

Case No. : <u>CTA24070301904</u>	
Ambient Condition: <u>23</u> °C, <u>51</u> %RH	
According Standard: ■Part15E	
Test Date: <u>2024.7.9</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]
11A	Ant2	5180	23.560	5168.040	5191.600
		5200	22.320	5188.880	5211.200
		5240	23.040	5228.360	5251.400
11N20SISO	Ant2	5180	23.320	5168.440	5191.760
		5200	23.280	5188.400	5211.680
		5240	23.720	5228.000	5251.720
11N40SISO	Ant2	5190	44.400	5167.600	5212.000
		5230	44.720	5207.680	5252.400
11AC20SISO	Ant2	5180	23.240	5168.480	5191.720
		5200	23.480	5188.240	5211.720
		5240	24.040	5228.080	5252.120
11AC40SISO	Ant2	5190	44.880	5167.840	5212.720
		5230	44.720	5207.600	5252.320
11AC80SISO	Ant2	5210	83.360	5168.400	5251.760

Test Graphs

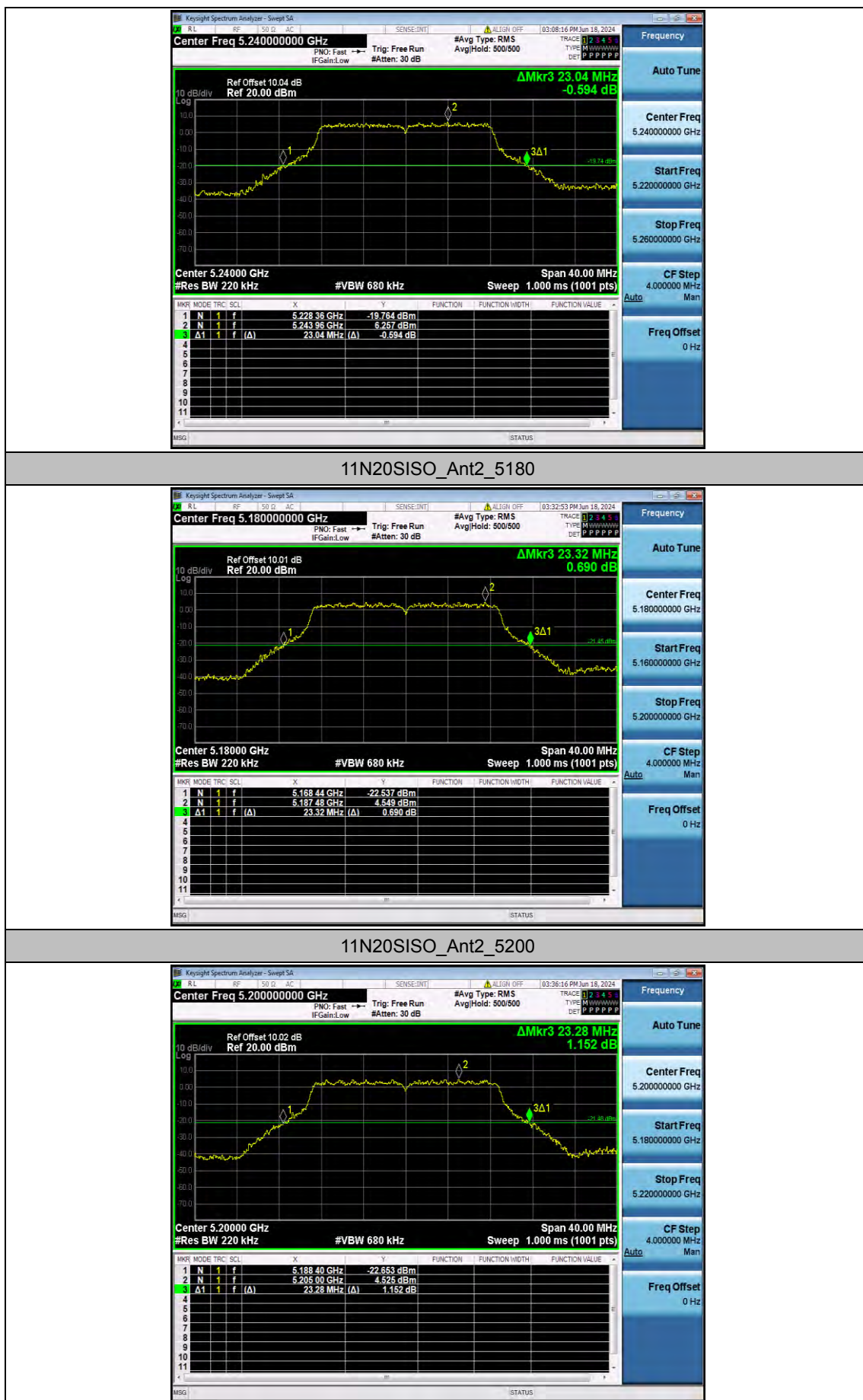
11A_Ant2_5180



11A_Ant2_5200



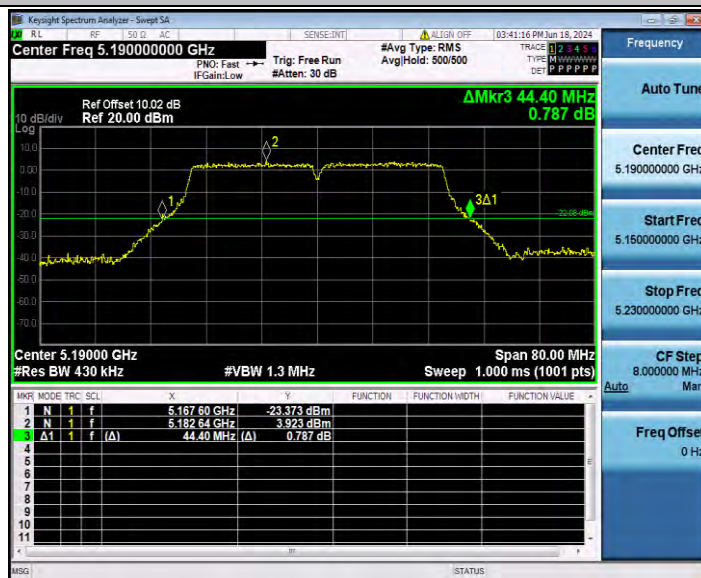
11A_Ant2_5240



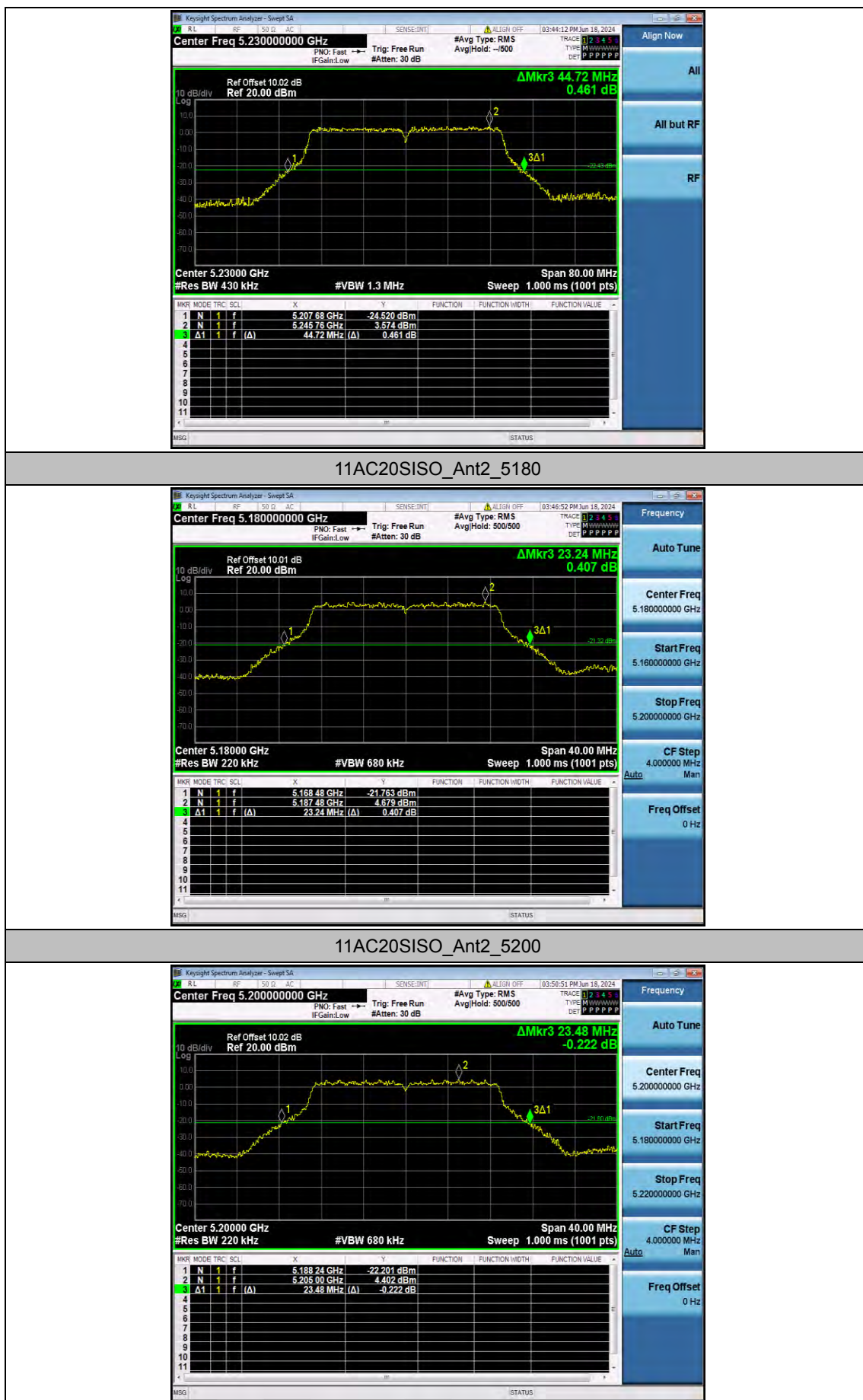
