

RF Test Data for RLAN(5.8G) (Conducted Measurement)

Product Name: 4K Dongle

Trade Mark: MSTICK

Test Model: MG-S02L

FCC ID: 2AWC3-MG-S02L

Environmental Conditions

Temperature:	25.5°C
Relative Humidity:	55%
ATM Pressure:	100.0 kPa
Test Engineer:	Anna Hu
Supervised by:	Hugo Chen
NOTE	N/A

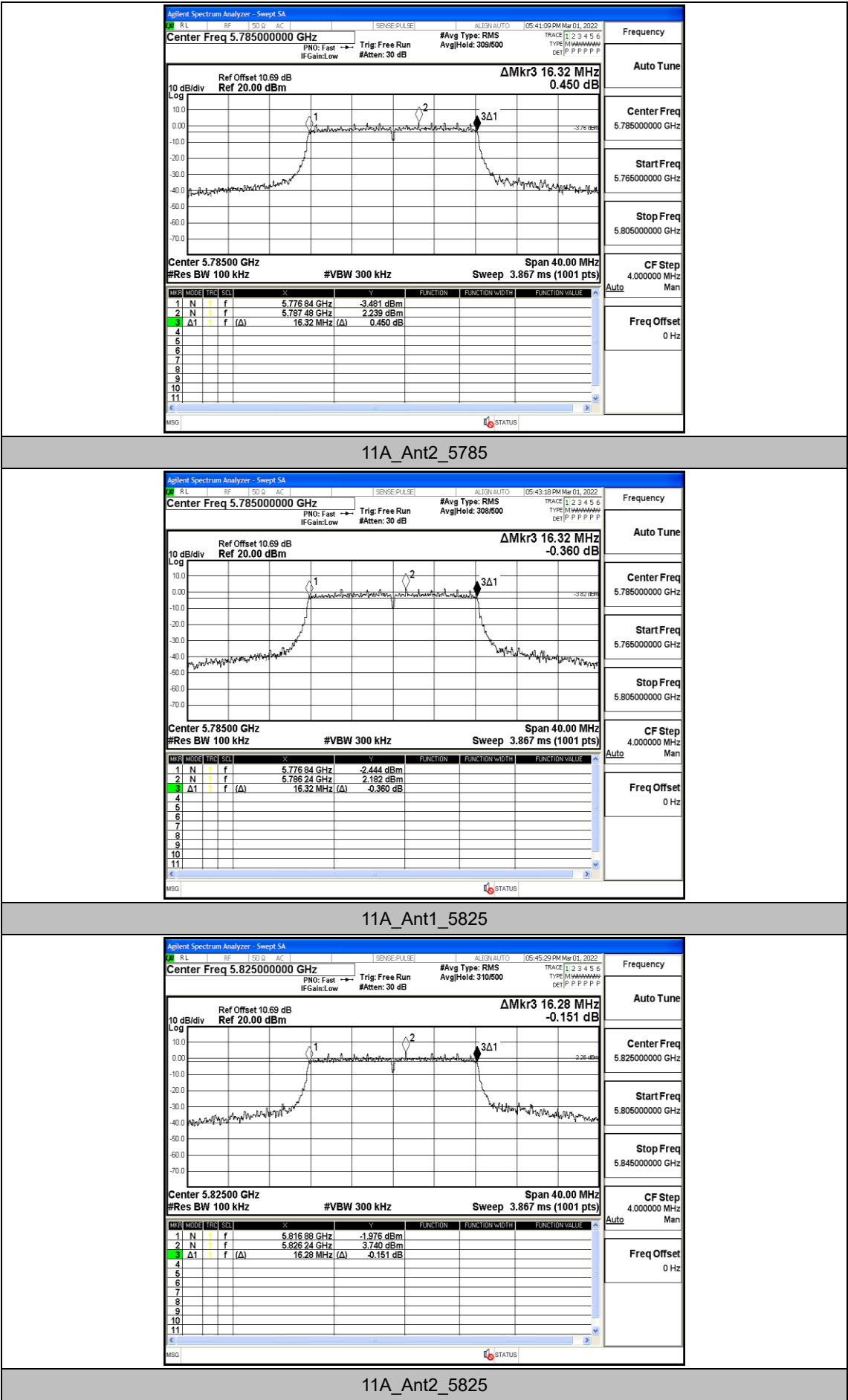
Appendix A: Min emission bandwidth

Test Result

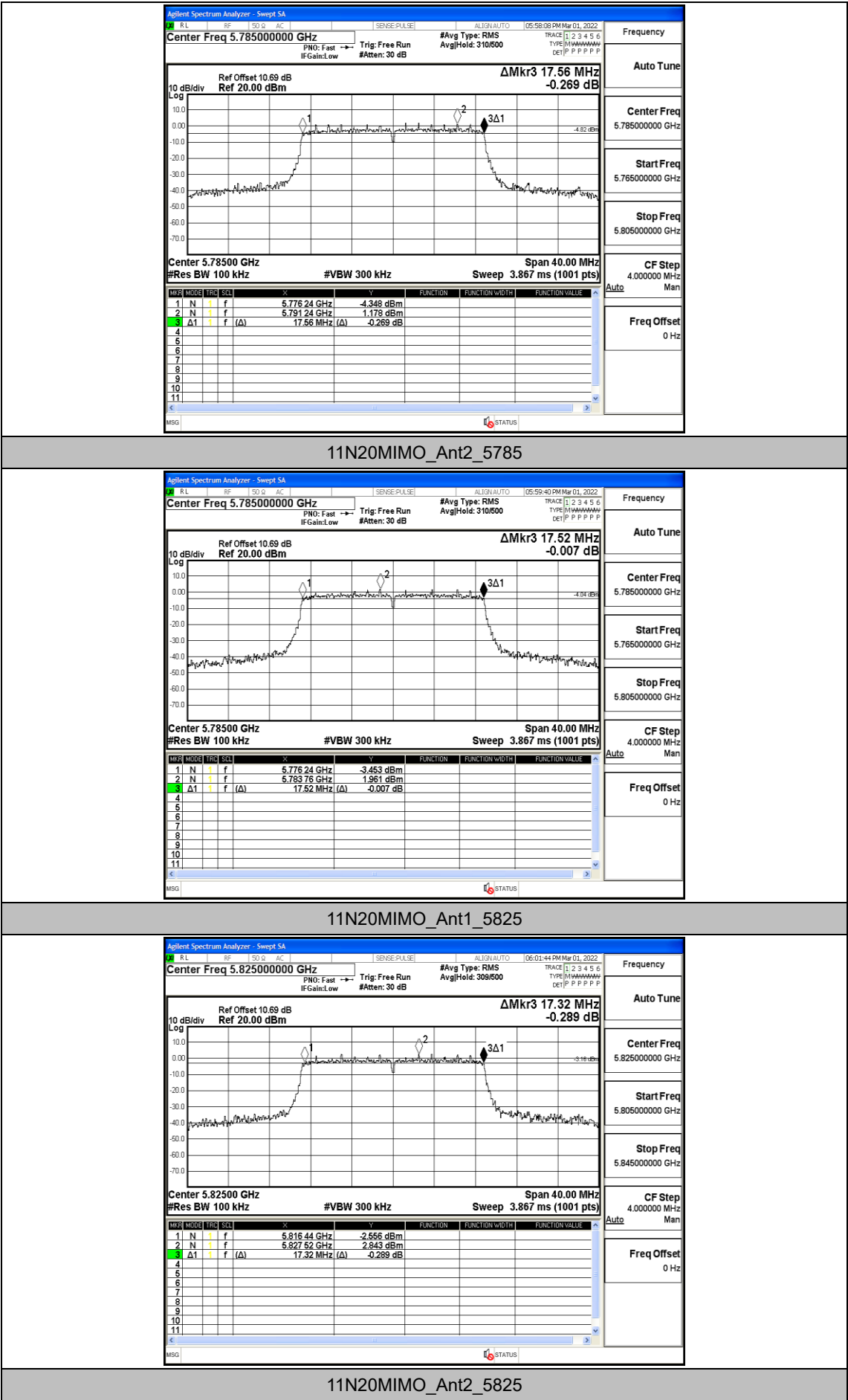
TestMode	Antenna	Channel	6db EBW [MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
11A	Ant1	5745	16.320	5736.840	5753.160	0.5	PASS
	Ant2	5745	16.320	5736.840	5753.160	0.5	PASS
	Ant1	5785	16.320	5776.840	5793.160	0.5	PASS
	Ant2	5785	16.320	5776.840	5793.160	0.5	PASS
	Ant1	5825	16.280	5816.880	5833.160	0.5	PASS
	Ant2	5825	16.320	5816.840	5833.160	0.5	PASS
11N20MIMO	Ant1	5745	16.840	5736.640	5753.480	0.5	PASS
	Ant2	5745	17.520	5736.240	5753.760	0.5	PASS
	Ant1	5785	17.560	5776.240	5793.800	0.5	PASS
	Ant2	5785	17.520	5776.240	5793.760	0.5	PASS
	Ant1	5825	17.320	5816.440	5833.760	0.5	PASS
	Ant2	5825	17.320	5816.440	5833.760	0.5	PASS
11N40MIMO	Ant1	5755	35.120	5737.480	5772.600	0.5	PASS
	Ant2	5755	35.040	5737.480	5772.520	0.5	PASS
	Ant1	5795	35.120	5777.400	5812.520	0.5	PASS
	Ant2	5795	35.120	5777.400	5812.520	0.5	PASS
11AC20MIMO	Ant1	5745	16.960	5736.480	5753.440	0.5	PASS
	Ant2	5745	17.040	5736.480	5753.520	0.5	PASS
	Ant1	5785	17.280	5776.480	5793.760	0.5	PASS
	Ant2	5785	17.560	5776.240	5793.800	0.5	PASS
	Ant1	5825	17.520	5816.240	5833.760	0.5	PASS
	Ant2	5825	17.280	5816.480	5833.760	0.5	PASS
11AC40MIMO	Ant1	5755	35.120	5737.400	5772.520	0.5	PASS
	Ant2	5755	35.040	5737.480	5772.520	0.5	PASS
	Ant1	5795	35.040	5777.480	5812.520	0.5	PASS
	Ant2	5795	35.040	5777.480	5812.520	0.5	PASS
11AC80MIMO	Ant1	5775	75.040	5737.560	5812.600	0.5	PASS
	Ant2	5775	75.040	5737.400	5812.440	0.5	PASS

