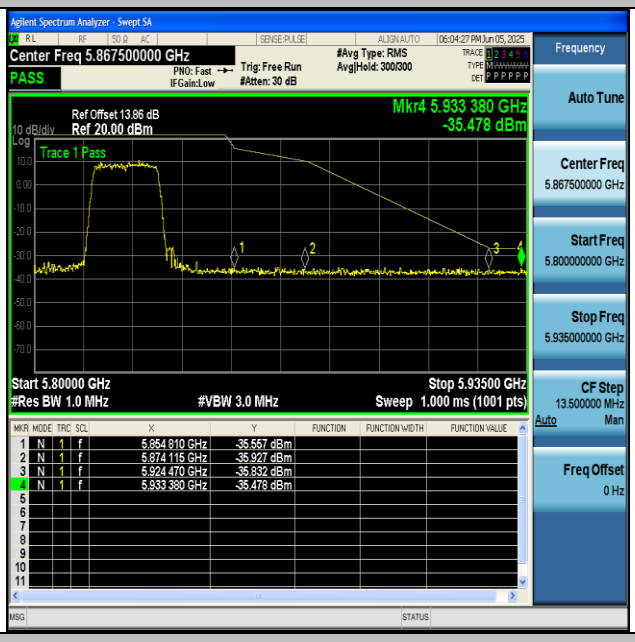
11N20MIMO-Ant2-5745-PASS



11N20MIMO-Ant1-5825-PASS

11N20MIMO-Ant2-5825-PASS

11AC20MIMO-Ant1-5745-PASS

11AC20MIMO-Ant2-5745-PASS

11AC20MIMO-Ant1-5825-PASS

11AC20MIMO-Ant2-5825-PASS

Appendix E: Frequency Stability

Test Result

Ant1

Frequency (MHz)	Enviroment Temperature (Degree)	Voltage (VDC)	Measured Frequency (MHz)	Limit Range (MHz)	Test Results
5745	20	8.9	5744.900978	5725 – 5850	PASS
5745	20	6.5	5745.041039	5725 – 5850	PASS
5745	50	7.7	5744.933548	5725 – 5850	PASS
5745	40	7.7	5745.050945	5725 – 5850	PASS
5745	30	7.7	5745.009926	5725 – 5850	PASS
5745	20	7.7	5744.907202	5725 – 5850	PASS
5745	10	7.7	5745.076732	5725 – 5850	PASS
5745	0	7.7	5745.084333	5725 – 5850	PASS
5745	-10	7.7	5744.903159	5725 – 5850	PASS
5745	-20	7.7	5745.033055	5725 – 5850	PASS
5745	-30	7.7	5745.059729	5725 – 5850	PASS

Ant2

Frequency (MHz)	Enviroment Temperature (Dregree)	Voltage (VDC)	Measured Frequency (MHz)	Limit Range (MHz)	Test Results
5745	20	8.9	5744.940474	5725 – 5850	PASS
5745	20	6.5	5744.916013	5725 – 5850	PASS
5745	50	7.7	5745.005464	5725 – 5850	PASS
5745	40	7.7	5744.999666	5725 – 5850	PASS
5745	30	7.7	5744.912172	5725 – 5850	PASS
5745	20	7.7	5745.005382	5725 – 5850	PASS
5745	10	7.7	5745.021796	5725 – 5850	PASS
5745	0	7.7	5744.910254	5725 – 5850	PASS
5745	-10	7.7	5745.072852	5725 – 5850	PASS
5745	-20	7.7	5744.909069	5725 – 5850	PASS
5745	-30	7.7	5744.965065	5725 – 5850	PASS

Ant1

Frequency (MHz)	Enviroment Temperature (Dregree)	Voltage (VDC)	Measured Frequency (MHz)	Limit Range (MHz)	Test Results
5785	20	8.9	5784.918658	5725 – 5850	PASS
5785	20	6.5	5784.976167	5725 – 5850	PASS
5785	50	7.7	5785.027551	5725 – 5850	PASS
5785	40	7.7	5784.962090	5725 – 5850	PASS
5785	30	7.7	5784.990629	5725 – 5850	PASS
5785	20	7.7	5784.998354	5725 – 5850	PASS
5785	10	7.7	5785.012681	5725 – 5850	PASS
5785	0	7.7	5785.059765	5725 – 5850	PASS
5785	-10	7.7	5784.912339	5725 – 5850	PASS
5785	-20	7.7	5785.074352	5725 – 5850	PASS
5785	-30	7.7	5784.912952	5725 – 5850	PASS

Ant2

Frequency (MHz)	Enviroment Temperature (Dregree)	Voltage (VDC)	Measured Frequency (MHz)	Limit Range (MHz)	Test Results
5785	20	8.9	5785.055904	5725 – 5850	PASS
5785	20	6.5	5785.023417	5725 – 5850	PASS
5785	50	7.7	5784.982052	5725 – 5850	PASS
5785	40	7.7	5785.092825	5725 – 5850	PASS
5785	30	7.7	5785.091799	5725 – 5850	PASS
5785	20	7.7	5785.069784	5725 – 5850	PASS
5785	10	7.7	5784.950614	5725 – 5850	PASS
5785	0	7.7	5785.077447	5725 – 5850	PASS
5785	-10	7.7	5785.042768	5725 – 5850	PASS
5785	-20	7.7	5784.974367	5725 – 5850	PASS
5785	-30	7.7	5785.003993	5725 – 5850	PASS

Ant1

Frequency (MHz)	Enviroment Temperature (Dregree)	Voltage (VDC)	Measured Frequency (MHz)	Limit Range (MHz)	Test Results
5825	20	8.9	5824.902968	5725 – 5850	PASS
5825	20	6.5	5824.910994	5725 – 5850	PASS
5825	50	7.7	5824.955446	5725 – 5850	PASS
5825	40	7.7	5824.950636	5725 – 5850	PASS
5825	30	7.7	5824.982370	5725 – 5850	PASS
5825	20	7.7	5825.085909	5725 – 5850	PASS
5825	10	7.7	5824.906989	5725 – 5850	PASS
5825	0	7.7	5825.008848	5725 – 5850	PASS
5825	-10	7.7	5824.975844	5725 – 5850	PASS
5825	-20	7.7	5824.953194	5725 – 5850	PASS
5825	-30	7.7	5825.032182	5725 – 5850	PASS

Ant2

Frequency (MHz)	Enviroment Temperature (Dregree)	Voltage (VDC)	Measured Frequency (MHz)	Limit Range (MHz)	Test Results
5825	20	8.9	5824.940325	5725 – 5850	PASS
5825	20	6.5	5825.074161	5725 – 5850	PASS
5825	50	7.7	5825.026472	5725 – 5850	PASS
5825	40	7.7	5824.983524	5725 – 5850	PASS
5825	30	7.7	5824.918209	5725 – 5850	PASS
5825	20	7.7	5825.060073	5725 – 5850	PASS
5825	10	7.7	5825.005428	5725 – 5850	PASS
5825	0	7.7	5824.983522	5725 – 5850	PASS
5825	-10	7.7	5825.083726	5725 – 5850	PASS
5825	-20	7.7	5824.988826	5725 – 5850	PASS
5825	-30	7.7	5825.095740	5725 – 5850	PASS

