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

Product Name: Set Top Box

Trade Mark: N/A

Test Model: Claro STB SEI800CCOA-M

FCC ID: 2AOVU-SN6BHXX

Environmental Conditions

Temperature:	25.5°C
Relative Humidity:	55%
ATM Pressure:	100.0 kPa
Test Engineer:	Anna Hu
Supervised by:	Hugo Chen
NOTE	N/A

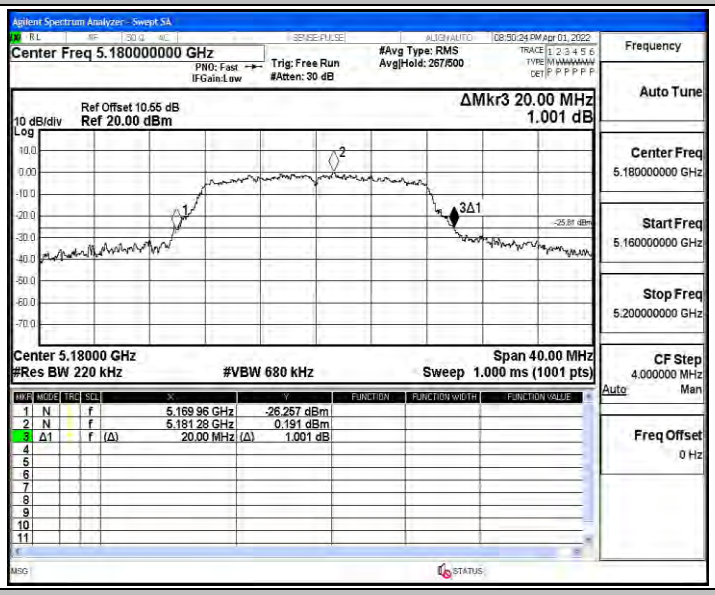
Appendix A1: Emission Bandwidth

Test Result

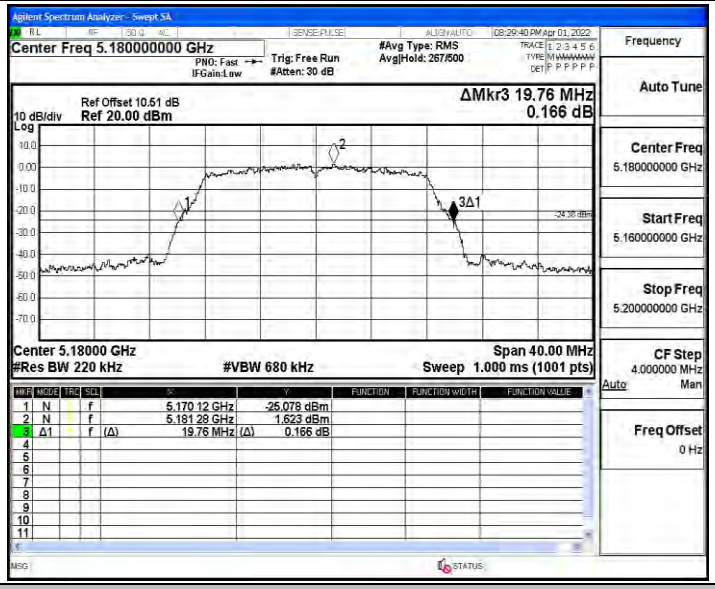
TestMode	Antenna	Channel	26db EBW [MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
11A	Ant1	5180	20.000	5169.960	5189.960	---	PASS
	Ant2	5180	19.760	5170.120	5189.880	---	PASS
	Ant1	5200	20.040	5189.920	5209.960	---	PASS
	Ant2	5200	19.960	5190.040	5210.000	---	PASS
	Ant1	5240	20.160	5229.960	5250.120	---	PASS
	Ant2	5240	19.960	5230.000	5249.960	---	PASS
11N20MIMO	Ant1	5180	20.040	5170.000	5190.040	---	PASS
	Ant2	5180	20.000	5170.040	5190.040	---	PASS
	Ant1	5200	20.360	5189.840	5210.200	---	PASS
	Ant2	5200	20.240	5189.840	5210.080	---	PASS
	Ant1	5240	20.280	5229.800	5250.080	---	PASS
	Ant2	5240	20.160	5229.840	5250.000	---	PASS
11N40MIMO	Ant1	5190	40.400	5169.760	5210.160	---	PASS
	Ant2	5190	40.560	5169.840	5210.400	---	PASS
	Ant1	5230	40.160	5210.000	5250.160	---	PASS
	Ant2	5230	40.240	5209.920	5250.160	---	PASS
11AC20MIMO	Ant1	5180	20.360	5169.880	5190.240	---	PASS
	Ant2	5180	20.040	5170.000	5190.040	---	PASS
	Ant1	5200	20.400	5189.880	5210.280	---	PASS
	Ant2	5200	20.240	5189.880	5210.120	---	PASS
	Ant1	5240	20.360	5229.840	5250.200	---	PASS
	Ant2	5240	20.240	5229.840	5250.080	---	PASS
11AC40MIMO	Ant1	5190	40.080	5170.000	5210.080	---	PASS
	Ant2	5190	40.320	5169.760	5210.080	---	PASS
	Ant1	5230	40.160	5209.760	5249.920	---	PASS
	Ant2	5230	40.720	5209.600	5250.320	---	PASS
11AC80MIMO	Ant1	5210	81.280	5169.520	5250.800	---	PASS
	Ant2	5210	81.280	5169.520	5250.800	---	PASS

Test Graphs

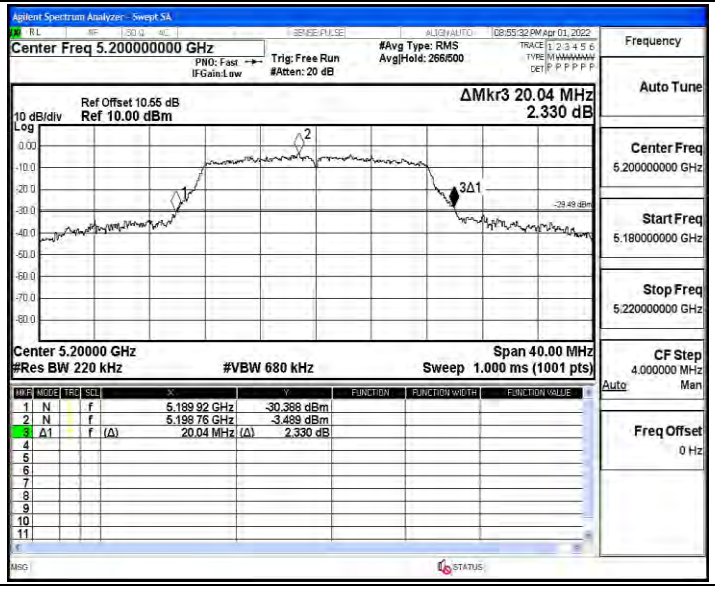
11A_Ant1_5180



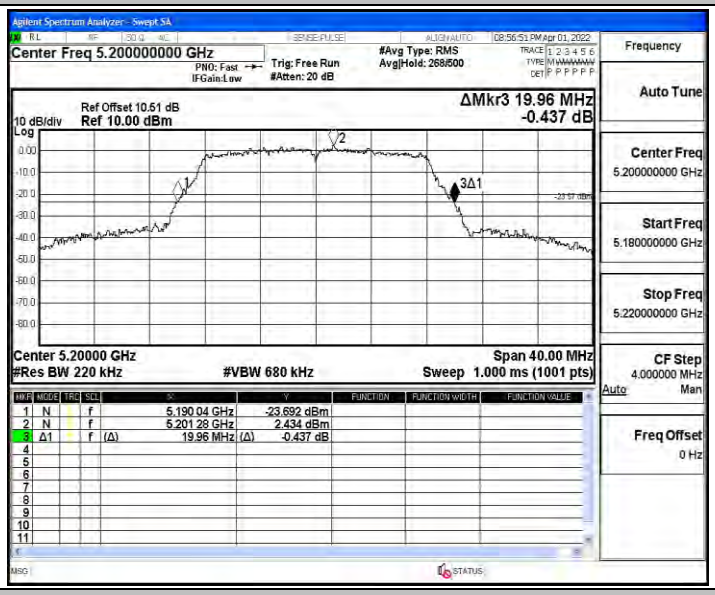
11A_Ant2_5180



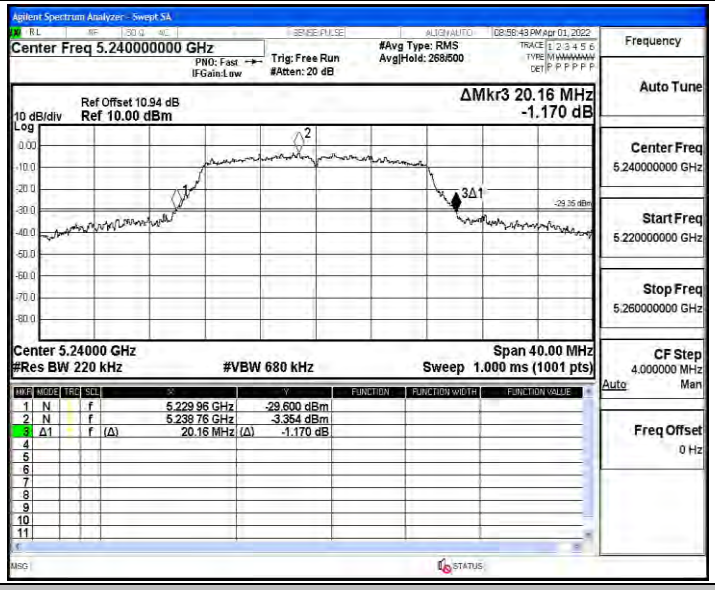
11A_Ant1_5200



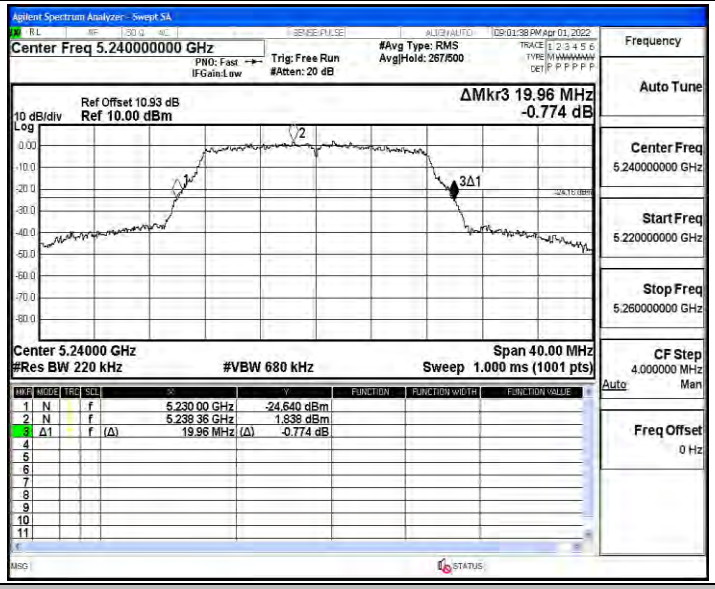
11A_Ant2_5200



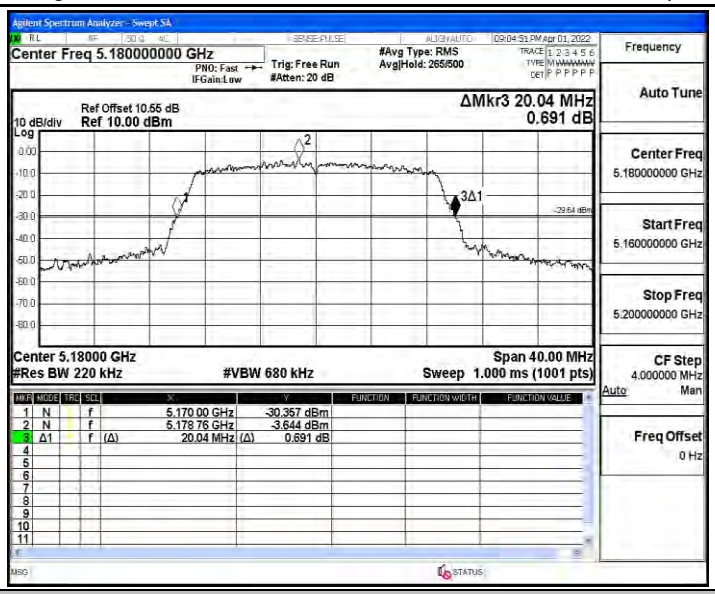
11A_Ant1_5240



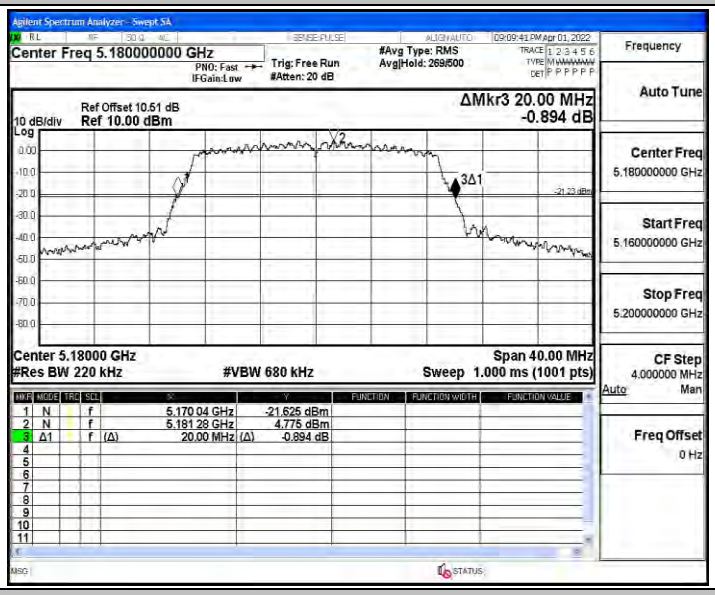
11A_Ant2_5240



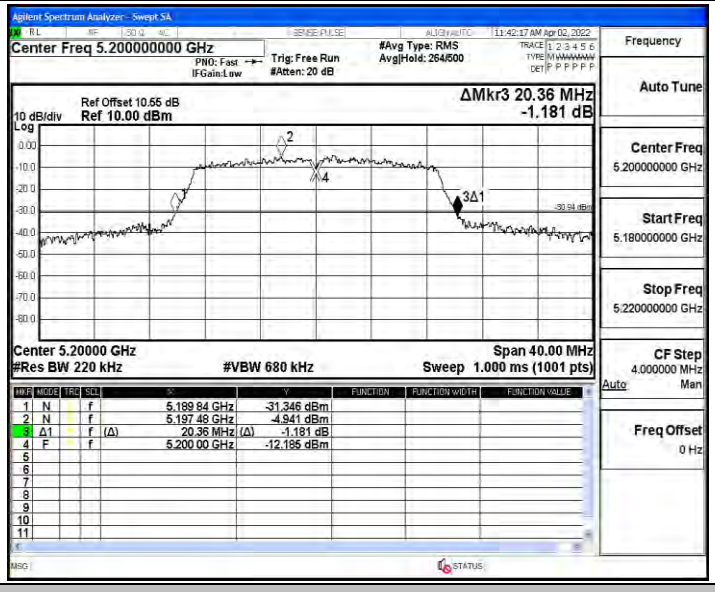
11N20MIMO_Ant1_5180



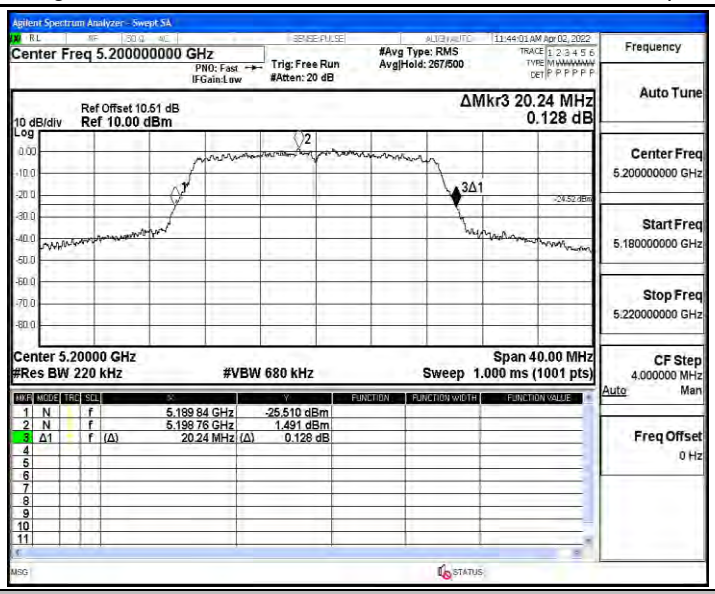
11N20MIMO_Ant2_5180



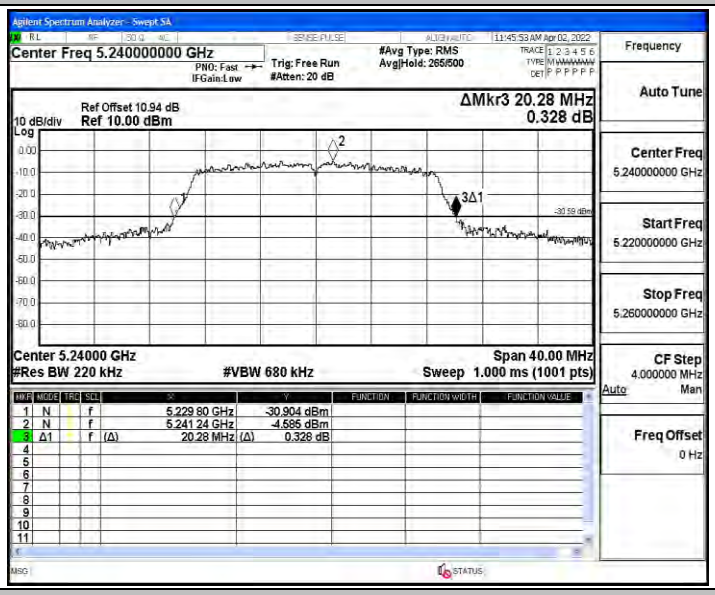
11N20MIMO_Ant1_5200



11N20MIMO_Ant2_5200



11N20MIMO_Ant1_5240



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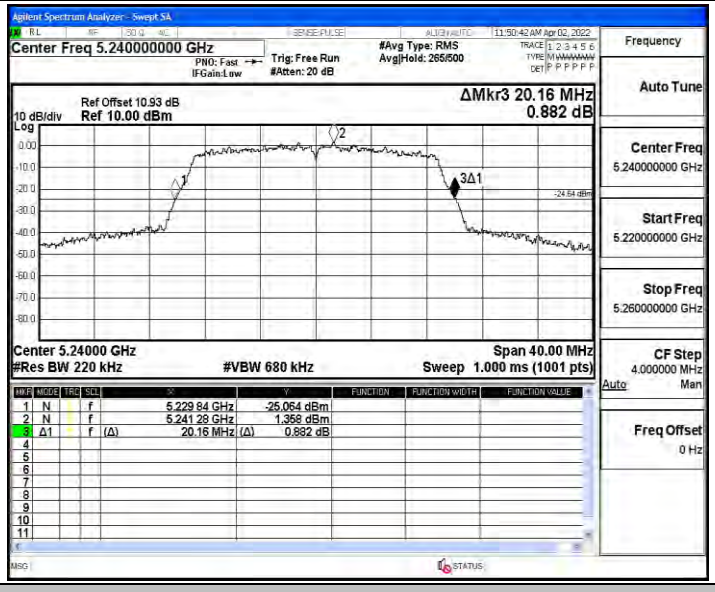

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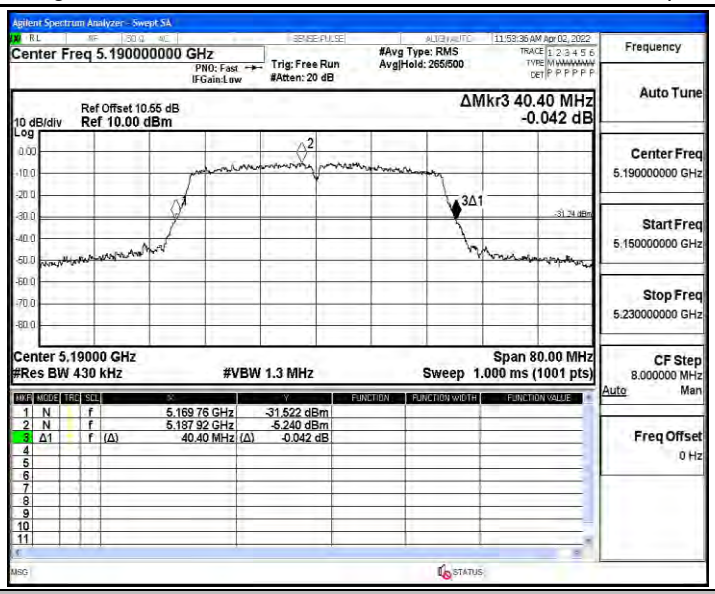
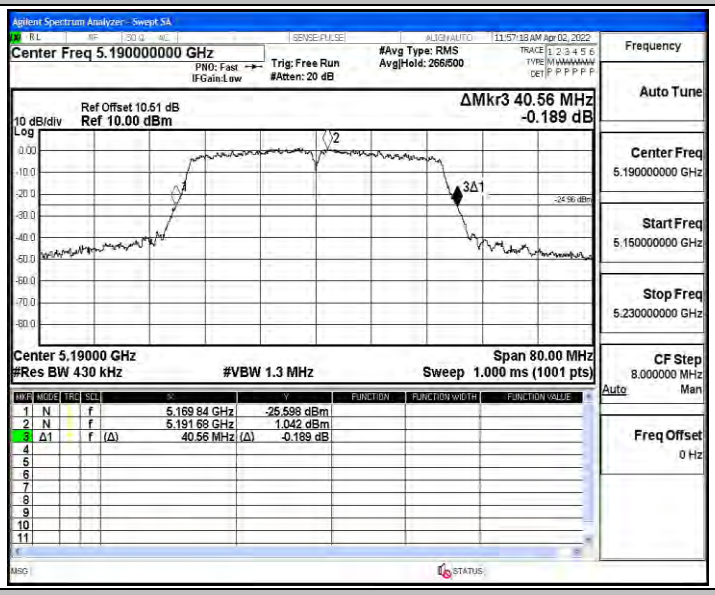
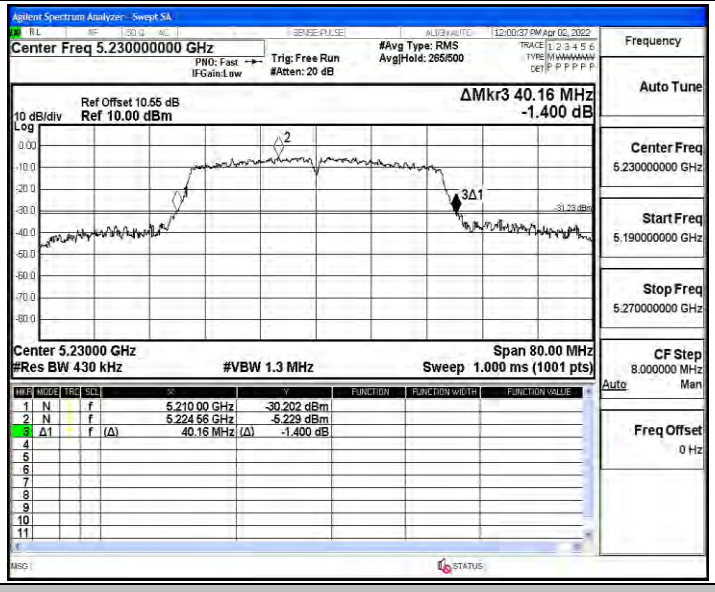


