

RF Test Data for RLAN(5.2G) (Conducted Measurement)**Product Name: Granary Automatic Pet Feeder-WiFi Control****Trade Mark: PETLIBRO****Test Model: PLAF103****FCC ID: 2A3DEPLAF103S****Environmental Conditions**

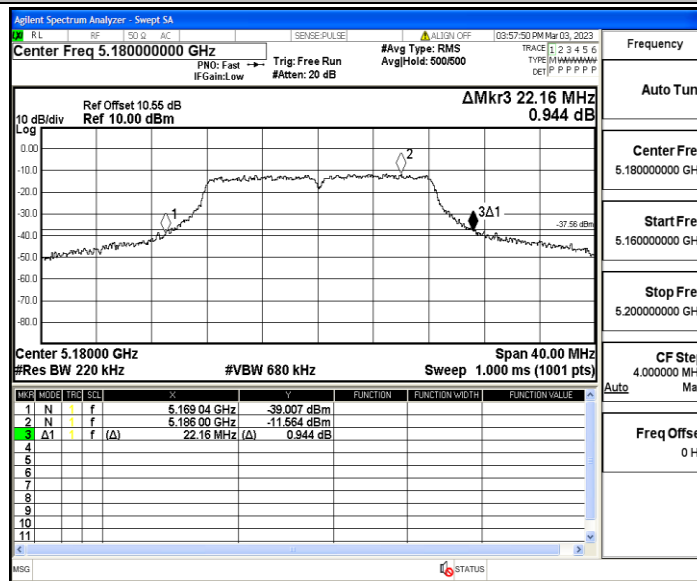
Temperature:	25.5°C
Relative Humidity:	55%
ATM Pressure:	100.0 kPa
Test Engineer:	Anna Hu
Supervised by:	Hugo Chen
NOTE	N/A

Appendix A1: Emission Bandwidth**Test Result**

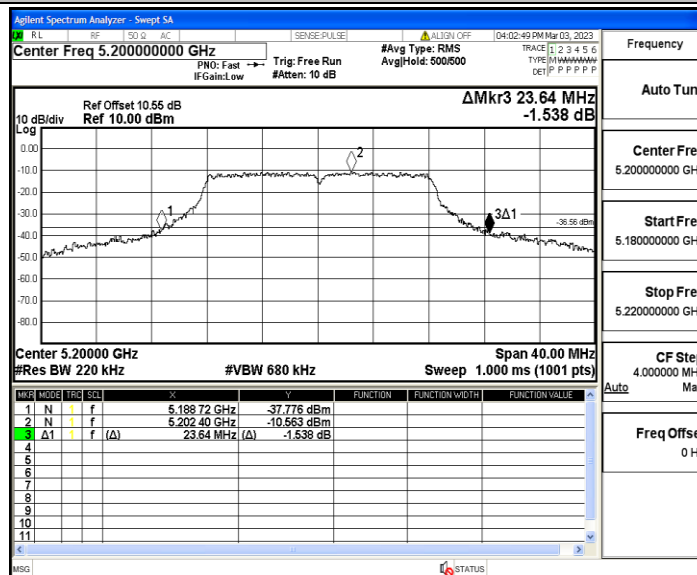
TestMode	Antenna	Channel	26db EBW [MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
11A	Ant1	5180	22.160	5169.040	5191.200	---	---
		5200	23.640	5188.720	5212.360	---	---
		5240	24.480	5228.880	5253.360	---	---
11N20SISO	Ant1	5180	22.560	5169.200	5191.760	---	---
		5200	23.280	5188.880	5212.160	---	---
		5240	23.720	5228.760	5252.480	---	---
11N40SISO	Ant1	5190	41.360	5170.720	5212.080	---	---
		5230	47.600	5206.400	5254.000	---	---