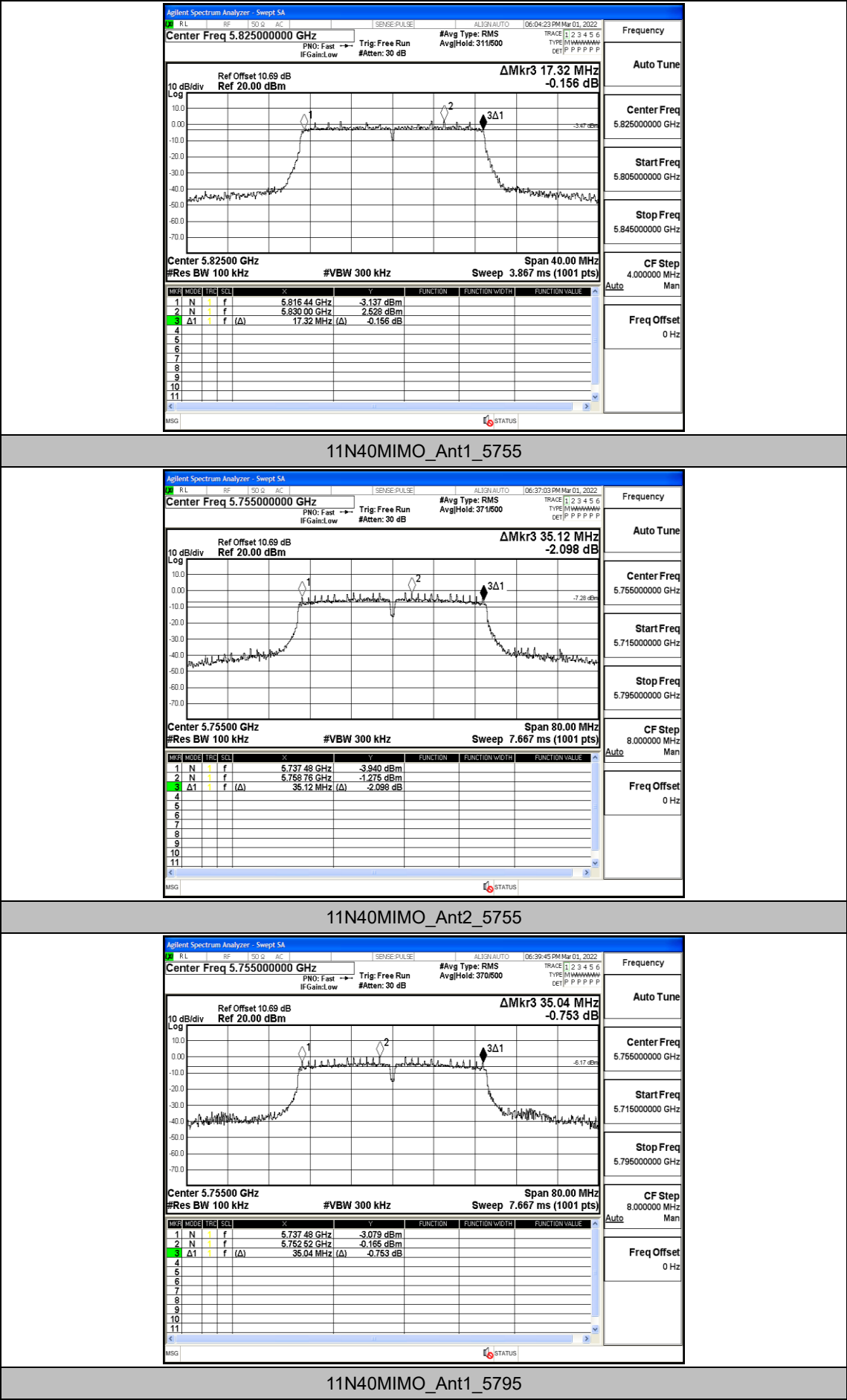
Test Graphs

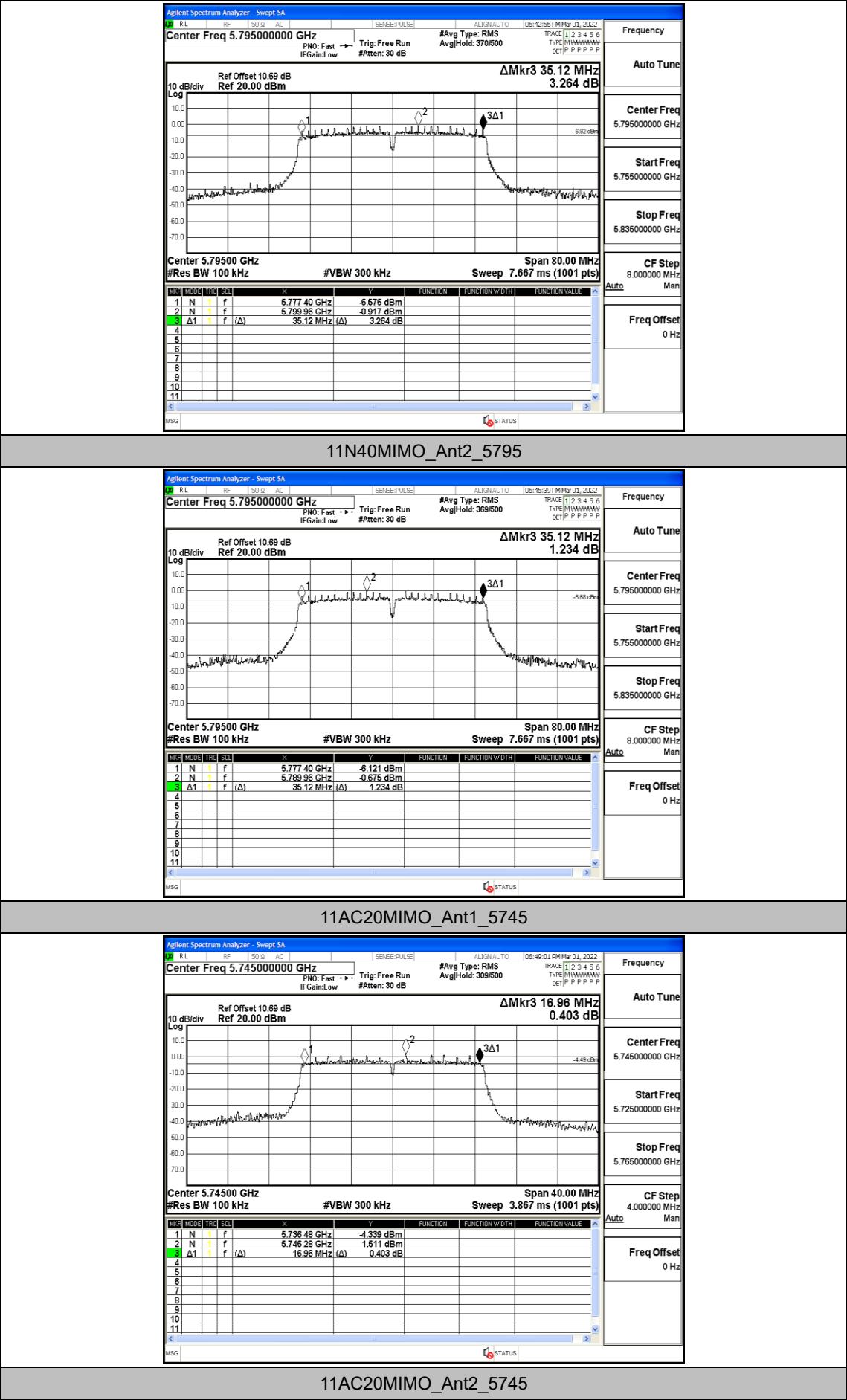


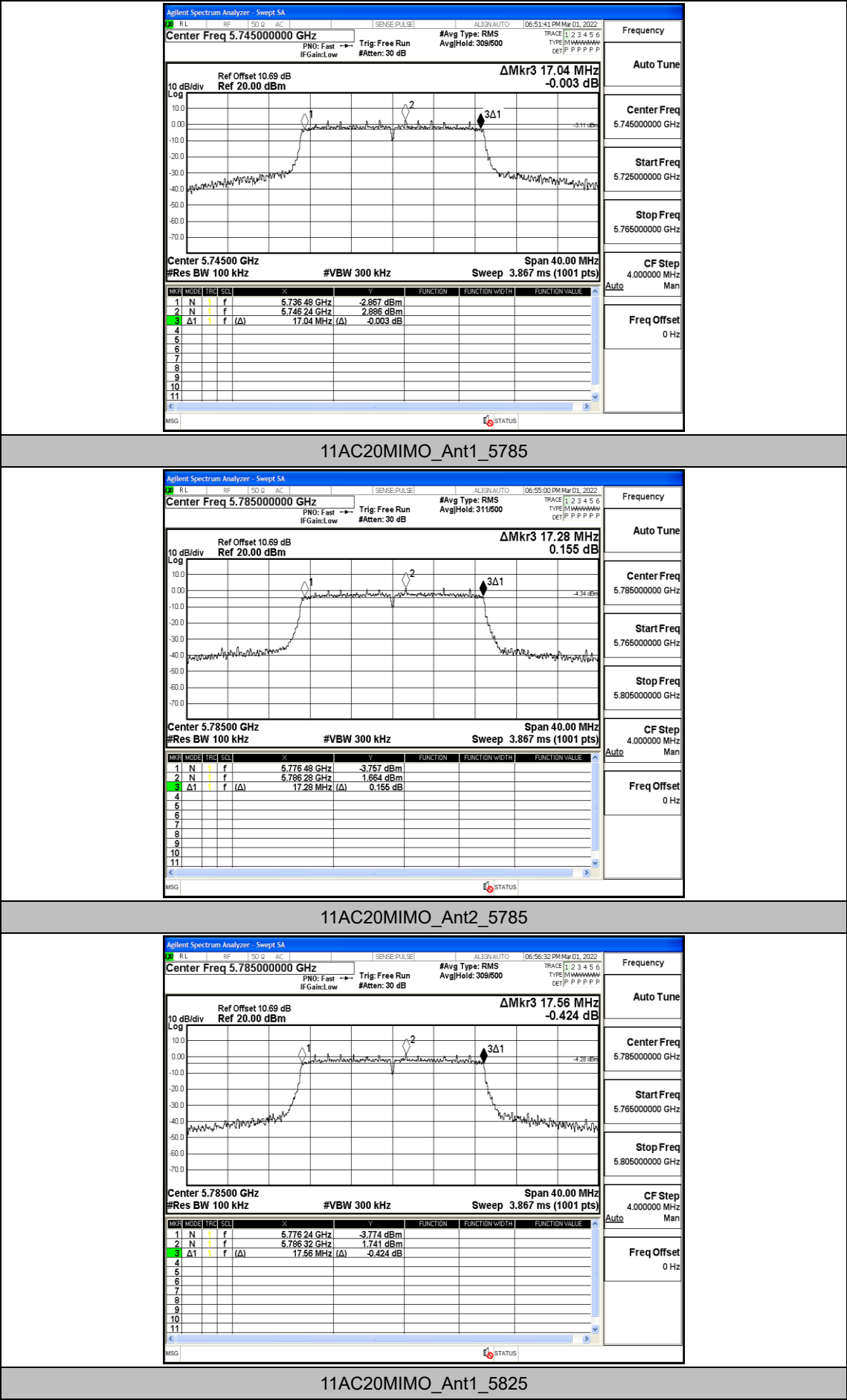


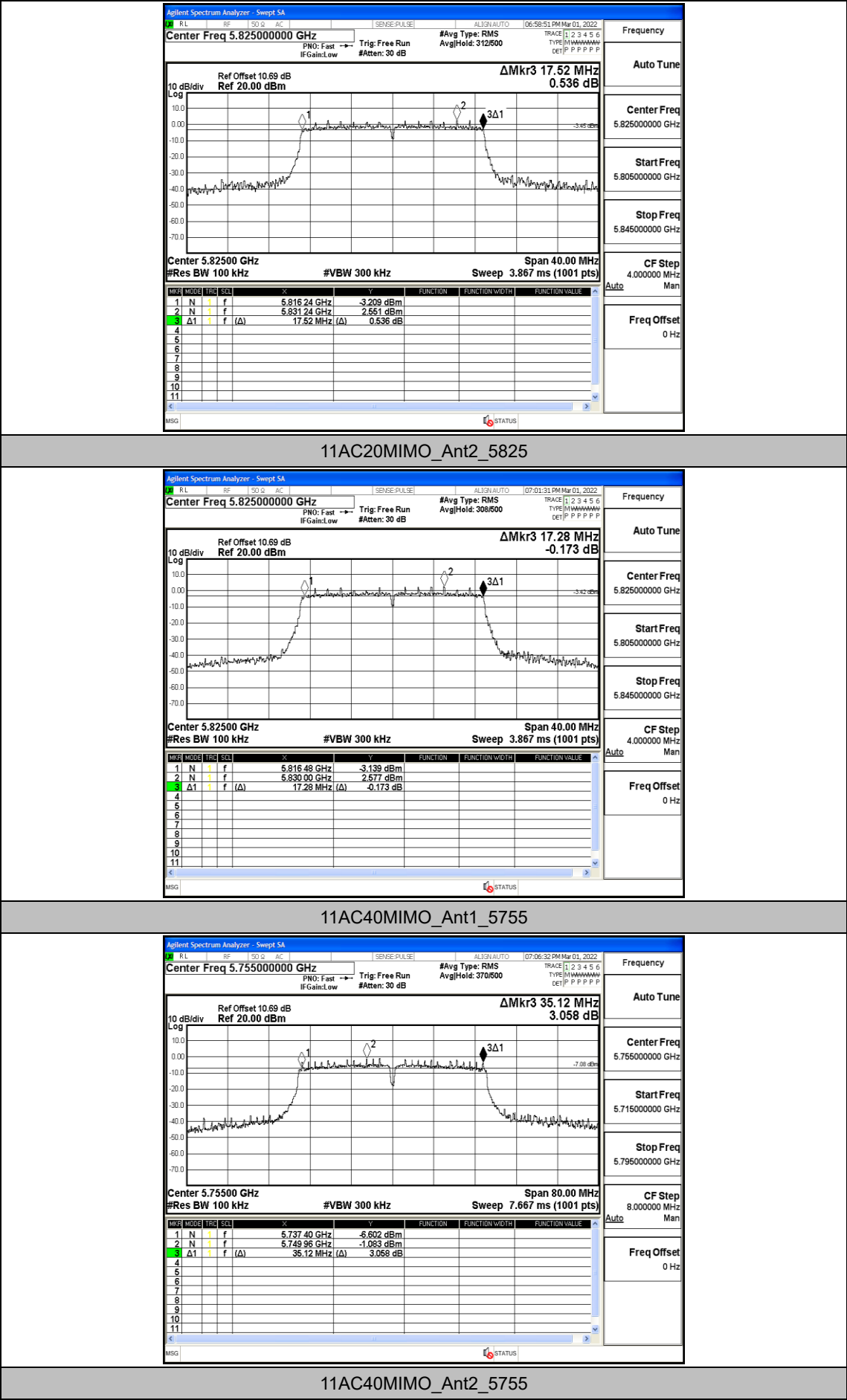


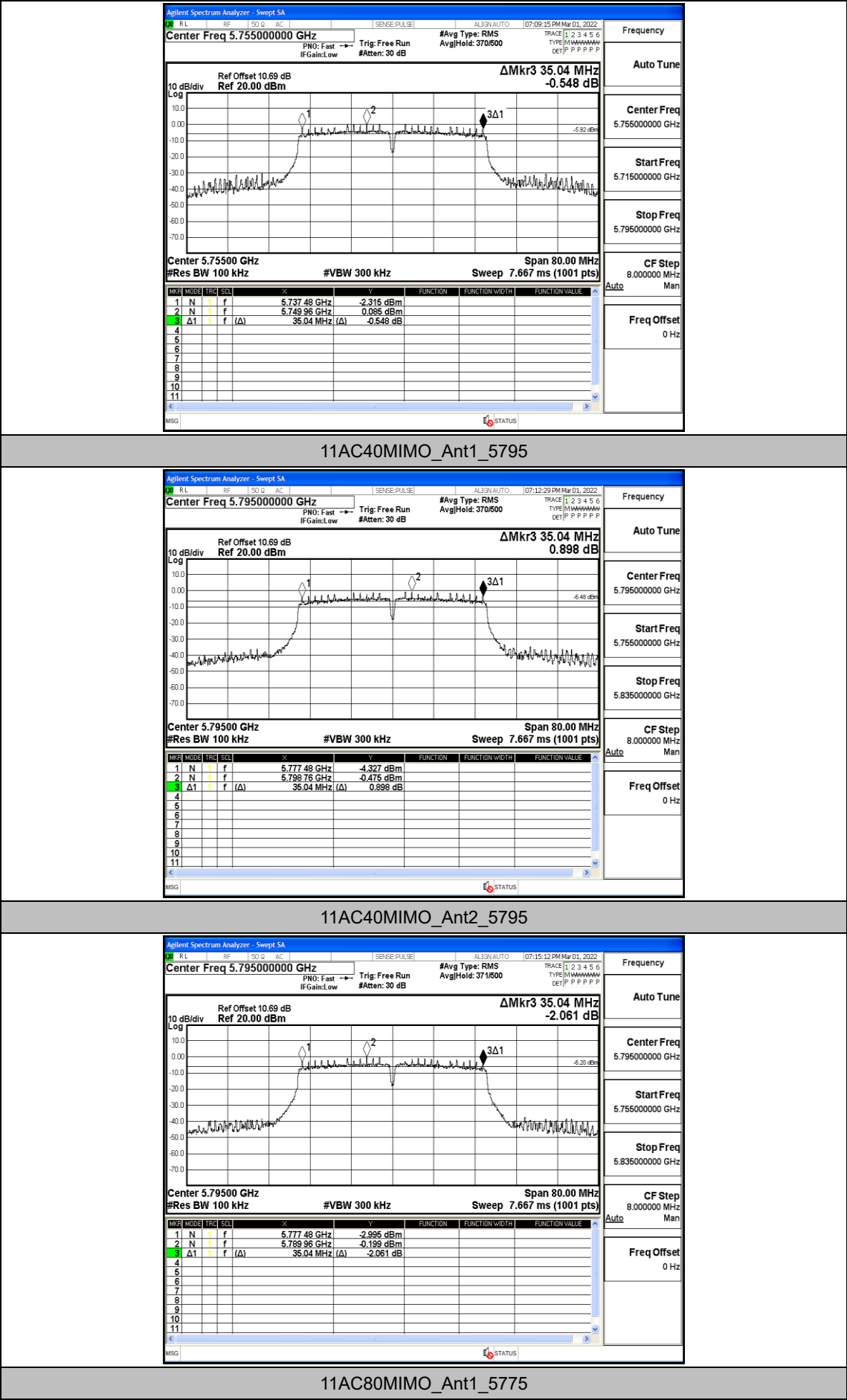


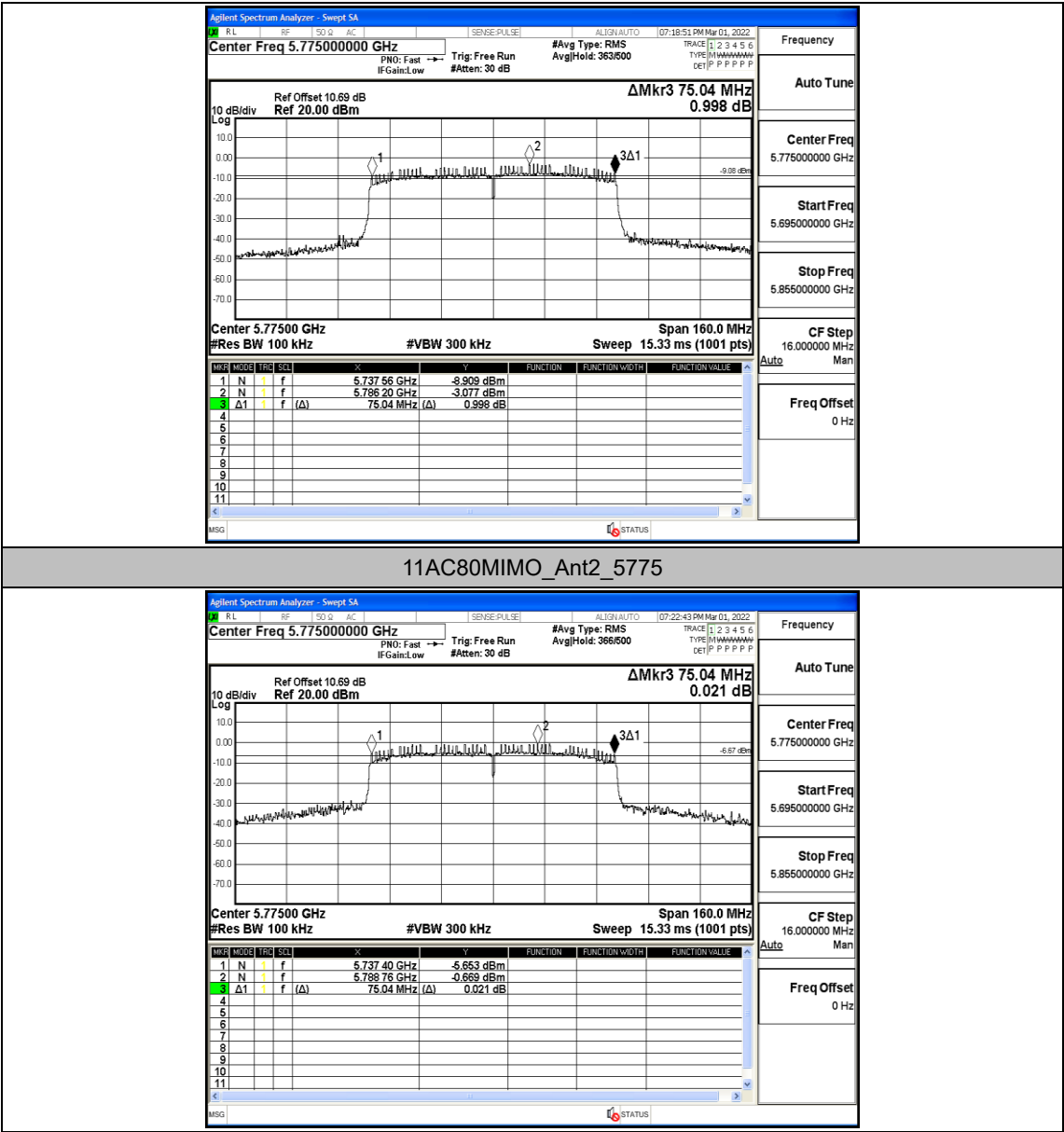












Appendix B: Maximum conducted output power

Test Result

TestMode	Antenna	Channel	Result[dBm]	Limit[dBm]	Verdict
11A	Ant1	5745	13.44	≤30.00	PASS
	Ant2	5745	13.97	≤30.00	PASS
	Ant1	5785	13.95	≤30.00	PASS
	Ant2	5785	13.53	≤30.00	PASS
	Ant1	5825	15.01	≤30.00	PASS
	Ant2	5825	13.40	≤30.00	PASS
11N20MIMO	Ant1	5745	12.79	≤30.00	PASS
	Ant2	5745	13.78	≤30.00	PASS
	total	5745	16.32	≤30.00	PASS
	Ant1	5785	13.39	≤30.00	PASS
	Ant2	5785	13.45	≤30.00	PASS
	total	5785	16.43	≤30.00	PASS
	Ant1	5825	14.43	≤30.00	PASS
	Ant2	5825	13.51	≤30.00	PASS
