



Appendix D

RF Test Data for 5.2G WIFI (Conducted Measurement)

Product Name: Mini Projector

Test Model: D3-H700

Environmental Conditions

Temperature:	23.7℃
Relative Humidity:	52.3%
ATM Pressure:	100.0 kPa
Test Engineer:	Monkey Li
Supervised by:	Li Huan



D.1 Emission Bandwidth

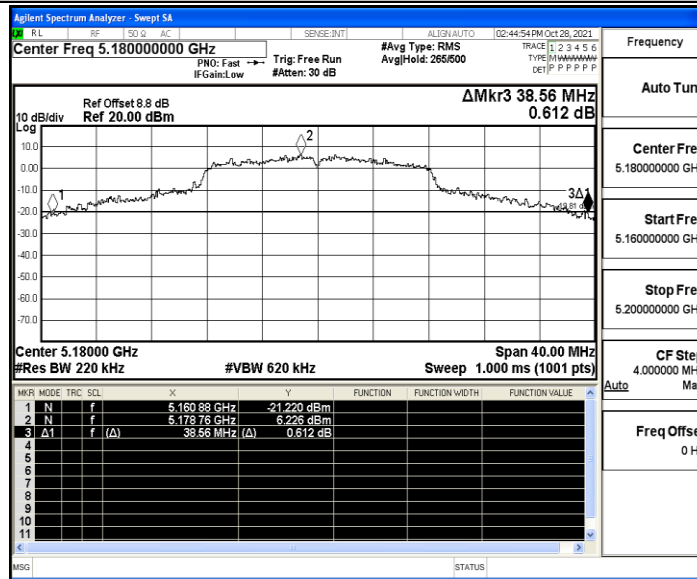
Test Result

TestMode	Antenna	Channel	26db EBW [MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
11A	Ant1	5180	38.560	5160.880	5199.440	---	PASS
		5200	32.240	5184.080	5216.320	---	PASS
		5240	30.200	5224.920	5255.120	---	PASS
11N20SISO	Ant1	5180	31.640	5164.360	5196.000	---	PASS
		5200	31.680	5184.320	5216.000	---	PASS
		5240	30.280	5224.760	5255.040	---	PASS
11N40SISO	Ant1	5190	64.160	5156.400	5220.560	---	PASS
		5230	62.240	5197.680	5259.920	---	PASS
11AC20SISO	Ant1	5180	32.120	5162.880	5195.000	---	PASS
		5200	30.640	5184.280	5214.920	---	PASS
		5240	30.800	5224.640	5255.440	---	PASS
11AC40SISO	Ant1	5190	66.960	5154.480	5221.440	---	PASS
		5230	65.760	5194.720	5260.480	---	PASS
11AC80SISO	Ant1	5210	150.560	5130.480	5281.040	---	PASS

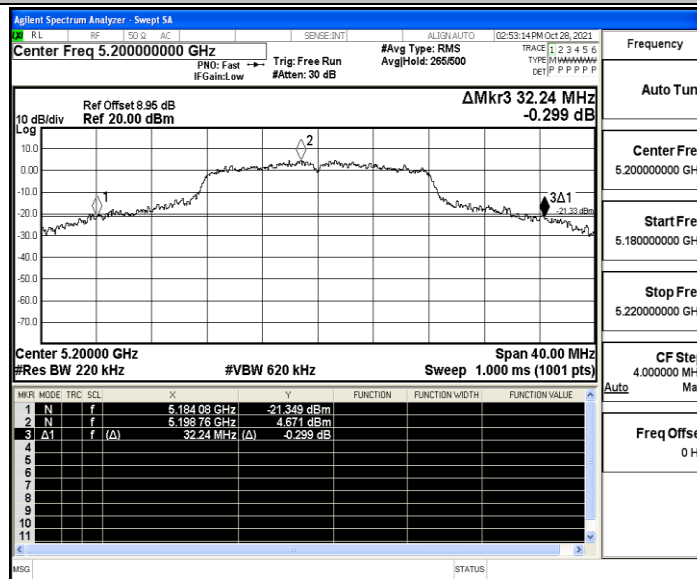


Test Graphs

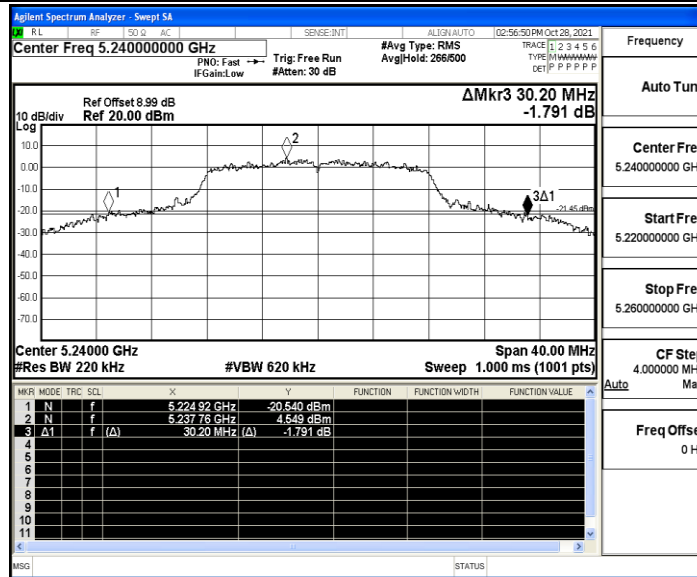
11A_Ant1_5180



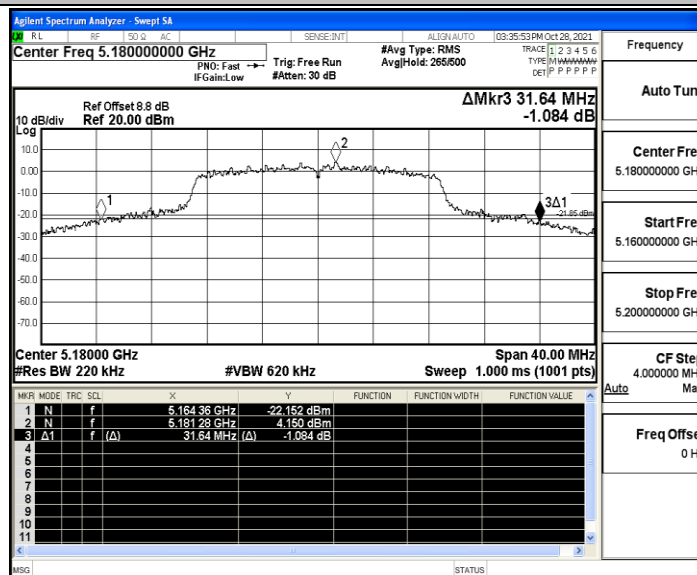
11A_Ant1_5200



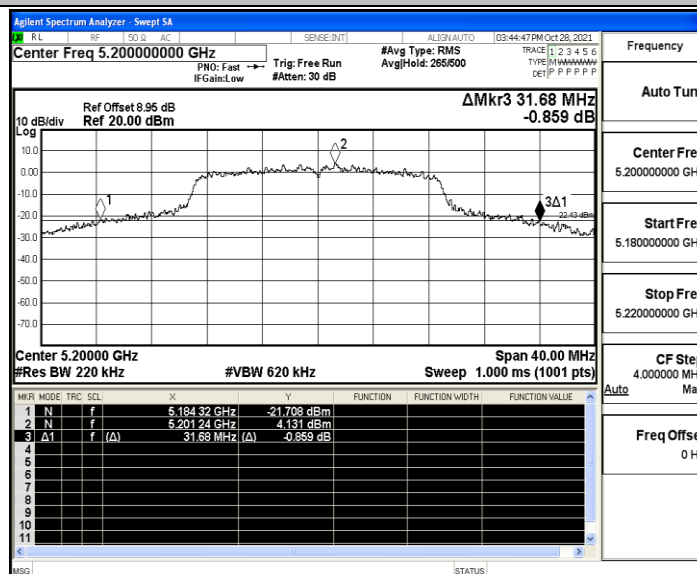
11A_Ant1_5240



11N20SISO_Ant1_5180

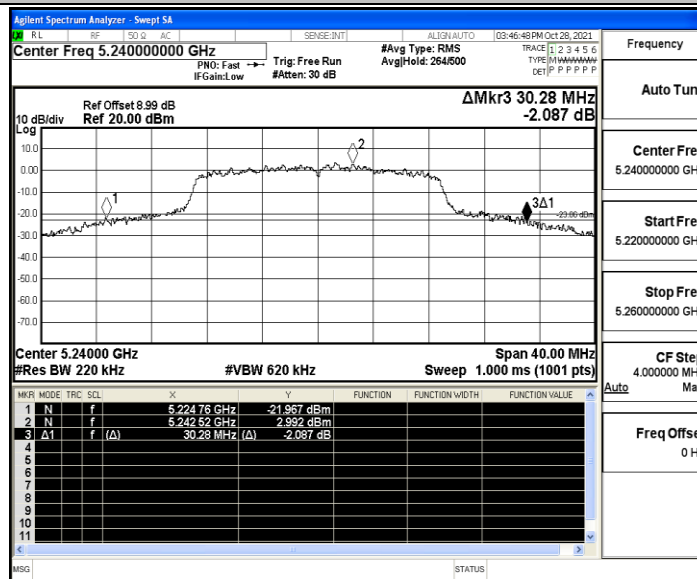


11N20SISO_Ant1_5200

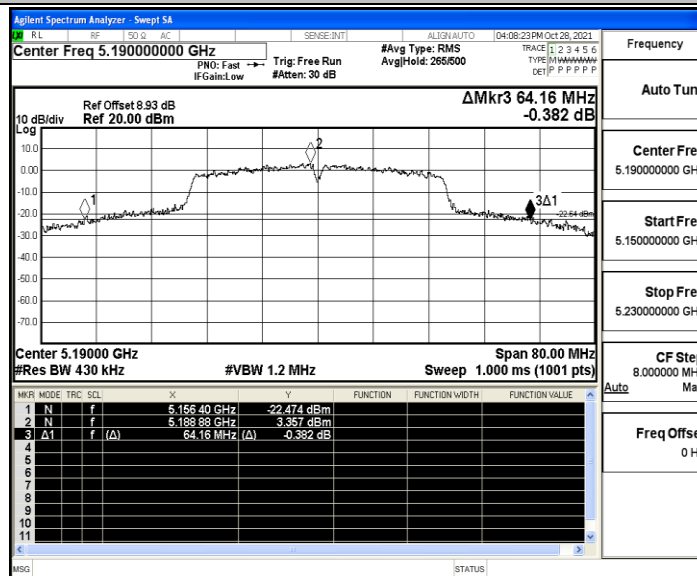




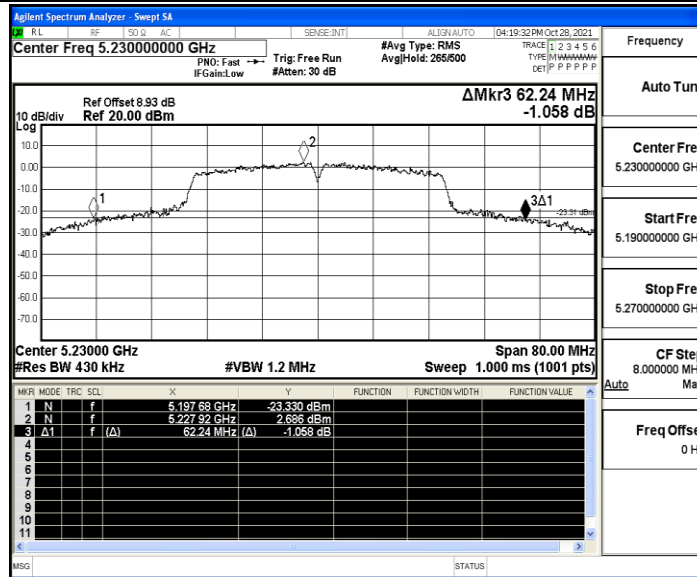
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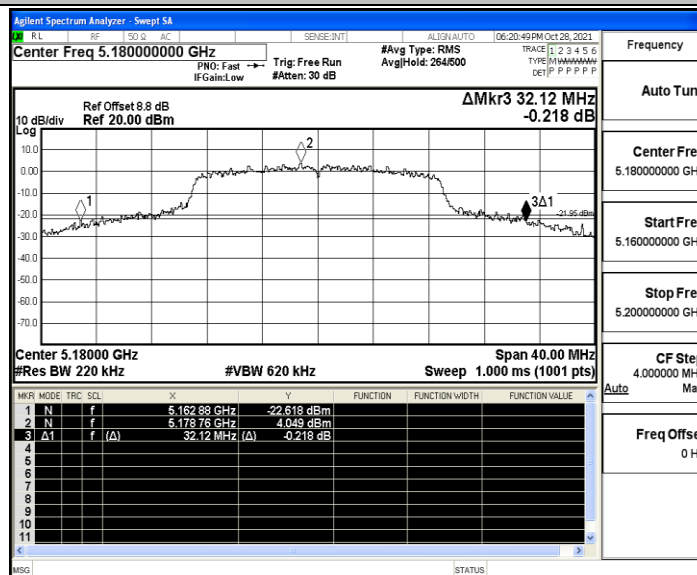
11N40SISO_Ant1_5190



