

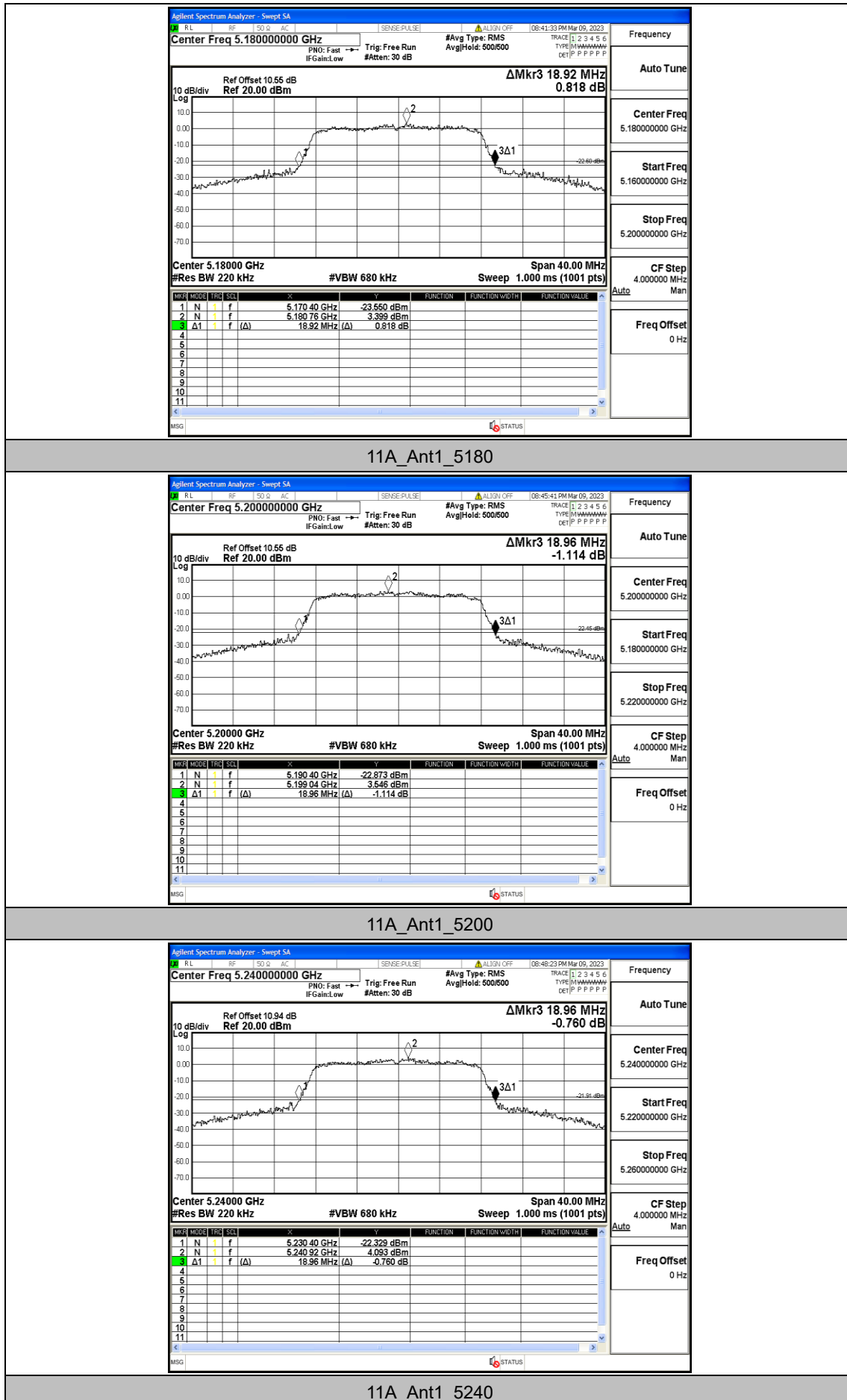
RF Test Data for RLAN(5.2G) (Conducted Measurement)**Product Name: projector****Trade Mark: umiio****Test Model: A007****FCC ID: 2BAHIA007****Environmental Conditions**

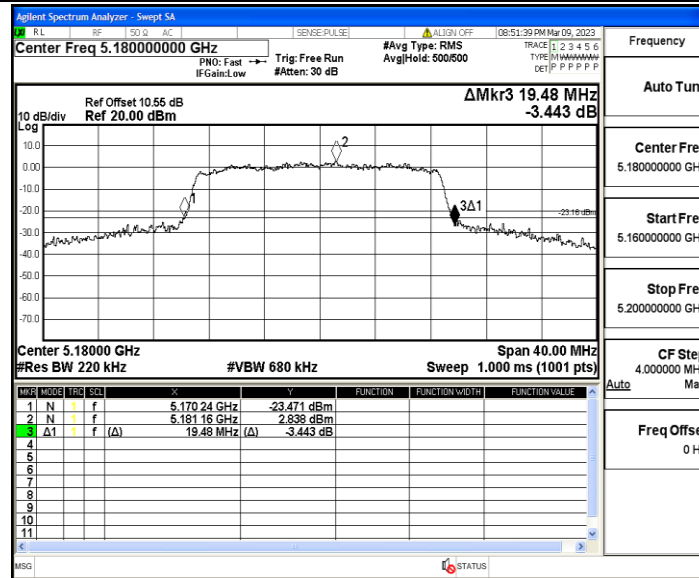
Temperature:	25.5°C
Relative Humidity:	55%
ATM Pressure:	100.0 kPa
Test Engineer:	Anna Hu
Supervised by:	Hugo Chen
NOTE	N/A

Appendix A1: Emission Bandwidth**Test Result**

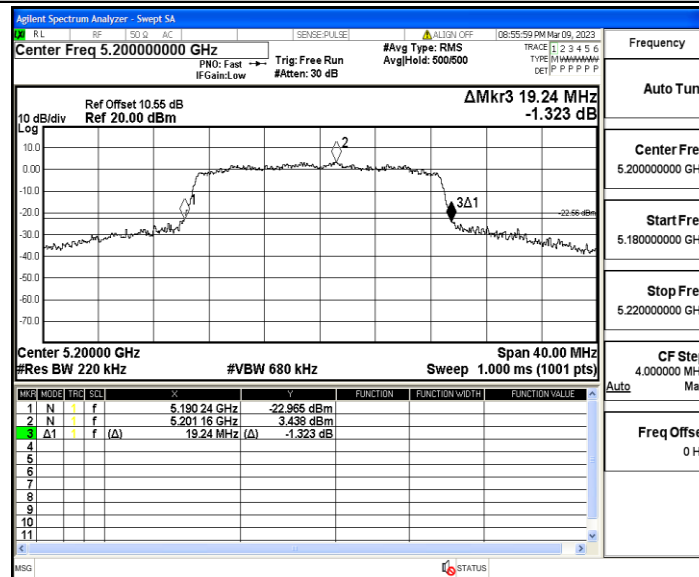
TestMode	Antenna	Channel	26db EBW [MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
11A	Ant1	5180	18.920	5170.400	5189.320	---	---
		5200	18.960	5190.400	5209.360	---	---
		5240	18.960	5230.400	5249.360	---	---
11N20SISO	Ant1	5180	19.480	5170.240	5189.720	---	---
		5200	19.240	5190.240	5209.480	---	---
		5240	19.320	5230.320	5249.640	---	---
11N40SISO	Ant1	5190	39.440	5170.240	5209.680	---	---
		5230	39.440	5210.160	5249.600	---	---

