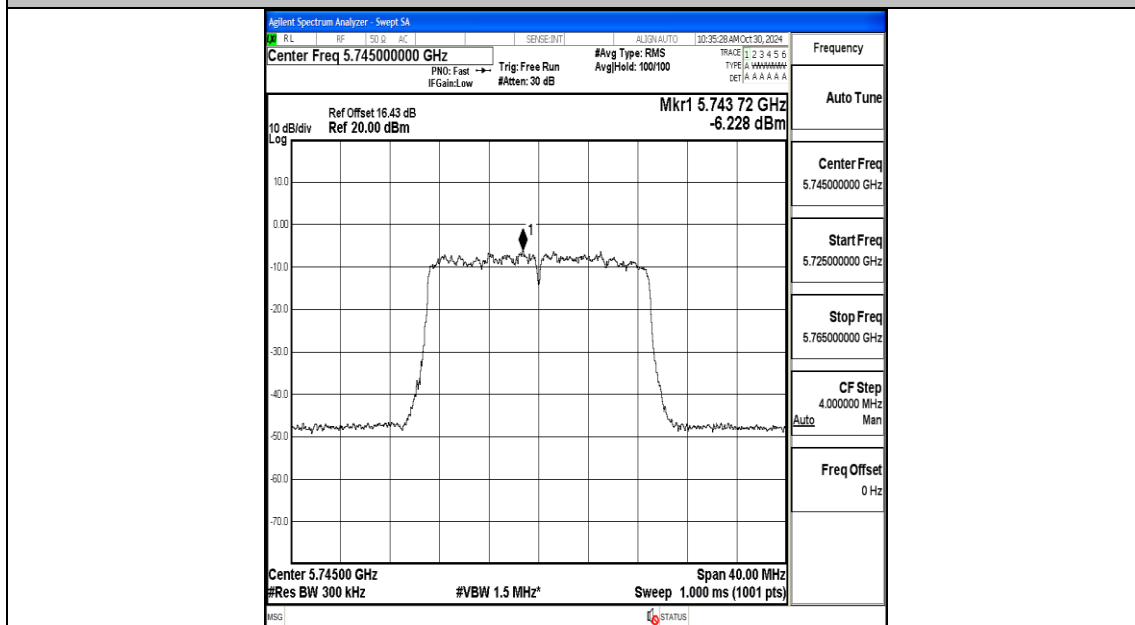
11N20MIMO-Ant2-5785-PASS



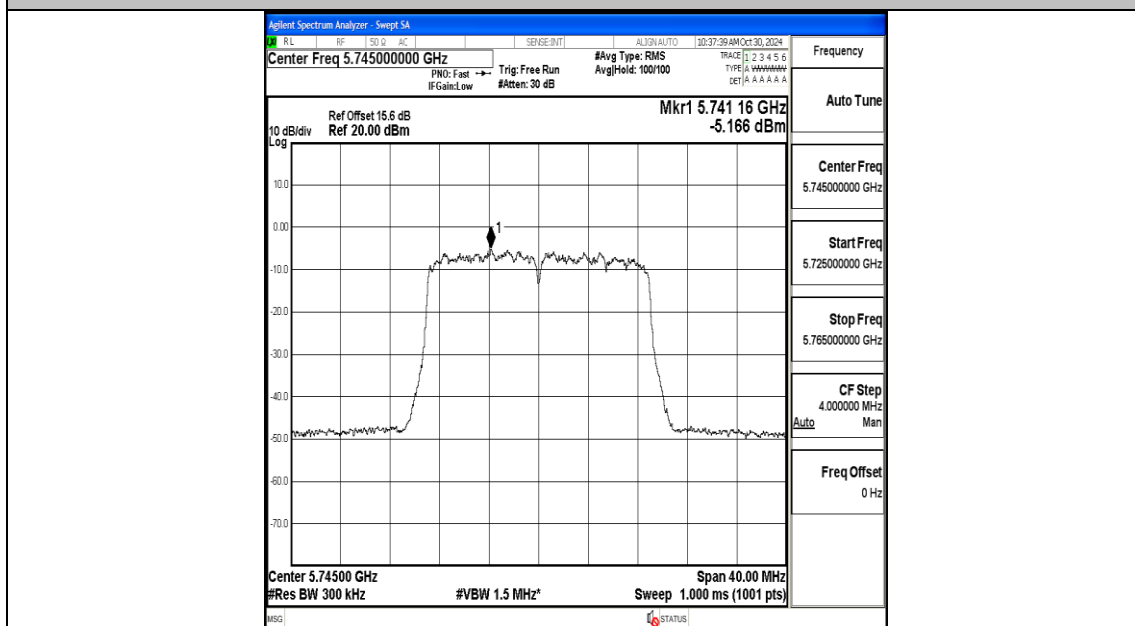
11N20MIMO-Ant1-5825-PASS



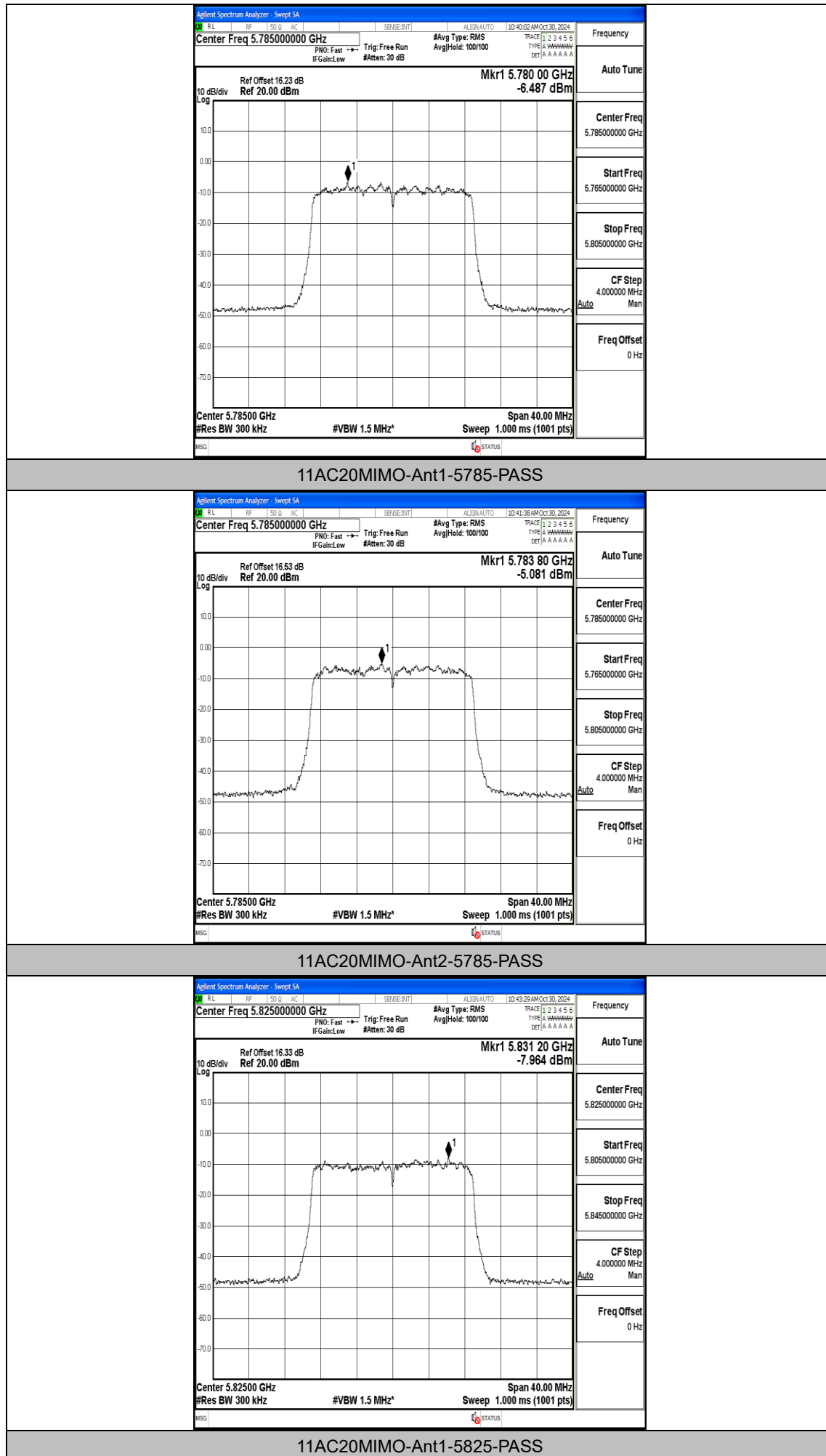
11N20MIMO-Ant2-5825-PASS

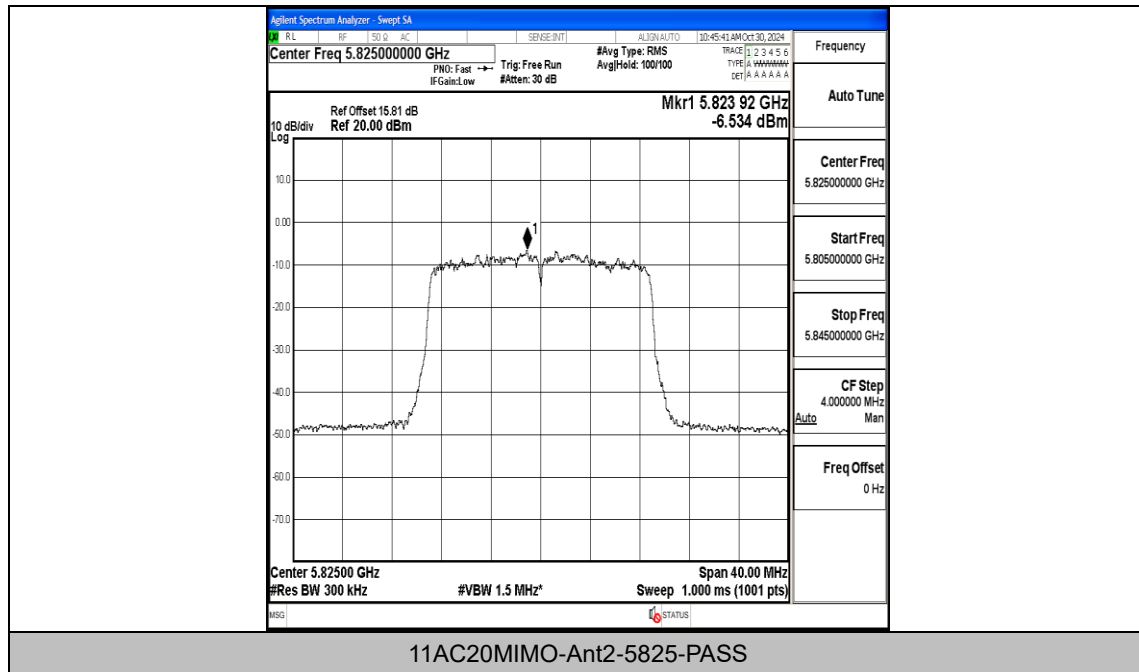


11AC20MIMO-Ant1-5745-PASS



11AC20MIMO-Ant2-5745-PASS





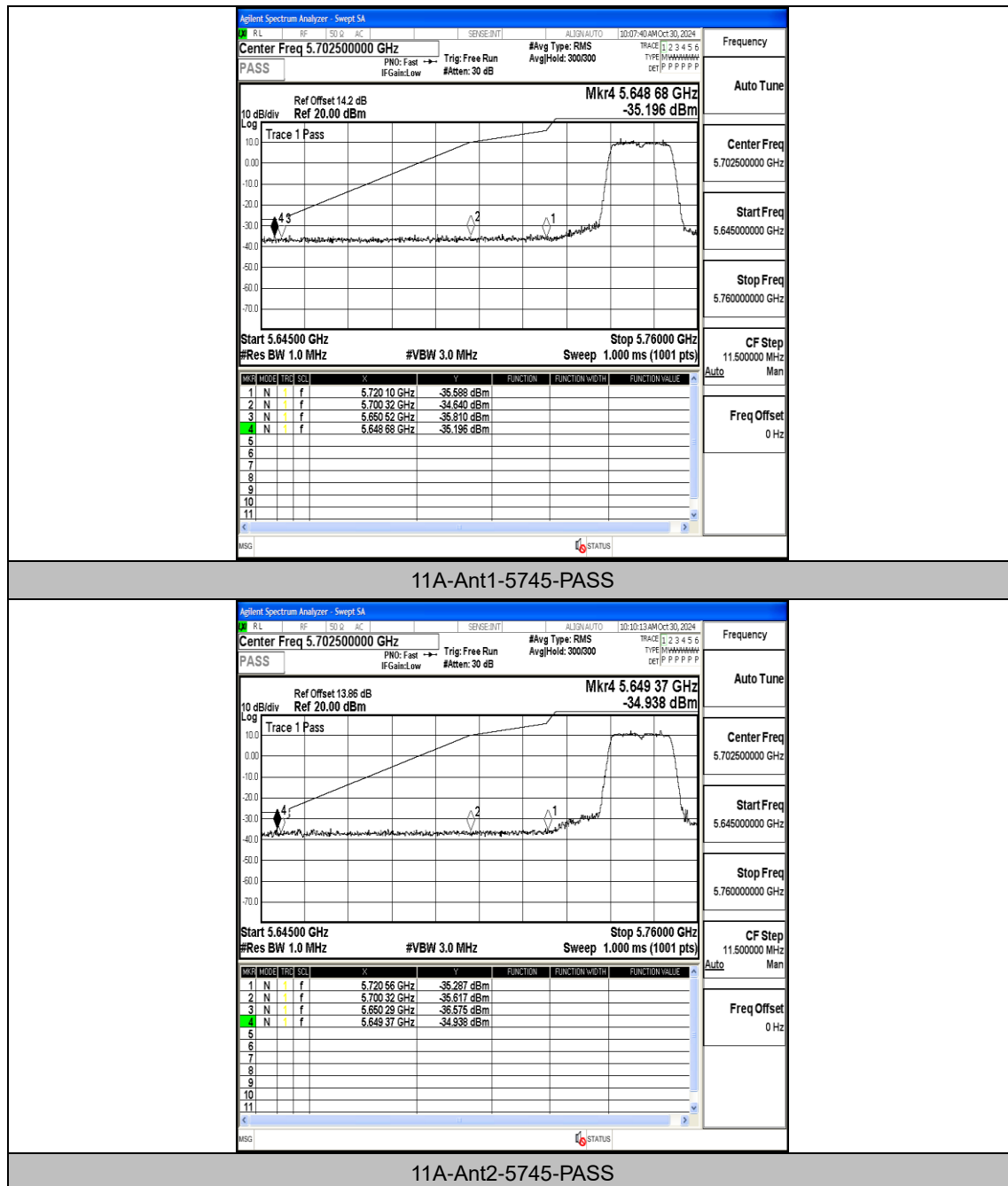
Appendix D: Band edge measurements

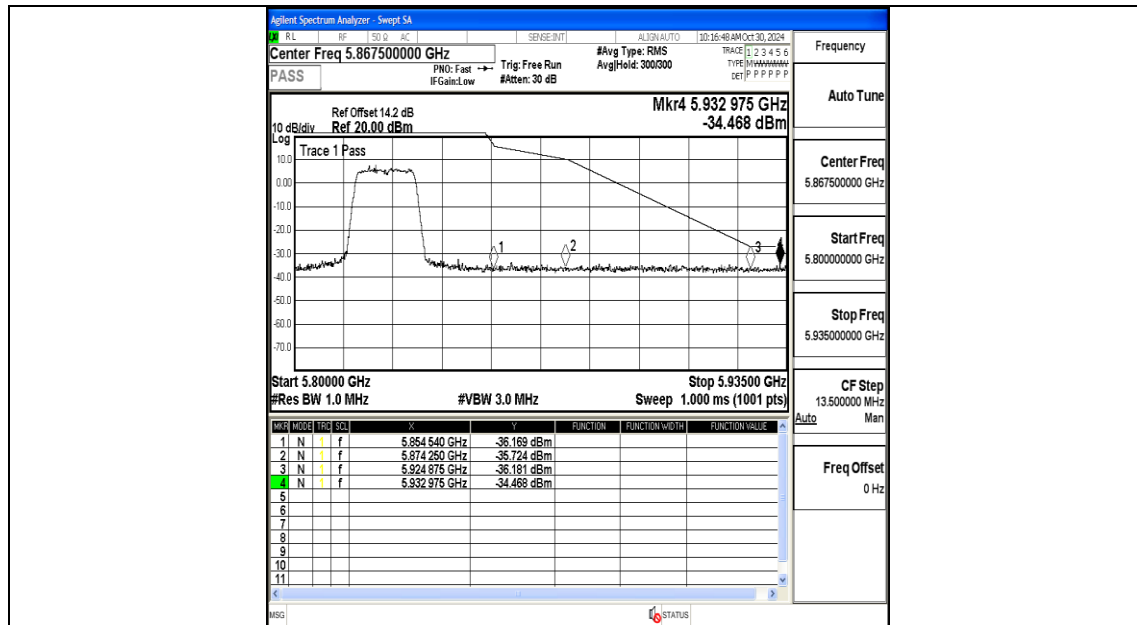
Test Result

Test Mode	Antenna	Ch. Name	Frequency [MHz]	Freq. Range [MHz]	Result [dBm]	Limit [dBm]	Verdict
11A	Ant1	Low	5745	5720~5725	-35.59	≤15.82	PASS
11A	Ant1	Low	5745	5700~5720	-34.64	≤10.09	PASS
11A	Ant1	Low	5745	5650~5700	-35.81	≤-26.62	PASS
11A	Ant1	Low	5745	5760~5650	-35.2	≤-27	PASS
11A	Ant2	Low	5745	5720~5725	-35.29	≤16.87	PASS
11A	Ant2	Low	5745	5700~5720	-35.62	≤10.09	PASS
11A	Ant2	Low	5745	5650~5700	-36.58	≤-26.79	PASS
11A	Ant2	Low	5745	5760~5650	-34.94	≤-27	PASS
11A	Ant1	High	5825	5850~5855	-36.17	≤16.65	PASS
11A	Ant1	High	5825	5855~5875	-35.72	≤10.21	PASS
