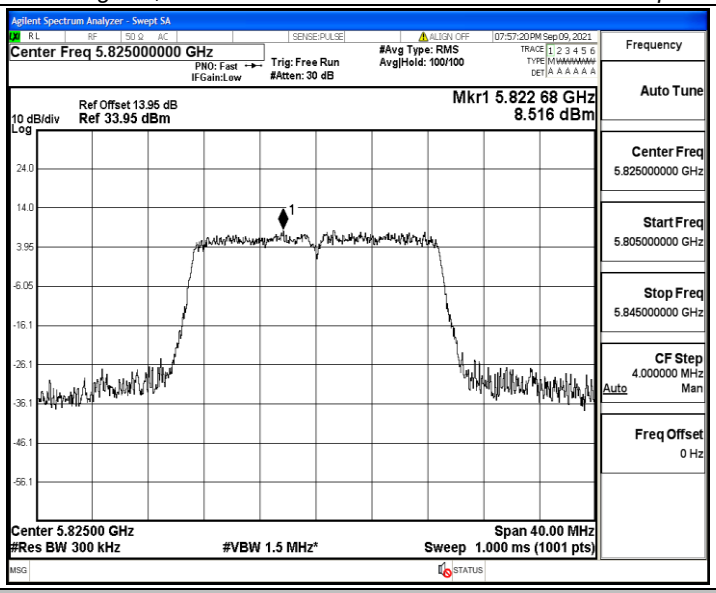
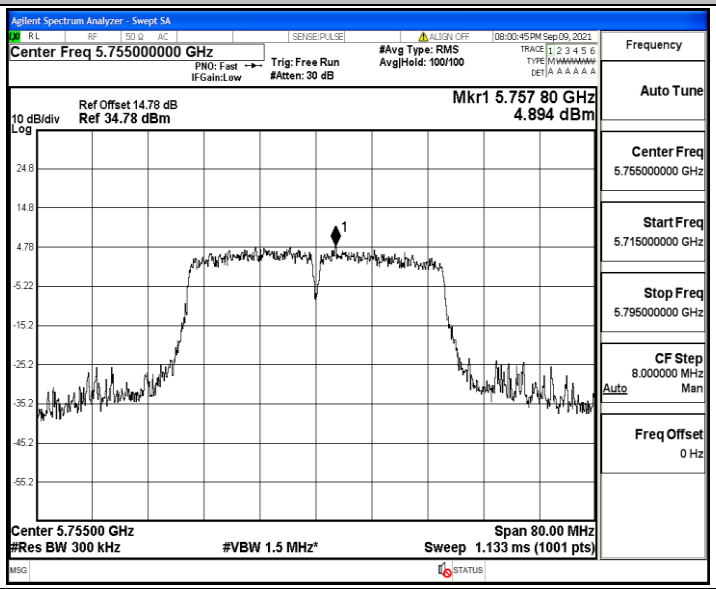
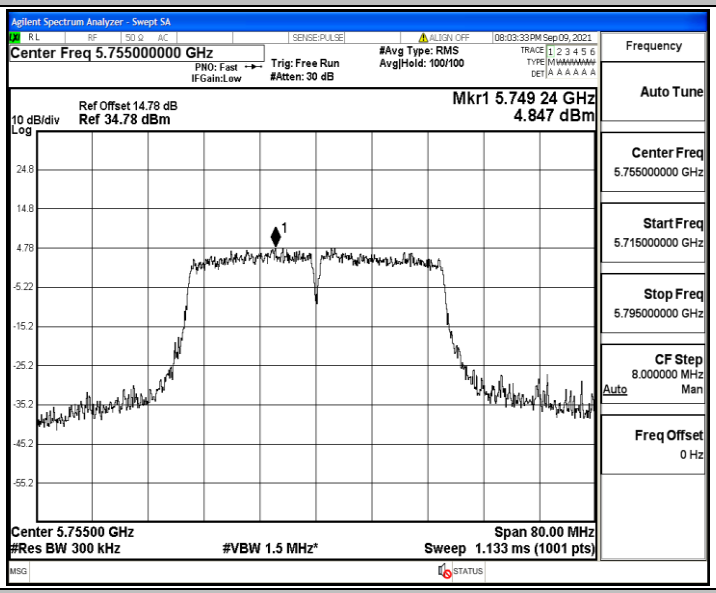


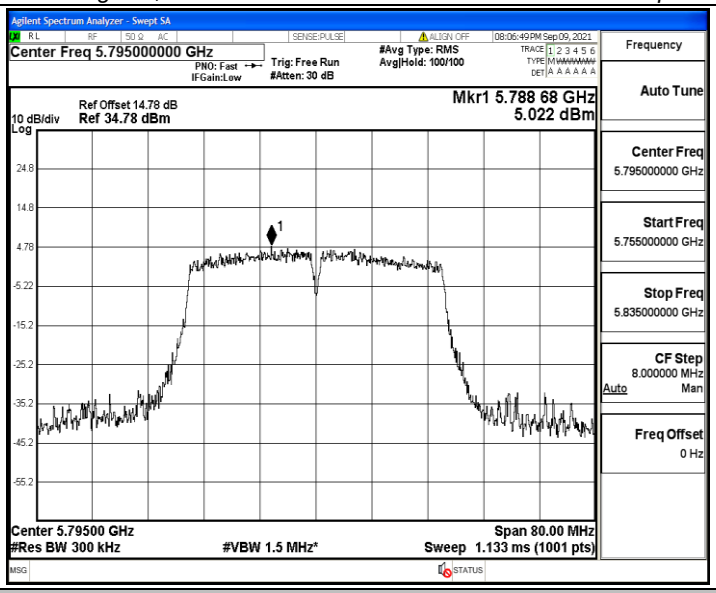
11AC40MIMO_Ant1_5755



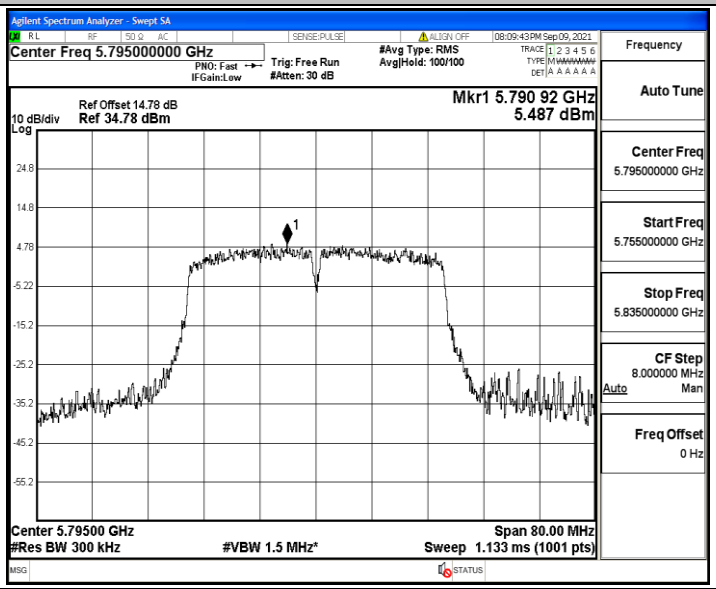
11AC40MIMO_Ant2_5755



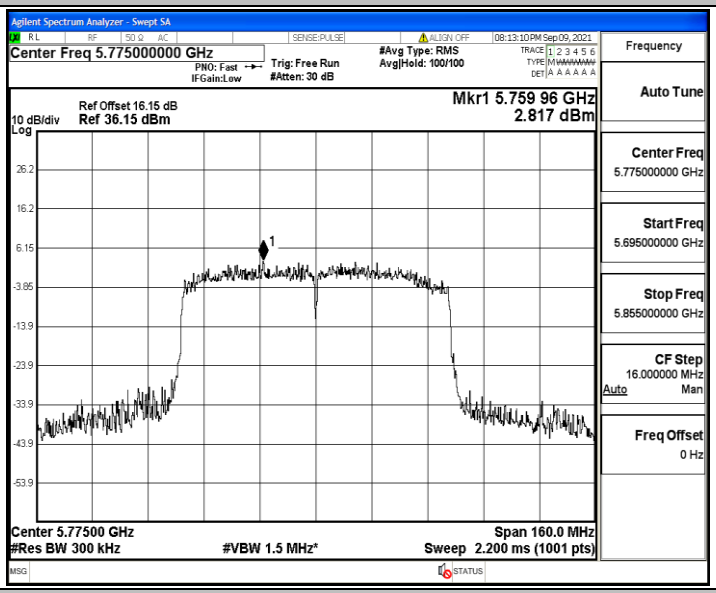
11AC40MIMO_Ant1_5795



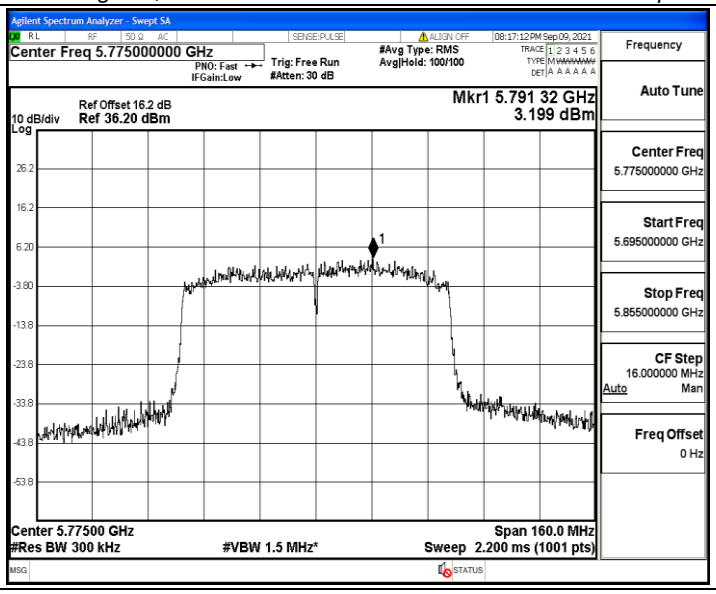
11AC40MIMO_Ant2_5795



11AC80MIMO_Ant1_5775



11AC80MIMO_Ant2_5775


Agilent Spectrum Analyzer - Swept SA
Center Freq 5.775000000 GHz
PNO: Fast
IFGain:Low
Trig: Free Run
#Atten: 30 dB
#Avg Type: RMS
Avg|Hold: 100/100
08:17:12 PM Sep 09, 2021
Frequency
Auto Tune
Mkr1 5.791 32 GHz
3.199 dBm
Ref Offset 16.2 dB
10 dB/div
Ref 36.20 dBm
Log
26.2
16.2
6.20
-3.80
-13.8
-23.8
-33.8
-43.8
-53.8
Center Freq
5.775000000 GHz
Start Freq
5.695000000 GHz
Stop Freq
5.855000000 GHz
CF Step
16.000000 MHz
Auto
Man
Freq Offset
0 Hz
Center 5.77500 GHz
#Res BW 300 kHz
#VBW 1.5 MHz*
Span 160.0 MHz
Sweep 2.200 ms (1001 pts)
MSG
STATUS

Appendix D: Band edge measurements

Test Result

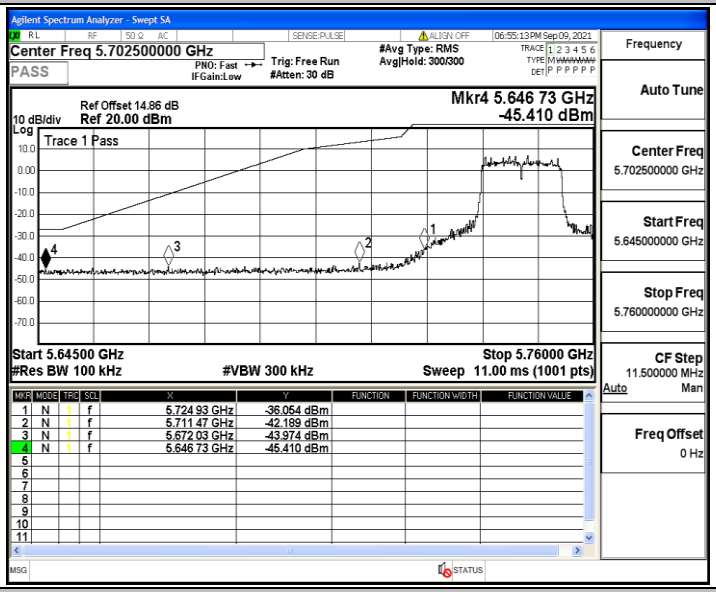
TestMode	Antenna	Channel	FreqRange [MHz]	Result [dBm]	Limit [dBm]	Verdict
11A	Ant1	5745	5650~5700	-43.97	≤-10.70	PASS
			5700~5720	-42.19	≤13.21	PASS
			5720~5725	-36.05	≤26.83	PASS
			5760~5650	-45.41	≤-27	PASS
	Ant2	5745	5650~5700	-44.71	≤4.36	PASS
			5700~5720	-40.28	≤15.59	PASS
			5720~5725	-35.93	≤26.83	PASS
			5760~5650	-45.08	≤-27	PASS
	Ant1	5825	5850~5855	-43.16	≤17.95	PASS
			5855~5875	-43.1	≤13.92	PASS
			5875~5925	-42.87	≤-21.86	PASS
			5925~5935	-44.19	≤-27	PASS
	Ant2	5825	5850~5855	-40.56	≤16.72	PASS
			5855~5875	-43.55	≤10.78	PASS
			5875~5925	-43.64	≤0.52	PASS
			5925~5935	-44.07	≤-27	PASS
11N20MIMO	Ant1	5745	5650~5700	-44.41	≤-12.49	PASS
			5700~5720	-40.41	≤15.59	PASS
			5720~5725	-33.83	≤26.30	PASS
			5760~5650	-44.7	≤-27	PASS
	Ant2	5745	5650~5700	-45.04	≤6.74	PASS
			5700~5720	-41.26	≤15.43	PASS
			5720~5725	-36.48	≤25.52	PASS
			5760~5650	-45.14	≤-27	PASS
	Ant1	5825	5850~5855	-43.71	≤23.80	PASS
			5855~5875	-42.91	≤15.35	PASS
			5875~5925	-42.72	≤-0.28	PASS
			5925~5935	-44.47	≤-27	PASS
	Ant2	5825	5850~5855	-39.51	≤15.79	PASS
			5855~5875	-42.64	≤10.40	PASS
			5875~5925	-43.88	≤-16.87	PASS
			5925~5935	-43.94	≤-27	PASS
11N40MIMO	Ant1	5755	5650~5700	-42.42	≤7.26	PASS
			5700~5720	-29.72	≤15.58	PASS
			5720~5725	-29.7	≤15.74	PASS
			5780~5650	-45.17	≤-27	PASS
	Ant2	5755	5650~5700	-43.99	≤8.86	PASS
			5700~5720	-37.57	≤15.24	PASS
			5720~5725	-34.06	≤24.05	PASS
			5780~5650	-45.43	≤-27	PASS

