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

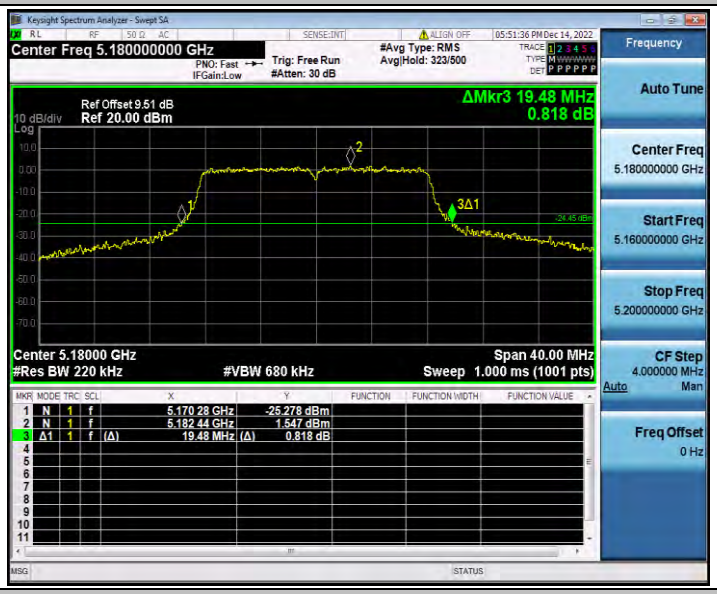
Appendix B.1: Emission Bandwidth

Test Result

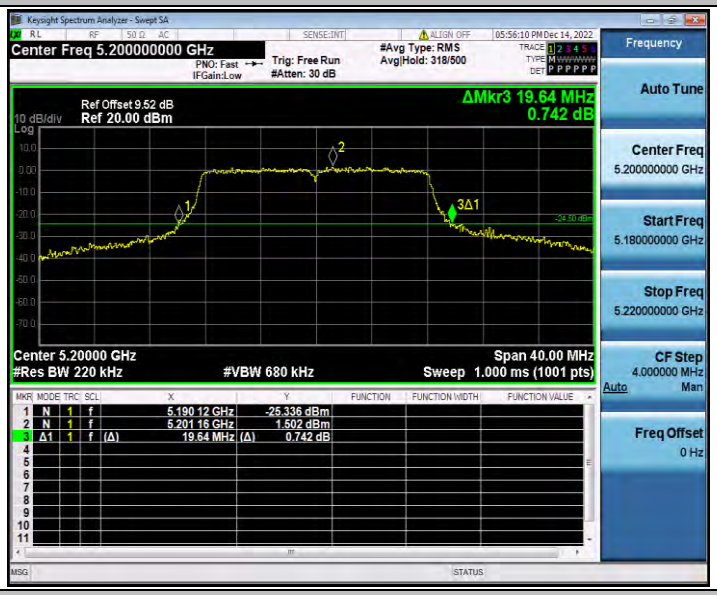
TestMode	Antenna	Frequency[MHz]	26db EBW [MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
11A	Ant2	5180	19.480	5170.280	5189.760	---	---
		5200	19.640	5190.120	5209.760	---	---
		5240	19.840	5230.240	5250.080	---	---
11N20SISO	Ant2	5180	20.240	5169.800	5190.040	---	---
		5200	20.320	5189.760	5210.080	---	---
		5240	20.320	5229.720	5250.040	---	---
11N40SISO	Ant2	5190	39.920	5170.000	5209.920	---	---
		5230	40.160	5210.080	5250.240	---	---
11AC20SISO	Ant2	5180	20.840	5169.840	5190.680	---	---
		5200	20.360	5189.840	5210.200	---	---
		5240	20.320	5229.880	5250.200	---	---
11AC40SISO	Ant2	5190	40.160	5170.080	5210.240	---	---
		5230	39.360	5210.320	5249.680	---	---
11AC80SISO	Ant2	5210	82.560	5168.720	5251.280	---	---

