

FCC Appendix RF Test Data for RALN

Company: : **Promaster Electronic LLC**

EUT : **Wireless CP&AA adaptor**

FCC ID : **2A6P9-KPWCA01**

Model Number : **KPWCA-101**

Report No. : **CTA25052700504**

Reviewed By : **Eric Wang**

Appendix A: Emission Bandwidth

Test Result

TestMode	Antenna	Freq(MHz)	26db EBW [MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
11A	Ant1	5180	20.400	5169.360	5189.760	---	---
		5220	22.160	5208.640	5230.800	---	---
		5240	20.560	5229.520	5250.080	---	---
		5745	24.680	5732.920	5757.600	---	---
		5785	22.520	5773.560	5796.080	---	---
		5825	23.800	5815.240	5839.040	---	---
11N20SISO	Ant1	5180	25.680	5167.480	5193.160	---	---
		5220	25.480	5207.680	5233.160	---	---
		5240	25.880	5227.320	5253.200	---	---
		5745	24.720	5732.120	5756.840	---	---
		5785	24.600	5772.960	5797.560	---	---
		5825	26.200	5812.840	5839.040	---	---
11N40SISO	Ant1	5190	47.680	5168.800	5216.480	---	---
		5230	47.600	5208.720	5256.320	---	---
		5755	48.880	5727.880	5776.760	---	---
		5795	50.960	5770.920	5821.880	---	---

Test Graphs

11A_Ant1_5180



11A_Ant1_5220



11A_Ant1_5240



11A_Ant1_5745



11A_Ant1_5785



11A_Ant1_5825



11N20SISO_Ant1_5180



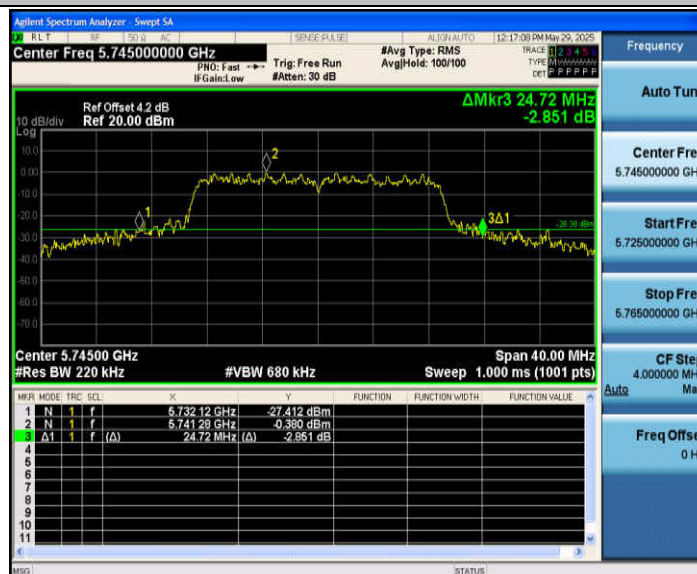
11N20SISO_Ant1_5220



11N20SISO_Ant1_5240



11N20SISO_Ant1_5745



11N20SISO_Ant1_5785



11N20SISO_Ant1_5825



11N40SISO_Ant1_5190



11N40SISO_Ant1_5230



11N40SISO_Ant1_5755



11N40SISO_Ant1_5795



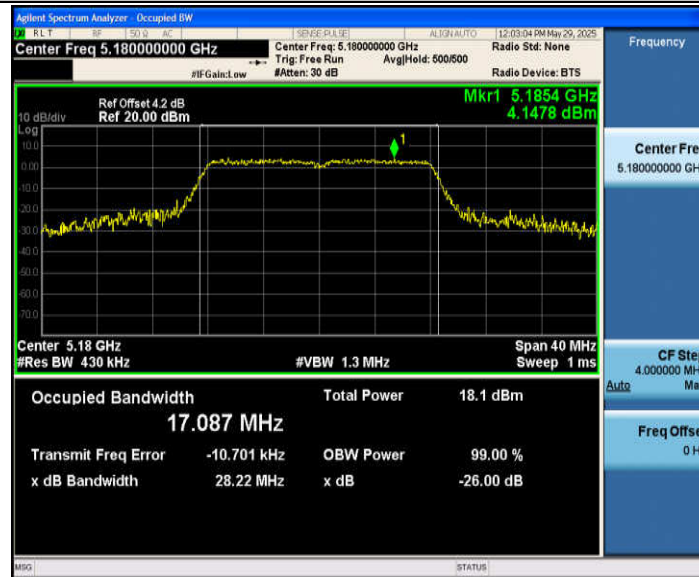
Appendix B: Occupied channel bandwidth

Test Result

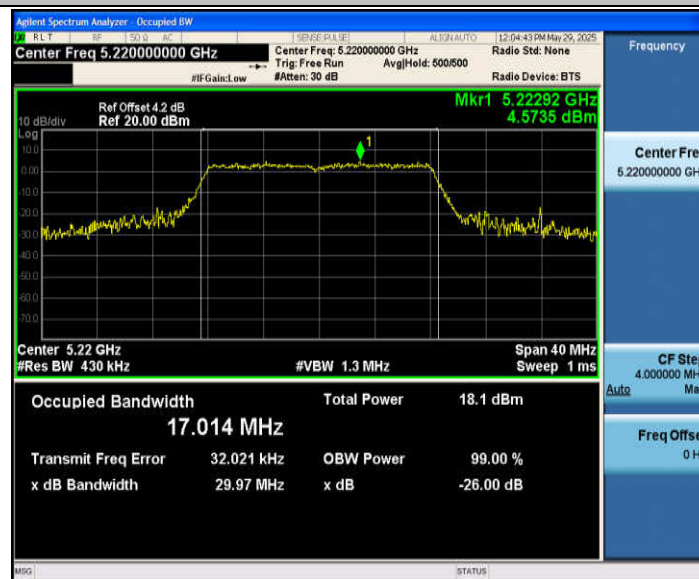
TestMode	Antenna	Freq(MHz)	OCB [MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
11A	Ant1	5180	17.087	5171.4458	5188.5328	---	---
		5220	17.014	5211.5250	5228.5390	---	---
		5240	17.030	5231.5241	5248.5541	---	---
		5745	17.230	5736.3618	5753.5918	---	---
		5785	17.137	5776.4310	5793.5680	---	---
		5825	17.084	5816.5049	5833.5889	---	---
11N20SISO	Ant1	5180	18.065	5170.9818	5189.0468	---	---
		5220	18.081	5210.9953	5229.0763	---	---
		5240	18.050	5231.0051	5249.0551	---	---
		5745	18.141	5735.9441	5754.0851	---	---
		5785	18.081	5775.9872	5794.0682	---	---
		5825	18.173	5815.9511	5834.1241	---	---
11N40SISO	Ant1	5190	36.466	5171.8311	5208.2971	---	---
		5230	36.348	5211.9512	5248.2992	---	---
		5755	36.603	5736.7148	5773.3178	---	---
		5795	36.528	5776.7758	5813.3038	---	---

