



9. 26dB Bandwidth, 6dB Bandwidth and 99% Bandwidth

9.1. Block Diagram of Test Setup

Same as section 8.1

9.2. Limits

FCC Part15, Subpart E/ RSS-247		
Test Item	Limit	Frequency Range (MHz)
Bandwidth	26 dB Bandwidth	5150 - 5250
	26 dB Bandwidth	5250 - 5350
	26 dB Bandwidth	For FCC: 5470 - 5725 For IC: 5470 - 5600 5650 - 5725
	Minimum 500 kHz 6 dB Bandwidth	5725 - 5850
	For reporting purposes only.	For IC: 5150 ~ 5825

9.3. Test Procedure

(1) Connect EUT's antenna output to spectrum analyzer by RF cable.

Center Frequency	The centre frequency of the channel under test
Detector	Peak
RBW	For 6 dB Bandwidth: RBW=100 kHz For 26 dB Bandwidth: approximately 1% of the emission bandwidth. For 99 % Occupied Bandwidth: approximately 1 % ~ 5 % of the OBW.
VBW	For 6 dB Bandwidth: VBW=300 kHz For 26 dB Bandwidth: >3*RBW For 99 % Bandwidth: >3*RBW
Trace	Max hold
Sweep	Auto couple

(2) Allow the trace to stabilize, measure the maximum width of the emission that is constrained by the frequencies associated with the two outermost amplitude points (upper and lower frequencies) that are attenuated by 26 dB and 6 dB relative to the maximum level measured in the fundamental emission.

(3) Use the 99 % power bandwidth function of the instrument, allow the trace to stabilize and report the measured bandwidth.

9.4. Test Result

Test Mode	Ant.	Freq. (MHz)	OCB (MHz)	FL (MHz)	FH (MHz)	Limit (MHz)	Verdict
11A	Ant1	5180	17.739	5170.9932	5188.7322	---	---
		5200	17.596	5190.9888	5208.5848	---	---
		5240	17.283	5231.3535	5248.6365	---	---
		5260	17.372	5251.2050	5268.5770	---	---
		5280	17.257	5271.2480	5288.5050	---	---
		5320	17.351	5311.2447	5328.5957	---	---
		5500	17.578	5491.1653	5508.7433	---	---
		5580	17.402	5571.2131	5588.6151	---	---
		5700	17.441	5691.2276	5708.6686	---	---
		5720	17.504	5711.2299	5728.7339	---	---
		5720 UNII-2C	13.77	5711.2299	5725	---	---
		5720 UNII-3	3.734	5725	5728.7339	---	---
		5745	17.427	5736.1998	5753.6268	---	---
		5785	17.357	5776.2806	5793.6376	---	---
		5825	17.502	5816.1944	5833.6964	---	---
11N20SISO	Ant1	5180	18.409	5170.7683	5189.1773	---	---
		5200	18.329	5190.7084	5209.0374	---	---

		5240	18.373	5230.8056	5249.1786	---	---
		5260	18.372	5250.7312	5269.1032	---	---
		5280	18.356	5270.8081	5289.1641	---	---
		5320	18.440	5310.7123	5329.1523	---	---
		5500	18.578	5490.7552	5509.3332	---	---
		5580	18.551	5570.6867	5589.2377	---	---
		5700	18.536	5690.7407	5709.2767	---	---
		5720	18.608	5710.6706	5729.2786	---	---
		5720_UNII-2C	14.329	5710.6706	5725	---	---
		5720_UNII-3	4.279	5725	5729.2786	---	---
		5745	18.636	5735.6943	5754.3303	---	---
		5785	18.552	5775.7571	5794.3091	---	---
		5825	18.667	5815.7019	5834.3689	---	---
		5190	36.567	5171.6634	5208.2304	---	---
11N40SISO	Ant1	5230	36.863	5211.5794	5248.4424	---	---
		5270	36.782	5251.6104	5288.3924	---	---
		5310	36.571	5291.7193	5328.2903	---	---
		5510	37.126	5491.5641	5528.6901	---	---
		5550	36.981	5531.5689	5568.5499	---	---
		5670	37.027	5651.4116	5688.4386	---	---
		5710	36.981	5691.4828	5728.4638	---	---
		5710_UNII-2C	33.517	5691.4828	5725	---	---
		5710_UNII-3	3.464	5725	5728.4638	---	---
		5755	37.009	5736.6015	5773.6105	---	---
		5795	36.906	5776.6063	5813.5123	---	---
		5180	18.420	5170.7599	5189.1799	---	---
		5200	18.389	5190.7249	5209.1139	---	---
		5240	18.374	5230.8018	5249.1758	---	---
		5260	18.360	5250.7692	5269.1292	---	---
11AC20SISO	Ant1	5280	18.365	5270.8252	5289.1902	---	---
		5320	18.521	5310.7100	5329.2310	---	---
		5500	18.738	5490.5893	5509.3273	---	---
		5580	18.547	5570.6995	5589.2465	---	---
		5700	18.532	5690.7643	5709.2963	---	---
		5720	18.751	5710.5599	5729.3109	---	---
		5720_UNII-2C	14.44	5710.5599	5725	---	---
		5720_UNII-3	4.311	5725	5729.3109	---	---
		5745	18.610	5735.6691	5754.2791	---	---
		5785	18.647	5775.6715	5794.3185	---	---
		5825	18.733	5815.5950	5834.3280	---	---
		5190	36.647	5171.5611	5208.2081	---	---
		5230	36.766	5211.5448	5248.3108	---	---
		5270	36.938	5251.3767	5288.3147	---	---
		5310	36.833	5291.6768	5328.5098	---	---
11AC40SISO	Ant1	5510	36.991	5491.6054	5528.5964	---	---
		5550	37.005	5531.4825	5568.4875	---	---
		5670	37.041	5651.5347	5688.5757	---	---
		5710	36.993	5691.4672	5728.4602	---	---
		5710_UNII-2C	33.533	5691.4672	5725	---	---
		5710_UNII-3	3.46	5725	5728.4602	---	---
		5755	37.039	5736.5222	5773.5612	---	---
		5795	36.855	5776.6045	5813.4595	---	---
		5180	19.273	5170.3226	5189.5956	---	---
		5200	19.144	5190.3830	5209.5270	---	---
		5240	19.188	5230.3965	5249.5845	---	---
		5260	19.211	5250.4115	5269.6225	---	---
		5280	19.215	5270.3827	5289.5977	---	---
		5320	19.217	5310.3922	5329.6092	---	---
		5500	19.426	5490.3445	5509.7705	---	---
		5580	19.274	5570.3442	5589.6182	---	---
11AX20SISO	Ant1	5180	19.273	5170.3226	5189.5956	---	---
		5200	19.144	5190.3830	5209.5270	---	---
		5240	19.188	5230.3965	5249.5845	---	---
		5260	19.211	5250.4115	5269.6225	---	---
		5280	19.215	5270.3827	5289.5977	---	---
		5320	19.217	5310.3922	5329.6092	---	---
		5500	19.426	5490.3445	5509.7705	---	---
		5580	19.274	5570.3442	5589.6182	---	---

		5700	19.380	5690.3156	5709.6956	---	---
		5720	19.397	5710.2753	5729.6723	---	---
		5720_UNII-2C	14.725	5710.2753	5725	---	---
		5720_UNII-3	4.672	5725	5729.6723	---	---
		5745	19.437	5735.2798	5754.7168	---	---
		5785	19.438	5775.2457	5794.6837	---	---
		5825	19.366	5815.3688	5834.7348	---	---
11AX40SISO	Ant1	5190	37.942	5171.0100	5208.9520	---	---
		5230	38.046	5211.0552	5249.1012	---	---
		5270	37.942	5250.9792	5288.9212	---	---
		5310	37.946	5291.0826	5329.0286	---	---
		5510	38.271	5490.9969	5529.2679	---	---
		5550	38.184	5530.9260	5569.1100	---	---
		5670	38.329	5650.7955	5689.1245	---	---
		5710	38.246	5690.8942	5729.1402	---	---
		5710_UNII-2C	34.106	5690.8942	5725	---	---
		5710_UNII-3	4.14	5725	5729.1402	---	---
		5755	38.139	5735.9841	5774.1231	---	---
		5795	38.148	5775.9392	5814.0872	---	---

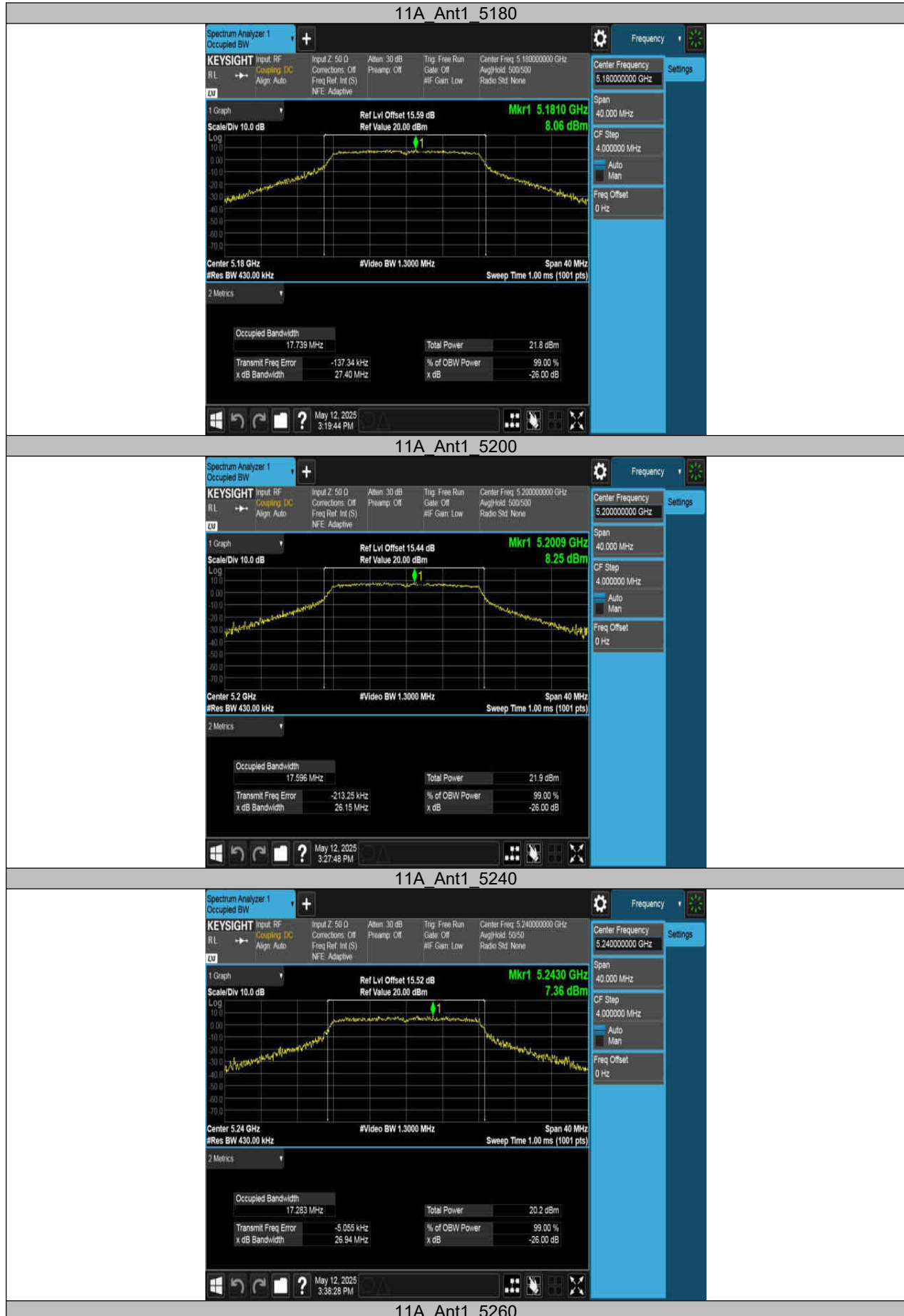
Test Mode	Ant.	Freq. (MHz)	26dB EBW (MHz)	FL (MHz)	FH (MHz)	Limit (MHz)	Verdict
11A	Ant1	5180	23.360	5168.240	5191.600	---	---
		5200	23.800	5187.760	5211.560	---	---
		5240	23.200	5228.400	5251.600	---	---
		5260	23.640	5248.040	5271.680	---	---
		5280	23.640	5267.720	5291.360	---	---
		5320	24.080	5306.960	5331.040	---	---
		5500	23.600	5488.120	5511.720	---	---
		5580	24.240	5567.560	5591.800	---	---
		5700	23.040	5688.080	5711.120	---	---
		5720	23.920	5707.920	5731.840	---	---
		5720_UNII-2C	17.08	5707.920	5725	---	---
		5720_UNII-3	6.84	5725	5731.840	---	---
		5745	24.800	5731.880	5756.680	---	---
		5785	25.360	5772.120	5797.480	---	---
		5825	24.240	5813.040	5837.280	---	---
11N20SISO	Ant1	5180	25.040	5167.600	5192.640	---	---
		5200	24.280	5187.240	5211.520	---	---
		5240	24.800	5227.840	5252.640	---	---
		5260	24.560	5247.760	5272.320	---	---
		5280	25.080	5267.040	5292.120	---	---
		5320	24.120	5307.800	5331.920	---	---
		5500	26.280	5487.160	5513.440	---	---
		5580	25.400	5567.560	5592.960	---	---
		5700	25.200	5687.560	5712.760	---	---
		5720	25.440	5707.160	5732.600	---	---
		5720_UNII-2C	17.84	5707.160	5725	---	---
		5720_UNII-3	7.6	5725	5732.600	---	---
		5745	25.360	5731.840	5757.200	---	---
		5785	24.760	5772.480	5797.240	---	---
		5825	25.760	5811.840	5837.600	---	---
11N40SISO	Ant1	5190	43.920	5167.200	5211.120	---	---
		5230	46.240	5205.920	5252.160	---	---
		5270	44.160	5247.200	5291.360	---	---
		5310	44.080	5288.000	5332.080	---	---
		5510	46.720	5486.800	5533.520	---	---
		5550	46.720	5526.240	5572.960	---	---
		5670	46.080	5647.360	5693.440	---	---
		5710	44.480	5688.080	5732.560	---	---

