

Case No. : <u>CTA24081600604</u>	
Ambient Condition: <u>22</u> °C, <u>52</u> %RH	
According Standard: ■PART 15E	
Test Date: <u>2024.8.13</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	23.720	5168.080	5191.800	---	---
		5200	23.400	5188.520	5211.920	---	---
		5240	23.160	5228.480	5251.640	---	---
11N20SISO	Ant1	5180	23.640	5168.240	5191.880	---	---
		5200	23.440	5188.280	5211.720	---	---
		5240	24.160	5227.760	5251.920	---	---
11N40SISO	Ant1	5190	44.000	5168.240	5212.240	---	---
		5230	44.400	5207.760	5252.160	---	---
11AC20SISO	Ant1	5180	23.160	5168.760	5191.920	---	---
		5200	23.520	5188.640	5212.160	---	---
		5240	23.760	5227.960	5251.720	---	---
11AC40SISO	Ant1	5190	44.080	5167.840	5211.920	---	---
		5230	44.160	5208.080	5252.240	---	---
11AC80SISO	Ant1	5210	82.080	5169.040	5251.120	---	---

Test Graphs

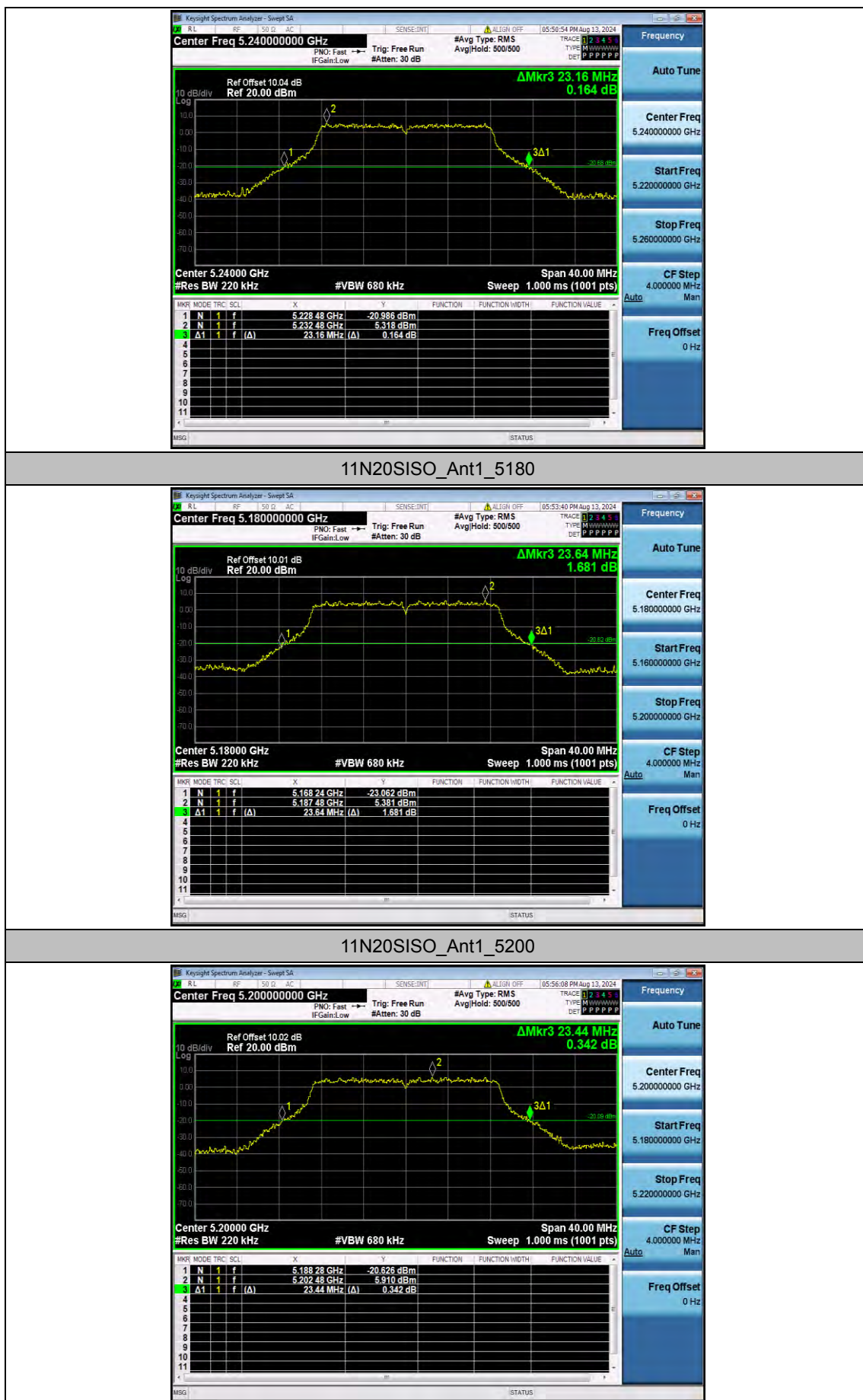
11A_Ant1_5180

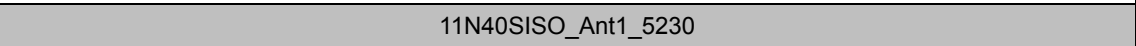
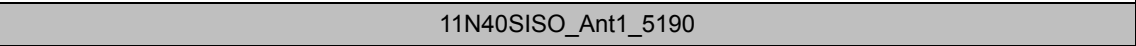


