Case No. : GTS20221027005-2-9	
Ambient Condition: 24 ℃, 45 %RH, Atmos100.1Kpa,	
Test Date: 2022.12.13	**Test Engineer:** Jenny zeng

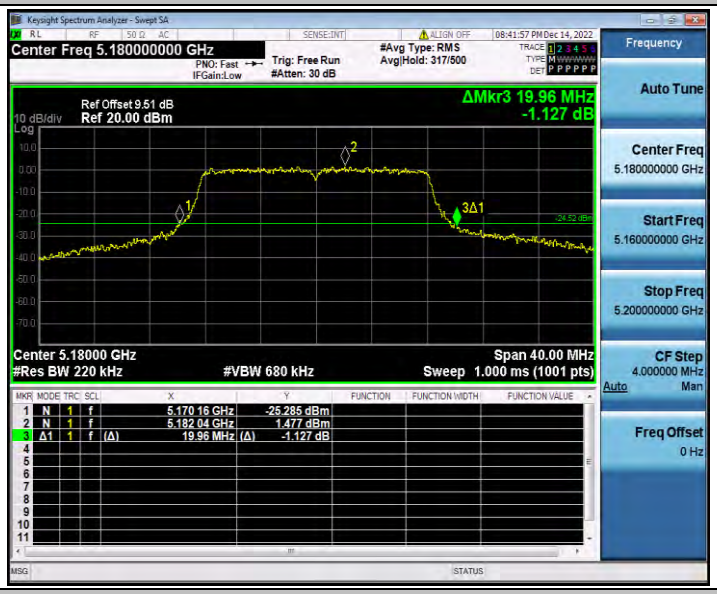
Appendix B.1: Emission Bandwidth

Test Result

TestMode	Antenna	Frequency[MHz]	26db EBW [MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
11A	Ant1	5180	19.960	5170.160	5190.120	---	---
		5200	20.080	5190.160	5210.240	---	---
		5240	19.600	5230.280	5249.880	---	---
11N20SISO	Ant1	5180	20.240	5169.840	5190.080	---	---
		5200	20.400	5189.680	5210.080	---	---
		5240	20.480	5229.840	5250.320	---	---
11N40SISO	Ant1	5190	40.720	5170.080	5210.800	---	---
		5230	39.760	5210.080	5249.840	---	---
11AC20SISO	Ant1	5180	20.440	5169.760	5190.200	---	---
		5200	20.880	5189.600	5210.480	---	---
		5240	20.840	5229.680	5250.520	---	---
11AC40SISO	Ant1	5190	39.520	5170.240	5209.760	---	---
		5230	39.440	5210.400	5249.840	---	---
11AC80SISO	Ant1	5210	91.520	5168.560	5260.080	---	---

Test Graphs

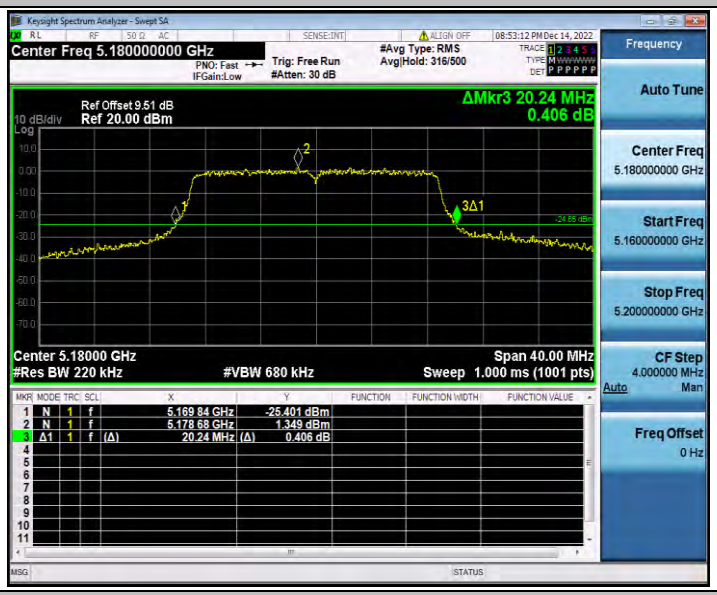
11A_Ant1_5180



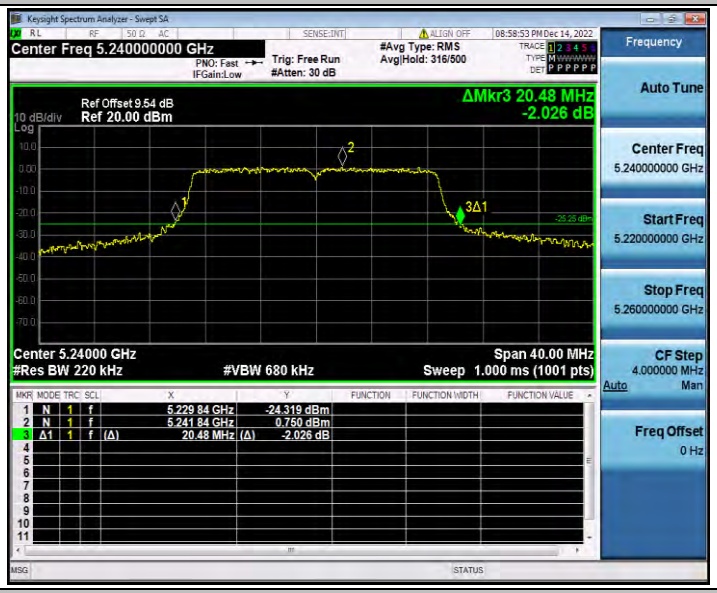
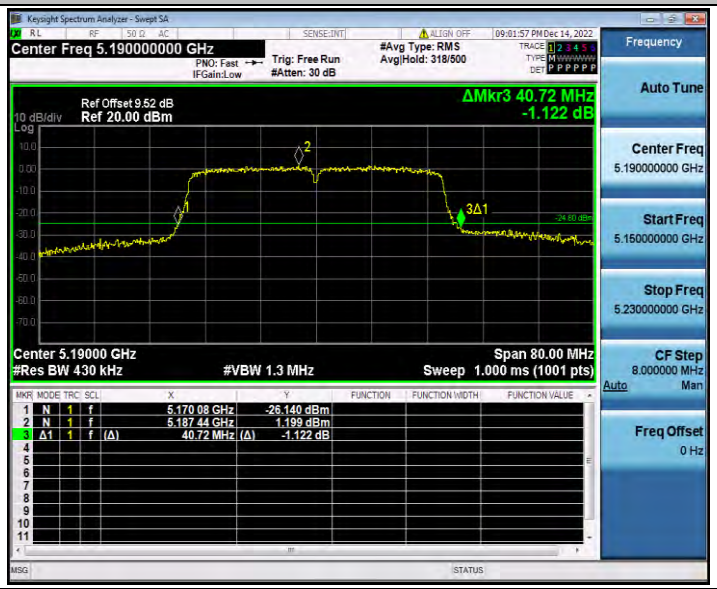
11A_Ant1_5200

