

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

Product Name: OTT+DVB

Trade Mark: N/A

Test Model: SH5BFAA

FCC ID: 2AOVU-SH5BFAX

Environmental Conditions

Temperature:	25.5°C
Relative Humidity:	55.2%
ATM Pressure:	100.0 kPa
Test Engineer:	Anna Hu
Supervised by:	Hugo Chen
NOTE	N/A

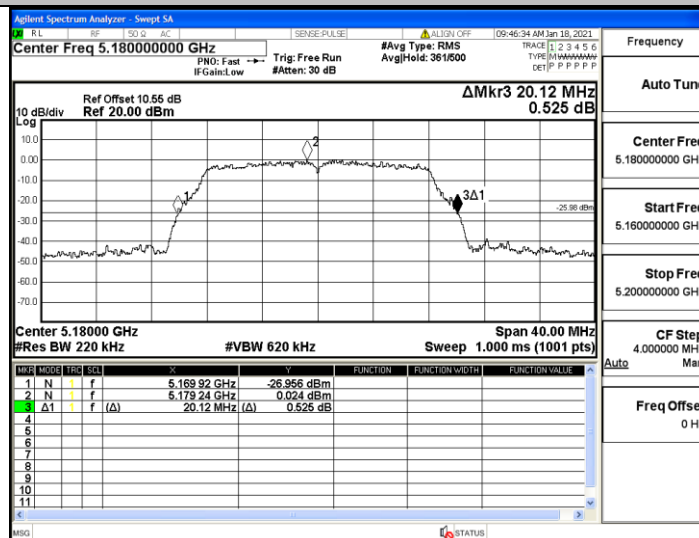
Appendix A: Emission Bandwidth

Test Result

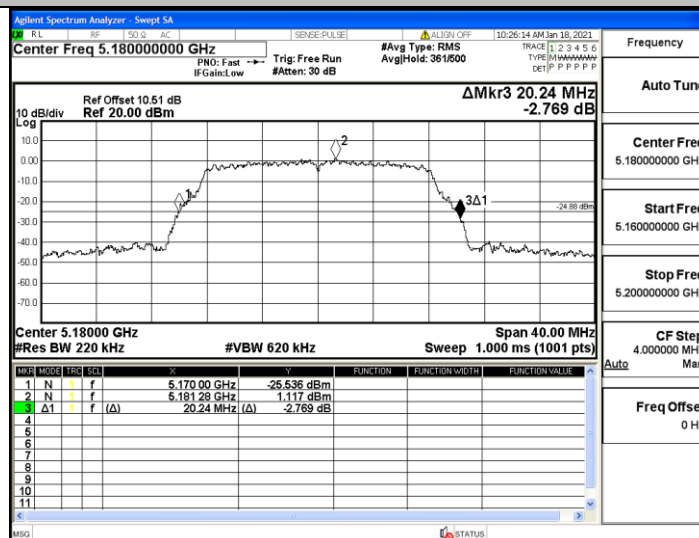
TestMode	Antenna	Channel	26db EBW [MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
11A	Ant1	5180	20.120	5169.920	5190.040	---	PASS
	Ant2	5180	20.240	5170.000	5190.240	---	PASS
	Ant1	5200	20.200	5189.920	5210.120	---	PASS
	Ant2	5200	20.080	5190.040	5210.120	---	PASS
	Ant1	5240	20.000	5230.040	5250.040	---	PASS
	Ant2	5240	20.040	5230.000	5250.040	---	PASS
11N20MIMO	Ant1	5180	20.400	5169.800	5190.200	---	PASS
	Ant2	5180	20.320	5169.840	5190.160	---	PASS
	Ant1	5200	20.320	5189.920	5210.240	---	PASS
	Ant2	5200	20.200	5190.040	5210.240	---	PASS
	Ant1	5240	20.400	5229.760	5250.160	---	PASS
	Ant2	5240	20.280	5230.000	5250.280	---	PASS
11N40MIMO	Ant1	5190	40.240	5170.080	5210.320	---	PASS
	Ant2	5190	40.640	5169.600	5210.240	---	PASS
	Ant1	5230	40.800	5209.600	5250.400	---	PASS
	Ant2	5230	53.360	5209.600	5262.960	---	PASS
11AC20MIMO	Ant1	5180	20.280	5169.880	5190.160	---	PASS
	Ant2	5180	20.320	5169.960	5190.280	---	PASS
	Ant1	5200	20.040	5190.080	5210.120	---	PASS
	Ant2	5200	20.080	5190.000	5210.080	---	PASS
	Ant1	5240	20.240	5229.880	5250.120	---	PASS
	Ant2	5240	20.320	5229.920	5250.240	---	PASS
11AC40MIMO	Ant1	5190	40.400	5169.840	5210.240	---	PASS
	Ant2	5190	40.160	5170.080	5210.240	---	PASS
	Ant1	5230	40.480	5209.760	5250.240	---	PASS
	Ant2	5230	40.880	5209.600	5250.480	---	PASS
11AC80MIMO	Ant1	5210	81.440	5169.360	5250.800	---	PASS
	Ant2	5210	80.800	5169.520	5250.320	---	PASS

