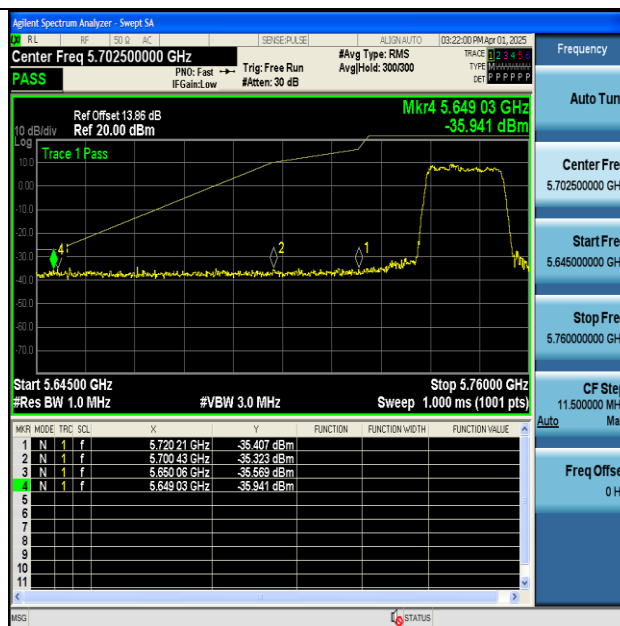




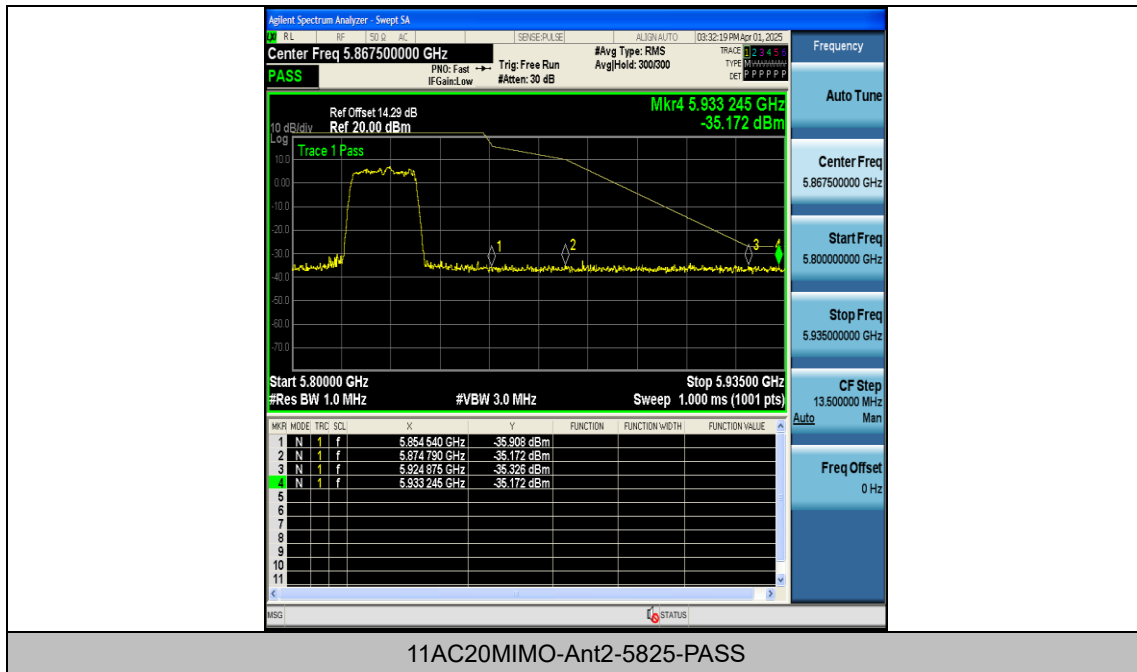
11AC20MIMO-Ant1-5745-PASS



11AC20MIMO-Ant2-5745-PASS



11AC20MIMO-Ant1-5825-PASS



Appendix E: Frequency Stability

Test Result

Ant1

Frequency (MHz)	Environment Temperature (Degree)	Voltage (VAC)	Measured Frequency (MHz)	Limit Range (MHz)	Test Results
5745	20	132	5744.900978	5725 – 5850	PASS
5745	20	108	5745.041039	5725 – 5850	PASS
5745	50	120	5744.933548	5725 – 5850	PASS
5745	40	120	5745.050945	5725 – 5850	PASS
5745	30	120	5745.009926	5725 – 5850	PASS
5745	20	120	5744.907202	5725 – 5850	PASS
5745	10	120	5745.076732	5725 – 5850	PASS
5745	0	120	5745.084333	5725 – 5850	PASS
5745	-10	120	5744.903159	5725 – 5850	PASS
5745	-20	120	5745.033055	5725 – 5850	PASS
5745	-30	120	5745.059729	5725 – 5850	PASS

Ant2

Frequency (MHz)	Environment Temperature (Degree)	Voltage (VAC)	Measured Frequency (MHz)	Limit Range (MHz)	Test Results
5745	20	132	5744.940474	5725 – 5850	PASS
5745	20	108	5744.916013	5725 – 5850	PASS
5745	50	120	5745.005464	5725 – 5850	PASS
5745	40	120	5744.999666	5725 – 5850	PASS
5745	30	120	5744.912172	5725 – 5850	PASS
5745	20	120	5745.005382	5725 – 5850	PASS
5745	10	120	5745.021796	5725 – 5850	PASS
5745	0	120	5744.910254	5725 – 5850	PASS
5745	-10	120	5745.072852	5725 – 5850	PASS
5745	-20	120	5744.909069	5725 – 5850	PASS
5745	-30	120	5744.965065	5725 – 5850	PASS

Ant1

Frequency (MHz)	Environment Temperature (Degree)	Voltage (VAC)	Measured Frequency (MHz)	Limit Range (MHz)	Test Results
5785	20	132	5784.918658	5725 – 5850	PASS
5785	20	108	5784.976167	5725 – 5850	PASS
5785	50	120	5785.027551	5725 – 5850	PASS
5785	40	120	5784.962090	5725 – 5850	PASS
5785	30	120	5784.990629	5725 – 5850	PASS
5785	20	120	5784.998354	5725 – 5850	PASS
5785	10	120	5785.012681	5725 – 5850	PASS
5785	0	120	5785.059765	5725 – 5850	PASS
5785	-10	120	5784.912339	5725 – 5850	PASS
5785	-20	120	5785.074352	5725 – 5850	PASS
5785	-30	120	5784.912952	5725 – 5850	PASS

Ant2

Frequency (MHz)	Environment Temperature (Degree)	Voltage (VAC)	Measured Frequency (MHz)	Limit Range (MHz)	Test Results
5785	20	132	5785.055904	5725 – 5850	PASS
5785	20	108	5785.023417	5725 – 5850	PASS
5785	50	120	5784.982052	5725 – 5850	PASS
5785	40	120	5785.092825	5725 – 5850	PASS
5785	30	120	5785.091799	5725 – 5850	PASS
5785	20	120	5785.069784	5725 – 5850	PASS
5785	10	120	5784.950614	5725 – 5850	PASS
5785	0	120	5785.077447	5725 – 5850	PASS
5785	-10	120	5785.042768	5725 – 5850	PASS
5785	-20	120	5784.974367	5725 – 5850	PASS
5785	-30	120	5785.003993	5725 – 5850	PASS

Ant1

Frequency (MHz)	Environment Temperature (Degree)	Voltage (VAC)	Measured Frequency (MHz)	Limit Range (MHz)	Test Results
5825	20	132	5824.902968	5725 – 5850	PASS
5825	20	108	5824.910994	5725 – 5850	PASS
5825	50	120	5824.955446	5725 – 5850	PASS
5825	40	120	5824.950636	5725 – 5850	PASS
5825	30	120	5824.982370	5725 – 5850	PASS
5825	20	120	5825.085909	5725 – 5850	PASS
5825	10	120	5824.906989	5725 – 5850	PASS
5825	0	120	5825.008848	5725 – 5850	PASS
5825	-10	120	5824.975844	5725 – 5850	PASS
5825	-20	120	5824.953194	5725 – 5850	PASS
5825	-30	120	5825.032182	5725 – 5850	PASS

Ant2

Frequency (MHz)	Environment Temperature (Degree)	Voltage (VAC)	Measured Frequency (MHz)	Limit Range (MHz)	Test Results
5825	20	132	5824.940325	5725 – 5850	PASS
5825	20	108	5825.074161	5725 – 5850	PASS
5825	50	120	5825.026472	5725 – 5850	PASS
5825	40	120	5824.983524	5725 – 5850	PASS
5825	30	120	5824.918209	5725 – 5850	PASS
5825	20	120	5825.060073	5725 – 5850	PASS
5825	10	120	5825.005428	5725 – 5850	PASS
5825	0	120	5824.983522	5725 – 5850	PASS
5825	-10	120	5825.083726	5725 – 5850	PASS
5825	-20	120	5824.988826	5725 – 5850	PASS
5825	-30	120	5825.095740	5725 – 5850	PASS

Ant1

Frequency (MHz)	Environment Temperature (Degree)	Voltage (VAC)	Measured Frequency (MHz)	Limit Range (MHz)	Test Results
5755	20	132	5755.085781	5725 – 5850	PASS
5755	20	108	5755.018576	5725 – 5850	PASS
5755	50	120	5754.997551	5725 – 5850	PASS
5755	40	120	5755.045244	5725 – 5850	PASS
5755	30	120	5755.005085	5725 – 5850	PASS
5755	20	120	5754.993754	5725 – 5850	PASS
5755	10	120	5755.045784	5725 – 5850	PASS
5755	0	120	5754.938192	5725 – 5850	PASS
5755	-10	120	5755.050014	5725 – 5850	PASS
5755	-20	120	5754.939851	5725 – 5850	PASS
5755	-30	120	5755.084397	5725 – 5850	PASS

Ant2

Frequency (MHz)	Environment Temperature (Degree)	Voltage (VAC)	Measured Frequency (MHz)	Limit Range (MHz)	Test Results
5755	20	132	5755.014028	5725 – 5850	PASS
5755	20	108	5755.015417	5725 – 5850	PASS
5755	50	120	5755.008464	5725 – 5850	PASS
5755	40	120	5755.065361	5725 – 5850	PASS
5755	30	120	5754.946955	5725 – 5850	PASS
5755	20	120	5755.040249	5725 – 5850	PASS
5755	10	120	5754.952173	5725 – 5850	PASS
5755	0	120	5754.908350	5725 – 5850	PASS
5755	-10	120	5754.970679	5725 – 5850	PASS
5755	-20	120	5754.976887	5725 – 5850	PASS
5755	-30	120	5755.079372	5725 – 5850	PASS

Ant1

Frequency (MHz)	Environment Temperature (Degree)	Voltage (VAC)	Measured Frequency (MHz)	Limit Range (MHz)	Test Results
5795	20	132	5794.976560	5725 – 5850	PASS
5795	20	108	5794.980464	5725 – 5850	PASS
5795	50	120	5795.053547	5725 – 5850	PASS
5795	40	120	5795.071755	5725 – 5850	PASS
5795	30	120	5794.989789	5725 – 5850	PASS
5795	20	120	5794.909062	5725 – 5850	PASS
5795	10	120	5795.070606	5725 – 5850	PASS
5795	0	120	5794.943231	5725 – 5850	PASS
5795	-10	120	5794.943866	5725 – 5850	PASS
5795	-20	120	5795.024793	5725 – 5850	PASS
5795	-30	120	5795.006434	5725 – 5850	PASS

Ant2

Frequency (MHz)	Environment Temperature (Degree)	Voltage (VAC)	Measured Frequency (MHz)	Limit Range (MHz)	Test Results
5795	20	132	5794.904908	5725 – 5850	PASS
5795	20	108	5794.998064	5725 – 5850	PASS
5795	50	120	5795.073749	5725 – 5850	PASS
5795	40	120	5794.964862	5725 – 5850	PASS
5795	30	120	5795.096738	5725 – 5850	PASS
5795	20	120	5794.966031	5725 – 5850	PASS
5795	10	120	5794.973044	5725 – 5850	PASS
5795	0	120	5795.007922	5725 – 5850	PASS
5795	-10	120	5795.091900	5725 – 5850	PASS
5795	-20	120	5795.050427	5725 – 5850	PASS
5795	-30	120	5795.051496	5725 – 5850	PASS

Ant1

Frequency (MHz)	Environment Temperature (Degree)	Voltage (VAC)	Measured Frequency (MHz)	Limit Range (MHz)	Test Results
5775	20	132	5775.069852	5725 – 5850	PASS
5775	20	108	5774.910218	5725 – 5850	PASS
5775	50	120	5775.038829	5725 – 5850	PASS
5775	40	120	5774.992270	5725 – 5850	PASS
5775	30	120	5774.948452	5725 – 5850	PASS
5775	20	120	5774.953492	5725 – 5850	PASS
5775	10	120	5774.903603	5725 – 5850	PASS
5775	0	120	5774.973904	5725 – 5850	PASS
5775	-10	120	5775.010758	5725 – 5850	PASS
5775	-20	120	5774.908281	5725 – 5850	PASS
5775	-30	120	5775.090681	5725 – 5850	PASS

Ant2

Frequency (MHz)	Environment Temperature (Degree)	Voltage (VAC)	Measured Frequency (MHz)	Limit Range (MHz)	Test Results
5775	20	132	5774.943664	5725 – 5850	PASS
5775	20	108	5775.070948	5725 – 5850	PASS
5775	50	120	5774.948059	5725 – 5850	PASS
5775	40	120	5774.960877	5725 – 5850	PASS
5775	30	120	5774.996562	5725 – 5850	PASS
5775	20	120	5774.907191	5725 – 5850	PASS
5775	10	120	5774.979900	5725 – 5850	PASS
5775	0	120	5775.013251	5725 – 5850	PASS
5775	-10	120	5775.066229	5725 – 5850	PASS
5775	-20	120	5774.993625	5725 – 5850	PASS
5775	-30	120	5775.062617	5725 – 5850	PASS

