



Appendix D

RF Test Data for 5.2G WIFI (Conducted Measurement)

Product Name: TABLET PC

Test Model: RubensTab_T11

Environmental Conditions

Temperature:	23.7°C
Relative Humidity:	52.3%
ATM Pressure:	100.0 kPa
Test Engineer:	Wunder Wu
Supervised by:	Li Huan



D.1 Emission Bandwidth

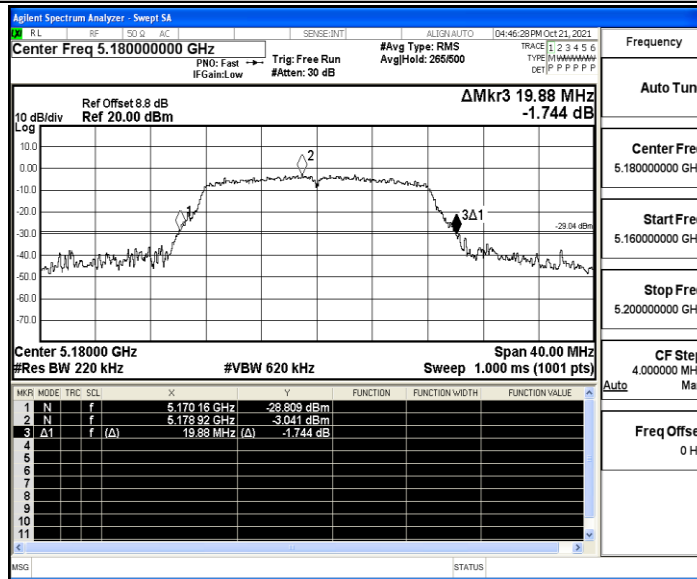
Test Result

TestMode	Antenna	Channel	26db EBW [MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
11A	Ant1	5180	19.880	5170.160	5190.040	---	PASS
		5200	19.920	5190.000	5209.920	---	PASS
		5240	19.920	5230.120	5250.040	---	PASS
11N20SISO	Ant1	5180	20.400	5169.840	5190.240	---	PASS
		5200	20.360	5189.880	5210.240	---	PASS
		5240	20.480	5229.800	5250.280	---	PASS
11N40SISO	Ant1	5190	40.800	5169.520	5210.320	---	PASS
		5230	40.080	5210.000	5250.080	---	PASS
11AC20SISO	Ant1	5180	20.240	5169.880	5190.120	---	PASS
		5200	20.120	5190.040	5210.160	---	PASS
		5240	20.240	5229.840	5250.080	---	PASS
11AC40SISO	Ant1	5190	40.240	5169.920	5210.160	---	PASS
		5230	40.320	5209.680	5250.000	---	PASS
11AC80SISO	Ant1	5210	80.800	5169.520	5250.320	---	PASS

