RF Test Data for RLAN(5. 8G) (Conducted Measurement)

Product Name: Set Top Box

Trade Mark: ROBERTS COMMUNICATIONS NETWORK

Test Model: ROBERTS-3PATH

FCC ID: 2BK67-ROBERTS-3PATH

Environmental Conditions

Temperature:	23.8℃
Relative Humidity:	58%
ATM Pressure:	100.0 kPa
Test Engineer:	Allen Lai
Supervised by:	Hugo Chen
NOTE	N/A

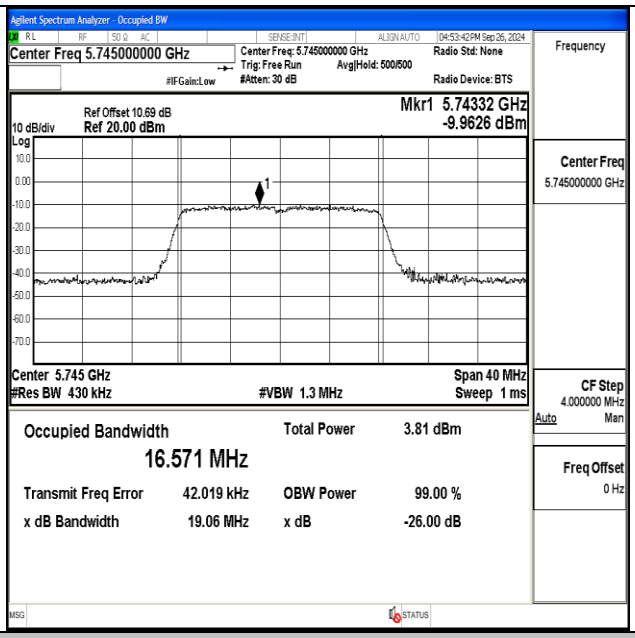
Appendix A2: Occupied channel bandwidth

Test Result

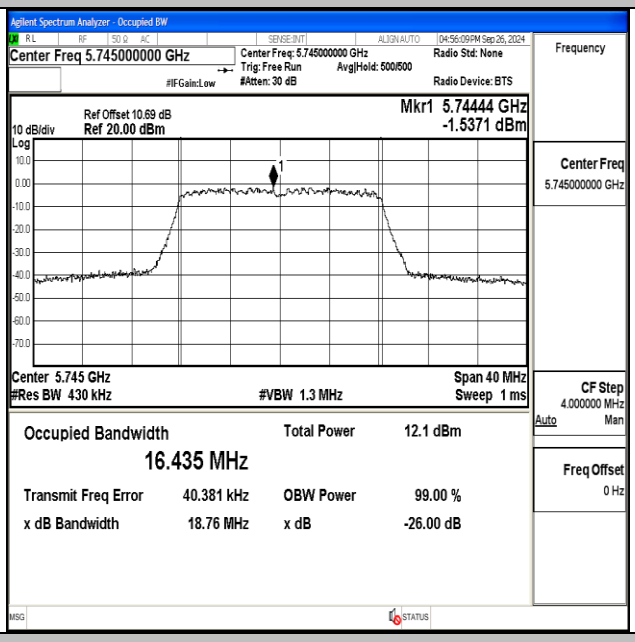
Test Mode	Antenna	Frequency [MHz]	OCB [MHz]	FL [MHz]	FH [MHz]	Limit [MHz]	Verdict
11A	Ant1	5745	16.571	5736.7565	5753.3275	---	---
11A	Ant2	5745	16.435	5736.8229	5753.2579	---	---
11A	Ant1	5785	16.572	5776.7729	5793.3449	---	---
11A	Ant2	5785	16.449	5776.8318	5793.2808	---	---
11A	Ant1	5825	16.562	5816.7810	5833.3430	---	---
11A	Ant2	5825	16.466	5816.8372	5833.3032	---	---
11N20MIMO	Ant1	5745	17.715	5736.1902	5753.9052	---	---
11N20MIMO	Ant2	5745	17.625	5736.2238	5753.8488	---	---
11N20MIMO	Ant1	5785	17.690	5776.2031	5793.8931	---	---
11N20MIMO	Ant2	5785	17.623	5776.2356	5793.8586	---	---
11N20MIMO	Ant1	5825	17.676	5816.2156	5833.8916	---	---
11N20MIMO	Ant2	5825	17.621	5816.2416	5833.8626	---	---
11N40MIMO	Ant1	5755	36.564	5736.7309	5773.2949	---	---
11N40MIMO	Ant2	5755	36.445	5736.8350	5773.2800	---	---
11N40MIMO	Ant1	5795	36.541	5776.8501	5813.3911	---	---
11N40MIMO	Ant2	5795	36.288	5776.9965	5813.2845	---	---
11AC20MIMO	Ant1	5745	17.721	5736.1789	5753.8999	---	---
11AC20MIMO	Ant2	5745	17.614	5736.2338	5753.8478	---	---
11AC20MIMO	Ant1	5785	17.729	5776.1909	5793.9199	---	---
11AC20MIMO	Ant2	5785	17.602	5776.2616	5793.8636	---	---
11AC20MIMO	Ant1	5825	17.683	5816.2215	5833.9045	---	---
11AC20MIMO	Ant2	5825	17.607	5816.2656	5833.8726	---	---
11AC40MIMO	Ant1	5755	36.660	5736.7233	5773.3833	---	---
11AC40MIMO	Ant2	5755	36.347	5736.9076	5773.2546	---	---

11AC40MIMO	Ant1	5795	36.525	5776.7855	5813.3105	---	---
11AC40MIMO	Ant2	5795	36.299	5776.9633	5813.2623	---	---
11AC80MIMO	Ant1	5775	75.290	5737.4746	5812.7646	---	---
11AC80MIMO	Ant2	5775	74.671	5737.8694	5812.5404	---	---

Test Graphs



11A-Ant1-5745



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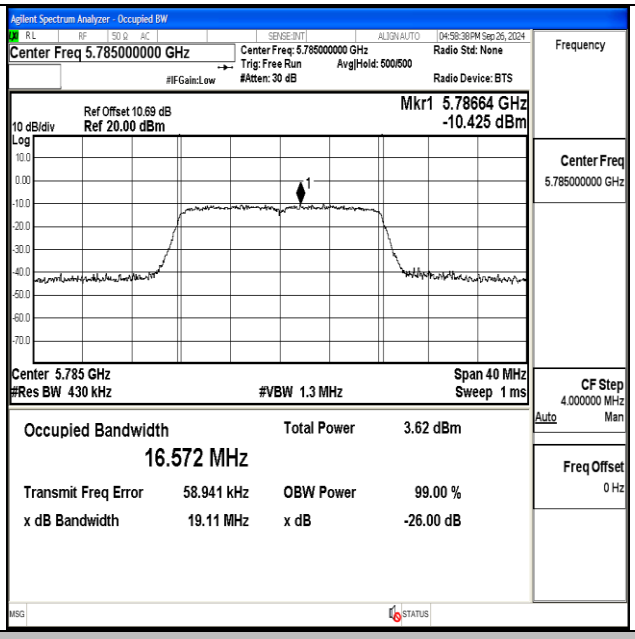

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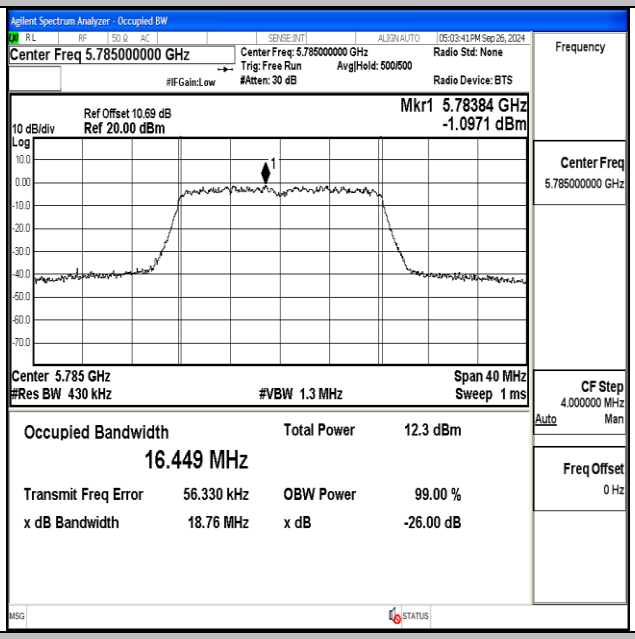

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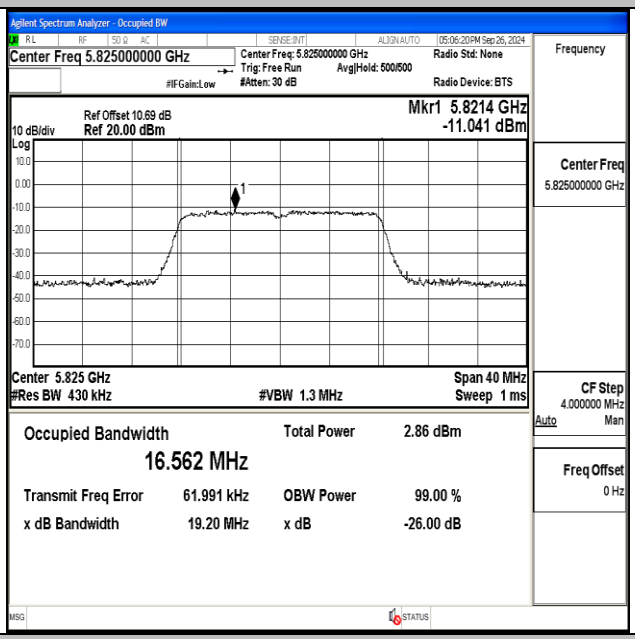

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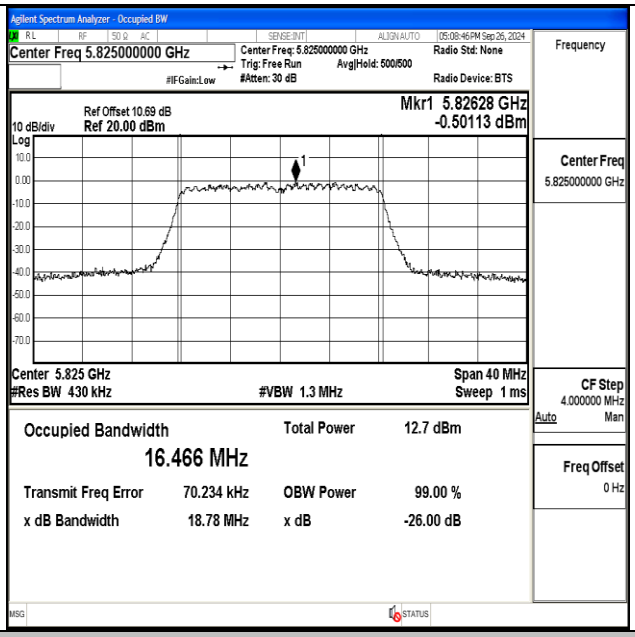

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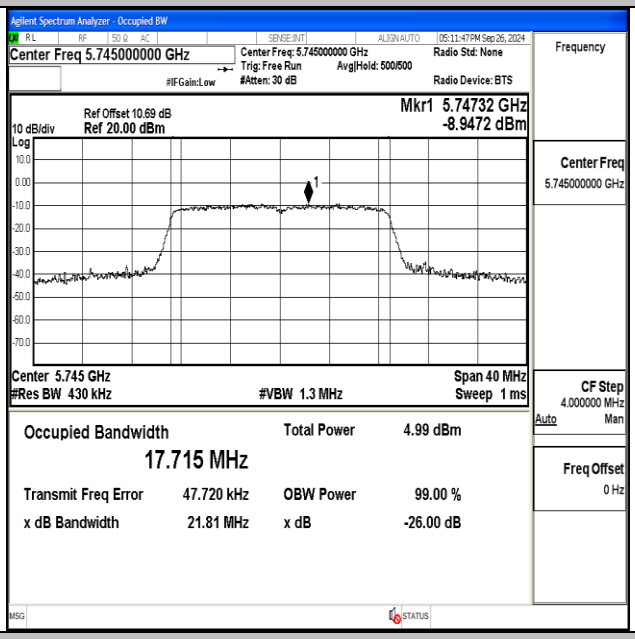

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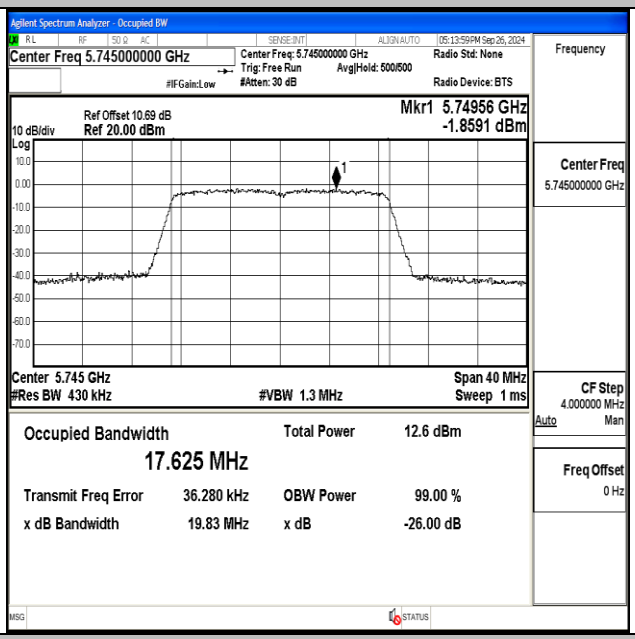

