

RF Test Data for RLAN(5.2G) (Conducted Measurement)

Product Name: R/C DRONE

Trade Mark: N/A

Test Model: H869SW

FCC ID: 2AKPPFL869

Environmental Conditions

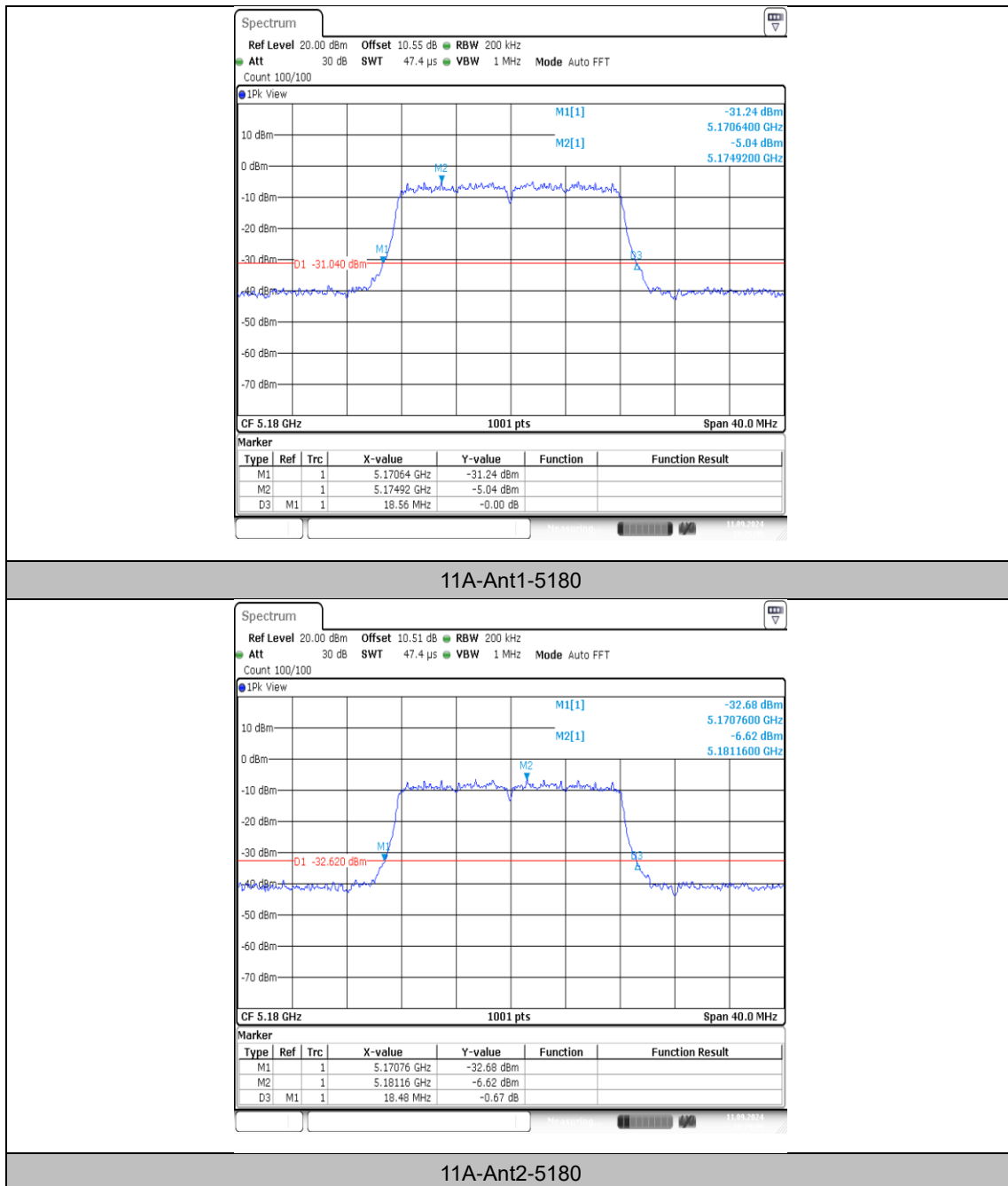
Temperature:	23.8℃
Relative Humidity:	58%
ATM Pressure:	100.0 kPa
Test Engineer:	Allen Lai
Supervised by:	Hugo Chen
NOTE	N/A

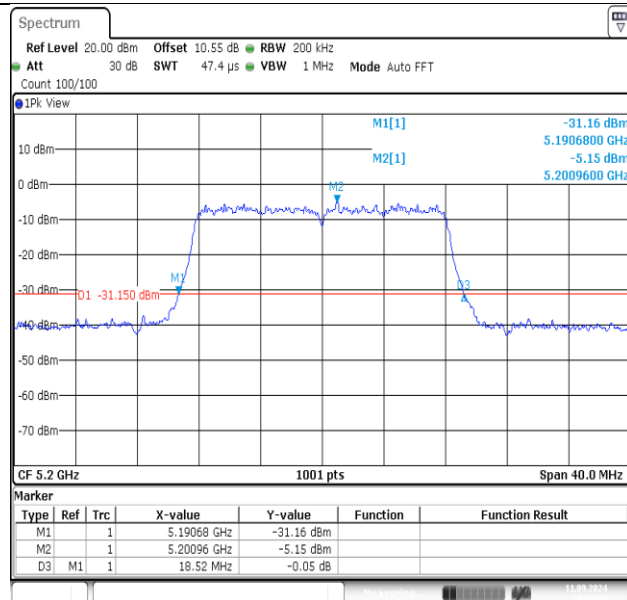
Appendix A1: Emission Bandwidth

Test Result

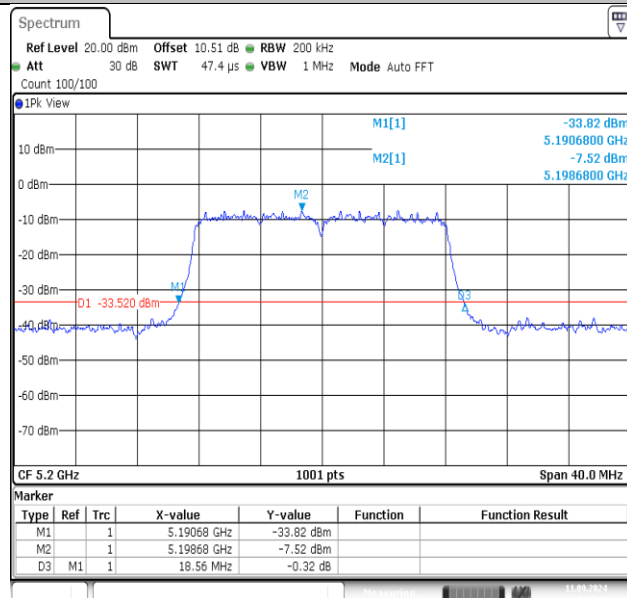
TestMode	Antenna	Frequency[MHz]	26db EBW [MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
11A	Ant1	5180	18.56	5170.64	5189.20	---	---
11A	Ant2	5180	18.48	5170.76	5189.24	---	---
11A	Ant1	5200	18.52	5190.68	5209.20	---	---
11A	Ant2	5200	18.56	5190.68	5209.24	---	---
11A	Ant1	5240	18.64	5230.56	5249.20	---	---
11A	Ant2	5240	18.68	5230.60	5249.28	---	---
11N20MIMO	Ant1	5180	19.44	5170.24	5189.68	---	---
11N20MIMO	Ant2	5180	19.60	5170.12	5189.72	---	---
11N20MIMO	Ant1	5200	19.52	5190.24	5209.76	---	---
11N20MIMO	Ant2	5200	19.64	5190.08	5209.72	---	---
11N20MIMO	Ant1	5240	19.60	5230.12	5249.72	---	---
11N20MIMO	Ant2	5240	19.40	5230.20	5249.60	---	---
11AC20MIMO	Ant1	5180	19.44	5170.24	5189.68	---	---
11AC20MIMO	Ant2	5180	19.52	5170.12	5189.64	---	---
11AC20MIMO	Ant1	5200	19.60	5190.08	5209.68	---	---
11AC20MIMO	Ant2	5200	19.64	5190.12	5209.76	---	---
11AC20MIMO	Ant1	5240	19.52	5230.12	5249.64	---	---
11AC20MIMO	Ant2	5240	19.52	5230.12	5249.64	---	---