Test Graphs

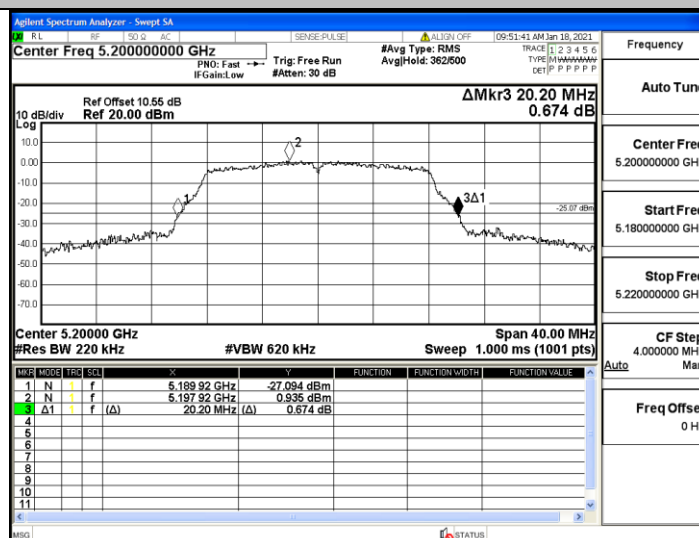
11A_Ant1_5180



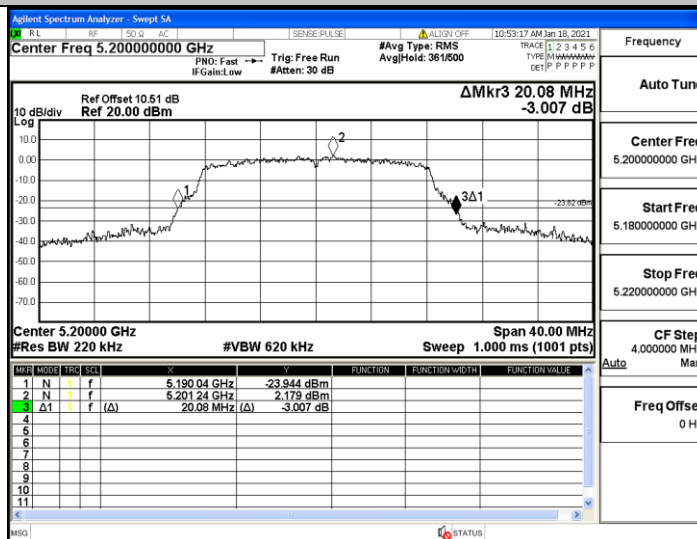
11A_Ant2_5180



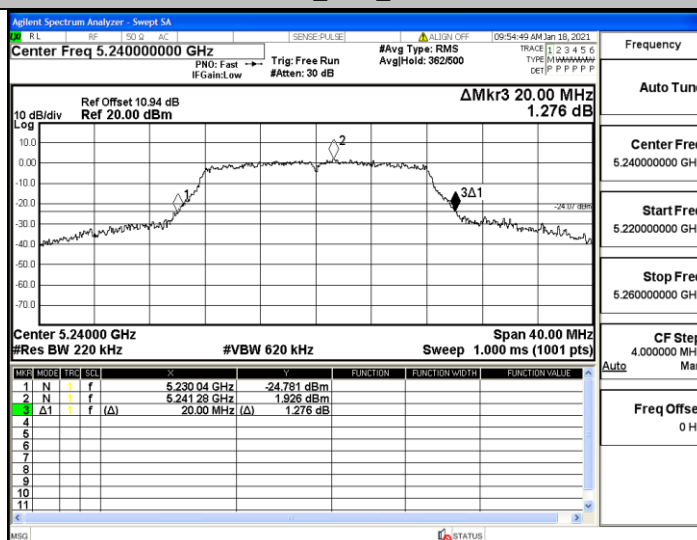
11A_Ant1_5200



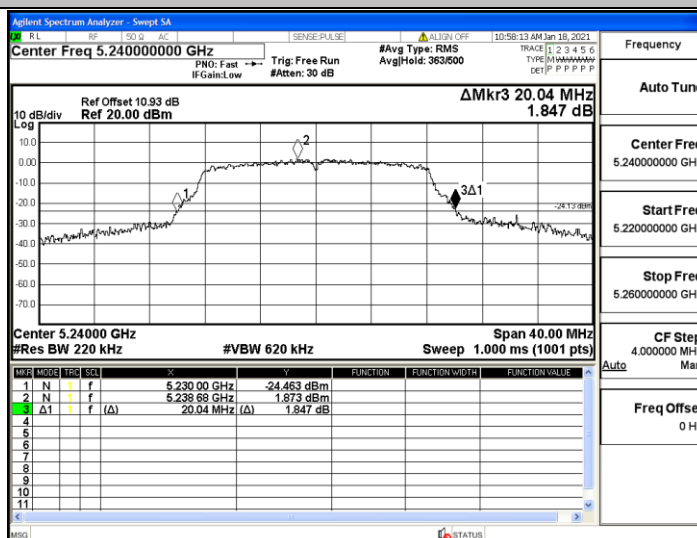
11A_Ant2_5200



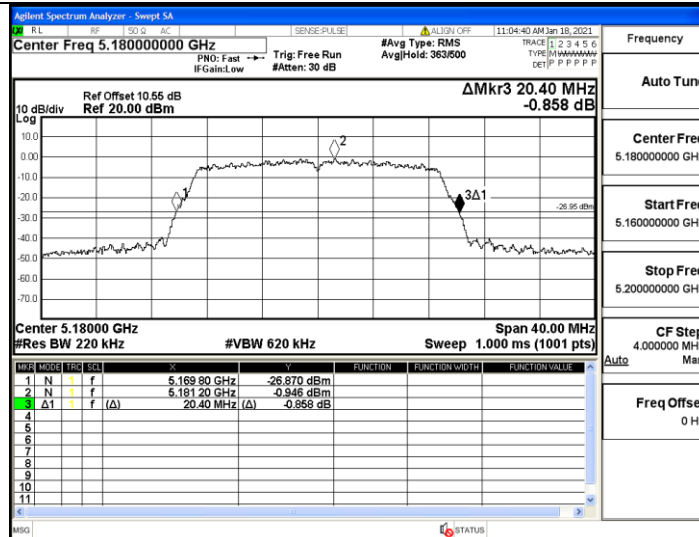
11A_Ant1_5240



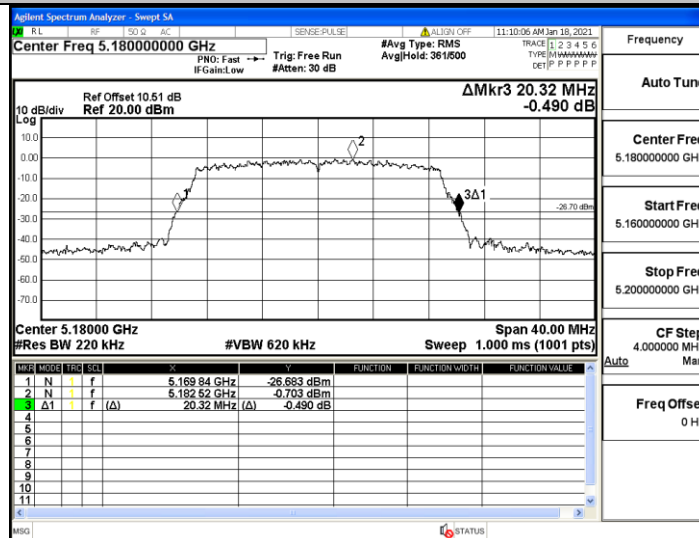
11A_Ant2_5240



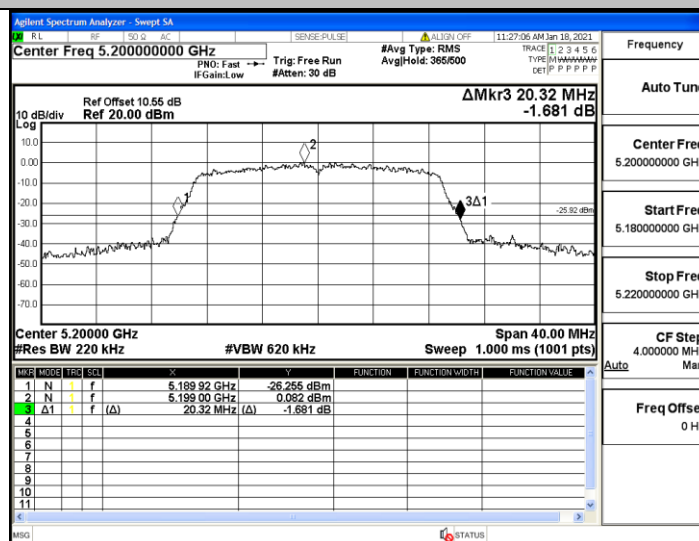
11N20MIMO_Ant1_5180



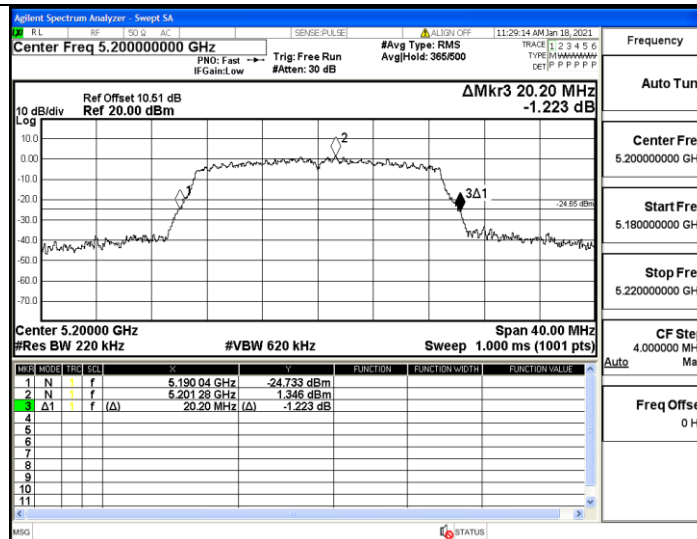
11N20MIMO_Ant2_5180



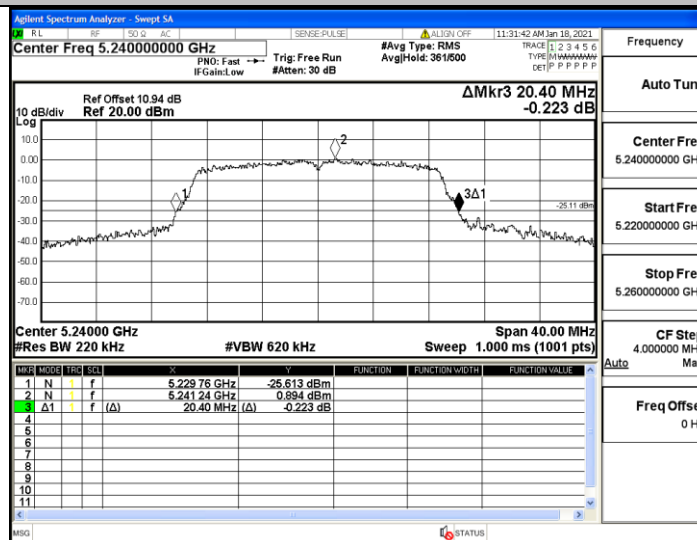
11N20MIMO_Ant1_5200



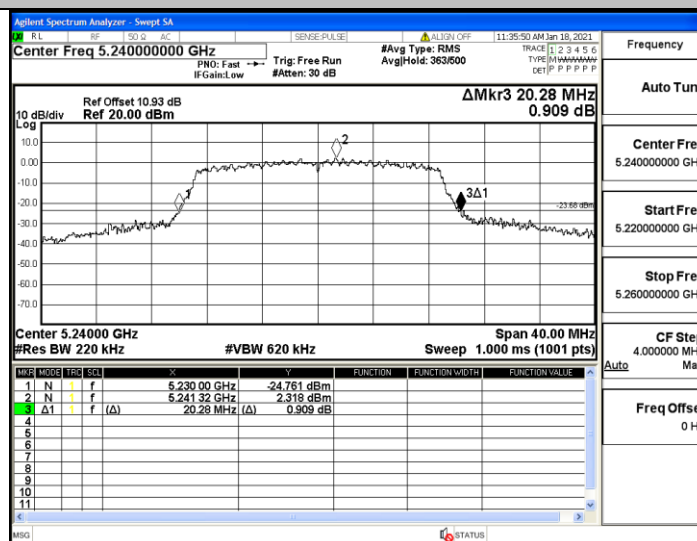
11N20MIMO_Ant2_5200



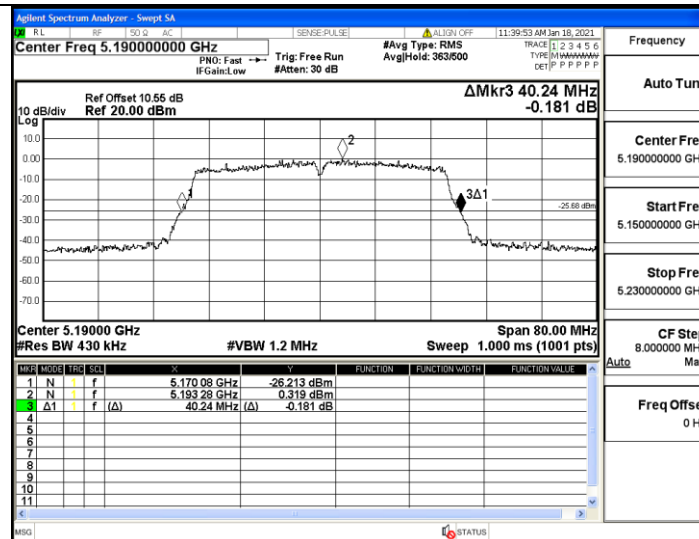
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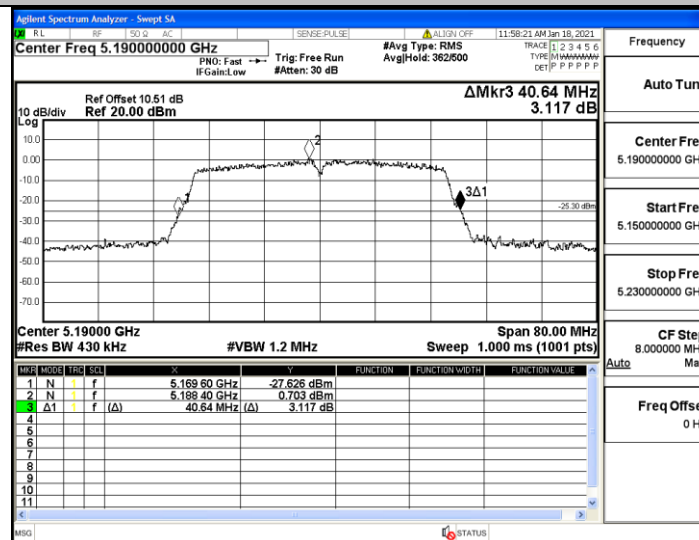
11N20MIMO_Ant2_5240



