

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

Product Name: Wanbo Projector

Trade Mark: Wanbo

Test Model: WPC24

FCC ID: 2A7PIWPC24

Environmental Conditions

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

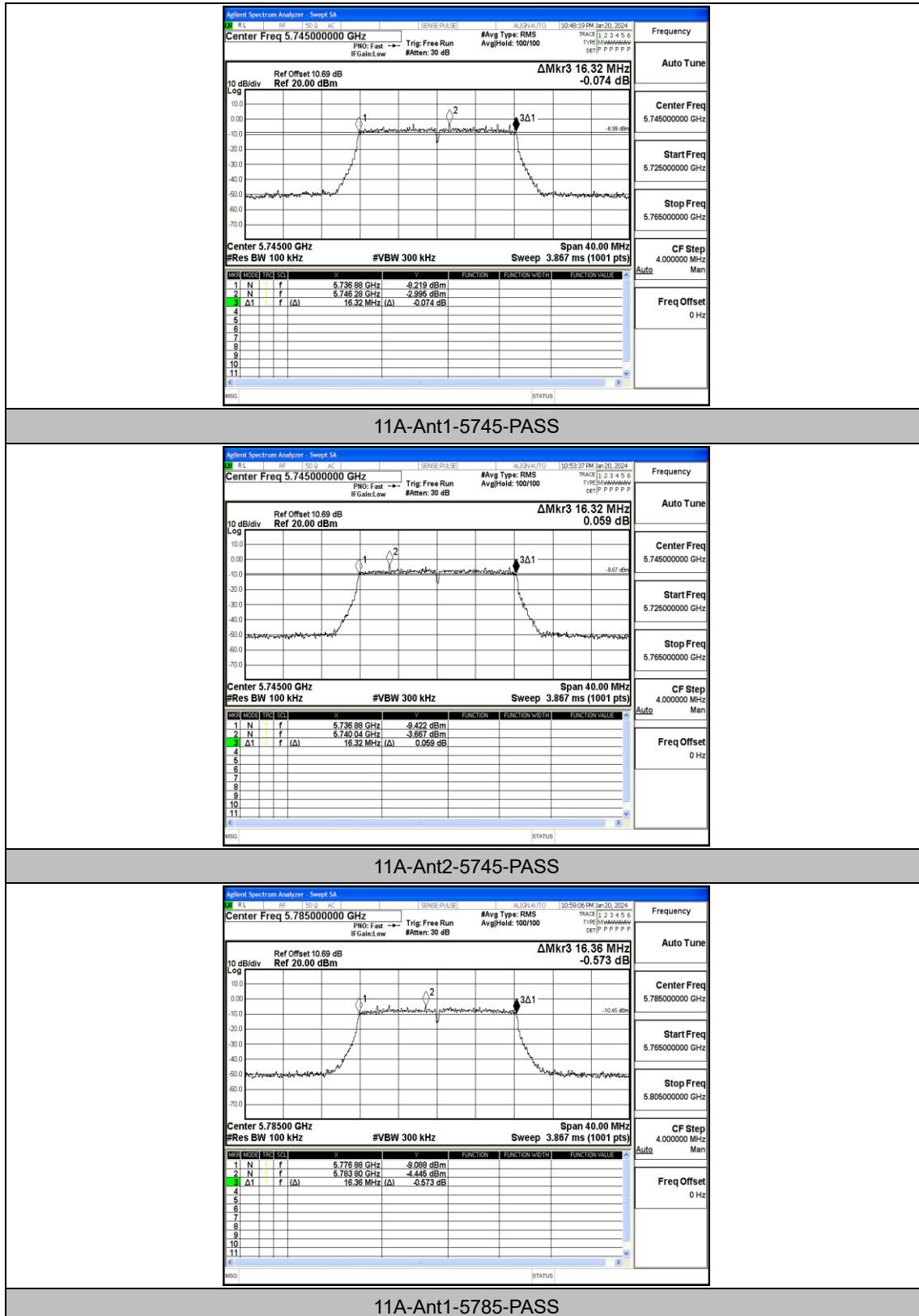
Appendix A: Min emission bandwidth

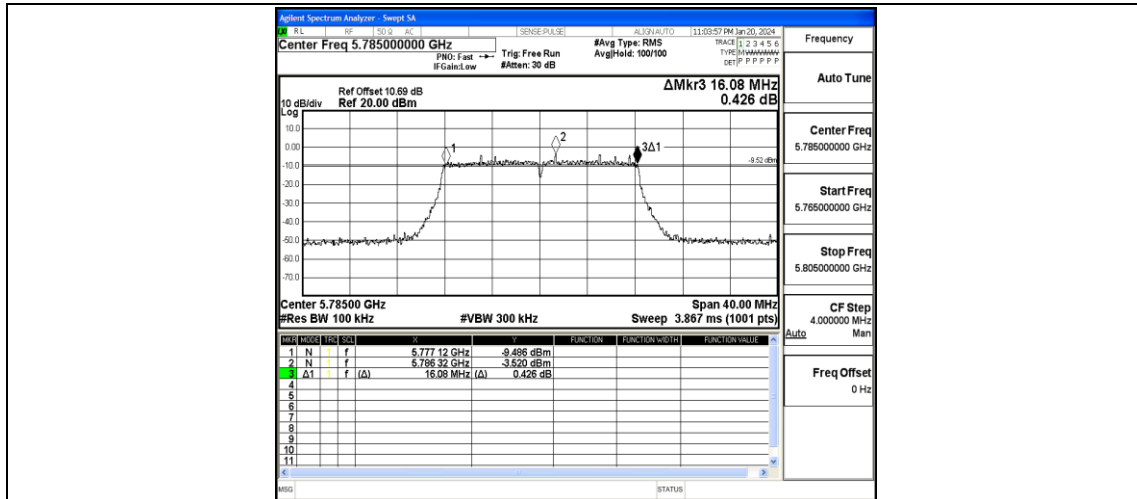
Test Result

TestMode	Antenna	Frequency[MHz]	6db EBW [MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
11A	Ant1	5745	16.320	5736.880	5753.200	0.5	PASS
11A	Ant2	5745	16.320	5736.880	5753.200	0.5	PASS
11A	Ant1	5785	16.360	5776.880	5793.240	0.5	PASS
11A	Ant2	5785	16.080	5777.120	5793.200	0.5	PASS
11A	Ant1	5825	16.360	5816.880	5833.240	0.5	PASS
11A	Ant2	5825	16.320	5816.880	5833.200	0.5	PASS
11N20MIMO	Ant1	5745	16.880	5736.600	5753.480	0.5	PASS
11N20MIMO	Ant2	5745	17.200	5736.280	5753.480	0.5	PASS
11N20MIMO	Ant1	5785	16.920	5776.520	5793.440	0.5	PASS
11N20MIMO	Ant2	5785	17.160	5776.600	5793.760	0.5	PASS
11N20MIMO	Ant1	5825	17.240	5816.520	5833.760	0.5	PASS
11N20MIMO	Ant2	5825	17.320	5816.440	5833.760	0.5	PASS
11N40MIMO	Ant1	5755	34.080	5738.520	5772.600	0.5	PASS
11N40MIMO	Ant2	5755	35.040	5737.560	5772.600	0.5	PASS
11N40MIMO	Ant1	5795	35.040	5777.480	5812.520	0.5	PASS
11N40MIMO	Ant2	5795	35.040	5777.400	5812.440	0.5	PASS
11AC20MIMO	Ant1	5745	17.520	5736.240	5753.760	0.5	PASS
11AC20MIMO	Ant2	5745	16.920	5736.480	5753.400	0.5	PASS
11AC20MIMO	Ant1	5785	16.920	5776.840	5793.760	0.5	PASS
11AC20MIMO	Ant2	5785	17.520	5776.240	5793.760	0.5	PASS
11AC20MIMO	Ant1	5825	17.560	5816.240	5833.800	0.5	PASS
11AC20MIMO	Ant2	5825	17.600	5816.200	5833.800	0.5	PASS
11AC40MIMO	Ant1	5755	35.120	5737.400	5772.520	0.5	PASS
11AC40MIMO	Ant2	5755	35.200	5737.400	5772.600	0.5	PASS

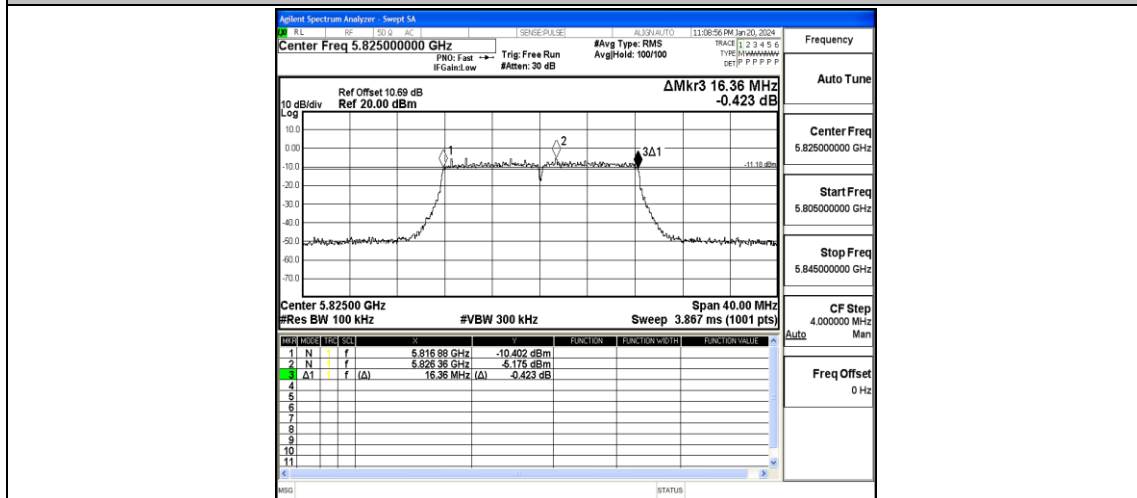
11AC40MIMO	Ant1	5795	33.840	5778.680	5812.520	0.5	PASS
11AC40MIMO	Ant2	5795	33.760	5777.560	5811.320	0.5	PASS
11AC80MIMO	Ant1	5775	73.760	5737.560	5811.320	0.5	PASS
11AC80MIMO	Ant2	5775	72.480	5737.560	5810.040	0.5	PASS