Test Graphs

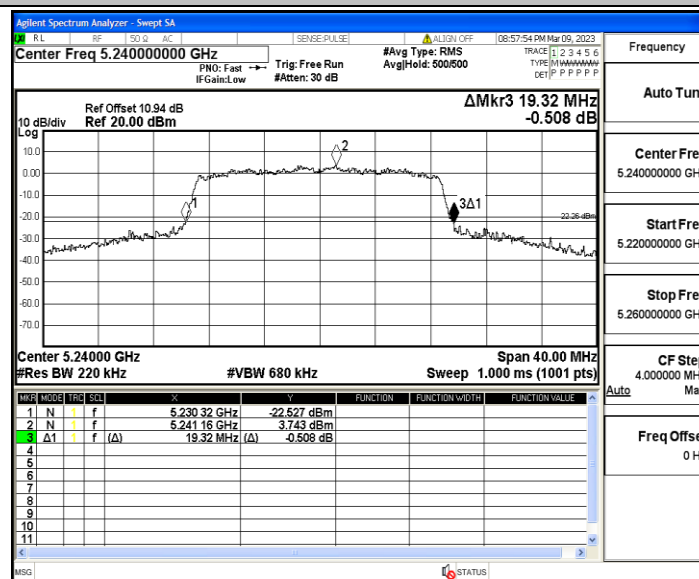




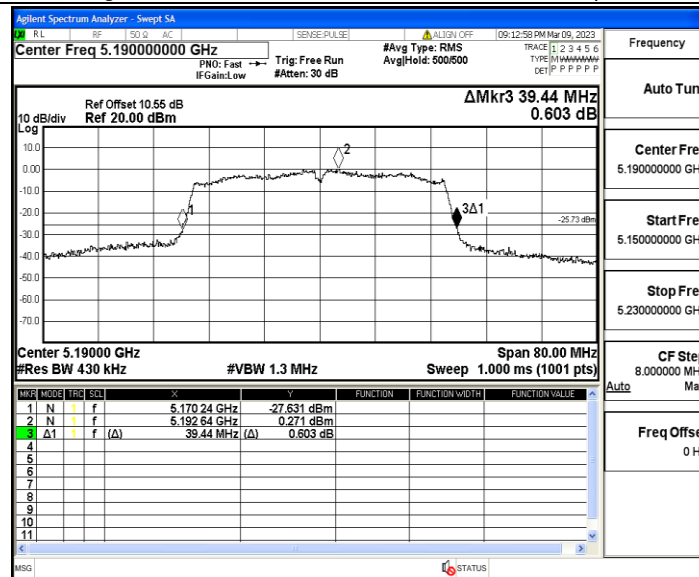
11N20SISO_Ant1_5180



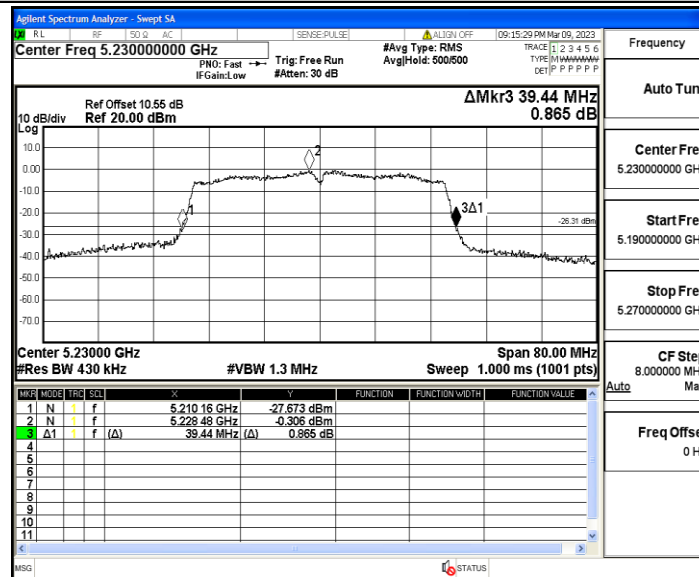
11N20SISO_Ant1_5200



11N20SISO_Ant1_5240



11N40SISO_Ant1_5190



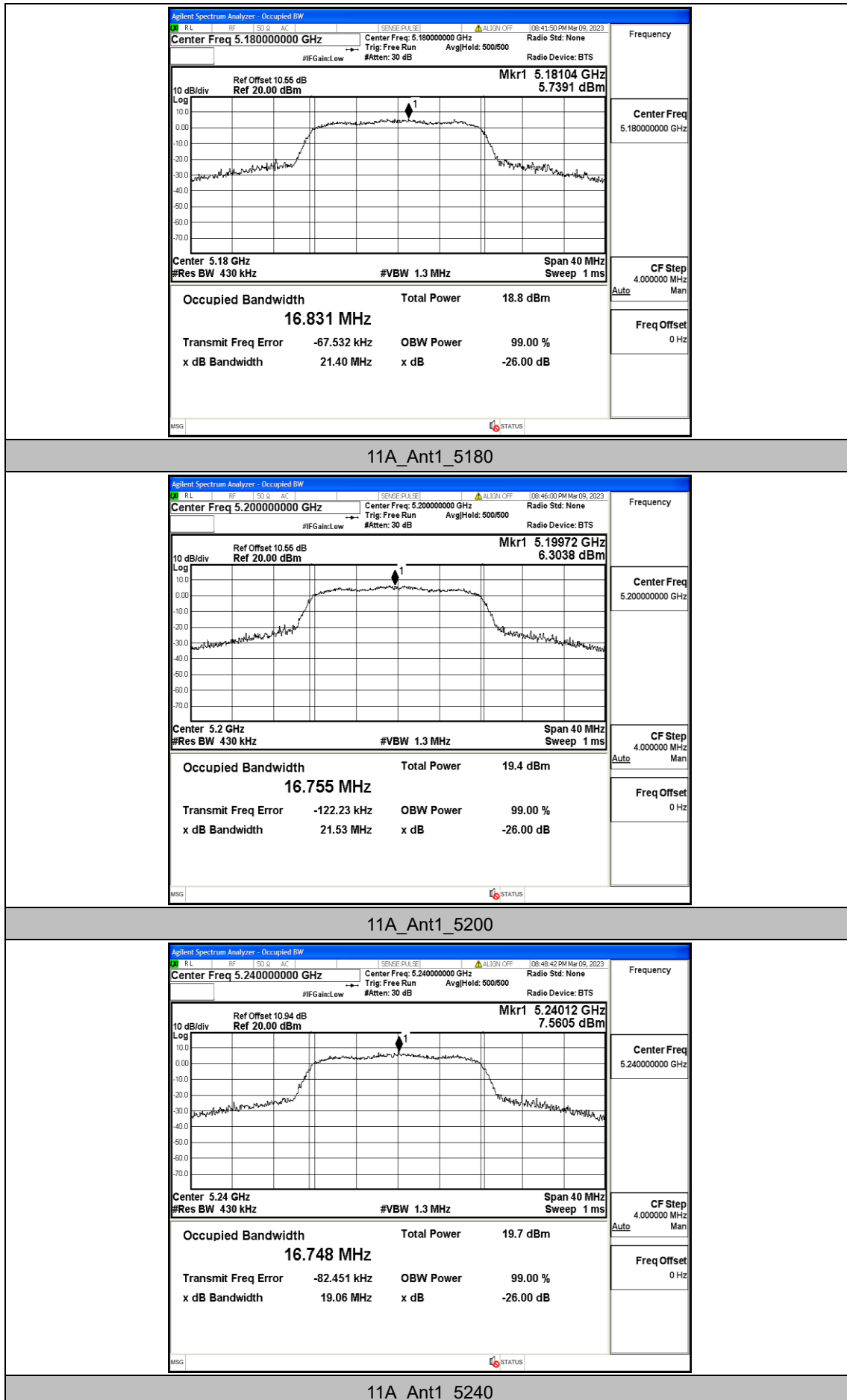
11N40SISO_Ant1_5230

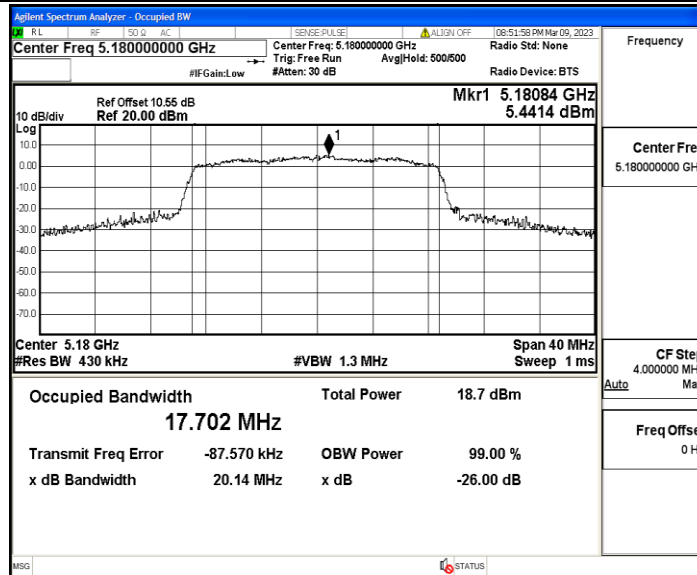
Appendix A2: Occupied channel bandwidth

Test Result

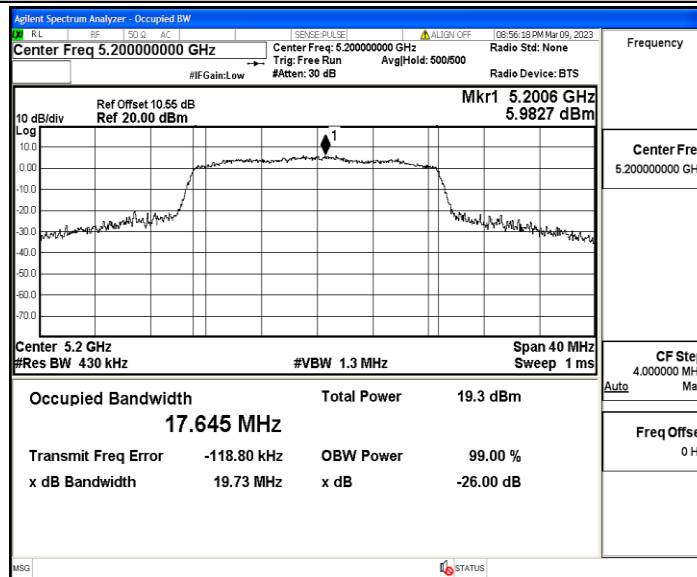
TestMode	Antenna	Channel	OCB [MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
11A	Ant1	5180	16.831	5171.5170	5188.3480	---	---
		5200	16.755	5191.5003	5208.2553	---	---
		5240	16.748	5231.5436	5248.2916	---	---
11N20SISO	Ant1	5180	17.702	5171.0614	5188.7634	---	---
		5200	17.645	5191.0587	5208.7037	---	---
		5240	17.621	5231.0742	5248.6952	---	---
11N40SISO	Ant1	5190	36.080	5171.9079	5207.9879	---	---
		5230	36.288	5211.7996	5248.0876	---	---