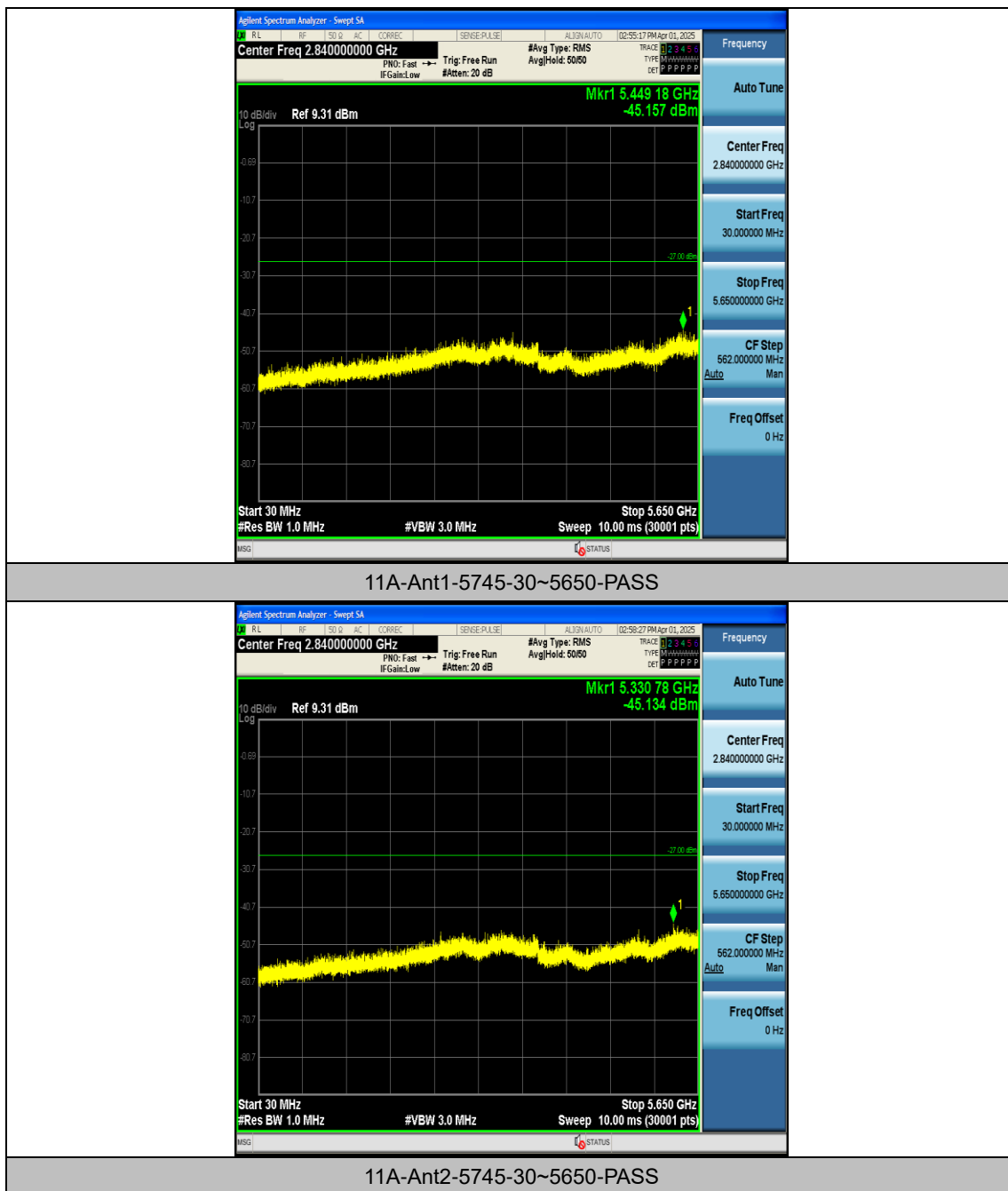
Appendix F: Conducted Spurious Emission

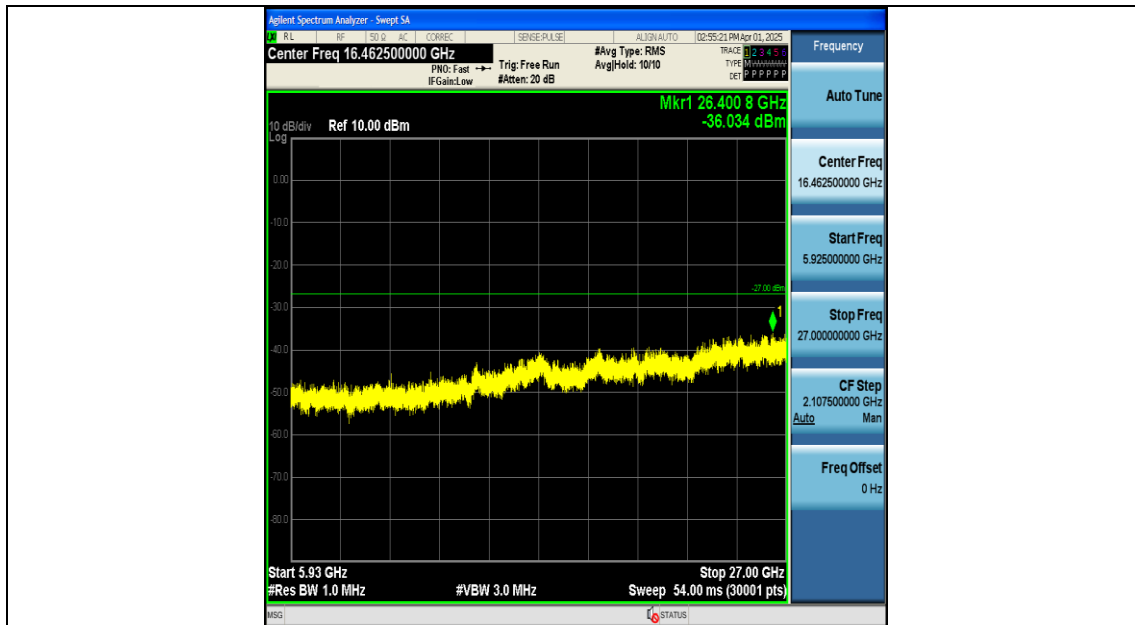
Test Result

TestMode	Antenna	Frequency[MHz]	FreqRange [MHz]	Max. Fre [MHz]	Max. Level [dBm]	Limit [dBm]	Verdict
11A	Ant1	5745	30~5650	5449.18	-45.16	≤-27	PASS
11A	Ant2	5745	30~5650	5330.78	-45.13	≤-27	PASS
11A	Ant1	5745	5925~40000	26400.77	-36.03	≤-27	PASS
11A	Ant2	5745	5925~40000	26112.74	-35.68	≤-27	PASS
11A	Ant1	5785	30~5650	5516.24	-45.96	≤-27	PASS
11A	Ant2	5785	30~5650	5419.21	-45.76	≤-27	PASS
11A	Ant1	5785	5925~40000	26107.12	-35.34	≤-27	PASS
11A	Ant2	5785	5925~40000	25054.78	-36.14	≤-27	PASS
11A	Ant1	5825	30~5650	5446.93	-45.54	≤-27	PASS
11A	Ant2	5825	30~5650	5398.04	-45.76	≤-27	PASS
11A	Ant1	5825	5925~40000	25023.87	-36.1	≤-27	PASS
11A	Ant2	5825	5925~40000	26068.49	-35.8	≤-27	PASS
11N20MIMO	Ant1	5745	30~5650	5531.98	-45.61	≤-27	PASS
11N20MIMO	Ant2	5745	30~5650	5469.6	-45.59	≤-27	PASS
11N20MIMO	Ant1	5745	5925~40000	25946.25	-35.29	≤-27	PASS
11N20MIMO	Ant2	5745	5925~40000	24340.34	-36.12	≤-27	PASS
11N20MIMO	Ant1	5785	30~5650	5391.48	-46.27	≤-27	PASS
11N20MIMO	Ant2	5785	30~5650	5490.58	-45.74	≤-27	PASS
11N20MIMO	Ant1	5785	5925~40000	26835.62	-35.02	≤-27	PASS
11N20MIMO	Ant2	5785	5925~40000	25958.9	-35.19	≤-27	PASS
11N20MIMO	Ant1	5825	30~5650	3163.34	-45.69	≤-27	PASS
11N20MIMO	Ant2	5825	30~5650	5393.35	-46.06	≤-27	PASS
11N20MIMO	Ant1	5825	5925~40000	24972.59	-35.94	≤-27	PASS
11N20MIMO	Ant2	5825	5925~40000	26041.09	-35.2	≤-27	PASS
11AC20MIMO	Ant1	5745	30~5650	5533.29	-45.45	≤-27	PASS
11AC20MIMO	Ant2	5745	30~5650	5554.09	-45.48	≤-27	PASS
11AC20MIMO	Ant1	5745	5925~40000	26935.37	-35.71	≤-27	PASS
11AC20MIMO	Ant2	5745	5925~40000	25050.56	-35.16	≤-27	PASS
11AC20MIMO	Ant1	5785	30~5650	5357.57	-45.54	≤-27	PASS
11AC20MIMO	Ant2	5785	30~5650	3075.85	-46.14	≤-27	PASS
11AC20MIMO	Ant1	5785	5925~40000	25135.57	-35.19	≤-27	PASS
11AC20MIMO	Ant2	5785	5925~40000	26345.97	-35.87	≤-27	PASS
11AC20MIMO	Ant1	5825	30~5650	3136.17	-46.41	≤-27	PASS
11AC20MIMO	Ant2	5825	30~5650	5428.57	-45.25	≤-27	PASS
11AC20MIMO	Ant1	5825	5925~40000	26031.96	-35.72	≤-27	PASS
11AC20MIMO	Ant2	5825	5925~40000	26135.22	-34.8	≤-27	PASS

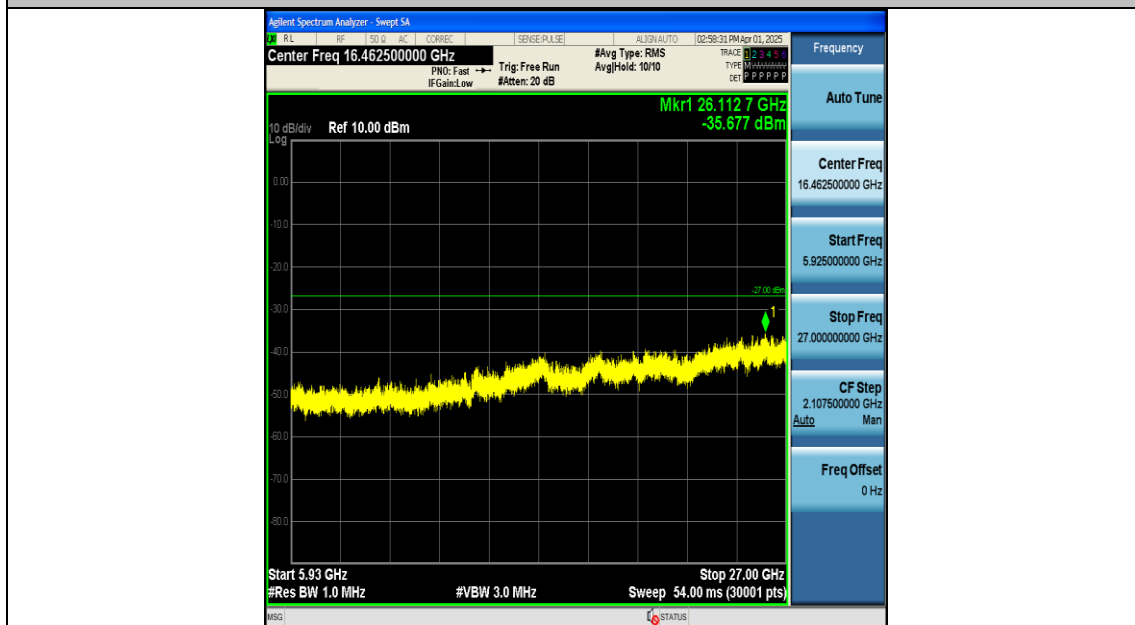
Note: offset(dB) in Reference test plots = cable loss(dB) + attenuator factor(dB); For spurious emissions plots from 30MHz to 40 GHz, the cable loss and attenuator factors have been set in the 'Input Correction' of the Spectrum Analyzer during the test.

