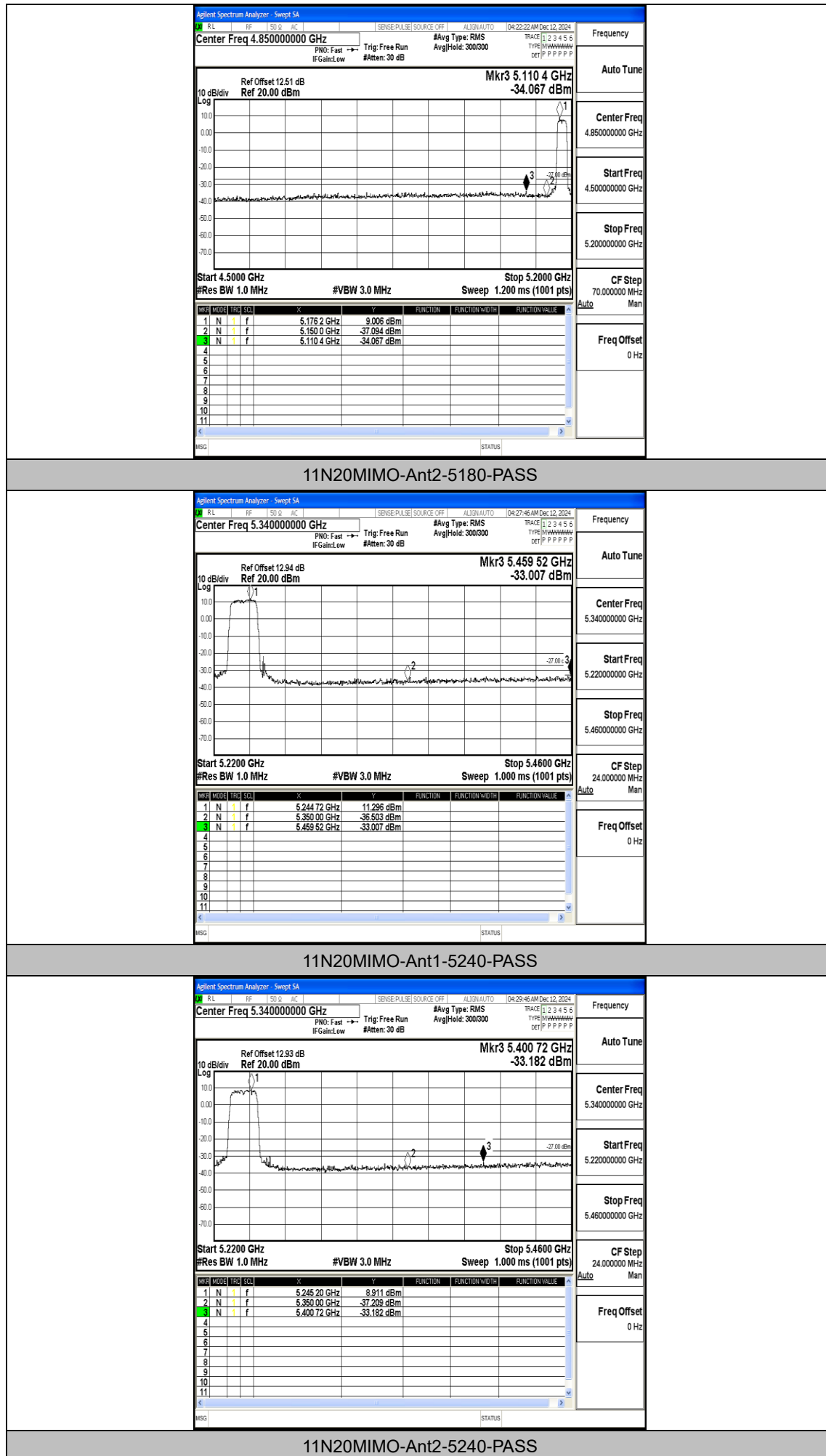
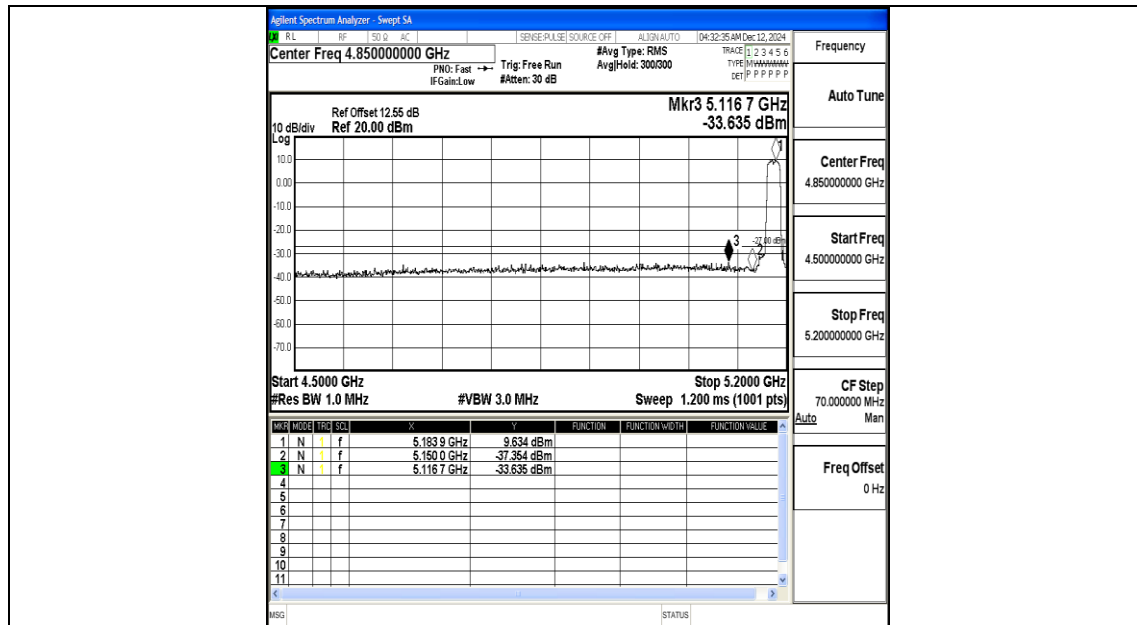
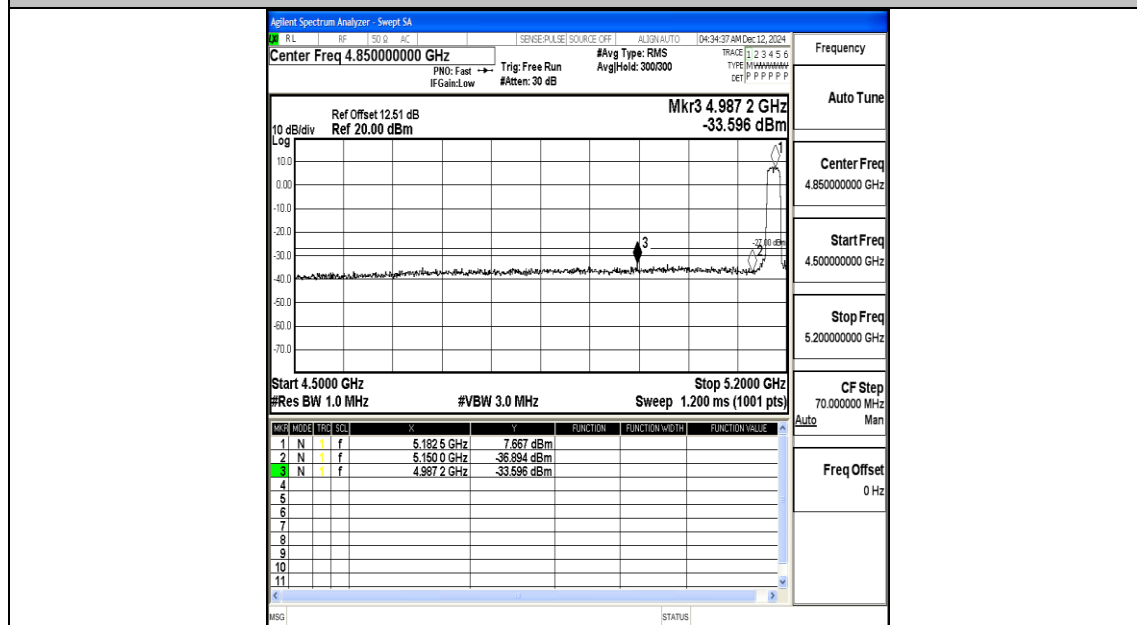


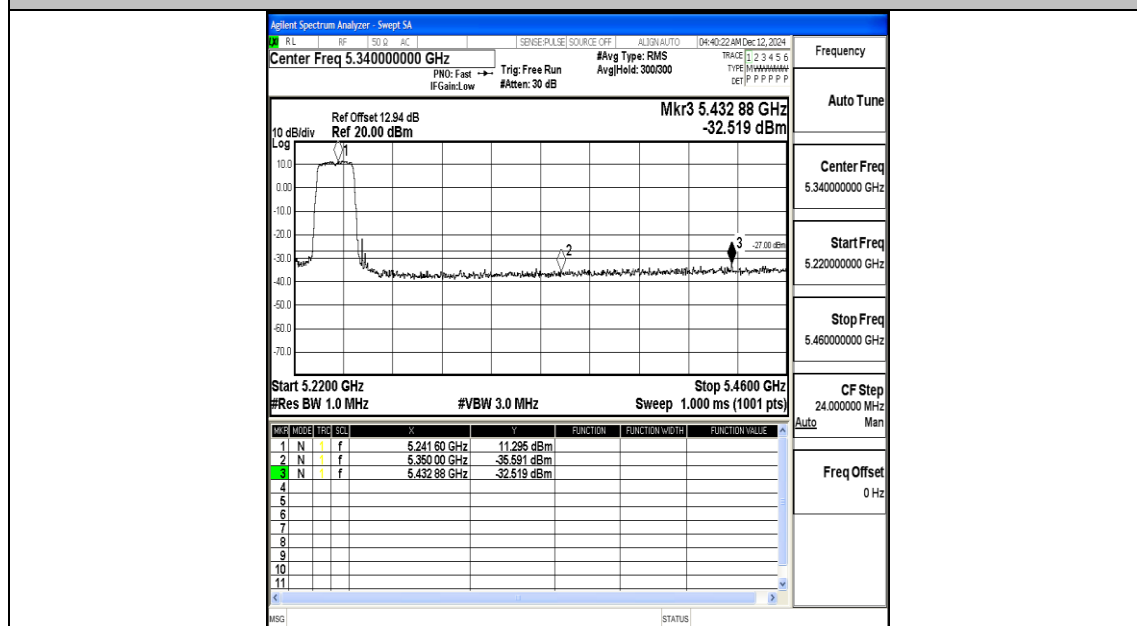




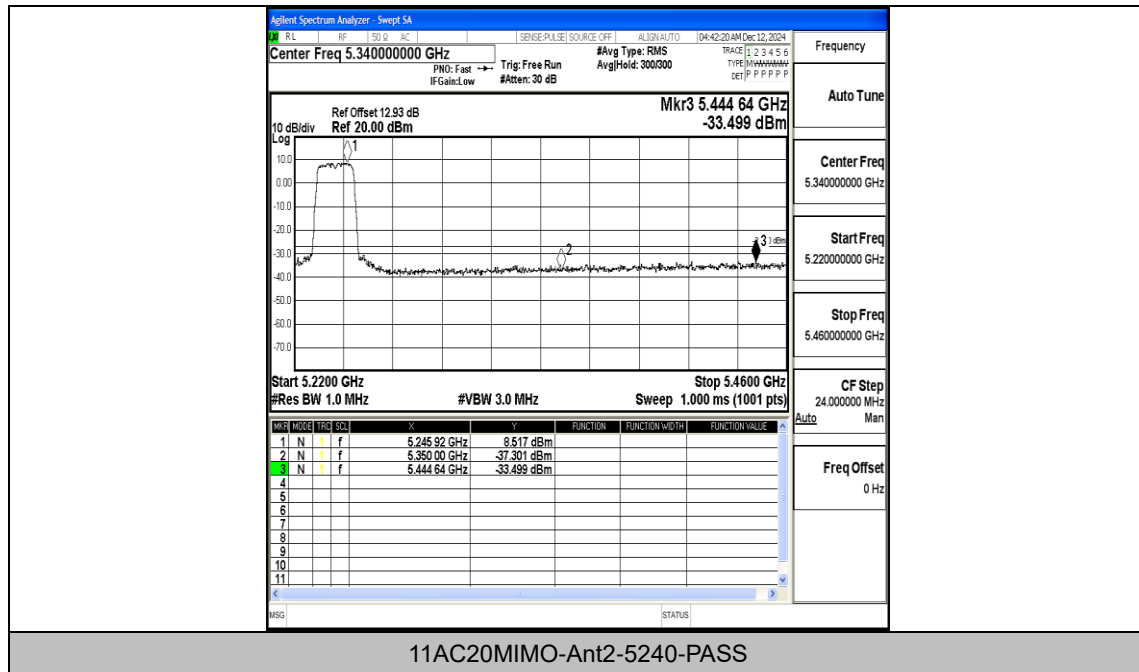
11AC20MIMO-Ant1-5180-PASS



11AC20MIMO-Ant2-5180-PASS



11AC20MIMO-Ant1-5240-PASS



Appendix E: Frequency Stability

Test Result

Ant1

Frequency (MHz)	Environment Temperature (Degree)	Voltage (VDC)	Measured Frequency (MHz)	Limit Range (MHz)	Test Results
5180	20	12.54	5180.005129	5150 – 5250	PASS
5180	20	10.26	5179.969335	5150 – 5250	PASS
5180	50	11.40	5180.034933	5150 – 5250	PASS
5180	40	11.40	5179.961207	5150 – 5250	PASS
5180	30	11.40	5179.944016	5150 – 5250	PASS
5180	20	11.40	5179.953366	5150 – 5250	PASS
5180	10	11.40	5179.926704	5150 – 5250	PASS
5180	0	11.40	5179.968161	5150 – 5250	PASS
5180	-10	11.40	5180.093015	5150 – 5250	PASS
5180	-20	11.40	5179.977630	5150 – 5250	PASS
5180	-30	11.40	5179.939434	5150 – 5250	PASS