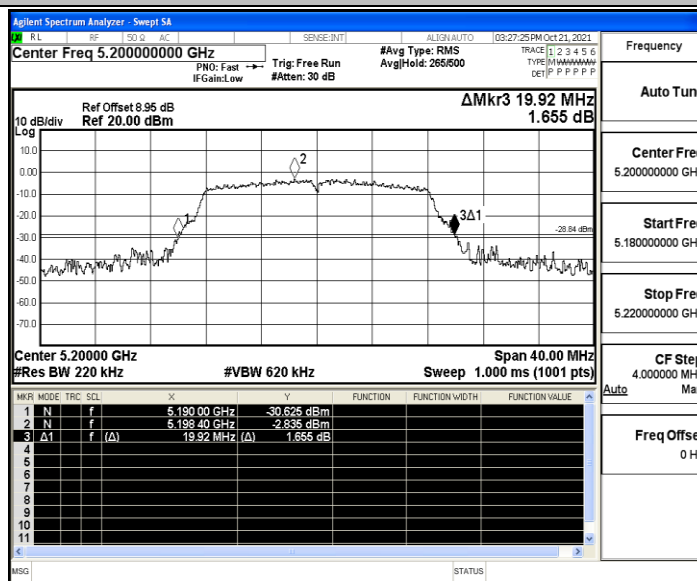


Test Graphs

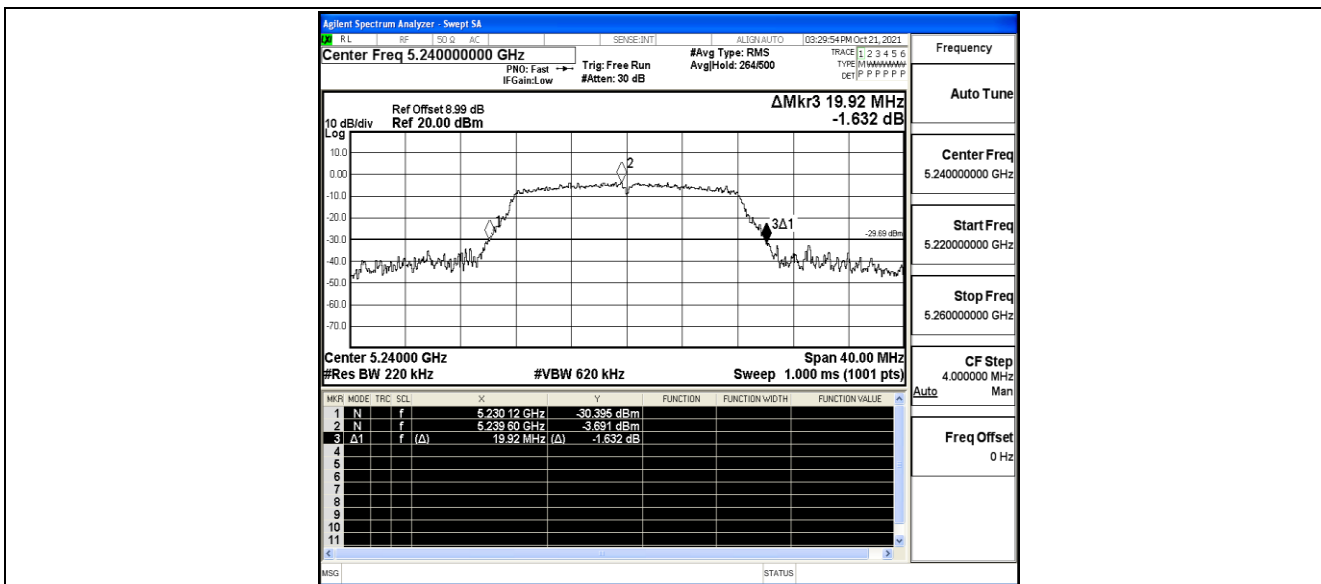
11A_Ant1_5180



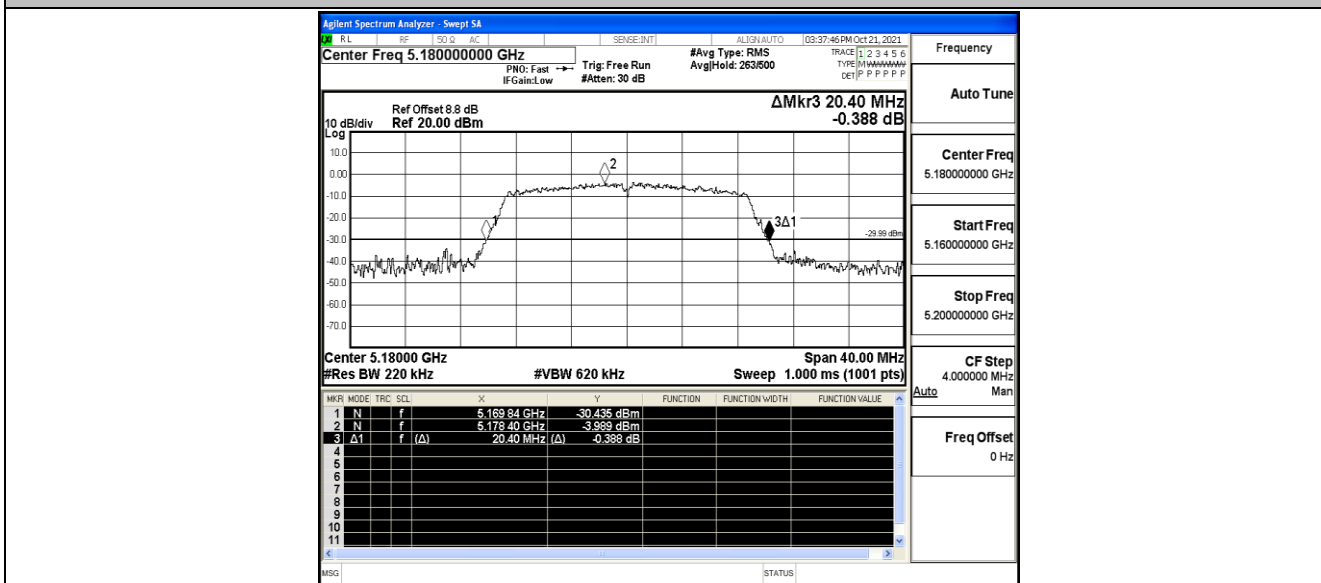
11A_Ant1_5200



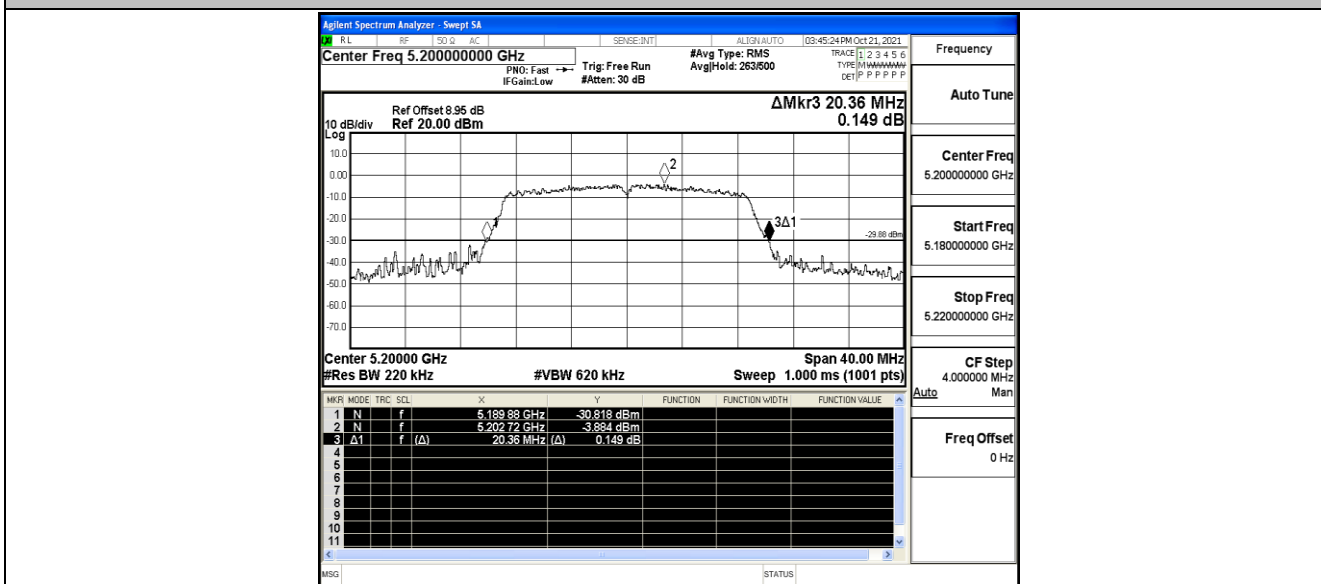
11A_Ant1_5240



11N20SISO_Ant1_5180

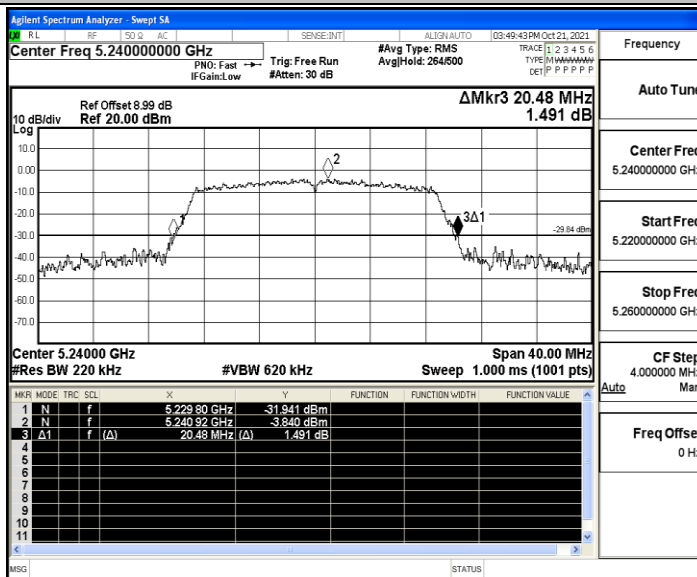


11N20SISO_Ant1_5200

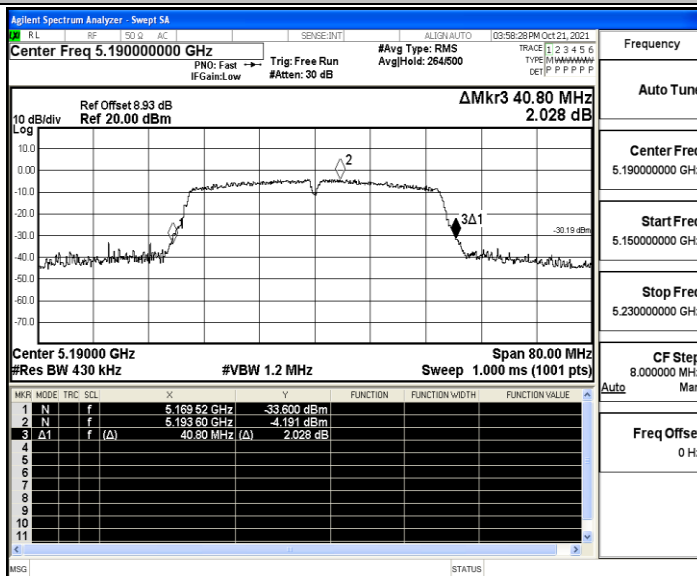




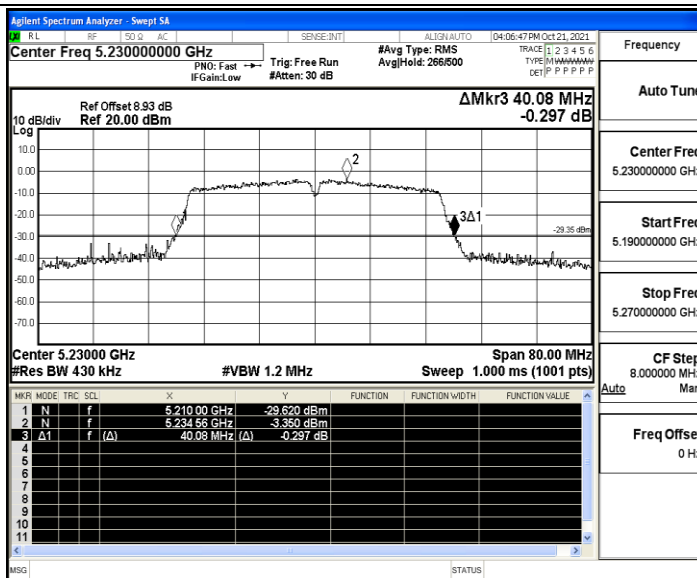
11N20SISO_Ant1_5240



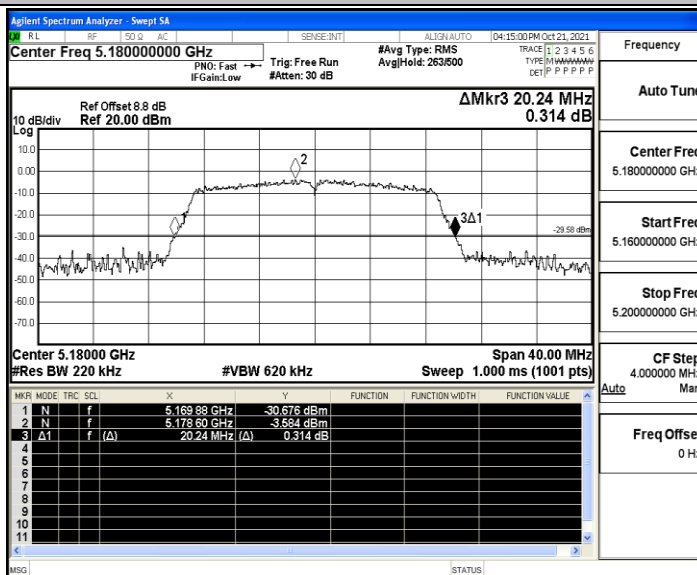
11N40SISO_Ant1_5190



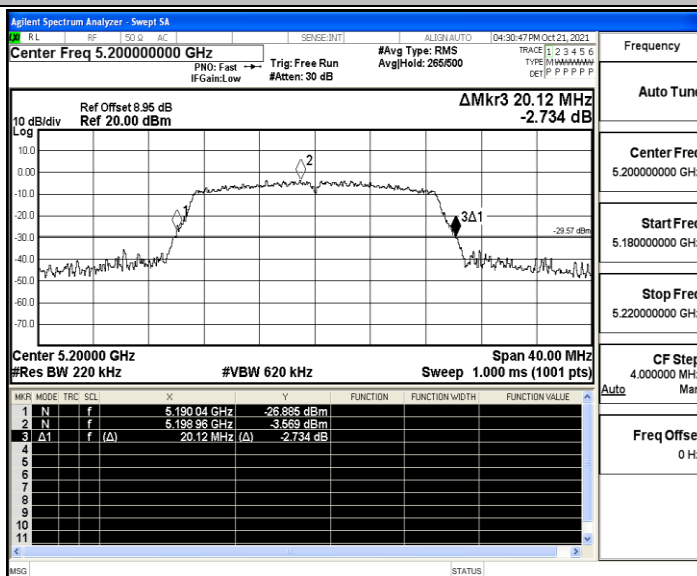
11N40SISO_Ant1_5230



11AC20SISO_Ant1_5180

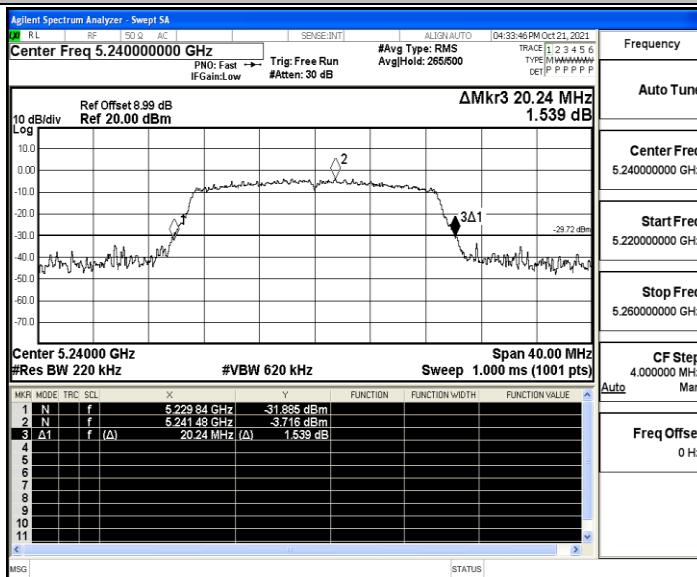


11AC20SISO_Ant1_5200

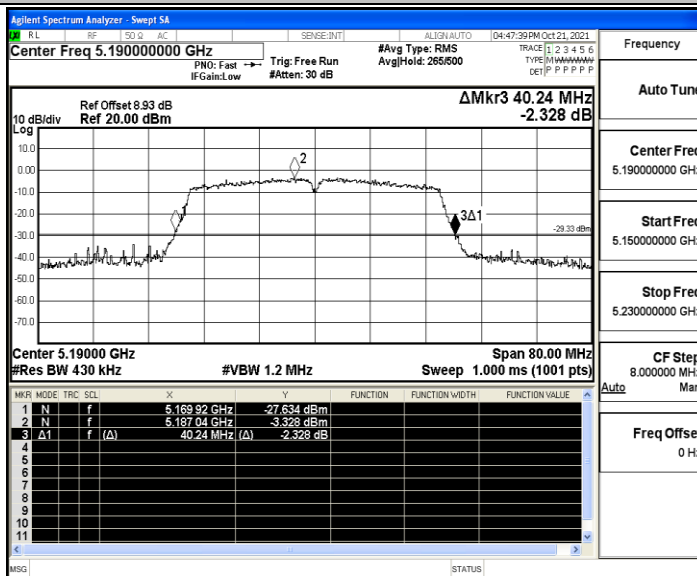




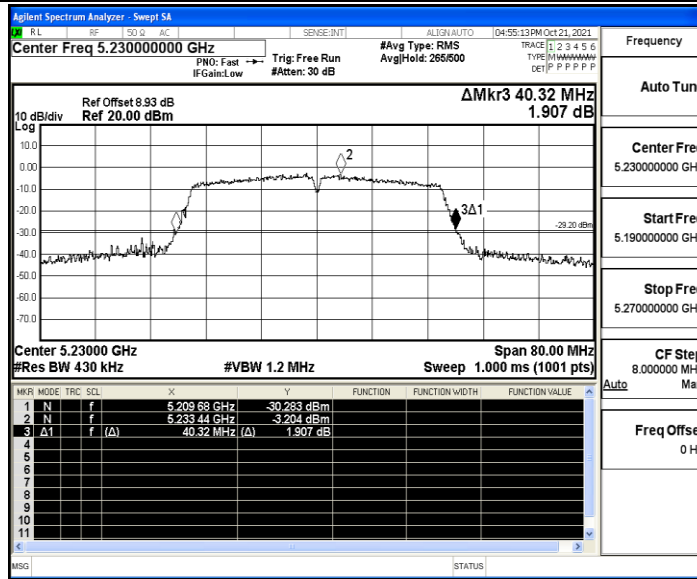
11AC20SISO_Ant1_5240



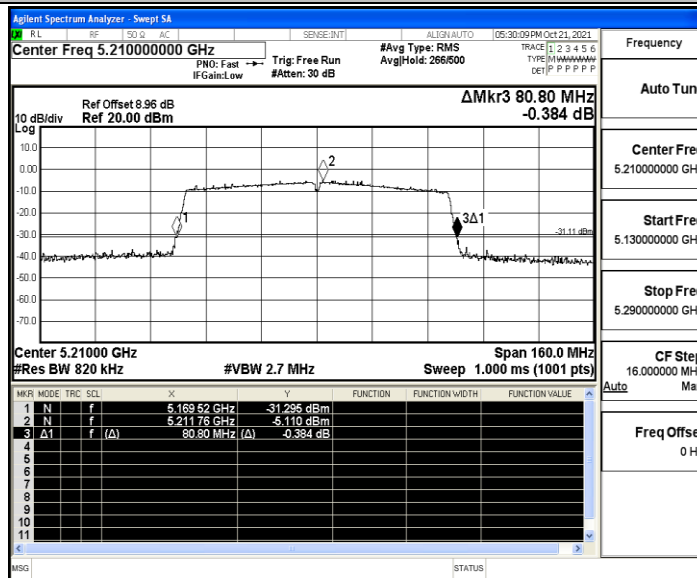
11AC40SISO_Ant1_5190



11AC40SISO_Ant1_5230



11AC80SISO_Ant1_5210





D.2 Maximum conducted output power

Test Result

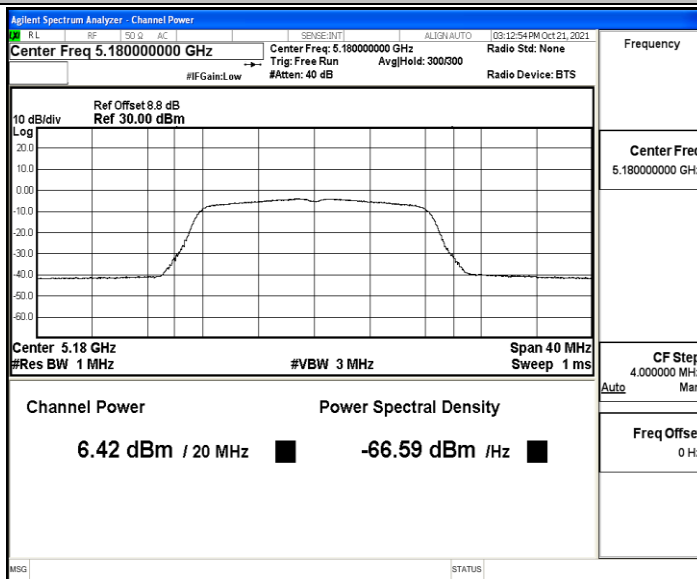
TestMode	Antenna	Channel	Result[dBm]	Limit[dBm]	Verdict
11A	Ant1	5180	6.42	≤23.98	PASS
		5200	6.48	≤23.98	PASS
		5240	6.14	≤23.98	PASS
11N20SISO	Ant1	5180	5.76	≤23.98	PASS
		5200	5.83	≤23.98	PASS
		5240	5.75	≤23.98	PASS
11N40SISO	Ant1	5190	5.95	≤23.98	PASS
		5230	5.88	≤23.98	PASS
11AC20SISO	Ant1	5180	5.86	≤23.98	PASS
		5200	5.97	≤23.98	PASS
		5240	5.87	≤23.98	PASS
11AC40SISO	Ant1	5190	6.45	≤23.98	PASS
		5230	6.51	≤23.98	PASS
11AC80SISO	Ant1	5210	4.61	≤23.98	PASS