Test Graphs

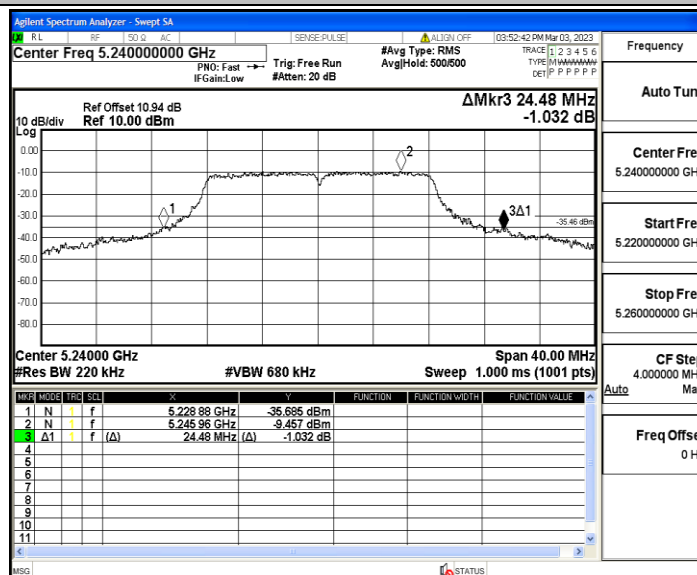
11A_Ant1_5180



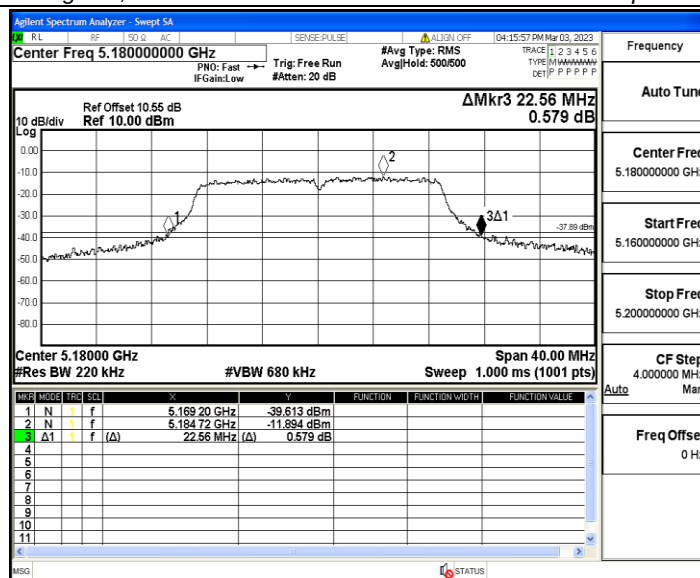
11A_Ant1_5200



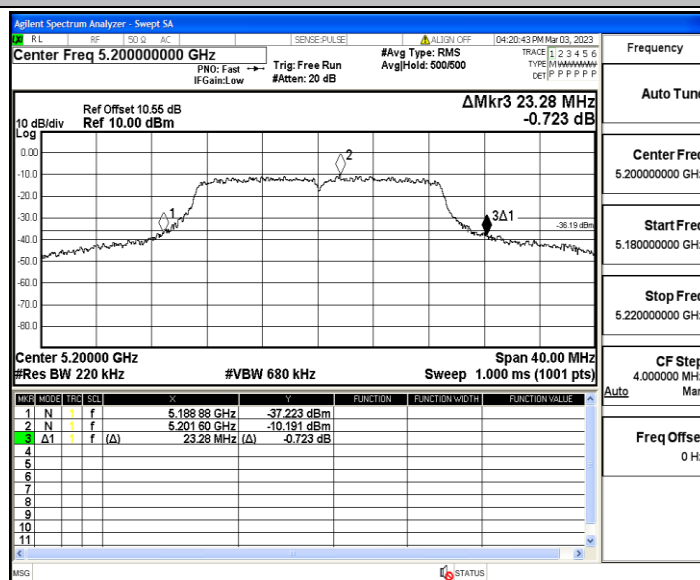
11A_Ant1_5240



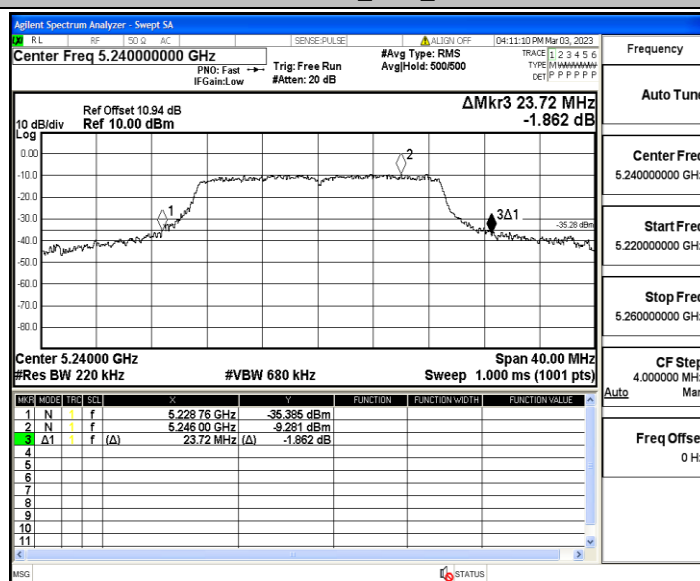
11N20SISO_Ant1_5180



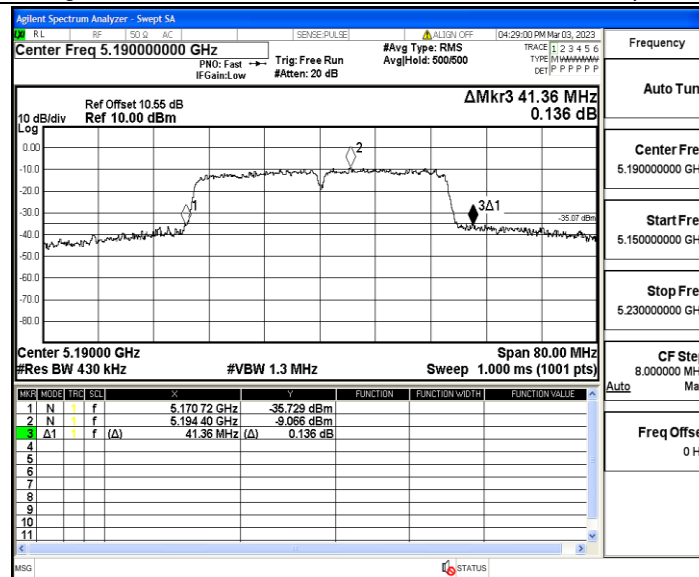
11N20SISO_Ant1_5200



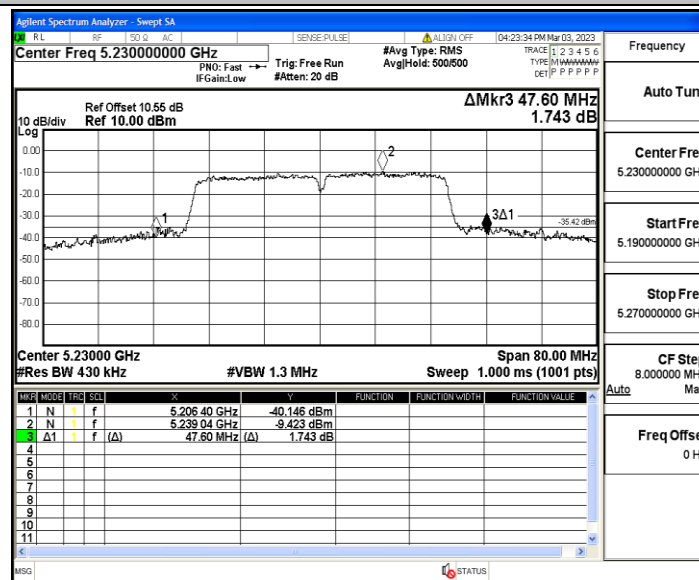
11N20SISO_Ant1_5240



11N40SISO_Ant1_5190



11N40SISO_Ant1_5230



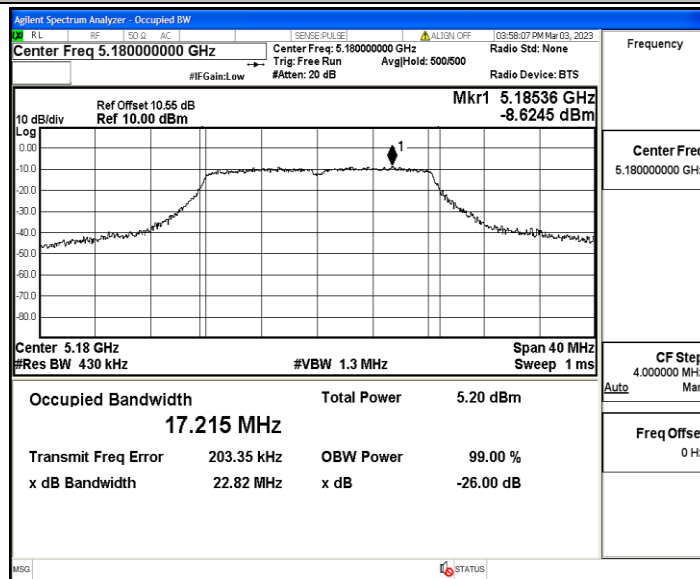
Appendix A2: Occupied channel bandwidth

Test Result

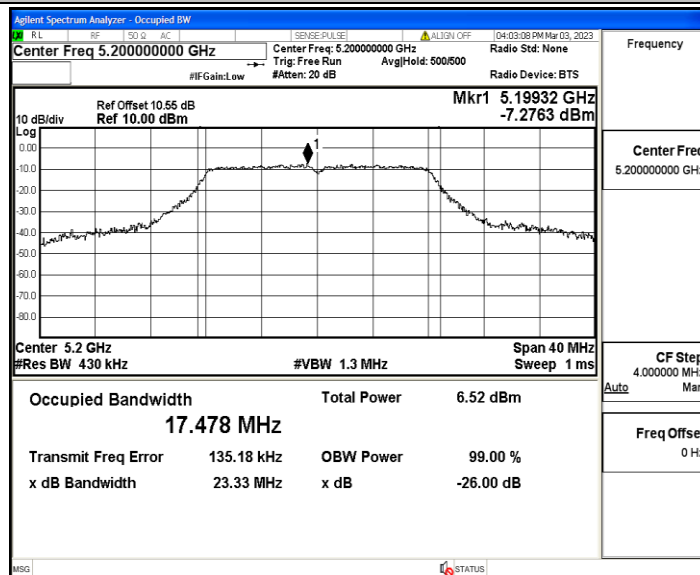
TestMode	Antenna	Channel	OCB [MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
11A	Ant1	5180	17.215	5171.5959	5188.8109	---	---
		5200	17.478	5191.3962	5208.8742	---	---
		5240	17.352	5231.5506	5248.9026	---	---
11N20SISO	Ant1	5180	18.208	5171.1106	5189.3186	---	---
		5200	18.233	5190.9594	5209.1924	---	---
		5240	18.294	5230.9871	5249.2811	---	---
11N40SISO	Ant1	5190	36.047	5172.2466	5208.2936	---	---
		5230	36.223	5212.1631	5248.3861	---	---