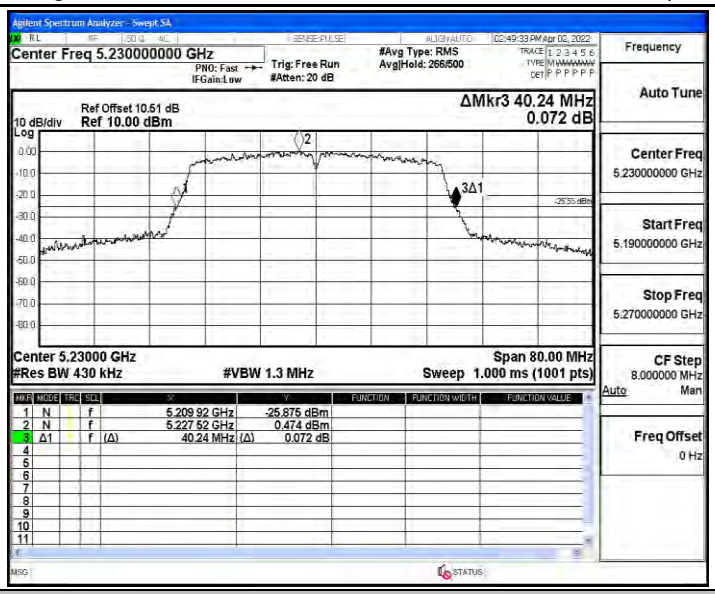
11N40MIMO_Ant2_5190



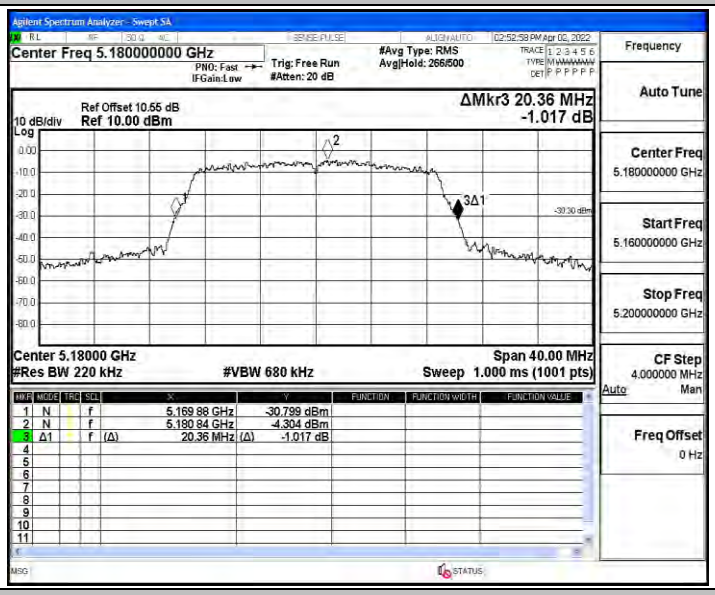
11N40MIMO_Ant1_5230



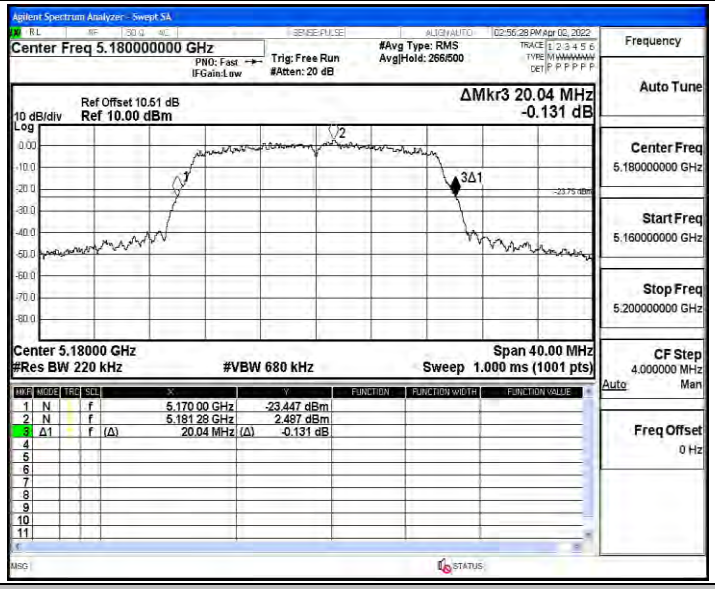
11N40MIMO_Ant2_5230



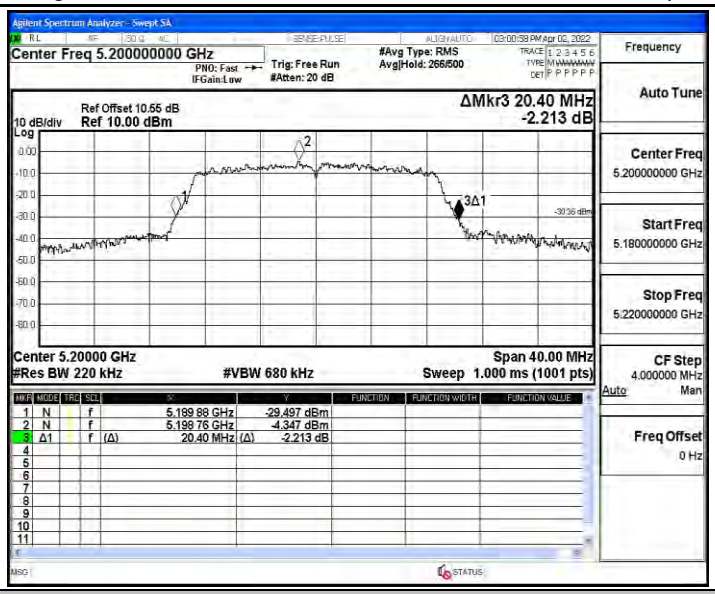
11AC20MIMO_Ant1_5180



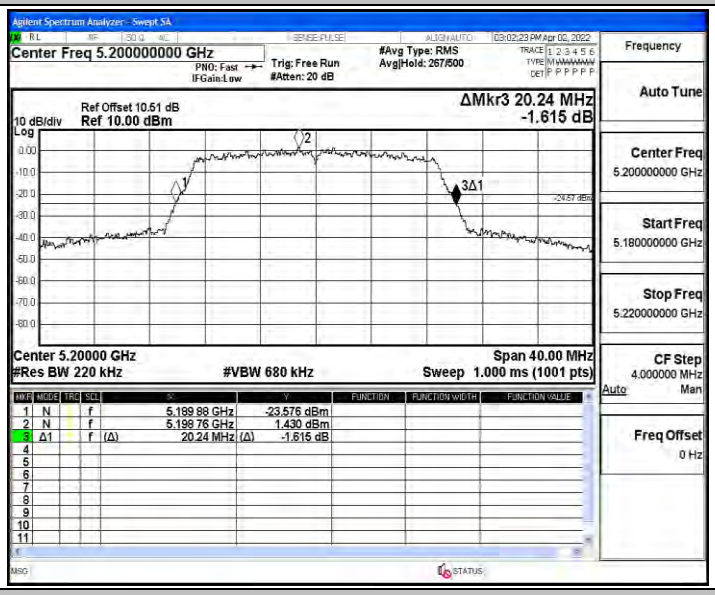
11AC20MIMO_Ant2_5180



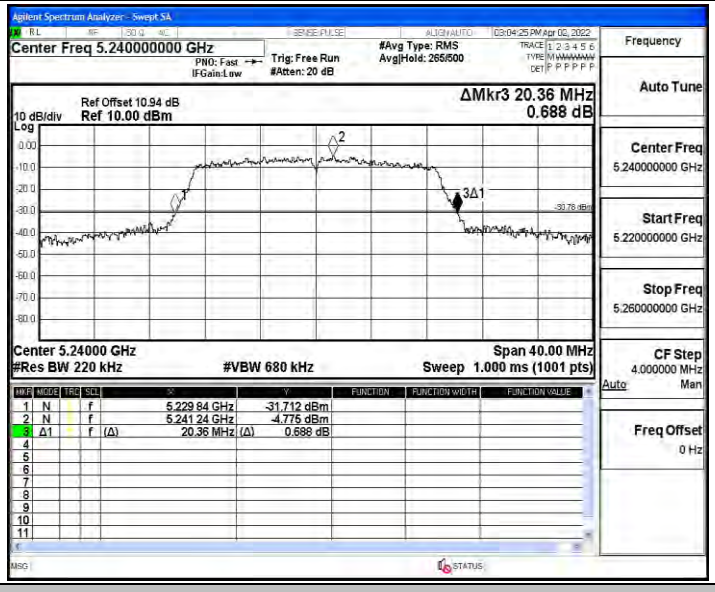
11AC20MIMO_Ant1_5200



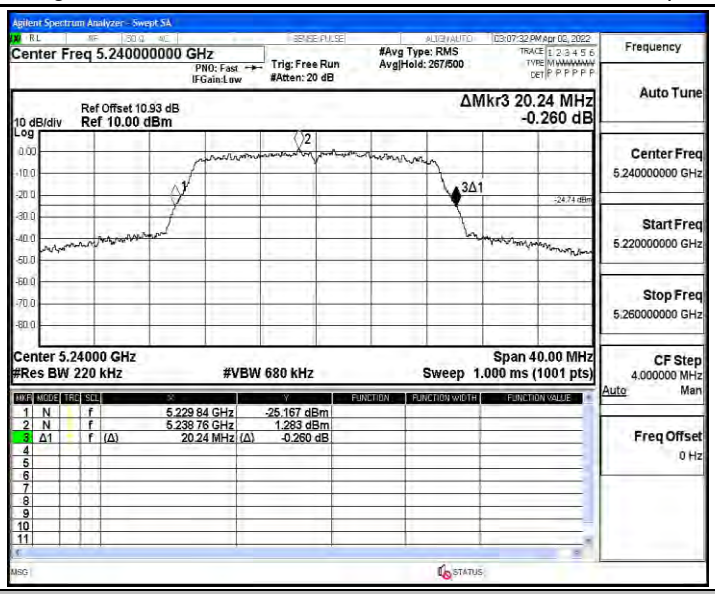
11AC20MIMO_Ant2_5200



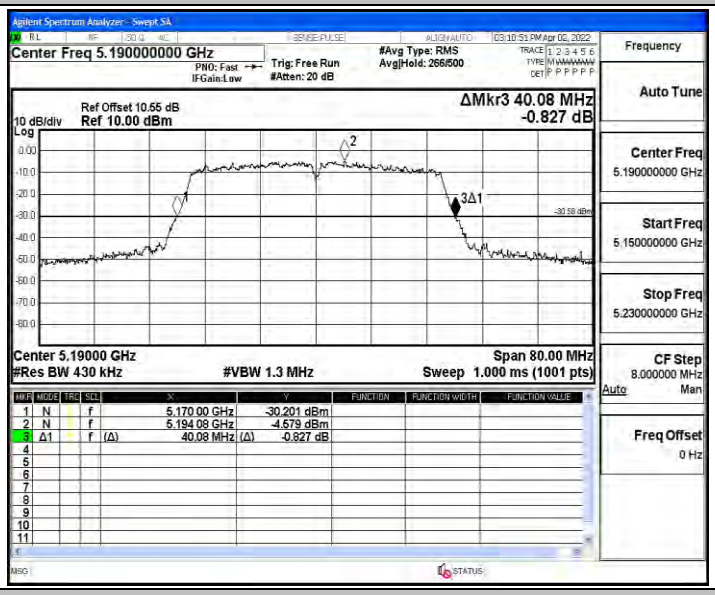
11AC20MIMO_Ant1_5240



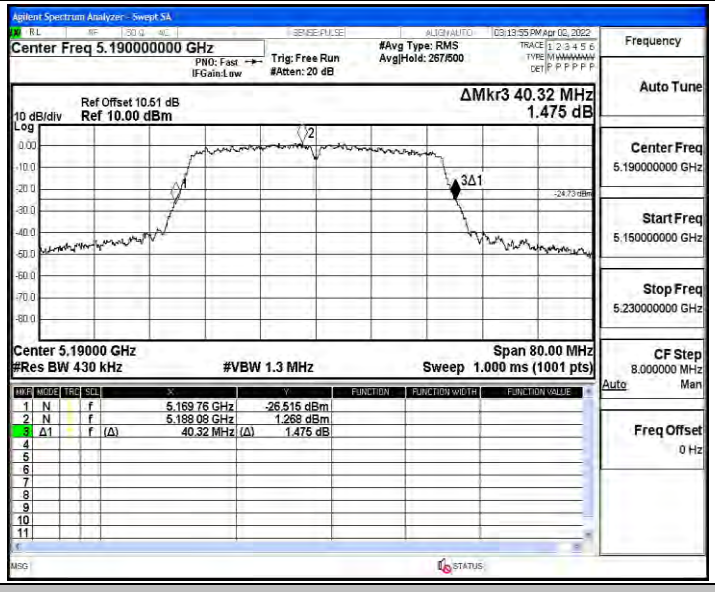
11AC20MIMO_Ant2_5240



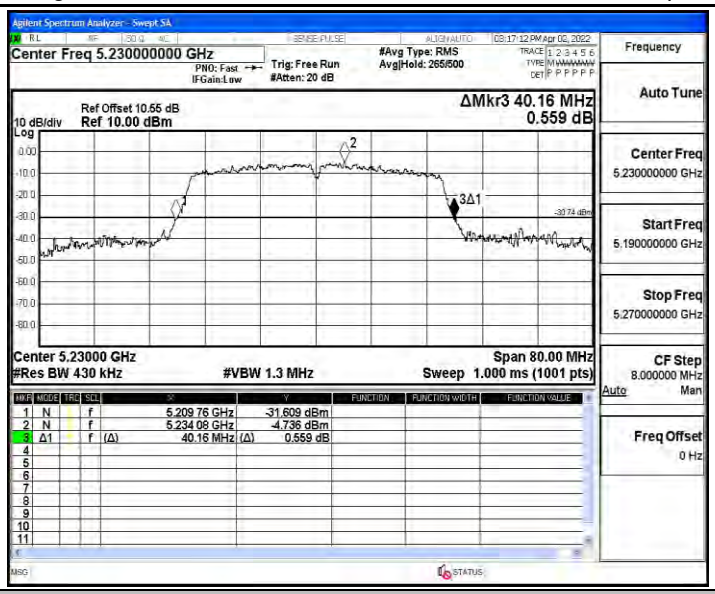
11AC40MIMO_Ant1_5190



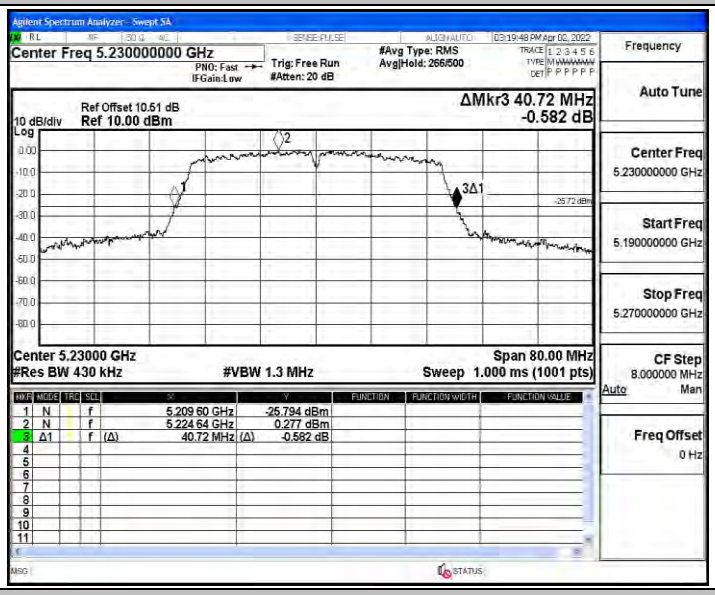
11AC40MIMO_Ant2_5190



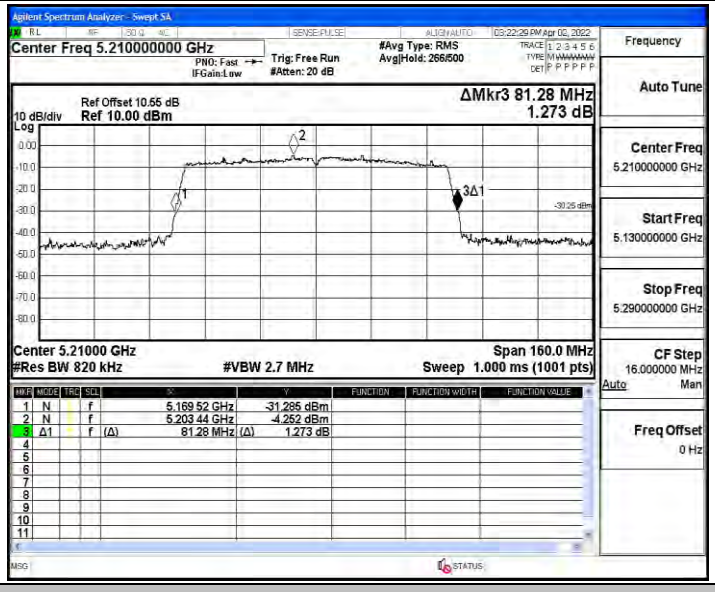
11AC40MIMO_Ant1_5230



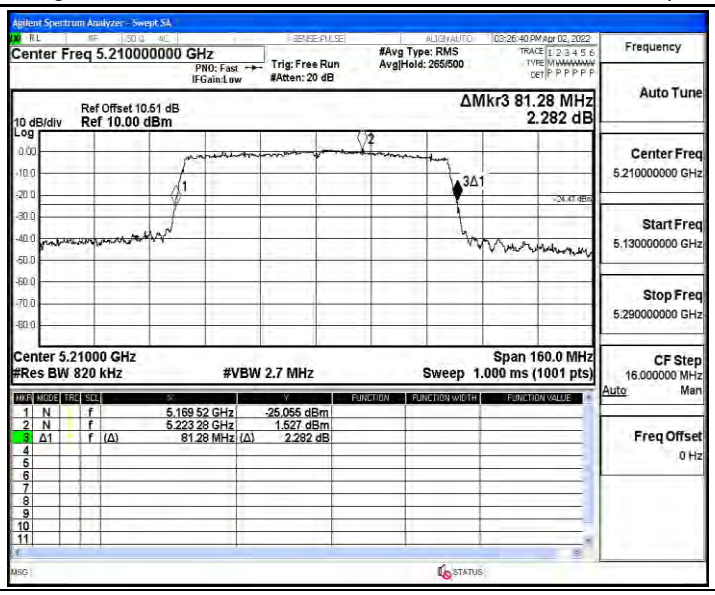
11AC40MIMO_Ant2_5230



11AC80MIMO_Ant1_5210



11AC80MIMO_Ant2_5210


Agilent Spectrum Analyzer - Swept SA
Center Freq 5.210000000 GHz
PNO: Fast
IFGain:Low
Trig: Free Run
#Atten: 20 dB
#Avg Type: RMS
Avg|Hold: 265/500
Ref Offset 10.51 dB
10 dB/div
Ref 10.00 dBm
ΔMkr3 81.28 MHz
2.282 dB
Center 5.21000 GHz
#Res BW 820 kHz
#VBW 2.7 MHz
Span 160.0 MHz
Sweep 1.000 ms (1001 pts)
1 N 1 f 5.169 52 GHz -25.055 dBm
2 N 1 f 5.223 28 GHz 1.527 dBm
3 Δ1 1 f (Δ) 81.28 MHz (Δ) 2.282 dB
Frequency
Auto Tune
Center Freq
5.210000000 GHz
Start Freq
5.130000000 GHz
Stop Freq
5.290000000 GHz
CF Step
16.000000 MHz
Auto
Man
Freq Offset
0 Hz

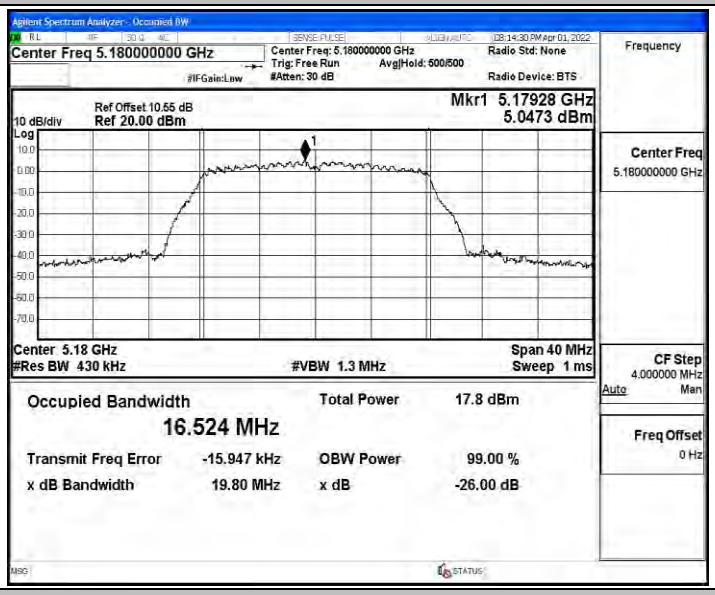
Appendix A2: Occupied channel bandwidth

Test Result

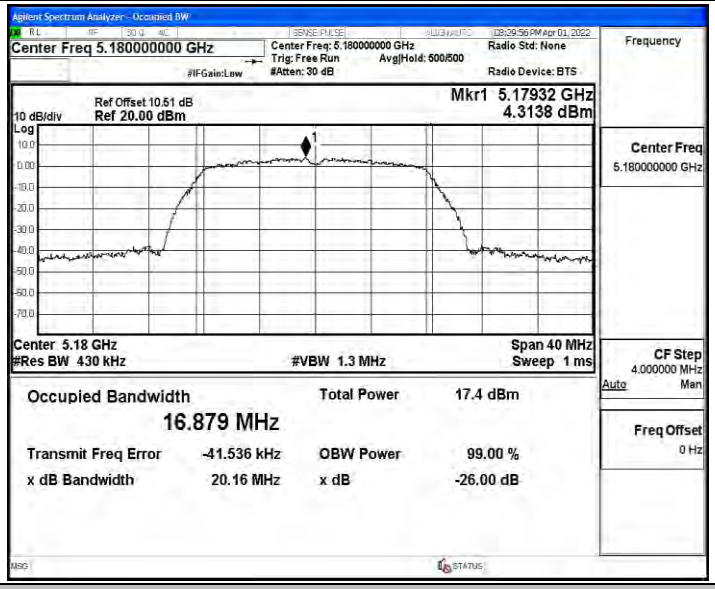
TestMode	Antenna	Channel	OCB [MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
11A	Ant1	5180	16.524	5171.722	5188.246	---	PASS
	Ant2	5180	16.879	5171.519	5188.398	---	PASS
	Ant1	5200	17.075	5191.430	5208.505	---	PASS
	Ant2	5200	16.996	5191.447	5208.443	---	PASS
	Ant1	5240	17.032	5231.391	5248.423	---	PASS
	Ant2	5240	16.931	5231.453	5248.384	---	PASS
11N20MIMO	Ant1	5180	17.830	5171.095	5188.925	---	PASS
	Ant2	5180	17.614	5171.172	5188.786	---	PASS
	Ant1	5200	17.954	5191.025	5208.979	---	PASS
	Ant2	5200	17.892	5191.036	5208.928	---	PASS
	Ant1	5240	17.924	5230.992	5248.916	---	PASS
	Ant2	5240	17.855	5231.010	5248.865	---	PASS
11N40MIMO	Ant1	5190	36.163	5171.912	5208.075	---	PASS
	Ant2	5190	36.140	5171.900	5208.040	---	PASS
	Ant1	5230	36.116	5211.935	5248.051	---	PASS
	Ant2	5230	36.019	5212.006	5248.025	---	PASS
11AC20MIMO	Ant1	5180	17.818	5171.084	5188.902	---	PASS
	Ant2	5180	17.788	5171.121	5188.909	---	PASS
	Ant1	5200	17.916	5191.059	5208.975	---	PASS
	Ant2	5200	17.895	5191.045	5208.940	---	PASS
	Ant1	5240	17.886	5231.029	5248.915	---	PASS
	Ant2	5240	17.842	5231.054	5248.896	---	PASS
11AC40MIMO	Ant1	5190	36.120	5171.951	5208.071	---	PASS
	Ant2	5190	36.112	5171.934	5208.046	---	PASS
	Ant1	5230	36.101	5211.946	5248.047	---	PASS
	Ant2	5230	36.027	5211.997	5248.024	---	PASS
11AC80MIMO	Ant1	5210	75.498	5172.294	5247.792	---	PASS
	Ant2	5210	75.472	5172.301	5247.773	---	PASS