11A_Ant1_5200



11A_Ant1_5240







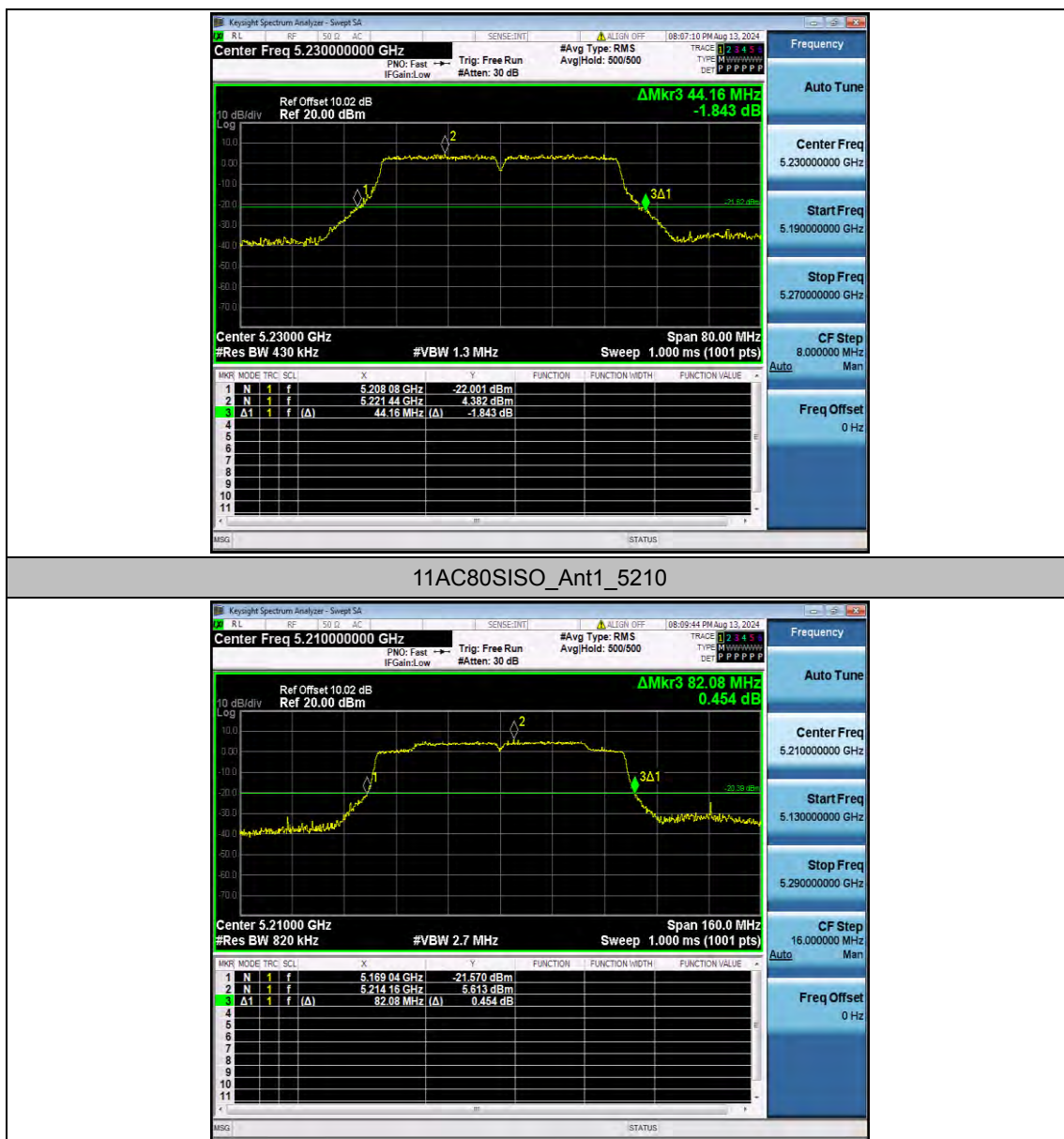
11AC20SISO_Ant1_5240



11AC40SISO_Ant1_5190



11AC40SISO_Ant1_5230

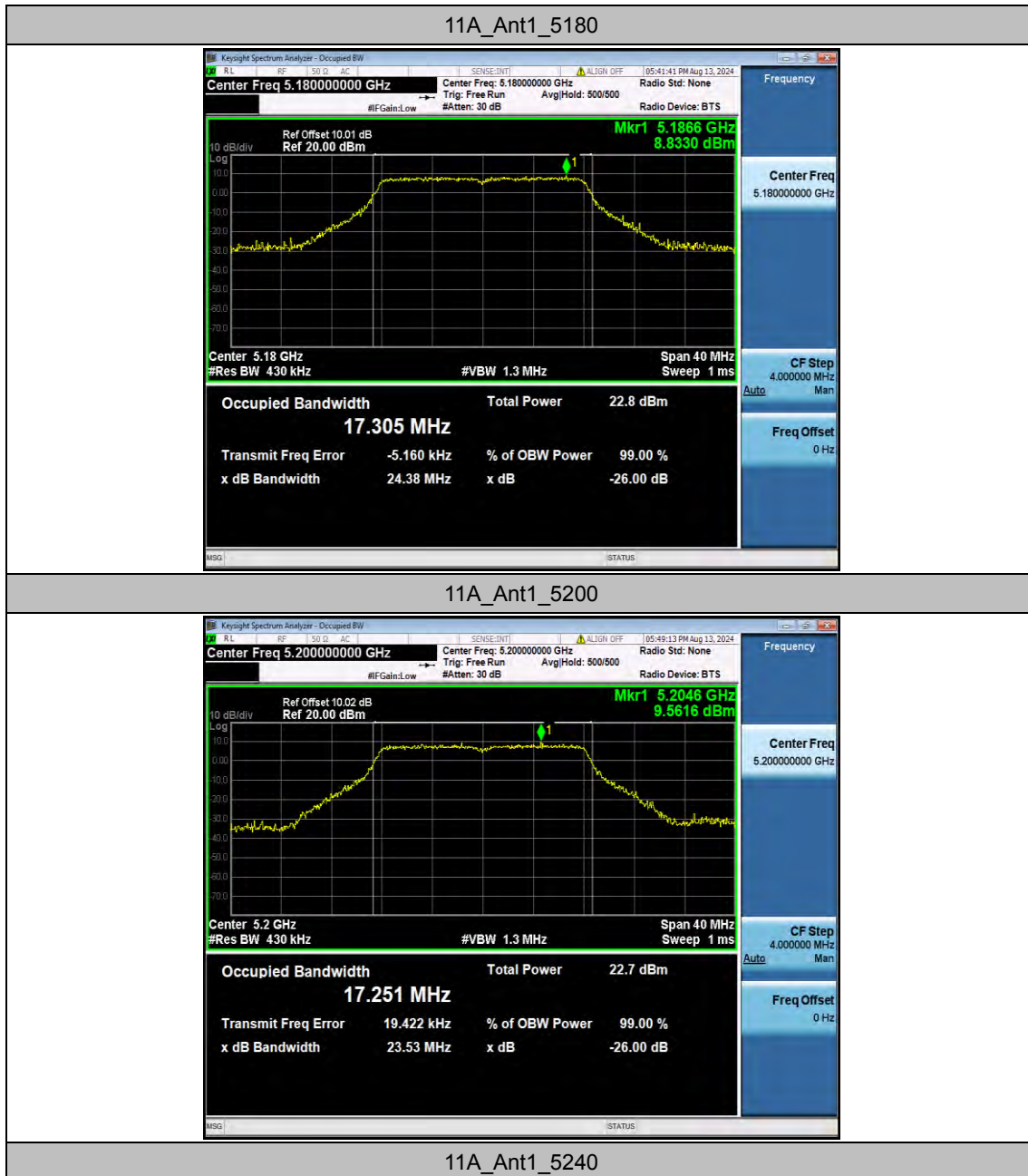


Appendix D.2: Occupied channel bandwidth

Test Result

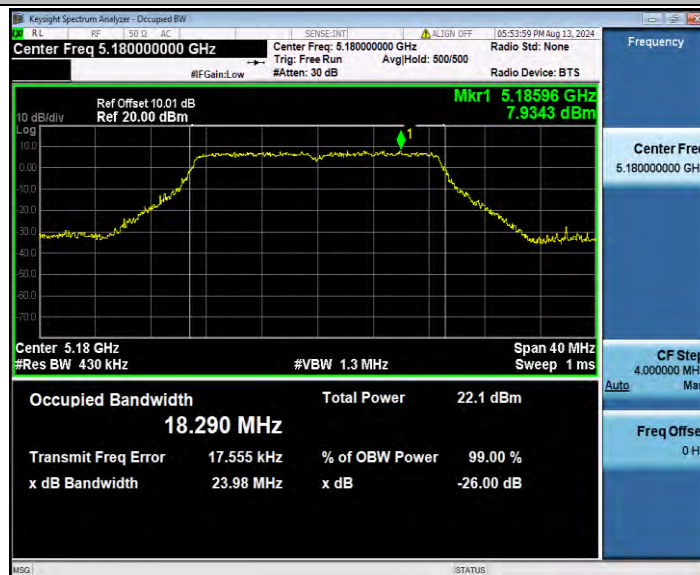
TestMode	Antenna	Freq(MHz)	OCB [MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
11A	Ant1	5180	17.305	5171.3423	5188.6473	---	---
		5200	17.251	5191.3939	5208.6449	---	---
		5240	17.262	5231.3365	5248.5985	---	---
11N20SISO	Ant1	5180	18.290	5170.8726	5189.1626	---	---
		5200	18.309	5190.8433	5209.1523	---	---
		5240	18.344	5230.8135	5249.1575	---	---
11N40SISO	Ant1	5190	36.766	5171.6586	5208.4246	---	---
		5230	36.697	5211.6572	5248.3542	---	---
11AC20SISO	Ant1	5180	18.273	5170.8813	5189.1543	---	---
		5200	18.260	5190.8989	5209.1589	---	---
		5240	18.290	5230.8479	5249.1379	---	---
11AC40SISO	Ant1	5190	36.775	5171.6345	5208.4095	---	---
		5230	36.710	5211.6518	5248.3618	---	---
11AC80SISO	Ant1	5210	75.087	5172.5283	5247.6153	---	---