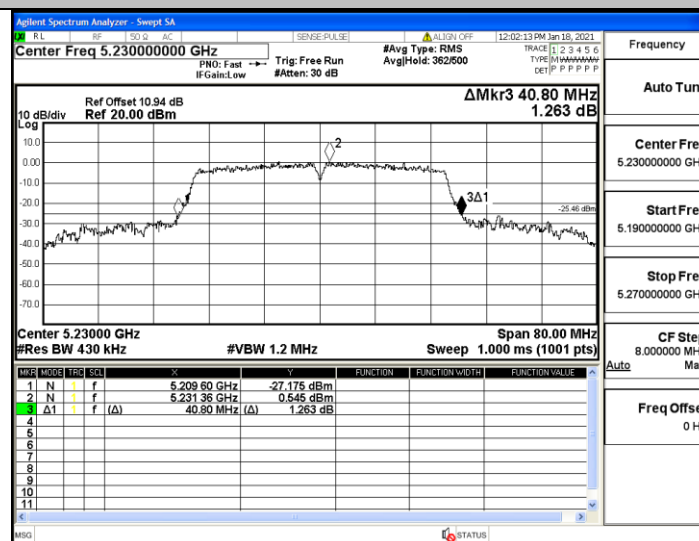
11N40MIMO_Ant1_5190



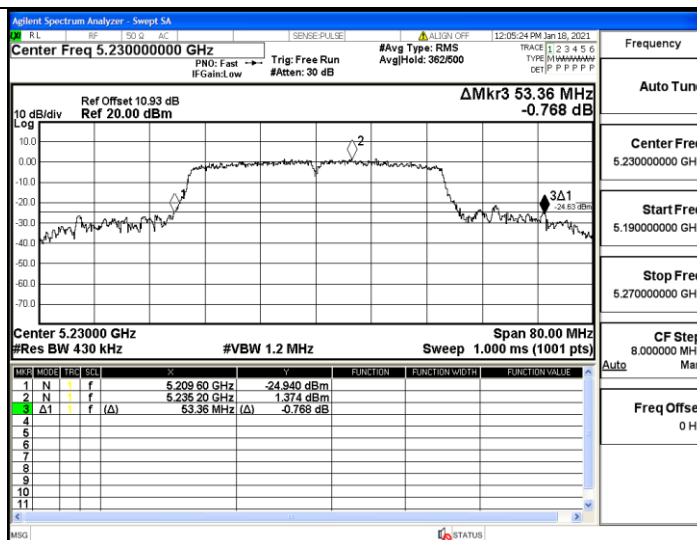
11N40MIMO_Ant2_5190



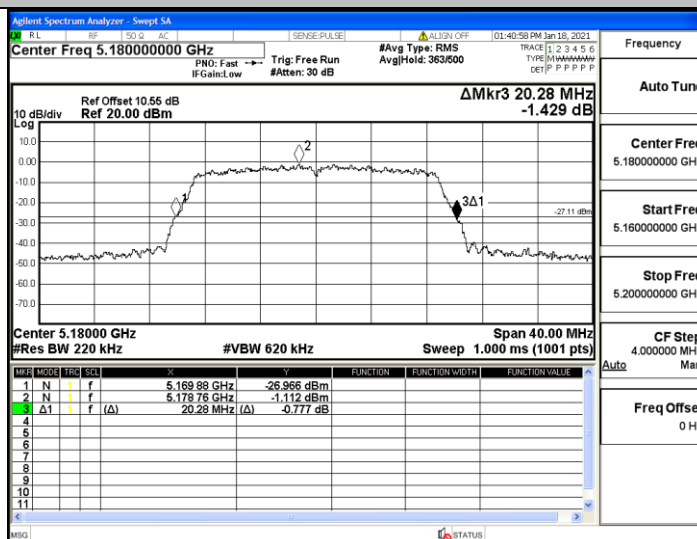
11N40MIMO_Ant1_5230



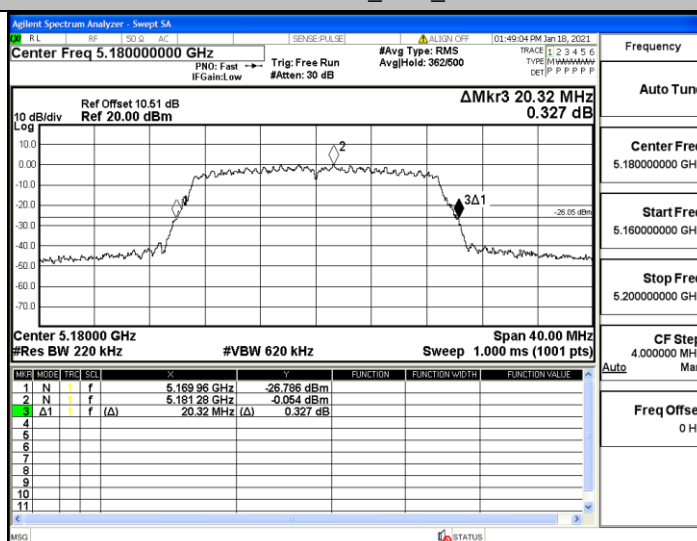
11N40MIMO_Ant2_5230



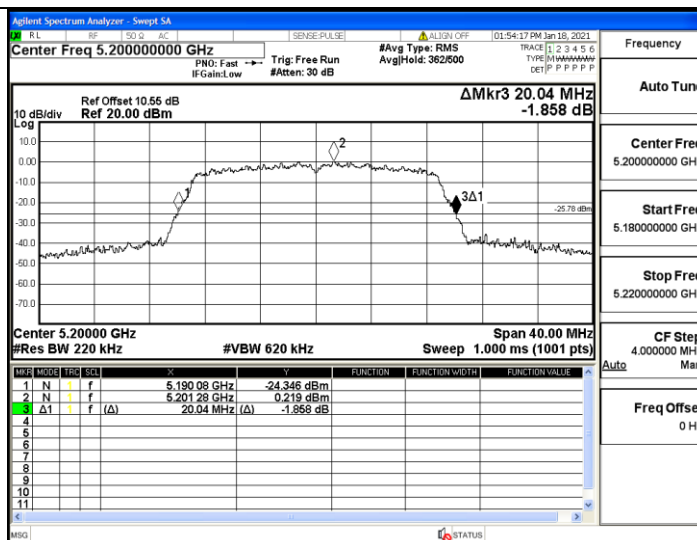
11AC20MIMO_Ant1_5180



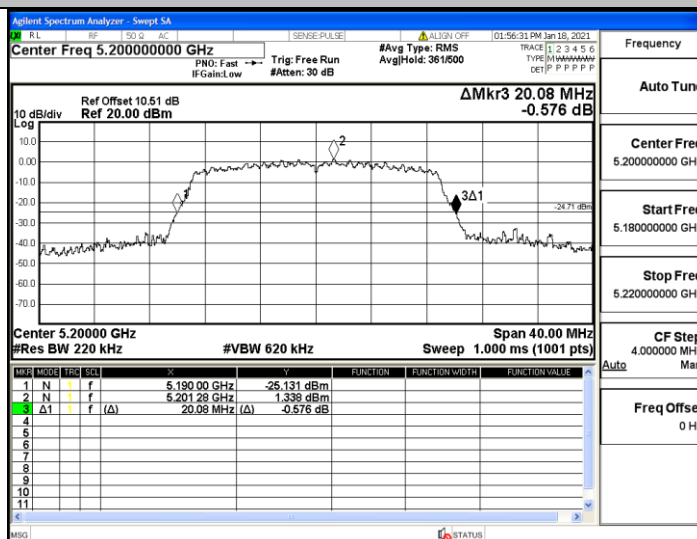
11AC20MIMO_Ant2_5180



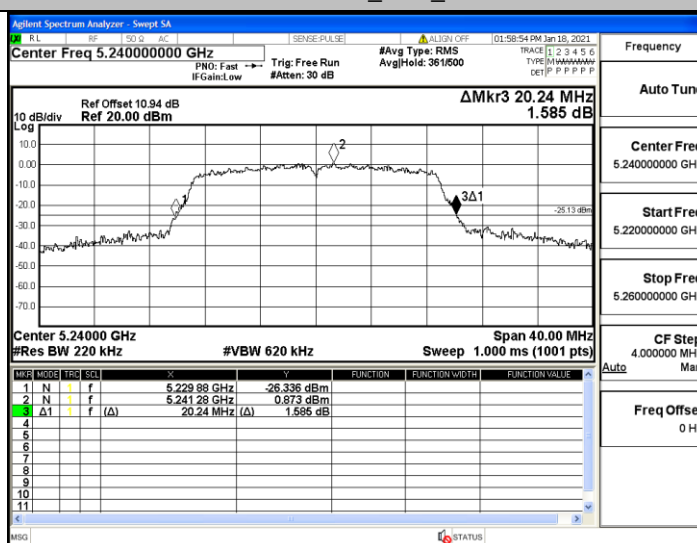
11AC20MIMO_Ant1_5200



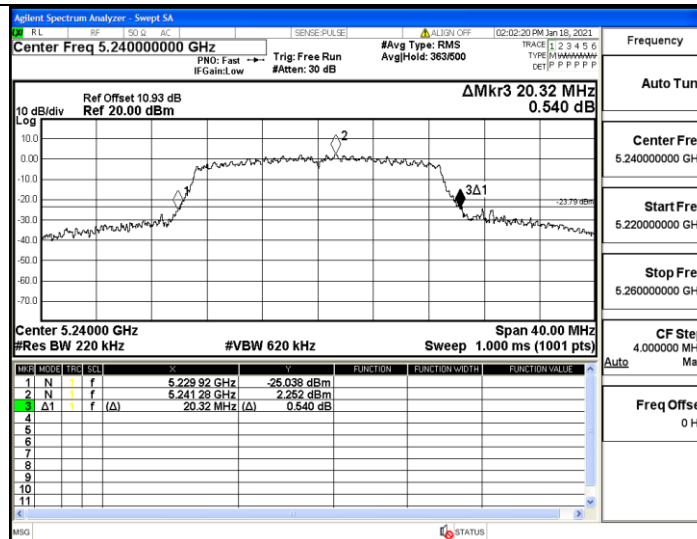
11AC20MIMO_Ant2_5200



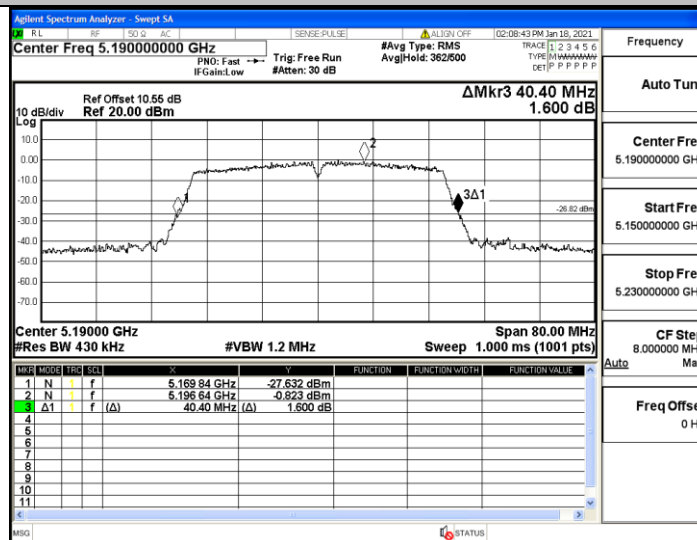
11AC20MIMO_Ant1_5240



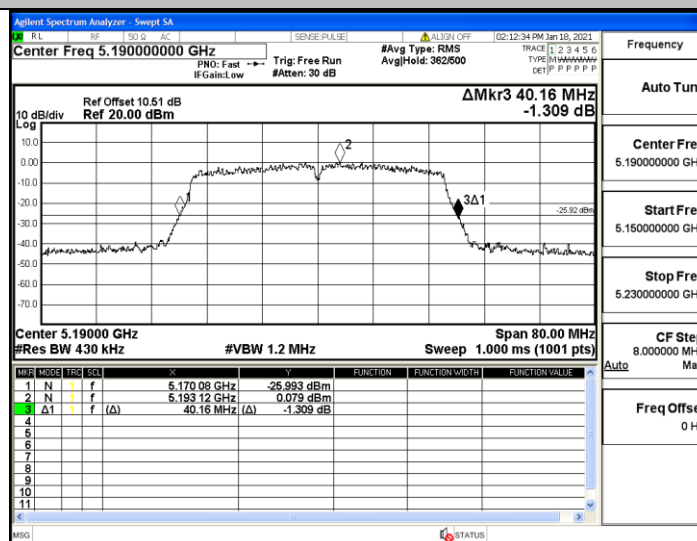
11AC20MIMO_Ant2_5240



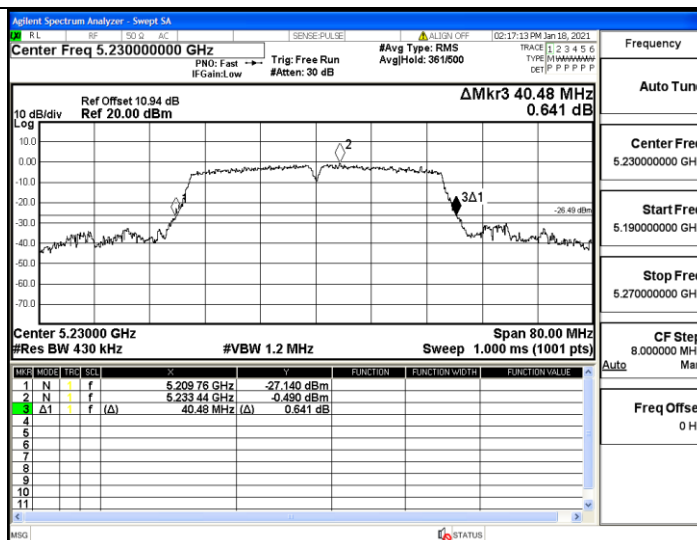
11AC40MIMO_Ant1_5190



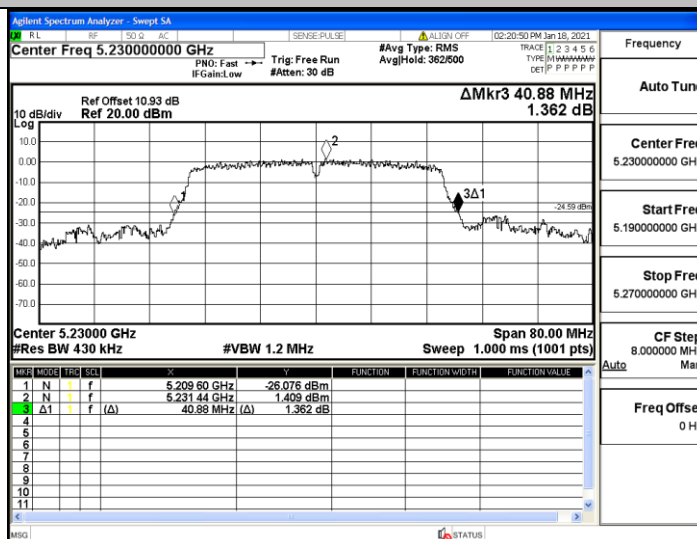
11AC40MIMO_Ant2_5190



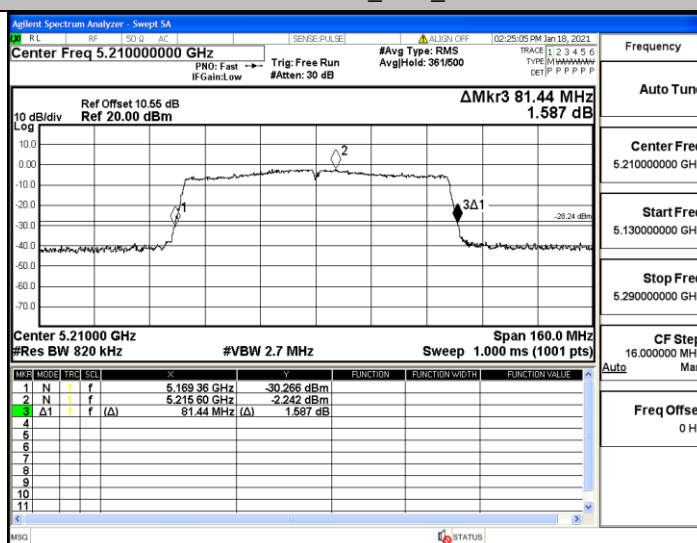
11AC40MIMO_Ant1_5230



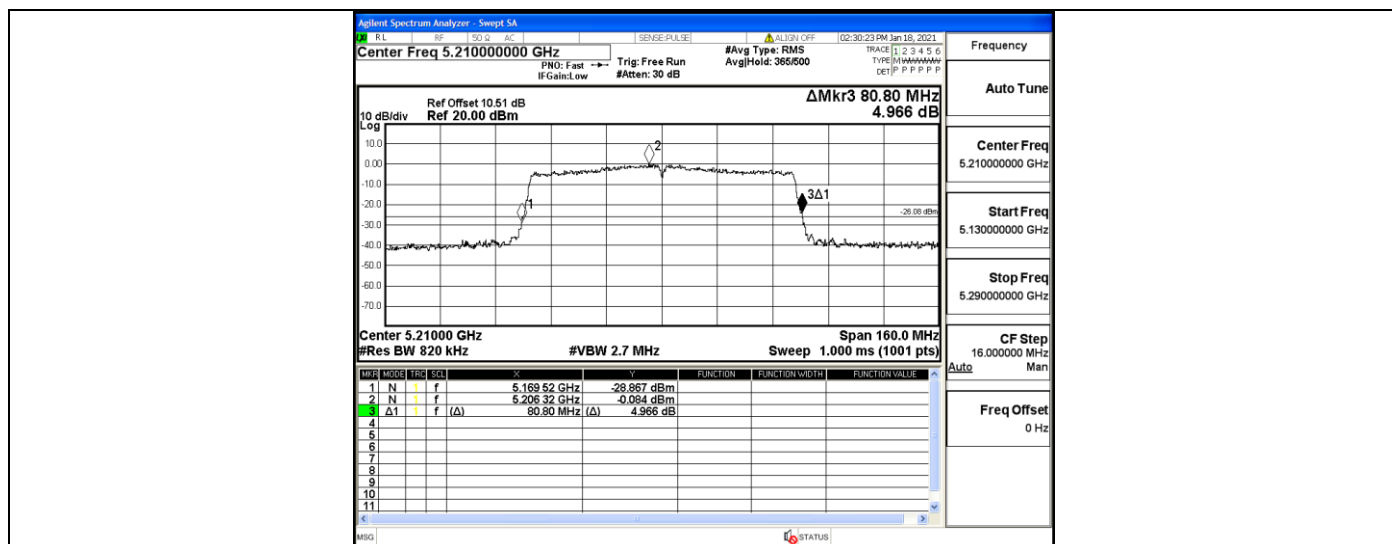
11AC40MIMO_Ant2_5230



11AC80MIMO_Ant1_5210



11AC80MIMO_Ant2_5210



Appendix B: Maximum conducted output power

Test Result

TestMode	Antenna	Channel	Result[dBm]	Limit[dBm]	Verdict
11A	Ant1	5180	9.30	<=30.00	PASS
	Ant2	5180	10.16	<=30.00	PASS
	Ant1	5200	10.15	<=30.00	PASS
	Ant2	5200	11.19	<=30.00	PASS
	Ant1	5240	10.86	<=30.00	PASS
	Ant2	5240	11.33	<=30.00	PASS
11N20MIMO	Ant1	5180	8.25	<=30.00	PASS
	Ant2	5180	9.12	<=30.00	PASS
	total	5180	11.7	<=29.06	PASS
	Ant1	5200	9.02	<=30.00	PASS
	Ant2	5200	10.04	<=30.00	PASS
	total	5200	12.6	<=29.06	PASS
	Ant1	5240	9.81	<=30.00	PASS
	Ant2	5240	11.18	<=30.00	PASS
	total	5240	13.6	<=29.06	PASS
11N40MIMO	Ant1	5190	8.81	<=30.00	PASS
	Ant2	5190	9.56	<=30.00	PASS
	total	5190	12.2	<=29.06	PASS
	Ant1	5230	9.80	<=30.00	PASS
	Ant2	5230	11.05	<=30.00	PASS
	total	5230	13.5	<=29.06	PASS
11AC20MIMO	Ant1	5180	8.11	<=30.00	PASS
	Ant2	5180	9.10	<=30.00	PASS
	total	5180	11.6	<=29.06	PASS
	Ant1	5200	9.14	<=30.00	PASS
	Ant2	5200	10.13	<=30.00	PASS