Test Graphs

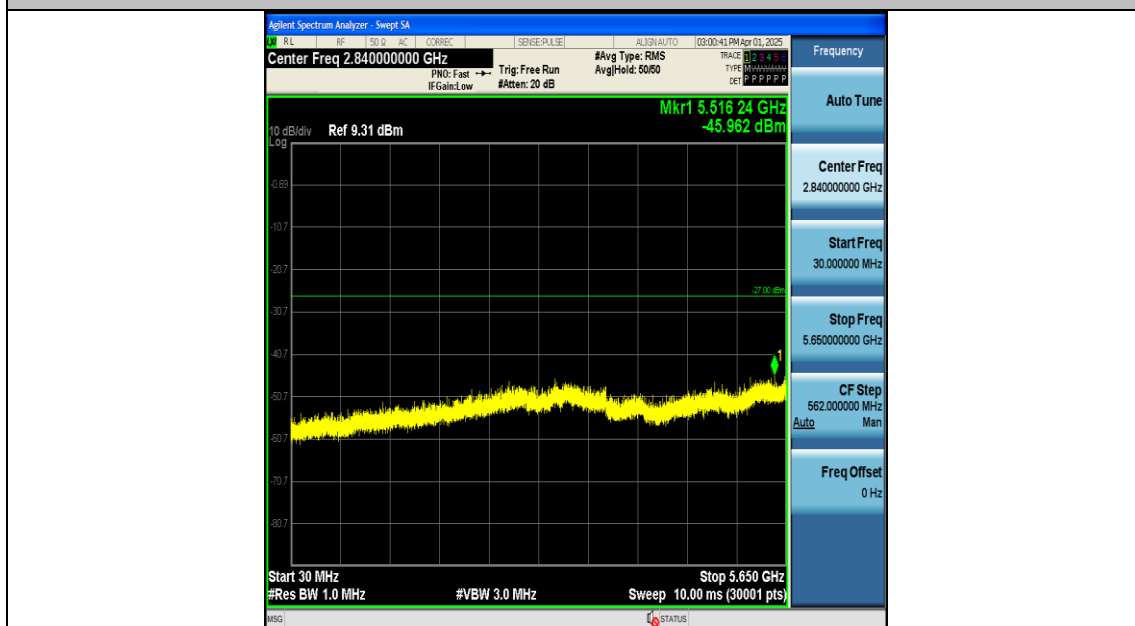




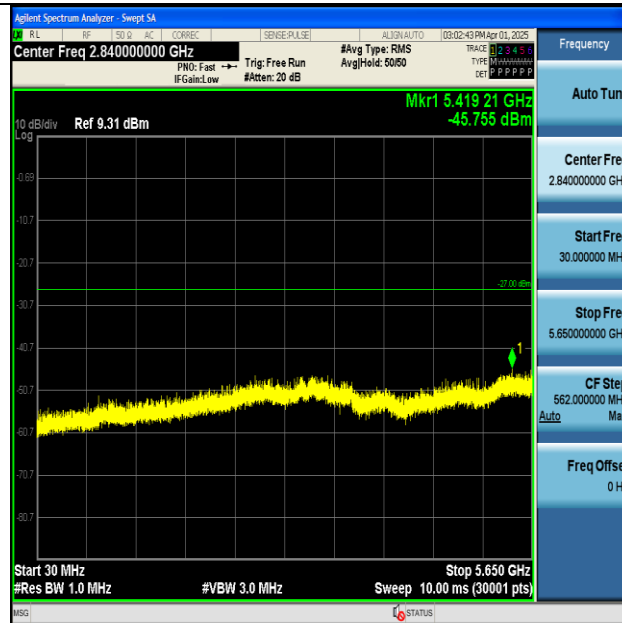
11A-Ant1-5745-5925~40000-PASS



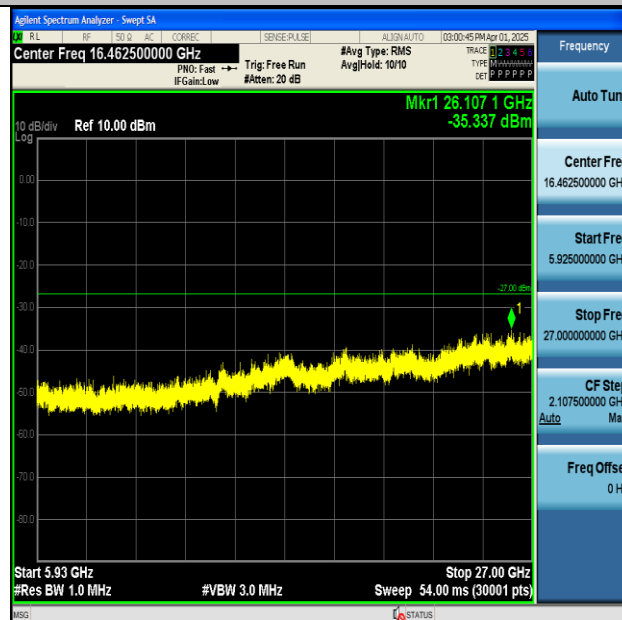
11A-Ant2-5745-5925~40000-PASS



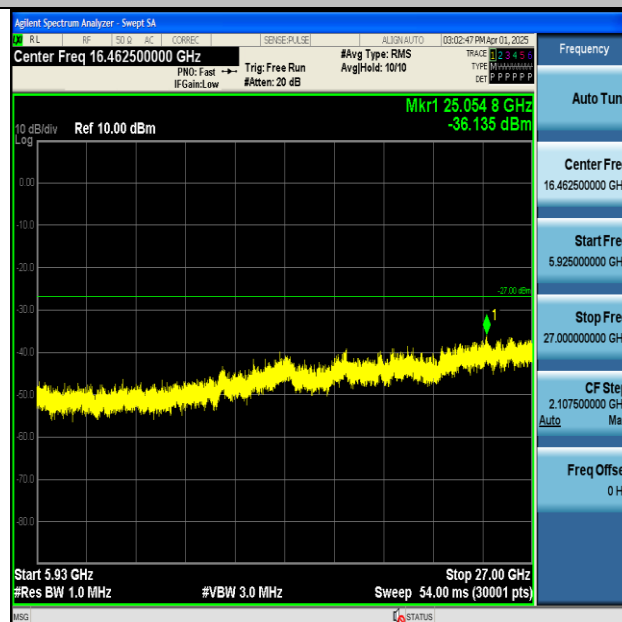
11A-Ant1-5785-30~5650-PASS



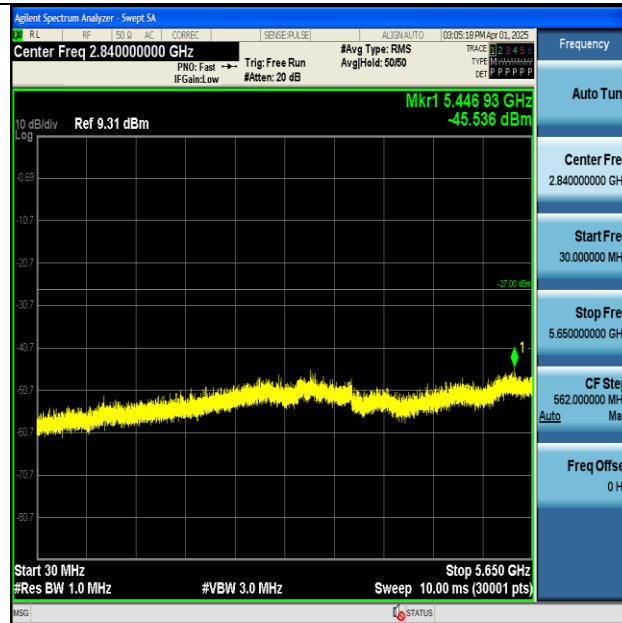
11A-Ant2-5785-30~5650-PASS



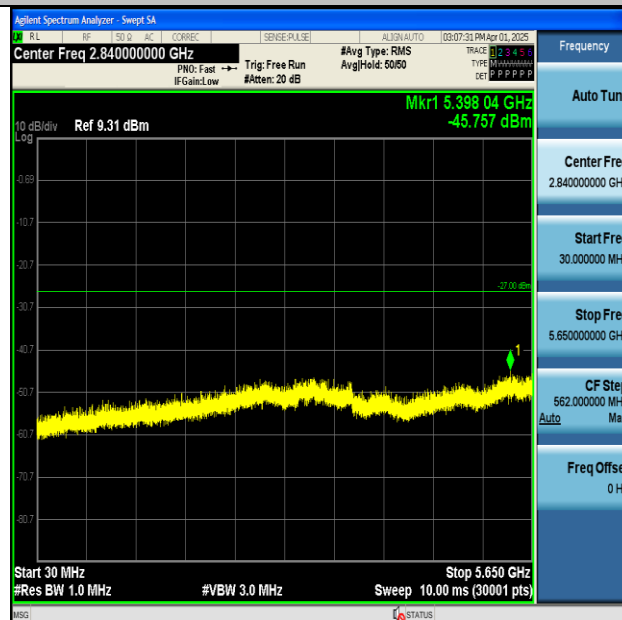
11A-Ant1-5785-5925~40000-PASS



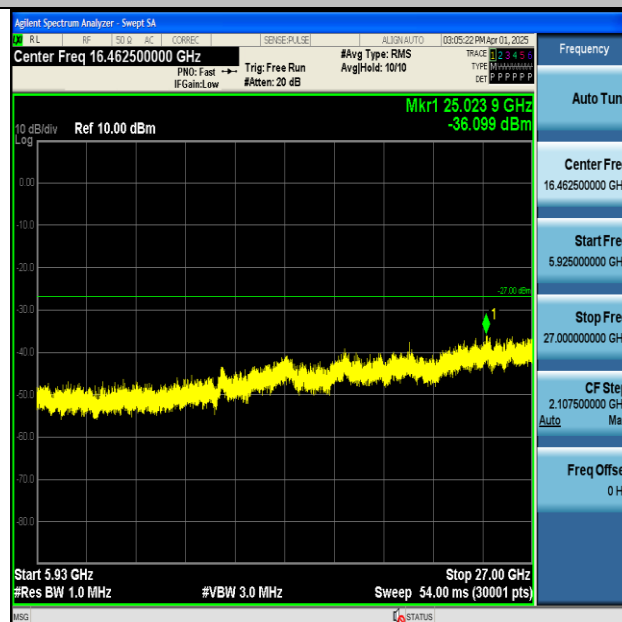
11A-Ant2-5785-5925~40000-PASS



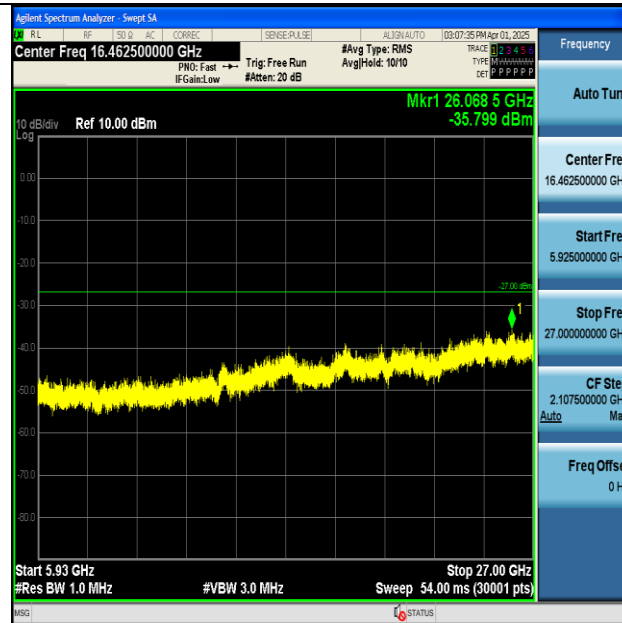
11A-Ant1-5825-30~5650-PASS



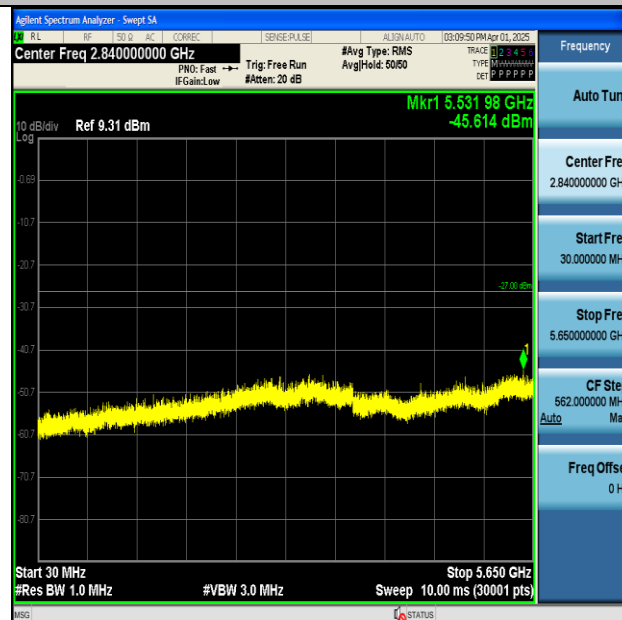
11A-Ant2-5825-30~5650-PASS



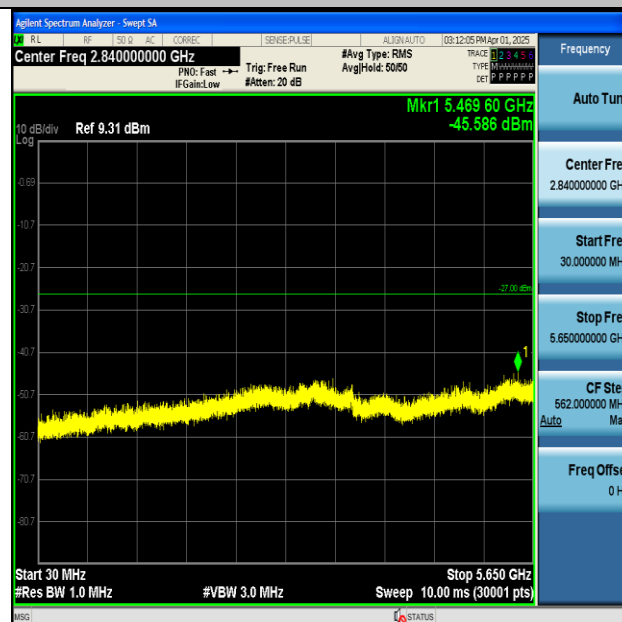
11A-Ant1-5825-5925~40000-PASS



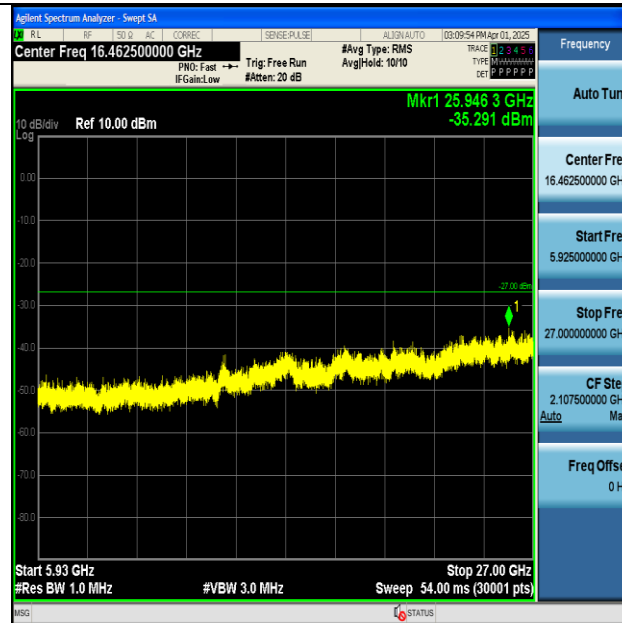
11A-Ant2-5825-5925~40000-PASS



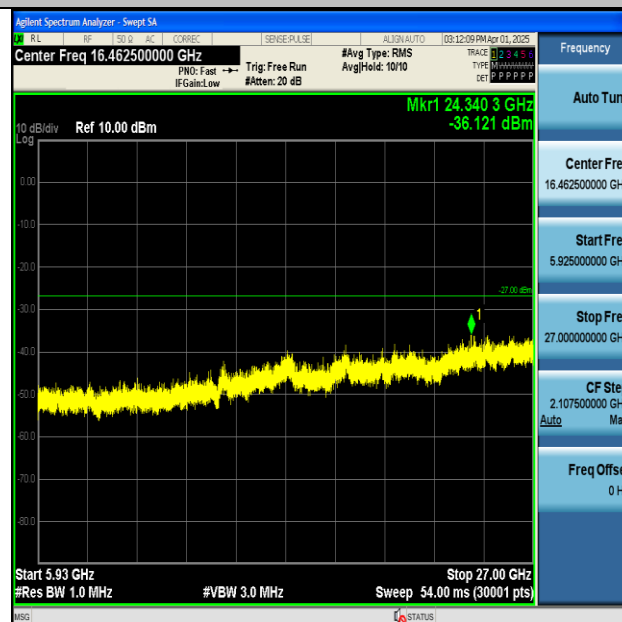