Test Graphs

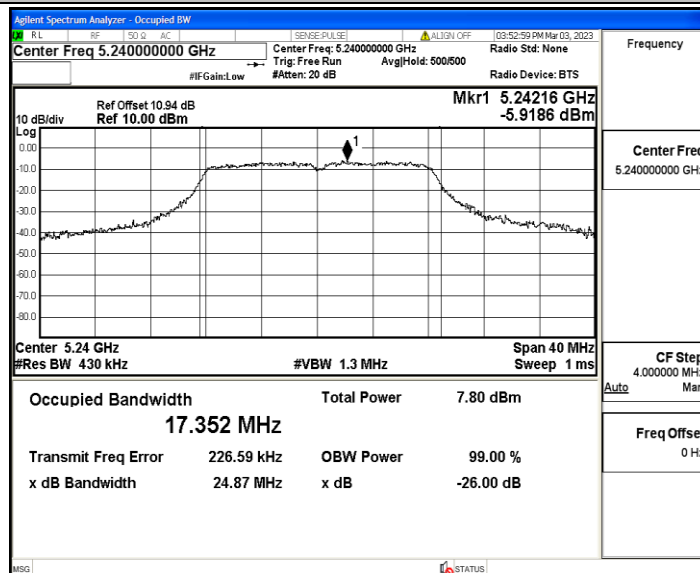
11A_Ant1_5180



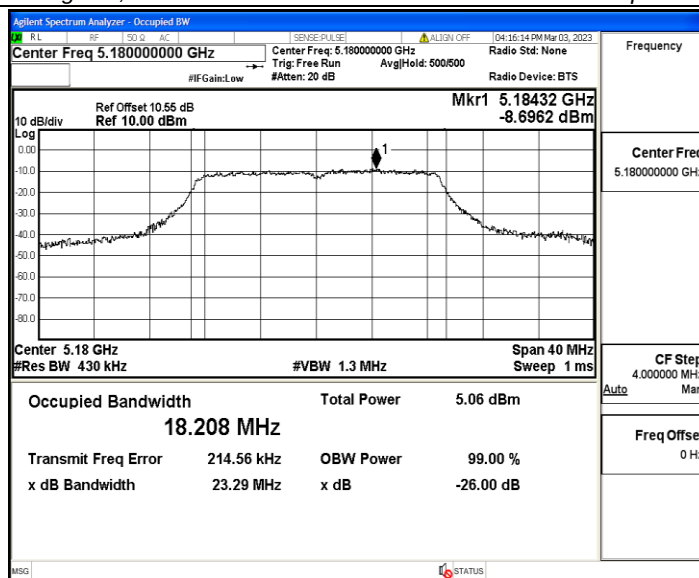
11A_Ant1_5200



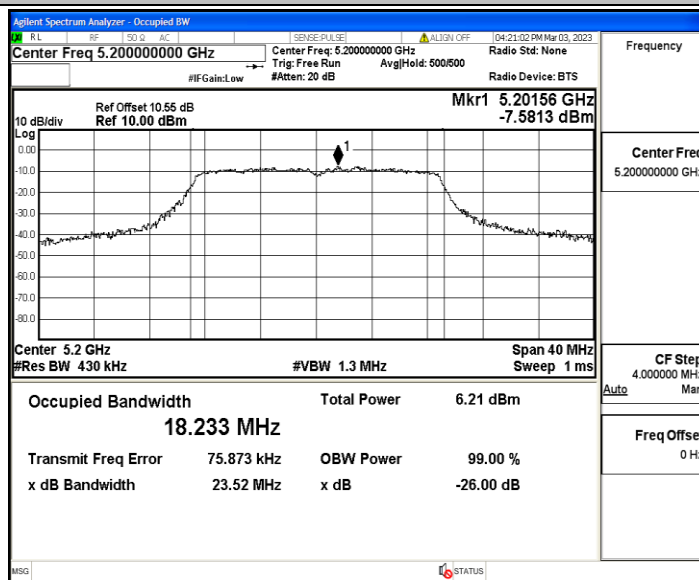
11A_Ant1_5240



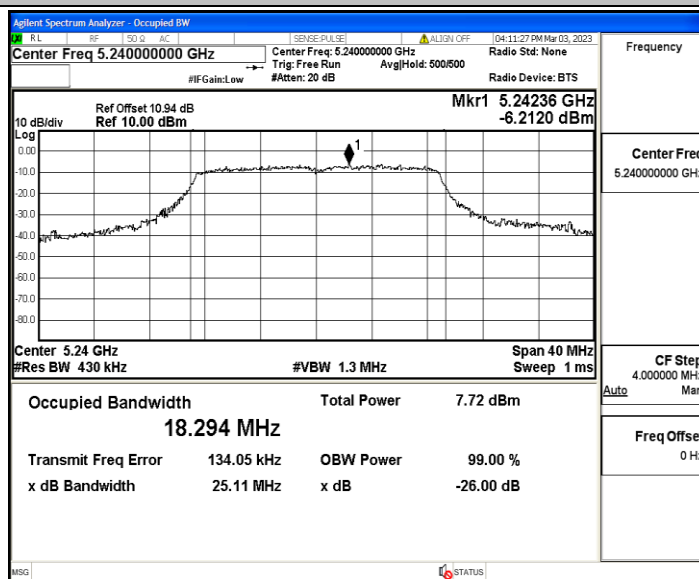
11N20SISO_Ant1_5180



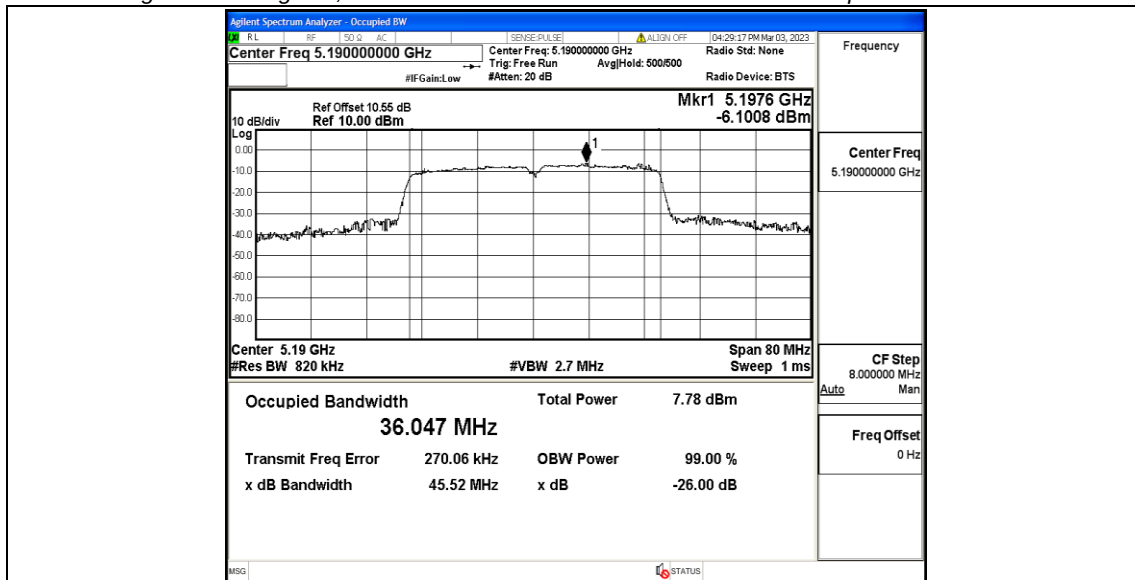
11N20SISO_Ant1_5200



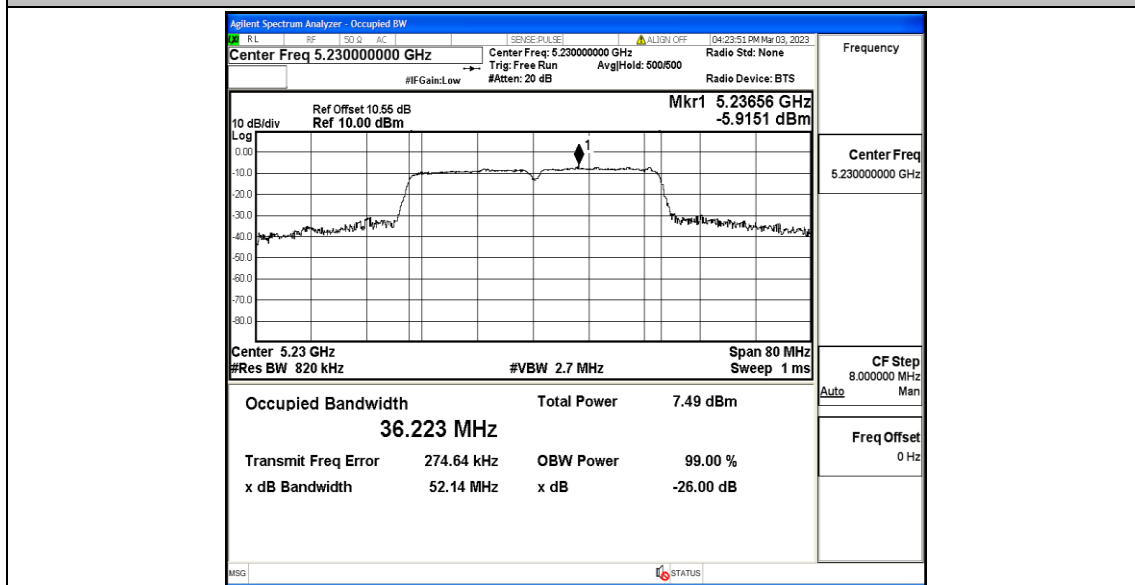
11N20SISO_Ant1_5240



11N40SISO_Ant1_5190



11N40SISO_Ant1_5230



Appendix B: Maximum conducted output power

Test Result

TestMode	Antenna	Channel	Result[dBm]	Limit[dBm]	Verdict
11A	Ant1	5180	-1.54	≤23.98	PASS
		5200	-0.22	≤23.98	PASS
		5240	0.98	≤23.98	PASS
11N20SISO	Ant1	5180	-1.78	≤23.98	PASS
		5200	-0.59	≤23.98	PASS
		5240	0.96	≤23.98	PASS