Test Graphs

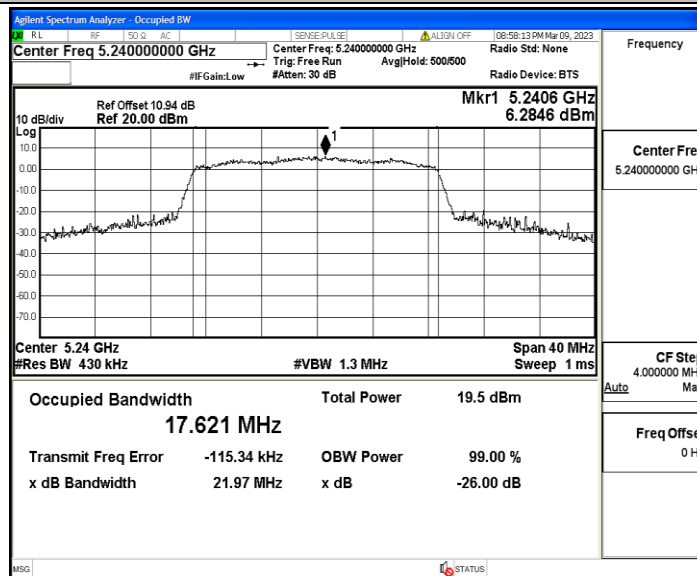




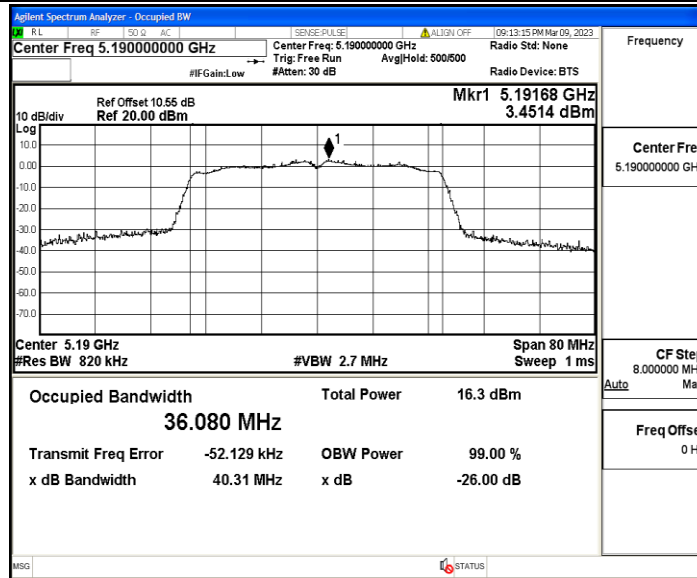
11N20SISO_Ant1_5180



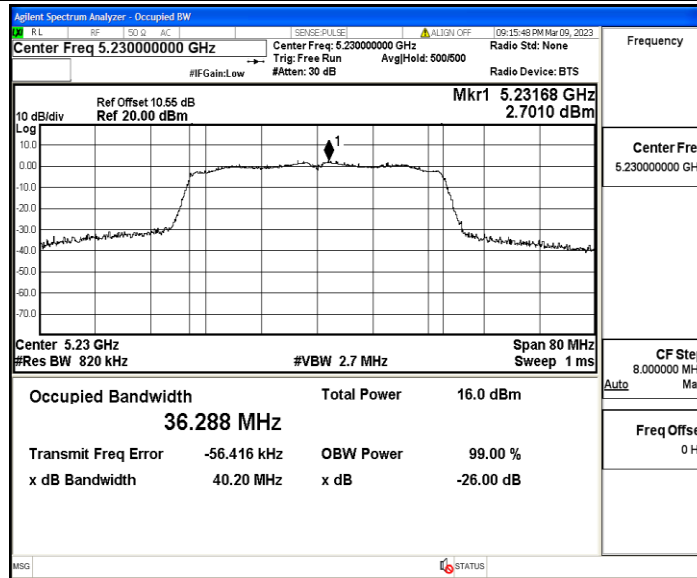
11N20SISO_Ant1_5200



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	11.91	≤23.98	PASS
		5200	12.57	≤23.98	PASS
		5240	12.82	≤23.98	PASS
11N20SISO	Ant1	5180	11.85	≤23.98	PASS
		5200	12.46	≤23.98	PASS
		5240	12.70	≤23.98	PASS
11N40SISO	Ant1	5190	8.93	≤23.98	PASS
		5230	8.73	≤23.98	PASS

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

Appendix C: Maximum power spectral density

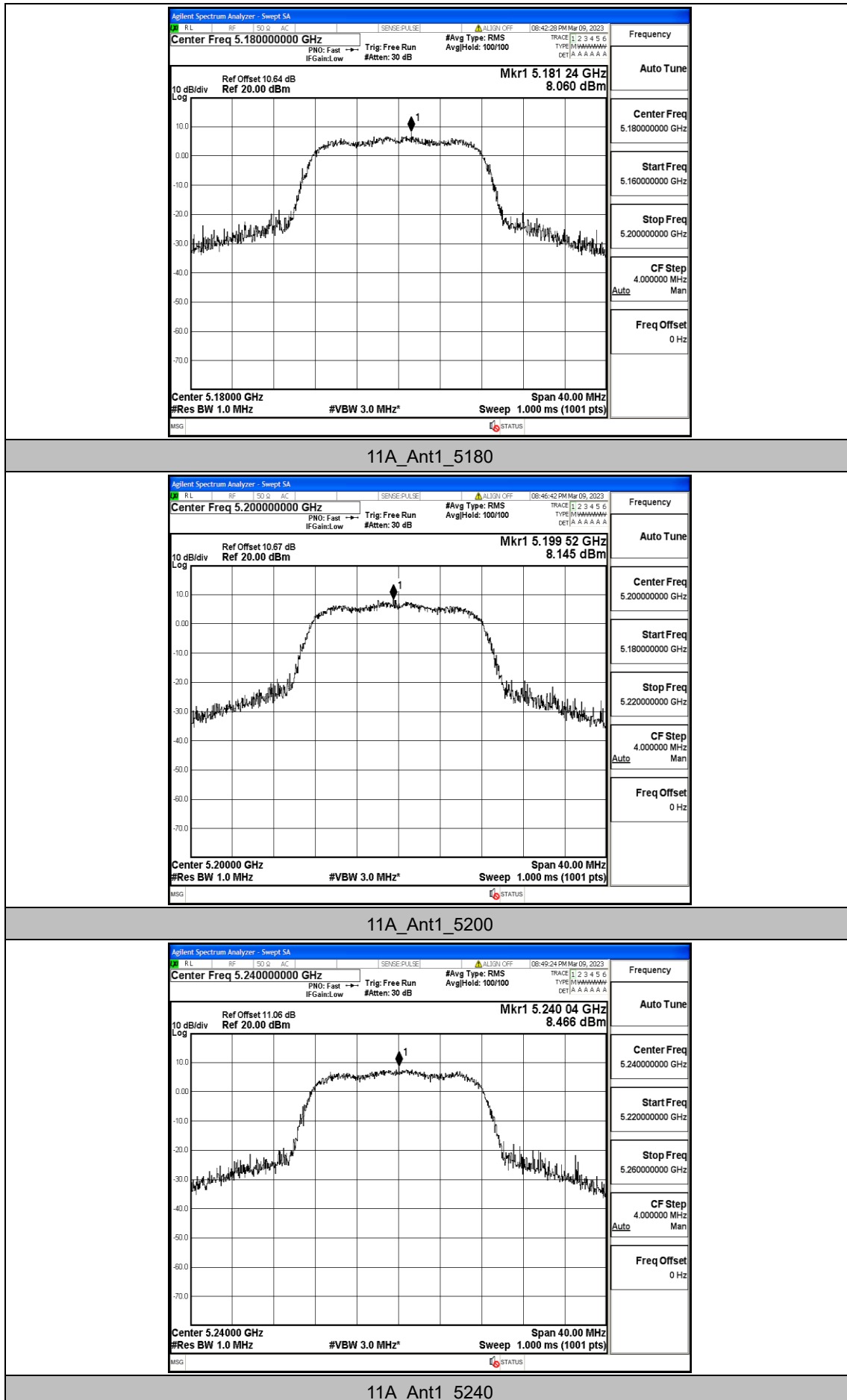
Test Result

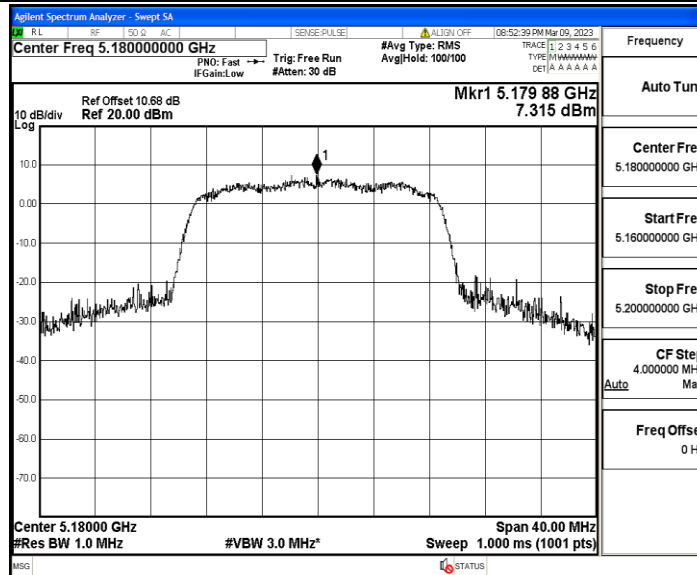
TestMode	Antenna	Channel	Result [dBm/MHz]	Limit[dBm/MHz]	Verdict
11A	Ant1	5180	8.06	≤11.00	PASS
		5200	8.15	≤11.00	PASS
		5240	8.47	≤11.00	PASS
11N20SISO	Ant1	5180	7.32	≤11.00	PASS
		5200	7.99	≤11.00	PASS
		5240	9.03	≤11.00	PASS
11N40SISO	Ant1	5190	2.08	≤11.00	PASS
		5230	1	≤11.00	PASS

