

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

Product Name: DRONE

Trade Mark: /

Test Model: F11PRO 2

FCC ID: 2AXQL-F11PRO2YK

Environmental Conditions

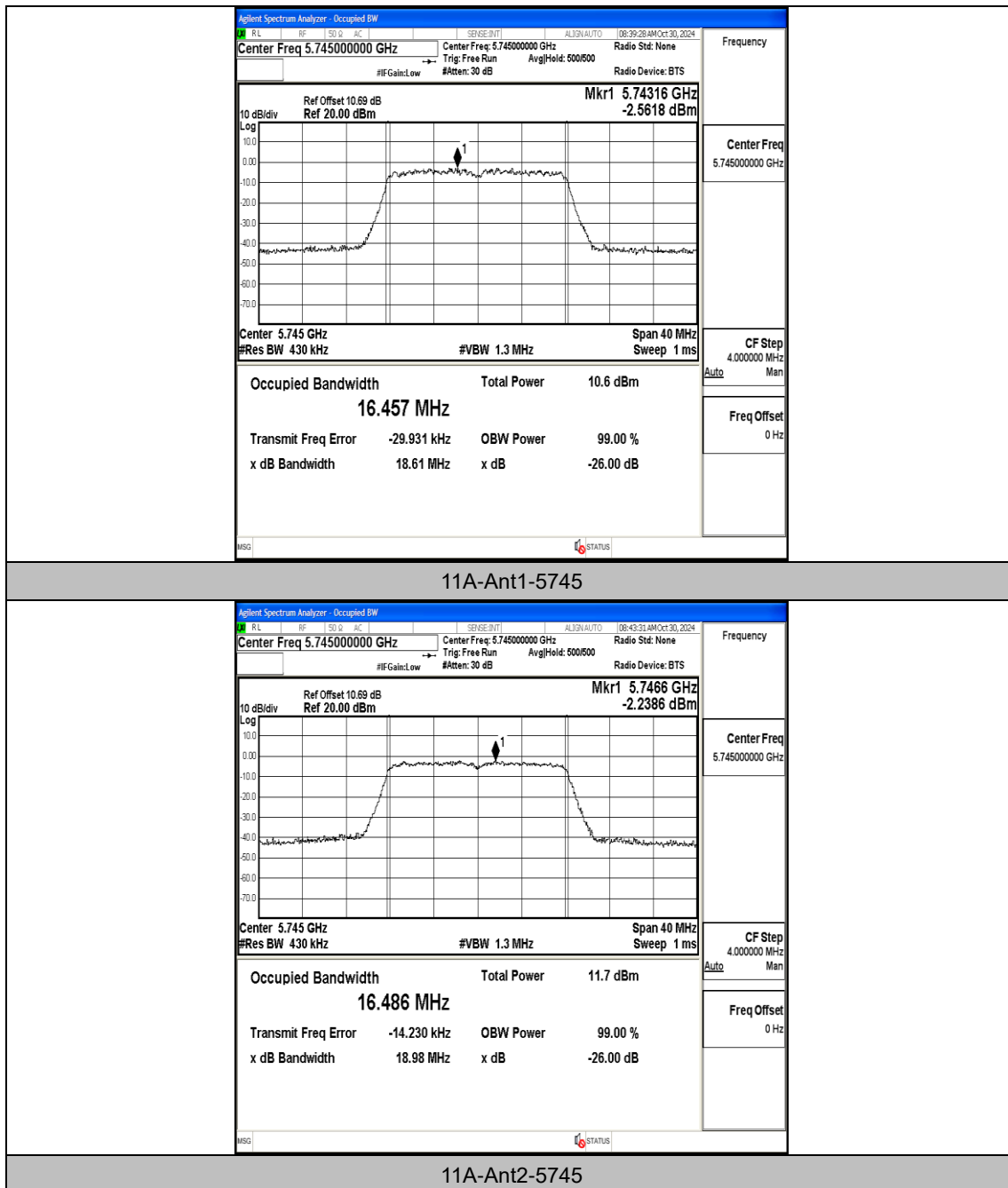
Temperature:	23.8℃
Relative Humidity:	58%
ATM Pressure:	100.0 kPa
Test Engineer:	Allen Lai
Supervised by:	Hugo Chen
NOTE	N/A

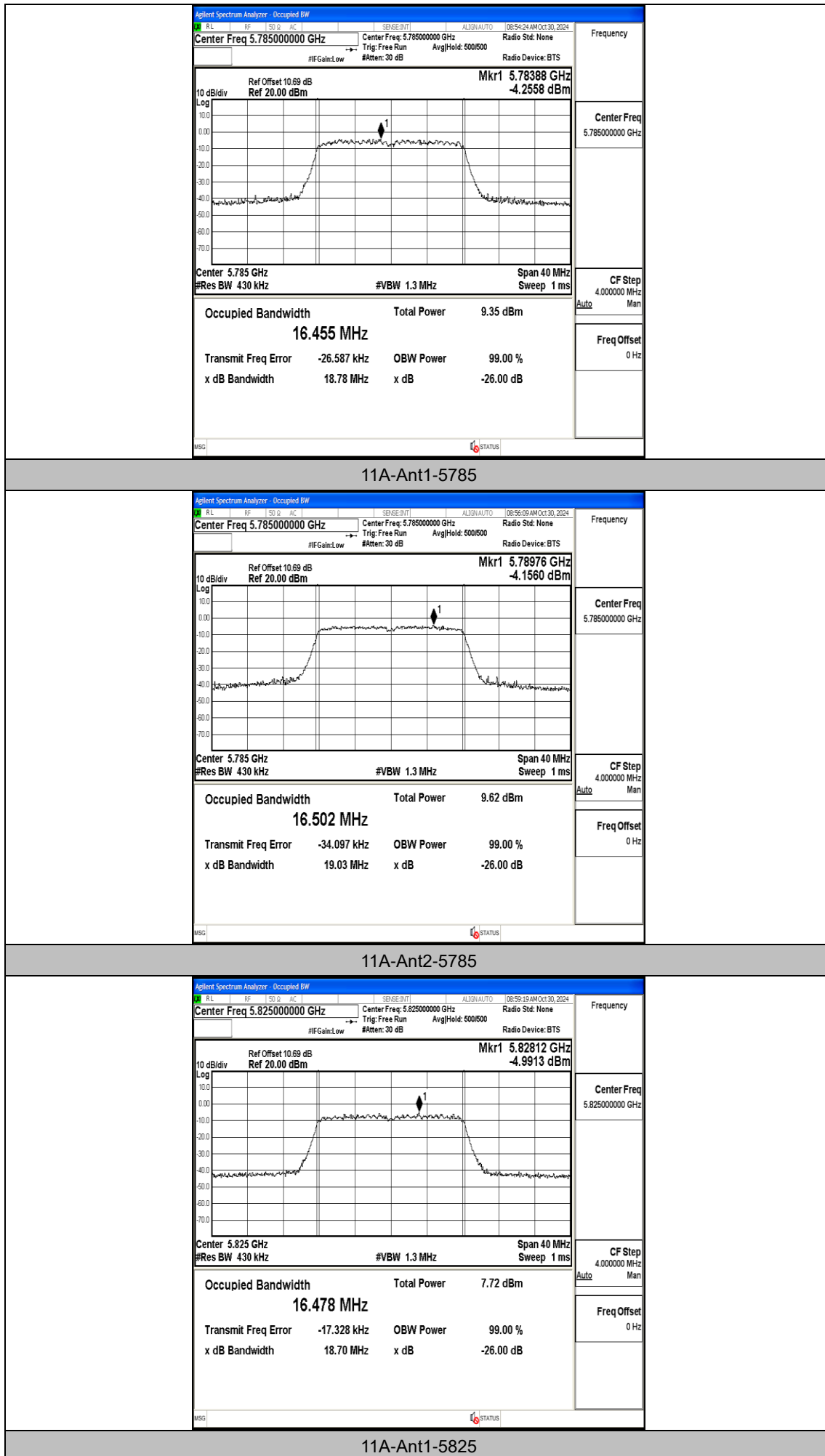
Appendix A2: Occupied channel bandwidth

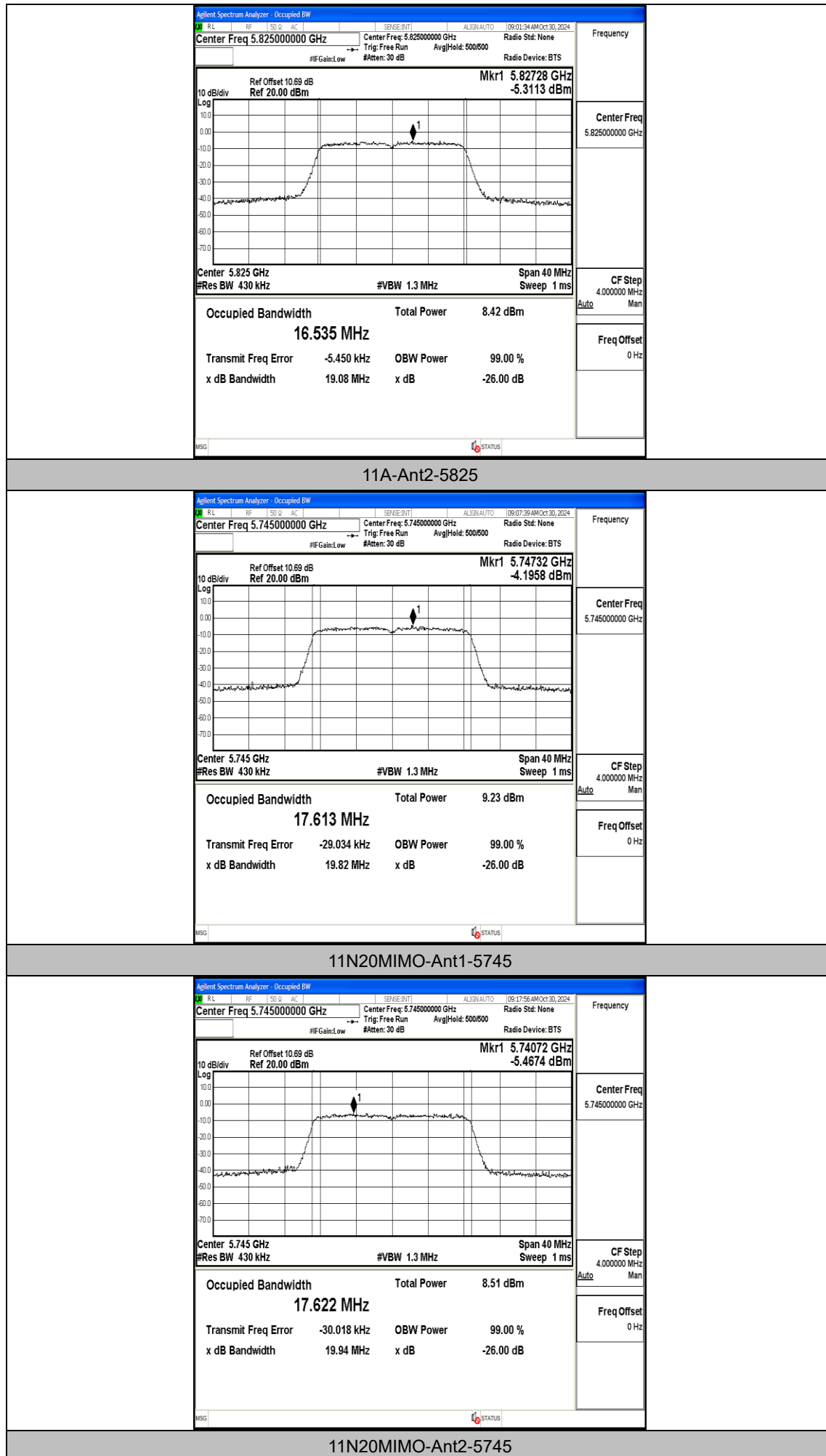
Test Result

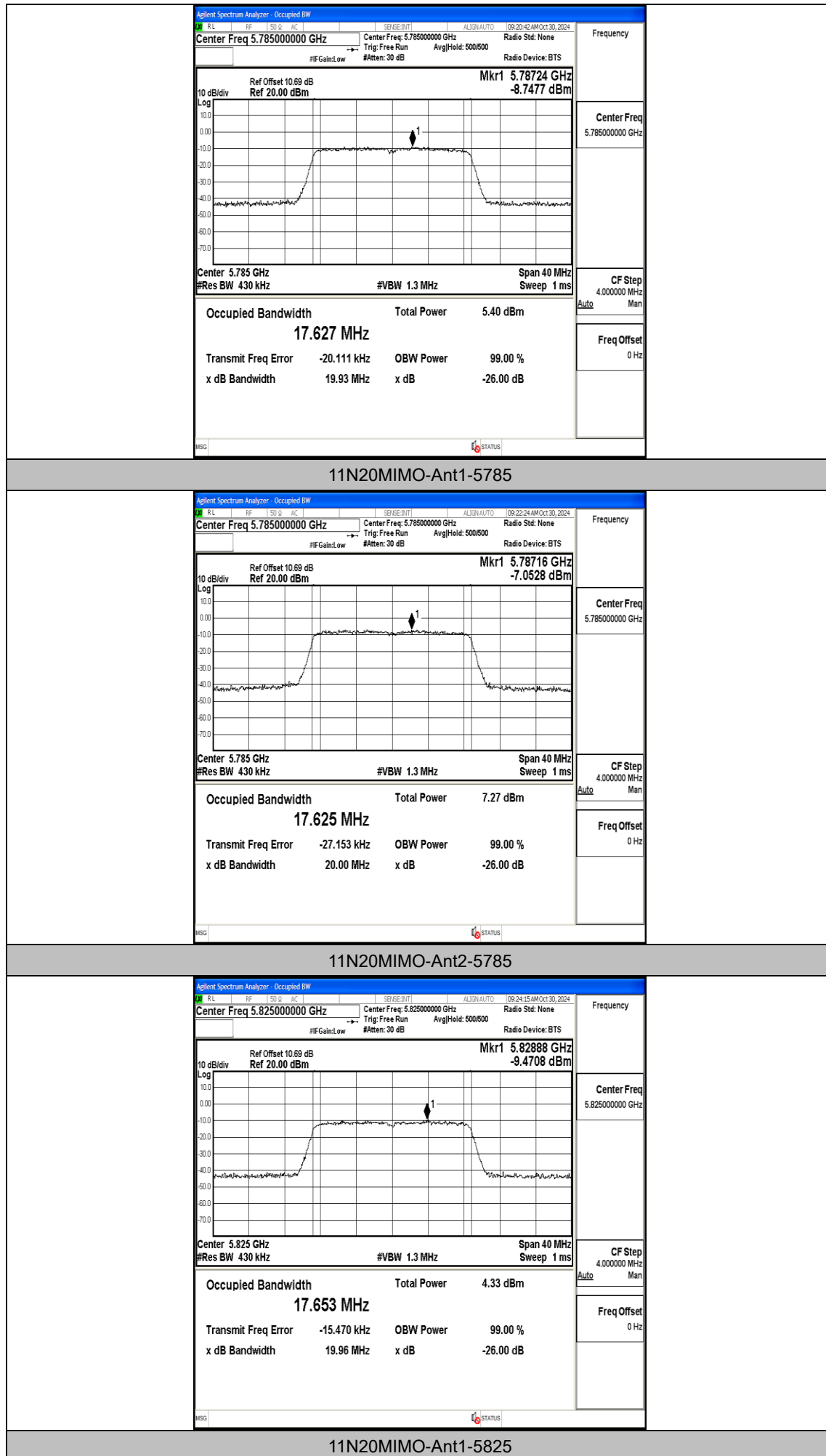
Test Mode	Antenna	Frequency [MHz]	OCB [MHz]	FL [MHz]	FH [MHz]	Limit [MHz]	Verdict
11A	Ant1	5745	16.457	5736.7416	5753.1986	---	---
11A	Ant2	5745	16.486	5736.7428	5753.2288	---	---
11A	Ant1	5785	16.455	5776.7459	5793.2009	---	---
11A	Ant2	5785	16.502	5776.7149	5793.2169	---	---
11A	Ant1	5825	16.478	5816.7437	5833.2217	---	---
11A	Ant2	5825	16.535	5816.7271	5833.2621	---	---
11N20MIMO	Ant1	5745	17.613	5736.1645	5753.7775	---	---
11N20MIMO	Ant2	5745	17.622	5736.1590	5753.7810	---	---
11N20MIMO	Ant1	5785	17.627	5776.1664	5793.7934	---	---
11N20MIMO	Ant2	5785	17.625	5776.1604	5793.7854	---	---
11N20MIMO	Ant1	5825	17.653	5816.1580	5833.8110	---	---
11N20MIMO	Ant2	5825	17.663	5816.1543	5833.8173	---	---
11AC20MIMO	Ant1	5745	17.691	5736.0905	5753.7815	---	---
11AC20MIMO	Ant2	5745	17.698	5736.0839	5753.7819	---	---
11AC20MIMO	Ant1	5785	17.647	5776.1263	5793.7733	---	---
11AC20MIMO	Ant2	5785	17.638	5776.1258	5793.7638	---	---
11AC20MIMO	Ant1	5825	17.709	5816.1320	5833.8410	---	---
11AC20MIMO	Ant2	5825	17.701	5816.1426	5833.8436	---	---