Test Graphs

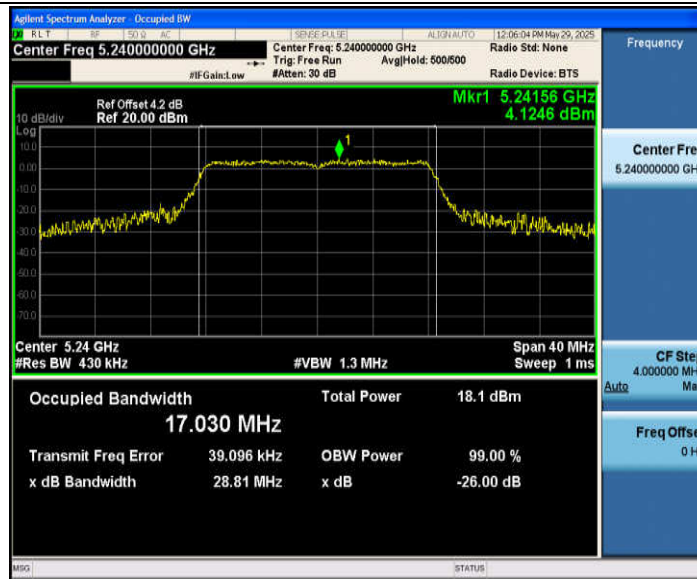
11A_Ant1_5180



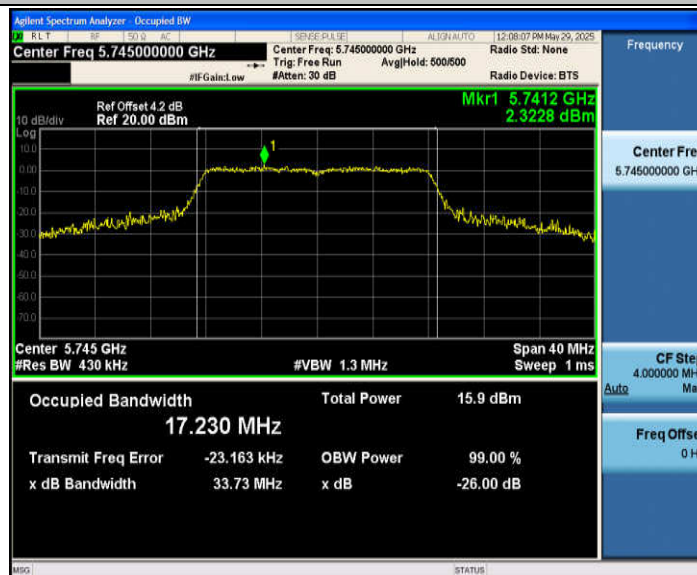
11A_Ant1_5220



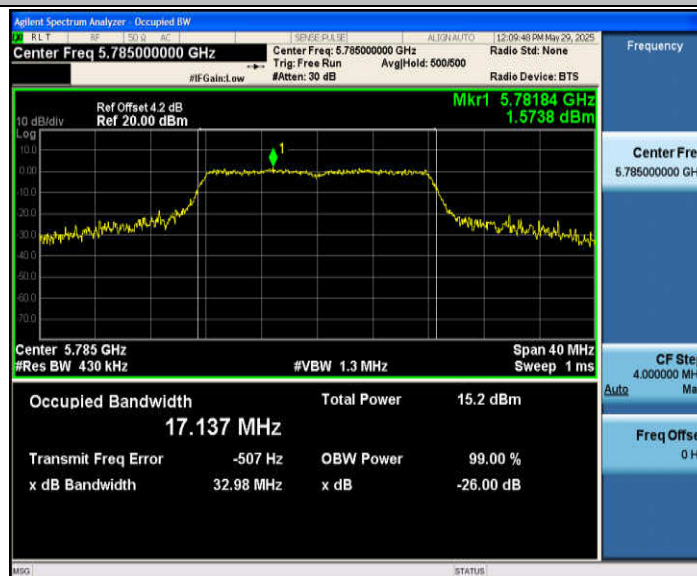
11A_Ant1_5240



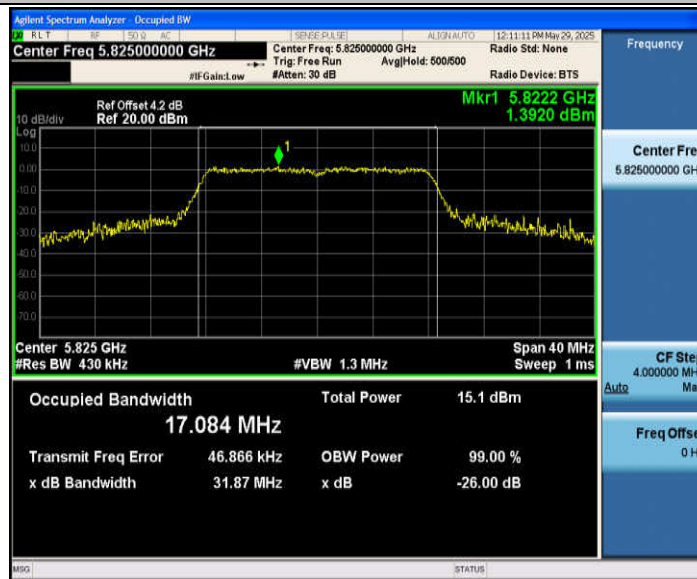
11A_Ant1_5745



11A_Ant1_5785



11A_Ant1_5825



11N20SISO_Ant1_5180



11N20SISO_Ant1_5220



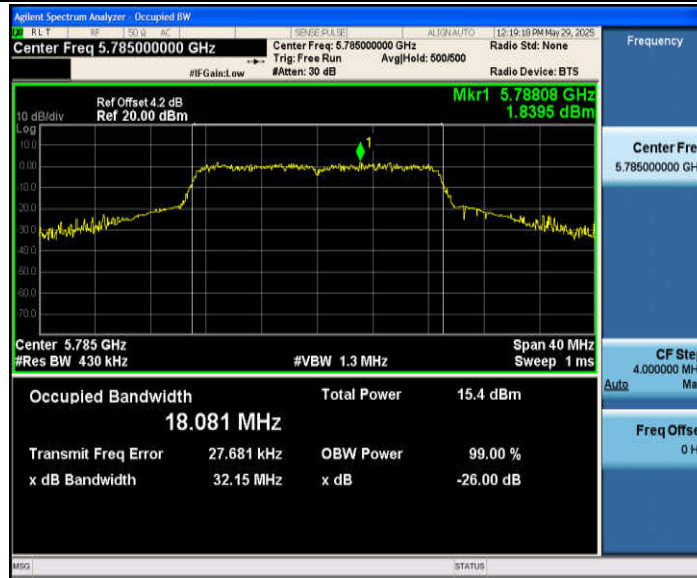
11N20SISO_Ant1_5240



11N20SISO_Ant1_5745



11N20SISO_Ant1_5785



11N20SISO_Ant1_5825



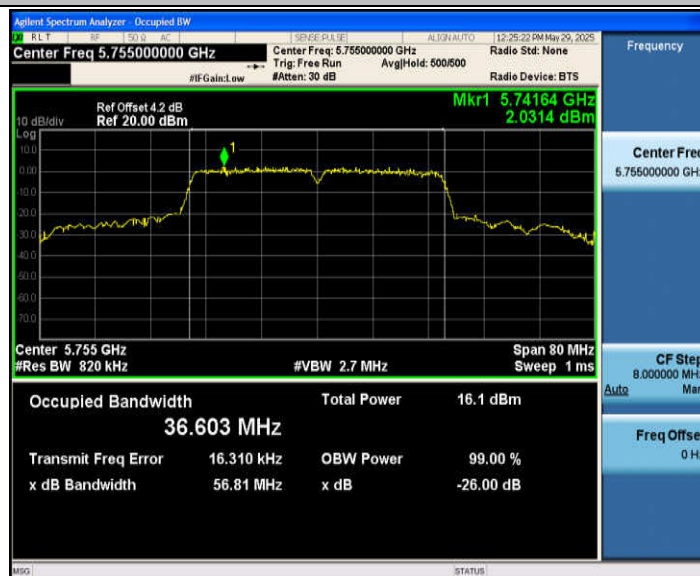
11N40SISO_Ant1_5190



11N40SISO_Ant1_5230



11N40SISO_Ant1_5755



11N40SISO_Ant1_5795



Appendix C: Min emission bandwidth

Test Result B4

TestMode	Antenna	Freq(MHz)	6db EBW [MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
11A	Ant1	5745	16.320	5736.840	5753.160	0.5	PASS
		5785	16.320	5776.840	5793.160	0.5	PASS
		5825	16.320	5816.840	5833.160	0.5	PASS
11N20SISO	Ant1	5745	16.800	5736.520	5753.320	0.5	PASS
		5785	17.160	5776.360	5793.520	0.5	PASS
		5825	17.080	5816.480	5833.560	0.5	PASS
11N40SISO	Ant1	5755	35.280	5737.320	5772.600	0.5	PASS
		5795	35.680	5777.080	5812.760	0.5	PASS