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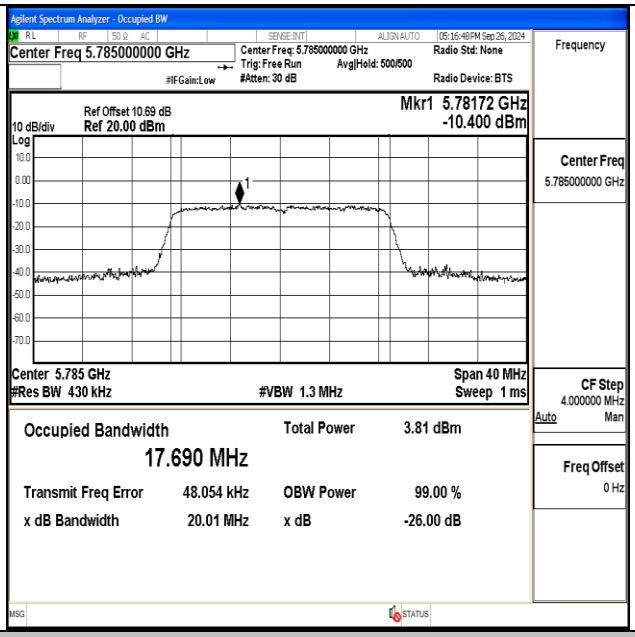

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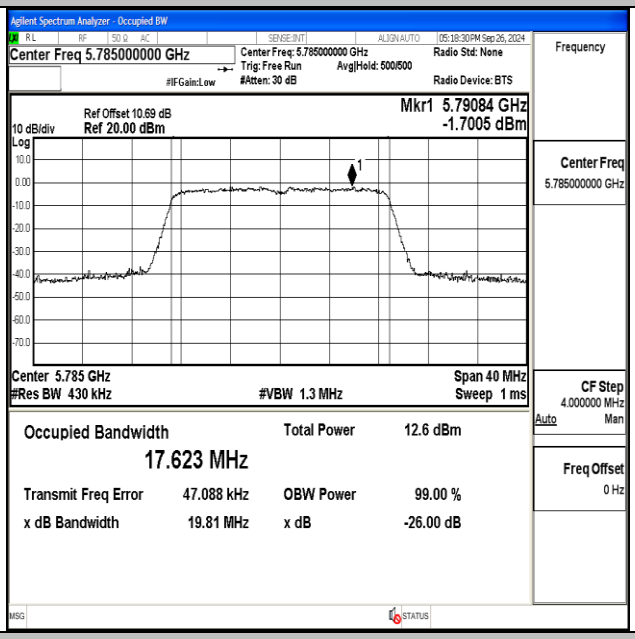

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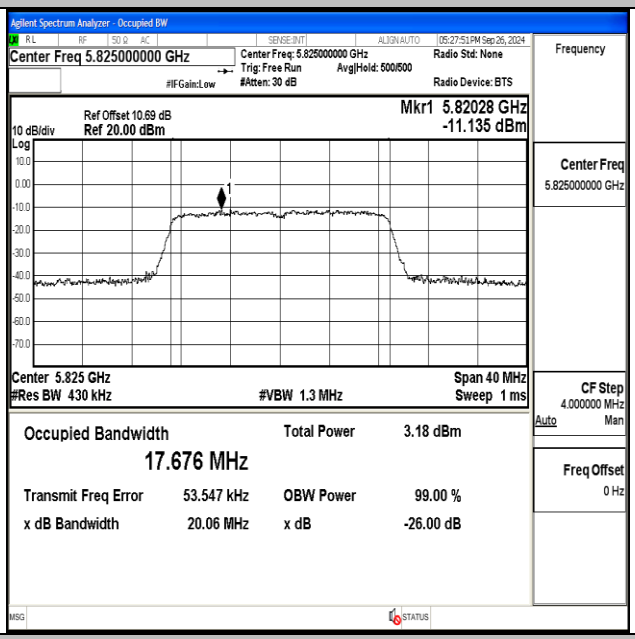

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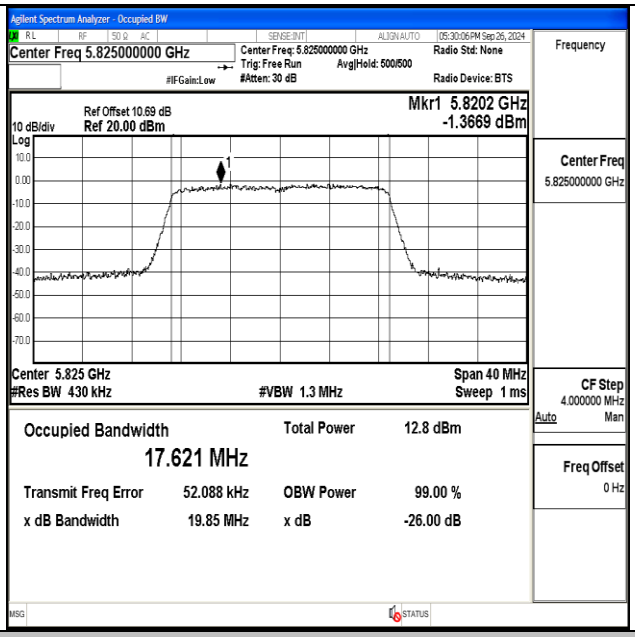

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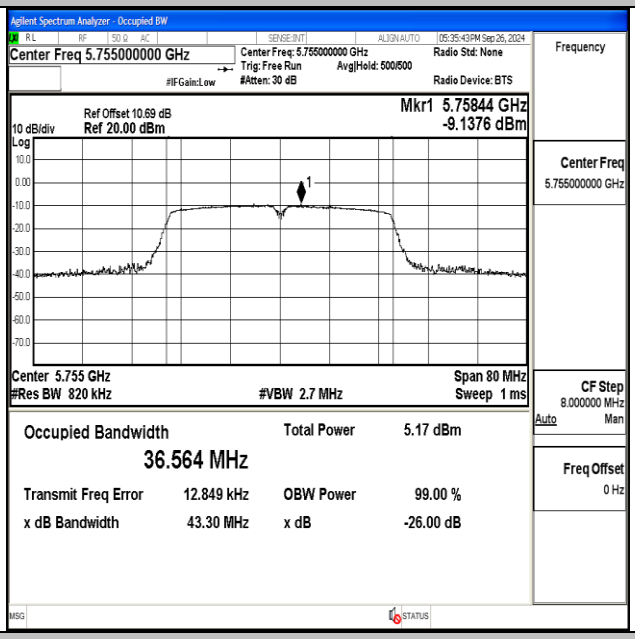

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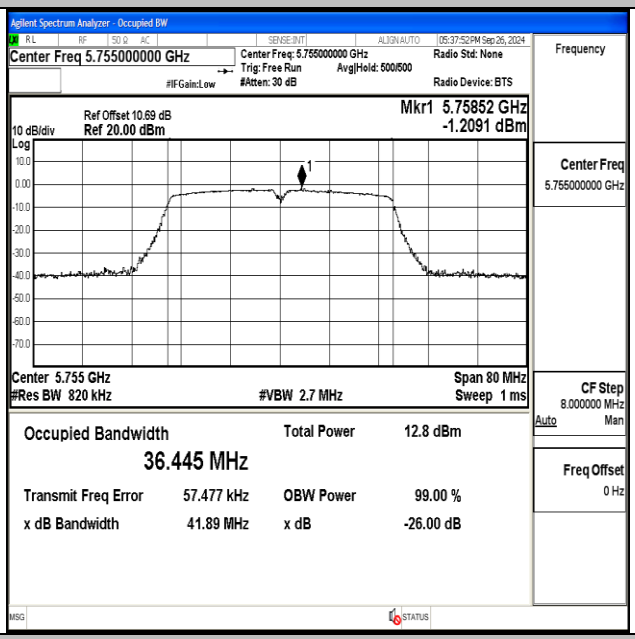

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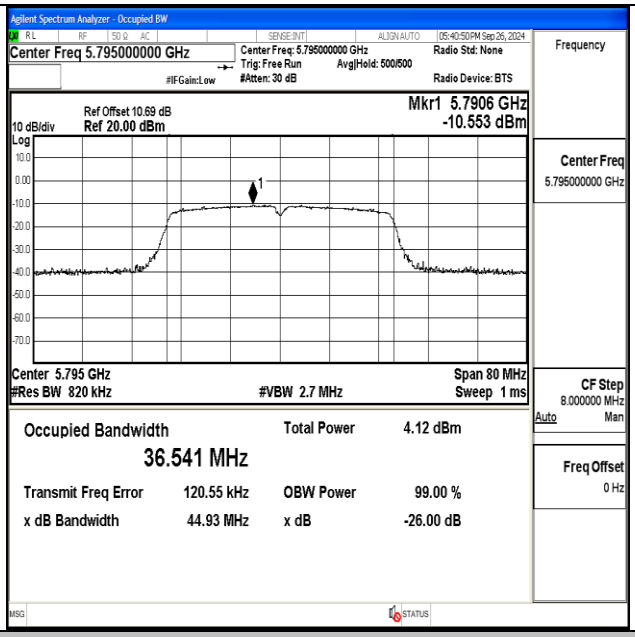

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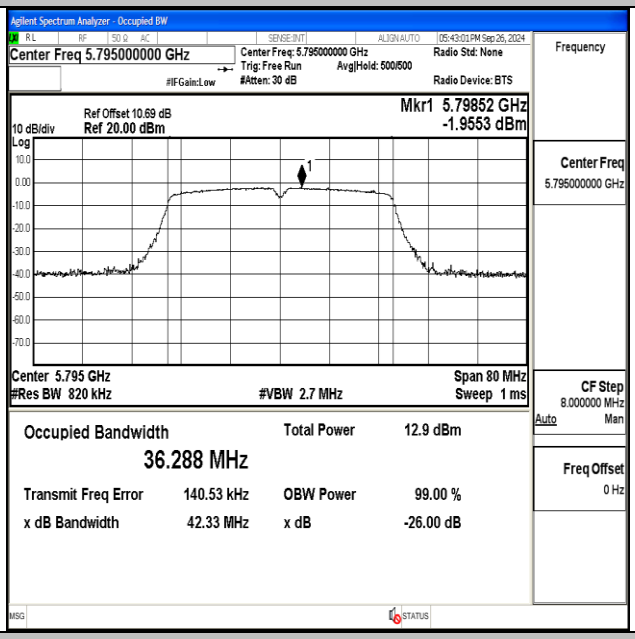

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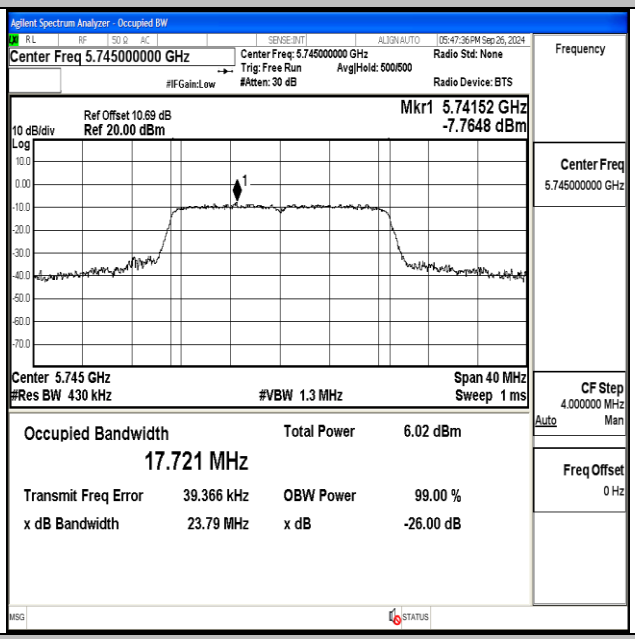

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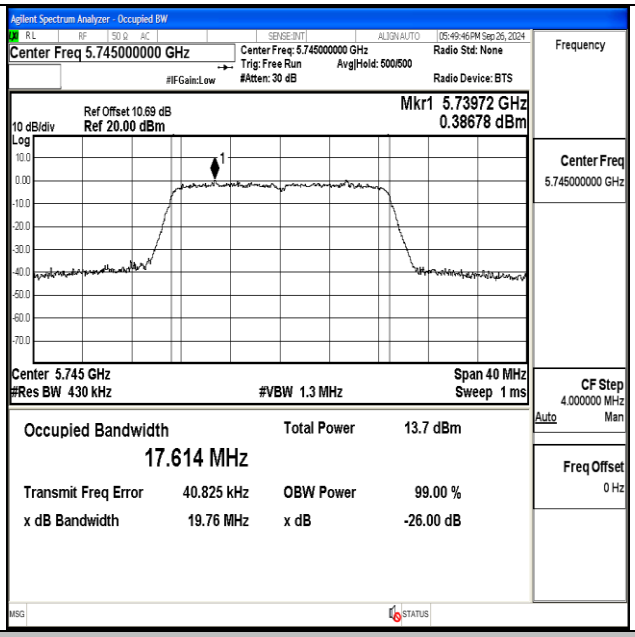

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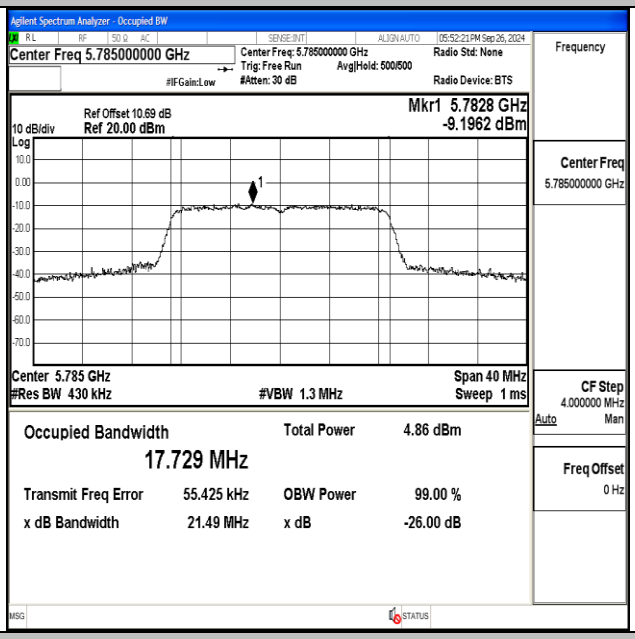