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

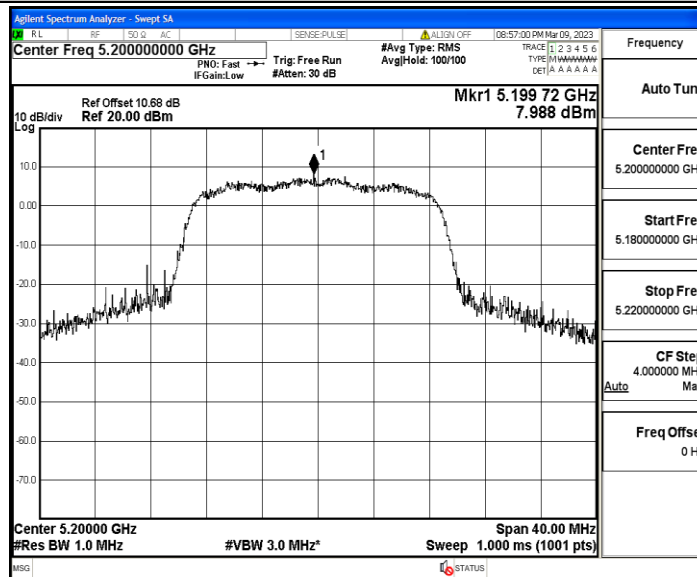
2.The Duty Cycle Factor and RBW Factor is compensated in the graph.

