

# Appendix A- 5GWi-Fi(U-NII-1&U-NII-2A)

5150 ~ 5250MHz

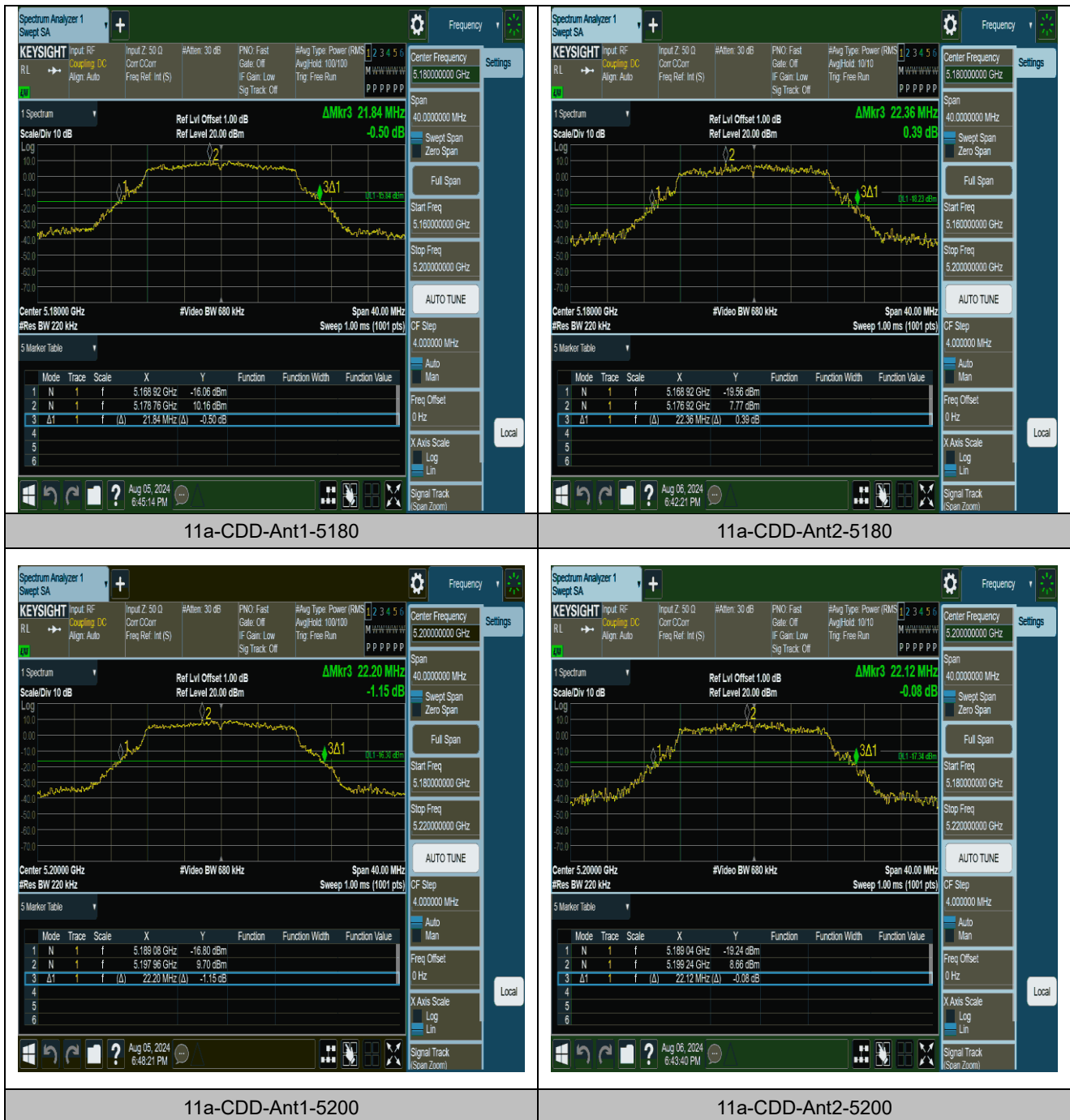
## Emission Bandwidth

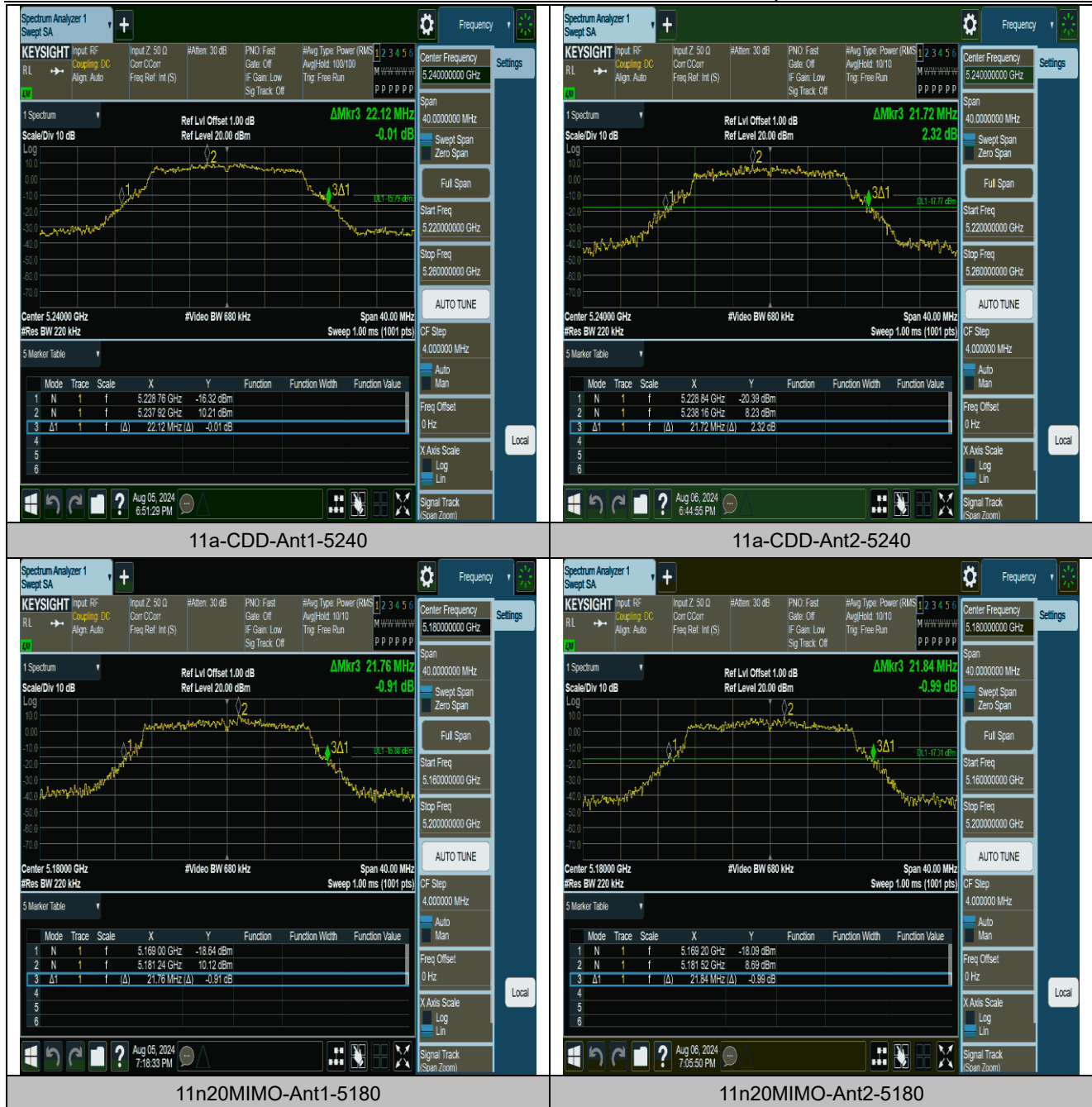
### Test Result

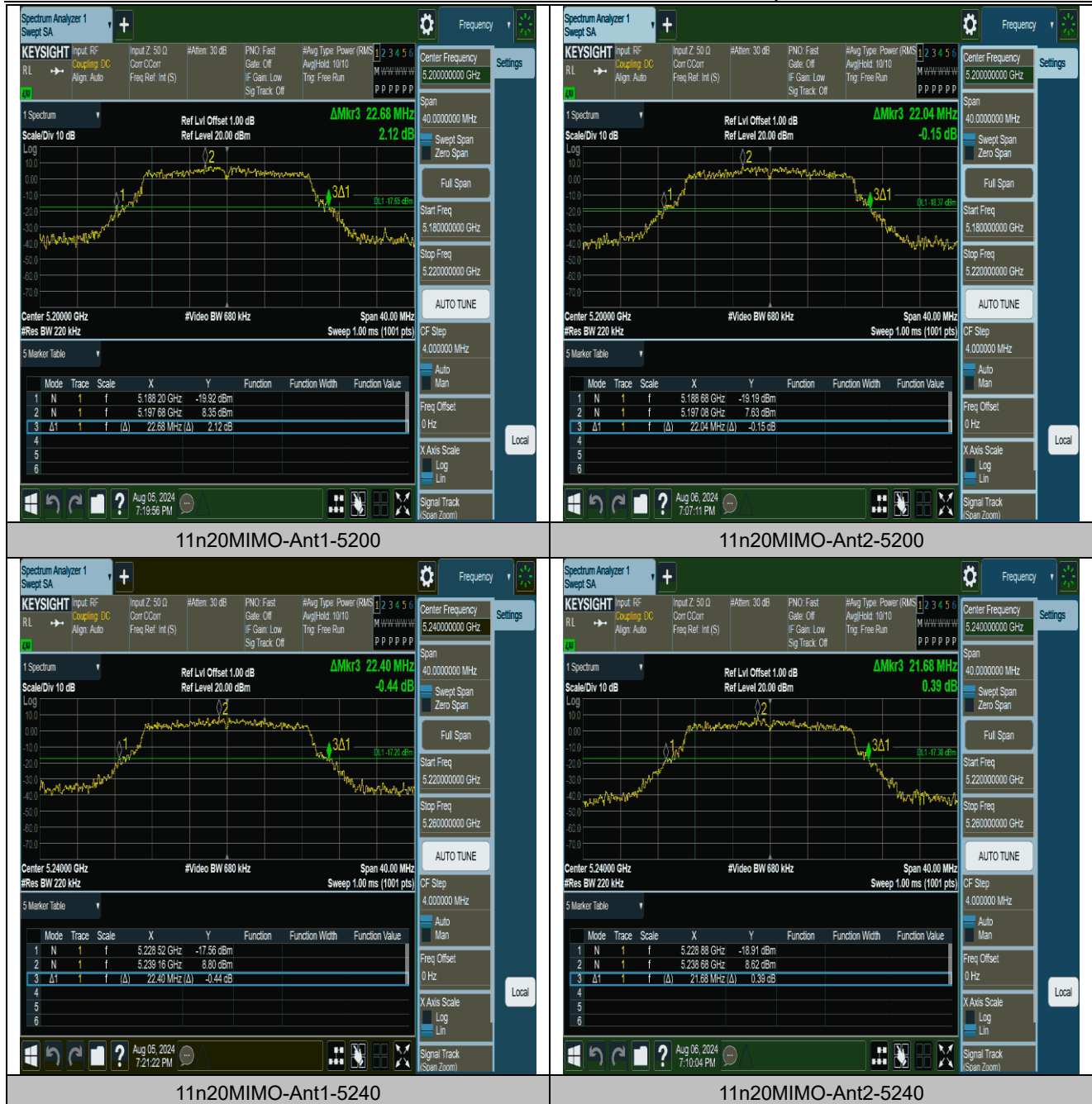
TestMode	Antenna	Frequency[MHz]	26dB EBW [MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
11a-CDD	Ant1	5180	21.840	5168.920	5190.760	---	---
11a-CDD	Ant2	5180	22.360	5168.920	5191.280	---	---
11a-CDD	Ant1	5200	22.200	5189.080	5211.280	---	---
11a-CDD	Ant2	5200	22.120	5189.040	5211.160	---	---
11a-CDD	Ant1	5240	22.120	5228.760	5250.880	---	---
11a-CDD	Ant2	5240	21.720	5228.840	5250.560	---	---
11n20MIMO	Ant1	5180	21.760	5169.000	5190.760	---	---
11n20MIMO	Ant2	5180	21.840	5169.200	5191.040	---	---
11n20MIMO	Ant1	5200	22.680	5188.200	5210.880	---	---
11n20MIMO	Ant2	5200	22.040	5188.680	5210.720	---	---
11n20MIMO	Ant1	5240	22.400	5228.520	5250.920	---	---
11n20MIMO	Ant2	5240	21.680	5228.880	5250.560	---	---
11n40MIMO	Ant1	5190	41.840	5169.440	5211.280	---	---
11n40MIMO	Ant2	5190	40.720	5169.280	5210.000	---	---
11n40MIMO	Ant1	5230	40.560	5209.840	5250.400	---	---
11n40MIMO	Ant2	5230	41.840	5208.560	5250.400	---	---
11ac20MIMO	Ant1	5180	22.320	5168.640	5190.960	---	---
11ac20MIMO	Ant2	5180	22.240	5168.800	5191.040	---	---
11ac20MIMO	Ant1	5200	22.440	5188.600	5211.040	---	---
11ac20MIMO	Ant2	5200	22.280	5188.880	5211.160	---	---
11ac20MIMO	Ant1	5240	22.080	5229.000	5251.080	---	---
11ac20MIMO	Ant2	5240	22.080	5228.960	5251.040	---	---
11ac40MIMO	Ant1	5190	40.880	5169.280	5210.160	---	---
11ac40MIMO	Ant2	5190	41.520	5169.040	5210.560	---	---
11ac40MIMO	Ant1	5230	41.600	5209.440	5251.040	---	---
11ac40MIMO	Ant2	5230	41.200	5209.280	5250.480	---	---
11ac80MIMO	Ant1	5210	83.680	5167.760	5251.440	---	---
11ac80MIMO	Ant2	5210	84.320	5168.720	5253.040	---	---
11ac160MIMO	Ant1	5250	166.400	5168.080	5334.480	---	---
11ac160MIMO	Ant2	5250	168.000	5165.840	5333.840	---	---
11ax20MIMO	Ant1	5180	22.040	5168.680	5190.720	---	---
11ax20MIMO	Ant2	5180	21.920	5169.080	5191.000	---	---
11ax20MIMO	Ant1	5200	21.320	5189.440	5210.760	---	---
11ax20MIMO	Ant2	5200	21.880	5189.120	5211.000	---	---
11ax20MIMO	Ant1	5240	21.720	5228.720	5250.440	---	---

