

FCC Appendix RF Test Data

FCC ID : 2BP5X-P156AHBW

Company: : Qu Workshop(Shenzhen) Technology Co., Ltd

EUT : Portable Wireless Display

Model Number : P156AHBW

Report No. : CTA25051000302

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	24.720	5168.280	5193.000	---	---
		5220	25.600	5207.320	5232.920	---	---
		5240	21.240	5228.760	5250.000	---	---
		5745	22.960	5733.480	5756.440	---	---
		5785	21.120	5773.600	5794.720	---	---
		5825	20.800	5814.320	5835.120	---	---
11N20SISO	Ant1	5180	25.400	5168.040	5193.440	---	---
		5220	25.520	5207.880	5233.400	---	---
		5240	25.320	5227.480	5252.800	---	---
		5745	24.560	5732.960	5757.520	---	---
		5785	24.680	5772.960	5797.640	---	---
		5825	24.960	5812.800	5837.760	---	---
11N40SISO	Ant1	5190	43.840	5168.640	5212.480	---	---
		5230	43.760	5208.640	5252.400	---	---
		5755	55.360	5728.040	5783.400	---	---
		5795	48.560	5773.720	5822.280	---	---

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



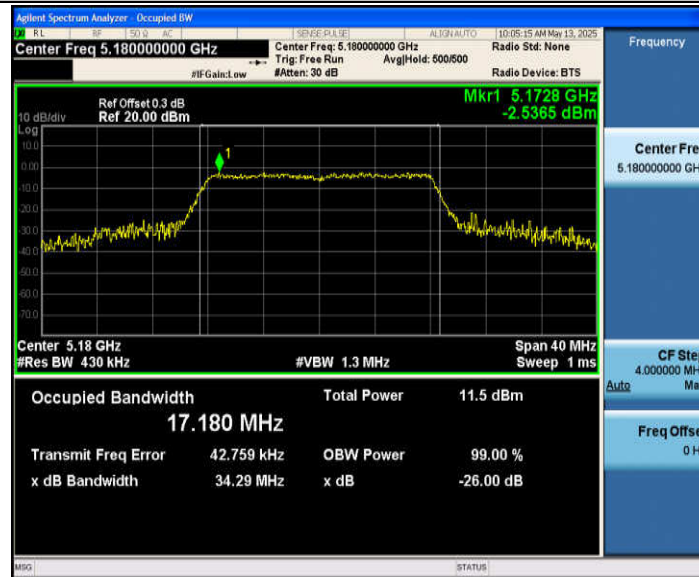
Appendix A2: Occupied channel bandwidth

Test Result

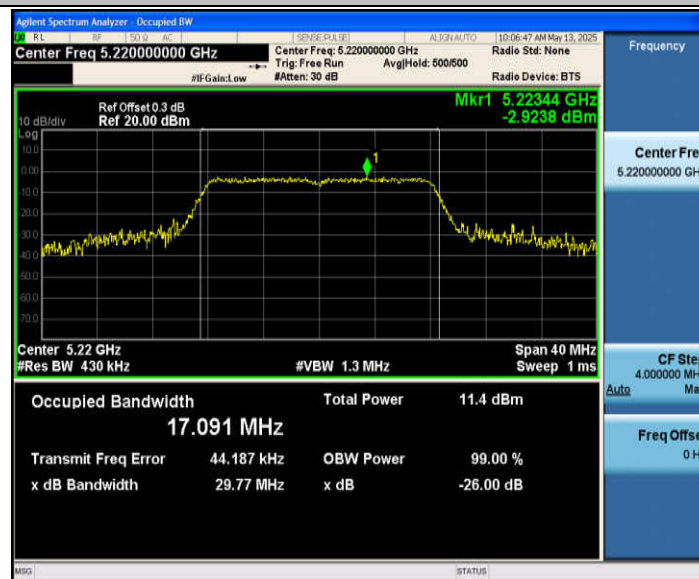
TestMode	Antenna	Freq(MHz)	OCB [MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
11A	Ant1	5180	17.180	5171.4528	5188.6328	---	---
		5220	17.091	5211.4987	5228.5897	---	---
		5240	17.090	5231.4629	5248.5529	---	---
		5745	17.134	5736.4129	5753.5469	---	---
		5785	17.066	5776.4617	5793.5277	---	---
		5825	17.064	5816.4902	5833.5542	---	---
11N20SISO	Ant1	5180	18.185	5171.0157	5189.2007	---	---
		5220	18.189	5210.9629	5229.1519	---	---
		5240	18.163	5230.9647	5249.1277	---	---
		5745	18.077	5735.9449	5754.0219	---	---
		5785	18.035	5775.9955	5794.0305	---	---
		5825	18.103	5816.0003	5834.1033	---	---
11N40SISO	Ant1	5190	36.484	5171.8383	5208.3223	---	---
		5230	36.397	5211.8408	5248.2378	---	---
		5755	36.851	5736.6659	5773.5169	---	---
		5795	36.883	5776.7420	5813.6250	---	---

