

## RF Test Data for RLAN(5.2G) (Conducted Measurement)

Product Name: Motorcycle DVR Dash Camera

Trade Mark: HFK

Test Model: HM502

FCC ID: 2BFHY-HM502

### Environmental Conditions

Temperature:	22.8° C
Relative Humidity:	56%
ATM Pressure:	100.0 kPa
Test Engineer:	Anna Hu
Supervised by:	Hugo Chen
NOTE	N/A

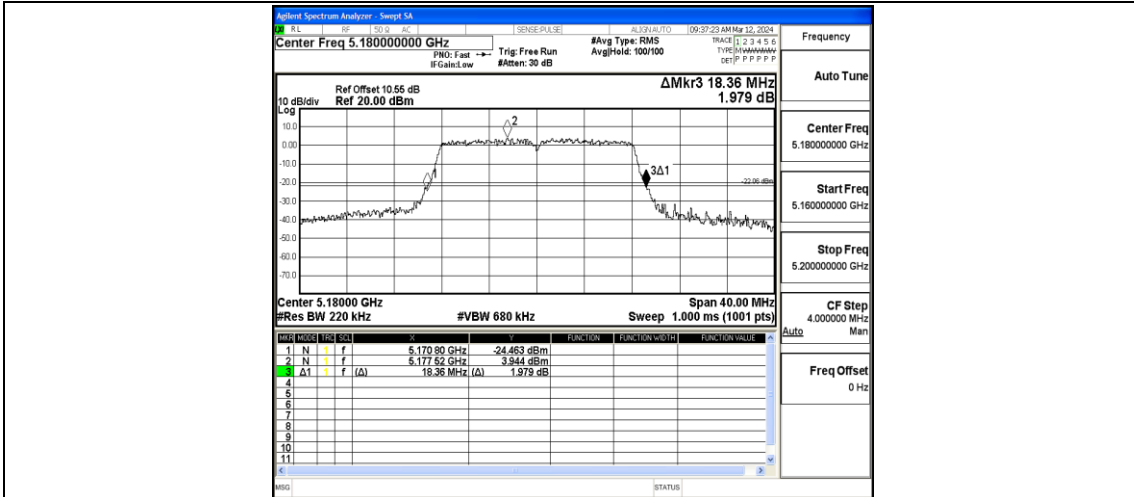
## Appendix A1: Emission Bandwidth

### Test Result

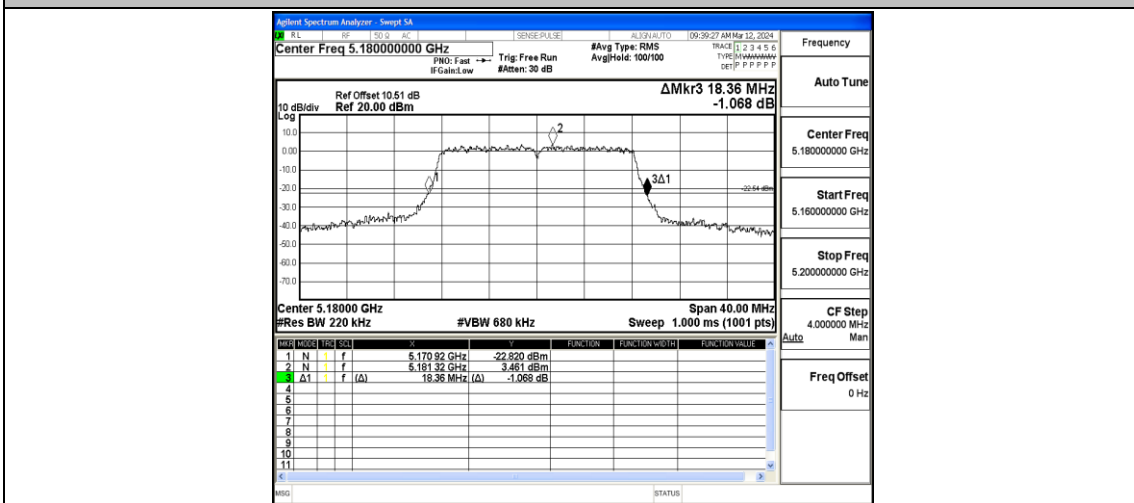
TestMode	Antenna	Frequency[MHz]	26db EBW [MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
11A	Ant1	5180	18.360	5170.800	5189.160	---	---
11A	Ant2	5180	18.360	5170.920	5189.280	---	---
11A	Ant1	5200	18.200	5190.840	5209.040	---	---
11A	Ant2	5200	18.400	5190.760	5209.160	---	---
11A	Ant1	5240	18.440	5230.800	5249.240	---	---
11A	Ant2	5240	18.240	5230.880	5249.120	---	---
11N20MIMO	Ant1	5180	19.320	5170.360	5189.680	---	---
11N20MIMO	Ant2	5180	19.120	5170.480	5189.600	---	---
11N20MIMO	Ant1	5200	19.360	5190.320	5209.680	---	---
11N20MIMO	Ant2	5200	19.360	5190.280	5209.640	---	---
11N20MIMO	Ant1	5240	19.320	5230.360	5249.680	---	---
11N20MIMO	Ant2	5240	19.440	5230.320	5249.760	---	---
11N40MIMO	Ant1	5190	41.520	5169.200	5210.720	---	---
11N40MIMO	Ant2	5190	40.960	5169.600	5210.560	---	---
11N40MIMO	Ant1	5230	40.880	5209.760	5250.640	---	---
11N40MIMO	Ant2	5230	41.040	5209.600	5250.640	---	---
11AC20MIMO	Ant1	5180	19.360	5170.320	5189.680	---	---
11AC20MIMO	Ant2	5180	19.480	5170.280	5189.760	---	---
11AC20MIMO	Ant1	5200	19.000	5190.480	5209.480	---	---
11AC20MIMO	Ant2	5200	19.000	5190.560	5209.560	---	---
11AC20MIMO	Ant1	5240	19.160	5230.480	5249.640	---	---
11AC20MIMO	Ant2	5240	19.040	5230.400	5249.440	---	---
11AC40MIMO	Ant1	5190	40.960	5169.280	5210.240	---	---
11AC40MIMO	Ant2	5190	40.720	5169.600	5210.320	---	---

11AC40MIMO	Ant1	5230	40.640	5209.920	5250.560	---	---
11AC40MIMO	Ant2	5230	40.640	5209.840	5250.480	---	---
11AC80MIMO	Ant1	5210	80.480	5169.840	5250.320	---	---
11AC80MIMO	Ant2	5210	80.960	5169.840	5250.800	---	---