TestMode	Antenna	Channel	FreqRange [MHz]	Result [dBm]	Limit [dBm]	Verdict
	Ant1	5795	5850~5855	-43.72	≤20.55	PASS
			5855~5875	-43.46	≤14.20	PASS
			5875~5925	-43.28	≤6.17	PASS
			5925~5935	-43.49	≤-27	PASS
	Ant2	5795	5850~5855	-44.01	≤23.56	PASS
			5855~5875	-43.54	≤14.29	PASS
			5875~5925	-44.09	≤-19.96	PASS
			5925~5935	-43.3	≤-27	PASS
11AC20MIMO	Ant1	5745	5650~5700	-43.67	≤8.62	PASS
			5700~5720	-40.67	≤15.53	PASS
			5720~5725	-32.67	≤26.83	PASS
			5760~5650	-44.82	≤-27	PASS
	Ant2	5745	5650~5700	-44.62	≤-3.89	PASS
			5700~5720	-41.31	≤15.37	PASS
			5720~5725	-36.55	≤24.99	PASS
			5760~5650	-45.45	≤-27	PASS
	Ant1	5825	5850~5855	-43.59	≤17.64	PASS
			5855~5875	-43.41	≤10.44	PASS
			5875~5925	-43.05	≤-3.28	PASS
			5925~5935	-43.42	≤-27	PASS
	Ant2	5825	5850~5855	-39.77	≤19.80	PASS
			5855~5875	-42.49	≤11.16	PASS
			5875~5925	-43.56	≤-10.67	PASS
			5925~5935	-44.73	≤-27	PASS
11AC40MIMO	Ant1	5755	5650~5700	-42.19	≤5.86	PASS
			5700~5720	-31.15	≤15.16	PASS
			5720~5725	-27.14	≤26.20	PASS
			5780~5650	-45.4	≤-27	PASS
	Ant2	5755	5650~5700	-44.13	≤5.16	PASS
			5700~5720	-35.52	≤15.24	PASS
			5720~5725	-34.99	≤21.28	PASS
			5780~5650	-45.62	≤-27	PASS
	Ant1	5795	5850~5855	-42.78	≤16.41	PASS
			5855~5875	-42.86	≤13.74	PASS
			5875~5925	-42.81	≤-26.68	PASS
			5925~5935	-43.4	≤-27	PASS
	Ant2	5795	5850~5855	-42.27	≤18.29	PASS
			5855~5875	-42.95	≤15.40	PASS
			5875~5925	-43.84	≤-16.42	PASS
			5925~5935	-45	≤-27	PASS
11AC80MIMO	Ant1	5775	5650~5700	-38.45	≤-1.80	PASS
			5700~5720	-35.85	≤14.74	PASS
			5720~5725	-34.01	≤24.83	PASS
			5800~5650	-44.88	≤-27	PASS
		5775	5850~5855	-38.01	≤17.90	PASS

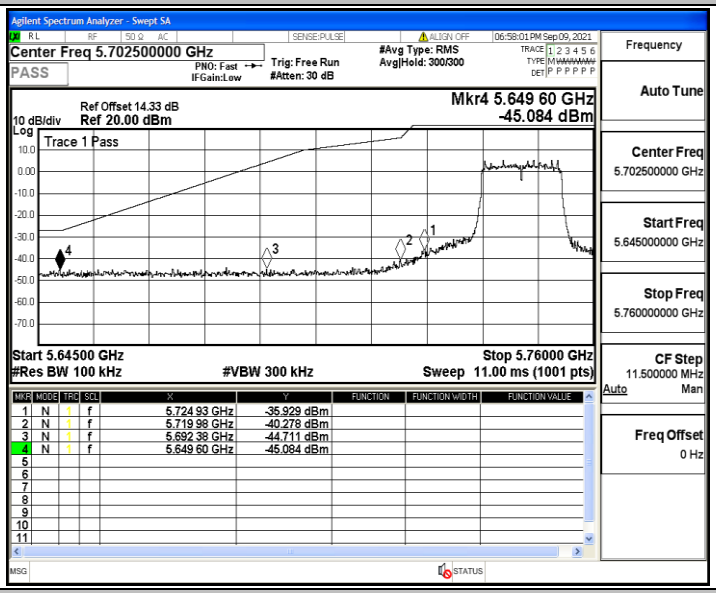
TestMode	Antenna	Channel	FreqRange [MHz]	Result [dBm]	Limit [dBm]	Verdict
			5855~5875	-39.91	≤12.61	PASS
			5875~5925	-43.71	≤3.85	PASS
			5925~5935	-44.36	≤-27	PASS
	Ant2	5775	5650~5700	-42.34	≤0.73	PASS
			5700~5720	-40.52	≤15.26	PASS
			5720~5725	-38.77	≤18.47	PASS
			5800~5650	-45.4	≤-27	PASS
		5775	5850~5855	-40.04	≤17.90	PASS
			5855~5875	-39.4	≤10.44	PASS
			5875~5925	-41.98	≤-23.67	PASS
			5925~5935	-44.26	≤-27	PASS