Test Graphs

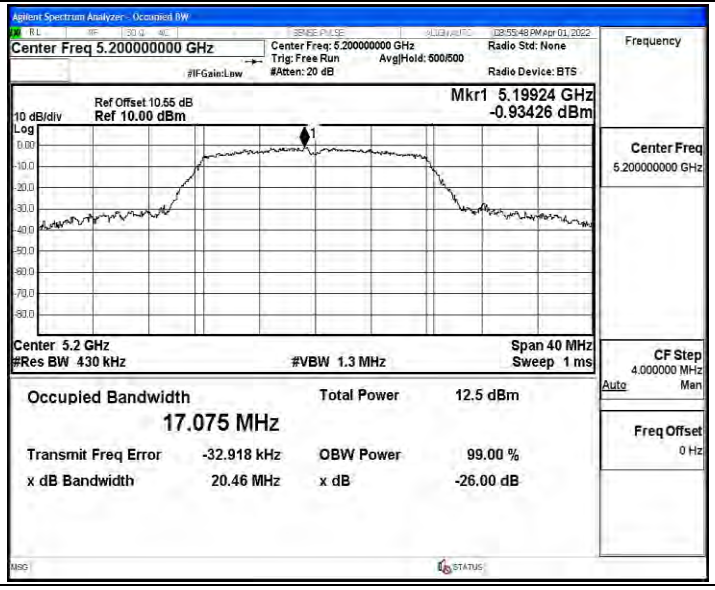
11A_Ant1_5180



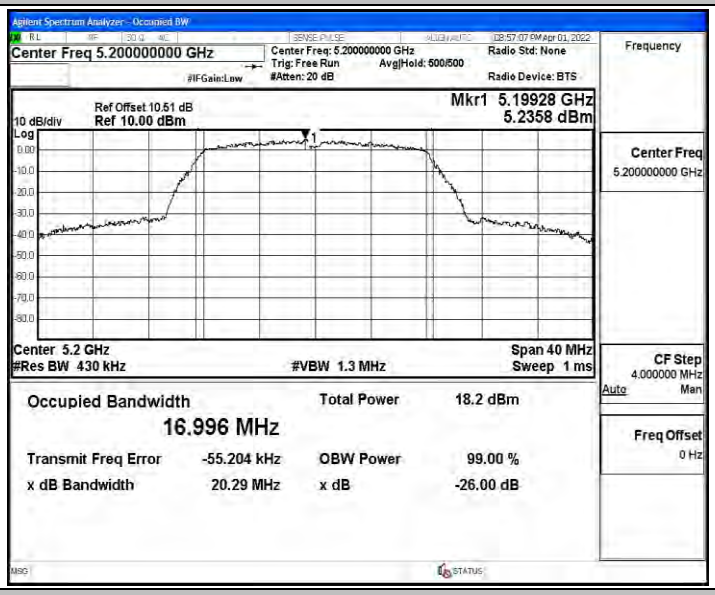
11A_Ant2_5180



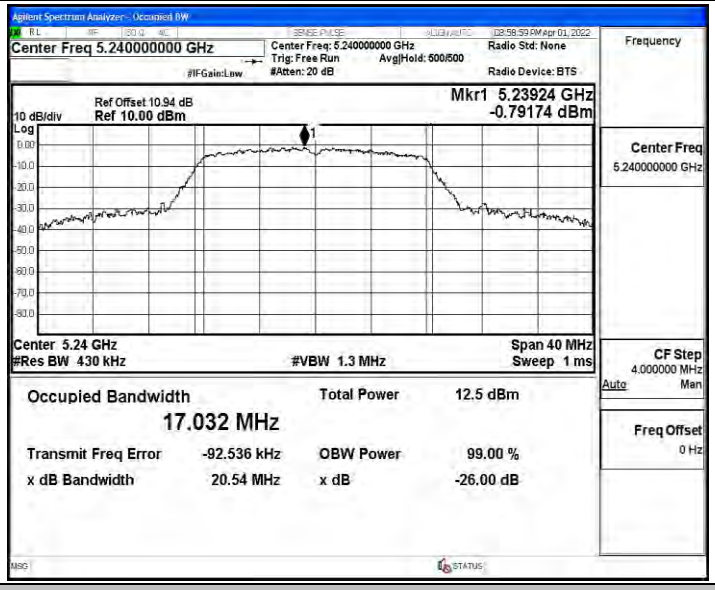
11A_Ant1_5200



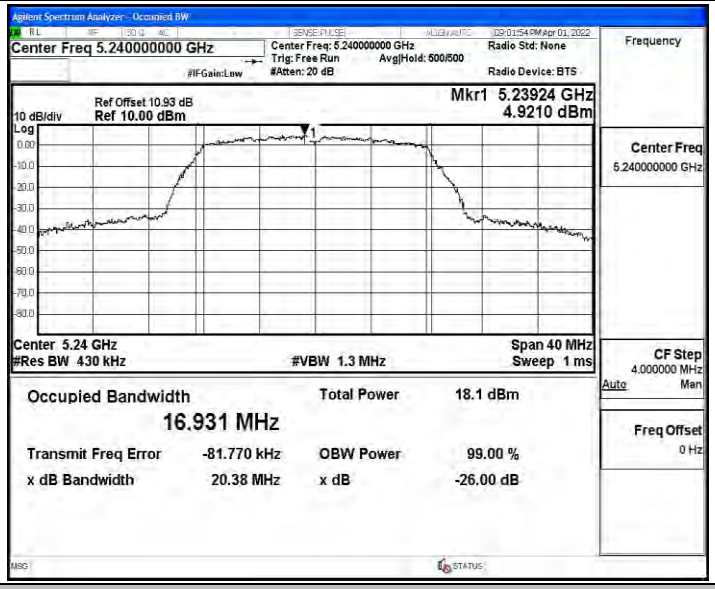
11A_Ant2_5200



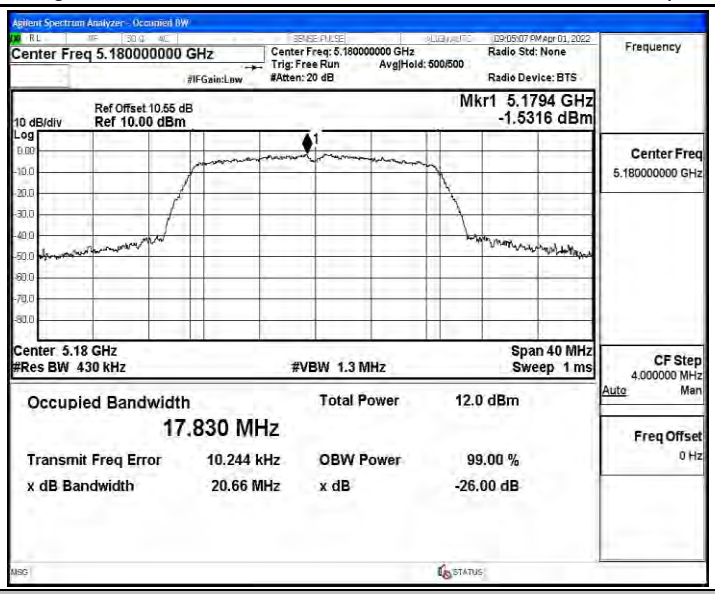
11A_Ant1_5240



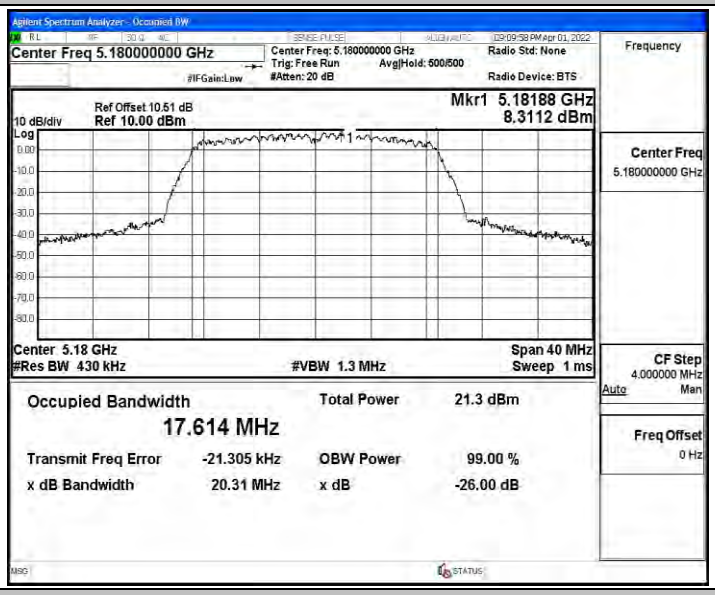
11A_Ant2_5240



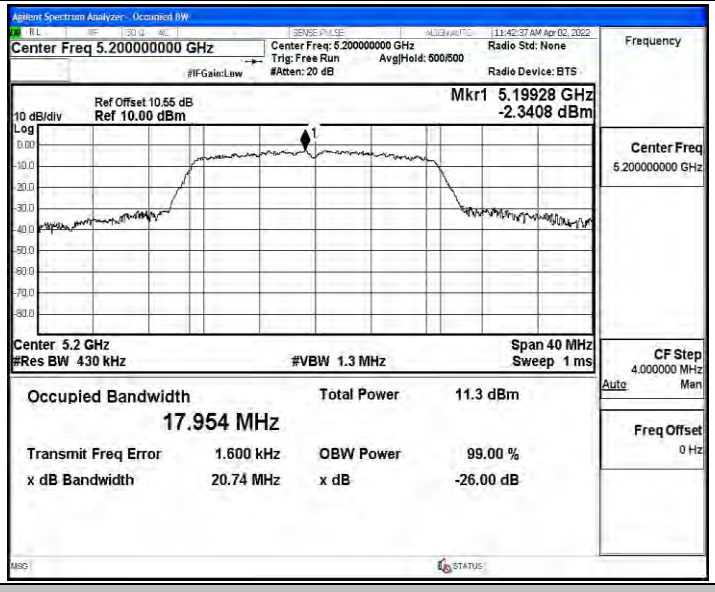
11N20MIMO_Ant1_5180



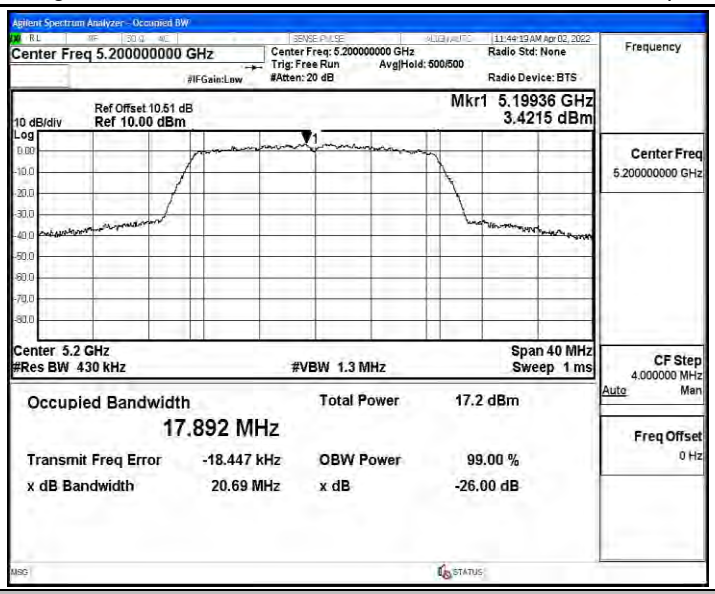
11N20MIMO_Ant2_5180



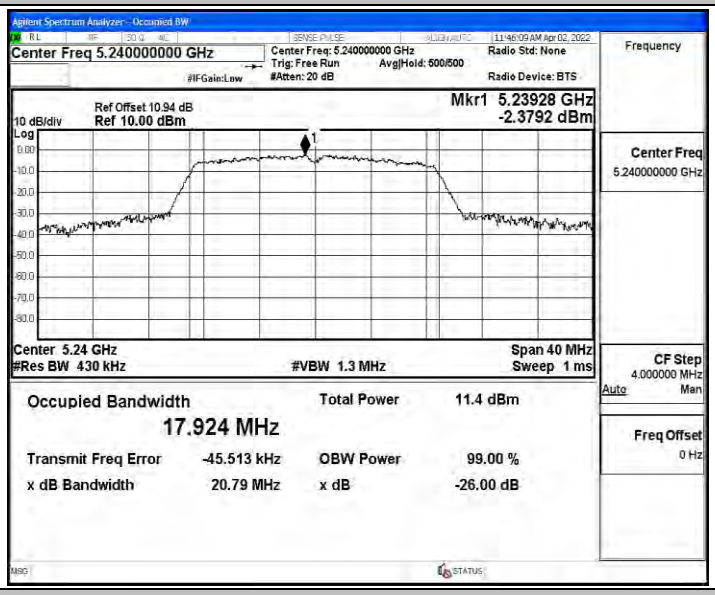
11N20MIMO_Ant1_5200



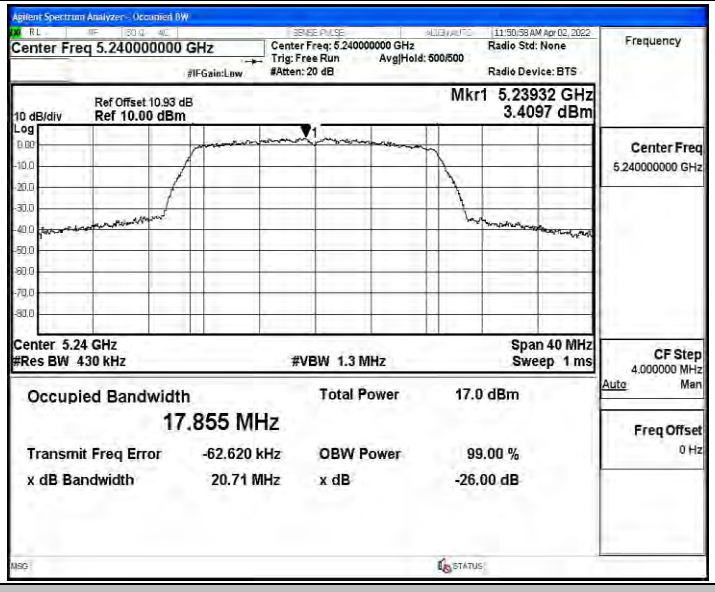
11N20MIMO_Ant2_5200



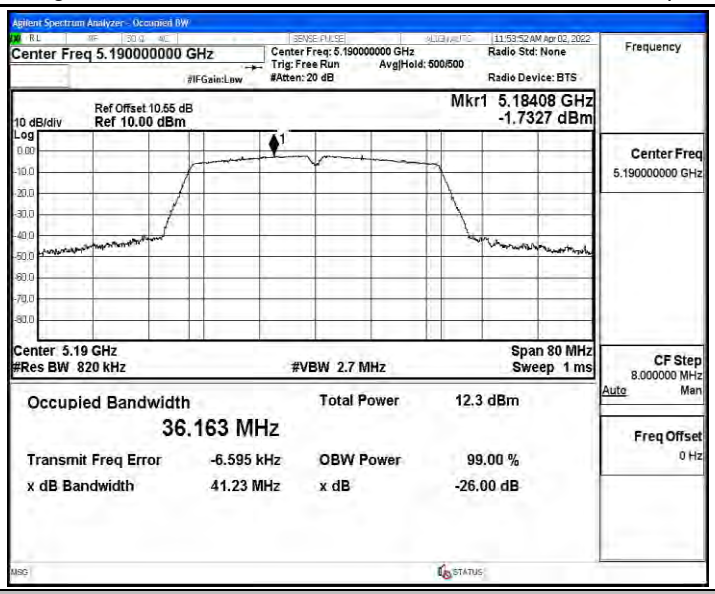
11N20MIMO_Ant1_5240



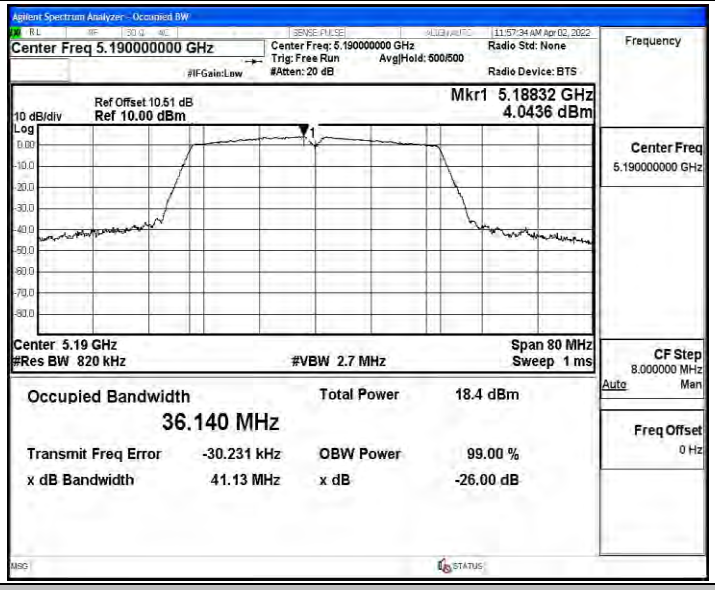
11N20MIMO_Ant2_5240



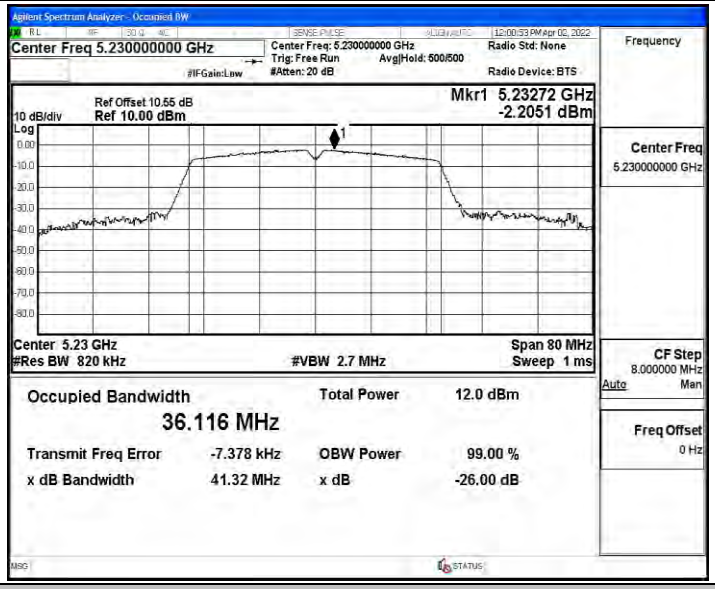
11N40MIMO_Ant1_5190



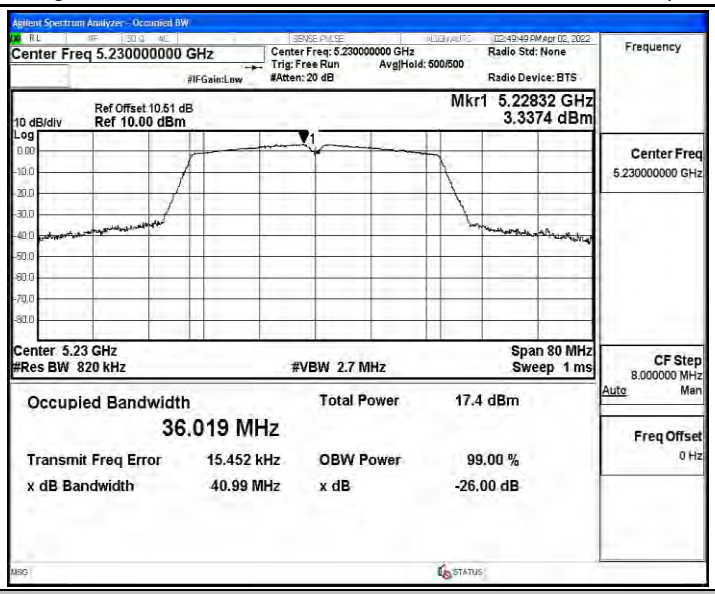
11N40MIMO_Ant2_5190



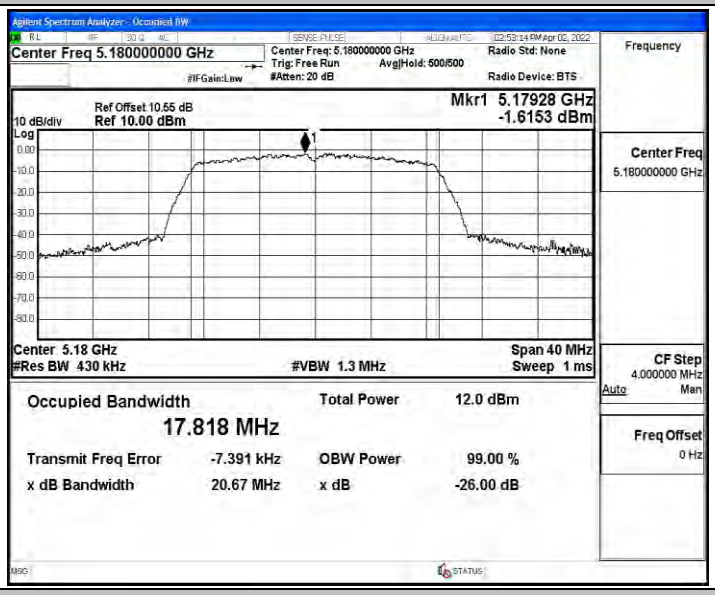
11N40MIMO_Ant1_5230



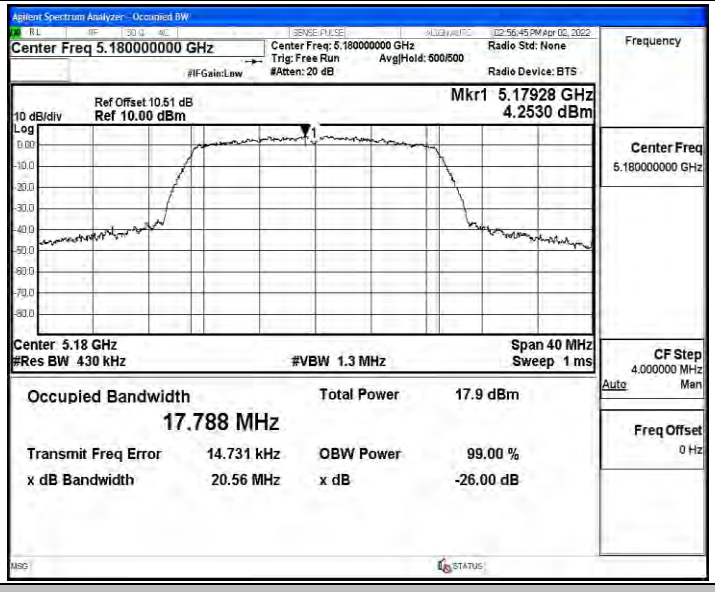
11N40MIMO_Ant2_5230



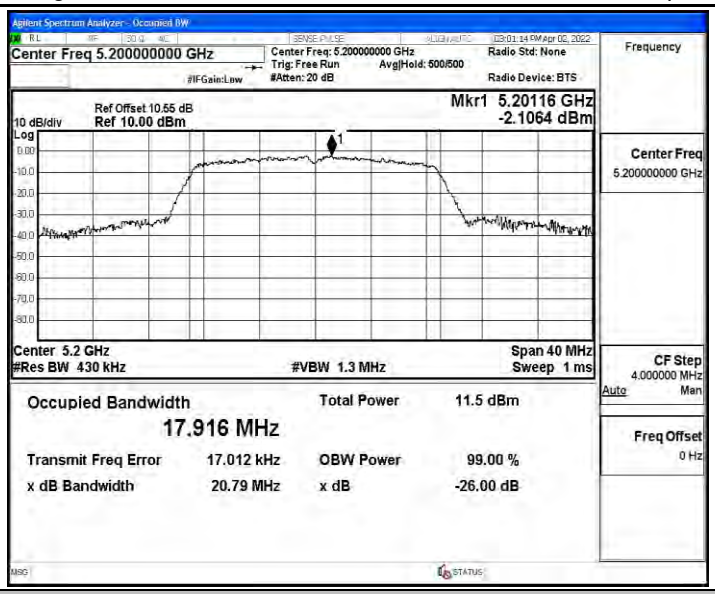
11AC20MIMO_Ant1_5180



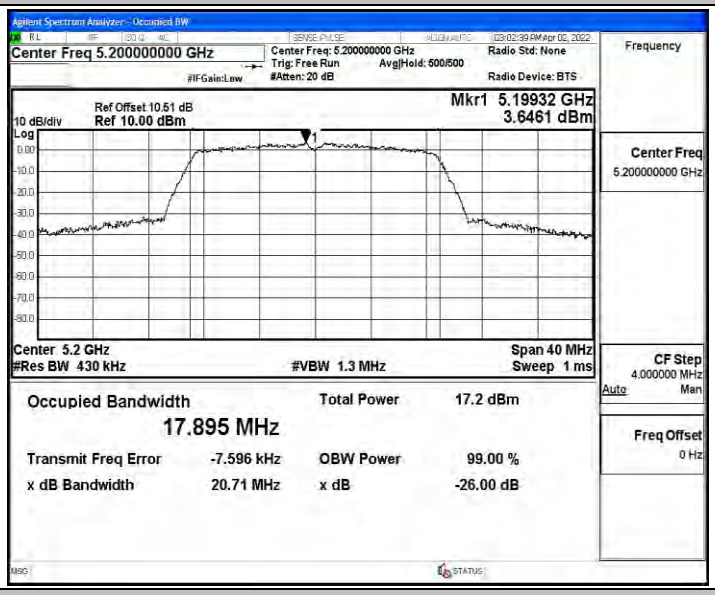
11AC20MIMO_Ant2_5180



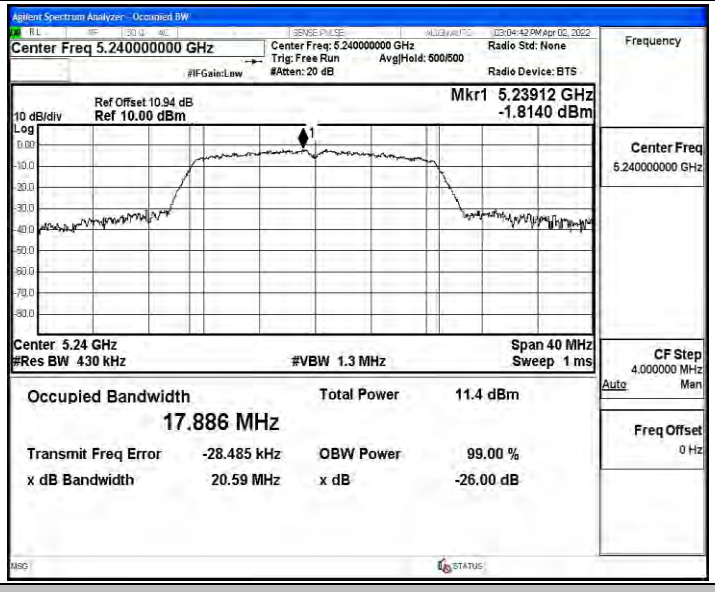
11AC20MIMO_Ant1_5200



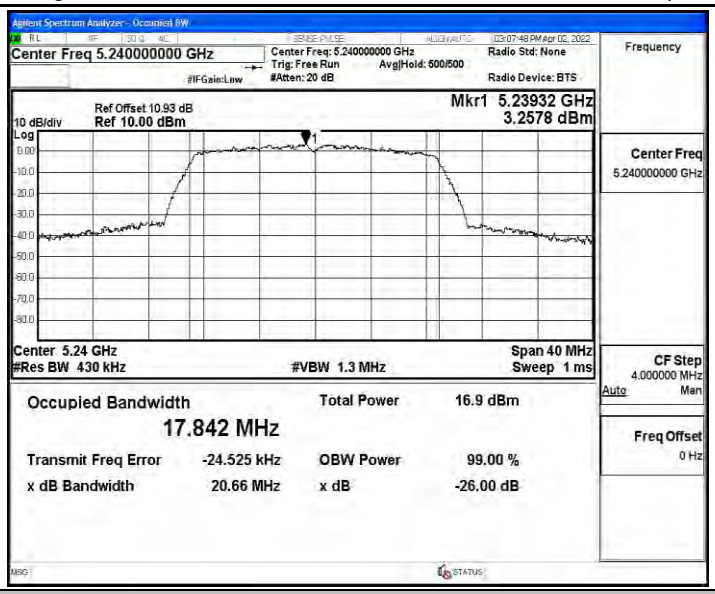
11AC20MIMO_Ant2_5200



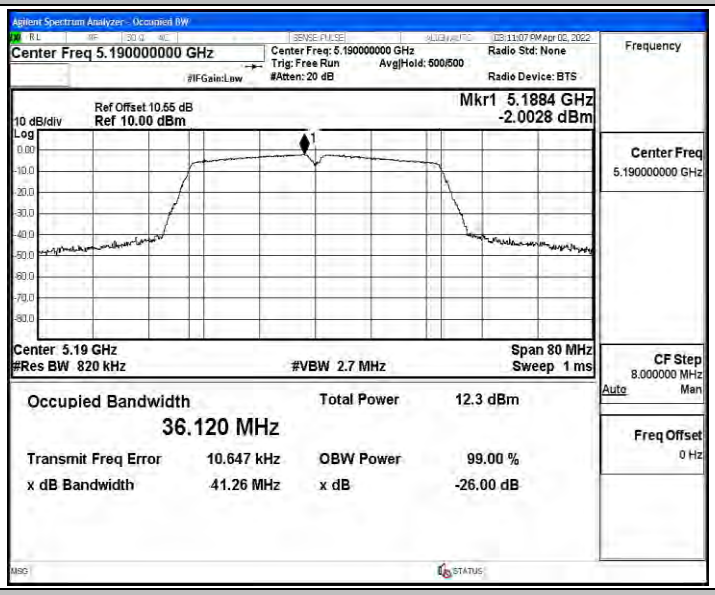
11AC20MIMO_Ant1_5240



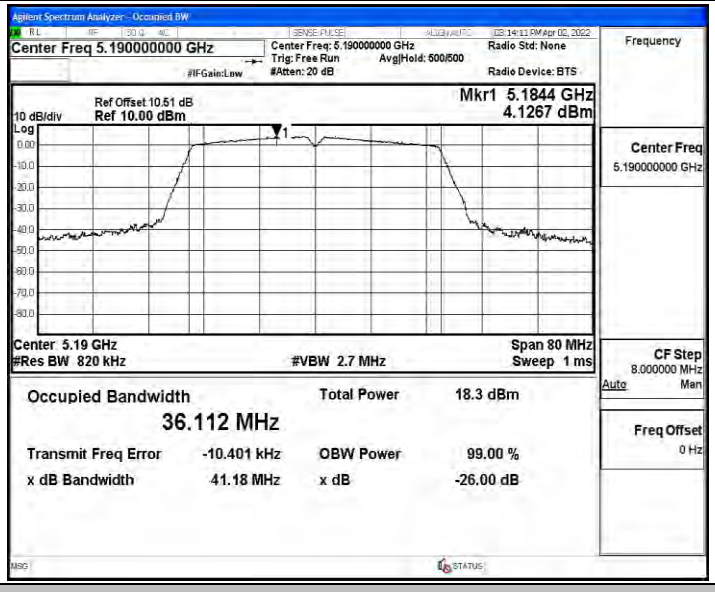
11AC20MIMO_Ant2_5240



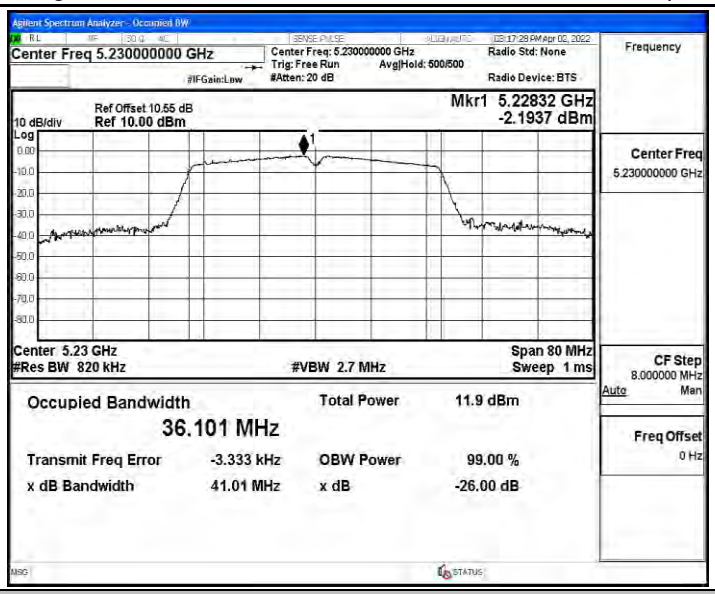
11AC40MIMO_Ant1_5190



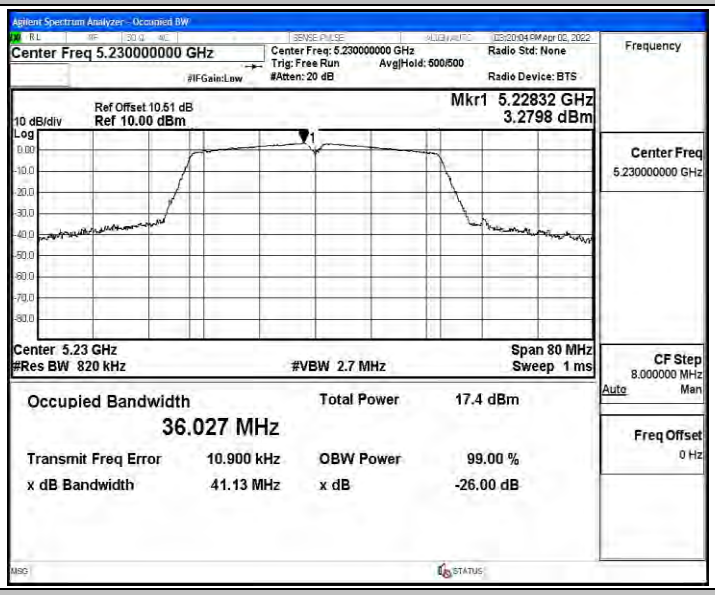
11AC40MIMO_Ant2_5190



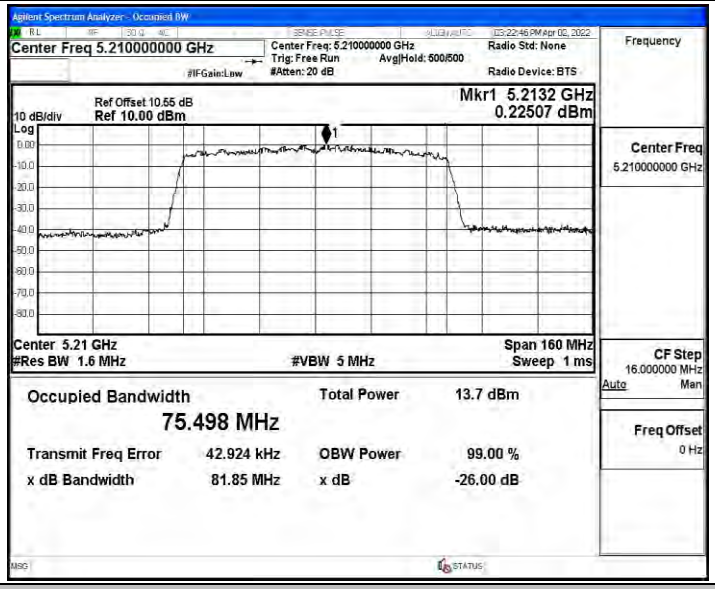
11AC40MIMO_Ant1_5230



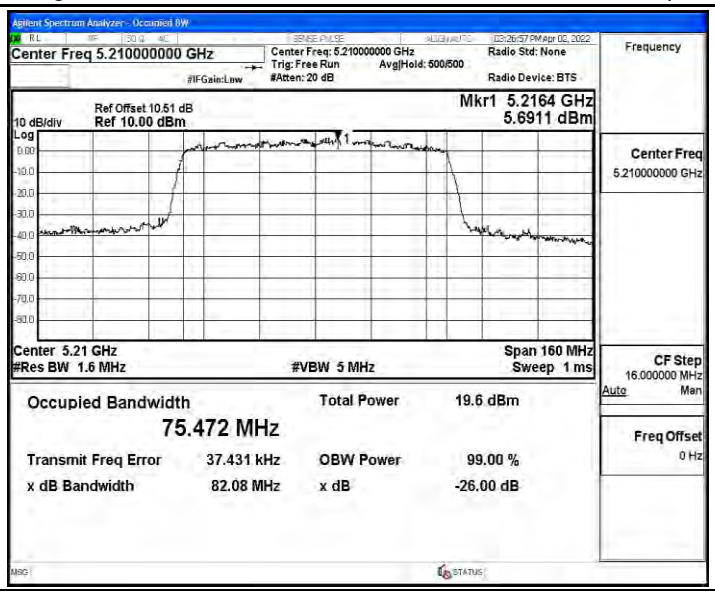
11AC40MIMO_Ant2_5230



11AC80MIMO_Ant1_5210



11AC80MIMO_Ant2_5210


Agilent Spectrum Analyzer - Occupied BW
Center Freq 5.210000000 GHz
Center Freq: 5.210000000 GHz
Trig: Free Run
Avg|Hold: 500/500
#Atten: 20 dB
Radio Std: None
Radio Device: BTS
Frequency
Ref Offset 10.51 dB
10 dB/div
Ref 10.00 dBm
Log
Mkr1 5.2164 GHz
5.6911 dBm
Center Freq
5.210000000 GHz
Center 5.21 GHz
#Res BW 1.6 MHz
#VBW 5 MHz
Span 160 MHz
Sweep 1 ms
CF Step
16.000000 MHz
Auto
Man
Occupied Bandwidth
75.472 MHz
Total Power
19.6 dBm
Transmit Freq Error
37.431 kHz
OBW Power
99.00 %
x dB Bandwidth
82.08 MHz
x dB
-26.00 dB
Freq Offset
0 Hz
MSG
STATUS