Test Graphs B4

11A_Ant1_5745



11A_Ant1_5785



11A_Ant1_5825



11N20SISO_Ant1_5745



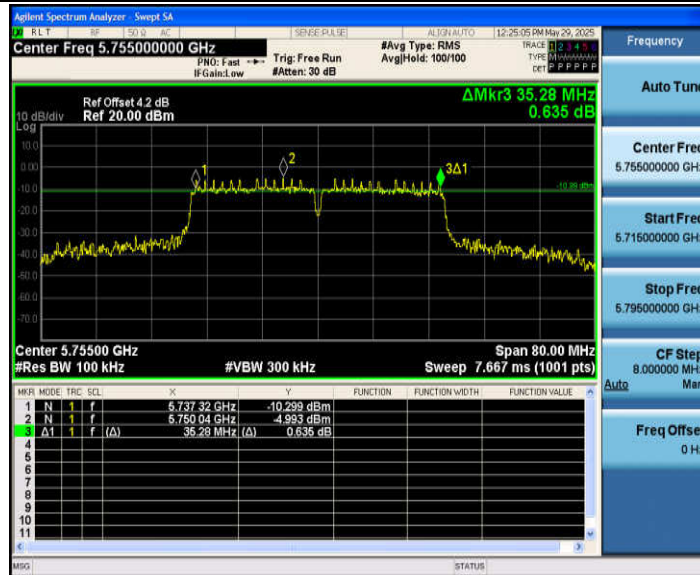
11N20SISO_Ant1_5785



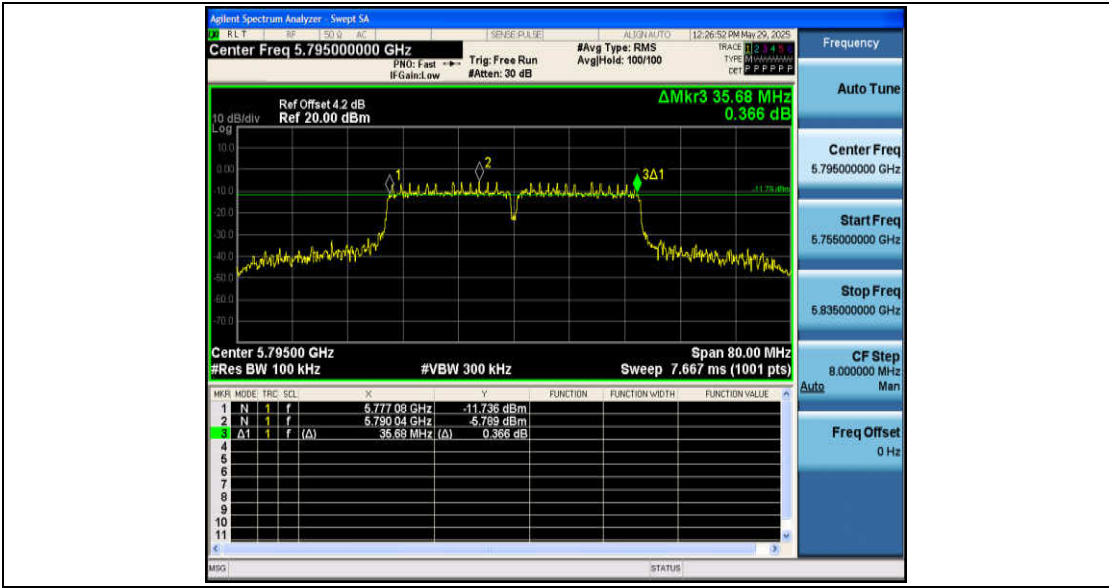
11N20SISO_Ant1_5825



11N40SISO_Ant1_5755



11N40SISO_Ant1_5795

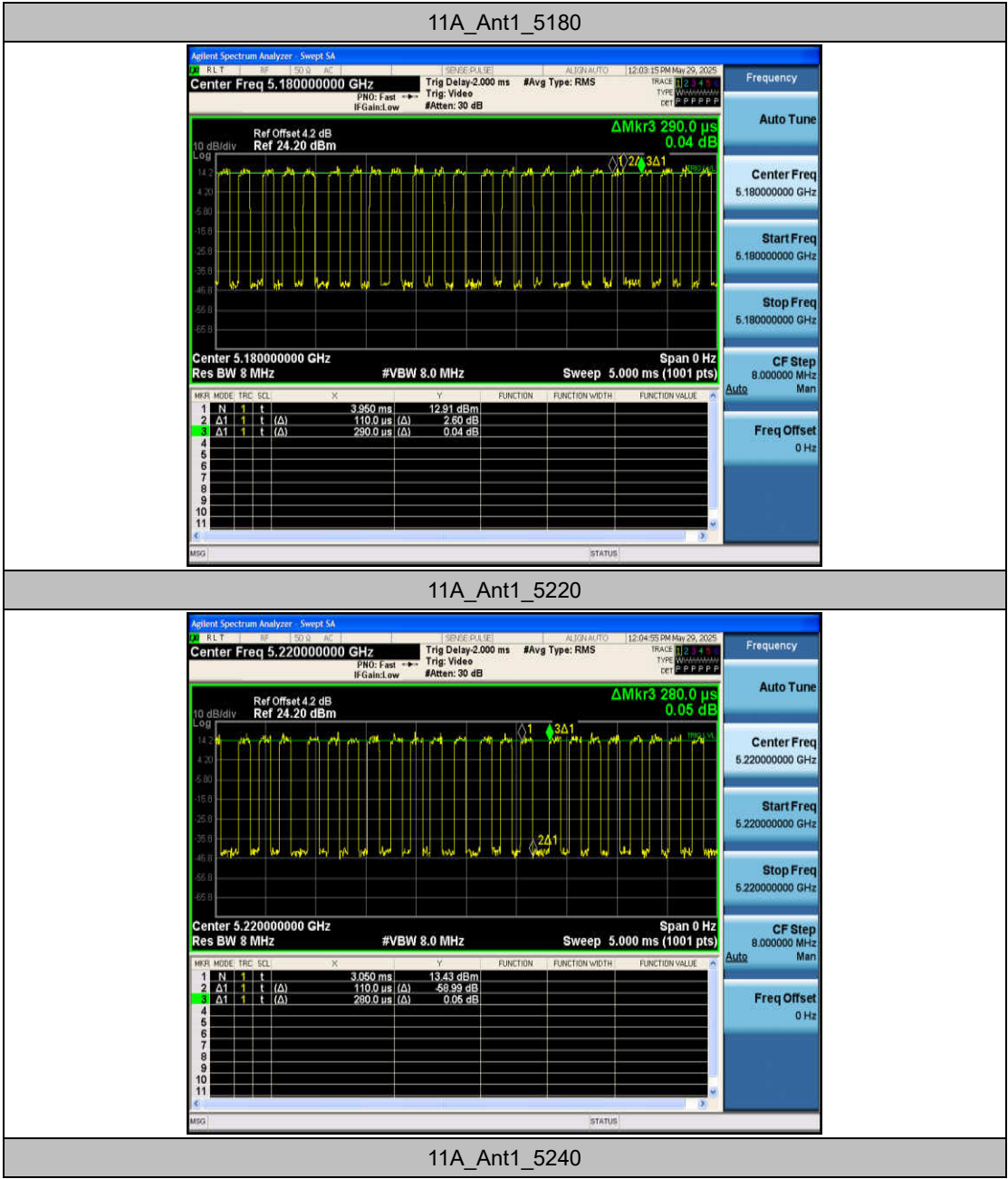


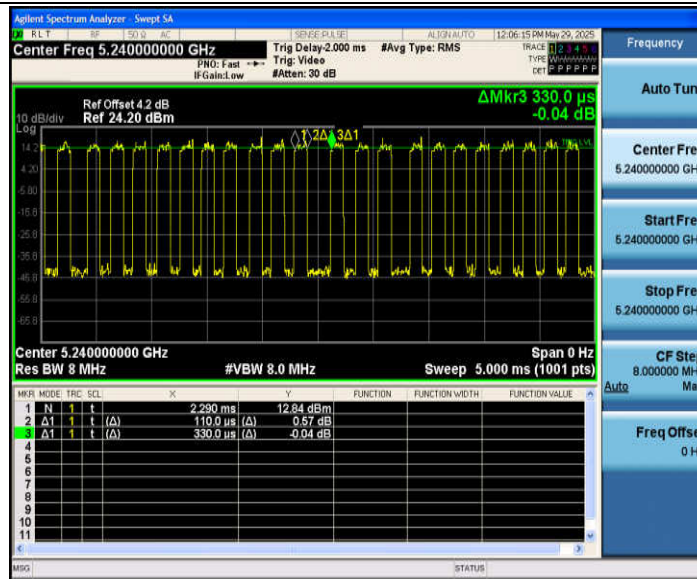
Appendix D: Duty Cycle

Test Result

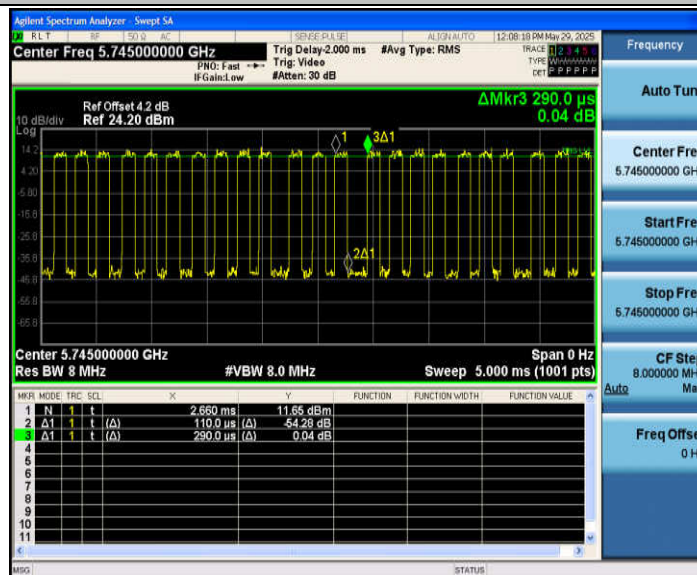
TestMode	Antenna	Freq(MHz)	Transmission Duration [ms]	Transmission Period [ms]	Duty Cycle [%]	Duty factor (dB)	Limit	Verdict
11A	Ant1	5180	0.11	0.29	37.93	4.21	---	---
		5220	0.11	0.28	39.29	4.06	---	---
		5240	0.11	0.33	33.33	4.77	---	---
		5745	0.11	0.29	37.93	4.21	---	---
		5785	0.11	0.30	36.67	4.36	---	---
		5825	0.11	0.29	37.93	4.21	---	---
11N20SISO	Ant1	5180	0.11	0.28	39.29	4.06	---	---
		5220	0.11	0.32	34.38	4.64	---	---
		5240	0.11	0.30	36.67	4.36	---	---
		5745	0.11	0.31	35.48	4.50	---	---
		5785	0.11	0.31	35.48	4.50	---	---
		5825	0.12	0.32	37.50	4.26	---	---
11N40SISO	Ant1	5190	0.07	0.26	26.92	5.70	---	---
		5230	0.07	0.28	25.00	6.02	---	---
		5755	0.07	0.28	25.00	6.02	---	---
		5795	0.07	0.28	25.00	6.02	---	---

