

## RF Test Data for RLAN(5.2G) (Conducted Measurement)

Product Name: Granary Automatic Pet Feeder-WiFi Control 5L

Trade Mark: PETLIBRO

Test Model: PLAF103

FCC ID: 2A3DE-PLAF103

### 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

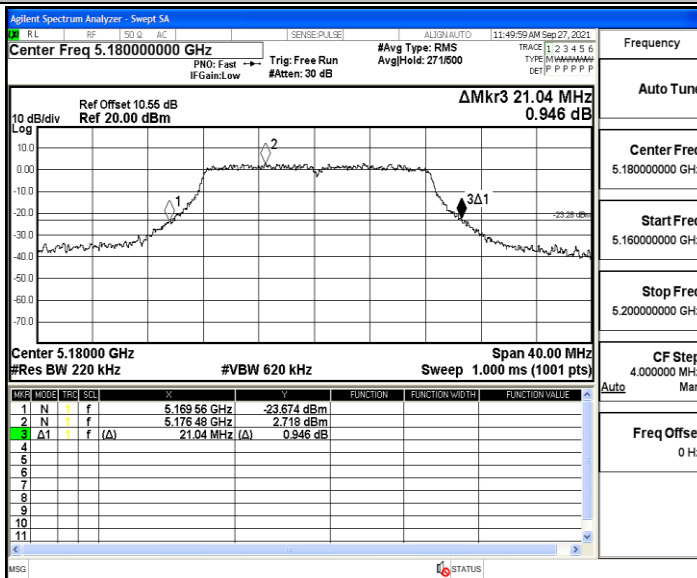
### Appendix A1: Emission Bandwidth

#### Test Result

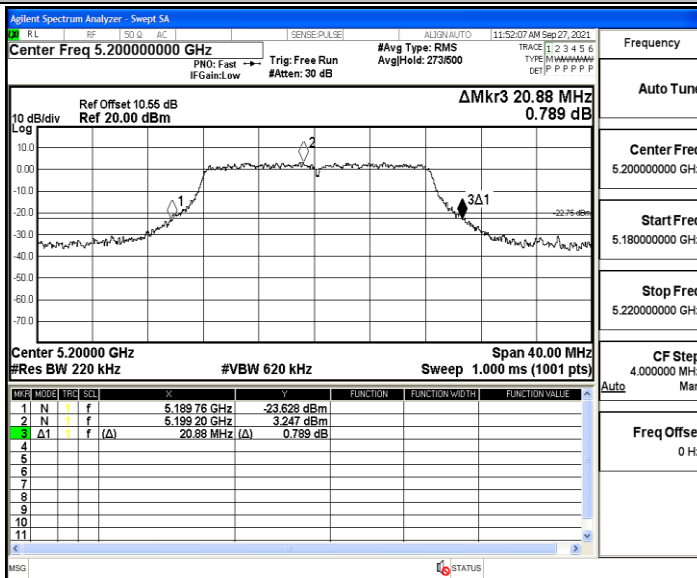
TestMode	Antenna	Channel	26db EBW [MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
11A	Ant1	5180	21.040	5169.560	5190.600	---	PASS
		5200	20.880	5189.760	5210.640	---	PASS
		5240	21.640	5229.520	5251.160	---	PASS
11N20SISO	Ant1	5180	21.440	5169.600	5191.040	---	PASS
		5200	21.680	5189.560	5211.240	---	PASS
		5240	21.640	5229.560	5251.200	---	PASS
11N40SISO	Ant1	5190	38.880	5170.800	5209.680	---	PASS
		5230	38.560	5210.960	5249.520	---	PASS