Ant2

Frequency (MHz)	Environment Temperature (Degree)	Voltage (VDC)	Measured Frequency (MHz)	Limit Range (MHz)	Test Results
5180	20	12.54	5179.943117	5150 – 5250	PASS
5180	20	10.26	5180.089708	5150 – 5250	PASS
5180	50	11.40	5179.927032	5150 – 5250	PASS
5180	40	11.40	5180.079981	5150 – 5250	PASS
5180	30	11.40	5179.955466	5150 – 5250	PASS
5180	20	11.40	5180.093140	5150 – 5250	PASS
5180	10	11.40	5180.076612	5150 – 5250	PASS
5180	0	11.40	5179.939233	5150 – 5250	PASS
5180	-10	11.40	5180.015180	5150 – 5250	PASS
5180	-20	11.40	5179.904034	5150 – 5250	PASS
5180	-30	11.40	5179.974530	5150 – 5250	PASS

Ant1

Frequency (MHz)	Enviroment Temperature (Dregree)	Voltage (VDC)	Measured Frequency (MHz)	Limit Range (MHz)	Test Results
5200	20	12.54	5199.946412	5150 – 5250	PASS
5200	20	10.26	5200.094176	5150 – 5250	PASS
5200	50	11.40	5200.039637	5150 – 5250	PASS
5200	40	11.40	5199.934464	5150 – 5250	PASS
5200	30	11.40	5200.037124	5150 – 5250	PASS
5200	20	11.40	5200.046432	5150 – 5250	PASS
5200	10	11.40	5199.944760	5150 – 5250	PASS
5200	0	11.40	5199.947695	5150 – 5250	PASS
5200	-10	11.40	5199.921535	5150 – 5250	PASS
5200	-20	11.40	5200.068697	5150 – 5250	PASS
5200	-30	11.40	5200.019136	5150 – 5250	PASS

Ant2

Frequency (MHz)	Enviroment Temperature (Dregree)	Voltage (VDC)	Measured Frequency (MHz)	Limit Range (MHz)	Test Results
5200	20	12.54	5200.015771	5150 – 5250	PASS
5200	20	10.26	5200.084972	5150 – 5250	PASS
5200	50	11.40	5199.970996	5150 – 5250	PASS
5200	40	11.40	5200.057669	5150 – 5250	PASS
5200	30	11.40	5199.983715	5150 – 5250	PASS
5200	20	11.40	5200.020240	5150 – 5250	PASS
5200	10	11.40	5200.055100	5150 – 5250	PASS
5200	0	11.40	5199.999311	5150 – 5250	PASS
5200	-10	11.40	5199.942525	5150 – 5250	PASS
5200	-20	11.40	5200.051667	5150 – 5250	PASS
5200	-30	11.40	5199.901170	5150 – 5250	PASS

Ant1

Frequency (MHz)	Environment Temperature (Degree)	Voltage (VDC)	Measured Frequency (MHz)	Limit Range (MHz)	Test Results
5240	20	12.54	5240.022422	5150 – 5250	PASS
5240	20	10.26	5239.979973	5150 – 5250	PASS
5240	50	11.40	5239.911140	5150 – 5250	PASS
5240	40	11.40	5240.011221	5150 – 5250	PASS
5240	30	11.40	5240.076001	5150 – 5250	PASS
5240	20	11.40	5240.097196	5150 – 5250	PASS
5240	10	11.40	5239.964981	5150 – 5250	PASS
5240	0	11.40	5239.934266	5150 – 5250	PASS
5240	-10	11.40	5239.964559	5150 – 5250	PASS
5240	-20	11.40	5240.005501	5150 – 5250	PASS
5240	-30	11.40	5239.949387	5150 – 5250	PASS

Ant2

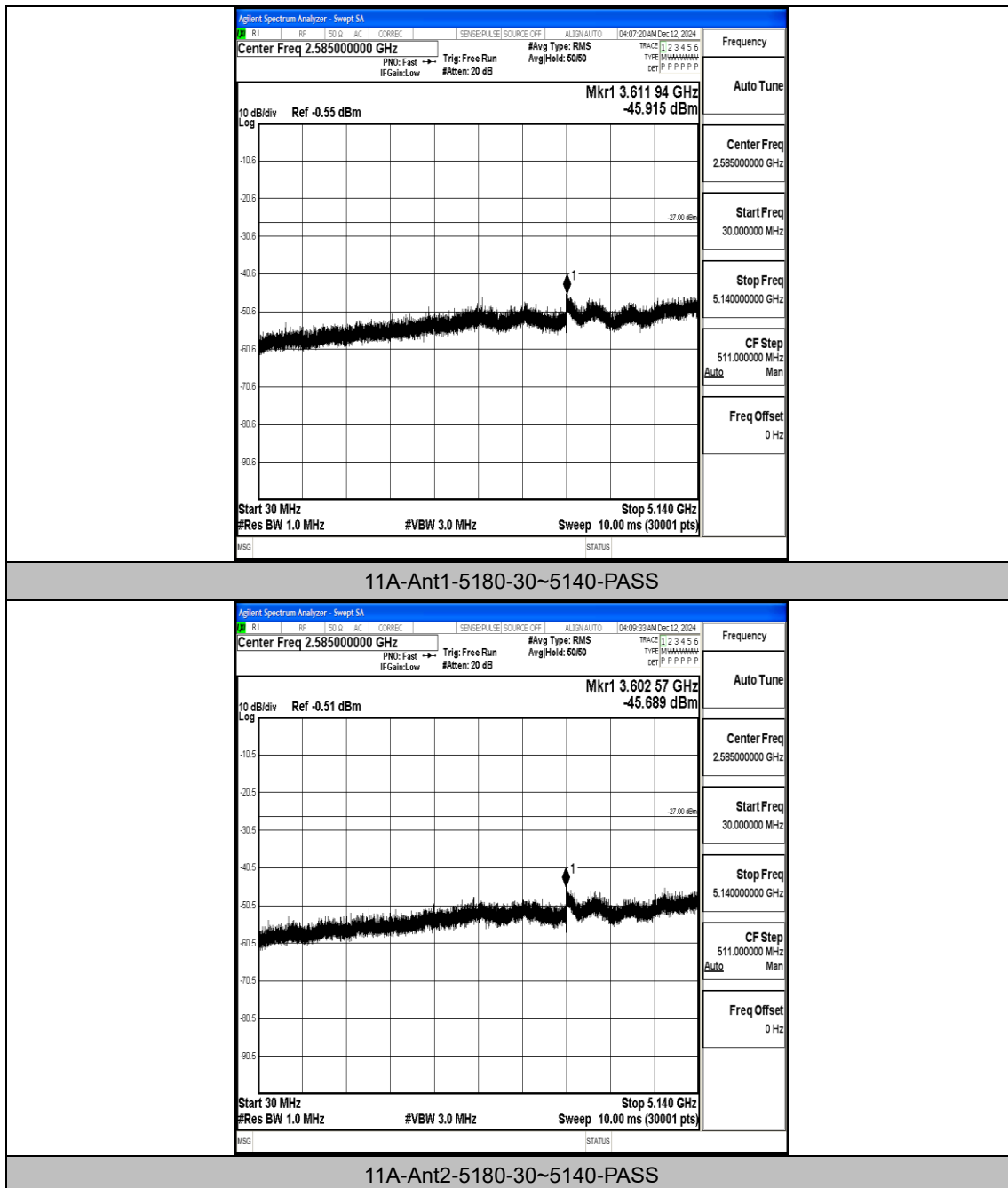
Frequency (MHz)	Environment Temperature (Degree)	Voltage (VDC)	Measured Frequency (MHz)	Limit Range (MHz)	Test Results
5240	20	12.54	5240.092594	5150 – 5250	PASS
5240	20	10.26	5240.034917	5150 – 5250	PASS
5240	50	11.40	5239.995319	5150 – 5250	PASS
5240	40	11.40	5239.907488	5150 – 5250	PASS
5240	30	11.40	5240.094972	5150 – 5250	PASS
5240	20	11.40	5239.992698	5150 – 5250	PASS
5240	10	11.40	5240.010046	5150 – 5250	PASS
5240	0	11.40	5239.900120	5150 – 5250	PASS
5240	-10	11.40	5239.941660	5150 – 5250	PASS
5240	-20	11.40	5239.973675	5150 – 5250	PASS
5240	-30	11.40	5240.081840	5150 – 5250	PASS

