

FCC Appendix RF Test Data for RLAN

Company: : **Promaster Electronic LLC**

EUT : **Wireless CPAA adaptor**

FCC ID : **2A6P9-KPAIB01**

Model Number : **KPWCA-101**

Report No. : **CTA25052700604**

Reviewed By : **Eric Wang**

Appendix A1: Emission Bandwidth

Test Result

TestMode	Antenna	Freq(MHz)	26db EBW [MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
11A	Ant1	5180	19.440	5170.280	5189.720	---	---
		5220	23.000	5209.120	5232.120	---	---
		5240	20.320	5229.840	5250.160	---	---
		5745	24.160	5732.800	5756.960	---	---
		5785	27.400	5773.160	5800.560	---	---
		5825	24.280	5813.880	5838.160	---	---
11N20SISO	Ant1	5180	25.080	5167.680	5192.760	---	---
		5220	25.880	5207.320	5233.200	---	---
		5240	25.880	5227.320	5253.200	---	---
		5745	28.080	5731.480	5759.560	---	---
		5785	26.640	5770.760	5797.400	---	---
		5825	25.720	5812.800	5838.520	---	---
11N40SISO	Ant1	5190	43.760	5168.720	5212.480	---	---
		5230	43.760	5208.640	5252.400	---	---
		5755	51.360	5725.720	5777.080	---	---
		5795	48.160	5768.760	5816.920	---	---