Test Graphs

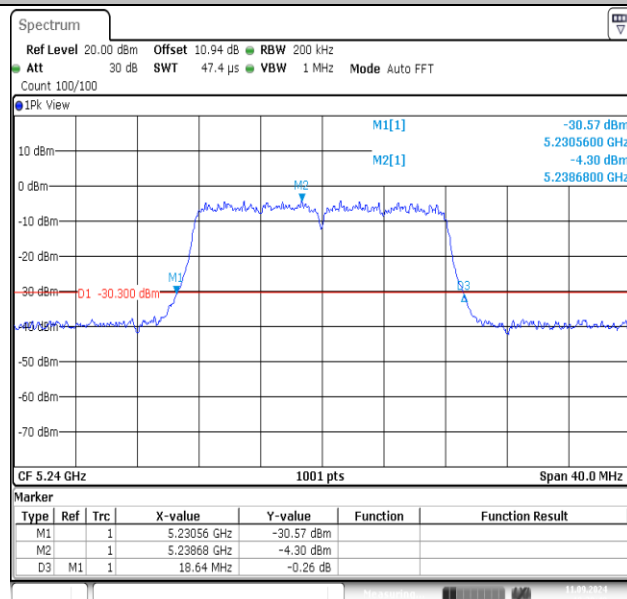




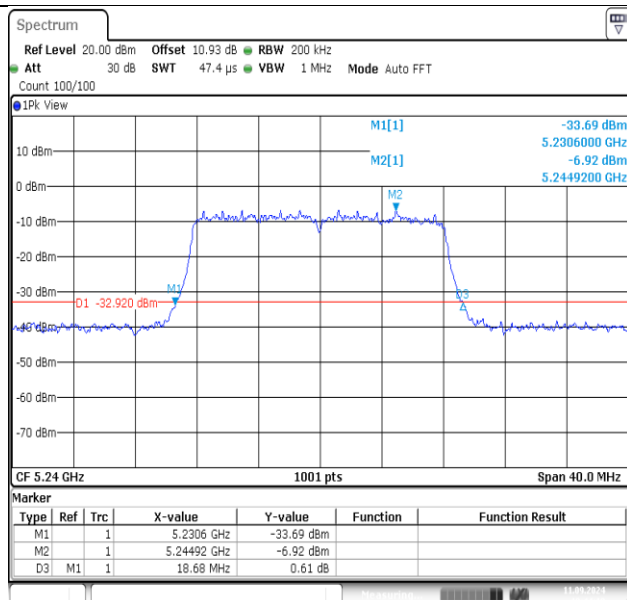
11A-Ant1-5200



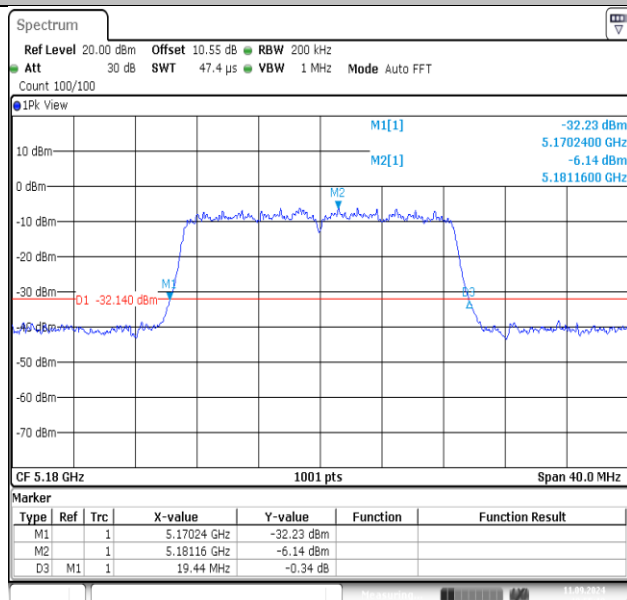
11A-Ant2-5200



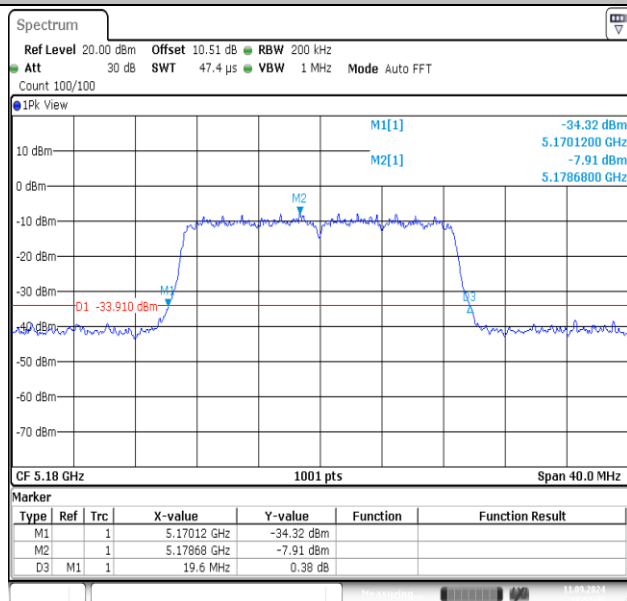
11A-Ant1-5240



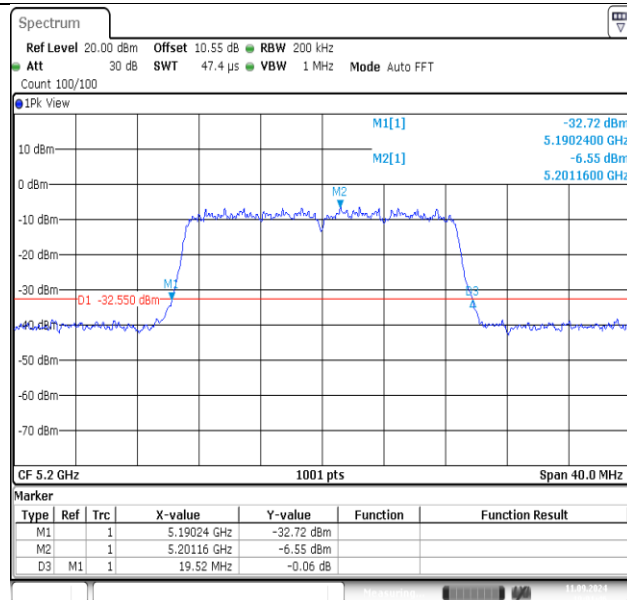
11A-Ant2-5240



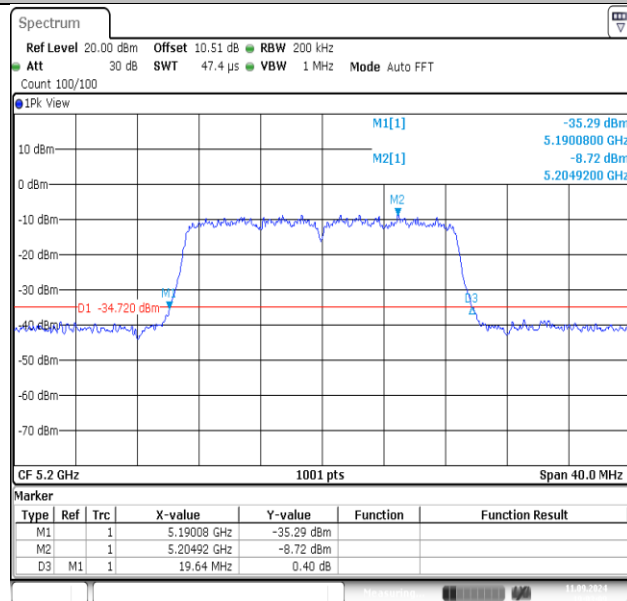
11N20MIMO-Ant1-5180



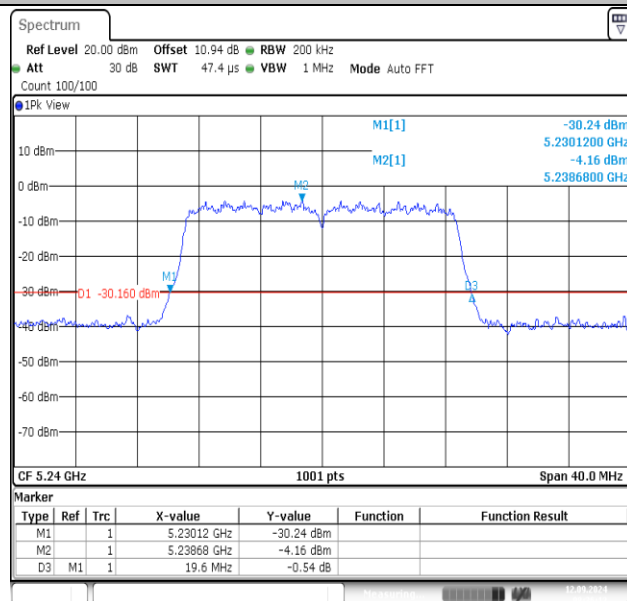
11N20MIMO-Ant2-5180



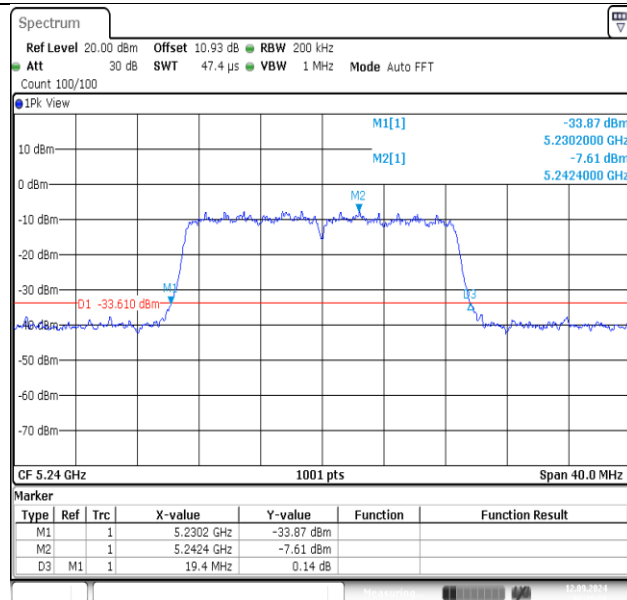
11N20MIMO-Ant1-5200



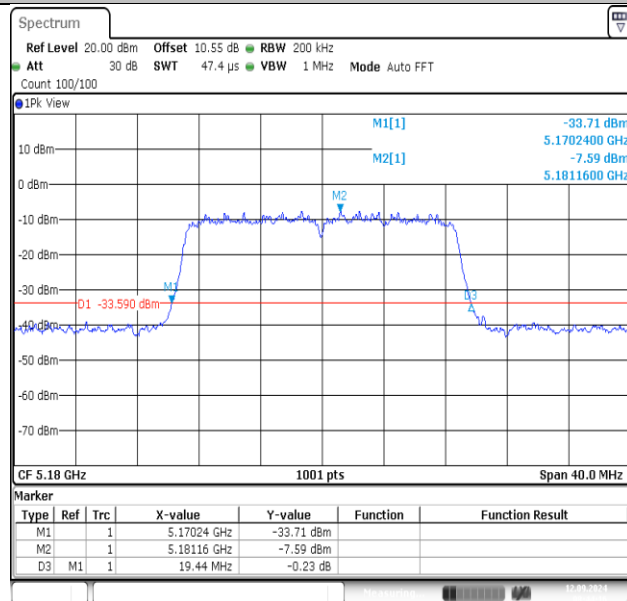
11N20MIMO-Ant2-5200



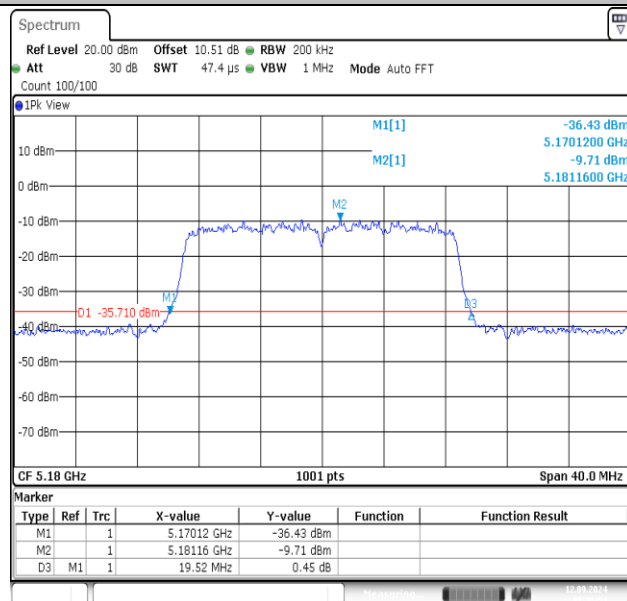
11N20MIMO-Ant1-5240



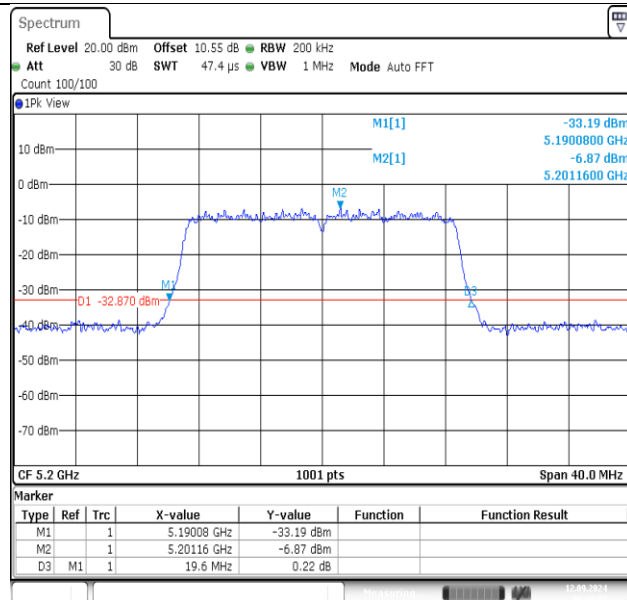
11N20MIMO-Ant2-5240



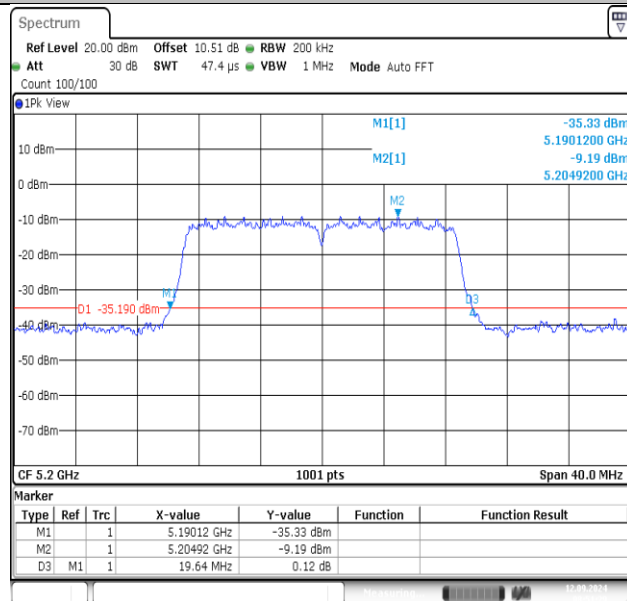
11AC20MIMO-Ant1-5180



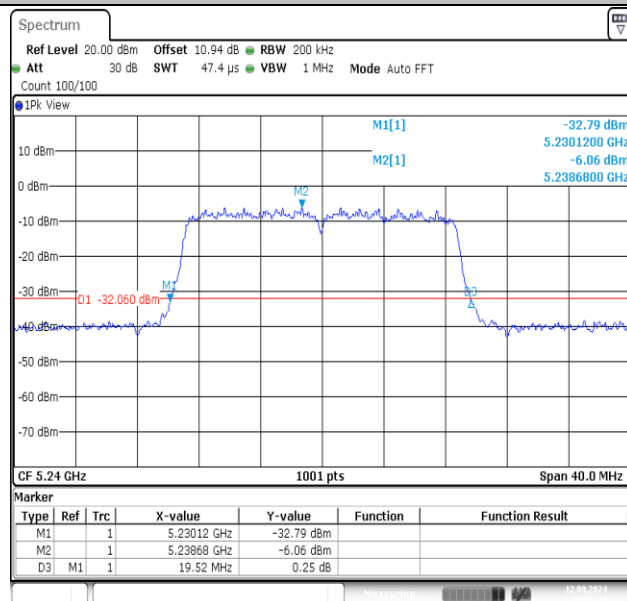
11AC20MIMO-Ant2-5180



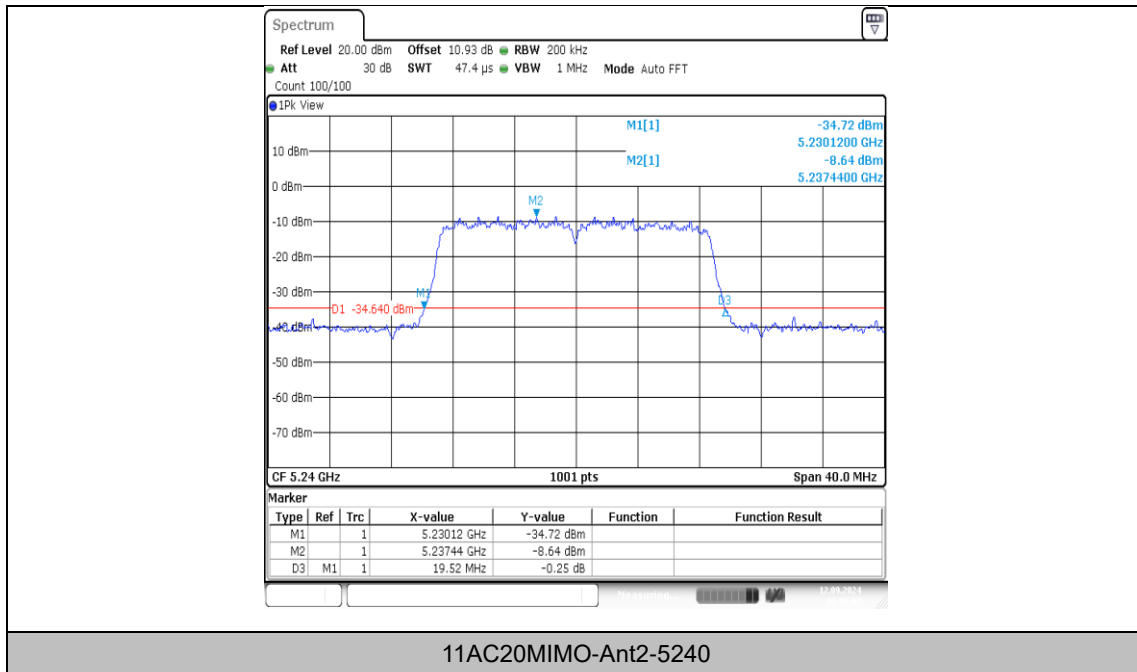
11AC20MIMO-Ant1-5200



11AC20MIMO-Ant2-5200



11AC20MIMO-Ant1-5240

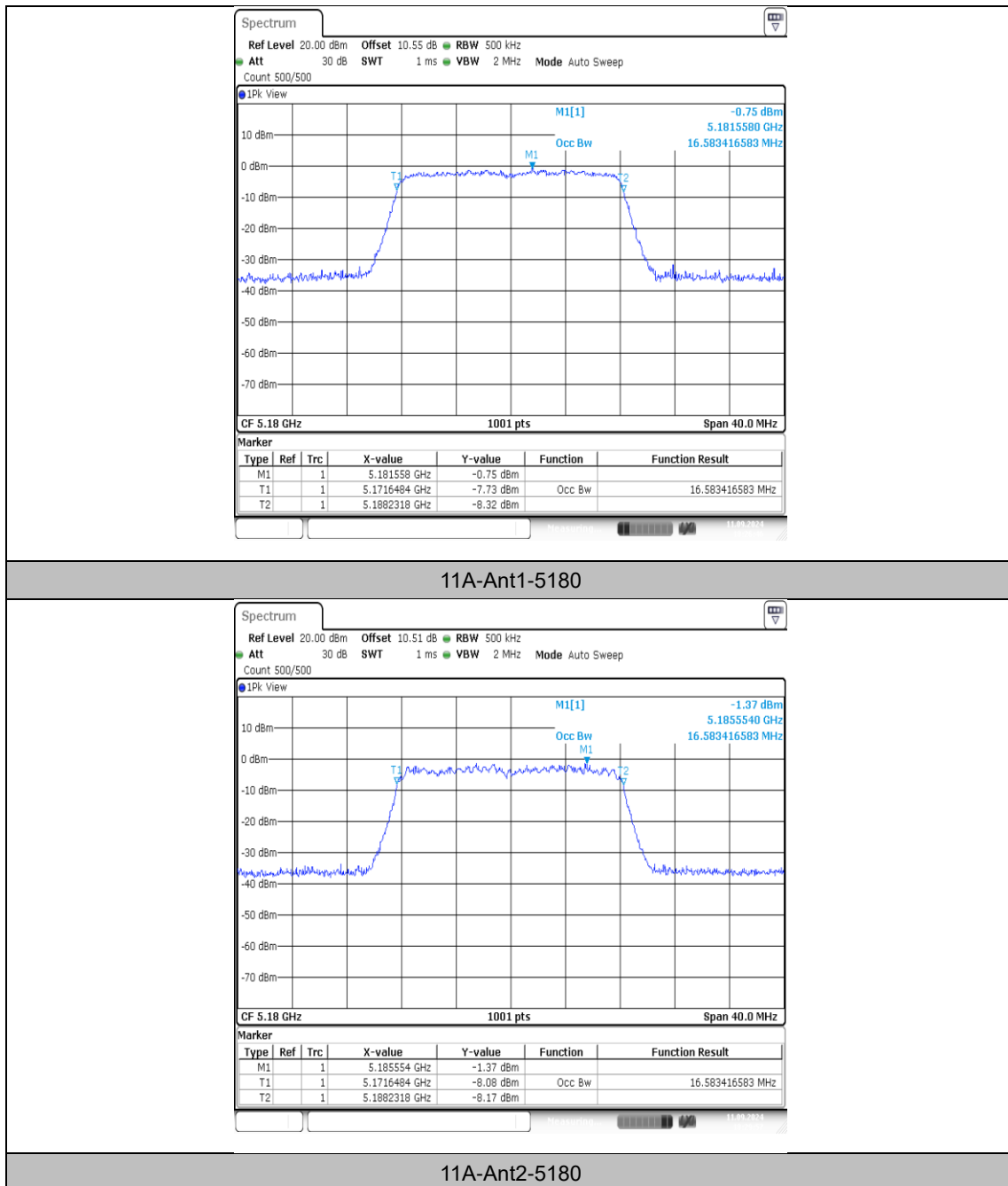


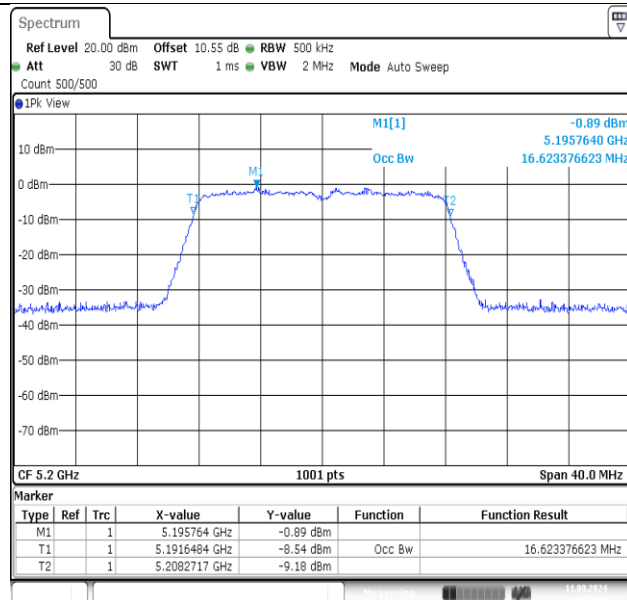
Appendix A2: Occupied channel bandwidth

Test Result