Test Graphs

11A_Ant2_5180

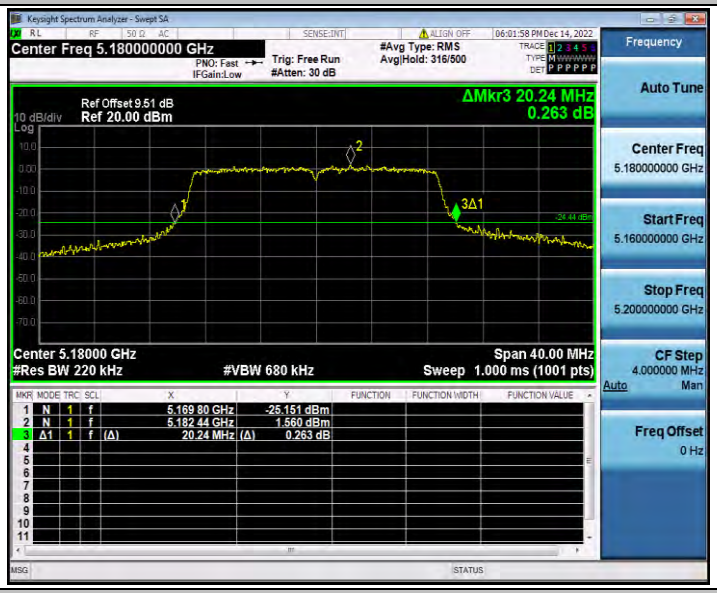


11A_Ant2_5200



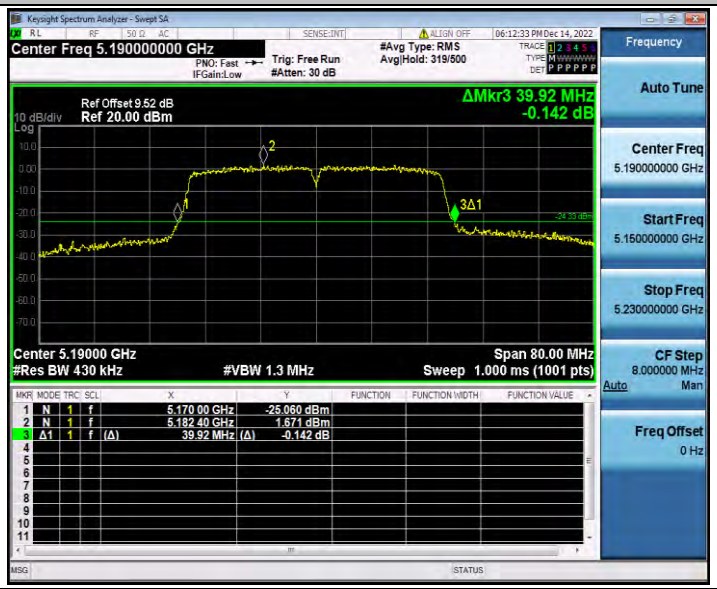
11A_Ant2_5240

11N20SISO_Ant2_5180



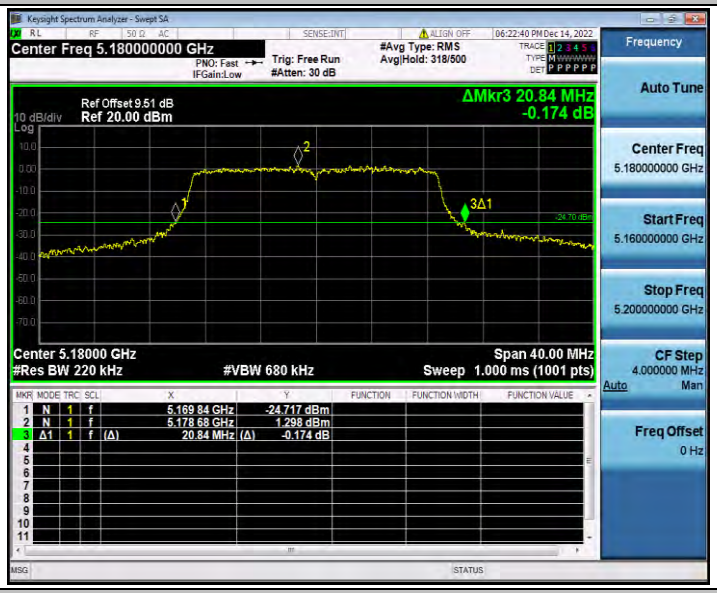
11N20SISO_Ant2_5200

11N20SISO_Ant2_5240

11N40SISO_Ant2_5190


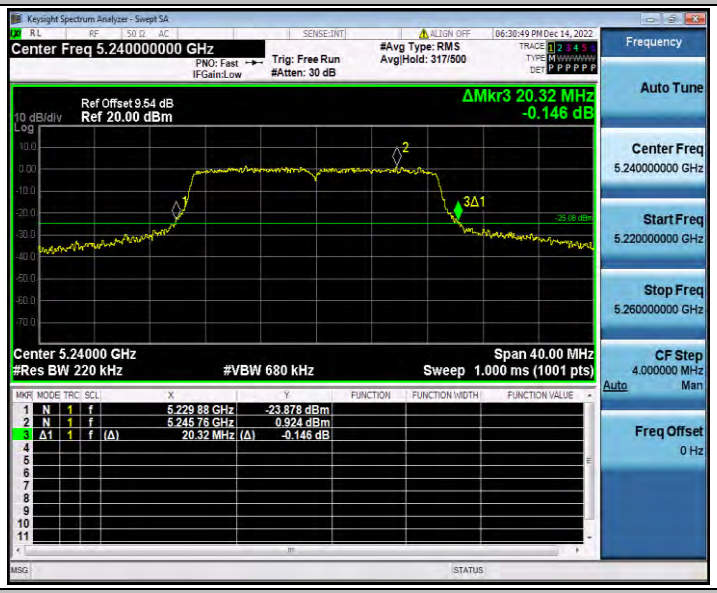
11N40SISO_Ant2_5230

11AC20SISO_Ant2_5180

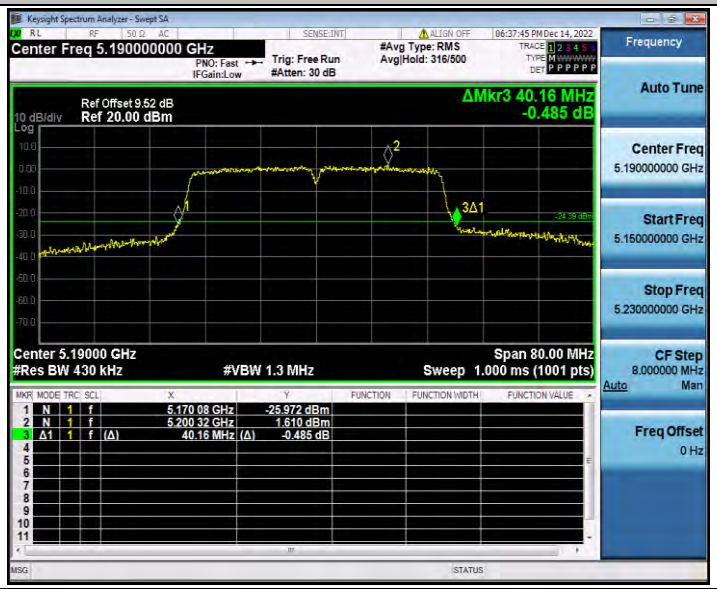


11AC20SISO_Ant2_5200

11AC20SISO_Ant2_5240



11AC40SISO_Ant2_5190



11AC40SISO_Ant2_5230

11AC80SISO_Ant2_5210

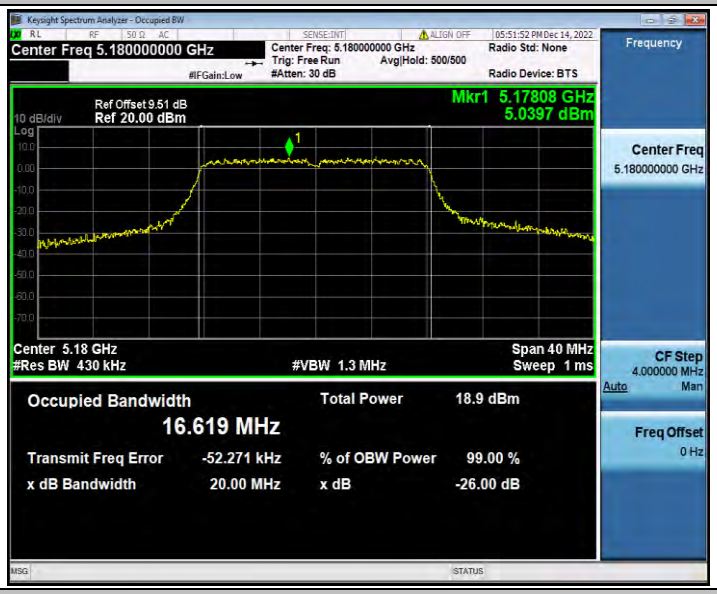
Appendix B.2: Occupied channel bandwidth

Test Result

TestMode	Antenna	Frequency[MHz]	OCB [MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
11A	Ant2	5180	16.619	5171.638	5188.257	---	---
		5200	16.632	5191.623	5208.255	---	---
		5240	16.619	5231.622	5248.241	---	---
11N20SISO	Ant2	5180	17.785	5171.050	5188.835	---	---
		5200	17.793	5191.041	5208.834	---	---
		5240	17.780	5231.029	5248.809	---	---
11N40SISO	Ant2	5190	36.228	5171.848	5208.076	---	---
		5230	36.129	5211.907	5248.036	---	---
11AC20SISO	Ant2	5180	17.767	5171.050	5188.817	---	---
		5200	17.796	5191.032	5208.828	---	---
		5240	17.806	5231.015	5248.821	---	---
11AC40SISO	Ant2	5190	36.187	5171.902	5208.089	---	---
		5230	36.155	5211.899	5248.054	---	---
11AC80SISO	Ant2	5210	75.923	5172.177	5248.100	---	---