Test Graphs





11N20SISO_Ant1_5180



11N20SISO_Ant1_5200



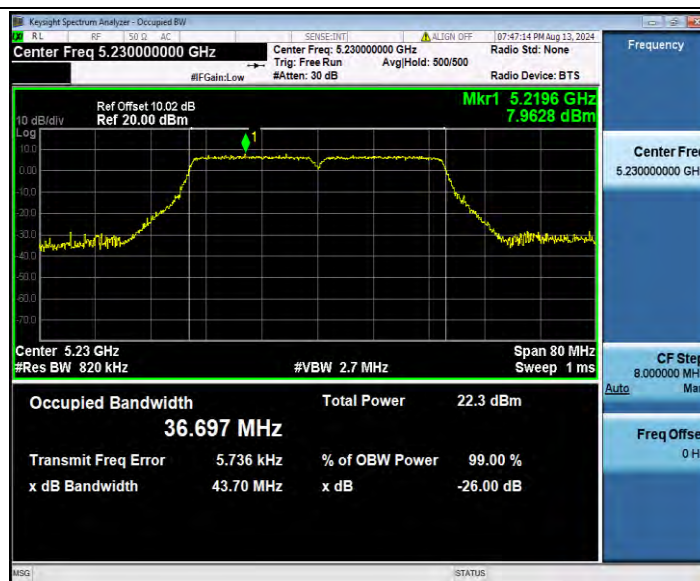
11N20SISO_Ant1_5240



11N40SISO_Ant1_5190



11N40SISO_Ant1_5230



11AC20SISO_Ant1_5180



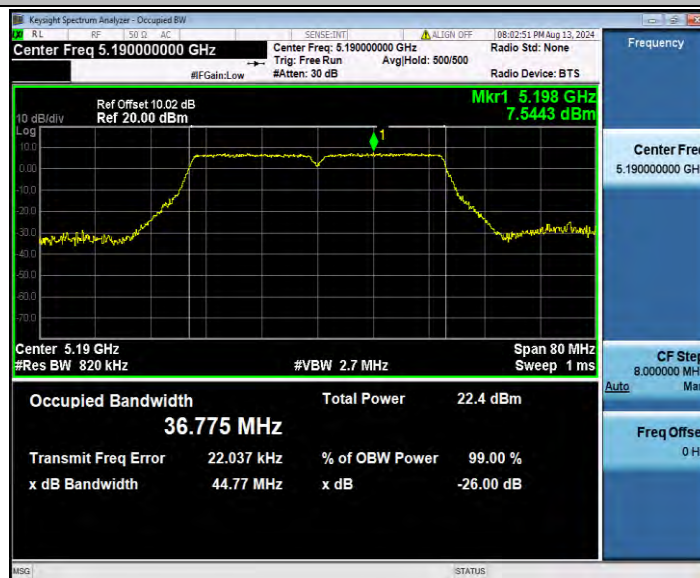
11AC20SISO_Ant1_5200



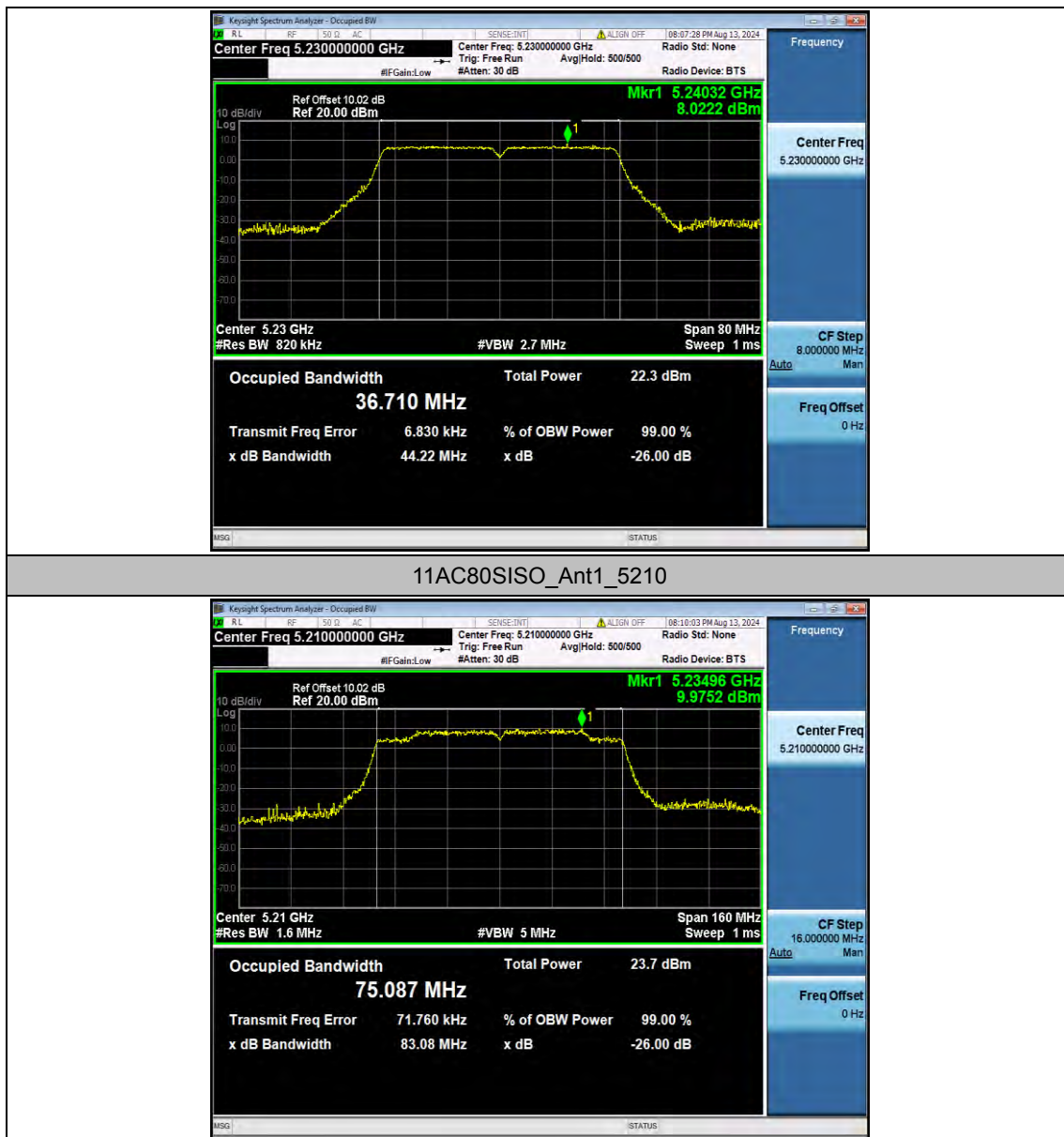
11AC20SISO_Ant1_5240



11AC40SISO_Ant1_5190



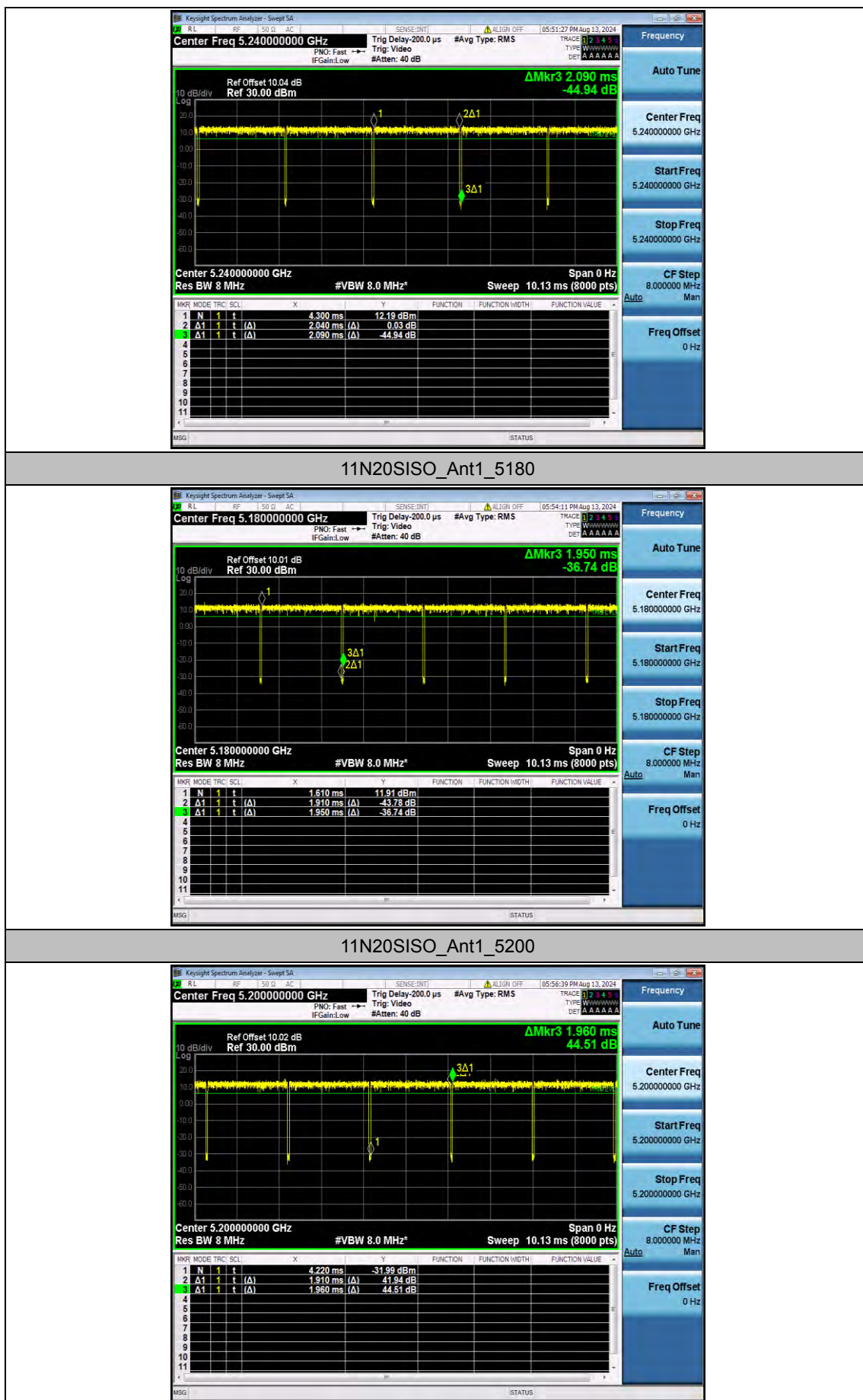
11AC40SISO_Ant1_5230

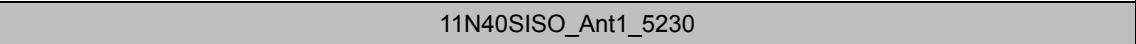
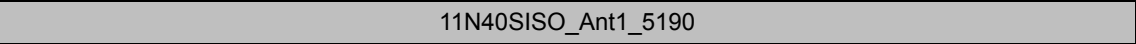


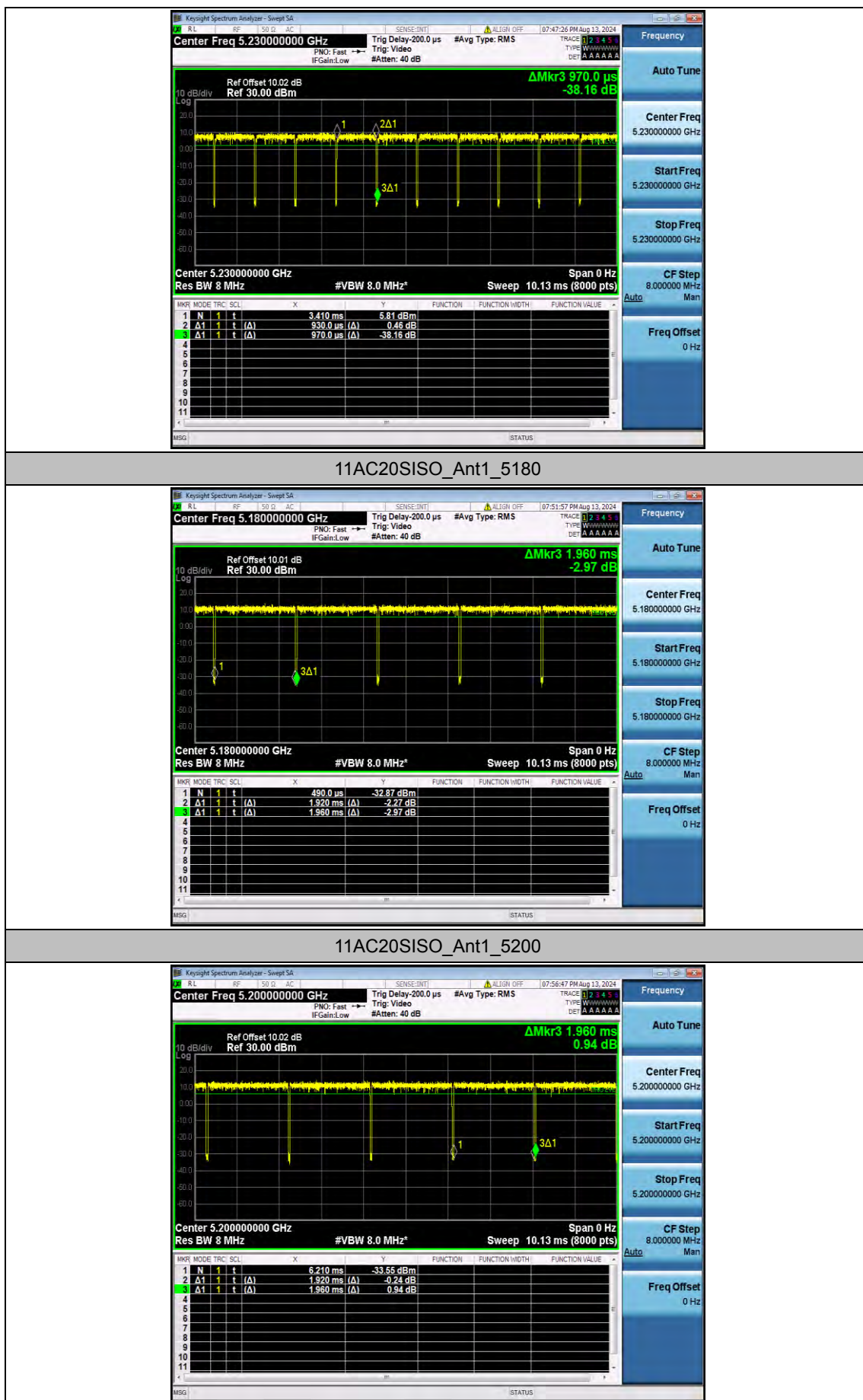
Appendix D.3: Duty Cycle

Test Result

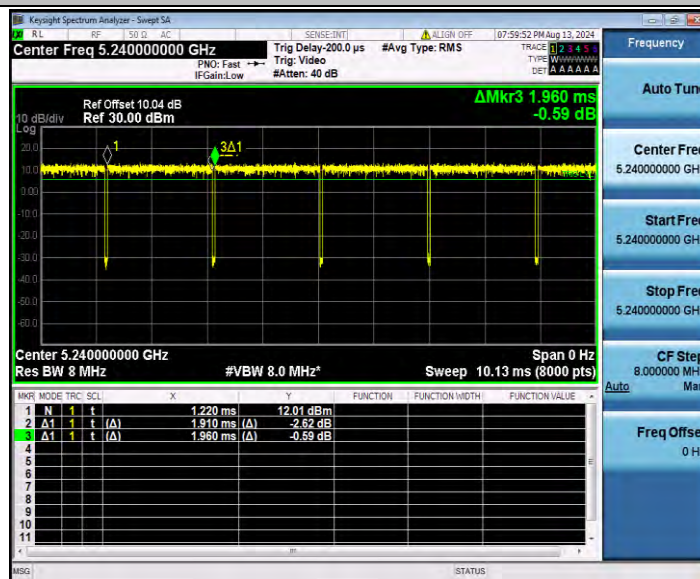
TestMode	Antenna	Freq(MHz)	Transmission Duration [ms]	Transmission Period [ms]	Duty Cycle [%]	Duty Cycle Factor[dB]	1/T Factor[KHz]
11A	Ant1	5180	2.05	2.09	98.09	0.08	0.49
		5200	2.05	2.09	98.09	0.08	0.49
		5240	2.04	2.09	97.61	0.11	0.49
11N20SISO	Ant1	5180	1.91	1.95	97.95	0.09	0.52
		5200	1.91	1.96	97.45	0.11	0.52
		5240	1.91	1.95	97.95	0.09	0.52
11N40SISO	Ant1	5190	0.93	0.97	95.88	0.18	1.08
		5230	0.93	0.97	95.88	0.18	1.08
11AC20SISO	Ant1	5180	1.92	1.96	97.96	0.09	0.52
		5200	1.92	1.96	97.96	0.09	0.52
		5240	1.91	1.96	97.45	0.11	0.52
11AC40SISO	Ant1	5190	0.94	0.98	95.92	0.18	1.06
		5230	0.94	0.98	95.92	0.18	1.06
11AC80SISO	Ant1	5210	0.46	0.50	92.00	0.36	2.17