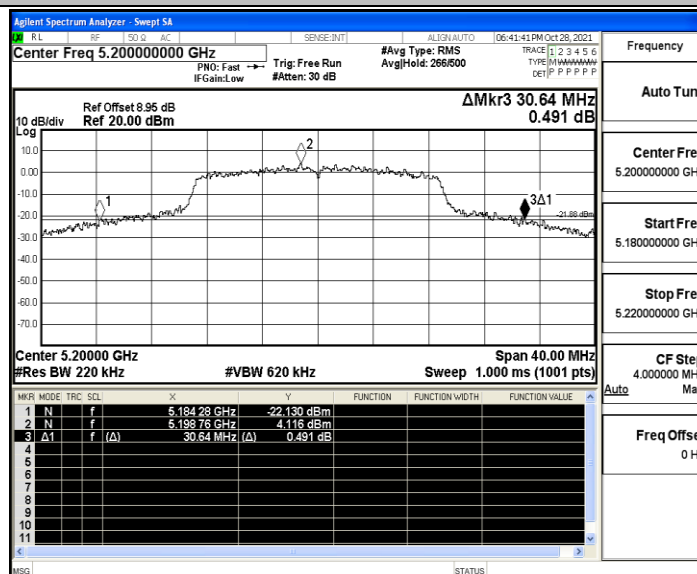
11N40SISO_Ant1_5230



11AC20SISO_Ant1_5180

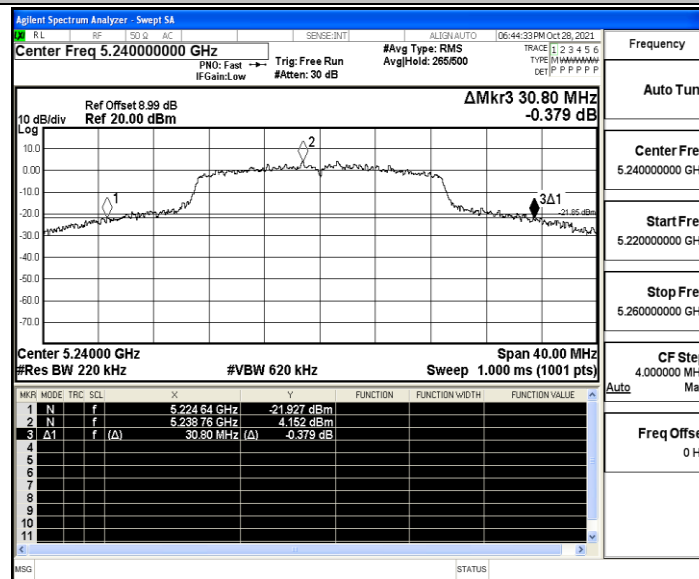


11AC20SISO_Ant1_5200

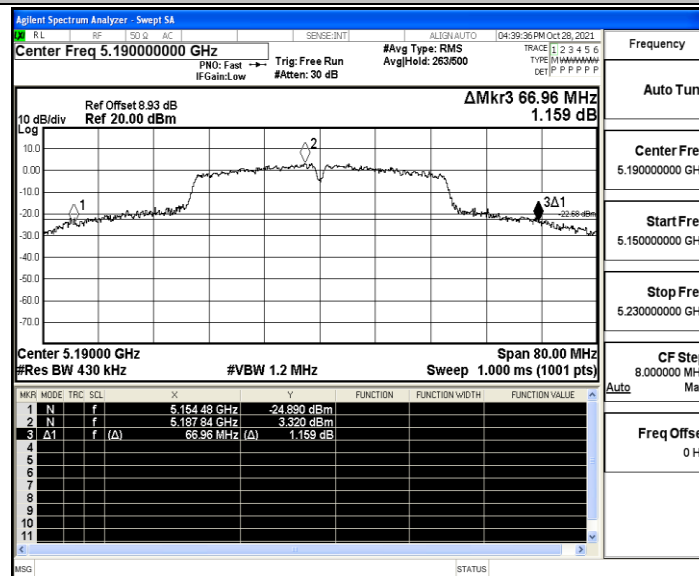




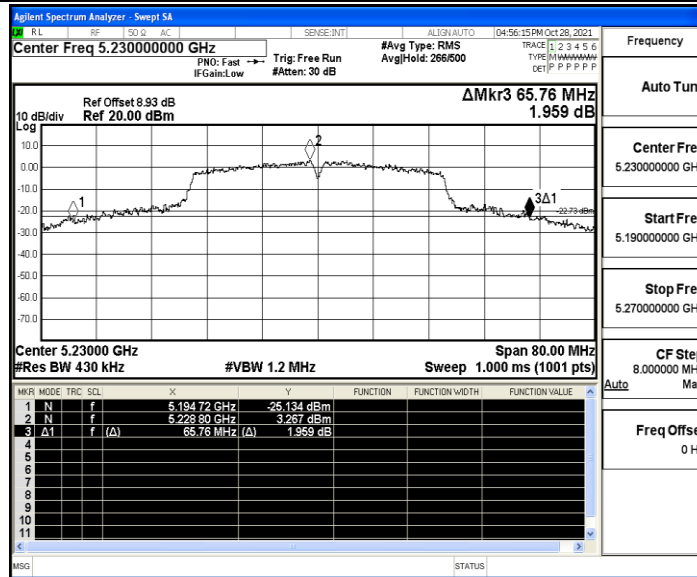
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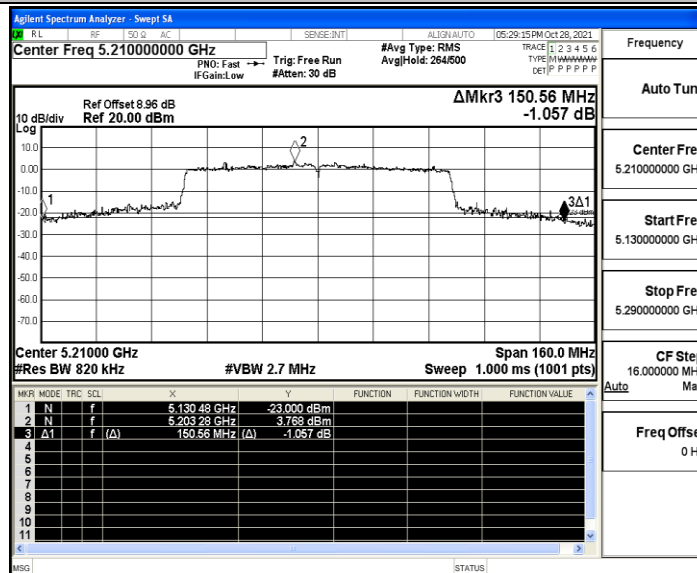
11AC40SISO_Ant1_5190



11AC40SISO_Ant1_5230



11AC80SISO_Ant1_5210





D.2 Maximum conducted output power

Test Result

TestMode	Antenna	Channel	Result[dBm]	Limit[dBm]	Verdict
11A	Ant1	5180	12.79	≤23.98	PASS
		5200	12.56	≤23.98	PASS
		5240	13.07	≤23.98	PASS
11N20SISO	Ant1	5180	12.77	≤23.98	PASS
		5200	12.78	≤23.98	PASS
		5240	12.47	≤23.98	PASS
11N40SISO	Ant1	5190	12.75	≤23.98	PASS
		5230	12.29	≤23.98	PASS
11AC20SISO	Ant1	5180	12.82	≤23.98	PASS
		5200	12.82	≤23.98	PASS
		5240	12.94	≤23.98	PASS
11AC40SISO	Ant1	5190	12.34	≤23.98	PASS
		5230	12.37	≤23.98	PASS
11AC80SISO	Ant1	5210	13.01	≤23.98	PASS

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



D.3 Maximum power spectral density

Test Result

TestMode	Antenna	Channel	Result [dBm/MHz]	Limit[dBm/MHz]	Verdict
11A	Ant1	5180	5.19	≤ 11	PASS
		5200	2.55	≤ 11	PASS
		5240	3.13	≤ 11	PASS
11N20SISO	Ant1	5180	2.54	≤ 11	PASS
		5200	2.74	≤ 11	PASS
		5240	2.38	≤ 11	PASS
11N40SISO	Ant1	5190	-0.37	≤ 11	PASS
		5230	-0.68	≤ 11	PASS
11AC20SISO	Ant1	5180	2.94	≤ 11	PASS
		5200	2.57	≤ 11	PASS
		5240	3.02	≤ 11	PASS
11AC40SISO	Ant1	5190	-0.84	≤ 11	PASS
		5230	-0.79	≤ 11	PASS
11AC80SISO	Ant1	5210	-3.42	≤ 11	PASS

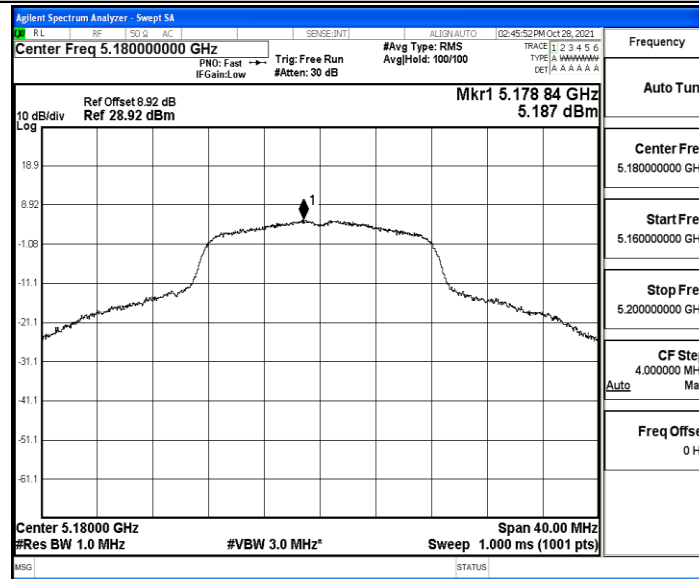
Note: 1.The Result and Limit Unit is dBm/500 kHz in the band 5.15–5.25 GHz.