11A_Ant1_5240

11N20SISO_Ant1_5180



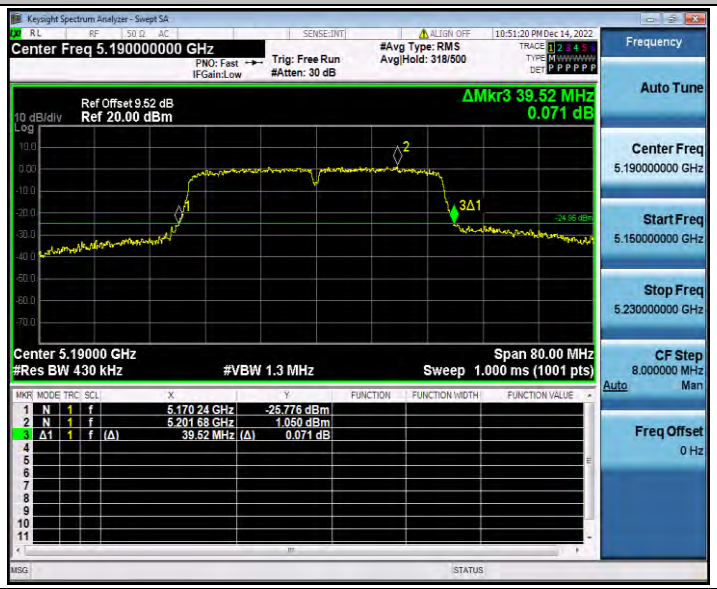
11N20SISO_Ant1_5200

11N20SISO_Ant1_5240

11N40SISO_Ant1_5190

11N40SISO_Ant1_5230

11AC20SISO_Ant1_5180

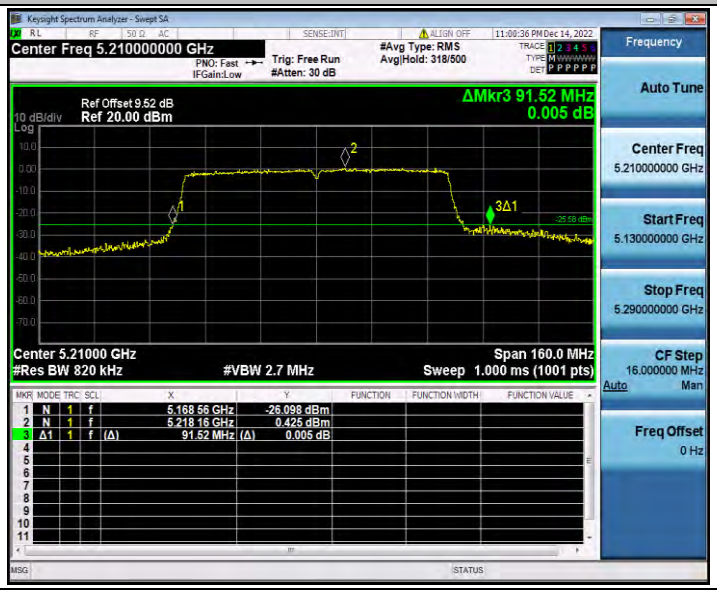
11AC20SISO_Ant1_5200

11AC20SISO_Ant1_5240

11AC40SISO_Ant1_5190


11AC40SISO_Ant1_5230

11AC80SISO_Ant1_5210



Appendix B.2: Occupied channel bandwidth

Test Result

TestMode	Antenna	Frequency[MHz]	OCB [MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
11A	Ant1	5180	16.618	5171.637	5188.255	---	---
		5200	16.639	5191.630	5208.269	---	---
		5240	16.647	5231.612	5248.259	---	---
11N20SISO	Ant1	5180	17.760	5171.057	5188.817	---	---
		5200	17.793	5191.051	5208.844	---	---
		5240	17.785	5231.031	5248.816	---	---
11N40SISO	Ant1	5190	36.167	5171.857	5208.024	---	---
		5230	36.187	5211.879	5248.066	---	---
11AC20SISO	Ant1	5180	17.785	5171.061	5188.846	---	---
		5200	17.812	5191.041	5208.853	---	---
		5240	17.828	5231.011	5248.839	---	---
11AC40SISO	Ant1	5190	36.219	5171.903	5208.122	---	---
		5230	36.138	5211.916	5248.054	---	---
11AC80SISO	Ant1	5210	75.956	5172.163	5248.119	---	---

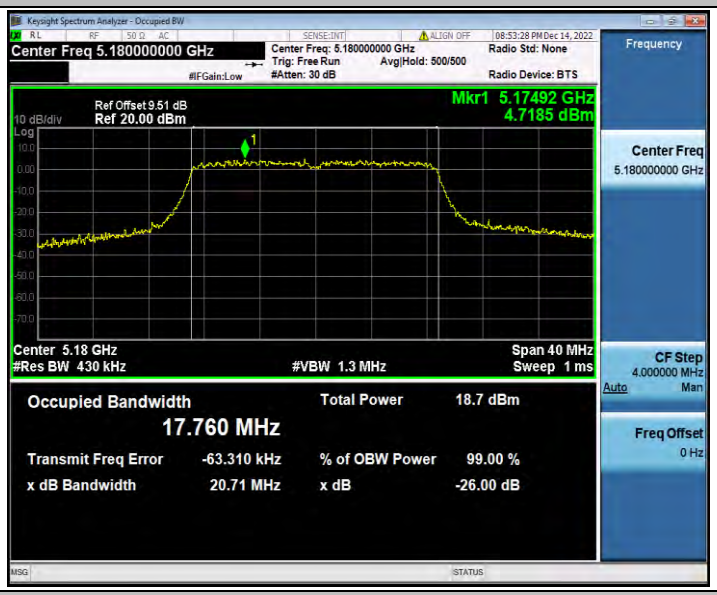
Test Graphs

11A_Ant1_5180

11A_Ant1_5200

11A_Ant1_5240

11N20SISO_Ant1_5180



11N20SISO_Ant1_5200

11N20SISO_Ant1_5240

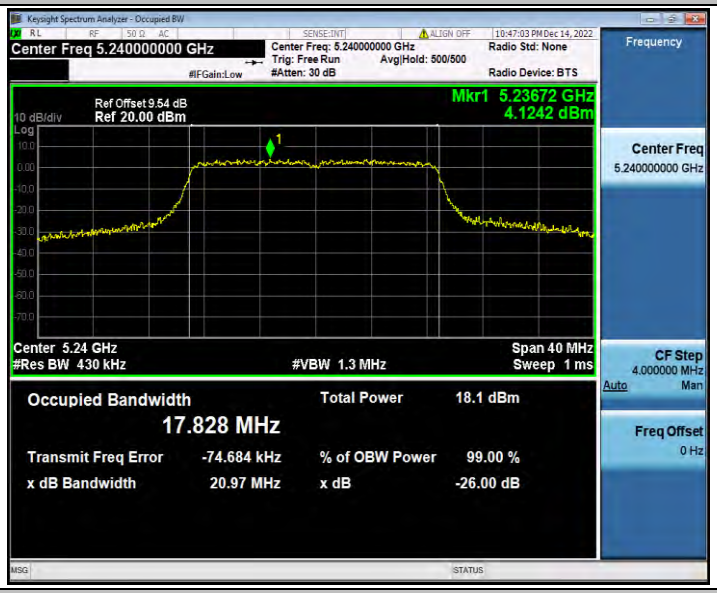
11N40SISO_Ant1_5190

11N40SISO_Ant1_5230

11AC20SISO_Ant1_5180

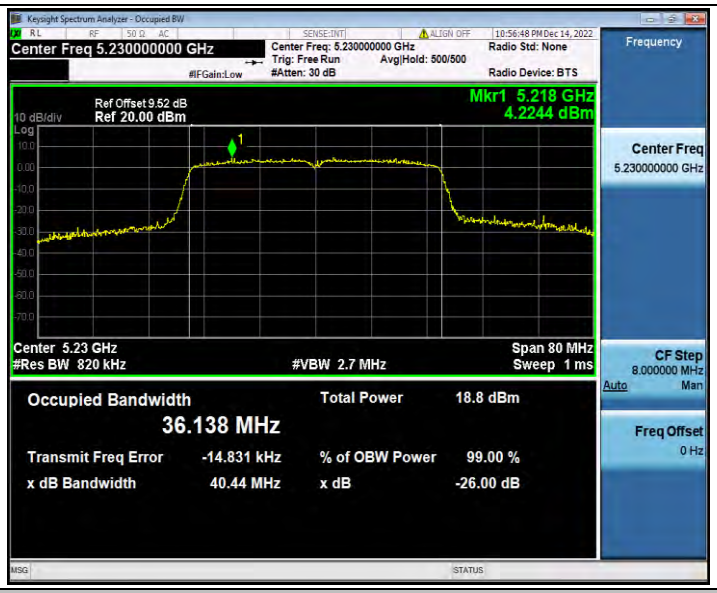
11AC20SISO_Ant1_5200

11AC20SISO_Ant1_5240



11AC40SISO_Ant1_5190

11AC40SISO_Ant1_5230



11AC80SISO_Ant1_5210

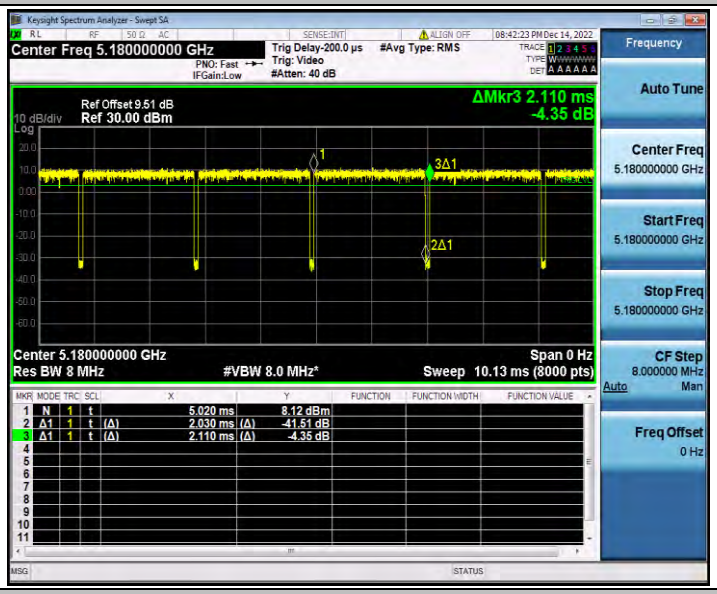
Appendix B.3: Duty Cycle

Test Result

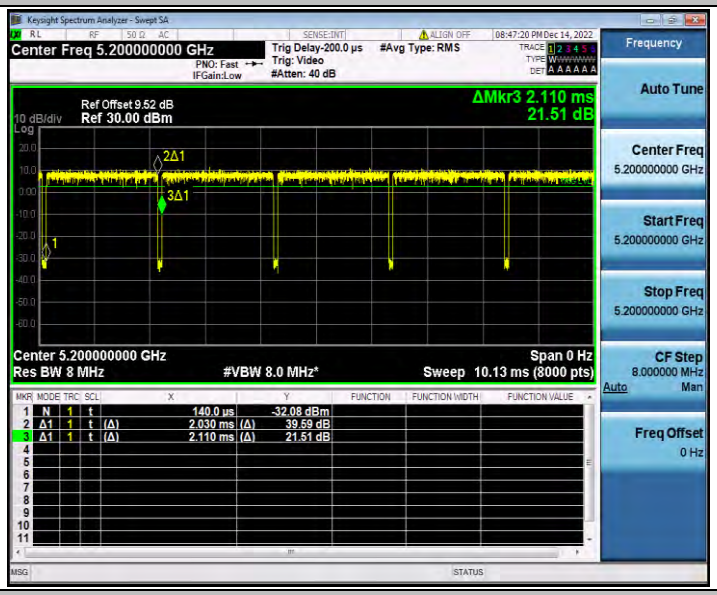
TestMode	Antenna	Frequency[MHz]	Transmission Duration [ms]	Transmission Period [ms]	Duty Cycle [%]
11A	Ant1	5180	2.03	2.11	96.21
		5200	2.03	2.11	96.21
		5240	2.03	2.11	96.21
11N20SISO	Ant1	5180	4.96	5.04	98.41
		5200	4.96	5.04	98.41
		5240	4.96	5.04	98.41
11N40SISO	Ant1	5190	2.40	2.48	96.77
		5230	2.41	2.49	96.79
11AC20SISO	Ant1	5180	4.97	5.05	98.42
		5200	4.97	5.05	98.42
		5240	4.98	5.06	98.42
11AC40SISO	Ant1	5190	2.42	2.50	96.80
		5230	2.42	2.50	96.80
11AC80SISO	Ant1	5210	1.13	1.23	91.87