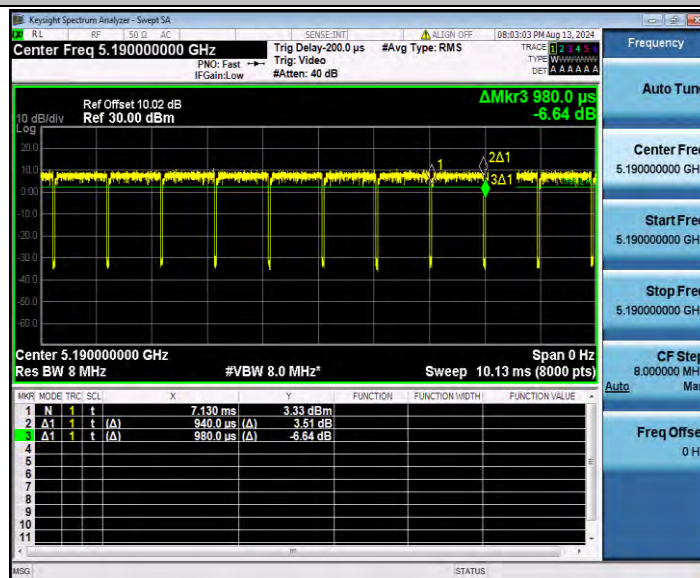




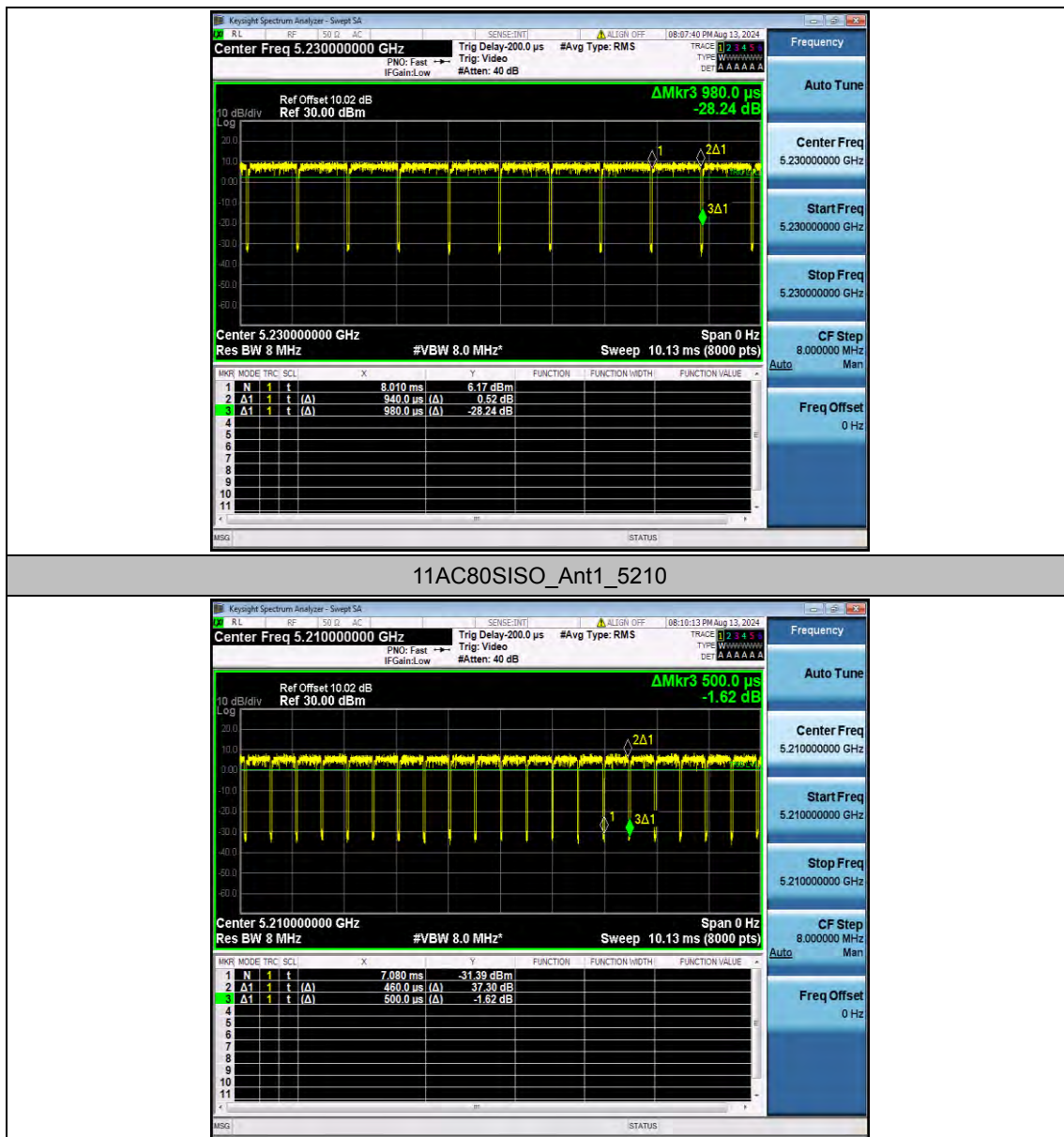
11AC20SISO_Ant1_5240



11AC40SISO_Ant1_5190



11AC40SISO_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	15.89	98.09	0.08	15.97	≤23.98	PASS
		5200	15.79	98.09	0.08	15.87	≤23.98	PASS
		5240	15.19	97.61	0.11	15.30	≤23.98	PASS
11N20SISO	Ant1	5180	15.21	97.95	0.09	15.30	≤23.98	PASS
		5200	15.62	97.45	0.11	15.73	≤23.98	PASS
		5240	14.51	97.95	0.09	14.60	≤23.98	PASS
11N40SISO	Ant1	5190	14.61	95.88	0.18	14.79	≤23.98	PASS
		5230	14.47	95.88	0.18	14.65	≤23.98	PASS
11AC20SISO	Ant1	5180	14.51	97.96	0.09	14.60	≤23.98	PASS
		5200	14.95	97.96	0.09	15.04	≤23.98	PASS
		5240	14.50	97.45	0.11	14.61	≤23.98	PASS
11AC40SISO	Ant1	5190	14.62	95.92	0.18	14.80	≤23.98	PASS
		5230	14.49	95.92	0.18	14.67	≤23.98	PASS
11AC80SISO	Ant1	5210	14.46	92.00	0.36	14.82	≤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	4.13	≤11.00	PASS
		5200	4.14	≤11.00	PASS
		5240	3.57	≤11.00	PASS
11N20SISO	Ant1	5180	3.17	≤11.00	PASS
		5200	3.66	≤11.00	PASS
		5240	2.48	≤11.00	PASS
11N40SISO	Ant1	5190	-0.08	≤11.00	PASS
		5230	-0.31	≤11.00	PASS
11AC20SISO	Ant1	5180	2.54	≤11.00	PASS
		5200	3.14	≤11.00	PASS
		5240	2.60	≤11.00	PASS
11AC40SISO	Ant1	5190	0.00	≤11.00	PASS
		5230	-0.25	≤11.00	PASS
11AC80SISO	Ant1	5210	-2.18	≤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