Test Graphs

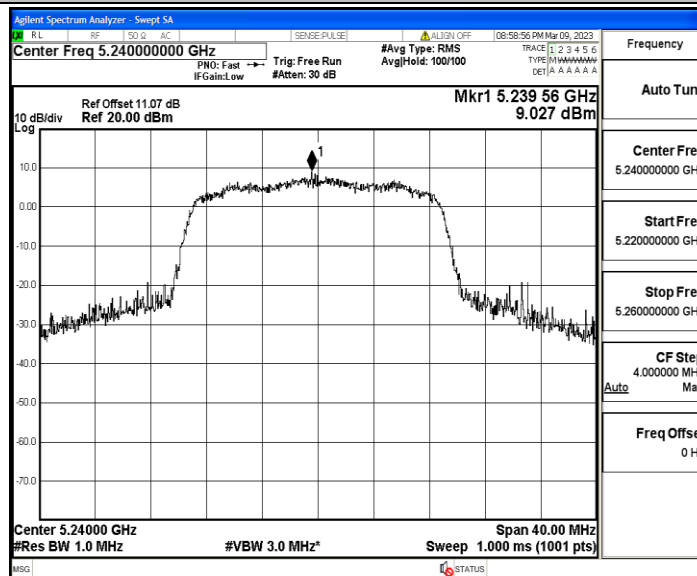




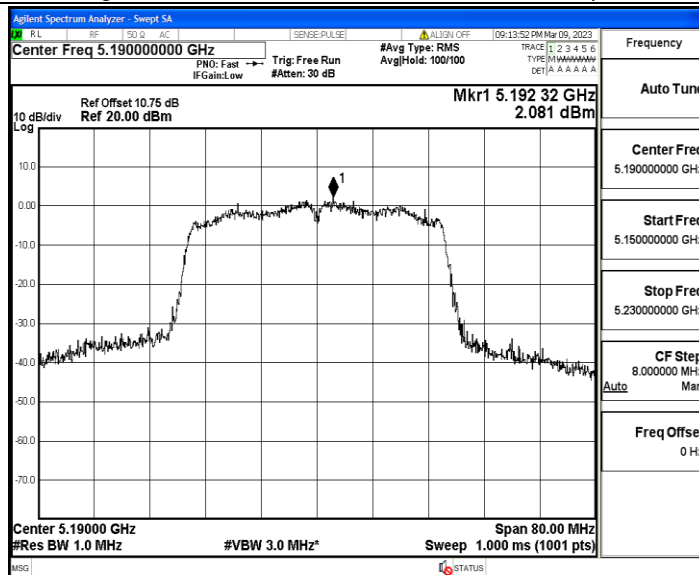
11N20SISO_Ant1_5180



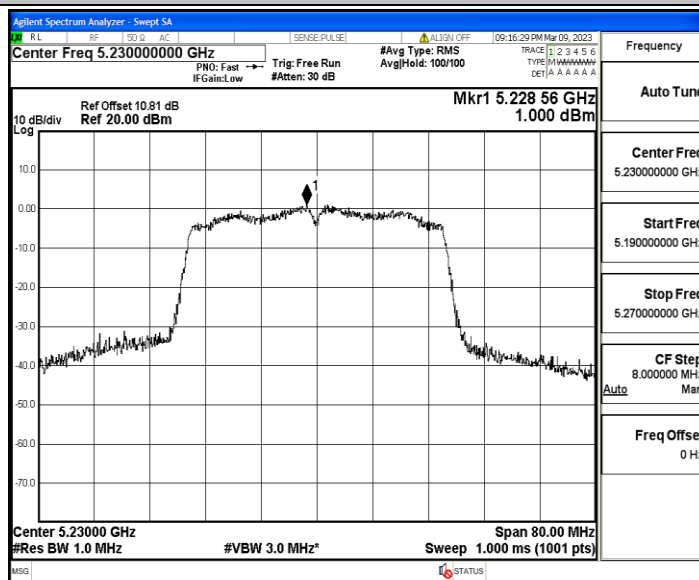
11N20SISO_Ant1_5200



11N20SISO_Ant1_5240



11N40SISO_Ant1_5190



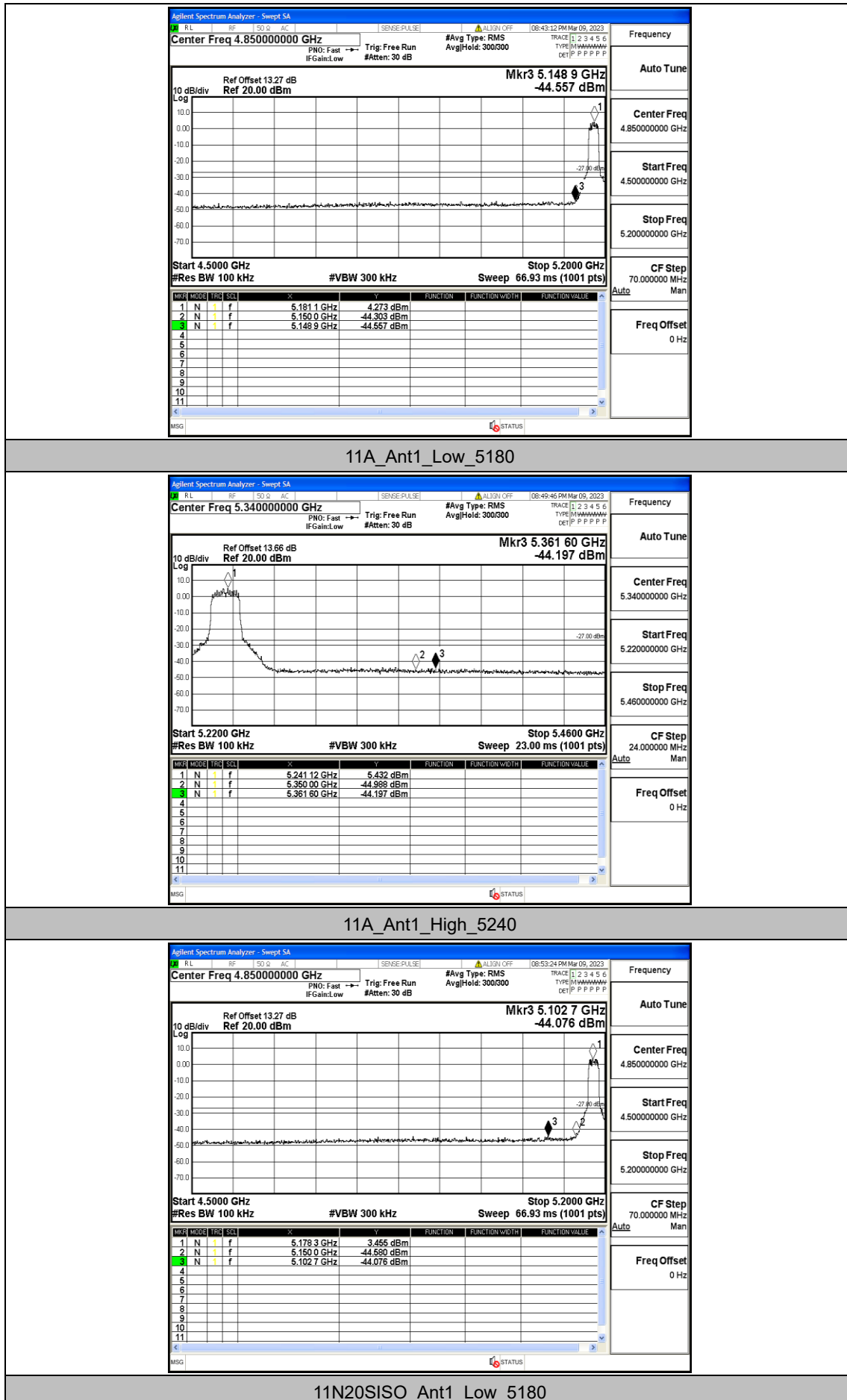
11N40SISO_Ant1_5230

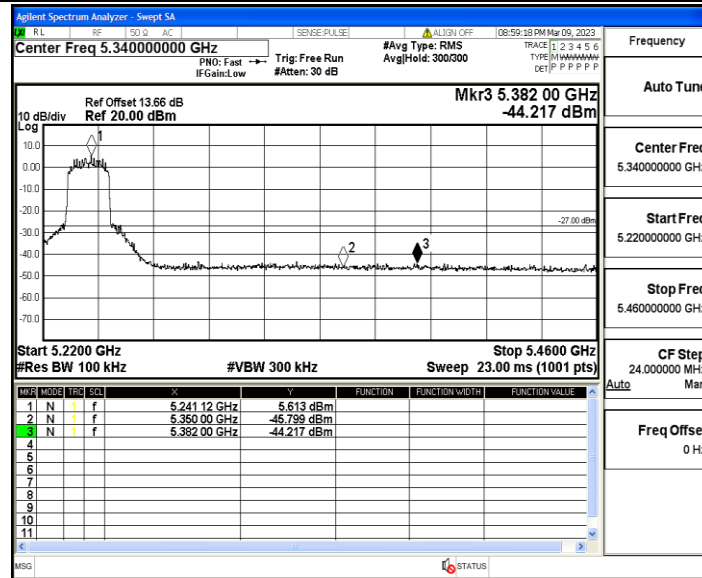
Appendix D: Band edge measurements

Test Result

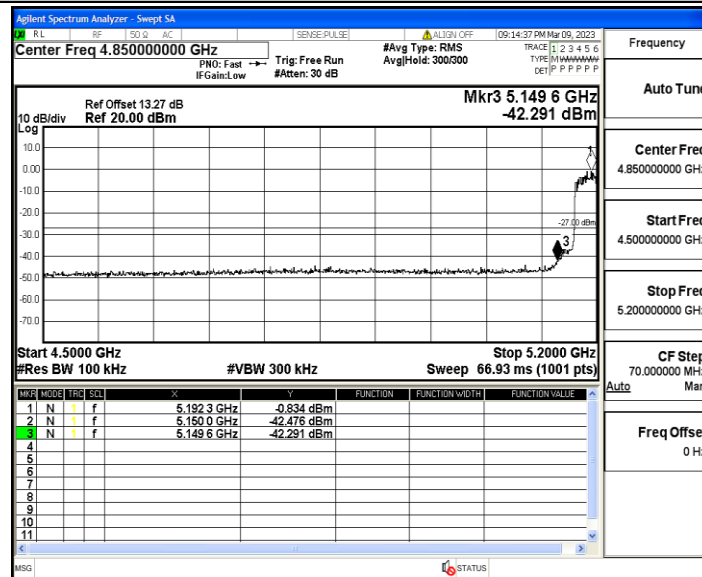
TestMode	Antenna	ChName	Channel	Result[dBm]	Limit[dBm]	Verdict
11A	Ant1	Low	5180	-44.56	≤ -27	PASS
		High	5240	-44.2	≤ -27	PASS
11N20SISO	Ant1	Low	5180	-44.08	≤ -27	PASS
		High	5240	-44.22	≤ -27	PASS
