

Case No. : <u>CTA24081600404</u>	
Ambient Condition: <u>22</u> °C, <u>51</u> %RH	
According Standard: <u>■Part15E</u>	
Test Date: <u>2024.8.21</u>	Test Engineer: <u>Lushan Kong</u>

Appendix D.1: Emission Bandwidth

Test Result

TestMode	Antenna	Freq(MHz)	26db EBW [MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
11A	Ant1	5180	23.080	5168.440	5191.520	---	---
		5200	23.960	5188.400	5212.360	---	---
		5240	23.200	5228.400	5251.600	---	---
11N20SISO	Ant1	5180	23.320	5168.360	5191.680	---	---
		5200	23.440	5188.360	5211.800	---	---
		5240	23.880	5228.280	5252.160	---	---
11N40SISO	Ant1	5190	44.000	5168.240	5212.240	---	---
		5230	44.560	5207.920	5252.480	---	---
11AC20SISO	Ant1	5180	23.560	5168.200	5191.760	---	---
		5200	23.680	5188.040	5211.720	---	---
		5240	23.560	5228.480	5252.040	---	---
11AC40SISO	Ant1	5190	44.320	5167.840	5212.160	---	---
		5230	44.080	5207.920	5252.000	---	---
11AC80SISO	Ant1	5210	83.840	5168.560	5252.400	---	---

