11AC80MIMO_Ant1_5290

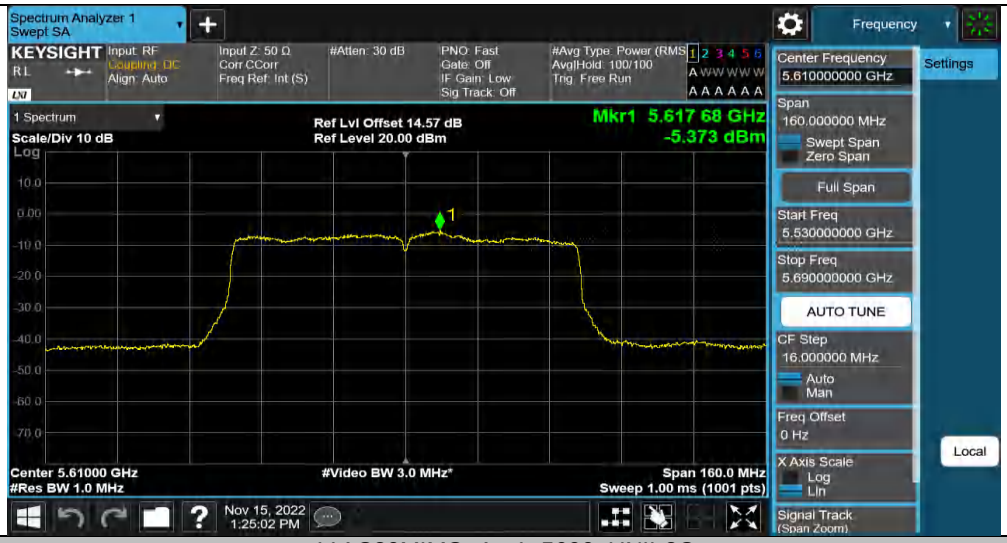
11AC80MIMO_Ant2_5290

11AC80MIMO_Ant1_5530

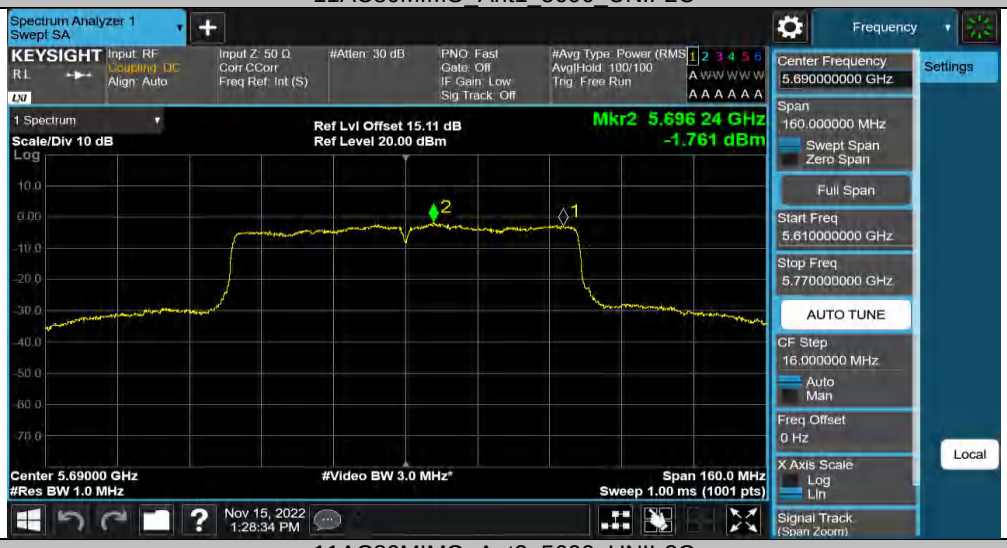
11AC80MIMO_Ant2_5530

11AC80MIMO_Ant1_5610

11AC80MIMO_Ant2_5610



11AC80MIMO_Ant1_5690_UNII-2C



11AC80MIMO_Ant2_5690_UNII-2C

11AC80MIMO_Ant1_5690_UNII-3

11AC80MIMO_Ant2_5690_UNII-3

11AC80MIMO_Ant1_5775

11AC80MIMO_Ant2_5775

Spectrum Analyzer 1
Swept SA
KEYSIGHT
Input: RF
Coupling: DC
Align: Auto
Input Z: 50 Ω
Corr CCorr
Freq Ref: Int (S)
#Atten: 30 dB
PNO: Fast
Gate: Off
IF Gain: Low
Sig Track: Off
#Avg Type: Power (RMS)
Avg|Hold: 100/100
Trig: Free Run
1 Spectrum
Scale/Div 10 dB
Log
Ref Lvl Offset 17.03 dB
Ref Level 20.00 dBm
Mkr1 5.781 40 GHz
-7.394 dBm
Center 5.77500 GHz
#Res BW 300 kHz
#Video BW 1.5 MHz*
Span 160.0 MHz
Sweep 2.20 ms (1001 pts)
Nov 14, 2022
6:10:12 PM
Frequency
Settings
Center Frequency
5.775000000 GHz
Span
160.000000 MHz
Swept Span
Zero Span
Full Span
Start Freq
5.695000000 GHz
Stop Freq
5.855000000 GHz
AUTO TUNE
CF Step
16.000000 MHz
Auto
Man
Freq Offset
0 Hz
X Axis Scale
Log
Lin
Signal Track
(Span Zoom)
Local

Appendix B.3: Test Results of Frequency Stability

TestMode	Antenna	Channel	Voltage [Vdc]	Temperature (℃)	Deviation (Hz)	Deviation (ppm)	Limit (ppm)	Verdict
11AC20SISO	Ant1	5180	NV	NT	-22000.00	-4.247104	20	PASS
		5200	NV	NT	-23000.00	-4.423077	20	PASS
		5240	NV	NT	-25000.00	-4.770992	20	PASS
		5260	NV	NT	-21000.00	-3.992395	20	PASS
		5280	NV	NT	-23000.00	-4.356061	20	PASS
		5320	NV	NT	-24000.00	-4.511278	20	PASS
		5500	NV	NT	-22000.00	-4.000000	20	PASS
		5580	NV	NT	-22000.00	-3.942652	20	PASS
		5700	NV	NT	-21000.00	-3.684211	20	PASS
		5720	NV	NT	-24000.00	-4.195804	20	PASS
		5745	NV	NT	-23000.00	-4.003481	20	PASS
		5785	NV	NT	-25000.00	-4.321521	20	PASS
		5825	NV	NT	-24000.00	-4.120172	20	PASS
11AC40SISO	Ant1	5190	NV	NT	-21000.00	-4.046243	20	PASS
		5230	NV	NT	-22000.00	-4.206501	20	PASS
		5270	NV	NT	-19000.00	-3.605313	20	PASS
		5310	NV	NT	-22000.00	-4.143126	20	PASS
		5510	NV	NT	-22000.00	-3.992740	20	PASS
		5550	NV	NT	-22000.00	-3.963964	20	PASS
		5670	NV	NT	-23000.00	-4.056437	20	PASS
		5755	NV	NT	-22000.00	-3.822763	20	PASS
		5795	NV	NT	-21000.00	-3.623814	20	PASS
11AC80SISO	Ant1	5210	NV	NT	-21000.00	-4.030710	20	PASS
		5290	NV	NT	-20000.00	-3.780718	20	PASS
		5530	NV	NT	-23000.00	-4.159132	20	PASS
		5610	NV	NT	-21000.00	-3.743316	20	PASS
		5775	NV	NT	-24000.00	-4.155844	20	PASS

Appendix B.4: Test Results of 26dB Bandwidth

TestMode	Antenna	Channel	26db EBW [MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
11A	Ant1	5180	21.440	5169.360	5190.800	---	PASS
		5220	20.840	5209.920	5230.760	---	PASS
		5240	21.680	5229.040	5250.720	---	PASS
		5260	20.760	5249.800	5270.560	---	PASS
		5300	21.040	5289.280	5310.320	---	PASS
		5320	21.680	5309.240	5330.920	---	PASS
		5500	22.960	5489.040	5512.000	---	PASS
		5580	21.680	5569.120	5590.800	---	PASS
		5700	21.120	5689.560	5710.680	---	PASS
		5720	21.640	5709.520	5731.160	---	PASS
		5745	22.920	5733.280	5756.200	---	PASS
		5785	22.120	5773.920	5796.040	---	PASS
		5825	22.280	5813.880	5836.160	---	PASS
11N20MIMO	Ant1	5180	21.920	5168.880	5190.800	---	PASS
		5220	23.800	5208.600	5232.400	---	PASS
		5240	22.760	5228.600	5251.360	---	PASS
		5260	21.920	5249.560	5271.480	---	PASS
		5300	23.880	5288.520	5312.400	---	PASS
		5320	22.680	5308.880	5331.560	---	PASS
		5500	22.440	5489.080	5511.520	---	PASS
		5580	24.000	5567.680	5591.680	---	PASS
		5700	21.880	5688.840	5710.720	---	PASS
		5720	22.720	5708.680	5731.400	---	PASS
		5745	21.560	5734.120	5755.680	---	PASS
		5785	22.360	5773.720	5796.080	---	PASS
		5825	21.800	5814.120	5835.920	---	PASS
11N40MIMO	Ant1	5190	41.280	5169.280	5210.560	---	PASS
		5230	40.880	5209.680	5250.560	---	PASS
		5270	41.200	5249.920	5291.120	---	PASS
		5310	41.280	5289.600	5330.880	---	PASS
		5510	40.400	5489.920	5530.320	---	PASS
		5550	41.760	5528.880	5570.640	---	PASS
		5670	41.360	5649.200	5690.560	---	PASS
		5710	41.760	5689.280	5731.040	---	PASS
		5755	41.440	5733.960	5775.400	---	PASS
		5795	41.520	5774.600	5816.120	---	PASS
11AC20MIMO	Ant1	5180	21.800	5169.000	5190.800	---	PASS
		5220	21.720	5209.200	5230.920	---	PASS
		5240	22.720	5228.880	5251.600	---	PASS
		5260	22.520	5248.920	5271.440	---	PASS
		5300	22.840	5288.680	5311.520	---	PASS
		5320	22.320	5309.320	5331.640	---	PASS
		5500	22.920	5488.760	5511.680	---	PASS
		5580	22.960	5568.440	5591.400	---	PASS

		5700	22.080	5688.960	5711.040	---	PASS
		5720	22.760	5708.960	5731.720	---	PASS
		5745	22.160	5733.960	5756.120	---	PASS
		5785	22.920	5774.040	5796.960	---	PASS
		5825	21.720	5814.120	5835.840	---	PASS
11AC40MIMO	Ant1	5190	41.520	5169.120	5210.640	---	PASS
		5230	41.040	5209.440	5250.480	---	PASS
		5270	42.000	5248.880	5290.880	---	PASS
		5310	41.680	5289.440	5331.120	---	PASS
		5510	40.720	5489.840	5530.560	---	PASS
		5550	41.680	5529.120	5570.800	---	PASS
		5670	41.280	5649.440	5690.720	---	PASS
		5710	41.760	5689.440	5731.200	---	PASS
		5755	41.840	5733.960	5775.800	---	PASS
		5795	41.680	5774.360	5816.040	---	PASS
11AC80MIMO	Ant1	5210	83.520	5168.400	5251.920	---	PASS
		5290	82.400	5249.200	5331.600	---	PASS
		5530	83.680	5488.080	5571.760	---	PASS
		5610	84.320	5567.440	5651.760	---	PASS
		5690	85.280	5647.760	5733.040	---	PASS
		5775	85.120	5732.760	5817.880	---	PASS

