

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

Product Name: Pro<sup>1</sup> X

Trade Mark: F

Test Model: QX-1051

FCC ID: 2AUCLQX-1050

### 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

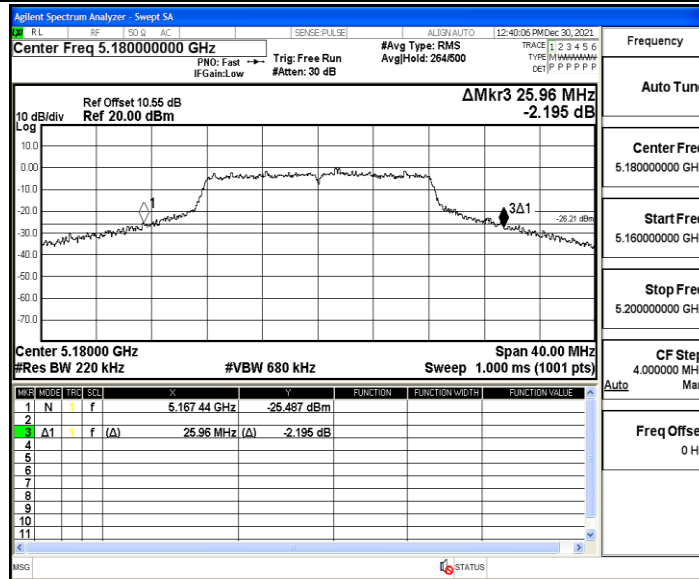
### Appendix A1: Emission Bandwidth

#### Test Result

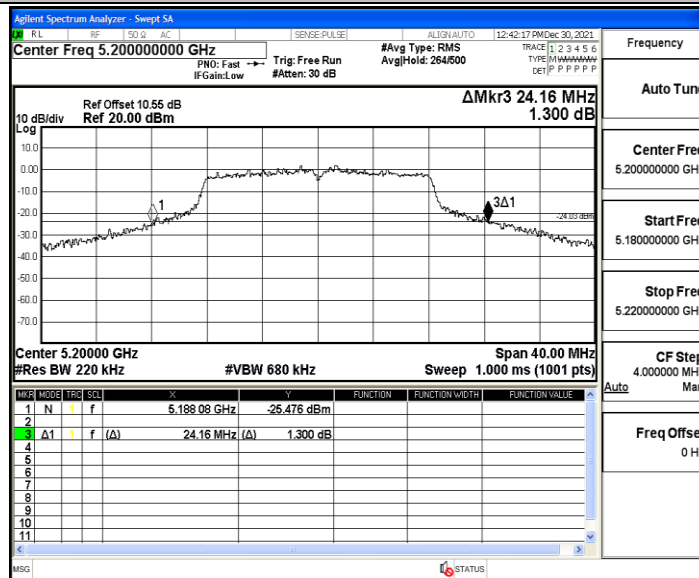
TestMode	Antenna	Channel	26db EBW [MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
11A	Ant1	5180	25.960	5167.440	5193.400	---	PASS
		5200	24.160	5188.080	5212.240	---	PASS
		5240	26.600	5227.480	5254.080	---	PASS
11N20SISO	Ant1	5180	27.720	5166.760	5194.480	---	PASS
		5200	24.840	5188.360	5213.200	---	PASS
		5240	27.200	5227.560	5254.760	---	PASS
11N40SISO	Ant1	5190	41.520	5169.600	5211.120	---	PASS
		5230	41.040	5209.760	5250.800	---	PASS
11AC20SISO	Ant1	5180	27.760	5166.360	5194.120	---	PASS
		5200	25.960	5187.280	5213.240	---	PASS
		5240	27.120	5227.640	5254.760	---	PASS
11AC40SISO	Ant1	5190	41.840	5169.520	5211.360	---	PASS
		5230	41.920	5209.600	5251.520	---	PASS
11AC80SISO	Ant1	5210	83.520	5169.520	5253.040	---	PASS