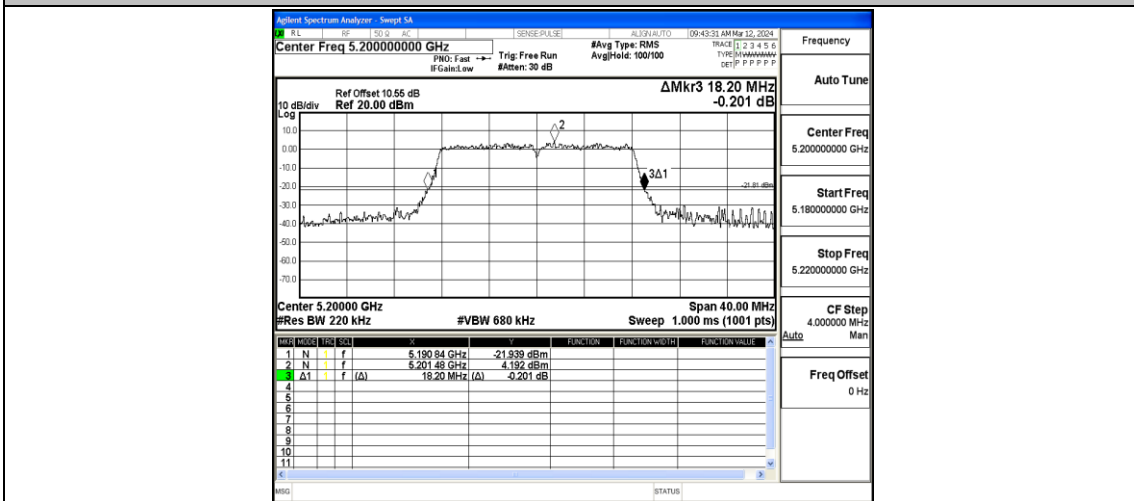
### Test Graphs



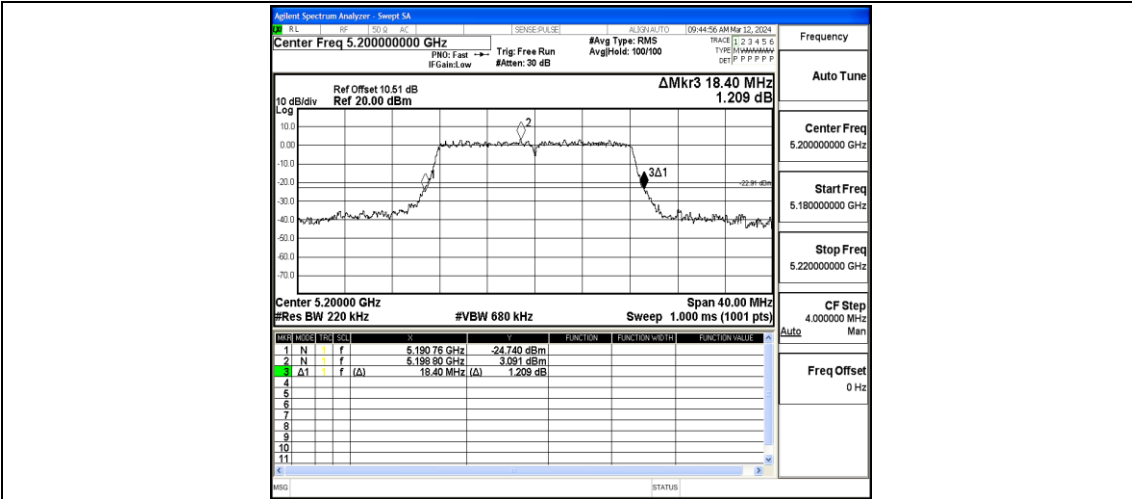
11A-Ant1-5180



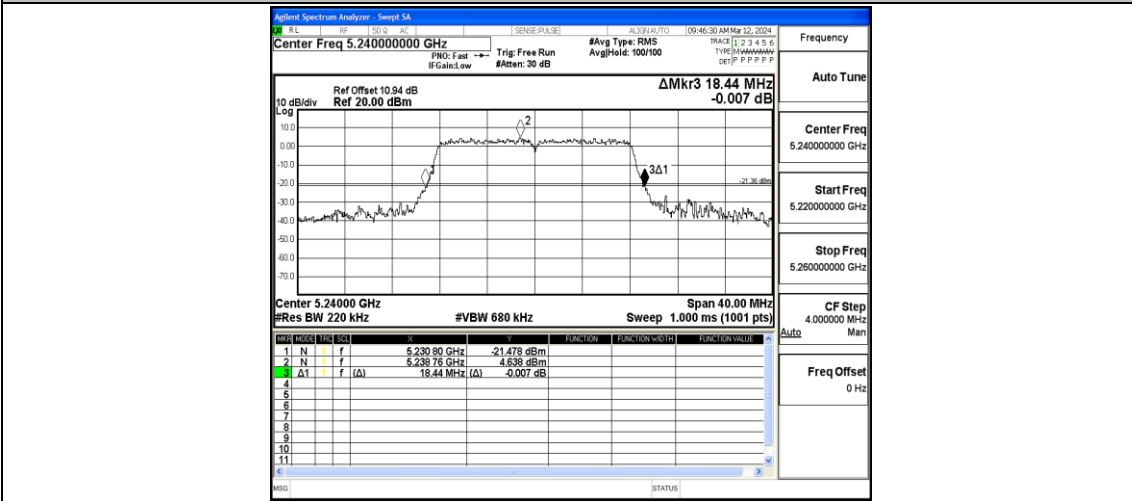
11A-Ant2-5180



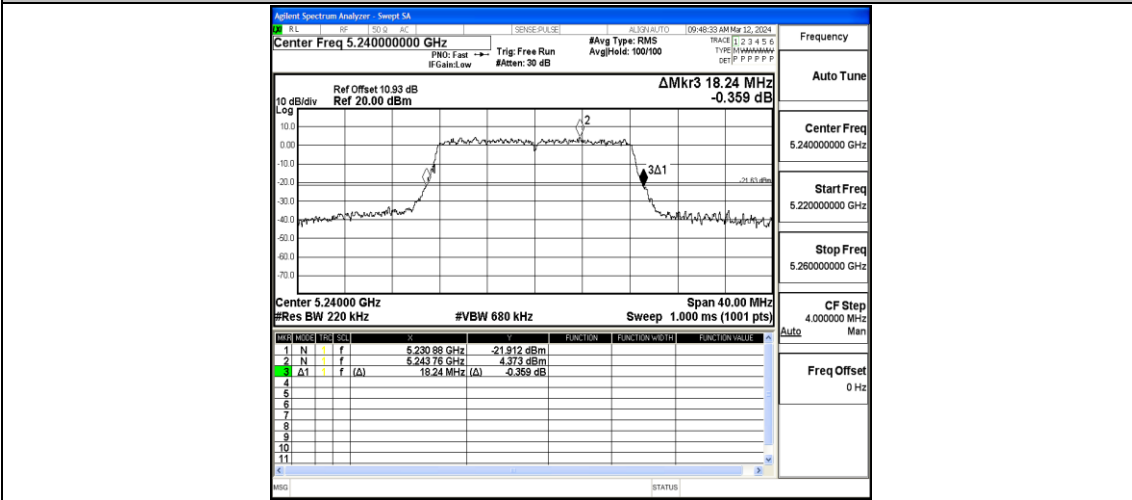
11A-Ant1-5200



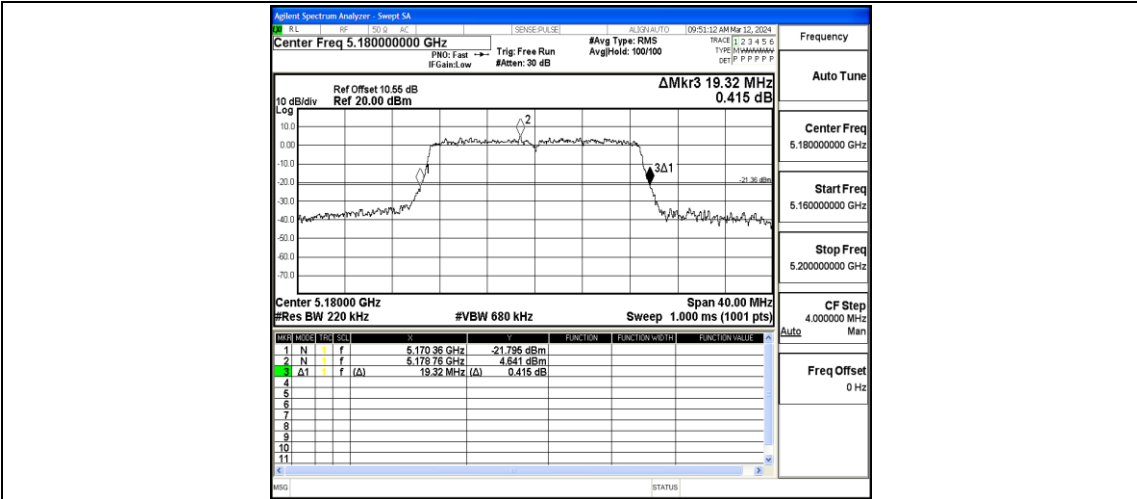
11A-Ant2-5200



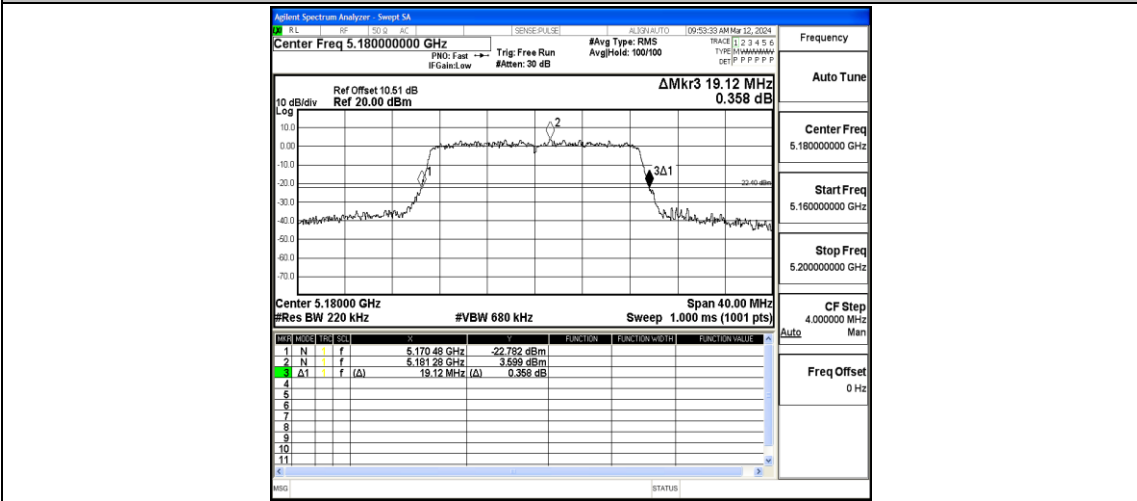
11A-Ant1-5240



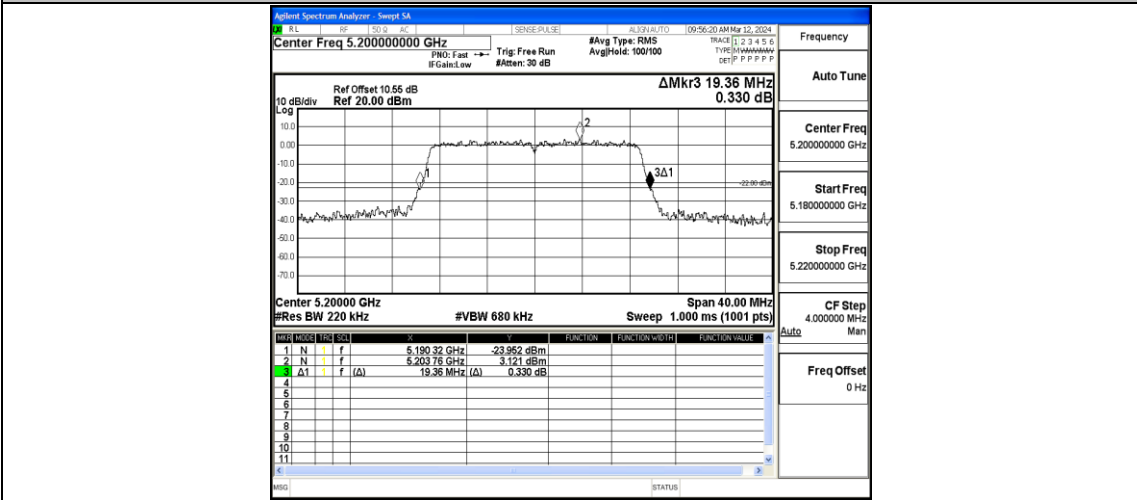
11A-Ant2-5240



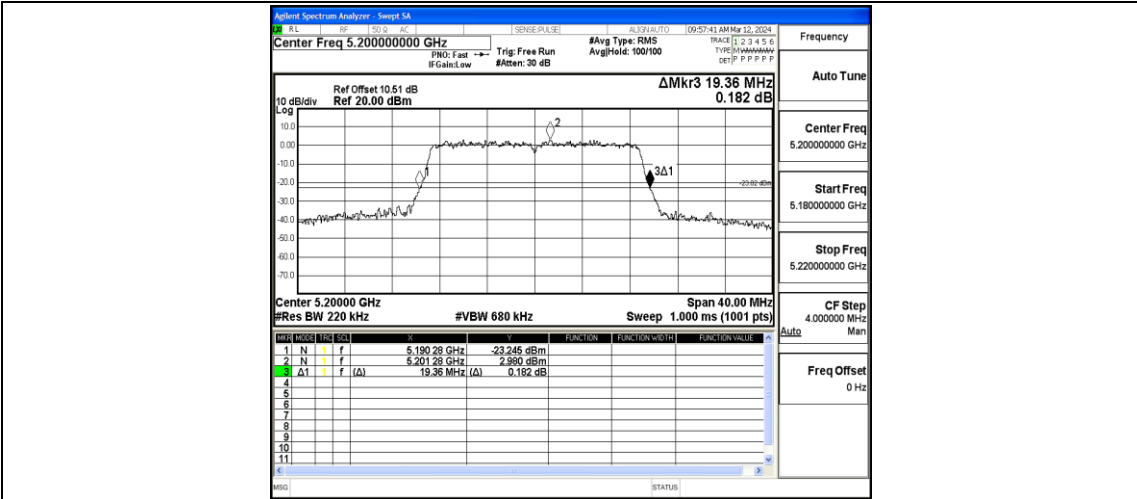
11N20MIMO-Ant1-5180



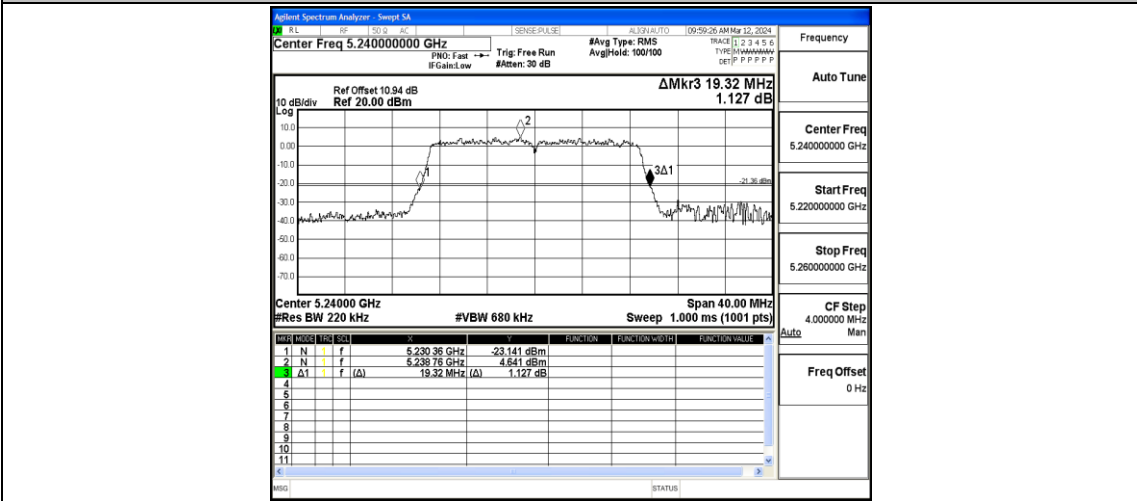
11N20MIMO-Ant2-5180



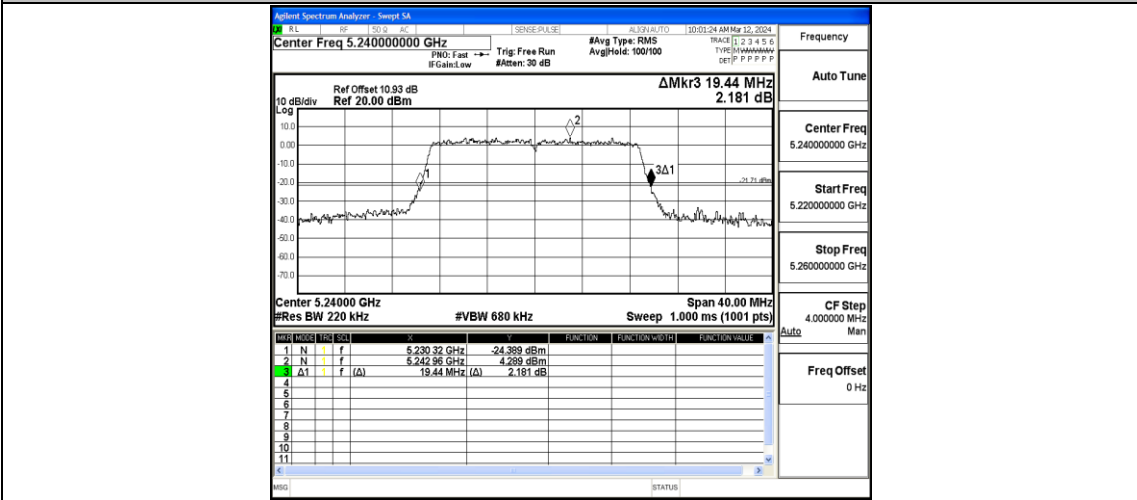
11N20MIMO-Ant1-5200



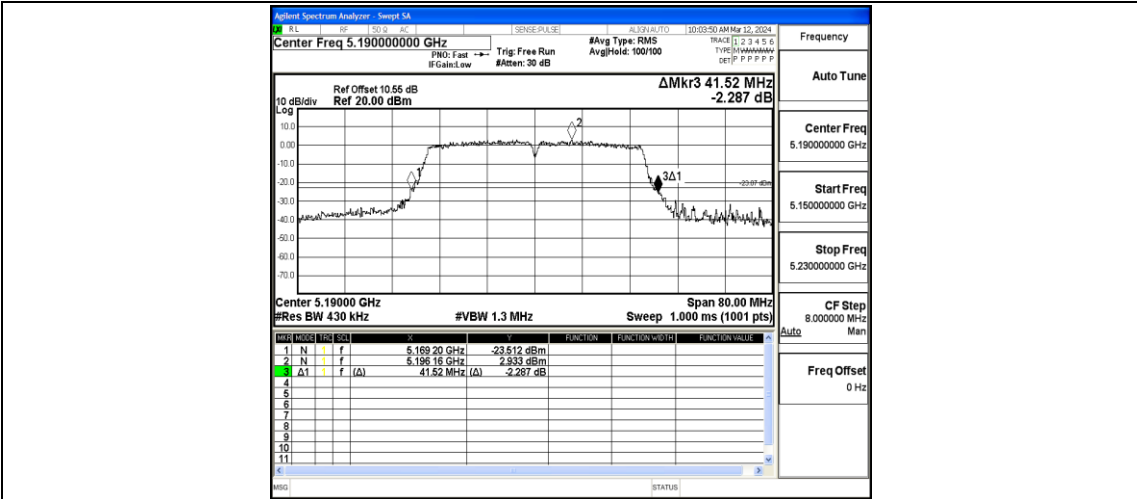
11N20MIMO-Ant2-5200



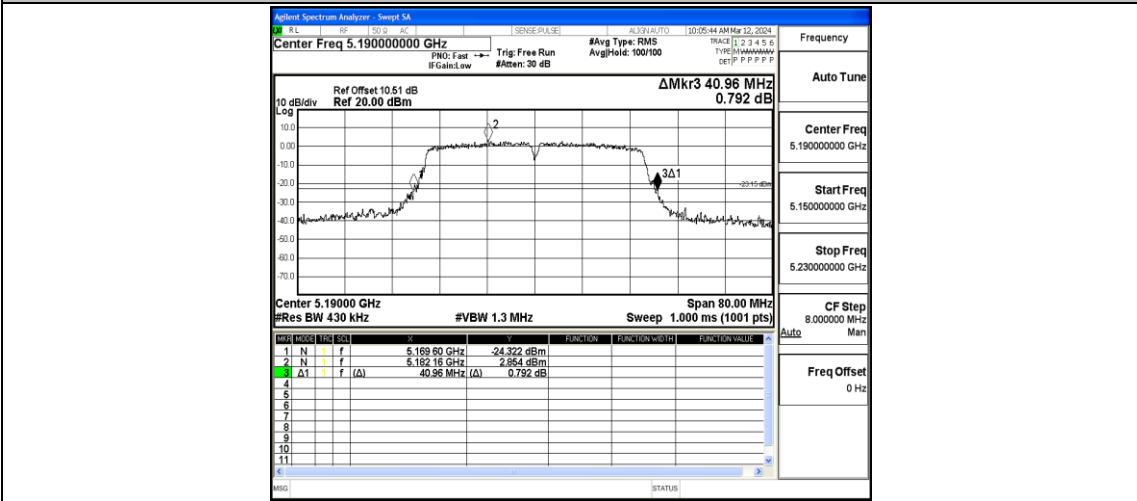
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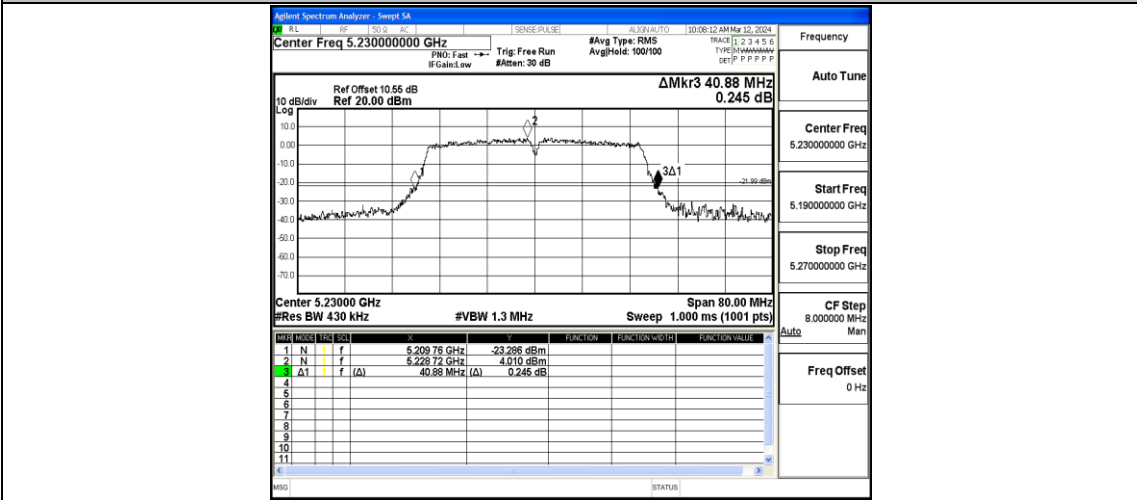
11N20MIMO-Ant2-5240