Appendix B: Maximum conducted output power

Test Result

TestMode	Antenna	Channel	Result[dBm]	Limit[dBm]	Verdict
11A	Ant1	5180	9.06	≤23.98	PASS
	Ant2	5180	10.82	≤23.98	PASS
	Ant1	5200	5.74	≤23.98	PASS
	Ant2	5200	11.60	≤23.98	PASS
	Ant1	5240	5.83	≤23.98	PASS
	Ant2	5240	11.33	≤23.98	PASS
11N20MIMO	Ant1	5180	5.30	≤23.98	PASS
	Ant2	5180	11.48	≤23.98	PASS
	total	5180	12.42	≤22.83	PASS
	Ant1	5200	4.60	≤23.98	PASS
	Ant2	5200	10.49	≤23.98	PASS
	total	5200	11.49	≤22.83	PASS
	Ant1	5240	4.65	≤23.98	PASS
	Ant2	5240	10.31	≤23.98	PASS
	total	5240	11.35	≤22.83	PASS
11N40MIMO	Ant1	5190	5.07	≤23.98	PASS
	Ant2	5190	11.14	≤23.98	PASS
	total	5190	12.10	≤22.83	PASS
	Ant1	5230	4.81	≤23.98	PASS
	Ant2	5230	10.17	≤23.98	PASS
	total	5230	11.28	≤22.83	PASS
11AC20MIMO	Ant1	5180	5.36	≤23.98	PASS
	Ant2	5180	11.18	≤23.98	PASS
	total	5180	12.19	≤22.83	PASS
	Ant1	5200	4.76	≤23.98	PASS
	Ant2	5200	10.33	≤23.98	PASS
	total	5200	11.39	≤22.83	PASS
	Ant1	5240	4.71	≤23.98	PASS
	Ant2	5240	10.19	≤23.98	PASS
	total	5240	11.27	≤22.83	PASS
11AC40MIMO	Ant1	5190	5.11	≤23.98	PASS
	Ant2	5190	11.09	≤23.98	PASS
	total	5190	12.07	≤22.83	PASS
	Ant1	5230	4.72	≤23.98	PASS
	Ant2	5230	10.24	≤23.98	PASS
	total	5230	11.31	≤22.83	PASS
11AC80MIMO	Ant1	5210	5.02	≤23.98	PASS
	Ant2	5210	10.82	≤23.98	PASS
	total	5210	11.83	≤22.83	PASS

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

Appendix C: Maximum power spectral density

Test Result

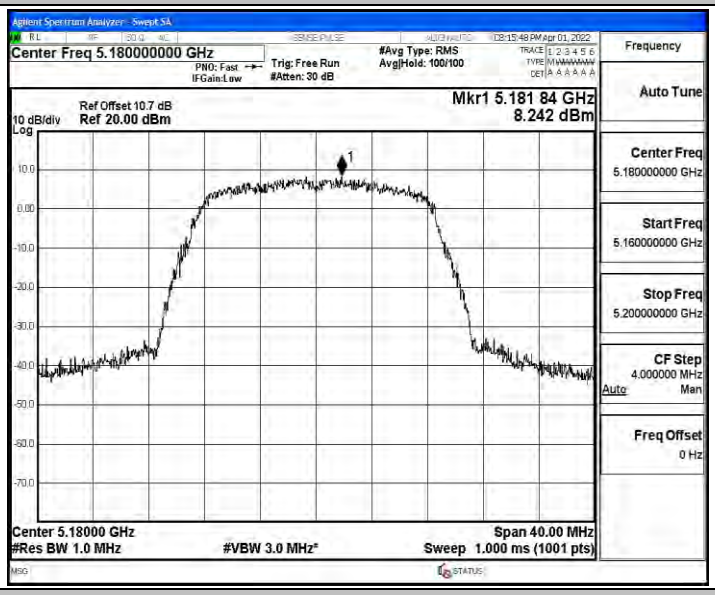
TestMode	Antenna	Channel	Result [dBm/MHz]	Limit[dBm/MHz]	Verdict
11A	Ant1	5180	8.24	≤11	PASS
	Ant2	5180	6.19	≤11	PASS
	Ant1	5200	0.56	≤11	PASS
	Ant2	5200	6.99	≤11	PASS
	Ant1	5240	1.03	≤11	PASS
	Ant2	5240	6.48	≤11	PASS
11N20MIMO	Ant1	5180	0.53	≤11	PASS
	Ant2	5180	8.45	≤11	PASS
	total	5180	9.10	≤9.85	PASS
	Ant1	5200	-0.45	≤11	PASS
	Ant2	5200	5.29	≤11	PASS
	total	5200	6.32	≤9.85	PASS
	Ant1	5240	-0.11	≤11	PASS
	Ant2	5240	5.25	≤11	PASS
	total	5240	6.36	≤9.85	PASS
11N40MIMO	Ant1	5190	-3.07	≤11	PASS
	Ant2	5190	3.08	≤11	PASS
	total	5190	4.02	≤9.85	PASS
	Ant1	5230	-3.04	≤11	PASS
	Ant2	5230	2.17	≤11	PASS
	total	5230	3.31	≤9.85	PASS
11AC20MIMO	Ant1	5180	0.37	≤11	PASS
	Ant2	5180	6.03	≤11	PASS
	total	5180	7.07	≤9.85	PASS
	Ant1	5200	-0.46	≤11	PASS
	Ant2	5200	5.36	≤11	PASS
	total	5200	6.37	≤9.85	PASS
	Ant1	5240	-0.43	≤11	PASS
	Ant2	5240	4.84	≤11	PASS
	total	5240	5.97	≤9.85	PASS
11AC40MIMO	Ant1	5190	-3.07	≤11	PASS
	Ant2	5190	3.27	≤11	PASS
	total	5190	4.18	≤9.85	PASS
	Ant1	5230	-2.99	≤11	PASS
	Ant2	5230	2.61	≤11	PASS
	total	5230	3.67	≤9.85	PASS
11AC80MIMO	Ant1	5210	-5.39	≤11	PASS
	Ant2	5210	0.78	≤11	PASS
	total	5210	1.72	≤9.85	PASS

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

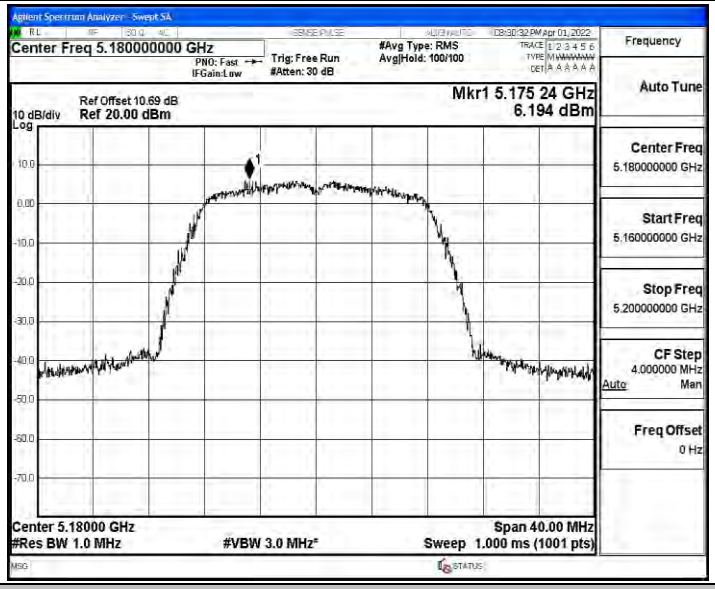
2.The Duty Cycle Factor and RBW Factor is compensated in the graph.