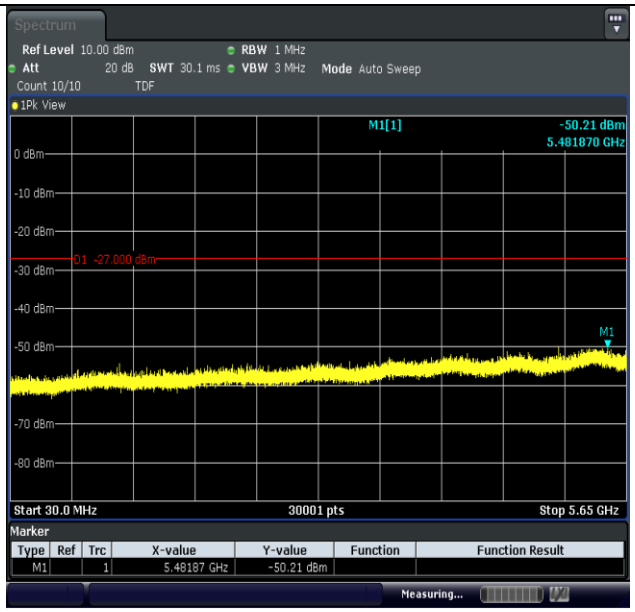
Appendix F: Conducted Spurious Emission

Test Result

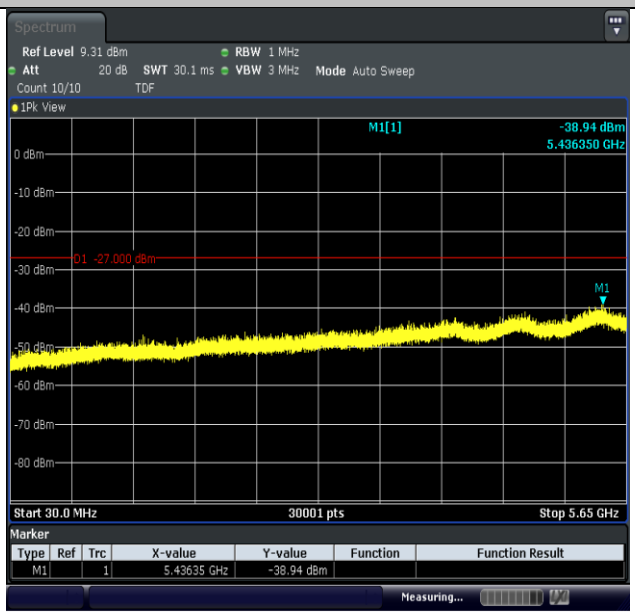
TestMode	Antenna	Frequency[MHz]	FreqRange [MHz]	Max. Fre [MHz]	Max. Level [dBm]	Limit [dBm]	Verdict
11A	Ant1	5745	30~5650	5481.87	-50.21	≤-27	PASS
11A	Ant2	5745	30~5650	5436.35	-38.94	≤-27	PASS
11A	Ant1	5745	5925~40000	38736.4	-46.07	≤-27	PASS
11A	Ant2	5745	5925~40000	5990.3	-42.41	≤-27	PASS
11A	Ant1	5785	30~5650	5250.52	-49.73	≤-27	PASS
11A	Ant2	5785	30~5650	5378.47	-39.54	≤-27	PASS
11A	Ant1	5785	5925~40000	38756.9	-46.78	≤-27	PASS
11A	Ant2	5785	5925~40000	5958.5	-41.51	≤-27	PASS
11A	Ant1	5825	30~5650	5417.25	-49.42	≤-27	PASS
11A	Ant2	5825	30~5650	5414.81	-39.27	≤-27	PASS
11A	Ant1	5825	5925~40000	38754.6	-46.47	≤-27	PASS
11A	Ant2	5825	5925~40000	5931.2	-42.09	≤-27	PASS
11N20MIMO	Ant1	5745	30~5650	5358.24	-49.01	≤-27	PASS
11N20MIMO	Ant2	5745	30~5650	5432.42	-39.52	≤-27	PASS
11N20MIMO	Ant1	5745	5925~40000	38751.2	-46.04	≤-27	PASS
11N20MIMO	Ant2	5745	5925~40000	5964.2	-41.66	≤-27	PASS
11N20MIMO	Ant1	5785	30~5650	5435.6	-49.86	≤-27	PASS
11N20MIMO	Ant2	5785	30~5650	5434.48	-39.23	≤-27	PASS
11N20MIMO	Ant1	5785	5925~40000	39104.4	-45.83	≤-27	PASS
11N20MIMO	Ant2	5785	5925~40000	5989.2	-42.02	≤-27	PASS
11N20MIMO	Ant1	5825	30~5650	5378.47	-49.81	≤-27	PASS
11N20MIMO	Ant2	5825	30~5650	5358.61	-39.37	≤-27	PASS
11N20MIMO	Ant1	5825	5925~40000	39439.5	-46.27	≤-27	PASS
11N20MIMO	Ant2	5825	5925~40000	5990.3	-41.48	≤-27	PASS
11AC20MIMO	Ant1	5745	30~5650	5344.19	-49.43	≤-27	PASS
11AC20MIMO	Ant2	5745	30~5650	5367.04	-39.28	≤-27	PASS
11AC20MIMO	Ant1	5745	5925~40000	38725.1	-46.09	≤-27	PASS
11AC20MIMO	Ant2	5745	5925~40000	5938.1	-42.29	≤-27	PASS
11AC20MIMO	Ant1	5785	30~5650	5405.26	-49.96	≤-27	PASS
11AC20MIMO	Ant2	5785	30~5650	5484.12	-39.13	≤-27	PASS
11AC20MIMO	Ant1	5785	5925~40000	39088.5	-46.21	≤-27	PASS
11AC20MIMO	Ant2	5785	5925~40000	5984.6	-41.79	≤-27	PASS
11AC20MIMO	Ant1	5825	30~5650	5297.36	-49.7	≤-27	PASS
11AC20MIMO	Ant2	5825	30~5650	5435.98	-39.4	≤-27	PASS
11AC20MIMO	Ant1	5825	5925~40000	38743.2	-46.07	≤-27	PASS
11AC20MIMO	Ant2	5825	5925~40000	5968.7	-41	≤-27	PASS

Note: offset(dB) in Reference test plots = cable loss(dB) + attenuator factor(dB); For spurious emissions plots from 30MHz to 40 GHz, the cable loss and attenuator factors have been set in the 'Input Correction' of the Spectrum Analyzer during the test.

Test Graphs



11A-Ant1-5745-30~5650-PASS



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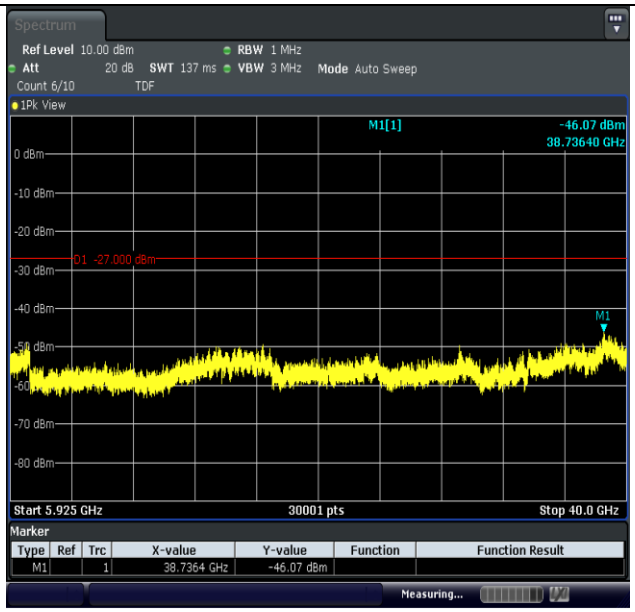

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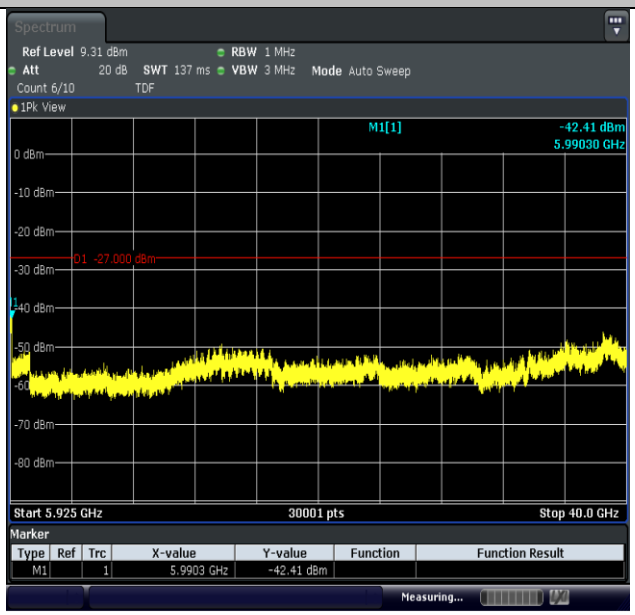

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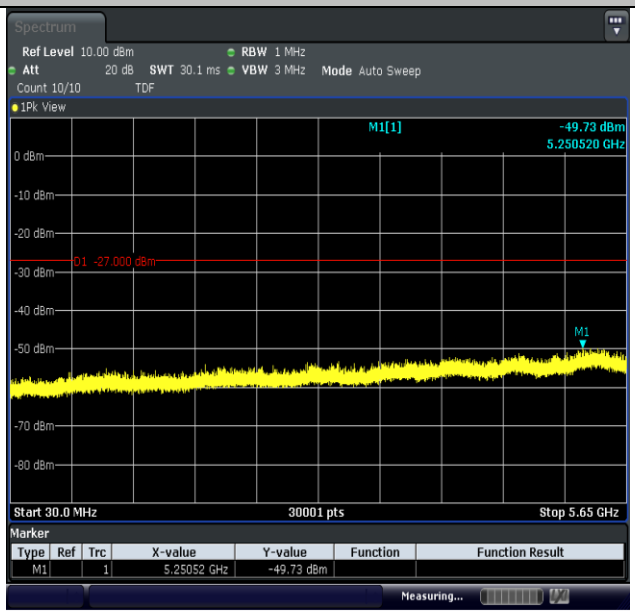

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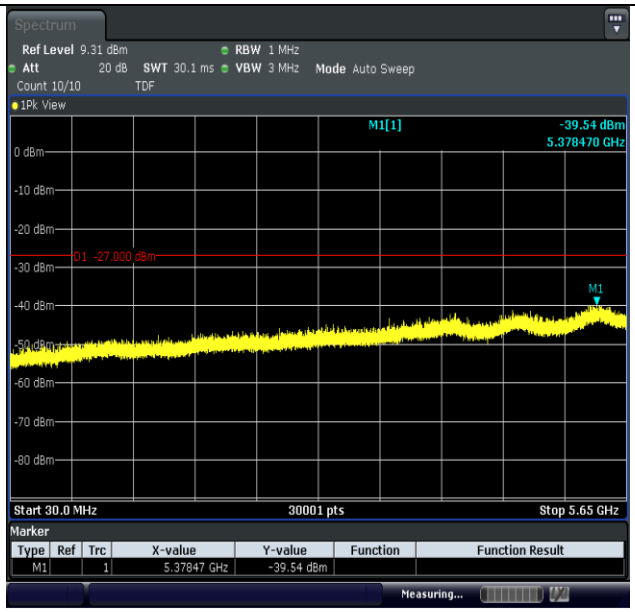

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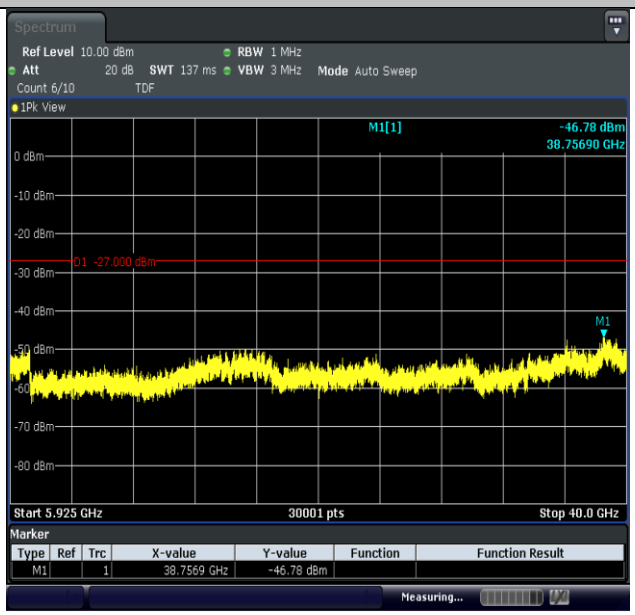