11N40SISO	Ant1	Low	5190	-42.29	≤ -27	PASS
		High	5230	-44.81	≤ -27	PASS

Test Graphs

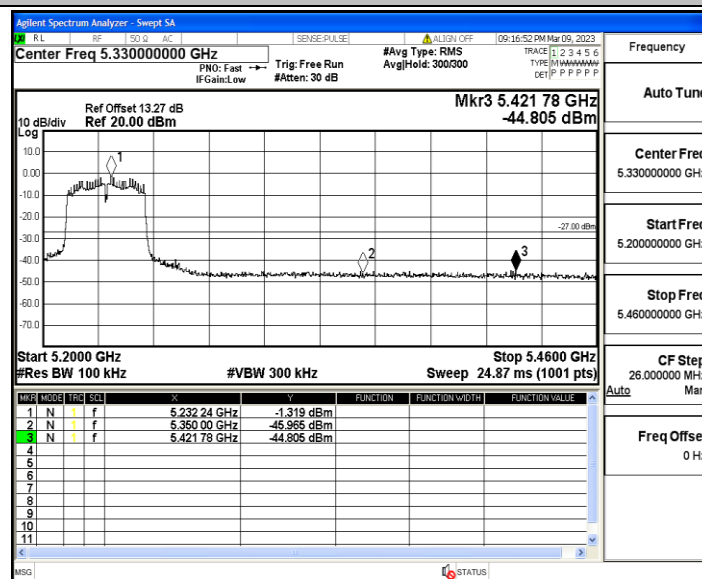




11N20SISO_Ant1_High_5240



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	5180.097663	5150 – 5250	PASS
5180	20	108	5180.019490	5150 – 5250	PASS
5180	50	120	5180.000361	5150 – 5250	PASS
5180	40	120	5180.084787	5150 – 5250	PASS
5180	30	120	5180.023199	5150 – 5250	PASS
5180	20	120	5179.985835	5150 – 5250	PASS
5180	10	120	5179.960609	5150 – 5250	PASS
5180	0	120	5179.992179	5150 – 5250	PASS
5180	-10	120	5180.002275	5150 – 5250	PASS
5180	-20	120	5180.099185	5150 – 5250	PASS
5180	-30	120	5180.086601	5150 – 5250	PASS

