

Appendix RF Test Data for 5GWIFI

FCC ID : 2A6P9-APID02

Company : Promaster Electronic LLC

EUT : Portable Infotainment Display

Model Number : APID-301

Report No. : CTA25072801104

Reviewed By : Eric Wang

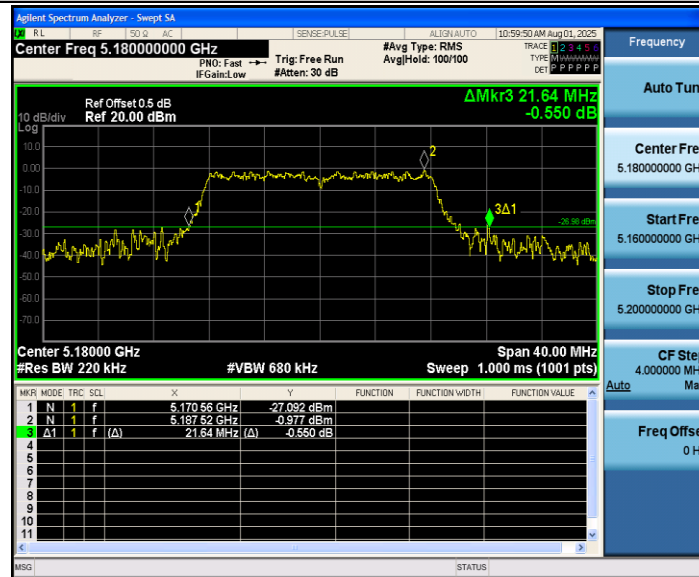
Appendix A1: Emission Bandwidth

Test Result

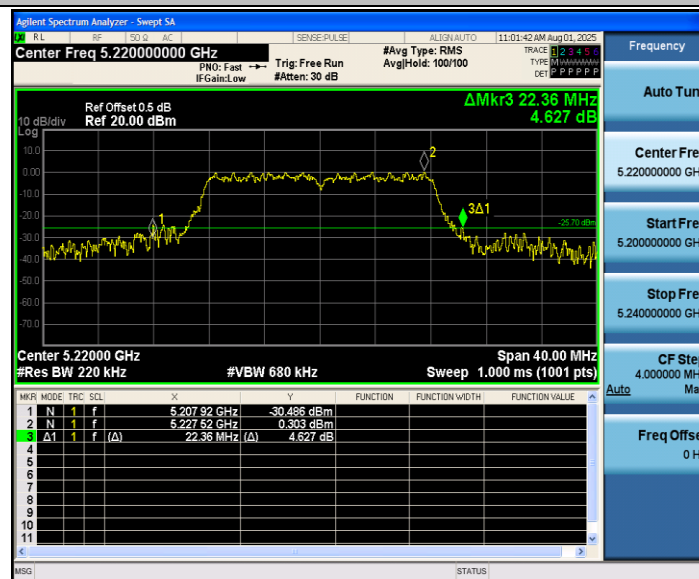
TestMode	Antenna	Freq(MHz)	26db EBW [MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
11A	Ant1	5180	21.640	5170.560	5192.200	---	---
		5220	22.360	5207.920	5230.280	---	---
		5240	21.680	5229.760	5251.440	---	---
		5745	25.080	5734.520	5759.600	---	---
		5785	24.080	5775.280	5799.360	---	---
		5825	22.680	5815.240	5837.920	---	---
11N20SISO	Ant1	5180	25.680	5167.800	5193.480	---	---
		5220	25.000	5207.720	5232.720	---	---
		5240	25.160	5227.040	5252.200	---	---
		5745	24.760	5732.800	5757.560	---	---
		5785	26.880	5772.800	5799.680	---	---
		5825	25.040	5812.720	5837.760	---	---
11N40SISO	Ant1	5190	44.000	5168.720	5212.720	---	---
		5230	49.680	5202.800	5252.480	---	---
		5755	43.040	5733.880	5776.920	---	---
		5795	47.520	5773.720	5821.240	---	---