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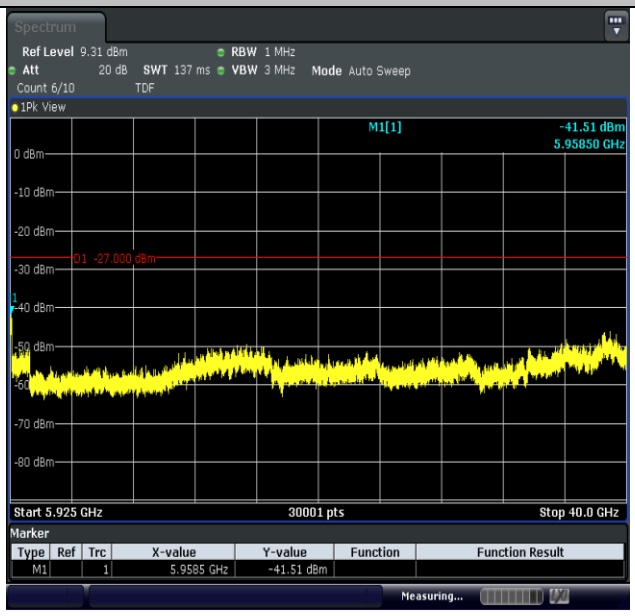

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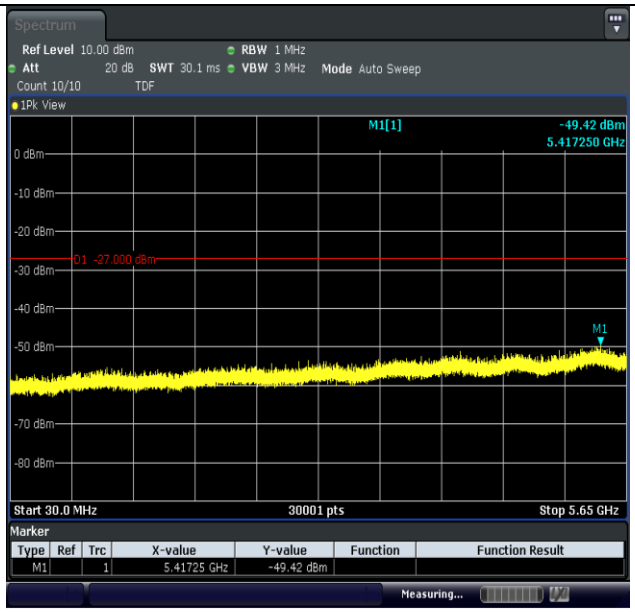

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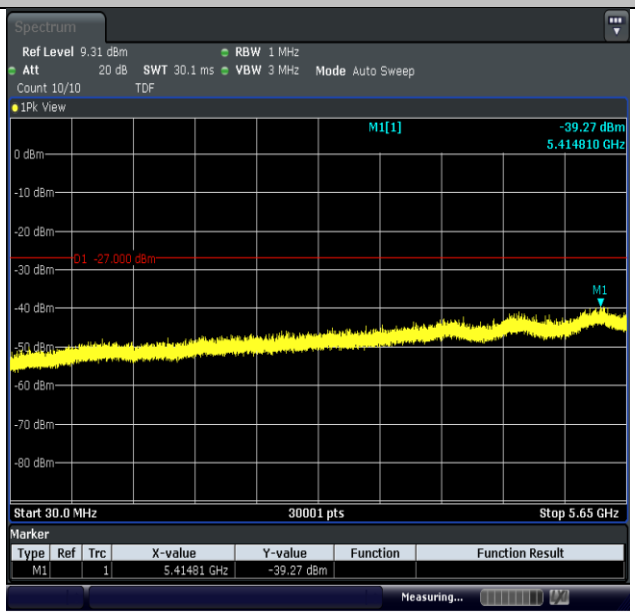

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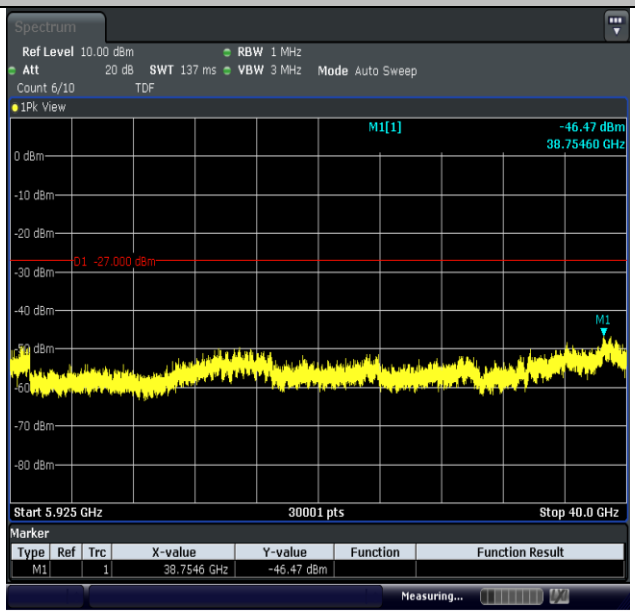

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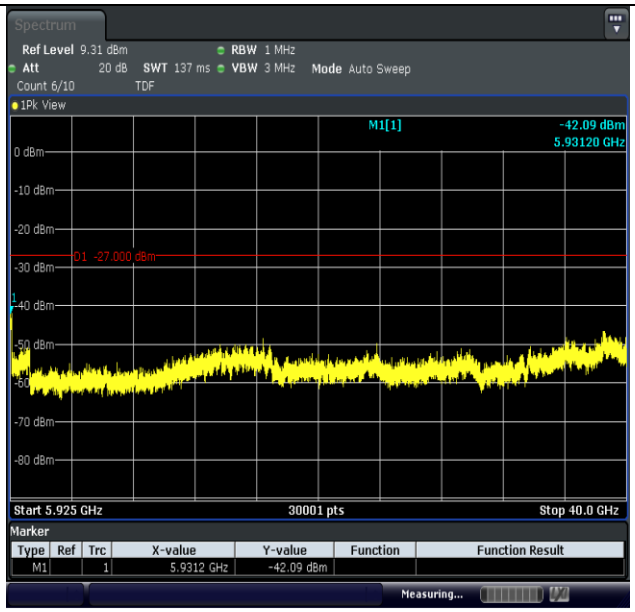

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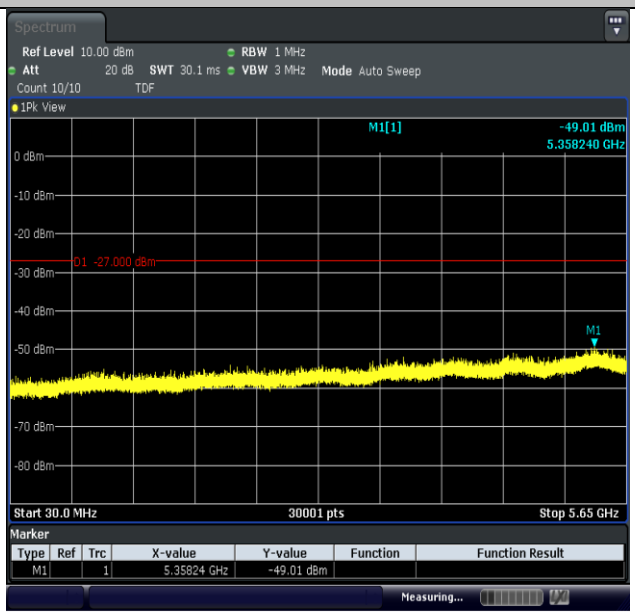

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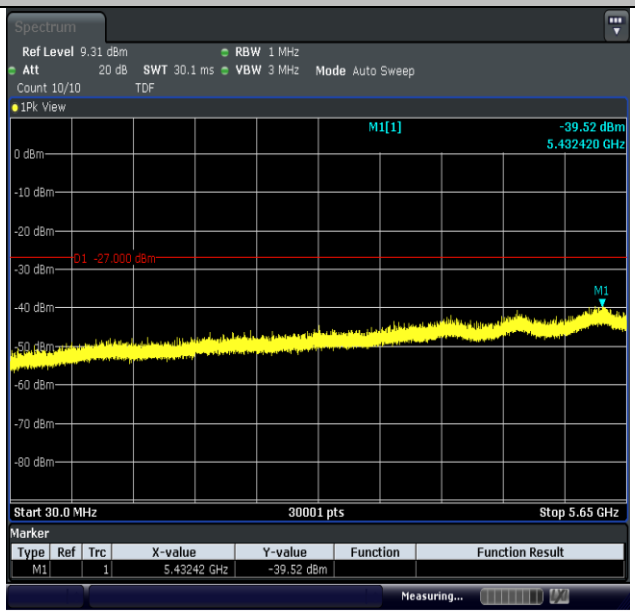

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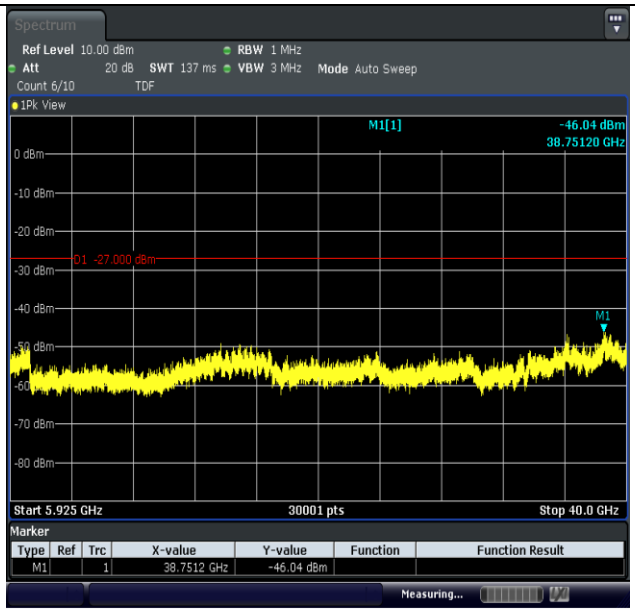

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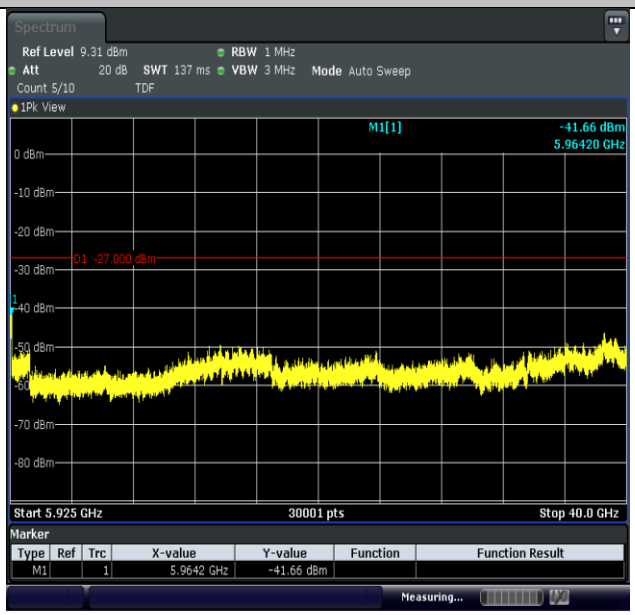