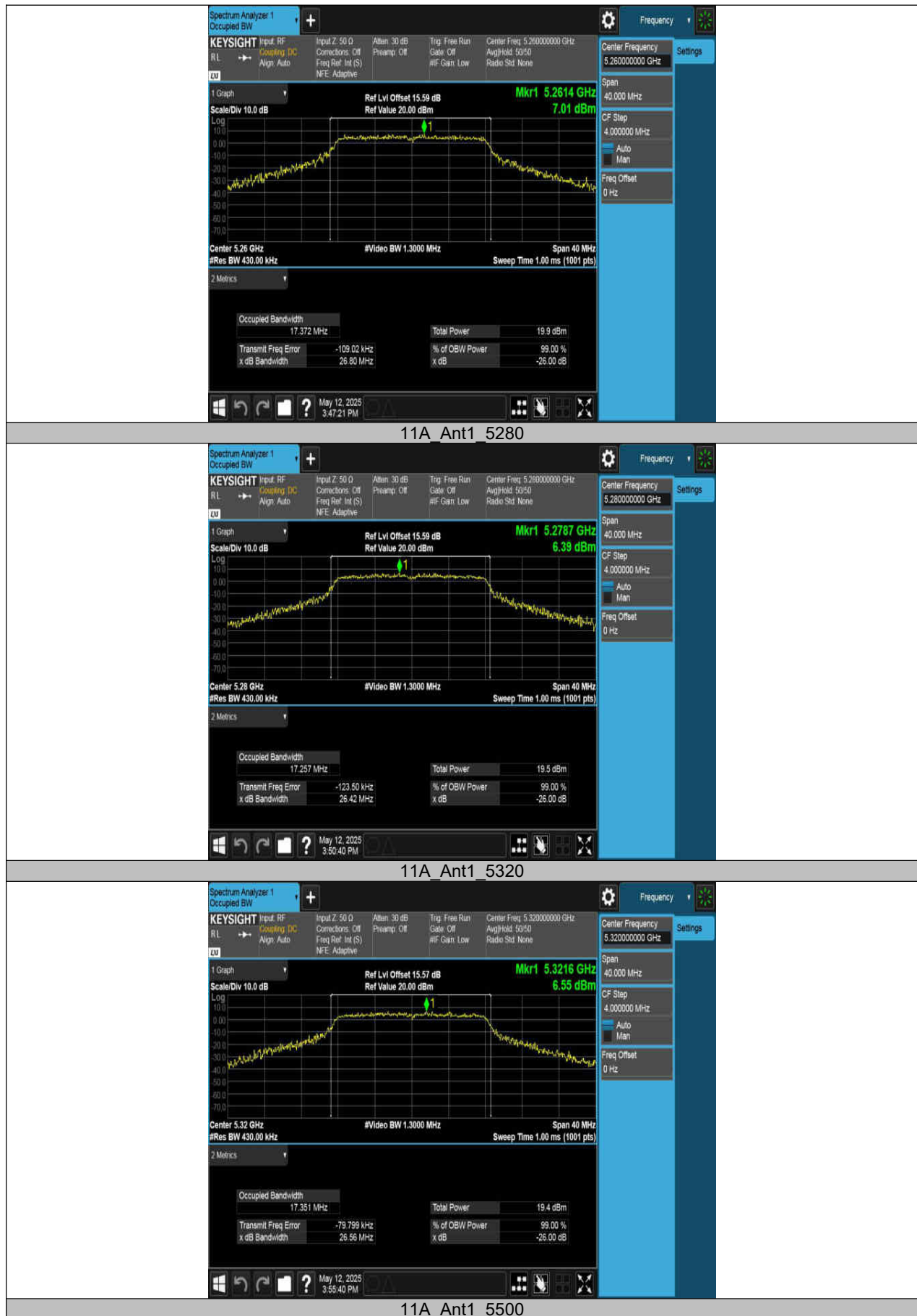
		5710_UNII-2C	36.92	5688.080	5725	---	---
		5710_UNII-3	7.56	5725	5732.560	---	---
		5755	45.360	5732.840	5778.200	---	---
		5795	44.320	5772.680	5817.000	---	---
11AC20SISO	Ant1	5180	25.160	5167.760	5192.920	---	---
		5200	24.840	5187.280	5212.120	---	---
		5240	24.400	5227.640	5252.040	---	---
		5260	24.960	5247.400	5272.360	---	---
		5280	23.520	5268.120	5291.640	---	---
		5320	23.640	5308.040	5331.680	---	---
		5500	25.400	5487.160	5512.560	---	---
		5580	25.520	5567.520	5593.040	---	---
		5700	26.480	5686.520	5713.000	---	---
		5720	24.480	5707.560	5732.040	---	---
		5720_UNII-2C	17.44	5707.560	5725	---	---
		5720_UNII-3	7.04	5725	5732.040	---	---
		5745	26.600	5731.440	5758.040	---	---
		5785	25.200	5772.400	5797.600	---	---
		5825	25.360	5812.520	5837.880	---	---
11AC40SISO	Ant1	5190	43.920	5167.920	5211.840	---	---
		5230	44.800	5207.680	5252.480	---	---
		5270	44.800	5247.600	5292.400	---	---
		5310	43.760	5287.840	5331.600	---	---
		5510	45.840	5487.680	5533.520	---	---
		5550	47.120	5525.920	5573.040	---	---
		5670	46.720	5646.080	5692.800	---	---
		5710	44.320	5687.520	5731.840	---	---
		5710_UNII-2C	37.48	5687.520	5725	---	---
		5710_UNII-3	6.84	5725	5731.840	---	---
		5755	45.600	5731.960	5777.560	---	---
		5795	46.000	5772.040	5818.040	---	---
11AX20SISO	Ant1	5180	23.800	5168.200	5192.000	---	---
		5200	24.480	5187.280	5211.760	---	---
		5240	24.360	5228.560	5252.920	---	---
		5260	24.680	5248.040	5272.720	---	---
		5280	25.480	5267.080	5292.560	---	---
		5320	26.560	5306.840	5333.400	---	---
		5500	25.160	5488.040	5513.200	---	---
		5580	26.320	5567.640	5593.960	---	---
		5700	27.040	5687.440	5714.480	---	---
		5720	23.560	5708.800	5732.360	---	---
		5720_UNII-2C	16.2	5708.800	5725	---	---
		5720_UNII-3	7.36	5725	5732.360	---	---
		5745	25.960	5730.880	5756.840	---	---
		5785	25.520	5772.680	5798.200	---	---
		5825	26.120	5812.240	5838.360	---	---
11AX40SISO	Ant1	5190	43.760	5167.680	5211.440	---	---
		5230	44.160	5207.440	5251.600	---	---
		5270	44.000	5248.480	5292.480	---	---
		5310	43.360	5287.840	5331.200	---	---
		5510	44.160	5487.760	5531.920	---	---
		5550	44.720	5528.240	5572.960	---	---
		5670	42.960	5648.400	5691.360	---	---
		5710	44.000	5687.920	5731.920	---	---
		5710_UNII-2C	37.08	5687.920	5725	---	---
		5710_UNII-3	6.92	5725	5731.920	---	---
		5755	45.360	5731.960	5777.320	---	---
		5795	44.400	5772.440	5816.840	---	---

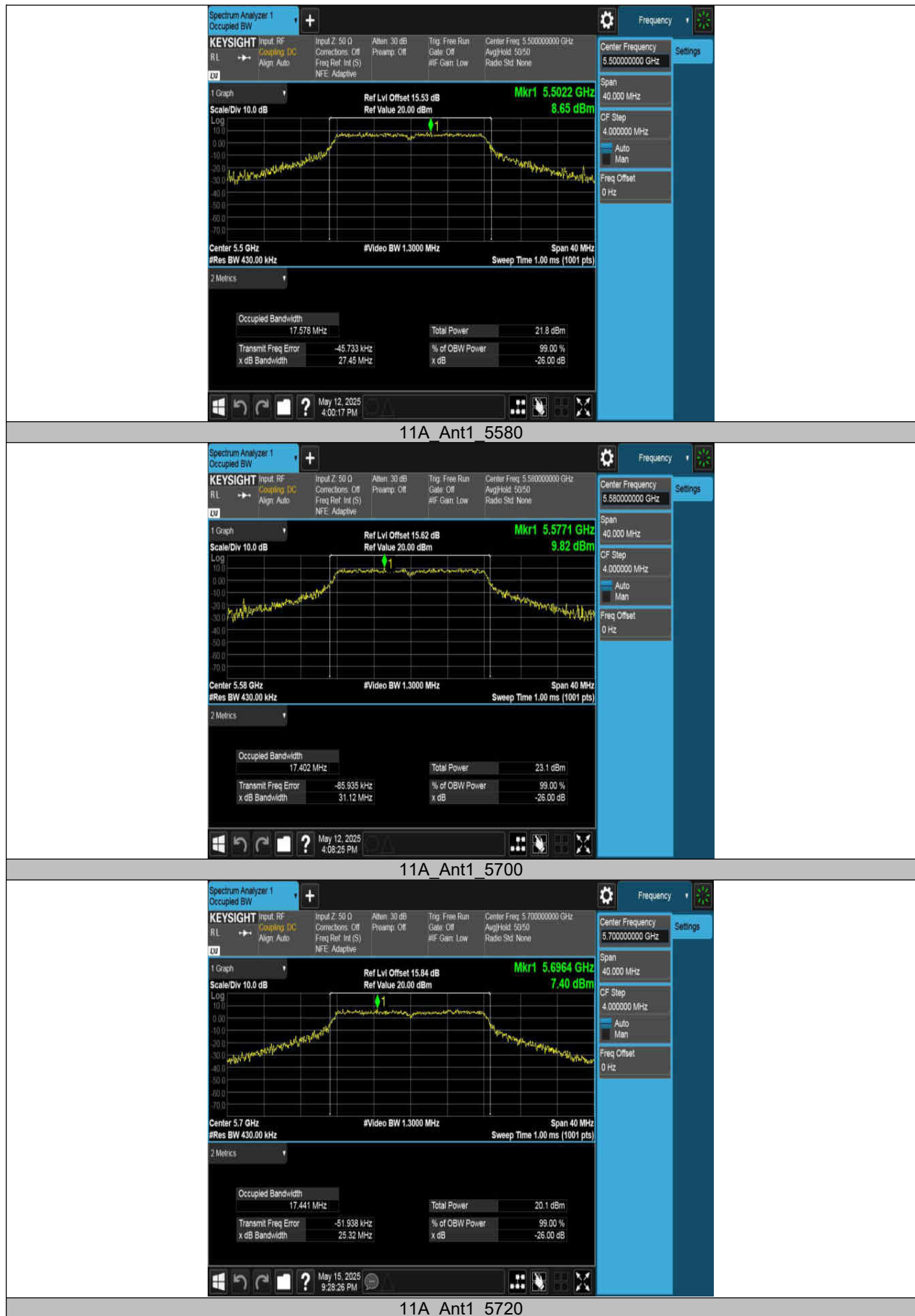
Test Mode	Ant.	Freq. (MHz)	6dB EBW (MHz)	FL (MHz)	FH (MHz)	Limit (MHz)	Verdict
11A	Ant1	5720	16.360	5711.800	5728.160	---	---
		5720 UNII-2C	13.2	5711.800	5725	---	---
		5720 UNII-3	3.16	5725	5728.160	0.5	PASS
		5745	16.320	5736.800	5753.120	0.5	PASS
		5785	16.360	5776.800	5793.160	0.5	PASS
		5825	16.320	5816.800	5833.120	0.5	PASS
11N20SISO	Ant1	5720	17.600	5711.160	5728.760	---	---
		5720 UNII-2C	13.84	5711.160	5725	---	---
		5720 UNII-3	3.76	5725	5728.760	0.5	PASS
		5745	17.600	5736.160	5753.760	0.5	PASS
		5785	17.600	5776.160	5793.760	0.5	PASS
		5825	17.600	5816.160	5833.760	0.5	PASS
11N40SISO	Ant1	5710	36.320	5691.840	5728.160	---	---
		5710 UNII-2C	33.16	5691.840	5725	---	---
		5710 UNII-3	3.16	5725	5728.160	0.5	PASS
		5755	36.320	5736.840	5773.160	0.5	PASS
		5795	36.320	5776.840	5813.160	0.5	PASS
11AC20SISO	Ant1	5720	17.560	5711.200	5728.760	---	---
		5720 UNII-2C	13.8	5711.200	5725	---	---
		5720 UNII-3	3.76	5725	5728.760	0.5	PASS
		5745	17.640	5736.120	5753.760	0.5	PASS
		5785	17.560	5776.200	5793.760	0.5	PASS
		5825	17.600	5816.160	5833.760	0.5	PASS
11AC40SISO	Ant1	5710	36.320	5691.840	5728.160	---	---
		5710 UNII-2C	33.16	5691.840	5725	---	---
		5710 UNII-3	3.16	5725	5728.160	0.5	PASS
		5755	36.320	5736.840	5773.160	0.5	PASS
		5795	36.320	5776.840	5813.160	0.5	PASS
11AX20SISO	Ant1	5720	18.840	5710.520	5729.360	---	---
		5720 UNII-2C	14.48	5710.520	5725	---	---
		5720 UNII-3	4.36	5725	5729.360	0.5	PASS
		5745	18.880	5735.480	5754.360	0.5	PASS
		5785	18.760	5775.480	5794.240	0.5	PASS
		5825	19.000	5815.480	5834.480	0.5	PASS
11AX40SISO	Ant1	5710	37.760	5690.960	5728.720	---	---
		5710 UNII-2C	34.04	5690.960	5725	---	---
		5710 UNII-3	3.72	5725	5728.720	0.5	PASS
		5755	37.840	5735.960	5773.800	0.5	PASS
		5795	37.920	5776.040	5813.960	0.5	PASS