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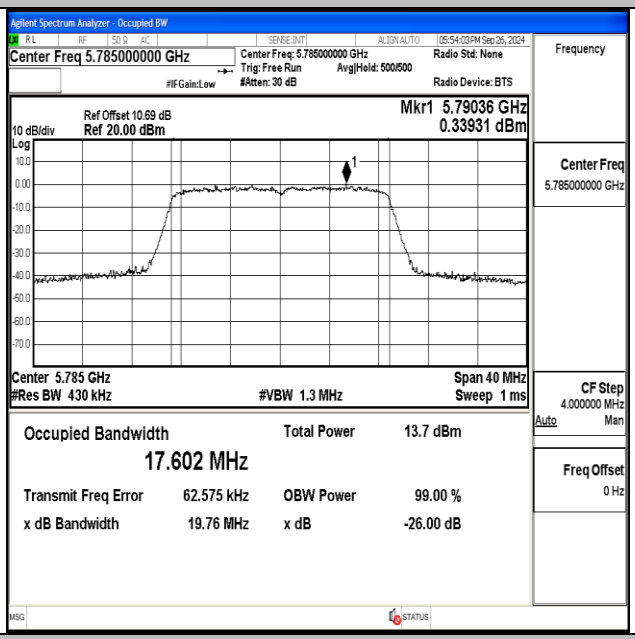

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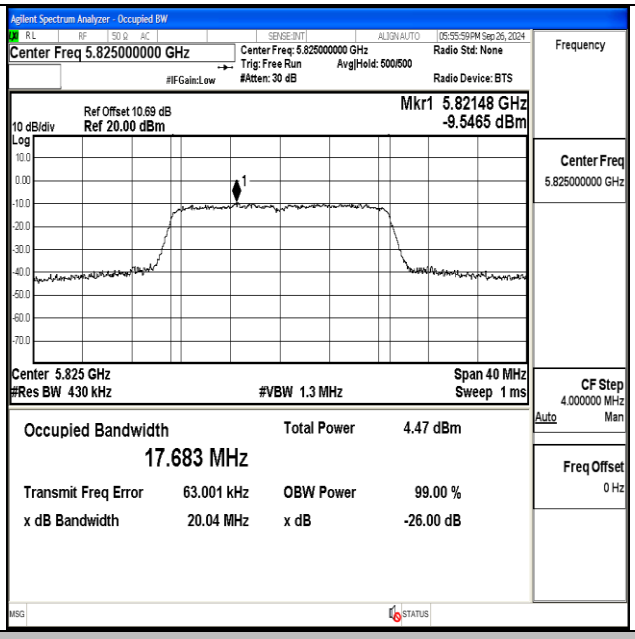

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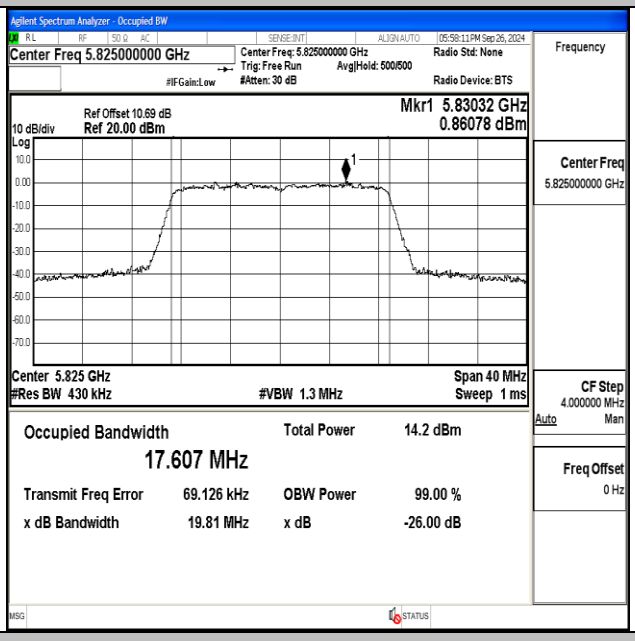

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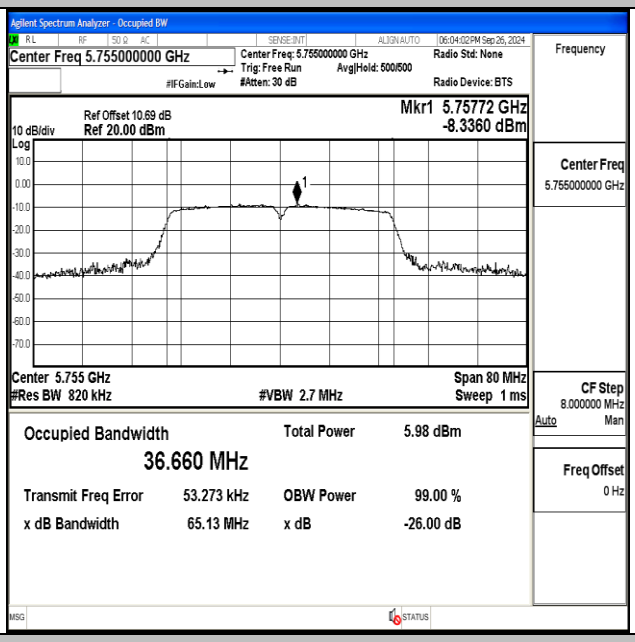

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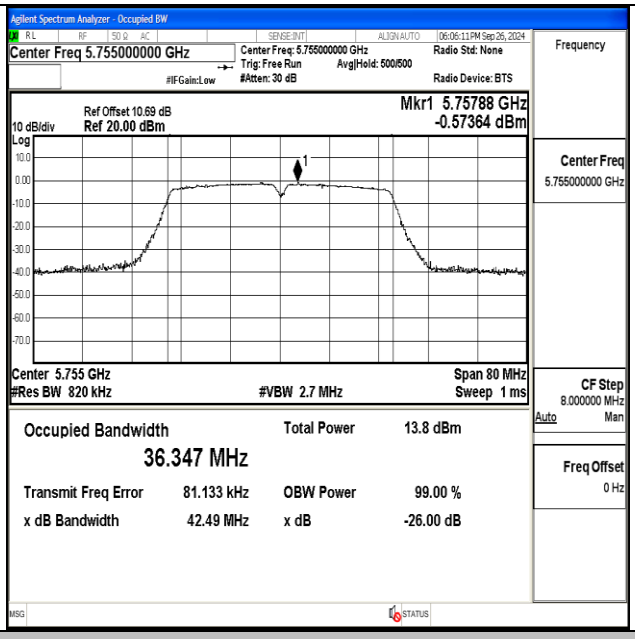

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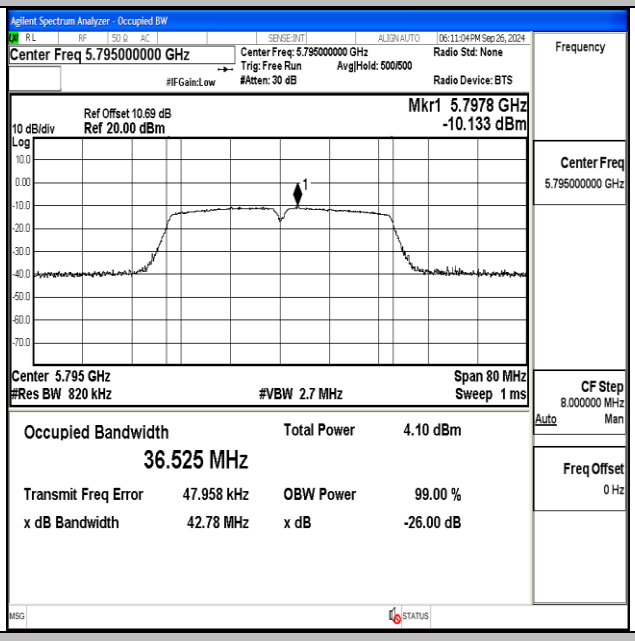

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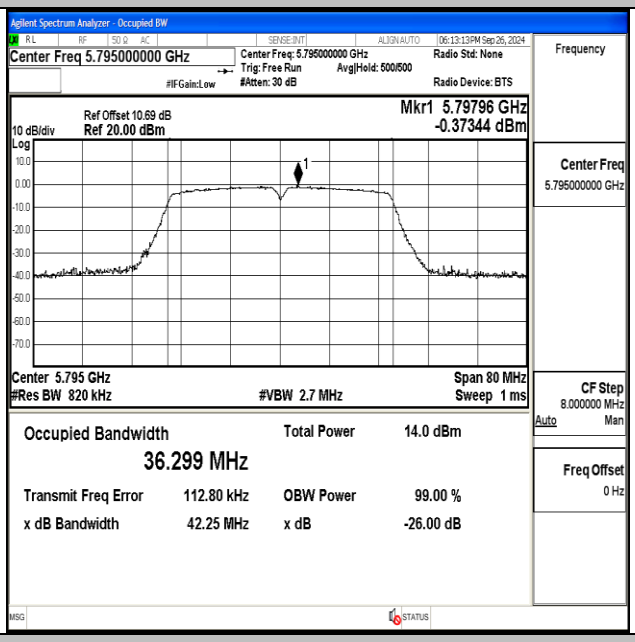

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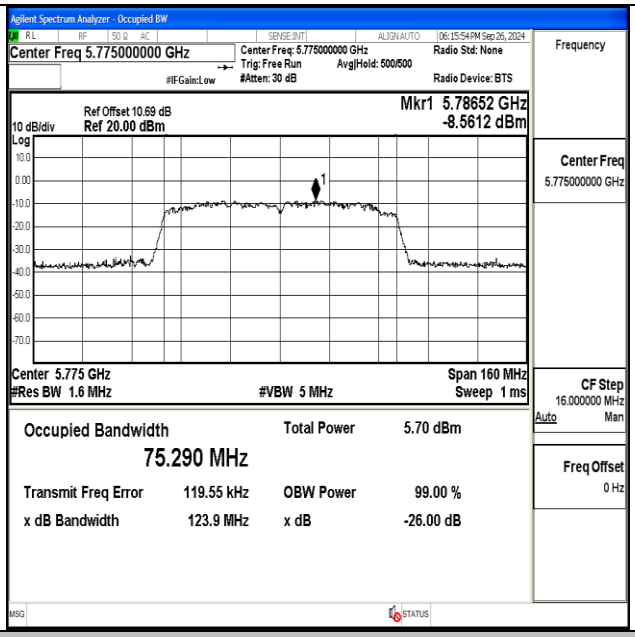

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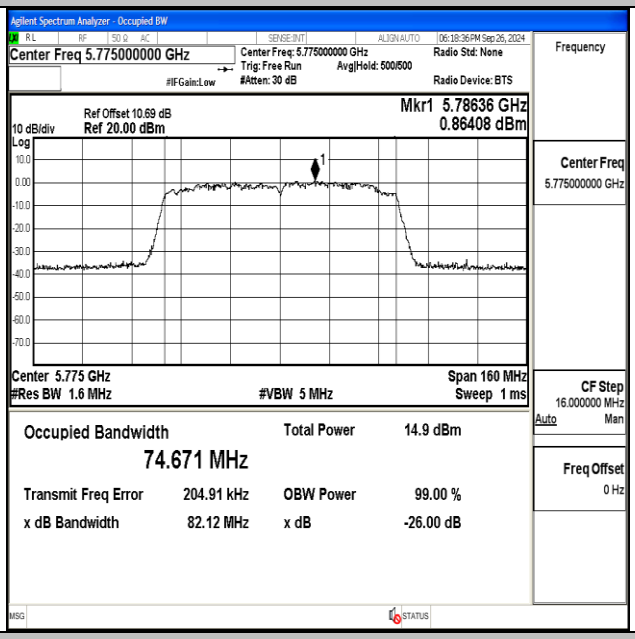


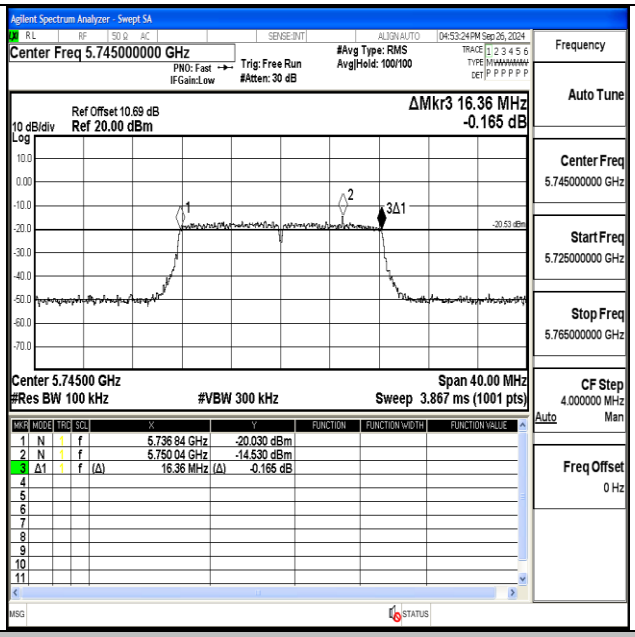
11AC80MIMO-Ant2-5775

Appendix A: Min emission bandwidth

Test Result

Test Mode	Antenna	Frequency [MHz]	6db EBW [MHz]	FL [MHz]	FH [MHz]	Limit [MHz]	Verdict
11A	Ant1	5745	16.360	5736.840	5753.200	0.5	PASS
11A	Ant2	5745	16.280	5736.880	5753.160	0.5	PASS
11A	Ant1	5785	16.360	5776.840	5793.200	0.5	PASS
11A	Ant2	5785	16.280	5776.880	5793.160	0.5	PASS
11A	Ant1	5825	16.320	5816.880	5833.200	0.5	PASS
11A	Ant2	5825	16.360	5816.840	5833.200	0.5	PASS
11N20MIMO	Ant1	5745	17.320	5736.240	5753.560	0.5	PASS
11N20MIMO	Ant2	5745	17.160	5736.240	5753.400	0.5	PASS
11N20MIMO	Ant1	5785	17.560	5776.240	5793.800	0.5	PASS
11N20MIMO	Ant2	5785	17.320	5776.480	5793.800	0.5	PASS
11N20MIMO	Ant1	5825	17.560	5816.240	5833.800	0.5	PASS
11N20MIMO	Ant2	5825	17.280	5816.520	5833.800	0.5	PASS
11N40MIMO	Ant1	5755	34.560	5737.560	5772.120	0.5	PASS
11N40MIMO	Ant2	5755	35.040	5737.480	5772.520	0.5	PASS
11N40MIMO	Ant1	5795	33.840	5778.680	5812.520	0.5	PASS
11N40MIMO	Ant2	5795	33.760	5778.680	5812.440	0.5	PASS
11AC20MIMO	Ant1	5745	16.880	5736.520	5753.400	0.5	PASS
11AC20MIMO	Ant2	5745	17.520	5736.240	5753.760	0.5	PASS
11AC20MIMO	Ant1	5785	17.560	5776.240	5793.800	0.5	PASS
11AC20MIMO	Ant2	5785	17.280	5776.520	5793.800	0.5	PASS
11AC20MIMO	Ant1	5825	16.920	5816.880	5833.800	0.5	PASS
11AC20MIMO	Ant2	5825	17.320	5816.480	5833.800	0.5	PASS
11AC40MIMO	Ant1	5755	35.120	5737.480	5772.600	0.5	PASS
11AC40MIMO	Ant2	5755	35.040	5737.560	5772.600	0.5	PASS
11AC40MIMO	Ant1	5795	35.120	5777.480	5812.600	0.5	PASS
11AC40MIMO	Ant2	5795	35.120	5777.480	5812.600	0.5	PASS
11AC80MIMO	Ant1	5775	75.200	5737.400	5812.600	0.5	PASS
11AC80MIMO	Ant2	5775	75.040	5737.560	5812.600	0.5	PASS