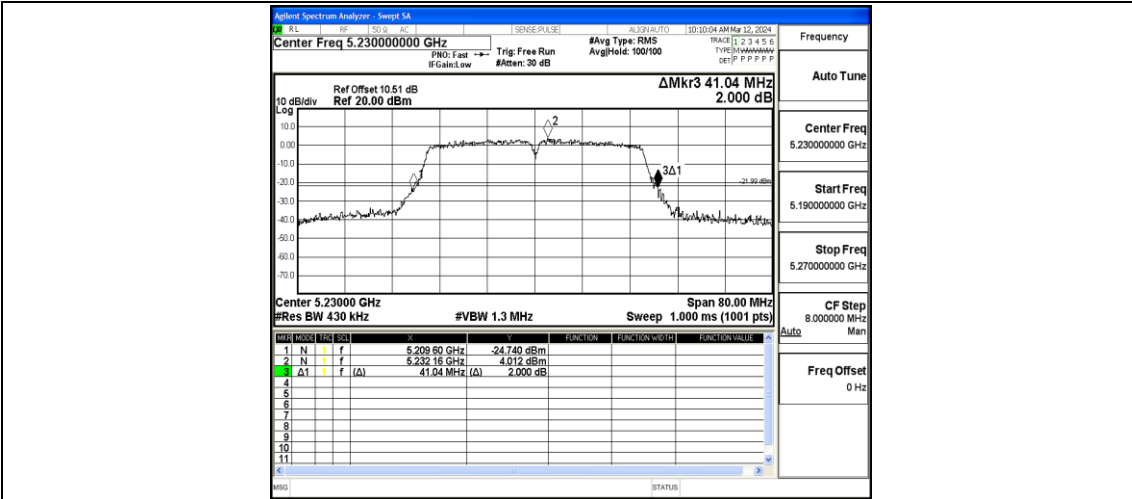
11N40MIMO-Ant1-5190



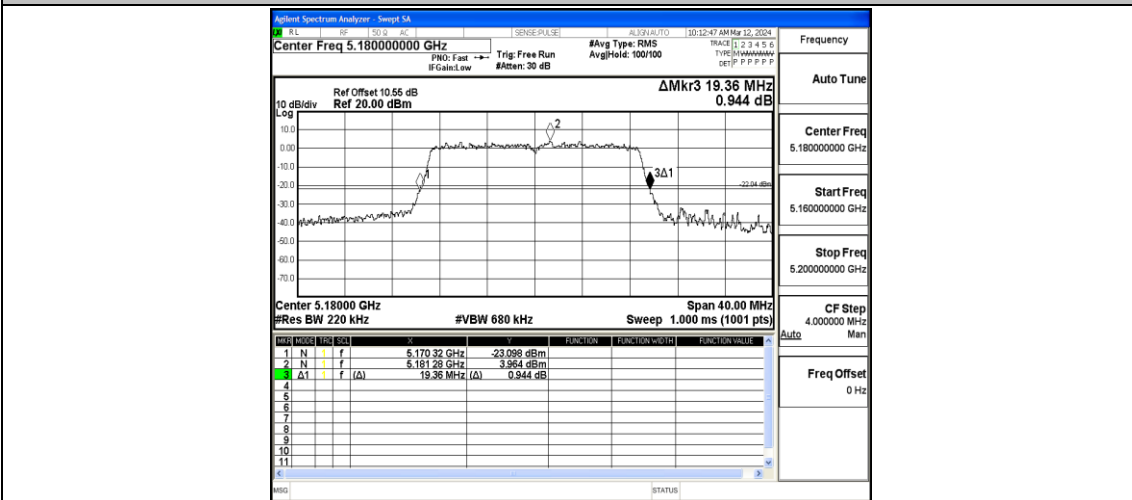
11N40MIMO-Ant2-5190



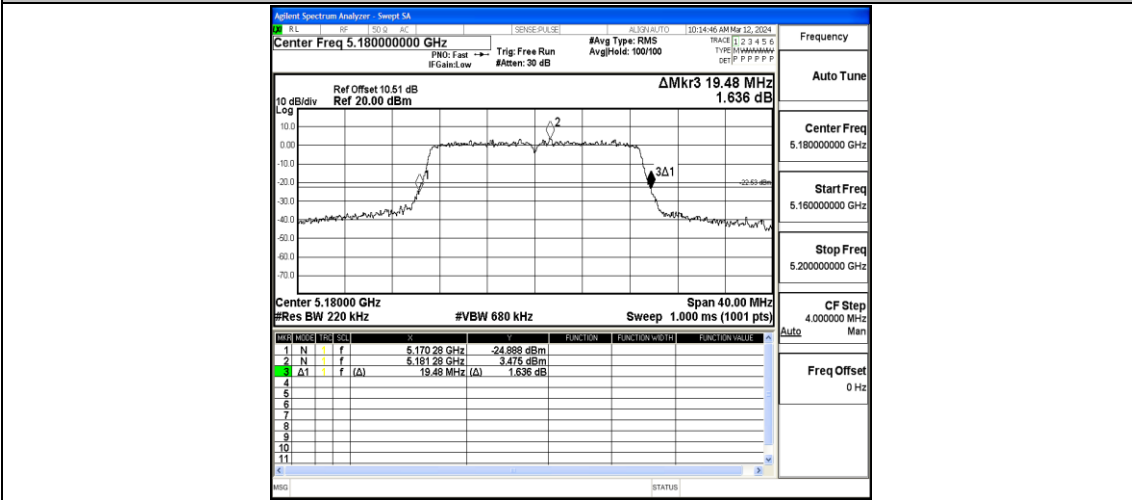
11N40MIMO-Ant1-5230



11N40MIMO-Ant2-5230

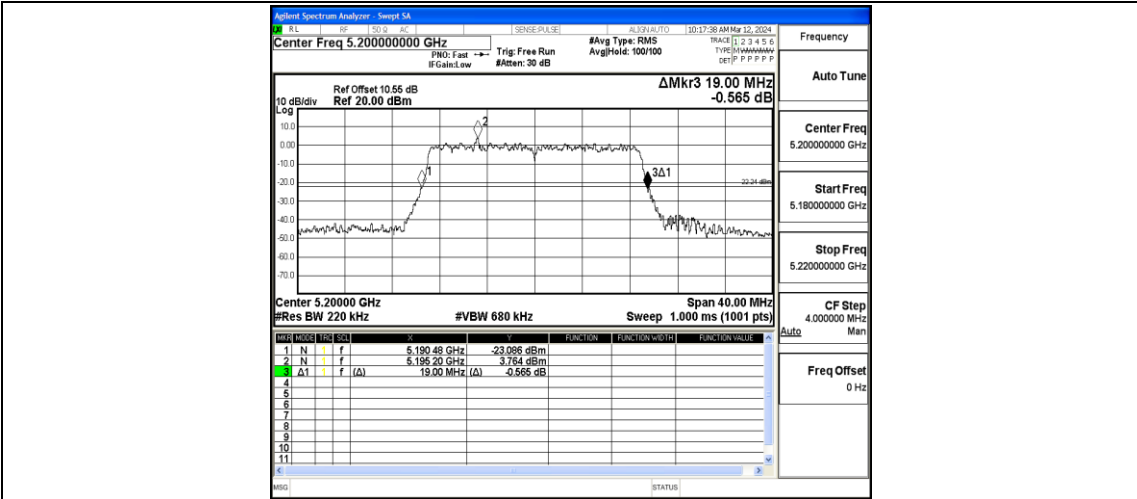


11AC20MIMO-Ant1-5180

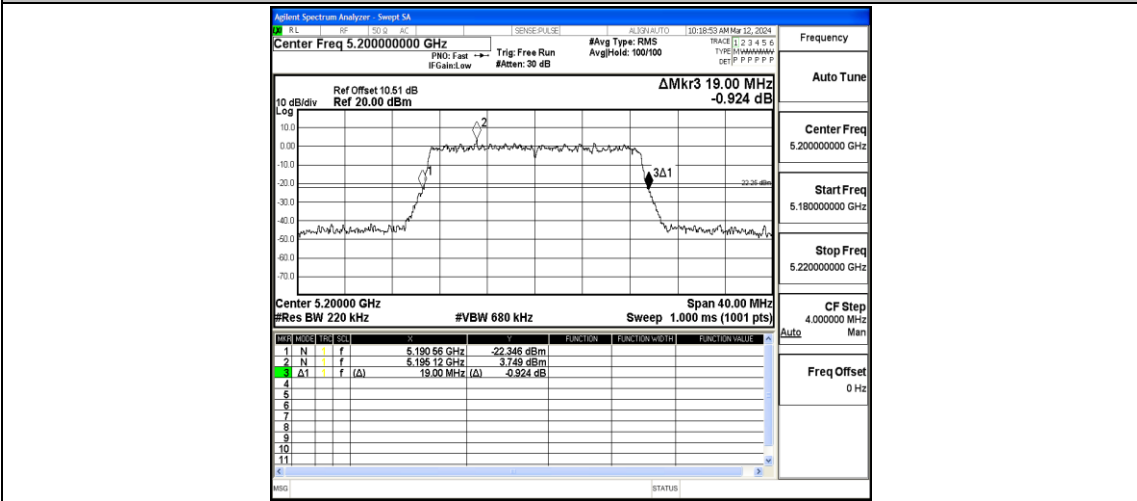


11AC20MIMO-Ant2-5180

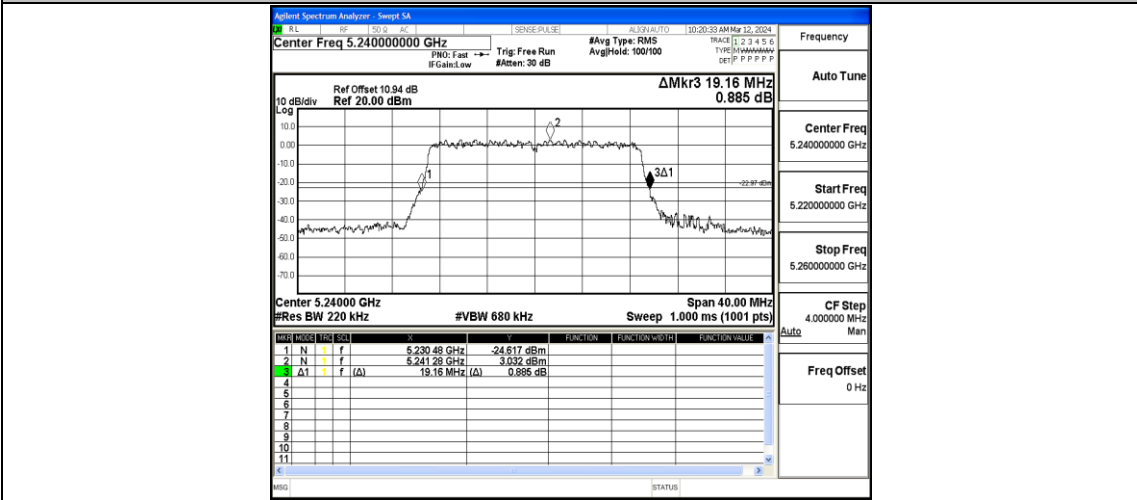




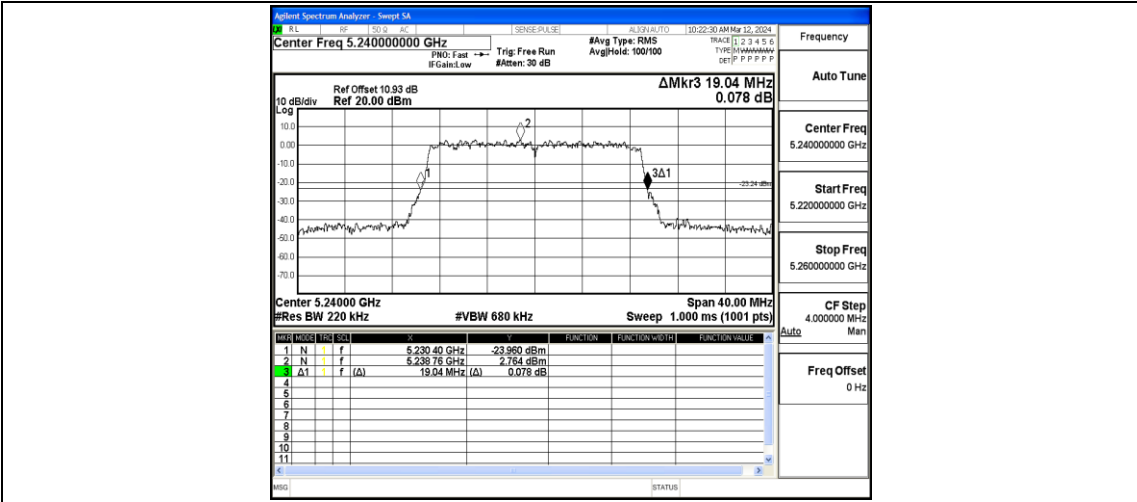
11AC20MIMO-Ant1-5200



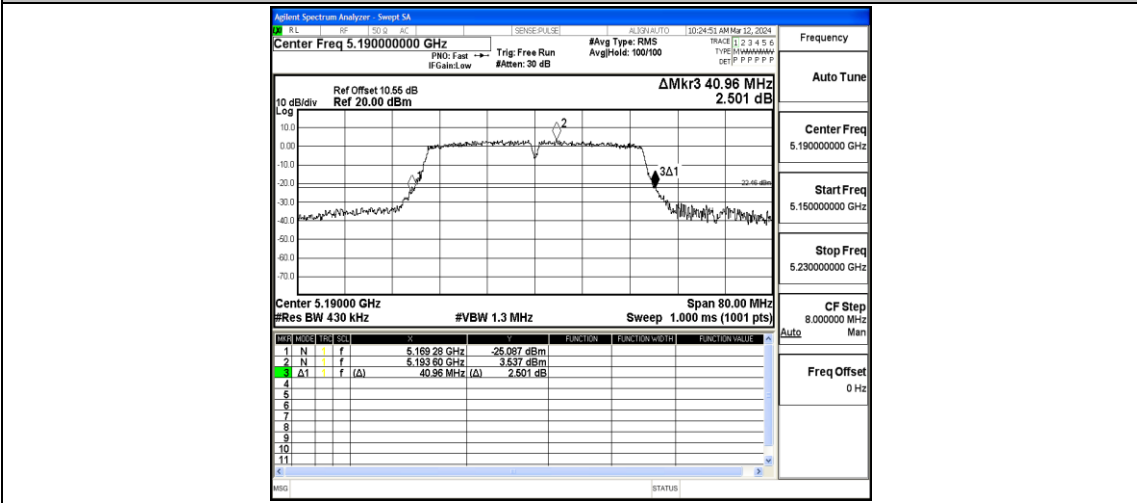
11AC20MIMO-Ant2-5200



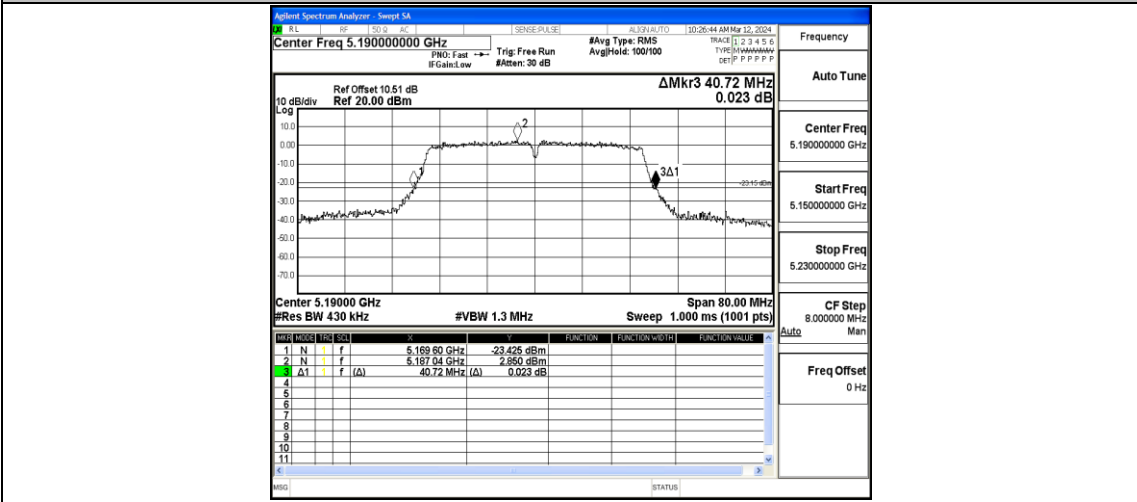
11AC20MIMO-Ant1-5240



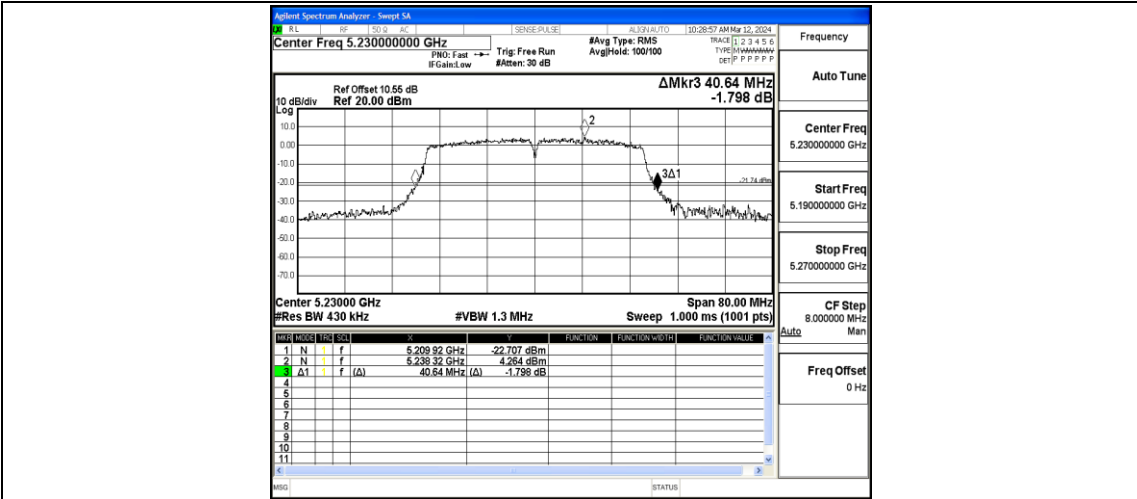
11AC20MIMO-Ant2-5240



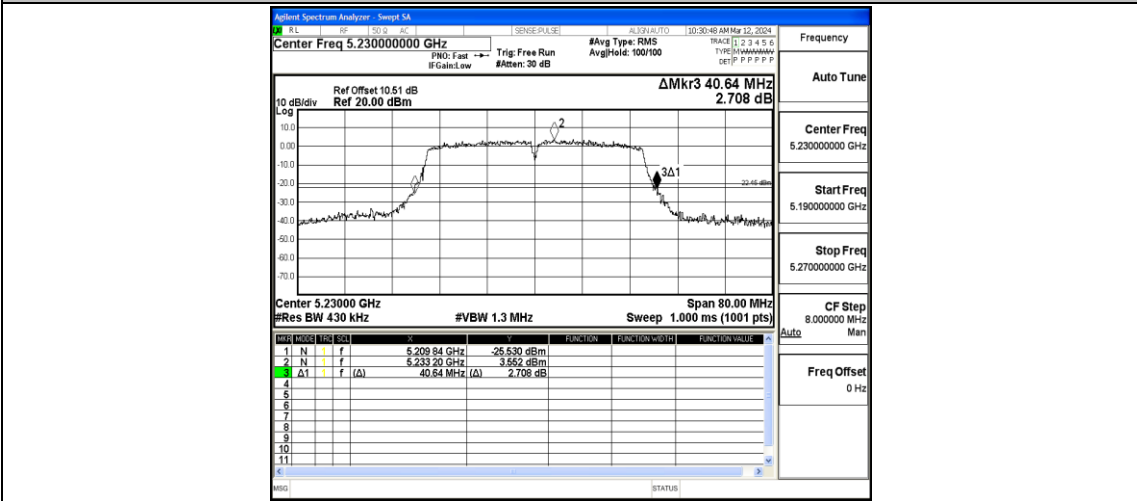
11AC40MIMO-Ant1-5190



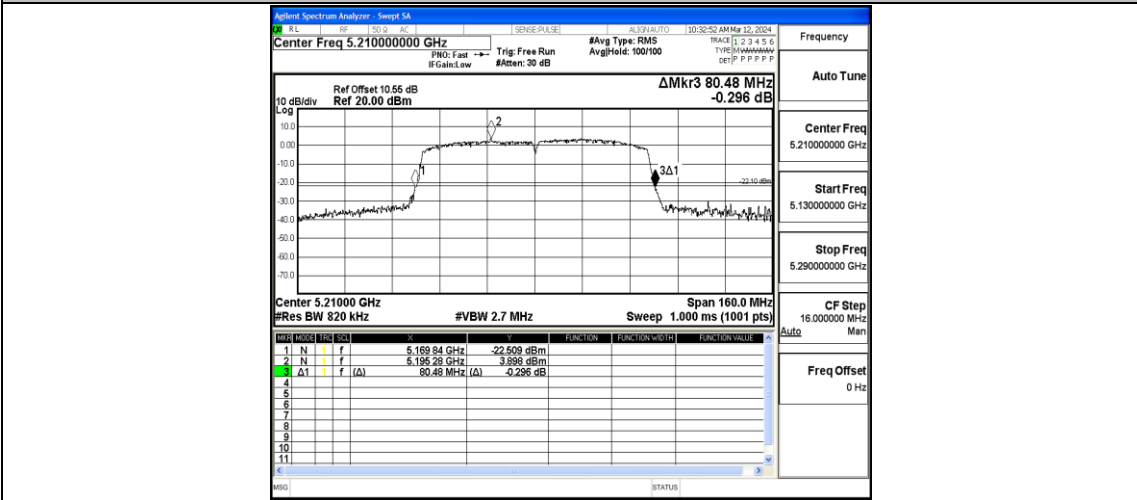
11AC40MIMO-Ant2-5190



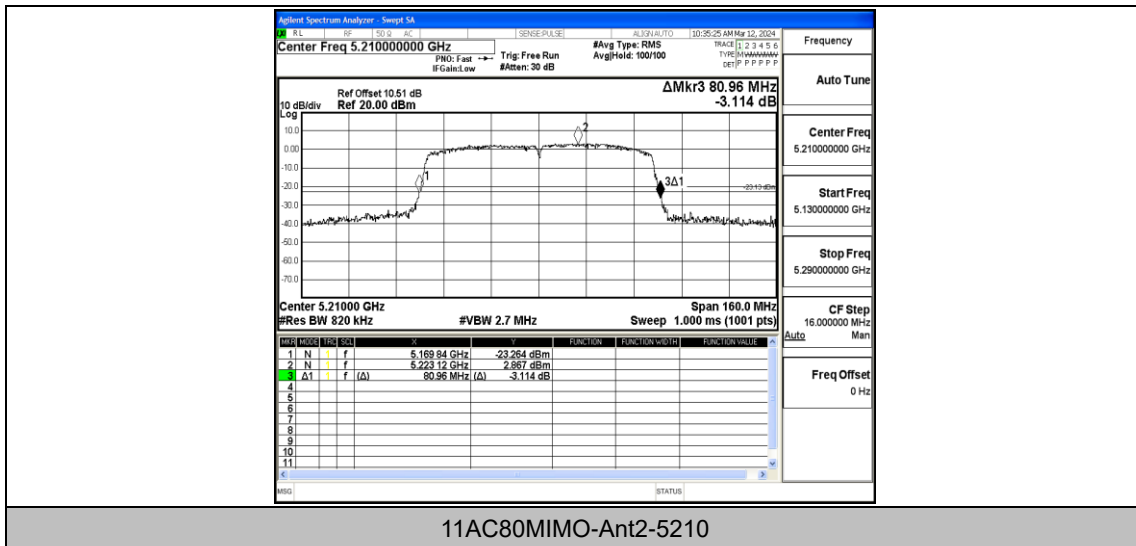
11AC40MIMO-Ant1-5230



11AC40MIMO-Ant2-5230



11AC80MIMO-Ant1-5210

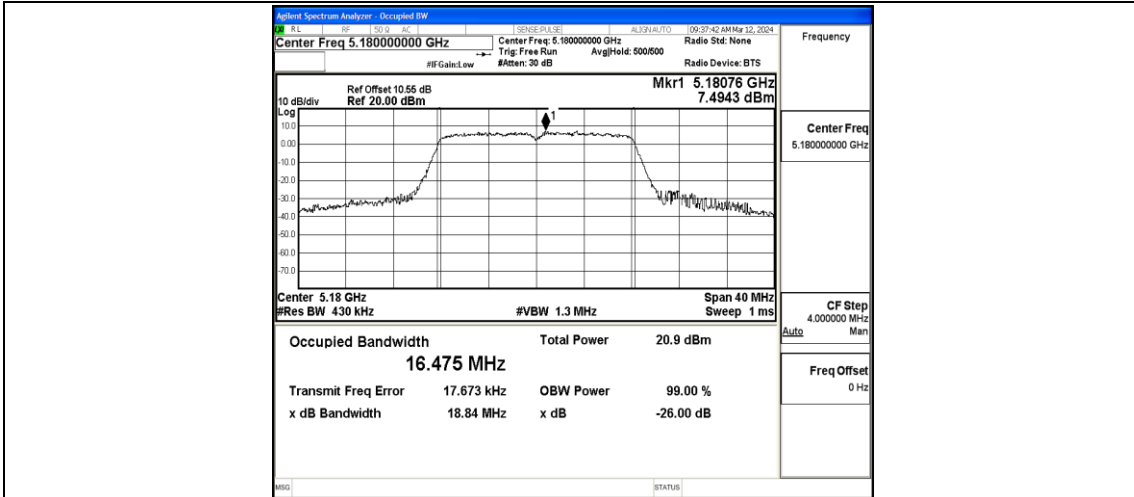


## Appendix A2: Occupied channel bandwidth

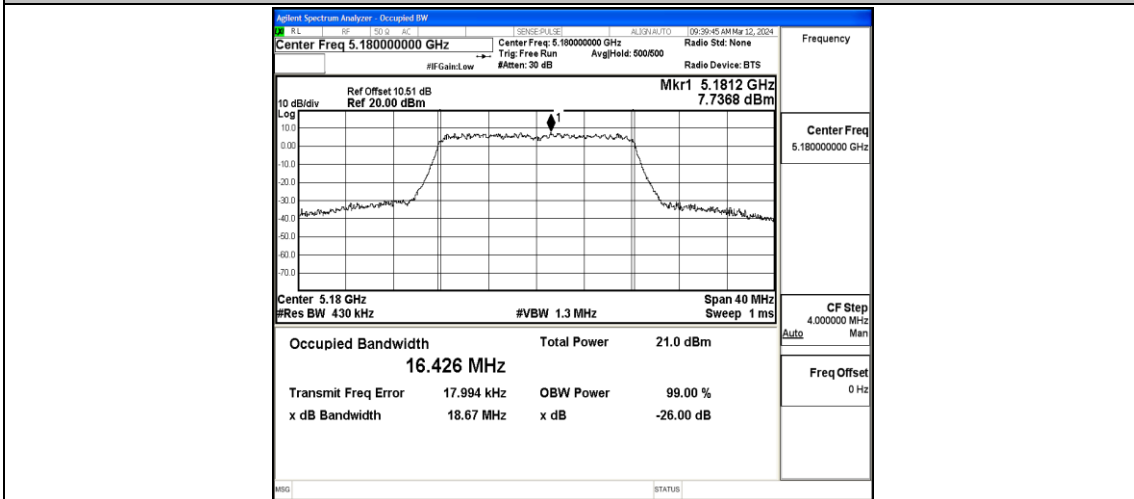
### Test Result

TestMode	Antenna	Frequency[MHz]	OCB [MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
11A	Ant1	5180	16.475	5171.7802	5188.2552	---	---
11A	Ant2	5180	16.426	5171.8050	5188.2310	---	---
11A	Ant1	5200	16.507	5191.7586	5208.2656	---	---
11A	Ant2	5200	16.460	5191.7761	5208.2361	---	---