Test Graphs

11A_Ant2_5180



11A_Ant2_5200

11A_Ant2_5240

11N20SISO_Ant2_5180

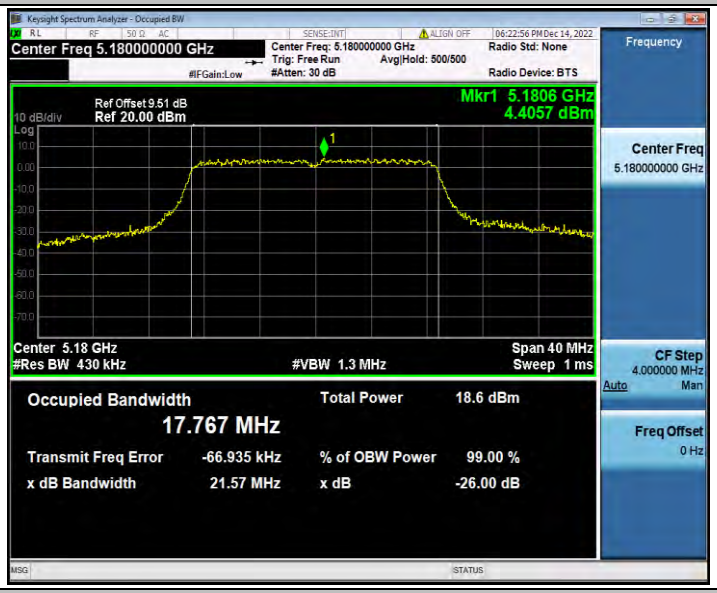
11N20SISO_Ant2_5200

11N20SISO_Ant2_5240

11N40SISO_Ant2_5190

11N40SISO_Ant2_5230

11AC20SISO_Ant2_5180



11AC20SISO_Ant2_5200

11AC20SISO_Ant2_5240

11AC40SISO_Ant2_5190

11AC40SISO_Ant2_5230

11AC80SISO_Ant2_5210

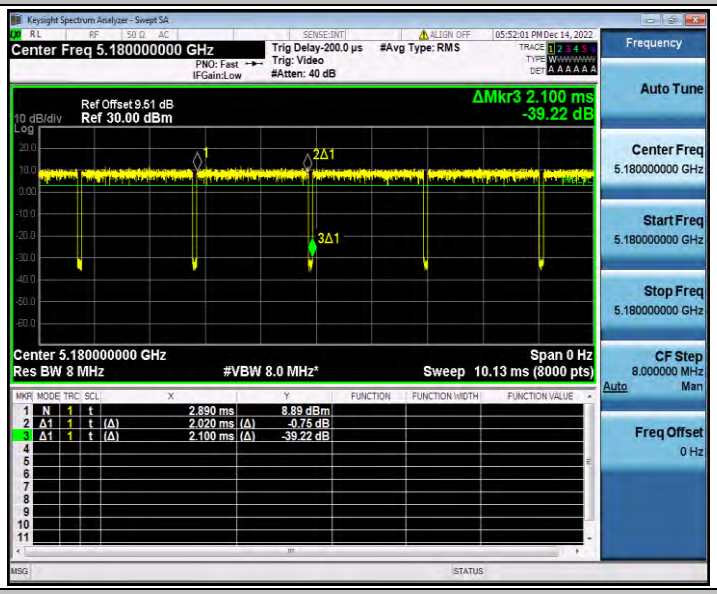
Appendix B.3: Duty Cycle

Test Result

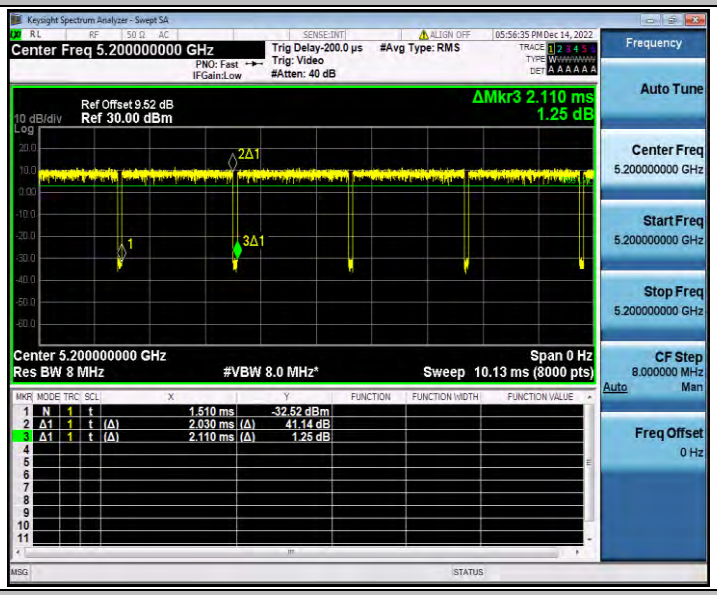
TestMode	Antenna	Frequency[MHz]	Transmission Duration [ms]	Transmission Period [ms]	Duty Cycle [%]
11A	Ant2	5180	2.02	2.10	96.19
		5200	2.03	2.11	96.21
		5240	2.02	2.10	96.19
11N20SISO	Ant2	5180	4.96	5.04	98.41
		5200	4.96	5.04	98.41
		5240	4.96	5.05	98.22
11N40SISO	Ant2	5190	2.41	2.51	96.02
		5230	2.40	2.49	96.39
11AC20SISO	Ant2	5180	4.97	5.05	98.42
		5200	4.97	5.05	98.42
		5240	4.98	5.05	98.61
11AC40SISO	Ant2	5190	2.42	2.51	96.41
		5230	2.41	2.49	96.79
11AC80SISO	Ant2	5210	1.14	1.22	93.44