Test Graphs

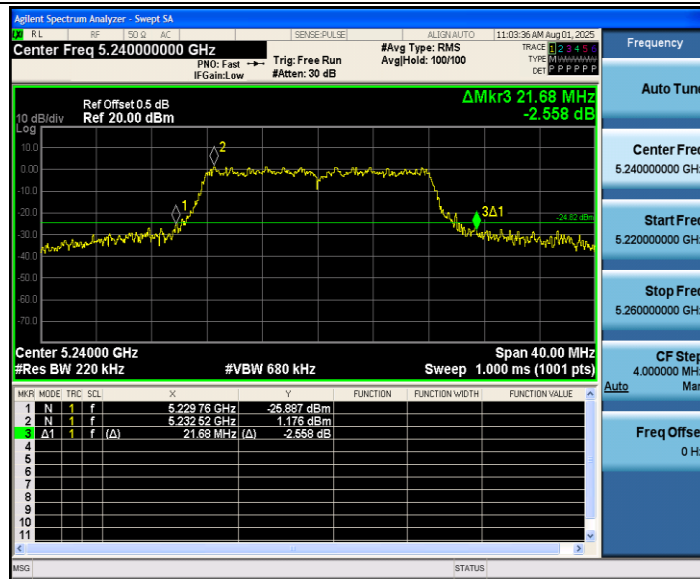
11A_Ant1_5180



11A_Ant1_5220



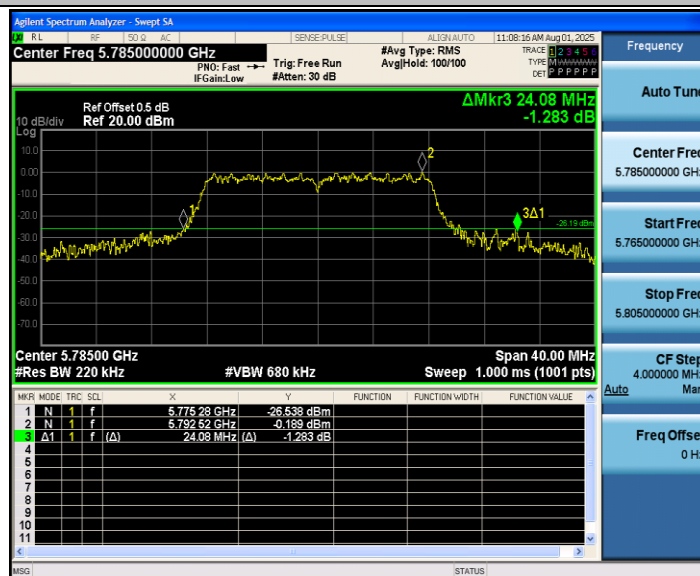
11A_Ant1_5240



11A_Ant1_5745



11A_Ant1_5785



11A_Ant1_5825



11N20SISO_Ant1_5180



11N20SISO_Ant1_5220



11N20SISO_Ant1_5240



11N20SISO_Ant1_5745



11N20SISO_Ant1_5785



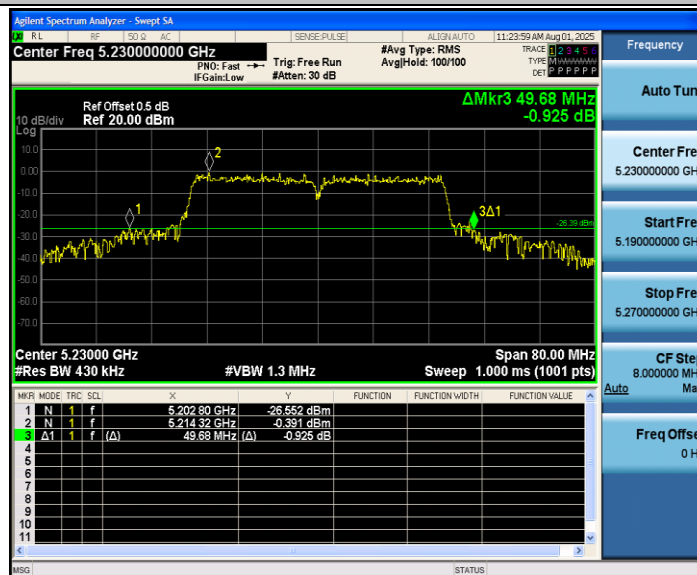
11N20SISO_Ant1_5825



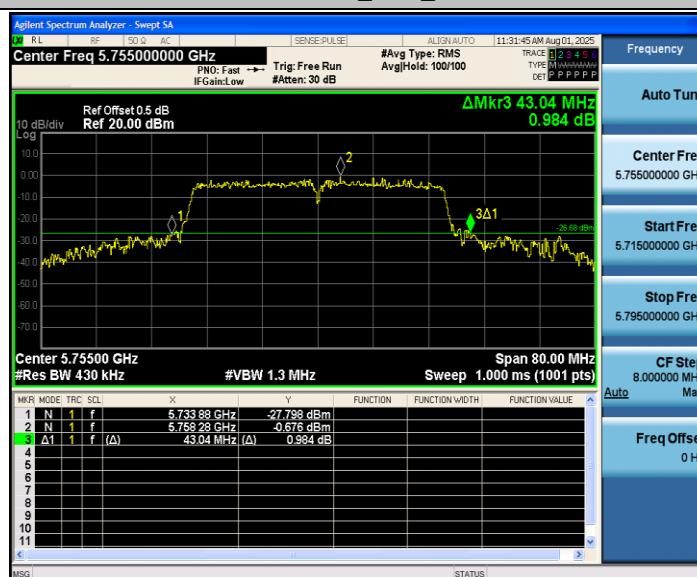
11N40SISO_Ant1_5190



11N40SISO_Ant1_5230



11N40SISO_Ant1_5755



11N40SISO_Ant1_5795



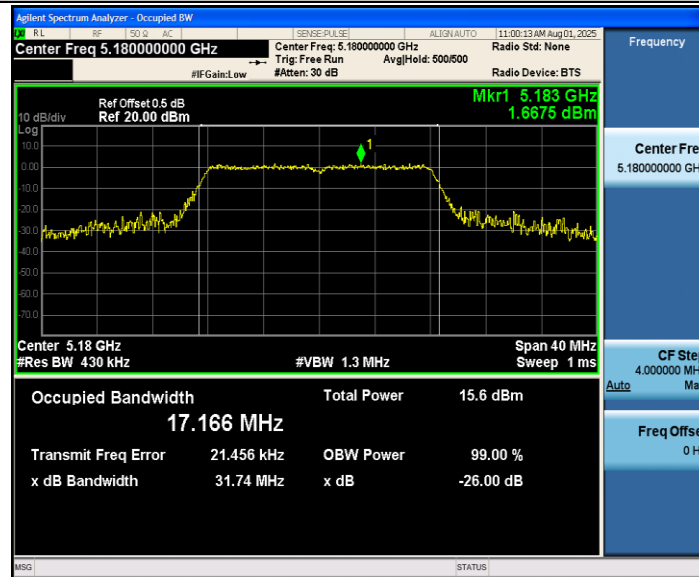
Appendix A2: Occupied channel bandwidth

Test Result

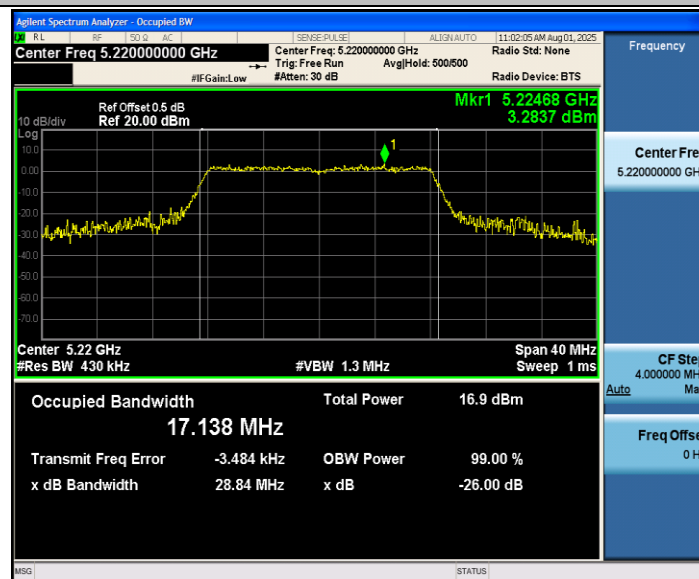
TestMode	Antenna	Freq(MHz)	OCB [MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
11A	Ant1	5180	17.166	5171.4385	5188.6045	---	---
		5220	17.138	5211.4275	5228.5655	---	---
		5240	17.125	5231.4590	5248.5840	---	---
		5745	17.055	5736.4907	5753.5457	---	---
		5785	17.136	5776.4633	5793.5993	---	---
		5825	17.142	5816.4385	5833.5805	---	---
11N20SISO	Ant1	5180	18.190	5170.9645	5189.1545	---	---
		5220	18.218	5210.8924	5229.1104	---	---
		5240	18.196	5230.8778	5249.0738	---	---
		5745	18.117	5736.0008	5754.1178	---	---
		5785	18.113	5776.0173	5794.1303	---	---
		5825	18.091	5815.9690	5834.0600	---	---
11N40SISO	Ant1	5190	36.834	5171.6772	5208.5112	---	---
		5230	36.798	5211.5638	5248.3618	---	---
		5755	36.487	5736.8548	5773.3418	---	---
		5795	36.522	5776.8866	5813.4086	---	---