Test Graphs

11A_Ant1_5180



11A_Ant1_5220



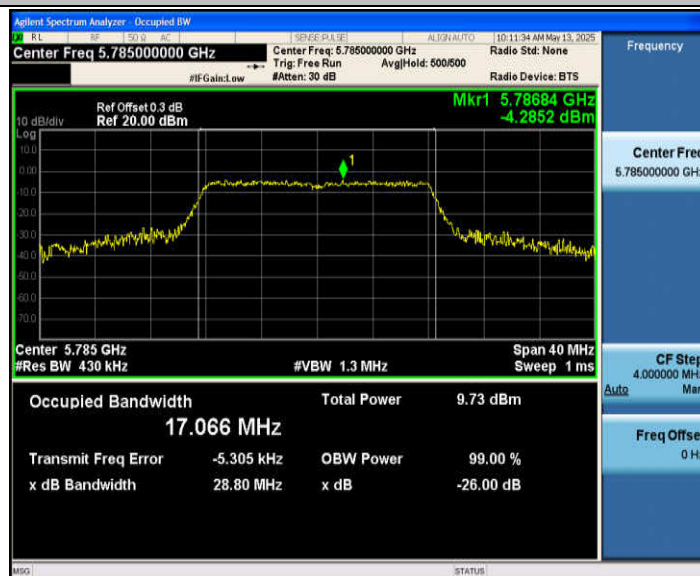
11A_Ant1_5240



11A_Ant1_5745



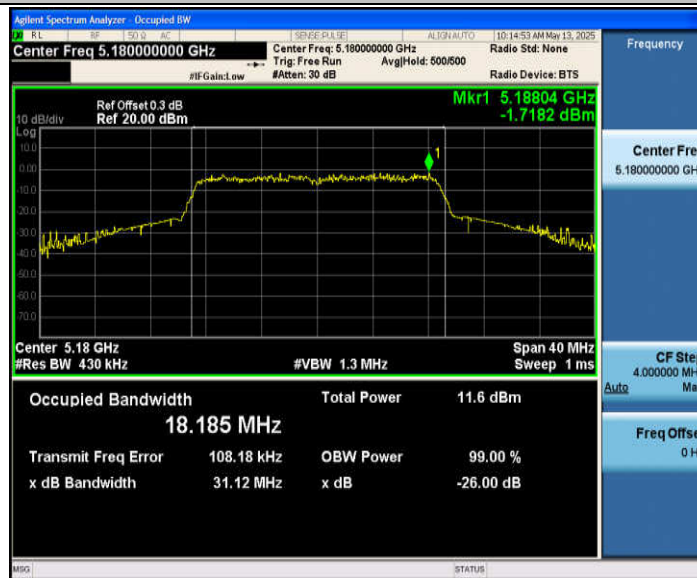
11A_Ant1_5785



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

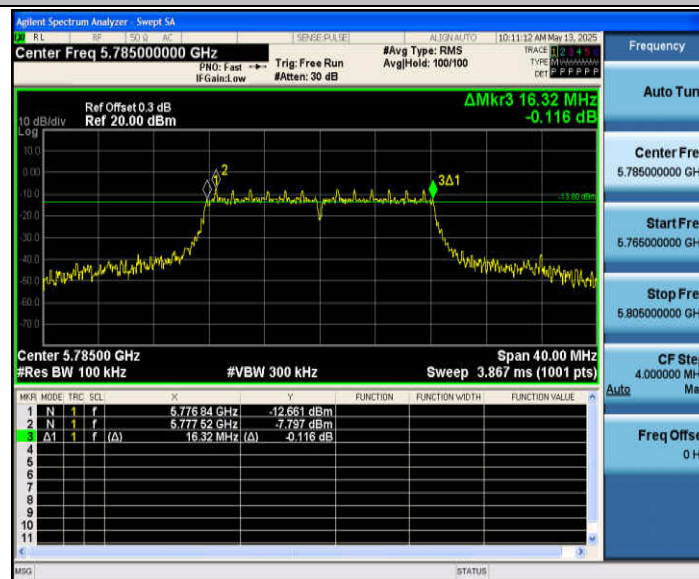
TestMode	Antenna	Freq(MHz)	6db EBW [MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
11A	Ant1	5745	16.320	5736.840	5753.160	0.5	PASS
		5785	16.320	5776.840	5793.160	0.5	PASS
		5825	16.320	5816.840	5833.160	0.5	PASS
11N20SISO	Ant1	5745	16.880	5736.440	5753.320	0.5	PASS
		5785	16.800	5776.520	5793.320	0.5	PASS
		5825	16.840	5816.520	5833.360	0.5	PASS
11N40SISO	Ant1	5755	35.600	5737.160	5772.760	0.5	PASS
		5795	35.760	5777.320	5813.080	0.5	PASS