Test Graphs

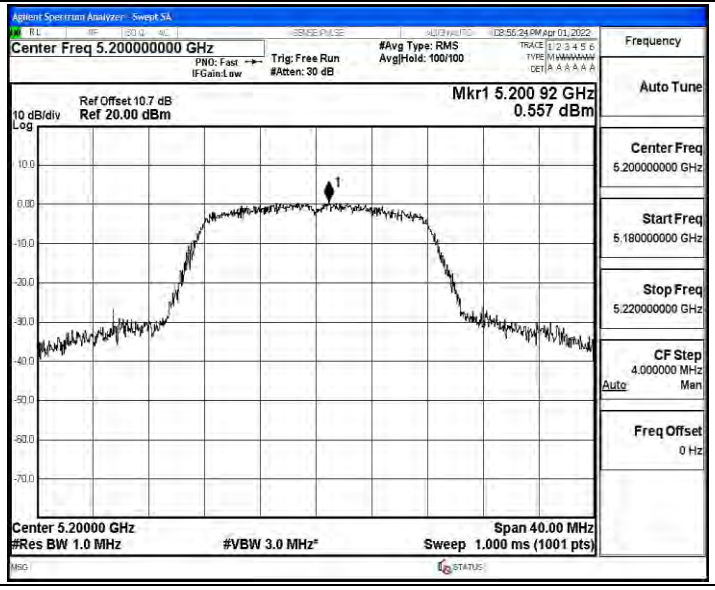
11A_Ant1_5180



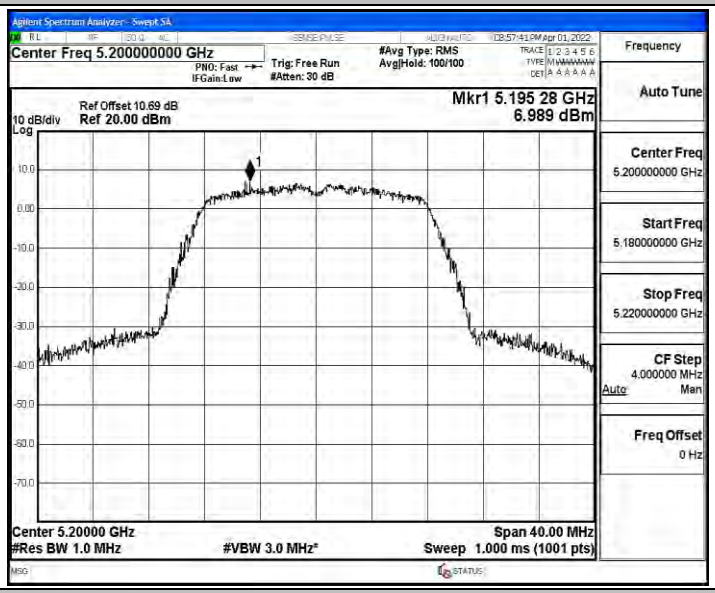
11A_Ant2_5180



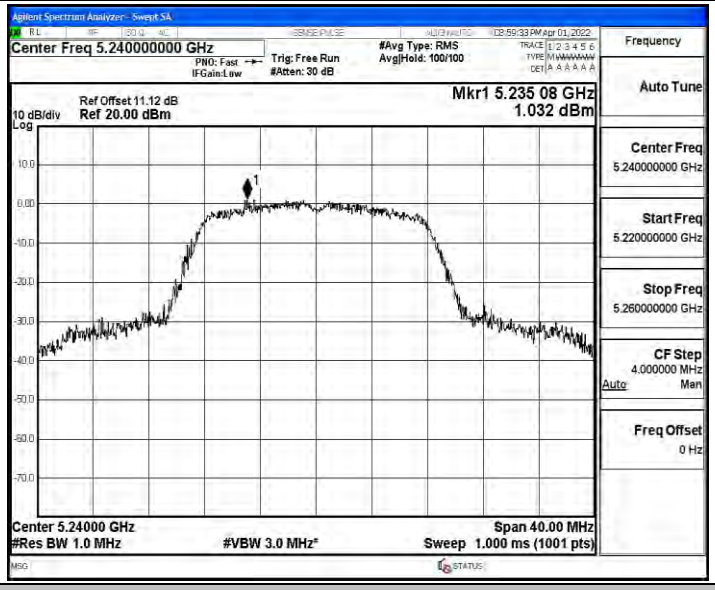
11A_Ant1_5200



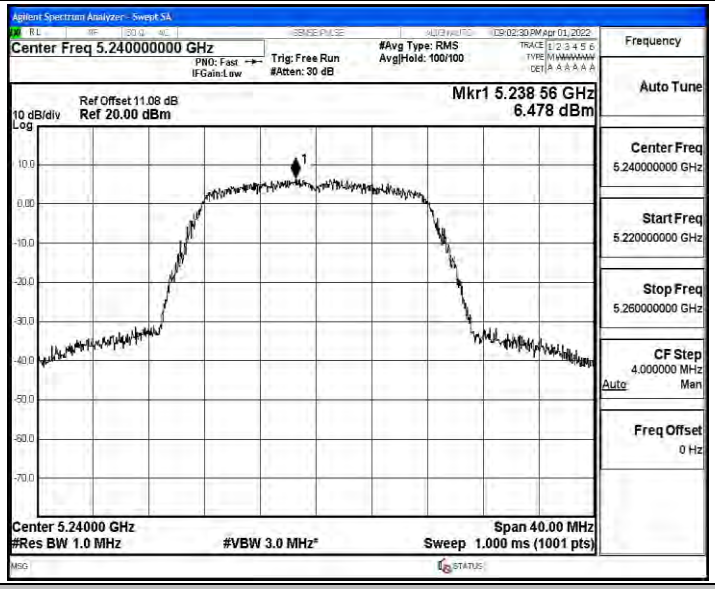
11A_Ant2_5200



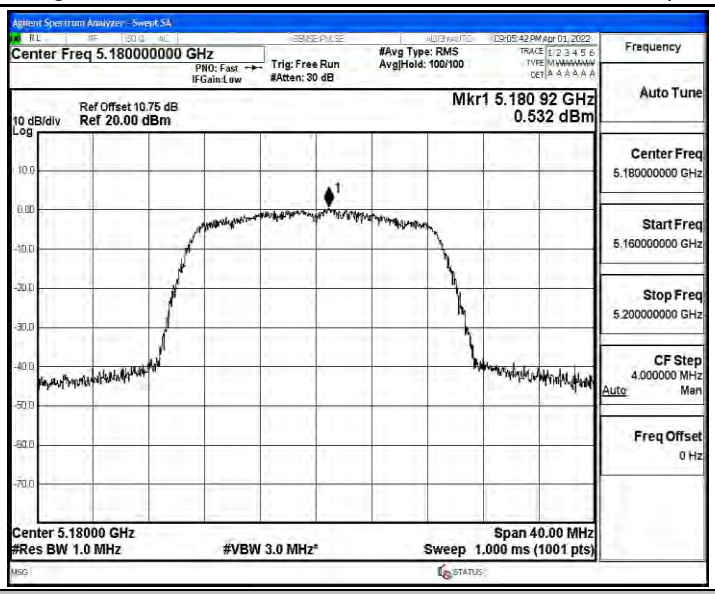
11A_Ant1_5240



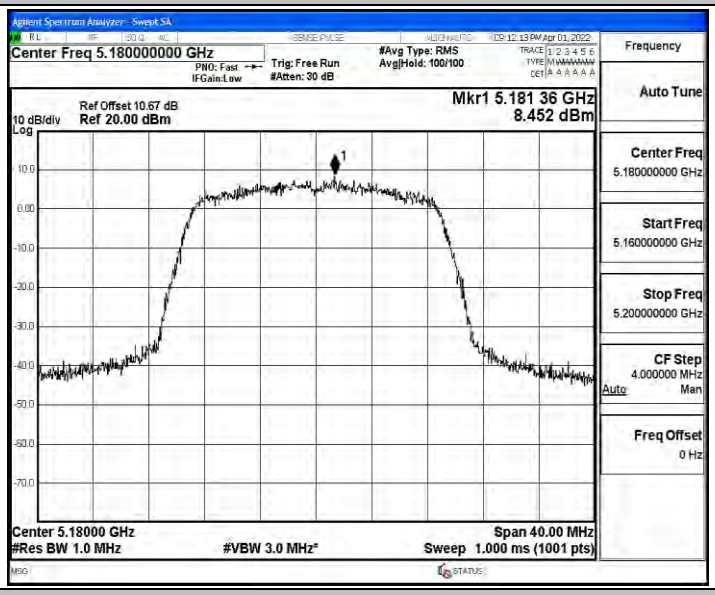
11A_Ant2_5240



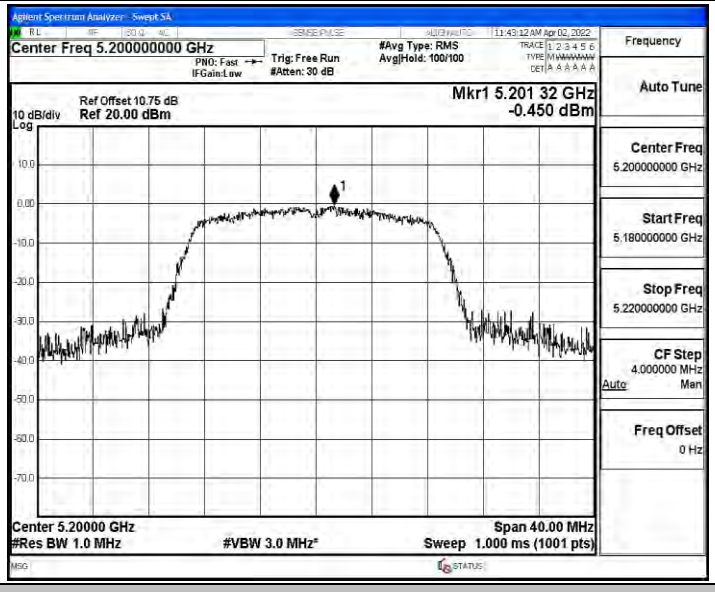
11N20MIMO_Ant1_5180



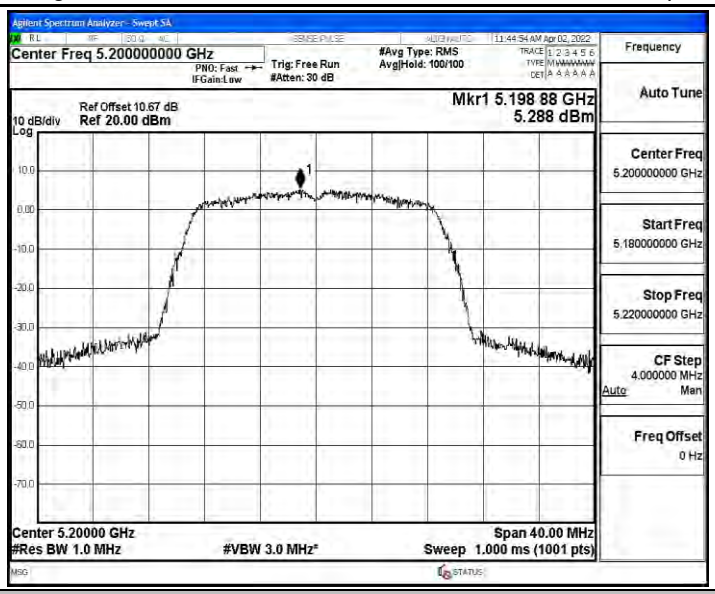
11N20MIMO_Ant2_5180



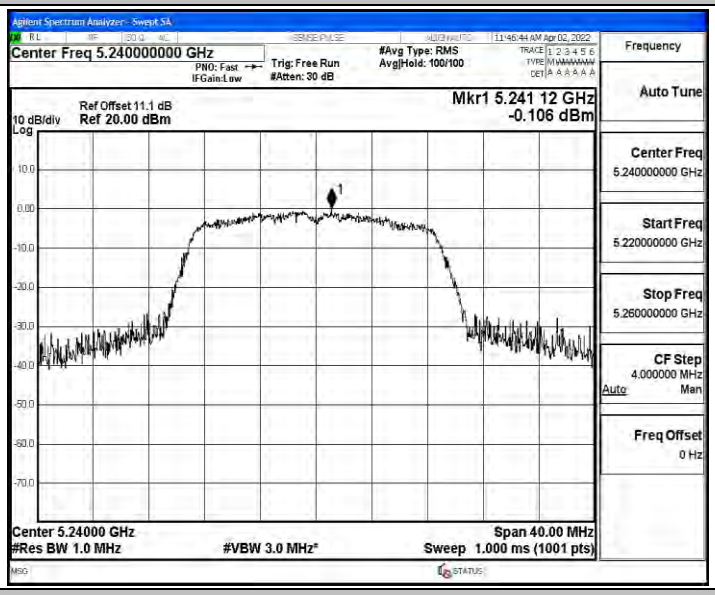
11N20MIMO_Ant1_5200



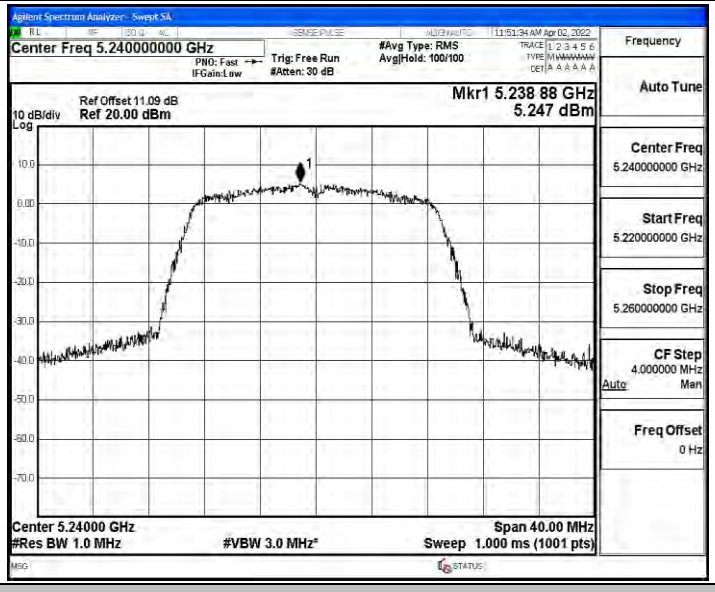
11N20MIMO_Ant2_5200



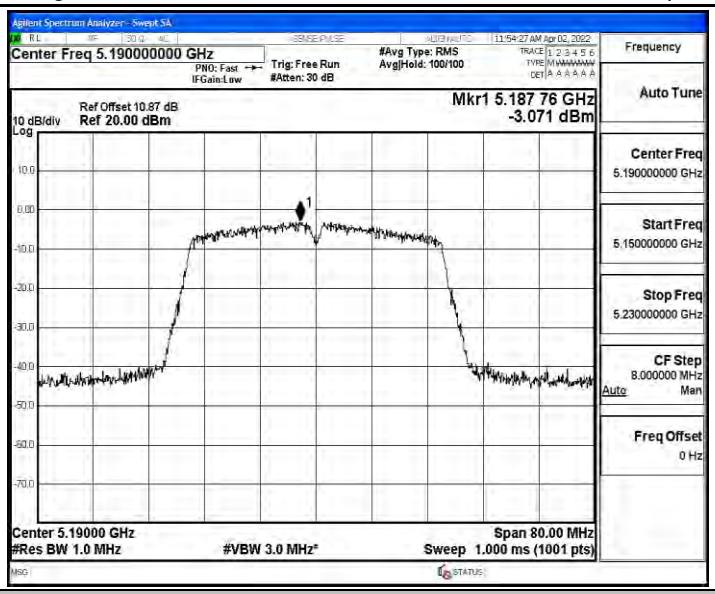
11N20MIMO_Ant1_5240



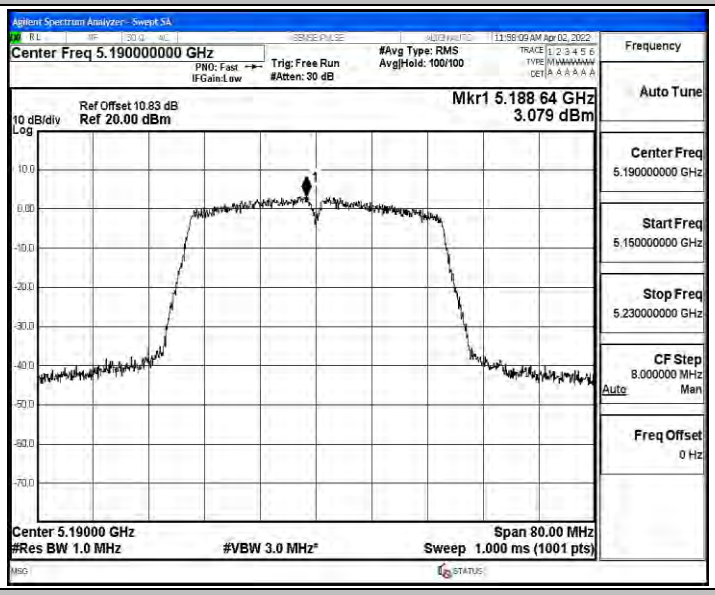
11N20MIMO_Ant2_5240



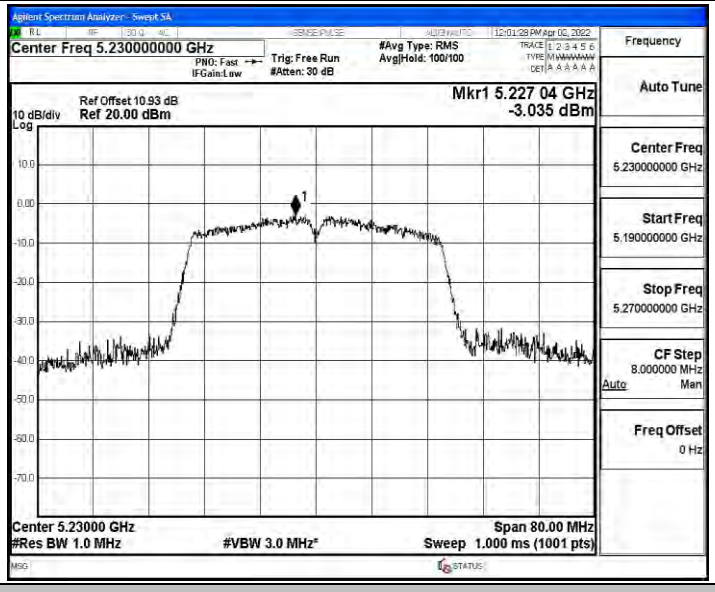
11N40MIMO_Ant1_5190



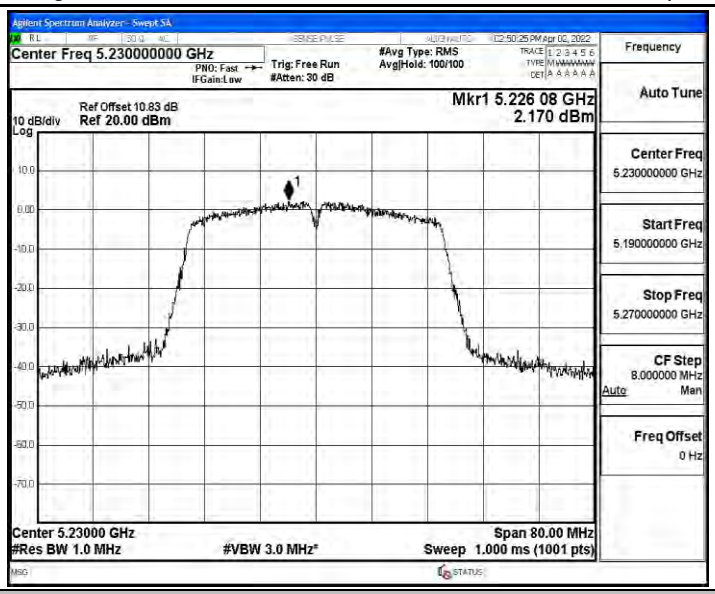
11N40MIMO_Ant2_5190



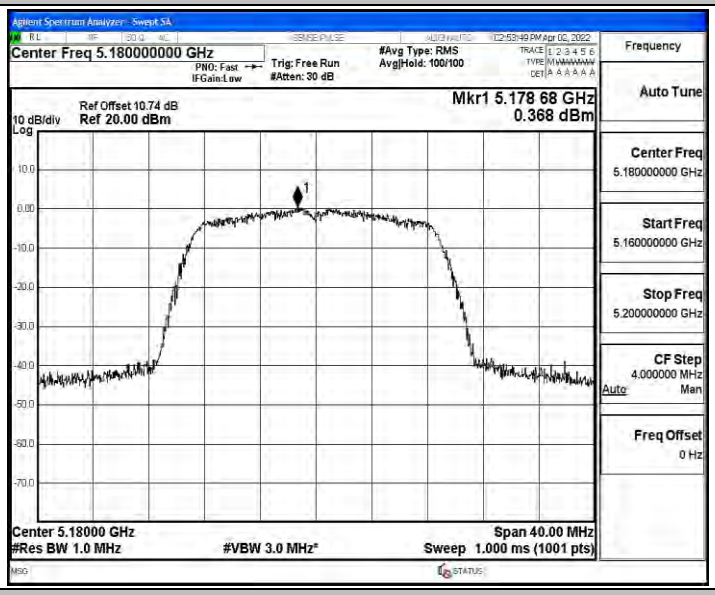
11N40MIMO_Ant1_5230



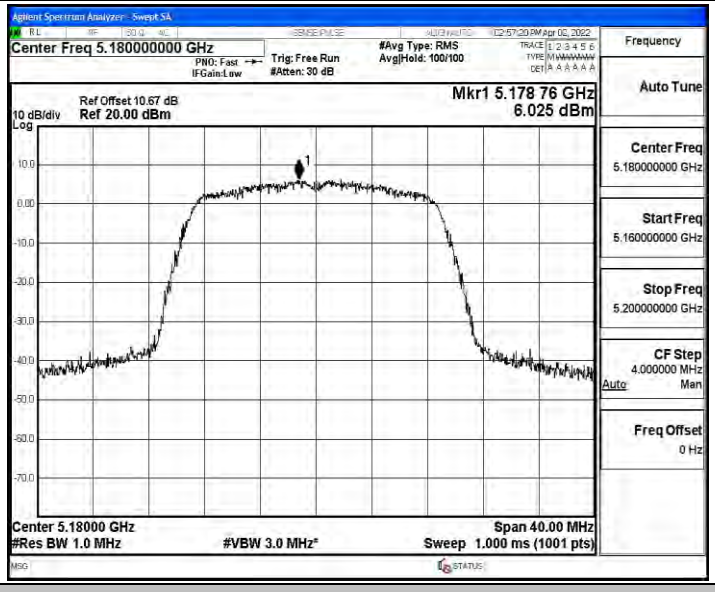
11N40MIMO_Ant2_5230



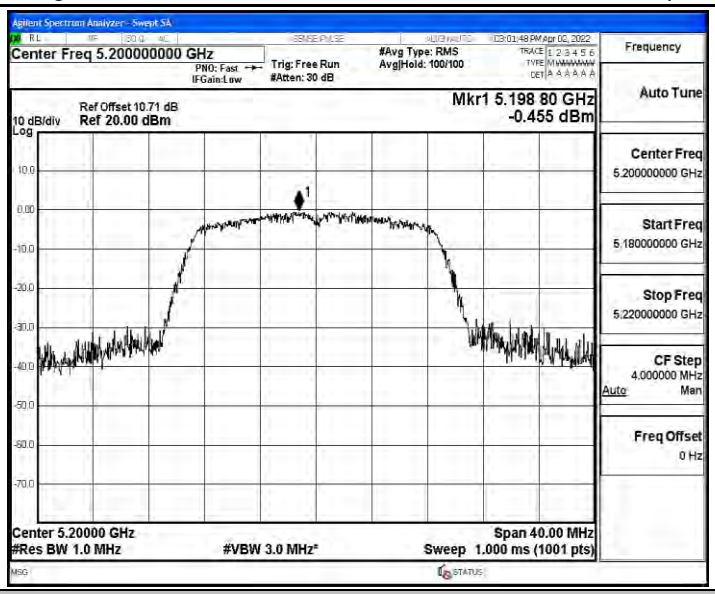
11AC20MIMO_Ant1_5180



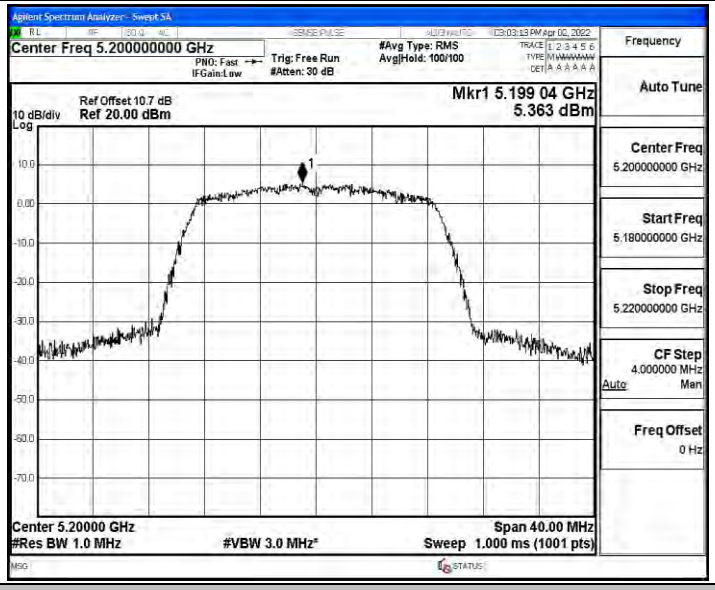
11AC20MIMO_Ant2_5180



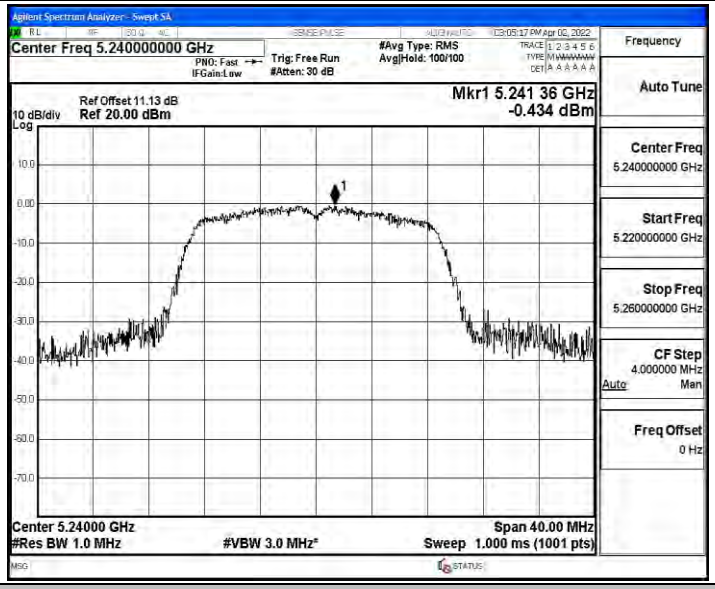
11AC20MIMO_Ant1_5200



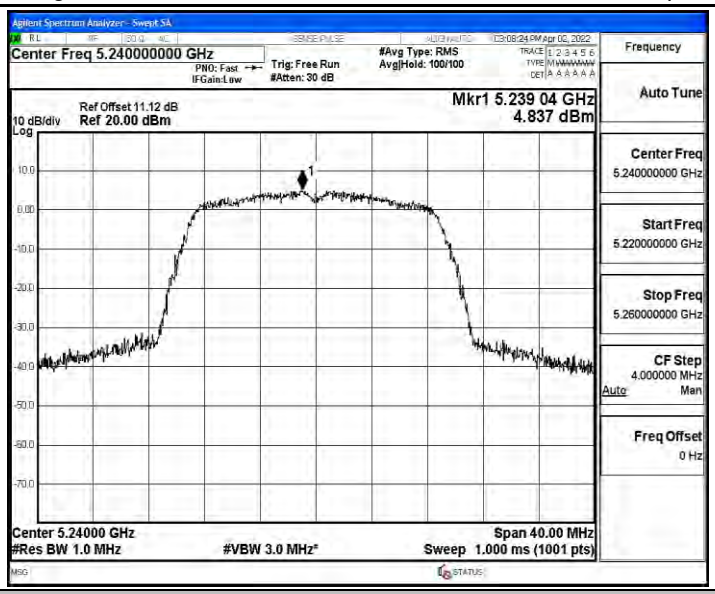
11AC20MIMO_Ant2_5200



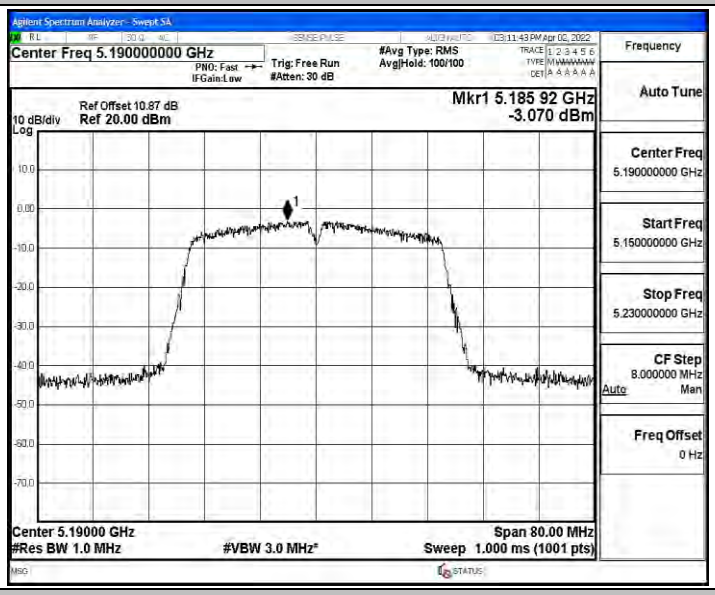
11AC20MIMO_Ant1_5240



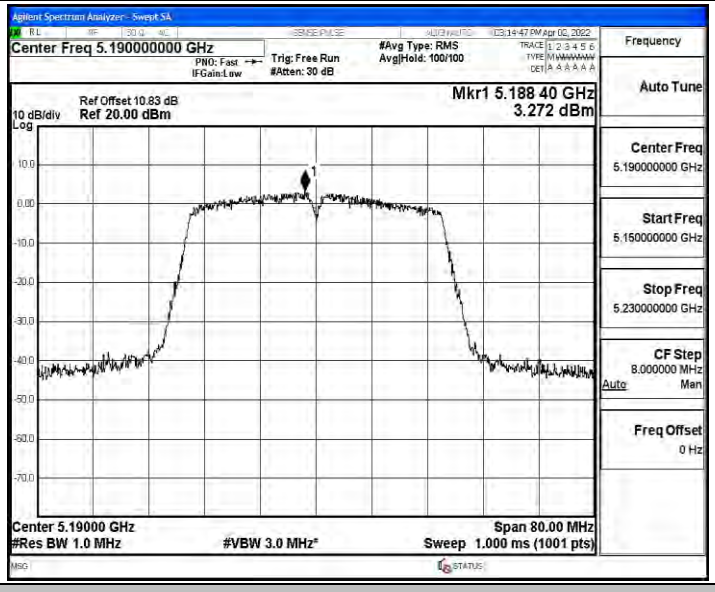
11AC20MIMO_Ant2_5240



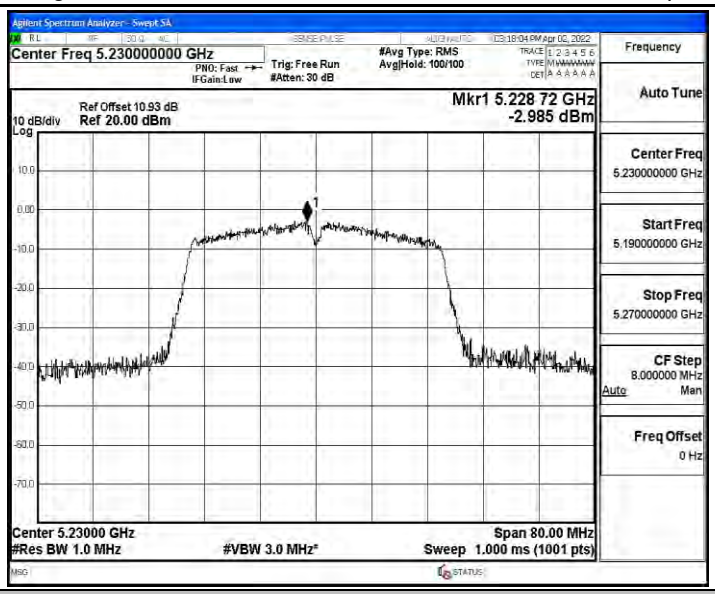
11AC40MIMO_Ant1_5190



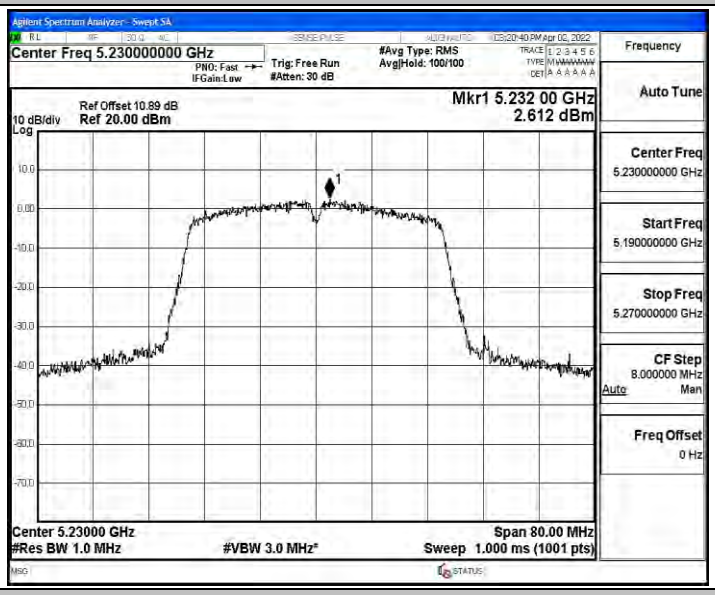
11AC40MIMO_Ant2_5190



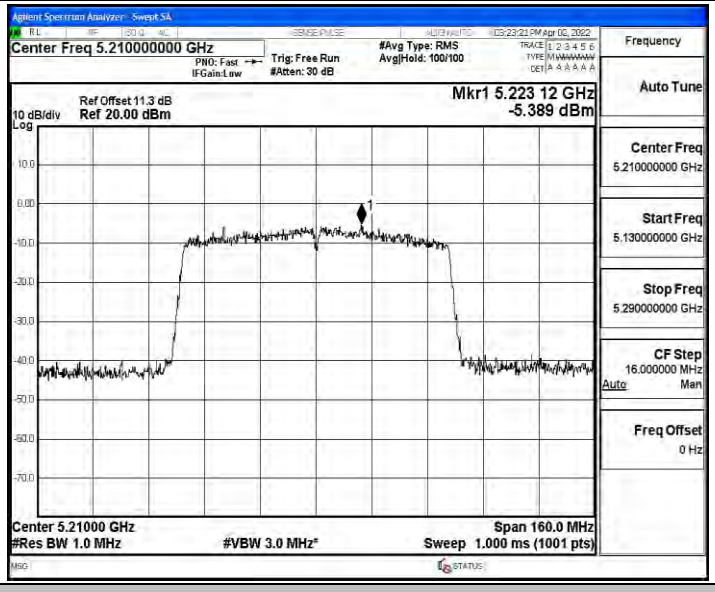
11AC40MIMO_Ant1_5230



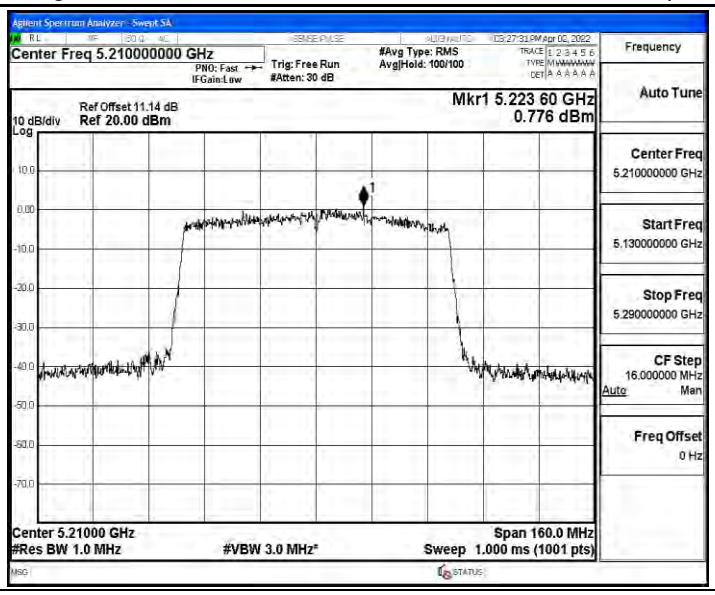
11AC40MIMO_Ant2_5230



11AC80MIMO_Ant1_5210



11AC80MIMO_Ant2_5210


Agilent Spectrum Analyzer - Swept SA
Center Freq 5.210000000 GHz
PNO: Fast
IFGain:Low
Trig: Free Run
#Atten: 30 dB
#Avg Type: RMS
Avg|Hold: 100/100
Frequency
Auto Tune
Ref Offset 11.14 dB
10 dB/div Ref 20.00 dBm
Log
Mkr1 5.223 60 GHz
0.776 dBm
Center Freq
5.210000000 GHz
Start Freq
5.130000000 GHz
Stop Freq
5.290000000 GHz
CF Step
16.000000 MHz
Auto Man
Freq Offset
0 Hz
Center 5.21000 GHz
#Res BW 1.0 MHz
#VBW 3.0 MHz*
Span 160.0 MHz
Sweep 1.000 ms (1001 pts)

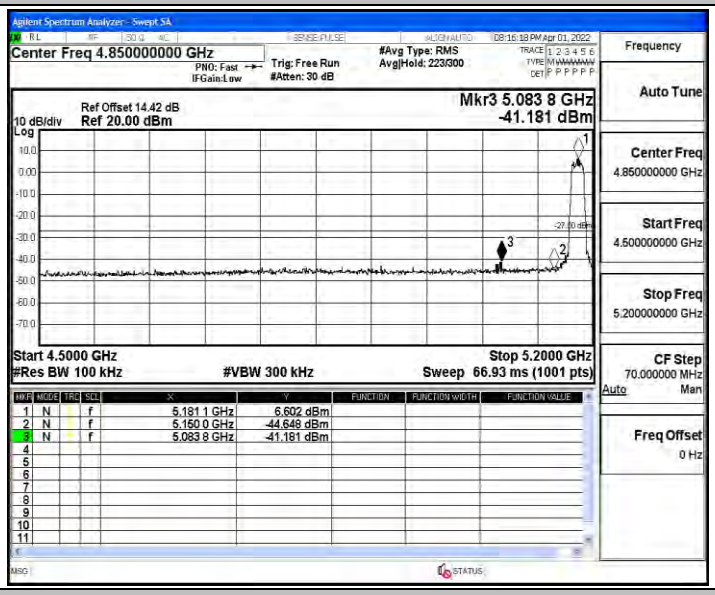
Appendix D: Band edge measurements

Test Result

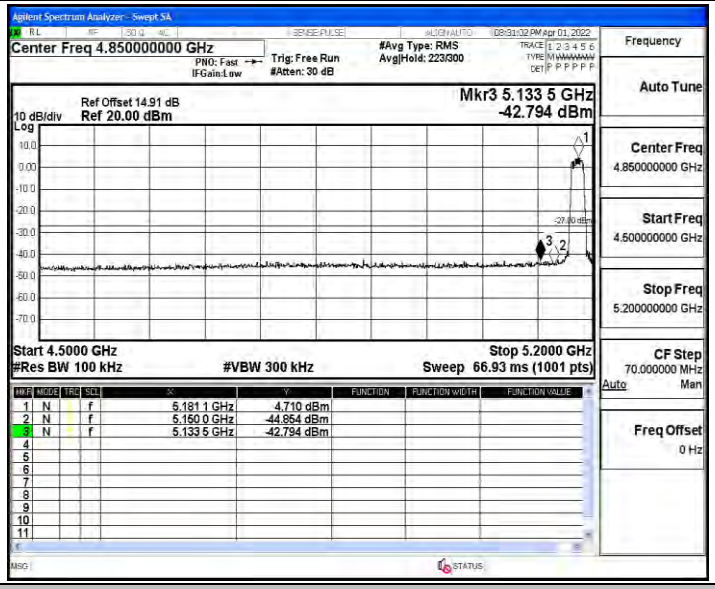
TestMode	Antenna	ChName	Channel	Result[dBm]	Limit[dBm]	Verdict
11A	Ant1	Low	5180	-41.18	≤-27	PASS
	Ant2	Low	5180	-42.79	≤-27	PASS
	Ant1	High	5240	-43.08	≤-27	PASS
	Ant2	High	5240	-42.32	≤-27	PASS
11N20MIMO	Ant1	Low	5180	-43.55	≤-27	PASS
	Ant2	Low	5180	-41.92	≤-27	PASS
	Ant1	High	5240	-43.45	≤-27	PASS
	Ant2	High	5240	-42.76	≤-27	PASS
11N40MIMO	Ant1	Low	5190	-43.67	≤-27	PASS
	Ant2	Low	5190	-42.73	≤-27	PASS
	Ant1	High	5230	-43.2	≤-27	PASS
	Ant2	High	5230	-42.79	≤-27	PASS
11AC20MIMO	Ant1	Low	5180	-43.73	≤-27	PASS
	Ant2	Low	5180	-42.97	≤-27	PASS
	Ant1	High	5240	-43.46	≤-27	PASS
	Ant2	High	5240	-43.1	≤-27	PASS
11AC40MIMO	Ant1	Low	5190	-43.32	≤-27	PASS
	Ant2	Low	5190	-43.07	≤-27	PASS
	Ant1	High	5230	-43.86	≤-27	PASS
	Ant2	High	5230	-43.66	≤-27	PASS
11AC80MIMO	Ant1	Low	5210	-43.42	≤-27	PASS
	Ant2	Low	5210	-39.25	≤-27	PASS
	Ant1	High	5210	-44.01	≤-27	PASS
	Ant2	High	5210	-43.41	≤-27	PASS