Test Graphs

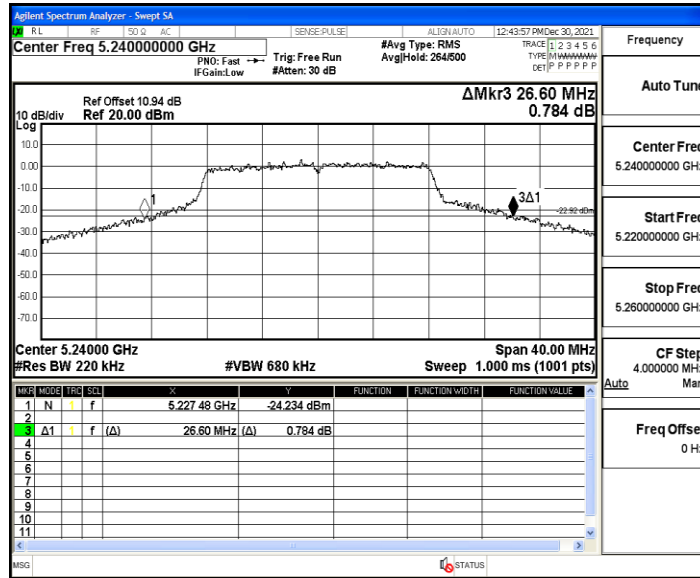
11A\_Ant1\_5180



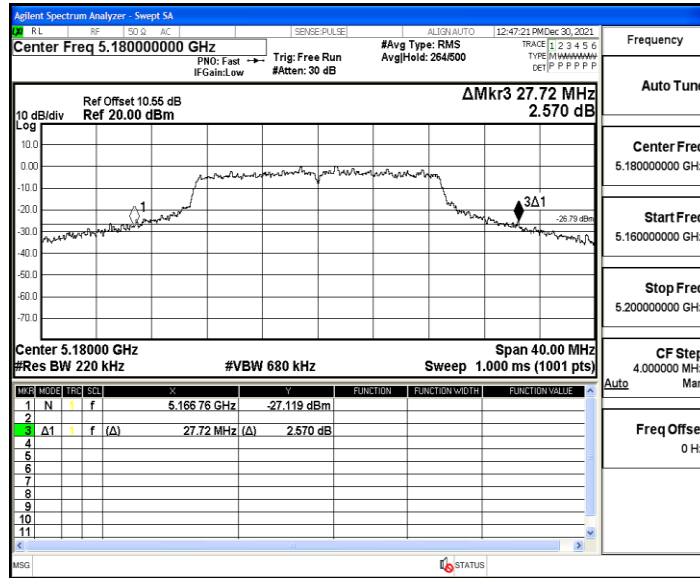
11A\_Ant1\_5200



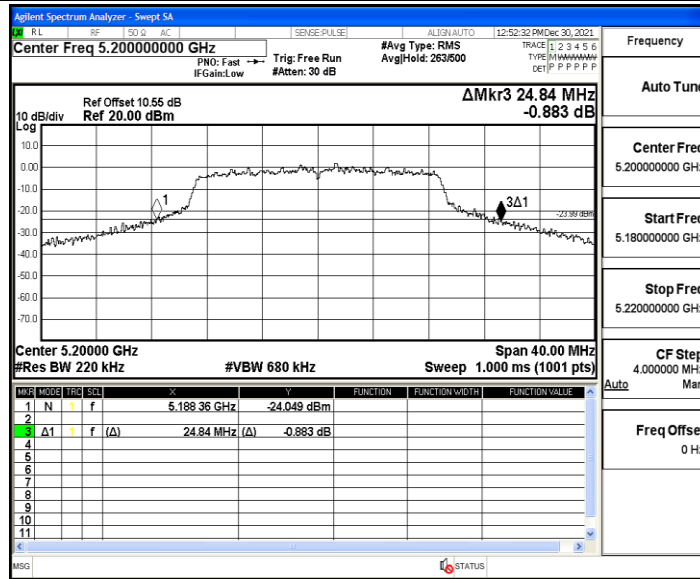
11A\_Ant1\_5240



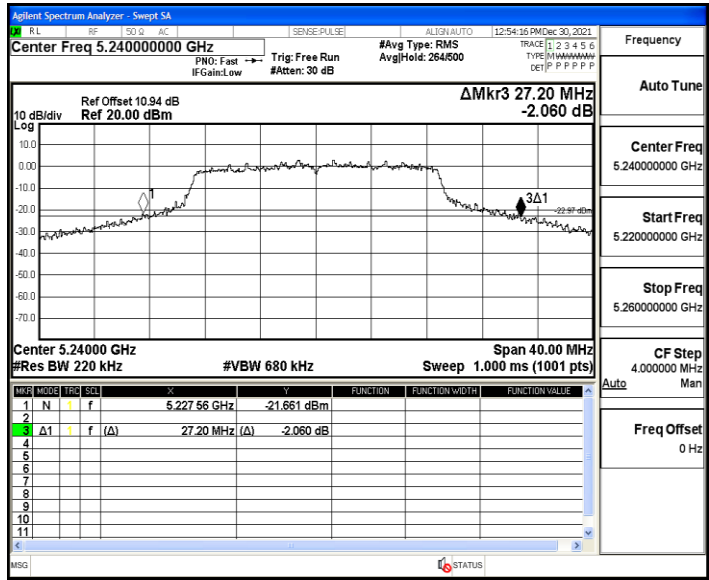
11N20SISO\_Ant1\_5180



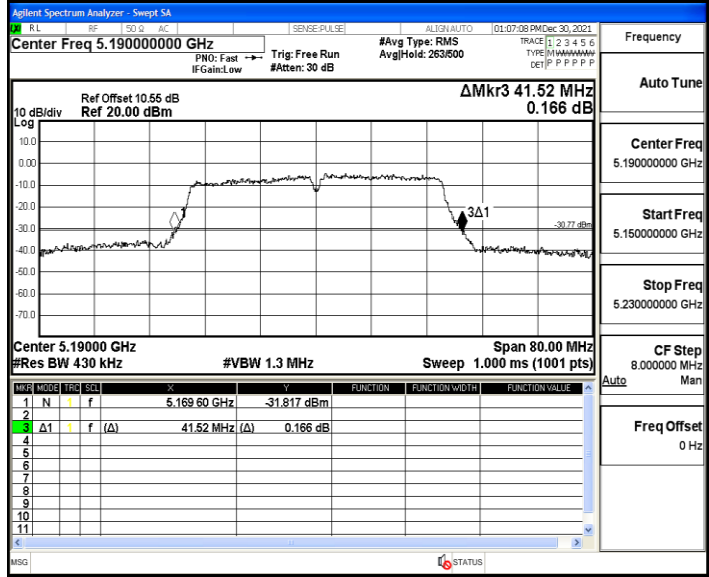
11N20SISO\_Ant1\_5200



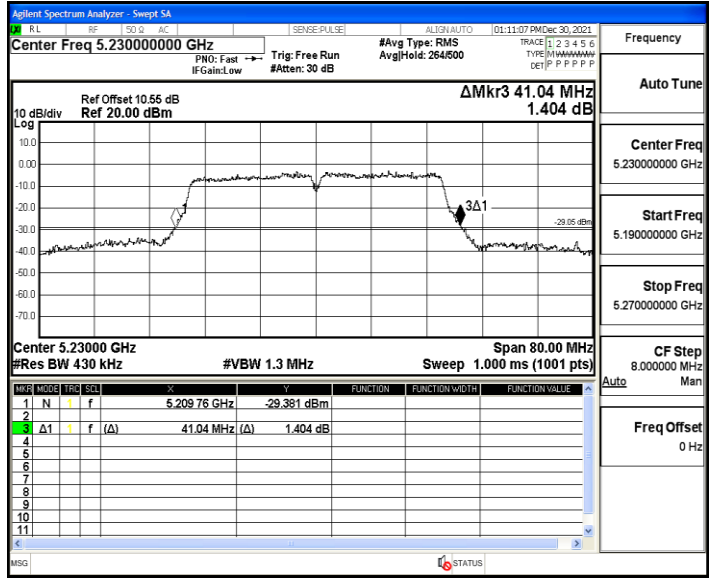
11N20SISO\_Ant1\_5240



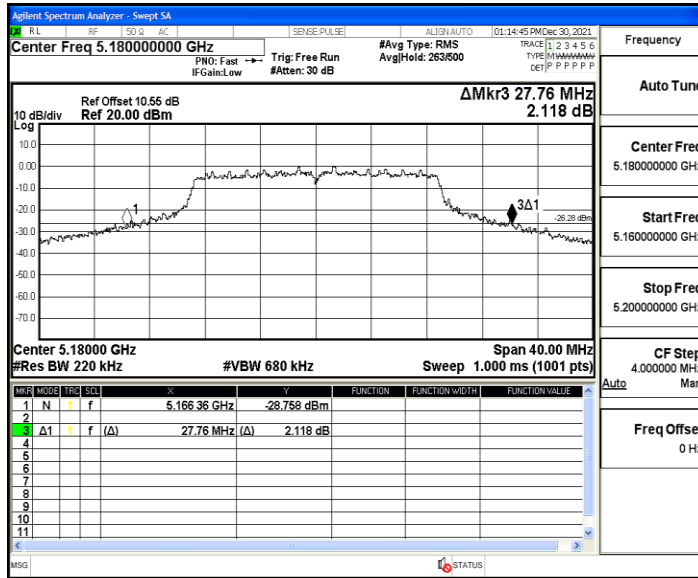
11N40SISO\_Ant1\_5190



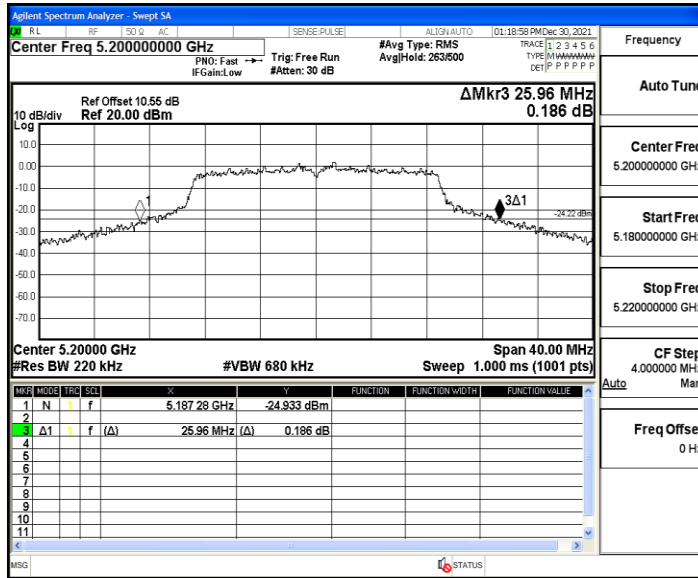
11N40SISO\_Ant1\_5230



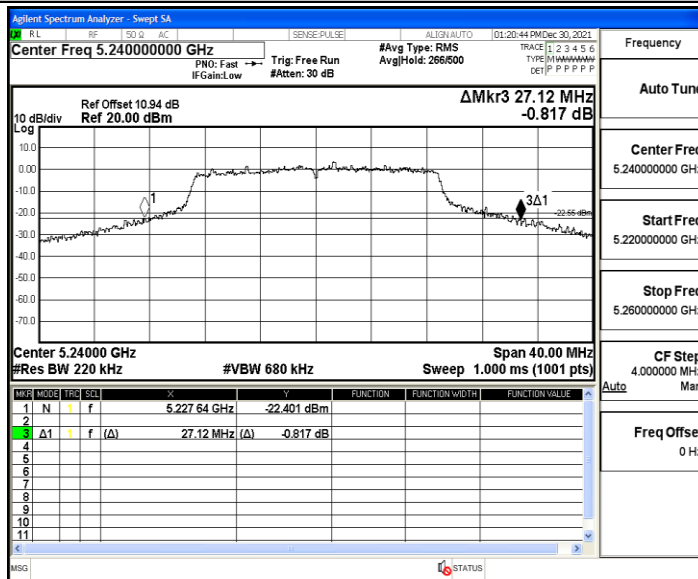
11AC20SISO\_Ant1\_5180



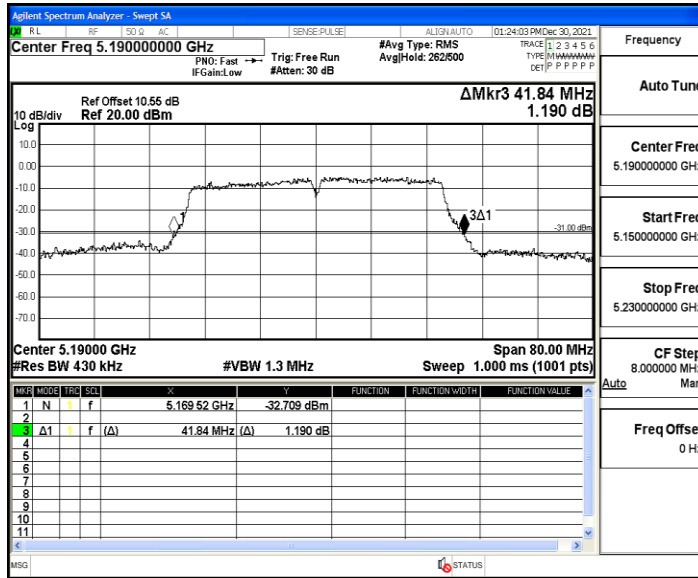
11AC20SISO\_Ant1\_5200



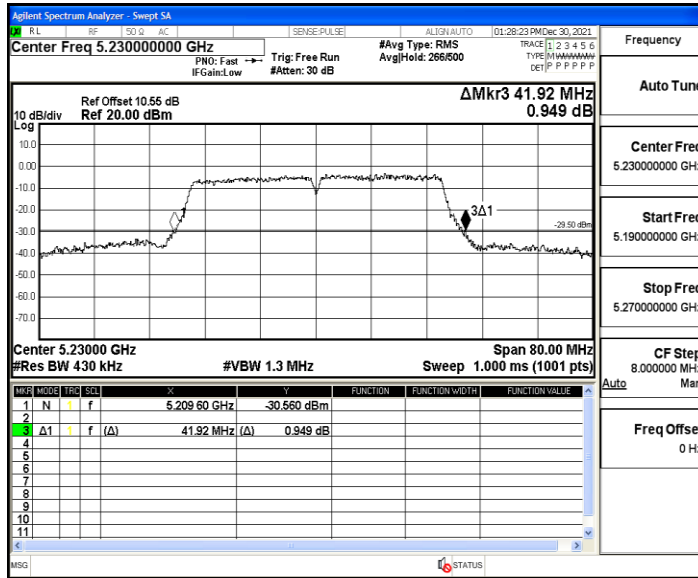
11AC20SISO\_Ant1\_5240



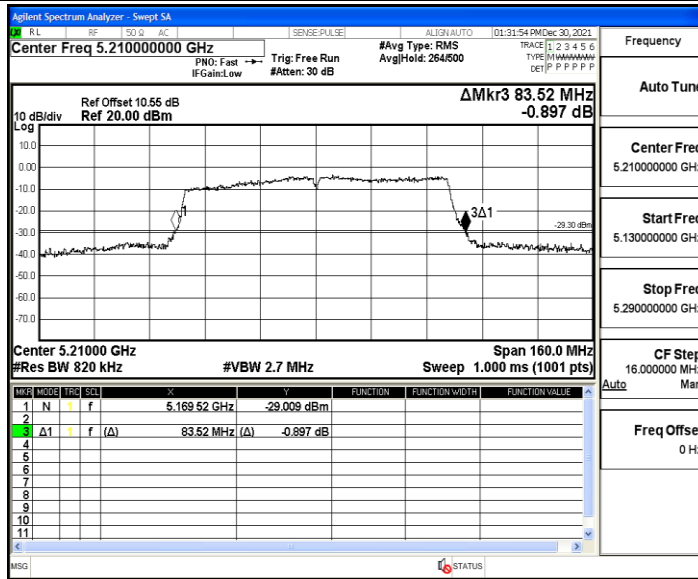
11AC40SISO\_Ant1\_5190



11AC40SISO\_Ant1\_5230



11AC80SISO\_Ant1\_5210



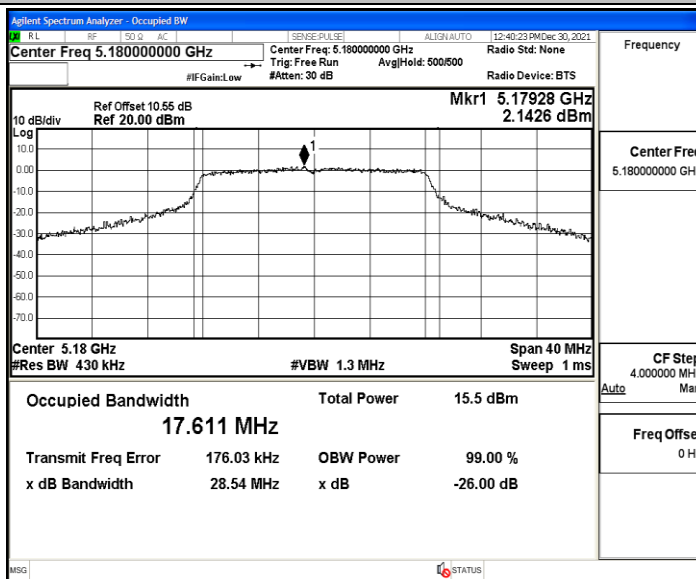
## Appendix A2: Occupied channel bandwidth

### Test Result

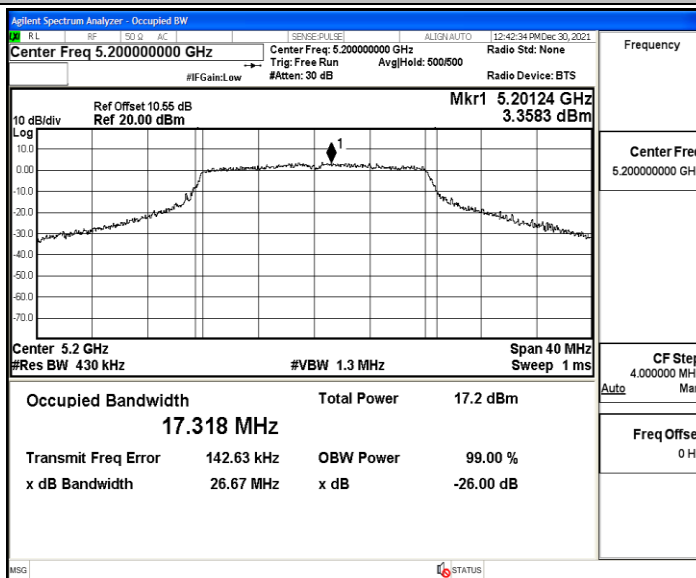
TestMode	Antenna	Channel	OCB [MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
11A	Ant1	5180	17.611	5171.371	5188.982	---	PASS
		5200	17.318	5191.484	5208.802	---	PASS
		5240	17.698	5231.490	5249.188	---	PASS
11N20SISO	Ant1	5180	18.732	5170.760	5189.492	---	PASS
		5200	18.369	5190.920	5209.289	---	PASS
		5240	18.739	5230.924	5249.663	---	PASS
11N40SISO	Ant1	5190	36.524	5171.954	5208.478	---	PASS
		5230	36.539	5211.914	5248.453	---	PASS
11AC20SISO	Ant1	5180	18.656	5170.751	5189.407	---	PASS
		5200	18.359	5190.947	5209.306	---	PASS
		5240	18.729	5230.939	5249.668	---	PASS
11AC40SISO	Ant1	5190	36.531	5171.970	5208.501	---	PASS
		5230	36.568	5211.929	5248.497	---	PASS
11AC80SISO	Ant1	5210	75.698	5172.806	5248.504	---	PASS