	total	5200	12.7	<=29.06	PASS
	Ant1	5240	9.83	<=30.00	PASS
	Ant2	5240	11.13	<=30.00	PASS
	total	5240	13.5	<=29.06	PASS
11AC40MIMO	Ant1	5190	7.79	<=30.00	PASS
	Ant2	5190	8.54	<=30.00	PASS
	total	5190	11.2	<=29.06	PASS
	Ant1	5230	8.81	<=30.00	PASS
	Ant2	5230	10.17	<=30.00	PASS
	total	5230	12.6	<=29.06	PASS
11AC80MIMO	Ant1	5210	7.62	<=30.00	PASS
	Ant2	5210	8.55	<=30.00	PASS
	total	5210	11.1	<=29.06	PASS

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

Appendix C: Maximum power spectral density

Test Result

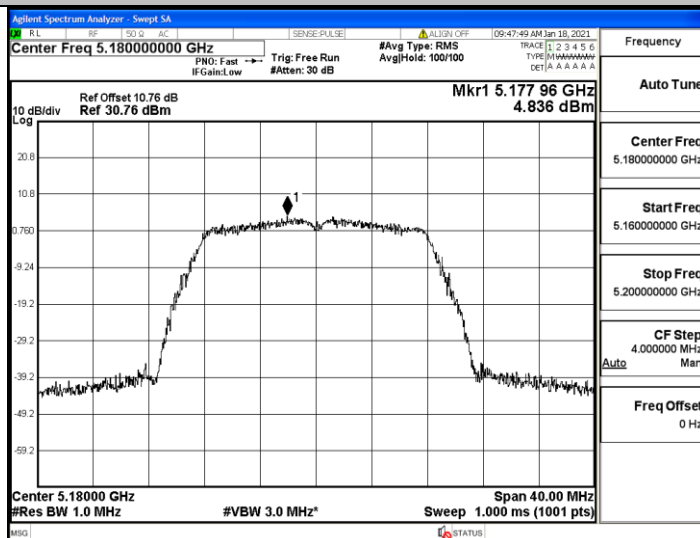
TestMode	Antenna	Channel	Result [dBm/MHz]	Limit[dBm/MHz]	Verdict
11A	Ant0	5180	4.84	<=11	PASS
	Ant1	5180	5.89	<=11	PASS
	Ant0	5200	5.54	<=11	PASS
	Ant1	5200	7.43	<=11	PASS
	Ant0	5240	6.3	<=11	PASS
	Ant1	5240	7.59	<=11	PASS
11N20MIMO	Ant0	5180	3.69	<=11	PASS
	Ant1	5180	6.43	<=11	PASS
	total	5180	8.28	<=10.06	PASS
	Ant0	5200	4.67	<=11	PASS
	Ant1	5200	6.46	<=11	PASS
	total	5200	8.67	<=10.06	PASS
	Ant0	5240	4.58	<=11	PASS
	Ant1	5240	7.43	<=11	PASS
	total	5240	9.25	<=10.06	PASS
11N40MIMO	Ant0	5190	1.71	<=11	PASS
	Ant1	5190	3.3	<=11	PASS
	total	5190	5.59	<=10.06	PASS
	Ant0	5230	1.91	<=11	PASS
	Ant1	5230	4.29	<=11	PASS
	total	5230	6.27	<=10.06	PASS
11AC20MIMO	Ant0	5180	3.99	<=11	PASS
	Ant1	5180	5.75	<=11	PASS
	total	5180	7.97	<=10.06	PASS
	Ant0	5200	4.37	<=11	PASS
	Ant1	5200	6.48	<=11	PASS
	total	5200	8.56	<=10.06	PASS
	Ant0	5240	4.79	<=11	PASS
	Ant1	5240	7.17	<=11	PASS
	total	5240	9.15	<=10.06	PASS
11AC40MIMO	Ant0	5190	0.7	<=11	PASS
	Ant1	5190	2.05	<=11	PASS
	total	5190	4.44	<=10.06	PASS
	Ant0	5230	1.26	<=11	PASS
	Ant1	5230	4.1	<=11	PASS
	total	5230	5.92	<=10.06	PASS
11AC80MIMO	Ant0	5210	-1.33	<=11	PASS
	Ant1	5210	-0.44	<=11	PASS
	total	5210	2.15	<=10.06	PASS

Note:

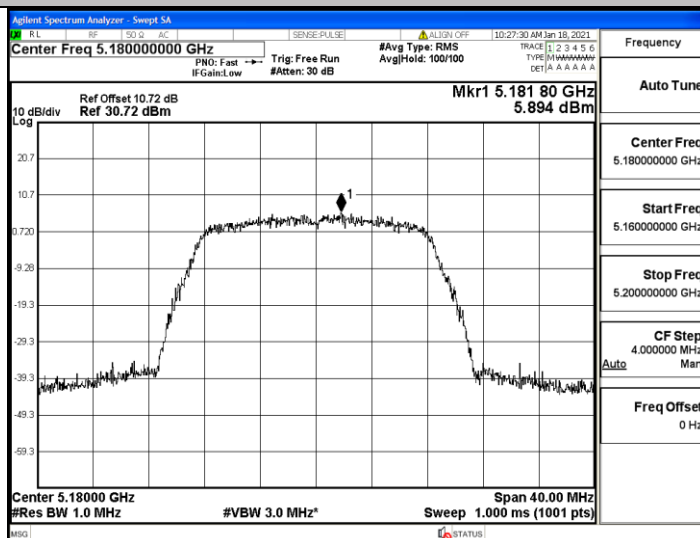
The Duty Cycle Factor and RBW Factor is compensated in the graph.