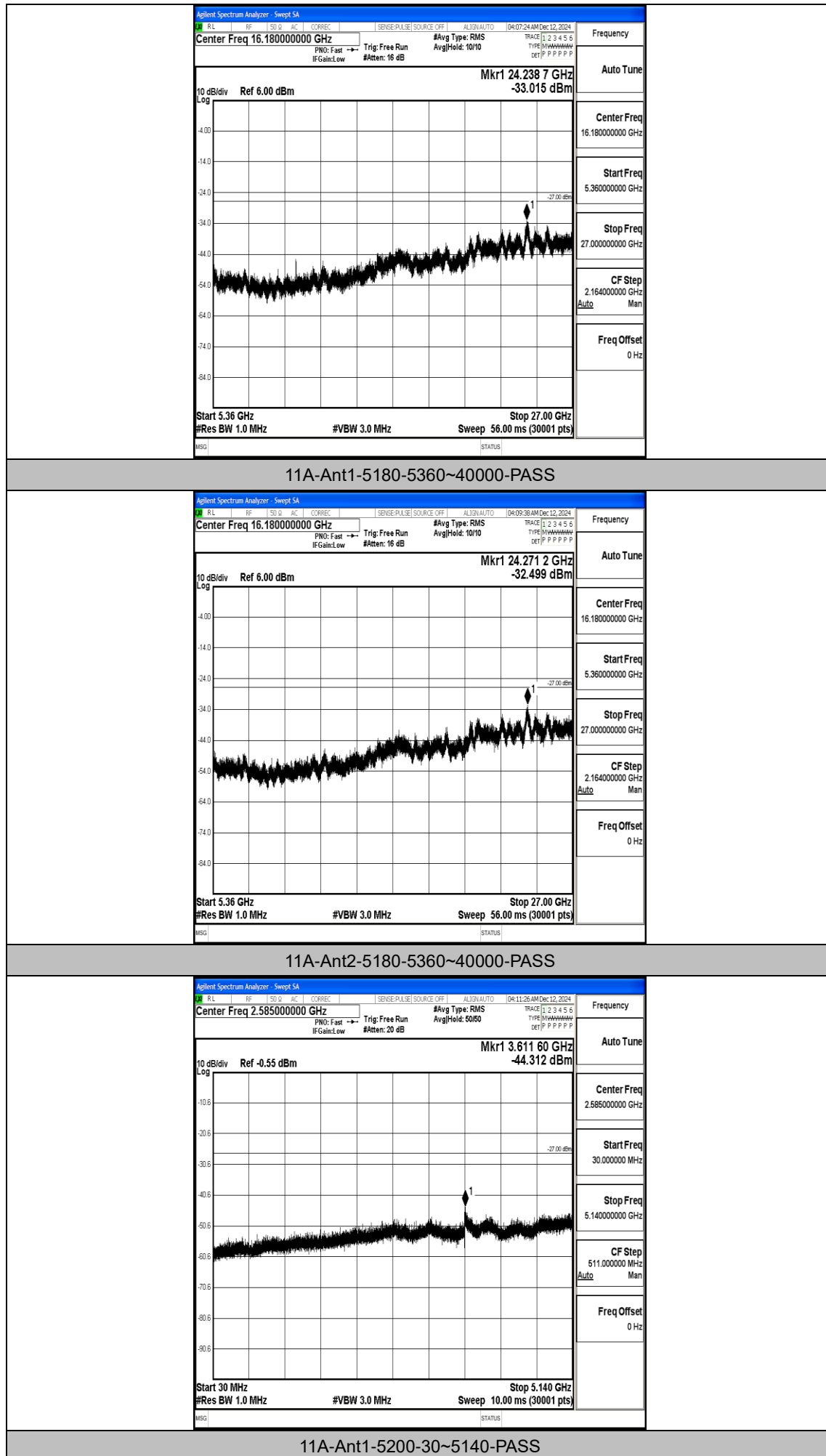
Appendix F: Conducted Spurious Emission

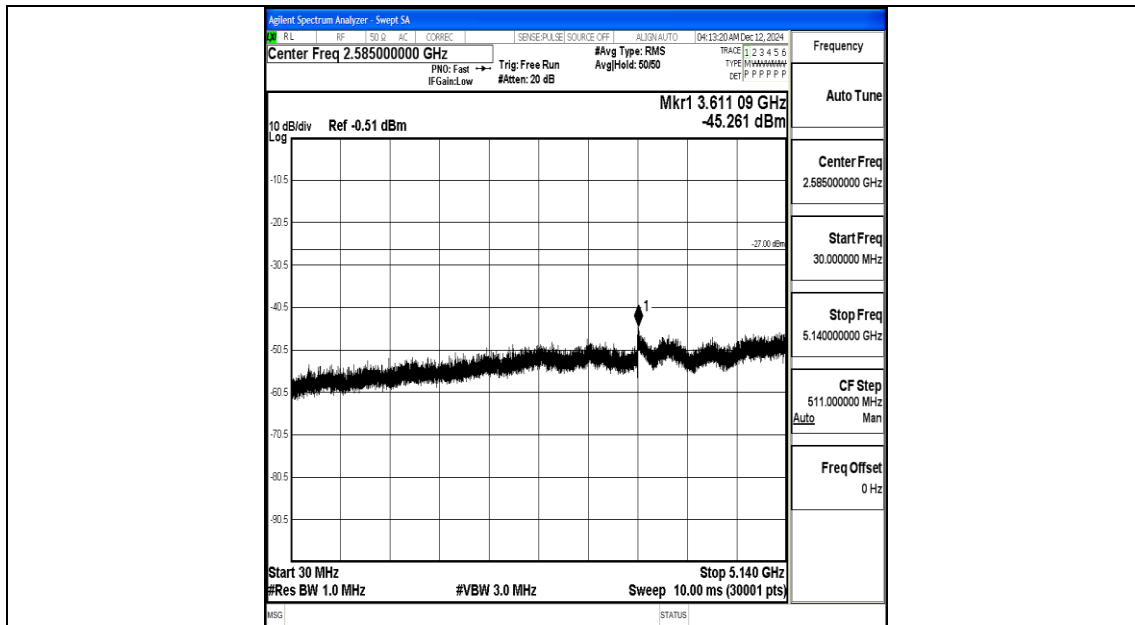
Test Result

TestMode	Antenna	Frequency[MHz]	FreqRange [MHz]	Max. Fre [MHz]	Max. Level [dBm]	Limit [dBm]	Verdict
11A	Ant1	5180	30~5140	3611.94	-45.92	≤-27	PASS
11A	Ant2	5180	30~5140	3602.57	-45.69	≤-27	PASS
11A	Ant1	5180	5360~40000	24238.74	-33.02	≤-27	PASS
11A	Ant2	5180	5360~40000	24271.2	-32.5	≤-27	PASS
11A	Ant1	5200	30~5140	3611.6	-44.31	≤-27	PASS
11A	Ant2	5200	30~5140	3611.09	-45.26	≤-27	PASS
11A	Ant1	5200	5360~40000	24243.79	-32.97	≤-27	PASS
11A	Ant2	5200	5360~40000	24269.75	-32.84	≤-27	PASS
11A	Ant1	5240	30~5140	3600.02	-45.72	≤-27	PASS
11A	Ant2	5240	30~5140	3600.36	-45.6	≤-27	PASS
11A	Ant1	5240	5360~40000	24239.46	-32.72	≤-27	PASS
11A	Ant2	5240	5360~40000	24295	-32.67	≤-27	PASS
11N20MIMO	Ant1	5180	30~5140	3628.46	-44.77	≤-27	PASS
11N20MIMO	Ant2	5180	30~5140	3604.62	-45.23	≤-27	PASS
11N20MIMO	Ant1	5180	5360~40000	24244.51	-32.88	≤-27	PASS
11N20MIMO	Ant2	5180	5360~40000	24248.11	-32.68	≤-27	PASS
11N20MIMO	Ant1	5200	30~5140	3634.76	-45.03	≤-27	PASS
11N20MIMO	Ant2	5200	30~5140	3602.4	-45.51	≤-27	PASS
11N20MIMO	Ant1	5200	5360~40000	24245.23	-32.45	≤-27	PASS
11N20MIMO	Ant2	5200	5360~40000	24247.39	-32.62	≤-27	PASS
11N20MIMO	Ant1	5240	30~5140	5138.3	-45.85	≤-27	PASS
11N20MIMO	Ant2	5240	30~5140	5080.72	-45.48	≤-27	PASS
11N20MIMO	Ant1	5240	5360~40000	24247.39	-32.59	≤-27	PASS
11N20MIMO	Ant2	5240	5360~40000	24210.6	-31.41	≤-27	PASS
11AC20MIMO	Ant1	5180	30~5140	3606.83	-45.38	≤-27	PASS
11AC20MIMO	Ant2	5180	30~5140	3605.98	-45.46	≤-27	PASS
11AC20MIMO	Ant1	5180	5360~40000	24345.49	-32.92	≤-27	PASS
11AC20MIMO	Ant2	5180	5360~40000	24279.85	-32.27	≤-27	PASS
11AC20MIMO	Ant1	5200	30~5140	3615.86	-45.49	≤-27	PASS
11AC20MIMO	Ant2	5200	30~5140	5035.42	-44.56	≤-27	PASS
11AC20MIMO	Ant1	5200	5360~40000	24293.56	-32.74	≤-27	PASS
11AC20MIMO	Ant2	5200	5360~40000	24253.88	-32.65	≤-27	PASS
11AC20MIMO	Ant1	5240	30~5140	3601.38	-45.09	≤-27	PASS
11AC20MIMO	Ant2	5240	30~5140	3625.23	-45.6	≤-27	PASS
11AC20MIMO	Ant1	5240	5360~40000	24245.95	-32.4	≤-27	PASS
11AC20MIMO	Ant2	5240	5360~40000	24279.85	-33.04	≤-27	PASS