Test Graphs

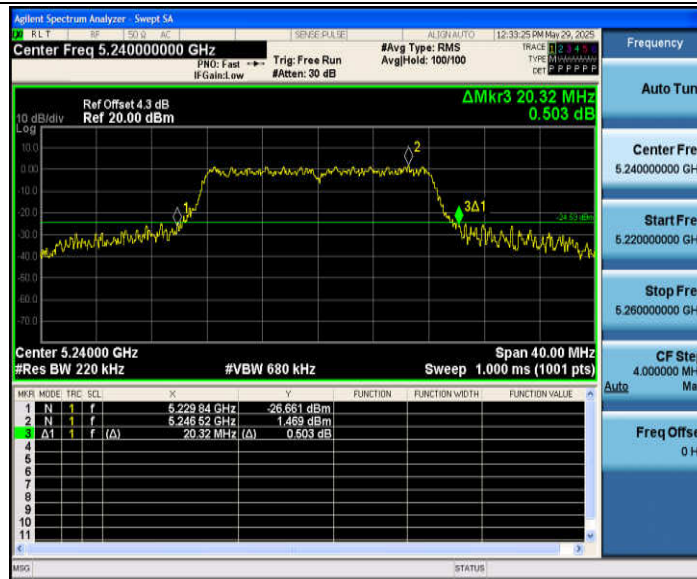
11A_Ant1_5180



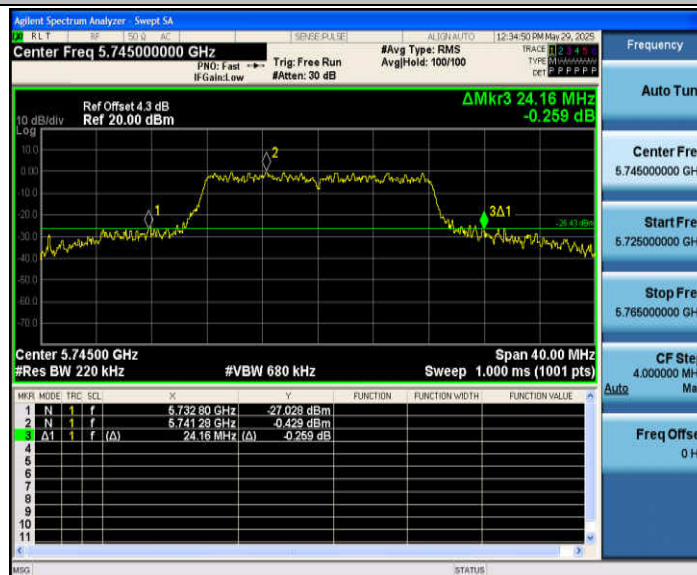
11A_Ant1_5220



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



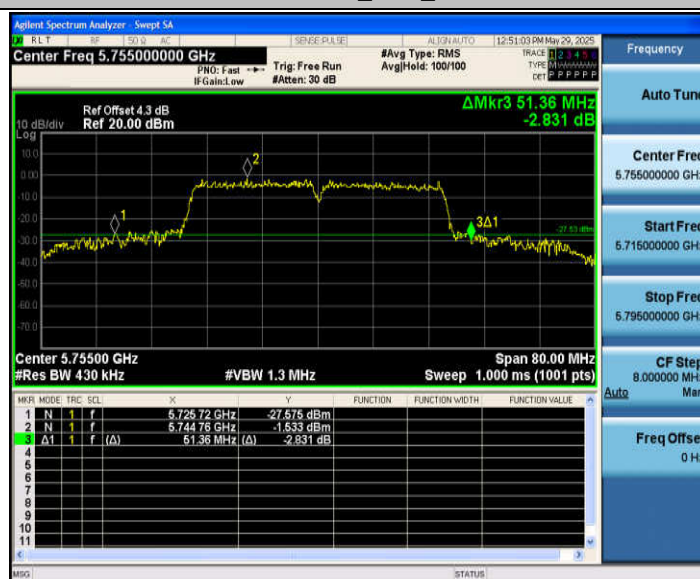
11N40SISO_Ant1_5190



11N40SISO_Ant1_5230



11N40SISO_Ant1_5755



11N40SISO_Ant1_5795



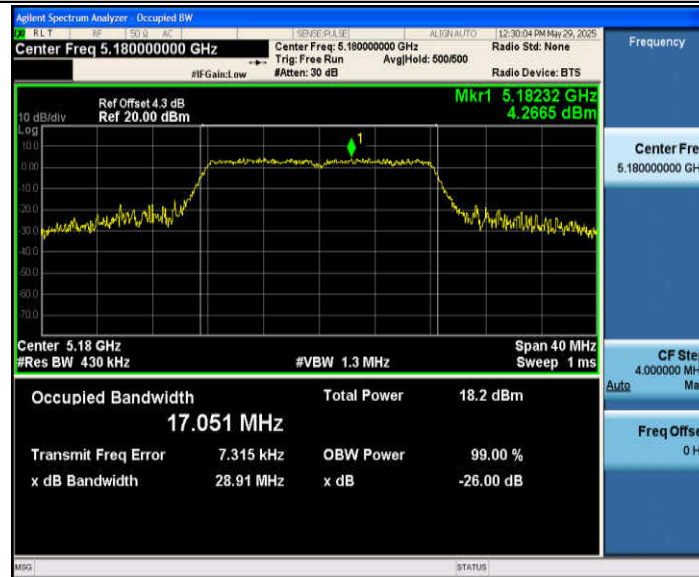
Appendix A2: Occupied channel bandwidth

Test Result

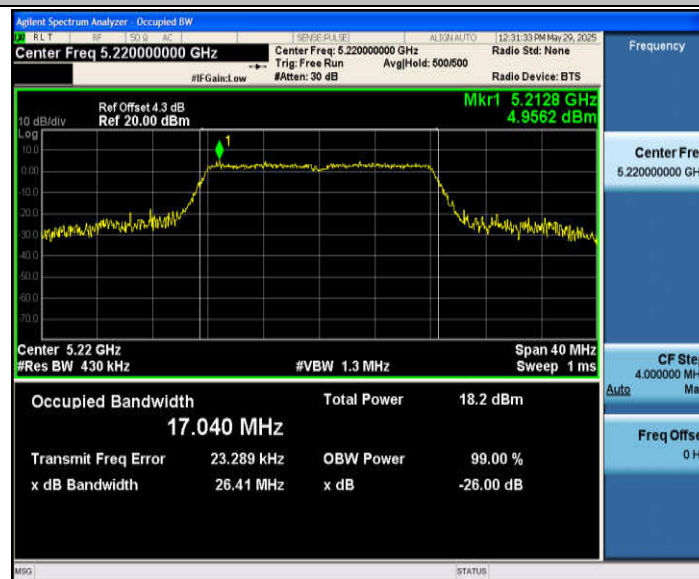
TestMode	Antenna	Freq(MHz)	OCB [MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
11A	Ant1	5180	17.051	5171.4818	5188.5328	---	---
		5220	17.040	5211.5033	5228.5433	---	---
		5240	17.087	5231.4775	5248.5645	---	---
		5745	17.259	5736.3550	5753.6140	---	---
		5785	17.184	5776.3971	5793.5811	---	---
		5825	17.132	5816.4815	5833.6135	---	---
11N20SISO	Ant1	5180	18.096	5170.9802	5189.0762	---	---
		5220	18.167	5210.9597	5229.1267	---	---
		5240	18.097	5231.0051	5249.1021	---	---
		5745	18.180	5735.9197	5754.0997	---	---
		5785	18.136	5775.9474	5794.0834	---	---
		5825	18.133	5815.9934	5834.1264	---	---
11N40SISO	Ant1	5190	36.487	5171.7590	5208.2460	---	---
		5230	36.388	5211.8895	5248.2775	---	---
		5755	36.790	5736.6029	5773.3929	---	---
		5795	36.568	5776.7294	5813.2974	---	---