Test Graphs

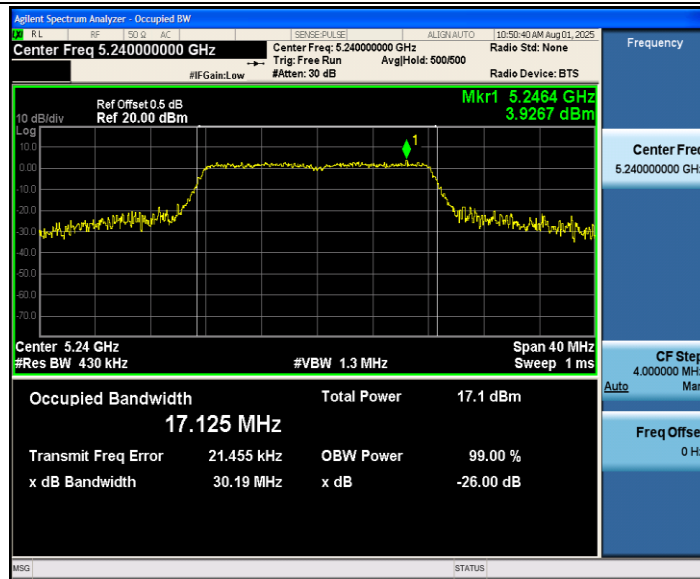
11A_Ant1_5180



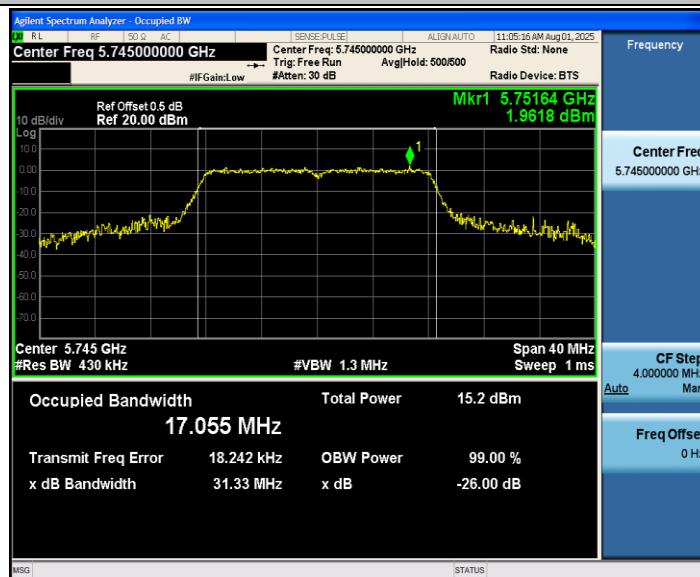
11A_Ant1_5220



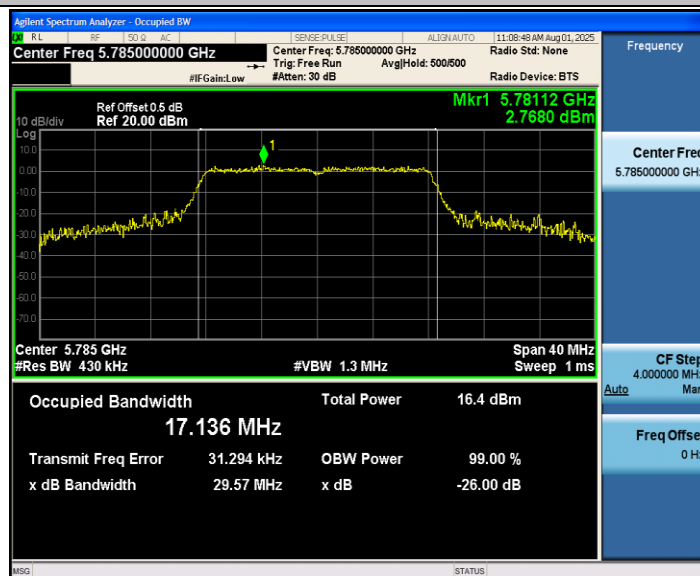
11A_Ant1_5240



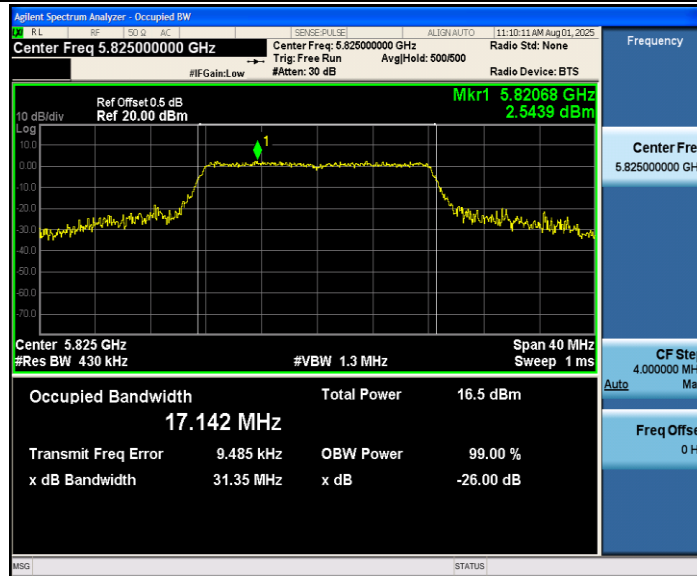
11A_Ant1_5745



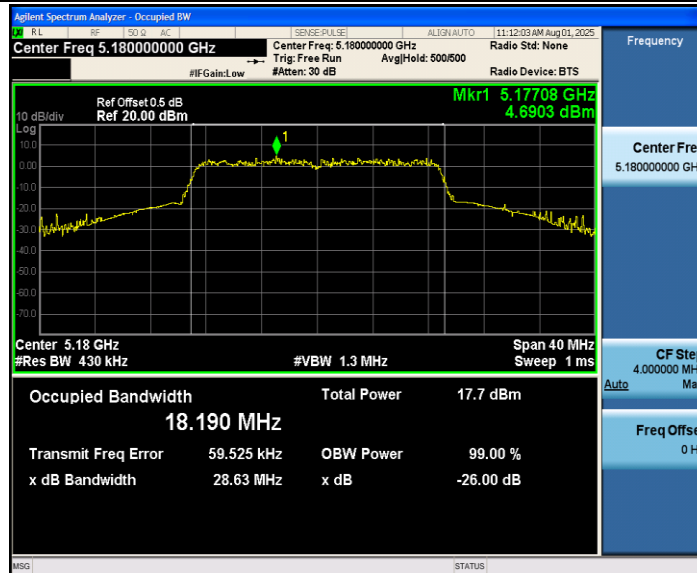
11A_Ant1_5785



11A_Ant1_5825



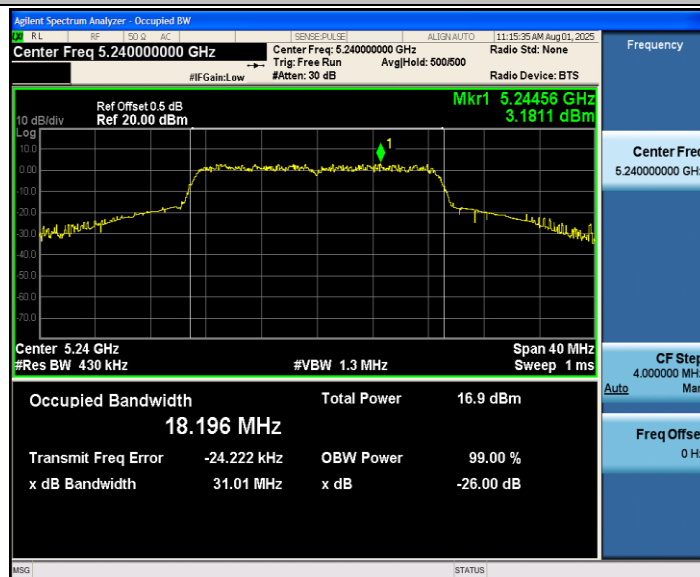
11N20SISO_Ant1_5180



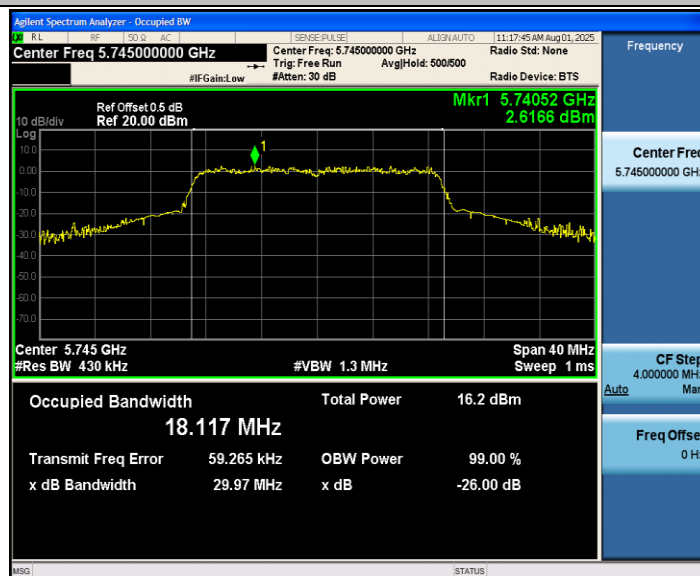
11N20SISO_Ant1_5220



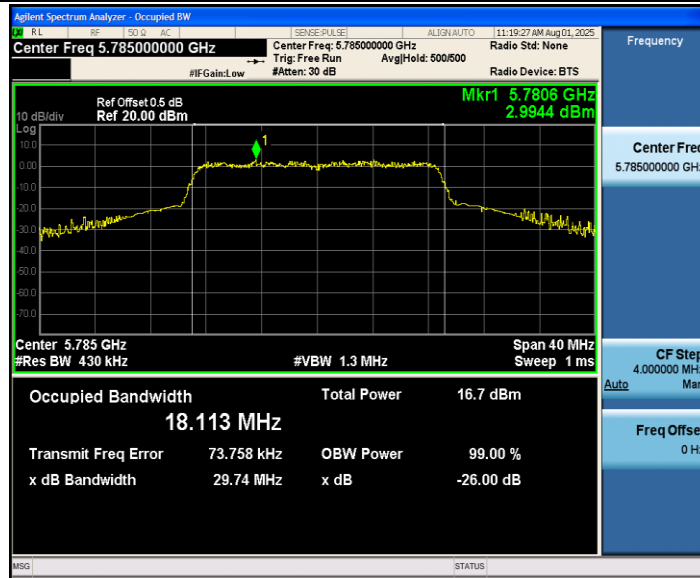
11N20SISO_Ant1_5240



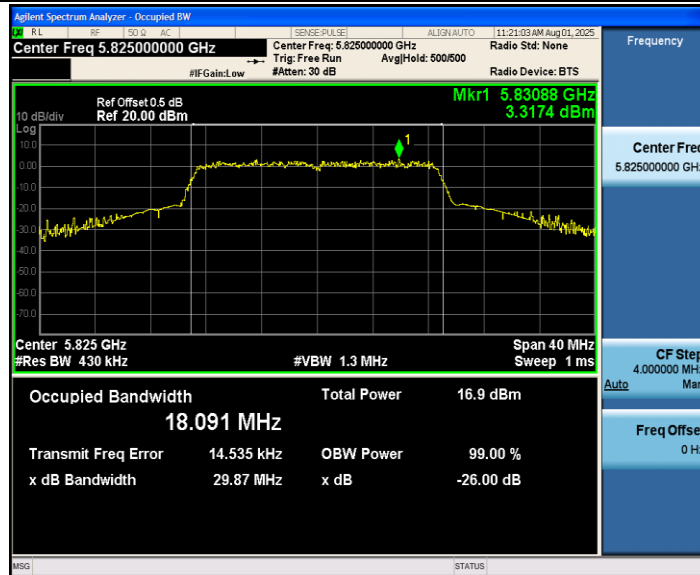
11N20SISO_Ant1_5745



11N20SISO_Ant1_5785



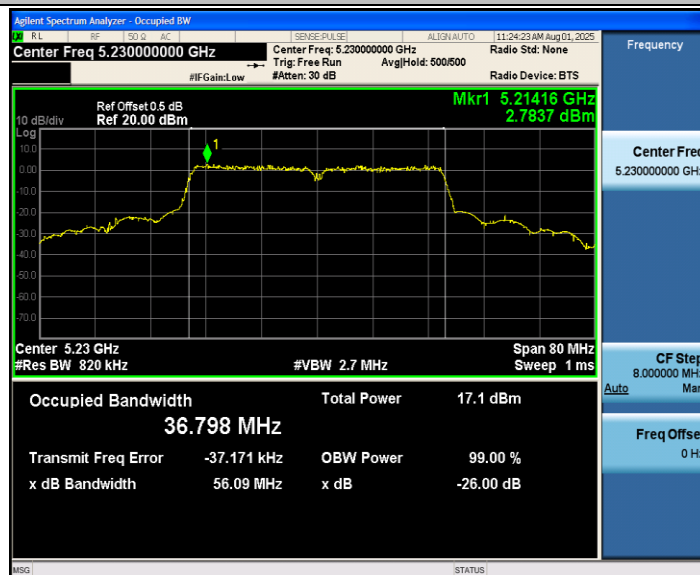
11N20SISO_Ant1_5825



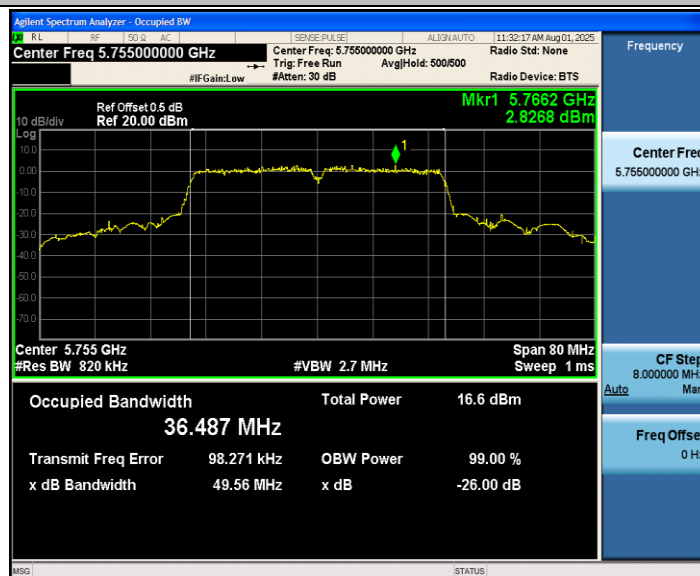