Test Graphs



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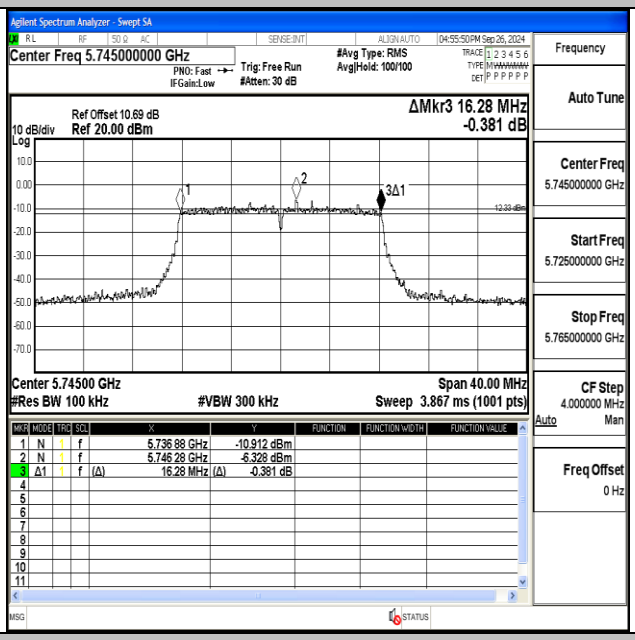

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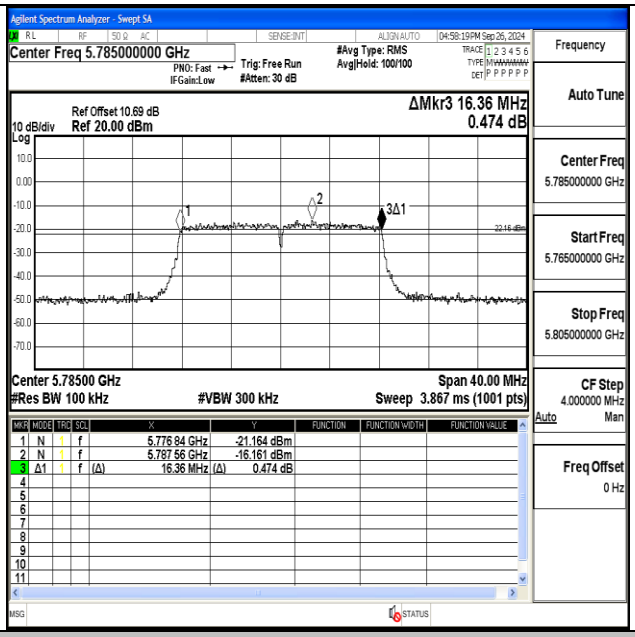
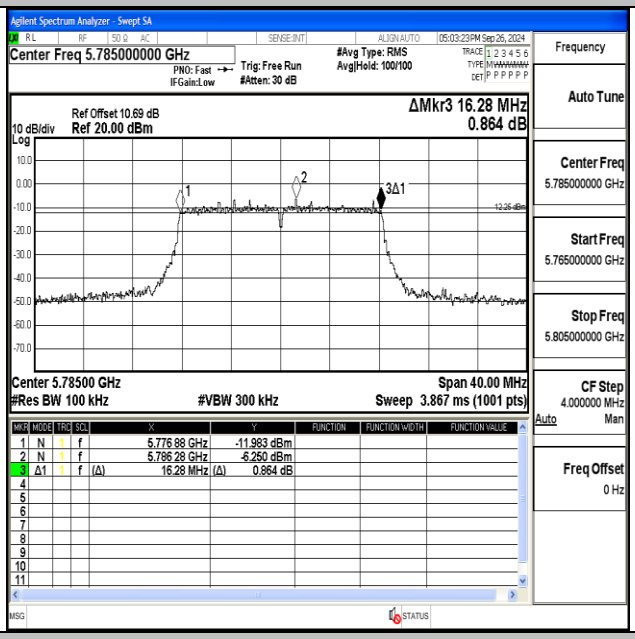


11A-Ant1-5785-PASS



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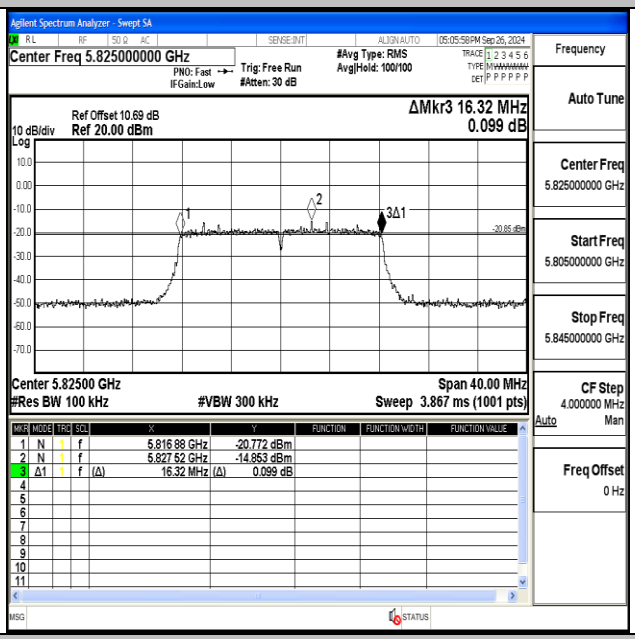

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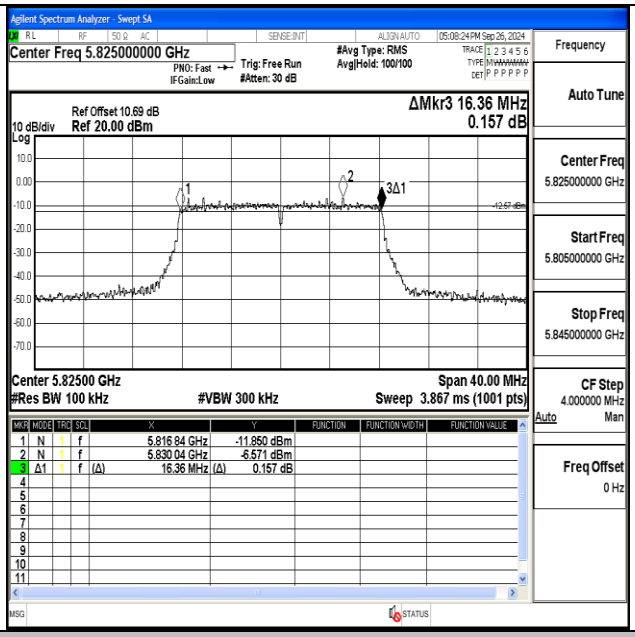

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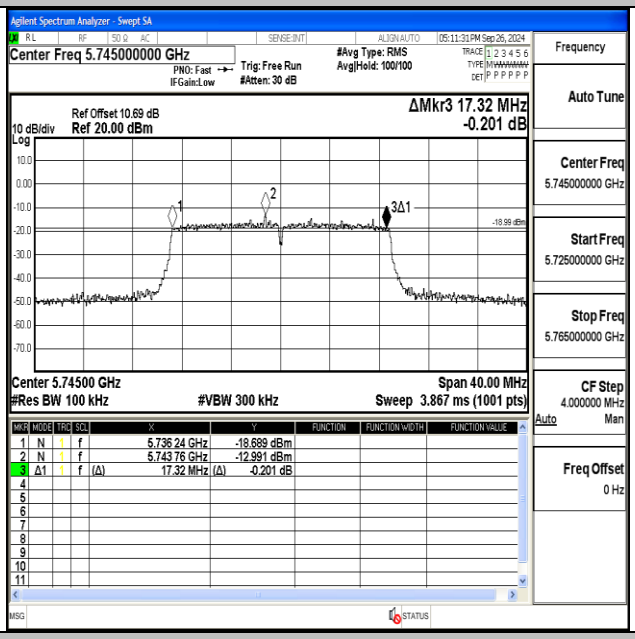

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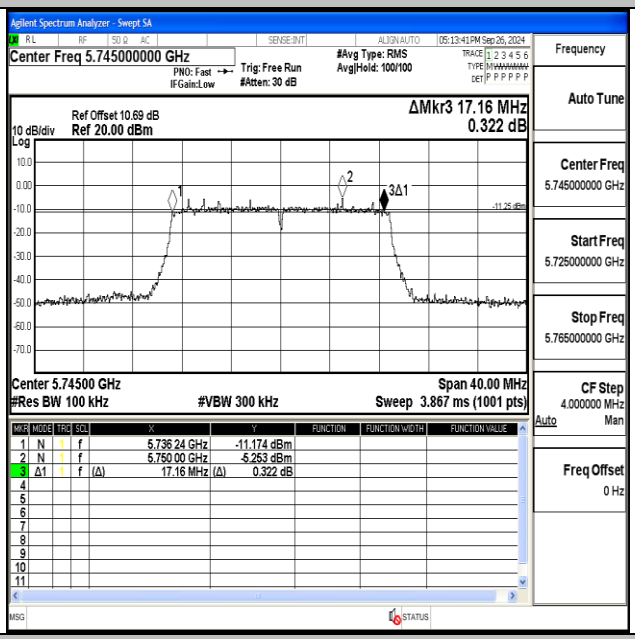

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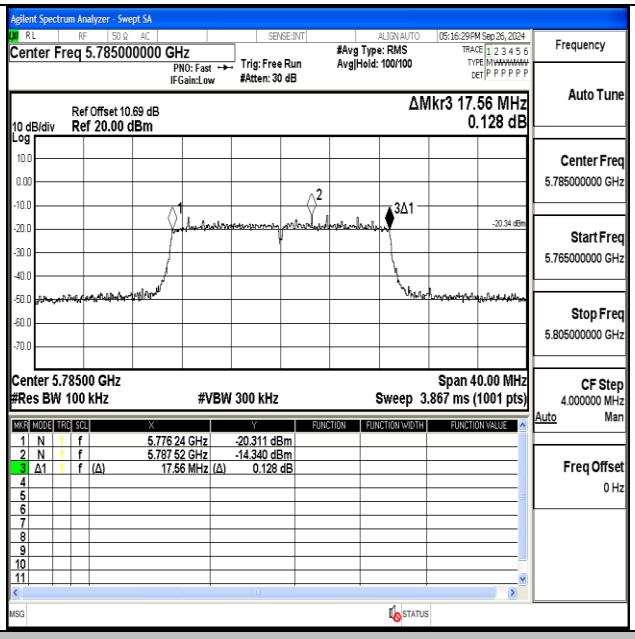

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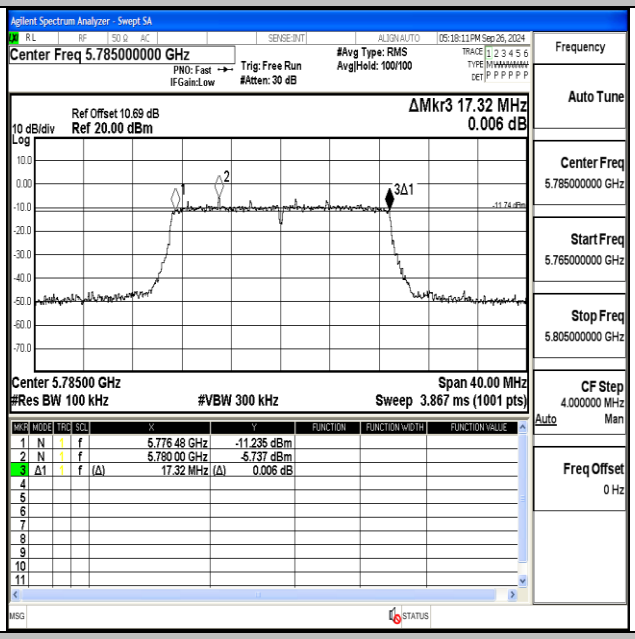