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

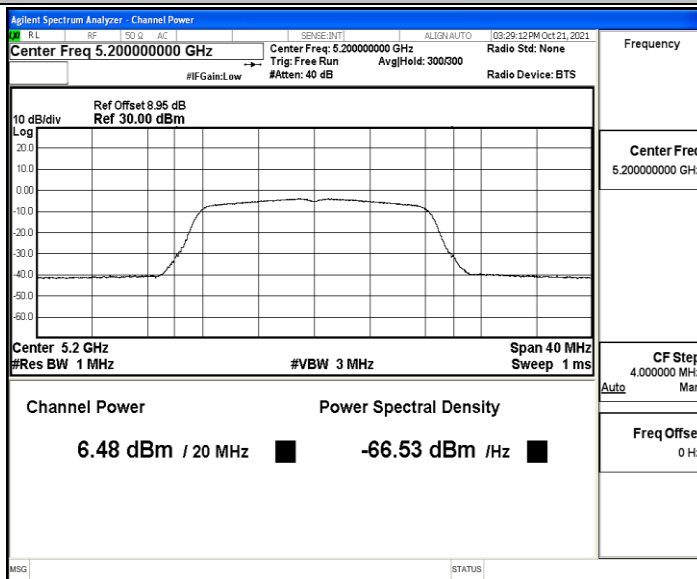


Test Graphs

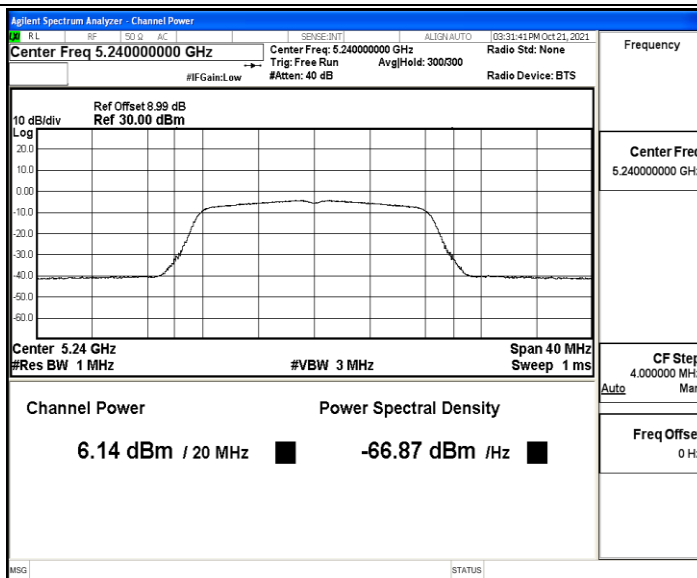
11A_Ant1_5180



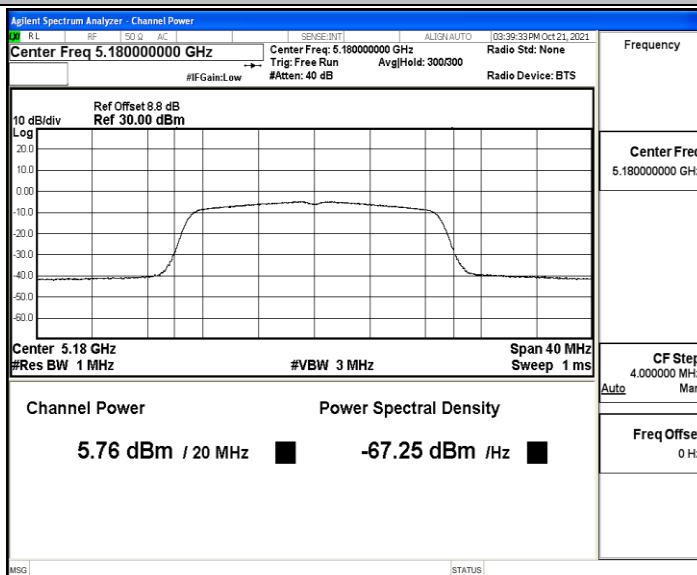
11A_Ant1_5200



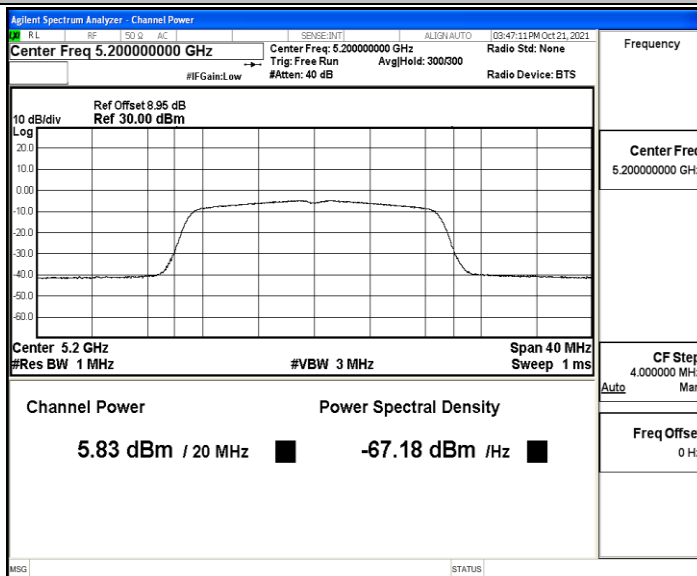
11A_Ant1_5240



11N20SISO_Ant1_5180

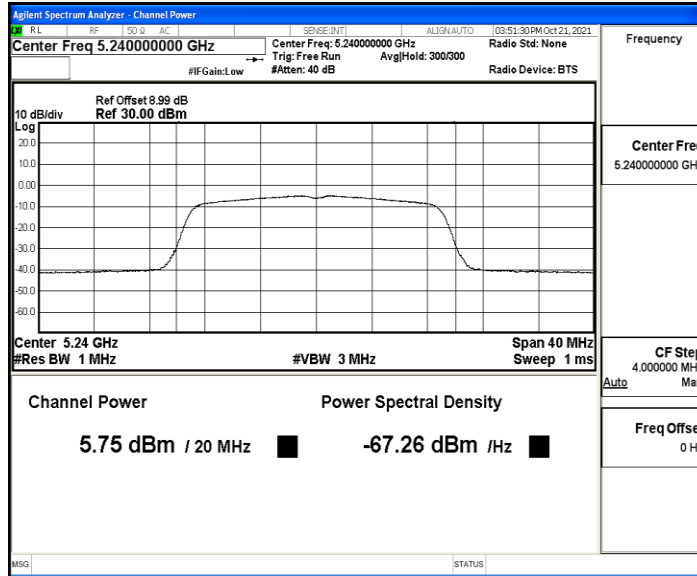


11N20SISO_Ant1_5200

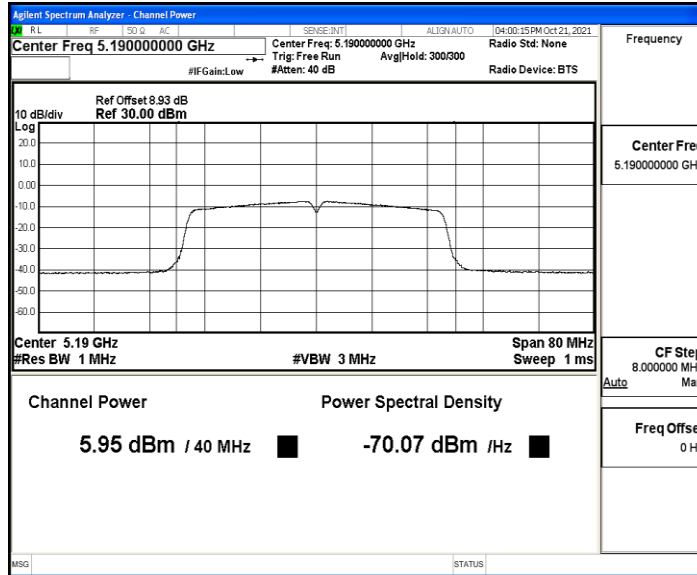




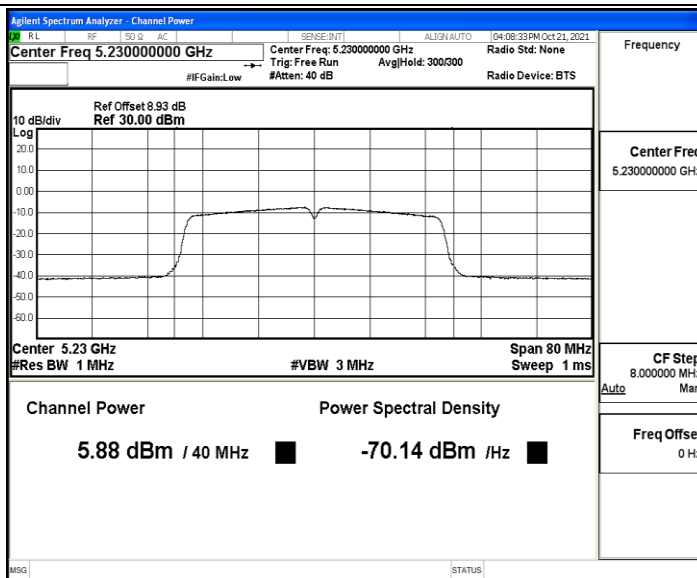
11N20SISO_Ant1_5240



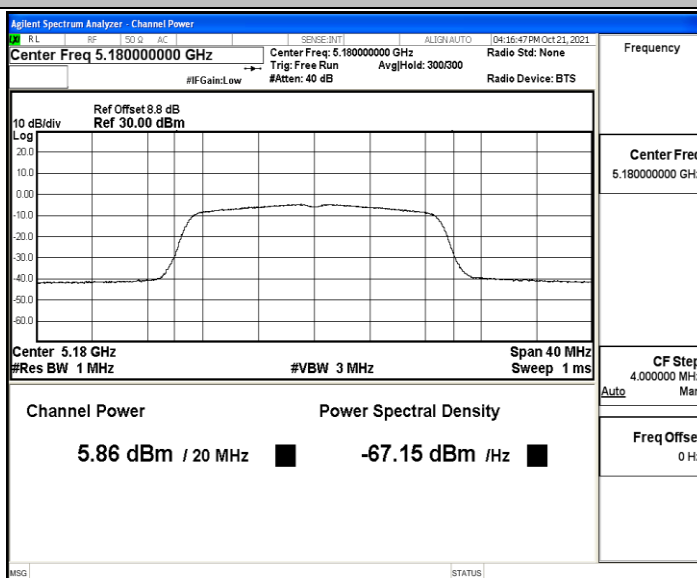
11N40SISO_Ant1_5190



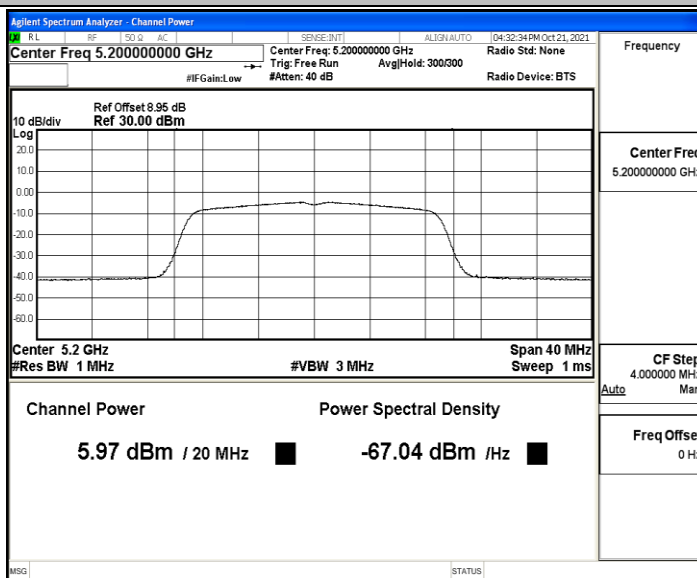
11N40SISO_Ant1_5230



11AC20SISO_Ant1_5180

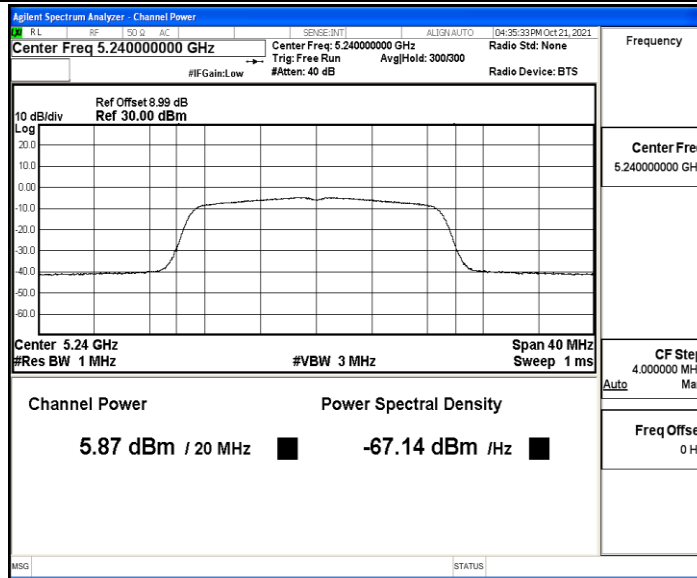


11AC20SISO_Ant1_5200

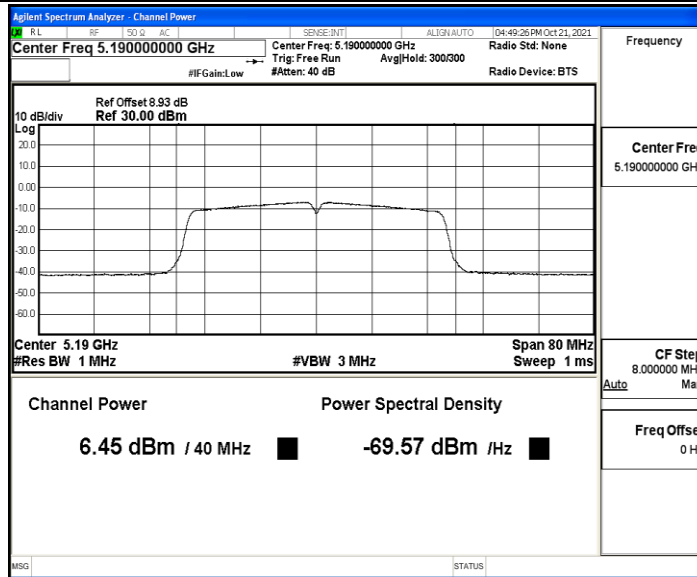




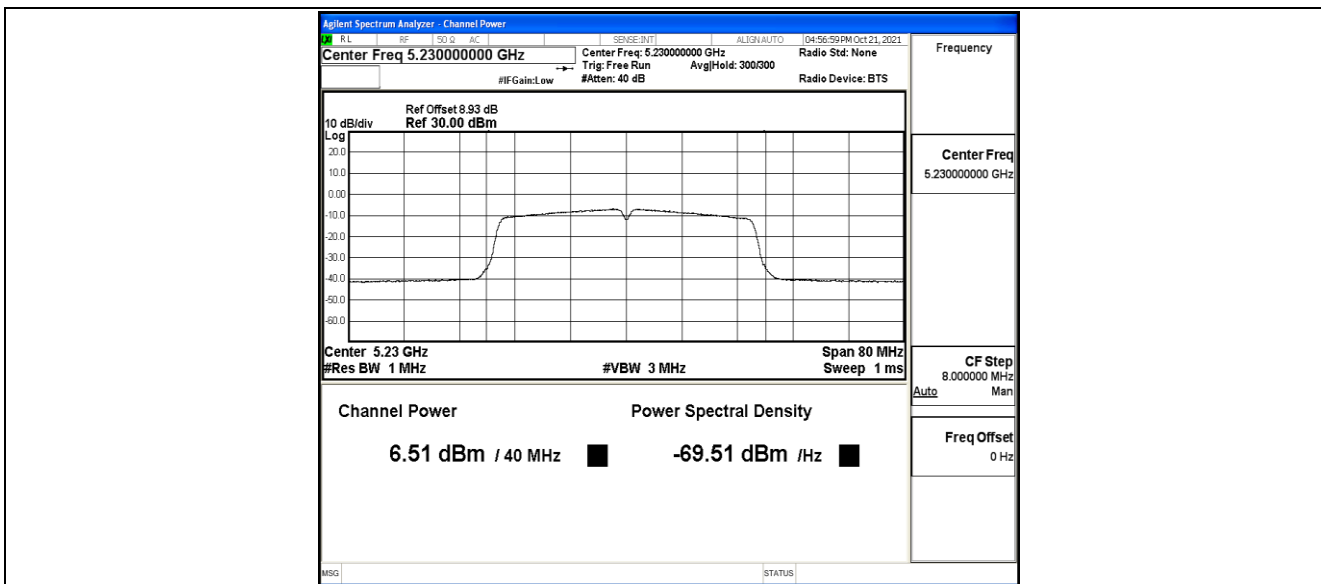
11AC20SISO_Ant1_5240



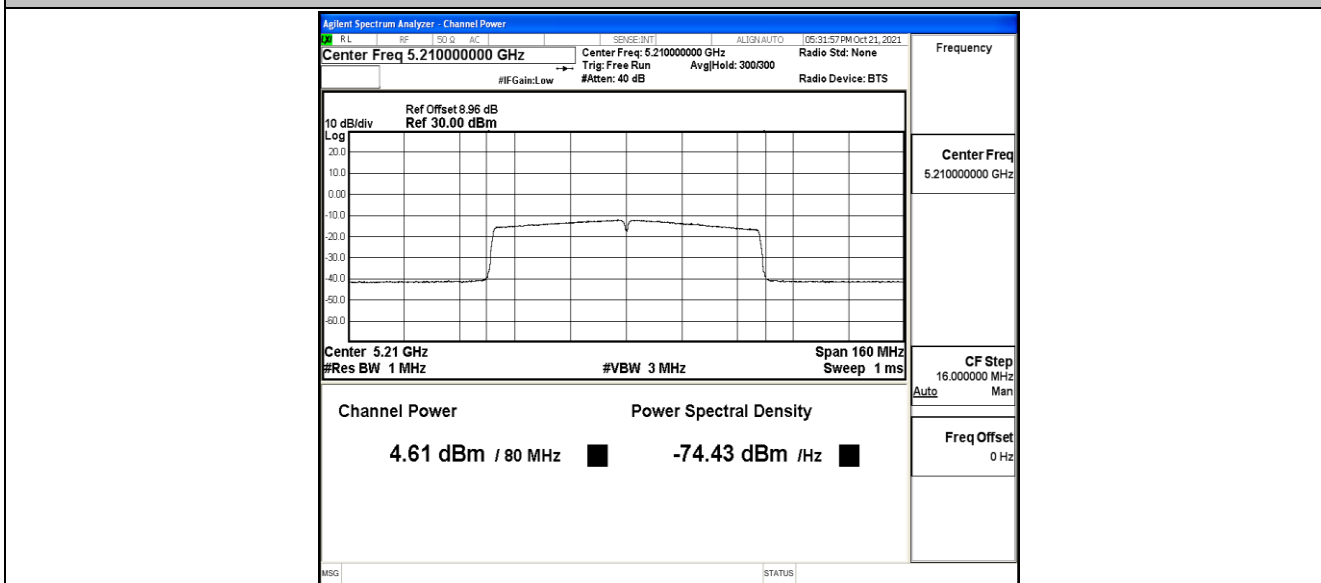
11AC40SISO_Ant1_5190



11AC40SISO_Ant1_5230



11AC80SISO_Ant1_5210





D.3 Maximum power spectral density

Test Result

TestMode	Antenna	Channel	Result [dBm/MHz]	Limit[dBm/MHz]	Verdict
11A	Ant1	5180	-3.75	≤11	PASS
		5200	-3.72	≤11	PASS
		5240	-3.83	≤11	PASS
11N20SISO	Ant1	5180	-4.52	≤11	PASS
		5200	-4.48	≤11	PASS
		5240	-4.51	≤11	PASS
11N40SISO	Ant1	5190	-7.15	≤11	PASS
		5230	-7.38	≤11	PASS
11AC20SISO	Ant1	5180	-4.48	≤11	PASS
		5200	-4.42	≤11	PASS
		5240	-4.44	≤11	PASS
11AC40SISO	Ant1	5190	-6.90	≤11	PASS
		5230	-6.76	≤11	PASS
11AC80SISO	Ant1	5210	-11.89	≤11	PASS

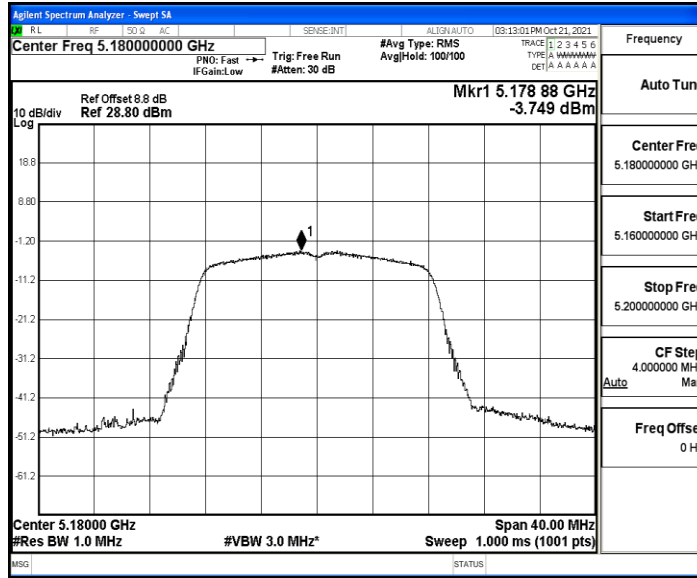
Note: 1.The Result and Limit Unit is dBm/500 kHz in the band 5.725–5.85 GHz.