Test Graphs

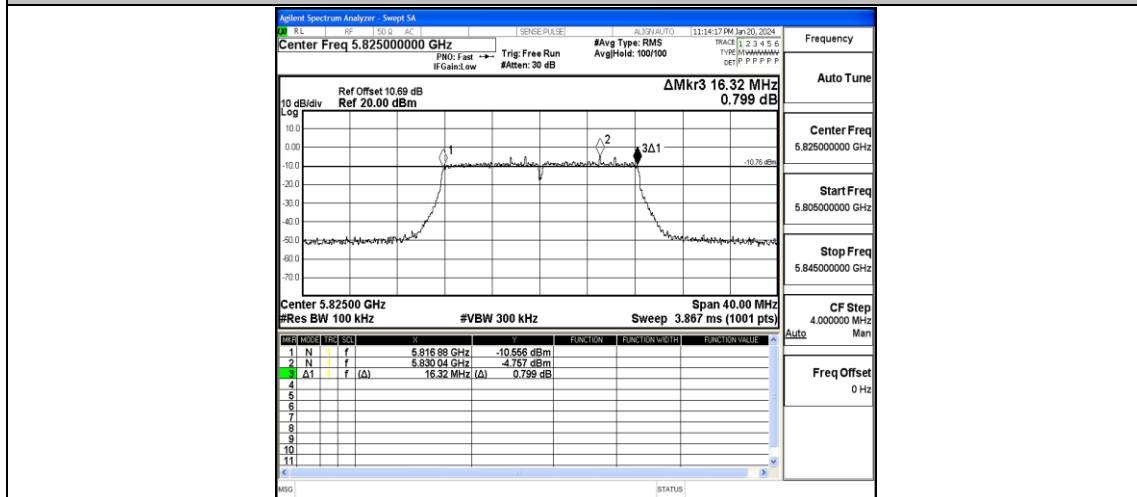




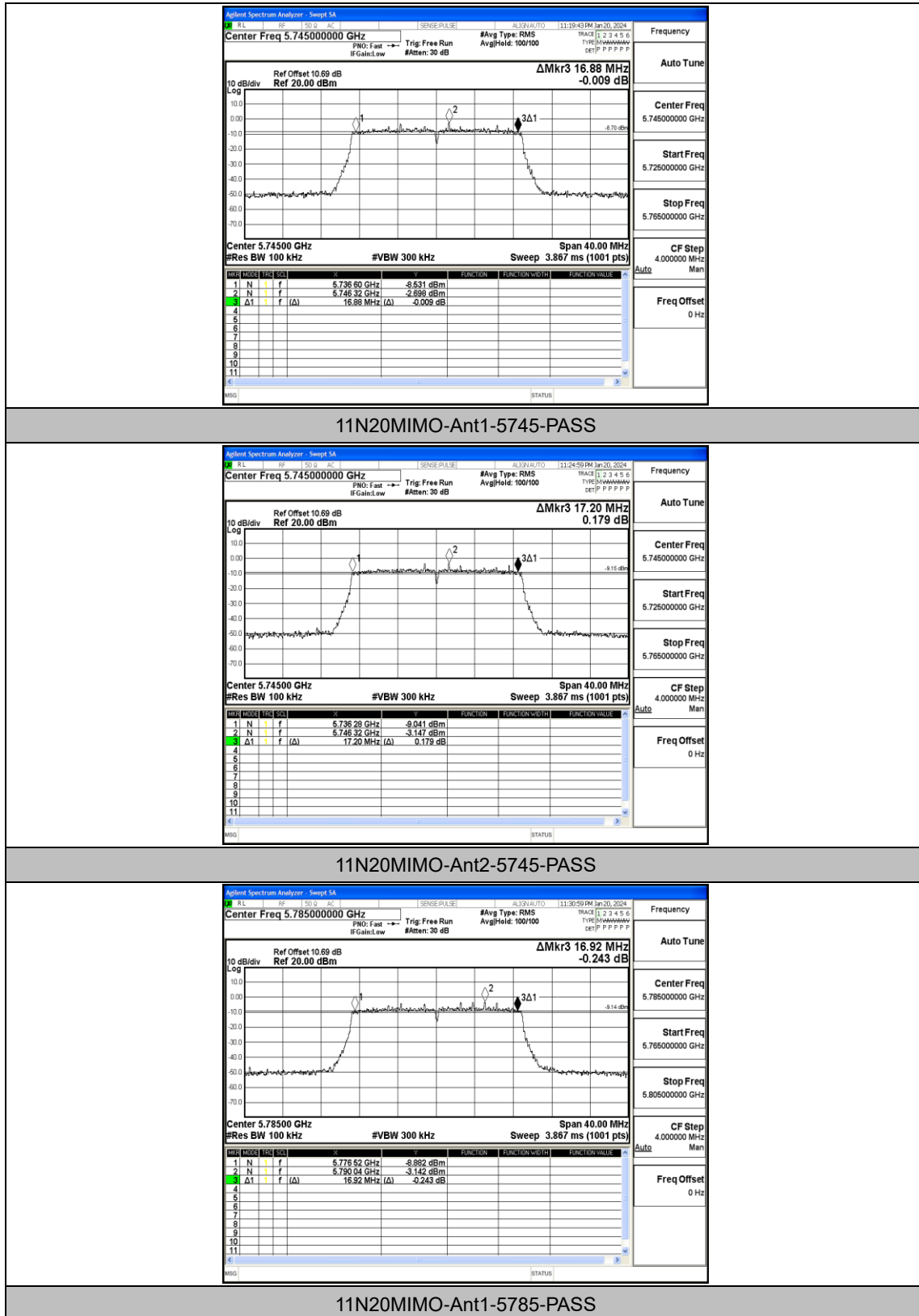
11A-Ant2-5785-PASS

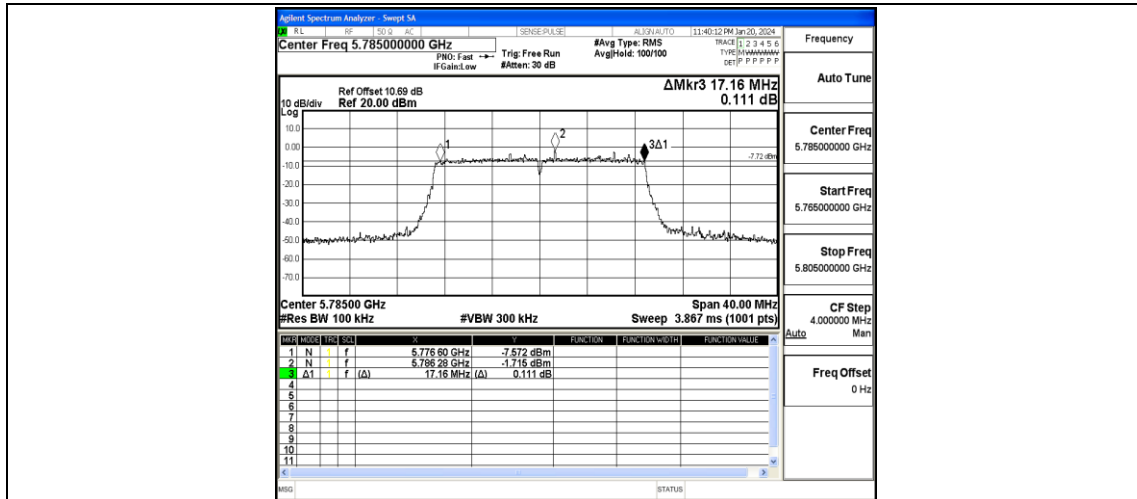


11A-Ant1-5825-PASS

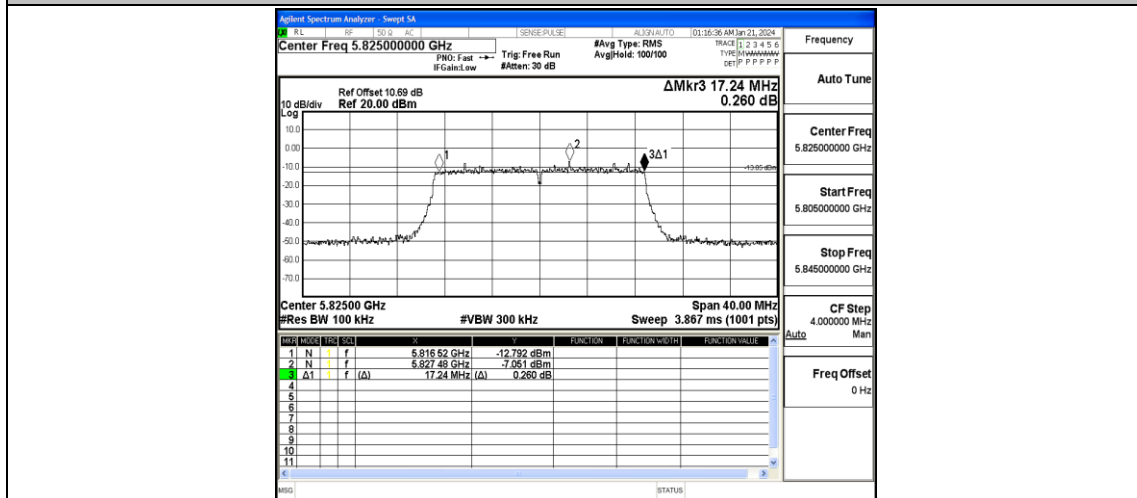


11A-Ant2-5825-PASS

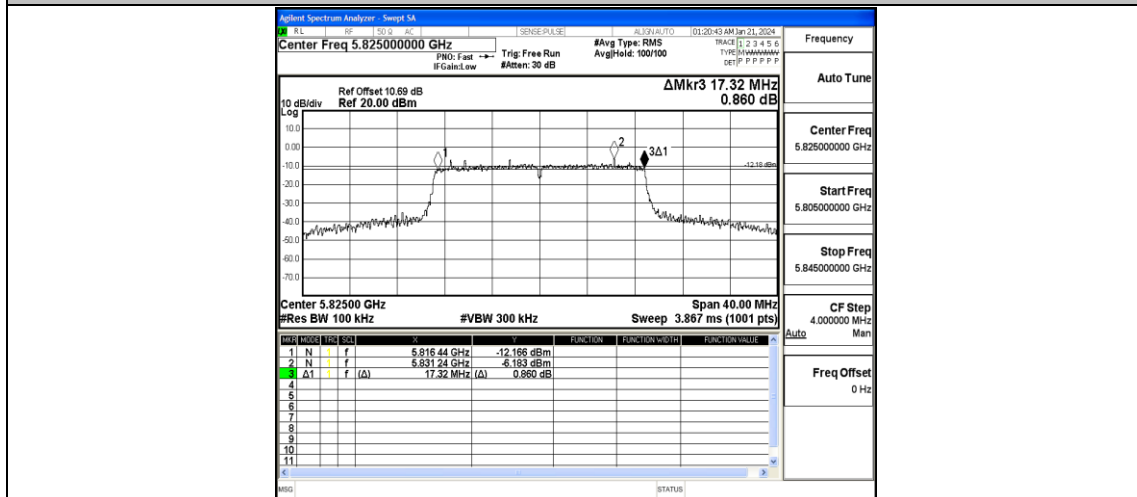




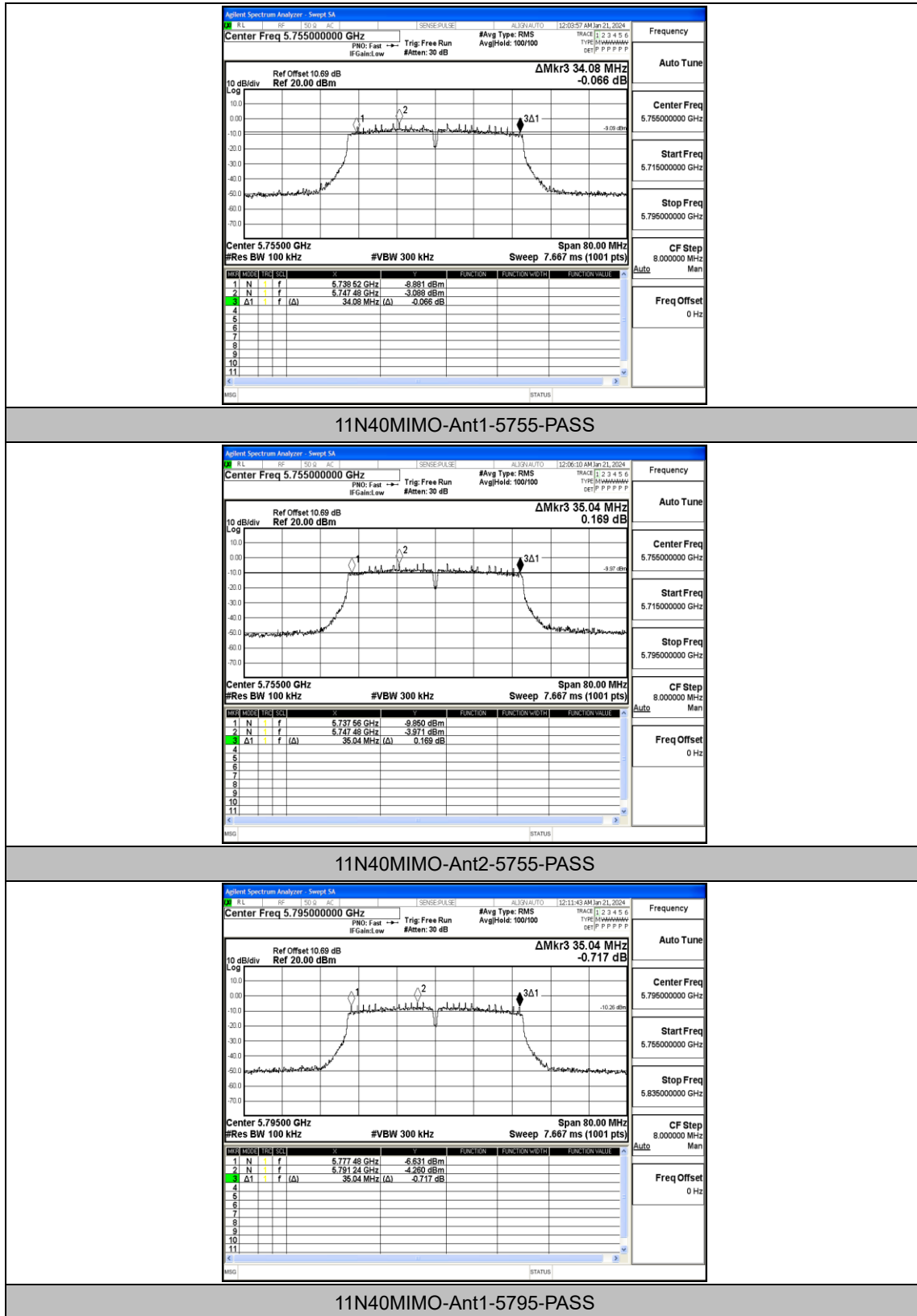
11N20MIMO-Ant2-5785-PASS

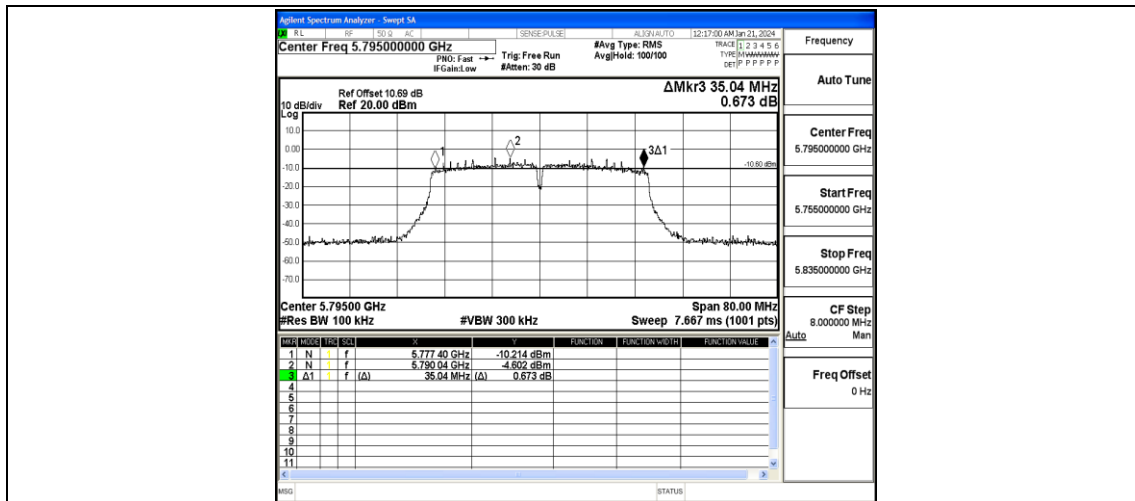


11N20MIMO-Ant1-5825-PASS