11A	Ant1	5240	16.504	5231.7517	5248.2557	---	---
11A	Ant2	5240	16.442	5231.7776	5248.2196	---	---
11N20MIMO	Ant1	5180	17.628	5171.1993	5188.8273	---	---
11N20MIMO	Ant2	5180	17.600	5171.2119	5188.8119	---	---
11N20MIMO	Ant1	5200	17.654	5191.1919	5208.8459	---	---
11N20MIMO	Ant2	5200	17.656	5191.1857	5208.8417	---	---
11N20MIMO	Ant1	5240	17.641	5231.1674	5248.8084	---	---
11N20MIMO	Ant2	5240	17.627	5231.1756	5248.8026	---	---
11N40MIMO	Ant1	5190	36.442	5171.7545	5208.1965	---	---
11N40MIMO	Ant2	5190	36.505	5171.7794	5208.2844	---	---
11N40MIMO	Ant1	5230	36.311	5211.9219	5248.2329	---	---
11N40MIMO	Ant2	5230	36.296	5211.9423	5248.2383	---	---
11AC20MIMO	Ant1	5180	17.609	5171.2083	5188.8173	---	---
11AC20MIMO	Ant2	5180	17.599	5171.2138	5188.8128	---	---
11AC20MIMO	Ant1	5200	17.737	5191.1066	5208.8436	---	---
11AC20MIMO	Ant2	5200	17.727	5191.1145	5208.8415	---	---
11AC20MIMO	Ant1	5240	17.755	5231.1266	5248.8816	---	---
11AC20MIMO	Ant2	5240	17.749	5231.1239	5248.8729	---	---
11AC40MIMO	Ant1	5190	36.370	5171.8108	5208.1808	---	---
11AC40MIMO	Ant2	5190	36.323	5171.8177	5208.1407	---	---
11AC40MIMO	Ant1	5230	36.207	5211.9546	5248.1616	---	---
11AC40MIMO	Ant2	5230	36.207	5211.9626	5248.1696	---	---
11AC80MIMO	Ant1	5210	74.653	5172.8308	5247.4838	---	---
11AC80MIMO	Ant2	5210	74.539	5172.9531	5247.4921	---	---