Test Graphs

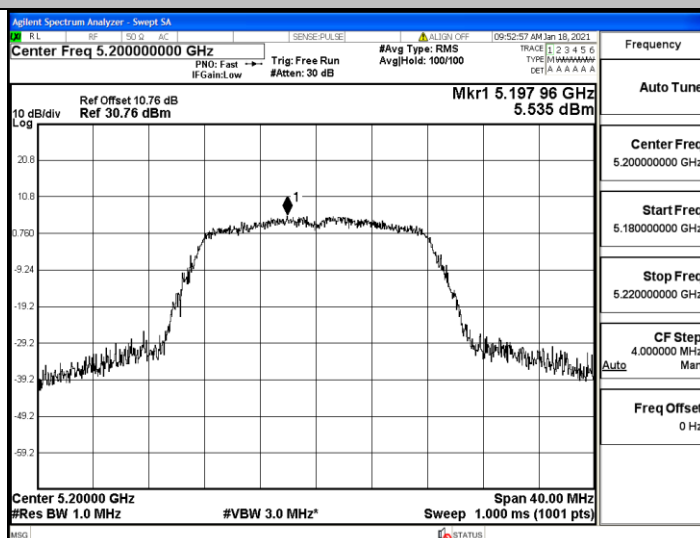
11A_Ant1_5180



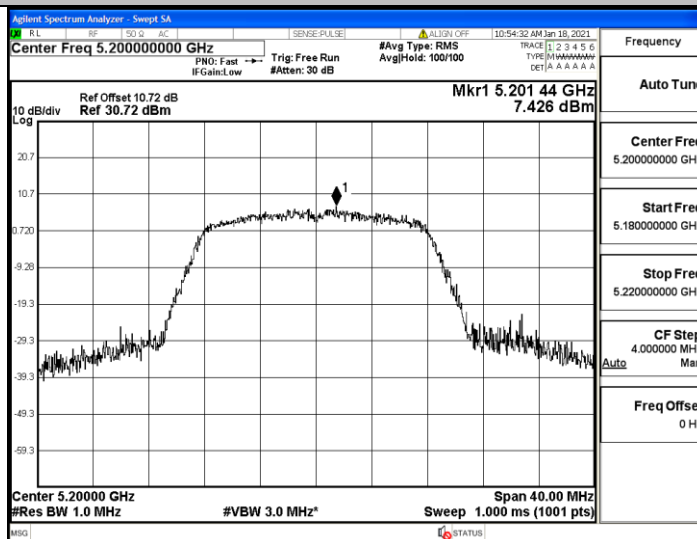
11A_Ant2_5180



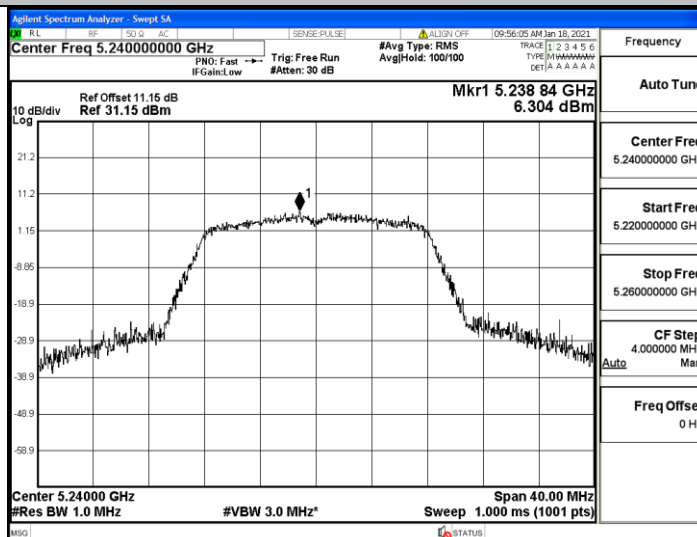
11A_Ant1_5200



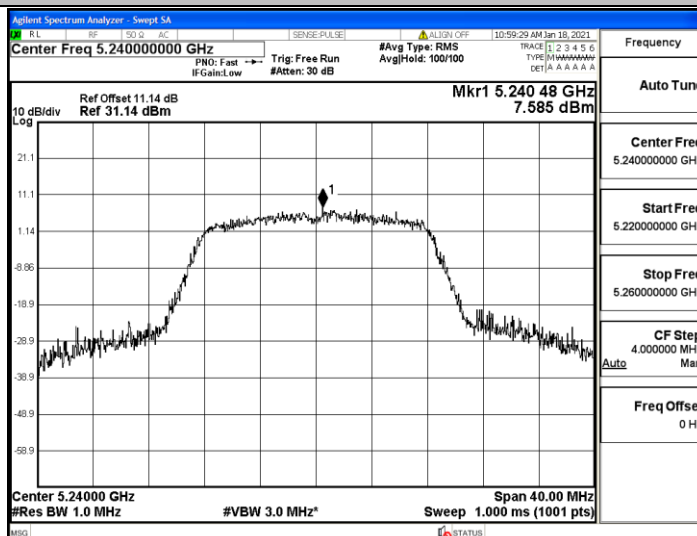
11A_Ant2_5200



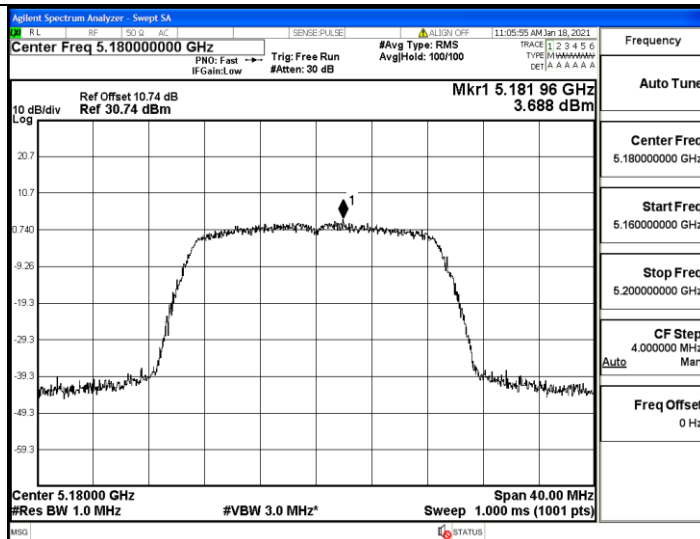
11A_Ant1_5240



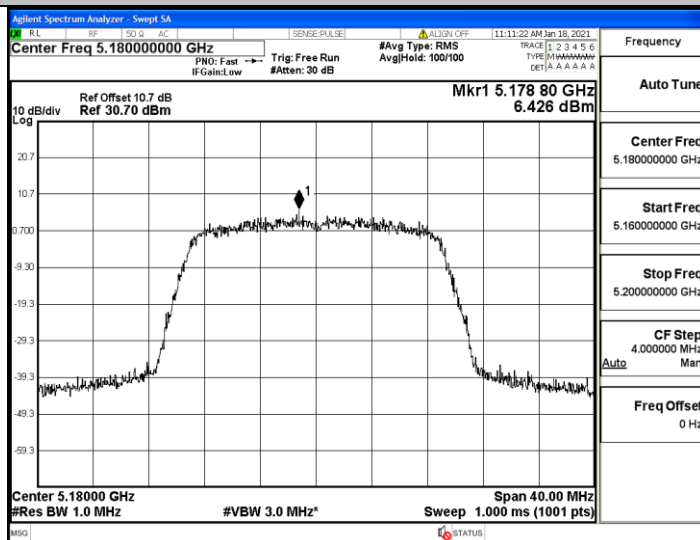
11A_Ant2_5240



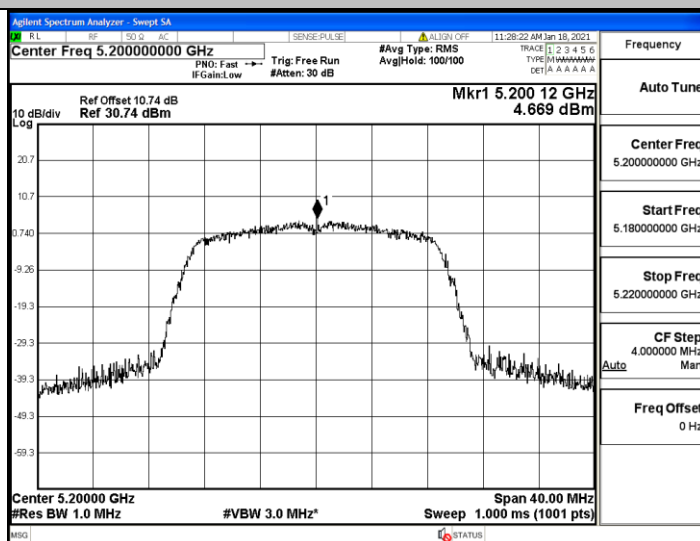
11N20MIMO_Ant1_5180



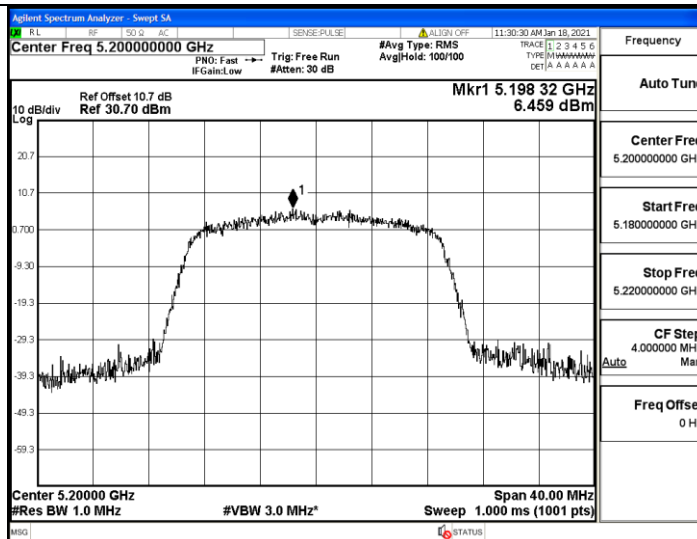
11N20MIMO_Ant2_5180



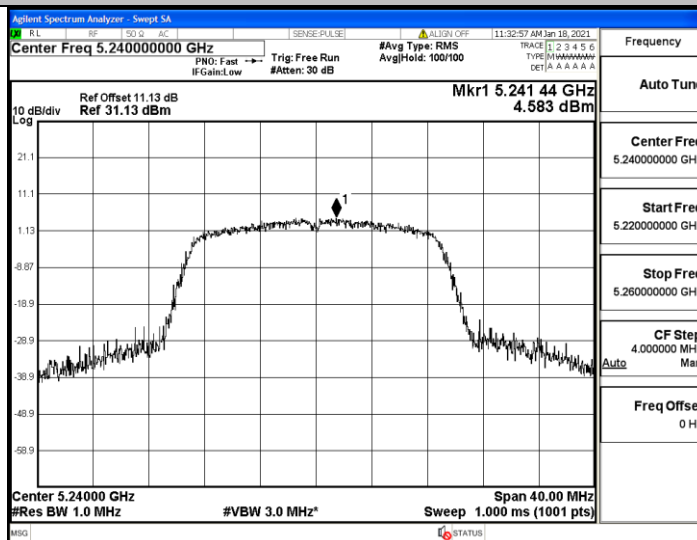
11N20MIMO_Ant1_5200



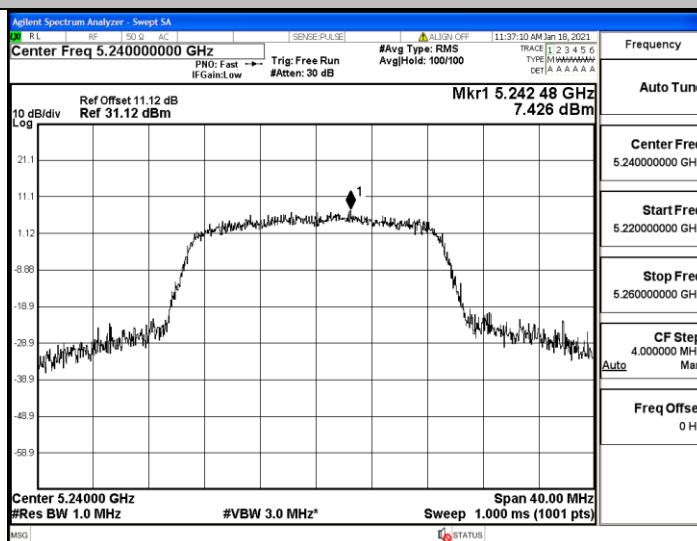
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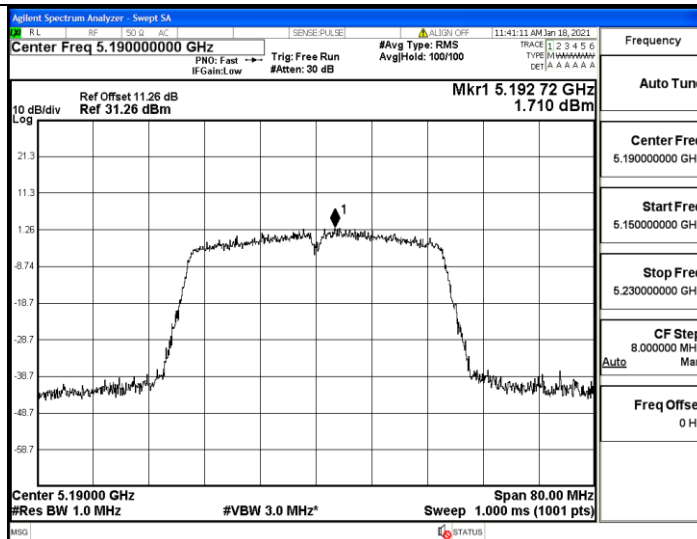
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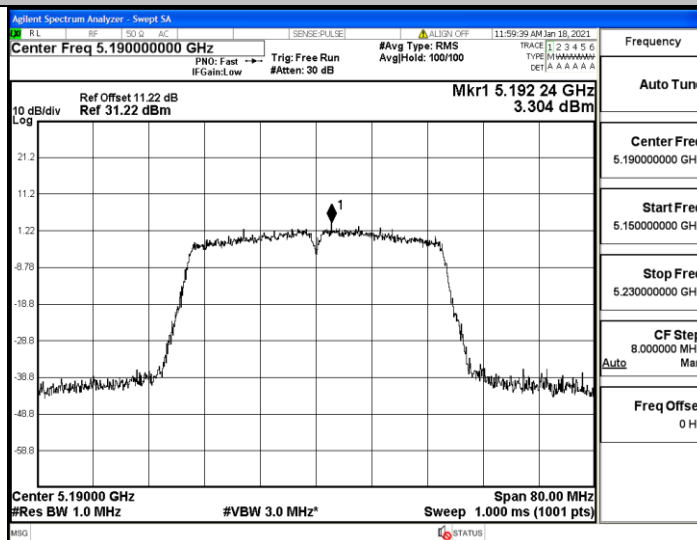
11N20MIMO_Ant2_5240