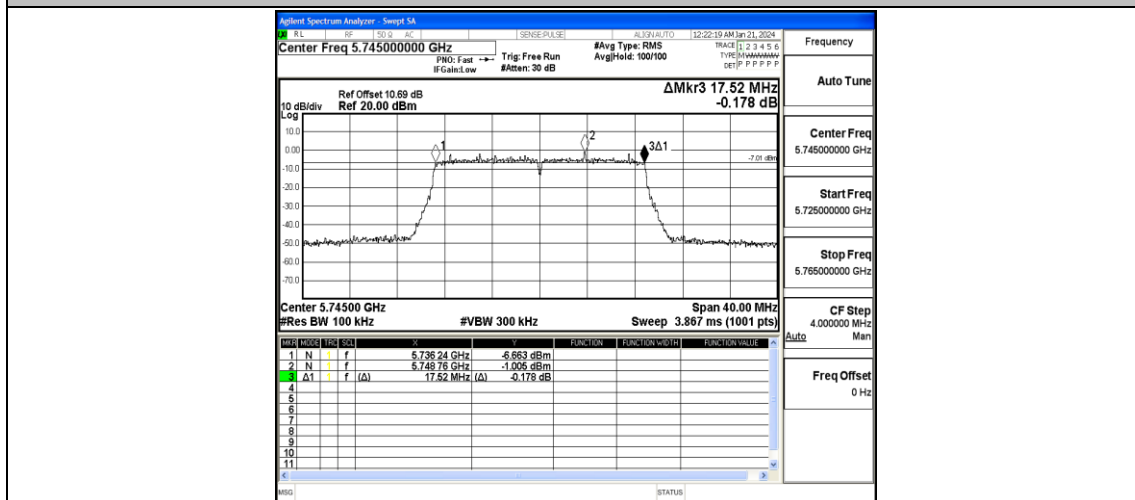


11N20MIMO-Ant2-5825-PASS

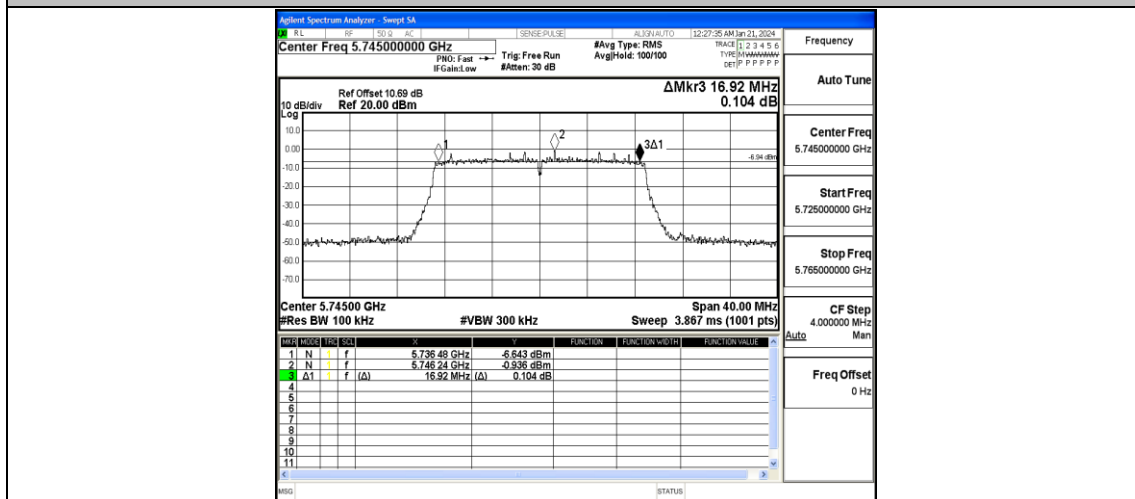




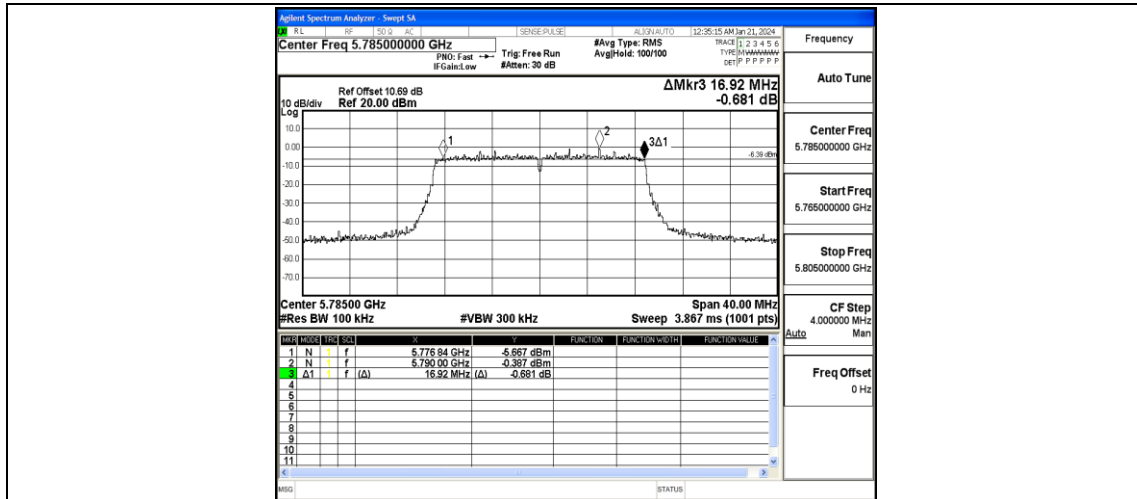
11N40MIMO-Ant2-5795-PASS



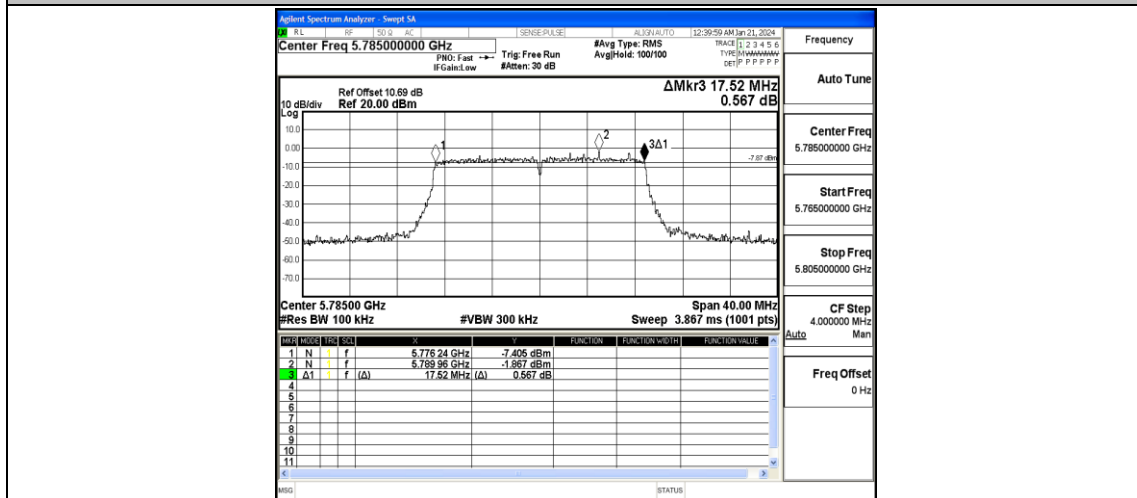
11AC20MIMO-Ant1-5745-PASS



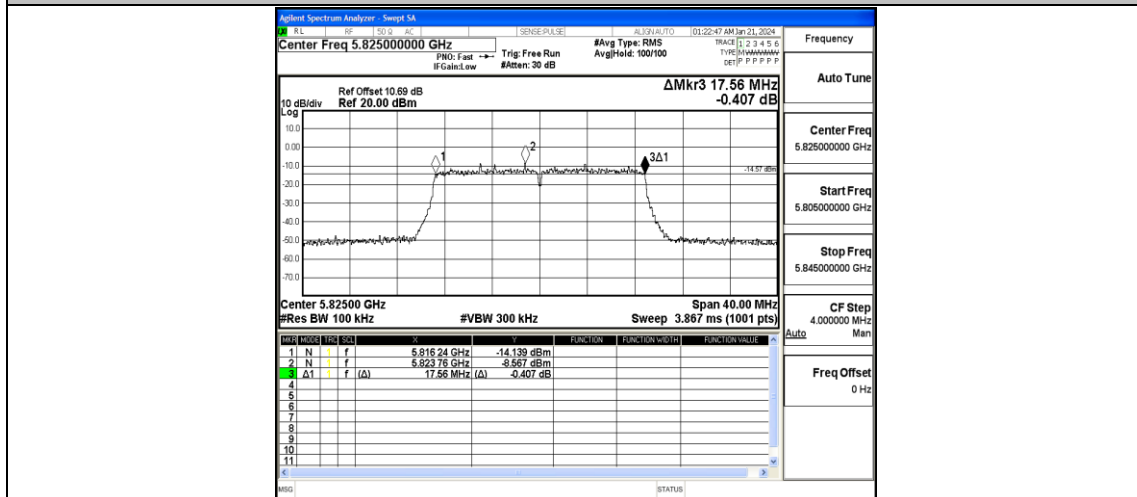
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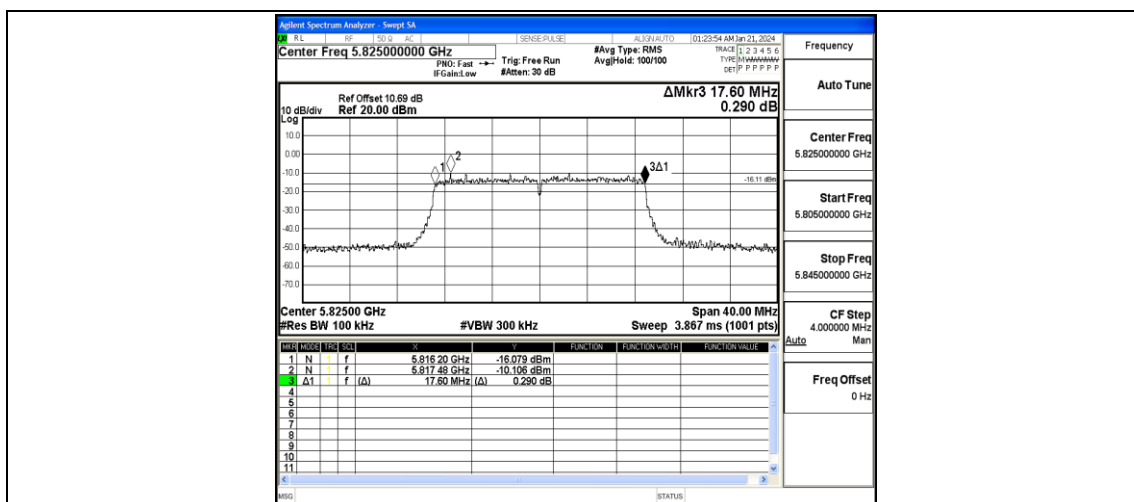
11AC20MIMO-Ant1-5785-PASS