11A	Ant1	High	5825	5875~5925	-36.18	≤-26.91	PASS
11A	Ant1	High	5825	5925~5935	-34.47	≤-27	PASS
11A	Ant2	High	5825	5850~5855	-35.78	≤16.03	PASS
11A	Ant2	High	5825	5855~5875	-34.74	≤10.55	PASS
11A	Ant2	High	5825	5875~5925	-35.29	≤-26.71	PASS
11A	Ant2	High	5825	5925~5935	-35.35	≤-27	PASS
11N20MI MO	Ant1	Low	5745	5720~5725	-35.12	≤16.08	PASS
11N20MI MO	Ant1	Low	5745	5700~5720	-35.08	≤10.38	PASS
11N20MI MO	Ant1	Low	5745	5650~5700	-35.49	≤-26.70	PASS
11N20MI MO	Ant1	Low	5745	5760~5650	-34.92	≤-27	PASS
11N20MI MO	Ant2	Low	5745	5720~5725	-34.2	≤16.34	PASS
11N20MI MO	Ant2	Low	5745	5700~5720	-36.25	≤10.22	PASS
11N20MI MO	Ant2	Low	5745	5650~5700	-36.46	≤-26.87	PASS
11N20MI MO	Ant2	Low	5745	5760~5650	-35.56	≤-27	PASS
11N20MI MO	Ant1	High	5825	5850~5855	-36.42	≤15.73	PASS
11N20MI MO	Ant1	High	5825	5855~5875	-34.83	≤10.44	PASS
11N20MI MO	Ant1	High	5825	5875~5925	-35.57	≤-26.91	PASS
11N20MI MO	Ant1	High	5825	5925~5935	-34.84	≤-27	PASS
11N20MI	Ant2	High	5825	5850~5855	-35.39	≤16.03	PASS