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

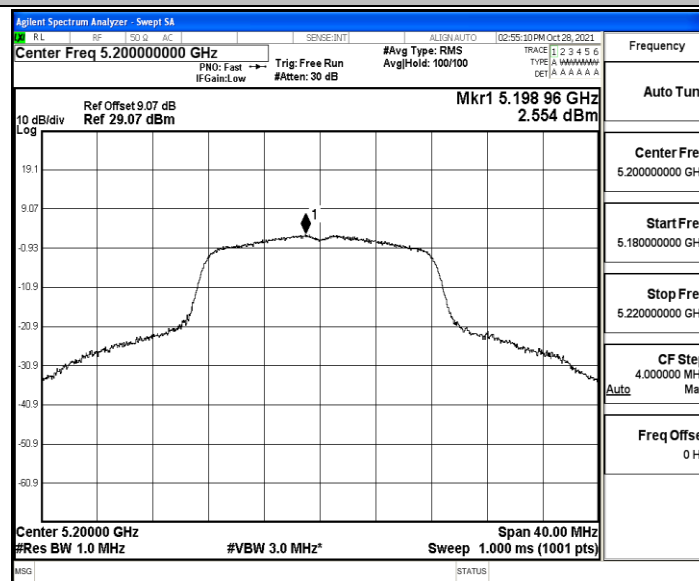


Test Graphs

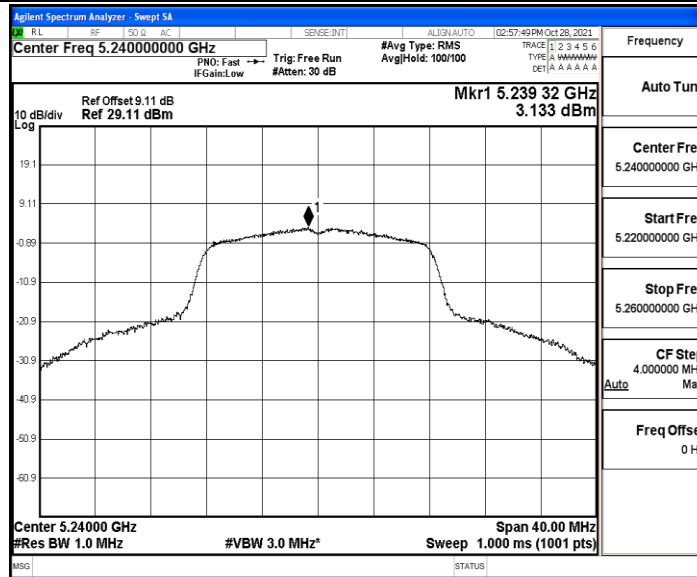
11A_Ant1_5180



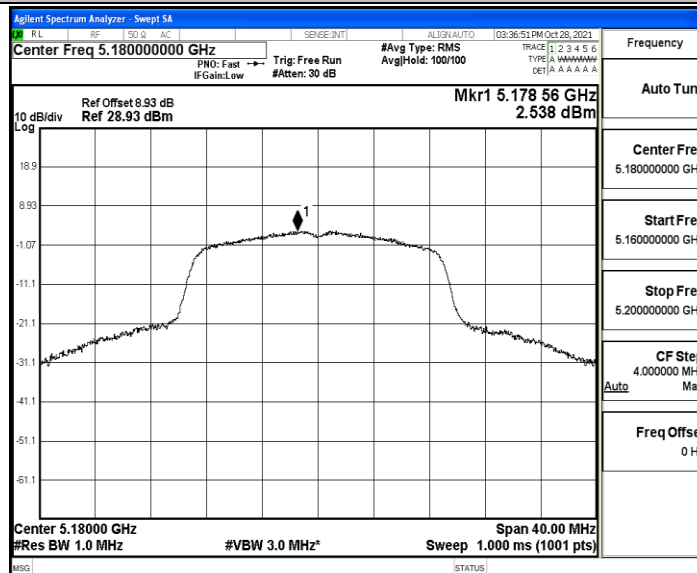
11A_Ant1_5200



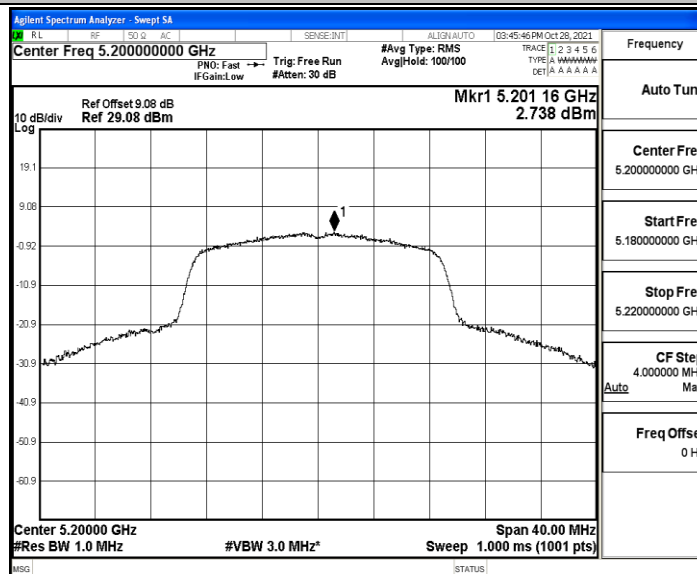
11A_Ant1_5240



11N20SISO_Ant1_5180

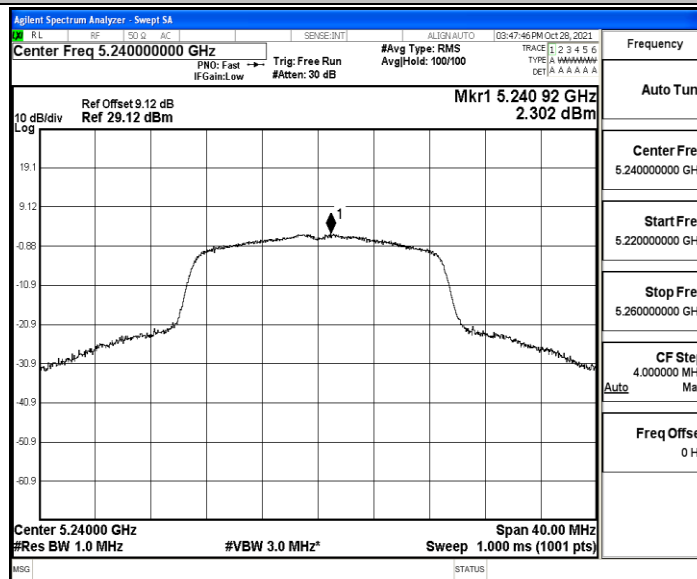


11N20SISO_Ant1_5200

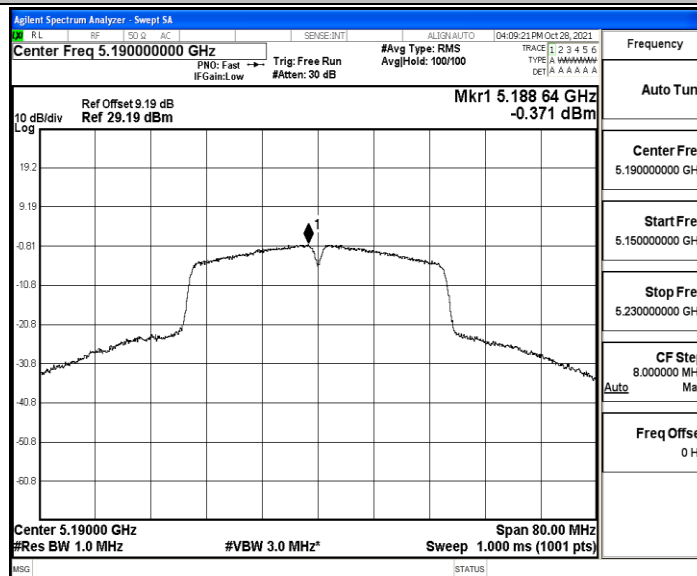




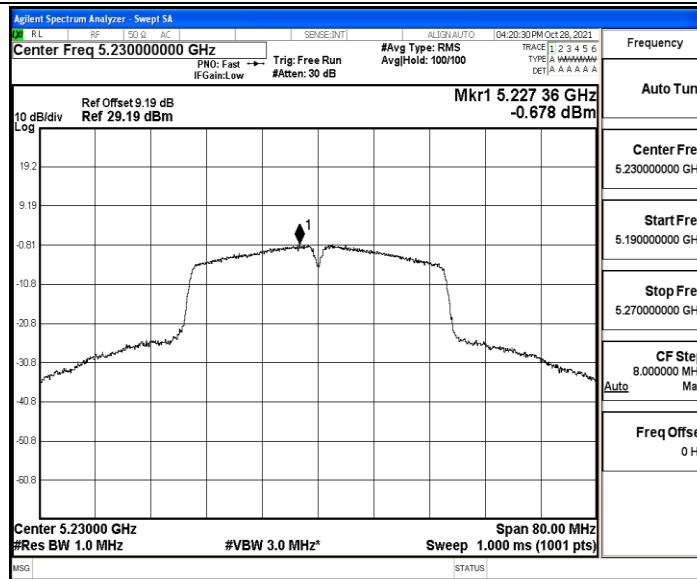
11N20SISO_Ant1_5240



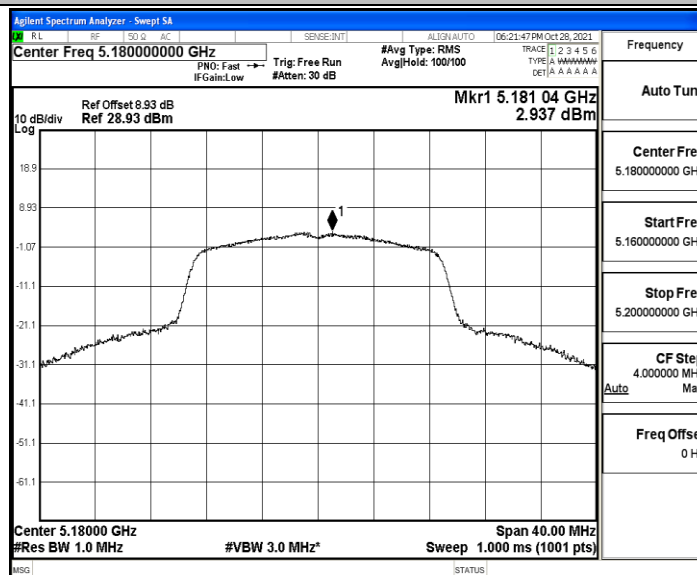
11N40SISO_Ant1_5190



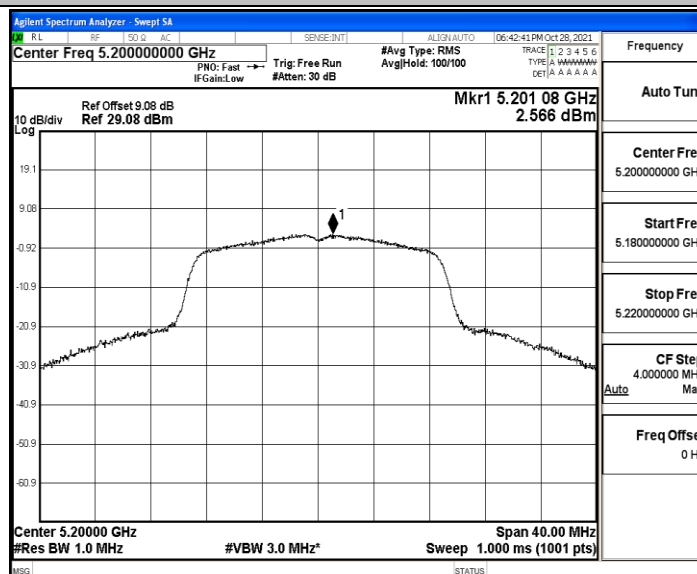
11N40SISO_Ant1_5230



11AC20SISO_Ant1_5180

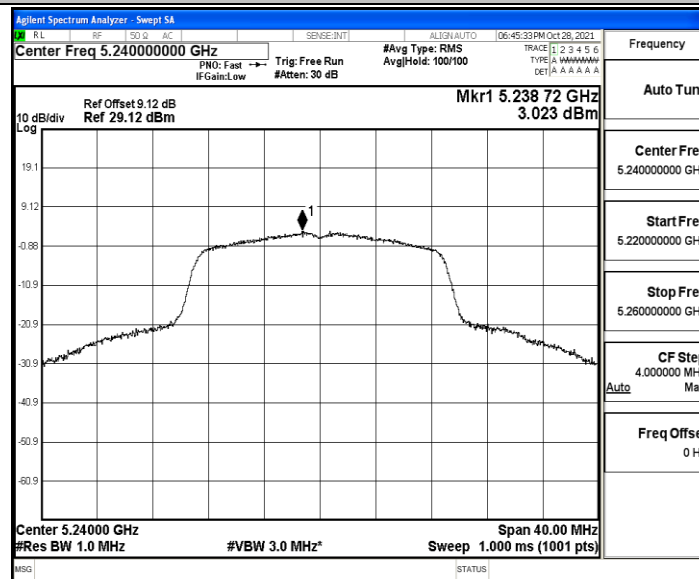


11AC20SISO_Ant1_5200

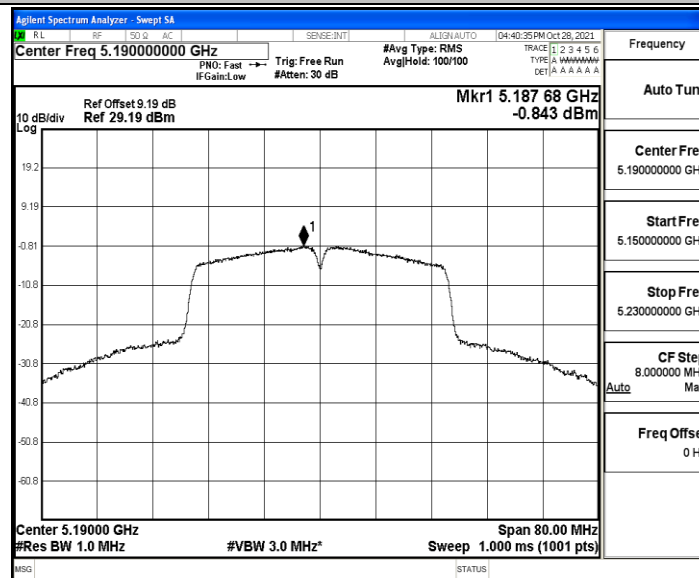




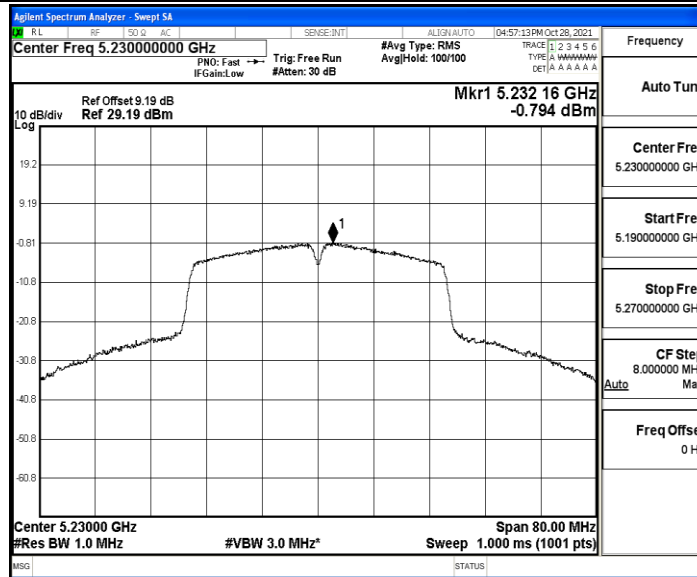
11AC20SISO_Ant1_5240



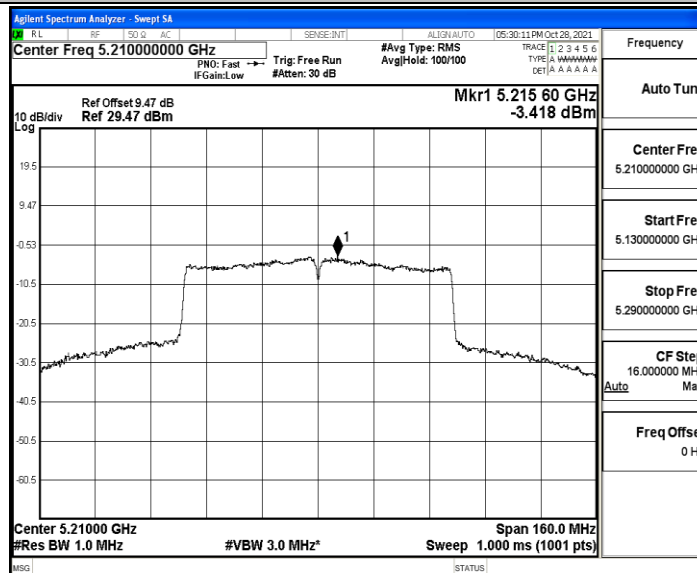
11AC40SISO_Ant1_5190



11AC40SISO_Ant1_5230



11AC80SISO_Ant1_5210





D.4 Emissions in Restricted Bands

Test Result

TestMode	Antenna	ChName	Channel	Detector	Freq. [MHz]	Result [dBm]	Limit [dBm]	Result [dBuV/m]	Limit [dBuV/m]	Verdict
11A	Ant1	Low	5180	AV	4500.000	-49.42	≤-41.20	45.78	≤54	PASS
				AV	5149.600	-43.49	≤-41.20	51.71	≤54	PASS
				AV	5150.000	-42.72	≤-41.20	52.48	≤54	PASS
				Peak	4500.000	-42.9	≤-21.20	52.30	≤74	PASS
				Peak	5148.200	-35.62	≤-21.20	59.58	≤74	PASS
				Peak	5150.000	-34.12	≤-21.20	61.08	≤74	PASS
		High	5240	AV	5350.000	-47.87	≤-41.20	47.33	≤54	PASS
				AV	5404.800	-47.46	≤-41.20	47.74	≤54	PASS
				AV	5460.000	-48.09	≤-41.20	47.11	≤54	PASS
				Peak	5350.000	-39.24	≤-21.20	55.96	≤74	PASS
				Peak	5409.600	-38.07	≤-21.20	57.13	≤74	PASS
				Peak	5460.000	-41.92	≤-21.20	53.28	≤74	PASS
11N20SI SO	Ant1	Low	5180	AV	4500.000	-49.44	≤-41.20	45.76	≤54	PASS
				AV	5149.600	-43.15	≤-41.20	52.05	≤54	PASS
				AV	5150.000	-42.49	≤-41.20	52.71	≤54	PASS
				Peak	4500.000	-42.19	≤-21.20	53.01	≤74	PASS
				Peak	5145.400	-30.06	≤-21.20	65.14	≤74	PASS
				Peak	5150.000	-33.11	≤-21.20	62.09	≤74	PASS
		High	5240	AV	5350.000	-47.9	≤-41.20	47.30	≤54	PASS
				AV	5409.600	-47.59	≤-41.20	47.61	≤54	PASS
				AV	5460.000	-48.1	≤-41.20	47.10	≤54	PASS
				Peak	5350.000	-40.44	≤-21.20	54.76	≤74	PASS
				Peak	5394.000	-37.89	≤-21.20	57.31	≤74	PASS
				Peak	5460.000	-41.59	≤-21.20	53.61	≤74	PASS
11N40SI SO	Ant1	Low	5190	AV	4500.000	-48.9	≤-41.20	46.30	≤54	PASS
				AV	5149.600	-44.59	≤-41.20	50.61	≤54	PASS
				AV	5150.000	-44.41	≤-41.20	50.79	≤54	PASS
				Peak	4500.000	-43.21	≤-21.20	51.99	≤74	PASS
				Peak	5148.900	-36.08	≤-21.20	59.12	≤74	PASS