11N40SISO_Ant1_5190



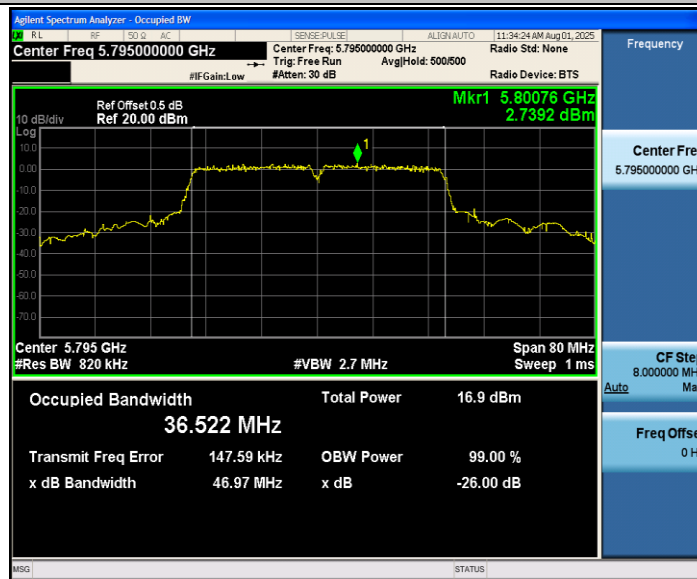
11N40SISO_Ant1_5230



11N40SISO_Ant1_5755



11N40SISO_Ant1_5795

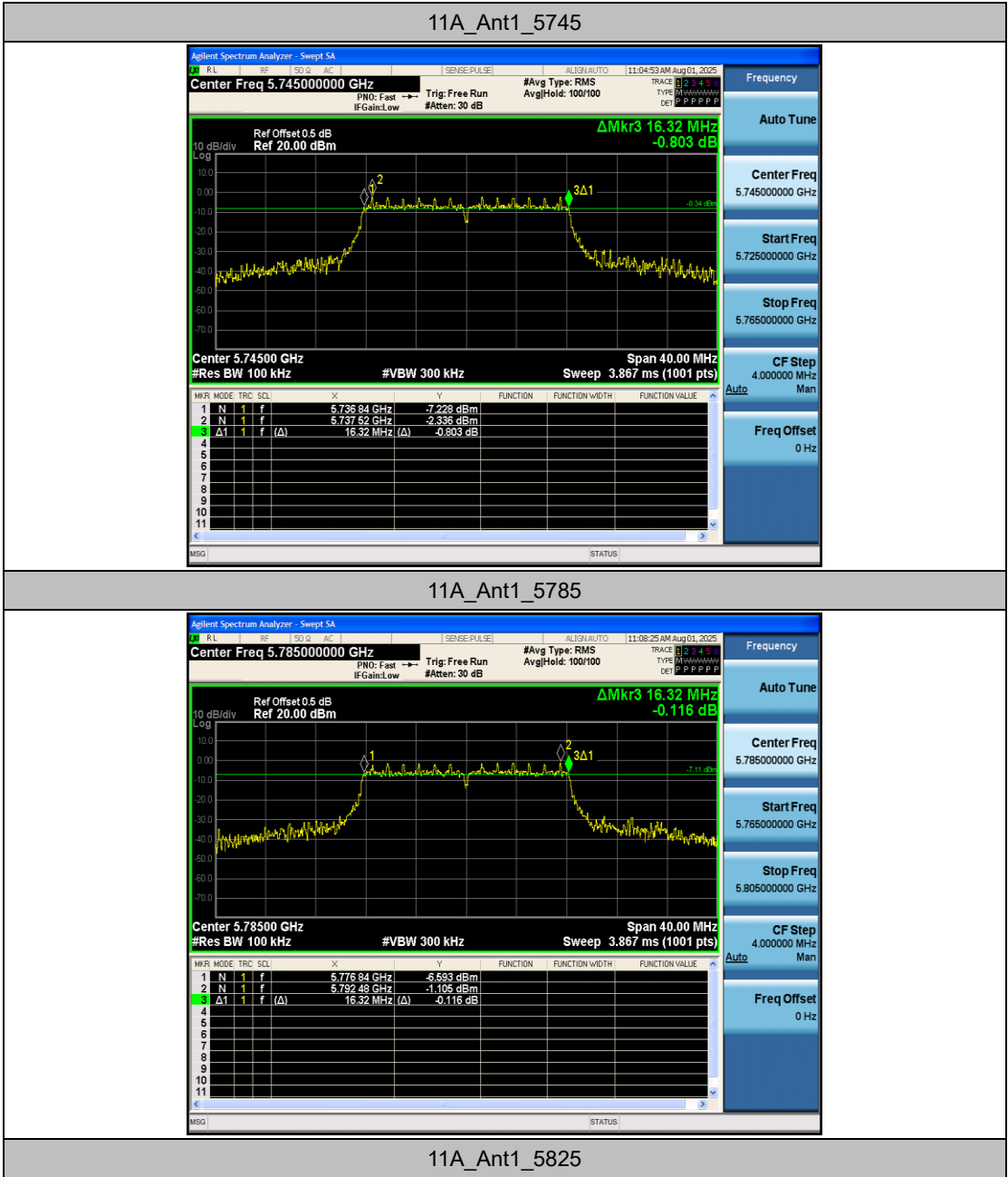


Appendix A3: Min emission bandwidth

Test Result B4

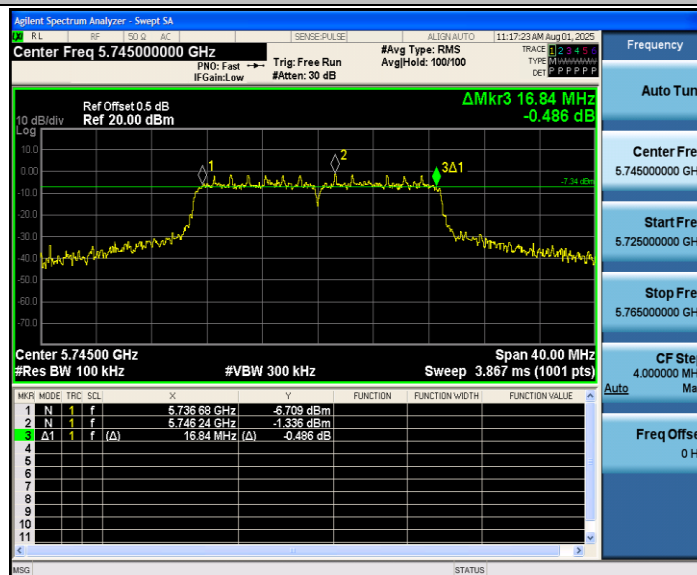
TestMode	Antenna	Freq(MHz)	6db EBW [MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
11A	Ant1	5745	16.320	5736.840	5753.160	0.5	PASS
		5785	16.320	5776.840	5793.160	0.5	PASS
		5825	16.320	5816.840	5833.160	0.5	PASS
11N20SISO	Ant1	5745	16.840	5736.680	5753.520	0.5	PASS
		5785	16.280	5776.640	5792.920	0.5	PASS
		5825	16.960	5816.360	5833.320	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