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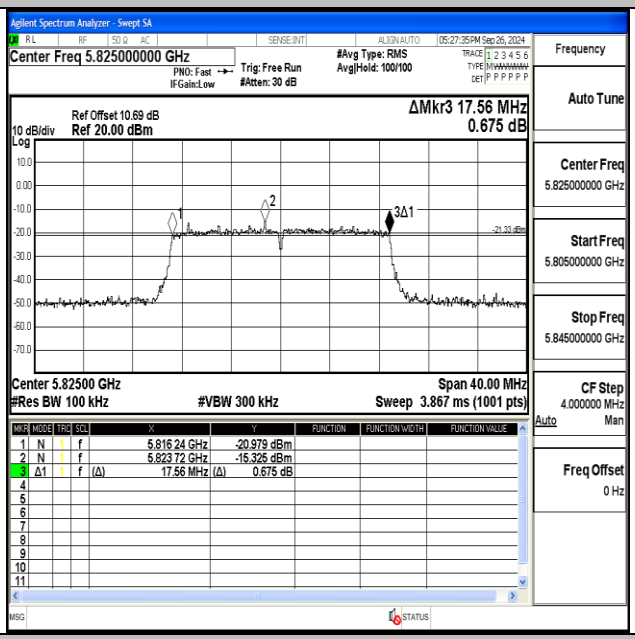
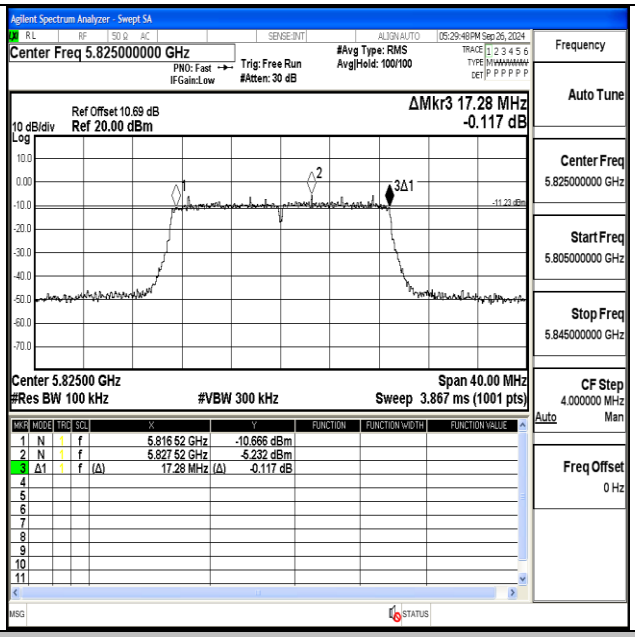


11N20MIMO-Ant1-5825-PASS



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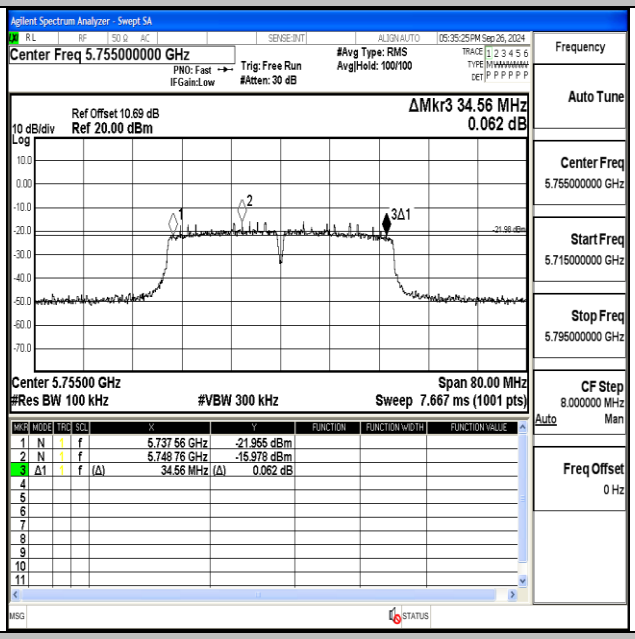

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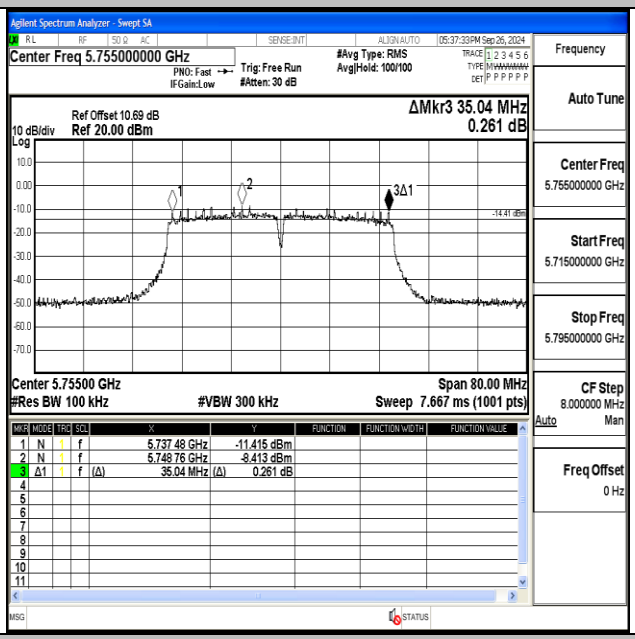

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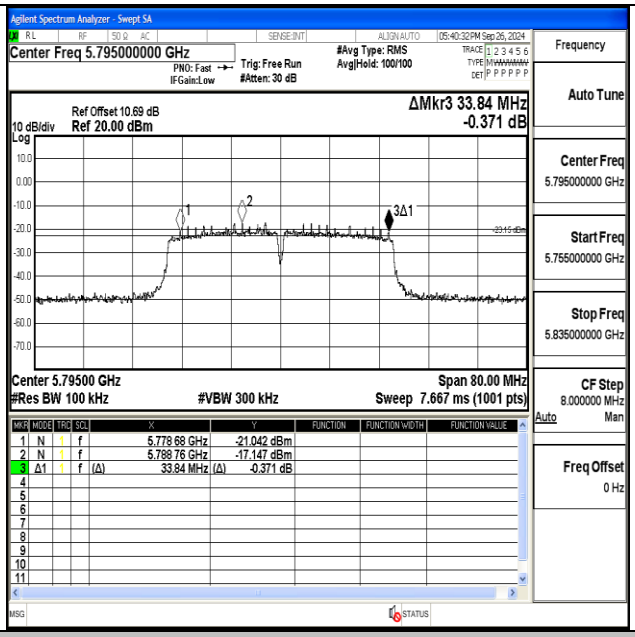

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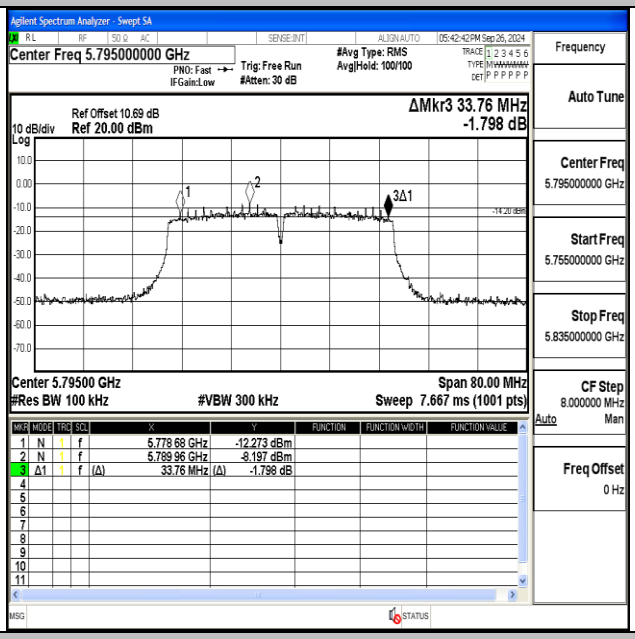

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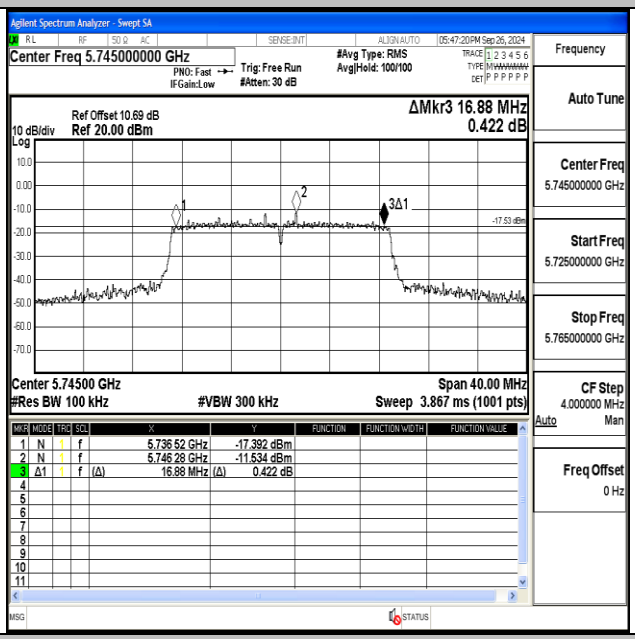

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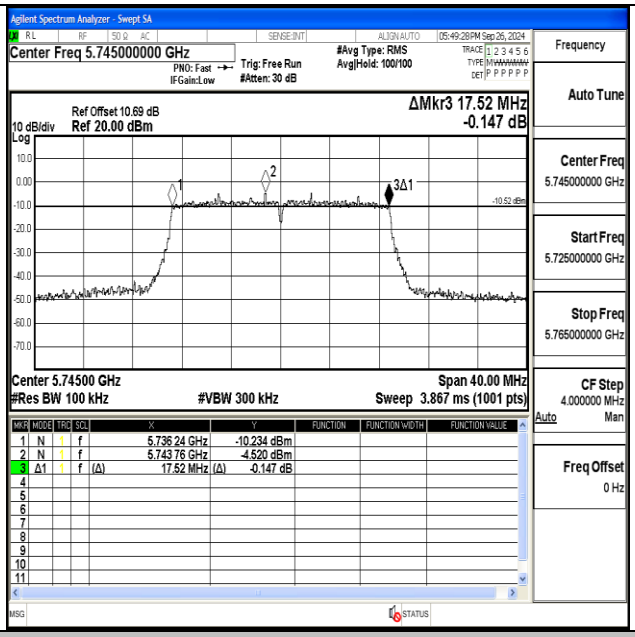

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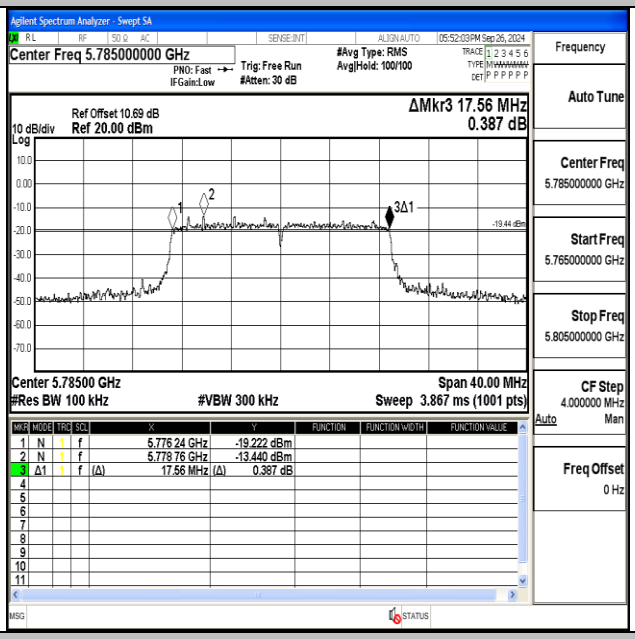

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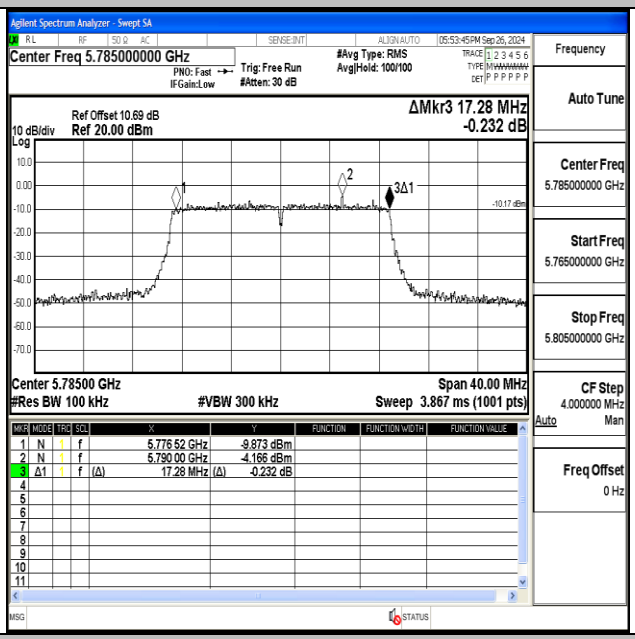

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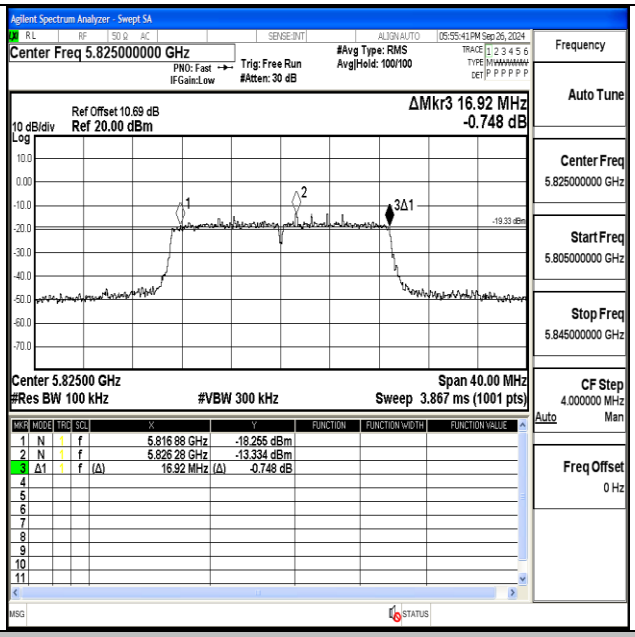