Test Graphs

11A_Ant1_5180



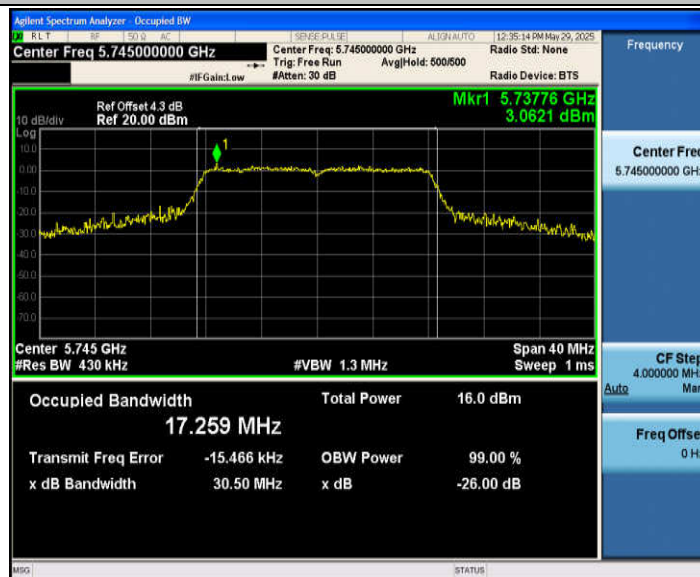
11A_Ant1_5220



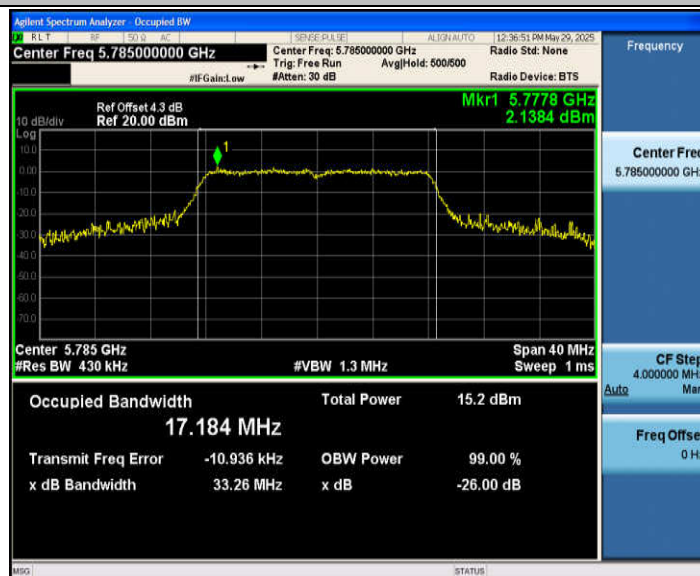
11A_Ant1_5240



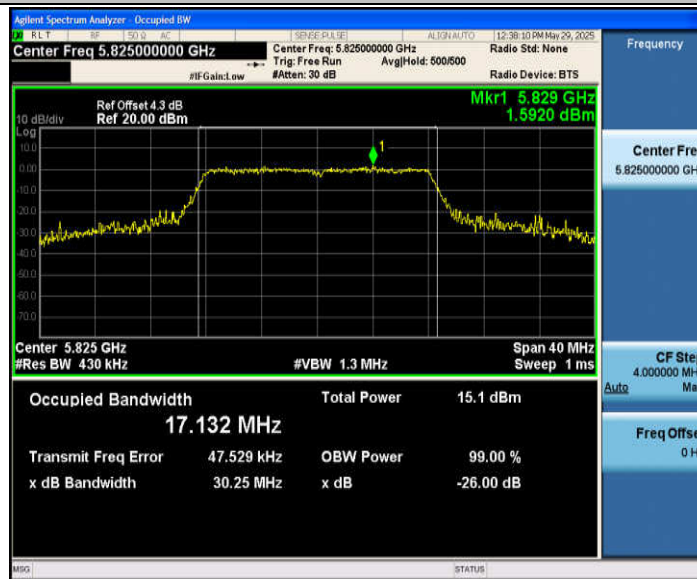
11A_Ant1_5745



11A_Ant1_5785



11A_Ant1_5825



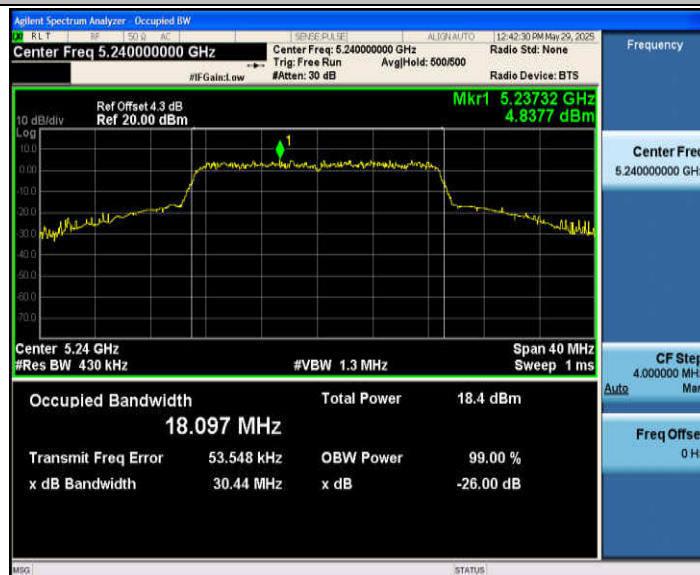
11N20SISO_Ant1_5180



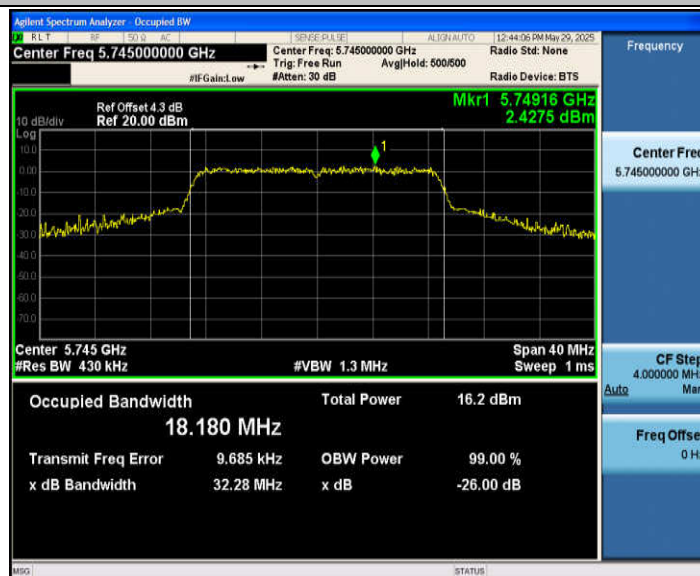
11N20SISO_Ant1_5220



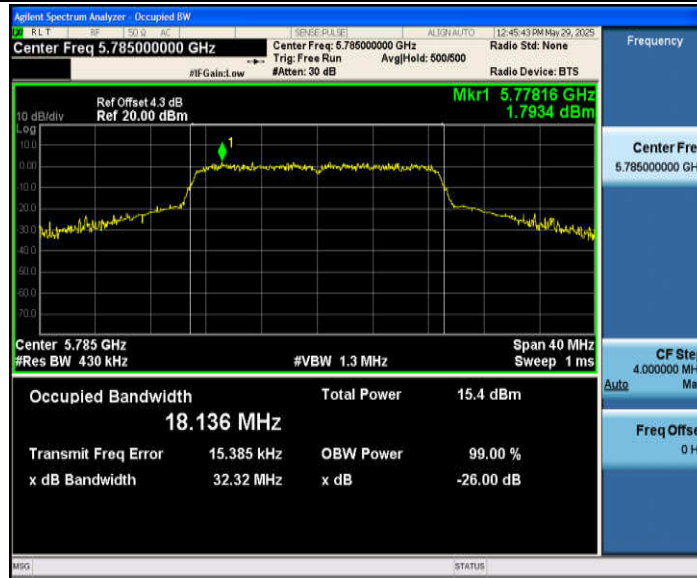
11N20SISO_Ant1_5240



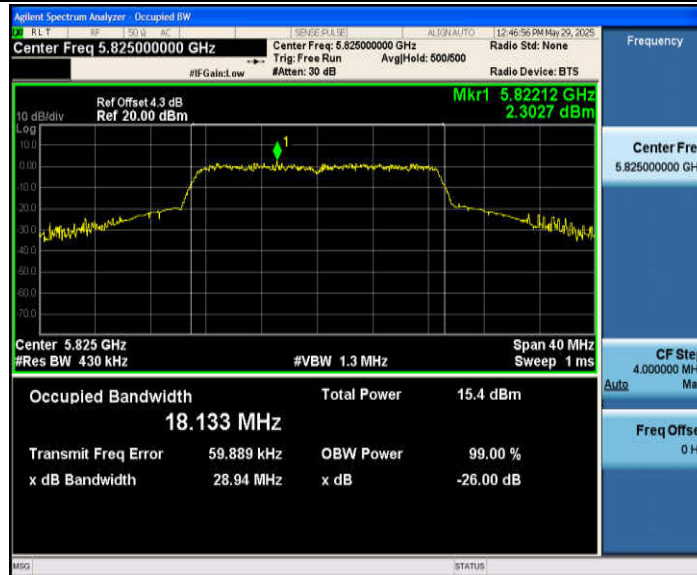
11N20SISO_Ant1_5745



