Appendix D

RF Test Data for 5.2G WIFI (Conducted Measurement)

Product Name: TABLET PC

Test Model: BELLATRIX

Environmental Conditions

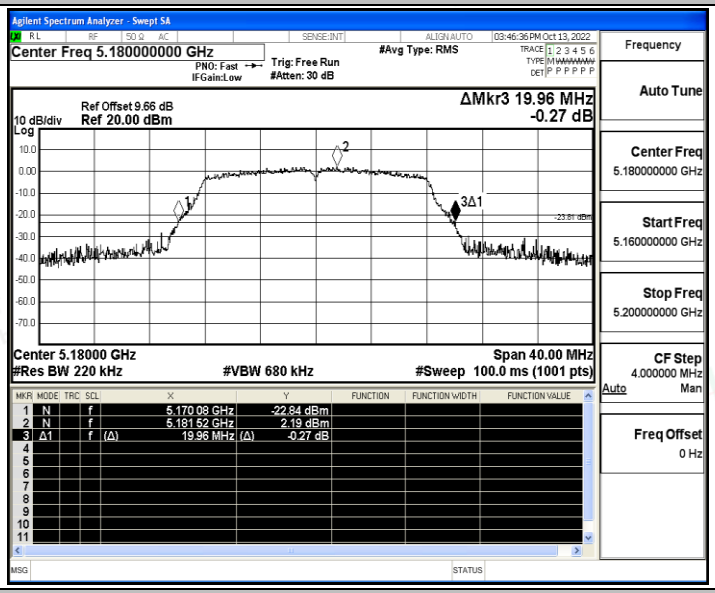
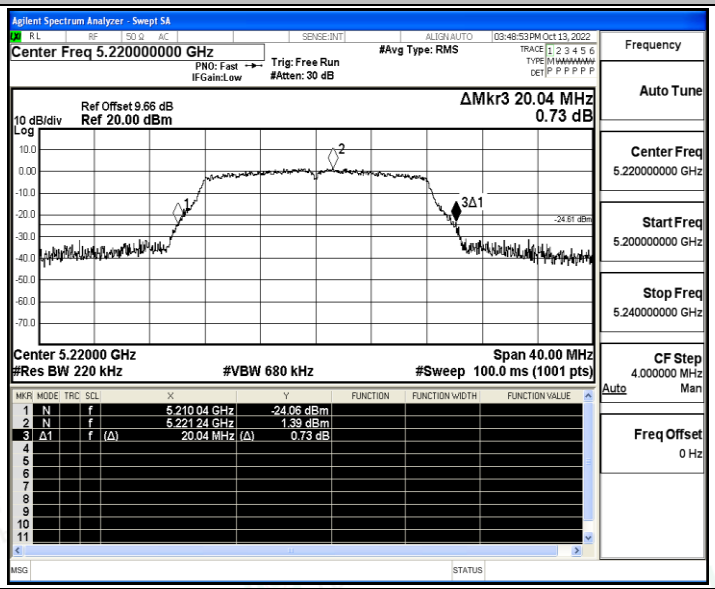
Temperature:	23.8 ° C
Relative Humidity:	52.1%
ATM Pressure:	100.0 kPa
Test Engineer:	Taylor Hu Taylor Hu
Supervised by:	Li Huan

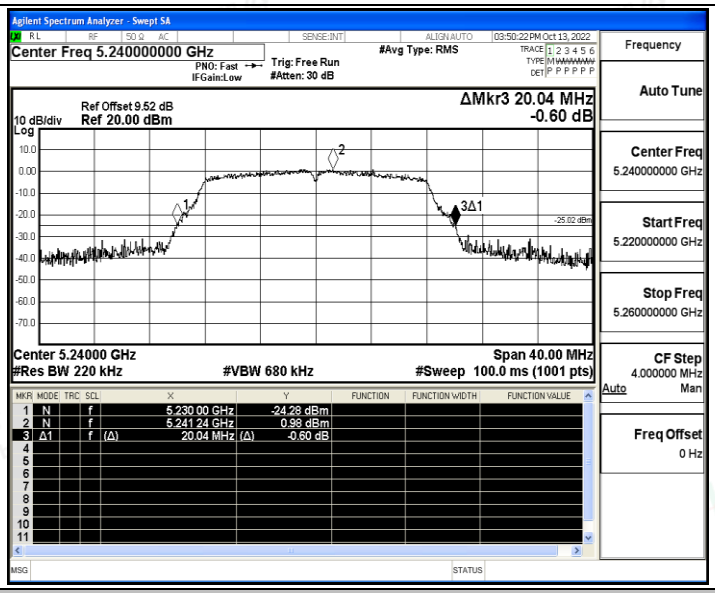
D.1 Emission Bandwidth

Test Result

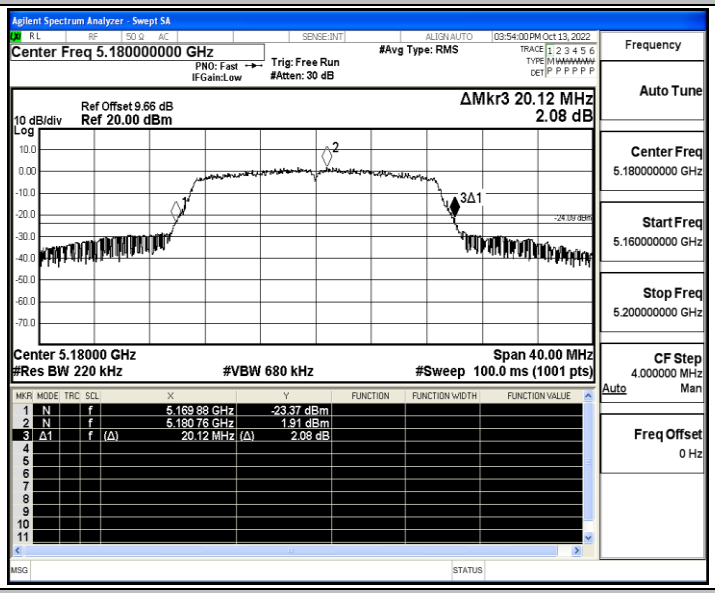
TestMode	Antenna	Frequency[MHz]	26db EBW [MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
11A	Ant	5180	19.960	5170.080	5190.040	---	---
		5220	20.040	5210.040	5230.080	---	---
		5240	20.040	5230.000	5250.040	---	---
11N20SISO	Ant	5180	20.120	5169.880	5190.000	---	---
		5220	20.280	5209.880	5230.160	---	---
		5240	20.200	5229.880	5250.080	---	---
11N40SISO	Ant	5190	40.480	5169.760	5210.240	---	---
		5230	40.400	5209.760	5250.160	---	---
11AC20SISO	Ant	5180	20.280	5169.960	5190.240	---	---
		5220	20.280	5209.880	5230.160	---	---
		5240	20.240	5229.800	5250.040	---	---
11AC40SISO	Ant	5190	40.240	5169.920	5210.160	---	---
		5230	40.640	5209.760	5250.400	---	---
11AC80SISO	Ant	5210	80.800	5169.680	5250.480	---	---

Test Graphs

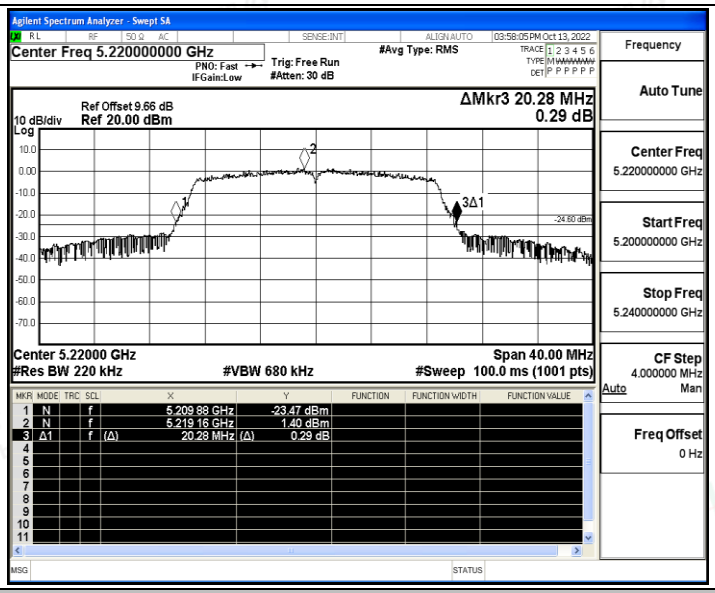
11A_Ant_5180

11A_Ant_5220

11A_Ant_5240



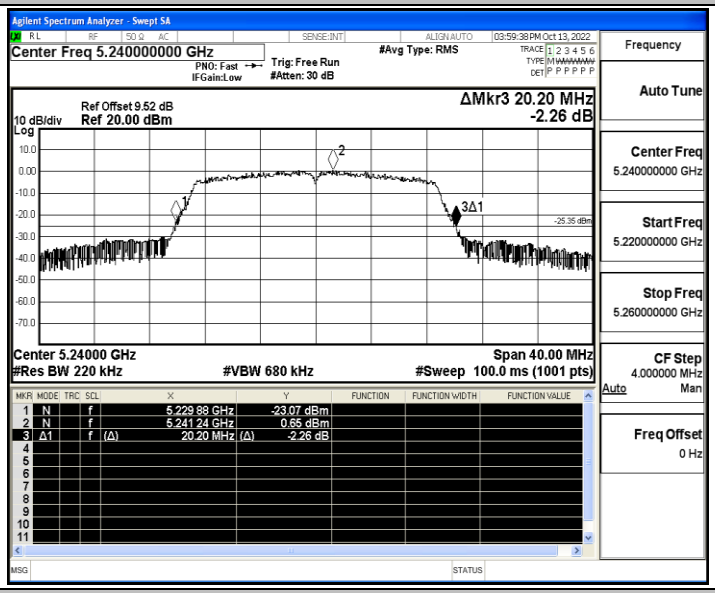
11N20SISO_Ant_5180



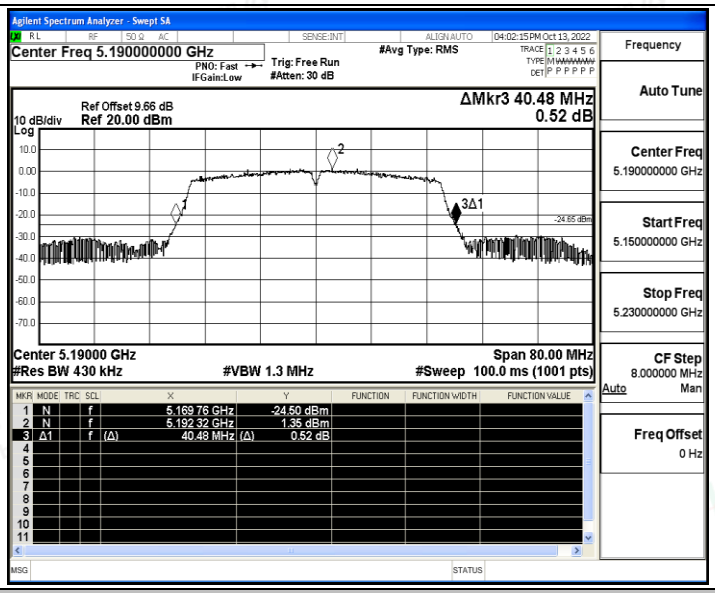
11N20SISO_Ant_5220



11N20SISO_Ant_5240



11N40SISO_Ant_5190



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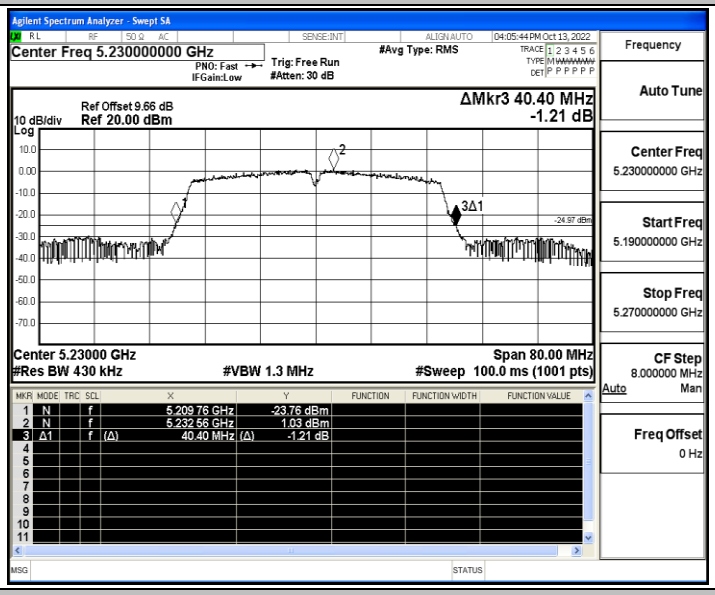