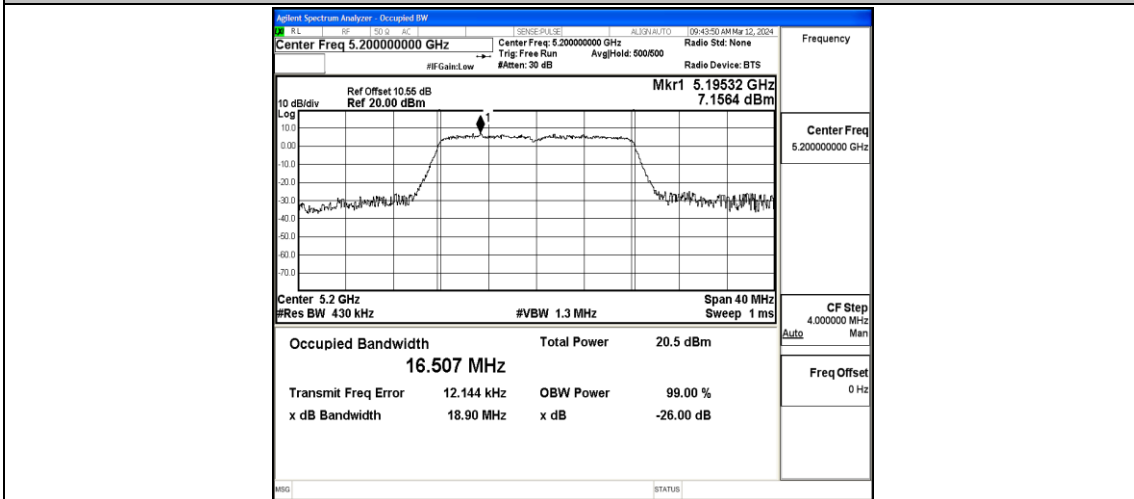
### Test Graphs



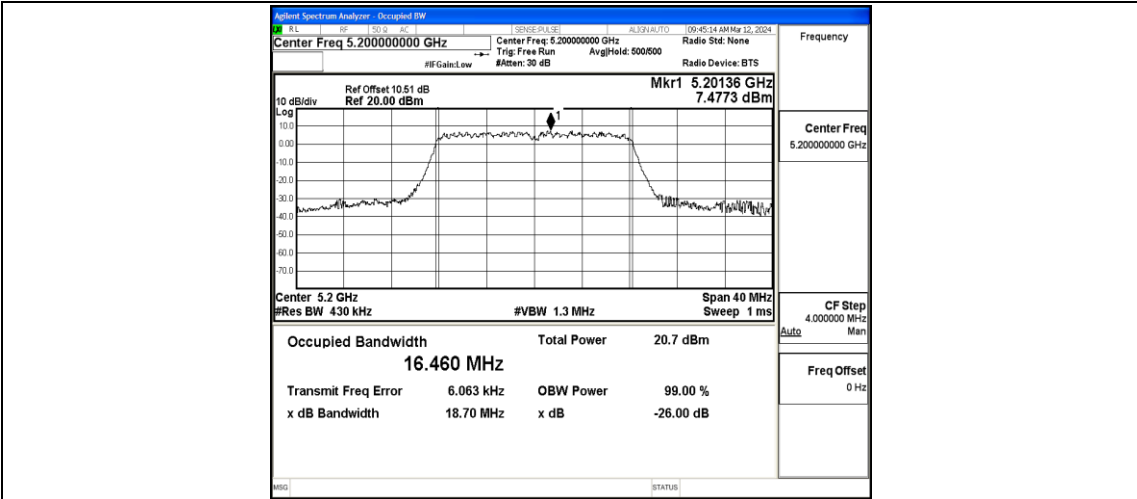
11A-Ant1-5180



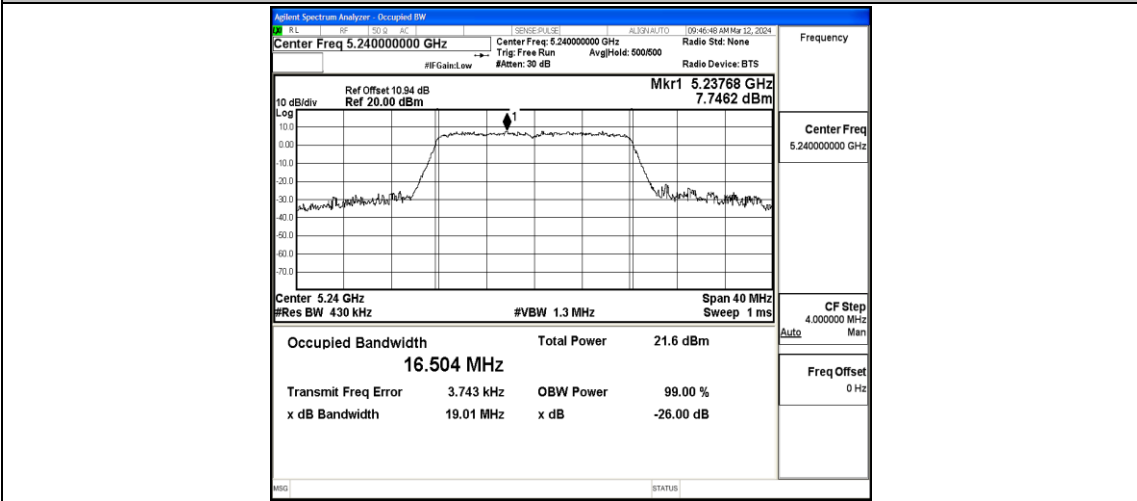
11A-Ant2-5180



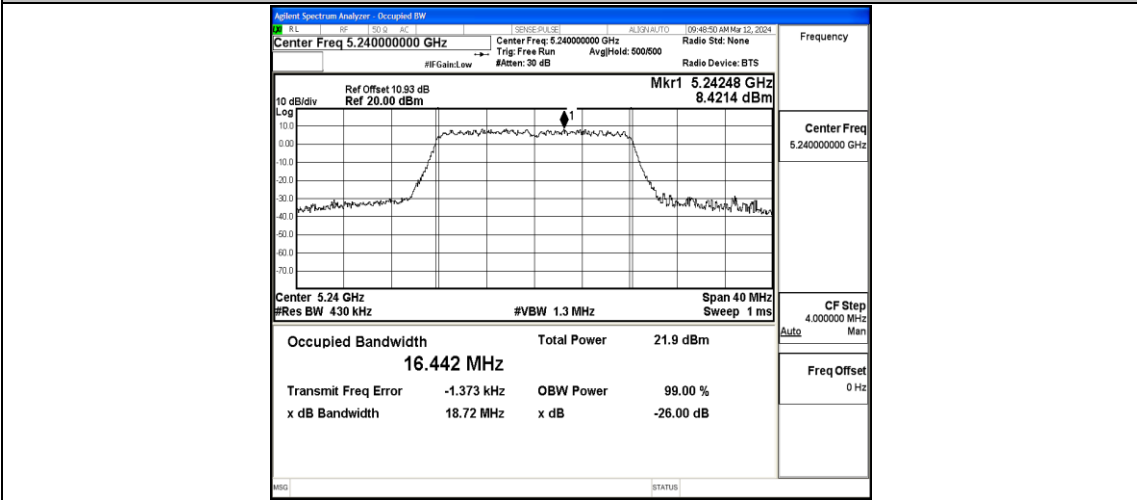
11A-Ant1-5200



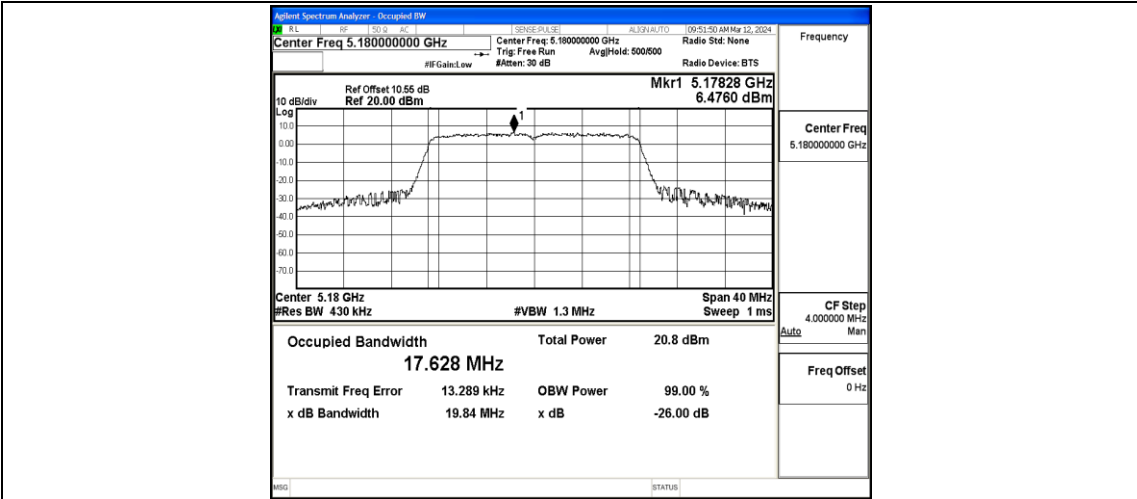
11A-Ant2-5200



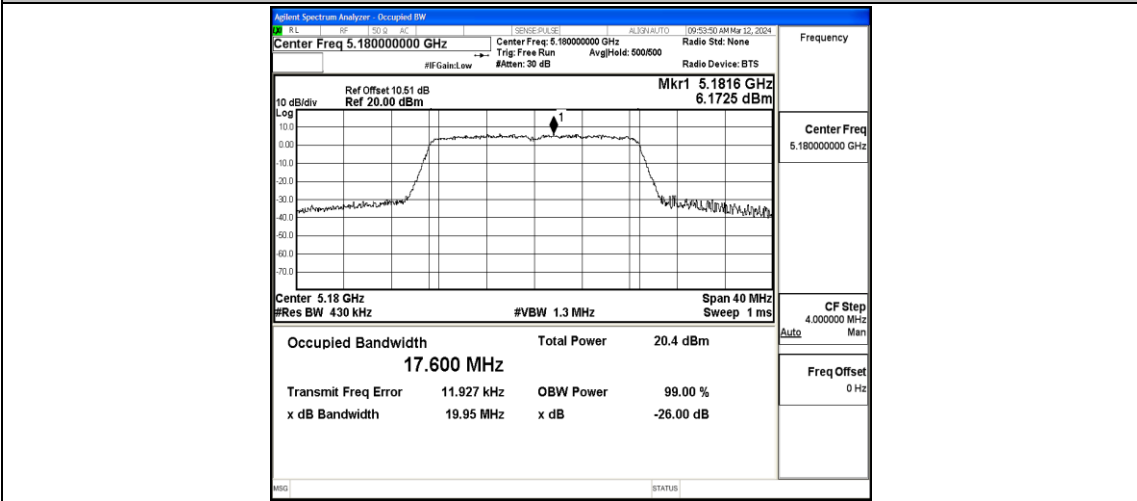
11A-Ant1-5240



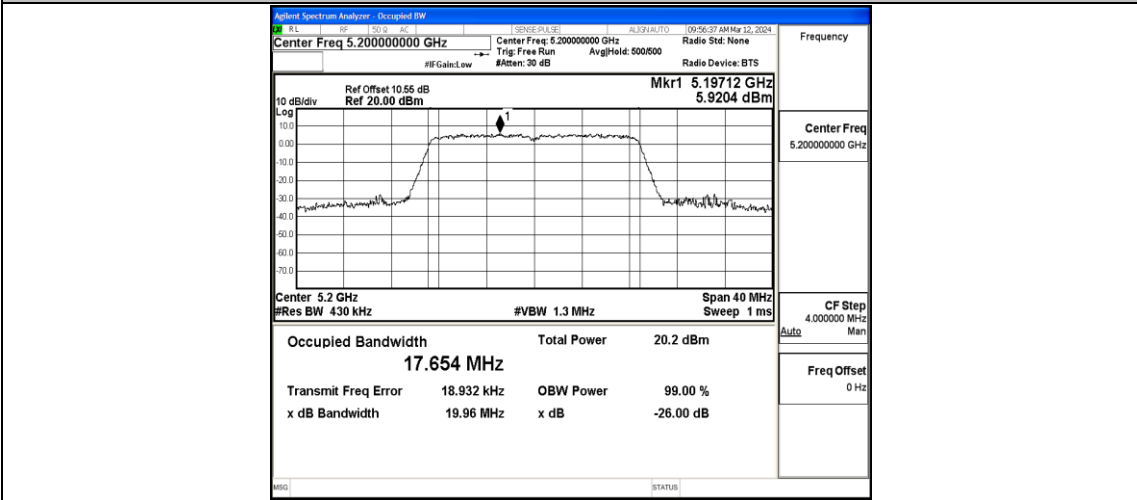
11A-Ant2-5240



11N20MIMO-Ant1-5180

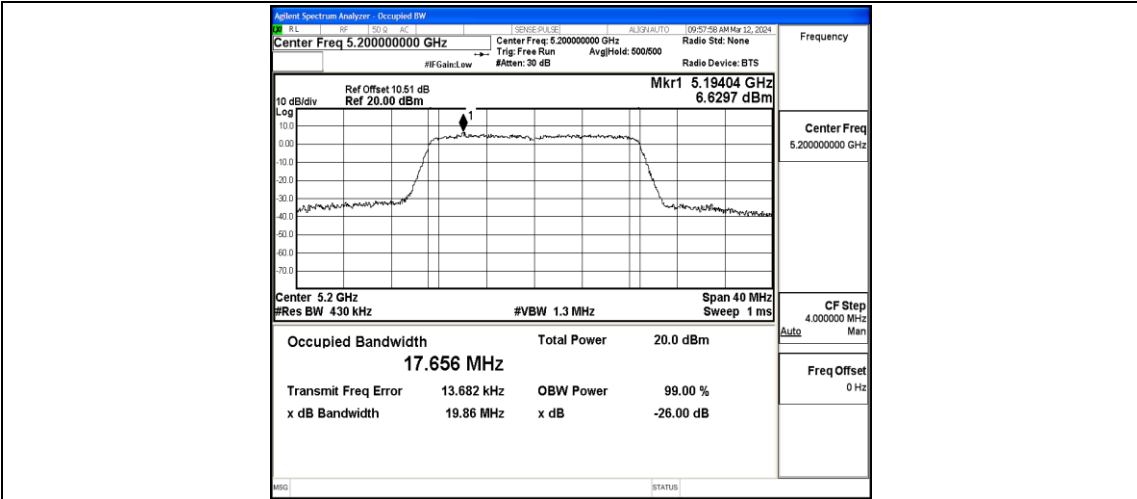


11N20MIMO-Ant2-5180

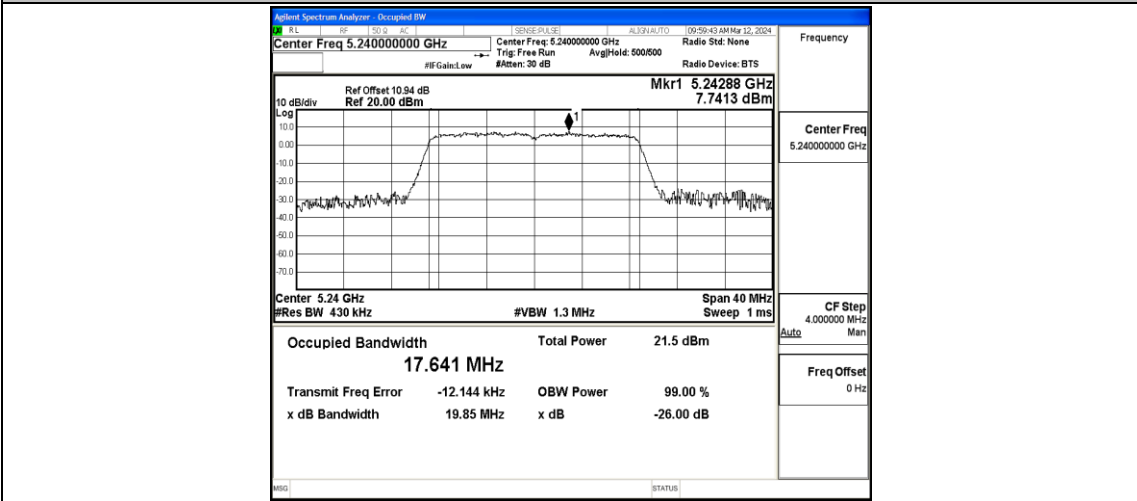


11N20MIMO-Ant1-5200

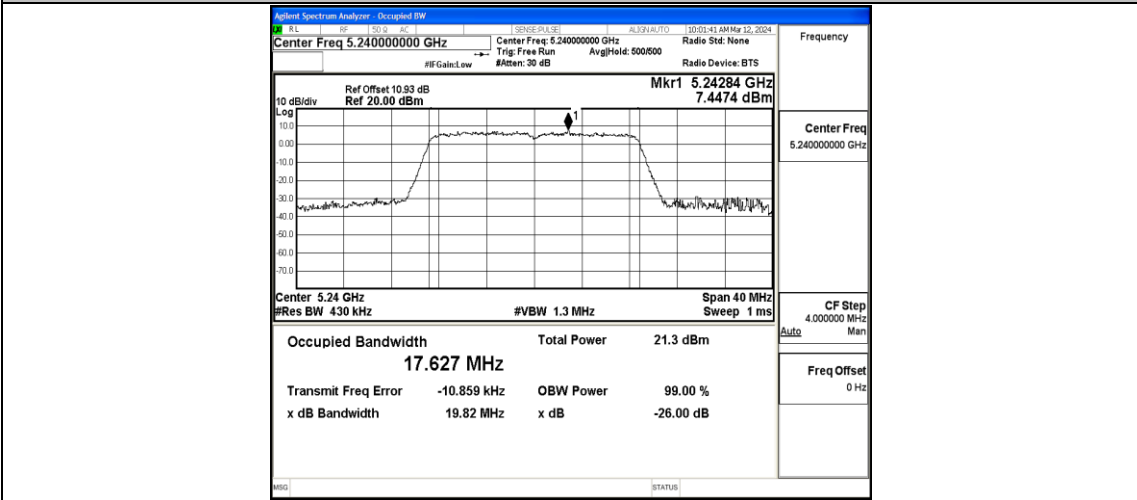




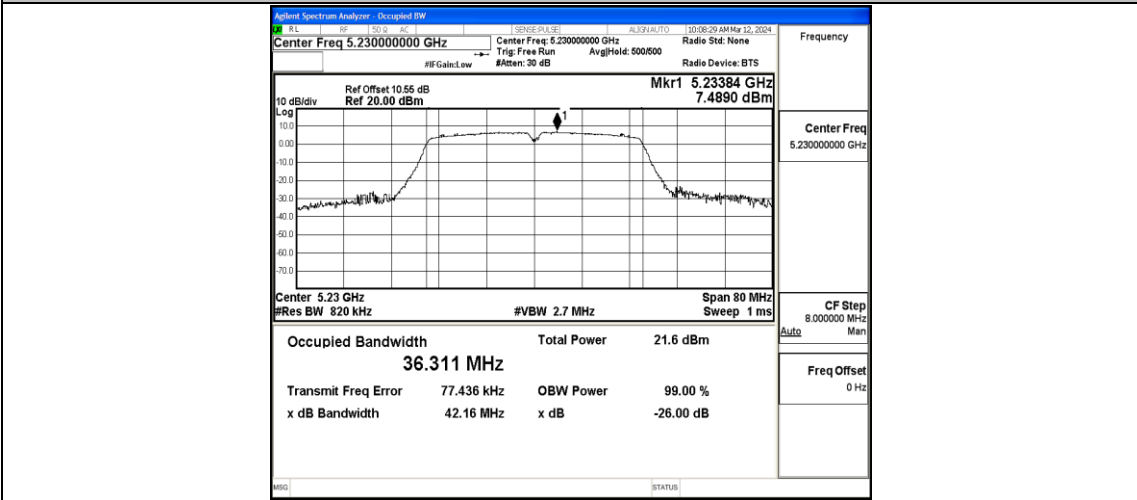
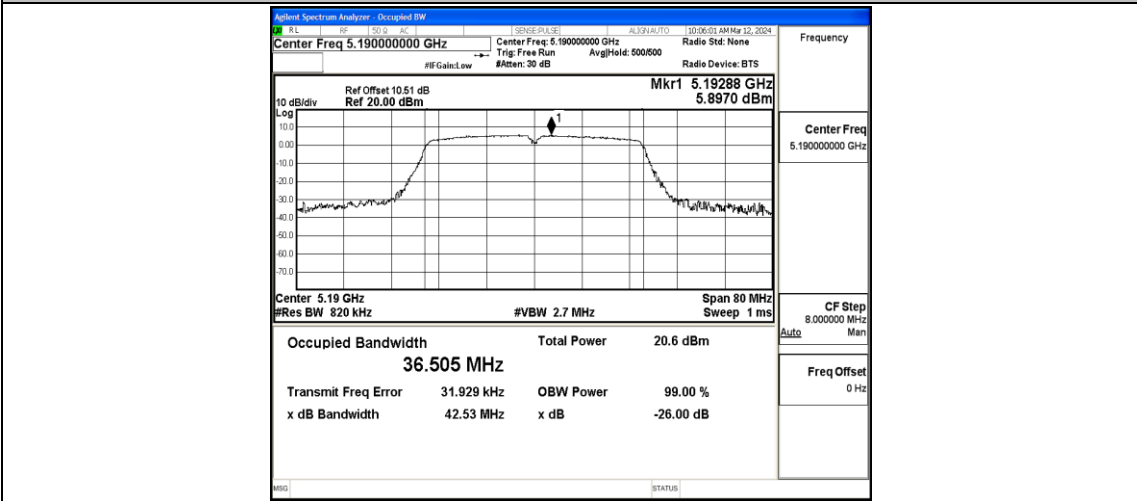
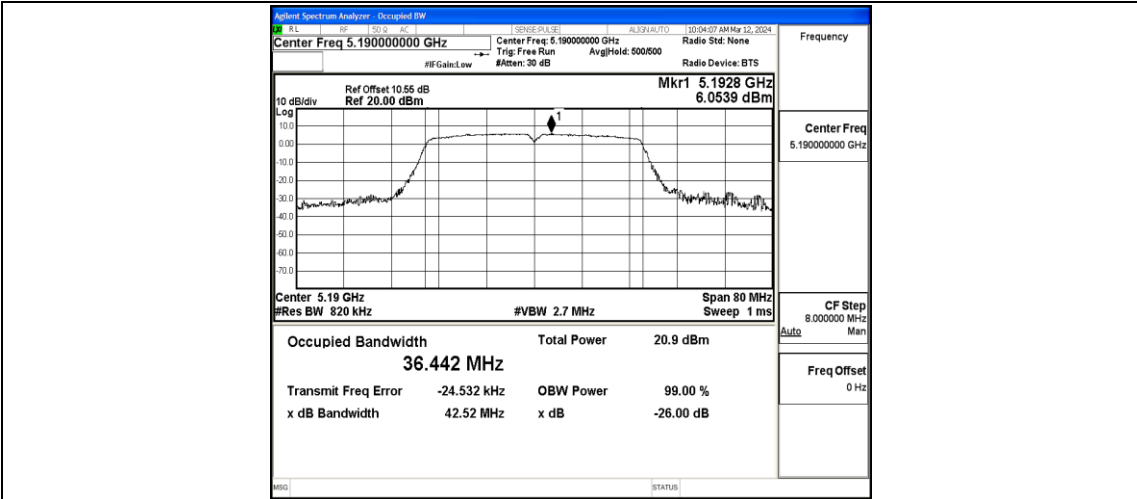
11N20MIMO-Ant2-5200