				Peak	5150.000	-37.91	≤-21.20	57.29	≤74	PASS
		High	5230	AV	5350.000	-47.59	≤-41.20	47.61	≤54	PASS
				AV	5430.100	-47.3	≤-41.20	47.90	≤54	PASS
				AV	5460.000	-47.88	≤-41.20	47.32	≤54	PASS
				Peak	5350.000	-41.57	≤-21.20	53.63	≤74	PASS
				Peak	5380.440	-38.08	≤-21.20	57.12	≤74	PASS
				Peak	5460.000	-41.08	≤-21.20	54.12	≤74	PASS



11AC20S ISO	Ant1	Low	5180	AV	4500.000	-49.47	≤ -41.20	45.73	≤ 54	PASS
				AV	5149.600	-43.37	≤ -41.20	51.83	≤ 54	PASS
				AV	5150.000	-42.61	≤ -41.20	52.59	≤ 54	PASS
				Peak	4500.000	-42.52	≤ -21.20	52.68	≤ 74	PASS
				Peak	5148.200	-32.9	≤ -21.20	62.30	≤ 74	PASS
				Peak	5150.000	-31.57	≤ -21.20	63.63	≤ 74	PASS
		High	5240	AV	5350.000	-47.47	≤ -41.20	47.73	≤ 54	PASS
				AV	5362.080	-47.07	≤ -41.20	48.13	≤ 54	PASS
				AV	5460.000	-47.65	≤ -41.20	47.55	≤ 54	PASS
				Peak	5350.000	-40.28	≤ -21.20	54.92	≤ 74	PASS
				Peak	5412.480	-37.63	≤ -21.20	57.57	≤ 74	PASS
				Peak	5460.000	-40.46	≤ -21.20	54.74	≤ 74	PASS
11AC40S ISO	Ant1	Low	5190	AV	4500.000	-48.98	≤ -41.20	46.22	≤ 54	PASS
				AV	5149.600	-43.61	≤ -41.20	51.59	≤ 54	PASS
				AV	5150.000	-43.46	≤ -41.20	51.74	≤ 54	PASS
				Peak	4500.000	-41.74	≤ -21.20	53.46	≤ 74	PASS
				Peak	5149.600	-36.31	≤ -21.20	58.89	≤ 74	PASS
				Peak	5150.000	-35.21	≤ -21.20	59.99	≤ 74	PASS
		High	5230	AV	5350.000	-47.51	≤ -41.20	47.69	≤ 54	PASS
				AV	5362.760	-47.04	≤ -41.20	48.16	≤ 54	PASS
				AV	5460.000	-47.77	≤ -41.20	47.43	≤ 54	PASS
				Peak	5350.000	-41.16	≤ -21.20	54.04	≤ 74	PASS
				Peak	5449.860	-38.48	≤ -21.20	56.72	≤ 74	PASS
				Peak	5460.000	-41.93	≤ -21.20	53.27	≤ 74	PASS
11AC80S ISO	Ant1	Low	5210	AV	4500.000	-48.68	≤ -41.20	46.52	≤ 54	PASS
				AV	5139.000	-43.01	≤ -41.20	52.19	≤ 54	PASS
				AV	5150.000	-43.87	≤ -41.20	51.33	≤ 54	PASS
				Peak	4500.000	-42.64	≤ -21.20	52.56	≤ 74	PASS
				Peak	5145.750	-35.43	≤ -21.20	59.77	≤ 74	PASS
				Peak	5150.000	-37.93	≤ -21.20	57.27	≤ 74	PASS
		High	5210	AV	5350.000	-47.08	≤ -41.20	48.12	≤ 54	PASS
				AV	5367.320	-46.55	≤ -41.20	48.65	≤ 54	PASS
				AV	5460.000	-47.06	≤ -41.20	48.14	≤ 54	PASS
				Peak	5350.000	-40.75	≤ -21.20	54.45	≤ 74	PASS
				Peak	5385.800	-37.87	≤ -21.20	57.33	≤ 74	PASS
				Peak	5460.000	-41.68	≤ -21.20	53.52	≤ 74	PASS

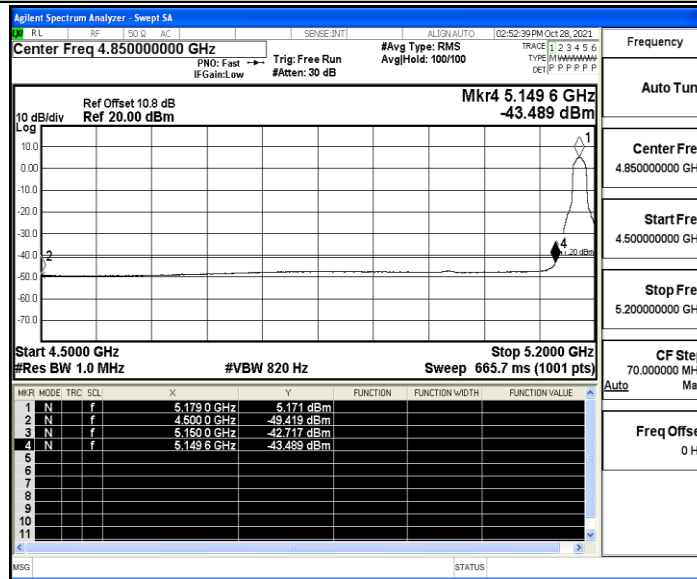
Note:

1. The Antenna Gain is compensated in the graph.
2. For transmitters operating in 5150-5350 GHz band and 5470-5725 GHz band: The limit in dBm for average detector is conversion from 54dBuV/m, according to 15.209(a). The limit in dBm for peak detector is 20dB above the limit of average detector in dBm.