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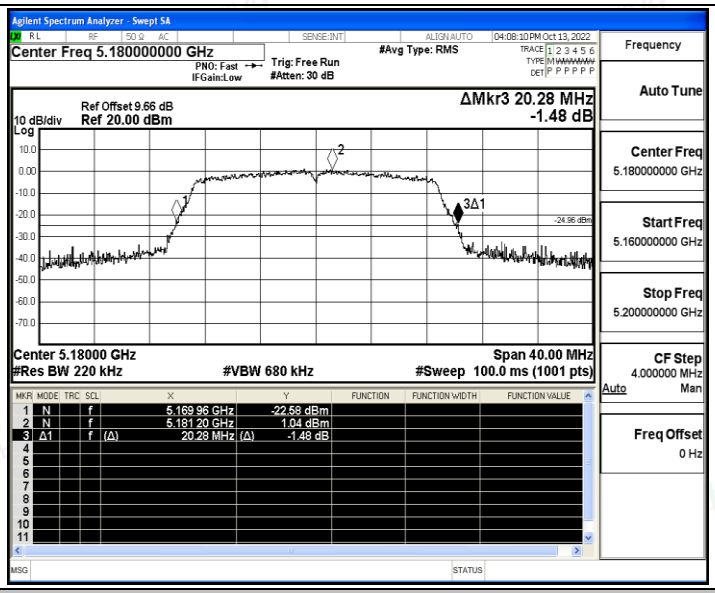
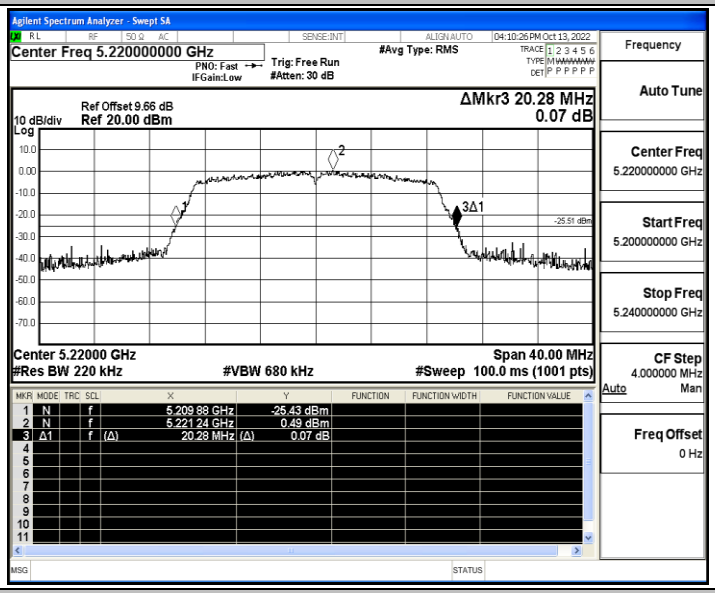
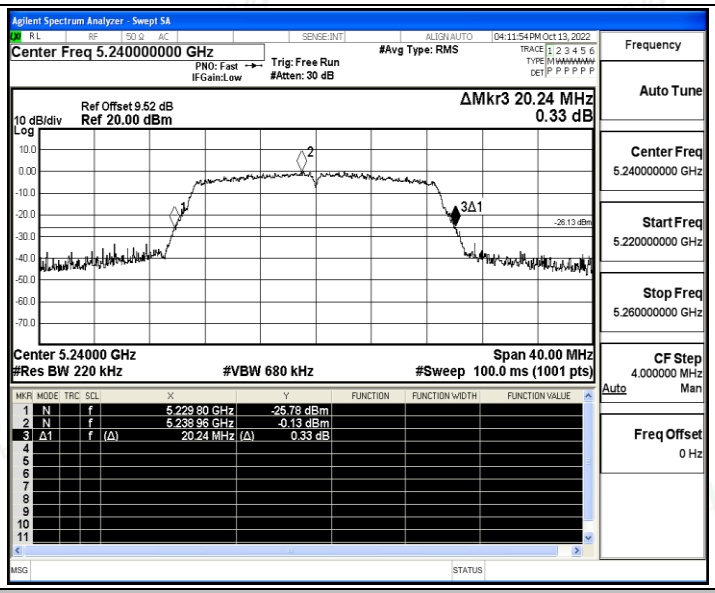


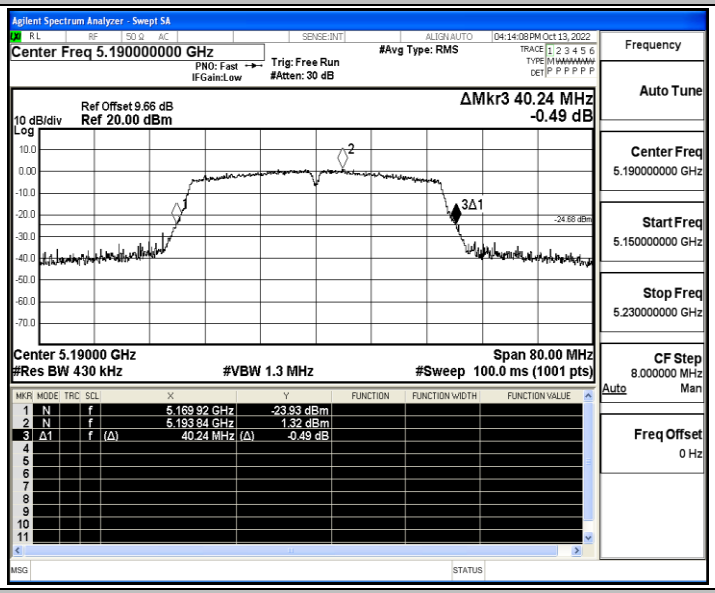
11AC20SISO_Ant_5220



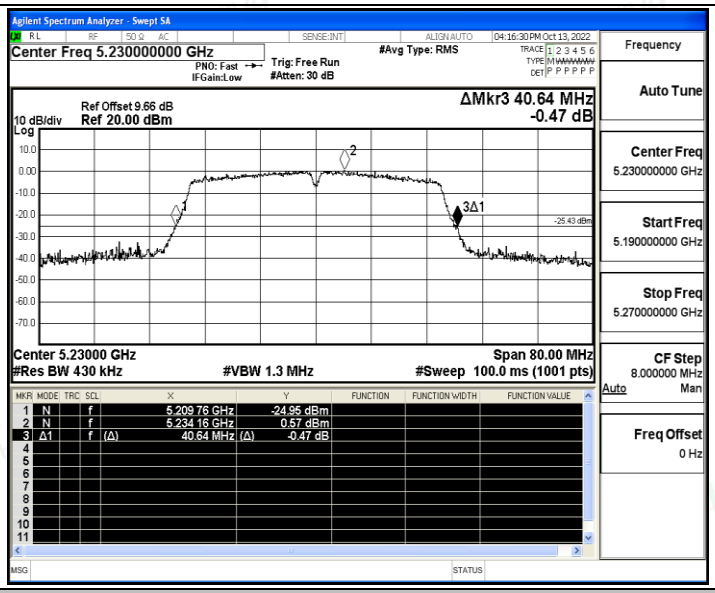
11AC20SISO_Ant_5240



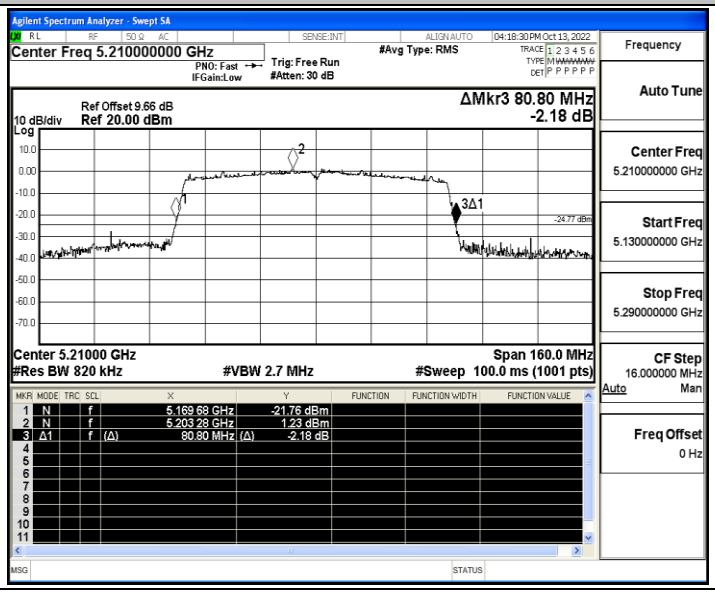
11AC40SISO_Ant_5190



11AC40SISO_Ant_5230



11AC80SISO_Ant_5210



D.2 Maximum conducted output power

Test Result

Test Mode	Antenna	Frequency[MHz]	Channel Powert [dBm]	DC Factor [dBm]	Result [dBm]	Limit [dBm]	Verdict
11A	Ant	5180	11.20	0.12	11.32	≤23.98	PASS
		5220	10.76	0.12	10.88	≤23.98	PASS
		5240	10.62	0.12	10.74	≤23.98	PASS
11N20SISO	Ant	5180	11.02	0.13	11.15	≤23.98	PASS
		5220	10.61	0.13	10.74	≤23.98	PASS
		5240	9.87	0.13	10.00	≤23.98	PASS
11N40SISO	Ant	5190	10.27	0.26	10.53	≤23.98	PASS
		5230	10.04	0.32	10.36	≤23.98	PASS
11AC20SISO	Ant	5180	10.24	0.13	10.37	≤23.98	PASS
		5220	9.74	0.16	9.90	≤23.98	PASS
		5240	9.47	0.16	9.63	≤23.98	PASS
11AC40SISO	Ant	5190	9.86	0.32	10.18	≤23.98	PASS
		5230	9.57	0.32	9.89	≤23.98	PASS
11AC80SISO	Ant	5210	9.45	0.50	9.95	≤23.98	PASS

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

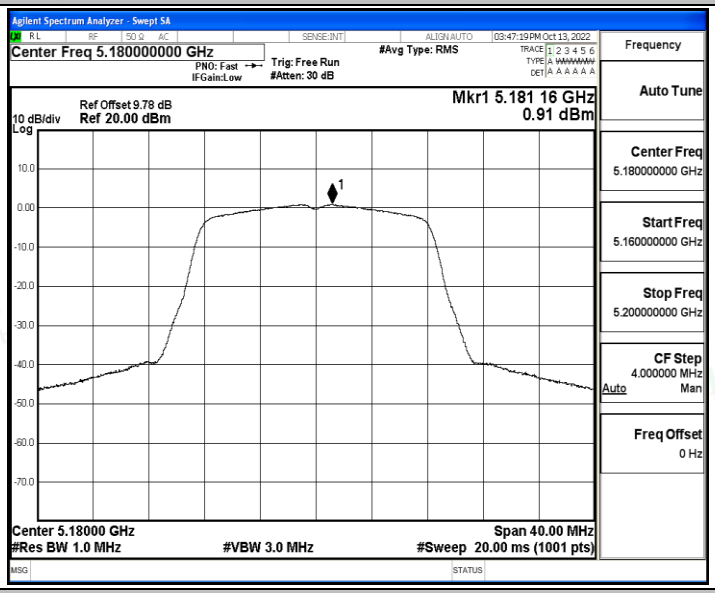
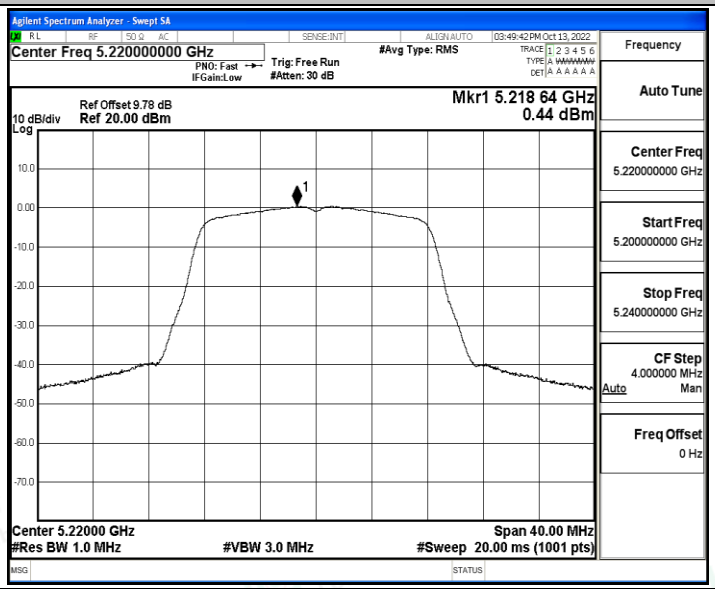
D.3 Maximum power spectral density

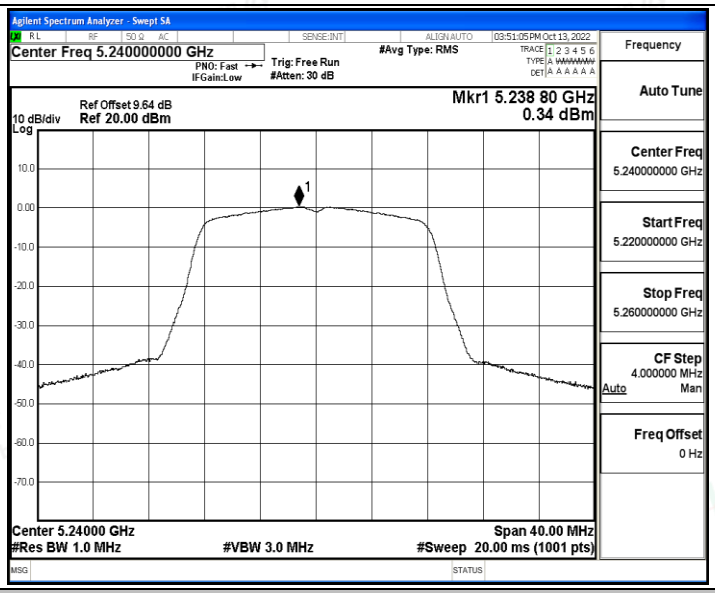
Test Result

TestMode	Antenna	Frequency[MHz]	Result [dBm/MHz]	DC Factor [dBm]	Total Result [dBm/MHz]	Limit[dBm/MHz]	Verdict
11A	Ant	5180	0.91	0.12	1.03	≤11.00	PASS
		5220	0.44	0.12	0.56	≤11.00	PASS
		5240	0.34	0.12	0.46	≤11.00	PASS
11N20SISO	Ant	5180	0.52	0.13	0.65	≤11.00	PASS
		5220	0.1	0.13	0.23	≤11.00	PASS
		5240	-0.61	0.13	-0.48	≤11.00	PASS
11N40SISO	Ant	5190	-2.9	0.26	-2.64	≤11.00	PASS
		5230	-3.15	0.32	-2.83	≤11.00	PASS
11AC20SISO	Ant	5180	-0.29	0.13	-0.16	≤11.00	PASS
		5220	-0.65	0.16	-0.49	≤11.00	PASS
		5240	-0.99	0.16	-0.83	≤11.00	PASS
11AC40SISO	Ant	5190	-3.32	0.32	-3.00	≤11.00	PASS
		5230	-3.58	0.32	-3.26	≤11.00	PASS
11AC80SISO	Ant	5210	-6.75	0.50	-6.25	≤11.00	PASS