Test Graphs

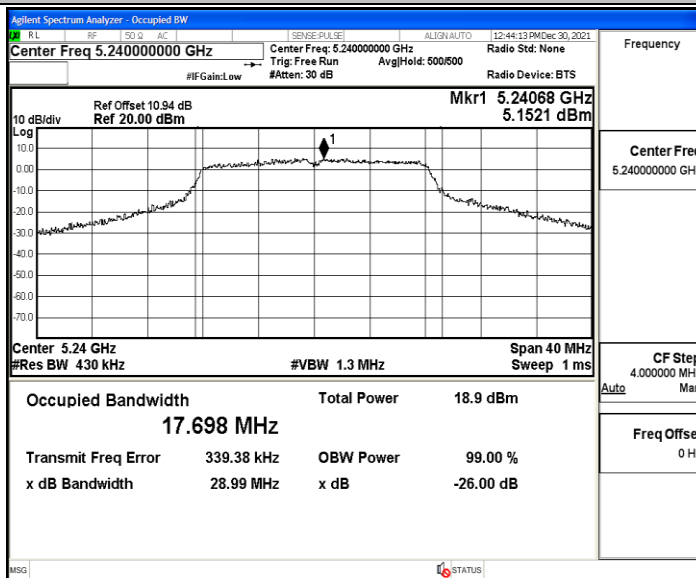
11A\_Ant1\_5180



11A\_Ant1\_5200

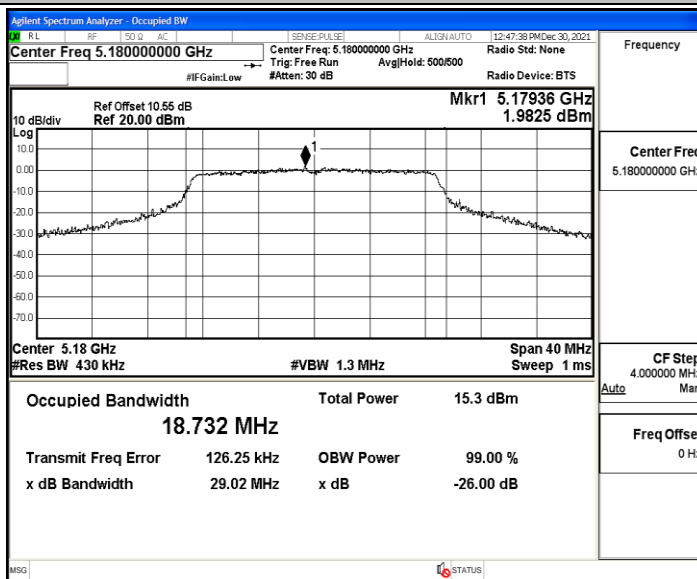


11A\_Ant1\_5240

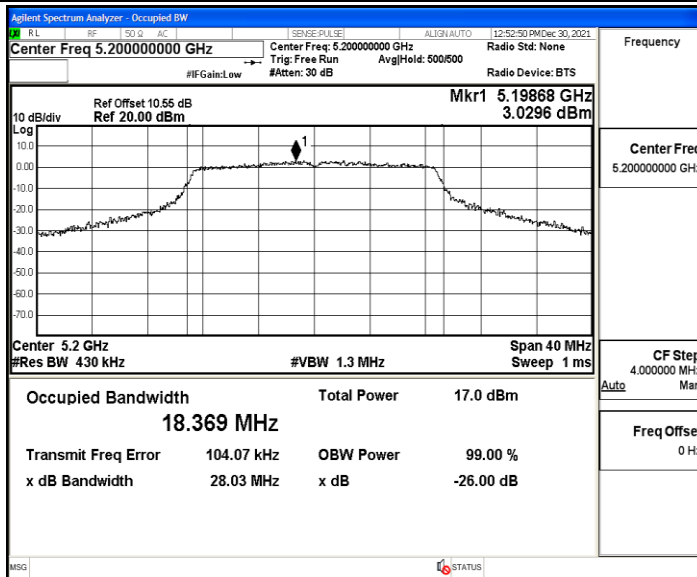




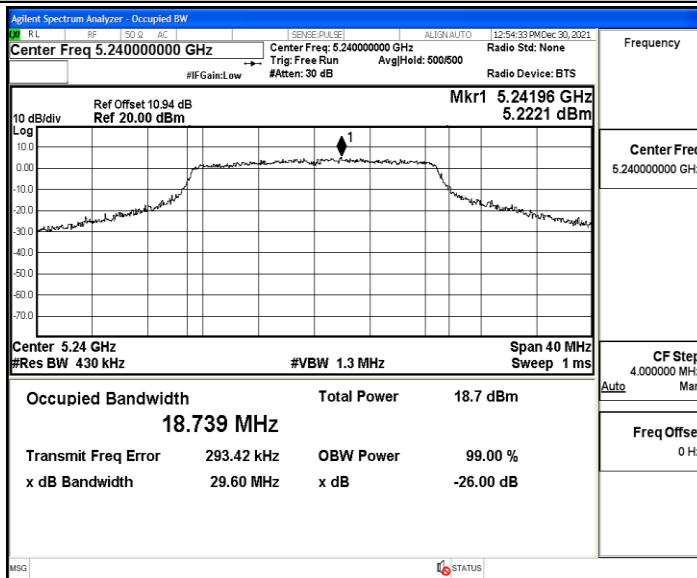
11N20SISO\_Ant1\_5180



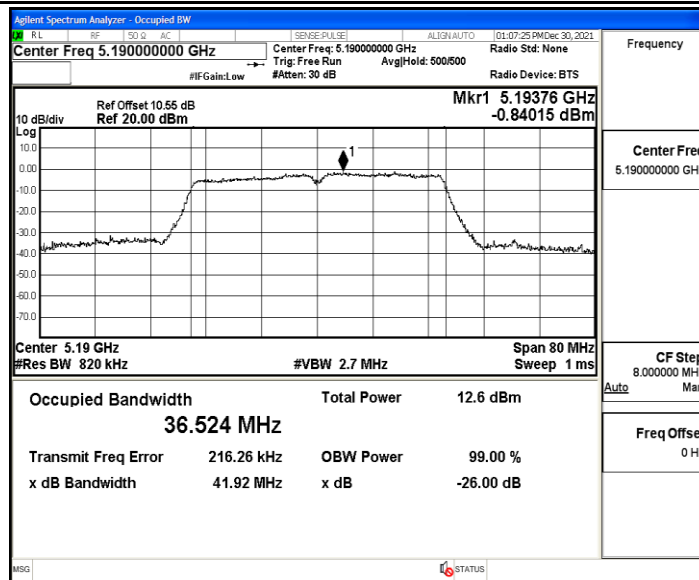
11N20SISO\_Ant1\_5200



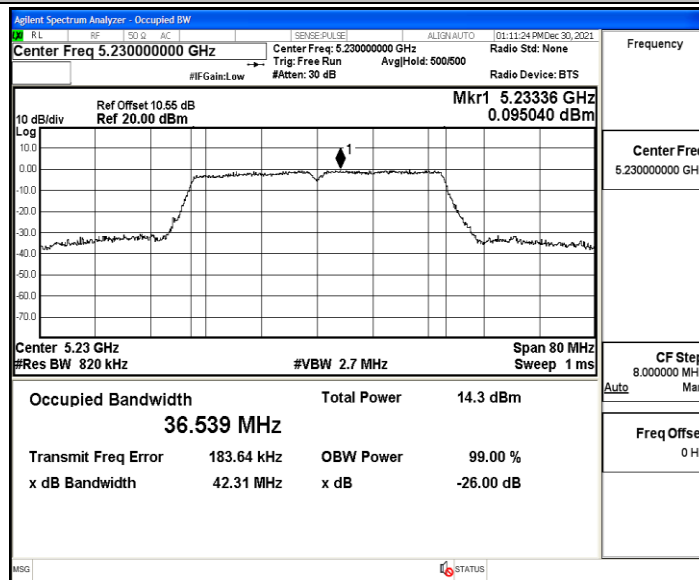
11N20SISO\_Ant1\_5240



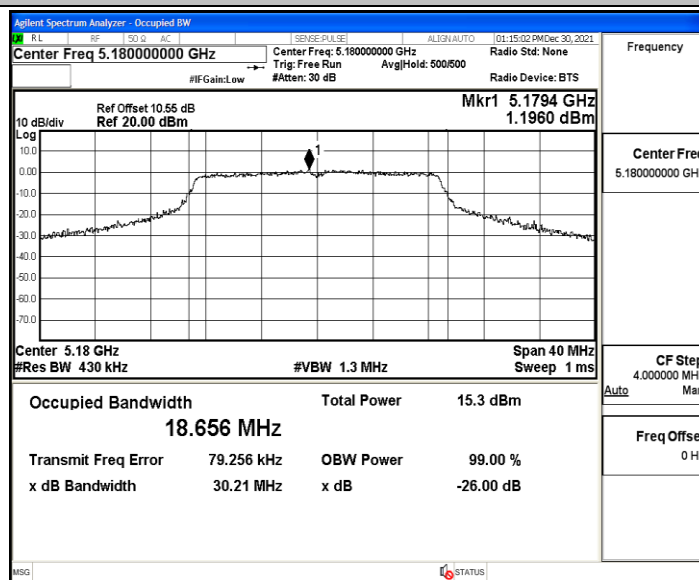
11N40SISO\_Ant1\_5190



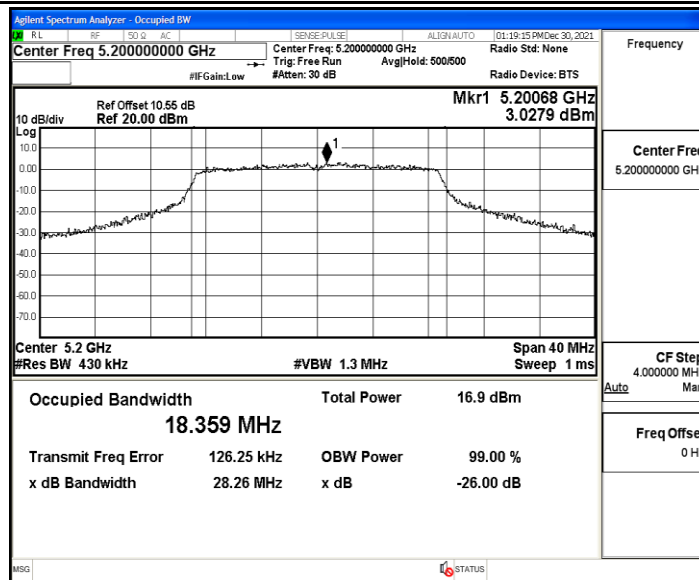
11N40SISO\_Ant1\_5230



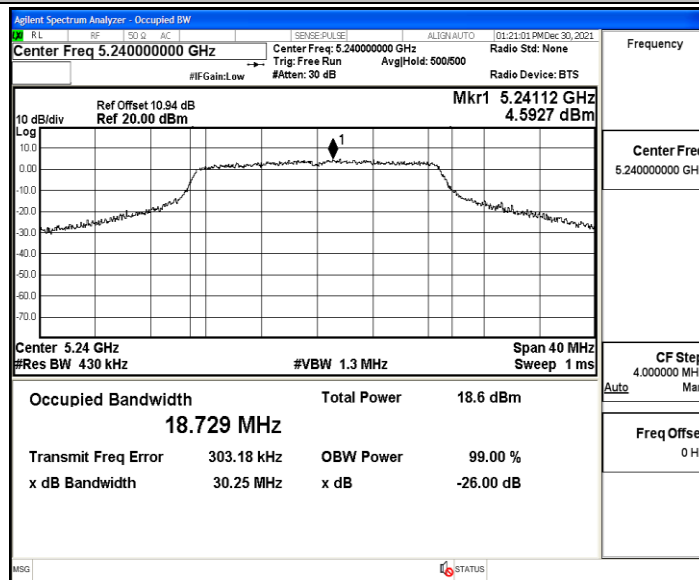
11AC20SISO\_Ant1\_5180



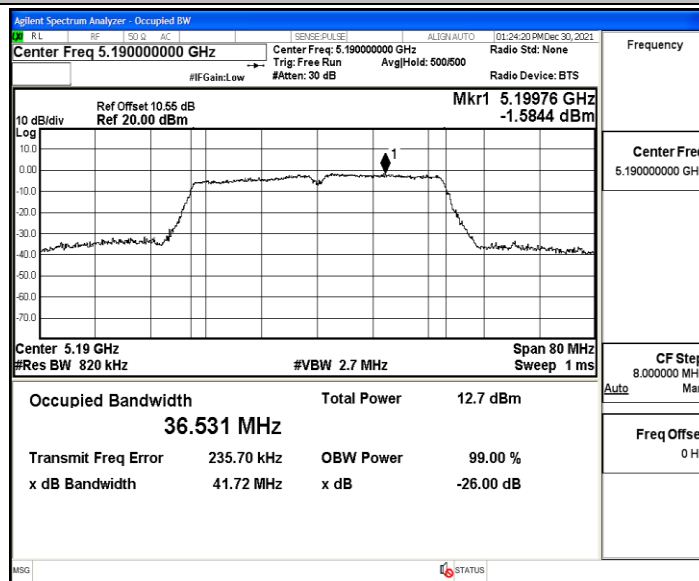
11AC20SISO\_Ant1\_5200



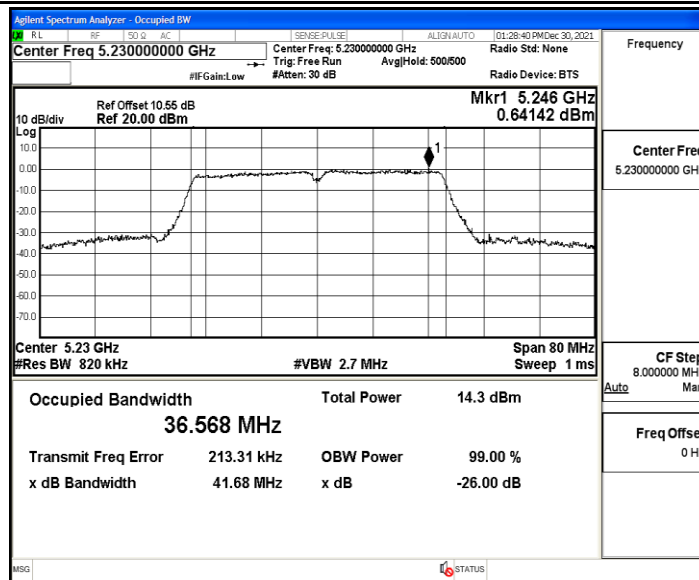
11AC20SISO\_Ant1\_5240



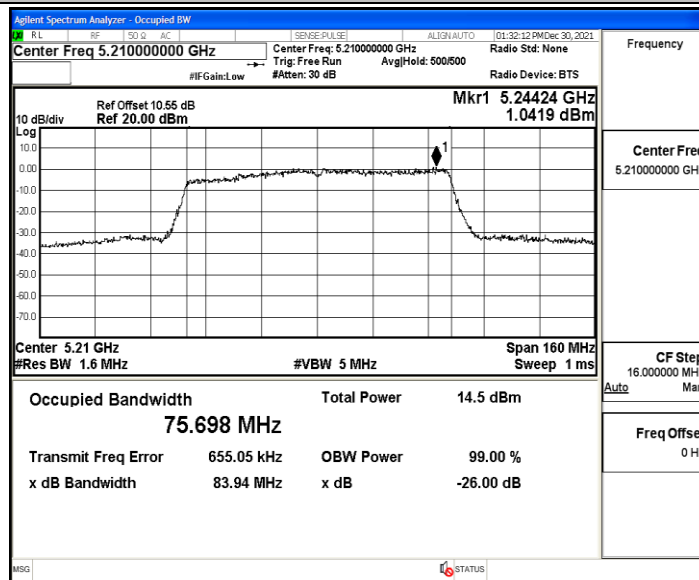
11AC40SISO\_Ant1\_5190



11AC40SISO\_Ant1\_5230



11AC80SISO\_Ant1\_5210



## Appendix B: Maximum conducted output power

### Test Result

TestMode	Antenna	Channel	Result[dBm]	Limit[dBm]	Verdict
11A	Ant1	5180	8.51	≤23.98	PASS
		5200	10.33	≤23.98	PASS
		5240	12.06	≤23.98	PASS