11N20MIMO-Ant1-5745-30~5650-PASS



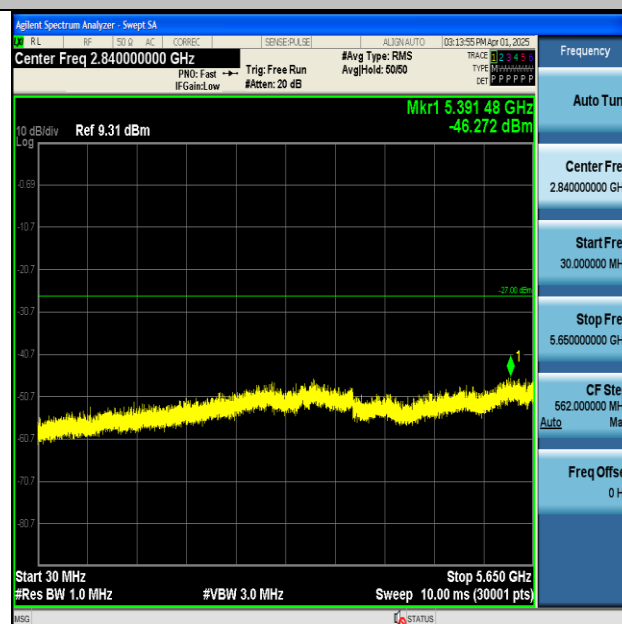
11N20MIMO-Ant2-5745-30~5650-PASS



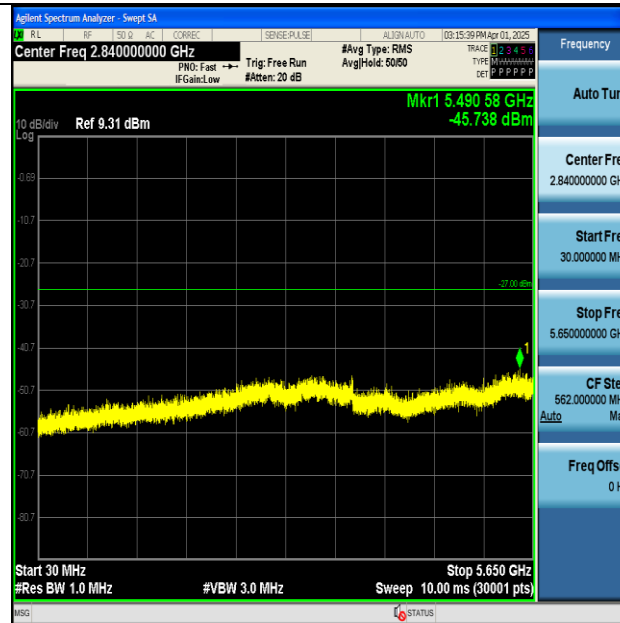
11N20MIMO-Ant1-5745-5925~40000-PASS



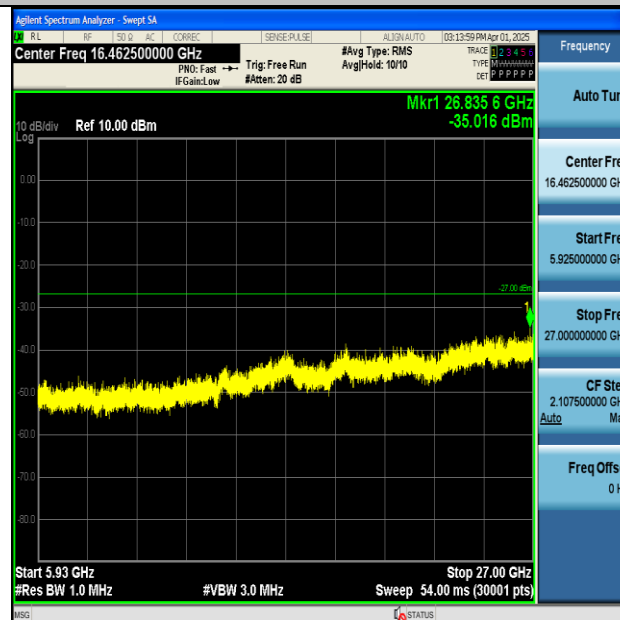
11N20MIMO-Ant2-5745-5925~40000-PASS



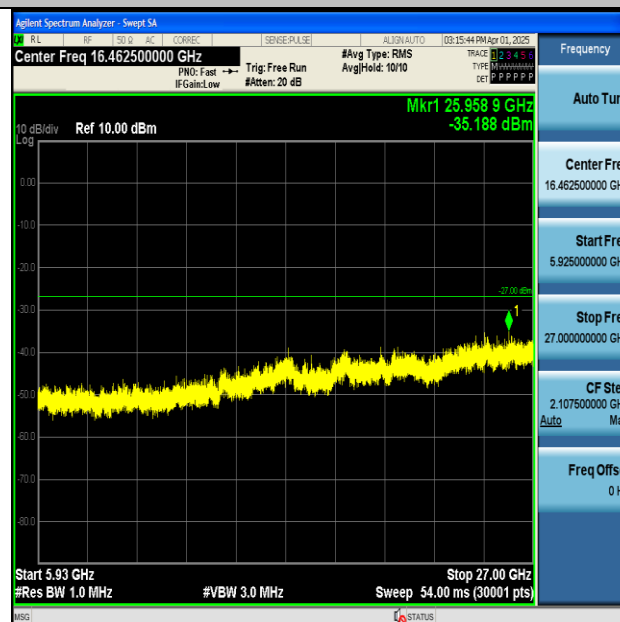
11N20MIMO-Ant1-5785-30~5650-PASS



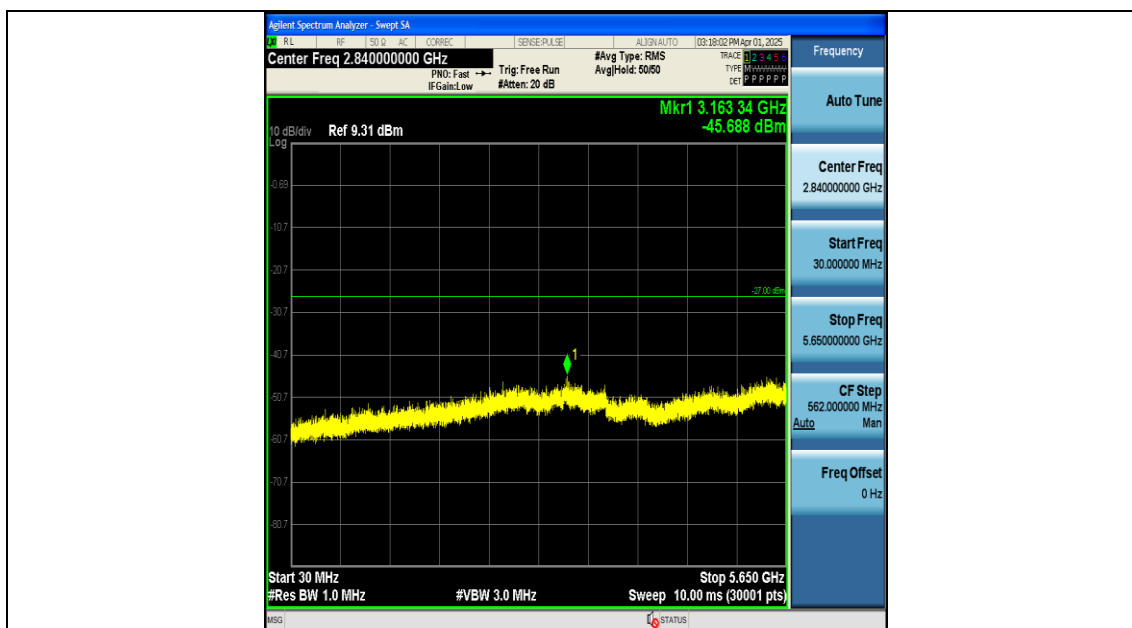
11N20MIMO-Ant2-5785-30~5650-PASS



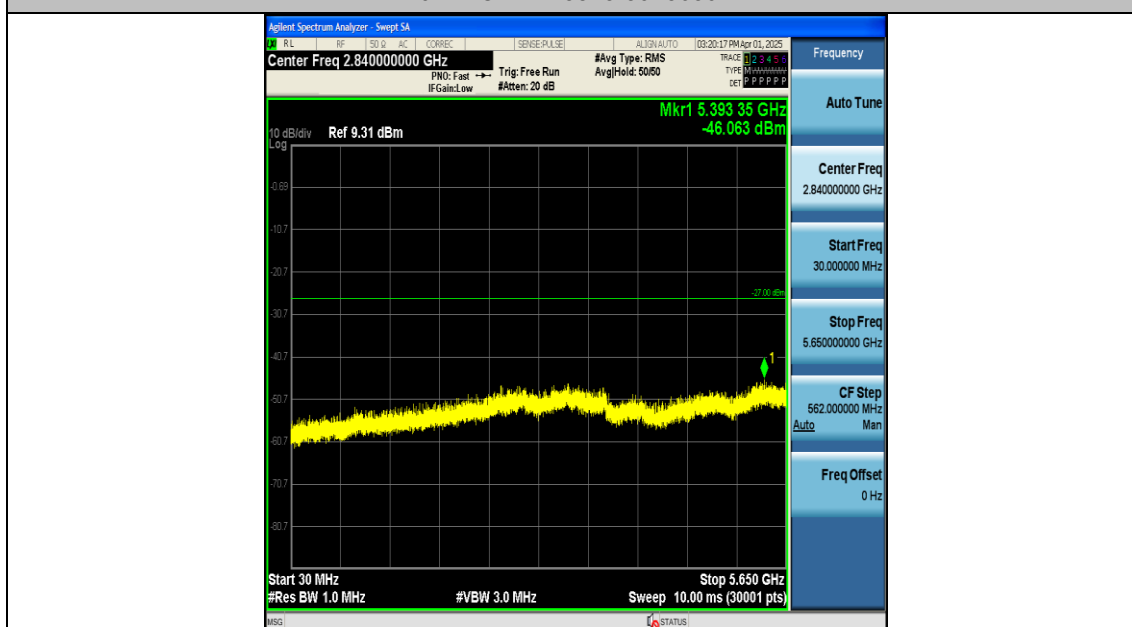
11N20MIMO-Ant1-5785-5925~40000-PASS



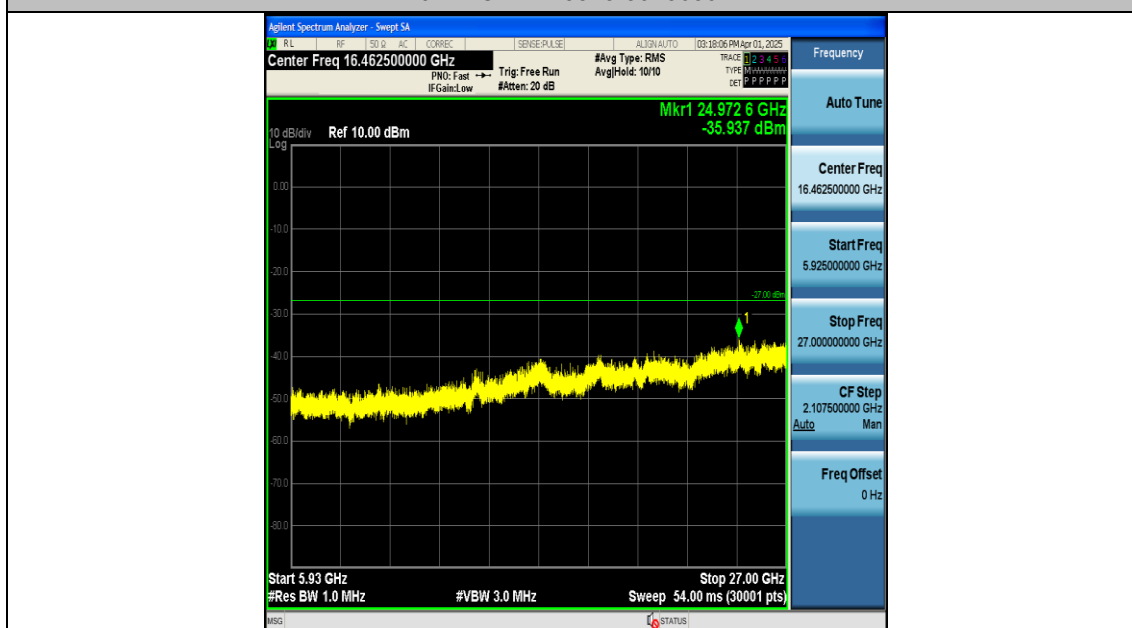
11N20MIMO-Ant2-5785-5925~40000-PASS



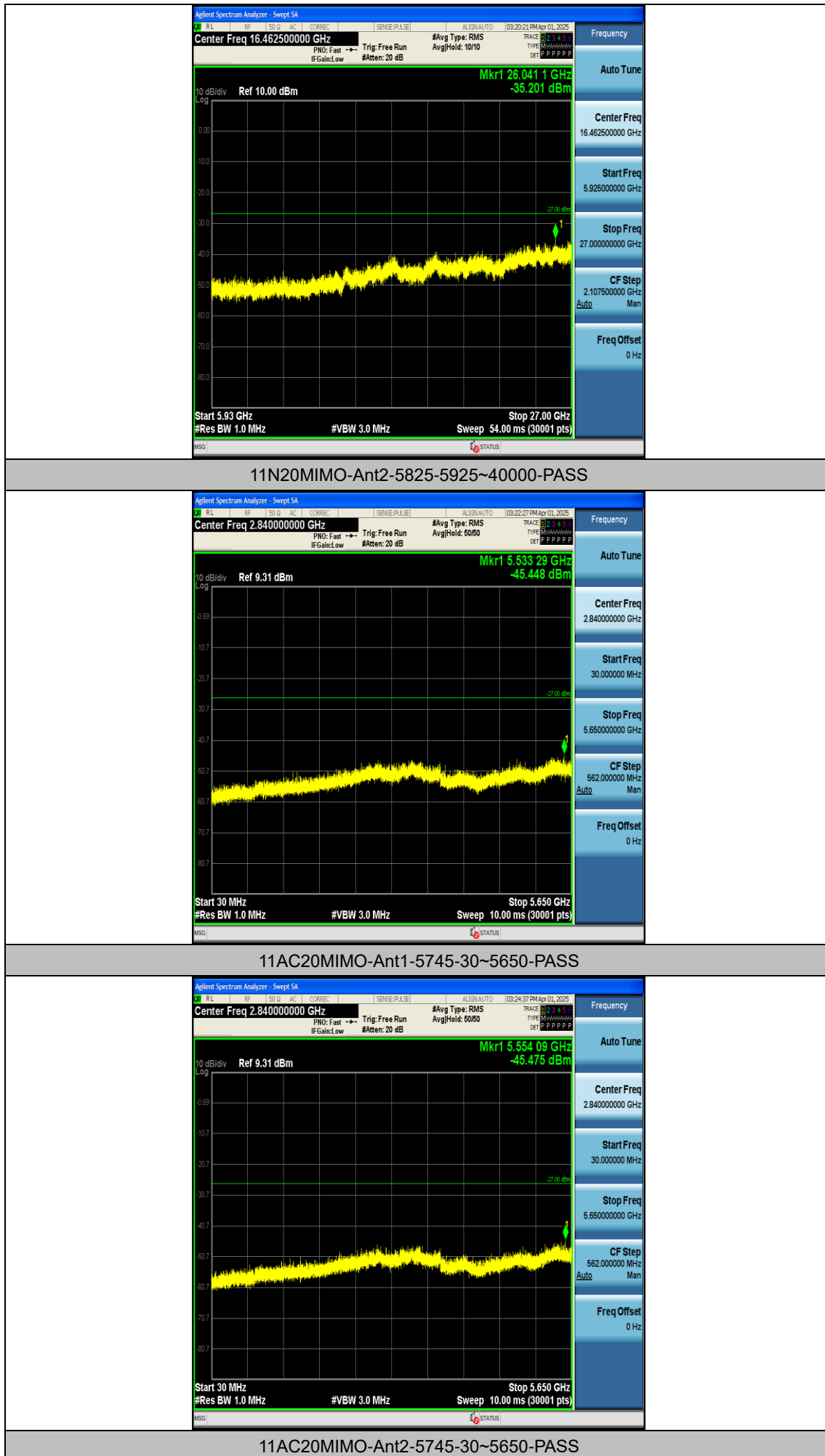
11N20MIMO-Ant1-5825-30~5650-PASS

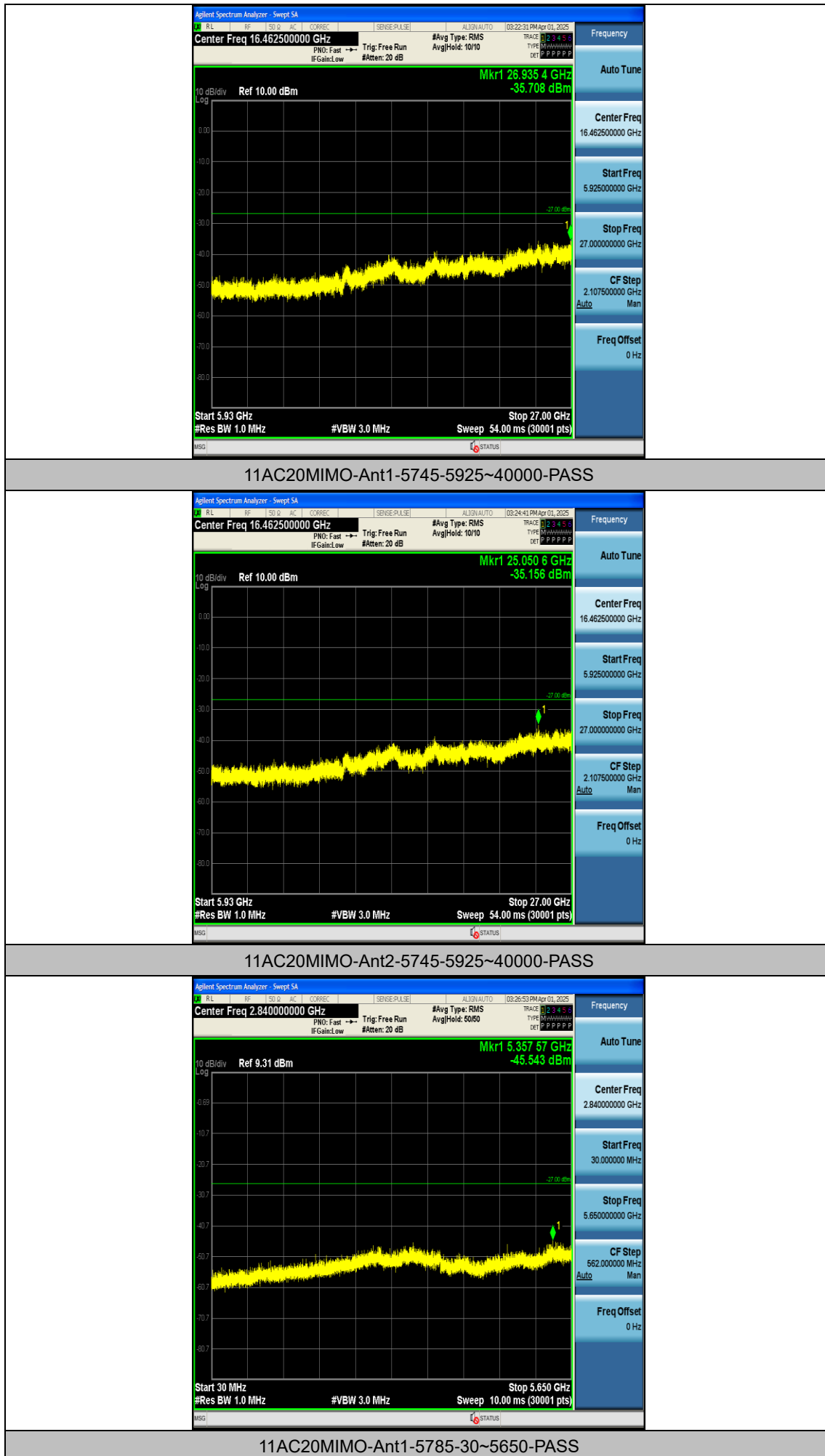


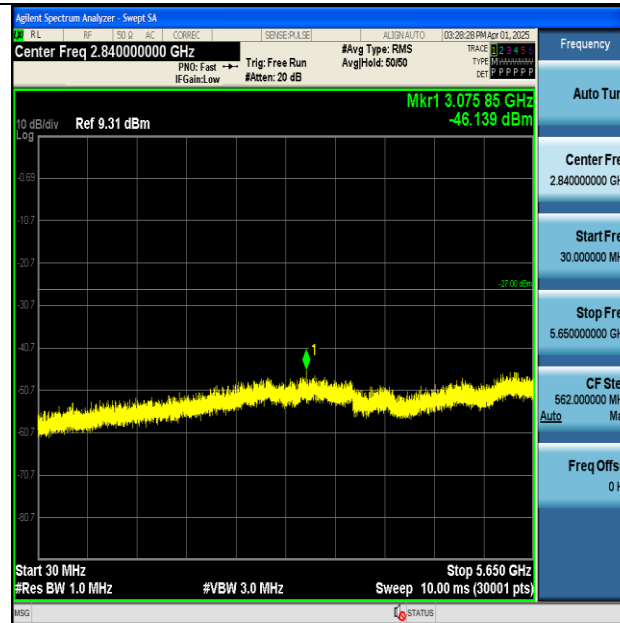
11N20MIMO-Ant2-5825-30~5650-PASS



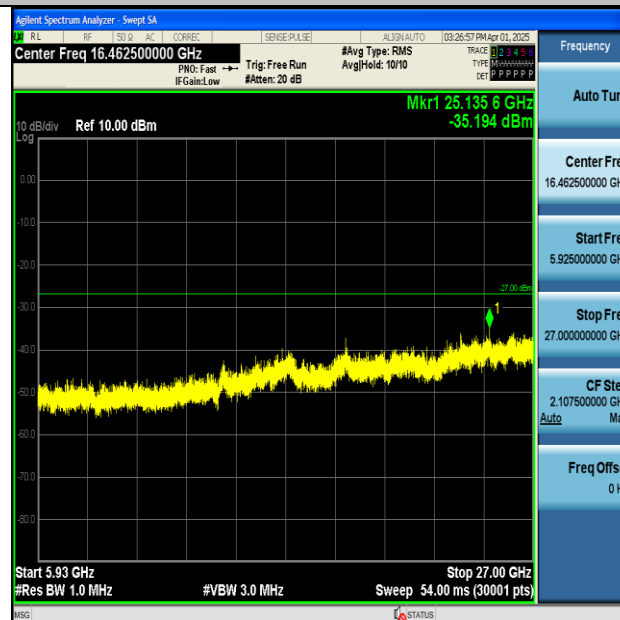