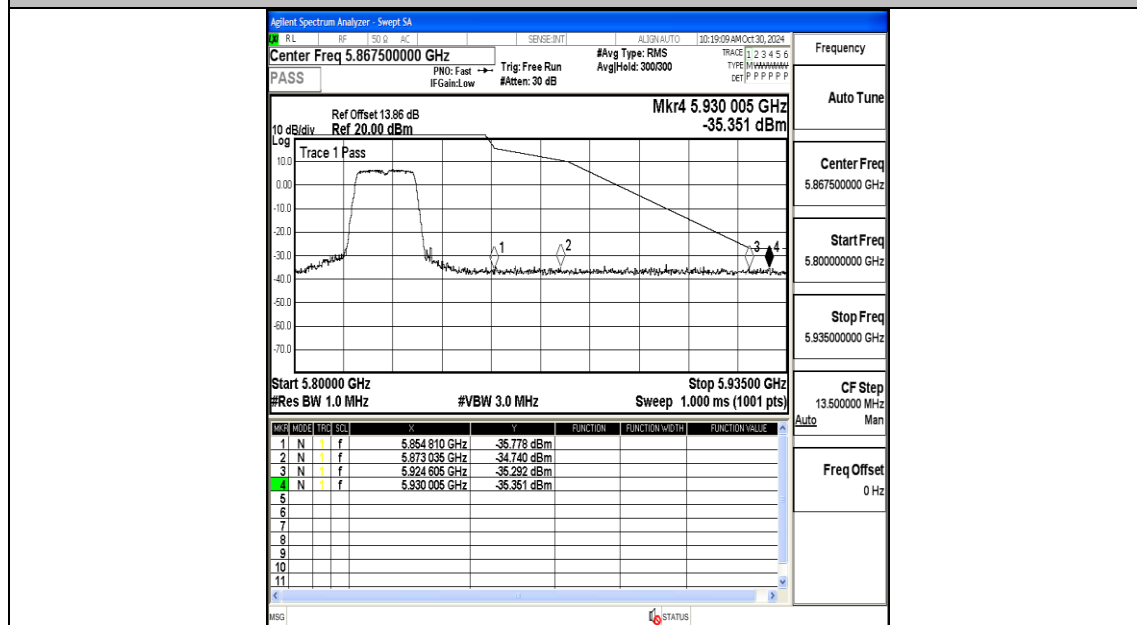
MO							
11N20MI MO	Ant2	High	5825	5855~5875	-34.35	≤11.87	PASS
11N20MI MO	Ant2	High	5825	5875~5925	-35.76	≤-26.11	PASS
11N20MI MO	Ant2	High	5825	5925~5935	-35.43	≤-27	PASS
11AC20M IMO	Ant1	Low	5745	5720~5725	-36.03	≤15.82	PASS
11AC20M IMO	Ant1	Low	5745	5700~5720	-34.31	≤10.80	PASS
11AC20M IMO	Ant1	Low	5745	5650~5700	-35.4	≤-26.53	PASS
11AC20M IMO	Ant1	Low	5745	5760~5650	-35.18	≤-27	PASS
11AC20M IMO	Ant2	Low	5745	5720~5725	-37.05	≤16.08	PASS
11AC20M IMO	Ant2	Low	5745	5700~5720	-34.59	≤10.31	PASS
11AC20M IMO	Ant2	Low	5745	5650~5700	-36.24	≤-26.87	PASS
11AC20M IMO	Ant2	Low	5745	5760~5650	-36.14	≤-27	PASS
11AC20M IMO	Ant1	High	5825	5850~5855	-35.27	≤15.73	PASS
11AC20M IMO	Ant1	High	5825	5855~5875	-34.57	≤10.74	PASS
11AC20M IMO	Ant1	High	5825	5875~5925	-34.65	≤-26.51	PASS
11AC20M IMO	Ant1	High	5825	5925~5935	-34.05	≤-27	PASS
11AC20M IMO	Ant2	High	5825	5850~5855	-34.64	≤17.57	PASS
11AC20M IMO	Ant2	High	5825	5855~5875	-35.59	≤10.25	PASS
11AC20M IMO	Ant2	High	5825	5875~5925	-34.83	≤-26.61	PASS
11AC20M IMO	Ant2	High	5825	5925~5935	-34.69	≤-27	PASS