11N20SISO	Ant1	5180	8.39	≤23.98	PASS
		5200	10.09	≤23.98	PASS
		5240	11.84	≤23.98	PASS
11N40SISO	Ant1	5190	5.13	≤23.98	PASS
		5230	6.76	≤23.98	PASS
11AC20SISO	Ant1	5180	8.31	≤23.98	PASS
		5200	10.01	≤23.98	PASS
		5240	11.78	≤23.98	PASS
11AC40SISO	Ant1	5190	5.07	≤23.98	PASS
		5230	6.74	≤23.98	PASS
11AC80SISO	Ant1	5210	5.77	≤23.98	PASS

## Appendix C: Maximum power spectral density

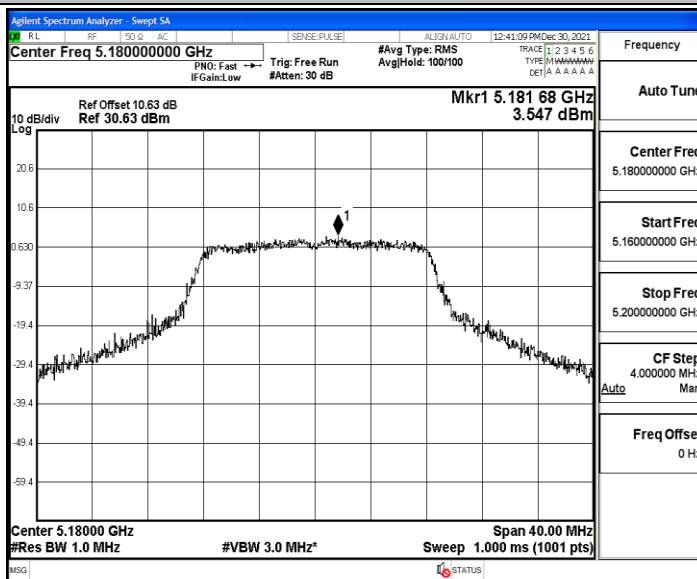
### Test Result

TestMode	Antenna	Channel	Result [dBm/MHz]	Limit[dBm/MHz]	Verdict
11A	Ant1	5180	3.55	≤11	PASS
		5200	5.75	≤11	PASS
		5240	6.9	≤11	PASS
11N20SISO	Ant1	5180	2.9	≤11	PASS
		5200	5.04	≤11	PASS
		5240	6.7	≤11	PASS
11N40SISO	Ant1	5190	-2.83	≤11	PASS
		5230	-1.78	≤11	PASS
11AC20SISO	Ant1	5180	2.87	≤11	PASS
		5200	5.05	≤11	PASS
		5240	6.39	≤11	PASS
11AC40SISO	Ant1	5190	-2.46	≤11	PASS
		5230	-1.69	≤11	PASS
11AC80SISO	Ant1	5210	-5	≤11	PASS

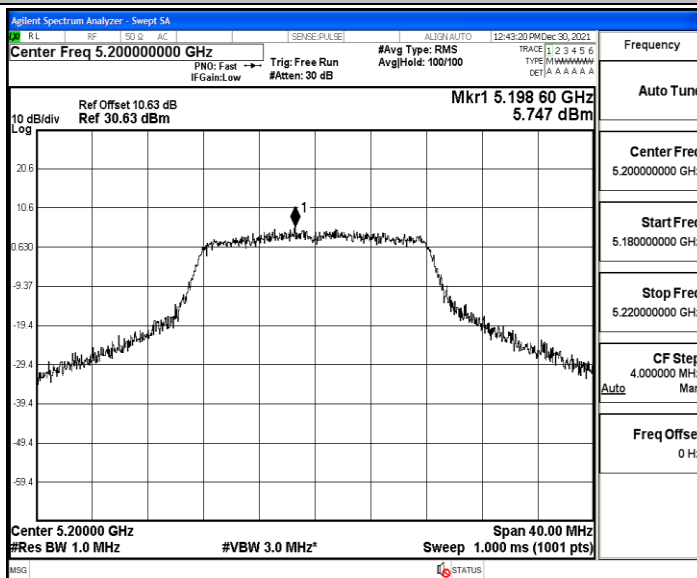
Note: 1.The Result and Limit Unit is dBm/500 kHz in the band 5.725–5.85 GHz.  
2.The Duty Cycle Factor and RBW Factor is compensated in the graph.