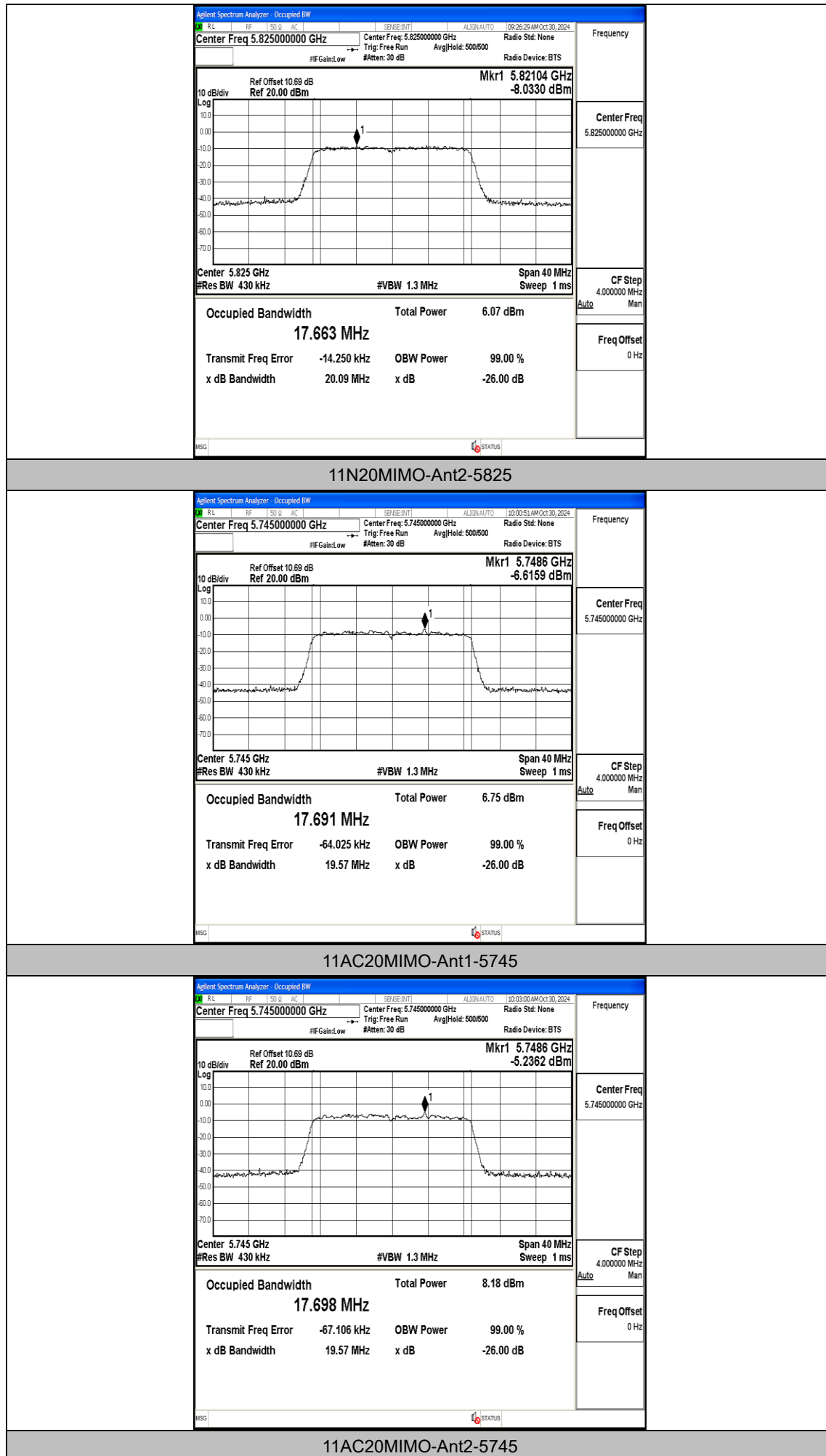
Test Graphs

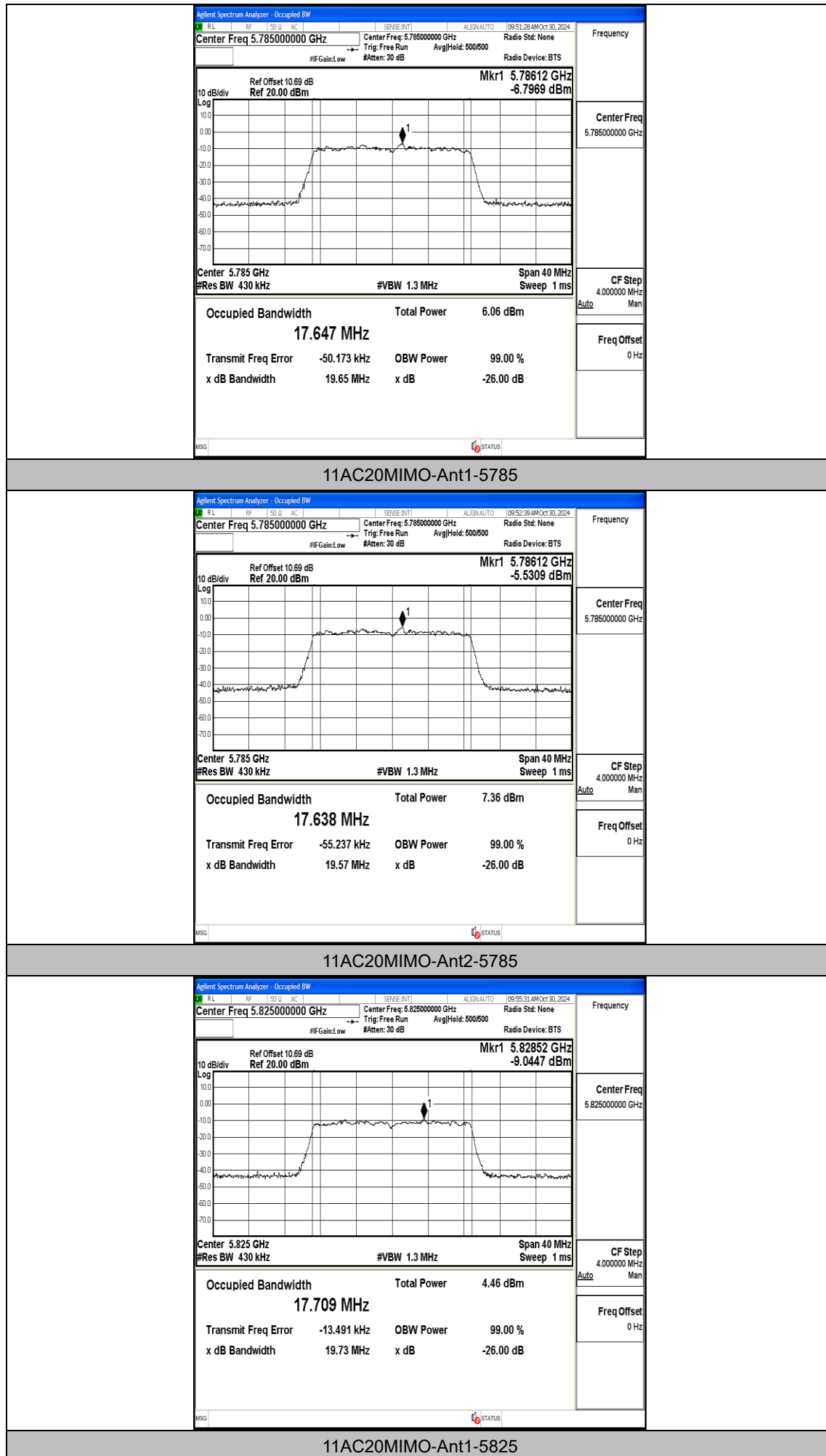


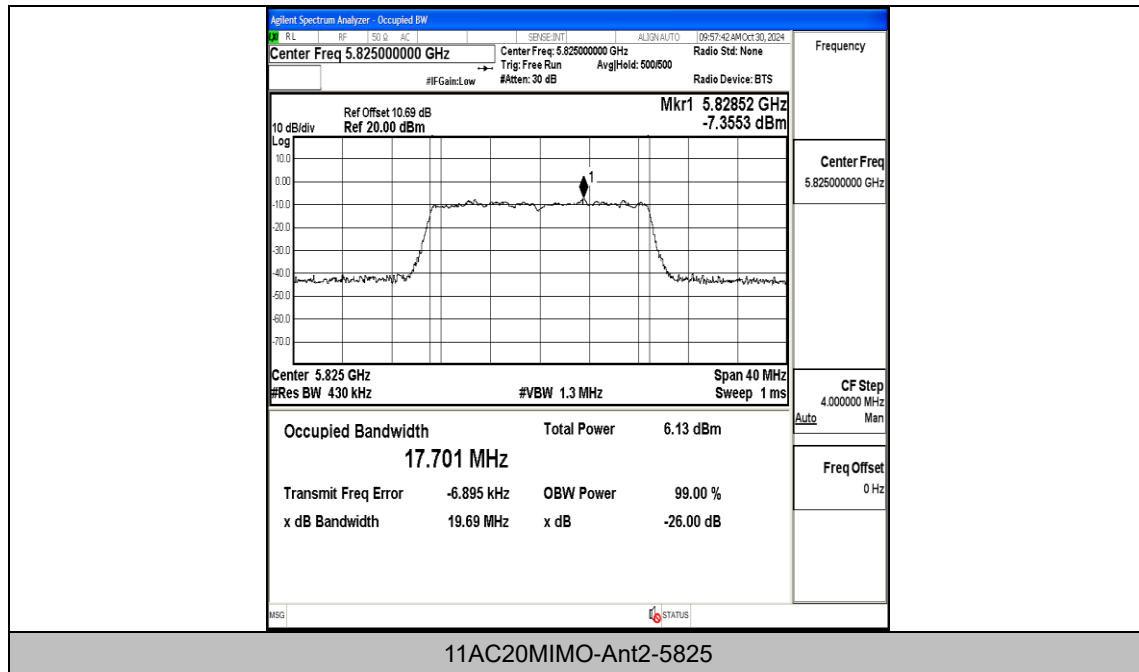










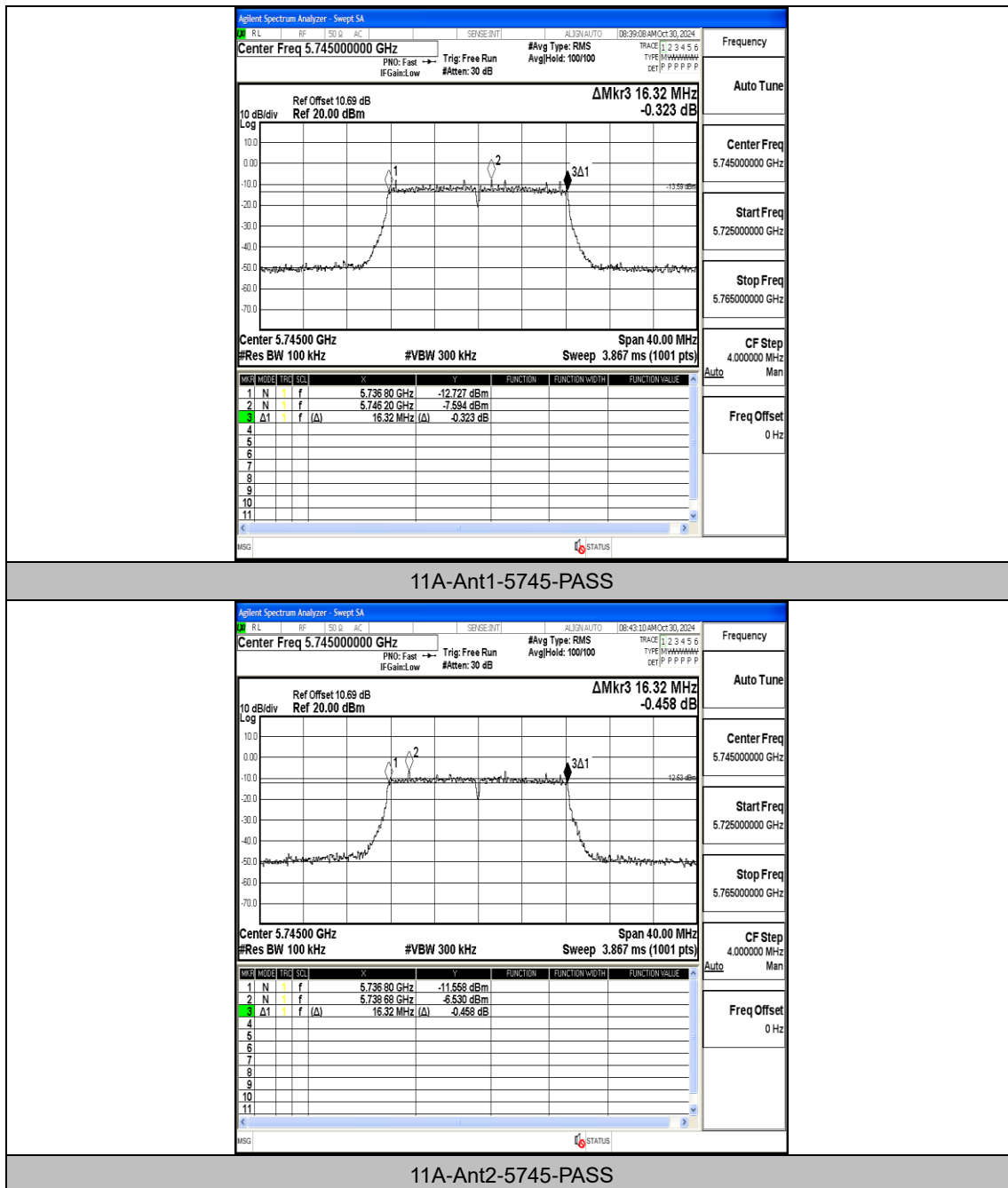


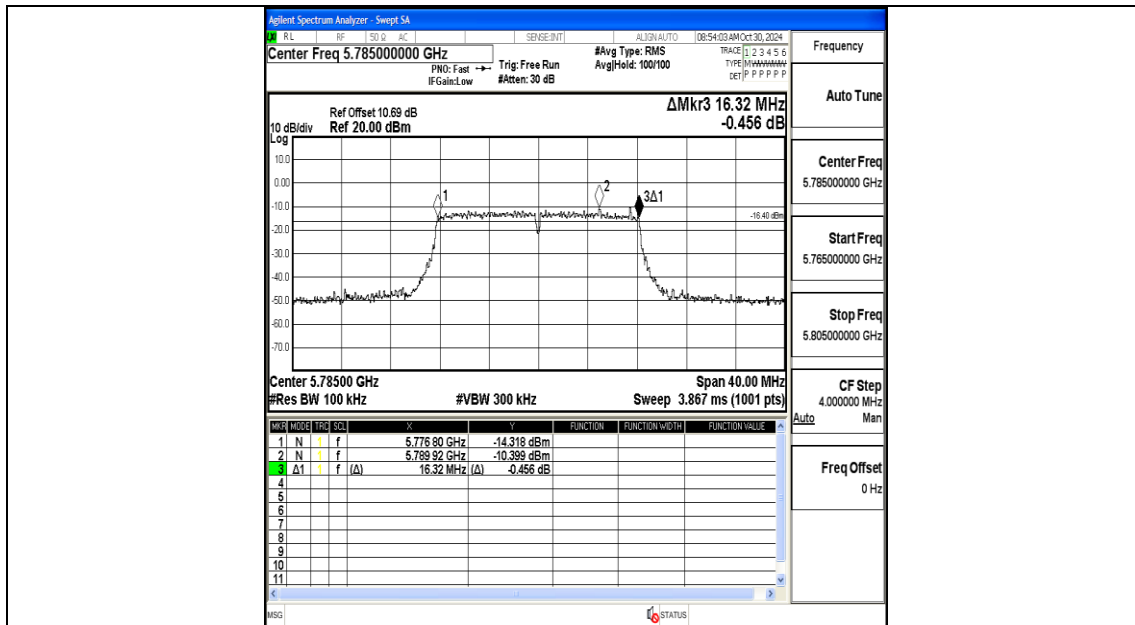
Appendix A: Min emission bandwidth

Test Result

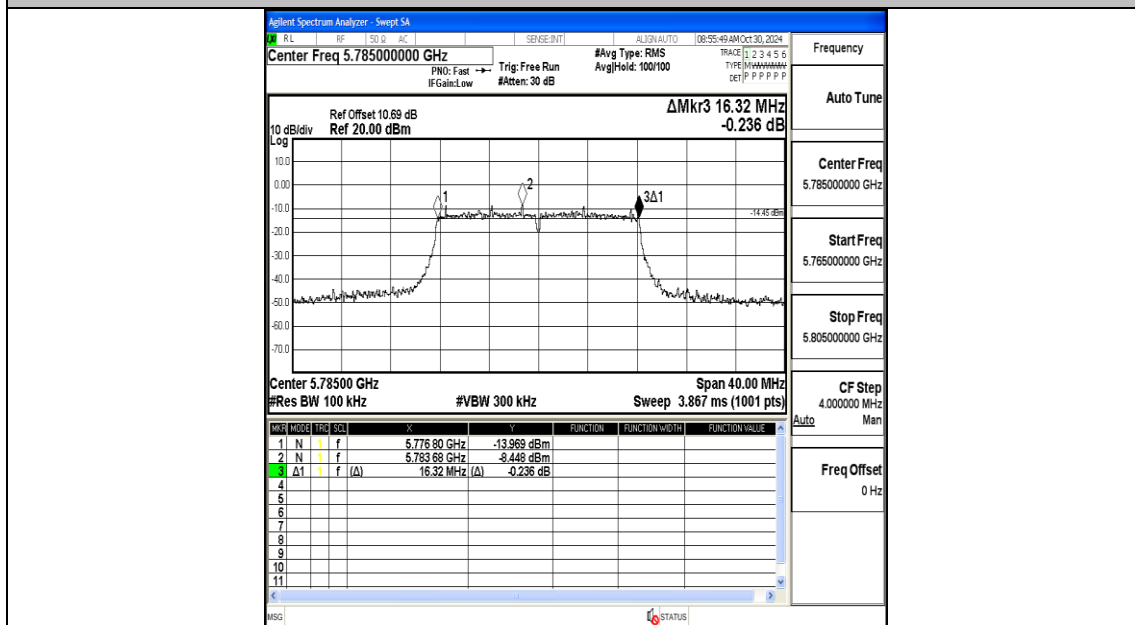
Test Mode	Antenna	Frequency [MHz]	6db EBW [MHz]	FL [MHz]	FH [MHz]	Limit [MHz]	Verdict
11A	Ant1	5745	16.320	5736.800	5753.120	0.5	PASS
11A	Ant2	5745	16.320	5736.800	5753.120	0.5	PASS
11A	Ant1	5785	16.320	5776.800	5793.120	0.5	PASS
11A	Ant2	5785	16.320	5776.800	5793.120	0.5	PASS
11A	Ant1	5825	16.320	5816.800	5833.120	0.5	PASS
11A	Ant2	5825	16.320	5816.800	5833.120	0.5	PASS
11N20MIMO	Ant1	5745	17.280	5736.200	5753.480	0.5	PASS
11N20MIMO	Ant2	5745	17.560	5736.160	5753.720	0.5	PASS
11N20MIMO	Ant1	5785	17.560	5776.160	5793.720	0.5	PASS
11N20MIMO	Ant2	5785	17.280	5776.200	5793.480	0.5	PASS
11N20MIMO	Ant1	5825	17.520	5816.200	5833.720	0.5	PASS
11N20MIMO	Ant2	5825	17.520	5816.200	5833.720	0.5	PASS
11AC20MIMO	Ant1	5745	17.320	5736.120	5753.440	0.5	PASS
11AC20MIMO	Ant2	5745	17.520	5736.120	5753.640	0.5	PASS
11AC20MIMO	Ant1	5785	17.480	5776.240	5793.720	0.5	PASS
11AC20MIMO	Ant2	5785	17.600	5776.120	5793.720	0.5	PASS
11AC20MIMO	Ant1	5825	17.480	5816.240	5833.720	0.5	PASS
11AC20MIMO	Ant2	5825	17.520	5816.200	5833.720	0.5	PASS