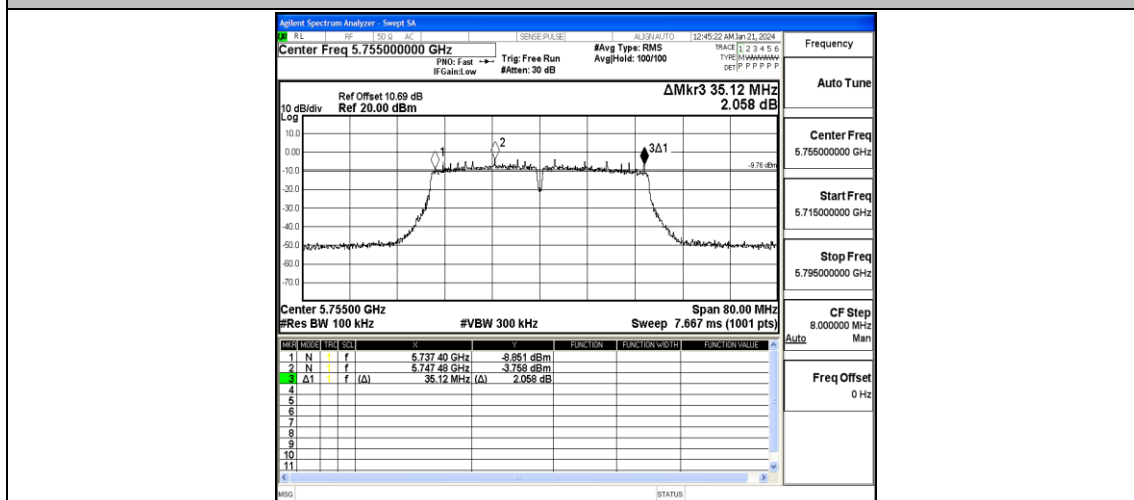
11AC20MIMO-Ant2-5785-PASS



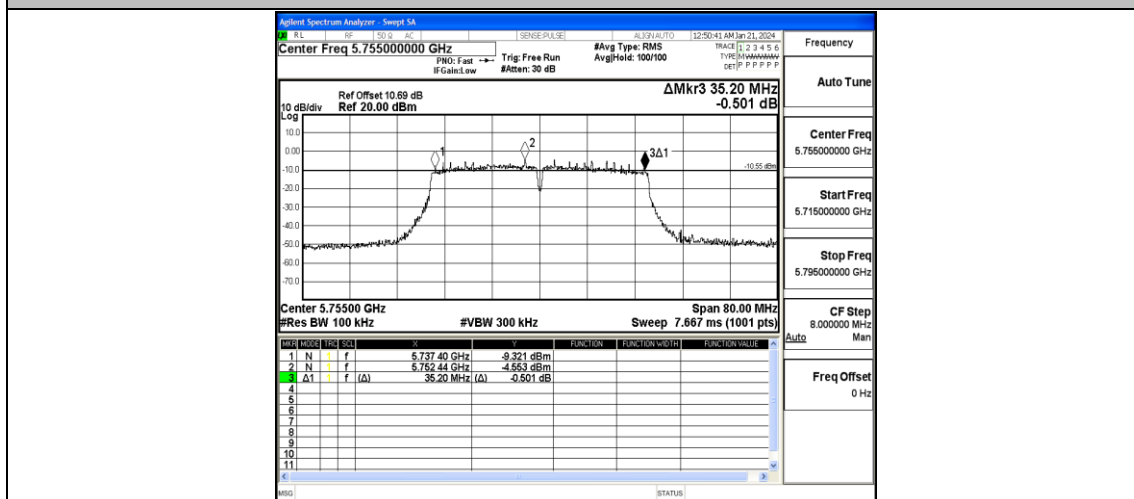
11AC20MIMO-Ant1-5825-PASS



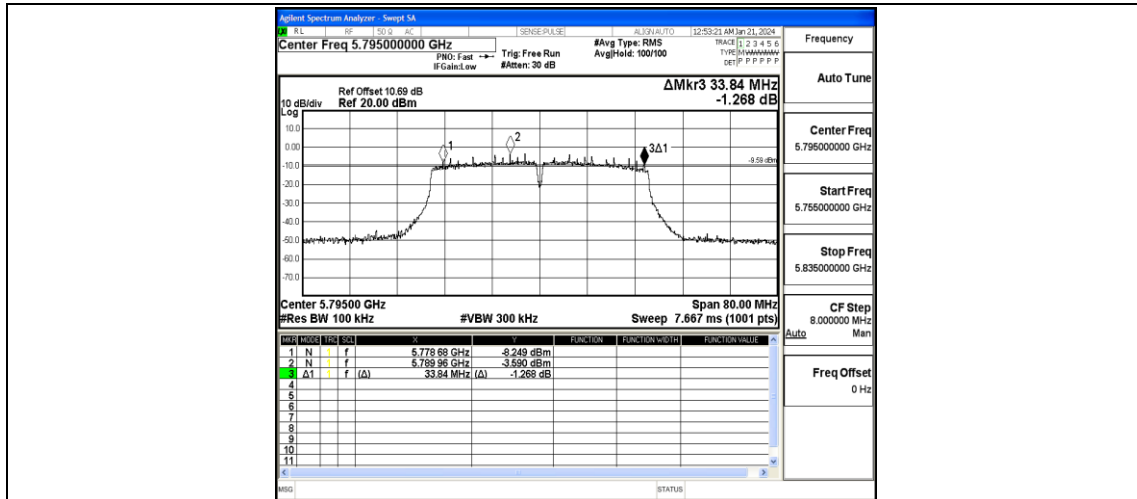
11AC20MIMO-Ant2-5825-PASS



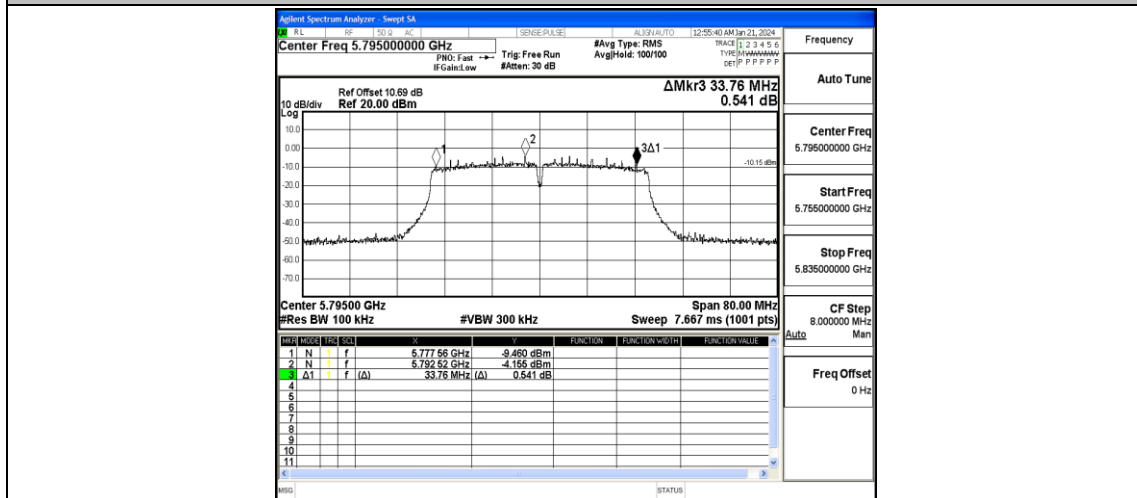
11AC40MIMO-Ant1-5755-PASS



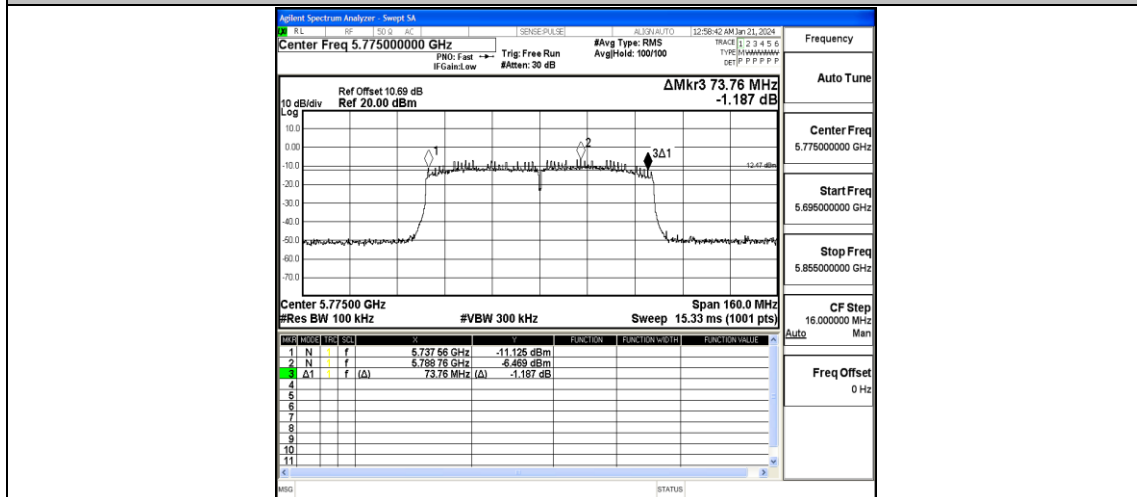
11AC40MIMO-Ant2-5755-PASS



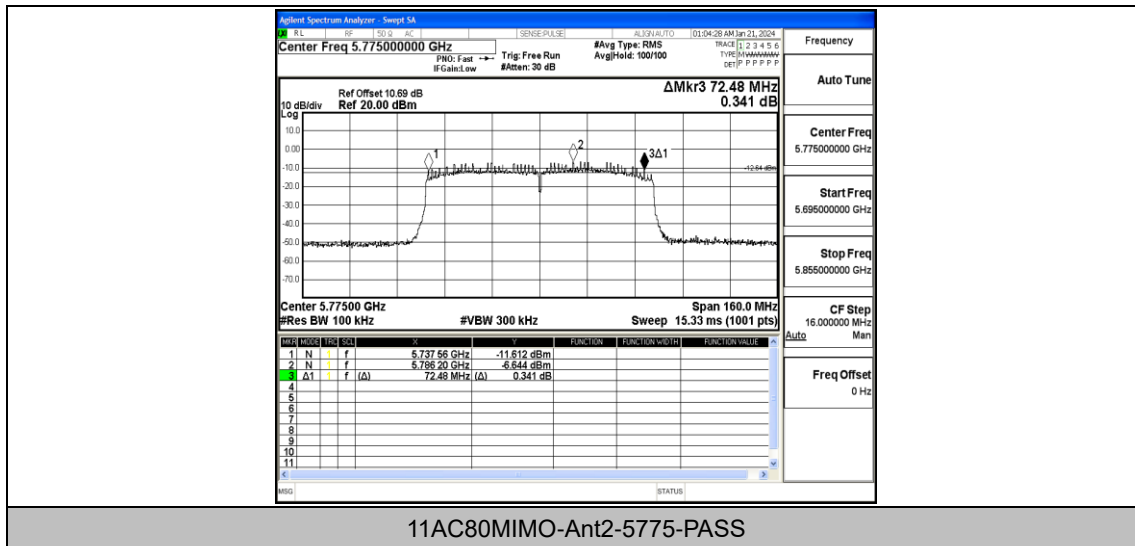
11AC40MIMO-Ant1-5795-PASS



11AC40MIMO-Ant2-5795-PASS



11AC80MIMO-Ant1-5775-PASS



Appendix B: Maximum conducted output power

Test Result

Test Mode	Antenna	Frequency[MHz]	Result [dBm]	Limit [dBm]	Verdict
11A	Ant1	5745	8.30	≤30.00	PASS
11A	Ant2	5745	7.65	≤30.00	PASS
11A	Ant1	5785	7.98	≤30.00	PASS
11A	Ant2	5785	7.51	≤30.00	PASS
11A	Ant1	5825	6.93	≤30.00	PASS
11A	Ant2	5825	6.70	≤30.00	PASS
11N20MIMO	Ant1	5745	8.39	≤30.00	PASS
11N20MIMO	Ant2	5745	7.65	≤30.00	PASS
11N20MIMO	total	5745	11.05	≤28.49	PASS
11N20MIMO	Ant1	5785	8.03	≤30.00	PASS
11N20MIMO	Ant2	5785	8.80	≤30.00	PASS
11N20MIMO	total	5785	11.44	≤28.49	PASS
11N20MIMO	Ant1	5825	8.77	≤30.00	PASS
11N20MIMO	Ant2	5825	7.53	≤30.00	PASS
11N20MIMO	total	5825	11.20	≤28.49	PASS
11N40MIMO	Ant1	5755	10.39	≤30.00	PASS
11N40MIMO	Ant2	5755	9.88	≤30.00	PASS
11N40MIMO	total	5755	13.15	≤28.49	PASS
11N40MIMO	Ant1	5795	10.03	≤30.00	PASS
11N40MIMO	Ant2	5795	9.49	≤30.00	PASS
11N40MIMO	total	5795	12.78	≤28.49	PASS
11AC20MIMO	Ant1	5745	10.26	≤30.00	PASS
11AC20MIMO	Ant2	5745	9.90	≤30.00	PASS
11AC20MIMO	total	5745	13.09	≤28.49	PASS
11AC20MIMO	Ant1	5785	10.45	≤30.00	PASS
11AC20MIMO	Ant2	5785	9.80	≤30.00	PASS
11AC20MIMO	total	5785	13.15	≤28.49	PASS
11AC20MIMO	Ant1	5825	8.28	≤30.00	PASS
11AC20MIMO	Ant2	5825	7.70	≤30.00	PASS
11AC20MIMO	total	5825	11.01	≤28.49	PASS
11AC40MIMO	Ant1	5755	10.06	≤30.00	PASS
11AC40MIMO	Ant2	5755	9.70	≤30.00	PASS
11AC40MIMO	total	5755	12.89	≤28.49	PASS
11AC40MIMO	Ant1	5795	9.92	≤30.00	PASS
11AC40MIMO	Ant2	5795	9.80	≤30.00	PASS
11AC40MIMO	total	5795	12.87	≤28.49	PASS
11AC80MIMO	Ant1	5775	9.78	≤30.00	PASS
11AC80MIMO	Ant2	5775	10.13	≤30.00	PASS
11AC80MIMO	total	5775	12.97	≤28.49	PASS