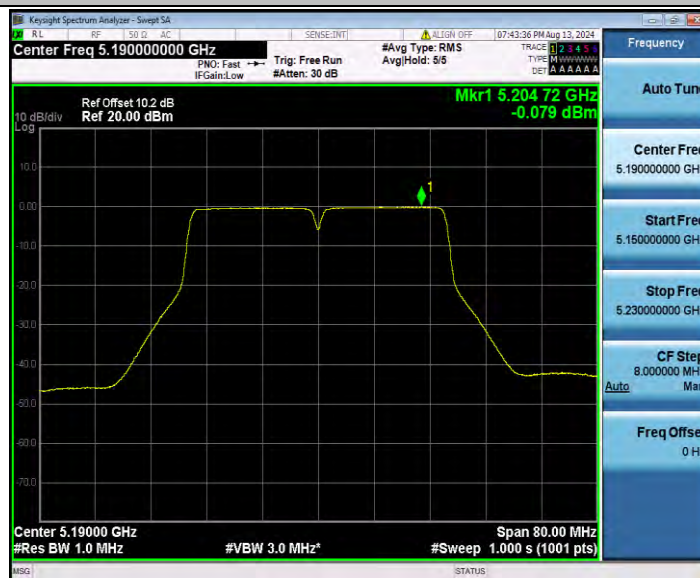
11N20SISO_Ant1_5200



11N20SISO_Ant1_5240



11N40SISO_Ant1_5190



11N40SISO_Ant1_5230



11AC20SISO_Ant1_5180



11AC20SISO_Ant1_5200



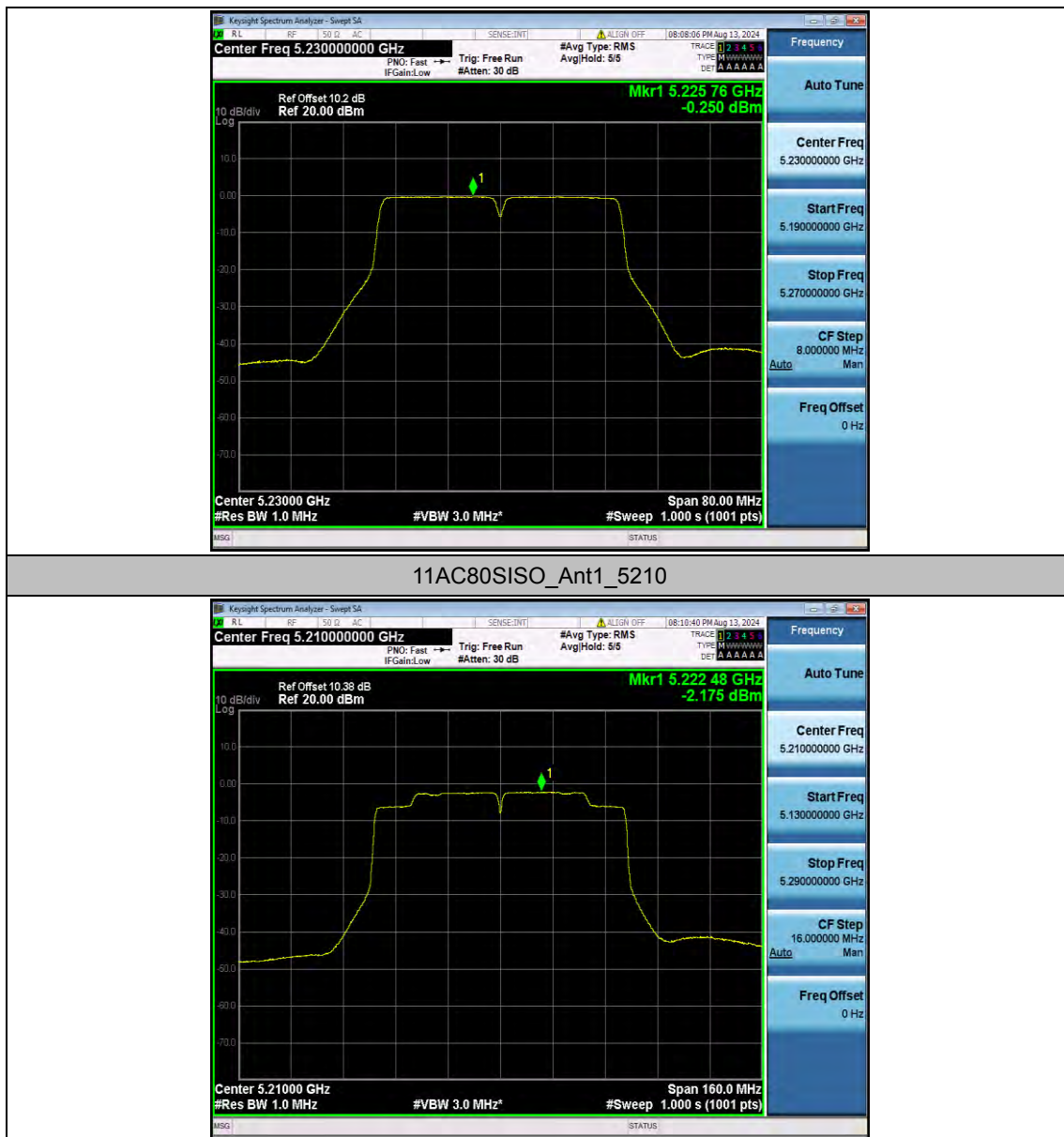
11AC20SISO_Ant1_5240



11AC40SISO_Ant1_5190



11AC40SISO_Ant1_5230



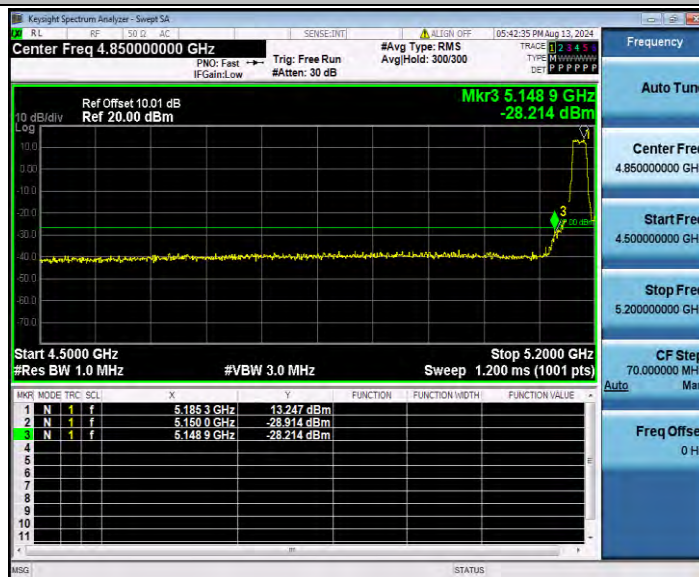
Appendix D.6: Band edge measurements

Test Result B1

TestMode	Antenna	ChName	Freq(MHz)	Result[dBm]	Limit[dBm]	Verdict
11A	Ant1	Low	5180	-28.21	≤ -27	PASS
		High	5240	-37.34	≤ -27	PASS
11N20SISO	Ant1	Low	5180	-33.02	≤ -27	PASS
		High	5240	-37.06	≤ -27	PASS
11N40SISO	Ant1	Low	5190	-36.4	≤ -27	PASS
		High	5230	-37.53	≤ -27	PASS
11AC20SISO	Ant1	Low	5180	-34.72	≤ -27	PASS
		High	5240	-37.58	≤ -27	PASS
11AC40SISO	Ant1	Low	5190	-31.48	≤ -27	PASS
		High	5230	-37.72	≤ -27	PASS
11AC80SISO	Ant1	Low	5210	-34.98	≤ -27	PASS
		High	5210	-36.72	≤ -27	PASS