Test Graphs

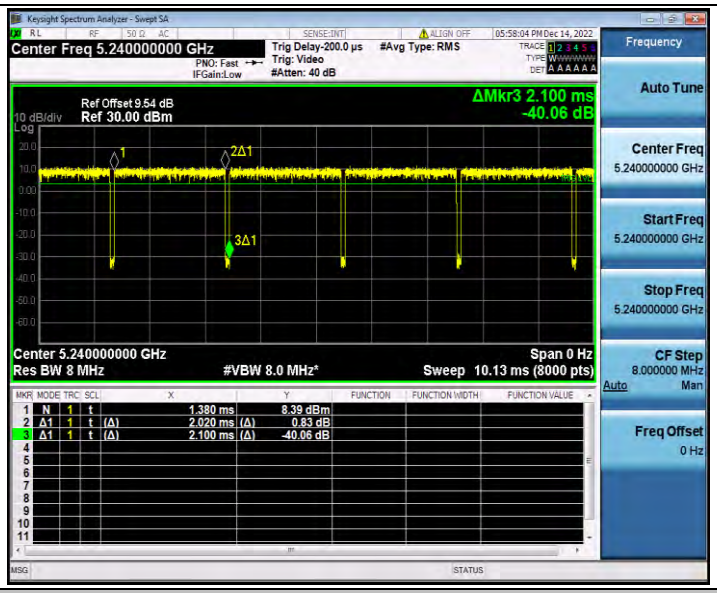
11A_Ant2_5180



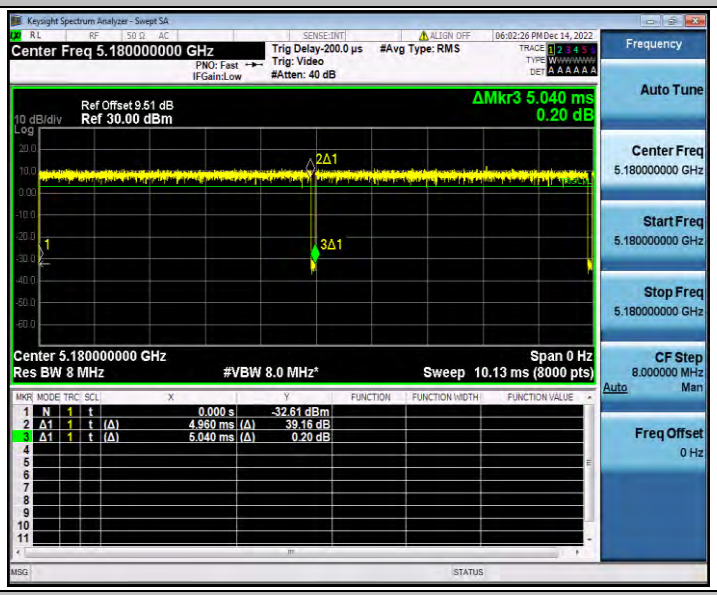
11A_Ant2_5200



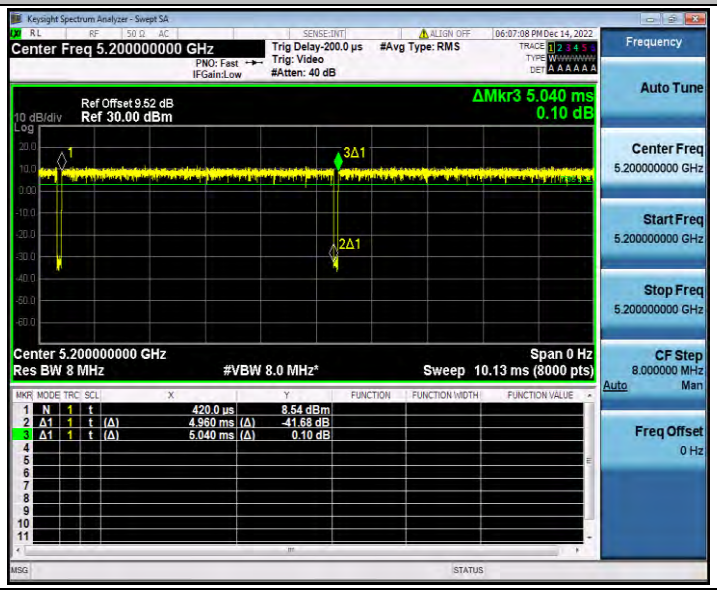
11A_Ant2_5240



11N20SISO_Ant2_5180



11N20SISO_Ant2_5200



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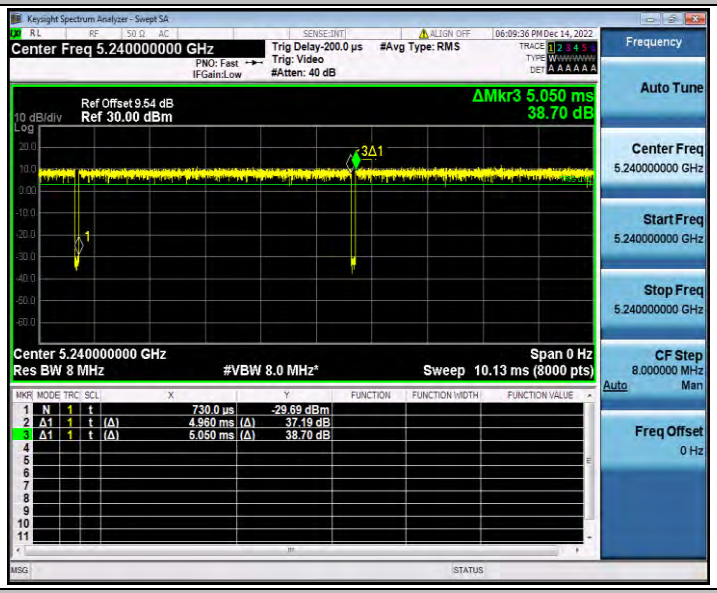
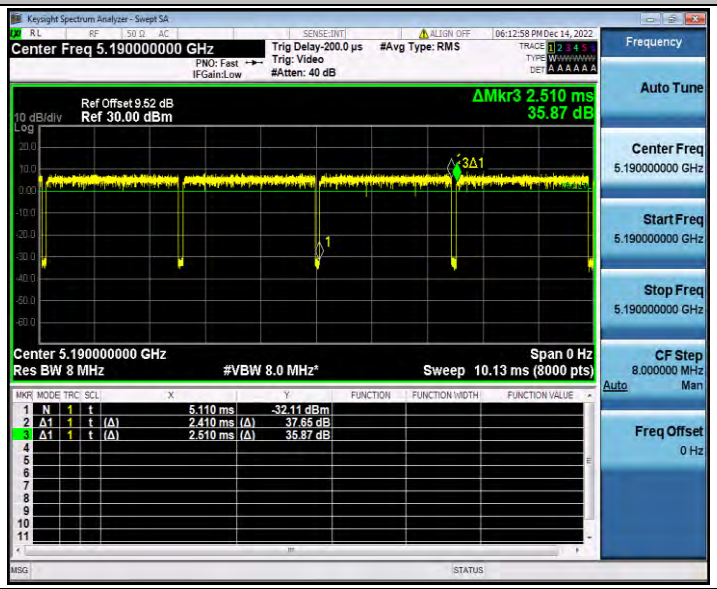
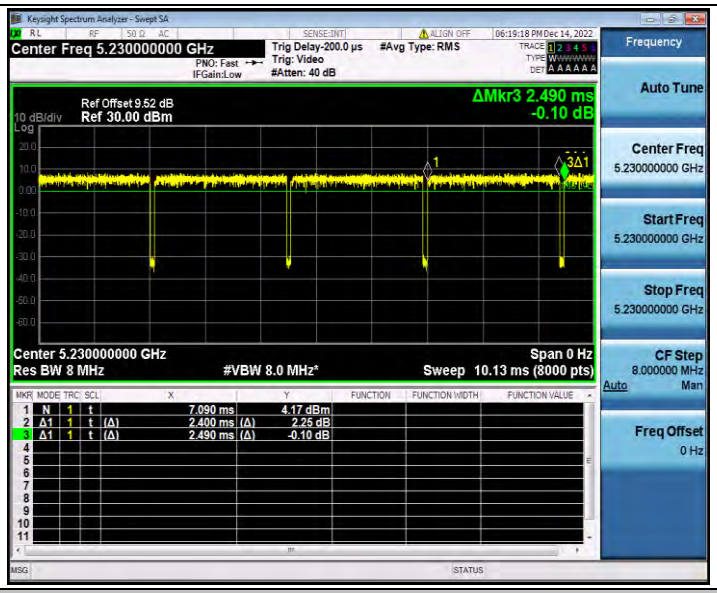
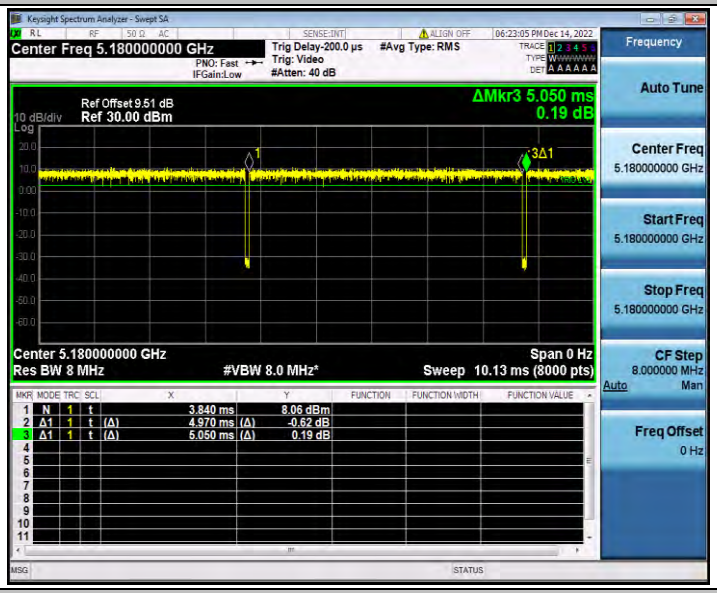
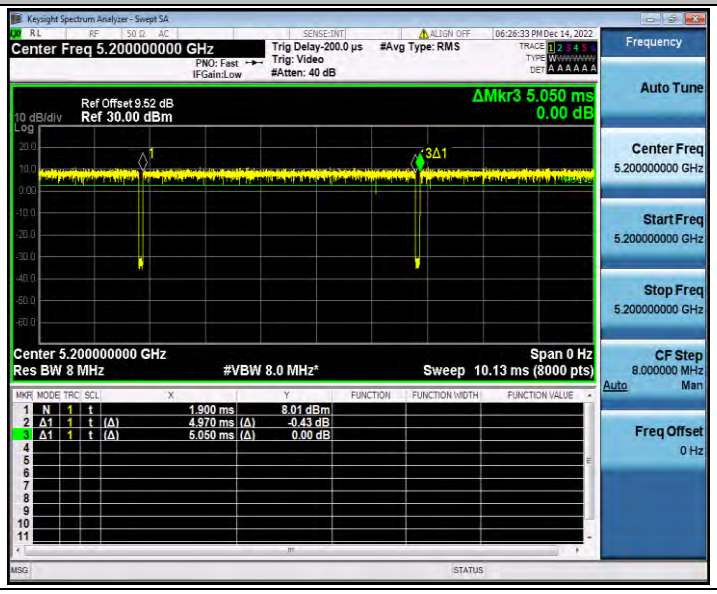