Test Graphs

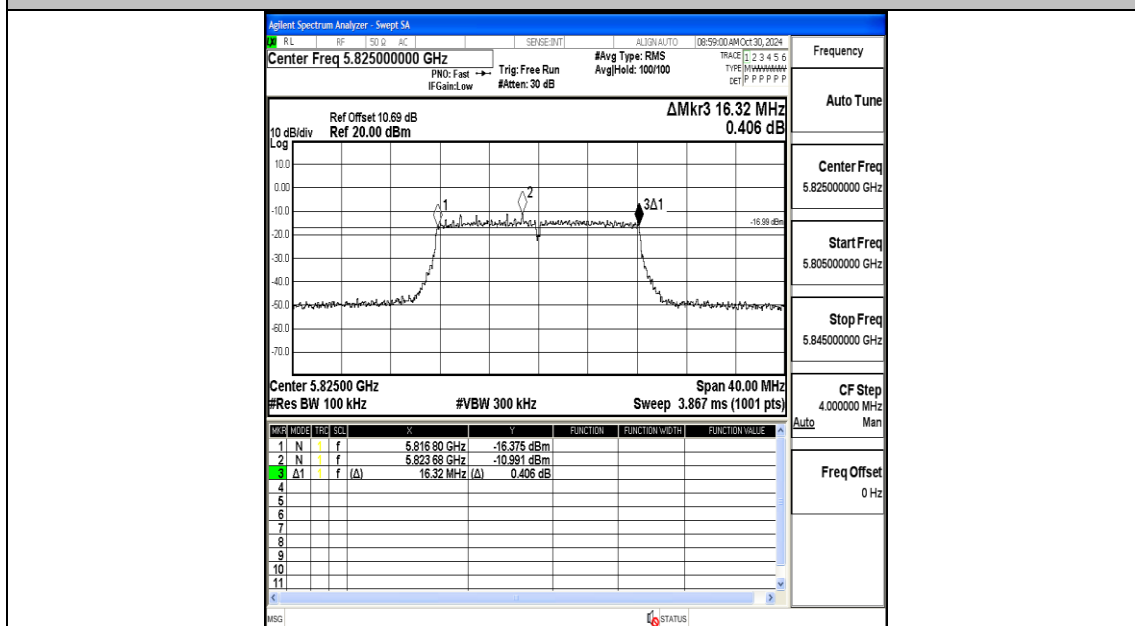




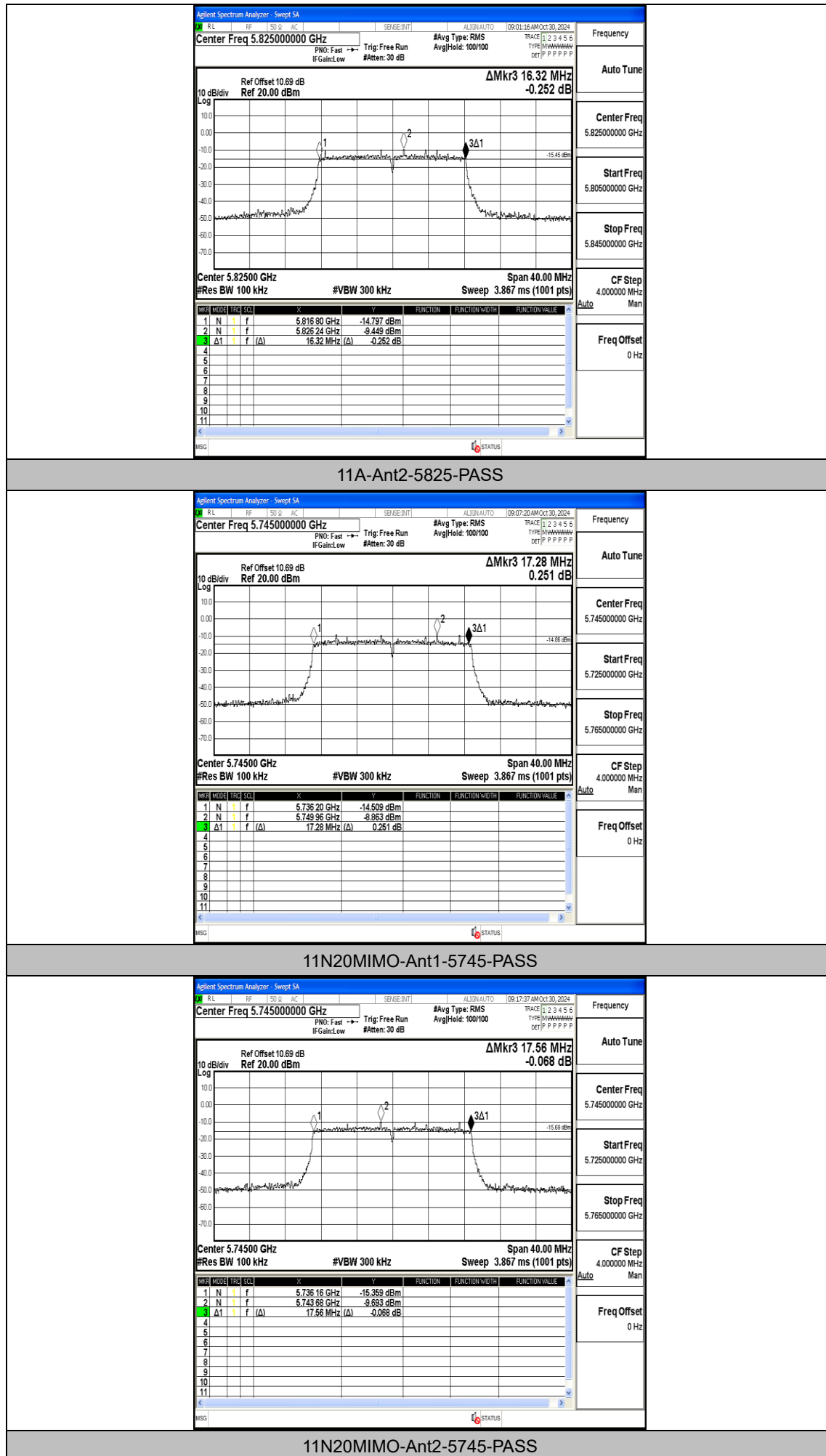
11A-Ant1-5785-PASS



11A-Ant2-5785-PASS

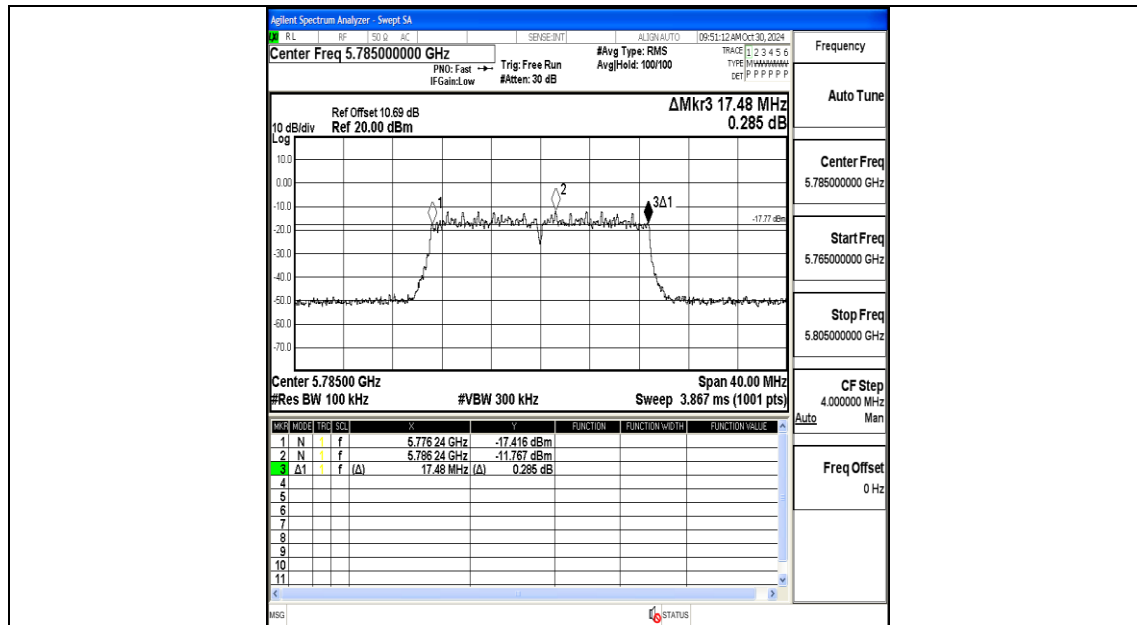


11A-Ant1-5825-PASS

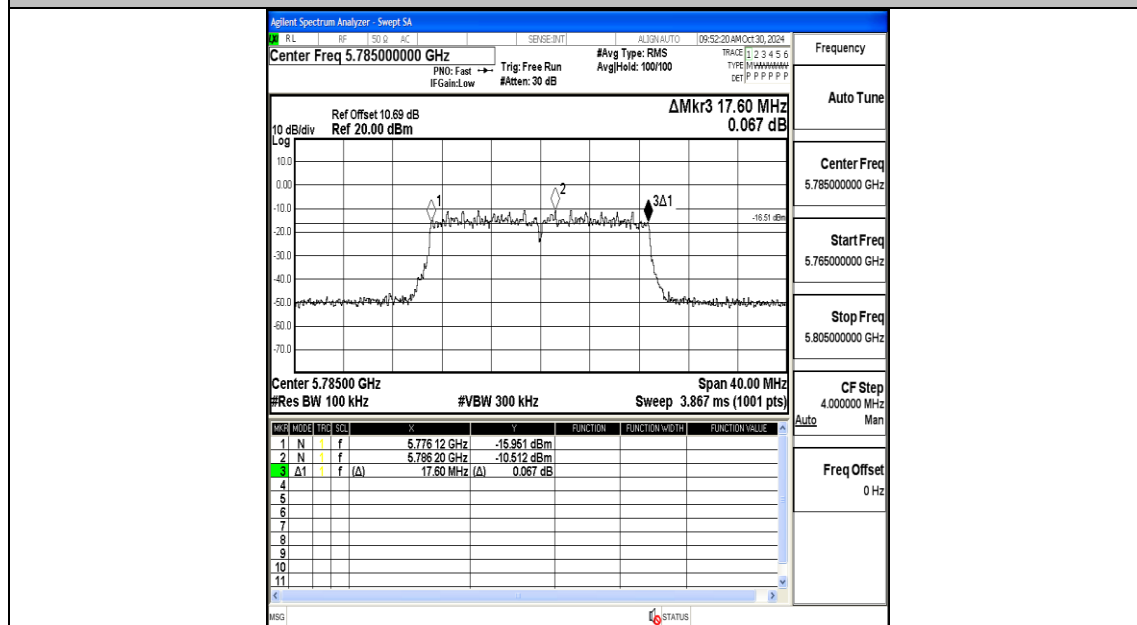




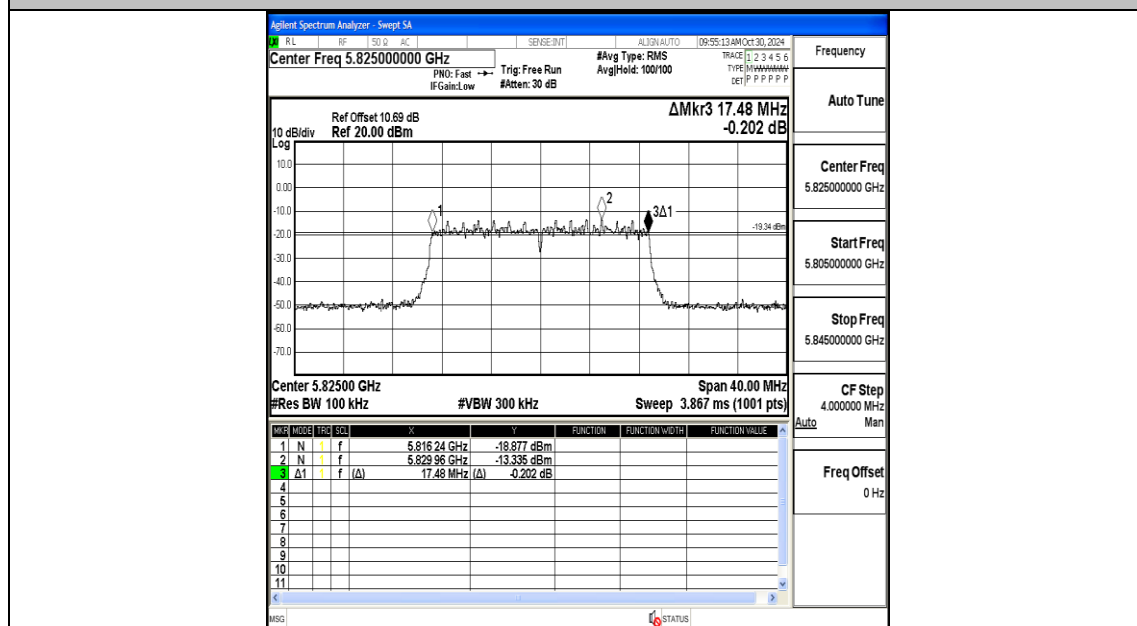




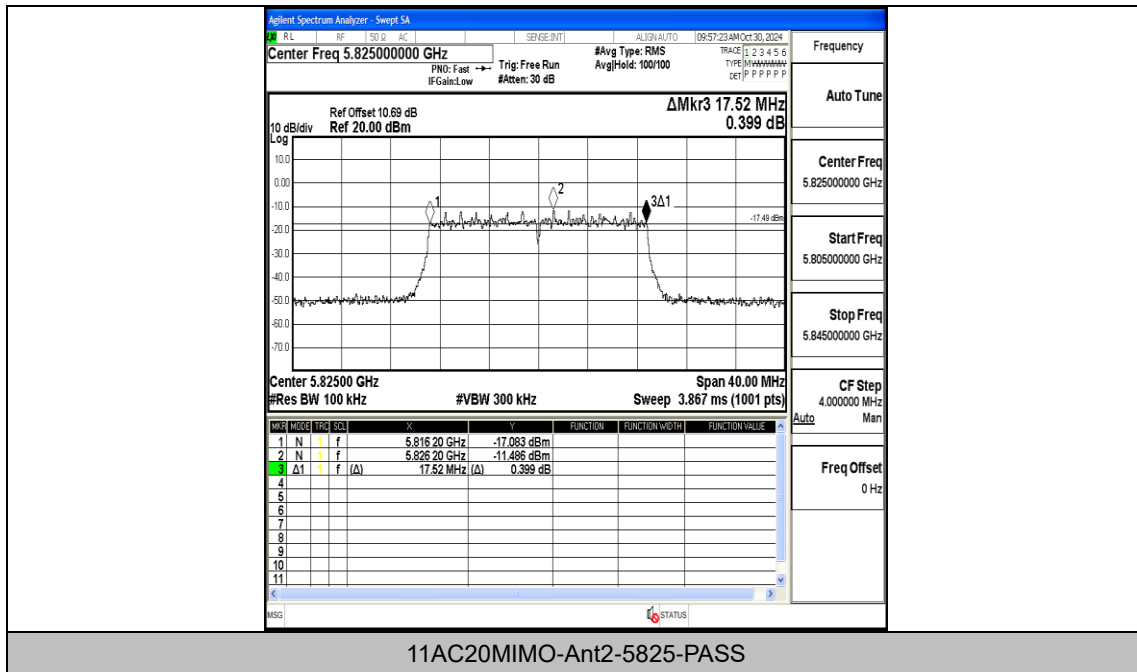
11AC20MIMO-Ant1-5785-PASS



11AC20MIMO-Ant2-5785-PASS



11AC20MIMO-Ant1-5825-PASS



Appendix B: Maximum conducted output power

Test Result

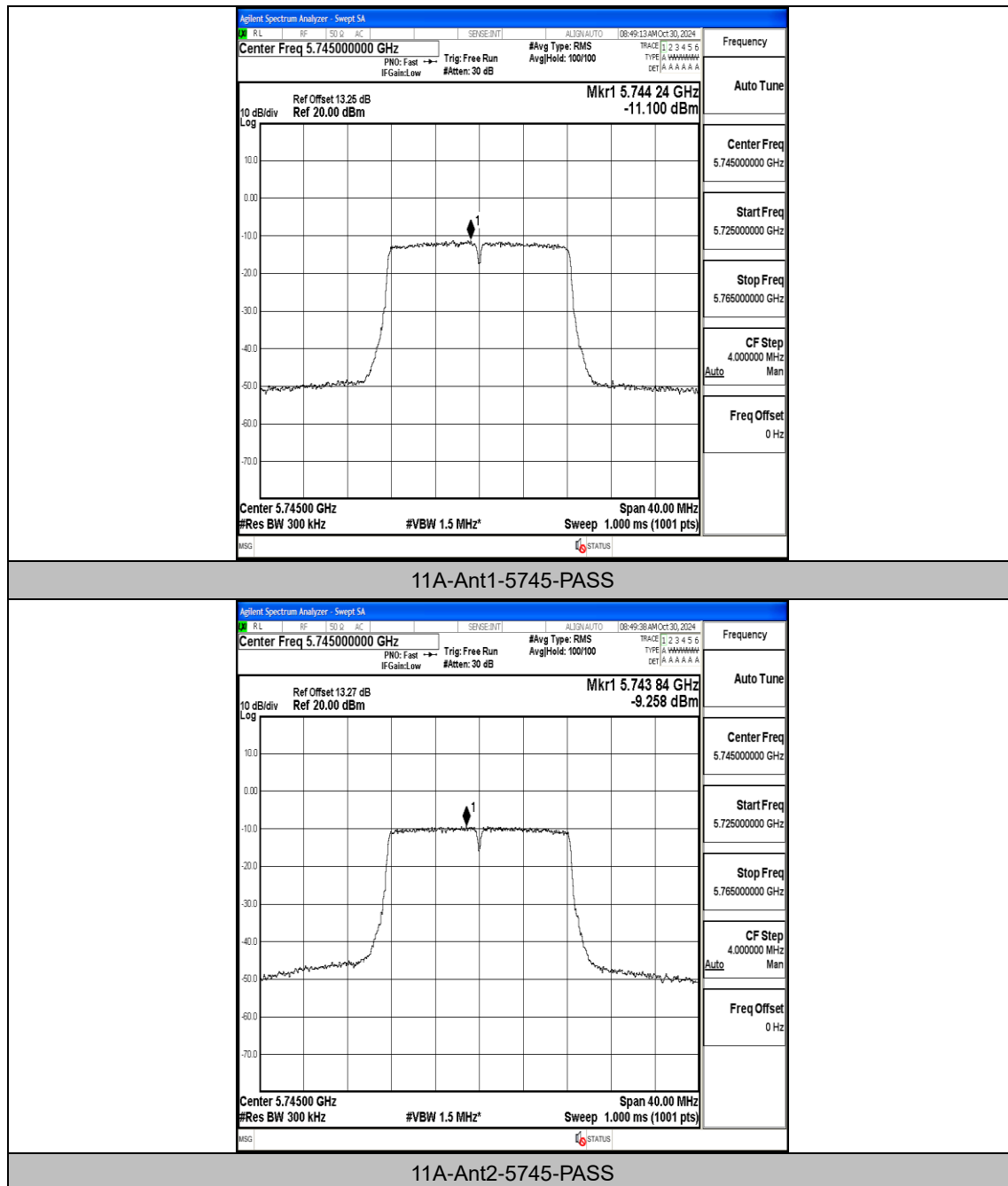
Test Mode	Antenna	Frequency [MHz]	Conducted Power [dBm]	Conducted Limit [dBm]	Verdict
11A	Ant1	5745	2.46	≤30.00	PASS
11A	Ant2	5745	4.44	≤30.00	PASS
11A	Ant1	5785	2.20	≤30.00	PASS
11A	Ant2	5785	3.14	≤30.00	PASS
11A	Ant1	5825	0.64	≤30.00	PASS
11A	Ant2	5825	1.87	≤30.00	PASS
11N20MIMO	Ant1	5745	-0.09	≤30.00	PASS
11N20MIMO	Ant2	5745	1.80	≤30.00	PASS
11N20MIMO	total	5745	3.97	≤30.00	PASS
11N20MIMO	Ant1	5785	-1.23	≤30.00	PASS
11N20MIMO	Ant2	5785	0.68	≤30.00	PASS
11N20MIMO	total	5785	2.84	≤30.00	PASS
11N20MIMO	Ant1	5825	-2.14	≤30.00	PASS
11N20MIMO	Ant2	5825	-0.43	≤30.00	PASS
11N20MIMO	total	5825	1.81	≤30.00	PASS
11AC20MIMO	Ant1	5745	0.48	≤30.00	PASS
11AC20MIMO	Ant2	5745	2.19	≤30.00	PASS
11AC20MIMO	total	5745	4.43	≤30.00	PASS
11AC20MIMO	Ant1	5785	0.08	≤30.00	PASS
11AC20MIMO	Ant2	5785	1.32	≤30.00	PASS
11AC20MIMO	total	5785	3.75	≤30.00	PASS
11AC20MIMO	Ant1	5825	-1.38	≤30.00	PASS
11AC20MIMO	Ant2	5825	-0.04	≤30.00	PASS
11AC20MIMO	total	5825	2.35	≤30.00	PASS

