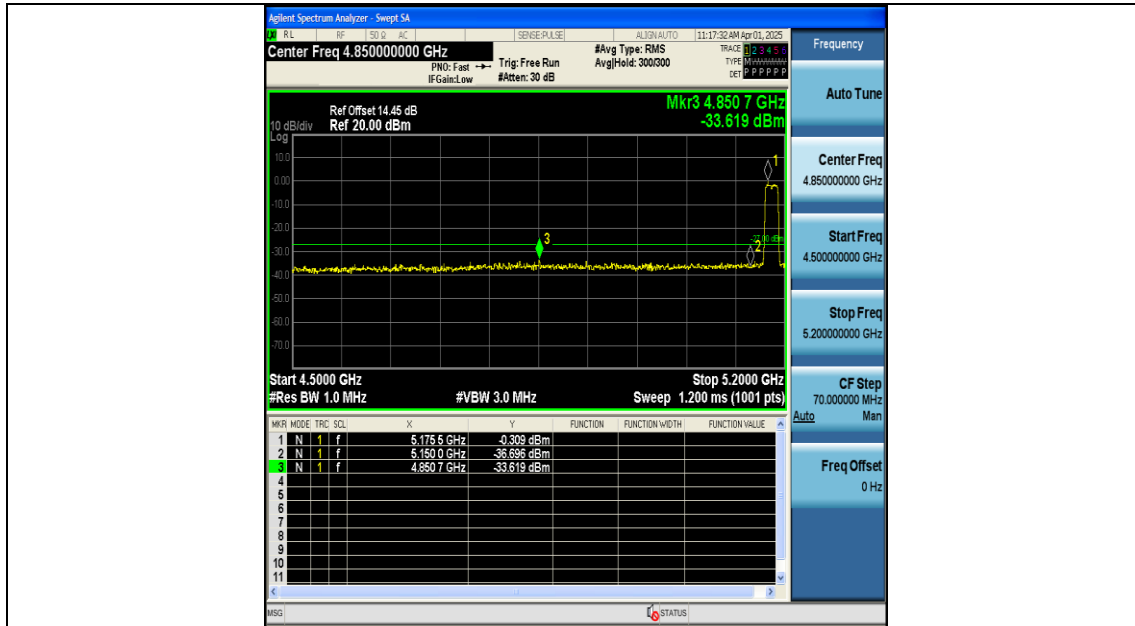
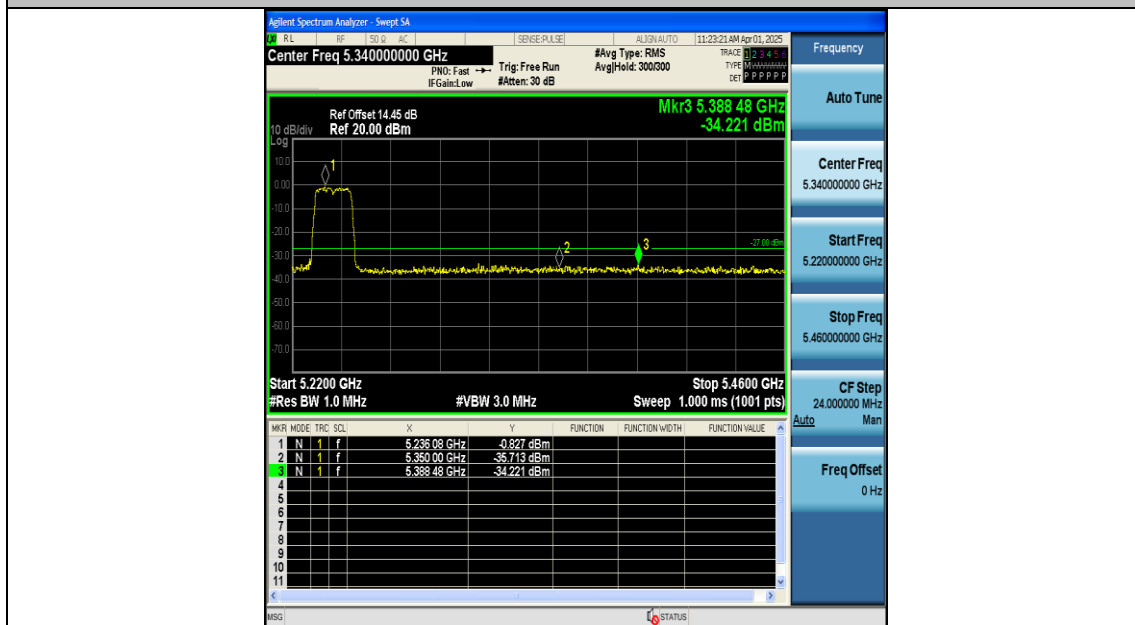
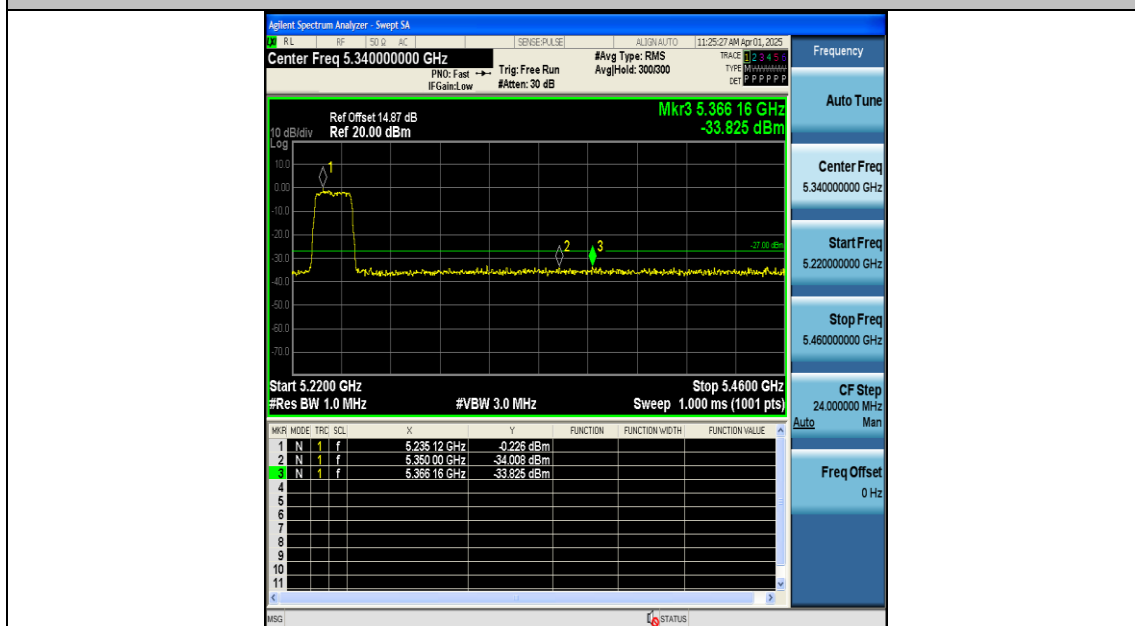




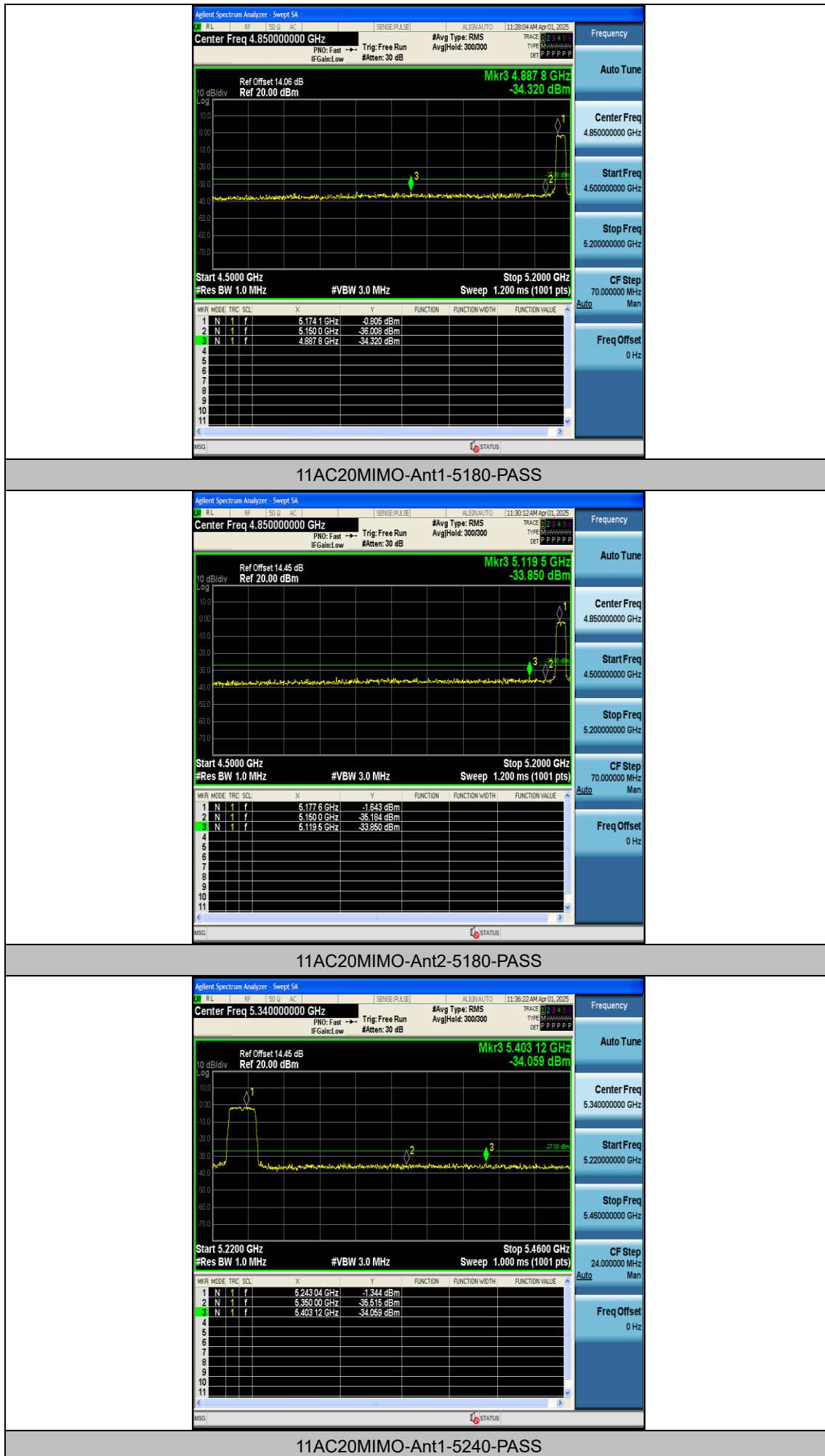
11N20MIMO-Ant2-5180-PASS

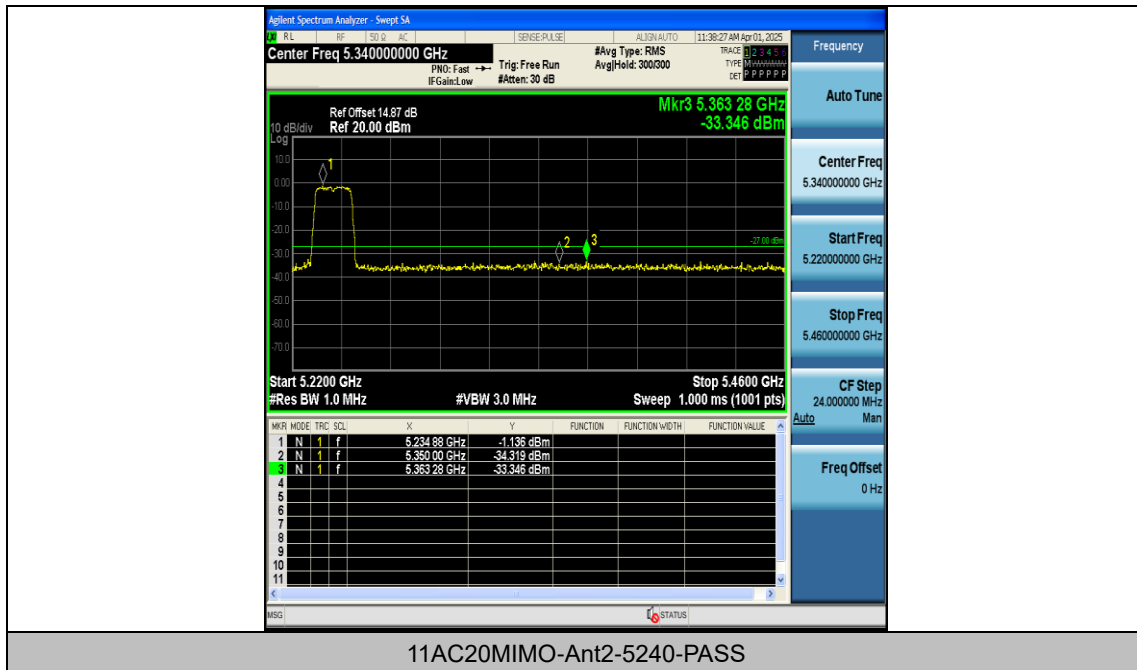


11N20MIMO-Ant1-5240-PASS



11N20MIMO-Ant2-5240-PASS





Appendix E: Frequency Stability

Test Result

Ant1

Frequency (MHz)	Environment Temperature (Degree)	Voltage (VAC)	Measured Frequency (MHz)	Limit Range (MHz)	Test Results
5180	20	132	5180.005129	5150 – 5250	PASS
5180	20	108	5179.969335	5150 – 5250	PASS
5180	50	120	5180.034933	5150 – 5250	PASS
5180	40	120	5179.961207	5150 – 5250	PASS
5180	30	120	5179.944016	5150 – 5250	PASS
5180	20	120	5179.953366	5150 – 5250	PASS
5180	10	120	5179.926704	5150 – 5250	PASS
5180	0	120	5179.968161	5150 – 5250	PASS
5180	-10	120	5180.093015	5150 – 5250	PASS
5180	-20	120	5179.977630	5150 – 5250	PASS
5180	-30	120	5179.939434	5150 – 5250	PASS