11N40SISO	Ant1	5190	0.39	≤23.98	PASS
		5230	1.54	≤23.98	PASS

Note: The Duty Cycle Factor is compensated in the test result.

Appendix C: Maximum power spectral density

Test Result

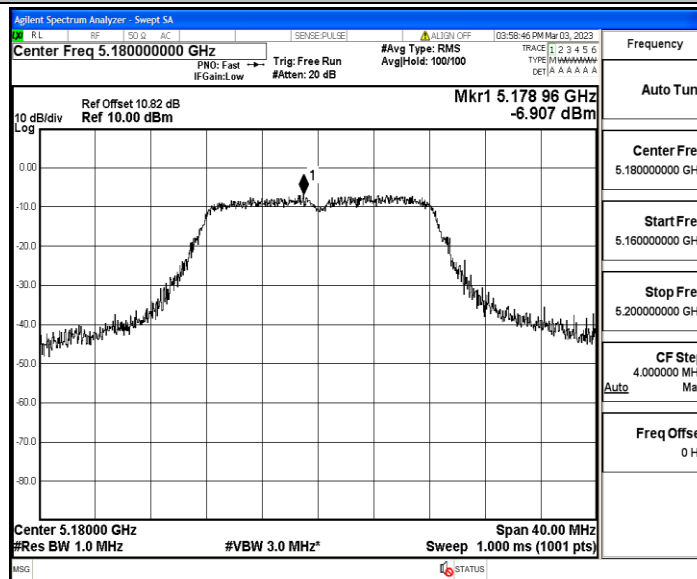
TestMode	Antenna	Channel	Result [dBm/MHz]	Limit[dBm/MHz]	Verdict
11A	Ant1	5180	-6.91	≤11.00	PASS
		5200	-5.62	≤11.00	PASS
		5240	-4.14	≤11.00	PASS
11N20SISO	Ant1	5180	-7.12	≤11.00	PASS
		5200	-5.97	≤11.00	PASS
		5240	-4.57	≤11.00	PASS
11N40SISO	Ant1	5190	-7.48	≤11.00	PASS
		5230	-5.89	≤11.00	PASS

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

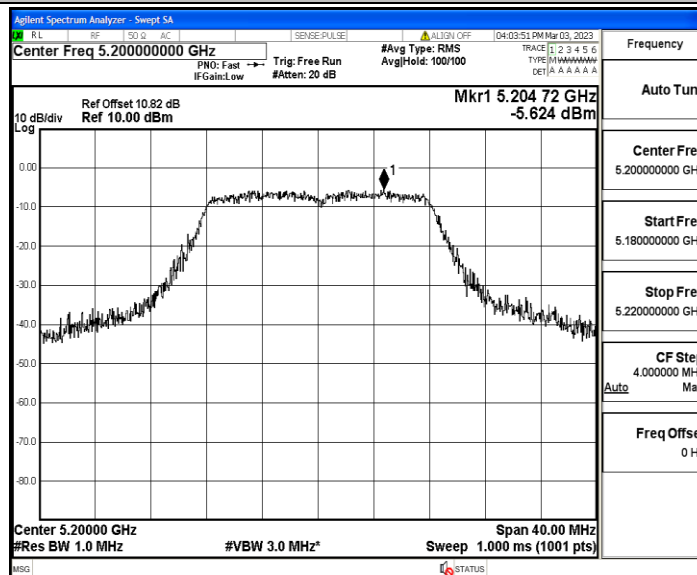
2.The Duty Cycle Factor and RBW Factor is compensated in the graph.