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

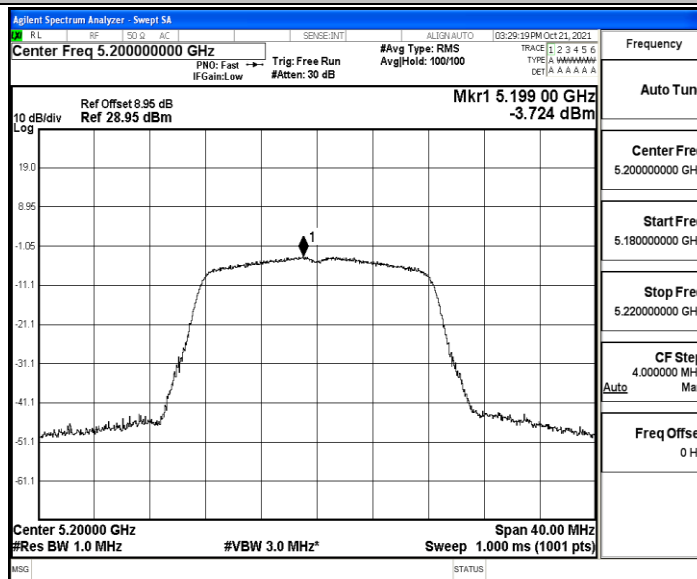


Test Graphs

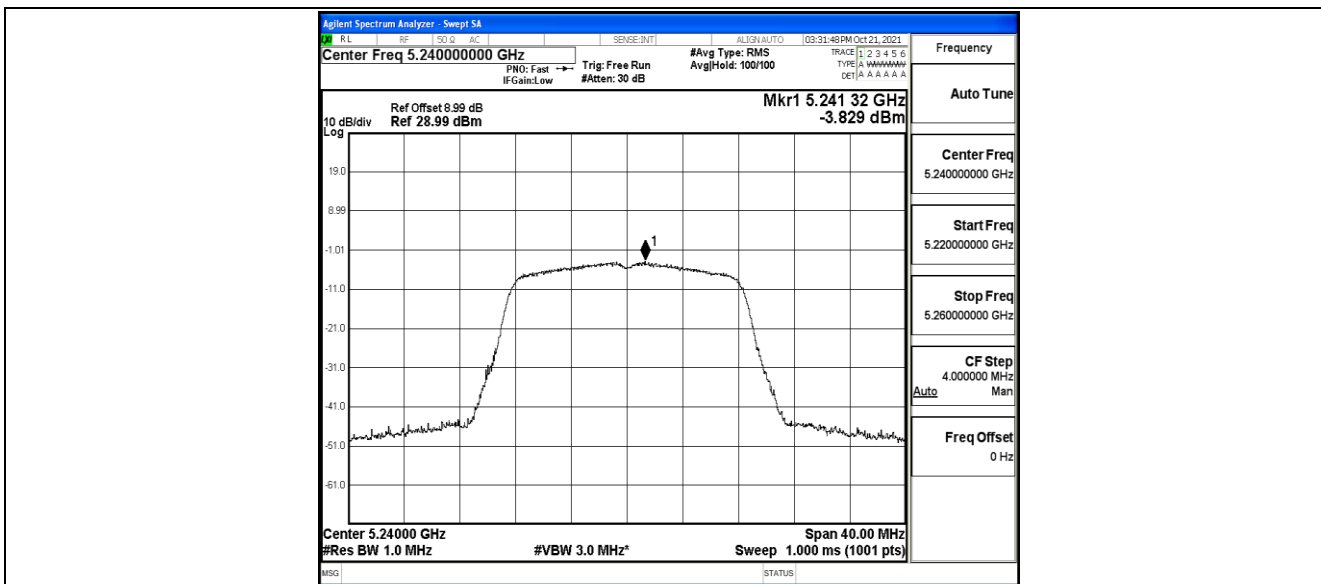
11A_Ant1_5180



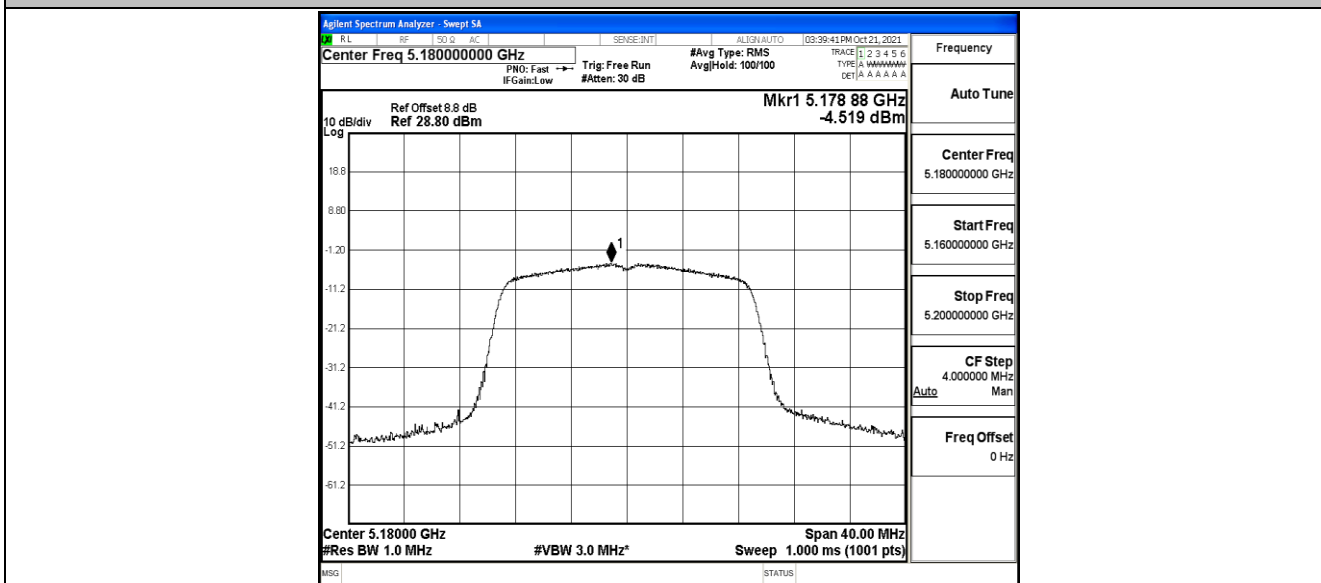
11A_Ant1_5200



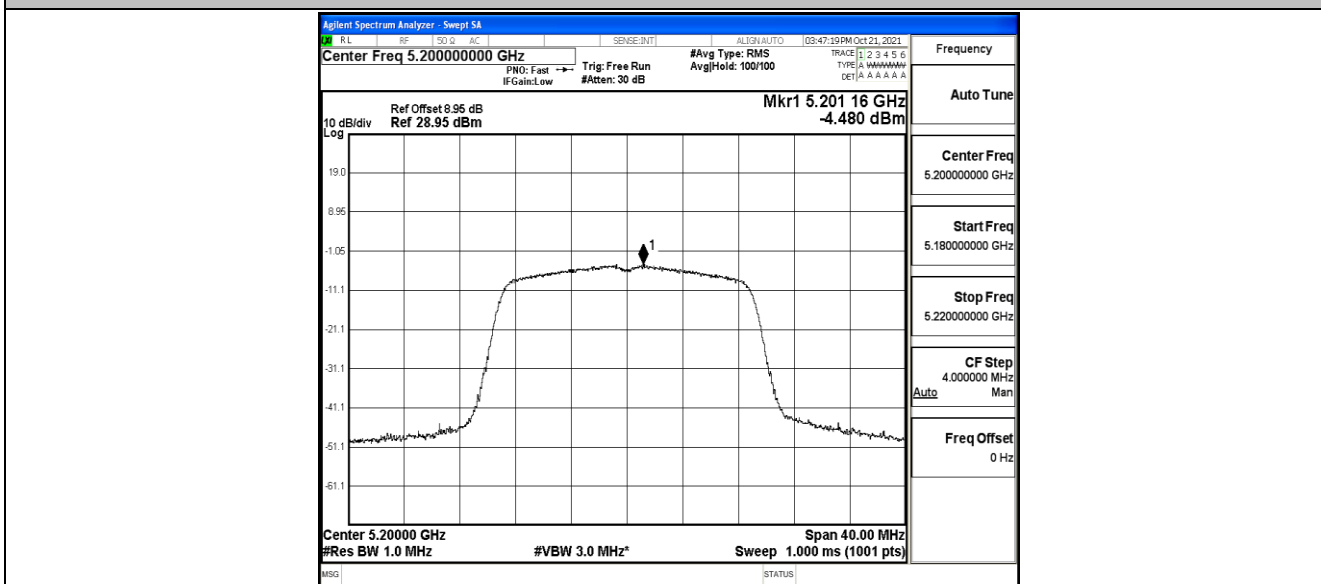
11A_Ant1_5240



11N20SISO_Ant1_5180

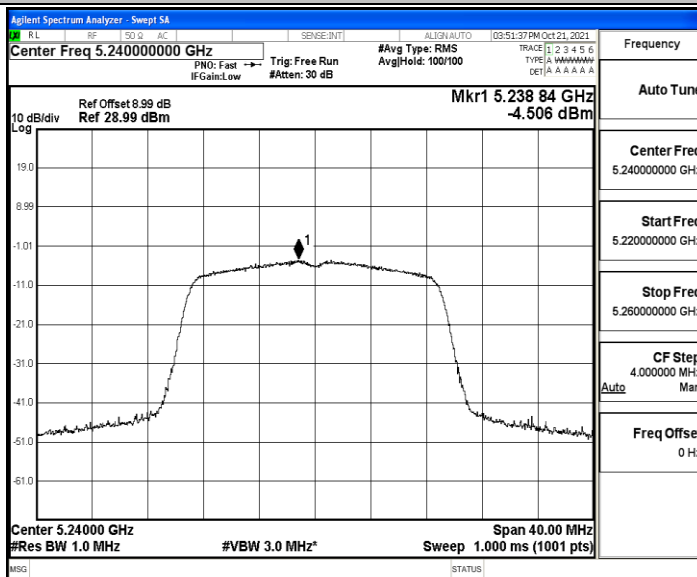


11N20SISO_Ant1_5200

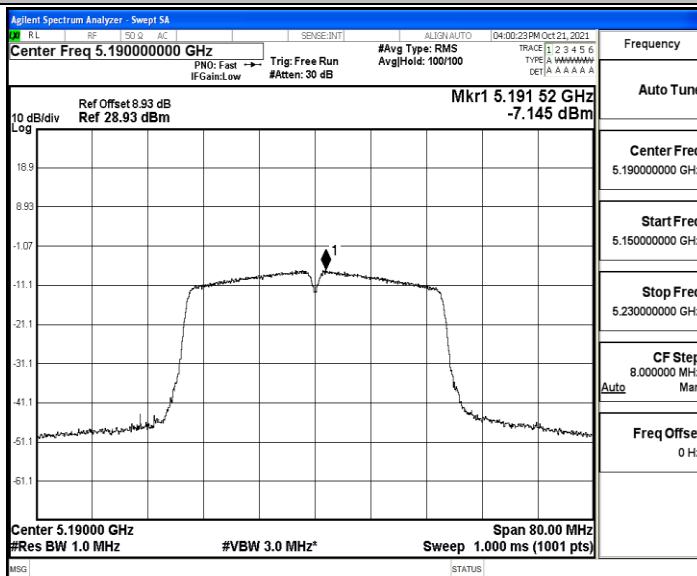




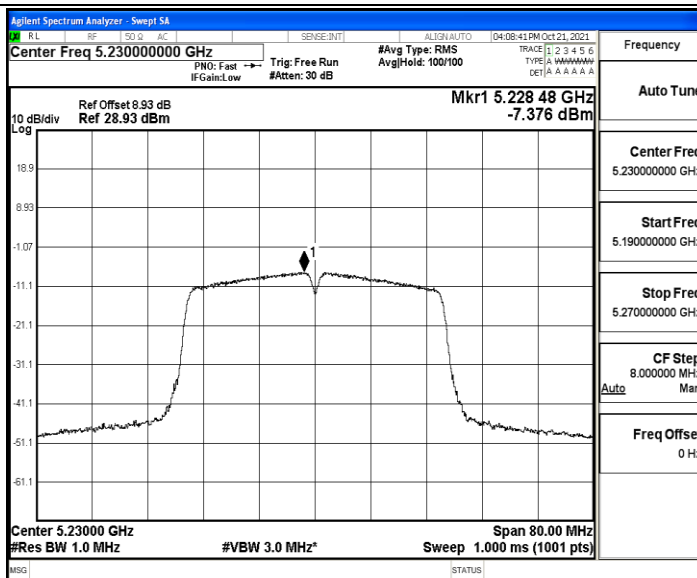
11N20SISO_Ant1_5240



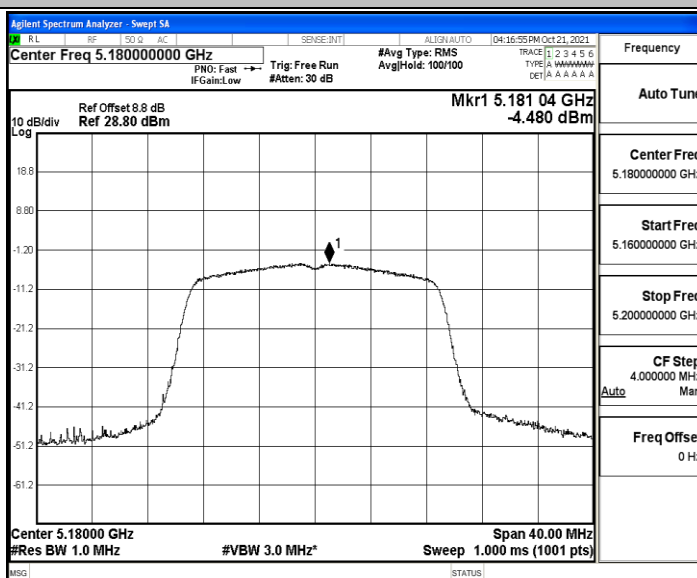
11N40SISO_Ant1_5190



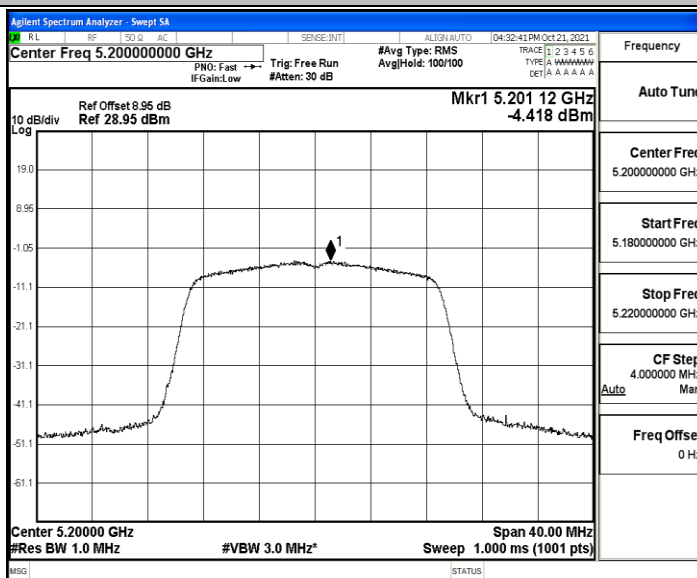
11N40SISO_Ant1_5230



11AC20SISO_Ant1_5180

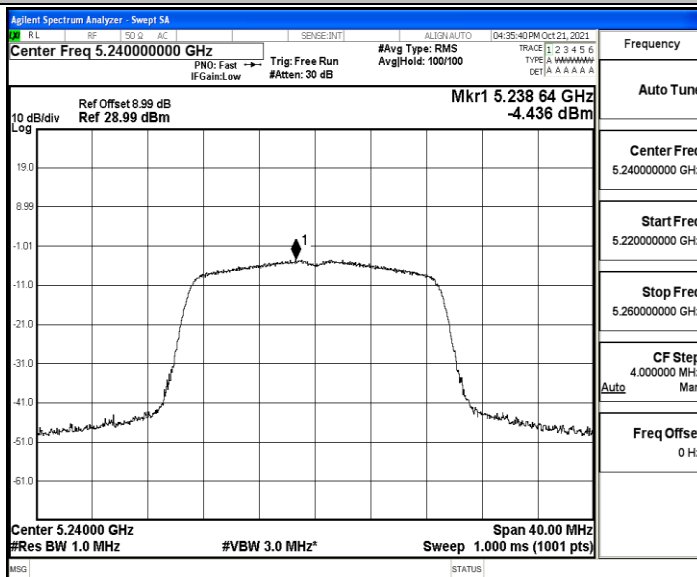


11AC20SISO_Ant1_5200

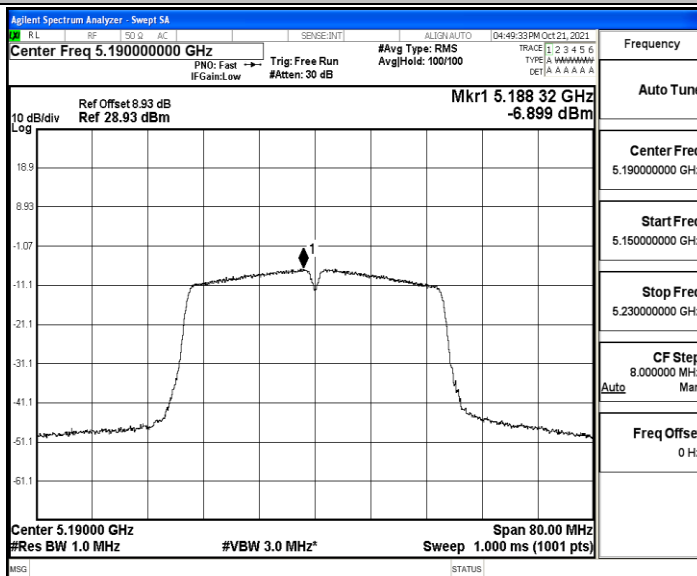




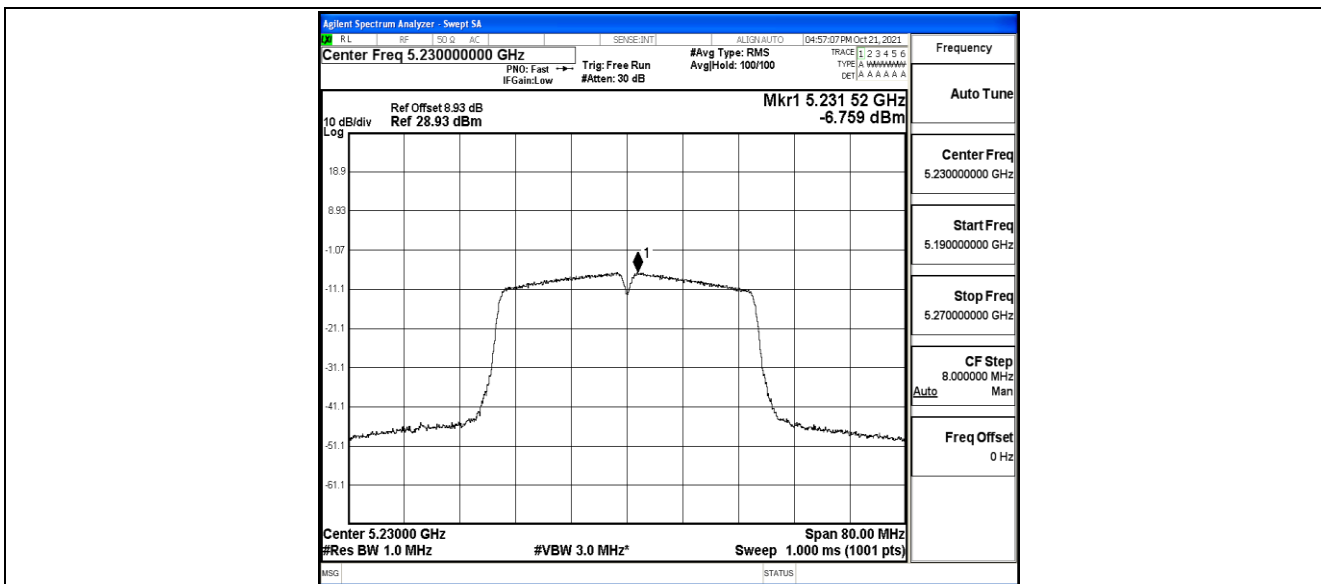
11AC20SISO_Ant1_5240



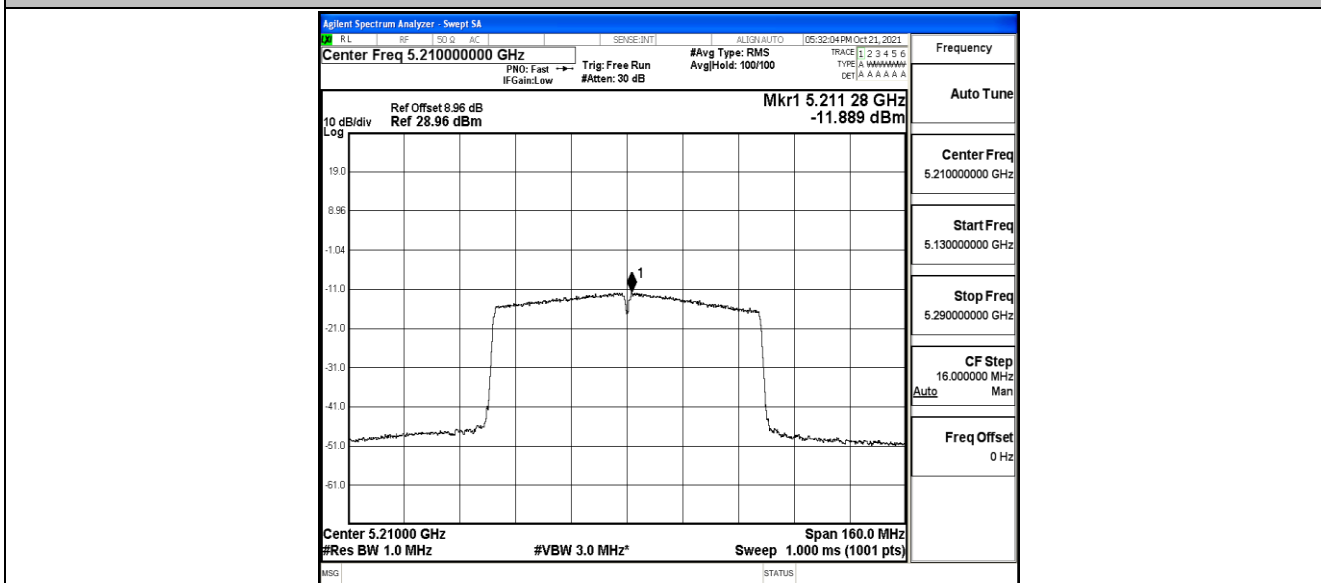
11AC40SISO_Ant1_5190



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	-47.92	≤-41.20	47.28	≤54	PASS
				AV	5149.600	-45.89	≤-41.20	49.31	≤54	PASS
				AV	5150.000	-45.89	≤-41.20	49.31	≤54	PASS
				Peak	4500.000	-39.23	≤-21.20	55.97	≤74	PASS
				Peak	5149.600	-34.13	≤-21.20	61.07	≤74	PASS
				Peak	5150.000	-35.03	≤-21.20	60.17	≤74	PASS
		High	5240	AV	5350.000	-48.48	≤-41.20	46.72	≤54	PASS
				AV	5406.480	-48.42	≤-41.20	46.78	≤54	PASS
				AV	5460.000	-48.44	≤-41.20	46.76	≤54	PASS
				Peak	5350.000	-42.08	≤-21.20	53.12	≤74	PASS
				Peak	5448.960	-38.21	≤-21.20	56.99	≤74	PASS
				Peak	5460.000	-44.21	≤-21.20	50.99	≤74	PASS
11N20SI SO	Ant1	Low	5180	AV	4500.000	-47.93	≤-41.20	47.27	≤54	PASS
				AV	4853.500	-46.04	≤-41.20	49.16	≤54	PASS
				AV	5150.000	-46.04	≤-41.20	49.16	≤54	PASS
				Peak	4500.000	-40.06	≤-21.20	55.14	≤74	PASS
				Peak	5148.200	-33.39	≤-21.20	61.81	≤74	PASS
				Peak	5150.000	-32.74	≤-21.20	62.46	≤74	PASS
		High	5240	AV	5350.000	-48.52	≤-41.20	46.68	≤54	PASS
				AV	5456.640	-48.46	≤-41.20	46.74	≤54	PASS
				AV	5460.000	-48.5	≤-41.20	46.70	≤54	PASS
				Peak	5350.000	-42.85	≤-21.20	52.35	≤74	PASS
				Peak	5433.600	-39.3	≤-21.20	55.90	≤74	PASS
				Peak	5460.000	-43.05	≤-21.20	52.15	≤74	PASS
11N40SI SO	Ant1	Low	5190	AV	4500.000	-47.82	≤-41.20	47.38	≤54	PASS
				AV	5149.600	-44.36	≤-41.20	50.84	≤54	PASS
				AV	5150.000	-44.23	≤-41.20	50.97	≤54	PASS
				Peak	4500.000	-39.39	≤-21.20	55.81	≤74	PASS
				Peak	5148.900	-32.33	≤-21.20	62.87	≤74	PASS
				Peak	5150.000	-31.42	≤-21.20	63.78	≤74	PASS
		High	5230	AV	5350.000	-48.56	≤-41.20	46.64	≤54	PASS
				AV	5453.240	-48.5	≤-41.20	46.70	≤54	PASS
				AV	5460.000	-48.55	≤-41.20	46.65	≤54	PASS
				Peak	5350.000	-43.37	≤-21.20	51.83	≤74	PASS
				Peak	5379.920	-39.09	≤-21.20	56.11	≤74	PASS
				Peak	5460.000	-45.61	≤-21.20	49.59	≤74	PASS