11N20SISO_Ant2_5240

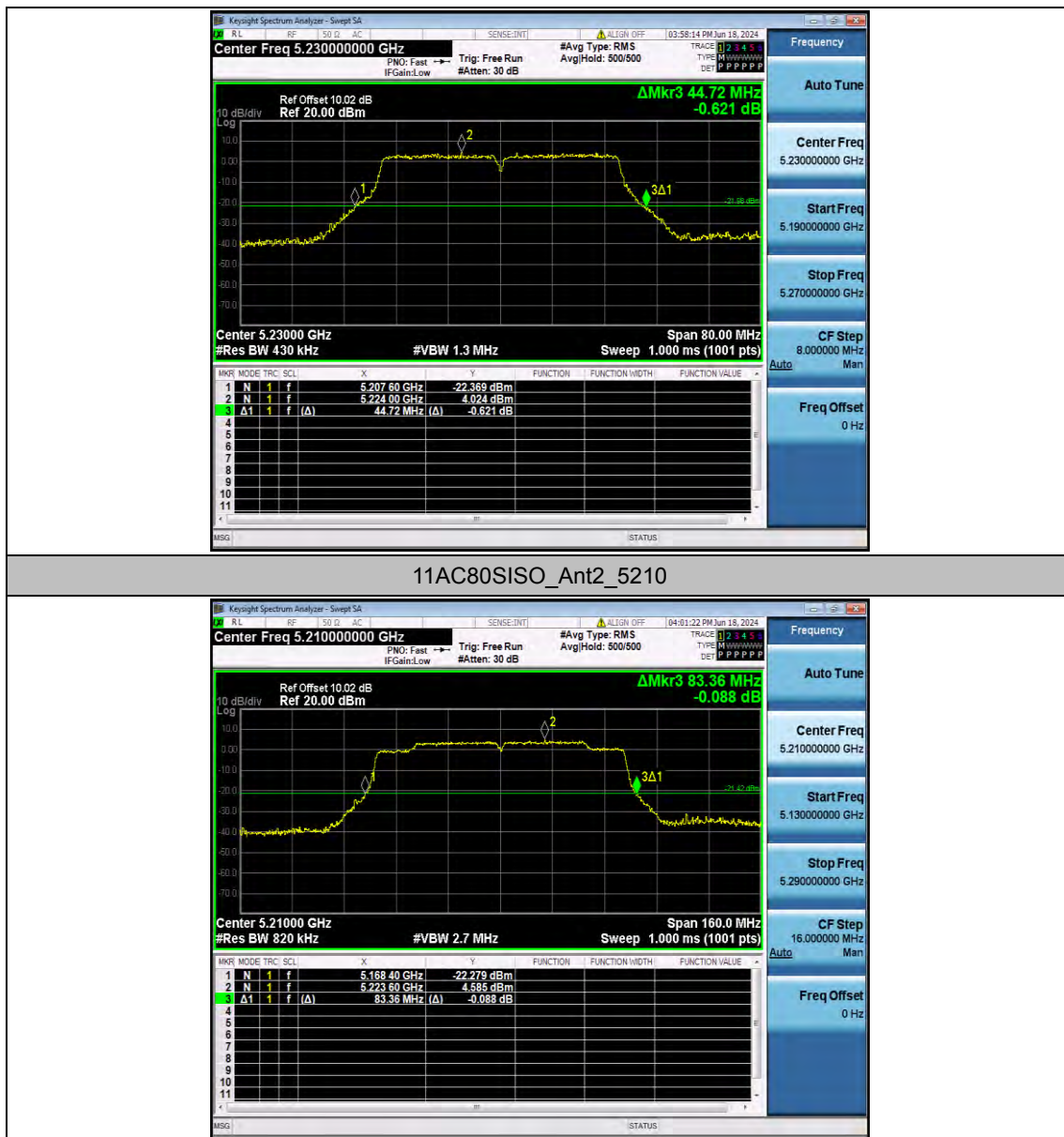


11N40SISO_Ant2_5190



11N40SISO_Ant2_5230



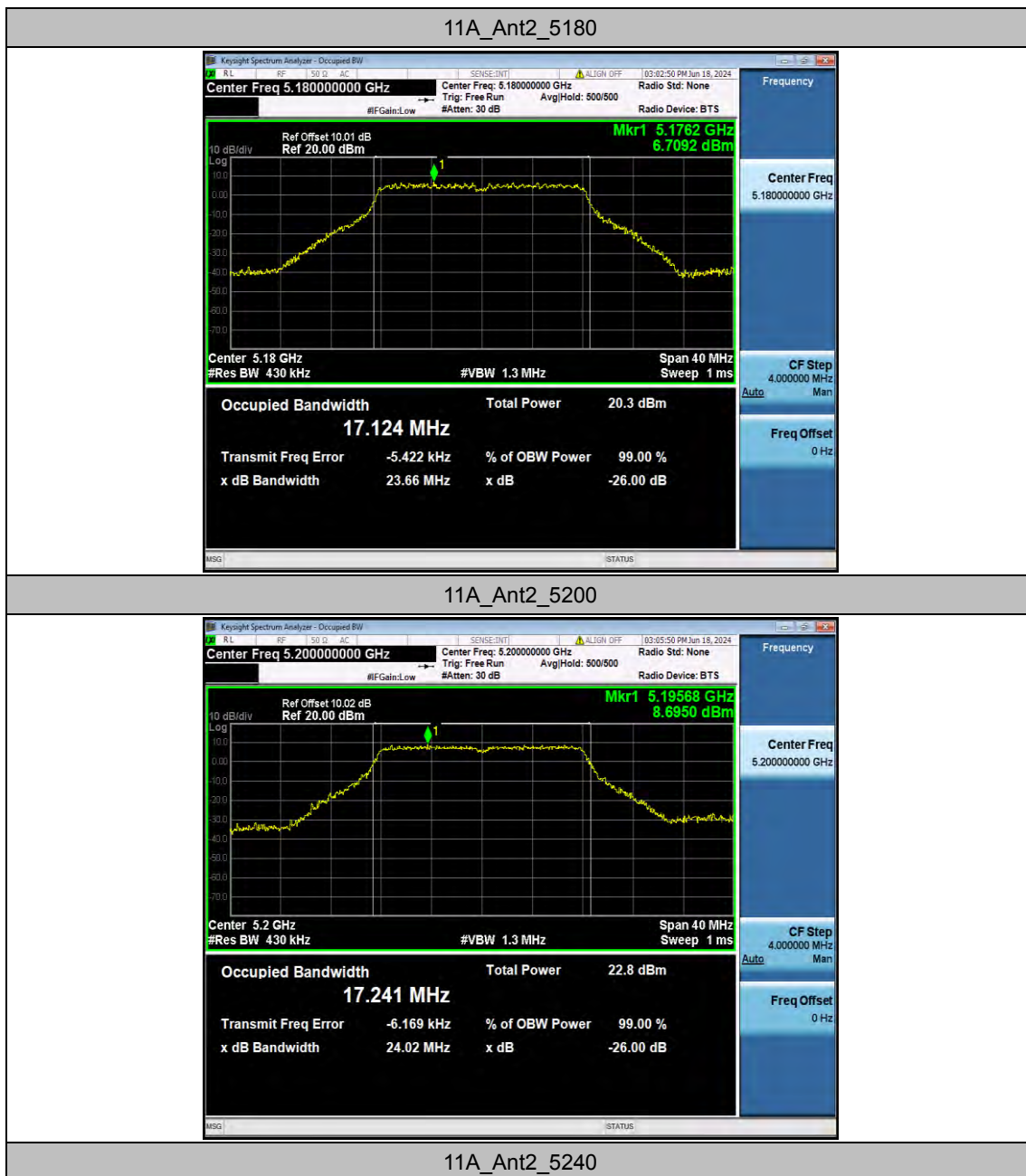


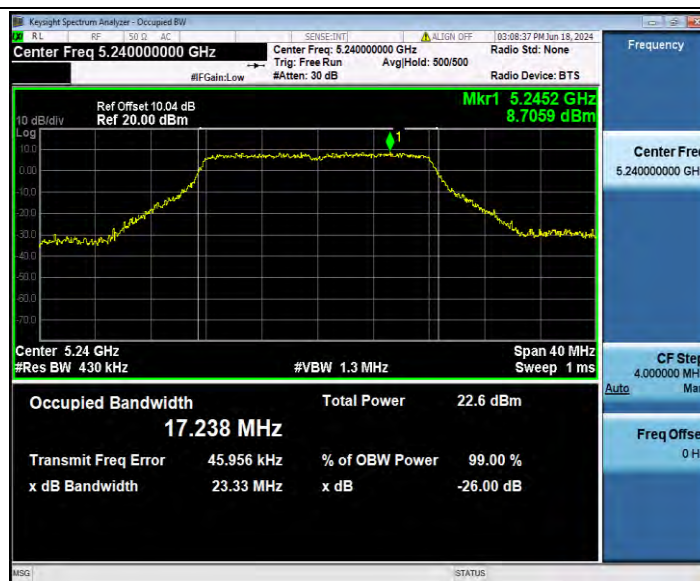
Appendix D.2: Occupied channel bandwidth

Test Result

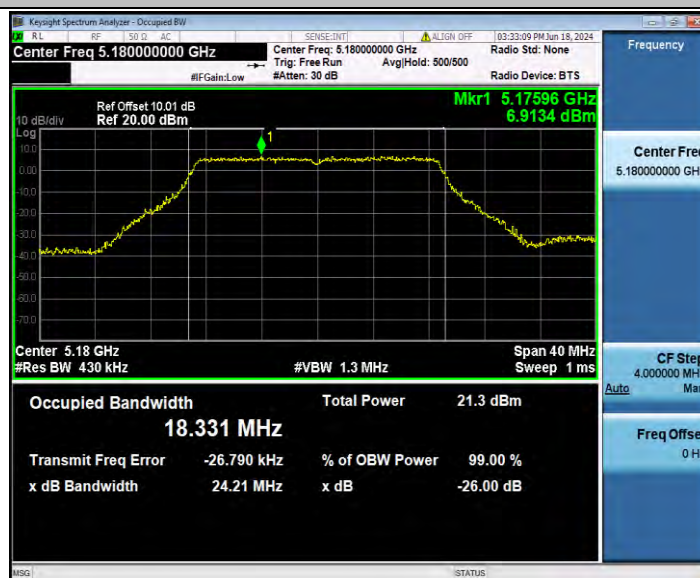
TestMode	Antenna	Freq(MHz)	OCB [MHz]	FL[MHz]	FH[MHz]
11A	Ant2	5180	17.124	5171.4326	5188.5566
		5200	17.241	5191.3733	5208.6143
		5240	17.238	5231.4270	5248.6650
11N20SISO	Ant2	5180	18.331	5170.8077	5189.1387
		5200	18.307	5190.8538	5209.1608
		5240	18.358	5230.8227	5249.1807
11N40SISO	Ant2	5190	36.734	5171.6518	5208.3858
		5230	36.787	5211.6467	5248.4337
11AC20SISO	Ant2	5180	18.279	5170.8401	5189.1191
		5200	18.273	5190.8493	5209.1223
		5240	18.317	5230.8370	5249.1540
11AC40SISO	Ant2	5190	36.776	5171.6502	5208.4262
		5230	36.784	5211.6380	5248.4220
11AC80SISO	Ant2	5210	75.258	5172.5170	5247.7750