Test Graphs

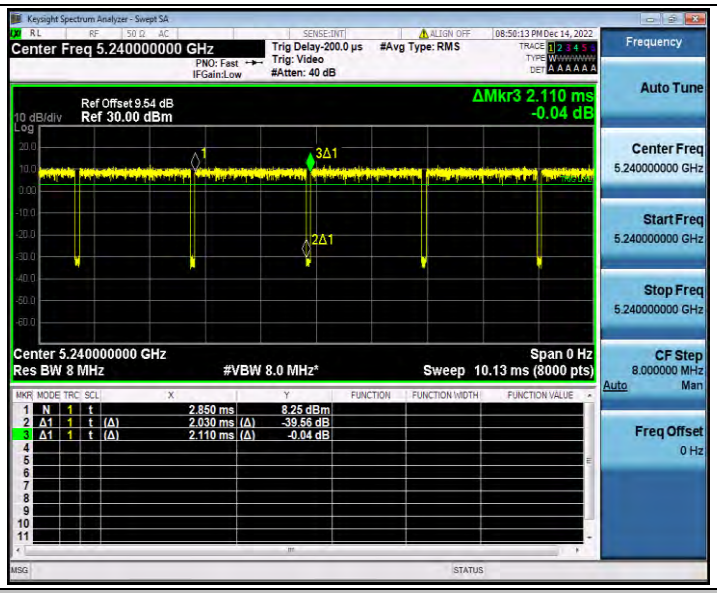
11A_Ant1_5180



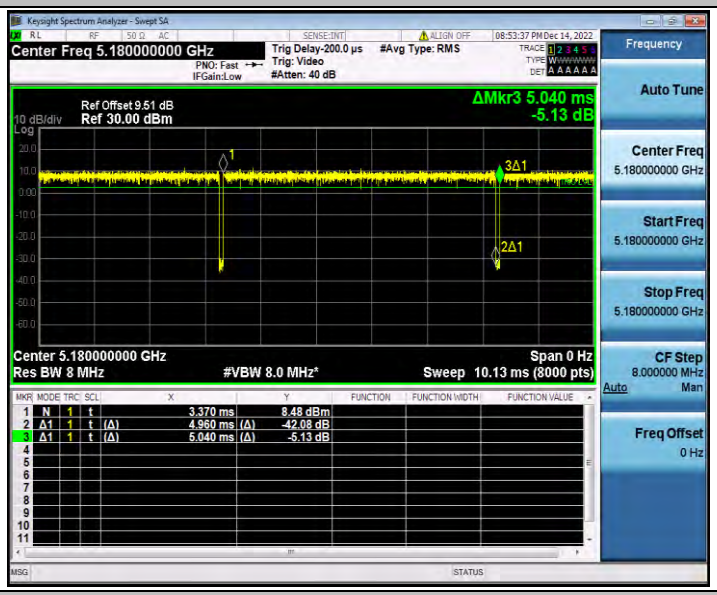
11A_Ant1_5200



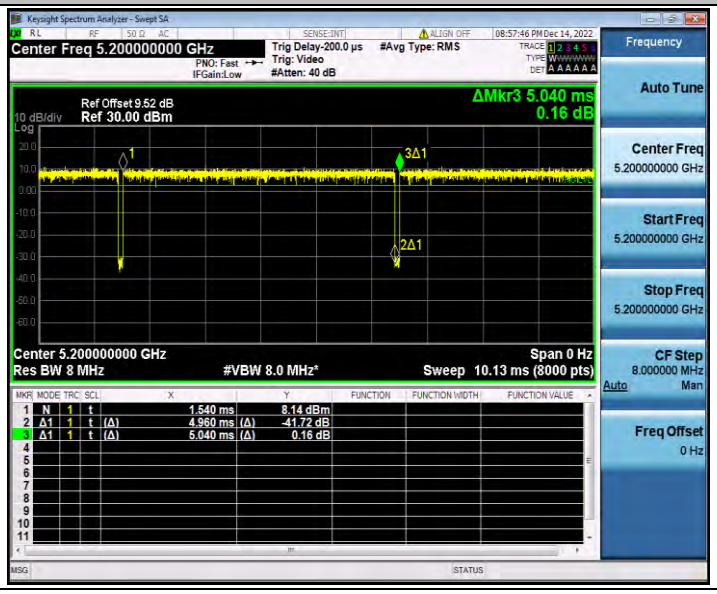
11A_Ant1_5240



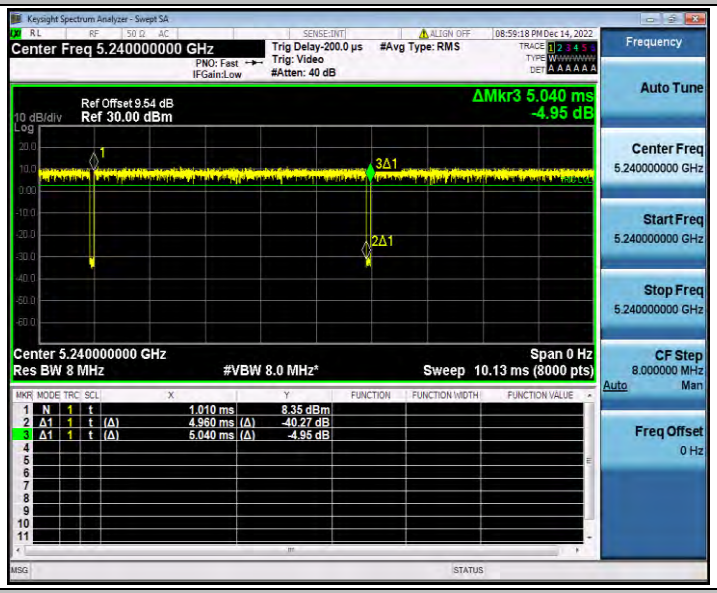
11N20SISO_Ant1_5180



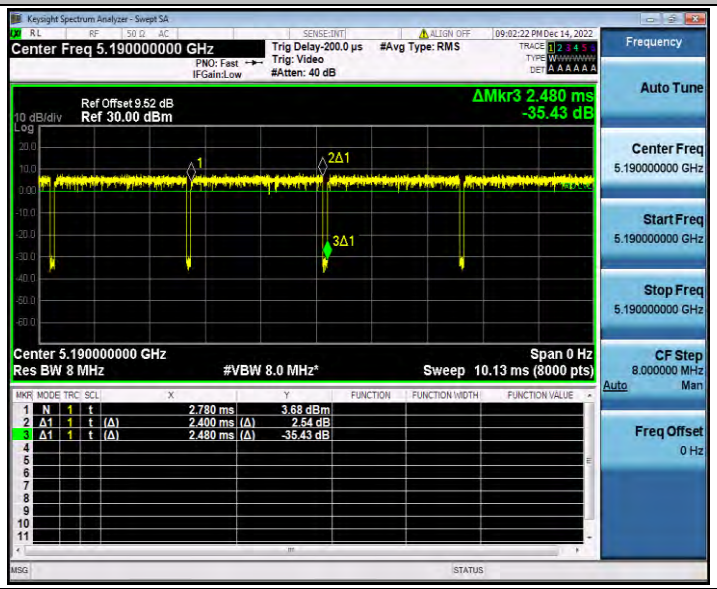
11N20SISO_Ant1_5200



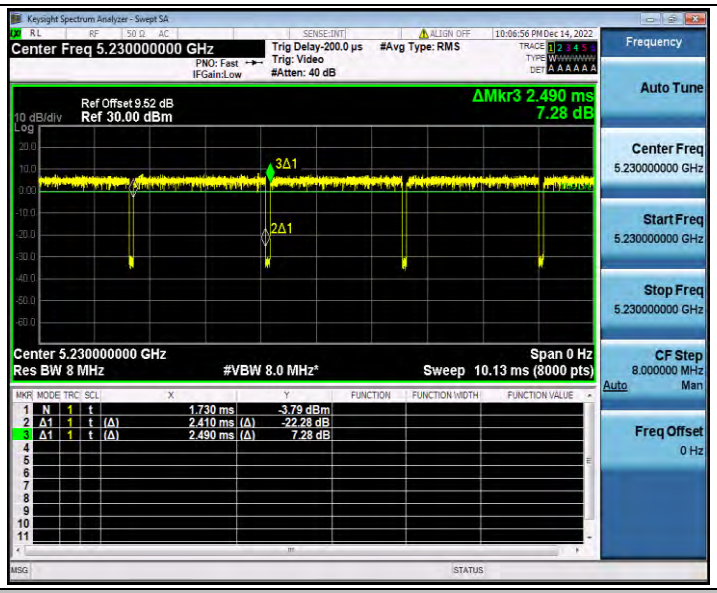
11N20SISO_Ant1_5240



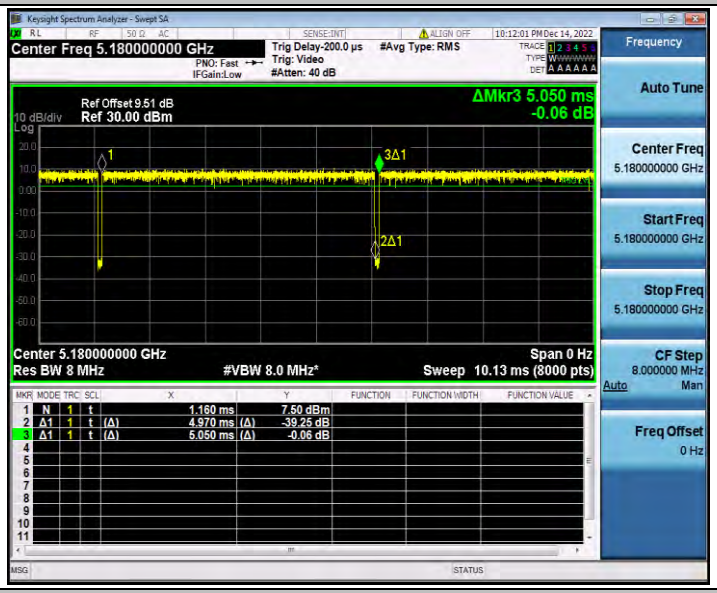
11N40SISO_Ant1_5190



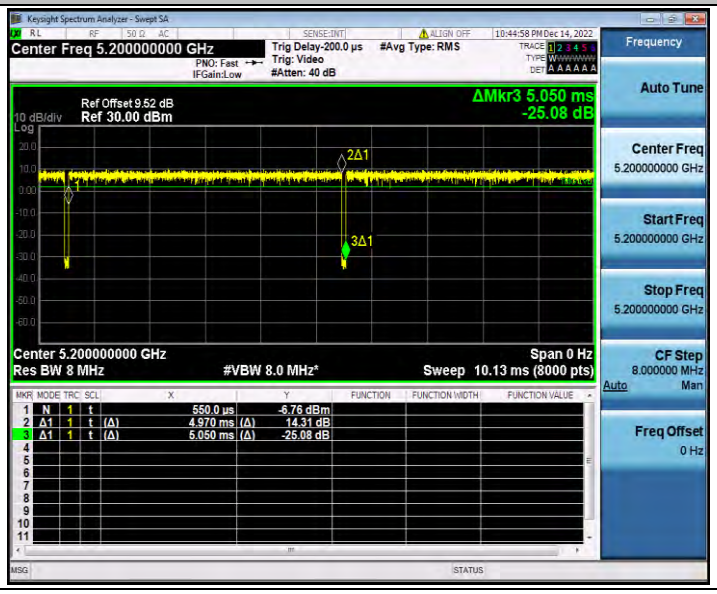
11N40SISO_Ant1_5230



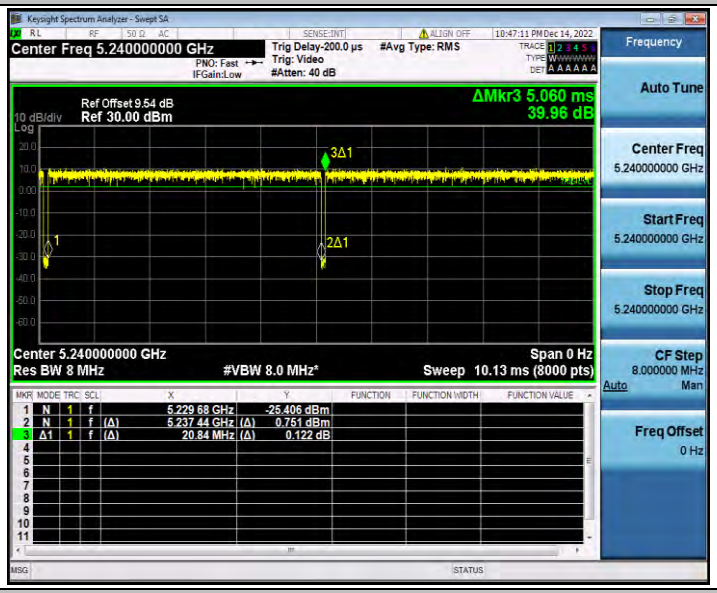
11AC20SISO_Ant1_5180



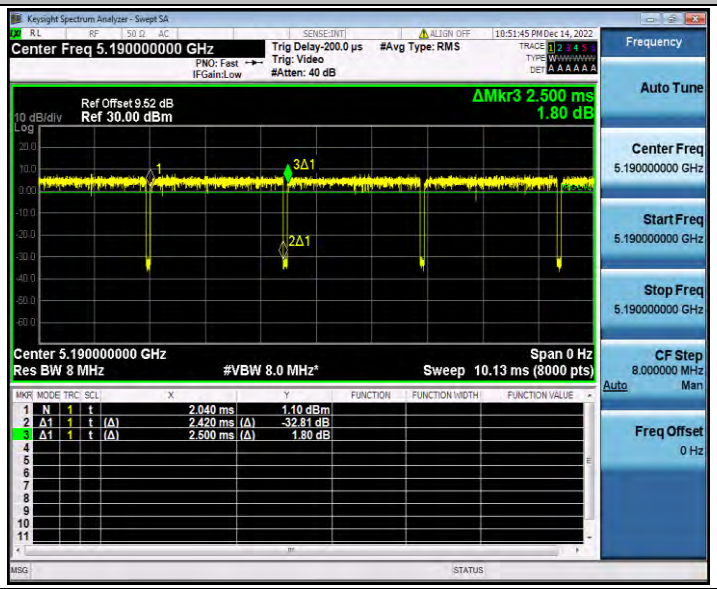
11AC20SISO_Ant1_5200



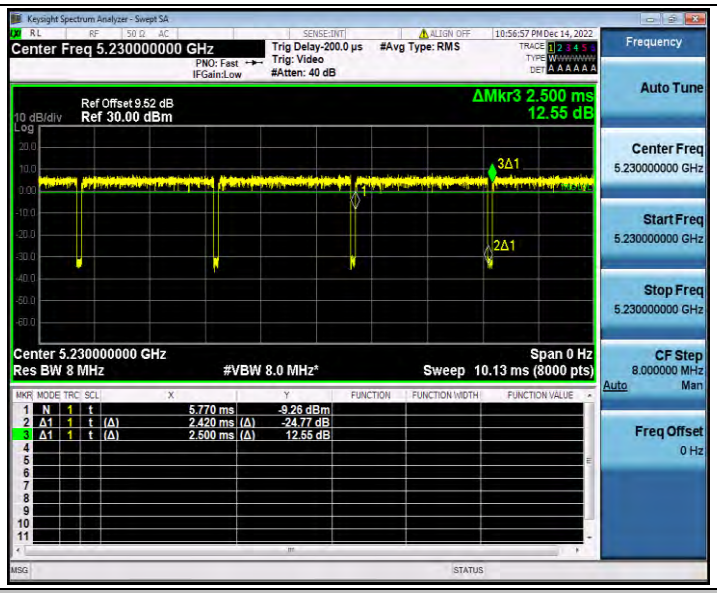
11AC20SISO_Ant1_5240



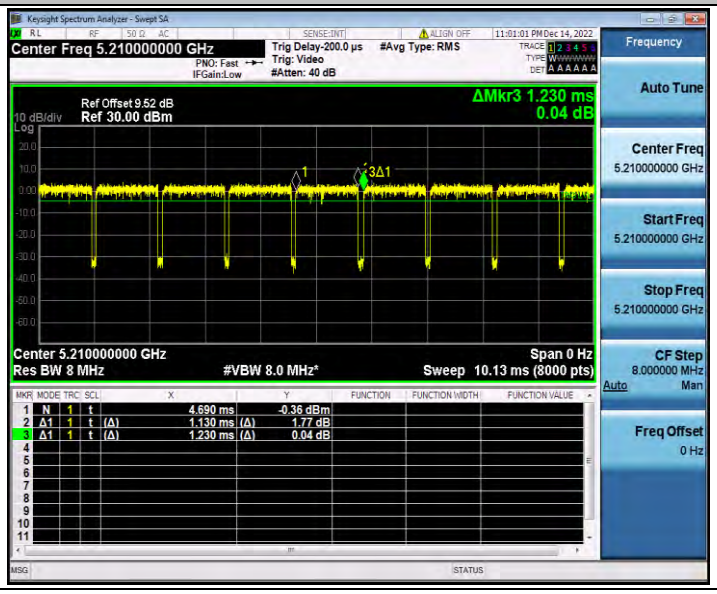
11AC40SISO_Ant1_5190