Test Graphs

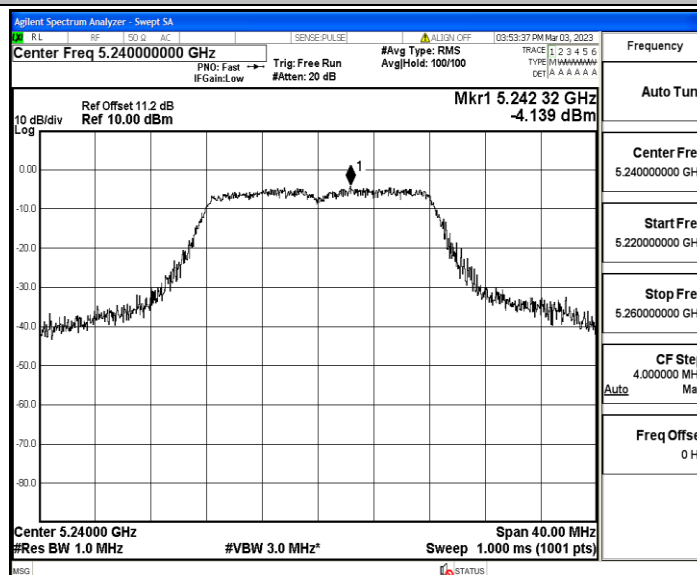
11A_Ant1_5180



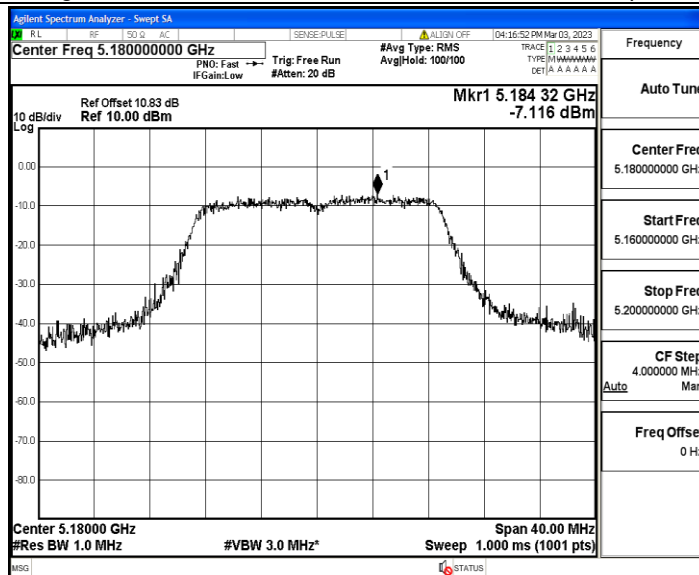
11A_Ant1_5200



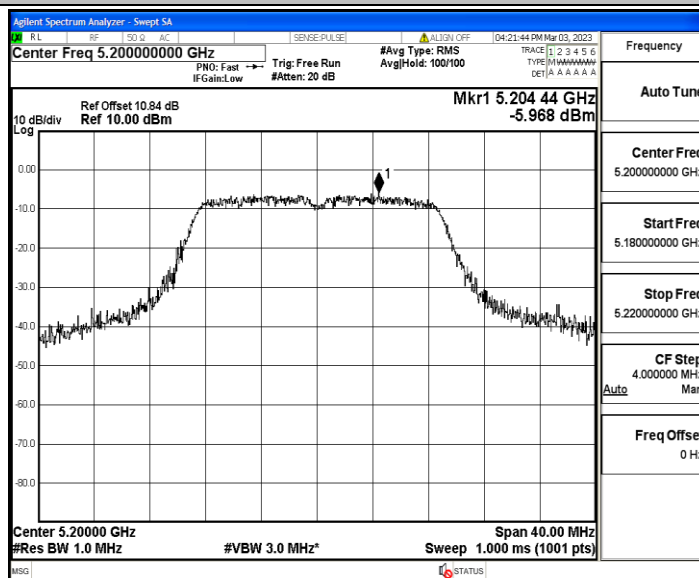
11A_Ant1_5240



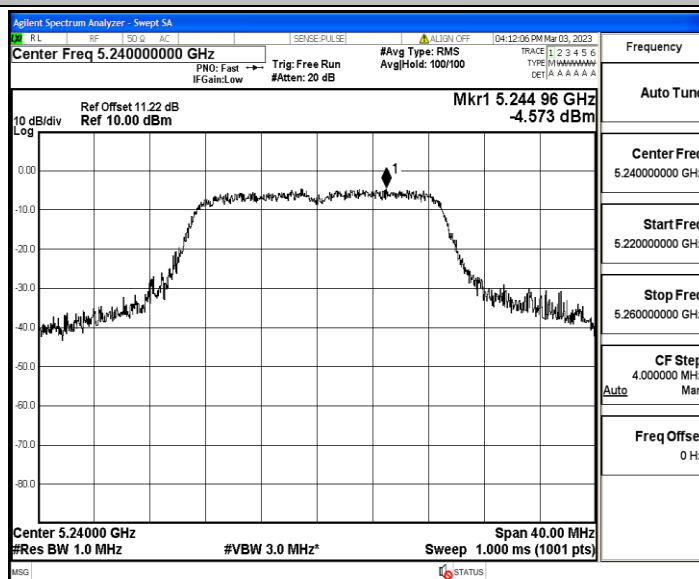
11N20SISO_Ant1_5180



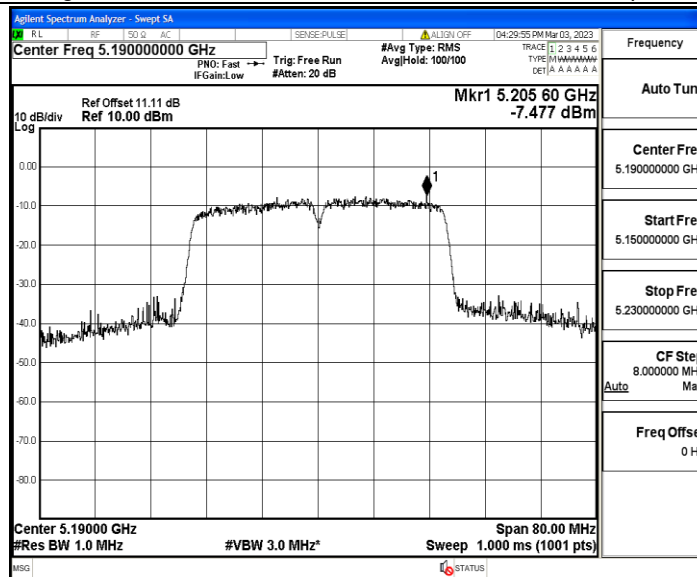
11N20SISO_Ant1_5200



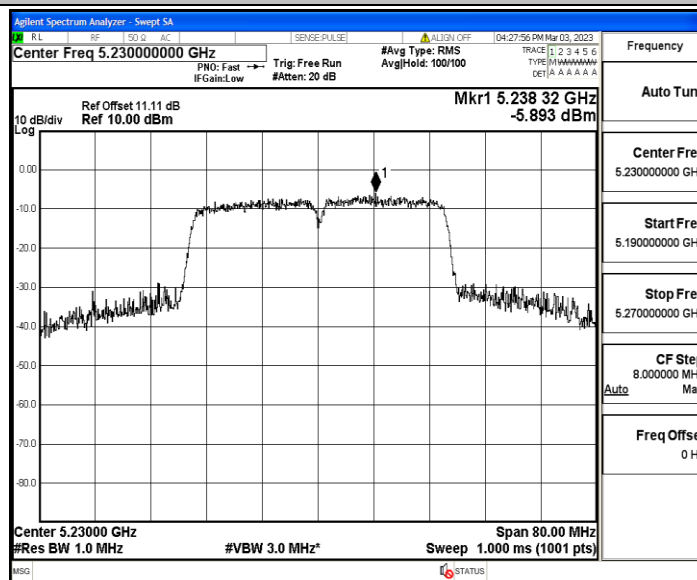
11N20SISO_Ant1_5240



11N40SISO_Ant1_5190



11N40SISO_Ant1_5230



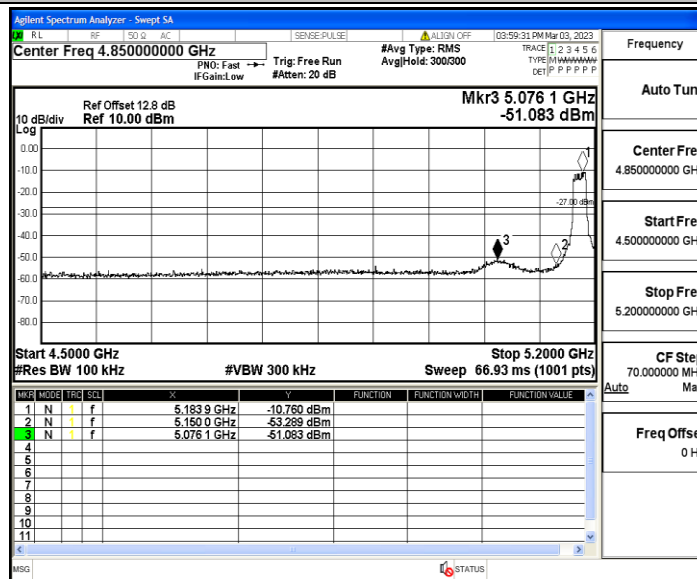
Appendix D: Band edge measurements

Test Result

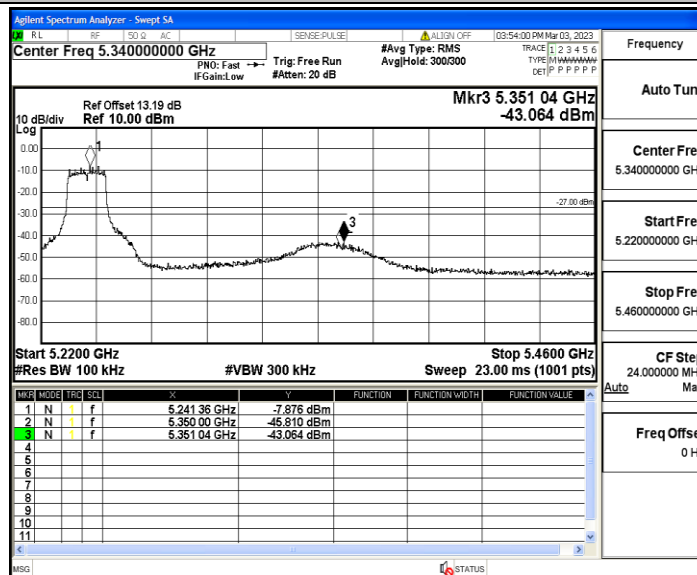
TestMode	Antenna	ChName	Channel	Result[dBm]	Limit[dBm]	Verdict
11A	Ant1	Low	5180	-51.08	≤ -27	PASS
		High	5240	-43.06	≤ -27	PASS
11N20SISO	Ant1	Low	5180	-50.83	≤ -27	PASS
		High	5240	-44.48	≤ -27	PASS
11N40SISO	Ant1	Low	5190	-47.9	≤ -27	PASS
		High	5230	-45.69	≤ -27	PASS