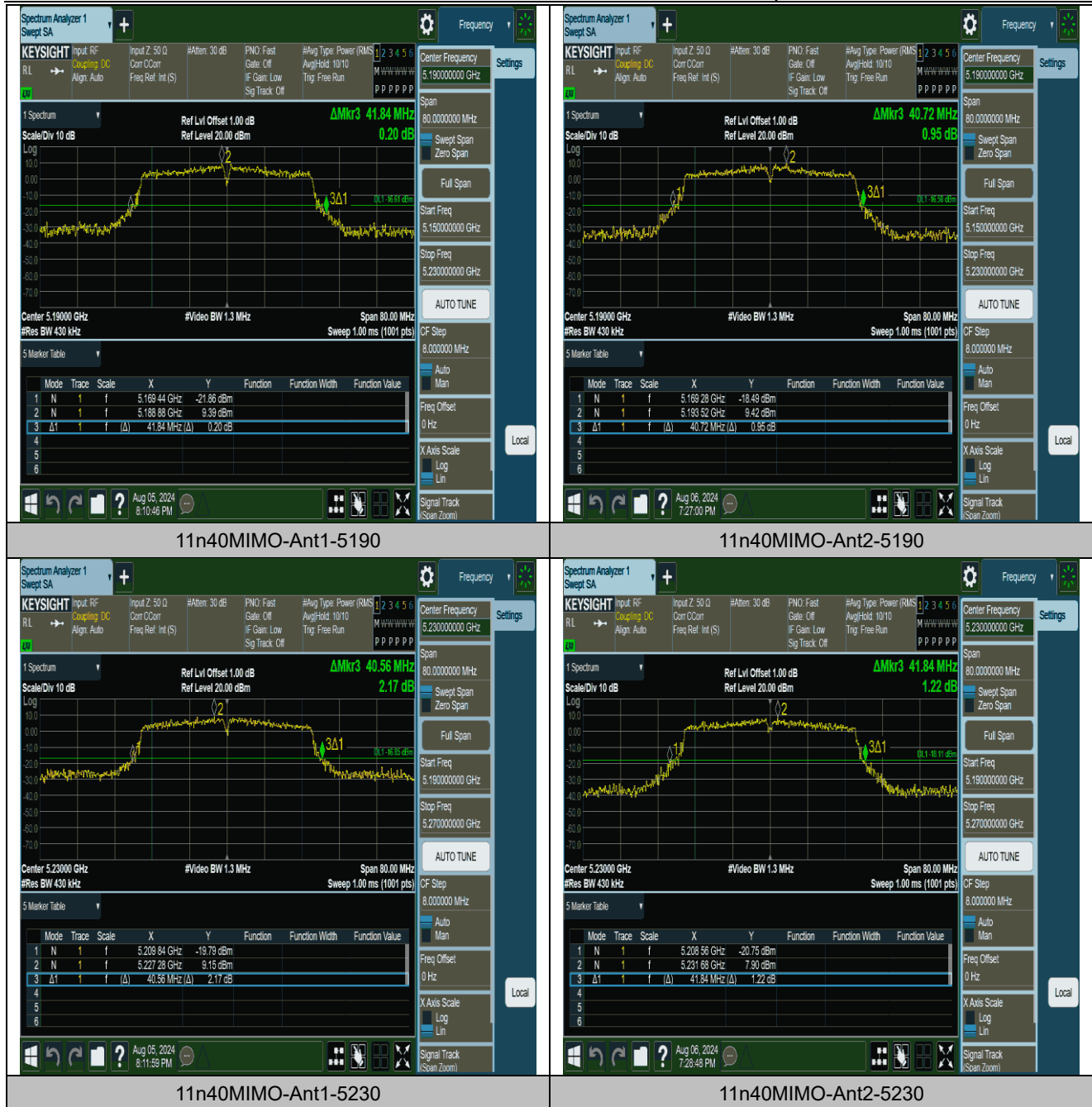
11ax20MIMO	Ant2	5240	21.920	5228.720	5250.640	---	---
11ax40MIMO	Ant1	5190	40.800	5169.520	5210.320	---	---
11ax40MIMO	Ant2	5190	40.960	5169.760	5210.720	---	---
11ax40MIMO	Ant1	5230	41.440	5208.880	5250.320	---	---
11ax40MIMO	Ant2	5230	42.400	5208.560	5250.960	---	---
11ax80MIMO	Ant1	5210	82.240	5169.520	5251.760	---	---
11ax80MIMO	Ant2	5210	80.320	5169.680	5250.000	---	---
11ax160MIMO	Ant1	5250	169.280	5165.520	5334.800	---	---
11ax160MIMO	Ant2	5250	166.080	5166.160	5332.240	---	---
11be20MIMO	Ant1	5180	22.400	5168.920	5191.320	---	---
11be20MIMO	Ant2	5180	21.160	5169.600	5190.760	---	---
11be20MIMO	Ant1	5200	21.400	5189.200	5210.600	---	---
11be20MIMO	Ant2	5200	21.920	5189.040	5210.960	---	---
11be20MIMO	Ant1	5240	21.720	5229.480	5251.200	---	---
11be20MIMO	Ant2	5240	21.480	5229.040	5250.520	---	---
11be40MIMO	Ant1	5190	41.120	5169.360	5210.480	---	---
11be40MIMO	Ant2	5190	41.440	5169.440	5210.880	---	---
11be40MIMO	Ant1	5230	41.520	5208.800	5250.320	---	---
11be40MIMO	Ant2	5230	40.560	5209.520	5250.080	---	---
11be80MIMO	Ant1	5210	84.480	5167.120	5251.600	---	---
11be80MIMO	Ant2	5210	80.480	5170.000	5250.480	---	---
11be160MIMO	Ant1	5250	167.040	5165.520	5332.560	---	---
11be160MIMO	Ant2	5250	166.720	5167.760	5334.480	---	---