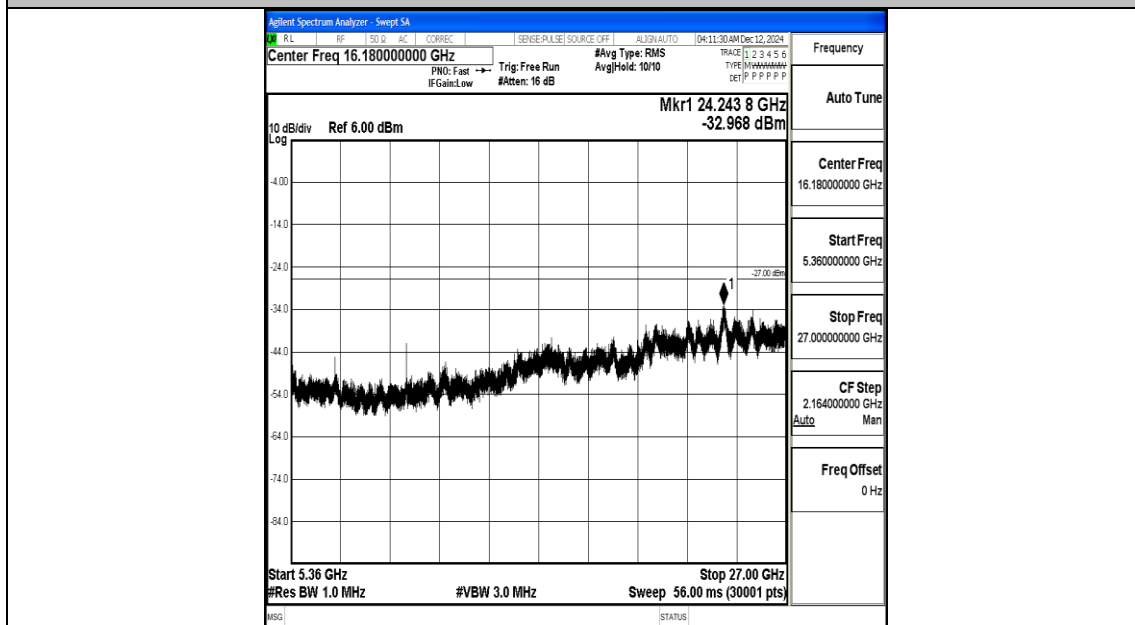
Test Graphs



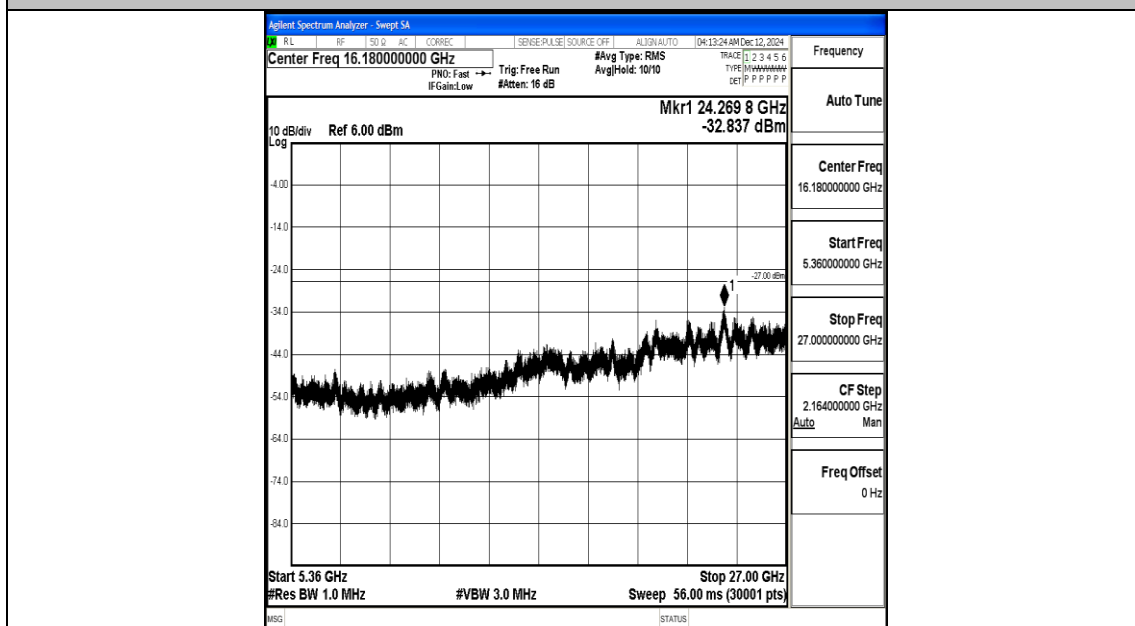




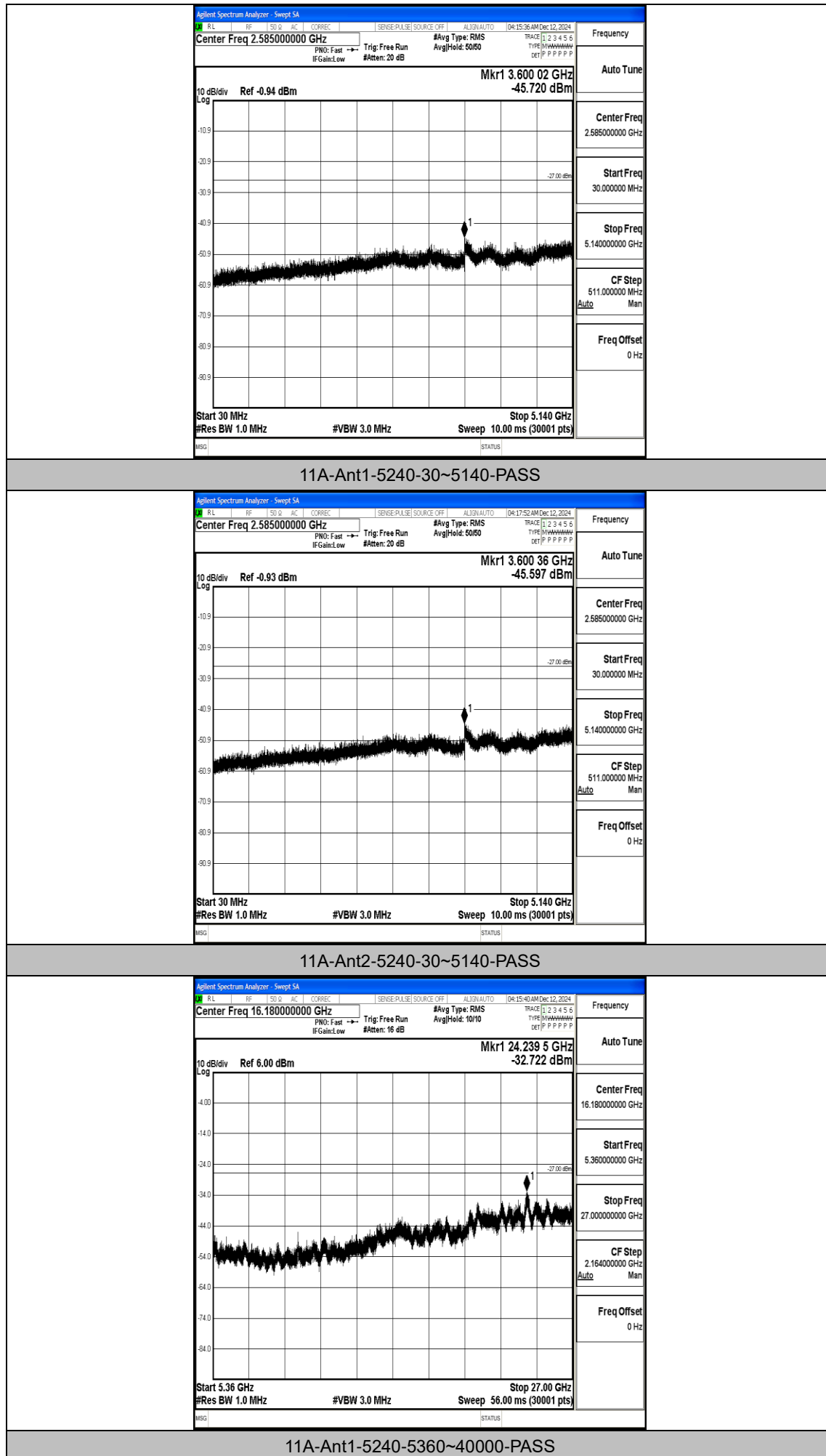
11A-Ant2-5200-30~5140-PASS

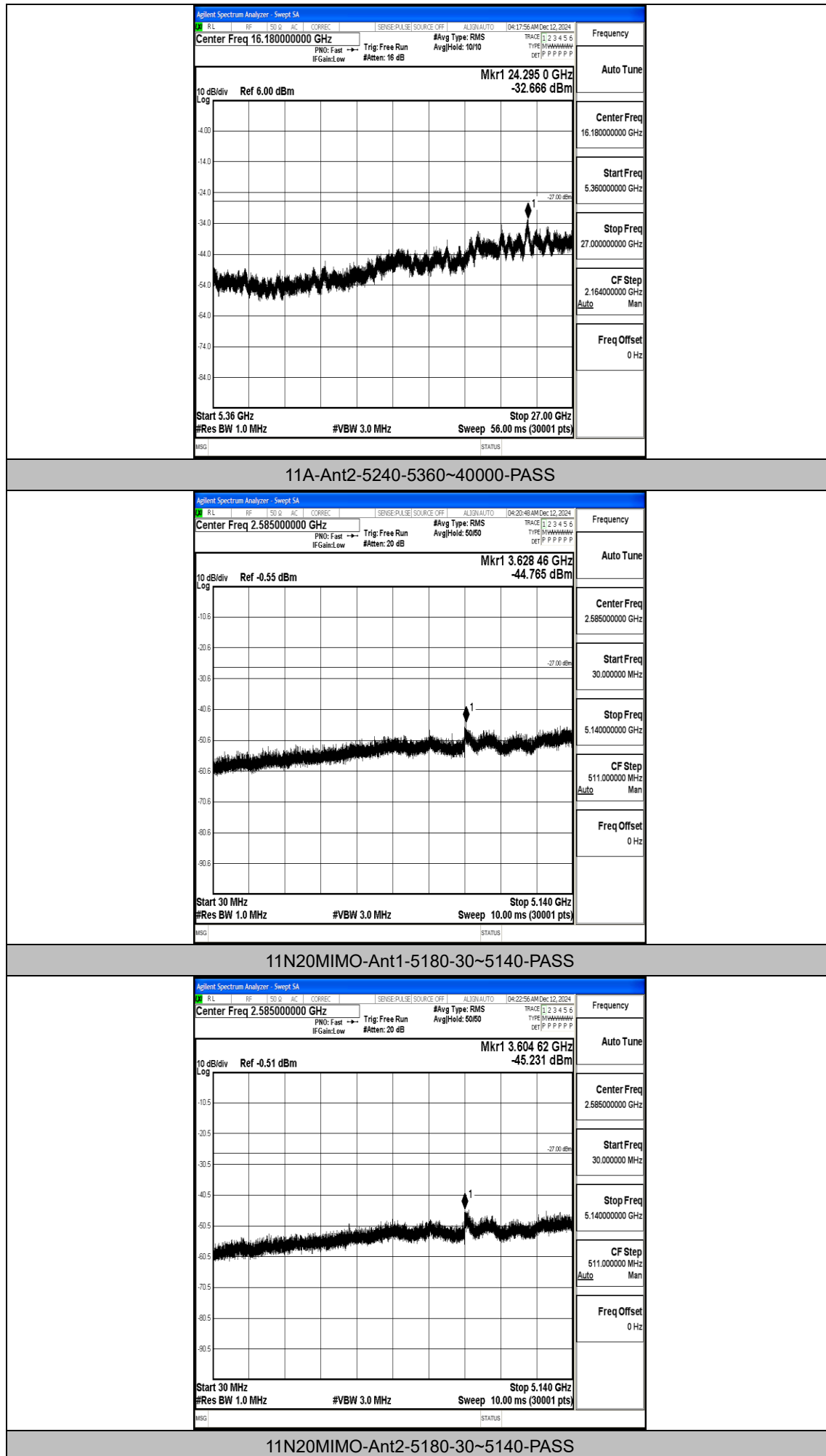


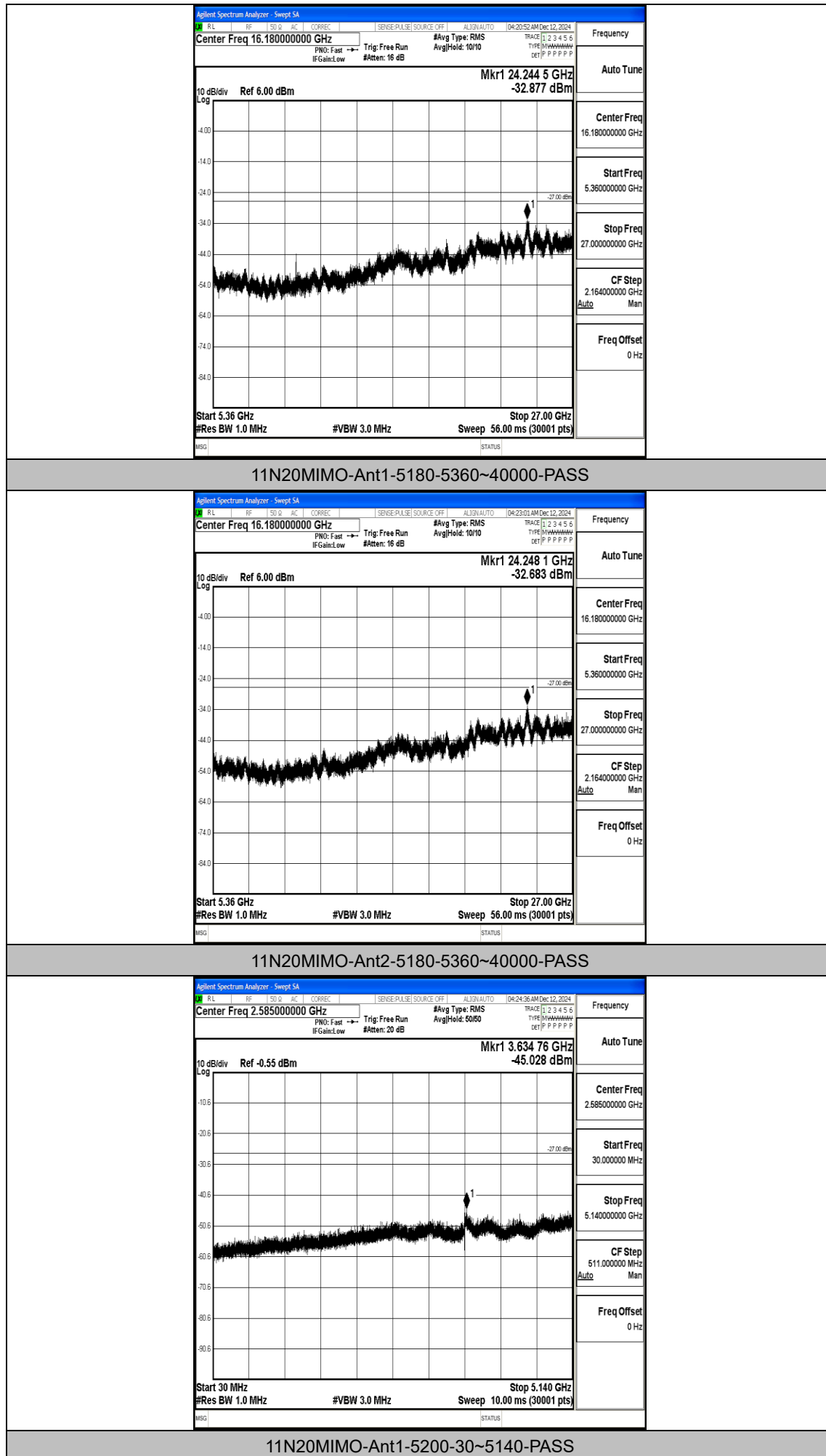
11A-Ant1-5200-5360~40000-PASS

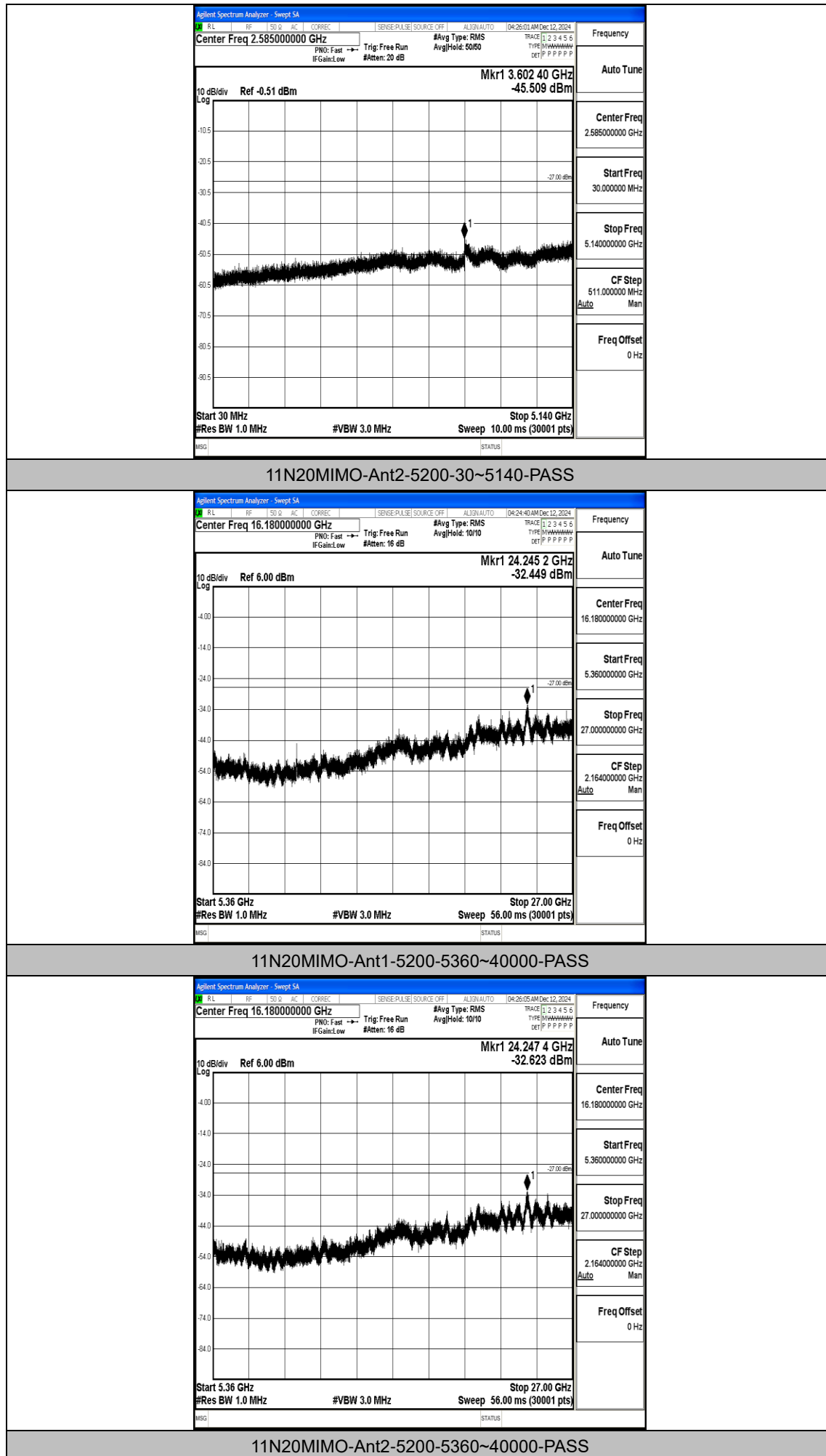


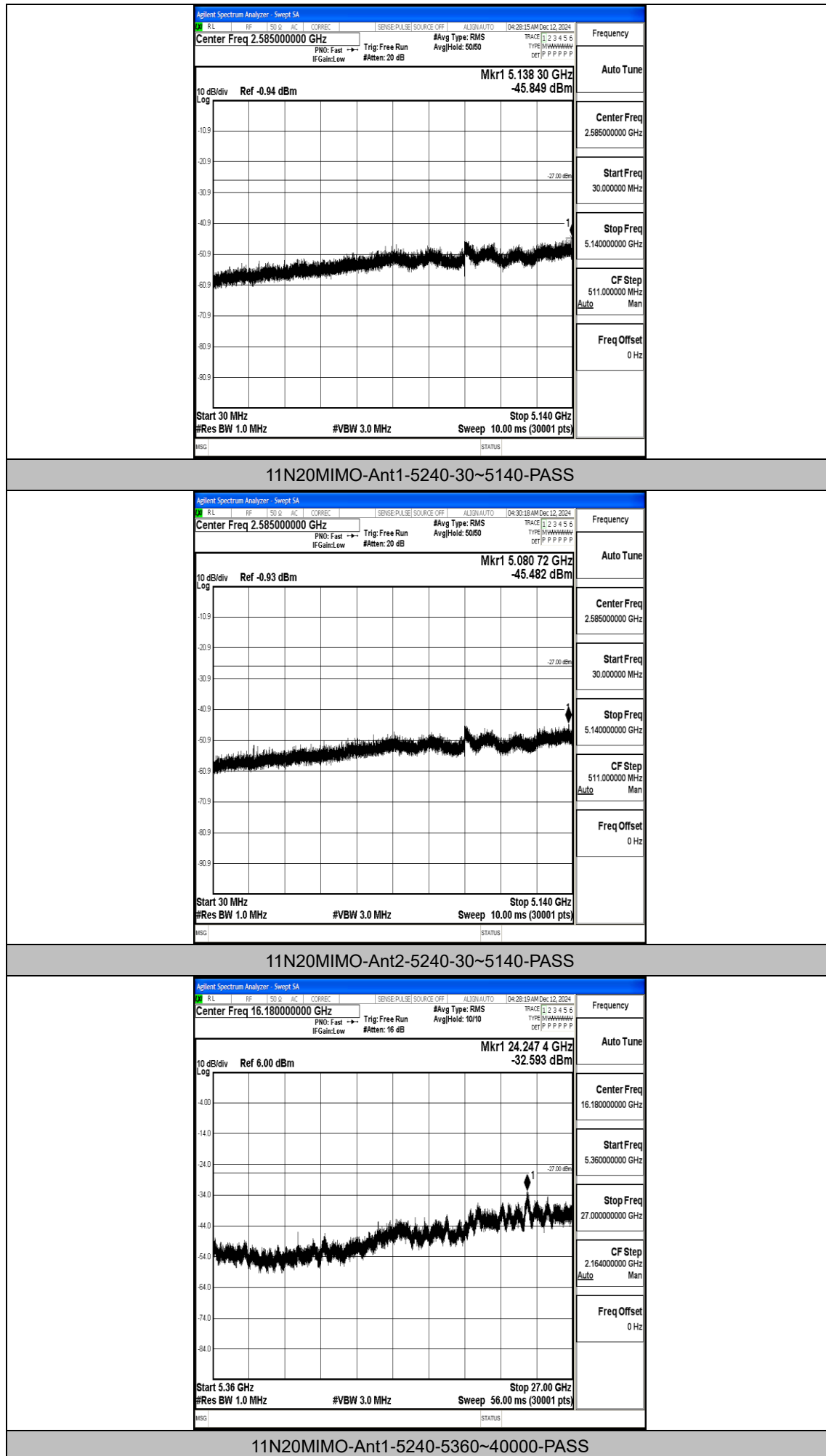
11A-Ant2-5200-5360~40000-PASS