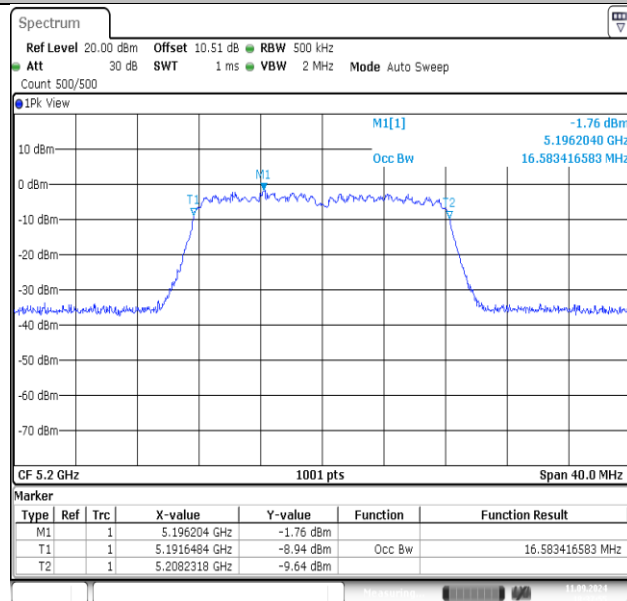
TestMode	Antenna	Frequency[MHz]	OCB [MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
11A	Ant1	5180	16.583	5171.6484	5188.2318	---	---
11A	Ant2	5180	16.583	5171.6484	5188.2318	---	---
11A	Ant1	5200	16.623	5191.6484	5208.2717	---	---
11A	Ant2	5200	16.583	5191.6484	5208.2318	---	---
11A	Ant1	5240	16.623	5231.6084	5248.2318	---	---
11A	Ant2	5240	16.543	5231.6484	5248.1918	---	---
11N20MIMO	Ant1	5180	17.702	5171.0889	5188.7912	---	---
11N20MIMO	Ant2	5180	17.742	5171.0889	5188.8312	---	---
11N20MIMO	Ant1	5200	17.782	5191.0490	5208.8312	---	---
11N20MIMO	Ant2	5200	17.822	5191.0090	5208.8312	---	---
11N20MIMO	Ant1	5240	17.782	5231.0490	5248.8312	---	---
11N20MIMO	Ant2	5240	17.782	5231.0490	5248.8312	---	---
11AC20MIMO	Ant1	5180	17.702	5171.0889	5188.7912	---	---
11AC20MIMO	Ant2	5180	17.782	5171.0490	5188.8312	---	---
11AC20MIMO	Ant1	5200	17.782	5191.0490	5208.8312	---	---
11AC20MIMO	Ant2	5200	17.782	5191.0490	5208.8312	---	---
11AC20MIMO	Ant1	5240	17.782	5231.0490	5248.8312	---	---
11AC20MIMO	Ant2	5240	17.782	5231.0490	5248.8312	---	---