11AC40SISO_Ant1_5230



11AC80SISO_Ant1_5210



Appendix B.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	11.55	96.21	0.17	11.72	≤30.00	PASS
		5200	11.12	96.21	0.17	11.29	≤30.00	PASS
		5240	11.61	96.21	0.17	11.78	≤30.00	PASS
11N20SISO	Ant1	5180	11.52	98.41	0.07	11.59	≤30.00	PASS
		5200	11.50	98.41	0.07	11.57	≤30.00	PASS
		5240	11.62	98.41	0.07	11.69	≤30.00	PASS
11N40SISO	Ant1	5190	11.64	96.77	0.14	11.78	≤30.00	PASS
		5230	11.19	96.79	0.14	11.33	≤30.00	PASS
11AC20SISO	Ant1	5180	11.06	98.42	0.07	11.13	≤30.00	PASS
		5200	10.93	98.42	0.07	11.00	≤30.00	PASS
		5240	11.09	98.42	0.07	11.16	≤30.00	PASS
11AC40SISO	Ant1	5190	11.11	96.80	0.14	11.25	≤30.00	PASS
		5230	11.07	96.80	0.14	11.21	≤30.00	PASS
11AC80SISO	Ant1	5210	10.71	91.87	0.37	11.08	≤30.00	PASS