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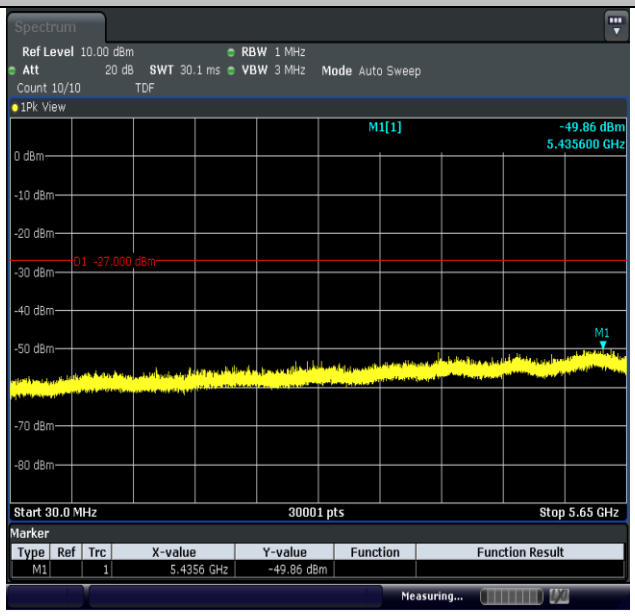

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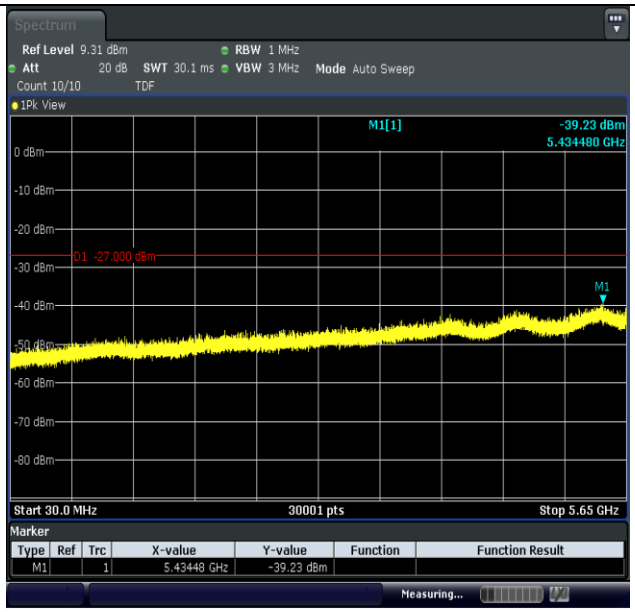

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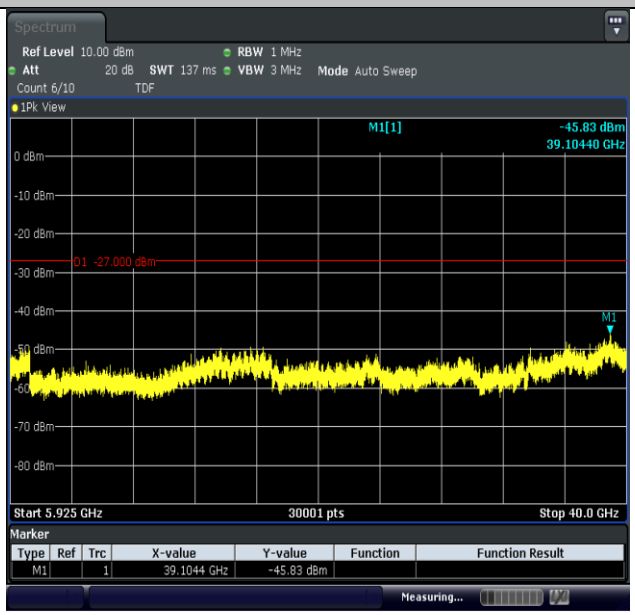

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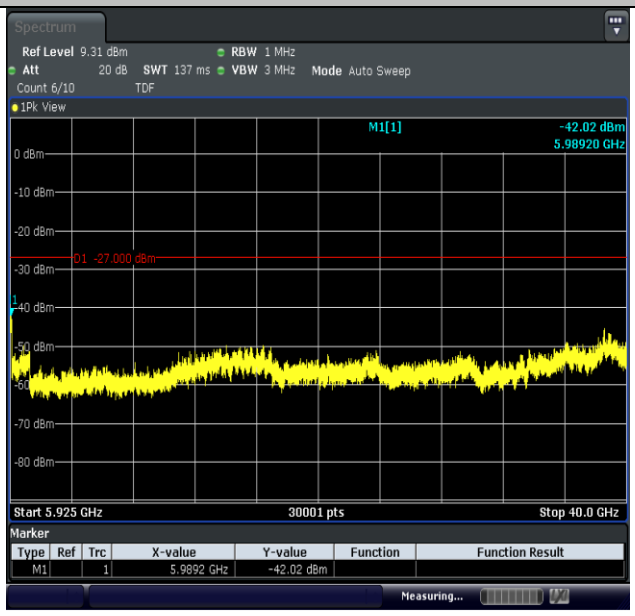

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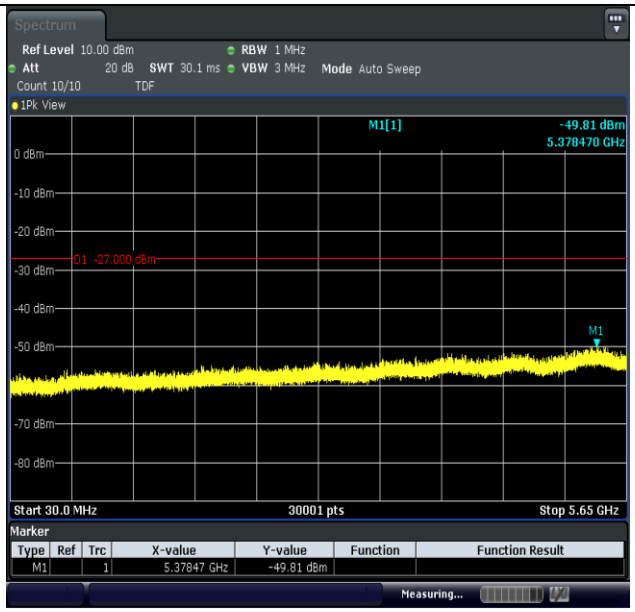

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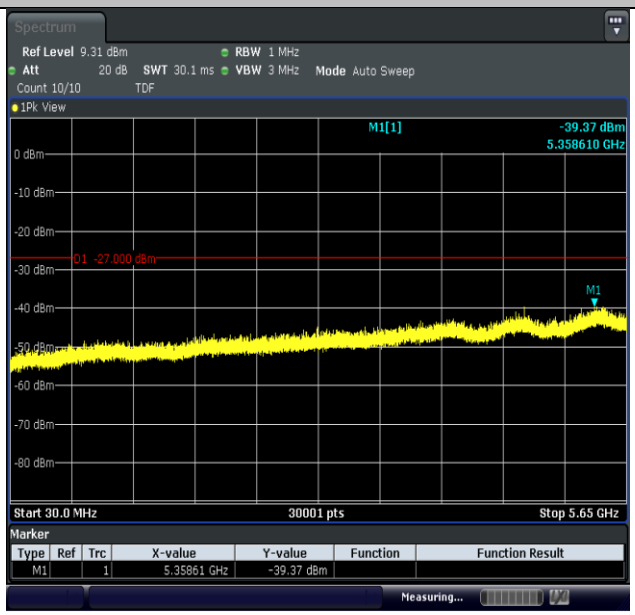

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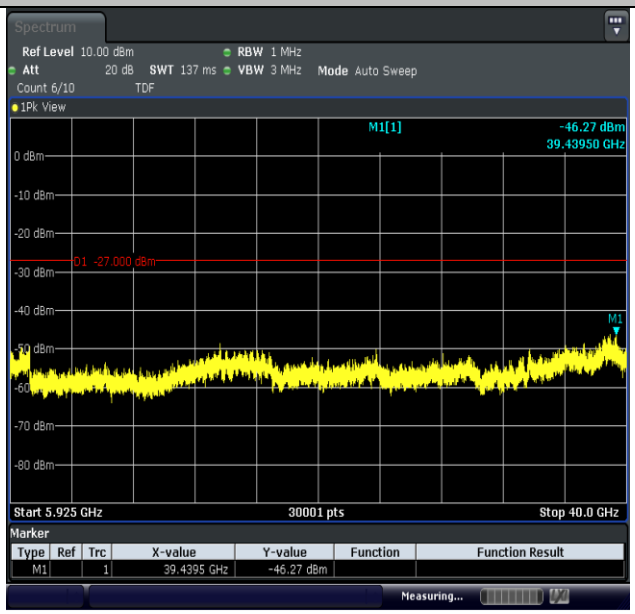

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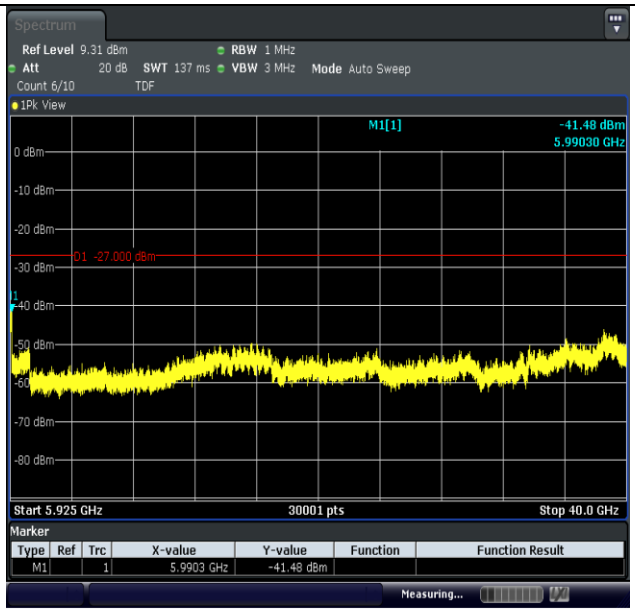