Test Graphs

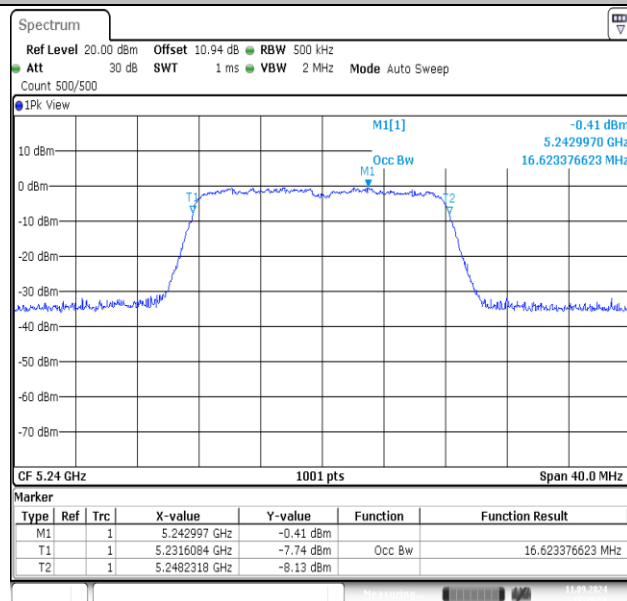




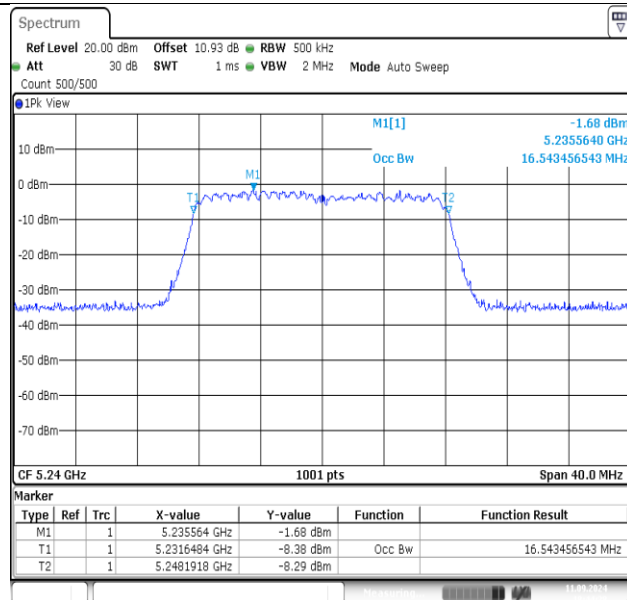
11A-Ant1-5200



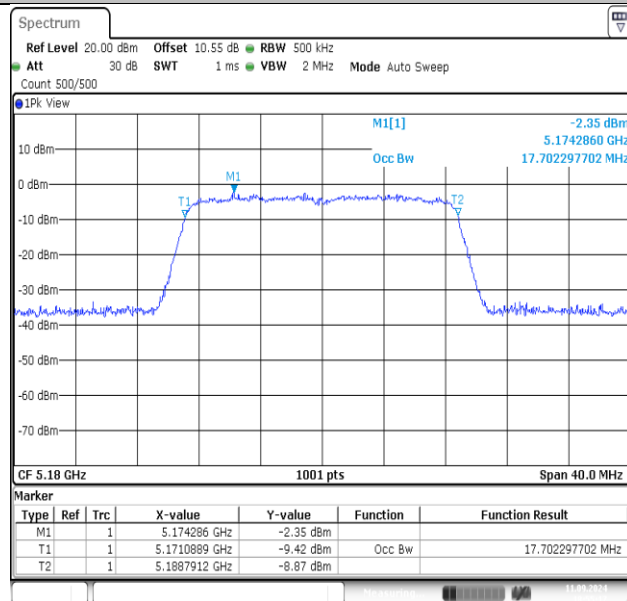
11A-Ant2-5200



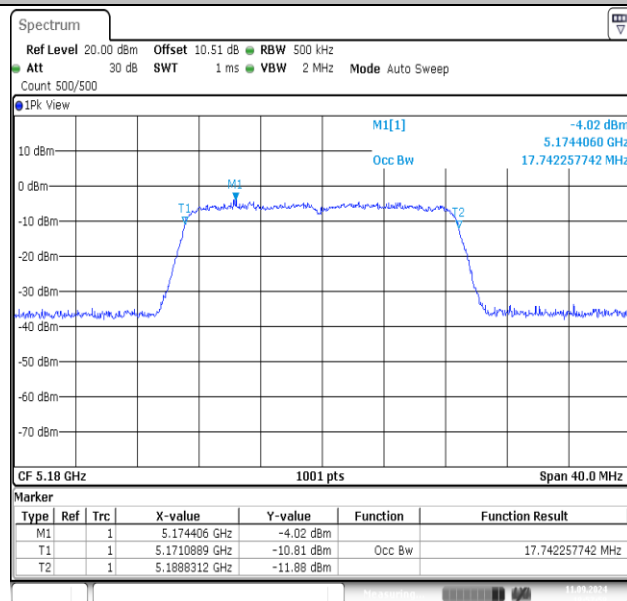
11A-Ant1-5240



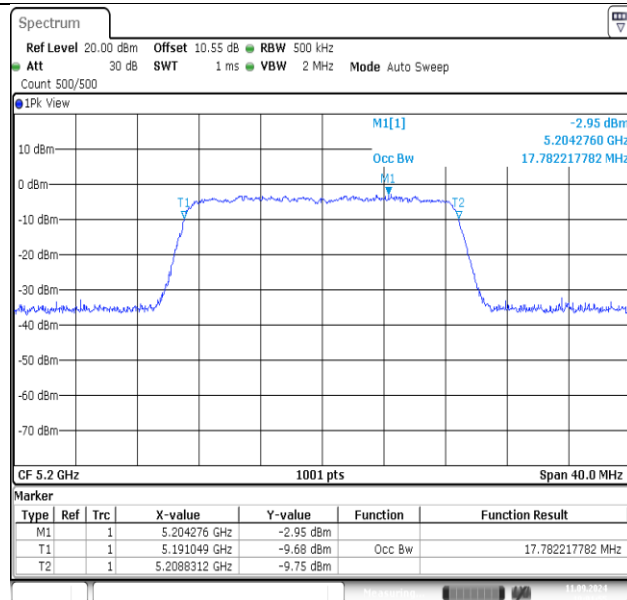
11A-Ant2-5240



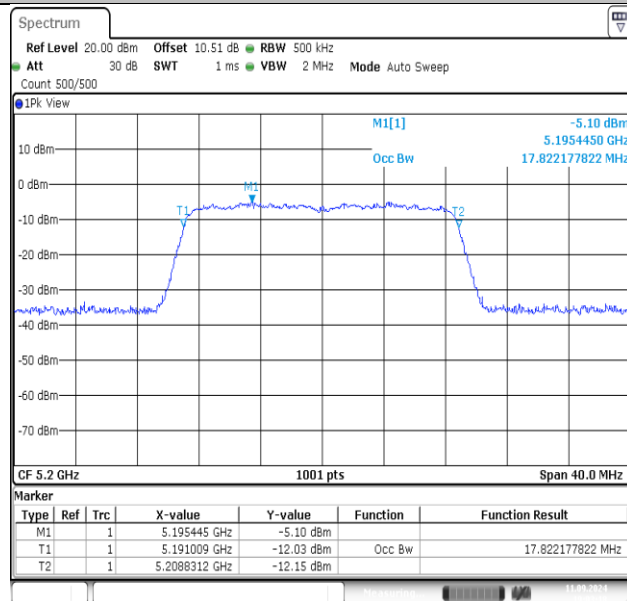
11N20MIMO-Ant1-5180



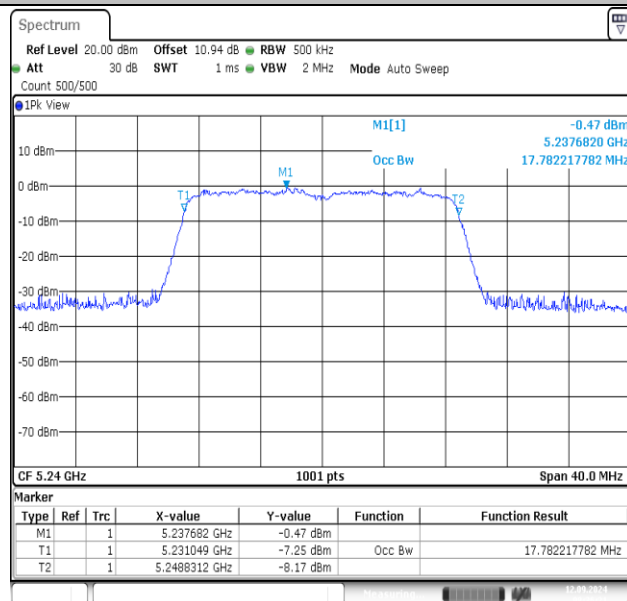
11N20MIMO-Ant2-5180



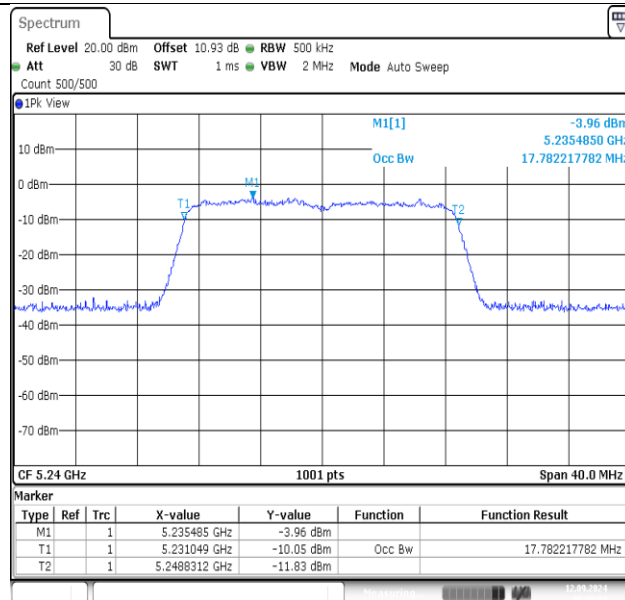
11N20MIMO-Ant1-5200



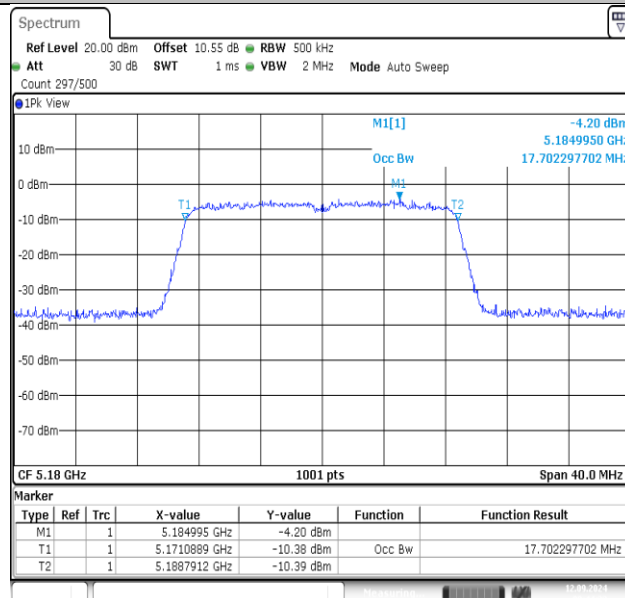
11N20MIMO-Ant2-5200



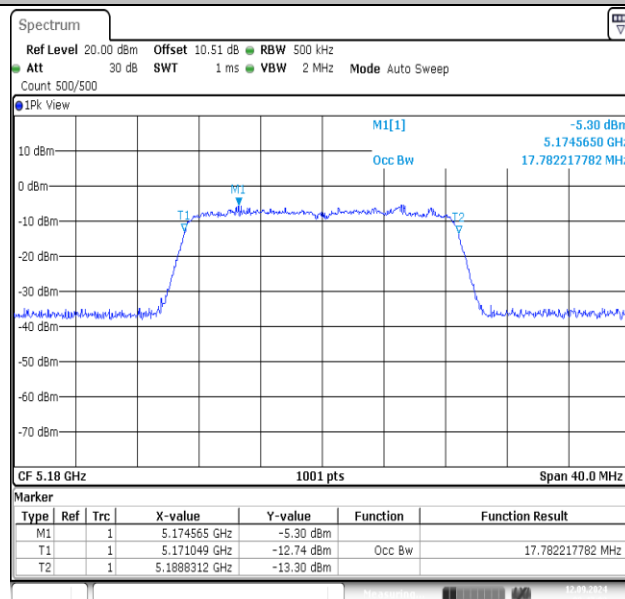
11N20MIMO-Ant1-5240



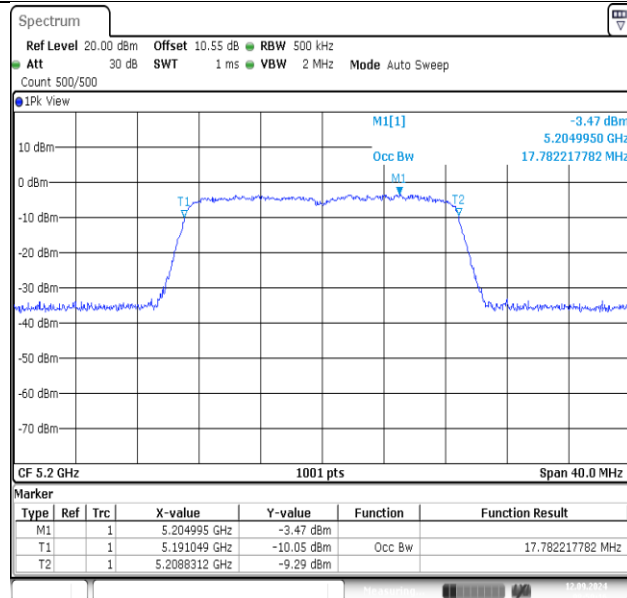
11N20MIMO-Ant2-5240



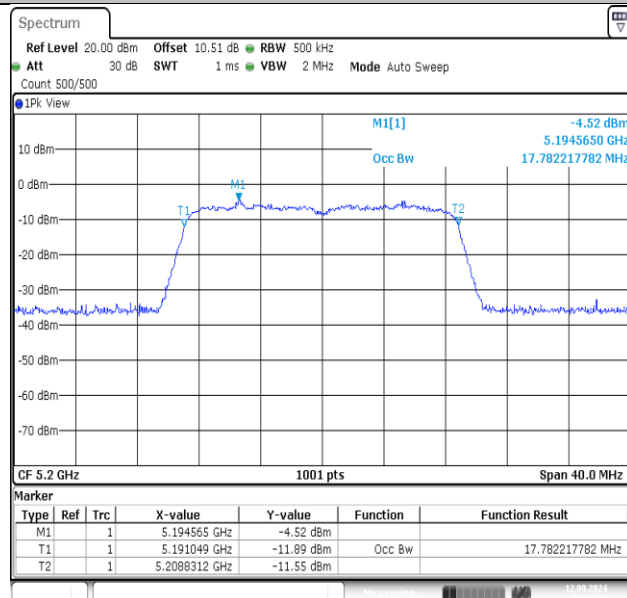
11AC20MIMO-Ant1-5180



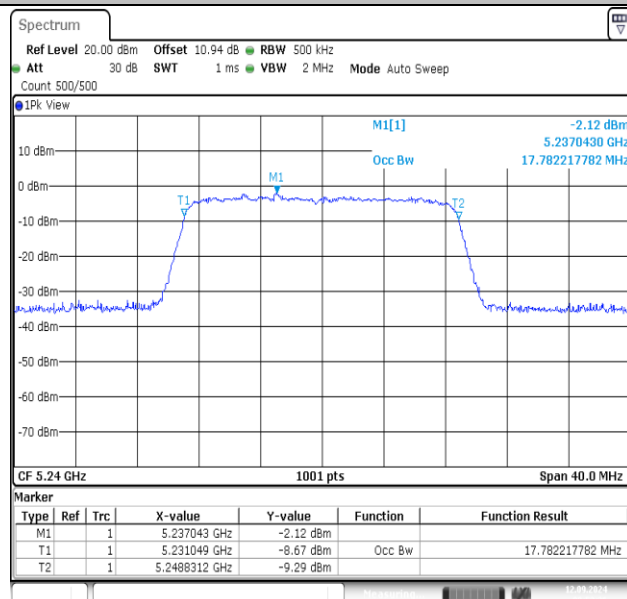
11AC20MIMO-Ant2-5180



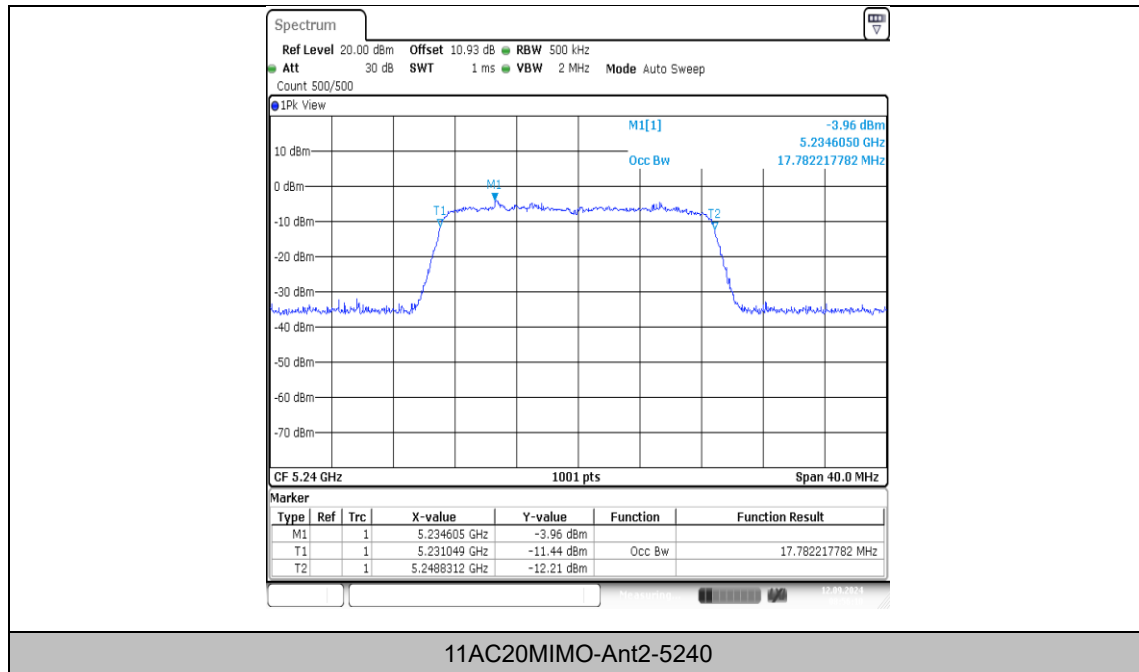
11AC20MIMO-Ant1-5200



11AC20MIMO-Ant2-5200



11AC20MIMO-Ant1-5240



Appendix B: Maximum conducted output power

Test Result

TestMode	Antenna	Frequency[MHz]	Conducted Power[dBm]	Conducted Limit[dBm]	Verdict
11A	Ant1	5180	3.39	≤23.98	PASS
11A	Ant2	5180	3.94	≤23.98	PASS
11A	Ant1	5200	5.31	≤23.98	PASS
11A	Ant2	5200	3.06	≤23.98	PASS
11A	Ant1	5240	6.18	≤23.98	PASS
11A	Ant2	5240	3.50	≤23.98	PASS
11N20MIMO	Ant1	5180	4.28	≤23.98	PASS
11N20MIMO	Ant2	5180	2.52	≤23.98	PASS
11N20MIMO	total	5180	6.50	≤23.98	PASS
11N20MIMO	Ant1	5200	3.75	≤23.98	PASS
11N20MIMO	Ant2	5200	1.77	≤23.98	PASS
11N20MIMO	total	5200	5.88	≤23.98	PASS
11N20MIMO	Ant1	5240	6.02	≤23.98	PASS
11N20MIMO	Ant2	5240	2.57	≤23.98	PASS
11N20MIMO	total	5240	7.64	≤23.98	PASS
11AC20MIMO	Ant1	5180	2.81	≤23.98	PASS
11AC20MIMO	Ant2	5180	0.82	≤23.98	PASS
11AC20MIMO	total	5180	4.94	≤23.98	PASS
11AC20MIMO	Ant1	5200	3.62	≤23.98	PASS
11AC20MIMO	Ant2	5200	1.40	≤23.98	PASS
11AC20MIMO	total	5200	5.66	≤23.98	PASS
11AC20MIMO	Ant1	5240	4.44	≤23.98	PASS
11AC20MIMO	Ant2	5240	1.78	≤23.98	PASS
11AC20MIMO	total	5240	6.32	≤23.98	PASS

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

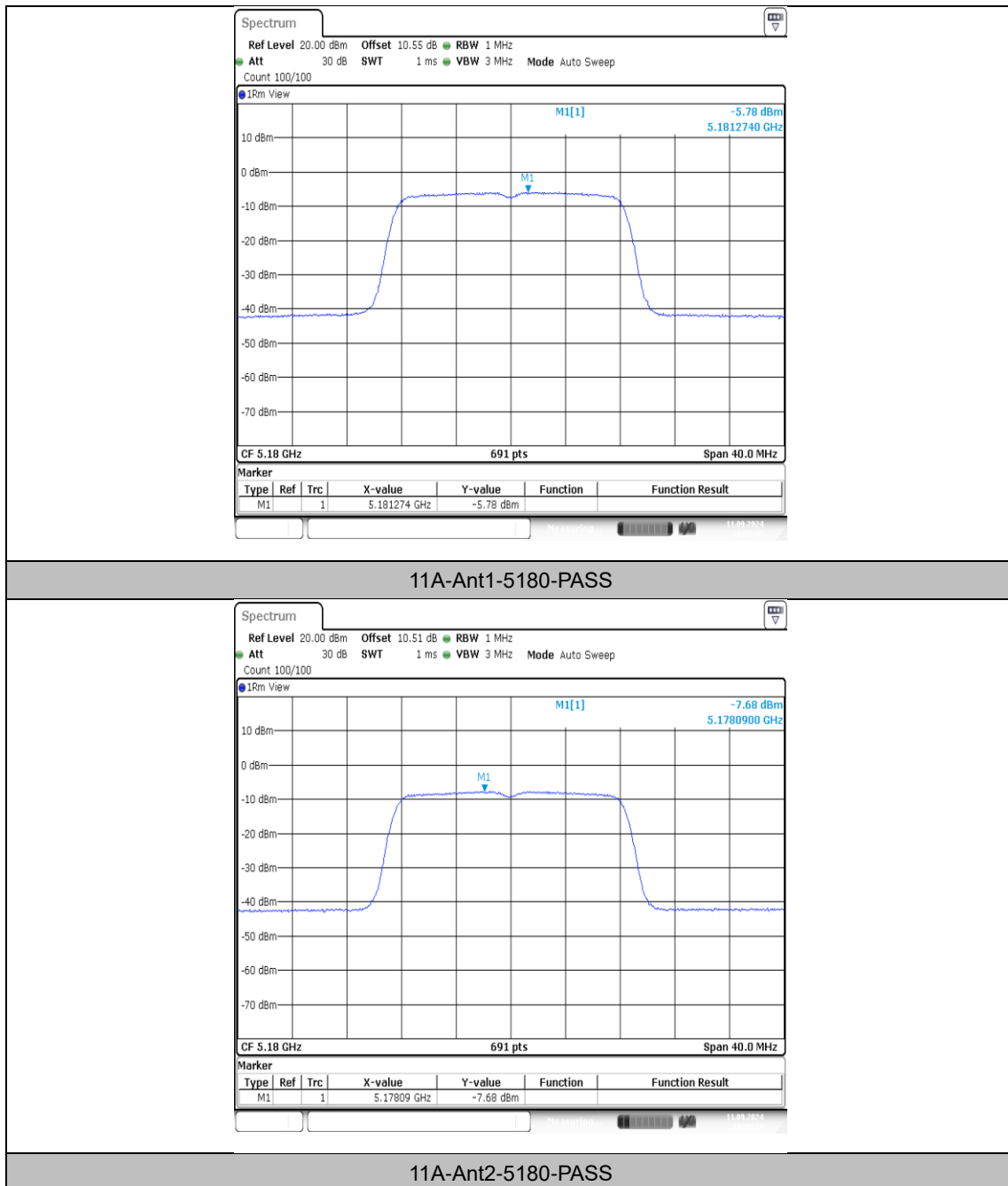
Appendix C: Maximum power spectral density

