

	Ant1	5825	6.7	≤26.80	PASS
	Ant2	5825	8.27	≤26.80	PASS
	Ant3	5825	8.24	≤26.80	PASS
	Ant4	5825	4.77	≤26.80	PASS
	total	5825	13.23	≤26.80	PASS
11AC40MIMO	Ant1	5190	3.19	≤13.80	PASS
	Ant2	5190	3.84	≤13.80	PASS
	Ant3	5190	3.83	≤13.80	PASS
	Ant4	5190	3.85	≤13.80	PASS
	total	5190	9.71	≤13.80	PASS
	Ant1	5230	6.56	≤13.80	PASS
	Ant2	5230	6.87	≤13.80	PASS
	Ant3	5230	6.79	≤13.80	PASS
	Ant4	5230	7	≤13.80	PASS
	total	5230	12.83	≤13.80	PASS
	Ant1	5270	0.33	≤7.80	PASS
	Ant2	5270	0.9	≤7.80	PASS
	Ant3	5270	1.13	≤7.80	PASS
	Ant4	5270	0.62	≤7.80	PASS
	total	5270	6.78	≤7.80	PASS
	Ant1	5310	-0.33	≤7.80	PASS
	Ant2	5310	0.43	≤7.80	PASS
	Ant3	5310	0.92	≤7.80	PASS
	Ant4	5310	0.74	≤7.80	PASS
	total	5310	6.49	≤7.80	PASS
	Ant1	5510	0.54	≤7.80	PASS
	Ant2	5510	0.72	≤7.80	PASS
	Ant3	5510	1.42	≤7.80	PASS
	Ant4	5510	1.31	≤7.80	PASS
	total	5510	7.03	≤7.80	PASS
	Ant1	5550	0.73	≤7.80	PASS
	Ant2	5550	1.39	≤7.80	PASS
	Ant3	5550	1.04	≤7.80	PASS
	Ant4	5550	0.52	≤7.80	PASS
	total	5550	6.95	≤7.80	PASS
	Ant1	5670	0.17	≤7.80	PASS
	Ant2	5670	0.64	≤7.80	PASS
	Ant3	5670	1.03	≤7.80	PASS
	Ant4	5670	0.52	≤7.80	PASS
	total	5670	6.62	≤7.80	PASS
	Ant1	5755	2.15	≤26.80	PASS
	Ant2	5755	2.97	≤26.80	PASS

	Ant3	5755	3.11	≤26.80	PASS
	Ant4	5755	1.82	≤26.80	PASS
	total	5755	8.57	≤26.80	PASS
	Ant1	5795	1.76	≤26.80	PASS
	Ant2	5795	2.12	≤26.80	PASS
	Ant3	5795	2.05	≤26.80	PASS
	Ant4	5795	2.28	≤26.80	PASS
	total	5795	8.08	≤26.80	PASS
11AC80MIMO	Ant1	5210	0.24	≤13.80	PASS
	Ant2	5210	0.17	≤13.80	PASS
	Ant3	5210	0.83	≤13.80	PASS
	Ant4	5210	-0.06	≤13.80	PASS
	total	5210	6.33	≤13.80	PASS
	Ant1	5290	-2.85	≤7.80	PASS
	Ant2	5290	-1.88	≤7.80	PASS
	Ant3	5290	-1.99	≤7.80	PASS
	Ant4	5290	-2.12	≤7.80	PASS
	total	5290	3.83	≤7.80	PASS
	Ant1	5530	-2.67	≤7.80	PASS
	Ant2	5530	-2.4	≤7.80	PASS
	Ant3	5530	-1.3	≤7.80	PASS
	Ant4	5530	-1.5	≤7.80	PASS
	total	5530	4.09	≤7.80	PASS
	Ant1	5610	-2.49	≤7.80	PASS
	Ant2	5610	-2.39	≤7.80	PASS
	Ant3	5610	-2.39	≤7.80	PASS
	Ant4	5610	-3.01	≤7.80	PASS
	total	5610	3.46	≤7.80	PASS
	Ant1	5775	-0.84	≤26.80	PASS
	Ant2	5775	-0.76	≤26.80	PASS
	Ant3	5775	0.1	≤26.80	PASS
	Ant4	5775	0.15	≤26.80	PASS
total	5775	5.71	≤26.80	PASS	
11AC160MIMO	Ant1	5250_UNII-1	-5.35	≤13.80	PASS
	Ant2	5250_UNII-1	-4.85	≤13.80	PASS
	Ant3	5250_UNII-1	-4.82	≤13.80	PASS
	Ant4	5250_UNII-1	-4.96	≤13.80	PASS
	total	5250_UNII-1	1.03	≤13.80	PASS
	Ant1	5250_UNII-2A	-4.96	≤7.80	PASS
	Ant2	5250_UNII-2A	-5.15	≤7.80	PASS
	Ant3	5250_UNII-2A	-4.49	≤7.80	PASS
Ant4	5250_UNII-2A	-4.8	≤7.80	PASS	

	total	5250_UNII-2A	1.18	≤7.80	PASS
	Ant1	5570	-5.33	≤7.80	PASS
	Ant2	5570	-4.95	≤7.80	PASS
	Ant3	5570	-4.67	≤7.80	PASS
	Ant4	5570	-4.85	≤7.80	PASS
	total	5570	1.08	≤7.80	PASS
11AX20MIMO	Ant1	5180	3.09	≤13.80	PASS
	Ant2	5180	3.62	≤13.80	PASS
	Ant3	5180	3.66	≤13.80	PASS
	Ant4	5180	3.81	≤13.80	PASS
	total	5180	9.57	≤13.80	PASS
	Ant1	5200	7.97	≤13.80	PASS
	Ant2	5200	7.63	≤13.80	PASS
	Ant3	5200	7.88	≤13.80	PASS
	Ant4	5200	7.32	≤13.80	PASS
	total	5200	13.73	≤13.80	PASS
	Ant1	5240	7.38	≤13.80	PASS
	Ant2	5240	7.57	≤13.80	PASS
	Ant3	5240	7.72	≤13.80	PASS
	Ant4	5240	7.48	≤13.80	PASS
	total	5240	13.56	≤13.80	PASS
	Ant1	5260	1.09	≤7.80	PASS
	Ant2	5260	1.59	≤7.80	PASS
	Ant3	5260	1.56	≤7.80	PASS
	Ant4	5260	1.75	≤7.80	PASS
	total	5260	7.52	≤7.80	PASS
	Ant1	5280	1.14	≤7.80	PASS
	Ant2	5280	1.62	≤7.80	PASS
	Ant3	5280	1.83	≤7.80	PASS
	Ant4	5280	1.88	≤7.80	PASS
	total	5280	7.65	≤7.80	PASS
	Ant1	5320	1.23	≤7.80	PASS
	Ant2	5320	1.27	≤7.80	PASS
	Ant3	5320	1.63	≤7.80	PASS
	Ant4	5320	1.69	≤7.80	PASS
	total	5320	7.48	≤7.80	PASS
	Ant1	5500	1.26	≤7.80	PASS
	Ant2	5500	1.37	≤7.80	PASS
	Ant3	5500	1.77	≤7.80	PASS
	Ant4	5500	1.63	≤7.80	PASS
total	5500	7.53	≤7.80	PASS	
Ant1	5580	1.23	≤7.80	PASS	

	Ant2	5580	1.74	≤7.80	PASS
	Ant3	5580	1.86	≤7.80	PASS
	Ant4	5580	1.99	≤7.80	PASS
	total	5580	7.73	≤7.80	PASS
	Ant1	5700	0.83	≤7.80	PASS
	Ant2	5700	1.56	≤7.80	PASS
	Ant3	5700	1.25	≤7.80	PASS
	Ant4	5700	2.3	≤7.80	PASS
	total	5700	7.54	≤7.80	PASS
	Ant1	5745	4.31	≤26.80	PASS
	Ant2	5745	4.74	≤26.80	PASS
	Ant3	5745	5.32	≤26.80	PASS
	Ant4	5745	5.33	≤26.80	PASS
	total	5745	10.97	≤26.80	PASS
	Ant1	5785	7.72	≤26.80	PASS
	Ant2	5785	7.43	≤26.80	PASS
	Ant3	5785	6.97	≤26.80	PASS
	Ant4	5785	6.47	≤26.80	PASS
	total	5785	13.19	≤26.80	PASS
	Ant1	5825	5.83	≤26.80	PASS
	Ant2	5825	8.07	≤26.80	PASS
	Ant3	5825	8.29	≤26.80	PASS
	Ant4	5825	5.14	≤26.80	PASS
	total	5825	13.06	≤26.80	PASS
11AX40MIMO	Ant1	5190	3.43	≤13.80	PASS
	Ant2	5190	4.01	≤13.80	PASS
	Ant3	5190	3.93	≤13.80	PASS
	Ant4	5190	3.91	≤13.80	PASS
	total	5190	9.85	≤13.80	PASS
	Ant1	5230	6.41	≤13.80	PASS
	Ant2	5230	6.94	≤13.80	PASS
	Ant3	5230	6.5	≤13.80	PASS
	Ant4	5230	6.98	≤13.80	PASS
	total	5230	12.74	≤13.80	PASS
	Ant1	5270	0.55	≤7.80	PASS
	Ant2	5270	0.43	≤7.80	PASS
	Ant3	5270	0.61	≤7.80	PASS
	Ant4	5270	0.52	≤7.80	PASS
	total	5270	6.55	≤7.80	PASS
	Ant1	5310	-0.1	≤7.80	PASS
	Ant2	5310	0.18	≤7.80	PASS
	Ant3	5310	0.58	≤7.80	PASS

	Ant4	5310	0.71	≤7.80	PASS
	total	5310	6.37	≤7.80	PASS
	Ant1	5510	0.47	≤7.80	PASS
	Ant2	5510	0.36	≤7.80	PASS
	Ant3	5510	1.03	≤7.80	PASS
	Ant4	5510	0.68	≤7.80	PASS
	total	5510	6.66	≤7.80	PASS
	Ant1	5550	0.52	≤7.80	PASS
	Ant2	5550	0.74	≤7.80	PASS
	Ant3	5550	0.81	≤7.80	PASS
	Ant4	5550	0.48	≤7.80	PASS
	total	5550	6.66	≤7.80	PASS
	Ant1	5670	0.22	≤7.80	PASS
	Ant2	5670	0.14	≤7.80	PASS
	Ant3	5670	0.14	≤7.80	PASS
	Ant4	5670	0.39	≤7.80	PASS
	total	5670	6.24	≤7.80	PASS
	Ant1	5755	1.05	≤26.80	PASS
	Ant2	5755	1.9	≤26.80	PASS
	Ant3	5755	2.1	≤26.80	PASS
	Ant4	5755	2.06	≤26.80	PASS
	total	5755	7.82	≤26.80	PASS
	Ant1	5795	1.28	≤26.80	PASS
	Ant2	5795	1.86	≤26.80	PASS
	Ant3	5795	2.36	≤26.80	PASS
	Ant4	5795	1.92	≤26.80	PASS
	total	5795	7.89	≤26.80	PASS
	11AX80MIMO	Ant1	5210	0.72	≤13.80
Ant2		5210	0	≤13.80	PASS
Ant3		5210	1.03	≤13.80	PASS
Ant4		5210	0.22	≤13.80	PASS
total		5210	6.53	≤13.80	PASS
Ant1		5290	-3.11	≤7.80	PASS
Ant2		5290	-1.81	≤7.80	PASS
Ant3		5290	-1.62	≤7.80	PASS
Ant4		5290	-2.03	≤7.80	PASS
total		5290	3.91	≤7.80	PASS
Ant1		5530	-2.67	≤7.80	PASS
Ant2		5530	-2.56	≤7.80	PASS
Ant3		5530	-1.8	≤7.80	PASS
Ant4		5530	-2.4	≤7.80	PASS
total		5530	3.68	≤7.80	PASS

	Ant1	5610	-2.38	≤7.80	PASS
	Ant2	5610	-2.71	≤7.80	PASS
	Ant3	5610	-2.28	≤7.80	PASS
	Ant4	5610	-2.41	≤7.80	PASS
	total	5610	3.58	≤7.80	PASS
	Ant1	5775	0.67	≤26.80	PASS
	Ant2	5775	1.53	≤26.80	PASS
	Ant3	5775	1.83	≤26.80	PASS
	Ant4	5775	1.13	≤26.80	PASS
	total	5775	7.33	≤26.80	PASS
11AX160MIMO	Ant1	5250_UNII-1	-6.34	≤13.80	PASS
	Ant2	5250_UNII-1	-6.37	≤13.80	PASS
	Ant3	5250_UNII-1	-6.16	≤13.80	PASS
	Ant4	5250_UNII-1	-6.28	≤13.80	PASS
	total	5250_UNII-1	-0.27	≤13.80	PASS
	Ant1	5250_UNII-2A	-6.08	≤7.80	PASS
	Ant2	5250_UNII-2A	-5.74	≤7.80	PASS
	Ant3	5250_UNII-2A	-6	≤7.80	PASS
	Ant4	5250_UNII-2A	-6.03	≤7.80	PASS
	total	5250_UNII-2A	0.06	≤7.80	PASS
	Ant1	5570	-5.56	≤7.80	PASS
	Ant2	5570	-4.67	≤7.80	PASS
	Ant3	5570	-4.62	≤7.80	PASS
	Ant4	5570	-4.98	≤7.80	PASS
	total	5570	1.08	≤7.80	PASS

Note: The Duty Cycle Factor is compensated in the test system

For MIMO mode

Unequal antenna gains, with equal transmit powers. For antenna gains given by  $G_1, G_2, \dots, G_N$  dBi

If transmit signals are correlated, then Directional gain =  $10 \log[(10^{G_1/20} + 10^{G_2/20} + \dots + 10^{G_N/20})^2 / N_{ANT}]$  dBi

[Note the "20"s in the denominator of each exponent and the square of the sum of terms; the object is to combine the signal levels coherently.]