Test Graphs

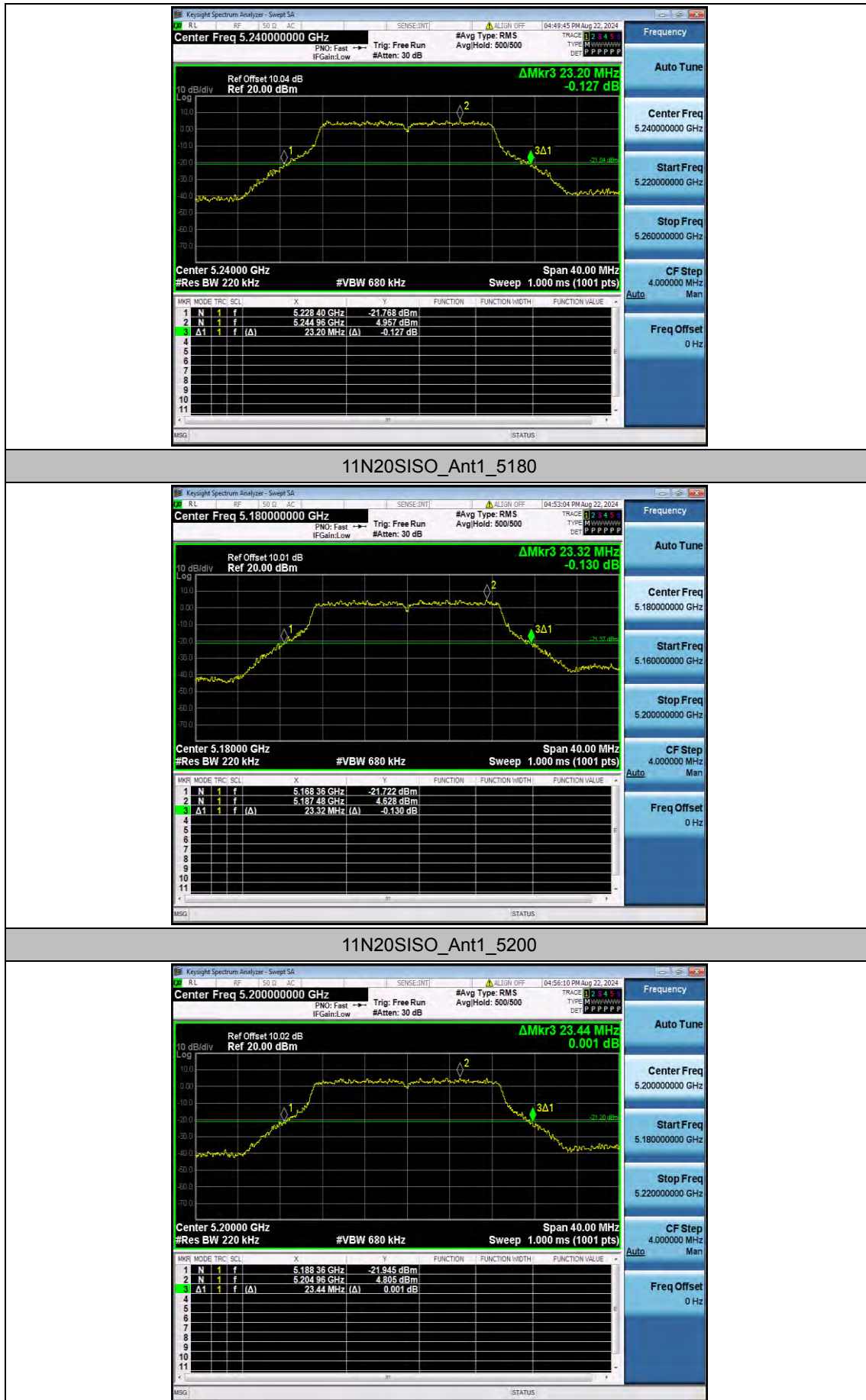
11A_Ant1_5180



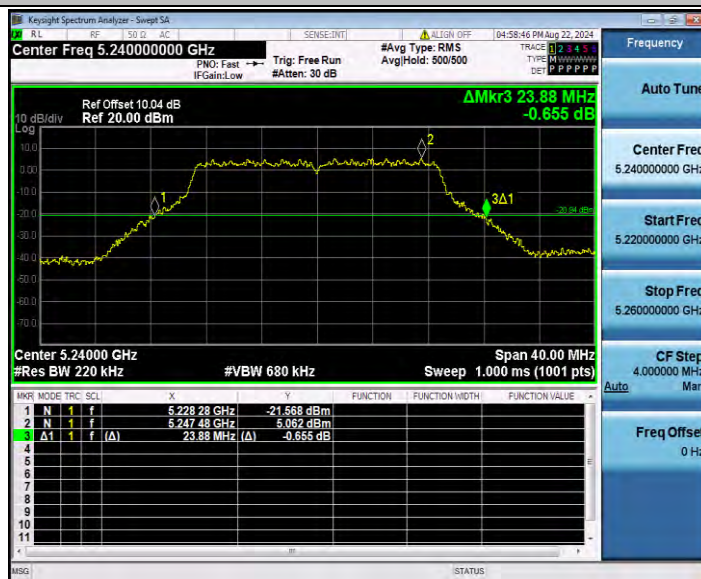
11A_Ant1_5200



11A_Ant1_5240



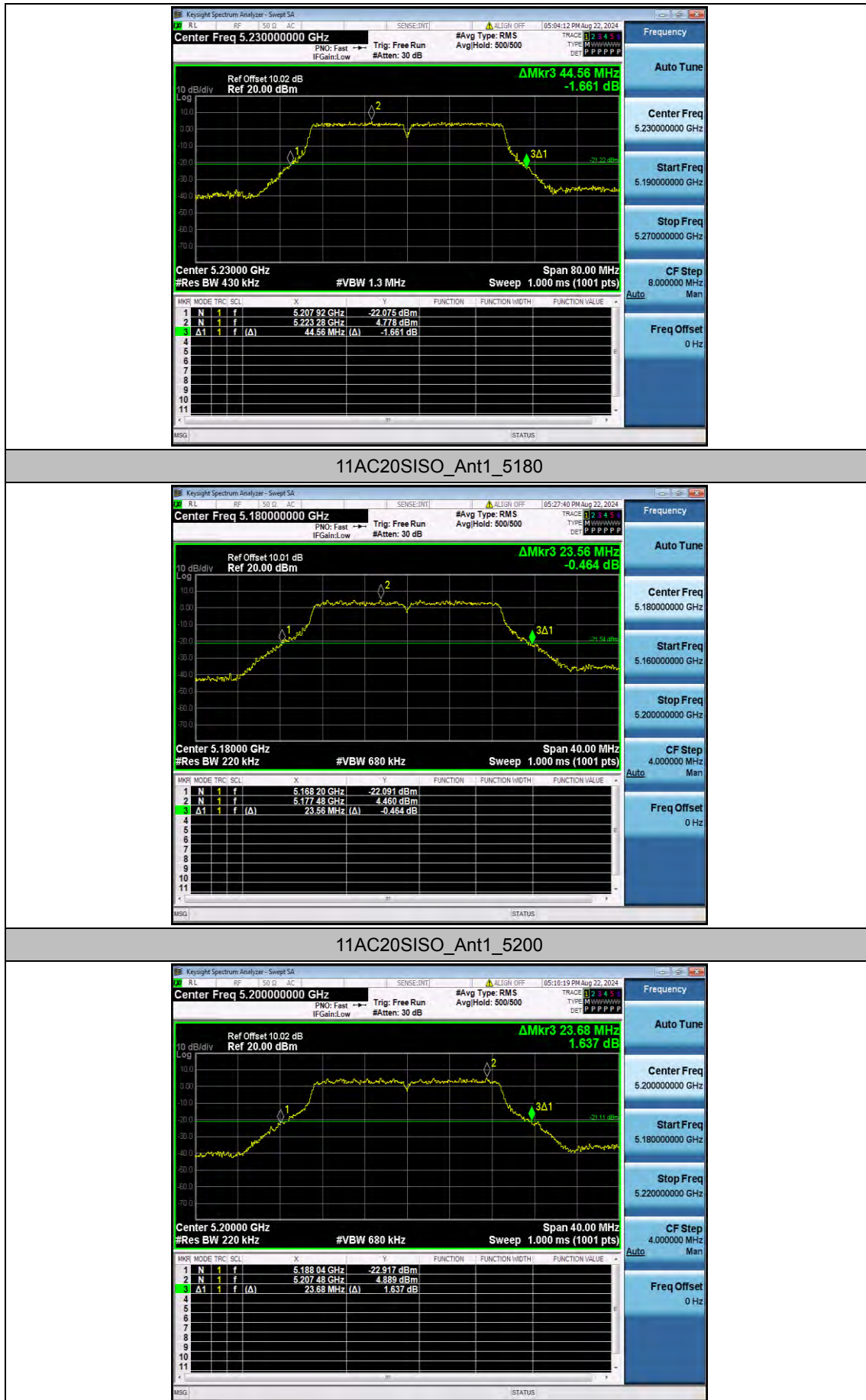
11N20SISO_Ant1_5240



11N40SISO_Ant1_5190



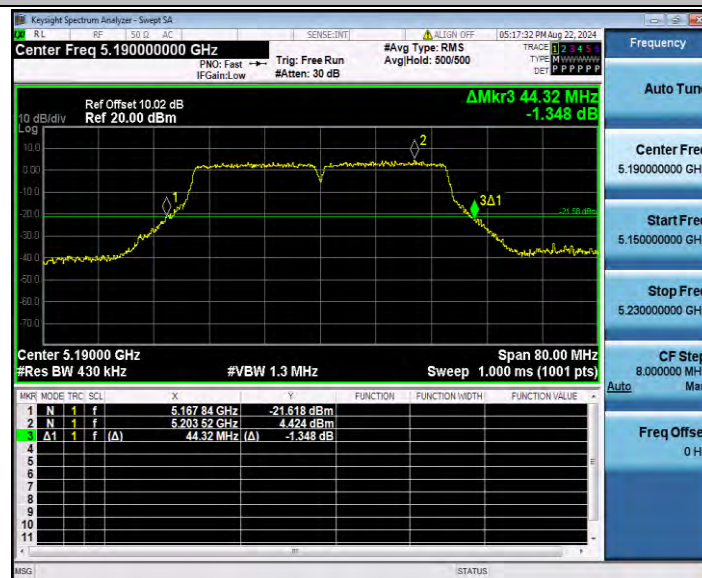
11N40SISO_Ant1_5230



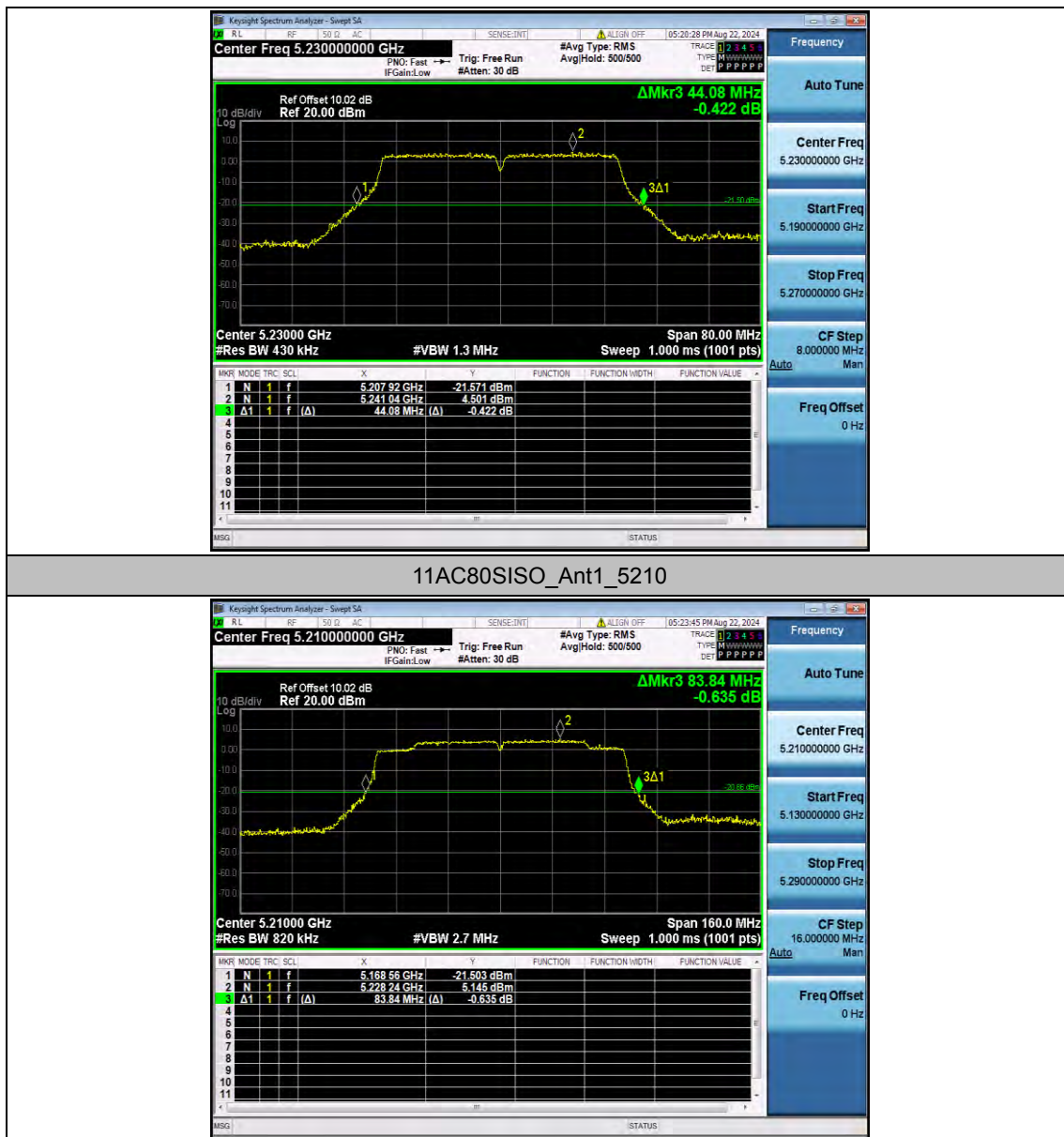
11AC20SISO_Ant1_5240



11AC40SISO_Ant1_5190



11AC40SISO_Ant1_5230



Appendix D.2: Occupied channel bandwidth

Test Result

TestMode	Antenna	Freq(MHz)	OCB [MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
11A	Ant1	5180	17.285	5171.3640	5188.6490	---	---
		5200	17.253	5191.3809	5208.6339	---	---
		5240	17.214	5231.3966	5248.6106	---	---
11N20SISO	Ant1	5180	18.316	5170.8341	5189.1501	---	---
		5200	18.301	5190.8538	5209.1548	---	---
		5240	18.306	5230.8257	5249.1317	---	---
11N40SISO	Ant1	5190	36.776	5171.6344	5208.4104	---	---
		5230	36.765	5211.6433	5248.4083	---	---
11AC20SISO	Ant1	5180	18.297	5170.8486	5189.1456	---	---
		5200	18.298	5190.8350	5209.1330	---	---
		5240	18.292	5230.8476	5249.1396	---	---
11AC40SISO	Ant1	5190	36.720	5171.6874	5208.4074	---	---
		5230	36.792	5211.5938	5248.3858	---	---
11AC80SISO	Ant1	5210	75.142	5172.5704	5247.7124	---	---

Test Graphs





11N20SISO_Ant1_5180



11N20SISO_Ant1_5200



11N20SISO_Ant1_5240



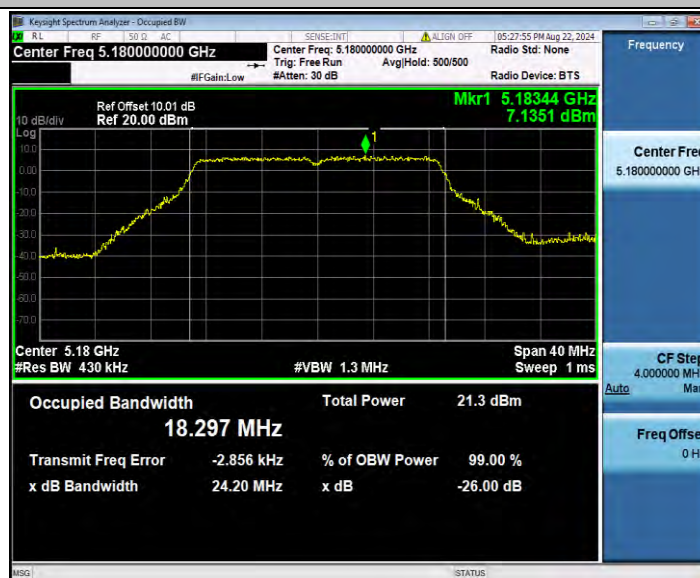
11N40SISO_Ant1_5190



11N40SISO_Ant1_5230



11AC20SISO_Ant1_5180



11AC20SISO_Ant1_5200



11AC20SISO_Ant1_5240



11AC40SISO_Ant1_5190



11AC40SISO_Ant1_5230



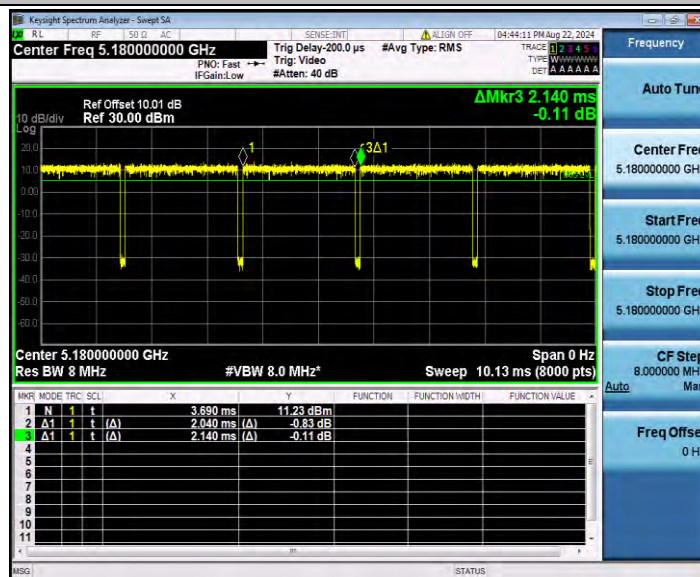
Appendix D.3: Duty Cycle

Test Result

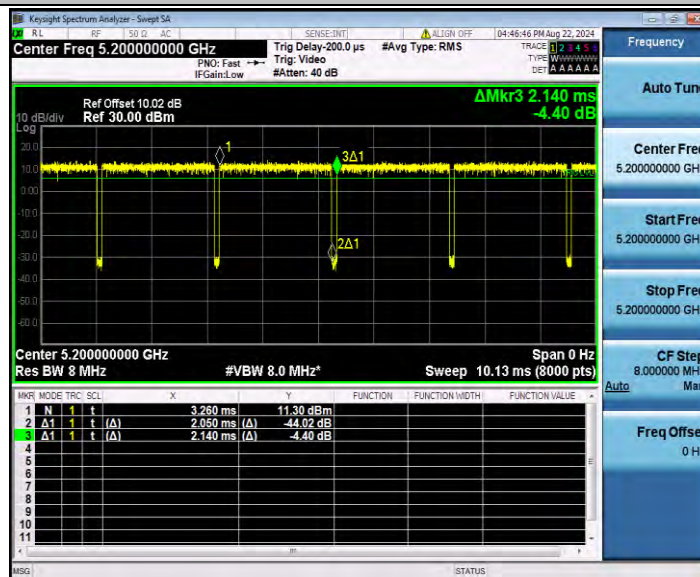
TestMode	Antenna	Freq(MHz)	Transmission Duration [ms]	Transmission Period [ms]	Duty Cycle [%]	Duty Cycle Factor[dB]	1/T Factor[KHz]
11A	Ant1	5180	2.04	2.14	95.33	0.21	0.49
		5200	2.05	2.14	95.79	0.19	0.49
		5240	2.05	2.14	95.79	0.19	0.49
11N20SISO	Ant1	5180	1.91	1.99	95.98	0.18	0.52
		5200	1.91	2.00	95.50	0.20	0.52
		5240	1.91	2.00	95.50	0.20	0.52
11N40SISO	Ant1	5190	0.93	0.98	94.90	0.23	1.08
		5230	0.94	0.98	95.92	0.18	1.06
11AC20SISO	Ant1	5180	1.92	2.00	96.00	0.18	0.52
		5200	1.92	2.00	96.00	0.18	0.52
		5240	1.91	2.00	95.50	0.20	0.52
11AC40SISO	Ant1	5190	0.94	0.99	94.95	0.23	1.06
		5230	0.95	0.99	95.96	0.18	1.05
11AC80SISO	Ant1	5210	0.46	0.50	92.00	0.36	2.17