Ant2

Frequency (MHz)	Environment Temperature (Degree)	Voltage (VAC)	Measured Frequency (MHz)	Limit Range (MHz)	Test Results
5180	20	132	5179.943117	5150 – 5250	PASS
5180	20	108	5180.089708	5150 – 5250	PASS
5180	50	120	5179.927032	5150 – 5250	PASS
5180	40	120	5180.079981	5150 – 5250	PASS
5180	30	120	5179.955466	5150 – 5250	PASS
5180	20	120	5180.093140	5150 – 5250	PASS
5180	10	120	5180.076612	5150 – 5250	PASS
5180	0	120	5179.939233	5150 – 5250	PASS
5180	-10	120	5180.015180	5150 – 5250	PASS
5180	-20	120	5179.904034	5150 – 5250	PASS
5180	-30	120	5179.974530	5150 – 5250	PASS

Ant1

Frequency (MHz)	Enviroment Temperature (Dregree)	Voltage (VAC)	Measured Frequency (MHz)	Limit Range (MHz)	Test Results
5200	20	132	5199.946412	5150 – 5250	PASS
5200	20	108	5200.094176	5150 – 5250	PASS
5200	50	120	5200.039637	5150 – 5250	PASS
5200	40	120	5199.934464	5150 – 5250	PASS
5200	30	120	5200.037124	5150 – 5250	PASS
5200	20	120	5200.046432	5150 – 5250	PASS
5200	10	120	5199.944760	5150 – 5250	PASS
5200	0	120	5199.947695	5150 – 5250	PASS
5200	-10	120	5199.921535	5150 – 5250	PASS
5200	-20	120	5200.068697	5150 – 5250	PASS
5200	-30	120	5200.019136	5150 – 5250	PASS

Ant2

Frequency (MHz)	Enviroment Temperature (Dregree)	Voltage (VAC)	Measured Frequency (MHz)	Limit Range (MHz)	Test Results
5200	20	132	5200.015771	5150 – 5250	PASS
5200	20	108	5200.084972	5150 – 5250	PASS
5200	50	120	5199.970996	5150 – 5250	PASS
5200	40	120	5200.057669	5150 – 5250	PASS
5200	30	120	5199.983715	5150 – 5250	PASS
5200	20	120	5200.020240	5150 – 5250	PASS
5200	10	120	5200.055100	5150 – 5250	PASS
5200	0	120	5199.999311	5150 – 5250	PASS
5200	-10	120	5199.942525	5150 – 5250	PASS
5200	-20	120	5200.051667	5150 – 5250	PASS
5200	-30	120	5199.901170	5150 – 5250	PASS

Ant1

Frequency (MHz)	Enviroment Temperature (Dregree)	Voltage (VAC)	Measured Frequency (MHz)	Limit Range (MHz)	Test Results
5240	20	132	5240.022422	5150 – 5250	PASS
5240	20	108	5239.979973	5150 – 5250	PASS
5240	50	120	5239.911140	5150 – 5250	PASS
5240	40	120	5240.011221	5150 – 5250	PASS
5240	30	120	5240.076001	5150 – 5250	PASS
5240	20	120	5240.097196	5150 – 5250	PASS
5240	10	120	5239.964981	5150 – 5250	PASS
5240	0	120	5239.934266	5150 – 5250	PASS
5240	-10	120	5239.964559	5150 – 5250	PASS
5240	-20	120	5240.005501	5150 – 5250	PASS
5240	-30	120	5239.949387	5150 – 5250	PASS

Ant2

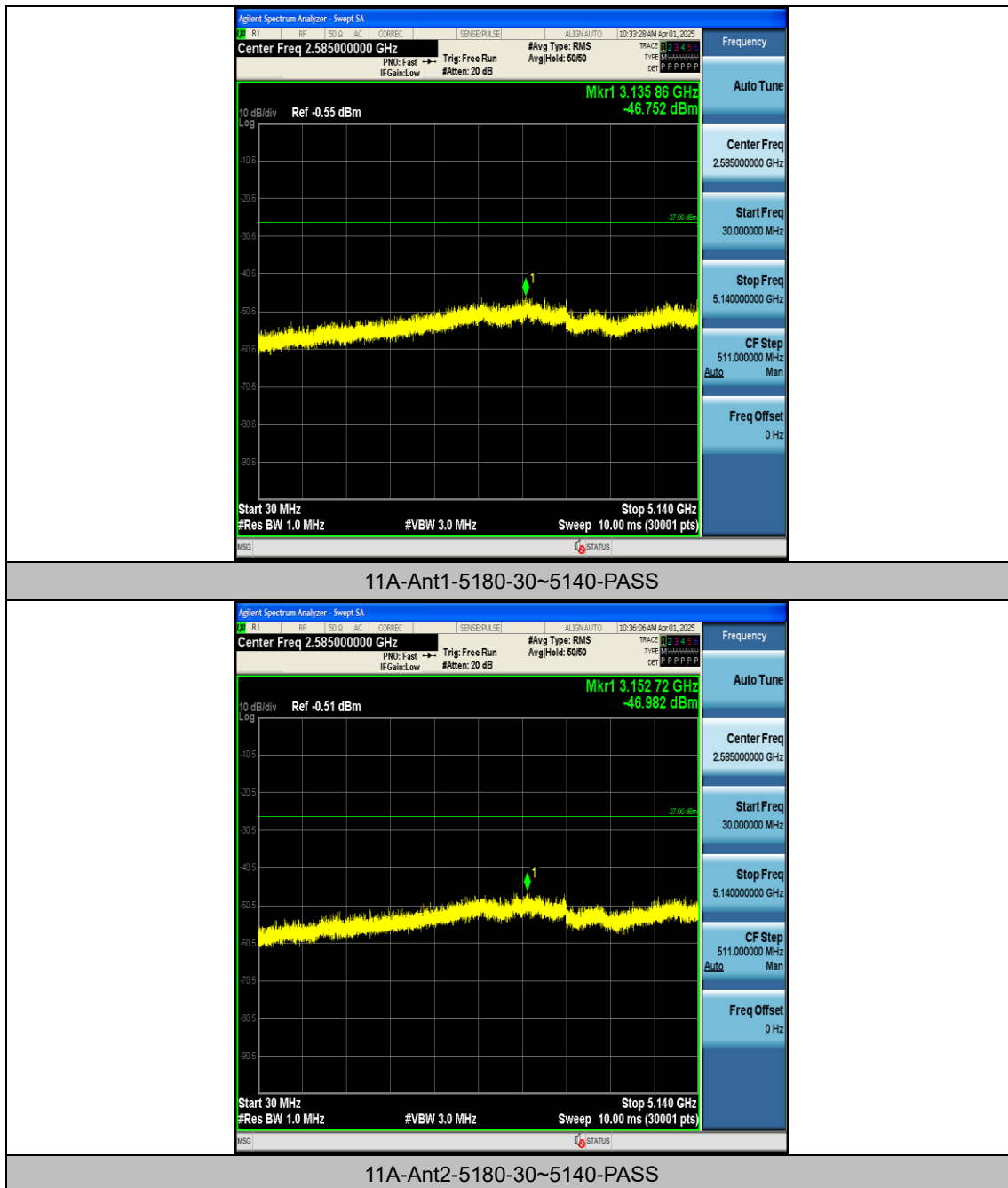
Frequency (MHz)	Enviroment Temperature (Dregree)	Voltage (VAC)	Measured Frequency (MHz)	Limit Range (MHz)	Test Results
5240	20	132	5240.092594	5150 – 5250	PASS
5240	20	108	5240.034917	5150 – 5250	PASS
5240	50	120	5239.995319	5150 – 5250	PASS
5240	40	120	5239.907488	5150 – 5250	PASS
5240	30	120	5240.094972	5150 – 5250	PASS
5240	20	120	5239.992698	5150 – 5250	PASS
5240	10	120	5240.010046	5150 – 5250	PASS
5240	0	120	5239.900120	5150 – 5250	PASS
5240	-10	120	5239.941660	5150 – 5250	PASS
5240	-20	120	5239.973675	5150 – 5250	PASS
5240	-30	120	5240.081840	5150 – 5250	PASS

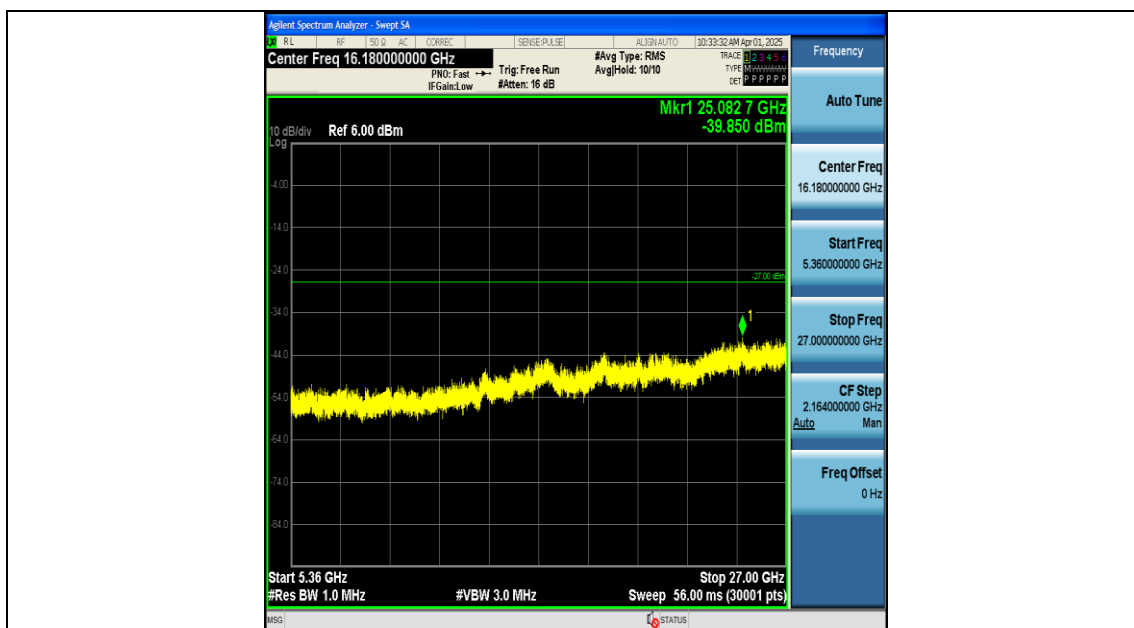
Appendix F: Conducted Spurious Emission

Test Result

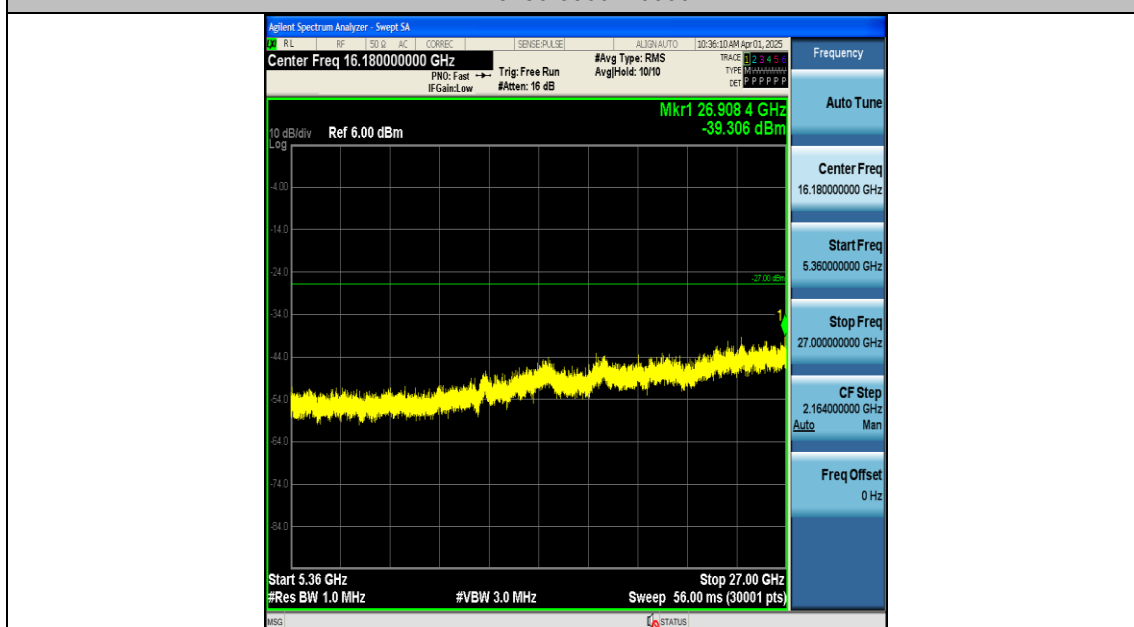
TestMode	Antenna	Frequency[MHz]	FreqRange [MHz]	Max. Fre [MHz]	Max. Level [dBm]	Limit [dBm]	Verdict
11A	Ant1	5180	30~5140	3135.86	-46.75	≤-27	PASS
11A	Ant2	5180	30~5140	3152.72	-46.98	≤-27	PASS
11A	Ant1	5180	5360~40000	25082.7	-39.85	≤-27	PASS
11A	Ant2	5180	5360~40000	26908.39	-39.31	≤-27	PASS
11A	Ant1	5200	30~5140	3148.97	-46.85	≤-27	PASS
11A	Ant2	5200	30~5140	3138.75	-46.93	≤-27	PASS
11A	Ant1	5200	5360~40000	26857.9	-39.35	≤-27	PASS
11A	Ant2	5200	5360~40000	26787.21	-39.87	≤-27	PASS
11A	Ant1	5240	30~5140	3162.09	-46.32	≤-27	PASS
11A	Ant2	5240	30~5140	3026.67	-47.15	≤-27	PASS
11A	Ant1	5240	5360~40000	25069.71	-39.72	≤-27	PASS
11A	Ant2	5240	5360~40000	25072.6	-39.49	≤-27	PASS
11N20MIMO	Ant2	5180	30~5140	3249.47	-46.45	≤-27	PASS
11N20MIMO	Ant1	5180	30~5140	3015.94	-46.7	≤-27	PASS
11N20MIMO	Ant1	5180	5360~40000	25736.95	-39.85	≤-27	PASS
11N20MIMO	Ant2	5180	5360~40000	25545.79	-40.18	≤-27	PASS
11N20MIMO	Ant1	5200	30~5140	3169.07	-46.91	≤-27	PASS
11N20MIMO	Ant2	5200	30~5140	3134.33	-46.1	≤-27	PASS
11N20MIMO	Ant1	5200	5360~40000	26341.42	-40	≤-27	PASS
11N20MIMO	Ant2	5200	5360~40000	26373.88	-39.36	≤-27	PASS
11N20MIMO	Ant1	5240	30~5140	3258.33	-46.85	≤-27	PASS
11N20MIMO	Ant2	5240	30~5140	3178.95	-46	≤-27	PASS
11N20MIMO	Ant1	5240	5360~40000	26089.68	-39.83	≤-27	PASS
11N20MIMO	Ant2	5240	5360~40000	26554.94	-40.11	≤-27	PASS
11AC20MIMO	Ant1	5180	30~5140	3157.83	-45.98	≤-27	PASS
11AC20MIMO	Ant2	5180	30~5140	3276.55	-45.63	≤-27	PASS
11AC20MIMO	Ant1	5180	5360~40000	26070.2	-38.98	≤-27	PASS
11AC20MIMO	Ant2	5180	5360~40000	25001.19	-39.86	≤-27	PASS
11AC20MIMO	Ant1	5200	30~5140	3599.51	-45.82	≤-27	PASS
11AC20MIMO	Ant2	5200	30~5140	3168.56	-46.31	≤-27	PASS
11AC20MIMO	Ant1	5200	5360~40000	26635.73	-39.22	≤-27	PASS
11AC20MIMO	Ant2	5200	5360~40000	25107.94	-39.74	≤-27	PASS
11AC20MIMO	Ant1	5240	30~5140	3175.72	-45.94	≤-27	PASS
11AC20MIMO	Ant2	5240	30~5140	3020.03	-45.97	≤-27	PASS
11AC20MIMO	Ant1	5240	5360~40000	25037.97	-39.89	≤-27	PASS
11AC20MIMO	Ant2	5240	5360~40000	25400.08	-39.69	≤-27	PASS