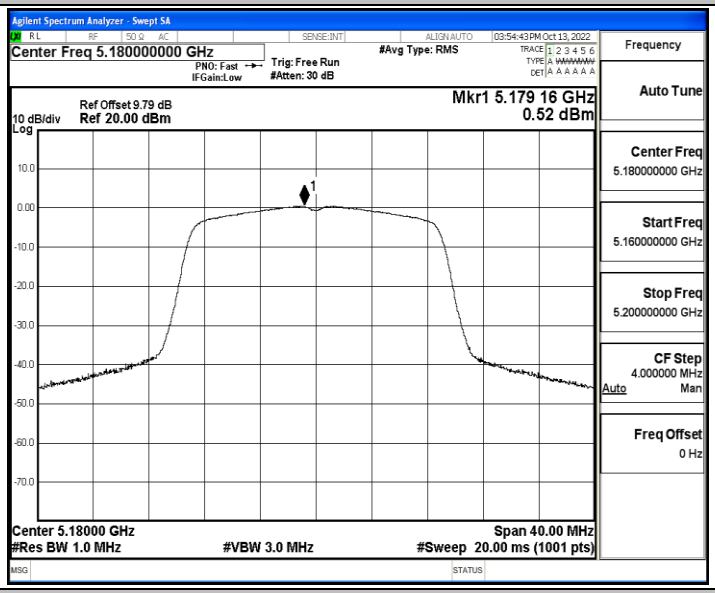
Note：1. The Duty Cycle Factor and RBW Factor is compensated in the graph.

Test Graphs

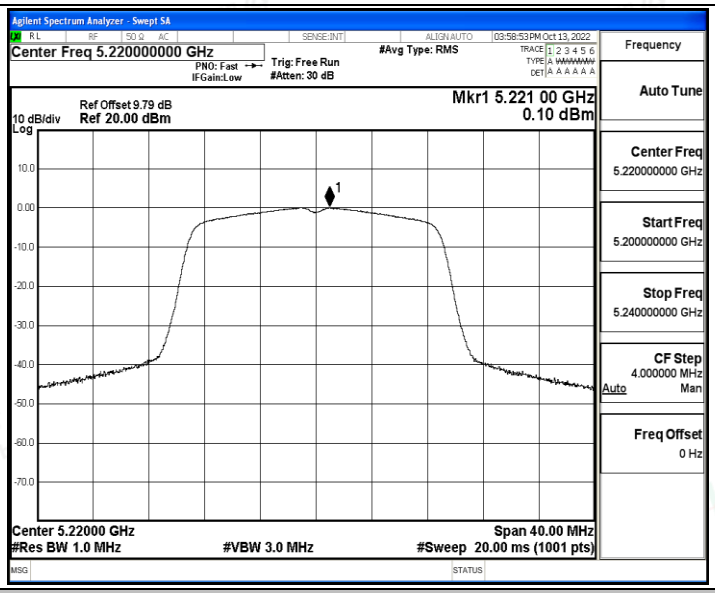
11A_Ant_5180

11A_Ant_5220

11A_Ant_5240



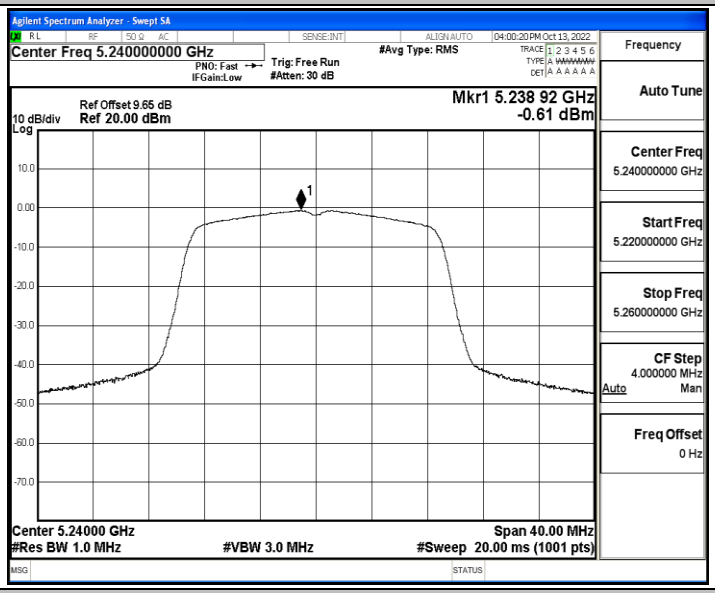
11N20SISO_Ant_5180



11N20SISO_Ant_5220



11N20SISO_Ant_5240



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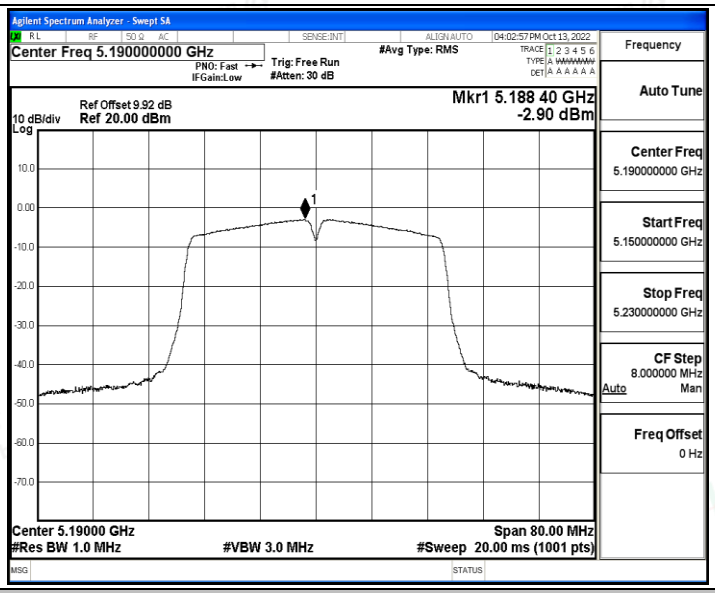
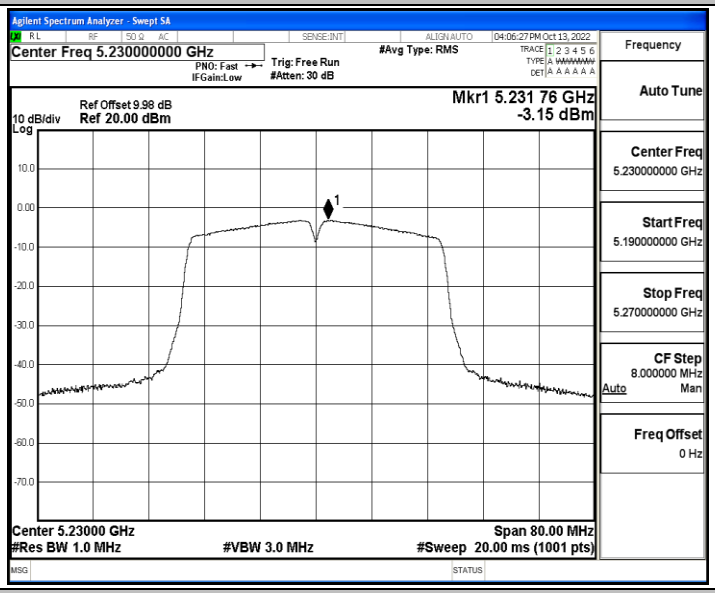
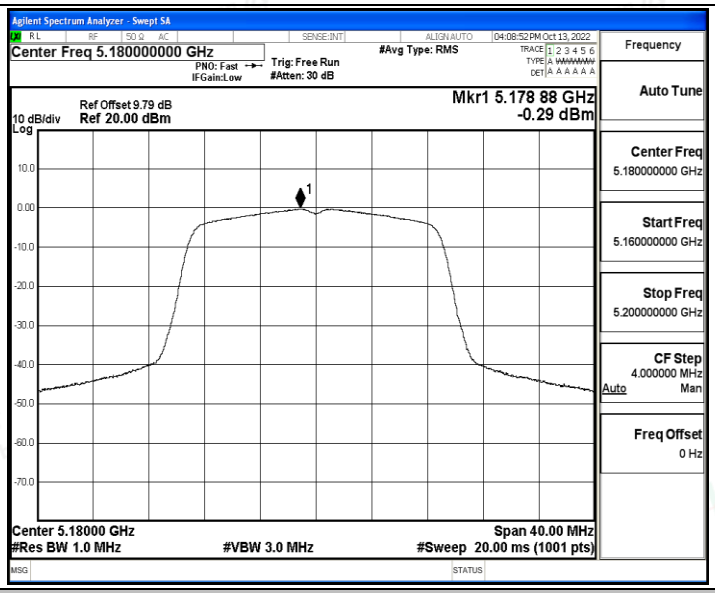