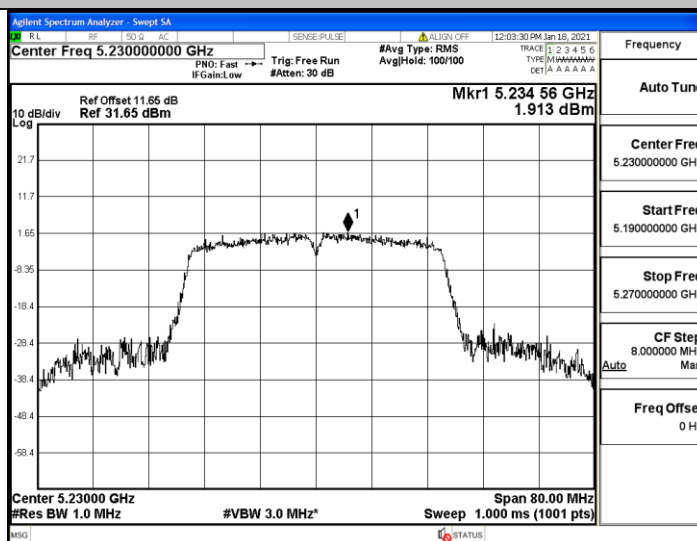
11N40MIMO_Ant1_5190



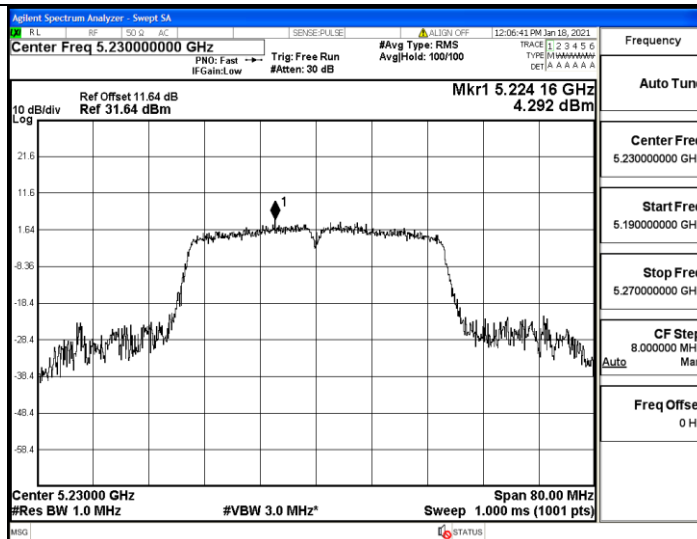
11N40MIMO_Ant2_5190



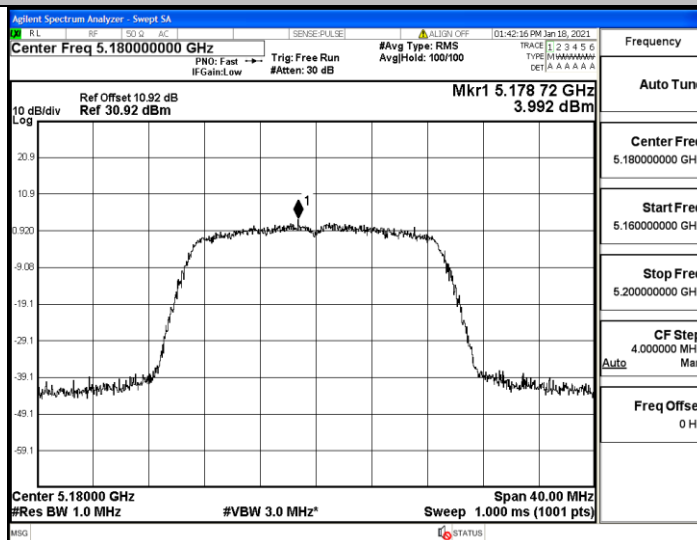
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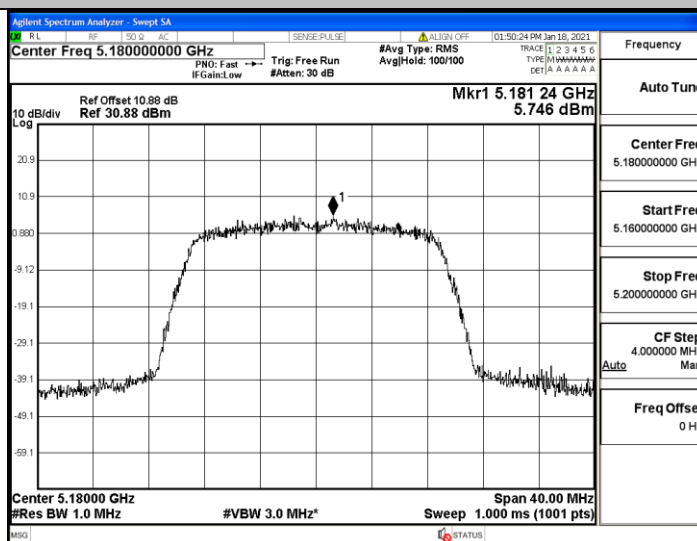
11N40MIMO_Ant2_5230



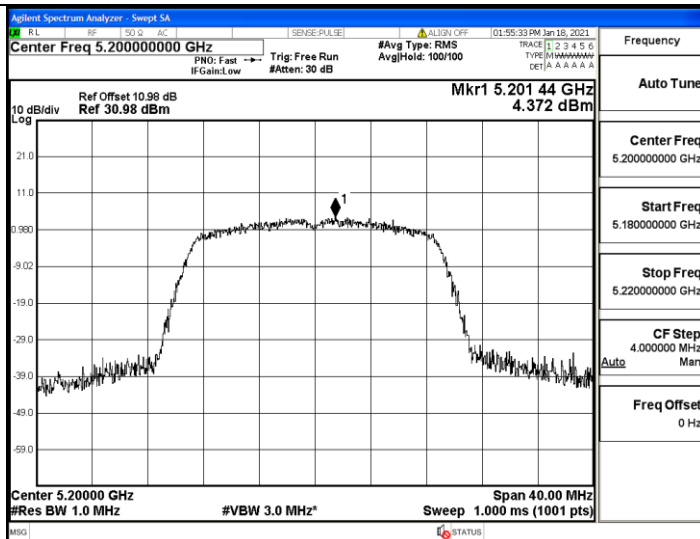
11AC20MIMO_Ant1_5180



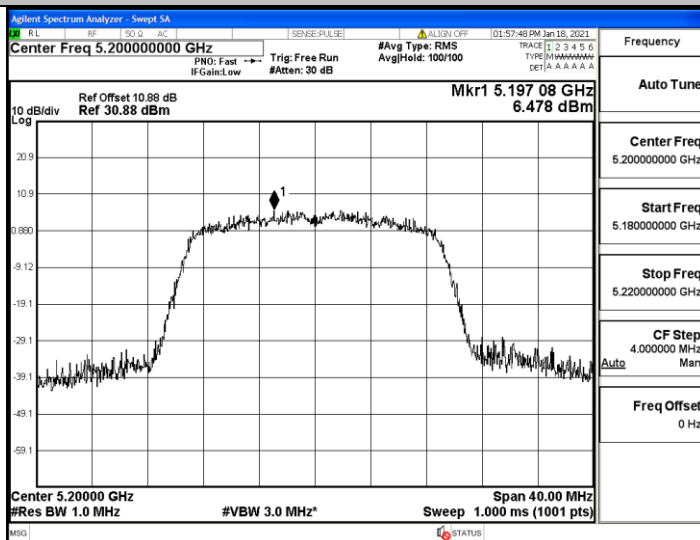
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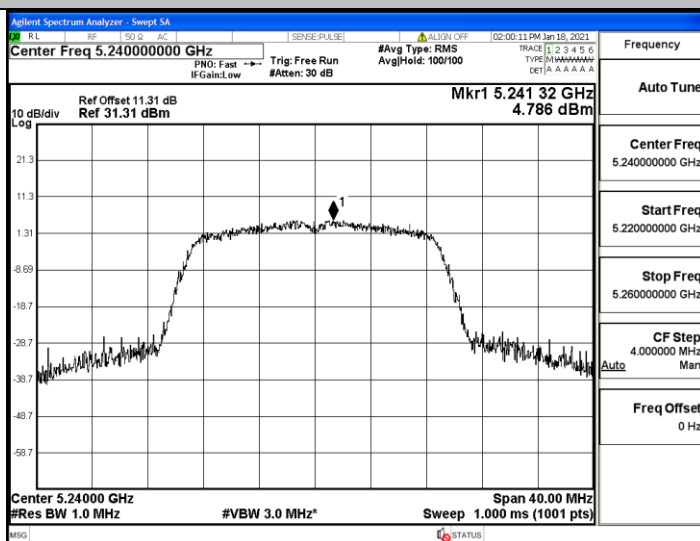
11AC20MIMO_Ant1_5200



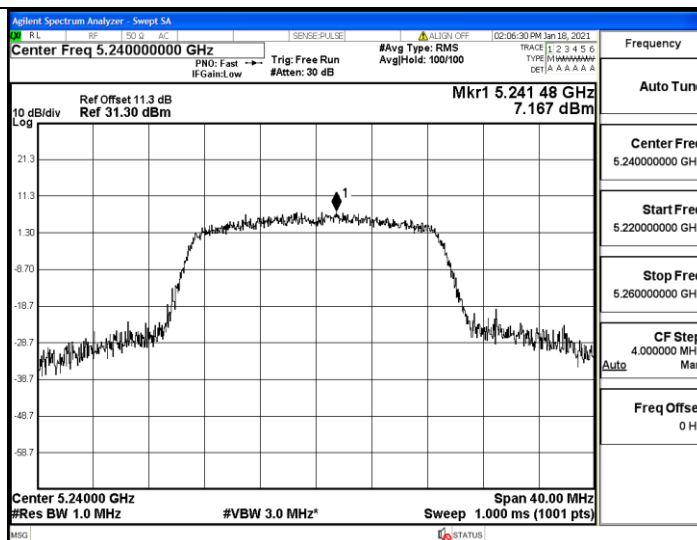
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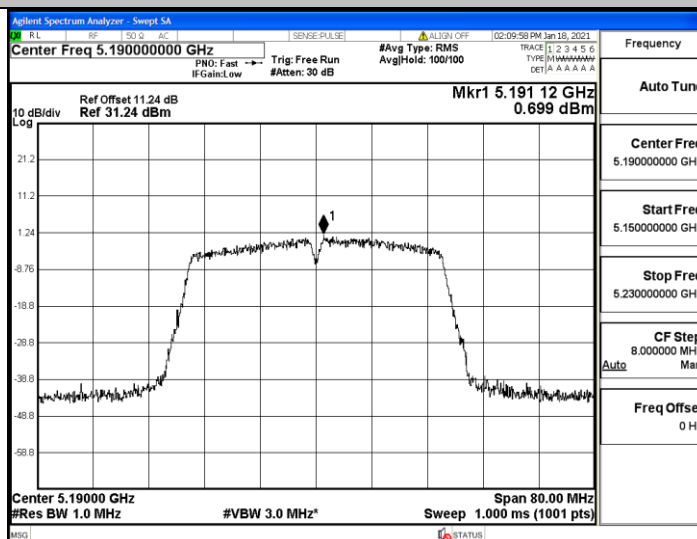
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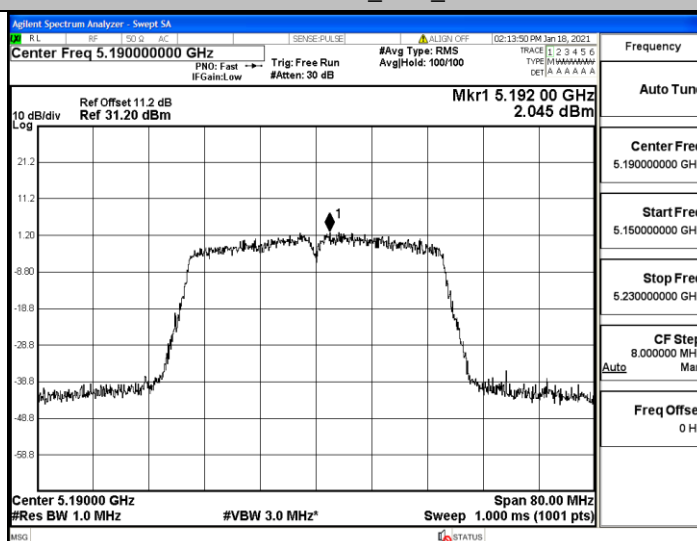
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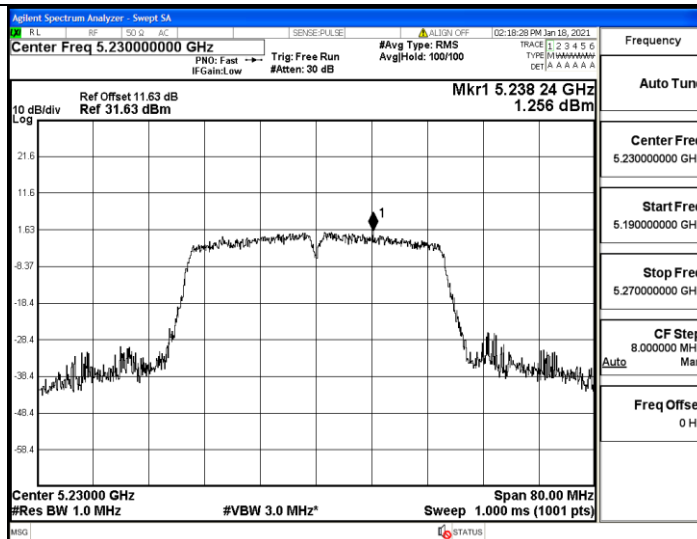
11AC40MIMO_Ant1_5190