Test Graphs

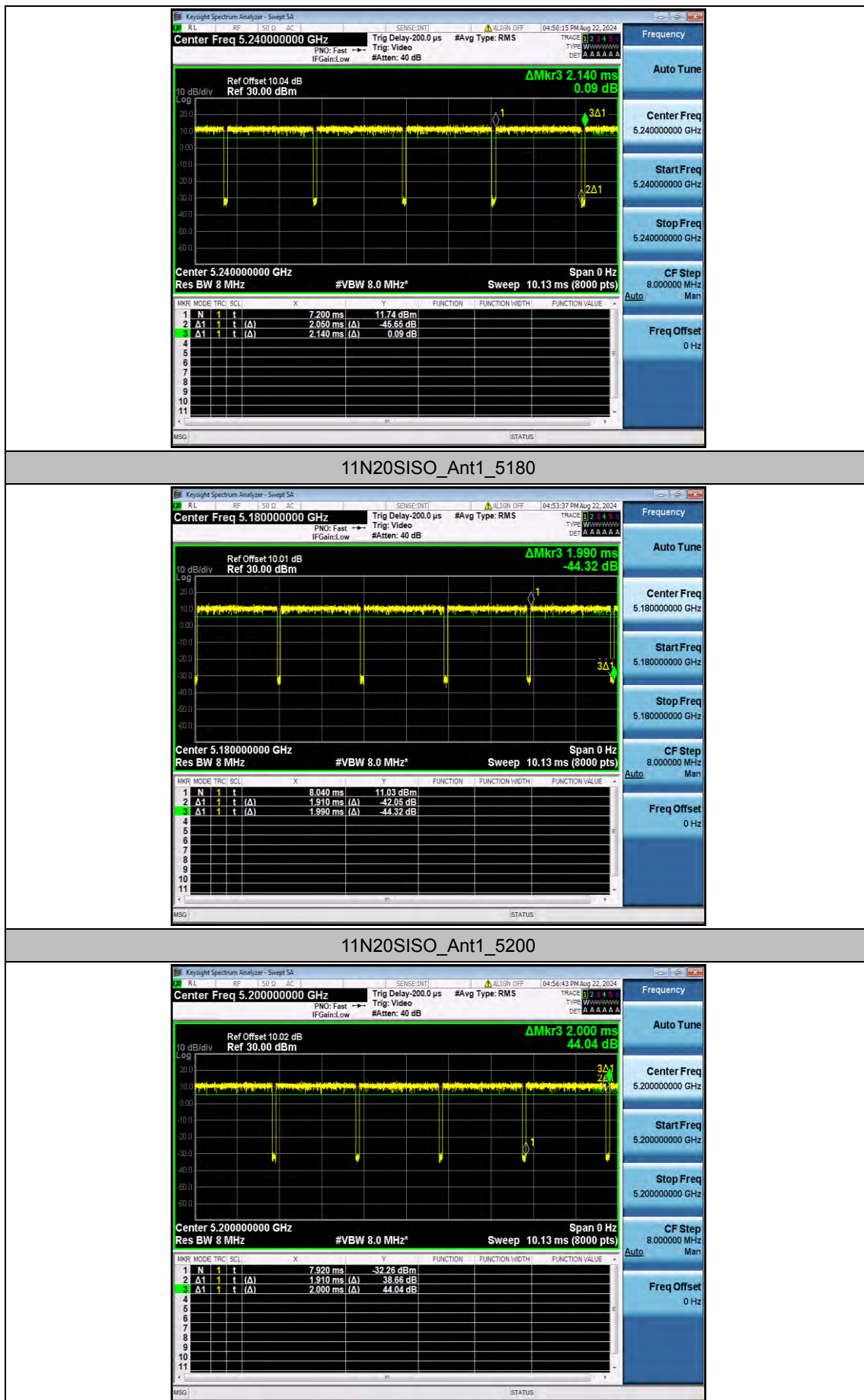
11A_Ant1_5180



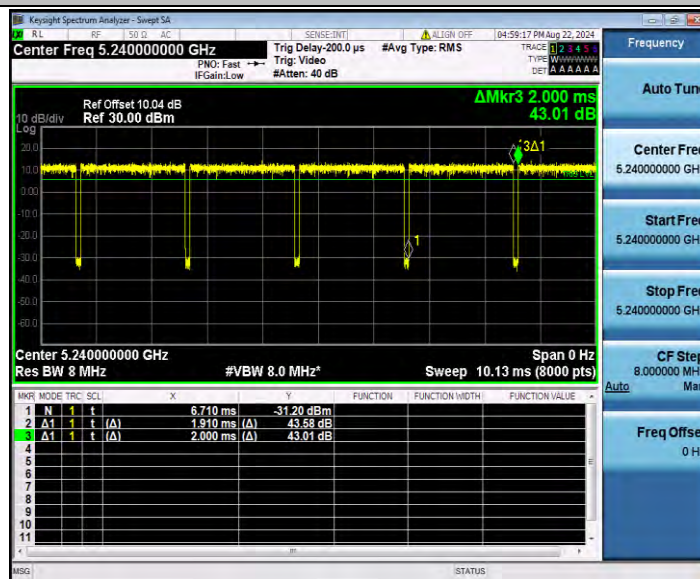
11A_Ant1_5200



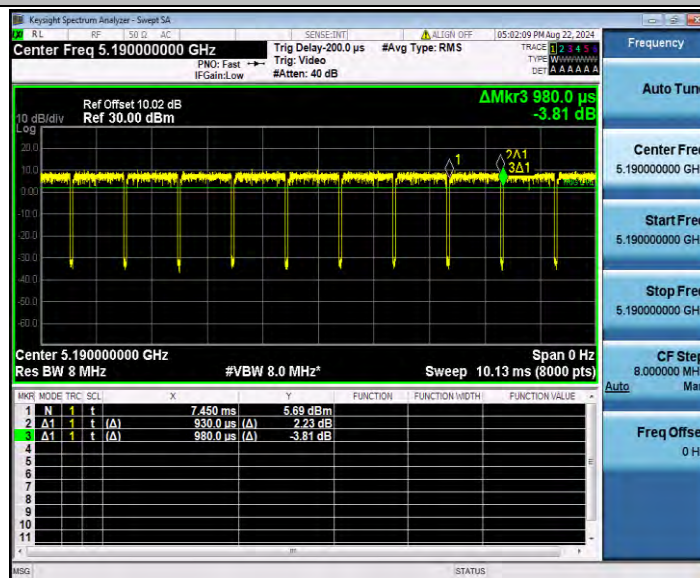
11A_Ant1_5240



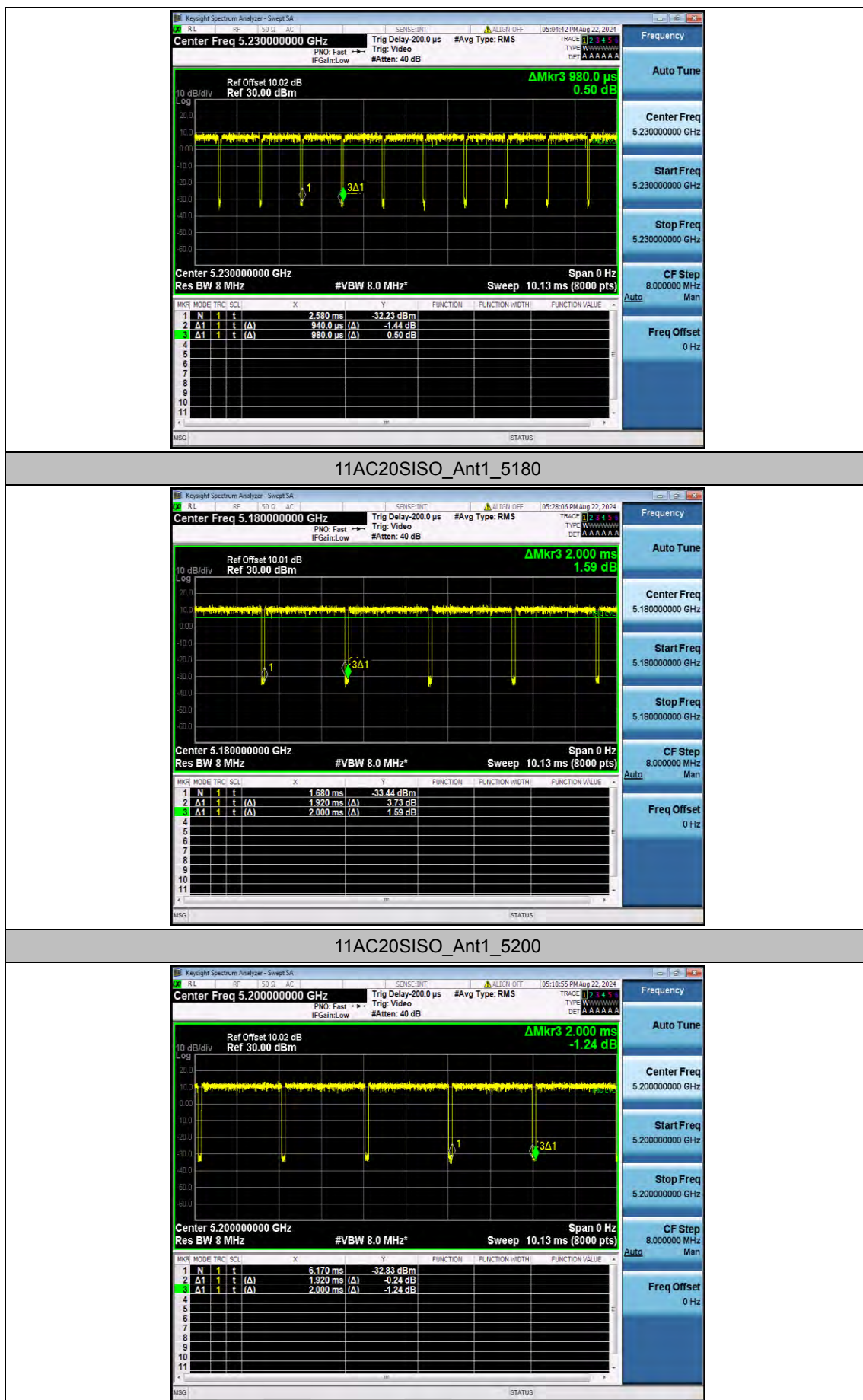
11N20SISO_Ant1_5240

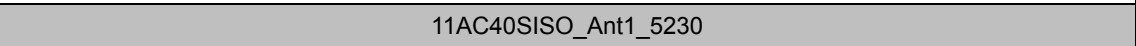
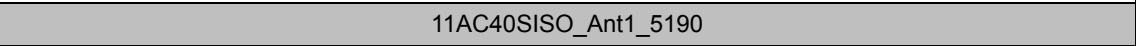