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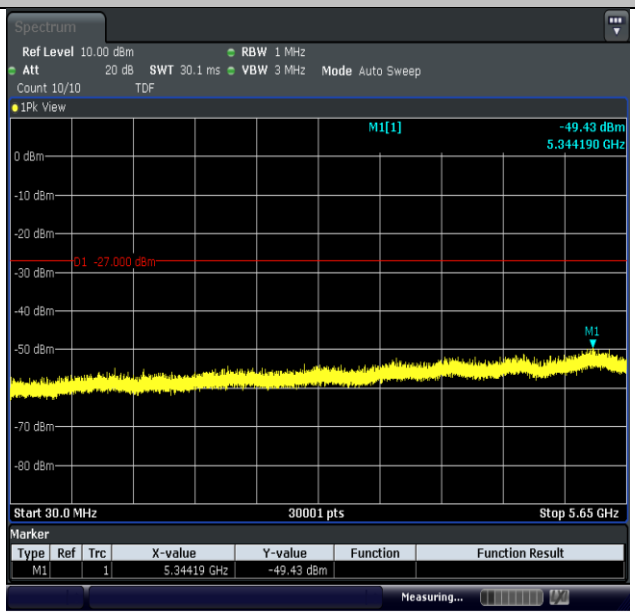

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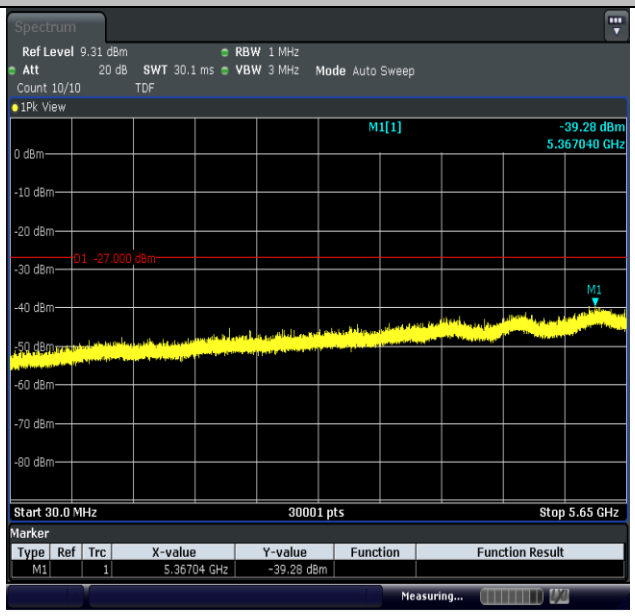

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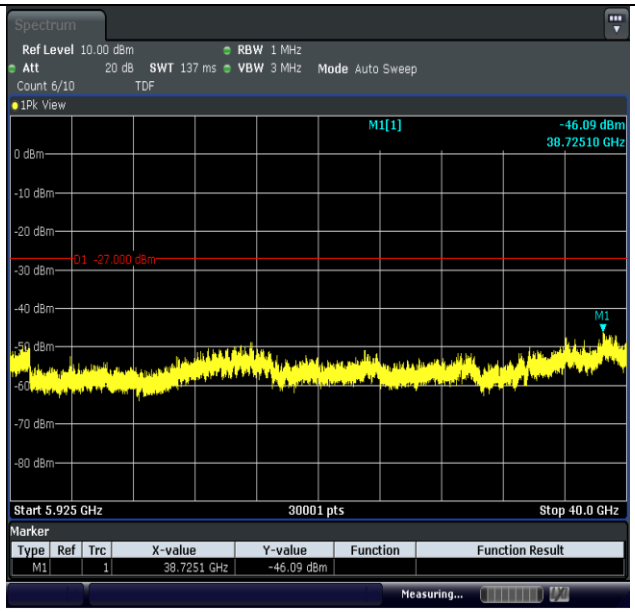

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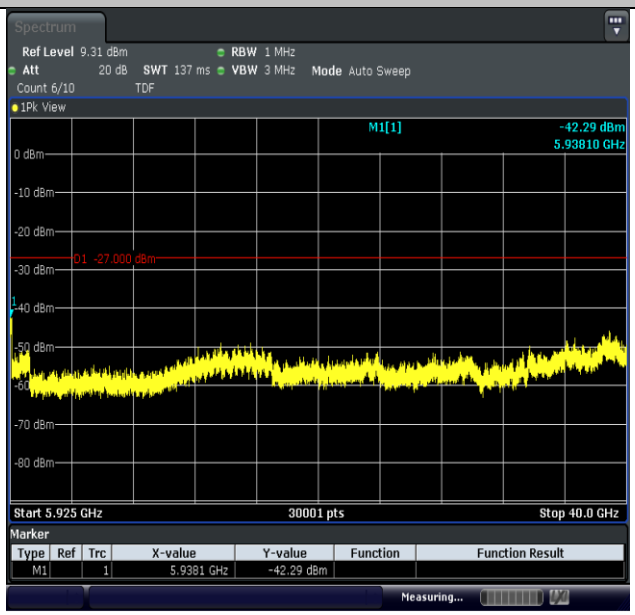

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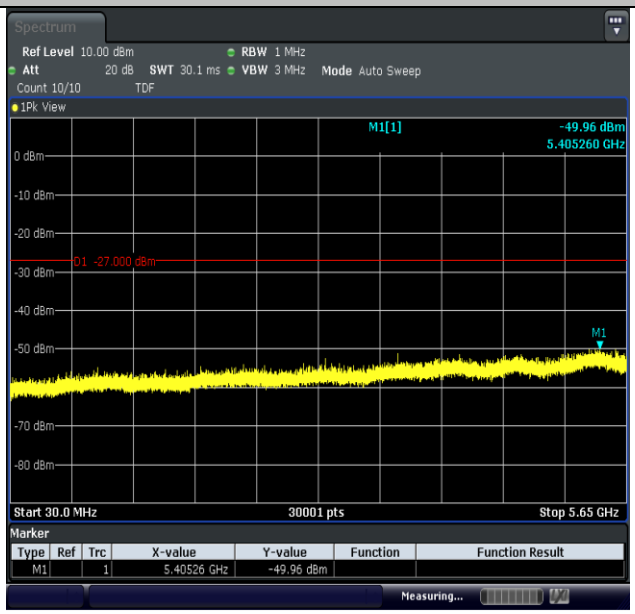
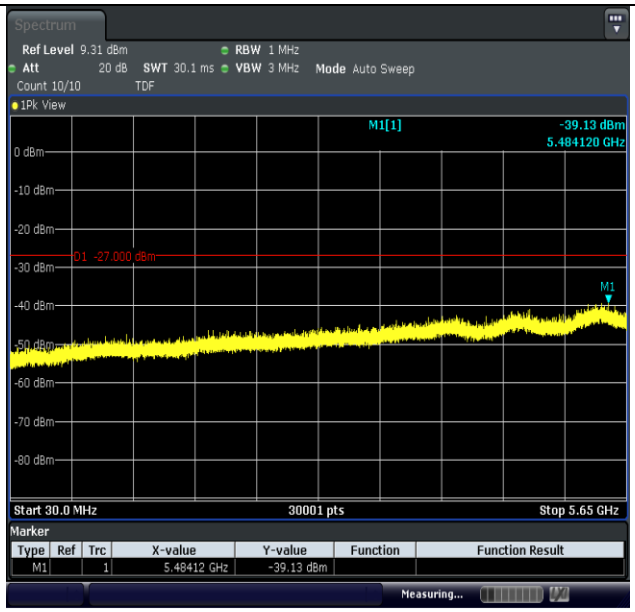


11AC20MIMO-Ant1-5785-30~5650-PASS



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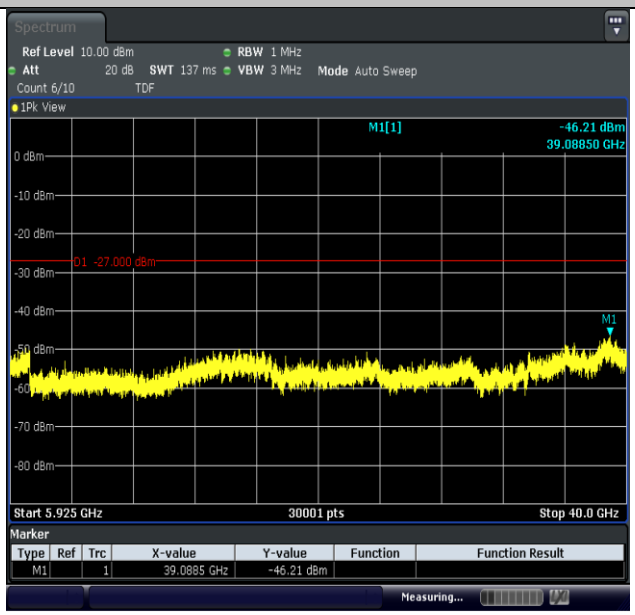
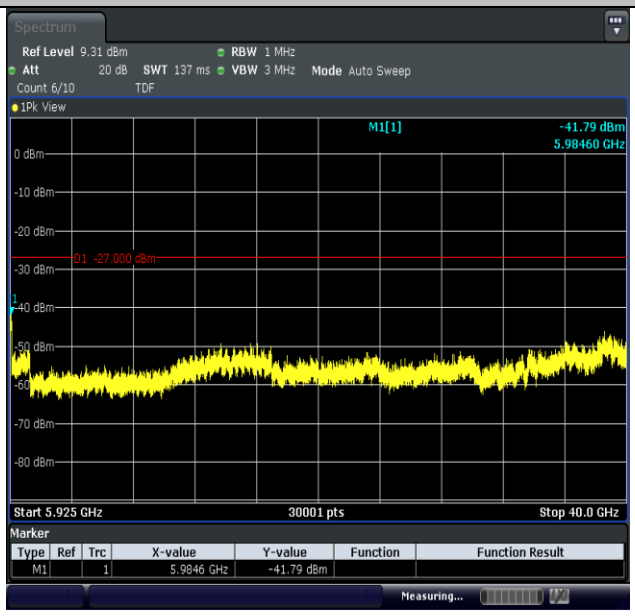