11AC20S ISO	Ant1	Low	5180	AV	4500.000	-49.94	≤-41.20	45.26	≤54	PASS
				AV	5149.600	-48.06	≤-41.20	47.14	≤54	PASS
				AV	5150.000	-48.05	≤-41.20	47.15	≤54	PASS
				Peak	4500.000	-43.58	≤-21.20	51.62	≤74	PASS
				Peak	5125.800	-38.84	≤-21.20	56.36	≤74	PASS
				Peak	5150.000	-44	≤-21.20	51.20	≤74	PASS
	High	5240	AV	5350.000	-48.49	≤-41.20	46.71	≤54	PASS	
			AV	5407.200	-48.41	≤-41.20	46.79	≤54	PASS	
			AV	5460.000	-48.48	≤-41.20	46.72	≤54	PASS	
			Peak	5350.000	-41.78	≤-21.20	53.42	≤74	PASS	
			Peak	5353.200	-38.91	≤-21.20	56.29	≤74	PASS	
			Peak	5460.000	-41.88	≤-21.20	53.32	≤74	PASS	
11AC40S ISO	Ant1	Low	5190	AV	4500.000	-47.81	≤-41.20	47.39	≤54	PASS
				AV	5149.600	-44.07	≤-41.20	51.13	≤54	PASS
				AV	5150.000	-43.93	≤-41.20	51.27	≤54	PASS
				Peak	4500.000	-39.56	≤-21.20	55.64	≤74	PASS
				Peak	5147.500	-30.27	≤-21.20	64.93	≤74	PASS
				Peak	5150.000	-31.17	≤-21.20	64.03	≤74	PASS
	High	5230	AV	5350.000	-48.55	≤-41.20	46.65	≤54	PASS	
			AV	5389.020	-48.5	≤-41.20	46.70	≤54	PASS	
			AV	5460.000	-48.54	≤-41.20	46.66	≤54	PASS	
			Peak	5350.000	-43.39	≤-21.20	51.81	≤74	PASS	
			Peak	5420.480	-39.38	≤-21.20	55.82	≤74	PASS	
			Peak	5460.000	-44.48	≤-21.20	50.72	≤74	PASS	
11AC80S ISO	Ant1	Low	5210	AV	4500.000	-47.78	≤-41.20	47.42	≤54	PASS
				AV	5149.500	-43.19	≤-41.20	52.01	≤54	PASS
				AV	5150.000	-43.18	≤-41.20	52.02	≤54	PASS
				Peak	4500.000	-39.38	≤-21.20	55.82	≤74	PASS
				Peak	5145.750	-32.52	≤-21.20	62.68	≤74	PASS
				Peak	5150.000	-33.63	≤-21.20	61.57	≤74	PASS
	High	5210	AV	5350.000	-48.55	≤-41.20	46.65	≤54	PASS	
			AV	5440.960	-48.49	≤-41.20	46.71	≤54	PASS	
			AV	5460.000	-48.53	≤-41.20	46.67	≤54	PASS	
			Peak	5350.000	-42.67	≤-21.20	52.53	≤74	PASS	
			Peak	5386.360	-40.03	≤-21.20	55.17	≤74	PASS	
			Peak	5460.000	-41.19	≤-21.20	54.01	≤74	PASS	

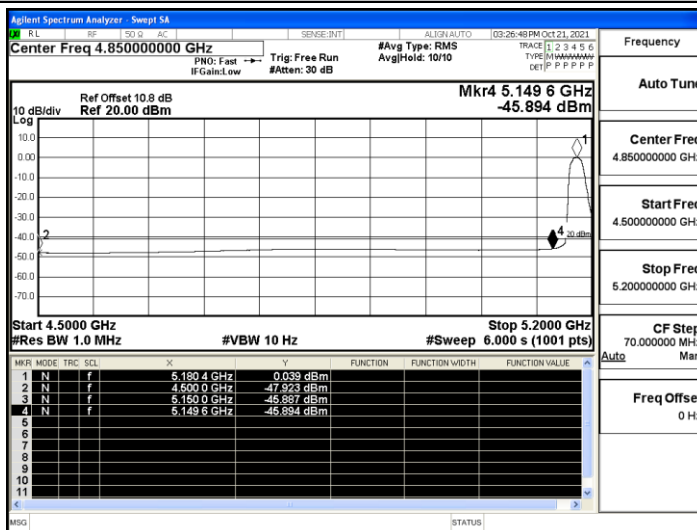
Note:

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.