Test Graphs

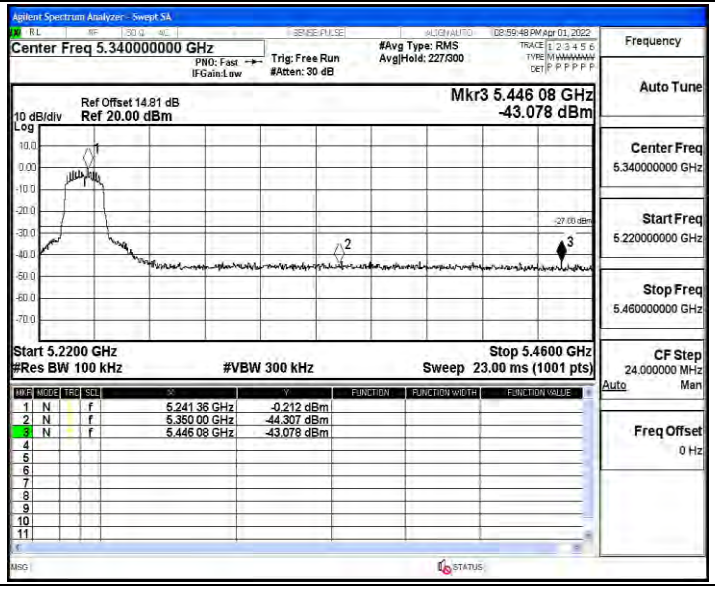
11A_Ant1_Low_5180



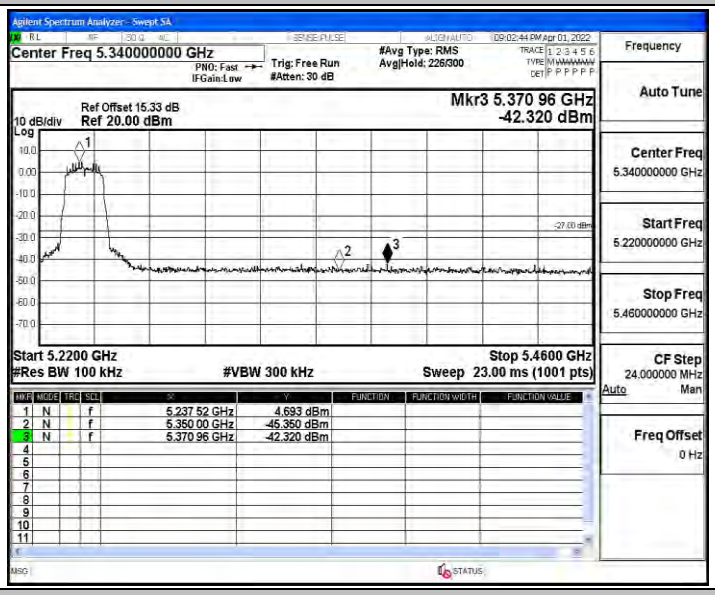
11A_Ant2_Low_5180



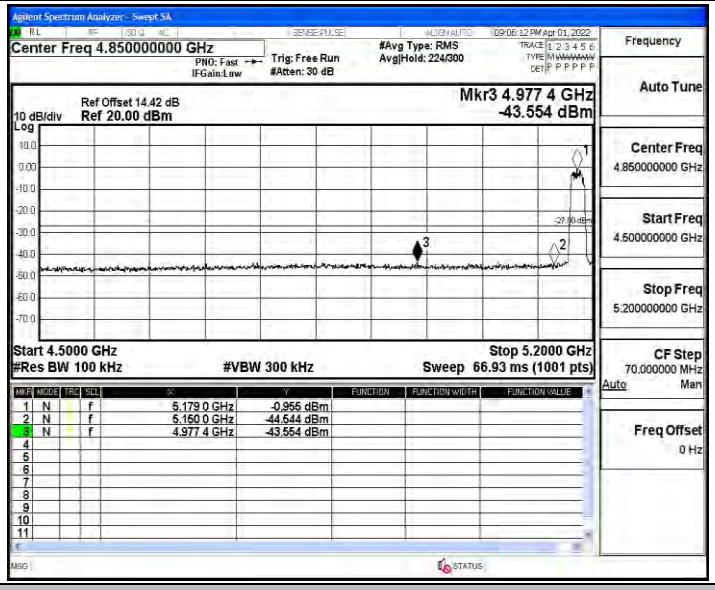
11A_Ant1_High_5240



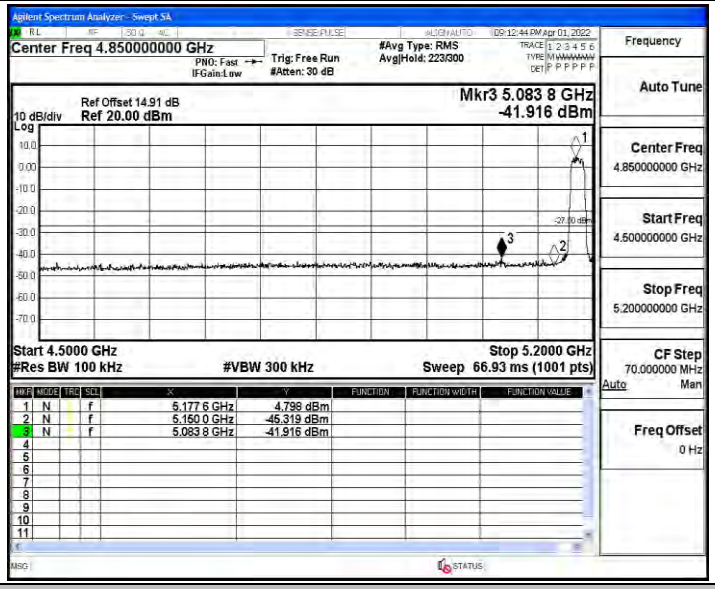
11A_Ant2_High_5240



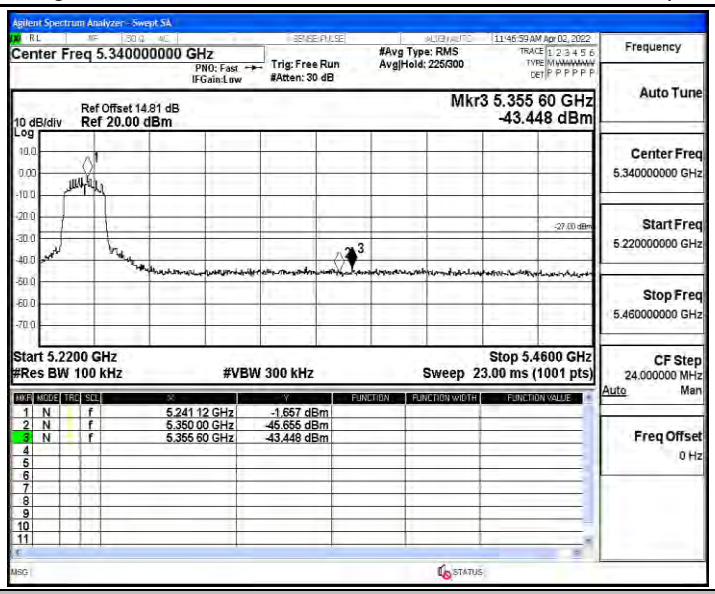
11N20MIMO_Ant1_Low_5180



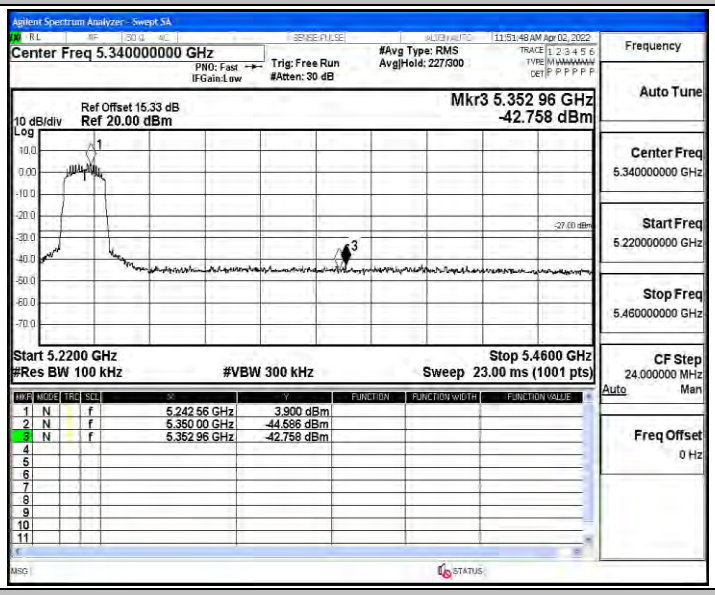
11N20MIMO_Ant2_Low_5180



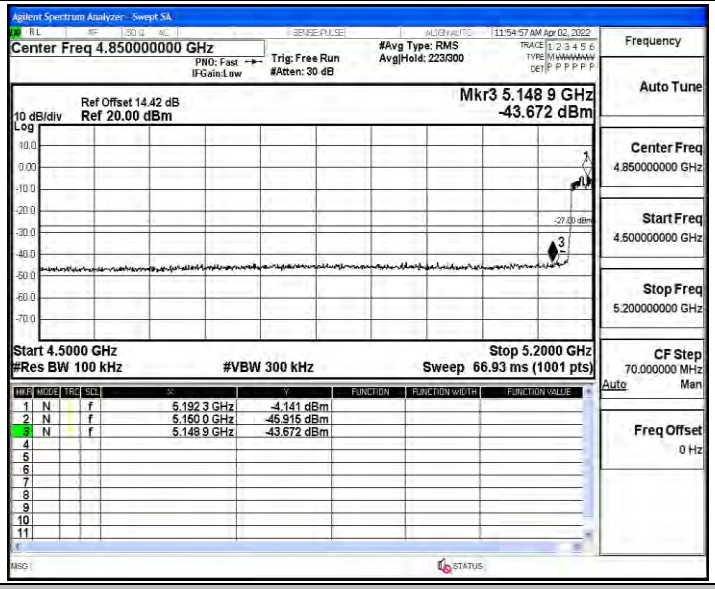
11N20MIMO_Ant1_High_5240



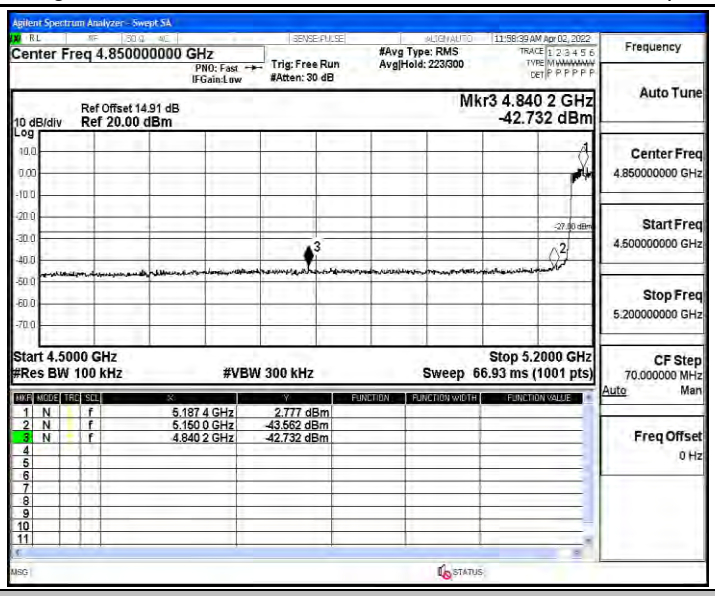
11N20MIMO_Ant2_High_5240



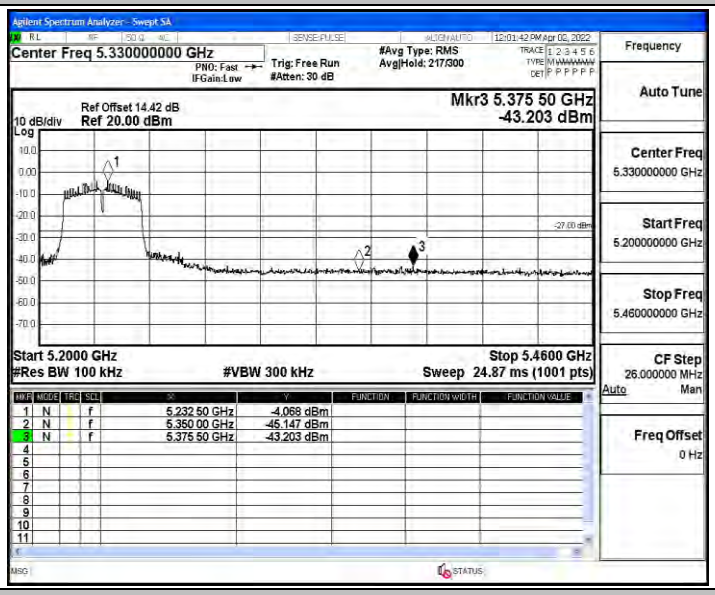
11N40MIMO_Ant1_Low_5190



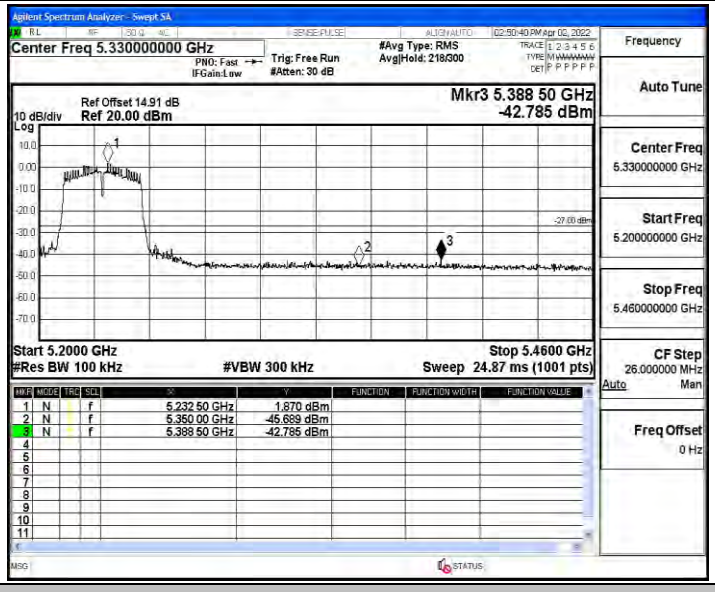
11N40MIMO_Ant2_Low_5190



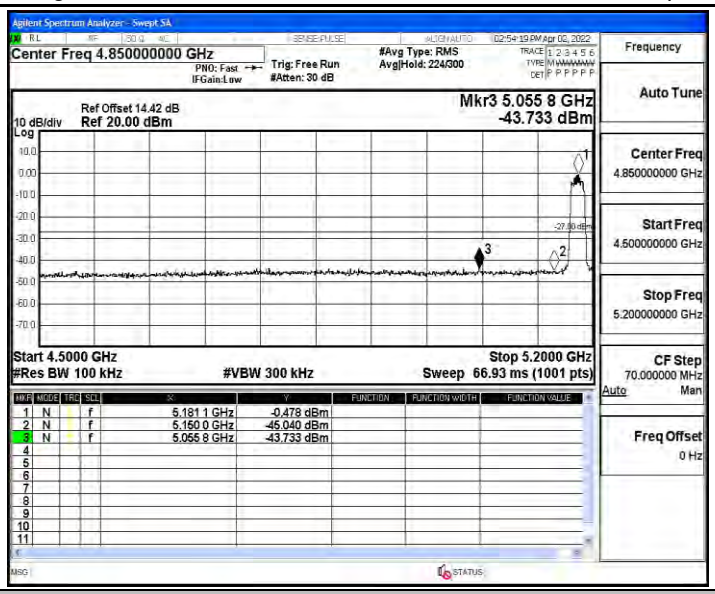
11N40MIMO_Ant1_High_5230



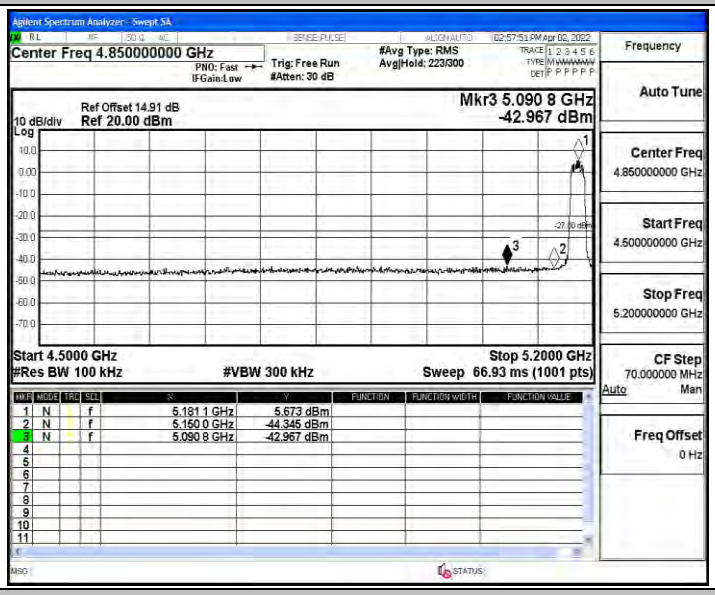
11N40MIMO_Ant2_High_5230



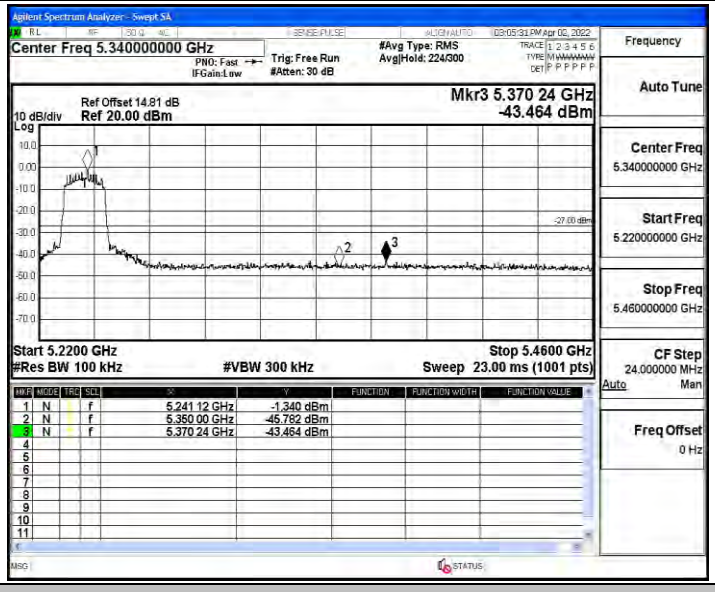
11AC20MIMO_Ant1_Low_5180



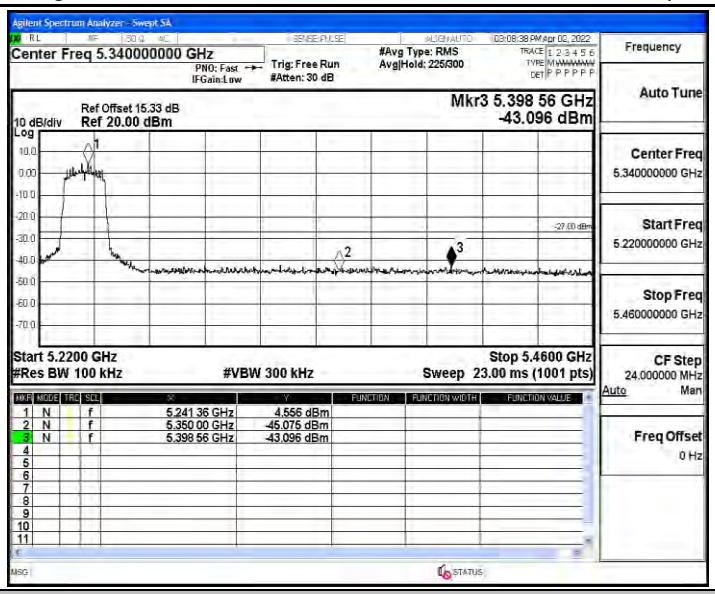
11AC20MIMO_Ant2_Low_5180



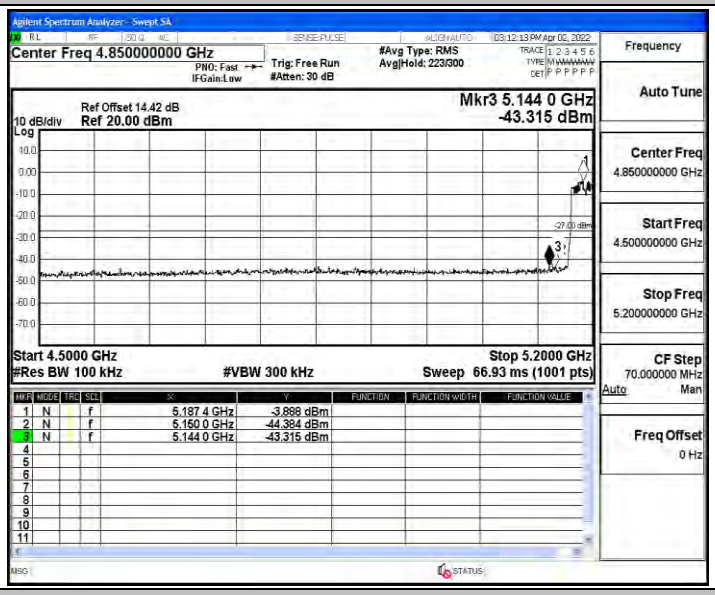
11AC20MIMO_Ant1_High_5240



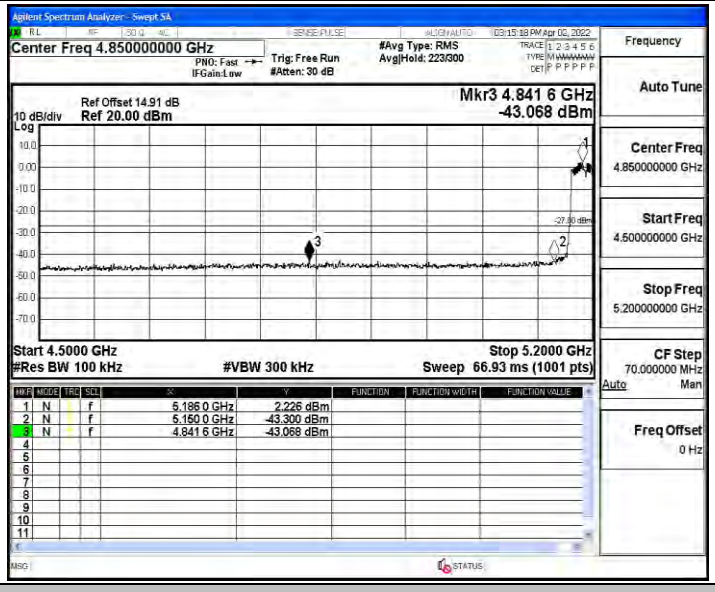
11AC20MIMO_Ant2_High_5240



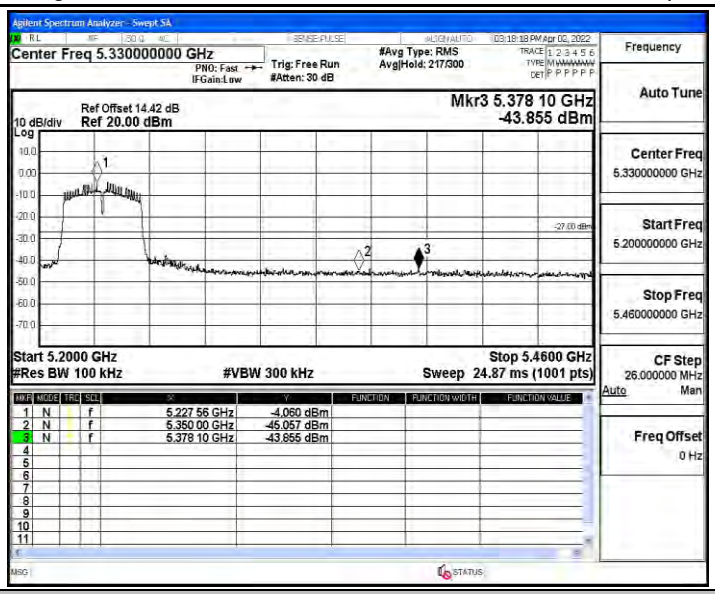
11AC40MIMO_Ant1_Low_5190



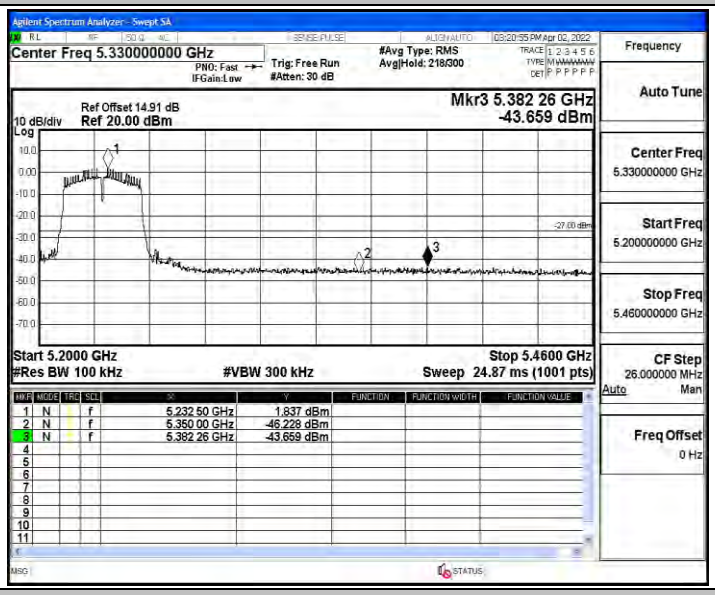
11AC40MIMO_Ant2_Low_5190



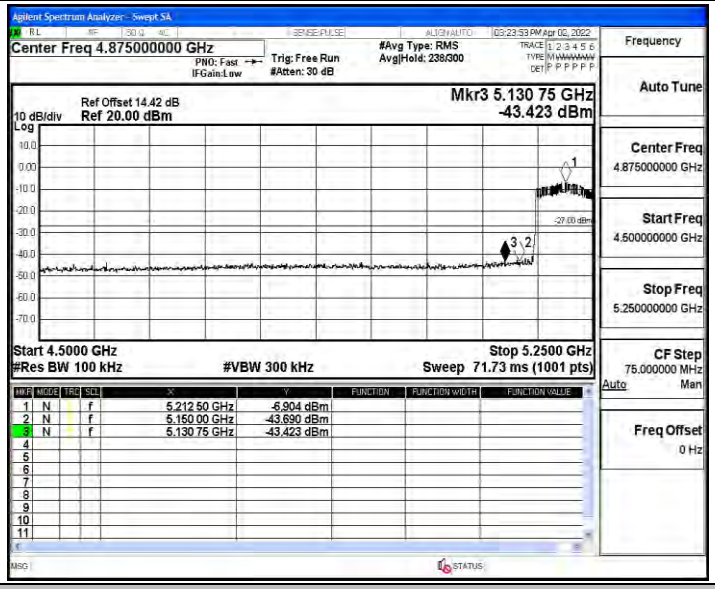
11AC40MIMO_Ant1_High_5230



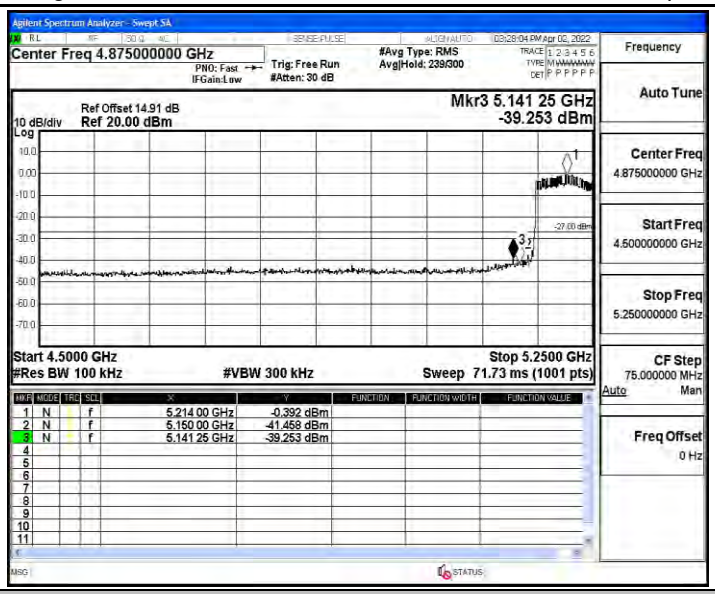
11AC40MIMO_Ant2_High_5230



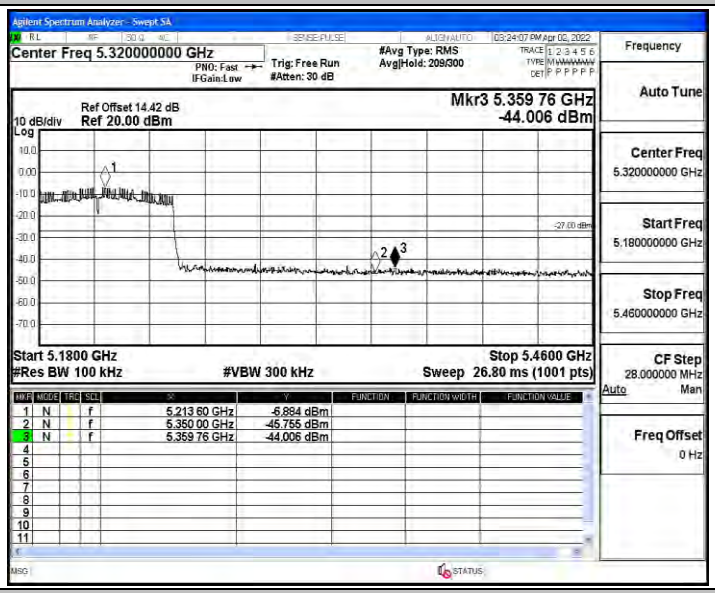
11AC80MIMO_Ant1_Low_5210



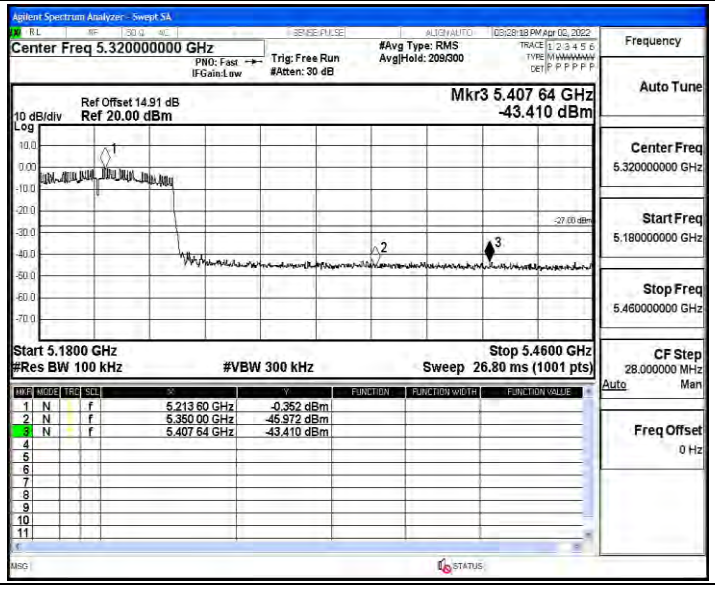
11AC80MIMO_Ant2_Low_5210



11AC80MIMO_Ant1_High_5210



11AC80MIMO_Ant2_High_5210



Appendix E: Frequency Stability

Test Result

Ant1

Frequency (MHz)	Enviroment Temperature (Dregree)	Voltage (VAC)	Measured Frequency (MHz)	Limit Range (MHz)	Test Results
5180	20	132	5179.945243	5150 – 5250	PASS
5180	20	108	5180.041485	5150 – 5250	PASS
5180	50	120	5179.966932	5150 – 5250	PASS
5180	40	120	5179.969546	5150 – 5250	PASS
5180	30	120	5180.055708	5150 – 5250	PASS
5180	20	120	5179.959529	5150 – 5250	PASS
5180	10	120	5179.965872	5150 – 5250	PASS
5180	0	120	5180.028636	5150 – 5250	PASS
5180	-10	120	5180.075654	5150 – 5250	PASS
5180	-20	120	5179.993560	5150 – 5250	PASS
5180	-30	120	5180.065446	5150 – 5250	PASS