Test Graphs

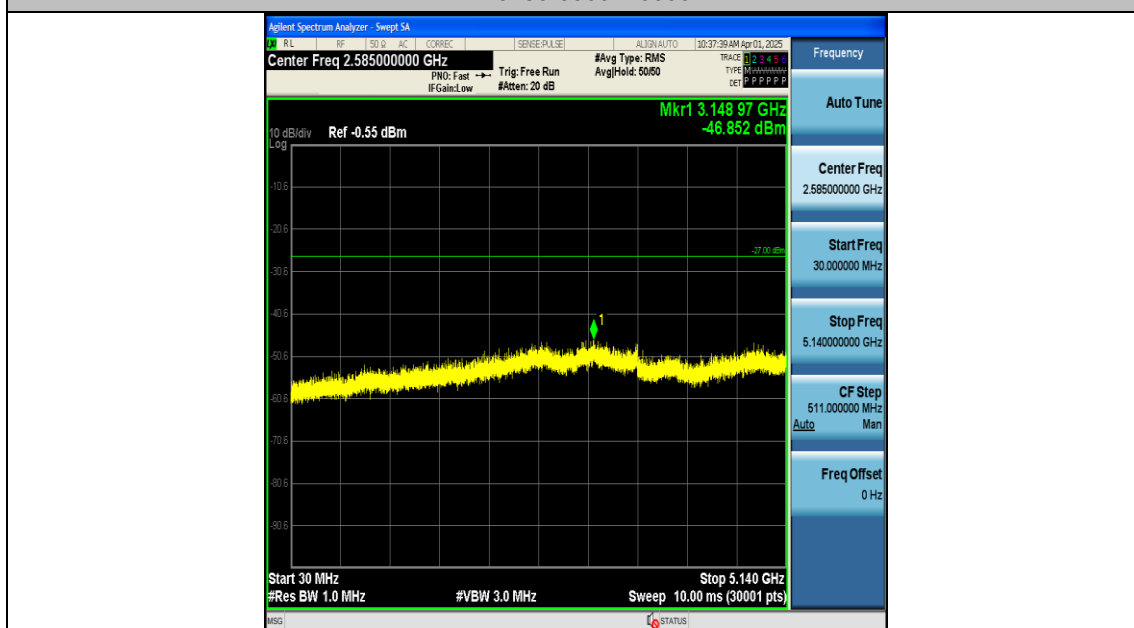




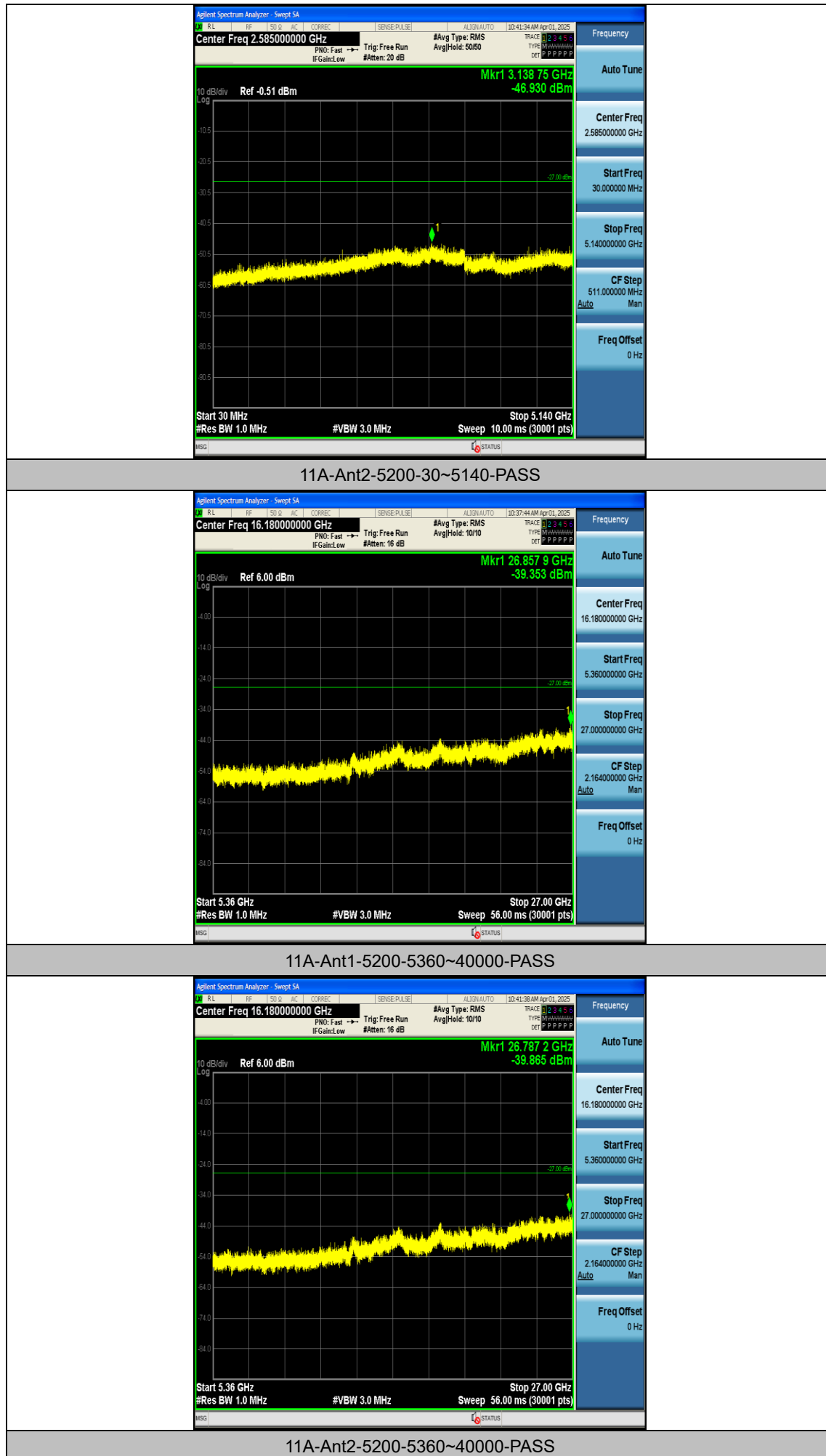
11A-Ant1-5180-5360~40000-PASS

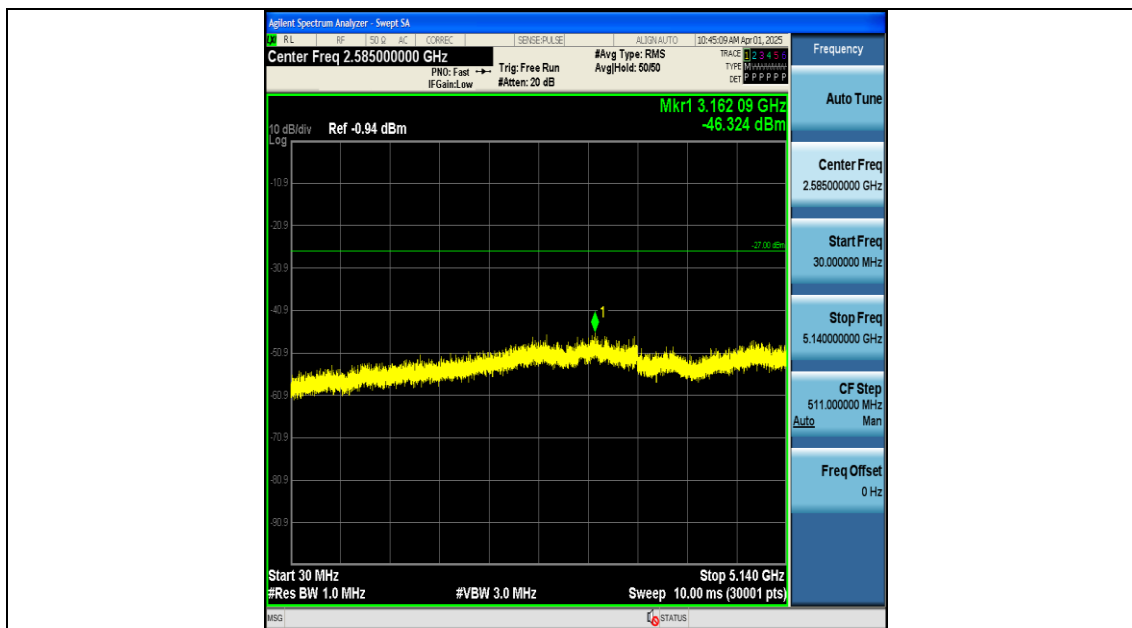


11A-Ant2-5180-5360~40000-PASS

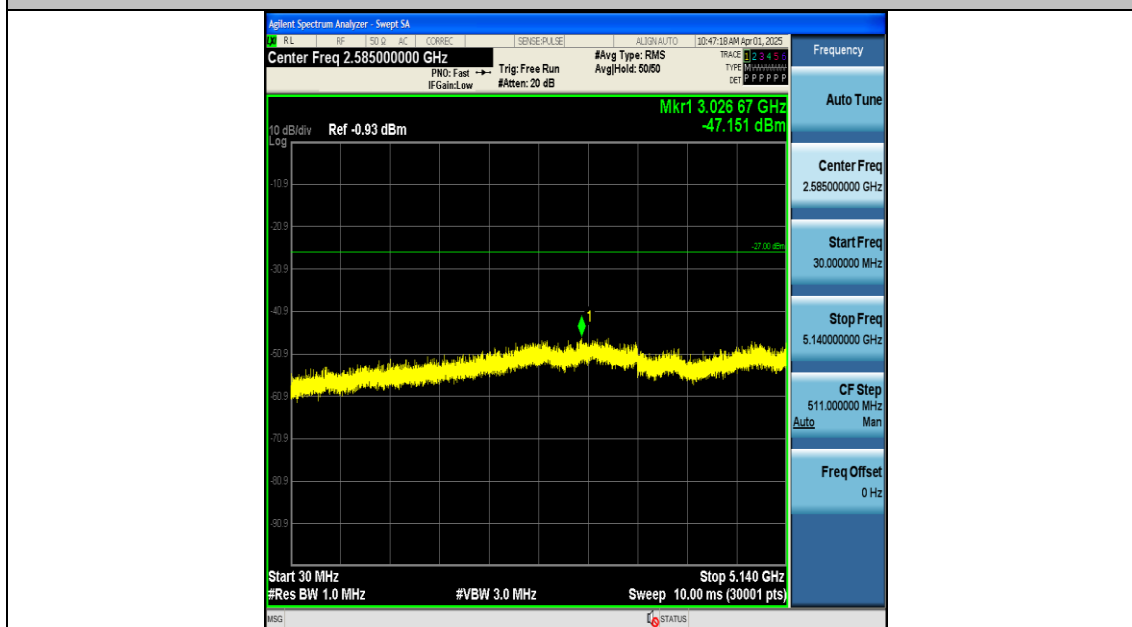


11A-Ant1-5200-30~5140-PASS

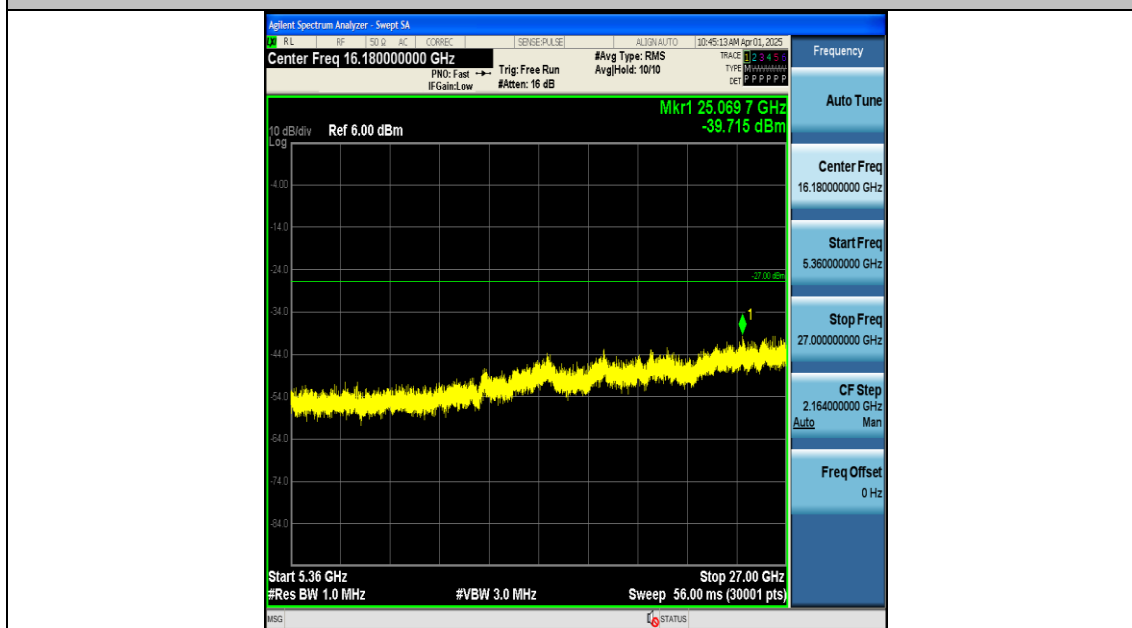




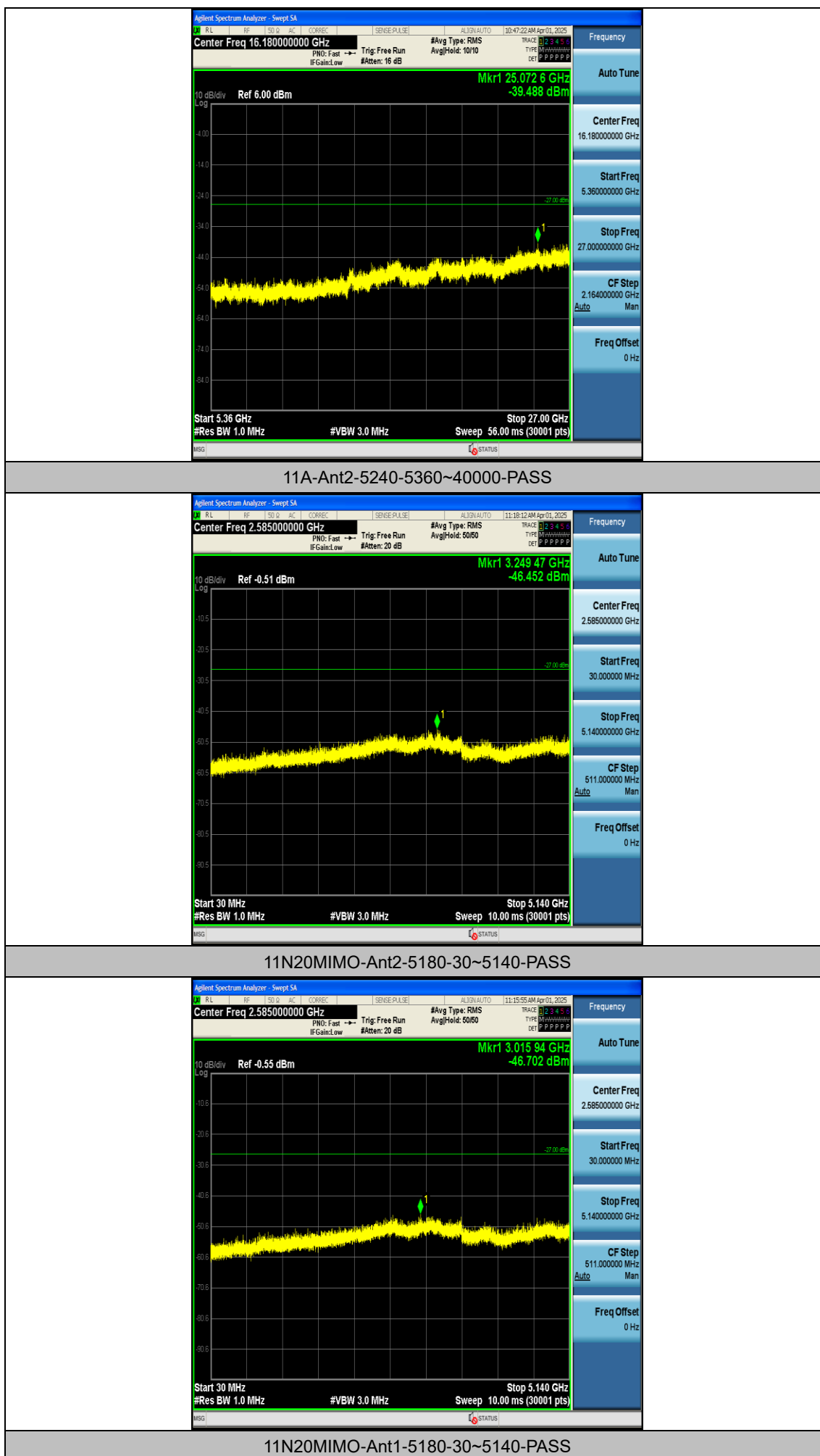
11A-Ant1-5240-30~5140-PASS

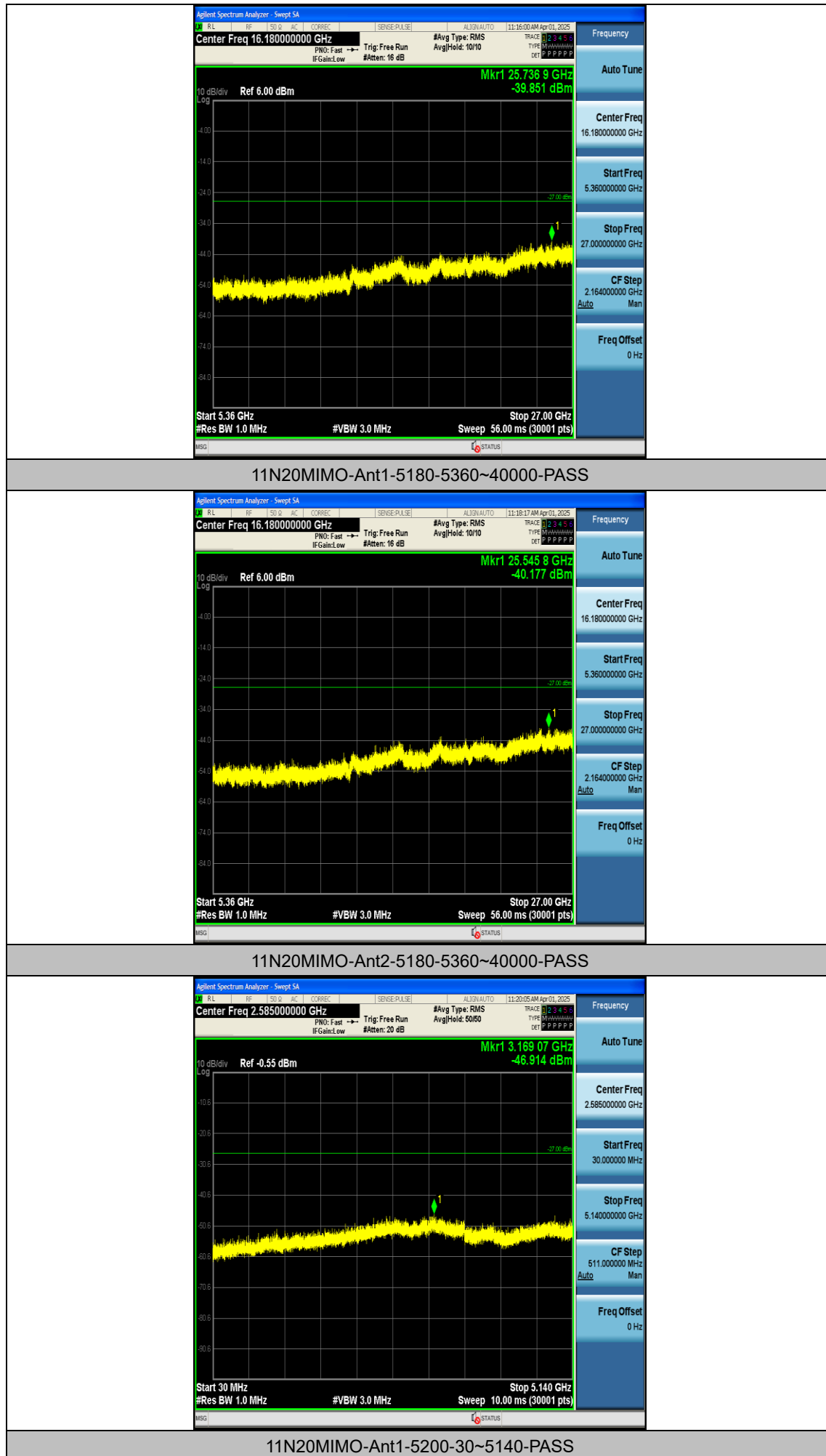


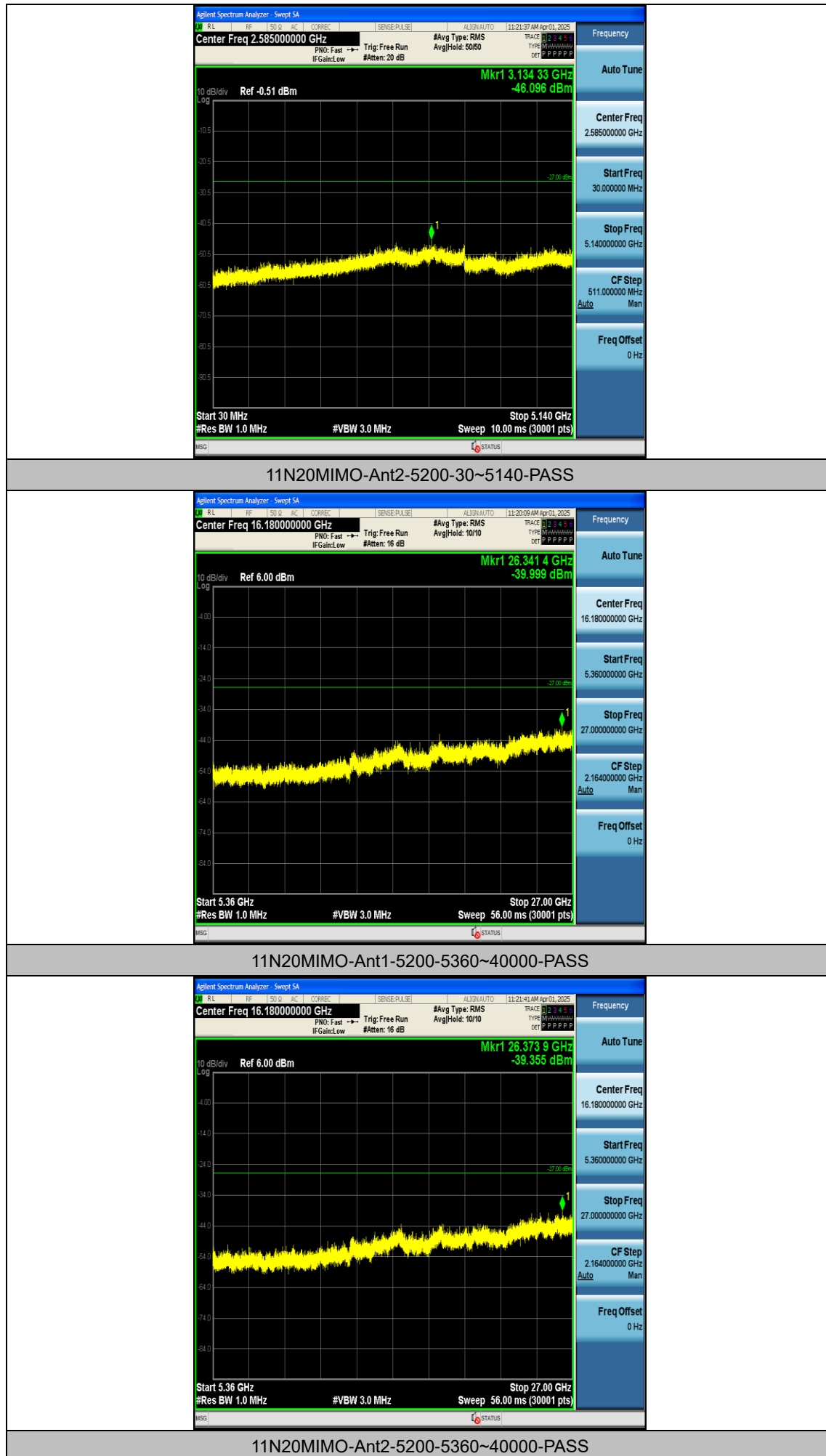