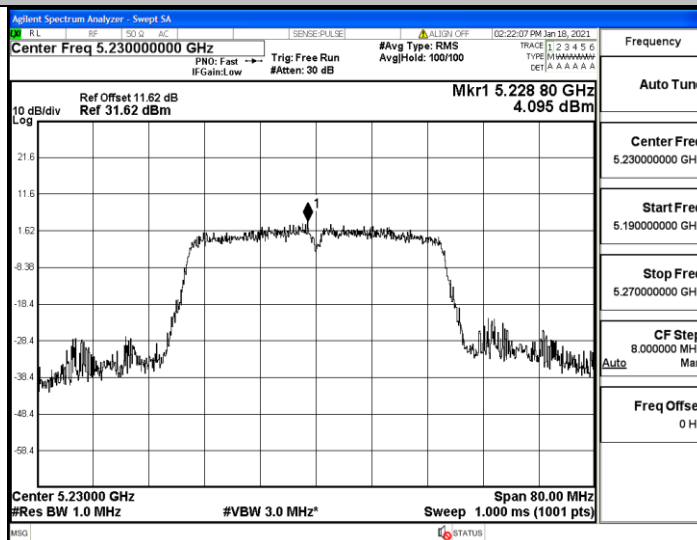
11AC40MIMO_Ant2_5190



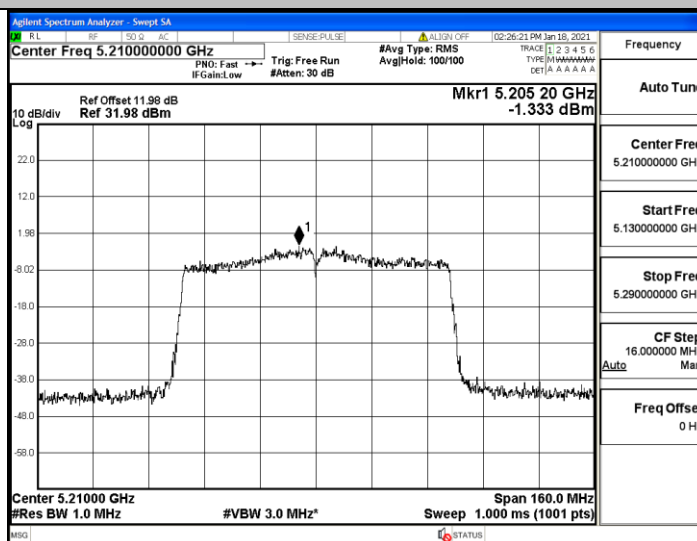
11AC40MIMO_Ant1_5230



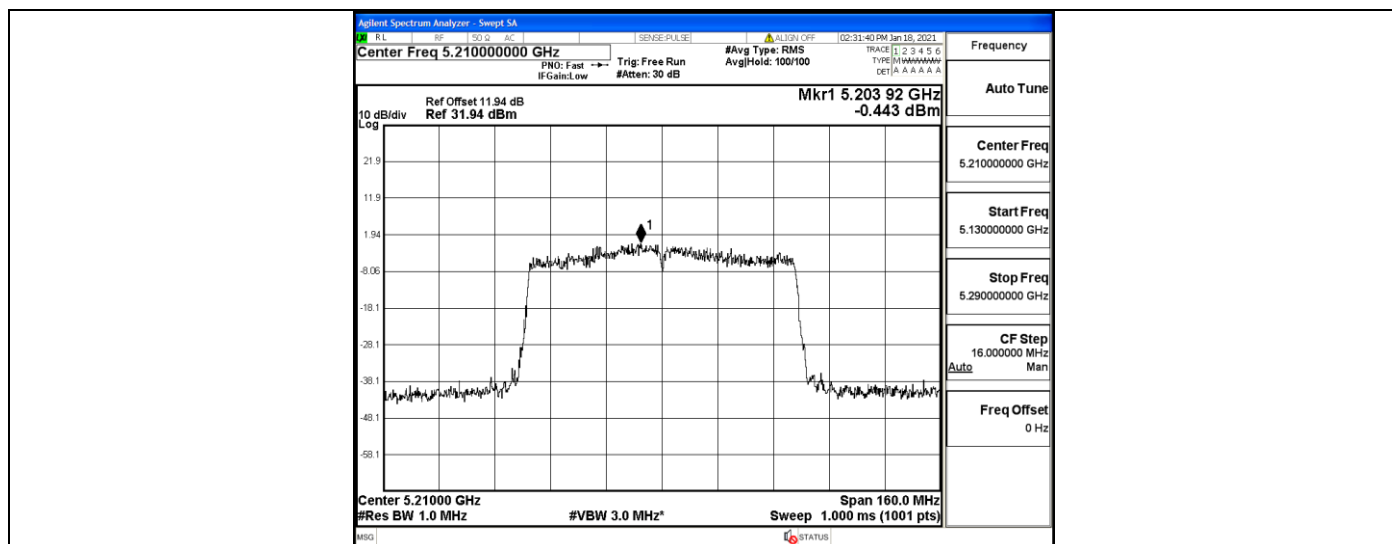
11AC40MIMO_Ant2_5230



11AC80MIMO_Ant1_5210



11AC80MIMO_Ant2_5210



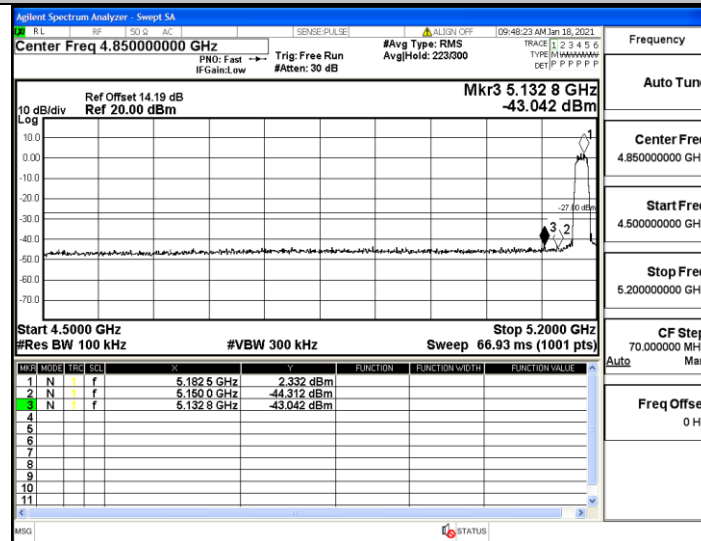
Appendix D: Band edge measurements

Test Result

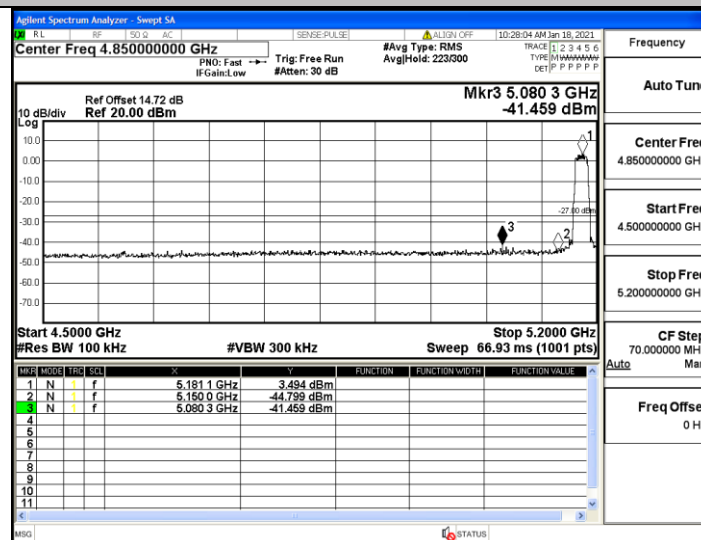
TestMode	Antenna	ChName	Channel	Result[dBm]	Limit[dBm]	Verdict
11A	Ant1	Low	5180	-43.04	<=-27	PASS
	Ant2	Low	5180	-41.46	<=-27	PASS
	Ant1	High	5240	-43.62	<=-27	PASS
	Ant2	High	5240	-42.18	<=-27	PASS
11N20MIMO	Ant1	Low	5180	-43.22	<=-27	PASS
	Ant2	Low	5180	-43.12	<=-27	PASS
	Ant1	High	5240	-44	<=-27	PASS
	Ant2	High	5240	-42.82	<=-27	PASS
11N40MIMO	Ant1	Low	5190	-44.16	<=-27	PASS
	Ant2	Low	5190	-42.41	<=-27	PASS
	Ant1	High	5230	-43.1	<=-27	PASS
	Ant2	High	5230	-42.37	<=-27	PASS
11AC20MIMO	Ant1	Low	5180	-42.4	<=-27	PASS
	Ant2	Low	5180	-42.21	<=-27	PASS
	Ant1	High	5240	-43.25	<=-27	PASS
	Ant2	High	5240	-42.66	<=-27	PASS
11AC40MIMO	Ant1	Low	5190	-43.01	<=-27	PASS
	Ant2	Low	5190	-42.95	<=-27	PASS
	Ant1	High	5230	-43.28	<=-27	PASS
	Ant2	High	5230	-42.67	<=-27	PASS
11AC80MIMO	Ant1	Low	5210	-43.73	<=-27	PASS
	Ant2	Low	5210	-42.25	<=-27	PASS
	Ant1	High	5210	-43.55	<=-27	PASS
	Ant2	High	5210	-43.6	<=-27	PASS