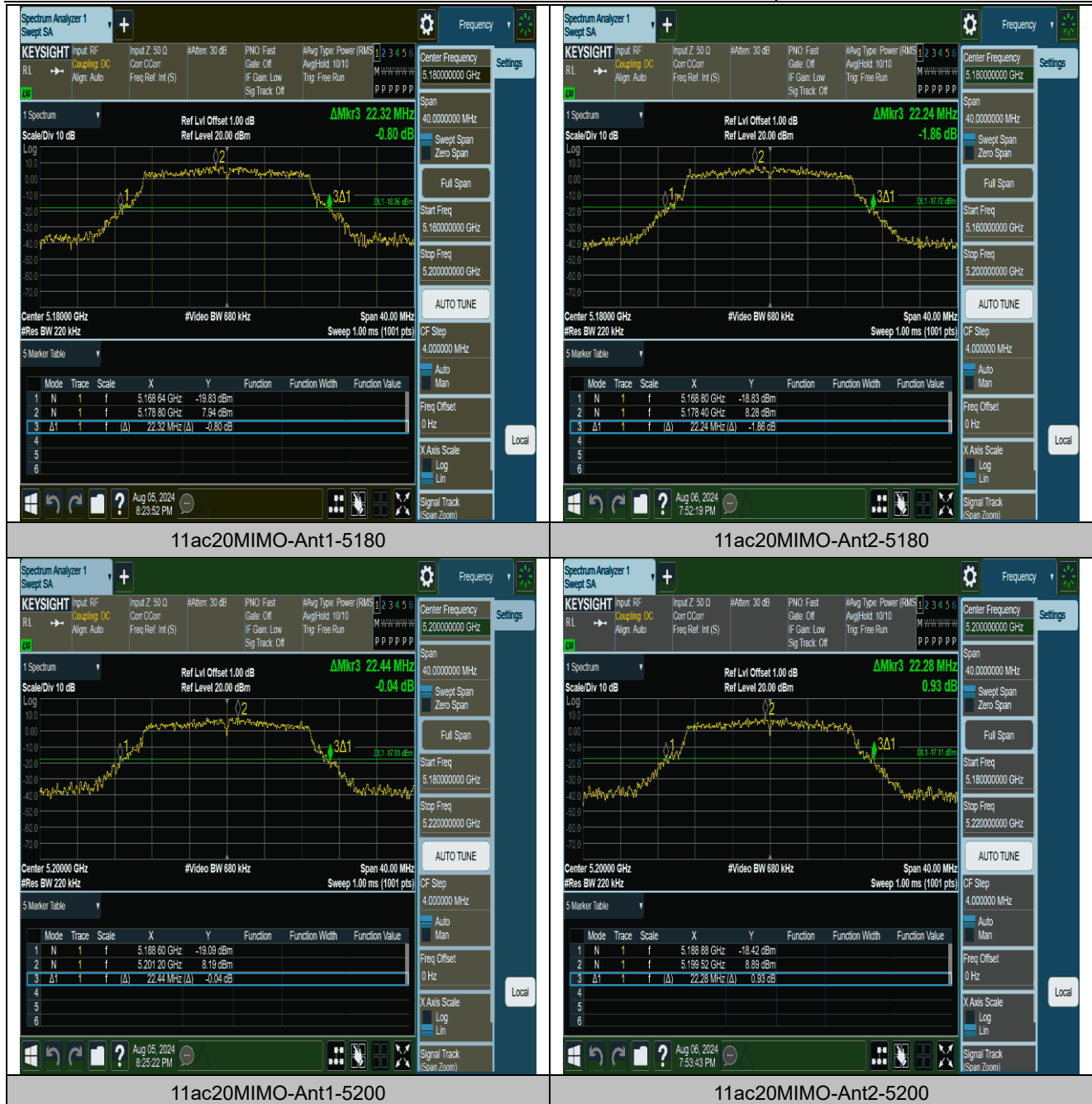
## Test Graphs



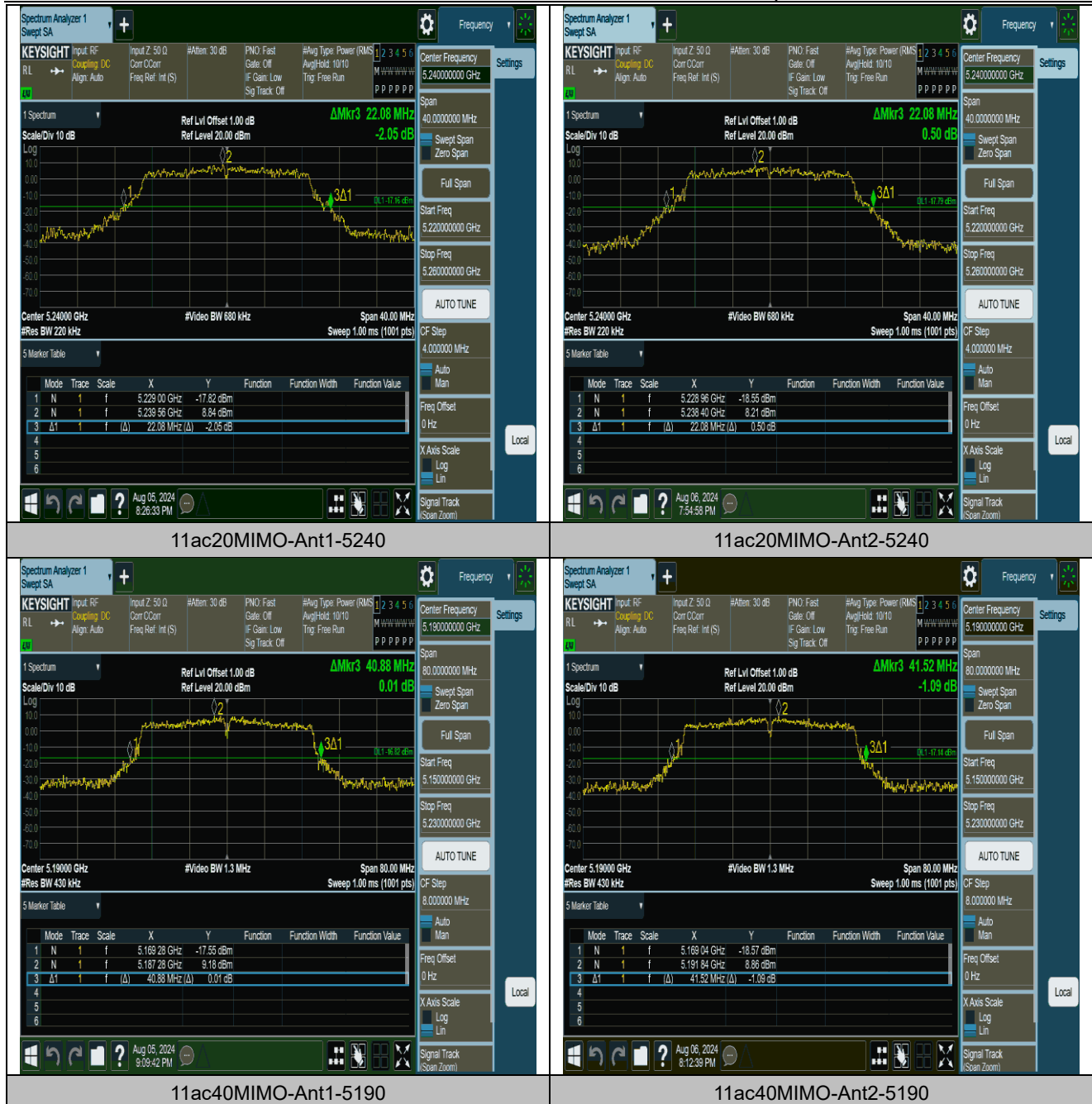




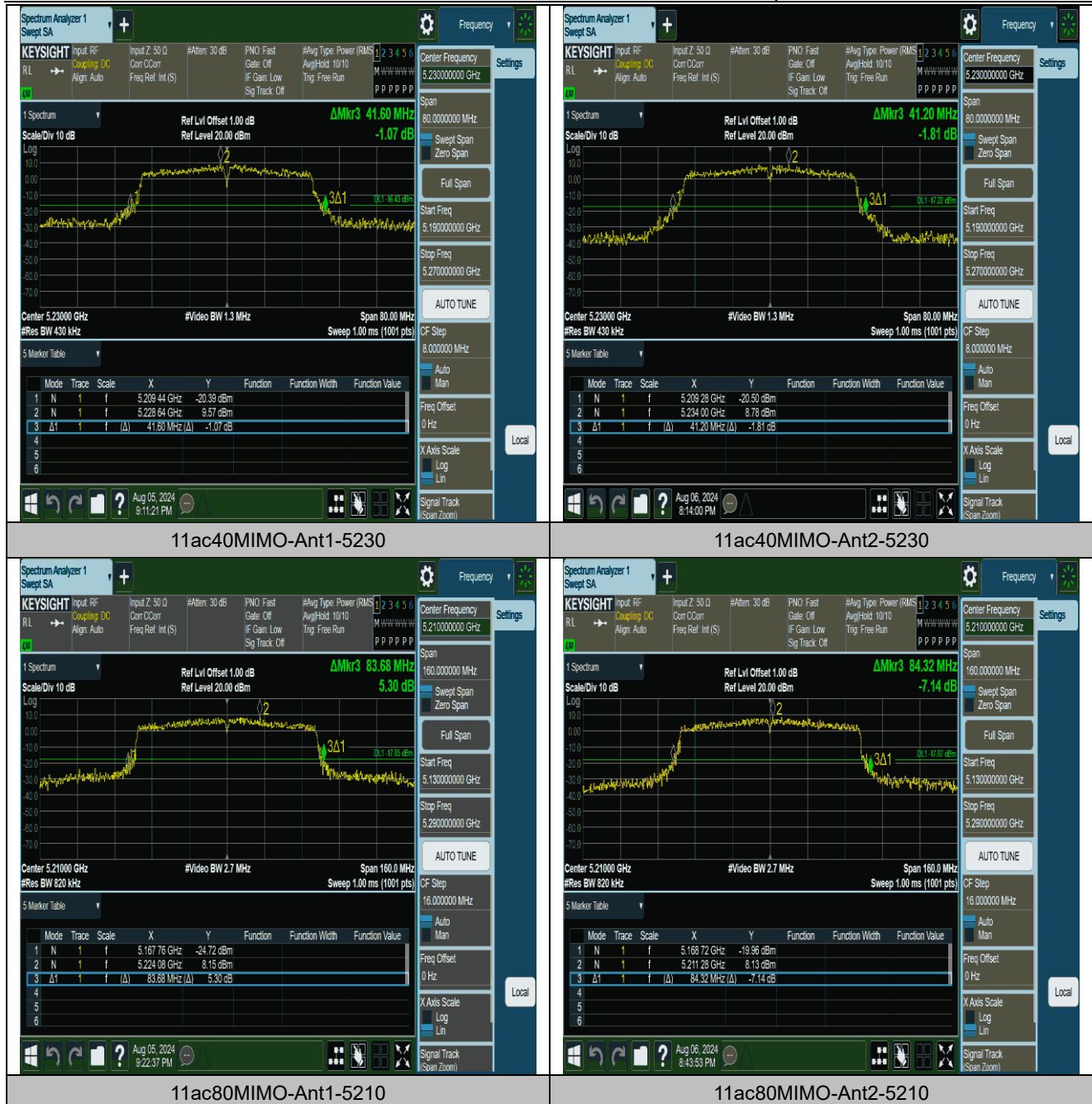




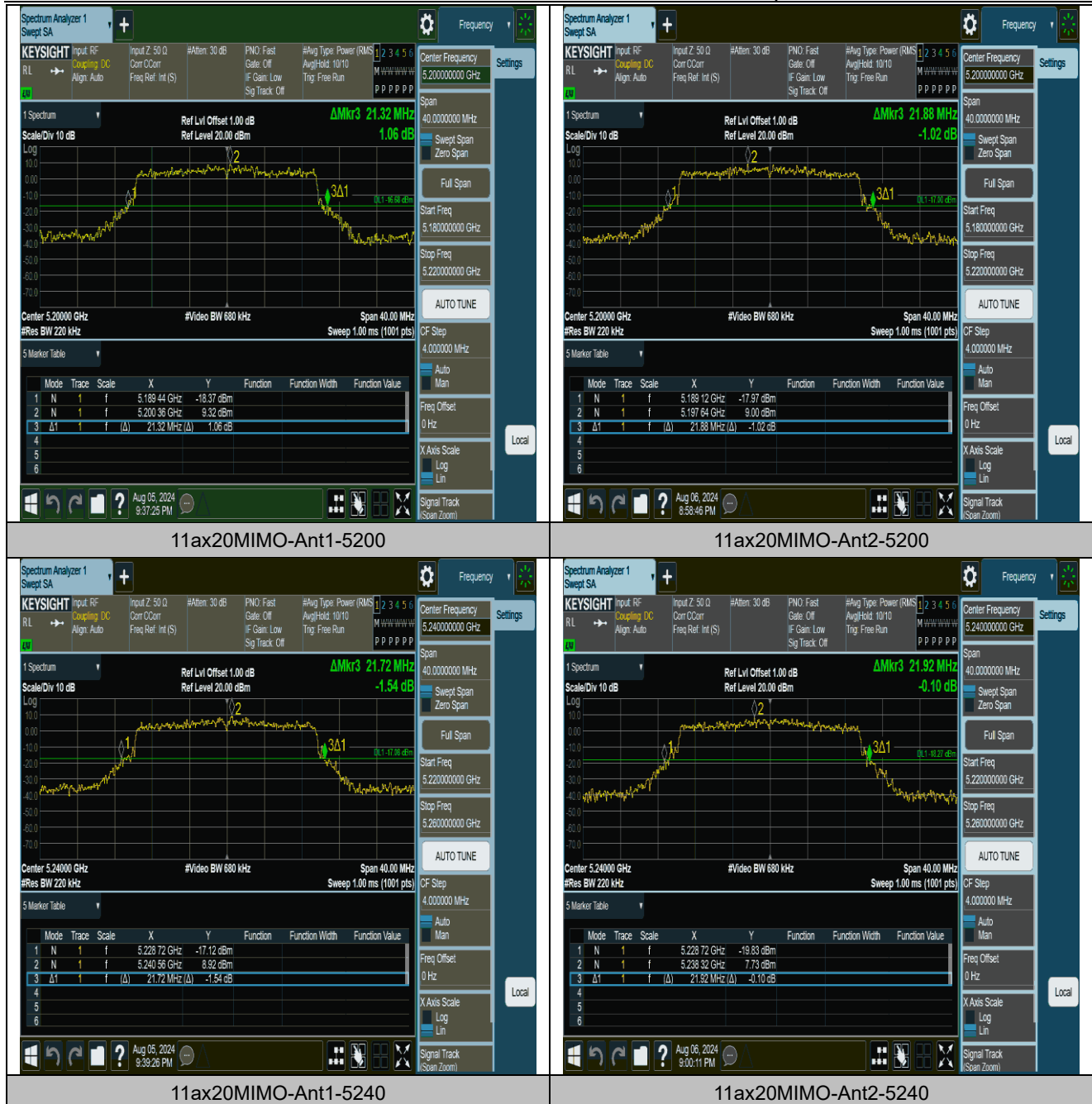


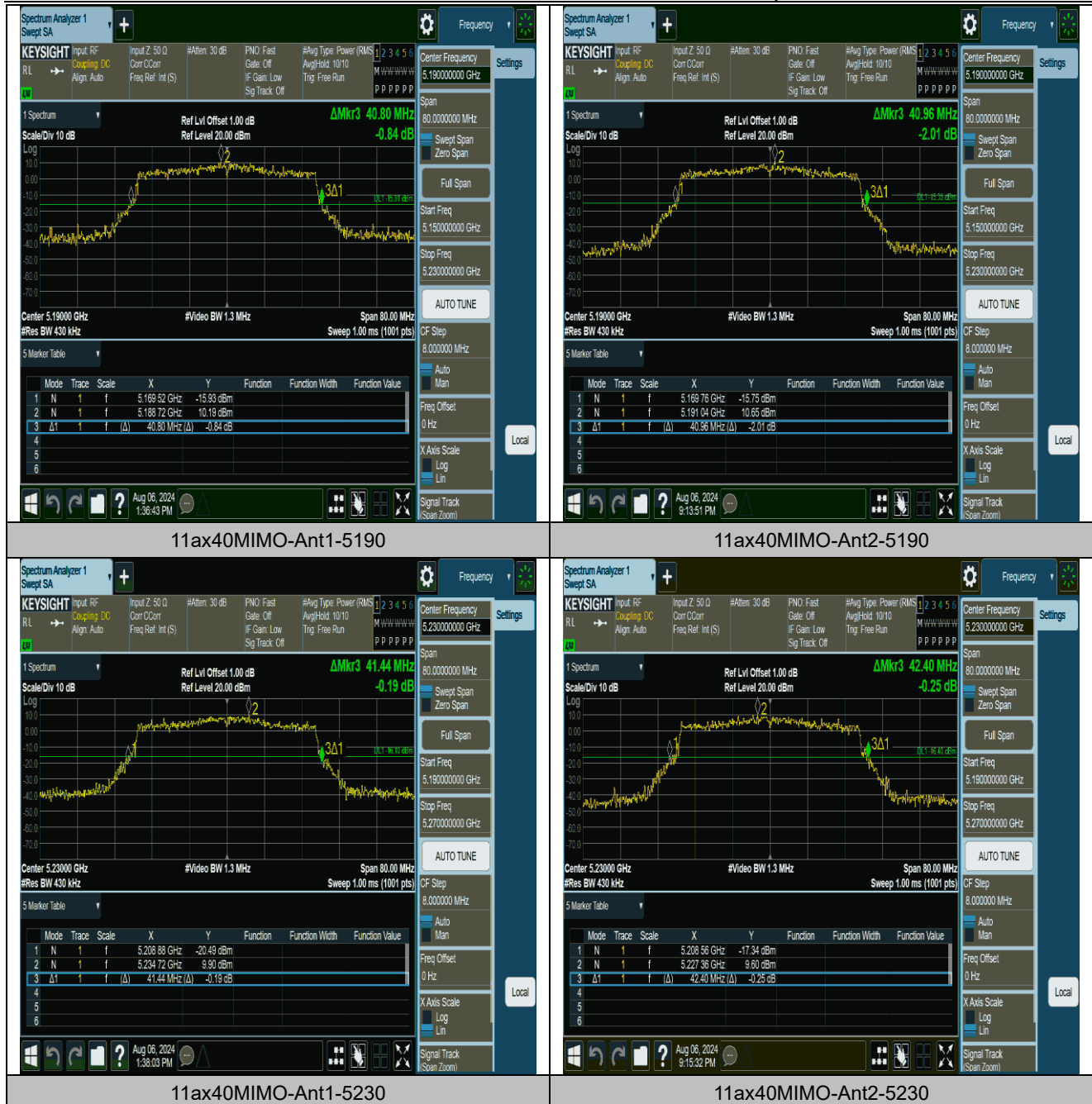


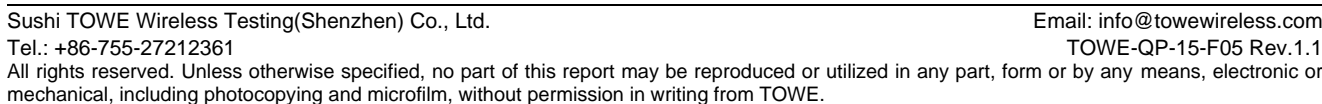


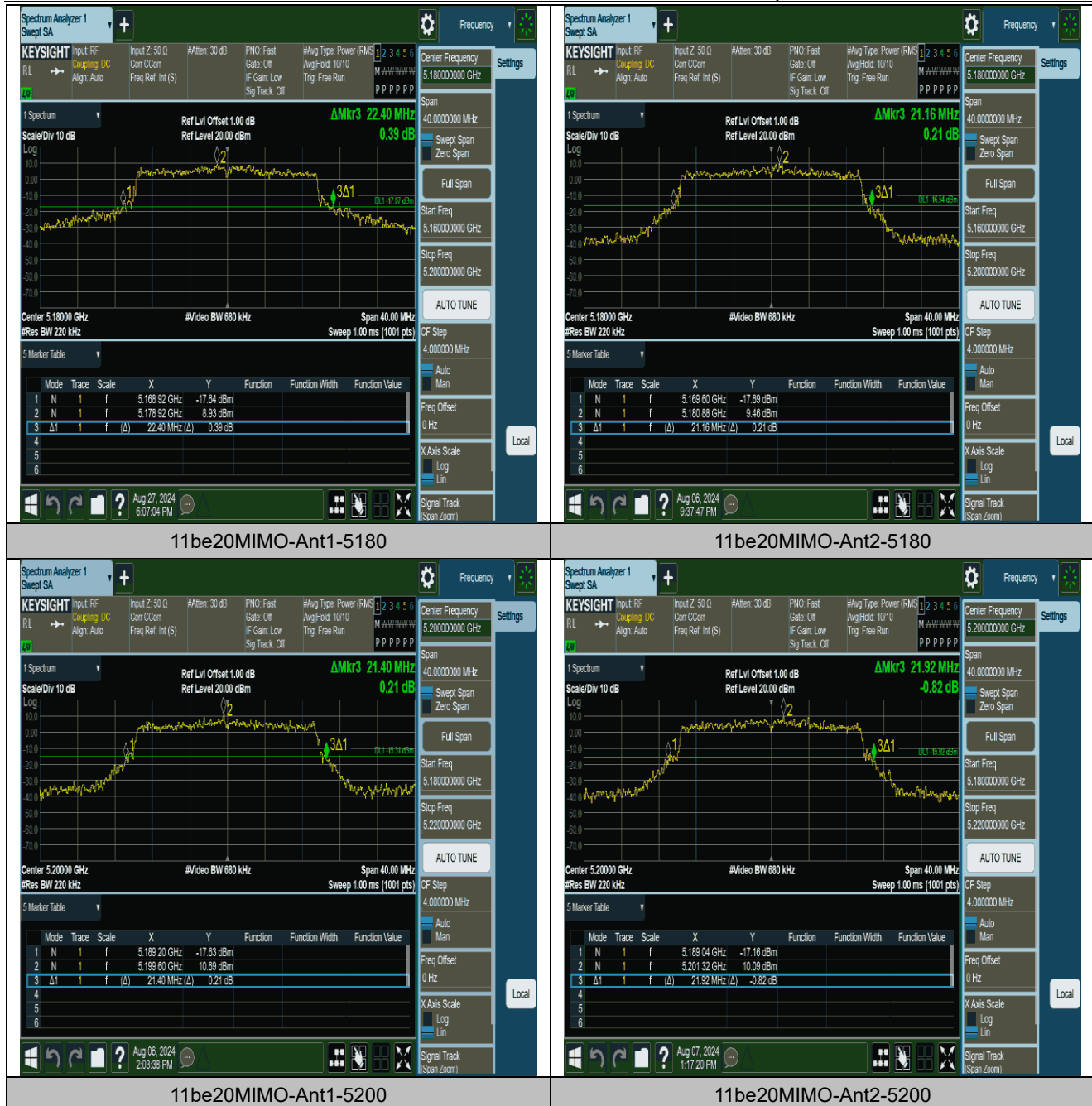




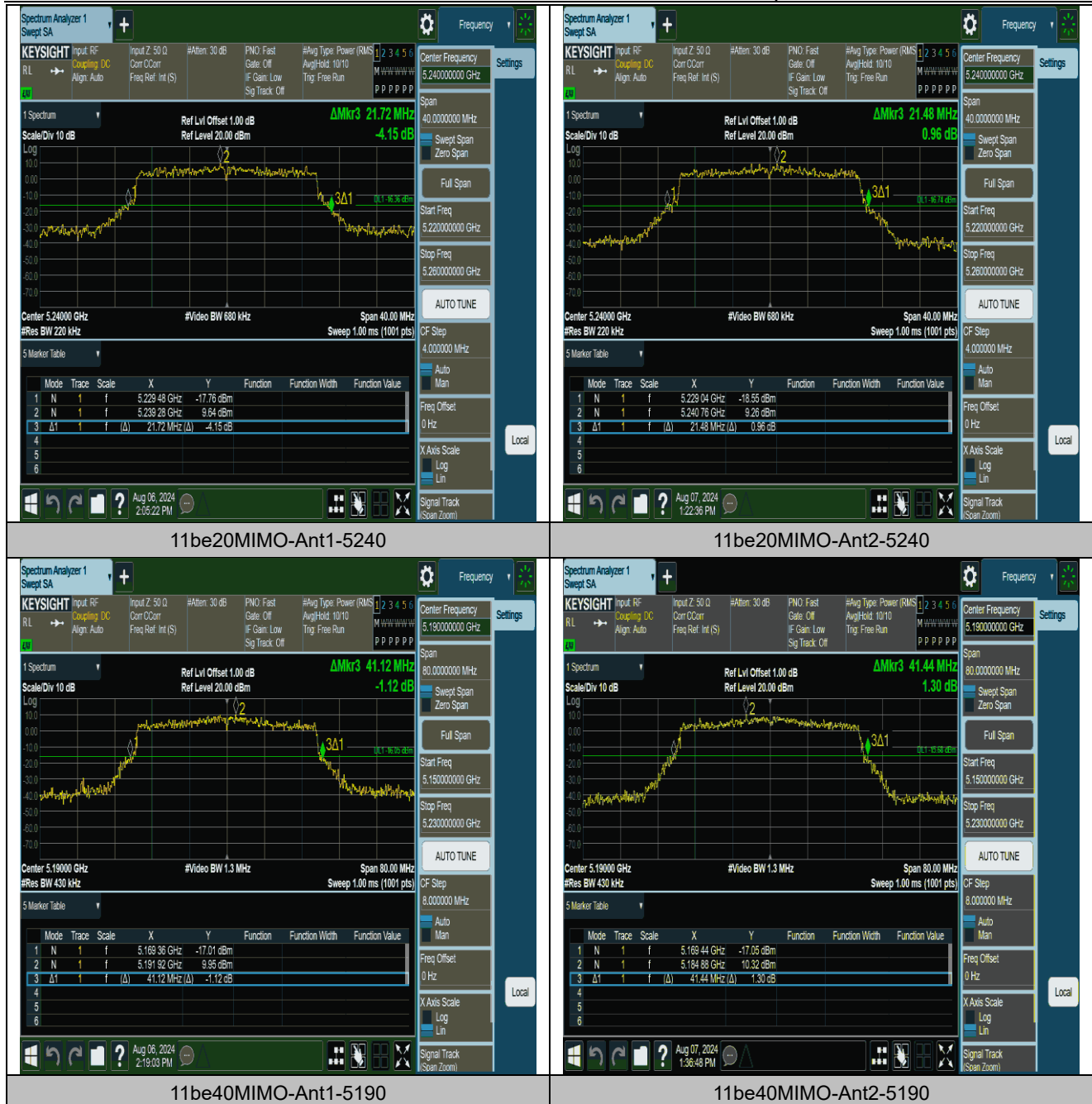




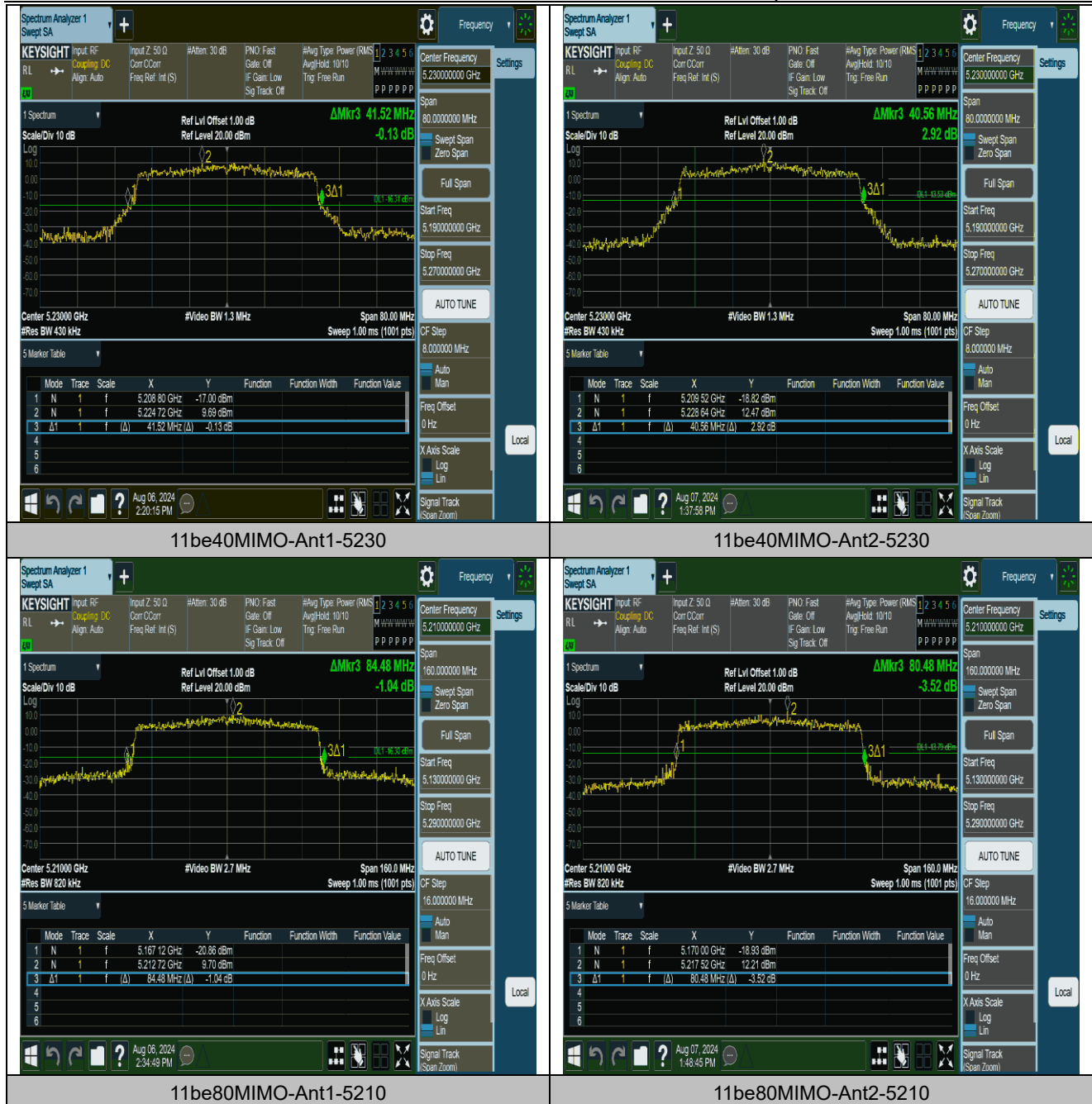














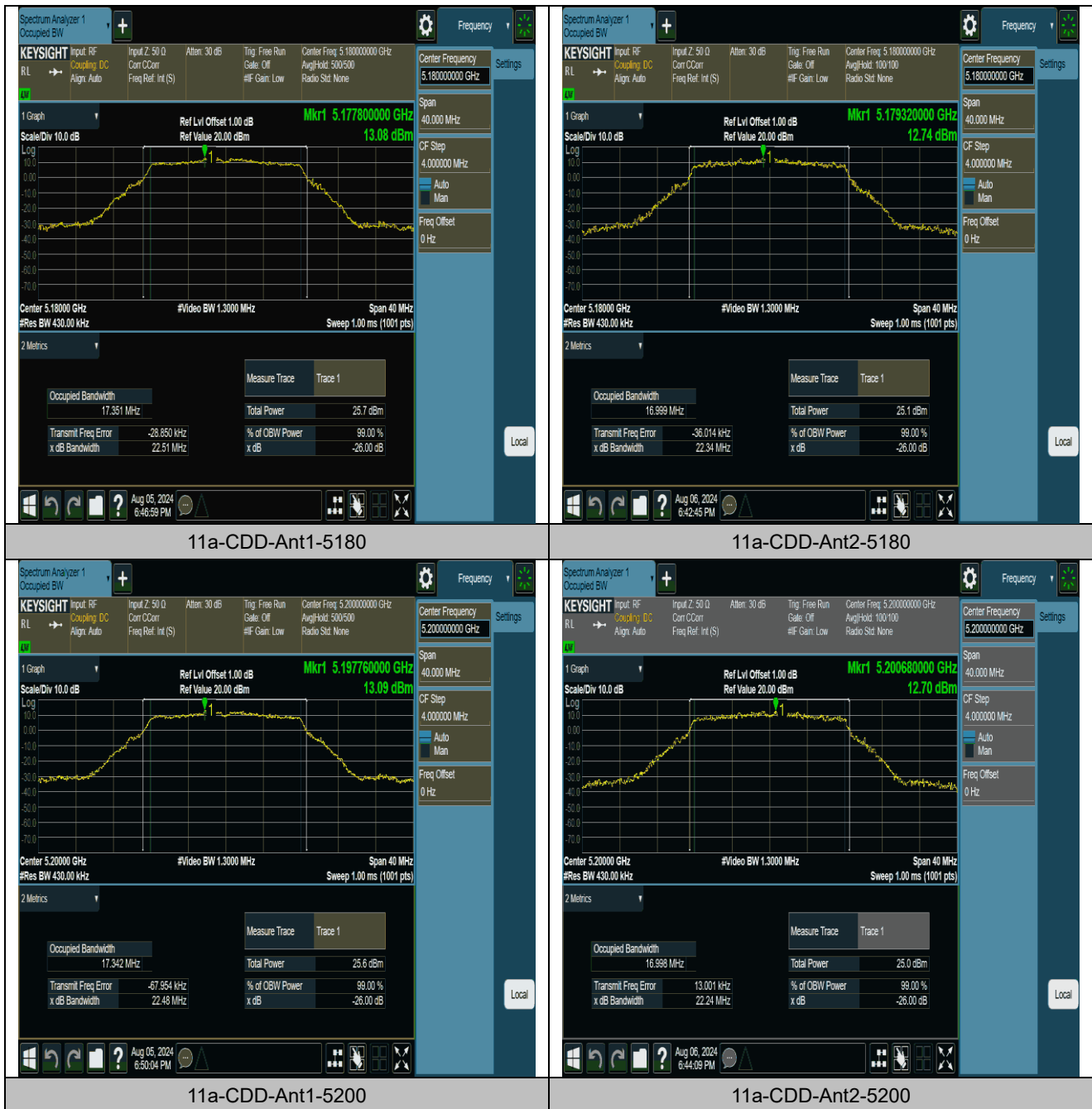
## Occupied channel bandwidth

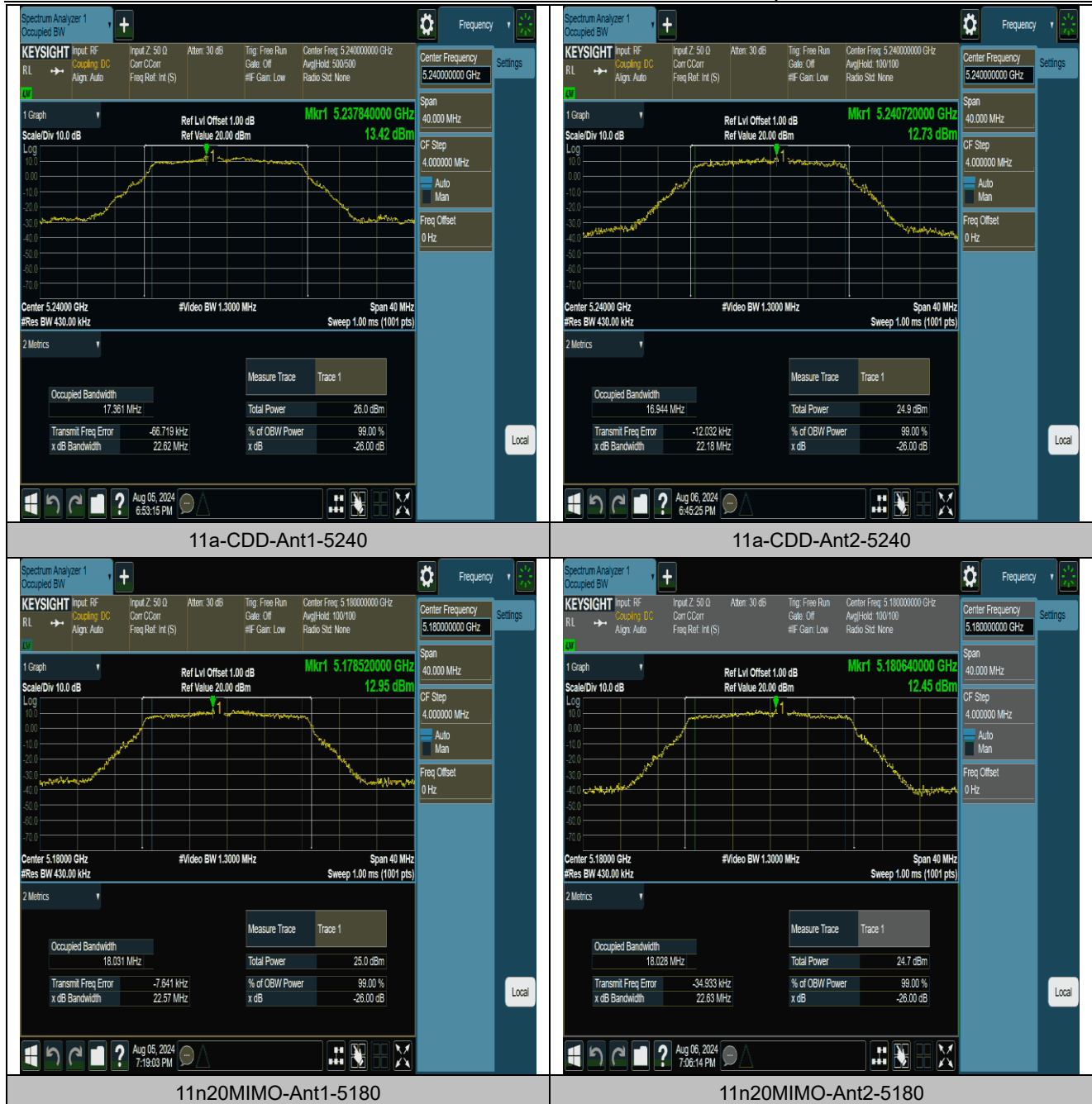
### Test Result

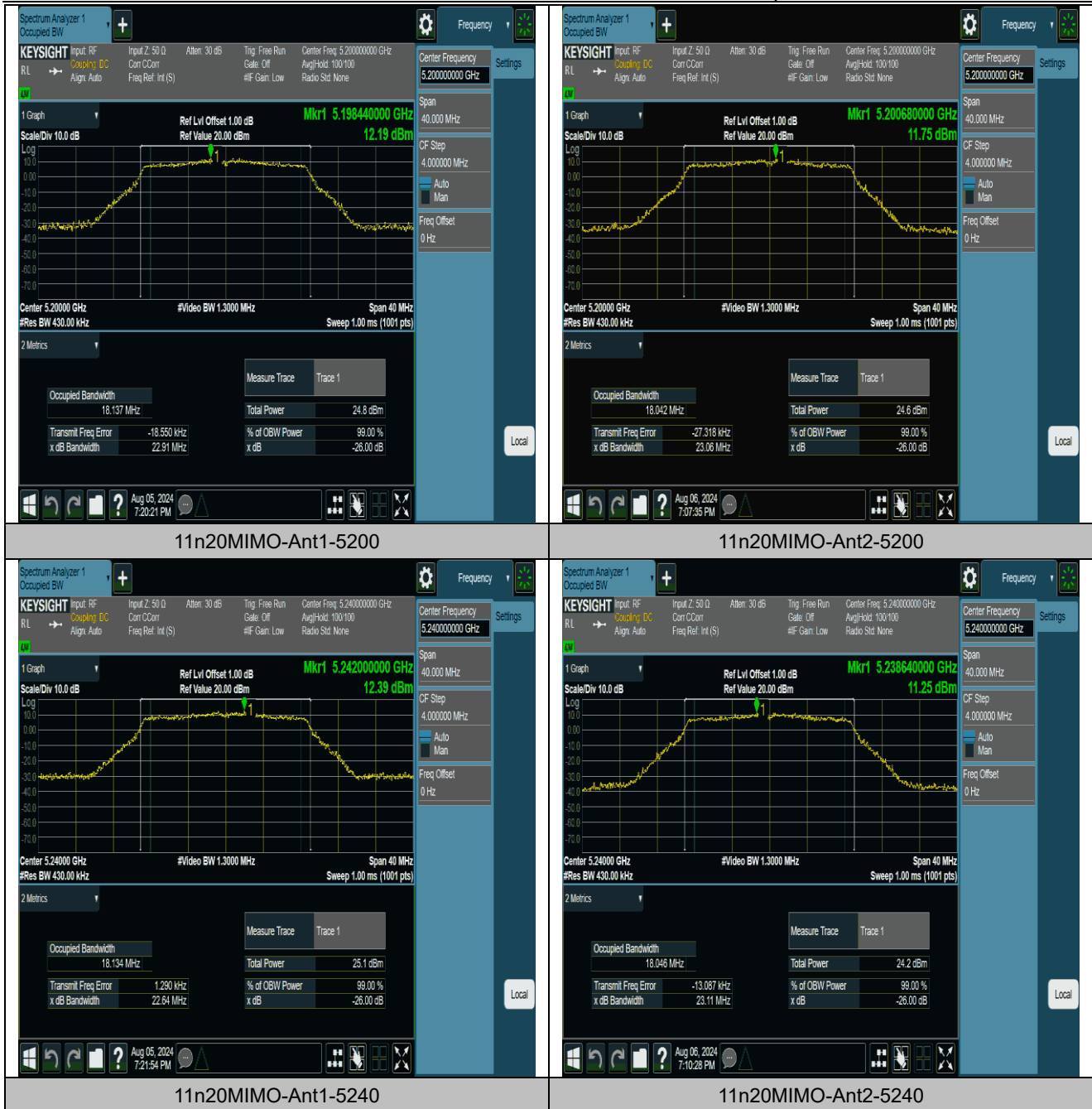
TestMode	Antenna	Frequency[MHz]	OCB [MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
11a-CDD	Ant1	5180	17.351	5171.2957	5188.6467	---	---
11a-CDD	Ant2	5180	16.999	5171.4645	5188.4635	---	---
11a-CDD	Ant1	5200	17.342	5191.2611	5208.6031	---	---
11a-CDD	Ant2	5200	16.998	5191.5140	5208.5120	---	---
11a-CDD	Ant1	5240	17.361	5231.2528	5248.6138	---	---
11a-CDD	Ant2	5240	16.944	5231.5160	5248.4600	---	---
11n20MIMO	Ant1	5180	18.031	5170.9769	5189.0079	---	---
11n20MIMO	Ant2	5180	18.028	5170.9511	5188.9791	---	---
11n20MIMO	Ant1	5200	18.137	5190.9130	5209.0500	---	---
11n20MIMO	Ant2	5200	18.042	5190.9517	5208.9937	---	---
11n20MIMO	Ant1	5240	18.134	5230.9343	5249.0683	---	---