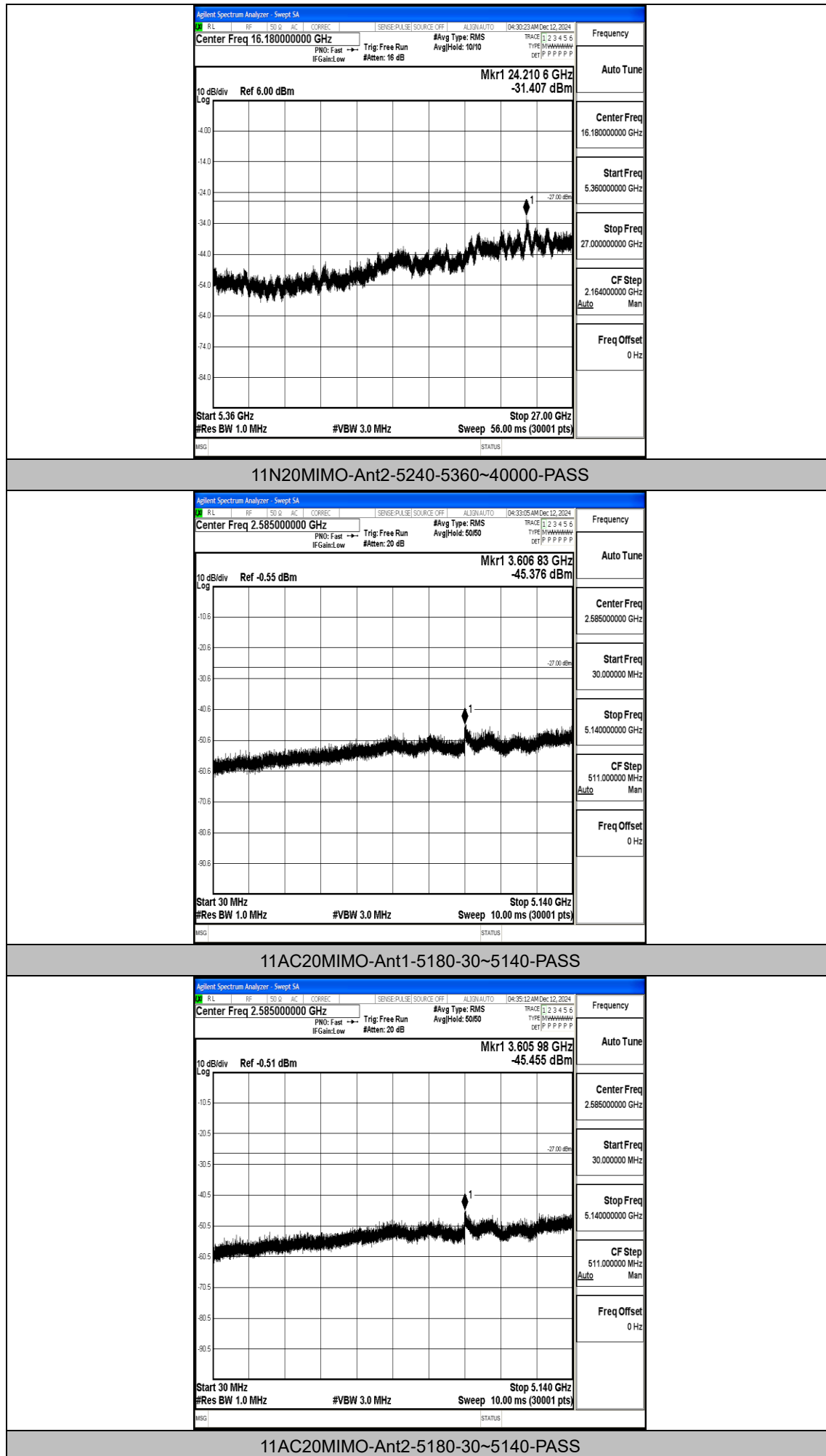


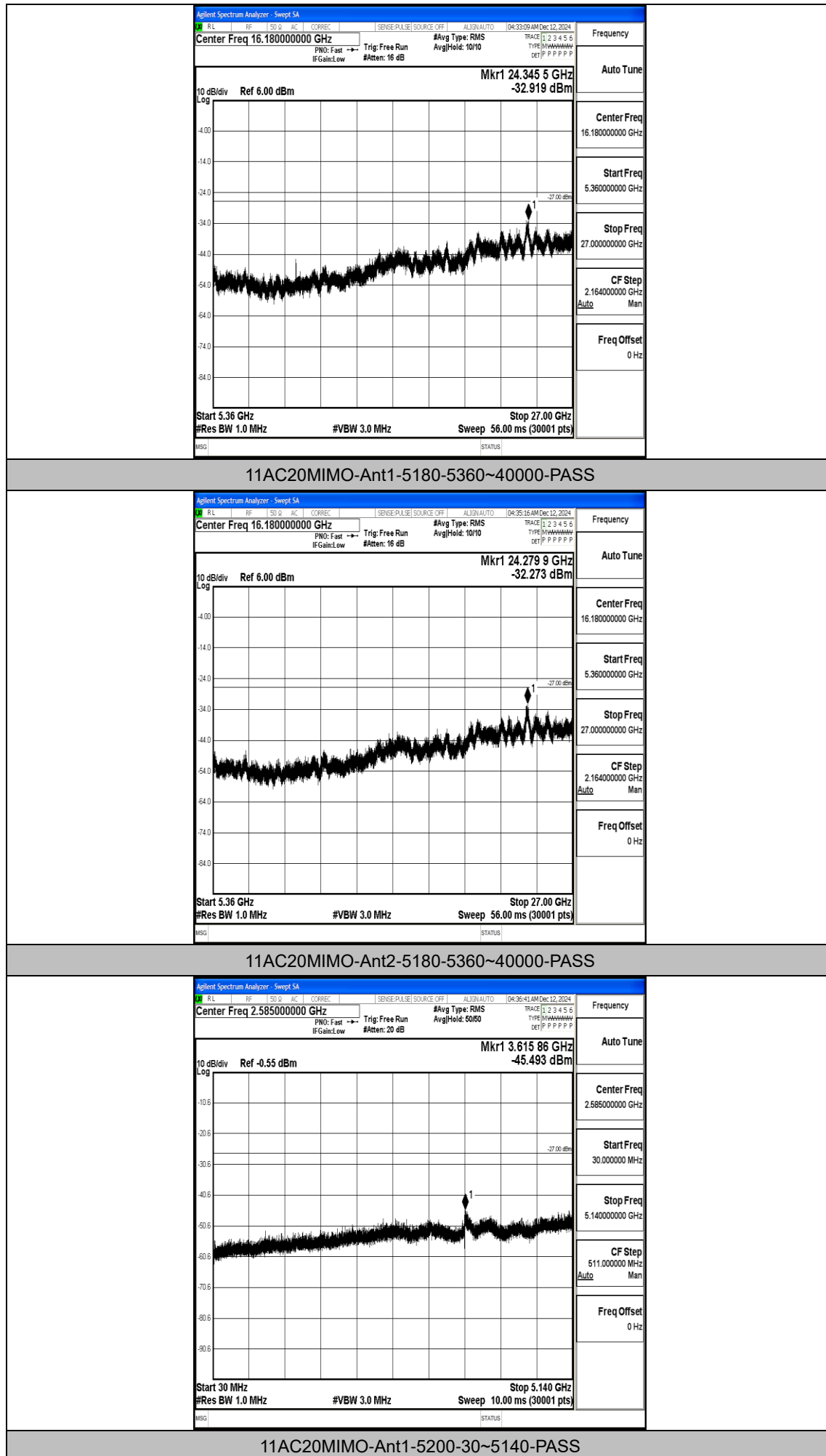


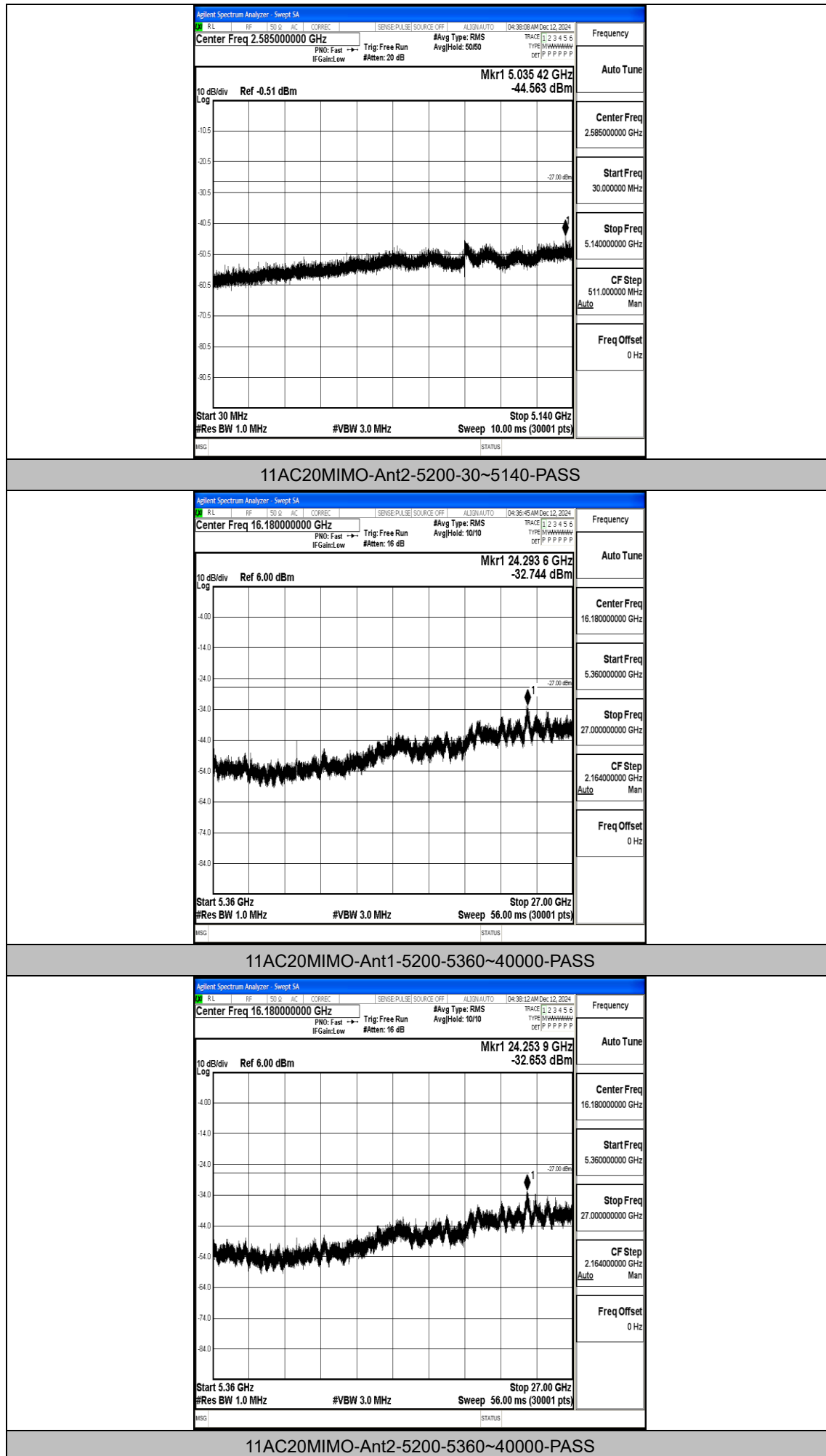


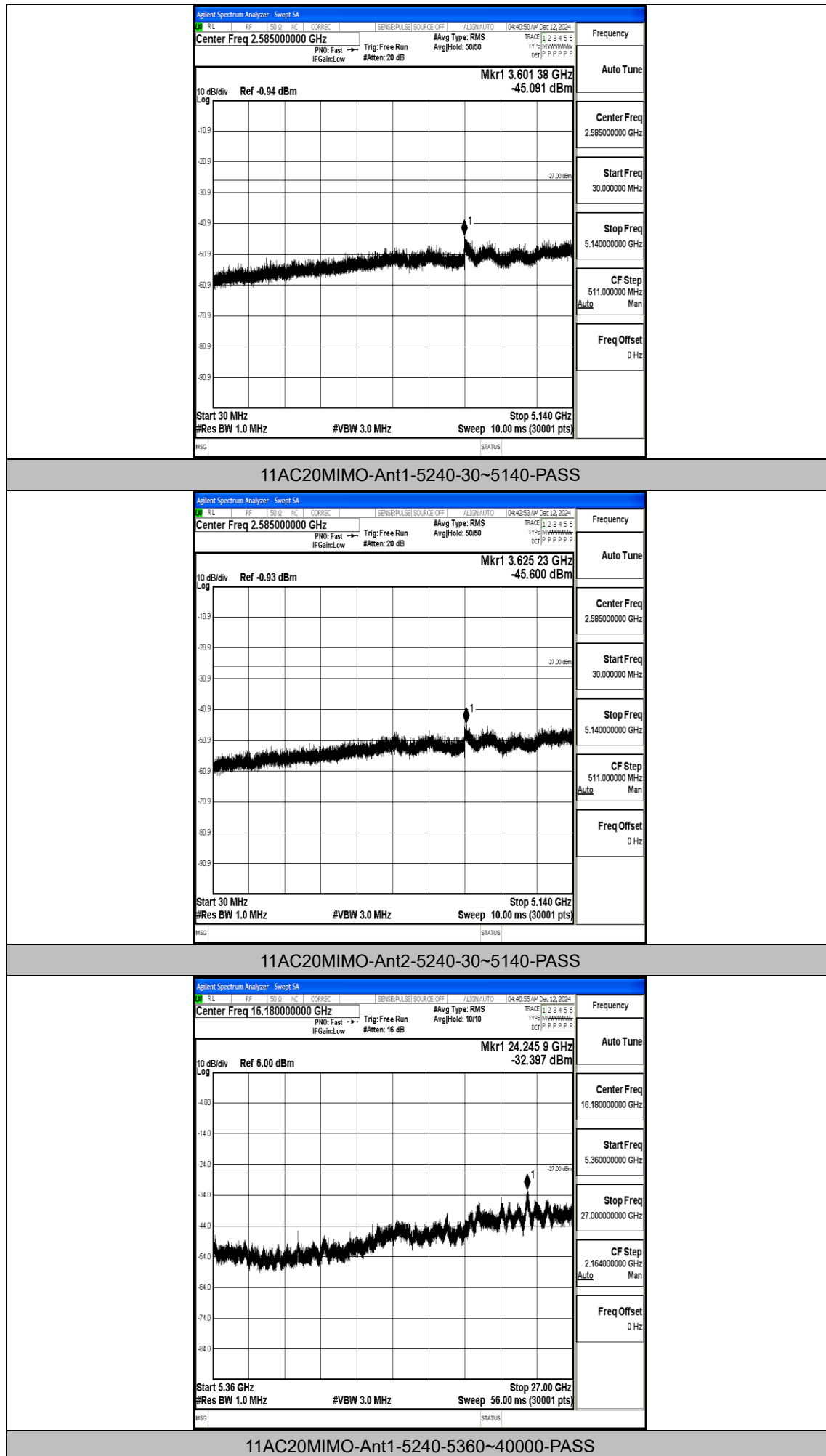


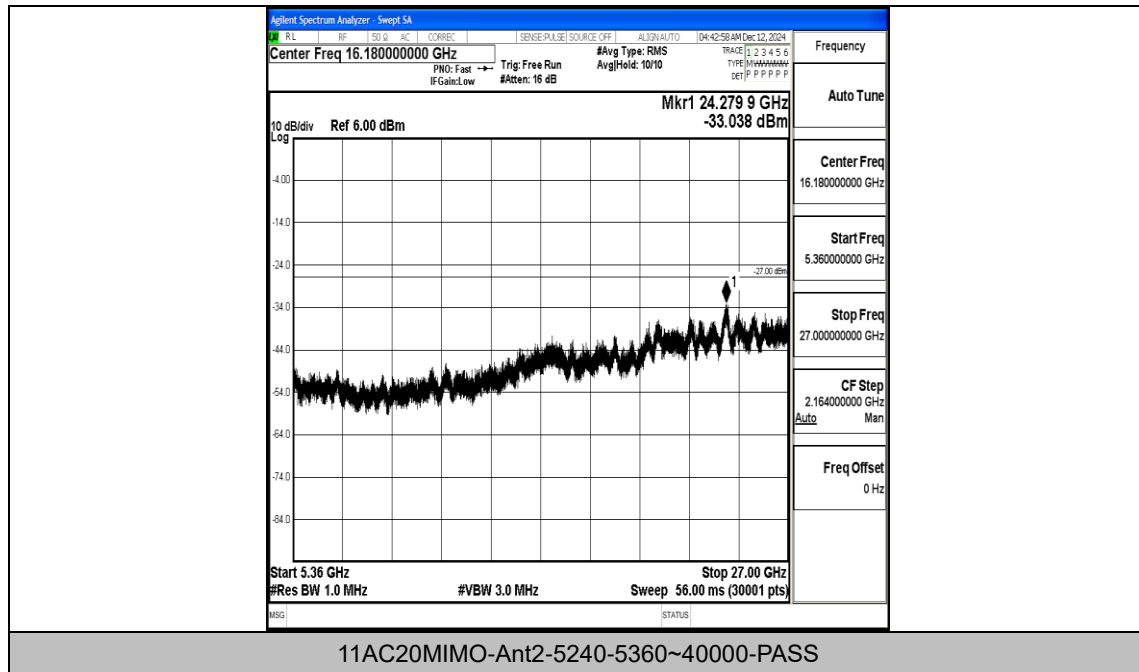










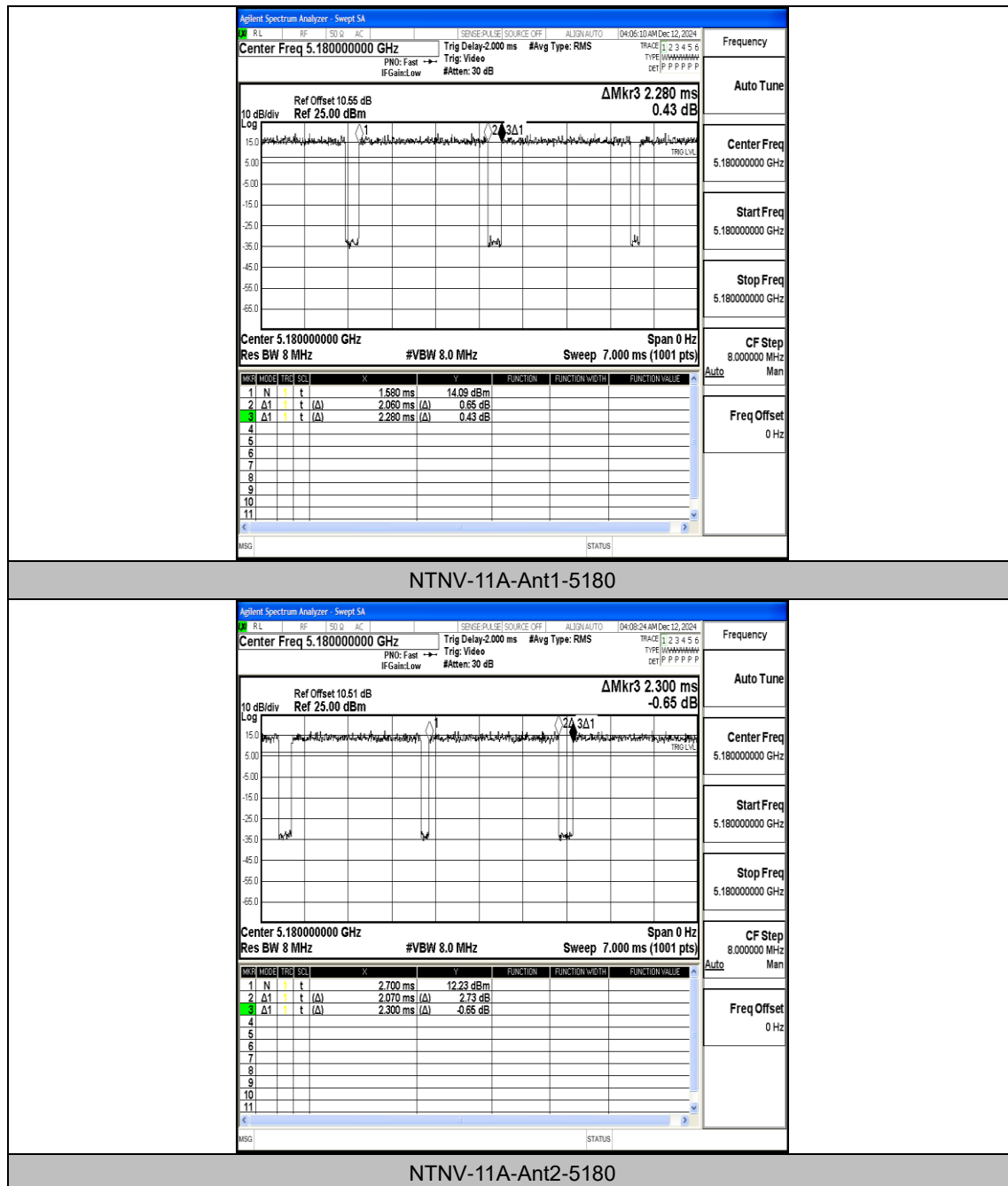


Appendix G: Duty Cycle

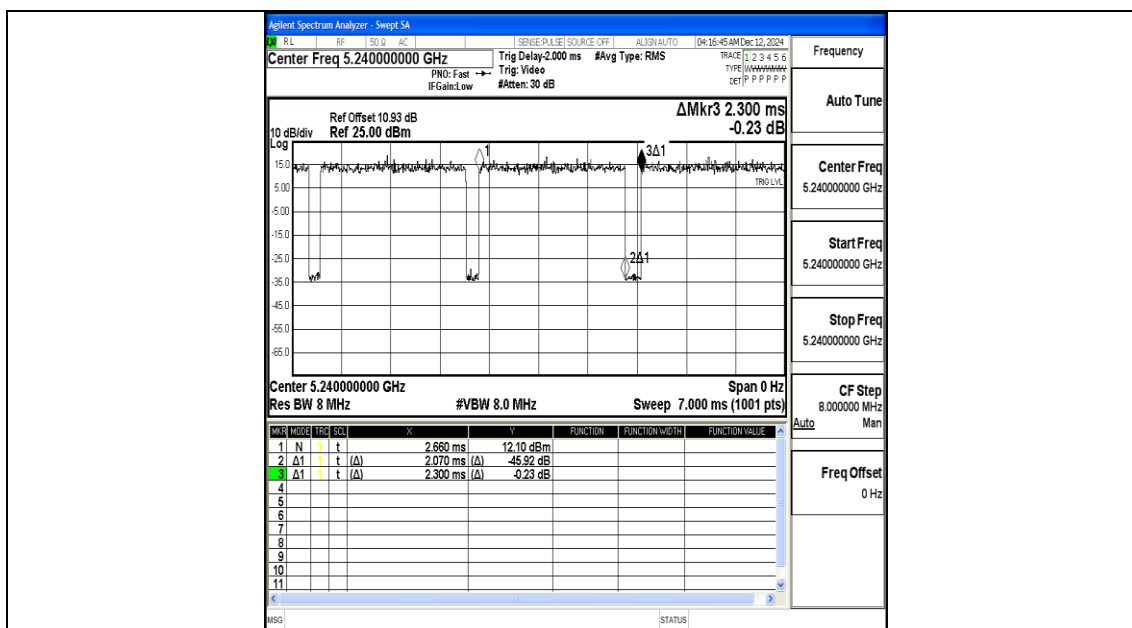
Test Result

Test Mode	Antenna	Frequency [MHz]	Transmission Duration [ms]	Transmission Period [ms]	Duty Cycle [%]	Dc. Factor [%]	1/T [kHz]