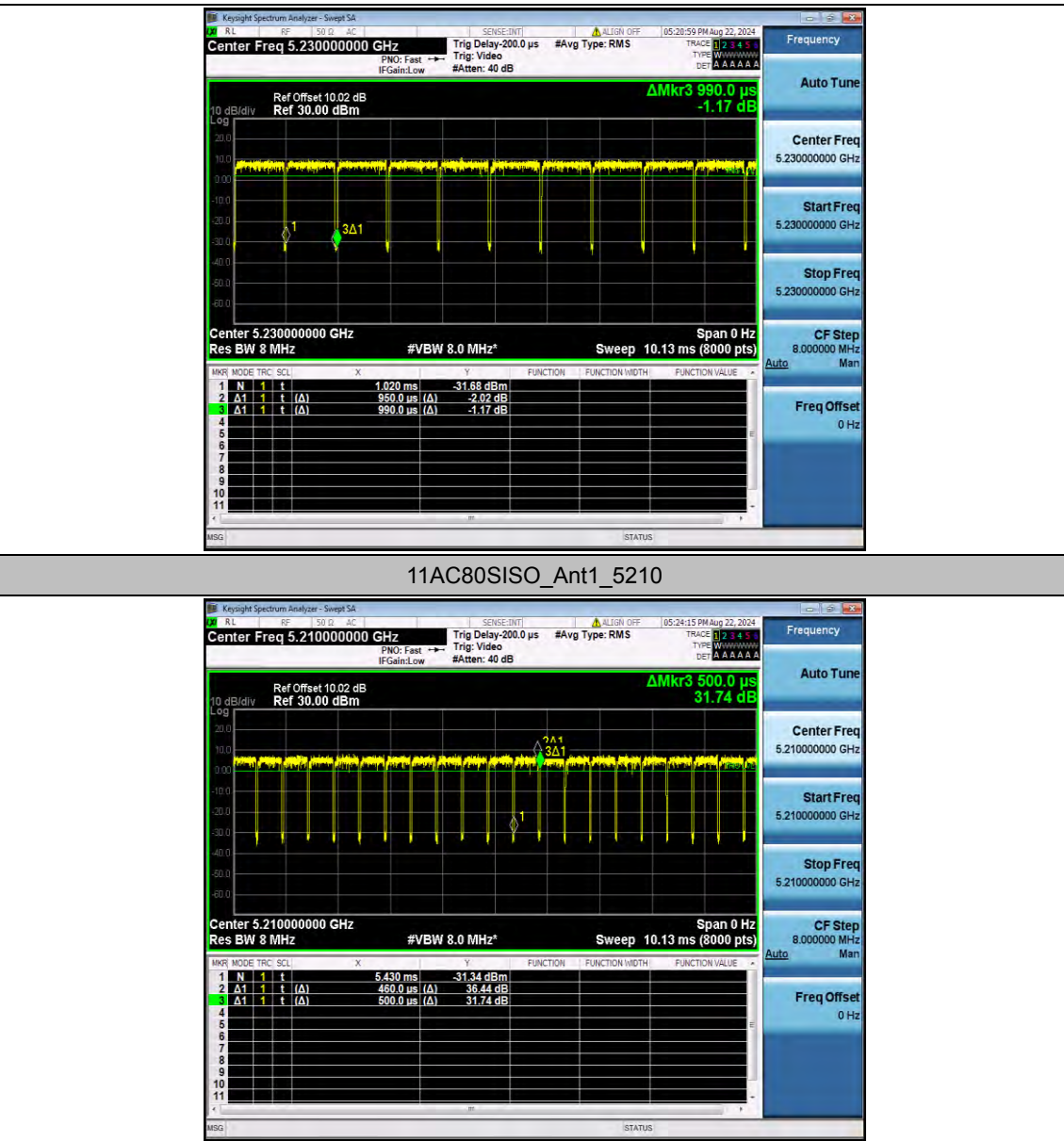
11N40SISO_Ant1_5190



11N40SISO_Ant1_5230







Appendix D.4: Maximum conducted output power

Test Result Channel Power

Test Mode	Antenna	Freq(MHz)	Channel Power [dBm]	Duty Cycle [%]	DC Factor [dBm]	Result [dBm]	Limit [dBm]	Verdict
11A	Ant1	5180	14.12	95.33	0.21	14.33	≤23.98	PASS
		5200	14.52	95.79	0.19	14.71	≤23.98	PASS
		5240	14.66	95.79	0.19	14.85	≤23.98	PASS
11N20SISO	Ant1	5180	14.19	95.98	0.18	14.37	≤23.98	PASS
		5200	14.46	95.50	0.20	14.66	≤23.98	PASS
		5240	14.60	95.50	0.20	14.80	≤23.98	PASS
11N40SISO	Ant1	5190	14.20	94.90	0.23	14.43	≤23.98	PASS
		5230	14.55	95.92	0.18	14.73	≤23.98	PASS
11AC20SISO	Ant1	5180	14.29	96.00	0.18	14.47	≤23.98	PASS
		5200	14.49	96.00	0.18	14.67	≤23.98	PASS
		5240	14.67	95.50	0.20	14.87	≤23.98	PASS
11AC40SISO	Ant1	5190	14.13	94.95	0.23	14.36	≤23.98	PASS
		5230	14.62	95.96	0.18	14.80	≤23.98	PASS
11AC80SISO	Ant1	5210	14.29	92.00	0.36	14.65	≤23.98	PASS

Appendix D.5: Maximum power spectral density

Test Result

TestMode	Antenna	Freq(MHz)	Result [dBm/MHz]	Limit[dBm/MHz]	Verdict
11A	Ant1	5180	2.74	≤11.00	PASS
		5200	3.05	≤11.00	PASS
		5240	3.33	≤11.00	PASS
11N20SISO	Ant1	5180	2.37	≤11.00	PASS
		5200	2.69	≤11.00	PASS
		5240	2.96	≤11.00	PASS
11N40SISO	Ant1	5190	-0.32	≤11.00	PASS
		5230	-0.23	≤11.00	PASS
11AC20SISO	Ant1	5180	2.45	≤11.00	PASS
		5200	2.73	≤11.00	PASS
		5240	3.02	≤11.00	PASS
11AC40SISO	Ant1	5190	-0.35	≤11.00	PASS
		5230	-0.23	≤11.00	PASS
11AC80SISO	Ant1	5210	-2.61	≤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