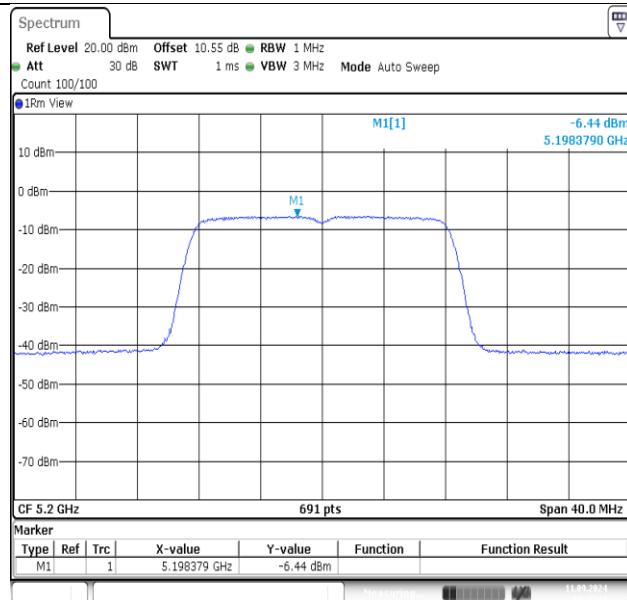
Test Result

TestMode	Antenna	Frequency[MHz]	Result [dBm/MHz]	Limit[dBm/MHz]	Verdict
11A	Ant1	5180	-5.78	≤11.00	PASS
11A	Ant2	5180	-7.68	≤11.00	PASS
11A	Ant1	5200	-6.44	≤11.00	PASS
11A	Ant2	5200	-8.62	≤11.00	PASS
11A	Ant1	5240	-5.44	≤11.00	PASS
11A	Ant2	5240	-7.78	≤11.00	PASS
11N20MIMO	Ant1	5180	-7.55	≤11.00	PASS
11N20MIMO	Ant2	5180	-9.48	≤11.00	PASS
11N20MIMO	total	5180	-4.95	≤11.00	PASS
11N20MIMO	Ant1	5200	-8.24	≤11.00	PASS
11N20MIMO	Ant2	5200	-10.20	≤11.00	PASS
11N20MIMO	total	5200	-5.78	≤11.00	PASS
11N20MIMO	Ant1	5240	-5.87	≤11.00	PASS
11N20MIMO	Ant2	5240	-9.23	≤11.00	PASS
11N20MIMO	total	5240	-3.78	≤11.00	PASS
11AC20MIMO	Ant1	5180	-9.22	≤11.00	PASS
11AC20MIMO	Ant2	5180	-11.29	≤11.00	PASS
11AC20MIMO	total	5180	-6.60	≤11.00	PASS
11AC20MIMO	Ant1	5200	-8.56	≤11.00	PASS
11AC20MIMO	Ant2	5200	-10.65	≤11.00	PASS
11AC20MIMO	total	5200	-5.96	≤11.00	PASS
11AC20MIMO	Ant1	5240	-7.42	≤11.00	PASS
11AC20MIMO	Ant2	5240	-10.20	≤11.00	PASS
11AC20MIMO	total	5240	-5.06	≤11.00	PASS

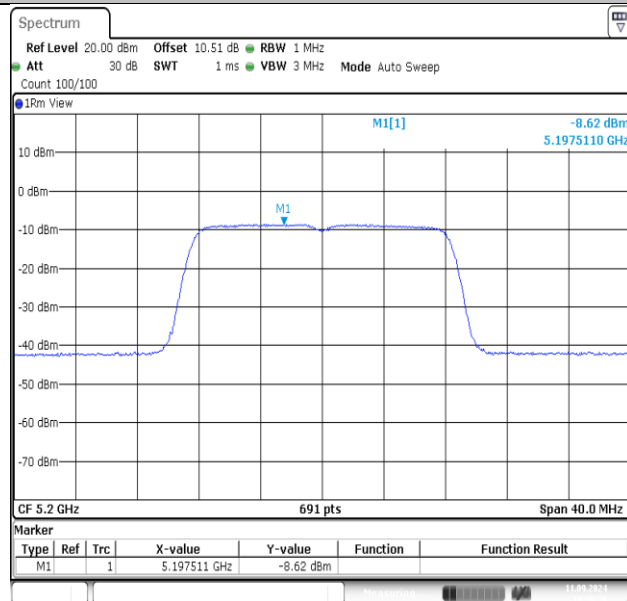
Note: 1.The Result and Limit Unit is dBm/500 kHz in the band 5.725–5.85 GHz.
2.The Duty Cycle Factor and RBW Factor is compensated in the result.

Test Graphs

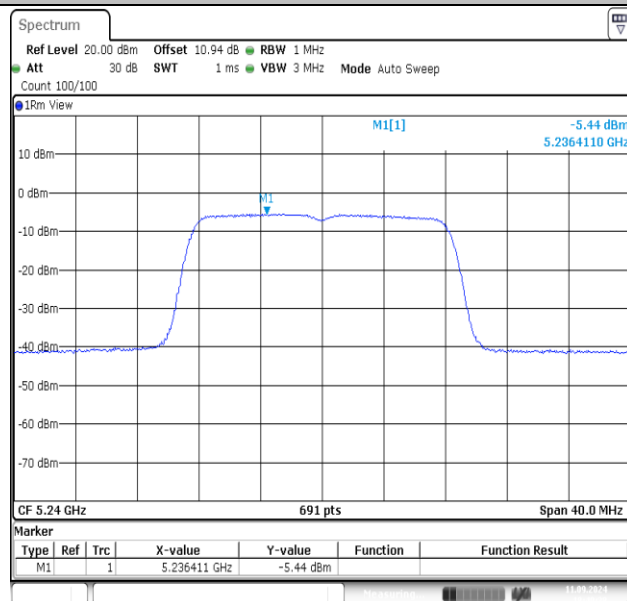




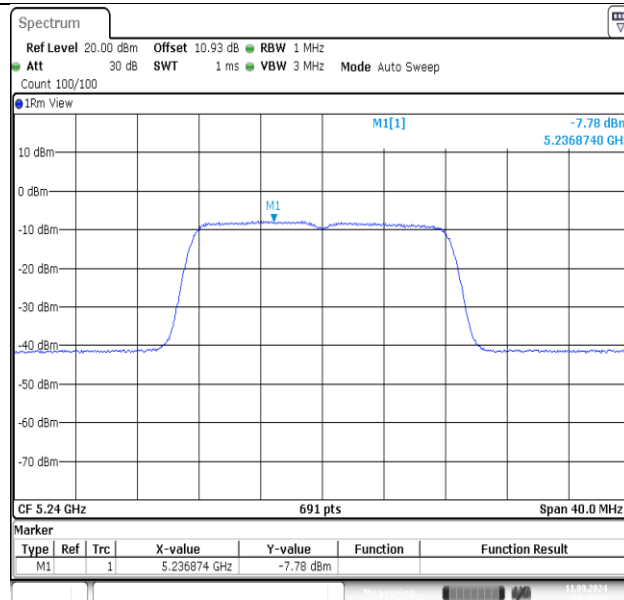
11A-Ant1-5200-PASS



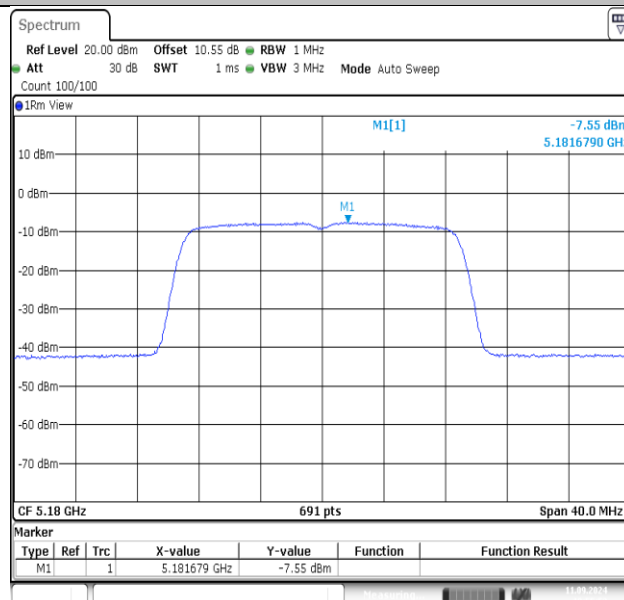
11A-Ant2-5200-PASS



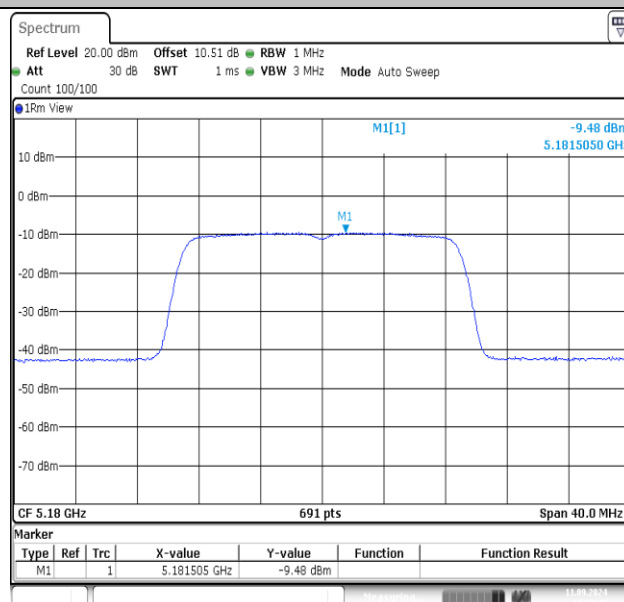
11A-Ant1-5240-PASS



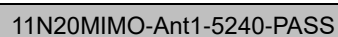
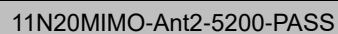
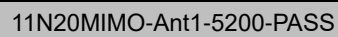
11A-Ant2-5240-PASS