11N40SISO_Ant2_5190

11N40SISO_Ant2_5230



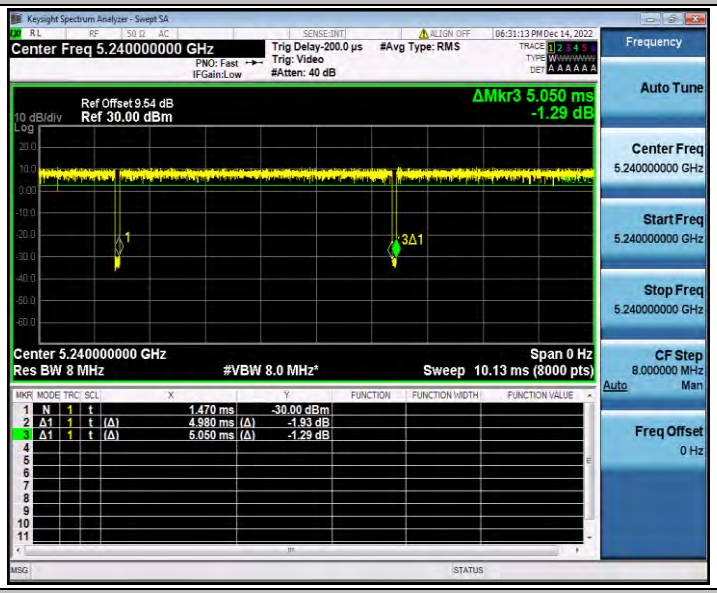
11AC20SISO_Ant2_5180



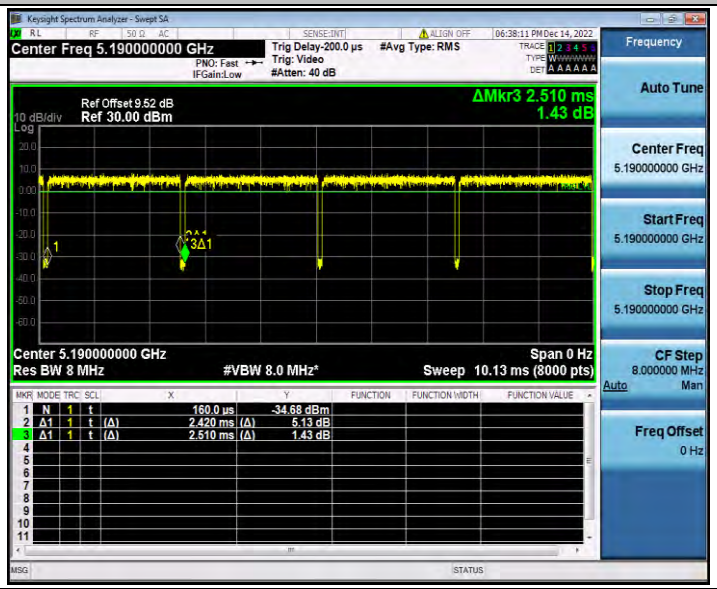
11AC20SISO_Ant2_5200



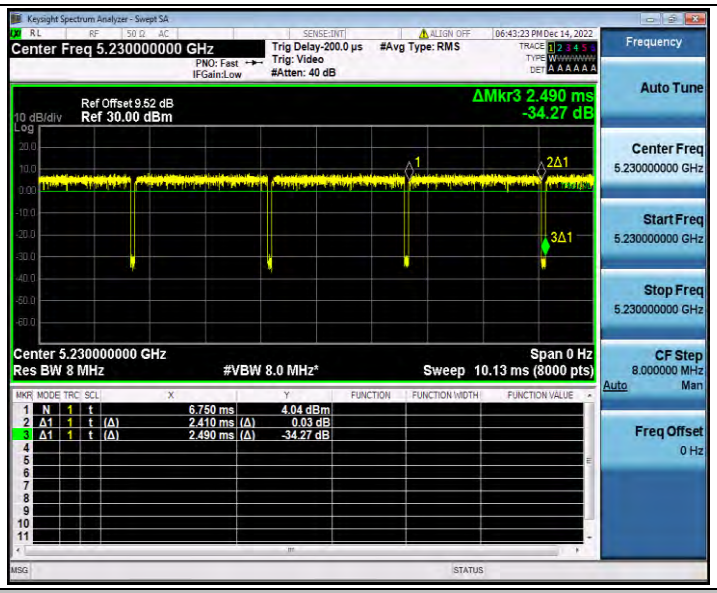
11AC20SISO_Ant2_5240



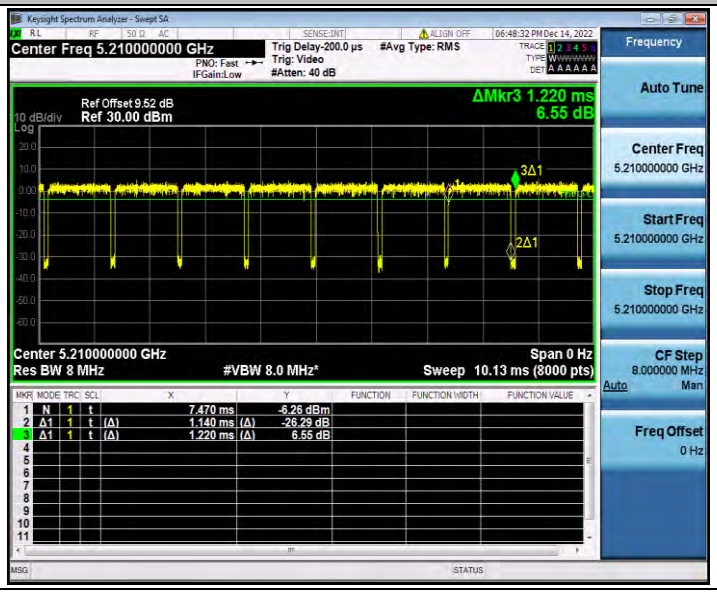
11AC40SISO_Ant2_5190



11AC40SISO_Ant2_5230



11AC80SISO_Ant2_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	Ant2	5180	11.62	96.19	0.17	11.79	≤30.00	PASS
		5200	11.63	96.21	0.17	11.80	≤30.00	PASS
		5240	11.67	96.19	0.17	11.84	≤30.00	PASS
11N20SISO	Ant2	5180	11.82	98.41	0.07	11.89	≤30.00	PASS
		5200	11.93	98.41	0.07	12.00	≤30.00	PASS
		5240	11.68	98.22	0.08	11.76	≤30.00	PASS
11N40SISO	Ant2	5190	11.76	96.02	0.18	11.94	≤30.00	PASS
		5230	11.81	96.39	0.16	11.97	≤30.00	PASS
11AC20SISO	Ant2	5180	11.55	98.42	0.07	11.62	≤30.00	PASS
		5200	11.58	98.42	0.07	11.65	≤30.00	PASS
		5240	11.54	98.61	0.06	11.60	≤30.00	PASS
11AC40SISO	Ant2	5190	11.64	96.41	0.16	11.80	≤30.00	PASS
		5230	11.67	96.79	0.14	11.81	≤30.00	PASS
11AC80SISO	Ant2	5210	11.36	93.44	0.29	11.65	≤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	Ant2	5180	7.11	≤17.00	PASS
		5200	5.85	≤17.00	PASS
		5240	7.57	≤17.00	PASS
11N20SISO	Ant2	5180	6.54	≤17.00	PASS
		5200	7.43	≤17.00	PASS
		5240	7.07	≤17.00	PASS
11N40SISO	Ant2	5190	3.5	≤17.00	PASS
		5230	3.65	≤17.00	PASS
11AC20SISO	Ant2	5180	6.4	≤17.00	PASS
		5200	5.98	≤17.00	PASS
		5240	6.35	≤17.00	PASS
11AC40SISO	Ant2	5190	3.42	≤17.00	PASS
		5230	3.03	≤17.00	PASS
11AC80SISO	Ant2	5210	-0.14	≤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_Ant2_5180

11A_Ant2_5200

11A_Ant2_5240

11N20SISO_Ant2_5180

11N20SISO_Ant2_5200

11N20SISO_Ant2_5240

11N40SISO_Ant2_5190

11N40SISO_Ant2_5230

11AC20SISO_Ant2_5180

11AC20SISO_Ant2_5200

11AC20SISO_Ant2_5240

11AC40SISO_Ant2_5190

11AC40SISO_Ant2_5230

11AC80SISO_Ant2_5210

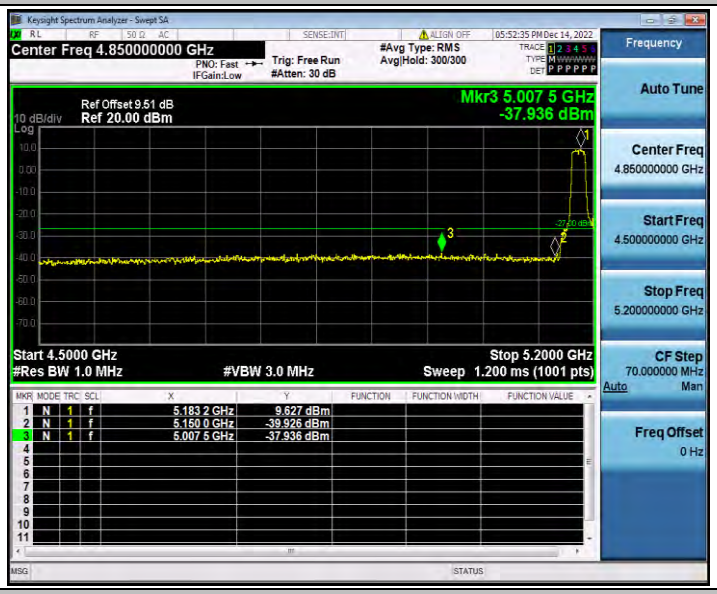
Appendix B.6: Band edge measurements

Test Result B1

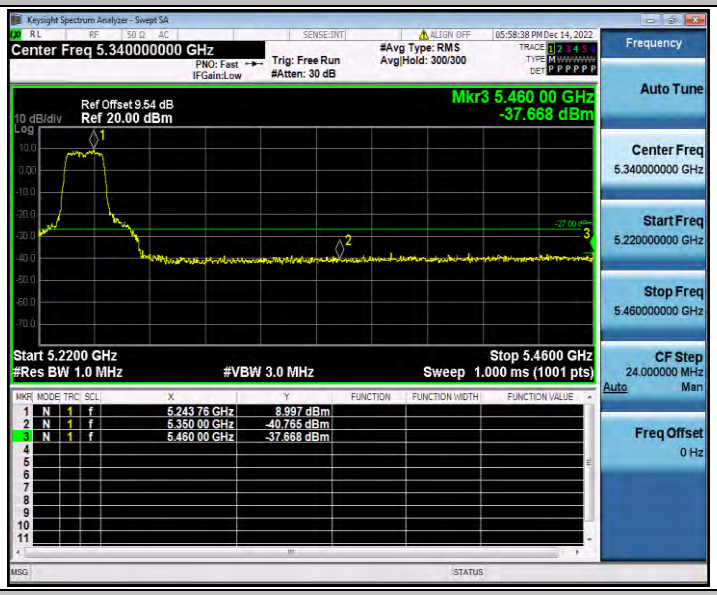
TestMode	Antenna	ChName	Frequency[MHz]	Result[dBm]	Limit[dBm]	Verdict
11A	Ant2	Low	5180	-37.94	≤-27	PASS
		High	5240	-37.67	≤-27	PASS
11N20SISO	Ant2	Low	5180	-37.5	≤-27	PASS
		High	5240	-37.23	≤-27	PASS
11N40SISO	Ant2	Low	5190	-34.44	≤-27	PASS
		High	5230	-37.67	≤-27	PASS
11AC20SISO	Ant2	Low	5180	-37.21	≤-27	PASS
		High	5240	-37.44	≤-27	PASS
11AC40SISO	Ant2	Low	5190	-33.07	≤-27	PASS
		High	5230	-38.13	≤-27	PASS
11AC80SISO	Ant2	Low	5210	-31.78	≤-27	PASS
		High	5210	-38.15	≤-27	PASS