11AC20MIMO-Ant1-5785-5925~40000-PASS



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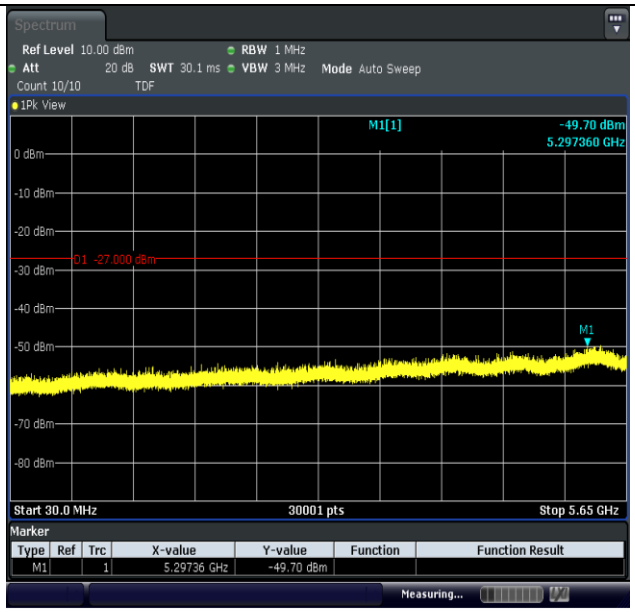

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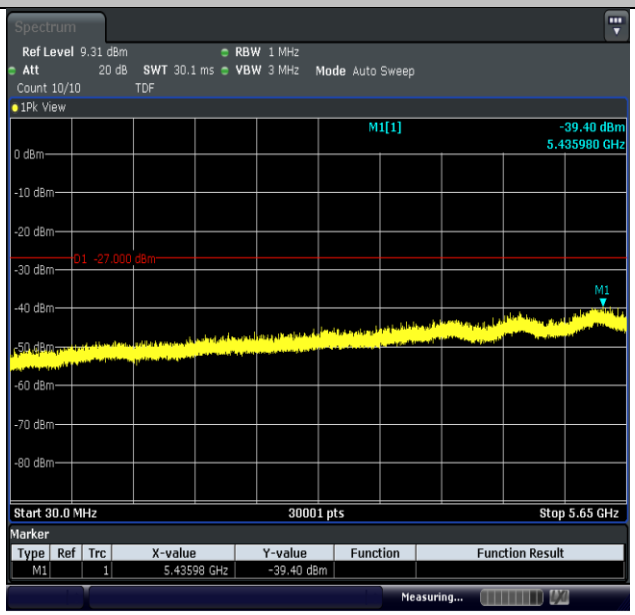
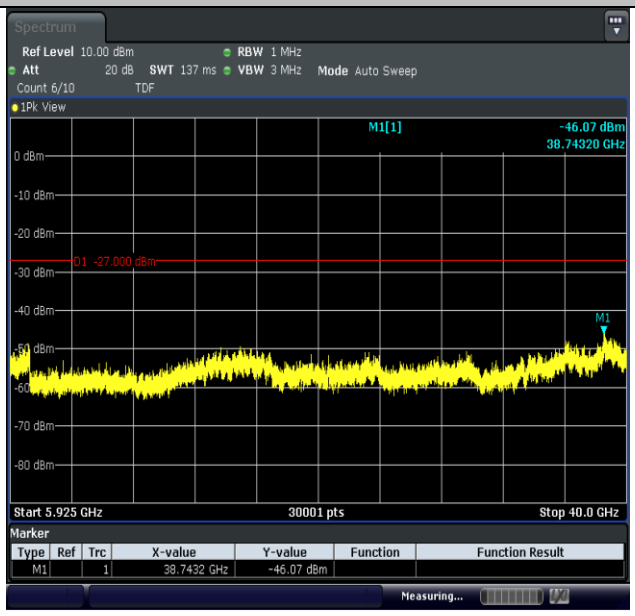
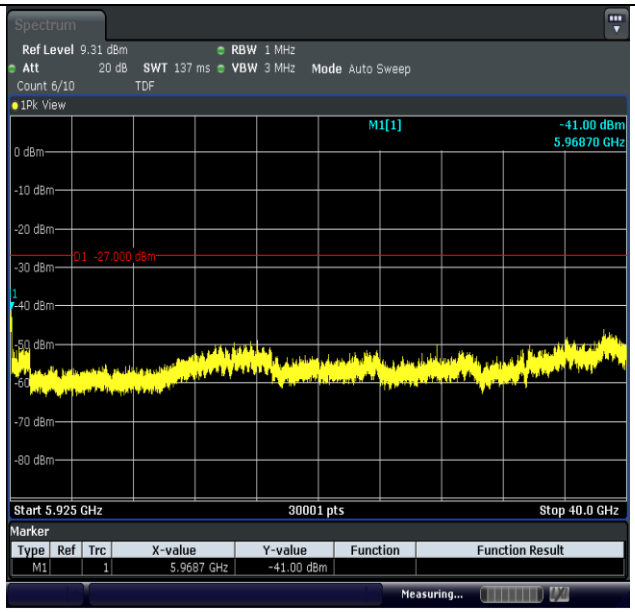


11AC20MIMO-Ant2-5825-30~5650-PASS



11AC20MIMO-Ant1-5825-5925~40000-PASS



11AC20MIMO-Ant2-5825-5925~40000-PASS

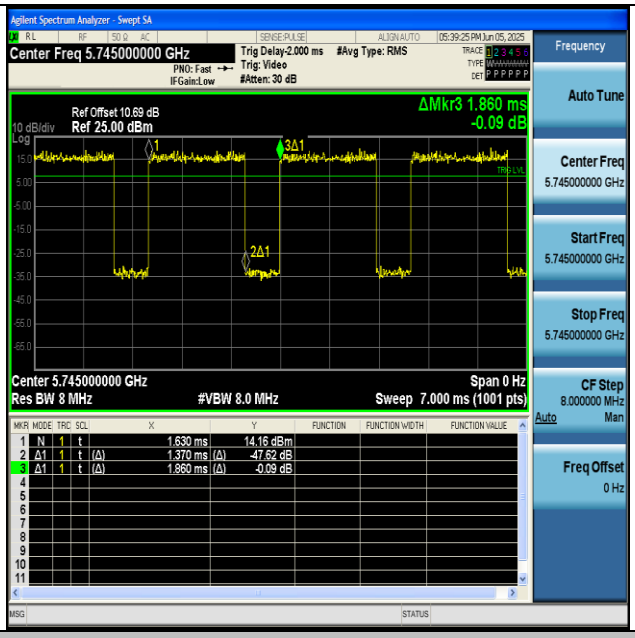
Appendix G: Duty Cycle

Test Result

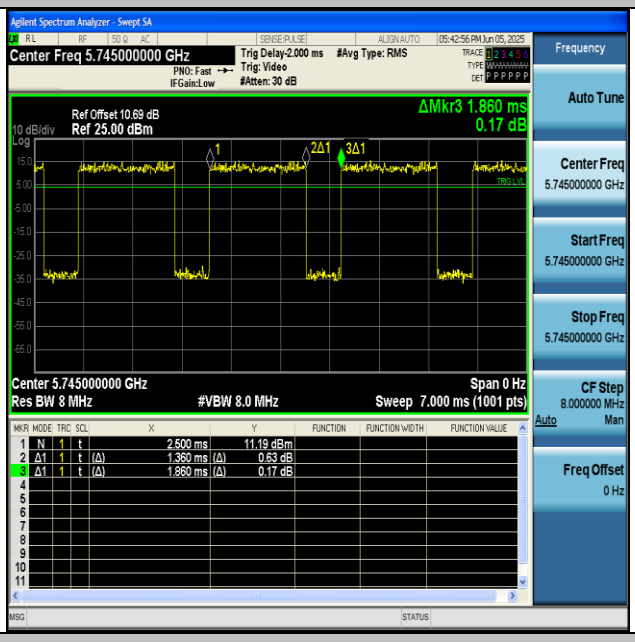
Test Mode	Antenna	Frequency [MHz]	Transmission Duration [ms]	Transmission Period [ms]	Duty Cycle [%]	Dc. Factor [%]	1/T
11A	Ant1	5745	1.37	1.86	73.66	1.33	0.73
11A	Ant2	5745	1.36	1.86	73.12	1.36	0.74
11A	Ant1	5785	1.36	1.87	72.73	1.38	0.74
11A	Ant2	5785	1.36	1.86	73.12	1.36	0.74
11A	Ant1	5825	1.36	1.87	72.73	1.38	0.74
11A	Ant2	5825	1.37	1.86	73.66	1.33	0.73
11N20MIMO	Ant1	5745	0.16	0.66	24.24	6.15	6.25
11N20MIMO	Ant2	5745	0.16	0.66	24.24	6.15	6.25
11N20MIMO	Ant1	5785	0.16	0.66	24.24	6.15	6.25
11N20MIMO	Ant2	5785	0.16	0.66	24.24	6.15	6.25
11N20MIMO	Ant1	5825	0.16	0.67	23.88	6.22	6.25
11N20MIMO	Ant2	5825	0.17	0.67	25.37	5.96	5.88
11AC20MIMO	Ant1	5745	0.35	0.86	40.70	3.90	2.86
11AC20MIMO	Ant2	5745	0.36	0.86	41.86	3.78	2.78
11AC20MIMO	Ant1	5785	0.36	0.86	41.86	3.78	2.78
11AC20MIMO	Ant2	5785	0.36	0.86	41.86	3.78	2.78
11AC20MIMO	Ant1	5825	0.35	0.86	40.70	3.90	2.86
11AC20MIMO	Ant2	5825	0.35	0.86	40.70	3.90	2.86

Note: offset(dB) = cable loss(dB) + attenuator factor(dB)