Test Graphs

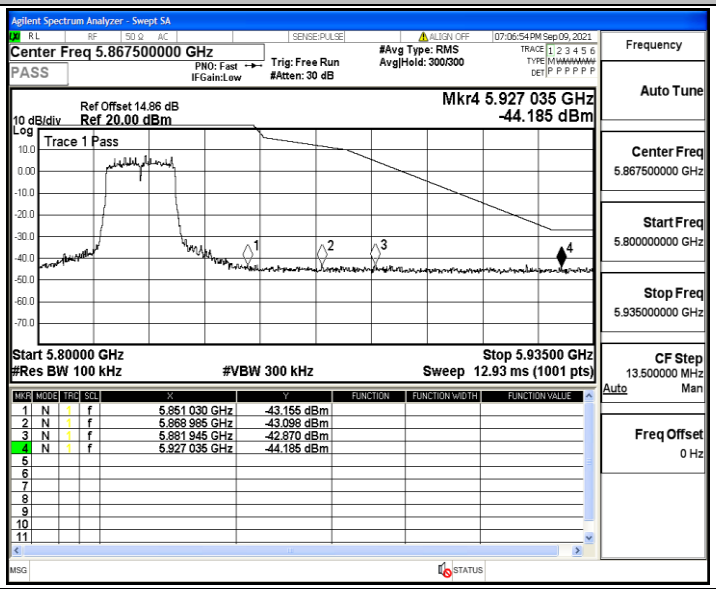
11A_Ant1_Low_5745



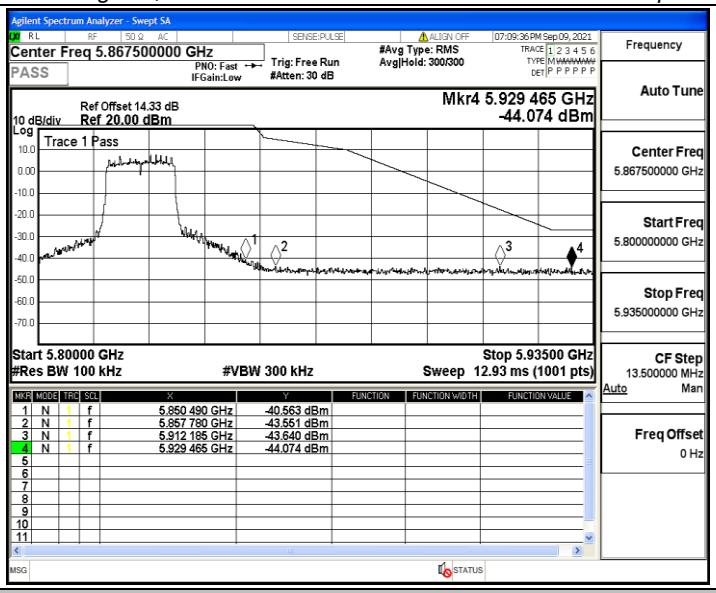
11A_Ant2_Low_5745



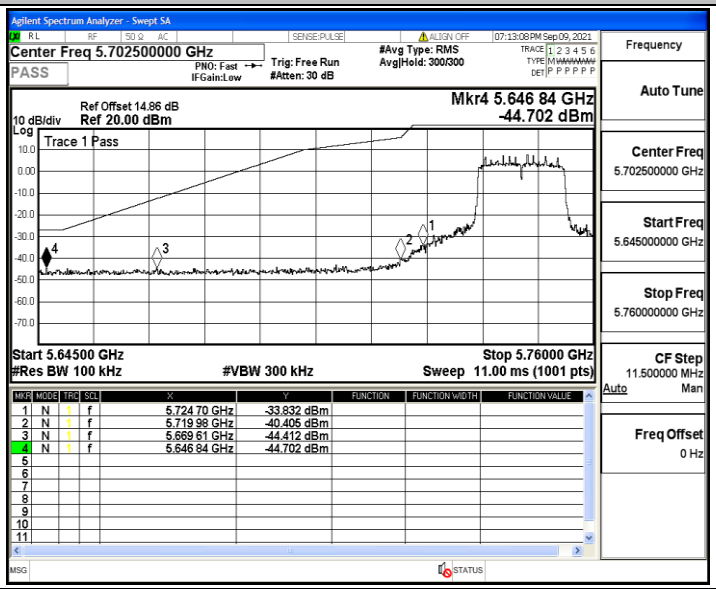
11A_Ant1_High_5825



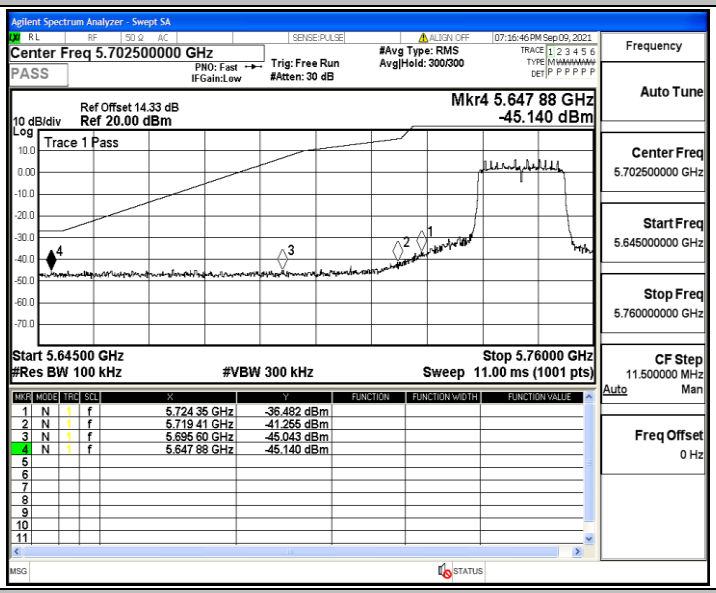
11A_Ant2_High_5825



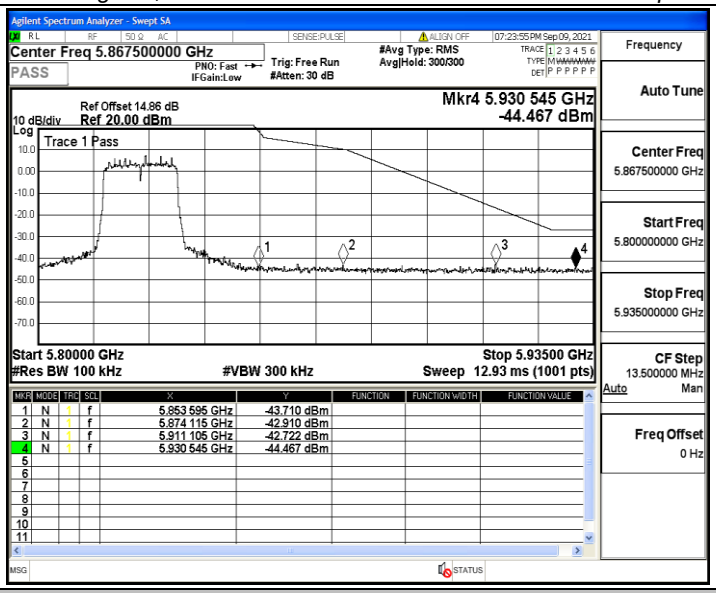
11N20MIMO_Ant1_Low_5745



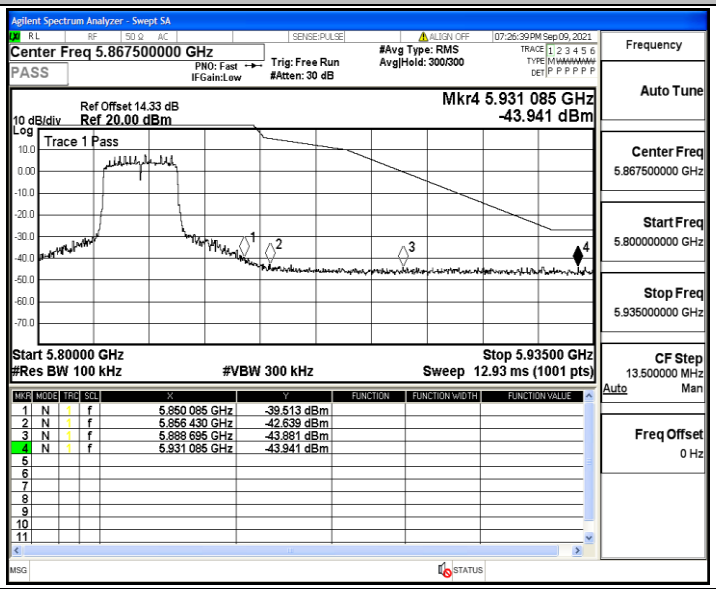
11N20MIMO_Ant2_Low_5745



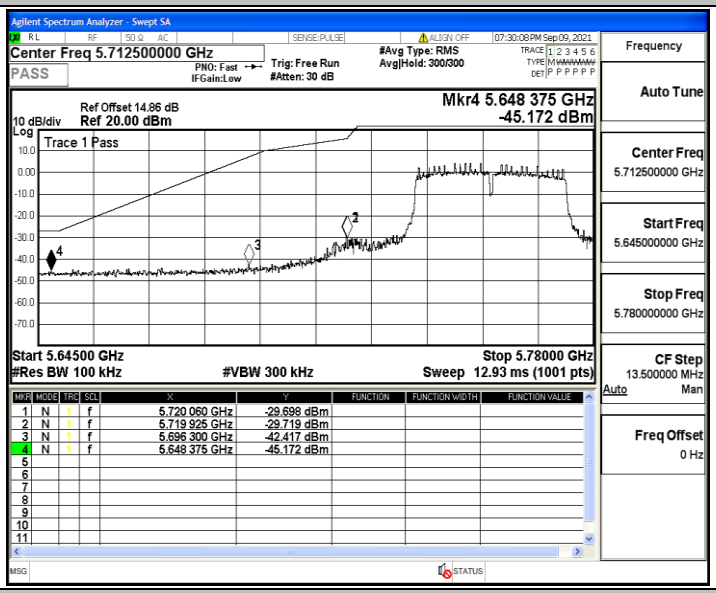
11N20MIMO_Ant1_High_5825



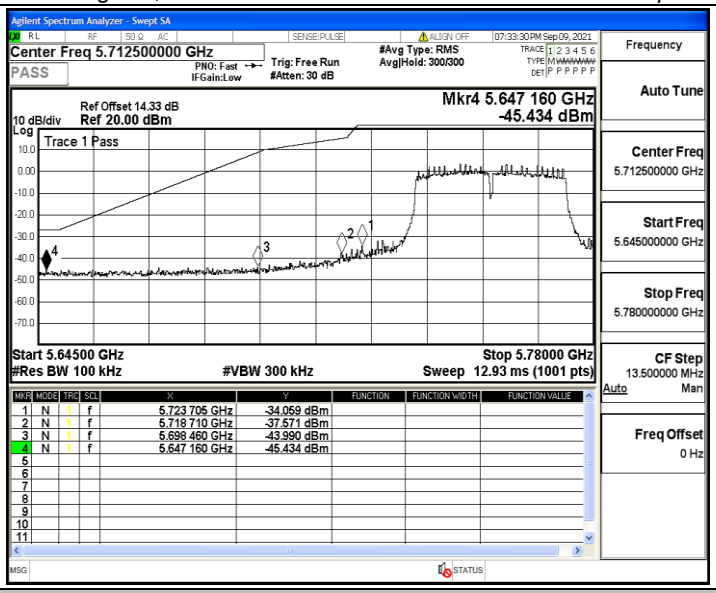
11N20MIMO_Ant2_High_5825



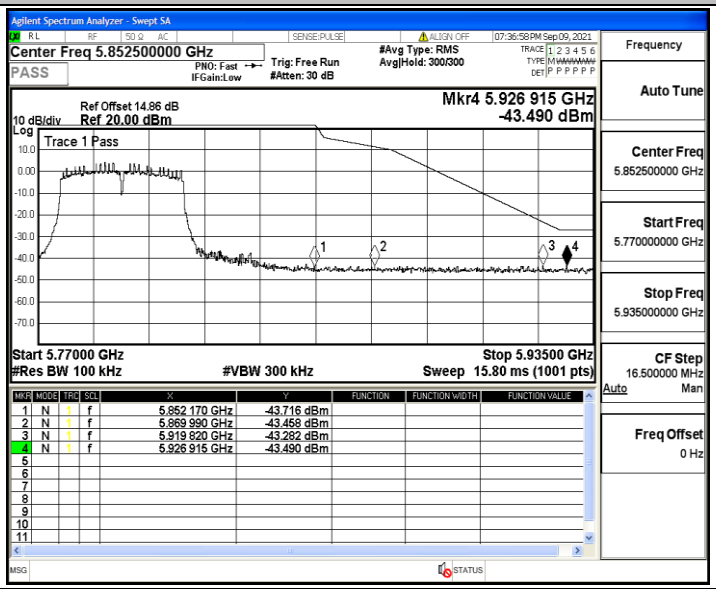
11N40MIMO_Ant1_Low_5755



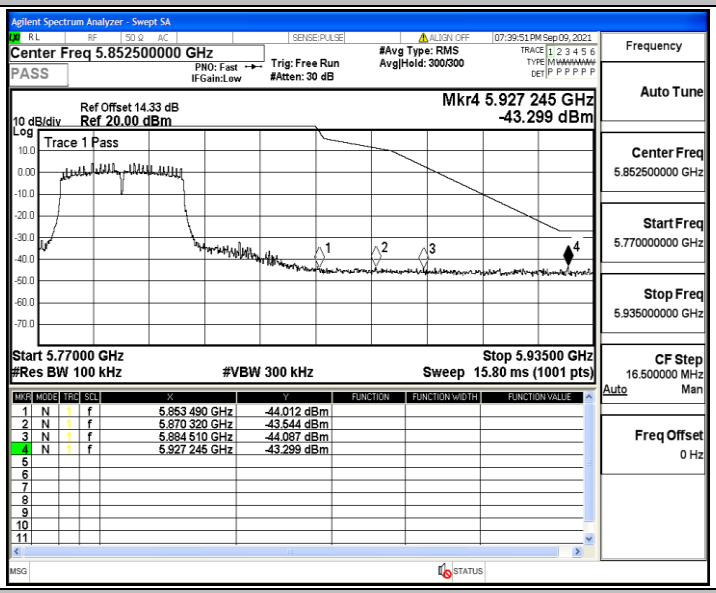
11N40MIMO_Ant2_Low_5755



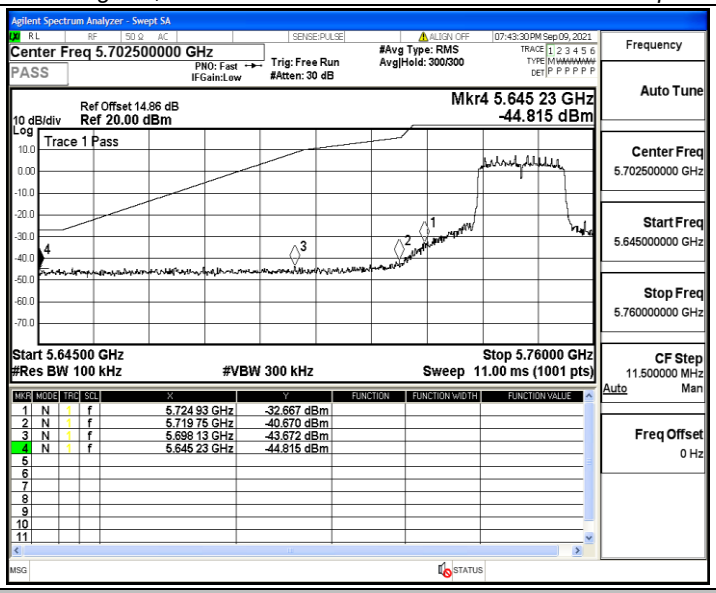
11N40MIMO_Ant1_High_5795



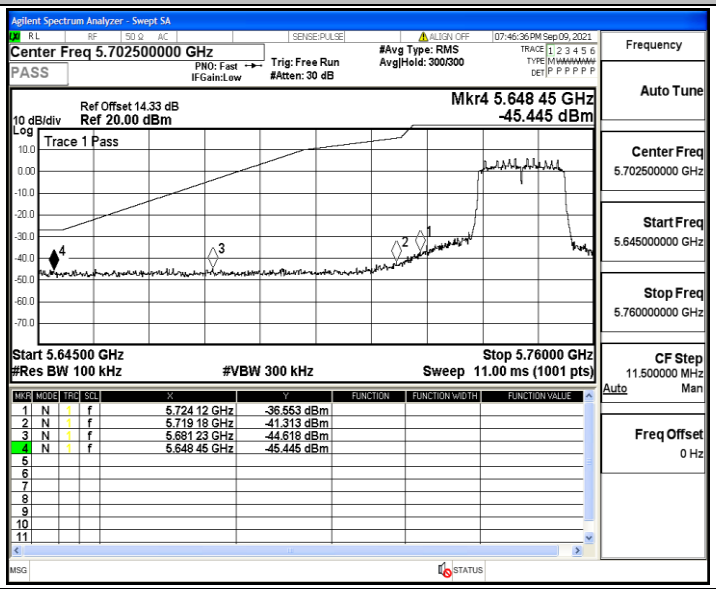
11N40MIMO_Ant2_High_5795



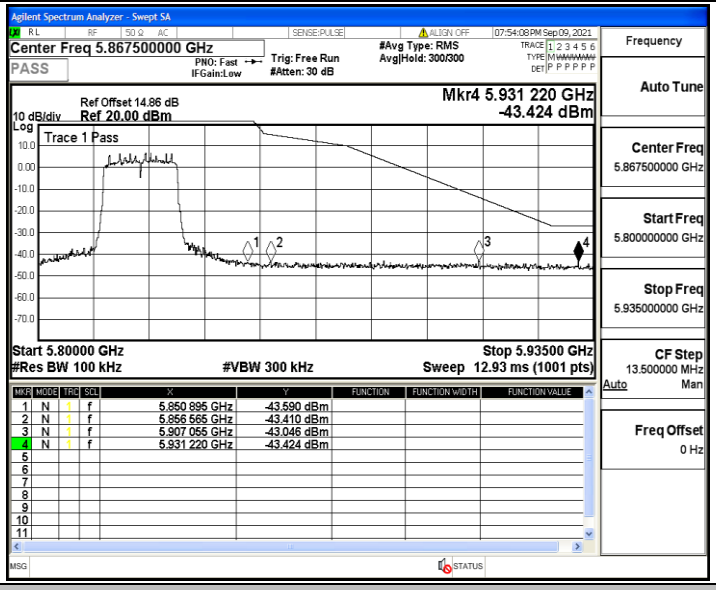
11AC20MIMO_Ant1_Low_5745



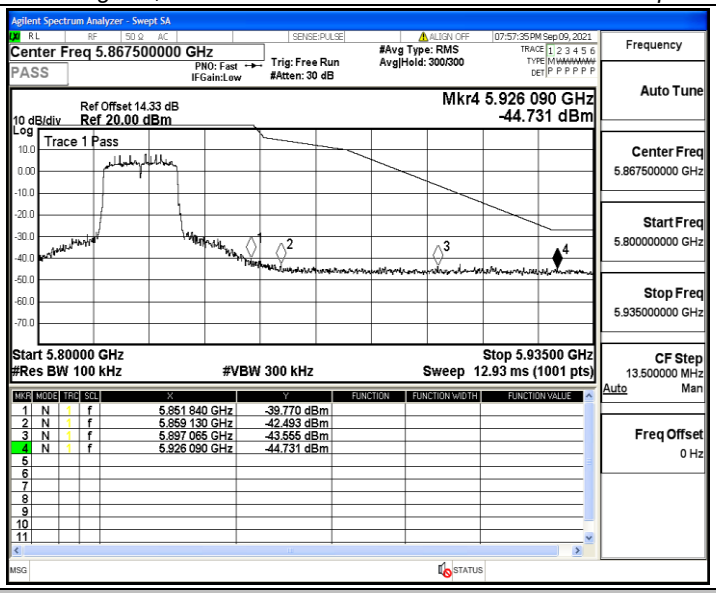
11AC20MIMO_Ant2_Low_5745



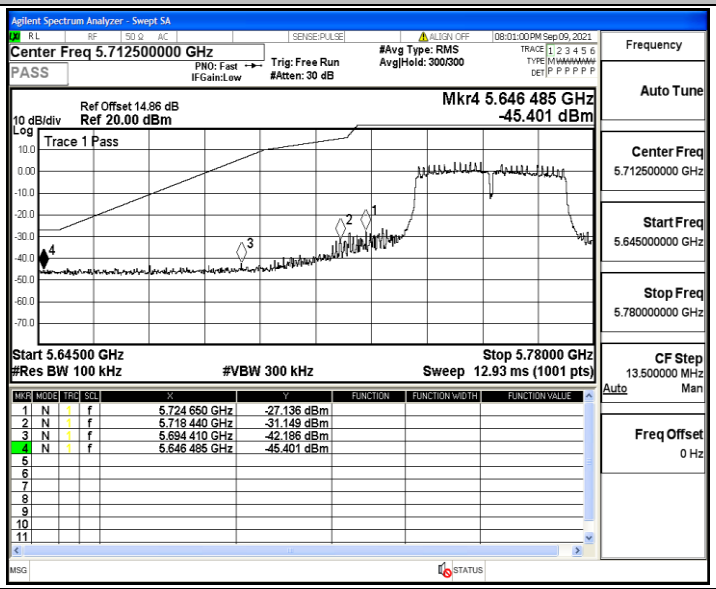
11AC20MIMO_Ant1_High_5825



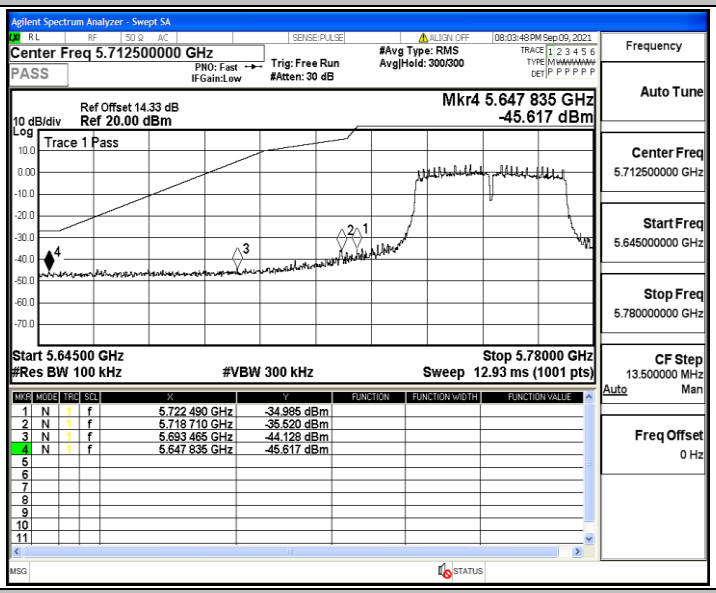
11AC20MIMO_Ant2_High_5825