Test Graphs B1

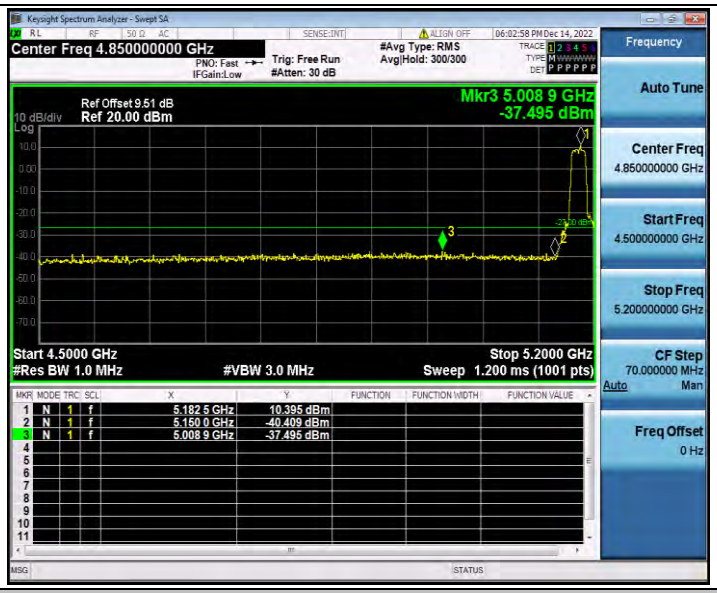
11A_Ant2_Low_5180



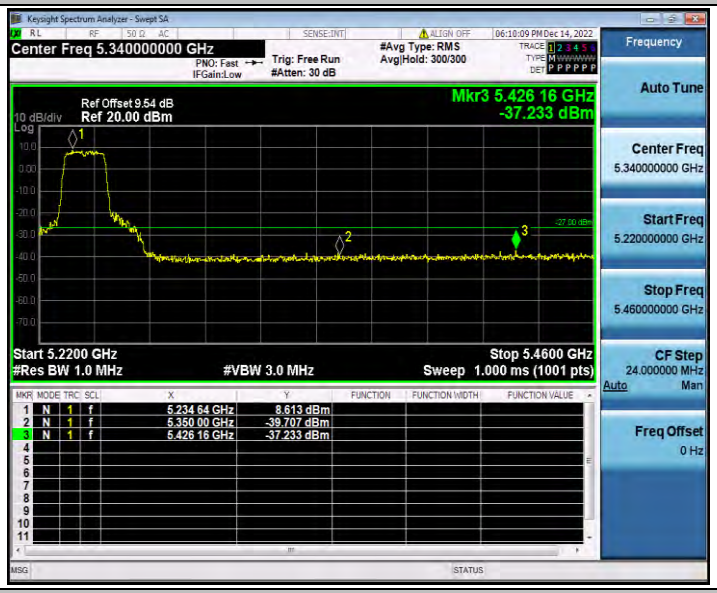
11A_Ant2_High_5240



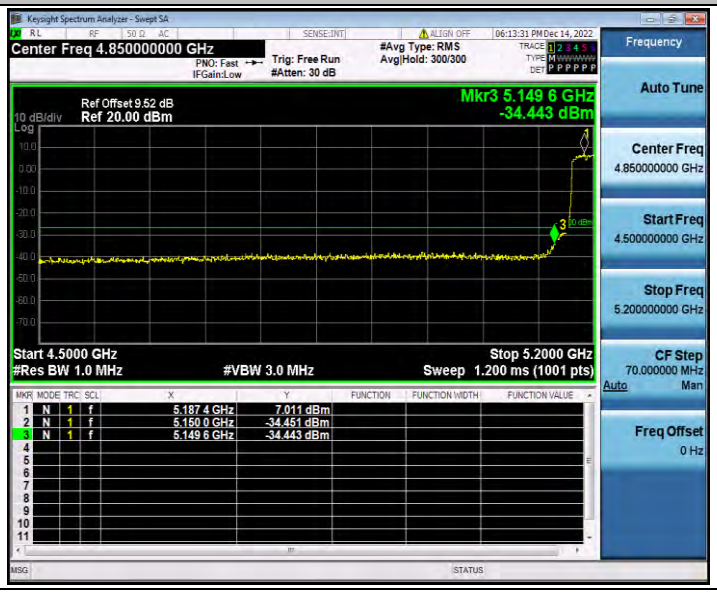
11N20SISO_Ant2_Low_5180



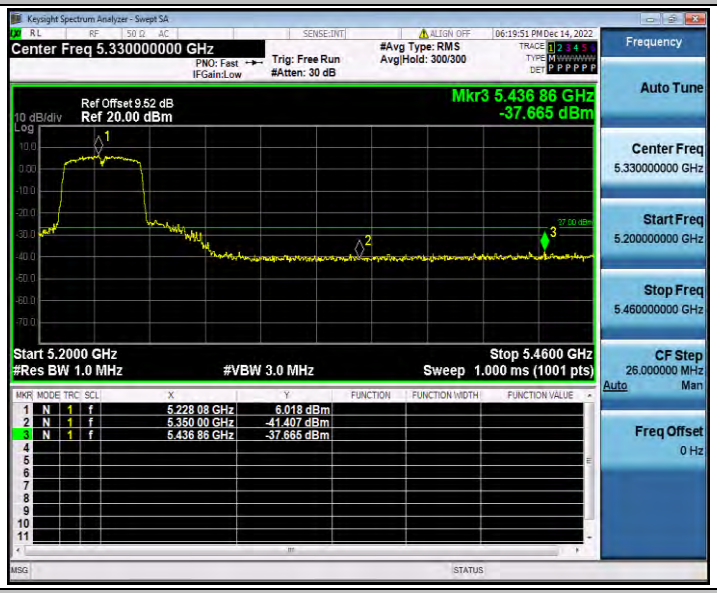
11N20SISO_Ant2_High_5240



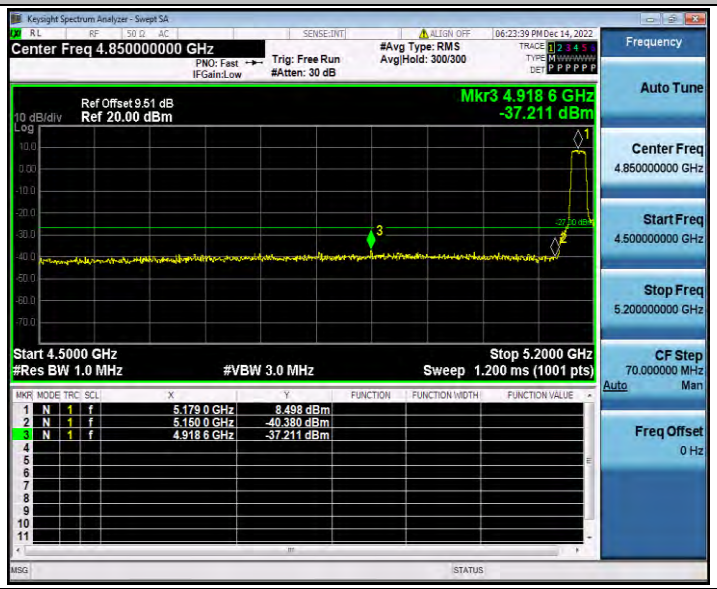
11N40SISO_Ant2_Low_5190



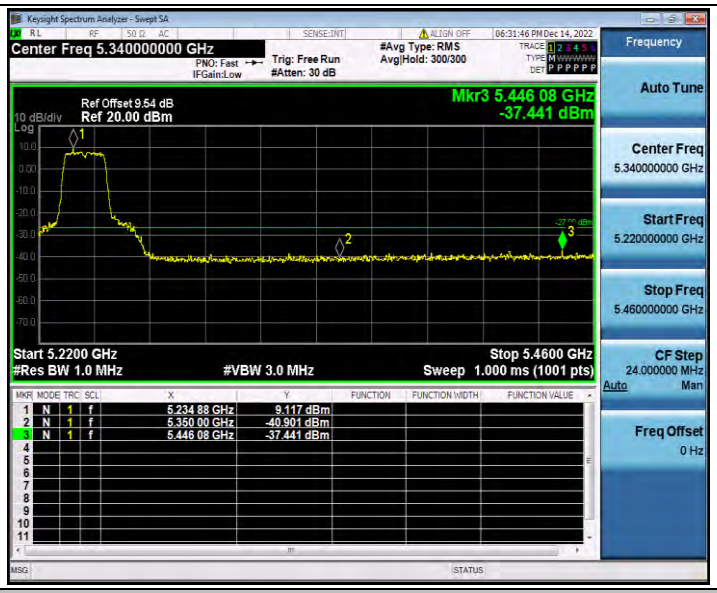
11N40SISO_Ant2_High_5230



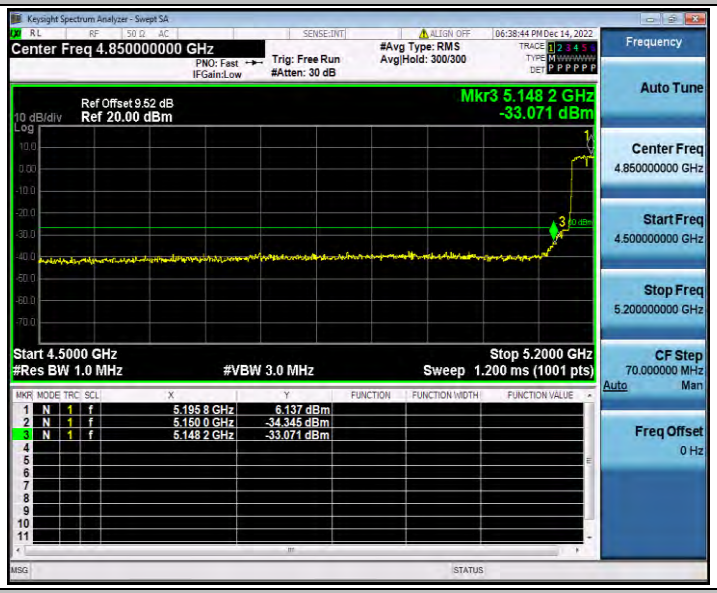
11AC20SISO_Ant2_Low_5180



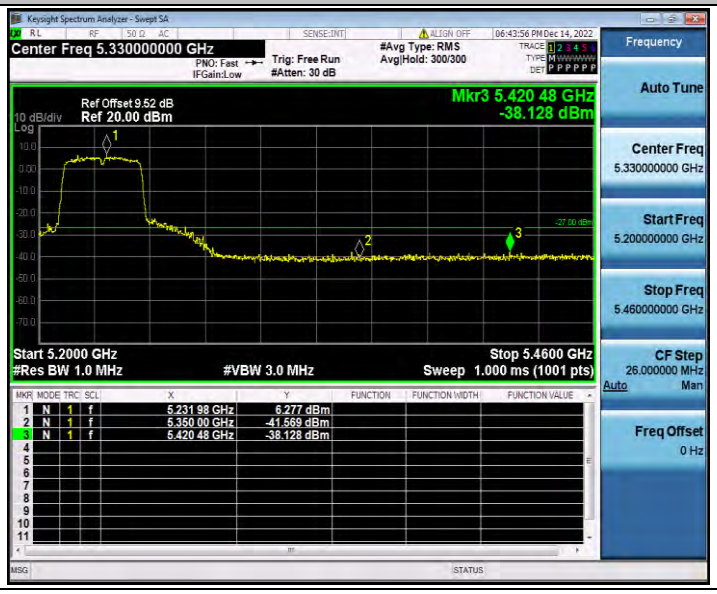
11AC20SISO_Ant2_High_5240

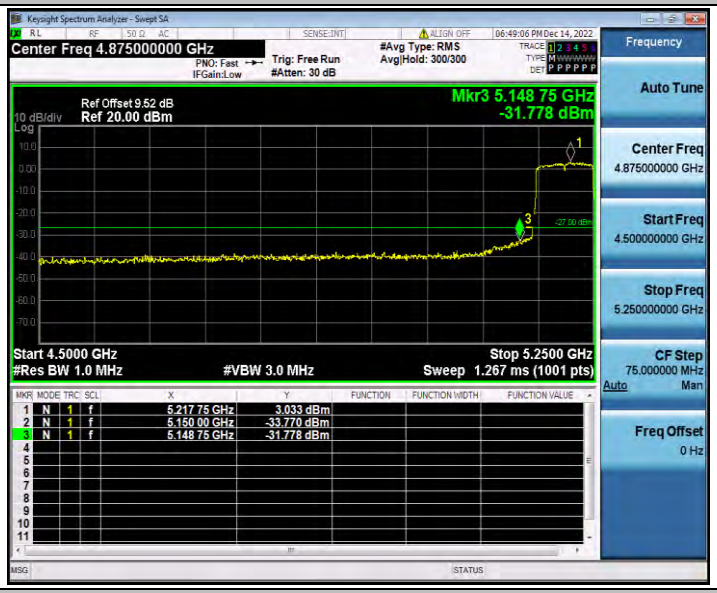


11AC40SISO_Ant2_Low_5190



11AC40SISO_Ant2_High_5230



11AC80SISO_Ant2_Low_5210


11AC80SISO_Ant2_High_5210

Appendix B.7: Conducted Spurious Emission

Test Result

TestMode	Antenna	Frequency[MHz]	FreqRange [MHz]	Max. Fre [MHz]	Max. Level [dBm]	Limit [dBm]	Verdict
11A	Ant2	5180	30~5140	4983.46	-47.01	≤-27	PASS
			5360~40000	24256.77	-38.08	≤-27	PASS
		5200	30~5140	4964.73	-46.92	≤-27	PASS
			5360~40000	23572.22	-38	≤-27	PASS