11n20MIMO	Ant2	5240	18.046	5230.9639	5249.0099	---	---
11n40MIMO	Ant1	5190	36.289	5171.8091	5208.0981	---	---
11n40MIMO	Ant2	5190	36.339	5171.8229	5208.1619	---	---
11n40MIMO	Ant1	5230	36.355	5211.7887	5248.1437	---	---
11n40MIMO	Ant2	5230	36.316	5211.8390	5248.1550	---	---
11ac20MIMO	Ant1	5180	18.103	5170.9225	5189.0255	---	---
11ac20MIMO	Ant2	5180	17.964	5170.9861	5188.9501	---	---
11ac20MIMO	Ant1	5200	18.081	5190.8905	5208.9715	---	---
11ac20MIMO	Ant2	5200	18.036	5190.9653	5209.0013	---	---
11ac20MIMO	Ant1	5240	18.078	5230.9158	5248.9938	---	---
11ac20MIMO	Ant2	5240	18.045	5230.9424	5248.9874	---	---
11ac40MIMO	Ant1	5190	36.345	5171.8086	5208.1536	---	---
11ac40MIMO	Ant2	5190	36.285	5171.8647	5208.1497	---	---
11ac40MIMO	Ant1	5230	36.430	5211.7024	5248.1324	---	---
11ac40MIMO	Ant2	5230	36.280	5211.8317	5248.1117	---	---
11ac80MIMO	Ant1	5210	75.444	5172.2417	5247.6857	---	---
11ac80MIMO	Ant2	5210	75.617	5172.2717	5247.8887	---	---
11ac160MIMO	Ant1	5250	156.28	5171.8067	5328.0867	---	---
11ac160MIMO	Ant2	5250	157.77	5170.6301	5328.4001	---	---
11ax20MIMO	Ant1	5180	19.088	5170.4265	5189.5145	---	---
11ax20MIMO	Ant2	5180	19.090	5170.4011	5189.4911	---	---
11ax20MIMO	Ant1	5200	19.017	5190.4680	5209.4850	---	---
11ax20MIMO	Ant2	5200	19.037	5190.4555	5209.4925	---	---
11ax20MIMO	Ant1	5240	19.146	5230.3553	5249.5013	---	---
