



Appendix D

RF Test Data for 5.2G WIFI (Conducted Measurement)

Product Name: Rugged Tablet

Test Model: LT901

Environmental Conditions

Temperature:	23.5° C
Relative Humidity:	52.2%
ATM Pressure:	100.0 kPa
Test Engineer:	Ling Zhu
Supervised by:	Li huan



D.1 26dB Bandwidth

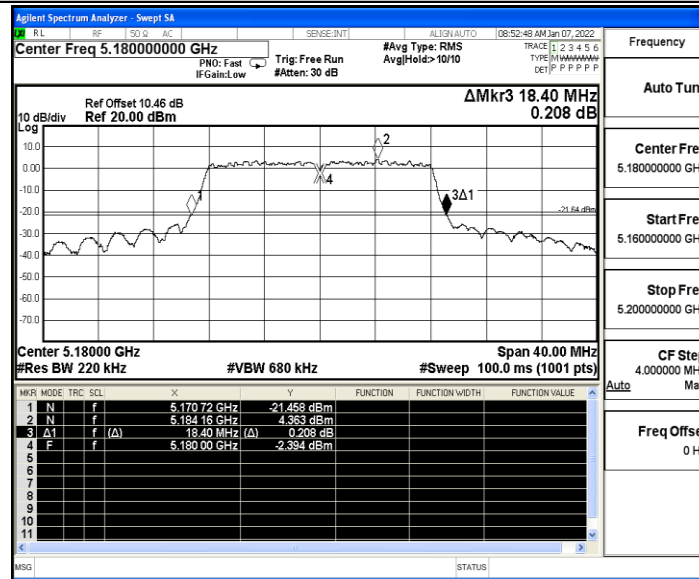
Test Result

TestMode	Antenna	Channel	26db EBW [MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
11A	Ant	5180	18.400	5170.720	5189.120	---	---
		5220	18.480	5210.680	5229.160	---	---
		5240	18.520	5230.600	5249.120	---	---
11N20SISO	Ant	5180	19.440	5170.280	5189.720	---	---
		5220	19.440	5210.280	5229.720	---	---
		5240	19.440	5230.280	5249.720	---	---
11N40SISO	Ant	5190	41.200	5169.600	5210.800	---	---
		5230	41.040	5209.520	5250.560	---	---
11AC20SISO	Ant	5180	19.480	5170.240	5189.720	---	---
		5220	19.480	5210.240	5229.720	---	---
		5240	19.520	5230.200	5249.720	---	---
11AC40SISO	Ant	5190	40.960	5169.680	5210.640	---	---
		5230	41.120	5209.440	5250.560	---	---
11AC80SISO	Ant	5210	80.800	5169.520	5250.320	---	---

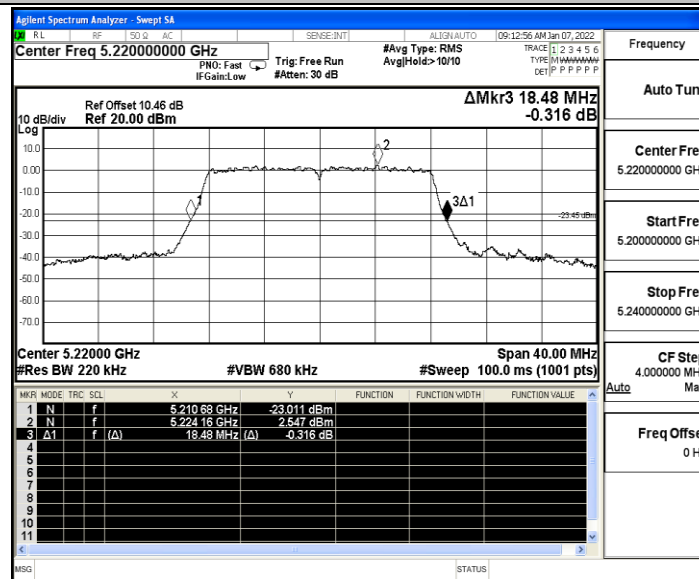


Test Graphs

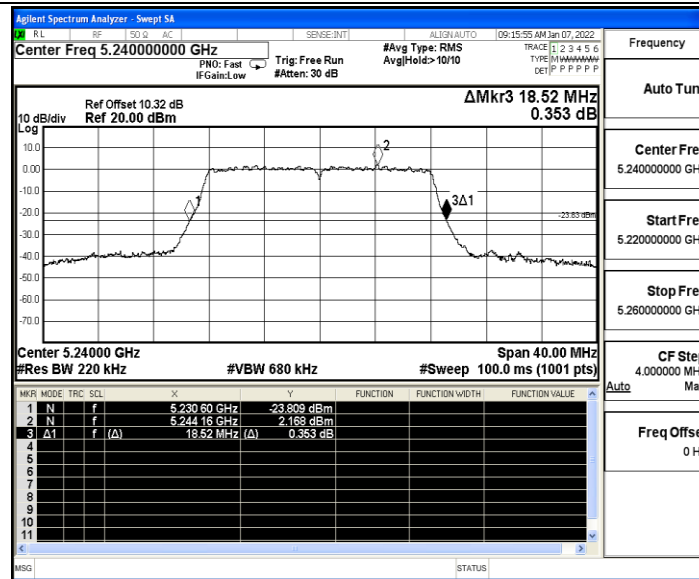
11A_Ant_5180



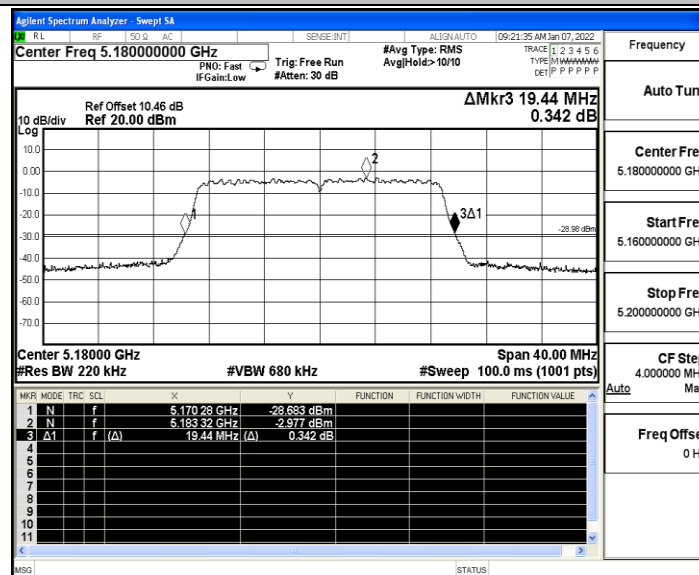
11A_Ant_5220



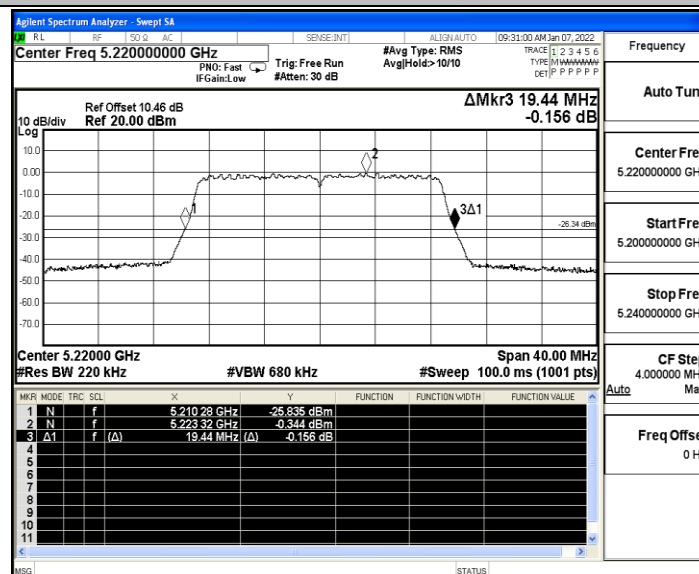
11A_Ant_5240



11N20SISO_Ant_5180

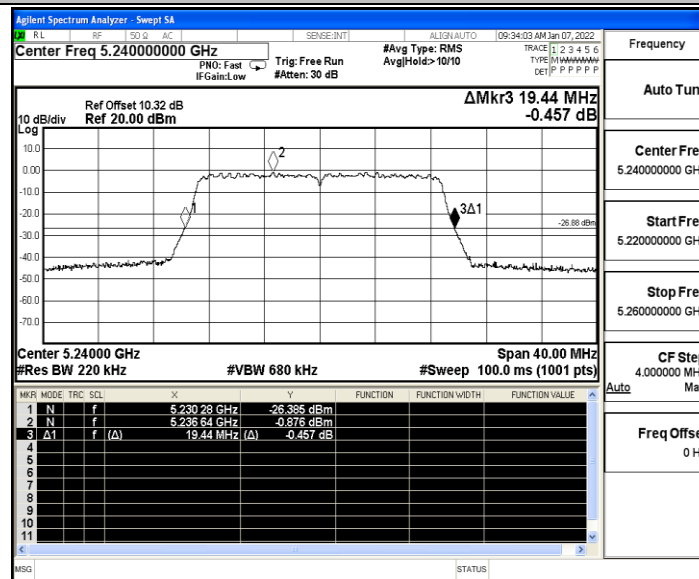


11N20SISO_Ant_5220

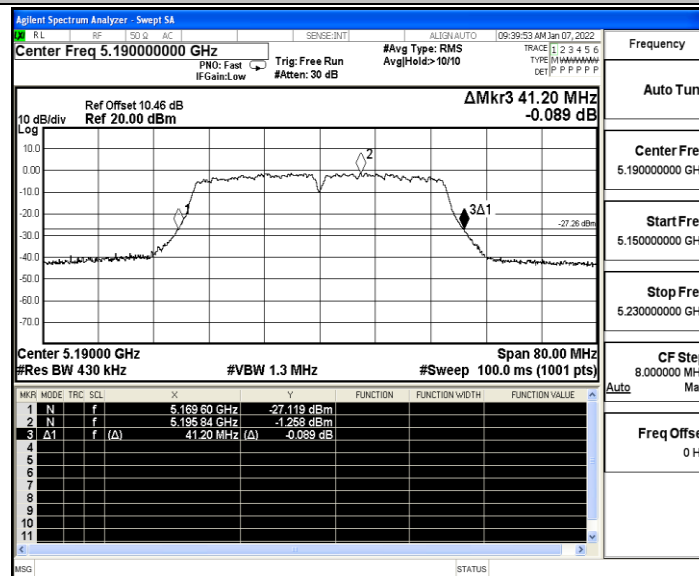




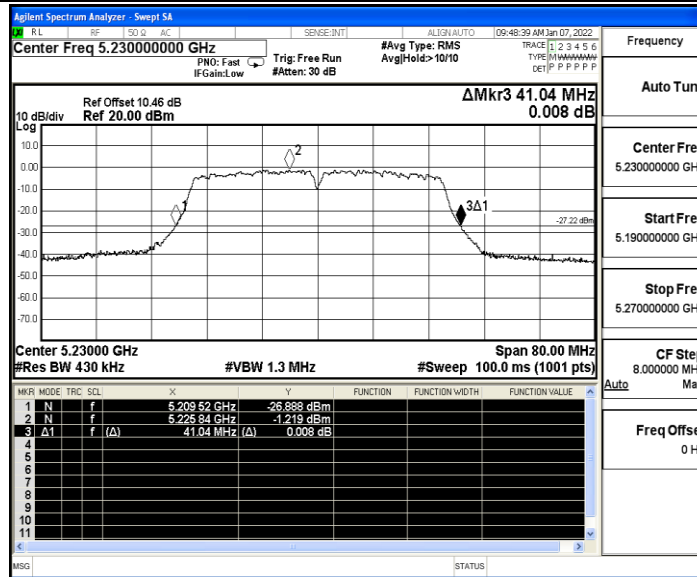
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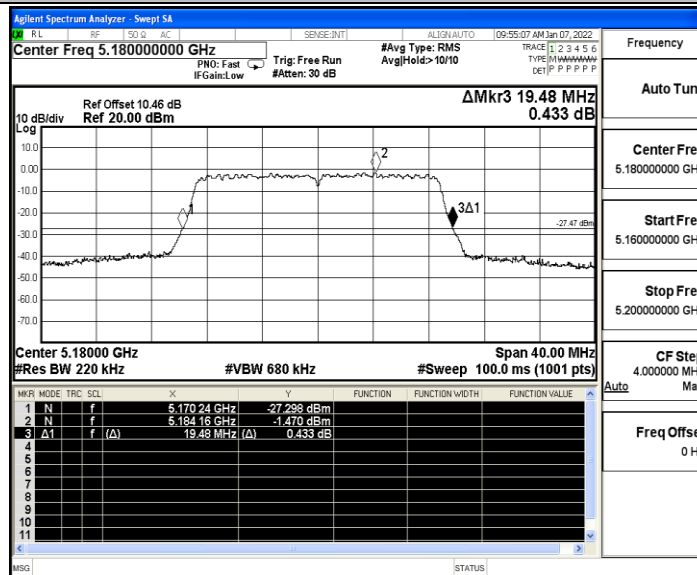
11N40SISO_Ant_5190