Test Graphs

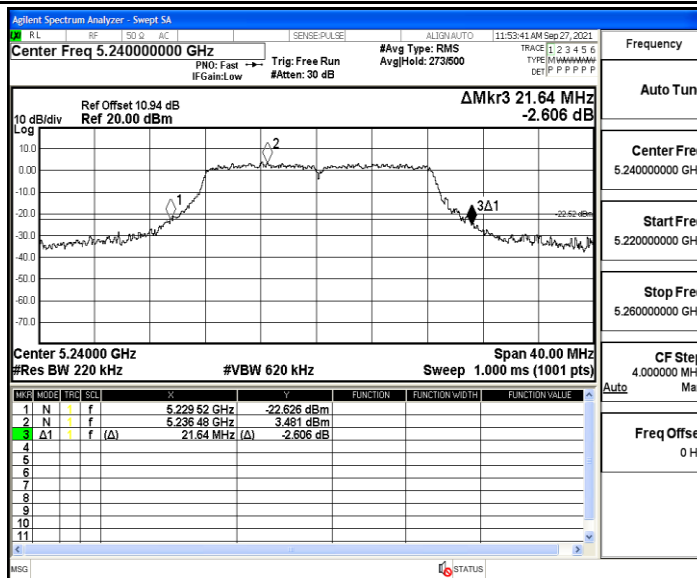
11A\_Ant1\_5180



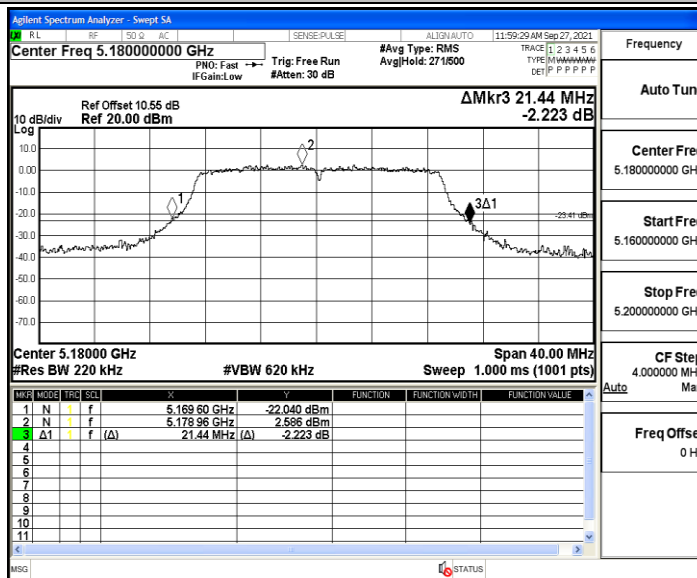
11A\_Ant1\_5200



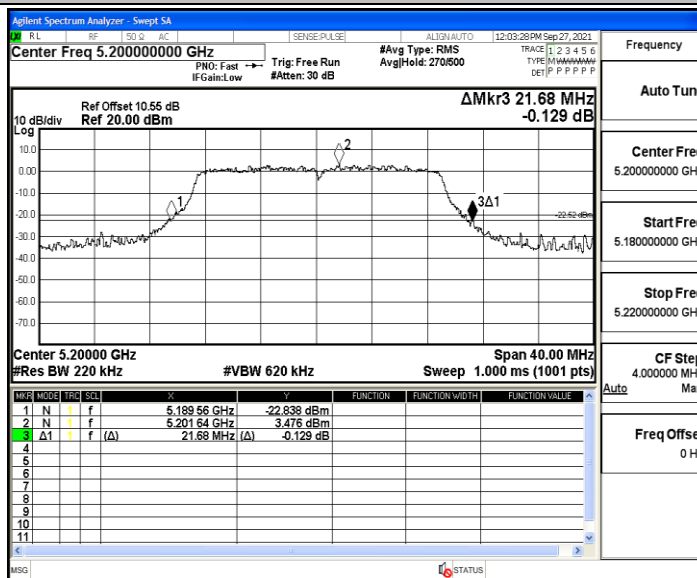
11A\_Ant1\_5240



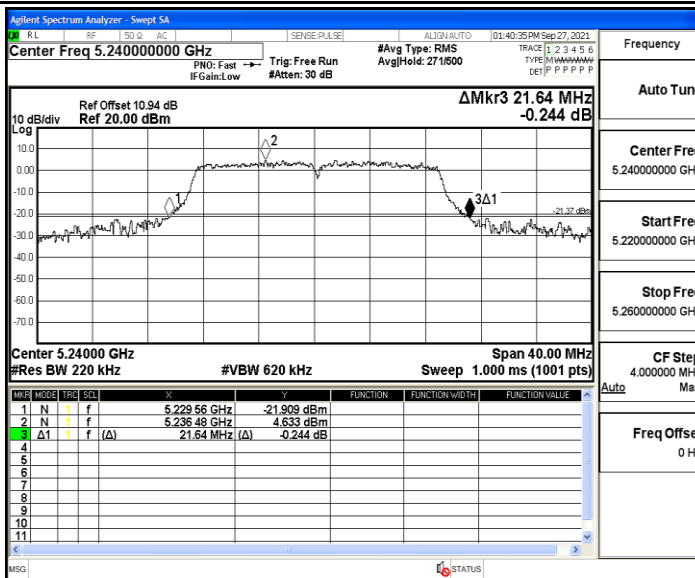
11N20SISO\_Ant1\_5180



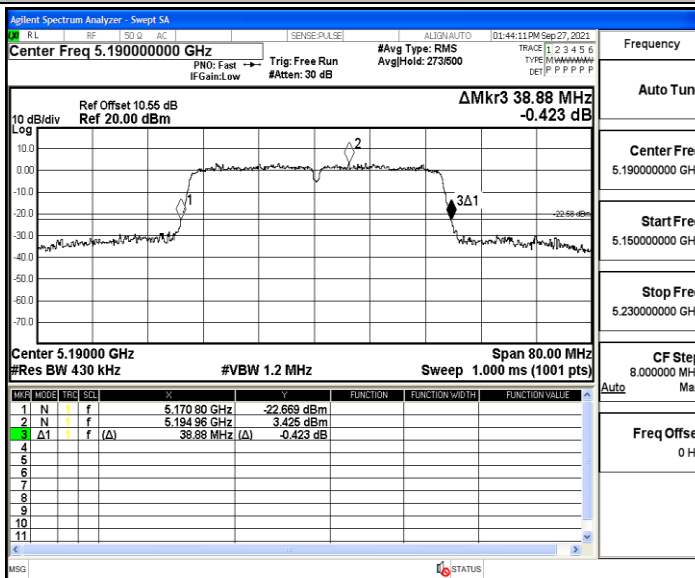
11N20SISO\_Ant1\_5200



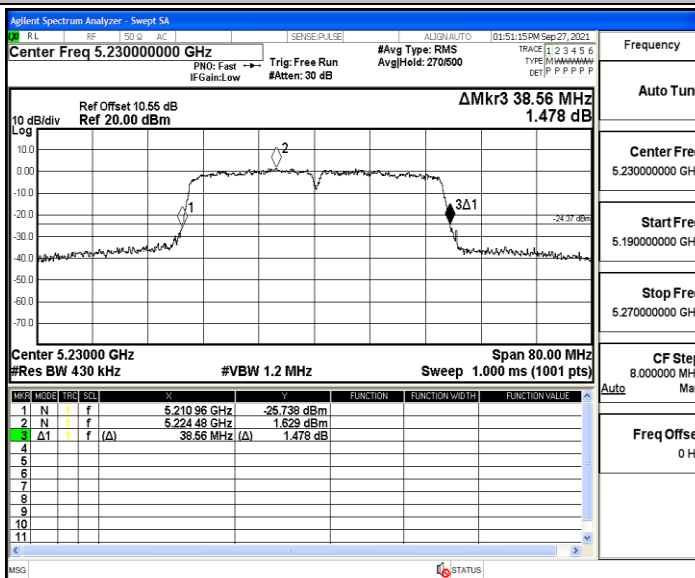
11N20SISO\_Ant1\_5240



11N40SISO\_Ant1\_5190



11N40SISO\_Ant1\_5230



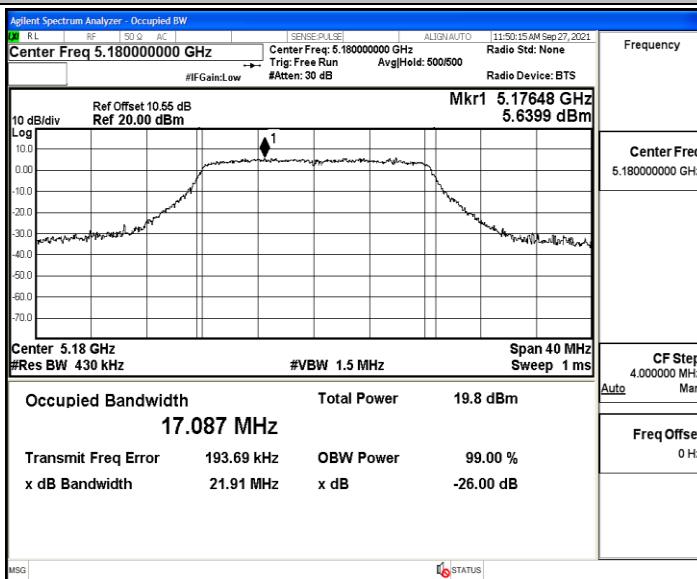
## Appendix A2: Occupied channel bandwidth

### Test Result

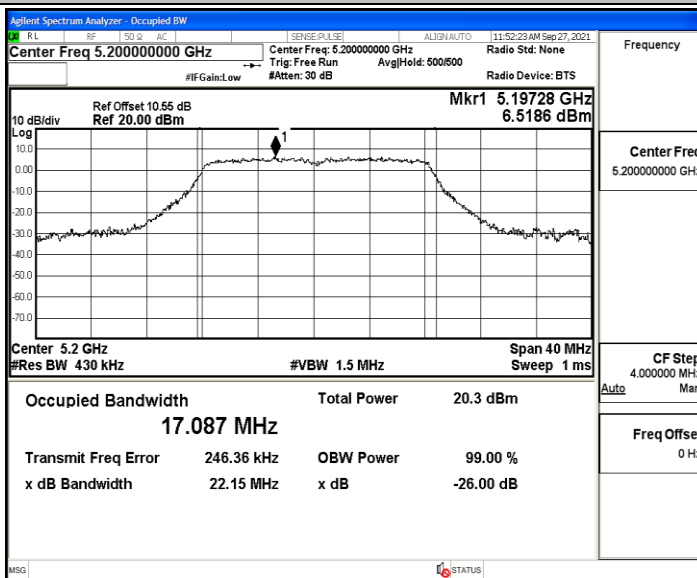
TestMode	Antenna	Channel	OCB [MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
11A	Ant1	5180	17.087	5171.650	5188.737	---	PASS
		5200	17.087	5191.703	5208.790	---	PASS
		5240	17.190	5231.636	5248.826	---	PASS
11N20SISO	Ant1	5180	18.088	5171.191	5189.279	---	PASS
		5200	18.163	5191.163	5209.326	---	PASS
		5240	18.198	5231.086	5249.284	---	PASS
11N40SISO	Ant1	5190	35.905	5172.324	5208.229	---	PASS
		5230	35.811	5212.342	5248.153	---	PASS