Test Graphs





11N20SISO_Ant2_5180



11N20SISO_Ant2_5200



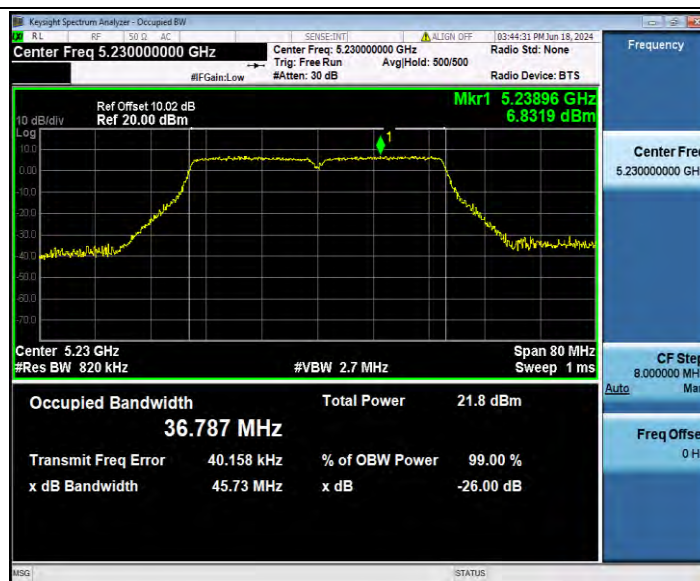
11N20SISO_Ant2_5240



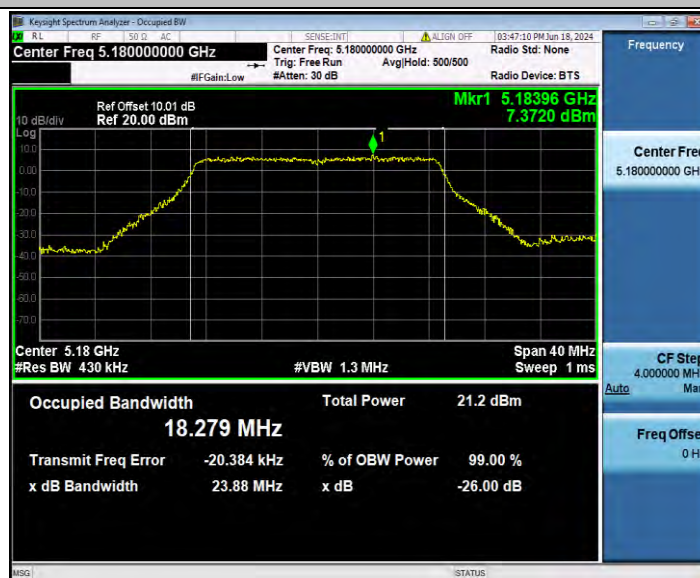
11N40SISO_Ant2_5190



11N40SISO_Ant2_5230



11AC20SISO_Ant2_5180



11AC20SISO_Ant2_5200



11AC20SISO_Ant2_5240



11AC40SISO_Ant2_5190



11AC40SISO_Ant2_5230



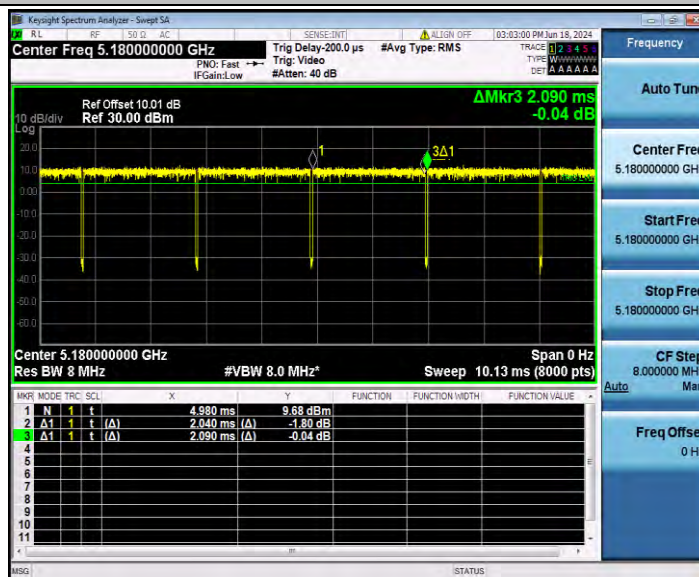
Appendix D.3: Duty Cycle

Test Result

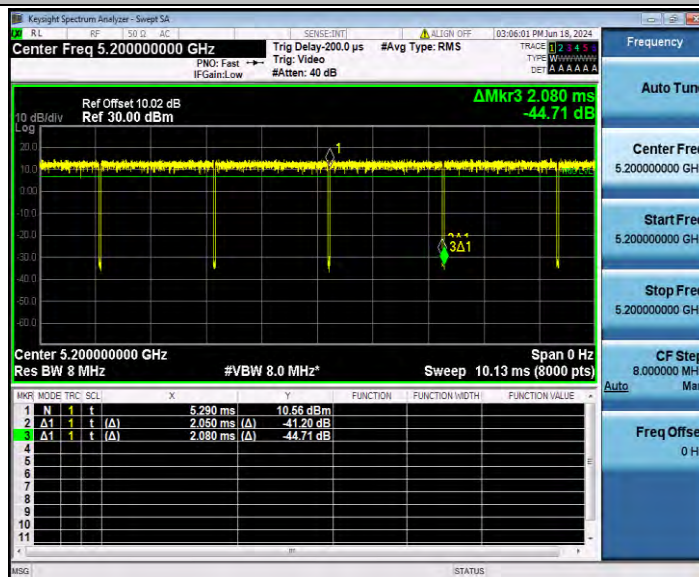
TestMode	Antenna	Freq(MHz)	Transmission Duration [ms]	Transmission Period [ms]	Duty Cycle [%]	Duty Cycle Factor[dB]	1/T Factor[KHz]
11A	Ant2	5180	2.04	2.09	97.61	0.11	0.49
		5200	2.05	2.08	98.56	0.06	0.49
		5240	2.05	2.08	98.56	0.06	0.49
11N20SISO	Ant2	5180	1.91	1.94	98.45	0.07	0.52
		5200	1.91	1.94	98.45	0.07	0.52
		5240	1.91	1.94	98.45	0.07	0.52
11N40SISO	Ant2	5190	0.93	0.97	95.88	0.18	1.08
		5230	0.93	0.97	95.88	0.18	1.08
11AC20SISO	Ant2	5180	1.91	1.96	97.45	0.11	0.52
		5200	1.91	1.96	97.45	0.11	0.52
		5240	1.91	1.96	97.45	0.11	0.52
11AC40SISO	Ant2	5190	0.95	0.99	95.96	0.18	1.05
		5230	0.94	0.98	95.92	0.18	1.06
11AC80SISO	Ant2	5210	0.46	0.50	92.00	0.36	2.17