	total	5825	17.00	≤30.00	PASS
11N40MIMO	Ant1	5755	12.67	≤30.00	PASS
	Ant2	5755	13.43	≤30.00	PASS
	total	5755	16.08	≤30.00	PASS
	Ant1	5795	13.13	≤30.00	PASS
	Ant2	5795	13.18	≤30.00	PASS
	total	5795	16.17	≤30.00	PASS
11AC20MIMO	Ant1	5745	12.77	≤30.00	PASS
	Ant2	5745	13.88	≤30.00	PASS
	total	5745	16.37	≤30.00	PASS
	Ant1	5785	13.45	≤30.00	PASS
	Ant2	5785	13.64	≤30.00	PASS
	total	5785	16.56	≤30.00	PASS
	Ant1	5825	14.37	≤30.00	PASS
	Ant2	5825	13.56	≤30.00	PASS
	total	5825	16.99	≤30.00	PASS
11AC40MIMO	Ant1	5755	12.86	≤30.00	PASS
	Ant2	5755	13.64	≤30.00	PASS
	total	5755	16.28	≤30.00	PASS
	Ant1	5795	13.33	≤30.00	PASS
	Ant2	5795	13.25	≤30.00	PASS
	total	5795	16.30	≤30.00	PASS
11AC80MIMO	Ant1	5775	12.63	≤30.00	PASS
	Ant2	5775	15.84	≤30.00	PASS
	total	5775	17.54	≤30.00	PASS

Note: The Duty Cycle Factor is compensated in the test result.