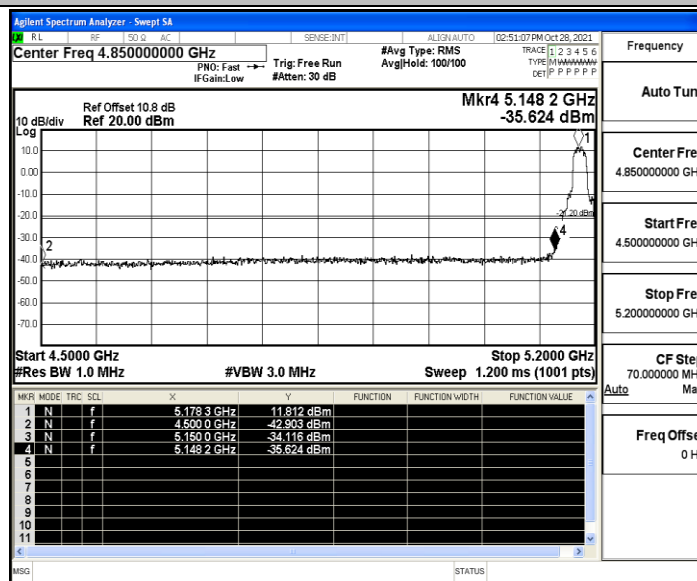


Test Graphs

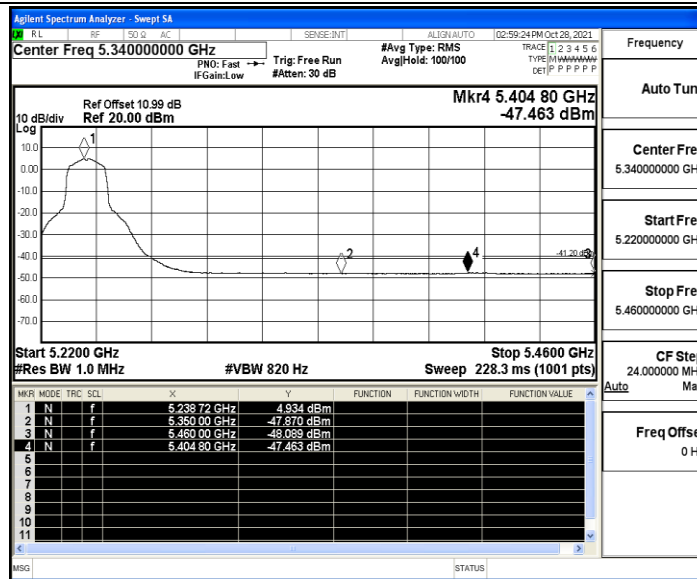
11A_Ant1_Low_5180_AV



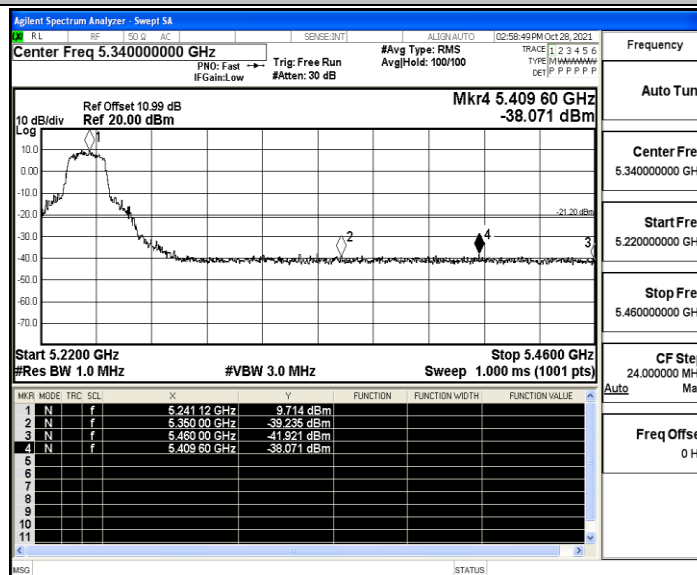
11A_Ant1_Low_5180_Peak



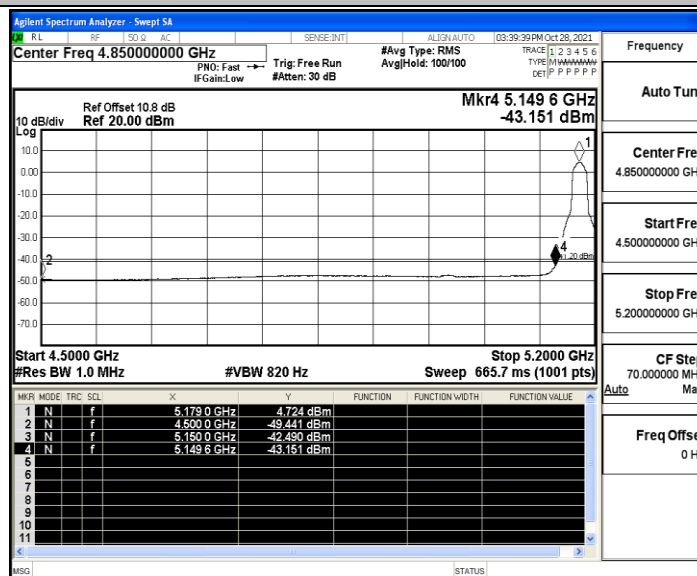
11A_Ant1_High_5240_AV



11A_Ant1_High_5240_Peak

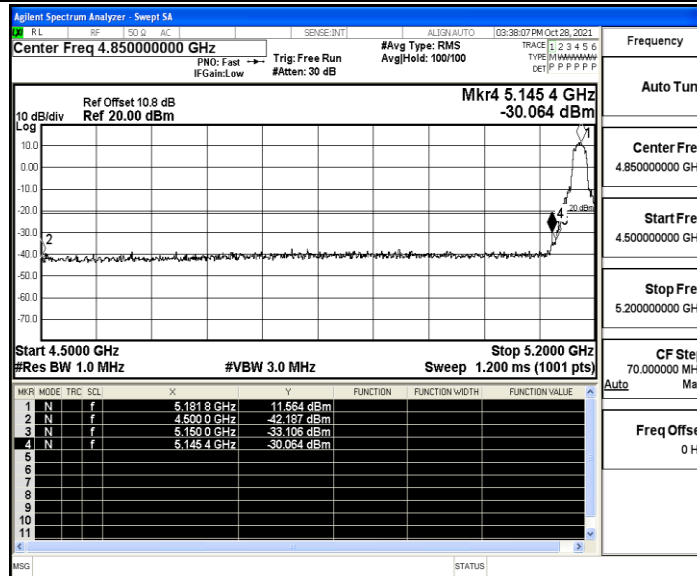


11N20SISO_Ant1_Low_5180_AV

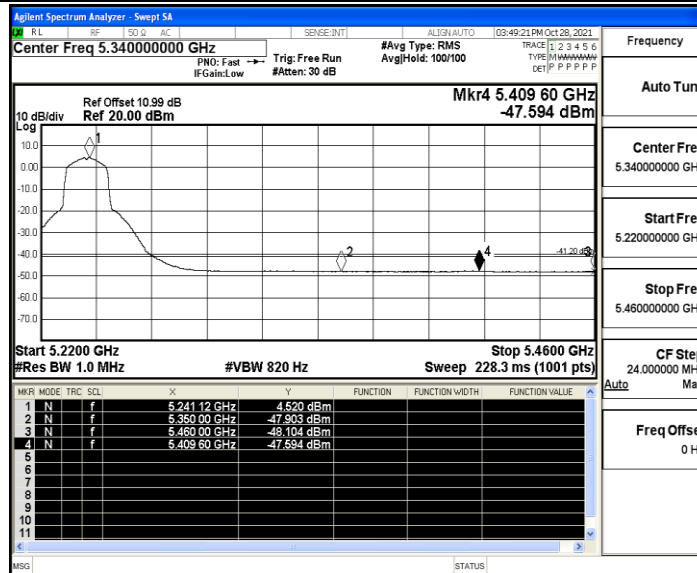




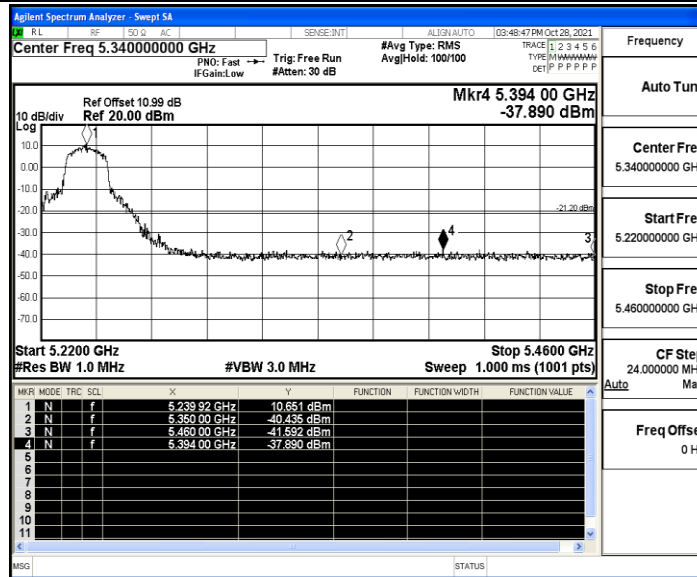
11N20SISO_Ant1_Low_5180_Peak



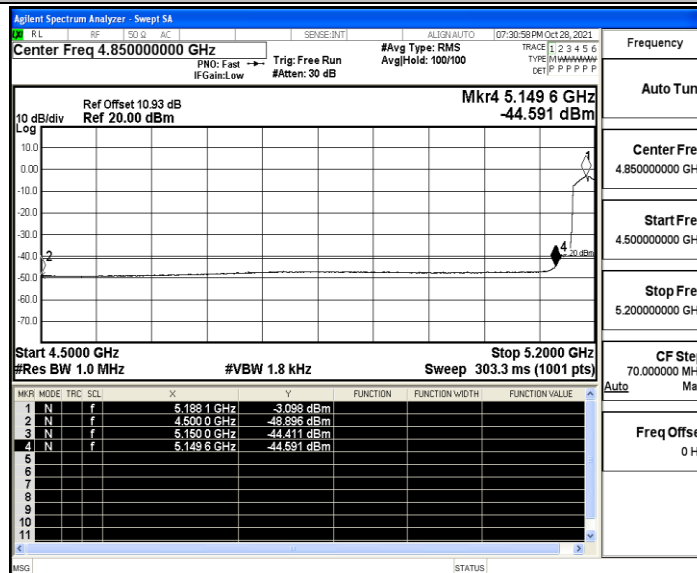
11N20SISO_Ant1_High_5240_AV



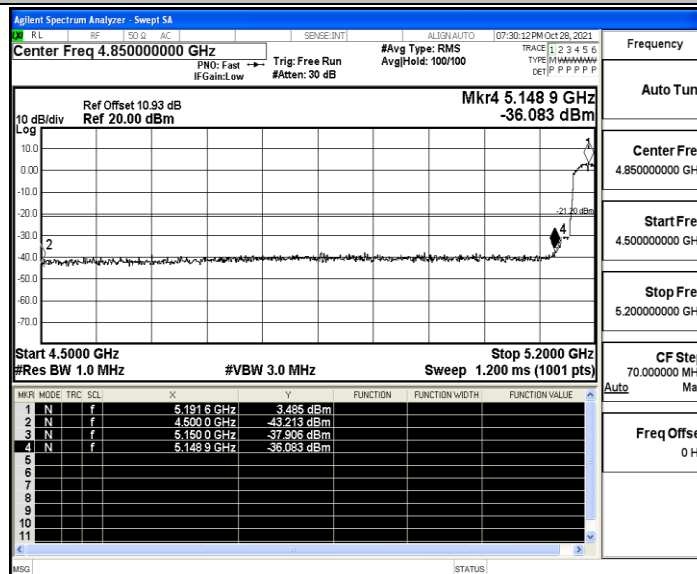
11N20SISO_Ant1_High_5240_Peak



11N40SISO_Ant1_Low_5190_AV

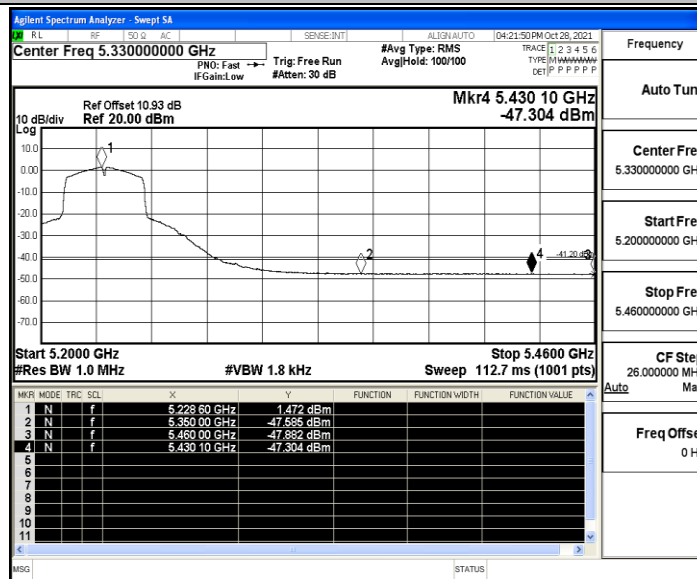


11N40SISO_Ant1_Low_5190_Peak

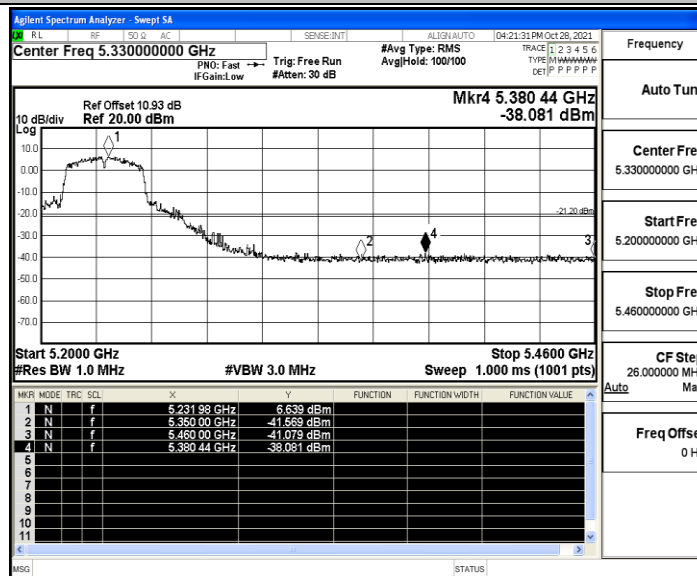




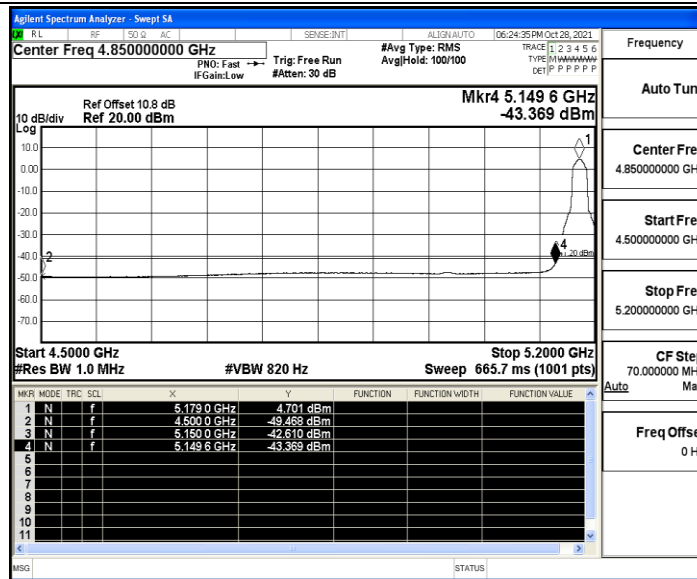
11N40SISO_Ant1_High_5230_AV



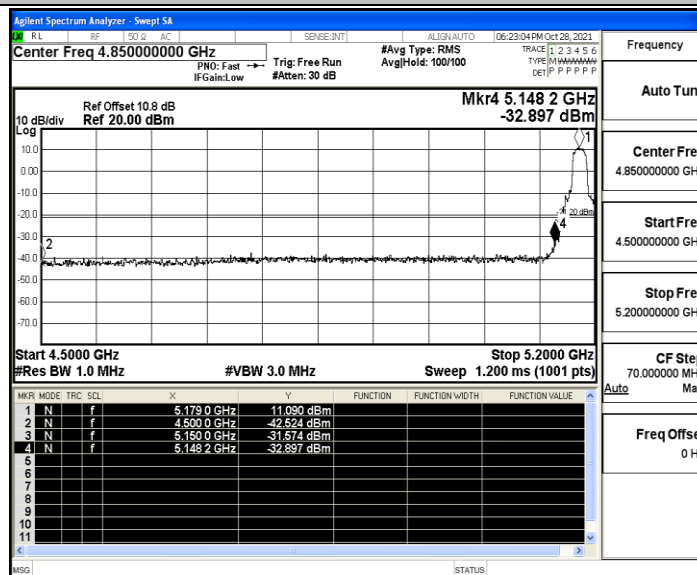
11N40SISO_Ant1_High_5230_Peak



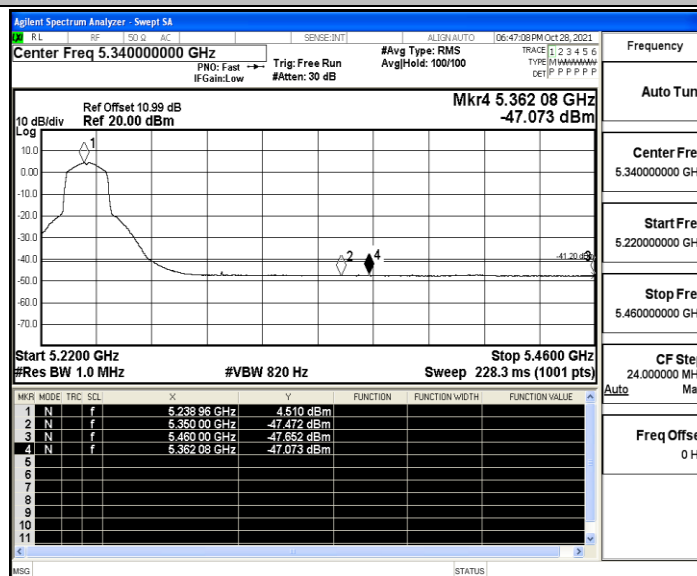
11AC20SISO_Ant1_Low_5180_AV



11AC20SISO_Ant1_Low_5180_Peak

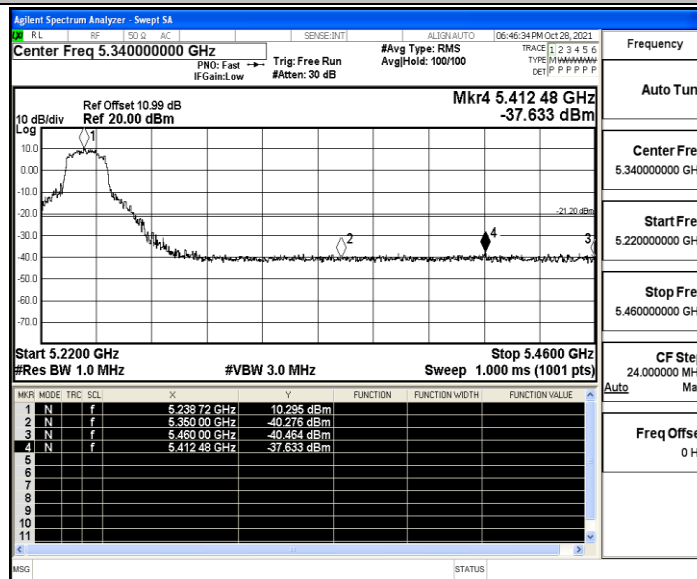


11AC20SISO_Ant1_High_5240_AV

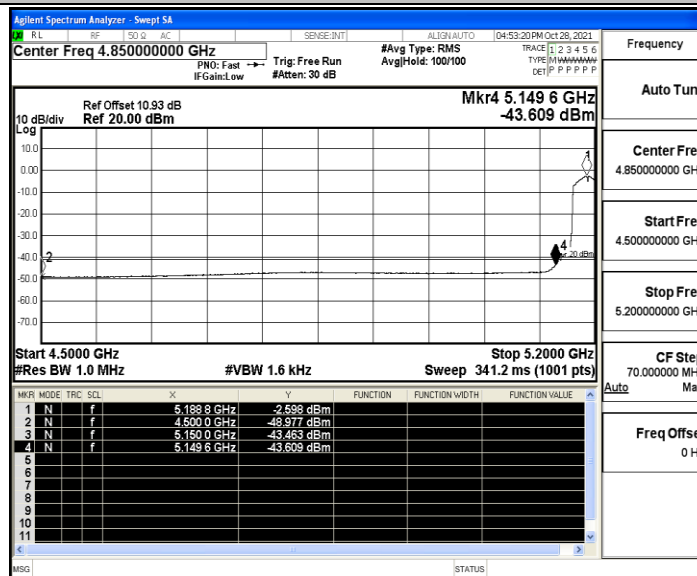




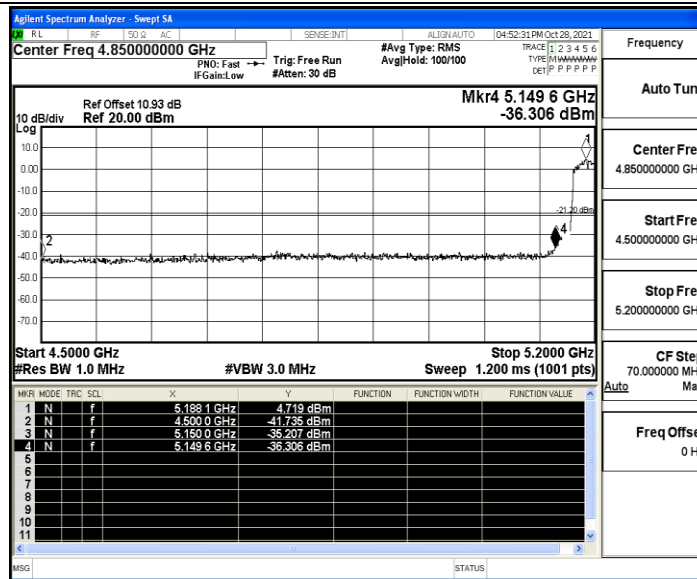
11AC20SISO_Ant1_High_5240_Peak



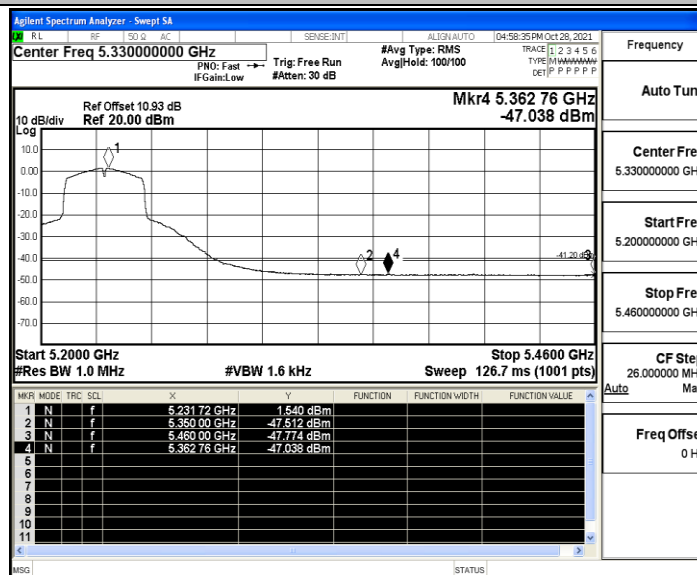
11AC40SISO_Ant1_Low_5190_AV



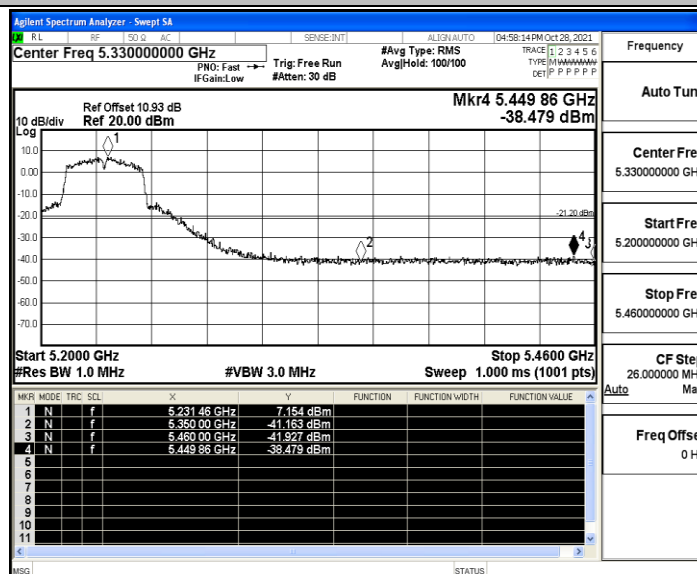
11AC40SISO_Ant1_Low_5190_Peak



11AC40SISO_Ant1_High_5230_AV

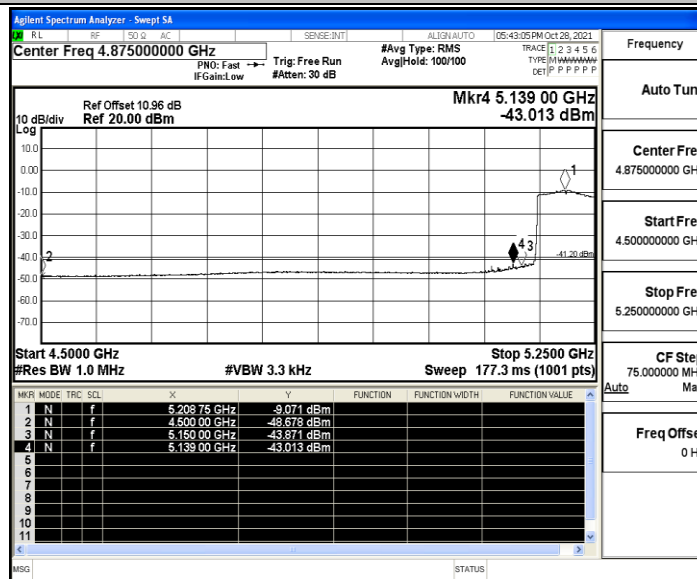


11AC40SISO_Ant1_High_5230_Peak

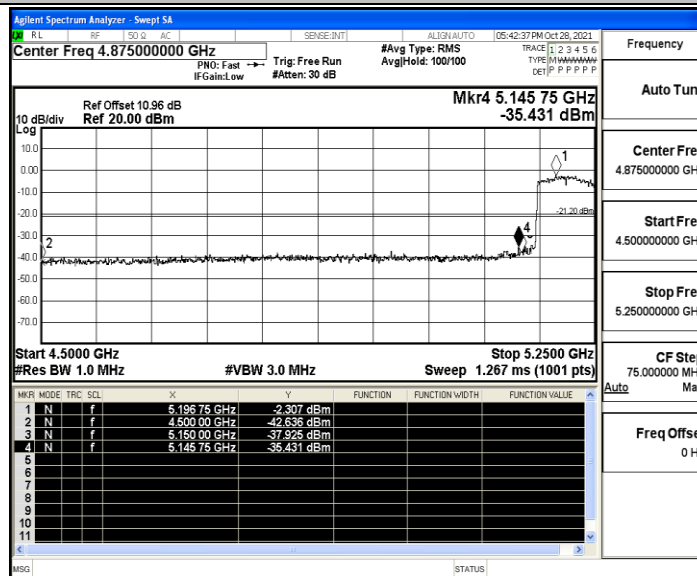




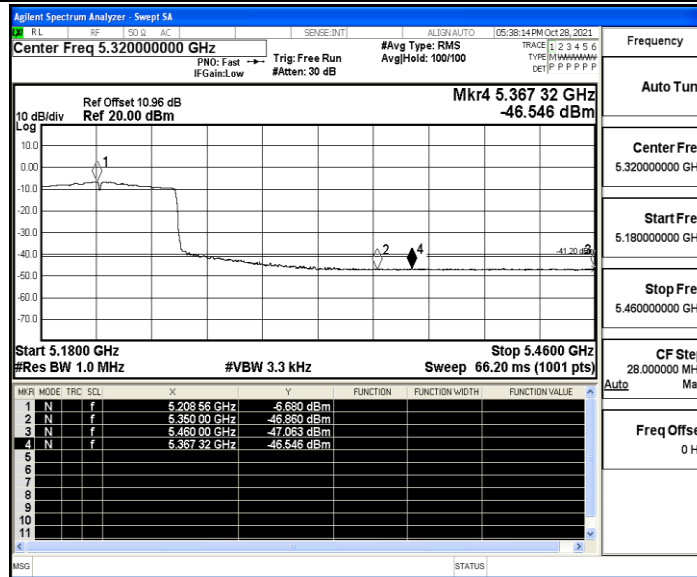
11AC80SISO_Ant1_Low_5210_AV



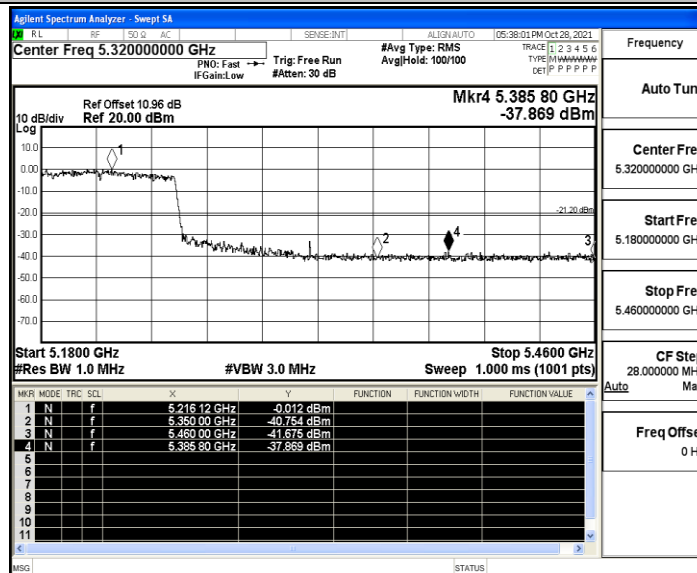
11AC80SISO_Ant1_Low_5210_Peak



11AC80SISO_Ant1_High_5210_AV



11AC80SISO_Ant1_High_5210_Peak





D.5 Frequency Stability

Test Result

Voltage								