9.5. Original Test Data

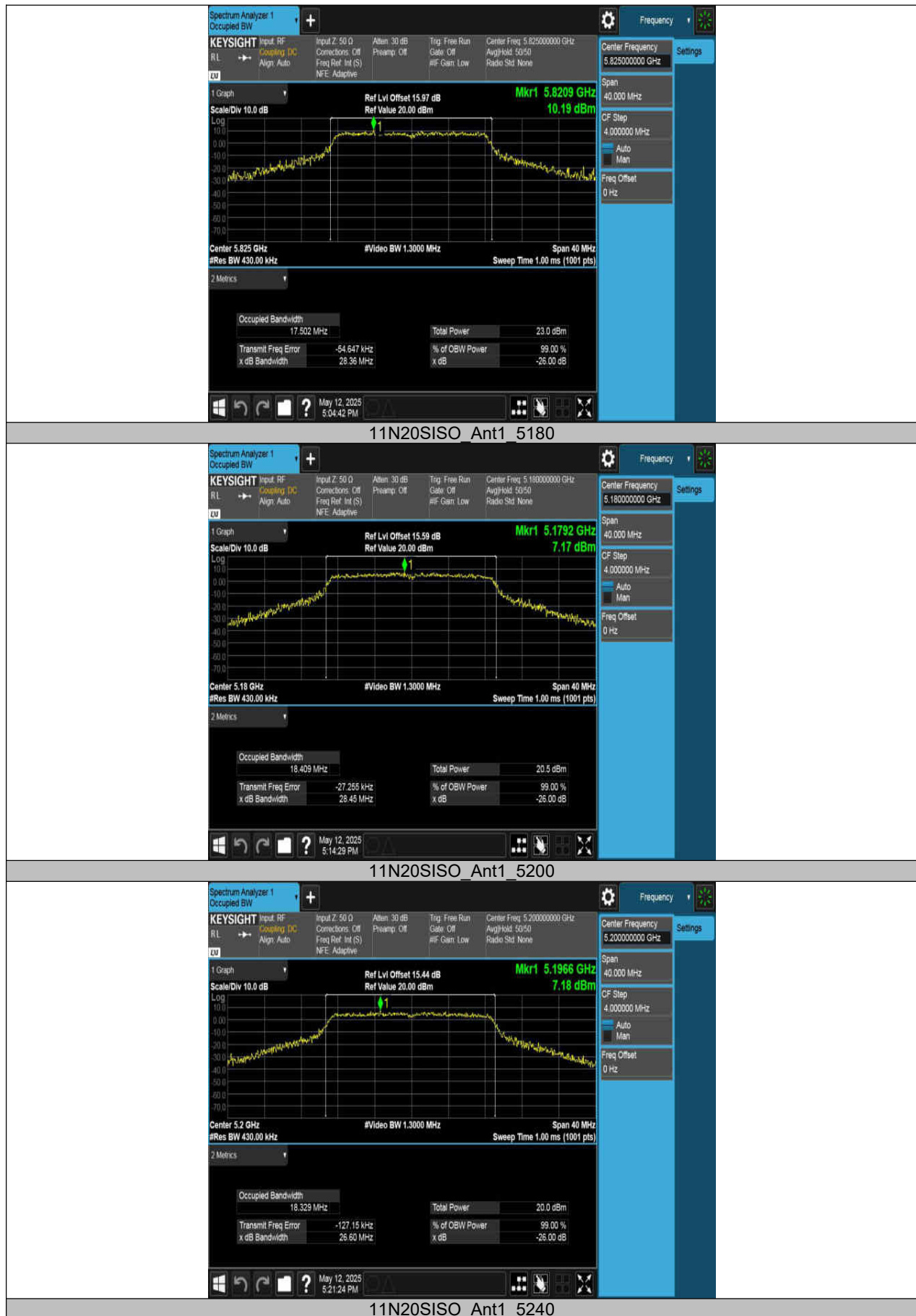
99% Bandwidth:

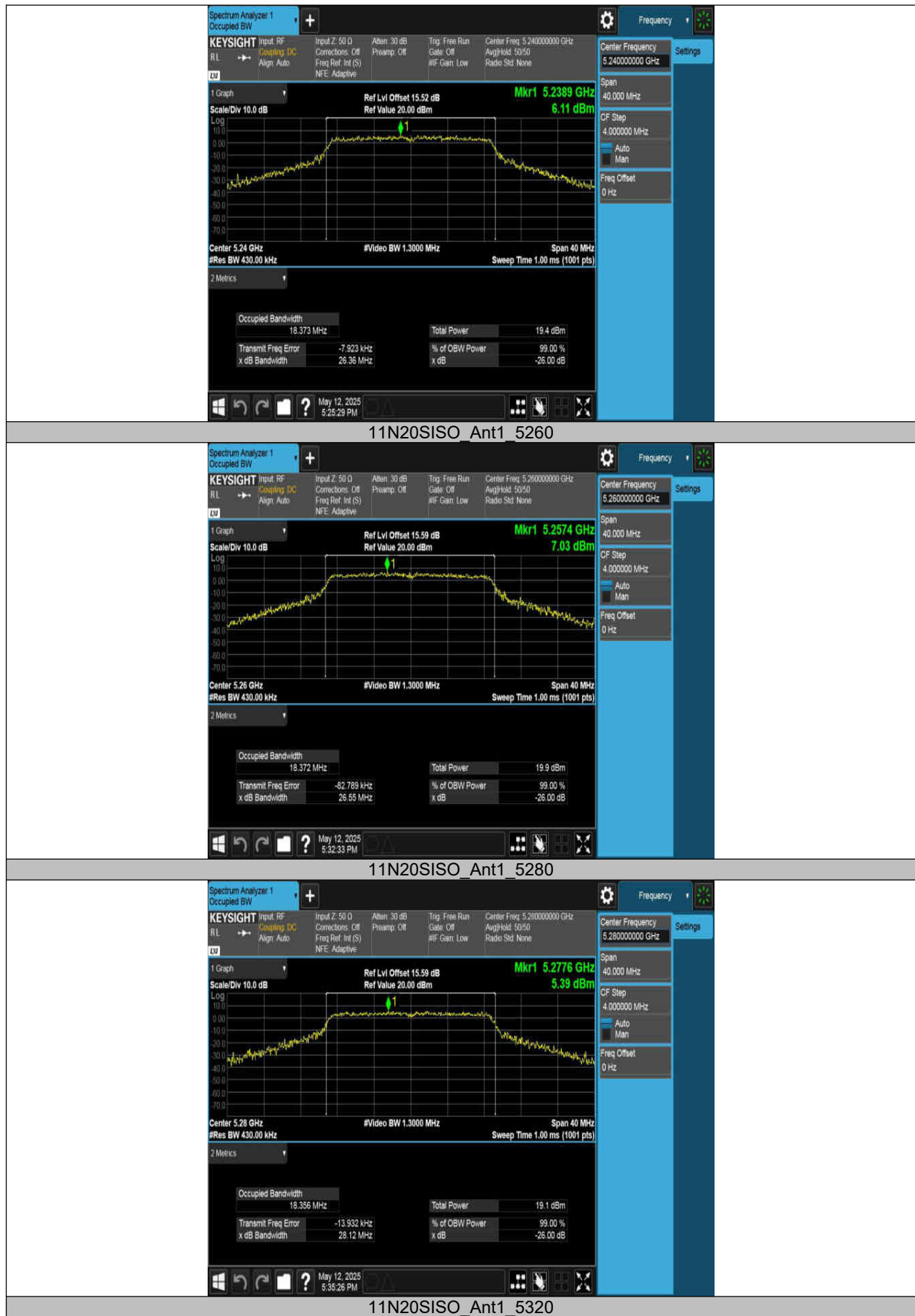


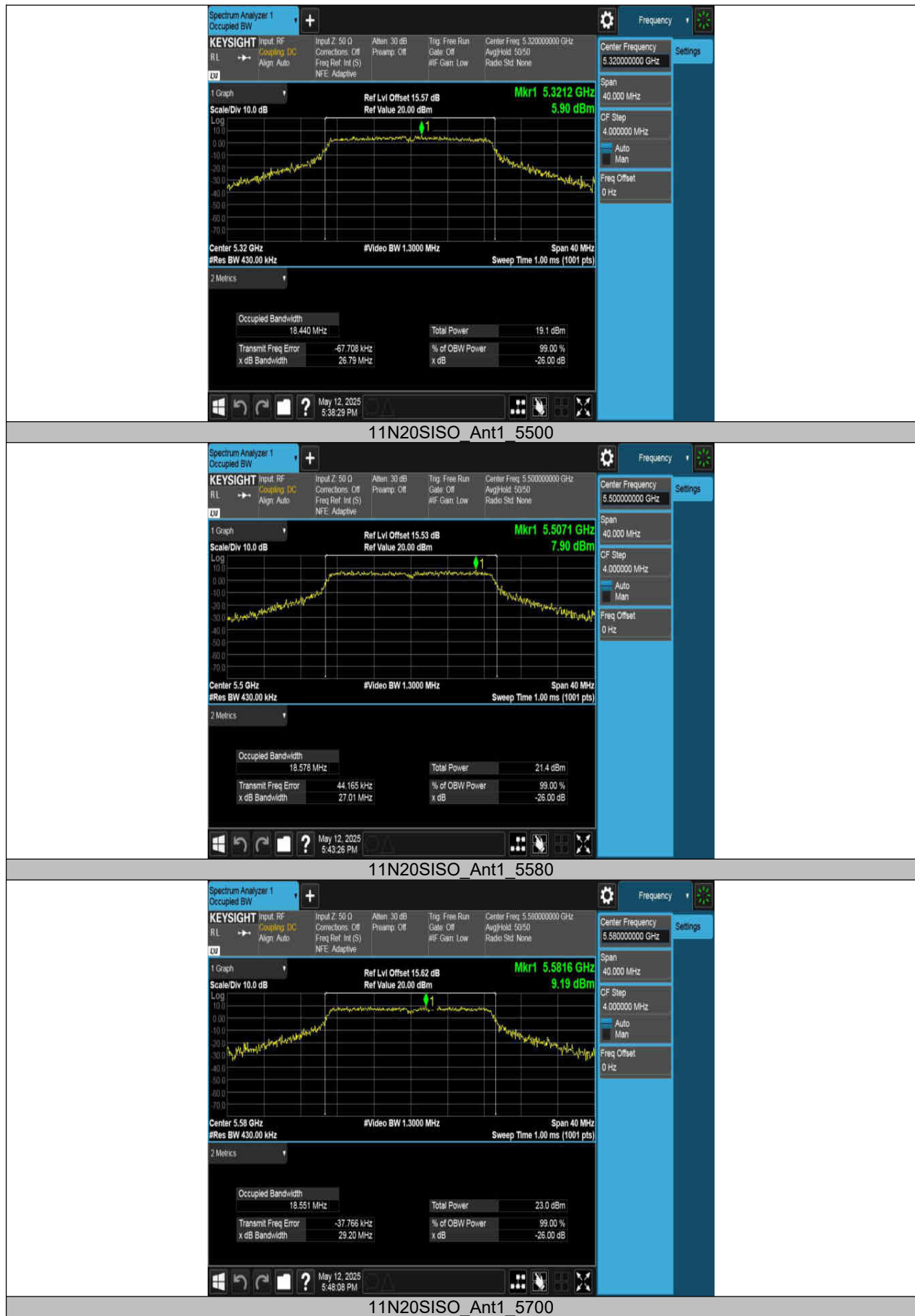


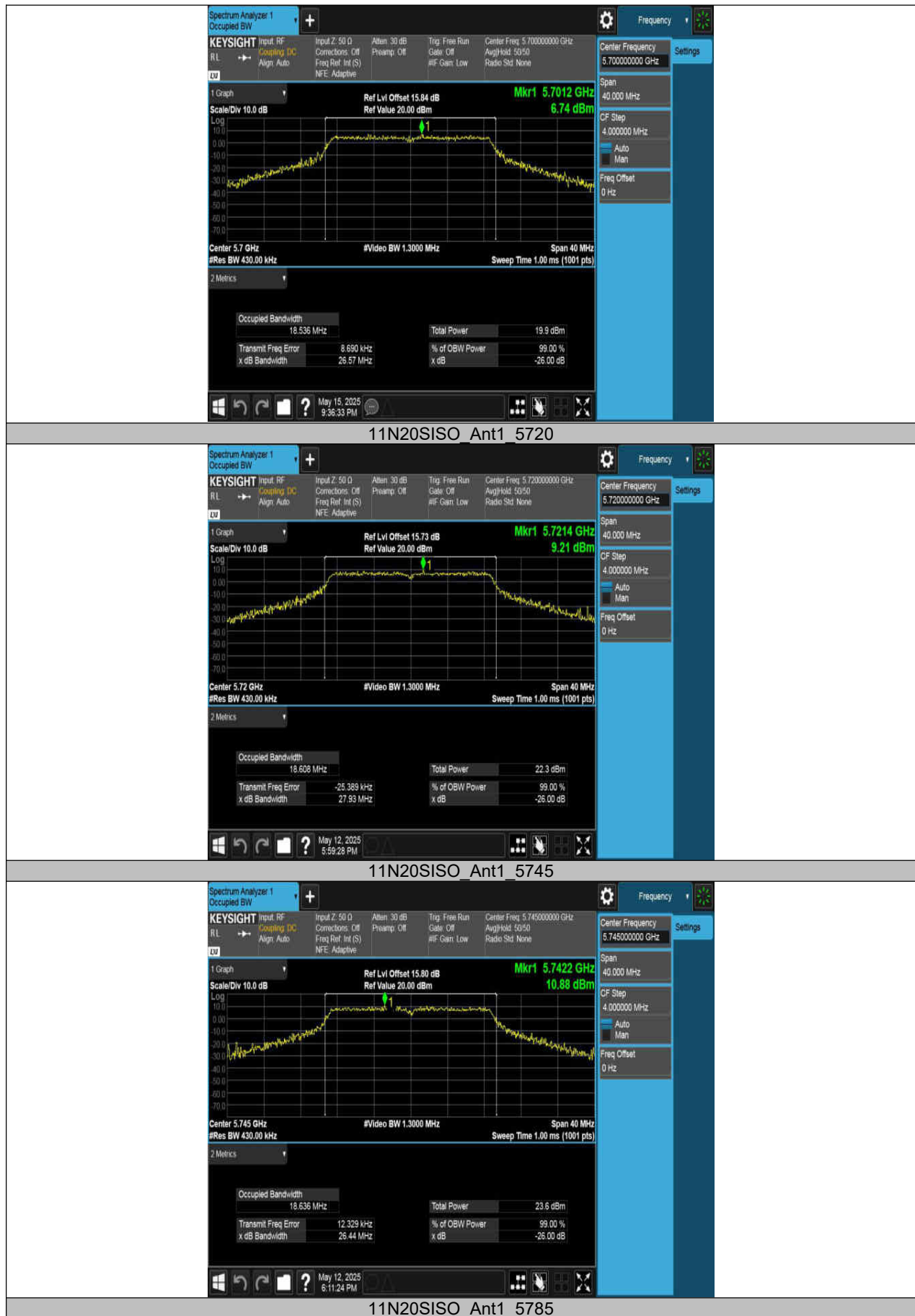


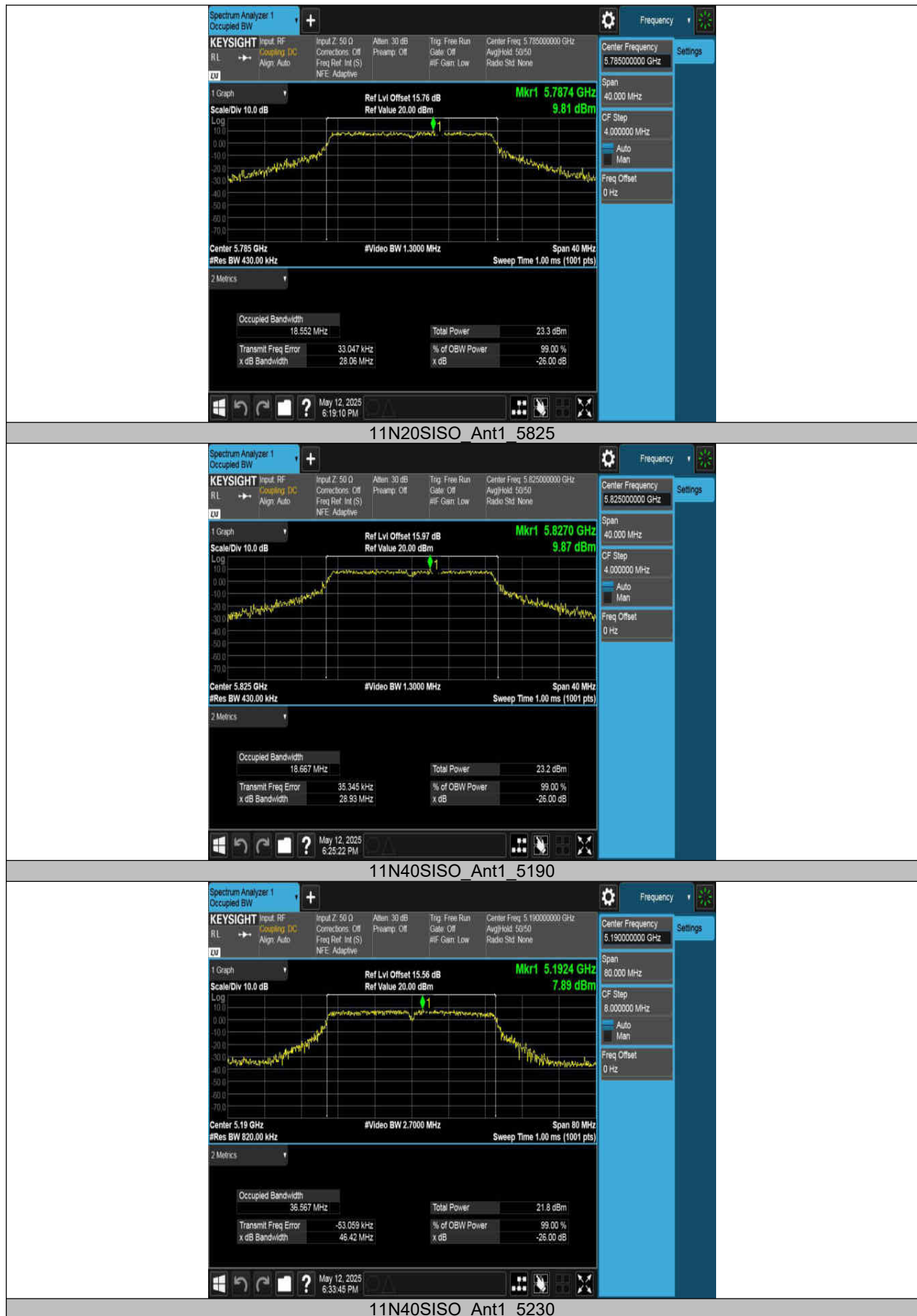