Test Graphs B4

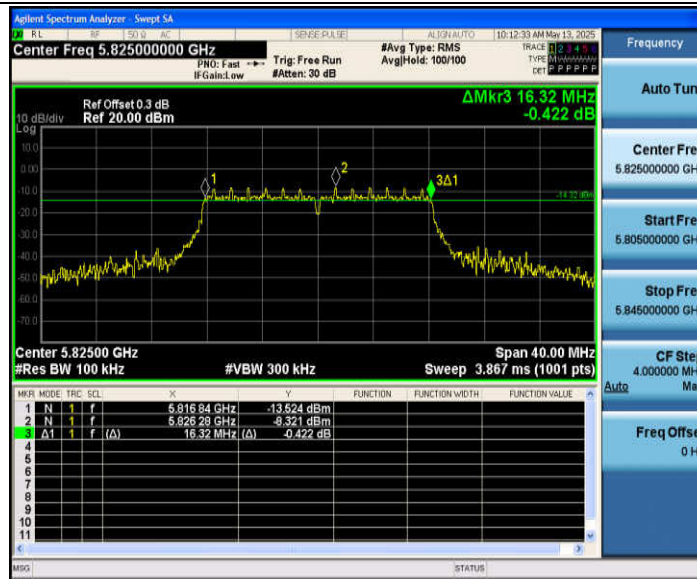
11A_Ant1_5745



11A_Ant1_5785



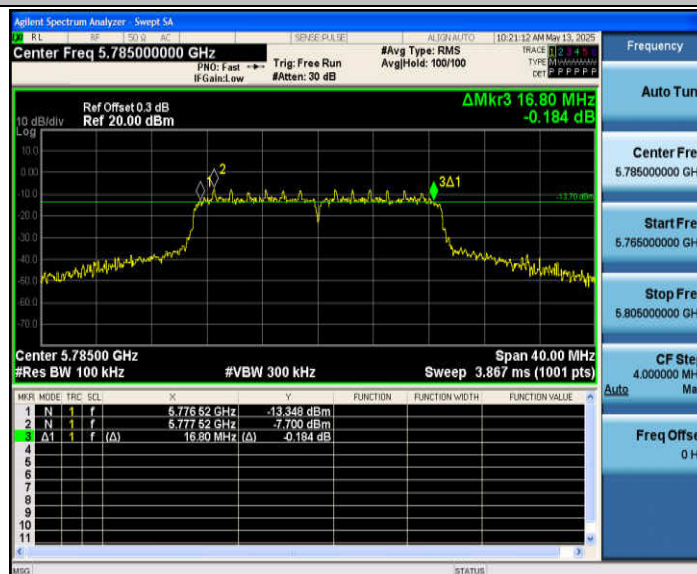
11A_Ant1_5825



11N20SISO_Ant1_5745



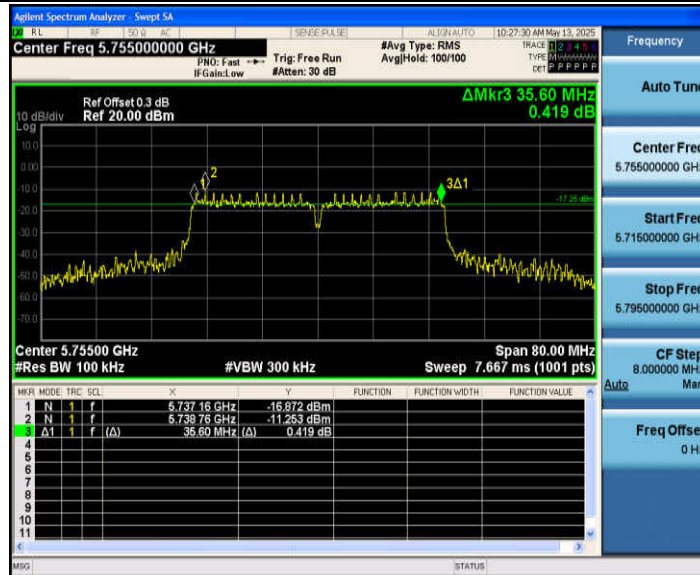
11N20SISO_Ant1_5785



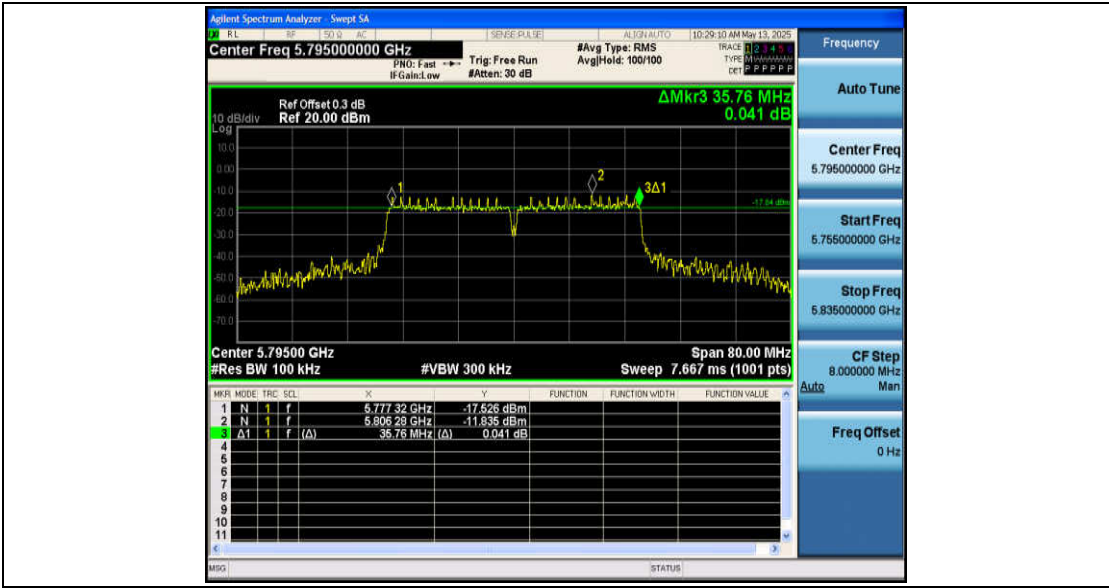
11N20SISO_Ant1_5825



11N40SISO_Ant1_5755



11N40SISO_Ant1_5795

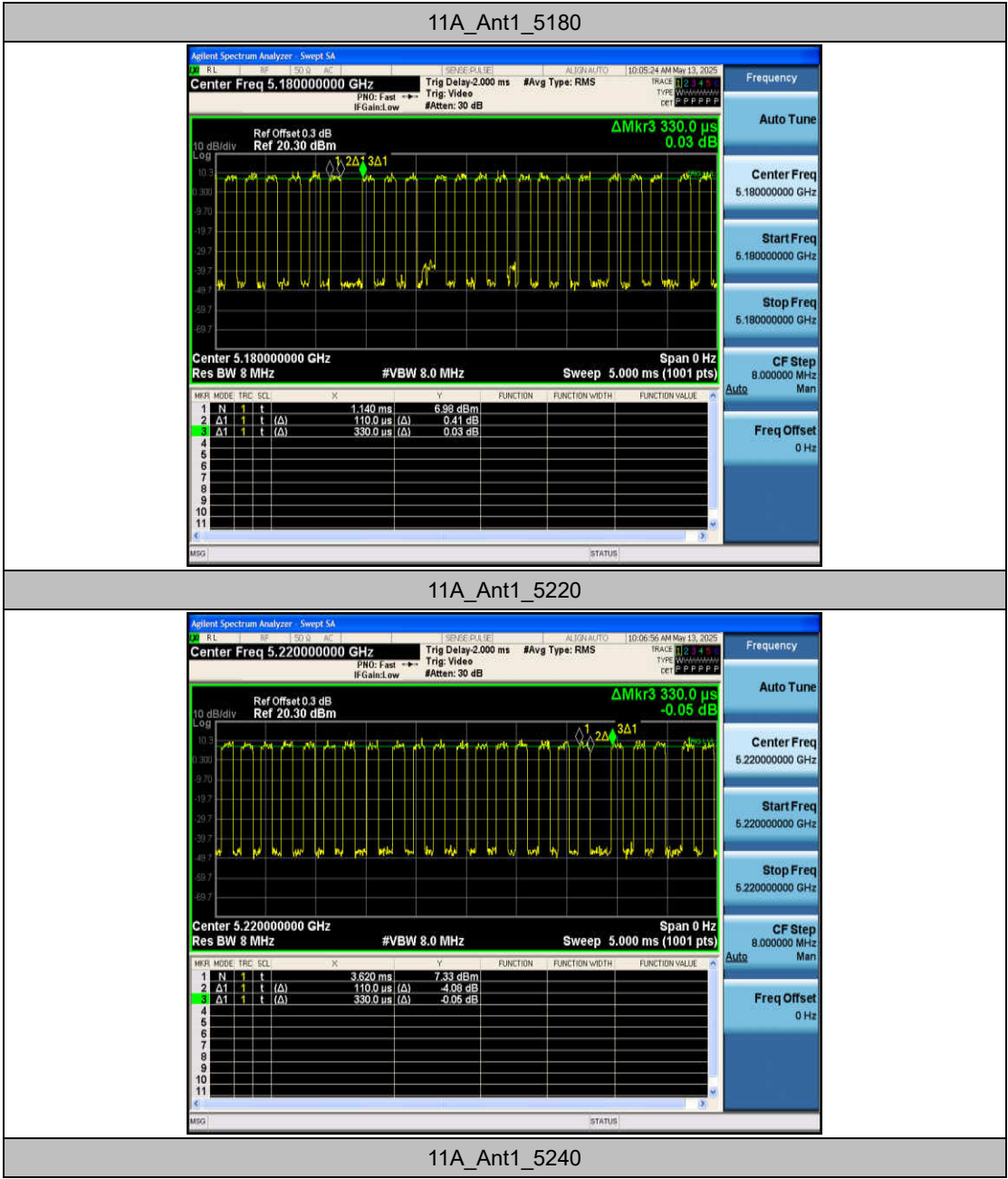


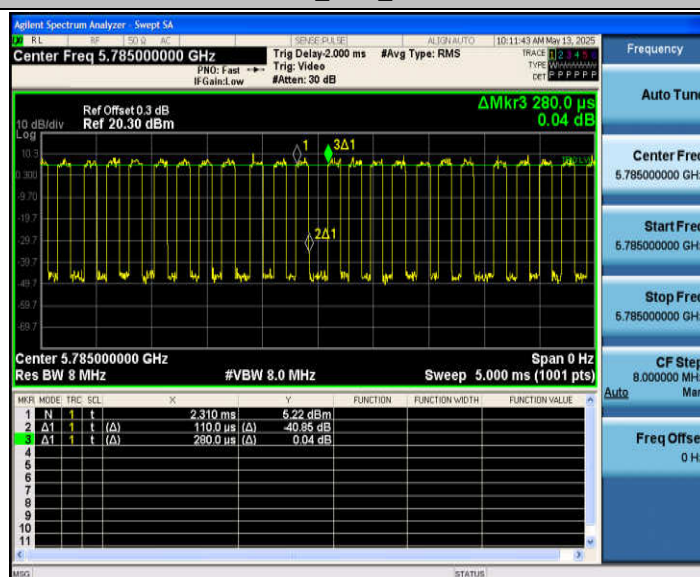
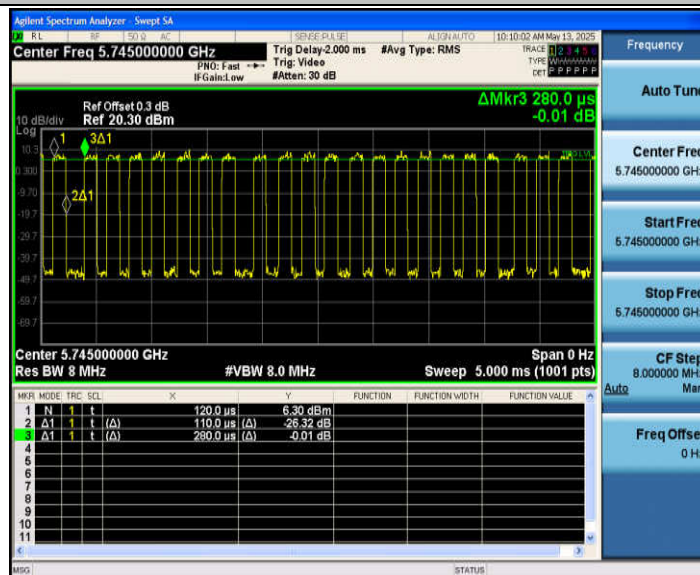
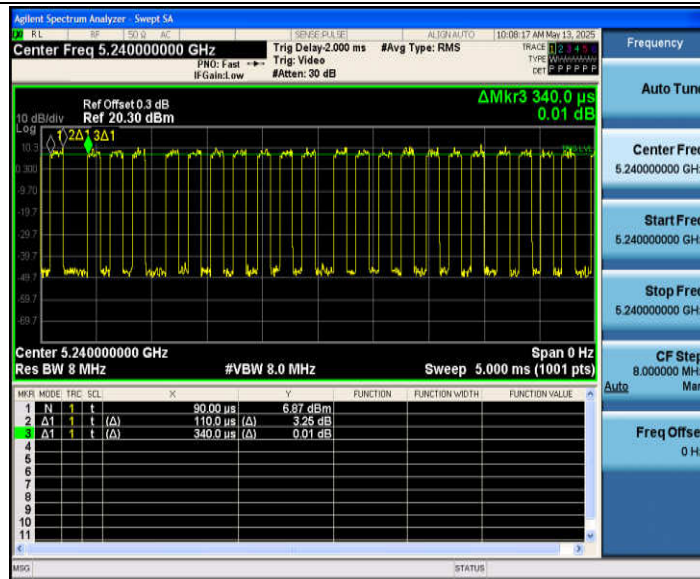
Appendix B: Duty Cycle

Test Result

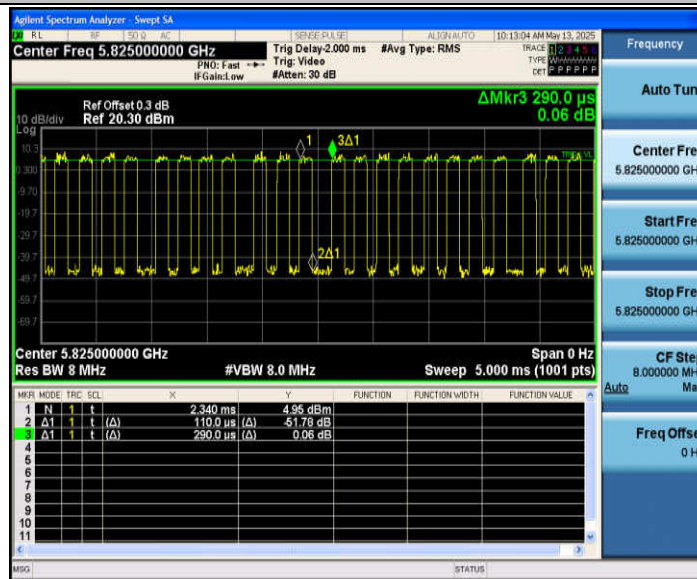
TestMode	Antenna	Freq(MHz)	Transmission Duration [ms]	Transmission Period [ms]	Duty Cycle [%]	Duty factor(dB)	Limit	Verdict
11A	Ant1	5180	0.11	0.33	33.33	4.77	---	---
		5220	0.11	0.33	33.33	4.77	---	---
		5240	0.11	0.34	32.35	4.90	---	---
		5745	0.11	0.28	39.29	4.06	---	---
		5785	0.11	0.28	39.29	4.06	---	---
		5825	0.11	0.29	37.93	4.21	---	---
11N20SISO	Ant1	5180	0.11	0.32	34.38	4.64	---	---
		5220	0.11	0.28	39.29	4.06	---	---
		5240	0.11	0.31	35.48	4.50	---	---
		5745	0.11	0.36	30.56	5.15	---	---
		5785	0.12	0.32	37.50	4.26	---	---
		5825	0.11	0.32	34.38	4.64	---	---
11N40SISO	Ant1	5190	0.08	0.26	30.77	5.12	---	---
		5230	0.07	0.25	28.00	5.53	---	---
		5755	0.07	0.27	25.93	5.86	---	---
		5795	0.07	0.25	28.00	5.53	---	---