### Test Graphs

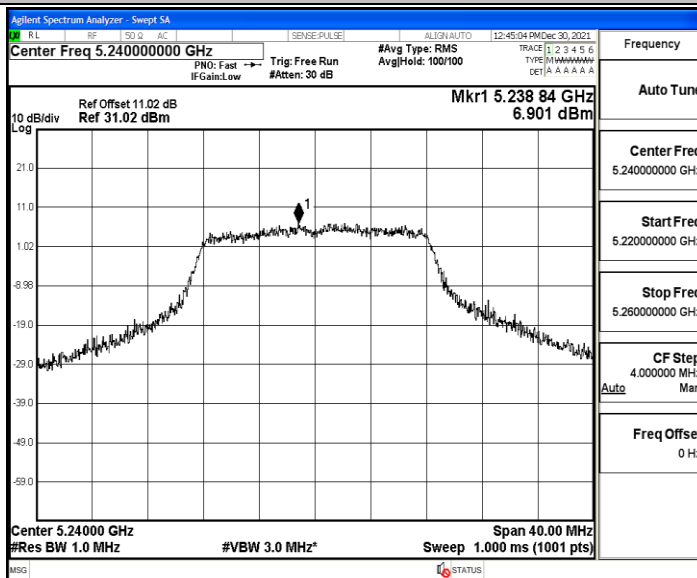
11A\_Ant1\_5180



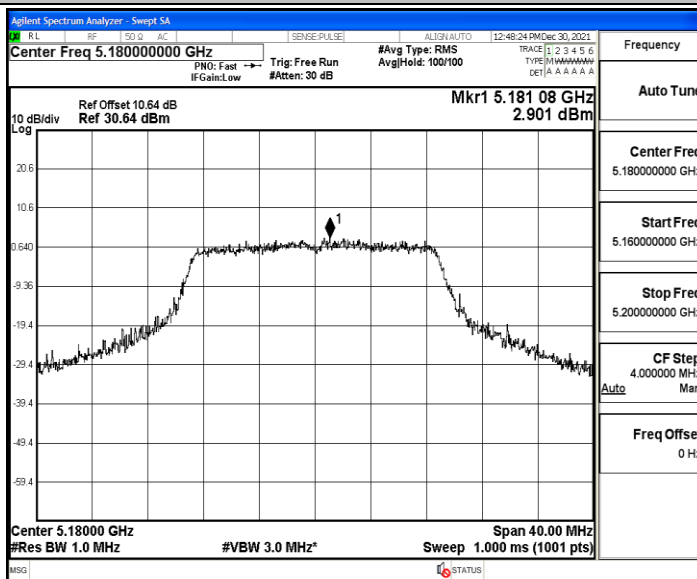
11A\_Ant1\_5200



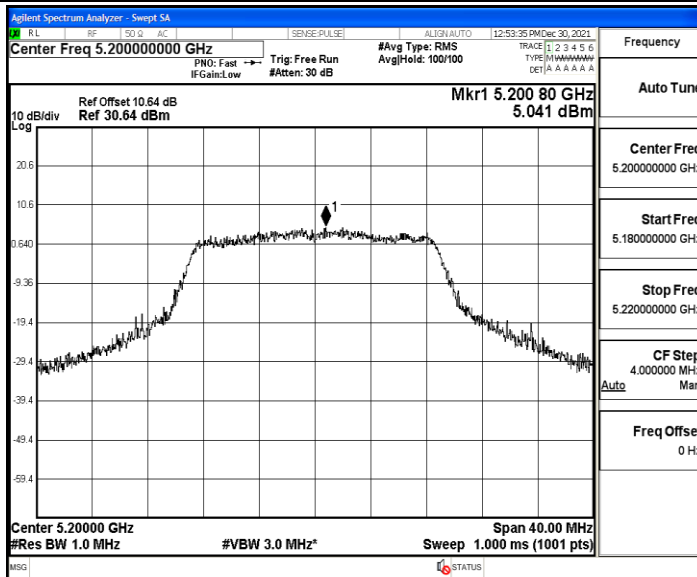
11A\_Ant1\_5240



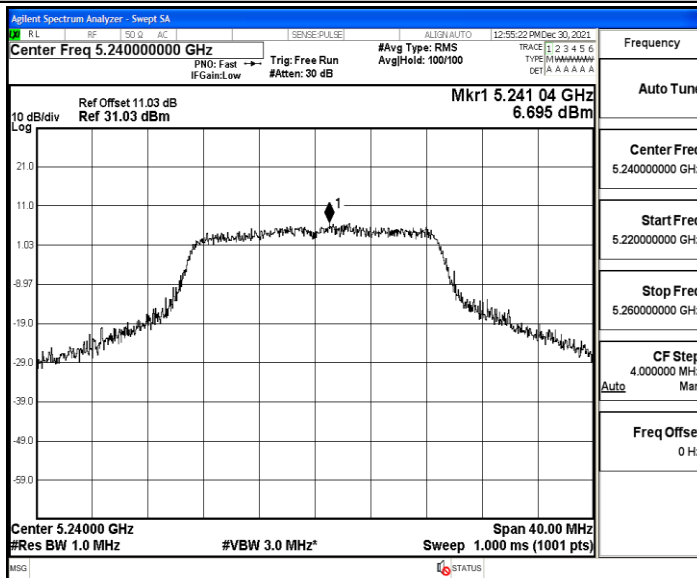
11N20SISO\_Ant1\_5180



11N20SISO\_Ant1\_5200

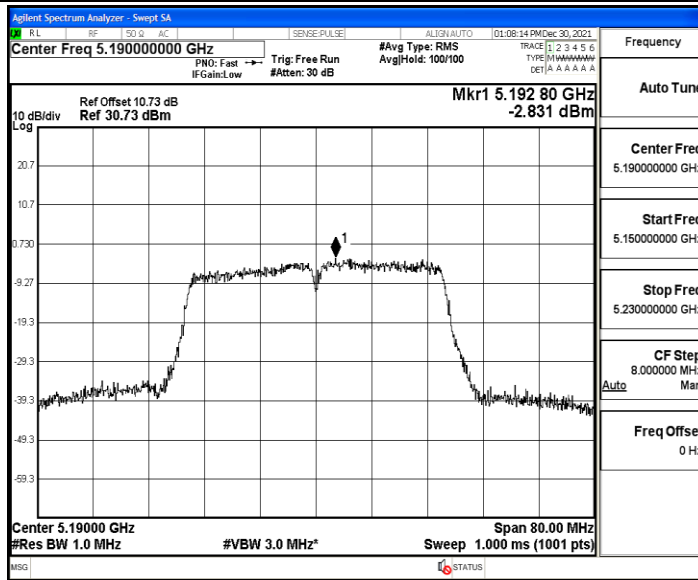


11N20SISO\_Ant1\_5240

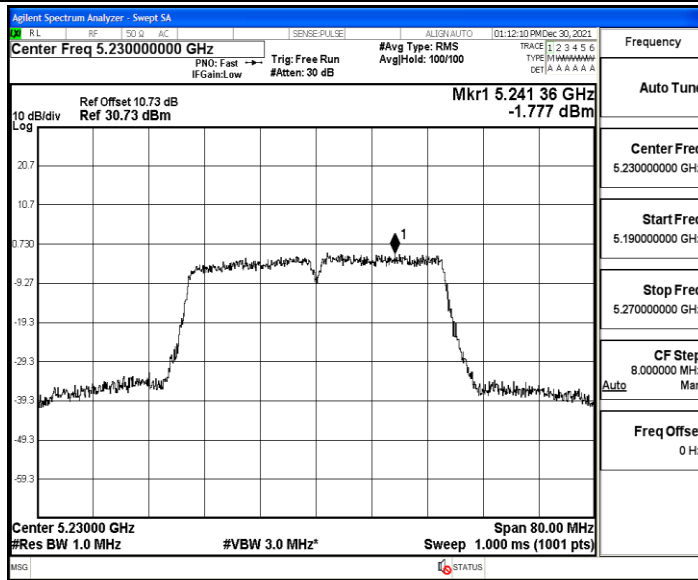


11N40SISO\_Ant1\_5190

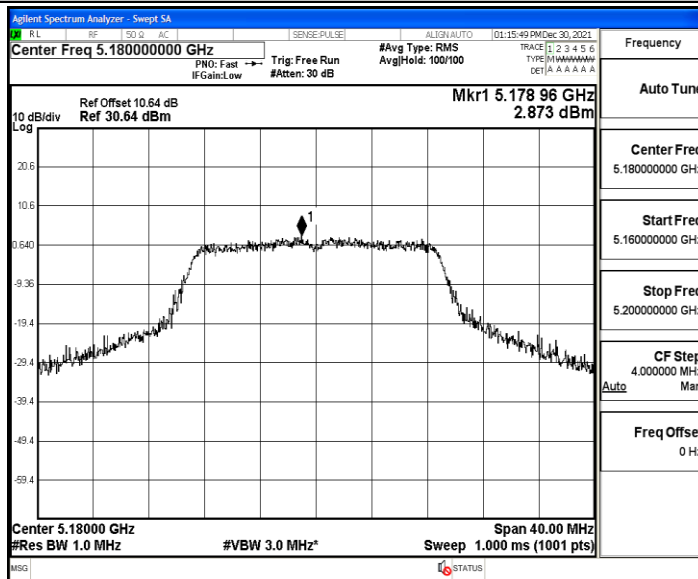




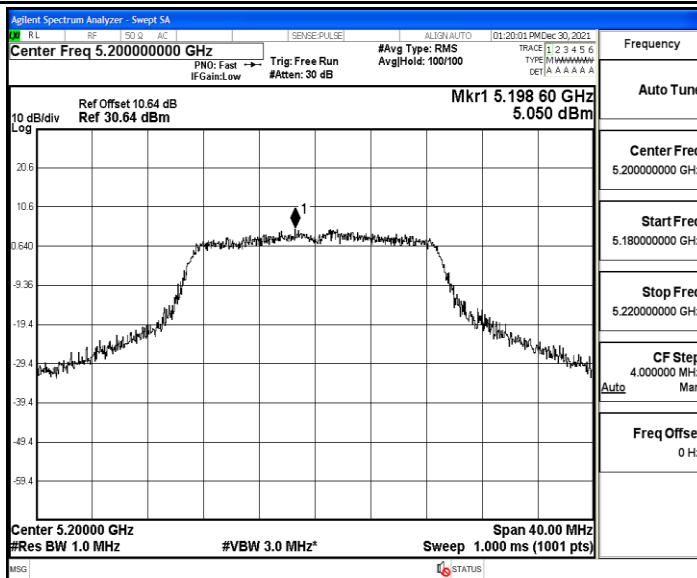
11N40SISO\_Ant1\_5230



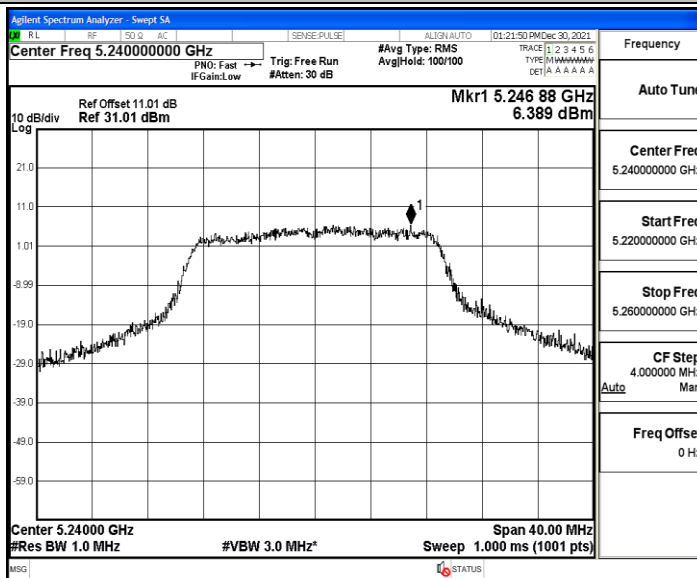
11AC20SISO\_Ant1\_5180



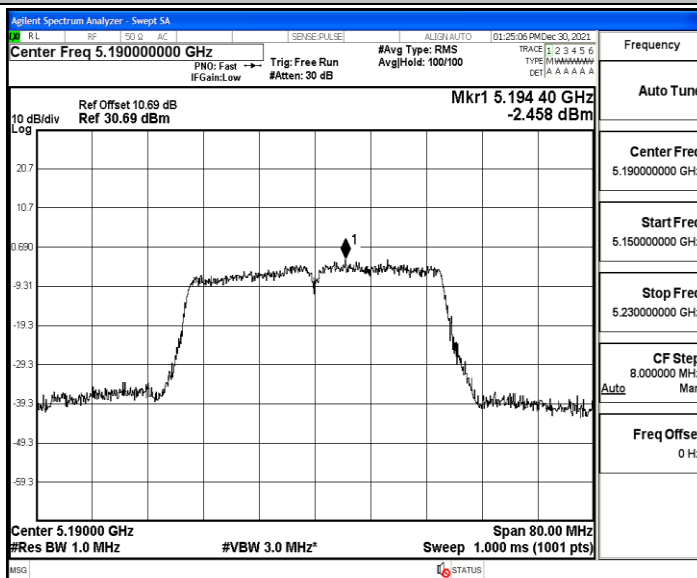
11AC20SISO\_Ant1\_5200



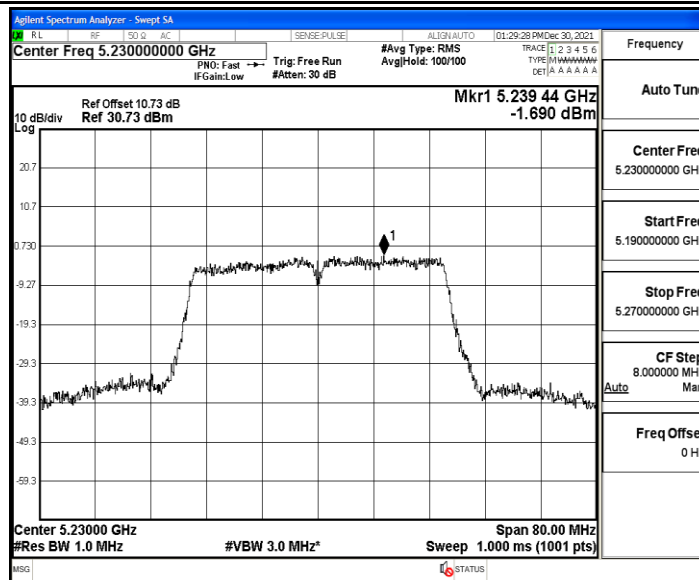
11AC20SISO\_Ant1\_5240



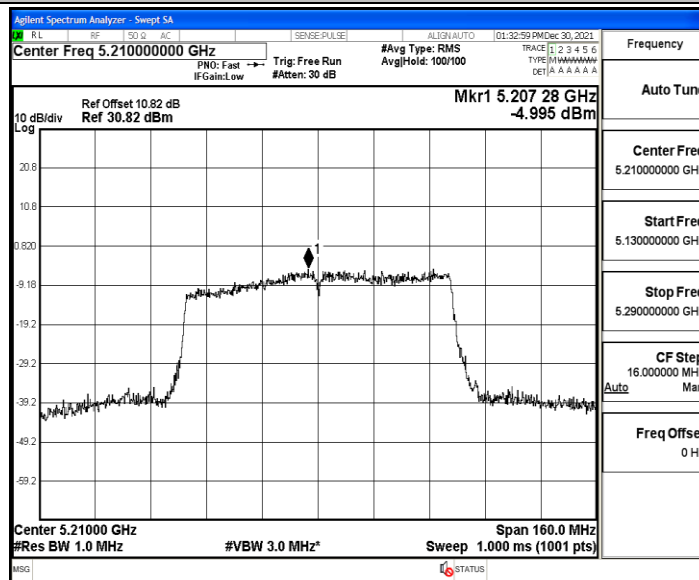
11AC40SISO\_Ant1\_5190



11AC40SISO\_Ant1\_5230



11AC80SISO\_Ant1\_5210



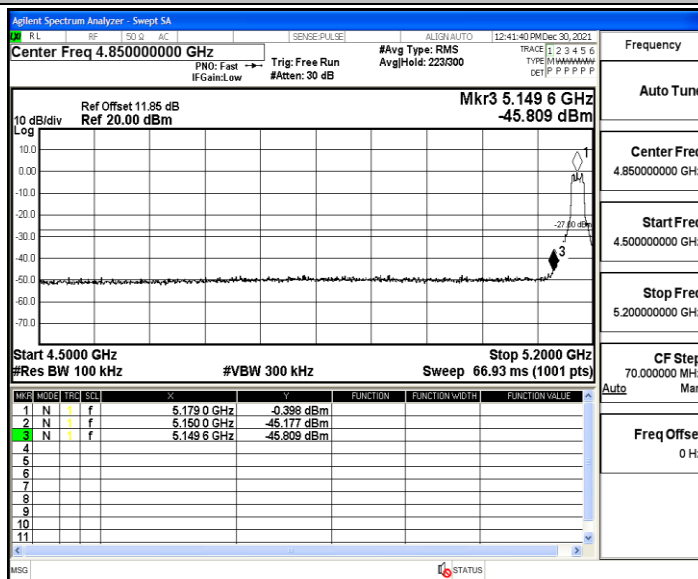
## Appendix D: Band edge measurements

### Test Result

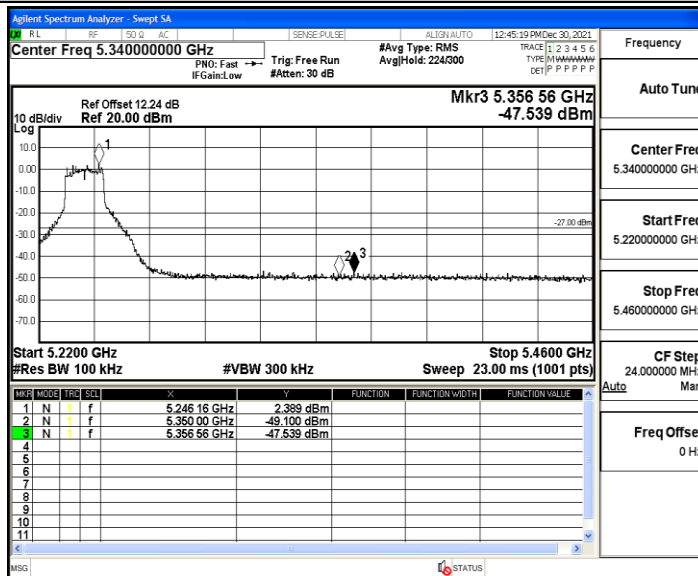
TestMode	Antenna	ChName	Channel	Result[dBm]	Limit[dBm]	Verdict
11A	Ant1	Low	5180	-45.81	$\leq -27$	PASS
		High	5240	-47.54	$\leq -27$	PASS
11N20SISO	Ant1	Low	5180	-45.52	$\leq -27$	PASS
		High	5240	-47.33	$\leq -27$	PASS
11N40SISO	Ant1	Low	5190	-43.33	$\leq -27$	PASS
		High	5230	-48.07	$\leq -27$	PASS
11AC20SISO	Ant1	Low	5180	-46.13	$\leq -27$	PASS
		High	5240	-46.94	$\leq -27$	PASS
11AC40SISO	Ant1	Low	5190	-42.29	$\leq -27$	PASS
		High	5230	-46.43	$\leq -27$	PASS
11AC80SISO	Ant1	Low	5210	-41.9	$\leq -27$	PASS
		High	5210	-47.88	$\leq -27$	PASS