Test Graphs B1

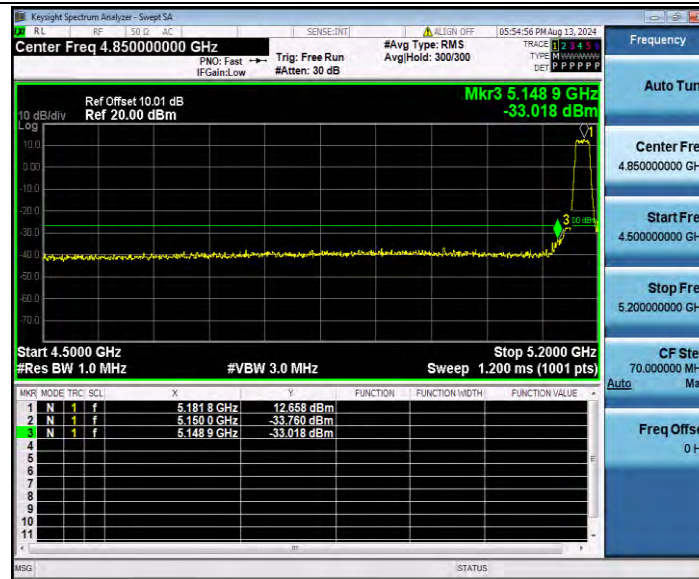
11A_Ant1_Low_5180



11A_Ant1_High_5240



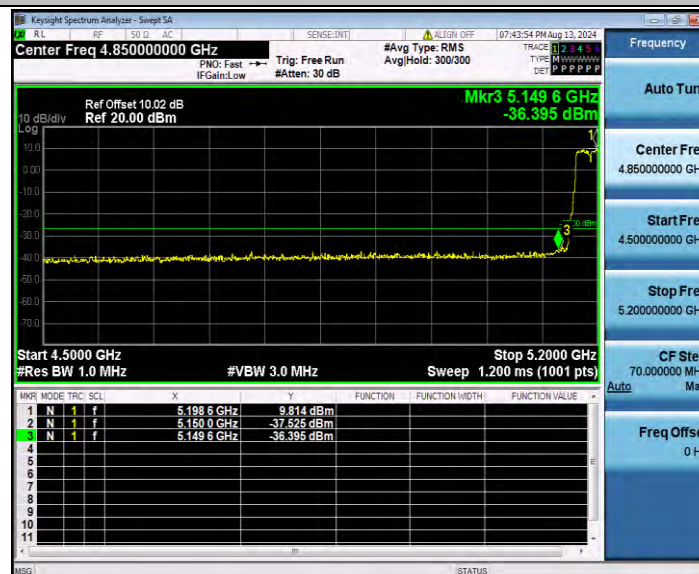
11N20SISO_Ant1_Low_5180



11N20SISO_Ant1_High_5240



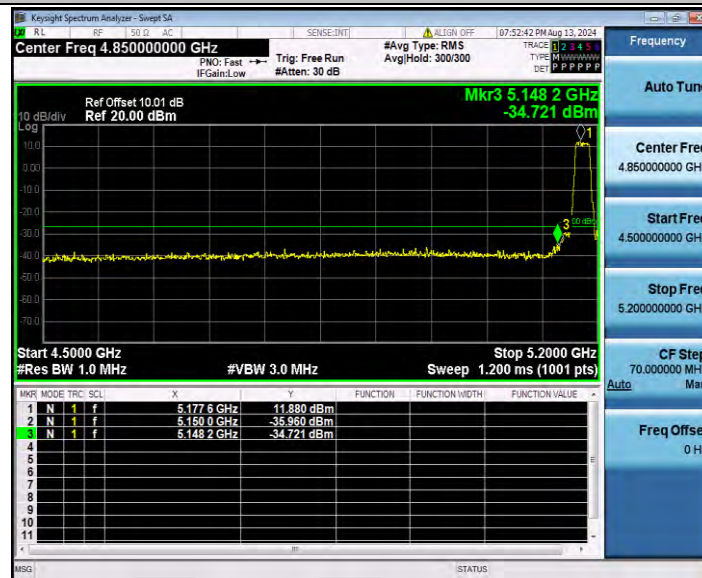
11N40SISO_Ant1_Low_5190



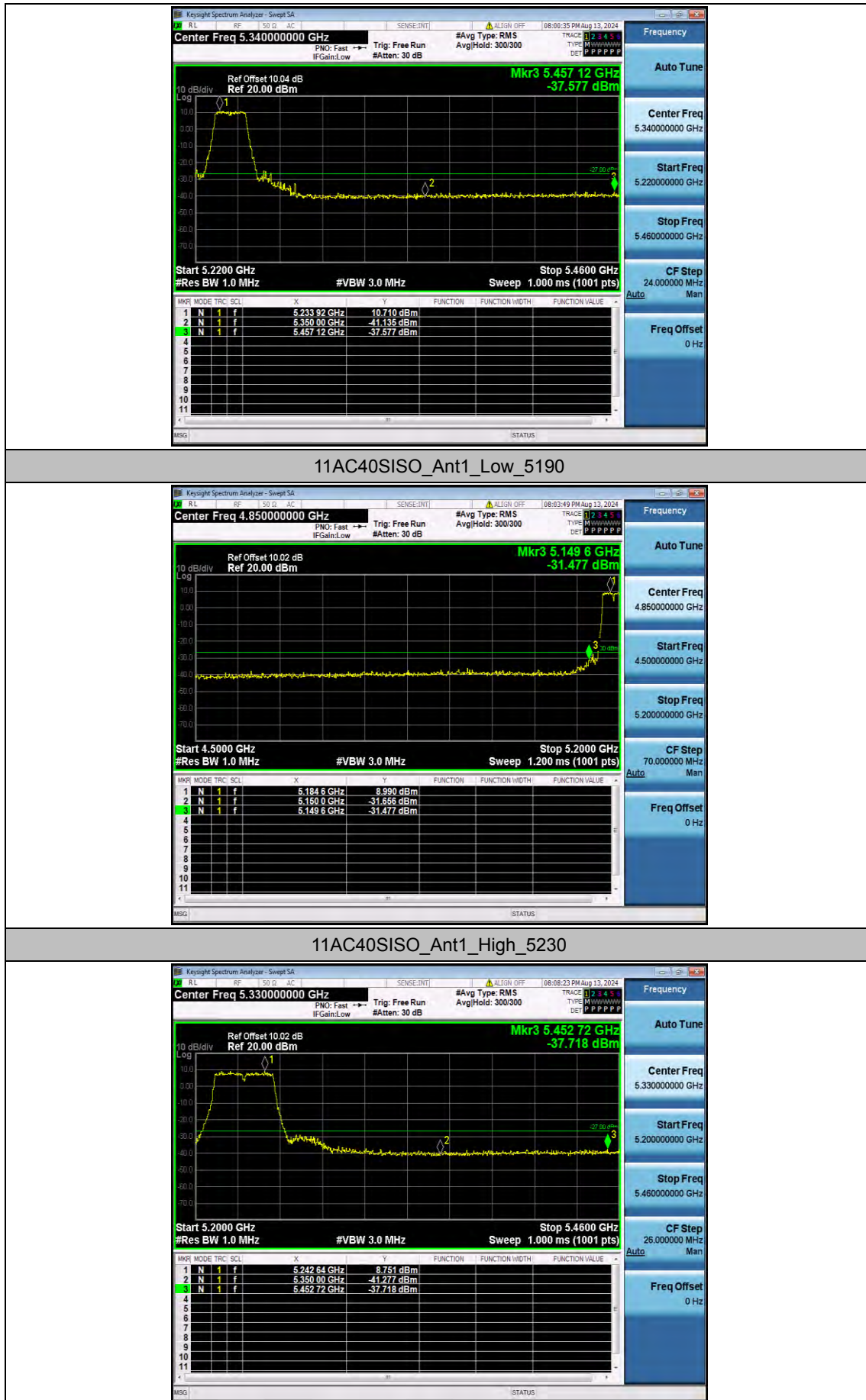
11N40SISO_Ant1_High_5230



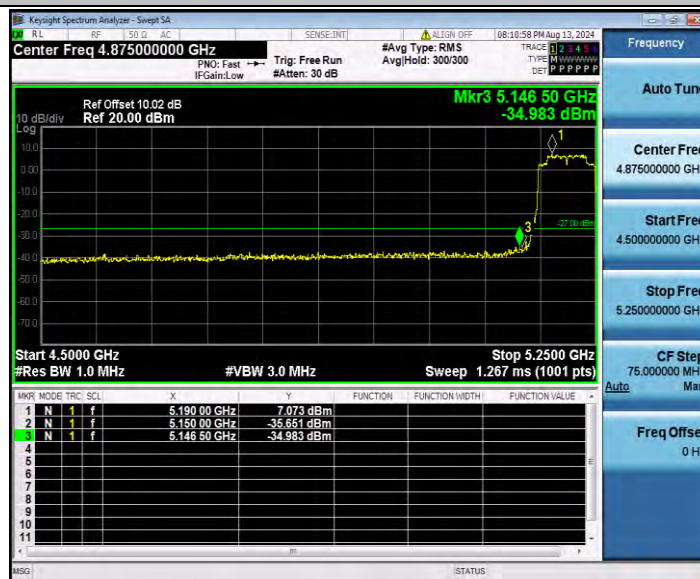
11AC20SISO_Ant1_Low_5180



11AC20SISO_Ant1_High_5240



11AC80SISO_Ant1_Low_5210



11AC80SISO_Ant1_High_5210



Appendix D.7: Conducted Spurious Emission

Test Result

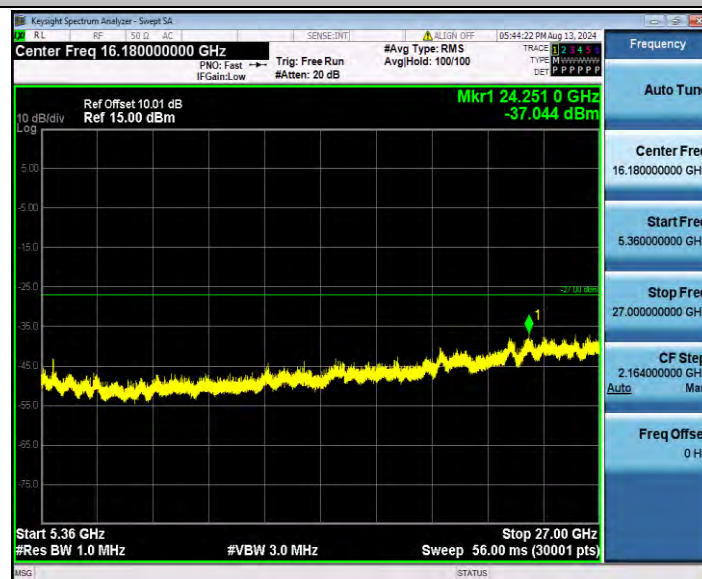
TestMode	Antenna	Freq(MHz)	FreqRange [MHz]	Max. Fre [MHz]	Max. Level [dBm]	Limit [dBm]	Verdict
11A	Ant1	5180	30~5140	5139.32	-40.61	≤-27	PASS
			5360~27000	24251	-37.04	≤-27	PASS
		5200	30~5140	35.28	-40.85	≤-27	PASS
			5360~27000	26913.44	-37.21	≤-27	PASS
		5240	30~5140	39.88	-41.2	≤-27	PASS
			5360~27000	26848.52	-37.6	≤-27	PASS
11N20SISO	Ant1	5180	30~5140	1738.27	-33.15	≤-27	PASS
			5360~27000	23532.55	-37.05	≤-27	PASS
		5200	30~5140	35.11	-40.33	≤-27	PASS
			5360~27000	24201.23	-37.18	≤-27	PASS
		5240	30~5140	1762.63	-31.25	≤-27	PASS
			5360~27000	23549.86	-37.71	≤-27	PASS
11N40SISO	Ant1	5190	30~5140	1738.27	-36.33	≤-27	PASS
			5360~27000	24895.15	-36.68	≤-27	PASS
		5230	30~5140	2411.6	-38.98	≤-27	PASS
			5360~27000	24812.92	-37.06	≤-27	PASS
11AC20SISO	Ant1	5180	30~5140	2411.6	-39.94	≤-27	PASS
			5360~27000	25637.4	-37.69	≤-27	PASS
		5200	30~5140	31.7	-34.5	≤-27	PASS
			5360~27000	26459	-36.95	≤-27	PASS
		5240	30~5140	35.96	-38.02	≤-27	PASS
			5360~27000	26914.16	-36.63	≤-27	PASS
11AC40SISO	Ant1	5190	30~5140	2416.71	-35.2	≤-27	PASS
			5360~27000	26057.94	-37.13	≤-27	PASS
		5230	30~5140	5136.76	-40.18	≤-27	PASS
			5360~27000	24825.18	-37	≤-27	PASS
11AC80SISO	Ant1	5210	30~5140	5137.1	-34.95	≤-27	PASS
			5360~27000	24259.65	-37.71	≤-27	PASS