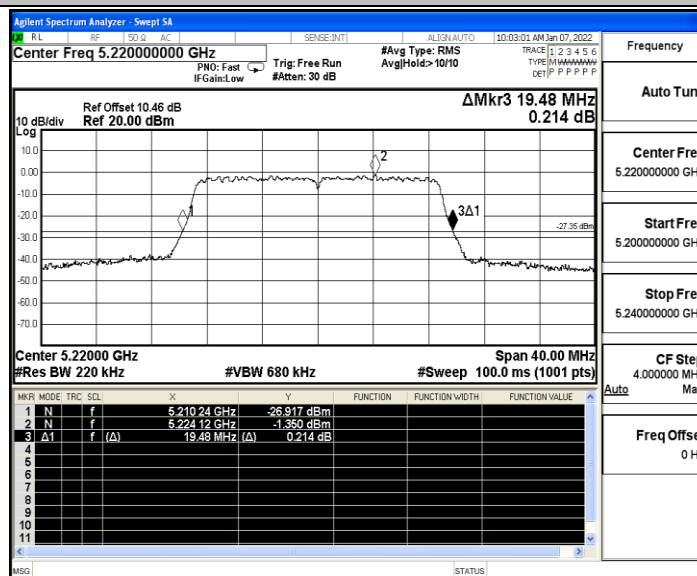
11N40SISO_Ant_5230



11AC20SISO_Ant_5180

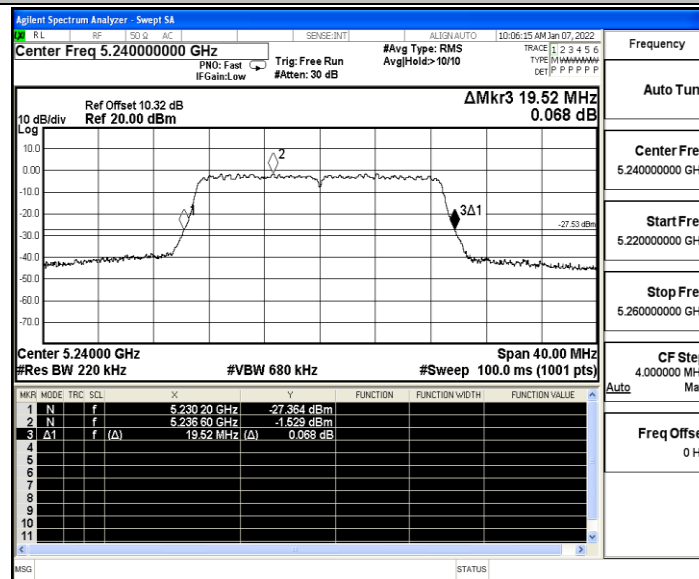


11AC20SISO_Ant_5220

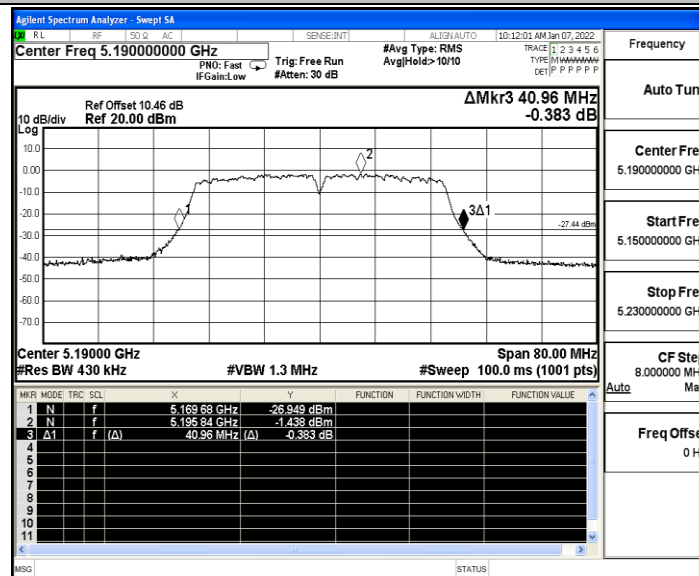




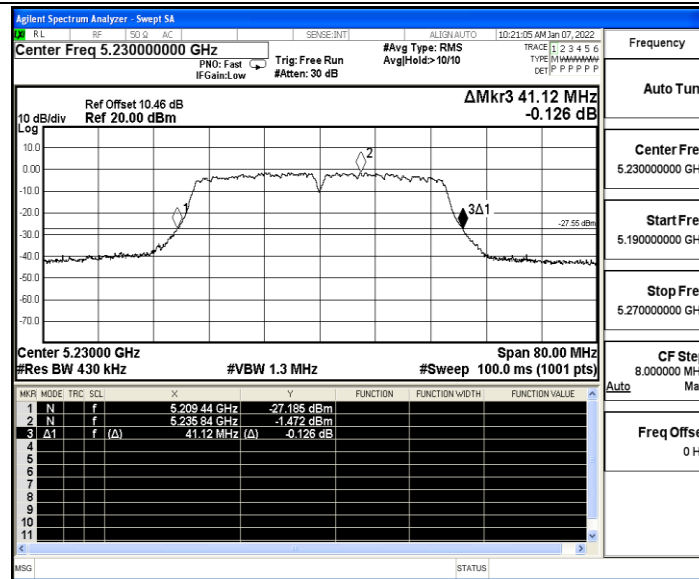
11AC20SISO_Ant_5240



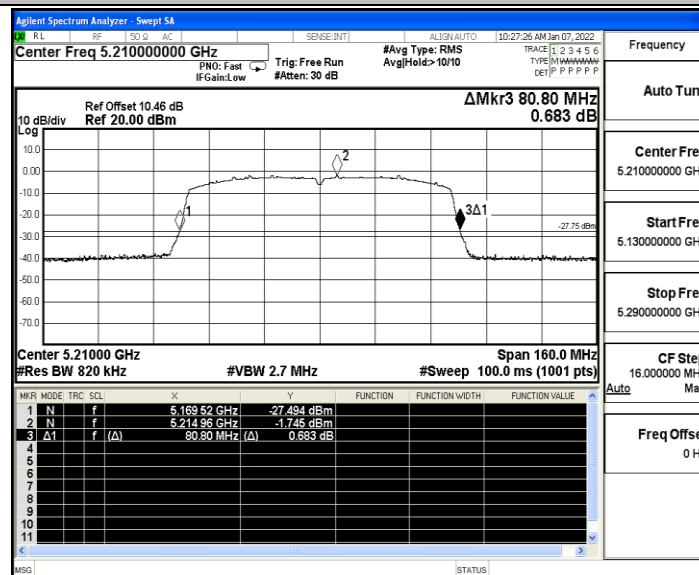
11AC40SISO_Ant_5190



11AC40SISO_Ant_5230



11AC80SISO_Ant_5210





D.2 Maximum conducted output power

Test Result

TestMode	Antenna	Channel	Result[dBm]	Limit[dBm]	Verdict
11A	Ant	5180	12.51	≤ 23.98	PASS
		5220	12.52	≤ 23.98	PASS
		5240	12.23	≤ 23.98	PASS
11N20SISO	Ant	5180	9.92	≤ 23.98	PASS
		5220	10.16	≤ 23.98	PASS
		5240	9.66	≤ 23.98	PASS
11N40SISO	Ant	5190	8.96	≤ 23.98	PASS
		5230	9.02	≤ 23.98	PASS
11AC20SISO	Ant	5180	9.04	≤ 23.98	PASS
		5220	9.36	≤ 23.98	PASS
		5240	9.12	≤ 23.98	PASS
11AC40SISO	Ant	5190	8.57	≤ 23.98	PASS
		5230	8.73	≤ 23.98	PASS
11AC80SISO	Ant	5210	8.07	≤ 23.98	PASS

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



D.3 Maximum power spectral density

Test Result

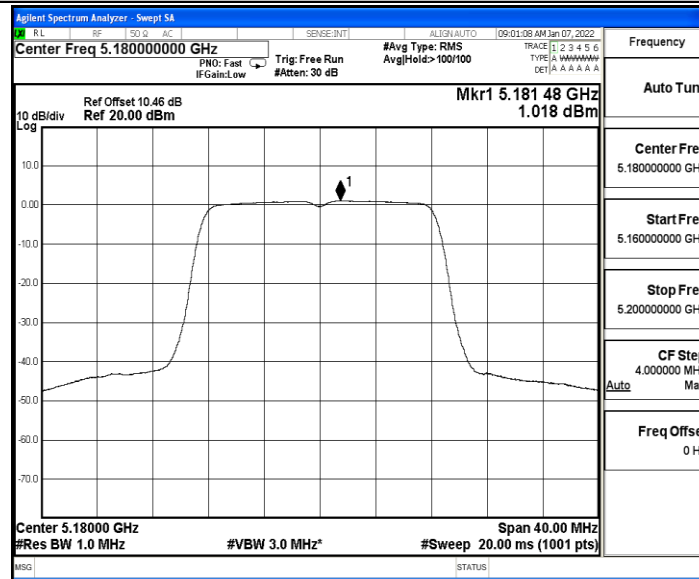
TestMode	Antenna	Channel	Result [dBm/MHz]	Limit[dBm/MHz]	Verdict
11A	Ant	5180	1.03	≤ 11.00	PASS
		5220	1.07	≤ 11.00	PASS
		5240	0.73	≤ 11.00	PASS
11N20SISO	Ant	5180	-1.92	≤ 11.00	PASS
		5220	-1.64	≤ 11.00	PASS
		5240	-2.19	≤ 11.00	PASS
11N40SISO	Ant	5190	-5.48	≤ 11.00	PASS
		5230	-5.37	≤ 11.00	PASS
11AC20SISO	Ant	5180	-2.72	≤ 11.00	PASS
		5220	-2.45	≤ 11.00	PASS
		5240	-2.68	≤ 11.00	PASS
11AC40SISO	Ant	5190	-5.87	≤ 11.00	PASS
		5230	-5.71	≤ 11.00	PASS
11AC80SISO	Ant	5210	-9.41	≤ 11.00	PASS