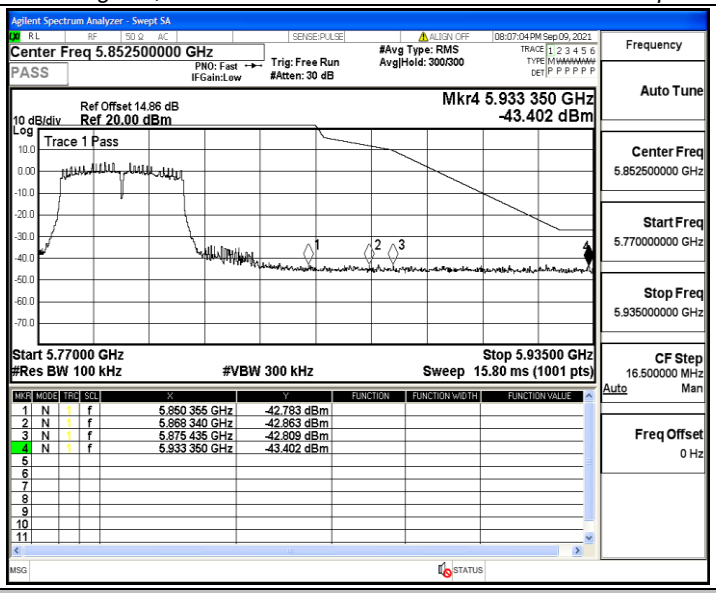
11AC40MIMO_Ant1_Low_5755



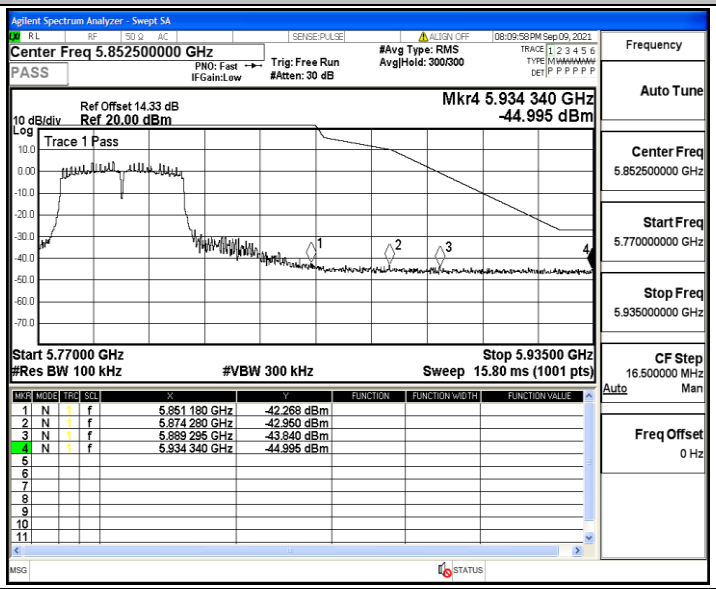
11AC40MIMO_Ant2_Low_5755



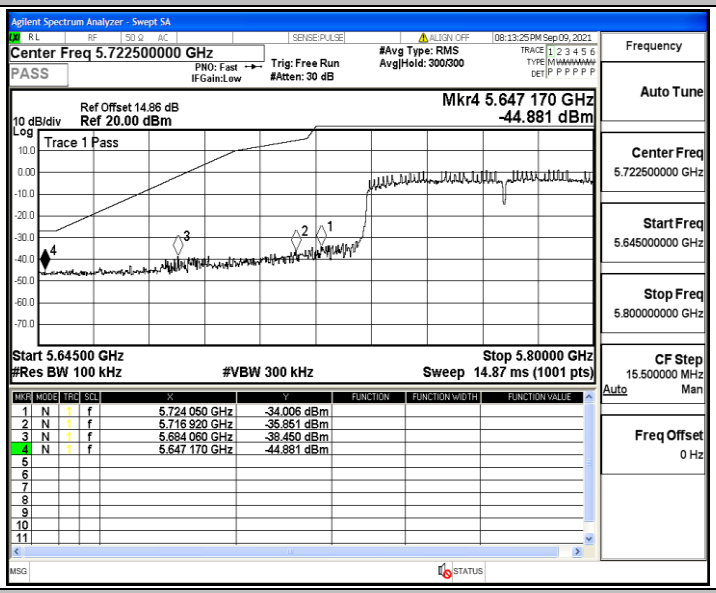
11AC40MIMO_Ant1_High_5795



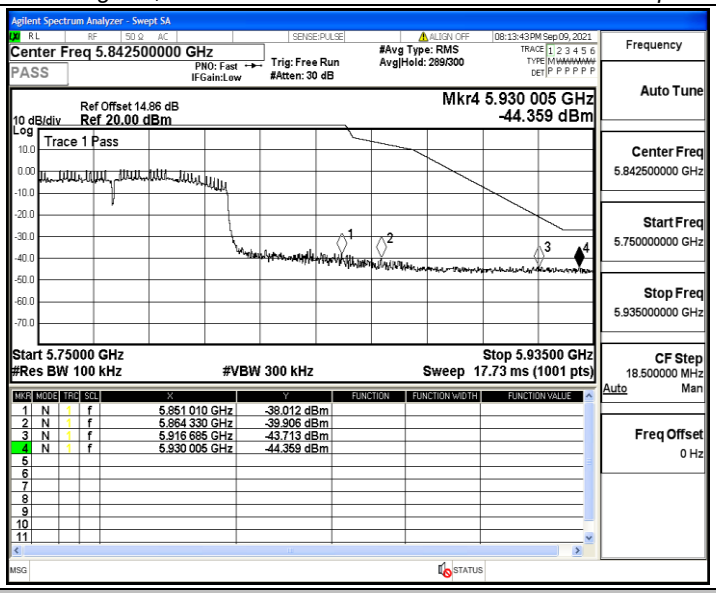
11AC40MIMO_Ant2_High_5795



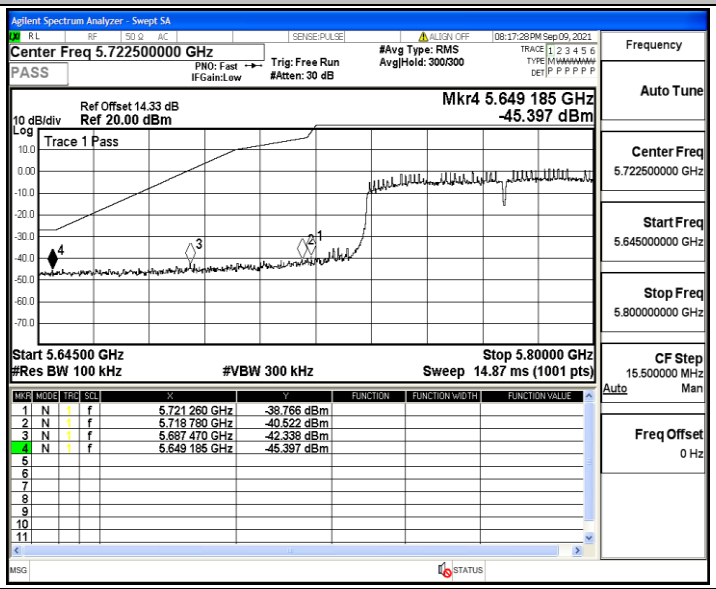
11AC80MIMO_Ant1_Low_5775



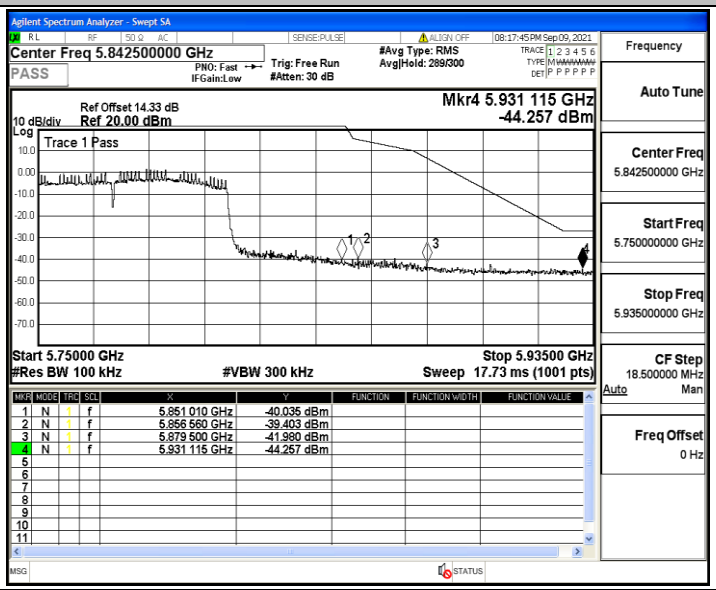
11AC80MIMO_Ant1_High_5775



11AC80MIMO_Ant2_Low_5775



11AC80MIMO_Ant2_High_5775



Appendix E: Frequency Stability

Test Result

Ant1

Frequency (MHz)	Enviroment Temperature (Dregree)	Voltage (VAC)	Measured Frequency (MHz)	Limit Range (MHz)	Test Results
5745	20	132	5745.087277	5725 – 5850	PASS
5745	20	108	5745.067514	5725 – 5850	PASS
5745	50	120	5744.930756	5725 – 5850	PASS
5745	40	120	5745.002832	5725 – 5850	PASS
5745	30	120	5745.058938	5725 – 5850	PASS
5745	20	120	5744.970445	5725 – 5850	PASS
5745	10	120	5744.984127	5725 – 5850	PASS
5745	0	120	5744.932790	5725 – 5850	PASS
5745	-10	120	5744.925331	5725 – 5850	PASS
5745	-20	120	5744.956874	5725 – 5850	PASS
5745	-30	120	5744.925252	5725 – 5850	PASS