Test Graphs

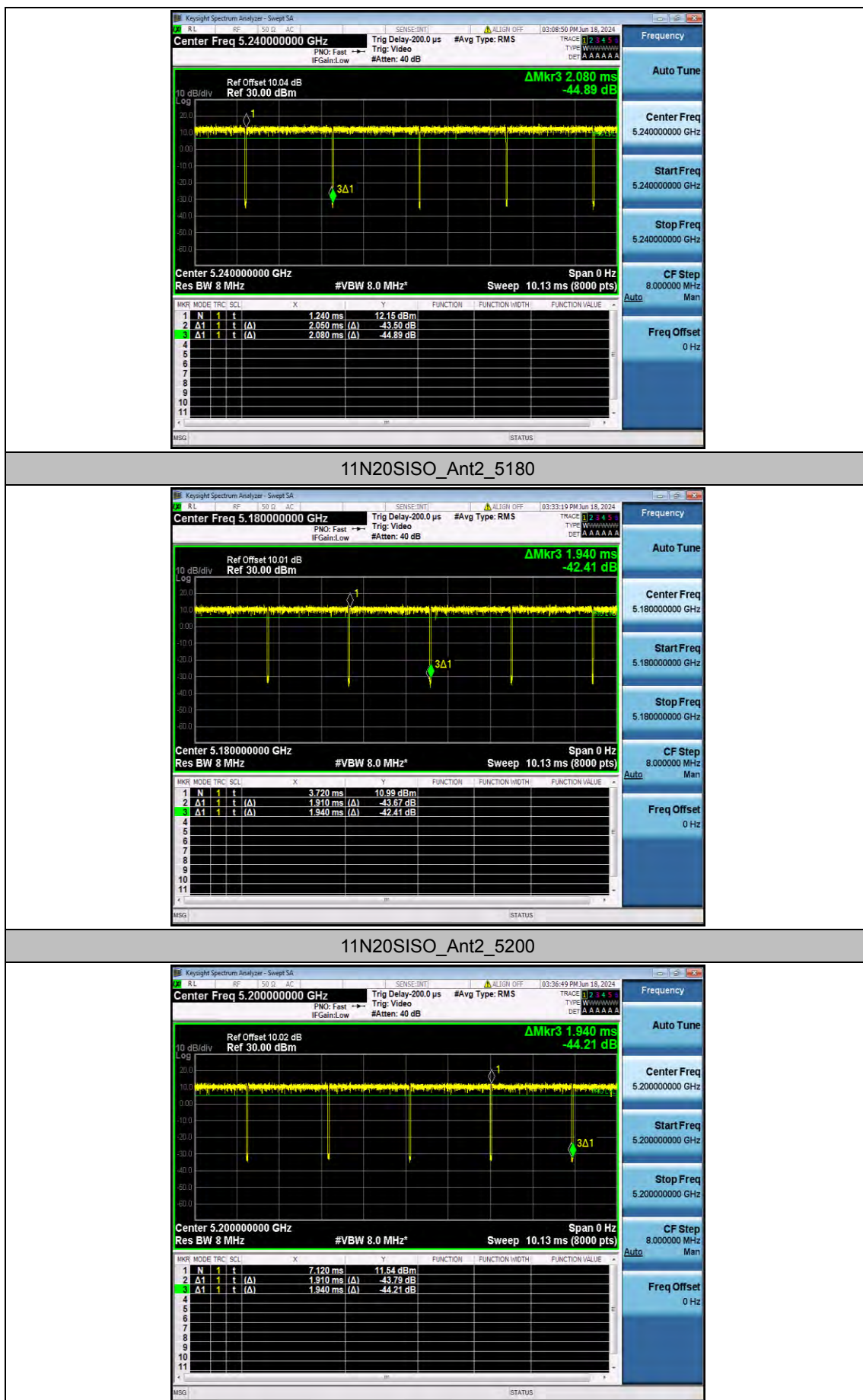
11A_Ant2_5180



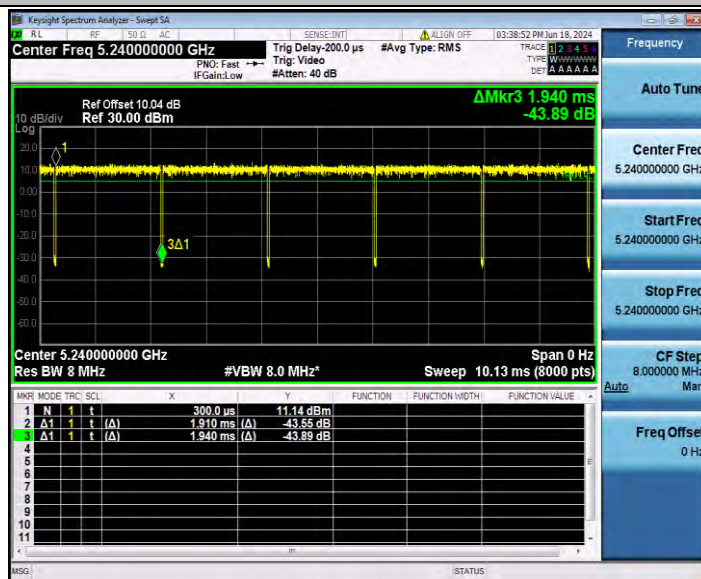
11A_Ant2_5200



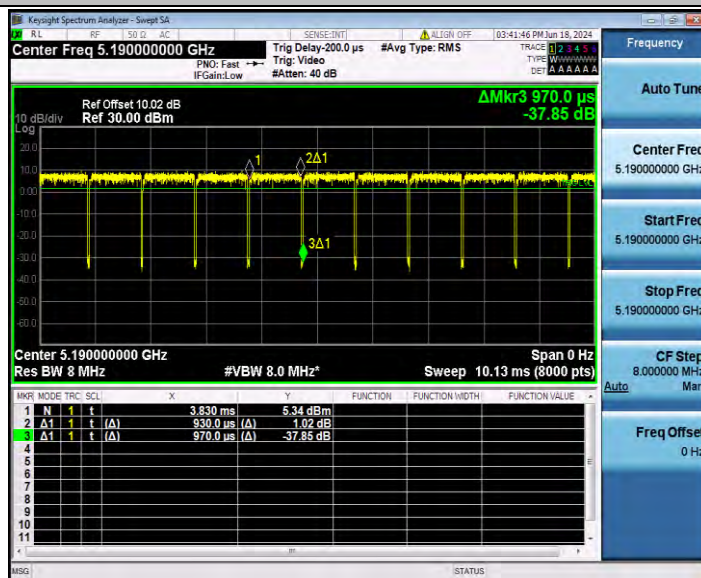
11A_Ant2_5240



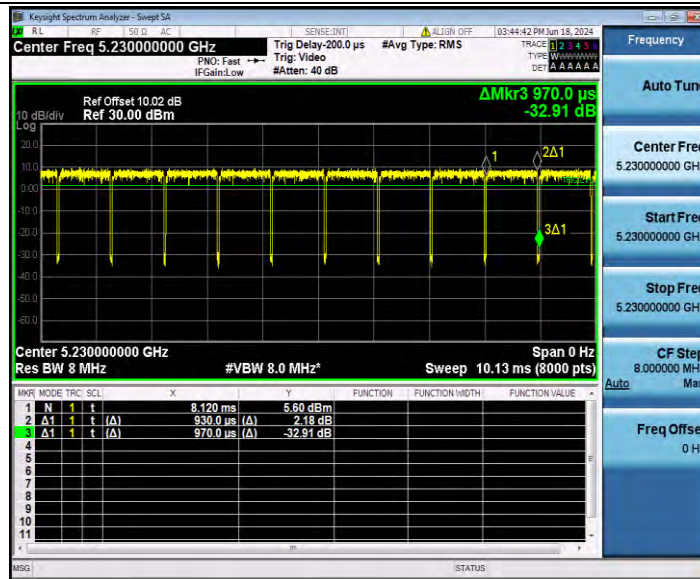
11N20SISO_Ant2_5240



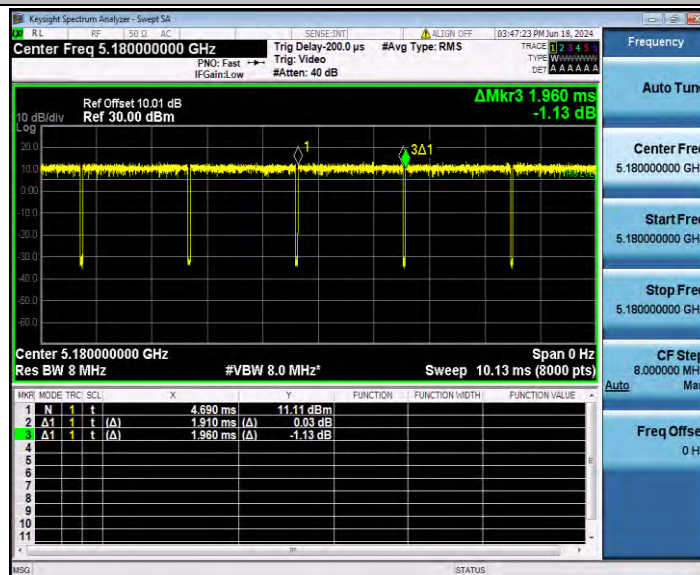
11N40SISO_Ant2_5190



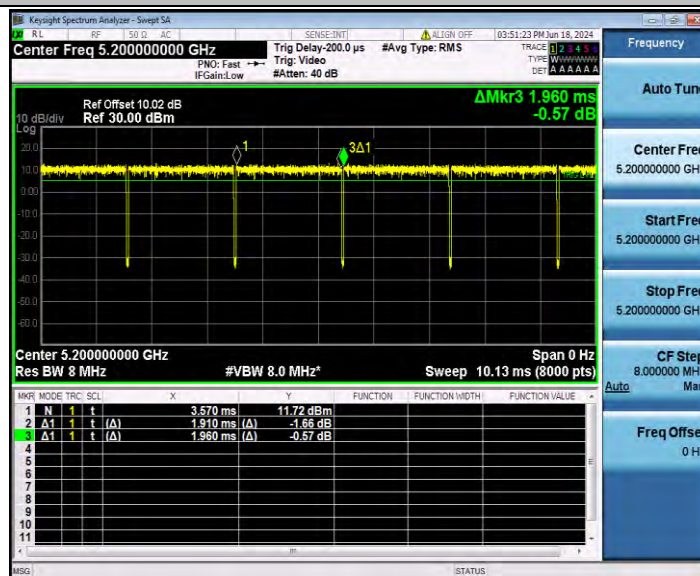
11N40SISO_Ant2_5230



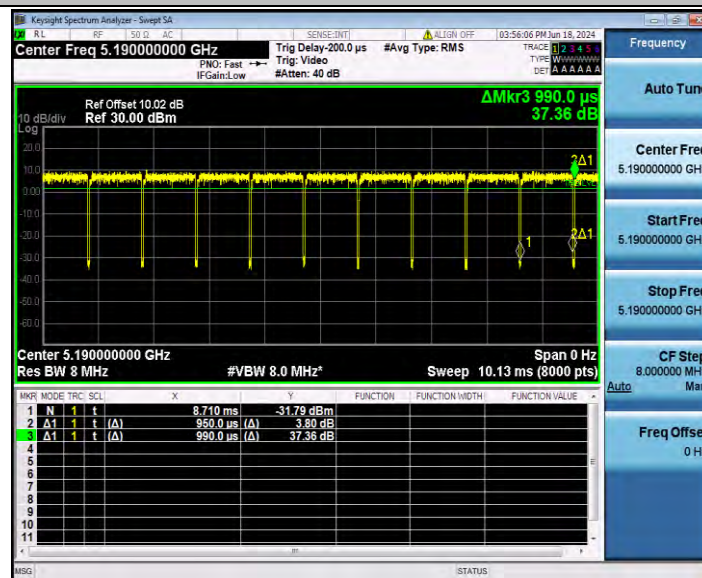
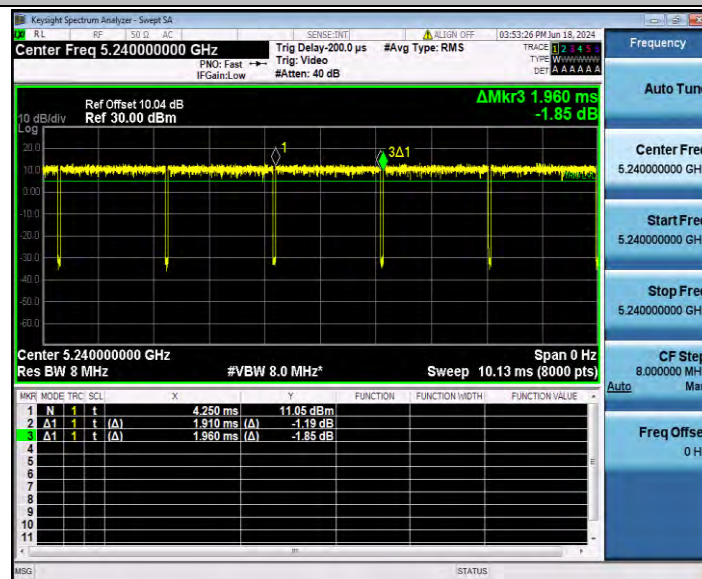
11AC20SISO_Ant2_5180

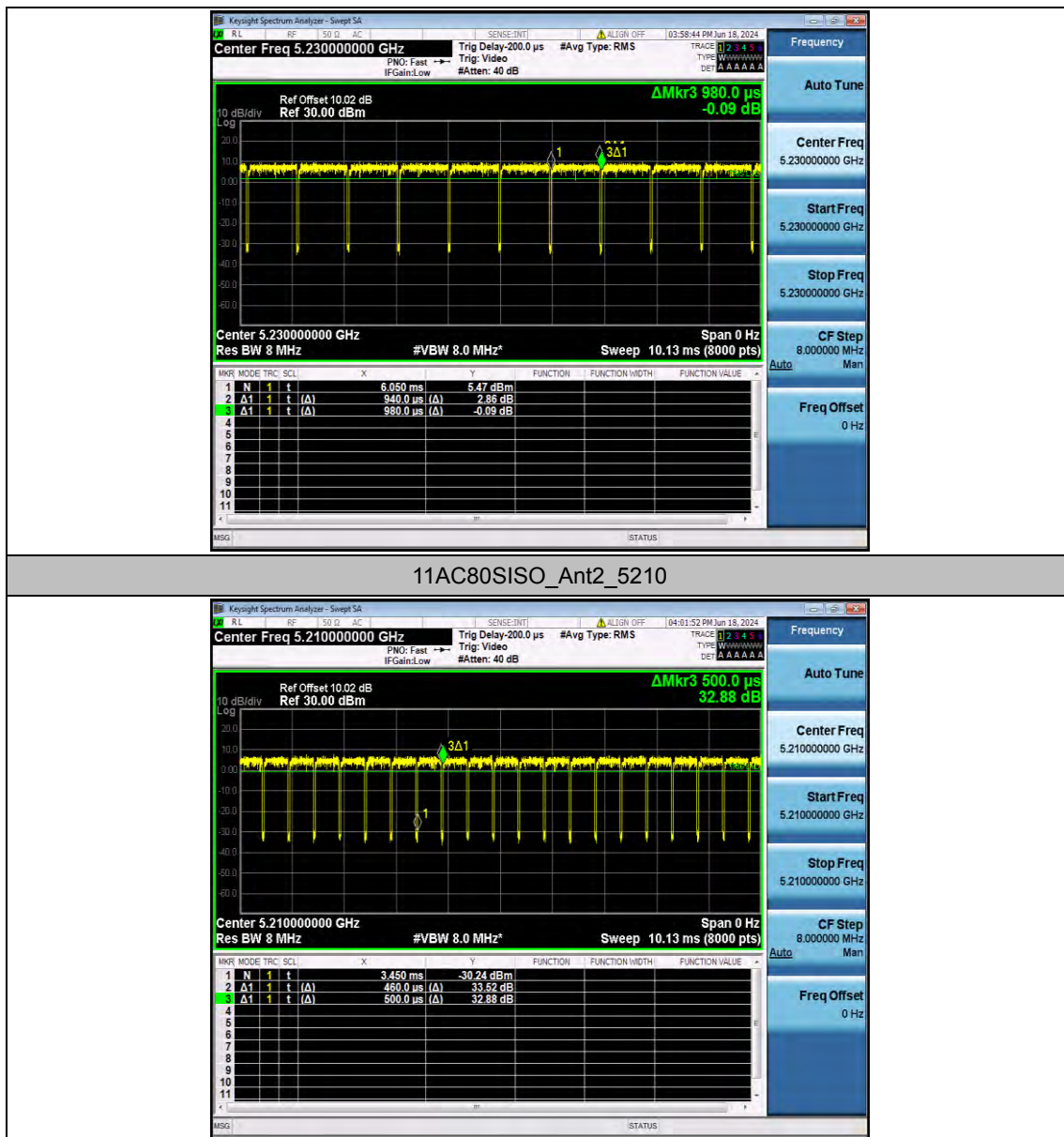


11AC20SISO_Ant2_5200



11AC20SISO_Ant2_5240





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	Ant2	5180	12.88	97.61	0.11	12.99	≤23.98	PASS
		5200	15.84	98.56	0.06	15.90	≤23.98	PASS
		5240	15.65	98.56	0.06	15.71	≤23.98	PASS
11N20SISO	Ant2	5180	14.35	98.45	0.07	14.42	≤23.98	PASS
		5200	14.21	98.45	0.07	14.28	≤23.98	PASS
		5240	14.17	98.45	0.07	14.24	≤23.98	PASS
11N40SISO	Ant2	5190	14.04	95.88	0.18	14.22	≤23.98	PASS
		5230	14.06	95.88	0.18	14.24	≤23.98	PASS
11AC20SISO	Ant2	5180	14.32	97.45	0.11	14.43	≤23.98	PASS
		5200	14.05	97.45	0.11	14.16	≤23.98	PASS
		5240	14.12	97.45	0.11	14.23	≤23.98	PASS
11AC40SISO	Ant2	5190	13.99	95.96	0.18	14.17	≤23.98	PASS
		5230	14.14	95.92	0.18	14.32	≤23.98	PASS
11AC80SISO	Ant2	5210	13.74	92.00	0.36	14.10	≤23.98	PASS

Note:

1. The Duty Cycle Factor is compensated in the graph.
2. The Duty Cycle Factor and RBW Factor is compensated in the data.

Appendix D.5: Maximum power spectral density

Test Result

TestMode	Antenna	Freq(MHz)	Result [dBm/MHz]	Limit[dBm/MHz]	Verdict
11A	Ant2	5180	1.11	≤11.00	PASS
		5200	4.06	≤11.00	PASS
		5240	4.04	≤11.00	PASS
11N20SISO	Ant2	5180	2.25	≤11.00	PASS
		5200	2.17	≤11.00	PASS
		5240	2.43	≤11.00	PASS
11N40SISO	Ant2	5190	-0.69	≤11.00	PASS
		5230	-0.43	≤11.00	PASS
11AC20SISO	Ant2	5180	2.36	≤11.00	PASS
		5200	2.23	≤11.00	PASS
		5240	2.48	≤11.00	PASS
11AC40SISO	Ant2	5190	-0.56	≤11.00	PASS
		5230	-0.44	≤11.00	PASS
11AC80SISO	Ant2	5210	-2.94	≤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_Ant2_5180