Test Graphs

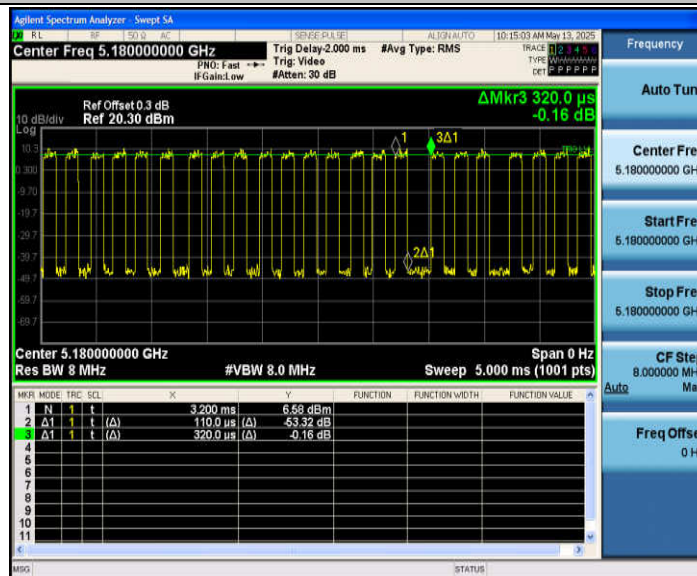




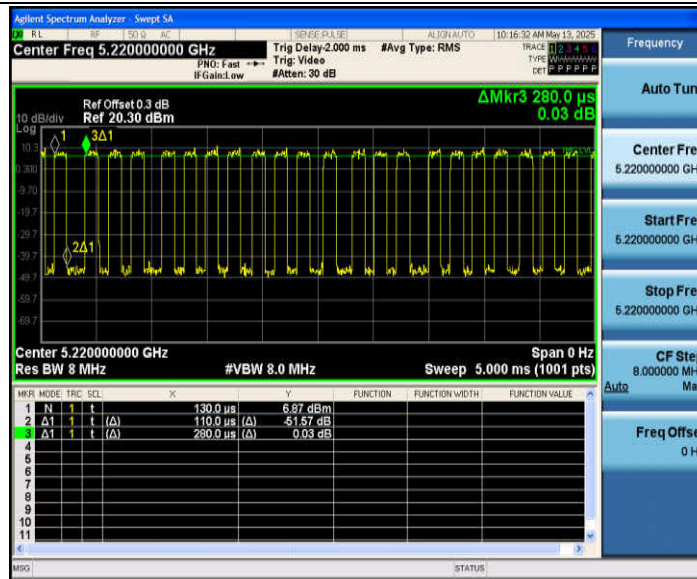
11A_Ant1_5825



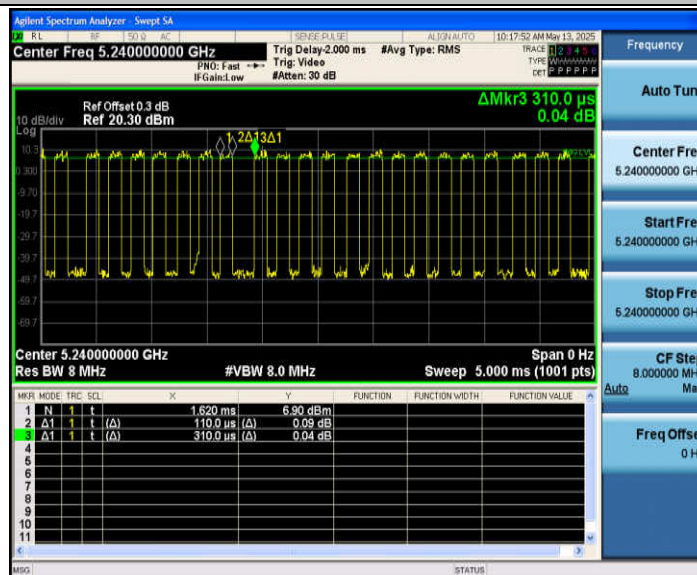
11N20SISO_Ant1_5180



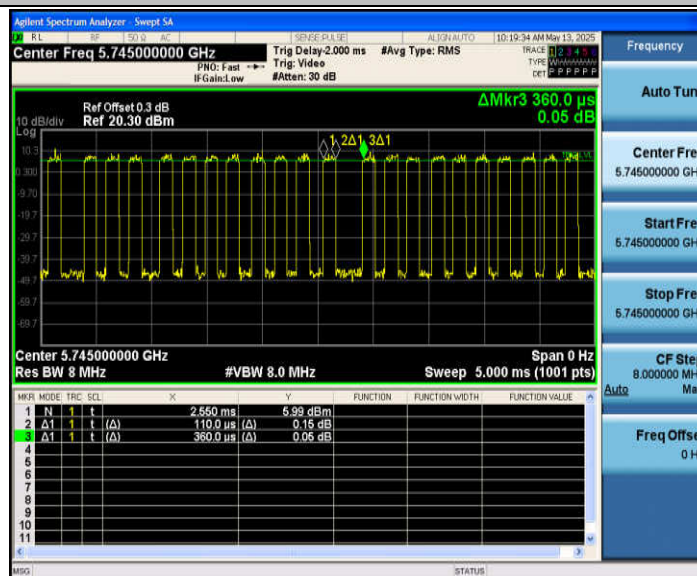
11N20SISO_Ant1_5220



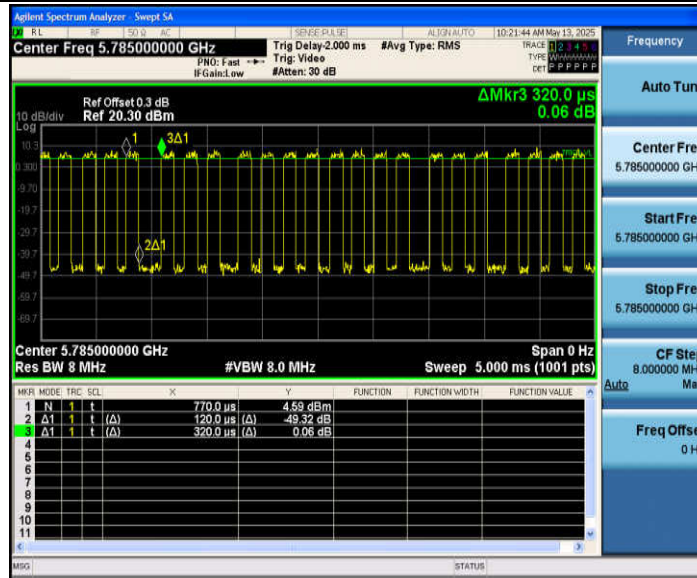
11N20SISO_Ant1_5240



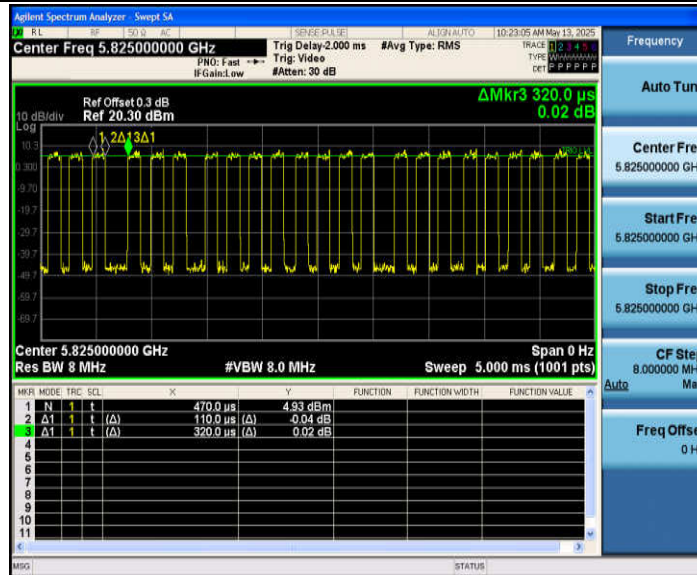
11N20SISO_Ant1_5745



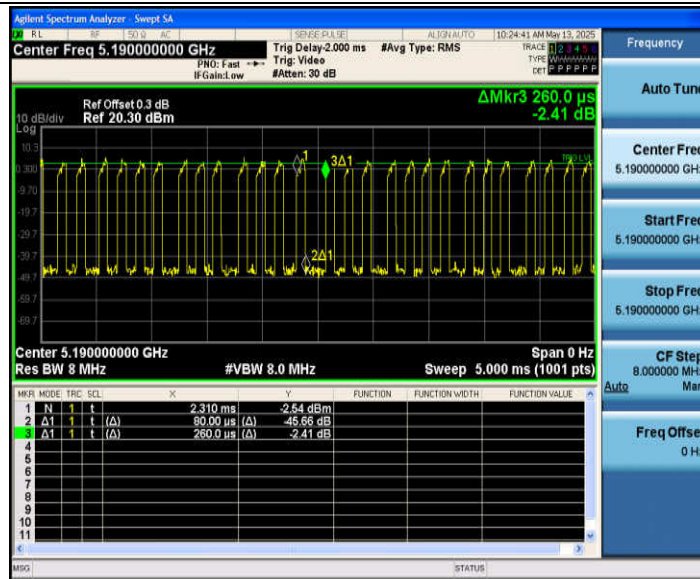
11N20SISO_Ant1_5785



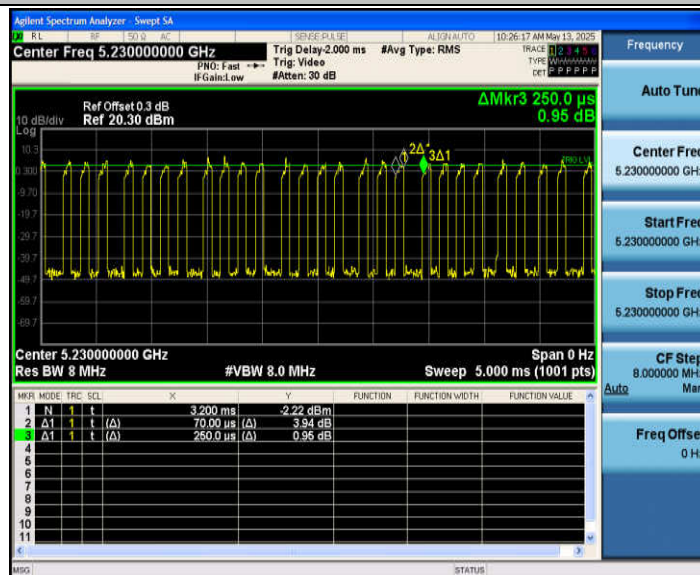
11N20SISO_Ant1_5825



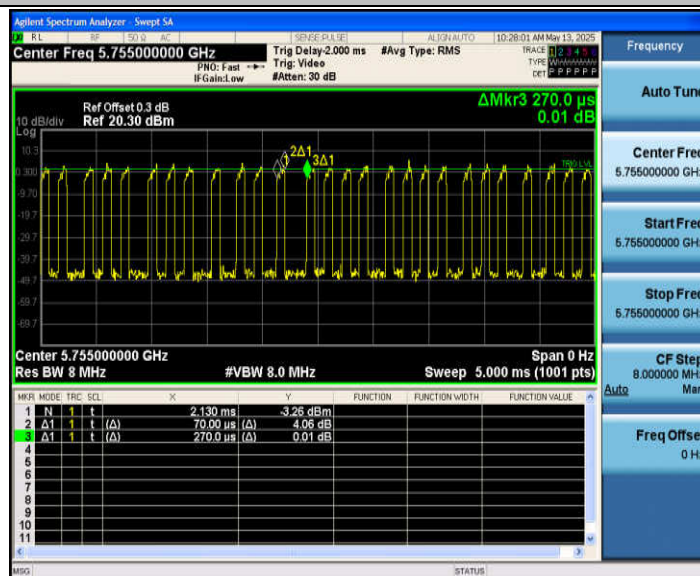
11N40SISO_Ant1_5190



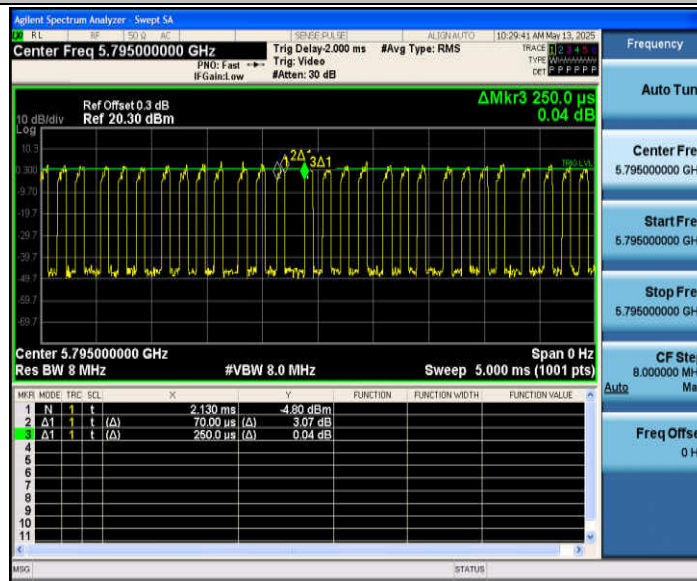
11N40SISO_Ant1_5230



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	2.17	33.33	4.77	6.94	≤23.98	PASS
		5220	2.05	33.33	4.77	6.82	≤23.98	PASS
		5240	2.20	32.35	4.90	7.10	≤23.98	PASS
		5745	1.40	39.29	4.06	5.46	≤30.00	PASS
		5785	0.36	39.29	4.06	4.42	≤30.00	PASS
		5825	0.21	37.93	4.21	4.42	≤30.00	PASS
11N20SI SO	Ant1	5180	1.97	34.38	4.64	6.61	≤23.98	PASS
		5220	2.00	39.29	4.06	6.06	≤23.98	PASS
		5240	2.06	35.48	4.50	6.56	≤23.98	PASS
		5745	1.43	30.56	5.15	6.58	≤30.00	PASS
		5785	0.43	37.50	4.26	4.69	≤30.00	PASS
		5825	0.22	34.38	4.64	4.86	≤30.00	PASS
11N40SI SO	Ant1	5190	-0.62	30.77	5.12	4.50	≤23.98	PASS
		5230	-0.44	28.00	5.53	5.09	≤23.98	PASS
		5755	-1.43	25.93	5.86	4.43	≤30.00	PASS
		5795	-2.12	28.00	5.53	3.41	≤30.00	PASS