Test Graphs

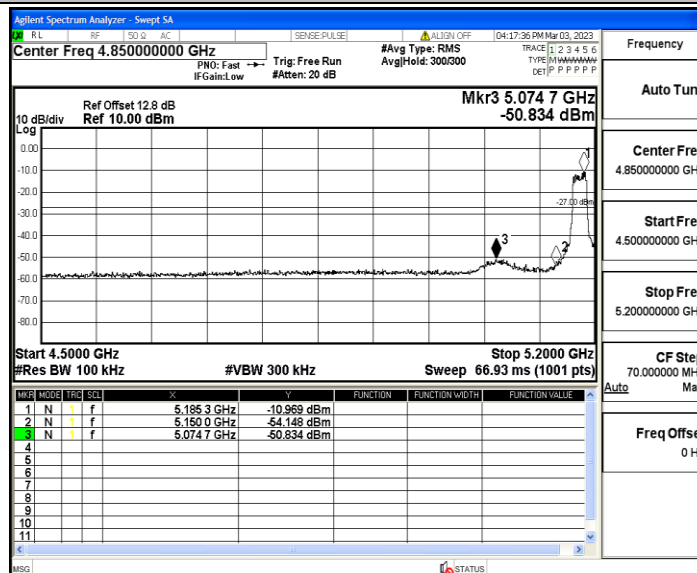
11A_Ant1_Low_5180



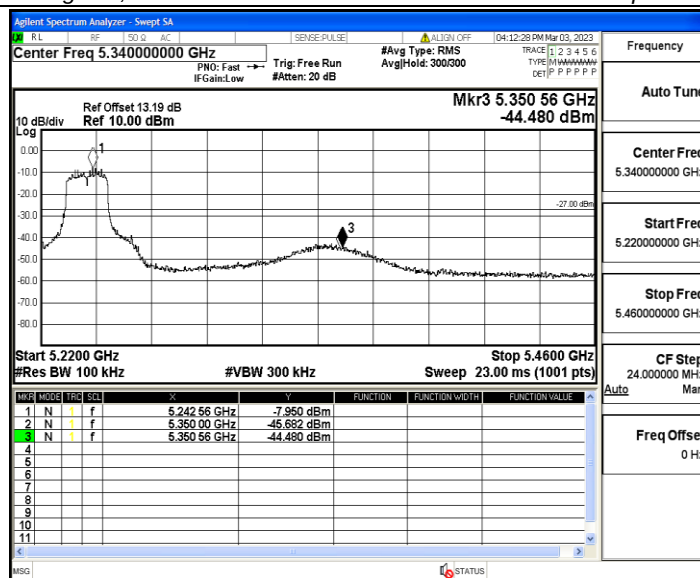
11A_Ant1_High_5240



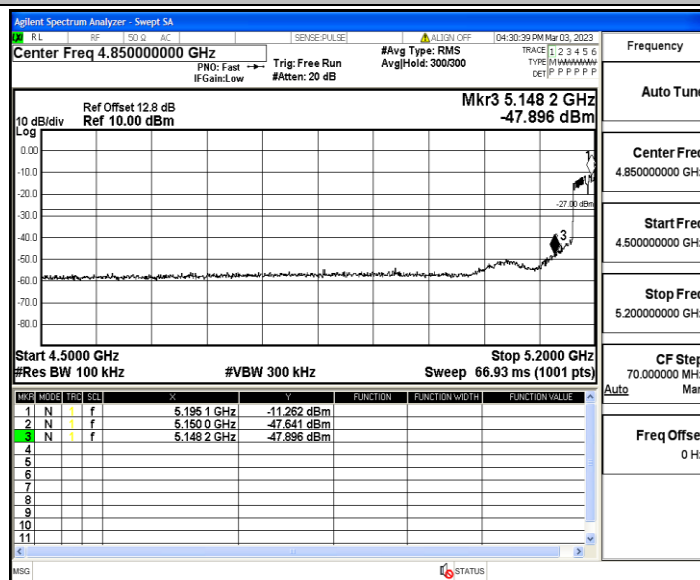
11N20SISO_Ant1_Low_5180



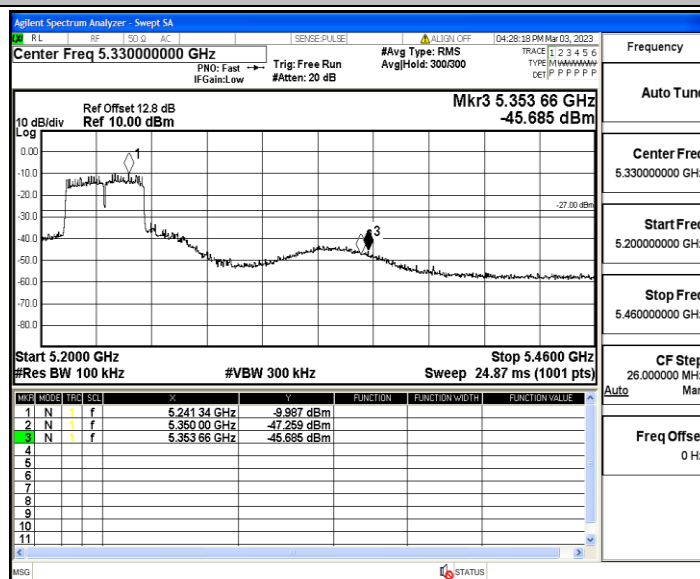
11N20SISO_Ant1_High_5240



11N40SISO_Ant1_Low_5190



11N40SISO_Ant1_High_5230



Appendix E: Frequency Stability

Test Result

Frequency (MHz)	Environment Temperature (Degree)	Voltage (VAC)	Measured Frequency (MHz)	Limit Range (MHz)	Test Results
5180	20	132	5179.992371	5150 – 5250	PASS
5180	20	108	5179.925862	5150 – 5250	PASS
5180	50	120	5179.930181	5150 – 5250	PASS
5180	40	120	5180.096400	5150 – 5250	PASS
5180	30	120	5180.022044	5150 – 5250	PASS
5180	20	120	5179.924984	5150 – 5250	PASS
5180	10	120	5180.098470	5150 – 5250	PASS
5180	0	120	5179.953929	5150 – 5250	PASS
5180	-10	120	5179.934087	5150 – 5250	PASS
5180	-20	120	5179.914640	5150 – 5250	PASS
5180	-30	120	5179.927820	5150 – 5250	PASS

Frequency (MHz)	Environment Temperature (Degree)	Voltage (VAC)	Measured Frequency (MHz)	Limit Range (MHz)	Test Results
5200	20	132	5199.999922	5150 – 5250	PASS
5200	20	108	5200.012707	5150 – 5250	PASS
5200	50	120	5200.004098	5150 – 5250	PASS
5200	40	120	5200.080063	5150 – 5250	PASS
5200	30	120	5200.039048	5150 – 5250	PASS
5200	20	120	5200.031839	5150 – 5250	PASS
5200	10	120	5200.075649	5150 – 5250	PASS
5200	0	120	5199.906450	5150 – 5250	PASS
5200	-10	120	5200.031723	5150 – 5250	PASS
5200	-20	120	5199.975185	5150 – 5250	PASS
5200	-30	120	5200.041333	5150 – 5250	PASS

Frequency (MHz)	Enviroment Temperature (Dregree)	Voltage (VAC)	Measured Frequency (MHz)	Limit Range (MHz)	Test Results
5240	20	132	5240.035702	5150 – 5250	PASS
5240	20	108	5239.948689	5150 – 5250	PASS
5240	50	120	5239.990311	5150 – 5250	PASS
5240	40	120	5240.022396	5150 – 5250	PASS
5240	30	120	5240.078959	5150 – 5250	PASS
