Case No. : GTS20230215013-1-10	
Ambient Condition: 23 ℃, 54 %RH, Atmos100.1Kpa,	
Test Date: 2023.3.15	**Test Engineer:** Jenny zeng

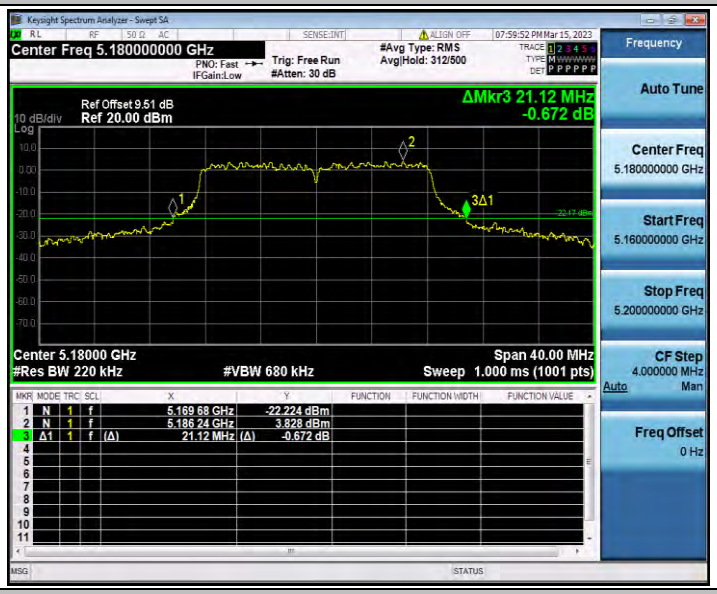
Appendix C.1: Emission Bandwidth

Test Result

TestMode	Antenna	Frequency[MHz]	26db EBW [MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
11A	Ant1	5180	21.120	5169.680	5190.800	---	---
		5200	20.880	5189.560	5210.440	---	---
		5240	20.680	5229.960	5250.640	---	---
11N20SISO	Ant1	5180	20.520	5169.800	5190.320	---	---
		5200	20.800	5189.560	5210.360	---	---
		5240	21.080	5229.520	5250.600	---	---
11N40SISO	Ant1	5190	57.680	5167.040	5224.720	---	---
		5230	61.280	5203.600	5264.880	---	---
11AC20SISO	Ant1	5180	20.680	5169.760	5190.440	---	---
		5200	21.160	5189.360	5210.520	---	---
		5240	21.600	5229.200	5250.800	---	---
11AC40SISO	Ant1	5190	58.400	5160.800	5219.200	---	---
		5230	40.080	5209.840	5249.920	---	---
11AC80SISO	Ant1	5210	81.760	5169.200	5250.960	---	---