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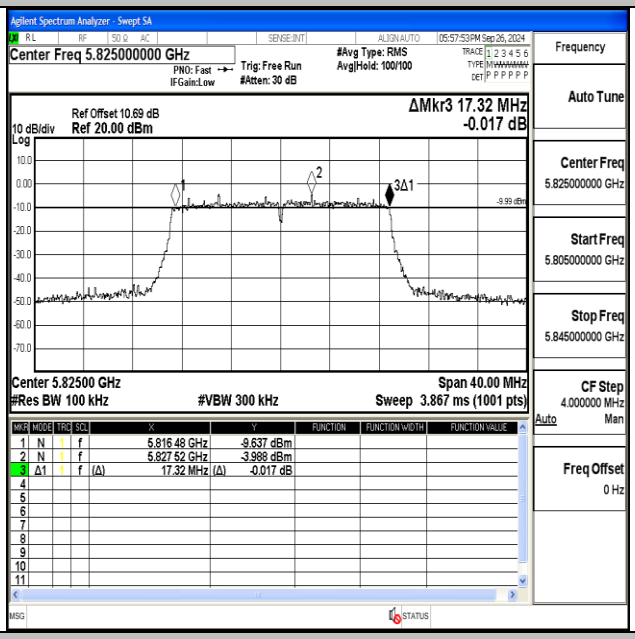

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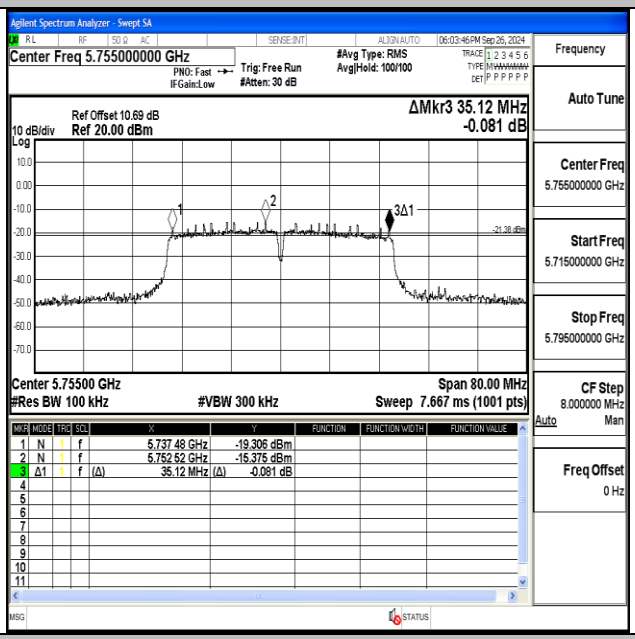

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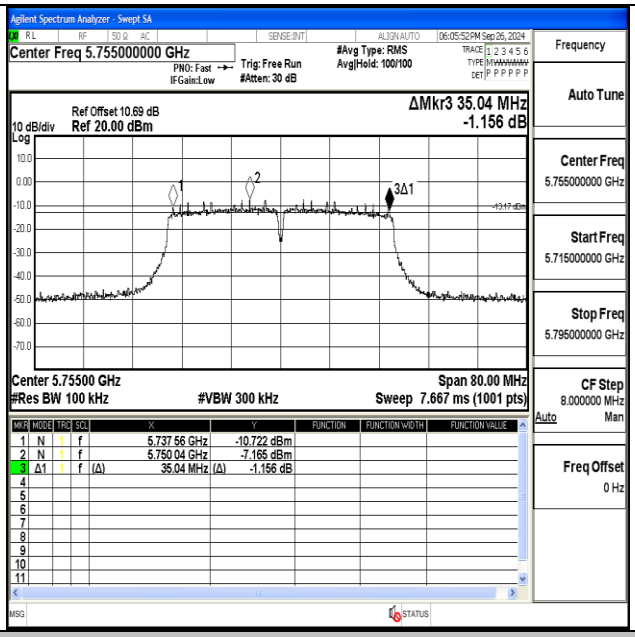

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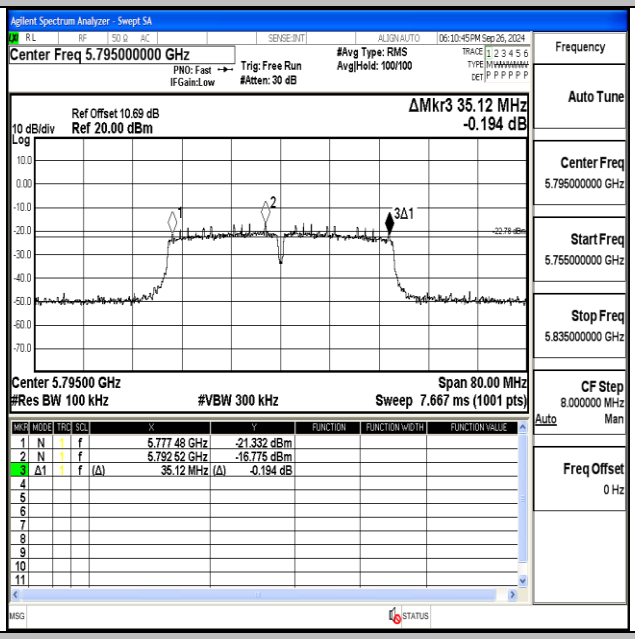

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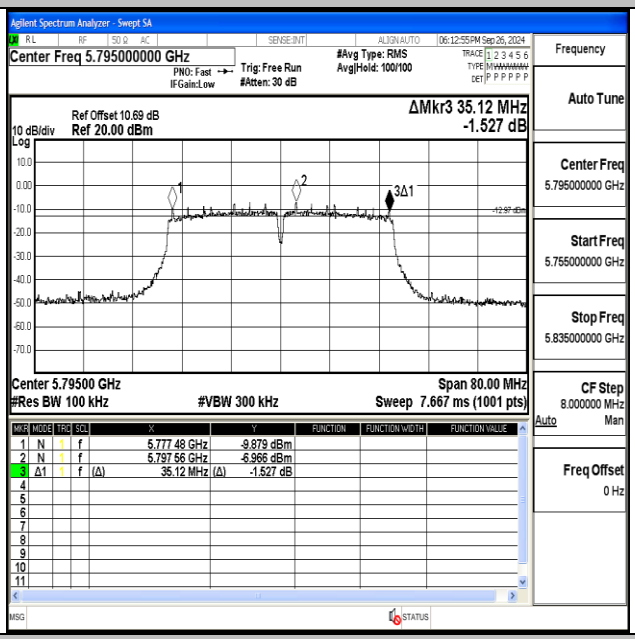

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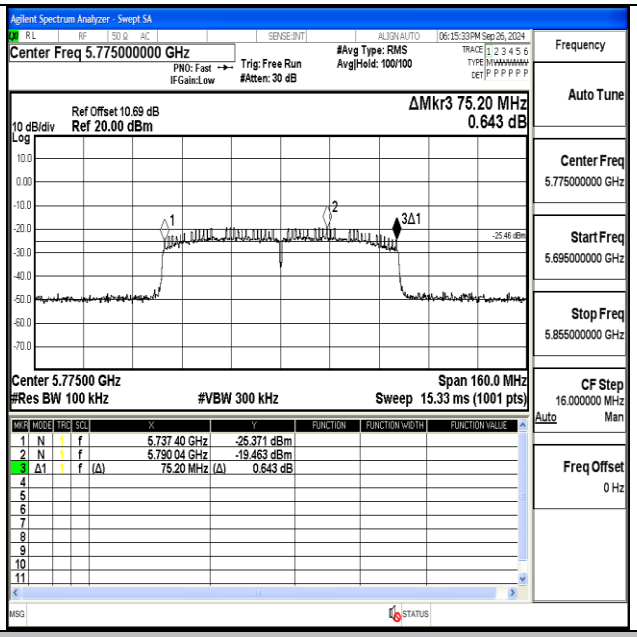
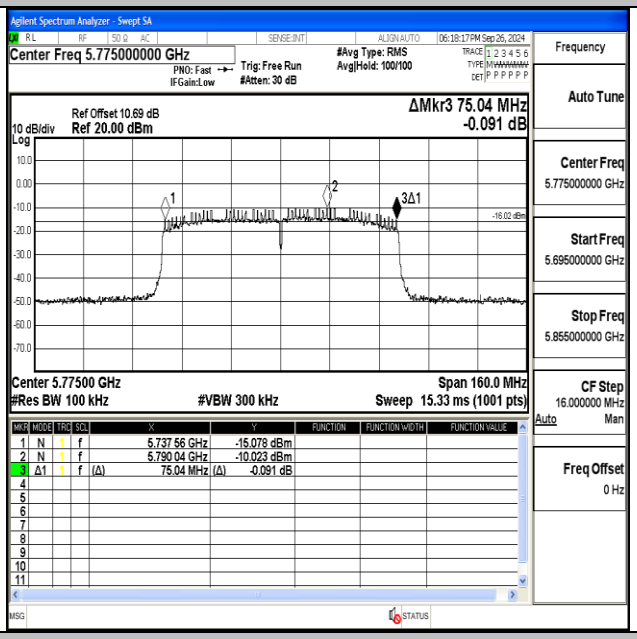


11AC80MIMO-Ant1-5775-PASS



11AC80MIMO-Ant2-5775-PASS

Appendix B: Maximum conducted output power

Test Result

Test Mode	Antenna	Frequency [MHz]	Conducted Power [dBm]	Conducted Limit [dBm]	Verdict
11A	Ant1	5745	-2.48	≤30.00	PASS
11A	Ant2	5745	5.20	≤30.00	PASS
11A	Ant1	5785	-2.67	≤30.00	PASS
11A	Ant2	5785	4.92	≤30.00	PASS
11A	Ant1	5825	-3.87	≤30.00	PASS
11A	Ant2	5825	5.56	≤30.00	PASS
11N20MIMO	Ant1	5745	-1.66	≤30.00	PASS
11N20MIMO	Ant2	5745	5.93	≤30.00	PASS
11N20MIMO	total	5745	6.63	≤30.00	PASS
11N20MIMO	Ant1	5785	-2.78	≤30.00	PASS
11N20MIMO	Ant2	5785	6.00	≤30.00	PASS
11N20MIMO	total	5785	6.54	≤30.00	PASS
11N20MIMO	Ant1	5825	-3.46	≤30.00	PASS
11N20MIMO	Ant2	5825	6.14	≤30.00	PASS
11N20MIMO	total	5825	6.59	≤30.00	PASS
11N40MIMO	Ant1	5755	-2.21	≤30.00	PASS
11N40MIMO	Ant2	5755	5.63	≤30.00	PASS
11N40MIMO	total	5755	6.29	≤30.00	PASS
11N40MIMO	Ant1	5795	-3.02	≤30.00	PASS
11N40MIMO	Ant2	5795	5.58	≤30.00	PASS
11N40MIMO	total	5795	6.14	≤30.00	PASS
11AC20MIMO	Ant1	5745	-0.81	≤30.00	PASS
11AC20MIMO	Ant2	5745	6.90	≤30.00	PASS
11AC20MIMO	total	5745	7.58	≤30.00	PASS
11AC20MIMO	Ant1	5785	-1.85	≤30.00	PASS
11AC20MIMO	Ant2	5785	6.90	≤30.00	PASS
11AC20MIMO	total	5785	7.44	≤30.00	PASS
11AC20MIMO	Ant1	5825	-2.28	≤30.00	PASS
11AC20MIMO	Ant2	5825	7.36	≤30.00	PASS
11AC20MIMO	total	5825	7.81	≤30.00	PASS
11AC40MIMO	Ant1	5755	-1.31	≤30.00	PASS
11AC40MIMO	Ant2	5755	6.53	≤30.00	PASS
11AC40MIMO	total	5755	7.19	≤30.00	PASS
11AC40MIMO	Ant1	5795	-3.23	≤30.00	PASS
11AC40MIMO	Ant2	5795	6.68	≤30.00	PASS
11AC40MIMO	total	5795	7.10	≤30.00	PASS
11AC80MIMO	Ant1	5775	-3.03	≤30.00	PASS
11AC80MIMO	Ant2	5775	6.20	≤30.00	PASS
11AC80MIMO	total	5775	6.69	≤30.00	PASS