Appendix D: Maximum power spectral density

Test Result

TestMode	Antenna	Freq(MHz)	Result [dBm/1MHz] For 5.2G	RBW Factor (dB)	Duty factor (dB)	Result [dBm/MHz] For 5.2G	Limit[dBm/MHz] For 5.2G	Verdict
			Result [dBm/300KHz] For 5.8G			Result [dBm/500kHz] For 5.8G	Limit[dBm/500kHz] For 5.8G	
11A	Ant1	5180	-7.933	/	4.77	-3.16	≤11.00	PASS
		5220	-8.842	/	4.77	-4.07	≤11.00	PASS
		5240	-8.333	/	4.90	-3.43	≤11.00	PASS
		5745	-13.664	2.22	4.06	-7.38	≤30.00	PASS
		5785	-14.602	2.22	4.06	-8.32	≤30.00	PASS
		5825	-14.933	2.22	4.21	-8.51	≤30.00	PASS
11N20SISO	Ant1	5180	-8.374	/	4.64	-3.73	≤11.00	PASS
		5220	-8.670	/	4.06	-4.61	≤11.00	PASS
		5240	-8.883	/	4.50	-4.38	≤11.00	PASS
		5745	-13.924	2.22	5.15	-6.55	≤30.00	PASS
		5785	-14.930	2.22	4.26	-8.45	≤30.00	PASS
		5825	-15.251	2.22	4.64	-8.39	≤30.00	PASS
11N40SISO	Ant1	5190	-13.708	/	5.12	-8.59	≤11.00	PASS
		5230	-13.522	/	5.53	-7.99	≤11.00	PASS
		5755	-18.511	2.22	5.86	-10.43	≤30.00	PASS
		5795	-19.768	2.22	5.53	-12.02	≤30.00	PASS

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

P.S.D(dBm/500KHz)= P.S.D(dBm/300KHz)+10 log (500 kHz/300KHz).