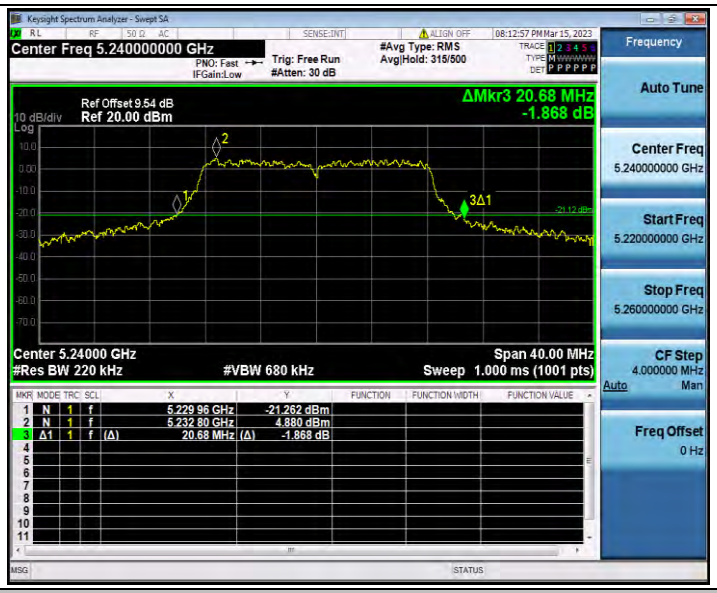
Test Graphs

11A_Ant1_5180

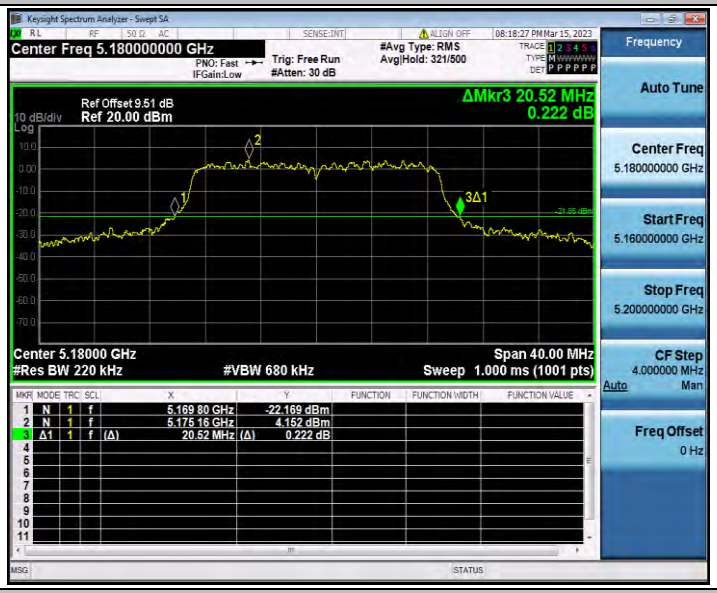


11A_Ant1_5200

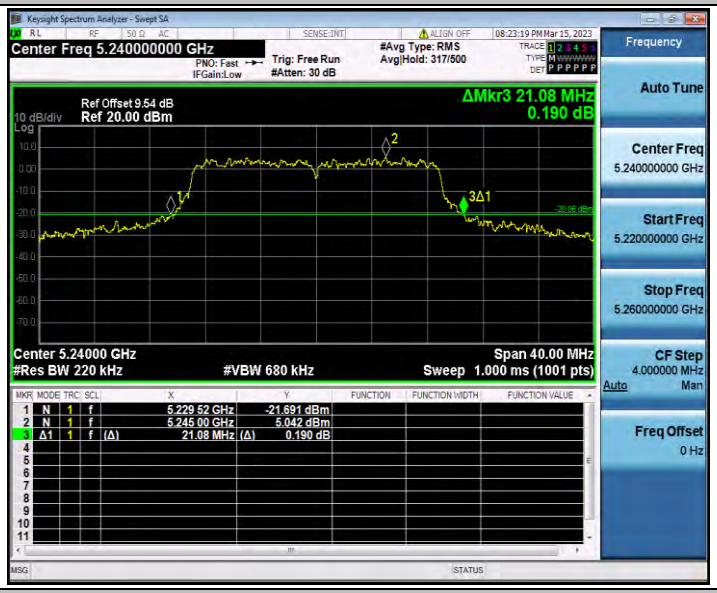
11A_Ant1_5240

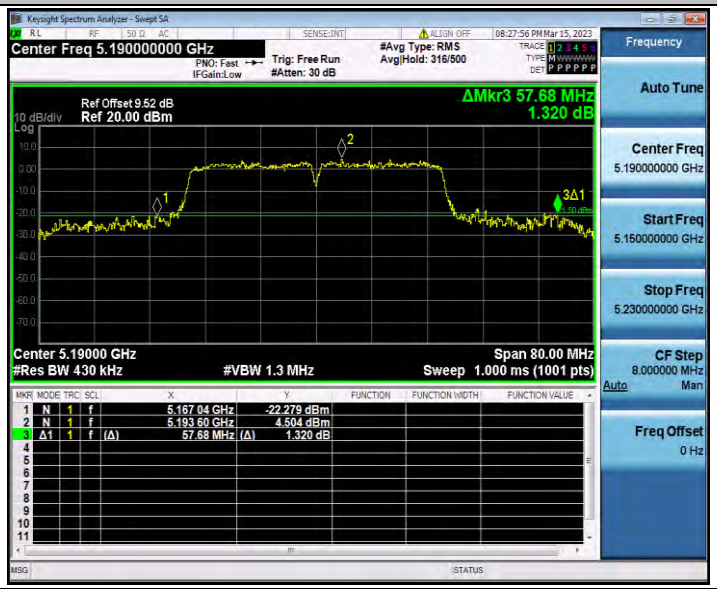


11N20SISO_Ant1_5180

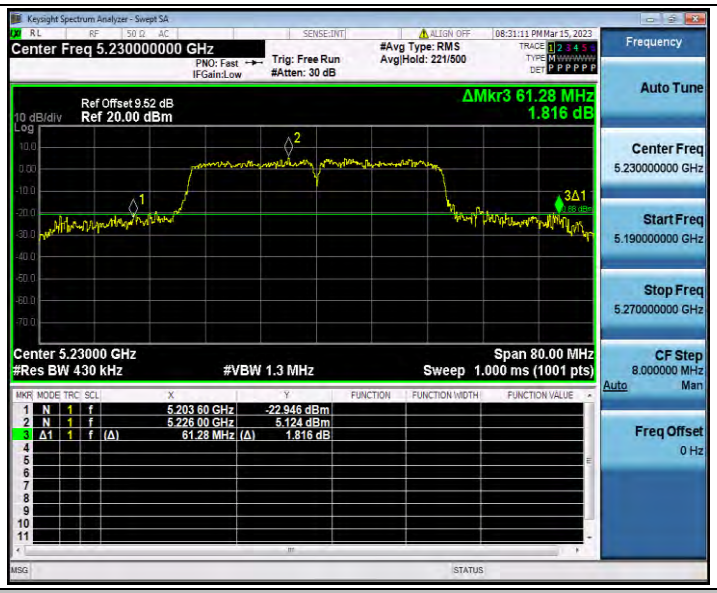


11N20SISO_Ant1_5200

11N20SISO_Ant1_5240


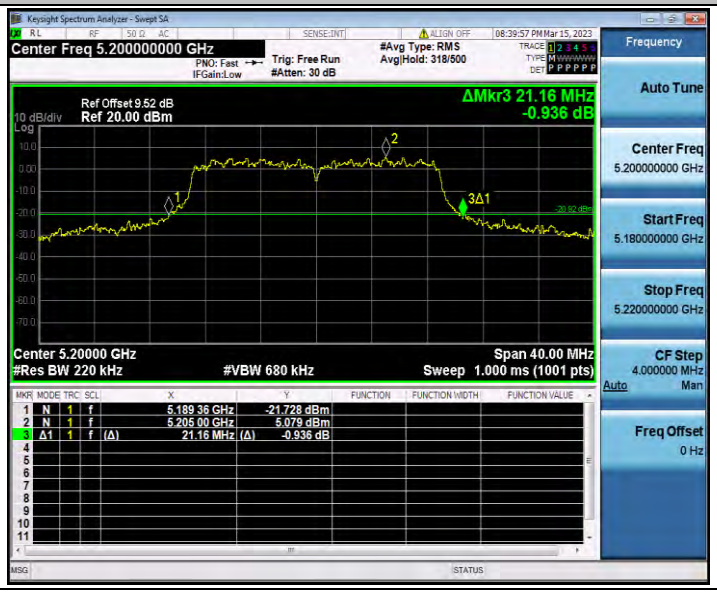
11N40SISO_Ant1_5190


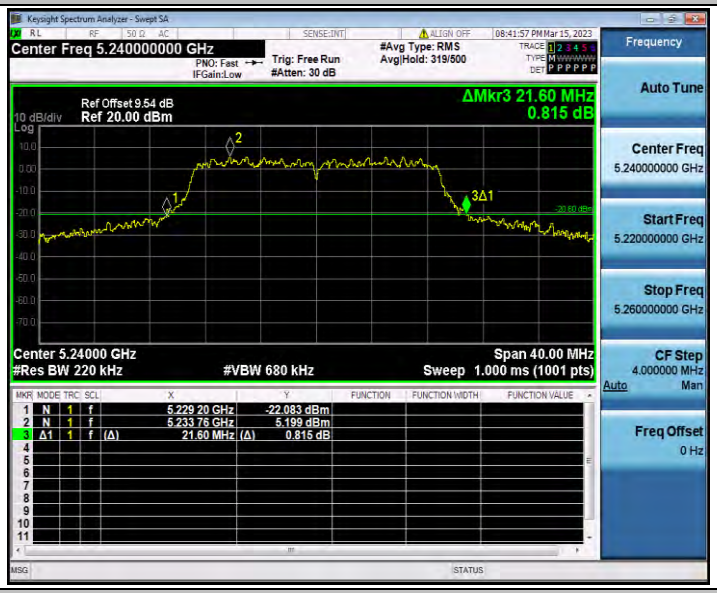
11N40SISO_Ant1_5230

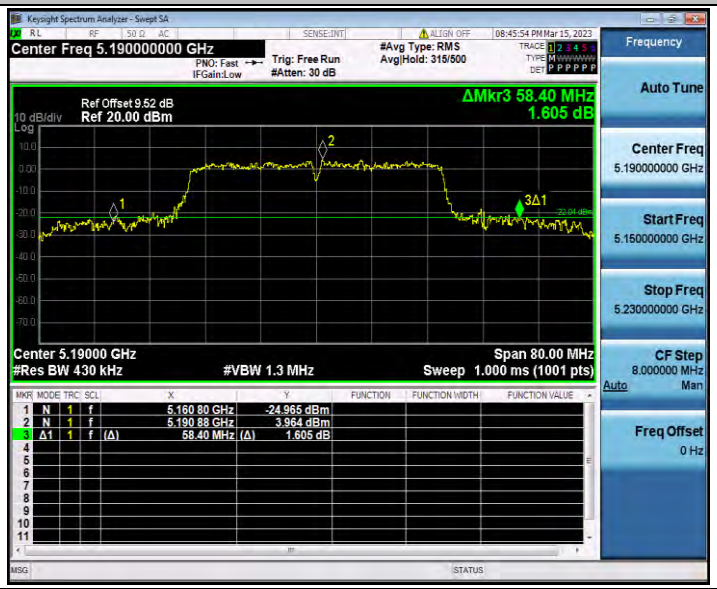


11AC20SISO_Ant1_5180

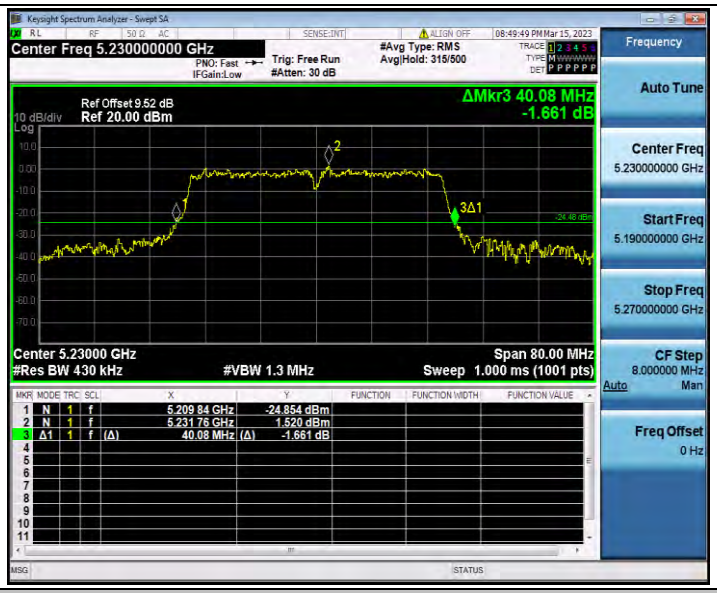
11AC20SISO_Ant1_5200



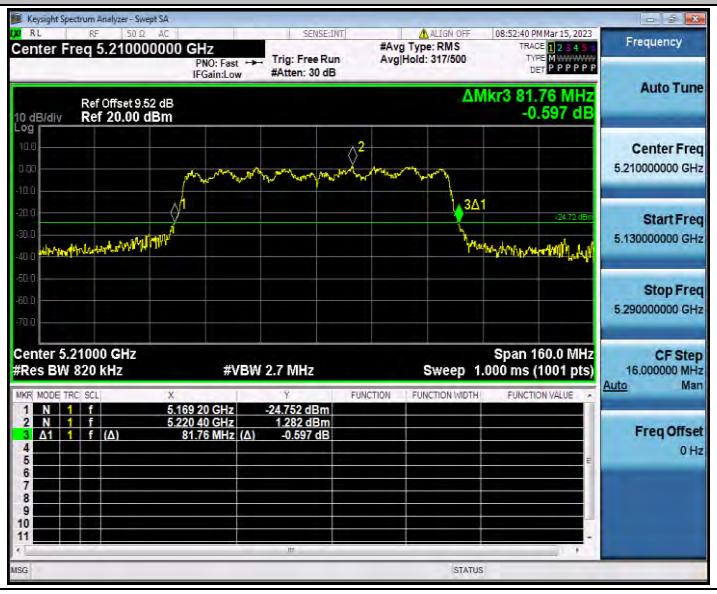
11AC20SISO_Ant1_5240


11AC40SISO_Ant1_5190


11AC40SISO_Ant1_5230



11AC80SISO_Ant1_5210



Appendix C.2: Occupied channel bandwidth

Test Result

TestMode	Antenna	Frequency[MHz]	OCB [MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
11A	Ant1	5180	17.009	5171.522	5188.531	---	---
		5200	16.960	5191.499	5208.459	---	---
		5240	17.002	5231.407	5248.409	---	---
11N20SISO	Ant1	5180	17.883	5171.051	5188.934	---	---
		5200	18.024	5190.968	5208.992	---	---
		5240	17.966	5230.977	5248.943	---	---
11N40SISO	Ant1	5190	36.558	5171.788	5208.346	---	---
		5230	36.418	5211.798	5248.216	---	---
11AC20SISO	Ant1	5180	17.815	5171.094	5188.909	---	---
		5200	18.000	5190.978	5208.978	---	---
		5240	18.048	5231.041	5249.089	---	---
11AC40SISO	Ant1	5190	36.640	5171.715	5208.355	---	---
		5230	36.384	5211.885	5248.269	---	---
11AC80SISO	Ant1	5210	75.909	5172.229	5248.138	---	---