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

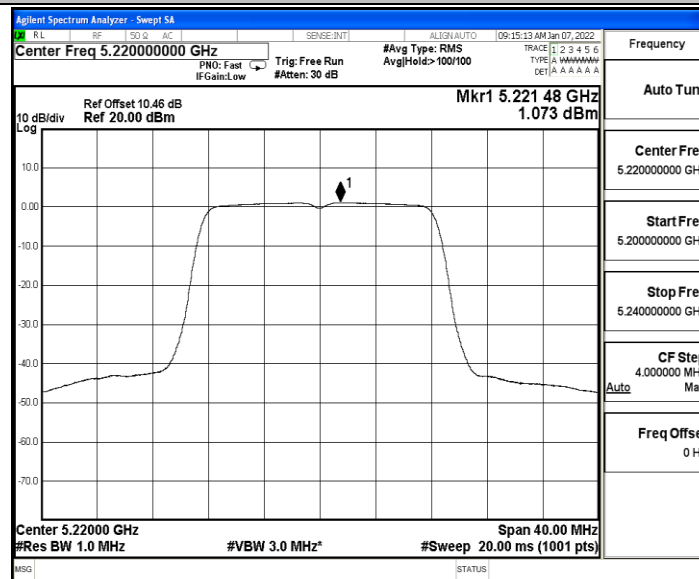


Test Graphs

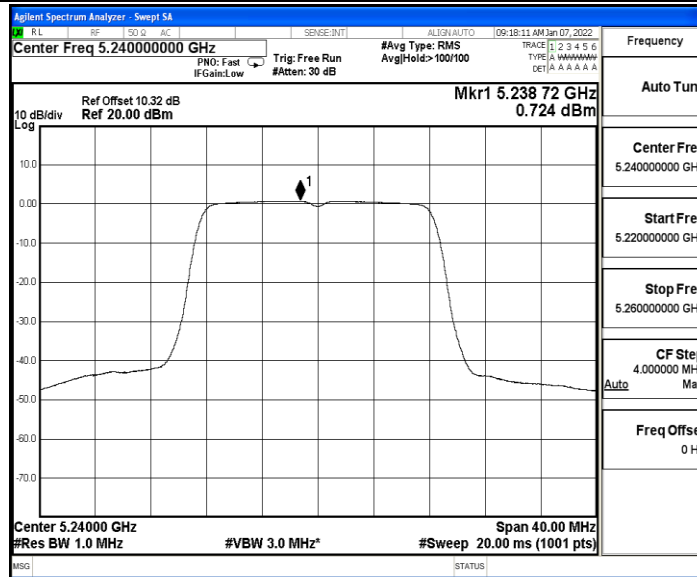
11A_Ant_5180



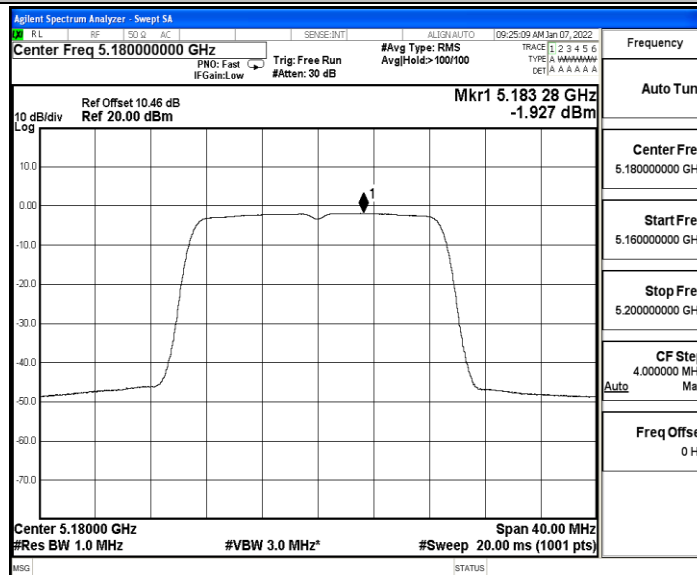
11A_Ant_5220



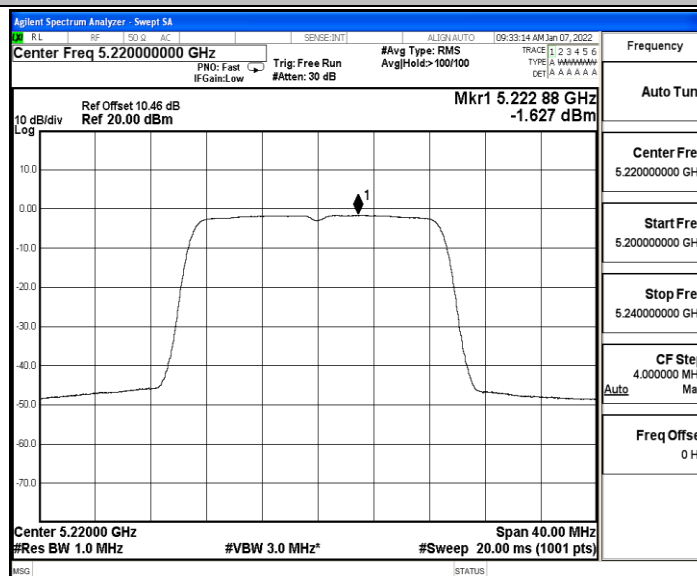
11A_Ant_5240



11N20SISO_Ant_5180

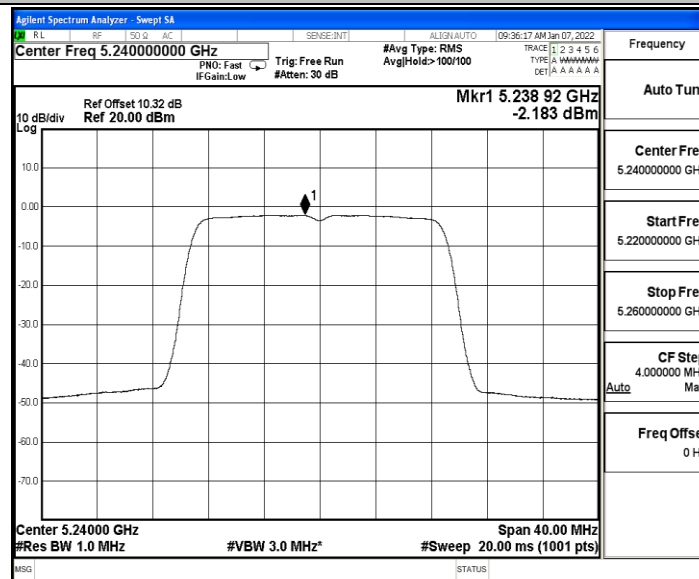


11N20SISO_Ant_5220

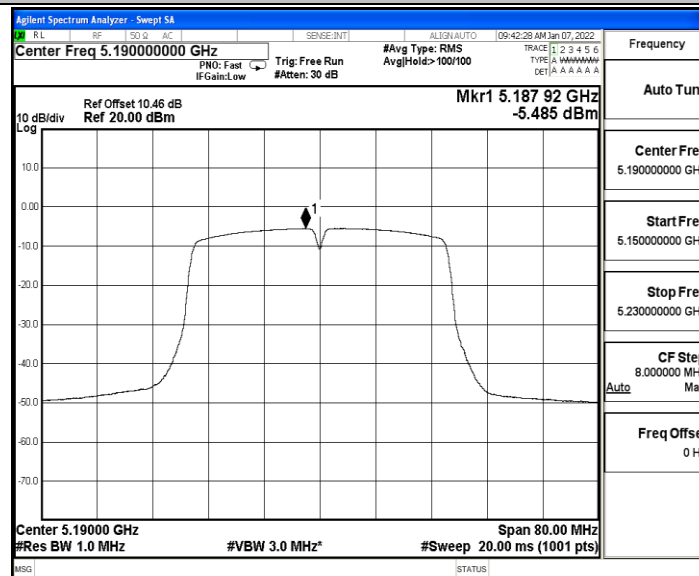




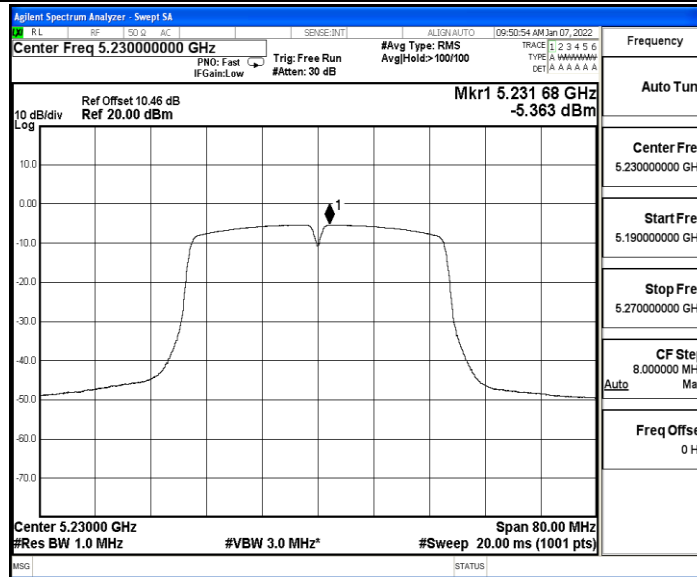
11N20SISO_Ant_5240



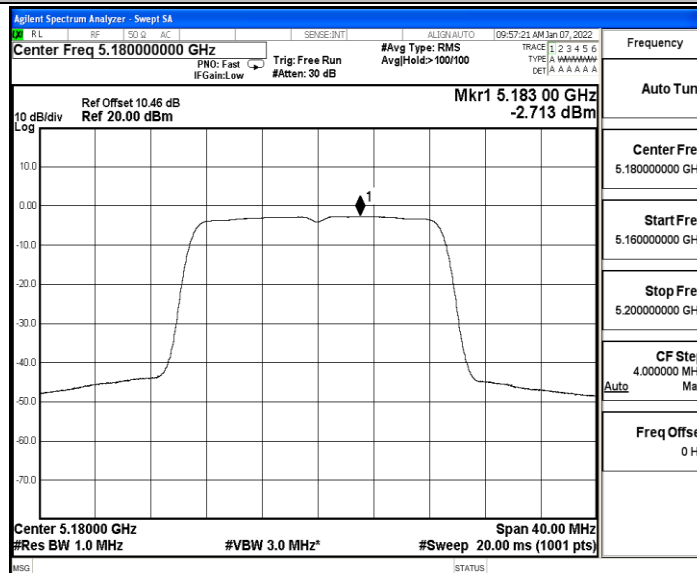
11N40SISO_Ant_5190



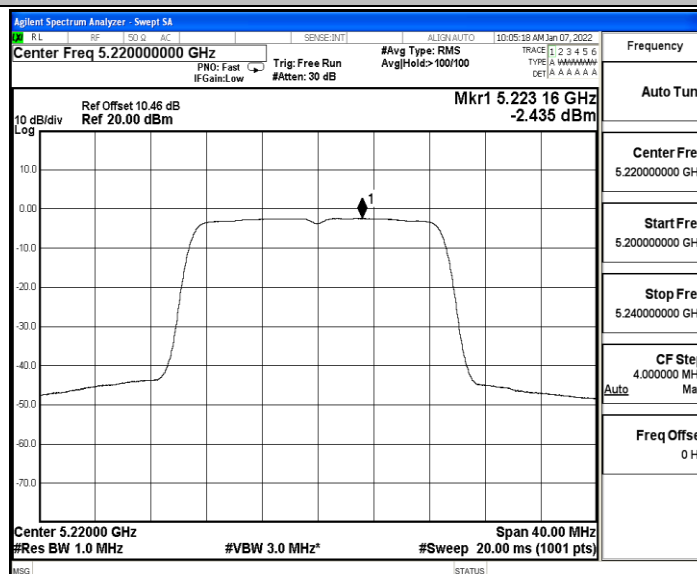
11N40SISO_Ant_5230



11AC20SISO_Ant_5180

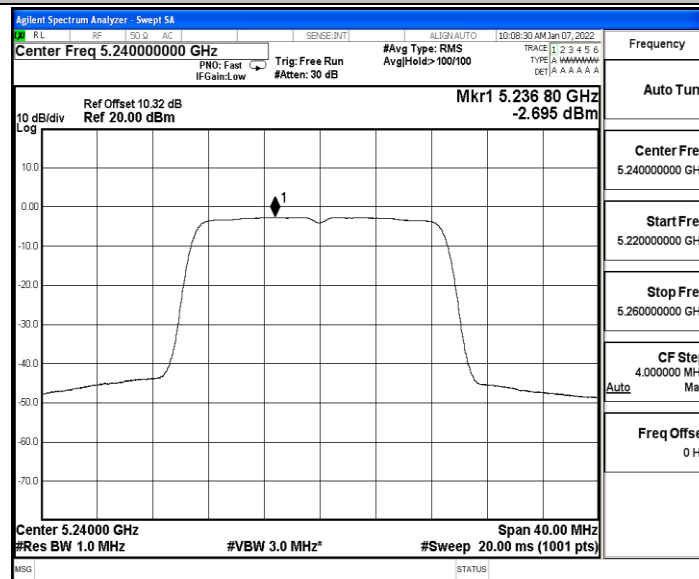


11AC20SISO_Ant_5220

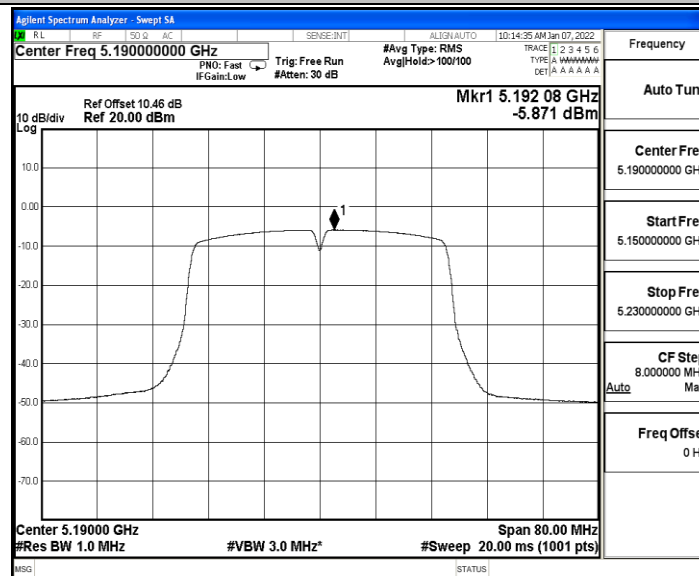




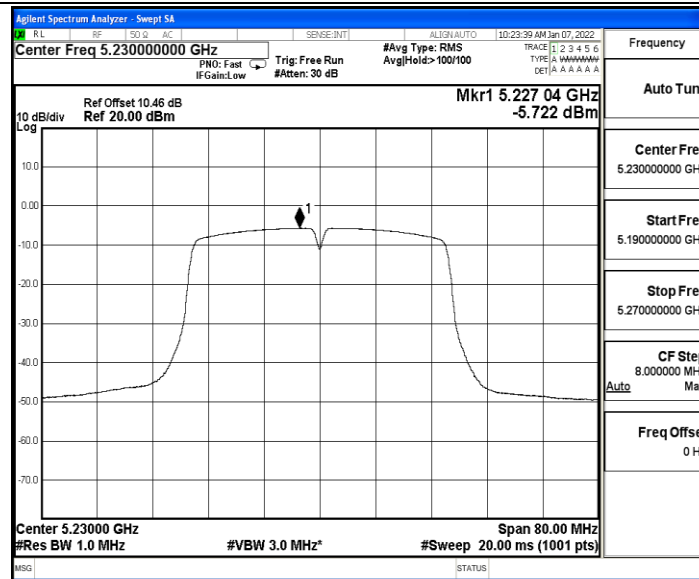
11AC20SISO_Ant_5240



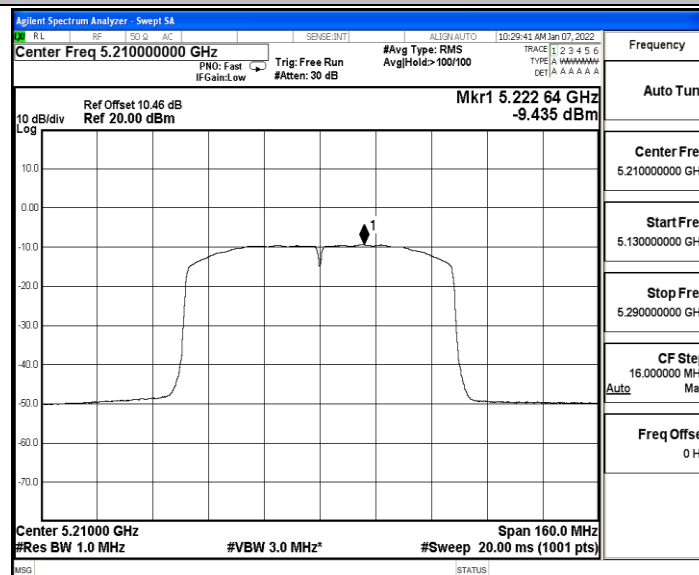
11AC40SISO_Ant_5190



11AC40SISO_Ant_5230



11AC80SISO_Ant_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	Ant	Low	5180	AV	4500.000	-57.9	≤-41.20	37.30	≤54	PASS
				AV	5149.600	-54.28	≤-41.20	40.92	≤54	PASS
				AV	5150.000	-54.15	≤-41.20	41.05	≤54	PASS
				Peak	4500.000	-48.26	≤-21.20	46.94	≤68.2	PASS
				Peak	4951.500	-44.26	≤-21.20	50.94	≤68.2	PASS
				Peak	5150.000	-44.07	≤-21.20	51.13	≤68.2	PASS
		High	5240	AV	5350.000	-56.36	≤-41.20	38.84	≤54	PASS
				AV	5396.880	-56.02	≤-41.20	39.18	≤54	PASS
				AV	5460.000	-56.44	≤-41.20	38.76	≤54	PASS
				Peak	5350.000	-46.31	≤-21.20	48.89	≤68.2	PASS
				Peak	5392.560	-45.19	≤-21.20	50.01	≤68.2	PASS
				Peak	5460.000	-47.65	≤-21.20	47.55	≤68.2	PASS
11N20SIS O	Ant	Low	5180	AV	4500.000	-57.85	≤-41.20	37.35	≤54	PASS
				AV	5149.600	-54.77	≤-41.20	40.43	≤54	PASS
				AV	5150.000	-54.74	≤-41.20	40.46	≤54	PASS
				Peak	4500.000	-48.94	≤-21.20	46.26	≤68.2	PASS
				Peak	5039.000	-44.6	≤-21.20	50.60	≤68.2	PASS
				Peak	5150.000	-45.43	≤-21.20	49.77	≤68.2	PASS
		High	5240	AV	5350.000	-56.4	≤-41.20	38.80	≤54	PASS
				AV	5398.800	-56.26	≤-41.20	38.94	≤54	PASS
				AV	5460.000	-56.5	≤-41.20	38.70	≤54	PASS
				Peak	5350.000	-48.08	≤-21.20	47.12	≤68.2	PASS
				Peak	5428.560	-45.41	≤-21.20	49.79	≤68.2	PASS
				Peak	5460.000	-46.97	≤-21.20	48.23	≤68.2	PASS
11N40SIS O	Ant	Low	5190	AV	4500.000	-57.9	≤-41.20	37.30	≤54	PASS
				AV	5149.600	-52.15	≤-41.20	43.05	≤54	PASS
				AV	5150.000	-51.72	≤-41.20	43.48	≤54	PASS
				Peak	4500.000	-48.93	≤-21.20	46.27	≤68.2	PASS
				Peak	5148.200	-41.06	≤-21.20	54.14	≤68.2	PASS