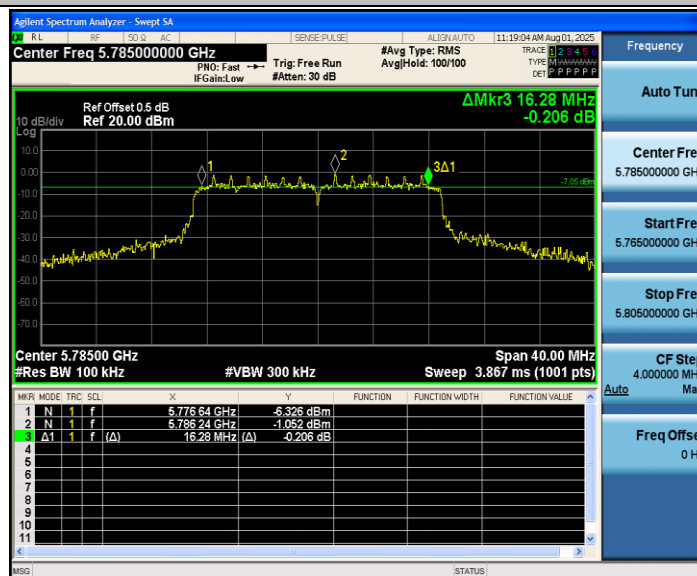




11N20SISO_Ant1_5745



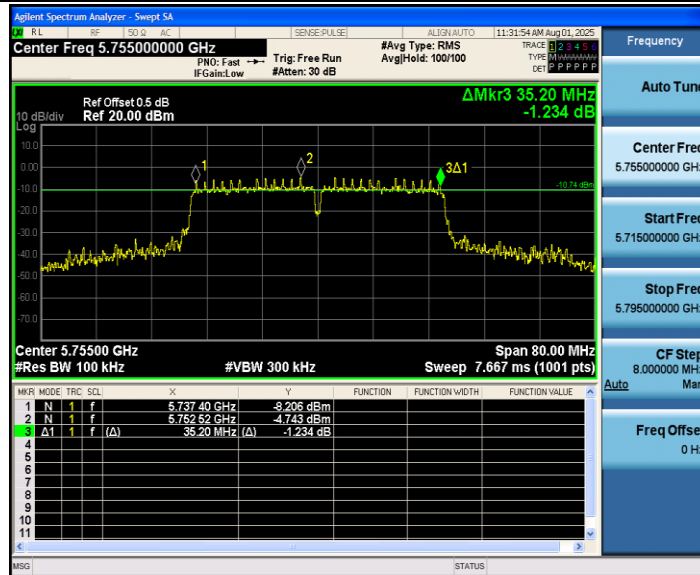
11N20SISO_Ant1_5785



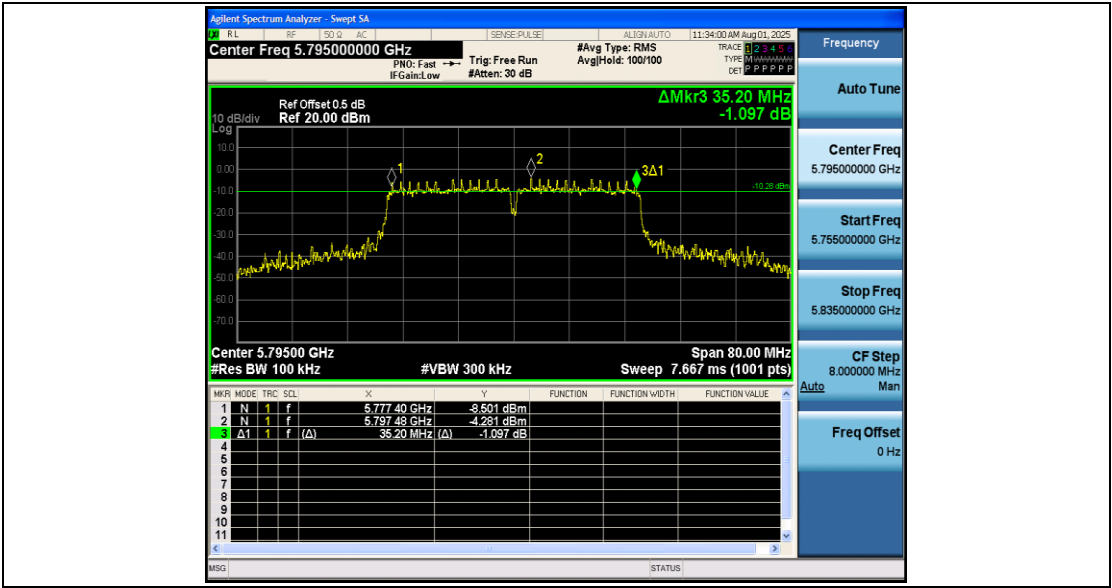
11N20SISO_Ant1_5825



11N40SISO_Ant1_5755



11N40SISO_Ant1_5795

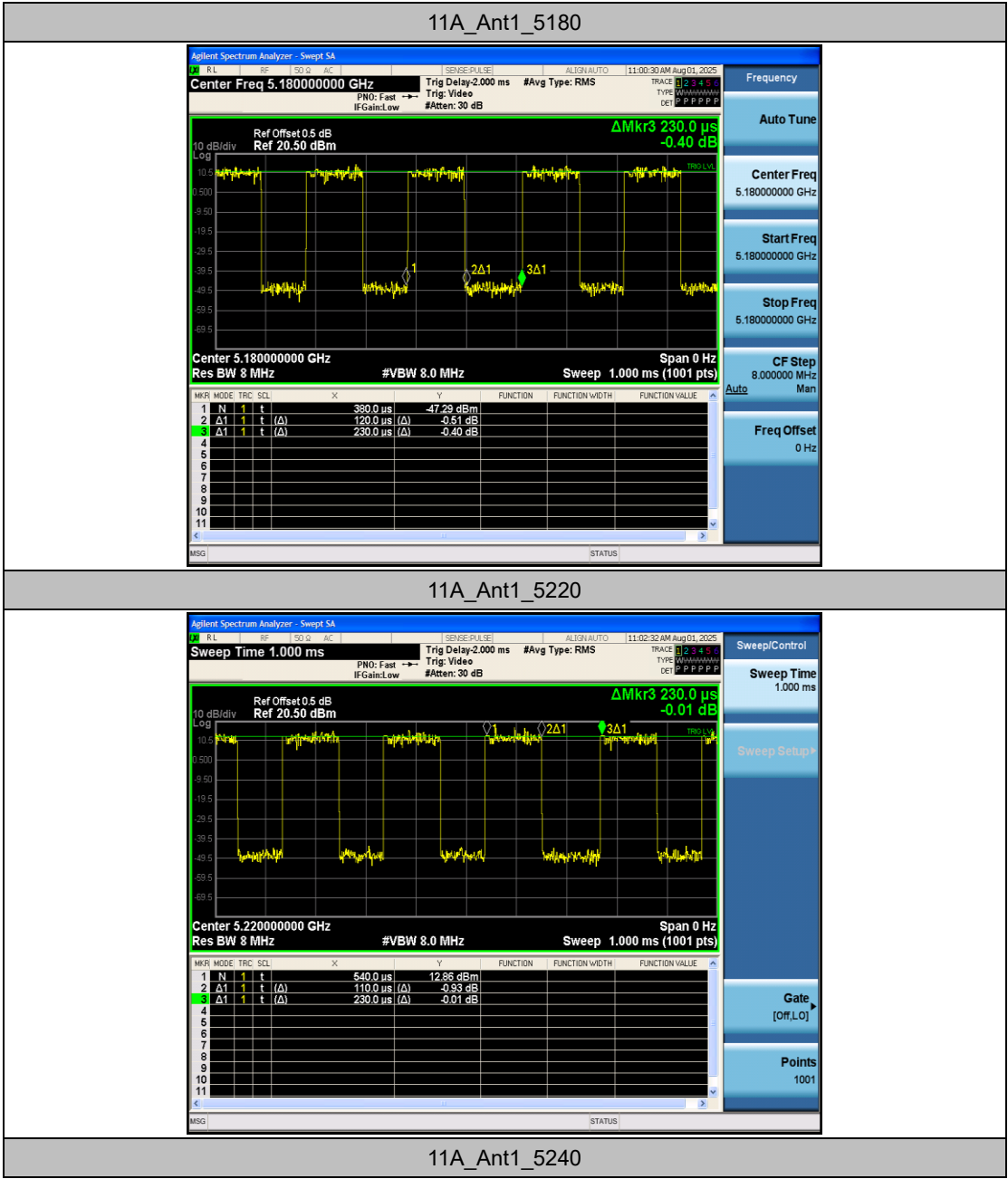


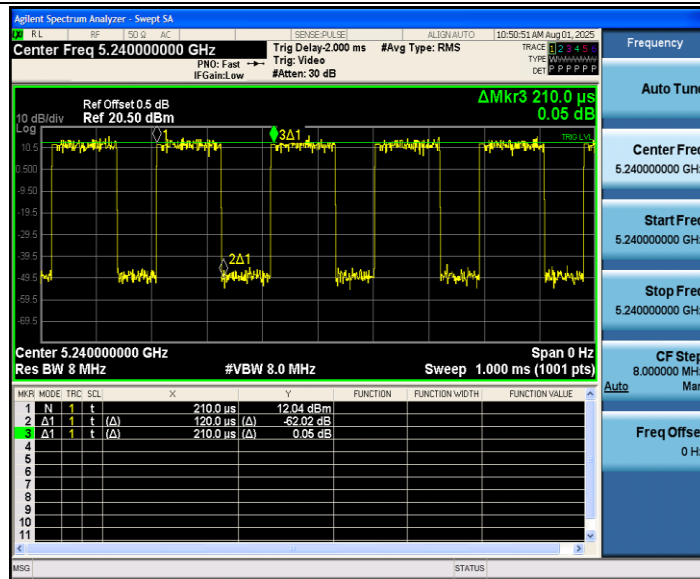
Appendix B: Duty Cycle

Test Result

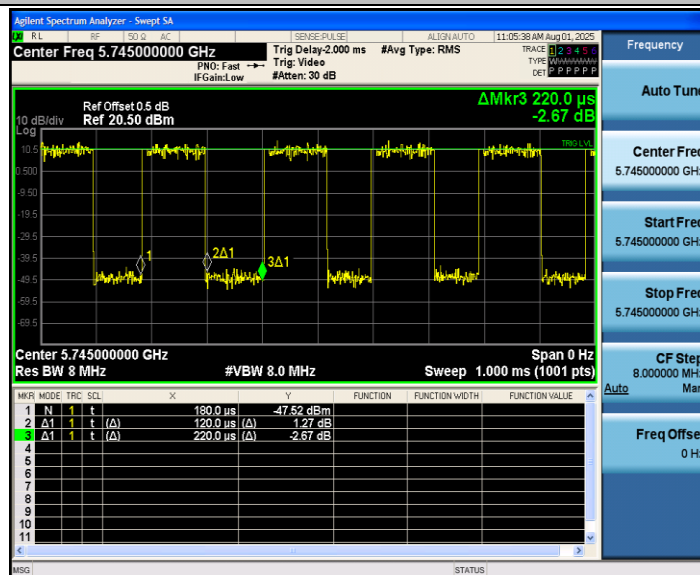
TestMode	Antenna	Freq(MHz)	Transmission Duration [ms]	Transmission Period [ms]	Duty Cycle [%]	Duty factor(dB)	Limit	Verdict
11A	Ant1	5180	0.12	0.23	52.17	2.83	---	---
		5220	0.11	0.23	47.83	3.20	---	---
		5240	0.12	0.21	57.14	2.43	---	---
		5745	0.12	0.22	54.55	2.63	---	---
		5785	0.11	0.22	50.00	3.01	---	---
		5825	0.11	0.23	47.83	3.20	---	---
11N20SISO	Ant1	5180	0.11	0.20	55.00	2.60	---	---
		5220	0.11	0.32	34.38	4.64	---	---
		5240	0.11	0.22	50.00	3.01	---	---
		5745	0.12	0.22	54.55	2.63	---	---
		5785	0.11	0.24	45.83	3.39	---	---
		5825	0.11	0.22	50.00	3.01	---	---
11N40SISO	Ant1	5190	0.07	0.21	33.33	4.77	---	---
		5230	0.07	0.22	31.82	4.97	---	---
		5755	0.07	0.23	30.43	5.17	---	---
		5795	0.07	0.22	31.82	4.97	---	---