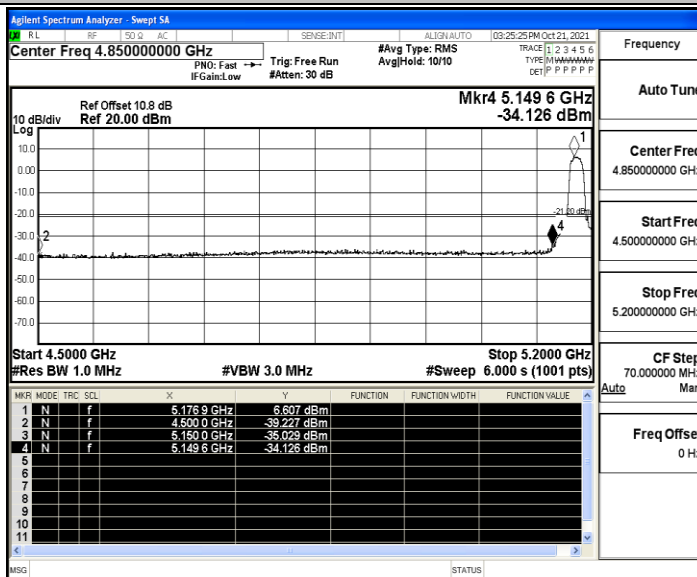


Test Graphs

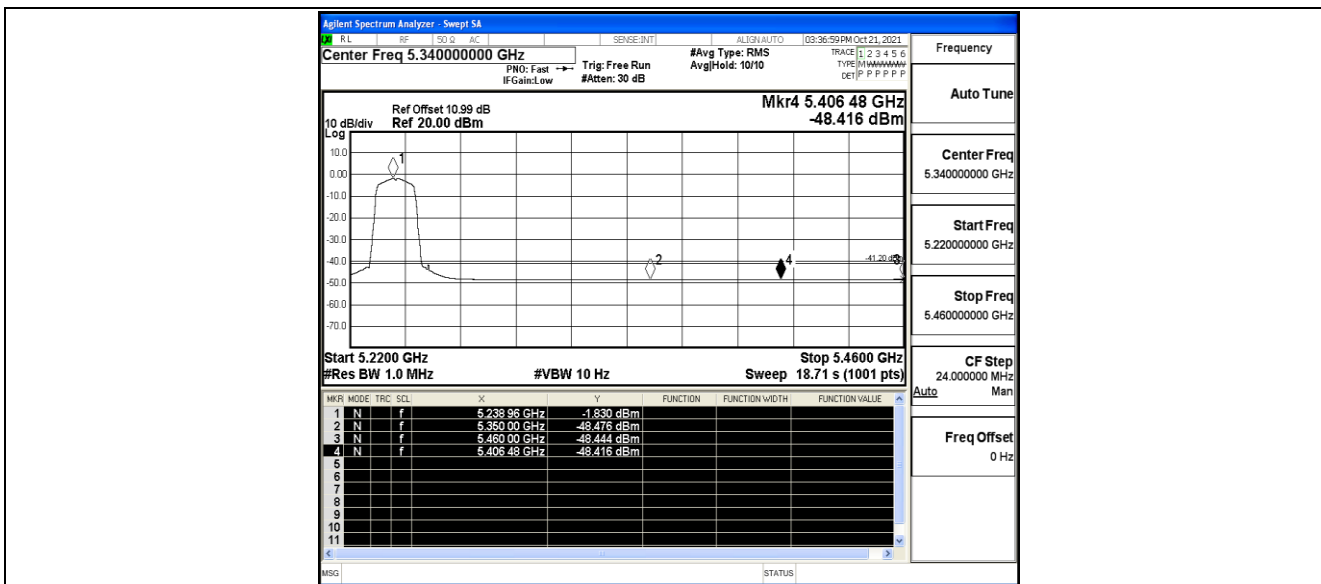
11A_Ant1_Low_5180_AV



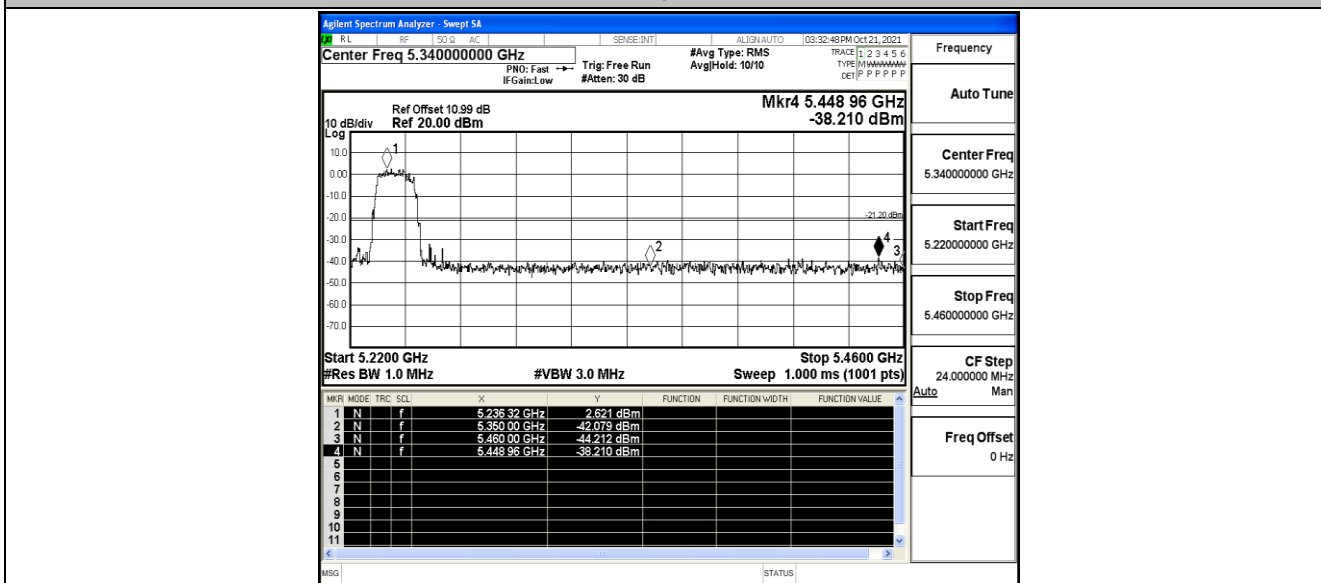
11A_Ant1_Low_5180_Peak



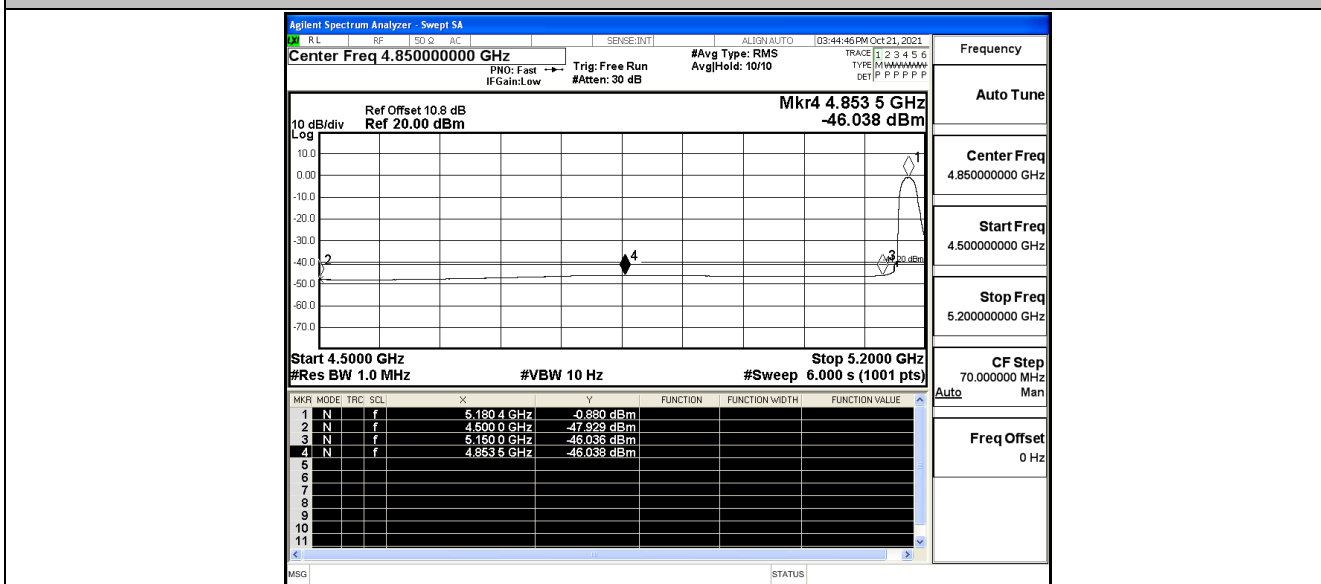
11A_Ant1_High_5240_AV



11A_Ant1_High_5240_Peak

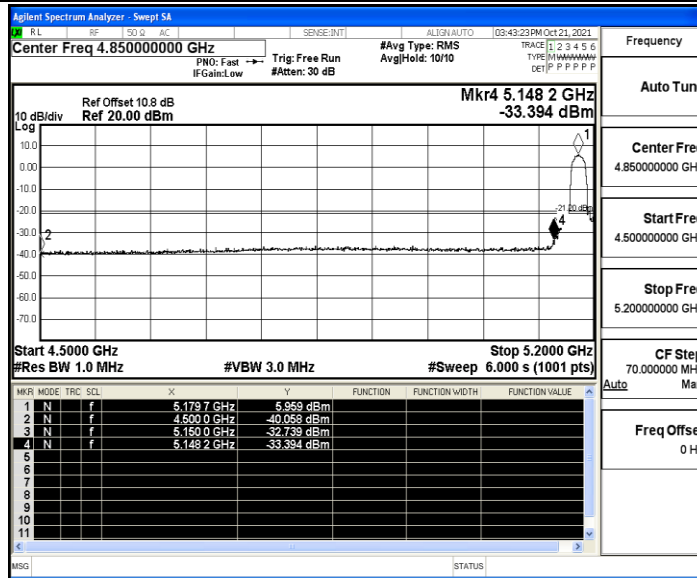


11N20SISO_Ant1_Low_5180_AV

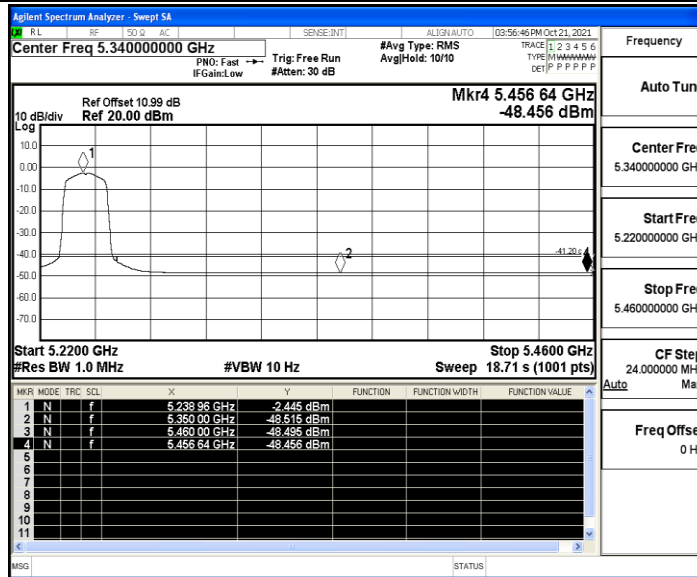




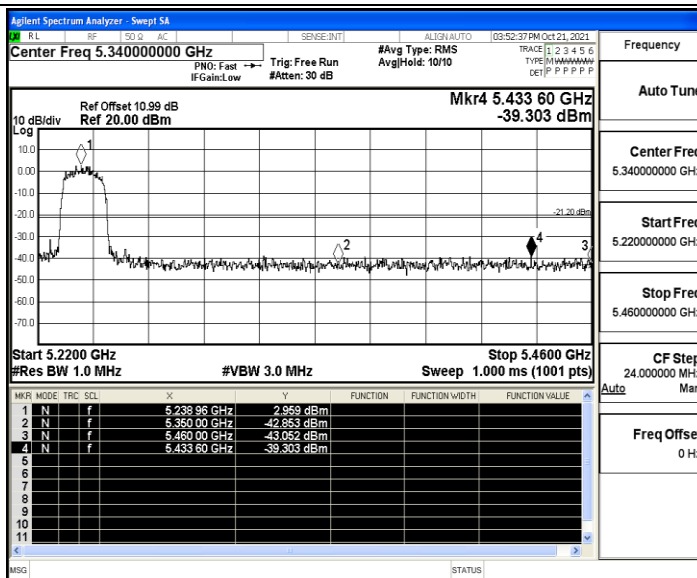
11N20SISO_Ant1_Low_5180_Peak



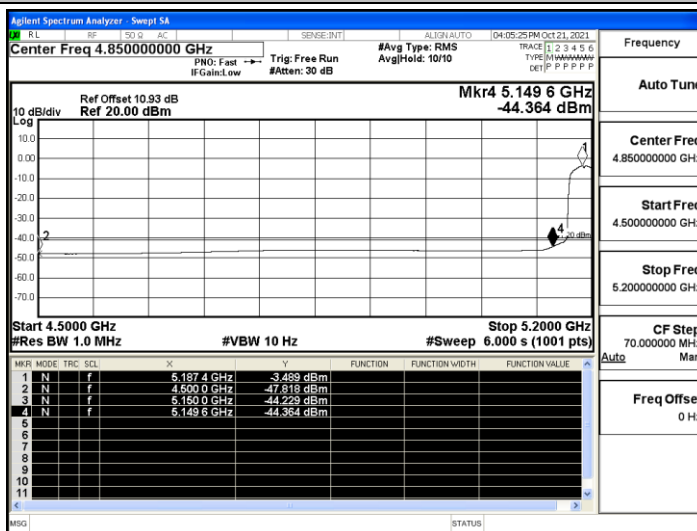
11N20SISO_Ant1_High_5240_AV



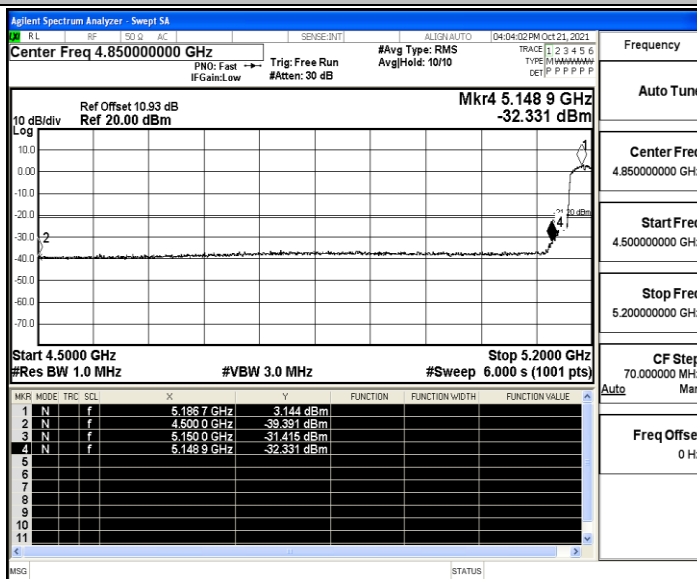
11N20SISO_Ant1_High_5240_Peak



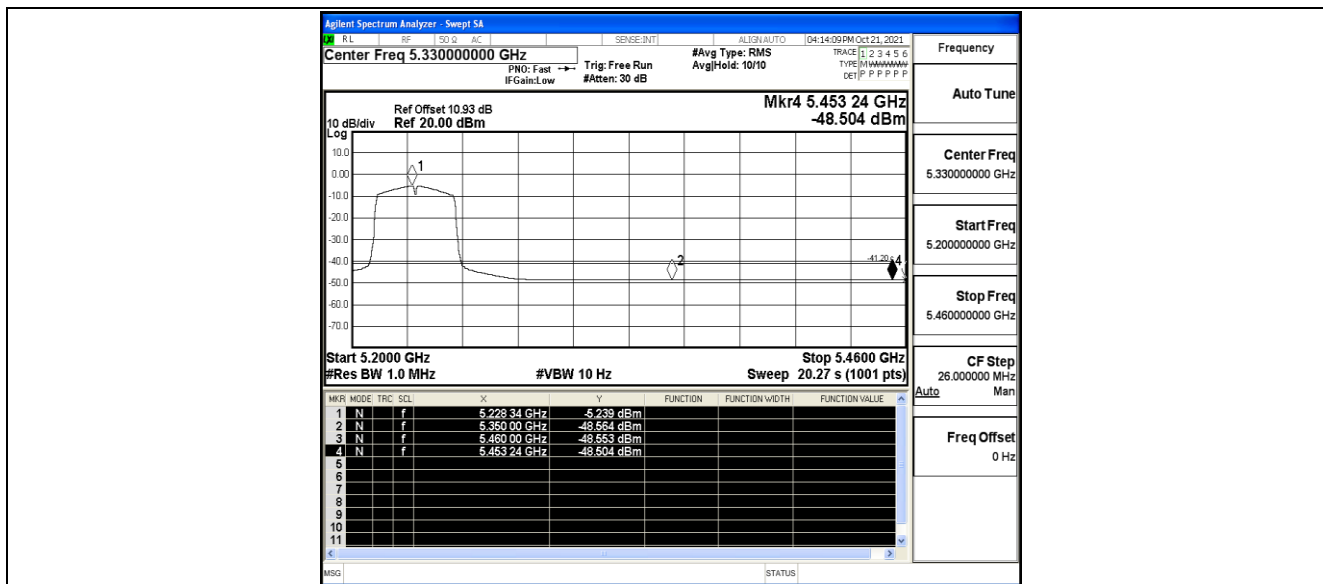
11N40SISO_Ant1_Low_5190_AV



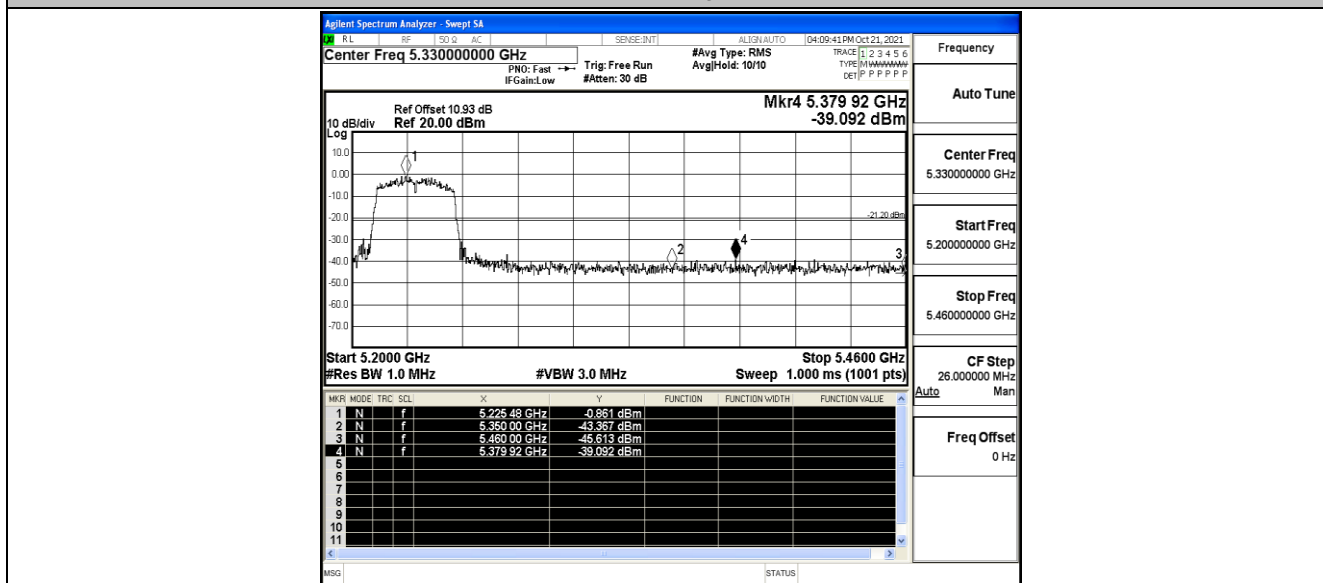
11N40SISO_Ant1_Low_5190_Peak



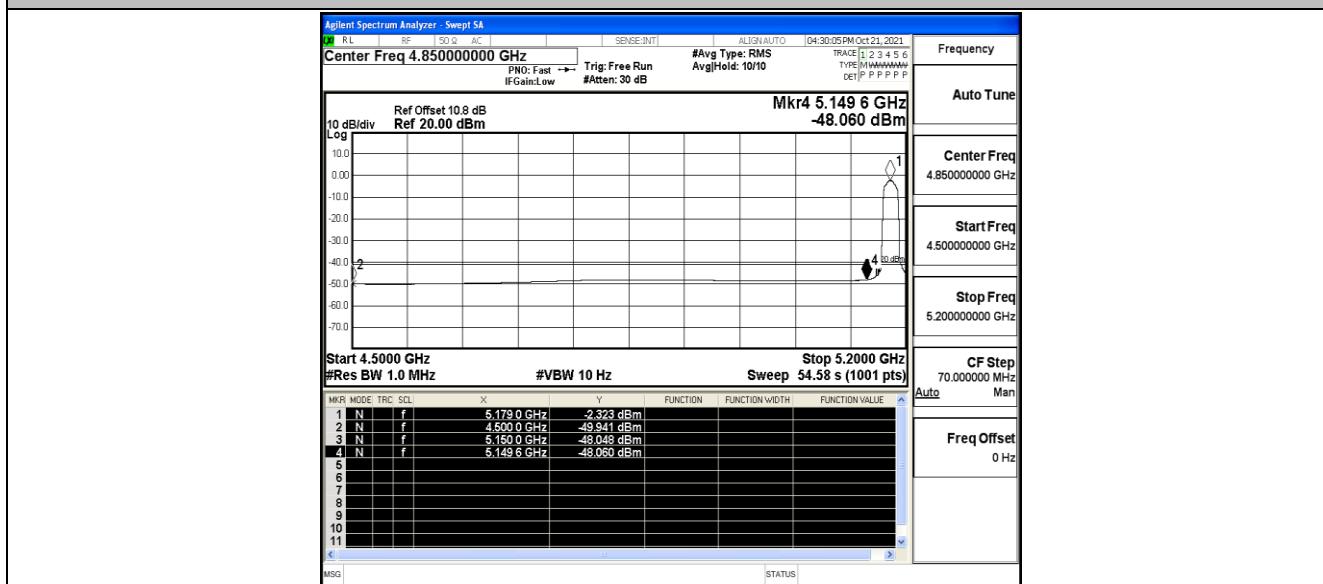
11N40SISO_Ant1_High_5230_AV



11N40SISO_Ant1_High_5230_Peak

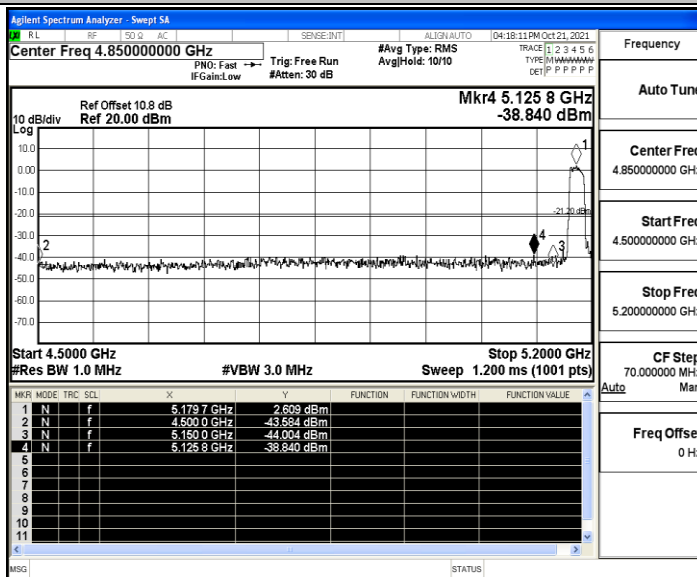


11AC20SISO_Ant1_Low_5180_AV

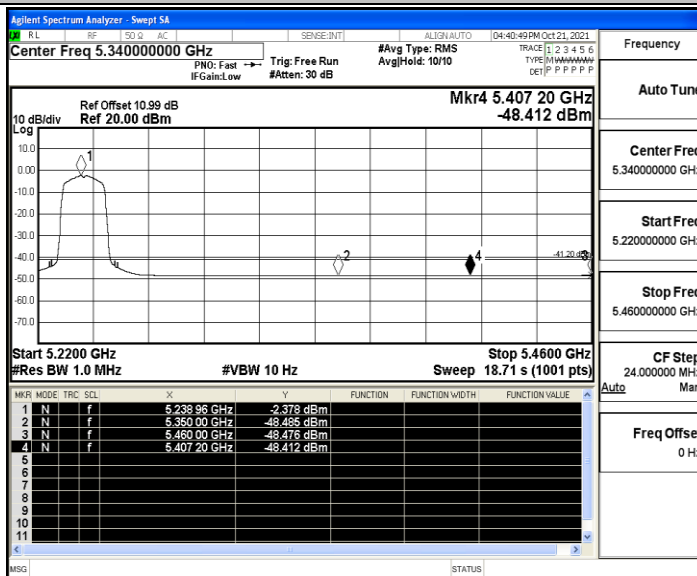




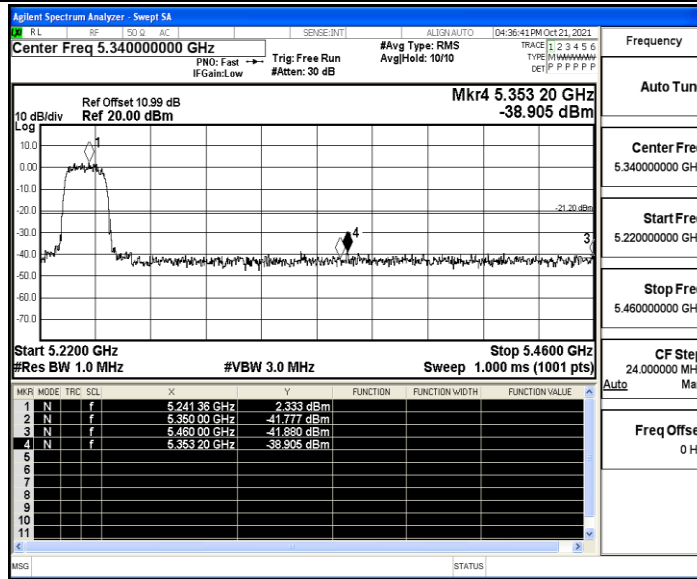
11AC20SISO_Ant1_Low_5180_Peak



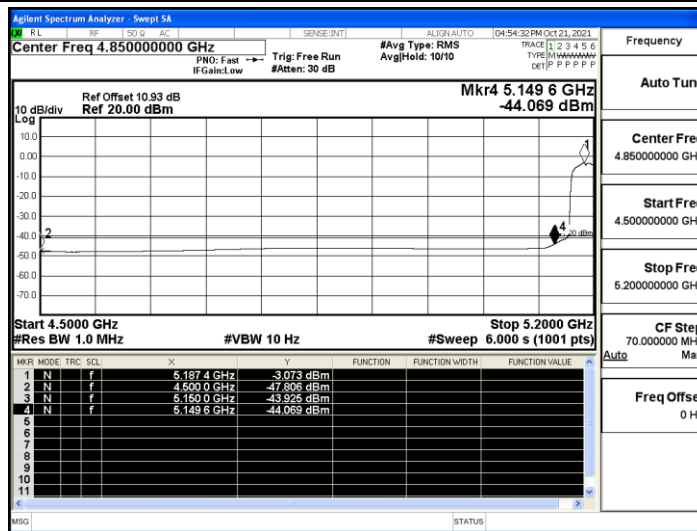
11AC20SISO_Ant1_High_5240_AV



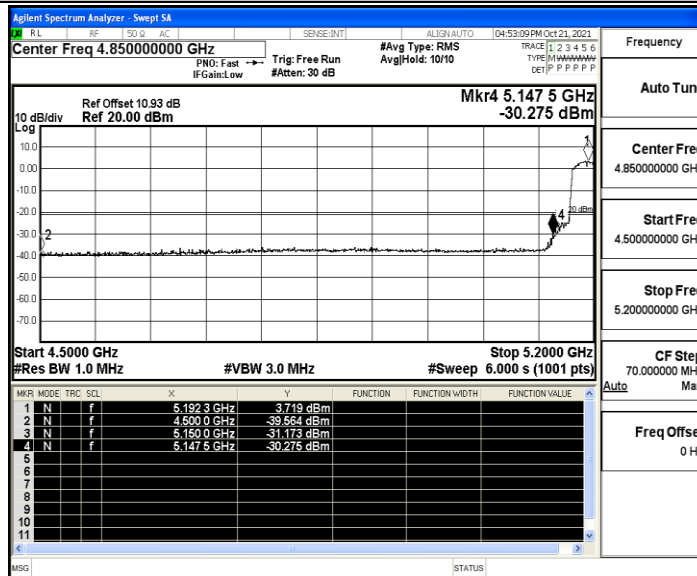
11AC20SISO_Ant1_High_5240_Peak



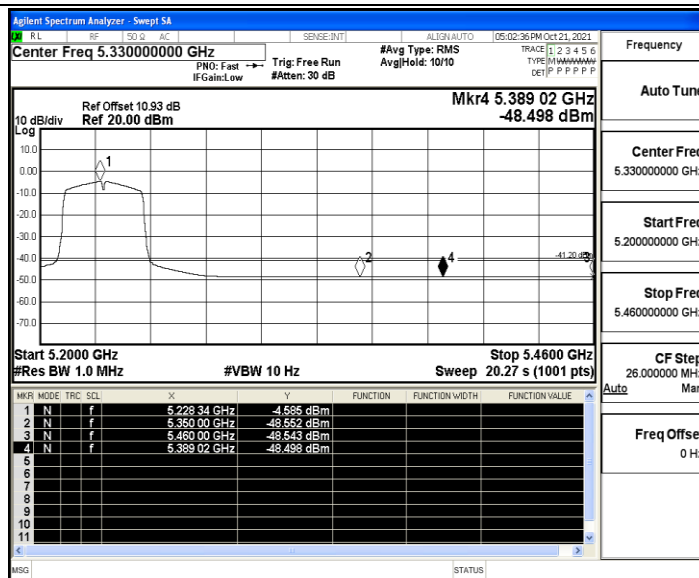
11AC40SISO_Ant1_Low_5190_AV



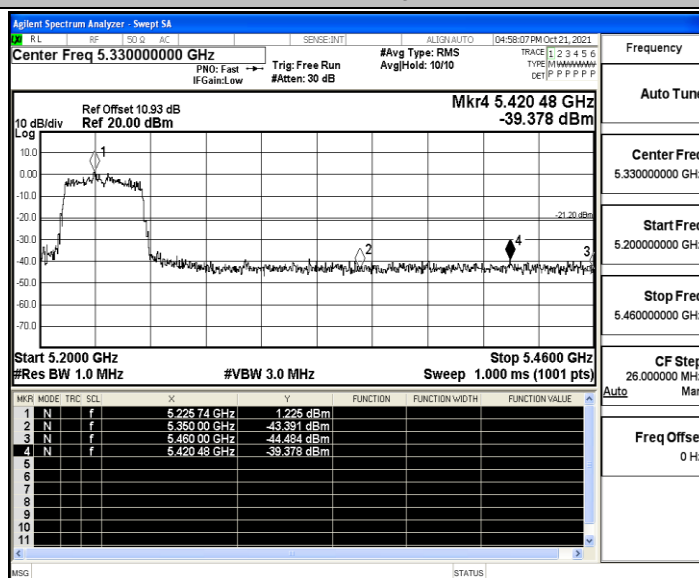
11AC40SISO_Ant1_Low_5190 Peak



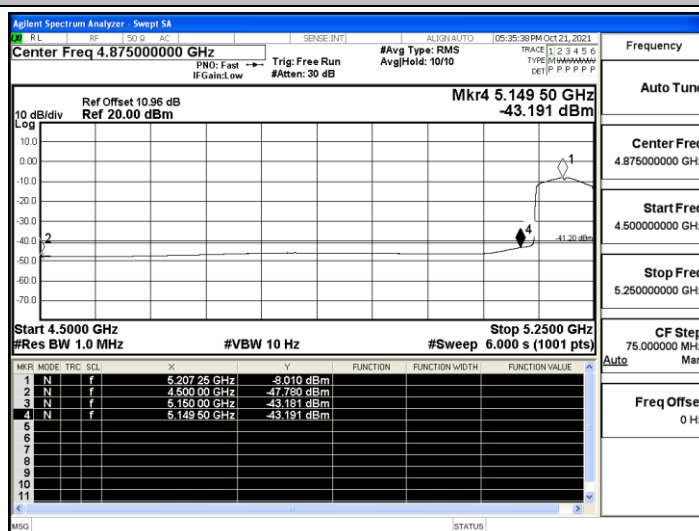
11AC40SISO_Ant1_High_5230_AV



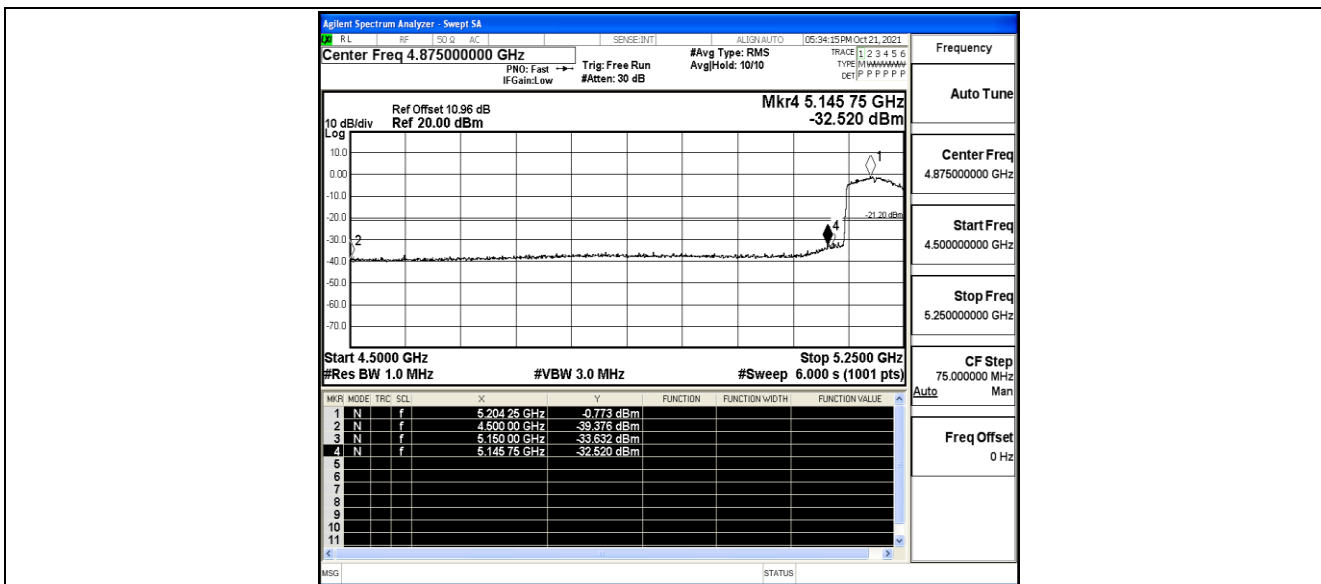
11AC40SISO_Ant1_High_5230_Peak



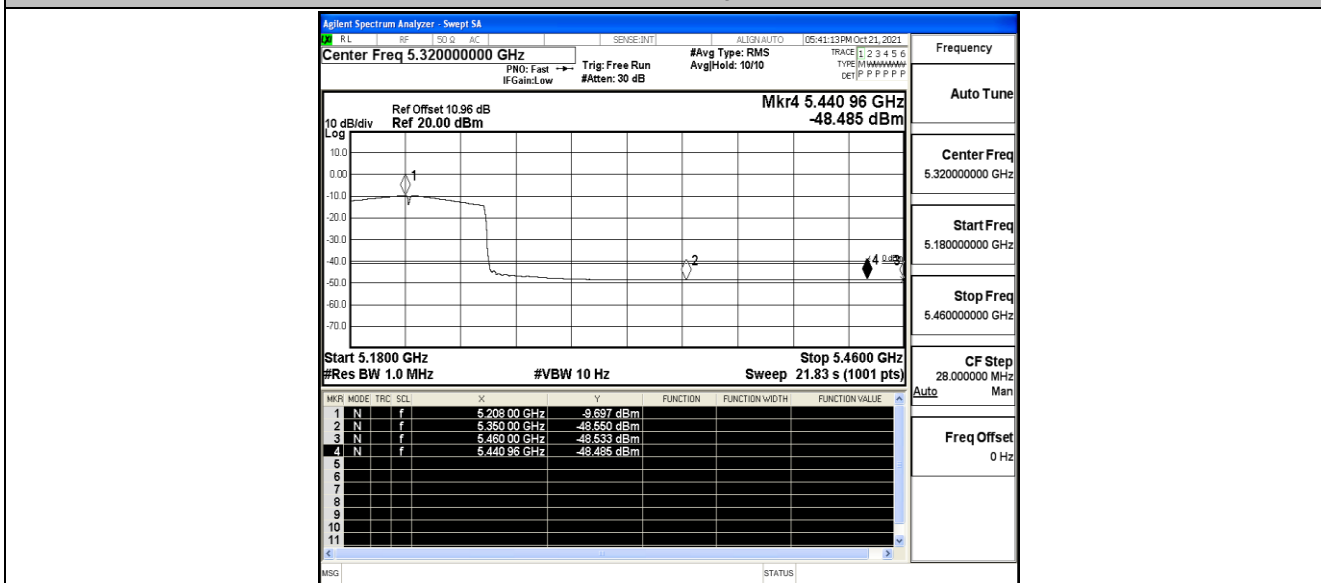
11AC80SISO_Ant1_Low_5210_AV



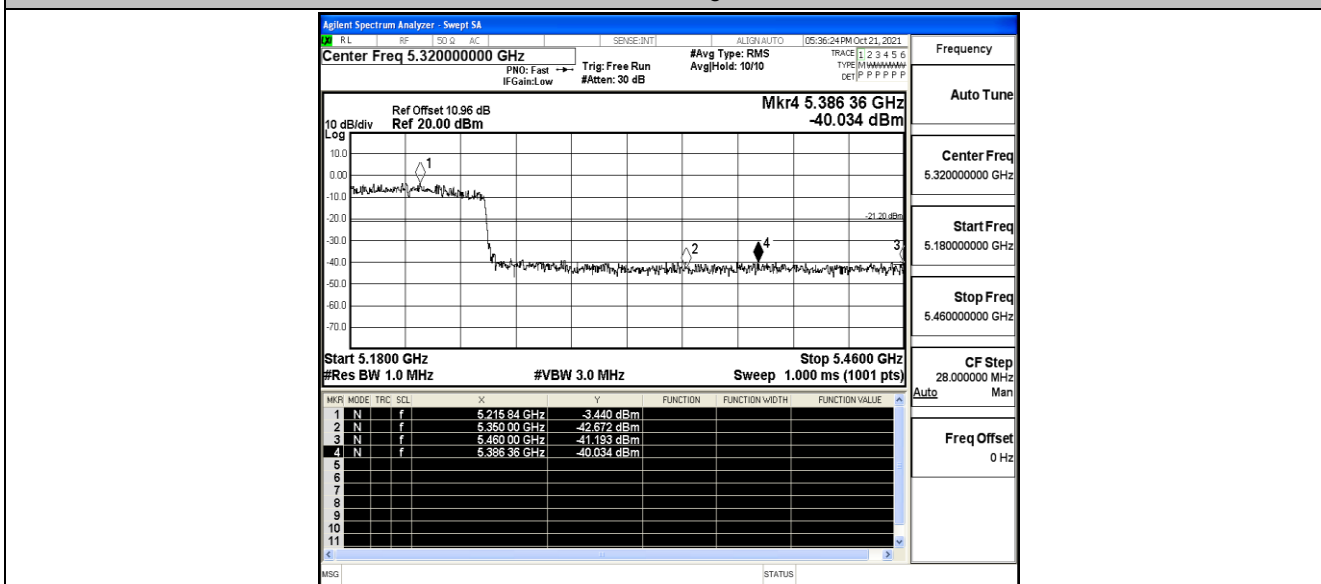
11AC80SISO_Ant1_Low_5210_Peak



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
11AC20SIS O	Ant1	5180	NV	NT	-1000	-0.19305	20	PASS
			LV	NT	0	0	20	PASS
			HV	NT	0	0	20	PASS
		5200	NV	NT	0	0	20	PASS
			LV	NT	0	0	20	PASS
			HV	NT	1000	0.192308	20	PASS
		5240	NV	NT	0	0	20	PASS
			LV	NT	0	0	20	PASS
			HV	NT	1000	0.19084	20	PASS
11AC40SIS O	Ant1	5190	NV	NT	0	0	20	PASS
			LV	NT	0	0	20	PASS
			HV	NT	0	0	20	PASS
		5230	NV	NT	0	0	20	PASS
			LV	NT	0	0	20	PASS
			HV	NT	0	0	20	PASS