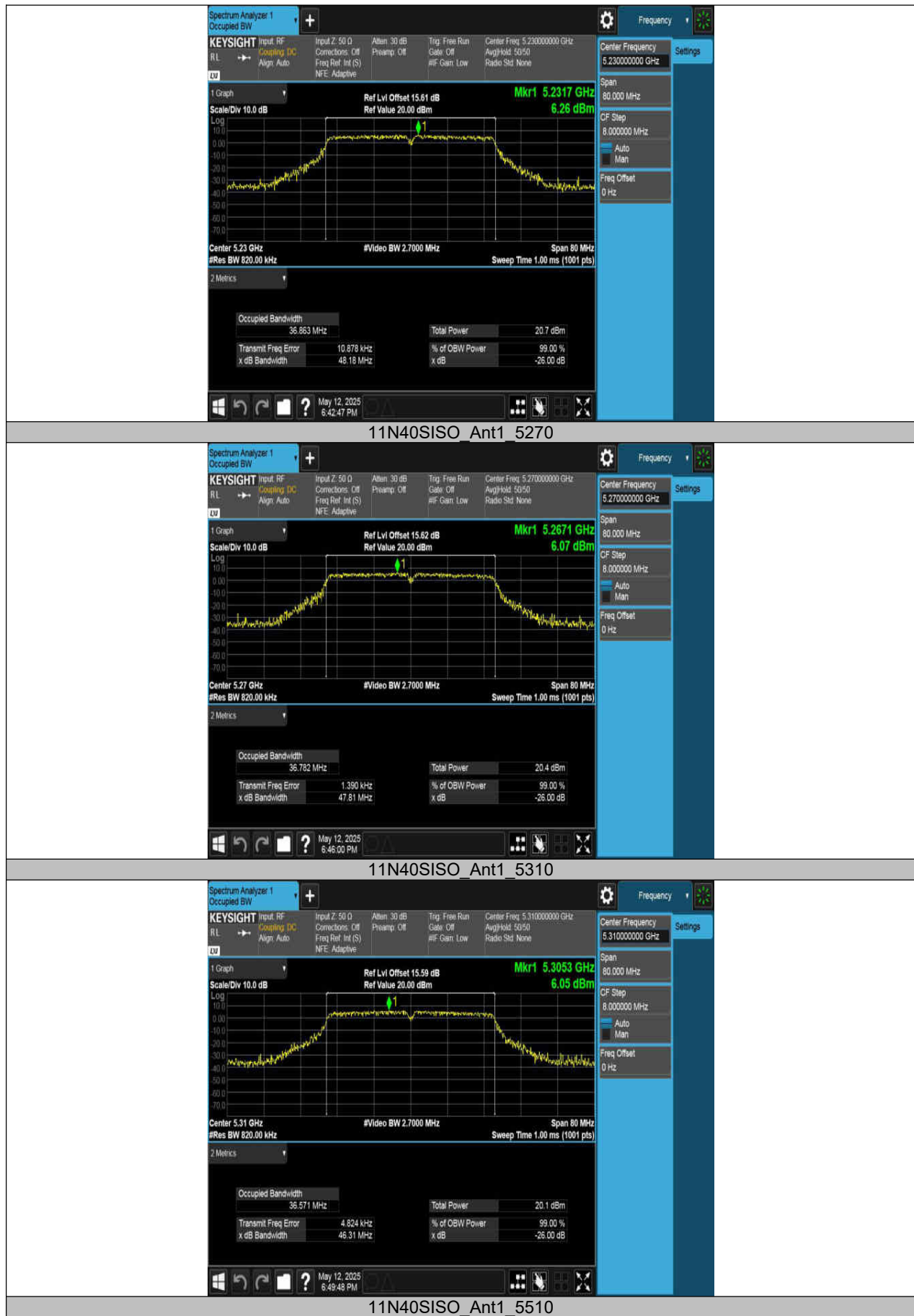


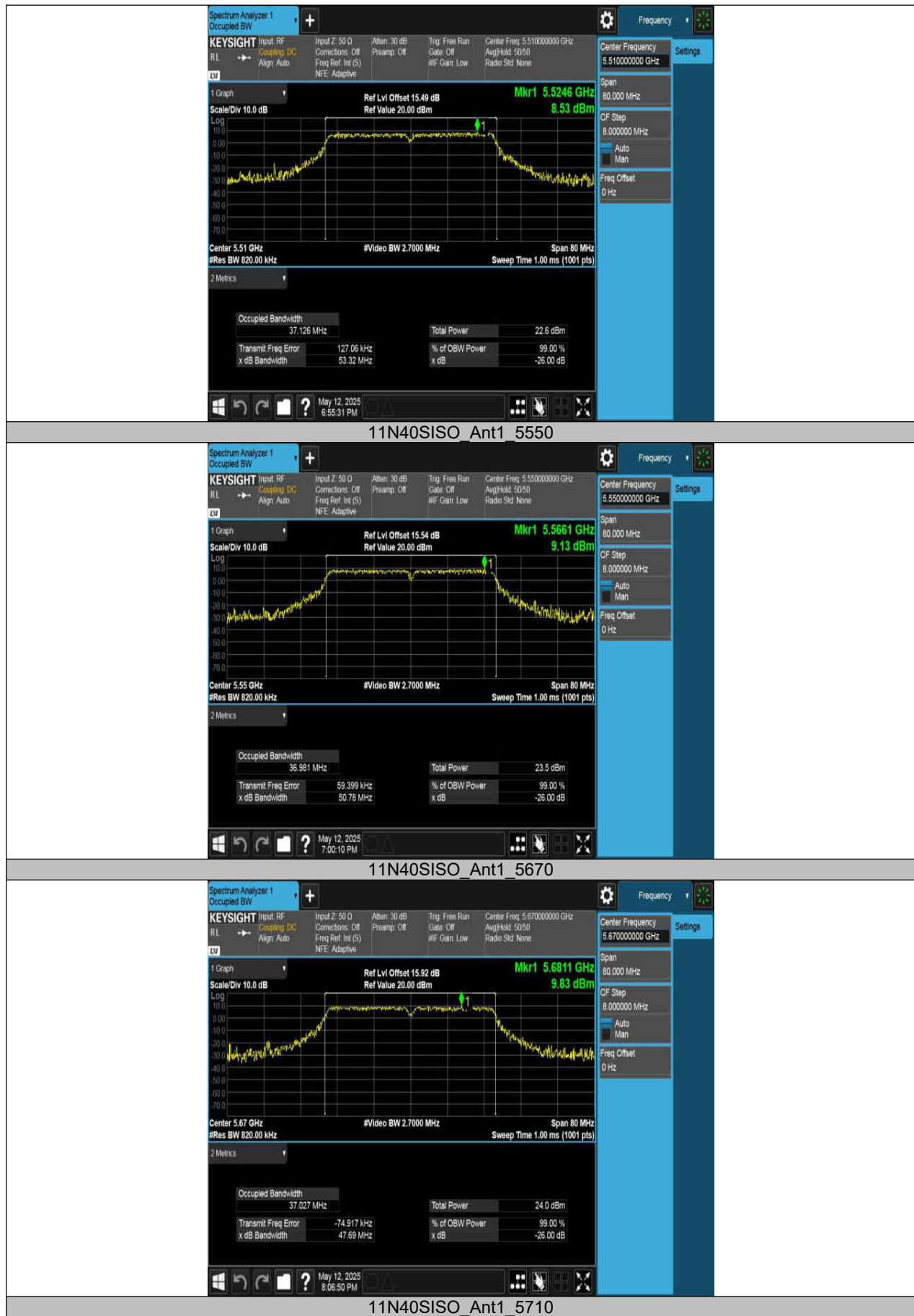


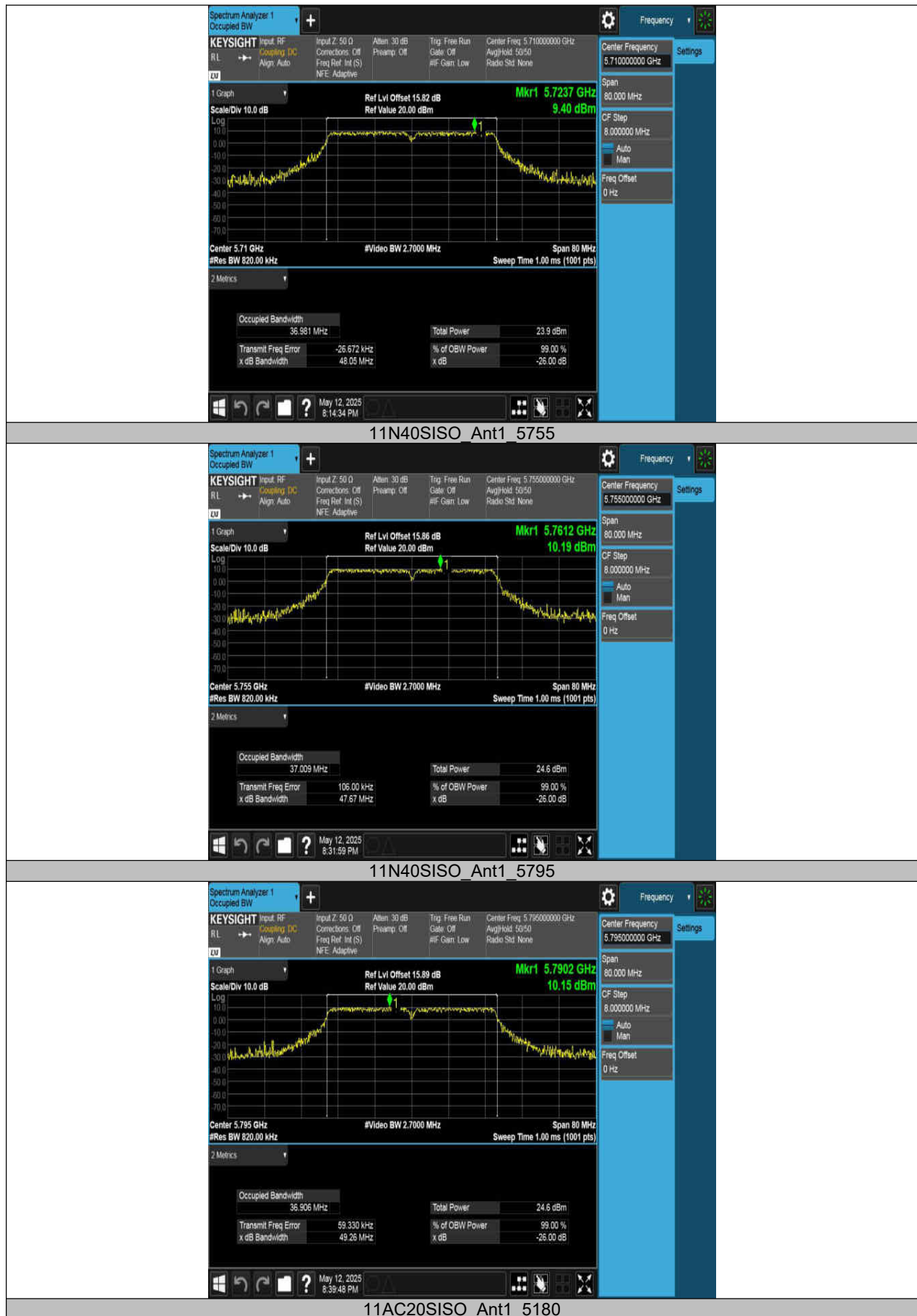


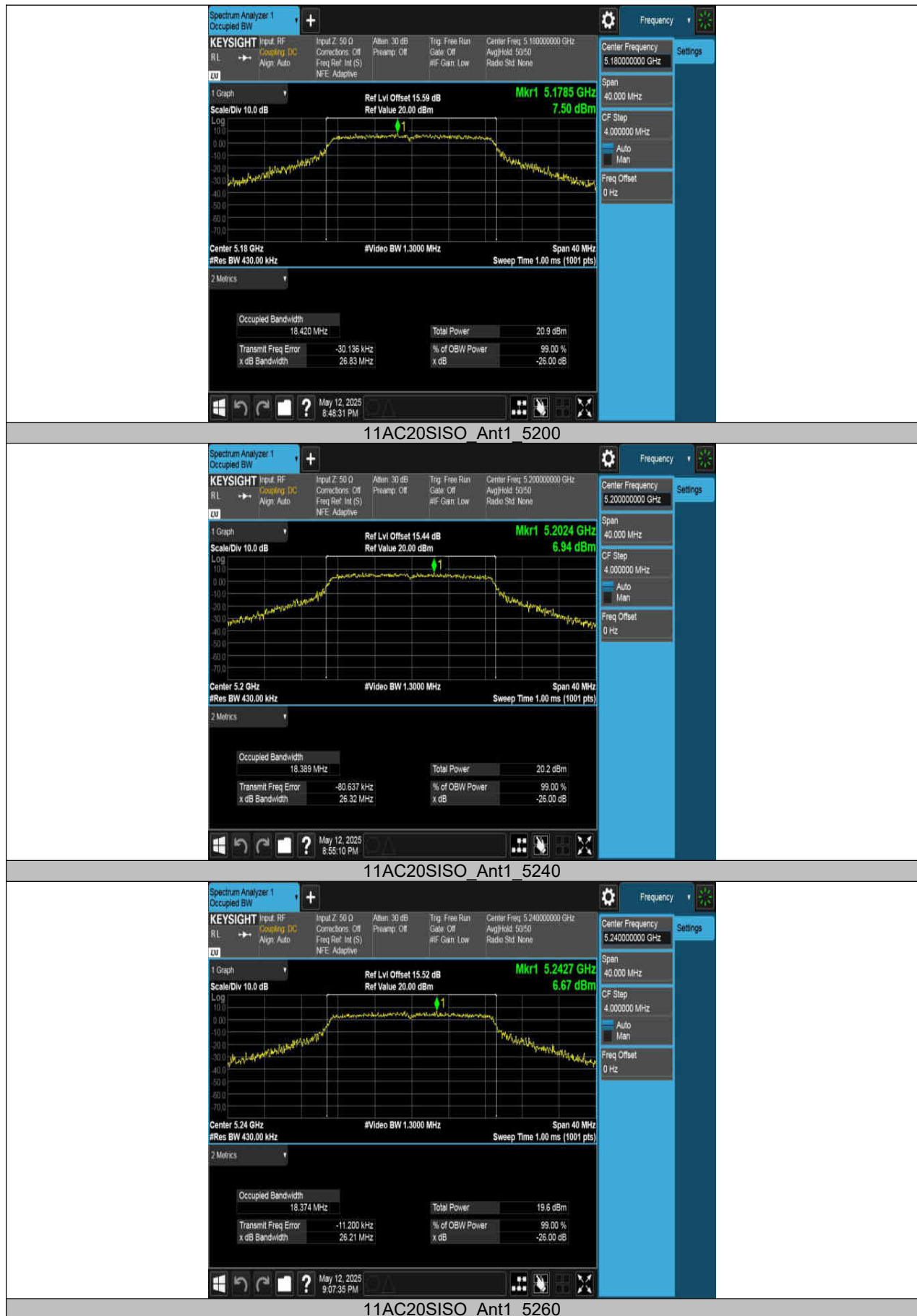


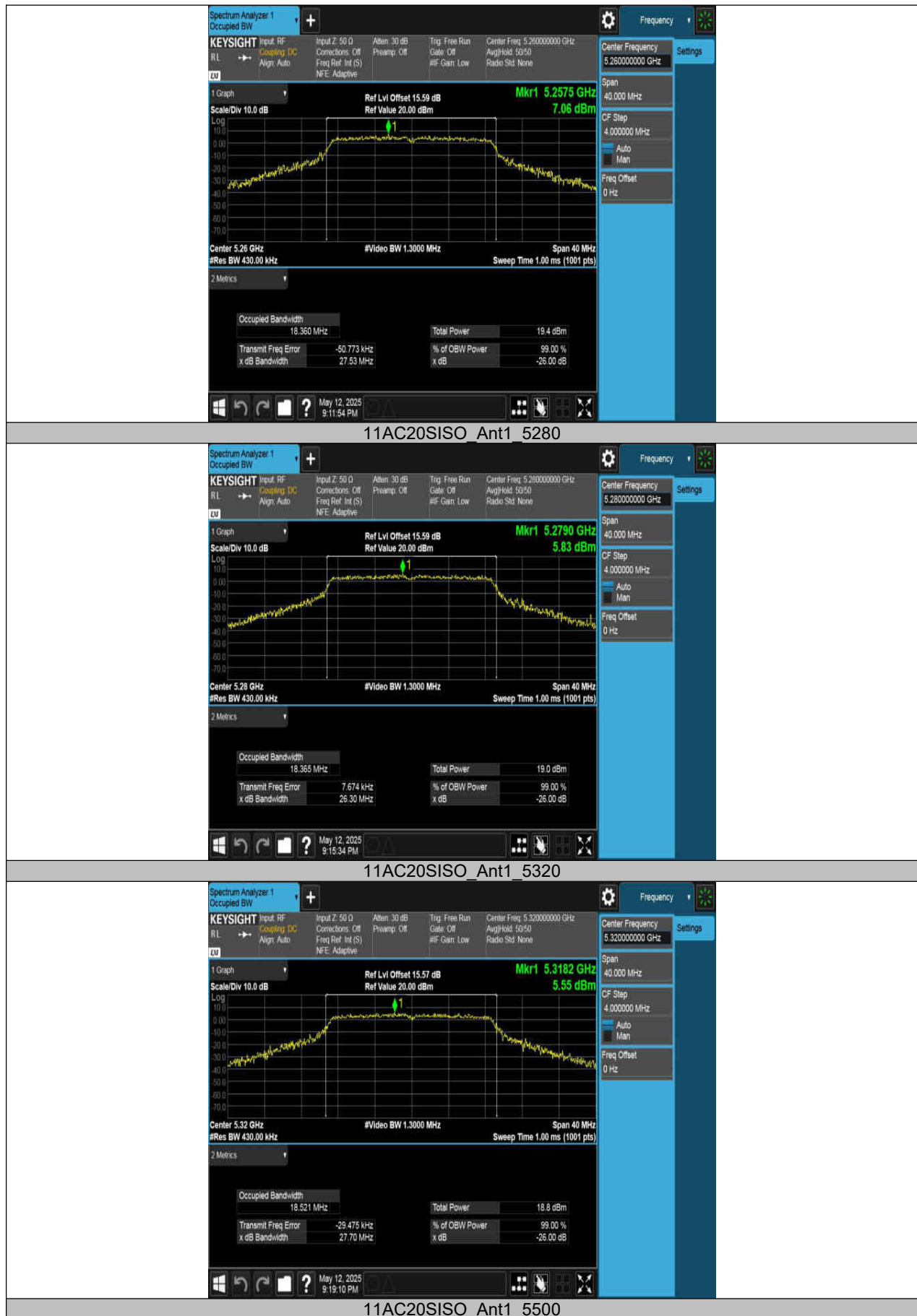