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

Appendix C: Maximum power spectral density

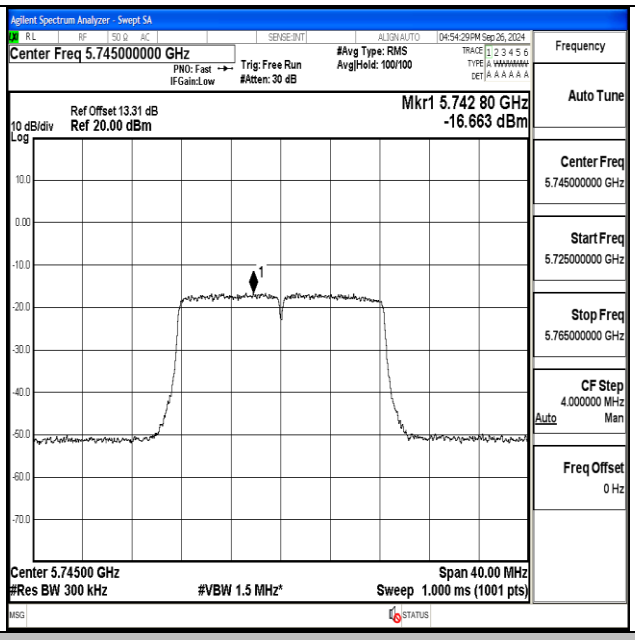
Test Result

Frequency [MHz]	Test Mode	Antenna	Result [dBm/MHz]	Limit [dBm/MHz]	Verdict
5745	11A	Ant1	-16.66	≤30.00	PASS
5745	11A	Ant2	-8.76	≤30.00	PASS
5785	11A	Ant1	-17.09	≤30.00	PASS
5785	11A	Ant2	-8.89	≤30.00	PASS
5825	11A	Ant1	-17.64	≤30.00	PASS
5825	11A	Ant2	-8.00	≤30.00	PASS
5745	11N20MIMO	Ant1	-15.83	≤30.00	PASS
5745	11N20MIMO	Ant2	-8.21	≤30.00	PASS
5745	11N20MIMO	total	-7.52	≤30.00	PASS
5785	11N20MIMO	Ant1	-16.47	≤30.00	PASS
5785	11N20MIMO	Ant2	-7.66	≤30.00	PASS
5785	11N20MIMO	total	-7.12	≤30.00	PASS
5825	11N20MIMO	Ant1	-17.04	≤30.00	PASS
5825	11N20MIMO	Ant2	-8.07	≤30.00	PASS
5825	11N20MIMO	total	-7.55	≤30.00	PASS
5755	11N40MIMO	Ant1	-19.02	≤30.00	PASS
5755	11N40MIMO	Ant2	-11.02	≤30.00	PASS
5755	11N40MIMO	total	-10.38	≤30.00	PASS
5795	11N40MIMO	Ant1	-19.63	≤30.00	PASS
5795	11N40MIMO	Ant2	-11.14	≤30.00	PASS
5795	11N40MIMO	total	-10.56	≤30.00	PASS
5745	11AC20MIMO	Ant1	-15.03	≤30.00	PASS
5745	11AC20MIMO	Ant2	-7.14	≤30.00	PASS
5745	11AC20	total	-6.49	≤30.00	PASS

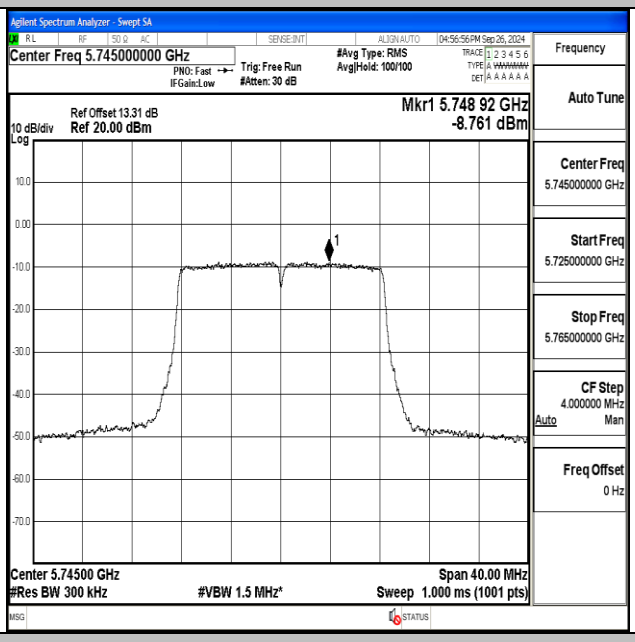
	MIMO				
5785	11AC20 MIMO	Ant1	-15.87	≤30.00	PASS
5785	11AC20 MIMO	Ant2	-7.21	≤30.00	PASS
5785	11AC20 MIMO	total	-6.66	≤30.00	PASS
5825	11AC20 MIMO	Ant1	-16.29	≤30.00	PASS
5825	11AC20 MIMO	Ant2	-6.73	≤30.00	PASS
5825	11AC20 MIMO	total	-6.27	≤30.00	PASS
5755	11AC40 MIMO	Ant1	-18.11	≤30.00	PASS
5755	11AC40 MIMO	Ant2	-10.40	≤30.00	PASS
5755	11AC40 MIMO	total	-9.72	≤30.00	PASS
5795	11AC40 MIMO	Ant1	-20.11	≤30.00	PASS
5795	11AC40 MIMO	Ant2	-9.94	≤30.00	PASS
5795	11AC40 MIMO	total	-9.54	≤30.00	PASS
5775	11AC80 MIMO	Ant1	-22.65	≤30.00	PASS
5775	11AC80 MIMO	Ant2	-13.39	≤30.00	PASS
5775	11AC80 MIMO	total	-12.90	≤30.00	PASS

Note：1.The Result and Limit Unit is dBm/500 kHz in the band 5.725–5.85 GHz.
2.The Duty Cycle Factor and RBW Factor is compensated in the graph.

Test Graphs



11A-Ant1-5745-PASS



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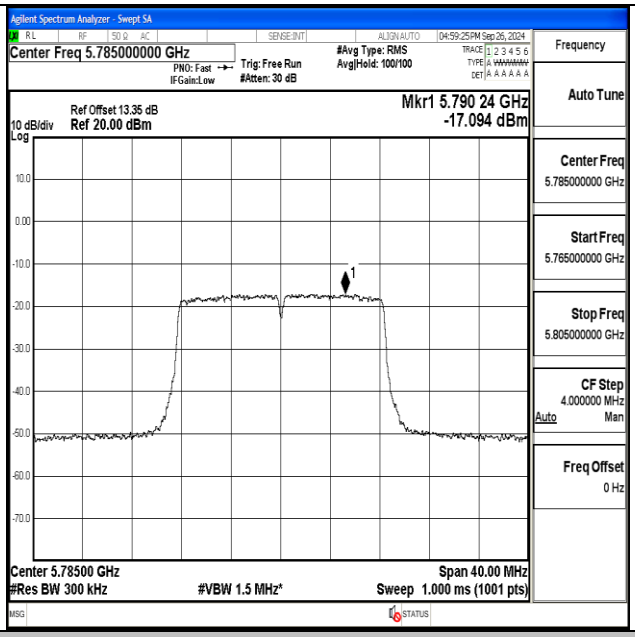

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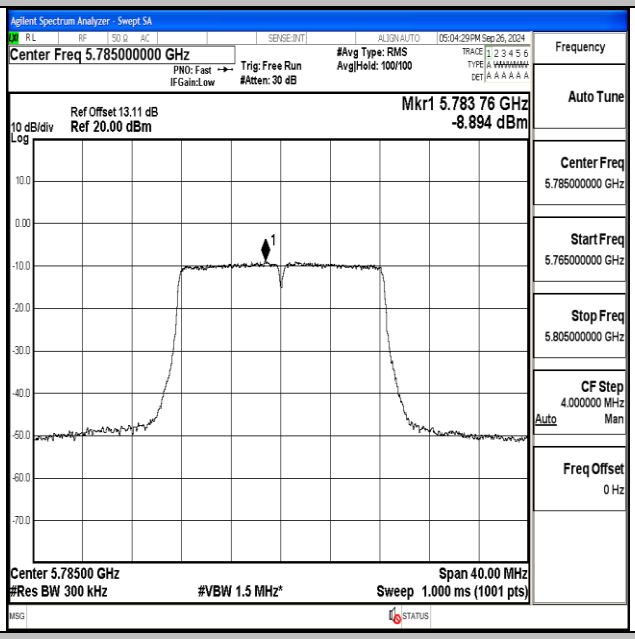

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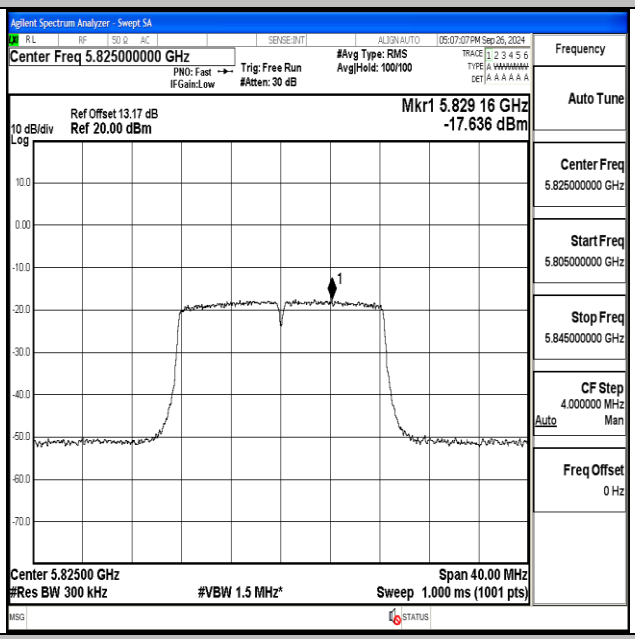

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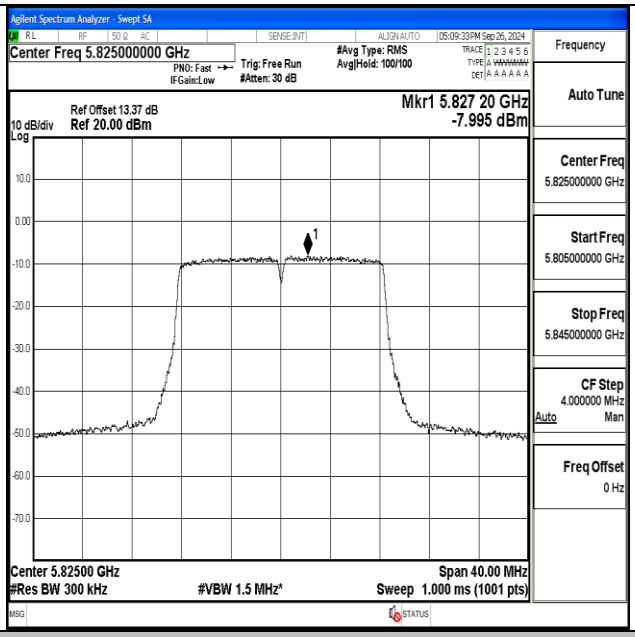

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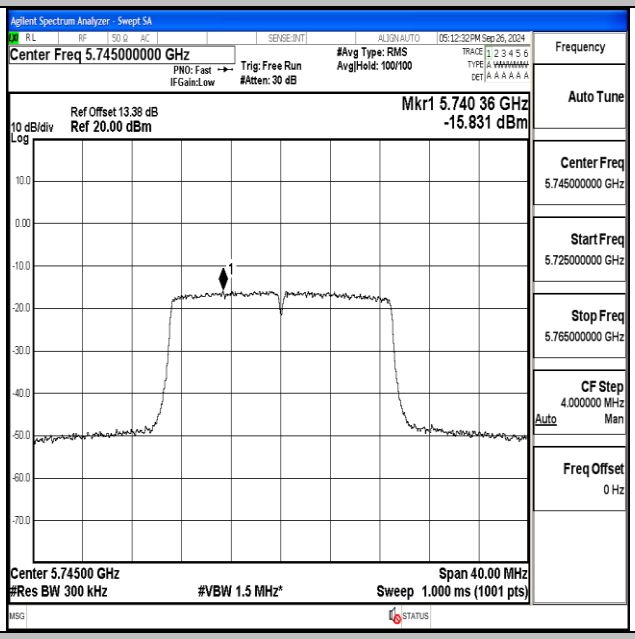

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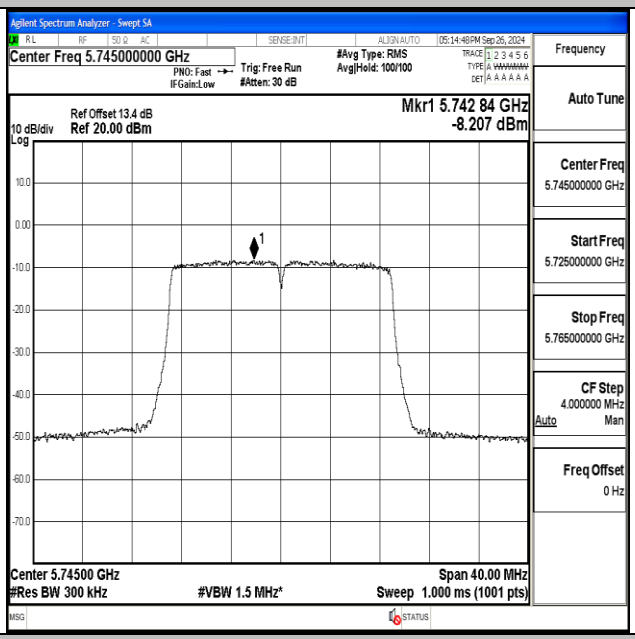

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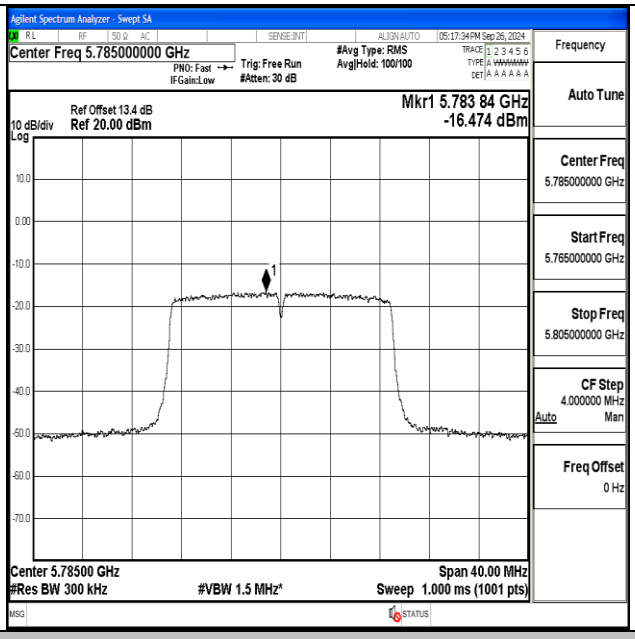