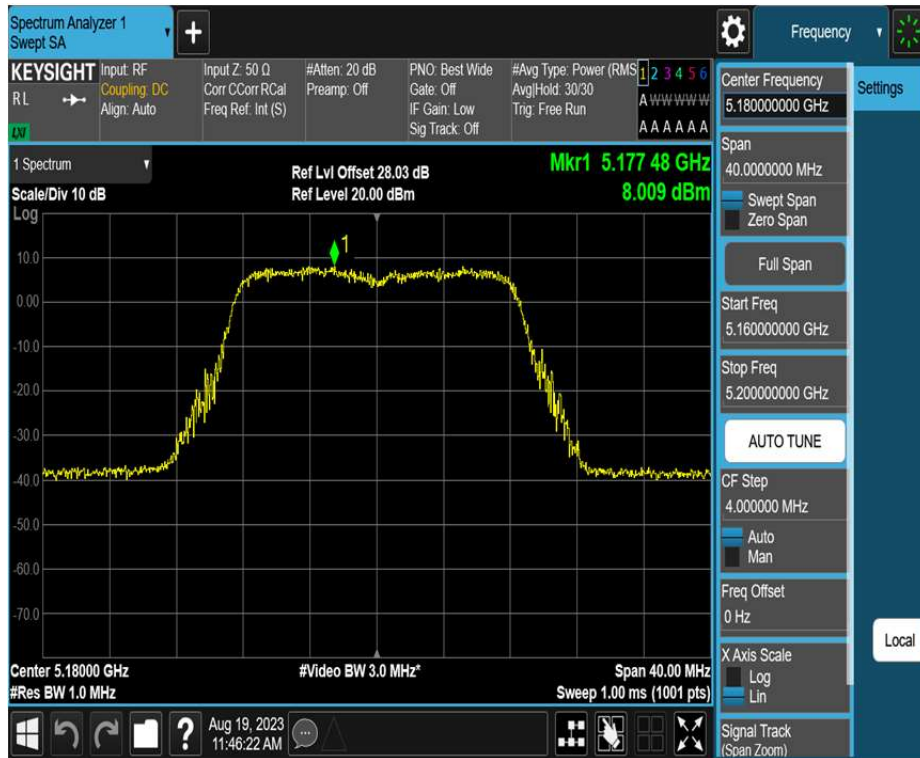
Directional gain =  $10 \log[(10^{3.16/20} + 10^{3.24/20} + 10^{3.15/20} + 10^{3.15/20})^2 / N_{ANT}]$  dBi=9.20 dBi

Beamforming conducted power less than no beamforming conducted power, so only no beamforming conducted power spectral density was recorded.

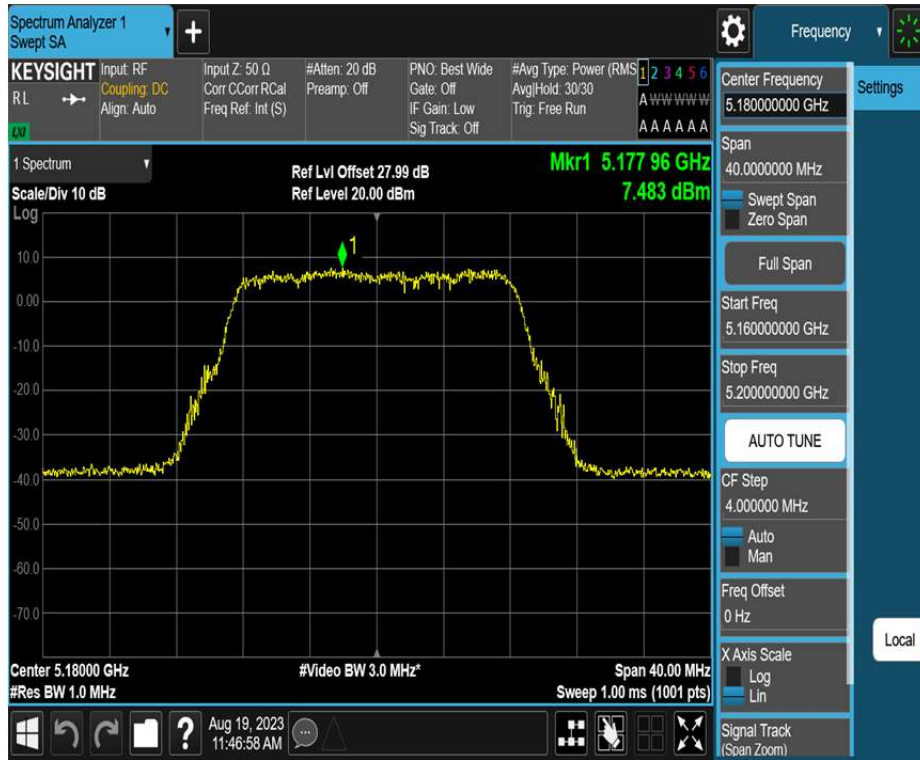
11A\_Ant1\_5180



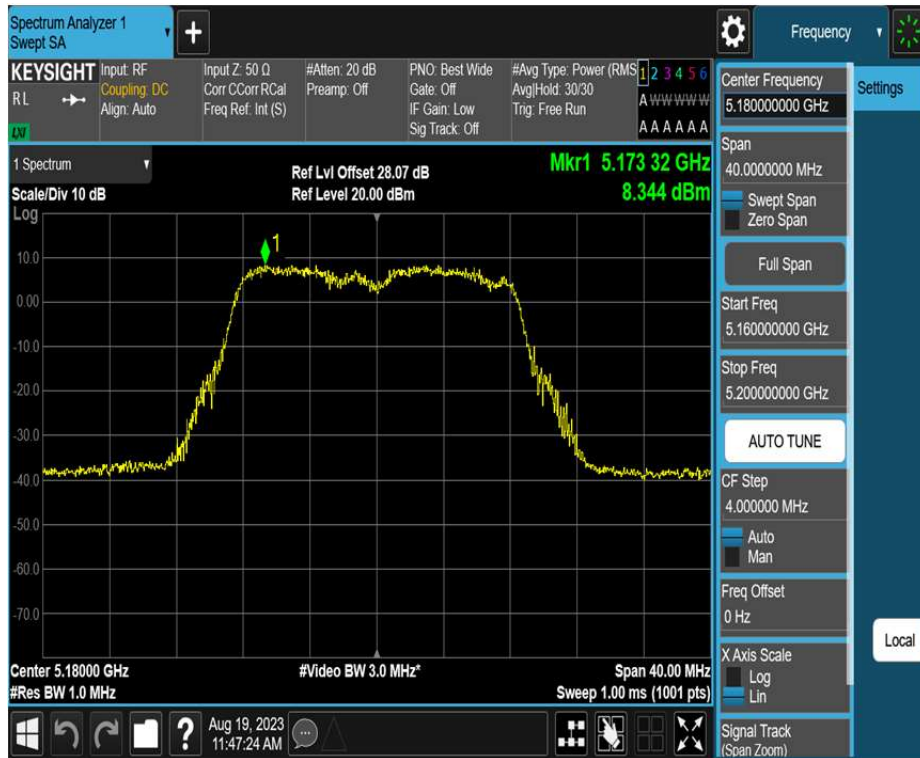
11A\_Ant2\_5180



11A\_Ant3\_5180



11A\_Ant4\_5180

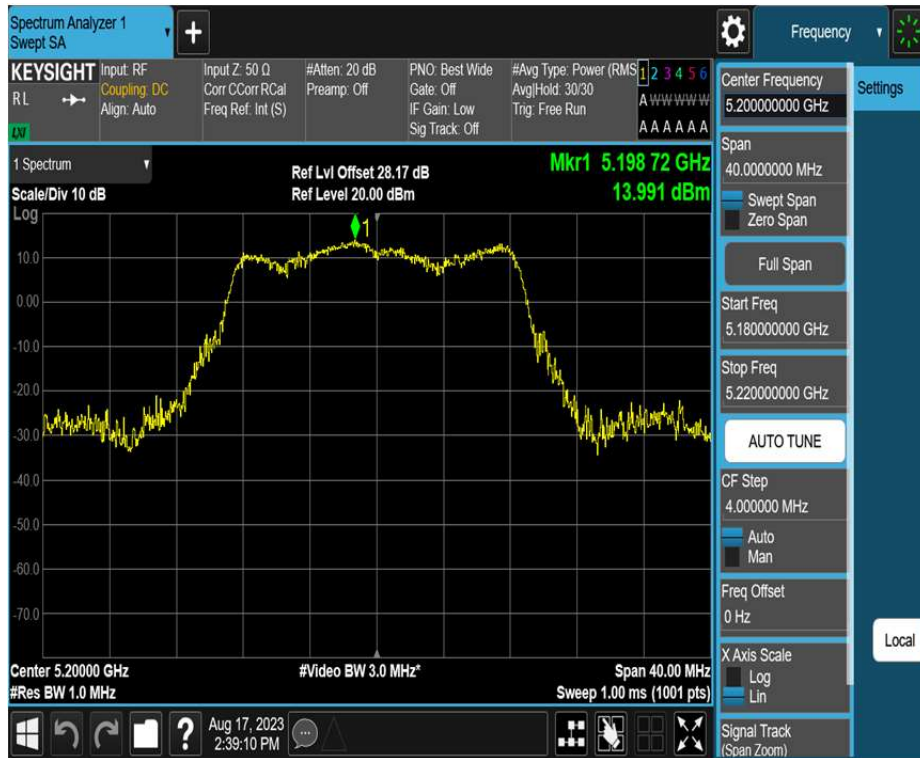




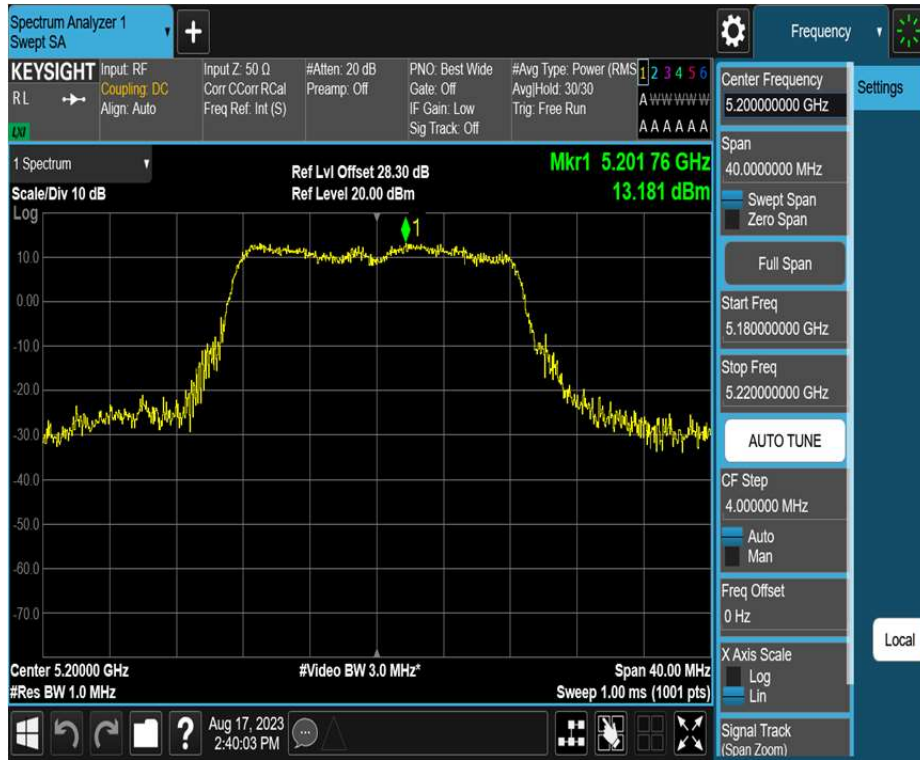
11A\_Ant1\_5200



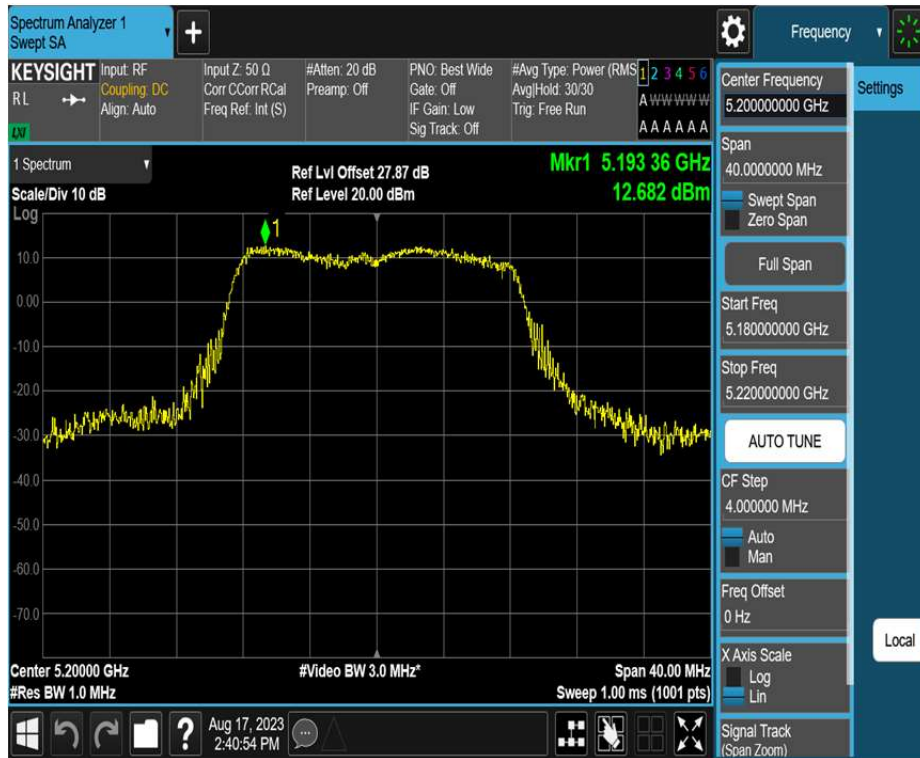
11A\_Ant2\_5200



11A\_Ant3\_5200



11A\_Ant4\_5200



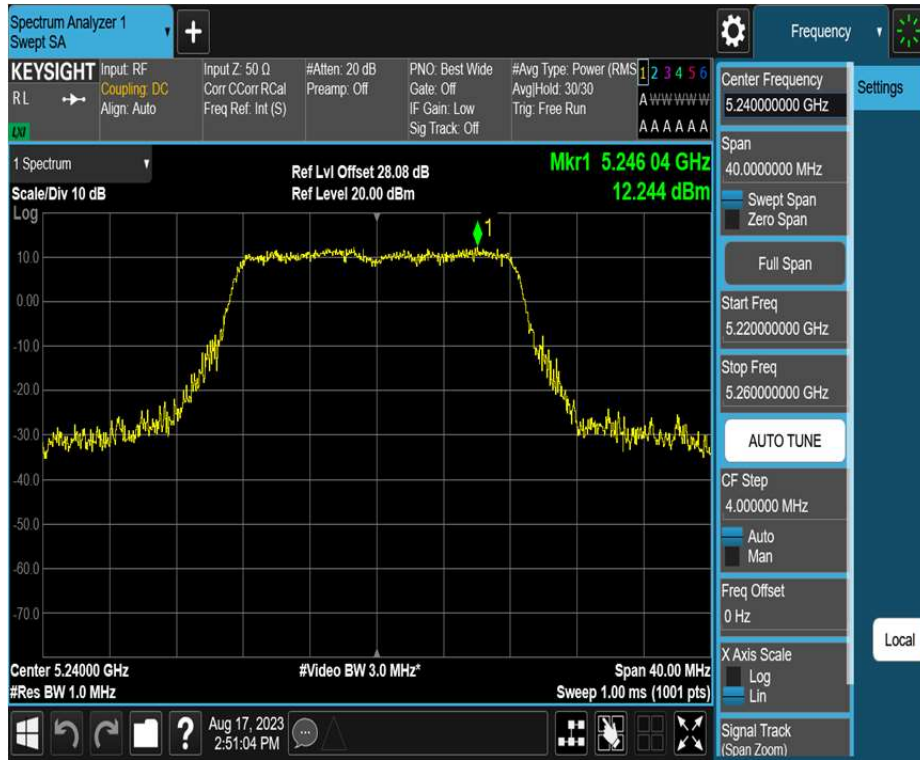
11A\_Ant1\_5240



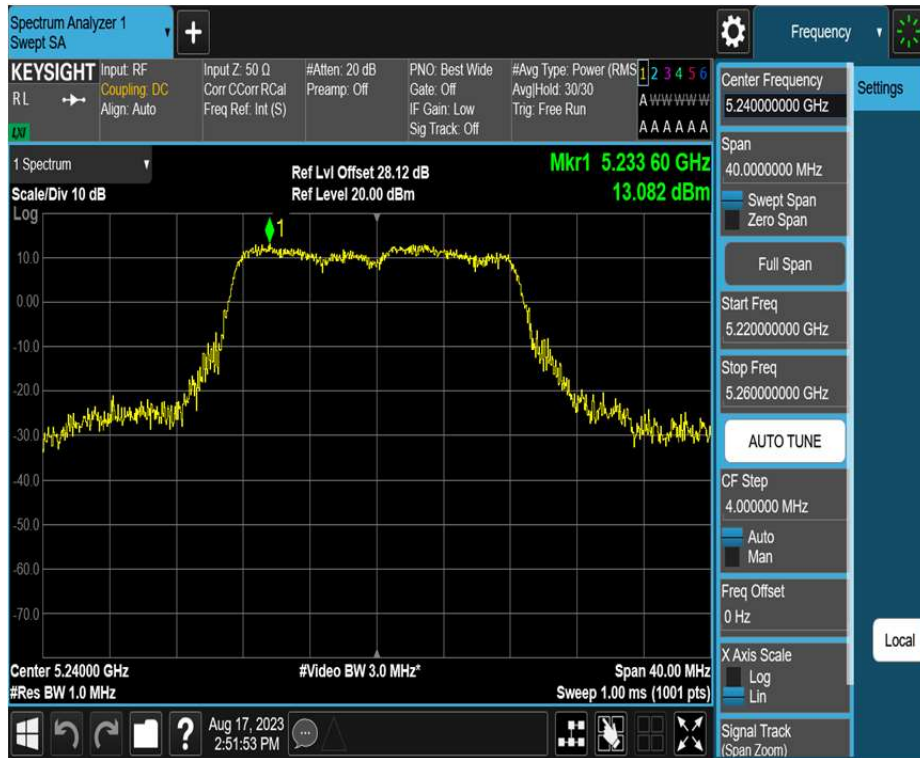
11A\_Ant2\_5240



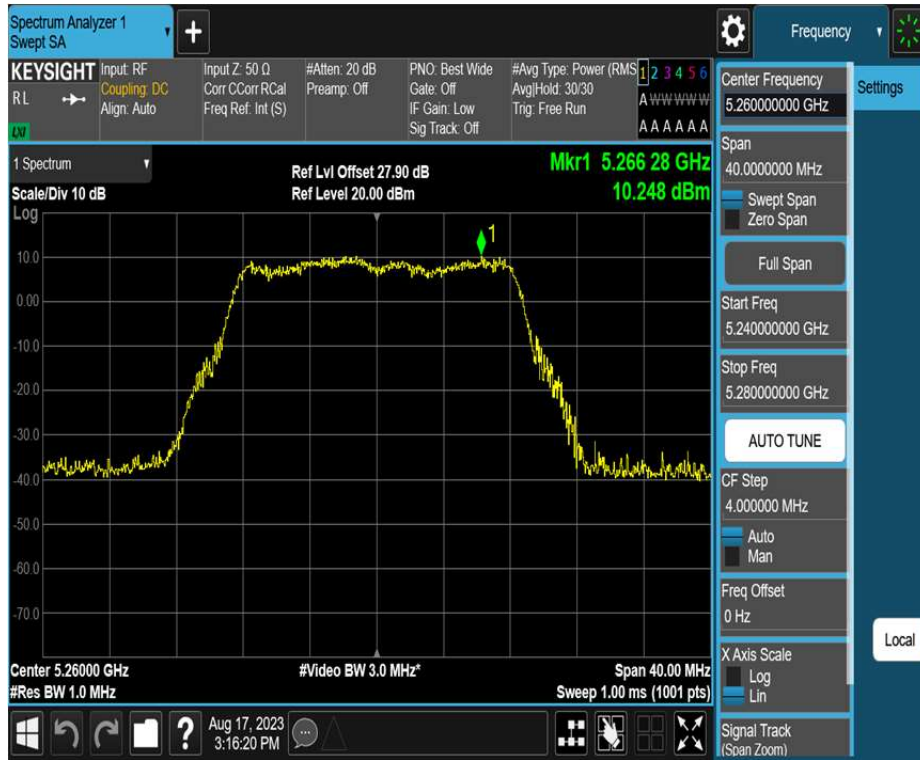
11A\_Ant3\_5240



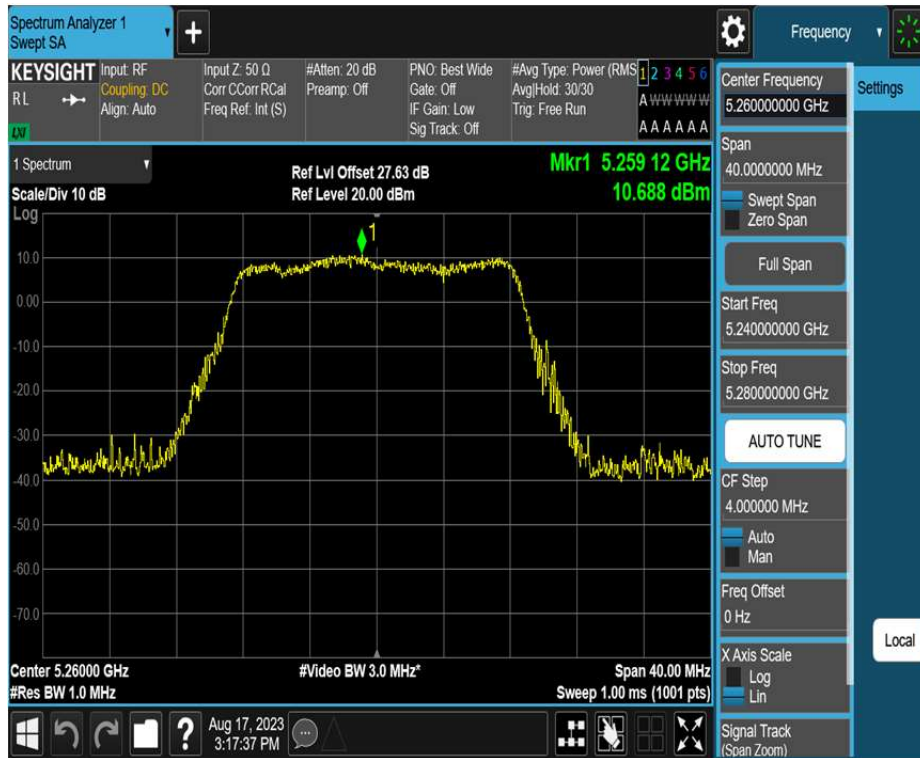
11A\_Ant4\_5240



11A\_Ant1\_5260



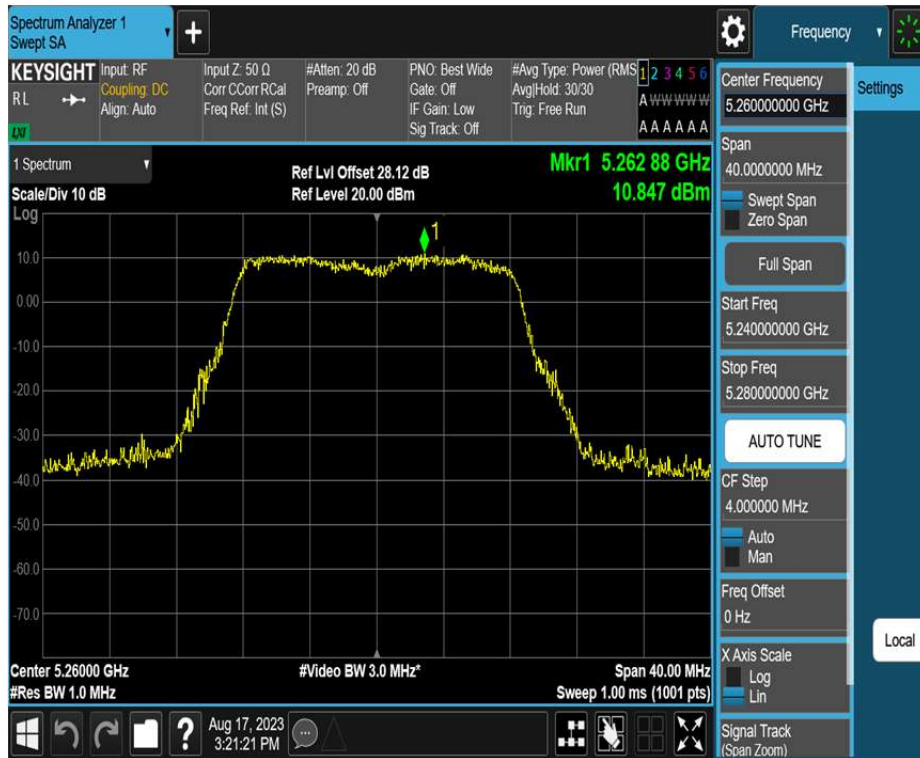
11A\_Ant2\_5260



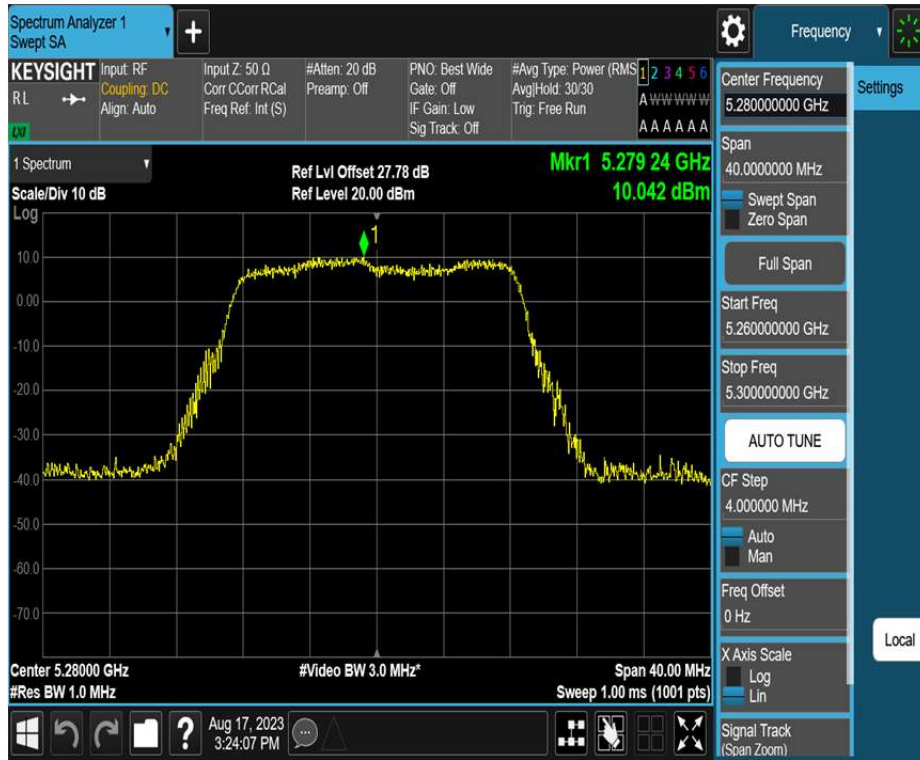
11A\_Ant3\_5260



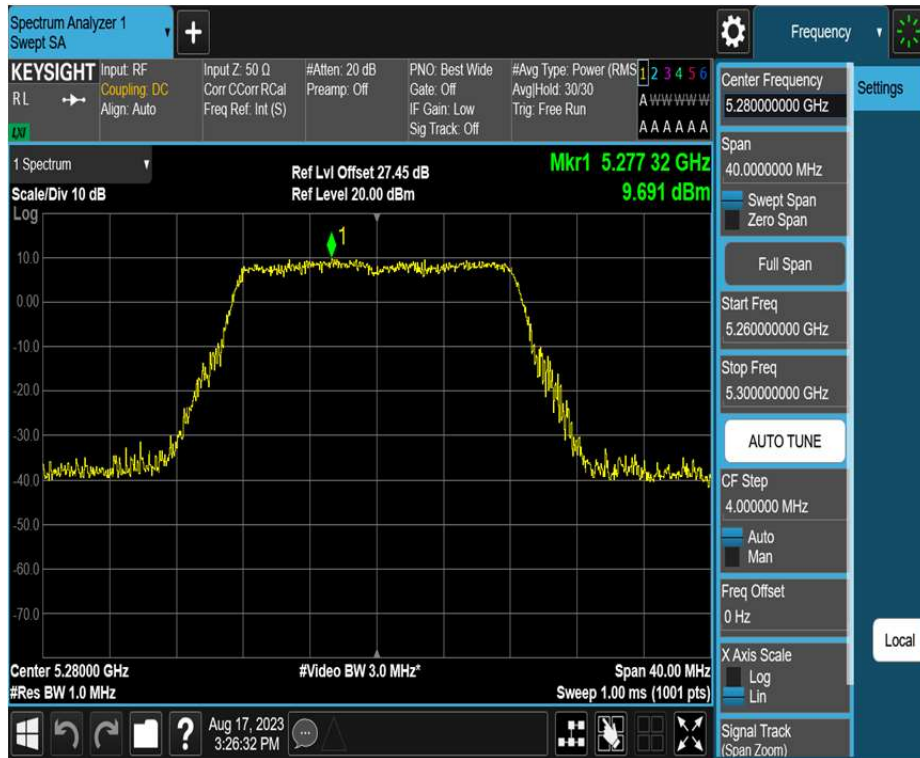
11A\_Ant4\_5260



11A\_Ant1\_5280



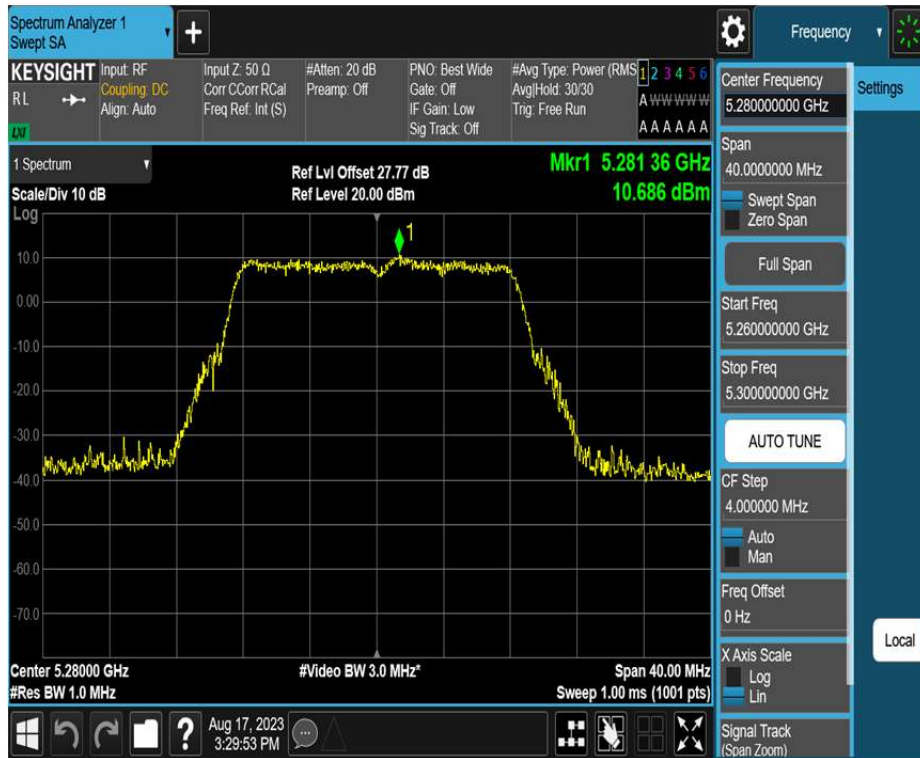
11A\_Ant2\_5280



11A\_Ant3\_5280

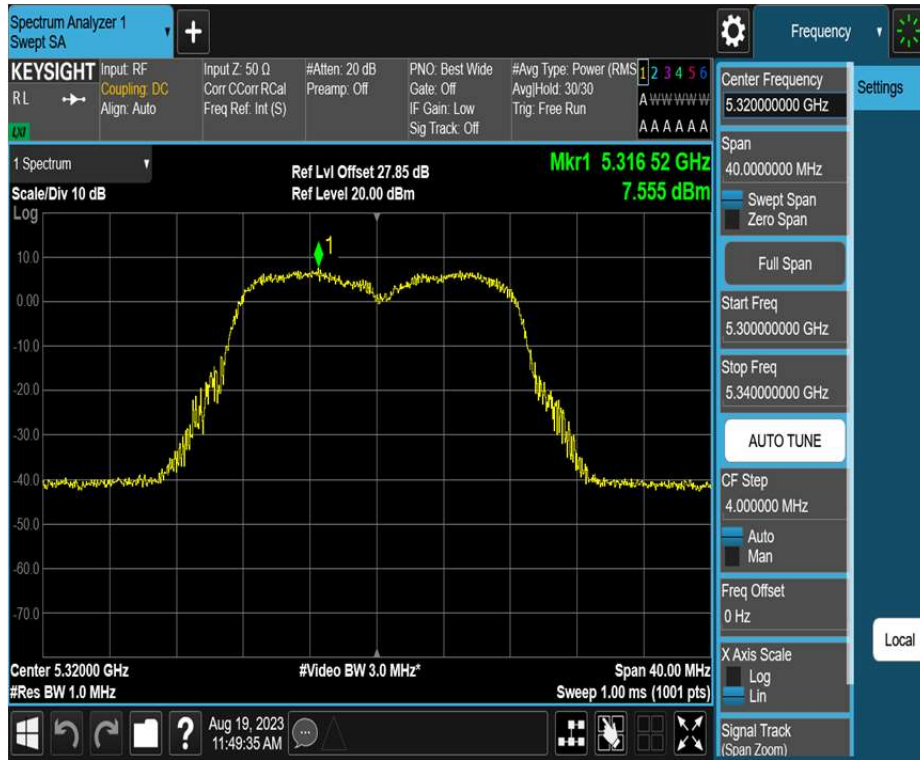


11A\_Ant4\_5280

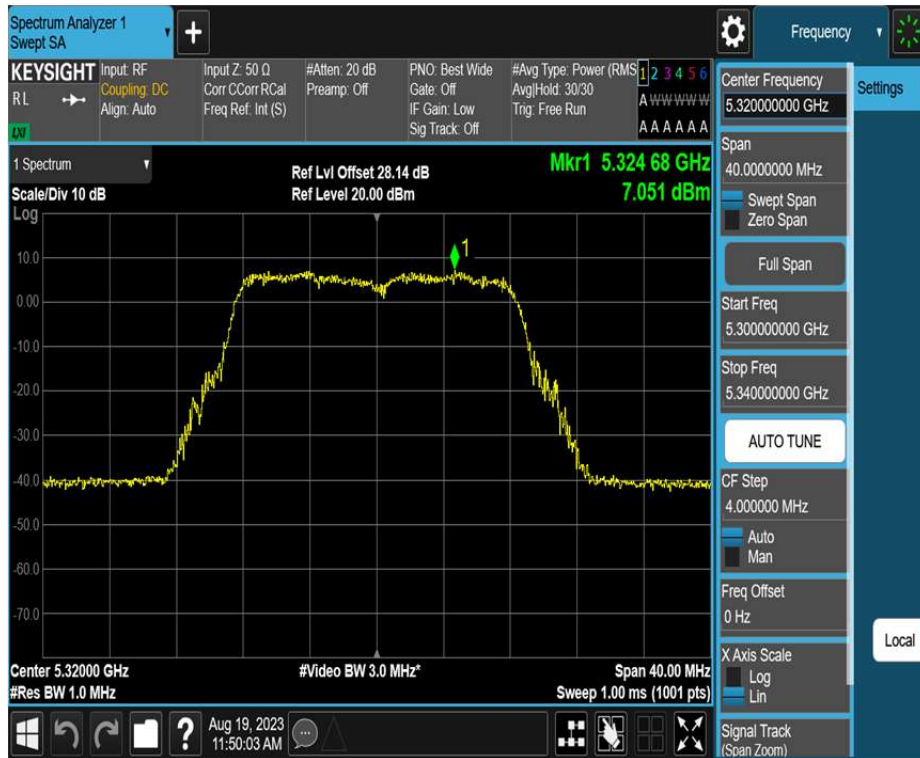




11A\_Ant1\_5320



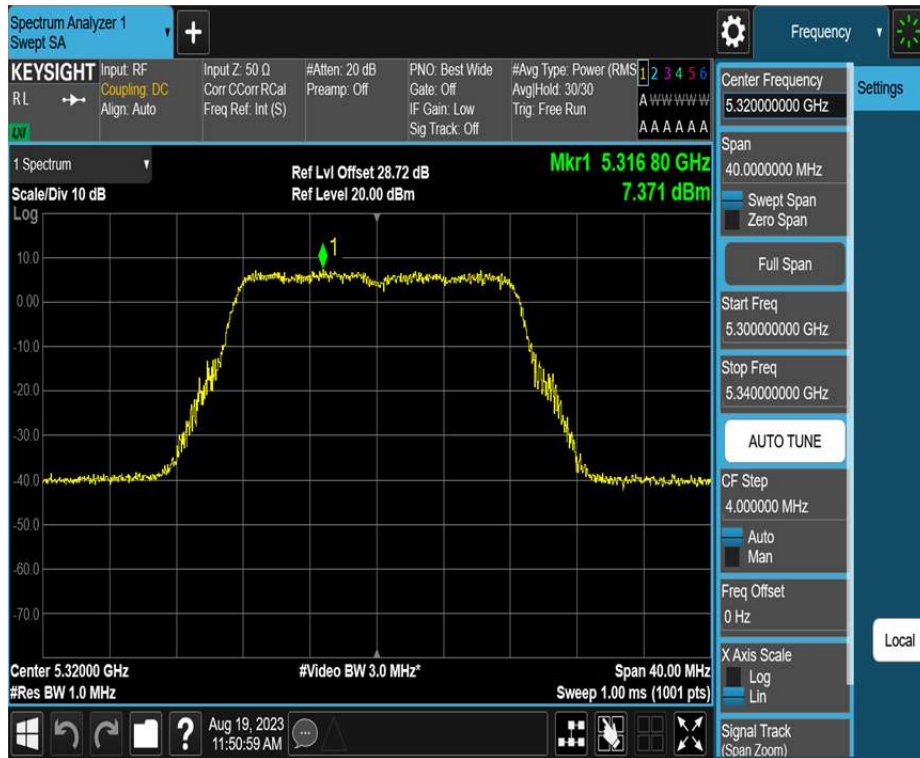
11A\_Ant2\_5320



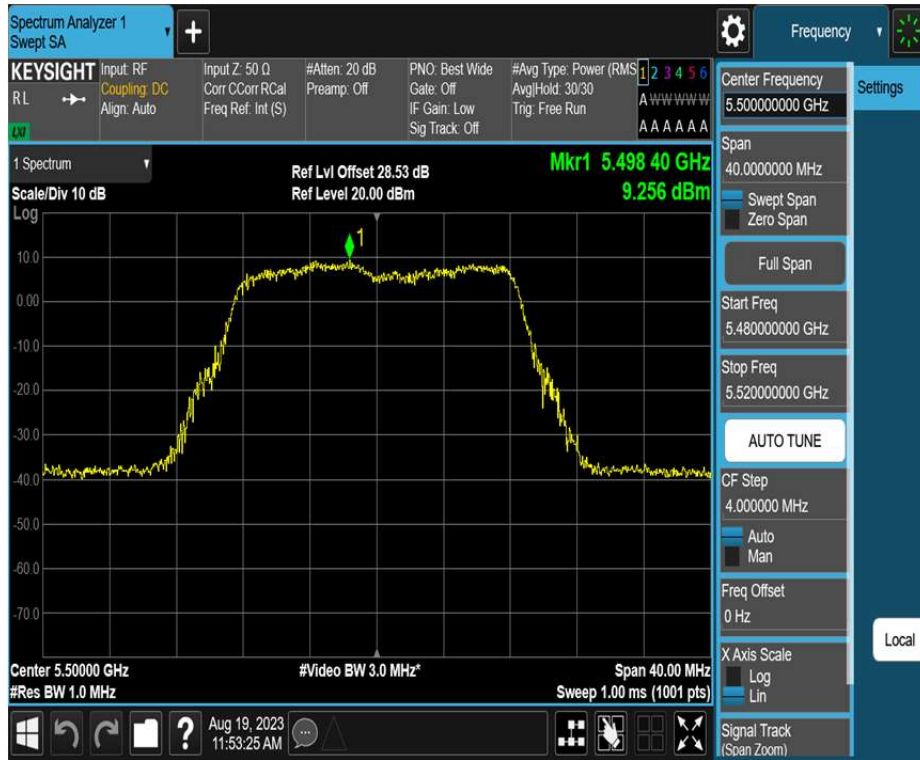
11A\_Ant3\_5320



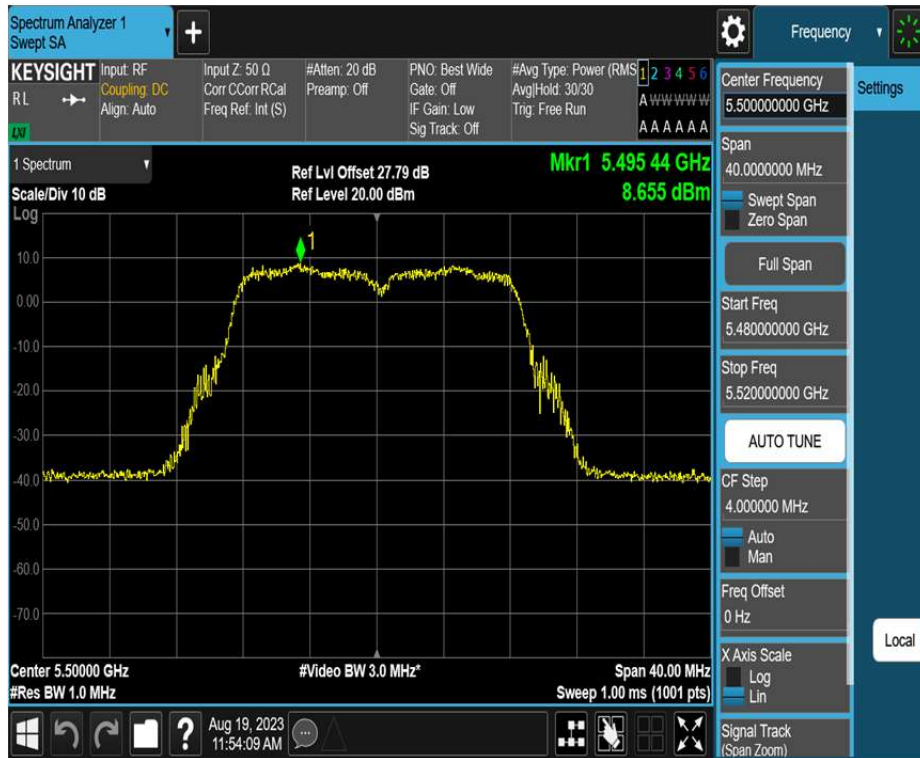
11A\_Ant4\_5320



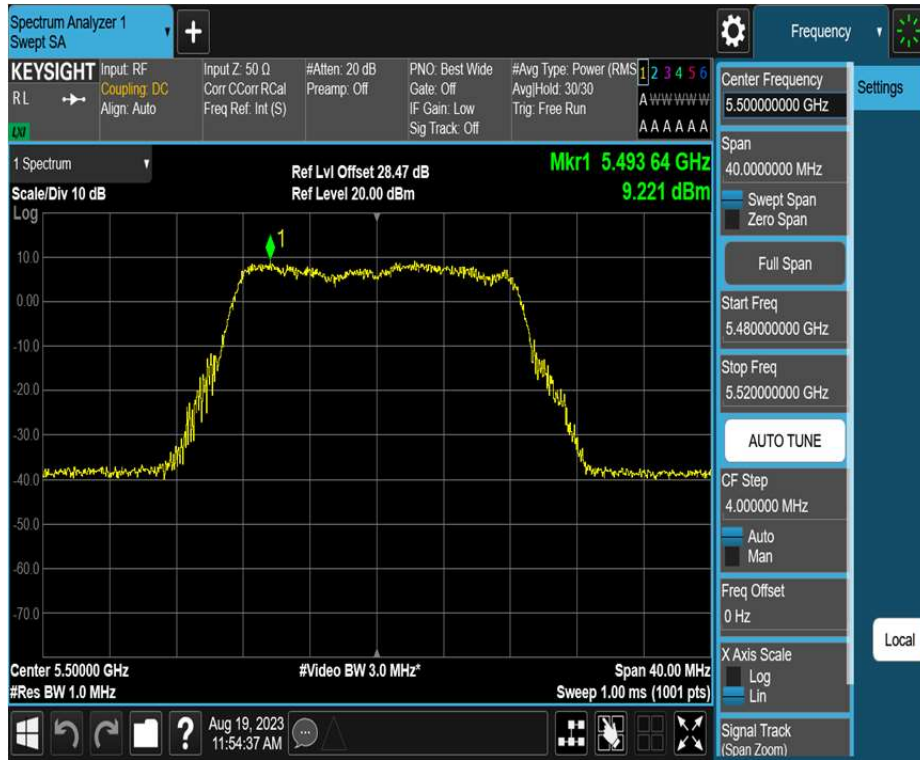
11A\_Ant1\_5500



11A\_Ant2\_5500



11A\_Ant3\_5500



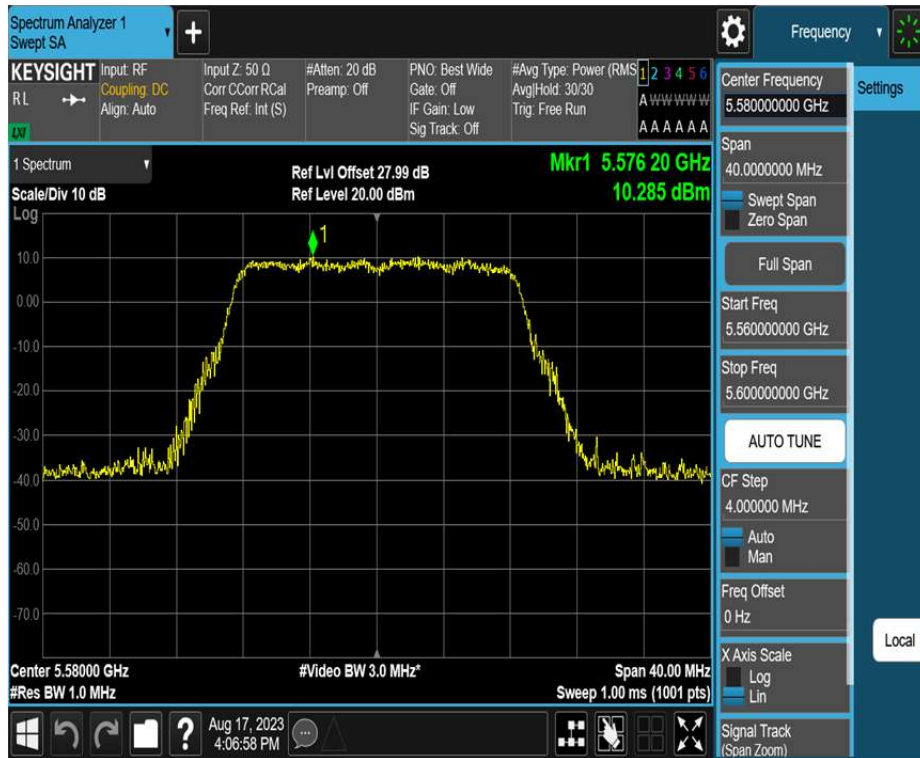
11A\_Ant4\_5500



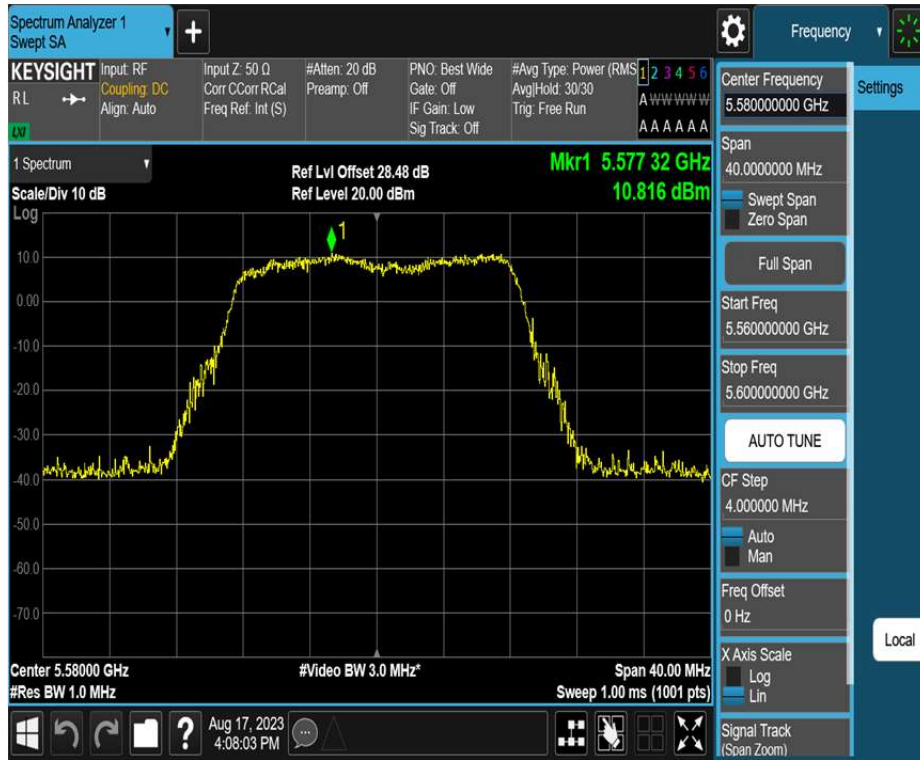
11A\_Ant1\_5580



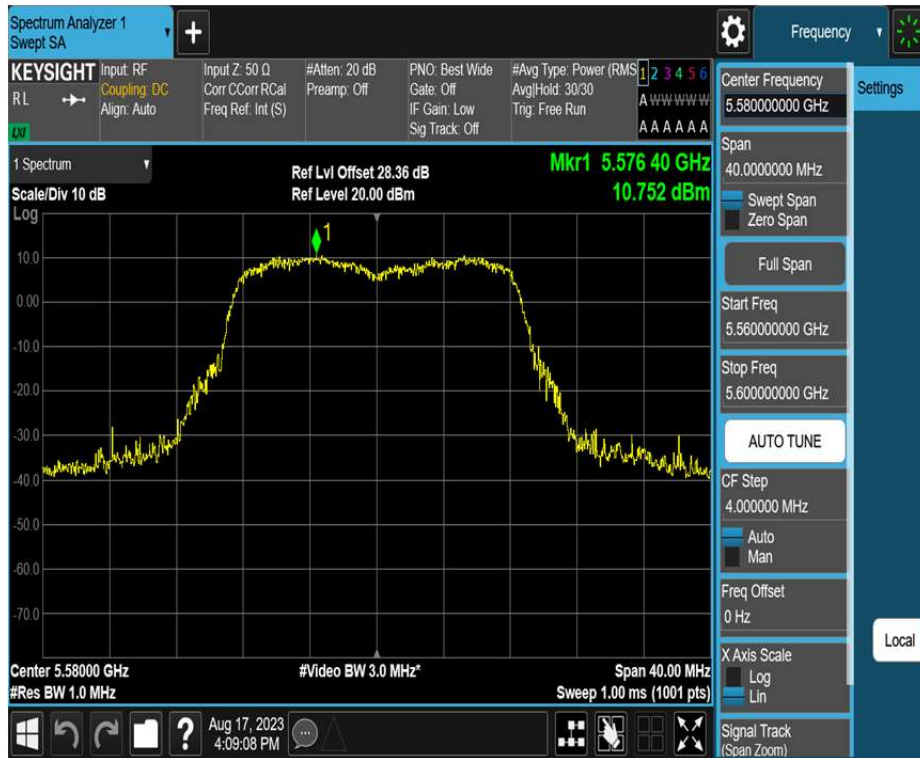