Test Graphs

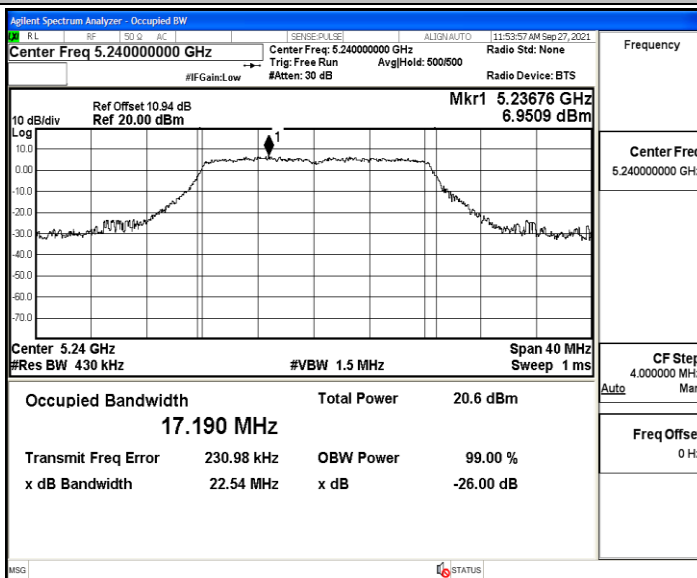
11A\_Ant1\_5180



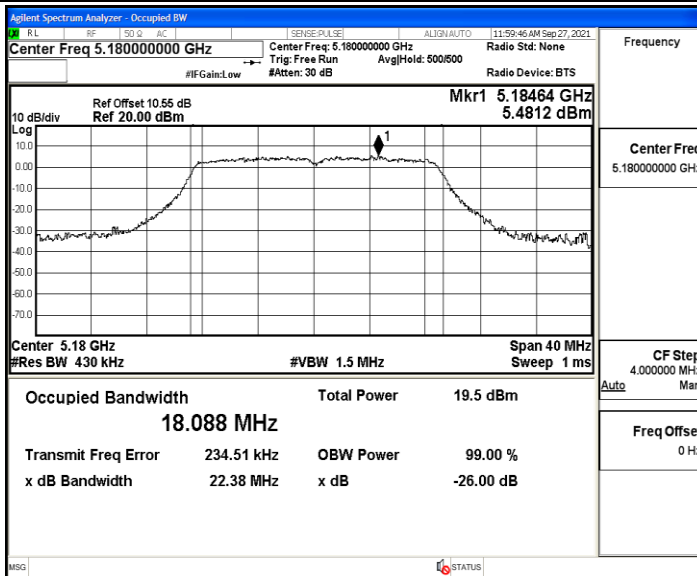
11A\_Ant1\_5200



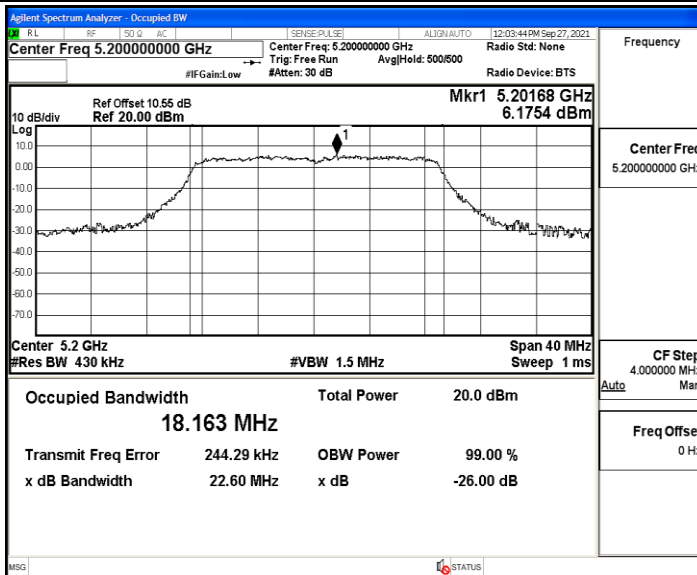
11A\_Ant1\_5240



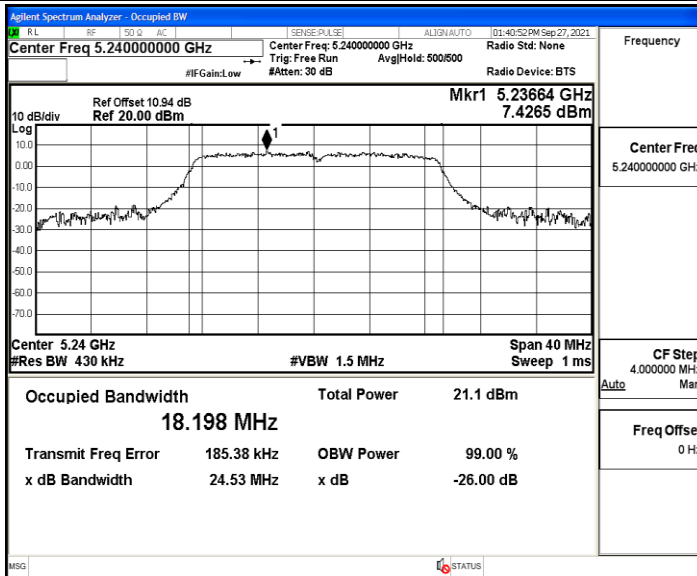
11N20SISO\_Ant1\_5180



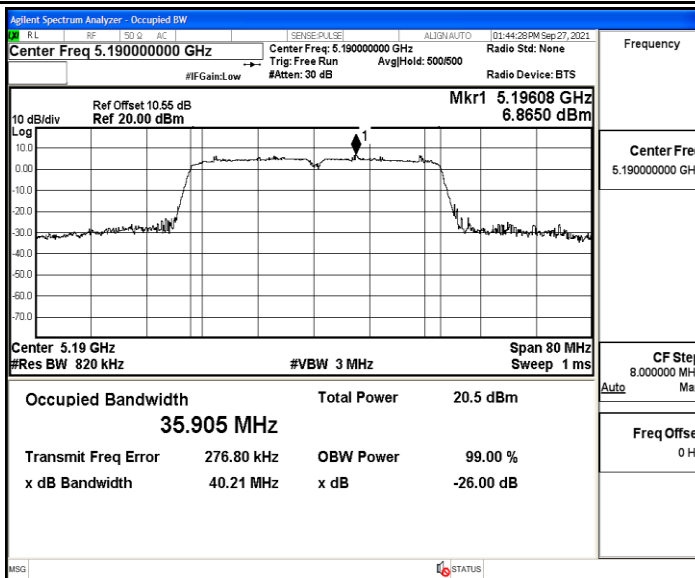
11N20SISO\_Ant1\_5200



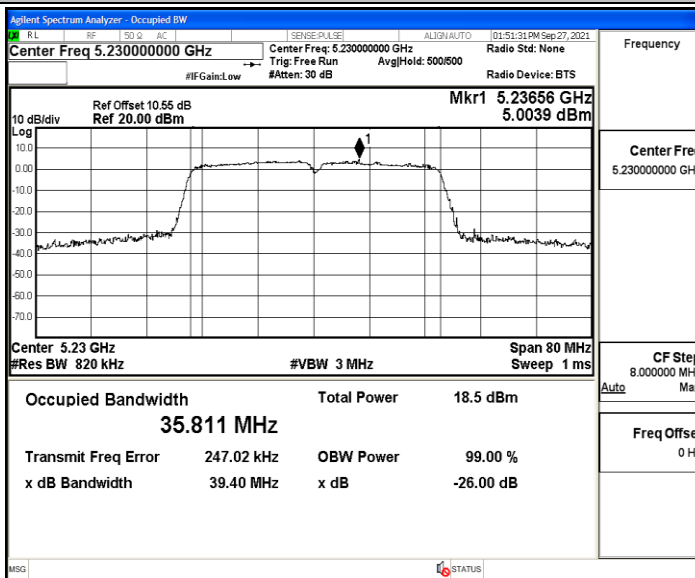
11N20SISO\_Ant1\_5240



11N40SISO\_Ant1\_5190



11N40SISO\_Ant1\_5230





## Appendix B: Maximum conducted output power

### Test Result

TestMode	Antenna	Channel	Result[dBm]	Limit[dBm]	Verdict
11A	Ant1	5180	13.13	≤23.98	PASS
		5200	13.35	≤23.98	PASS
		5240	13.70	≤23.98	PASS
11N20SISO	Ant1	5180	12.74	≤23.98	PASS
		5200	13.20	≤23.98	PASS