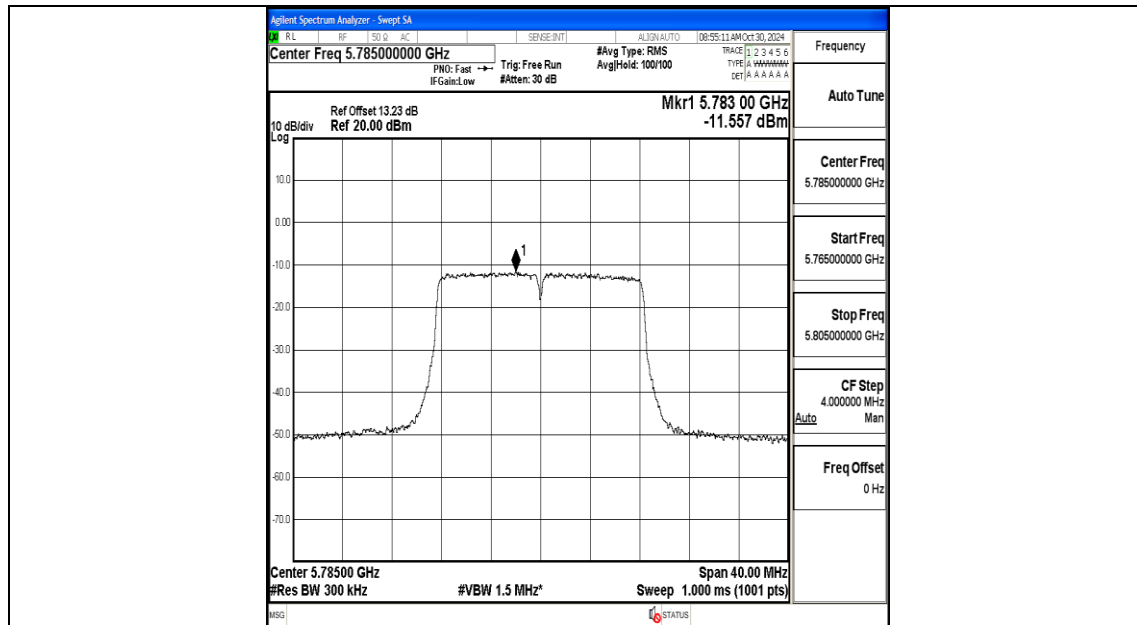
Appendix C: Maximum power spectral density

Test Result

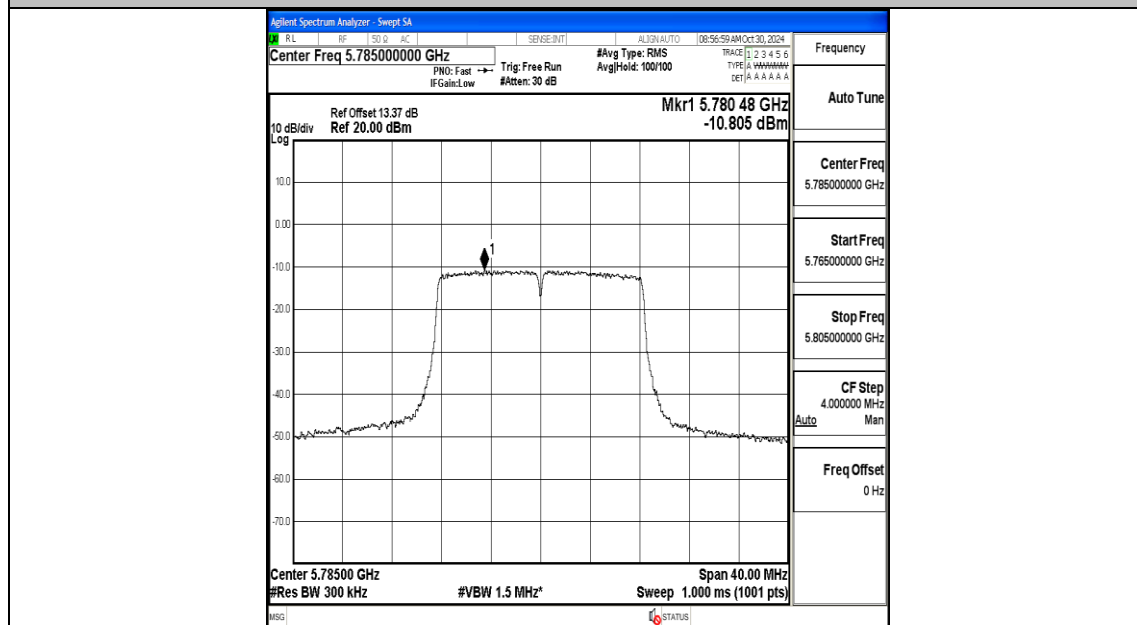
Frequency [MHz]	Test Mode	Antenna	Result [dBm/MHz]	Limit [dBm/MHz]	Verdict
5745	11A	Ant1	-11.10	≤30.00	PASS
5745	11A	Ant2	-9.26	≤30.00	PASS
5785	11A	Ant1	-11.56	≤30.00	PASS
5785	11A	Ant2	-10.81	≤30.00	PASS
5825	11A	Ant1	-13.34	≤30.00	PASS
5825	11A	Ant2	-12.28	≤30.00	PASS
5745	11N20MIMO	Ant1	-13.96	≤30.00	PASS
5745	11N20MIMO	Ant2	-12.42	≤30.00	PASS
5745	11N20MIMO	total	-10.11	≤30.00	PASS
5785	11N20MIMO	Ant1	-15.10	≤30.00	PASS
5785	11N20MIMO	Ant2	-13.95	≤30.00	PASS
5785	11N20MIMO	total	-11.48	≤30.00	PASS
5825	11N20MIMO	Ant1	-16.45	≤30.00	PASS
5825	11N20MIMO	Ant2	-14.35	≤30.00	PASS
5825	11N20MIMO	total	-12.26	≤30.00	PASS
5745	11AC20MIMO	Ant1	-12.33	≤30.00	PASS
5745	11AC20MIMO	Ant2	-11.15	≤30.00	PASS
5745	11AC20MIMO	total	-8.69	≤30.00	PASS
5785	11AC20MIMO	Ant1	-12.96	≤30.00	PASS
5785	11AC20MIMO	Ant2	-11.52	≤30.00	PASS
5785	11AC20MIMO	total	-9.17	≤30.00	PASS
5825	11AC20MIMO	Ant1	-14.64	≤30.00	PASS
5825	11AC20MIMO	Ant2	-13.19	≤30.00	PASS
5825	11AC20MIMO	total	-10.84	≤30.00	PASS