11N20MIMO-Ant1-5825-5925~40000-PASS



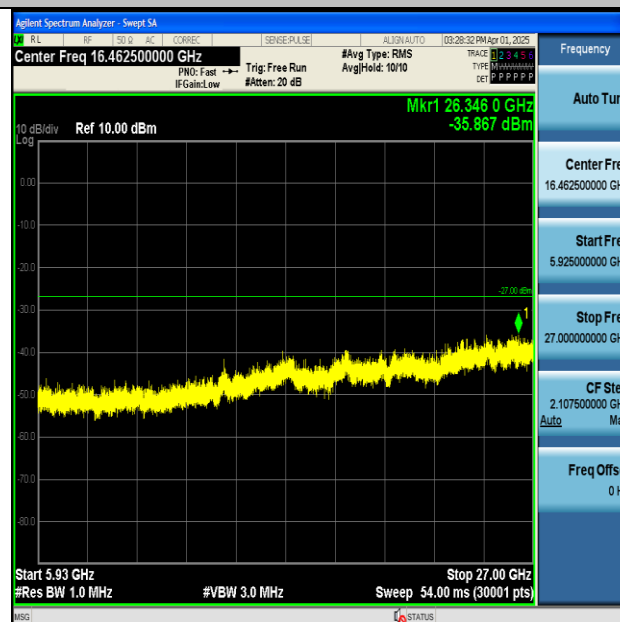




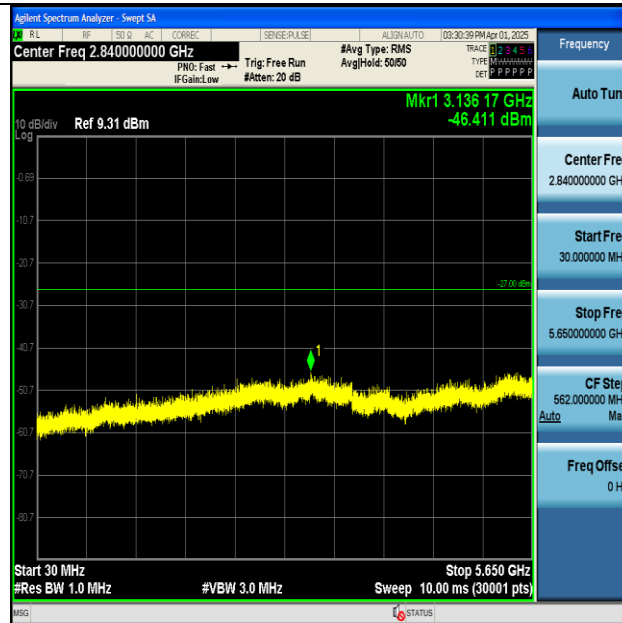
11AC20MIMO-Ant2-5785-30~5650-PASS



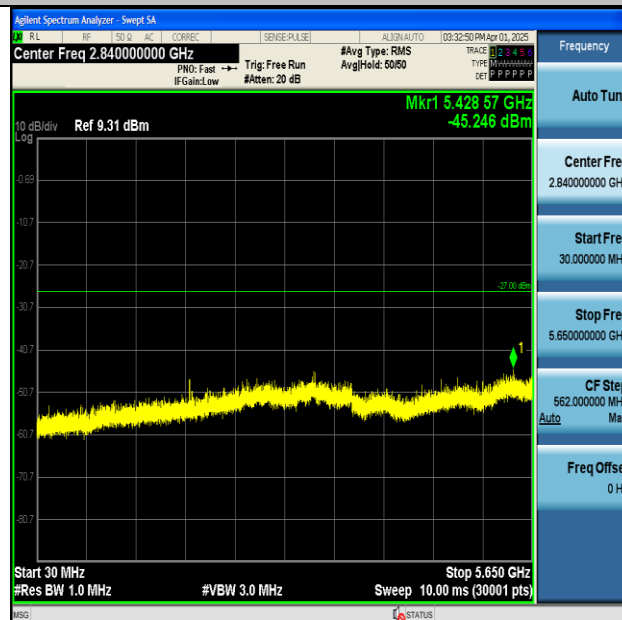
11AC20MIMO-Ant1-5785-5925~40000-PASS



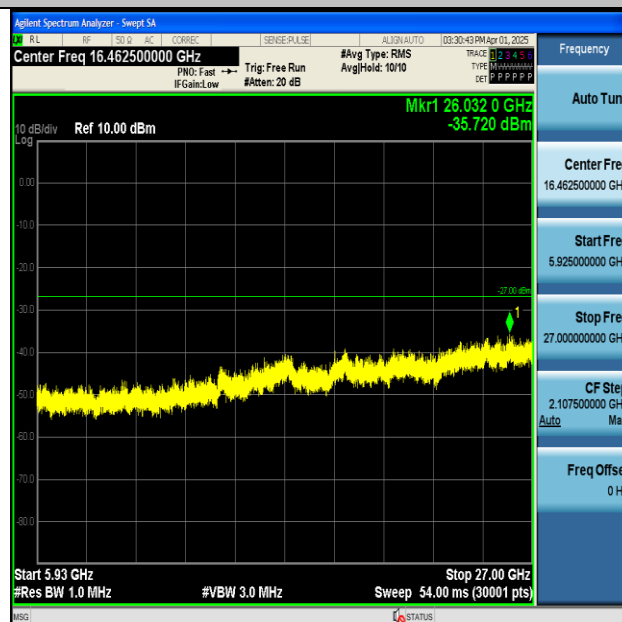
11AC20MIMO-Ant2-5785-5925~40000-PASS



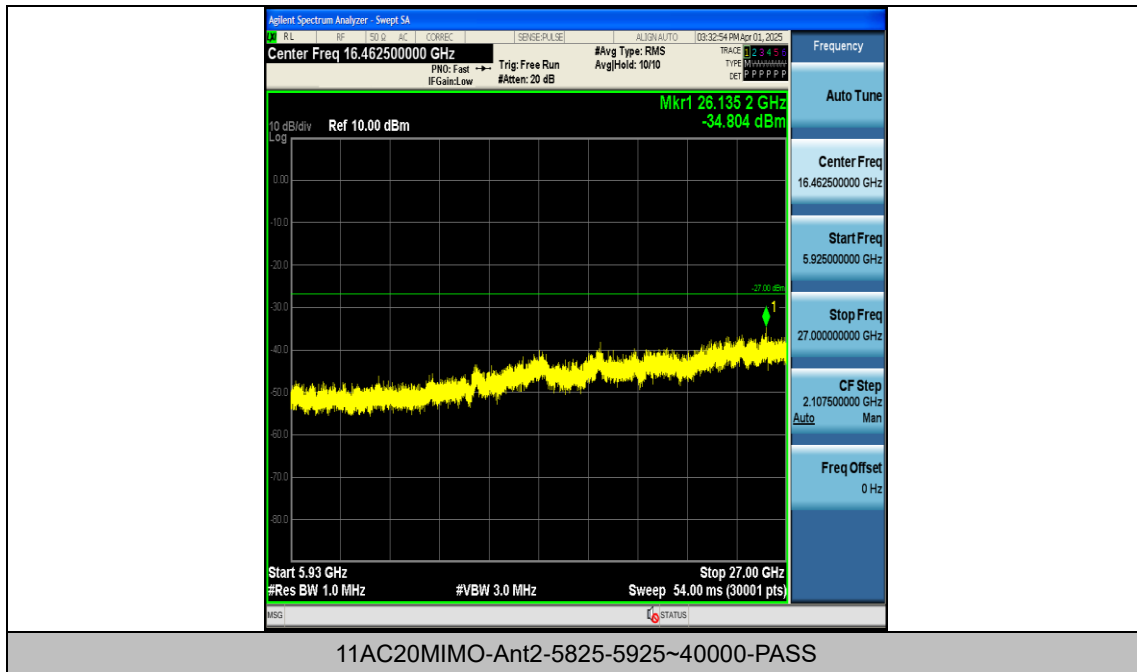
11AC20MIMO-Ant1-5825-30~5650-PASS



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



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



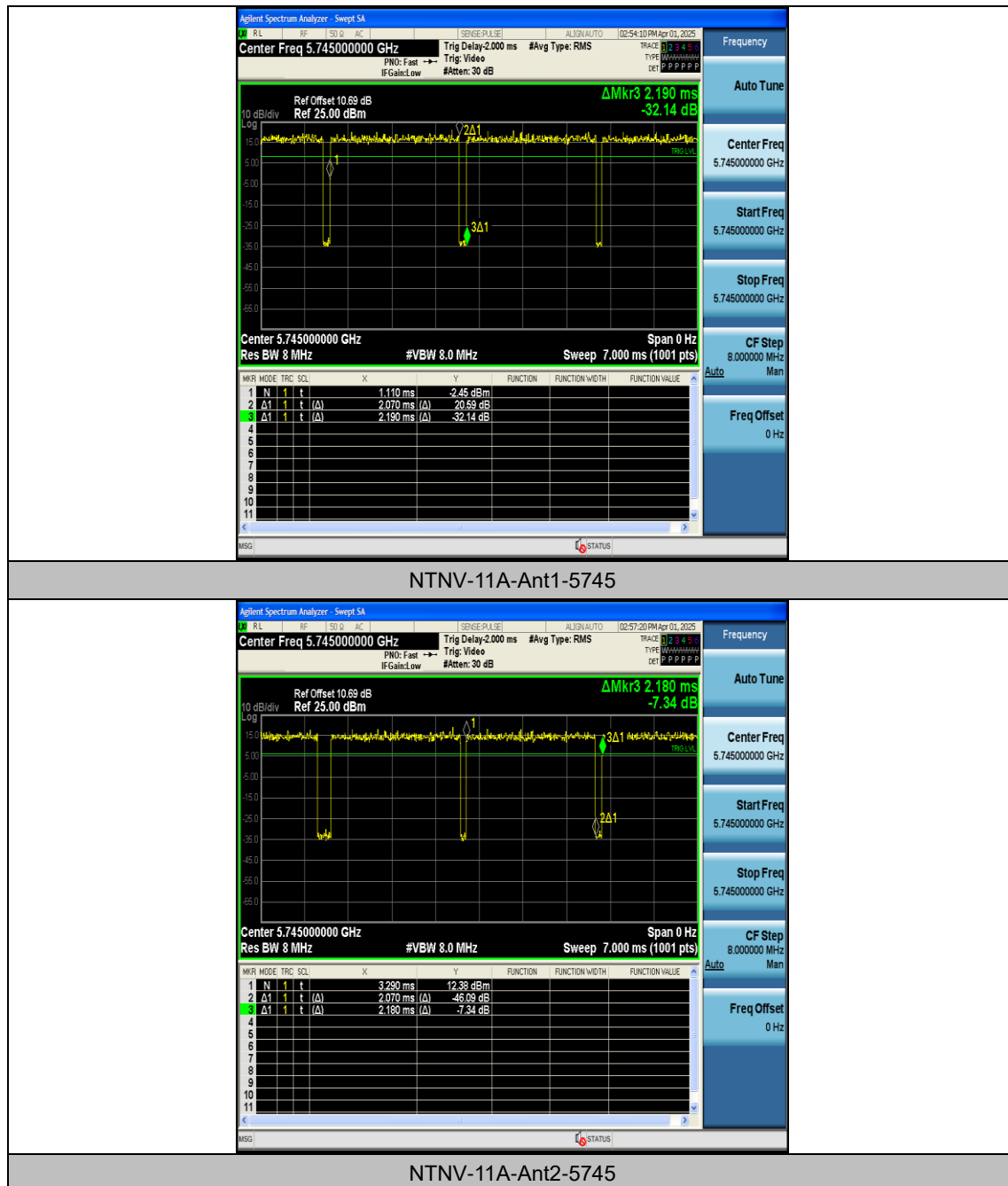
Appendix G: Duty Cycle

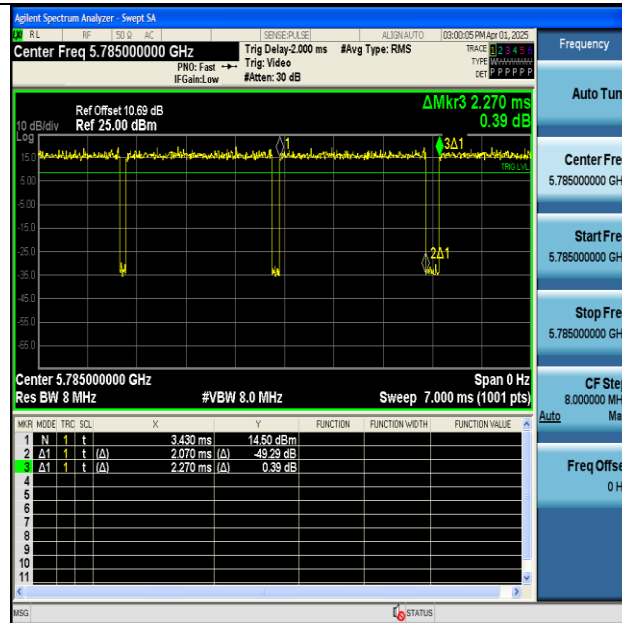
Test Result

Test Mode	Antenna	Frequency [MHz]	Transmission Duration [ms]	Transmission Period [ms]	Duty Cycle [%]	Dc. Factor [%]	1/T
11A	Ant1	5745	2.07	2.19	94.52	0.24	0.48
11A	Ant2	5745	2.07	2.18	94.95	0.23	0.48