5240	20	120	5239.940486	5150 – 5250	PASS
5240	10	120	5240.071249	5150 – 5250	PASS
5240	0	120	5240.015831	5150 – 5250	PASS
5240	-10	120	5239.929782	5150 – 5250	PASS
5240	-20	120	5239.901230	5150 – 5250	PASS
5240	-30	120	5239.976229	5150 – 5250	PASS

Frequency (MHz)	Enviroment Temperature (Dregree)	Voltage (VAC)	Measured Frequency (MHz)	Limit Range (MHz)	Test Results
5190	20	132	5189.921257	5150 – 5250	PASS
5190	20	108	5190.098935	5150 – 5250	PASS
5190	50	120	5189.982222	5150 – 5250	PASS
5190	40	120	5190.030879	5150 – 5250	PASS
5190	30	120	5190.018243	5150 – 5250	PASS
5190	20	120	5189.931246	5150 – 5250	PASS
5190	10	120	5189.944656	5150 – 5250	PASS
5190	0	120	5189.958676	5150 – 5250	PASS
5190	-10	120	5190.017707	5150 – 5250	PASS
5190	-20	120	5190.070948	5150 – 5250	PASS
5190	-30	120	5190.075997	5150 – 5250	PASS

Frequency (MHz)	Enviroment Temperature (Degree)	Voltage (VAC)	Measured Frequency (MHz)	Limit Range (MHz)	Test Results
5230	20	132	5230.049892	5150 – 5250	PASS
5230	20	108	5230.030050	5150 – 5250	PASS
5230	50	120	5229.924832	5150 – 5250	PASS
5230	40	120	5229.970882	5150 – 5250	PASS
5230	30	120	5229.955544	5150 – 5250	PASS
5230	20	120	5230.057933	5150 – 5250	PASS
5230	10	120	5230.064357	5150 – 5250	PASS
5230	0	120	5230.016089	5150 – 5250	PASS
5230	-10	120	5230.069270	5150 – 5250	PASS
5230	-20	120	5229.931397	5150 – 5250	PASS
5230	-30	120	5229.989746	5150 – 5250	PASS

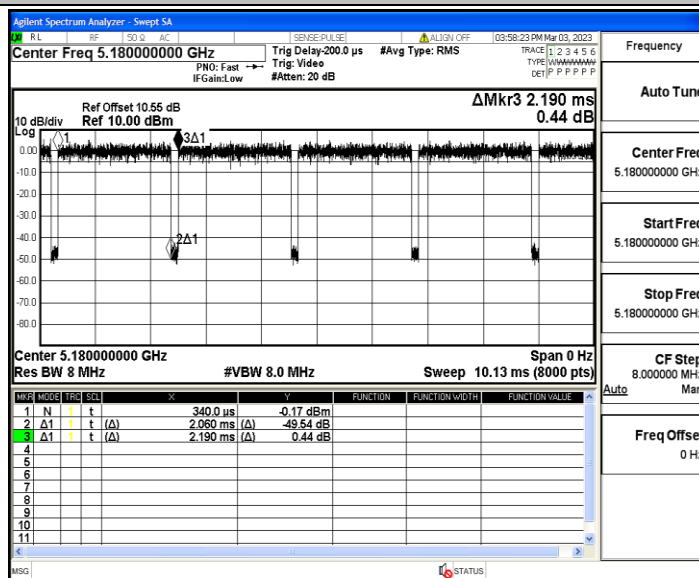
Appendix F: Duty Cycle

Test Result

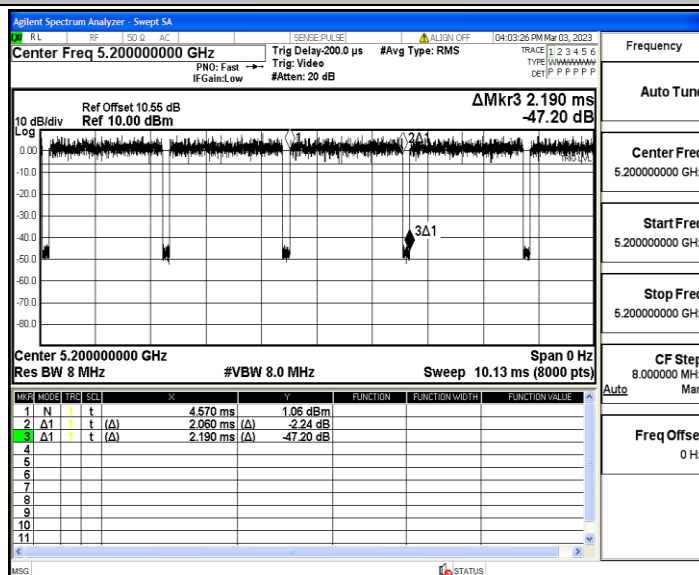
TestMode	Antenna	Channel	Transmission Duration [ms]	Transmission Period [ms]	Duty Cycle [%]	1/T [kHz]
11A	Ant1	5180	2.06	2.19	94.06	0.49
		5200	2.06	2.19	94.06	0.49
		5240	2.07	2.20	94.09	0.48
11N20SISO	Ant1	5180	1.92	2.05	93.66	0.52
		5200	1.91	2.04	93.63	0.52
		5240	1.92	2.05	93.66	0.52
11N40SISO	Ant1	5190	0.94	1.07	87.85	1.06
		5230	0.95	1.08	87.96	1.05