Test Graphs

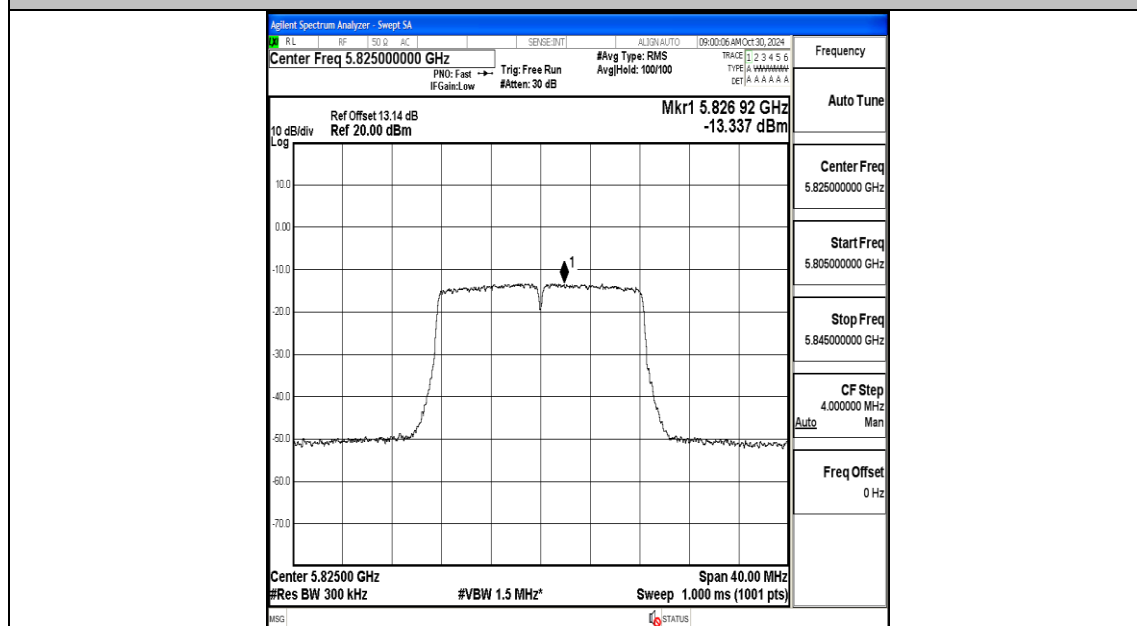




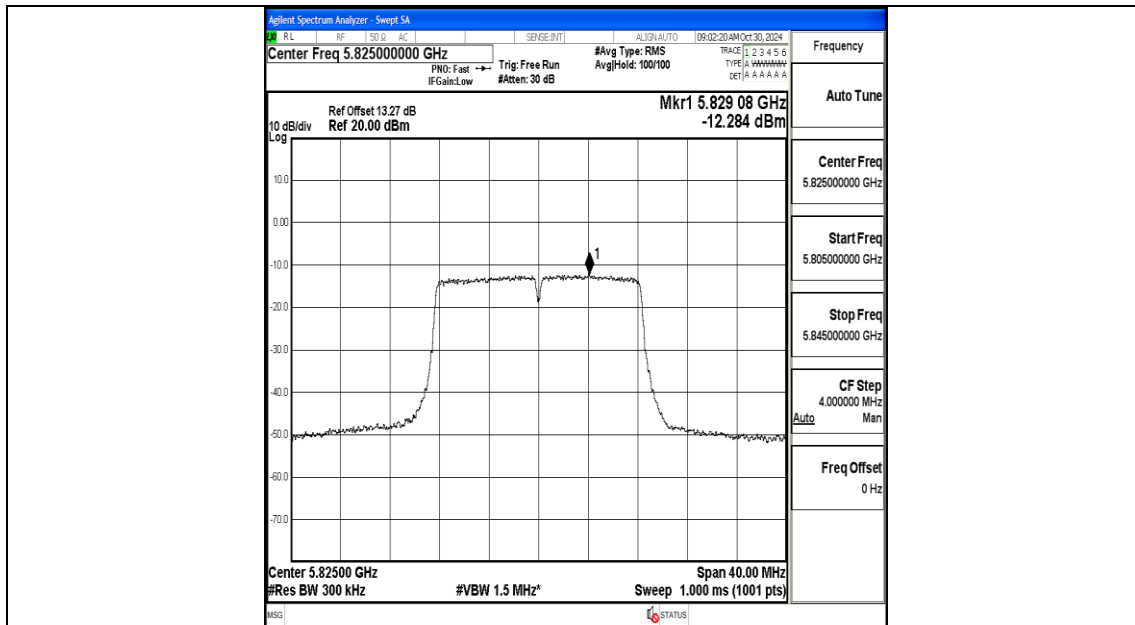
11A-Ant1-5785-PASS



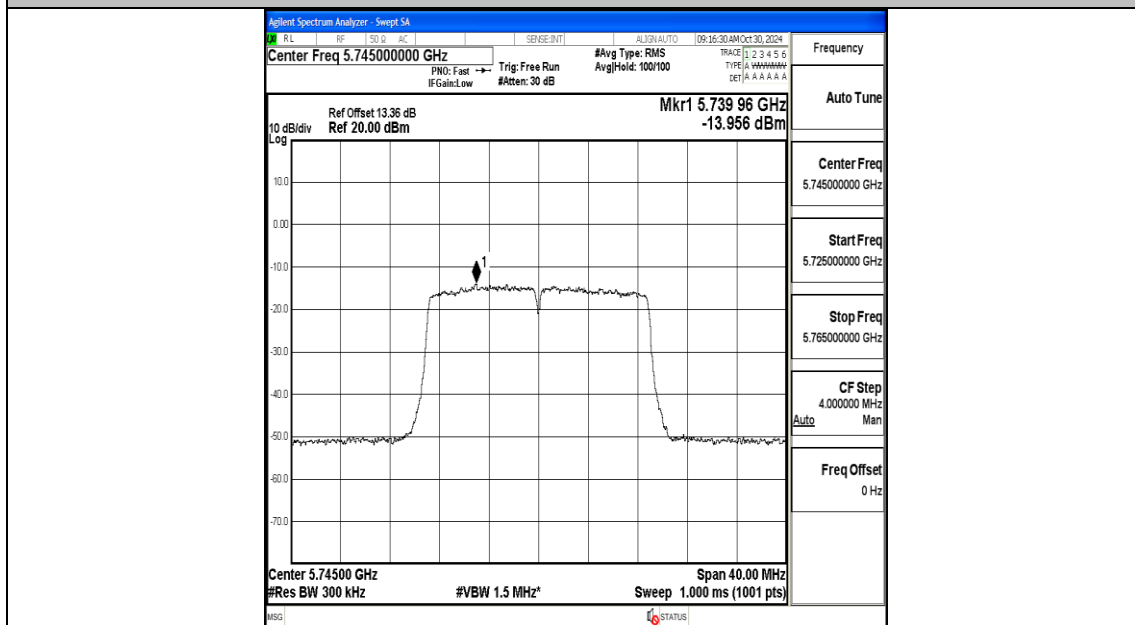
11A-Ant2-5785-PASS



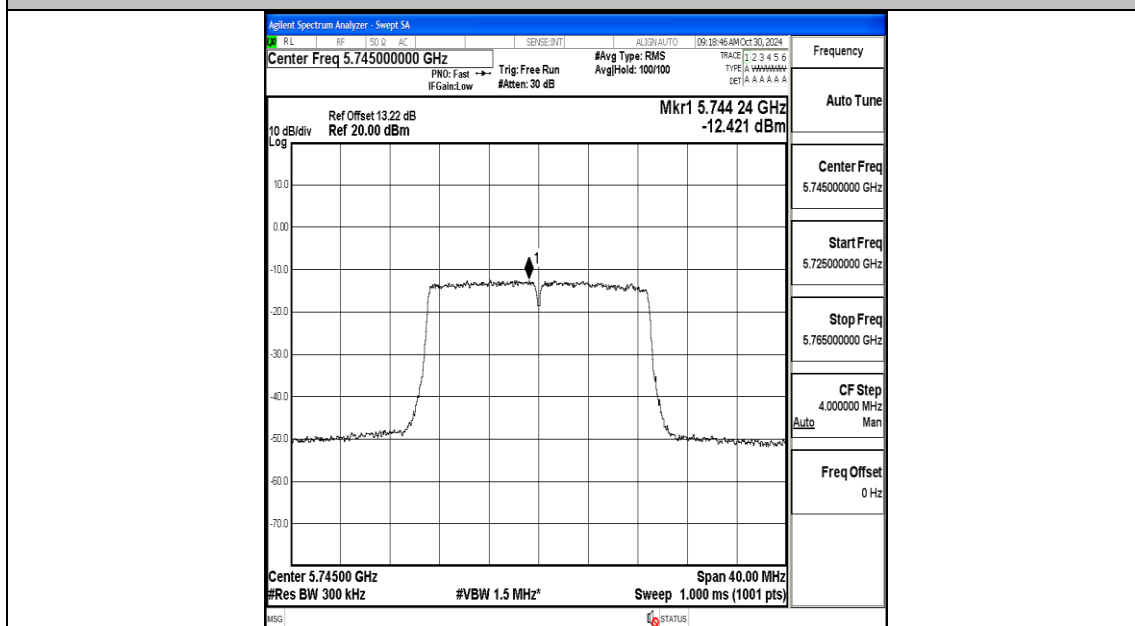
11A-Ant1-5825-PASS



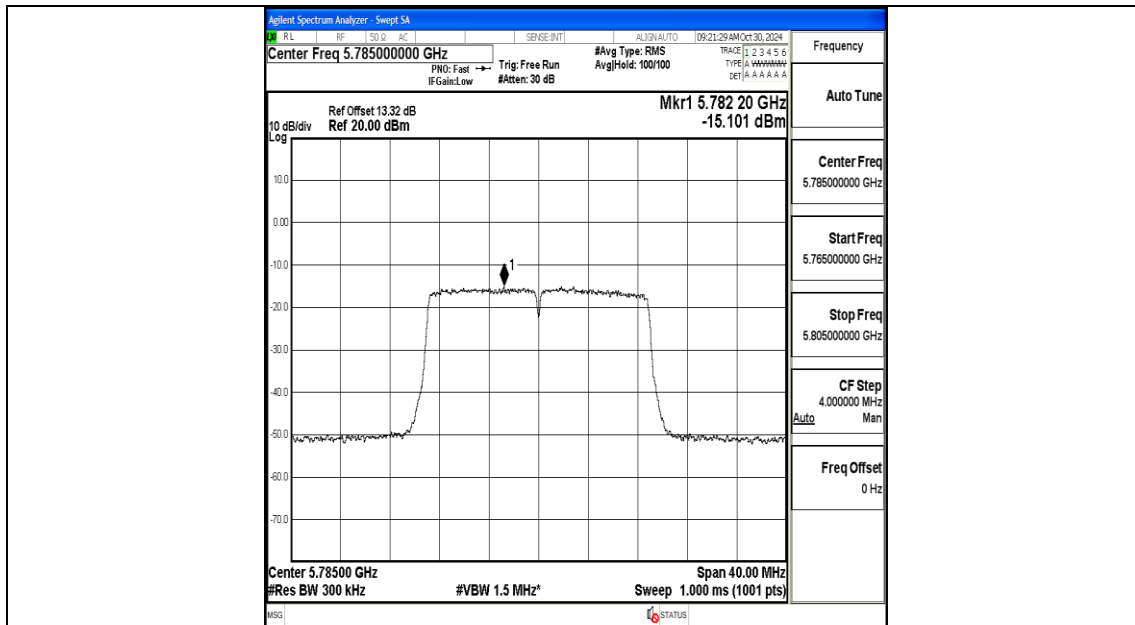
11A-Ant2-5825-PASS



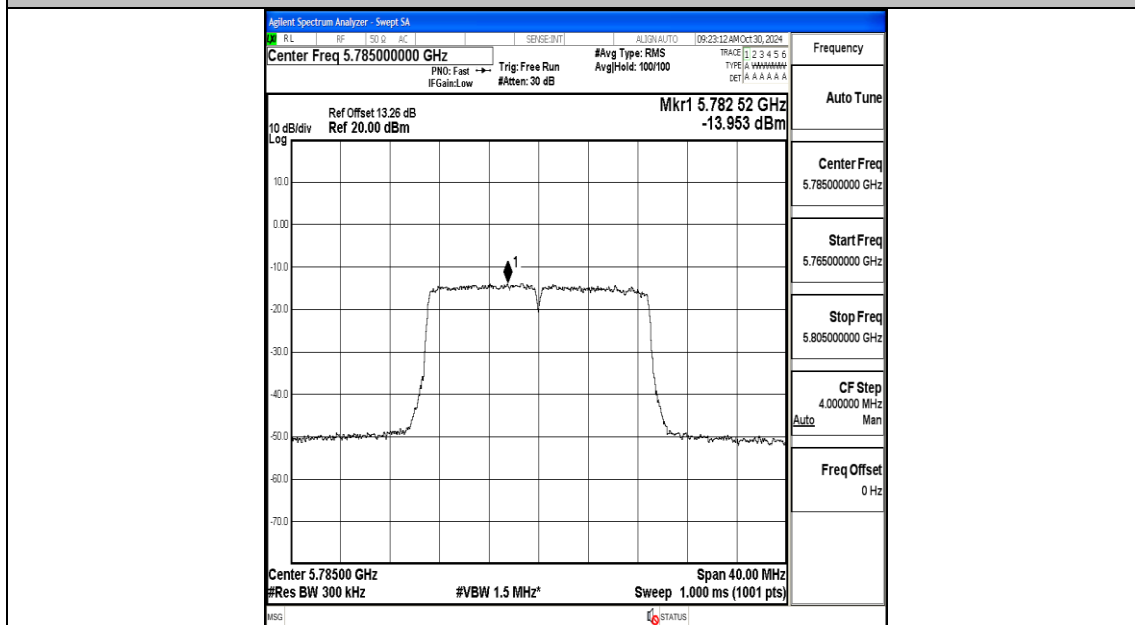
11N20MIMO-Ant1-5745-PASS



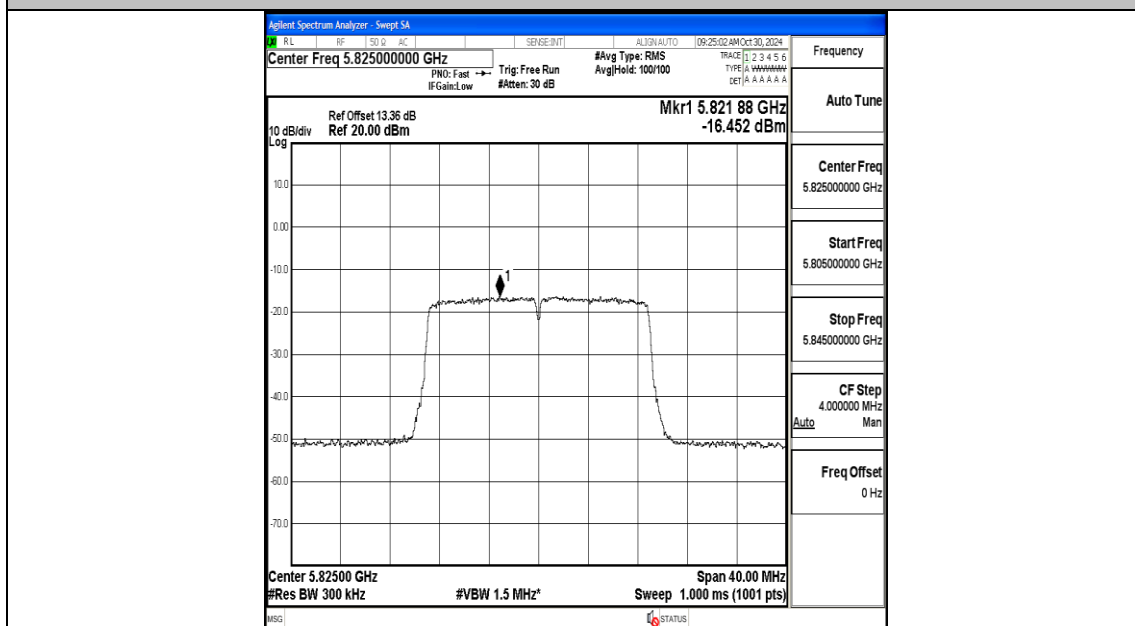
11N20MIMO-Ant2-5745-PASS



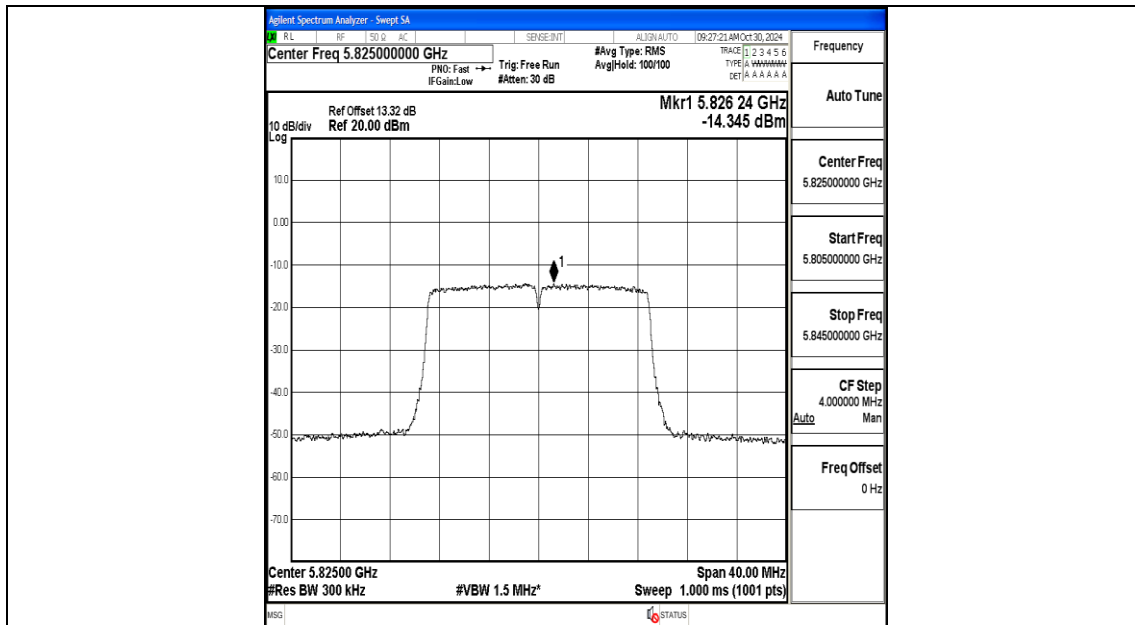
11N20MIMO-Ant1-5785-PASS



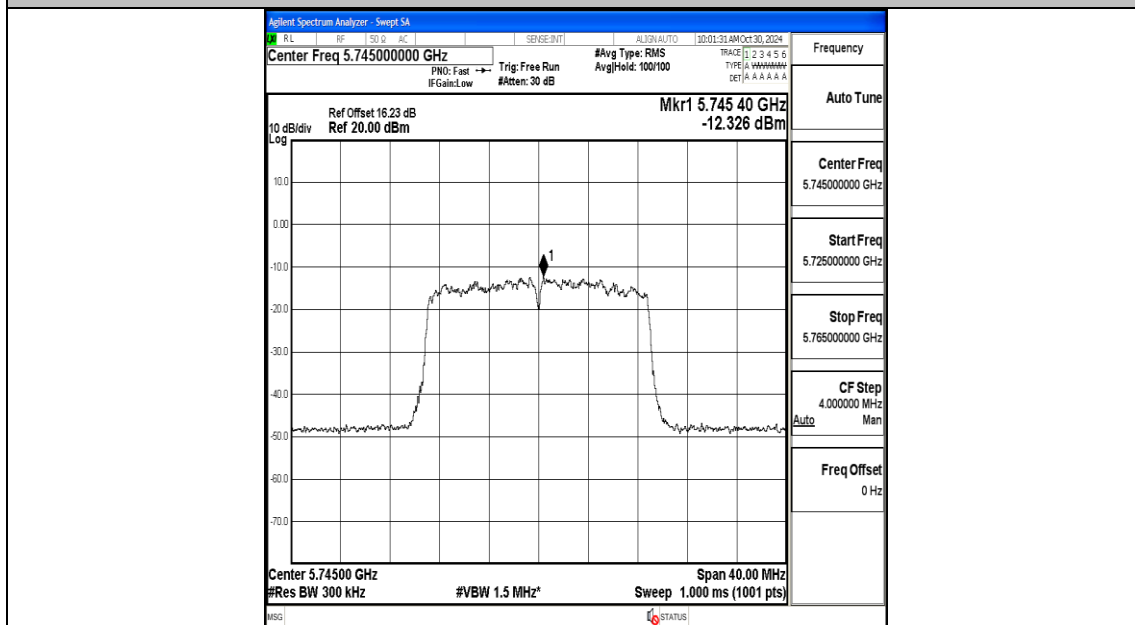
11N20MIMO-Ant2-5785-PASS



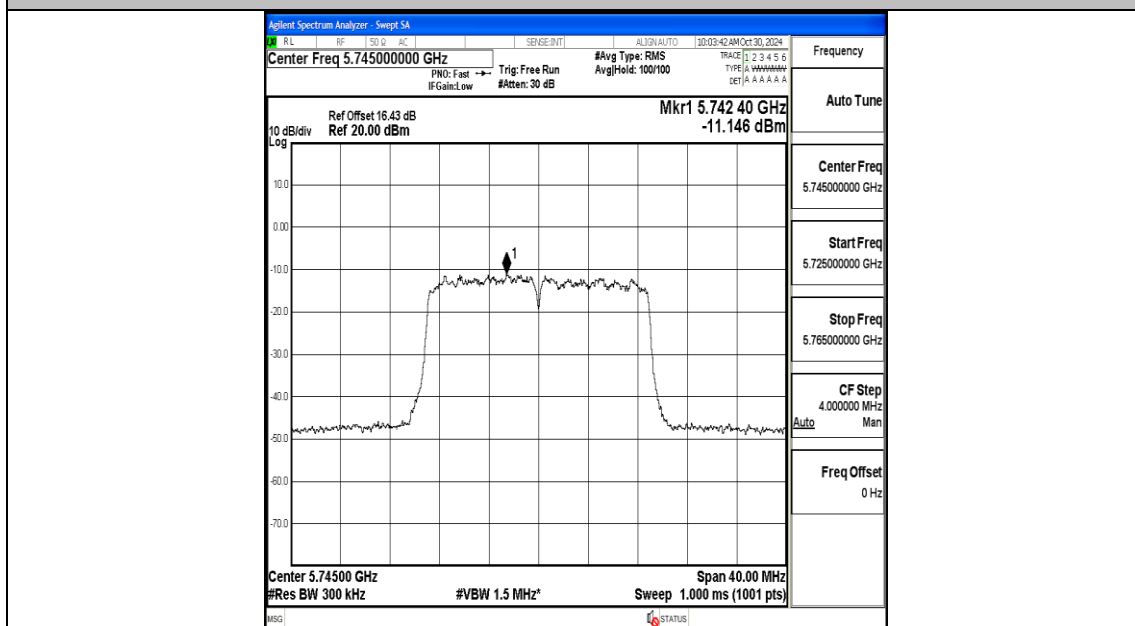
11N20MIMO-Ant1-5825-PASS



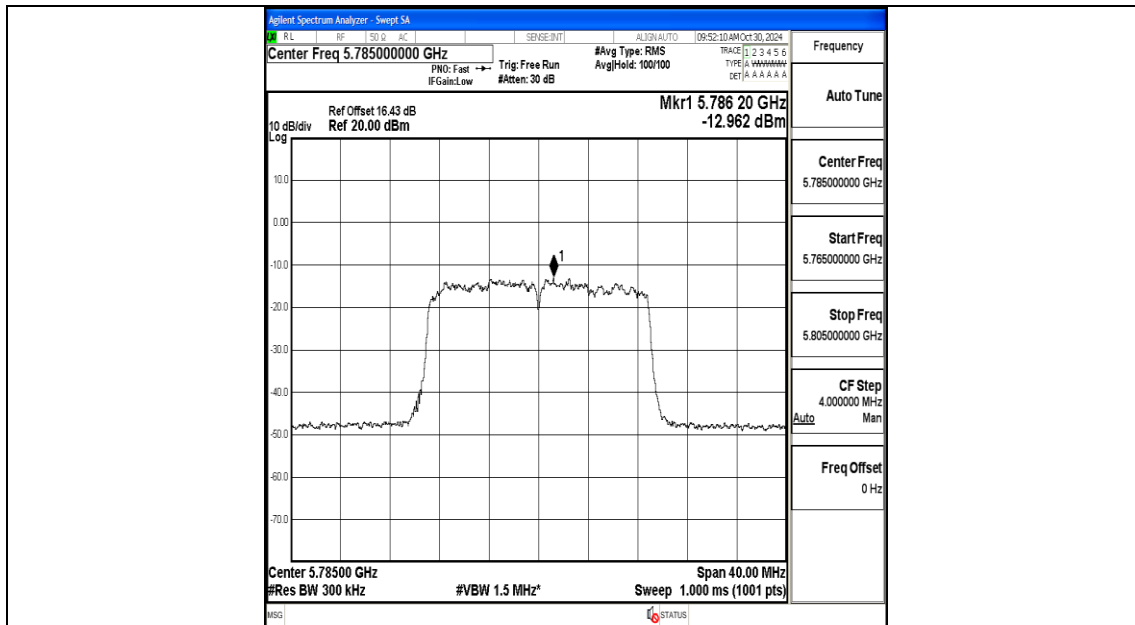
11N20MIMO-Ant2-5825-PASS



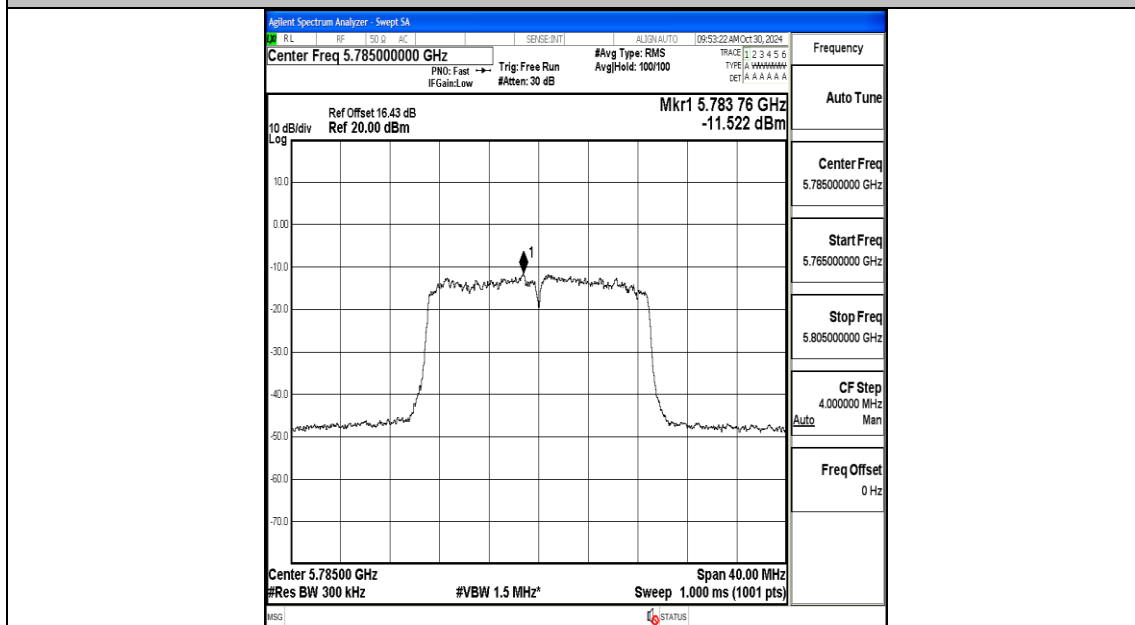
11AC20MIMO-Ant1-5745-PASS



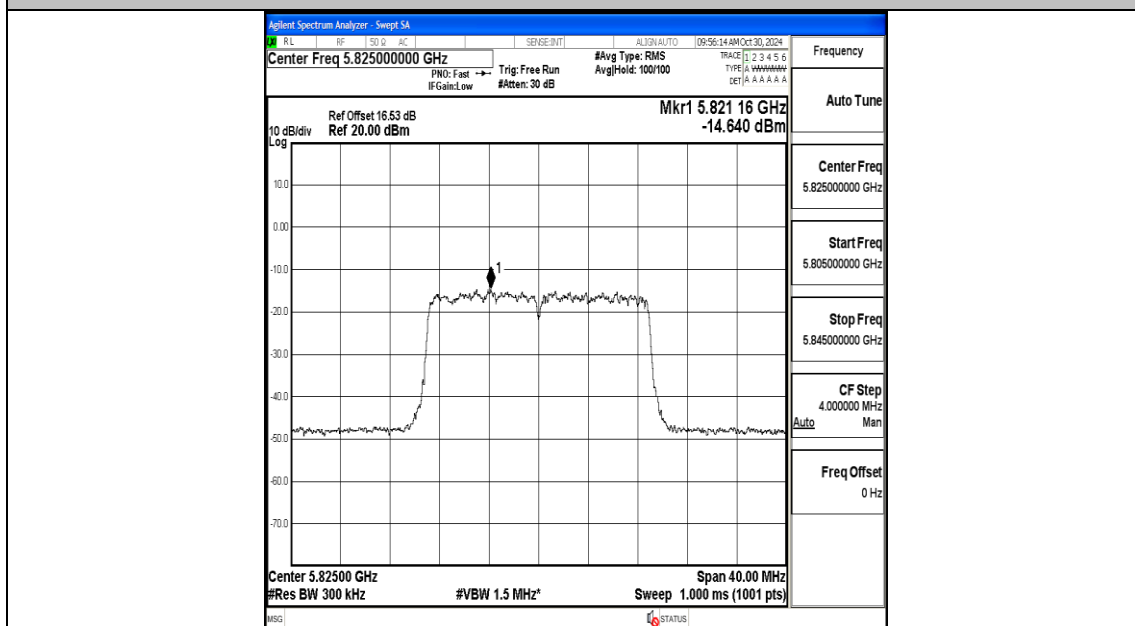
11AC20MIMO-Ant2-5745-PASS



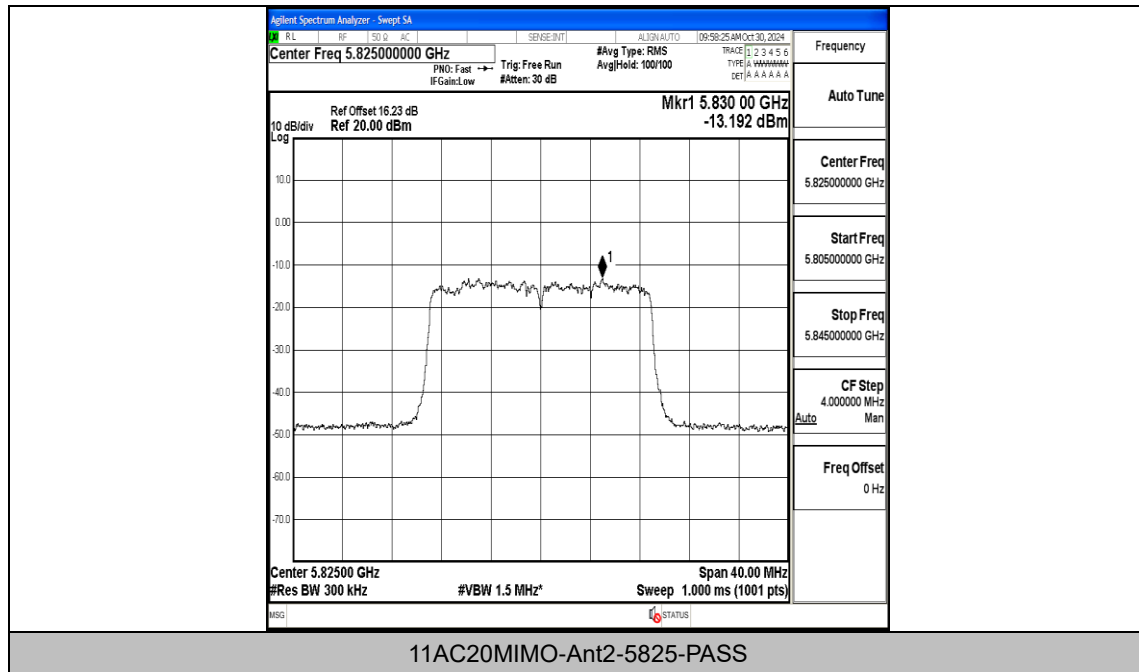
11AC20MIMO-Ant1-5785-PASS



11AC20MIMO-Ant2-5785-PASS



11AC20MIMO-Ant1-5825-PASS



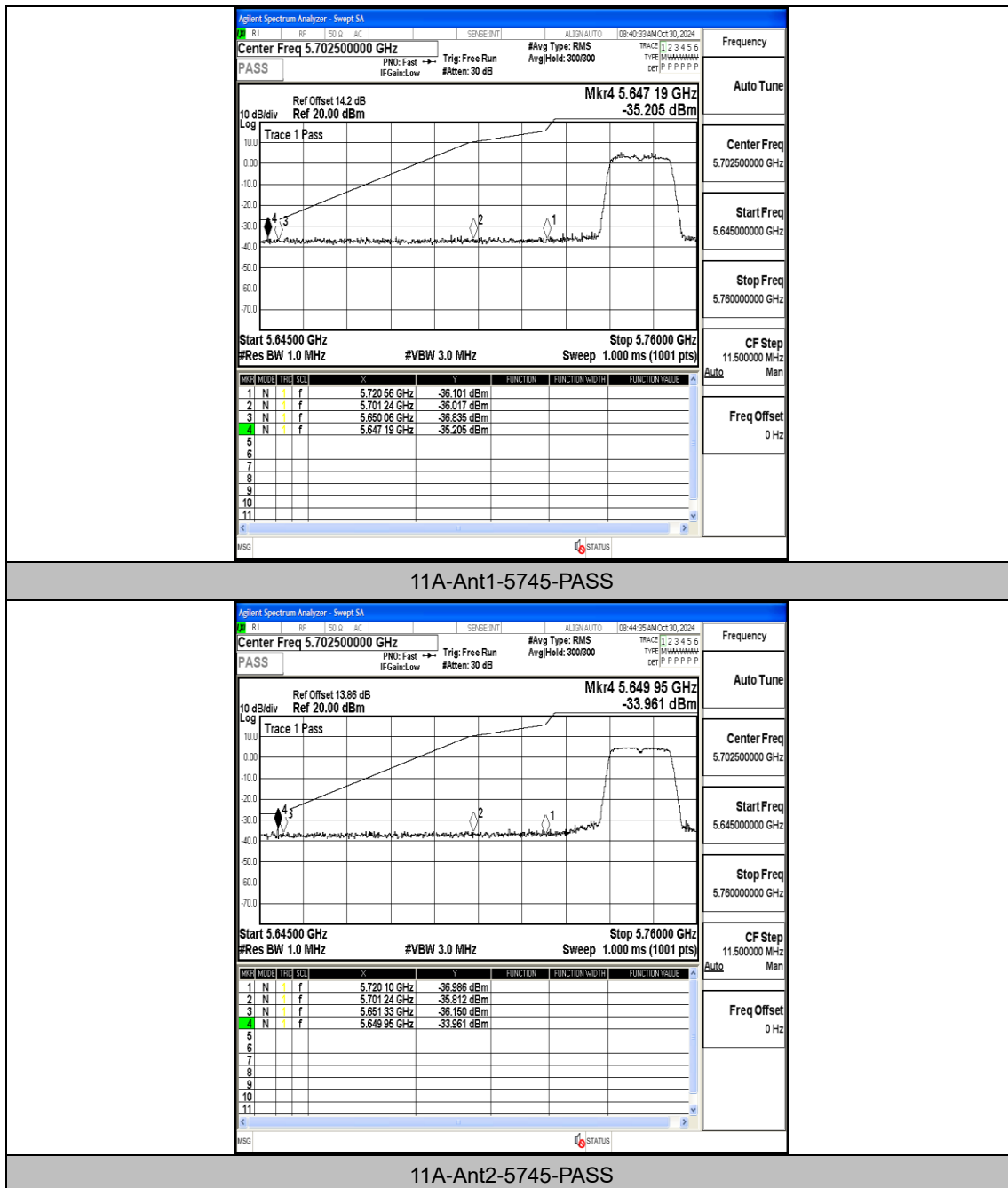
Appendix D: Band edge measurements

Test Result

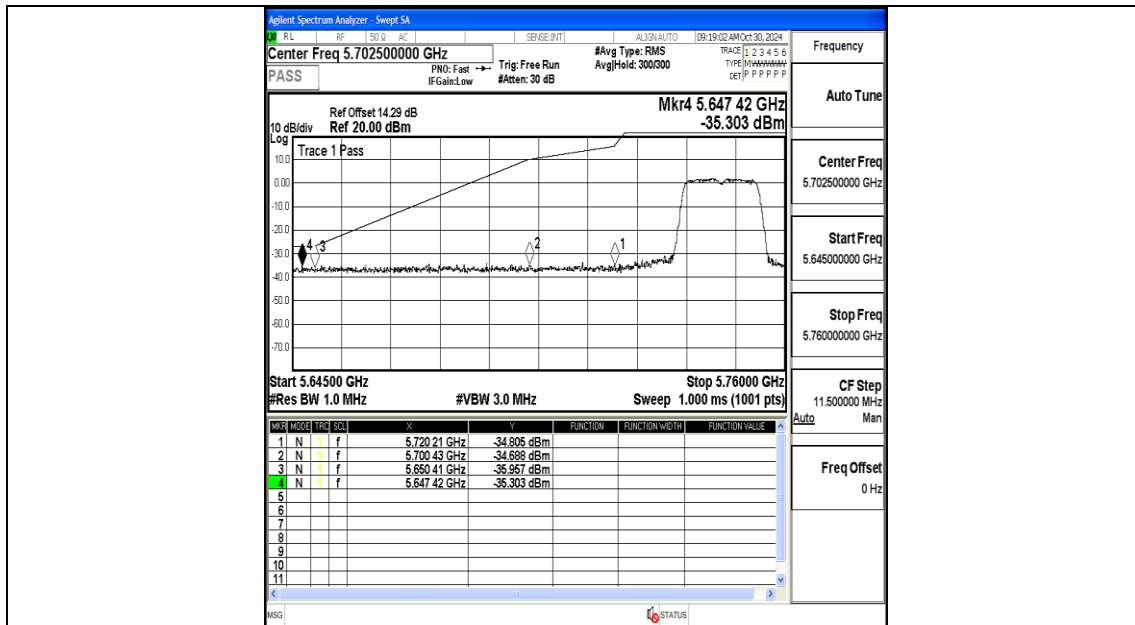
Test Mode	Antenna	Ch. Name	Frequency [MHz]	Freq. Range [MHz]	Result [dBm]	Limit [dBm]	Verdict
11A	Ant1	Low	5745	5720~5725	-36.1	≤16.87	PASS
11A	Ant1	Low	5745	5700~5720	-36.02	≤10.35	PASS
11A	Ant1	Low	5745	5650~5700	-36.84	≤-26.96	PASS
11A	Ant1	Low	5745	5760~5650	-35.21	≤-27	PASS
11A	Ant2	Low	5745	5720~5725	-36.99	≤15.82	PASS
11A	Ant2	Low	5745	5700~5720	-35.81	≤10.35	PASS
11A	Ant2	Low	5745	5650~5700	-36.15	≤-26.02	PASS
11A	Ant2	Low	5745	5760~5650	-33.96	≤-27	PASS
11A	Ant1	High	5825	5850~5855	-36.85	≤15.73	PASS
11A	Ant1	High	5825	5855~5875	-35.38	≤11.08	PASS
11A	Ant1	High	5825	5875~5925	-36.12	≤-26.81	PASS
11A	Ant1	High	5825	5925~5935	-34.93	≤-27	PASS
11A	Ant2	High	5825	5850~5855	-35.07	≤16.03	PASS
11A	Ant2	High	5825	5855~5875	-35.52	≤10.13	PASS