11N20SISO_Ant1_5785



11N20SISO_Ant1_5825



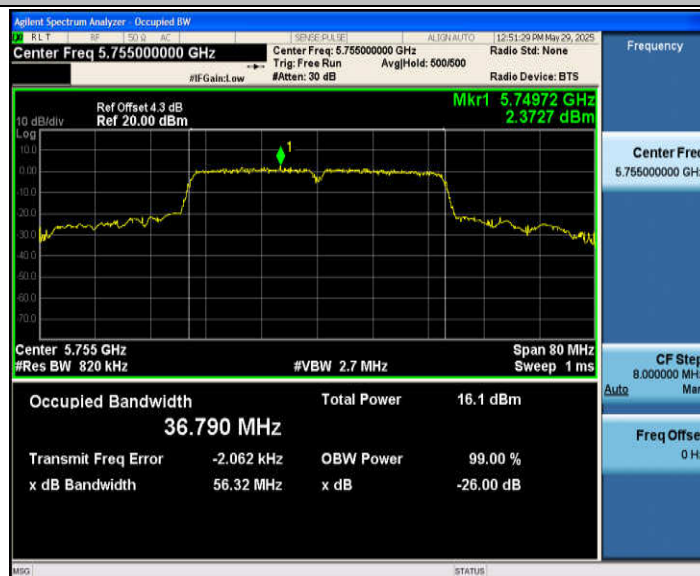
11N40SISO_Ant1_5190



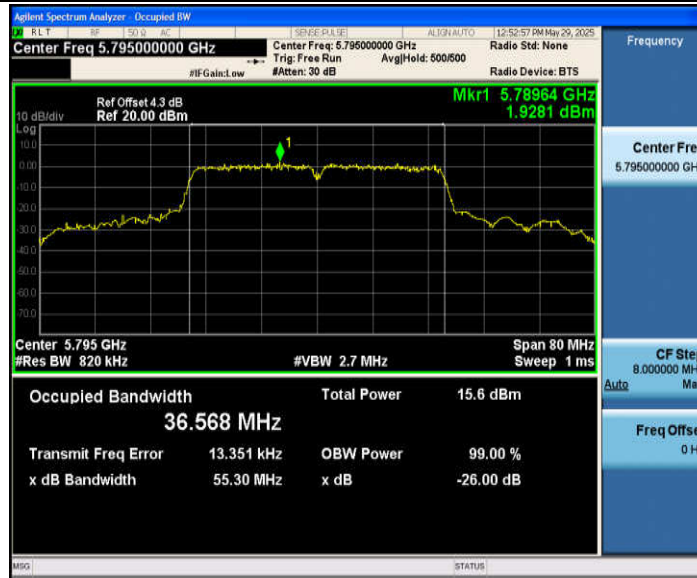
11N40SISO_Ant1_5230



11N40SISO_Ant1_5755



11N40SISO_Ant1_5795



Appendix A3: 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	16.520	5736.560	5753.080	0.5	PASS
		5785	17.120	5776.480	5793.600	0.5	PASS
		5825	16.680	5816.680	5833.360	0.5	PASS
11N40SISO	Ant1	5755	35.200	5737.400	5772.600	0.5	PASS
		5795	35.200	5777.400	5812.600	0.5	PASS