11A_Ant1_5180

11A_Ant1_5220

11A_Ant1_5240

11A_Ant1_5260

11A_Ant1_5300

11A_Ant1_5320

11A_Ant1_5500

11A_Ant1_5580

11A_Ant1_5700

11A_Ant1_5720

11A_Ant1_5745

11A_Ant1_5785

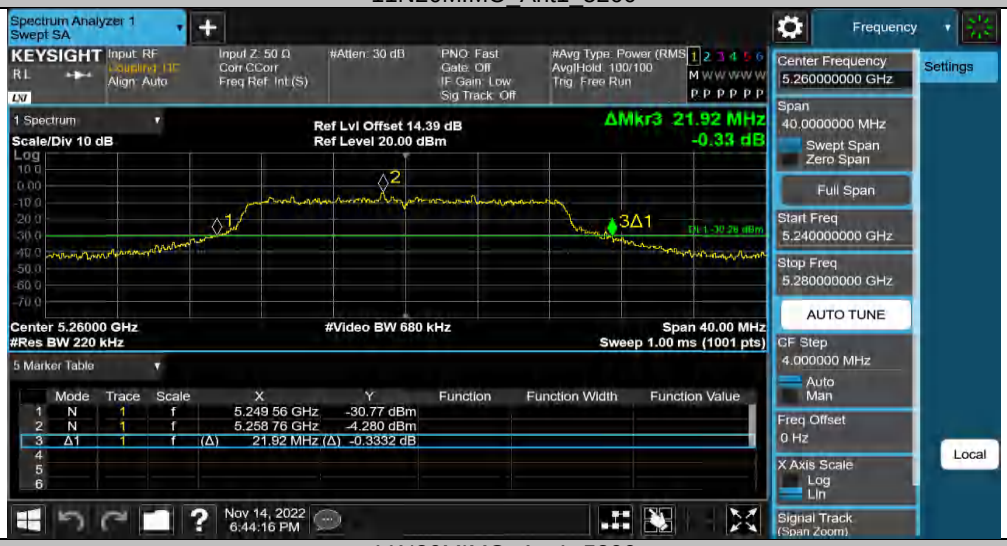
11A_Ant1_5825

11N20MIMO_Ant1_5180

11N20MIMO_Ant1_5220

11N20MIMO_Ant1_5240

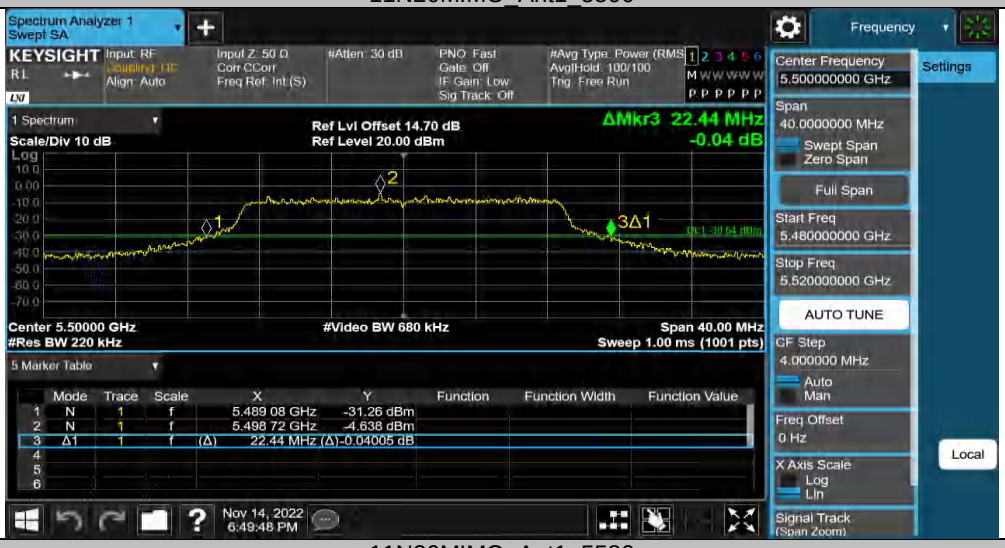
11N20MIMO_Ant1_5260



11N20MIMO_Ant1_5300

11N20MIMO_Ant1_5320

11N20MIMO_Ant1_5500



11N20MIMO_Ant1_5580

11N20MIMO_Ant1_5700

11N20MIMO_Ant1_5720

11N20MIMO_Ant1_5745

11N20MIMO_Ant1_5785

11N20MIMO_Ant1_5825

11N40MIMO_Ant1_5190

11N40MIMO_Ant1_5230

11N40MIMO_Ant1_5270

11N40MIMO_Ant1_5310

11N40MIMO_Ant1_5510

11N40MIMO_Ant1_5550

11N40MIMO_Ant1_5670

11N40MIMO_Ant1_5710

11N40MIMO_Ant1_5755

11N40MIMO_Ant1_5795

11AC20MIMO_Ant1_5180

11AC20MIMO_Ant1_5220

11AC20MIMO_Ant1_5240

11AC20MIMO_Ant1_5260

11AC20MIMO_Ant1_5300

11AC20MIMO_Ant1_5320

11AC20MIMO_Ant1_5500

11AC20MIMO_Ant1_5580

11AC20MIMO_Ant1_5700

11AC20MIMO_Ant1_5720

11AC20MIMO_Ant1_5745

11AC20MIMO_Ant1_5785

11AC20MIMO_Ant1_5825

11AC40MIMO_Ant1_5190

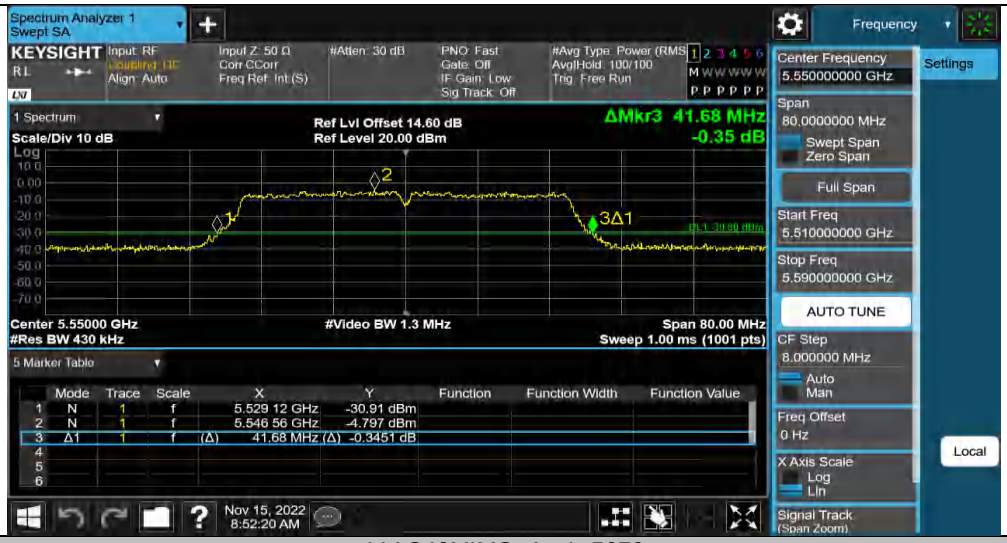
11AC40MIMO_Ant1_5230

11AC40MIMO_Ant1_5270

11AC40MIMO_Ant1_5310

11AC40MIMO_Ant1_5510

11AC40MIMO_Ant1_5550



11AC40MIMO_Ant1_5670

11AC40MIMO_Ant1_5710

11AC40MIMO_Ant1_5755

11AC40MIMO_Ant1_5795

11AC80MIMO_Ant1_5210

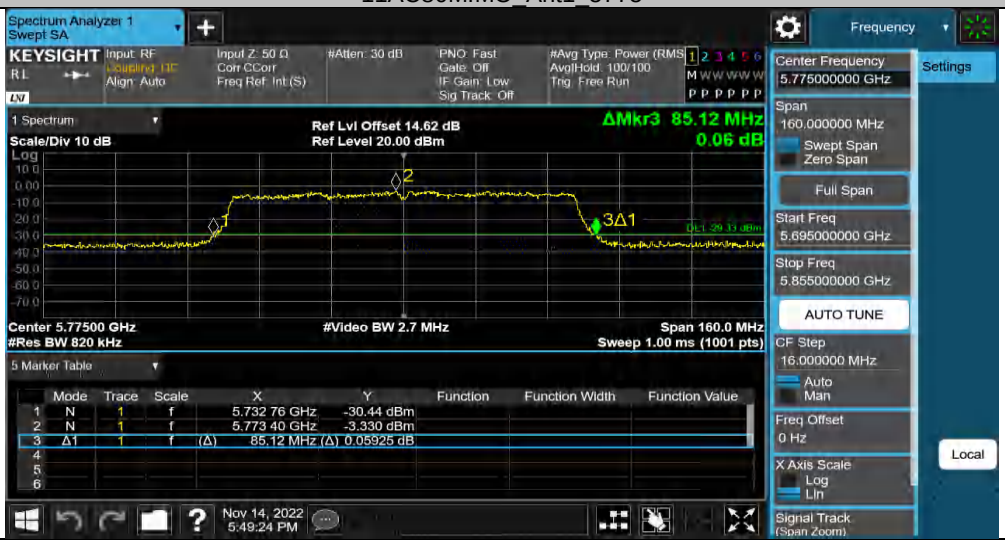
11AC80MIMO_Ant1_5290

11AC80MIMO_Ant1_5530

11AC80MIMO_Ant1_5610

11AC80MIMO_Ant1_5690

11AC80MIMO_Ant1_5775



Appendix B.5: Test Results of 99% Bandwidth

TestMode	Antenna	Channel	OCB [MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
11A	Ant1	5180	16.749	5171.6376	5188.3866	---	PASS
		5220	16.848	5211.5890	5228.4370	---	PASS
		5240	16.901	5231.5695	5248.4705	---	PASS
		5260	16.696	5251.6946	5268.3906	---	PASS
		5300	16.763	5291.6532	5308.4162	---	PASS
		5320	16.725	5311.6570	5328.3820	---	PASS
		5500	16.755	5491.6509	5508.4059	---	PASS
		5580	16.741	5571.6236	5588.3646	---	PASS
		5700	16.736	5691.6395	5708.3755	---	PASS
		5720	16.796	5711.6187	5728.4147	---	PASS
		5745	16.780	5736.6255	5753.4055	---	PASS
		5785	16.811	5776.6326	5793.4436	---	PASS
		5825	16.785	5816.6740	5833.4590	---	PASS
11N20MIMO	Ant1	5180	17.935	5171.0412	5188.9762	---	PASS
		5220	18.078	5210.9726	5229.0506	---	PASS
		5240	18.118	5230.9814	5249.0994	---	PASS
		5260	17.988	5251.0280	5269.0160	---	PASS
		5300	18.067	5290.9925	5309.0595	---	PASS
		5320	18.095	5310.9913	5329.0863	---	PASS
		5500	18.097	5490.9977	5509.0947	---	PASS
		5580	18.078	5570.9948	5589.0728	---	PASS
		5700	17.950	5690.9913	5708.9413	---	PASS
		5720	18.093	5711.0329	5729.1259	---	PASS
		5745	17.897	5736.0458	5753.9428	---	PASS
		5785	17.931	5776.0867	5794.0177	---	PASS
		5825	17.906	5816.1170	5834.0230	---	PASS
11N40MIMO	Ant1	5190	36.440	5171.8507	5208.2907	---	PASS
		5230	36.415	5211.8963	5248.3113	---	PASS
		5270	36.285	5251.9646	5288.2496	---	PASS
		5310	36.375	5291.9380	5328.3130	---	PASS
		5510	36.291	5491.9102	5528.2012	---	PASS
		5550	36.493	5531.7653	5568.2583	---	PASS
		5670	36.549	5651.8082	5688.3572	---	PASS
		5710	36.489	5691.8788	5728.3678	---	PASS
		5755	36.350	5736.7525	5773.1025	---	PASS
		5795	36.350	5776.9227	5813.2727	---	PASS
11AC20MIMO	Ant1	5180	17.897	5171.0564	5188.9534	---	PASS
		5220	18.324	5210.8894	5229.2134	---	PASS
		5240	18.131	5230.9949	5249.1259	---	PASS
		5260	18.013	5251.0213	5269.0343	---	PASS
		5300	18.088	5290.9824	5309.0704	---	PASS
		5320	17.942	5311.0661	5329.0081	---	PASS
		5500	18.004	5491.0227	5509.0267	---	PASS
		5580	17.925	5571.0162	5588.9412	---	PASS