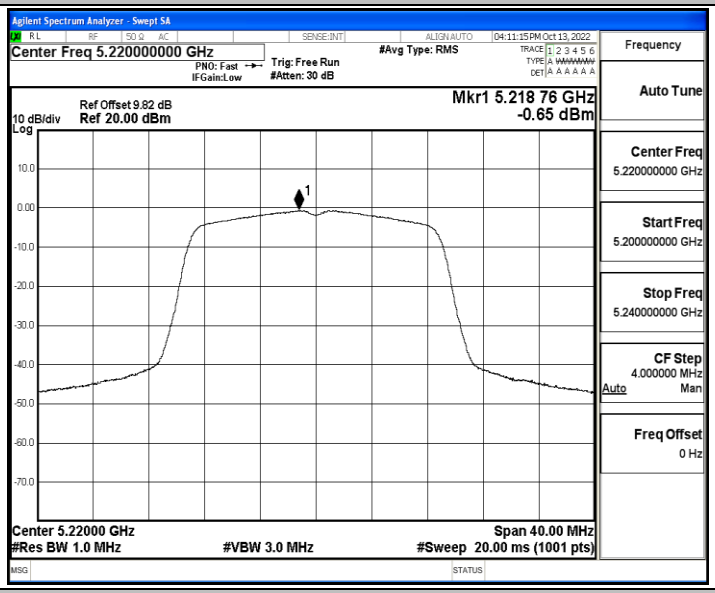
11N40SISO_Ant_5230



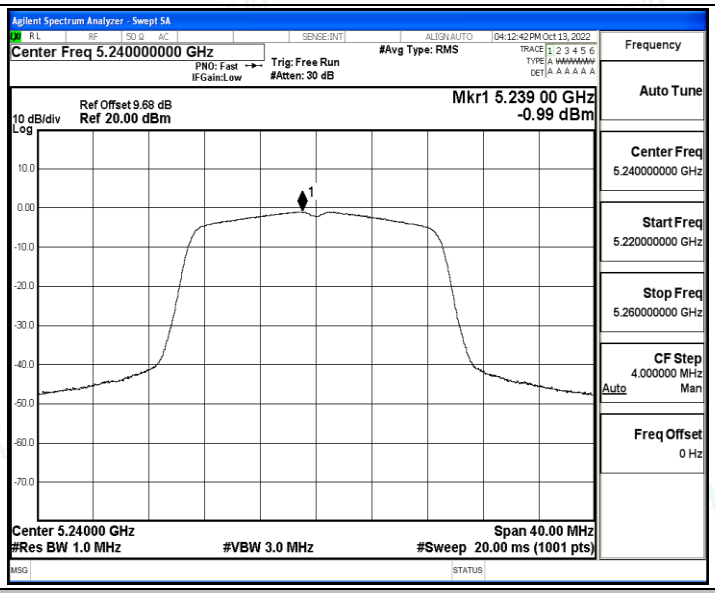
11AC20SISO_Ant_5180



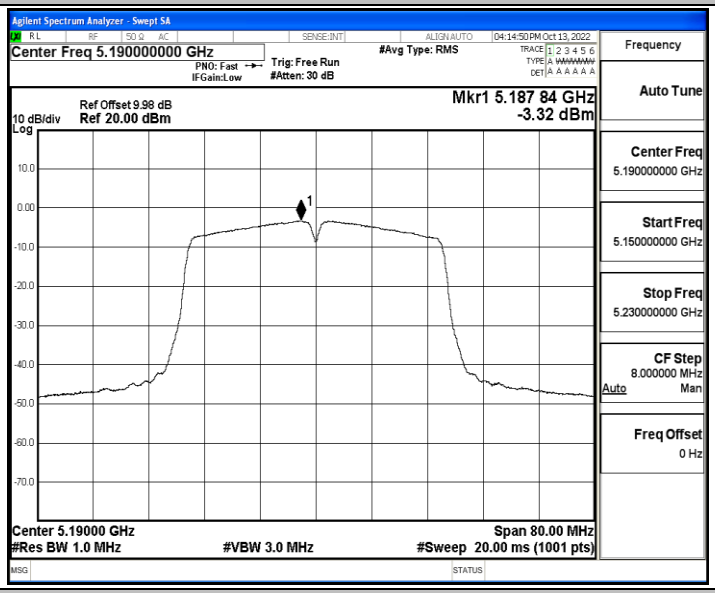
11AC20SISO_Ant_5220



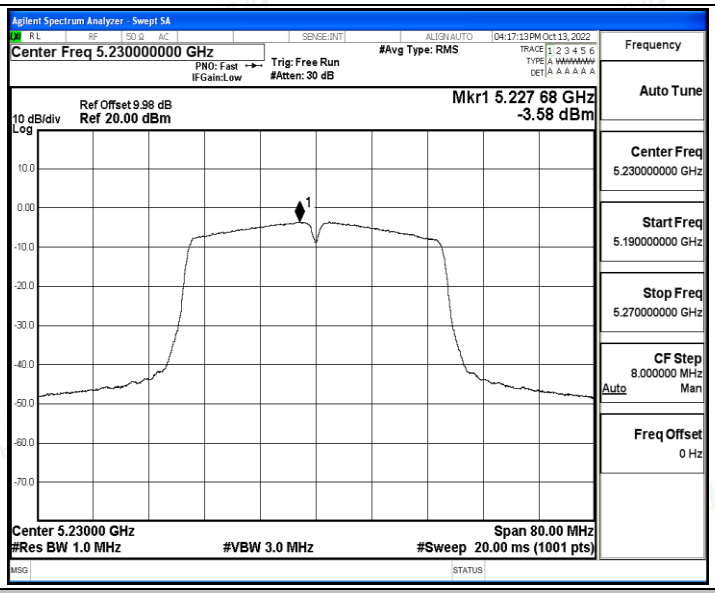
11AC20SISO_Ant_5240



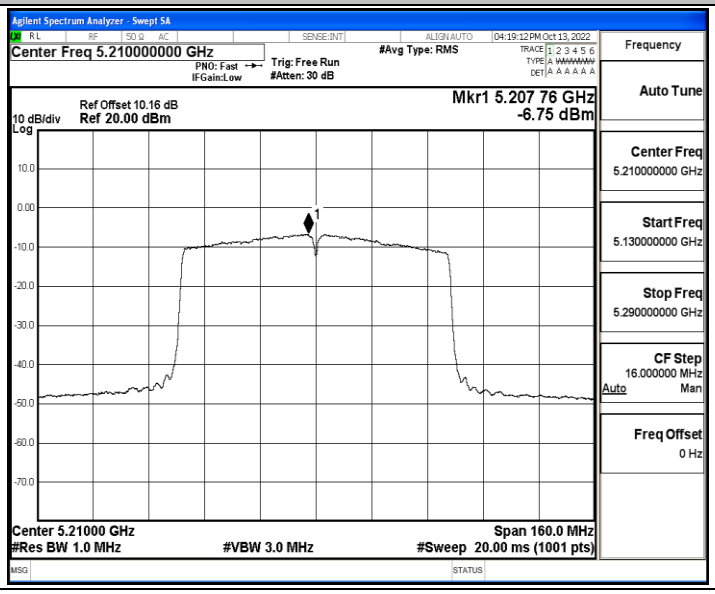
11AC40SISO_Ant_5190



11AC40SISO_Ant_5230



11AC80SISO_Ant_5210



D.4 Emissions in Restricted Bands

Test Result

TestMode	Antenna	ChName	Frequency[MHz]	Detector	Freq [MHz]	Result [dBm]	Limit [dBm]	Result [dBuV/m]	Limit [dBuV/m]	Verdict
11A	Ant	Low	5180	AV	4500.000	-48.57	≤-41.20	46.63	≤54	PASS
				AV	5148.900	-45.52	≤-41.20	49.68	≤54	PASS
				AV	5150.000	-45.66	≤-41.20	49.54	≤54	PASS
				Peak	4500.000	-43.63	≤-21.20	51.57	≤74	PASS
				Peak	4943.800	-38.85	≤-21.20	56.35	≤74	PASS
				Peak	5150.000	-44.91	≤-21.20	50.29	≤74	PASS
		High	5240	AV	5350.000	-47.52	≤-41.20	47.68	≤54	PASS
				AV	5422.800	-47.24	≤-41.20	47.96	≤54	PASS
				AV	5460.000	-47.66	≤-41.20	47.54	≤54	PASS
				Peak	5350.000	-45.05	≤-21.20	50.15	≤74	PASS
				Peak	5417.280	-39.35	≤-21.20	55.85	≤74	PASS
				Peak	5460.000	-43.19	≤-21.20	52.01	≤74	PASS
11N20SISO	Ant	Low	5180	AV	4500.000	-48.81	≤-41.20	46.39	≤54	PASS
				AV	5149.600	-45.49	≤-41.20	49.71	≤54	PASS
				AV	5150.000	-45.49	≤-41.20	49.71	≤54	PASS
				Peak	4500.000	-44.68	≤-21.20	50.52	≤74	PASS
				Peak	4858.400	-37.68	≤-21.20	57.52	≤74	PASS
				Peak	5150.000	-40.17	≤-21.20	55.03	≤74	PASS
		High	5240	AV	5350.000	-47.65	≤-41.20	47.55	≤54	PASS
				AV	5406.480	-47.25	≤-41.20	47.95	≤54	PASS
				AV	5460.000	-47.63	≤-41.20	47.57	≤54	PASS
				Peak	5350.000	-42.08	≤-21.20	53.12	≤74	PASS
				Peak	5398.800	-39.03	≤-21.20	56.17	≤74	PASS
				Peak	5460.000	-42.38	≤-21.20	52.82	≤74	PASS
11N40SISO	Ant	Low	5190	AV	4500.000	-48.61	≤-41.20	46.59	≤54	PASS
				AV	5148.900	-43.34	≤-41.20	51.86	≤54	PASS
				AV	5150.000	-43.01	≤-41.20	52.19	≤54	PASS
				Peak	4500.000	-47.25	≤-21.20	47.95	≤74	PASS
				Peak	5131.400	-35	≤-21.20	60.20	≤74	PASS
				Peak	5150.000	-44.91	≤-21.20	50.29	≤74	PASS
		High	5230	AV	5350.000	-47.47	≤-41.20	47.73	≤54	PASS
				AV	5371.080	-46.62	≤-41.20	48.58	≤54	PASS
				AV	5460.000	-47.61	≤-41.20	47.59	≤54	PASS
				Peak	5350.000	-42.57	≤-21.20	52.63	≤74	PASS
				Peak	5359.640	-39.04	≤-21.20	56.16	≤74	PASS

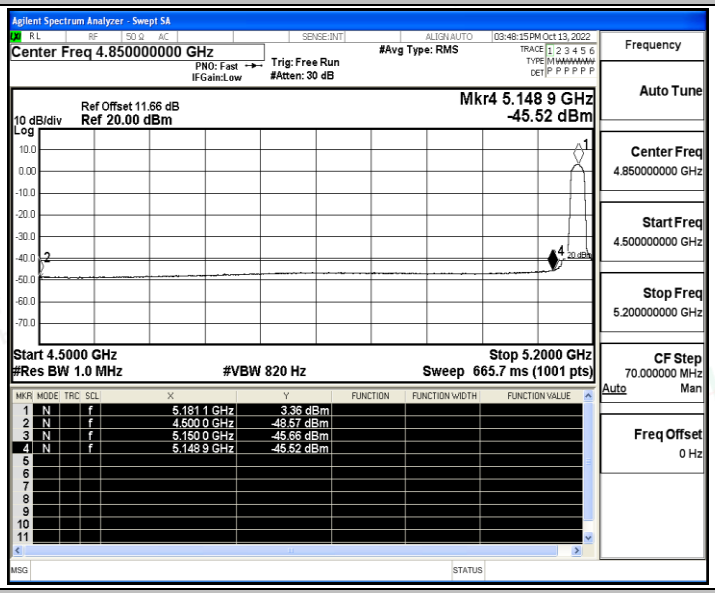
				Peak	5460.000	-42.38	≤-21.20	52.82	≤74	PASS
11AC20S ISO	Ant	Low	5180	AV	4500.000	-48.72	≤-41.20	46.48	≤54	PASS
				AV	5148.900	-45.81	≤-41.20	49.39	≤54	PASS
				AV	5150.000	-45.72	≤-41.20	49.48	≤54	PASS
				Peak	4500.000	-47.74	≤-21.20	47.46	≤74	PASS
				Peak	5144.700	-38.21	≤-21.20	56.99	≤74	PASS
				Peak	5150.000	-43	≤-21.20	52.20	≤74	PASS
		High	5240	AV	5350.000	-47.57	≤-41.20	47.63	≤54	PASS
				AV	5382.480	-47.16	≤-41.20	48.04	≤54	PASS
				AV	5460.000	-47.8	≤-41.20	47.40	≤54	PASS
				Peak	5350.000	-44.62	≤-21.20	50.58	≤74	PASS
				Peak	5457.120	-39.16	≤-21.20	56.04	≤74	PASS
				Peak	5460.000	-44.17	≤-21.20	51.03	≤74	PASS
11AC40S ISO	Ant	Low	5190	AV	4500.000	-48.41	≤-41.20	46.79	≤54	PASS
				AV	5149.600	-44.97	≤-41.20	50.23	≤54	PASS
				AV	5150.000	-44.86	≤-41.20	50.34	≤54	PASS
				Peak	4500.000	-43.24	≤-21.20	51.96	≤74	PASS
				Peak	5134.200	-37.25	≤-21.20	57.95	≤74	PASS
				Peak	5150.000	-43.37	≤-21.20	51.83	≤74	PASS
		High	5230	AV	5350.000	-47.23	≤-41.20	47.97	≤54	PASS
				AV	5364.840	-46.86	≤-41.20	48.34	≤54	PASS
				AV	5460.000	-47.56	≤-41.20	47.64	≤54	PASS
				Peak	5350.000	-43.48	≤-21.20	51.72	≤74	PASS
				Peak	5430.360	-37.67	≤-21.20	57.53	≤74	PASS
				Peak	5460.000	-44.43	≤-21.20	50.77	≤74	PASS
11AC80S ISO	Ant	Low	5210	AV	4500.000	-48.22	≤-41.20	46.98	≤54	PASS
				AV	5149.500	-42.87	≤-41.20	52.33	≤54	PASS
				AV	5150.000	-43.5	≤-41.20	51.70	≤54	PASS
				Peak	4500.000	-44.28	≤-21.20	50.92	≤74	PASS
				Peak	5142.750	-32.87	≤-21.20	62.33	≤74	PASS
				Peak	5150.000	-39.94	≤-21.20	55.26	≤74	PASS
		High	5210	AV	5350.000	-47.39	≤-41.20	47.81	≤54	PASS
				AV	5365.920	-46.37	≤-41.20	48.83	≤54	PASS
				AV	5460.000	-47.16	≤-41.20	48.04	≤54	PASS
				Peak	5350.000	-43.91	≤-21.20	51.29	≤74	PASS
				Peak	5416.320	-38.77	≤-21.20	56.43	≤74	PASS
				Peak	5460.000	-43.2	≤-21.20	52.00	≤74	PASS

Note:

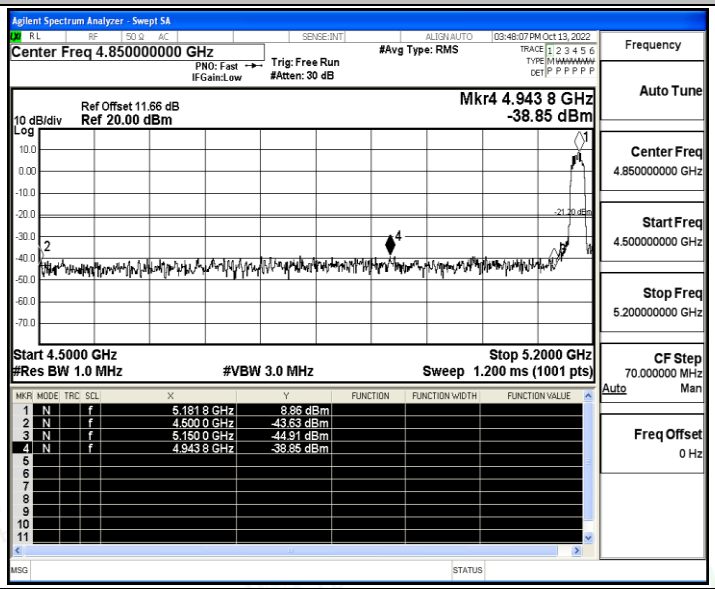
1. The Antenna Gain is compensated in the graph.
2. For transmitters operating in 5150-5350 GHz band and 5470-5725 GHz band: The limit in dBm for average detector is conversion from 54dBuV/m, according to 15.209(a). The limit in dBm for peak detector is 20dB above the limit of average detector in dBm.