11A-Ant2-5240-30~5140-PASS

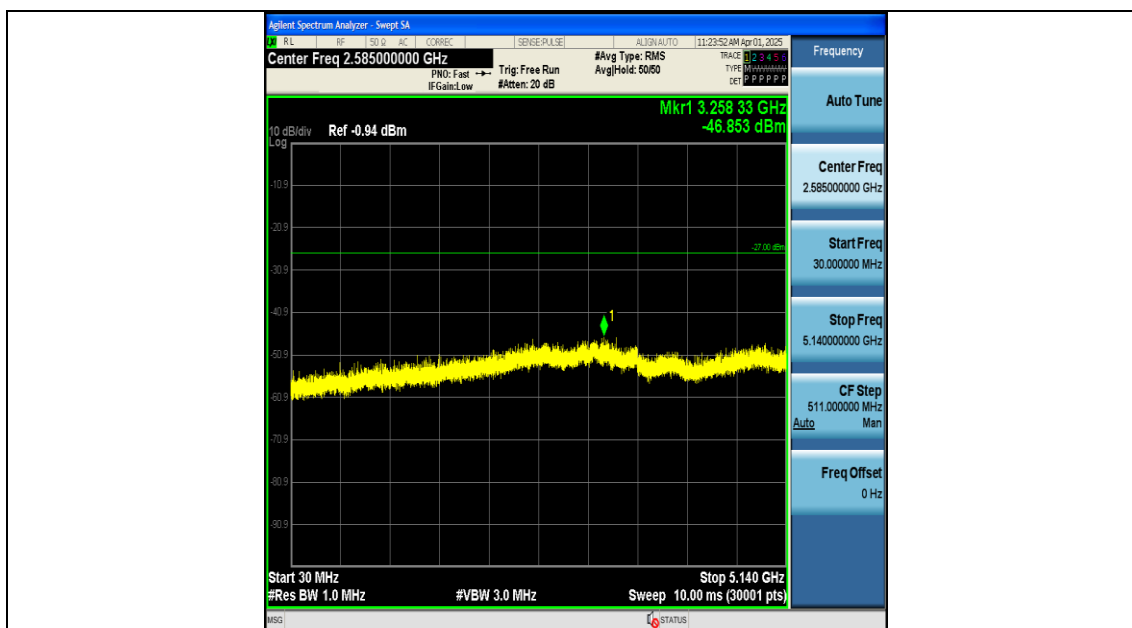


11A-Ant1-5240-5360~40000-PASS

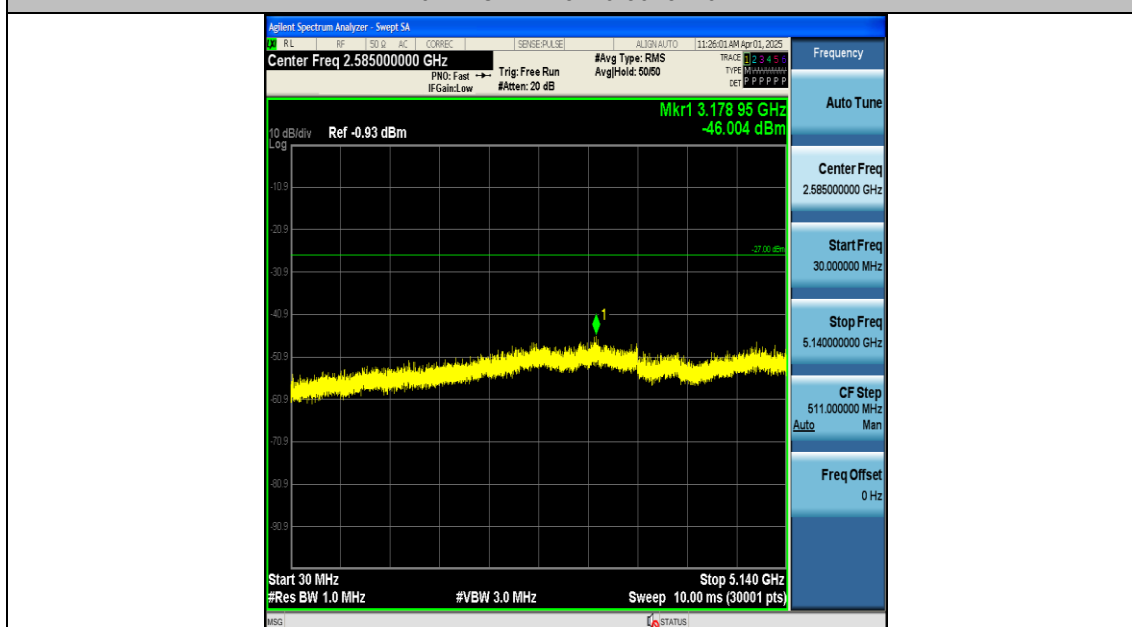




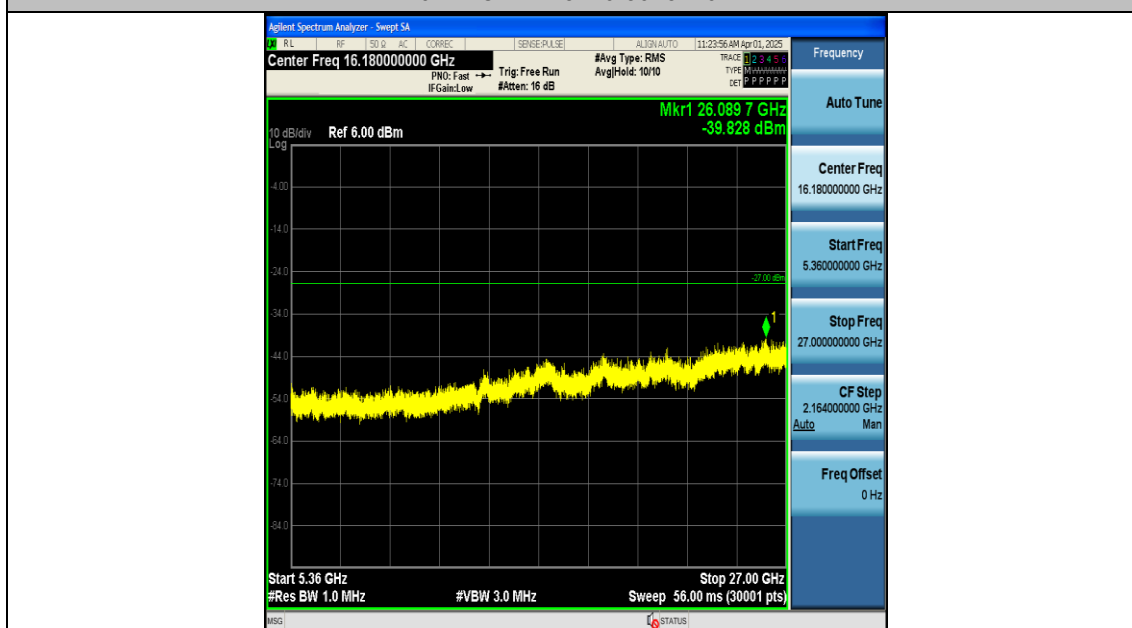




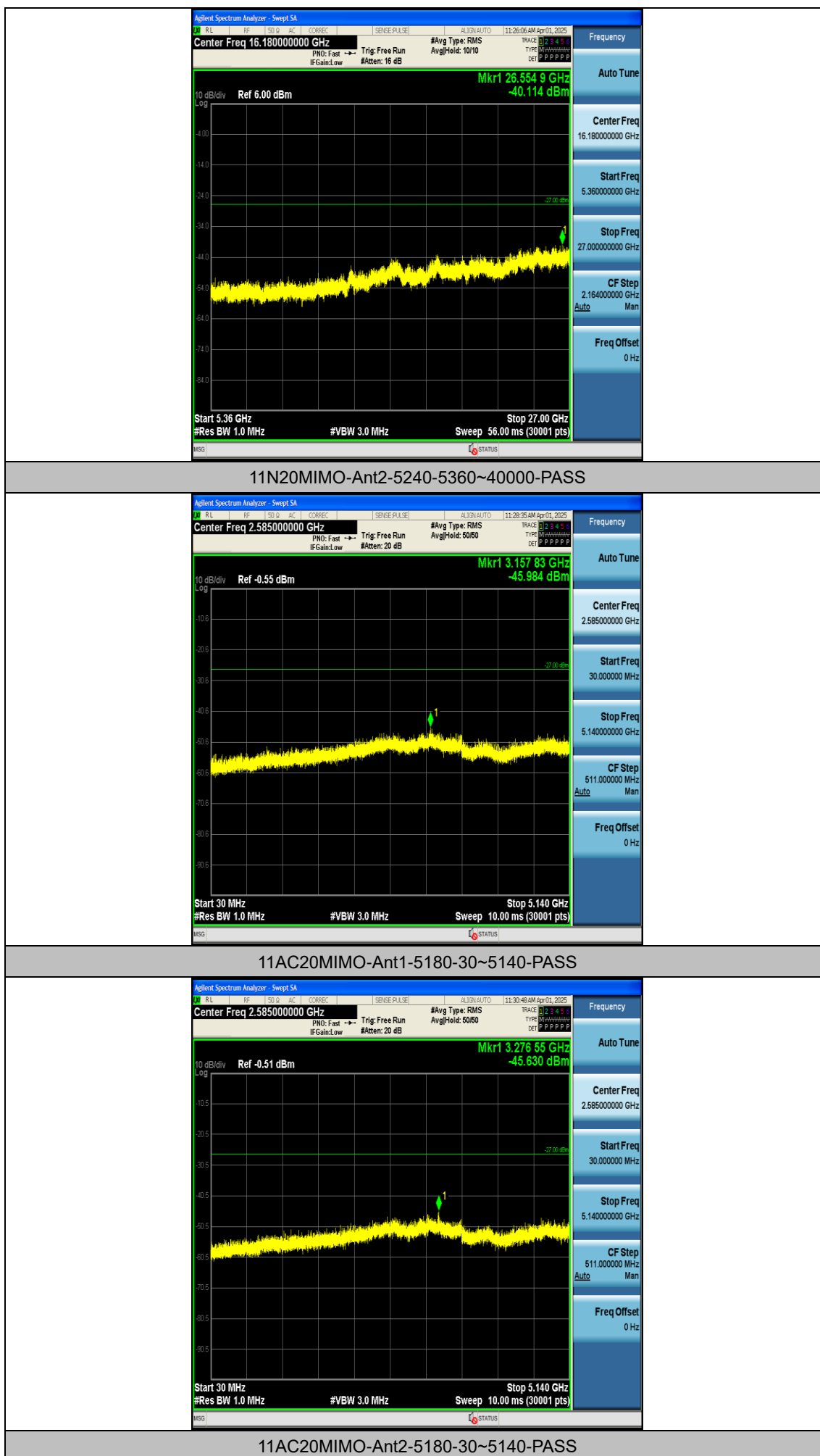
11N20MIMO-Ant1-5240-30~5140-PASS

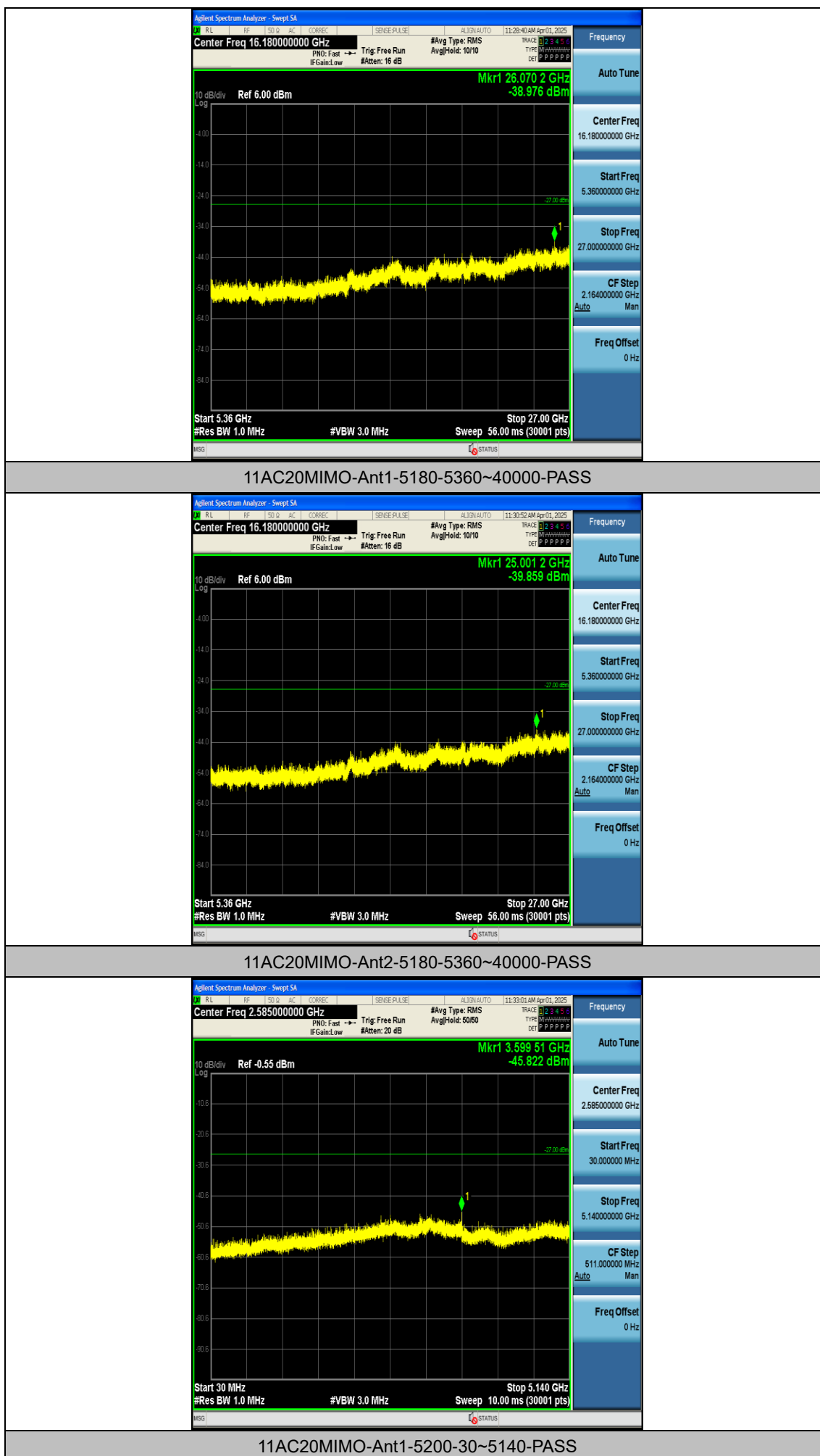


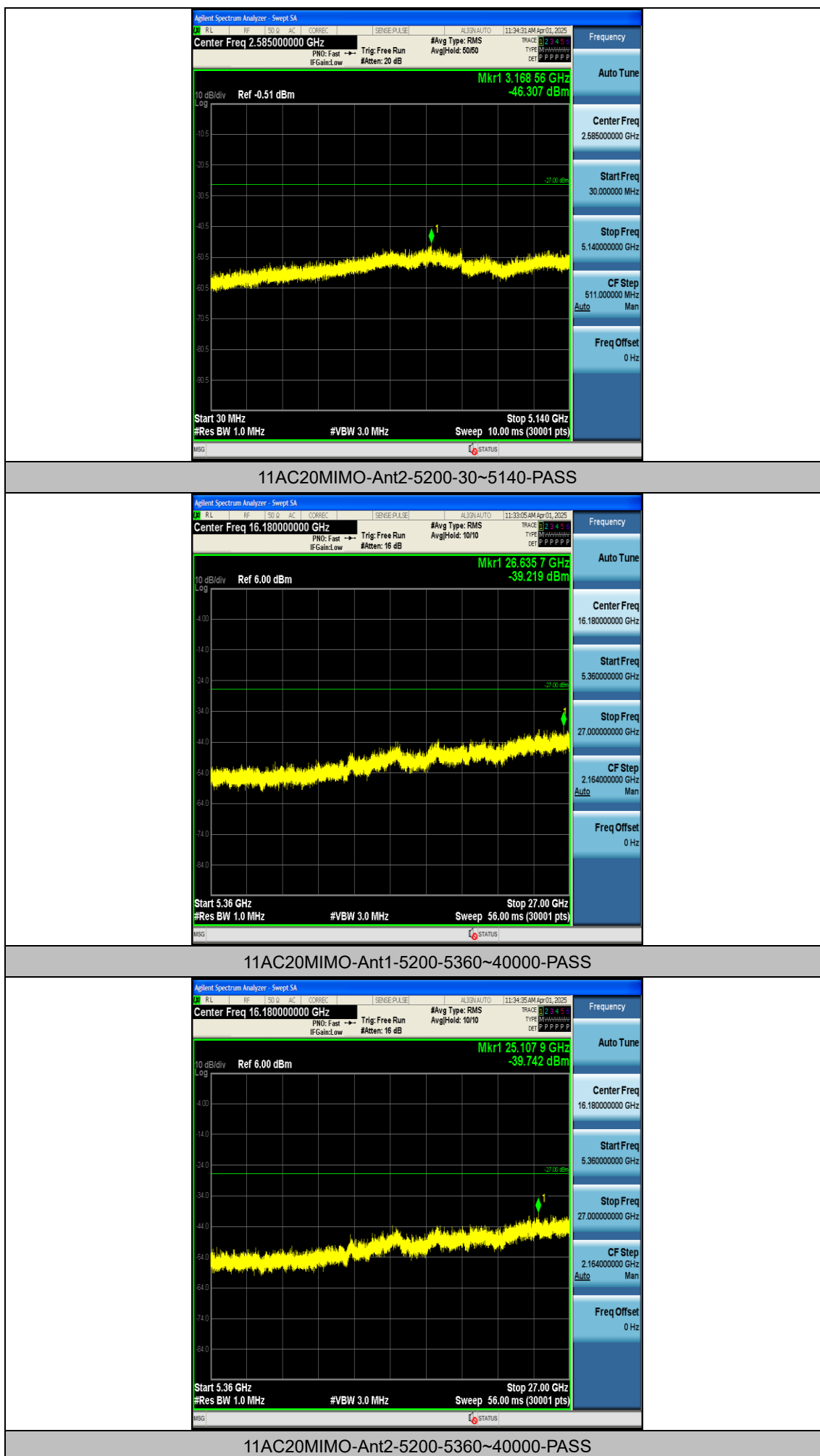
11N20MIMO-Ant2-5240-30~5140-PASS

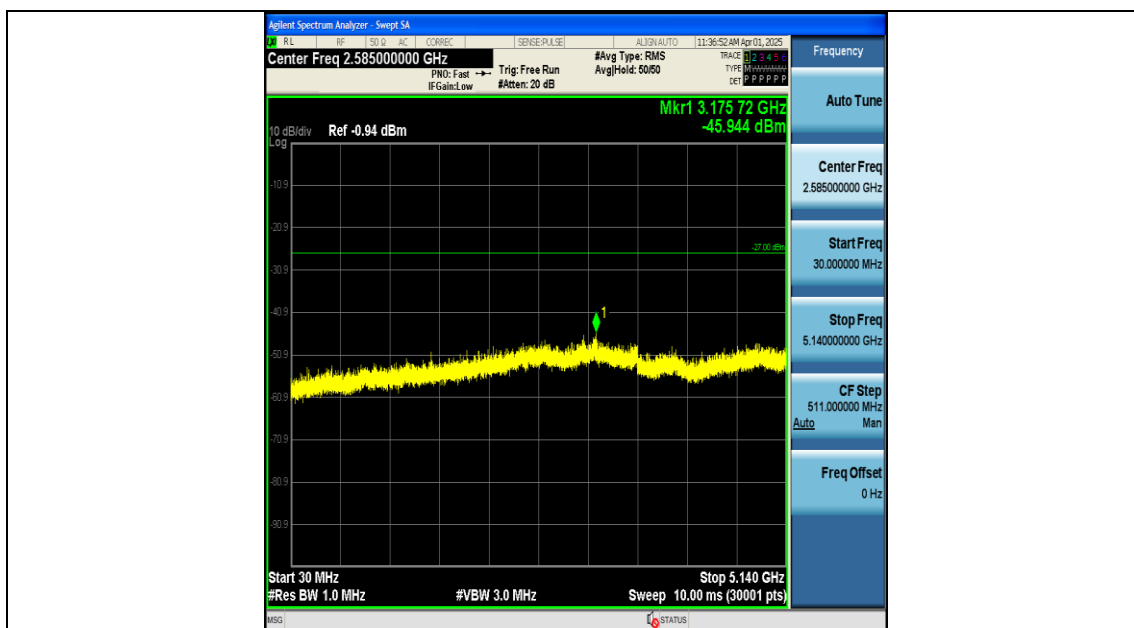


11N20MIMO-Ant1-5240-5360~40000-PASS