Test Graphs

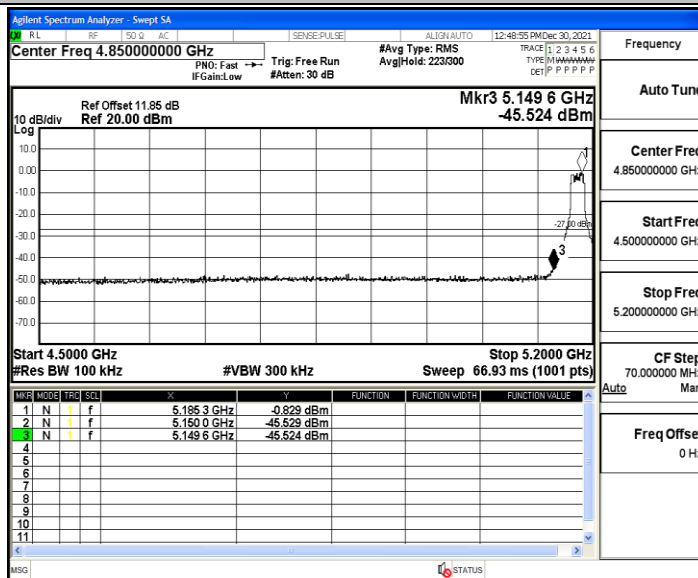
11A\_Ant1\_Low\_5180



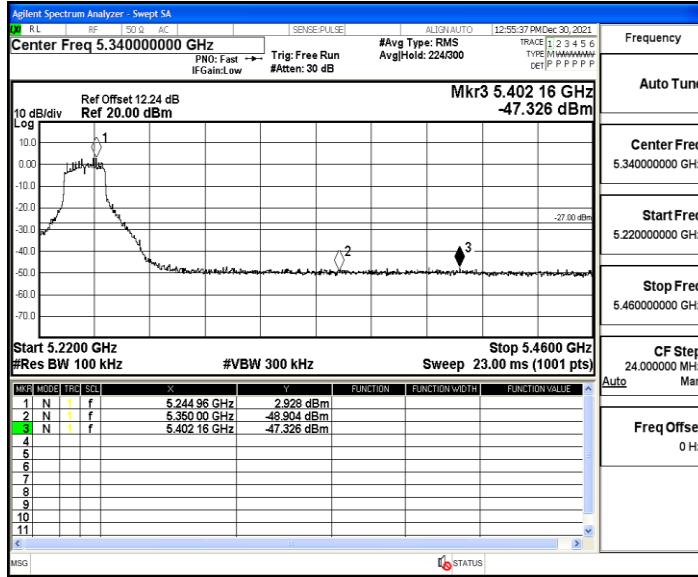
11A\_Ant1\_High\_5240



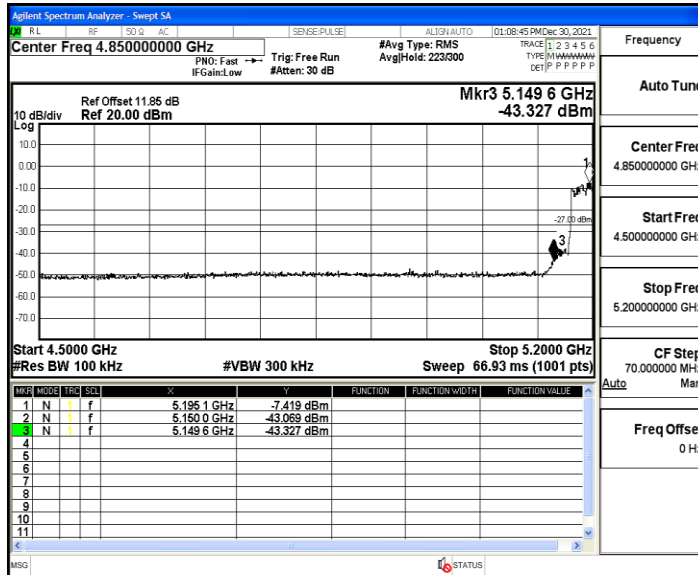
11N20SISO Ant1\_Low 5180



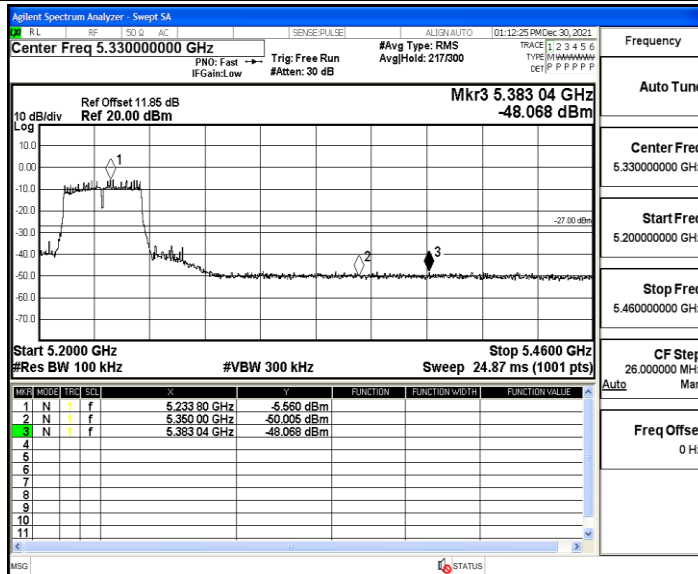
11N20SISO\_Ant1\_High\_5240



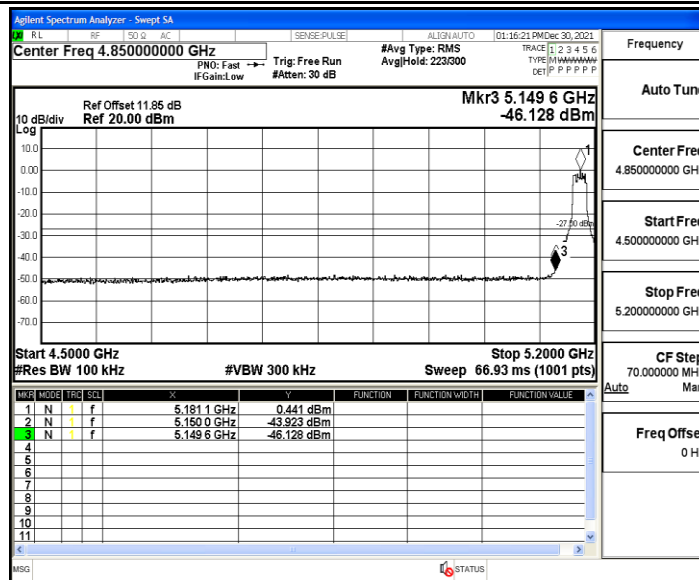
11N40SISO\_Ant1\_Low\_5190



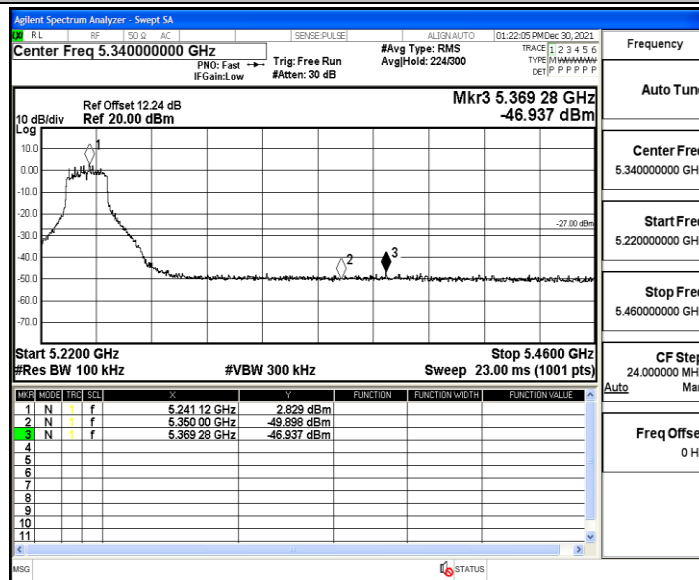
11N40SISO\_Ant1\_High\_5230



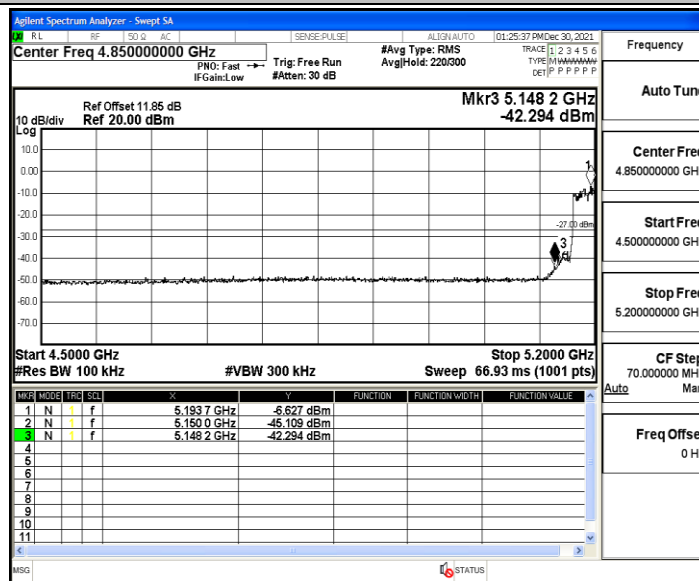
11AC20SISO\_Ant1\_Low\_5180



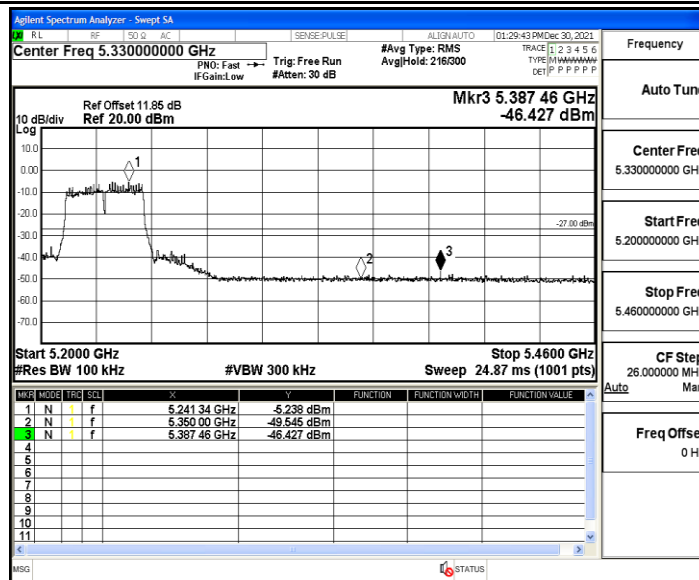
11AC20SISO\_Ant1\_High\_5240



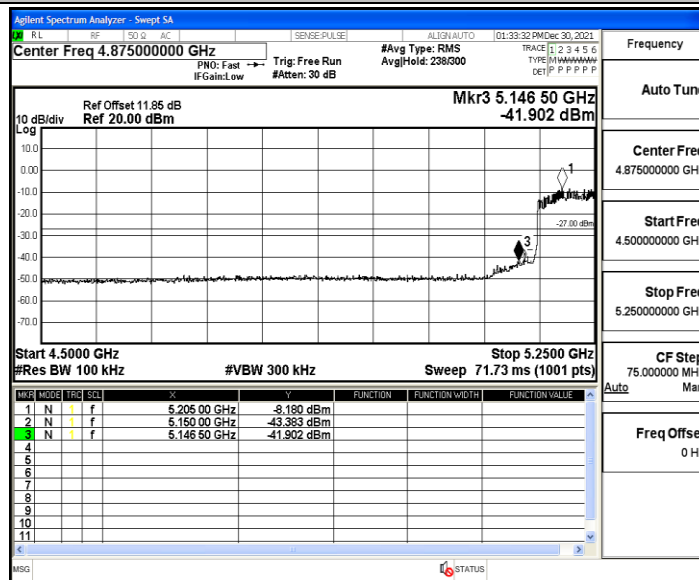
11AC40SISO\_Ant1\_Low\_5190



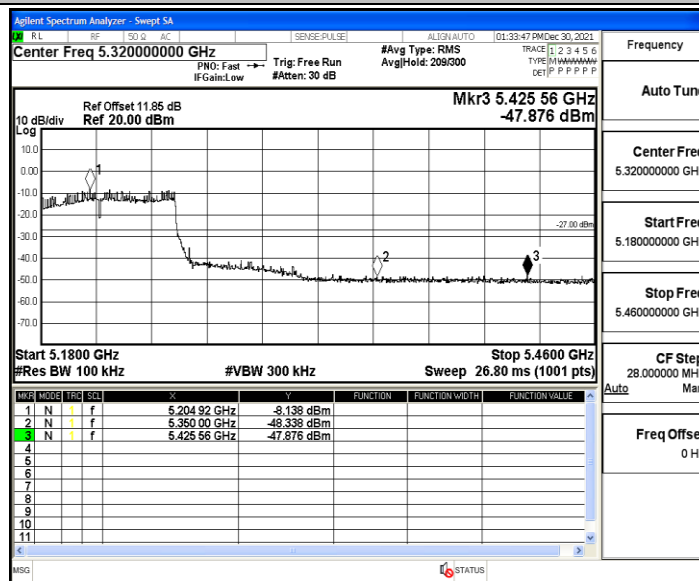
11AC40SISO\_Ant1\_High\_5230



11AC80SISO\_Ant1\_Low\_5210



11AC80SISO\_Ant1\_High\_5210





## Appendix E: Frequency Stability

### Test Result

Frequency (MHz)	Environment Temperature (Degree)	Voltage (VAC)	Measured Frequency (MHz)	Limit Range (MHz)	Test Results
5180	20	132	5179.967625	5150 – 5250	PASS
5180	20	108	5179.972590	5150 – 5250	PASS
5180	50	120	5179.989693	5150 – 5250	PASS
5180	40	120	5180.082718	5150 – 5250	PASS
5180	30	120	5180.084506	5150 – 5250	PASS
5180	20	120	5179.911941	5150 – 5250	PASS
5180	10	120	5179.940784	5150 – 5250	PASS
5180	0	120	5180.053766	5150 – 5250	PASS
5180	-10	120	5180.000981	5150 – 5250	PASS
5180	-20	120	5180.067586	5150 – 5250	PASS
5180	-30	120	5180.078574	5150 – 5250	PASS

Frequency (MHz)	Environment Temperature (Degree)	Voltage (VAC)	Measured Frequency (MHz)	Limit Range (MHz)	Test Results
5200	20	132	5200.085710	5150 – 5250	PASS
5200	20	108	5199.960686	5150 – 5250	PASS
5200	50	120	5199.913730	5150 – 5250	PASS
5200	40	120	5200.072611	5150 – 5250	PASS
5200	30	120	5199.986544	5150 – 5250	PASS
5200	20	120	5199.956019	5150 – 5250	PASS
5200	10	120	5199.917379	5150 – 5250	PASS
5200	0	120	5200.065679	5150 – 5250	PASS
5200	-10	120	5200.079765	5150 – 5250	PASS
5200	-20	120	5199.913253	5150 – 5250	PASS
5200	-30	120	5199.913255	5150 – 5250	PASS

Frequency (MHz)	Environment Temperature (Degree)	Voltage (VAC)	Measured Frequency (MHz)	Limit Range (MHz)	Test Results
5240	20	132	5240.069850	5150 – 5250	PASS
5240	20	108	5240.075289	5150 – 5250	PASS
5240	50	120	5240.020742	5150 – 5250	PASS
5240	40	120	5239.919912	5150 – 5250	PASS
5240	30	120	5240.057048	5150 – 5250	PASS
5240	20	120	5240.002772	5150 – 5250	PASS
5240	10	120	5239.936433	5150 – 5250	PASS
5240	0	120	5240.092808	5150 – 5250	PASS
5240	-10	120	5240.016293	5150 – 5250	PASS