11A	Ant1	5785	2.07	2.27	91.19	0.40	0.48
11A	Ant2	5785	2.06	2.28	90.35	0.44	0.49
11A	Ant1	5825	2.07	2.23	92.83	0.32	0.48
11A	Ant2	5825	2.06	2.22	92.79	0.32	0.49
11N20MIMO	Ant1	5745	1.93	2.13	90.61	0.43	0.52
11N20MIMO	Ant2	5745	1.92	2.15	89.30	0.49	0.52
11N20MIMO	Ant1	5785	1.92	2.15	89.30	0.49	0.52
11N20MIMO	Ant2	5785	1.92	2.14	89.72	0.47	0.52
11N20MIMO	Ant1	5825	1.92	2.05	93.66	0.28	0.52
11N20MIMO	Ant2	5825	1.92	2.03	94.58	0.24	0.52
11AC20MIMO	Ant1	5745	0.20	0.40	50.00	3.01	5.00
11AC20MIMO	Ant2	5745	0.20	0.44	45.45	3.42	5.00
11AC20MIMO	Ant1	5785	0.20	0.45	44.44	3.52	5.00
11AC20MIMO	Ant2	5785	0.20	0.43	46.51	3.32	5.00
11AC20MIMO	Ant1	5825	0.20	0.43	46.51	3.32	5.00
11AC20MIMO	Ant2	5825	0.20	0.45	44.44	3.52	5.00

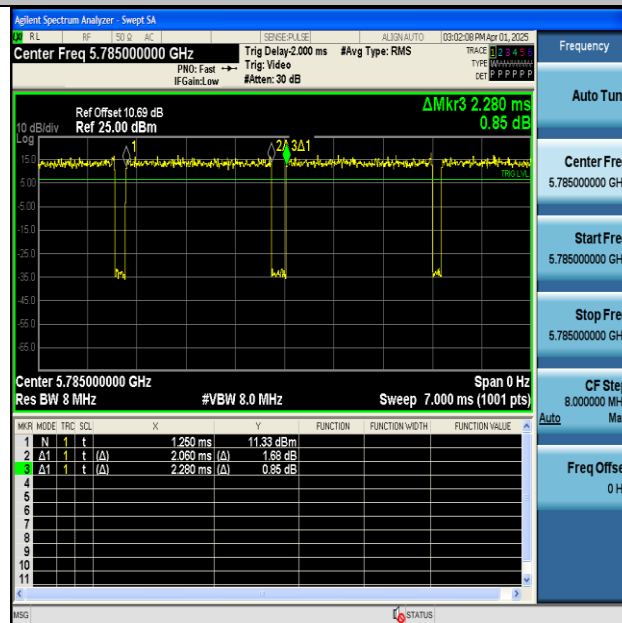
Note: offset(dB) = cable loss(dB) + attenuator factor(dB)