				Peak	5150.000	-41.39	≤-21.20	53.81	≤68.2	PASS
		High	5230	AV	5350.000	-56.61	≤-41.20	38.59	≤54	PASS
				AV	5398.380	-56.51	≤-41.20	38.69	≤54	PASS
				AV	5460.000	-56.54	≤-41.20	38.66	≤54	PASS
				Peak	5350.000	-48.44	≤-21.20	46.76	≤68.2	PASS
				Peak	5402.800	-45.37	≤-21.20	49.83	≤68.2	PASS
				Peak	5460.000	-46.8	≤-21.20	48.40	≤68.2	PASS



11AC20SI SO	Ant	Low	5180	AV	4500.000	-57.89	≤ -41.20	37.31	≤ 54	PASS
				AV	5149.600	-55.52	≤ -41.20	39.68	≤ 54	PASS
				AV	5150.000	-55.49	≤ -41.20	39.71	≤ 54	PASS
				Peak	4500.000	-49.33	≤ -21.20	45.87	≤ 68.2	PASS
				Peak	5060.700	-44.47	≤ -21.20	50.73	≤ 68.2	PASS
				Peak	5150.000	-46.88	≤ -21.20	48.32	≤ 68.2	PASS
		High	5240	AV	5350.000	-56.76	≤ -41.20	38.44	≤ 54	PASS
				AV	5404.560	-56.59	≤ -41.20	38.61	≤ 54	PASS
				AV	5460.000	-56.86	≤ -41.20	38.34	≤ 54	PASS
				Peak	5350.000	-47.63	≤ -21.20	47.57	≤ 68.2	PASS
				Peak	5389.200	-45.49	≤ -21.20	49.71	≤ 68.2	PASS
				Peak	5460.000	-47.26	≤ -21.20	47.94	≤ 68.2	PASS
11AC40SI SO	Ant	Low	5190	AV	4500.000	-57.81	≤ -41.20	37.39	≤ 54	PASS
				AV	5149.600	-52.54	≤ -41.20	42.66	≤ 54	PASS
				AV	5150.000	-52.21	≤ -41.20	42.99	≤ 54	PASS
				Peak	4500.000	-48.46	≤ -21.20	46.74	≤ 68.2	PASS
				Peak	5146.800	-42.48	≤ -21.20	52.72	≤ 68.2	PASS
				Peak	5150.000	-42.01	≤ -21.20	53.19	≤ 68.2	PASS
		High	5230	AV	5350.000	-56.53	≤ -41.20	38.67	≤ 54	PASS
				AV	5383.300	-56.43	≤ -41.20	38.77	≤ 54	PASS
				AV	5460.000	-56.48	≤ -41.20	38.72	≤ 54	PASS
				Peak	5350.000	-48.33	≤ -21.20	46.87	≤ 68.2	PASS
				Peak	5390.320	-44.83	≤ -21.20	50.37	≤ 68.2	PASS
				Peak	5460.000	-47.06	≤ -21.20	48.14	≤ 68.2	PASS
11AC80SI SO	Ant	Low	5210	AV	4500.000	-57.81	≤ -41.20	37.39	≤ 54	PASS
				AV	5148.750	-51.99	≤ -41.20	43.21	≤ 54	PASS
				AV	5150.000	-51.75	≤ -41.20	43.45	≤ 54	PASS
				Peak	4500.000	-48.98	≤ -21.20	46.22	≤ 68.2	PASS
				Peak	5148.750	-41.14	≤ -21.20	54.06	≤ 68.2	PASS
				Peak	5150.000	-40.7	≤ -21.20	54.50	≤ 68.2	PASS
		High	5210	AV	5350.000	-56.49	≤ -41.20	38.71	≤ 54	PASS
				AV	5355.280	-56.48	≤ -41.20	38.72	≤ 54	PASS
				AV	5460.000	-56.63	≤ -41.20	38.57	≤ 54	PASS
				Peak	5350.000	-47.49	≤ -21.20	47.71	≤ 68.2	PASS
				Peak	5426.680	-45.69	≤ -21.20	49.51	≤ 68.2	PASS
				Peak	5460.000	-48.17	≤ -21.20	47.03	≤ 68.2	PASS

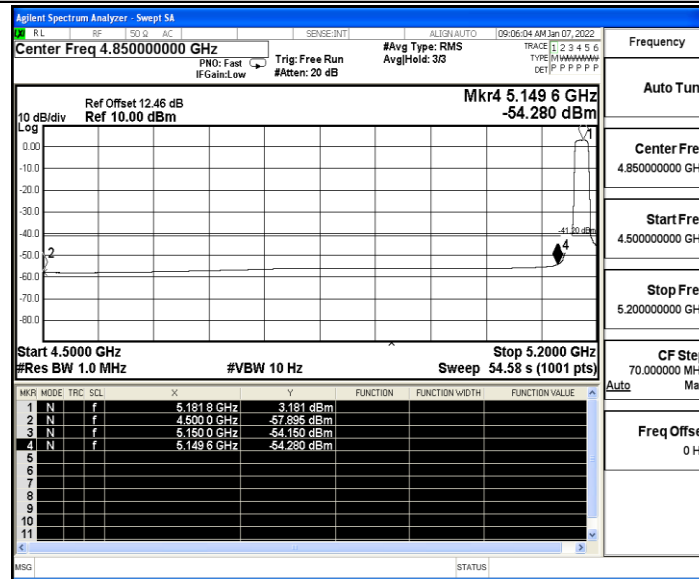
Note:

1. The Antenna Gain is compensated in the graph.
2. For transmitters operating in 5150-5250 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.