Test Graphs



NTNV-11A-Ant1-5745



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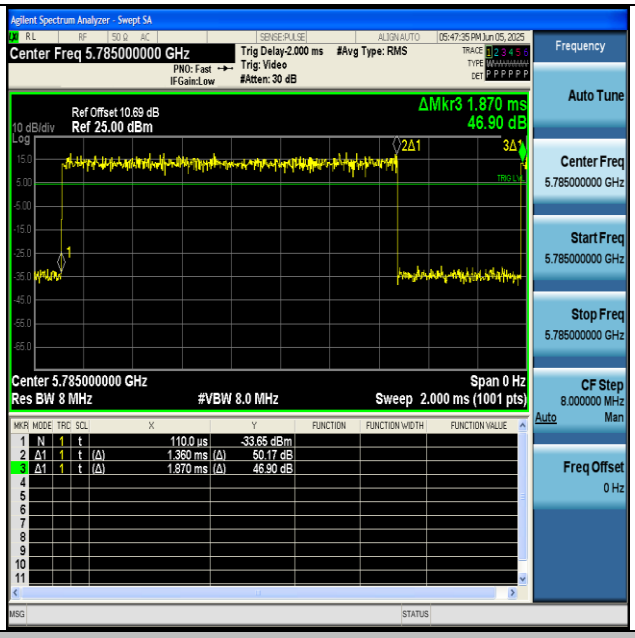

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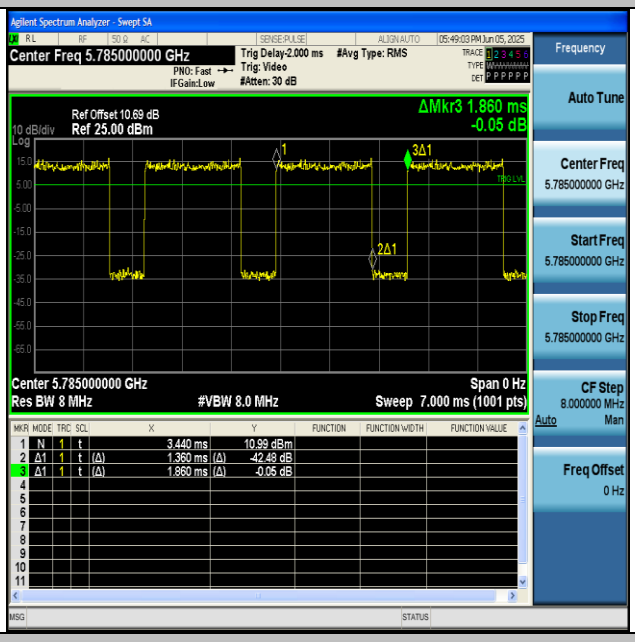

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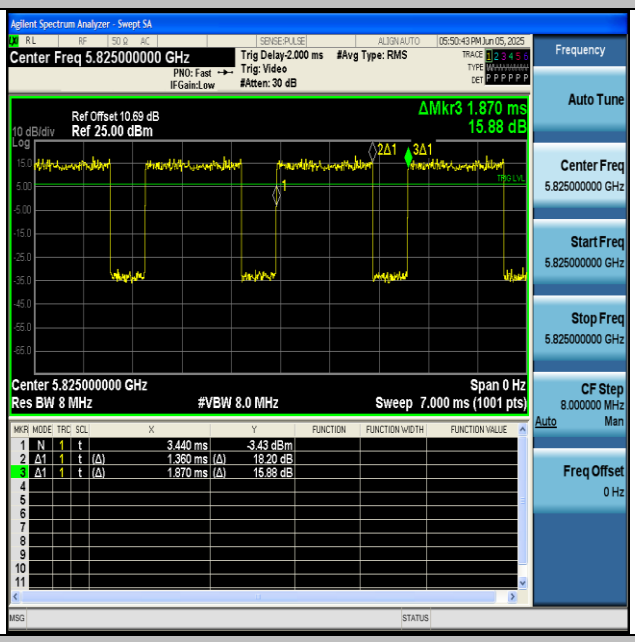

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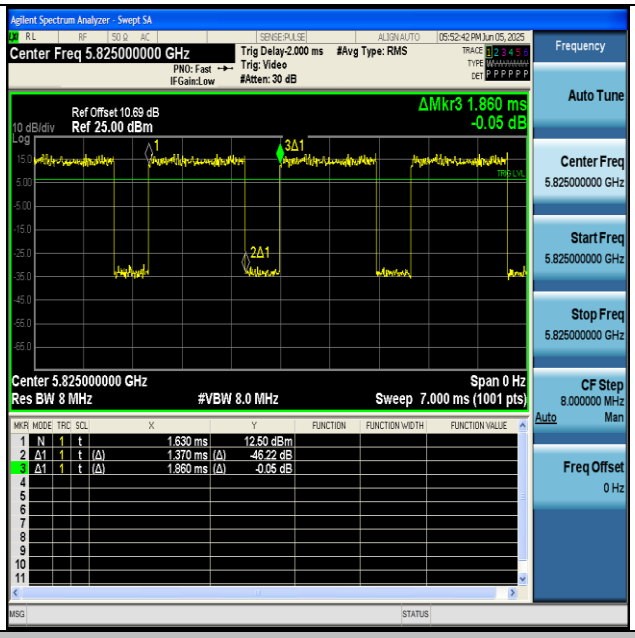

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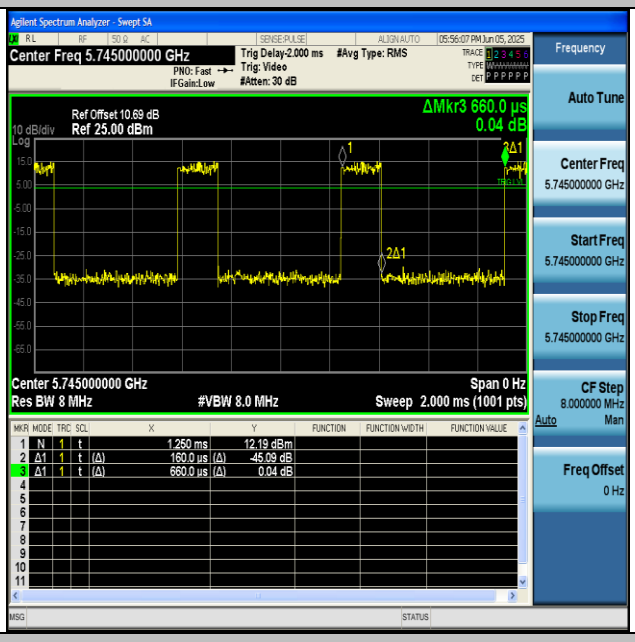

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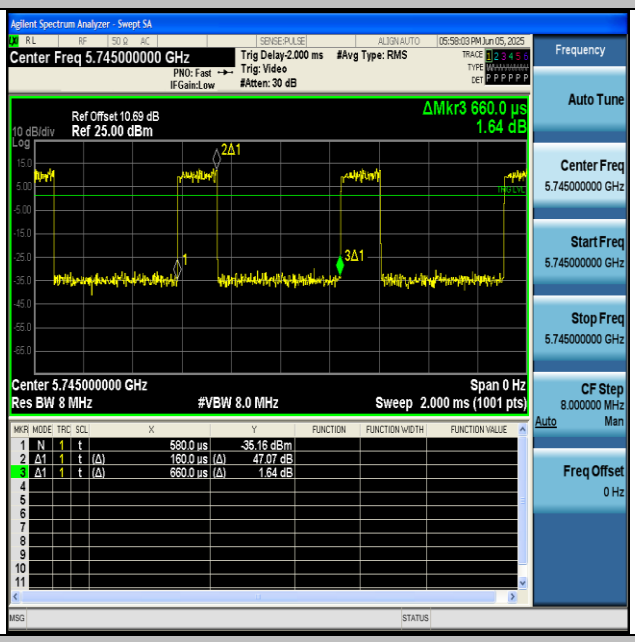

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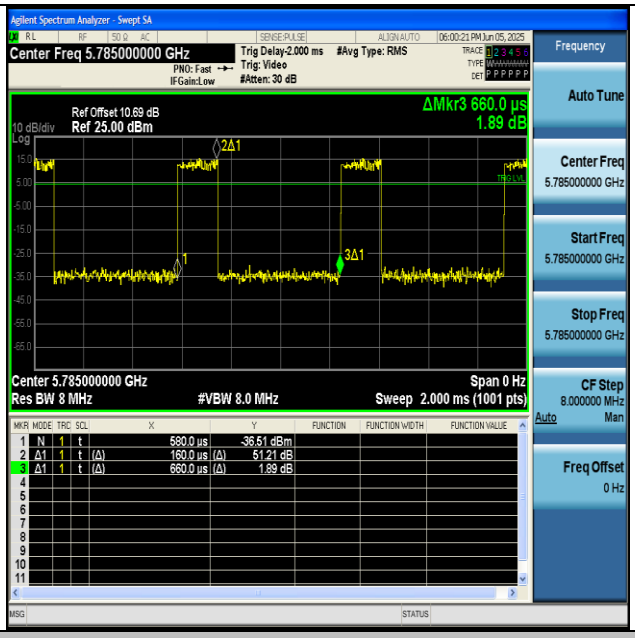

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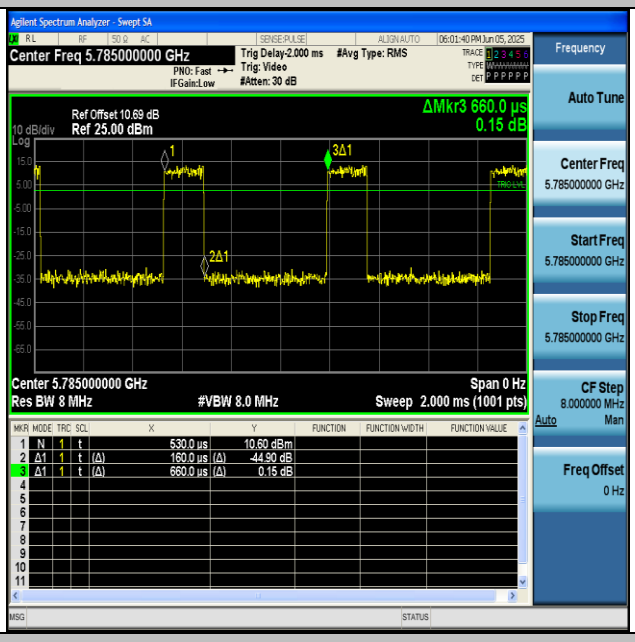