Ant2

Frequency (MHz)	Enviroment Temperature (Dregree)	Voltage (VAC)	Measured Frequency (MHz)	Limit Range (MHz)	Test Results
5745	20	132	5744.958464	5725 – 5850	PASS
5745	20	108	5744.978319	5725 – 5850	PASS
5745	50	120	5745.013680	5725 – 5850	PASS
5745	40	120	5744.948498	5725 – 5850	PASS
5745	30	120	5744.959437	5725 – 5850	PASS
5745	20	120	5744.921457	5725 – 5850	PASS
5745	10	120	5745.088793	5725 – 5850	PASS
5745	0	120	5744.990687	5725 – 5850	PASS
5745	-10	120	5744.935879	5725 – 5850	PASS
5745	-20	120	5745.091906	5725 – 5850	PASS
5745	-30	120	5745.099903	5725 – 5850	PASS

Ant1

Frequency (MHz)	Enviroment Temperature (Dregree)	Voltage (VAC)	Measured Frequency (MHz)	Limit Range (MHz)	Test Results
5785	20	132	5785.031046	5725 – 5850	PASS
5785	20	108	5784.978996	5725 – 5850	PASS
5785	50	120	5784.937137	5725 – 5850	PASS
5785	40	120	5784.942753	5725 – 5850	PASS
5785	30	120	5784.988986	5725 – 5850	PASS
5785	20	120	5784.922511	5725 – 5850	PASS
5785	10	120	5785.093032	5725 – 5850	PASS
5785	0	120	5784.914042	5725 – 5850	PASS
5785	-10	120	5785.041770	5725 – 5850	PASS
5785	-20	120	5784.954806	5725 – 5850	PASS
5785	-30	120	5785.014681	5725 – 5850	PASS

Ant2

Frequency (MHz)	Enviroment Temperature (Dregree)	Voltage (VAC)	Measured Frequency (MHz)	Limit Range (MHz)	Test Results
5785	20	132	5784.997872	5725 – 5850	PASS
5785	20	108	5785.039641	5725 – 5850	PASS
5785	50	120	5785.086591	5725 – 5850	PASS
5785	40	120	5784.962456	5725 – 5850	PASS
5785	30	120	5785.015548	5725 – 5850	PASS
5785	20	120	5784.927821	5725 – 5850	PASS
5785	10	120	5785.011277	5725 – 5850	PASS
5785	0	120	5785.082601	5725 – 5850	PASS
5785	-10	120	5784.978030	5725 – 5850	PASS
5785	-20	120	5785.081660	5725 – 5850	PASS
5785	-30	120	5785.041550	5725 – 5850	PASS

Ant1

Frequency (MHz)	Enviroment Temperature (Dregree)	Voltage (VAC)	Measured Frequency (MHz)	Limit Range (MHz)	Test Results
5825	20	132	5824.996702	5725 – 5850	PASS
5825	20	108	5825.078185	5725 – 5850	PASS
5825	50	120	5824.926747	5725 – 5850	PASS
5825	40	120	5825.032150	5725 – 5850	PASS
5825	30	120	5824.901900	5725 – 5850	PASS
5825	20	120	5824.904765	5725 – 5850	PASS
5825	10	120	5824.989900	5725 – 5850	PASS
5825	0	120	5824.919511	5725 – 5850	PASS
5825	-10	120	5825.079733	5725 – 5850	PASS
5825	-20	120	5825.075446	5725 – 5850	PASS
5825	-30	120	5825.017113	5725 – 5850	PASS

Ant2

Frequency (MHz)	Enviroment Temperature (Dregree)	Voltage (VAC)	Measured Frequency (MHz)	Limit Range (MHz)	Test Results
5825	20	132	5824.921627	5725 – 5850	PASS
5825	20	108	5824.942558	5725 – 5850	PASS
5825	50	120	5825.058890	5725 – 5850	PASS
5825	40	120	5825.074121	5725 – 5850	PASS
5825	30	120	5824.949256	5725 – 5850	PASS
5825	20	120	5825.054005	5725 – 5850	PASS
5825	10	120	5824.912466	5725 – 5850	PASS
5825	0	120	5824.975904	5725 – 5850	PASS
5825	-10	120	5824.903800	5725 – 5850	PASS
5825	-20	120	5825.099749	5725 – 5850	PASS
5825	-30	120	5824.919093	5725 – 5850	PASS

Ant1

Frequency (MHz)	Enviroment Temperature (Dregree)	Voltage (VAC)	Measured Frequency (MHz)	Limit Range (MHz)	Test Results
5755	20	132	5754.917201	5725 – 5850	PASS
5755	20	108	5754.929586	5725 – 5850	PASS
5755	50	120	5755.028616	5725 – 5850	PASS
5755	40	120	5754.970108	5725 – 5850	PASS
5755	30	120	5754.980502	5725 – 5850	PASS
5755	20	120	5755.069079	5725 – 5850	PASS
5755	10	120	5755.077815	5725 – 5850	PASS
5755	0	120	5754.999084	5725 – 5850	PASS
5755	-10	120	5754.933548	5725 – 5850	PASS
5755	-20	120	5754.998362	5725 – 5850	PASS
5755	-30	120	5755.082440	5725 – 5850	PASS

Ant2

Frequency (MHz)	Enviroment Temperature (Dregree)	Voltage (VAC)	Measured Frequency (MHz)	Limit Range (MHz)	Test Results
5755	20	132	5755.075029	5725 – 5850	PASS
5755	20	108	5754.999876	5725 – 5850	PASS
5755	50	120	5755.037464	5725 – 5850	PASS
5755	40	120	5754.913757	5725 – 5850	PASS
5755	30	120	5755.049884	5725 – 5850	PASS
5755	20	120	5754.985350	5725 – 5850	PASS
5755	10	120	5755.010984	5725 – 5850	PASS
5755	0	120	5754.979786	5725 – 5850	PASS
5755	-10	120	5755.023188	5725 – 5850	PASS
5755	-20	120	5754.942042	5725 – 5850	PASS
5755	-30	120	5754.954270	5725 – 5850	PASS

Ant1

Frequency (MHz)	Enviroment Temperature (Dregree)	Voltage (VAC)	Measured Frequency (MHz)	Limit Range (MHz)	Test Results
5795	20	132	5795.077498	5725 – 5850	PASS
5795	20	108	5795.004112	5725 – 5850	PASS
5795	50	120	5794.918217	5725 – 5850	PASS
5795	40	120	5795.008829	5725 – 5850	PASS
5795	30	120	5795.017984	5725 – 5850	PASS
5795	20	120	5794.912216	5725 – 5850	PASS
5795	10	120	5794.922755	5725 – 5850	PASS
5795	0	120	5795.061950	5725 – 5850	PASS
5795	-10	120	5795.003797	5725 – 5850	PASS
5795	-20	120	5795.033913	5725 – 5850	PASS
5795	-30	120	5794.998163	5725 – 5850	PASS

Ant2

Frequency (MHz)	Enviroment Temperature (Dregree)	Voltage (VAC)	Measured Frequency (MHz)	Limit Range (MHz)	Test Results
5795	20	132	5794.991150	5725 – 5850	PASS
5795	20	108	5795.031136	5725 – 5850	PASS
5795	50	120	5795.030763	5725 – 5850	PASS
5795	40	120	5795.083641	5725 – 5850	PASS
5795	30	120	5795.098111	5725 – 5850	PASS
5795	20	120	5794.933618	5725 – 5850	PASS
5795	10	120	5795.020066	5725 – 5850	PASS
5795	0	120	5795.098296	5725 – 5850	PASS
5795	-10	120	5795.040216	5725 – 5850	PASS
5795	-20	120	5794.980667	5725 – 5850	PASS
5795	-30	120	5794.914473	5725 – 5850	PASS

Ant1

Frequency (MHz)	Enviroment Temperature (Dregree)	Voltage (VAC)	Measured Frequency (MHz)	Limit Range (MHz)	Test Results
5775	20	132	5775.076368	5725 – 5850	PASS
5775	20	108	5774.911515	5725 – 5850	PASS
5775	50	120	5775.027346	5725 – 5850	PASS
5775	40	120	5775.077697	5725 – 5850	PASS
5775	30	120	5775.084199	5725 – 5850	PASS
5775	20	120	5775.031732	5725 – 5850	PASS
5775	10	120	5774.918199	5725 – 5850	PASS
5775	0	120	5774.954590	5725 – 5850	PASS
5775	-10	120	5775.013324	5725 – 5850	PASS
5775	-20	120	5775.080267	5725 – 5850	PASS
5775	-30	120	5774.912498	5725 – 5850	PASS

Ant2

Frequency (MHz)	Enviroment Temperature (Dregree)	Voltage (VAC)	Measured Frequency (MHz)	Limit Range (MHz)	Test Results
5775	20	132	5774.922322	5725 – 5850	PASS
5775	20	108	5775.018046	5725 – 5850	PASS
5775	50	120	5775.094174	5725 – 5850	PASS
5775	40	120	5774.936353	5725 – 5850	PASS
5775	30	120	5774.916336	5725 – 5850	PASS
5775	20	120	5774.990432	5725 – 5850	PASS
5775	10	120	5774.965996	5725 – 5850	PASS
5775	0	120	5775.079752	5725 – 5850	PASS
5775	-10	120	5775.025262	5725 – 5850	PASS
5775	-20	120	5774.978927	5725 – 5850	PASS
5775	-30	120	5774.994203	5725 – 5850	PASS

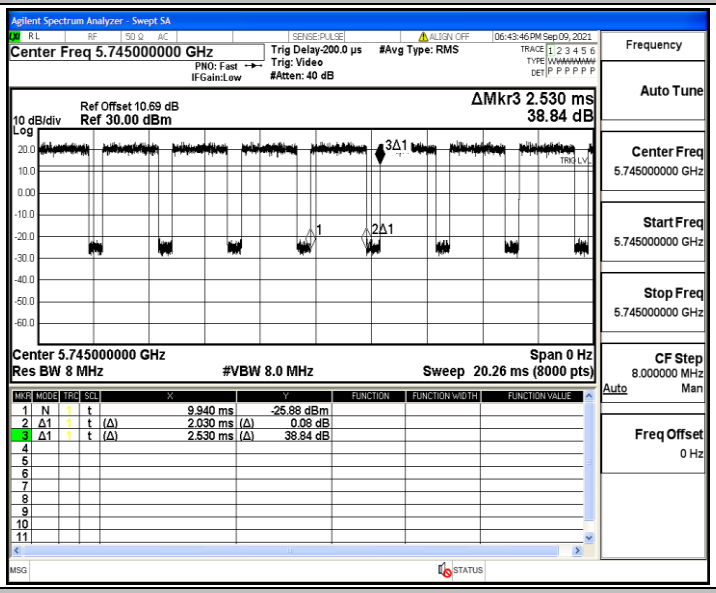
Appendix F: Duty Cycle

Test Result

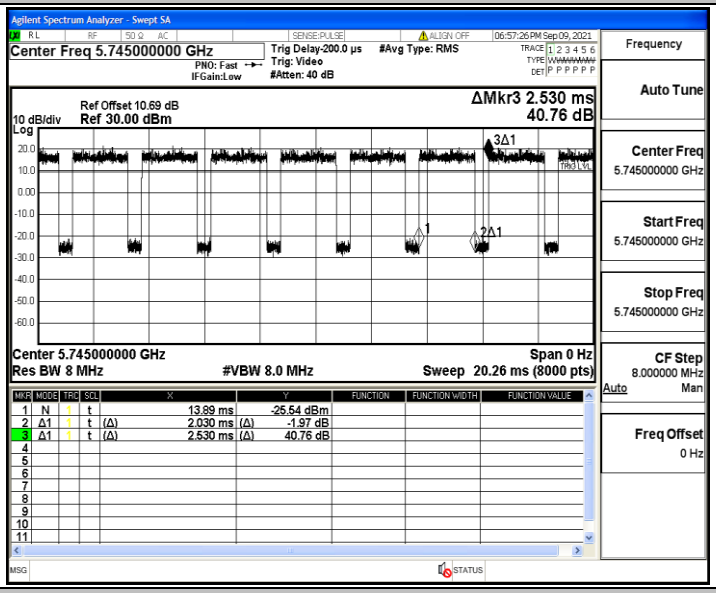
TestMode	Antenna	Channel	Transmission Duration [ms]	Transmission Period [ms]	Duty Cycle [%]	1/B[kHz]
11A	Ant1	5745	2.03	2.53	80.24	0.49
	Ant2	5745	2.03	2.53	80.24	0.49
	Ant1	5785	2.02	2.52	80.16	0.5
	Ant2	5785	2.02	2.52	80.16	0.5
	Ant1	5825	2.02	2.53	79.84	0.5
	Ant2	5825	2.03	2.53	80.24	0.49
11N20MIMO	Ant1	5745	1.88	2.38	78.99	0.53
	Ant2	5745	1.89	2.39	79.08	0.53
	Ant1	5785	1.89	2.39	79.08	0.53
	Ant2	5785	1.89	2.39	79.08	0.53
	Ant1	5825	1.89	2.39	79.08	0.53
	Ant2	5825	1.89	2.39	79.08	0.53
11N40MIMO	Ant1	5755	0.93	1.43	65.03	1.08
	Ant2	5755	0.93	1.43	65.03	1.08
	Ant1	5795	0.92	1.43	64.34	1.09
	Ant2	5795	0.92	1.43	64.34	1.09
11AC20MIMO	Ant1	5745	1.89	2.40	78.75	0.53
	Ant2	5745	1.89	2.39	79.08	0.53
	Ant1	5785	1.89	2.39	79.08	0.53
	Ant2	5785	1.90	2.40	79.17	0.53
	Ant1	5825	1.89	2.40	78.75	0.53
	Ant2	5825	1.89	2.40	78.75	0.53
11AC40MIMO	Ant1	5755	0.93	1.43	65.03	1.08
	Ant2	5755	0.93	1.43	65.03	1.08
	Ant1	5795	0.93	1.43	65.03	1.08
	Ant2	5795	0.93	1.43	65.03	1.08
11AC80MIMO	Ant1	5775	0.45	0.95	47.37	2.22
	Ant2	5775	0.45	0.96	46.88	2.22