		5240	30~5140	4951.78	-46.91	≤-27	PASS
			5360~40000	23538.32	-37.8	≤-27	PASS
11N20SISO	Ant2	5180	30~5140	1737.42	-44.79	≤-27	PASS
			5360~40000	26082.46	-37.72	≤-27	PASS
		5200	30~5140	2635.08	-47.2	≤-27	PASS
			5360~40000	24266.87	-36.99	≤-27	PASS
		5240	30~5140	2665.23	-46.87	≤-27	PASS
			5360~40000	24211.33	-38	≤-27	PASS
11N40SISO	Ant2	5190	30~5140	5131.48	-42.53	≤-27	PASS
			5360~40000	24218.54	-37.65	≤-27	PASS
		5230	30~5140	4956.89	-46.94	≤-27	PASS
			5360~40000	23585.93	-38.3	≤-27	PASS
11AC20SISO	Ant2	5180	30~5140	4889.78	-46.63	≤-27	PASS
			5360~40000	24212.05	-38.22	≤-27	PASS
		5200	30~5140	2622.3	-47.44	≤-27	PASS
			5360~40000	23526.06	-37.38	≤-27	PASS
		5240	30~5140	4937.98	-47.11	≤-27	PASS
			5360~40000	24908.85	-38.11	≤-27	PASS
11AC40SISO	Ant2	5190	30~5140	5137.96	-43.24	≤-27	PASS
			5360~40000	24828.79	-37.85	≤-27	PASS
		5230	30~5140	5001.52	-47.23	≤-27	PASS
			5360~40000	23503.7	-38.02	≤-27	PASS
11AC80SISO	Ant2	5210	30~5140	5133.7	-35.9	≤-27	PASS
			5360~40000	25262.31	-38.65	≤-27	PASS