Appendix C: Maximum power spectral density

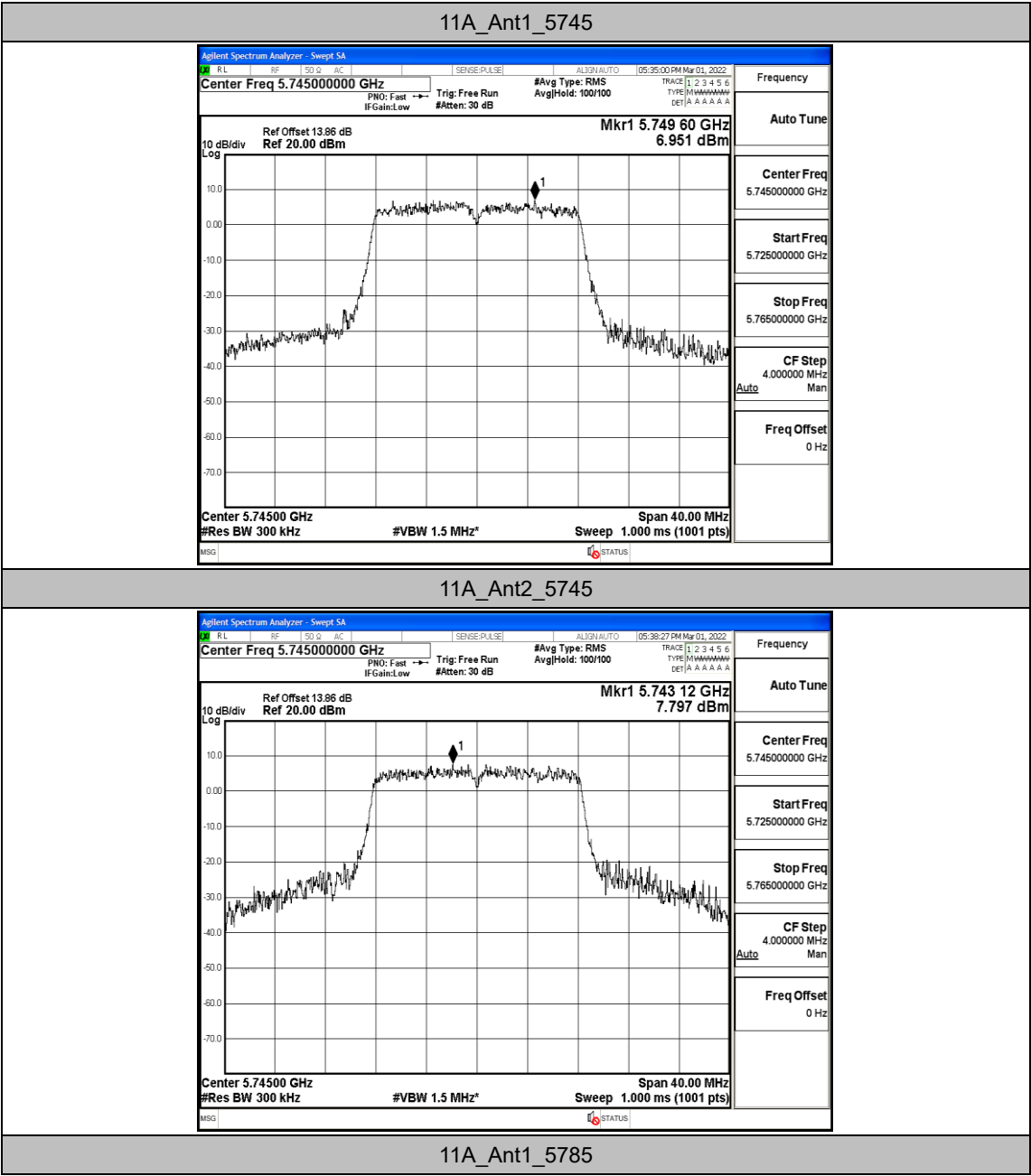
Test Result

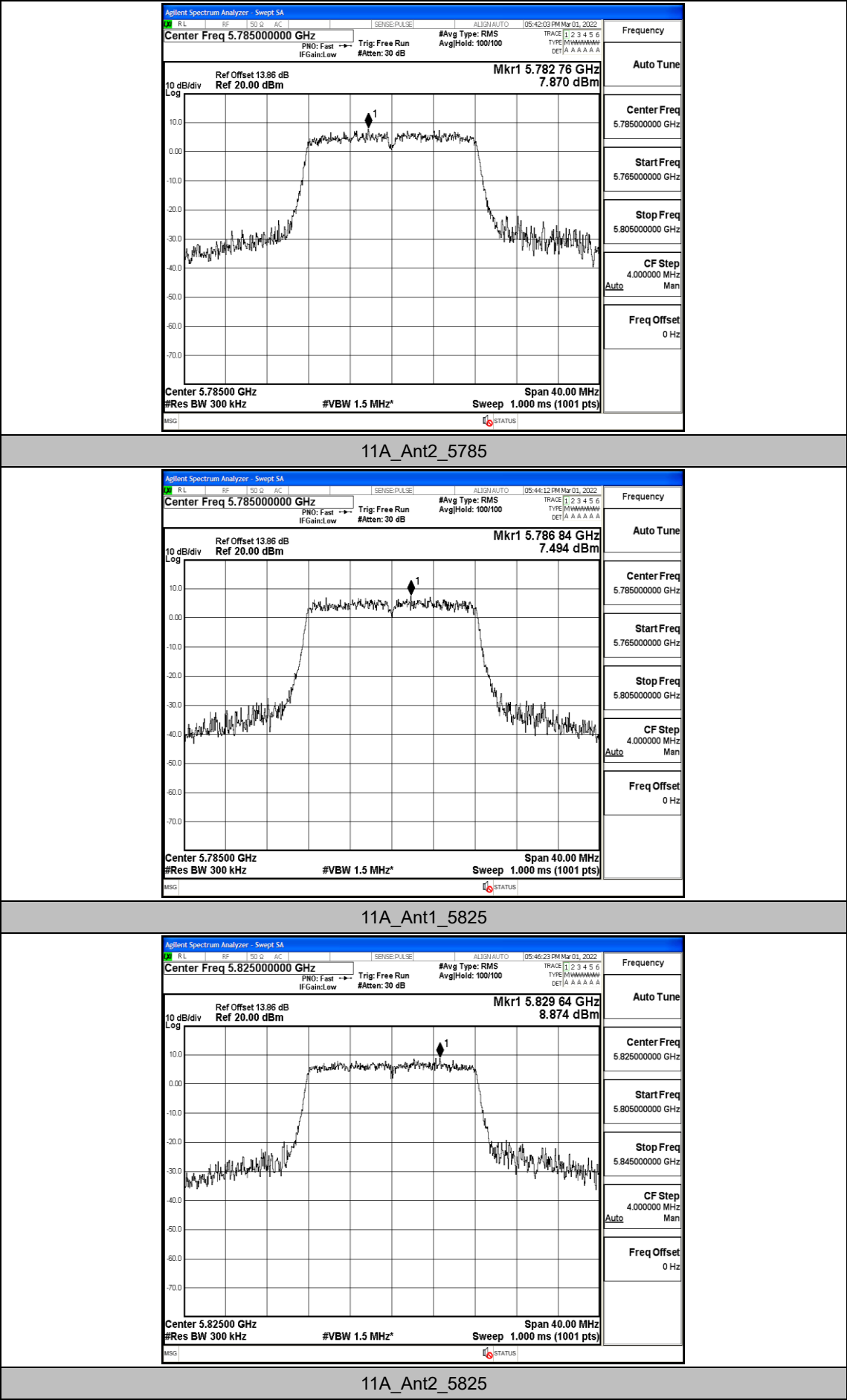
TestMode	Antenna	Channel	Result [dBm/MHz]	Limit[dBm/MHz]	Verdict
11A	Ant1	5745	6.95	≤30	PASS
	Ant2	5745	7.8	≤30	PASS
	Ant1	5785	7.87	≤30	PASS
	Ant2	5785	7.49	≤30	PASS
	Ant1	5825	8.87	≤30	PASS
	Ant2	5825	7.35	≤30	PASS
11N20MIMO	Ant1	5745	6.46	≤30	PASS
	Ant2	5745	7.17	≤30	PASS
	total	5745	9.84	≤30	PASS
	Ant1	5785	7.62	≤30	PASS
	Ant2	5785	7.02	≤30	PASS
	total	5785	10.34	≤30	PASS
	Ant1	5825	7.82	≤30	PASS
	Ant2	5825	6.91	≤30	PASS
	total	5825	10.40	≤30	PASS
11N40MIMO	Ant1	5755	3.53	≤30	PASS
	Ant2	5755	4.81	≤30	PASS
	total	5755	7.23	≤30	PASS
	Ant1	5795	4.07	≤30	PASS
	Ant2	5795	4.1	≤30	PASS