Test Graphs

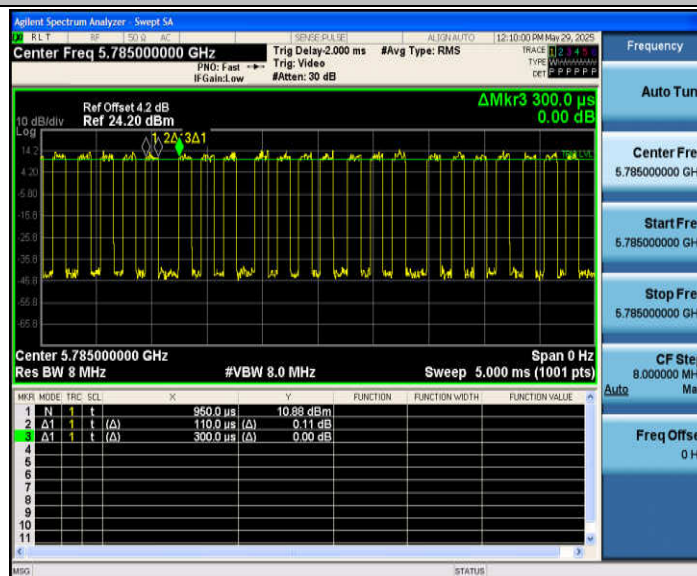




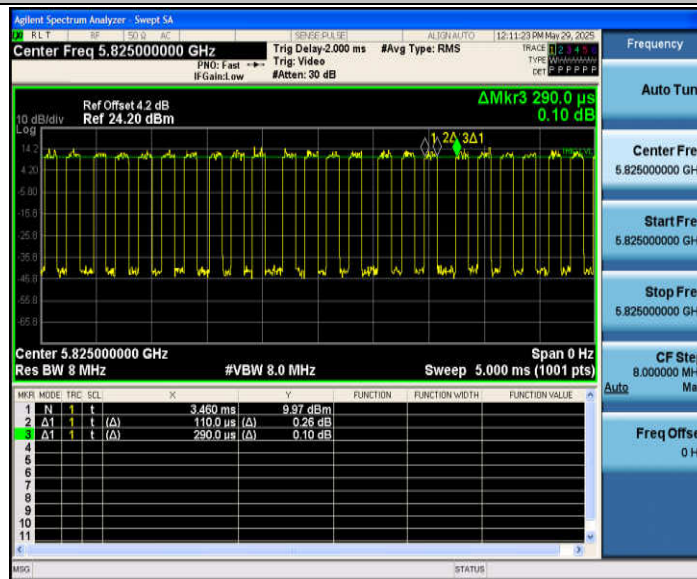
11A_Ant1_5745



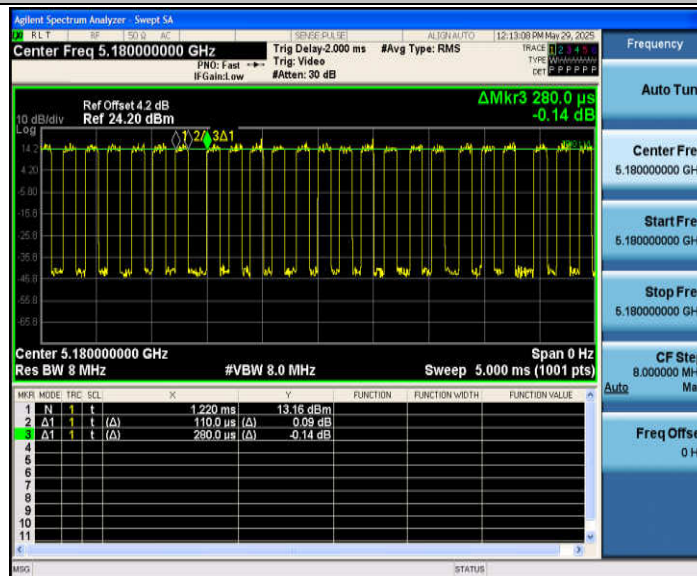
11A_Ant1_5785



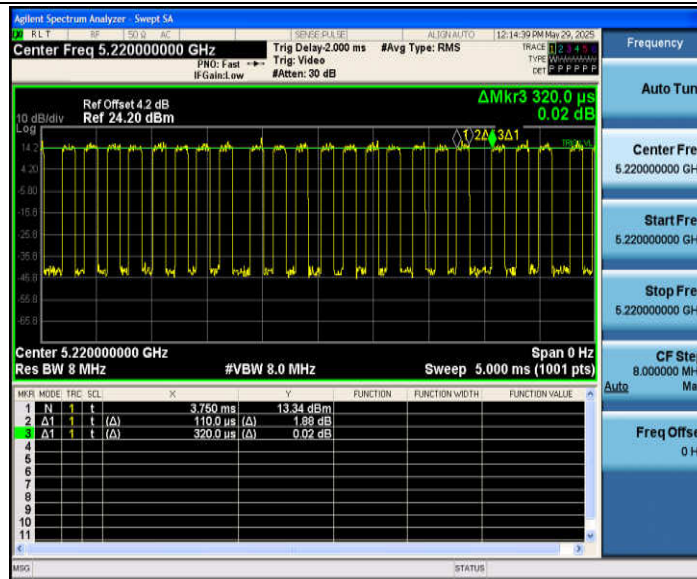
11A_Ant1_5825



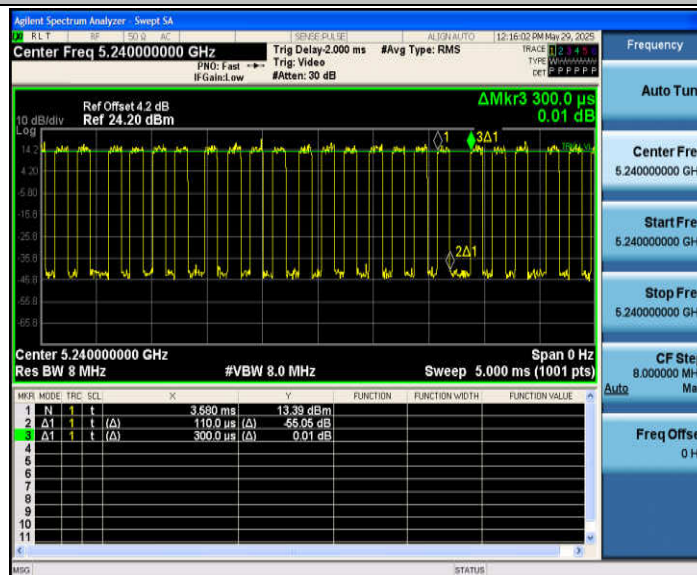
11N20SISO_Ant1_5180



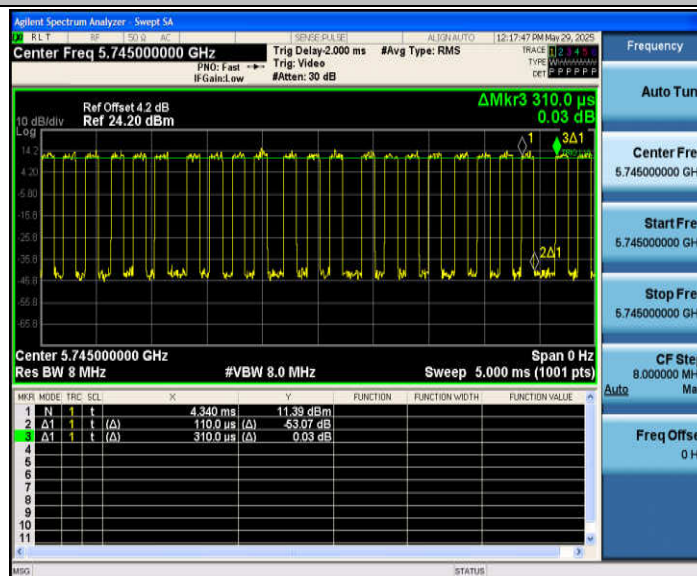
11N20SISO_Ant1_5220



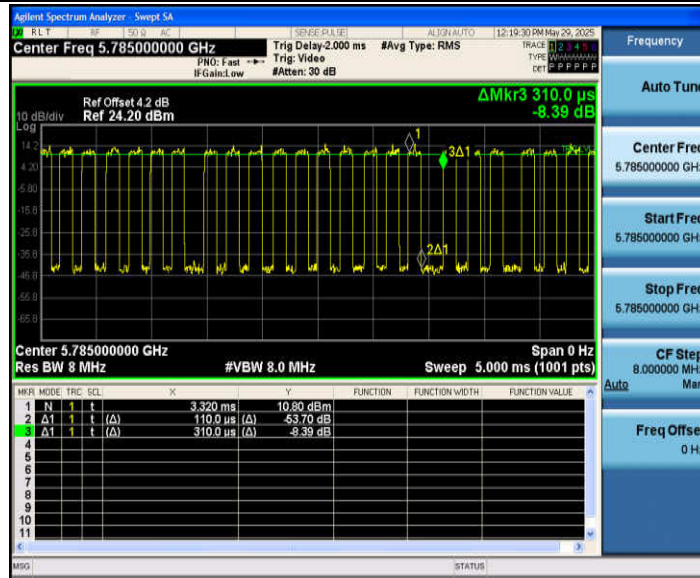
11N20SISO_Ant1_5240



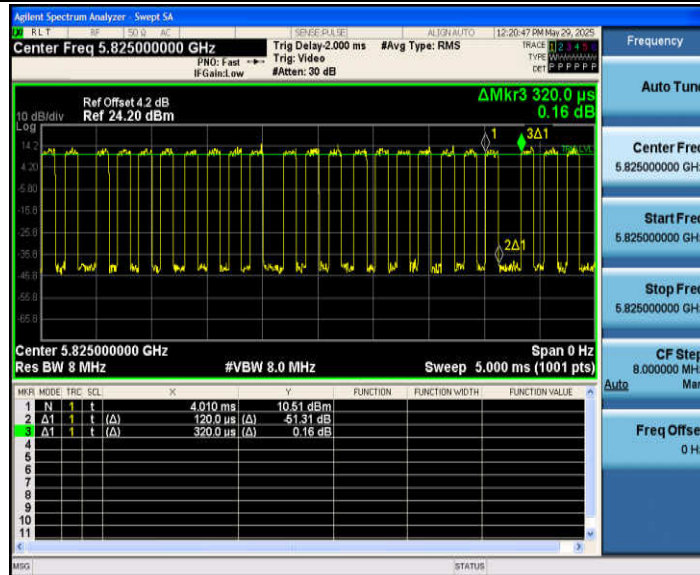
11N20SISO_Ant1_5745



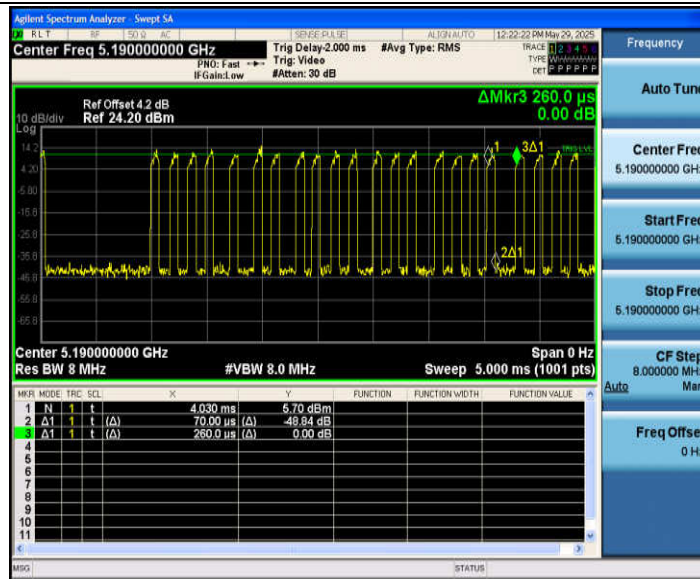
11N20SISO_Ant1_5785



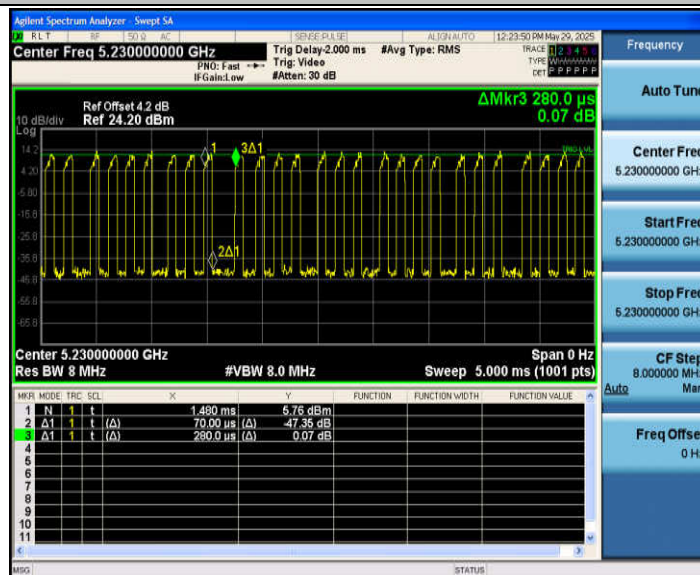
11N20SISO_Ant1_5825



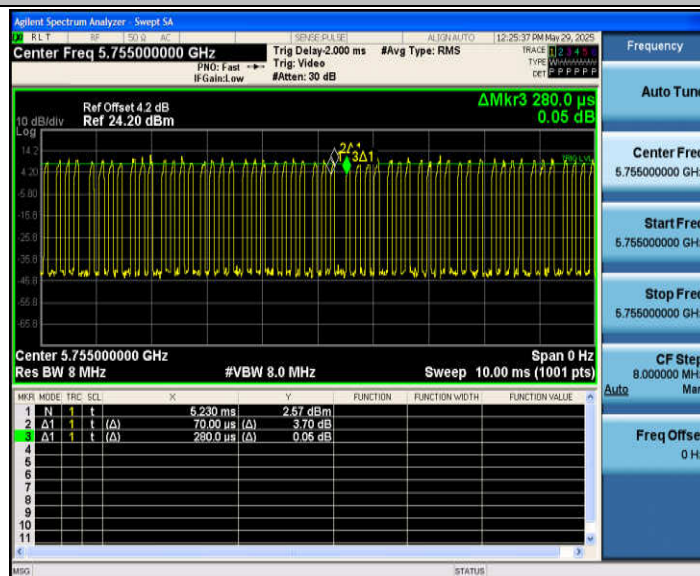
11N40SISO_Ant1_5190



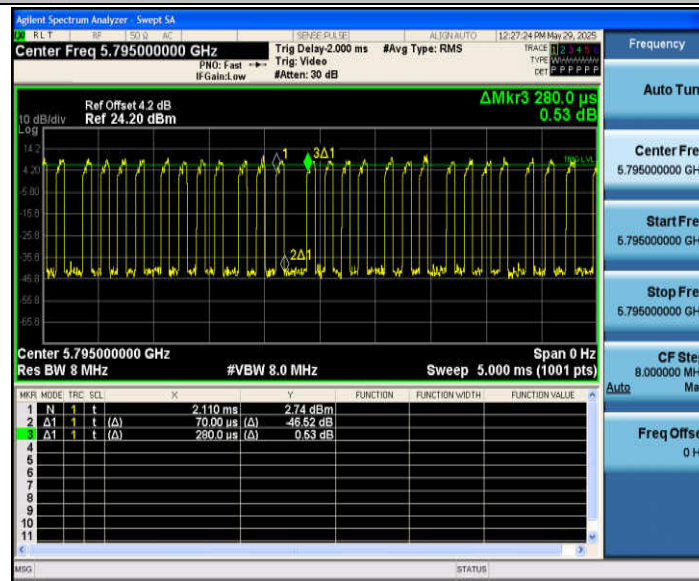
11N40SISO_Ant1_5230



11N40SISO_Ant1_5755



11N40SISO_Ant1_5795



Appendix E: Maximum conducted output power