		5240	13.91	≤23.98	PASS
11N40SISO	Ant1	5190	10.36	≤23.98	PASS
		5230	11.09	≤23.98	PASS

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

## Appendix C: Maximum power spectral density

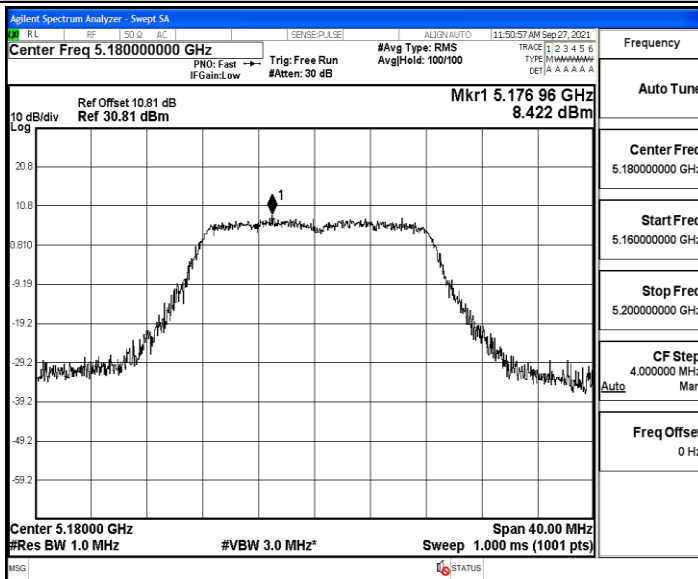
### Test Result

TestMode	Antenna	Channel	Result [dBm/MHz]	Limit[dBm/MHz]	Verdict
11A	Ant1	5180	8.42	≤11	PASS
		5200	7.56	≤11	PASS
		5240	9.11	≤11	PASS
11N20SISO	Ant1	5180	6.79	≤11	PASS
		5200	7.72	≤11	PASS
		5240	8.23	≤11	PASS
11N40SISO	Ant1	5190	1.94	≤11	PASS
		5230	3.2	≤11	PASS

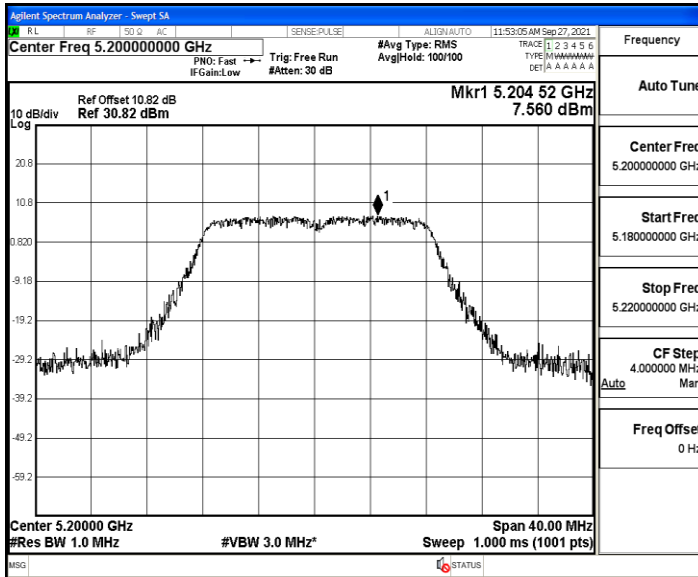
Note: 1.The Result and Limit Unit is dBm/500 kHz in the band 5.725–5.85 GHz.  
2.The Duty Cycle Factor and RBW Factor is compensated in the graph.