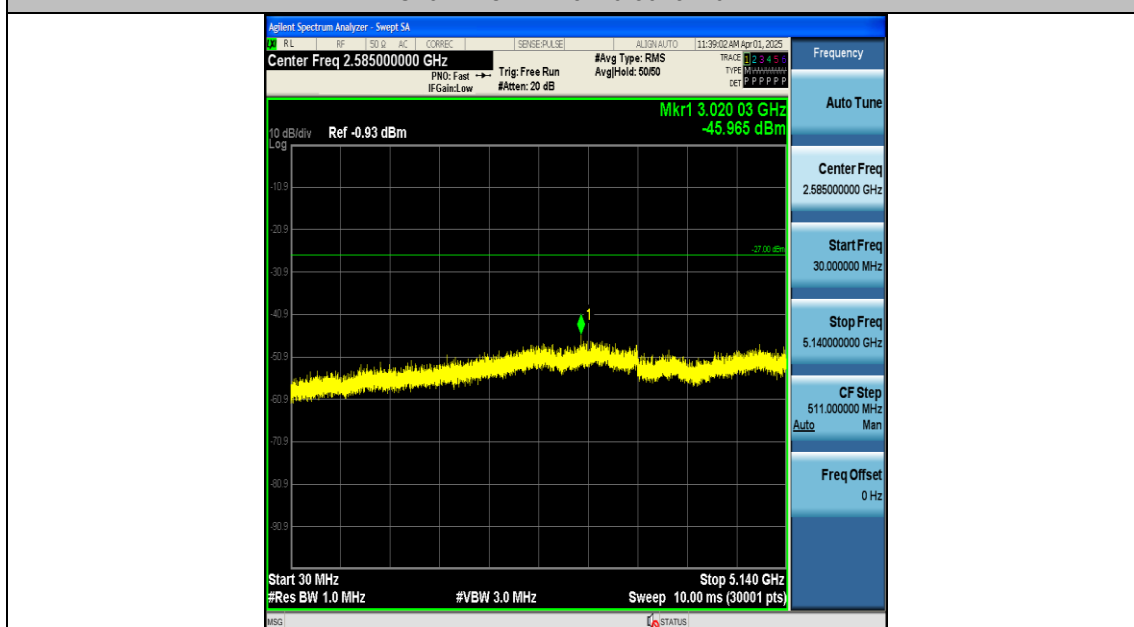




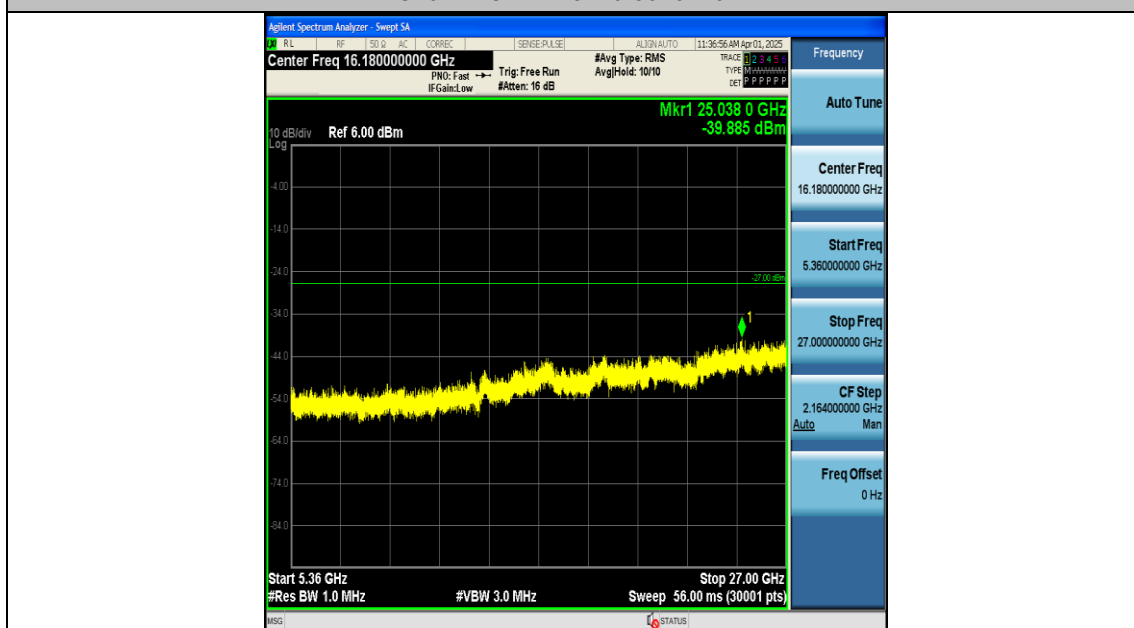




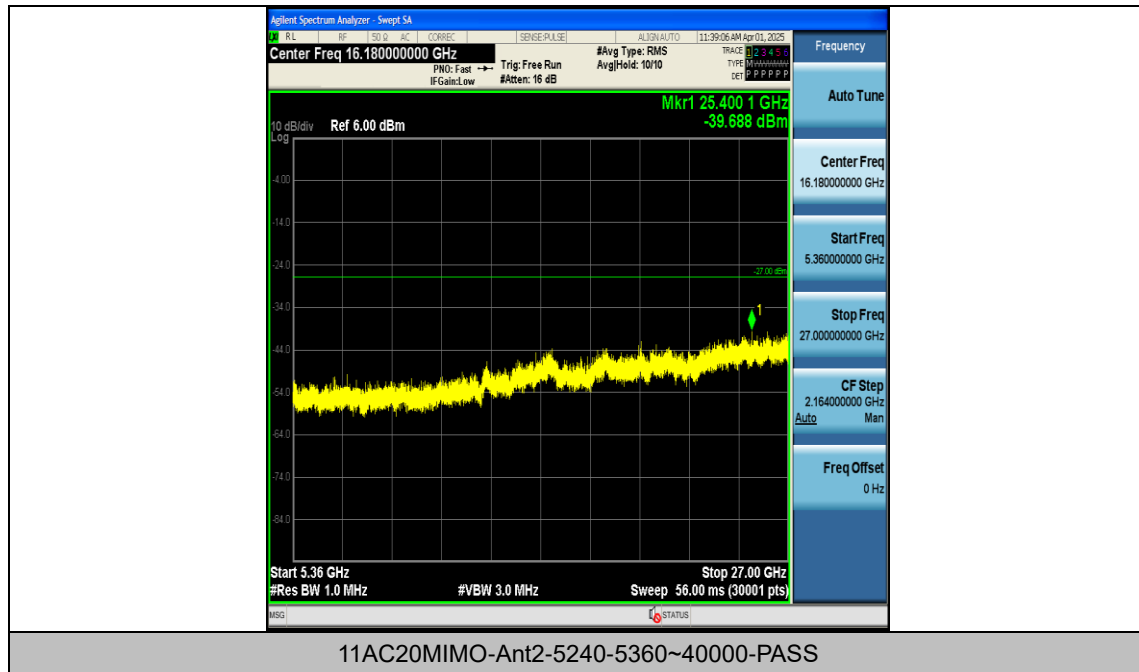
11AC20MIMO-Ant1-5240-30~5140-PASS



11AC20MIMO-Ant2-5240-30~5140-PASS



11AC20MIMO-Ant1-5240-5360~40000-PASS

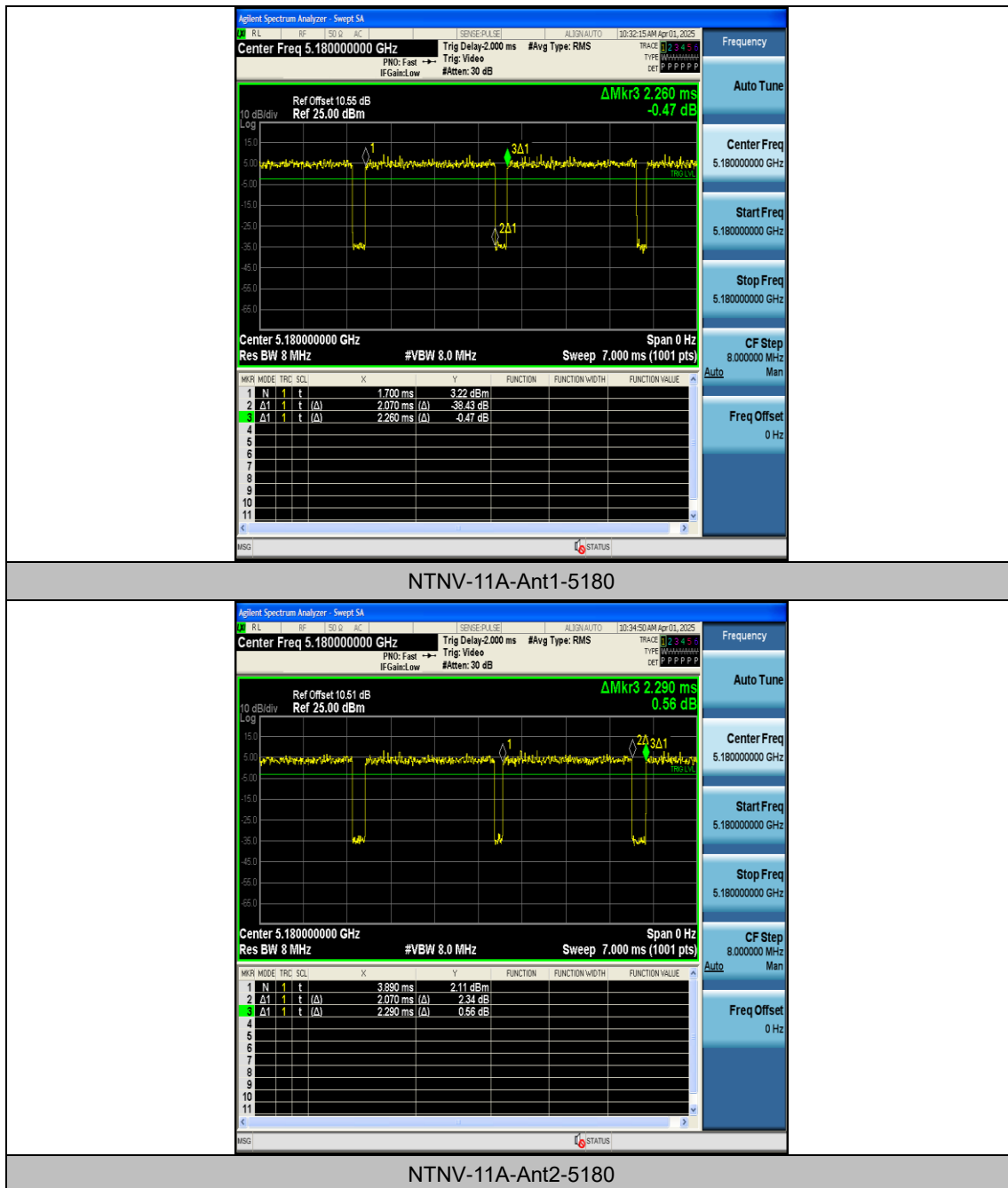


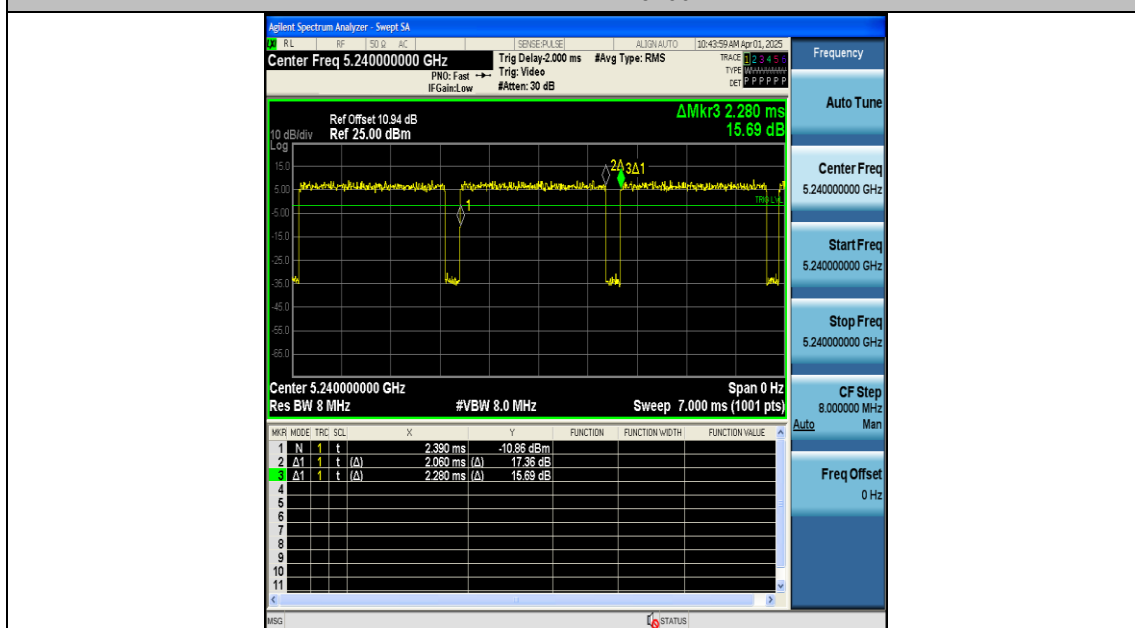
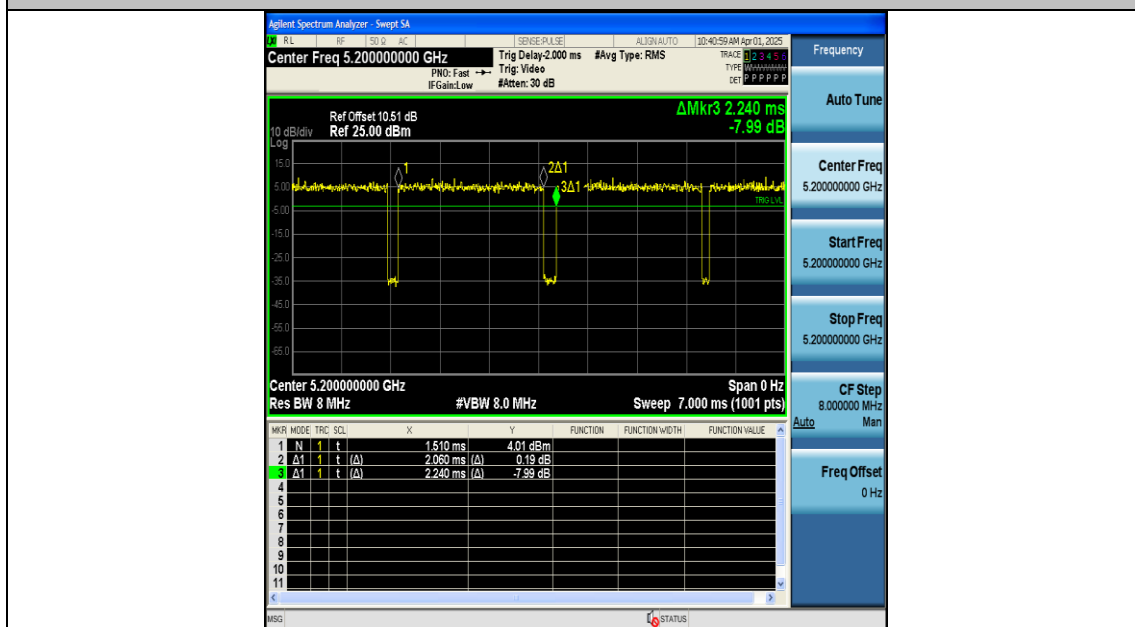
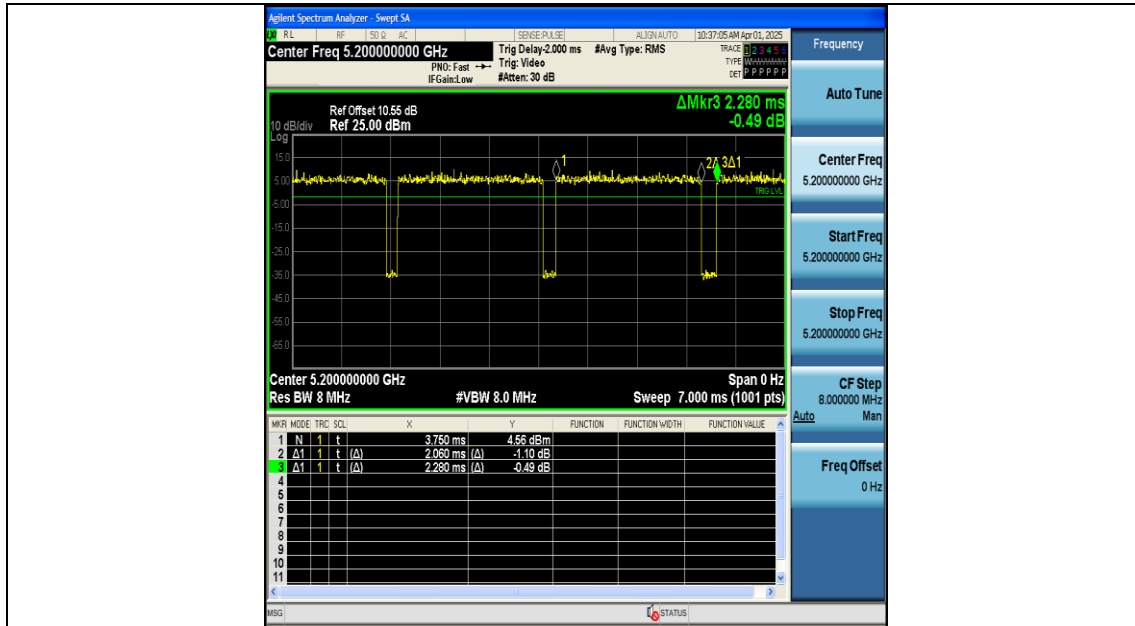
Appendix G: Duty Cycle

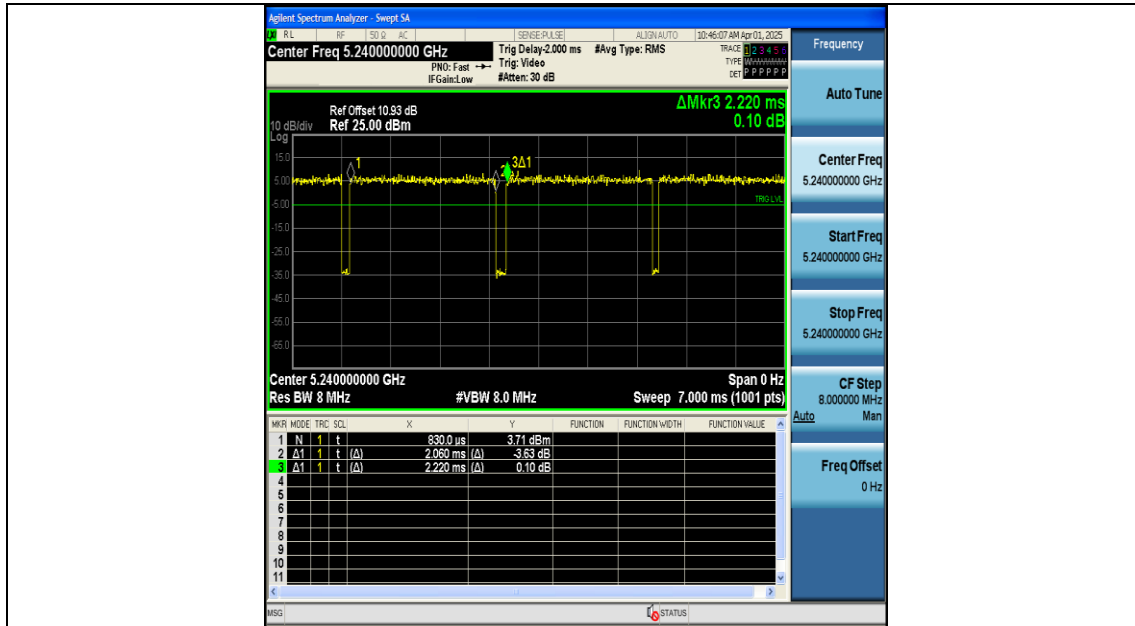