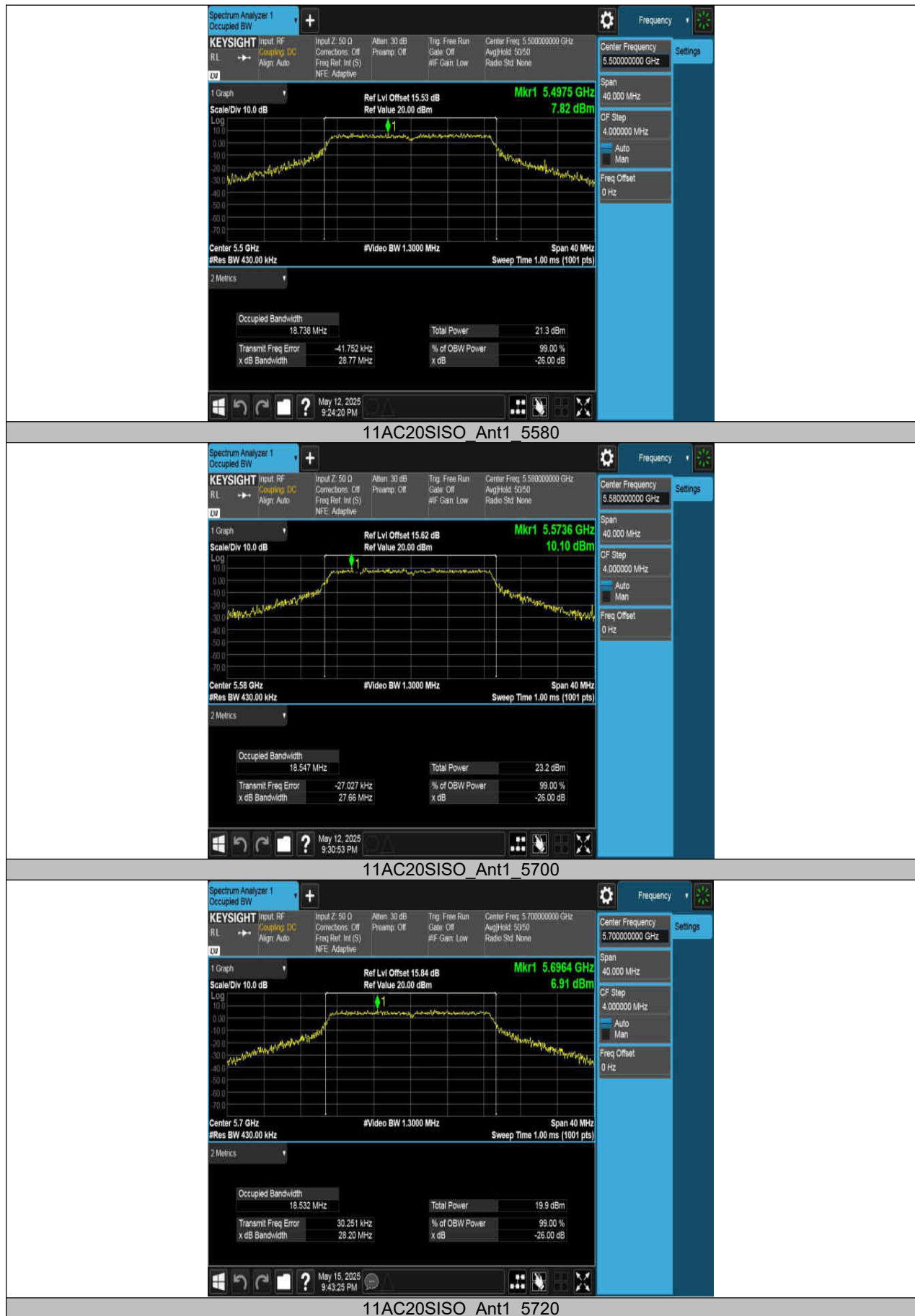


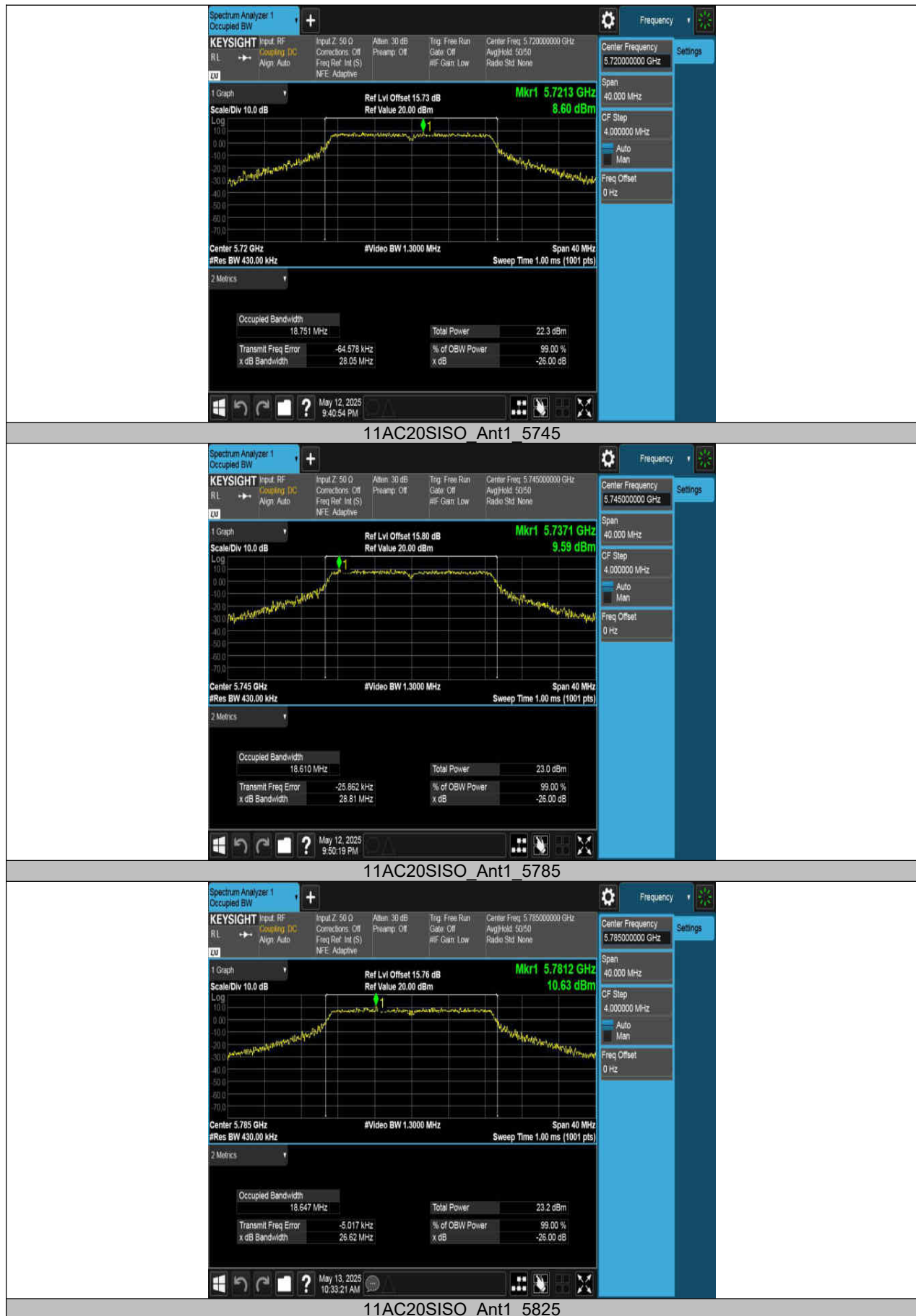


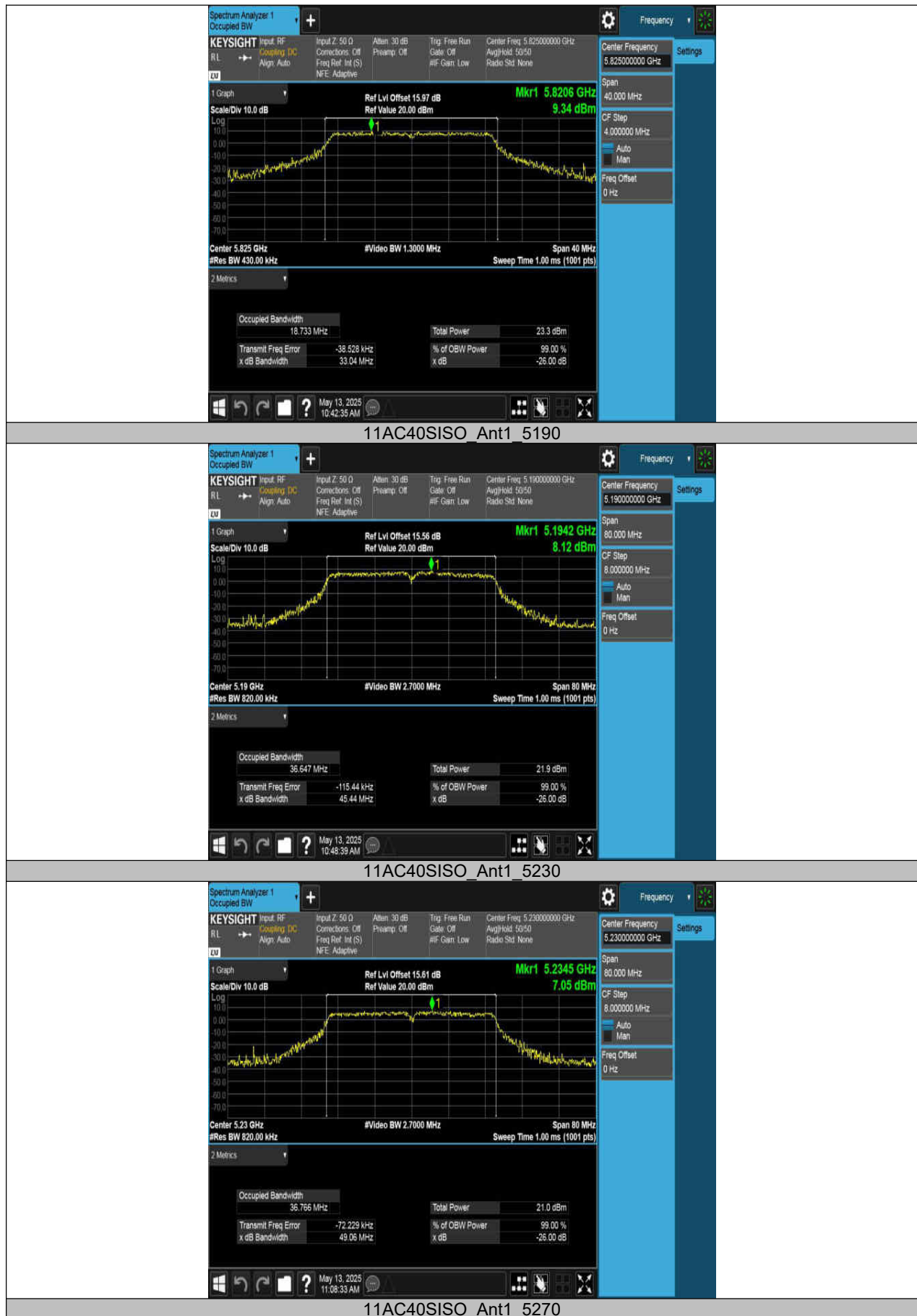


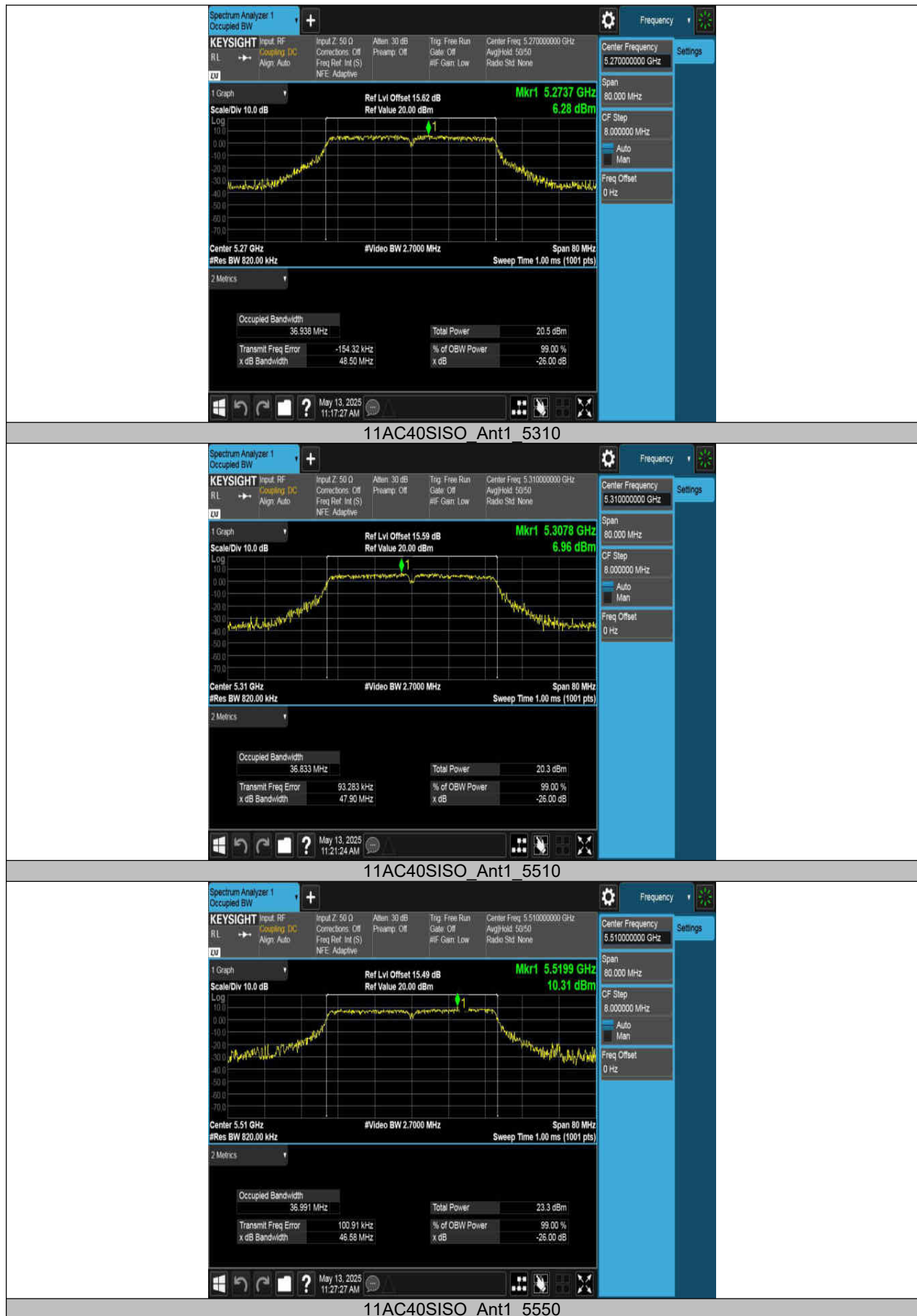