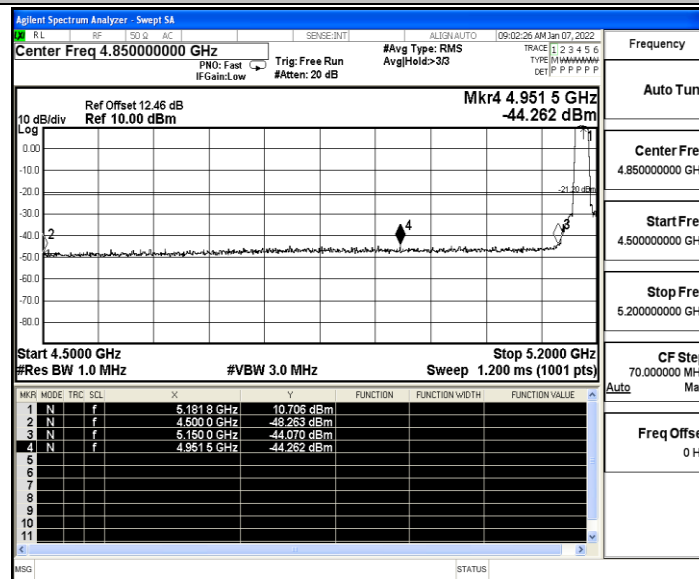


Test Graphs

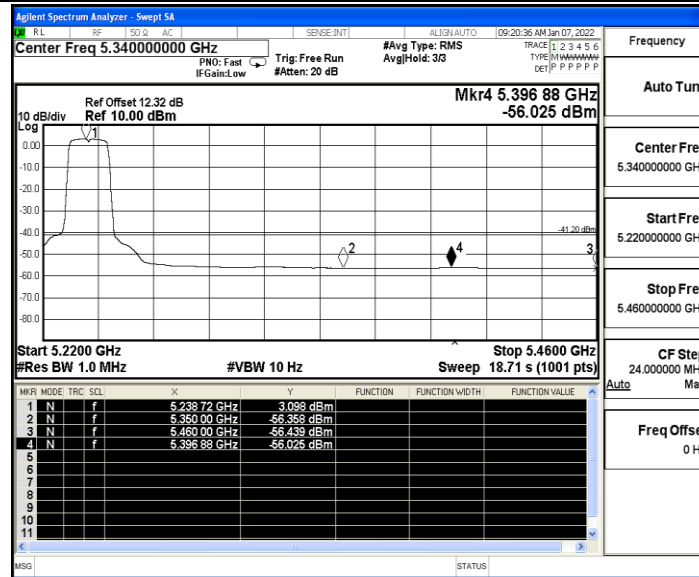
11A_Ant_Low_5180_AV



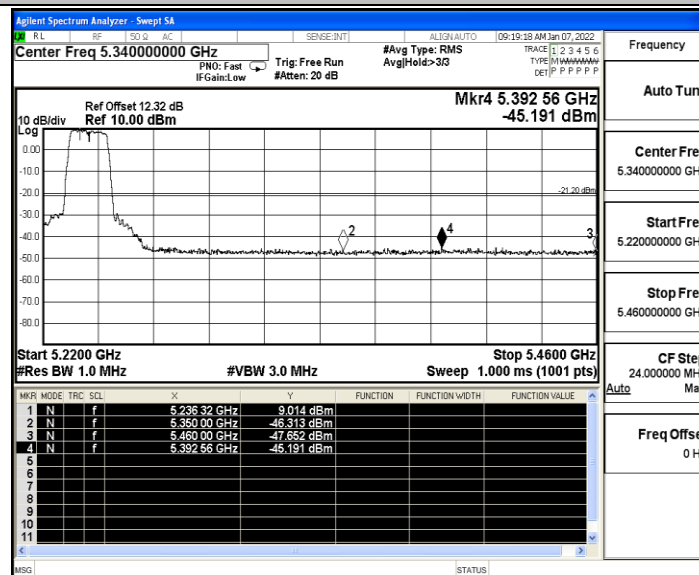
11A_Ant_Low_5180_Peak



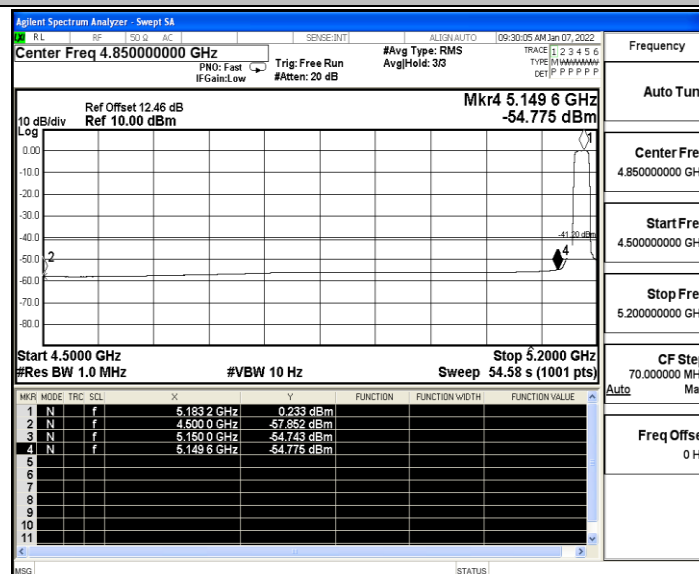
11A_Ant_High_5240_AV



11A_Ant_High_5240_Peak

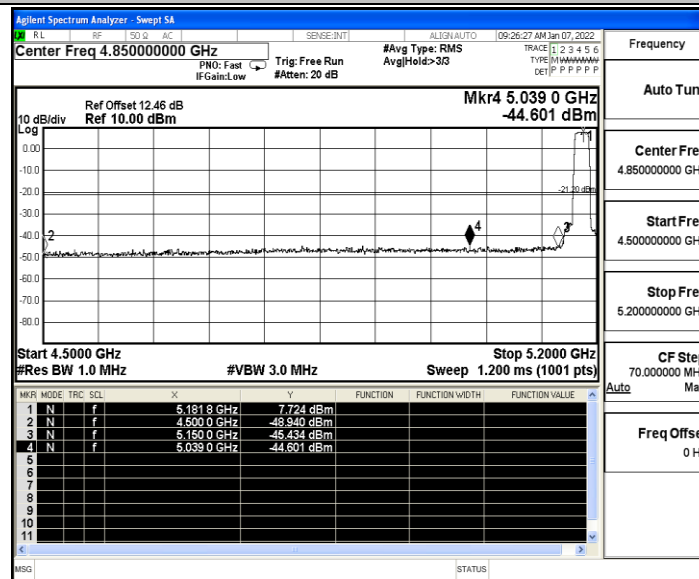


11N20SISO_Ant_Low_5180_AV

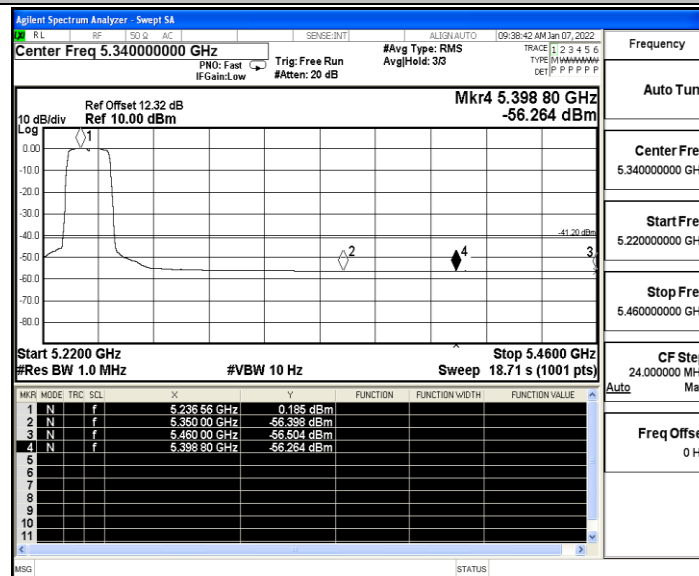




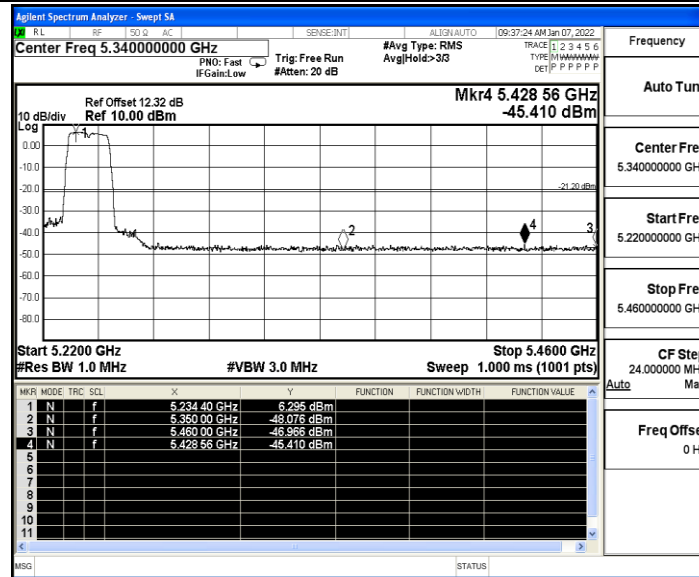
11N20SISO_Ant_Low_5180_Peak



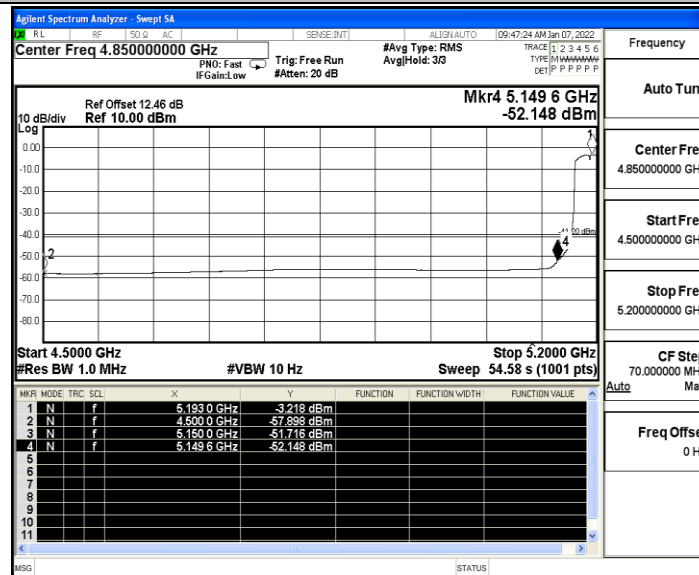
11N20SISO_Ant_High_5240_AV



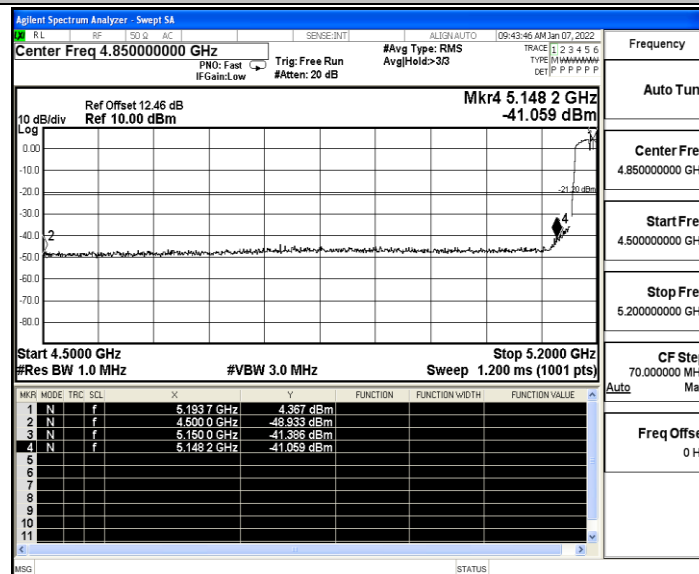
11N20SISO_Ant_High_5240_Peak



11N40SISO_Ant_Low_5190_AV

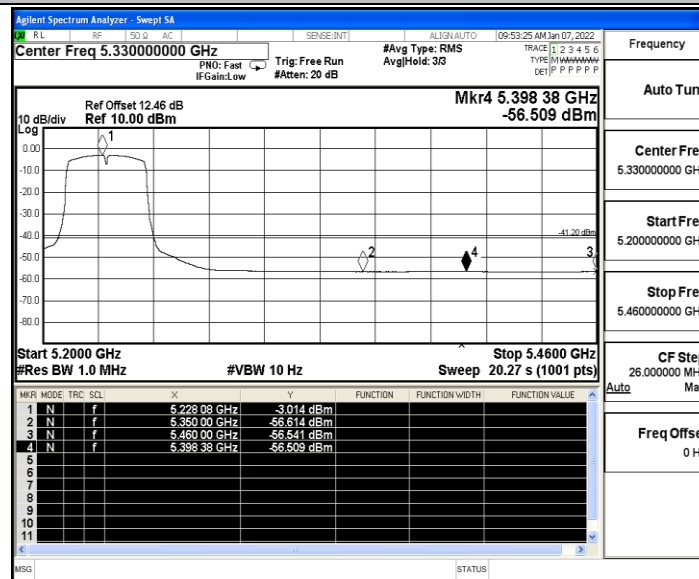


11N40SISO_Ant_Low_5190_Peak

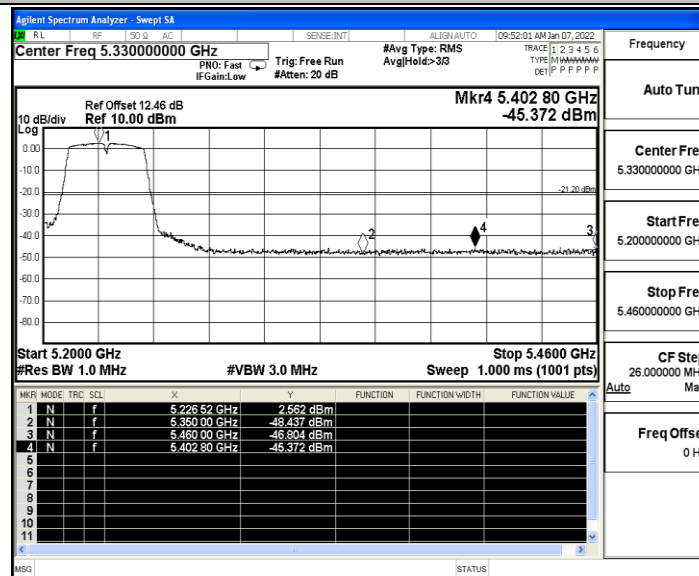




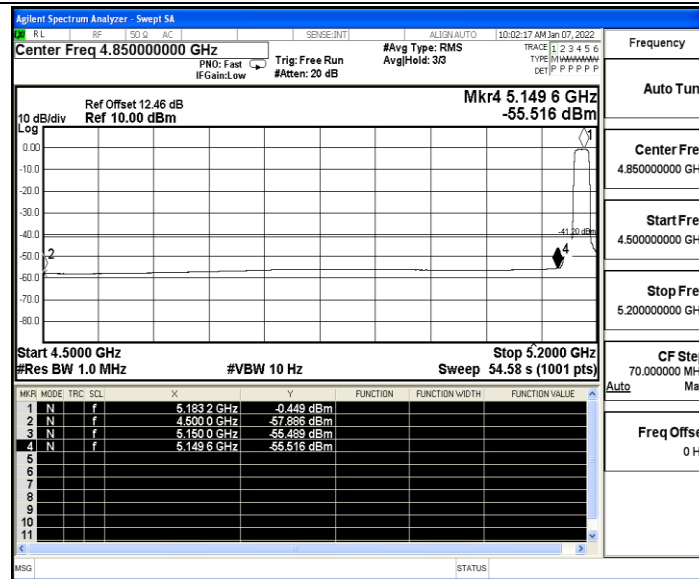
11N40SISO_Ant_High_5230_AV



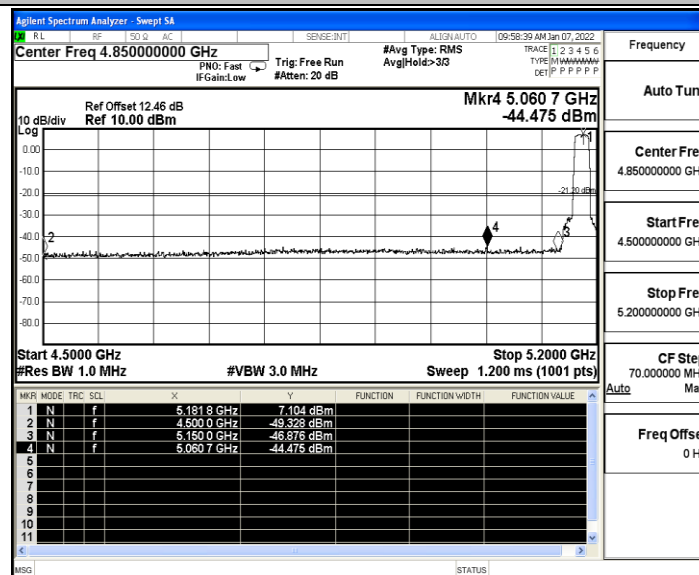
11N40SISO_Ant_High_5230_Peak



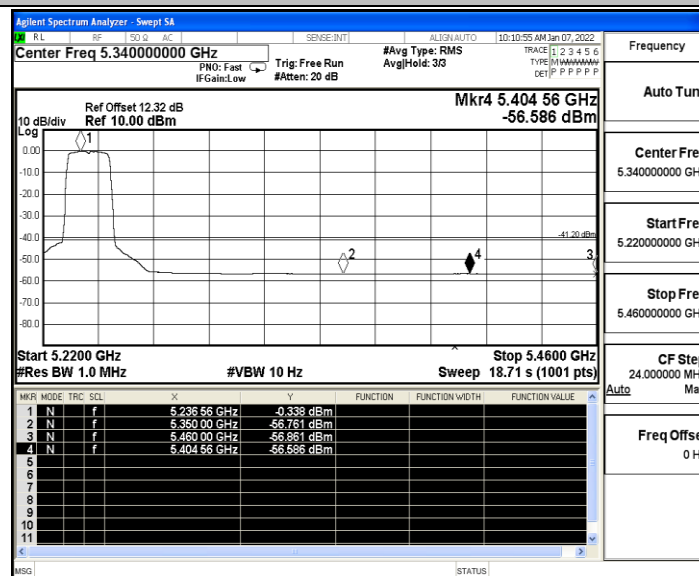
11AC20SISO_Ant_Low_5180_AV



11AC20SISO_Ant_Low_5180_Peak

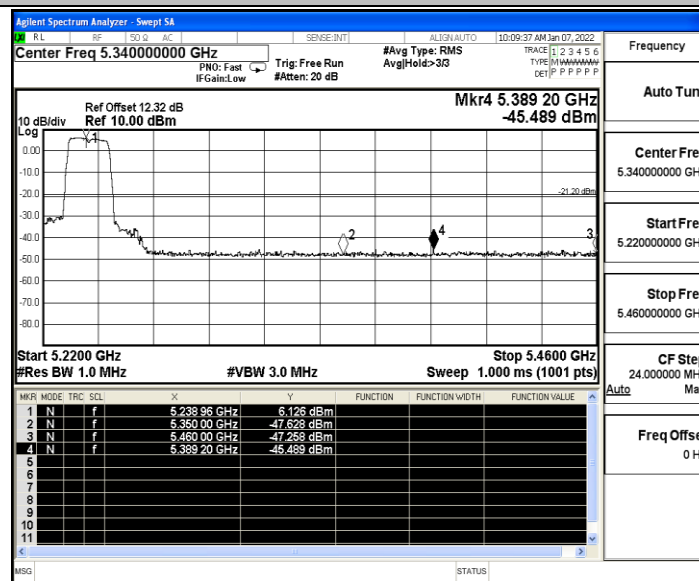


11AC20SISO_Ant_High_5240_AV

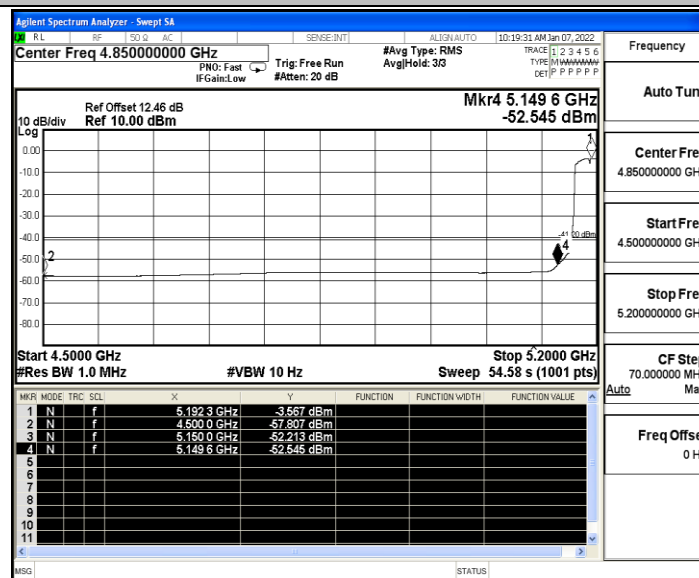




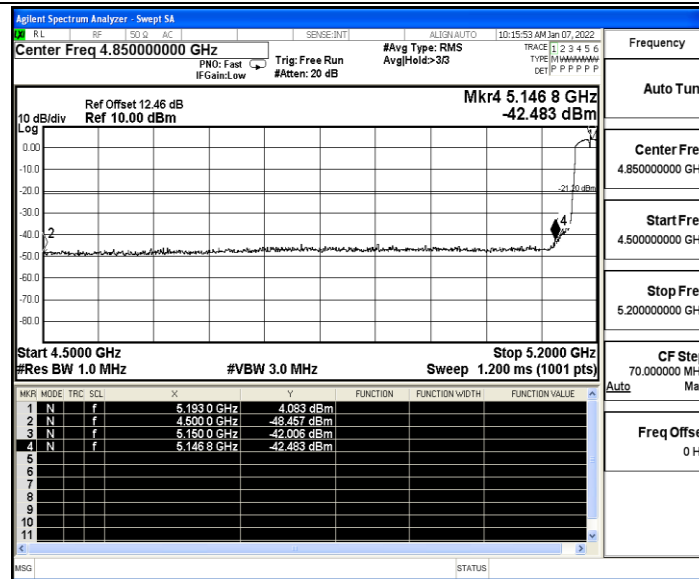
11AC20SISO_Ant_High_5240_Peak



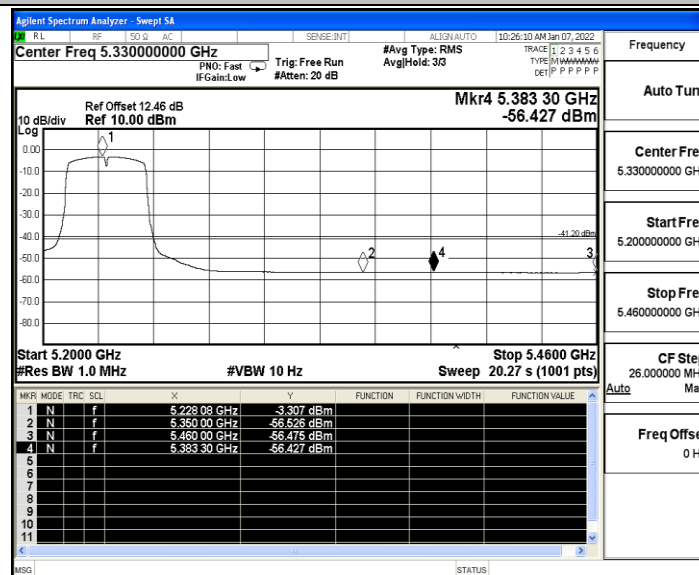
11AC40SISO_Ant_Low_5190_AV



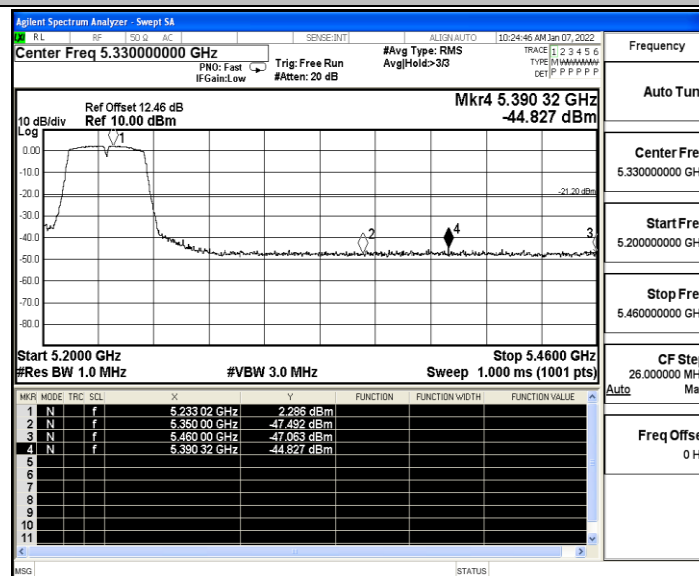
11AC40SISO_Ant_Low_5190_Peak