TestMode	Antenna	Channel	Voltage [Vdc]	Temperature (°C)	Deviation (Hz)	Deviation (ppm)	Limit (ppm)	Verdict
11AC20SISO	Ant1	5180	NV	NT	-4000	-0.772201	20	PASS
			LV	NT	-5000	-0.965251	20	PASS
			HV	NT	-5000	-0.965251	20	PASS
		5200	NV	NT	-6000	-1.153846	20	PASS
			LV	NT	-6000	-1.153846	20	PASS
			HV	NT	-6000	-1.153846	20	PASS
		5240	NV	NT	-7000	-1.335878	20	PASS
			LV	NT	-7000	-1.335878	20	PASS
			HV	NT	-7000	-1.335878	20	PASS
11AC40SISO	Ant1	5190	NV	NT	-7000	-1.348748	20	PASS
			LV	NT	-8000	-1.541426	20	PASS
			HV	NT	-8000	-1.541426	20	PASS
		5230	NV	NT	-9000	-1.720841	20	PASS
			LV	NT	-9000	-1.720841	20	PASS
			HV	NT	-9000	-1.720841	20	PASS
11AC80SISO	Ant1	5210	NV	NT	-27000	-5.182342	20	PASS
			LV	NT	-28000	-5.37428	20	PASS
			HV	NT	-28000	-5.37428	20	PASS

Temperature								
TestMode	Antenna	Channel	Voltage [Vdc]	Temperature (°C)	Deviation (Hz)	Deviation (ppm)	Limit (ppm)	Verdict
11AC20SISO	Ant1	5180	NV	-30	-5000	-0.965251	20	PASS
			NV	-20	-5000	-0.965251	20	PASS
			NV	-10	-5000	-0.965251	20	PASS
			NV	0	-6000	-1.158301	20	PASS
			NV	10	-6000	-1.158301	20	PASS
			NV	20	-6000	-1.158301	20	PASS
			NV	30	-6000	-1.158301	20	PASS
			NV	40	-6000	-1.158301	20	PASS
			NV	50	-6000	-1.158301	20	PASS
		5200	NV	-30	-6000	-1.153846	20	PASS
			NV	-20	-6000	-1.153846	20	PASS
			NV	-10	-6000	-1.153846	20	PASS
			NV	0	-6000	-1.153846	20	PASS
			NV	10	-7000	-1.346154	20	PASS
			NV	20	-7000	-1.346154	20	PASS



			NV	20	-7000	-1.346154	20	PASS
			NV	30	-7000	-1.346154	20	PASS
			NV	40	-6000	-1.153846	20	PASS
			NV	50	-7000	-1.346154	20	PASS
		5240	NV	-30	-7000	-1.335878	20	PASS
			NV	-20	-7000	-1.335878	20	PASS
			NV	-10	-7000	-1.335878	20	PASS
			NV	0	-7000	-1.335878	20	PASS
			NV	10	-7000	-1.335878	20	PASS
			NV	20	-7000	-1.335878	20	PASS