Test Graphs

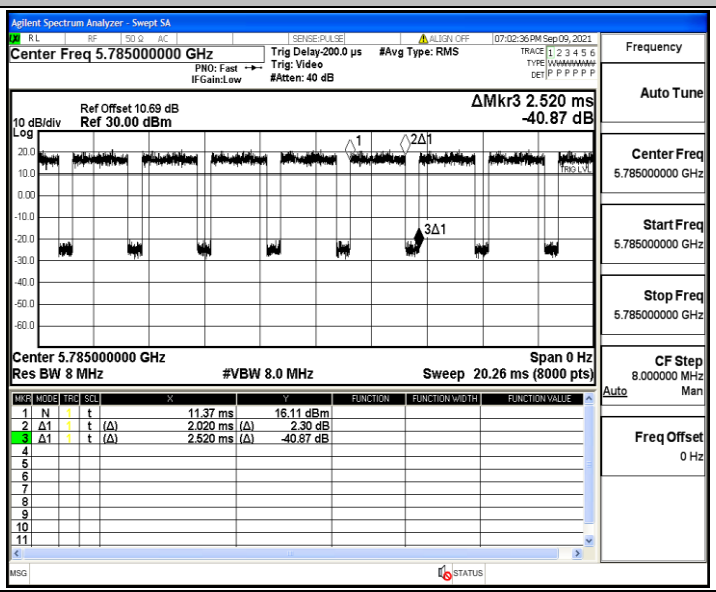
11A_Ant1_5745



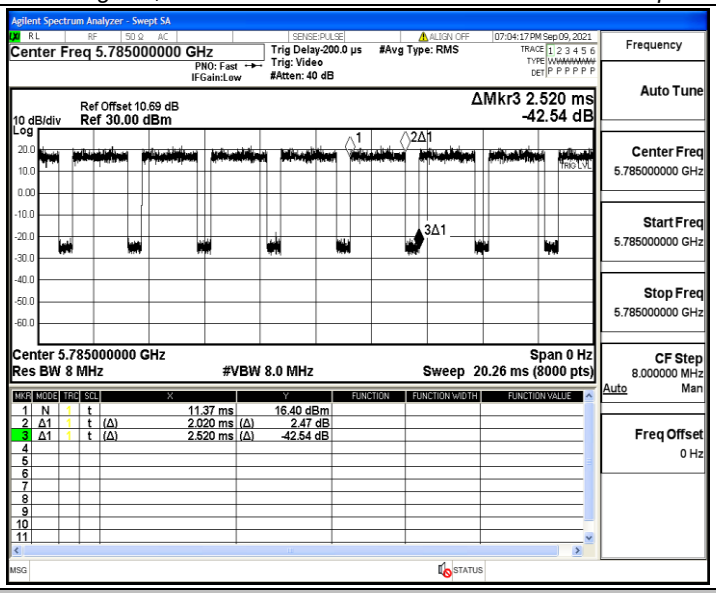
11A_Ant2_5745



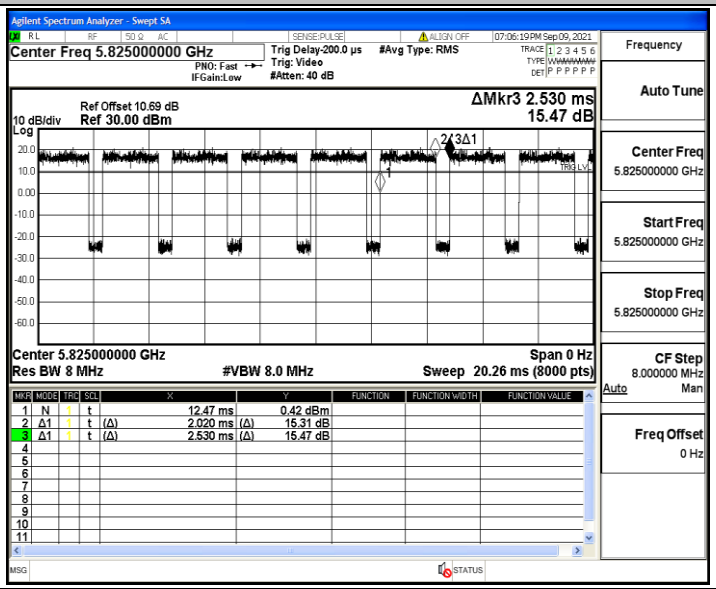
11A_Ant1_5785



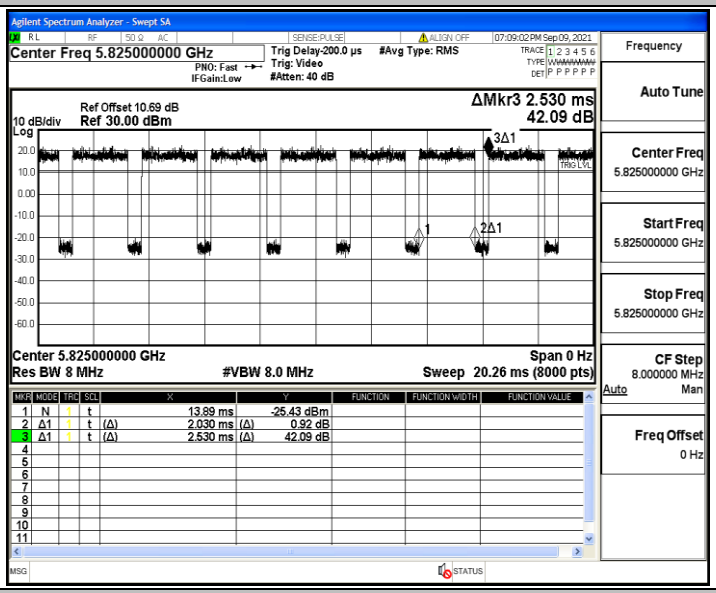
11A_Ant2_5785



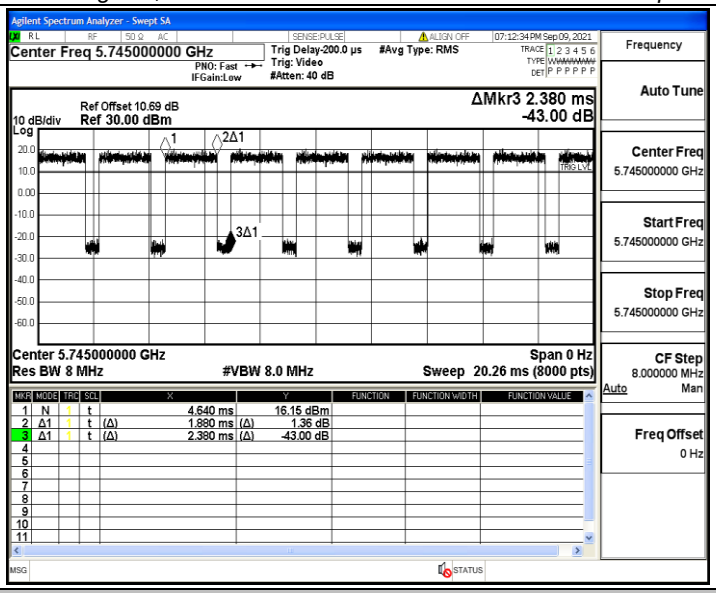
11A_Ant1_5825



11A_Ant2_5825



11N20MIMO_Ant1_5745



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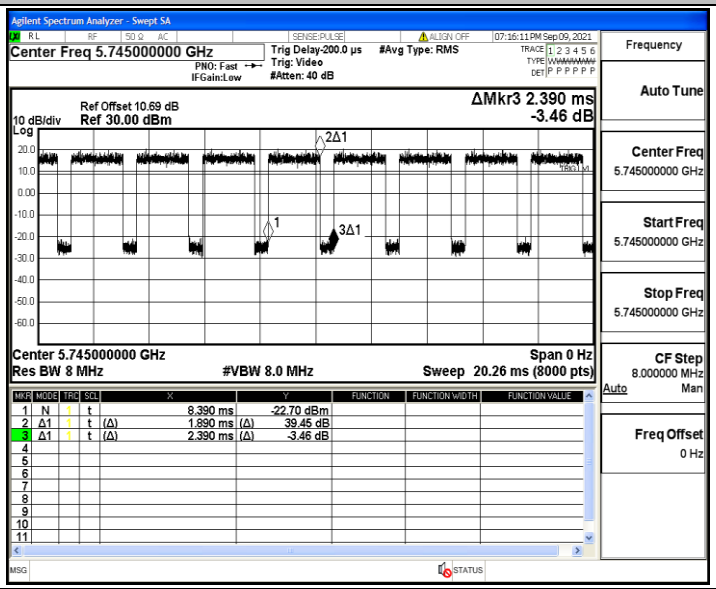
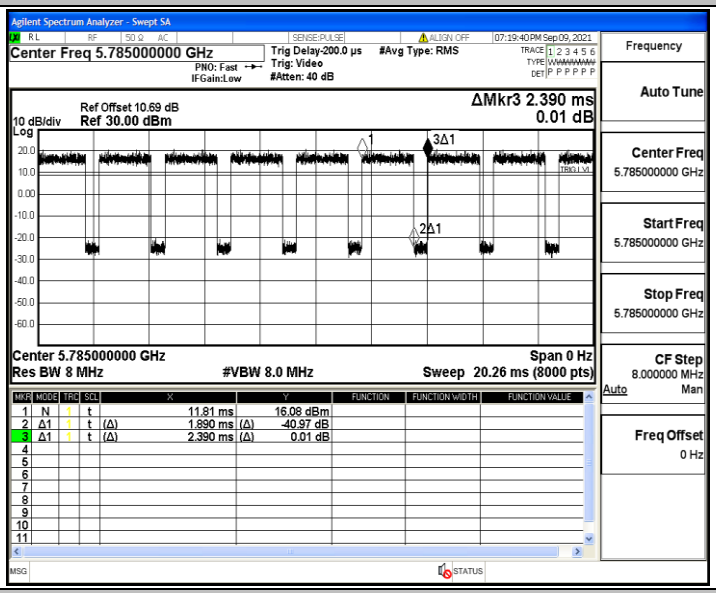
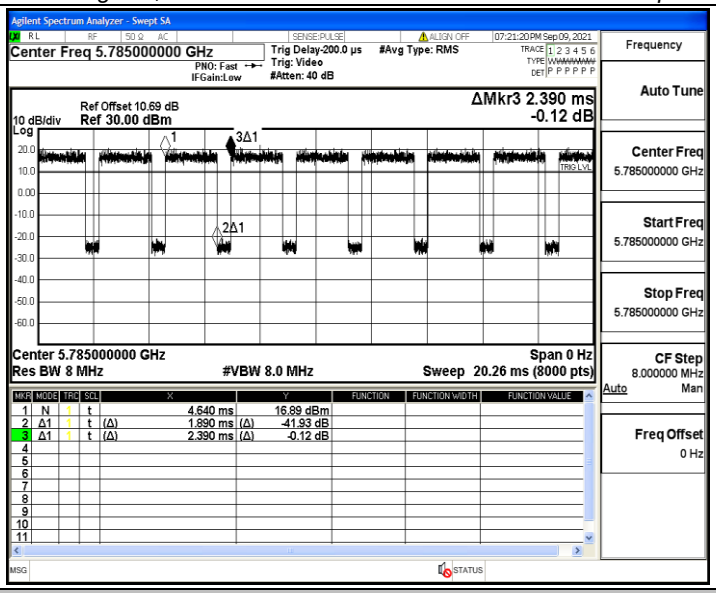