Test Graphs

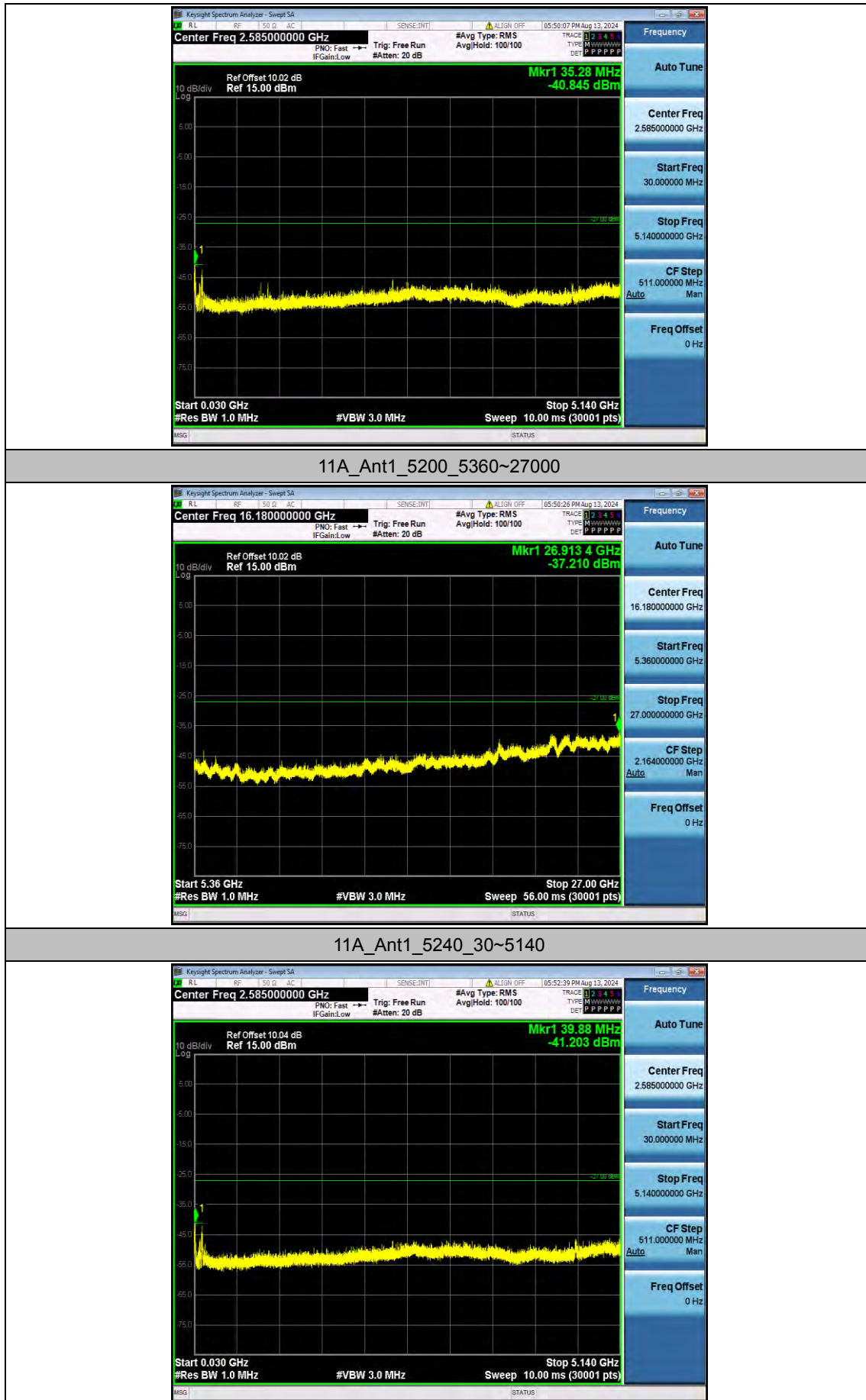
11A_Ant1_5180_30~5140



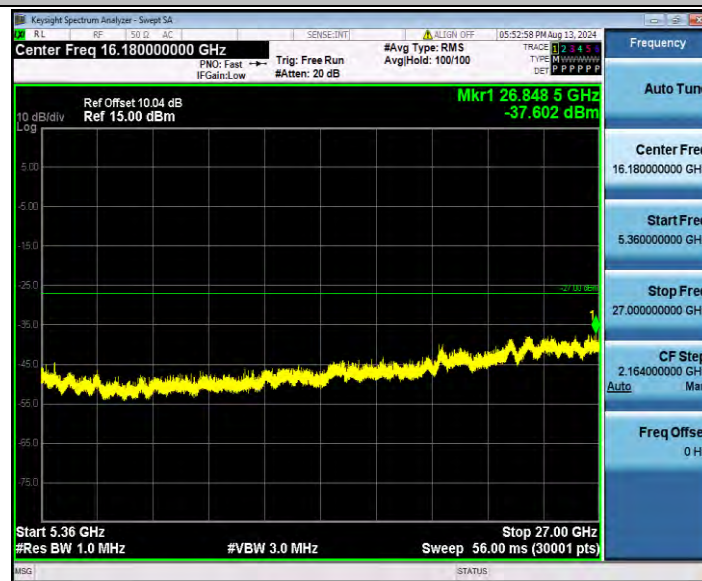
11A_Ant1_5180_5360~27000



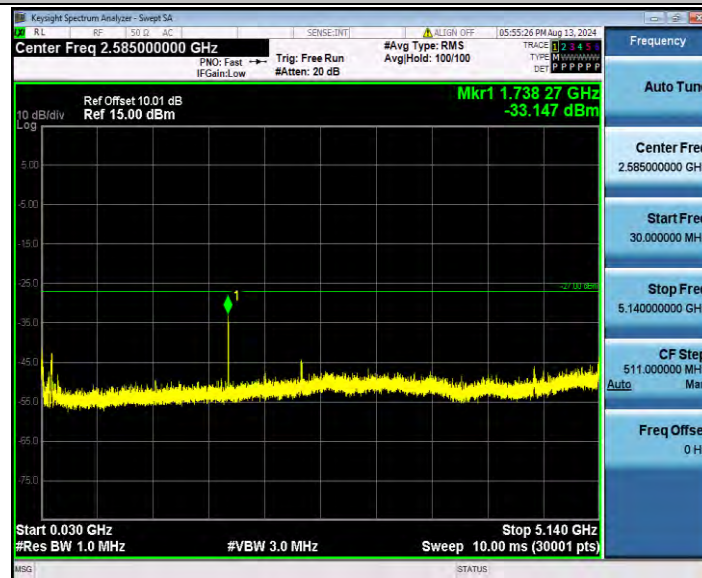
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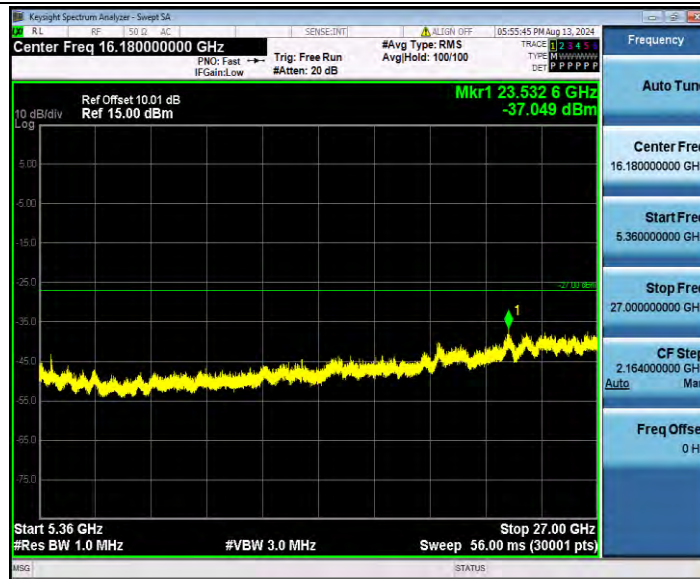
11A_Ant1_5240_5360~27000



11N20SISO_Ant1_5180_30~5140



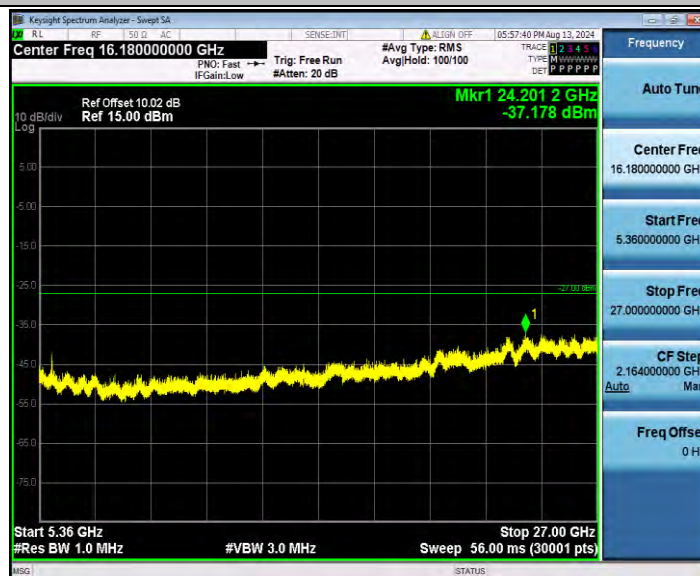
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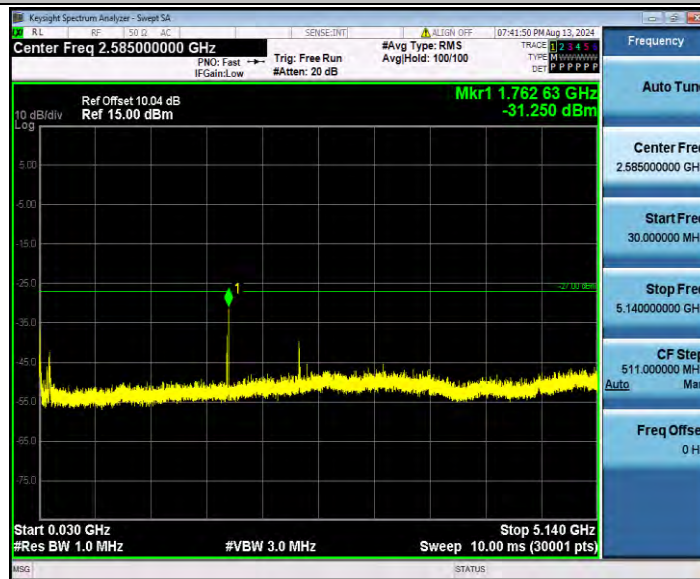
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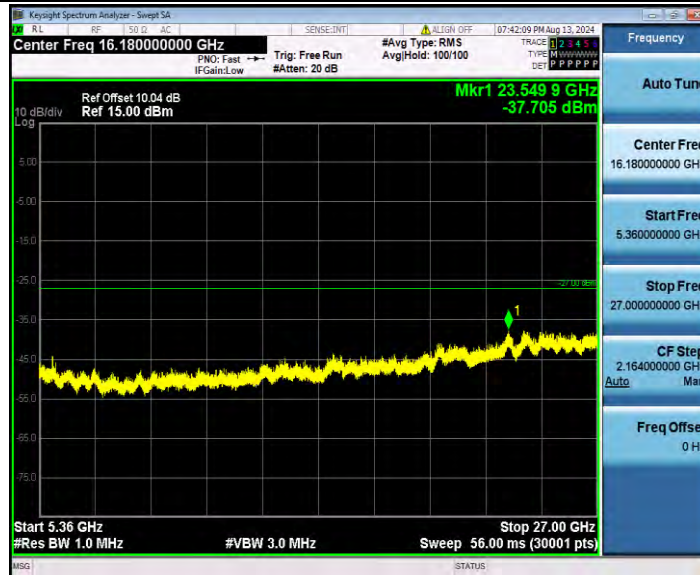
11N20SISO_Ant1_5200_5360~27000