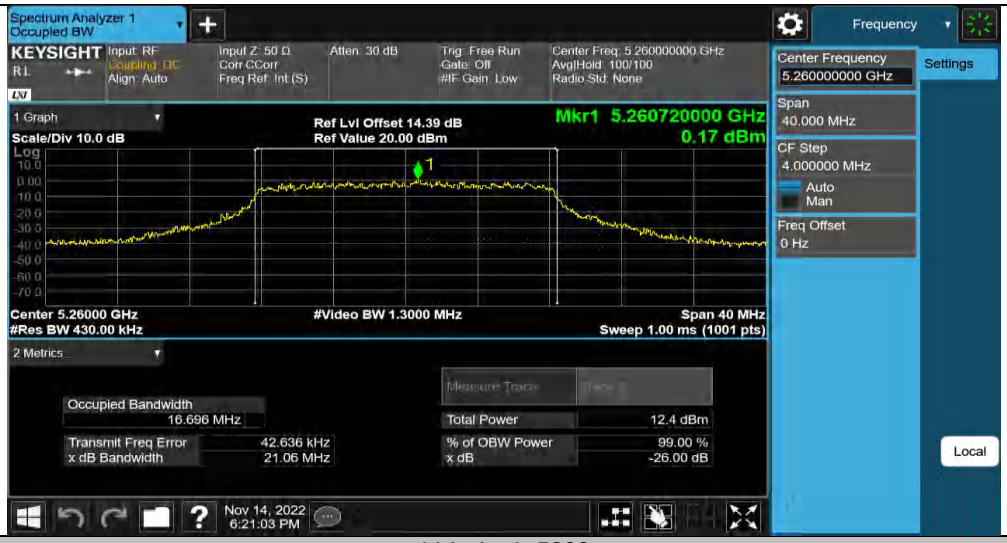
		5700	18.123	5690.9525	5709.0755	---	PASS
		5720	17.917	5711.0682	5728.9852	---	PASS
		5745	17.868	5736.0304	5753.8984	---	PASS
		5785	17.866	5776.0846	5793.9506	---	PASS
		5825	17.864	5816.0902	5833.9542	---	PASS
11AC40MIMO	Ant1	5190	36.597	5171.7203	5208.3173	---	PASS
		5230	36.417	5211.8609	5248.2779	---	PASS
		5270	36.299	5251.9227	5288.2217	---	PASS
		5310	36.374	5291.8919	5328.2659	---	PASS
		5510	36.250	5491.9414	5528.1914	---	PASS
		5550	36.540	5531.8035	5568.3435	---	PASS
		5670	36.431	5651.8274	5688.2584	---	PASS
		5710	36.408	5691.8959	5728.3039	---	PASS
		5755	36.504	5736.7758	5773.2798	---	PASS
		5795	36.394	5776.9207	5813.3147	---	PASS
11AC80MIMO	Ant1	5210	75.918	5172.1017	5248.0197	---	PASS
		5290	75.838	5252.2459	5328.0839	---	PASS
		5530	75.884	5492.0752	5567.9592	---	PASS
		5610	76.036	5572.0118	5648.0478	---	PASS
		5690	76.114	5652.1089	5728.2229	---	PASS
		5775	76.177	5737.0859	5813.2629	---	PASS