5240	-20	120	5239.911436	5150 – 5250	PASS
5240	-30	120	5240.068900	5150 – 5250	PASS

Frequency (MHz)	Environment Temperature (Degree)	Voltage (VAC)	Measured Frequency (MHz)	Limit Range (MHz)	Test Results
5190	20	132	5190.023870	5150 – 5250	PASS
5190	20	108	5190.073035	5150 – 5250	PASS
5190	50	120	5190.033854	5150 – 5250	PASS
5190	40	120	5189.919580	5150 – 5250	PASS
5190	30	120	5190.016423	5150 – 5250	PASS
5190	20	120	5189.904904	5150 – 5250	PASS
5190	10	120	5190.037568	5150 – 5250	PASS
5190	0	120	5189.972564	5150 – 5250	PASS
5190	-10	120	5190.026117	5150 – 5250	PASS
5190	-20	120	5189.963379	5150 – 5250	PASS
5190	-30	120	5190.030647	5150 – 5250	PASS

Frequency (MHz)	Environment Temperature (Degree)	Voltage (VAC)	Measured Frequency (MHz)	Limit Range (MHz)	Test Results
5230	20	132	5229.953928	5150 – 5250	PASS
5230	20	108	5230.065888	5150 – 5250	PASS
5230	50	120	5230.033758	5150 – 5250	PASS
5230	40	120	5230.025625	5150 – 5250	PASS
5230	30	120	5229.968345	5150 – 5250	PASS
5230	20	120	5230.067510	5150 – 5250	PASS
5230	10	120	5230.011083	5150 – 5250	PASS
5230	0	120	5229.976672	5150 – 5250	PASS
5230	-10	120	5230.031467	5150 – 5250	PASS
5230	-20	120	5229.959498	5150 – 5250	PASS
5230	-30	120	5230.000305	5150 – 5250	PASS

Frequency (MHz)	Environment Temperature (Degree)	Voltage (VAC)	Measured Frequency (MHz)	Limit Range (MHz)	Test Results
5210	20	132	5209.916946	5150 – 5250	PASS
5210	20	108	5209.981996	5150 – 5250	PASS
5210	50	120	5210.037468	5150 – 5250	PASS
5210	40	120	5209.949147	5150 – 5250	PASS
5210	30	120	5210.053078	5150 – 5250	PASS
5210	20	120	5209.913767	5150 – 5250	PASS
5210	10	120	5210.034501	5150 – 5250	PASS
5210	0	120	5210.050818	5150 – 5250	PASS
5210	-10	120	5209.923588	5150 – 5250	PASS
5210	-20	120	5209.932283	5150 – 5250	PASS
5210	-30	120	5210.009487	5150 – 5250	PASS

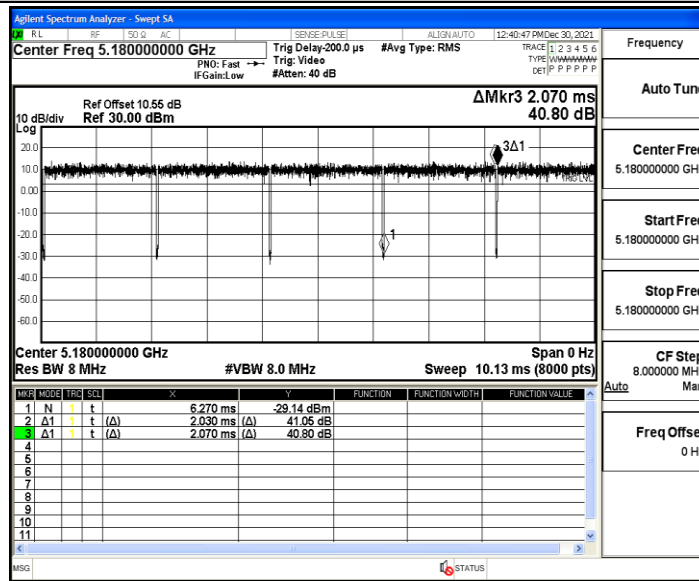
## Appendix F: Duty Cycle

### Test Result

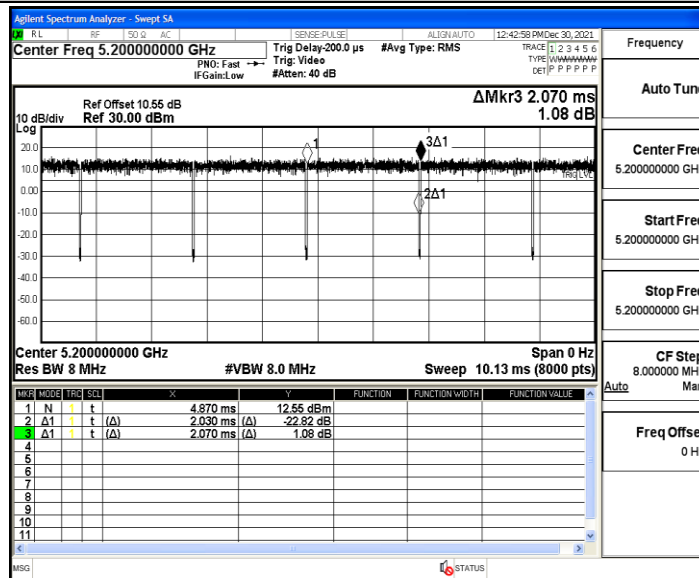
TestMode	Antenna	Channel	Transmission Duration [ms]	Transmission Period [ms]	Duty Cycle [%]	1/T
11A	Ant1	5180	2.03	2.07	98.07	0.49
		5200	2.03	2.07	98.07	0.49
		5240	2.03	2.07	98.07	0.49
11N20SISO	Ant1	5180	1.89	1.93	97.93	0.53
		5200	1.88	1.92	97.92	0.53
		5240	1.88	1.92	97.92	0.53
11N40SISO	Ant1	5190	0.93	0.97	95.88	1.08
		5230	0.93	0.97	95.88	1.08
11AC20SISO	Ant1	5180	1.90	1.94	97.94	0.53
		5200	1.90	1.94	97.94	0.53
		5240	1.90	1.93	98.45	0.53
11AC40SISO	Ant1	5190	0.94	0.97	96.91	1.06
		5230	0.93	0.97	95.88	1.08
11AC80SISO	Ant1	5210	0.46	0.49	93.88	2.17