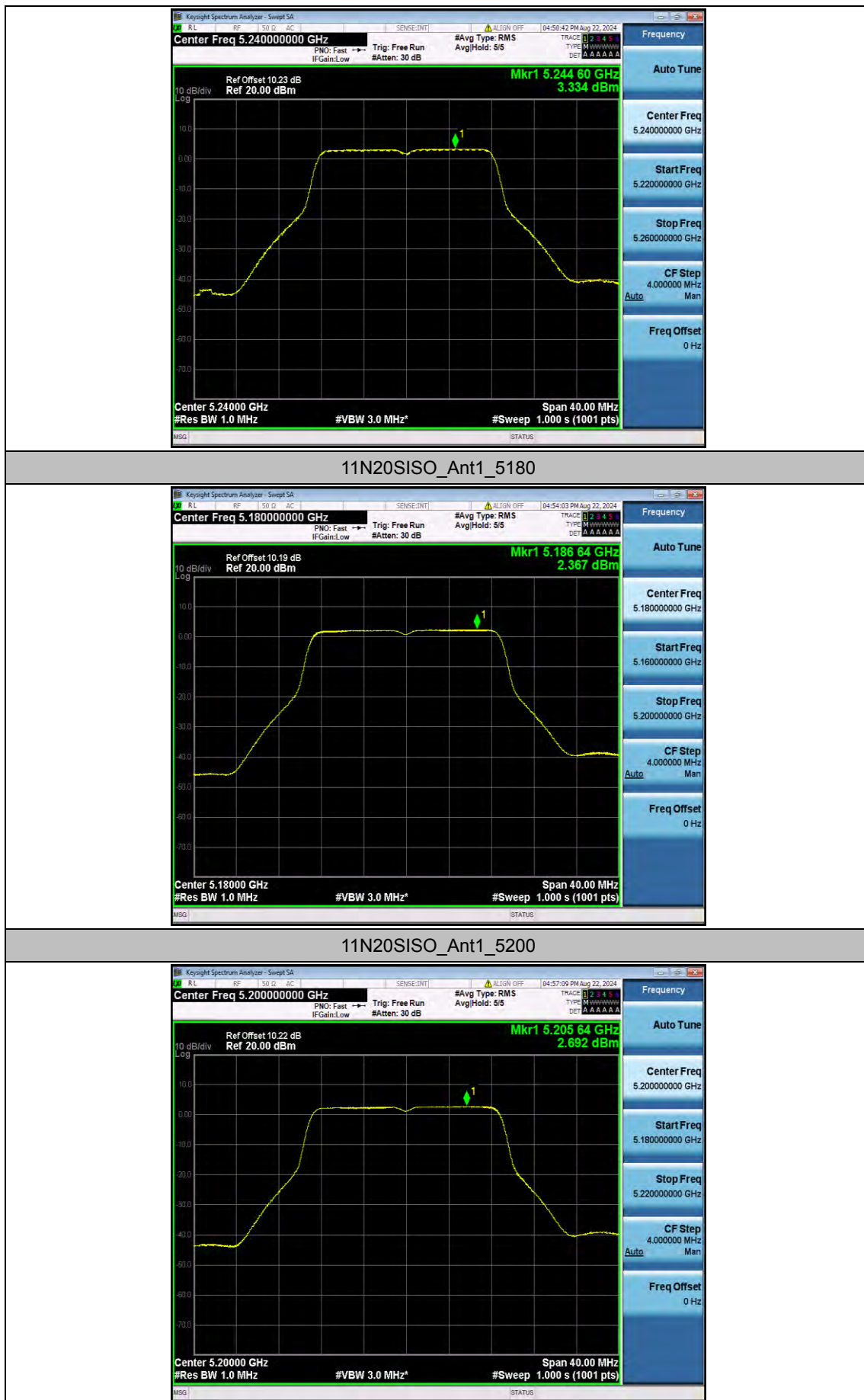
11A_Ant1_5180



11A_Ant1_5200



11A_Ant1_5240



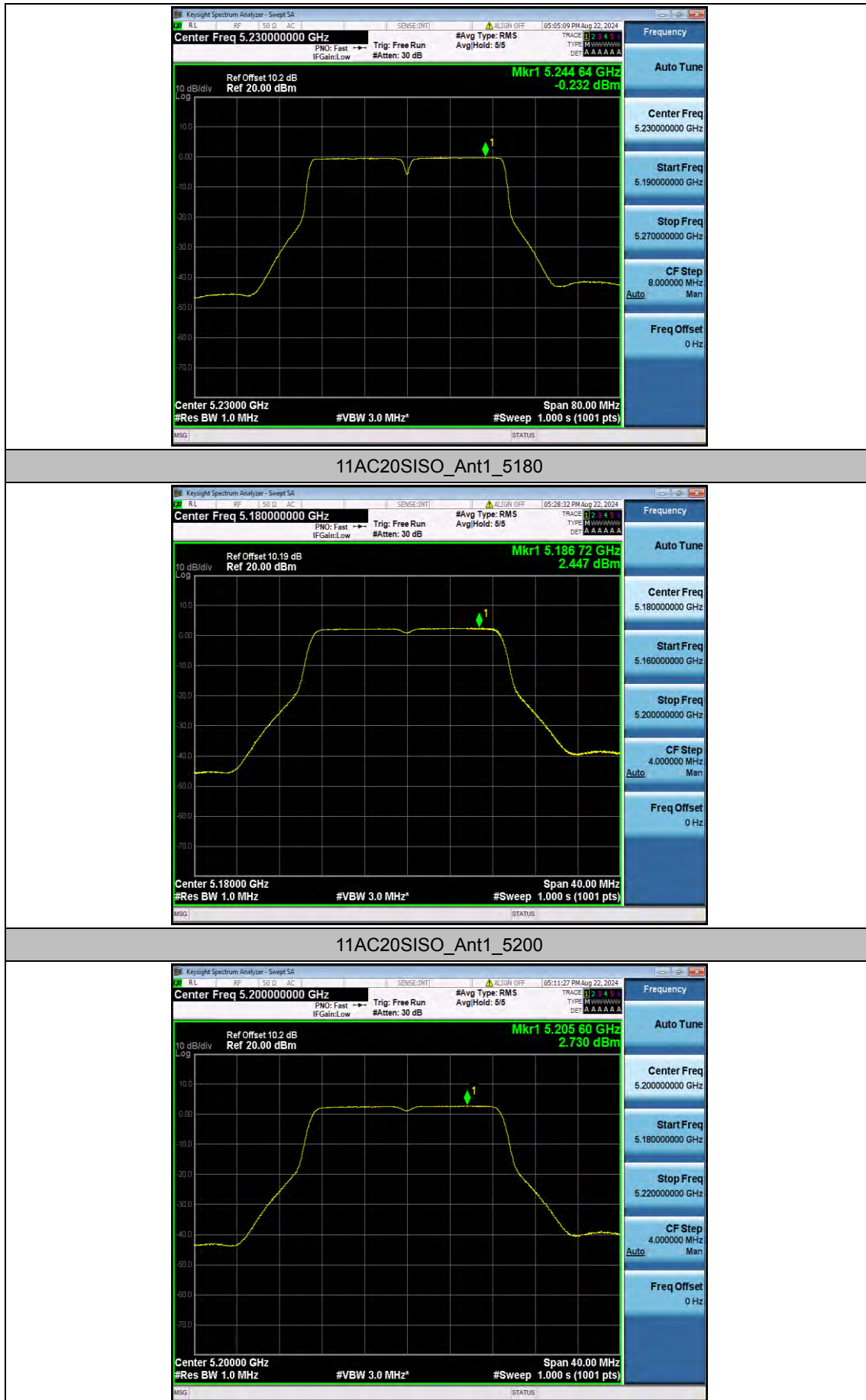
11N20SISO_Ant1_5240



11N40SISO_Ant1_5190



11N40SISO_Ant1_5230



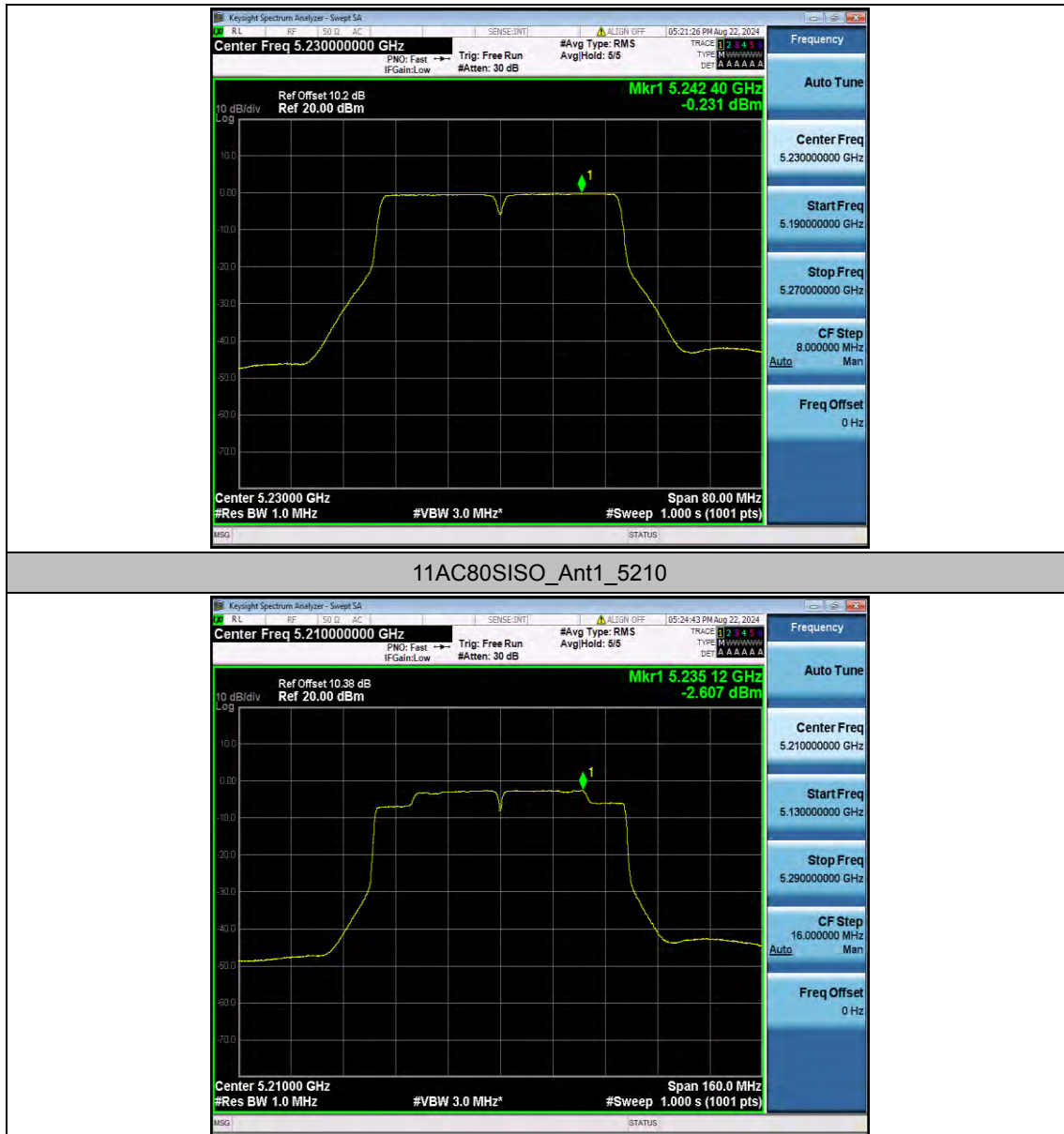
11AC20SISO_Ant1_5240



11AC40SISO_Ant1_5190



11AC40SISO_Ant1_5230



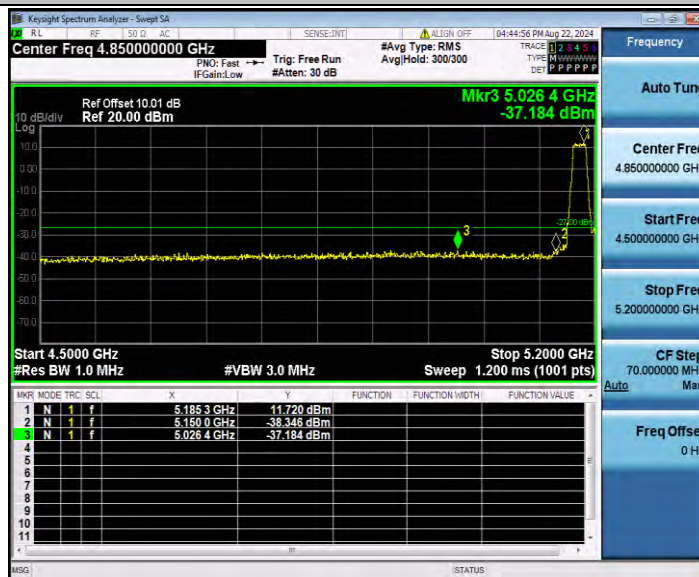
Appendix D.6: Band edge measurements

Test Result B1

TestMode	Antenna	ChName	Freq(MHz)	Result[dBm]	Limit[dBm]	Verdict
11A	Ant1	Low	5180	-37.18	≤ -27	PASS
		High	5240	-37.08	≤ -27	PASS
11N20SISO	Ant1	Low	5180	-36.84	≤ -27	PASS
		High	5240	-37.42	≤ -27	PASS
11N40SISO	Ant1	Low	5190	-36.41	≤ -27	PASS
		High	5230	-37.69	≤ -27	PASS
11AC20SISO	Ant1	Low	5180	-37.42	≤ -27	PASS
		High	5240	-37.31	≤ -27	PASS
11AC40SISO	Ant1	Low	5190	-37.09	≤ -27	PASS
		High	5230	-35.71	≤ -27	PASS
11AC80SISO	Ant1	Low	5210	-35.57	≤ -27	PASS
		High	5210	-35.9	≤ -27	PASS