11A_Ant2_5200



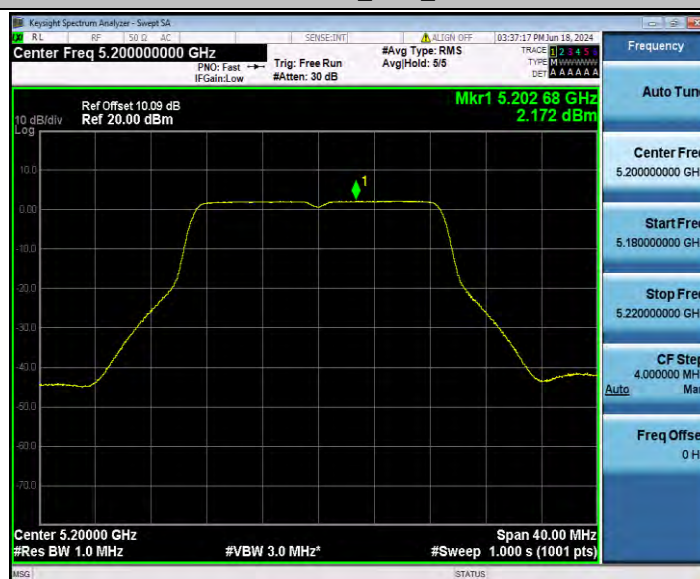
11A_Ant2_5240



11N20SISO_Ant2_5180



11N20SISO_Ant2_5200



11N20SISO_Ant2_5240



11N40SISO_Ant2_5190



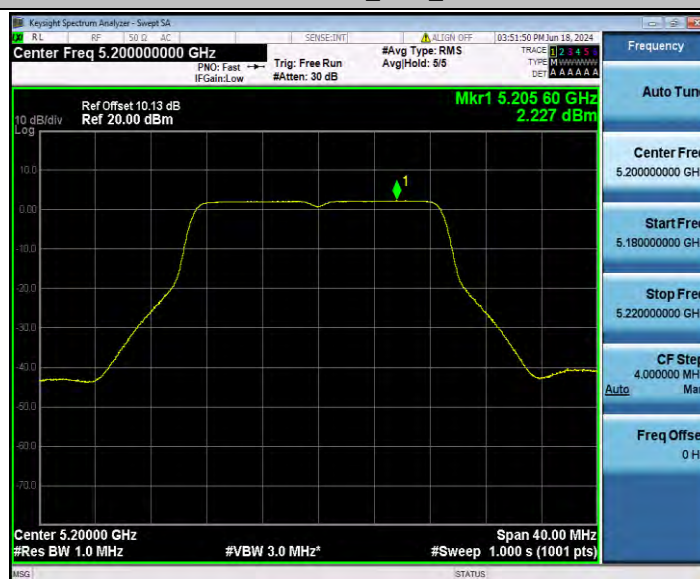
11N40SISO_Ant2_5230



11AC20SISO_Ant2_5180



11AC20SISO_Ant2_5200



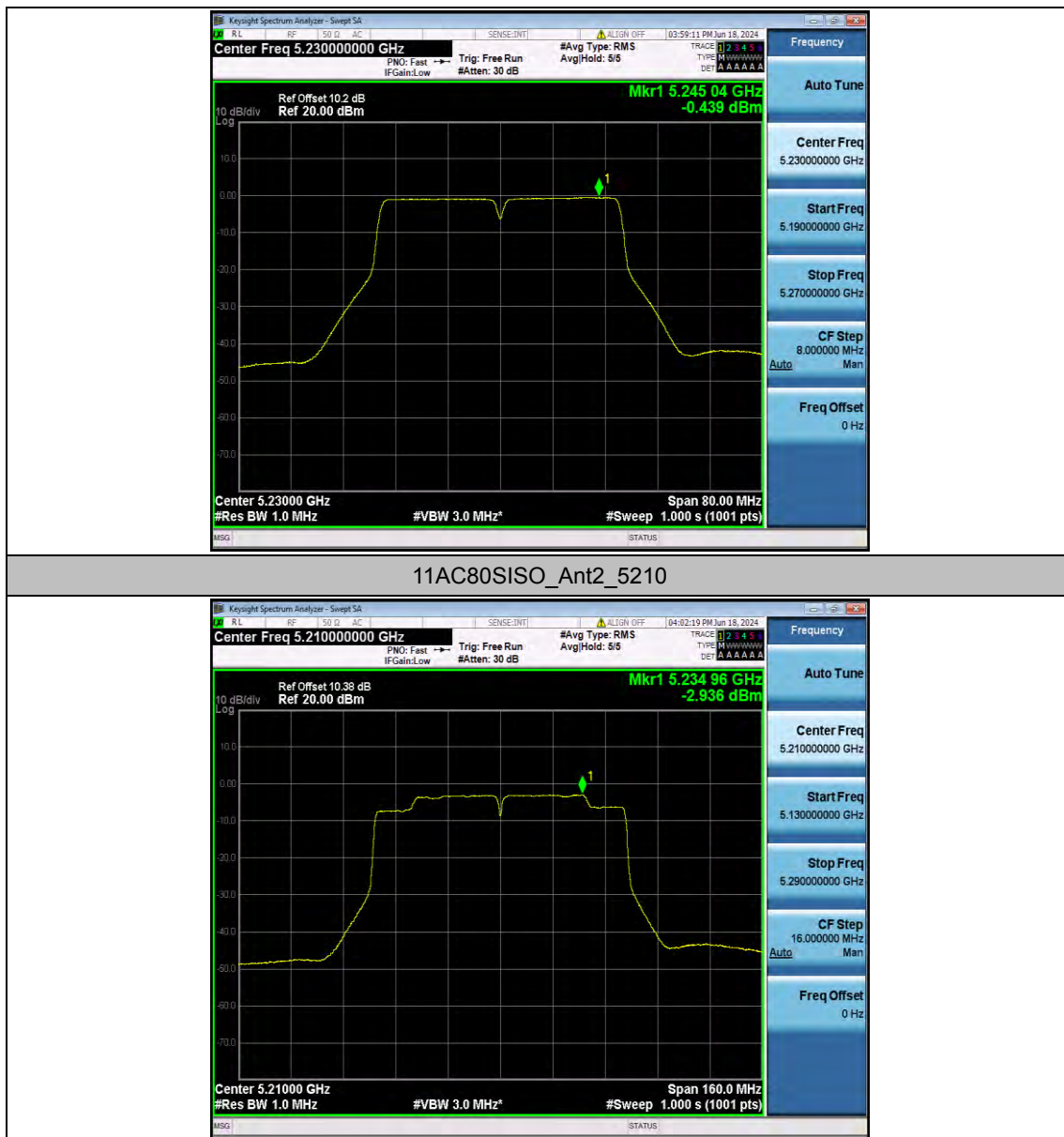
11AC20SISO_Ant2_5240



11AC40SISO_Ant2_5190



11AC40SISO_Ant2_5230

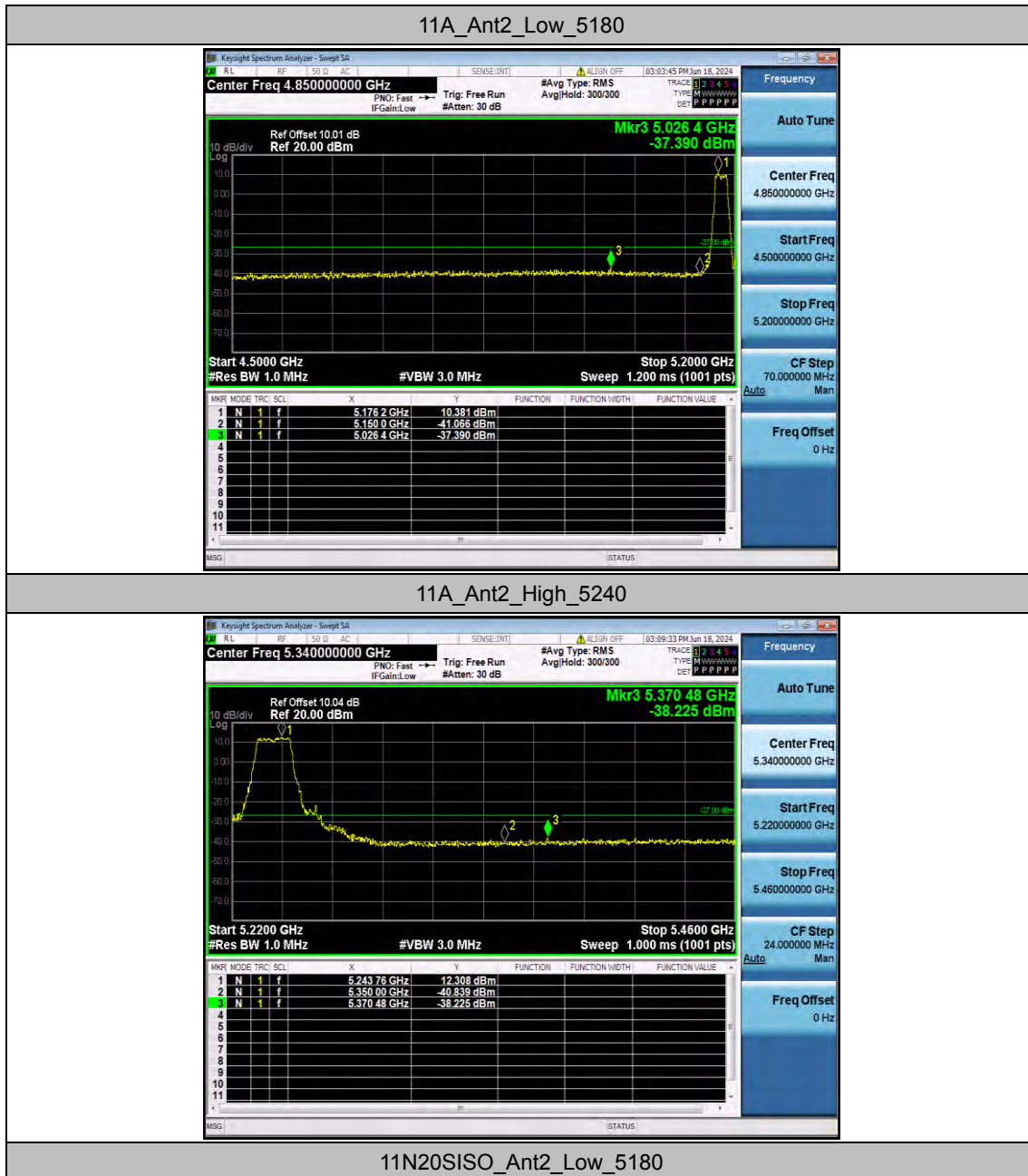


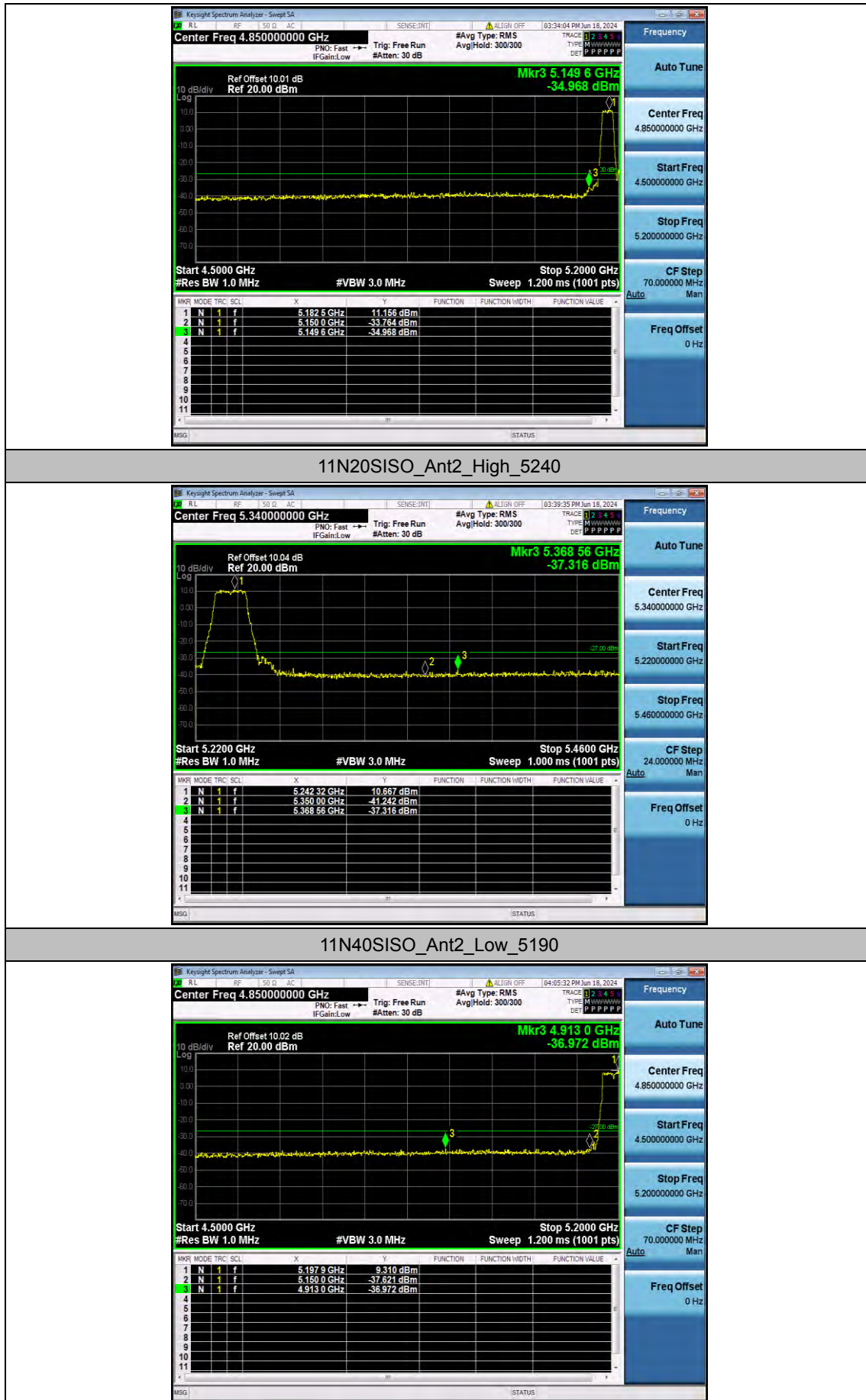
Appendix D.6: Band edge measurements

Test Result B1

TestMode	Antenna	ChName	Freq(MHz)	Result[dBm]	Limit[dBm]	Verdict
11A	Ant2	Low	5180	-37.39	≤ -27	PASS
		High	5240	-38.23	≤ -27	PASS
11N20SISO	Ant2	Low	5180	-34.97	≤ -27	PASS
		High	5240	-37.32	≤ -27	PASS
11N40SISO	Ant2	Low	5190	-36.97	≤ -27	PASS
		High	5230	-37.68	≤ -27	PASS
11AC20SISO	Ant2	Low	5180	-36.21	≤ -27	PASS
		High	5240	-37.42	≤ -27	PASS
11AC40SISO	Ant2	Low	5190	-37.19	≤ -27	PASS
		High	5230	-37.01	≤ -27	PASS
11AC80SISO	Ant2	Low	5210	-36.3	≤ -27	PASS
		High	5210	-37.46	≤ -27	PASS

Test Graphs B1

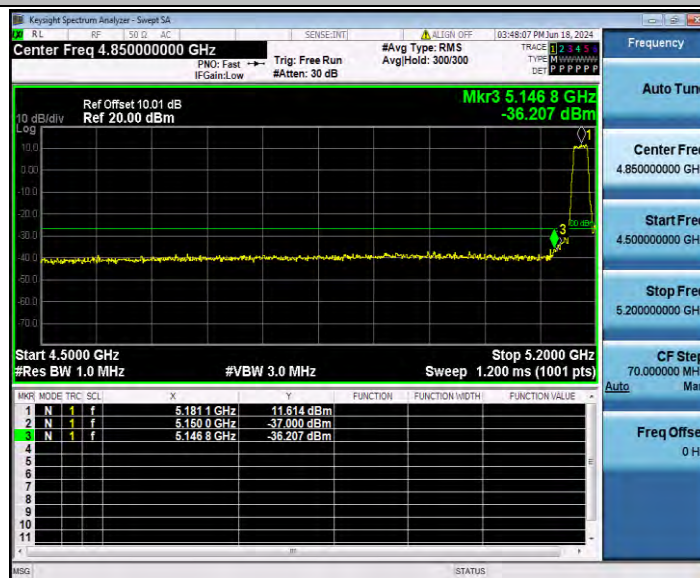




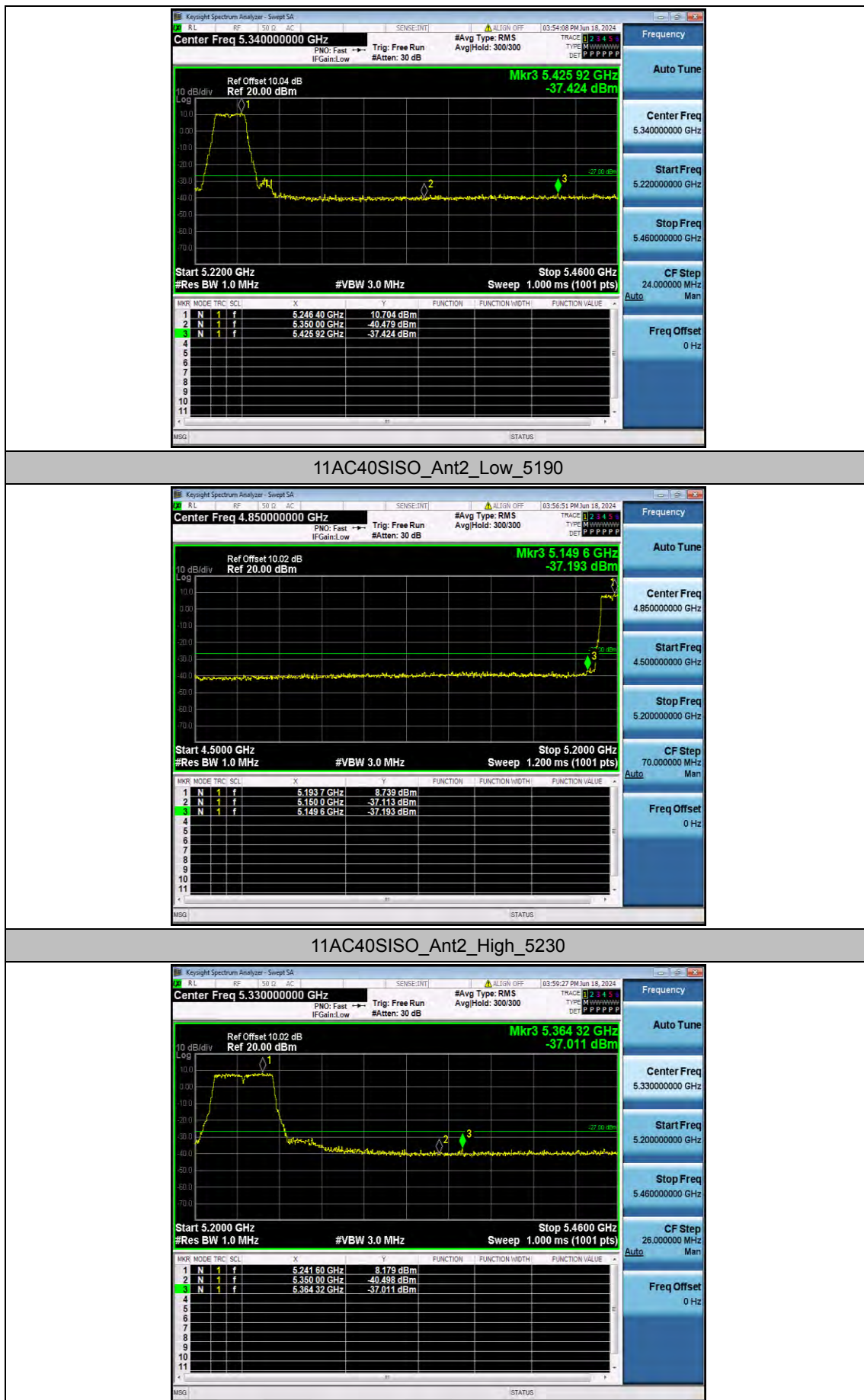
11N40SISO_Ant2_High_5230



11AC20SISO_Ant2_Low_5180



11AC20SISO_Ant2_High_5240



11AC80SISO_Ant2_Low_5210



11AC80SISO_Ant2_High_5210



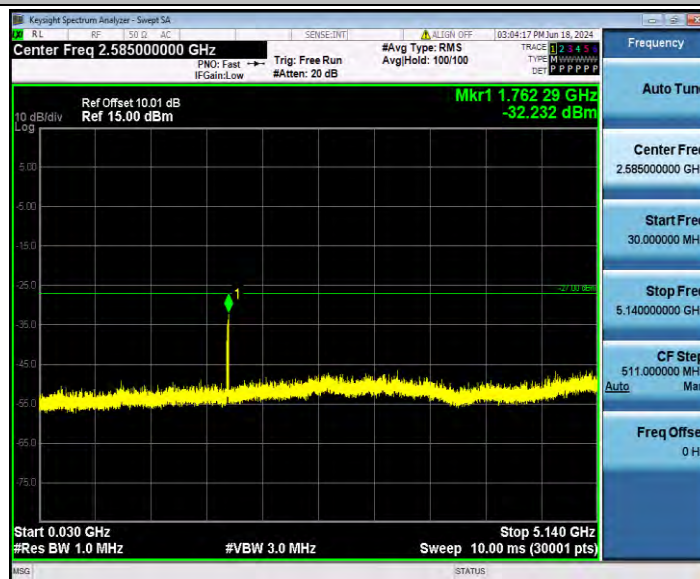
Appendix D.7: Conducted Spurious Emission