11A	Ant2	High	5825	5875~5925	-35.67	≤-26.71	PASS
11A	Ant2	High	5825	5925~5935	-34.85	≤-27	PASS
11N20MI MO	Ant1	Low	5745	5720~5725	-36.41	≤16.34	PASS
11N20MI MO	Ant1	Low	5745	5700~5720	-35.91	≤10.25	PASS
11N20MI MO	Ant1	Low	5745	5650~5700	-34.36	≤-26.96	PASS
11N20MI MO	Ant1	Low	5745	5760~5650	-35.35	≤-27	PASS
11N20MI MO	Ant2	Low	5745	5720~5725	-34.81	≤16.08	PASS
11N20MI MO	Ant2	Low	5745	5700~5720	-34.69	≤10.12	PASS
11N20MI MO	Ant2	Low	5745	5650~5700	-35.96	≤-26.70	PASS
11N20MI MO	Ant2	Low	5745	5760~5650	-35.3	≤-27	PASS
11N20MI MO	Ant1	High	5825	5850~5855	-35.87	≤15.73	PASS
11N20MI MO	Ant1	High	5825	5855~5875	-35.4	≤10.40	PASS
11N20MI MO	Ant1	High	5825	5875~5925	-36.32	≤-26.91	PASS
11N20MI MO	Ant1	High	5825	5925~5935	-34.11	≤-27	PASS
11N20MI	Ant2	High	5825	5850~5855	-36.08	≤15.73	PASS

MO							
11N20MI MO	Ant2	High	5825	5855~5875	-33.46	≤10.85	PASS
11N20MI MO	Ant2	High	5825	5875~5925	-35.48	≤-26.91	PASS
11N20MI MO	Ant2	High	5825	5925~5935	-35.4	≤-27	PASS
11AC20M IMO	Ant1	Low	5745	5720~5725	-37.14	≤15.82	PASS
11AC20M IMO	Ant1	Low	5745	5700~5720	-35.33	≤10.06	PASS
11AC20M IMO	Ant1	Low	5745	5650~5700	-36.02	≤-26.79	PASS
11AC20M IMO	Ant1	Low	5745	5760~5650	-34.64	≤-27	PASS
11AC20M IMO	Ant2	Low	5745	5720~5725	-33.89	≤16.34	PASS
11AC20M IMO	Ant2	Low	5745	5700~5720	-34.44	≤10.35	PASS
11AC20M IMO	Ant2	Low	5745	5650~5700	-36.47	≤-26.79	PASS
11AC20M IMO	Ant2	Low	5745	5760~5650	-34.93	≤-27	PASS
11AC20M IMO	Ant1	High	5825	5850~5855	-36.39	≤16.65	PASS
11AC20M IMO	Ant1	High	5825	5855~5875	-34.32	≤10.02	PASS
11AC20M IMO	Ant1	High	5825	5875~5925	-36.85	≤-26.91	PASS
11AC20M IMO	Ant1	High	5825	5925~5935	-34.94	≤-27	PASS
11AC20M IMO	Ant2	High	5825	5850~5855	-34.7	≤16.65	PASS
11AC20M IMO	Ant2	High	5825	5855~5875	-34.64	≤10.55	PASS
11AC20M IMO	Ant2	High	5825	5875~5925	-34.81	≤-26.71	PASS
11AC20M IMO	Ant2	High	5825	5925~5935	-34.18	≤-27	PASS