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

Appendix C: Maximum power spectral density

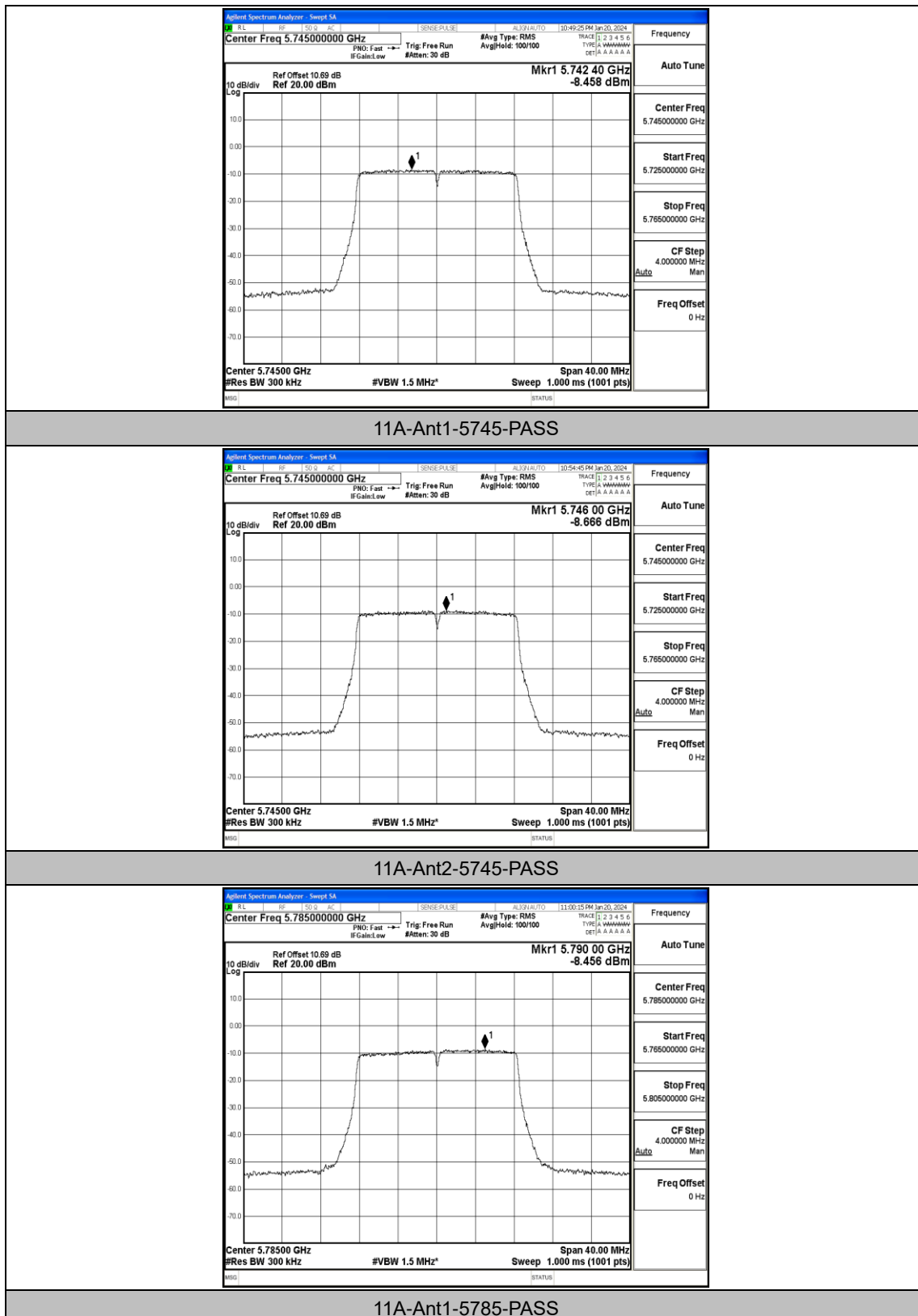
Test Result

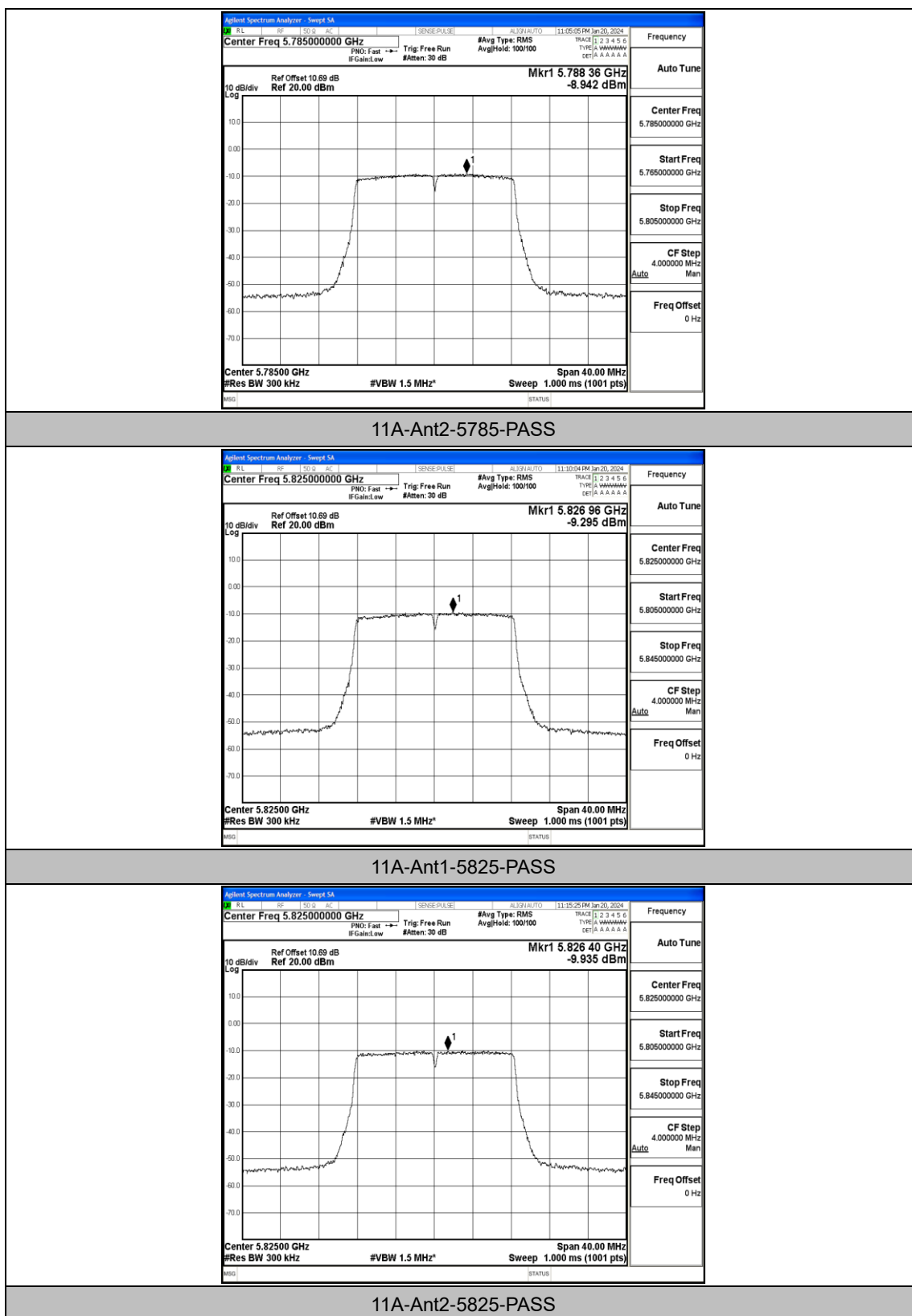
TestMode	Antenna	Frequency[MHz]	Result [dBm/MHz]	Limit[dBm/MHz]	Verdict
11A	Ant1	5745	-5.90	≤30.00	PASS
11A	Ant2	5745	-6.18	≤30.00	PASS
11A	Ant1	5785	-5.88	≤30.00	PASS
11A	Ant2	5785	-6.36	≤30.00	PASS
11A	Ant1	5825	-6.76	≤30.00	PASS
11A	Ant2	5825	-7.36	≤30.00	PASS
11N20MIMO	Ant1	5745	-5.53	≤30.00	PASS
11N20MIMO	Ant2	5745	-6.48	≤30.00	PASS
11N20MIMO	total	5745	-2.97	≤28.49	PASS
11N20MIMO	Ant1	5785	-6.06	≤30.00	PASS
11N20MIMO	Ant2	5785	-5.21	≤30.00	PASS
11N20MIMO	total	5785	-2.60	≤28.49	PASS
11N20MIMO	Ant1	5825	-5.46	≤30.00	PASS
11N20MIMO	Ant2	5825	-6.35	≤30.00	PASS
11N20MIMO	total	5825	-2.87	≤28.49	PASS
11N40MIMO	Ant1	5755	-6.08	≤30.00	PASS
11N40MIMO	Ant2	5755	-6.72	≤30.00	PASS
11N40MIMO	total	5755	-3.38	≤28.49	PASS
11N40MIMO	Ant1	5795	-6.22	≤30.00	PASS
11N40MIMO	Ant2	5795	-7.11	≤30.00	PASS
11N40MIMO	total	5795	-3.63	≤28.49	PASS
11AC20MIMO	Ant1	5745	-3.52	≤30.00	PASS
11AC20MIMO	Ant2	5745	-4.18	≤30.00	PASS
11AC20MIMO	total	5745	-0.83	≤28.49	PASS
11AC20MIMO	Ant1	5785	-3.71	≤30.00	PASS
11AC20MIMO	Ant2	5785	-4.20	≤30.00	PASS
11AC20MIMO	total	5785	-0.94	≤28.49	PASS
11AC20MIMO	Ant1	5825	-6.09	≤30.00	PASS
11AC20MIMO	Ant2	5825	-6.44	≤30.00	PASS
11AC20MIMO	total	5825	-3.25	≤28.49	PASS
11AC40MIMO	Ant1	5755	-6.09	≤30.00	PASS
11AC40MIMO	Ant2	5755	-6.69	≤30.00	PASS
11AC40MIMO	total	5755	-3.37	≤28.49	PASS
11AC40MIMO	Ant1	5795	-6.26	≤30.00	PASS
11AC40MIMO	Ant2	5795	-6.97	≤30.00	PASS
11AC40MIMO	total	5795	-3.59	≤28.49	PASS
11AC80MIMO	Ant1	5775	-9.50	≤30.00	PASS
11AC80MIMO	Ant2	5775	-9.62	≤30.00	PASS
11AC80MIMO	total	5775	-6.55	≤28.49	PASS

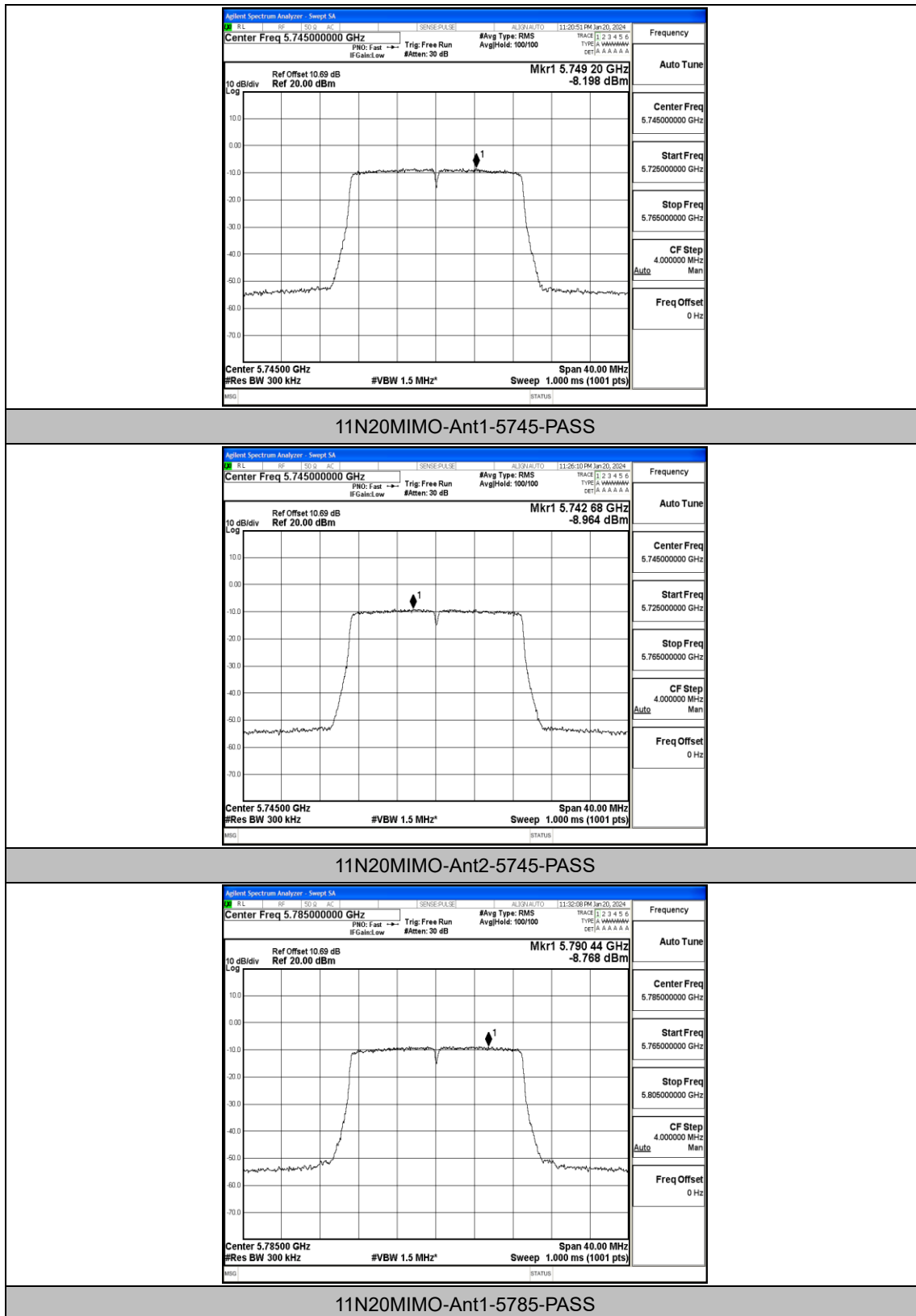
Note: 1.The Result and Limit Unit is dBm/500 kHz in the band 5.725–5.85 GHz.

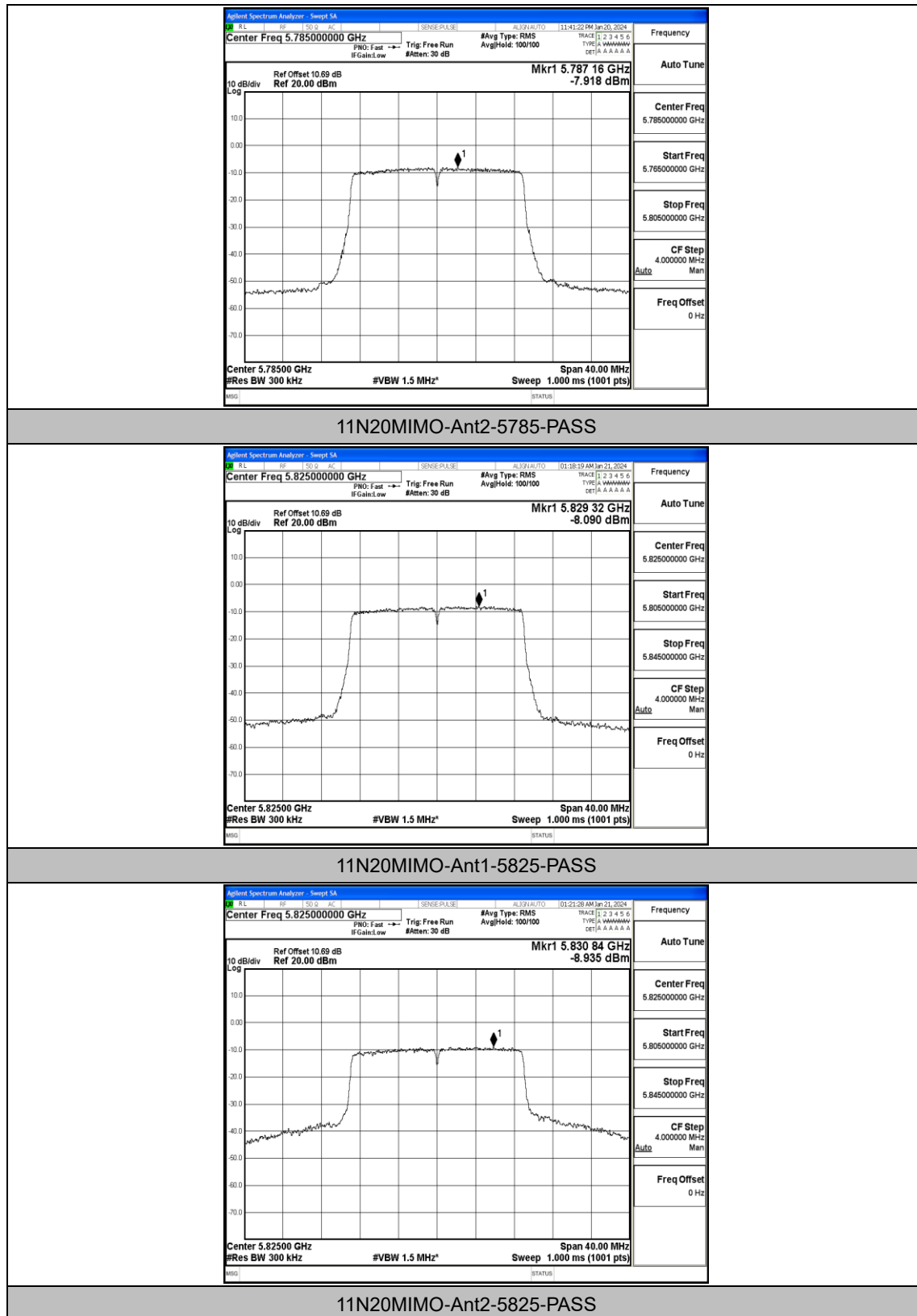
2.The Duty Cycle Factor and RBW Factor is compensated in the graph.