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

Appendix B.5: Maximum power spectral density

Test Result

TestMode	Antenna	Frequency[MHz]	Result [dBm/MHz]	Limit[dBm/MHz]	Verdict
11A	Ant1	5180	7.28	≤17.00	PASS
		5200	6.8	≤17.00	PASS
		5240	7.72	≤17.00	PASS
11N20SISO	Ant1	5180	6.31	≤17.00	PASS
		5200	6.84	≤17.00	PASS
		5240	6.66	≤17.00	PASS
11N40SISO	Ant1	5190	3.04	≤17.00	PASS
		5230	2.91	≤17.00	PASS
11AC20SISO	Ant1	5180	5.95	≤17.00	PASS
		5200	5.91	≤17.00	PASS
		5240	6.05	≤17.00	PASS
11AC40SISO	Ant1	5190	2.85	≤17.00	PASS
		5230	3.42	≤17.00	PASS
11AC80SISO	Ant1	5210	-0.72	≤17.00	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

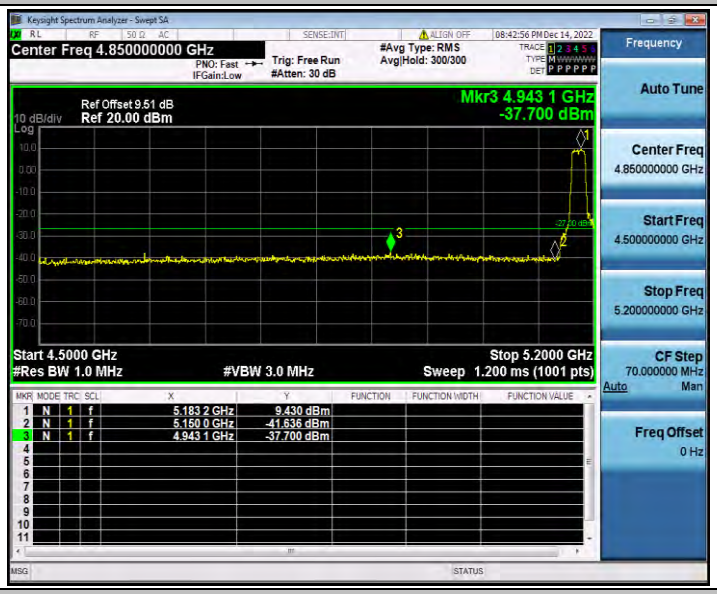
Appendix B.6: Band edge measurements

Test Result B1

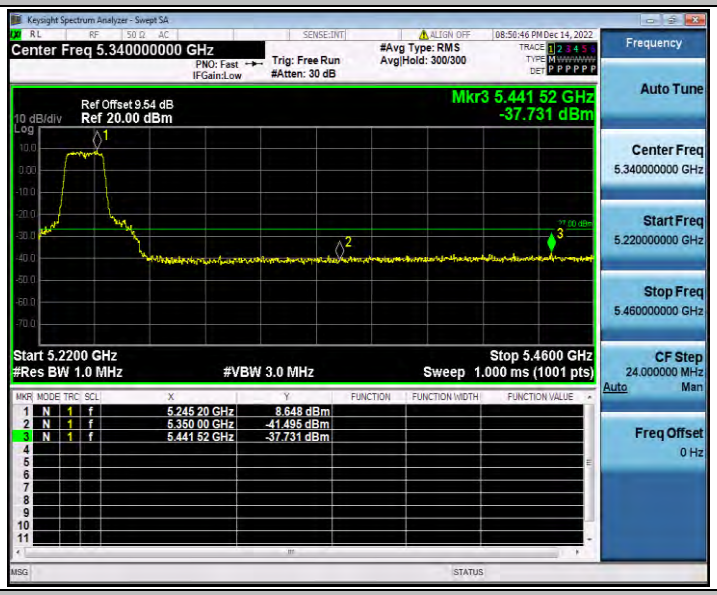
TestMode	Antenna	ChName	Frequency[MHz]	Result[dBm]	Limit[dBm]	Verdict
11A	Ant1	Low	5180	-37.7	≤-27	PASS
		High	5240	-37.73	≤-27	PASS
11N20SISO	Ant1	Low	5180	-37.73	≤-27	PASS
		High	5240	-37.72	≤-27	PASS
11N40SISO	Ant1	Low	5190	-32.15	≤-27	PASS
		High	5230	-37.52	≤-27	PASS
11AC20SISO	Ant1	Low	5180	-37.8	≤-27	PASS
		High	5240	-37.36	≤-27	PASS
11AC40SISO	Ant1	Low	5190	-33.68	≤-27	PASS
		High	5230	-37.5	≤-27	PASS
11AC80SISO	Ant1	Low	5210	-32.7	≤-27	PASS
		High	5210	-38.3	≤-27	PASS