Test Graphs B1

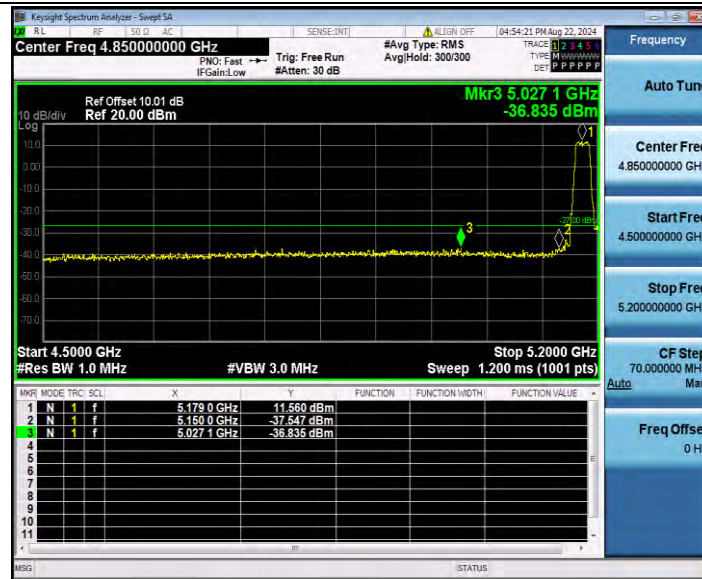
11A_Ant1_Low_5180



11A_Ant1_High_5240



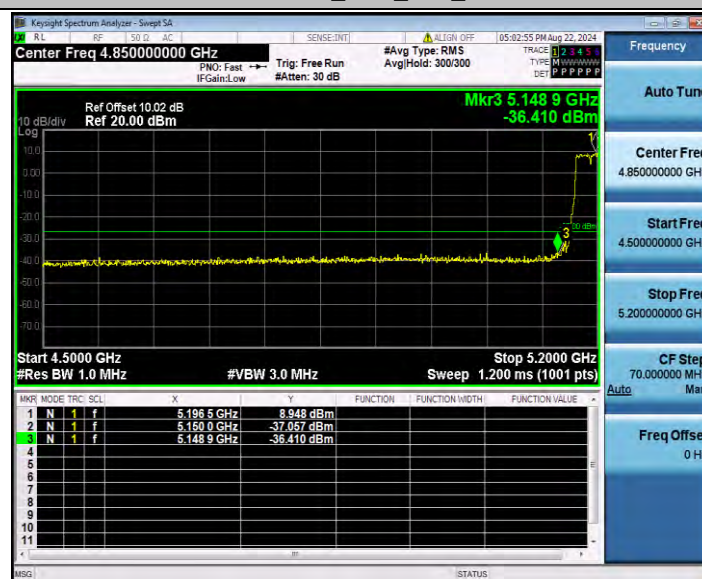
11N20SISO_Ant1_Low_5180



11N20SISO_Ant1_High_5240



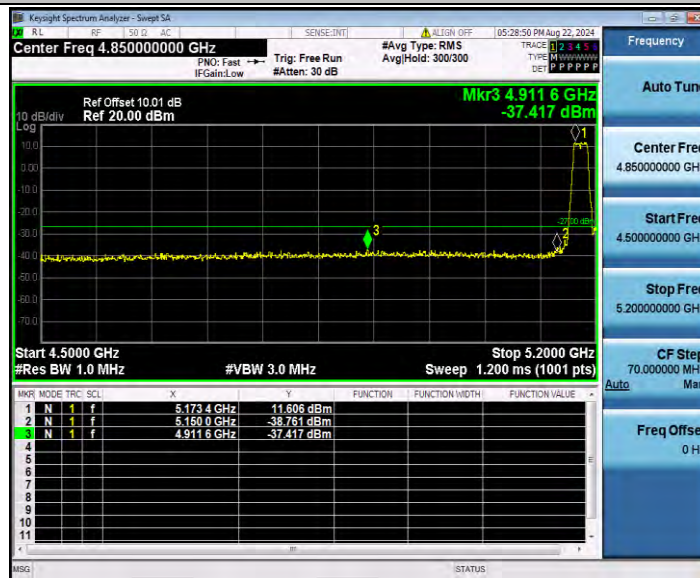
11N40SISO_Ant1_Low_5190



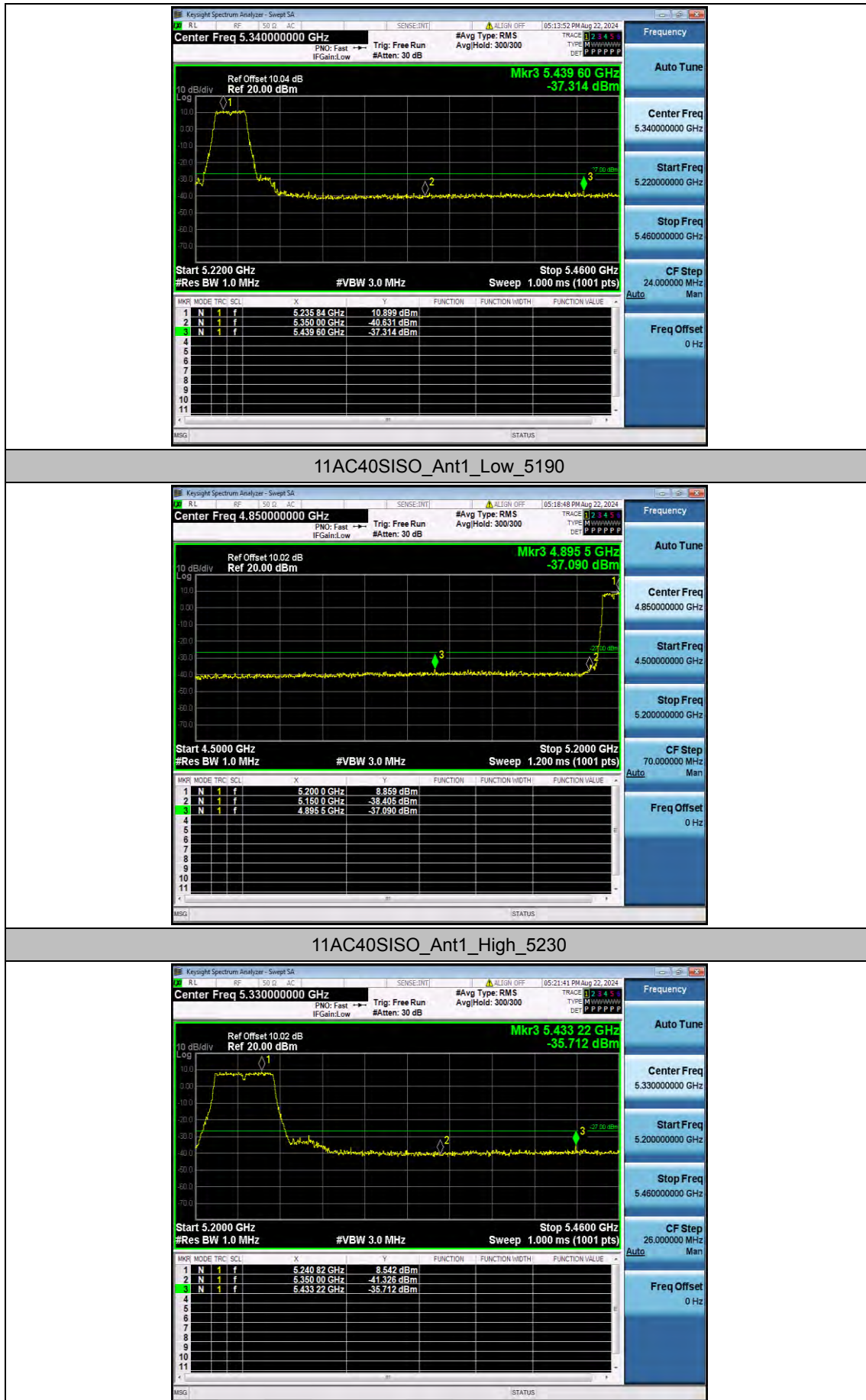
11N40SISO_Ant1_High_5230



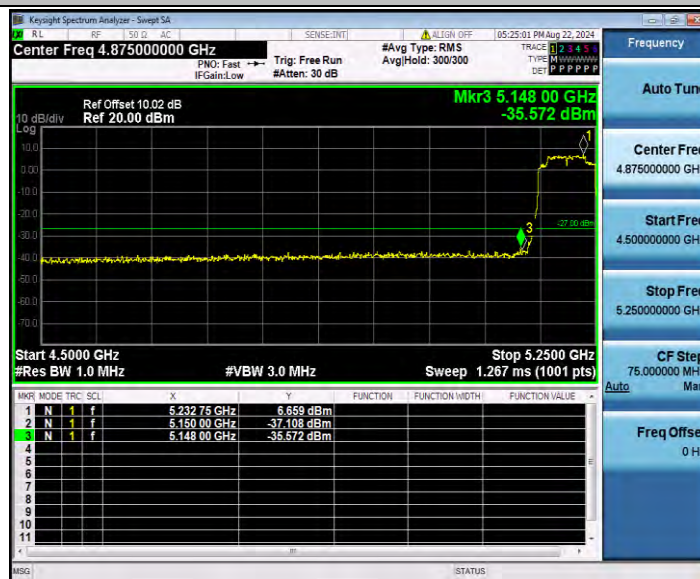
11AC20SISO_Ant1_Low_5180



11AC20SISO_Ant1_High_5240



11AC80SISO_Ant1_Low_5210



11AC80SISO_Ant1_High_5210



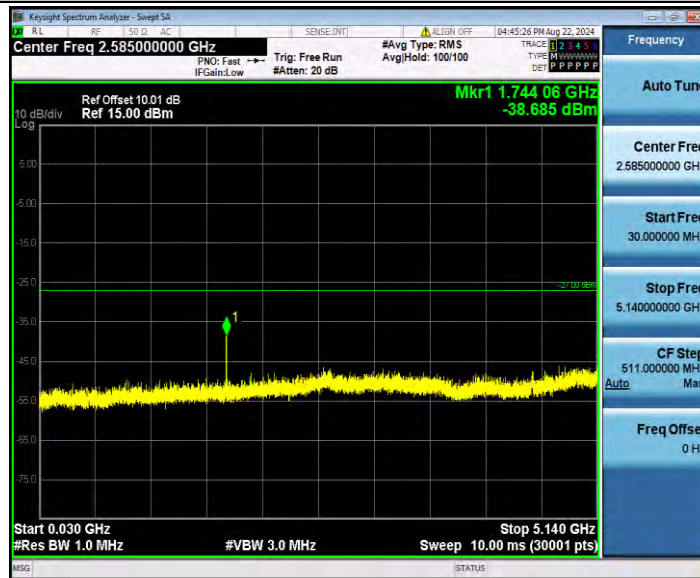
Appendix D.7: Conducted Spurious Emission