Test Graphs

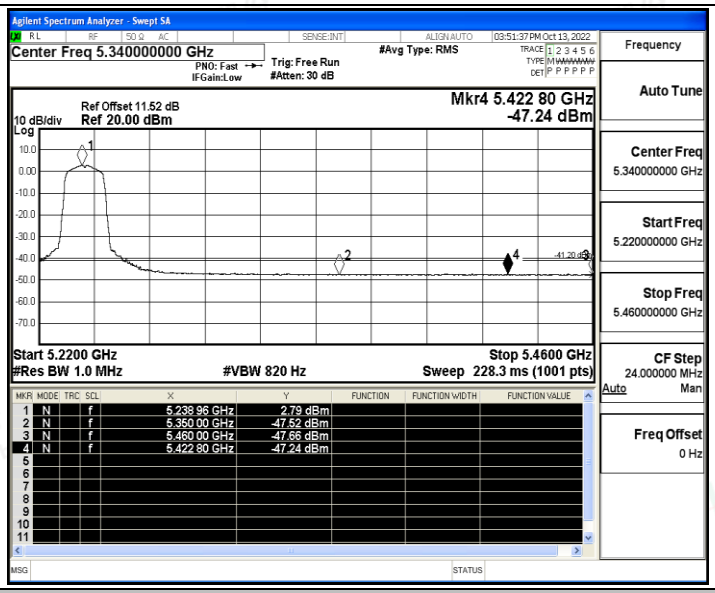
11A_Ant_Low_5180_AV



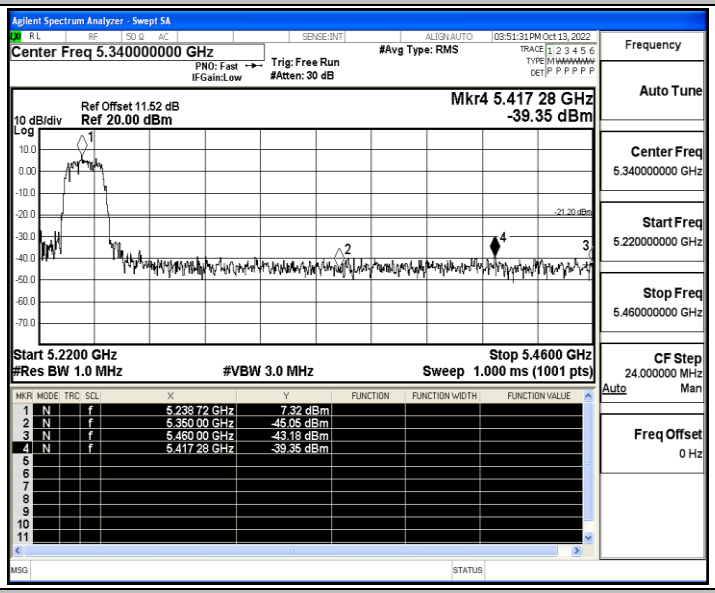
11A_Ant_Low_5180_Peak



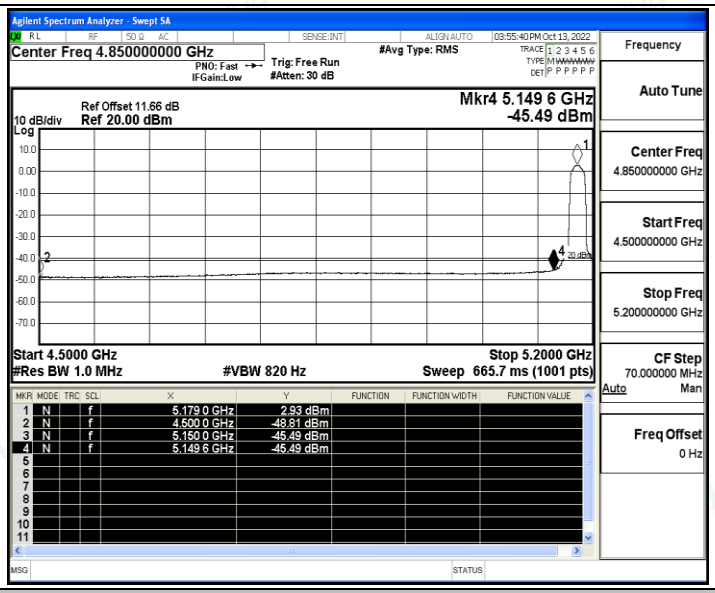
11A_Ant_High_5240_AV



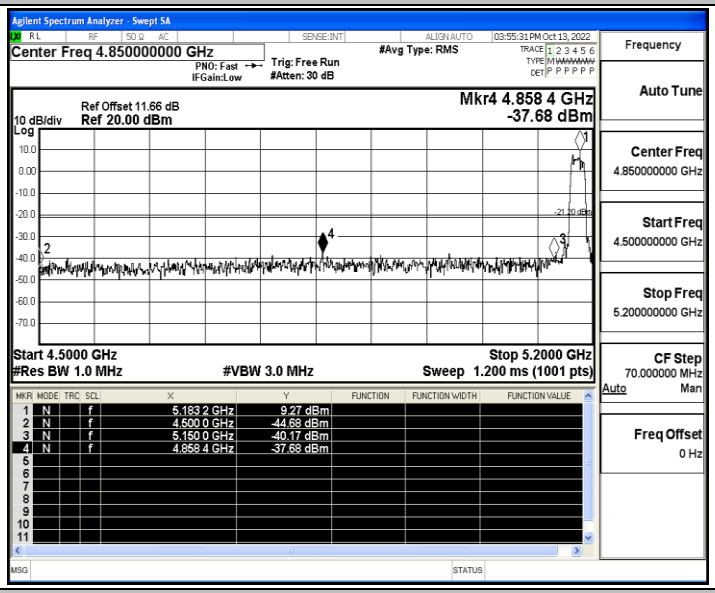
11A_Ant_High_5240_Peak



11N20SISO_Ant_Low_5180_AV



11N20SISO_Ant_Low_5180_Peak



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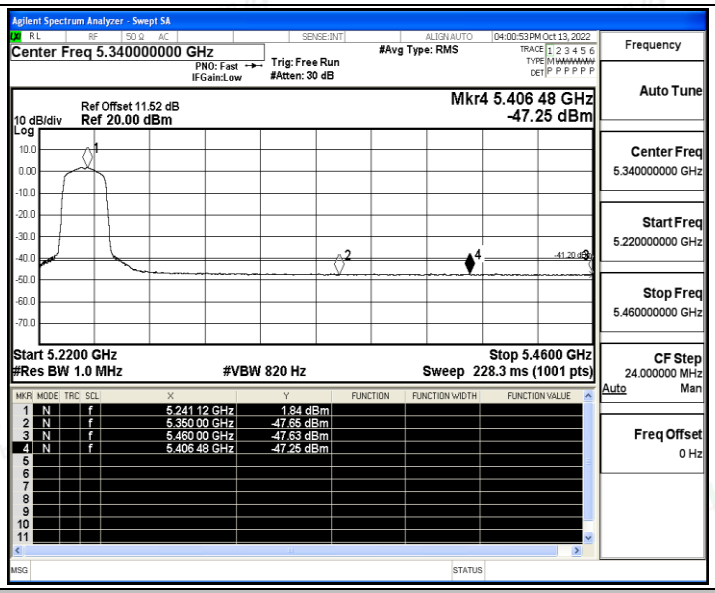
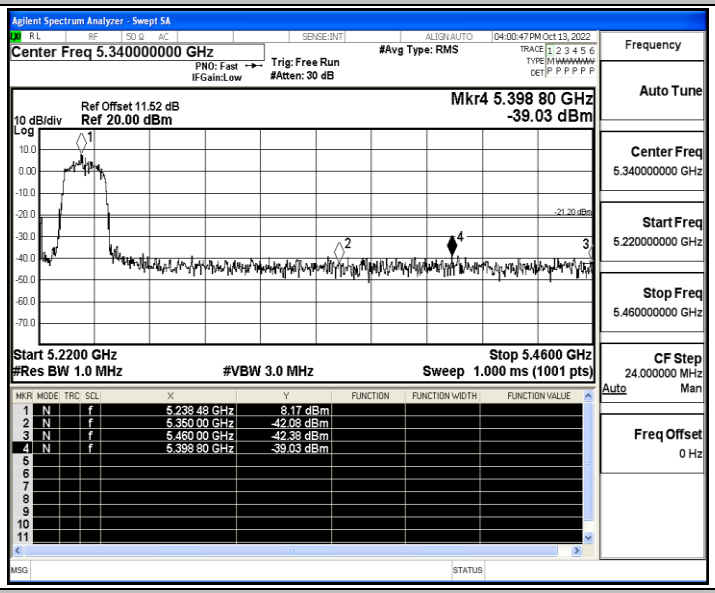
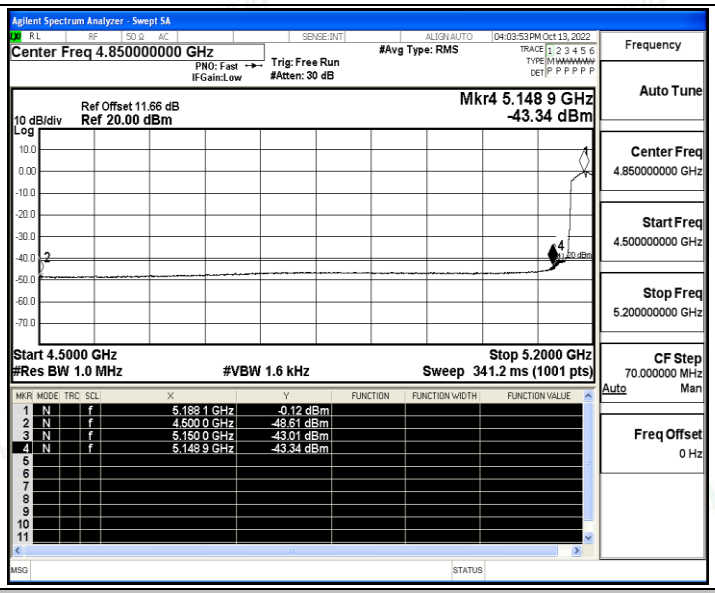