Test Graphs B4

11A_Ant1_5745



11A_Ant1_5785



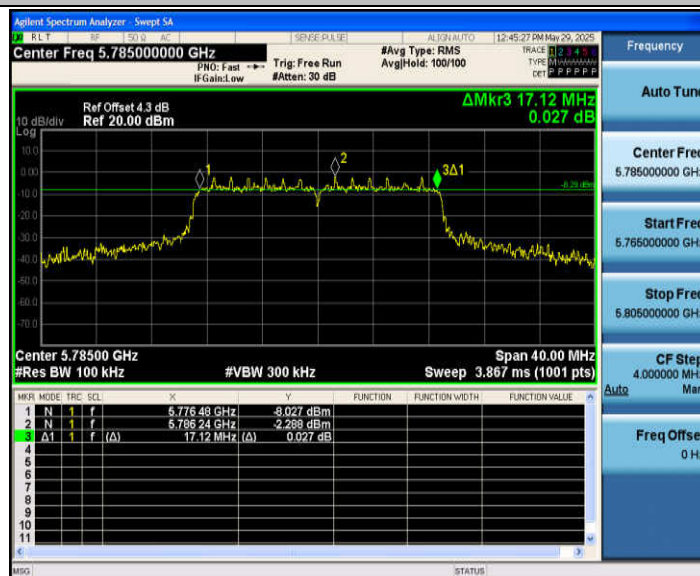
11A_Ant1_5825



11N20SISO_Ant1_5745



11N20SISO_Ant1_5785



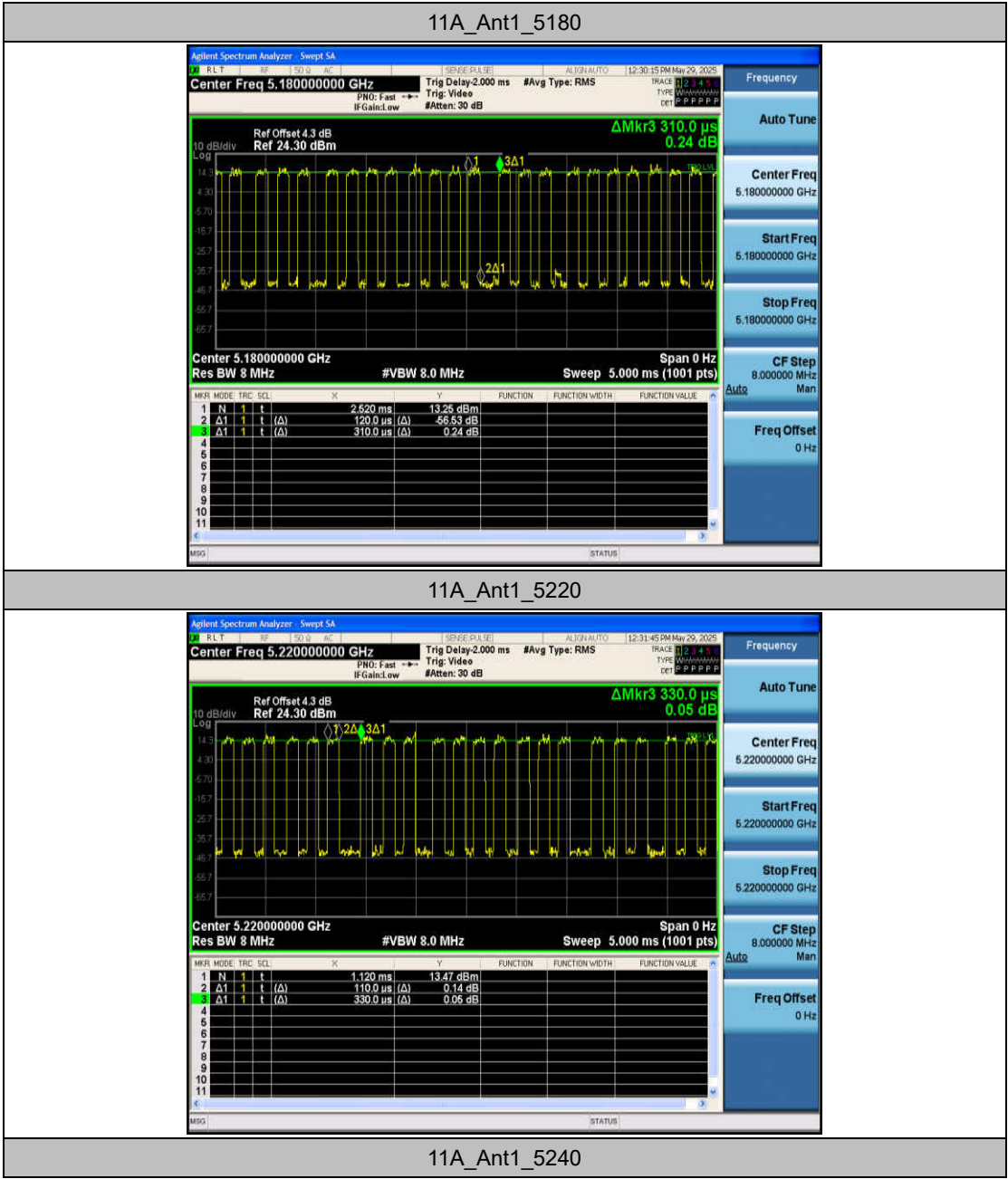


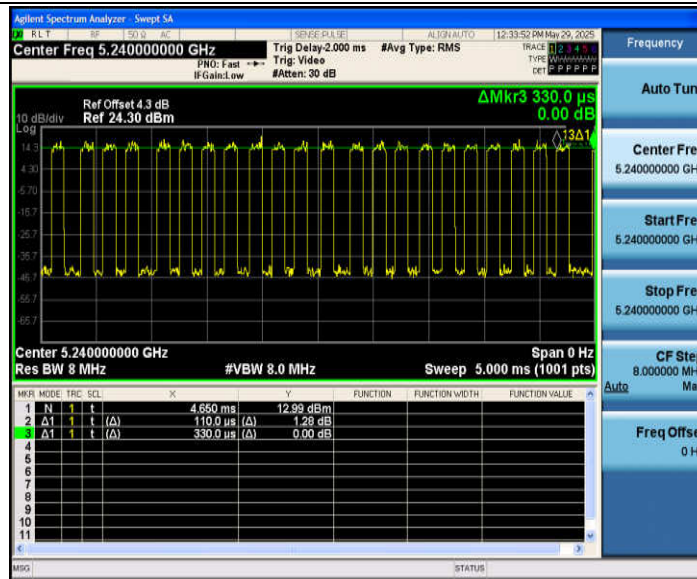
Appendix B: Duty Cycle

Test Result

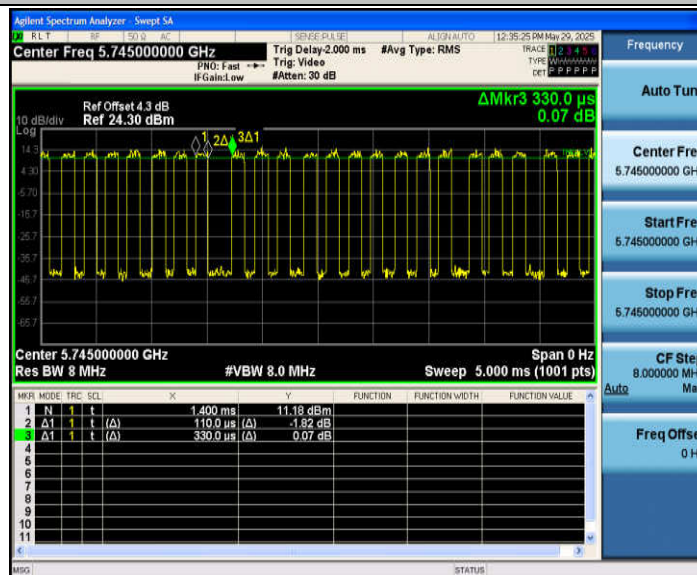
TestMode	Antenna	Freq(MHz)	Transmission Duration [ms]	Transmission Period [ms]	Duty Cycle [%]	Duty factor (dB)	Limit	Verdict
11A	Ant1	5180	0.12	0.31	38.71	4.12	---	---
		5220	0.11	0.33	33.33	4.77	---	---
		5240	0.11	0.33	33.33	4.77	---	---
		5745	0.11	0.33	33.33	4.77	---	---
		5785	0.11	0.31	35.48	4.50	---	---
		5825	0.11	0.30	36.67	4.36	---	---
11N20SISO	Ant1	5180	0.11	0.32	34.38	4.64	---	---
		5220	0.11	0.33	33.33	4.77	---	---
		5240	0.11	0.29	37.93	4.21	---	---
		5745	0.11	0.28	39.29	4.06	---	---
		5785	0.11	0.28	39.29	4.06	---	---
		5825	0.11	0.32	34.38	4.64	---	---
11N40SISO	Ant1	5190	0.07	0.28	25.00	6.02	---	---
		5230	0.08	0.20	40.00	3.98	---	---
		5755	0.07	0.26	26.92	5.70	---	---
		5795	0.07	0.26	26.92	5.70	---	---