Test Graphs B1

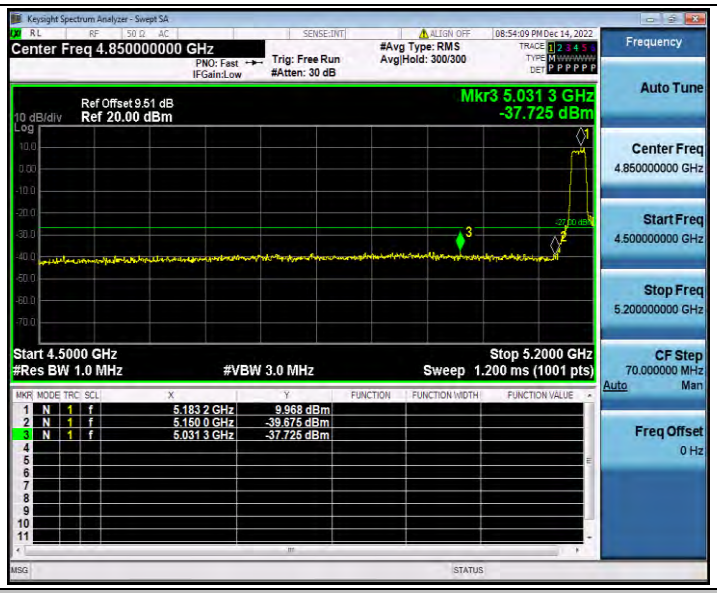
11A_Ant1_Low_5180



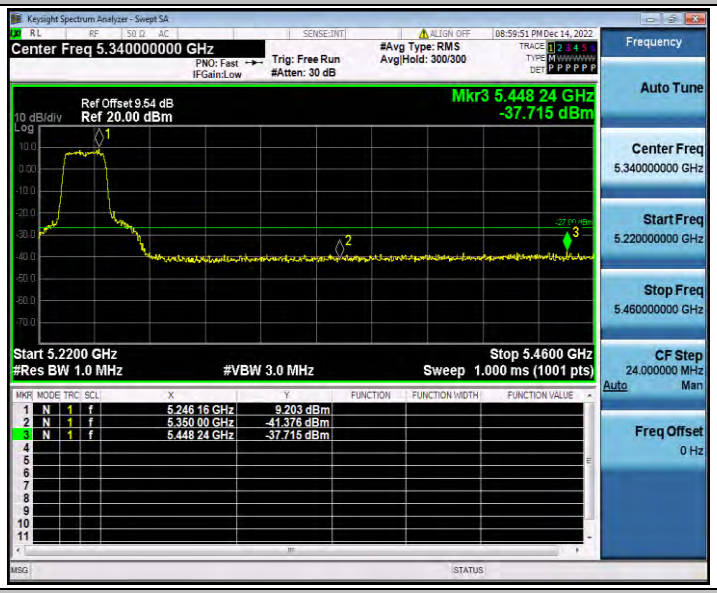
11A_Ant1_High_5240



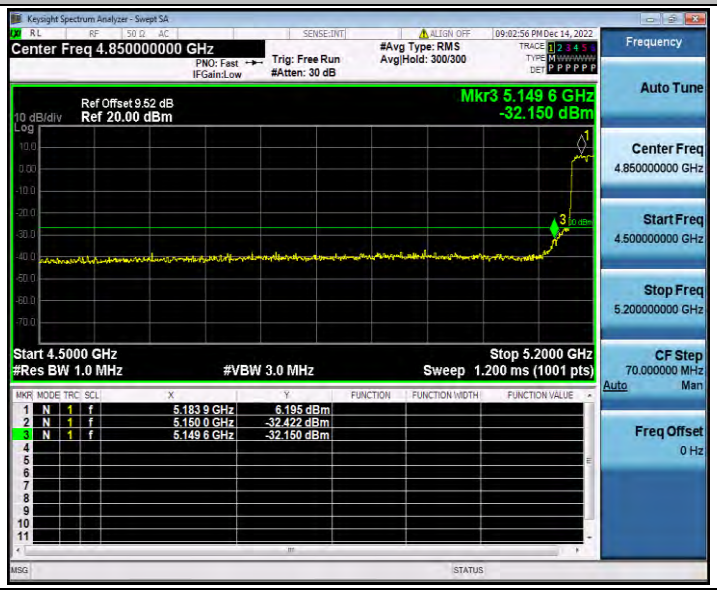
11N20SISO_Ant1_Low_5180



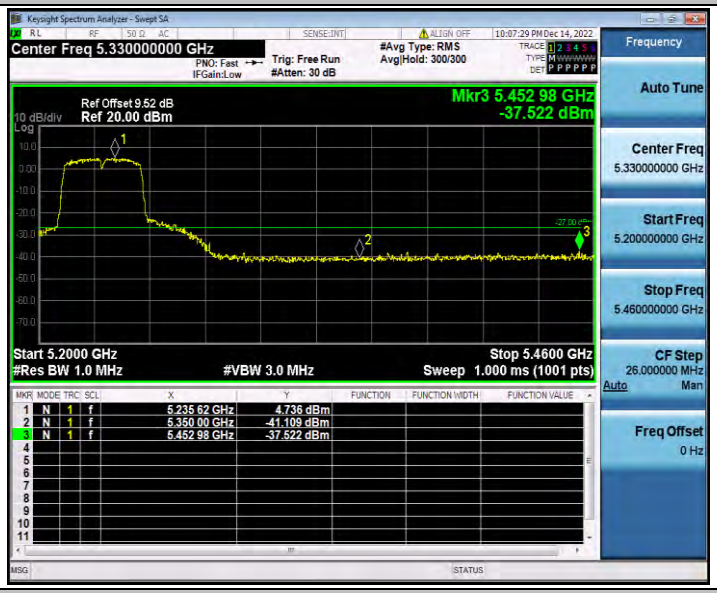
11N20SISO_Ant1_High_5240



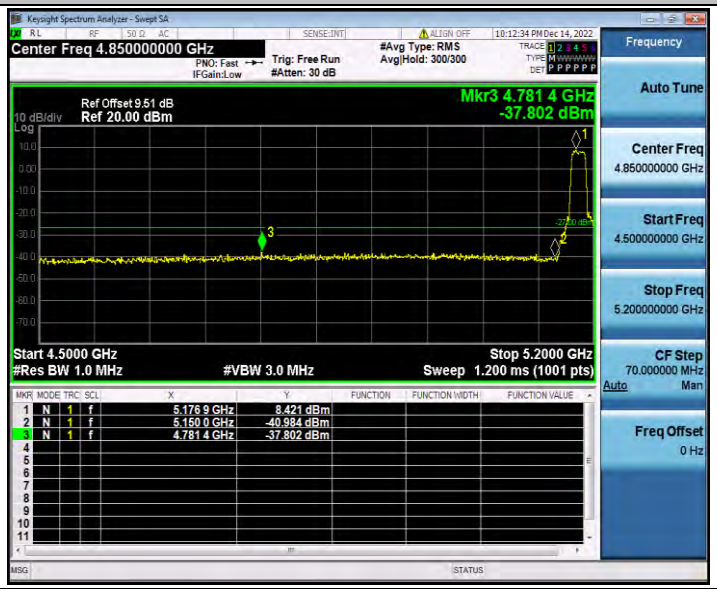
11N40SISO_Ant1_Low_5190



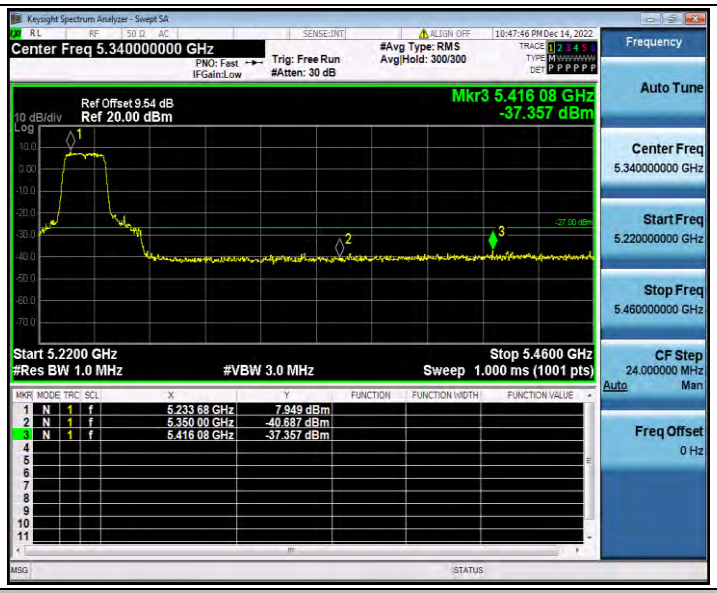
11N40SISO_Ant1_High_5230



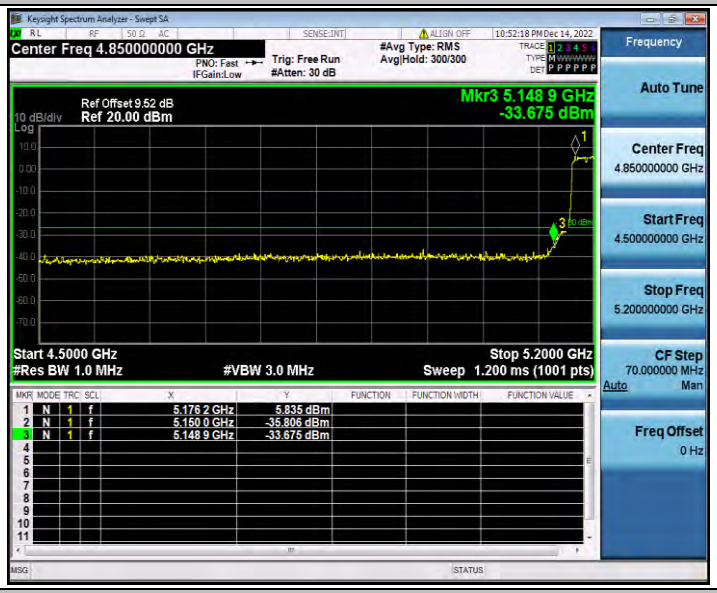
11AC20SISO_Ant1_Low_5180



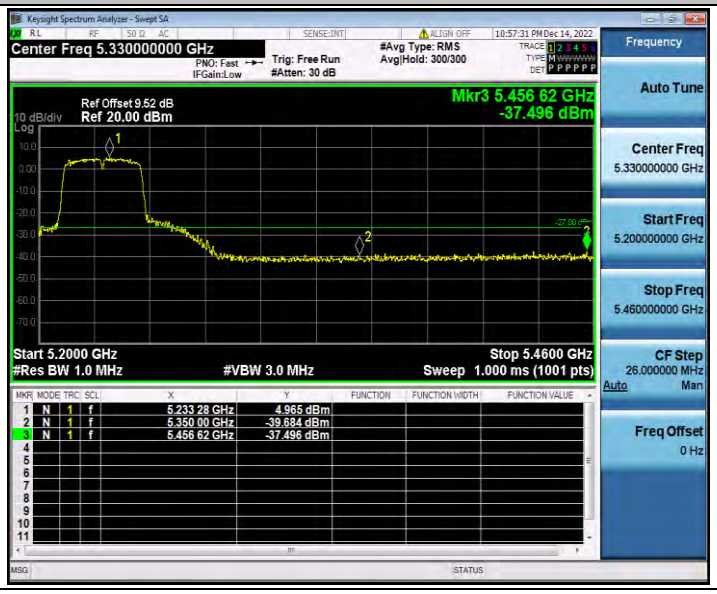
11AC20SISO_Ant1_High_5240

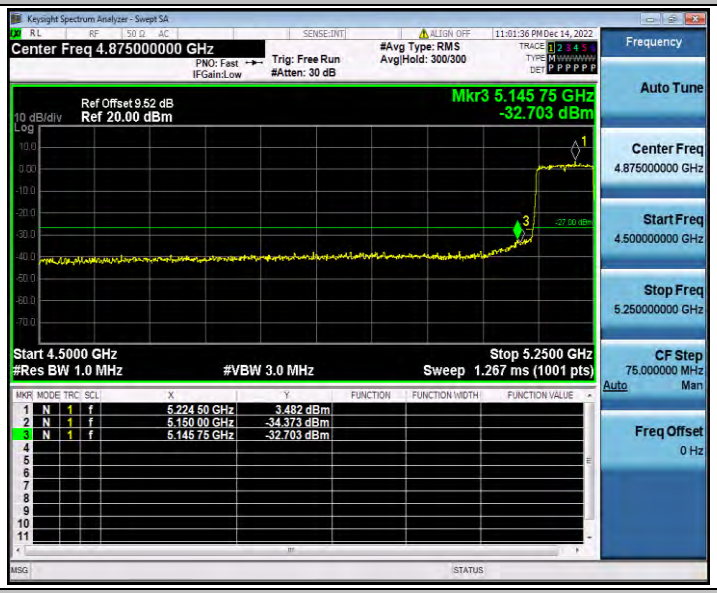


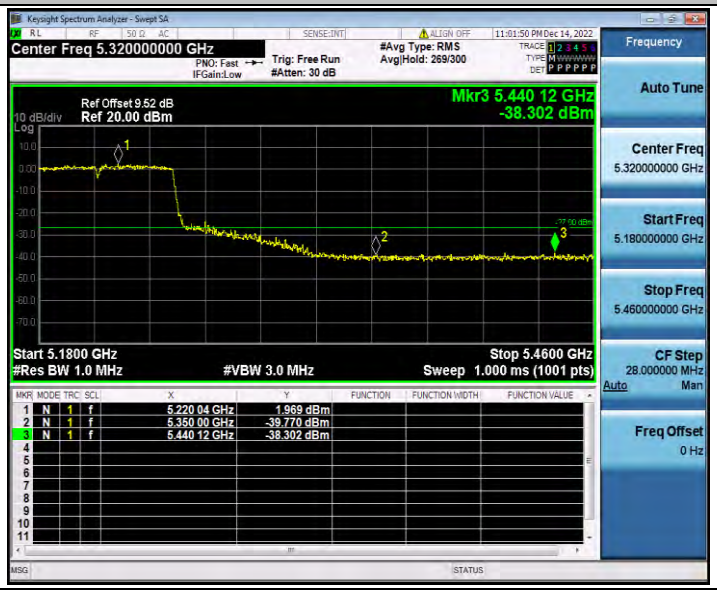
11AC40SISO_Ant1_Low_5190



11AC40SISO_Ant1_High_5230



11AC80SISO_Ant1_Low_5210


11AC80SISO_Ant1_High_5210


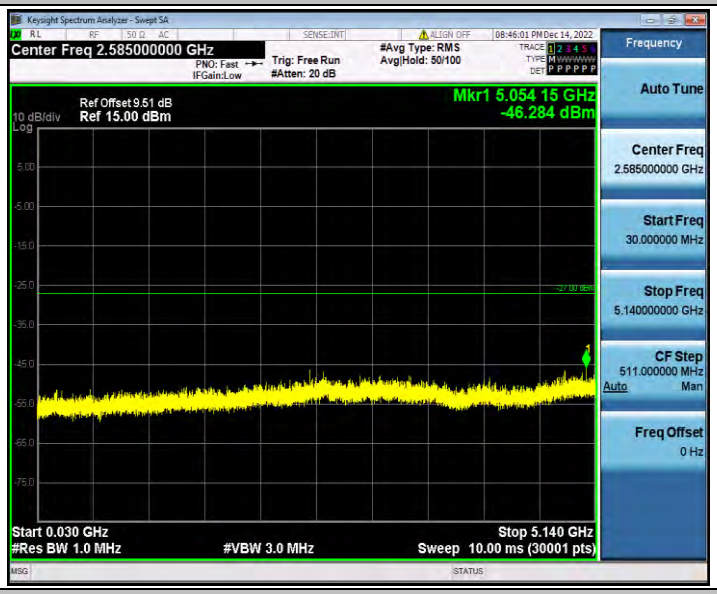
Appendix A.7: Conducted Spurious Emission

Test Result

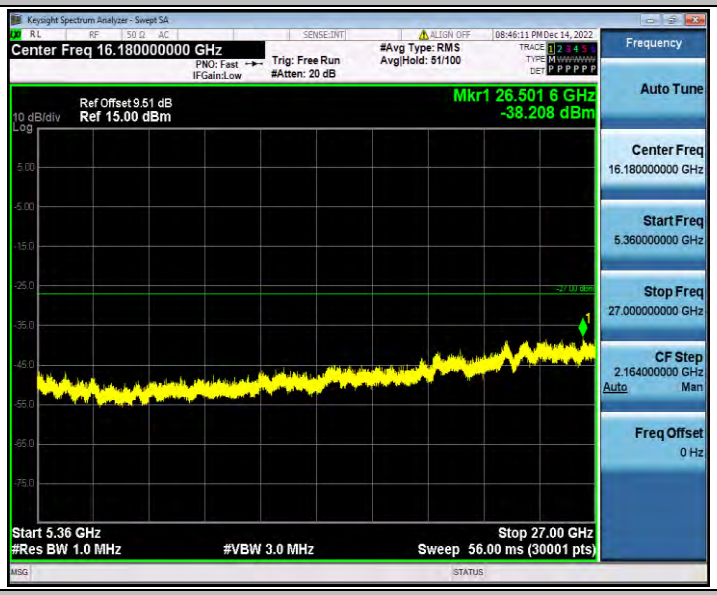
TestMode	Antenna	Frequency[MHz]	FreqRange [MHz]	Max. Fre [MHz]	Max. Level [dBm]	Limit [dBm]	Verdict
11A	Ant1	5180	30~5140	5054.15	-46.28	≤-27	PASS
			5360~40000	26501.56	-38.21	≤-27	PASS