	total	5795	7.10	≤30	PASS
1AC20MIMO	Ant1	5745	5.62	≤30	PASS
	Ant2	5745	7.1	≤30	PASS
	total	5745	9.43	≤30	PASS
	Ant1	5785	6.77	≤30	PASS
	Ant2	5785	6.43	≤30	PASS
	total	5785	9.61	≤30	PASS
	Ant1	5825	7.65	≤30	PASS
	Ant2	5825	7.12	≤30	PASS
	total	5825	10.40	≤30	PASS
11AC40MIMO	Ant1	5755	3.75	≤30	PASS
	Ant2	5755	5.77	≤30	PASS
	total	5755	7.89	≤30	PASS
	Ant1	5795	4.16	≤30	PASS
	Ant2	5795	4.34	≤30	PASS
	total	5795	7.26	≤30	PASS
11AC80MIMO	Ant1	5775	2.53	≤30	PASS
	Ant2	5775	5.08	≤30	PASS
	total	5775	7.00	≤30	PASS

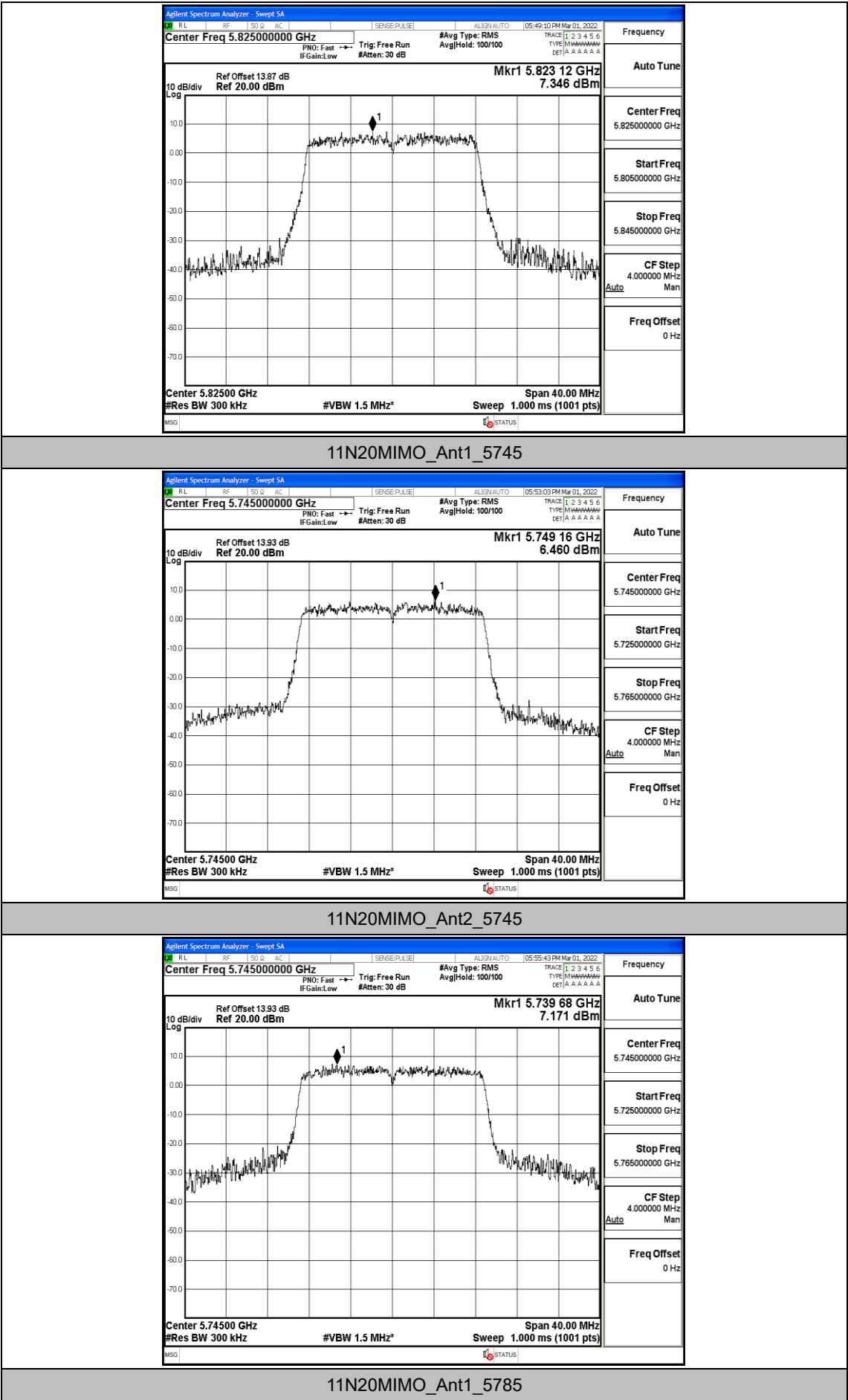
Note: 1.The Result and Limit Unit is dBm/500 kHz in the band 5.725–5.85 GHz.

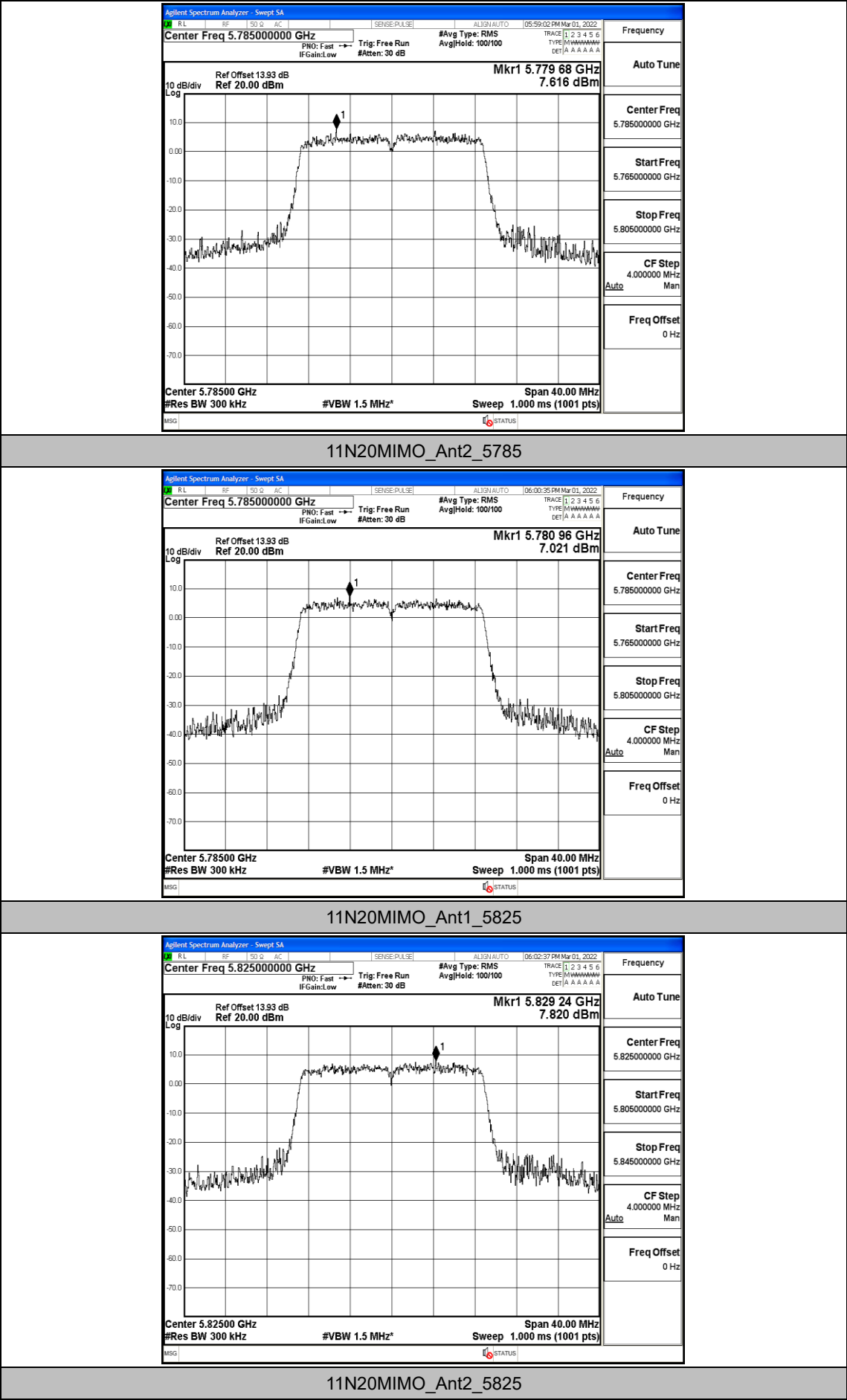
2.The Duty Cycle Factor and RBW Factor is compensated in the graph.