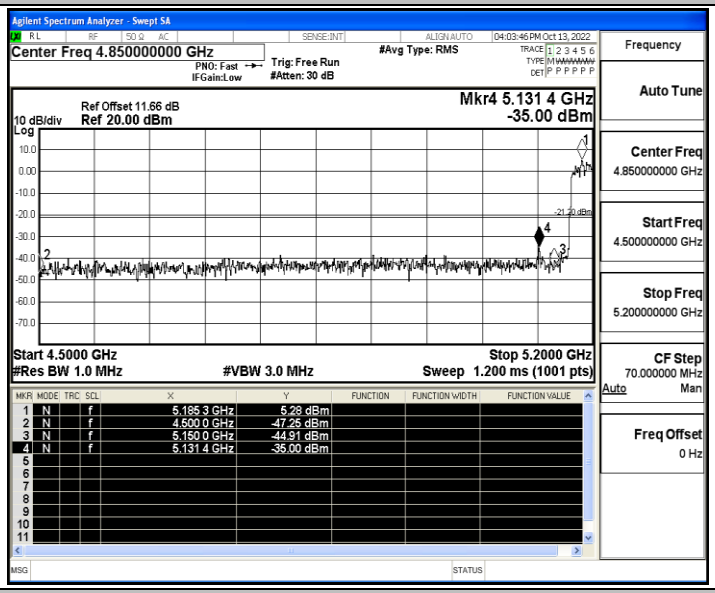
11N20SISO_Ant_High_5240_Peak



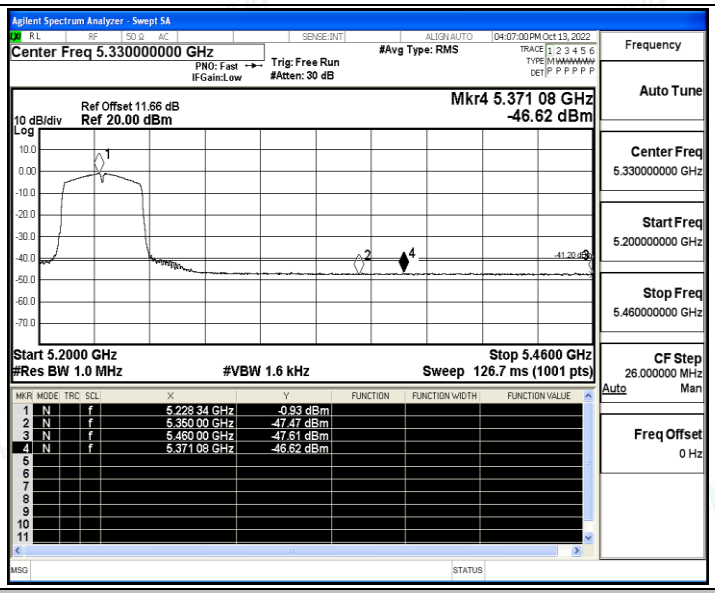
11N40SISO_Ant_Low_5190_AV



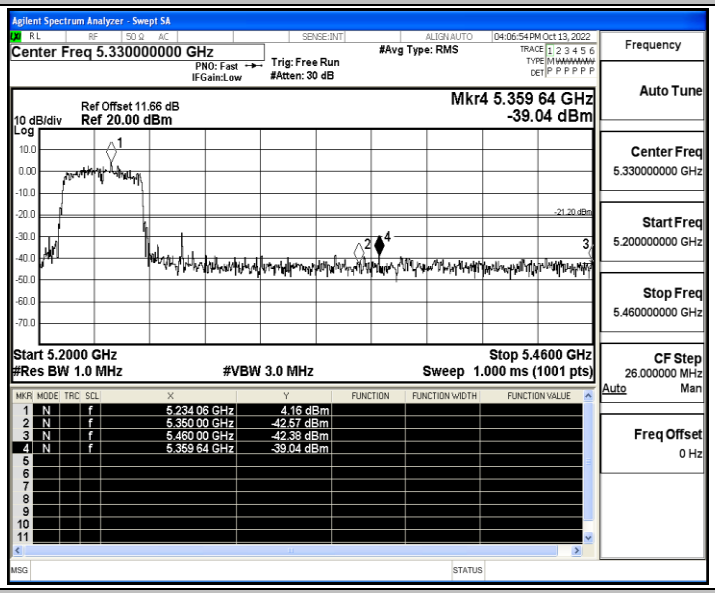
11N40SISO_Ant_Low_5190_Peak



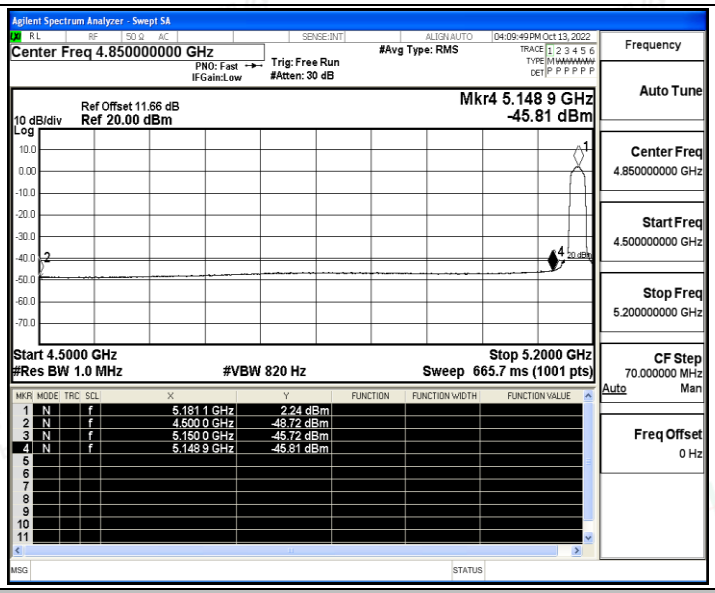
11N40SISO_Ant_High_5230_AV



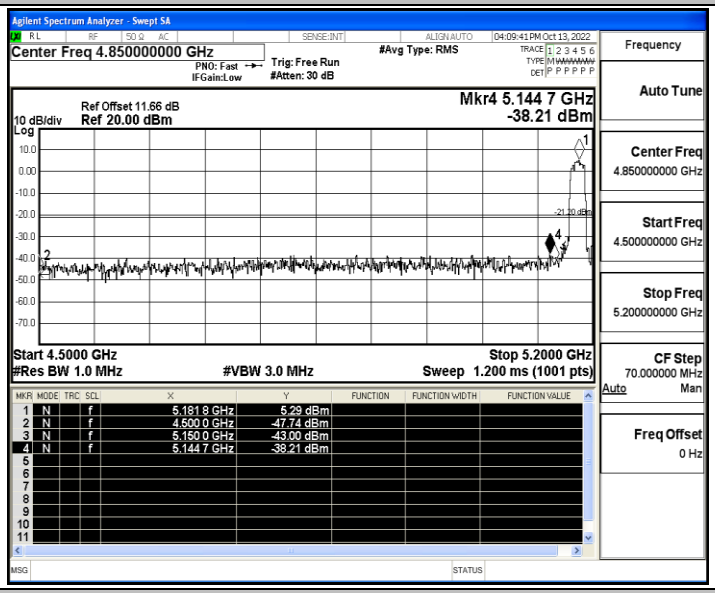
11N40SISO_Ant_High_5230_Peak



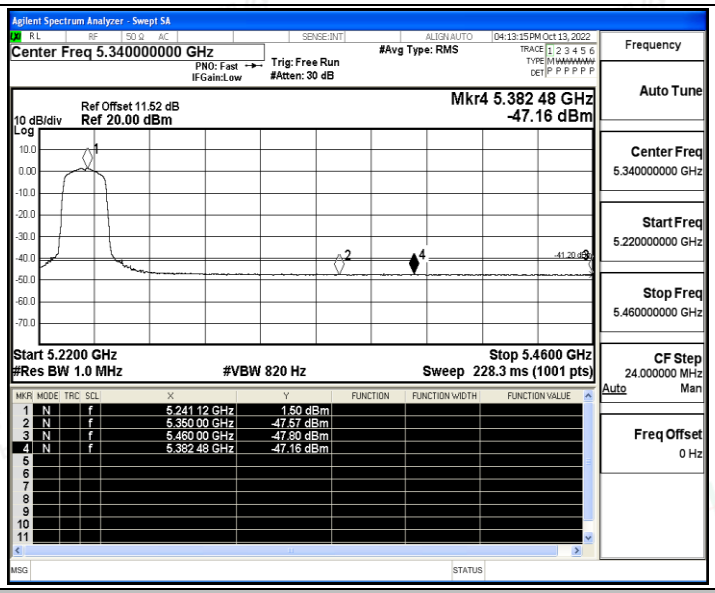
11AC20SISO_Ant_Low_5180_AV



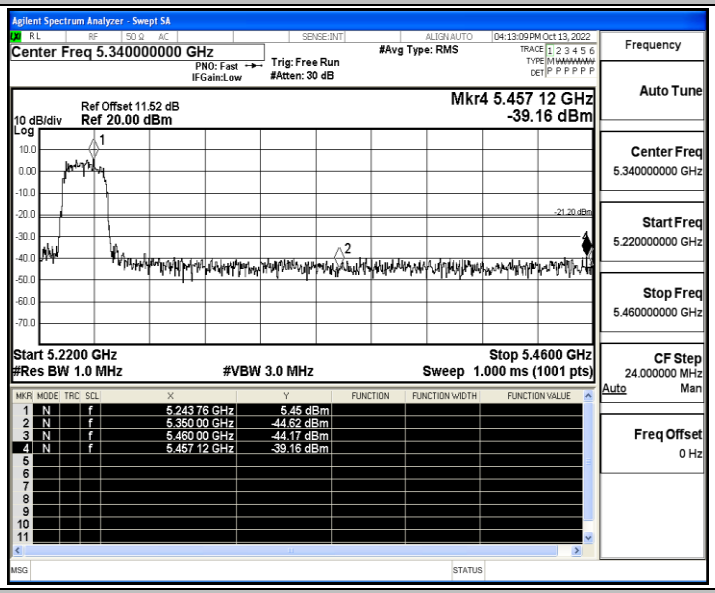
11AC20SISO_Ant_Low_5180_Peak



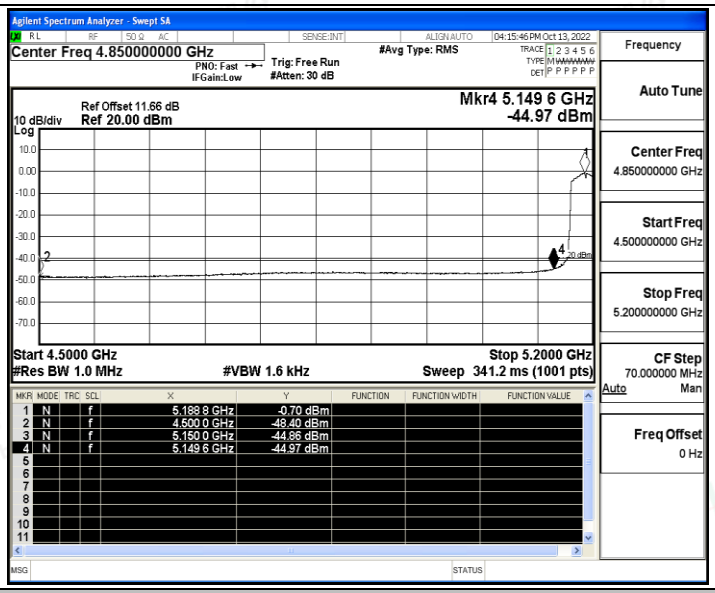
11AC20SISO_Ant_High_5240_AV



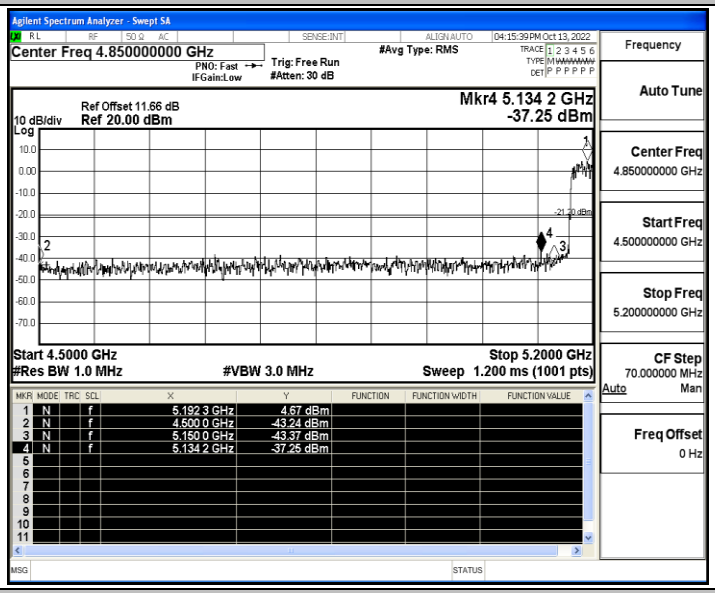
11AC20SISO_Ant_High_5240_Peak



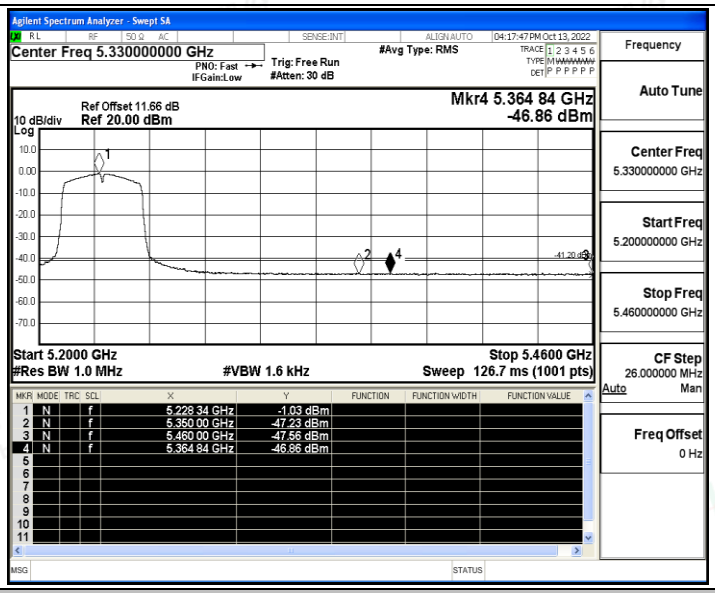
11AC40SISO_Ant_Low_5190_AV



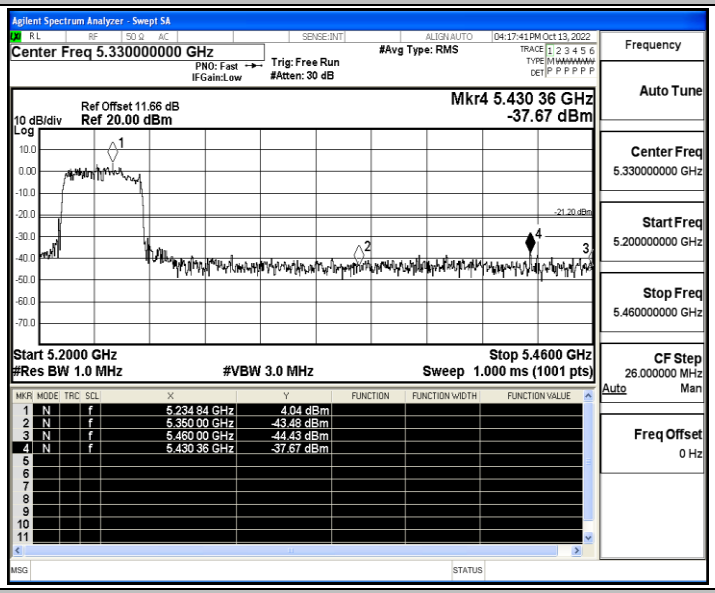
11AC40SISO_Ant_Low_5190_Peak



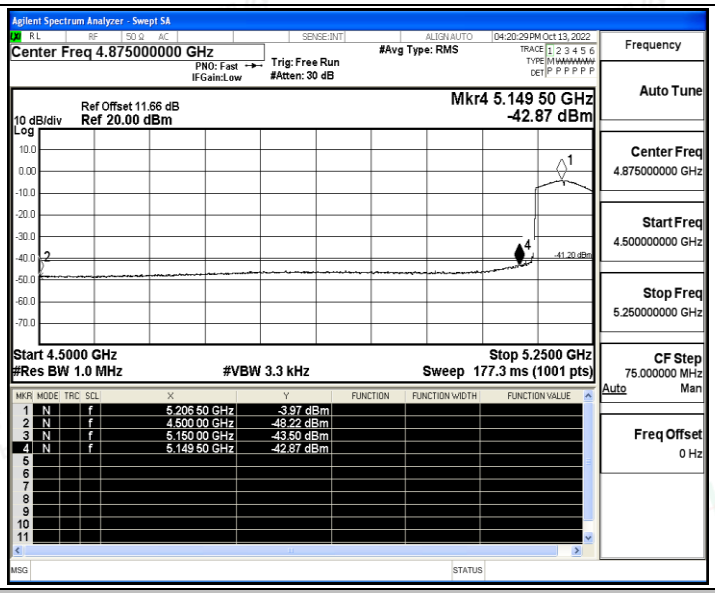
11AC40SISO_Ant_High_5230_AV



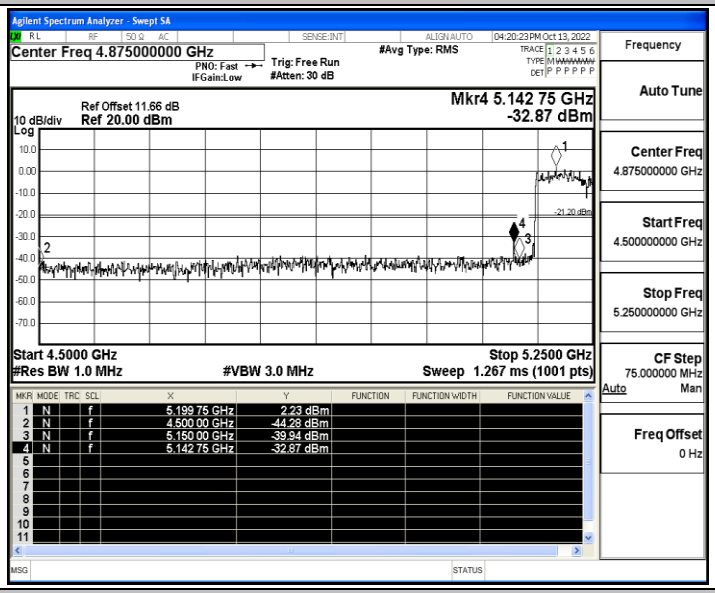
11AC40SISO_Ant_High_5230_Peak



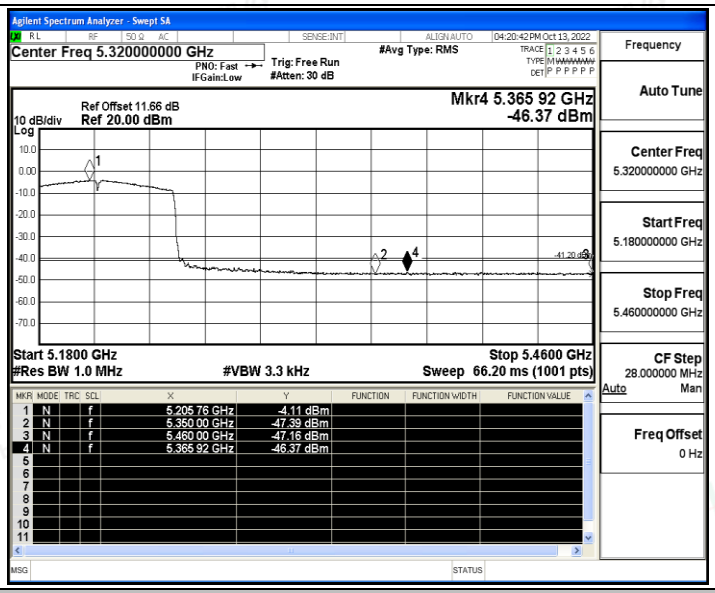
11AC80SISO_Ant_Low_5210_AV



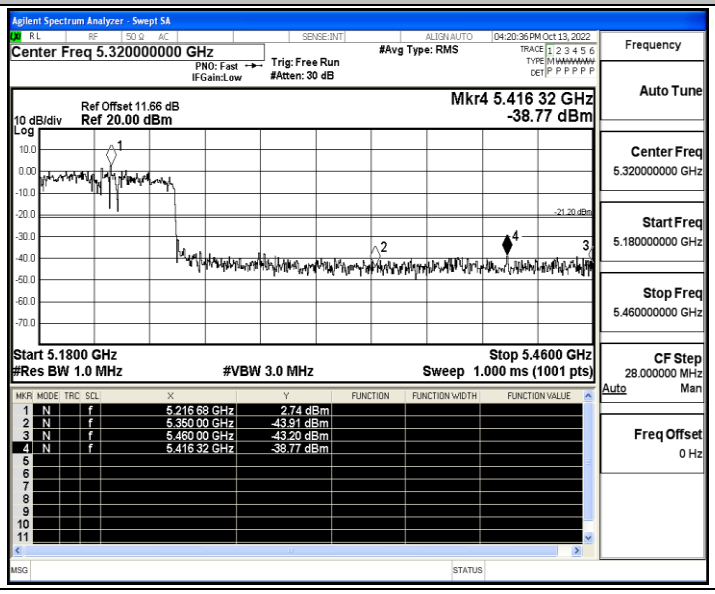
11AC80SISO_Ant_Low_5210_Peak



11AC80SISO_Ant_High_5210_AV



11AC80SISO_Ant_High_5210_Peak



D.5 Frequency Stability

Test Result

Voltage								
TestMode	Antenna	Frequency[MHz]	Voltage [Vdc]	Temperature (℃)	Deviation (Hz)	Deviation (ppm)	Limit (ppm)	Verdict
11AC20SISO	Ant	5180	NV	NT	-20000.00	-3.861004	20	PASS
			LV	NT	-20000.00	-3.861004	20	PASS
			HV	NT	0.00	0.000000	20	PASS
		5220	NV	NT	-20000.00	-3.831418	20	PASS
			LV	NT	-20000.00	-3.831418	20	PASS
			HV	NT	0.00	0.000000	20	PASS
		5240	NV	NT	20000.00	3.816794	20	PASS
			LV	NT	20000.00	3.816794	20	PASS
			HV	NT	-20000.00	-3.816794	20	PASS
11AC40SISO	Ant	5190	NV	NT	-80000.00	-15.414258	20	PASS
			LV	NT	-40000.00	-7.707129	20	PASS
			HV	NT	-80000.00	-15.414258	20	PASS
		5230	NV	NT	-40000.00	-7.648184	20	PASS
			LV	NT	-40000.00	-7.648184	20	PASS
			HV	NT	0.00	0.000000	20	PASS
11AC80SISO	Ant	5210	NV	NT	-80000.00	-15.355086	20	PASS
			LV	NT	-80000.00	-10.710173	20	PASS
			HV	NT	-80000.00	-15.355086	20	PASS

Temperature								
TestMode	Antenna	Frequency[MHz]	Voltage [Vdc]	Temperature (℃)	Deviation (Hz)	Deviation (ppm)	Limit (ppm)	Verdict
11AC20SISO	Ant	5180	NV	-30	-20000.00	-3.861004	20	PASS
			NV	-20	-20000.00	-3.861004	20	PASS
			NV	-10	-40000.00	-7.722008	20	PASS
			NV	0	-20000.00	-3.861004	20	PASS
			NV	10	-20000.00	-3.861004	20	PASS
			NV	20	0.00	0.000000	20	PASS
			NV	30	0.00	0.000000	20	PASS