### Test Graphs

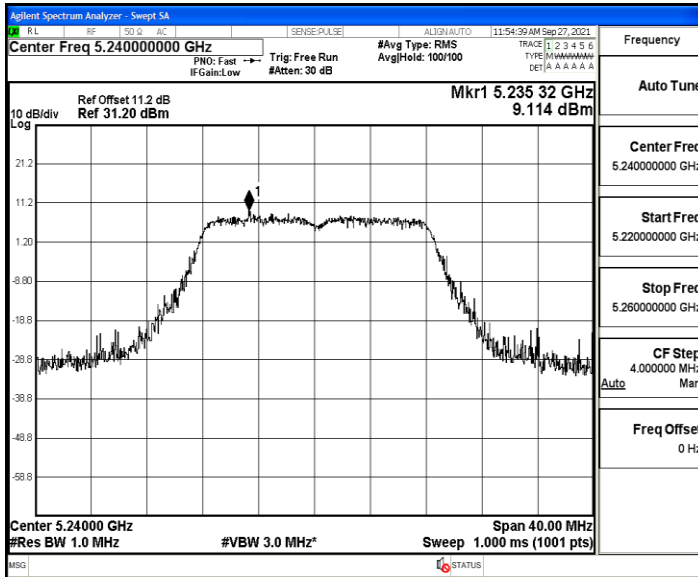
11A\_Ant1\_5180



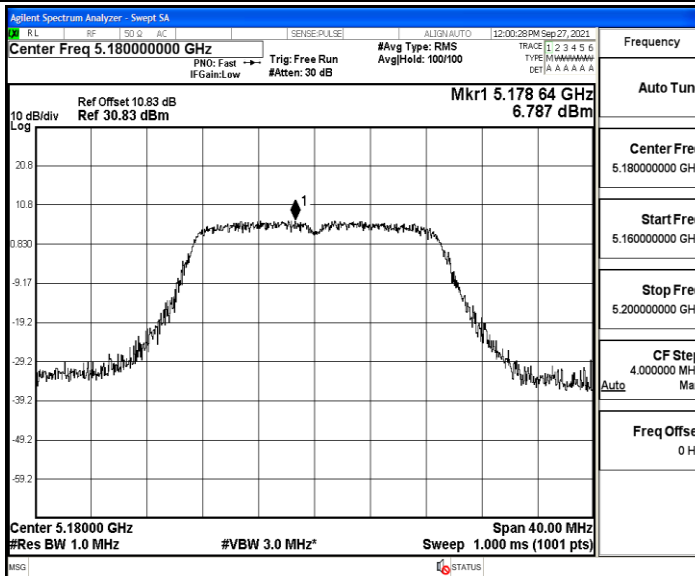
11A\_Ant1\_5200



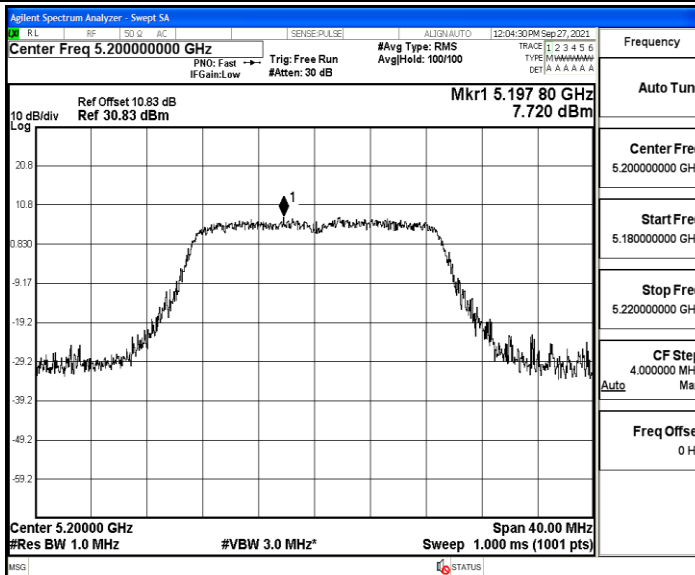
11A\_Ant1\_5240



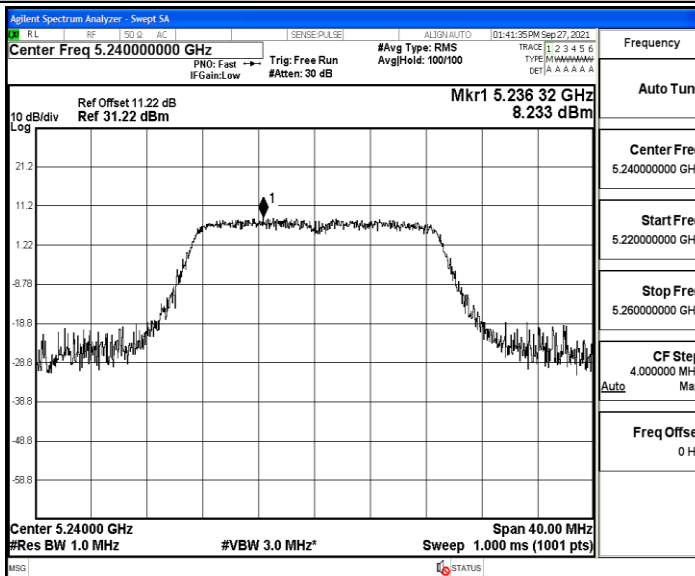
11N20SISO\_Ant1\_5180



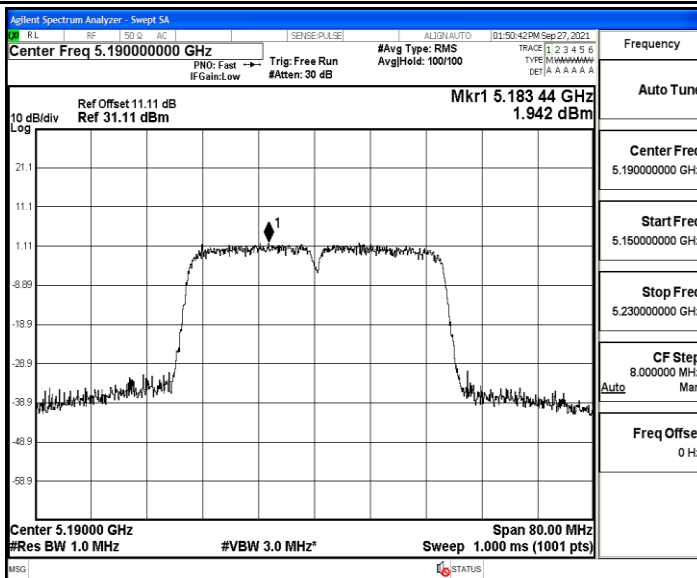
11N20SISO\_Ant1\_5200



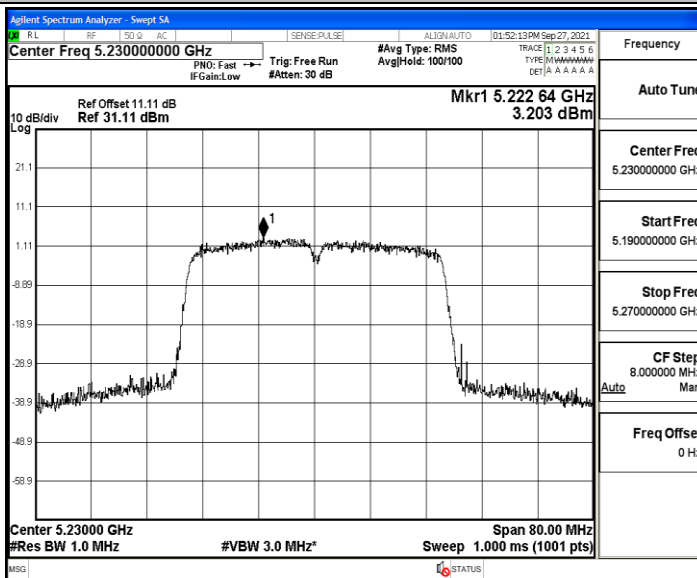
11N20SISO\_Ant1\_5240



11N40SISO\_Ant1\_5190



11N40SISO\_Ant1\_5230



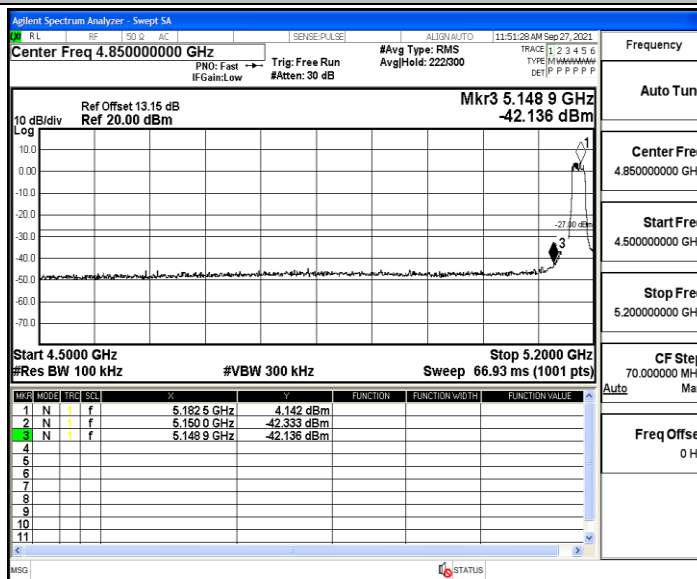
## Appendix D: Band edge measurements

### Test Result

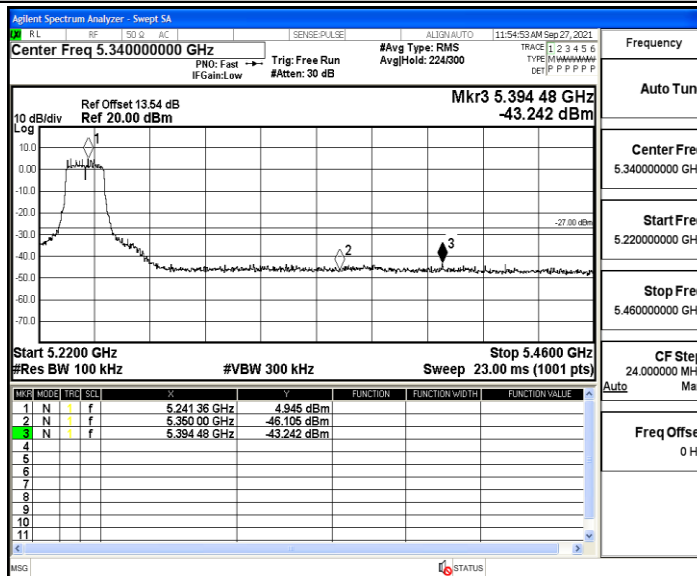
TestMode	Antenna	ChName	Channel	Result[dBm]	Limit[dBm]	Verdict
11A	Ant1	Low	5180	-42.14	$\leq -27$	PASS
		High	5240	-43.24	$\leq -27$	PASS
11N20SISO	Ant1	Low	5180	-42.51	$\leq -27$	PASS
		High	5240	-43.65	$\leq -27$	PASS
11N40SISO	Ant1	Low	5190	-38.59	$\leq -27$	PASS