11A_Ant1_5180

11A_Ant1_5220

11A_Ant1_5240

11A_Ant1_5260



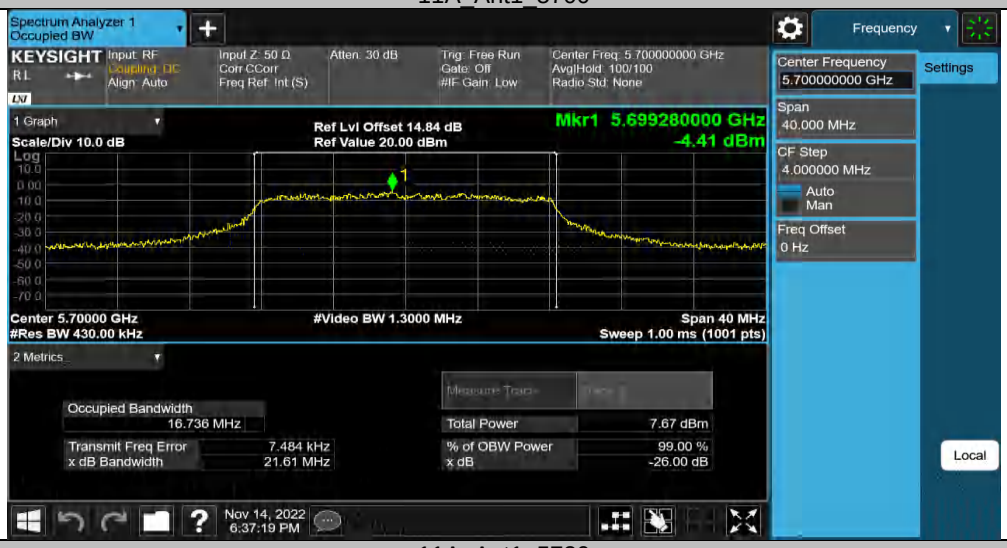
11A_Ant1_5300

11A_Ant1_5320

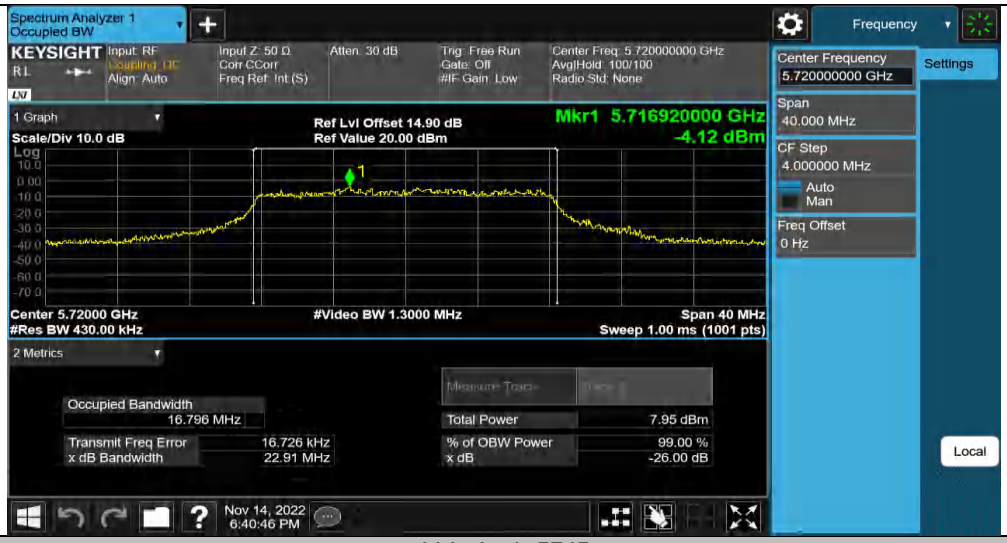
11A_Ant1_5500

11A_Ant1_5580

11A_Ant1_5700

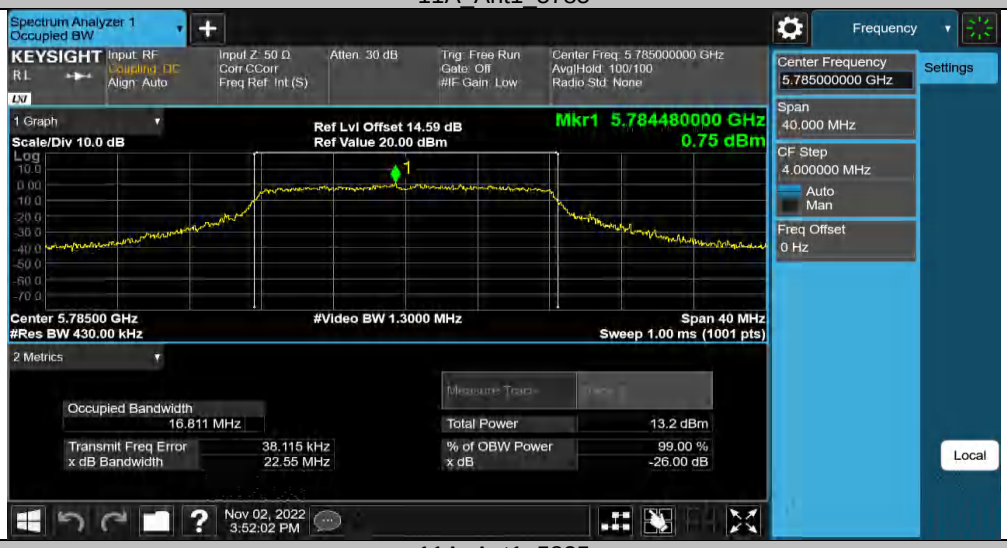


11A_Ant1_5720



11A_Ant1_5745

11A_Ant1_5785



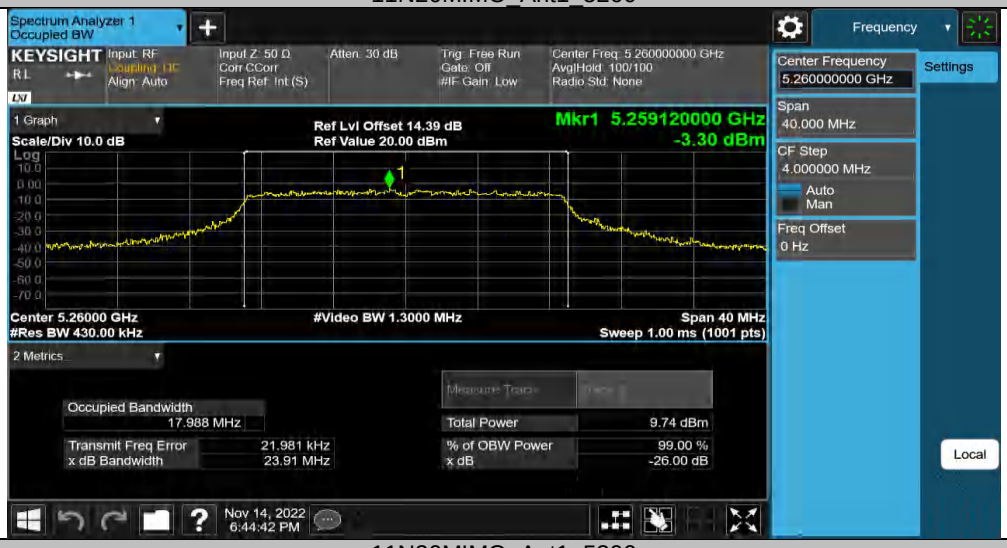
11A_Ant1_5825

11N20MIMO_Ant1_5180

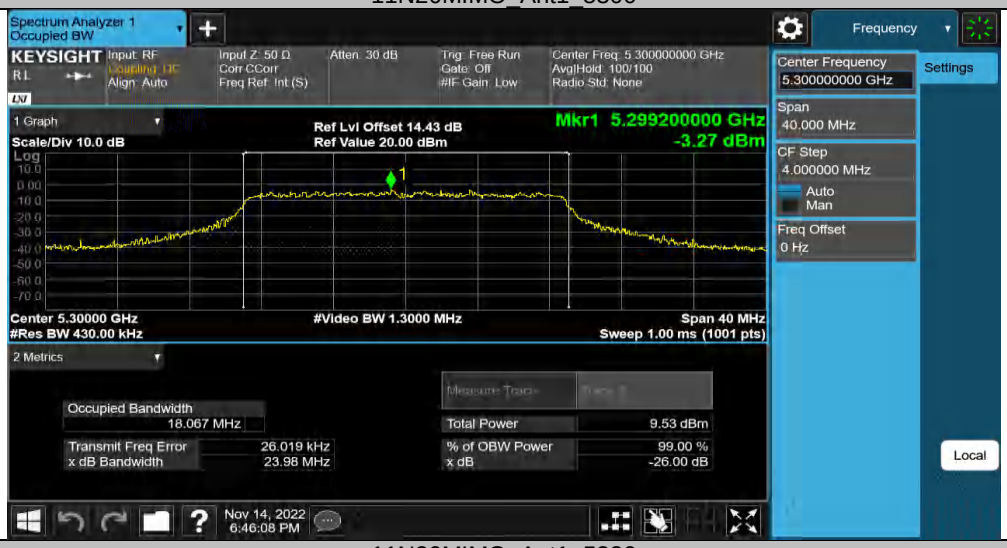
11N20MIMO_Ant1_5220

11N20MIMO_Ant1_5240

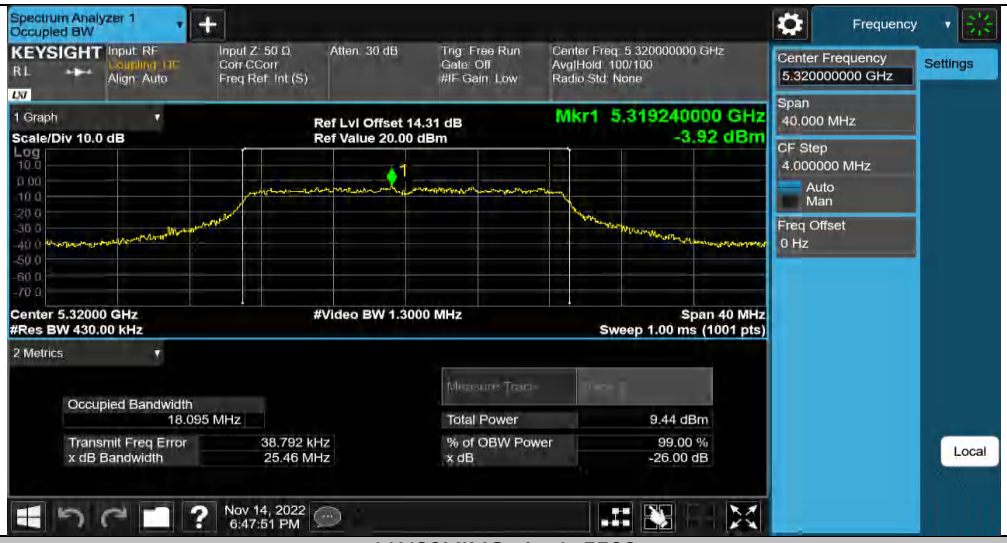
11N20MIMO_Ant1_5260



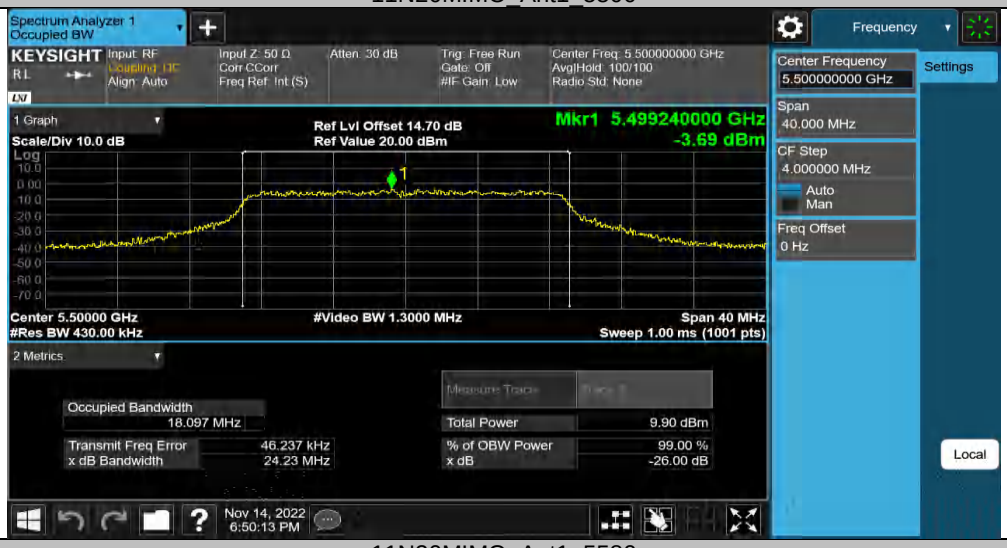
11N20MIMO_Ant1_5300



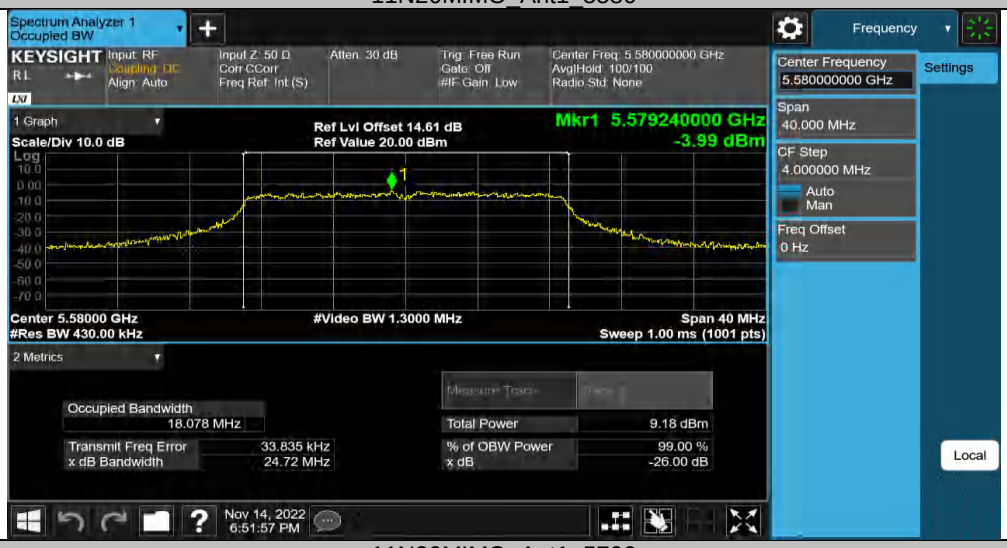
11N20MIMO_Ant1_5320



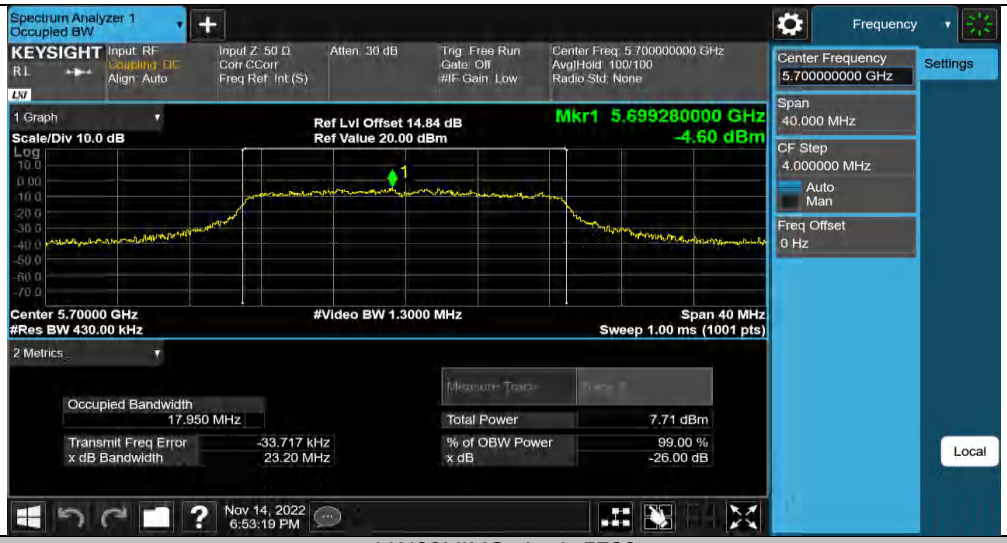
11N20MIMO_Ant1_5500



11N20MIMO_Ant1_5580



11N20MIMO_Ant1_5700



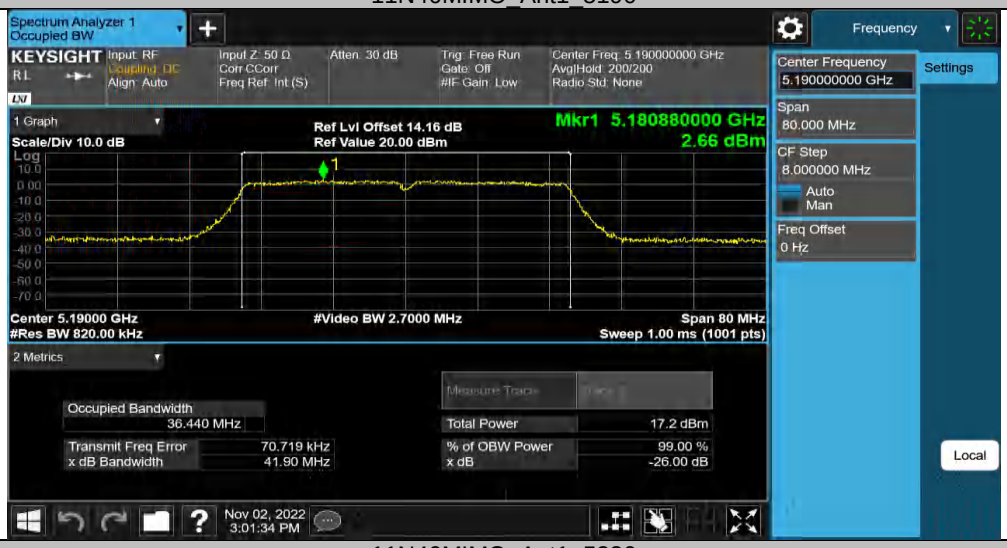