			NV	40	-20000.00	-3.861004	20	PASS
			NV	50	0.00	0.000000	20	PASS
		5220	NV	-30	-20000.00	-3.831418	20	PASS
			NV	-20	-20000.00	-3.831418	20	PASS
			NV	-10	-40000.00	-7.662835	20	PASS

			NV	0	-20000.00	-3.831418	20	PASS
			NV	10	-40000.00	-7.662835	20	PASS
			NV	20	0.00	0.000000	20	PASS
			NV	30	-20000.00	-3.831418	20	PASS
			NV	40	-80000.00	-15.325670	20	PASS
			NV	50	-20000.00	-3.831418	20	PASS
		5240	NV	-30	0.00	0.000000	20	PASS
			NV	-20	-40000.00	-7.633588	20	PASS
			NV	-10	-20000.00	-3.816794	20	PASS
			NV	0	0.00	0.000000	20	PASS
			NV	10	40000.00	7.633588	20	PASS
			NV	20	-20000.00	-3.816794	20	PASS
			NV	30	0.00	0.000000	20	PASS
			NV	40	-20000.00	-3.816794	20	PASS
			NV	50	-40000.00	-7.633588	20	PASS
11AC40SISO	Ant	5190	NV	-30	0.00	0.000000	20	PASS
			NV	-20	0.00	0.000000	20	PASS
			NV	-10	-40000.00	-7.707129	20	PASS
			NV	0	0.00	0.000000	20	PASS
			NV	10	-80000.00	-15.414258	20	PASS
			NV	20	0.00	0.000000	20	PASS
			NV	30	0.00	0.000000	20	PASS
			NV	40	-40000.00	-7.707129	20	PASS
			NV	50	-40000.00	-7.707129	20	PASS
		5230	NV	-30	-40000.00	-7.648184	20	PASS
			NV	-20	0.00	0.000000	20	PASS
			NV	-10	-40000.00	-7.648184	20	PASS
			NV	0	-40000.00	-7.648184	20	PASS
			NV	10	-40000.00	-7.648184	20	PASS
			NV	20	-40000.00	-7.648184	20	PASS
			NV	30	0.00	0.000000	20	PASS
			NV	40	-80000.00	-15.296367	20	PASS
			NV	50	-40000.00	-7.648184	20	PASS
11AC80SISO	Ant	5210	NV	-30	-80000.00	-15.355086	20	PASS
			NV	-20	-80000.00	-16.065259	20	PASS
			NV	-10	-80000.00	-15.355086	20	PASS
			NV	0	-80000.00	-15.355086	20	PASS
			NV	10	0.00	0.000000	20	PASS
			NV	20	80000.00	15.355086	20	PASS
			NV	30	80000.00	15.355086	20	PASS

			NV	40	-80000.00	-15.355086	20	PASS
			NV	50	-80000.00	-15.355086	20	PASS

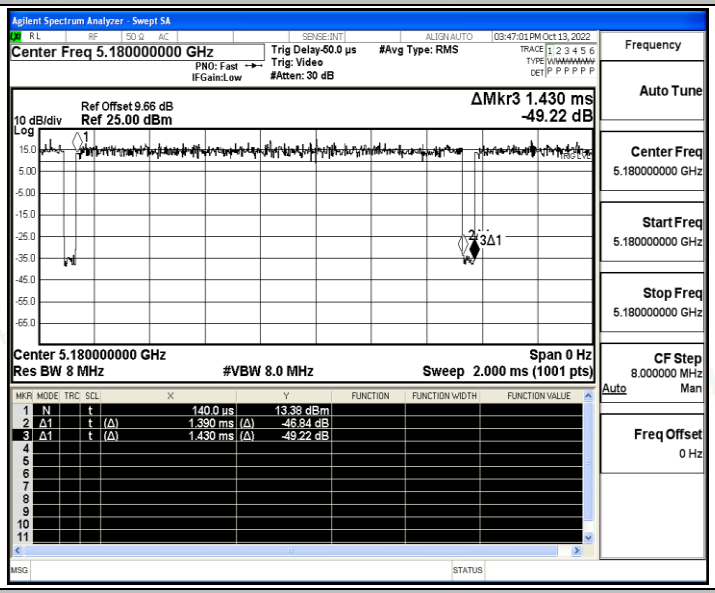
D.6 Duty Cycle

Test Result

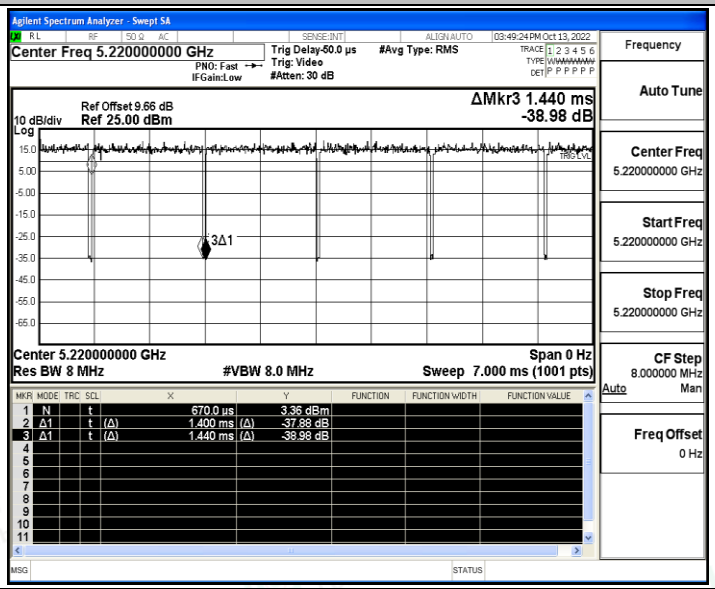
TestMode	Antenna	Frequency[MHz]	Transmission Duration [ms]	Transmission Period [ms]	Duty Cycle [%]	Factor
11A	Ant	5180	1.39	1.43	97.20	0.12
		5220	1.40	1.44	97.22	0.12
		5240	1.39	1.43	97.20	0.12
11N20SISO	Ant	5180	1.30	1.34	97.01	0.13
		5220	1.30	1.34	97.01	0.13
		5240	1.30	1.34	97.01	0.13
11N40SISO	Ant	5190	0.65	0.69	94.20	0.26
		5230	0.65	0.70	92.86	0.32
11AC20SISO	Ant	5180	1.32	1.36	97.06	0.13
		5220	1.31	1.36	96.32	0.16
		5240	1.31	1.36	96.32	0.16
11AC40SISO	Ant	5190	0.65	0.70	92.86	0.32
		5230	0.65	0.70	92.86	0.32
11AC80SISO	Ant	5210	0.33	0.37	89.19	0.50