Test Graphs

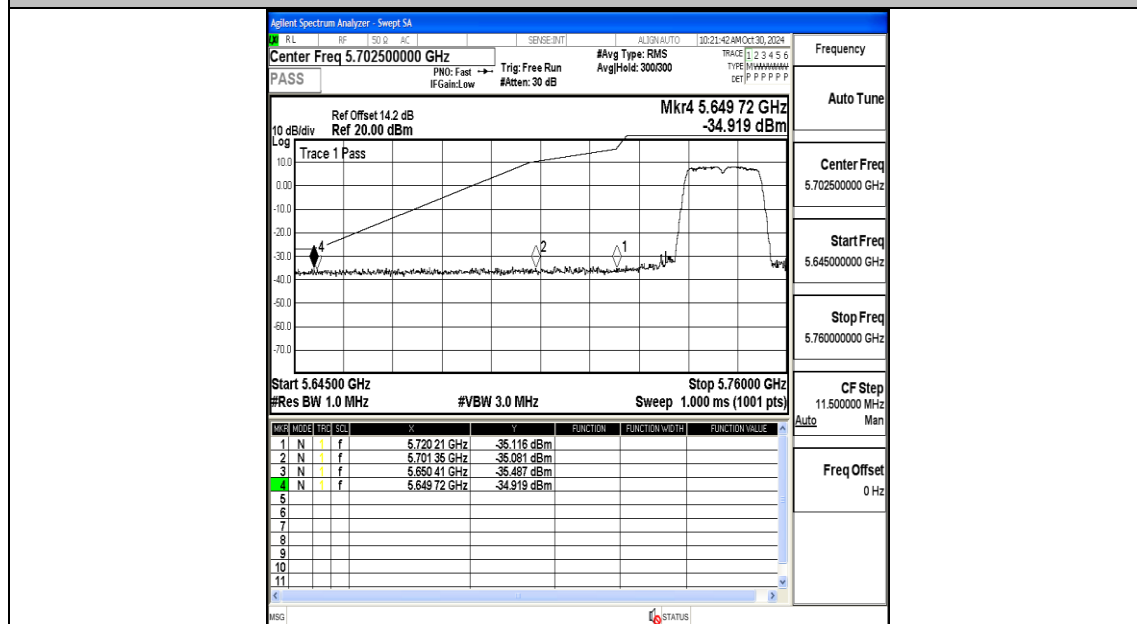




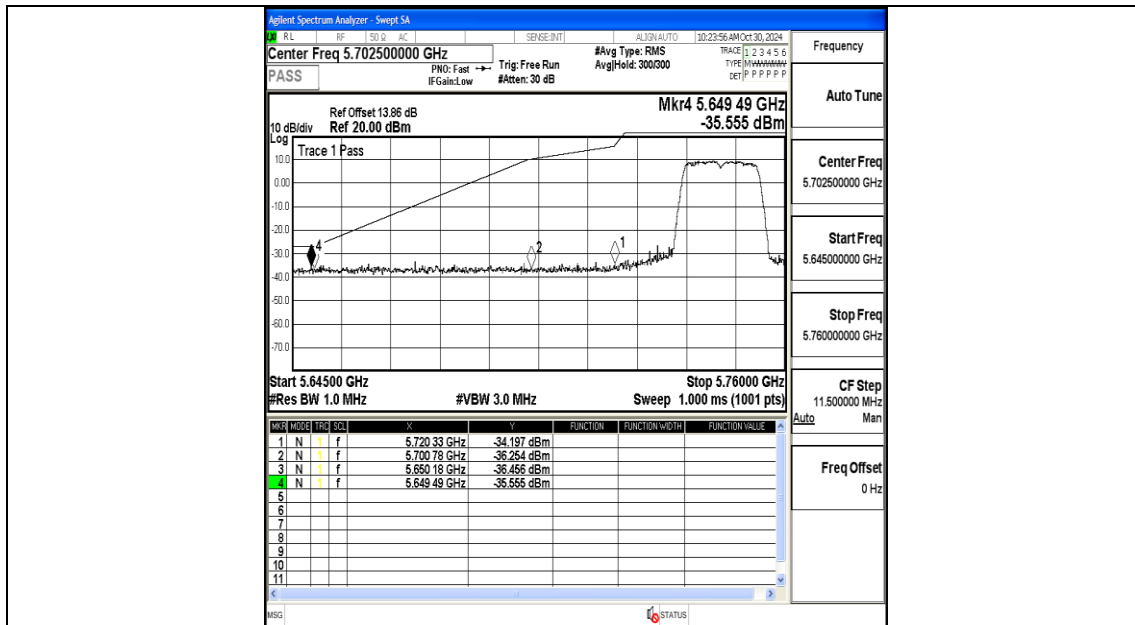
11A-Ant1-5825-PASS



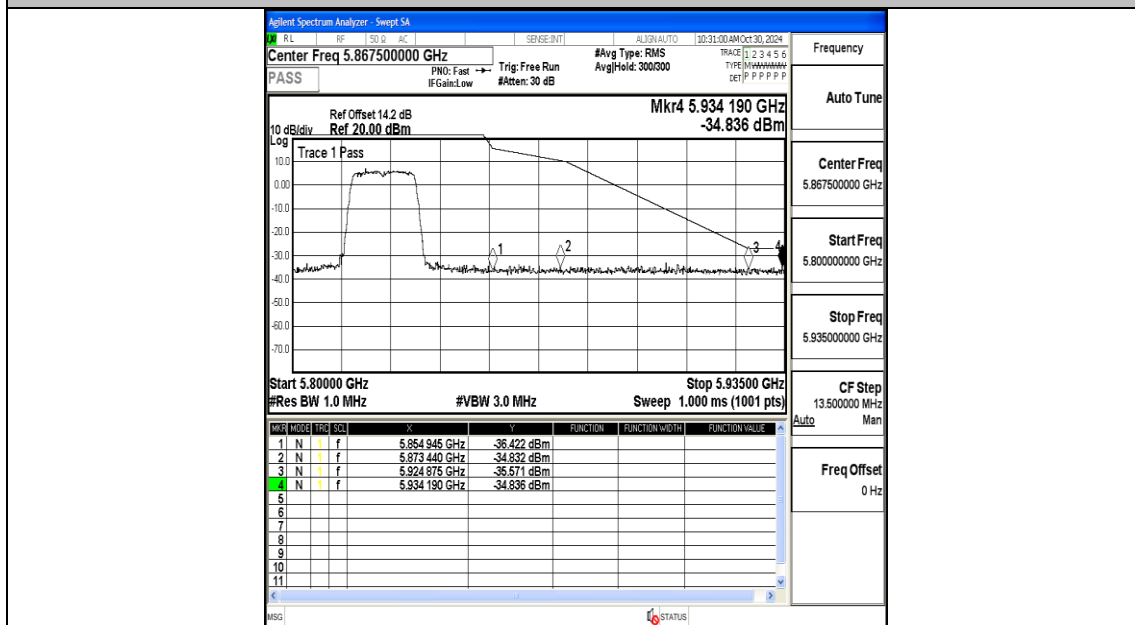
11A-Ant2-5825-PASS



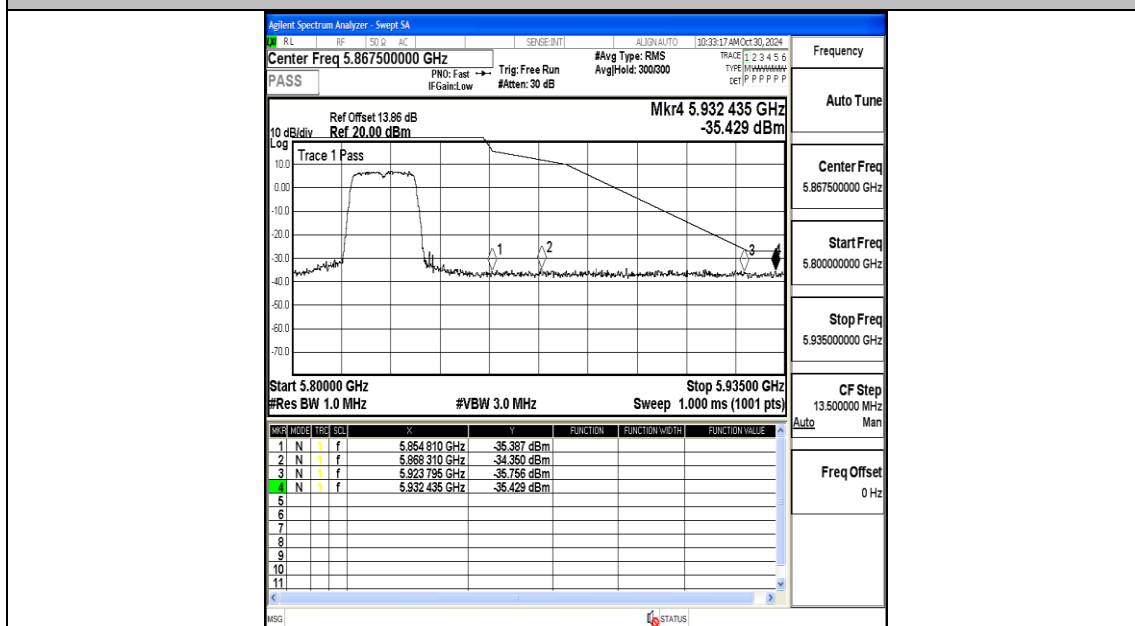
11N20MIMO-Ant1-5745-PASS



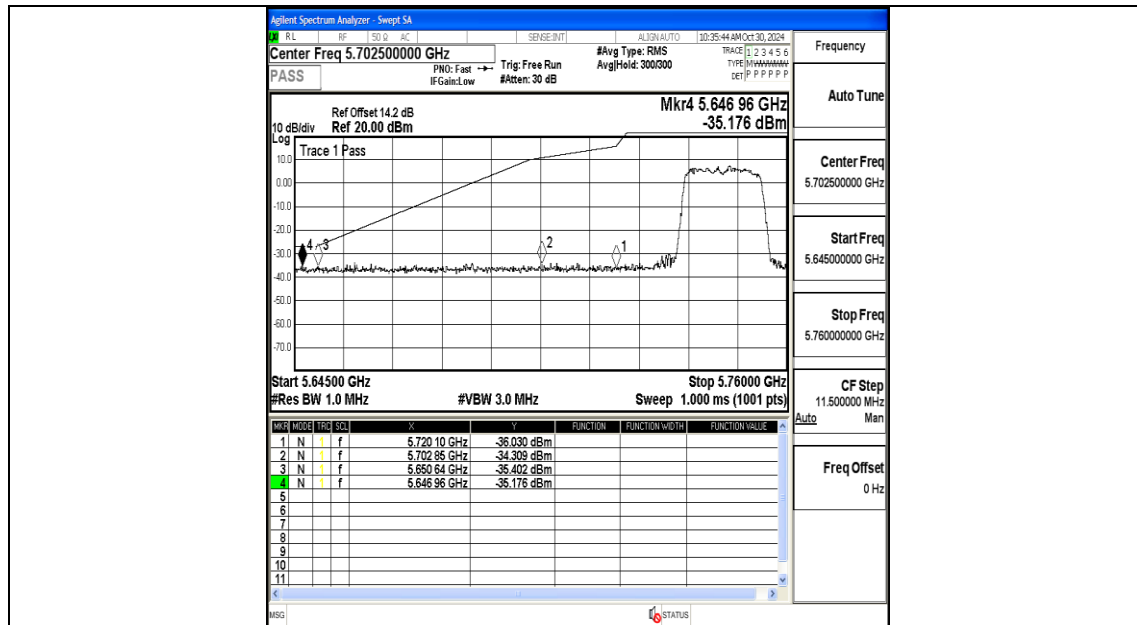
11N20MIMO-Ant2-5745-PASS



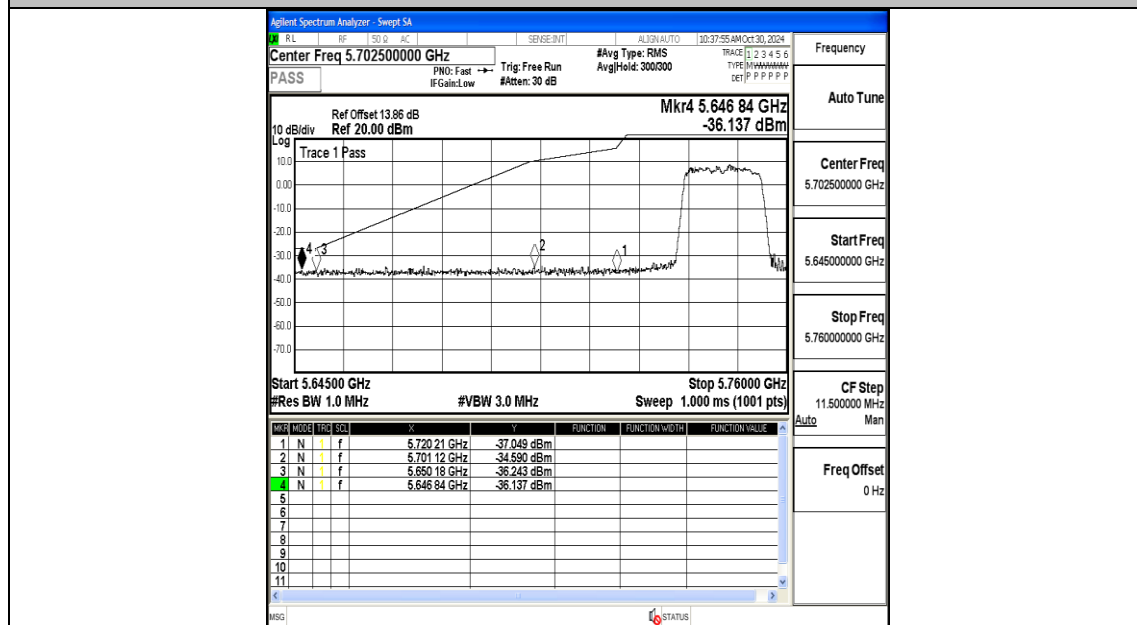
11N20MIMO-Ant1-5825-PASS



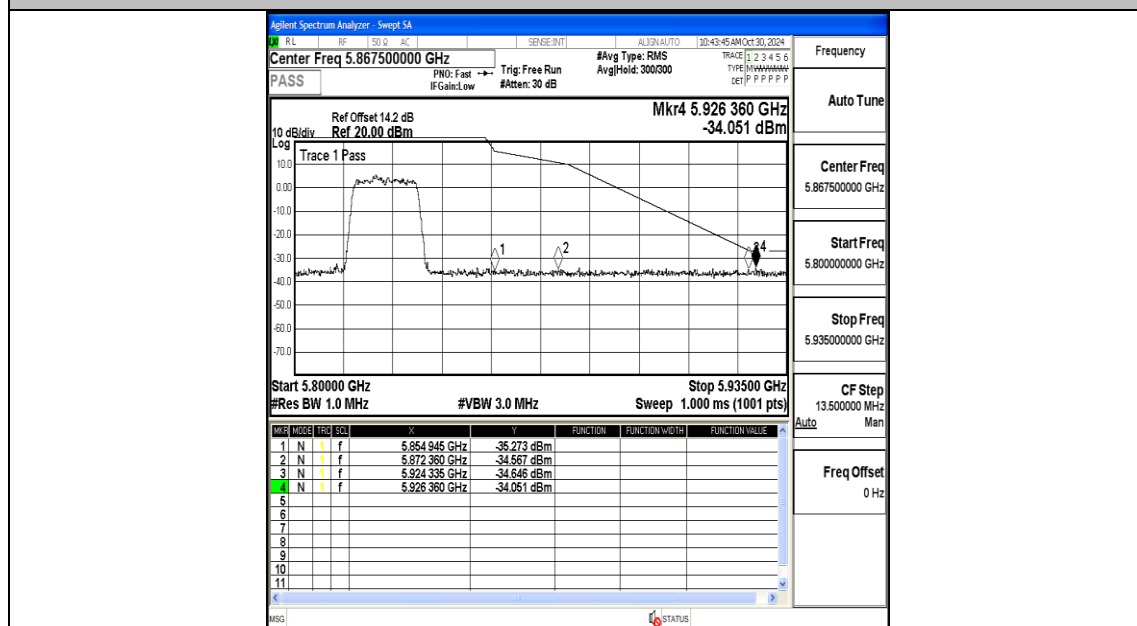
11N20MIMO-Ant2-5825-PASS



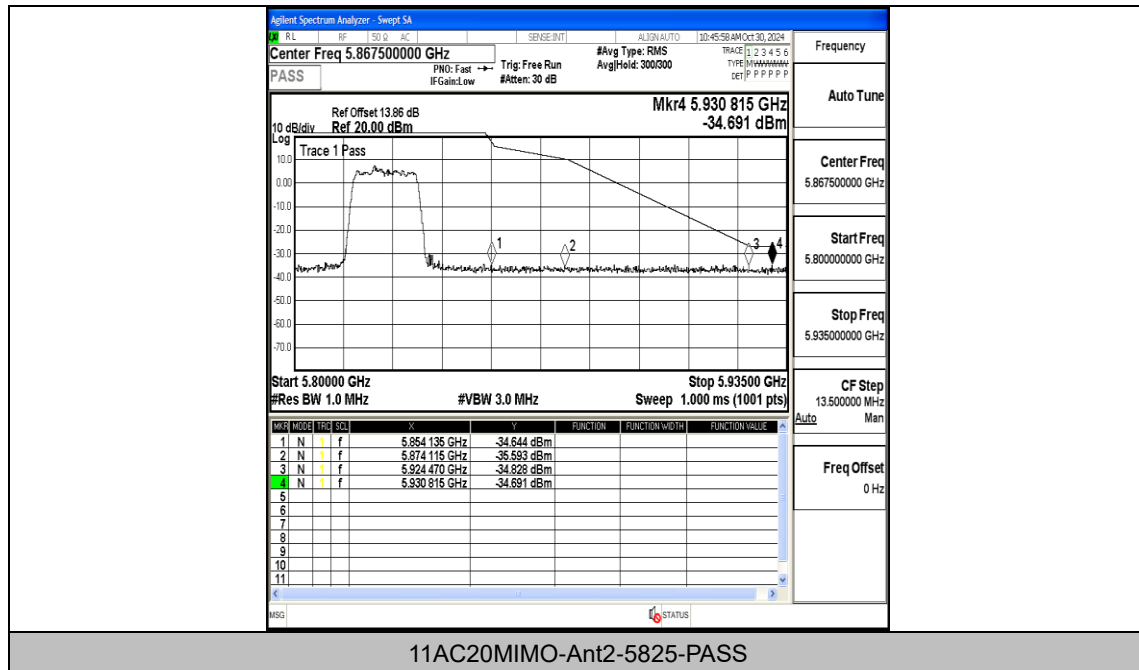
11AC20MIMO-Ant1-5745-PASS



11AC20MIMO-Ant2-5745-PASS