11AC80SIS O	Ant1	5210	NV	NT	0	0	20	PASS
			LV	NT	0	0	20	PASS
			HV	NT	0	0	20	PASS

Temperature								
TestMode	Antenna	Channel	Voltage [Vdc]	Temperature (°C)	Deviation (Hz)	Deviation (ppm)	Limit (ppm)	Verdict
11AC20SIS O	Ant1	5180	NV	-30	0	0	20	PASS
			NV	-20	0	0	20	PASS
			NV	-10	0	0	20	PASS
			NV	0	0	0	20	PASS
			NV	10	0	0	20	PASS
			NV	20	0	0	20	PASS
			NV	30	0	0	20	PASS
			NV	40	0	0	20	PASS
			NV	50	0	0	20	PASS
		5200	NV	-30	0	0	20	PASS
			NV	-20	0	0	20	PASS
			NV	-10	0	0	20	PASS
			NV	0	0	0	20	PASS
			NV	10	0	0	20	PASS



			NV	20	0	0	20	PASS
			NV	30	0	0	20	PASS
			NV	40	1000	0.192308	20	PASS
			NV	50	0	0	20	PASS
		5240	NV	-30	0	0	20	PASS
			NV	-20	0	0	20	PASS
			NV	-10	0	0	20	PASS
			NV	0	0	0	20	PASS
			NV	10	1000	0.19084	20	PASS
			NV	20	1000	0.19084	20	PASS
			NV	30	0	0	20	PASS
			NV	40	0	0	20	PASS
			NV	50	0	0	20	PASS
			11AC40SIS O	Ant1	5190	NV	-30	0
NV	-20	0				0	20	PASS
NV	-10	1000				0.192678	20	PASS
NV	0	0				0	20	PASS
NV	10	0				0	20	PASS
NV	20	0				0	20	PASS
NV	30	0				0	20	PASS
NV	40	0				0	20	PASS
5230	NV	50			0	0	20	PASS
	NV	-30			0	0	20	PASS
	NV	-20			0	0	20	PASS
	NV	-10			0	0	20	PASS
	NV	0			1000	0.191205	20	PASS
	NV	10			0	0	20	PASS
11AC80SIS O	Ant1	5210	NV	20	0	0	20	PASS
			NV	30	0	0	20	PASS
			NV	40	0	0	20	PASS
			NV	50	1000	0.191205	20	PASS
			NV	-30	0	0	20	PASS
			NV	-20	0	0	20	PASS
			NV	-10	0	0	20	PASS
			NV	0	0	0	20	PASS



D.6 Duty Cycle

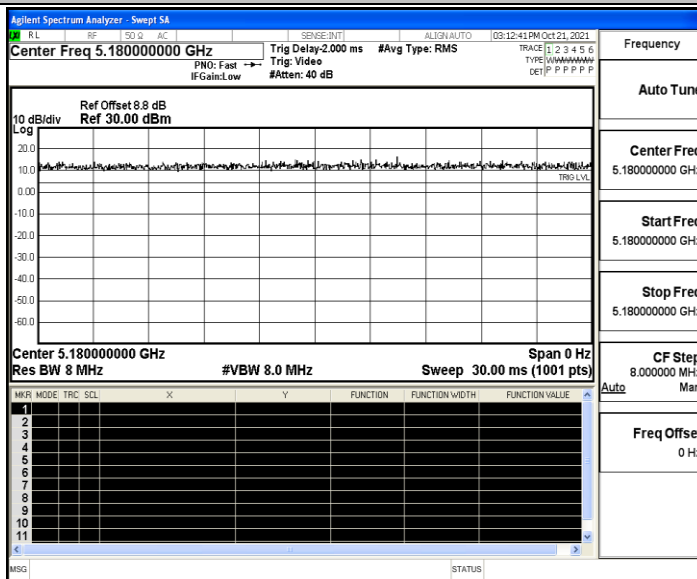
Test Result

TestMode	Antenna	Channel	Transmission Duration [ms]	Transmission Period [ms]	Duty Cycle [%]	Limit	Verdict
11A	Ant1	5180	30.00	30.00	100.00	---	PASS
		5200	30.00	30.00	100.00	---	PASS
		5240	30.00	30.00	100.00	---	PASS
11N20SISO	Ant1	5180	30.00	30.00	100.00	---	PASS
		5200	30.00	30.00	100.00	---	PASS
		5240	30.00	30.00	100.00	---	PASS
11N40SISO	Ant1	5190	30.00	30.00	100.00	---	PASS
		5230	30.00	30.00	100.00	---	PASS
11AC20SISO	Ant1	5180	30.00	30.00	100.00	---	PASS
		5200	30.00	30.00	100.00	---	PASS
		5240	30.00	30.00	100.00	---	PASS
11AC40SISO	Ant1	5190	30.00	30.00	100.00	---	PASS
		5230	30.00	30.00	100.00	---	PASS
11AC80SISO	Ant1	5210	30.00	30.00	100.00	---	PASS