Test Result

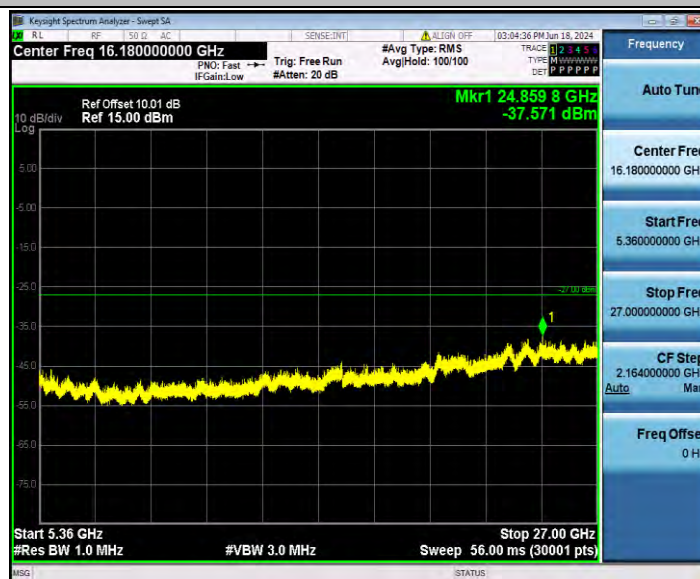
TestMode	Antenna	Freq(MHz)	FreqRange [MHz]	Max. Fre [MHz]	Max. Level [dBm]	Limit [dBm]	Verdict
11A	Ant2	5180	30~5140	1762.29	-32.23	≤-27	PASS
			5360~27000	24859.8	-37.57	≤-27	PASS
		5200	30~5140	1748.32	-35.52	≤-27	PASS
			5360~27000	26503	-38.43	≤-27	PASS
		5240	30~5140	3165.5	-46.02	≤-27	PASS
			5360~27000	26497.95	-38.3	≤-27	PASS
11N20SISO	Ant2	5180	30~5140	833.29	-38.91	≤-27	PASS
			5360~27000	24890.1	-37.54	≤-27	PASS
		5200	30~5140	35.11	-45.29	≤-27	PASS
			5360~27000	25576.09	-37.43	≤-27	PASS
		5240	30~5140	34.94	-38.42	≤-27	PASS
			5360~27000	25260.87	-36.95	≤-27	PASS
11N40SISO	Ant2	5190	30~5140	1763.31	-37.85	≤-27	PASS
			5360~27000	26068.04	-37.11	≤-27	PASS
		5230	30~5140	5037.97	-46.1	≤-27	PASS
			5360~27000	26528.25	-37.47	≤-27	PASS
11AC20SISO	Ant2	5180	30~5140	5028.6	-45.27	≤-27	PASS
			5360~27000	24349.1	-37.11	≤-27	PASS
		5200	30~5140	5041.72	-46.24	≤-27	PASS
			5360~27000	26771.34	-37	≤-27	PASS
		5240	30~5140	830.06	-42.22	≤-27	PASS
			5360~27000	24166.6	-37.33	≤-27	PASS
11AC40SISO	Ant2	5190	30~5140	5139.32	-43.06	≤-27	PASS
			5360~27000	24212.05	-37.02	≤-27	PASS
		5230	30~5140	2603.74	-45.36	≤-27	PASS
			5360~27000	26483.53	-37.21	≤-27	PASS
11AC80SISO	Ant2	5210	30~5140	5120.58	-42.23	≤-27	PASS
			5360~27000	24226.47	-36.84	≤-27	PASS