Test Graphs

11A_Ant2_5180_30~5140

11A_Ant2_5180_5360~40000

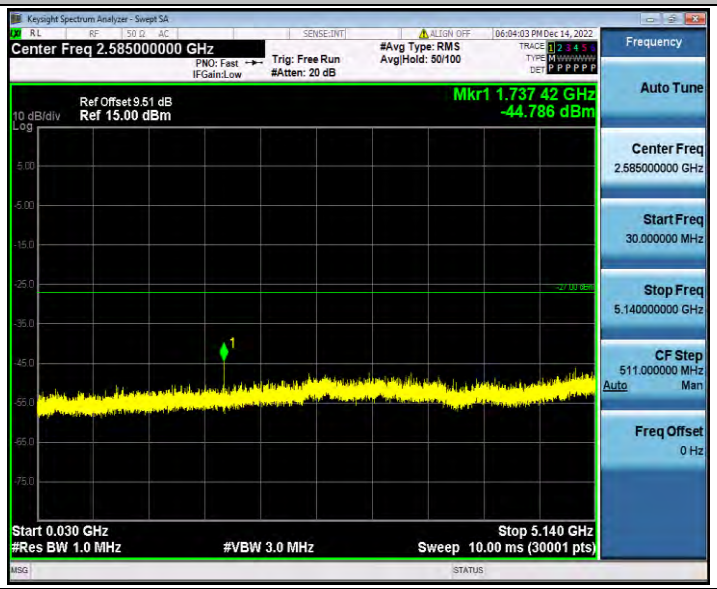
11A_Ant2_5200_30~5140

11A_Ant2_5200_5360~40000

11A_Ant2_5240_30~5140

11A_Ant2_5240_5360~40000

11N20SISO_Ant2_5180_30~5140



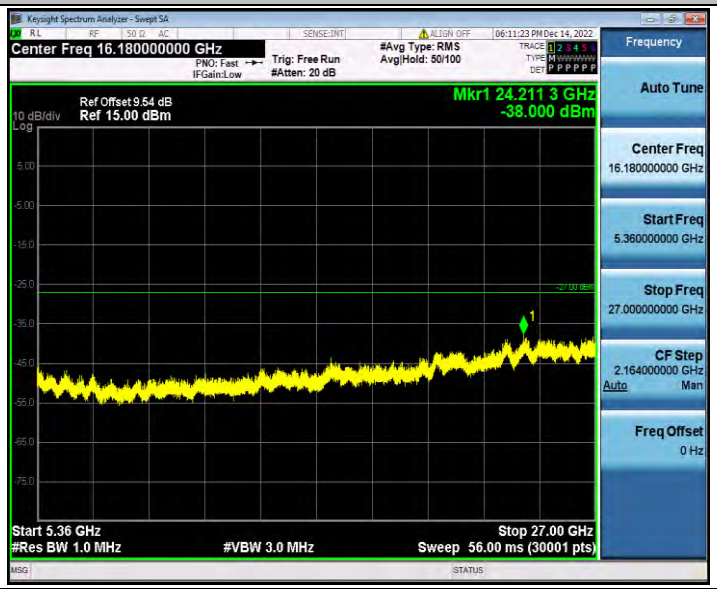
11N20SISO_Ant2_5180_5360~40000

11N20SISO_Ant2_5200_30~5140

11N20SISO_Ant2_5200_5360~40000

11N20SISO_Ant2_5240_30~5140

11N20SISO_Ant2_5240_5360~40000



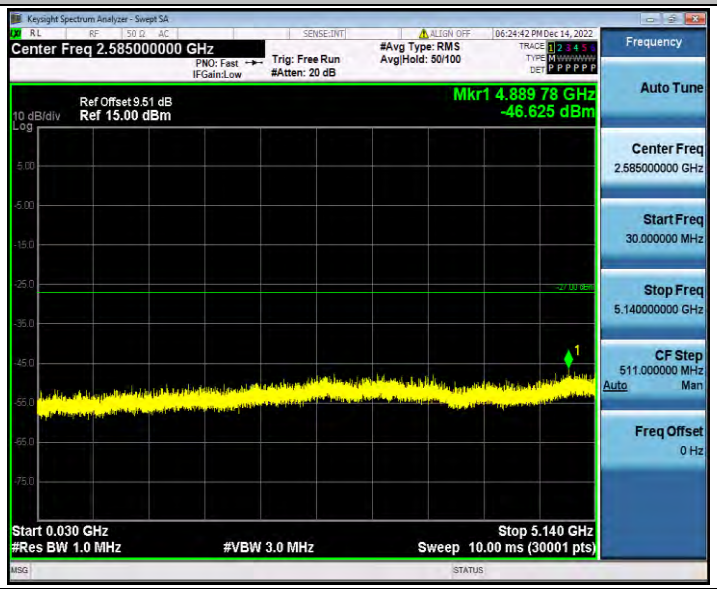
11N40SISO_Ant2_5190_30~5140

11N40SISO_Ant2_5190_5360~40000

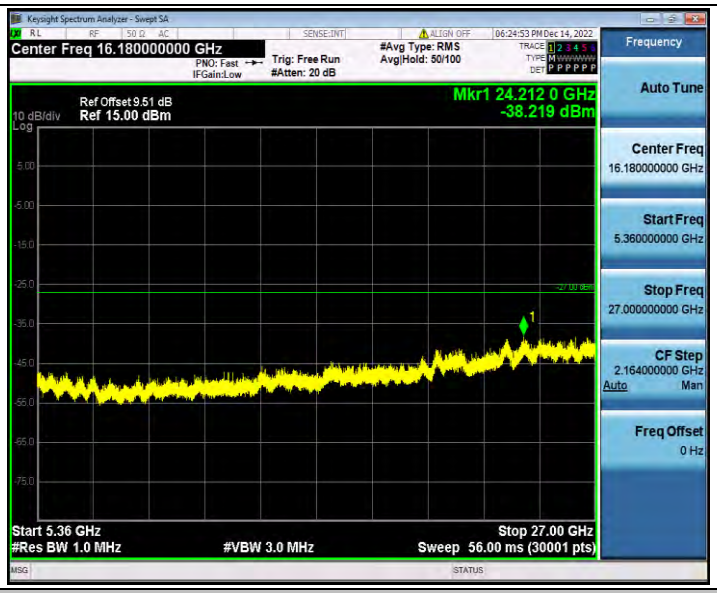
11N40SISO_Ant2_5230_30~5140

11N40SISO_Ant2_5230_5360~40000

11AC20SISO_Ant2_5180_30~5140

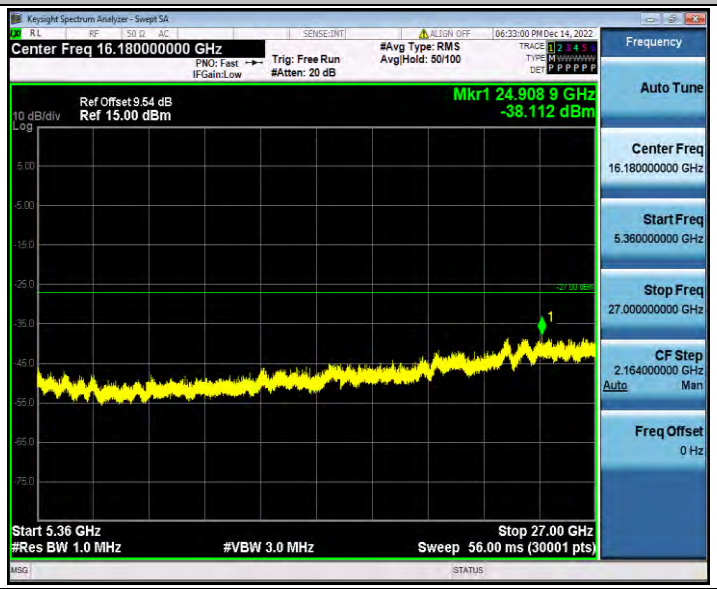


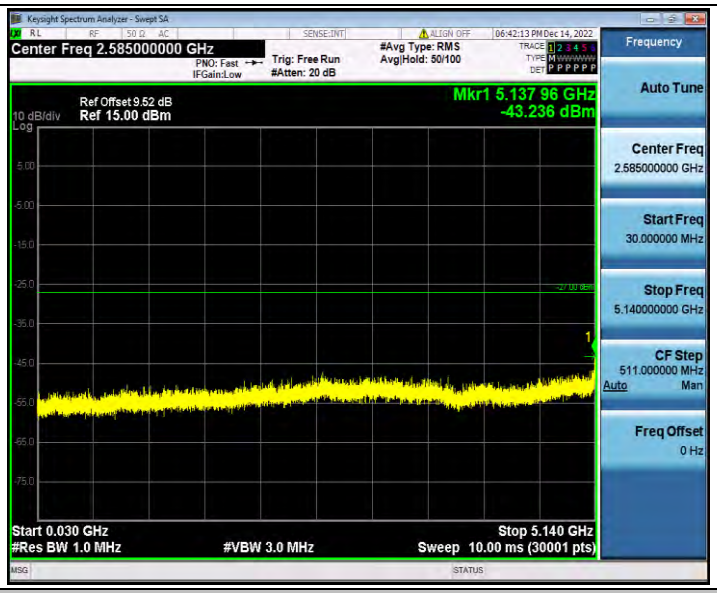
11AC20SISO_Ant2_5180_5360~40000



11AC20SISO_Ant2_5200_30~5140

11AC20SISO_Ant2_5200_5360~40000

11AC20SISO_Ant2_5240_30~5140
11AC20SISO_Ant2_5240_5360~40000

11AC40SISO_Ant2_5190_30~5140

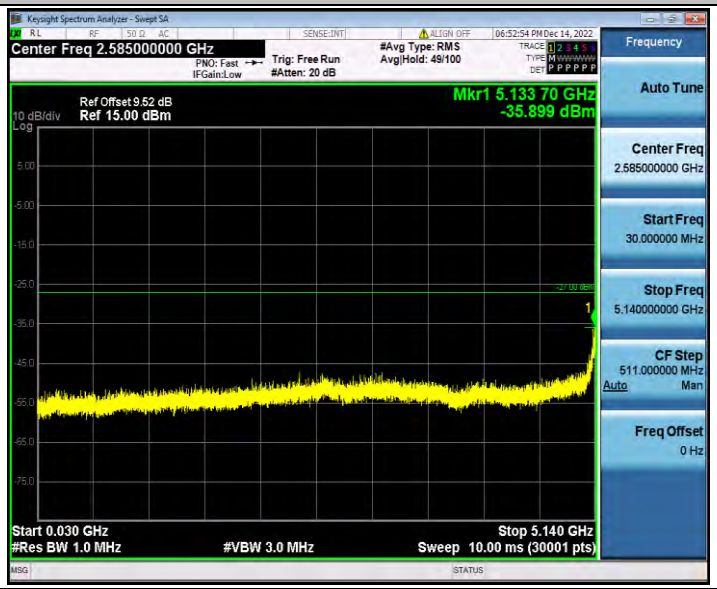


11AC40SISO_Ant2_5190_5360~40000

11AC40SISO_Ant2_5230_30~5140

11AC40SISO_Ant2_5230_5360~40000

11AC80SISO_Ant2_5210_30~5140



11AC80SISO_Ant2_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
06:53:04 PM Dec 14, 2022
Ref Offset 9.52 dB
10 dB/div
Ref 15.00 dBm
Log
Mkr1 25.262 3 GHz
-38.654 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