Frequency (MHz)	Environment Temperature (Degree)	Voltage (VAC)	Measured Frequency (MHz)	Limit Range (MHz)	Test Results
5200	20	132	5200.040264	5150 – 5250	PASS
5200	20	108	5200.061960	5150 – 5250	PASS
5200	50	120	5199.966511	5150 – 5250	PASS
5200	40	120	5199.978559	5150 – 5250	PASS
5200	30	120	5200.062600	5150 – 5250	PASS
5200	20	120	5199.925539	5150 – 5250	PASS
5200	10	120	5199.933389	5150 – 5250	PASS
5200	0	120	5199.984636	5150 – 5250	PASS
5200	-10	120	5199.999150	5150 – 5250	PASS
5200	-20	120	5200.032238	5150 – 5250	PASS
5200	-30	120	5199.972023	5150 – 5250	PASS

Frequency (MHz)	Enviroment Temperature (Dregree)	Voltage (VAC)	Measured Frequency (MHz)	Limit Range (MHz)	Test Results
5240	20	132	5240.042357	5150 – 5250	PASS
5240	20	108	5240.089197	5150 – 5250	PASS
5240	50	120	5239.986166	5150 – 5250	PASS
5240	40	120	5239.930340	5150 – 5250	PASS
5240	30	120	5240.096386	5150 – 5250	PASS
5240	20	120	5240.086957	5150 – 5250	PASS
5240	10	120	5239.942545	5150 – 5250	PASS
5240	0	120	5239.902831	5150 – 5250	PASS
5240	-10	120	5240.012607	5150 – 5250	PASS
5240	-20	120	5239.967773	5150 – 5250	PASS
5240	-30	120	5239.991262	5150 – 5250	PASS

Frequency (MHz)	Enviroment Temperature (Dregree)	Voltage (VAC)	Measured Frequency (MHz)	Limit Range (MHz)	Test Results
5190	20	132	5189.947337	5150 – 5250	PASS
5190	20	108	5189.901562	5150 – 5250	PASS
5190	50	120	5190.027506	5150 – 5250	PASS
5190	40	120	5189.984592	5150 – 5250	PASS
5190	30	120	5189.990542	5150 – 5250	PASS
5190	20	120	5190.065452	5150 – 5250	PASS
5190	10	120	5189.904730	5150 – 5250	PASS
5190	0	120	5189.916557	5150 – 5250	PASS
5190	-10	120	5189.931594	5150 – 5250	PASS
5190	-20	120	5189.985554	5150 – 5250	PASS
5190	-30	120	5190.091718	5150 – 5250	PASS

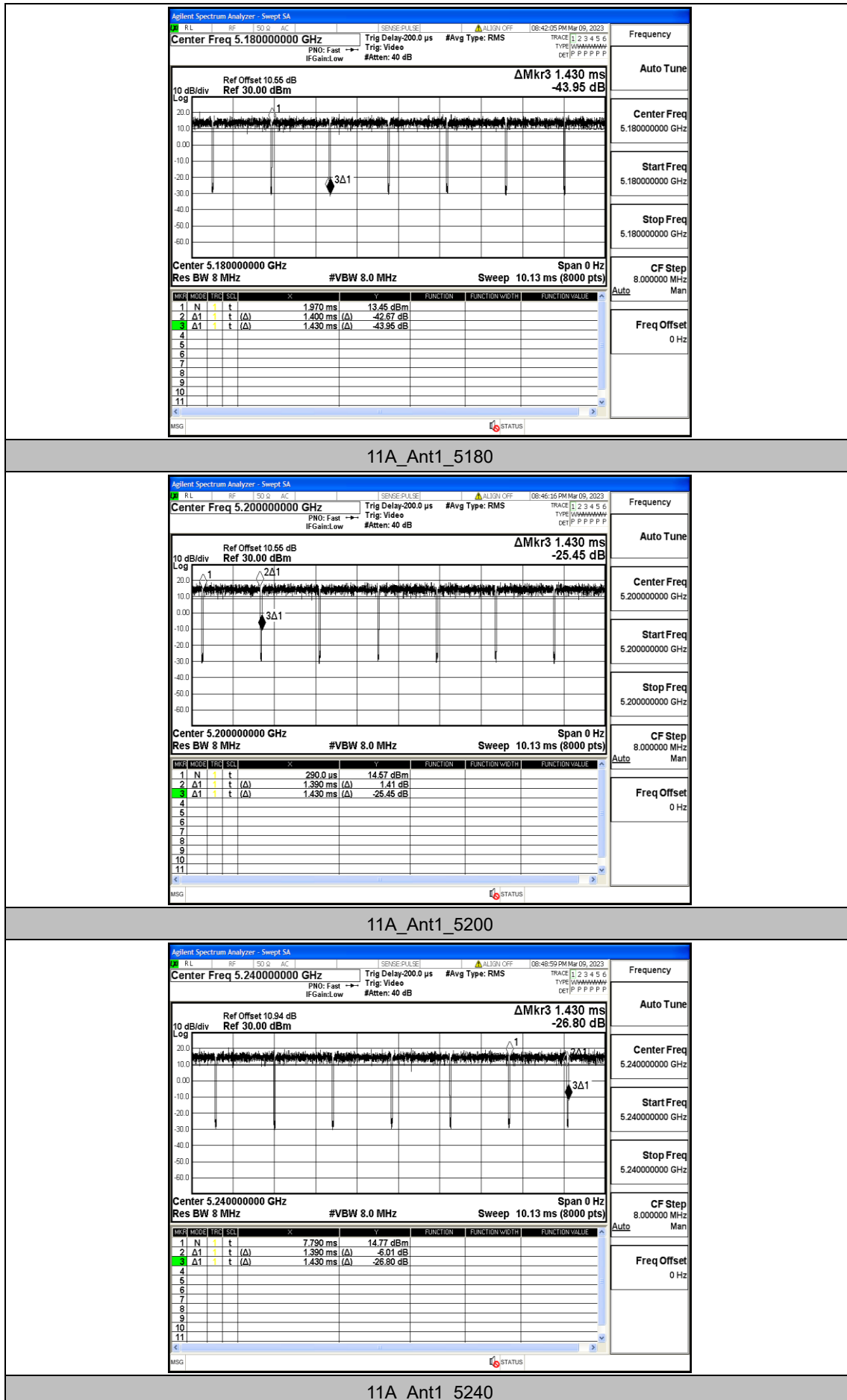
Frequency (MHz)	Enviroment Temperature (Dregree)	Voltage (VAC)	Measured Frequency (MHz)	Limit Range (MHz)	Test Results
5230	20	132	5230.007964	5150 – 5250	PASS
5230	20	108	5230.020423	5150 – 5250	PASS
5230	50	120	5230.049631	5150 – 5250	PASS
5230	40	120	5230.009888	5150 – 5250	PASS
5230	30	120	5229.921861	5150 – 5250	PASS
5230	20	120	5230.073878	5150 – 5250	PASS
5230	10	120	5229.962795	5150 – 5250	PASS
5230	0	120	5230.070266	5150 – 5250	PASS
5230	-10	120	5229.907483	5150 – 5250	PASS
5230	-20	120	5229.986822	5150 – 5250	PASS
5230	-30	120	5229.908146	5150 – 5250	PASS