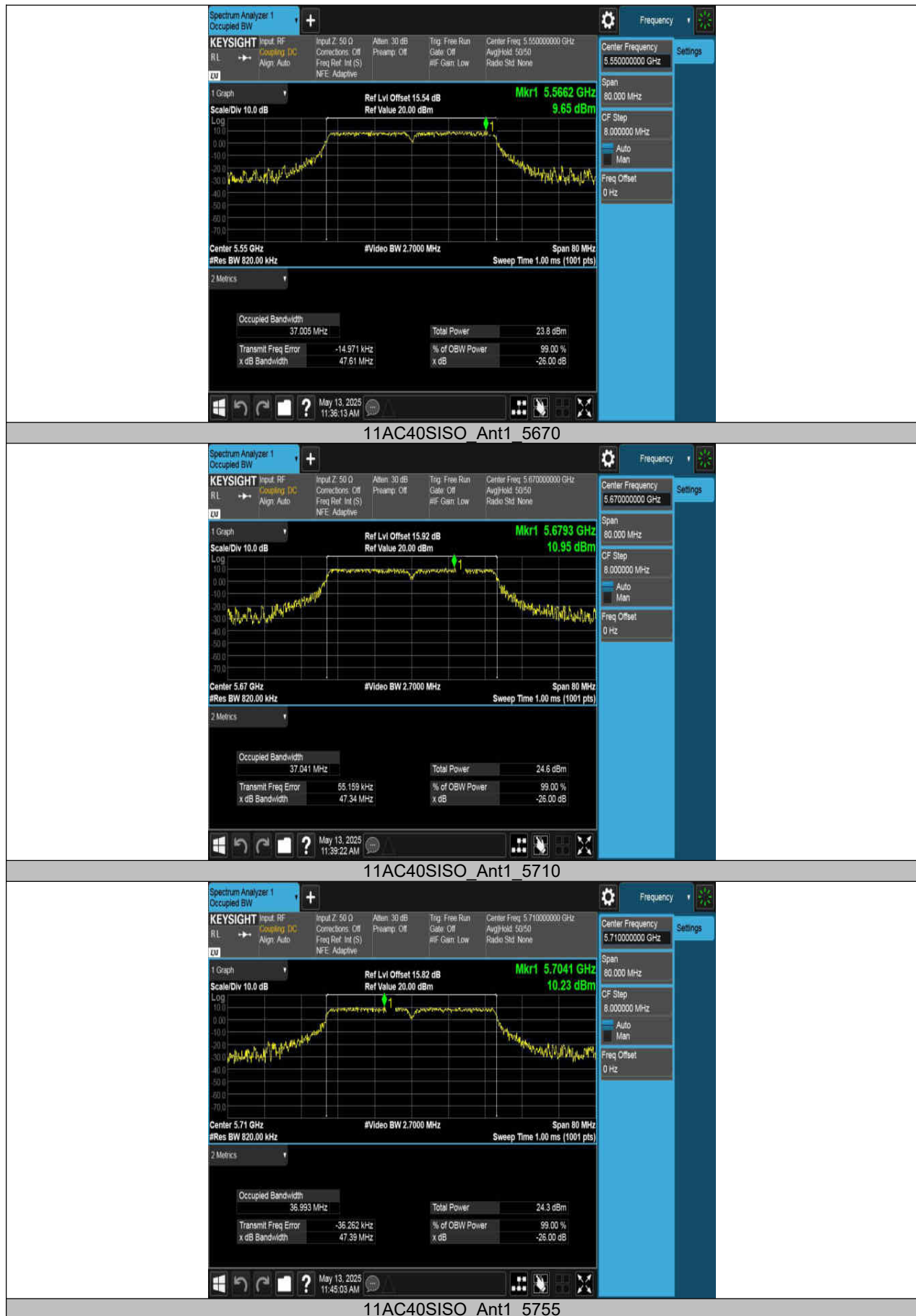


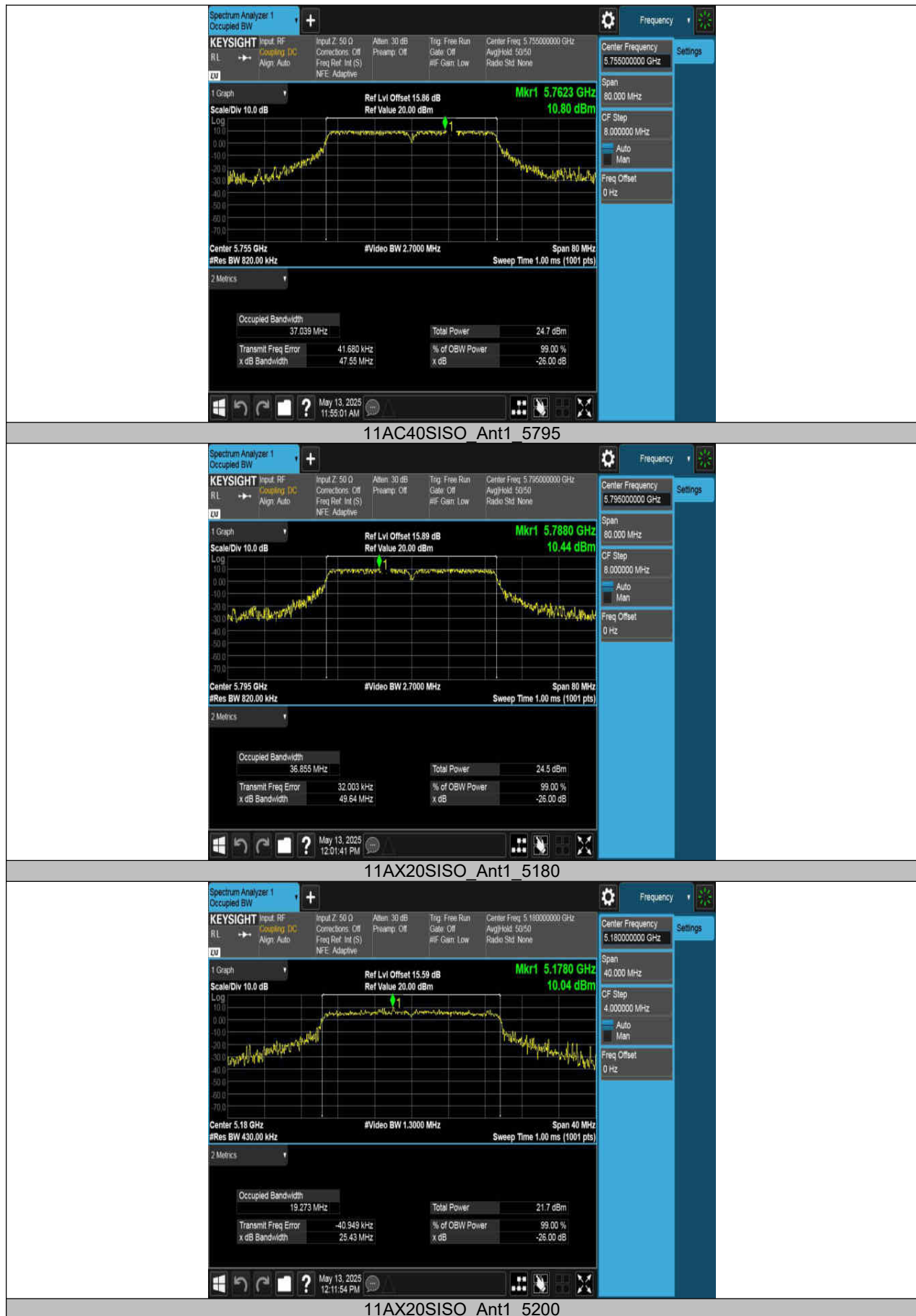


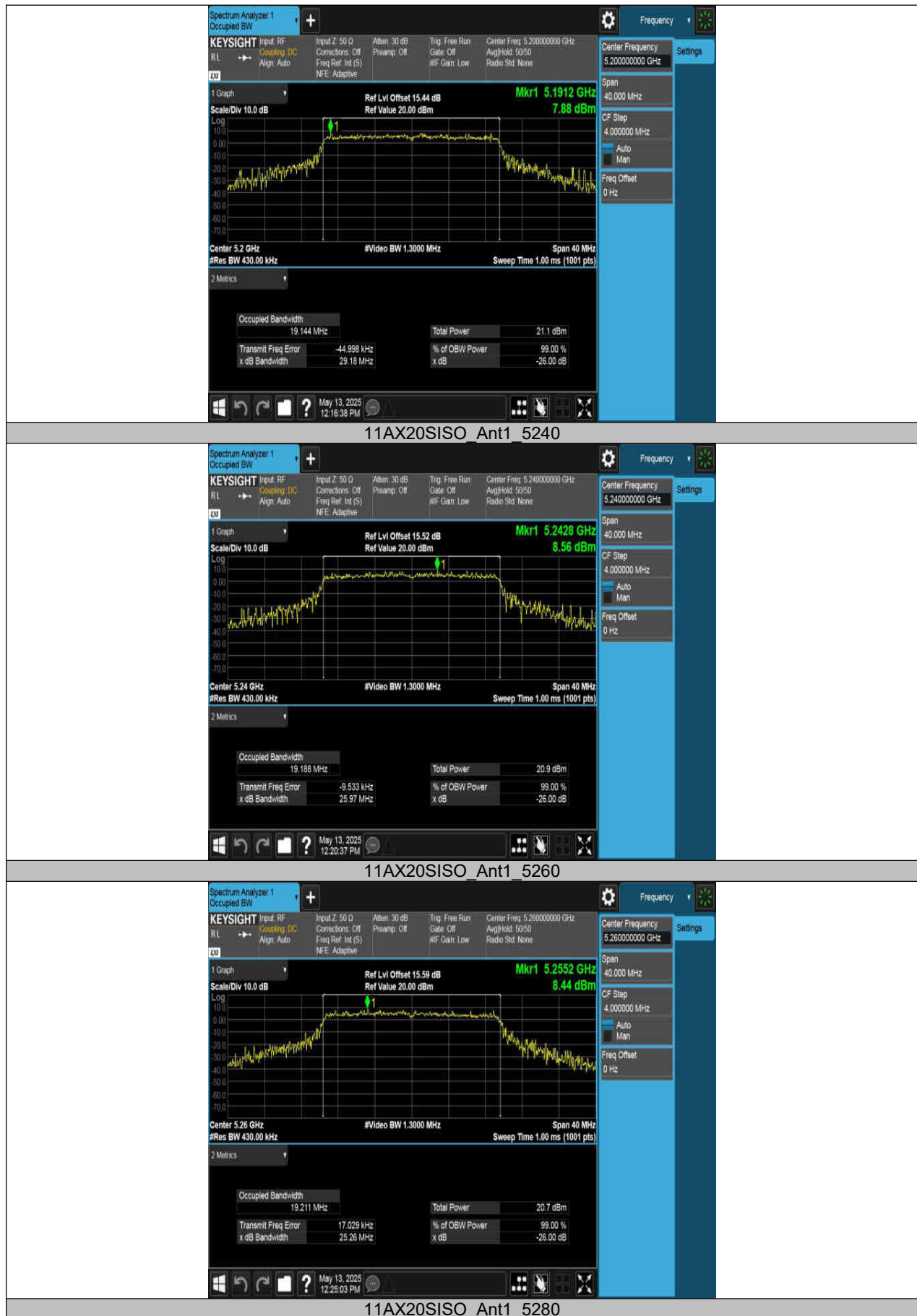


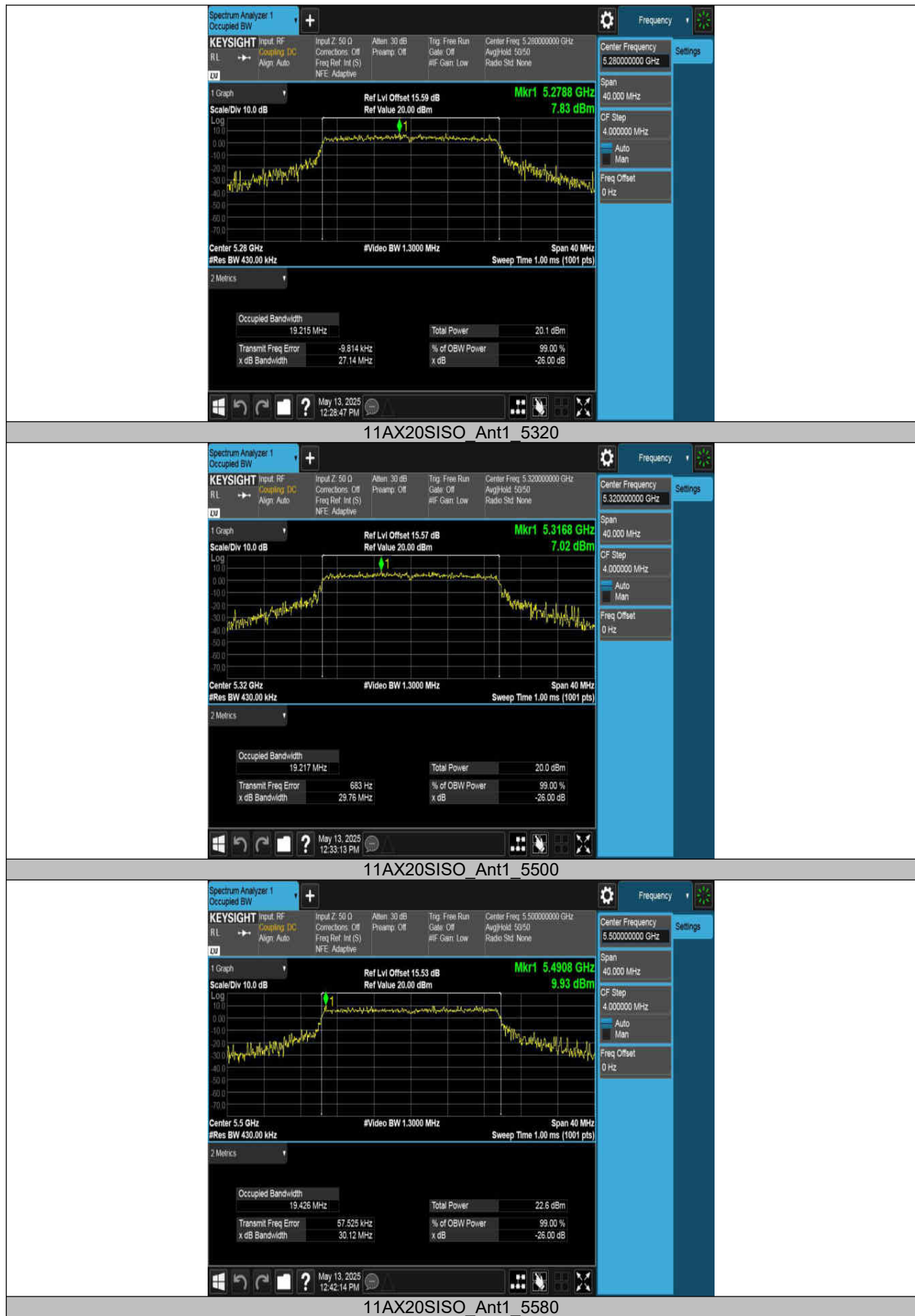


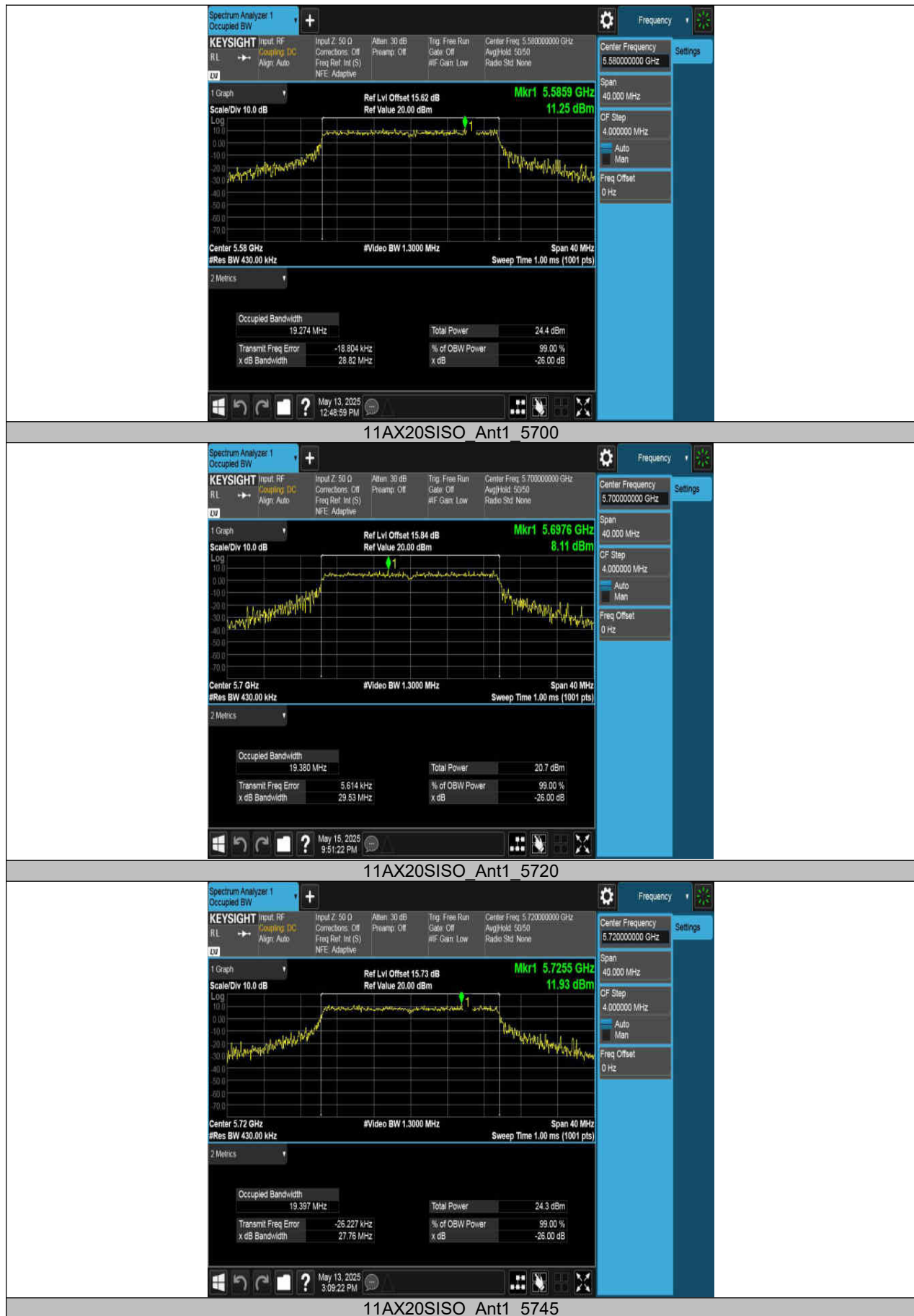