11ax20MIMO	Ant2	5240	19.035	5230.4645	5249.4995	---	---
11ax40MIMO	Ant1	5190	37.710	5171.0638	5208.7738	---	---
11ax40MIMO	Ant2	5190	37.798	5171.0262	5208.8242	---	---
11ax40MIMO	Ant1	5230	37.833	5211.0380	5248.8710	---	---
11ax40MIMO	Ant2	5230	37.674	5211.0832	5248.7572	---	---
11ax80MIMO	Ant1	5210	77.198	5171.3701	5248.5681	---	---

11ax80MIMO	Ant2	5210	77.045	5171.5168	5248.5618	---	---
11ax160MIMO	Ant1	5250	157.75	5171.0640	5328.8140	---	---
11ax160MIMO	Ant2	5250	157.55	5171.3675	5328.9175	---	---
11be20MIMO	Ant1	5180	19.159	5170.3689	5189.5279	---	---
11be20MIMO	Ant2	5180	19.040	5170.4397	5189.4797	---	---
11be20MIMO	Ant1	5200	19.059	5190.4166	5209.4756	---	---
11be20MIMO	Ant2	5200	19.058	5190.4561	5209.5141	---	---
11be20MIMO	Ant1	5240	19.125	5230.4056	5249.5306	---	---
11be20MIMO	Ant2	5240	19.065	5230.4438	5249.5088	---	---
11be40MIMO	Ant1	5190	37.825	5171.0390	5208.8640	---	---
11be40MIMO	Ant2	5190	37.849	5171.0363	5208.8853	---	---
11be40MIMO	Ant1	5230	37.769	5211.0115	5248.7805	---	---
11be40MIMO	Ant2	5230	37.805	5211.0955	5248.9005	---	---
11be80MIMO	Ant1	5210	76.837	5171.5883	5248.4253	---	---
11be80MIMO	Ant2	5210	76.924	5171.5169	5248.4409	---	---
11be160MIMO	Ant1	5250	157.60	5171.2702	5328.8702	---	---
11be160MIMO	Ant2	5250	157.45	5171.3719	5328.8219	---	---