Test Result

Test Mode	Antenna	Frequency [MHz]	Transmission Duration [ms]	Transmission Period [ms]	Duty Cycle [%]	Dc. Factor [%]	1/T [kHz]
11A	Ant1	5180	2.07	2.26	91.59	0.38	0.48
11A	Ant2	5180	2.07	2.29	90.39	0.44	0.48
11A	Ant1	5200	2.06	2.28	90.35	0.44	0.49
11A	Ant2	5200	2.06	2.24	91.96	0.36	0.49
11A	Ant1	5240	2.06	2.28	90.35	0.44	0.49
11A	Ant2	5240	2.06	2.22	92.79	0.32	0.49
11N20MIMO	Ant1	5180	1.91	2.10	90.95	0.41	0.52
11N20MIMO	Ant2	5180	1.93	2.16	89.35	0.49	0.52
11N20MIMO	Ant1	5200	1.92	2.13	90.14	0.45	0.52
11N20MIMO	Ant2	5200	1.92	2.09	91.87	0.37	0.52
11N20MIMO	Ant1	5240	1.92	2.11	91.00	0.41	0.52
11N20MIMO	Ant2	5240	1.92	2.14	89.72	0.47	0.52
11AC20MIMO	Ant1	5180	1.93	2.18	88.53	0.53	0.52
11AC20MIMO	Ant2	5180	1.93	2.17	88.94	0.51	0.52
11AC20MIMO	Ant1	5200	1.93	2.15	89.77	0.47	0.52
11AC20MIMO	Ant2	5200	1.94	2.15	90.23	0.45	0.52
11AC20MIMO	Ant1	5240	1.93	2.17	88.94	0.51	0.52
11AC20MIMO	Ant2	5240	1.93	2.09	92.34	0.35	0.52