Test Graphs

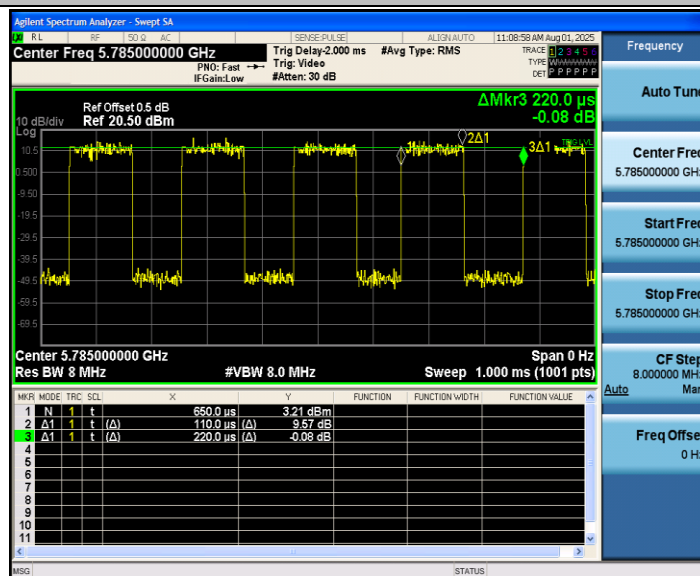




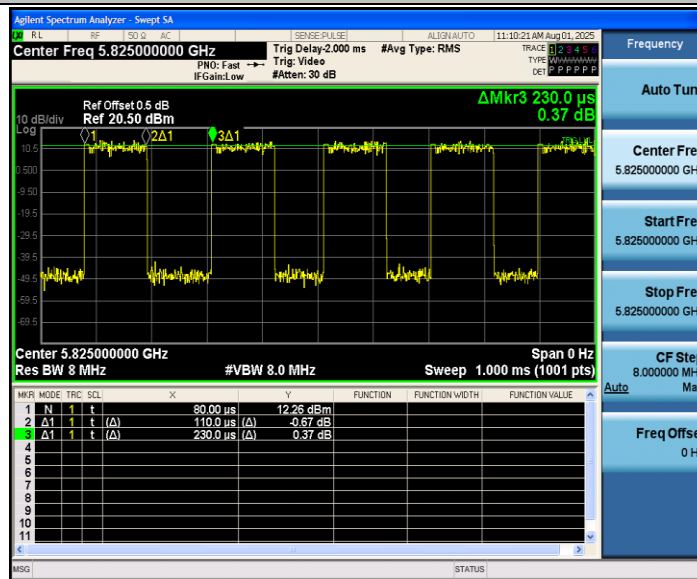
11A_Ant1_5745



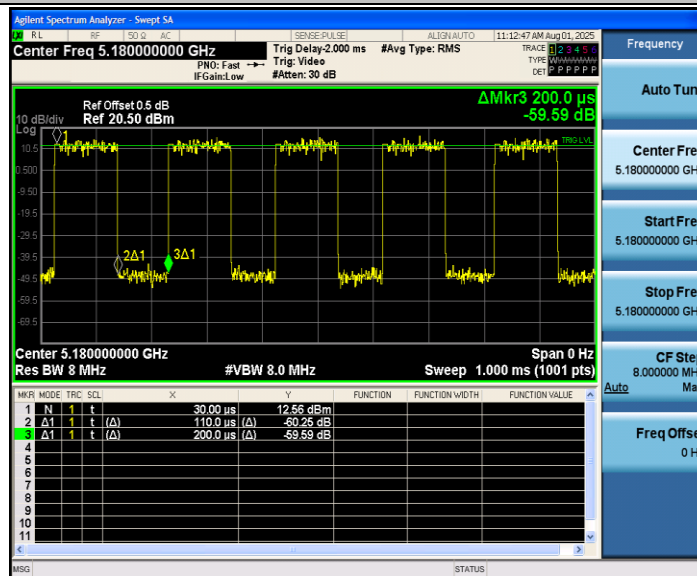
11A_Ant1_5785



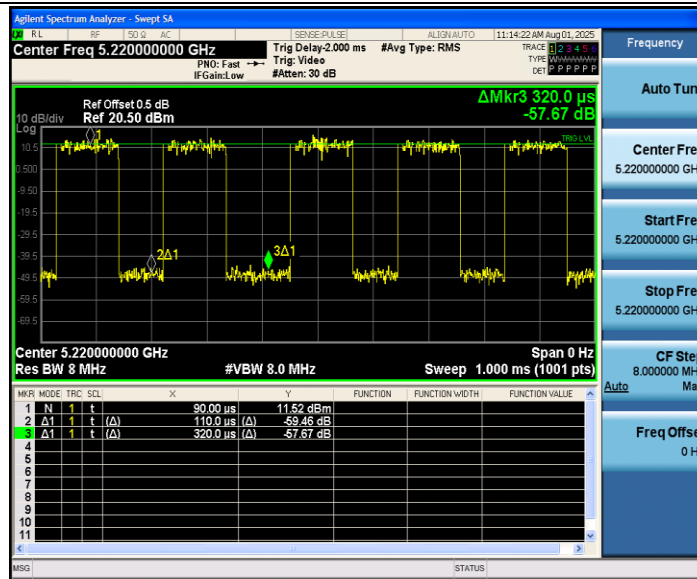
11A_Ant1_5825



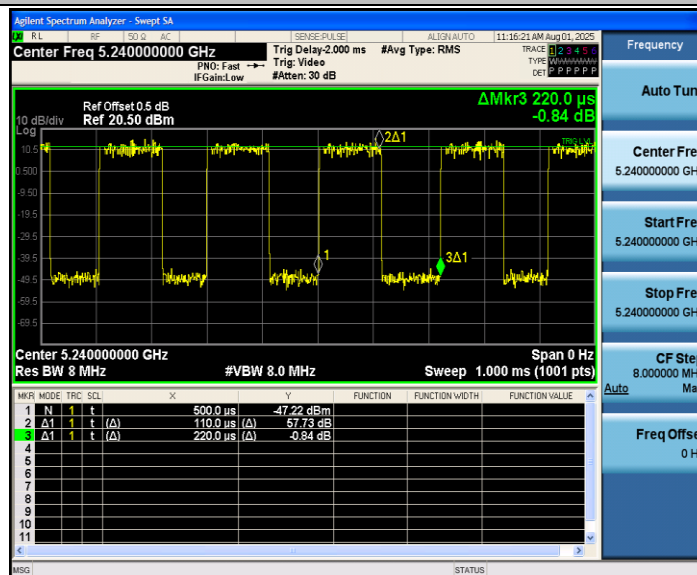
11N20SISO_Ant1_5180



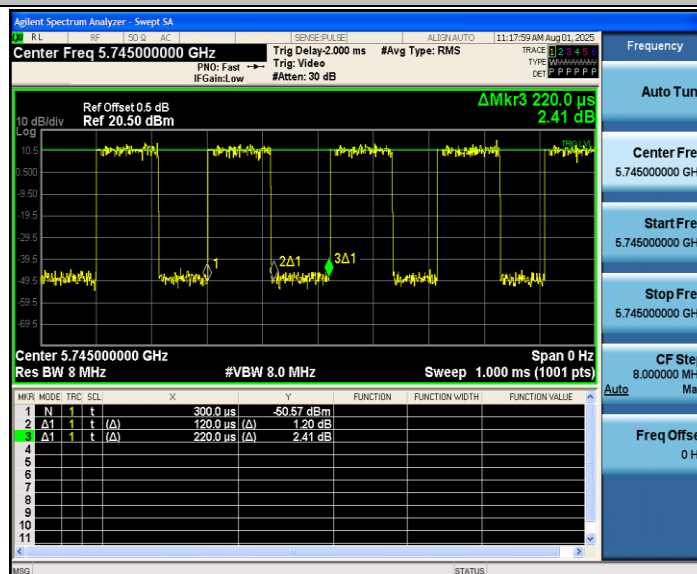
11N20SISO_Ant1_5220



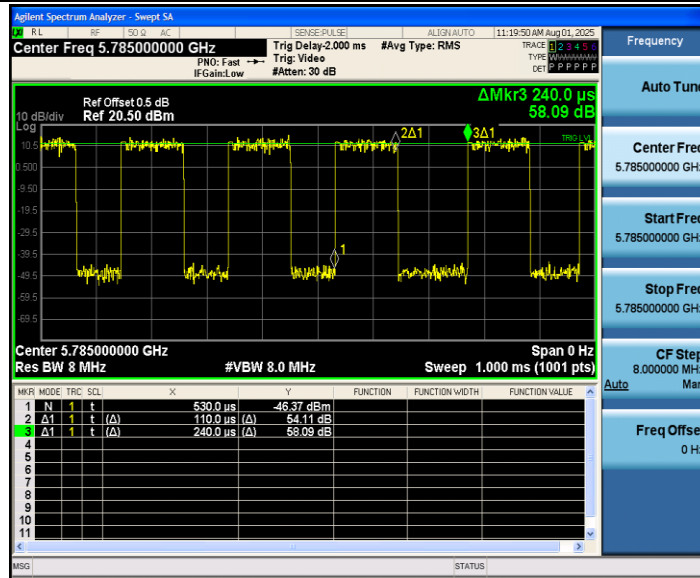
11N20SISO_Ant1_5240



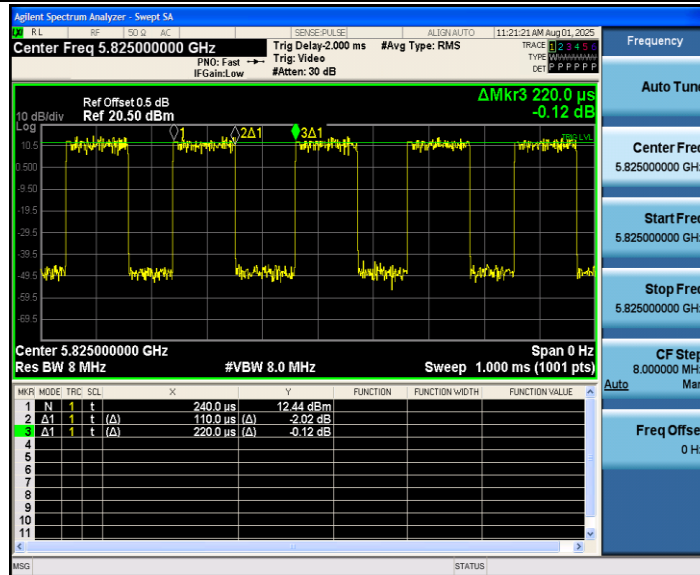
11N20SISO_Ant1_5745



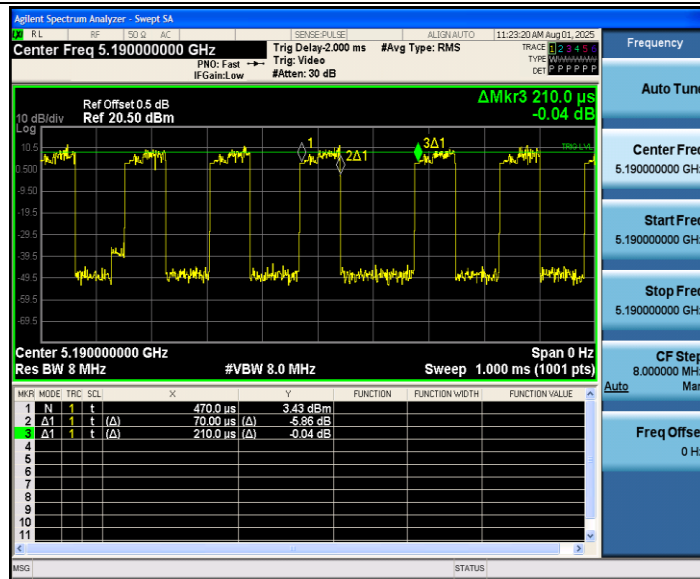
11N20SISO_Ant1_5785



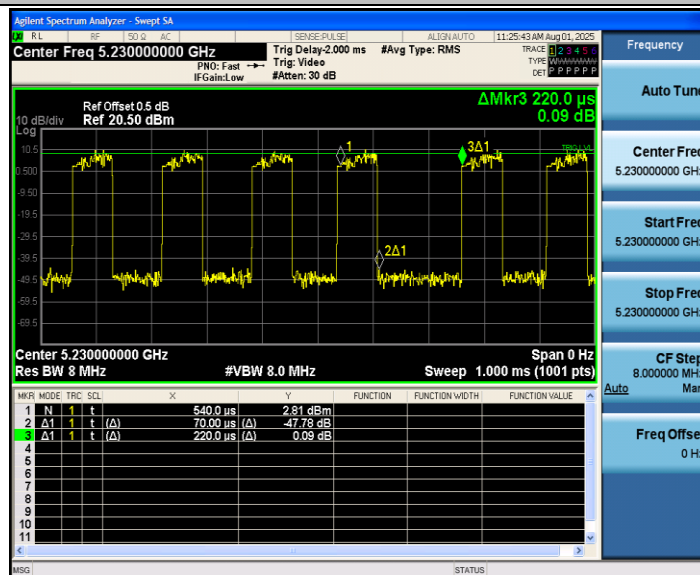
11N20SISO_Ant1_5825



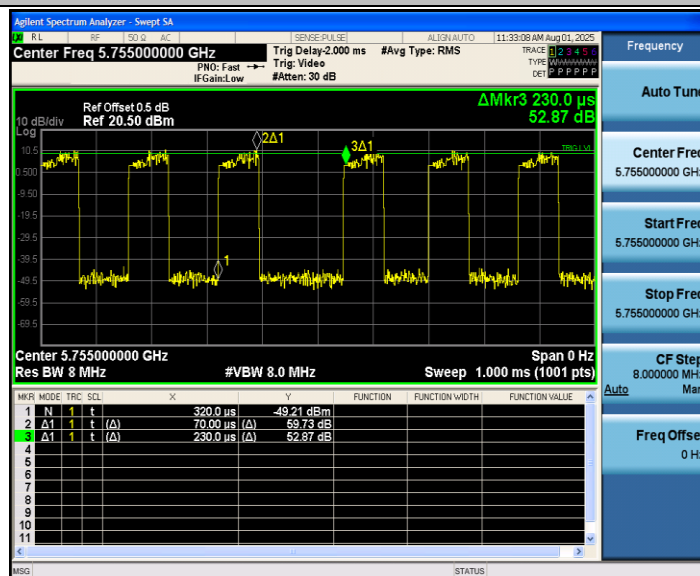
11N40SISO_Ant1_5190



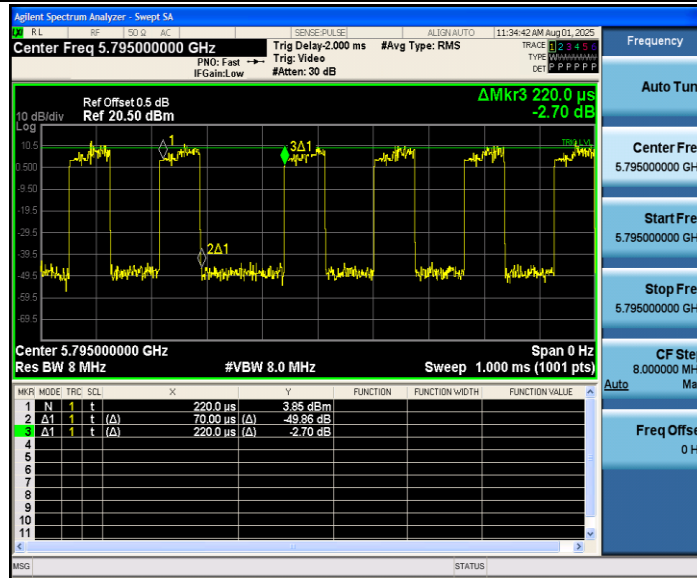
11N40SISO_Ant1_5230



11N40SISO_Ant1_5755