11A	Ant1	5180	2.06	2.28	90.35	0.44	0.49
11A	Ant2	5180	2.07	2.30	90.00	0.46	0.48
11A	Ant1	5200	2.06	2.29	89.96	0.46	0.49
11A	Ant2	5200	2.07	2.18	94.95	0.23	0.48
11A	Ant1	5240	2.07	2.30	90.00	0.46	0.48
11A	Ant2	5240	2.07	2.30	90.00	0.46	0.48
11N20MIMO	Ant1	5180	1.92	2.10	91.43	0.39	0.52
11N20MIMO	Ant2	5180	1.93	2.12	91.04	0.41	0.52
11N20MIMO	Ant1	5200	1.91	2.08	91.83	0.37	0.52
11N20MIMO	Ant2	5200	1.93	2.10	91.90	0.37	0.52
11N20MIMO	Ant1	5240	1.91	2.03	94.09	0.26	0.52
11N20MIMO	Ant2	5240	1.92	2.14	89.72	0.47	0.52
11AC20MIMO	Ant1	5180	1.94	2.12	91.51	0.39	0.52
11AC20MIMO	Ant2	5180	1.93	2.14	90.19	0.45	0.52
11AC20MIMO	Ant1	5200	1.93	2.17	88.94	0.51	0.52
11AC20MIMO	Ant2	5200	1.93	2.18	88.53	0.53	0.52
11AC20MIMO	Ant1	5240	1.93	2.17	88.94	0.51	0.52
11AC20MIMO	Ant2	5240	1.94	2.19	88.58	0.53	0.52