		High	5230	-44.17	$\leq -27$	PASS

Test Graphs

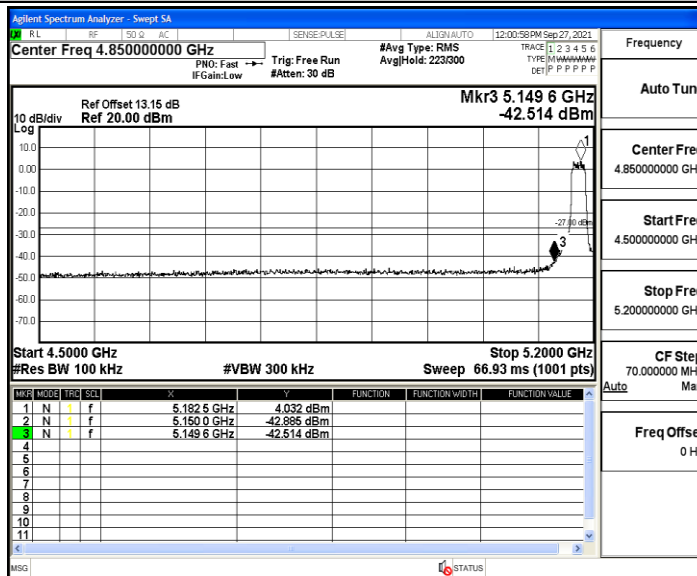
11A\_Ant1\_Low\_5180



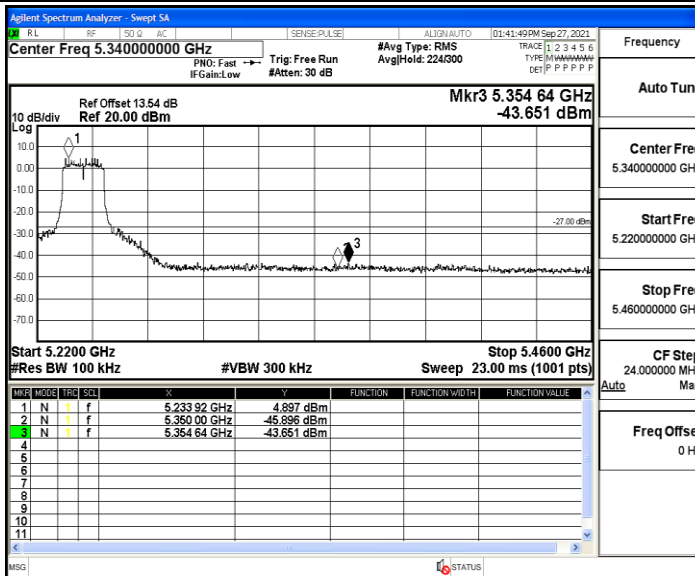
11A\_Ant1\_High\_5240



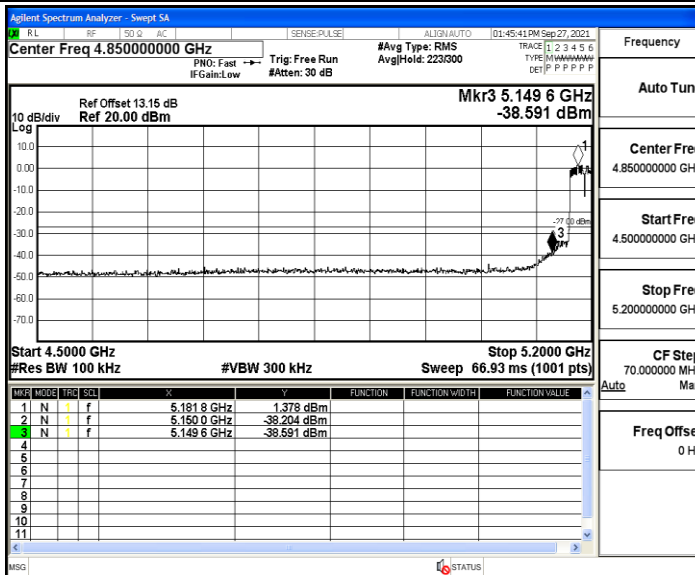
11N20SISO\_Ant1\_Low\_5180



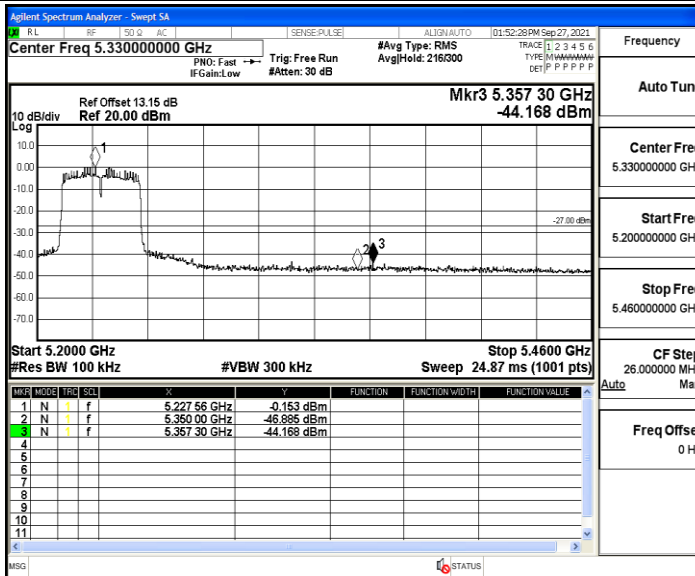
11N20SISO\_Ant1\_High\_5240



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	5180.098041	5150 – 5250	PASS
5180	20	108	5179.970909	5150 – 5250	PASS
5180	50	120	5180.060871	5150 – 5250	PASS
5180	40	120	5179.933656	5150 – 5250	PASS
5180	30	120	5180.062548	5150 – 5250	PASS
5180	20	120	5179.933744	5150 – 5250	PASS
5180	10	120	5179.928671	5150 – 5250	PASS
5180	0	120	5179.999559	5150 – 5250	PASS
5180	-10	120	5179.970625	5150 – 5250	PASS
5180	-20	120	5179.996074	5150 – 5250	PASS
5180	-30	120	5179.965252	5150 – 5250	PASS