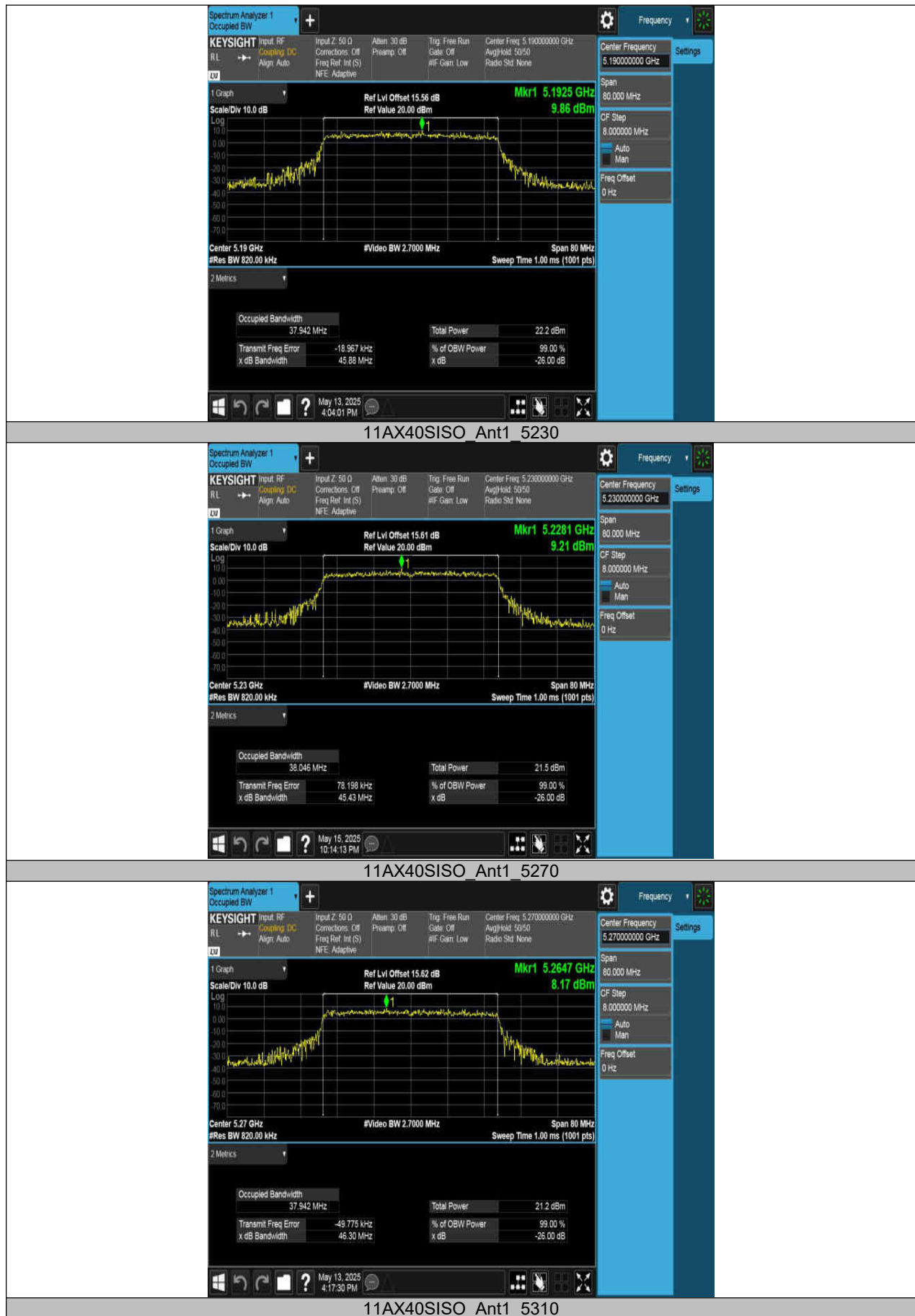


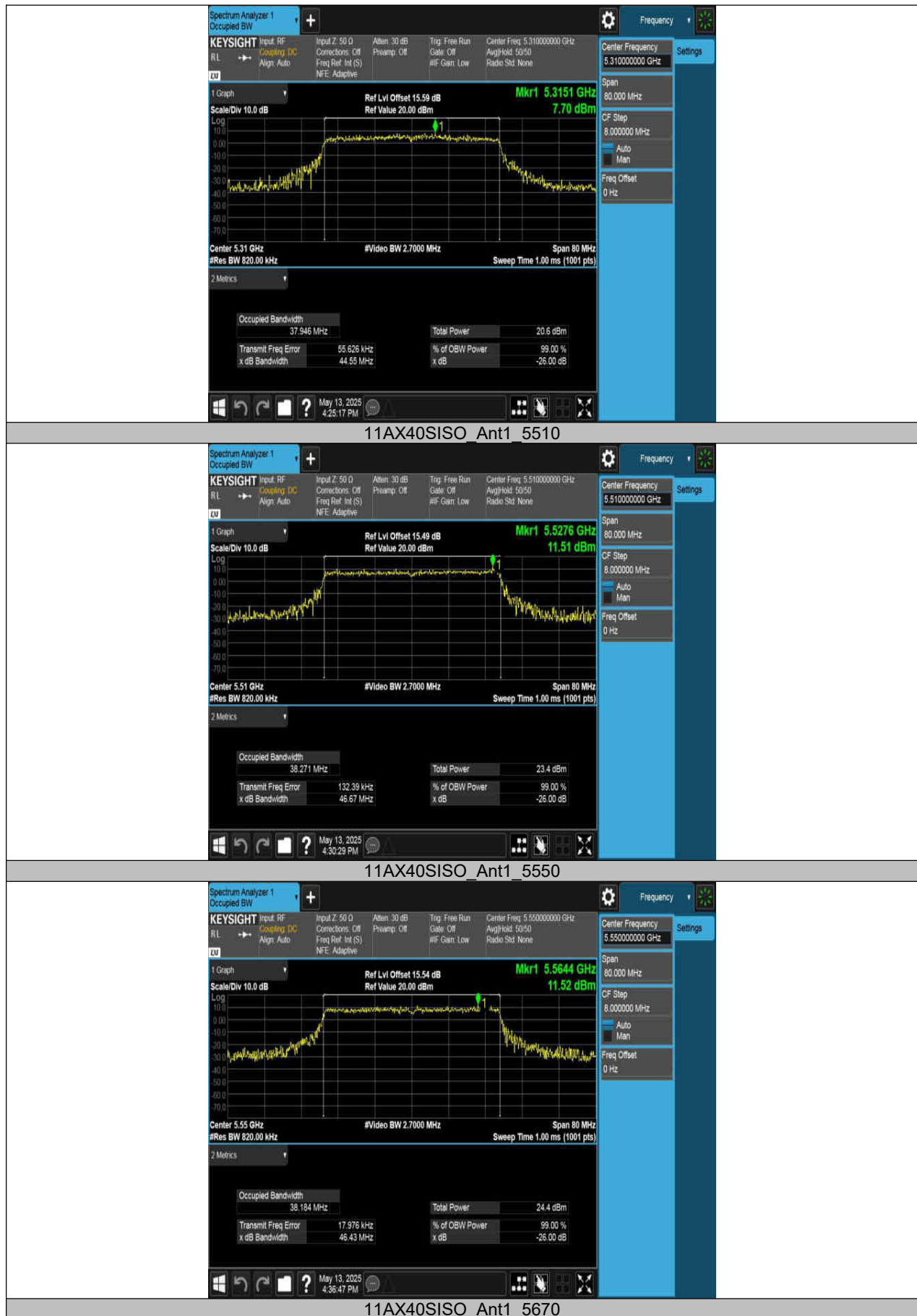


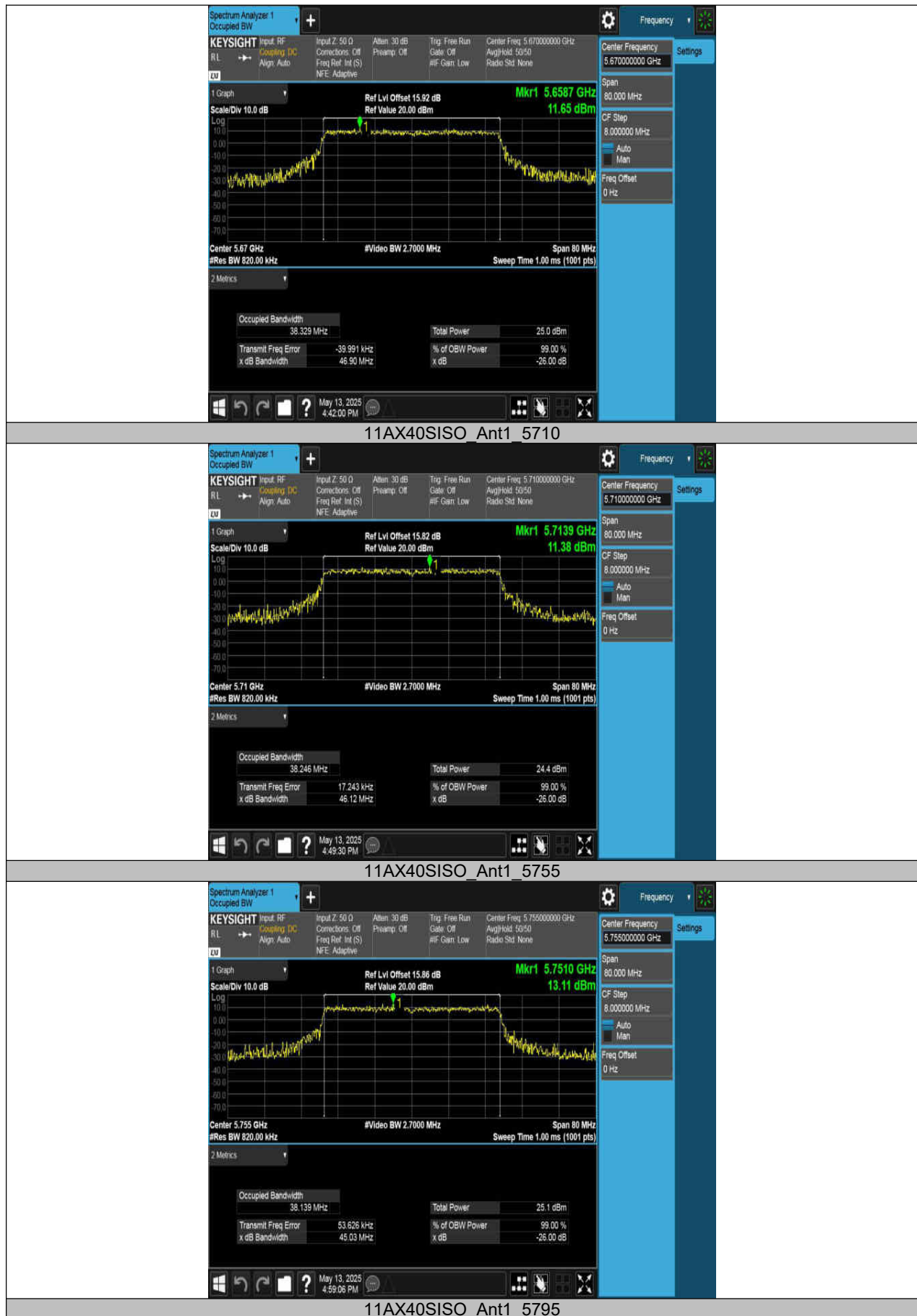














26dB Bandwidth:























