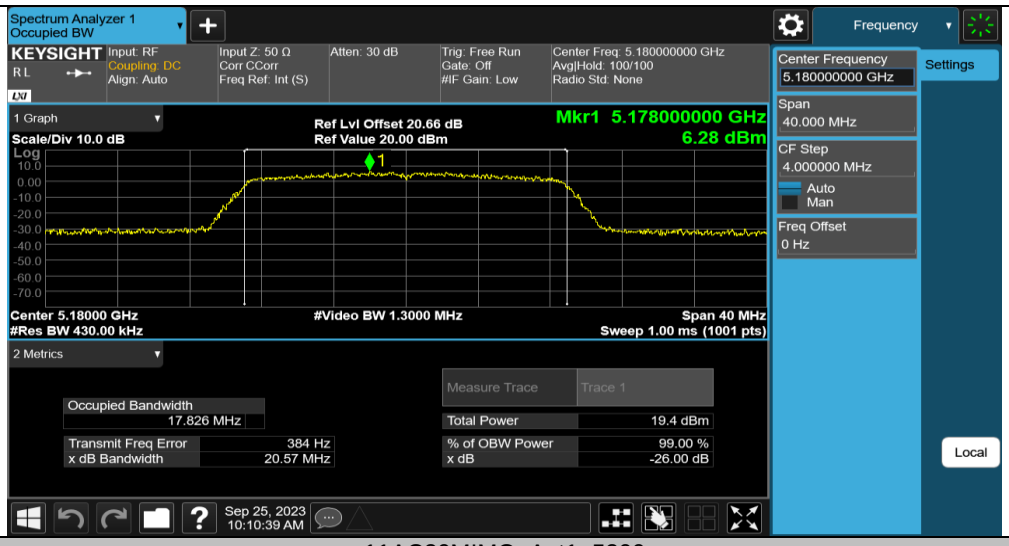
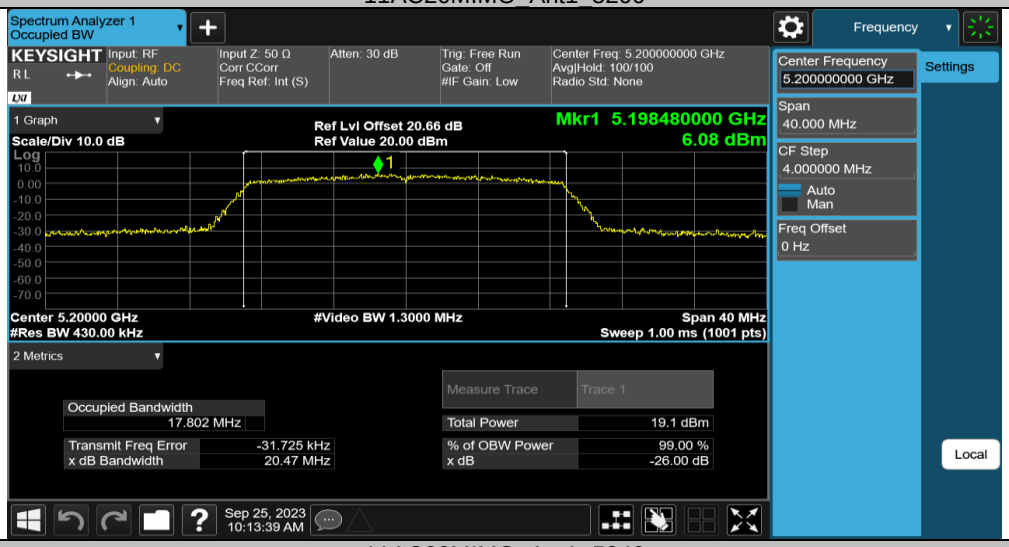


11AC20MIMO_Ant1_5200



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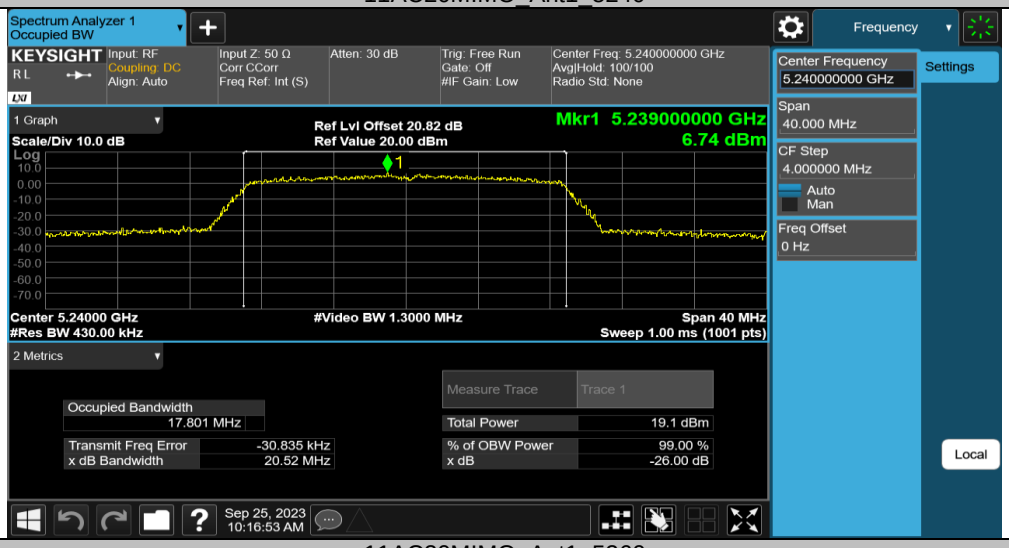
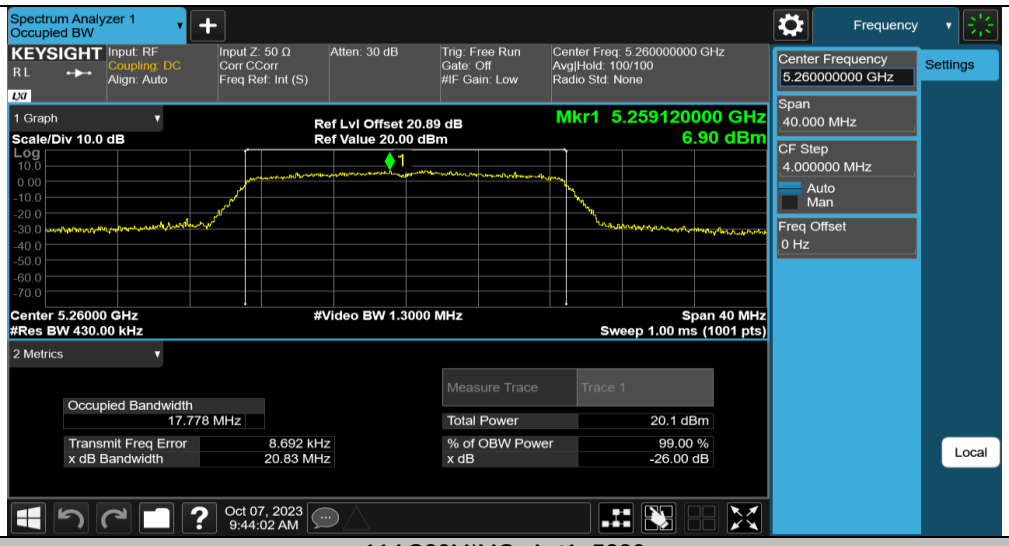
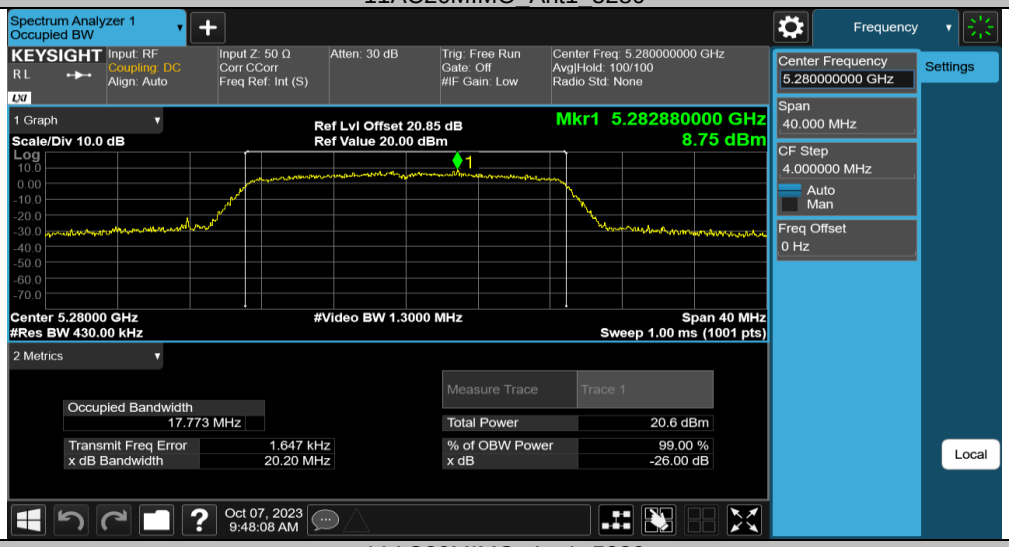


11AC20MIMO_Ant1_5260



11AC20MIMO_Ant1_5280



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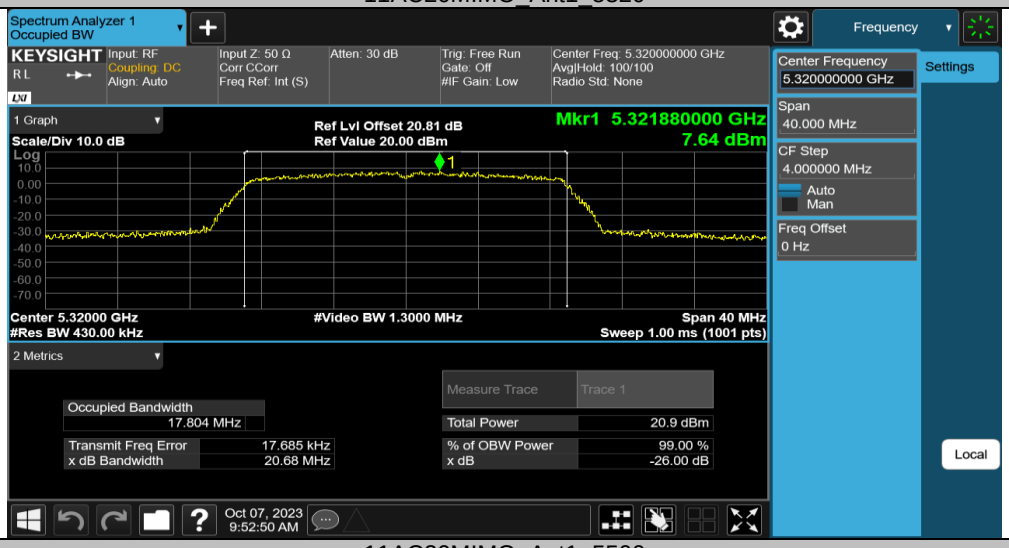
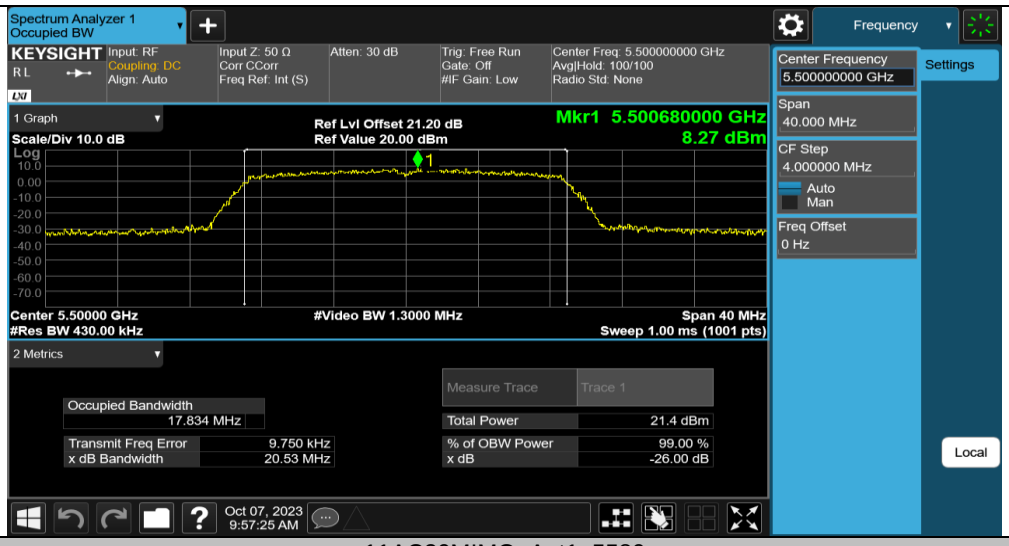
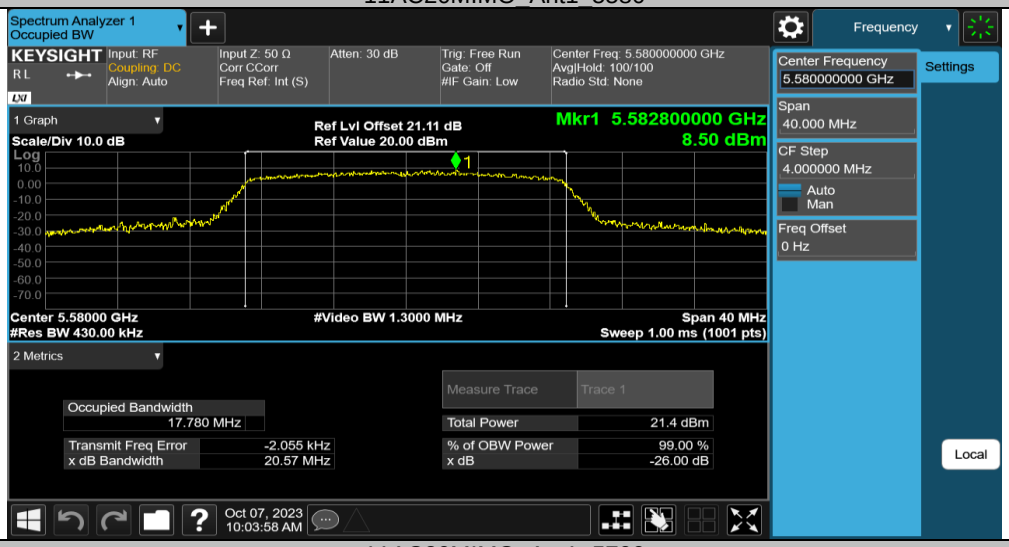


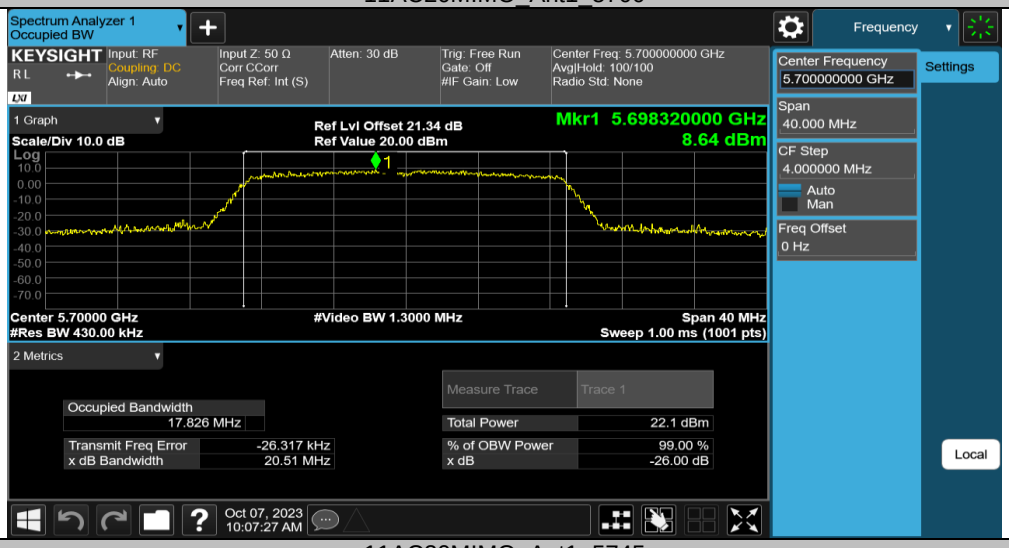
11AC20MIMO_Ant1_5500



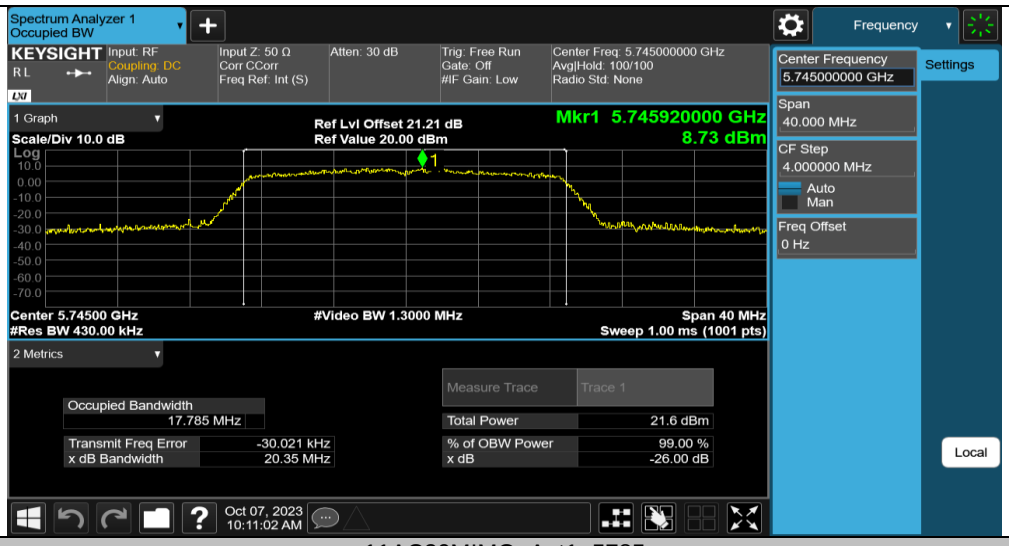
11AC20MIMO_Ant1_5580



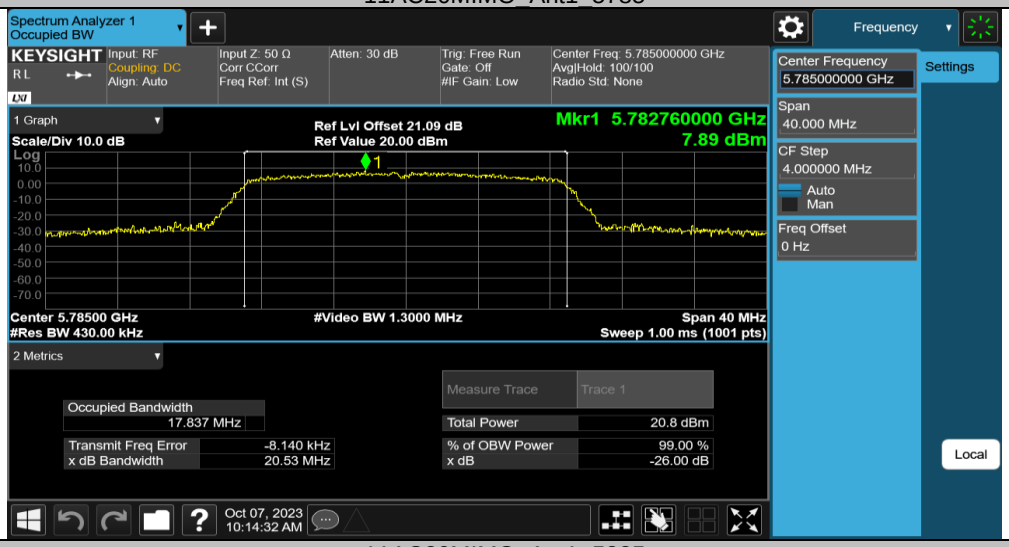
11AC20MIMO_Ant1_5700



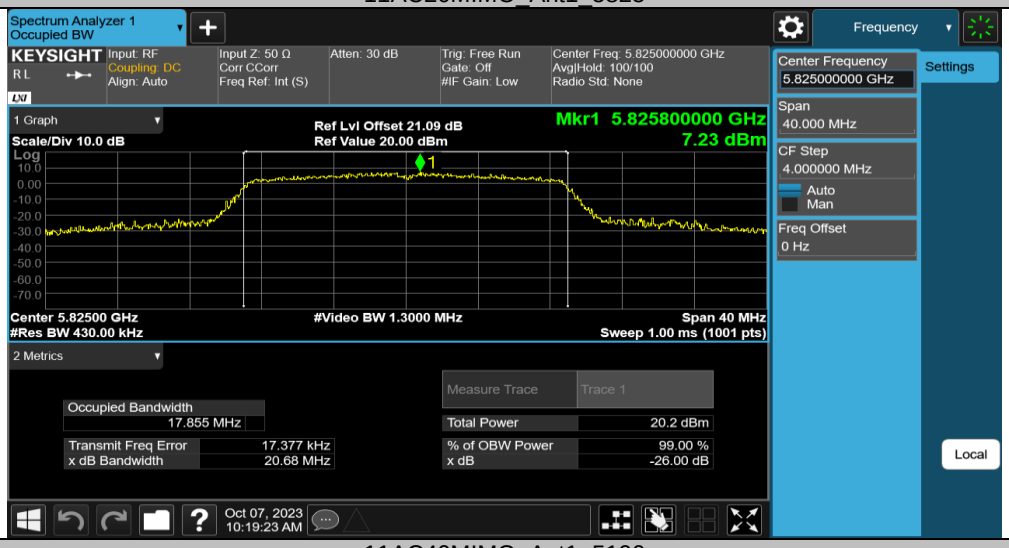
11AC20MIMO_Ant1_5745



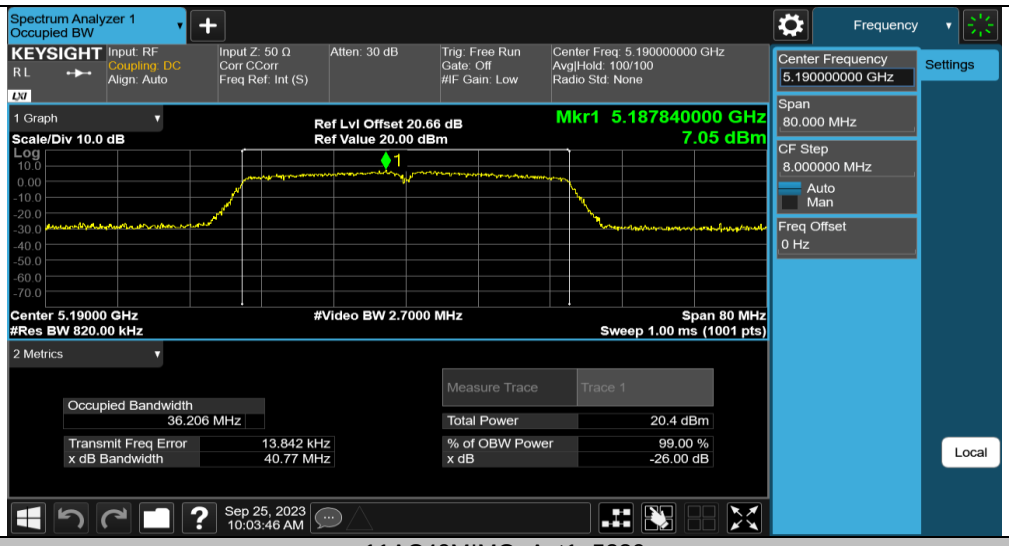
11AC20MIMO_Ant1_5785



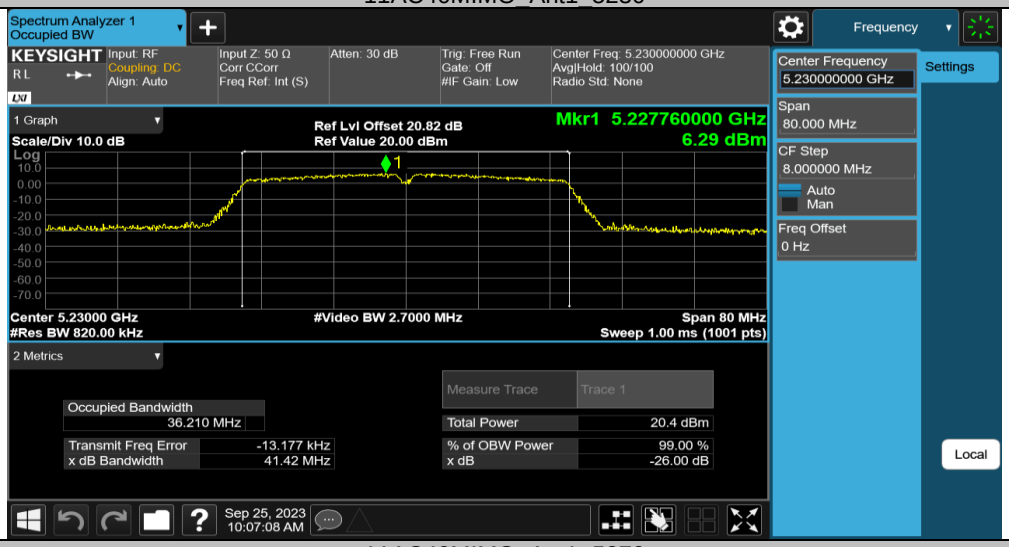
11AC20MIMO_Ant1_5825



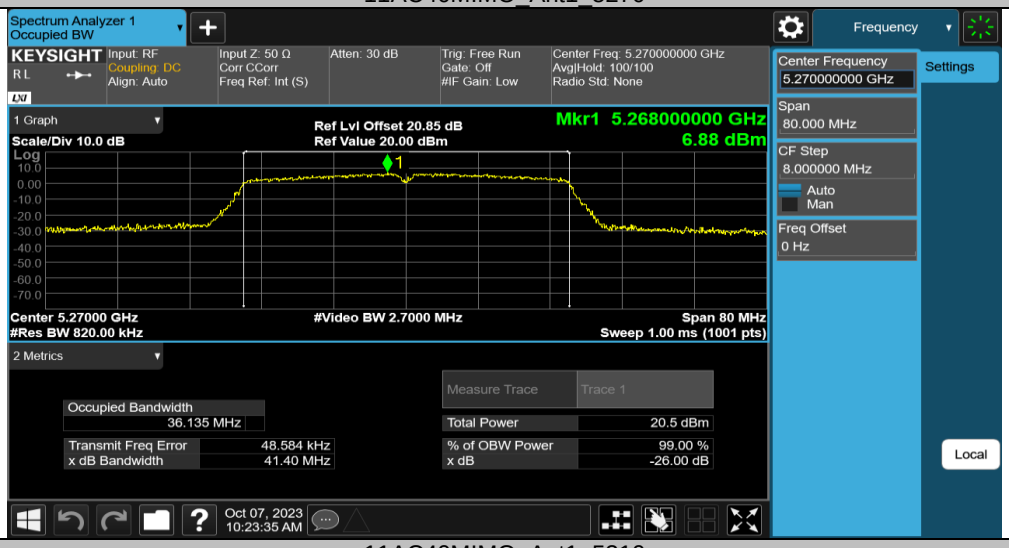
11AC40MIMO_Ant1_5190



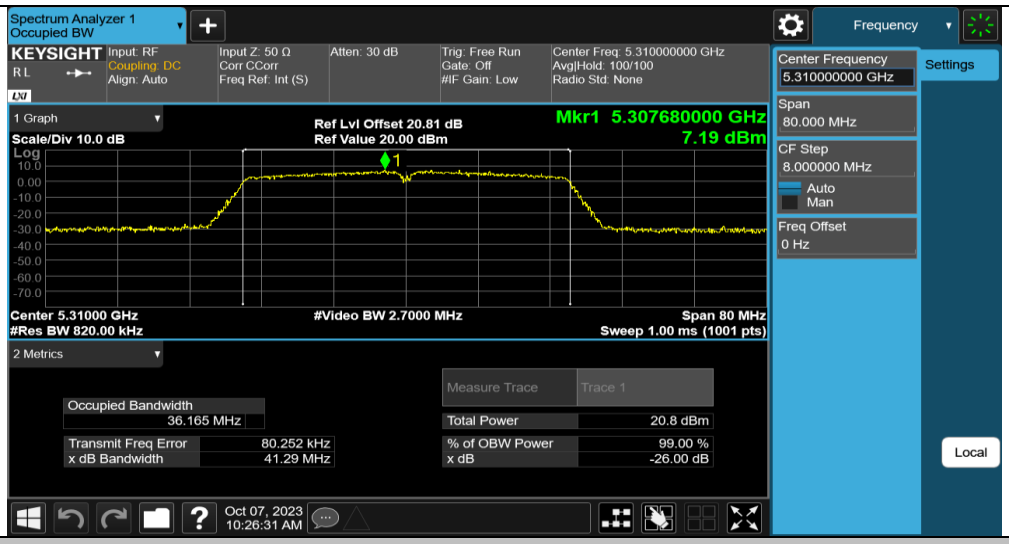
11AC40MIMO_Ant1_5230



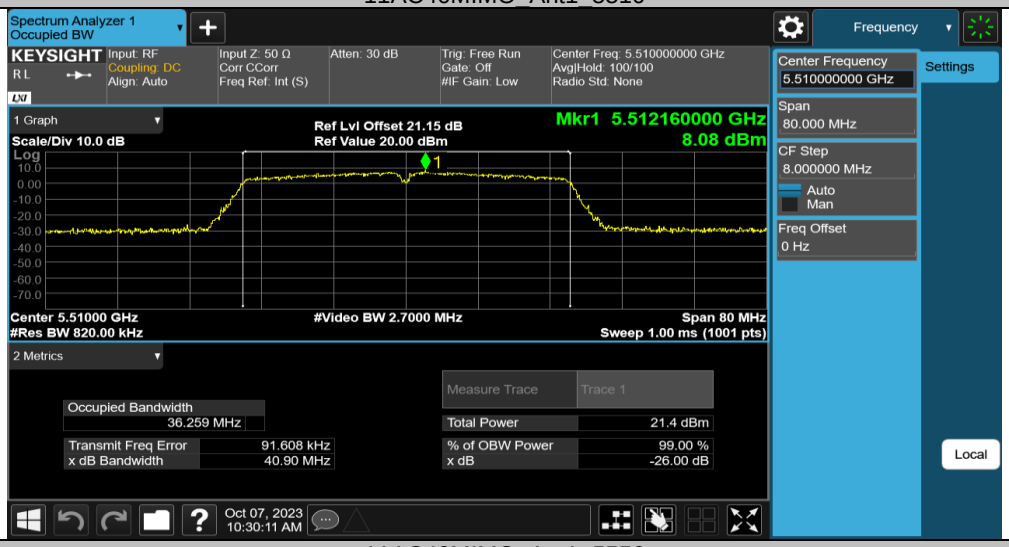
11AC40MIMO_Ant1_5270



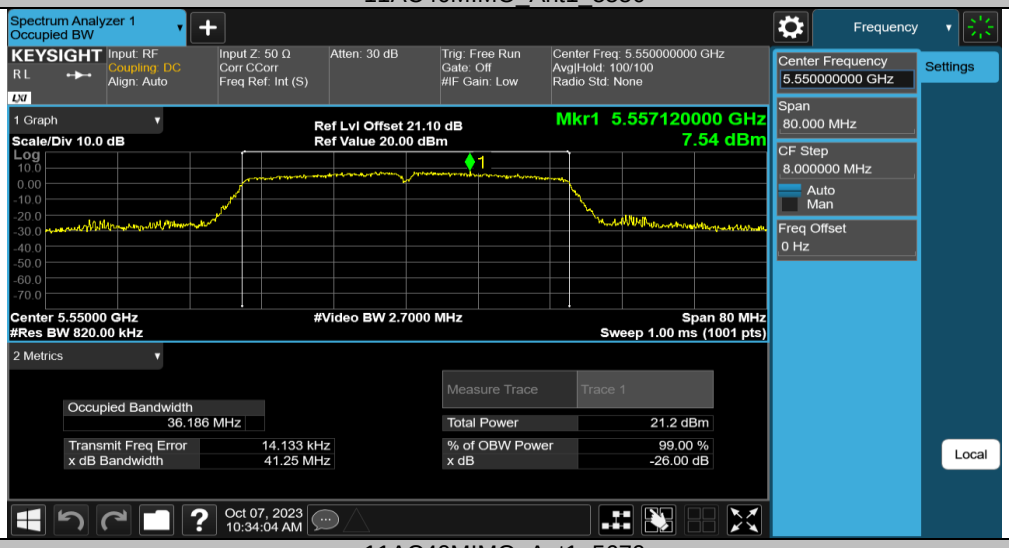
11AC40MIMO_Ant1_5310



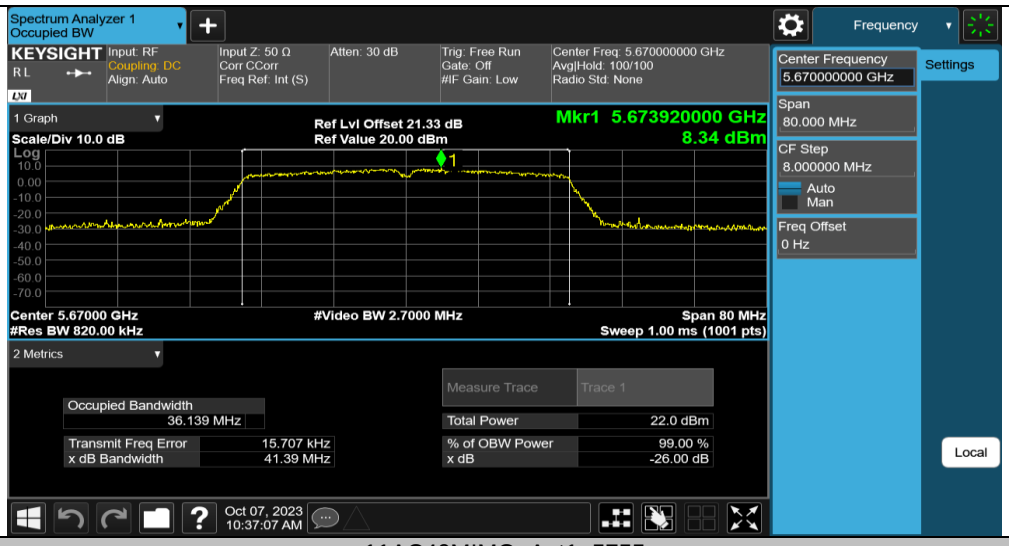
11AC40MIMO_Ant1_5510



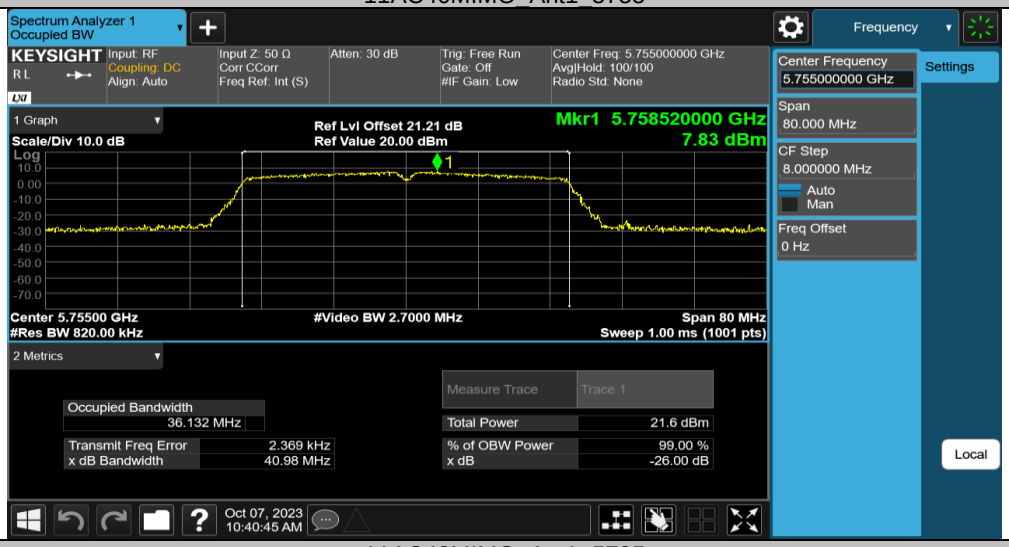
11AC40MIMO_Ant1_5550



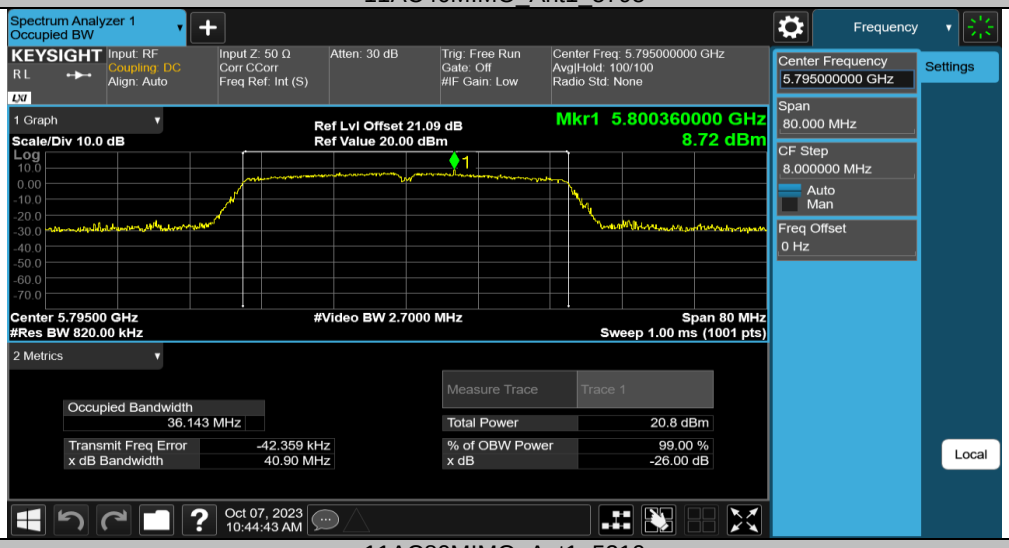
11AC40MIMO_Ant1_5670



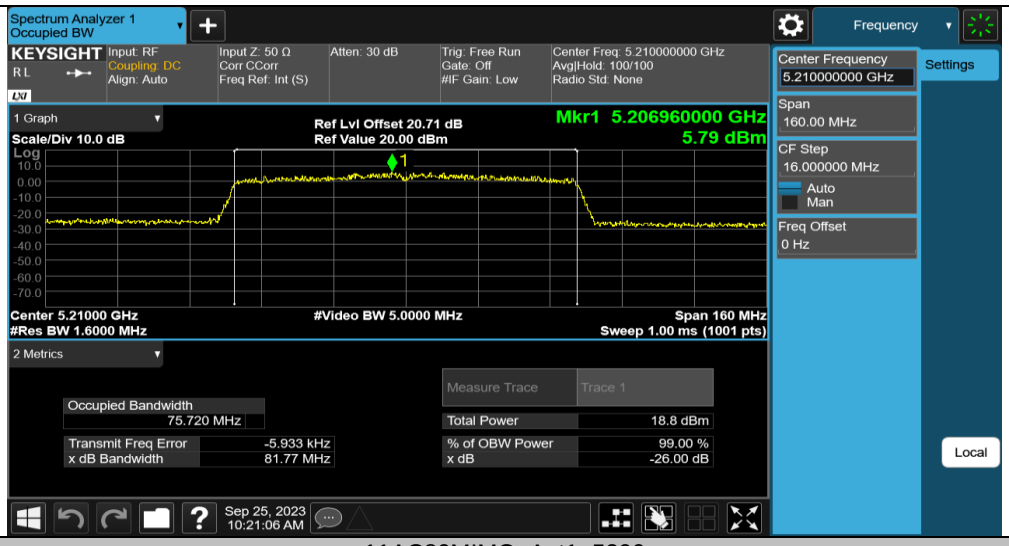
11AC40MIMO_Ant1_5755



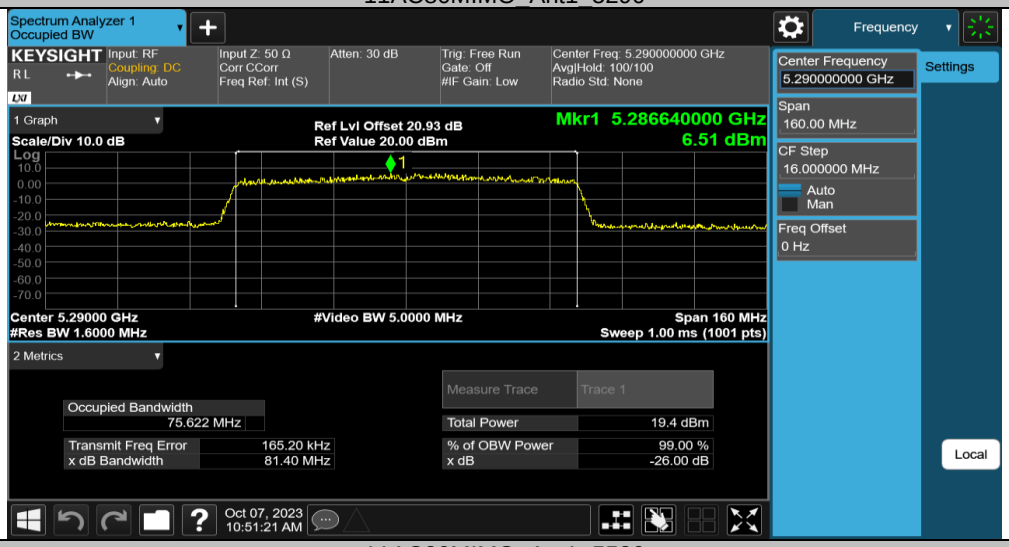
11AC40MIMO_Ant1_5795



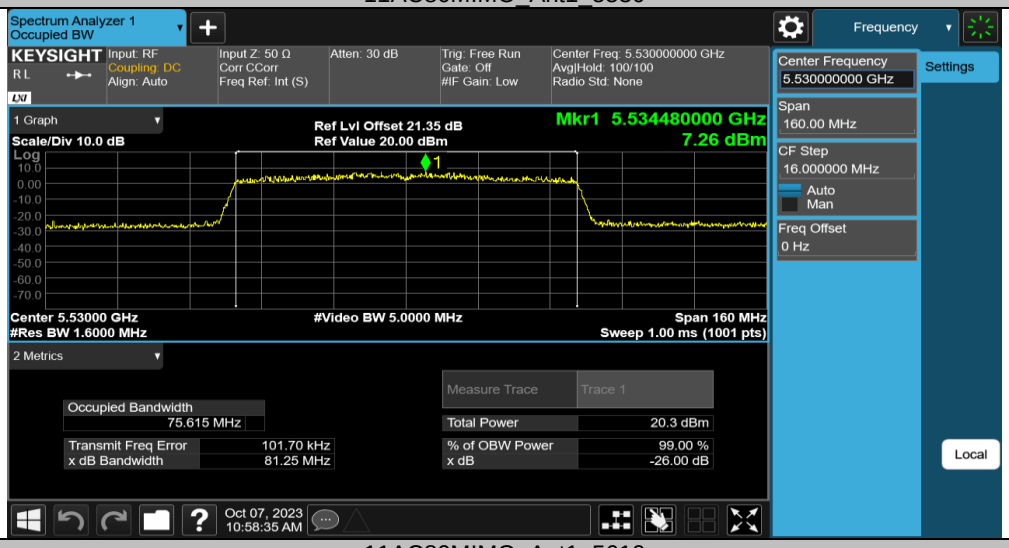
11AC80MIMO_Ant1_5210



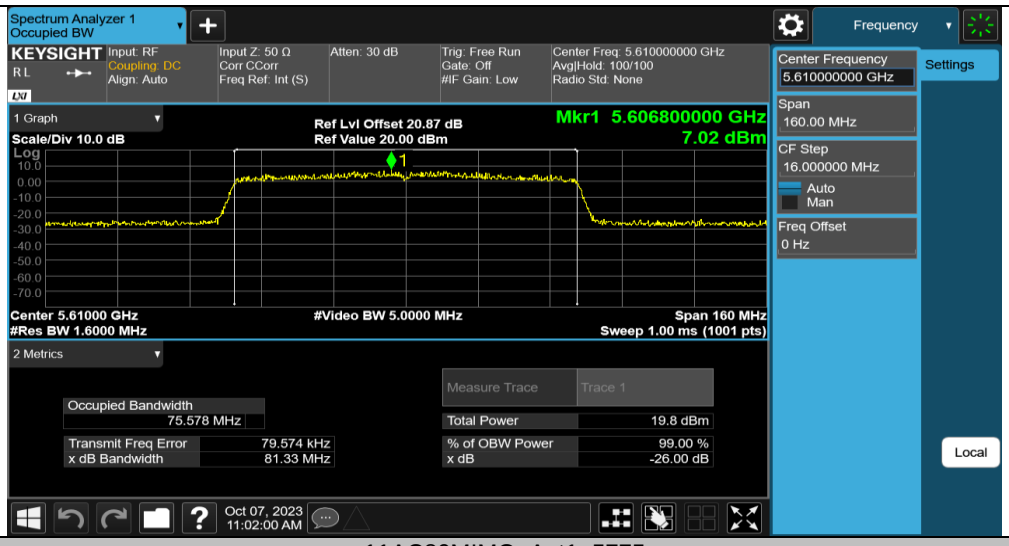
11AC80MIMO_Ant1_5290



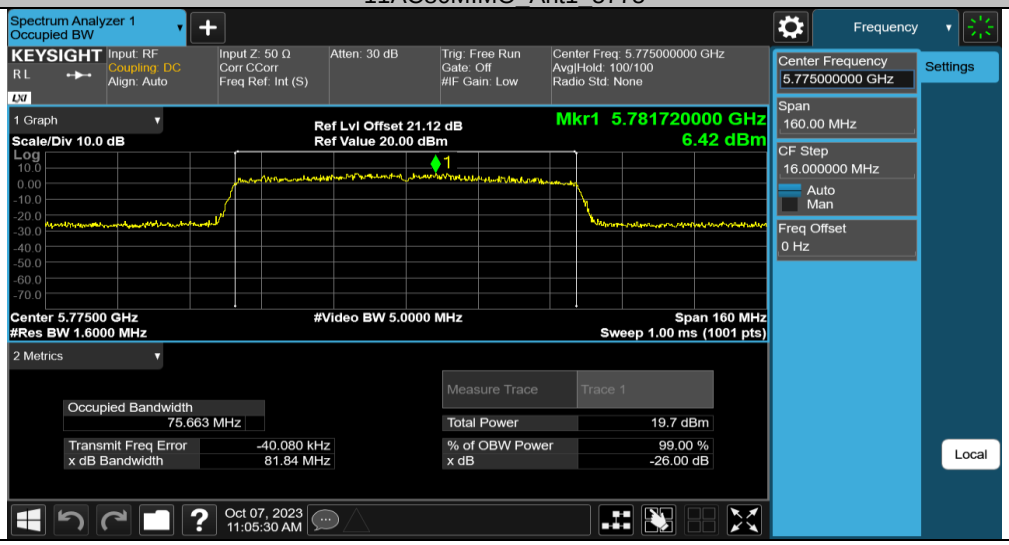
11AC80MIMO_Ant1_5530



11AC80MIMO_Ant1_5610

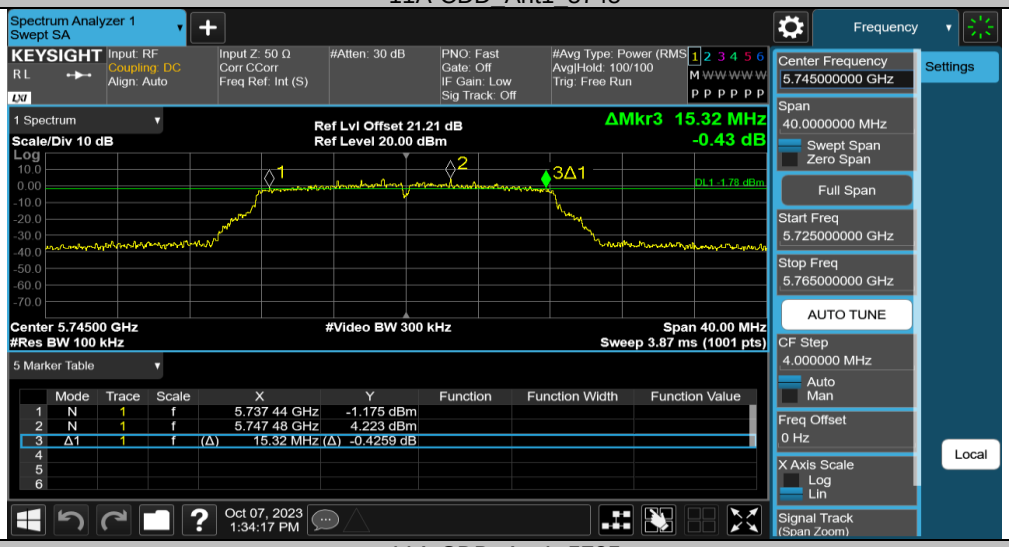


11AC80MIMO_Ant1_5775

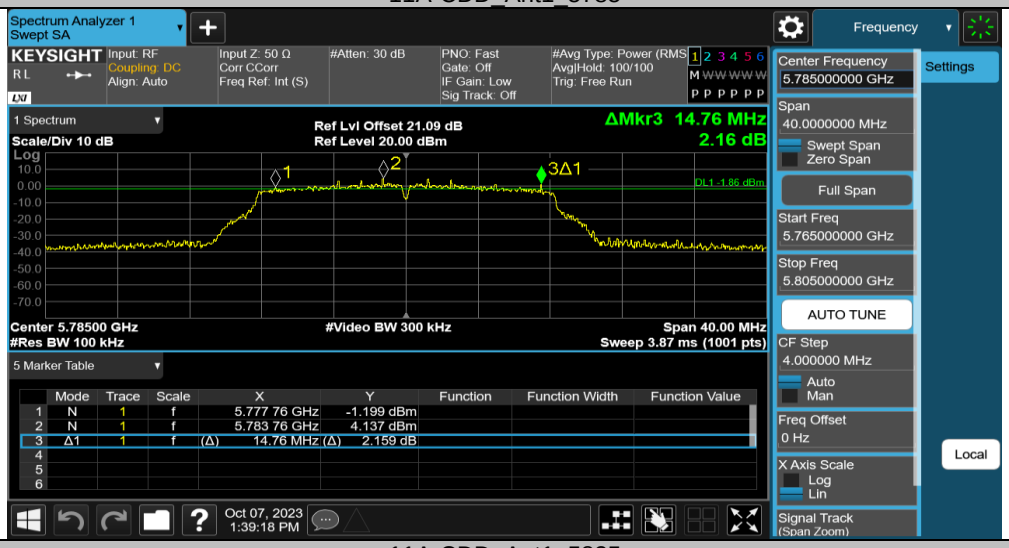


1.4 Test Graphs (Min emission bandwidth)

11A-CDD_Ant1_5745

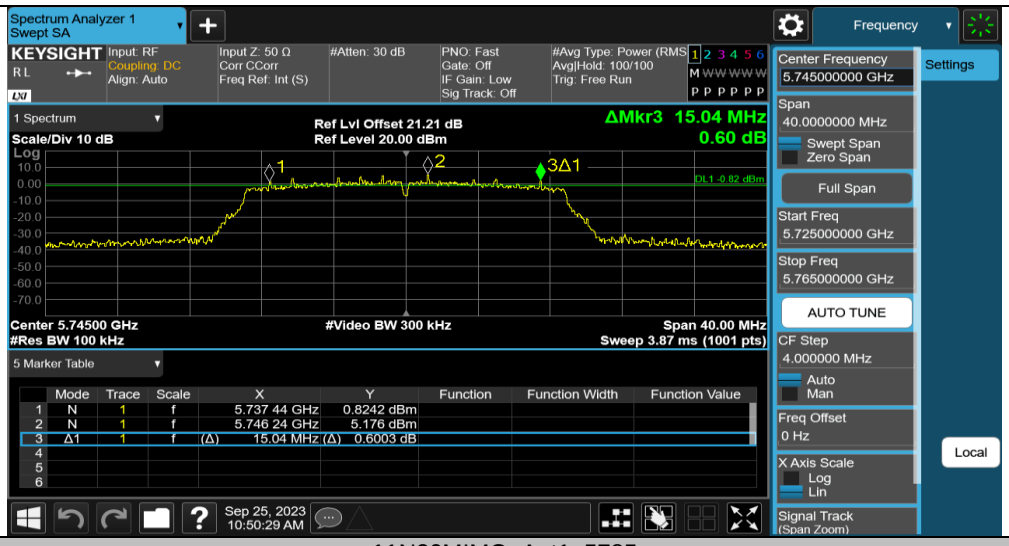


11A-CDD_Ant1_5785

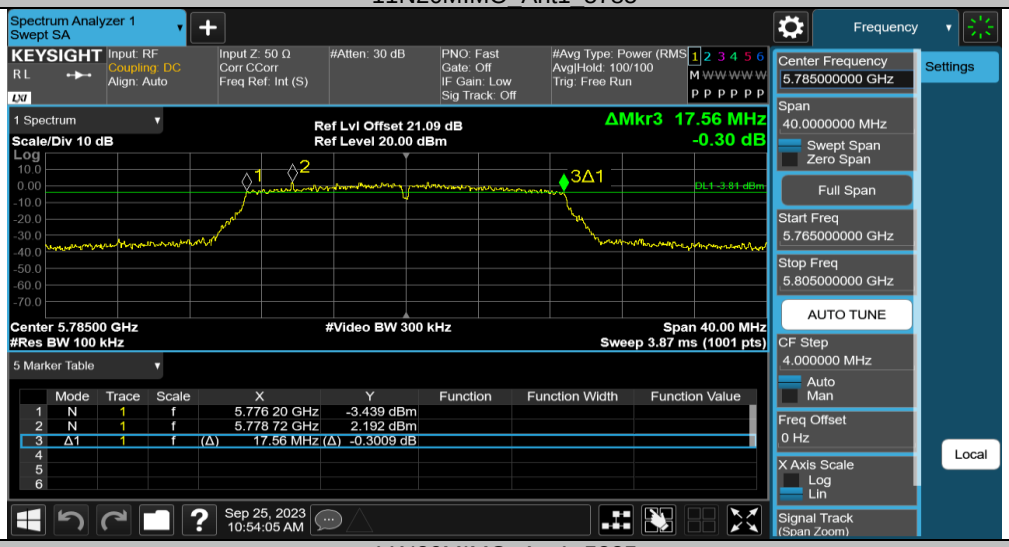


11A-CDD_Ant1_5825

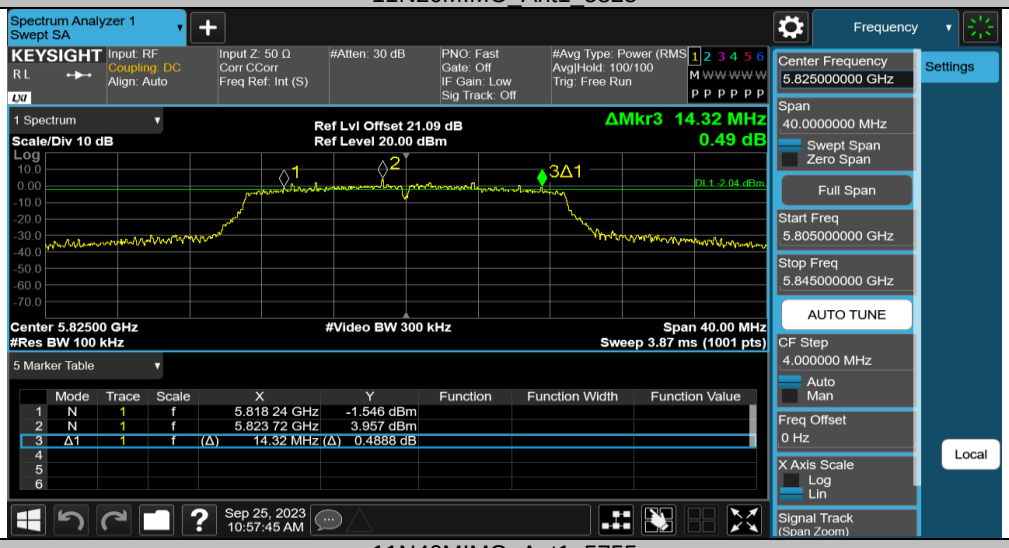
11N20MIMO_Ant1_5745



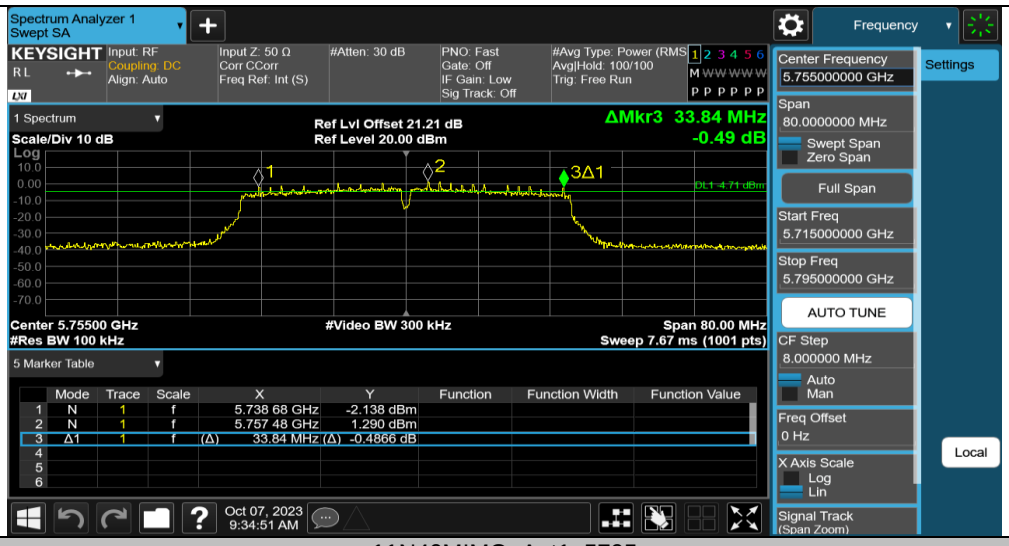
11N20MIMO_Ant1_5785



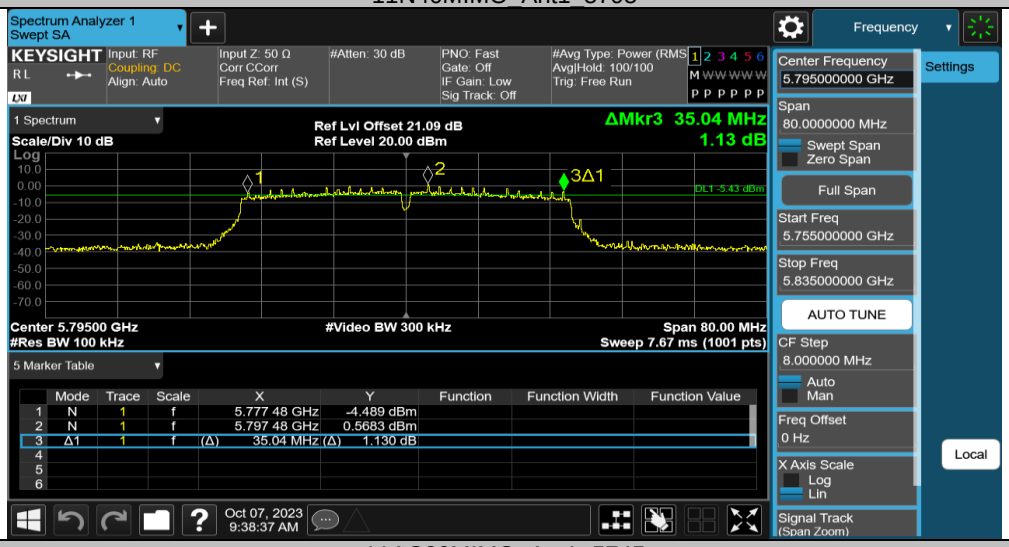
11N20MIMO_Ant1_5825



11N40MIMO_Ant1_5755

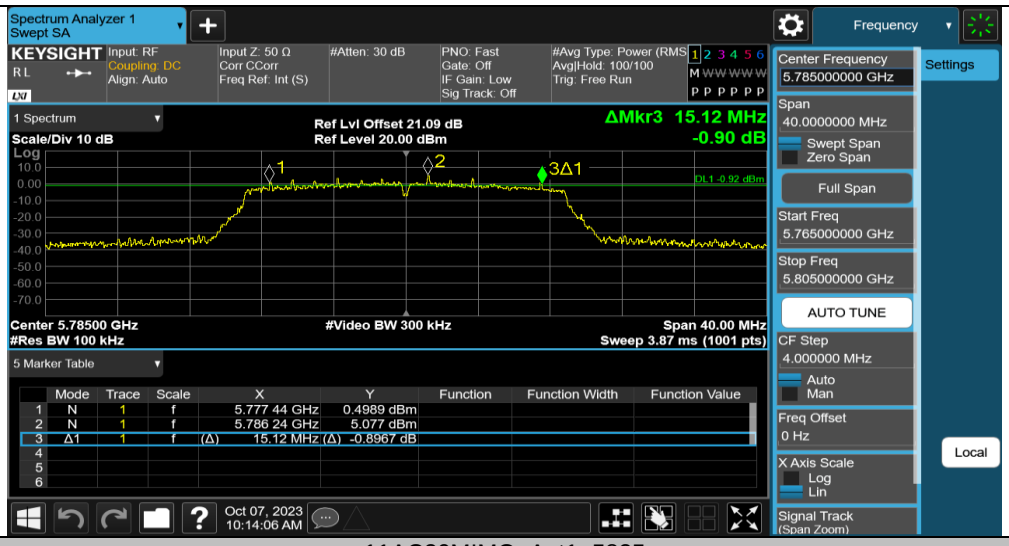


11N40MIMO_Ant1_5795

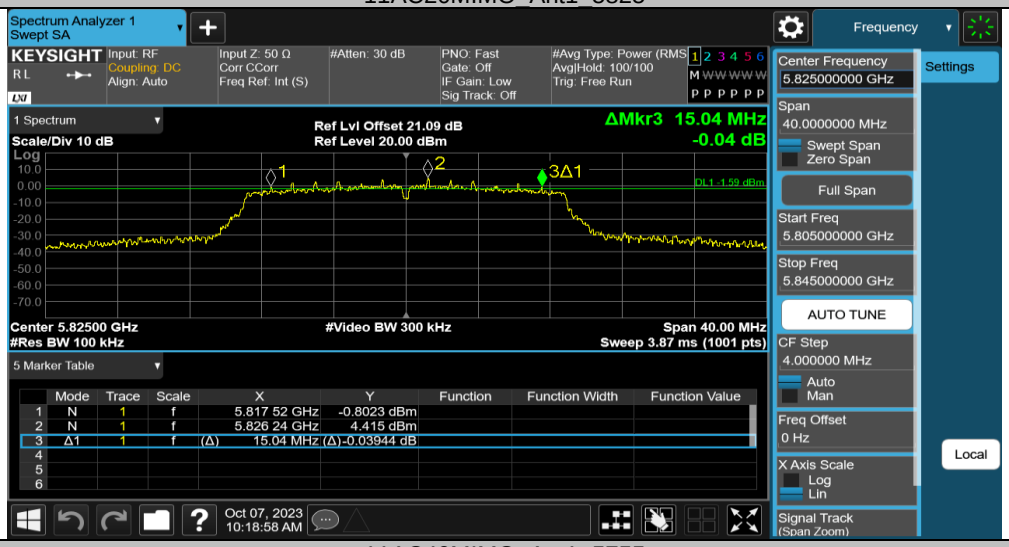


11AC20MIMO_Ant1_5745

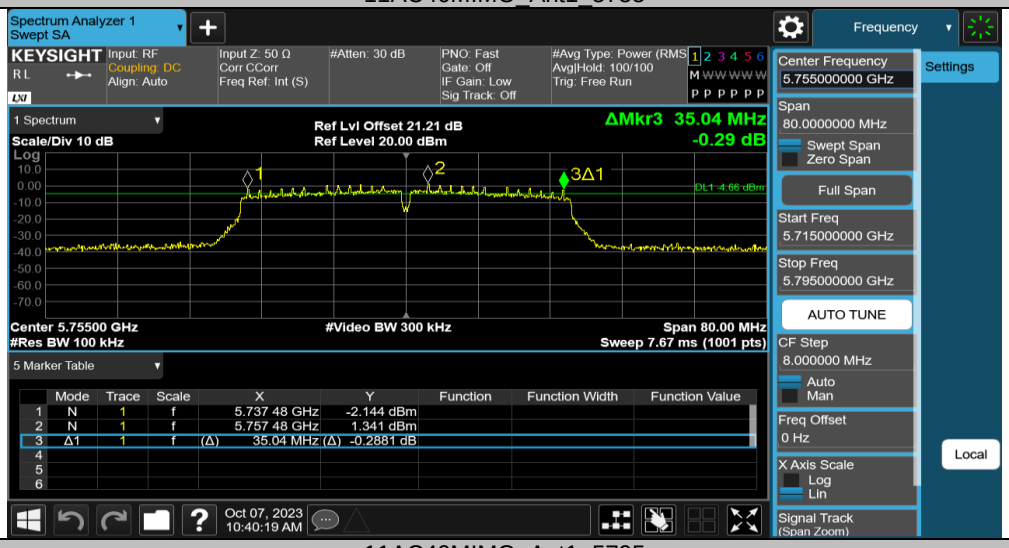
11AC20MIMO_Ant1_5785



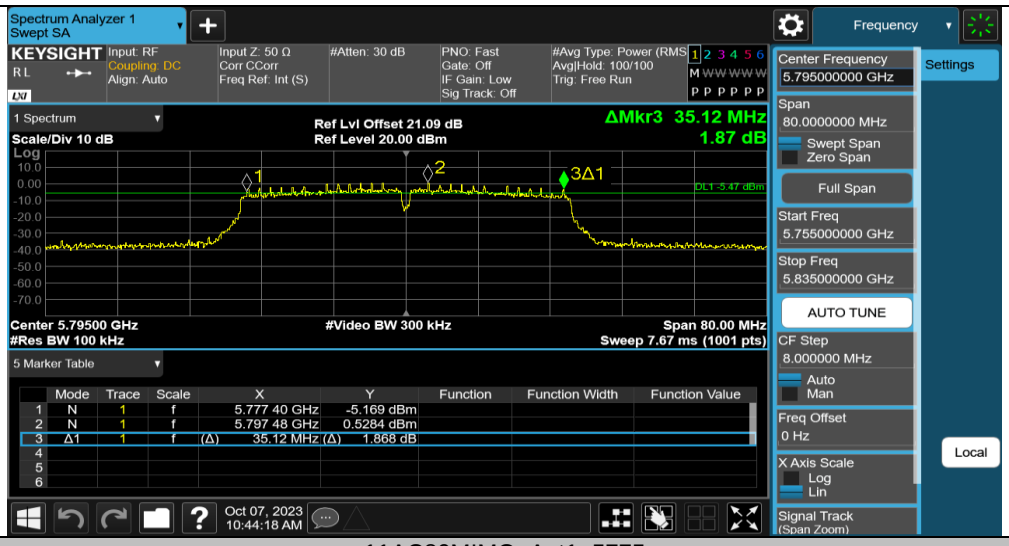
11AC20MIMO_Ant1_5825



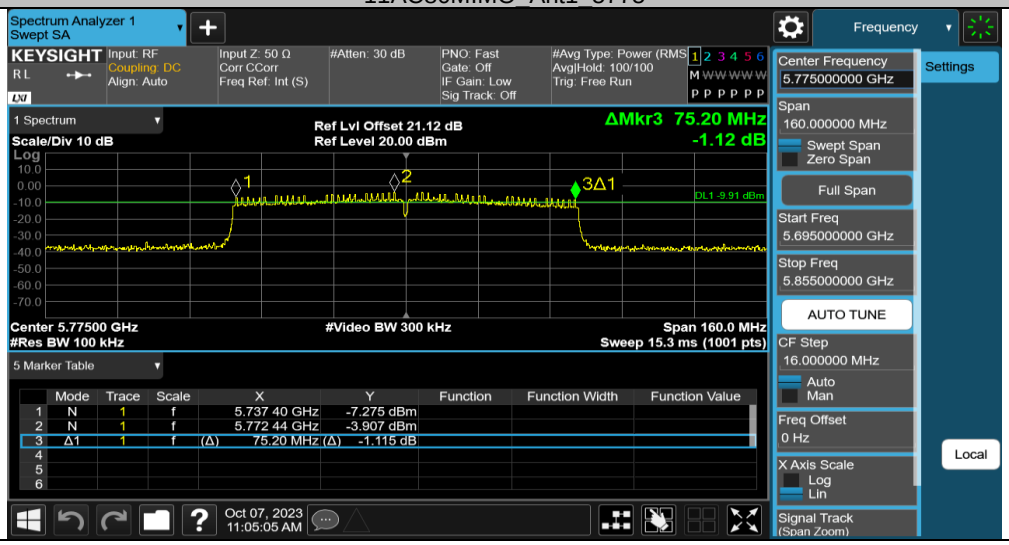
11AC40MIMO_Ant1_5755



11AC40MIMO_Ant1_5795



11AC80MIMO_Ant1_5775



2. Maximum output power

2.1 Test Data

U-NII-1:

TestMode	Antenna	Channel	Conducted Power Result [dBm]	FCC Limit Conducted Power [dBm]	EIRP [dBm]	ISED Limit EIRP [dBm]	Verdict
11A-CDD	Ant1	5180	14.89	≤23.98	17.86	≤22.50	PASS
	Ant2	5180	15.30	≤23.98	19.00	≤22.50	PASS
	Ant1	5200	14.79	≤23.98	17.76	≤22.50	PASS
	Ant2	5200	15.30	≤23.98	19.00	≤22.50	PASS
	Ant1	5240	14.74	≤23.98	17.71	≤22.50	PASS
	Ant2	5240	15.26	≤23.98	18.96	≤22.50	PASS
11N20MIMO	Ant1	5180	13.84	≤23.98	16.81	≤22.50	PASS
	Ant2	5180	14.13	≤23.98	17.83	≤22.50	PASS
	total	5180	17.00	≤23.63	20.36	≤22.50	PASS
	Ant1	5200	13.77	≤23.98	16.74	≤22.50	PASS
	Ant2	5200	14.25	≤23.98	17.95	≤22.50	PASS
	total	5200	17.03	≤23.63	20.40	≤22.50	PASS
	Ant1	5240	13.67	≤23.98	16.64	≤22.50	PASS
	Ant2	5240	14.10	≤23.98	17.80	≤22.50	PASS
	total	5240	16.90	≤23.63	20.27	≤22.50	PASS
11N40MIMO	Ant1	5190	14.08	≤23.98	17.05	≤22.50	PASS
	Ant2	5190	14.37	≤23.98	18.07	≤22.50	PASS
	total	5190	17.24	≤23.63	20.60	≤22.50	PASS
	Ant1	5230	14.07	≤23.98	17.04	≤22.50	PASS
	Ant2	5230	14.36	≤23.98	18.06	≤22.50	PASS
	total	5230	17.23	≤23.63	20.59	≤22.50	PASS
11AC20MIMO	Ant1	5180	13.76	≤23.98	16.73	≤22.50	PASS
	Ant2	5180	14.04	≤23.98	17.74	≤22.50	PASS
	total	5180	16.91	≤23.63	20.27	≤22.50	FAIL
	Ant1	5200	13.79	≤23.98	16.76	≤22.50	PASS
	Ant2	5200	14.23	≤23.98	17.93	≤22.50	PASS
	total	5200	17.03	≤23.63	20.39	≤22.50	PASS
	Ant1	5240	13.69	≤23.98	16.66	≤22.50	PASS
	Ant2	5240	13.95	≤23.98	17.65	≤22.50	PASS
	total	5240	16.83	≤23.63	20.19	≤22.50	PASS
11AC40MIMO	Ant1	5190	14.06	≤23.98	17.03	≤22.50	PASS
	Ant2	5190	14.38	≤23.98	18.08	≤22.50	PASS
	total	5190	17.23	≤23.63	20.60	≤22.50	PASS
	Ant1	5230	13.99	≤23.98	16.96	≤22.50	PASS
	Ant2	5230	14.26	≤23.98	17.96	≤22.50	PASS
	total	5230	17.14	≤23.63	20.50	≤22.50	PASS
11AC80MIMO	Ant1	5210	12.11	≤23.98	15.08	≤22.50	PASS
	Ant2	5210	12.31	≤23.98	16.01	≤22.50	PASS
	total	5210	15.22	≤23.63	18.58	≤22.50	PASS

Note:

1. As fro 802.11a, only SISO supported. Both RF ports tested, only the higher power data recorded above.
2. As fro 802.11n/ac, Both MIMO and SISO supported. Both MIMO and SISO mode tested, only the higher power mode MIMO recorded above.
3. As for MIMO mode for Antenna 1# and Antenna 2#, directional gain is 6.35dBi for U-NII-1, thus the power limit reduced by 0.35dB for U-NII-1.

U-NII-2A, U-NII-2C, U-NII-3:

TestMode	Antenna	Channel	Result[dBm]	Limit[dBm]	Verdict
11A-CDD	Ant1	5260	14.75	≤23.98	PASS
	Ant2	5260	14.96	≤23.98	PASS
	Ant1	5280	14.80	≤23.98	PASS
	Ant2	5280	14.89	≤23.98	PASS
	Ant1	5320	14.98	≤23.98	PASS
	Ant2	5320	14.66	≤23.98	PASS
	Ant1	5500	15.26	≤23.98	PASS
	Ant2	5500	13.21	≤23.98	PASS
	Ant1	5580	15.35	≤23.98	PASS
	Ant2	5580	12.76	≤23.98	PASS
	Ant1	5700	14.99	≤23.98	PASS
	Ant2	5700	13.16	≤23.98	PASS
	Ant1	5745	14.95	≤30.00	PASS
	Ant2	5745	13.37	≤30.00	PASS
	Ant1	5785	14.64	≤30.00	PASS
	Ant2	5785	13.48	≤30.00	PASS
	Ant1	5825	14.48	≤30.00	PASS
	Ant2	5825	13.78	≤30.00	PASS
11N20MIMO	Ant1	5260	14.76	≤23.98	PASS
	Ant2	5260	14.81	≤23.98	PASS
	total	5260	17.80	≤23.63	PASS
	Ant1	5280	14.93	≤23.98	PASS
	Ant2	5280	14.80	≤23.98	PASS
	total	5280	17.88	≤23.63	PASS
	Ant1	5320	15.11	≤23.98	PASS
	Ant2	5320	14.73	≤23.98	PASS
	total	5320	17.93	≤23.63	PASS
	Ant1	5500	15.25	≤23.98	PASS
	Ant2	5500	13.98	≤23.98	PASS
	total	5500	17.67	≤23.28	PASS
	Ant1	5580	15.26	≤23.98	PASS
	Ant2	5580	13.38	≤23.98	PASS
	total	5580	17.43	≤23.28	PASS
	Ant1	5700	15.08	≤23.98	PASS
	Ant2	5700	12.93	≤23.98	PASS
	total	5700	17.15	≤23.28	PASS
	Ant1	5745	15.01	≤30.00	PASS
	Ant2	5745	13.21	≤30.00	PASS
	total	5745	17.21	≤30.00	PASS
	Ant1	5785	14.63	≤30.00	PASS
	Ant2	5785	13.14	≤30.00	PASS
	total	5785	16.96	≤30.00	PASS
	Ant1	5825	14.52	≤30.00	PASS
	Ant2	5825	13.27	≤30.00	PASS
	total	5825	16.95	≤30.00	PASS
11N40MIMO	Ant1	5270	14.07	≤23.98	PASS
	Ant2	5270	13.67	≤23.98	PASS
	total	5270	16.88	≤23.63	PASS
	Ant1	5310	14.44	≤23.98	PASS
	Ant2	5310	13.89	≤23.98	PASS
	total	5310	17.18	≤23.28	PASS
	Ant1	5510	14.57	≤23.98	PASS
	Ant2	5510	13.05	≤23.98	PASS
	total	5510	16.89	≤23.28	PASS
	Ant1	5550	14.54	≤23.98	PASS
	Ant2	5550	12.70	≤23.98	PASS
	total	5550	16.73	≤23.28	PASS

	Ant1	5670	14.55	≤23.98	PASS
	Ant2	5670	12.43	≤23.98	PASS
	total	5670	16.63	≤23.28	PASS
	Ant1	5755	14.40	≤30.00	PASS
	Ant2	5755	12.69	≤30.00	PASS
	total	5755	16.64	≤30.00	PASS
	Ant1	5795	13.94	≤30.00	PASS
	Ant2	5795	12.62	≤30.00	PASS
	total	5795	16.34	≤30.00	PASS
11AC20MIMO	Ant1	5260	14.90	≤23.98	PASS
	Ant2	5260	14.71	≤23.98	PASS
	total	5260	17.82	≤23.63	PASS
	Ant1	5280	14.94	≤23.98	PASS
	Ant2	5280	14.77	≤23.98	PASS
	total	5280	17.87	≤23.63	PASS
	Ant1	5320	15.19	≤23.98	PASS
	Ant2	5320	14.78	≤23.98	PASS
	total	5320	18.00	≤23.63	PASS
	Ant1	5500	15.38	≤23.98	PASS
	Ant2	5500	13.85	≤23.98	PASS
	total	5500	17.69	≤23.28	PASS
	Ant1	5580	15.39	≤23.98	PASS
	Ant2	5580	13.15	≤23.98	PASS
	total	5580	17.42	≤23.28	PASS
	Ant1	5700	15.27	≤23.98	PASS
	Ant2	5700	12.83	≤23.98	PASS
	total	5700	17.23	≤23.28	PASS
	Ant1	5745	15.23	≤30.00	PASS
	Ant2	5745	12.95	≤30.00	PASS
	total	5745	17.25	≤30.00	PASS
	Ant1	5785	14.76	≤30.00	PASS
	Ant2	5785	11.88	≤30.00	PASS
	total	5785	16.56	≤30.00	PASS
	Ant1	5825	14.57	≤30.00	PASS
	Ant2	5825	11.96	≤30.00	PASS
	total	5825	16.47	≤30.00	PASS
11AC40MIMO	Ant1	5270	14.16	≤23.98	PASS
	Ant2	5270	14.17	≤23.98	PASS
	total	5270	17.18	≤23.63	PASS
	Ant1	5310	14.44	≤23.98	PASS
	Ant2	5310	14.05	≤23.98	PASS
	total	5310	17.26	≤23.28	PASS
	Ant1	5510	14.52	≤23.98	PASS
	Ant2	5510	13.12	≤23.98	PASS
	total	5510	16.89	≤23.28	PASS
	Ant1	5550	14.47	≤23.98	PASS
	Ant2	5550	12.72	≤23.98	PASS
	total	5550	16.69	≤23.28	PASS
	Ant1	5670	14.67	≤23.98	PASS
	Ant2	5670	12.46	≤23.98	PASS
	total	5670	16.71	≤23.28	PASS
	Ant1	5755	14.34	≤30.00	PASS
	Ant2	5755	12.83	≤30.00	PASS
	total	5755	16.66	≤30.00	PASS
	Ant1	5795	14.05	≤30.00	PASS
	Ant2	5795	12.85	≤30.00	PASS
	total	5795	16.50	≤30.00	PASS
11AC80MIMO	Ant1	5290	12.13	≤23.98	PASS
	Ant2	5290	12.16	≤23.98	PASS
	total	5290	15.16	≤23.63	PASS
	Ant1	5530	12.54	≤23.98	PASS
	Ant2	5530	10.89	≤23.98	PASS

	total	5530	14.80	≤23.28	PASS
	Ant1	5610	12.71	≤23.98	PASS
	Ant2	5610	11.04	≤23.98	PASS
	total	5610	14.97	≤23.28	PASS
	Ant1	5775	12.08	≤30.00	PASS
	Ant2	5775	10.95	≤30.00	PASS
	total	5775	14.56	≤30.00	PASS

Note:

1. As fro 802.11a, only SISO supported. Both RF ports tested, only the higher power data recorded above.
2. As fro 802.11n/ac, Both MIMO and SISO supported. Both MIMO and SISO mode tested, only the higher power mode MIMO recorded above.
3. As for MIMO mode for Antenna 1# and Antenna 2#, directional gain is 6.35dBi for U-NII-2A, 6.70dBi for U-NII-2C and 5.87dBi for U-NII-3, thus the power limit reduced by 0.35dB for U-NII-2A, 0.70dB for U-NII-2C and 0dBfor U-NII-3.
4. The maximum e.i.r.p. not greater than 500 mW, thus TPC function not required.

3. Power Spectral Density

3.1 Test Datas

Bands U-NII-1

TestMode	Antenna	Channel	Conducted PSD Result [dBm/MHz]	FCCLimit Conducted PSD [dBm/MHz]	EIRP PSD [dBm/MHz]	ISED Limit EIRP PSD [dBm/MHz]	Verdict
11A-CDD	Ant1	5180	3.81	≤11.00	6.78	≤10.00	PASS
	Ant2	5180	5.26	≤11.00	8.96	≤10.00	PASS
	Ant1	5200	3.53	≤11.00	6.50	≤10.00	PASS
	Ant2	5200	4.47	≤11.00	8.17	≤10.00	PASS
	Ant1	5240	3.78	≤11.00	6.75	≤10.00	PASS
	Ant2	5240	4.74	≤11.00	8.44	≤10.00	PASS
11N20MIMO	Ant1	5180	2.73	≤11.00	5.70	≤10.00	PASS
	Ant2	5180	3.38	≤11.00	7.08	≤10.00	PASS
	total	5180	6.08	≤10.65	9.45	≤10.00	PASS
	Ant1	5200	2.39	≤11.00	5.36	≤10.00	PASS
	Ant2	5200	3.27	≤11.00	6.97	≤10.00	PASS
	total	5200	5.86	≤10.65	9.25	≤10.00	PASS
	Ant1	5240	2.56	≤11.00	5.53	≤10.00	PASS
	Ant2	5240	3.23	≤11.00	6.93	≤10.00	PASS
	total	5240	5.92	≤10.65	9.30	≤10.00	PASS
11N40MIMO	Ant1	5190	-0.09	≤11.00	2.88	≤10.00	PASS
	Ant2	5190	0.61	≤11.00	4.31	≤10.00	PASS
	total	5190	3.28	≤10.65	6.66	≤10.00	PASS
	Ant1	5230	0.3	≤11.00	3.27	≤10.00	PASS
	Ant2	5230	0.72	≤11.00	4.42	≤10.00	PASS
	total	5230	3.53	≤10.65	6.89	≤10.00	PASS
11AC20MIMO	Ant1	5180	3.06	≤11.00	6.03	≤10.00	PASS
	Ant2	5180	3.55	≤11.00	7.25	≤10.00	PASS
	total	5180	6.32	≤10.65	9.69	≤10.00	FAIL
	Ant1	5200	2.84	≤11.00	5.81	≤10.00	PASS
	Ant2	5200	3.29	≤11.00	6.99	≤10.00	PASS
	total	5200	6.08	≤10.65	9.45	≤10.00	PASS
	Ant1	5240	2.95	≤11.00	5.92	≤10.00	PASS
	Ant2	5240	3.47	≤11.00	7.17	≤10.00	PASS
	total	5240	6.23	≤10.65	9.60	≤10.00	PASS
11AC40MIMO	Ant1	5190	0.18	≤11.00	3.15	≤10.00	PASS
	Ant2	5190	1.04	≤11.00	4.74	≤10.00	PASS
	total	5190	3.64	≤10.65	7.03	≤10.00	PASS
	Ant1	5230	0.22	≤11.00	3.19	≤10.00	PASS
	Ant2	5230	0.74	≤11.00	4.44	≤10.00	PASS
	total	5230	3.50	≤10.65	6.87	≤10.00	PASS
11AC80MIMO	Ant1	5210	-5.02	≤11.00	-2.05	≤10.00	PASS
	Ant2	5210	-4.16	≤11.00	-0.46	≤10.00	PASS
	total	5210	-1.56	≤10.65	1.83	≤10.00	PASS

Note:

1. As for 802.11a, only SISO supported.
2. As for 802.11n/ac, both MIMO and SISO supported.
3. As for MIMO mode for Antenna 1# and Antenna 2#, directional gain is 6.35dBi, thus the power limit reduced by 0.35dB.

Bands U-NII-2A, U-NII-2C, U-NII-3

TestMode	Antenna	Channel	Result U-NII-2A, U-NII-2C [dBm/MHz] U-NII-3 [dBm/500KHz]	Limit U-NII-2A, U-NII-2C [dBm/MHz] U-NII-3 [dBm/500KHz]	Verdict
11A-CDD	Ant1	5260	4.12	≤11.00	PASS
	Ant2	5260	4.48	≤11.00	PASS
	Ant1	5280	4.41	≤11.00	PASS
	Ant2	5280	4.51	≤11.00	PASS
	Ant1	5320	4.68	≤11.00	PASS
	Ant2	5320	4.66	≤11.00	PASS
	Ant1	5500	5.22	≤11.00	PASS
	Ant2	5500	3.66	≤11.00	PASS
	Ant1	5580	5.34	≤11.00	PASS
	Ant2	5580	2.94	≤11.00	PASS
	Ant1	5700	6.1	≤11.00	PASS
	Ant2	5700	4.04	≤11.00	PASS
	Ant1	5745	2.72	≤30.00	PASS
	Ant2	5745	0.98	≤30.00	PASS
	Ant1	5785	1.85	≤30.00	PASS
	Ant2	5785	0.86	≤30.00	PASS
	Ant1	5825	1.32	≤30.00	PASS
	Ant2	5825	0.74	≤30.00	PASS
11N20MIMO	Ant1	5260	3.63	≤11.00	PASS
	Ant2	5260	4.19	≤11.00	PASS
	total	5260	6.93	≤10.65	PASS
	Ant1	5280	4.48	≤11.00	PASS
	Ant2	5280	4.33	≤11.00	PASS
	total	5280	7.42	≤10.65	PASS
	Ant1	5320	4.55	≤11.00	PASS
	Ant2	5320	4.21	≤11.00	PASS
	total	5320	7.39	≤10.65	PASS
	Ant1	5500	4.98	≤11.00	PASS
	Ant2	5500	4.13	≤11.00	PASS
	total	5500	7.59	≤10.30	PASS
	Ant1	5580	4.86	≤11.00	PASS
	Ant2	5580	3.01	≤11.00	PASS
	total	5580	7.04	≤10.30	PASS
	Ant1	5700	5.53	≤11.00	PASS
	Ant2	5700	3.28	≤11.00	PASS
	total	5700	7.56	≤10.30	PASS
	Ant1	5745	2.63	≤30.00	PASS
	Ant2	5745	0.83	≤30.00	PASS
	total	5745	4.83	≤30.00	PASS
	Ant1	5785	1.71	≤30.00	PASS
	Ant2	5785	0.51	≤30.00	PASS
	total	5785	4.16	≤30.00	PASS
	Ant1	5825	1.23	≤30.00	PASS
	Ant2	5825	0.12	≤30.00	PASS
	total	5825	3.72	≤30.00	PASS
11N40MIMO	Ant1	5270	0.42	≤11.00	PASS
	Ant2	5270	0.49	≤11.00	PASS
	total	5270	3.47	≤10.65	PASS
	Ant1	5310	-0.02	≤11.00	PASS
	Ant2	5310	-0.39	≤11.00	PASS
	total	5310	2.81	≤10.65	PASS
	Ant1	5510	0.31	≤11.00	PASS
	Ant2	5510	-0.81	≤11.00	PASS
	total	5510	2.80	≤10.30	PASS
	Ant1	5550	-0.09	≤11.00	PASS
	Ant2	5550	-1.55	≤11.00	PASS

	total	5550	2.25	≤10.30	PASS
	Ant1	5670	1.35	≤11.00	PASS
	Ant2	5670	-0.68	≤11.00	PASS
	total	5670	3.46	≤10.30	PASS
	Ant1	5755	-1.88	≤30.00	PASS
	Ant2	5755	-3.24	≤30.00	PASS
	total	5755	0.50	≤30.00	PASS
	Ant1	5795	-2.67	≤30.00	PASS
	Ant2	5795	-3.43	≤30.00	PASS
	total	5795	-0.02	≤30.00	PASS
11AC20MIMO	Ant1	5260	3.94	≤11.00	PASS
	Ant2	5260	4.13	≤11.00	PASS
	total	5260	7.05	≤10.65	PASS
	Ant1	5280	4.33	≤11.00	PASS
	Ant2	5280	4.26	≤11.00	PASS
	total	5280	7.31	≤10.65	PASS
	Ant1	5320	4.45	≤11.00	PASS
	Ant2	5320	4.38	≤11.00	PASS
	total	5320	7.43	≤10.65	PASS
	Ant1	5500	5.28	≤11.00	PASS
	Ant2	5500	3.76	≤11.00	PASS
	total	5500	7.60	≤10.30	PASS
	Ant1	5580	4.97	≤11.00	PASS
	Ant2	5580	3.03	≤11.00	PASS
	total	5580	7.12	≤10.30	PASS
	Ant1	5700	5.62	≤11.00	PASS
	Ant2	5700	3.48	≤11.00	PASS
	total	5700	7.69	≤10.30	PASS
	Ant1	5745	2.53	≤30.00	PASS
	Ant2	5745	0.36	≤30.00	PASS
	total	5745	4.59	≤30.00	PASS
	Ant1	5785	2.08	≤30.00	PASS
	Ant2	5785	-1	≤30.00	PASS
	total	5785	3.82	≤30.00	PASS
	Ant1	5825	1.48	≤30.00	PASS
	Ant2	5825	-1.2	≤30.00	PASS
	total	5825	3.35	≤30.00	PASS
11AC40MIMO	Ant1	5270	0.49	≤11.00	PASS
	Ant2	5270	0.51	≤11.00	PASS
	total	5270	3.51	≤10.65	PASS
	Ant1	5310	0.44	≤11.00	PASS
	Ant2	5310	0.48	≤11.00	PASS
	total	5310	3.47	≤10.65	PASS
	Ant1	5510	1.05	≤11.00	PASS
	Ant2	5510	0.16	≤11.00	PASS
	total	5510	3.64	≤10.30	PASS
	Ant1	5550	0.9	≤11.00	PASS
	Ant2	5550	-0.49	≤11.00	PASS
	total	5550	3.27	≤10.30	PASS
	Ant1	5670	2.19	≤11.00	PASS
	Ant2	5670	-0.02	≤11.00	PASS
	total	5670	4.23	≤10.30	PASS
	Ant1	5755	-1.35	≤30.00	PASS
	Ant2	5755	-3.01	≤30.00	PASS
	total	5755	0.91	≤30.00	PASS
	Ant1	5795	-1.88	≤30.00	PASS
	Ant2	5795	-3.14	≤30.00	PASS
	total	5795	0.55	≤30.00	PASS
11AC80MIMO	Ant1	5290	-4.49	≤11.00	PASS
	Ant2	5290	-4.14	≤11.00	PASS
	total	5290	-1.30	≤10.65	PASS
	Ant1	5530	-3.58	≤11.00	PASS

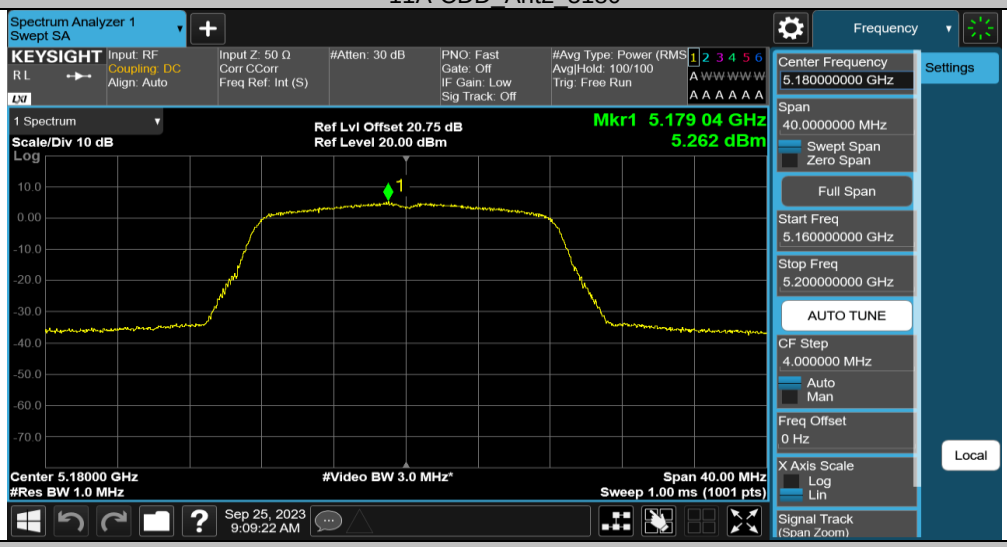
	Ant2	5530	-5.21	≤11.00	PASS
	total	5530	-1.31	≤10.30	PASS
	Ant1	5610	-4.06	≤11.00	PASS
	Ant2	5610	-5.63	≤11.00	PASS
	total	5610	-1.76	≤10.30	PASS
	Ant1	5775	-7.03	≤30.00	PASS
	Ant2	5775	-7.2	≤30.00	PASS
	total	5775	-4.10	≤30.00	PASS

Note:

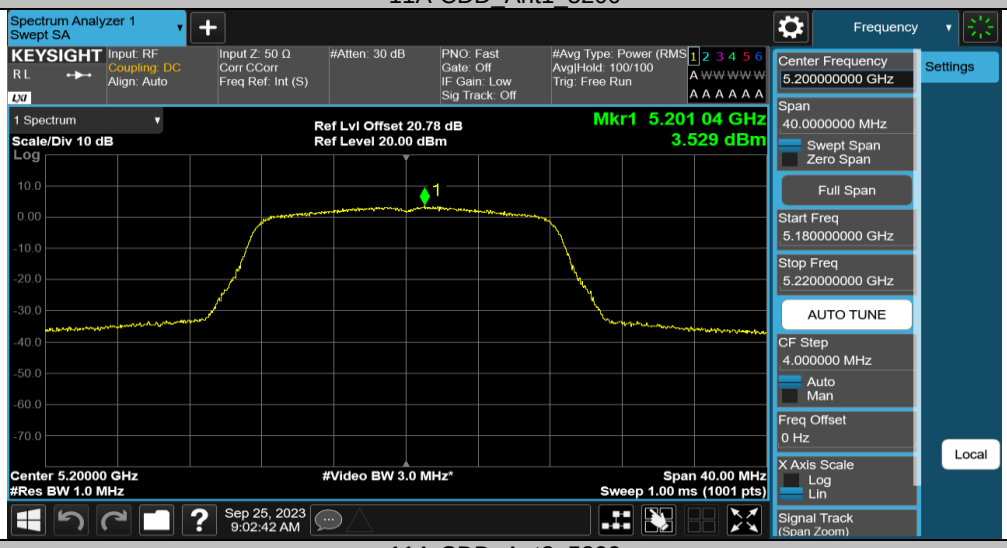
1. As for 802.11a, only SISO supported.
2. As for 802.11n/ac, both MIMO and SISO supported.
3. As for MIMO mode for Antenna 1# and Antenna 2#, directional gain is 6.35dBi for U-NII-2A, 6.70dBi for U-NII-2C and 5.87dBi for U-NII-3, thus the power limit reduced by 0.35dB for U-NII-2A, 0.70dB for U-NII-2C and 0dBfor U-NII-3.

11A-CDD_Ant1_5180

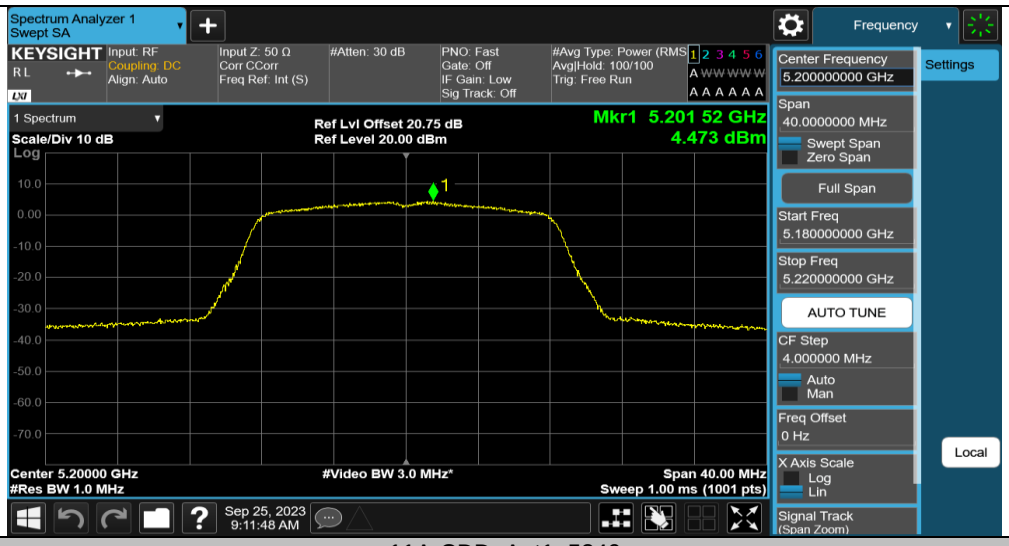
11A-CDD_Ant2_5180



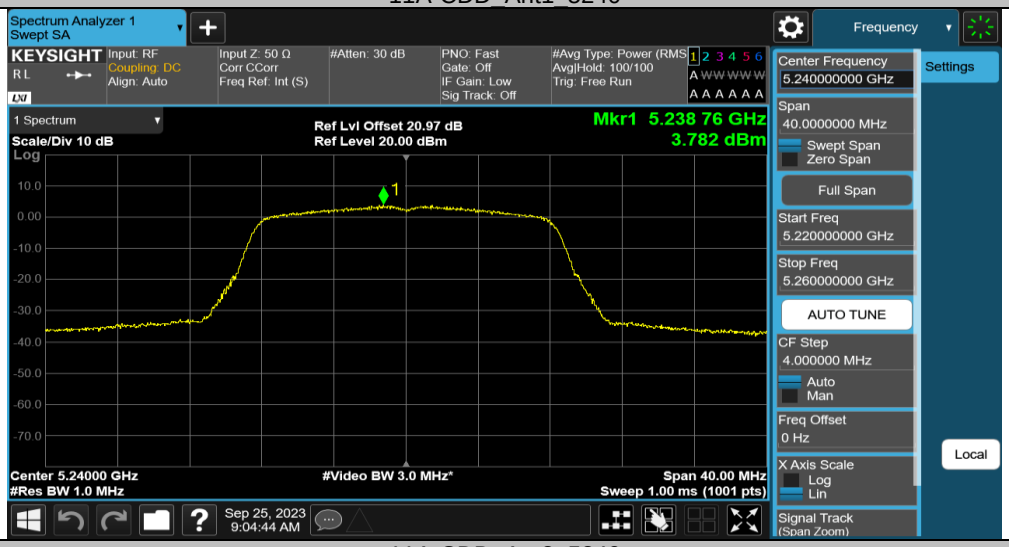
11A-CDD_Ant1_5200



11A-CDD_Ant2_5200



11A-CDD_Ant1_5240



11A-CDD_Ant2_5240

11A-CDD_Ant1_5260