Frequency (MHz)	Environment Temperature (Degree)	Voltage (VAC)	Measured Frequency (MHz)	Limit Range (MHz)	Test Results
5200	20	132	5199.980179	5150 – 5250	PASS
5200	20	108	5199.964918	5150 – 5250	PASS
5200	50	120	5199.922087	5150 – 5250	PASS
5200	40	120	5199.953812	5150 – 5250	PASS
5200	30	120	5199.903454	5150 – 5250	PASS
5200	20	120	5200.052242	5150 – 5250	PASS
5200	10	120	5200.032510	5150 – 5250	PASS
5200	0	120	5200.052198	5150 – 5250	PASS
5200	-10	120	5199.966359	5150 – 5250	PASS
5200	-20	120	5200.086863	5150 – 5250	PASS
5200	-30	120	5199.911676	5150 – 5250	PASS

Frequency (MHz)	Environment Temperature (Degree)	Voltage (VAC)	Measured Frequency (MHz)	Limit Range (MHz)	Test Results
5240	20	132	5240.011401	5150 – 5250	PASS
5240	20	108	5240.000636	5150 – 5250	PASS
5240	50	120	5239.904505	5150 – 5250	PASS
5240	40	120	5240.007230	5150 – 5250	PASS
5240	30	120	5240.059310	5150 – 5250	PASS
5240	20	120	5240.093082	5150 – 5250	PASS
5240	10	120	5239.915638	5150 – 5250	PASS
5240	0	120	5239.991546	5150 – 5250	PASS
5240	-10	120	5239.919800	5150 – 5250	PASS
5240	-20	120	5240.058703	5150 – 5250	PASS
5240	-30	120	5239.966771	5150 – 5250	PASS

Frequency (MHz)	Environment Temperature (Degree)	Voltage (VAC)	Measured Frequency (MHz)	Limit Range (MHz)	Test Results
5190	20	132	5190.010462	5150 – 5250	PASS
5190	20	108	5189.920863	5150 – 5250	PASS
5190	50	120	5189.982652	5150 – 5250	PASS
5190	40	120	5190.069472	5150 – 5250	PASS
5190	30	120	5189.975112	5150 – 5250	PASS
5190	20	120	5190.065484	5150 – 5250	PASS
5190	10	120	5190.015044	5150 – 5250	PASS
5190	0	120	5189.951738	5150 – 5250	PASS
5190	-10	120	5190.017209	5150 – 5250	PASS
5190	-20	120	5190.080618	5150 – 5250	PASS
5190	-30	120	5190.076539	5150 – 5250	PASS

Frequency (MHz)	Environment Temperature (Degree)	Voltage (VAC)	Measured Frequency (MHz)	Limit Range (MHz)	Test Results
5230	20	132	5229.954072	5150 – 5250	PASS
5230	20	108	5229.961649	5150 – 5250	PASS
5230	50	120	5230.062262	5150 – 5250	PASS
5230	40	120	5229.915017	5150 – 5250	PASS
5230	30	120	5229.912416	5150 – 5250	PASS
5230	20	120	5229.911470	5150 – 5250	PASS
5230	10	120	5229.997348	5150 – 5250	PASS
5230	0	120	5230.065268	5150 – 5250	PASS
5230	-10	120	5229.923752	5150 – 5250	PASS
5230	-20	120	5230.000180	5150 – 5250	PASS
5230	-30	120	5230.034437	5150 – 5250	PASS

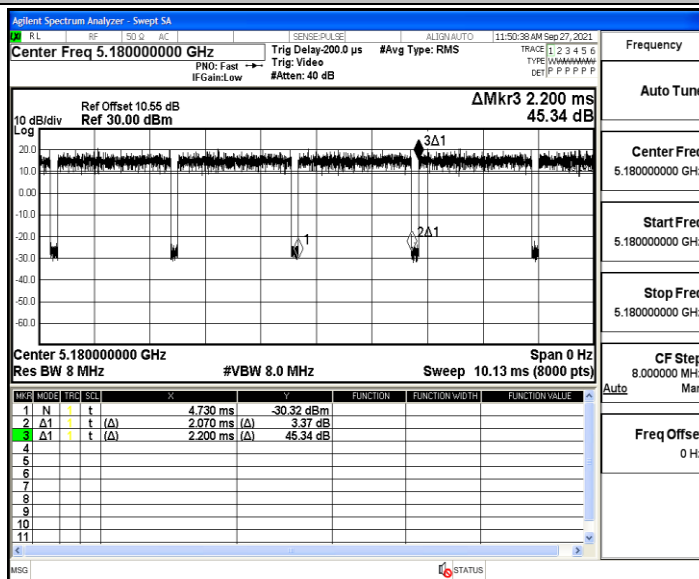
## Appendix F: Duty Cycle

### Test Result

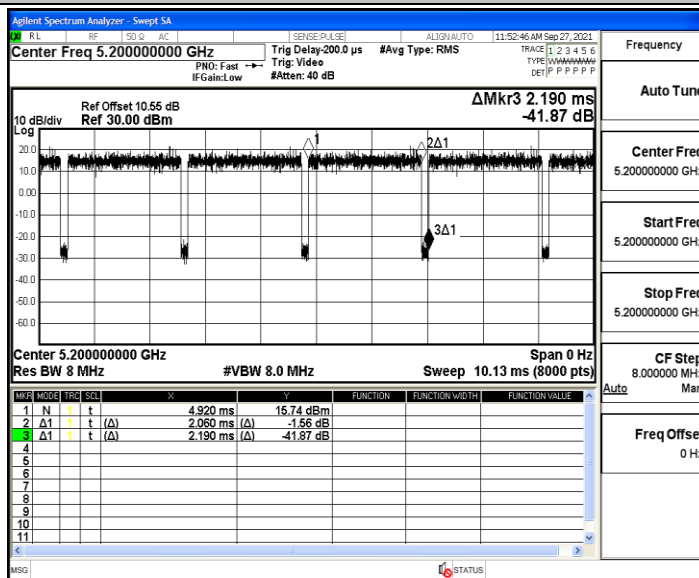
TestMode	Antenna	Channel	Transmission Duration [ms]	Transmission Period [ms]	Duty Cycle [%]	1/B [kHz]
11A	Ant1	5180	2.07	2.20	94.09	0.5
		5200	2.06	2.19	94.06	0.5
		5240	2.07	2.20	94.09	0.5
11N20SISO	Ant1	5180	1.92	2.05	93.66	0.5
		5200	1.92	2.05	93.66	0.5
		5240	1.92	2.05	93.66	0.5
11N40SISO	Ant1	5190	0.94	1.07	87.85	1.1
		5230	0.94	1.07	87.85	1.1