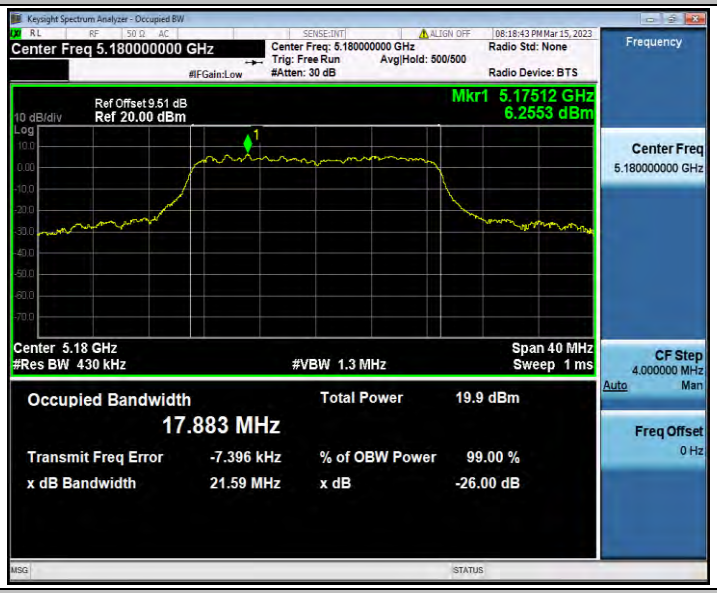
Test Graphs

11A_Ant1_5180

11A_Ant1_5200

11A_Ant1_5240

11N20SISO_Ant1_5180

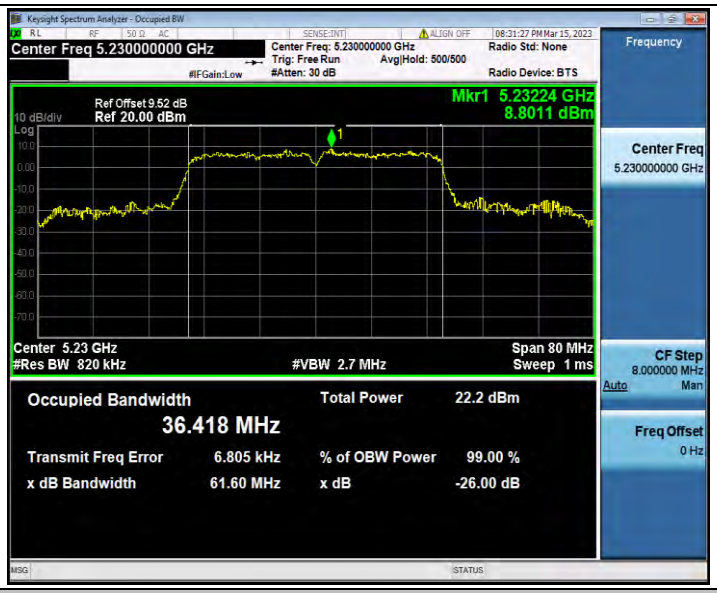


11N20SISO_Ant1_5200

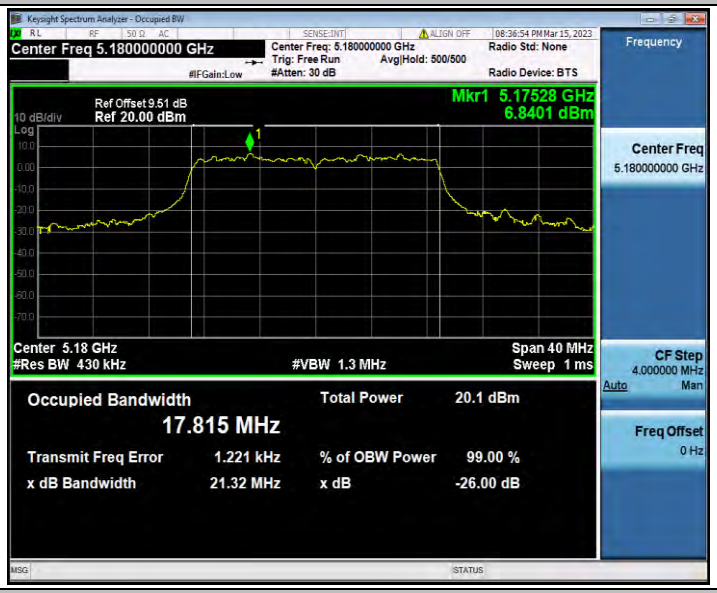
11N20SISO_Ant1_5240

11N40SISO_Ant1_5190

11N40SISO_Ant1_5230



11AC20SISO_Ant1_5180



11AC20SISO_Ant1_5200

11AC20SISO_Ant1_5240

11AC40SISO_Ant1_5190

11AC40SISO_Ant1_5230

11AC80SISO_Ant1_5210

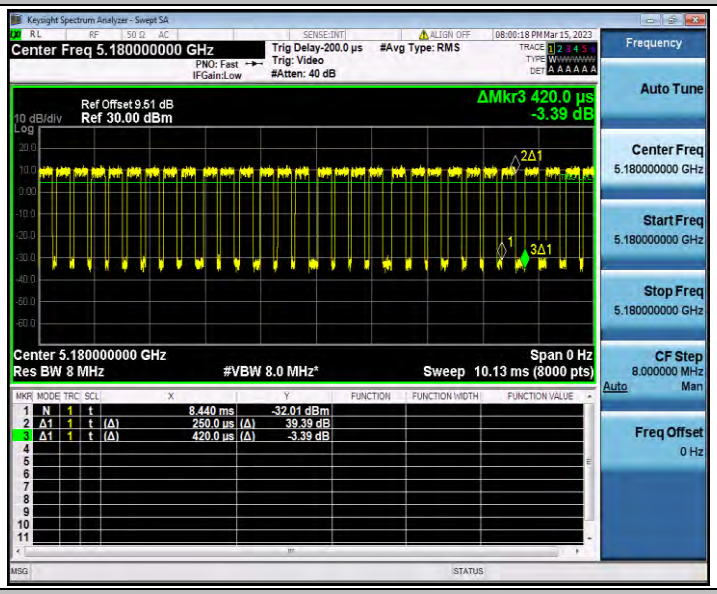
Appendix C.3: Duty Cycle

Test Result

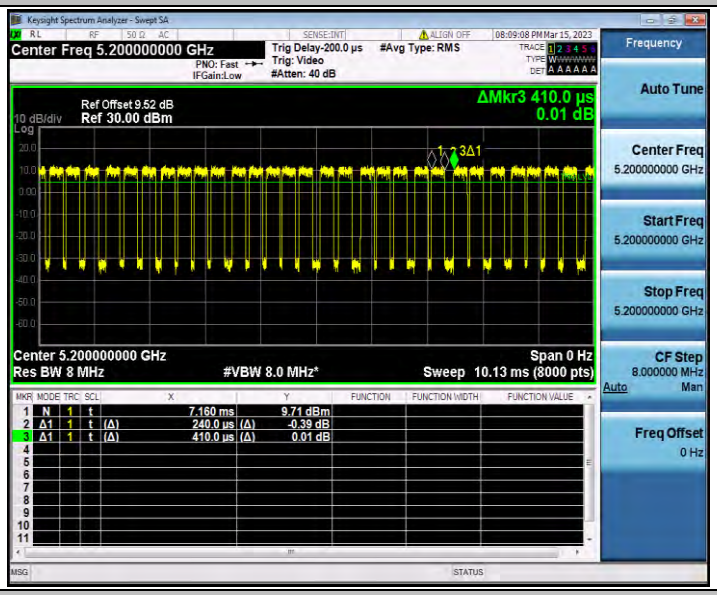
TestMode	Antenna	Frequency[MHz]	Transmission Duration [ms]	Transmission Period [ms]	Duty Cycle [%]
11A	Ant1	5180	0.25	0.42	59.52
		5200	0.24	0.41	58.54
		5240	0.25	0.41	60.98
11N20SISO	Ant1	5180	0.23	0.40	57.50
		5200	2.96	5.16	57.36
		5240	0.91	6.63	13.73
11N40SISO	Ant1	5190	0.26	1.84	14.13
		5230	0.38	1.84	20.65
11AC20SISO	Ant1	5180	0.80	4.79	16.70
		5200	1.00	4.05	24.69
		5240	1.20	6.26	19.17
11AC40SISO	Ant1	5190	0.23	5.52	4.17
		5230	0.22	1.11	19.82
11AC80SISO	Ant1	5210	0.36	4.07	8.85