11AC20MIMO-Ant1-5825-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)	Enviroment 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)	Enviroment 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)	Enviroment 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

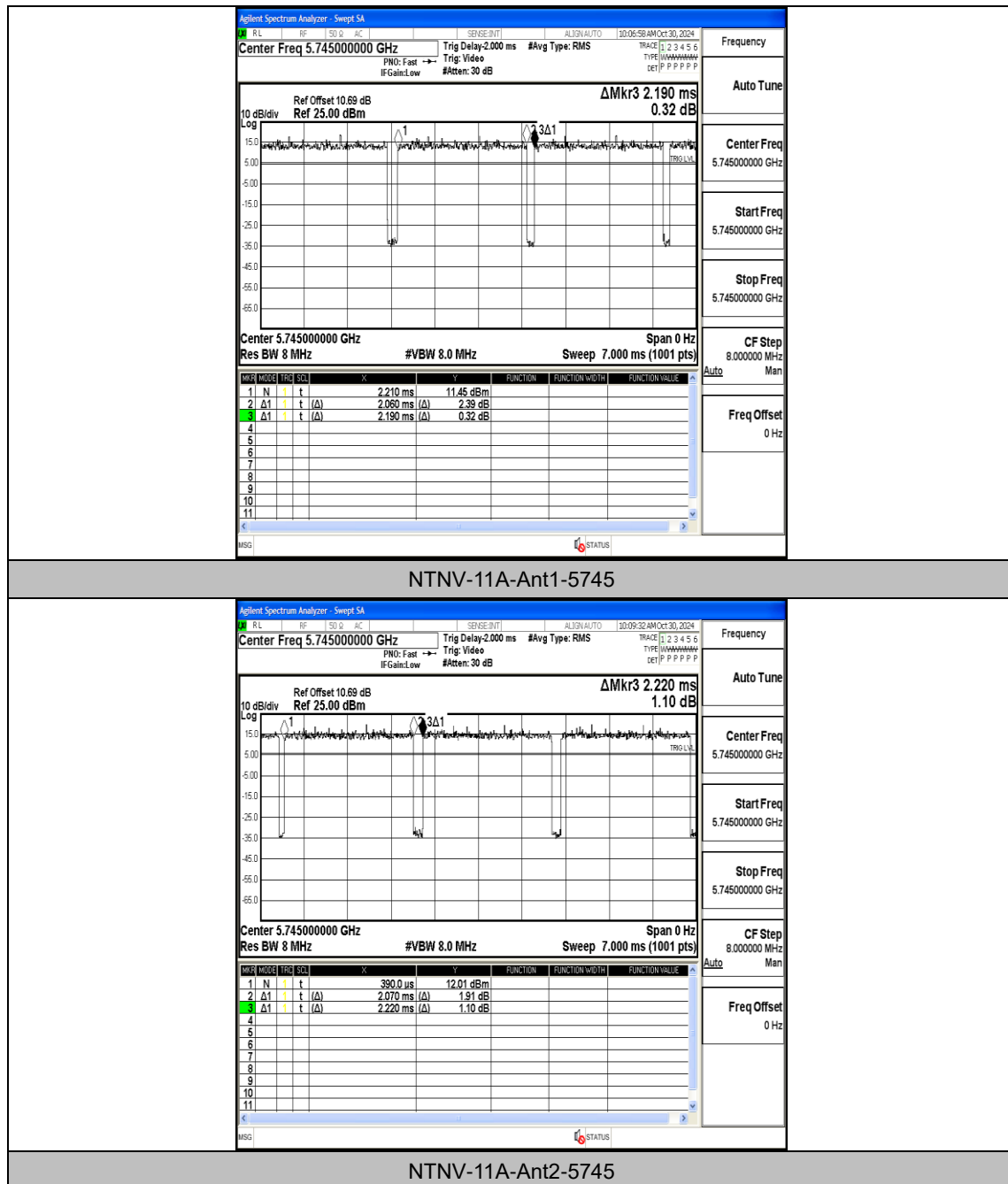
Frequency (MHz)	Enviroment Temperature (Degree)	Voltage (VAC)	Measured Frequency (MHz)	Limit Range (MHz)	Test Results
5825	20	132	5824.940325	5745 – 5825	PASS
5825	20	108	5825.074161	5745 – 5825	PASS
5825	50	120	5825.026472	5745 – 5825	PASS
5825	40	120	5824.983524	5745 – 5825	PASS
5825	30	120	5824.918209	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