		5200	30~5140	2815.12	-47.34	≤-27	PASS
			5360~40000	24235.13	-37.66	≤-27	PASS
		5240	30~5140	2572.05	-45.18	≤-27	PASS
			5360~40000	23617.67	-38.11	≤-27	PASS
11N20SISO	Ant1	5180	30~5140	2520.78	-40.23	≤-27	PASS
			5360~40000	23498.65	-38.26	≤-27	PASS
		5200	30~5140	4912.95	-47.35	≤-27	PASS
			5360~40000	25244.27	-38.18	≤-27	PASS
		5240	30~5140	5052.28	-47.19	≤-27	PASS
			5360~40000	24415.46	-38.31	≤-27	PASS
11N40SISO	Ant1	5190	30~5140	5137.96	-43.67	≤-27	PASS
			5360~40000	24227.92	-38.32	≤-27	PASS
		5230	30~5140	5116.49	-46.67	≤-27	PASS
			5360~40000	24143.52	-37.56	≤-27	PASS
11AC20SISO	Ant1	5180	30~5140	4954.85	-47.28	≤-27	PASS
			5360~40000	23540.49	-37.61	≤-27	PASS
		5200	30~5140	4951.44	-46.28	≤-27	PASS
			5360~40000	26879.54	-37.28	≤-27	PASS
		5240	30~5140	4973.93	-46.74	≤-27	PASS
			5360~40000	26667.47	-38.49	≤-27	PASS
11AC40SISO	Ant1	5190	30~5140	5135.57	-44.85	≤-27	PASS
			5360~40000	24238.01	-37.6	≤-27	PASS
		5230	30~5140	3052.57	-47.16	≤-27	PASS
			5360~40000	24216.37	-37.75	≤-27	PASS
11AC80SISO	Ant1	5210	30~5140	5136.76	-37.54	≤-27	PASS
			5360~40000	24792	-37.62	≤-27	PASS