Ant2

Frequency (MHz)	Enviroment Temperature (Dregree)	Voltage (VAC)	Measured Frequency (MHz)	Limit Range (MHz)	Test Results
5180	20	132	5179.976716	5150 – 5250	PASS
5180	20	108	5179.954974	5150 – 5250	PASS
5180	50	120	5179.962398	5150 – 5250	PASS
5180	40	120	5180.052241	5150 – 5250	PASS
5180	30	120	5179.922677	5150 – 5250	PASS
5180	20	120	5179.925185	5150 – 5250	PASS
5180	10	120	5180.022329	5150 – 5250	PASS
5180	0	120	5180.015072	5150 – 5250	PASS
5180	-10	120	5180.033024	5150 – 5250	PASS
5180	-20	120	5180.022984	5150 – 5250	PASS
5180	-30	120	5180.073781	5150 – 5250	PASS

Ant1

Frequency (MHz)	Enviroment Temperature (Dregree)	Voltage (VAC)	Measured Frequency (MHz)	Limit Range (MHz)	Test Results
5200	20	132	5200.076357	5150 – 5250	PASS
5200	20	108	5200.017117	5150 – 5250	PASS
5200	50	120	5200.042583	5150 – 5250	PASS
5200	40	120	5200.025393	5150 – 5250	PASS
5200	30	120	5200.058510	5150 – 5250	PASS
5200	20	120	5200.037251	5150 – 5250	PASS
5200	10	120	5200.093081	5150 – 5250	PASS
5200	0	120	5200.036381	5150 – 5250	PASS
5200	-10	120	5199.913892	5150 – 5250	PASS
5200	-20	120	5200.058664	5150 – 5250	PASS
5200	-30	120	5200.054262	5150 – 5250	PASS

Ant2

Frequency (MHz)	Enviroment Temperature (Dregree)	Voltage (VAC)	Measured Frequency (MHz)	Limit Range (MHz)	Test Results
5200	20	132	5199.933558	5150 – 5250	PASS
5200	20	108	5199.930830	5150 – 5250	PASS
5200	50	120	5200.041471	5150 – 5250	PASS
5200	40	120	5200.051538	5150 – 5250	PASS
5200	30	120	5200.016009	5150 – 5250	PASS
5200	20	120	5200.019382	5150 – 5250	PASS
5200	10	120	5199.933427	5150 – 5250	PASS
5200	0	120	5199.998439	5150 – 5250	PASS
5200	-10	120	5199.927364	5150 – 5250	PASS
5200	-20	120	5200.056365	5150 – 5250	PASS
5200	-30	120	5199.999132	5150 – 5250	PASS

Ant1

Frequency (MHz)	Enviroment Temperature (Dregree)	Voltage (VAC)	Measured Frequency (MHz)	Limit Range (MHz)	Test Results
5240	20	132	5239.956816	5150 – 5250	PASS
5240	20	108	5240.047581	5150 – 5250	PASS
5240	50	120	5239.913314	5150 – 5250	PASS
5240	40	120	5240.058327	5150 – 5250	PASS
5240	30	120	5240.022513	5150 – 5250	PASS
5240	20	120	5240.001324	5150 – 5250	PASS
5240	10	120	5239.991972	5150 – 5250	PASS
5240	0	120	5240.048661	5150 – 5250	PASS
5240	-10	120	5239.987885	5150 – 5250	PASS
5240	-20	120	5240.030328	5150 – 5250	PASS
5240	-30	120	5239.961018	5150 – 5250	PASS

Ant2

Frequency (MHz)	Enviroment Temperature (Dregree)	Voltage (VAC)	Measured Frequency (MHz)	Limit Range (MHz)	Test Results
5240	20	132	5239.997881	5150 – 5250	PASS
5240	20	108	5239.979821	5150 – 5250	PASS
5240	50	120	5240.051219	5150 – 5250	PASS
5240	40	120	5240.000340	5150 – 5250	PASS
5240	30	120	5239.923653	5150 – 5250	PASS
5240	20	120	5239.919568	5150 – 5250	PASS
5240	10	120	5239.913189	5150 – 5250	PASS
5240	0	120	5240.001803	5150 – 5250	PASS
5240	-10	120	5240.035264	5150 – 5250	PASS
5240	-20	120	5240.078792	5150 – 5250	PASS
5240	-30	120	5240.051778	5150 – 5250	PASS

Ant1

Frequency (MHz)	Enviroment Temperature (Dregree)	Voltage (VAC)	Measured Frequency (MHz)	Limit Range (MHz)	Test Results
5190	20	132	5190.034710	5150 – 5250	PASS
5190	20	108	5190.007134	5150 – 5250	PASS
5190	50	120	5190.065798	5150 – 5250	PASS
5190	40	120	5189.958988	5150 – 5250	PASS
5190	30	120	5189.985697	5150 – 5250	PASS
5190	20	120	5190.058575	5150 – 5250	PASS
5190	10	120	5189.967338	5150 – 5250	PASS
5190	0	120	5189.966274	5150 – 5250	PASS
5190	-10	120	5190.011453	5150 – 5250	PASS
5190	-20	120	5189.959708	5150 – 5250	PASS
5190	-30	120	5190.026776	5150 – 5250	PASS

Ant2

Frequency (MHz)	Enviroment Temperature (Dregree)	Voltage (VAC)	Measured Frequency (MHz)	Limit Range (MHz)	Test Results
5190	20	132	5189.971504	5150 – 5250	PASS
5190	20	108	5189.990528	5150 – 5250	PASS
5190	50	120	5190.033454	5150 – 5250	PASS
5190	40	120	5190.008187	5150 – 5250	PASS
5190	30	120	5190.004421	5150 – 5250	PASS
5190	20	120	5189.938300	5150 – 5250	PASS
5190	10	120	5190.092415	5150 – 5250	PASS
5190	0	120	5190.076499	5150 – 5250	PASS
5190	-10	120	5189.936793	5150 – 5250	PASS
5190	-20	120	5189.931092	5150 – 5250	PASS
5190	-30	120	5190.021256	5150 – 5250	PASS

Ant1

Frequency (MHz)	Enviroment Temperature (Dregree)	Voltage (VAC)	Measured Frequency (MHz)	Limit Range (MHz)	Test Results
5230	20	132	5229.951733	5150 – 5250	PASS
5230	20	108	5230.081407	5150 – 5250	PASS
5230	50	120	5229.943157	5150 – 5250	PASS
5230	40	120	5229.949210	5150 – 5250	PASS
5230	30	120	5229.968752	5150 – 5250	PASS
5230	20	120	5230.034599	5150 – 5250	PASS
5230	10	120	5230.041357	5150 – 5250	PASS
5230	0	120	5229.942030	5150 – 5250	PASS
5230	-10	120	5229.902011	5150 – 5250	PASS
5230	-20	120	5229.939288	5150 – 5250	PASS
5230	-30	120	5229.914147	5150 – 5250	PASS

Ant2

Frequency (MHz)	Enviroment Temperature (Dregree)	Voltage (VAC)	Measured Frequency (MHz)	Limit Range (MHz)	Test Results
5230	20	132	5230.084663	5150 – 5250	PASS
5230	20	108	5230.098882	5150 – 5250	PASS
5230	50	120	5230.032035	5150 – 5250	PASS
5230	40	120	5229.944208	5150 – 5250	PASS
5230	30	120	5229.917846	5150 – 5250	PASS
5230	20	120	5230.085260	5150 – 5250	PASS
5230	10	120	5229.987960	5150 – 5250	PASS
5230	0	120	5230.033803	5150 – 5250	PASS
5230	-10	120	5230.065548	5150 – 5250	PASS
5230	-20	120	5230.013545	5150 – 5250	PASS
5230	-30	120	5230.099020	5150 – 5250	PASS

Ant1

Frequency (MHz)	Enviroment Temperature (Dregree)	Voltage (VAC)	Measured Frequency (MHz)	Limit Range (MHz)	Test Results
5210	20	132	5210.068333	5150 – 5250	PASS
5210	20	108	5209.960497	5150 – 5250	PASS
5210	50	120	5210.014284	5150 – 5250	PASS
5210	40	120	5210.033296	5150 – 5250	PASS
5210	30	120	5209.931380	5150 – 5250	PASS
5210	20	120	5209.941421	5150 – 5250	PASS
5210	10	120	5210.013250	5150 – 5250	PASS
5210	0	120	5209.931927	5150 – 5250	PASS
5210	-10	120	5210.028255	5150 – 5250	PASS
5210	-20	120	5209.948498	5150 – 5250	PASS
5210	-30	120	5209.963377	5150 – 5250	PASS

Ant2

Frequency (MHz)	Enviroment Temperature (Dregree)	Voltage (VAC)	Measured Frequency (MHz)	Limit Range (MHz)	Test Results
5210	20	132	5210.053571	5150 – 5250	PASS
5210	20	108	5209.921357	5150 – 5250	PASS
5210	50	120	5210.080589	5150 – 5250	PASS
5210	40	120	5209.905410	5150 – 5250	PASS
5210	30	120	5209.906594	5150 – 5250	PASS
5210	20	120	5209.977185	5150 – 5250	PASS
5210	10	120	5210.091681	5150 – 5250	PASS
5210	0	120	5209.990675	5150 – 5250	PASS
5210	-10	120	5210.071845	5150 – 5250	PASS
5210	-20	120	5210.048261	5150 – 5250	PASS
5210	-30	120	5209.987440	5150 – 5250	PASS

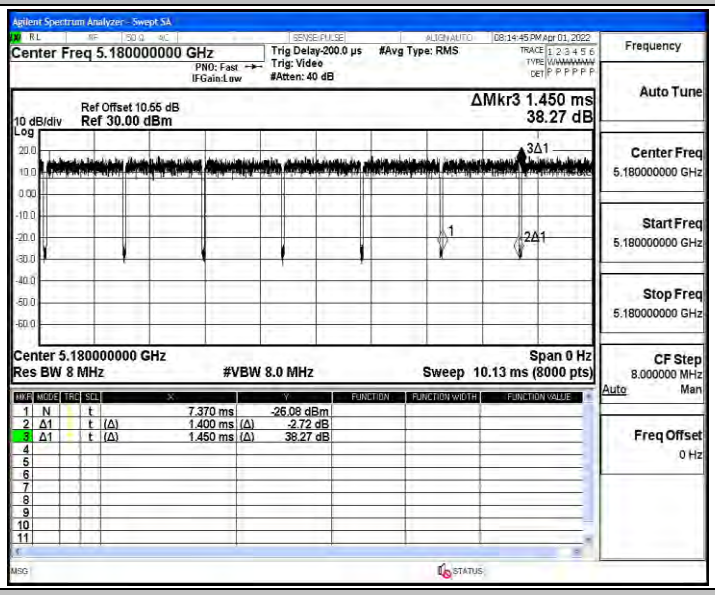
Appendix F: Duty Cycle

Test Result

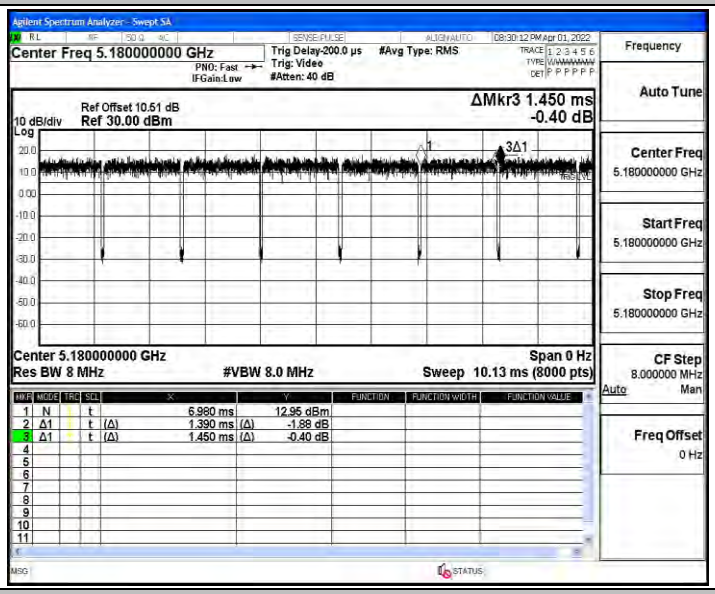
TestMode	Antenna	Channel	Transmission Duration [ms]	Transmission Period [ms]	Duty Cycle [%]	1/T [KHz]
11A	Ant1	5180	1.40	1.45	96.55	0.71
	Ant2	5180	1.39	1.45	95.86	0.72
	Ant1	5200	1.39	1.44	96.53	0.72
	Ant2	5200	1.39	1.45	95.86	0.72
	Ant1	5240	1.39	1.45	95.86	0.72
	Ant2	5240	1.39	1.44	96.53	0.72
11N20MIMO	Ant1	5180	1.30	1.36	95.59	0.77
	Ant2	5180	1.30	1.35	96.30	0.77
	Ant1	5200	1.30	1.36	95.59	0.77
	Ant2	5200	1.30	1.35	96.30	0.77
	Ant1	5240	1.30	1.35	96.30	0.77
	Ant2	5240	1.30	1.35	96.30	0.77
11N40MIMO	Ant1	5190	0.65	0.70	92.86	1.54
	Ant2	5190	0.65	0.70	92.86	1.54
	Ant1	5230	0.65	0.71	91.55	1.54
	Ant2	5230	0.65	0.70	92.86	1.54
11AC20MIMO	Ant1	5180	1.31	1.37	95.62	0.76
	Ant2	5180	1.32	1.37	96.35	0.76
	Ant1	5200	1.31	1.36	96.32	0.76
	Ant2	5200	1.31	1.37	95.62	0.76
	Ant1	5240	1.31	1.37	95.62	0.76
	Ant2	5240	1.31	1.37	95.62	0.76
11AC40MIMO	Ant1	5190	0.65	0.70	92.86	1.54
	Ant2	5190	0.65	0.70	92.86	1.54
	Ant1	5230	0.65	0.71	91.55	1.54
	Ant2	5230	0.65	0.71	91.55	1.54
11AC80MIMO	Ant1	5210	0.32	0.38	84.21	3.13
	Ant2	5210	0.32	0.37	86.49	3.13

Test Graphs

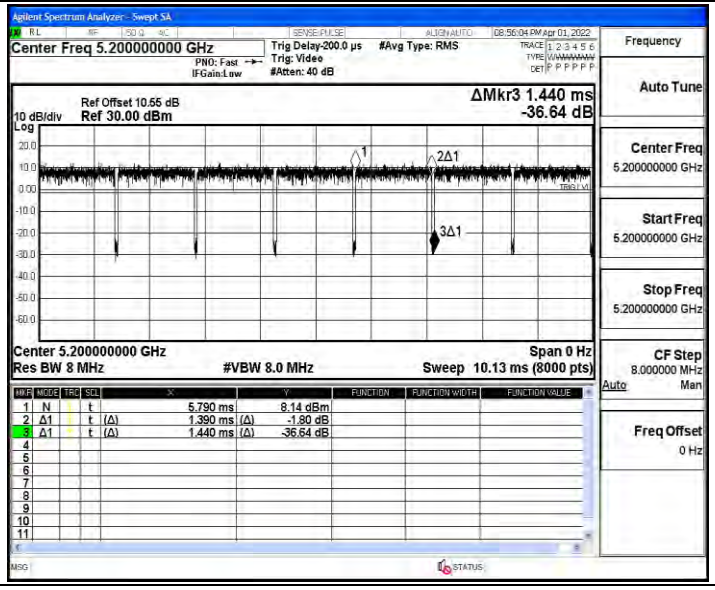
11A_Ant1_5180



11A_Ant2_5180



11A_Ant1_5200



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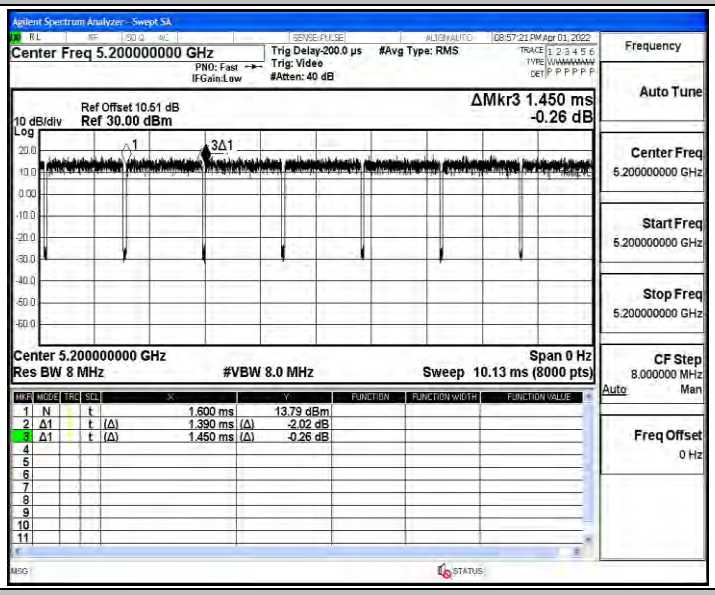

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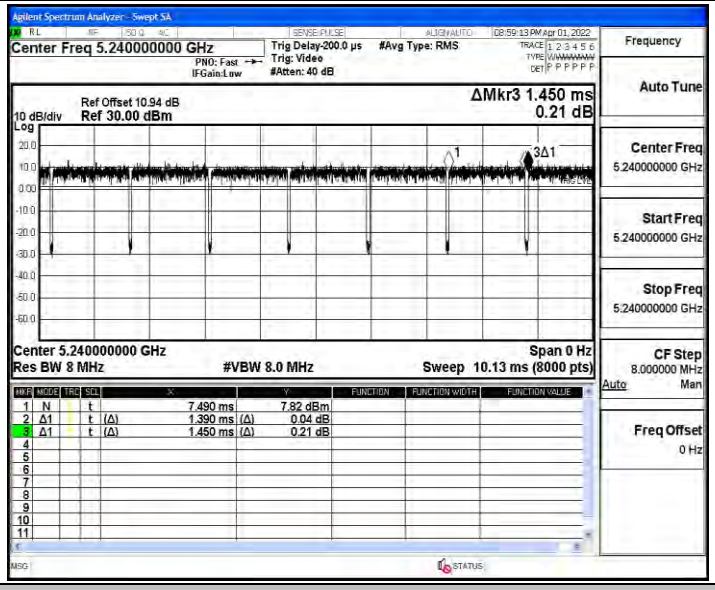

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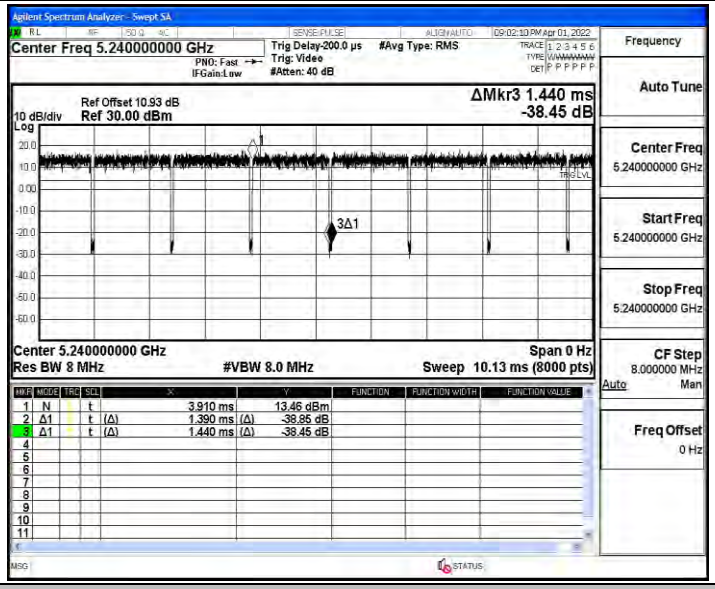
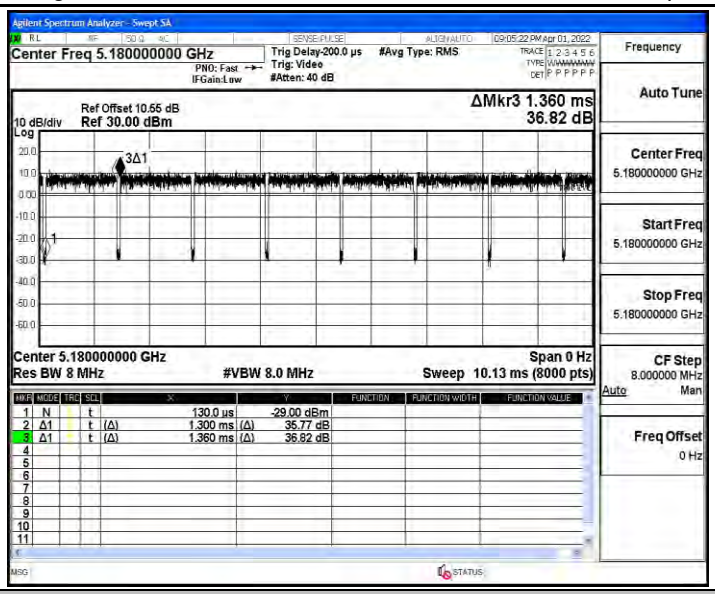


11N20MIMO_Ant1_5180



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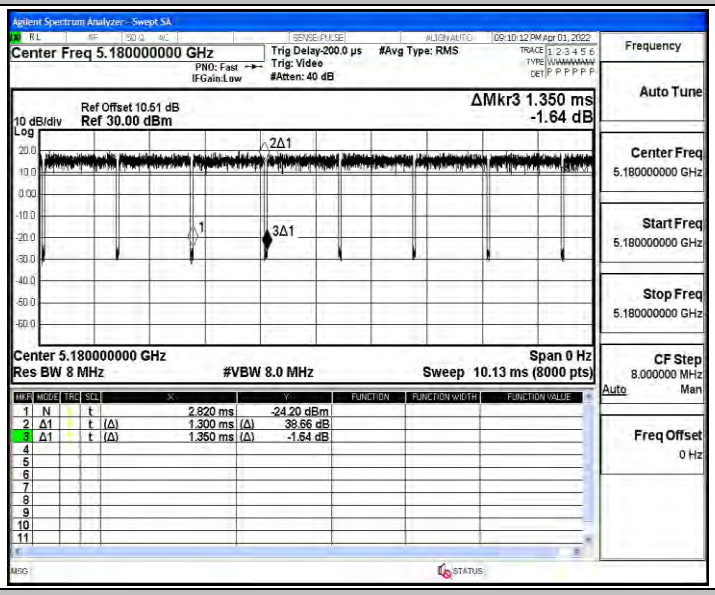

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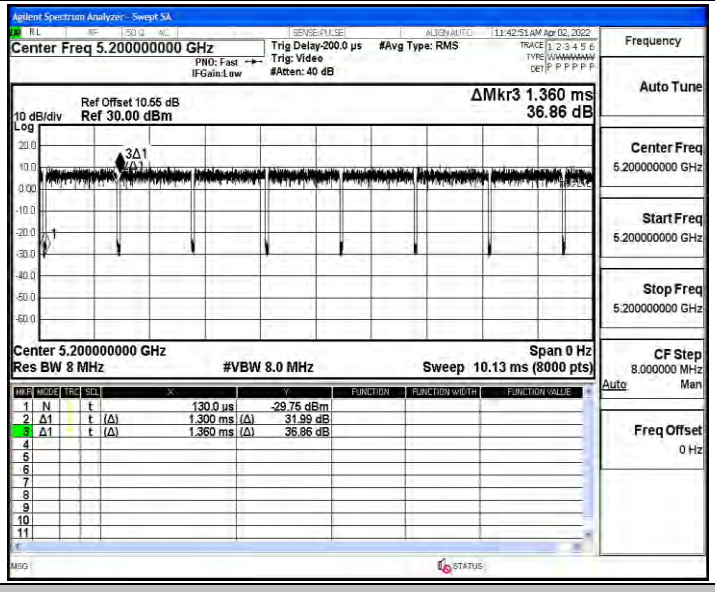