Test Graphs

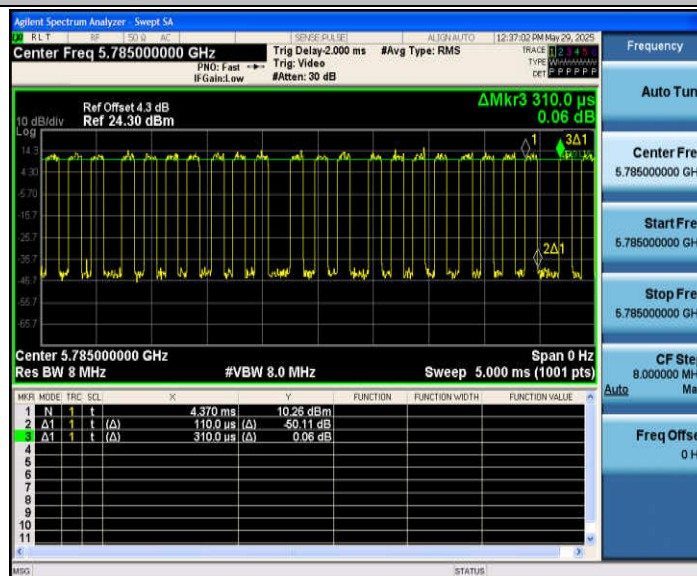




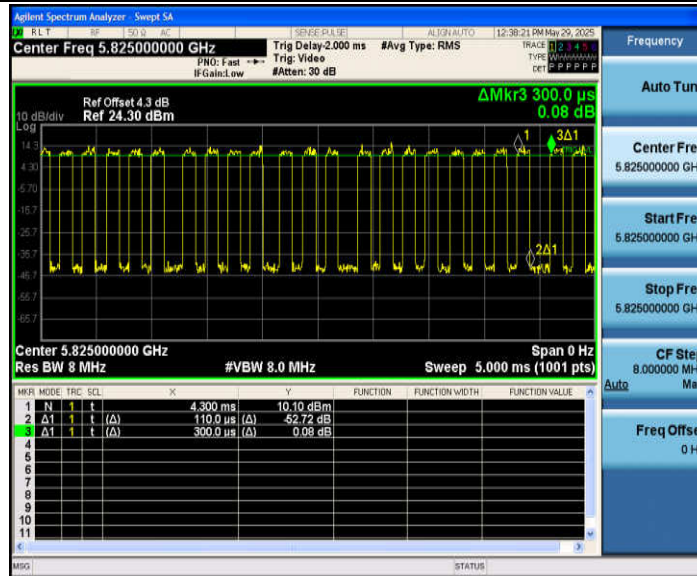
11A_Ant1_5745



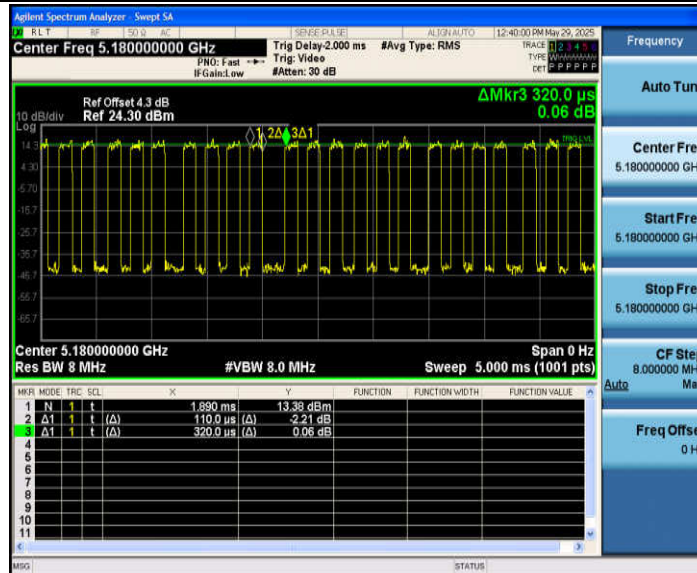
11A_Ant1_5785



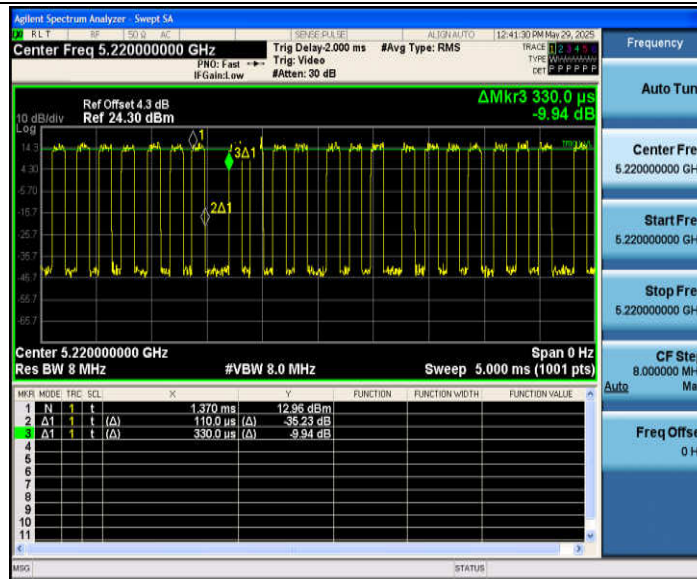
11A_Ant1_5825



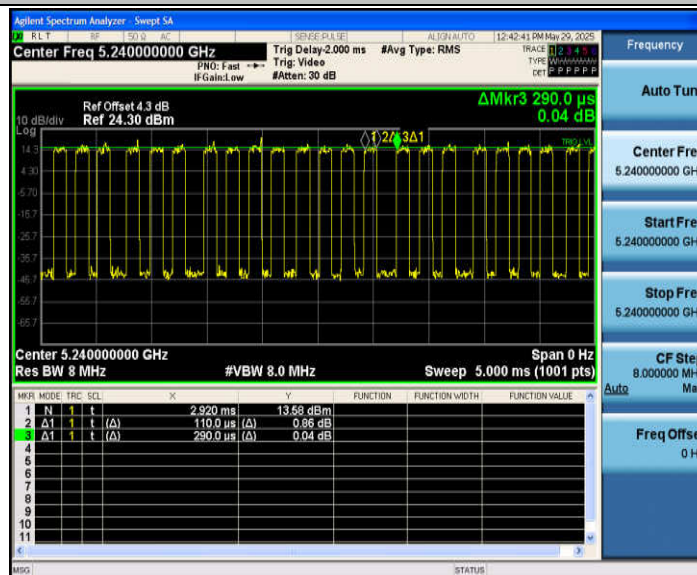
11N20SISO_Ant1_5180



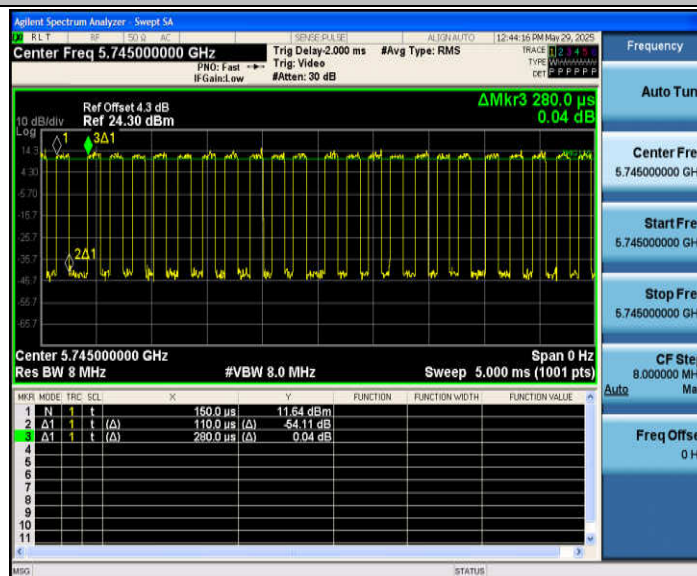
11N20SISO_Ant1_5220



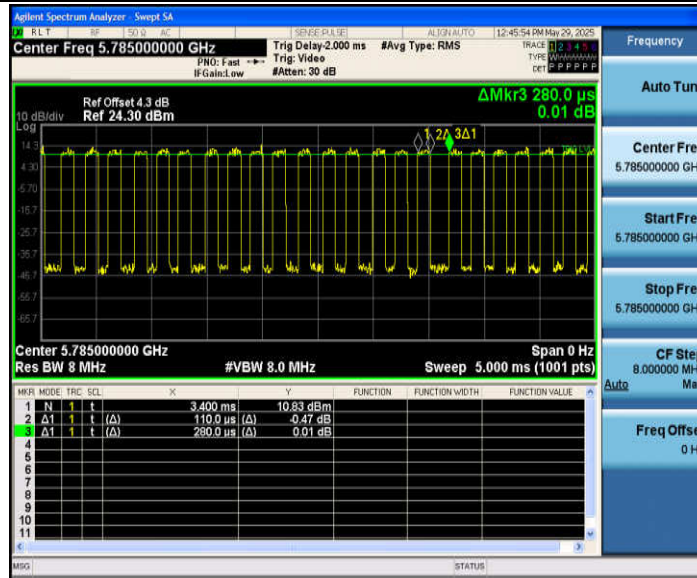
11N20SISO_Ant1_5240



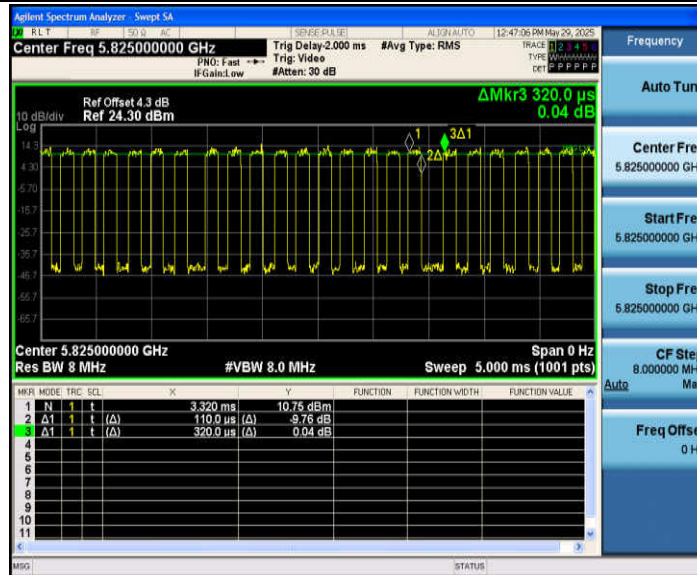
11N20SISO_Ant1_5745



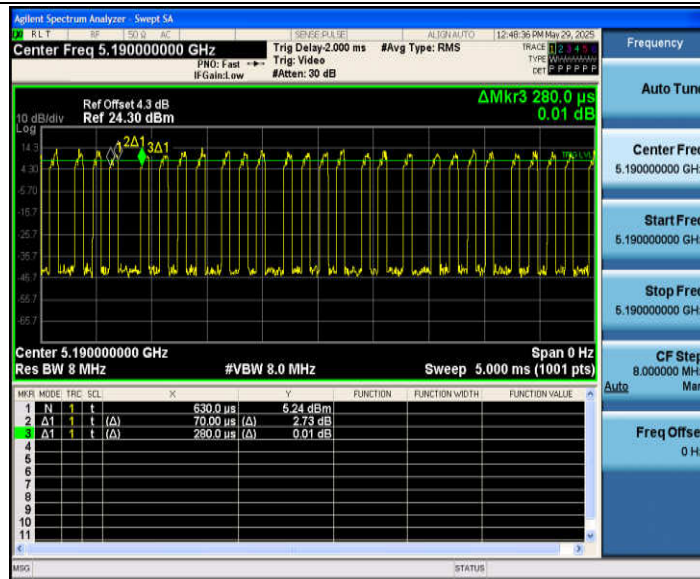
11N20SISO_Ant1_5785



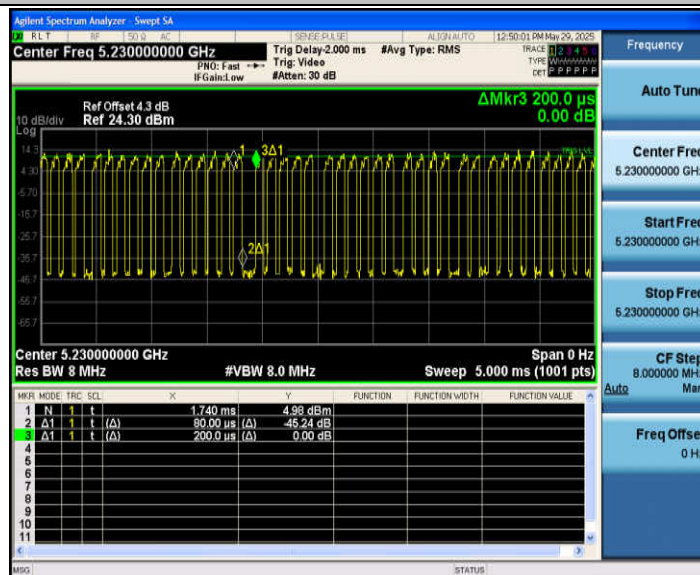
11N20SISO_Ant1_5825



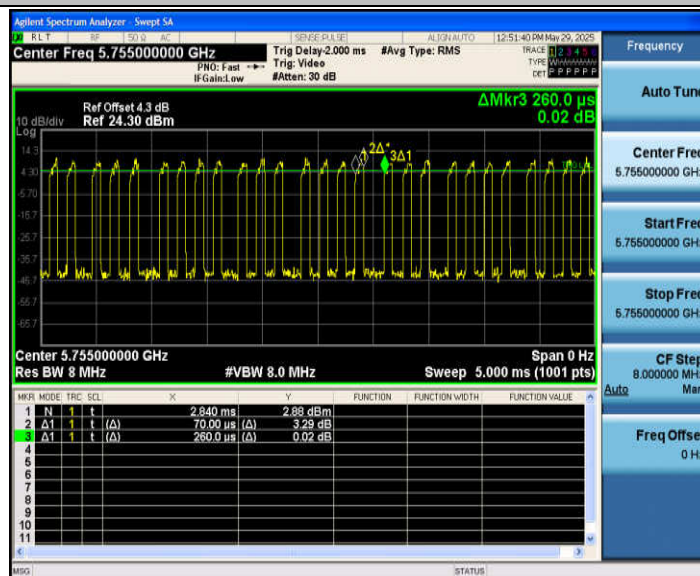
11N40SISO_Ant1_5190



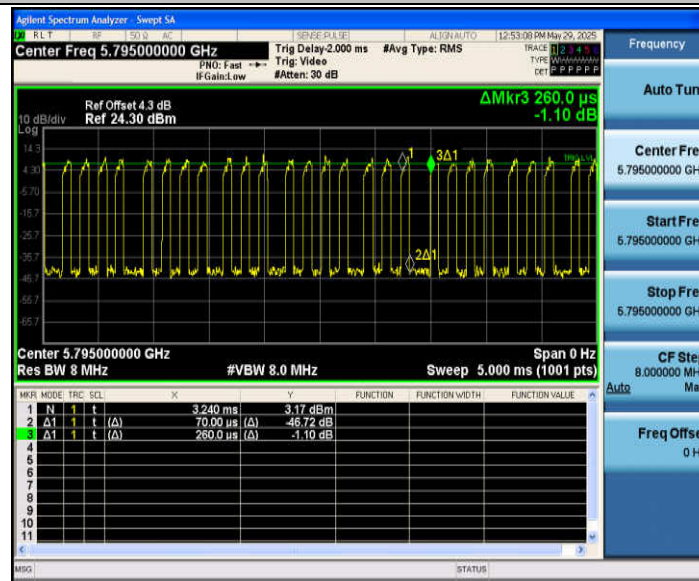
11N40SISO_Ant1_5230



11N40SISO_Ant1_5755



11N40SISO_Ant1_5795



Appendix C: Maximum conducted output power