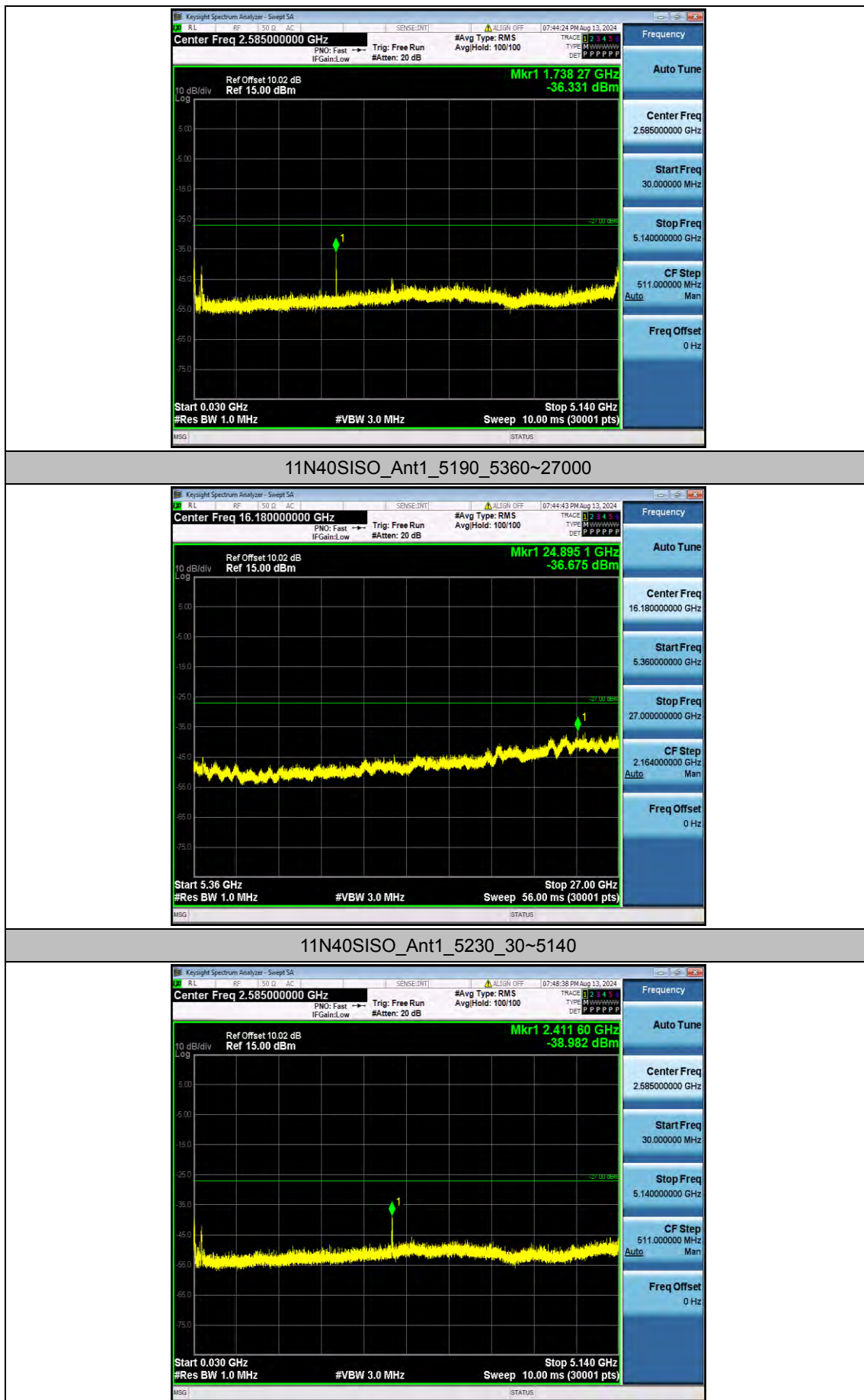
11N20SISO_Ant1_5240_30~5140



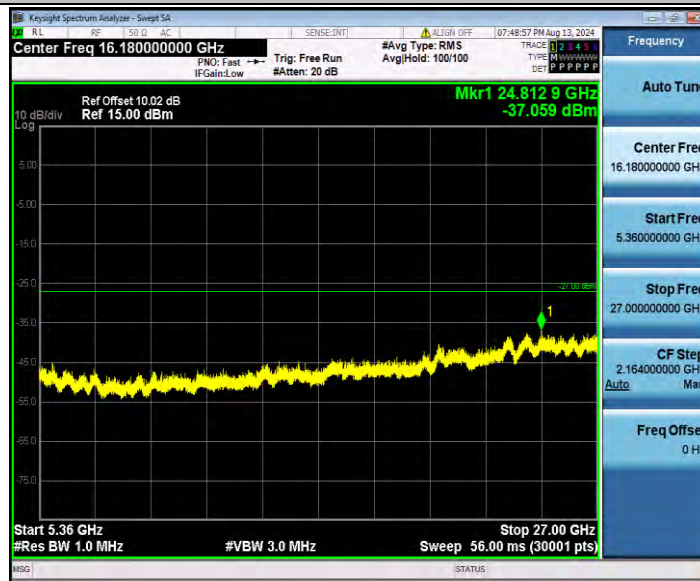
11N20SISO_Ant1_5240_5360~27000



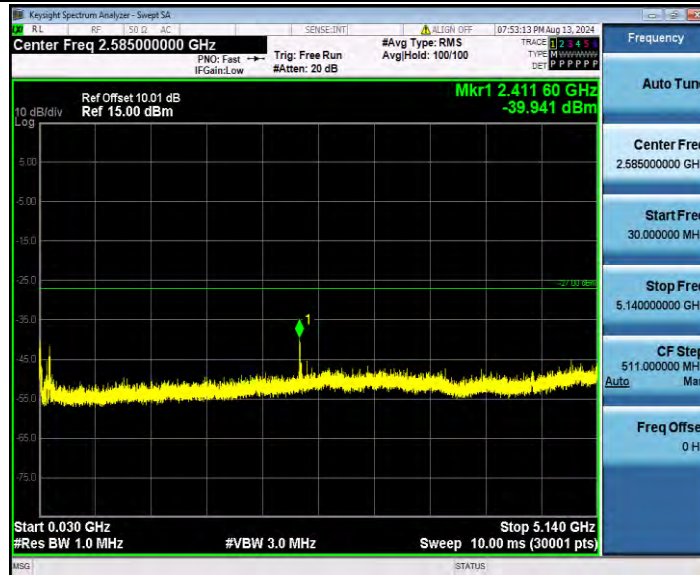
11N40SISO_Ant1_5190_30~5140



11N40SISO_Ant1_5230_5360~27000



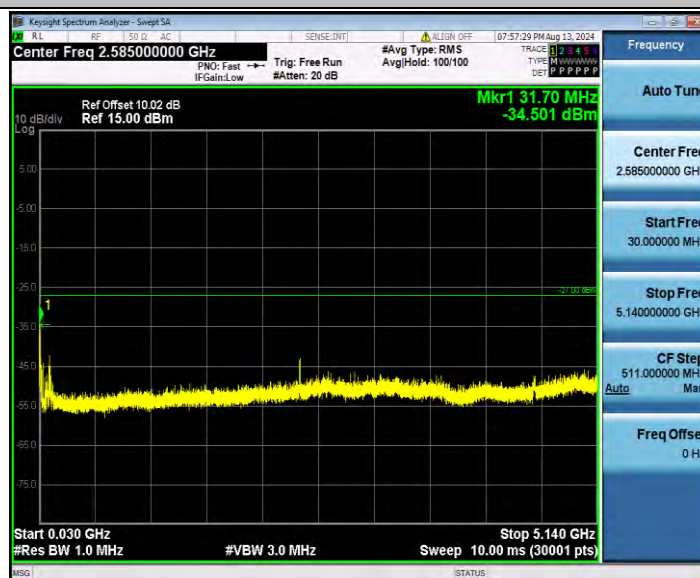
11AC20SISO_Ant1_5180_30~5140



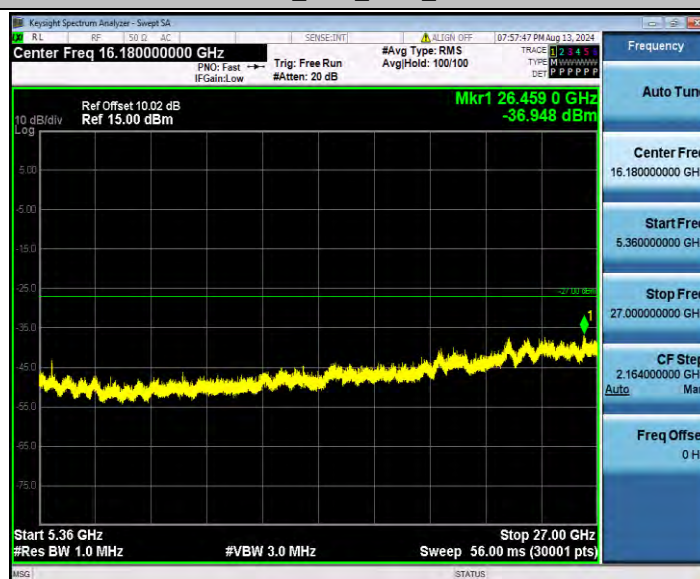
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11AC20SISO_Ant1_5200_30~5140



11AC20SISO_Ant1_5200_5360~27000



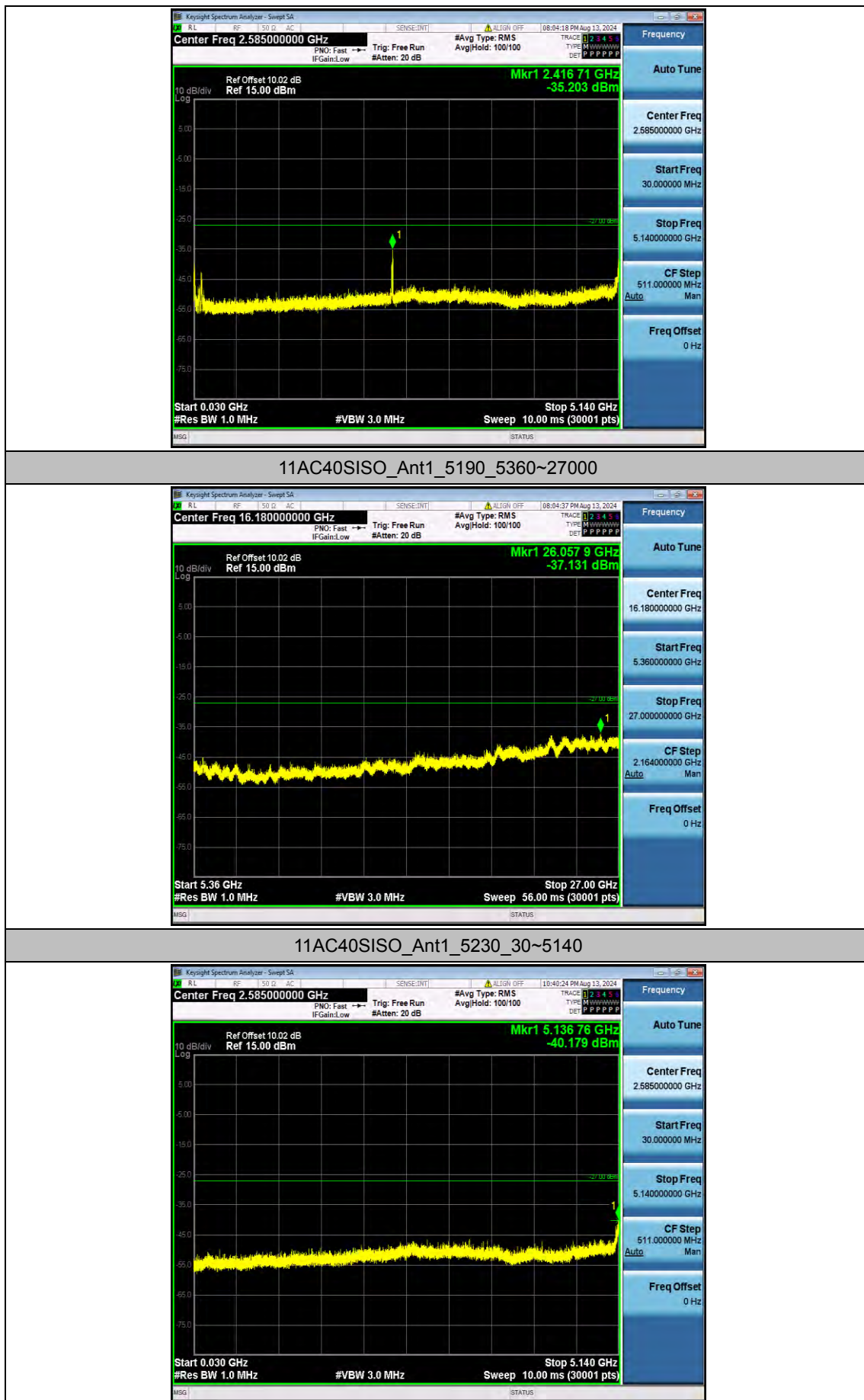
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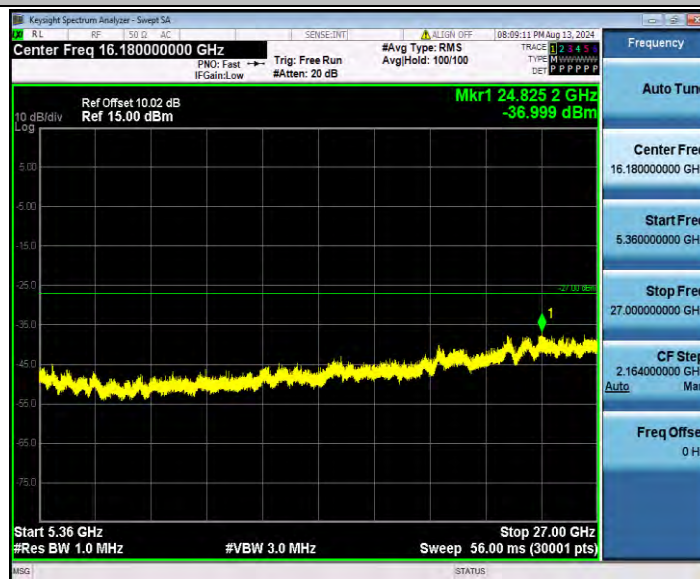
11AC20SISO_Ant1_5240_5360~27000



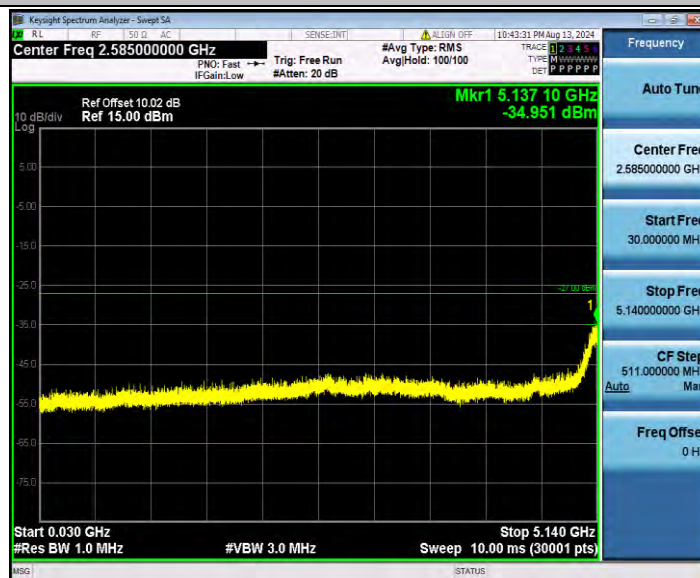
11AC40SISO_Ant1_5190_30~5140



11AC40SISO_Ant1_5230_5360~27000



11AC80SISO_Ant1_5210_30~5140



11AC80SISO_Ant1_5210_5360~27000