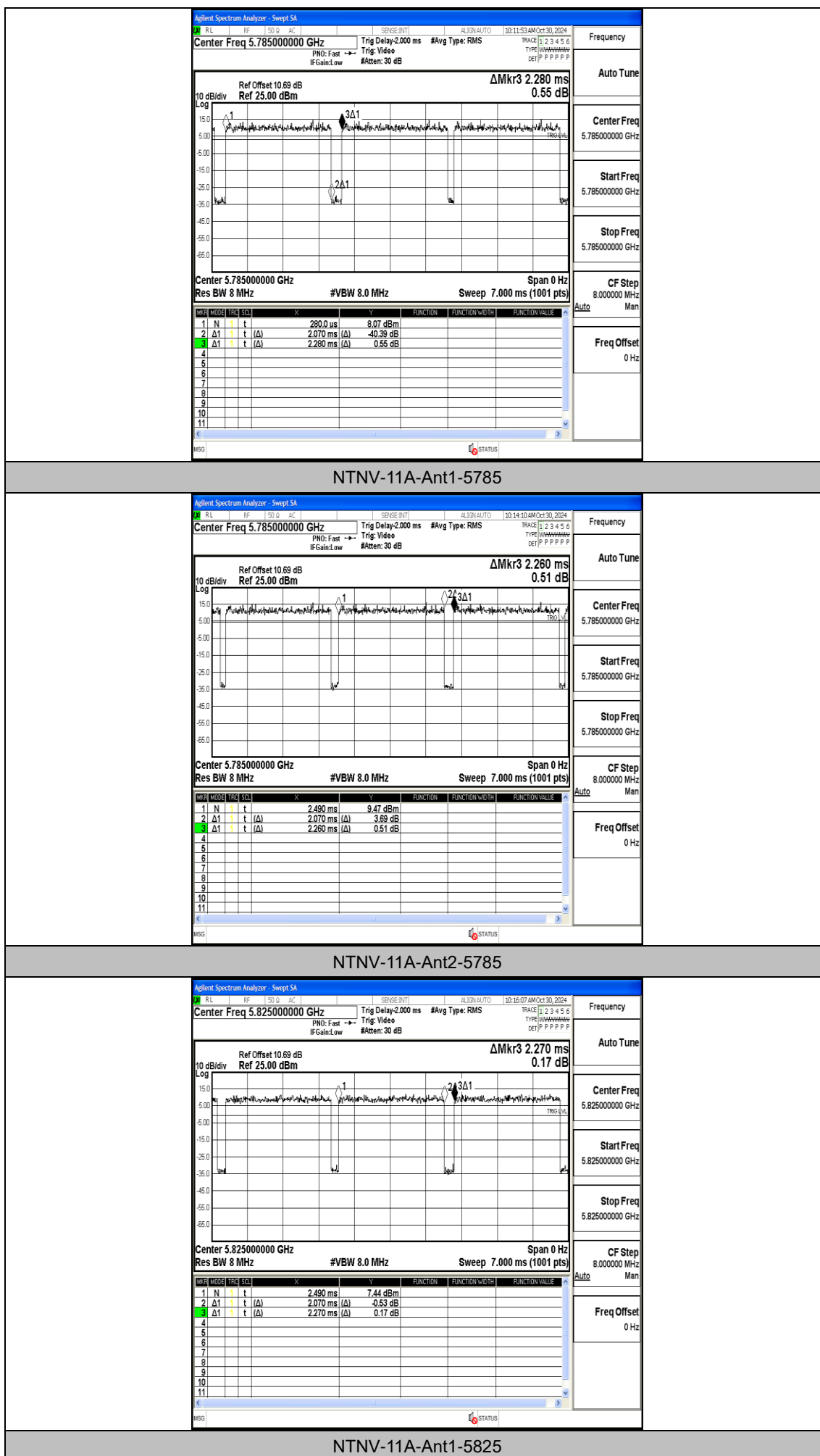
Appendix F: Duty Cycle

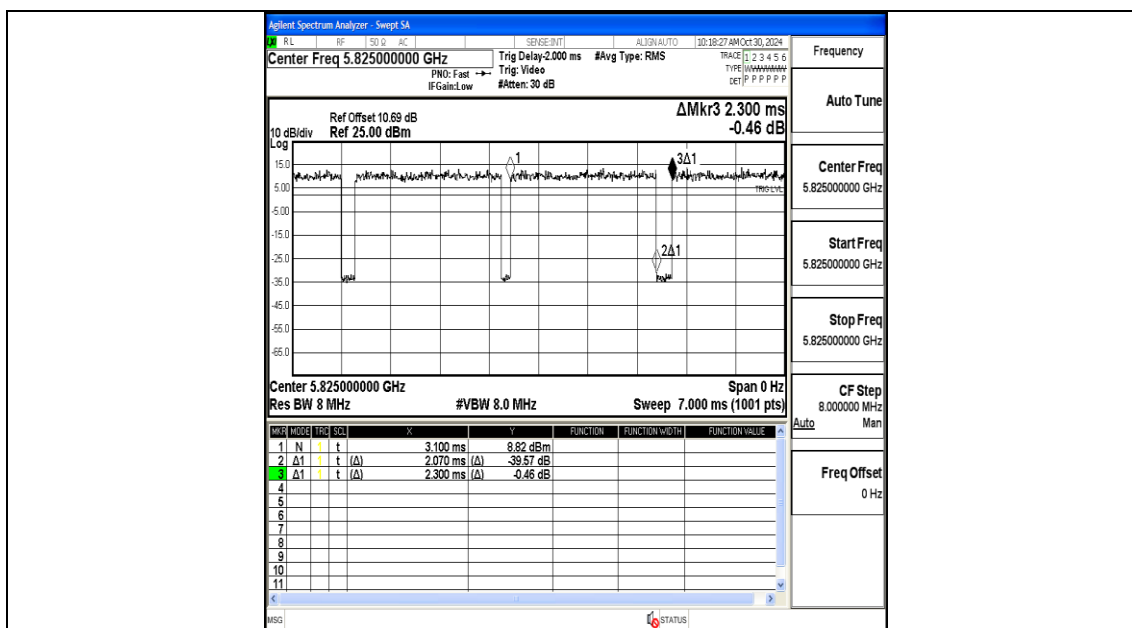
Test Result

Test Mode	Antenna	Frequency [MHz]	Transmission Duration [ms]	Transmission Period [ms]	Duty Cycle [%]	Dc. Factor [%]	1/T
11A	Ant1	5745	2.06	2.19	94.06	0.27	0.49
11A	Ant2	5745	2.07	2.22	93.24	0.30	0.48
11A	Ant1	5785	2.07	2.28	90.79	0.42	0.48
11A	Ant2	5785	2.07	2.26	91.59	0.38	0.48
11A	Ant1	5825	2.07	2.27	91.19	0.40	0.48
11A	Ant2	5825	2.07	2.30	90.00	0.46	0.48
11N20MIMO	Ant1	5745	1.92	2.09	91.87	0.37	0.52
11N20MIMO	Ant2	5745	1.92	2.09	91.87	0.37	0.52
11N20MIMO	Ant1	5785	1.92	2.06	93.20	0.31	0.52
11N20MIMO	Ant2	5785	1.92	2.12	90.57	0.43	0.52
11N20MIMO	Ant1	5825	1.93	2.16	89.35	0.49	0.52
11N20MIMO	Ant2	5825	1.92	2.14	89.72	0.47	0.52
11AC20MIMO	Ant1	5745	0.20	0.45	44.44	3.52	5.00
11AC20MIMO	Ant2	5745	0.21	0.39	53.85	2.69	4.76
11AC20MIMO	Ant1	5785	0.20	0.43	46.51	3.32	5.00
11AC20MIMO	Ant2	5785	0.20	0.46	43.48	3.62	5.00
11AC20MIMO	Ant1	5825	0.20	0.44	45.45	3.42	5.00
11AC20MIMO	Ant2	5825	0.20	0.39	51.28	2.90	5.00