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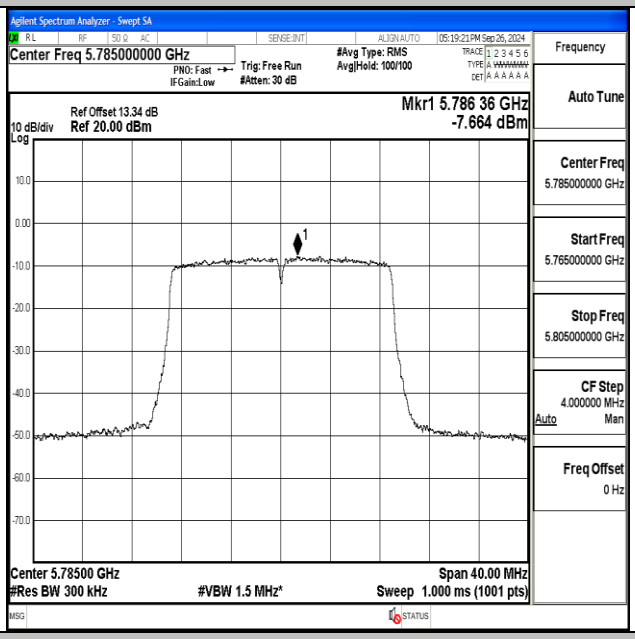

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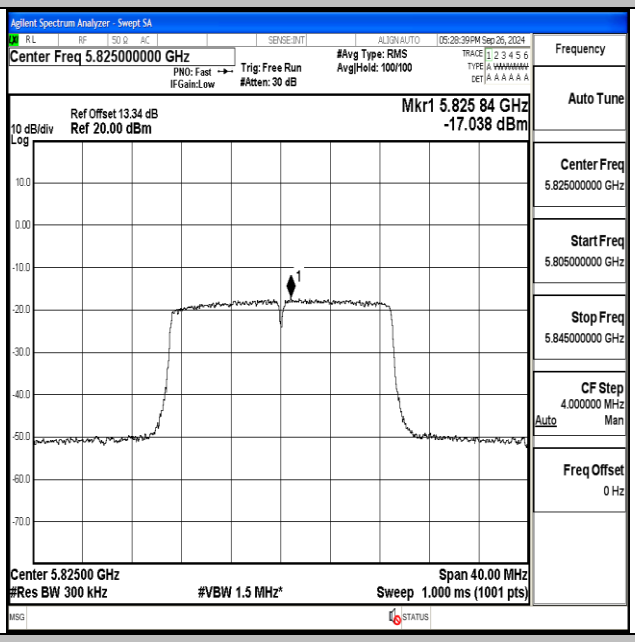

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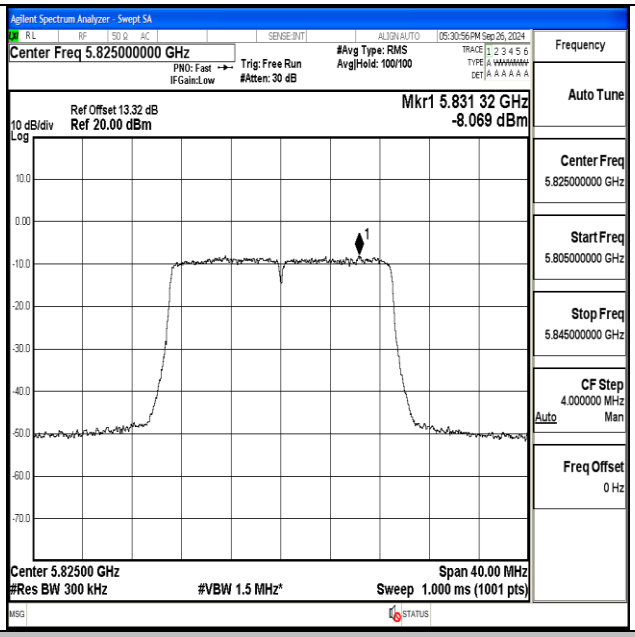

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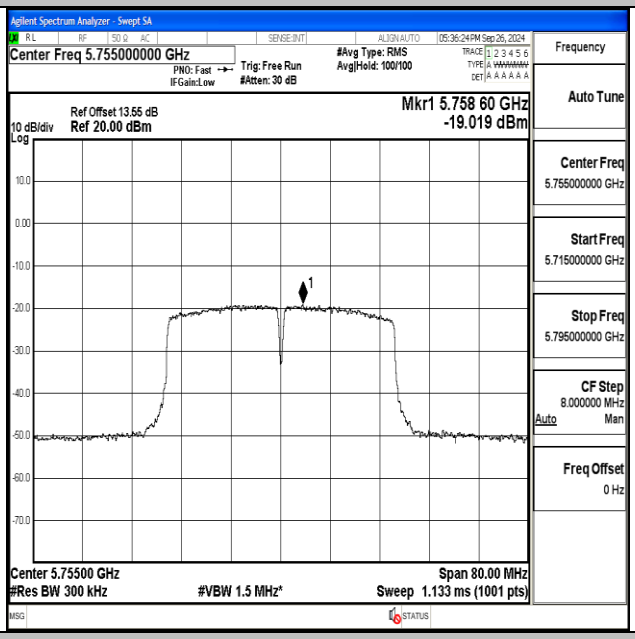

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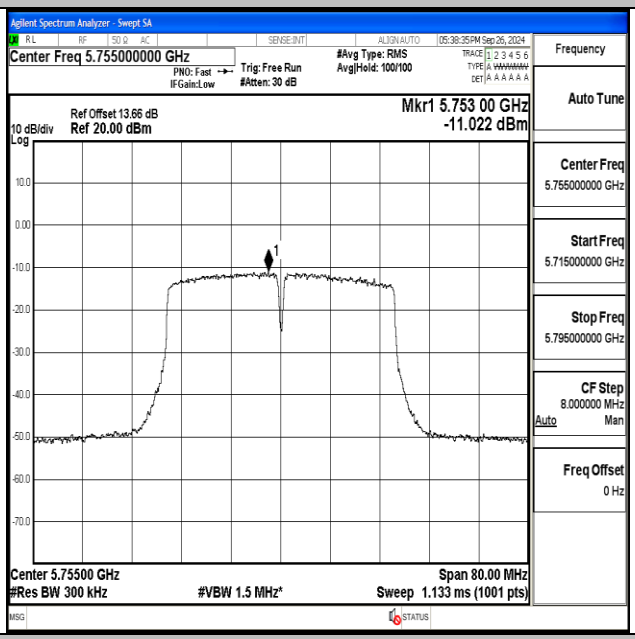

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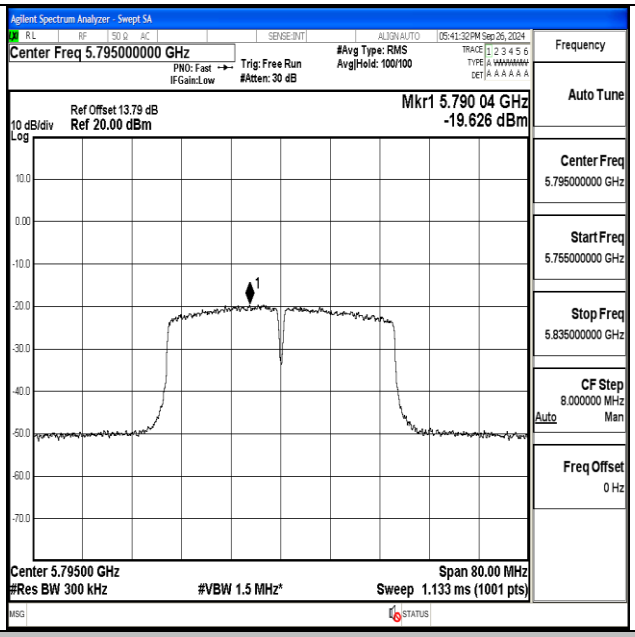

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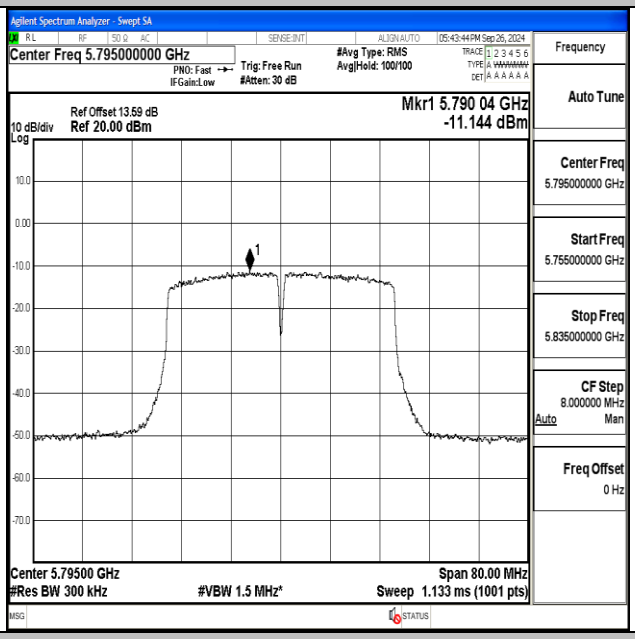

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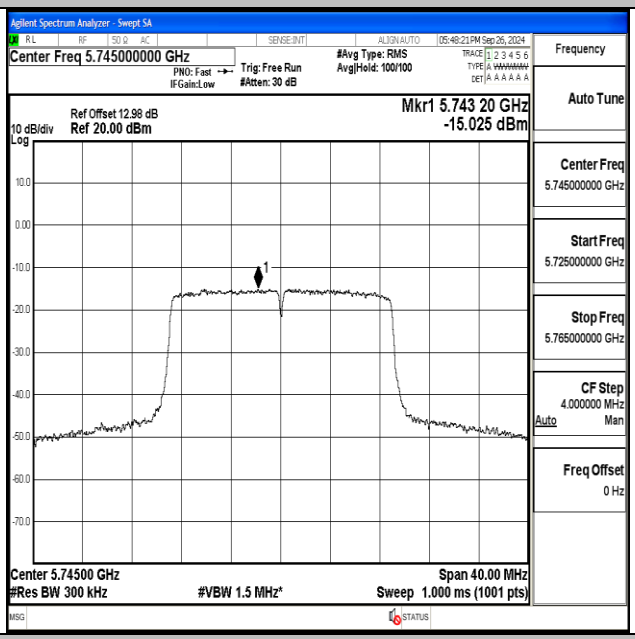

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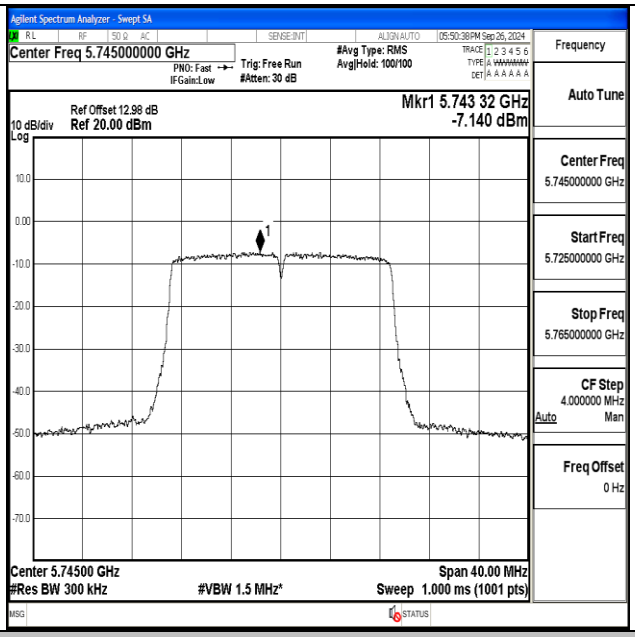

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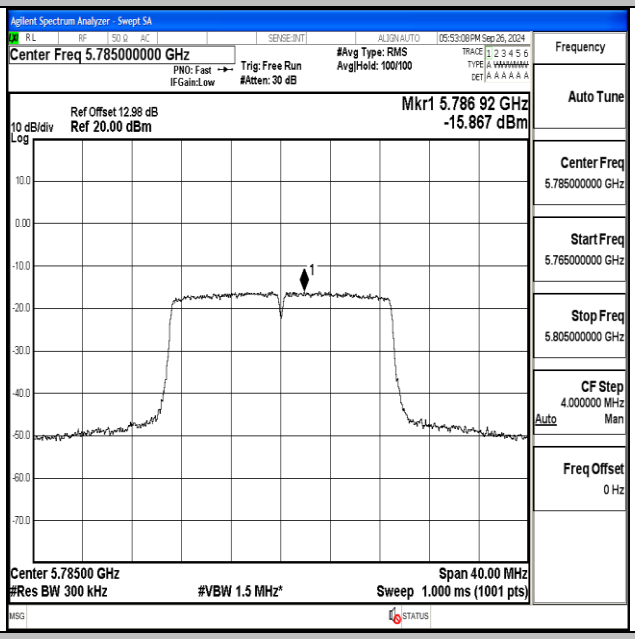

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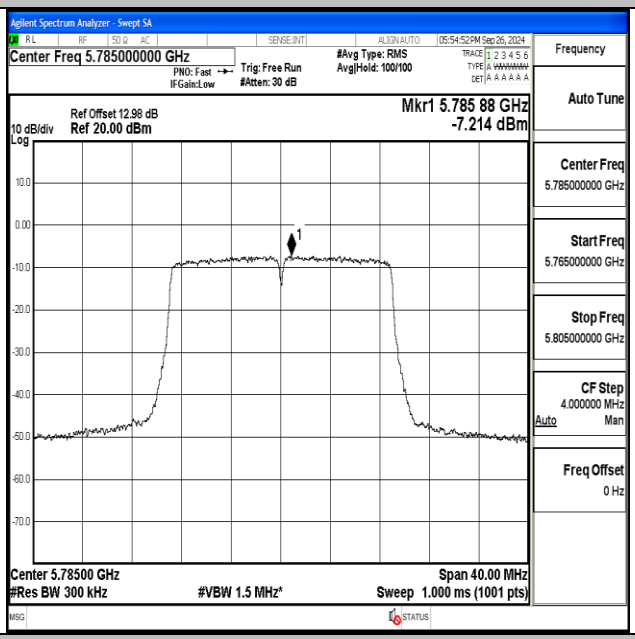

11AC20MIMO-Ant2-5785-PASS