Test Graphs

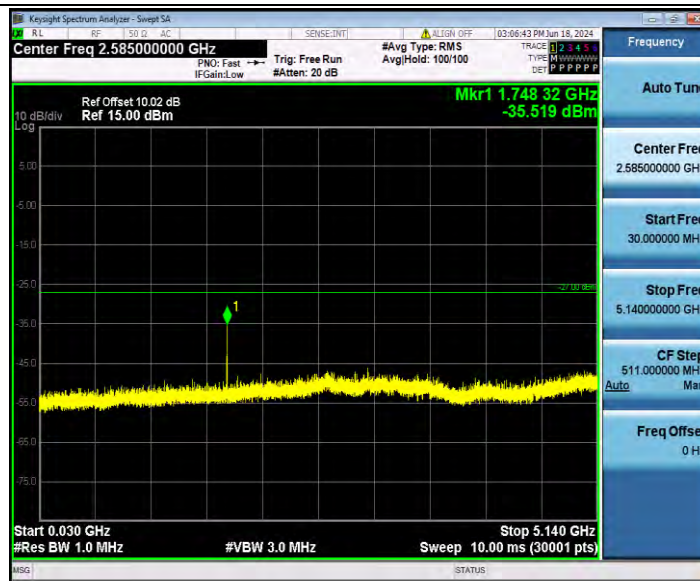
11A_Ant2_5180_30~5140



11A_Ant2_5180_5360~27000



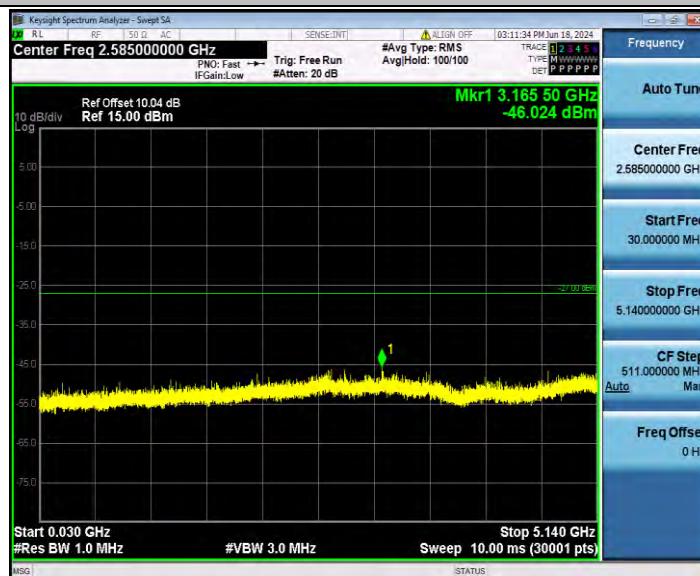
11A_Ant2_5200_30~5140



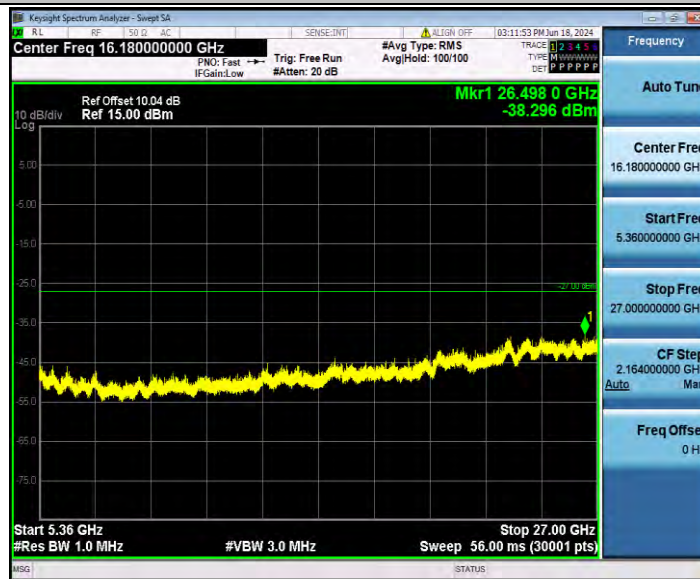
11A_Ant2_5200_5360~27000



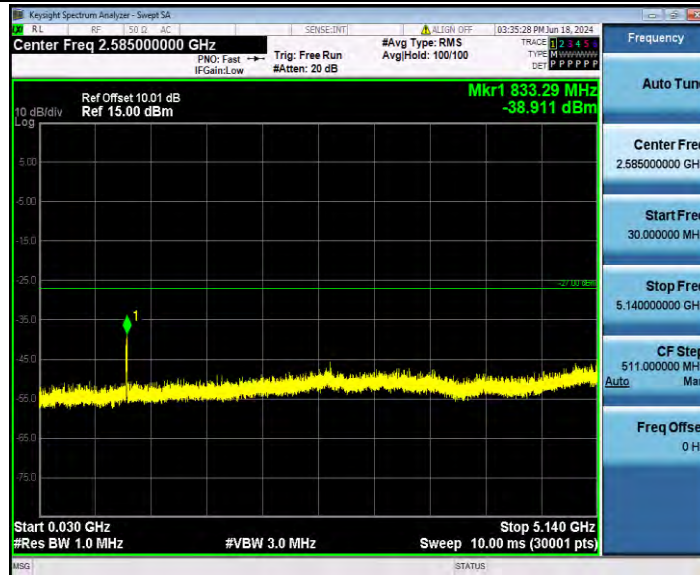
11A_Ant2_5240_30~5140



11A_Ant2_5240_5360~27000



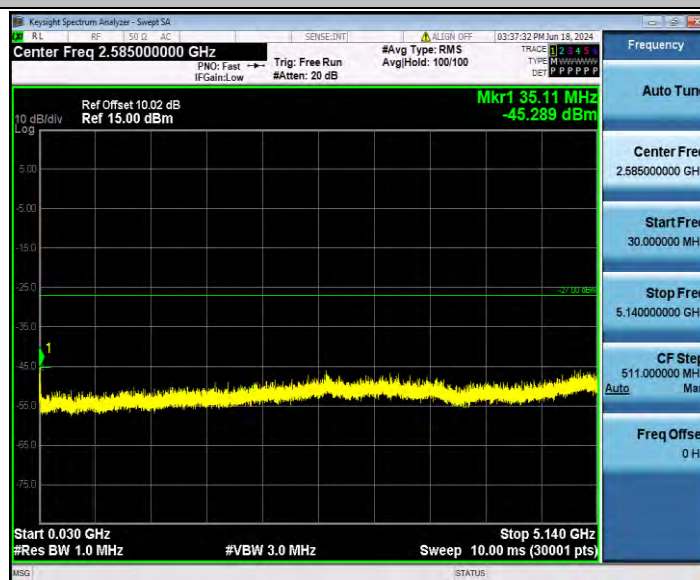
11N20SISO_Ant2_5180_30~5140



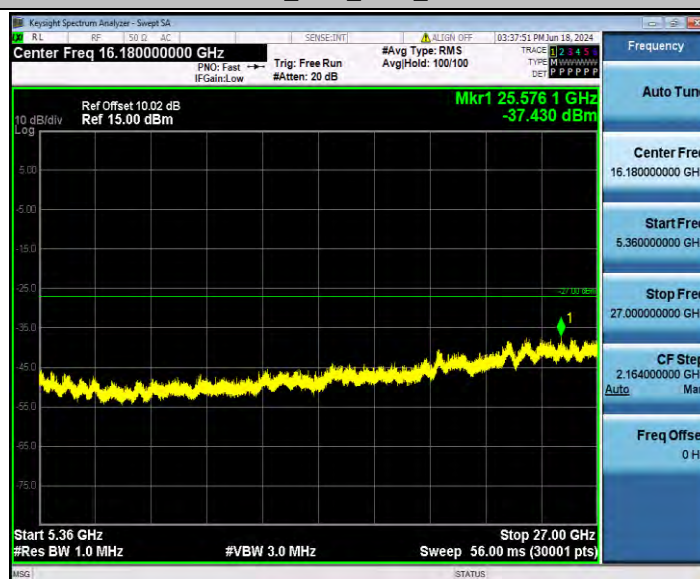
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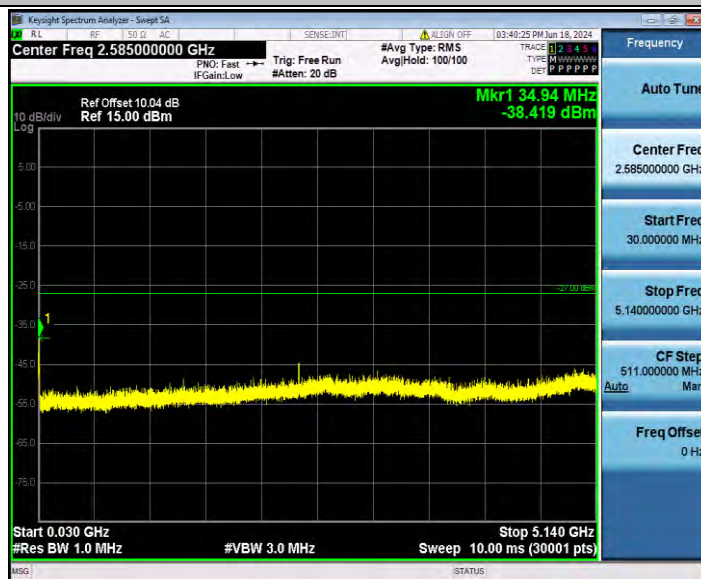
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11N20SISO_Ant2_5200_5360~27000



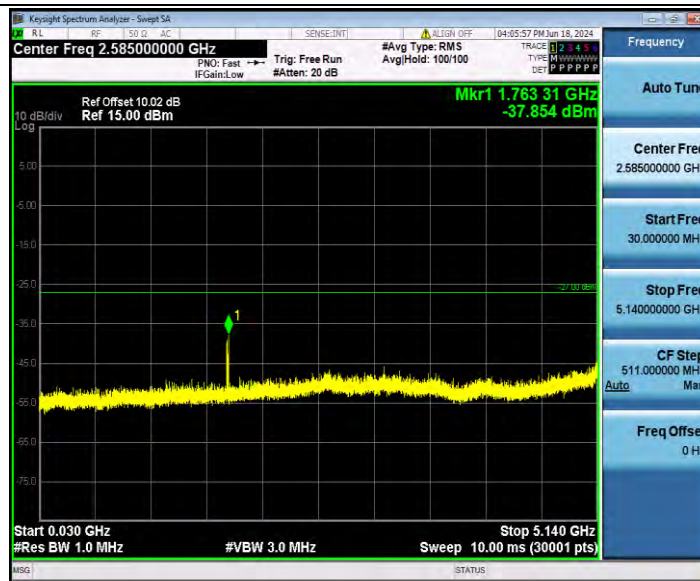
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11N20SISO_Ant2_5240_5360~27000