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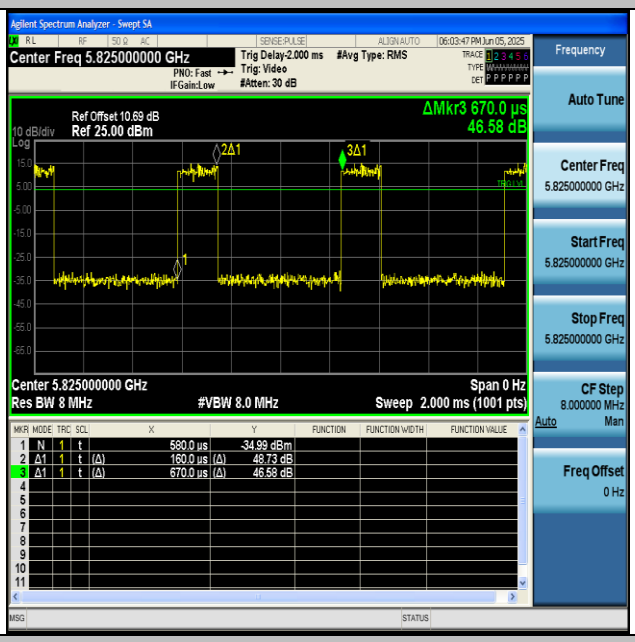

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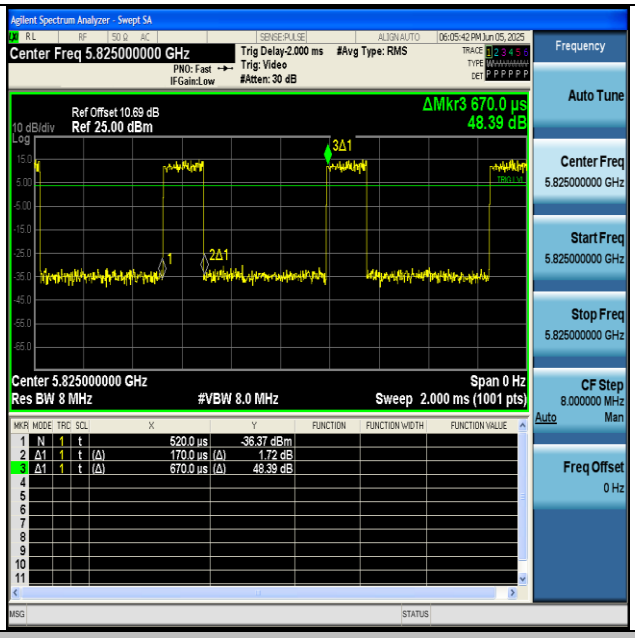

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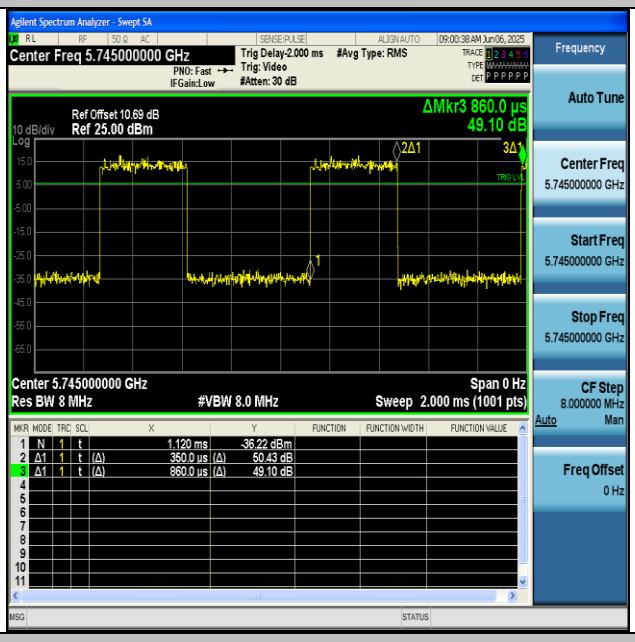

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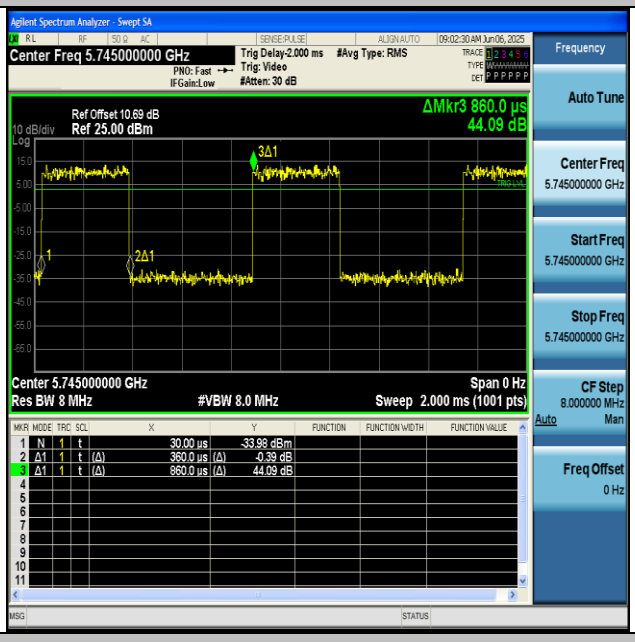

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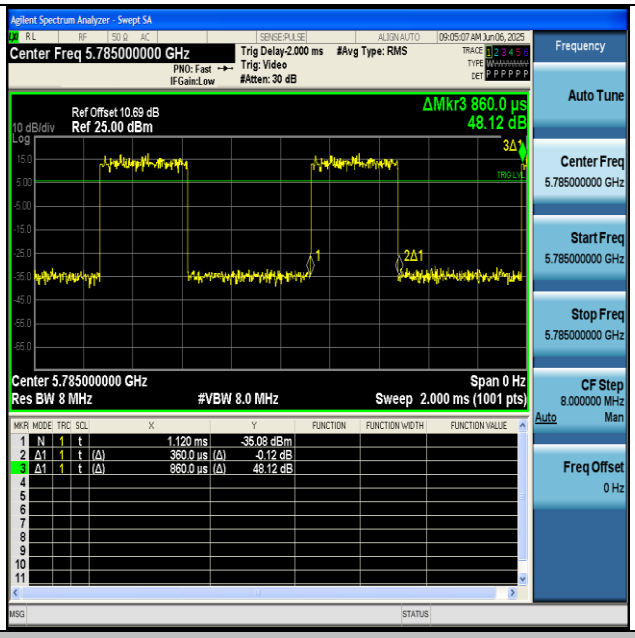

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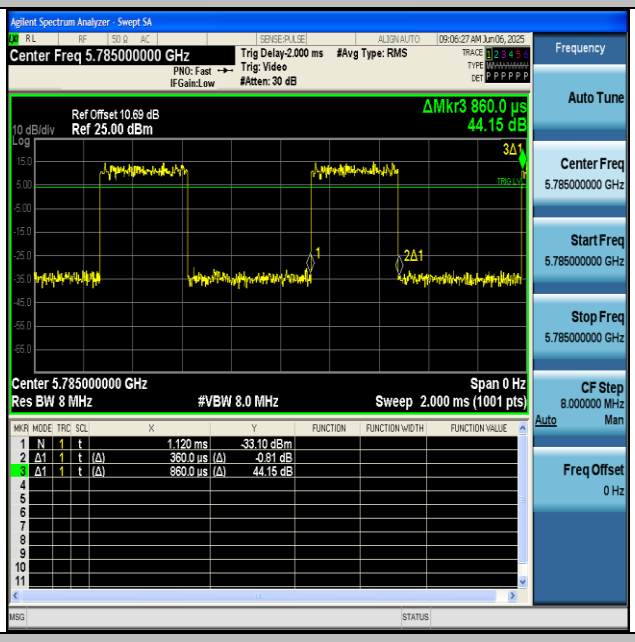

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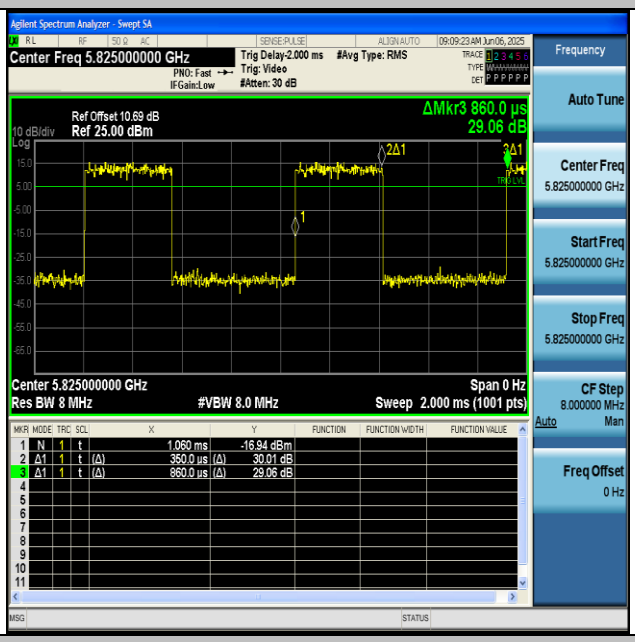

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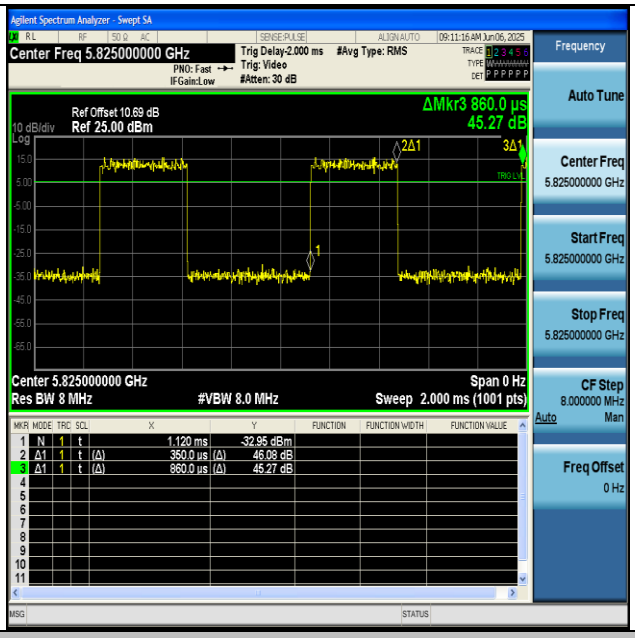

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