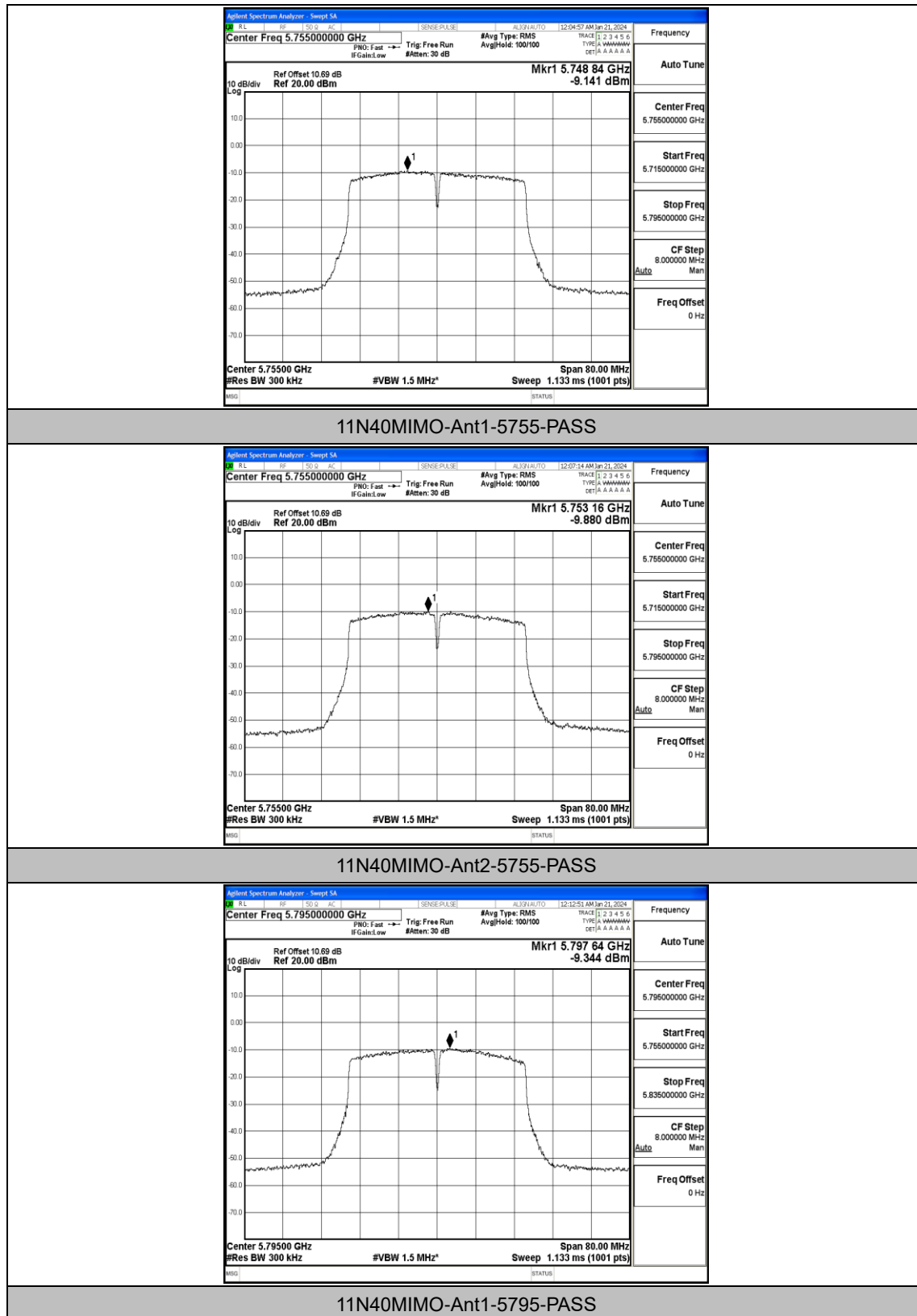
Test Graphs

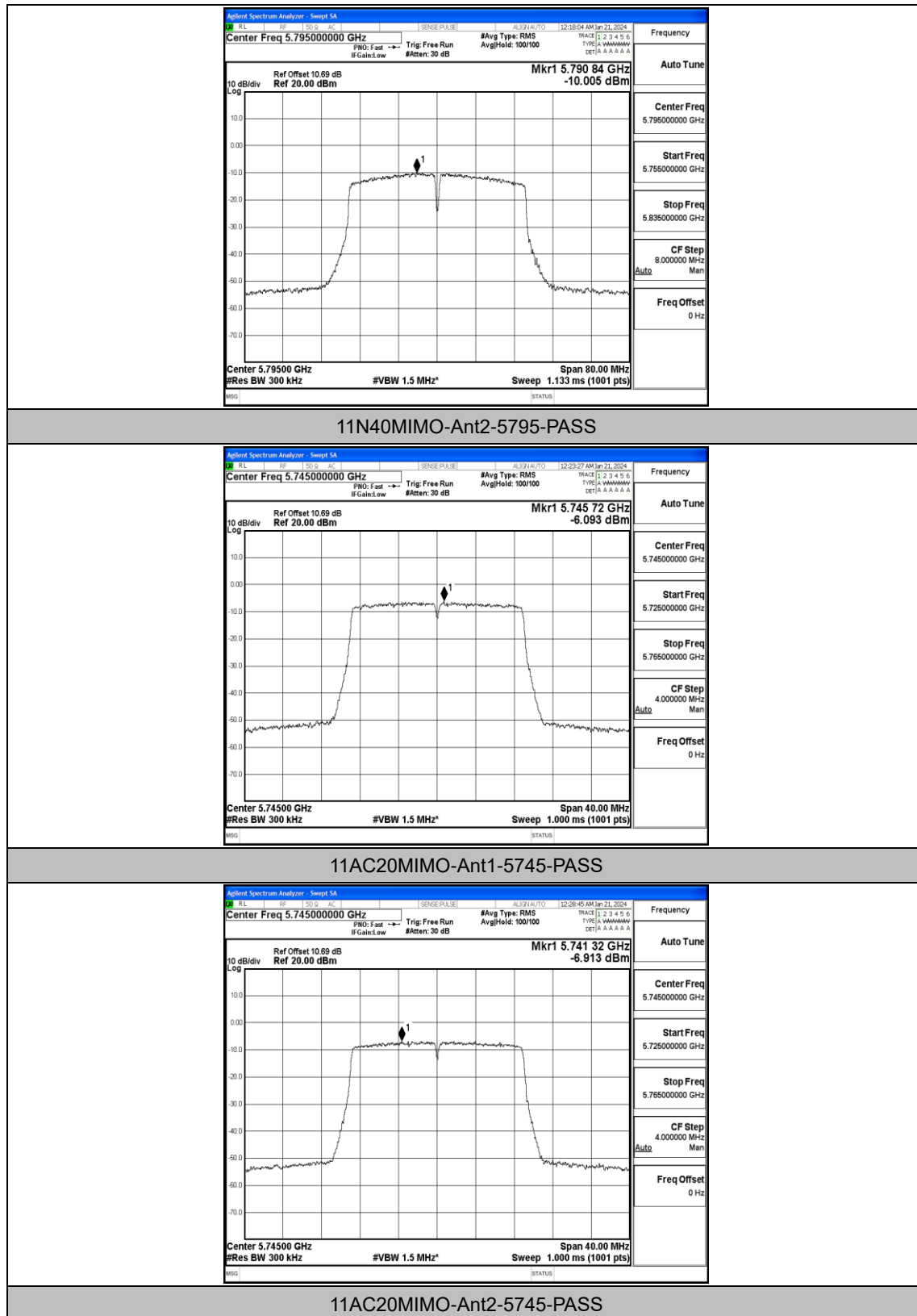


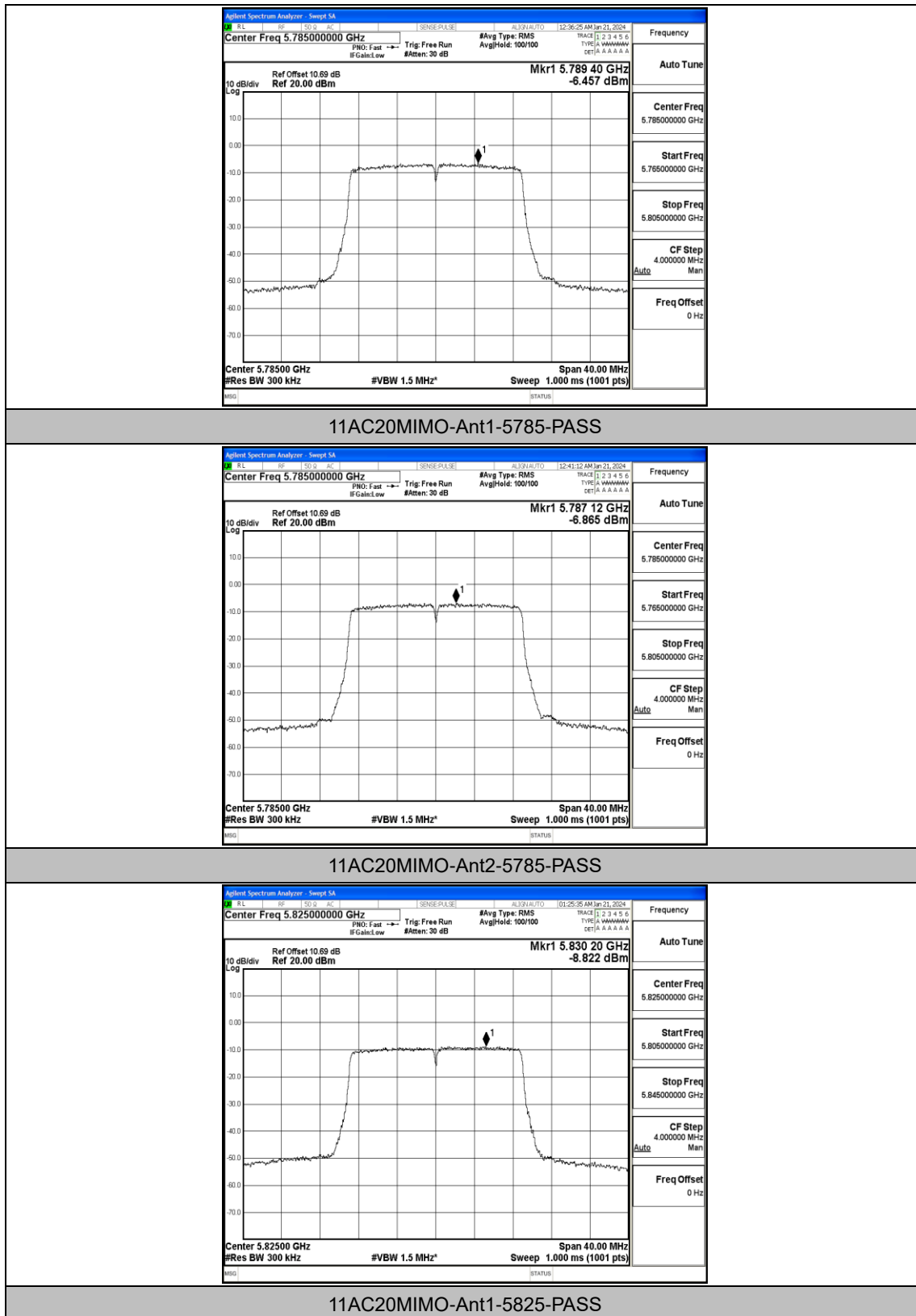


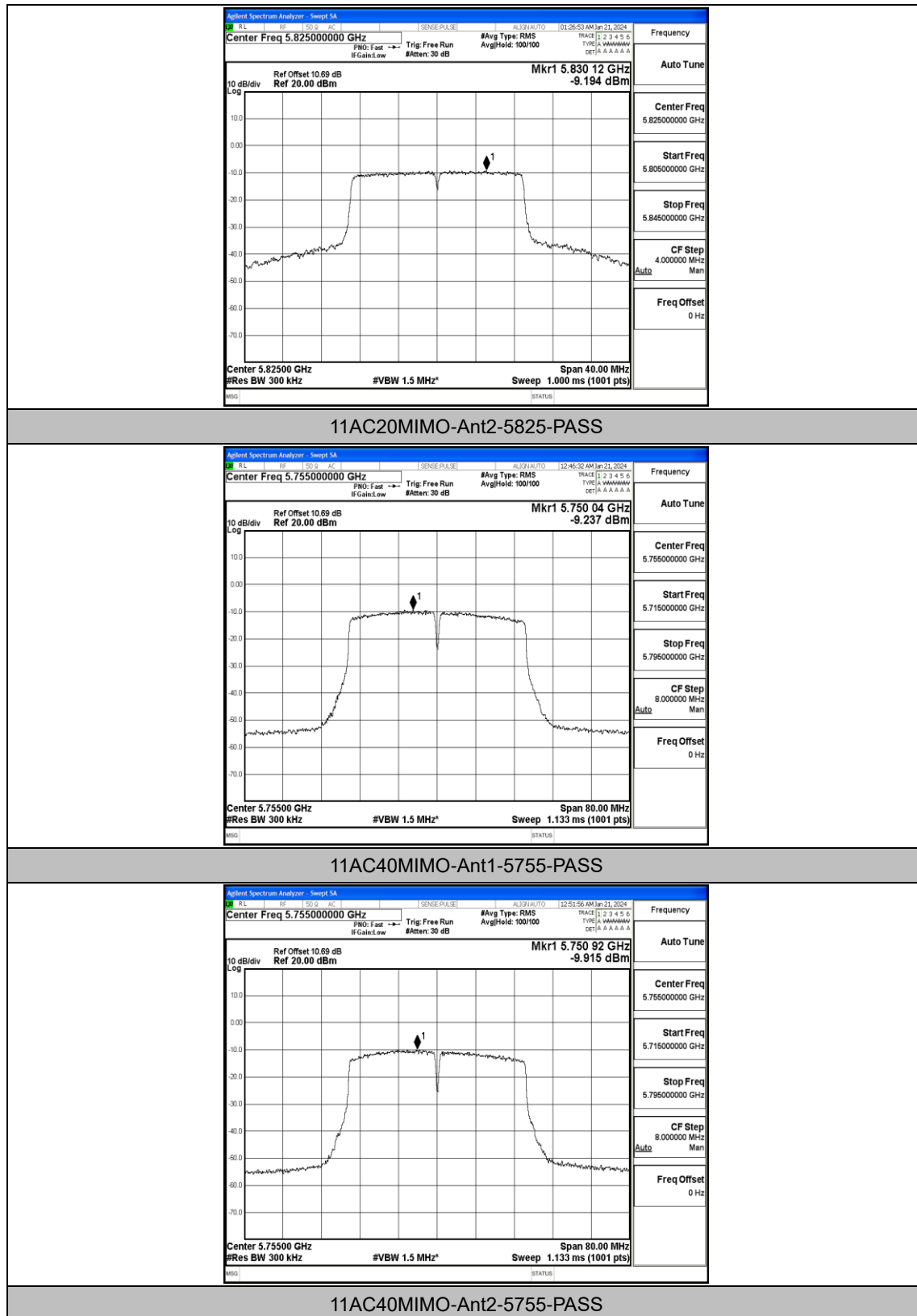


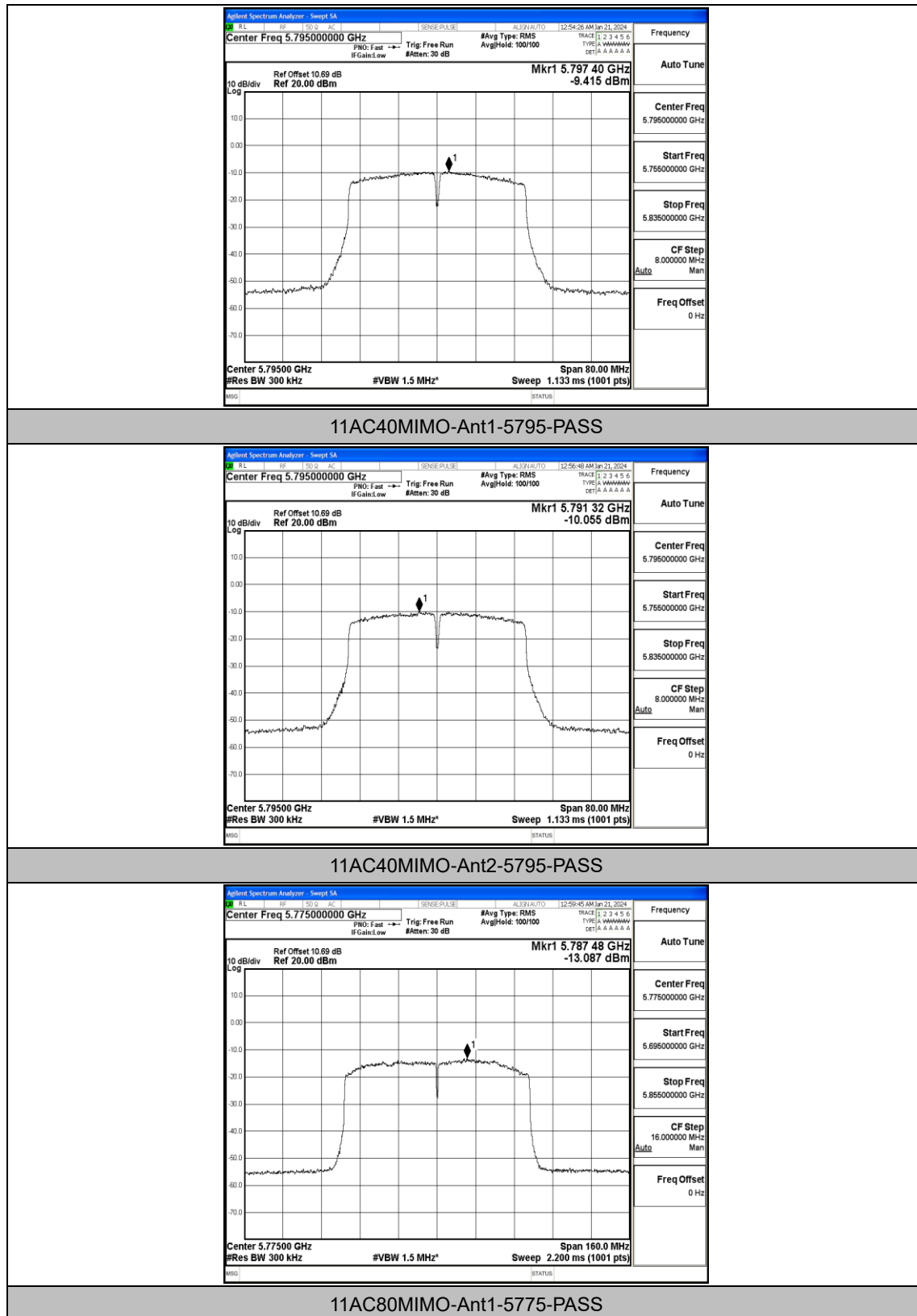


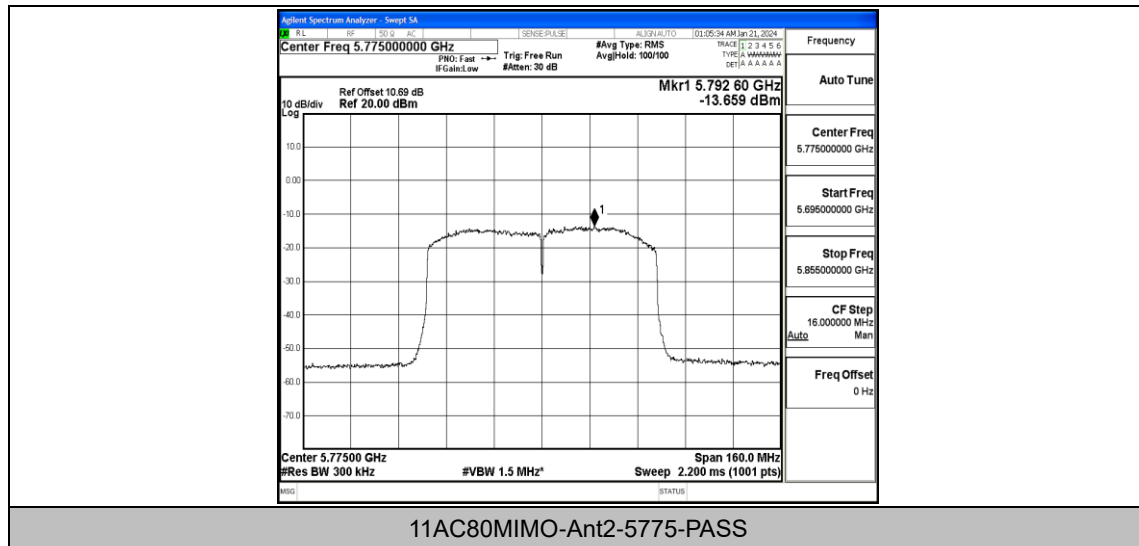












Appendix D: Band edge measurements

Test Result

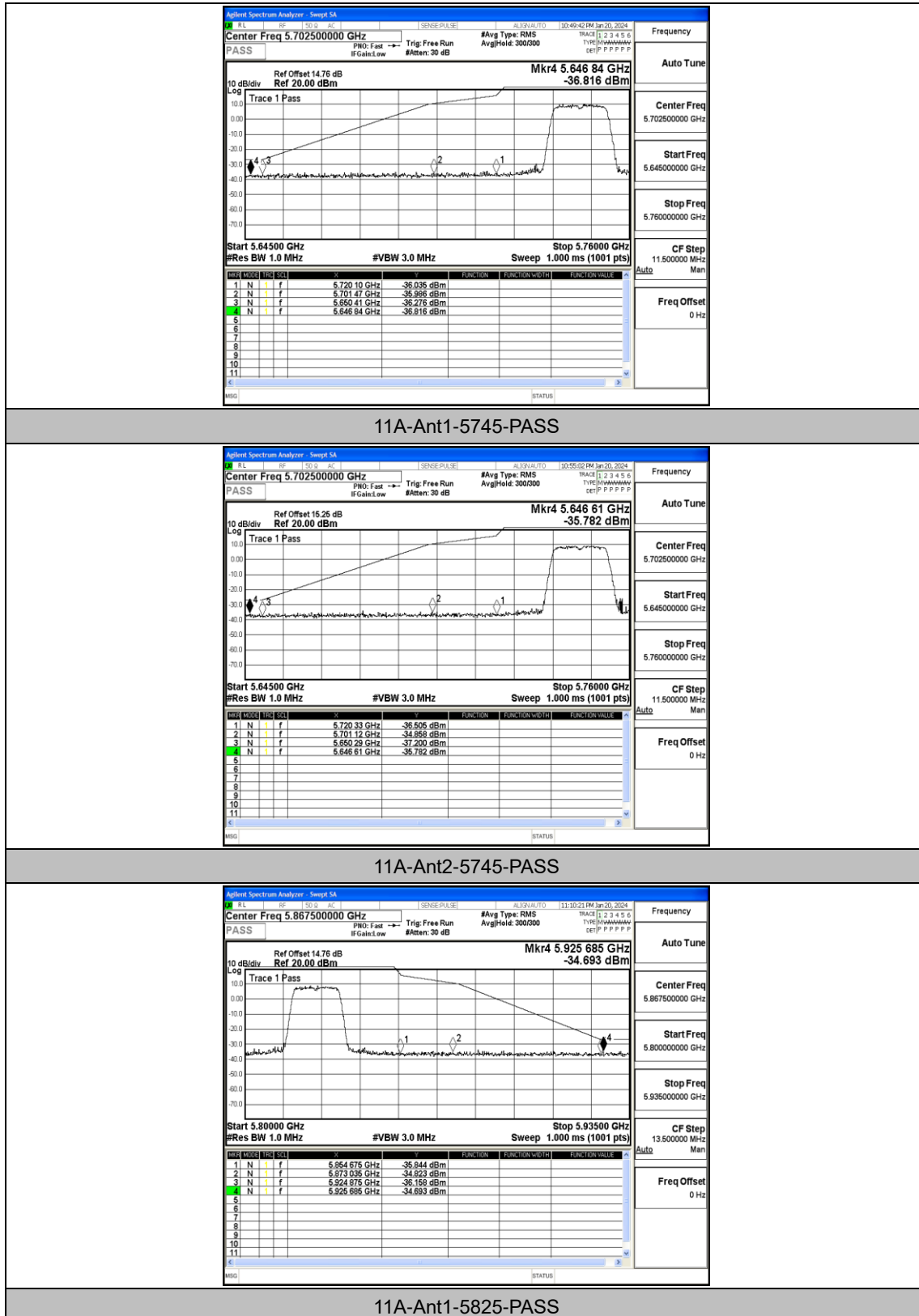
TestMode	Antenna	ChName	Frequency[MHz]	FreqRange [MHz]	Result [dBm]	Limit [dBm]	Verdict
11A	Ant1	Low	5745	5720~5725	-36.04	≤15.82	PASS
11A	Ant1	Low	5745	5700~5720	-35.99	≤10.41	PASS
11A	Ant1	Low	5745	5650~5700	-36.28	≤-26.70	PASS
11A	Ant1	Low	5745	5760~5650	-36.82	≤-27	PASS
11A	Ant2	Low	5745	5720~5725	-36.51	≤16.34	PASS
11A	Ant2	Low	5745	5700~5720	-34.86	≤10.31	PASS
11A	Ant2	Low	5745	5650~5700	-37.2	≤-26.79	PASS
11A	Ant2	Low	5745	5760~5650	-35.78	≤-27	PASS
11A	Ant1	High	5825	5850~5855	-35.84	≤16.34	PASS
11A	Ant1	High	5825	5855~5875	-34.82	≤10.55	PASS
11A	Ant1	High	5825	5875~5925	-36.16	≤-26.91	PASS