Test Graphs

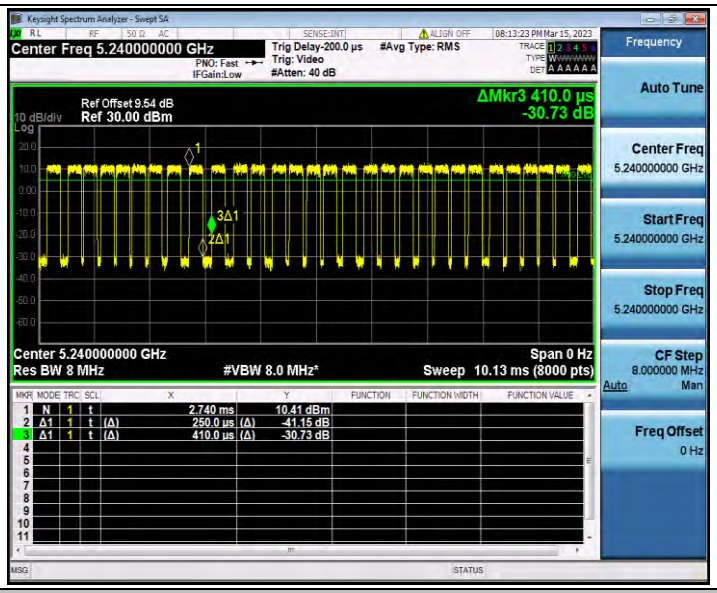
11A_Ant1_5180



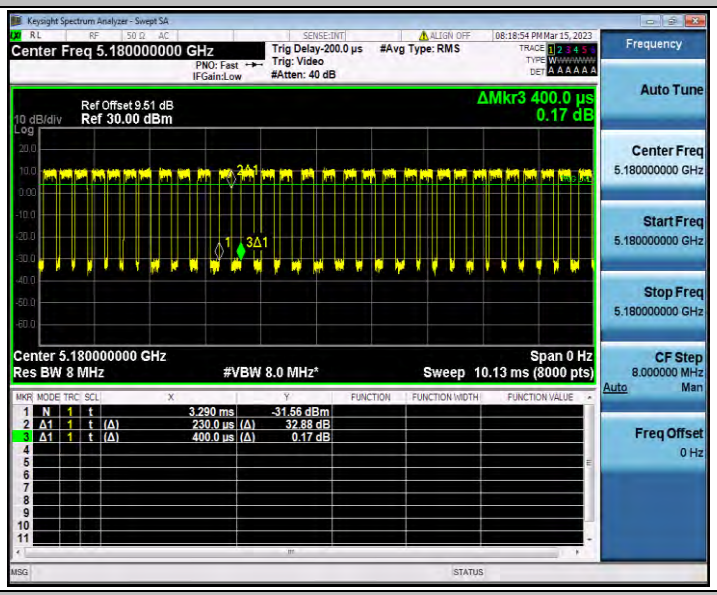
11A_Ant1_5200



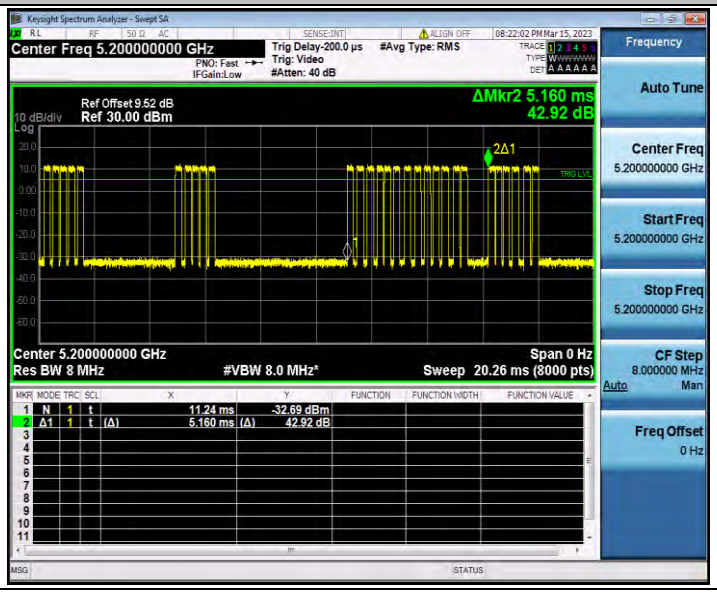
11A_Ant1_5240



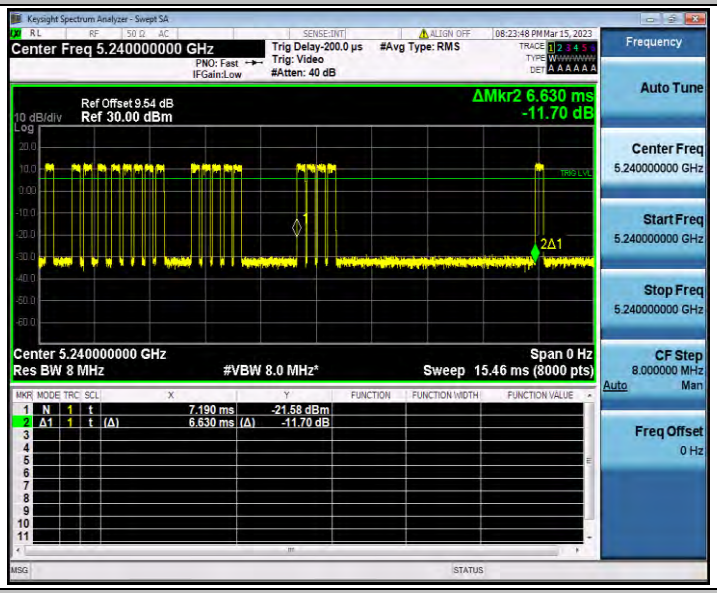
11N20SISO_Ant1_5180



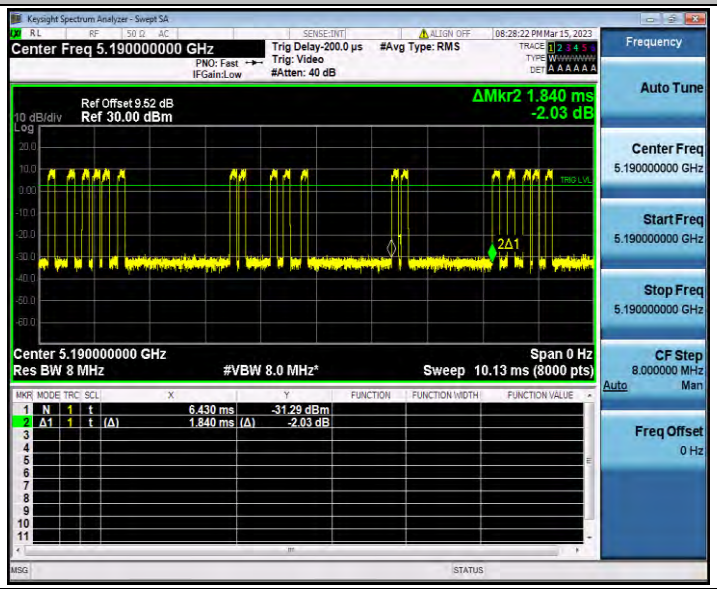
11N20SISO_Ant1_5200



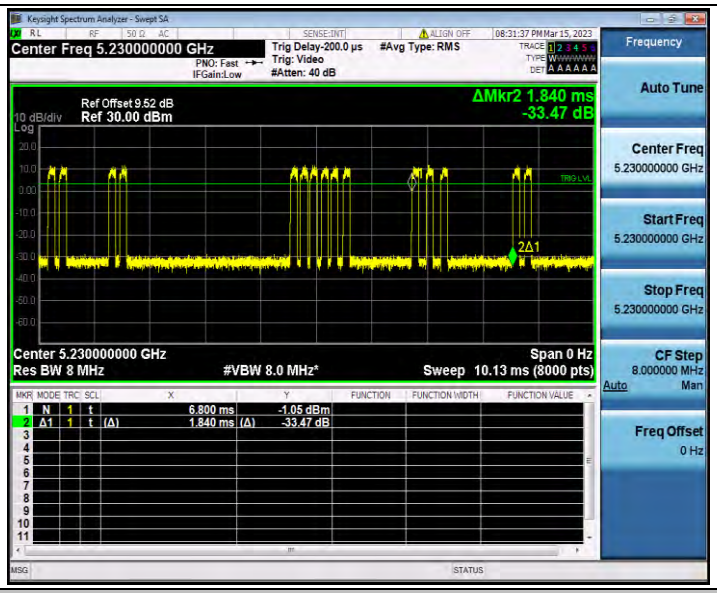
11N20SISO_Ant1_5240



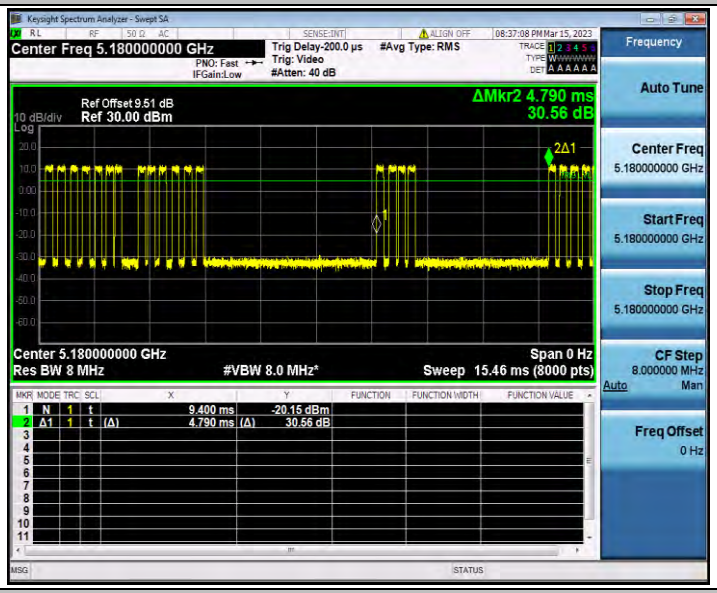
11N40SISO_Ant1_5190



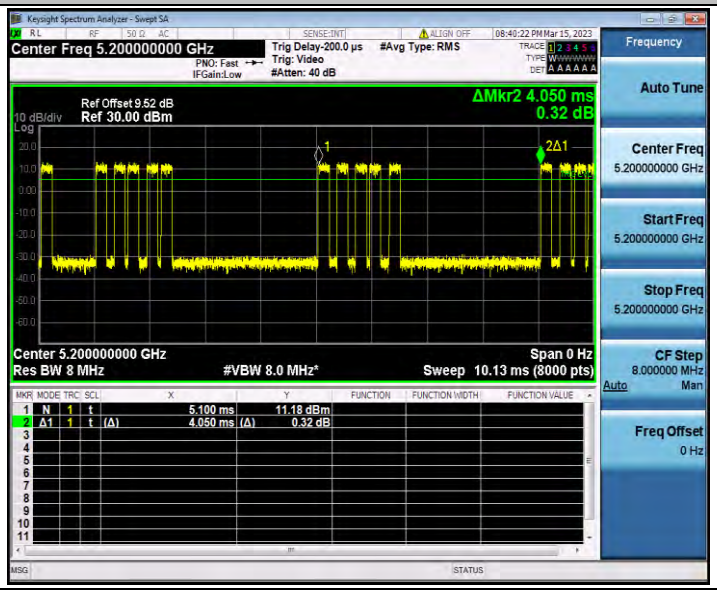
11N40SISO_Ant1_5230



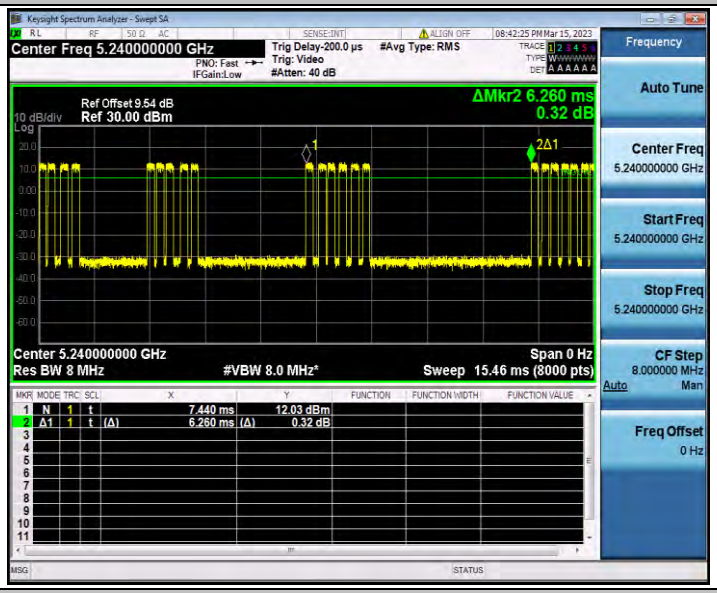
11AC20SISO_Ant1_5180



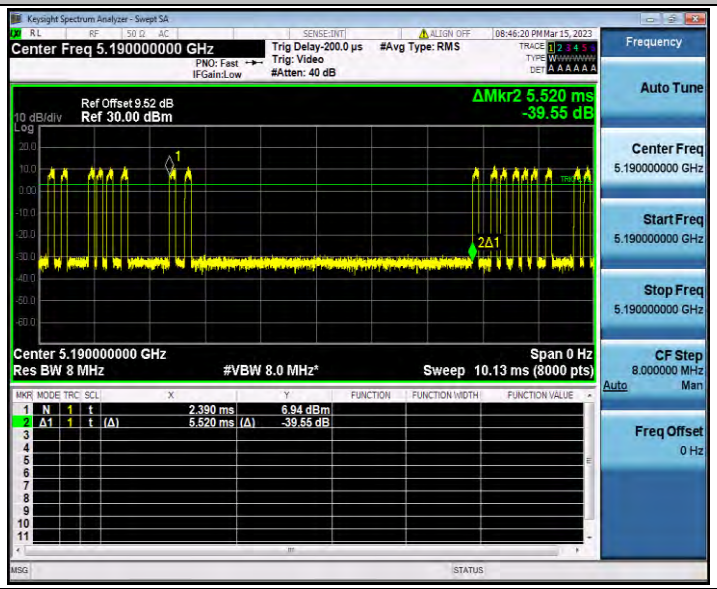
11AC20SISO_Ant1_5200



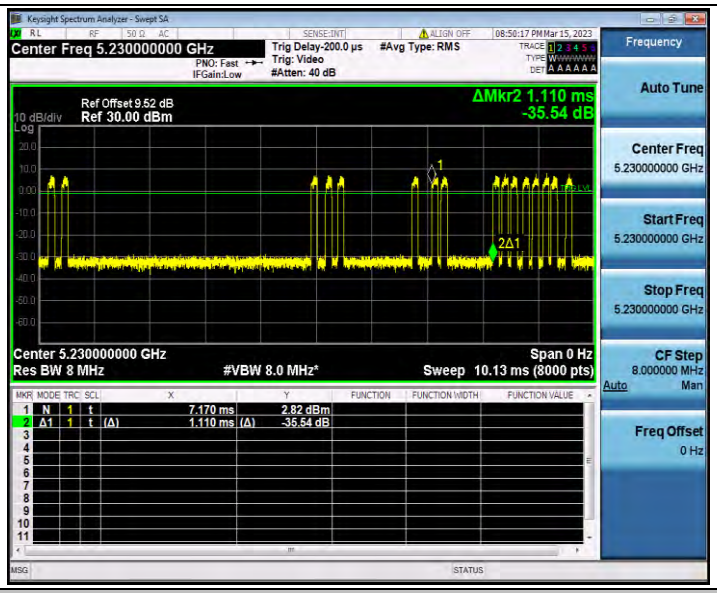
11AC20SISO_Ant1_5240



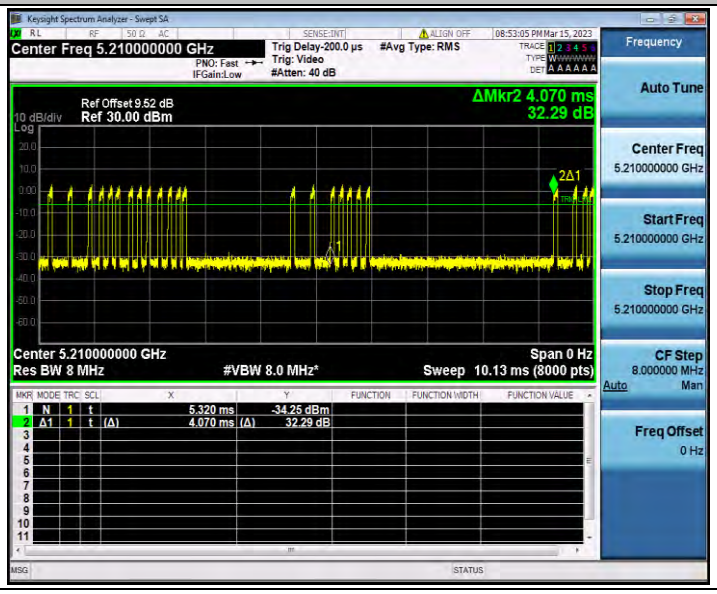
11AC40SISO_Ant1_5190



11AC40SISO_Ant1_5230



11AC80SISO_Ant1_5210



Appendix C.4: Maximum conducted output power

Test Result Channel Power

Test Mode	Antenna	Frequency[MHz]	Channel Powert [dBm]	Duty Cycle [%]	DC Factor [dBm]	Result [dBm]	Limit [dBm]	Verdict
11A	Ant1	5180	11.82	59.52	2.25	14.07	≤23.98	PASS
		5200	11.89	58.54	2.33	14.22	≤23.98	PASS
		5240	12.16	60.98	2.15	14.31	≤23.98	PASS
11N20SISO	Ant1	5180	11.47	57.50	2.40	13.87	≤23.98	PASS
		5200	9.58	57.36	2.41	11.99	≤23.98	PASS
		5240	10.48	13.73	8.62	19.10	≤23.98	PASS
11N40SISO	Ant1	5190	5.87	14.13	8.50	14.37	≤23.98	PASS
		5230	6.60	20.65	6.85	13.45	≤23.98	PASS
11AC20SISO	Ant1	5180	8.23	16.70	7.77	16.00	≤23.98	PASS
		5200	9.44	24.69	6.07	15.51	≤23.98	PASS
		5240	9.30	19.17	7.17	16.47	≤23.98	PASS
11AC40SISO	Ant1	5190	5.37	4.17	13.80	19.17	≤23.98	PASS
		5230	2.41	19.82	7.03	9.44	≤23.98	PASS