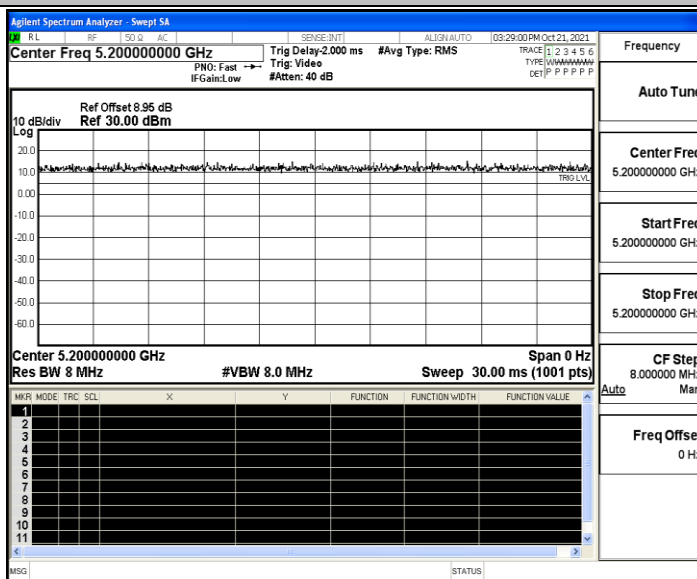


Test Graphs

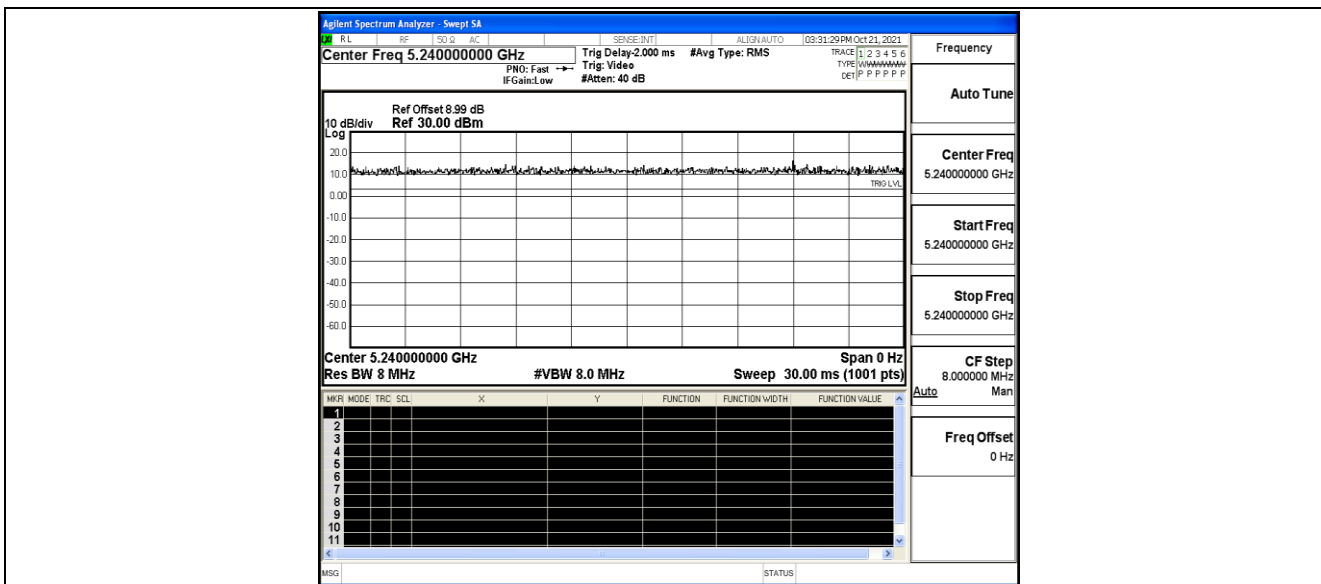
11A_Ant1_5180



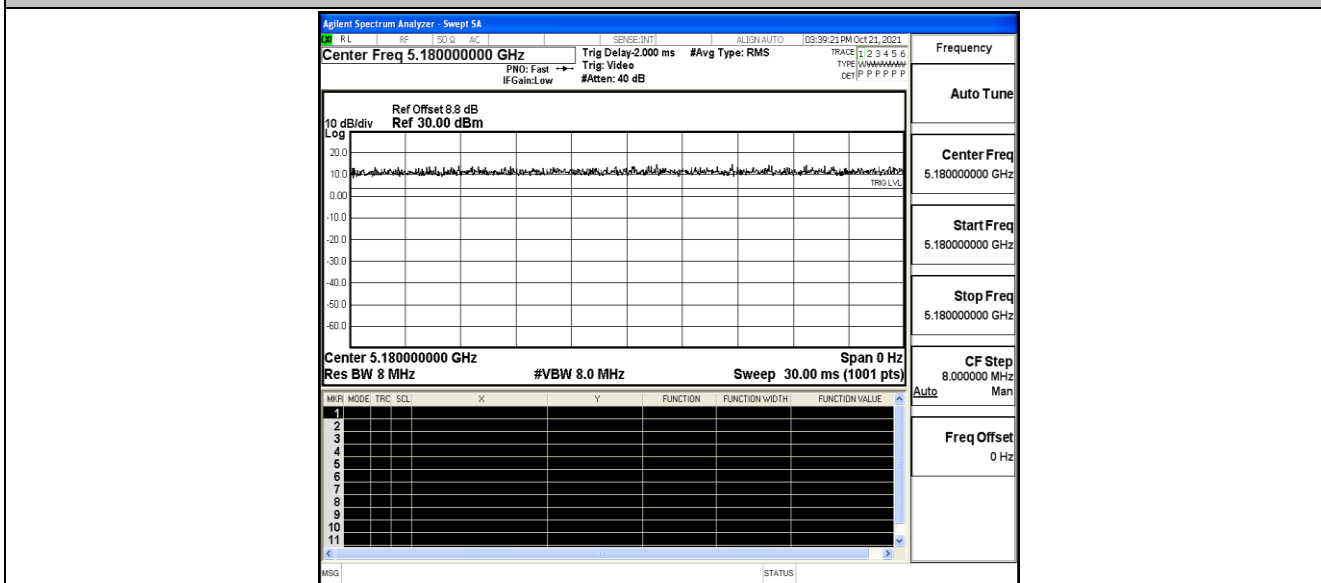
11A_Ant1_5200



11A_Ant1_5240



11N20SISO_Ant1_5180

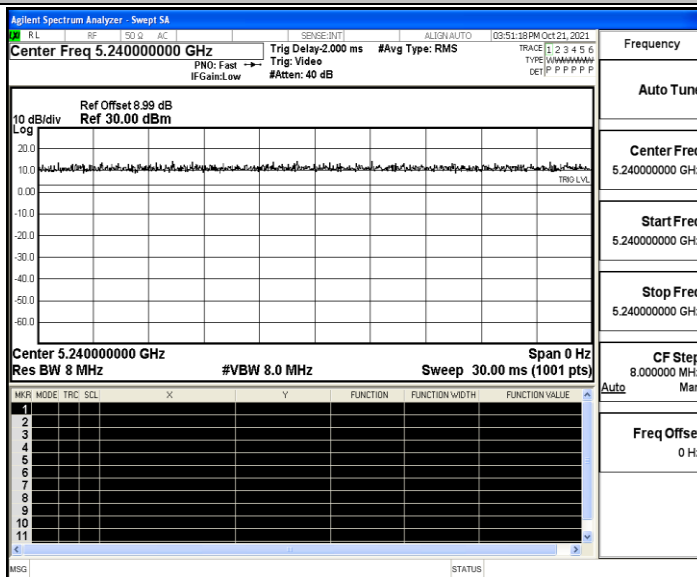


11N20SISO_Ant1_5200

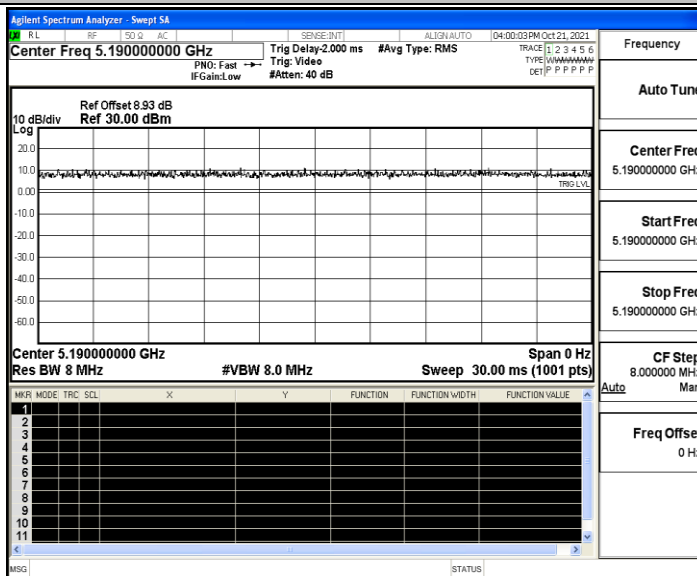




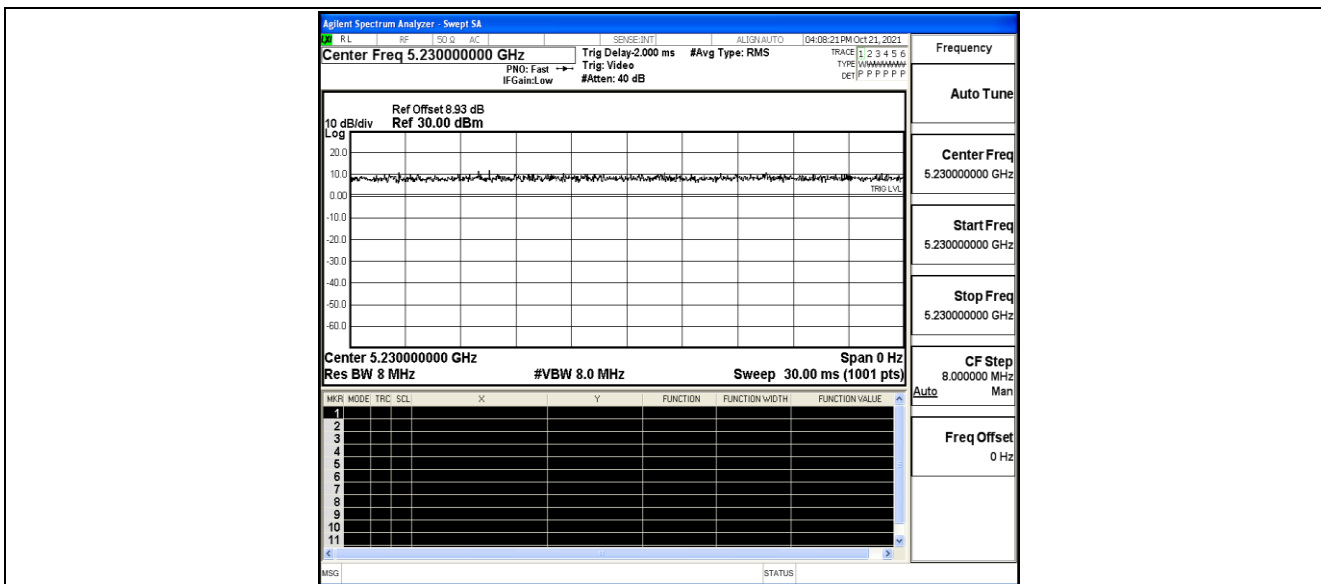
11N20SISO_Ant1_5240



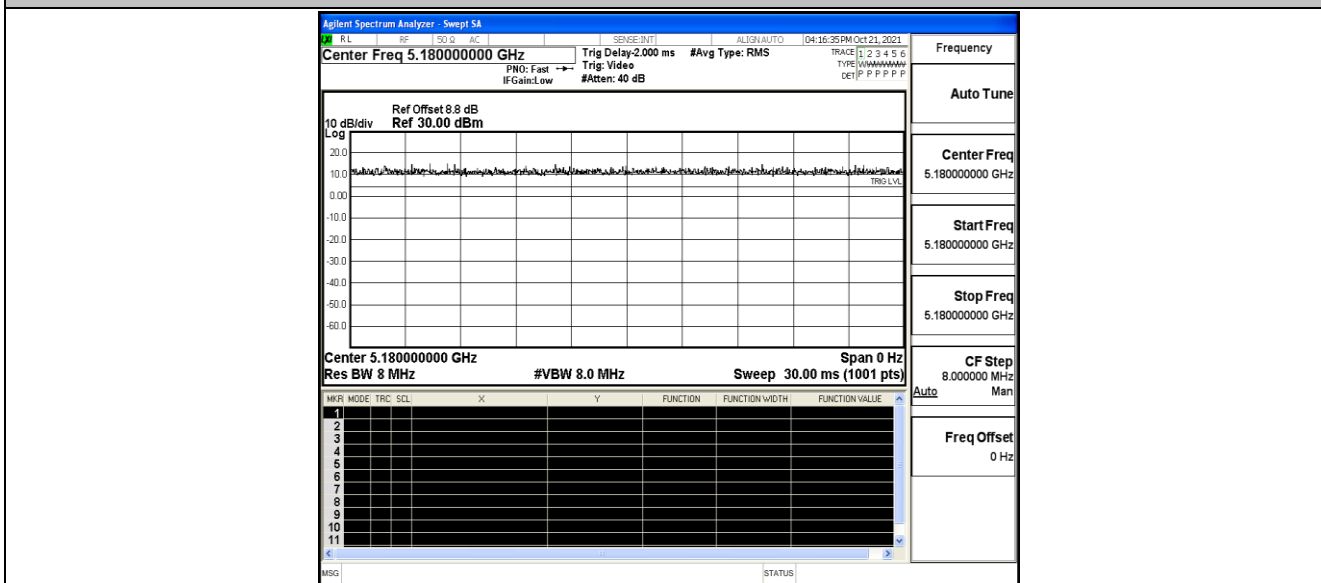
11N40SISO_Ant1_5190



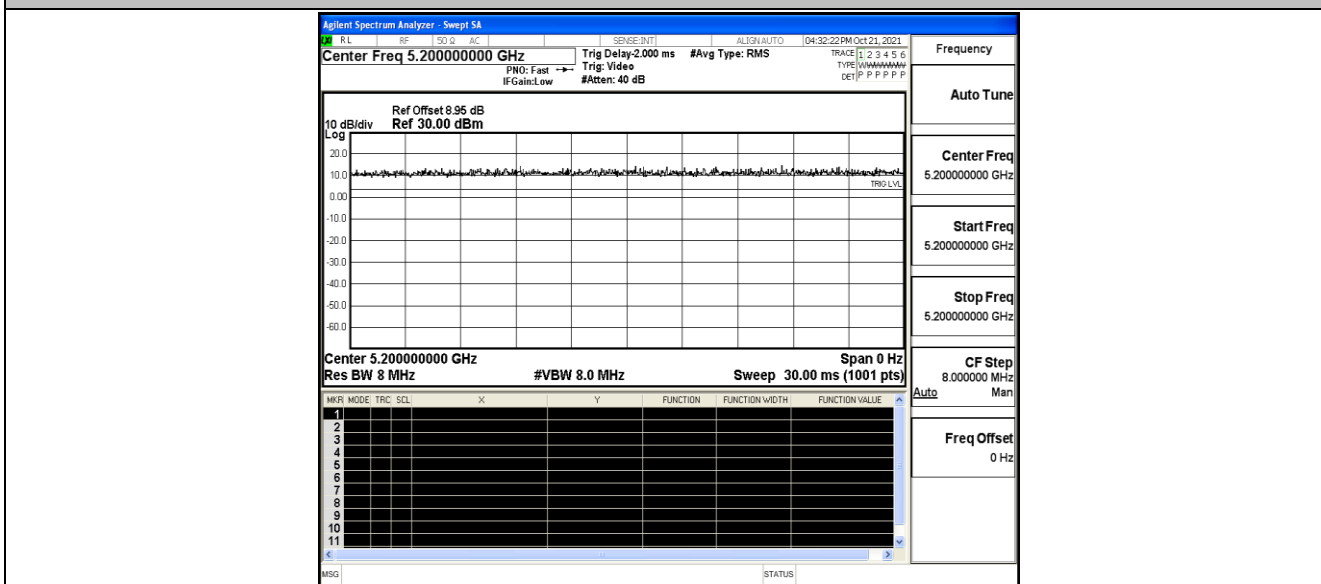
11N40SISO_Ant1_5230



11AC20SISO_Ant1_5180

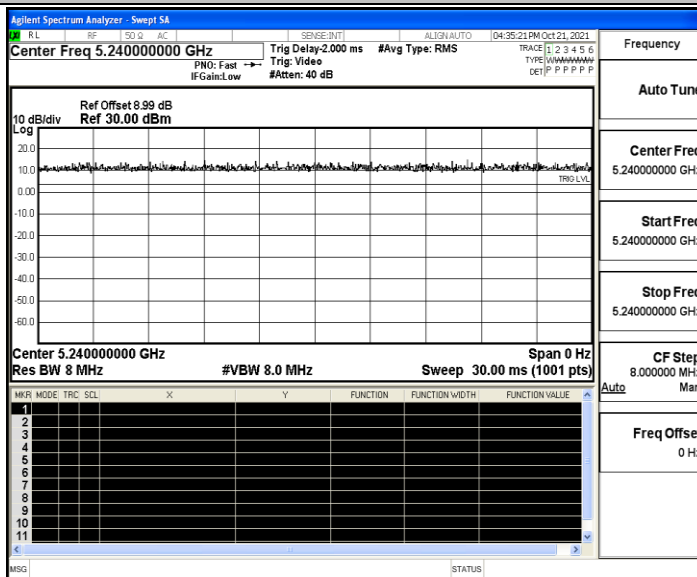


11AC20SISO_Ant1_5200

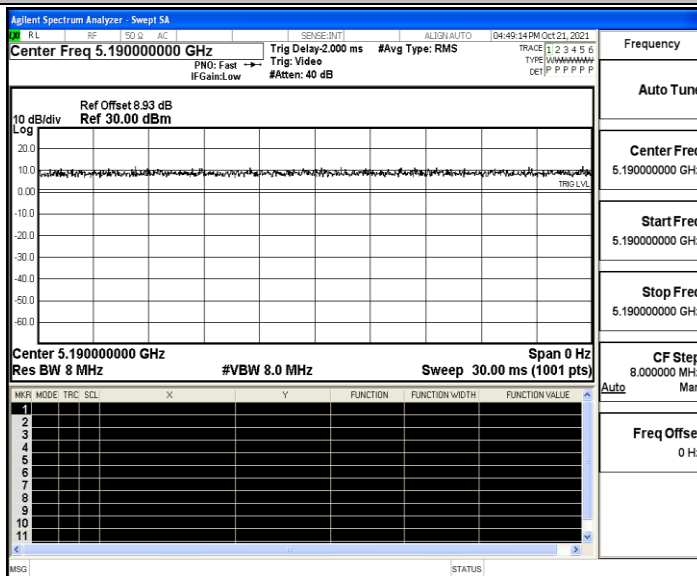




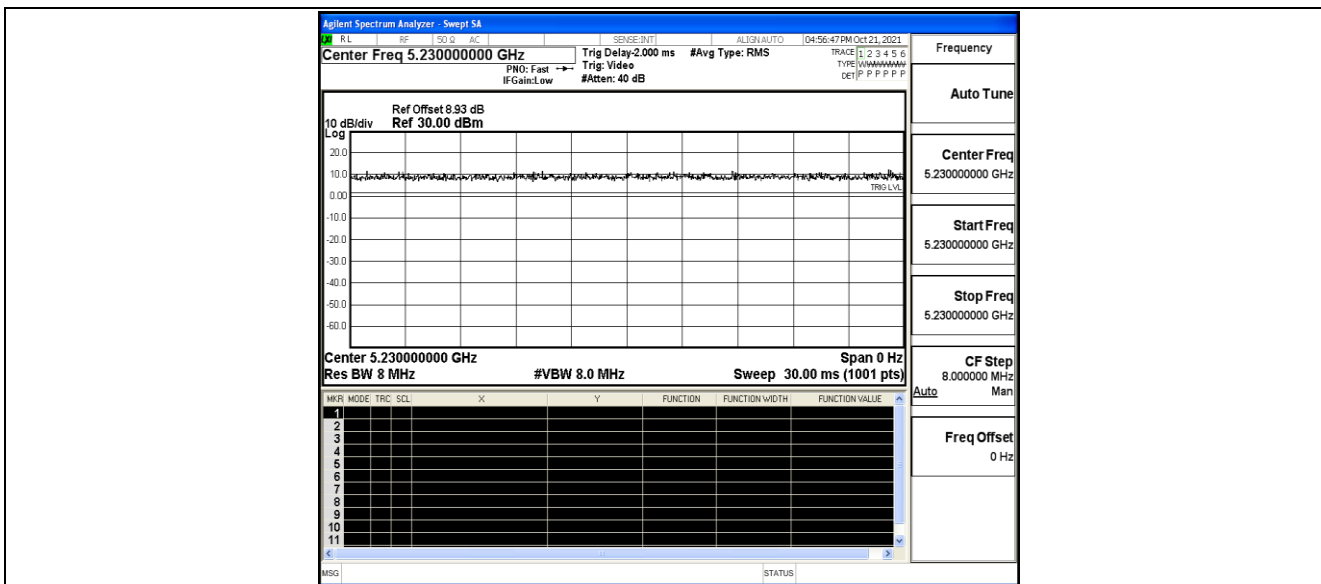
11AC20SISO_Ant1_5240



11AC40SISO_Ant1_5190



11AC40SISO_Ant1_5230



11AC80SISO_Ant1_5210