11N40SISO_Ant1_5795



Appendix C: Maximum conducted output power

Test Mode	Antenna	Freq(MHz)	Channel Power [dBm]	DC Factor [dBm]	Result [dBm]	Limit [dBm]	Verdict
11A	Ant1	5180	8.06	2.83	10.89	≤23.98	PASS
		5220	5.56	3.20	8.76	≤23.98	PASS
		5240	8.50	2.43	10.93	≤23.98	PASS
		5745	6.80	2.63	9.43	≤30.00	PASS
		5785	7.21	3.01	10.22	≤30.00	PASS
		5825	7.30	3.20	10.50	≤30.00	PASS
11N20SISO	Ant1	5180	8.07	2.60	10.67	≤23.98	PASS
		5220	7.68	4.64	12.32	≤23.98	PASS
		5240	7.28	3.01	10.29	≤23.98	PASS
		5745	6.79	2.63	9.42	≤30.00	PASS
		5785	7.10	3.39	10.49	≤30.00	PASS
		5825	7.25	3.01	10.26	≤30.00	PASS
11N40SISO	Ant1	5190	6.18	4.77	10.95	≤23.98	PASS
		5230	5.66	4.97	10.63	≤23.98	PASS
		5755	5.31	5.17	10.48	≤30.00	PASS
		5795	5.61	4.97	10.58	≤30.00	PASS