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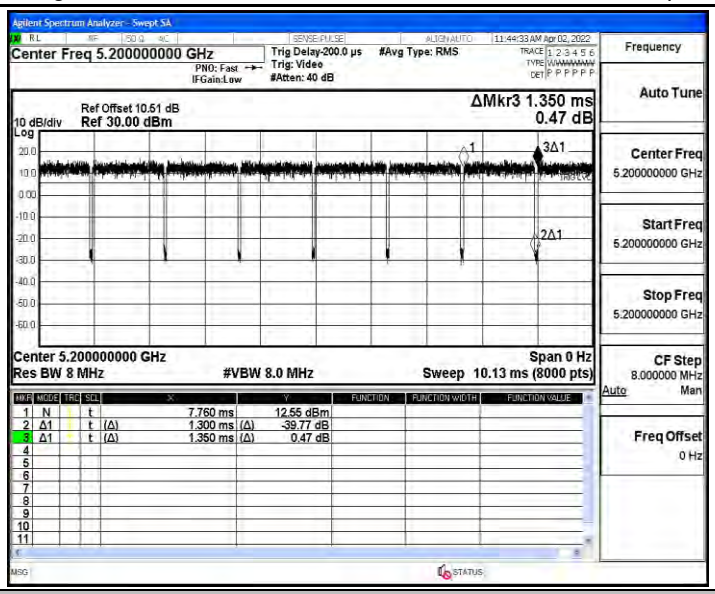

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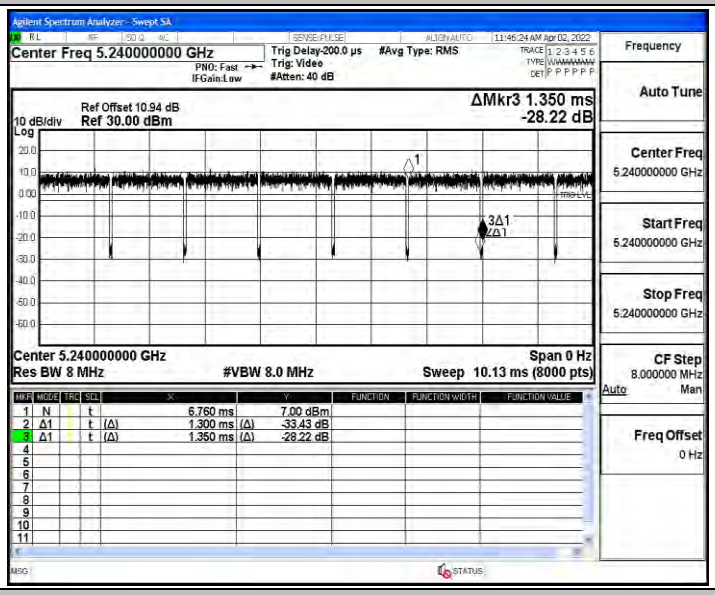

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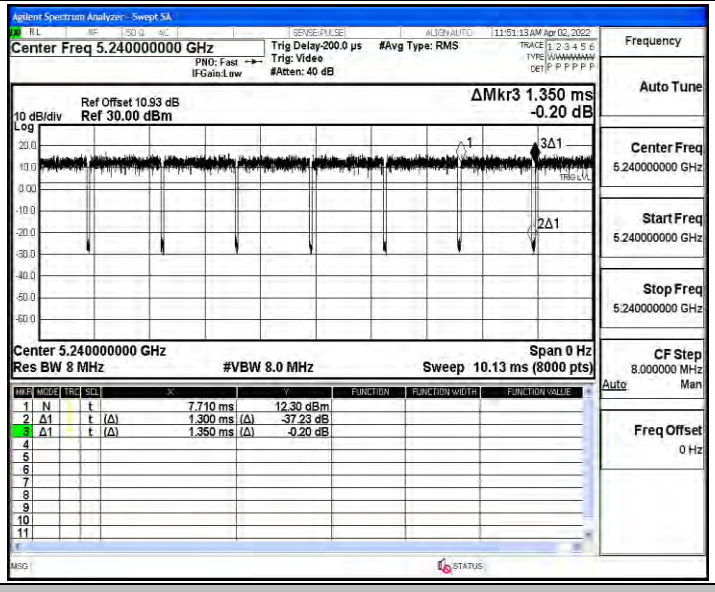
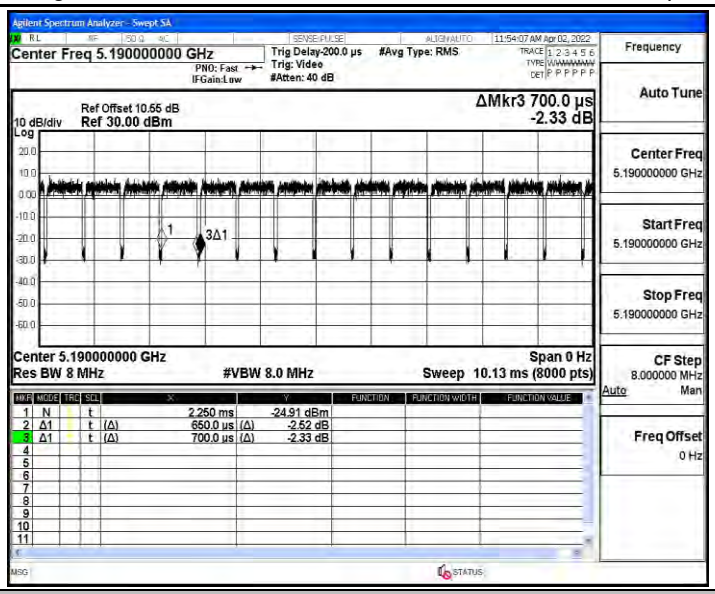


11N40MIMO_Ant1_5190



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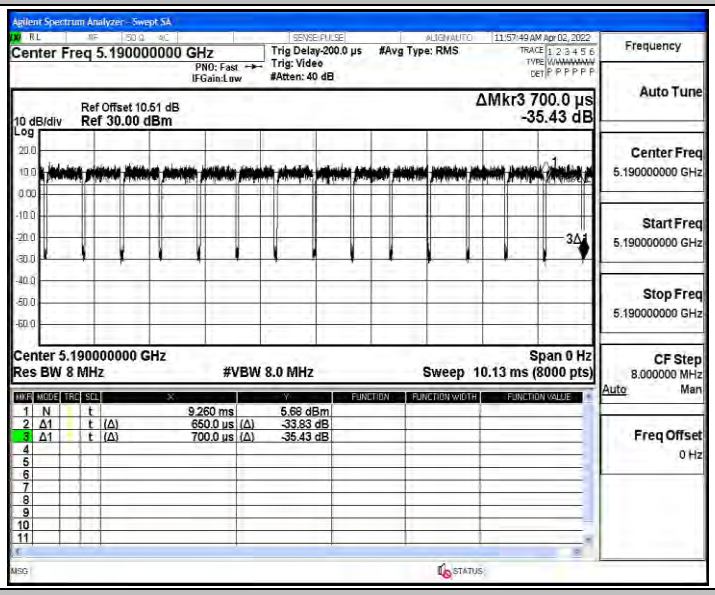

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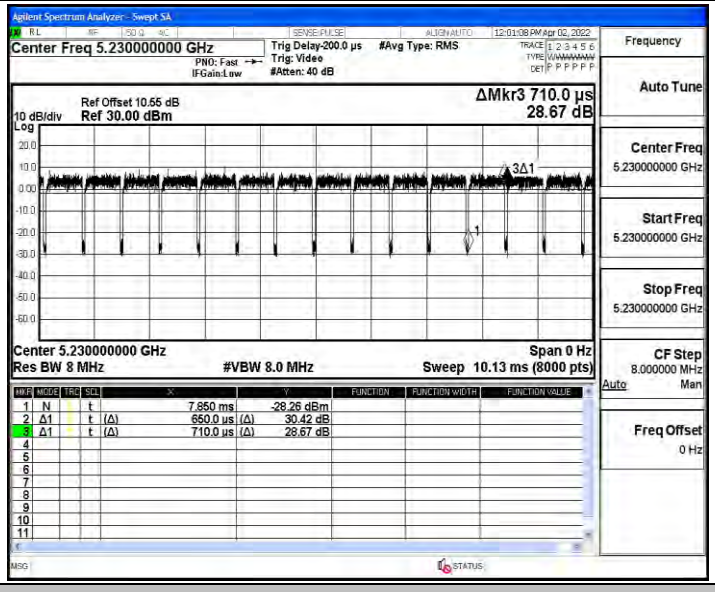

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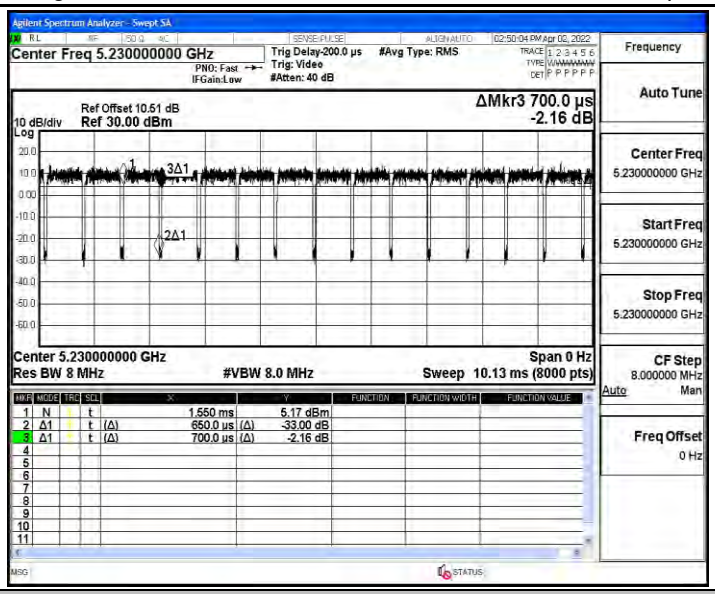

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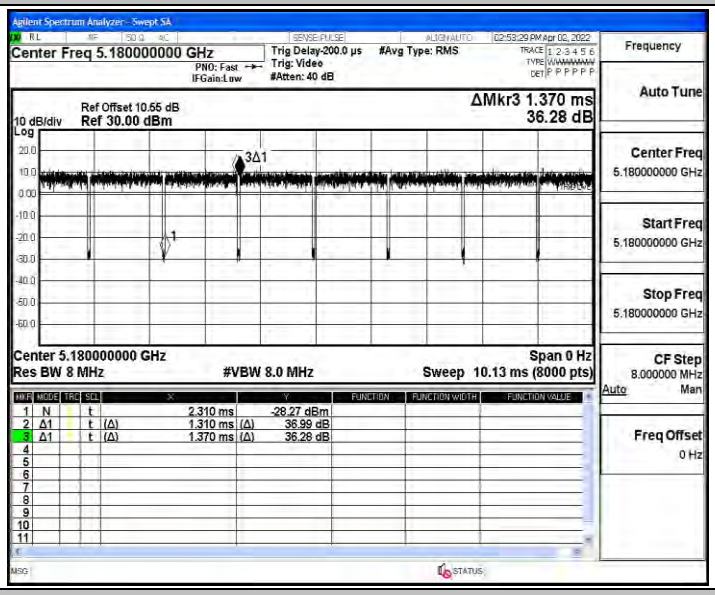

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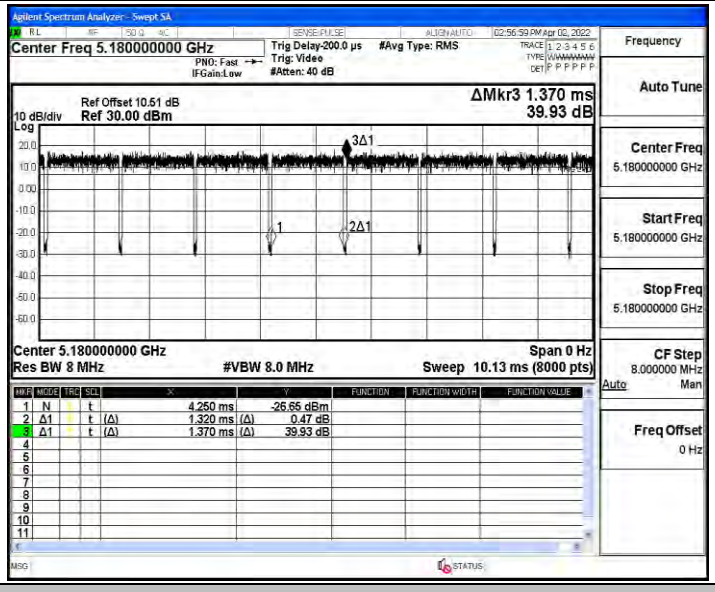

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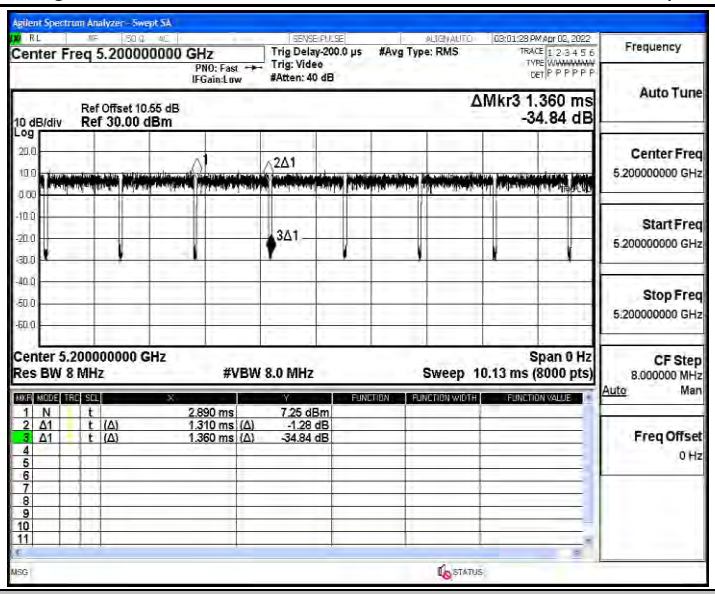

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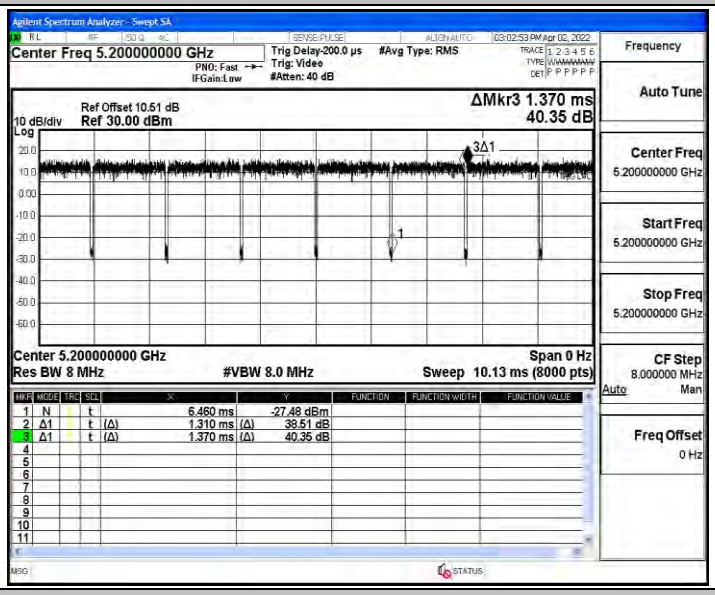

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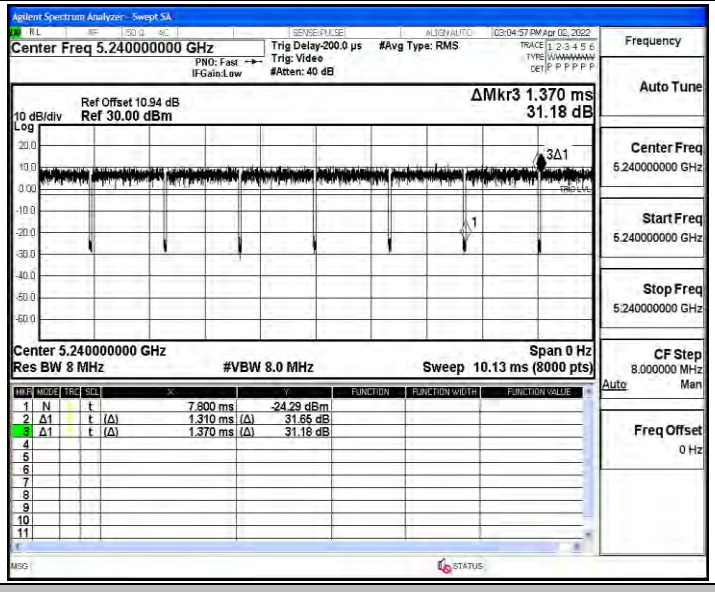

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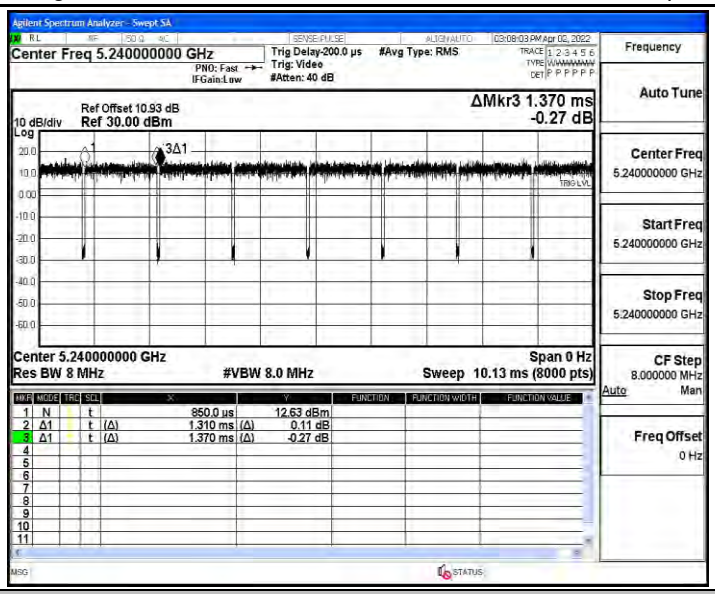

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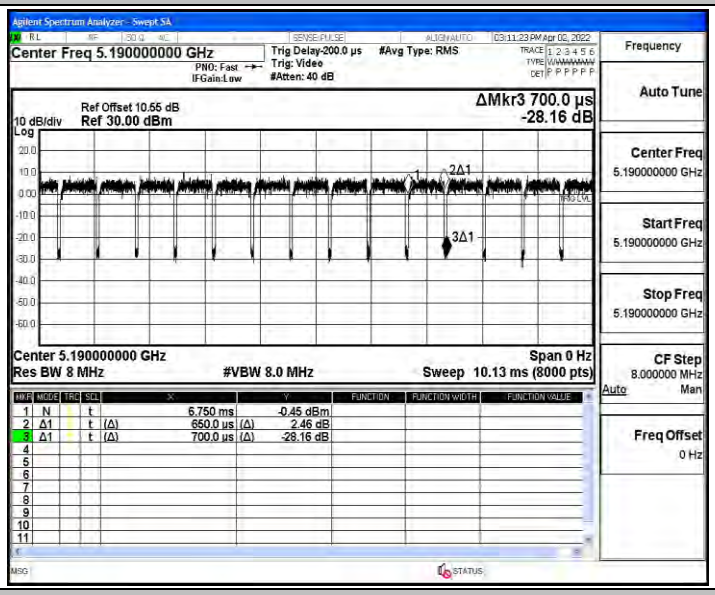

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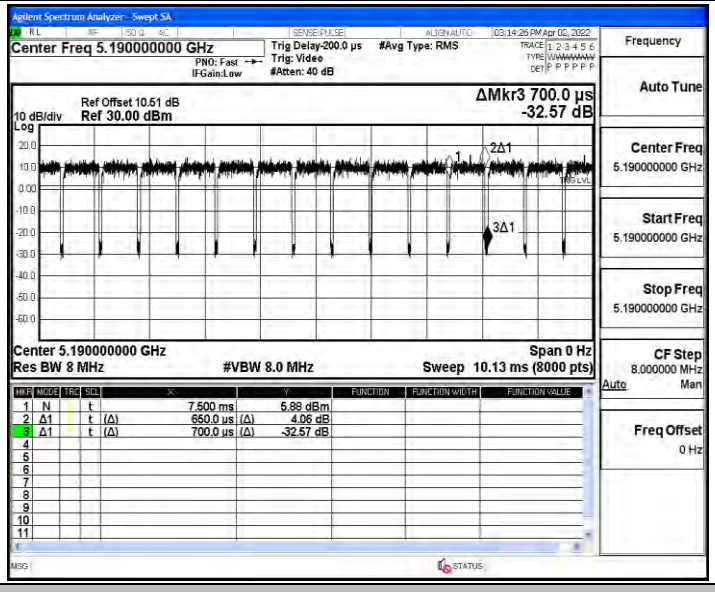

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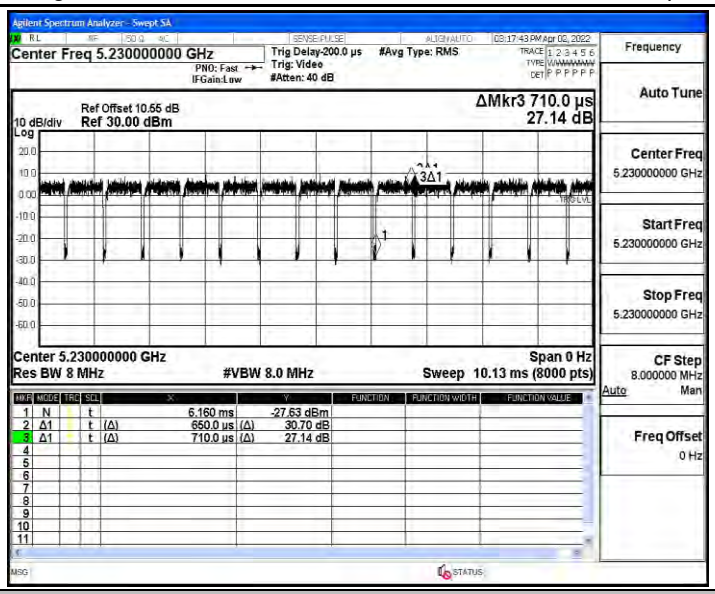

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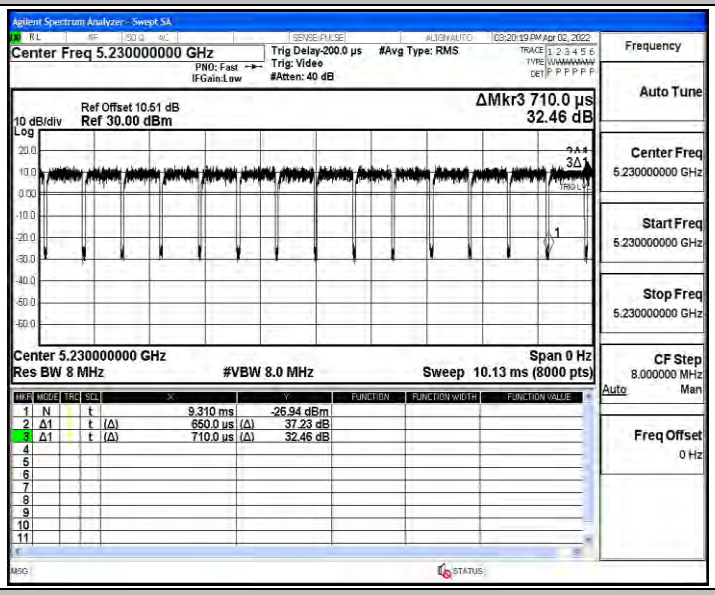

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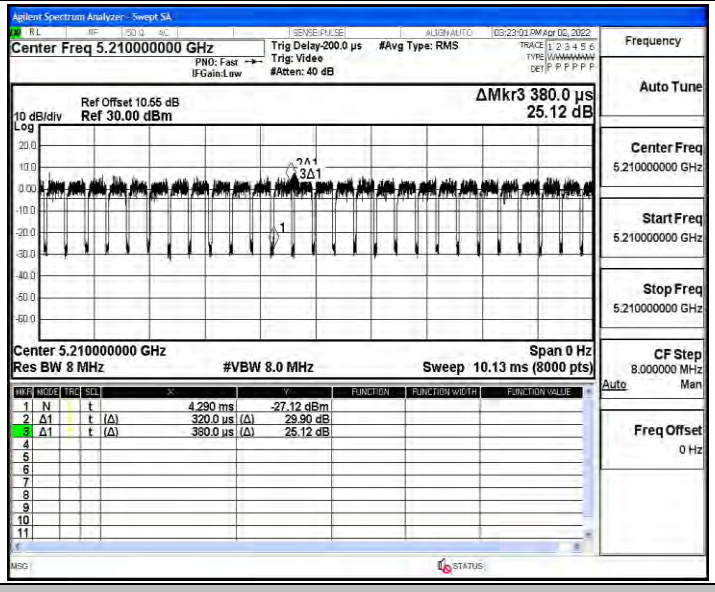

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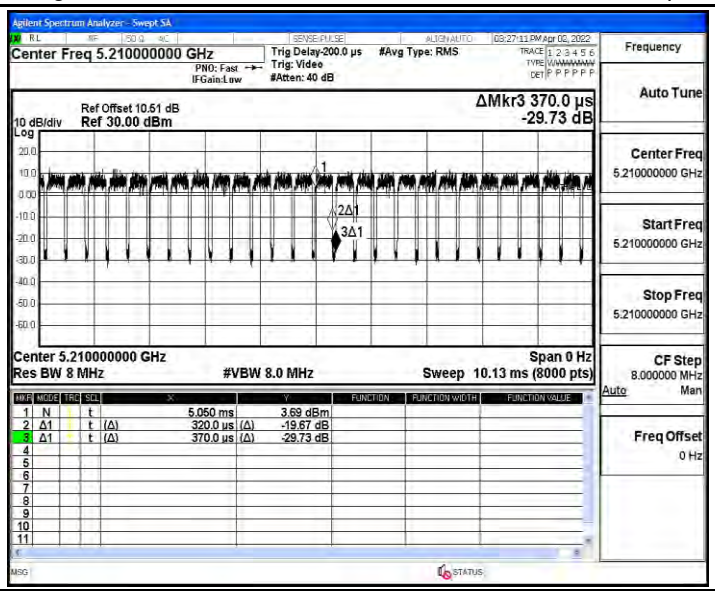
Agilent Spectrum Analyzer - Swept SA
Center Freq 5.210000000 GHz
PNO: Fast
IFGain:Low
Trig Delay-200.0 µs
Trig: Video
#Avg Type: RMS
#Atten: 40 dB
Ref Offset 10.51 dB
10 dB/div
Log
Ref 30.00 dBm
ΔMkr3 370.0 µs
-29.73 dB
Center 5.210000000 GHz
Res BW 8 MHz
#VBW 8.0 MHz
Span 0 Hz
Sweep 10.13 ms (8000 pts)
1 N 1 t 5.050 ms 3.69 dBm
2 Δ1 1 t (Δ) 320.0 µs (Δ) -19.67 dB
3 Δ1 1 t (Δ) 370.0 µs (Δ) -29.73 dB
Frequency
Auto Tune
Center Freq
5.210000000 GHz
Start Freq
5.210000000 GHz
Stop Freq
5.210000000 GHz
CF Step
8.000000 MHz
Auto
Man
Freq Offset
0 Hz