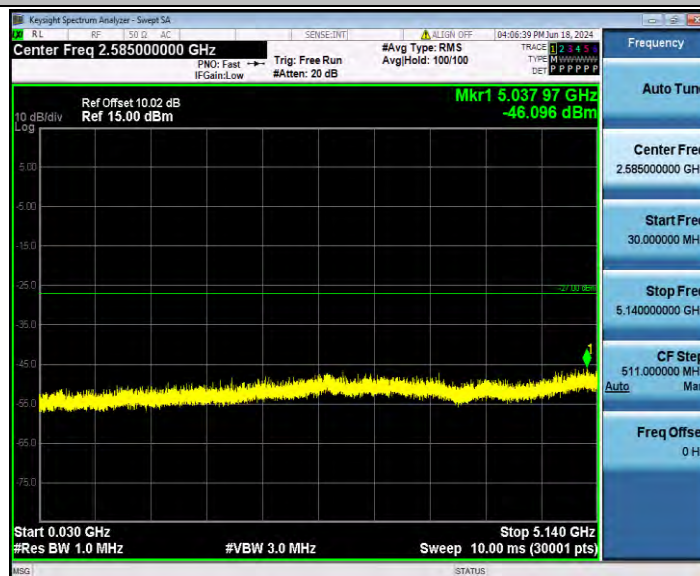
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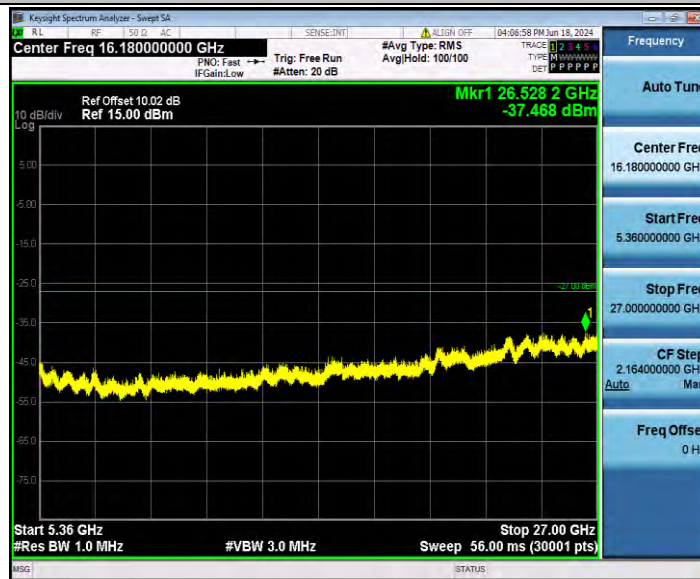
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11N40SISO_Ant2_5230_30~5140



11N40SISO_Ant2_5230_5360~27000



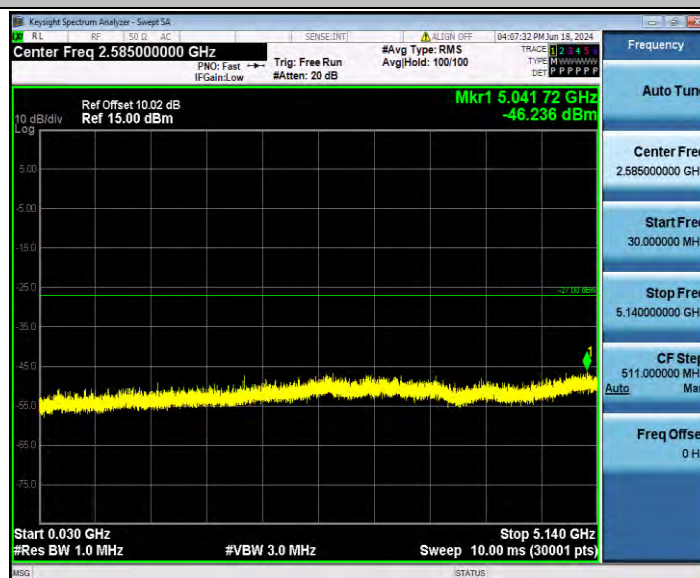
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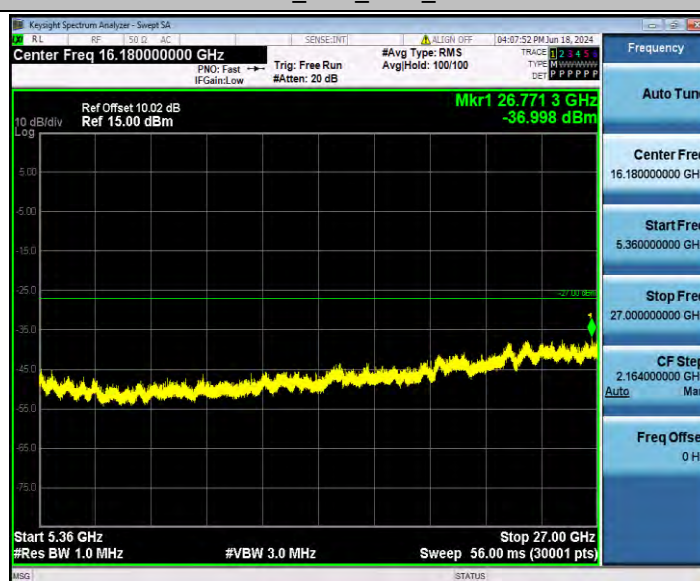
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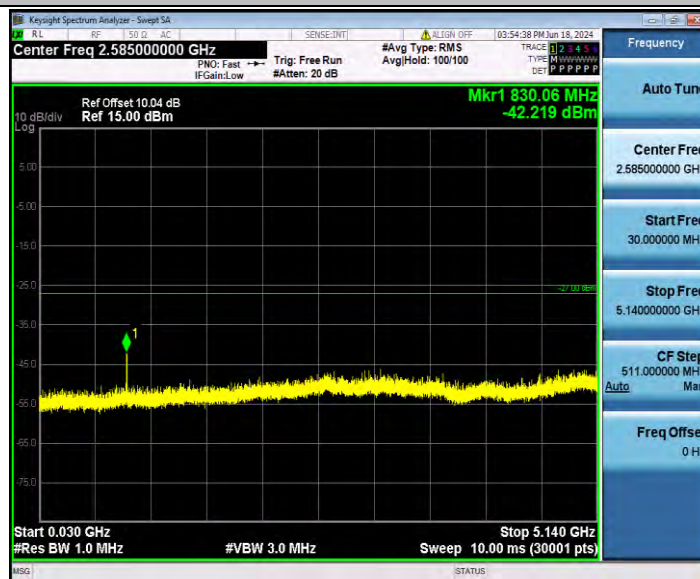
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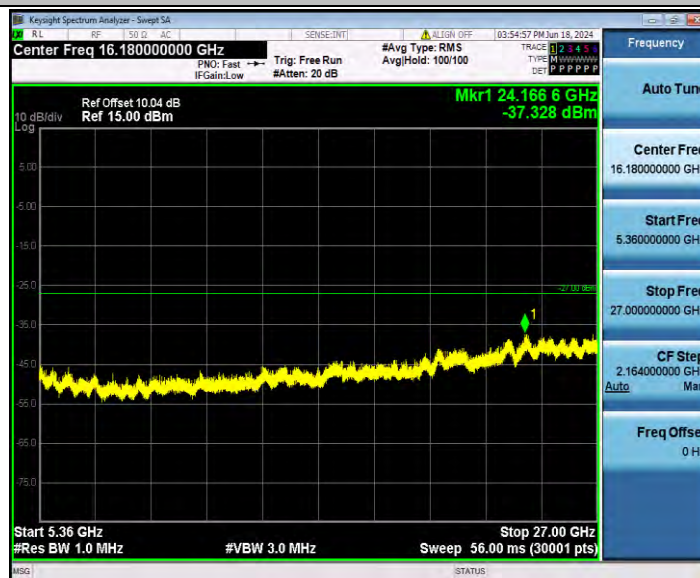
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11AC20SISO_Ant2_5240_30~5140



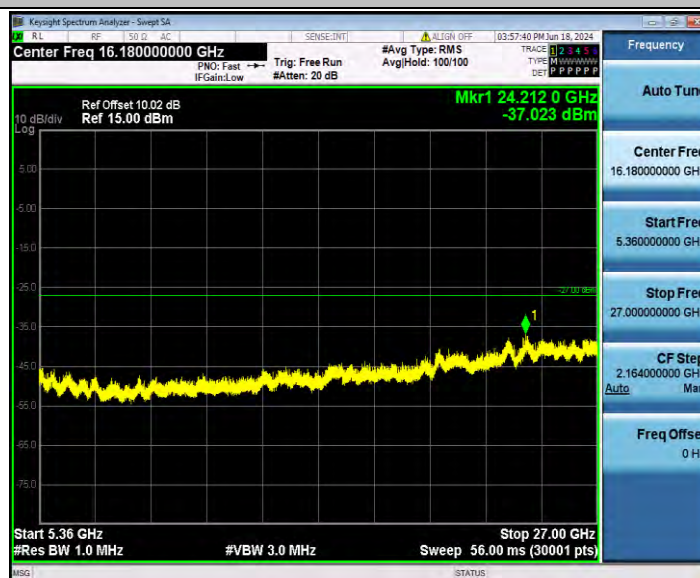
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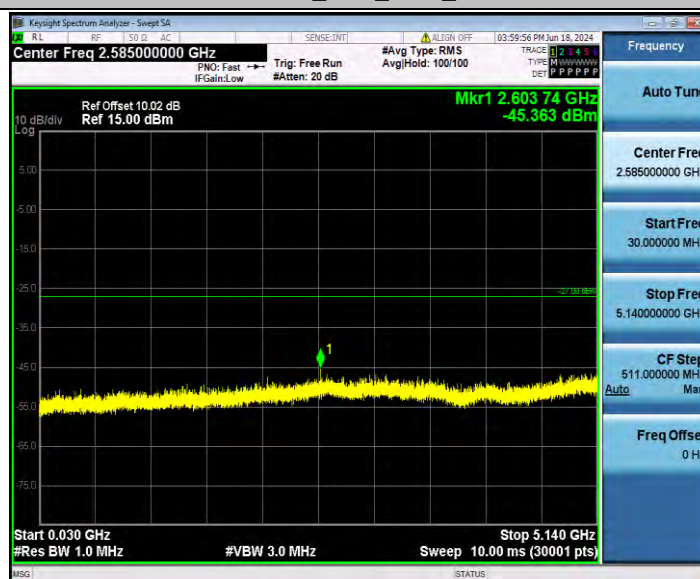
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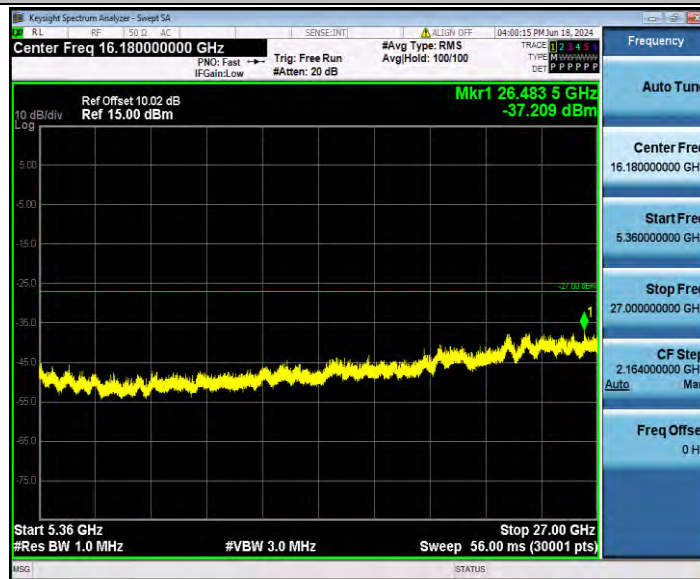
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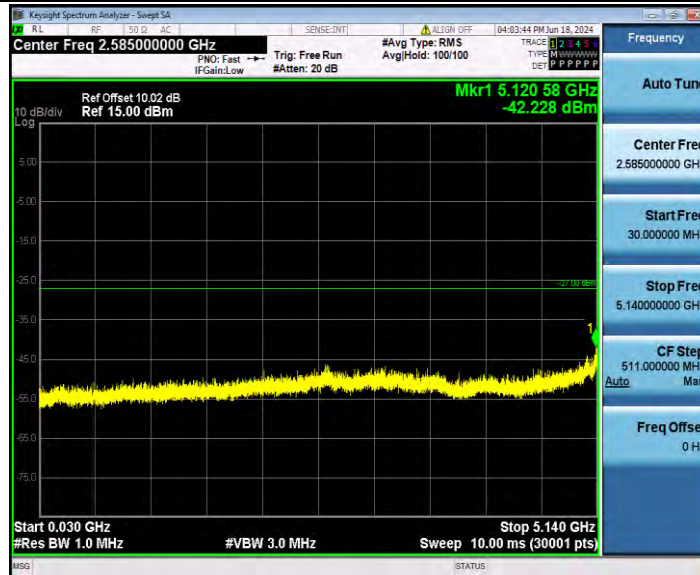
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11AC40SISO_Ant2_5230_5360~27000



11AC80SISO_Ant2_5210_30~5140



11AC80SISO_Ant2_5210_5360~27000