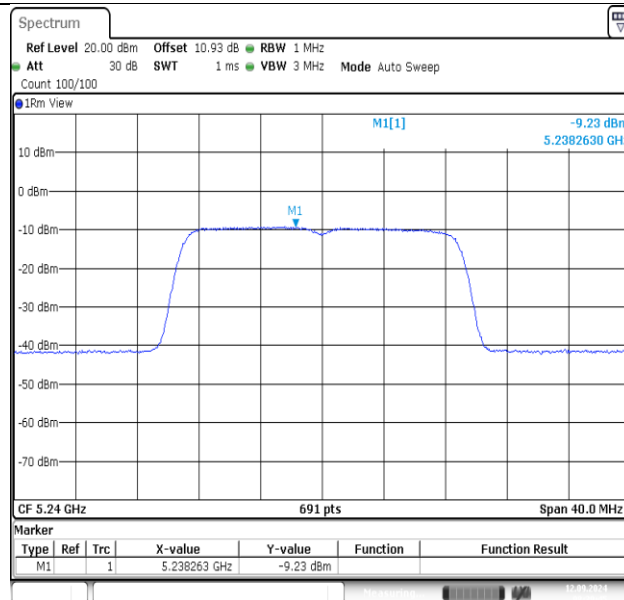


11N20MIMO-Ant1-5180-PASS

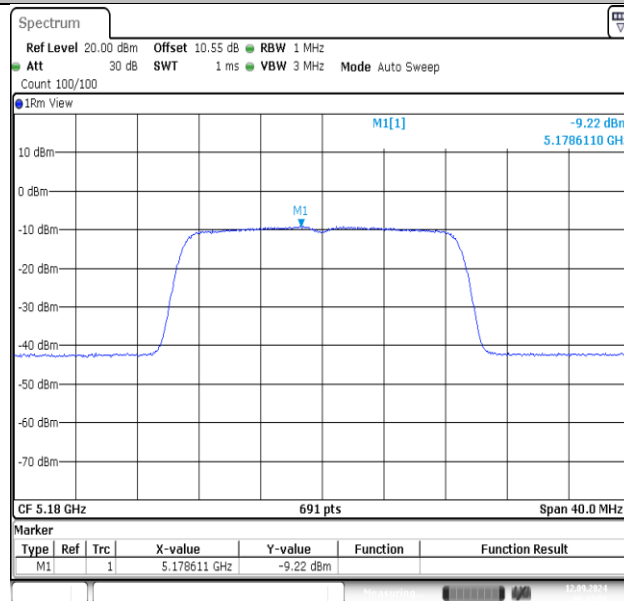


11N20MIMO-Ant2-5180-PASS

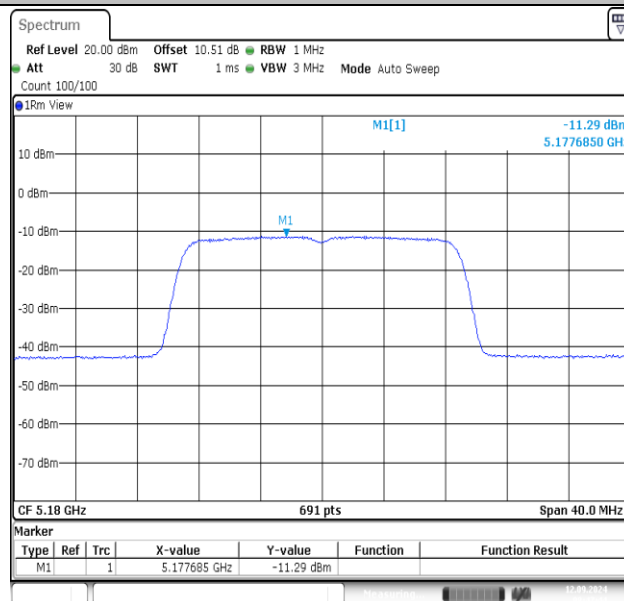




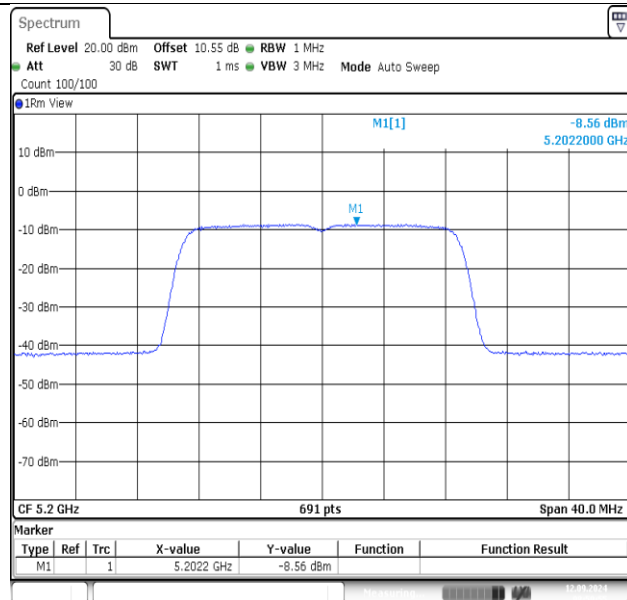
11N20MIMO-Ant2-5240-PASS



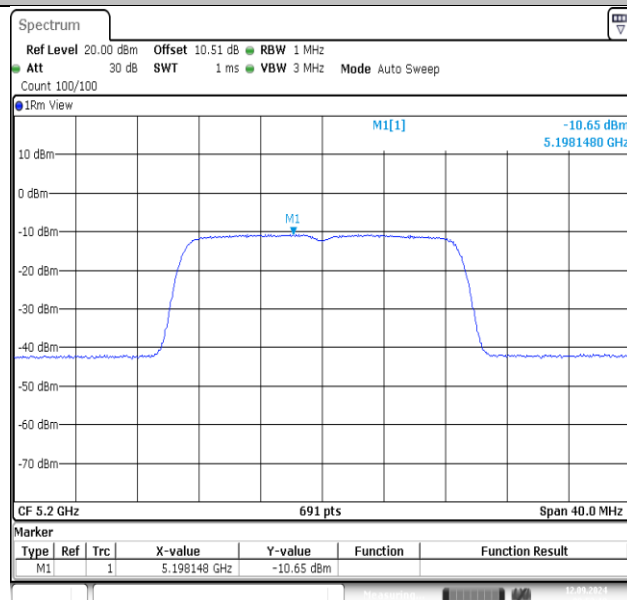
11AC20MIMO-Ant1-5180-PASS



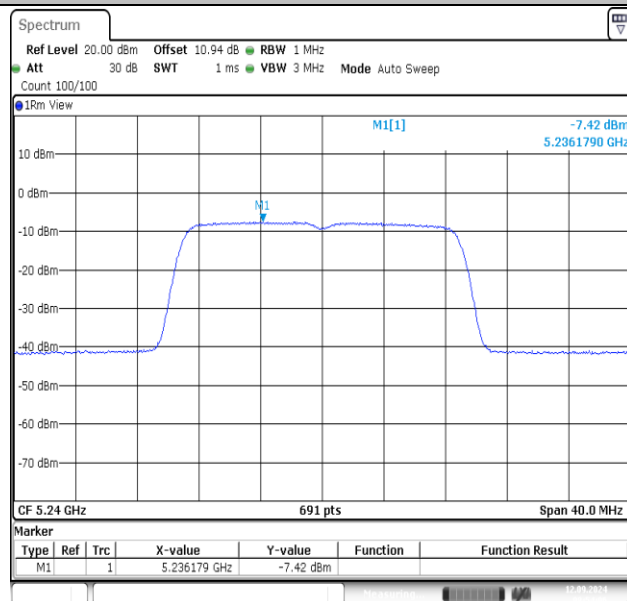
11AC20MIMO-Ant2-5180-PASS



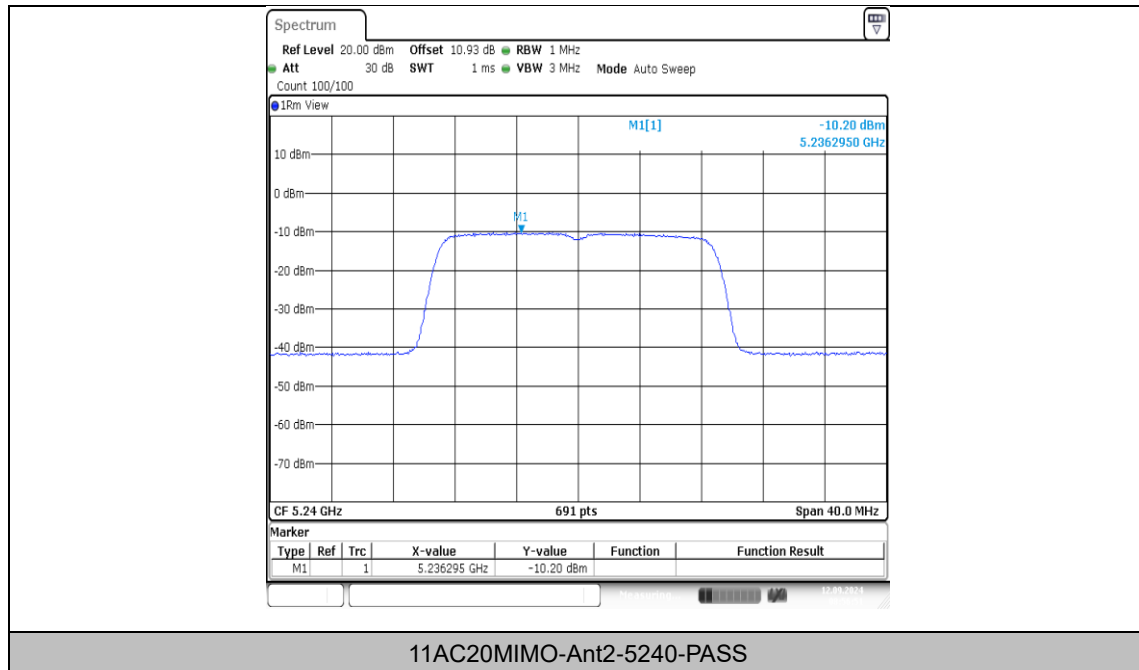
11AC20MIMO-Ant1-5200-PASS



11AC20MIMO-Ant2-5200-PASS



11AC20MIMO-Ant1-5240-PASS

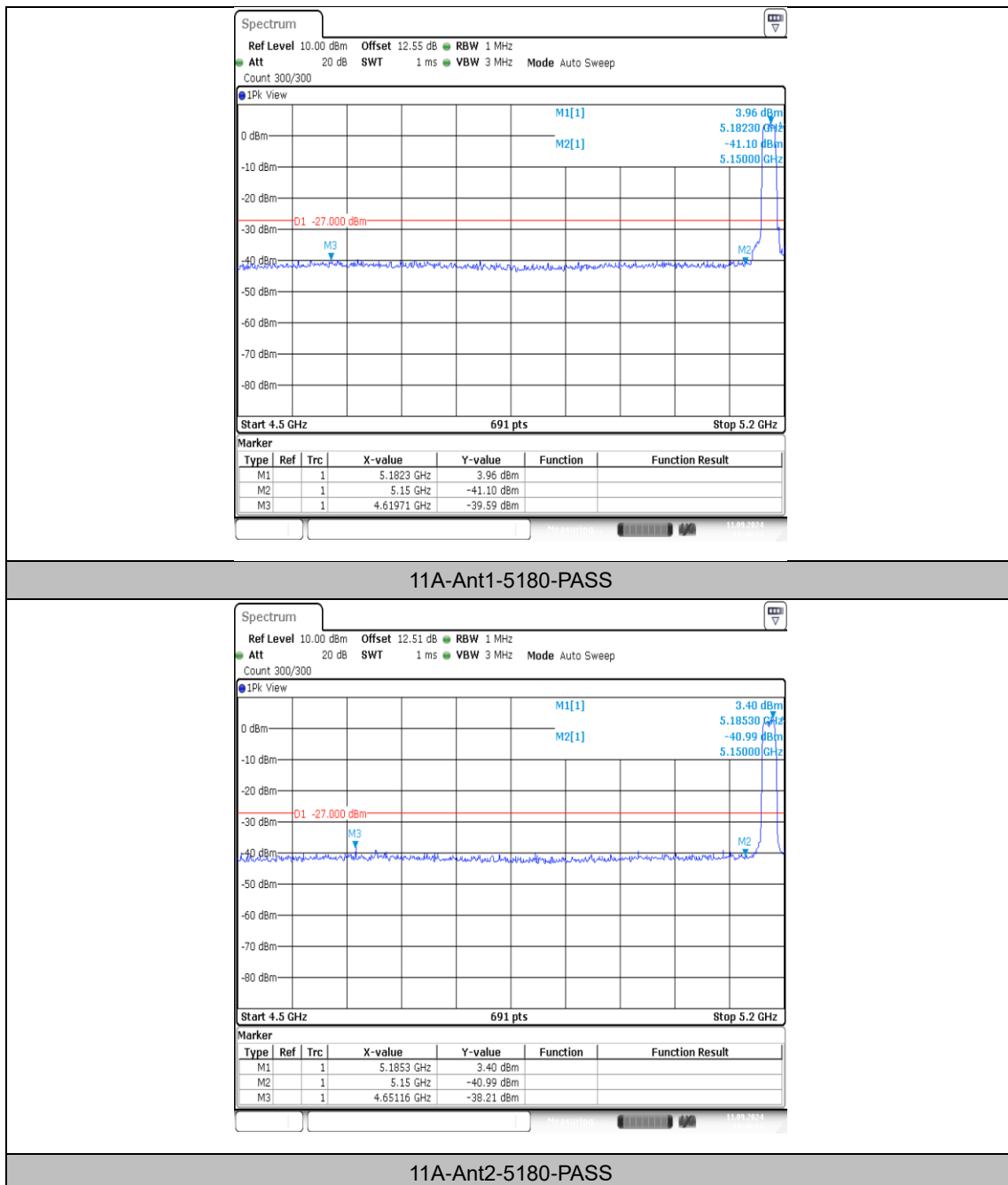


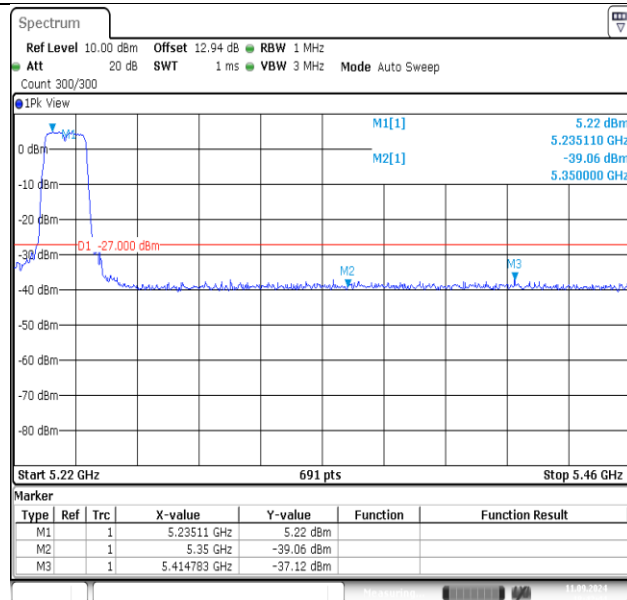
Appendix D: Band edge measurements

Test Result

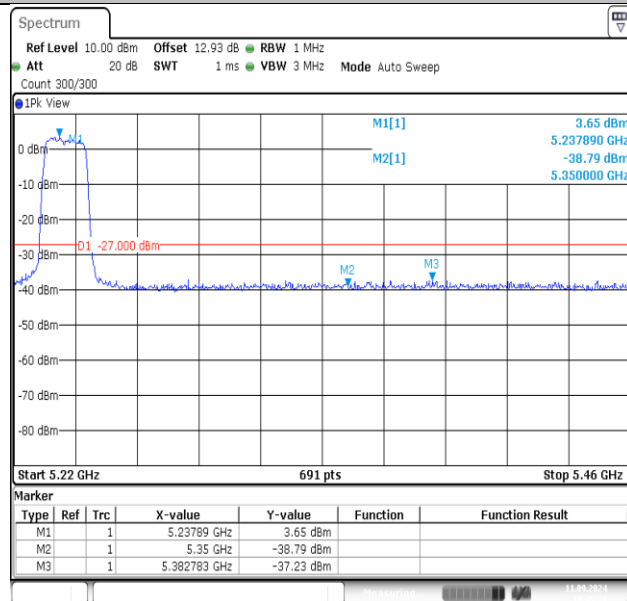
TestMode	Antenna	ChName	Frequency[MHz]	Result[dBm]	Limit[dBm]	Verdict
11A	Ant1	Low	5180	-39.59	≤-27	PASS
11A	Ant2	Low	5180	-38.21	≤-27	PASS
11A	Ant1	High	5240	-37.12	≤-27	PASS
11A	Ant2	High	5240	-37.23	≤-27	PASS
11N20MIMO	Ant1	Low	5180	-39.28	≤-27	PASS
11N20MIMO	Ant2	Low	5180	-38.15	≤-27	PASS
11N20MIMO	Ant1	High	5240	-36.99	≤-27	PASS
11N20MIMO	Ant2	High	5240	-37.33	≤-27	PASS
11AC20MIMO	Ant1	Low	5180	-39.54	≤-27	PASS
11AC20MIMO	Ant2	Low	5180	-39.46	≤-27	PASS
11AC20MIMO	Ant1	High	5240	-36.92	≤-27	PASS
11AC20MIMO	Ant2	High	5240	-36.98	≤-27	PASS