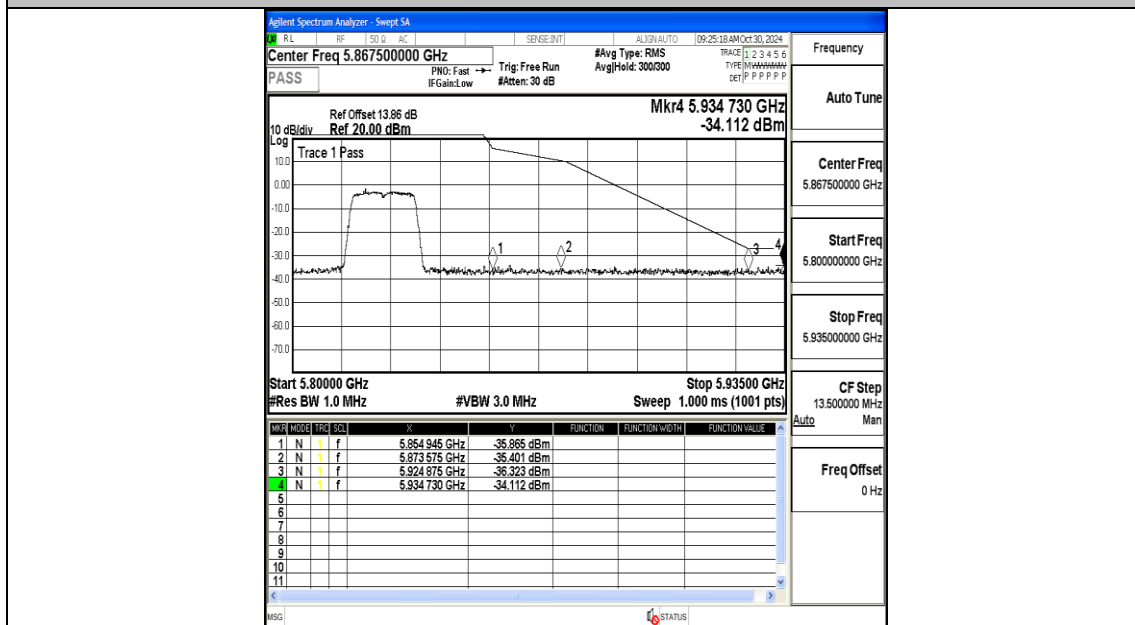
Test Graphs



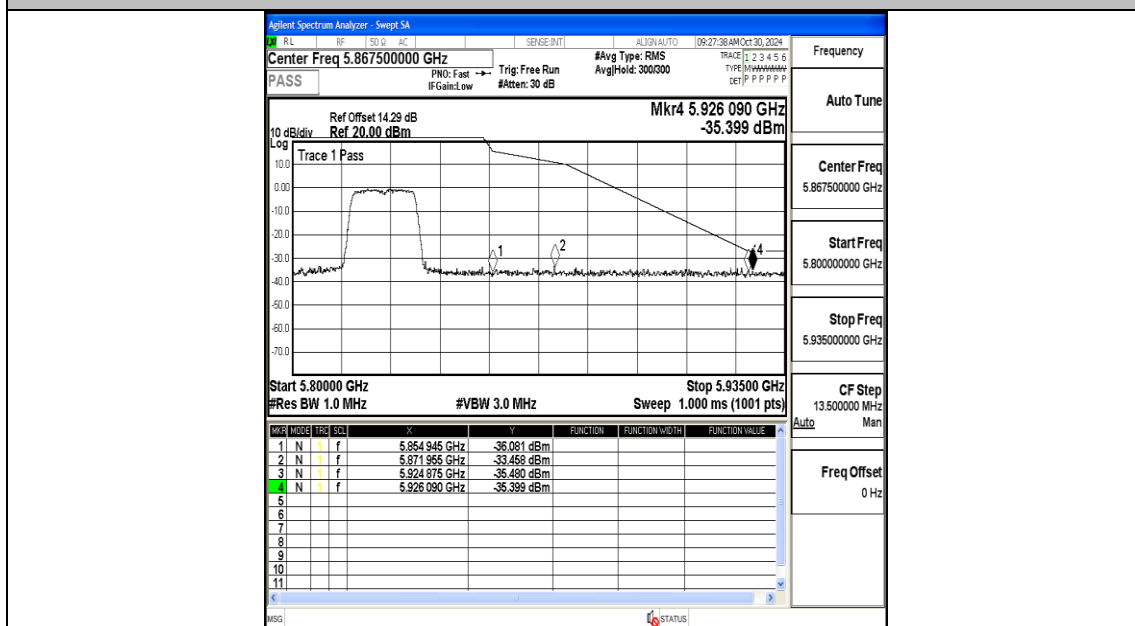




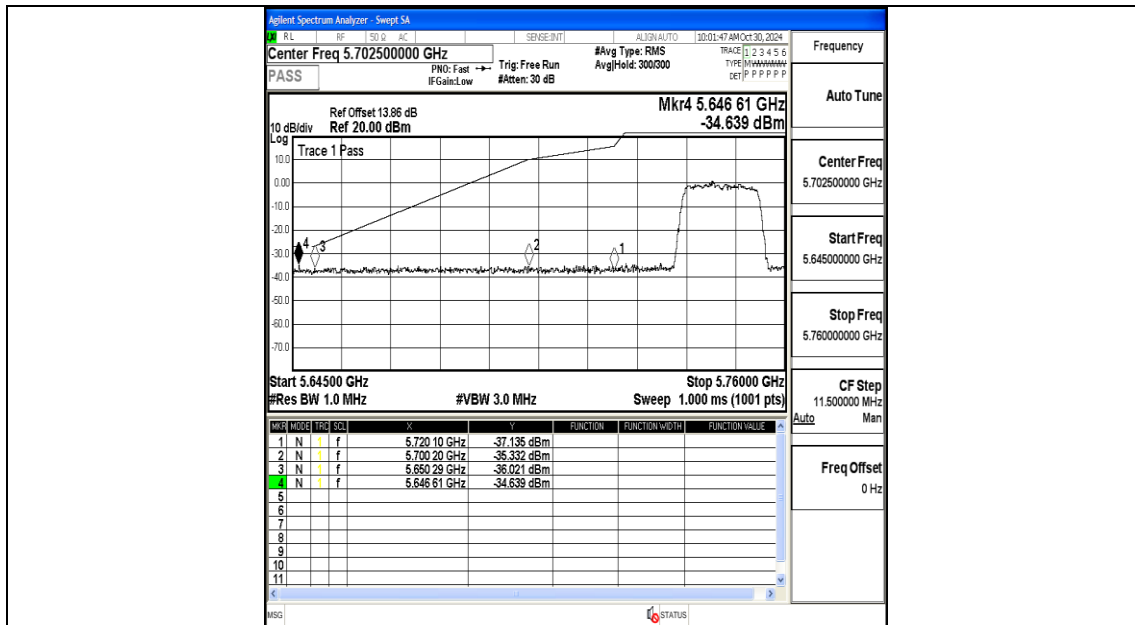
11N20MIMO-Ant2-5745-PASS



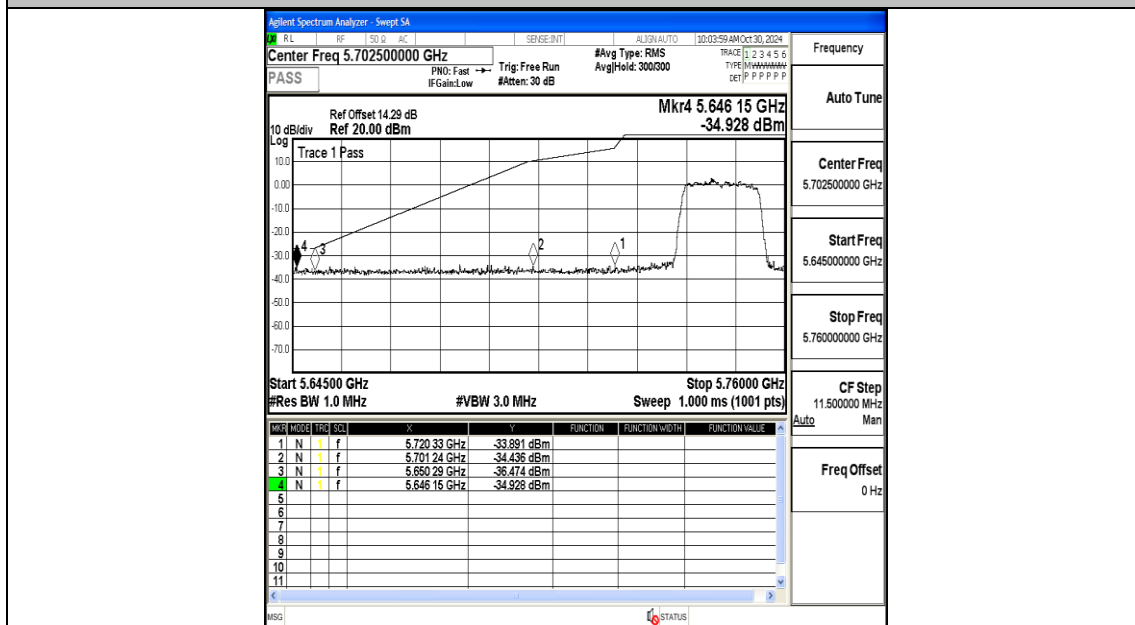
11N20MIMO-Ant1-5825-PASS



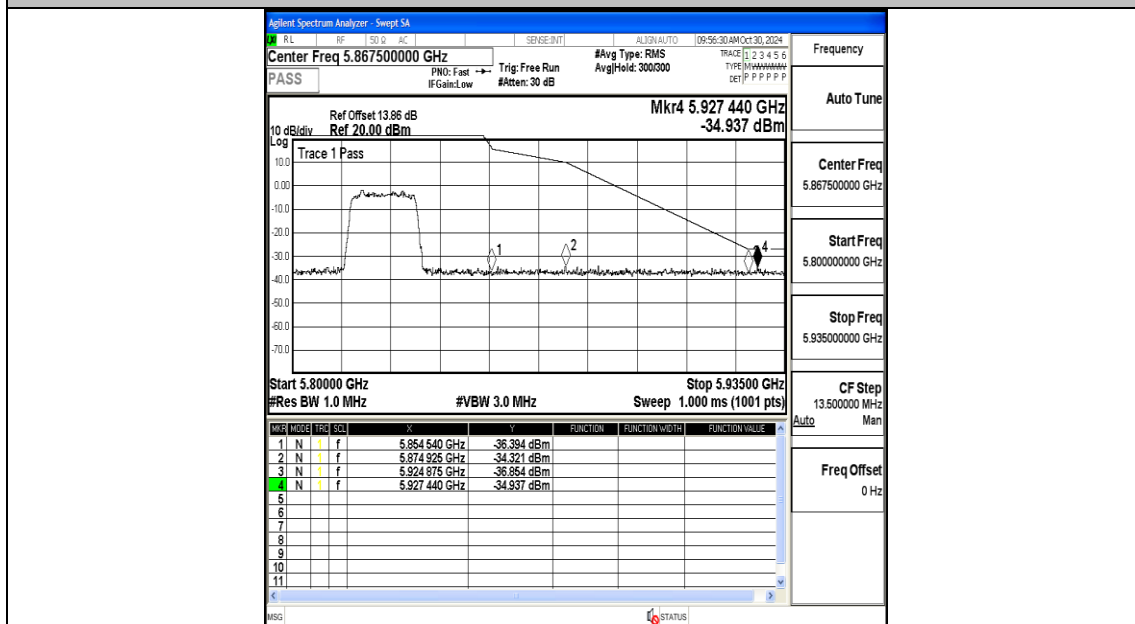
11N20MIMO-Ant2-5825-PASS



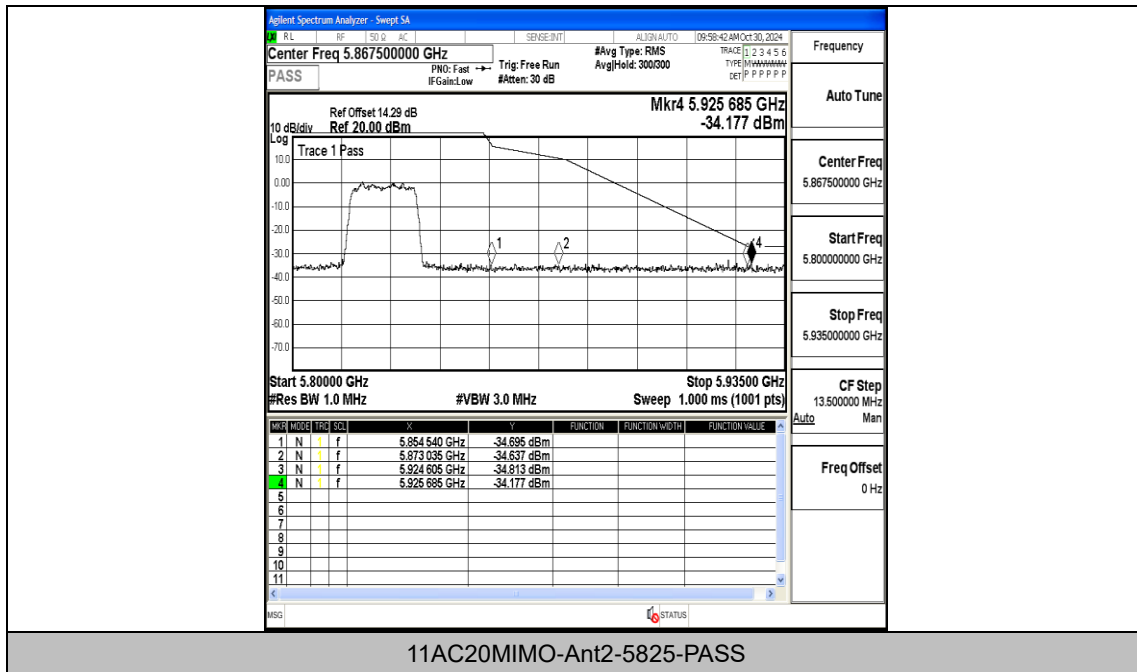
11AC20MIMO-Ant1-5745-PASS



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)	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)	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

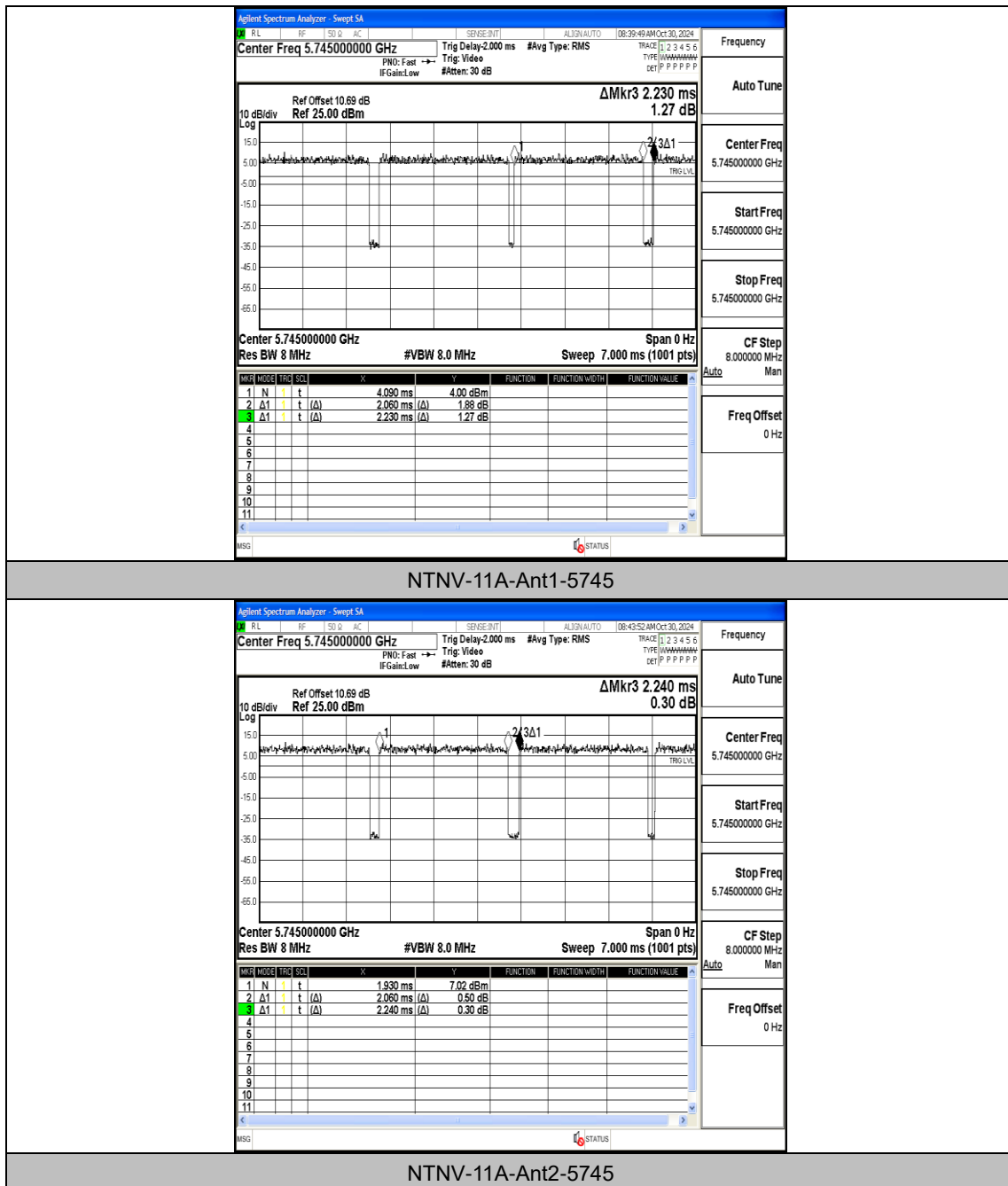
Frequency (MHz)	Enviroment Temperature (Degree)	Voltage (VAC)	Measured Frequency (MHz)	Limit Range (MHz)	Test Results
5825	20	132	5824.940325	5745 – 5825	PASS
5825	20	108	5825.074161	5745 – 5825	PASS
5825	50	120	5825.026472	5745 – 5825	PASS
5825	40	120	5824.983524	5745 – 5825	PASS
5825	30	120	5824.918209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

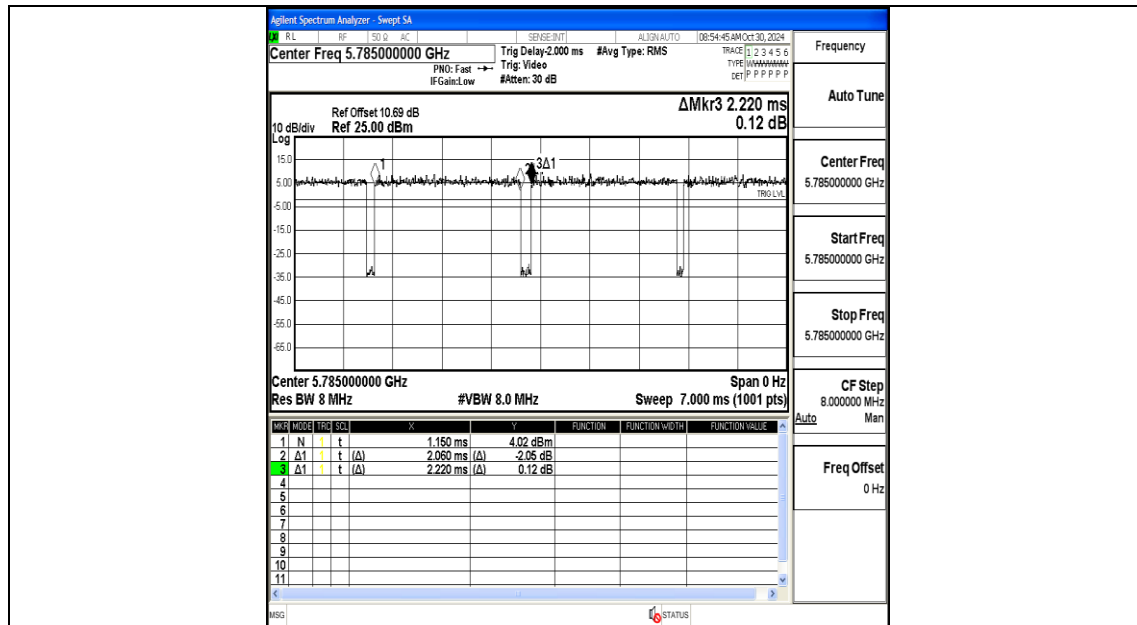
Appendix F: Duty Cycle

Test Result

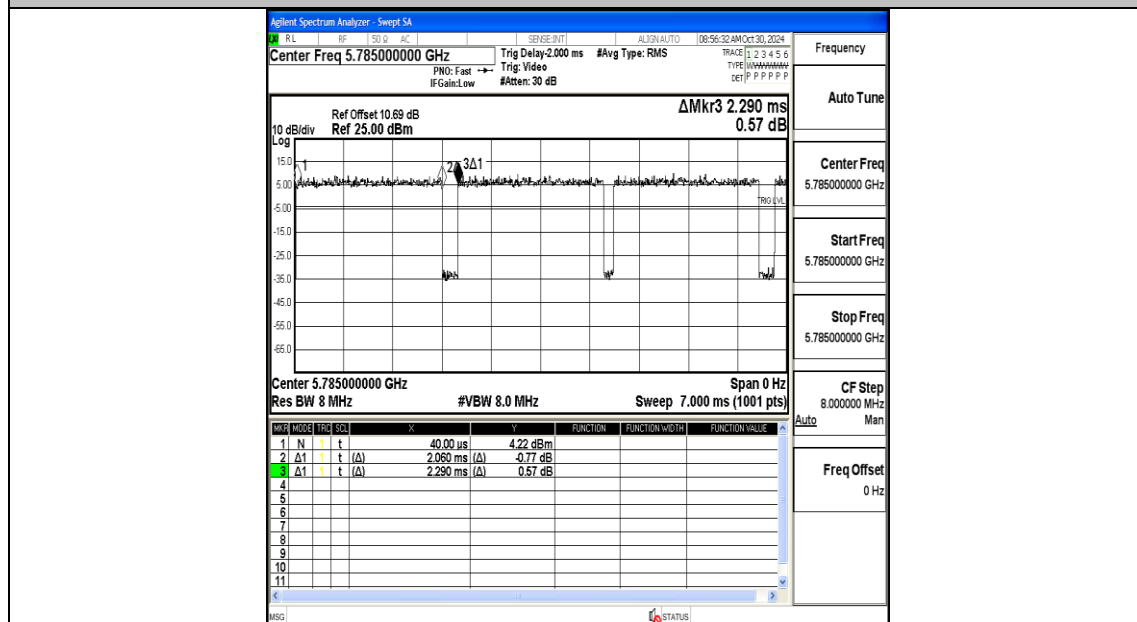
Test Mode	Antenna	Frequency [MHz]	Transmission Duration [ms]	Transmission Period [ms]	Duty Cycle [%]	Dc. Factor [%]	1/T
11A	Ant1	5745	2.06	2.23	92.38	0.34	0.49
11A	Ant2	5745	2.06	2.24	91.96	0.36	0.49
11A	Ant1	5785	2.06	2.22	92.79	0.32	0.49
11A	Ant2	5785	2.06	2.29	89.96	0.46	0.49
11A	Ant1	5825	2.07	2.18	94.95	0.23	0.48
11A	Ant2	5825	2.06	2.24	91.96	0.36	0.49
11N20MIMO	Ant1	5745	1.92	2.13	90.14	0.45	0.52
11N20MIMO	Ant2	5745	1.92	2.06	93.20	0.31	0.52
11N20MIMO	Ant1	5785	1.92	2.11	91.00	0.41	0.52
11N20MIMO	Ant2	5785	1.92	2.08	92.31	0.35	0.52
11N20MIMO	Ant1	5825	1.92	2.13	90.14	0.45	0.52
11N20MIMO	Ant2	5825	1.93	2.12	91.04	0.41	0.52
11AC20MIMO	Ant1	5745	0.20	0.43	46.51	3.32	5.00
11AC20MIMO	Ant2	5745	0.20	0.45	44.44	3.52	5.00
11AC20MIMO	Ant1	5785	0.20	0.45	44.44	3.52	5.00
11AC20MIMO	Ant2	5785	0.20	0.45	44.44	3.52	5.00
11AC20MIMO	Ant1	5825	0.20	0.46	43.48	3.62	5.00
11AC20MIMO	Ant2	5825	0.20	0.43	46.51	3.32	5.00