11AC80SISO	Ant1	5210	0.95	8.85	10.53	11.48	≤23.98	PASS

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

Appendix C.5: Maximum power spectral density

Test Result

TestMode	Antenna	Frequency[MHz]	Result [dBm/MHz]	Limit[dBm/MHz]	Verdict
11A	Ant1	5180	3.26	≤11.00	PASS
		5200	3.59	≤11.00	PASS
		5240	4.17	≤11.00	PASS
11N20SISO	Ant1	5180	3.18	≤11.00	PASS
		5200	4.02	≤11.00	PASS
		5240	6.8	≤11.00	PASS
11N40SISO	Ant1	5190	6.76	≤11.00	PASS
		5230	1.55	≤11.00	PASS
11AC20SISO	Ant1	5180	5	≤11.00	PASS
		5200	3.4	≤11.00	PASS
		5240	5.25	≤11.00	PASS
11AC40SISO	Ant1	5190	7.55	≤11.00	PASS
		5230	1.42	≤11.00	PASS
11AC80SISO	Ant1	5210	1.58	≤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

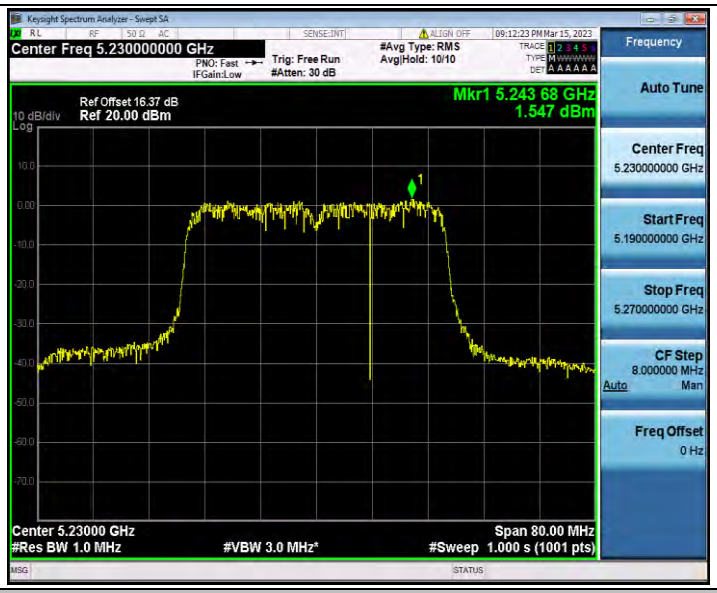
11A_Ant1_5200

11A_Ant1_5240

11N20SISO_Ant1_5180

11N20SISO_Ant1_5200

11N20SISO_Ant1_5240
11N40SISO_Ant1_5190
11N40SISO_Ant1_5230



11AC20SISO_Ant1_5180

11AC20SISO_Ant1_5200

11AC20SISO_Ant1_5240

11AC40SISO_Ant1_5190

11AC40SISO_Ant1_5230

11AC80SISO_Ant1_5210

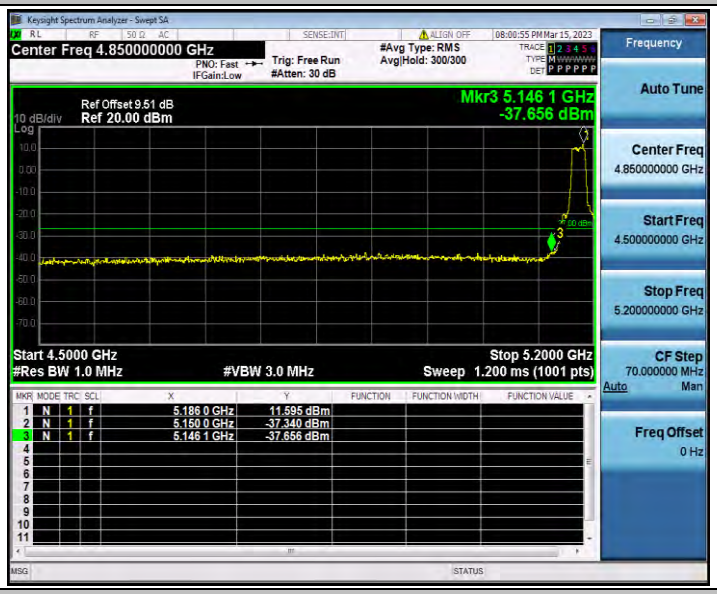
Appendix C.6: Band edge measurements

Test Result B1

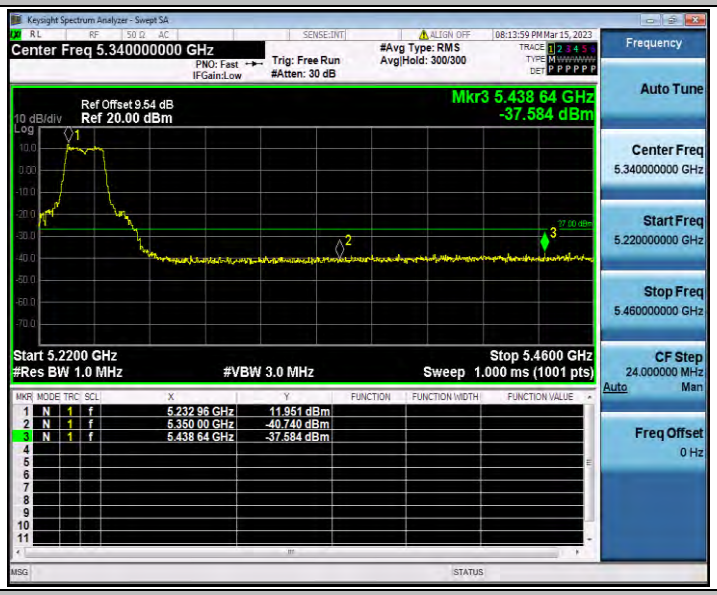
TestMode	Antenna	ChName	Frequency[MHz]	Result[dBm]	Limit[dBm]	Verdict
11A	Ant1	Low	5180	-37.66	≤-27	PASS
		High	5240	-37.58	≤-27	PASS
11N20SISO	Ant1	Low	5180	-36.66	≤-27	PASS
		High	5240	-40.32	≤-27	PASS
11N40SISO	Ant1	Low	5190	-38.71	≤-27	PASS
		High	5230	-39.64	≤-27	PASS
11AC20SISO	Ant1	Low	5180	-39.34	≤-27	PASS
		High	5240	-39.08	≤-27	PASS
11AC40SISO	Ant1	Low	5190	-38.37	≤-27	PASS
		High	5230	-38.73	≤-27	PASS
11AC80SISO	Ant1	Low	5210	-33.64	≤-27	PASS
		High	5210	-39.65	≤-27	PASS