Test Graphs

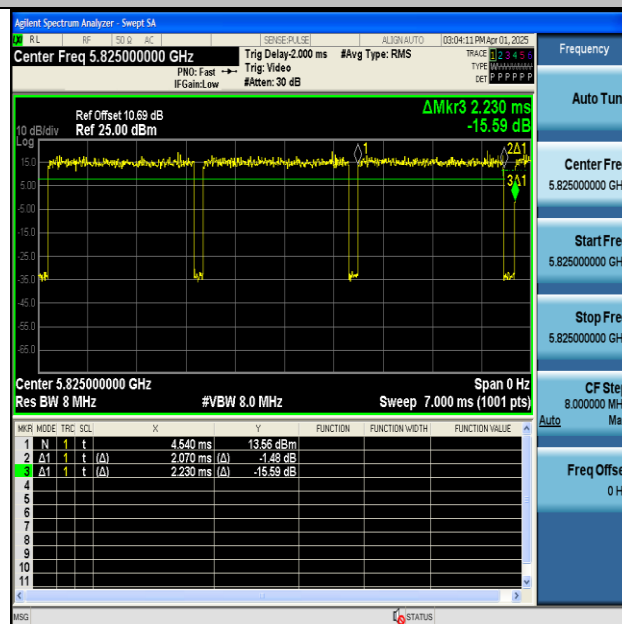




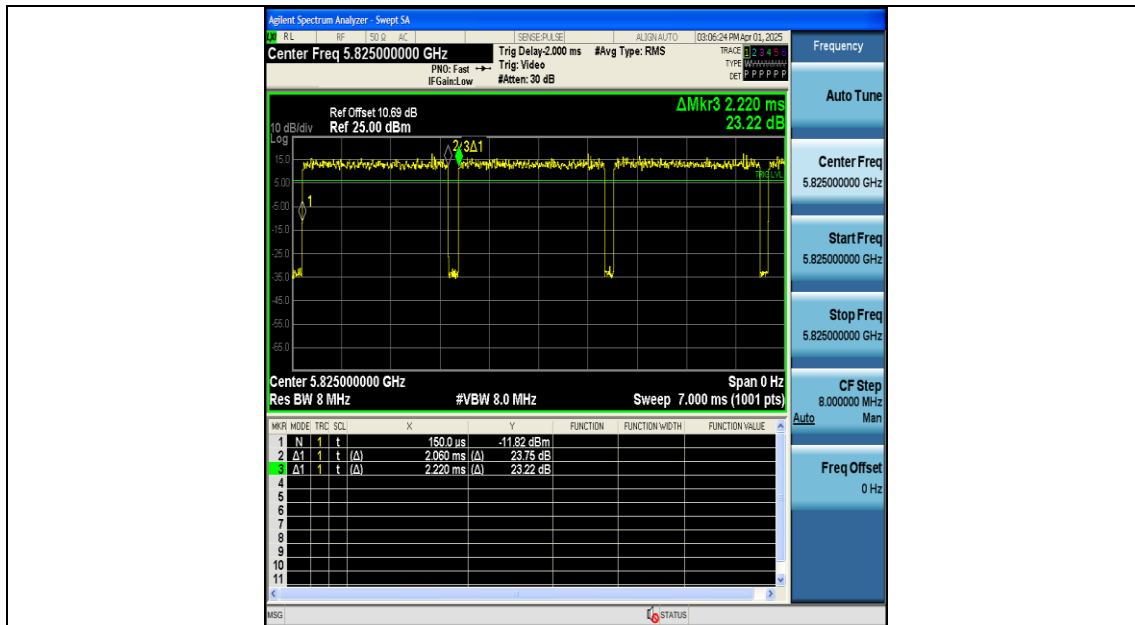
NTNV-11A-Ant1-5785



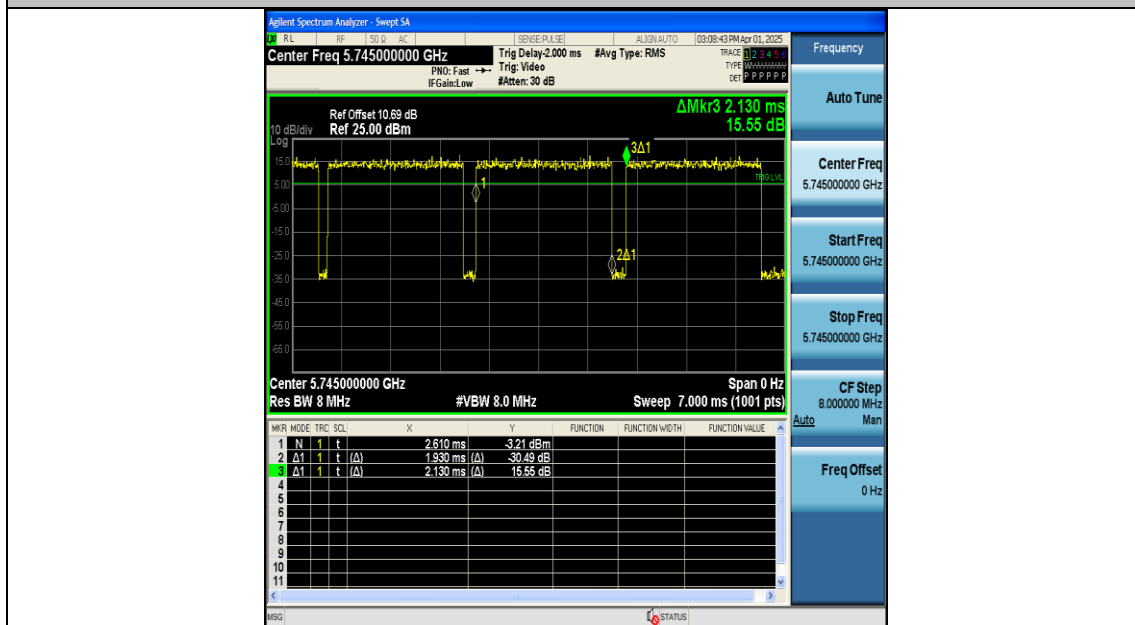
NTNV-11A-Ant2-5785



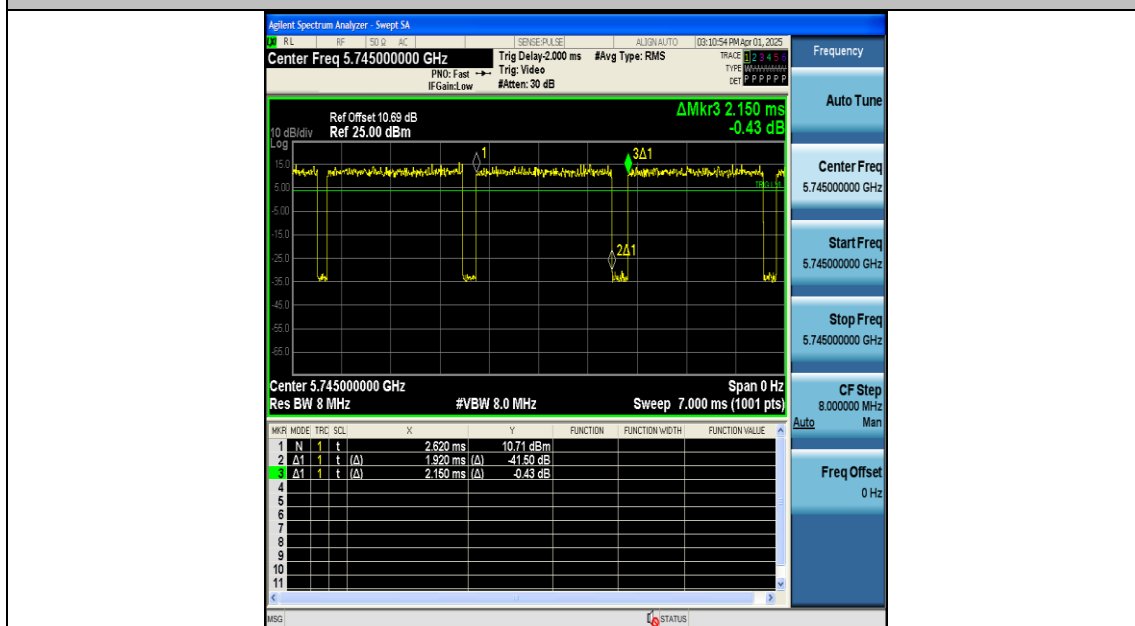
NTNV-11A-Ant1-5825



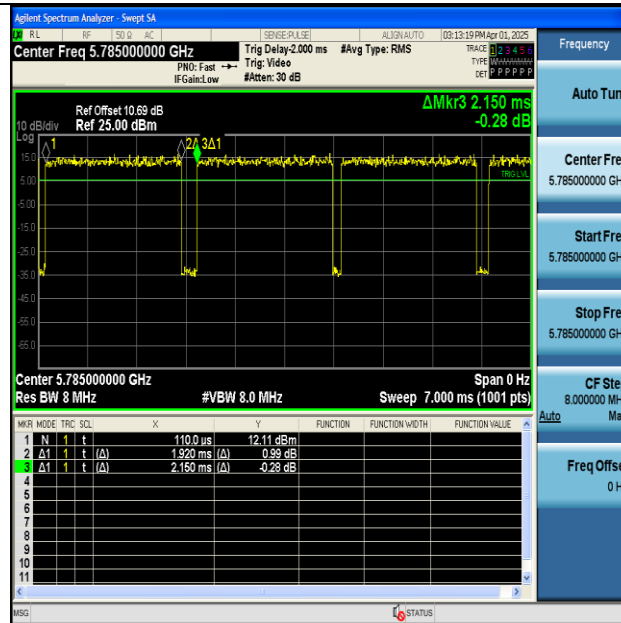
NTNV-11A-Ant2-5825



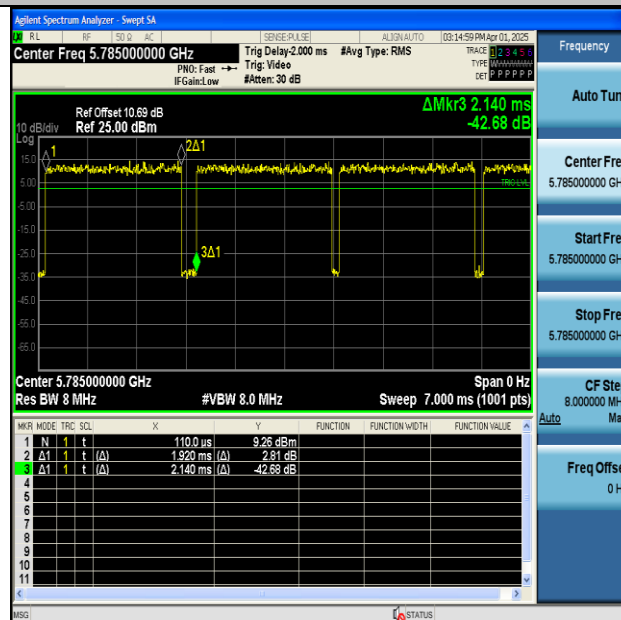
NTNV-11N20MIMO-Ant1-5745



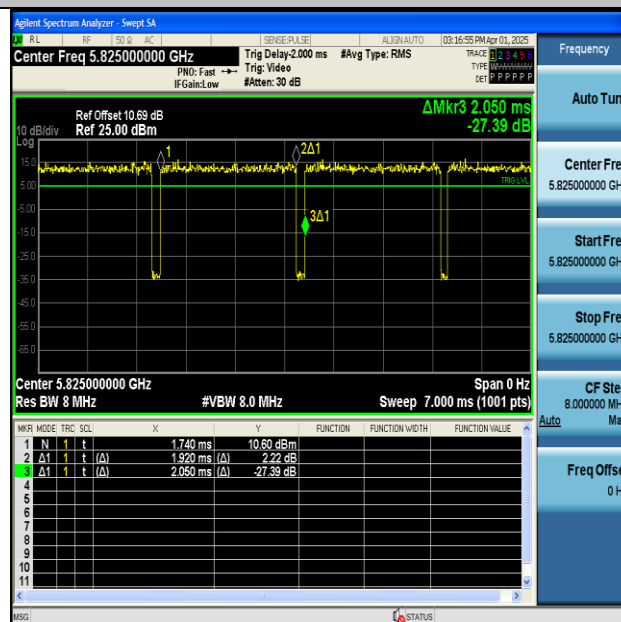
NTNV-11N20MIMO-Ant2-5745



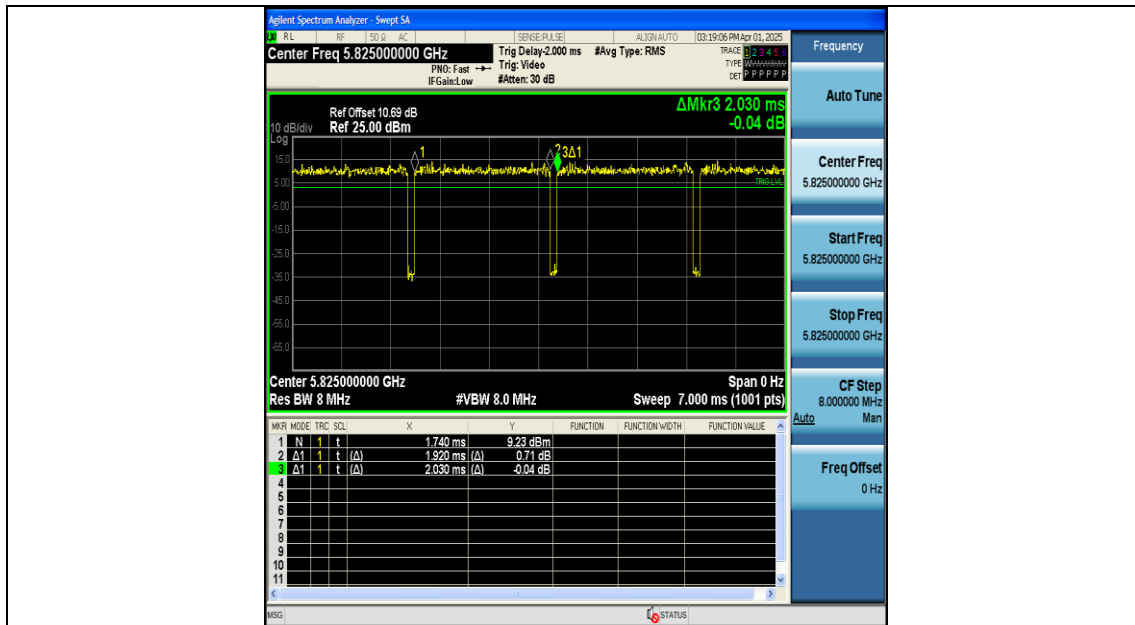