Test Mode	Antenna	Freq(MHz)	Channel Power [dBm]	Duty Cycle [%]	DC Factor [dBm]	Result [dBm]	Limit [dBm]	Verdict
11A	Ant1	5180	8.85	38.71	4.12	12.97	≤23.98	PASS
		5220	8.84	33.33	4.77	13.61	≤23.98	PASS
		5240	8.95	33.33	4.77	13.72	≤23.98	PASS
		5745	6.61	33.33	4.77	11.38	≤30.00	PASS
		5785	5.96	35.48	4.50	10.46	≤30.00	PASS
		5825	5.79	36.67	4.36	10.15	≤30.00	PASS
11N20SISO	Ant1	5180	8.78	34.38	4.64	13.42	≤23.98	PASS
		5220	8.78	33.33	4.77	13.55	≤23.98	PASS
		5240	8.93	37.93	4.21	13.14	≤23.98	PASS
		5745	6.72	39.29	4.06	10.78	≤30.00	PASS
		5785	5.99	39.29	4.06	10.05	≤30.00	PASS
		5825	5.82	34.38	4.64	10.46	≤30.00	PASS
11N40SISO	Ant1	5190	7.05	25.00	6.02	13.07	≤23.98	PASS
		5230	8.66	40.00	3.98	12.64	≤23.98	PASS
		5755	4.85	26.92	5.70	10.55	≤30.00	PASS
		5795	4.31	26.92	5.70	10.01	≤30.00	PASS