Test Graphs

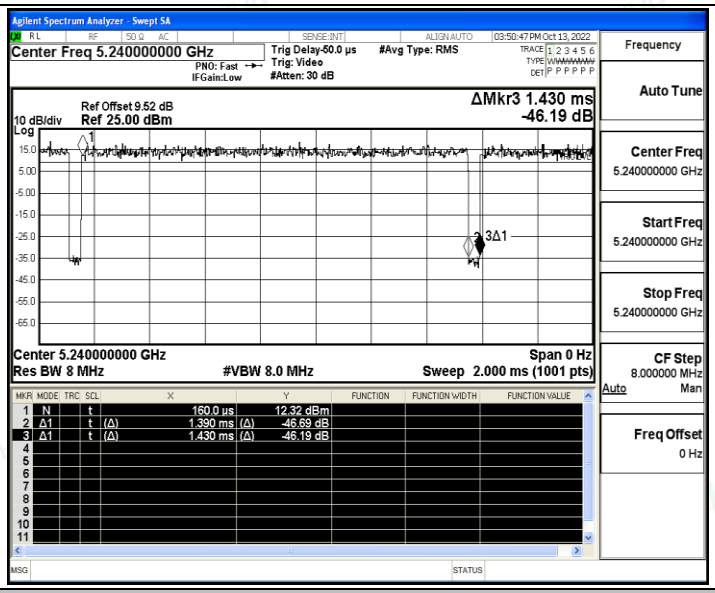
11A_Ant_5180



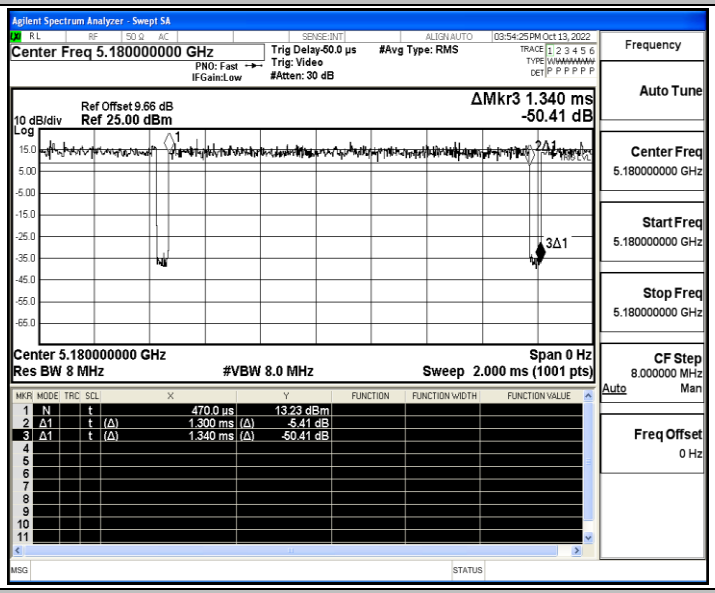
11A_Ant_5220



11A_Ant_5240



11N20SISO_Ant_5180



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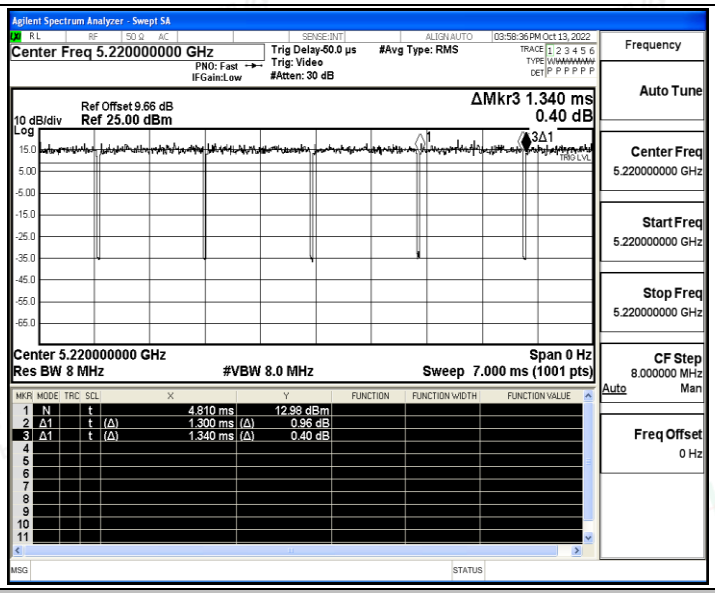

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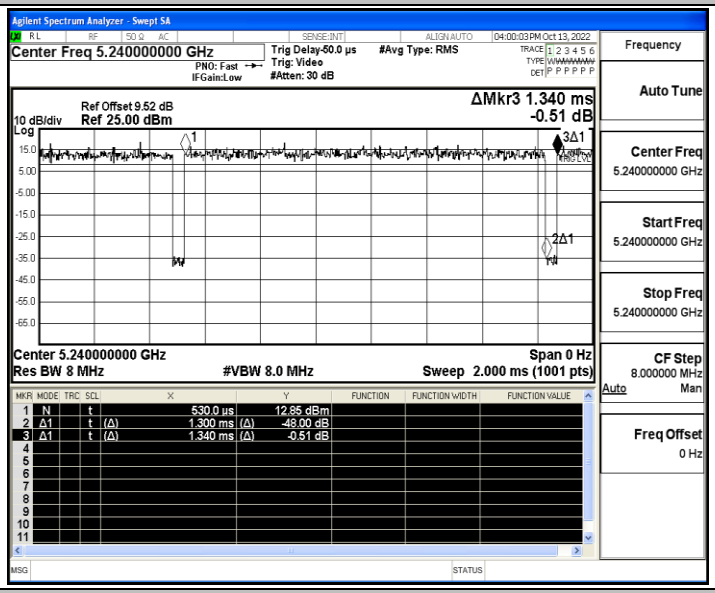
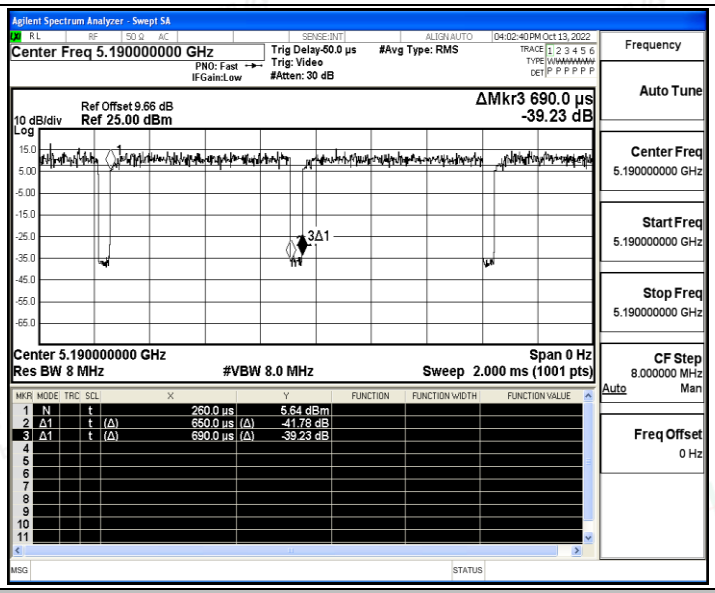
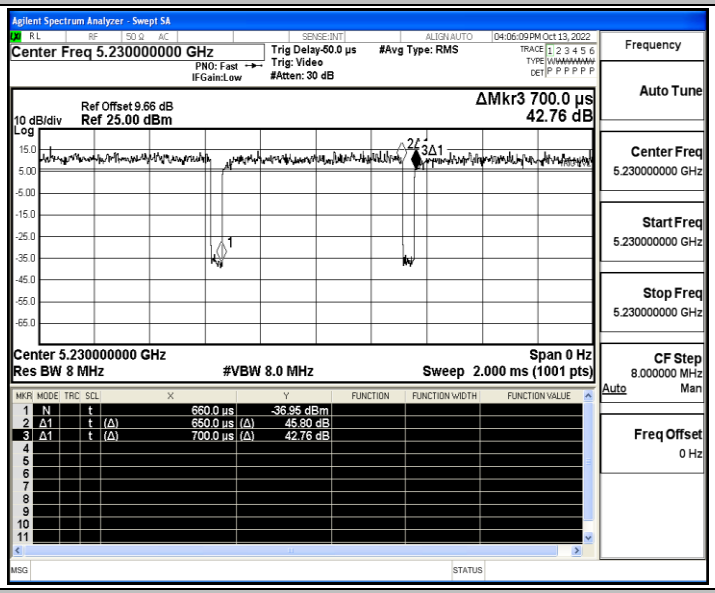


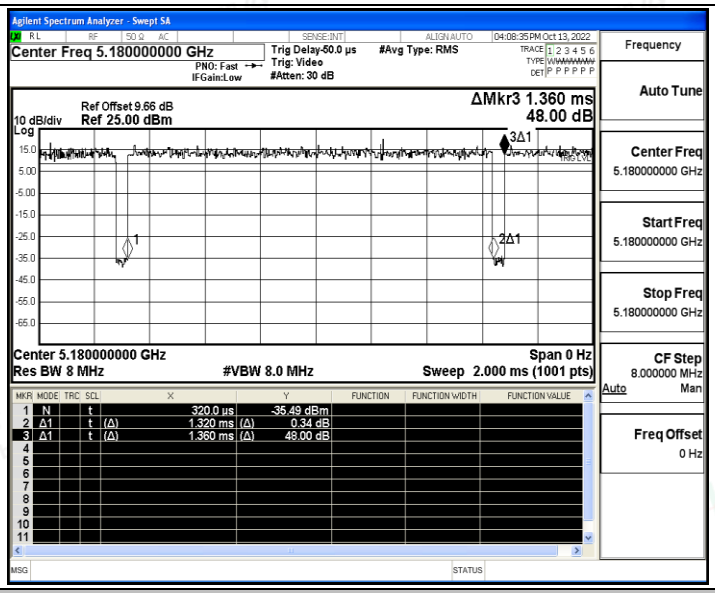
11N40SISO_Ant_5190



11N40SISO_Ant_5230



11AC20SISO_Ant_5180



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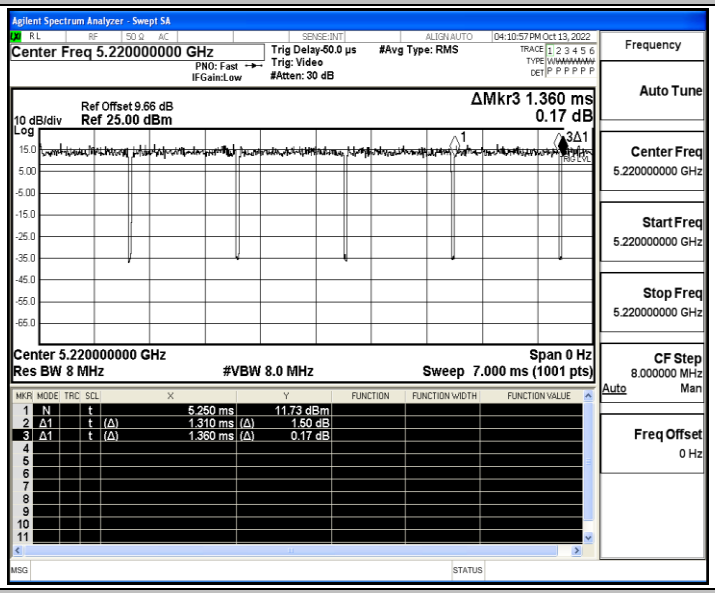

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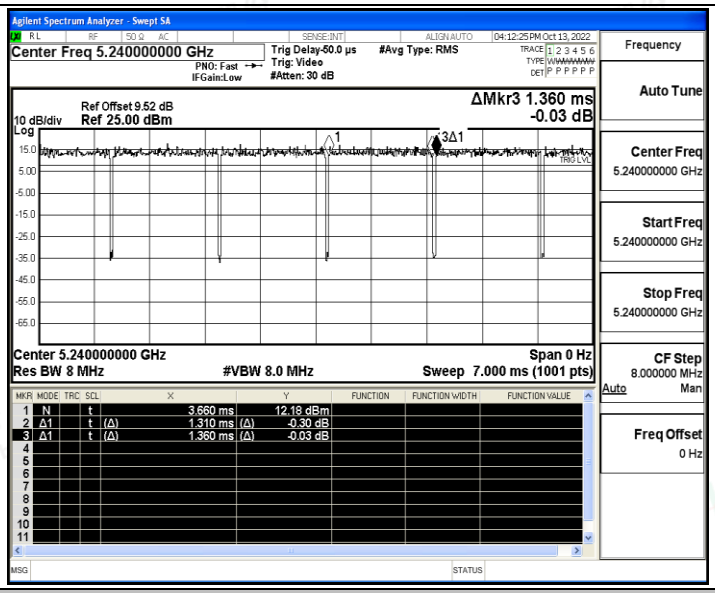

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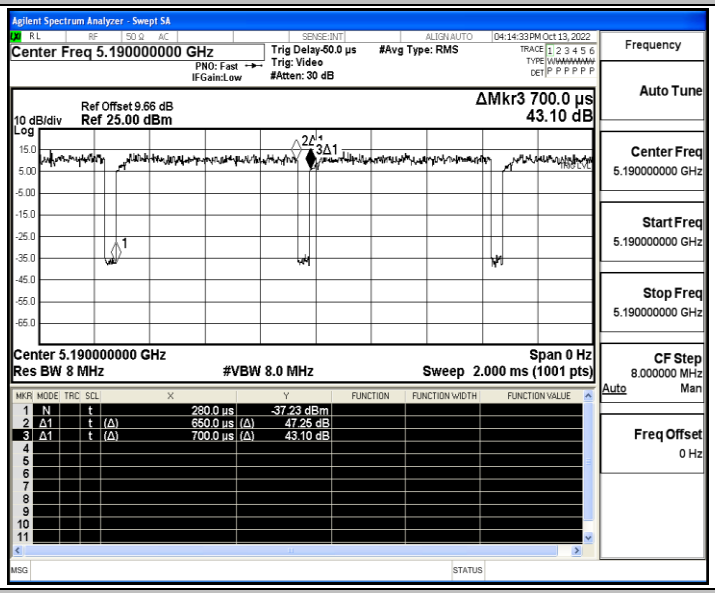
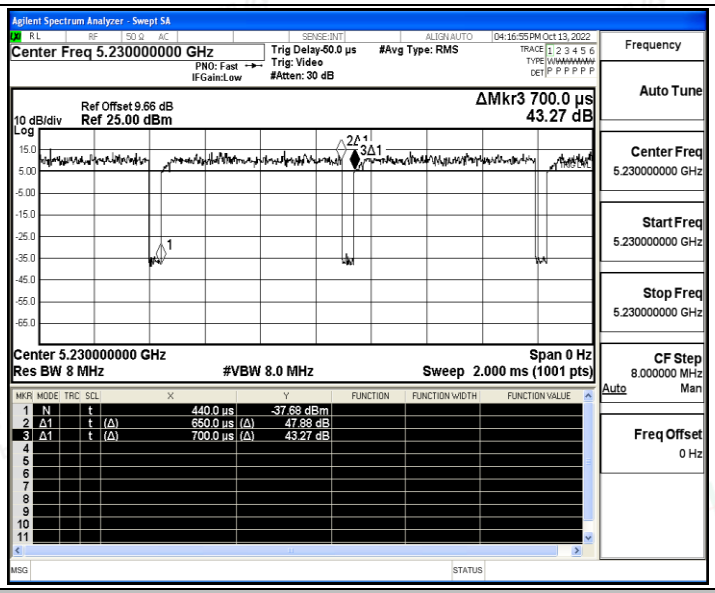


11AC40SISO_Ant_5230



11AC80SISO_Ant_5210