Test Graphs

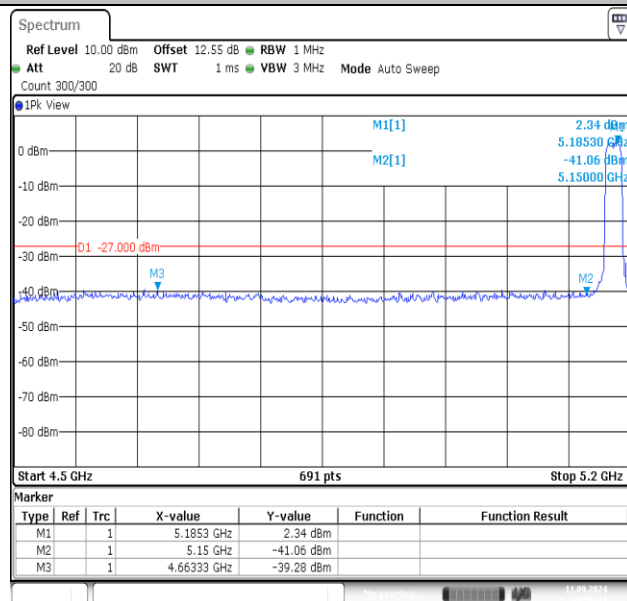




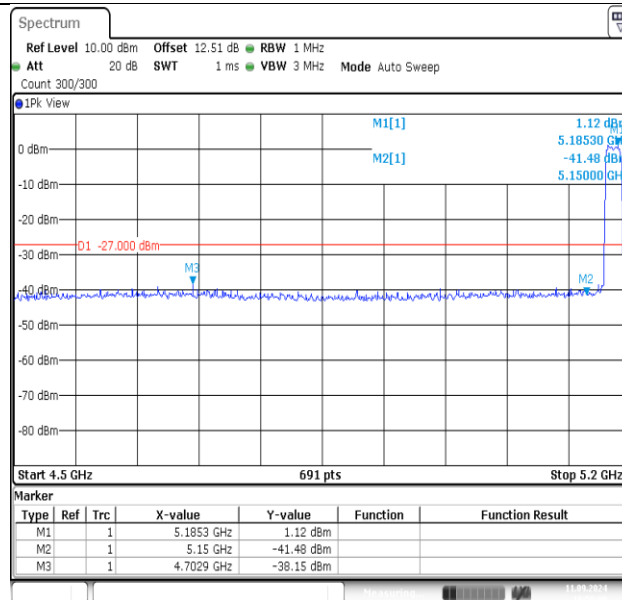
11A-Ant1-5240-PASS



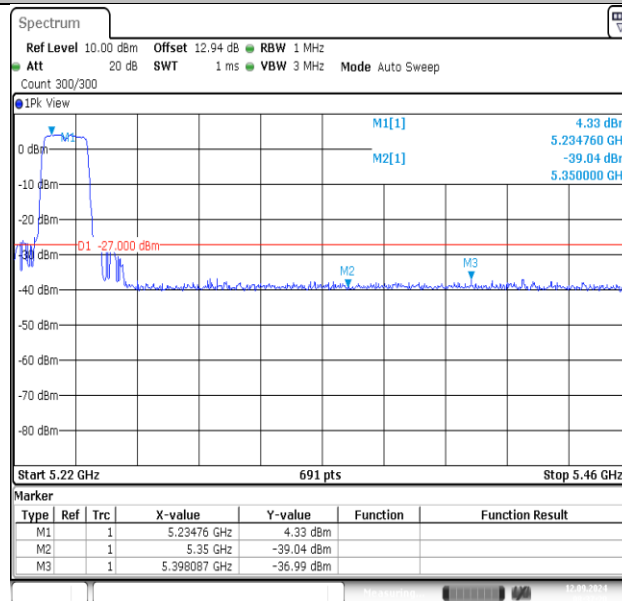
11A-Ant2-5240-PASS



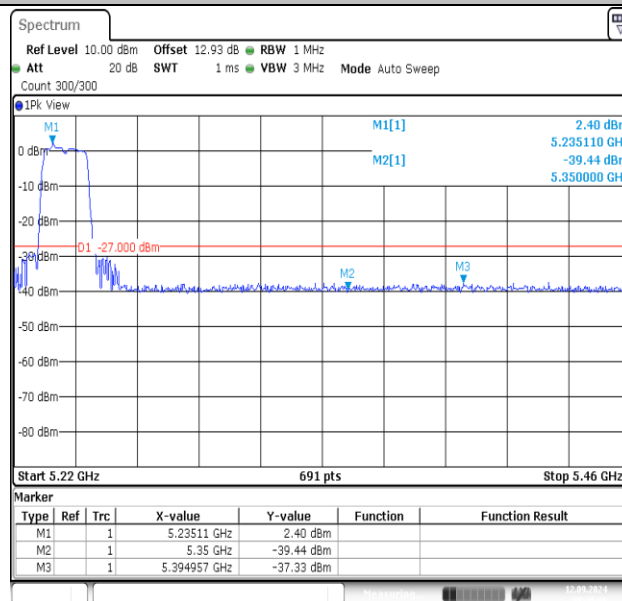
11N20MIMO-Ant1-5180-PASS



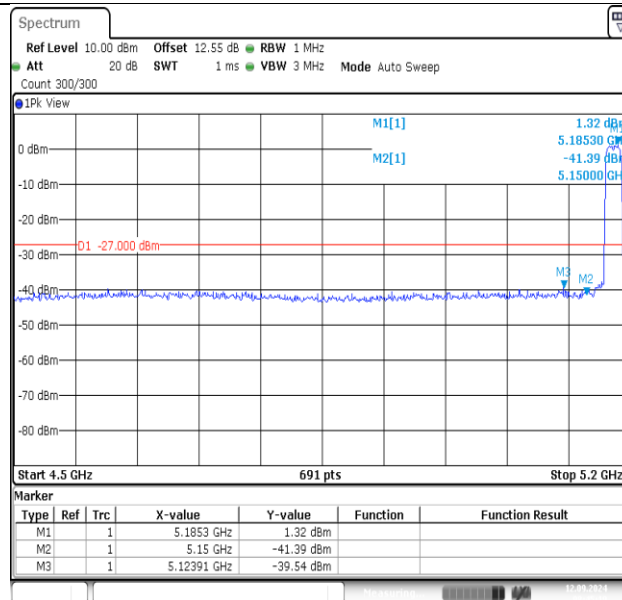
11N20MIMO-Ant2-5180-PASS



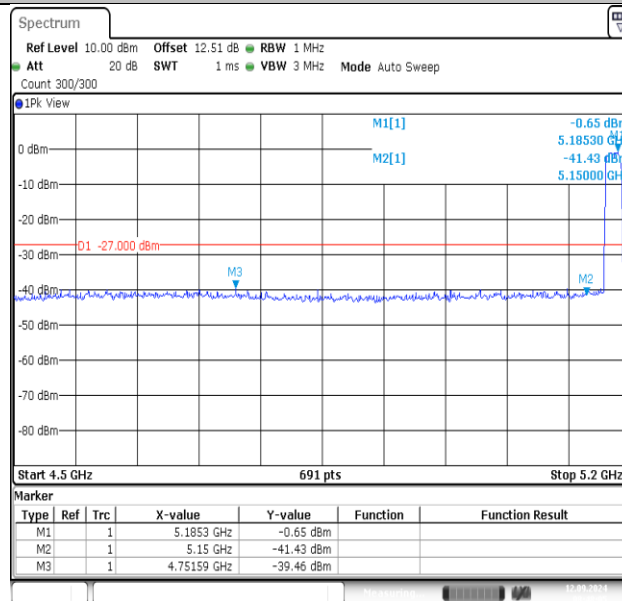
11N20MIMO-Ant1-5240-PASS



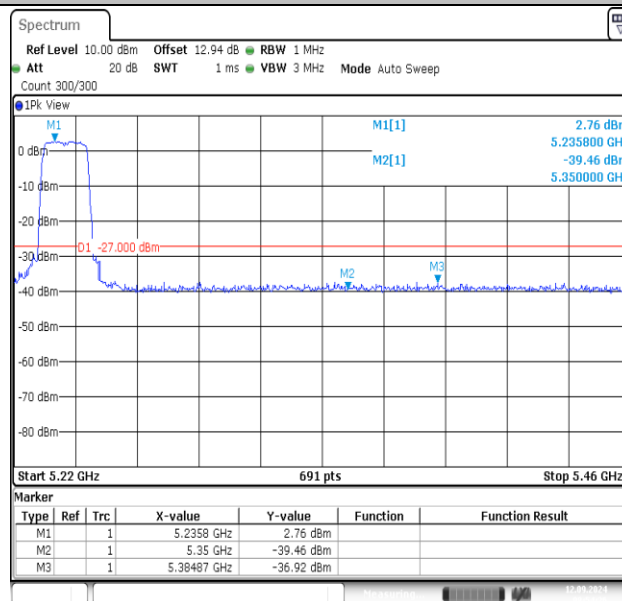
11N20MIMO-Ant2-5240-PASS



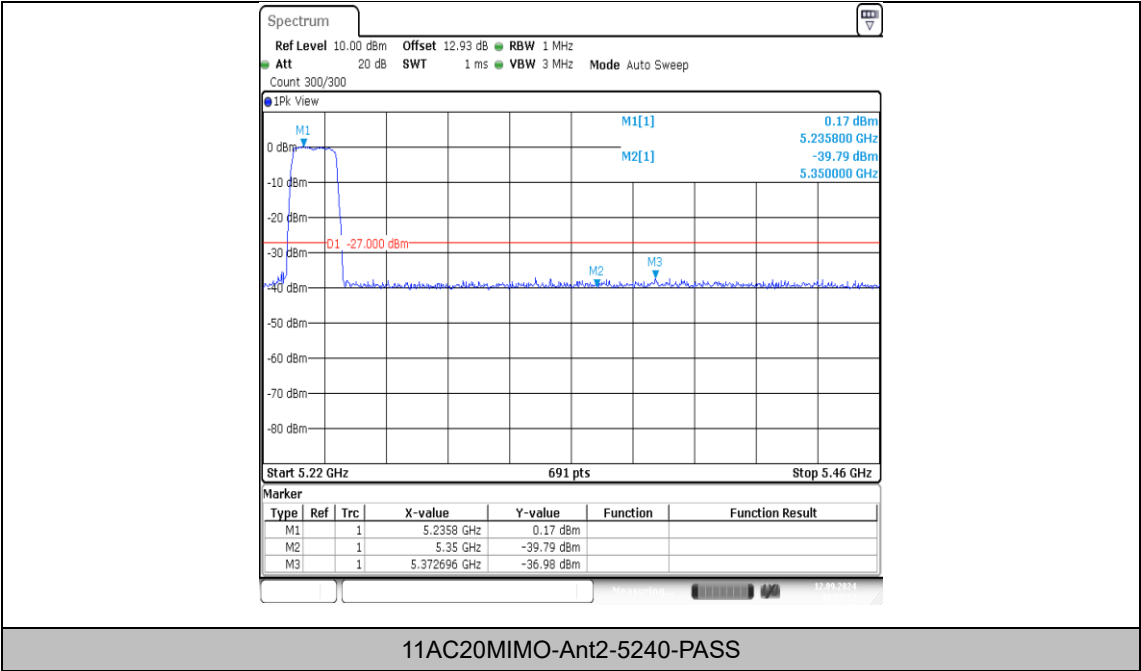
11AC20MIMO-Ant1-5180-PASS



11AC20MIMO-Ant2-5180-PASS



11AC20MIMO-Ant1-5240-PASS



Appendix E: Frequency Stability

Test Result

Ant1

Frequency (MHz)	Enviroment Temperature (Degree)	Voltage (VDC)	Measured Frequency (MHz)	Limit Range (MHz)	Test Results
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)	Enviroment Temperature (Degree)	Voltage (VDC)	Measured Frequency (MHz)	Limit Range (MHz)	Test Results
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	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	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)	Enviroment Temperature (Dregree)	Voltage (VDC)	Measured Frequency (MHz)	Limit Range (MHz)	Test Results
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

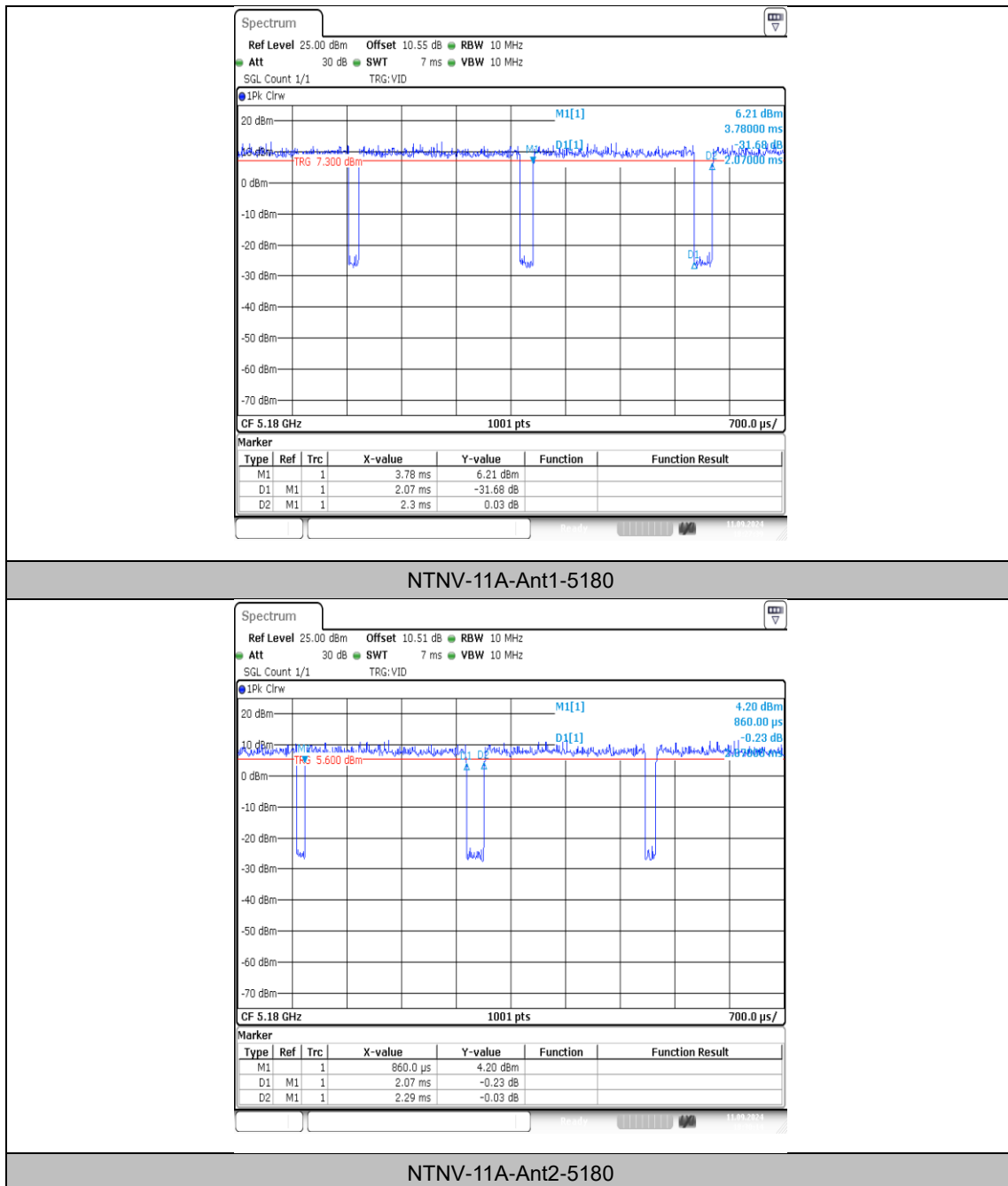
Frequency (MHz)	Enviroment Temperature (Dregree)	Voltage (VDC)	Measured Frequency (MHz)	Limit Range (MHz)	Test Results
5240	20	10.26	5240.034917	5150 – 5250	PASS
5240	50	11.40	5239.995319	5150 – 5250	PASS
5240	40	11.40	5239.907488	5150 – 5250	PASS
5240	30	11.40	5240.094972	5150 – 5250	PASS
5240	20	11.40	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