Appendix D: 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	2.75	≤11.00	PASS
		5240	3.10	≤11.00	PASS
		5745	-1.13	≤30.00	PASS
		5785	-2.74	≤30.00	PASS
		5825	-2.84	≤30.00	PASS
11N20SISO	Ant1	5180	2.90	≤11.00	PASS
		5220	2.85	≤11.00	PASS
		5240	2.68	≤11.00	PASS
		5745	-2.21	≤30.00	PASS
		5785	-2.64	≤30.00	PASS
		5825	-2.48	≤30.00	PASS
11N40SISO	Ant1	5190	-0.01	≤11.00	PASS
		5230	-0.73	≤11.00	PASS
		5755	-4.71	≤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.

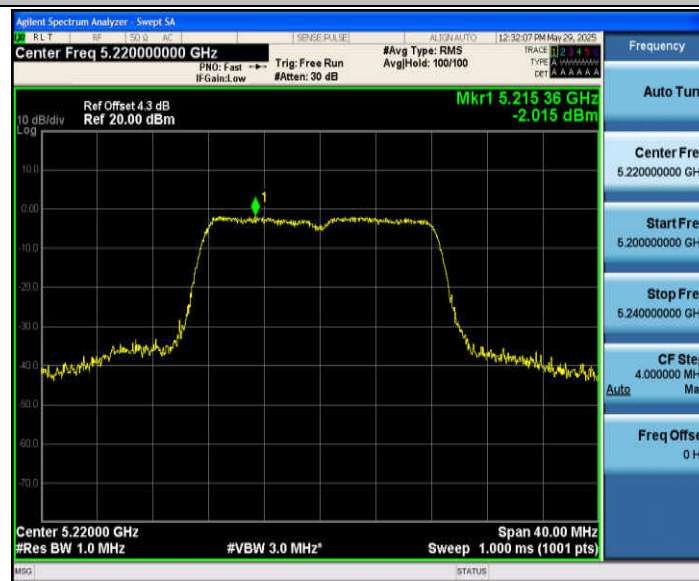
2.The Duty Cycle Factor and RBW Factor is compensated in the graph.

Test Graphs

11A_Ant1_5180



11A_Ant1_5220



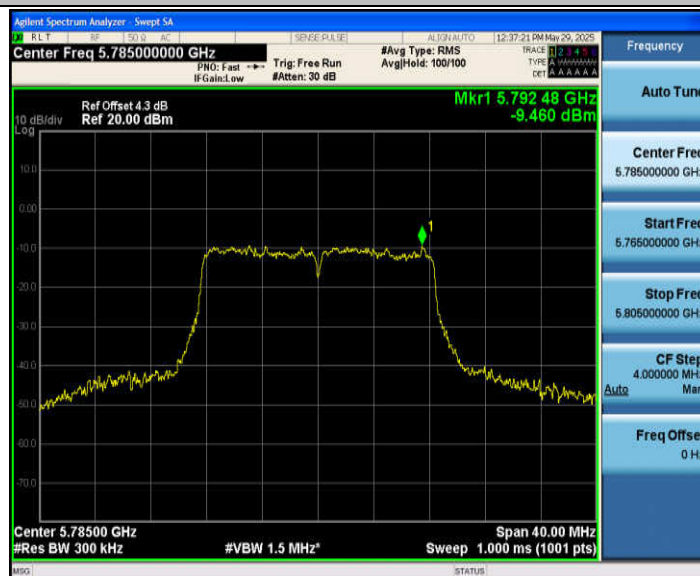
11A_Ant1_5240



11A_Ant1_5745



11A_Ant1_5785



11A_Ant1_5825



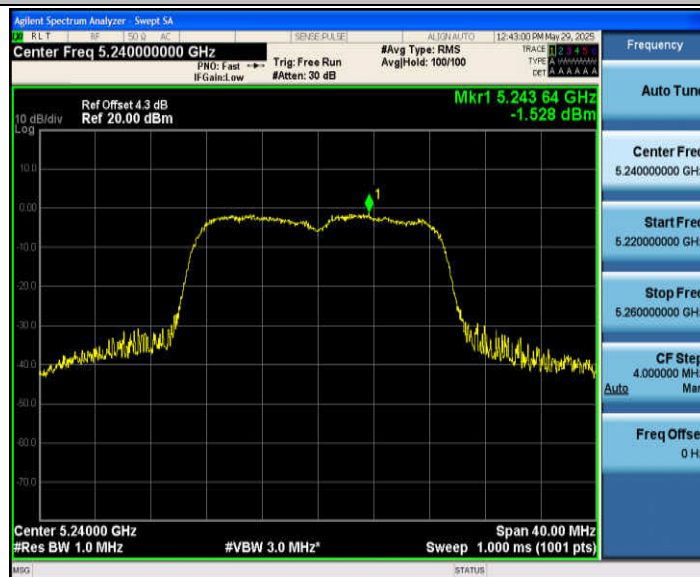
11N20SISO_Ant1_5180



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