NTNV-11N20MIMO-Ant1-5785



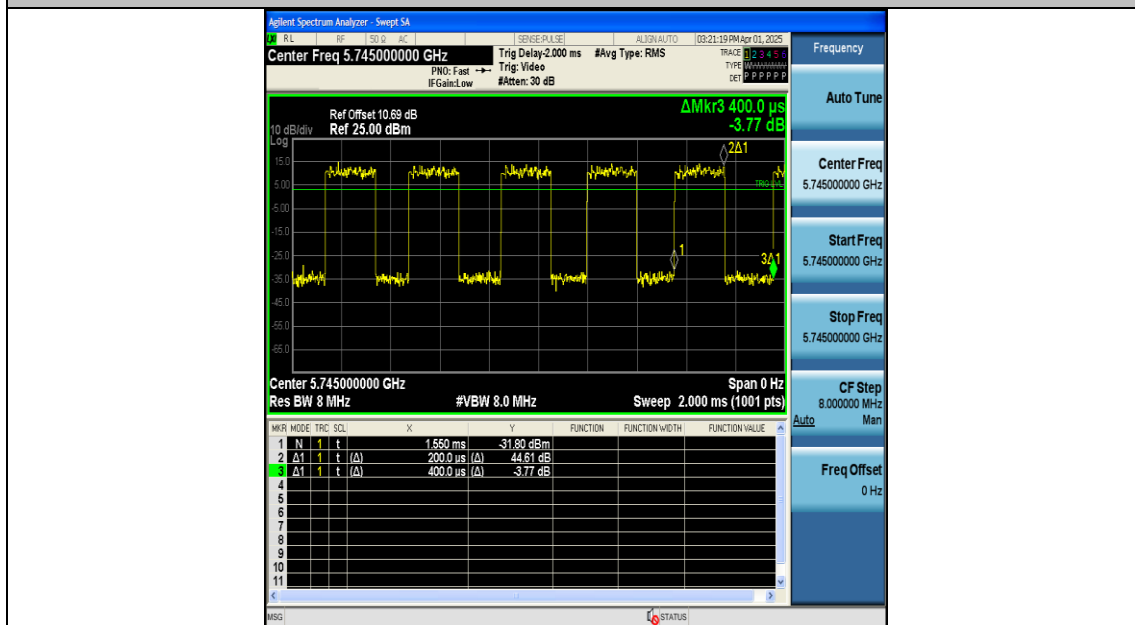
NTNV-11N20MIMO-Ant2-5785



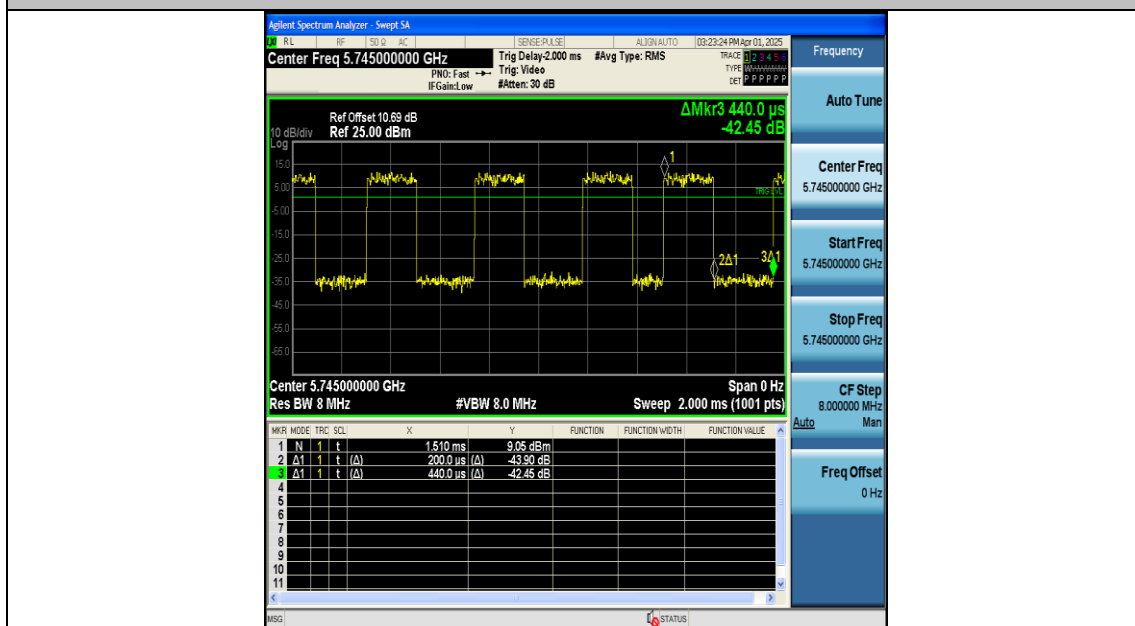
NTNV-11N20MIMO-Ant1-5825



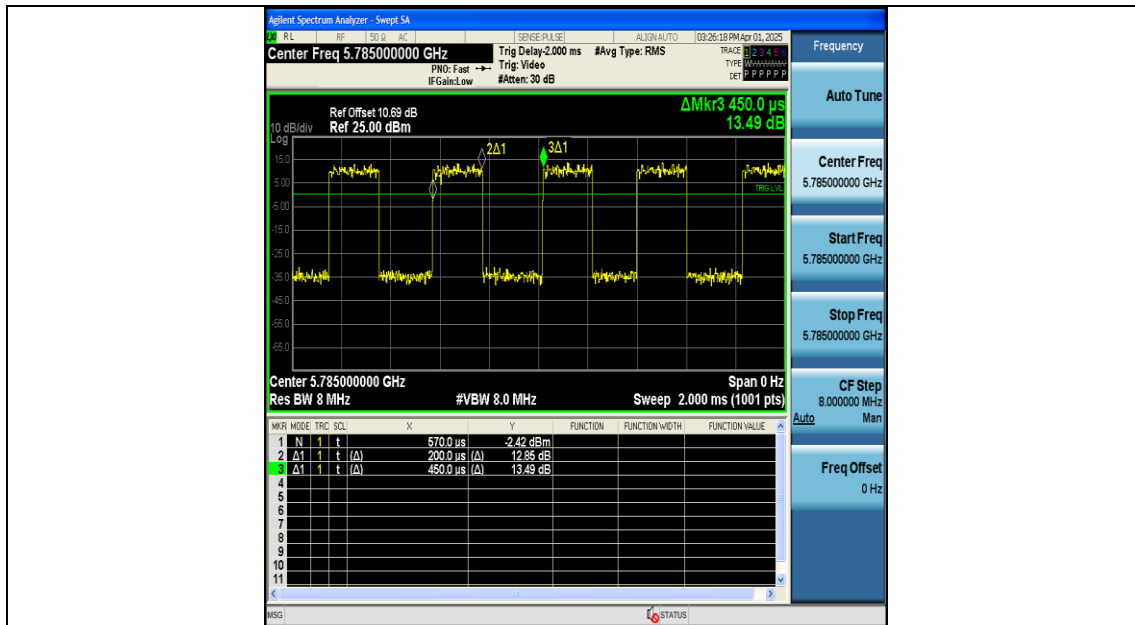
NTNV-11N20MIMO-Ant2-5825



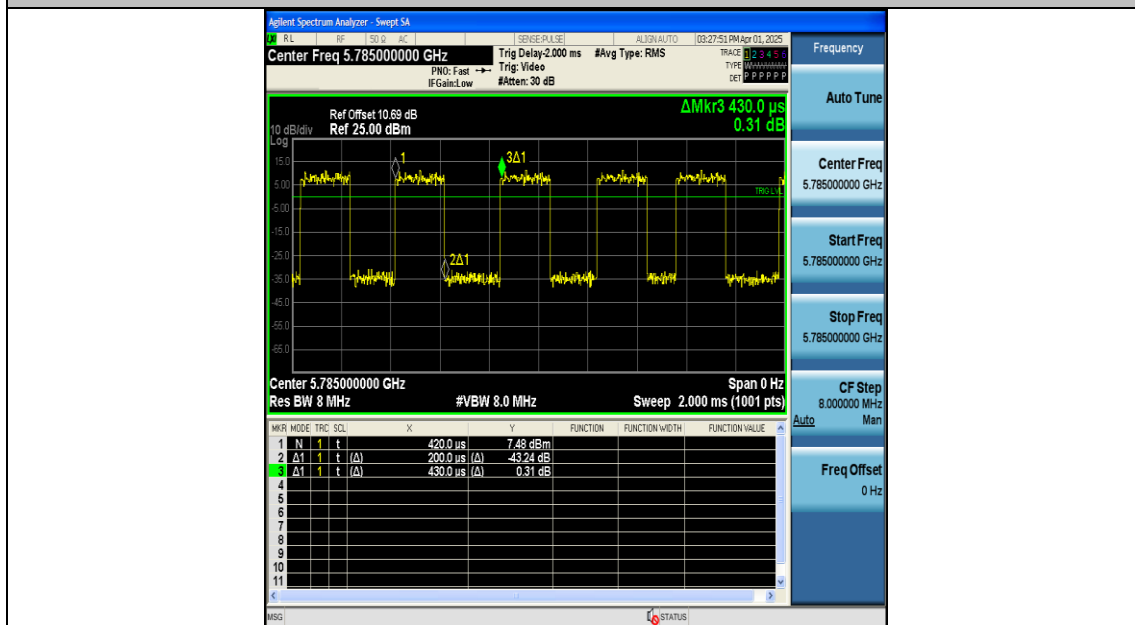
NTNV-11AC20MIMO-Ant1-5745



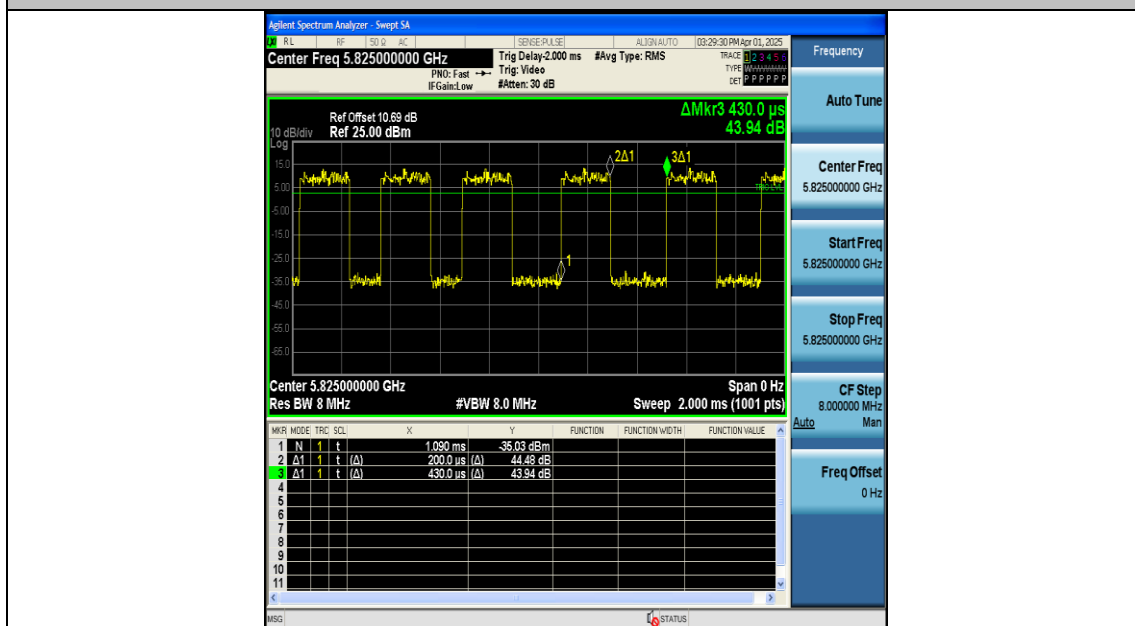
NTNV-11AC20MIMO-Ant2-5745



NTNV-11AC20MIMO-Ant1-5785



NTNV-11AC20MIMO-Ant2-5785



NTNV-11AC20MIMO-Ant1-5825