Test Result

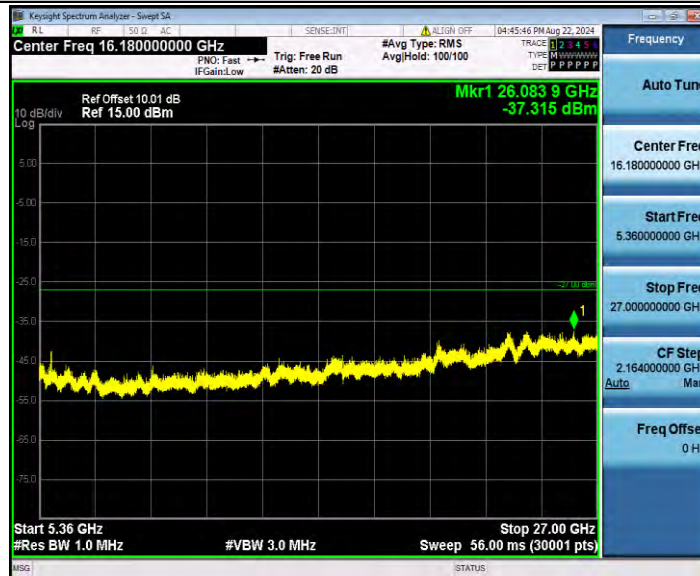
TestMode	Antenna	Freq(MHz)	FreqRange [MHz]	Max. Fre [MHz]	Max. Level [dBm]	Limit [dBm]	Verdict
11A	Ant1	5180	30~5140	1744.06	-38.69	≤-27	PASS
			5360~27000	26083.91	-37.32	≤-27	PASS
		5200	30~5140	4971.2	-46.25	≤-27	PASS
			5360~27000	24243.06	-37.16	≤-27	PASS
		5240	30~5140	4888.08	-46.22	≤-27	PASS
			5360~27000	26022.59	-37.16	≤-27	PASS
11N20SISO	Ant1	5180	30~5140	4999.99	-46.32	≤-27	PASS
			5360~27000	26497.95	-36.85	≤-27	PASS
		5200	30~5140	4789.79	-46.06	≤-27	PASS
			5360~27000	26029.81	-37.44	≤-27	PASS
		5240	30~5140	2949.34	-46.36	≤-27	PASS
			5360~27000	24794.88	-37.04	≤-27	PASS
11N40SISO	Ant1	5190	30~5140	5134.38	-42.63	≤-27	PASS
			5360~27000	24817.25	-37.01	≤-27	PASS
		5230	30~5140	5135.74	-45.56	≤-27	PASS
			5360~27000	25107.94	-37.35	≤-27	PASS
11AC20SISO	Ant1	5180	30~5140	1746.62	-44.23	≤-27	PASS
			5360~27000	26710.75	-37.03	≤-27	PASS
		5200	30~5140	5118.71	-46.67	≤-27	PASS
			5360~27000	26495.07	-36.98	≤-27	PASS
		5240	30~5140	4893.53	-46.16	≤-27	PASS
			5360~27000	24885.77	-37.74	≤-27	PASS
11AC40SISO	Ant1	5190	30~5140	5136.42	-44.56	≤-27	PASS
			5360~27000	26494.35	-37.24	≤-27	PASS
		5230	30~5140	5133.53	-45.67	≤-27	PASS
			5360~27000	25140.4	-37.12	≤-27	PASS
11AC80SISO	Ant1	5210	30~5140	5120.58	-41.01	≤-27	PASS
			5360~27000	26050.73	-37.16	≤-27	PASS

Test Graphs

11A_Ant1_5180_30~5140



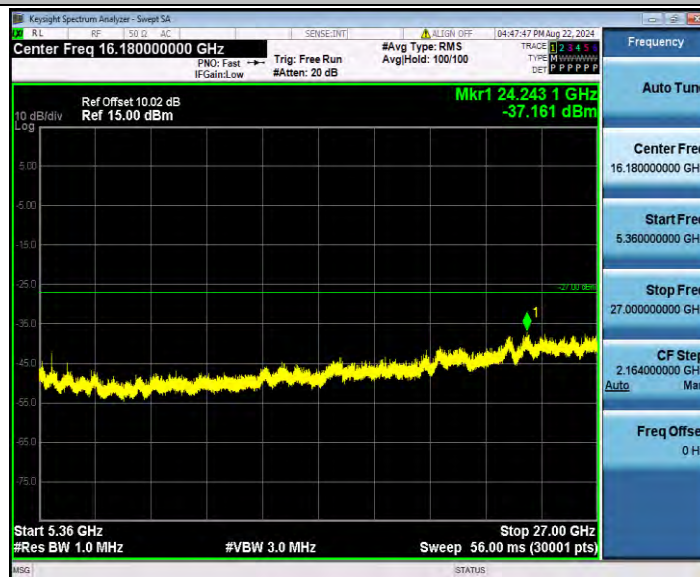
11A_Ant1_5180_5360~27000



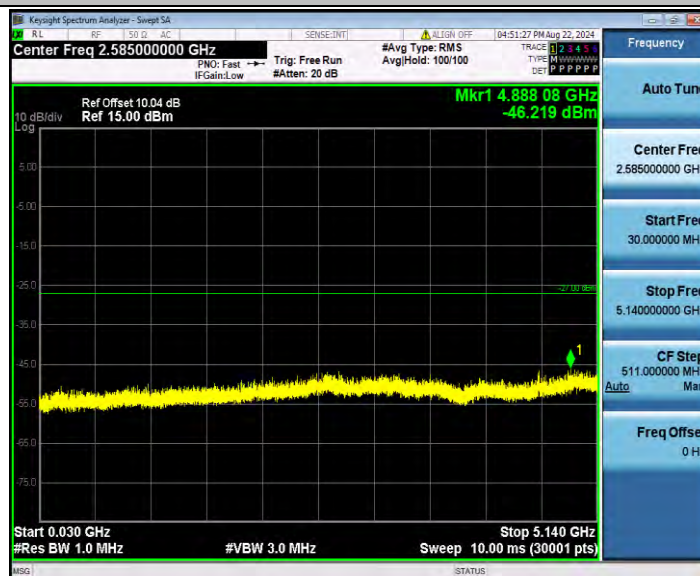
11A_Ant1_5200_30~5140



11A_Ant1_5200_5360~27000



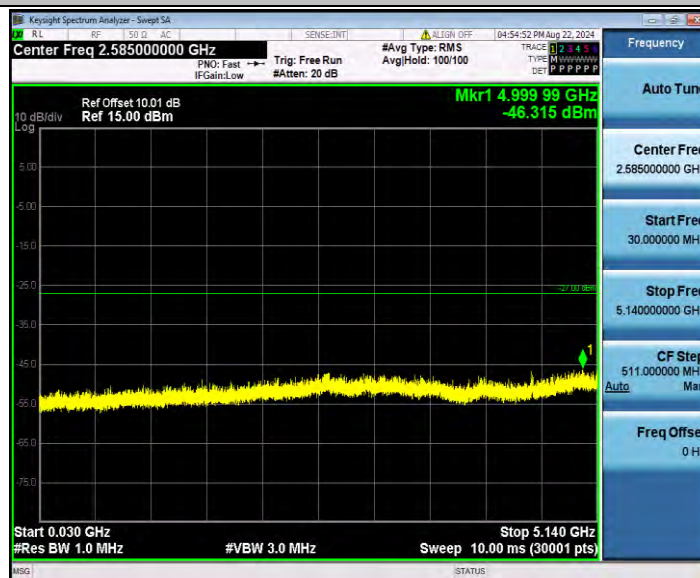
11A_Ant1_5240_30~5140



11A_Ant1_5240_5360~27000



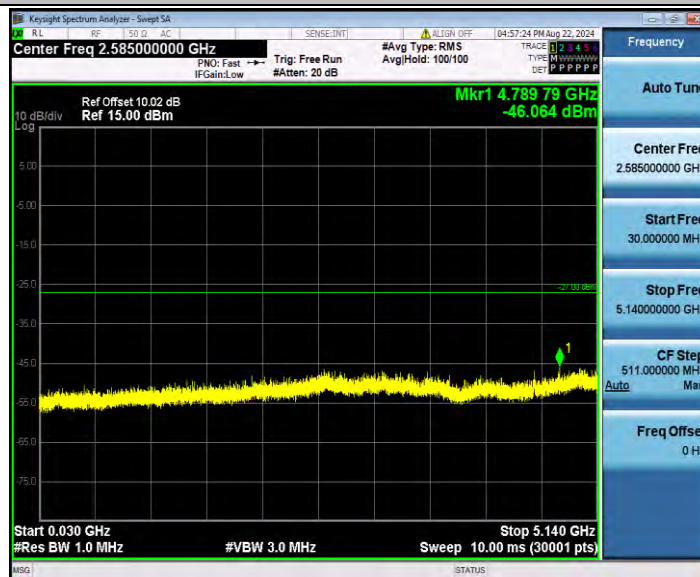
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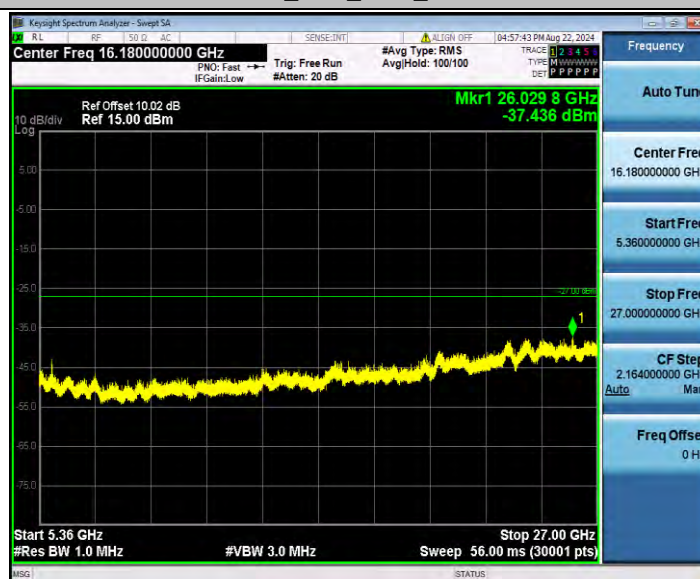
11N20SISO_Ant1_5180_5360~27000