11A\_Ant2\_5580



11A\_Ant3\_5580



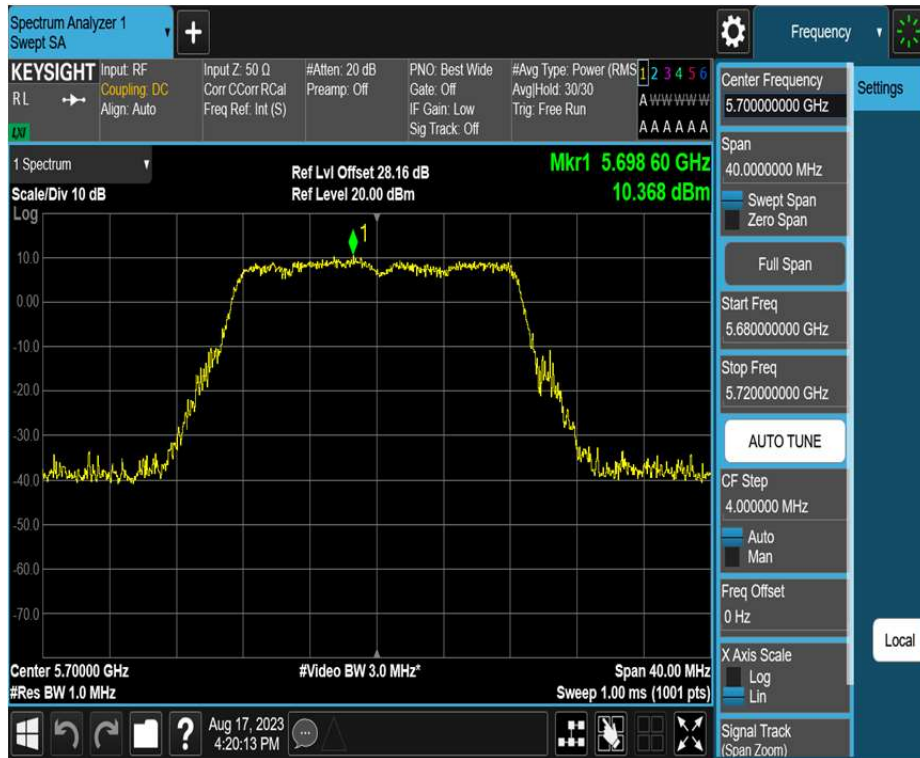
11A\_Ant4\_5580



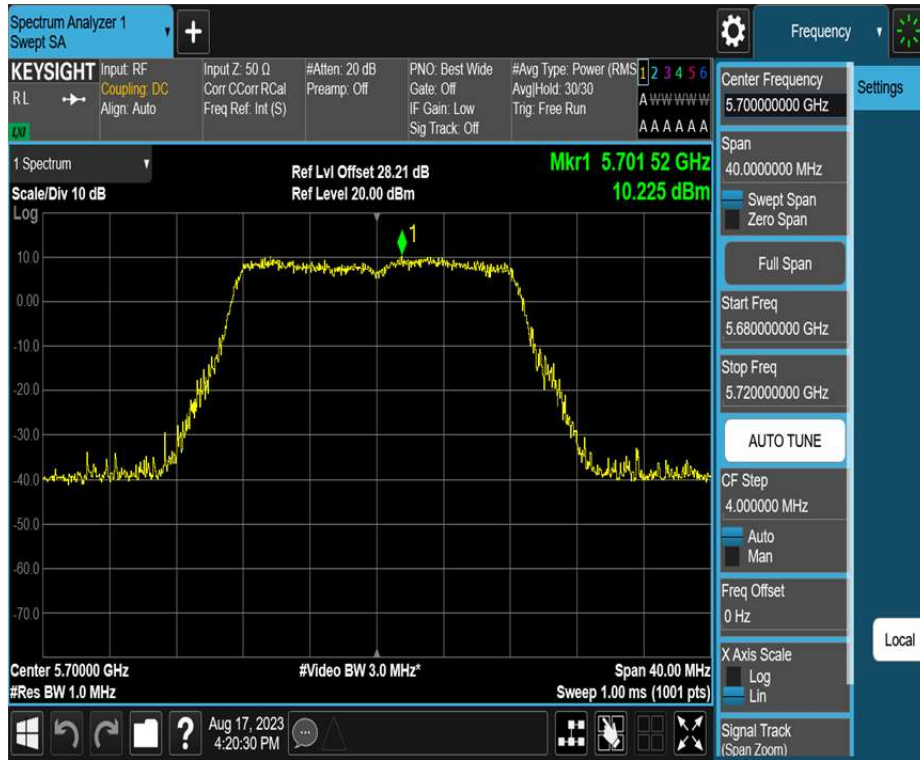
11A\_Ant1\_5700



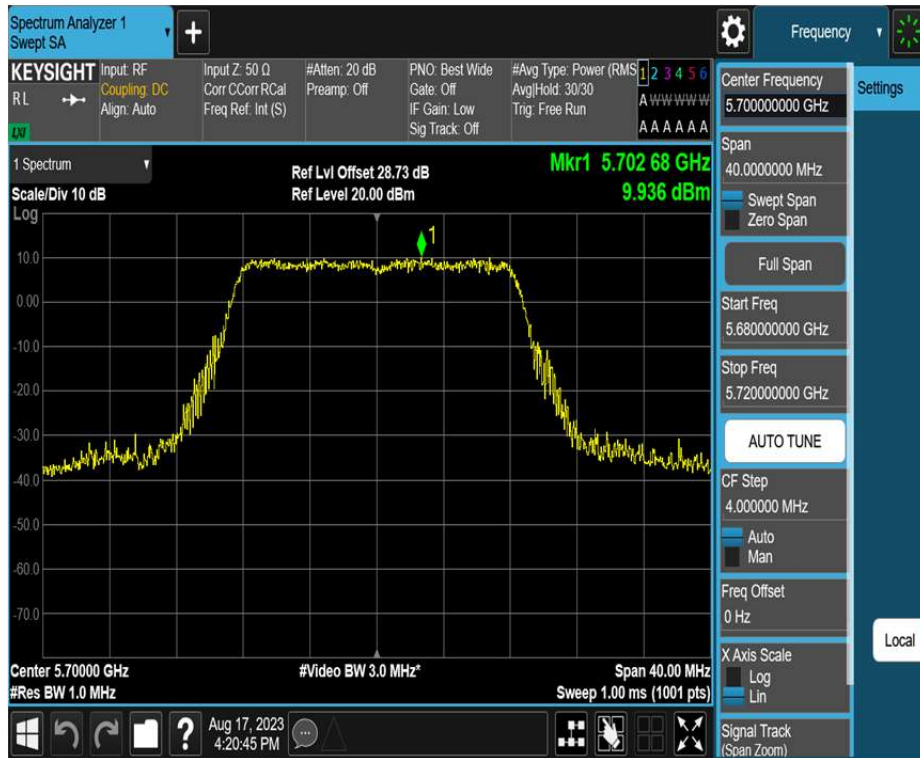
11A\_Ant2\_5700



11A\_Ant3\_5700

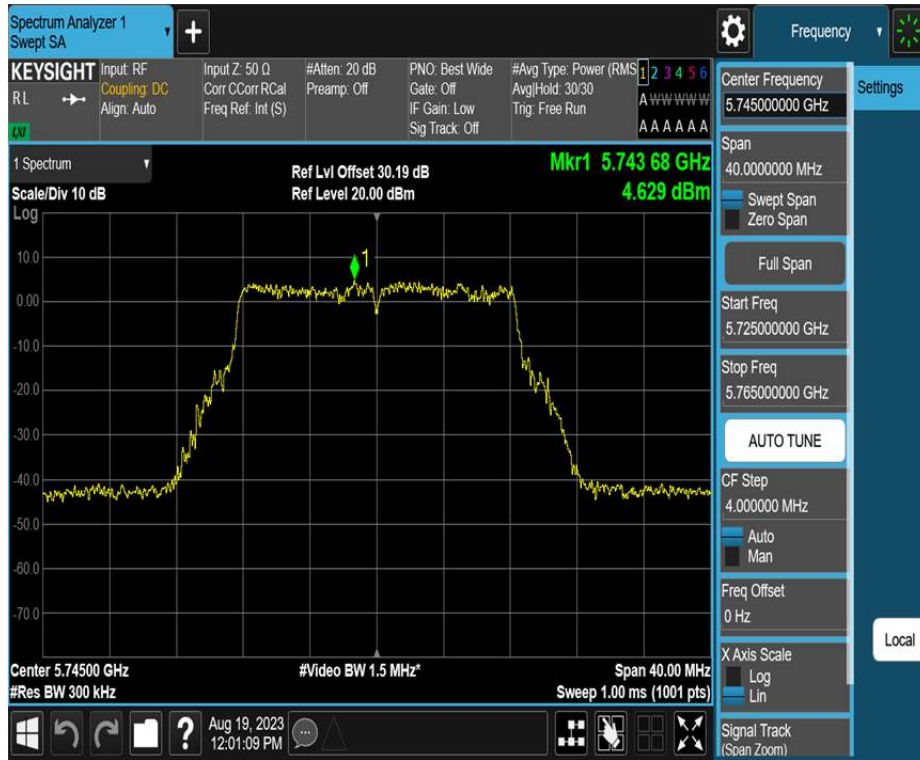


11A\_Ant4\_5700

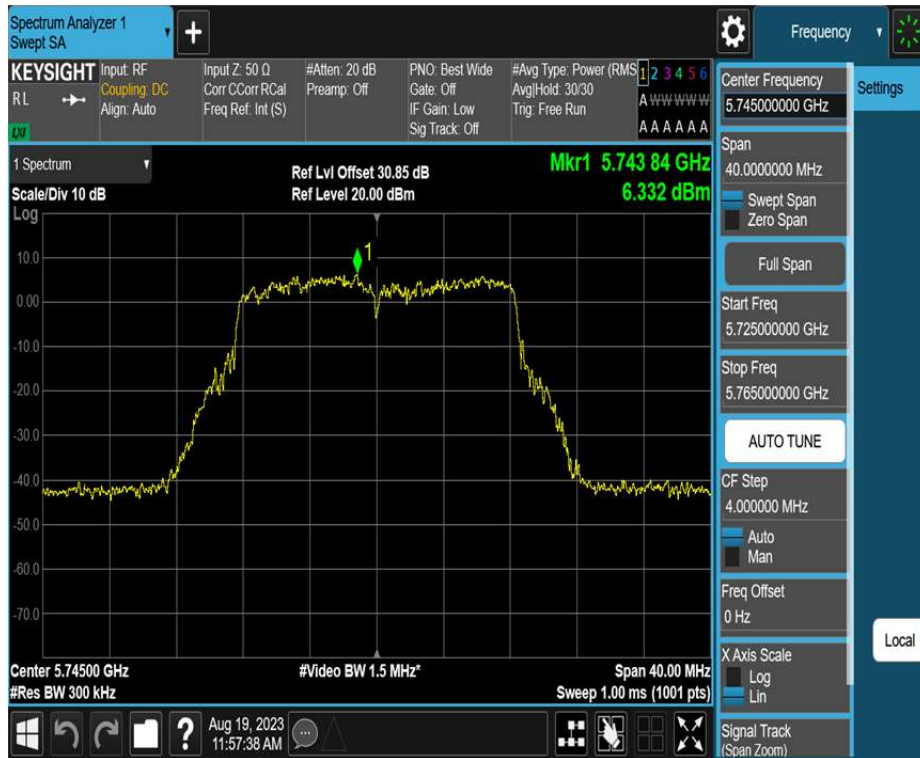




11A\_Ant1\_5745



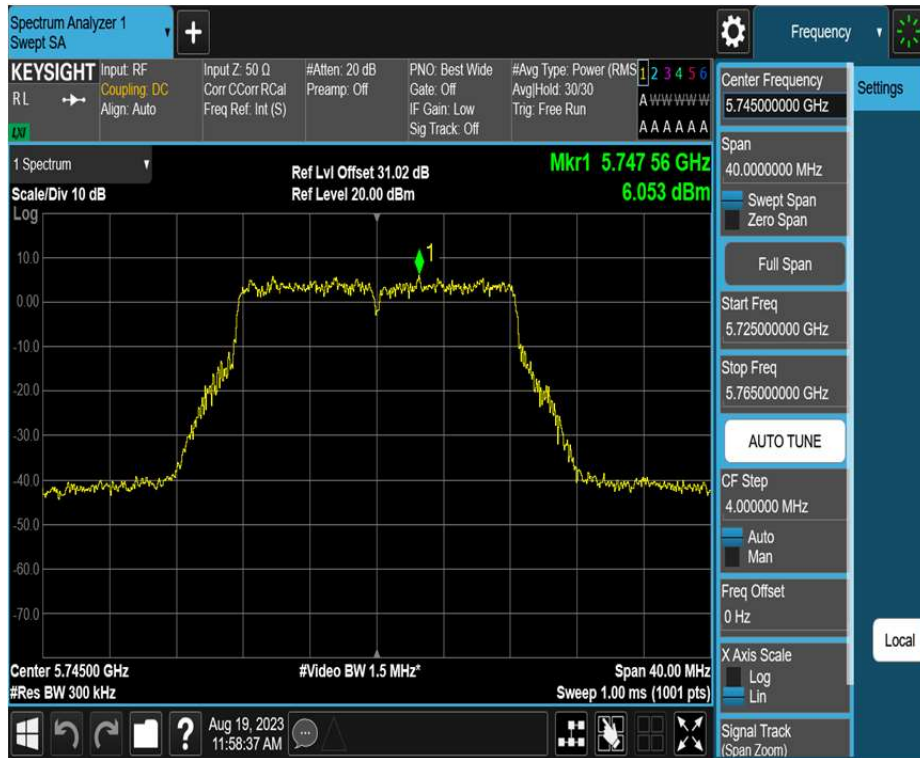
11A\_Ant2\_5745



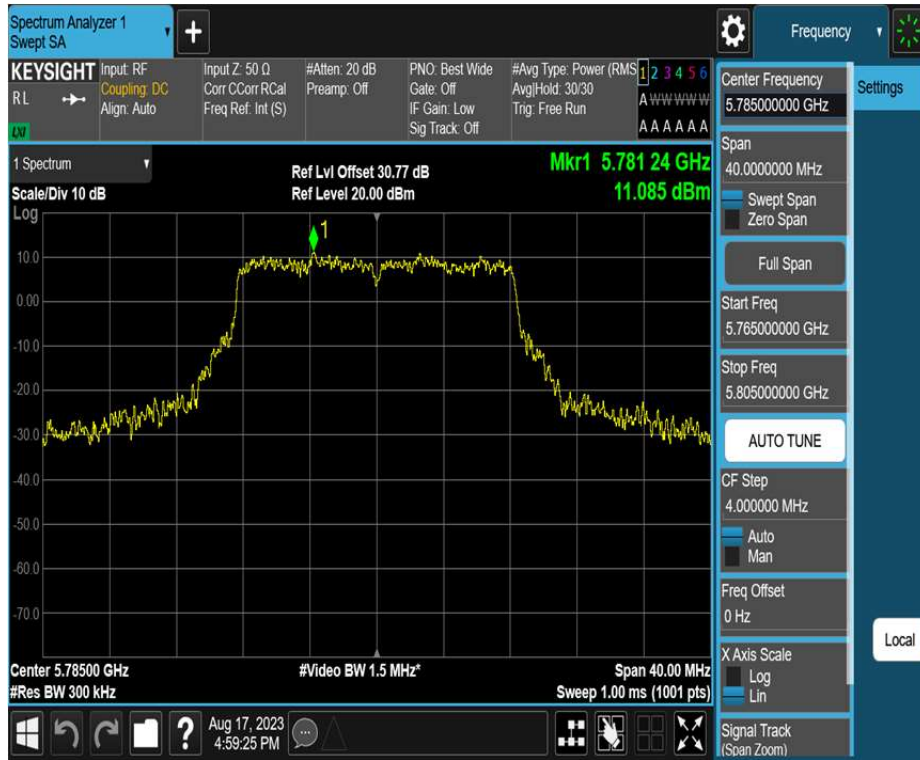
11A\_Ant3\_5745