Test Graphs B1

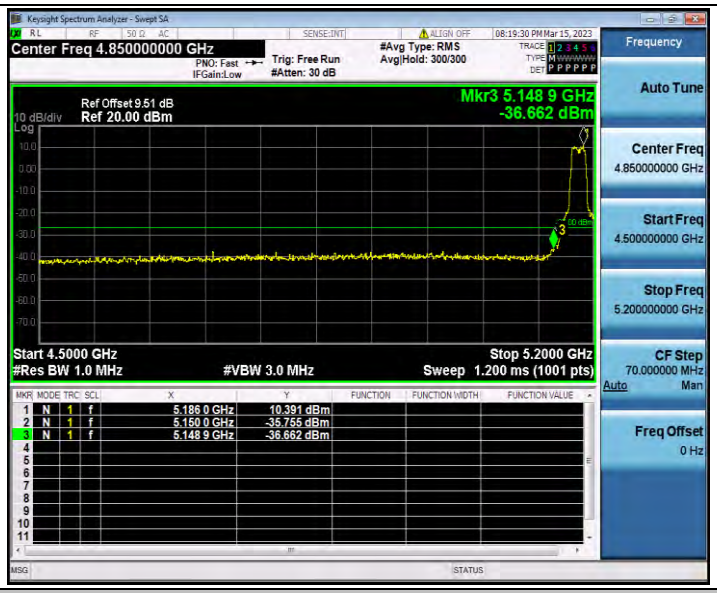
11A_Ant1_Low_5180



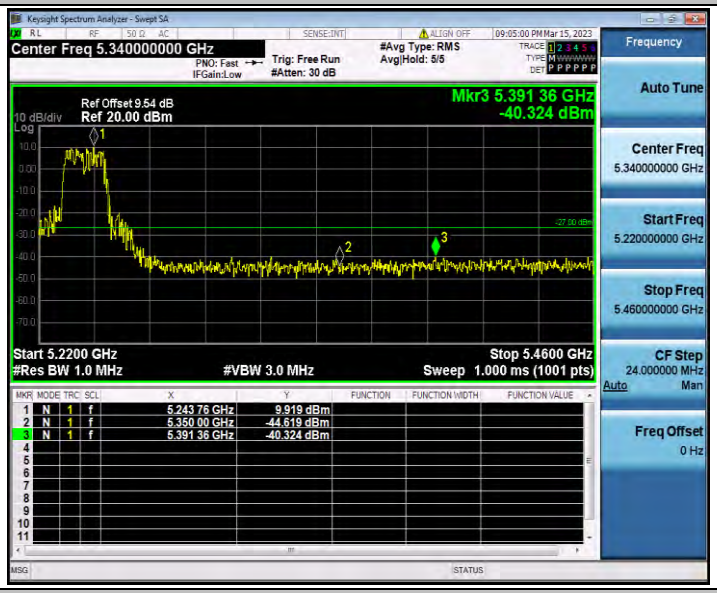
11A_Ant1_High_5240



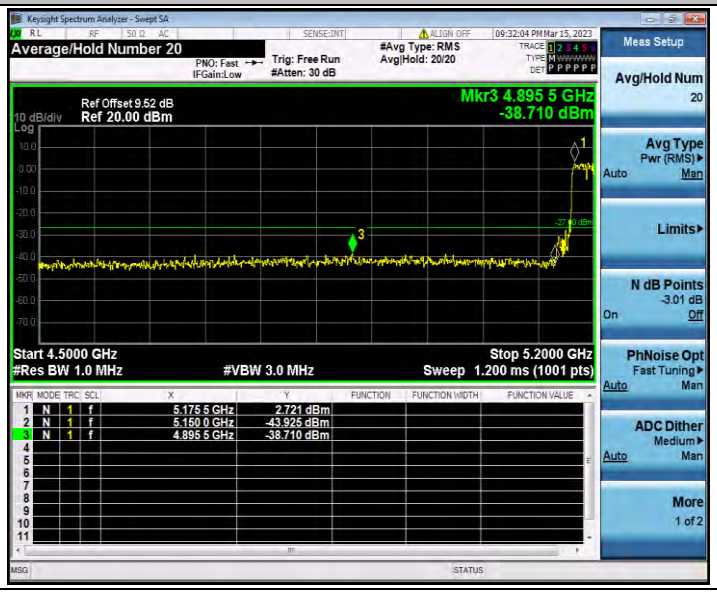
11N20SISO_Ant1_Low_5180



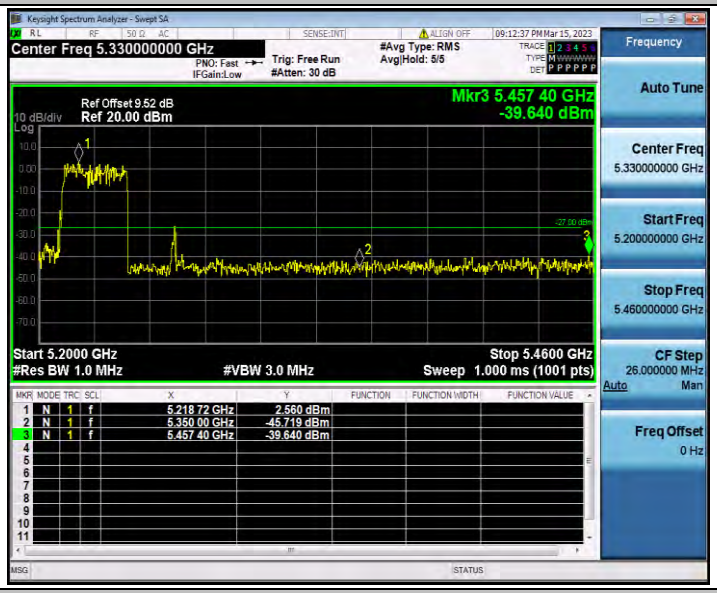
11N20SISO_Ant1_High_5240



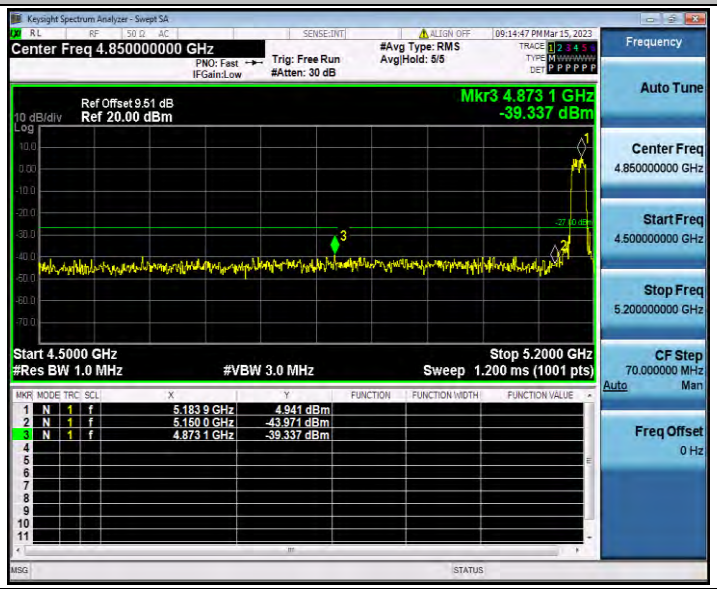
11N40SISO_Ant1_Low_5190



11N40SISO_Ant1_High_5230



11AC20SISO_Ant1_Low_5180



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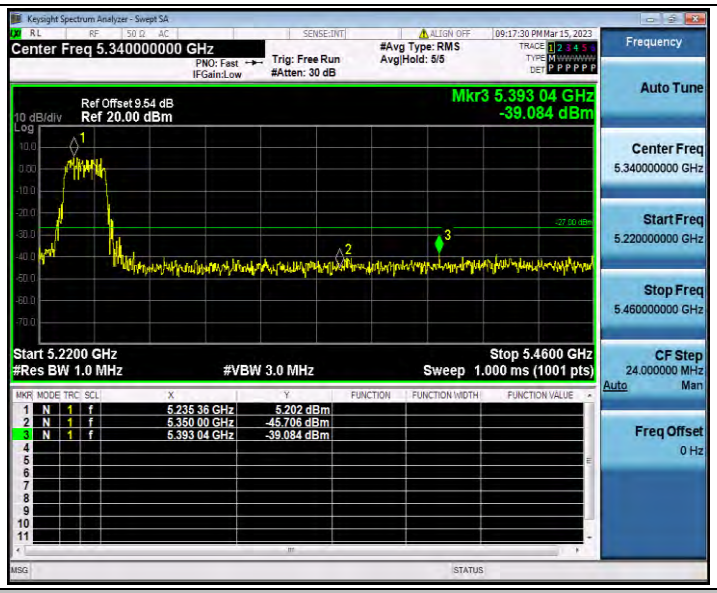

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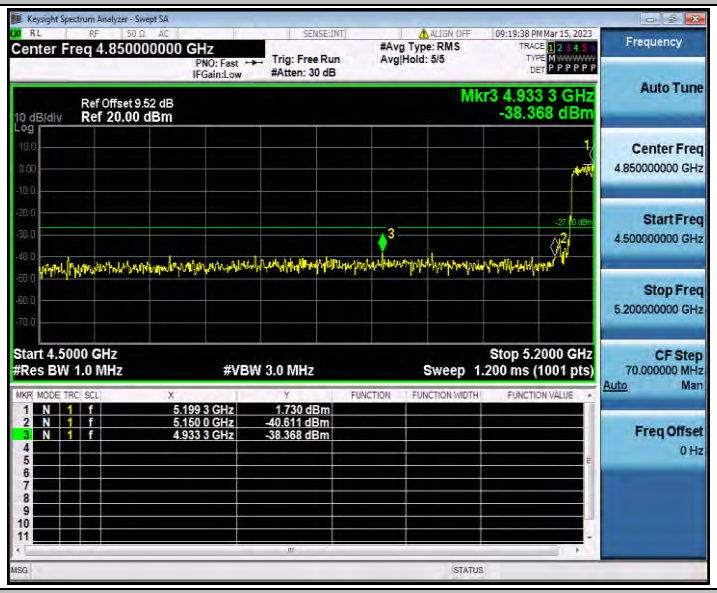
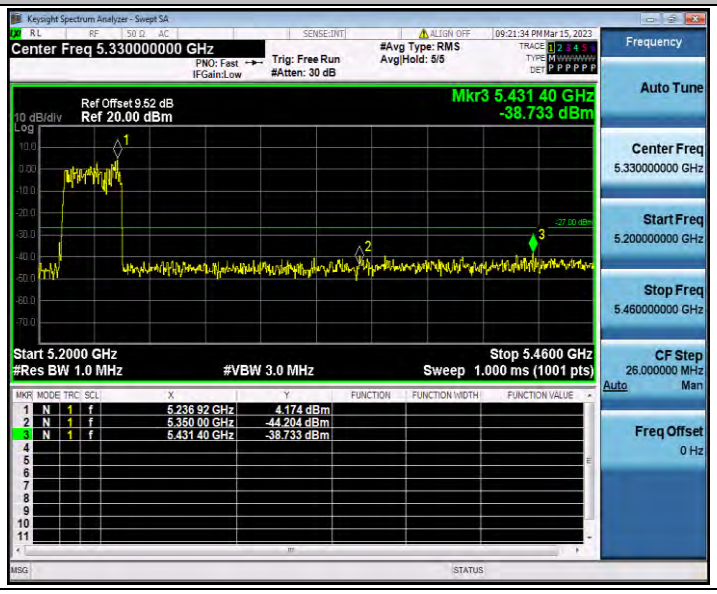
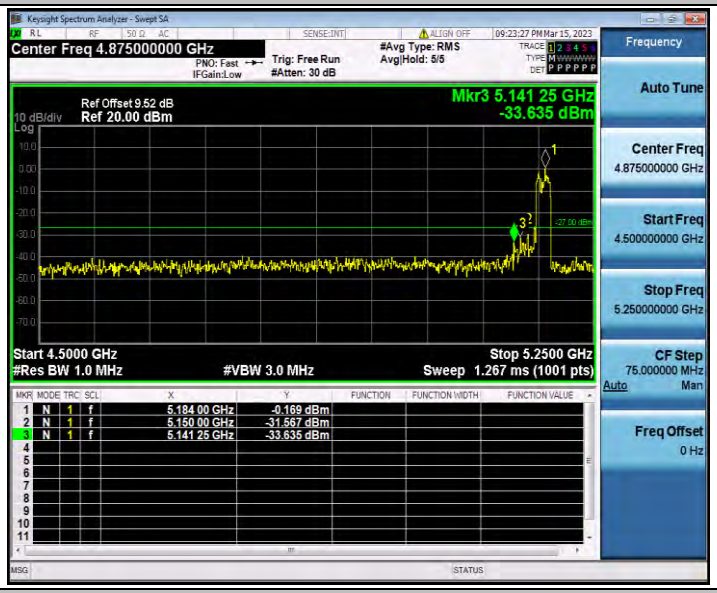
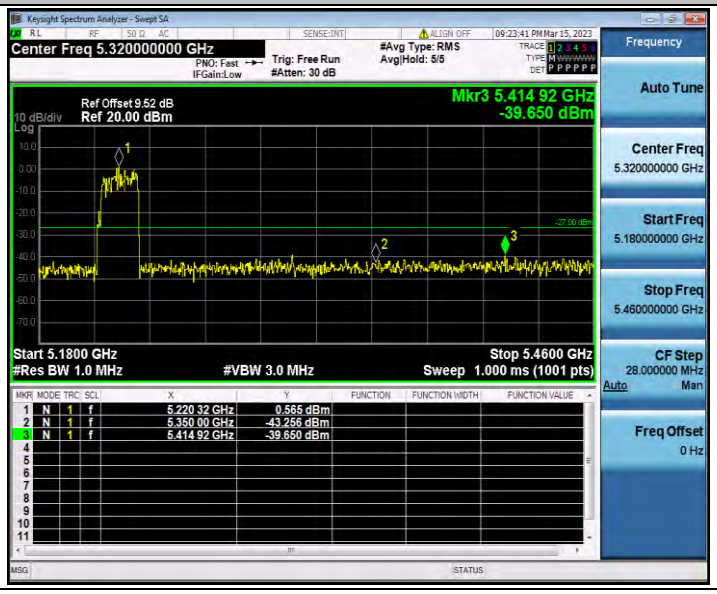