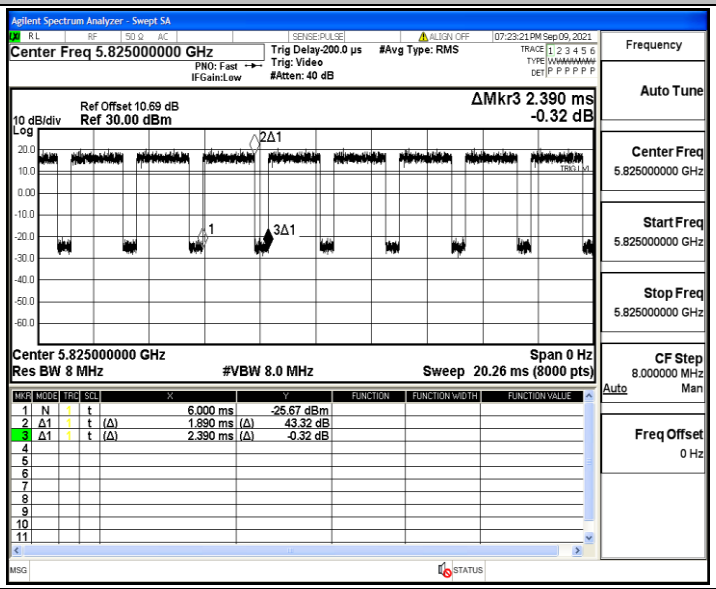
11N20MIMO_Ant1_5785



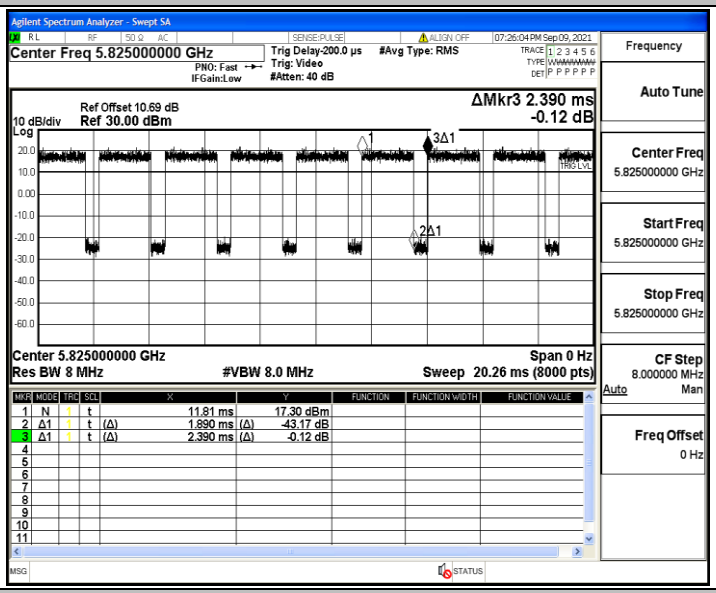
11N20MIMO_Ant2_5785



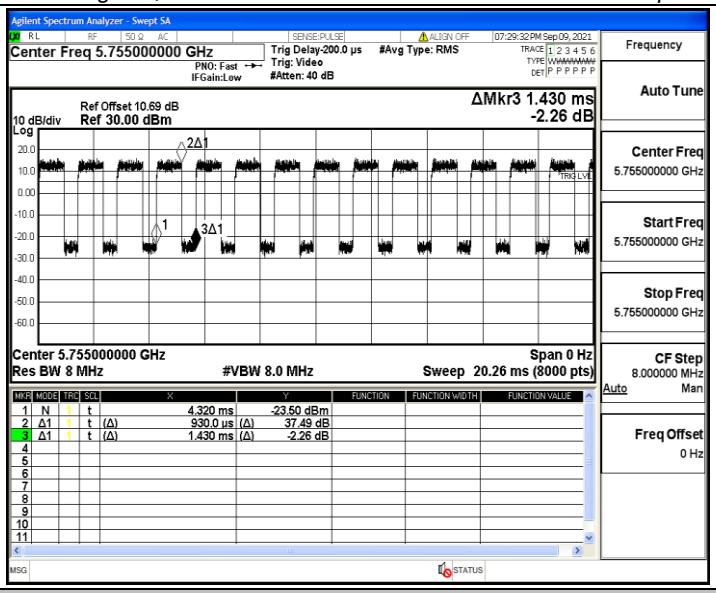
11N20MIMO_Ant1_5825



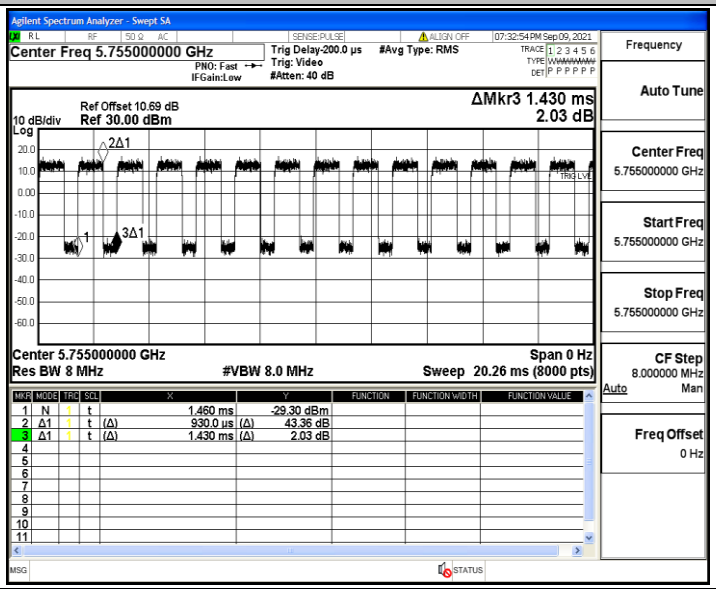
11N20MIMO_Ant2_5825



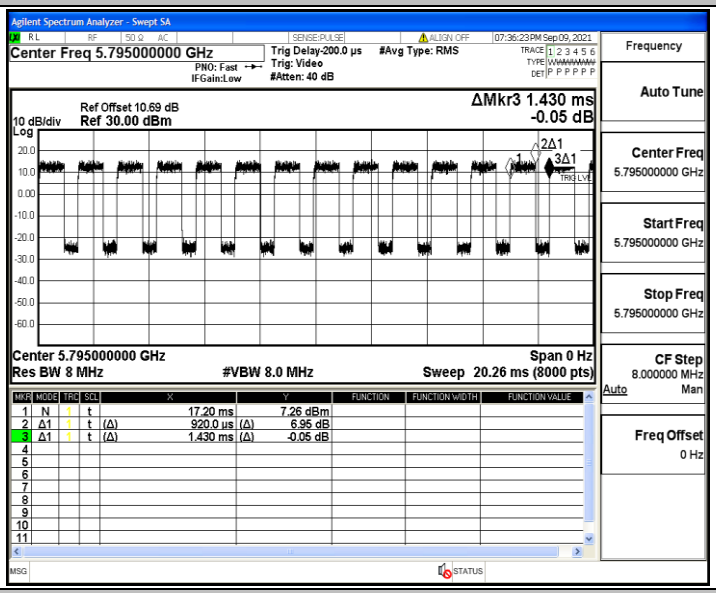
11N40MIMO_Ant1_5755



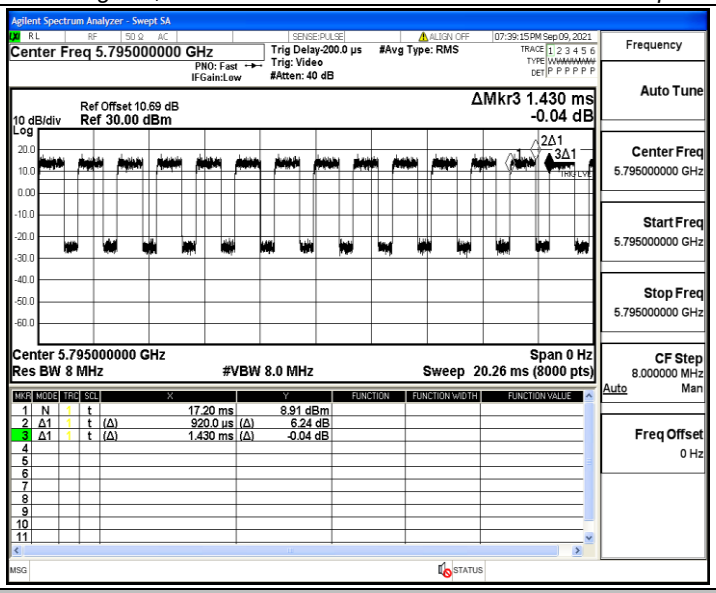
11N40MIMO_Ant2_5755



11N40MIMO_Ant1_5795



11N40MIMO_Ant2_5795



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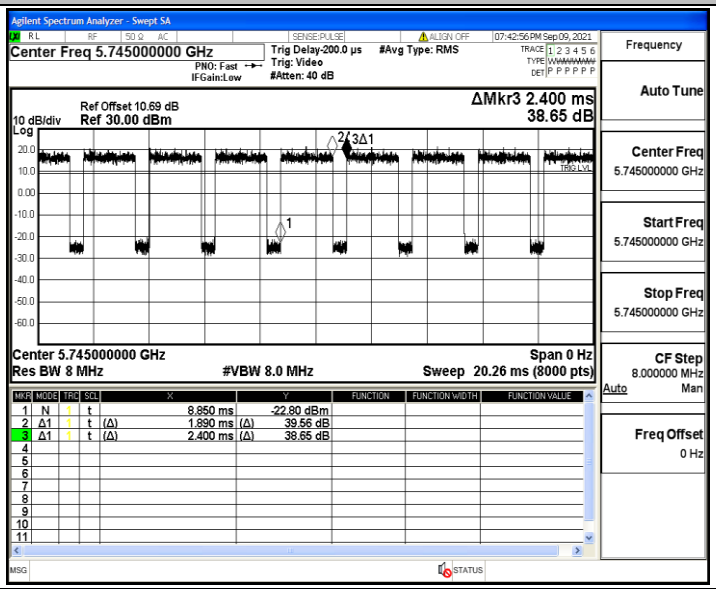
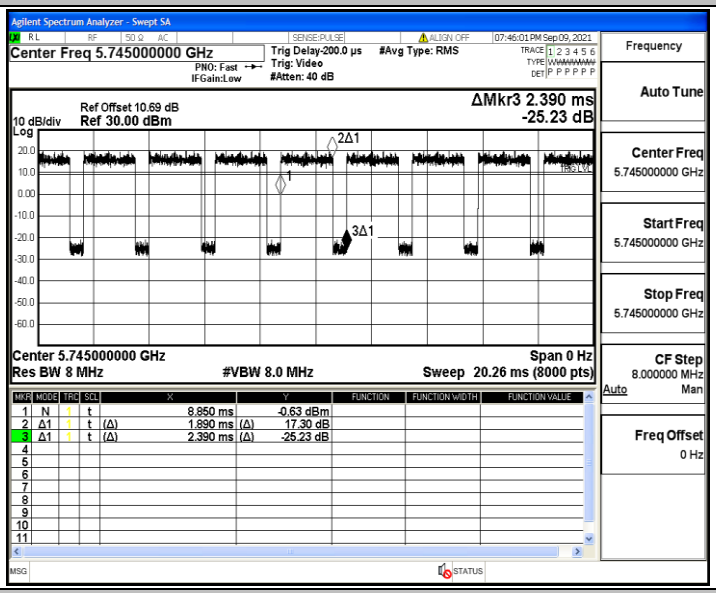
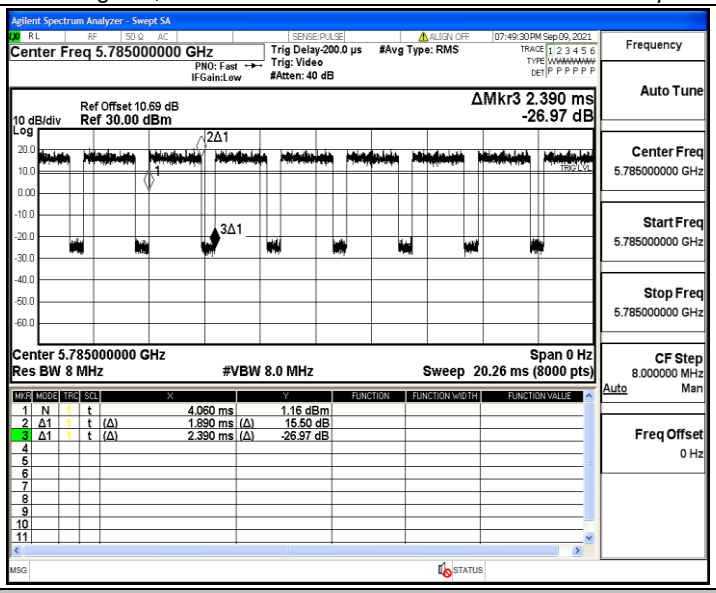