Test Result Channel Power

Test Mode	Antenna	Freq(MHz)	Channel Power [dBm]	DC Factor [dBm]	Result [dBm]	Limit [dBm]	Verdict
11A	Ant1	5180	8.80	4.21	13.01	≤23.98	PASS
		5220	8.77	4.06	12.83	≤23.98	PASS
		5240	8.79	4.77	13.56	≤23.98	PASS
		5745	6.63	4.21	10.84	≤30.00	PASS
		5785	5.91	4.36	10.27	≤30.00	PASS
		5825	5.76	4.21	9.97	≤30.00	PASS
11N20SISO	Ant1	5180	8.76	4.06	12.82	≤23.98	PASS
		5220	8.73	4.64	13.37	≤23.98	PASS
		5240	8.69	4.36	13.05	≤23.98	PASS
		5745	6.64	4.50	11.14	≤30.00	PASS
		5785	5.83	4.50	10.33	≤30.00	PASS
		5825	5.72	4.26	9.98	≤30.00	PASS
11N40SISO	Ant1	5190	6.60	5.70	12.30	≤23.98	PASS
		5230	7.05	6.02	13.07	≤23.98	PASS
		5755	4.75	6.02	10.77	≤30.00	PASS
		5795	4.14	6.02	10.16	≤30.00	PASS

Appendix F: Maximum power spectral density

Test Result

TestMode	Antenna	Freq(MHz)	Result [dBm/MHz]	Limit[dBm/MHz]	Verdict