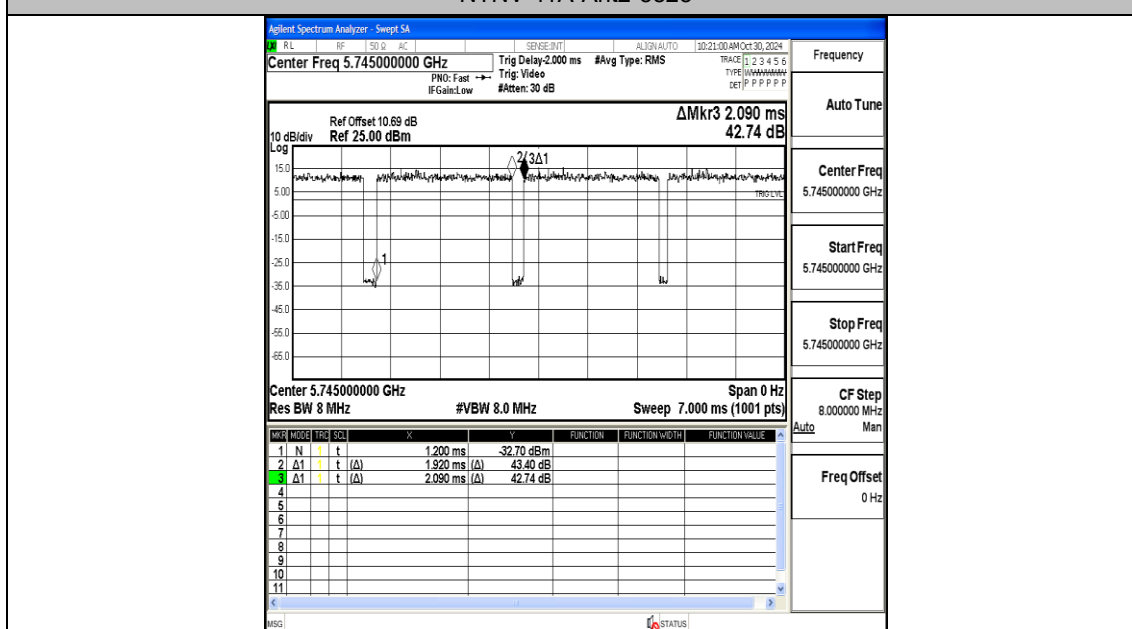
Test Graphs



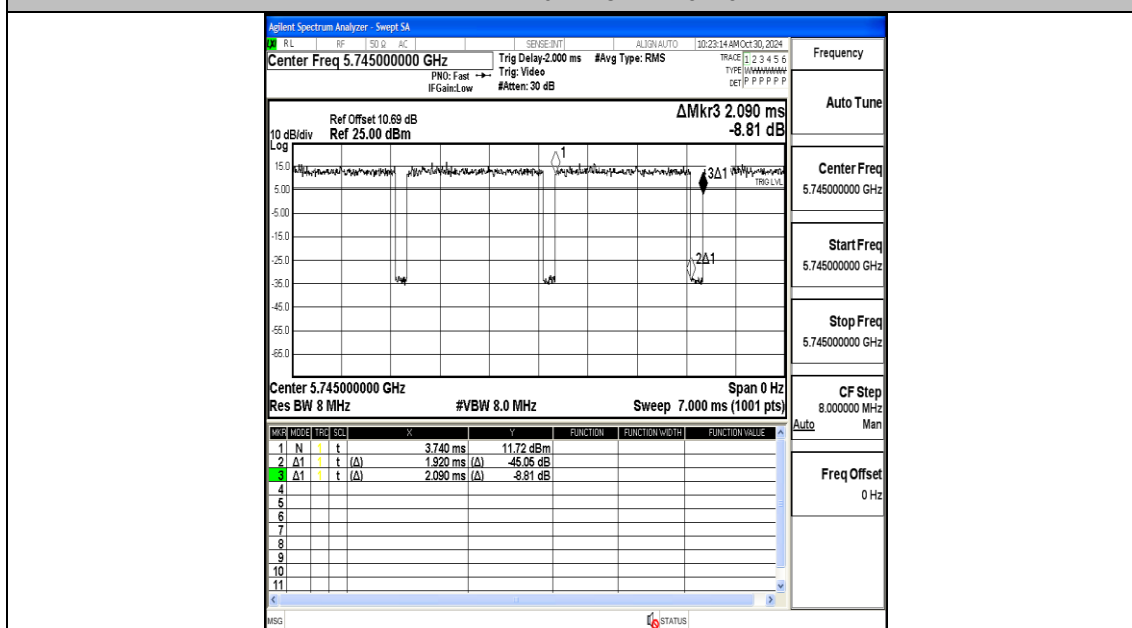




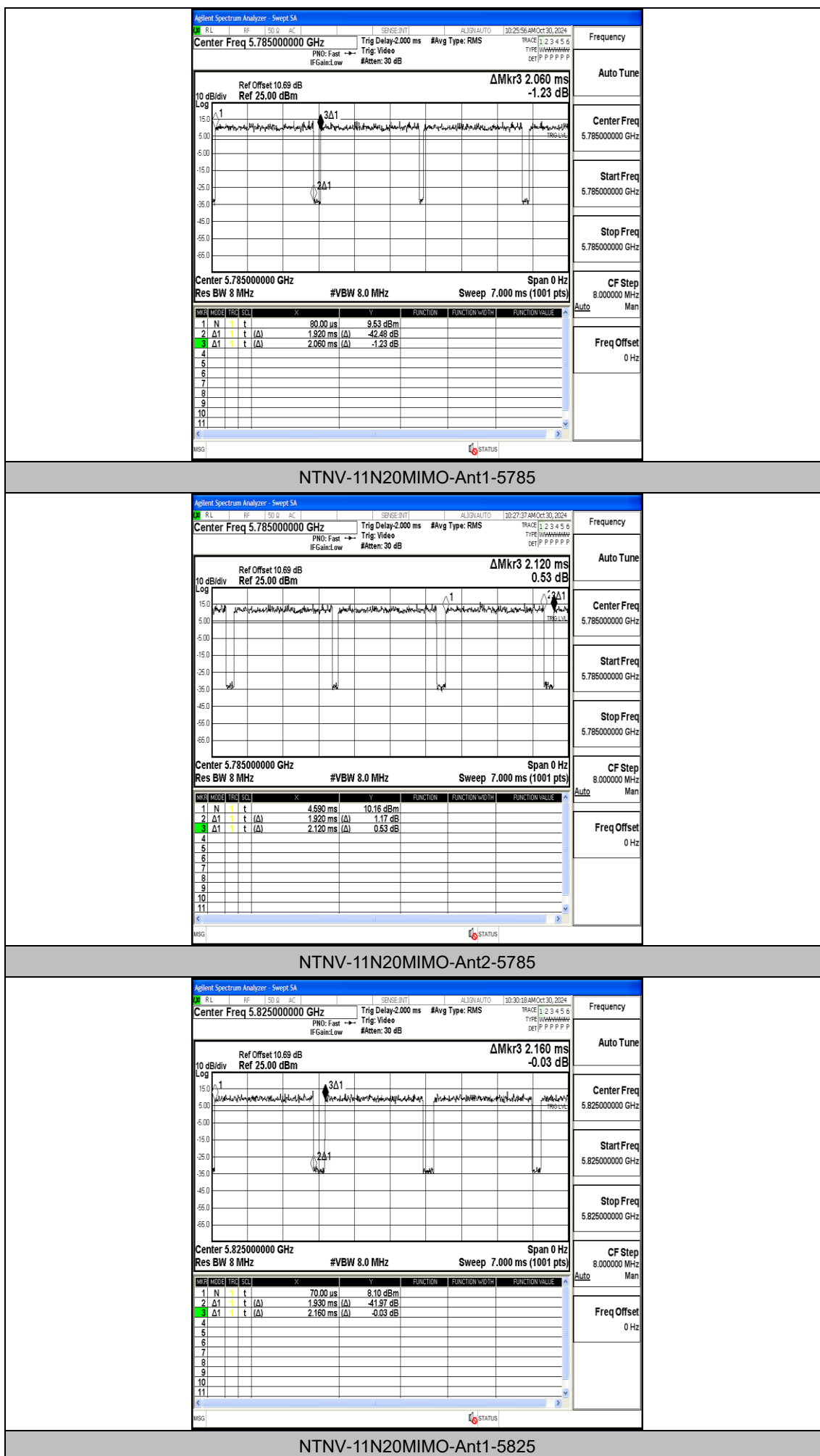
NTNV-11A-Ant2-5825

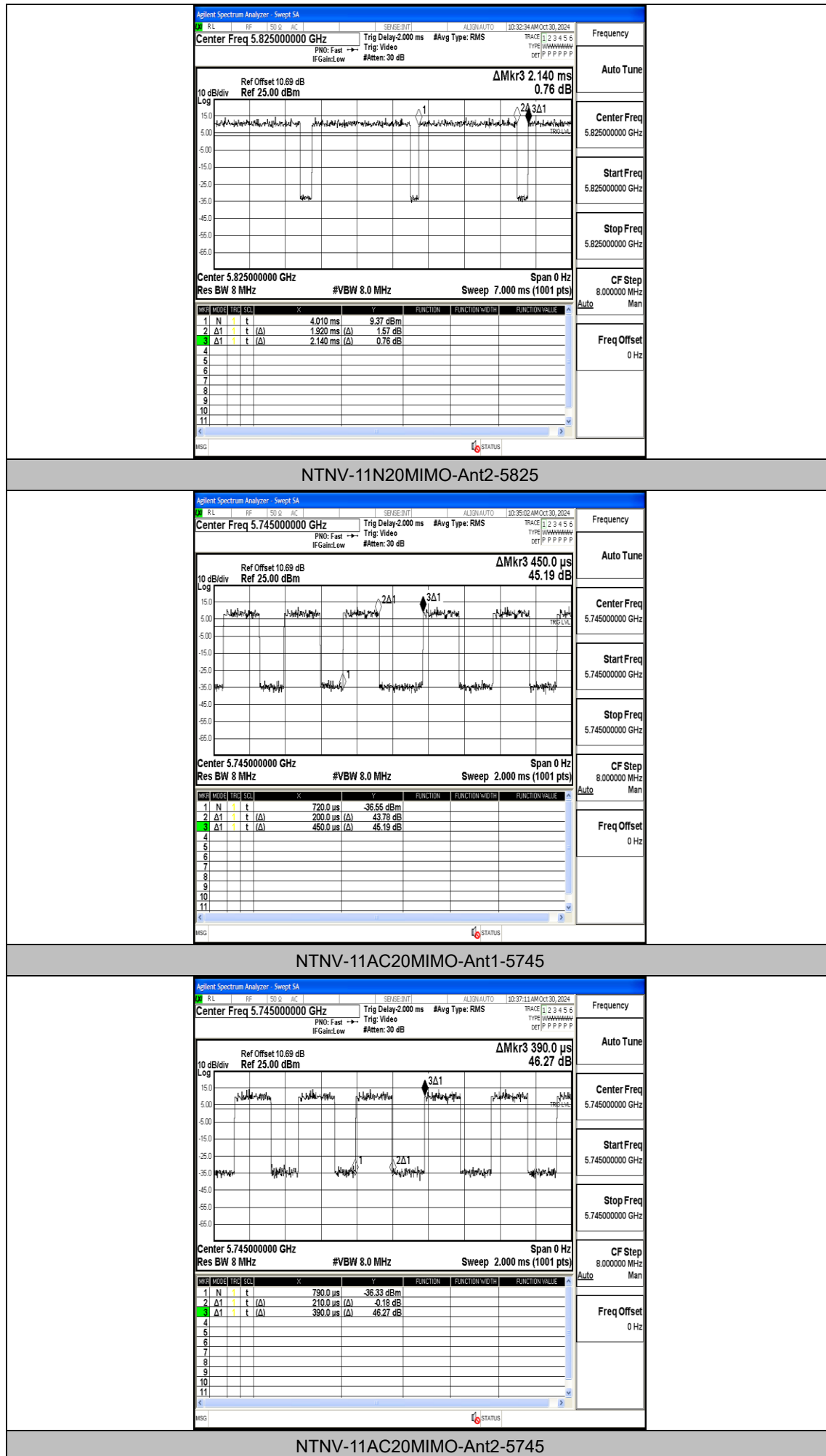


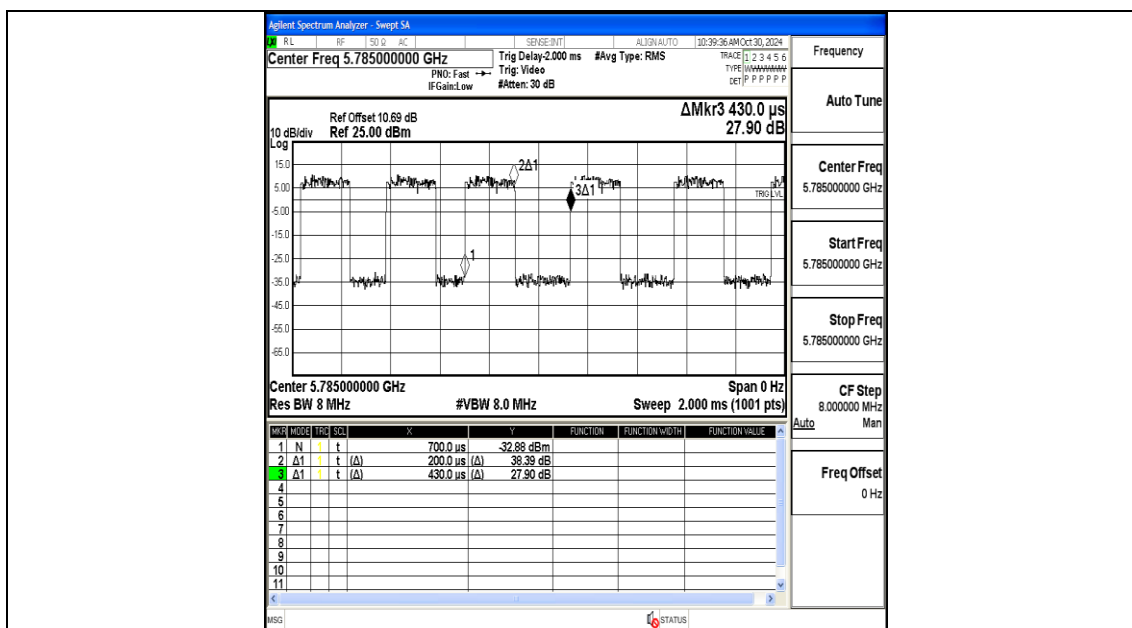