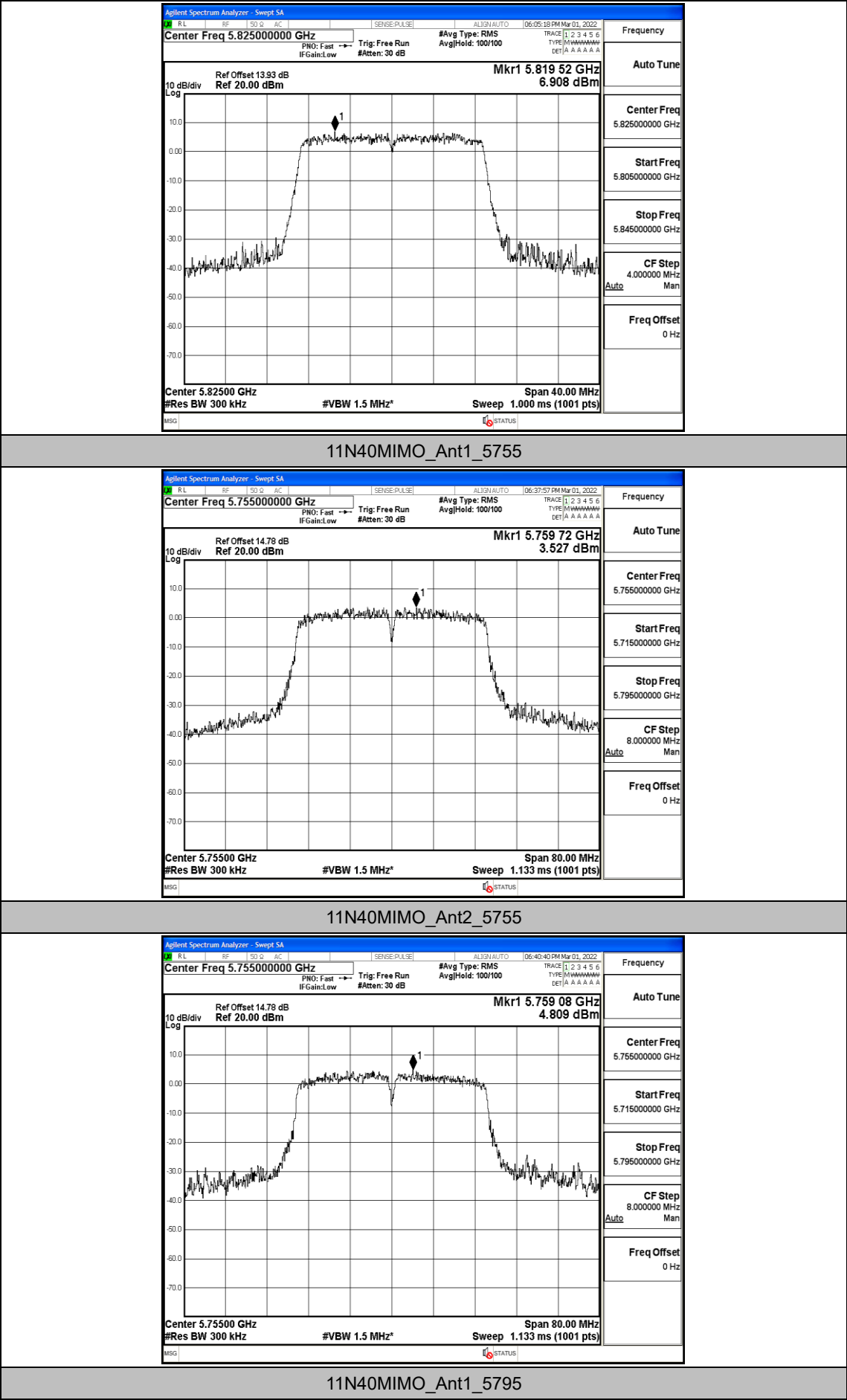
Test Graphs

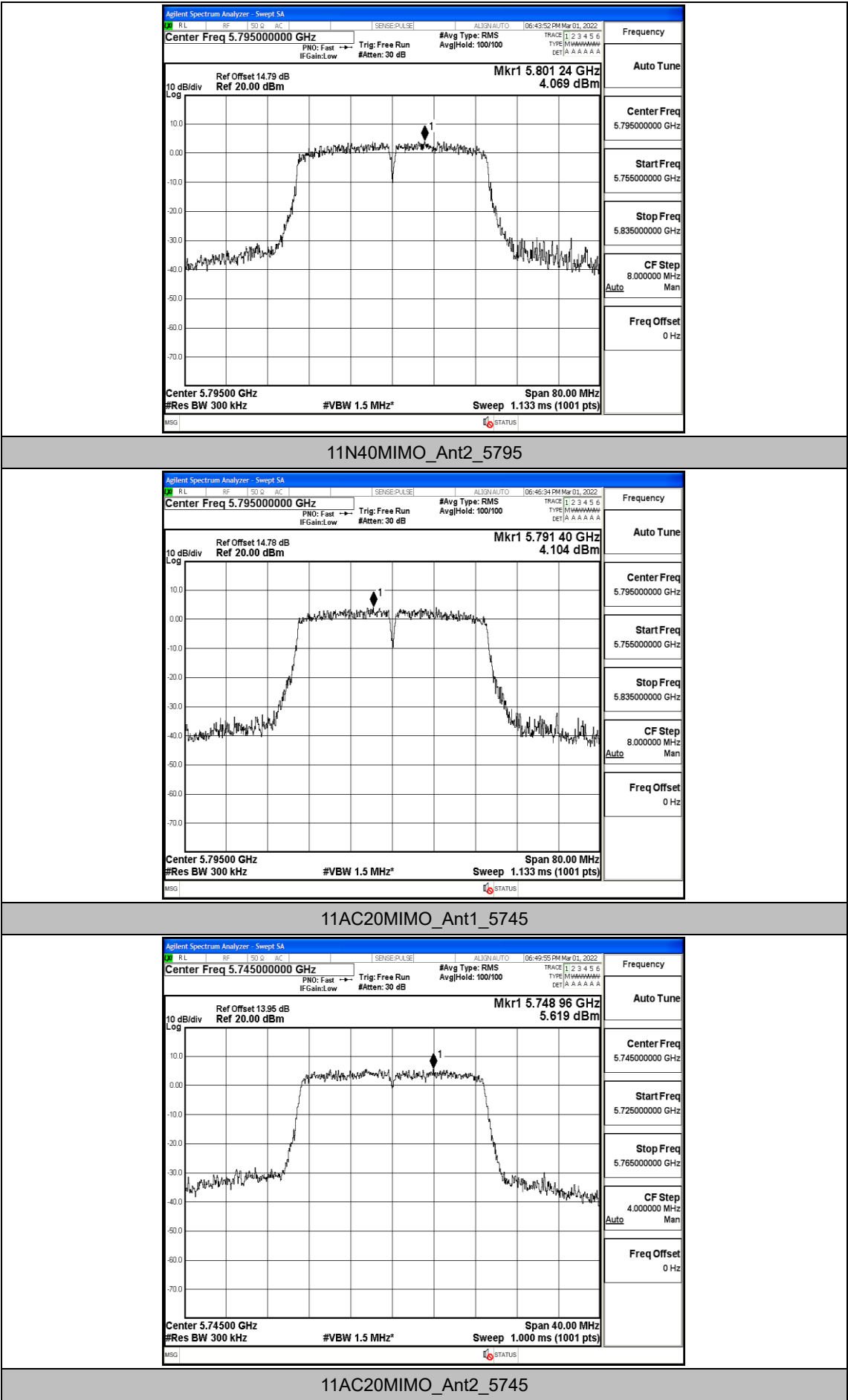


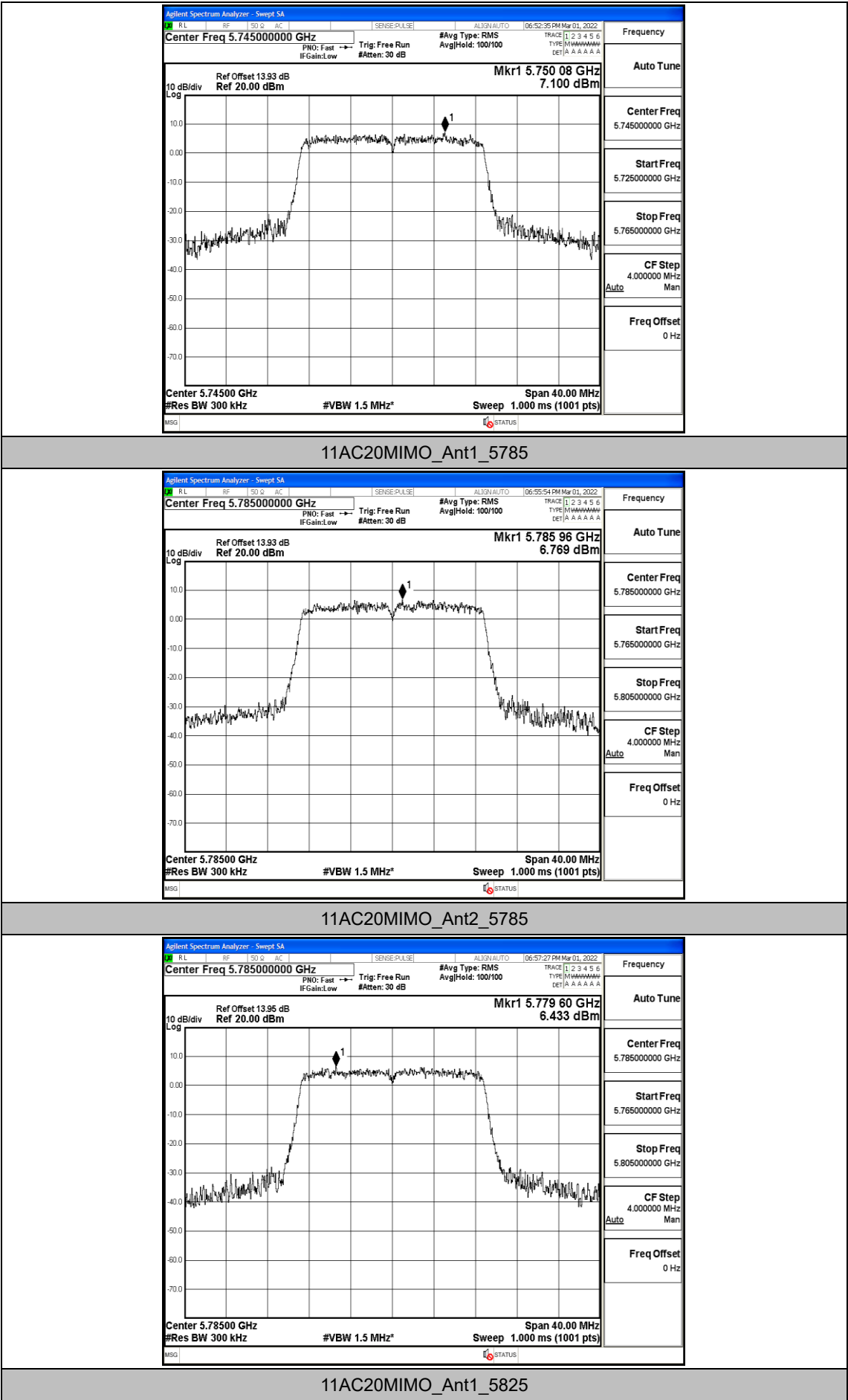


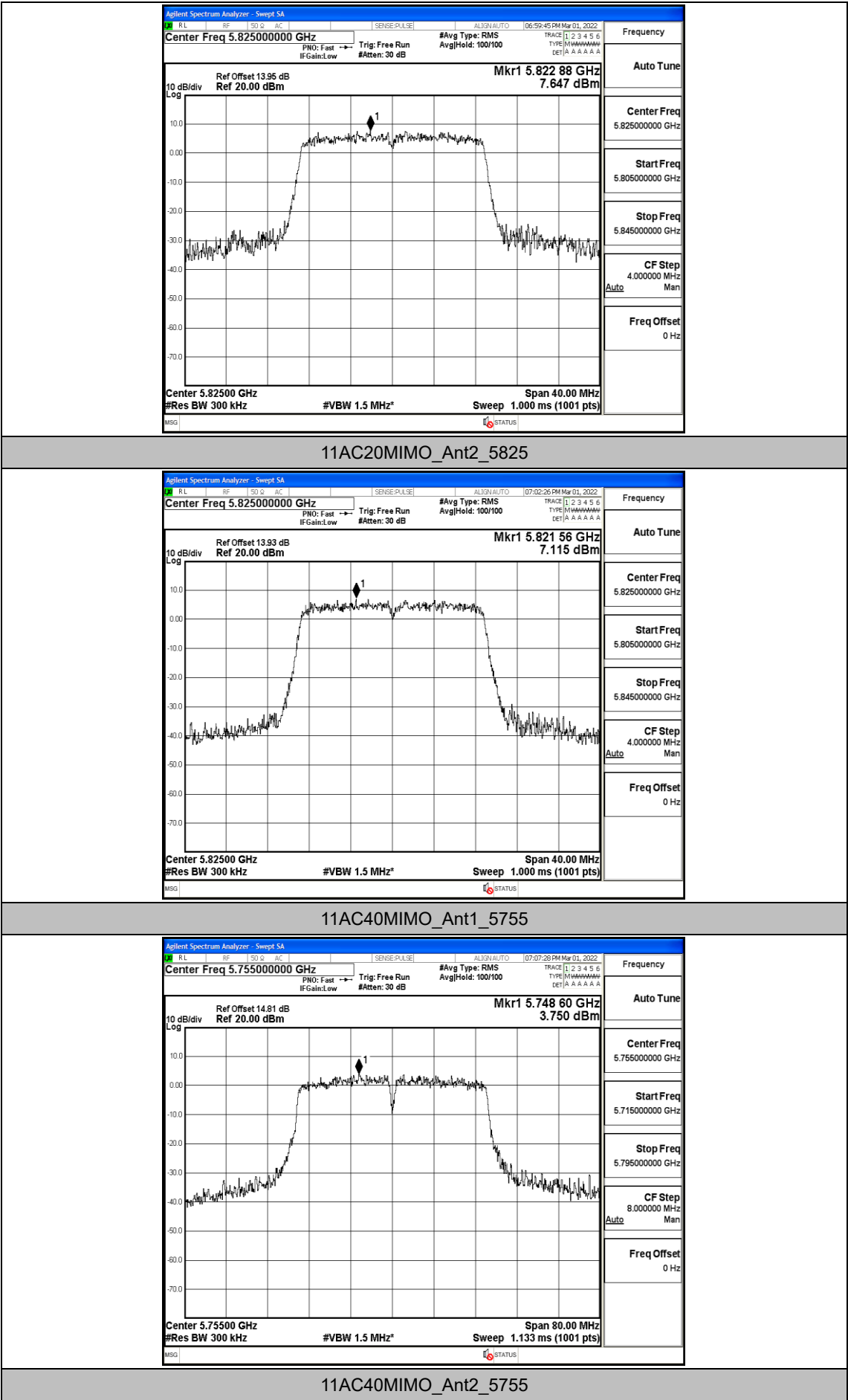


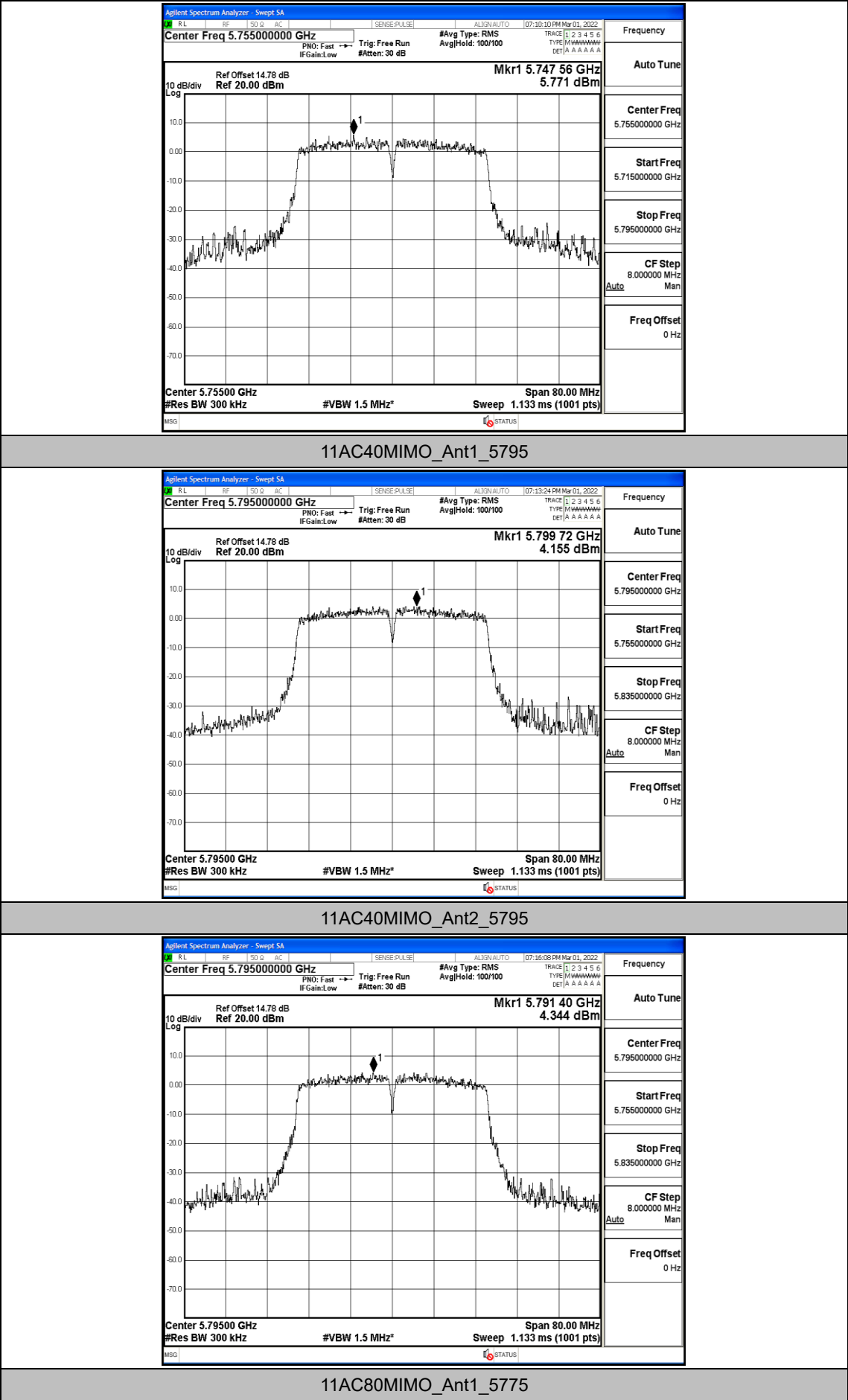


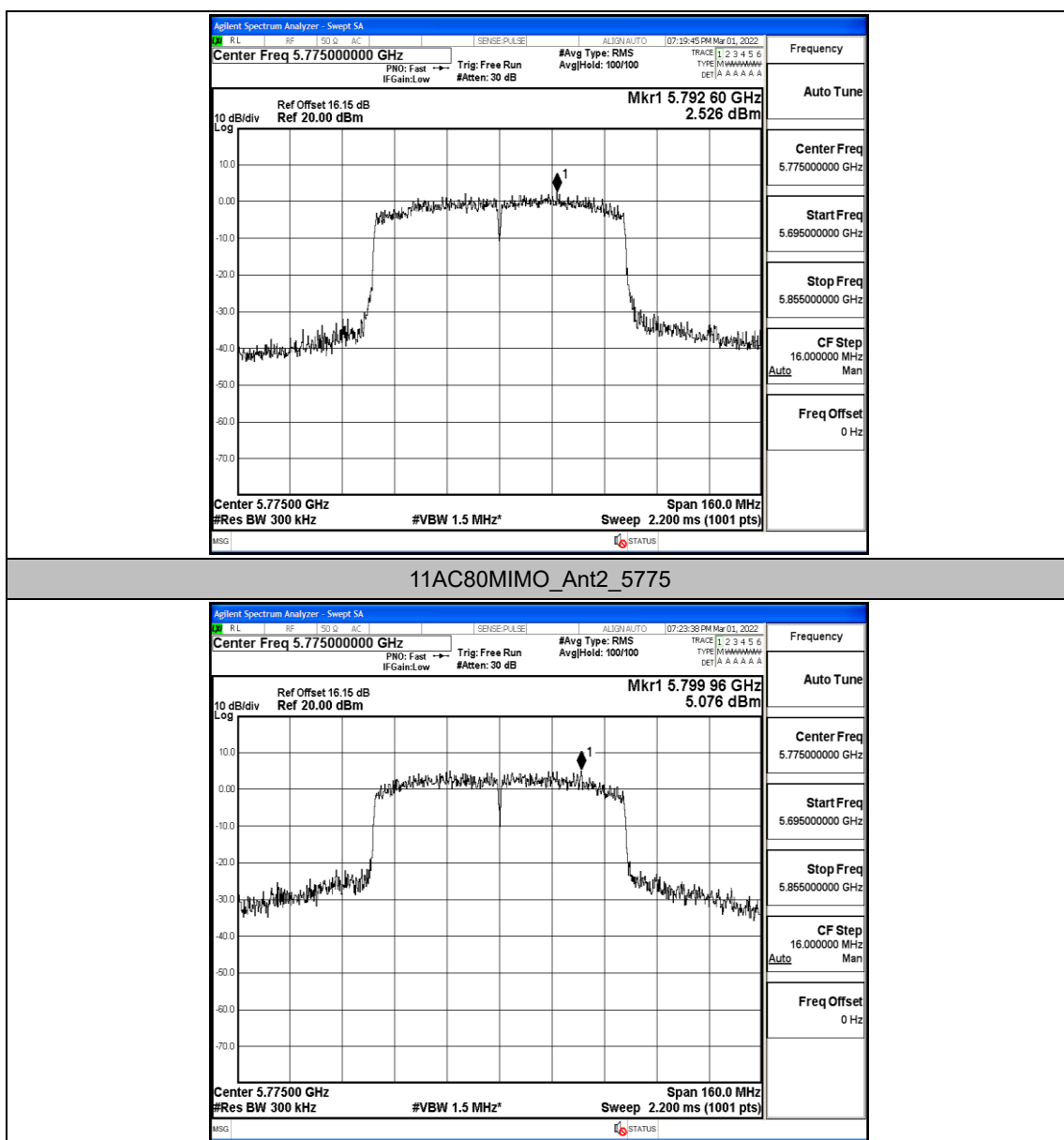












Appendix D: Band edge measurements

Test Result

TestMode	Antenna	ChName	Channel	FreqRange [MHz]	Result [dBm]	Limit [dBm]	Verdict
11A	Ant1	Low	5745	5650~5700	-46.27	≤-18.36	PASS
				5700~5720	-42.55	≤15.50	PASS
				5720~5725	-38.74	≤25.52	PASS
				5760~5650	-46.98	≤-27	PASS
	Ant2	Low	5745	5650~5700	-45.56	≤9.21	PASS
				5700~5720	-44.53	≤14.47	PASS
				5720~5725	-37.73	≤26.04	PASS
				5760~5650	-47	≤-27	PASS
	Ant1	High	5825	5850~5855	-40.44	≤16.10	PASS
				5855~5875	-43.49	≤10.06	PASS
				5875~5925	-45.03	≤0.02	PASS
				5925~5935	-46.8	≤-27	PASS
	Ant2	High	5825	5850~5855	-45.19	≤21.33	PASS
				5855~5875	-45.67	≤13.95	PASS
				5875~5925	-45.51	≤-3.78	PASS
				5925~5935	-46.67	≤-27	PASS
11N20MIMO	Ant1	Low	5745	5650~5700	-46.66	≤-2.62	PASS
				5700~5720	-42.01	≤15.53	PASS
				5720~5725	-38.26	≤22.63	PASS
				5760~5650	-46.79	≤-27	PASS
	Ant2	Low	5745	5650~5700	-46.37	≤-13.77	PASS
				5700~5720	-43.84	≤15.50	PASS
				5720~5725	-36.06	≤26.57	PASS
				5760~5650	-47.54	≤-27	PASS
	Ant1	High	5825	5850~5855	-38.7	≤18.56	PASS
				5855~5875	-44.3	≤10.40	PASS