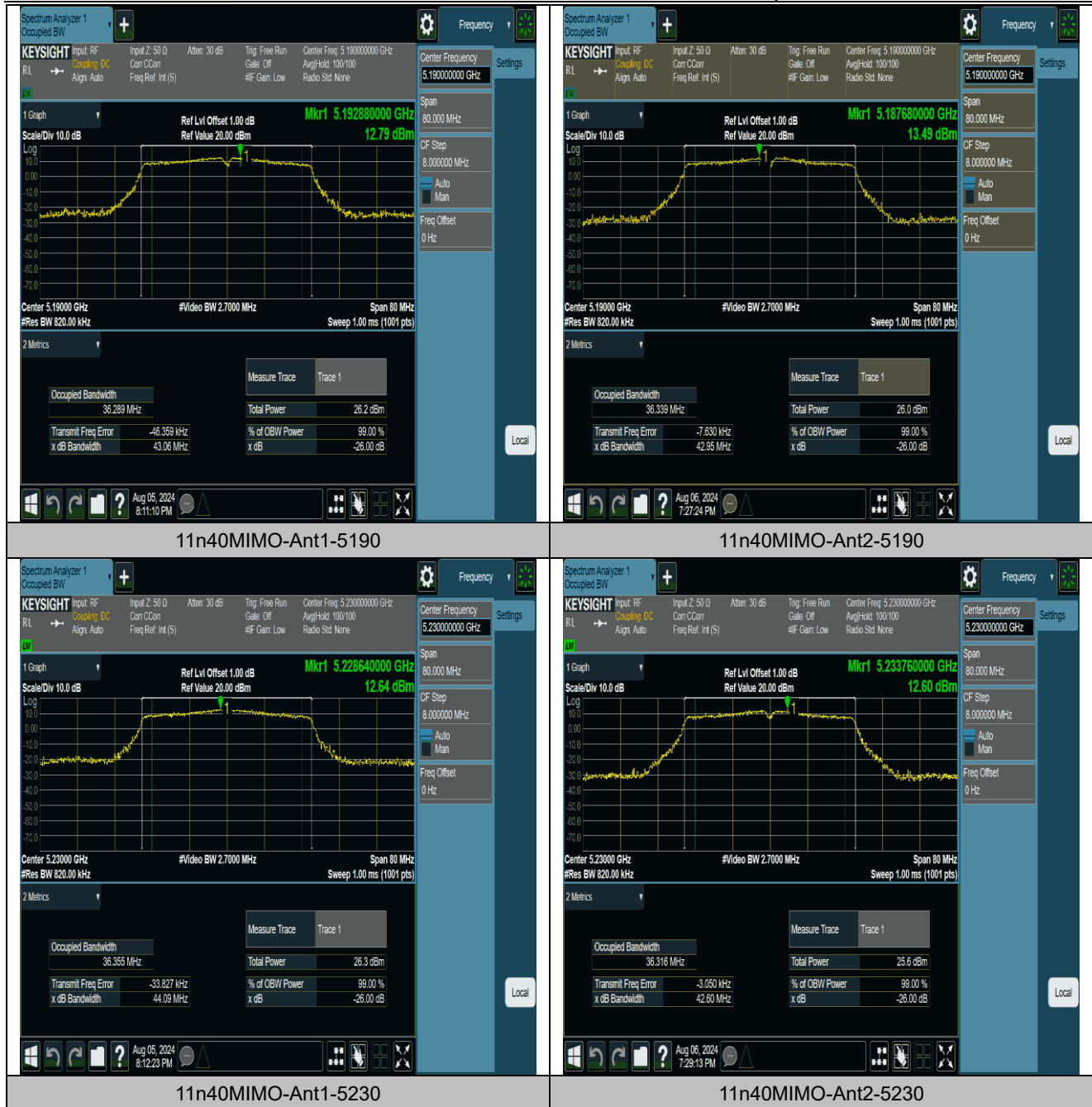
## Test Graphs

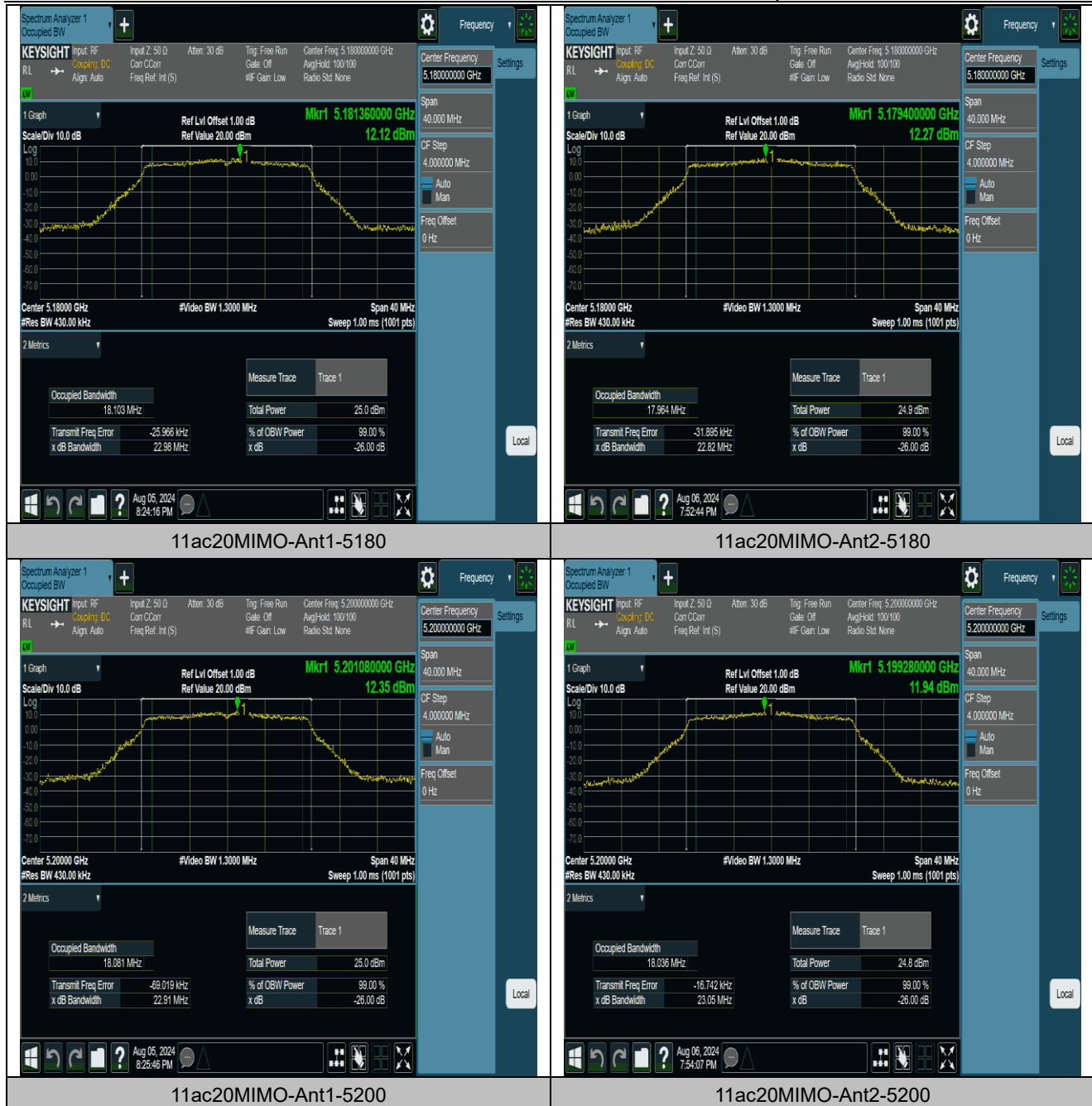


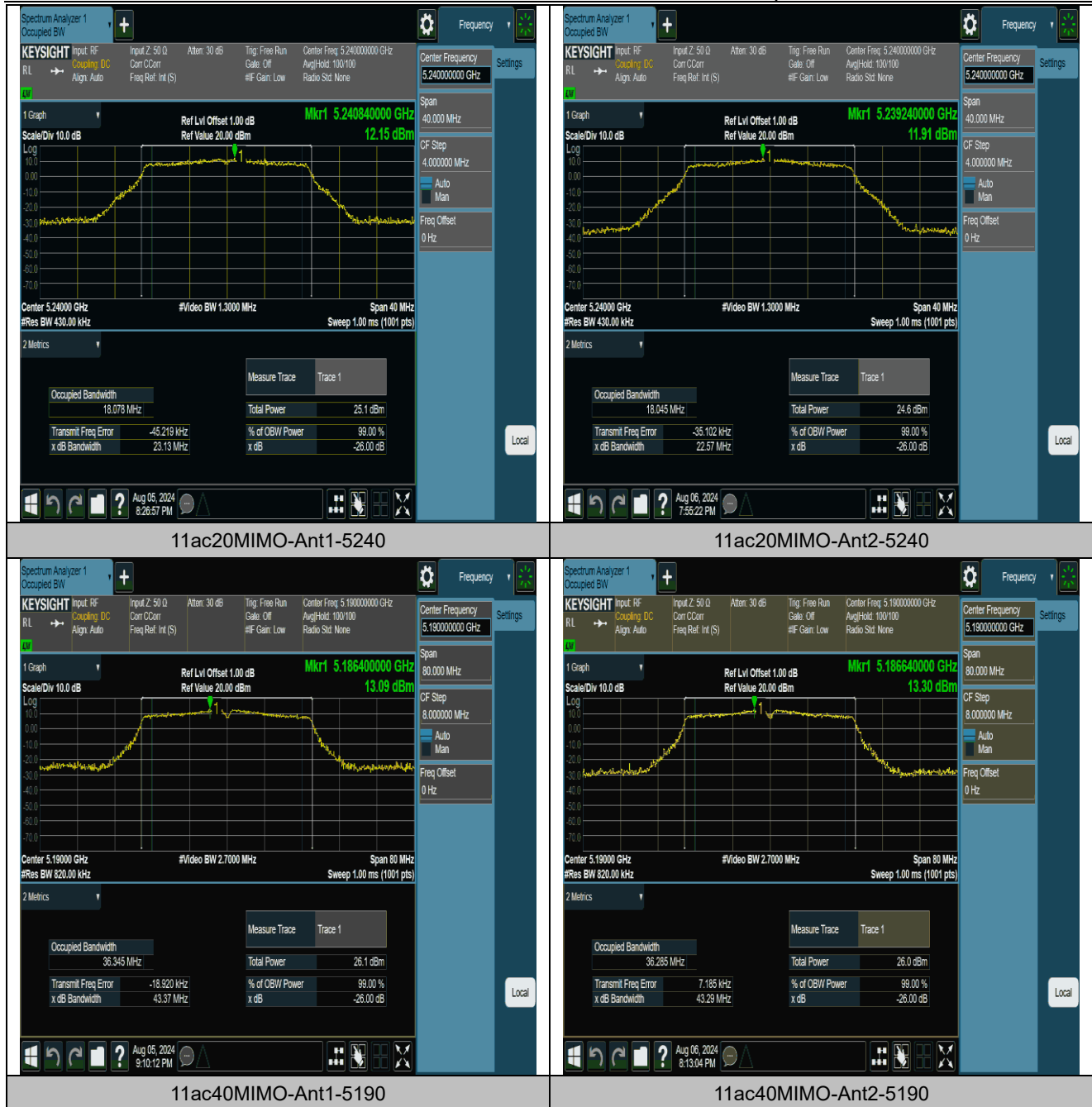


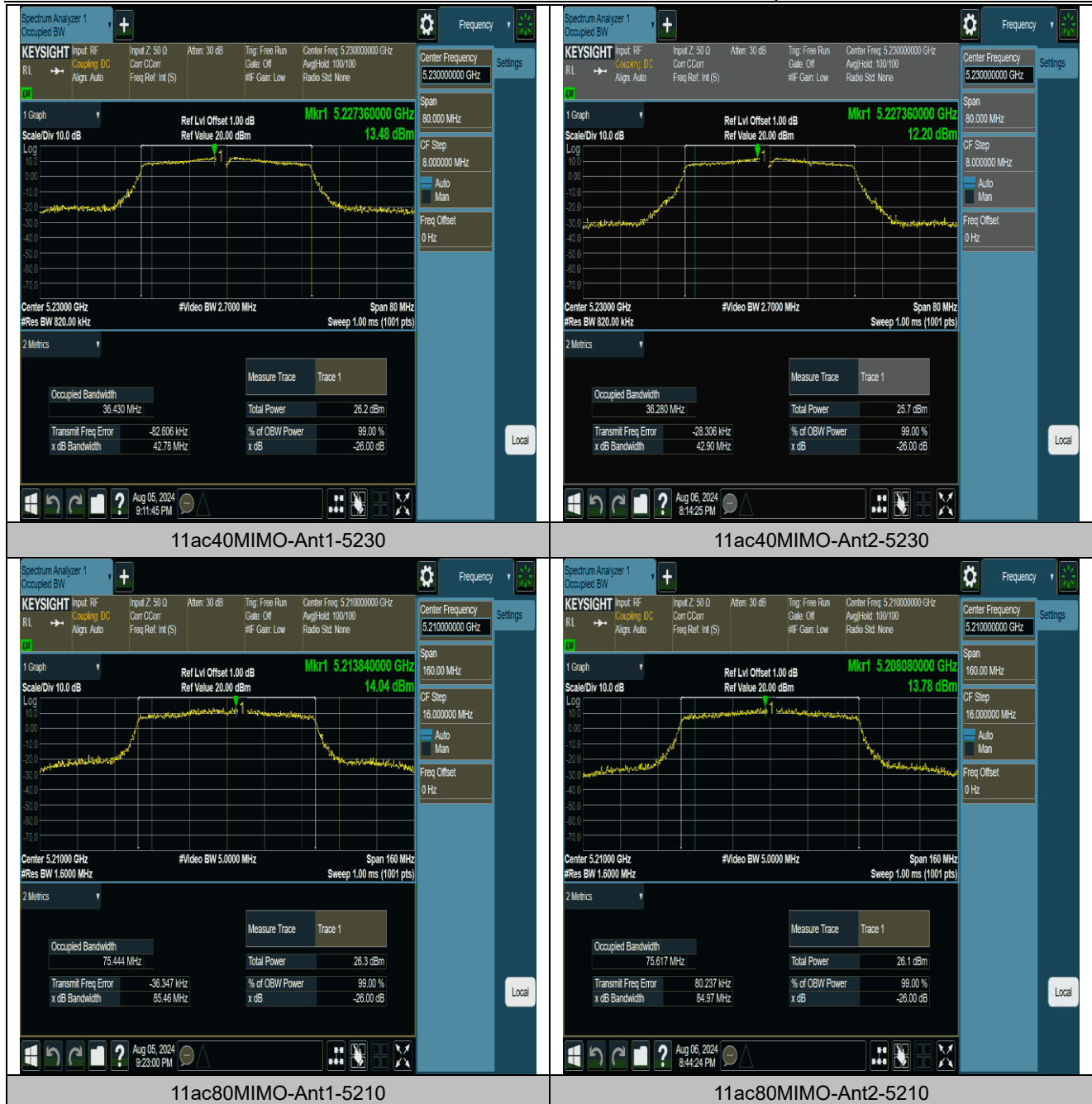


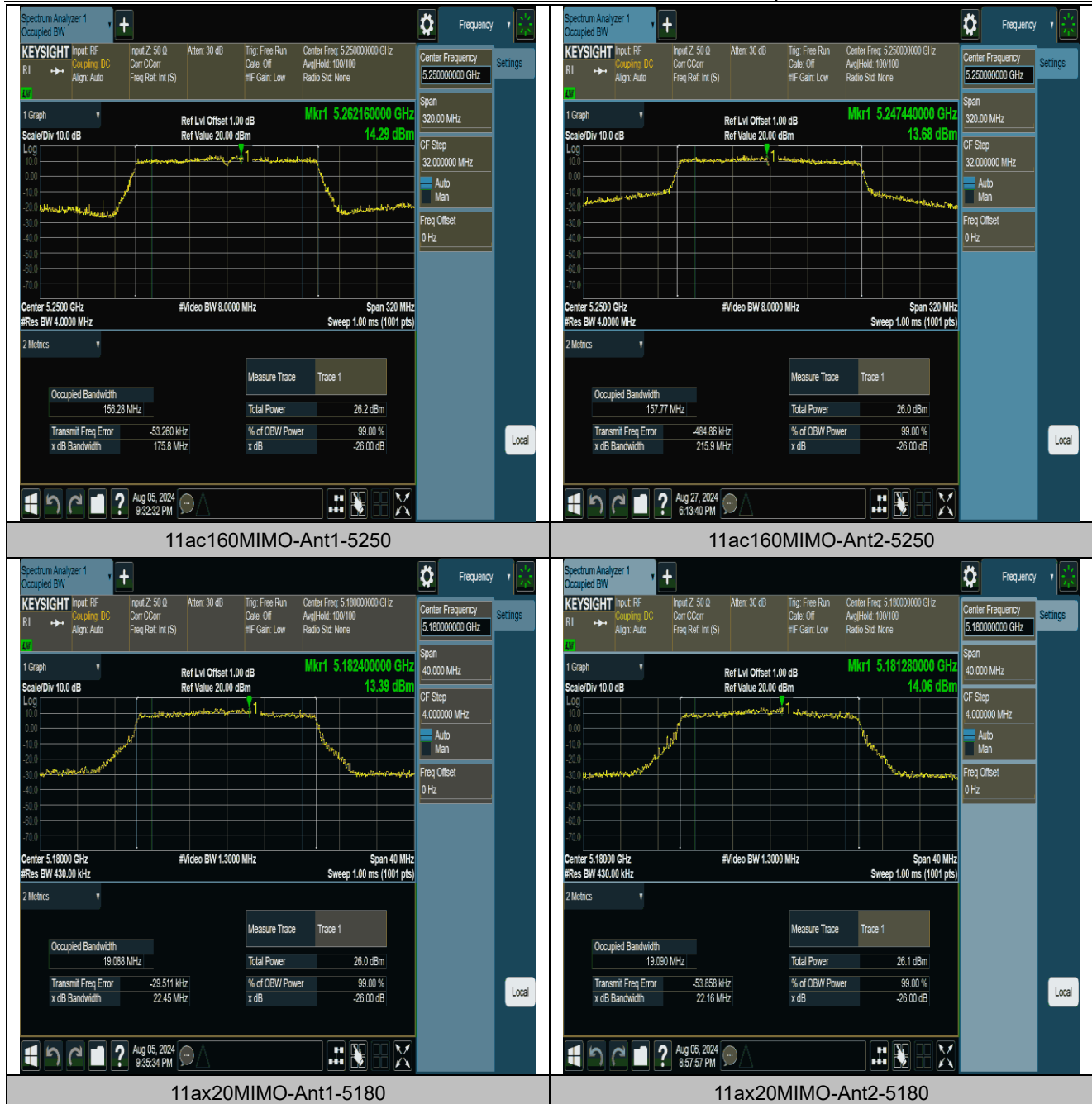


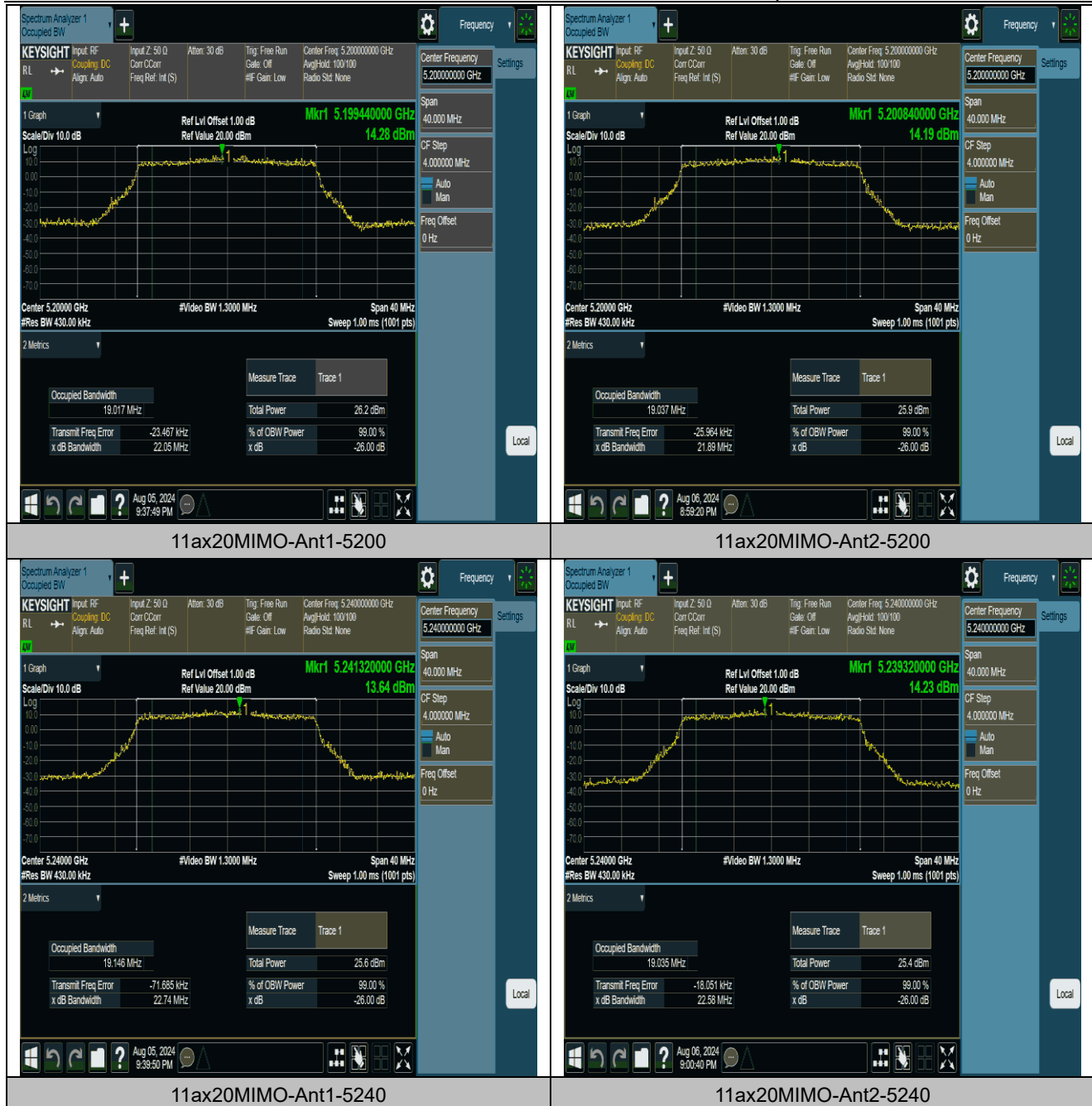


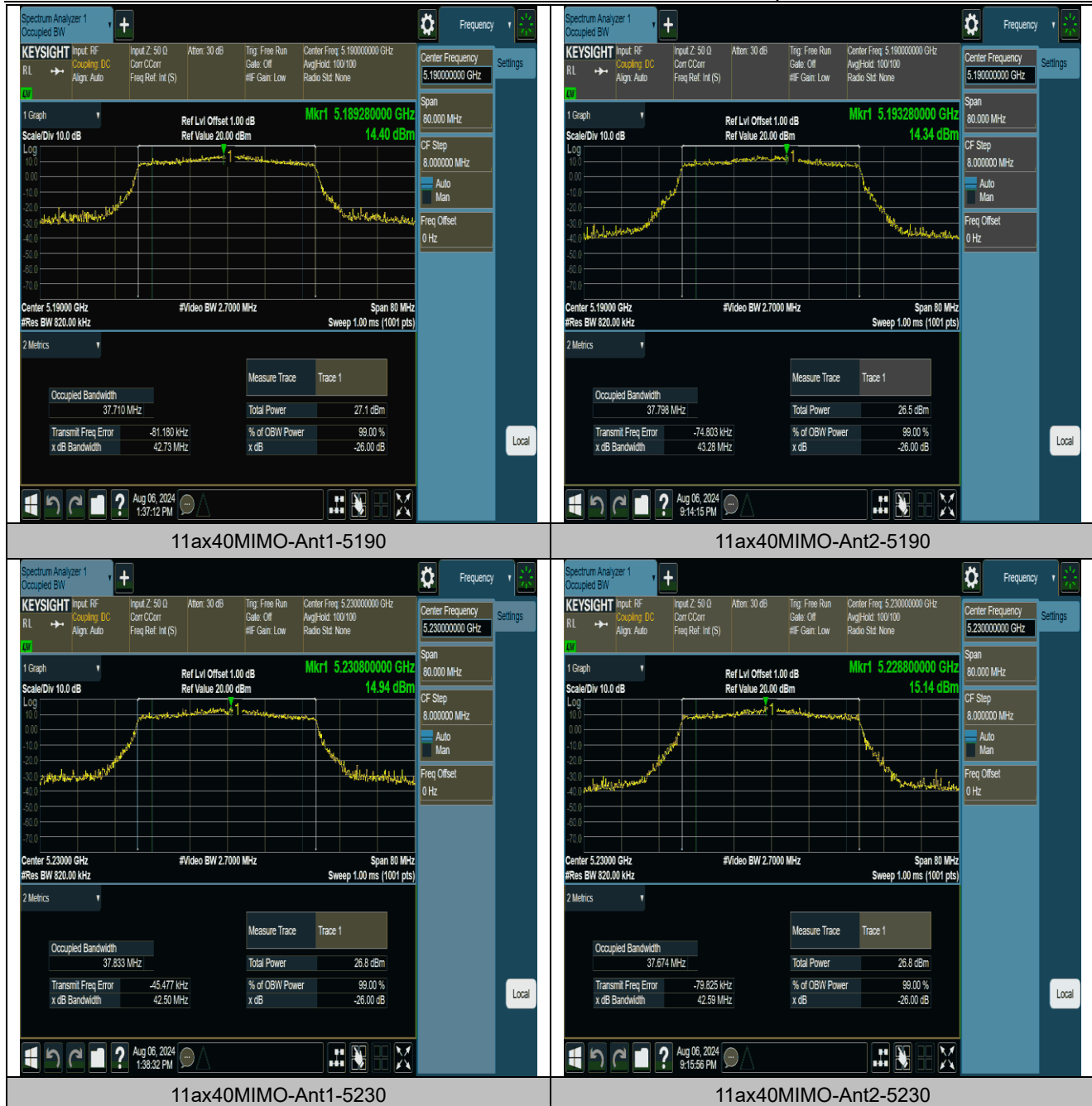




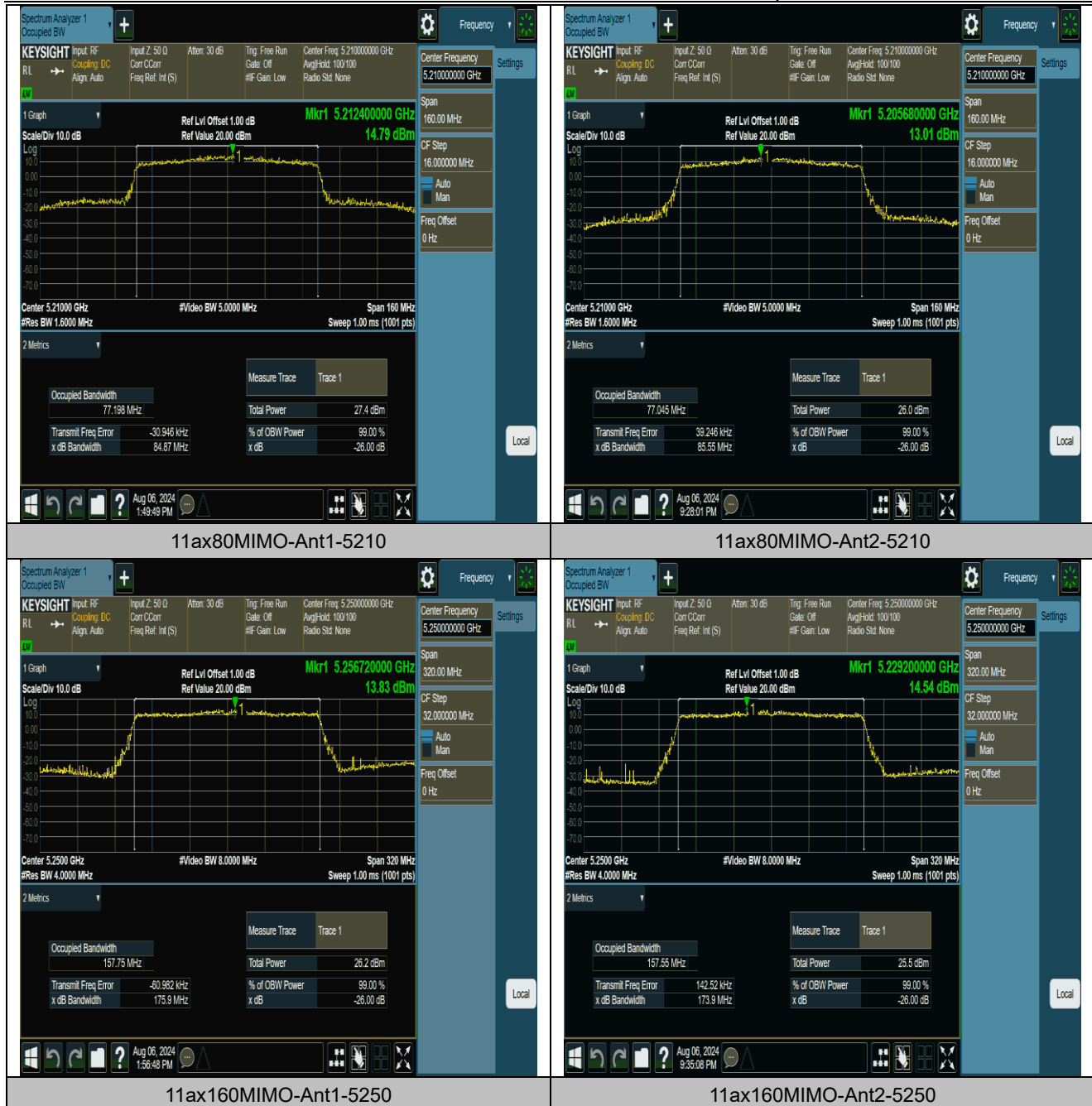


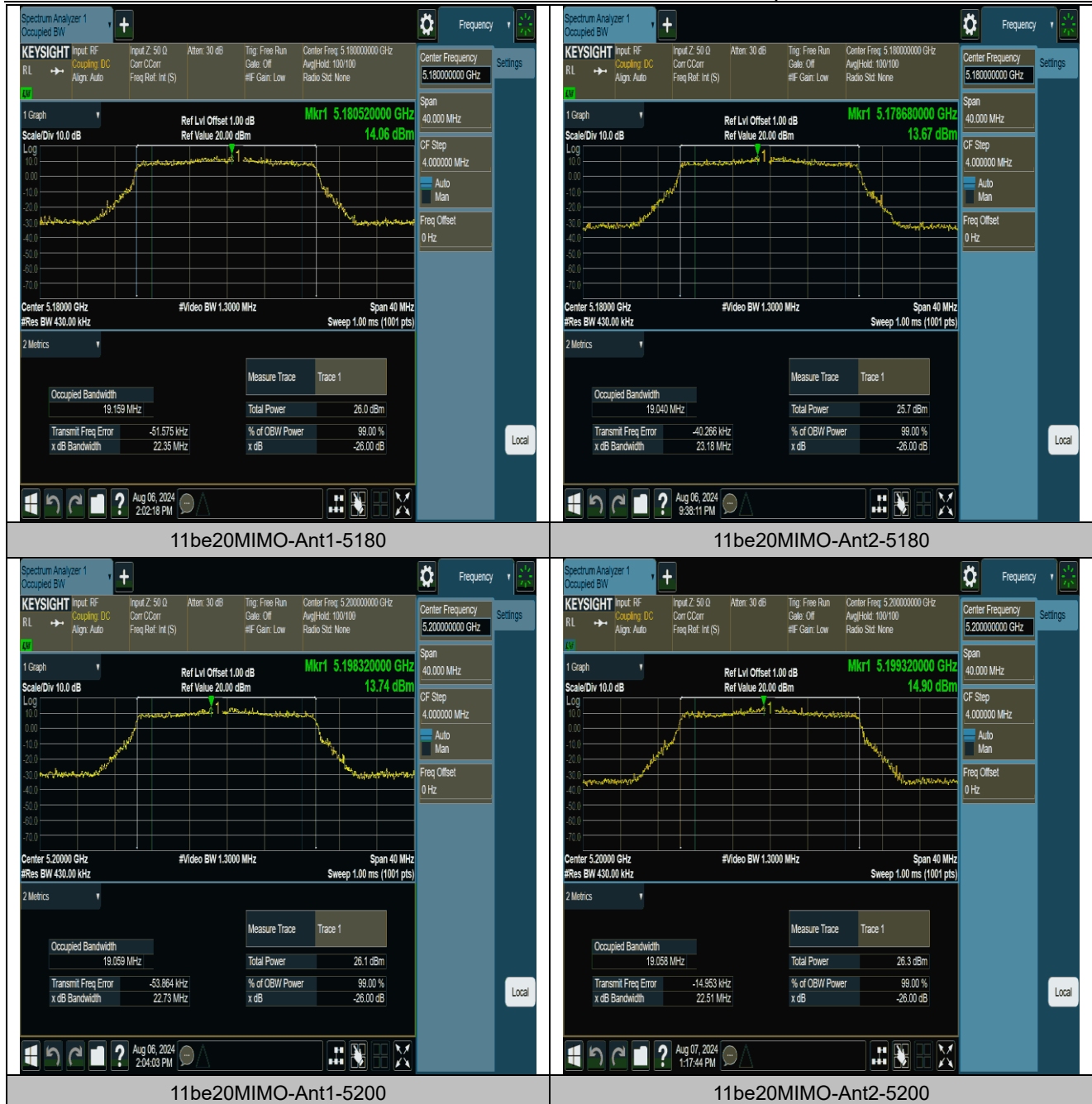


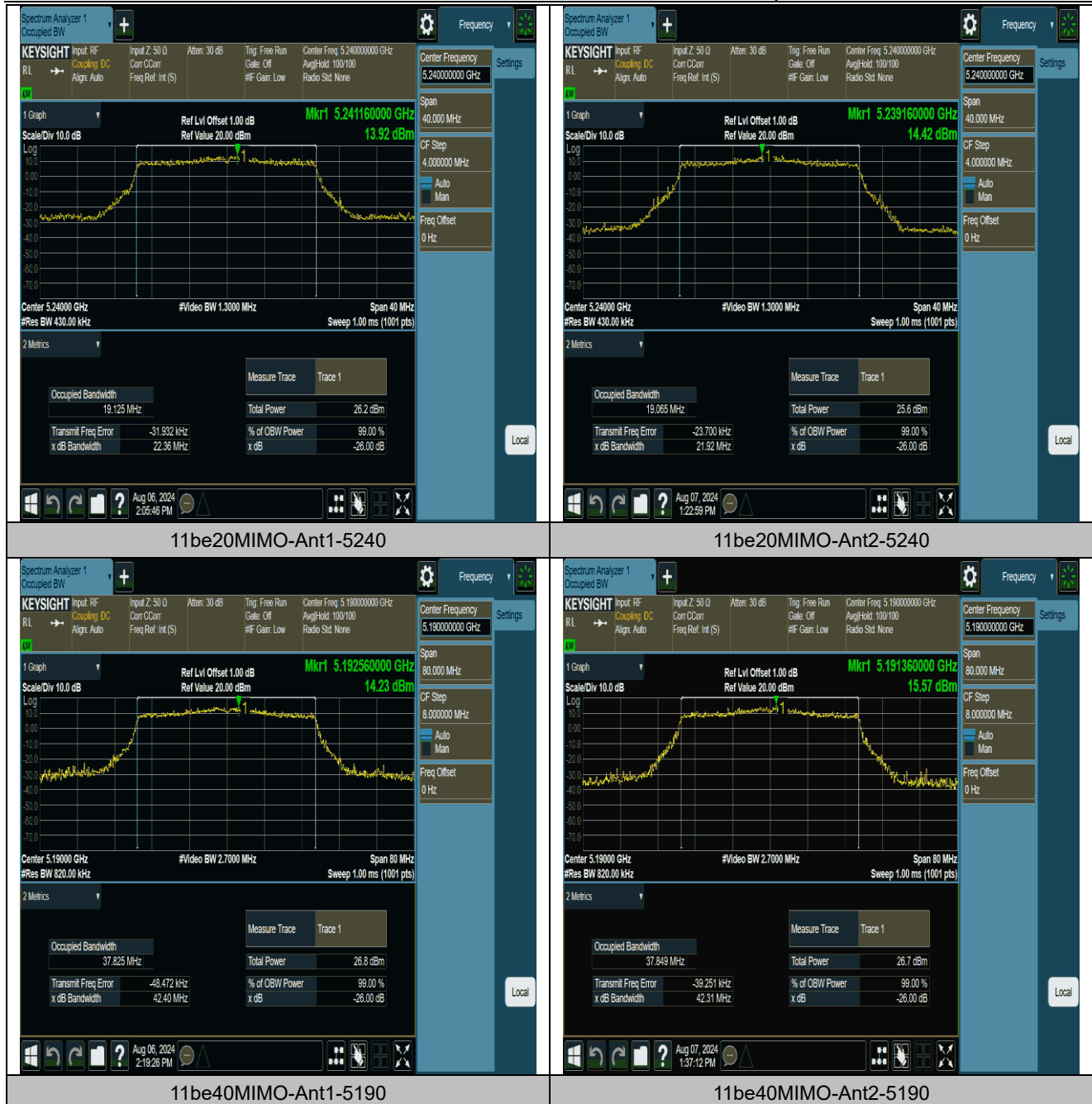


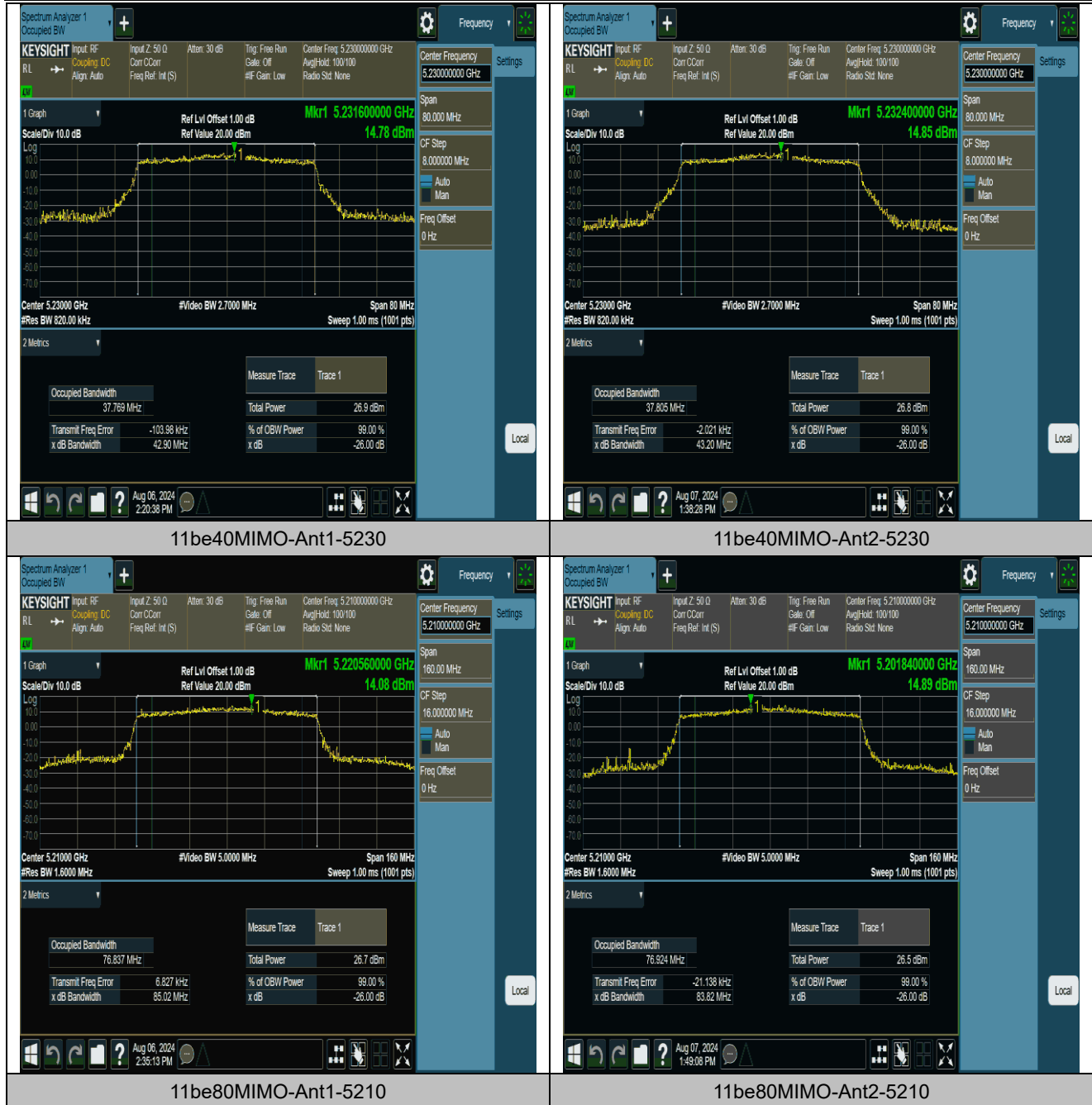














## Duty Cycle

### Test Result

TestMode	Antenna	Frequency[MHz]	Transmission Duration [ms]	Transmission Period [ms]	Duty Cycle [%]
11a-CDD	Ant1	5180	2.09	2.11	99.05
11a-CDD	Ant2	5180	2.10	2.12	99.06
11a-CDD	Ant1	5200	2.10	2.11	99.53
11a-CDD	Ant2	5200	2.10	2.12	99.06
11a-CDD	Ant1	5240	2.10	2.11	99.53
11a-CDD	Ant2	5240	2.09	2.11	99.05
11n20MIMO	Ant1	5180	5.36	5.38	99.63
11n20MIMO	Ant2	5180	5.36	5.38	99.63