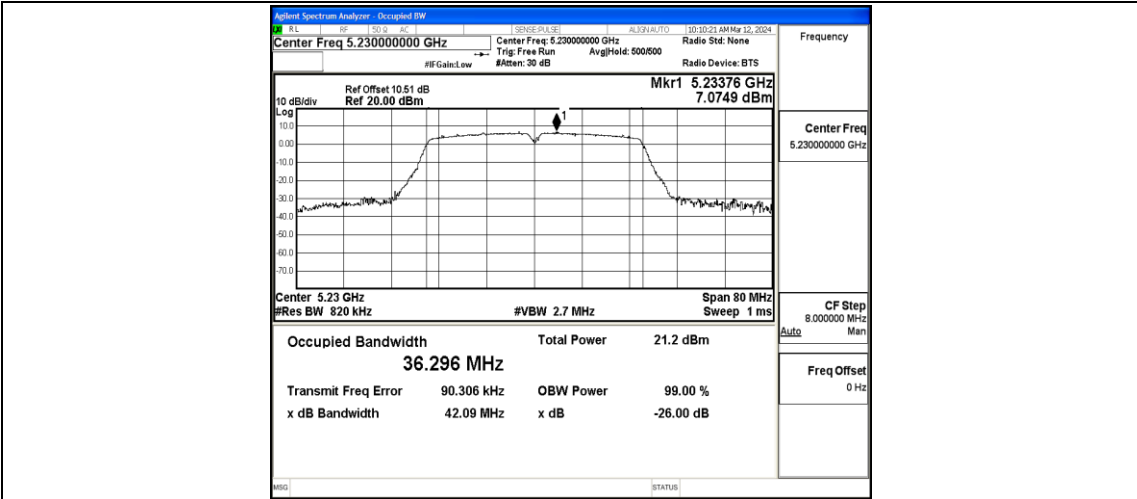


11N20MIMO-Ant1-5240

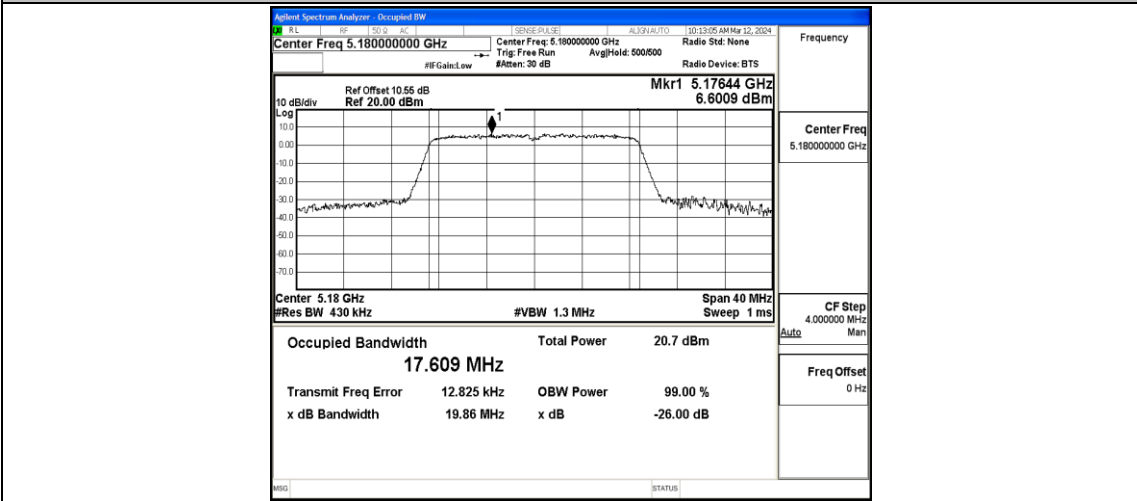


11N20MIMO-Ant2-5240

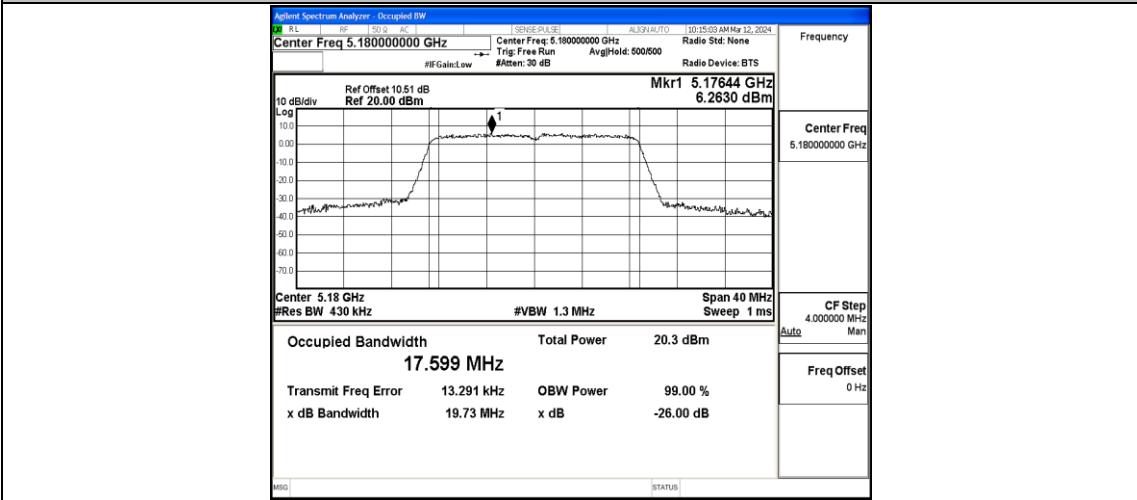




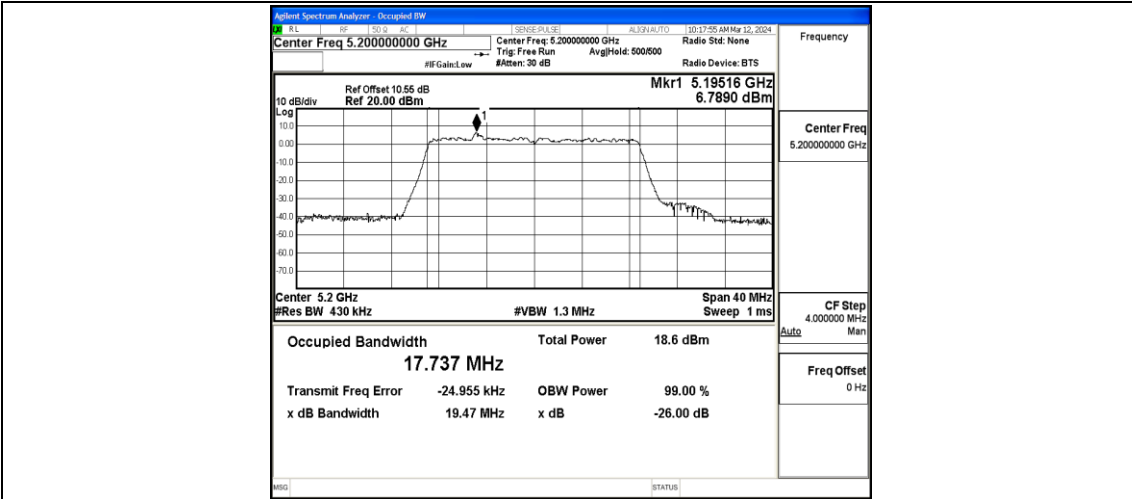
11N40MIMO-Ant2-5230



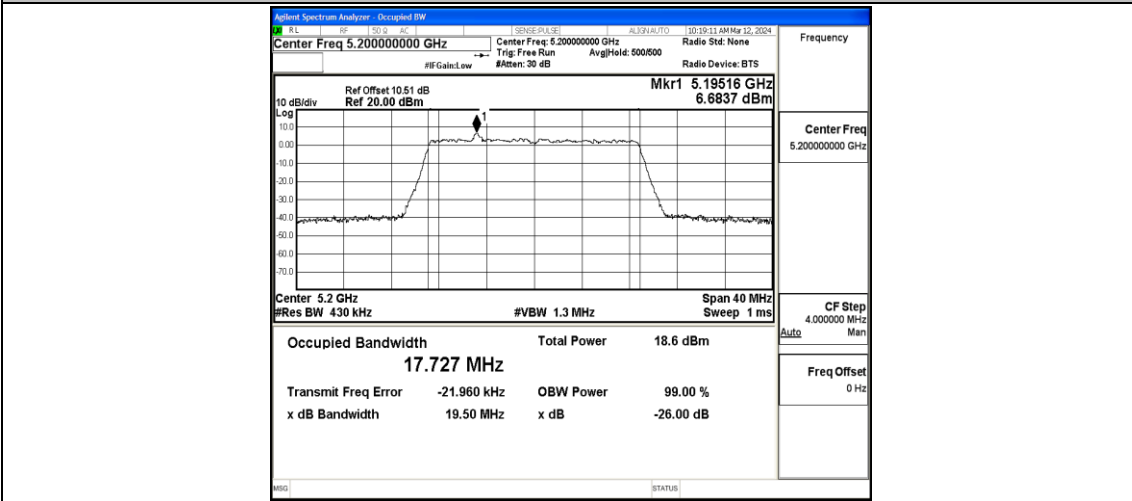
11AC20MIMO-Ant1-5180



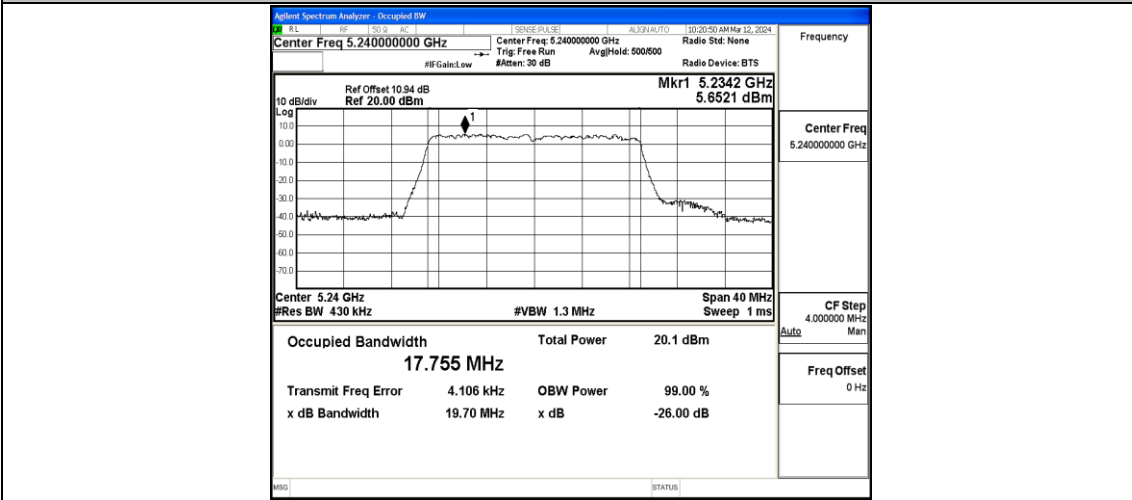
11AC20MIMO-Ant2-5180



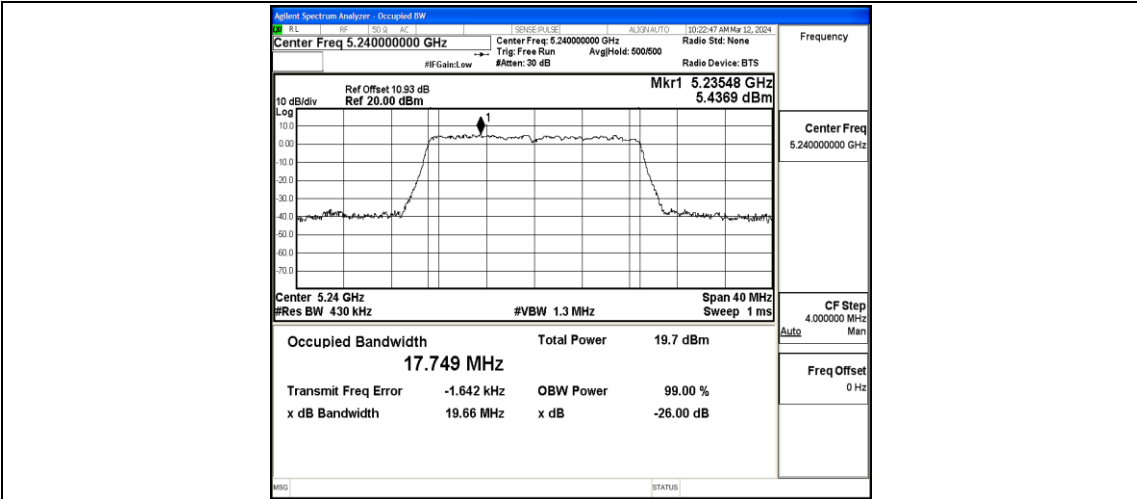
11AC20MIMO-Ant1-5200



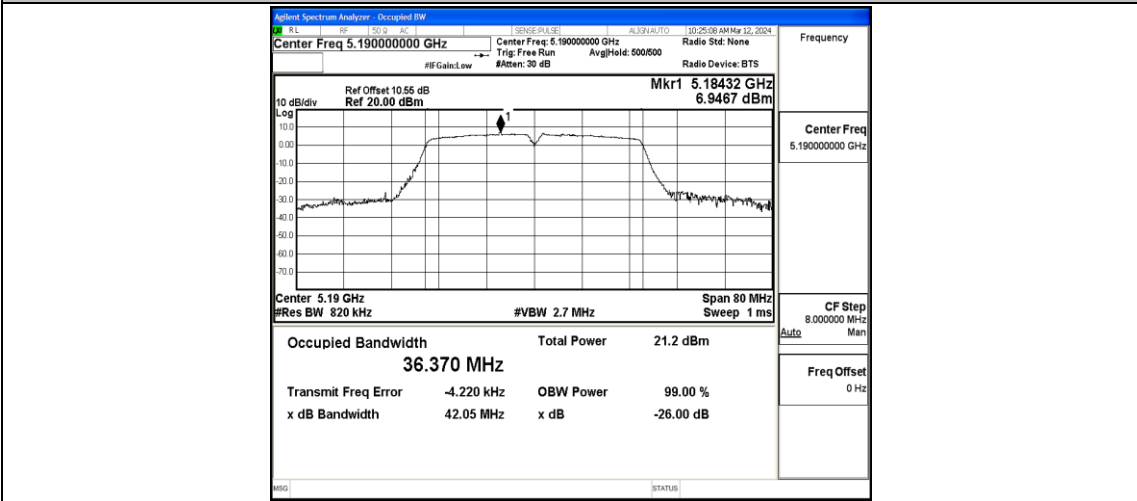
11AC20MIMO-Ant2-5200



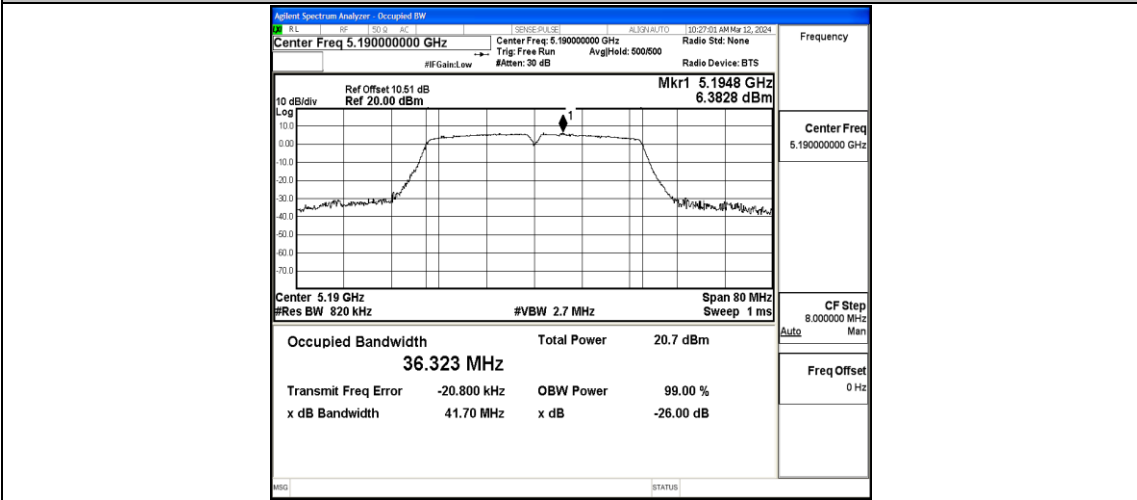
11AC20MIMO-Ant1-5240



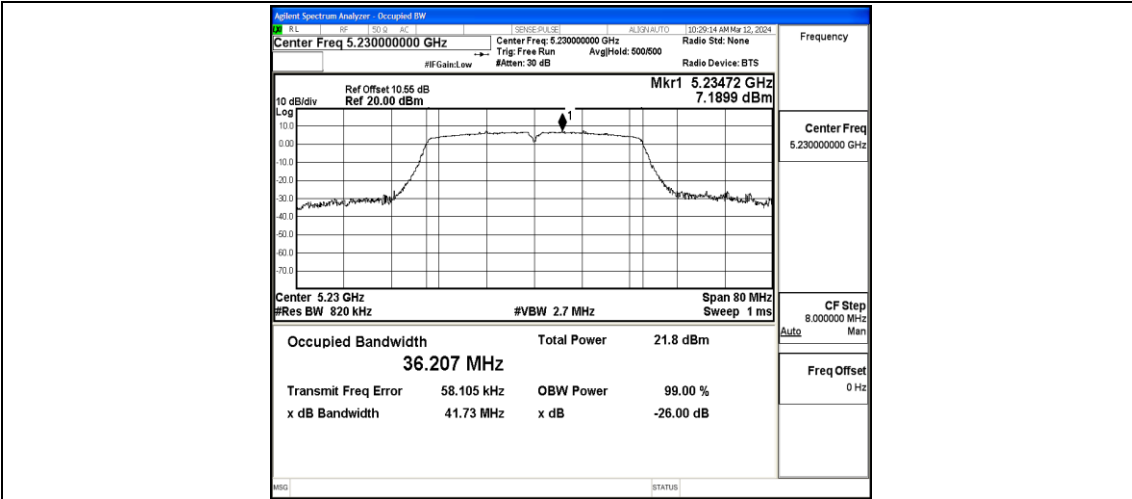
11AC20MIMO-Ant2-5240



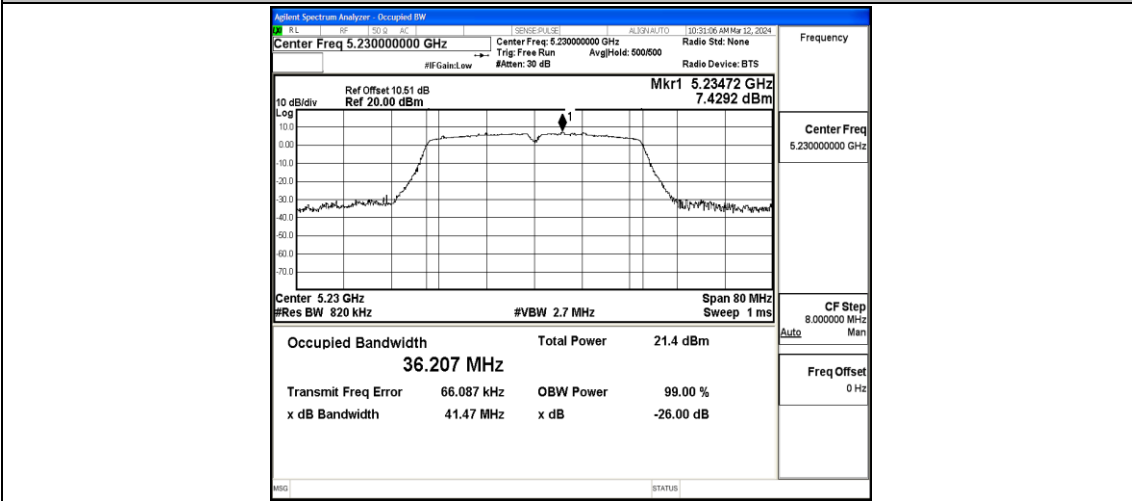
11AC40MIMO-Ant1-5190



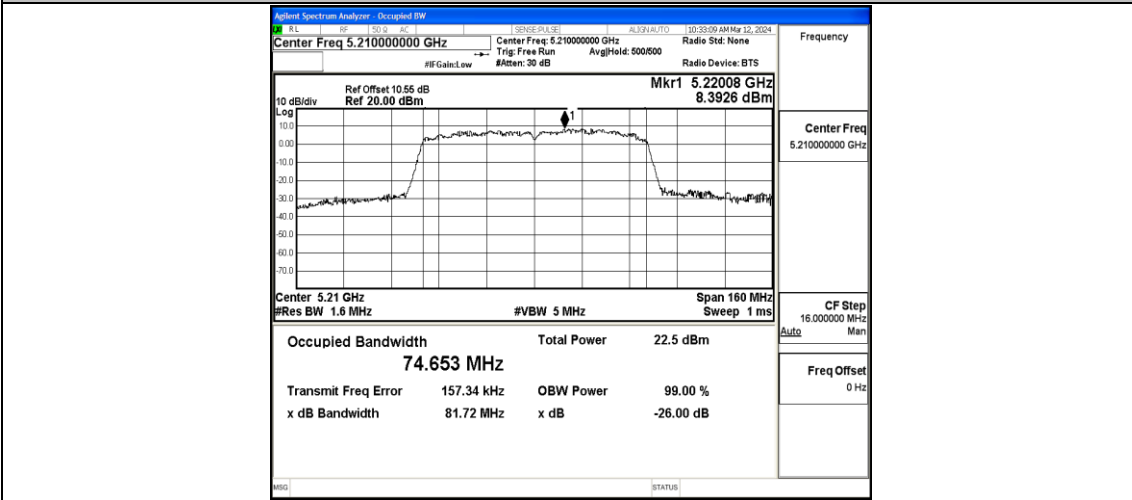
11AC40MIMO-Ant2-5190



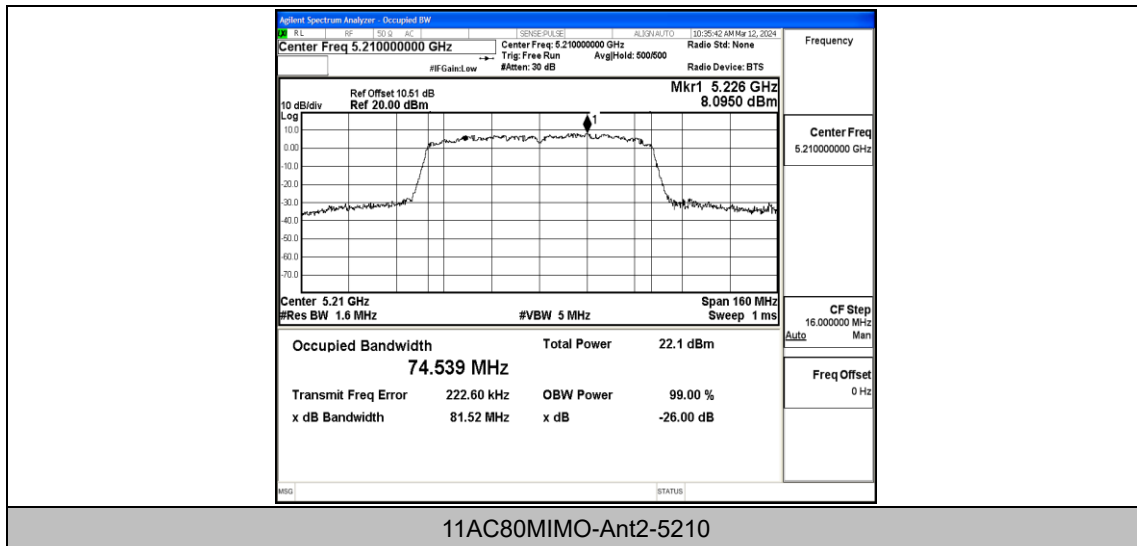
11AC40MIMO-Ant1-5230



11AC40MIMO-Ant2-5230



11AC80MIMO-Ant1-5210



## Appendix B: Maximum conducted output power

### Test Result

Test Mode	Antenna	Frequency [MHz]	Result [dBm]	Limit [dBm]	Verdict
11A	Ant1	5180	14.16	≤23.98	PASS
11A	Ant2	5180	13.88	≤23.98	PASS
11A	Ant1	5200	13.83	≤23.98	PASS
11A	Ant2	5200	13.43	≤23.98	PASS
11A	Ant1	5240	15.08	≤23.98	PASS
11A	Ant2	5240	14.78	≤23.98	PASS
11N20MIMO	Ant1	5180	14.13	≤23.98	PASS
11N20MIMO	Ant2	5180	13.76	≤23.98	PASS
11N20MIMO	total	5180	16.96	≤23.98	PASS
11N20MIMO	total	5200	16.60	≤23.98	PASS
11N20MIMO	Ant1	5200	13.71	≤23.98	PASS
11N20MIMO	Ant2	5200	13.47	≤23.98	PASS
11N20MIMO	Ant1	5240	12.70	≤23.98	PASS
11N20MIMO	Ant2	5240	12.32	≤23.98	PASS
11N20MIMO	total	5240	15.52	≤23.98	PASS
11N40MIMO	Ant1	5190	11.57	≤23.98	PASS
11N40MIMO	Ant2	5190	11.18	≤23.98	PASS
11N40MIMO	total	5190	14.39	≤23.98	PASS
11N40MIMO	Ant1	5230	12.13	≤23.98	PASS
11N40MIMO	Ant2	5230	11.89	≤23.98	PASS
11N40MIMO	total	5230	15.02	≤23.98	PASS
11AC20MIMO	Ant1	5180	14.16	≤23.98	PASS
11AC20MIMO	Ant2	5180	13.70	≤23.98	PASS
11AC20MIMO	total	5180	16.95	≤23.98	PASS
11AC20MIMO	Ant1	5200	9.62	≤23.98	PASS
11AC20MIMO	Ant2	5200	9.75	≤23.98	PASS
11AC20MIMO	total	5200	12.70	≤23.98	PASS
11AC20MIMO	Ant1	5240	11.30	≤23.98	PASS
11AC20MIMO	Ant2	5240	11.26	≤23.98	PASS
11AC20MIMO	total	5240	14.29	≤23.98	PASS
11AC40MIMO	Ant1	5190	11.66	≤23.98	PASS
11AC40MIMO	Ant2	5190	11.40	≤23.98	PASS
11AC40MIMO	total	5190	14.54	≤23.98	PASS
11AC40MIMO	Ant1	5230	12.38	≤23.98	PASS
11AC40MIMO	Ant2	5230	11.67	≤23.98	PASS
11AC40MIMO	total	5230	15.05	≤23.98	PASS
11AC80MIMO	Ant1	5210	12.08	≤23.98	PASS
11AC80MIMO	Ant2	5210	11.56	≤23.98	PASS
11AC80MIMO	total	5210	14.84	≤23.98	PASS

Note: The Duty Cycle Factor is compensated in the result.