11AC40SISO_Ant_High_5230_AV

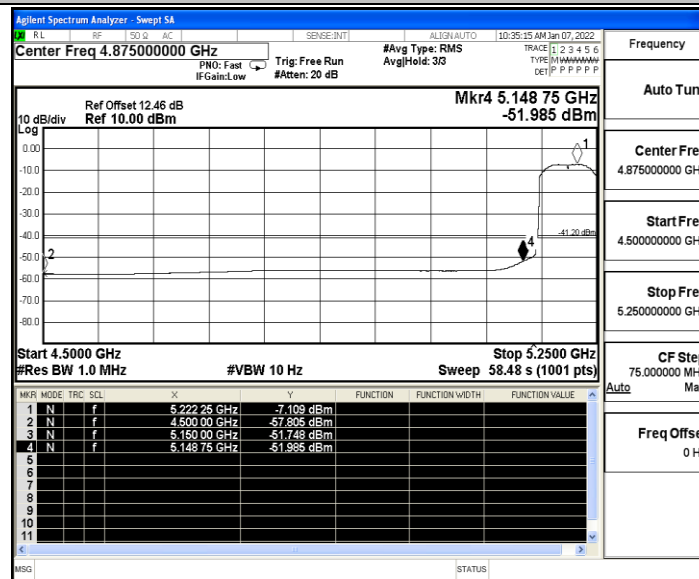


11AC40SISO_Ant_High_5230_Peak

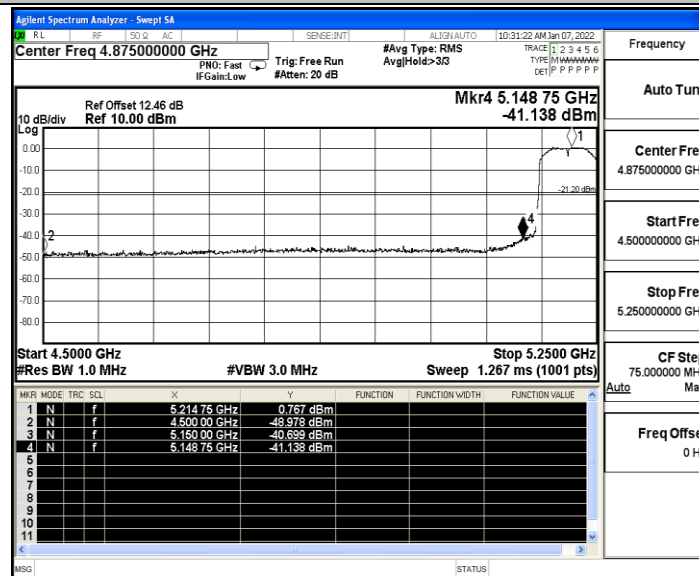




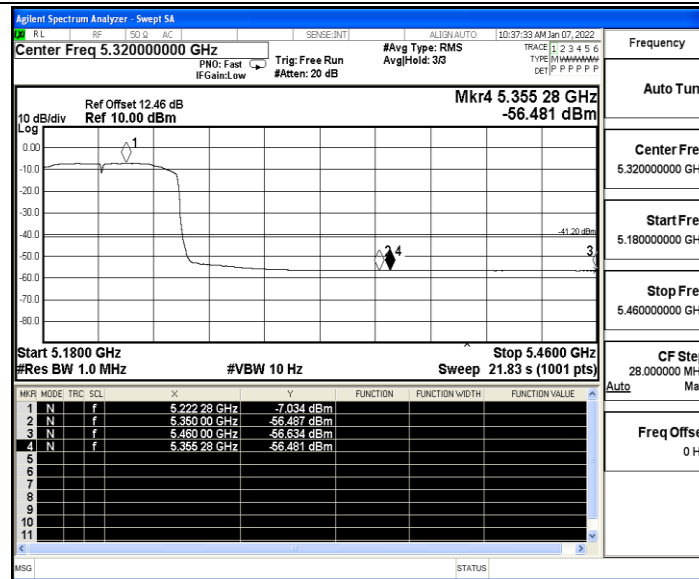
11AC80SISO_Ant_Low_5210_AV



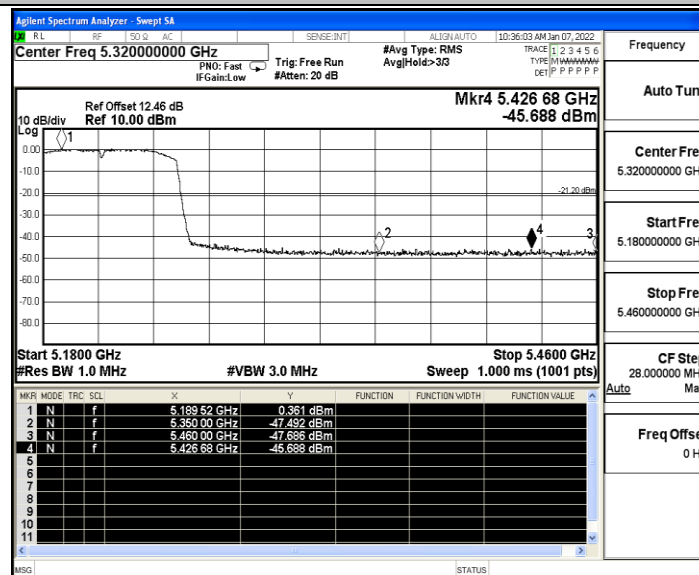
11AC80SISO_Ant_Low_5210_Peak



11AC80SISO_Ant_High_5210_AV



11AC80SISO_Ant_High_5210_Peak





D.5 Frequency Stability

Test Result

Voltage								
TestMode	Antenna	Channel	Voltage [Vdc]	Temperature (°C)	Deviation (Hz)	Deviation (ppm)	Limit (ppm)	Verdict
11A	Ant	5180	NV	NT	-10000	-1.930502	20	PASS
			LV	NT	-10000	-1.930502	20	PASS
			HV	NT	-10000	-1.930502	20	PASS
		5220	NV	NT	-10000	-1.915709	20	PASS
			LV	NT	-11000	-2.10728	20	PASS
			HV	NT	-10000	-1.915709	20	PASS
		5240	NV	NT	-10000	-1.908397	20	PASS
			LV	NT	-11000	-2.099237	20	PASS
			HV	NT	-10000	-1.908397	20	PASS

Temperature								
TestMode	Antenna	Channel	Voltage [Vdc]	Temperature (°C)	Deviation (Hz)	Deviation (ppm)	Limit (ppm)	Verdict
11A	Ant	5180	NV	-30	-11000	-2.123552	20	PASS
			NV	-20	-11000	-2.123552	20	PASS
			NV	-10	-11000	-2.123552	20	PASS
			NV	0	-10000	-1.930502	20	PASS
			NV	10	-11000	-2.123552	20	PASS
			NV	20	-11000	-2.123552	20	PASS
			NV	30	-11000	-2.123552	20	PASS
			NV	40	-11000	-2.123552	20	PASS
			NV	50	-11000	-2.123552	20	PASS
		5220	NV	-30	-10000	-1.915709	20	PASS