11AC40SISO_Ant1_High_5230



11AC80SISO_Ant1_Low_5210


11AC80SISO_Ant1_High_5210


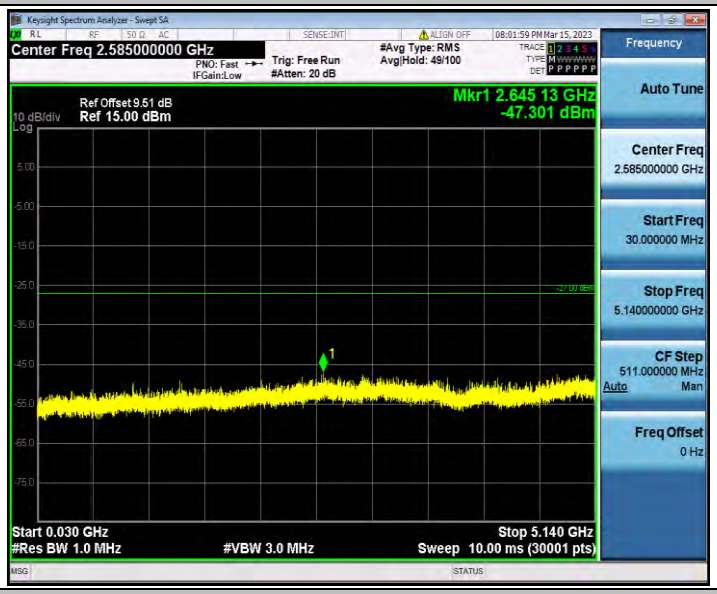
Appendix C.7: Conducted Spurious Emission

Test Result

TestMode	Antenna	Frequency[MHz]	FreqRange [MHz]	Max. Fre [MHz]	Max. Level [dBm]	Limit [dBm]	Verdict
11A	Ant1	5180	30~5140	2645.13	-47.3	≤-27	PASS
			5360~40000	25563.1	-37.97	≤-27	PASS
		5200	30~5140	5004.76	-47.12	≤-27	PASS
			5360~40000	23533.27	-38.26	≤-27	PASS
		5240	30~5140	3151.87	-47.55	≤-27	PASS
			5360~40000	24987.48	-37.61	≤-27	PASS
11N20SISO	Ant1	5180	30~5140	5138.81	-44.86	≤-27	PASS
			5360~40000	26571.53	-37.77	≤-27	PASS
		5200	30~5140	4964.73	-46.33	≤-27	PASS
			5360~40000	24226.47	-36.91	≤-27	PASS
		5240	30~5140	4909.54	-47.85	≤-27	PASS
			5360~40000	26526.08	-38.14	≤-27	PASS
11N40SISO	Ant1	5190	30~5140	5137.79	-35.72	≤-27	PASS
			5360~40000	26068.76	-37.96	≤-27	PASS
		5230	30~5140	5135.06	-43.42	≤-27	PASS
			5360~40000	24305.82	-37.85	≤-27	PASS
11AC20SISO	Ant1	5180	30~5140	5138.13	-42.71	≤-27	PASS
			5360~40000	26588.84	-38.14	≤-27	PASS
		5200	30~5140	4921.63	-46.53	≤-27	PASS
			5360~40000	25588.35	-37.81	≤-27	PASS
		5240	30~5140	5012.76	-46.3	≤-27	PASS
			5360~40000	24331.79	-37.72	≤-27	PASS
11AC40SISO	Ant1	5190	30~5140	5138.98	-33.83	≤-27	PASS
			5360~40000	24911.02	-38.51	≤-27	PASS
		5230	30~5140	2688.56	-47.43	≤-27	PASS
			5360~40000	24269.03	-38.47	≤-27	PASS
11AC80SISO	Ant1	5210	30~5140	5139.32	-36.2	≤-27	PASS
			5360~40000	25017.05	-38.03	≤-27	PASS