NTNV-11N20MIMO-Ant1-5745



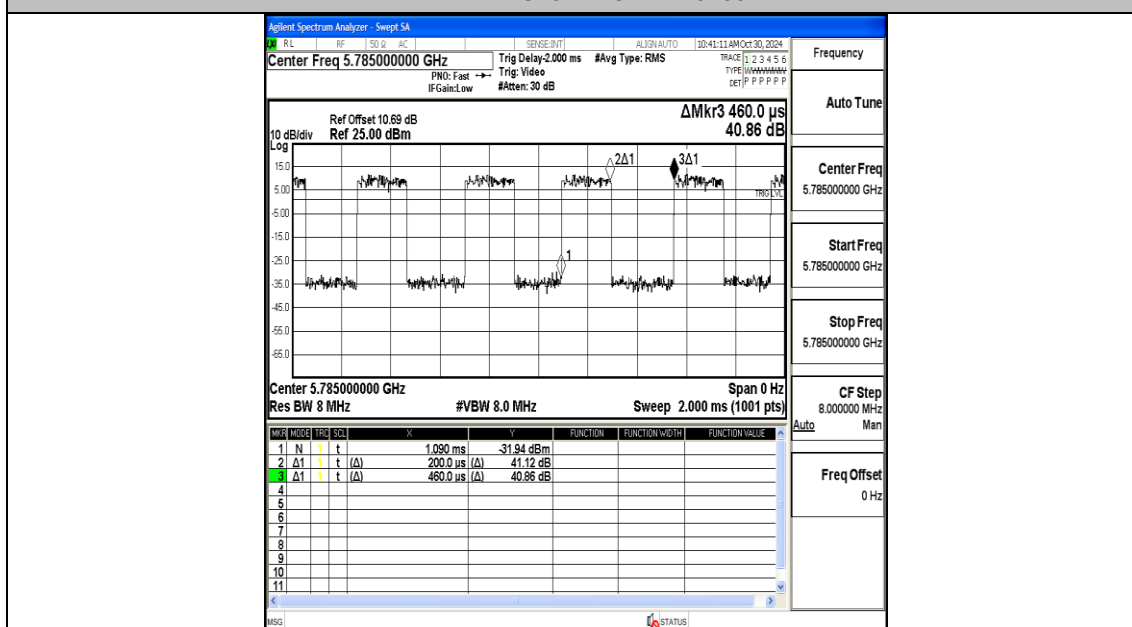
NTNV-11N20MIMO-Ant2-5745



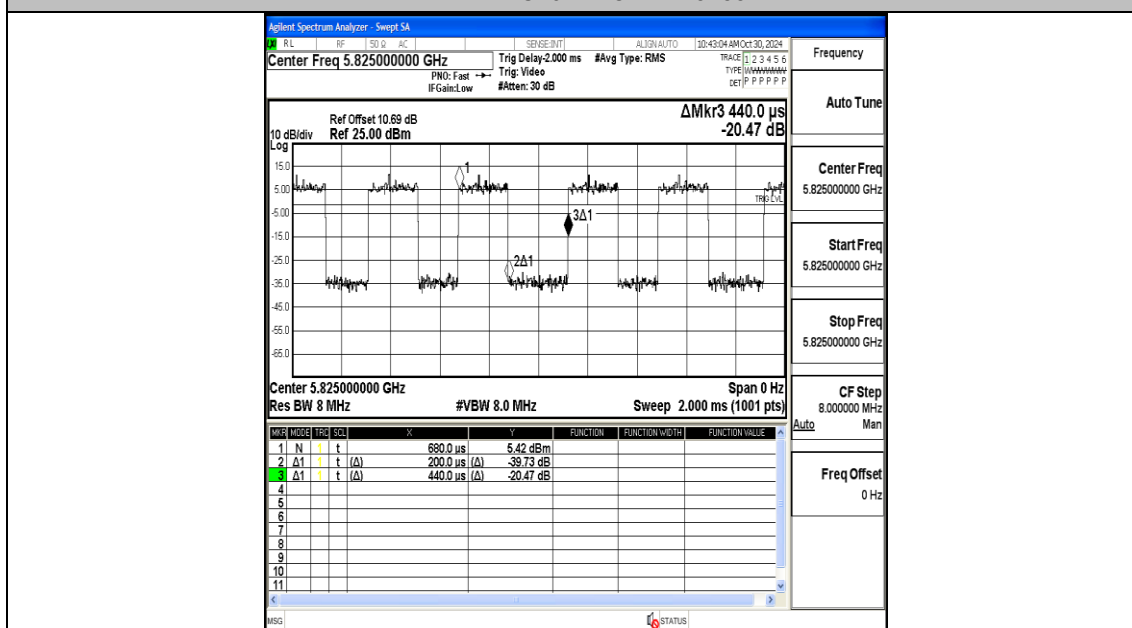




NTNV-11AC20MIMO-Ant1-5785



NTNV-11AC20MIMO-Ant2-5785



NTNV-11AC20MIMO-Ant1-5825