			NV	-20	-11000	-2.10728	20	PASS
			NV	-10	-11000	-2.10728	20	PASS
			NV	0	-10000	-1.915709	20	PASS
			NV	10	-10000	-1.915709	20	PASS
			NV	20	-11000	-2.10728	20	PASS
			NV	30	-11000	-2.10728	20	PASS
			NV	40	-11000	-2.10728	20	PASS
			NV	50	-11000	-2.10728	20	PASS
		5240	NV	-30	-10000	-1.908397	20	PASS
			NV	-20	-11000	-2.099237	20	PASS
			NV	-10	-11000	-2.099237	20	PASS
			NV	0	-11000	-2.099237	20	PASS
			NV	0	-11000	-2.099237	20	PASS



			NV	10	-11000	-2.099237	20	PASS
			NV	20	-11000	-2.099237	20	PASS
			NV	30	-11000	-2.099237	20	PASS
			NV	40	-11000	-2.099237	20	PASS
			NV	50	-11000	-2.099237	20	PASS



D.6 Duty Cycle

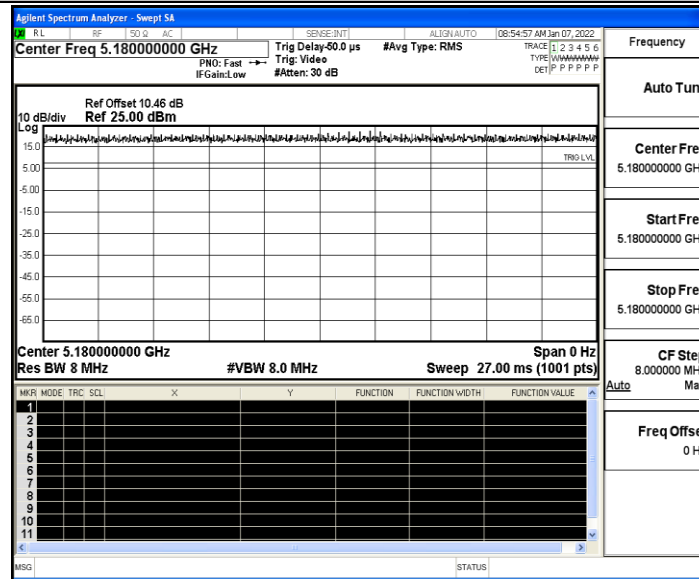
Test Result

TestMode	Antenna	Channel	Transmission Duration [ms]	Transmission Period [ms]	Duty Cycle [%]	Limit	Verdict
11A	Ant	5180	27.00	27.00	100.00	---	---
		5220	27.00	27.00	100.00	---	---
		5240	27.00	27.00	100.00	---	---
11N20SISO	Ant	5180	27.00	27.00	100.00	---	---
		5220	27.00	27.00	100.00	---	---
		5240	27.00	27.00	100.00	---	---
11N40SISO	Ant	5190	27.00	27.00	100.00	---	---
		5230	27.00	27.00	100.00	---	---
11AC20SISO	Ant	5180	27.00	27.00	100.00	---	---
		5220	27.00	27.00	100.00	---	---
		5240	27.00	27.00	100.00	---	---
11AC40SISO	Ant	5190	27.00	27.00	100.00	---	---
		5230	27.00	27.00	100.00	---	---
11AC80SISO	Ant	5210	27.00	27.00	100.00	---	---