11A	Ant1	5180	2.51	≤11.00	PASS
		5220	2.10	≤11.00	PASS
		5240	3.15	≤11.00	PASS
		5745	-2.31	≤30.00	PASS
		5785	-3.01	≤30.00	PASS
		5825	-2.86	≤30.00	PASS
11N20SISO	Ant1	5180	2.12	≤11.00	PASS
		5220	2.72	≤11.00	PASS
		5240	2.84	≤11.00	PASS
		5745	-1.55	≤30.00	PASS
		5785	-2.17	≤30.00	PASS
		5825	-2.95	≤30.00	PASS
11N40SISO	Ant1	5190	-0.37	≤11.00	PASS
		5230	0.03	≤11.00	PASS
		5755	-4.34	≤30.00	PASS
		5795	-5.20	≤30.00	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

11A_Ant1_5180



11A_Ant1_5220



11A_Ant1_5240



11A_Ant1_5745



11A_Ant1_5785



11A_Ant1_5825



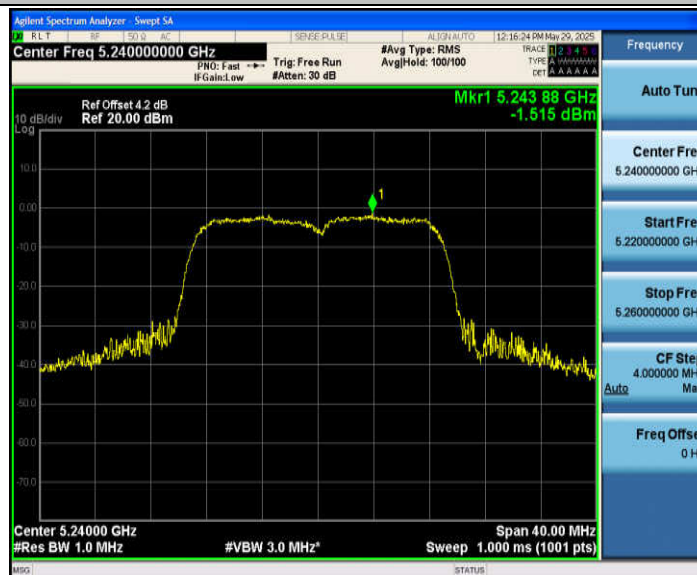
11N20SISO_Ant1_5180



11N20SISO_Ant1_5220



11N20SISO_Ant1_5240



11N20SISO_Ant1_5745



11N20SISO_Ant1_5785



11N20SISO_Ant1_5825



11N40SISO_Ant1_5190



11N40SISO_Ant1_5230



11N40SISO_Ant1_5755



11N40SISO_Ant1_5795