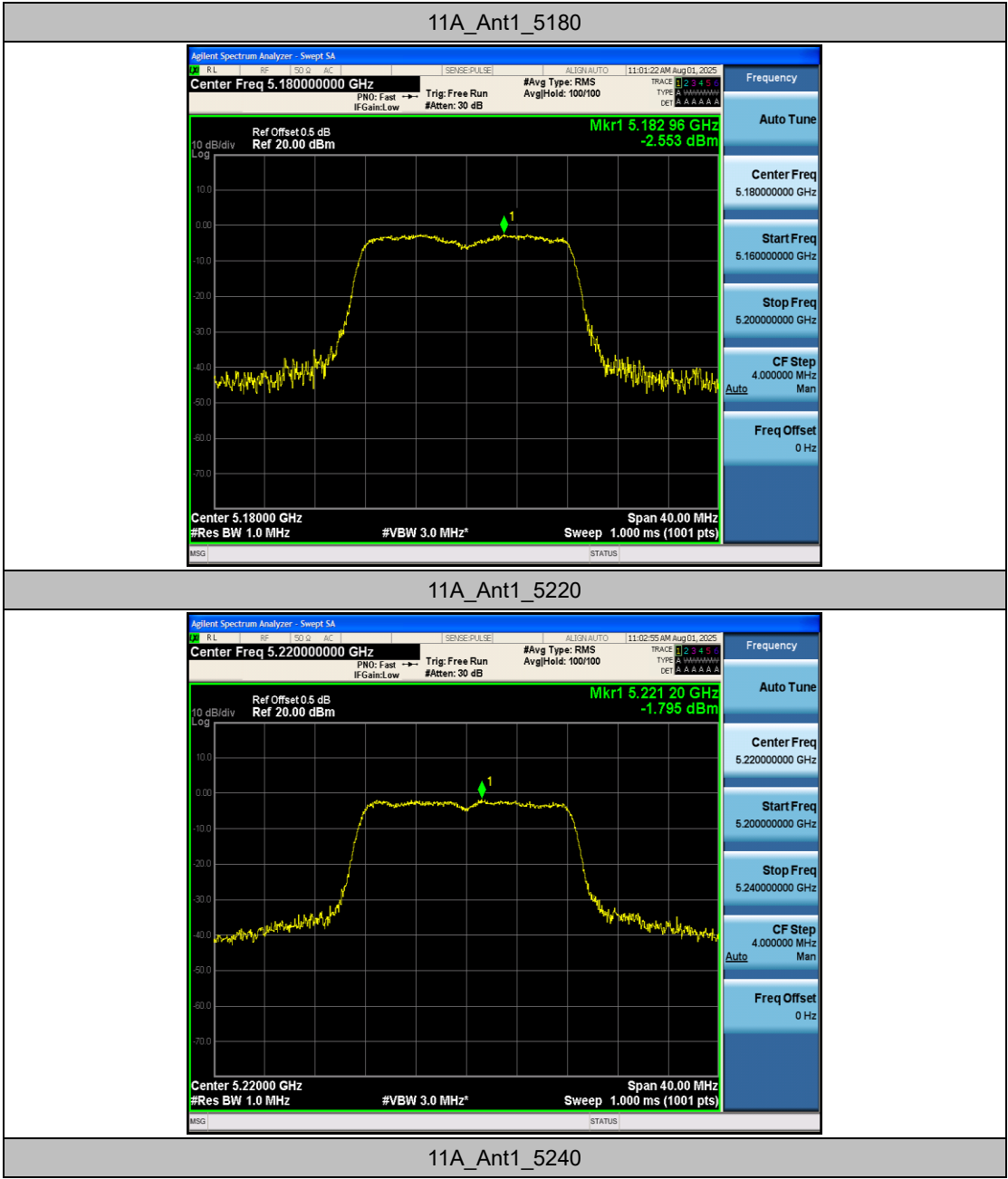
Appendix D: Maximum power spectral density

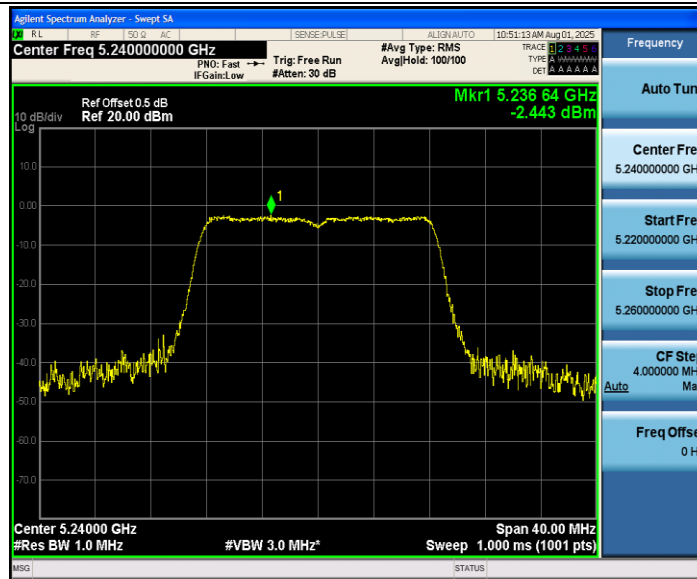
Test Result

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	-2.553	/	2.83	0.28	≤11.00	PASS
		5220	-1.795	/	3.20	1.40	≤11.00	PASS
		5240	-2.443	/	2.43	-0.01	≤11.00	PASS
		5745	-7.956	2.22	2.63	-3.11	≤30.00	PASS
		5785	-7.767	2.22	3.01	-2.54	≤30.00	PASS
		5825	-8.287	2.22	3.20	-2.87	≤30.00	PASS
11N20SISO	Ant1	5180	-2.784	/	2.60	-0.18	≤11.00	PASS
		5220	-3.217	/	4.64	1.42	≤11.00	PASS
		5240	-2.826	/	3.01	0.18	≤11.00	PASS
		5745	-8.313	2.22	2.63	-3.46	≤30.00	PASS
		5785	-7.552	2.22	3.39	-1.94	≤30.00	PASS
		5825	-7.356	2.22	3.01	-2.13	≤30.00	PASS
11N40SISO	Ant1	5190	-7.413	/	4.77	-2.64	≤11.00	PASS
		5230	-7.820	/	4.97	-2.85	≤11.00	PASS
		5755	-11.569	2.22	5.17	-4.18	≤30.00	PASS
		5795	-11.207	2.22	4.97	-4.02	≤30.00	PASS

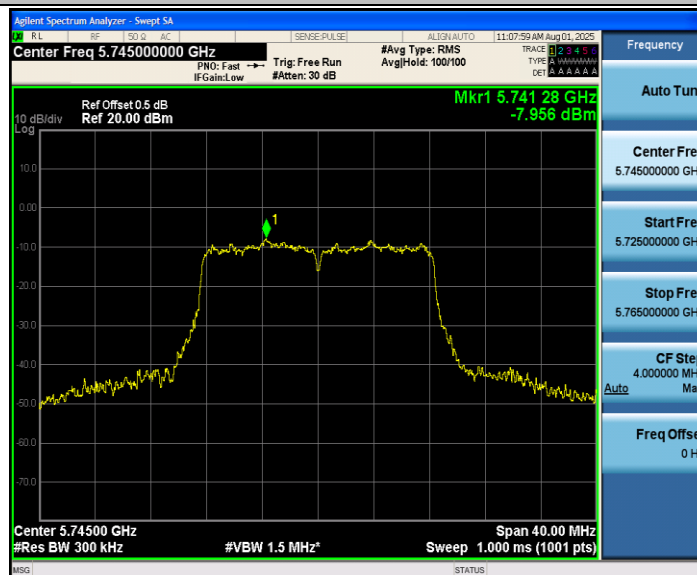
Note: 1.The Result and Limit Unit is dBm/500 kHz in the band 5.725–5.85 GHz.
P.S.D(dBm/500KHz)= P.S.D(dBm/300KHz)+10 log (500 kHz/300KHz)+Duty cycle.
2. RBW factor= 10 log (500 KHz /300 KHz) = 2.22 dB

Test Graphs





11A_Ant1_5745



11A_Ant1_5785