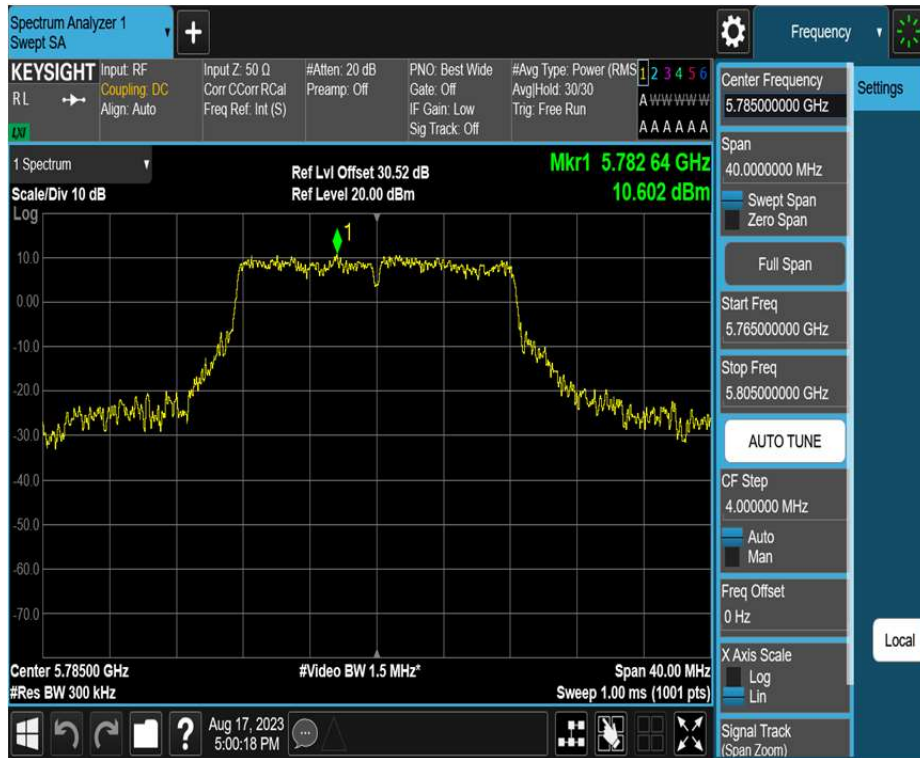
11A\_Ant4\_5745



11A\_Ant1\_5785



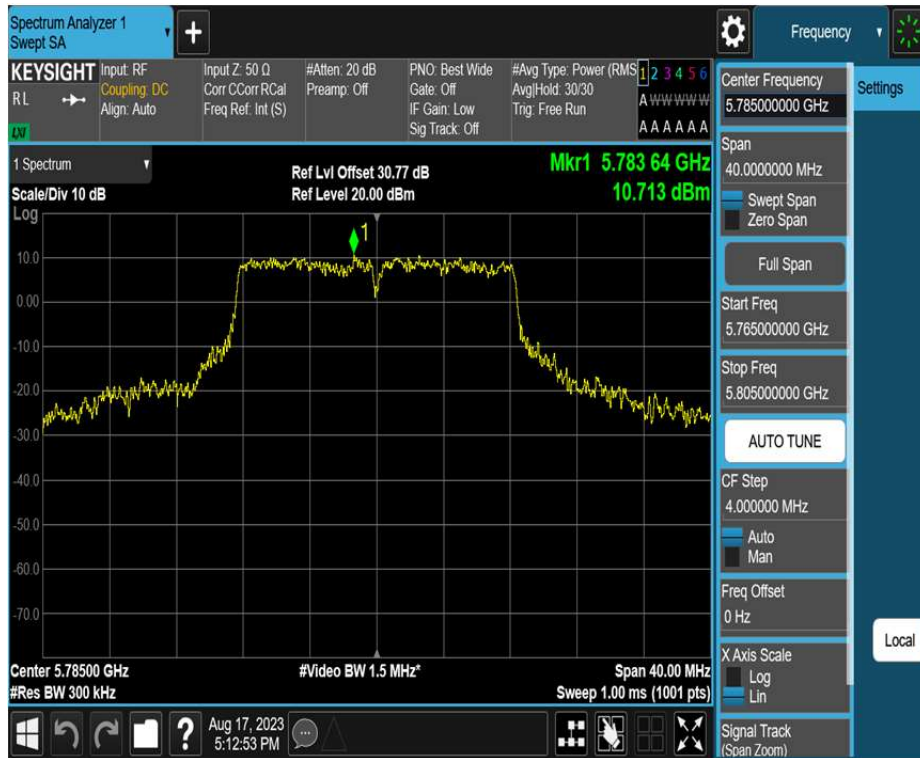
11A\_Ant2\_5785



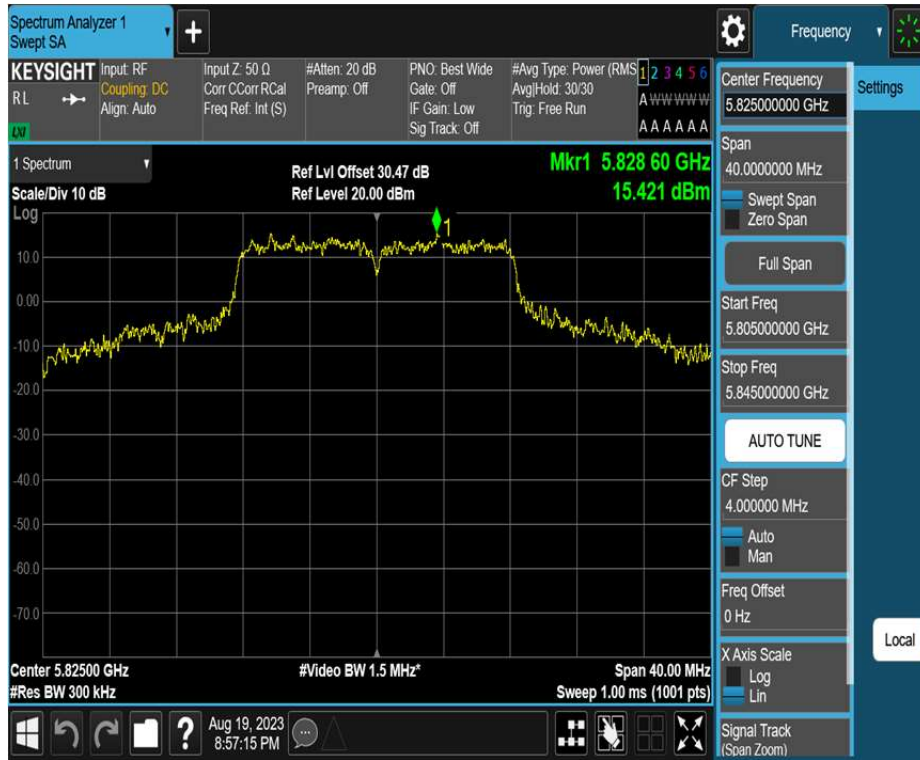
11A\_Ant3\_5785



11A\_Ant4\_5785



11A\_Ant1\_5825



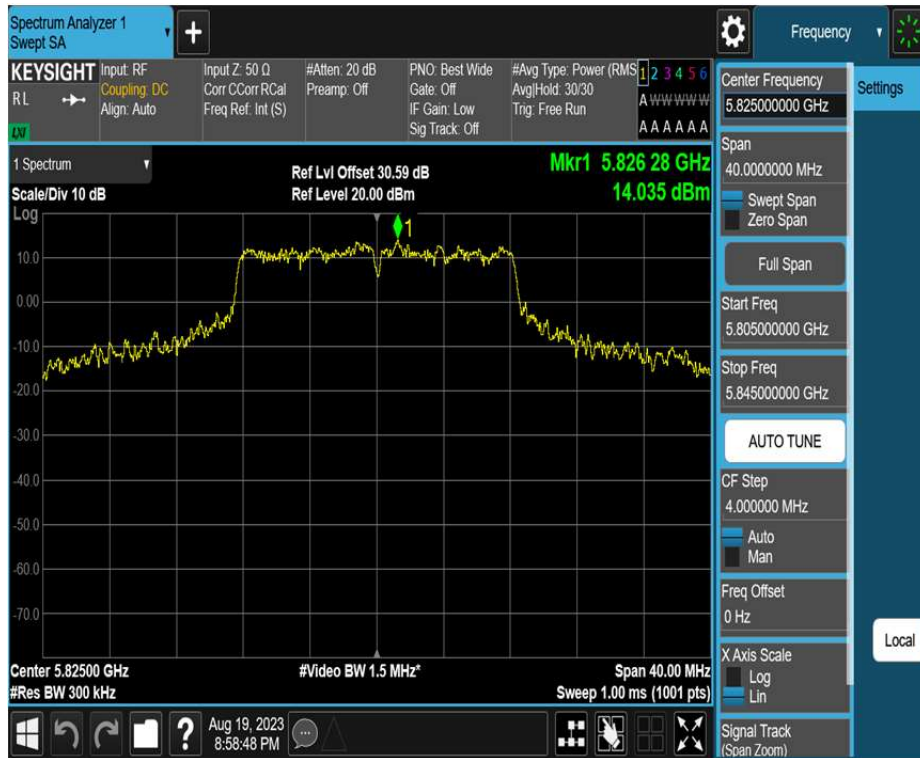
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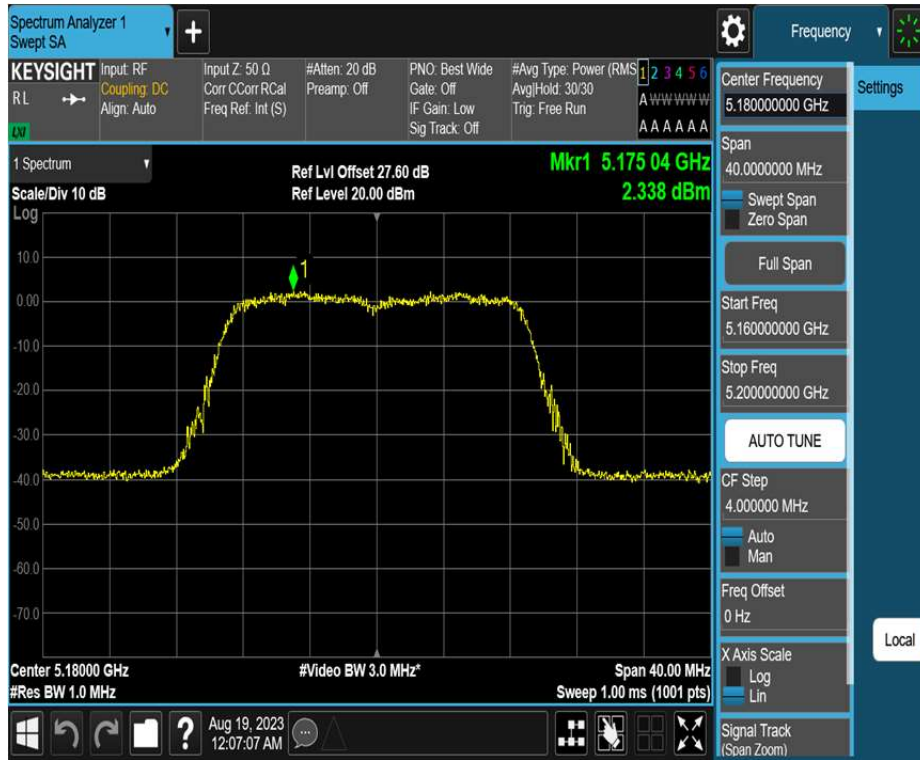
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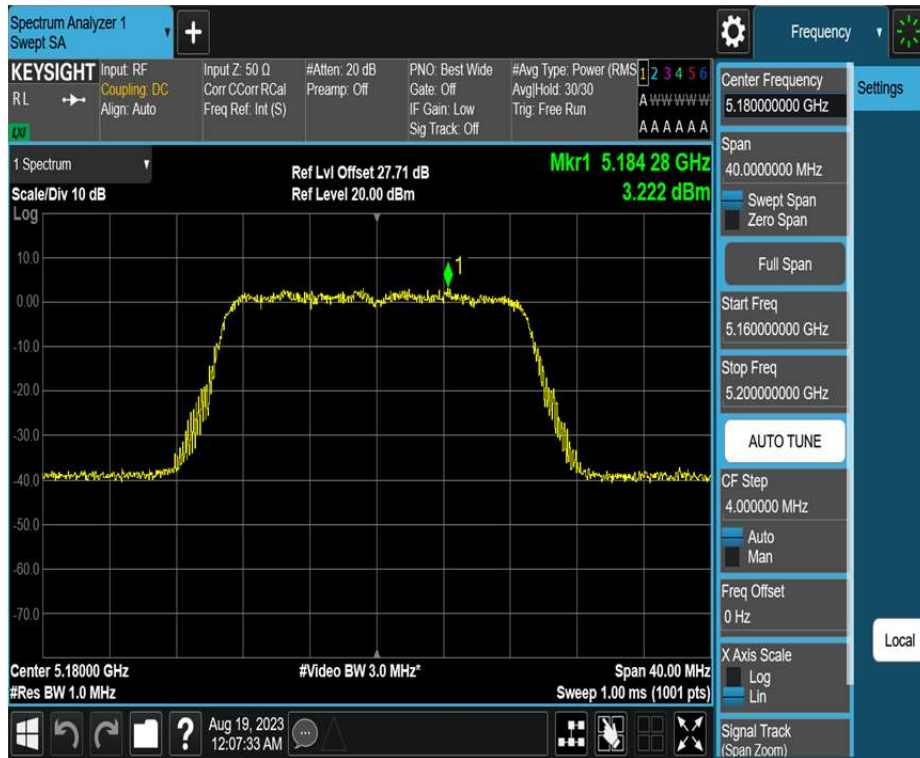