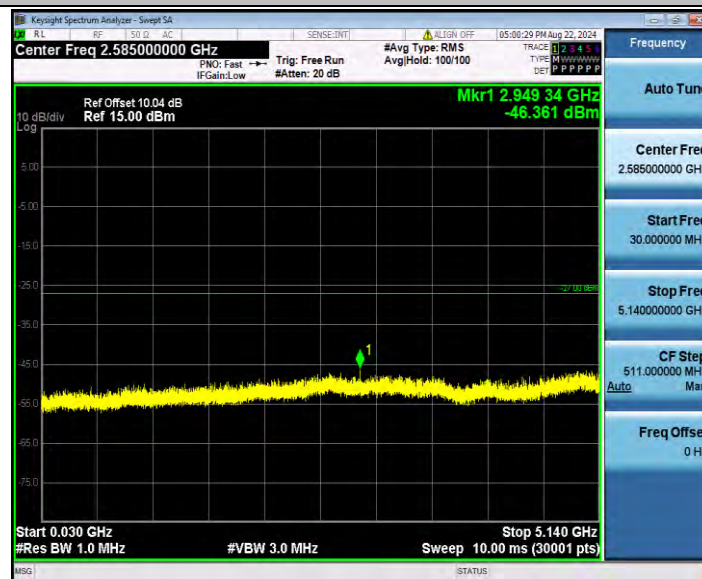
11N20SISO_Ant1_5200_30~5140



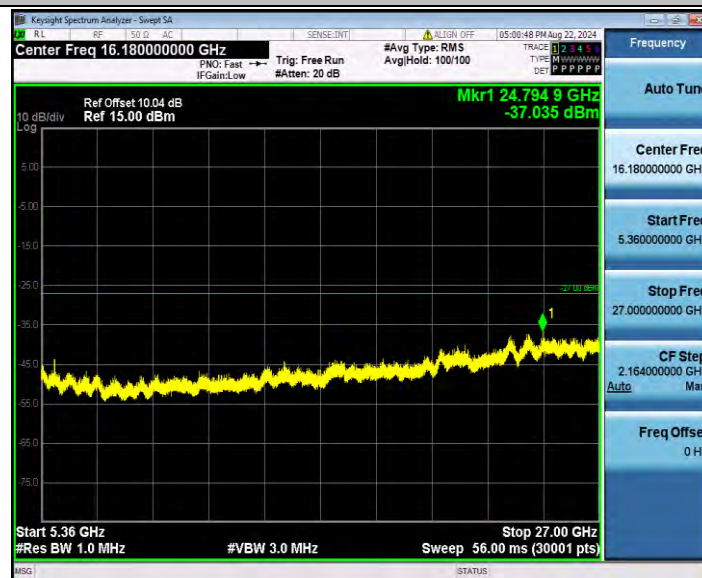
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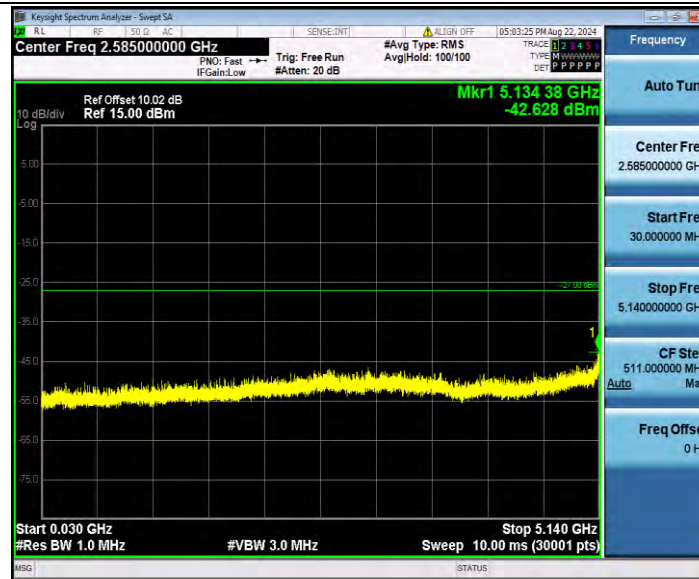
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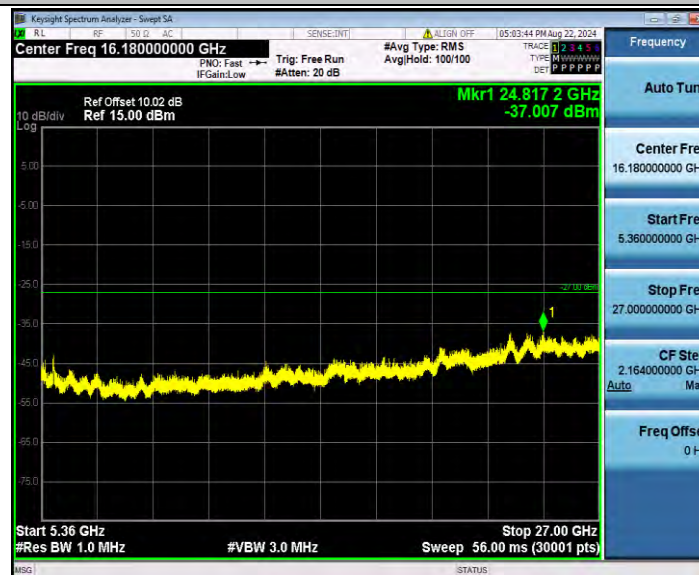
11N20SISO_Ant1_5240_5360~27000



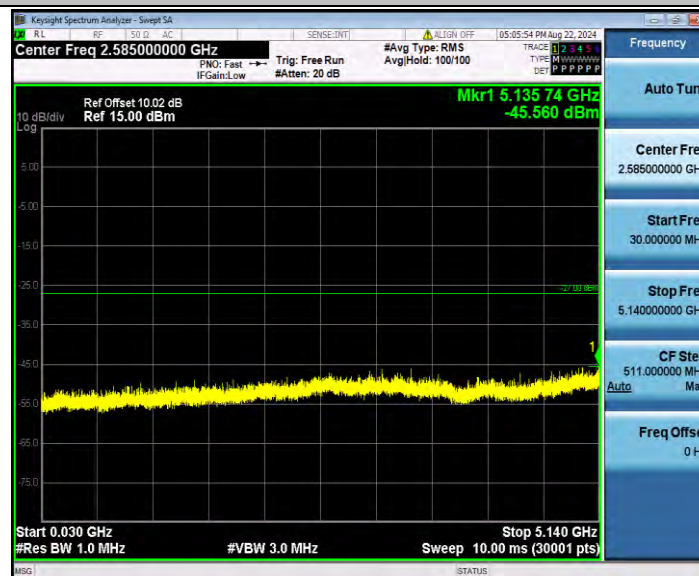
11N40SISO_Ant1_5190_30~5140

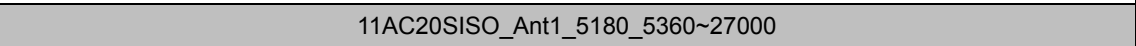
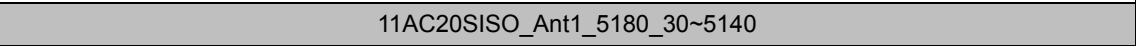


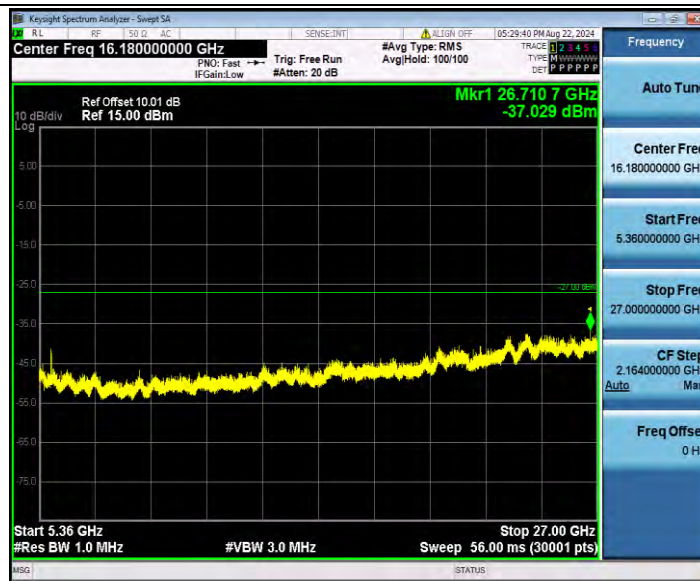
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11N40SISO_Ant1_5230_30~5140



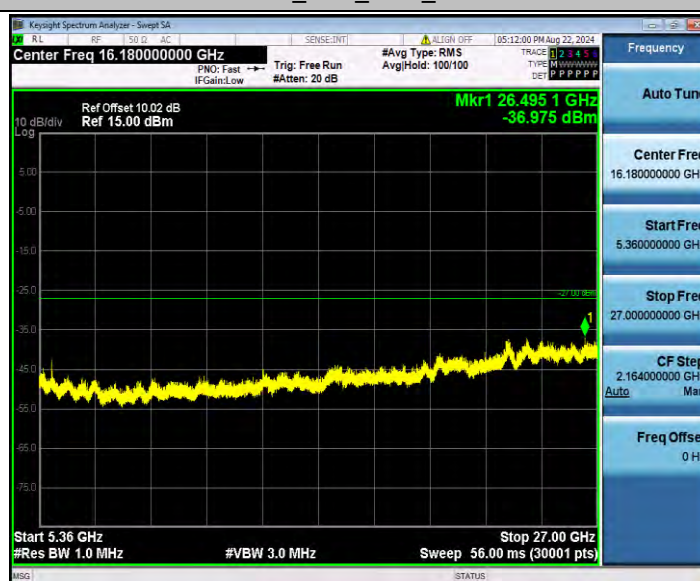




11AC20SISO_Ant1_5200_30~5140



11AC20SISO_Ant1_5200_5360~27000



11AC20SISO_Ant1_5240_30~5140



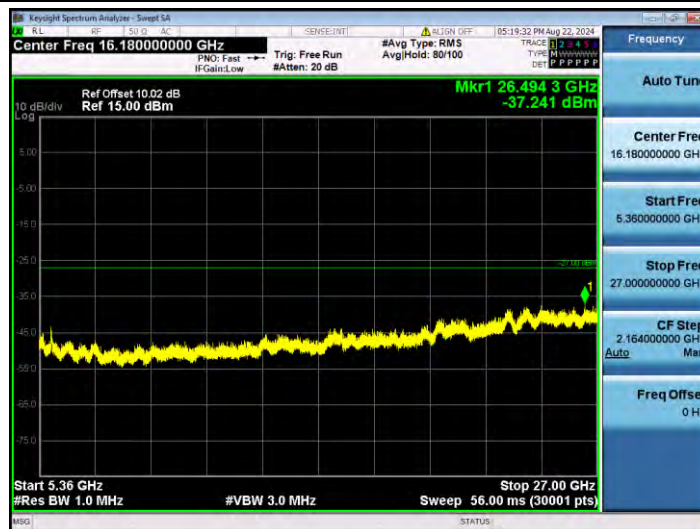
11AC20SISO_Ant1_5240_5360~27000



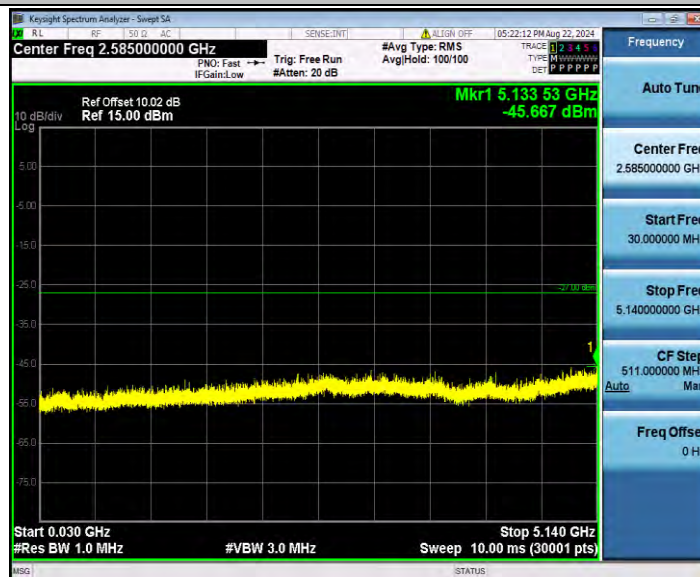
11AC40SISO_Ant1_5190_30~5140



11AC40SISO_Ant1_5190_5360~27000



11AC40SISO_Ant1_5230_30~5140



11AC40SISO_Ant1_5230_5360~27000