11A	Ant1	High	5825	5925~5935	-34.69	≤-27	PASS
11A	Ant2	High	5825	5850~5855	-36.03	≤16.03	PASS
11A	Ant2	High	5825	5855~5875	-35.29	≤10.02	PASS
11A	Ant2	High	5825	5875~5925	-35.42	≤-26.61	PASS
11A	Ant2	High	5825	5925~5935	-34.86	≤-27	PASS
11N20MI MO	Ant1	Low	5745	5720~5725	-37.03	≤15.82	PASS
11N20MI MO	Ant1	Low	5745	5700~5720	-36.32	≤10.09	PASS
11N20MI MO	Ant1	Low	5745	5650~5700	-36.37	≤-26.70	PASS
11N20MI MO	Ant1	Low	5745	5760~5650	-36.35	≤-27	PASS
11N20MI MO	Ant2	Low	5745	5720~5725	-36.62	≤16.08	PASS
11N20MI MO	Ant2	Low	5745	5700~5720	-34.25	≤11.22	PASS
11N20MI MO	Ant2	Low	5745	5650~5700	-34.9	≤-26.79	PASS
11N20MI MO	Ant2	Low	5745	5760~5650	-34.81	≤-27	PASS
11N20MI MO	Ant1	High	5825	5850~5855	-35.85	≤16.03	PASS
11N20MI MO	Ant1	High	5825	5855~5875	-35.98	≤10.02	PASS
11N20MI MO	Ant1	High	5825	5875~5925	-34.73	≤-24.81	PASS
11N20MI MO	Ant1	High	5825	5925~5935	-35.18	≤-27	PASS
11N20MI	Ant2	High	5825	5850~5855	-35.4	≤15.73	PASS