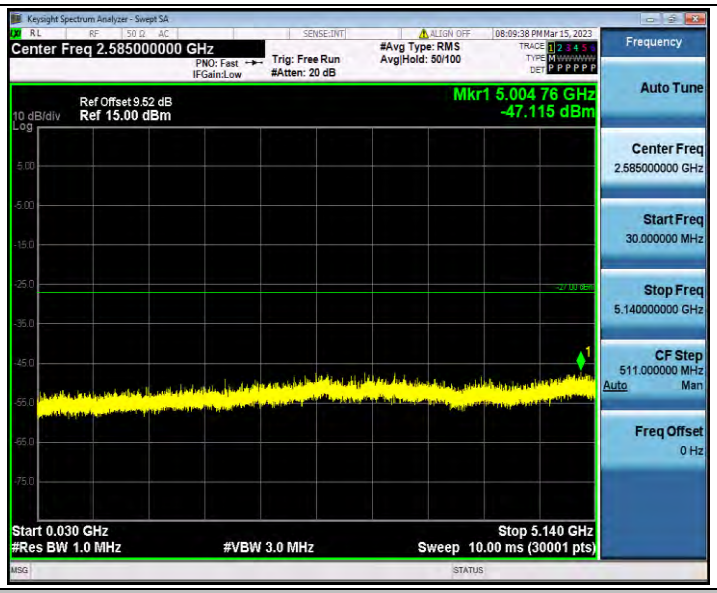
Test Graphs

11A_Ant1_5180_30~5140



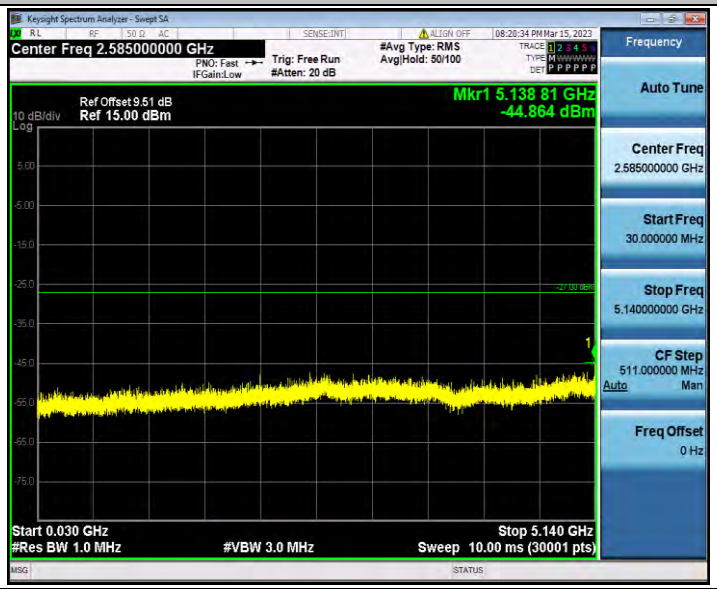
11A_Ant1_5180_5360~40000

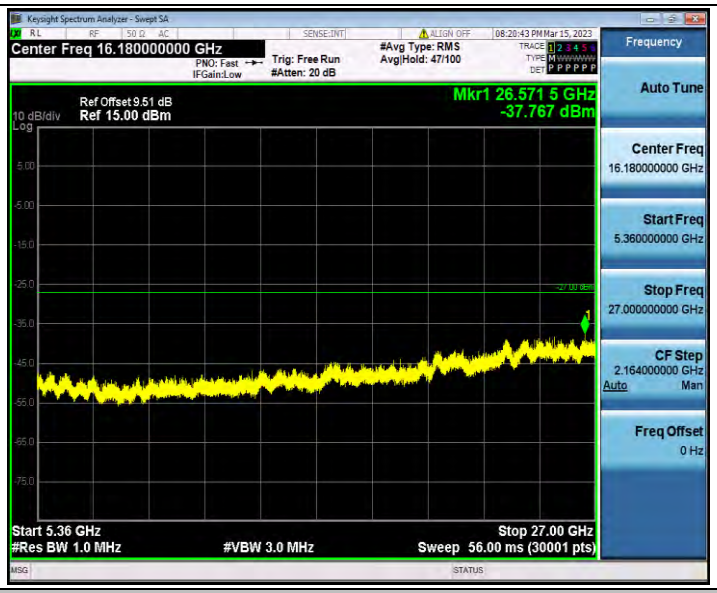
11A_Ant1_5200_30~5140



11A_Ant1_5200_5360~40000

11A_Ant1_5240_30~5140

11A_Ant1_5240_5360~40000
11N20SISO_Ant1_5180_30~5140

11N20SISO_Ant1_5180_5360~40000

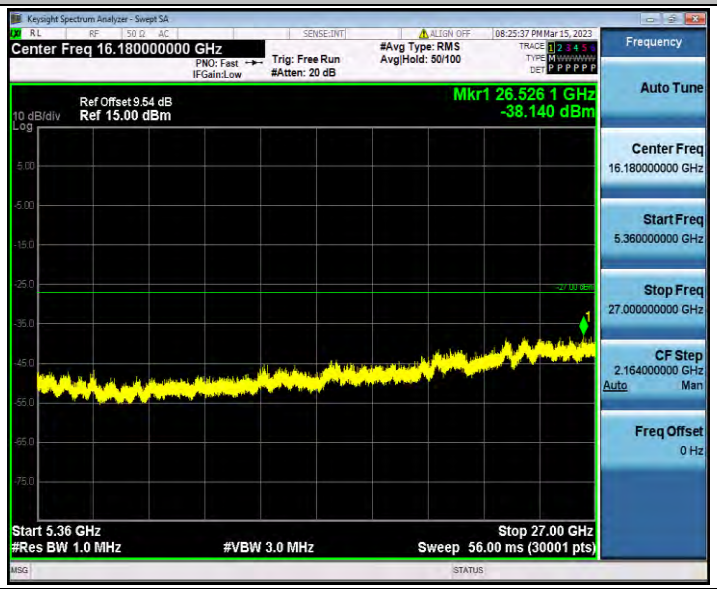


11N20SISO_Ant1_5200_30~5140

11N20SISO_Ant1_5200_5360~40000

11N20SISO_Ant1_5240_30~5140

11N20SISO_Ant1_5240_5360~40000

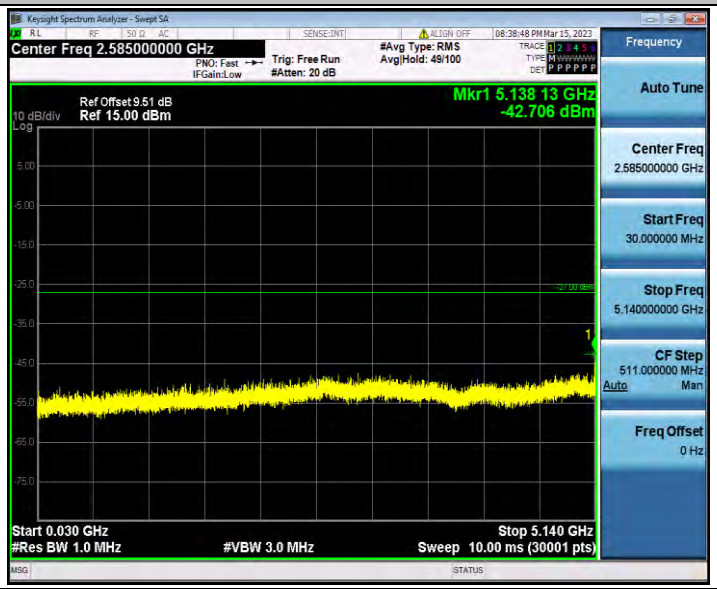


11N40SISO_Ant1_5190_30~5140

11N40SISO_Ant1_5190_5360~40000

11N40SISO_Ant1_5230_30~5140

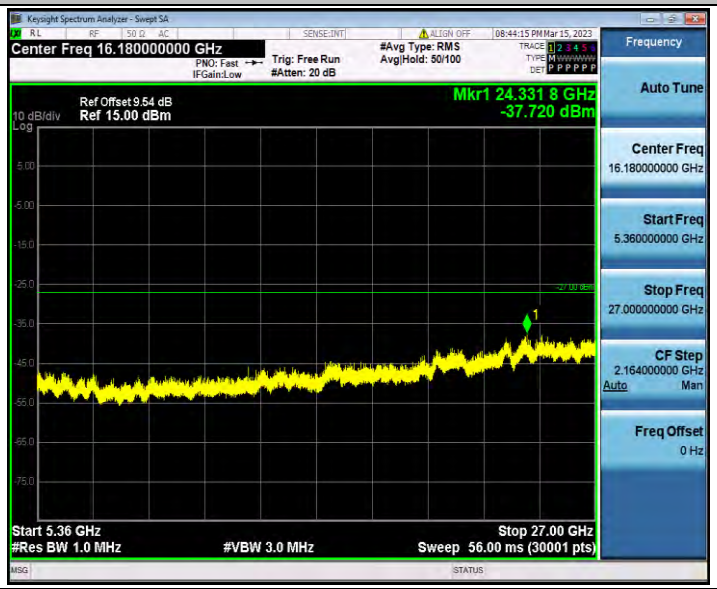
11N40SISO_Ant1_5230_5360~40000

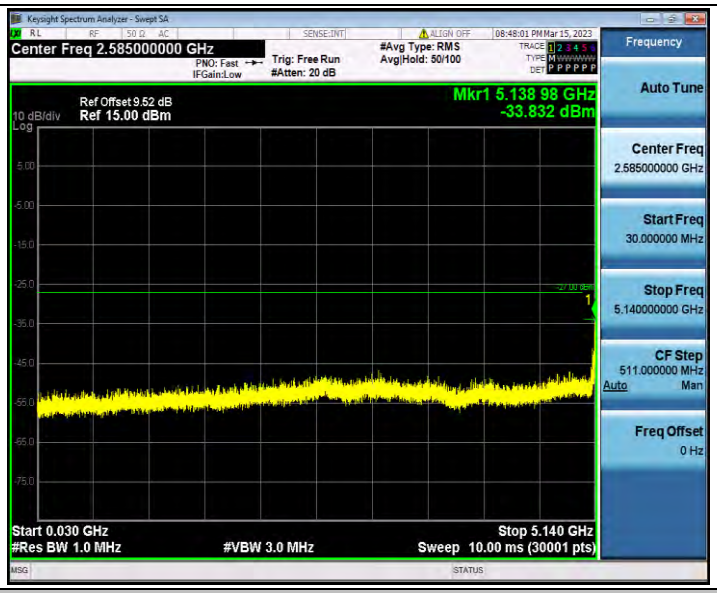
11AC20SISO_Ant1_5180_30~5140


11AC20SISO_Ant1_5180_5360~40000

11AC20SISO_Ant1_5200_30~5140

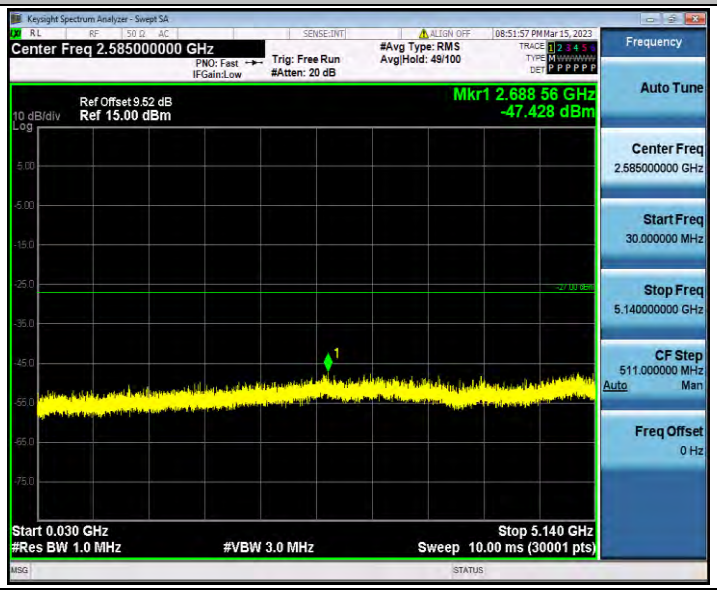
11AC20SISO_Ant1_5200_5360~40000

11AC20SISO_Ant1_5240_30~5140
11AC20SISO_Ant1_5240_5360~40000

11AC40SISO_Ant1_5190_30~5140



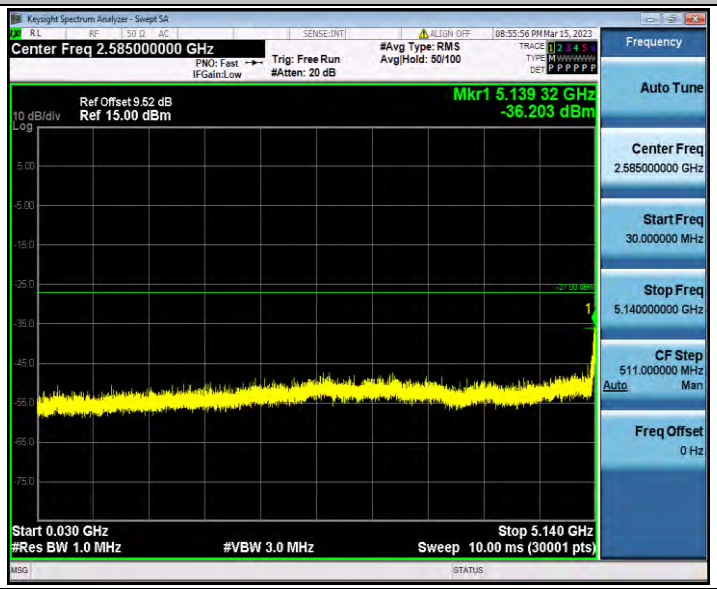
11AC40SISO_Ant1_5190_5360~40000

11AC40SISO_Ant1_5230_30~5140



11AC40SISO_Ant1_5230_5360~40000

11AC80SISO_Ant1_5210_30~5140



11AC80SISO_Ant1_5210_5360~40000

Keysight Spectrum Analyzer - Swept SA
Center Freq 16.180000000 GHz
PNO: Fast
IFGain:Low
Trig: Free Run
#Atten: 20 dB
#Avg Type: RMS
Avg|Hold: 50/100
Ref Offset 9.52 dB
10 dB/div
Ref 15.00 dBm
Log
Mkr1 25.017 1 GHz
-38.032 dBm
Start 5.36 GHz
#Res BW 1.0 MHz
#VBW 3.0 MHz
Stop 27.00 GHz
Sweep 56.00 ms (30001 pts)
Frequency
Auto Tune
Center Freq
16.180000000 GHz
Start Freq
5.360000000 GHz
Stop Freq
27.000000000 GHz
CF Step
2.164000000 GHz
Auto
Man
Freq Offset
0 Hz