11N20MIMO_Ant1_5720

11N20MIMO_Ant1_5745

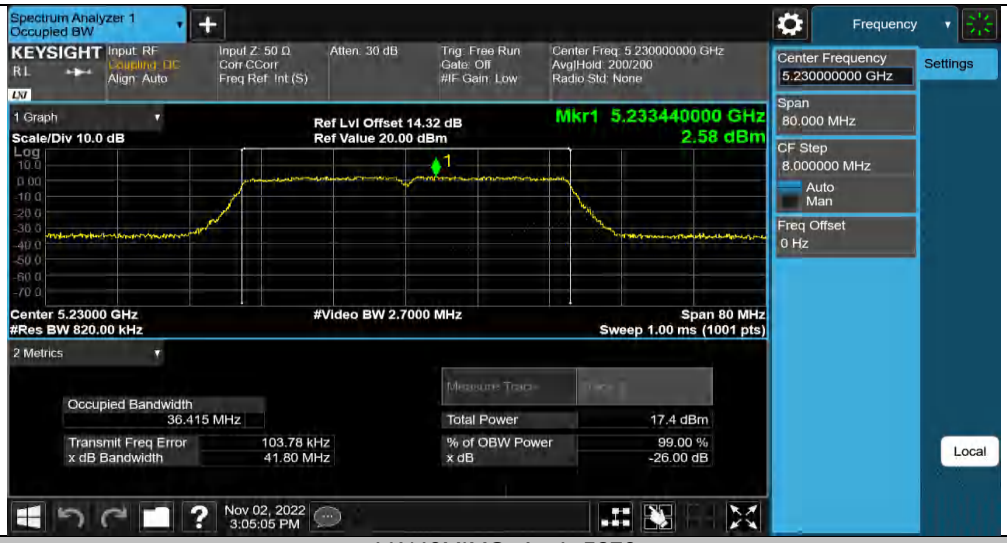
11N20MIMO_Ant1_5785

11N20MIMO_Ant1_5825

11N40MIMO_Ant1_5190



11N40MIMO_Ant1_5230



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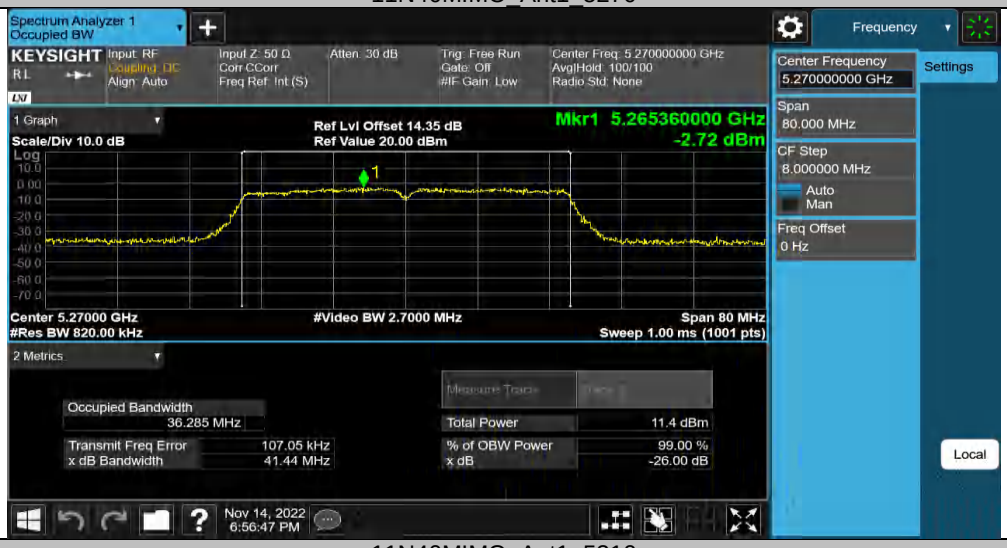

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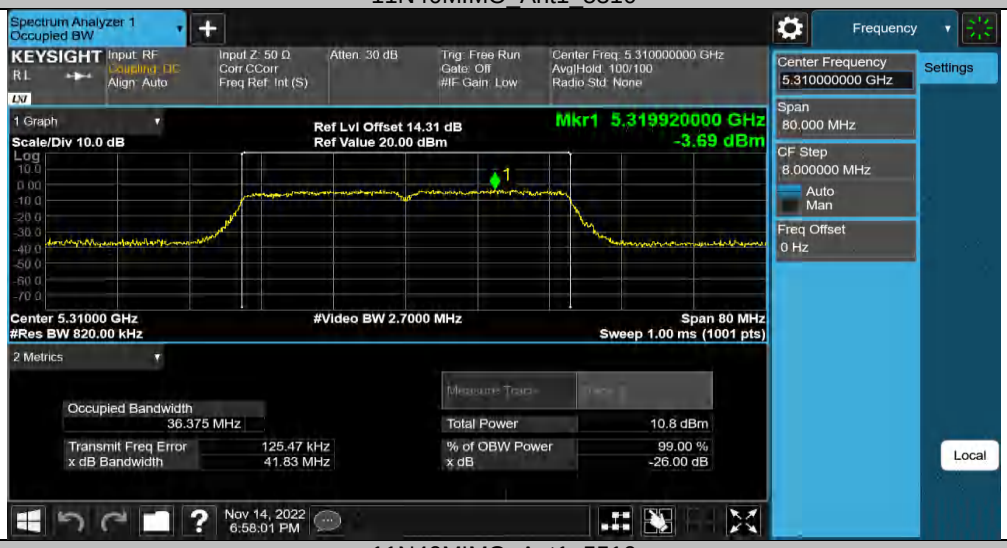

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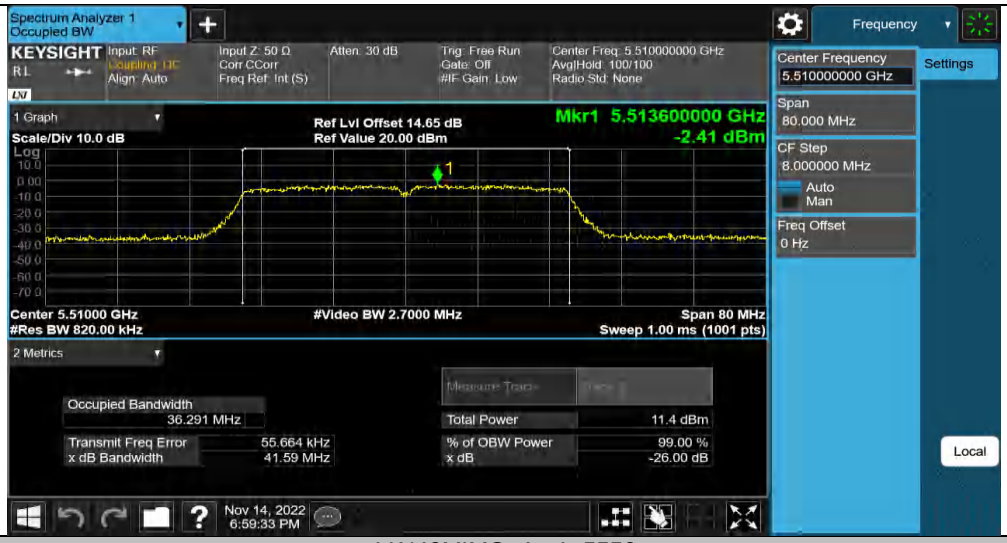

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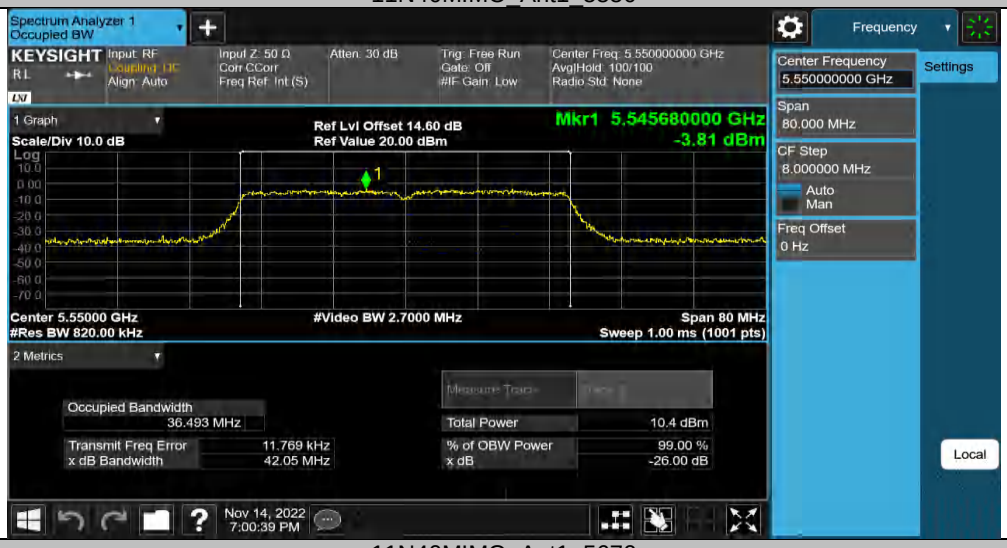

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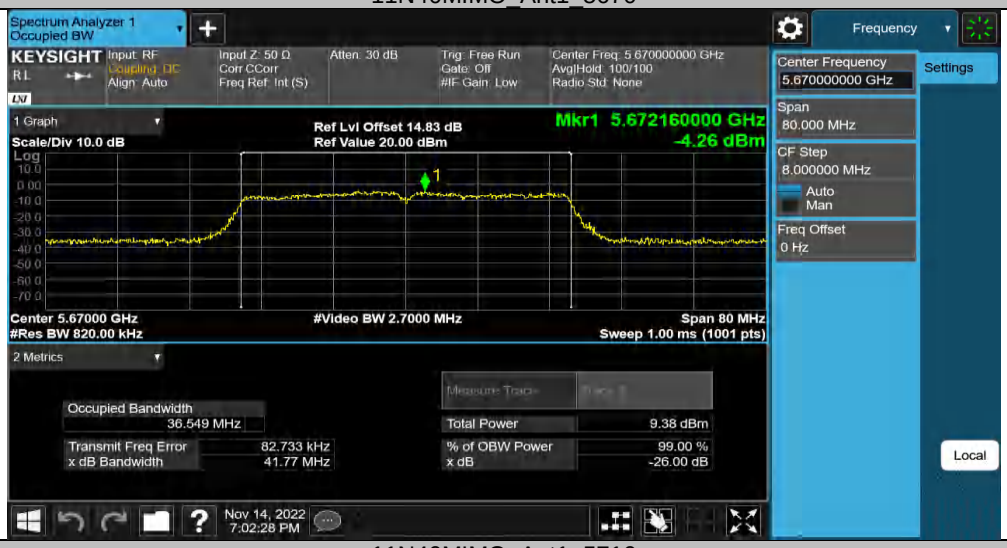

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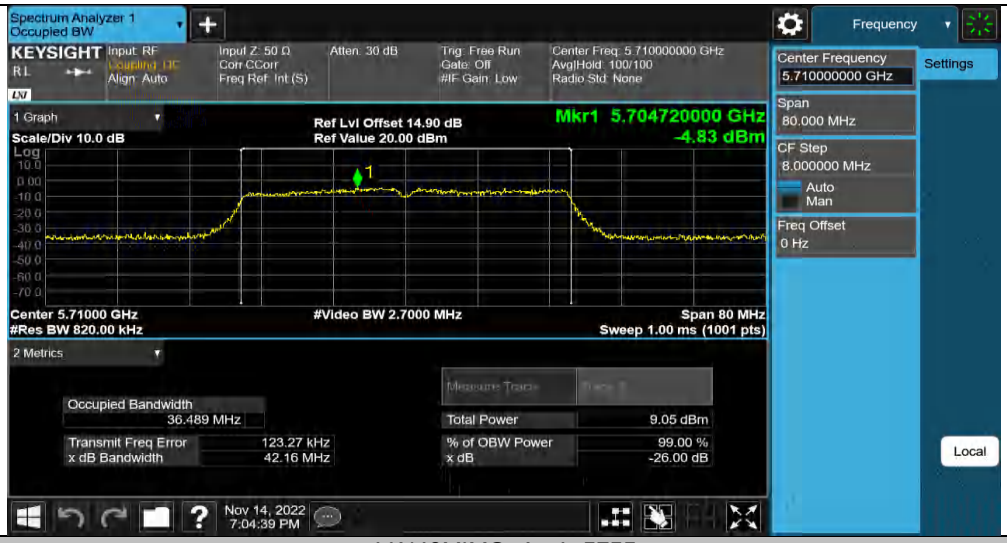
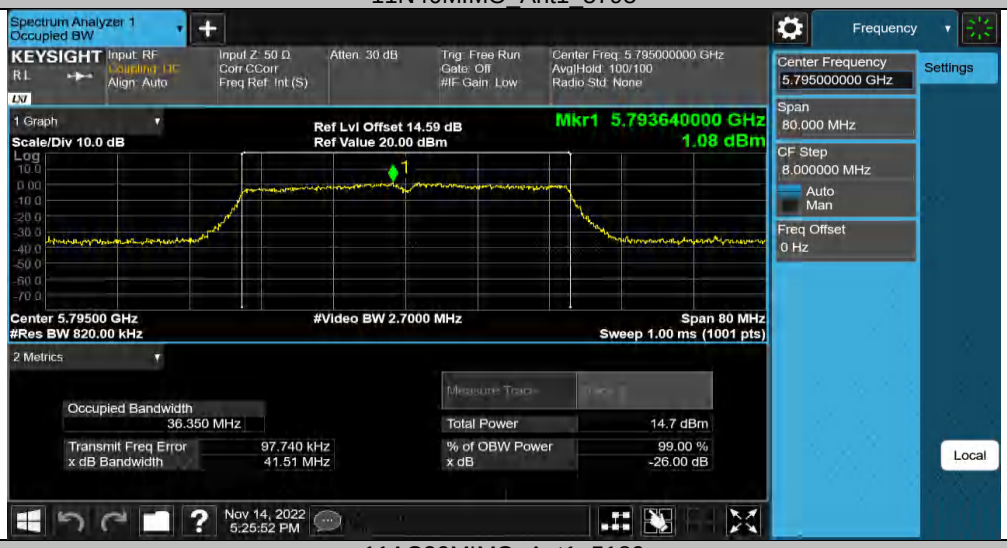