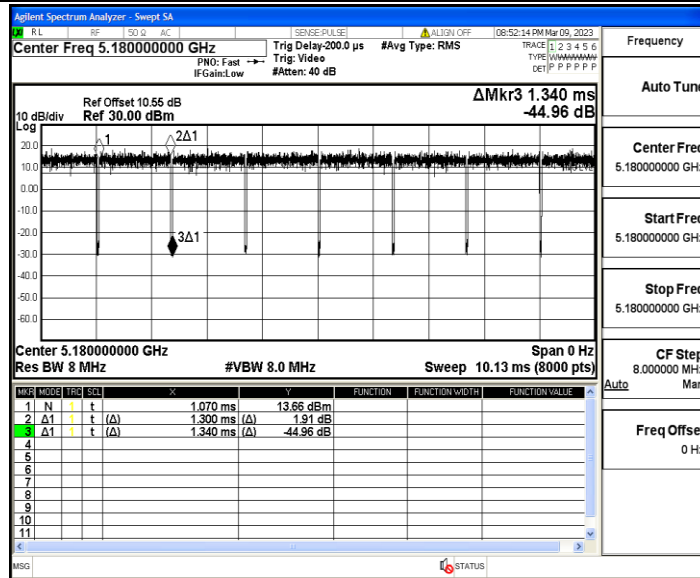
Appendix F: Duty Cycle

Test Result

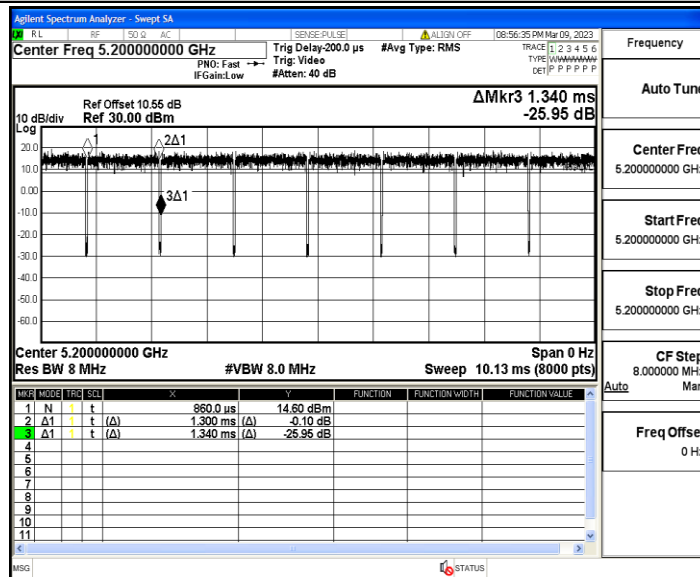
TestMode	Antenna	Channel	Transmission Duration [ms]	Transmission Period [ms]	Duty Cycle [%]	1/T [kHz]
11A	Ant1	5180	1.40	1.43	97.90	0.71
		5200	1.39	1.43	97.20	0.72
		5240	1.39	1.43	97.20	0.72
11N20SISO	Ant1	5180	1.30	1.34	97.01	0.77
		5200	1.30	1.34	97.01	0.77
		5240	1.31	1.35	97.04	0.76
11N40SISO	Ant1	5190	0.65	0.68	95.59	1.54
		5230	0.64	0.68	94.12	1.56

Test Graphs

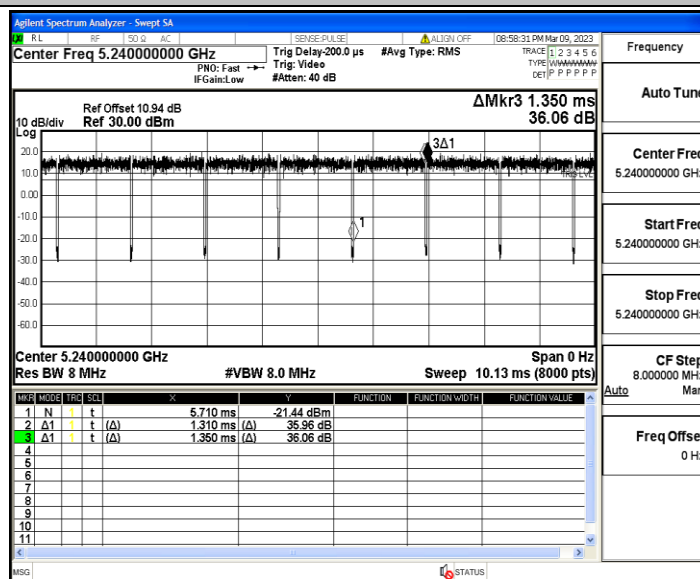




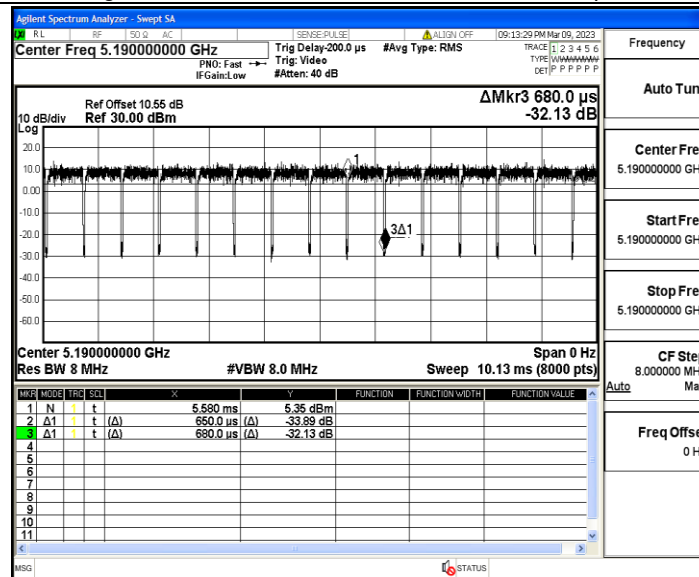
11N20SISO_Ant1_5180



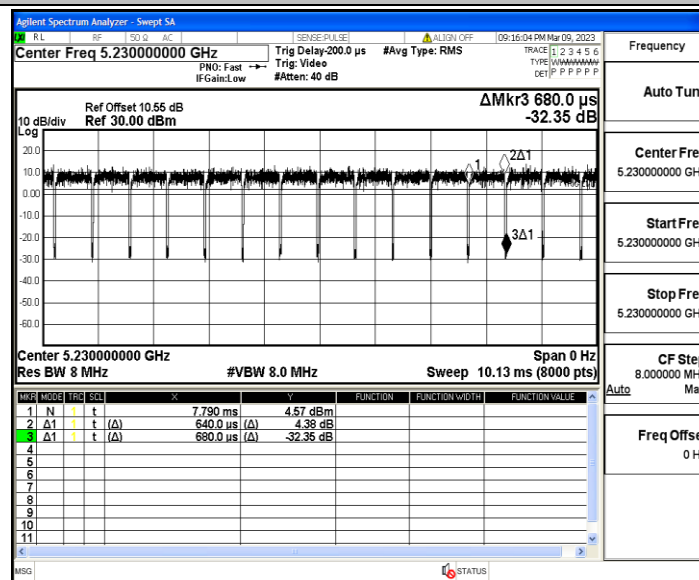
11N20SISO_Ant1_5200



11N20SISO_Ant1_5240



11N40SISO_Ant1_5190



11N40SISO_Ant1_5230