			NV	30	-7000	-1.335878	20	PASS
			NV	40	-7000	-1.335878	20	PASS
			NV	50	-7000	-1.335878	20	PASS
11AC40SIS O	Ant1	5190	NV	-30	-8000	-1.541426	20	PASS
			NV	-20	-8000	-1.541426	20	PASS
			NV	-10	-8000	-1.541426	20	PASS
			NV	0	-8000	-1.541426	20	PASS
			NV	10	-9000	-1.734104	20	PASS
			NV	20	-9000	-1.734104	20	PASS
			NV	30	-9000	-1.734104	20	PASS
			NV	40	-9000	-1.734104	20	PASS
		5230	NV	50	-9000	-1.734104	20	PASS
			NV	-30	-9000	-1.720841	20	PASS
			NV	-20	-9000	-1.720841	20	PASS
			NV	-10	-9000	-1.720841	20	PASS
			NV	0	-9000	-1.720841	20	PASS
			NV	10	-9000	-1.720841	20	PASS
			NV	20	-9000	-1.720841	20	PASS
			NV	30	-9000	-1.720841	20	PASS
			NV	40	-9000	-1.720841	20	PASS
			NV	50	-9000	-1.720841	20	PASS
11AC80SIS O	Ant1	5210	NV	-30	-28000	-5.37428	20	PASS
			NV	-20	-27000	-5.182342	20	PASS
			NV	-10	-27000	-5.182342	20	PASS
			NV	0	-27000	-5.182342	20	PASS
			NV	10	-29000	-5.566219	20	PASS
			NV	20	-28000	-5.37428	20	PASS
			NV	30	-30000	-5.758157	20	PASS
			NV	40	-28000	-5.37428	20	PASS
			NV	50	-28000	-5.37428	20	PASS



D.6 Duty Cycle

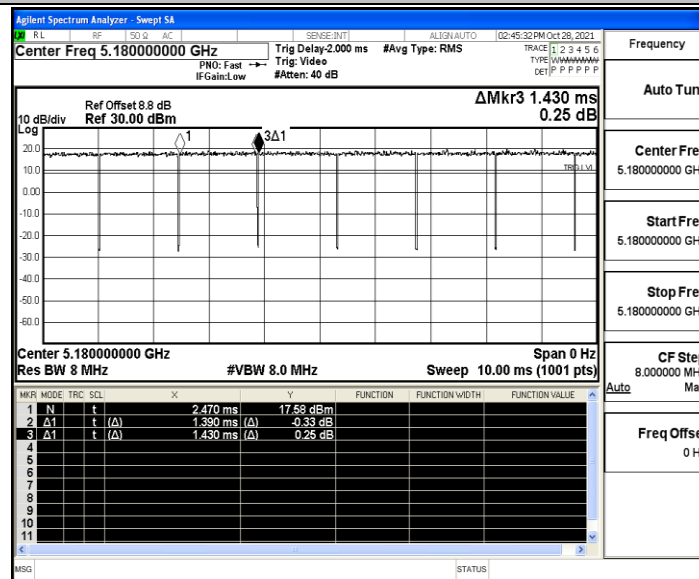
Test Result

TestMode	Antenna	Channel	Transmission Duration [ms]	Transmission Period [ms]	Duty Cycle [%]	Limit	Verdict
11A	Ant1	5180	1.39	1.43	97.20	---	PASS
		5200	1.39	1.43	97.20	---	PASS
		5240	1.39	1.43	97.20	---	PASS
11N20SISO	Ant1	5180	1.30	1.34	97.01	---	PASS
		5200	1.30	1.34	97.01	---	PASS
		5240	1.30	1.34	97.01	---	PASS
11N40SISO	Ant1	5190	0.64	0.68	94.12	---	PASS
		5230	0.64	0.68	94.12	---	PASS
		5795	0.64	0.68	94.12	---	PASS
11AC20SISO	Ant1	5180	1.31	1.35	97.04	---	PASS
		5200	1.30	1.34	97.01	---	PASS
		5240	1.30	1.34	97.01	---	PASS
11AC40SISO	Ant1	5190	0.65	0.69	94.20	---	PASS
		5230	0.65	0.69	94.20	---	PASS
11AC80SISO	Ant1	5210	0.32	0.36	88.89	---	PASS