Test Graphs

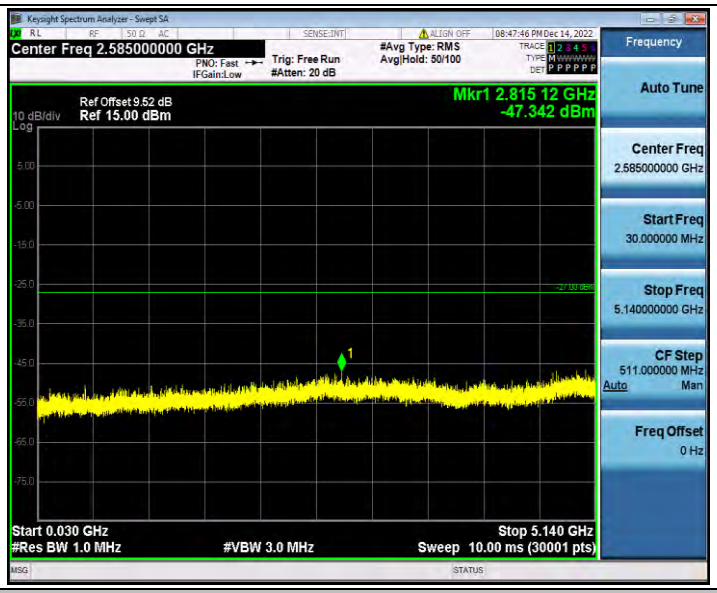
11A_Ant1_5180_30~5140



11A_Ant1_5180_5360~40000

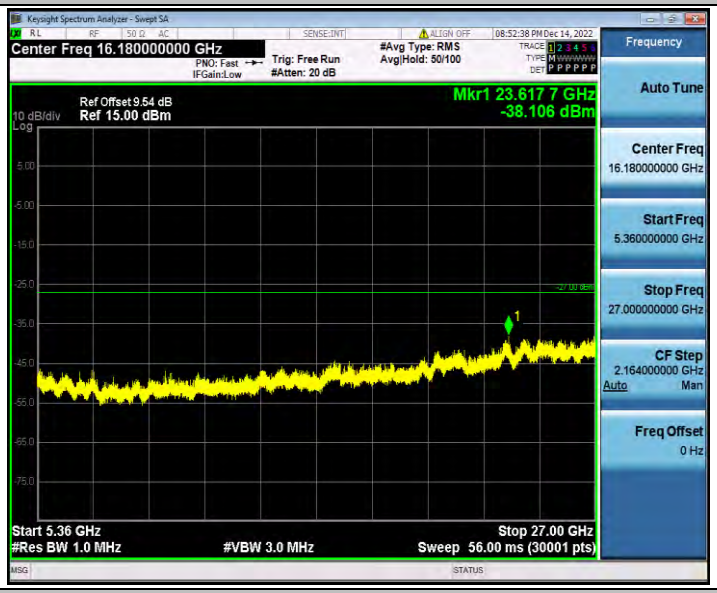


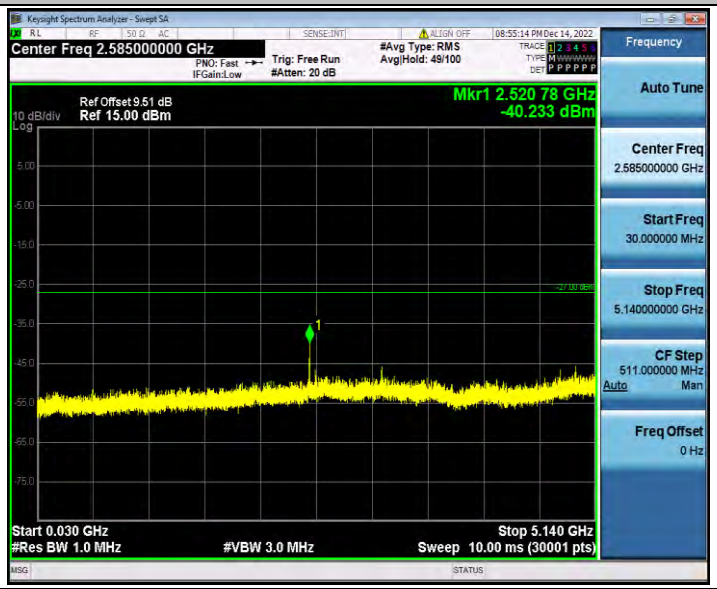
11A_Ant1_5200_30~5140



11A_Ant1_5200_5360~40000

11A_Ant1_5240_30~5140

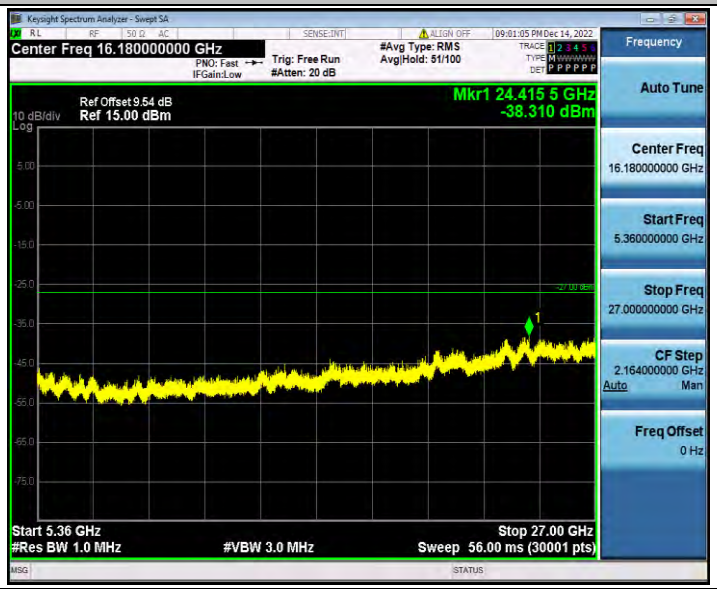
11A_Ant1_5240_5360~40000


11N20SISO_Ant1_5180_30~5140


11N20SISO_Ant1_5180_5360~40000

11N20SISO_Ant1_5200_30~5140

11N20SISO_Ant1_5200_5360~40000

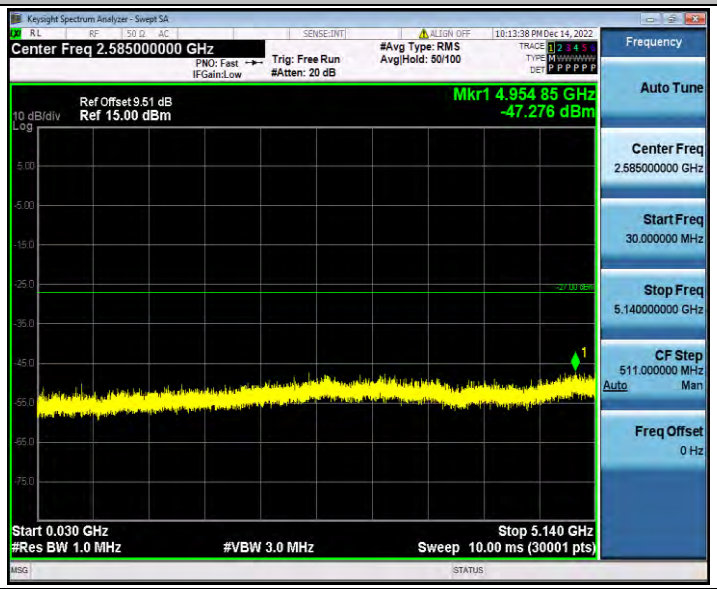
11N20SISO_Ant1_5240_30~5140
11N20SISO_Ant1_5240_5360~40000

11N40SISO_Ant1_5190_30~5140

11N40SISO_Ant1_5190_5360~40000

11N40SISO_Ant1_5230_30~5140

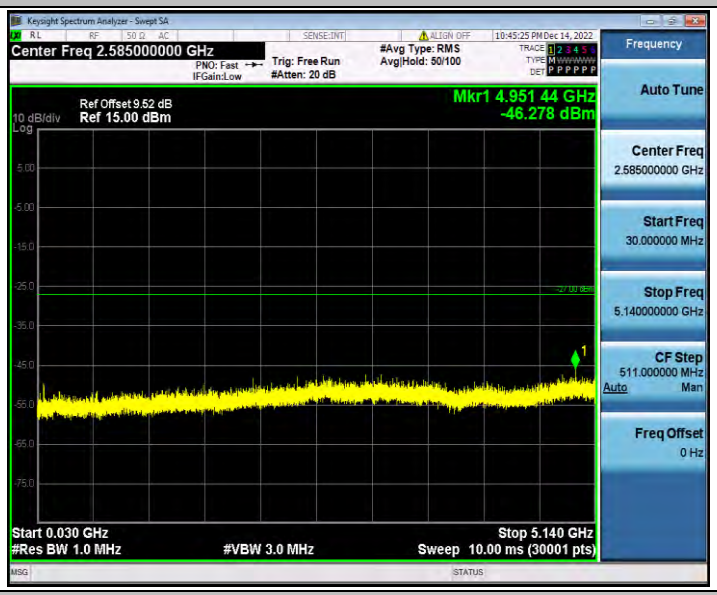
11N40SISO_Ant1_5230_5360~40000

11AC20SISO_Ant1_5180_30~5140



11AC20SISO_Ant1_5180_5360~40000

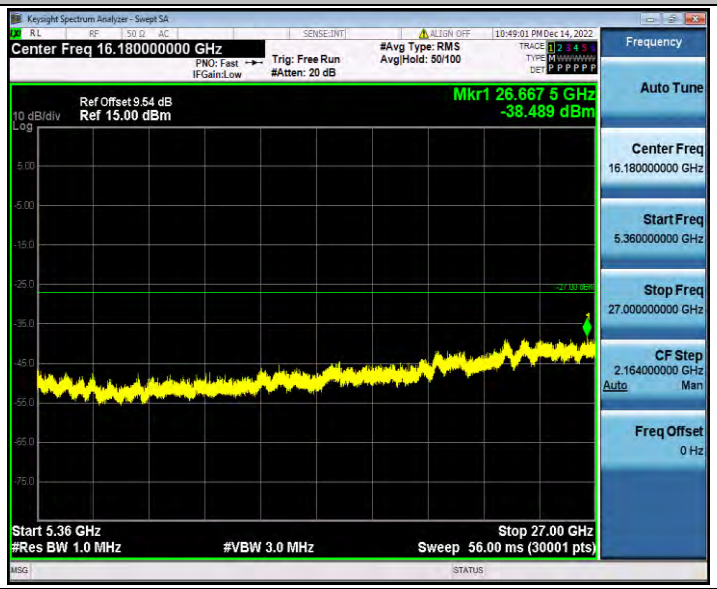
11AC20SISO_Ant1_5200_30~5140



11AC20SISO_Ant1_5200_5360~40000

11AC20SISO_Ant1_5240_30~5140

11AC20SISO_Ant1_5240_5360~40000



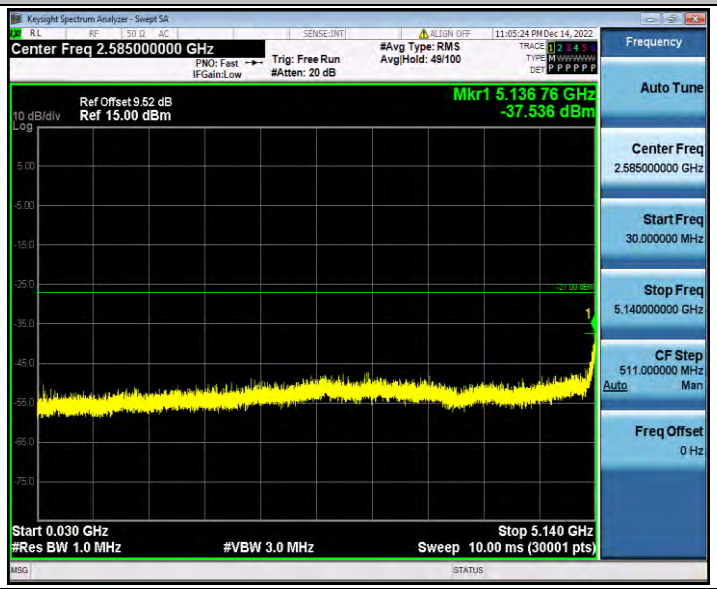
11AC40SISO_Ant1_5190_30~5140

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
11:05:33 PM Dec 14, 2022
Ref Offset 9.52 dB
10 dB/div
Ref 15.00 dBm
Log
Mkr1 24.792 0 GHz
-37.618 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