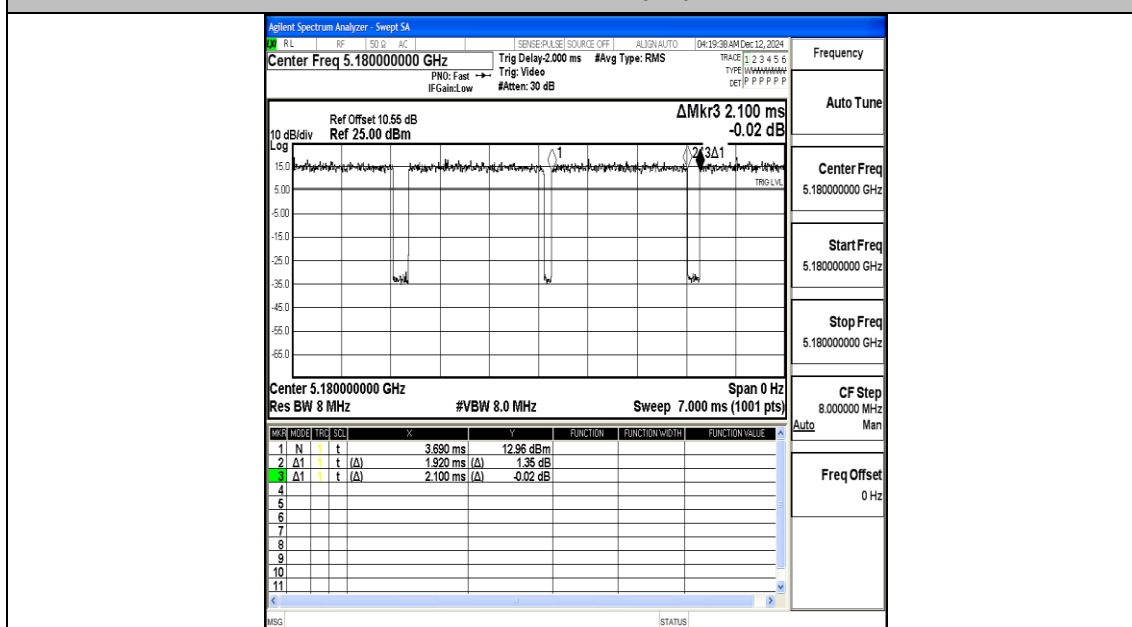
Test Graphs



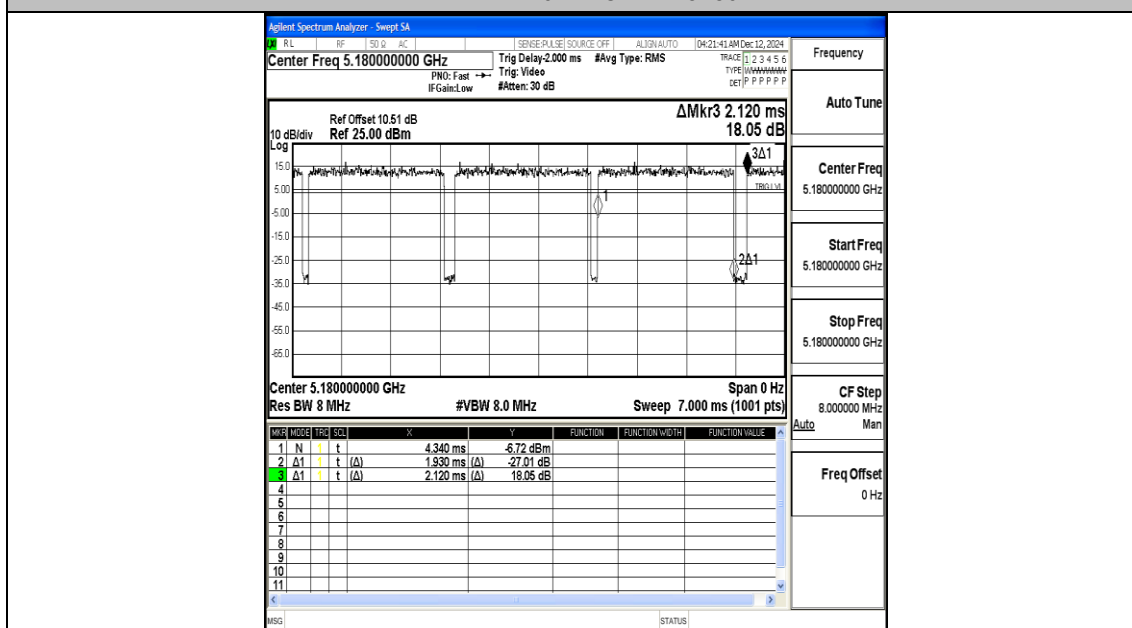




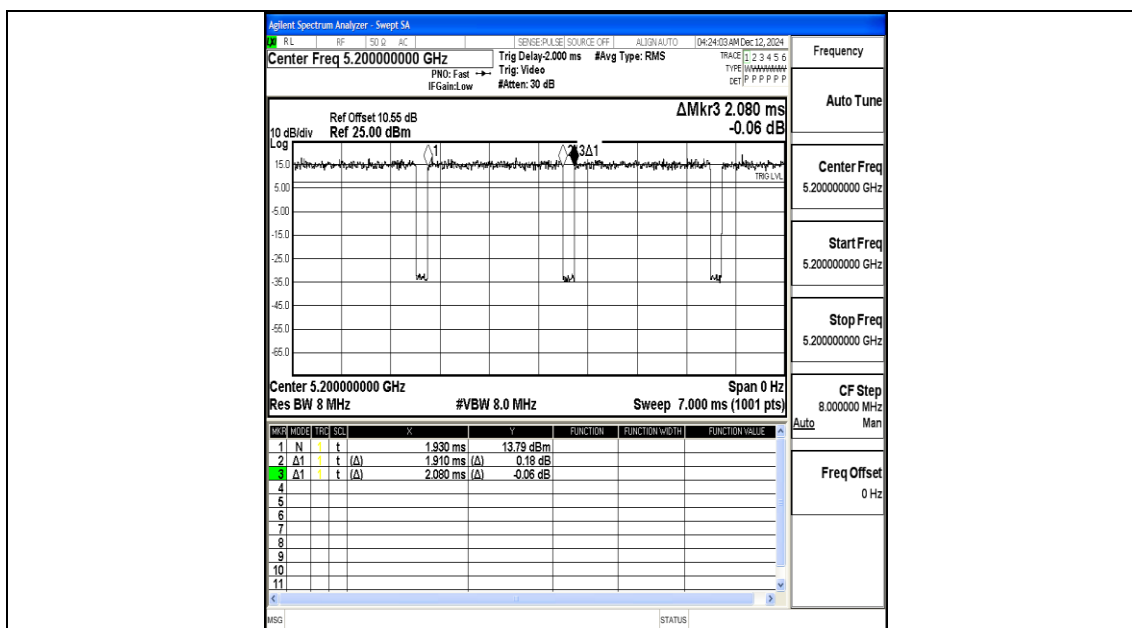
NTNV-11A-Ant2-5240



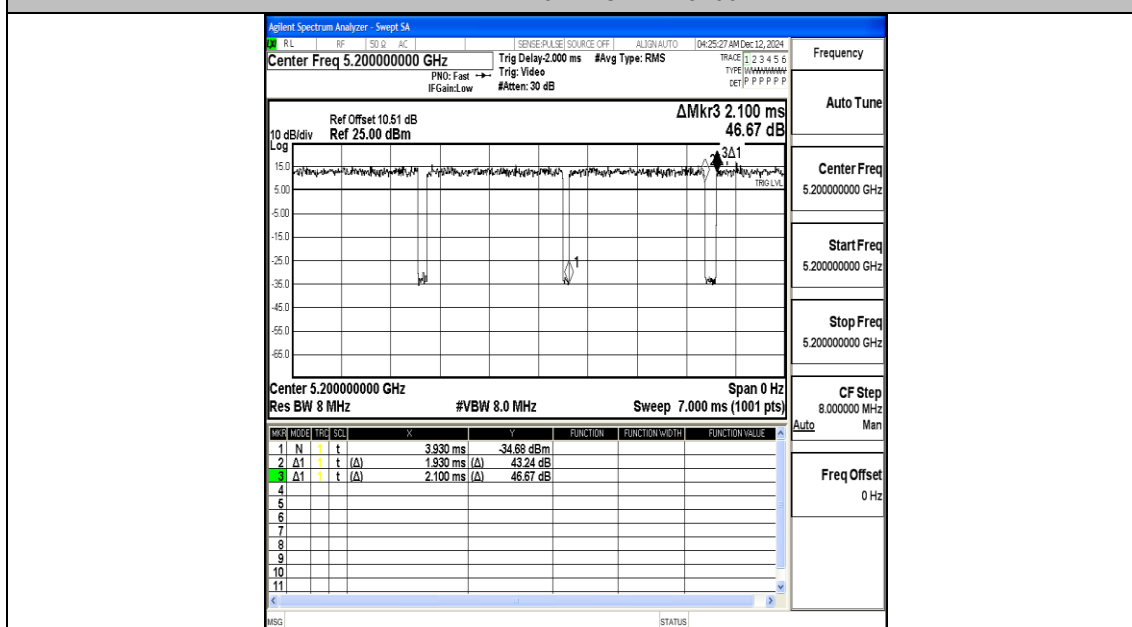
NTNV-11N20MIMO-Ant1-5180



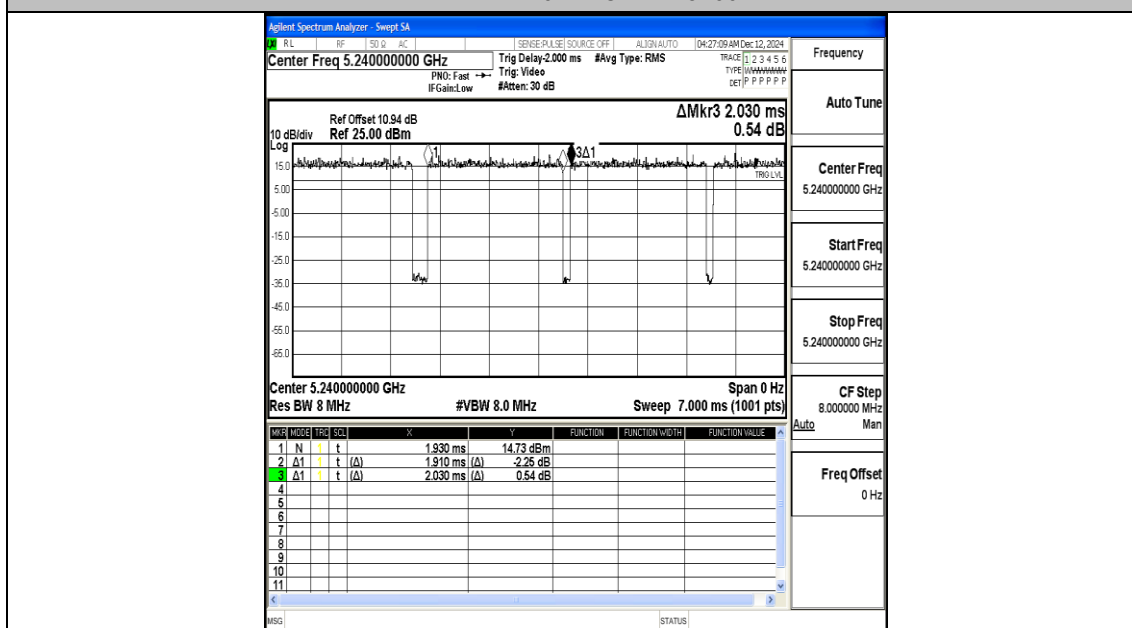
NTNV-11N20MIMO-Ant2-5180



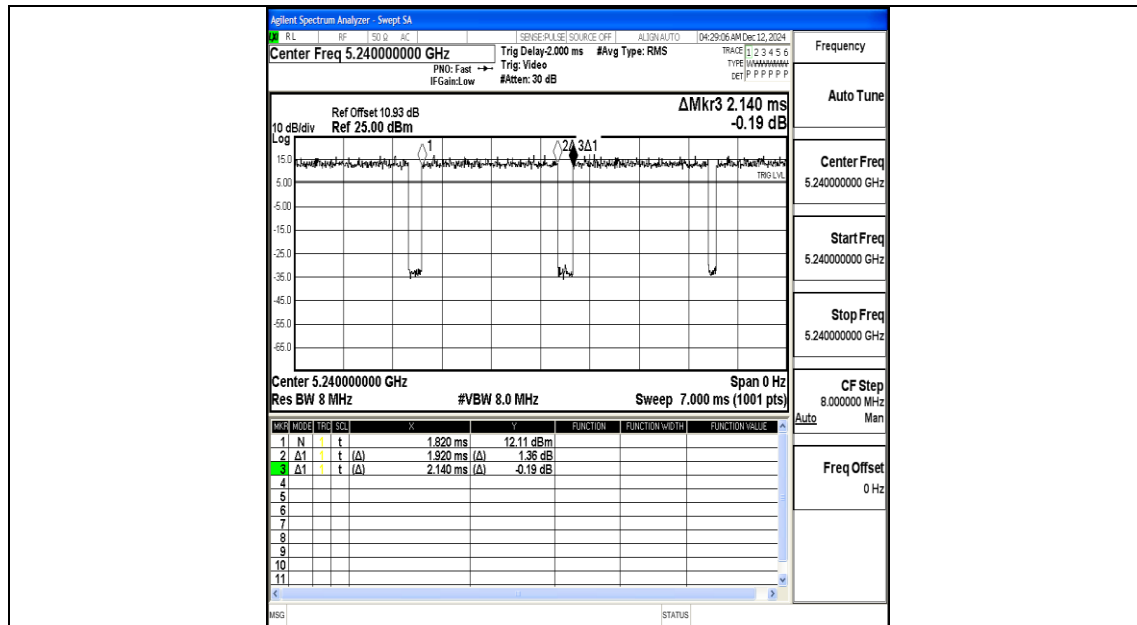
NTNV-11N20MIMO-Ant1-5200



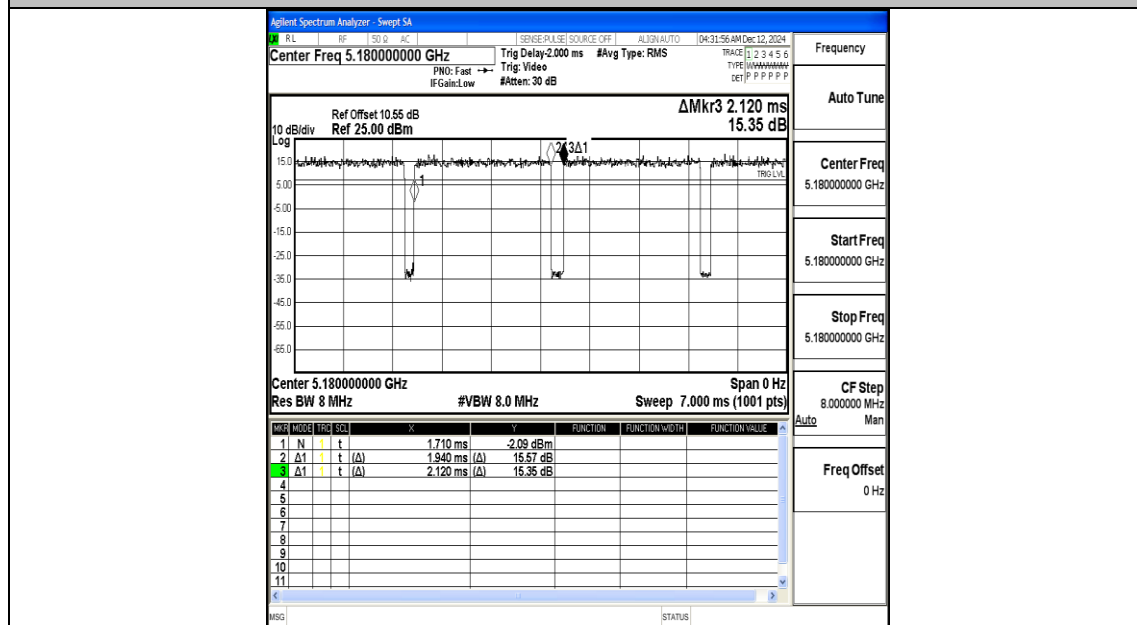
NTNV-11N20MIMO-Ant2-5200



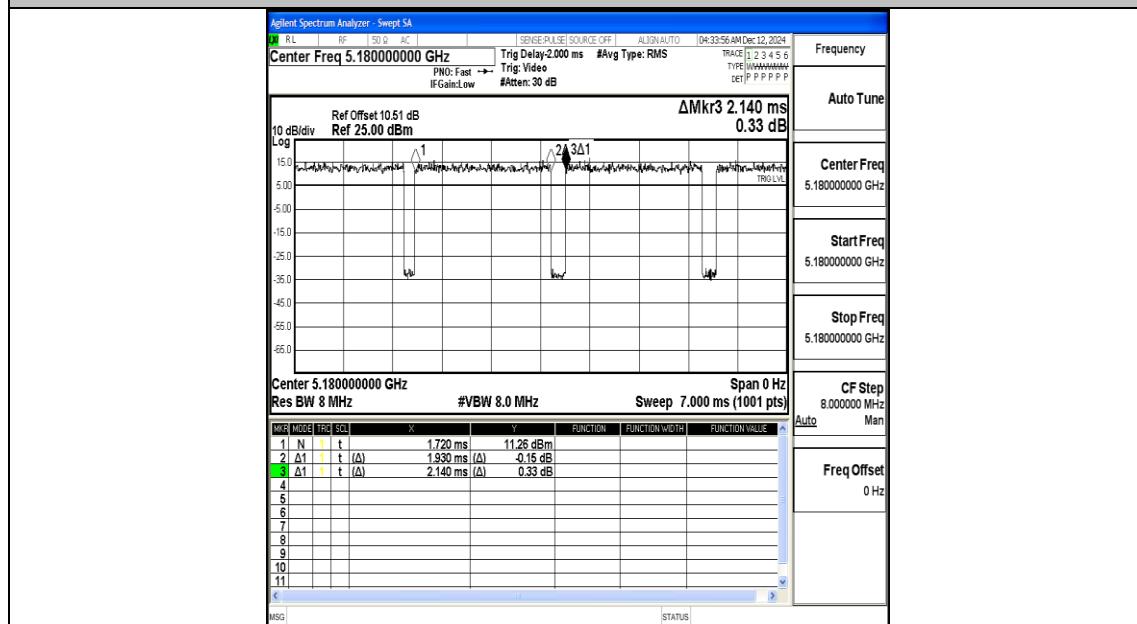
NTNV-11N20MIMO-Ant1-5240



NTNV-11N20MIMO-Ant2-5240



NTNV-11AC20MIMO-Ant1-5180



NTNV-11AC20MIMO-Ant2-5180