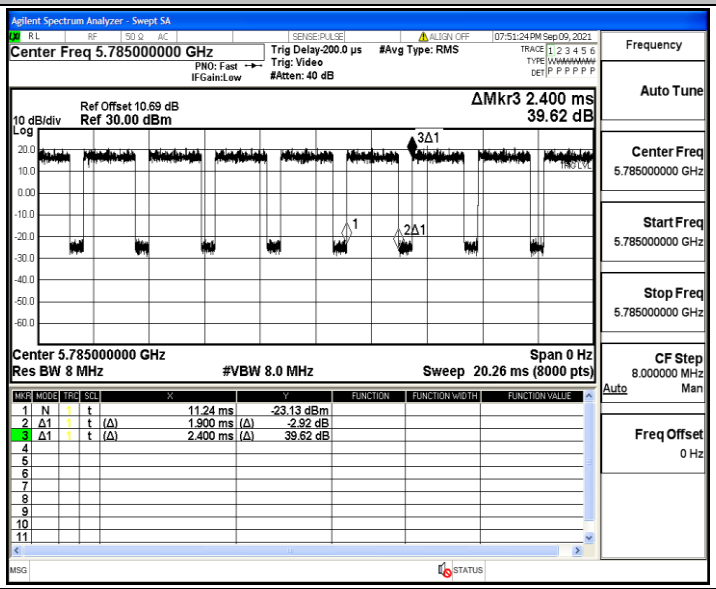
11AC20MIMO_Ant2_5745



11AC20MIMO_Ant1_5785



11AC20MIMO_Ant2_5785



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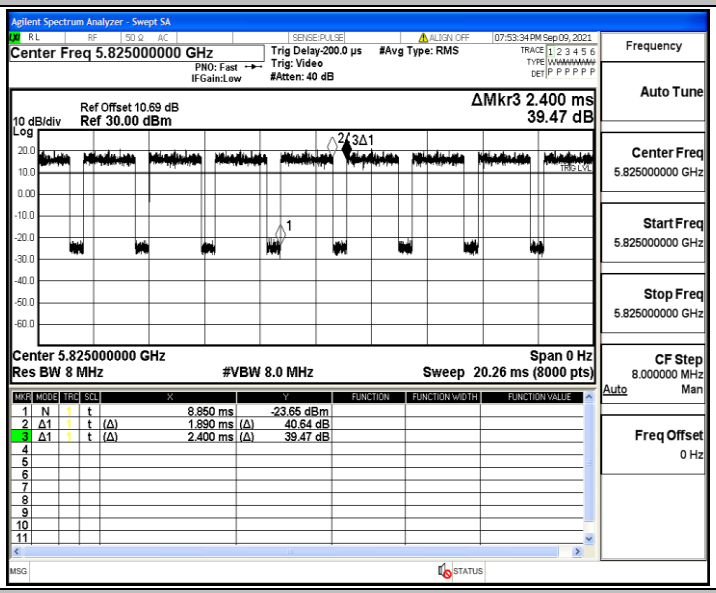

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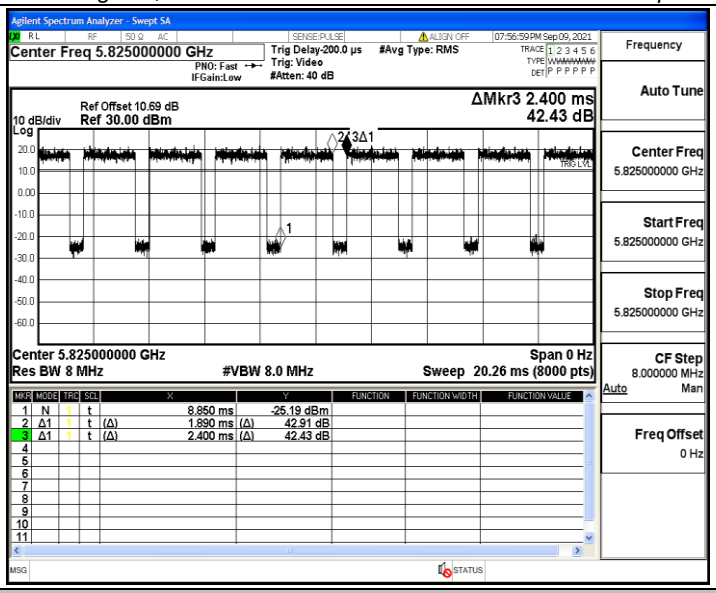
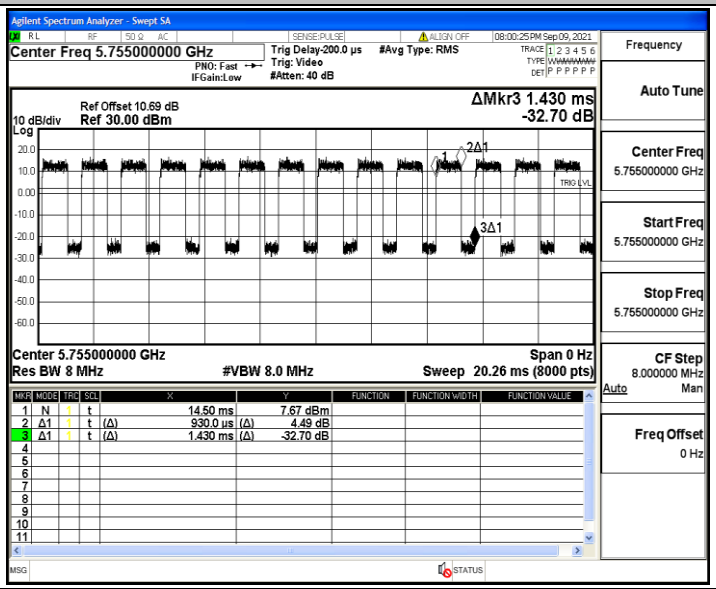
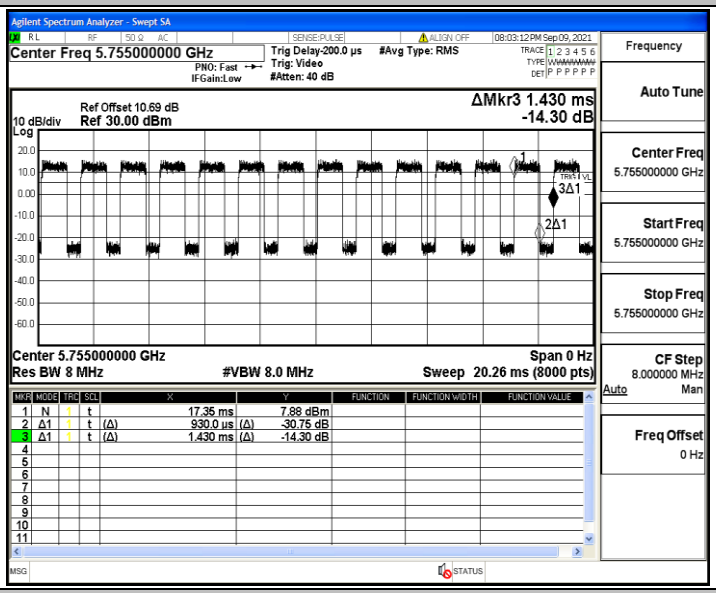


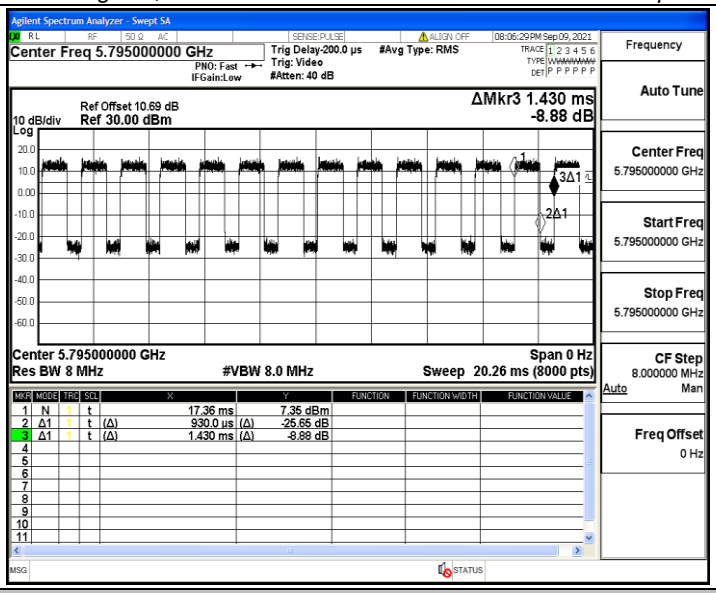
11AC40MIMO_Ant1_5755



11AC40MIMO_Ant2_5755



11AC40MIMO_Ant1_5795



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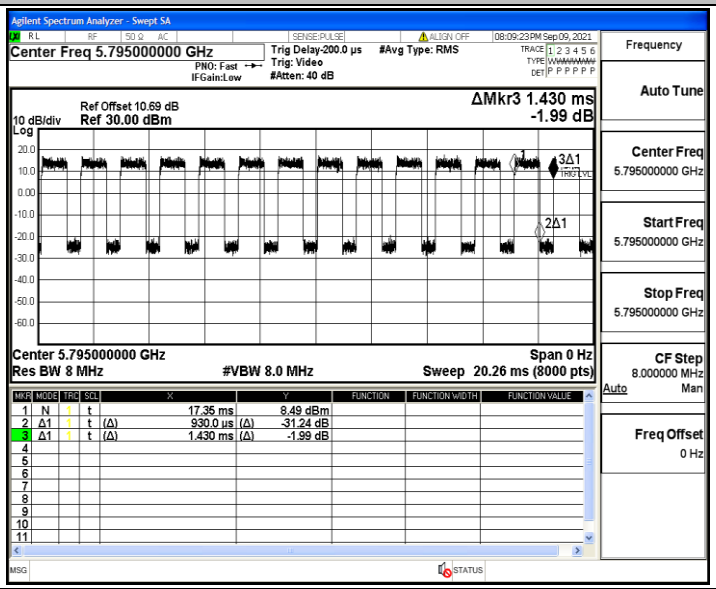
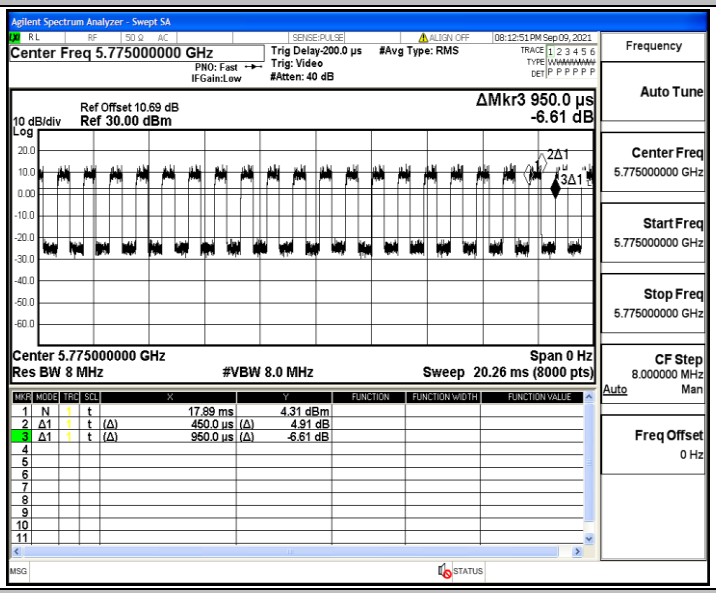
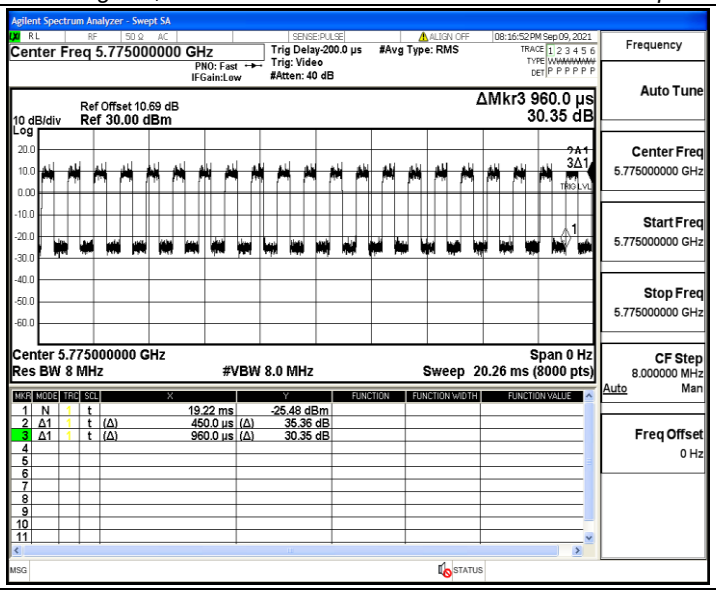


11AC80MIMO_Ant1_5775



11AC80MIMO_Ant2_5775


Agilent Spectrum Analyzer - Swept SA
Center Freq 5.775000000 GHz
PNO: Fast
IFGain:Low
Trig Delay-200.0 µs
Trig: Video
#Atten: 40 dB
#Avg Type: RMS
08:16:52 PM Sep 09, 2021
Ref Offset 10.69 dB
10 dB/div
Log
Ref 30.00 dBm
ΔMkr3 960.0 µs
30.35 dB
Center 5.775000000 GHz
Res BW 8 MHz
#VBW 8.0 MHz
Span 0 Hz
Sweep 20.26 ms (8000 pts)
1 N 1 t 19.22 ms -25.48 dBm
2 Δ1 1 t (Δ) 450.0 µs (Δ) 35.36 dB
3 Δ1 1 t (Δ) 960.0 µs (Δ) 30.35 dB
Frequency
Auto Tune
Center Freq
5.775000000 GHz
Start Freq
5.775000000 GHz
Stop Freq
5.775000000 GHz
CF Step
8.000000 MHz
Auto
Man
Freq Offset
0 Hz