				5875~5925	-45.55	≤-10.07	PASS
				5925~5935	-46.82	≤-27	PASS
	Ant2	High	5825	5850~5855	-45.15	≤16.10	PASS
				5855~5875	-45.11	≤11.31	PASS
				5875~5925	-45.59	≤-24.06	PASS
				5925~5935	-45.78	≤-27	PASS
11N40MIMO	Ant1	Low	5755	5650~5700	-45.69	≤9.56	PASS
				5700~5720	-38.88	≤15.58	PASS
				5720~5725	-35.78	≤24.05	PASS
				5780~5650	-47.23	≤-27	PASS
	Ant2	Low	5755	5650~5700	-45.16	≤8.46	PASS

TestMode	Antenna	ChName	Channel	FreqRange [MHz]	Result [dBm]	Limit [dBm]	Verdict
				5700~5720	-32.68	≤15.58	PASS
				5720~5725	-31.8	≤15.74	PASS
				5780~5650	-47.4	≤-27	PASS
	Ant1	High	5795	5850~5855	-43.91	≤20.55	PASS
				5855~5875	-45.27	≤13.18	PASS
				5875~5925	-45.26	≤-17.40	PASS
				5925~5935	-46.42	≤-27	PASS
	Ant2	High	5795	5850~5855	-46.05	≤17.91	PASS
				5855~5875	-45.58	≤11.29	PASS
				5875~5925	-45.71	≤-13.49	PASS
				5925~5935	-45.64	≤-27	PASS
11AC20MIMO	Ant1	Low	5745	5650~5700	-44.5	≤-10.02	PASS
				5700~5720	-43.29	≤15.59	PASS
				5720~5725	-38.21	≤26.83	PASS
				5760~5650	-47.73	≤-27	PASS
	Ant2	Low	5745	5650~5700	-46.46	≤7.85	PASS
				5700~5720	-43.57	≤15.11	PASS
				5720~5725	-35.33	≤26.30	PASS
				5760~5650	-47.4	≤-27	PASS
	Ant1	High	5825	5850~5855	-41.04	≤17.03	PASS
				5855~5875	-42.96	≤10.44	PASS
				5875~5925	-45.14	≤-8.77	PASS
				5925~5935	-47.16	≤-27	PASS
	Ant2	High	5825	5850~5855	-44.53	≤26.26	PASS