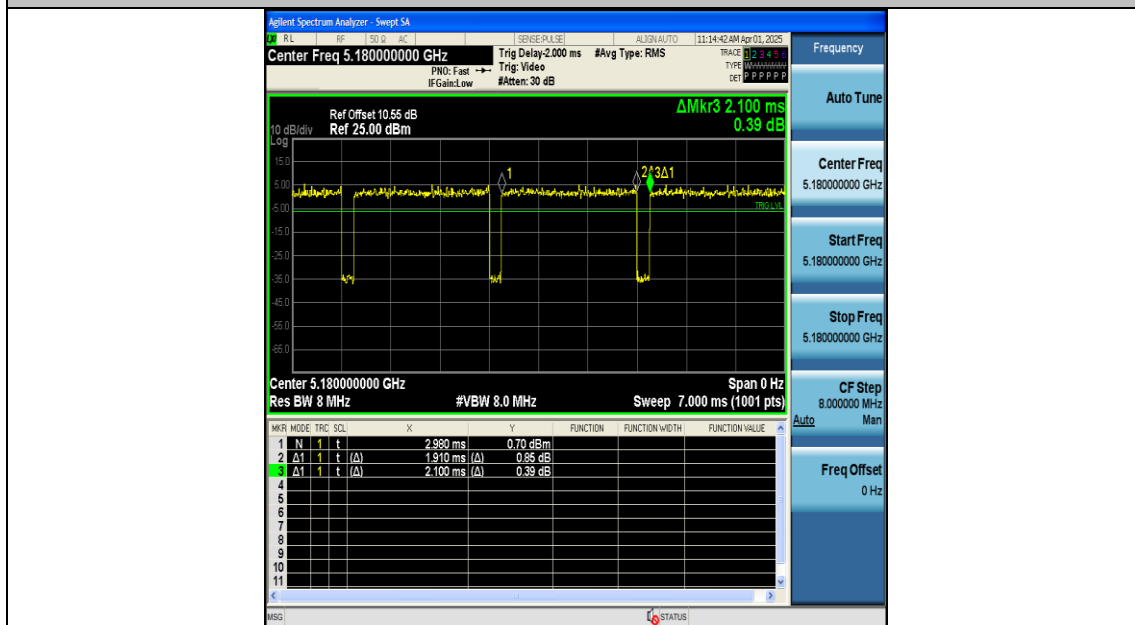
Test Graphs



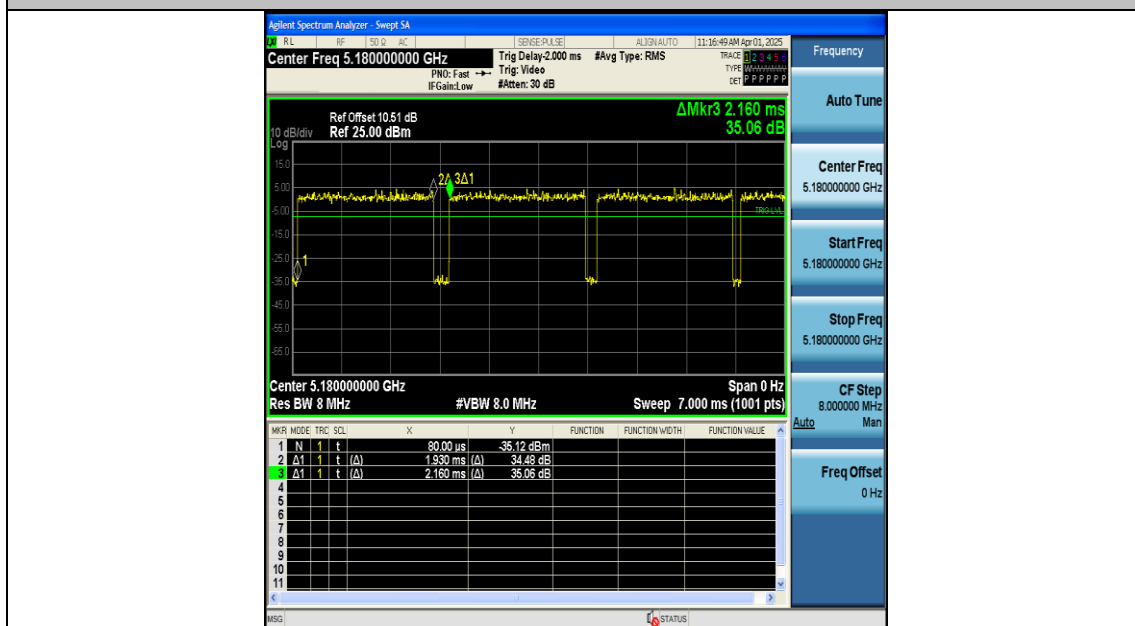




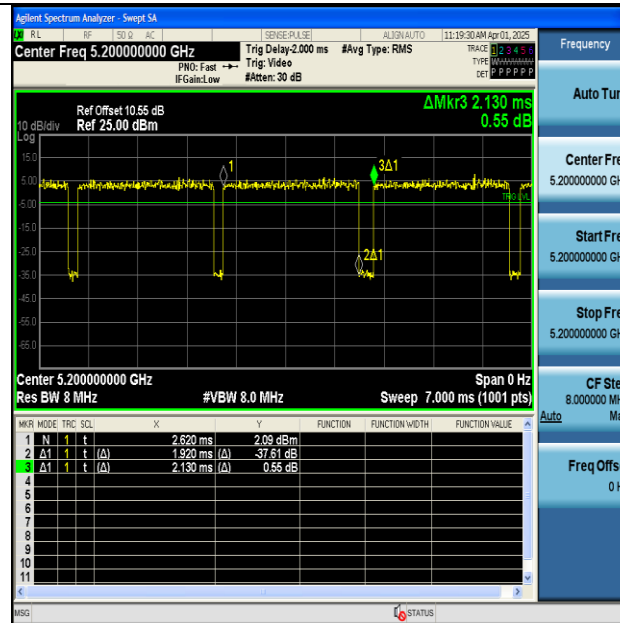
NTVN-11A-Ant2-5240



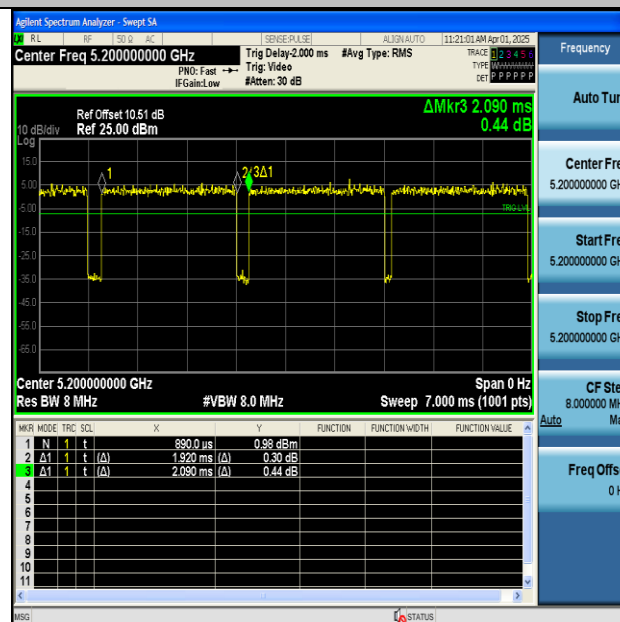
NTVN-11N20MIMO-Ant1-5180



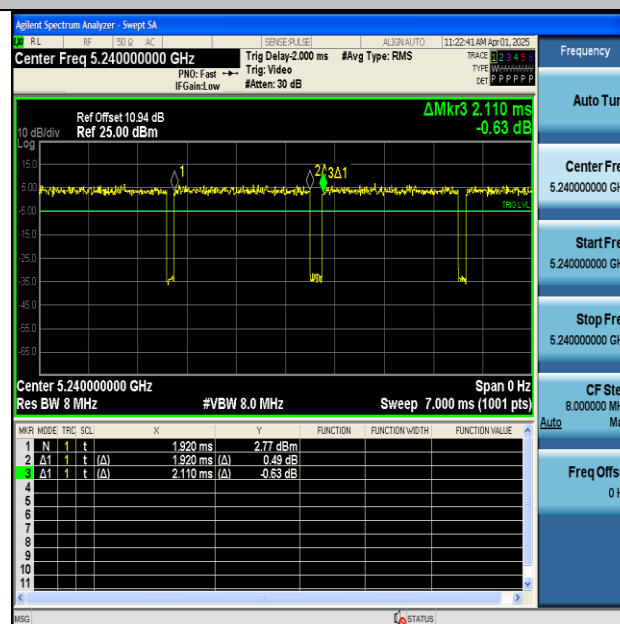
NTVN-11N20MIMO-Ant2-5180



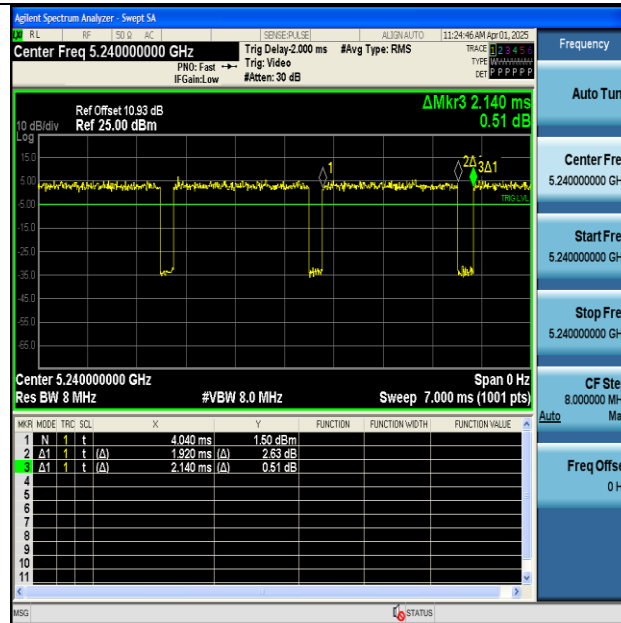
NTNV-11N20MIMO-Ant1-5200



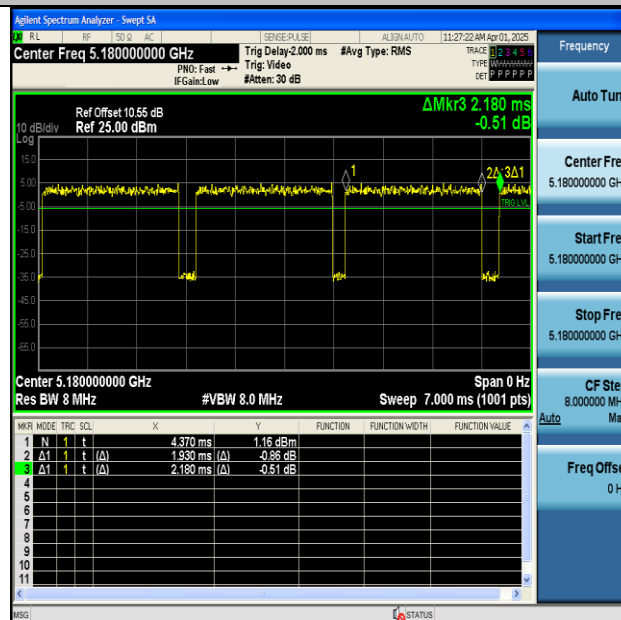
NTNV-11N20MIMO-Ant2-5200



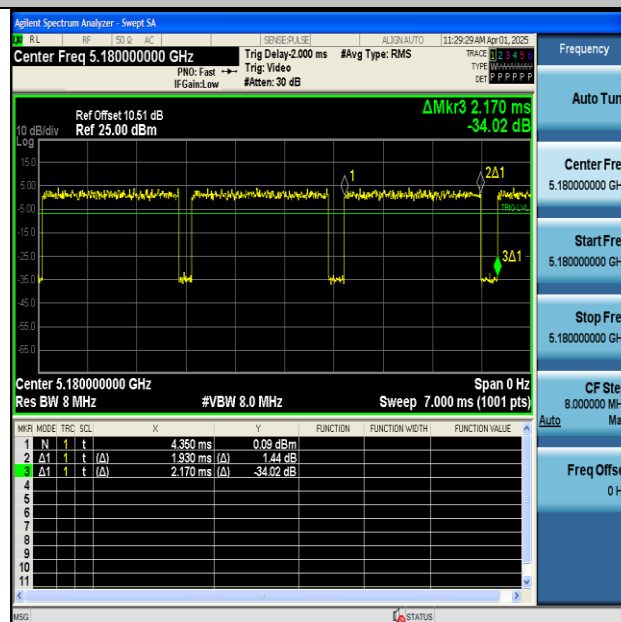
NTNV-11N20MIMO-Ant1-5240



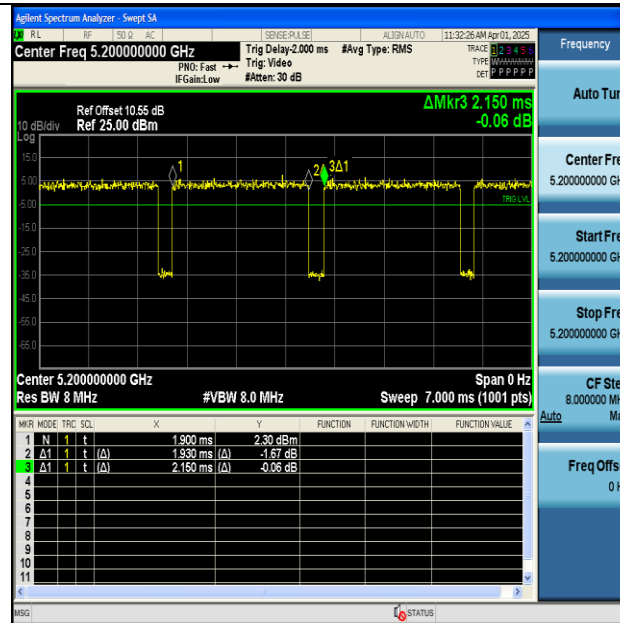
NTNV-11N20MIMO-Ant2-5240



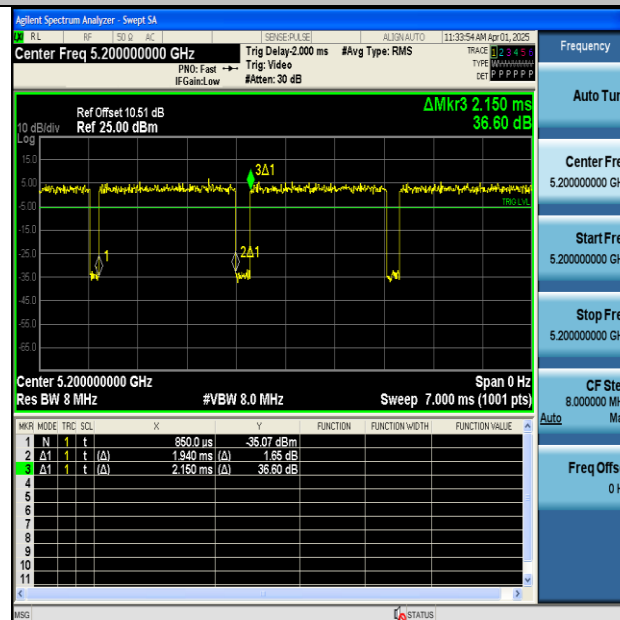
NTNV-11AC20MIMO-Ant1-5180



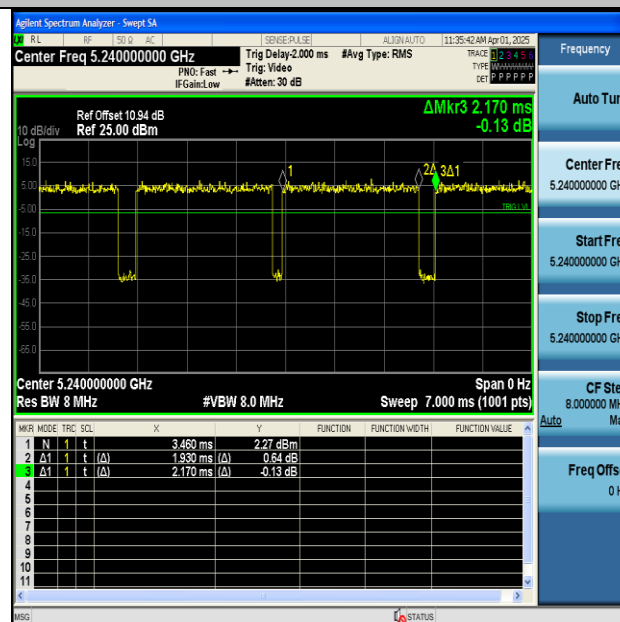
NTNV-11AC20MIMO-Ant2-5180



NTNV-11AC20MIMO-Ant1-5200



NTNV-11AC20MIMO-Ant2-5200



NTNV-11AC20MIMO-Ant1-5240