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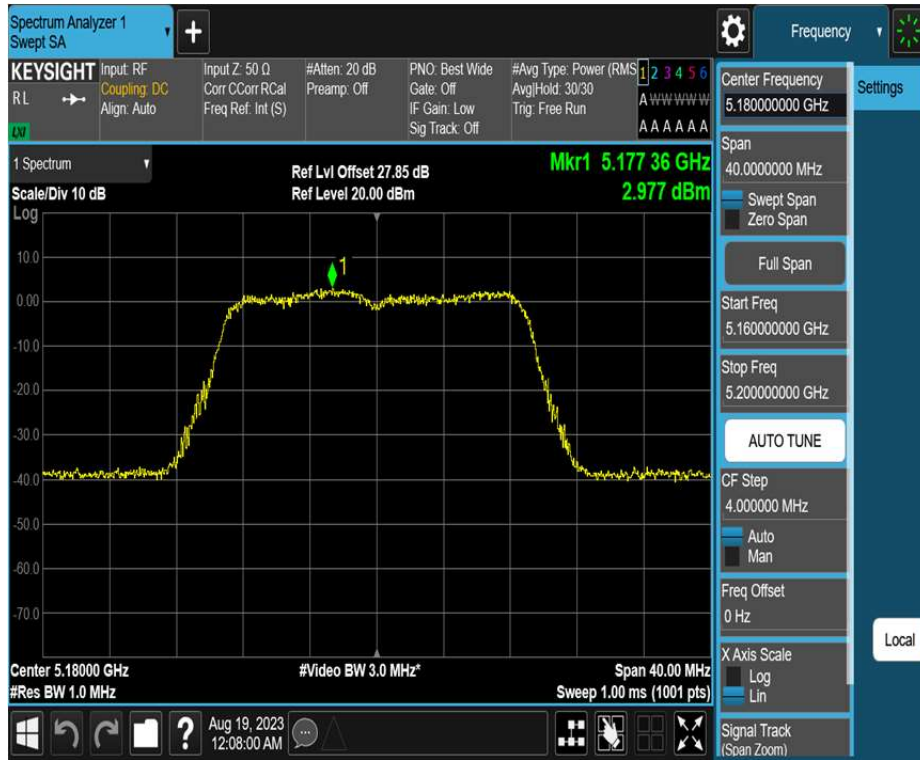
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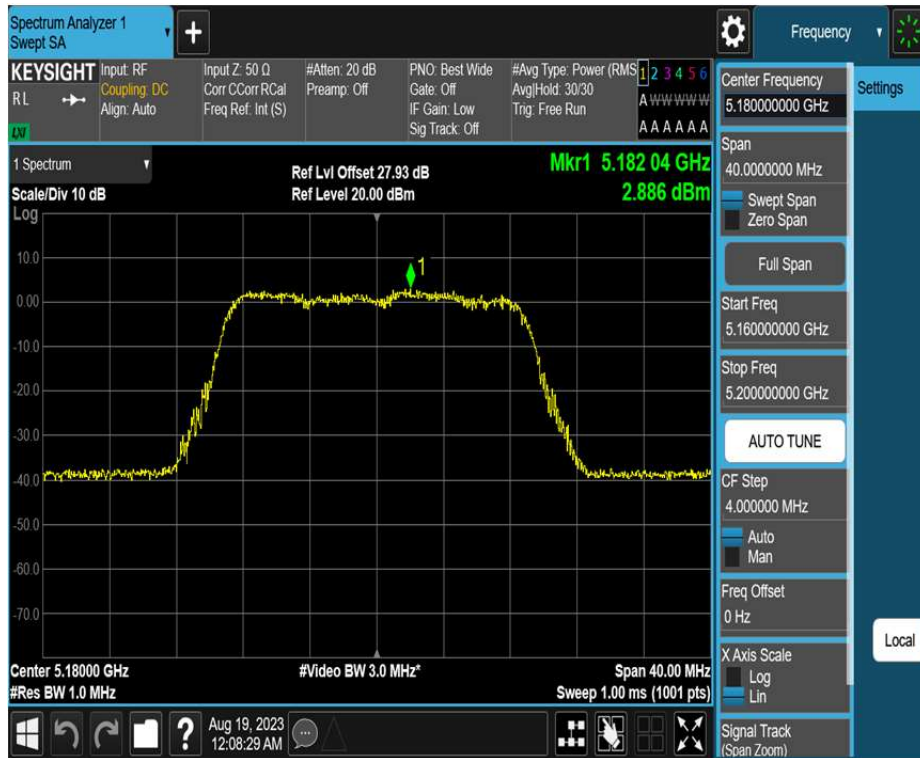
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11N20MIMO\_Ant3\_5180



11N20MIMO\_Ant4\_5180





11N20MIMO\_Ant1\_5200



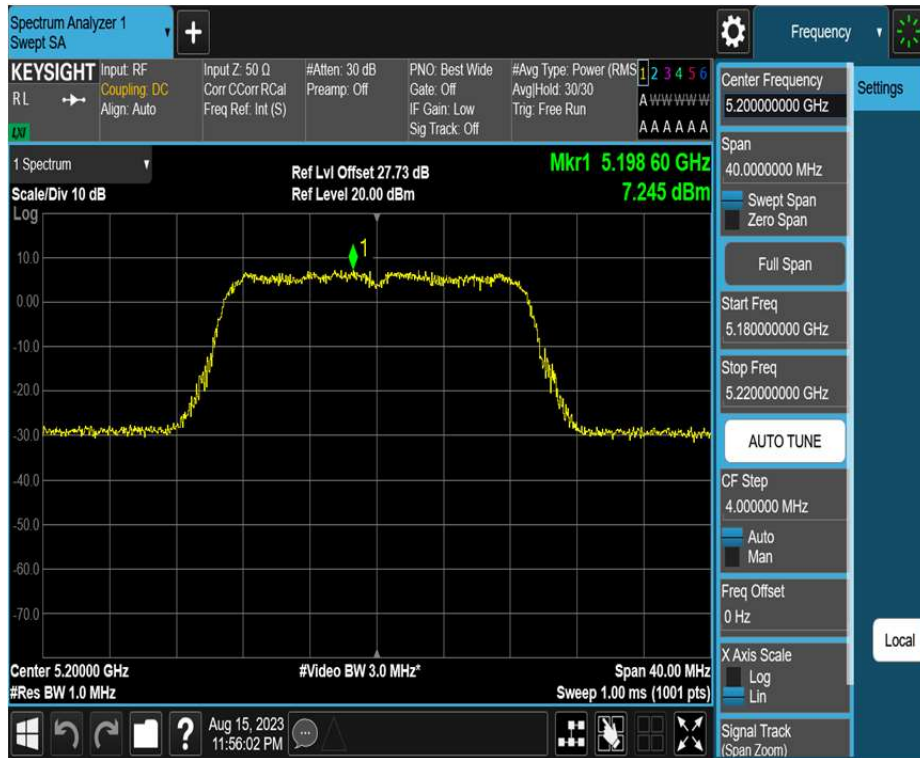
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11N20MIMO\_Ant3\_5200



11N20MIMO\_Ant4\_5200



11N20MIMO\_Ant1\_5240



11N20MIMO\_Ant2\_5240