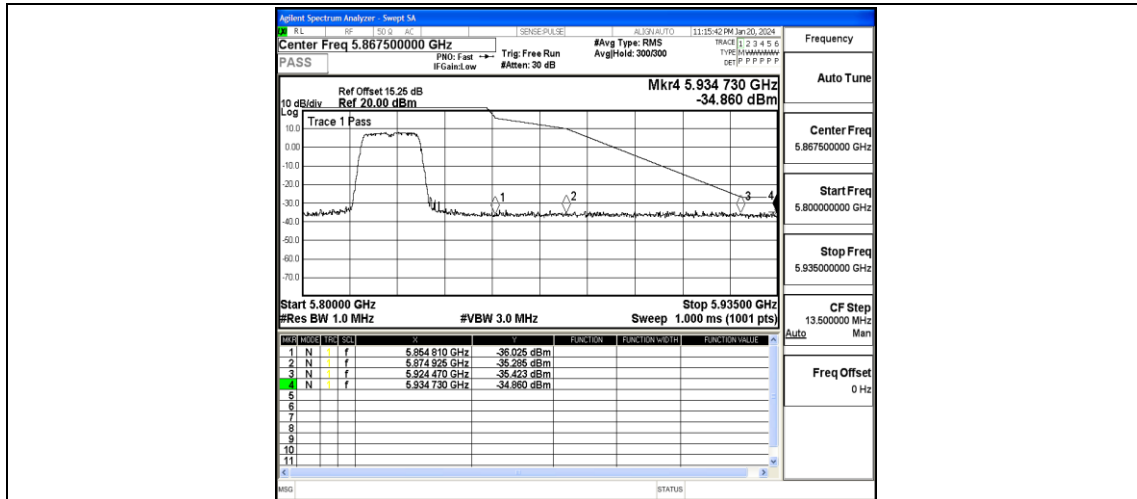
MO							
11N20MI MO	Ant2	High	5825	5855~5875	-34.96	≤10.10	PASS
11N20MI MO	Ant2	High	5825	5875~5925	-34.59	≤-26.21	PASS
11N20MI MO	Ant2	High	5825	5925~5935	-34.9	≤-27	PASS
11N40MI MO	Ant1	Low	5755	5720~5725	-31.73	≤16.35	PASS
11N40MI MO	Ant1	Low	5755	5700~5720	-35.98	≤10.06	PASS
11N40MI MO	Ant1	Low	5755	5650~5700	-36.7	≤-26.90	PASS
11N40MI MO	Ant1	Low	5755	5780~5650	-35.92	≤-27	PASS
11N40MI MO	Ant2	Low	5755	5720~5725	-34.57	≤15.74	PASS
11N40MI MO	Ant2	Low	5755	5700~5720	-34.99	≤10.25	PASS
11N40MI MO	Ant2	Low	5755	5650~5700	-37.31	≤-26.90	PASS
11N40MI MO	Ant2	Low	5755	5780~5650	-34.97	≤-27	PASS
11N40MI MO	Ant1	High	5795	5850~5855	-35.18	≤16.41	PASS
11N40MI MO	Ant1	High	5795	5855~5875	-35.45	≤10.39	PASS
11N40MI MO	Ant1	High	5795	5875~5925	-36.59	≤-26.71	PASS
11N40MI MO	Ant1	High	5795	5925~5935	-35.25	≤-27	PASS
11N40MI MO	Ant2	High	5795	5850~5855	-34.89	≤16.41	PASS
11N40MI MO	Ant2	High	5795	5855~5875	-34.7	≤10.53	PASS
11N40MI MO	Ant2	High	5795	5875~5925	-35.91	≤-26.95	PASS
11N40MI MO	Ant2	High	5795	5925~5935	-34.32	≤-27	PASS
11AC20M IMO	Ant1	Low	5745	5720~5725	-37.41	≤15.82	PASS
11AC20M IMO	Ant1	Low	5745	5700~5720	-34.18	≤11.47	PASS
11AC20M IMO	Ant1	Low	5745	5650~5700	-36.62	≤-26.96	PASS
11AC20M IMO	Ant1	Low	5745	5760~5650	-35.53	≤-27	PASS

11AC20M IMO	Ant2	Low	5745	5720~5725	-35.97	≤16.08	PASS
11AC20M IMO	Ant2	Low	5745	5700~5720	-35.07	≤10.31	PASS
11AC20M IMO	Ant2	Low	5745	5650~5700	-35.64	≤-26.53	PASS
11AC20M IMO	Ant2	Low	5745	5760~5650	-35.35	≤-27	PASS
11AC20M IMO	Ant1	High	5825	5850~5855	-35.11	≤16.34	PASS
11AC20M IMO	Ant1	High	5825	5855~5875	-34.77	≤10.66	PASS
11AC20M IMO	Ant1	High	5825	5875~5925	-36.23	≤-26.51	PASS
11AC20M IMO	Ant1	High	5825	5925~5935	-35.47	≤-27	PASS
11AC20M IMO	Ant2	High	5825	5850~5855	-34.57	≤15.73	PASS
11AC20M IMO	Ant2	High	5825	5855~5875	-34.69	≤10.81	PASS
11AC20M IMO	Ant2	High	5825	5875~5925	-36.11	≤-26.81	PASS
11AC20M IMO	Ant2	High	5825	5925~5935	-34.42	≤-27	PASS
11AC40M IMO	Ant1	Low	5755	5720~5725	-31.11	≤16.97	PASS
11AC40M IMO	Ant1	Low	5755	5700~5720	-35.08	≤10.82	PASS
11AC40M IMO	Ant1	Low	5755	5650~5700	-36.94	≤-26.70	PASS
11AC40M IMO	Ant1	Low	5755	5780~5650	-35.49	≤-27	PASS
11AC40M IMO	Ant2	Low	5755	5720~5725	-34.08	≤16.66	PASS
11AC40M IMO	Ant2	Low	5755	5700~5720	-35.33	≤10.17	PASS
11AC40M IMO	Ant2	Low	5755	5650~5700	-36.11	≤-26.30	PASS
11AC40M IMO	Ant2	Low	5755	5780~5650	-35.53	≤-27	PASS
11AC40M IMO	Ant1	High	5795	5850~5855	-35.55	≤15.66	PASS
11AC40M IMO	Ant1	High	5795	5855~5875	-35.41	≤10.53	PASS
11AC40M IMO	Ant1	High	5795	5875~5925	-36.67	≤-26.83	PASS
11AC40M	Ant1	High	5795	5925~5935	-35.25	≤-27	PASS

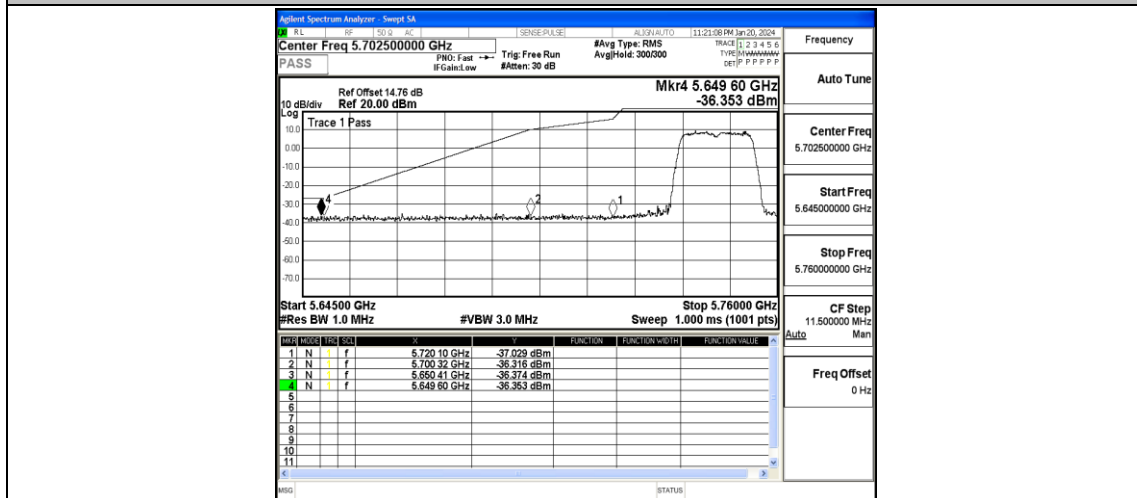
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11AC40M IMO	Ant2	High	5795	5850~5855	-34	≤15.66	PASS
11AC40M IMO	Ant2	High	5795	5855~5875	-35.06	≤10.06	PASS
11AC40M IMO	Ant2	High	5795	5875~5925	-35.67	≤-26.95	PASS
11AC40M IMO	Ant2	High	5795	5925~5935	-34.61	≤-27	PASS
11AC80M IMO	Ant1	Low	5775	5720~5725	-37.58	≤15.65	PASS
11AC80M IMO	Ant1	Low	5775	5700~5720	-36.12	≤10.09	PASS
11AC80M IMO	Ant1	Low	5775	5650~5700	-38.1	≤-26.80	PASS
11AC80M IMO	Ant1	Low	5775	5800~5650	-35.94	≤-27	PASS
11AC80M IMO	Ant1	High	5775	5850~5855	-36.19	≤15.84	PASS
11AC80M IMO	Ant1	High	5775	5855~5875	-34.63	≤10.29	PASS
11AC80M IMO	Ant1	High	5775	5875~5925	-35.41	≤-26.32	PASS
11AC80M IMO	Ant1	High	5775	5925~5935	-34.66	≤-27	PASS
11AC80M IMO	Ant2	Low	5775	5720~5725	-35.39	≤16.35	PASS
11AC80M IMO	Ant2	Low	5775	5700~5720	-35.36	≤10.18	PASS
11AC80M IMO	Ant2	Low	5775	5650~5700	-36.23	≤-26.46	PASS
11AC80M IMO	Ant2	Low	5775	5800~5650	-36.17	≤-27	PASS
11AC80M IMO	Ant2	High	5775	5850~5855	-35.3	≤15.84	PASS
11AC80M IMO	Ant2	High	5775	5855~5875	-32.89	≤10.09	PASS
11AC80M IMO	Ant2	High	5775	5875~5925	-35.35	≤-26.19	PASS
11AC80M IMO	Ant2	High	5775	5925~5935	-34.57	≤-27	PASS

Test Graphs

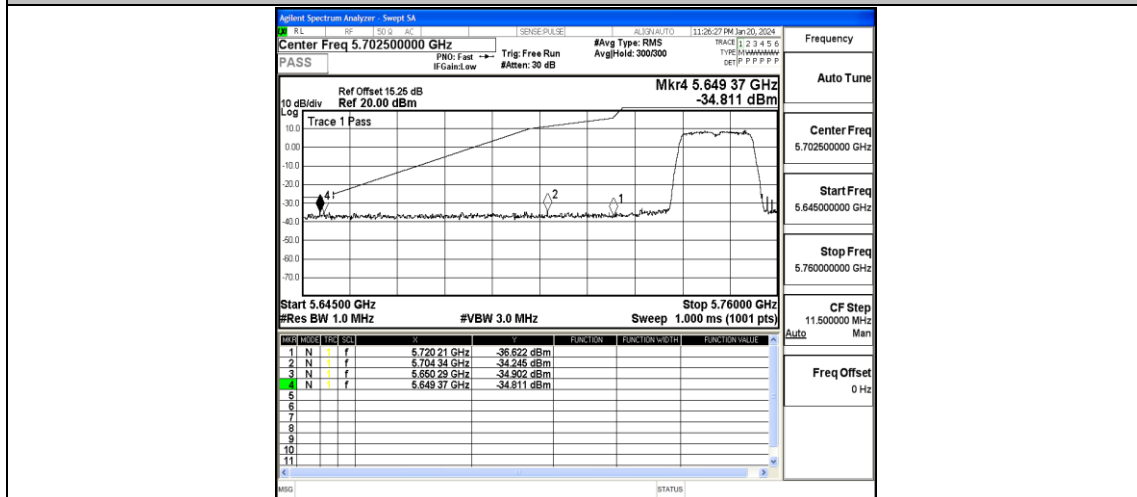




11A-Ant2-5825-PASS



11N20MIMO-Ant1-5745-PASS



11N20MIMO-Ant2-5745-PASS