Test Graphs

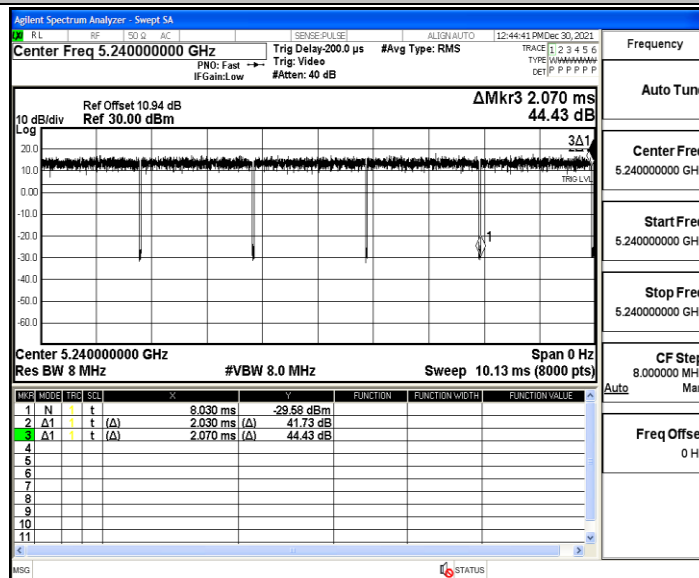
11A\_Ant1\_5180



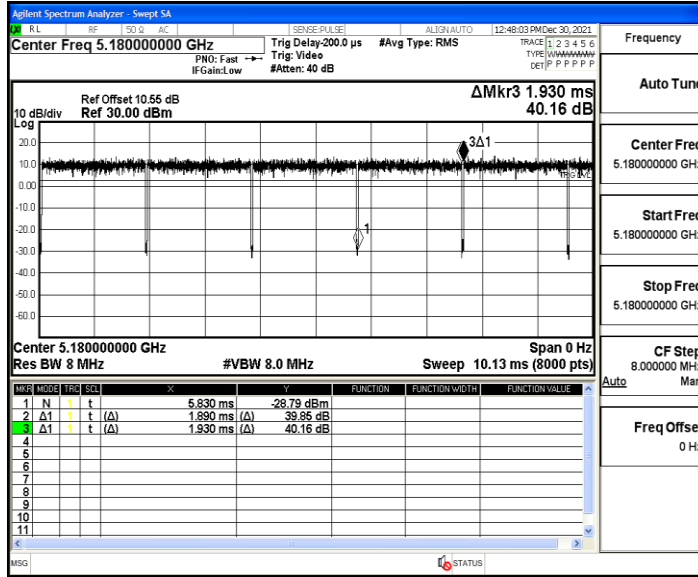
11A\_Ant1\_5200



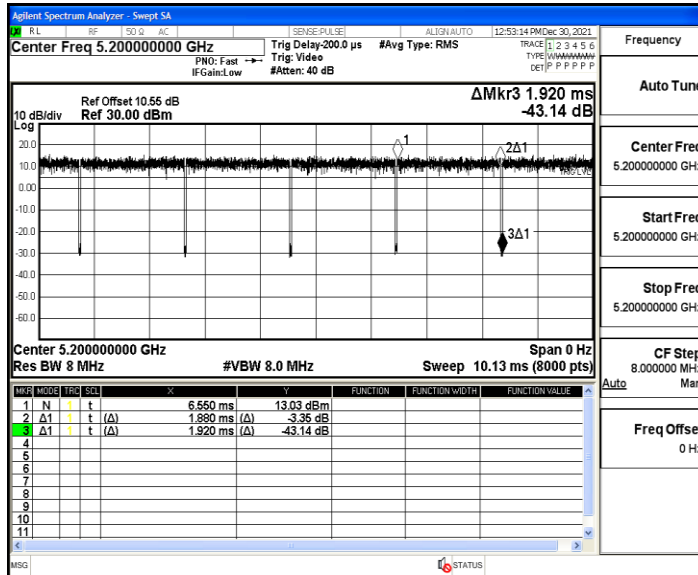
11A\_Ant1\_5240



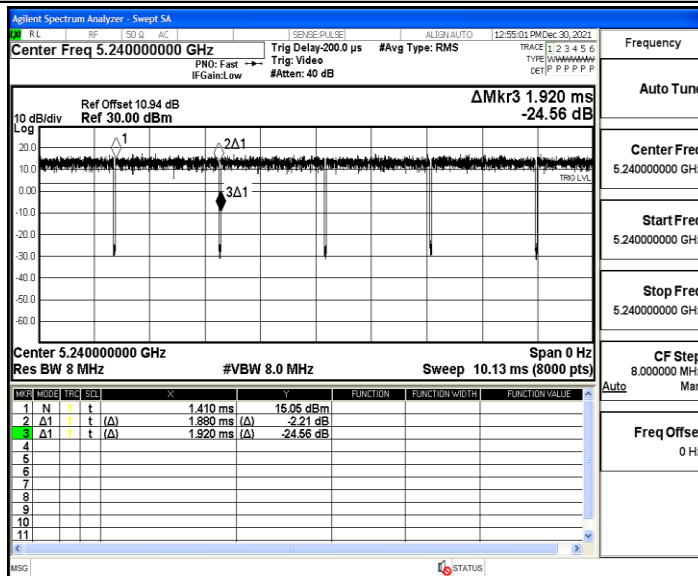
11N20SISO\_Ant1\_5180



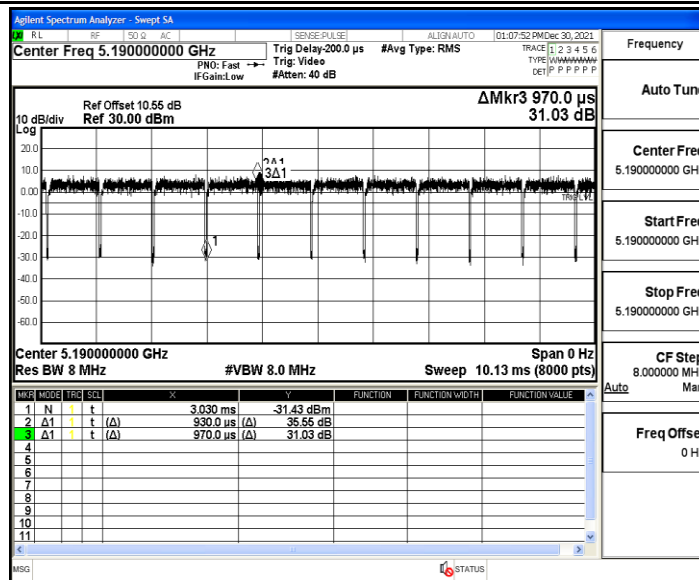
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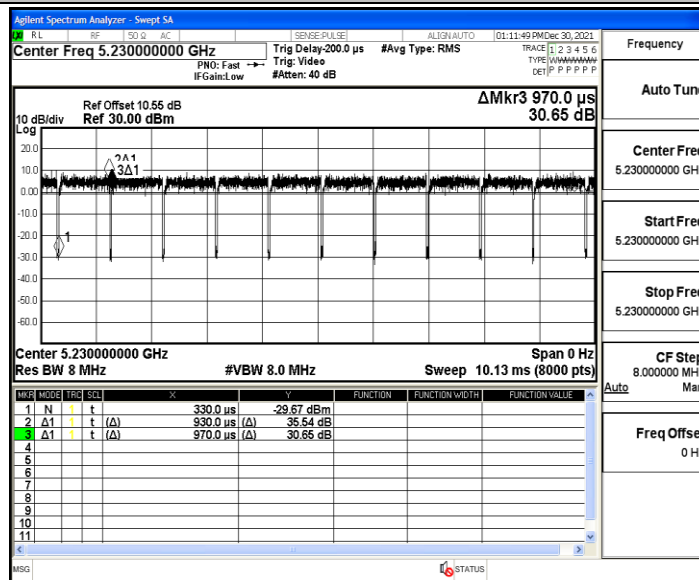
11N20SISO\_Ant1\_5240



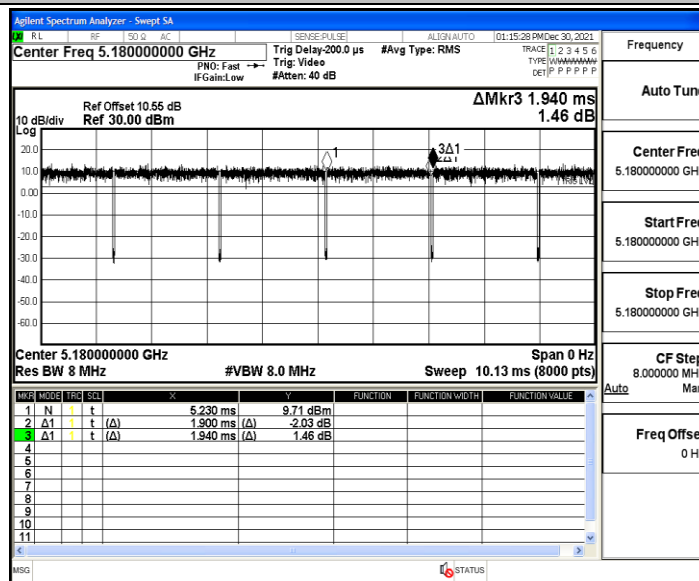
11N40SISO\_Ant1\_5190



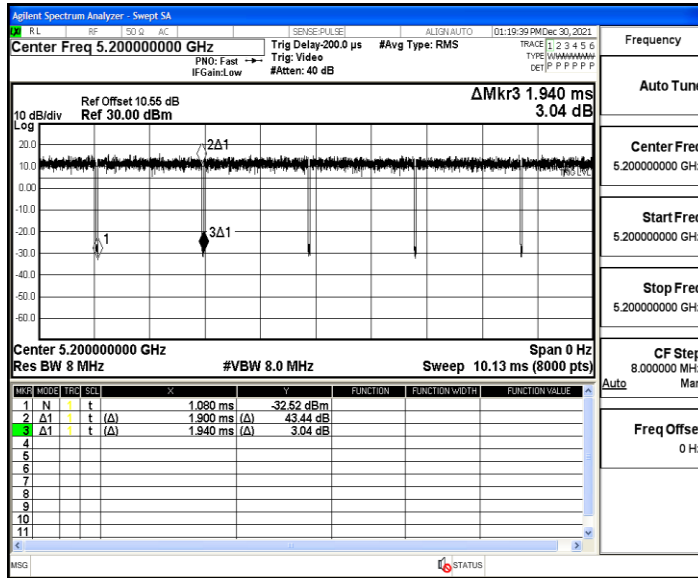
11N40SISO\_Ant1\_5230



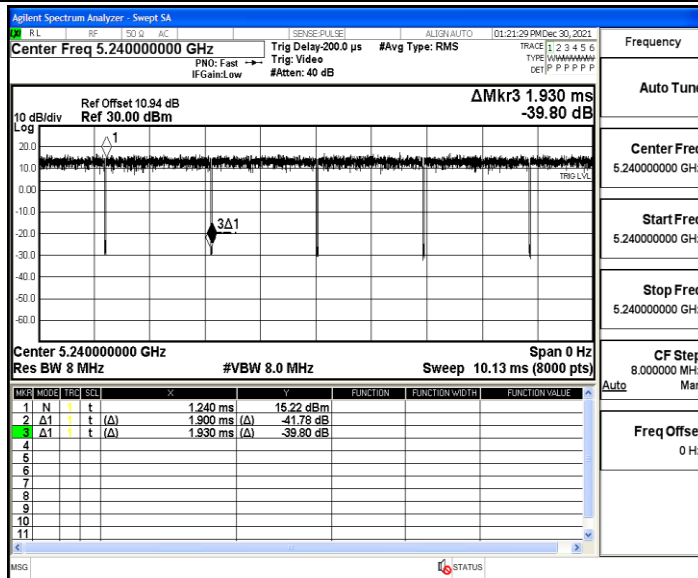
11AC20SISO\_Ant1\_5180



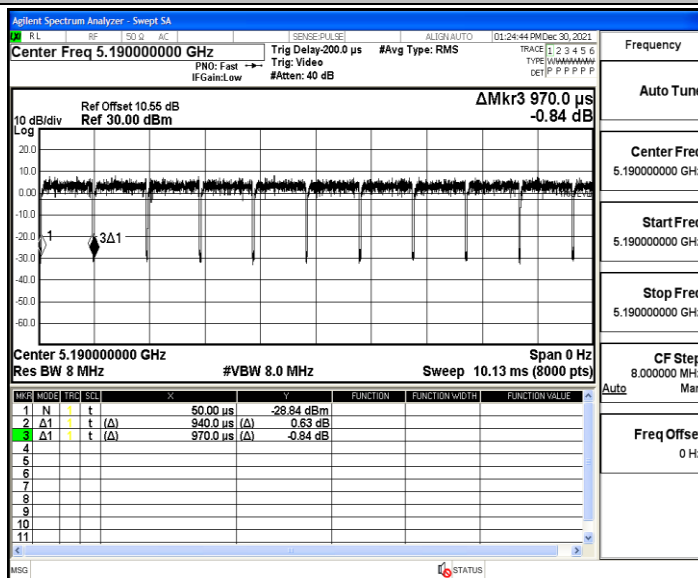
11AC20SISO\_Ant1\_5200



11AC20SISO\_Ant1\_5240

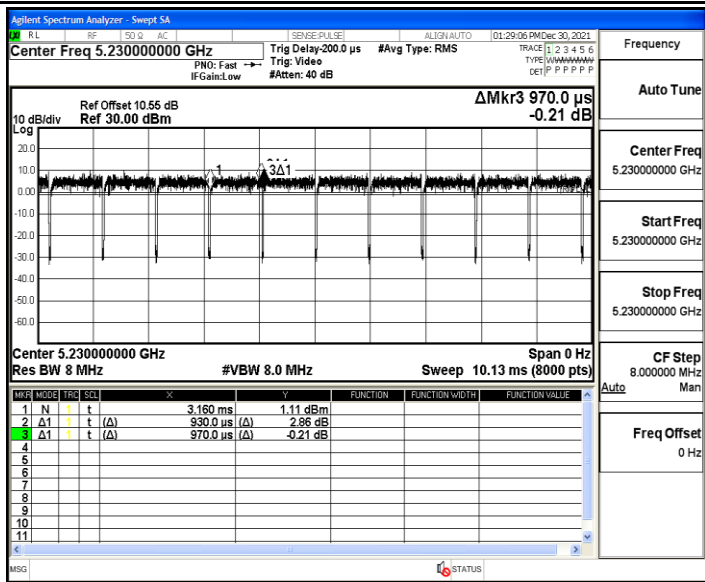


11AC40SISO\_Ant1\_5190



11AC40SISO\_Ant1\_5230





11AC80SISO\_Ant1\_5210