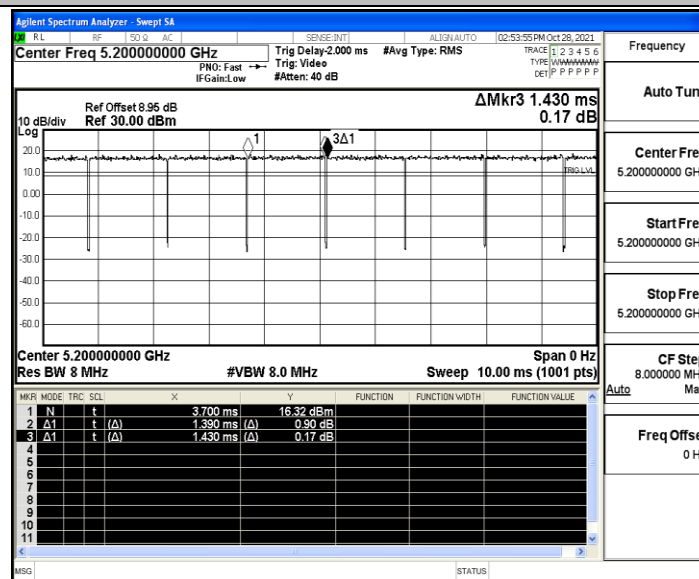


Test Graphs

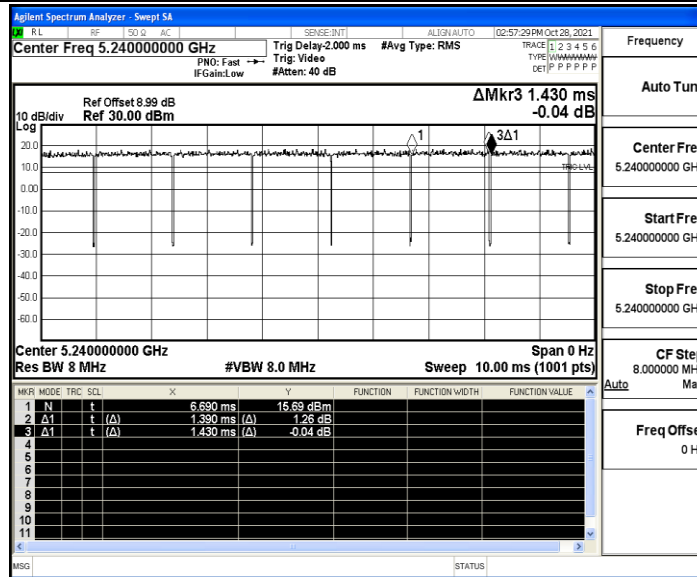
11A_Ant1_5180



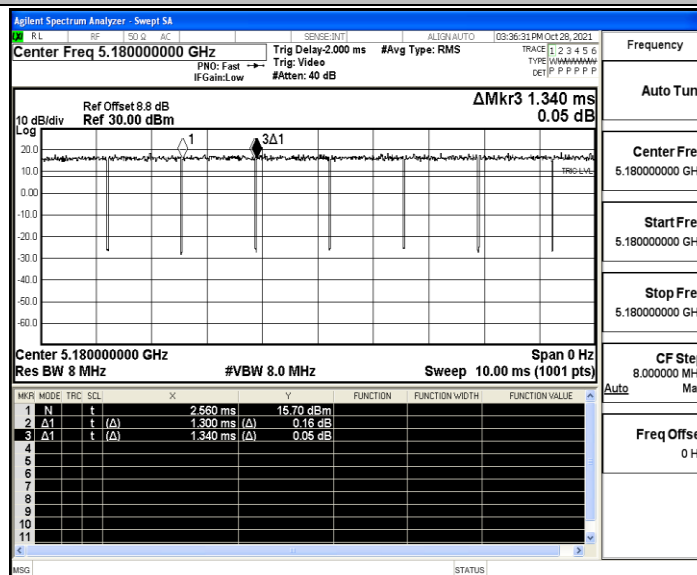
11A_Ant1_5200



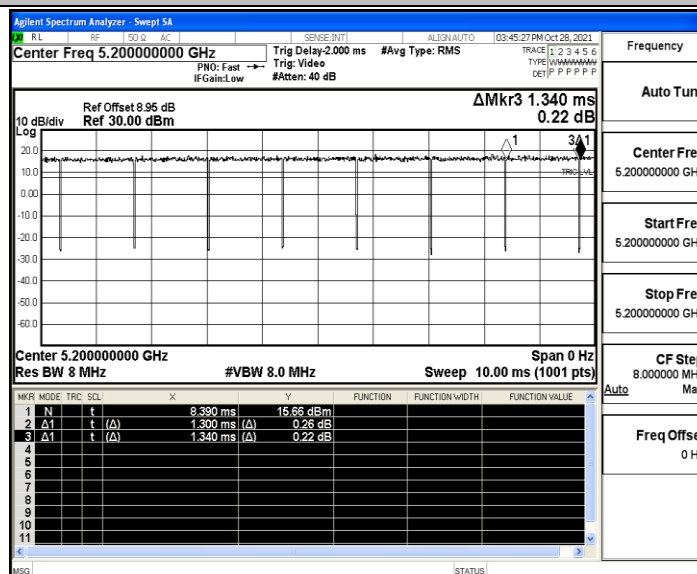
11A_Ant1_5240



11N20SISO_Ant1_5180

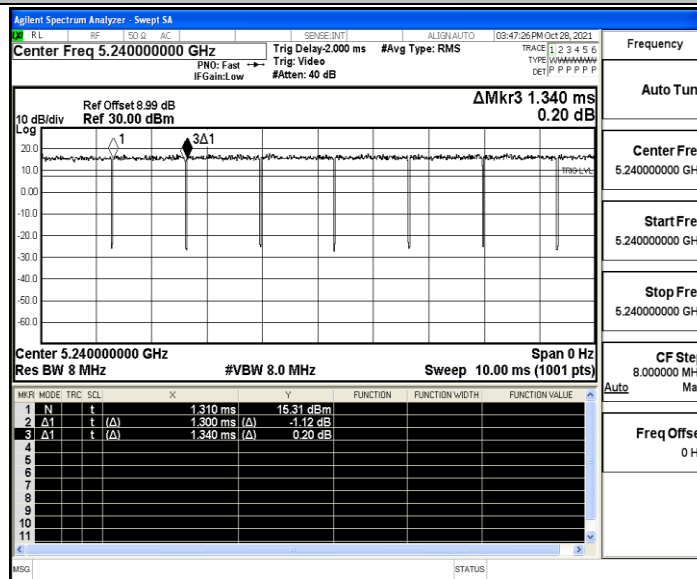


11N20SISO_Ant1_5200

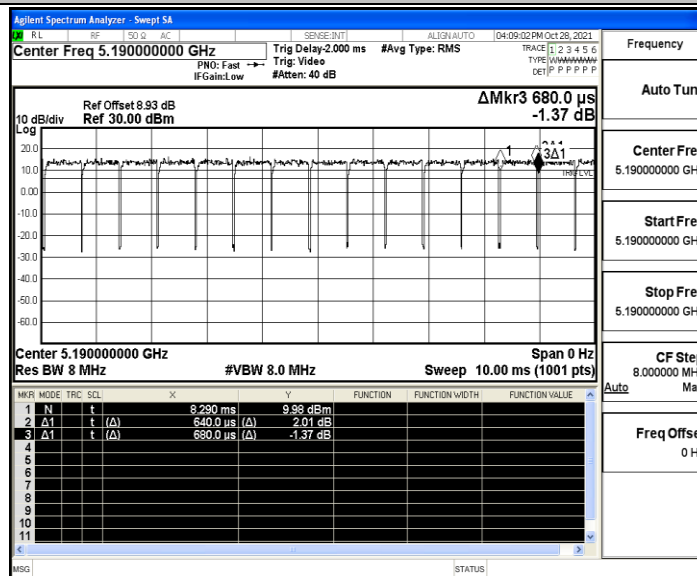




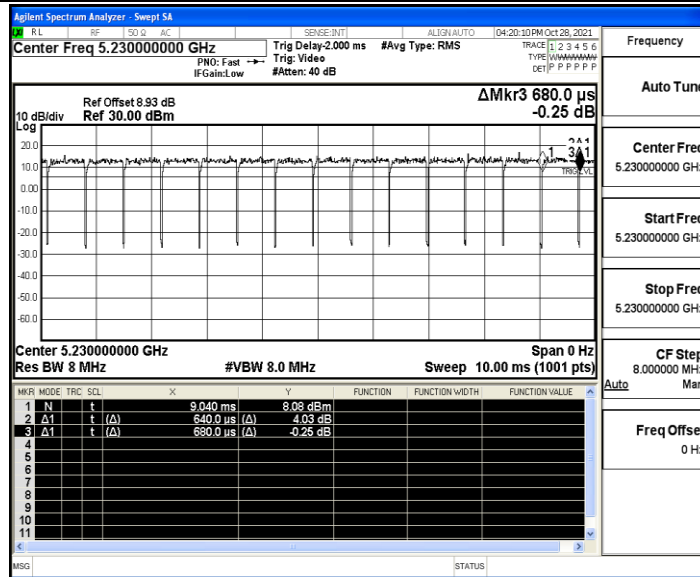
11N20SISO_Ant1_5240



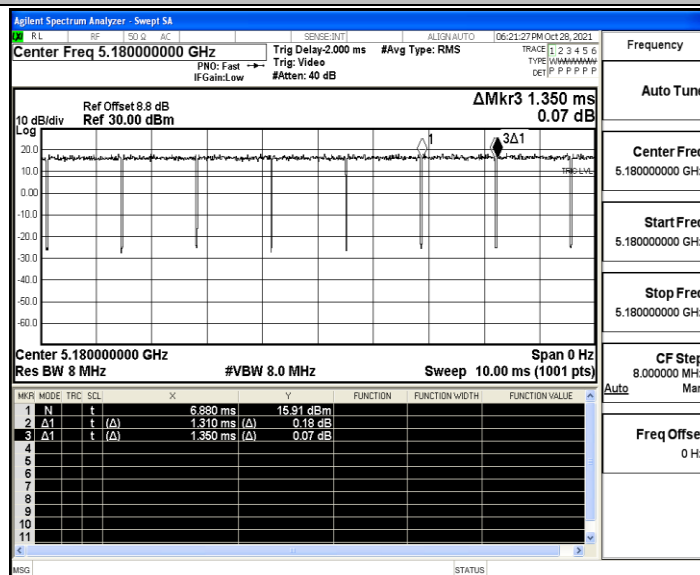
11N40SISO_Ant1_5190



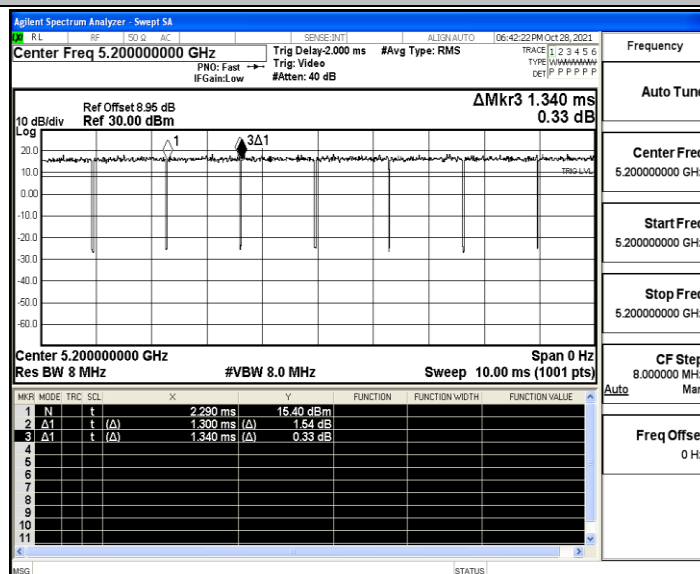
11N40SISO_Ant1_5230



11AC20SISO_Ant1_5180

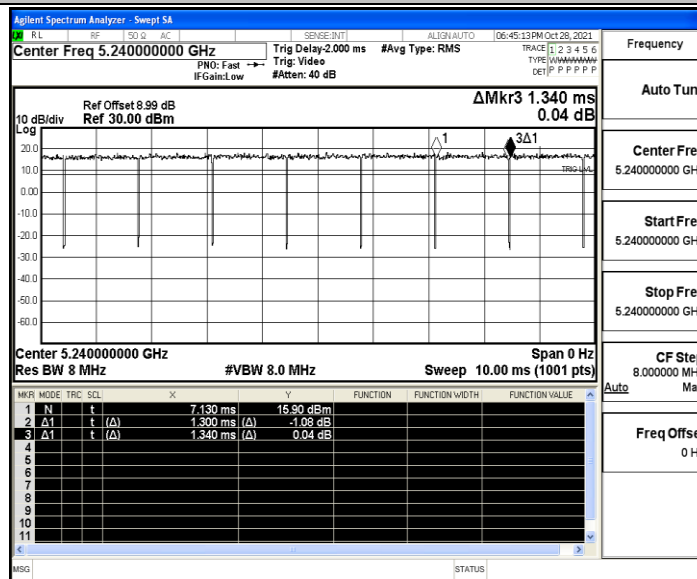


11AC20SISO_Ant1_5200

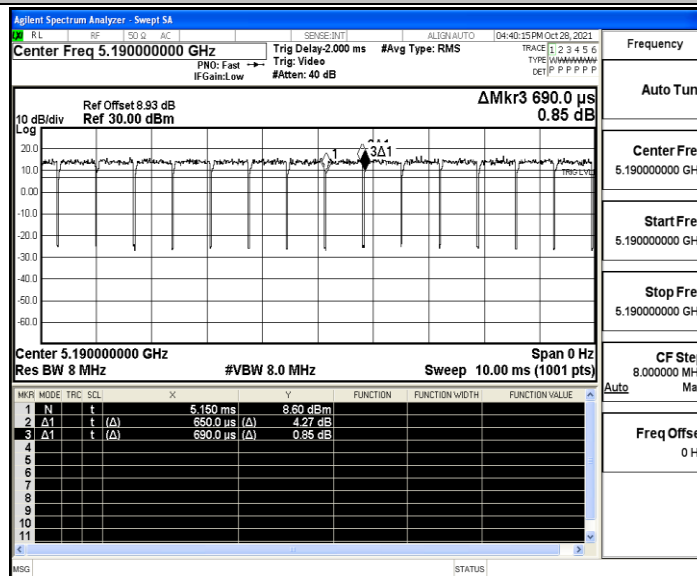




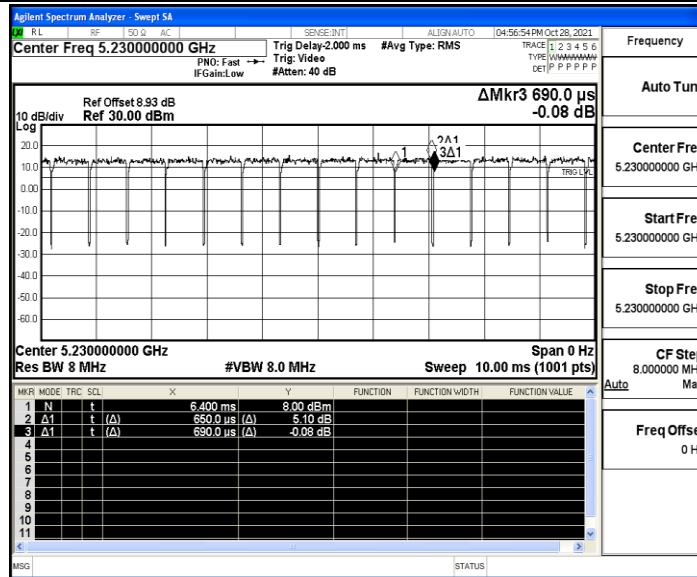
11AC20SISO_Ant1_5240



11AC40SISO_Ant1_5190



11AC40SISO_Ant1_5230



11AC80SISO_Ant1_5210