2. RBW factor= 10 log (500 KHz /300 KHz) = 2.22 dB

Test Graphs

11A_Ant1_5180



11A_Ant1_5220



11A_Ant1_5240



11A_Ant1_5745



11A_Ant1_5785



11A_Ant1_5825



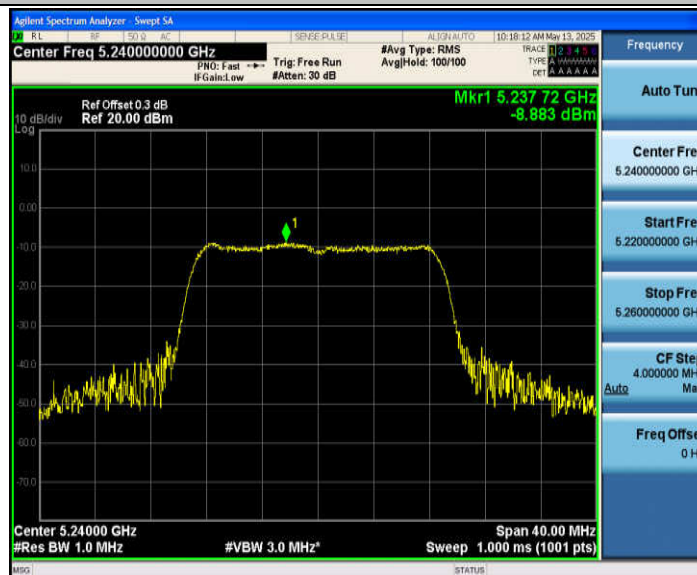
11N20SISO_Ant1_5180



11N20SISO_Ant1_5220



11N20SISO_Ant1_5240



11N20SISO_Ant1_5745



11N20SISO_Ant1_5785



11N20SISO_Ant1_5825



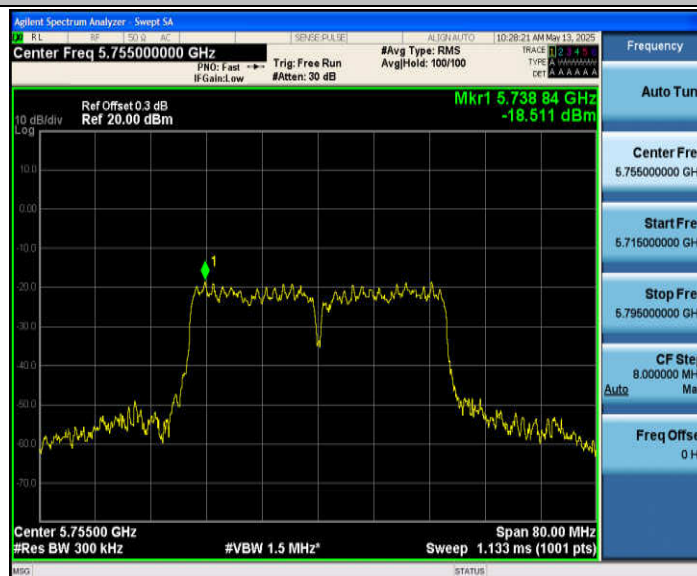
11N40SISO_Ant1_5190



11N40SISO_Ant1_5230



11N40SISO_Ant1_5755



11N40SISO_Ant1_5795



Appendix E: Band edge measurements

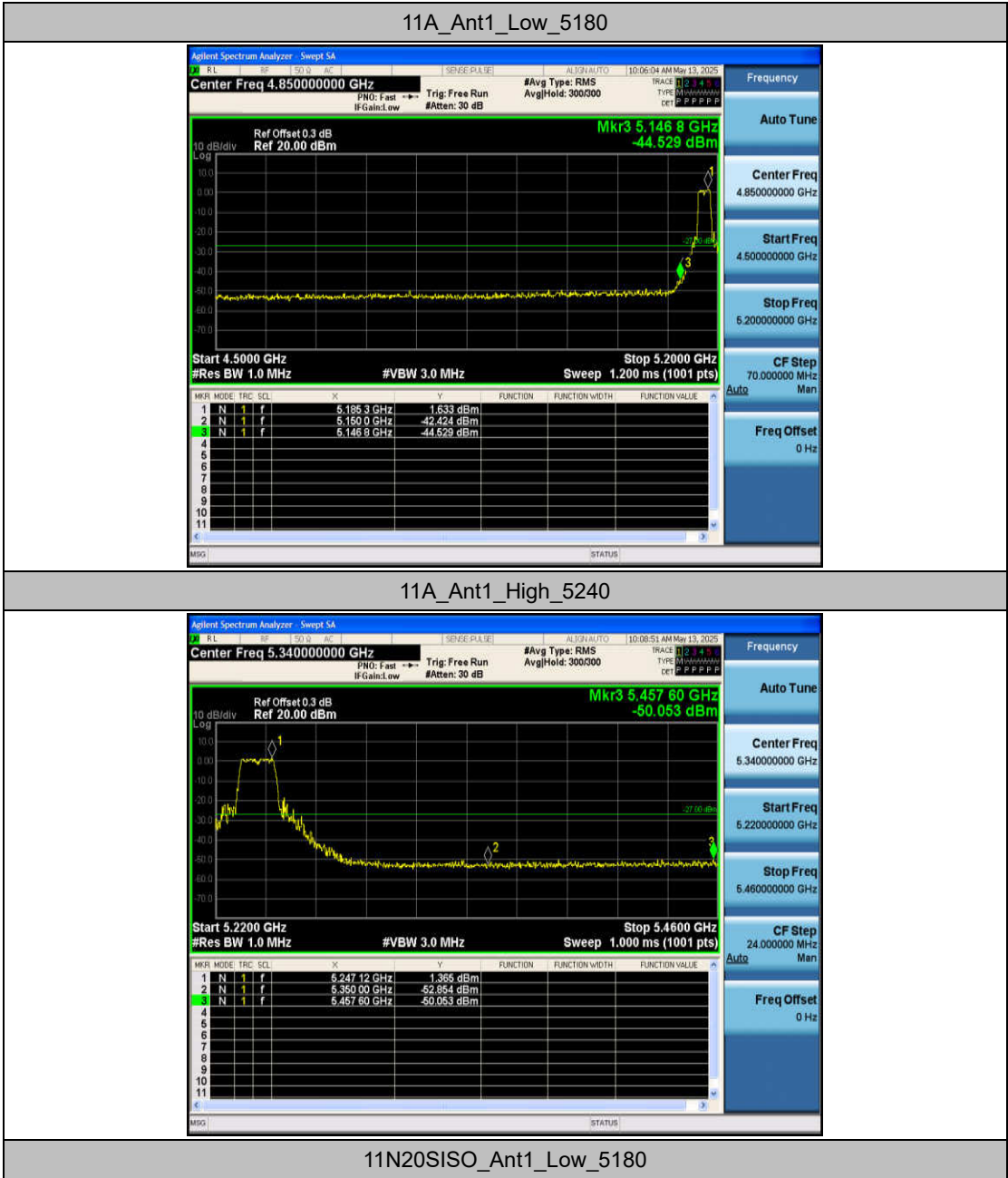
Test Result B1

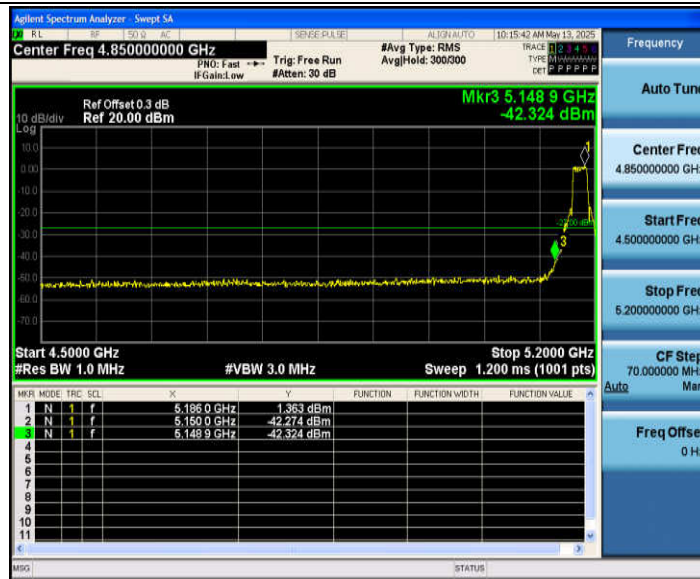
TestMode	Antenna	ChName	Freq(MHz)	Result[dBm]	Limit[dBm]	Verdict
11A	Ant1	Low	5180	-44.53	≤-27	PASS
		High	5240	-50.05	≤-27	PASS
11N20SISO	Ant1	Low	5180	-42.32	≤-27	PASS
		High	5240	-50.74	≤-27	PASS
11N40SISO	Ant1	Low	5190	-41.23	≤-27	PASS
		High	5230	-50.69	≤-27	PASS

Test Result B4

TestMode	Antenna	ChName	Freq(MHz)	FreqRange [MHz]	Result [dBm]	Limit [dBm]	Verdict
11A	Ant1	Low	5745	5650~5700	-51.79	≤-26.96	PASS
				5700~5720	-41.55	≤15.37	PASS
				5720~5725	-34.52	≤20.80	PASS
				5760~5650	-51.83	≤-27	PASS
		High	5825	5850~5855	-40.17	≤16.65	PASS
				5855~5875	-48.49	≤11.46	PASS
				5875~5925	-50.69	≤-26.61	PASS
				5925~5935	-49.78	≤-27	PASS
11N20SISO	Ant1	Low	5745	5650~5700	-52.89	≤-26.96	PASS
				5700~5720	-40.86	≤14.89	PASS
				5720~5725	-33.73	≤17.39	PASS
				5760~5650	-51.22	≤-27	PASS
		High	5825	5850~5855	-41	≤17.57	PASS
				5855~5875	-41.35	≤15.24	PASS
				5875~5925	-50.21	≤-26.31	PASS
				5925~5935	-50.48	≤-27	PASS
11N40SISO	Ant1	Low	5755	5650~5700	-51.3	≤-26.60	PASS
				5700~5720	-32.91	≤15.50	PASS
				5720~5725	-33.23	≤15.74	PASS
				5780~5650	-51.57	≤-27	PASS
		High	5795	5850~5855	-51.92	≤15.66	PASS
				5855~5875	-51.17	≤10.11	PASS
				5875~5925	-51.32	≤-26.95	PASS
				5925~5935	-50.42	≤-27	PASS

Test Graphs B1

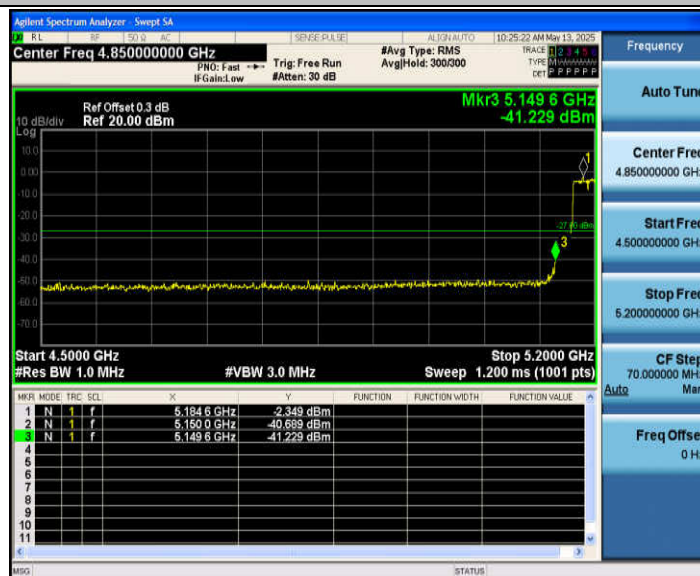




11N20SISO_Ant1_High_5240



11N40SISO_Ant1_Low_5190



11N40SISO_Ant1_High_5230



Test Graphs B4

11A_Ant1_Low_5745



11A_Ant1_High_5825



11N20SISO_Ant1_Low_5745



11N20ISO_Ant1_High_5825



11N40ISO_Ant1_Low_5755