Test Graphs

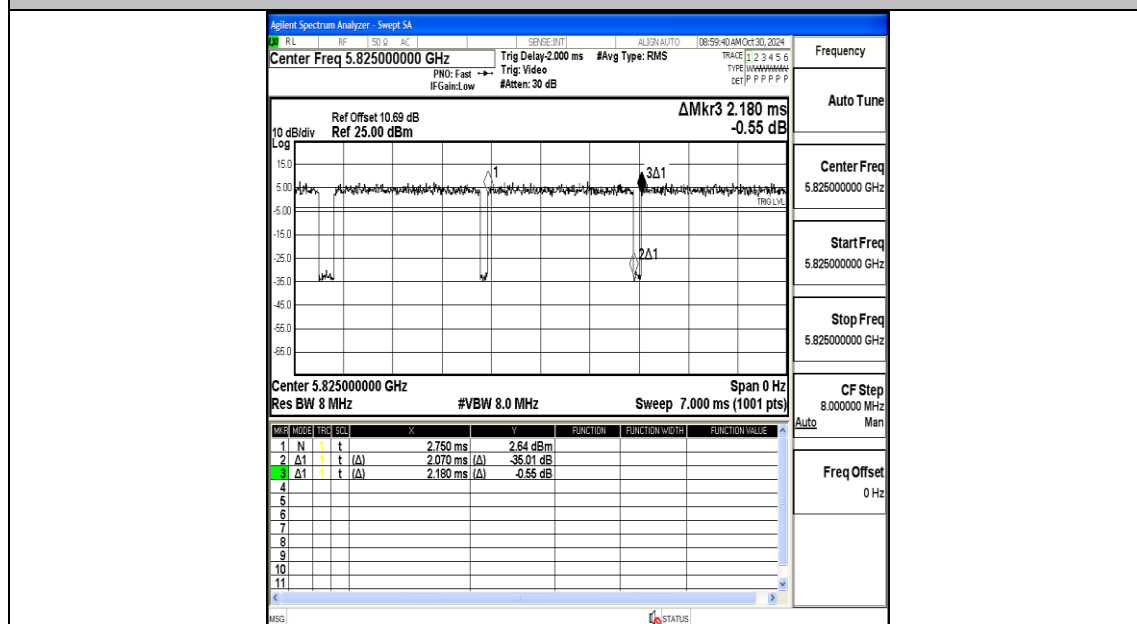




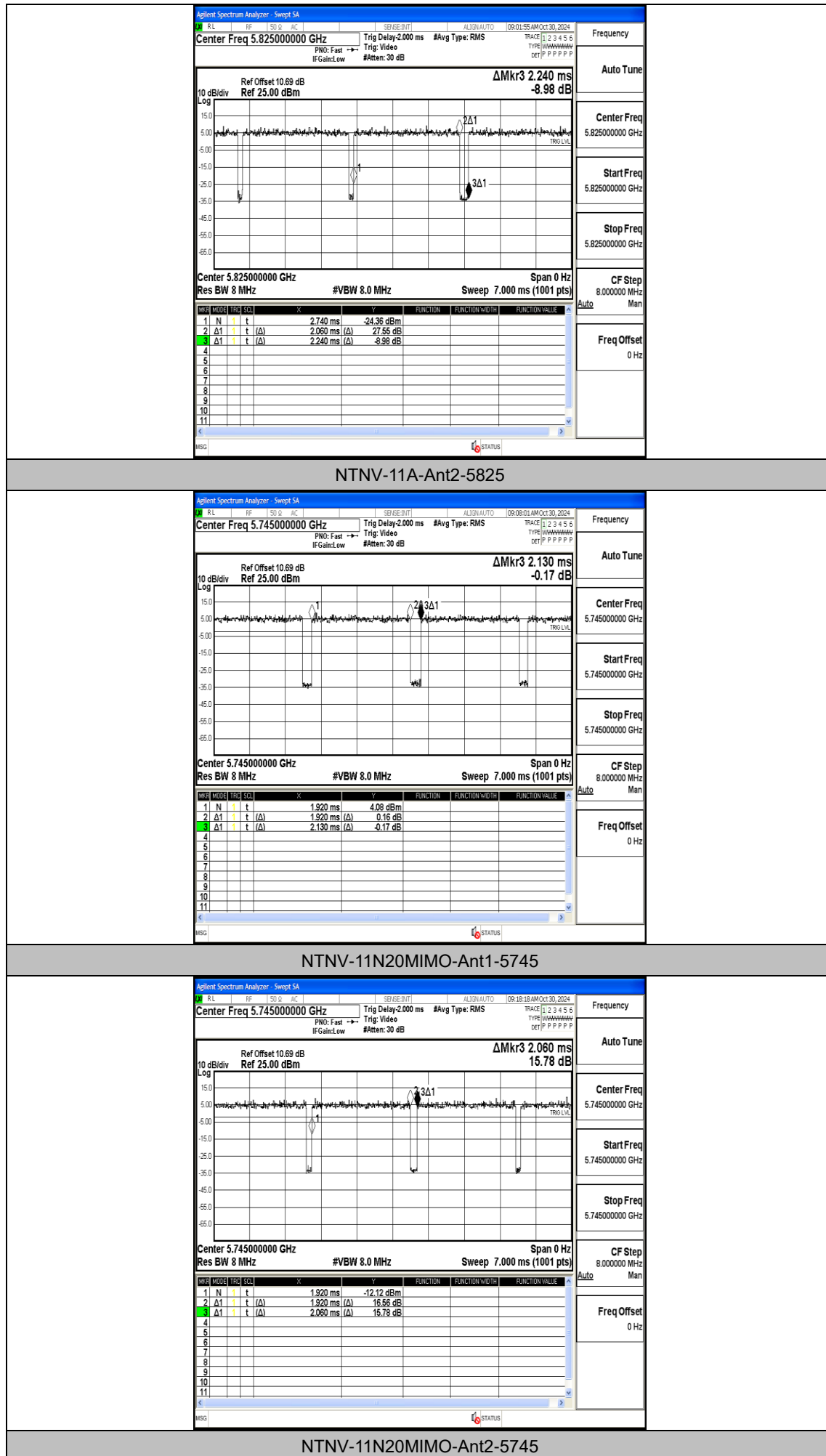
NTNV-11A-Ant1-5785

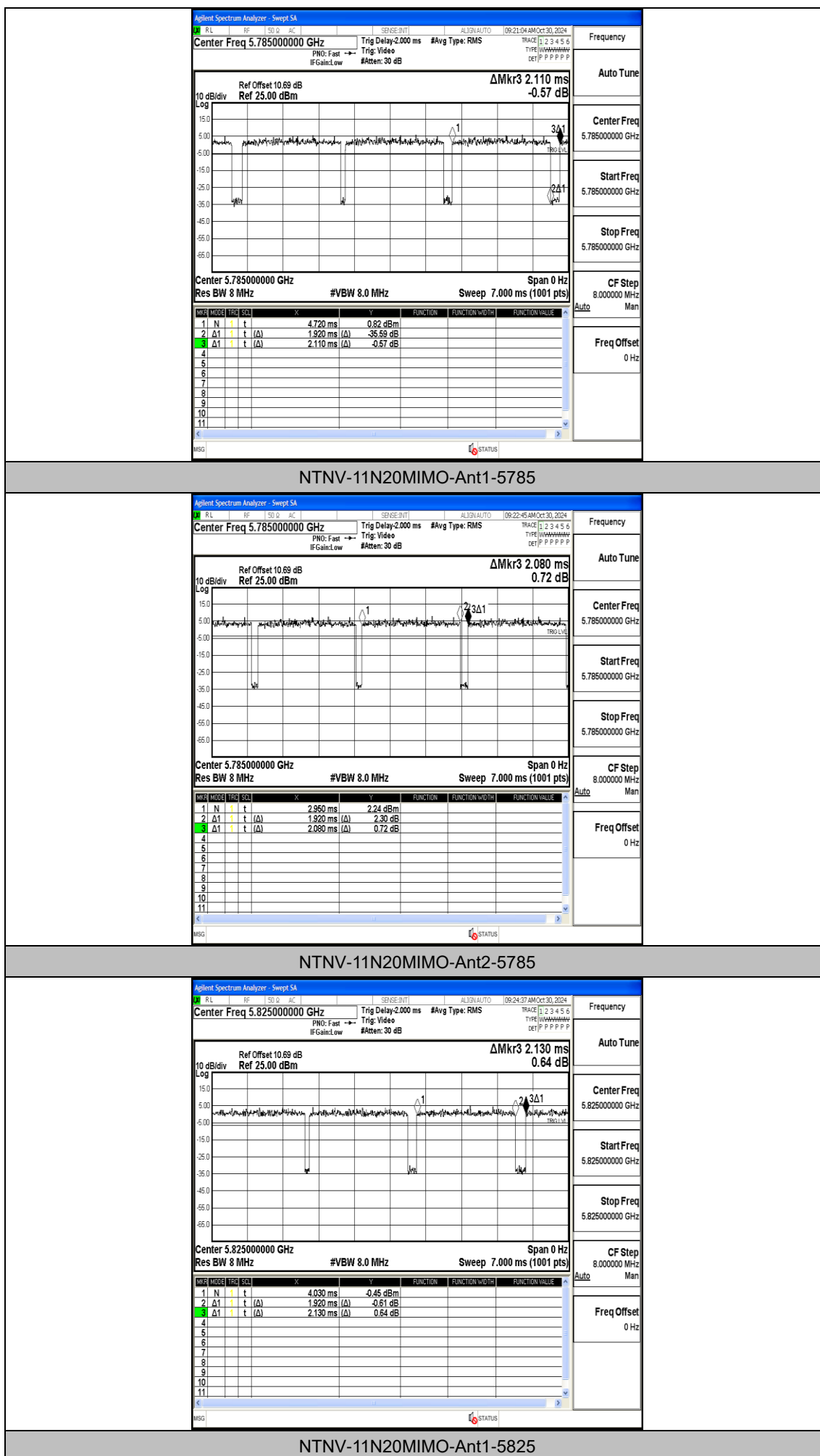


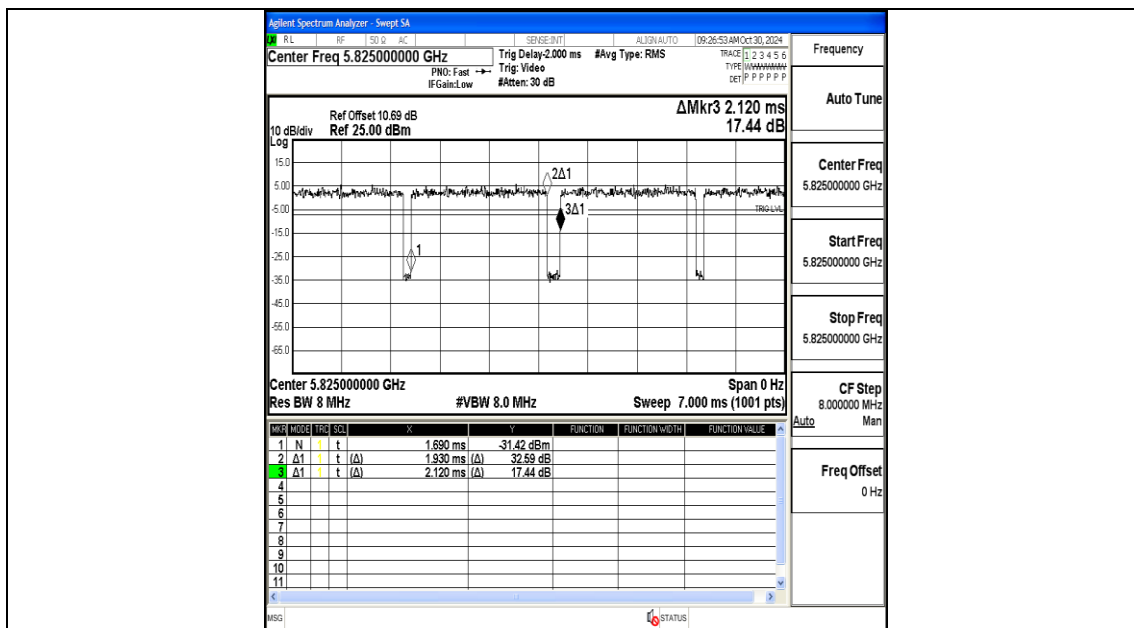
NTNV-11A-Ant2-5785



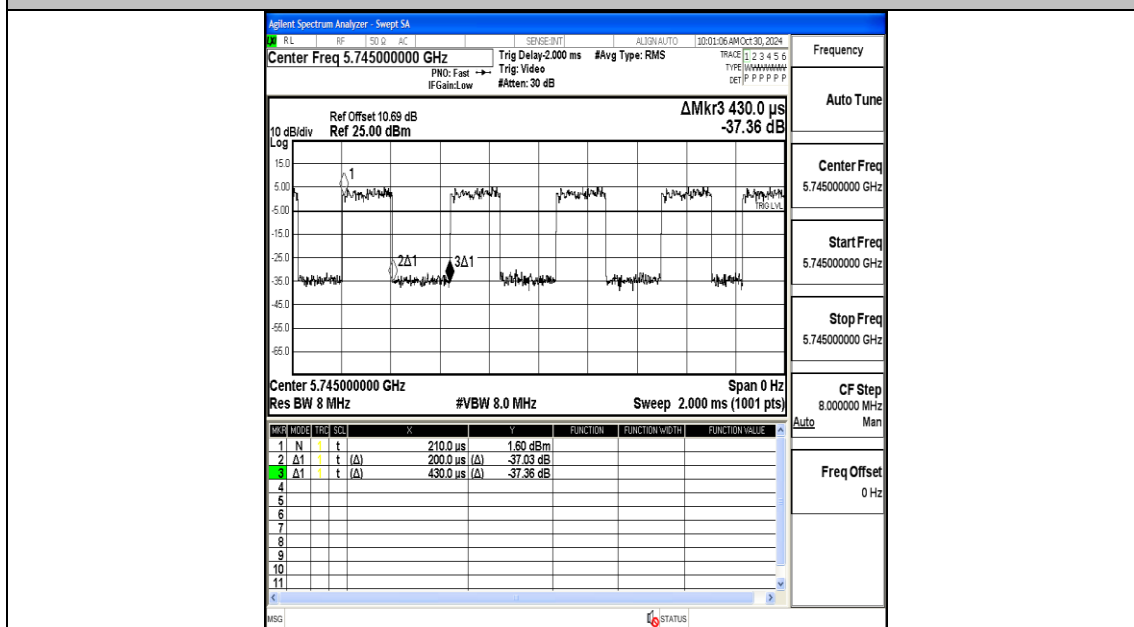
NTNV-11A-Ant1-5825



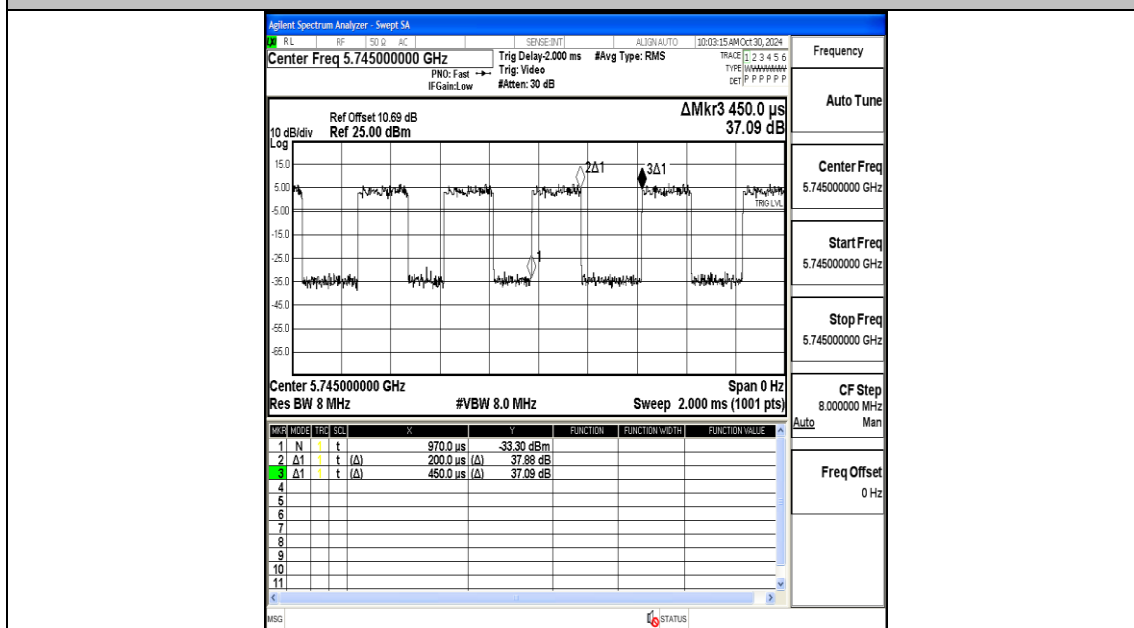




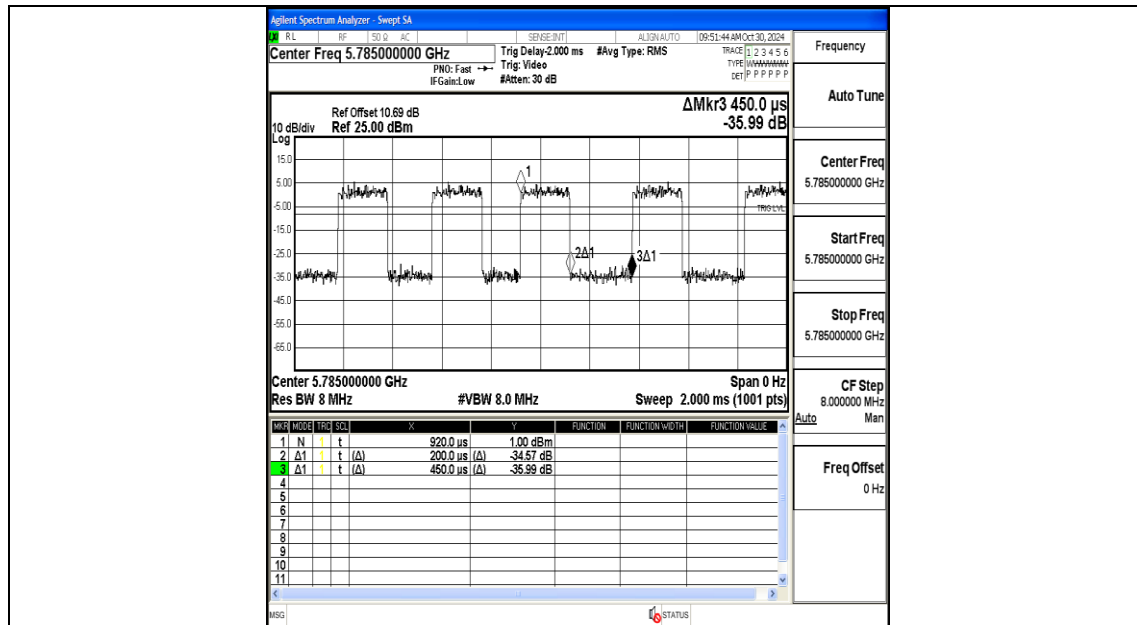
NTNV-11N20MIMO-Ant2-5825



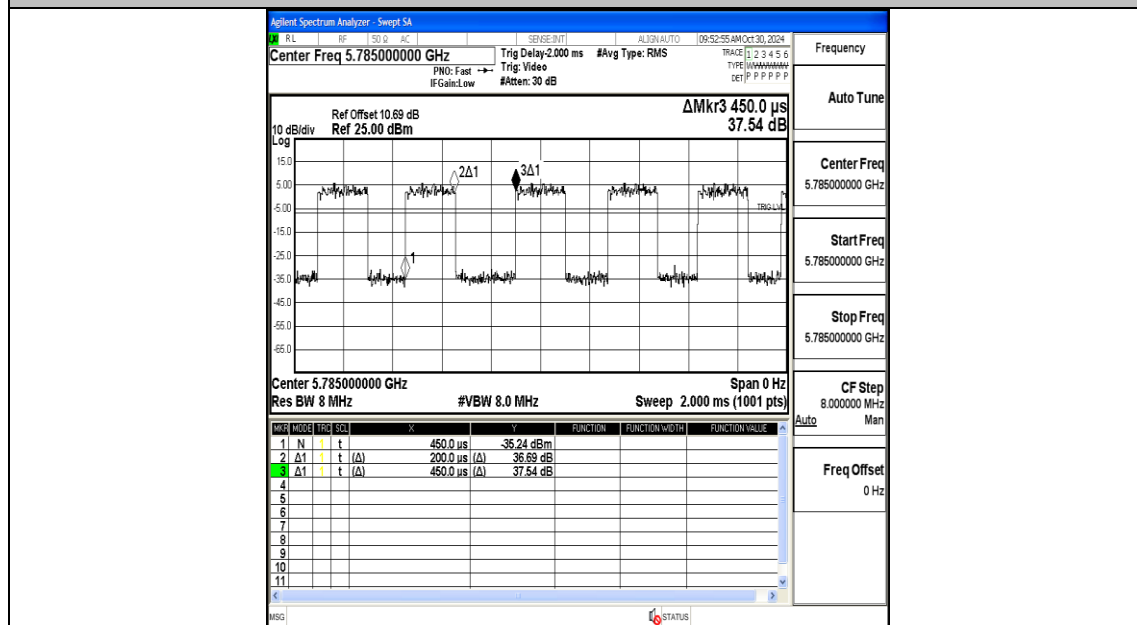
NTNV-11AC20MIMO-Ant1-5745



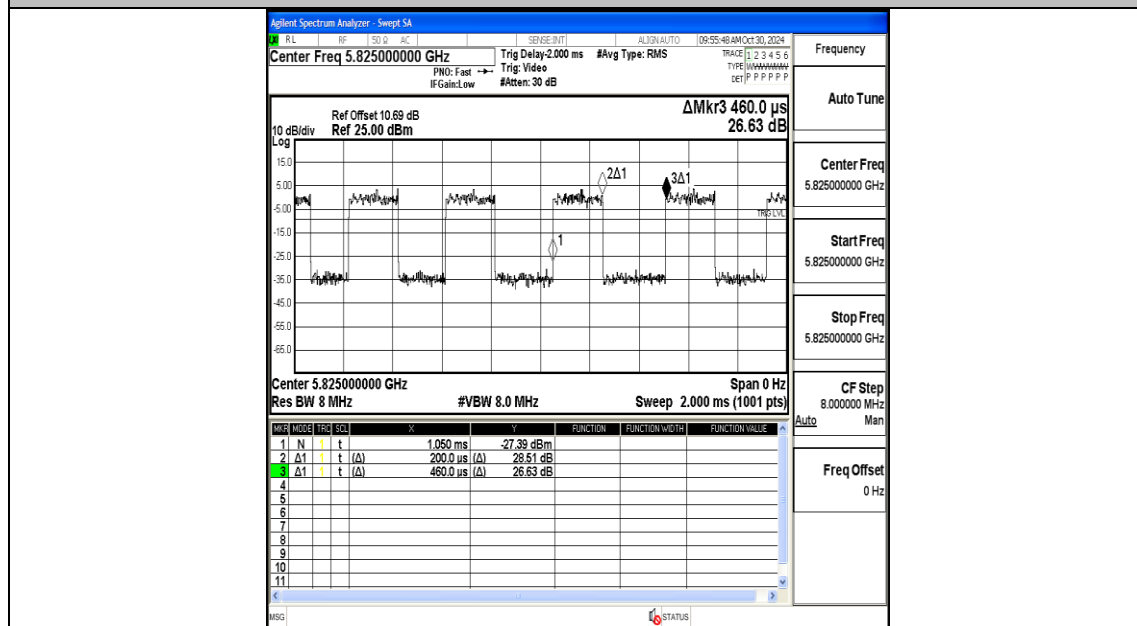
NTNV-11AC20MIMO-Ant2-5745



NTNV-11AC20MIMO-Ant1-5785



NTNV-11AC20MIMO-Ant2-5785



NTNV-11AC20MIMO-Ant1-5825