## Appendix C: Maximum power spectral density

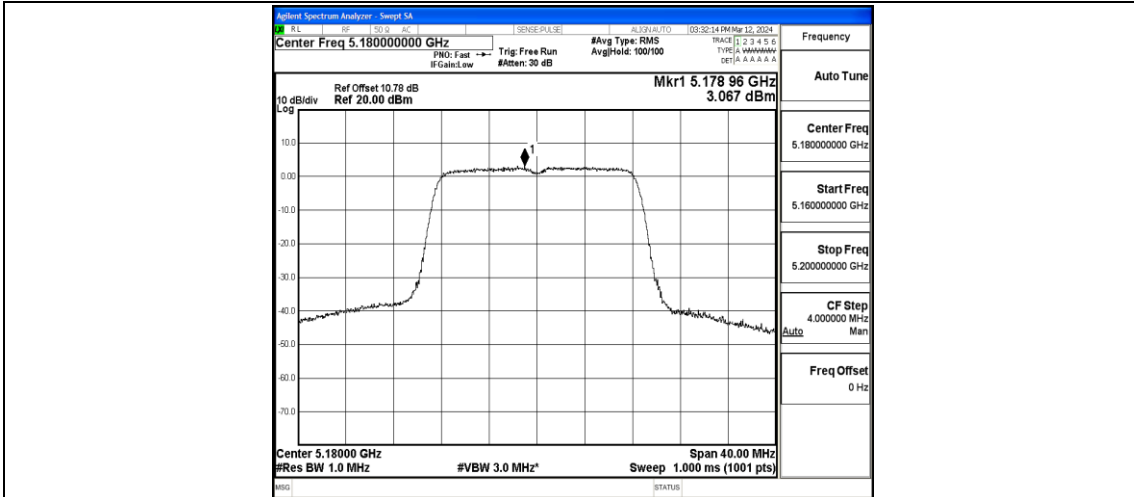
### Test Result

TestMode	Antenna	Frequency[MHz]	Result [dBm/MHz]	Limit[dBm/MHz]	Verdict
11A	Ant1	5180	3.07	≤11.00	PASS
11A	Ant2	5180	3.24	≤11.00	PASS
11A	Ant1	5200	2.42	≤11.00	PASS
11A	Ant2	5200	2.53	≤11.00	PASS
11A	Ant1	5240	4.25	≤11.00	PASS
11A	Ant2	5240	3.72	≤11.00	PASS
11N20MIMO	Ant1	5180	2.89	≤11.00	PASS
11N20MIMO	Ant2	5180	2.24	≤11.00	PASS
11N20MIMO	total	5180	5.59	≤11.00	PASS
11N20MIMO	total	5200	5.18	≤11.00	PASS
11N20MIMO	Ant1	5200	2.36	≤11.00	PASS
11N20MIMO	Ant2	5200	1.97	≤11.00	PASS
11N20MIMO	Ant1	5240	1.76	≤11.00	PASS
11N20MIMO	Ant2	5240	1.62	≤11.00	PASS
11N20MIMO	total	5240	4.70	≤11.00	PASS
11N40MIMO	Ant1	5190	-2.23	≤11.00	PASS
11N40MIMO	Ant2	5190	-2.55	≤11.00	PASS
11N40MIMO	total	5190	0.62	≤11.00	PASS
11N40MIMO	Ant1	5230	-1.74	≤11.00	PASS
11N40MIMO	Ant2	5230	-1.88	≤11.00	PASS
11N40MIMO	total	5230	1.20	≤11.00	PASS
11AC20MIMO	Ant1	5180	2.82	≤11.00	PASS
11AC20MIMO	Ant2	5180	2.45	≤11.00	PASS
11AC20MIMO	total	5180	5.65	≤11.00	PASS
11AC20MIMO	Ant1	5200	-0.72	≤11.00	PASS
11AC20MIMO	Ant2	5200	-0.83	≤11.00	PASS
11AC20MIMO	total	5200	2.24	≤11.00	PASS
11AC20MIMO	Ant1	5240	0.43	≤11.00	PASS
11AC20MIMO	Ant2	5240	0.60	≤11.00	PASS
11AC20MIMO	total	5240	3.53	≤11.00	PASS
11AC40MIMO	Ant1	5190	-2.32	≤11.00	PASS
11AC40MIMO	Ant2	5190	-2.50	≤11.00	PASS
11AC40MIMO	total	5190	0.60	≤11.00	PASS
11AC40MIMO	Ant1	5230	-1.68	≤11.00	PASS
11AC40MIMO	Ant2	5230	-2.06	≤11.00	PASS
11AC40MIMO	total	5230	1.14	≤11.00	PASS
11AC80MIMO	Ant1	5210	-4.49	≤11.00	PASS
11AC80MIMO	Ant2	5210	-5.03	≤11.00	PASS
11AC80MIMO	total	5210	-1.74	≤11.00	PASS

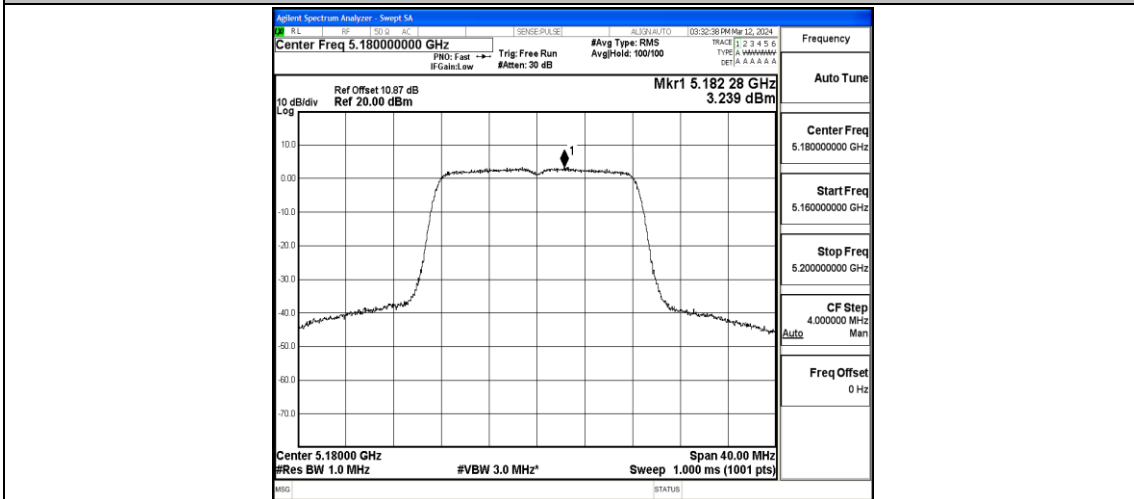
Note: 1.The Result and Limit Unit is dBm/500 kHz in the band 5.725–5.85 GHz.

2.The Duty Cycle Factor and RBW Factor is compensated in the result.