11n20MIMO	Ant1	5200	5.36	5.38	99.63
11n20MIMO	Ant2	5200	5.36	5.38	99.63
11n20MIMO	Ant1	5240	5.36	5.38	99.63
11n20MIMO	Ant2	5240	5.36	5.38	99.63
11n40MIMO	Ant1	5190	5.38	5.40	99.63
11n40MIMO	Ant2	5190	5.38	5.39	99.81
11n40MIMO	Ant1	5230	5.38	5.40	99.63
11n40MIMO	Ant2	5230	5.38	5.39	99.81
11ac20MIMO	Ant1	5180	5.36	5.38	99.63
11ac20MIMO	Ant2	5180	5.36	5.38	99.63
11ac20MIMO	Ant1	5200	5.36	5.38	99.63
11ac20MIMO	Ant2	5200	5.36	5.38	99.63
11ac20MIMO	Ant1	5240	5.36	5.38	99.63
11ac20MIMO	Ant2	5240	5.36	5.38	99.63
11ac40MIMO	Ant1	5190	5.41	5.43	99.63
11ac40MIMO	Ant2	5190	5.41	5.43	99.63
11ac40MIMO	Ant1	5230	5.41	5.43	99.63
11ac40MIMO	Ant2	5230	5.42	5.43	99.82
11ac80MIMO	Ant1	5210	4.24	4.26	99.53
11ac80MIMO	Ant2	5210	4.24	4.25	99.76
11ac160MIMO	Ant1	5250	2.35	2.37	99.16
11ac160MIMO	Ant2	5250	2.35	2.37	99.16
11ax20MIMO	Ant1	5180	5.34	5.36	99.63
11ax20MIMO	Ant2	5180	5.35	5.37	99.63
11ax20MIMO	Ant1	5200	5.34	5.36	99.63
11ax20MIMO	Ant2	5200	5.35	5.37	99.63