Test Graphs

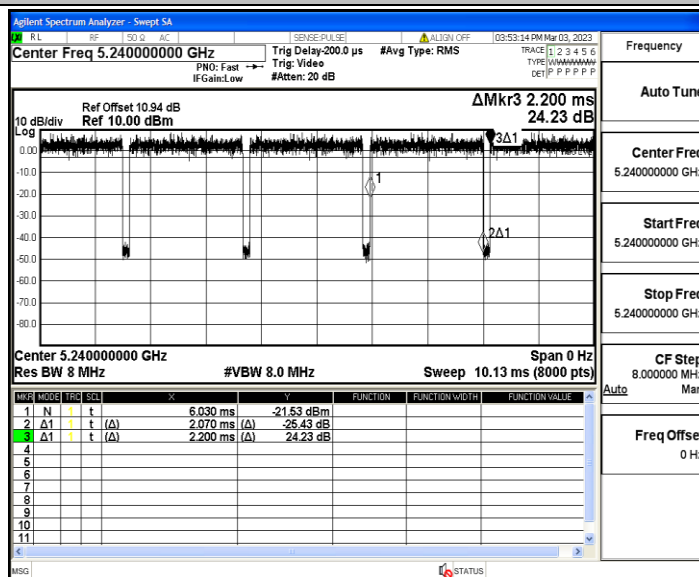
11A_Ant1_5180



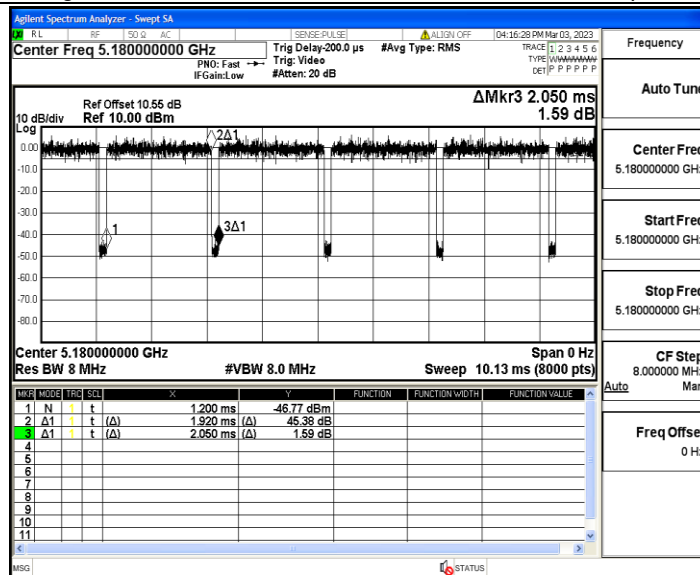
11A_Ant1_5200



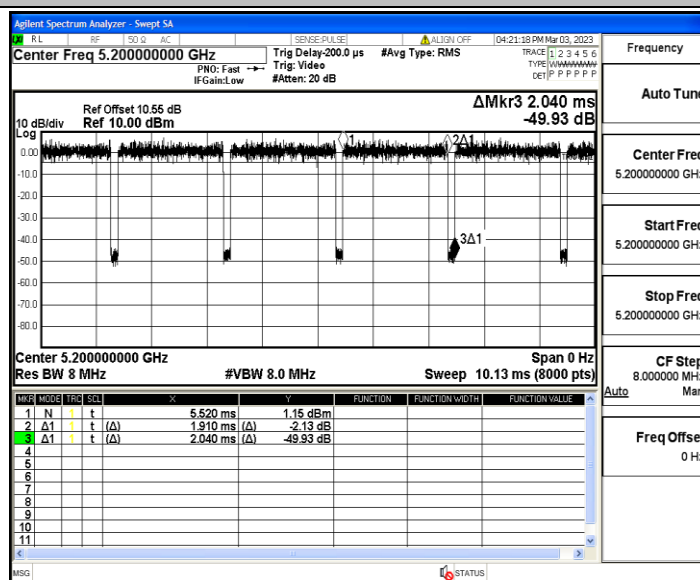
11A_Ant1_5240



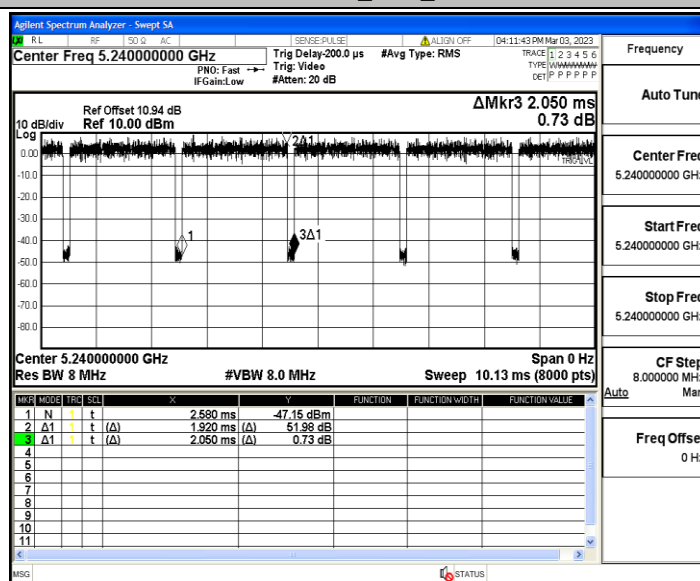
11N20SISO_Ant1_5180



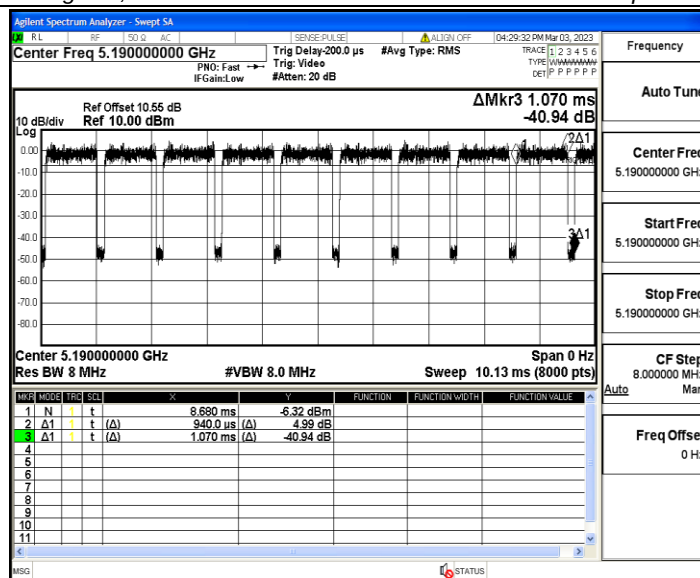
11N20SISO_Ant1_5200



11N20SISO_Ant1_5240



11N40SISO_Ant1_5190



11N40SISO_Ant1_5230