				5855~5875	-45.41	≤13.80	PASS
				5875~5925	-45.02	≤-14.67	PASS
				5925~5935	-45.75	≤-27	PASS
11AC40MIMO	Ant1	Low	5755	5650~5700	-44.71	≤9.96	PASS
				5700~5720	-39.18	≤15.16	PASS
				5720~5725	-36.73	≤24.05	PASS
				5780~5650	-47.53	≤-27	PASS
	Ant2	Low	5755	5650~5700	-44.73	≤8.86	PASS
				5700~5720	-33.54	≤15.50	PASS
				5720~5725	-29.53	≤26.20	PASS
				5780~5650	-46.3	≤-27	PASS
	Ant1	High	5795	5850~5855	-45.18	≤22.80	PASS
				5855~5875	-45.49	≤11.66	PASS
				5875~5925	-45.49	≤-23.14	PASS
				5925~5935	-46.43	≤-27	PASS
	Ant2	High	5795	5850~5855	-45.19	≤20.55	PASS
				5855~5875	-45.55	≤15.54	PASS
				5875~5925	-45.87	≤-18.50	PASS

TestMode	Antenna	ChName	Channel	FreqRange [MHz]	Result [dBm]	Limit [dBm]	Verdict
				5925~5935	-46.68	≤-27	PASS
11AC80MIMO	Ant1	Low	5775	5650~5700	-43.58	≤0.73	PASS
				5700~5720	-41.44	≤15.26	PASS
				5720~5725	-40.5	≤21.30	PASS
				5800~5650	-47.48	≤-27	PASS
		High	5775	5850~5855	-40.88	≤26.34	PASS
				5855~5875	-41.59	≤11.63	PASS
				5875~5925	-42.21	≤-26.96	PASS
				5925~5935	-46.01	≤-27	PASS
	Ant2	Low	5775	5650~5700	-31.88	≤1.65	PASS
				5700~5720	-29.78	≤15.52	PASS
				5720~5725	-28.19	≤17.06	PASS
				5800~5650	-46.3	≤-27	PASS
		High	5775	5850~5855	-33.03	≤17.90	PASS
				5855~5875	-35.34	≤11.58	PASS
				5875~5925	-43.47	≤-26.41	PASS
				5925~5935	-45.65	≤-27	PASS

Test Graphs