11ax20MIMO	Ant1	5240	5.35	5.37	99.63
11ax20MIMO	Ant2	5240	5.35	5.37	99.63
11ax40MIMO	Ant1	5190	5.37	5.39	99.63
11ax40MIMO	Ant2	5190	5.38	5.39	99.81
11ax40MIMO	Ant1	5230	5.37	5.39	99.63
11ax40MIMO	Ant2	5230	5.37	5.39	99.63

11ax80MIMO	Ant1	5210	5.40	5.42	99.63
11ax80MIMO	Ant2	5210	5.40	5.42	99.63
11ax160MIMO	Ant1	5250	5.04	5.05	99.80
11ax160MIMO	Ant2	5250	5.04	5.05	99.80
11be20MIMO	Ant1	5180	5.35	5.37	99.63
11be20MIMO	Ant2	5180	5.35	5.37	99.63
11be20MIMO	Ant1	5200	5.35	5.37	99.63
11be20MIMO	Ant2	5200	5.36	5.38	99.63
11be20MIMO	Ant1	5240	5.35	5.37	99.63
11be20MIMO	Ant2	5240	5.35	5.37	99.63
11be40MIMO	Ant1	5190	5.38	5.40	99.63
11be40MIMO	Ant2	5190	5.38	5.40	99.63
11be40MIMO	Ant1	5230	5.38	5.40	99.63
11be40MIMO	Ant2	5230	5.38	5.40	99.63
11be80MIMO	Ant1	5210	5.41	5.43	99.63
11be80MIMO	Ant2	5210	5.41	5.43	99.63
11be160MIMO	Ant1	5250	5.04	5.06	99.60
11be160MIMO	Ant2	5250	5.04	5.06	99.60



## Test Graphs