11N40MIMO_Ant1_5755

11N40MIMO_Ant1_5795



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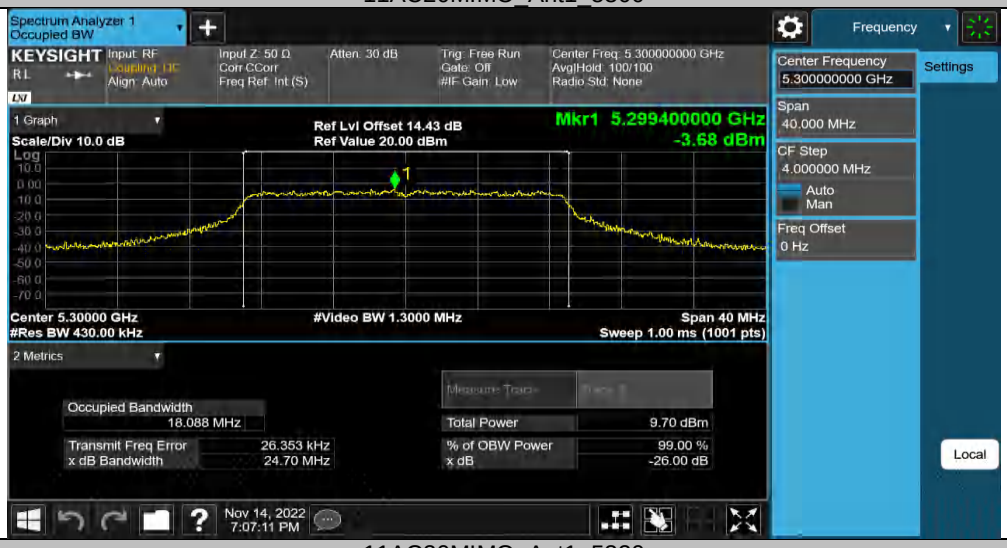
11AC20MIMO_Ant1_5220

11AC20MIMO_Ant1_5240

11AC20MIMO_Ant1_5260

11AC20MIMO_Ant1_5300



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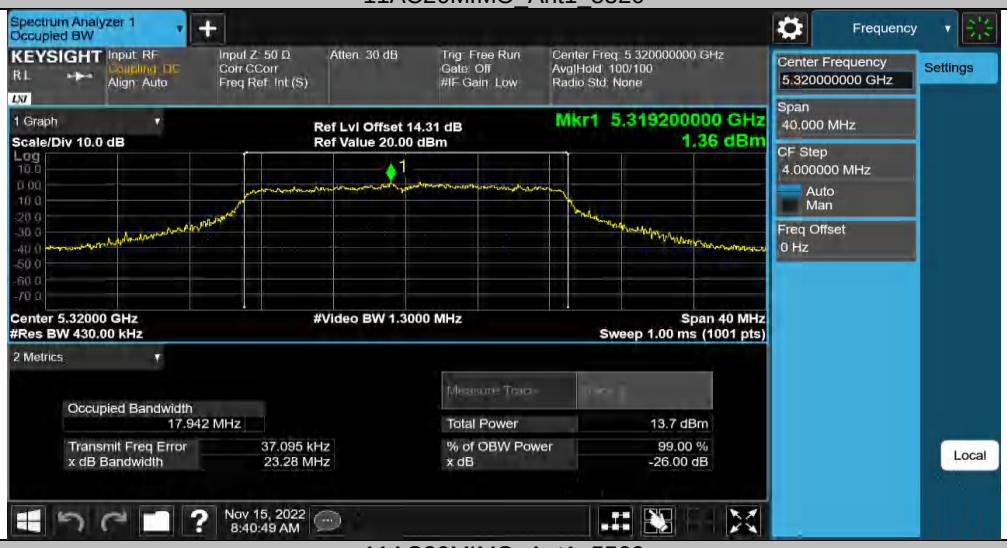

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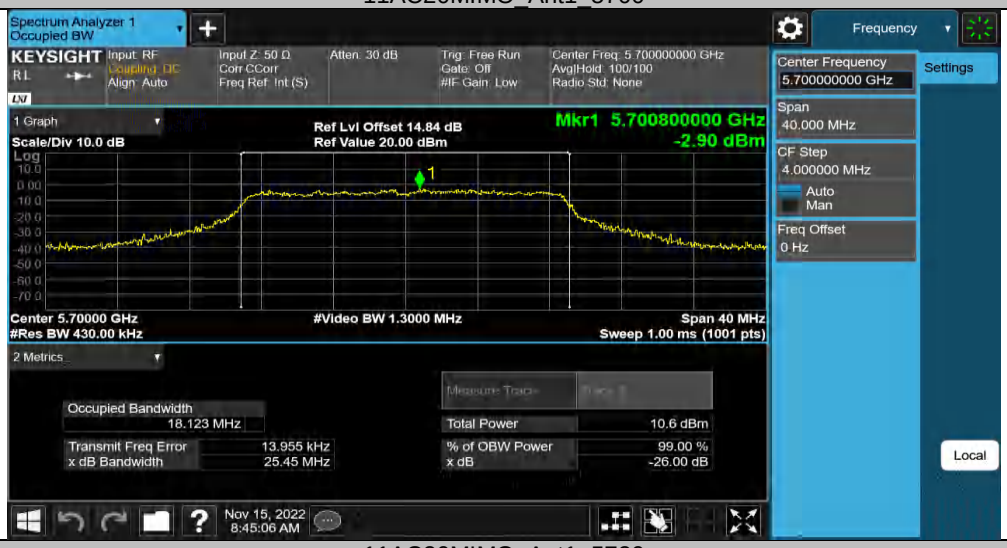
11AC20MIMO_Ant1_5580

11AC20MIMO_Ant1_5700



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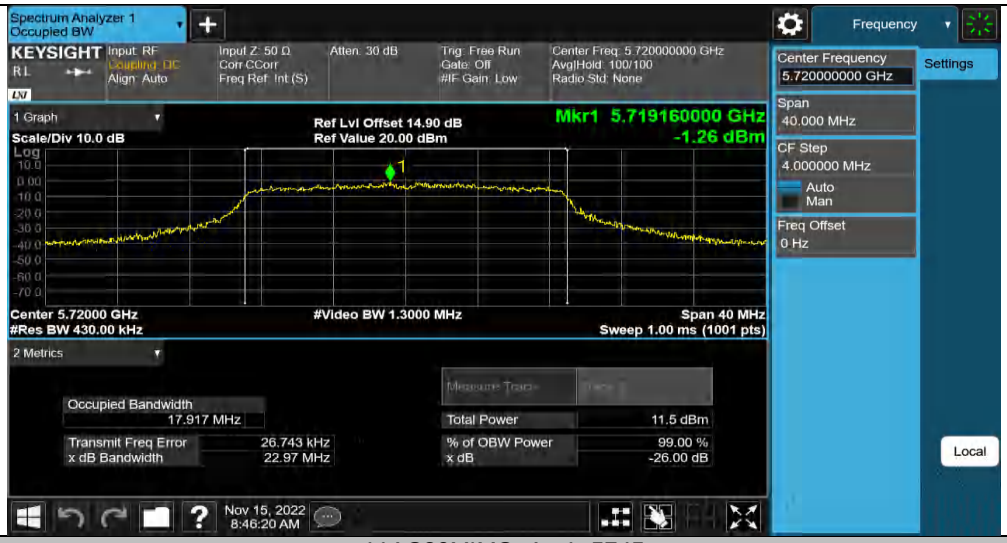

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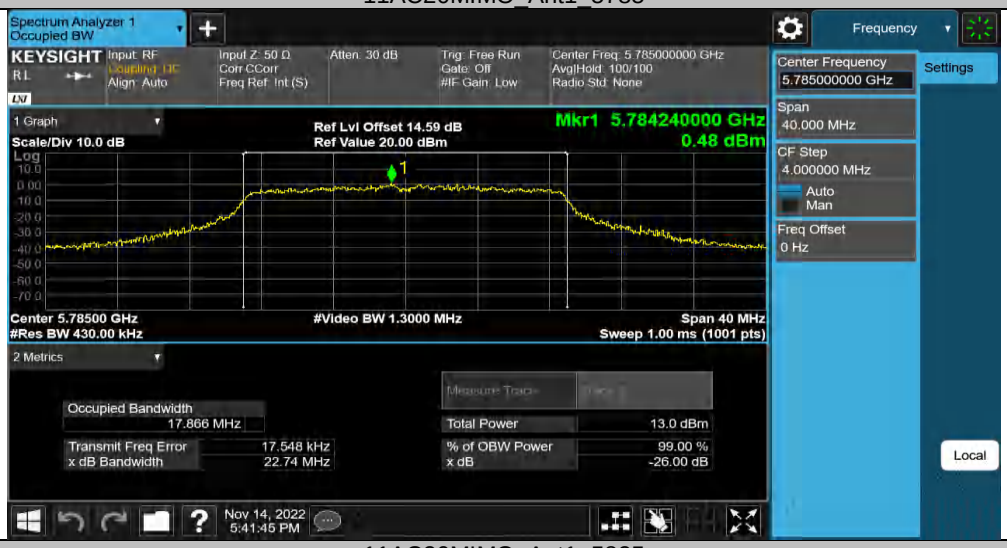
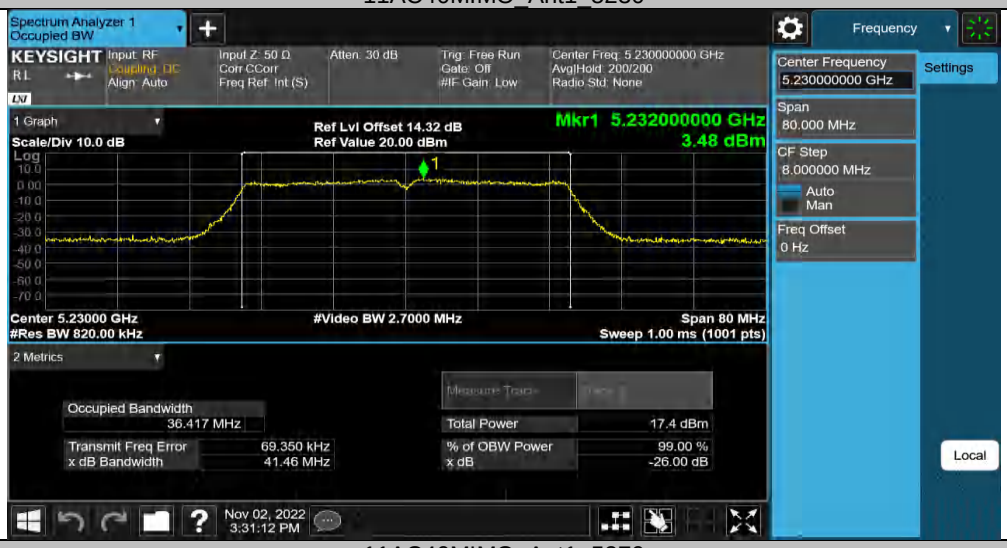
11AC20MIMO_Ant1_5785