Test Graphs

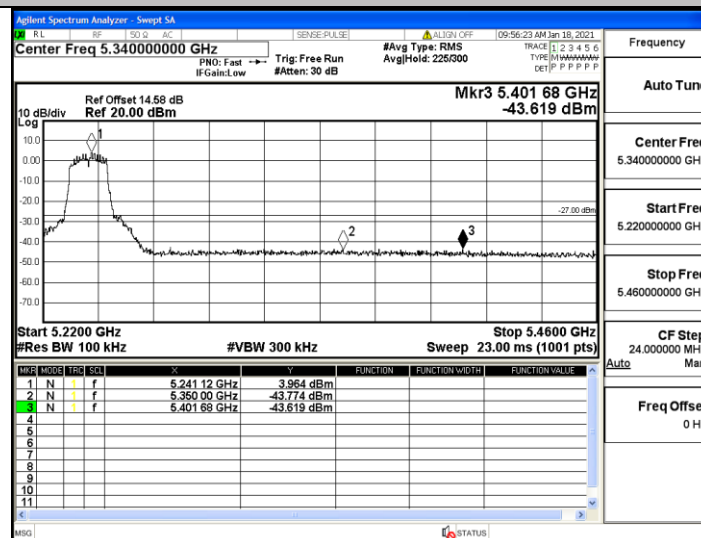
11A_Ant1_Low_5180



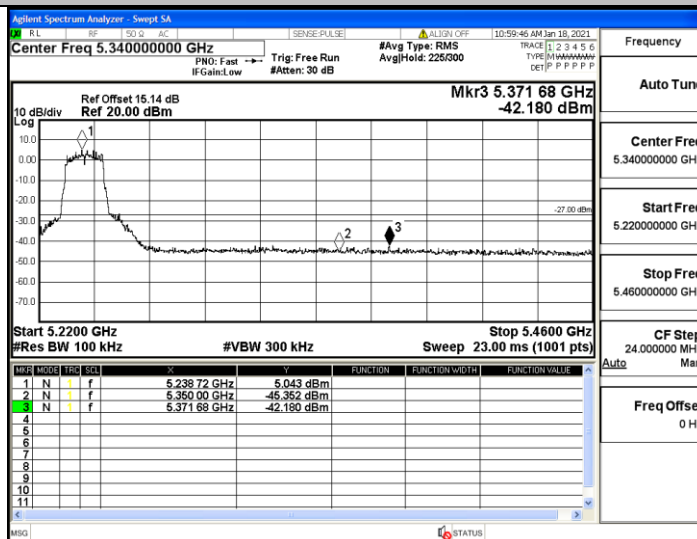
11A_Ant2_Low_5180



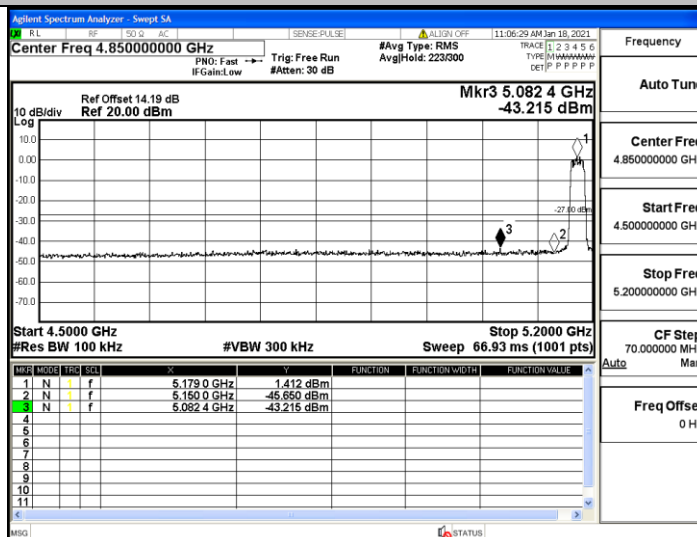
11A_Ant1_High_5240



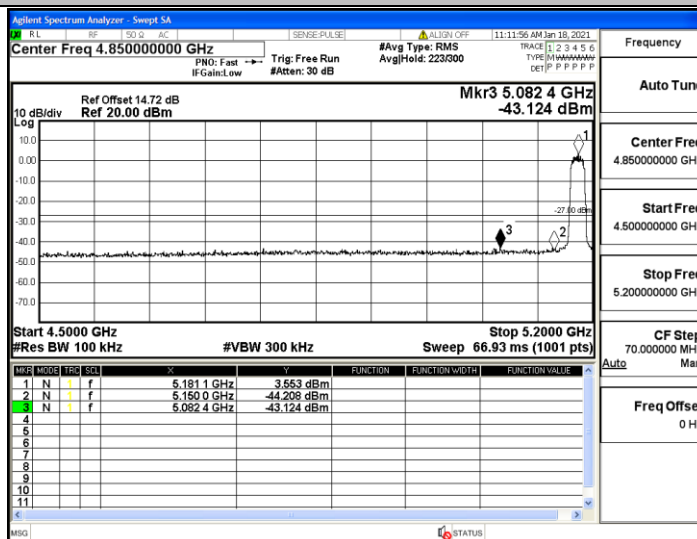
11A_Ant2_High_5240



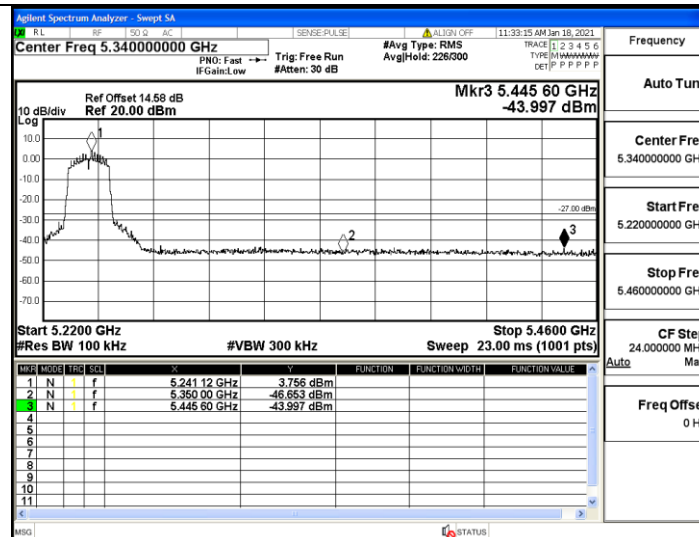
11N20MIMO_Ant1_Low_5180



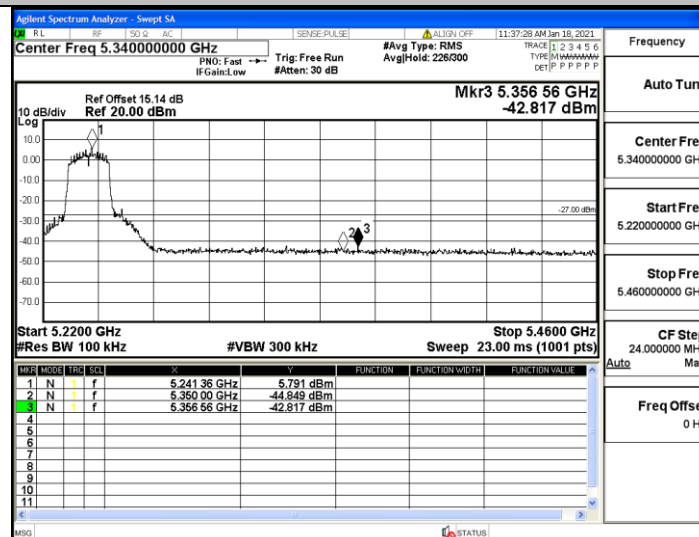
11N20MIMO_Ant2_Low_5180



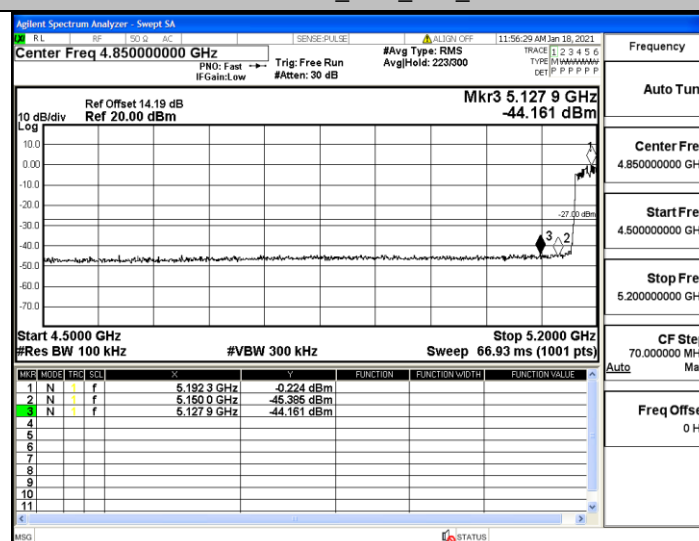
11N20MIMO_Ant1_High_5240



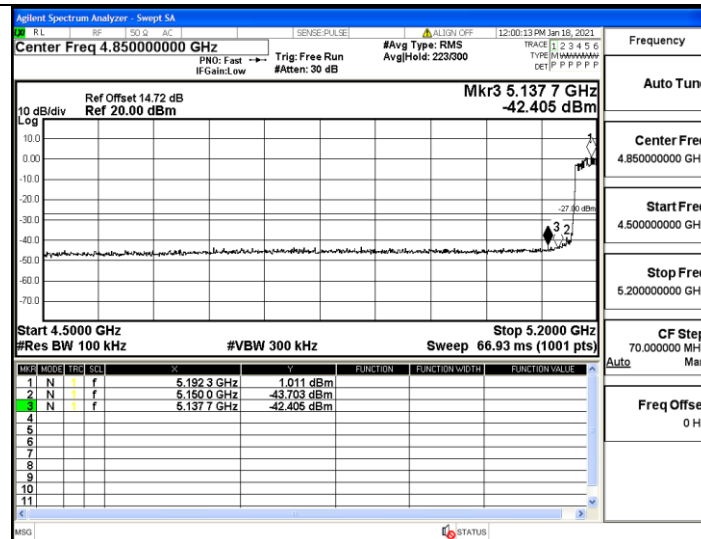
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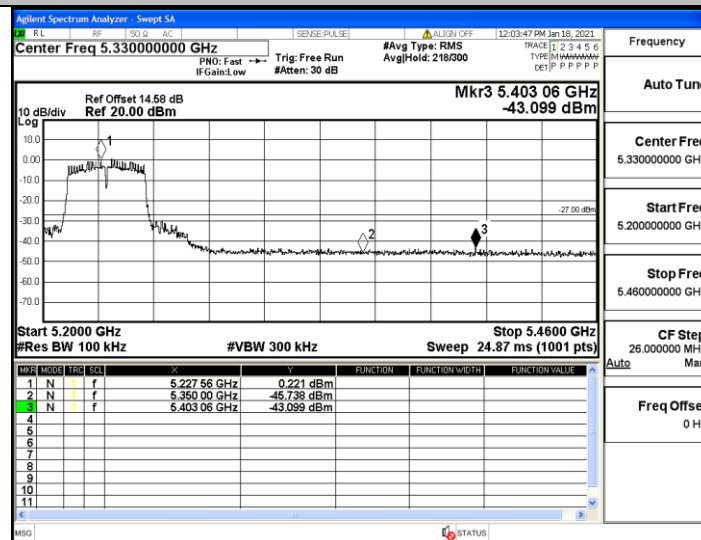
11N40MIMO_Ant1_Low_5190



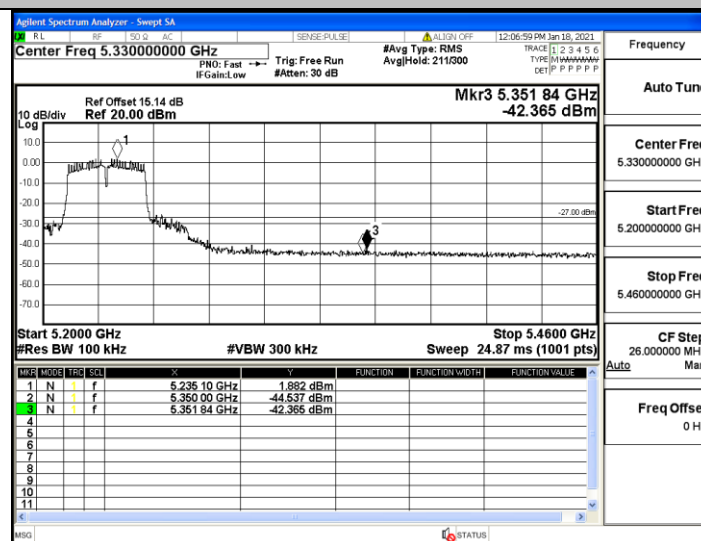
11N40MIMO_Ant2_Low_5190



11N40MIMO_Ant1_High_5230



11N40MIMO_Ant2_High_5230



11AC20MIMO_Ant1_Low_5180