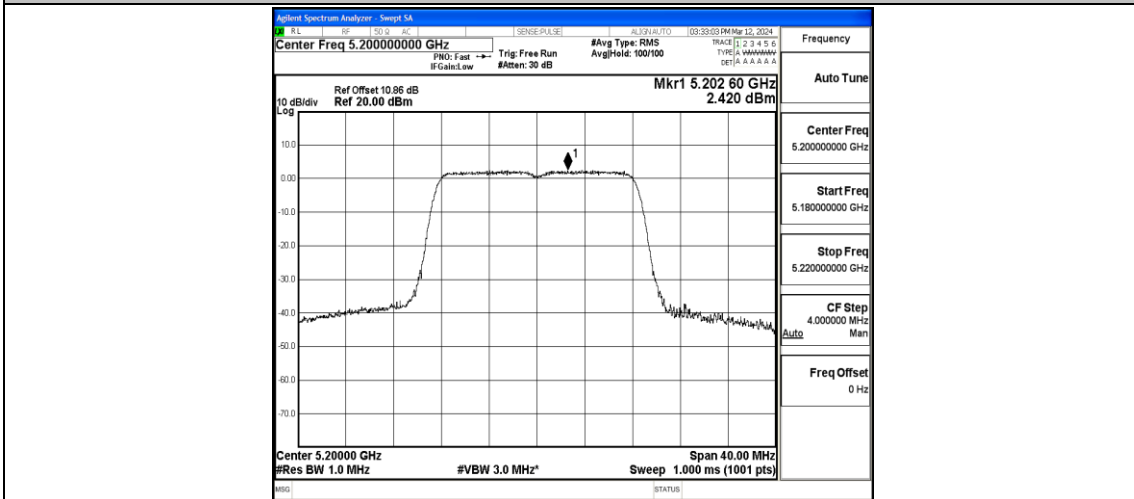
### Test Graphs



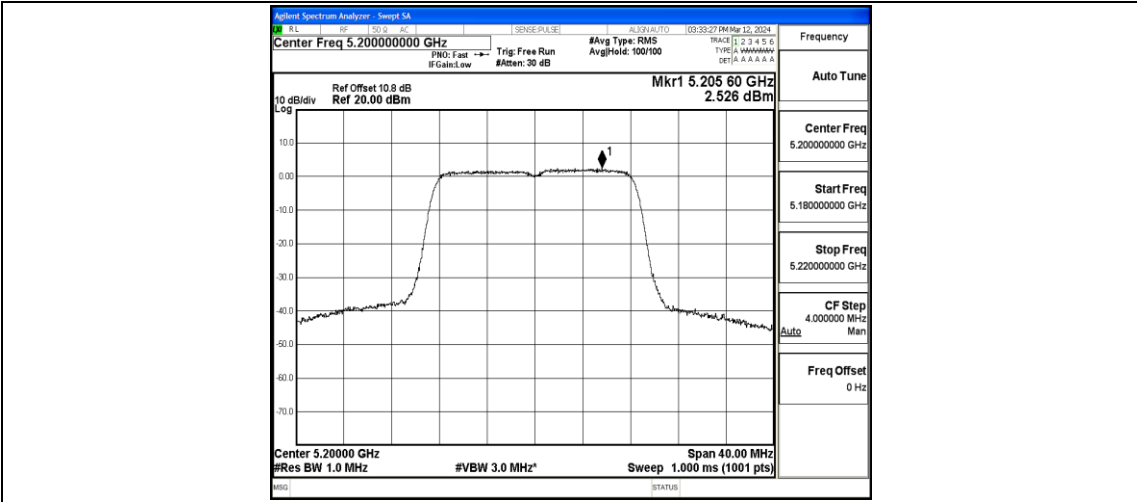
11A-Ant1-5180-PASS



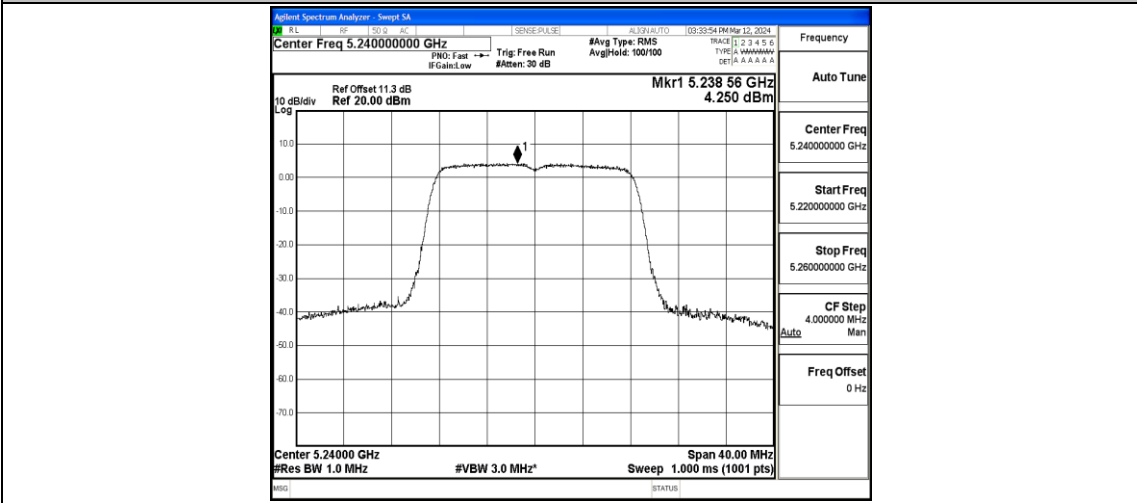
11A-Ant2-5180-PASS



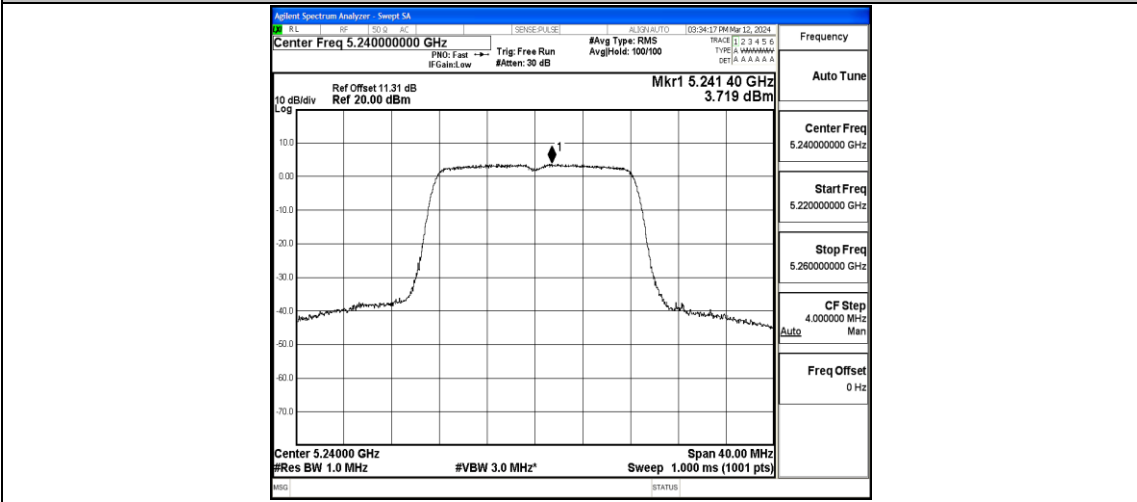
11A-Ant1-5200-PASS



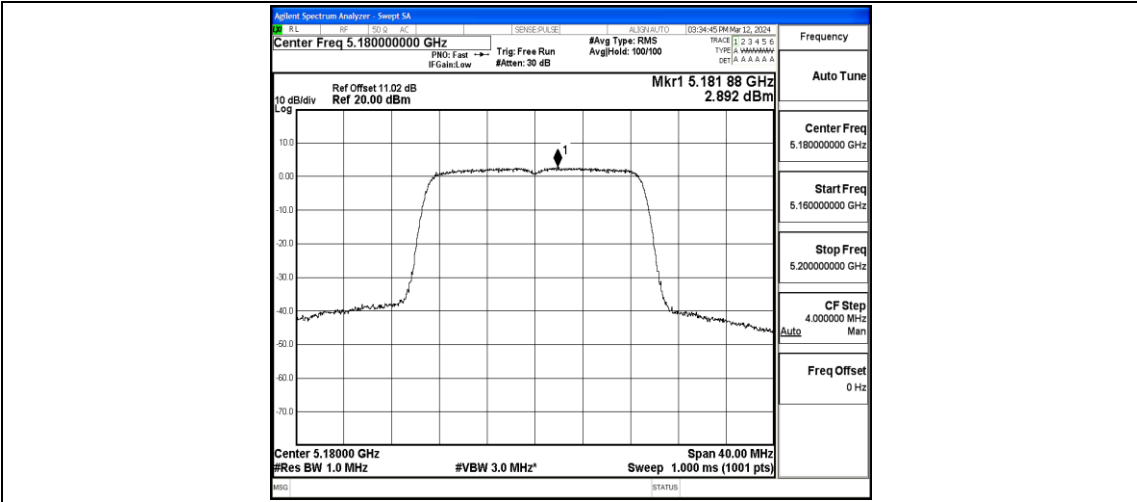
11A-Ant2-5200-PASS



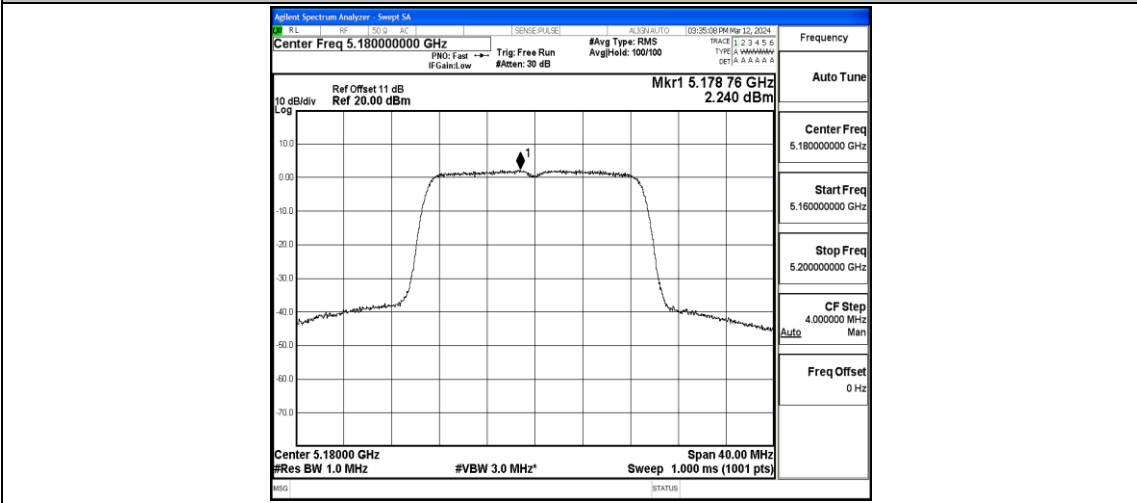
11A-Ant1-5240-PASS



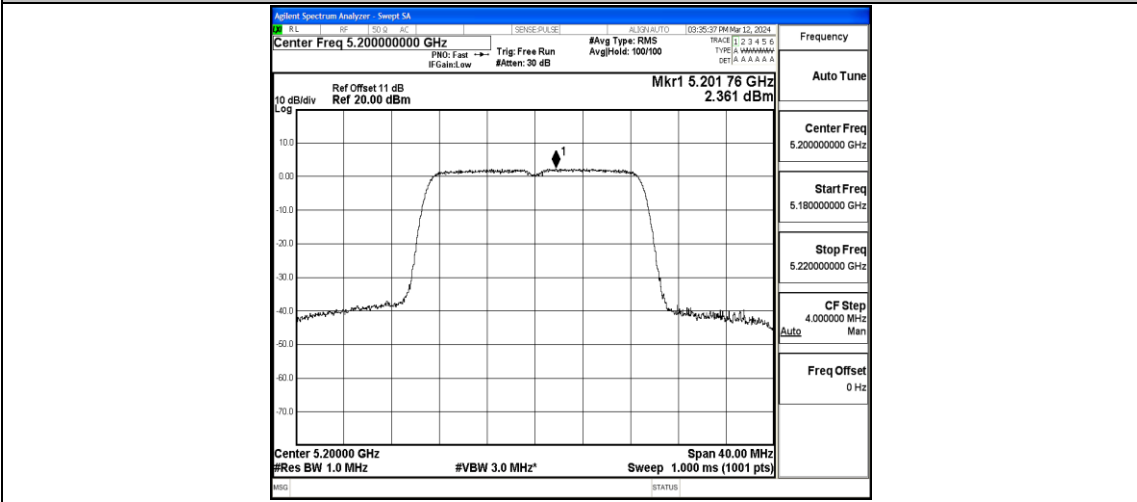
11A-Ant2-5240-PASS



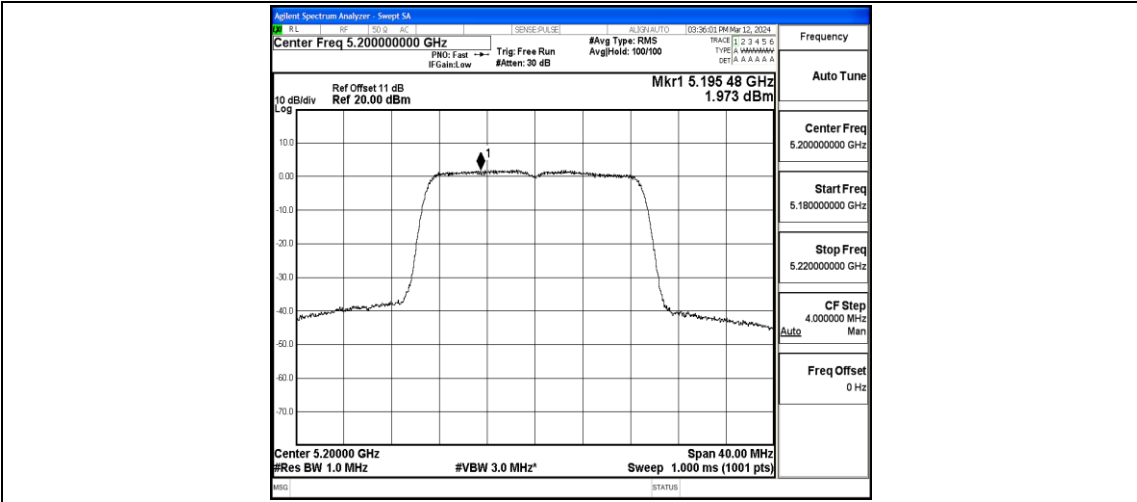
11N20MIMO-Ant1-5180-PASS



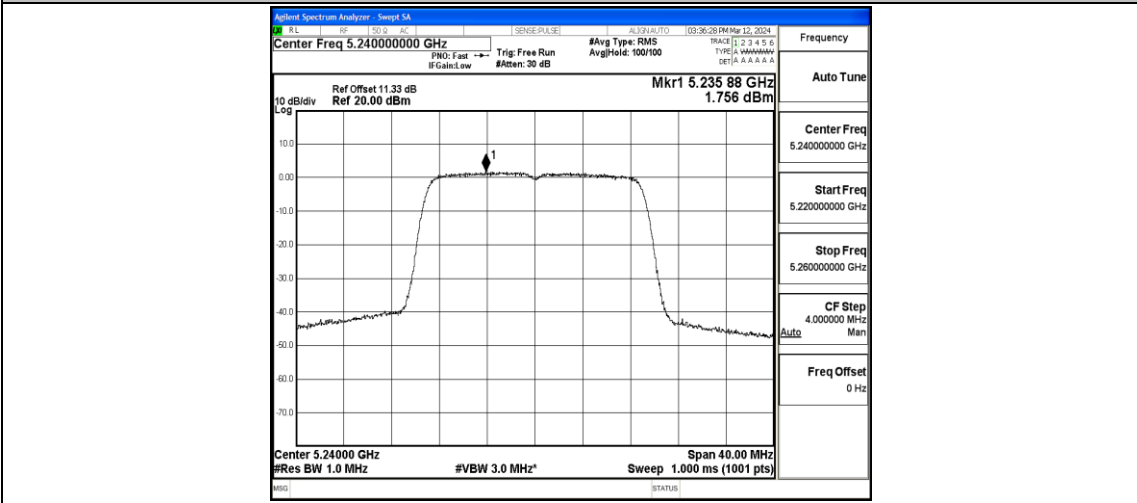
11N20MIMO-Ant2-5180-PASS



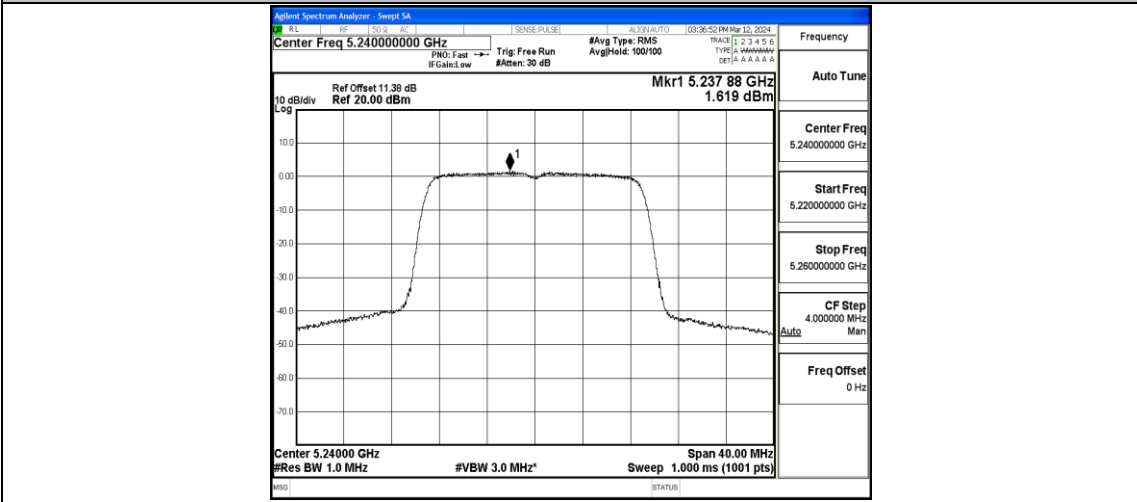
11N20MIMO-Ant1-5200-PASS



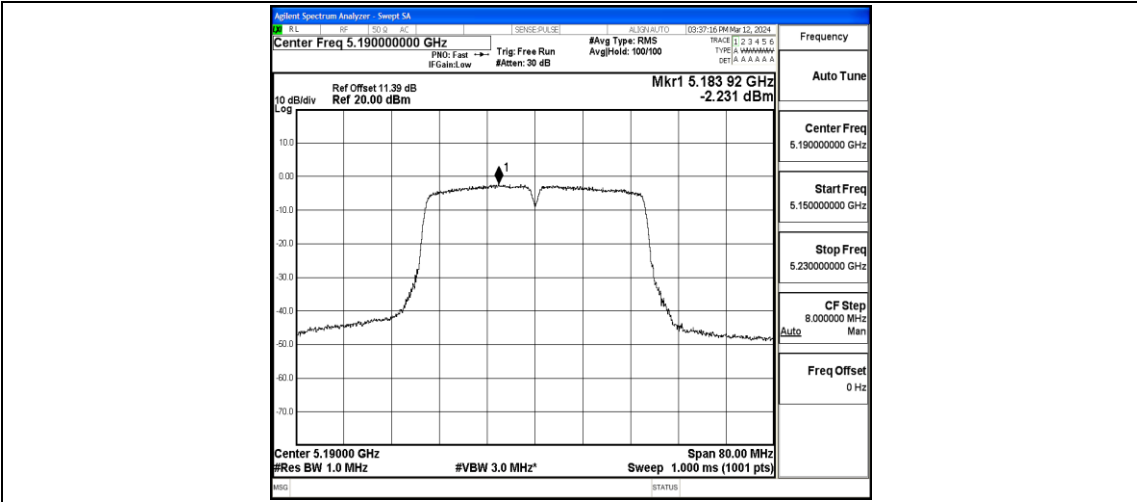
11N20MIMO-Ant2-5200-PASS



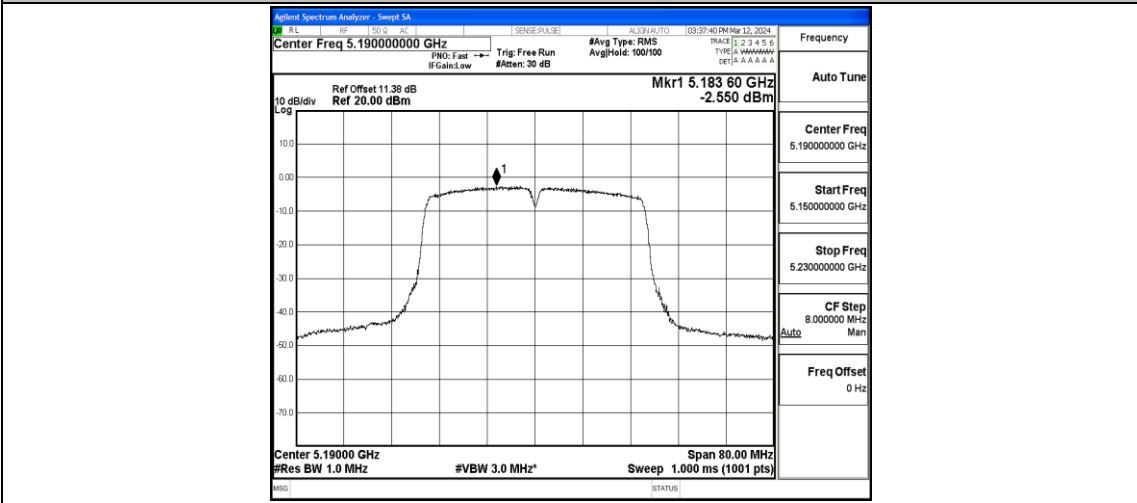
11N20MIMO-Ant1-5240-PASS



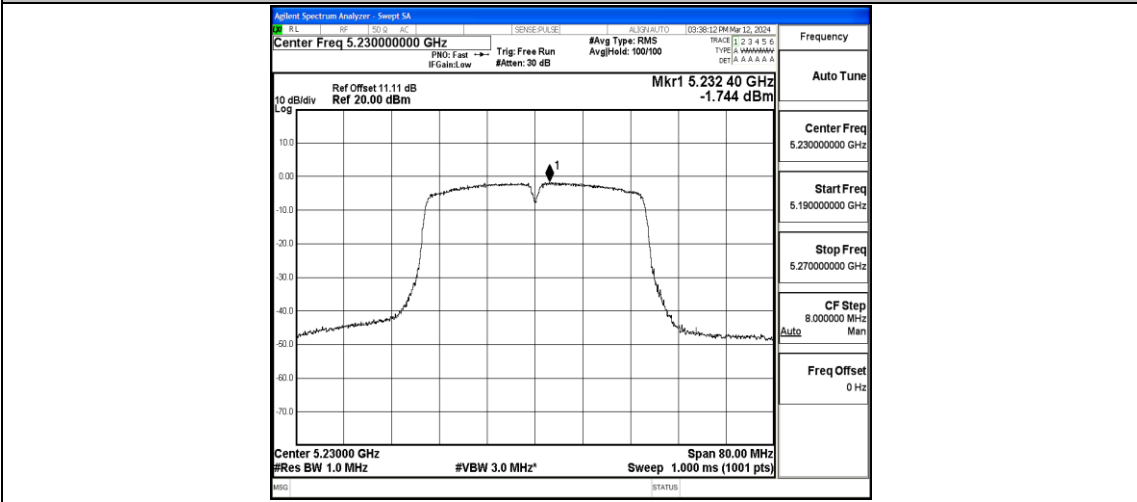
11N20MIMO-Ant2-5240-PASS



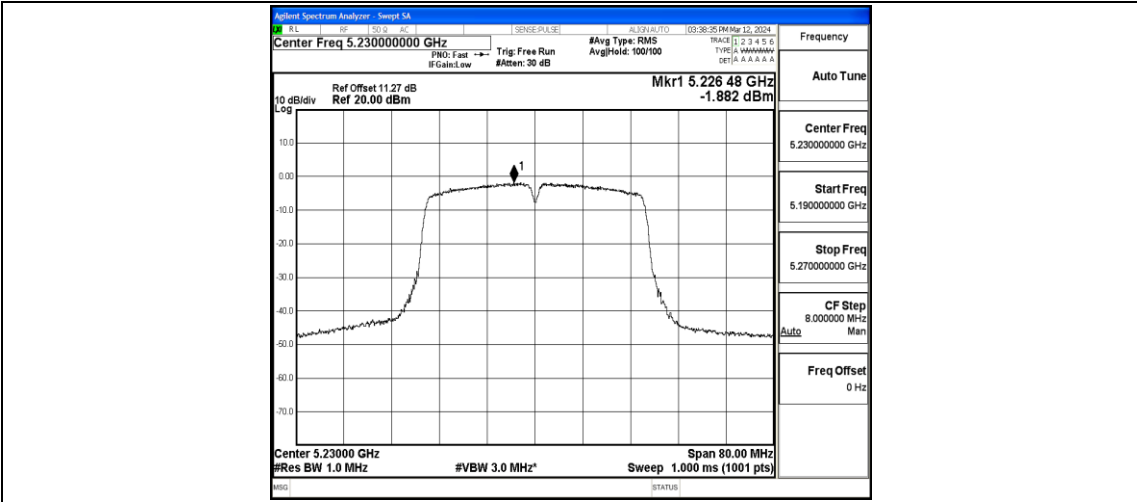
11N40MIMO-Ant1-5190-PASS



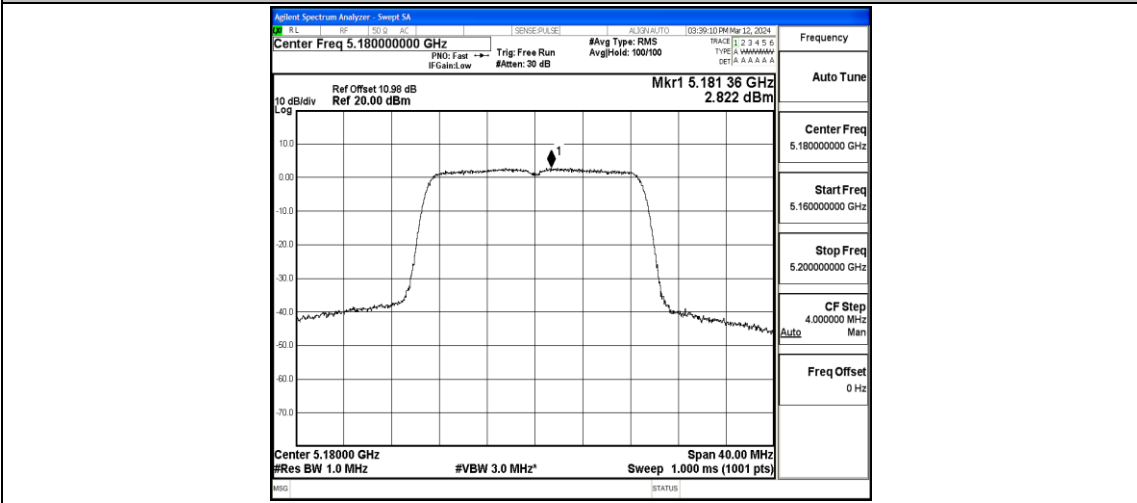
11N40MIMO-Ant2-5190-PASS



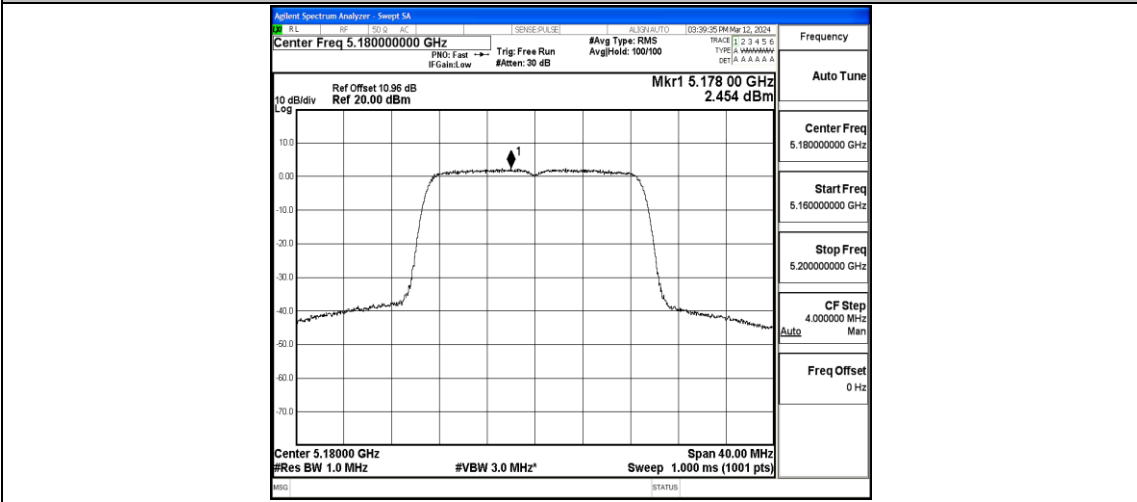
11N40MIMO-Ant1-5230-PASS



11N40MIMO-Ant2-5230-PASS



11AC20MIMO-Ant1-5180-PASS



11AC20MIMO-Ant2-5180-PASS