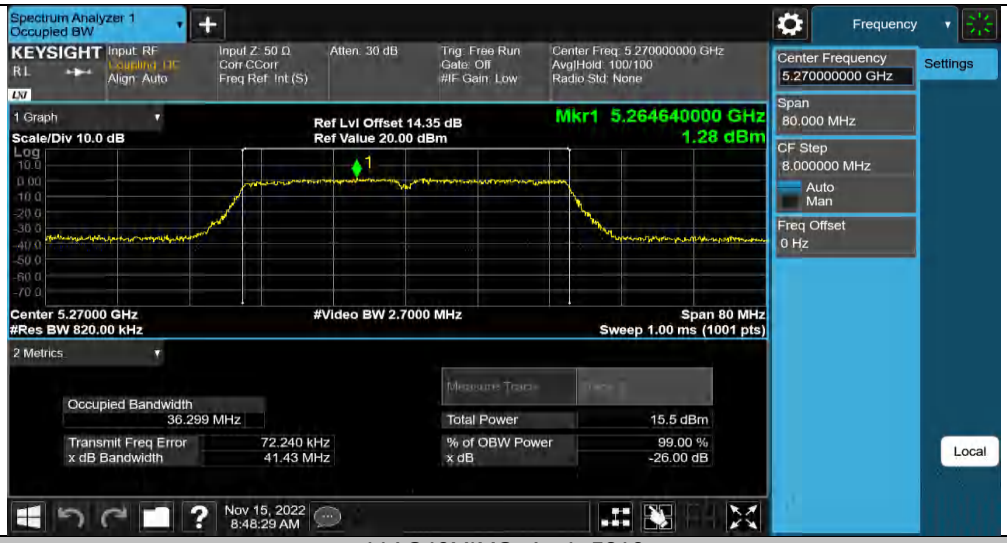
11AC20MIMO_Ant1_5825

11AC40MIMO_Ant1_5190

11AC40MIMO_Ant1_5230



11AC40MIMO_Ant1_5270



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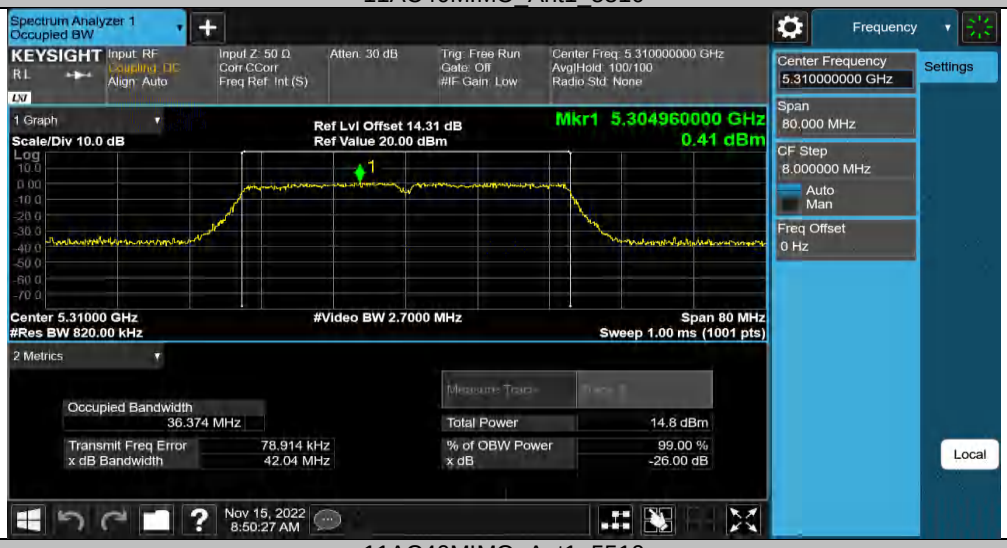

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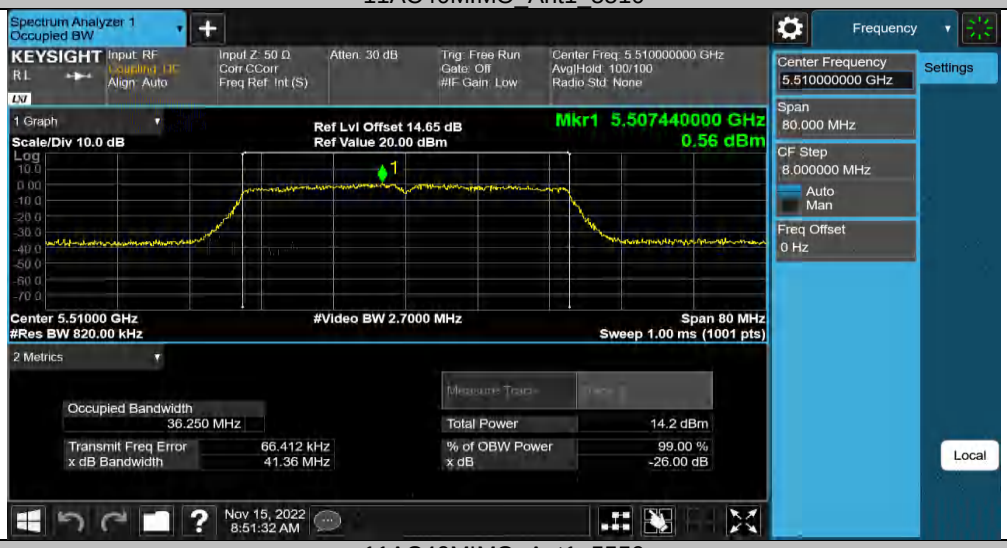

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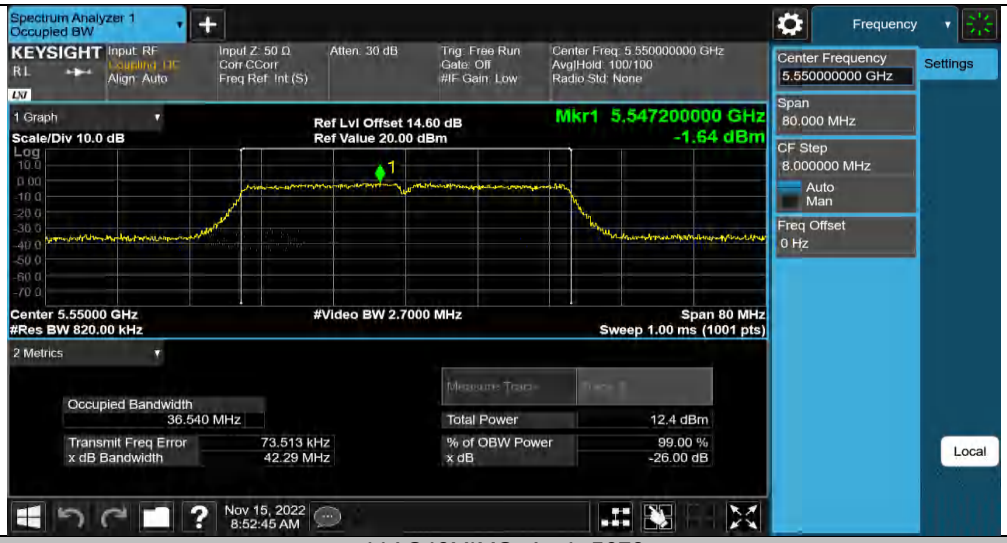

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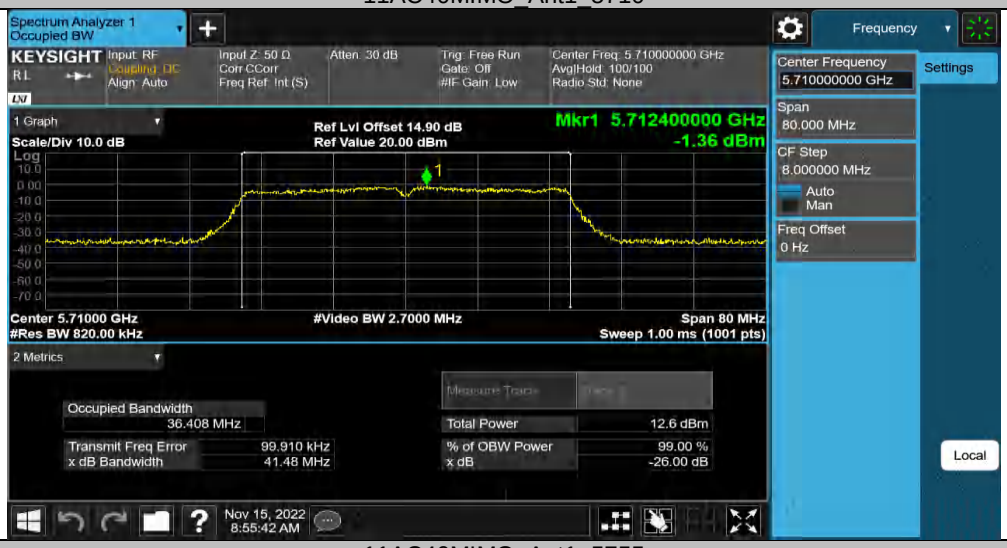
11AC40MIMO_Ant1_5710



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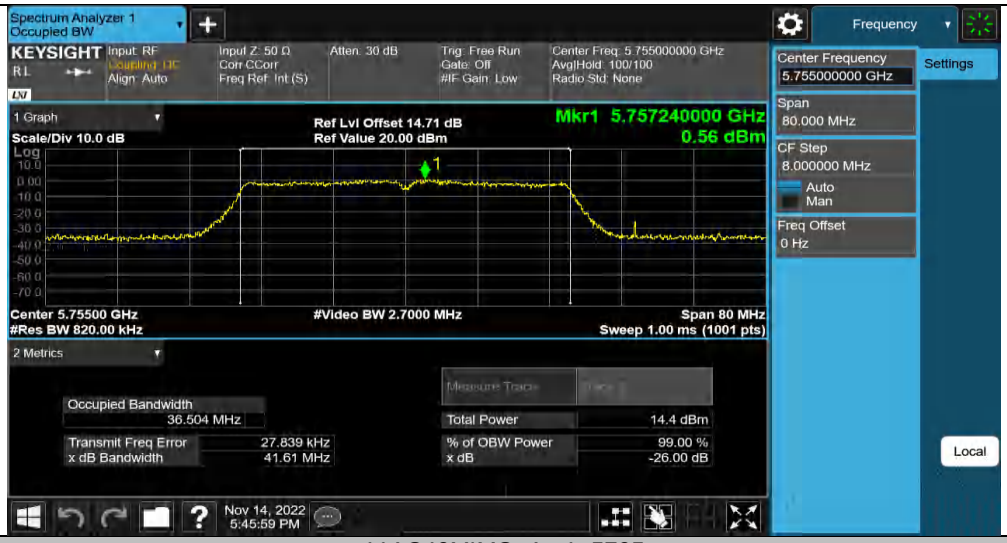

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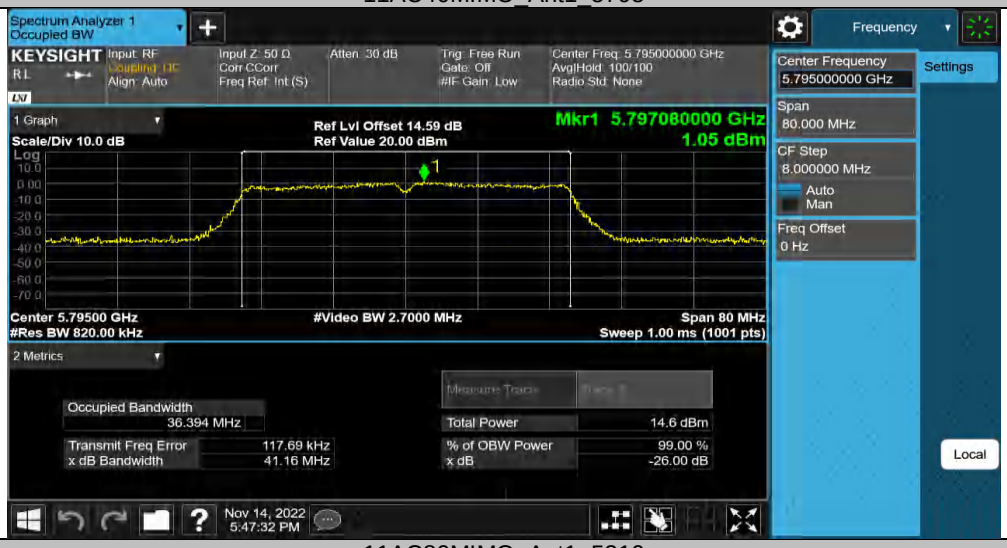
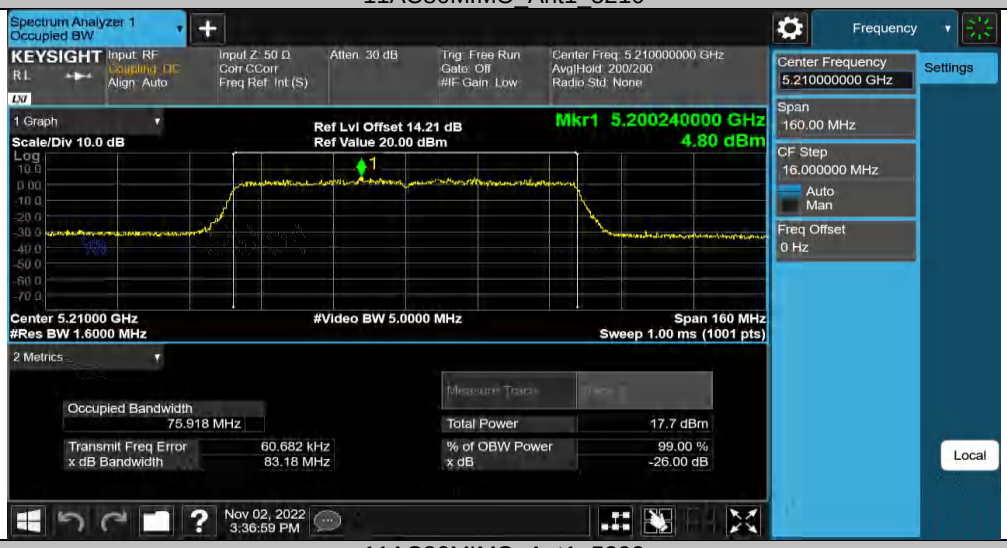


11AC80MIMO_Ant1_5210



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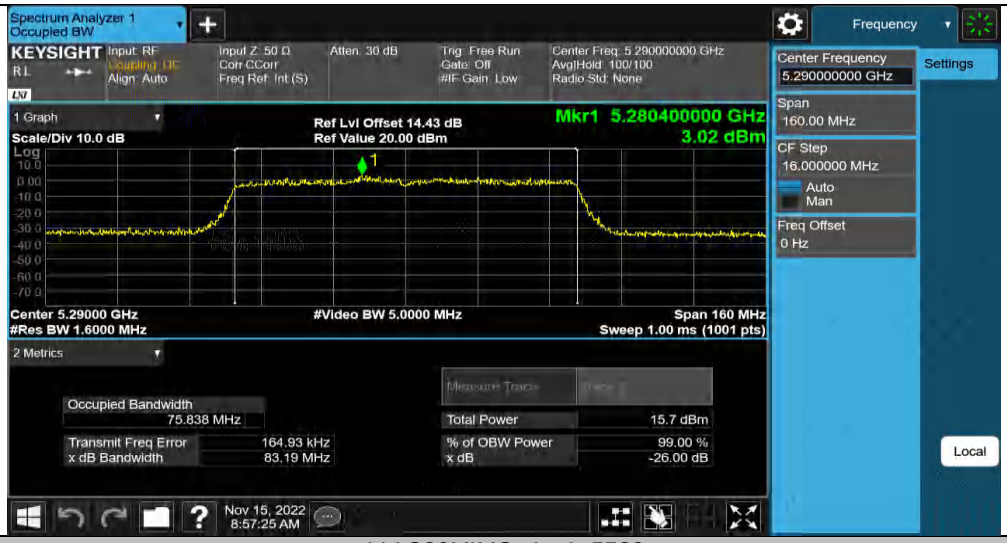

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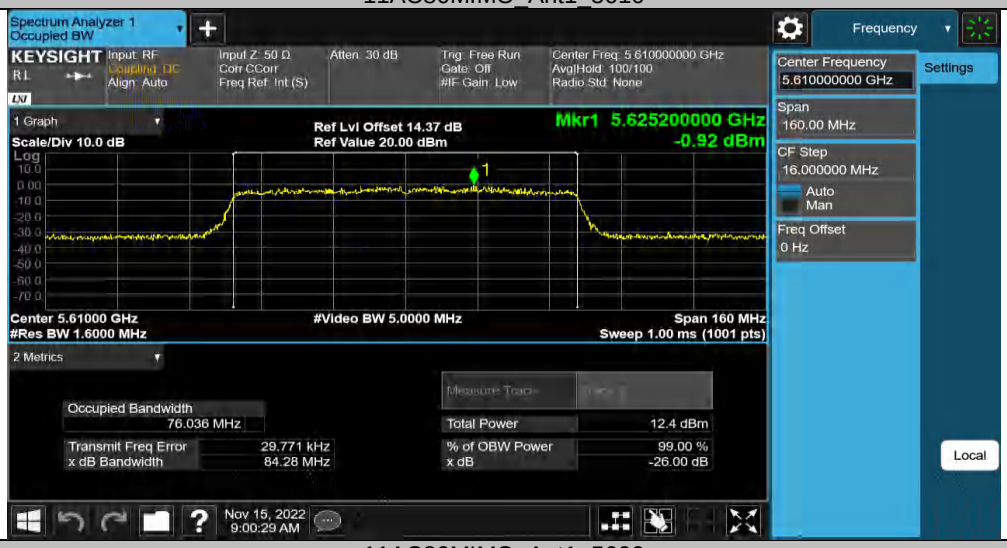
11AC80MIMO_Ant1_5610



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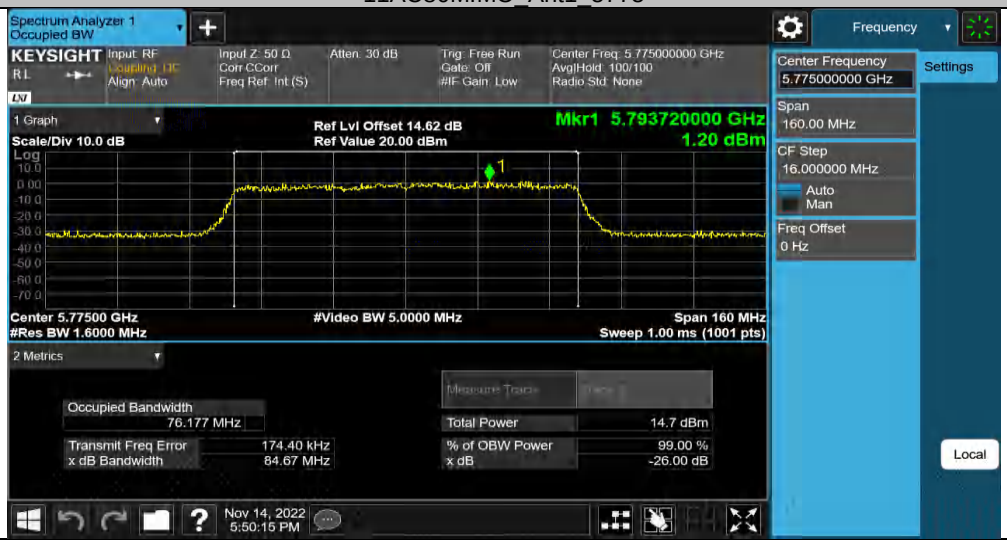
11AC80MIMO_Ant1_5775



Appendix B.6: Test Results of 6dB Bandwidth

TestMode	Antenna	Channel	6db EBW [MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
11A	Ant1	5745	15.080	5737.480	5752.560	0.5	PASS
		5785	15.320	5777.560	5792.880	0.5	PASS
		5825	14.400	5818.120	5832.520	0.5	PASS
11N20MIMO	Ant1	5745	15.400	5737.120	5752.520	0.5	PASS
		5785	15.640	5777.120	5792.760	0.5	PASS
		5825	16.200	5817.160	5833.360	0.5	PASS
11N40MIMO	Ant1	5755	35.440	5737.080	5772.520	0.5	PASS
		5795	34.080	5778.680	5812.760	0.5	PASS
11AC20MIMO	Ant1	5745	14.960	5737.480	5752.440	0.5	PASS
		5785	16.440	5776.600	5793.040	0.5	PASS
		5825	16.560	5816.600	5833.160	0.5	PASS
11AC40MIMO	Ant1	5755	35.120	5737.400	5772.520	0.5	PASS
		5795	35.760	5777.400	5813.160	0.5	PASS
11AC80MIMO	Ant1	5775	74.880	5737.560	5812.440	0.5	PASS

11A_Ant1_5745

11A_Ant1_5785

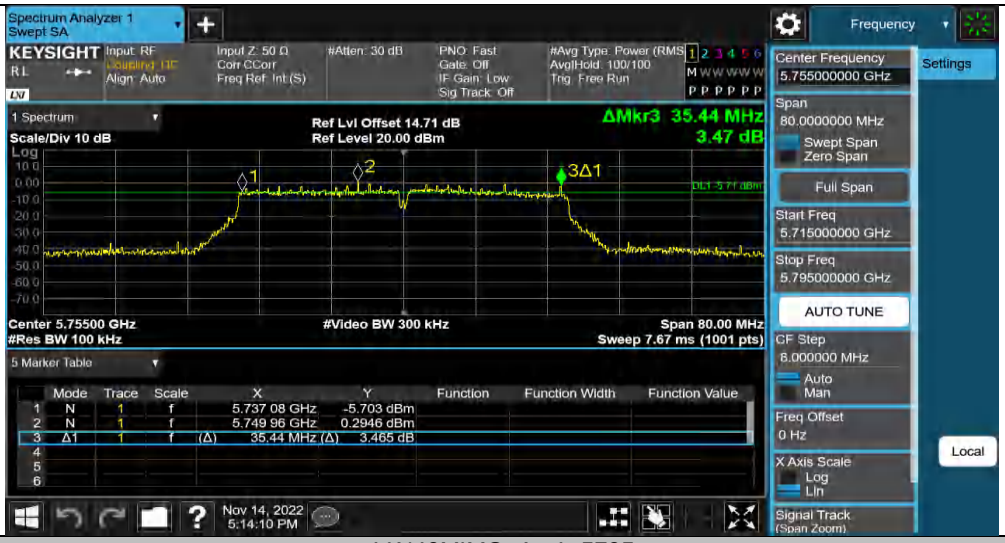
11A_Ant1_5825

11N20MIMO_Ant1_5745

11N20MIMO_Ant1_5785

11N20MIMO_Ant1_5825

11N40MIMO_Ant1_5755



11N40MIMO_Ant1_5795

11AC20MIMO_Ant1_5745

11AC20MIMO_Ant1_5785