Test Graphs

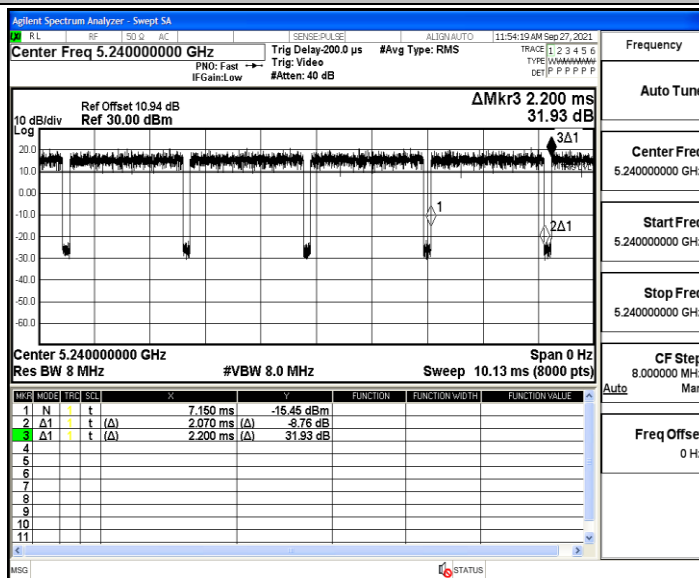
11A\_Ant1\_5180



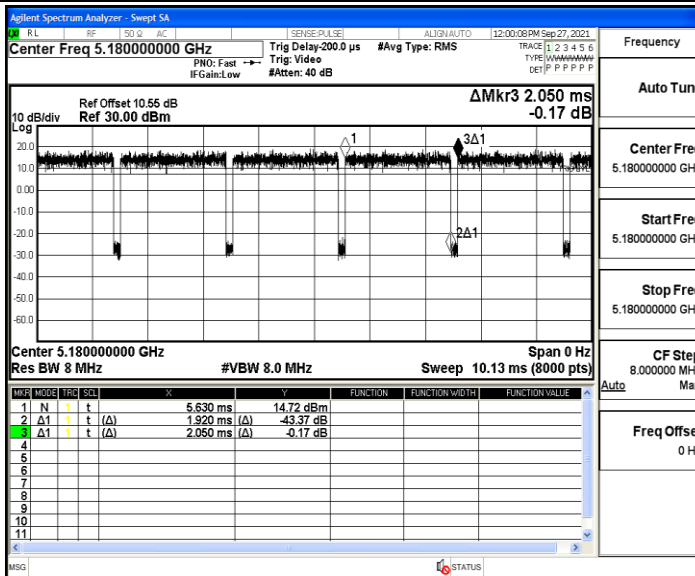
11A\_Ant1\_5200



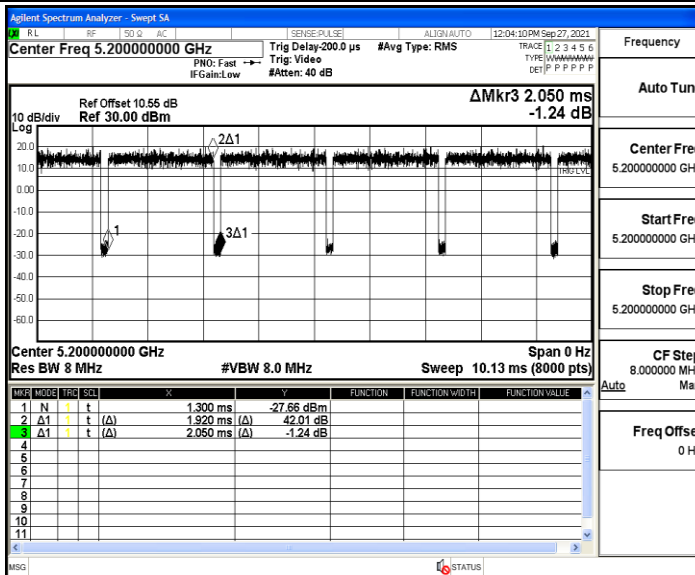
11A\_Ant1\_5240



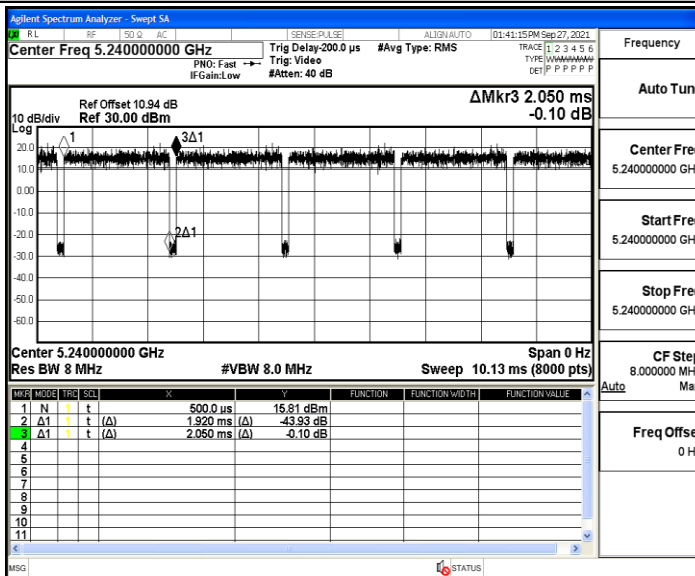
11N20SISO\_Ant1\_5180



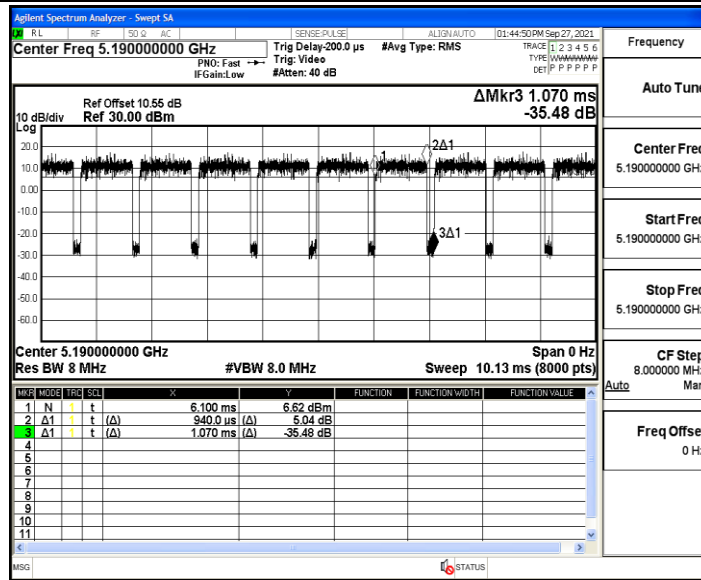
11N20SISO\_Ant1\_5200



11N20SISO\_Ant1\_5240



11N40SISO\_Ant1\_5190



11N40SISO\_Ant1\_5230