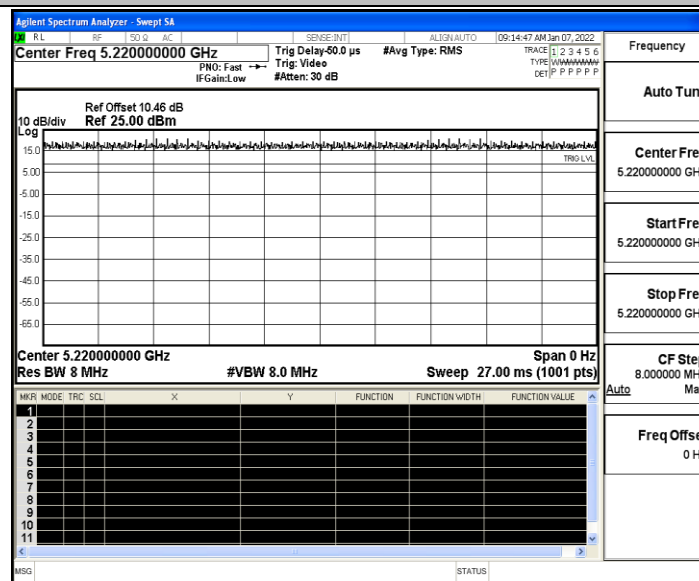


Test Graphs

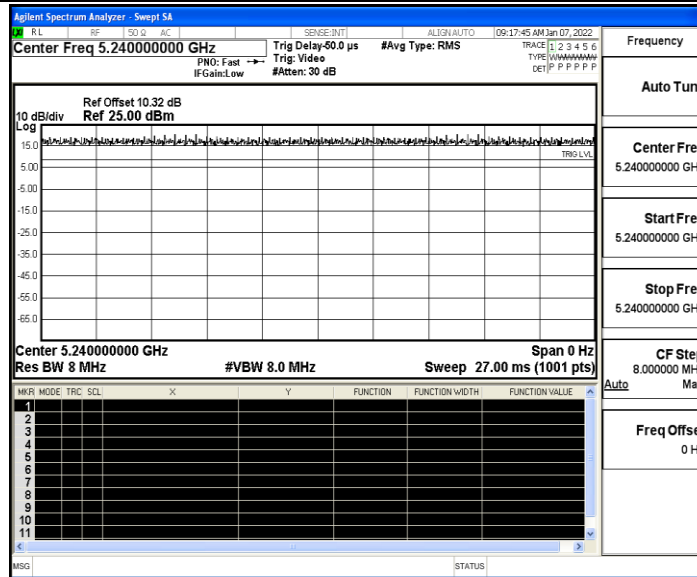
11A_Ant_5180



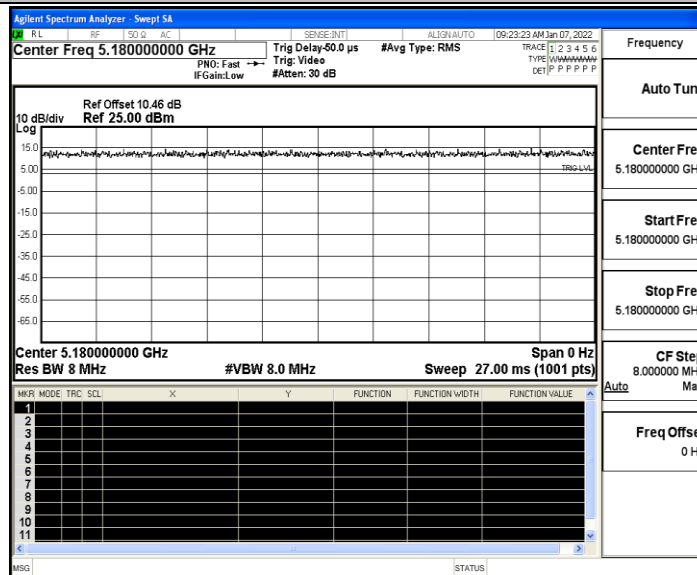
11A_Ant_5220



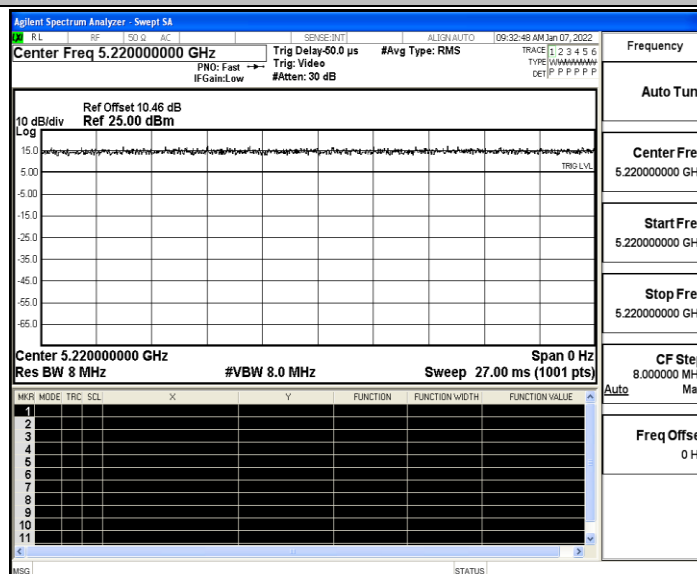
11A_Ant_5240



11N20SISO_Ant_5180

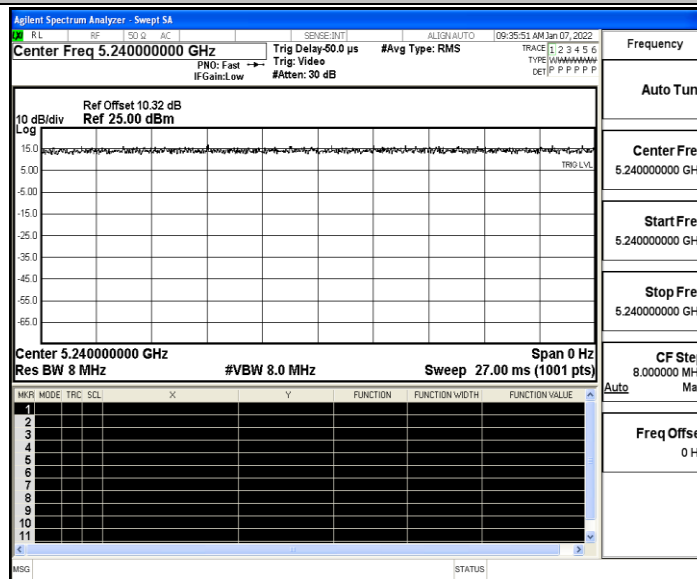


11N20SISO_Ant_5220

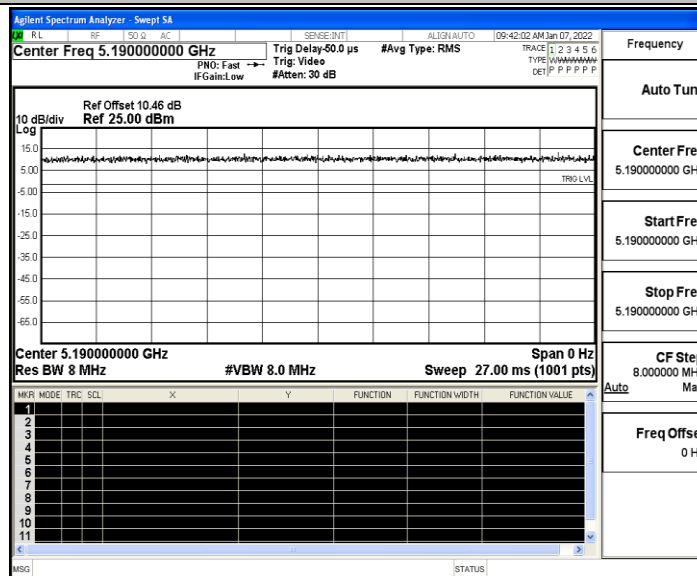




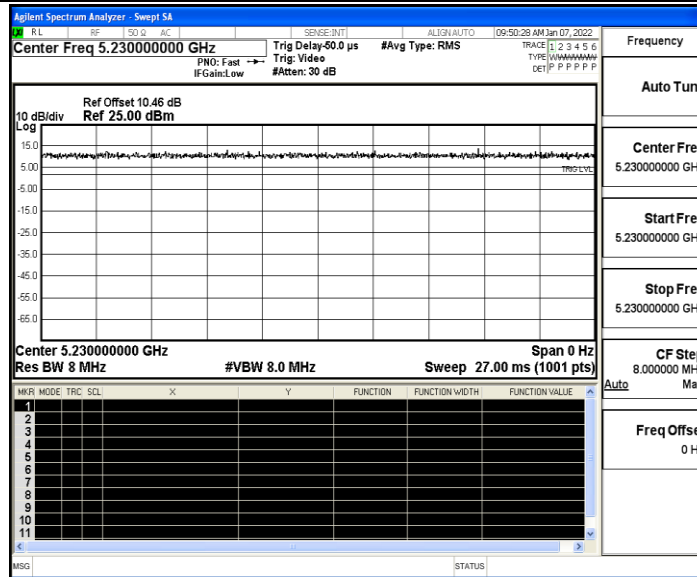
11N20SISO_Ant_5240



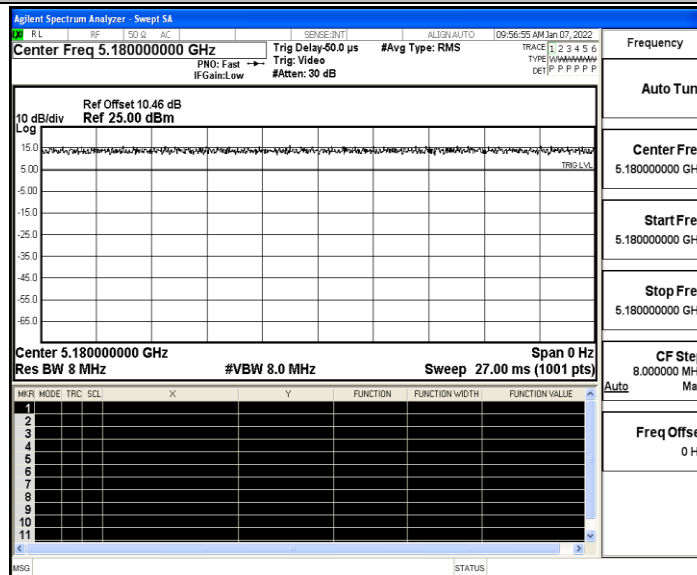
11N40SISO_Ant_5190



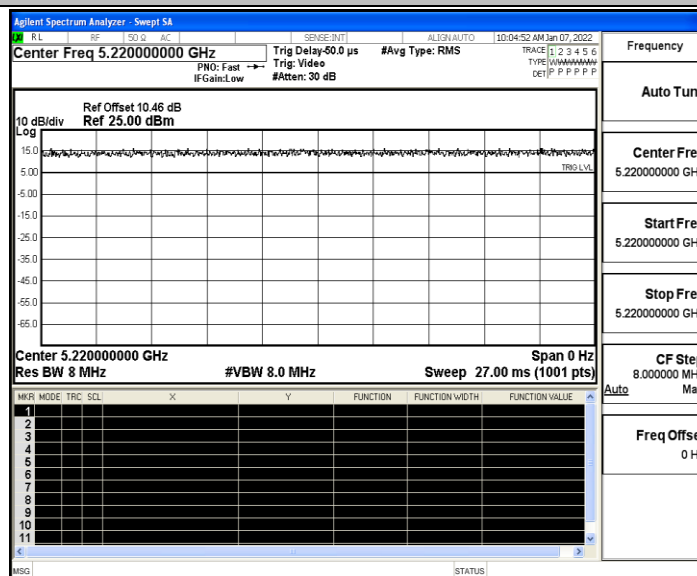
11N40SISO_Ant_5230



11AC20SISO_Ant_5180

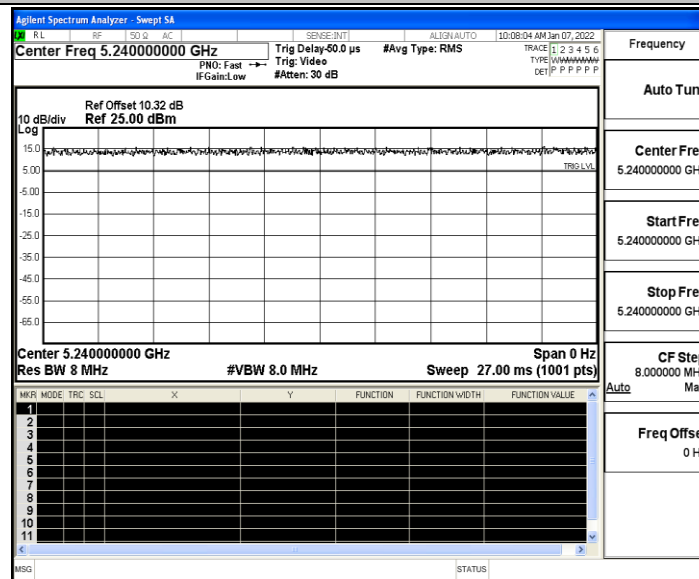


11AC20SISO_Ant_5220

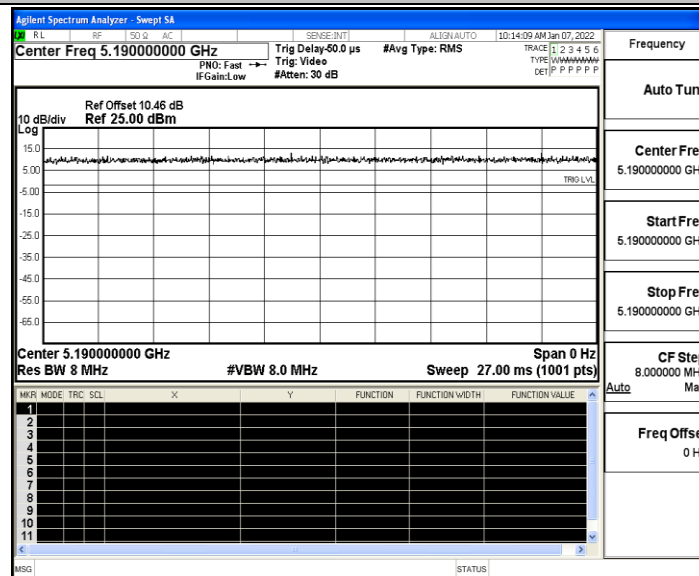




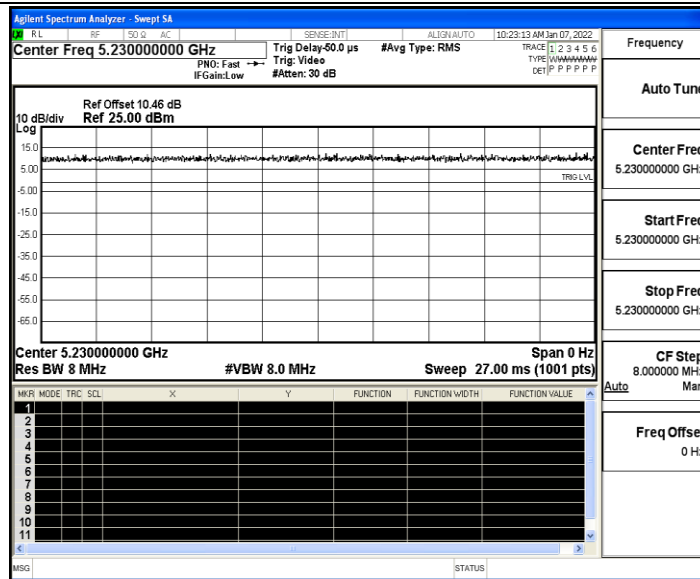
11AC20SISO_Ant_5240



11AC40SISO_Ant_5190



11AC40SISO_Ant_5230



11AC80SISO_Ant_5210