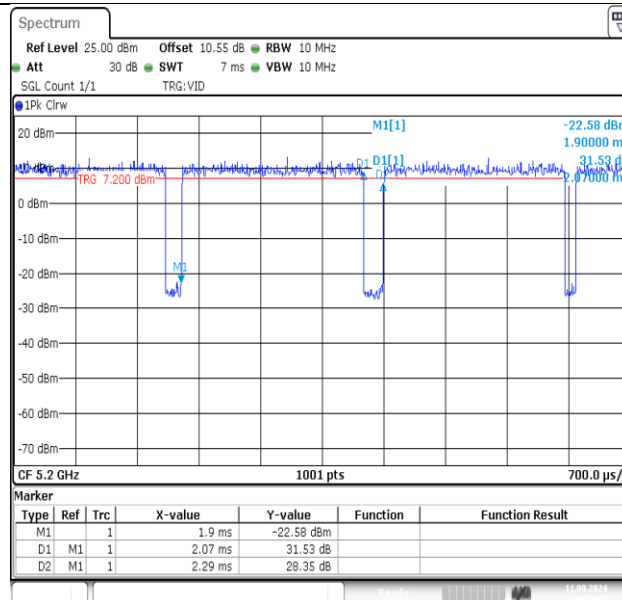
Appendix F: Duty Cycle

Test Result

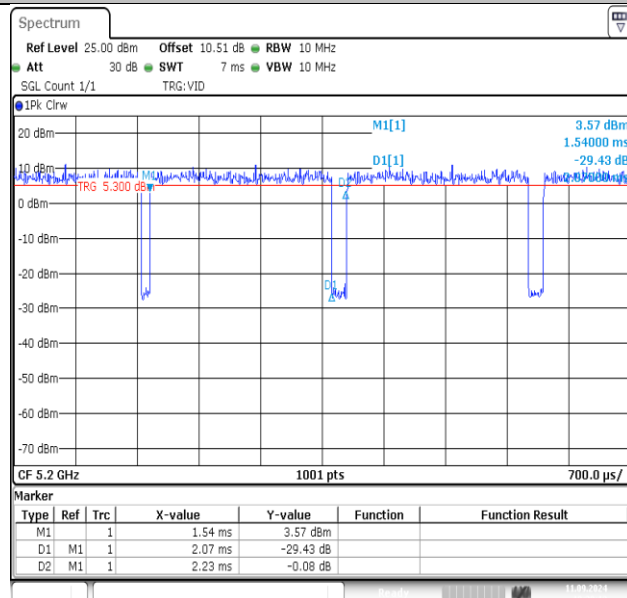
TestMode	Antenna	Frequency[MHz]	Transmission Duration [ms]	Transmission Period [ms]	Duty Cycle [%]	Dc Factor [%]	1/T [kHz]
11A	Ant1	5180	2.07	2.30	90.00	0.46	0.48
11A	Ant2	5180	2.07	2.29	90.39	0.44	0.48
11A	Ant1	5200	2.07	2.29	90.39	0.44	0.48
11A	Ant2	5200	2.07	2.23	92.83	0.32	0.48
11A	Ant1	5240	2.06	2.28	90.35	0.44	0.49
11A	Ant2	5240	2.07	2.18	94.95	0.23	0.48
11N20MIMO	Ant1	5180	1.92	2.13	90.14	0.45	0.52
11N20MIMO	Ant2	5180	1.93	2.14	90.19	0.45	0.52
11N20MIMO	Ant1	5200	1.92	2.04	94.12	0.26	0.52
11N20MIMO	Ant2	5200	1.93	2.12	91.04	0.41	0.52
11N20MIMO	Ant1	5240	1.92	2.14	89.72	0.47	0.52
11N20MIMO	Ant2	5240	1.91	2.08	91.83	0.37	0.52
11AC20MIMO	Ant1	5180	1.94	2.19	88.58	0.53	0.52
11AC20MIMO	Ant2	5180	1.93	2.17	88.94	0.51	0.52
11AC20MIMO	Ant1	5200	1.93	2.18	88.53	0.53	0.52
11AC20MIMO	Ant2	5200	1.93	2.16	89.35	0.49	0.52
11AC20MIMO	Ant1	5240	1.93	2.18	88.53	0.53	0.52
11AC20MIMO	Ant2	5240	1.93	2.16	89.35	0.49	0.52

Test Graphs

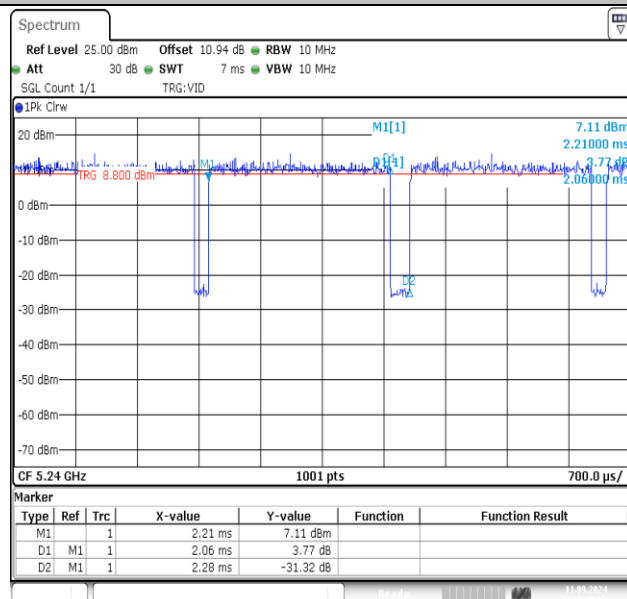




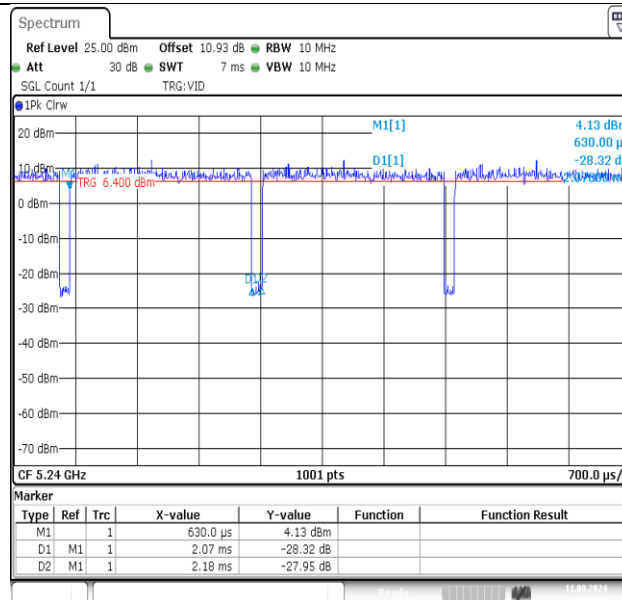
NTNV-11A-Ant1-5200



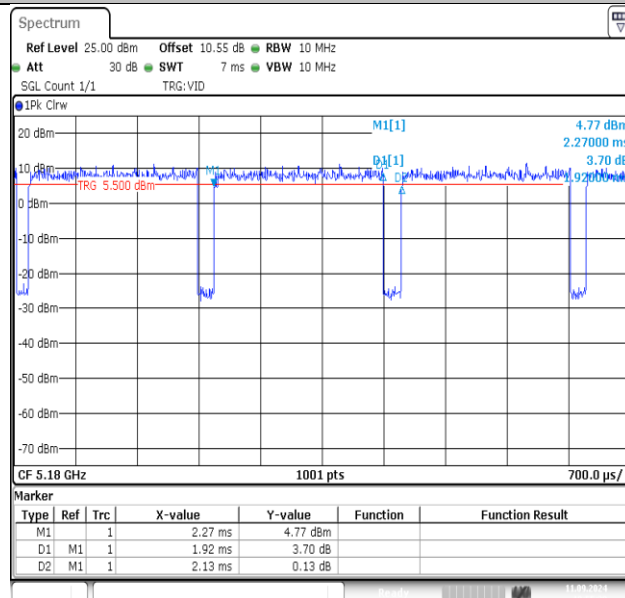
NTNV-11A-Ant2-5200



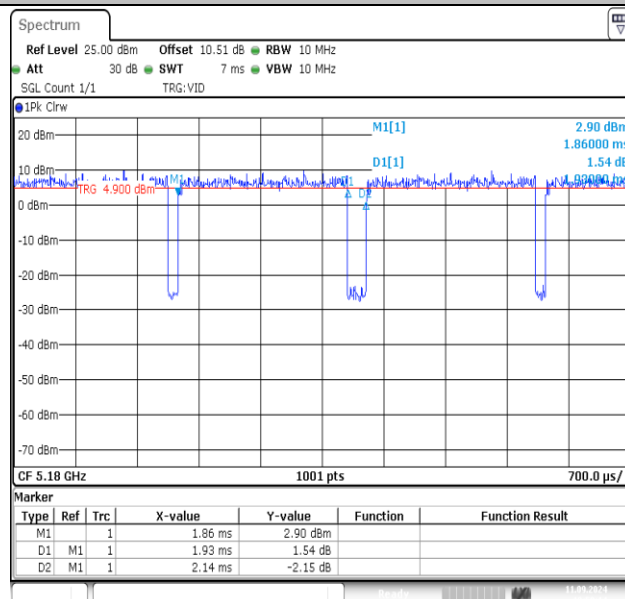
NTNV-11A-Ant1-5240



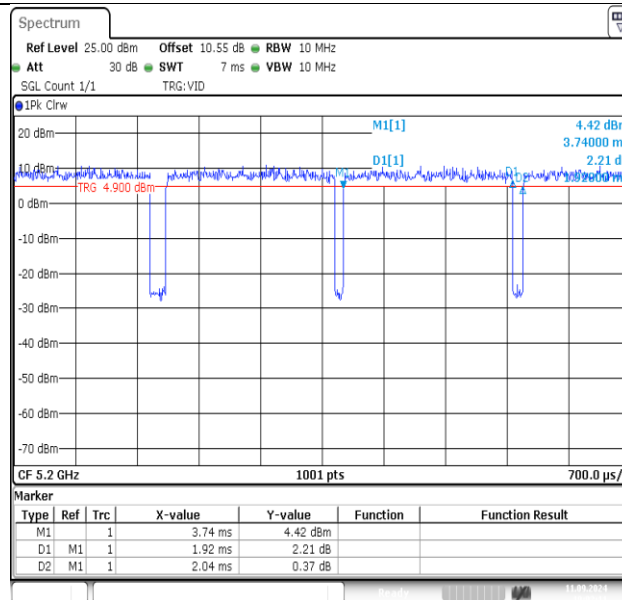
NTNV-11A-Ant2-5240



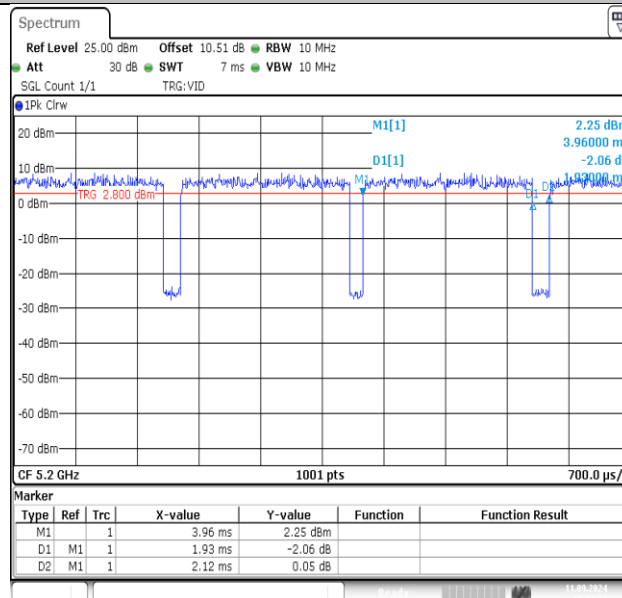
NTNV-11N20MIMO-Ant1-5180



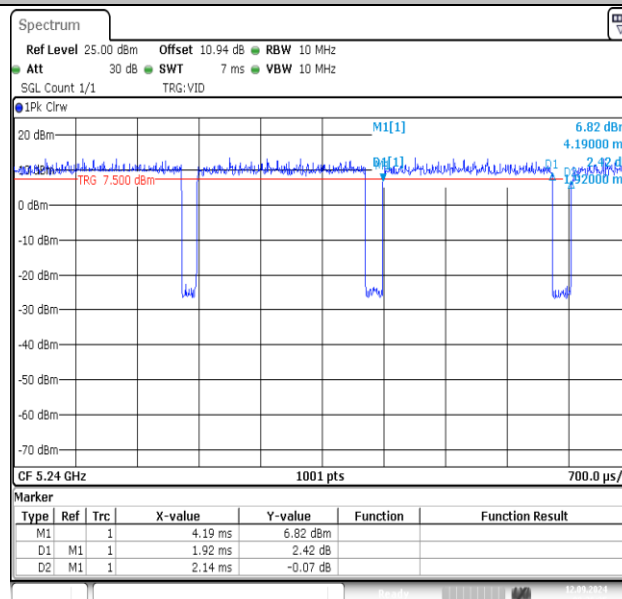
NTNV-11N20MIMO-Ant2-5180



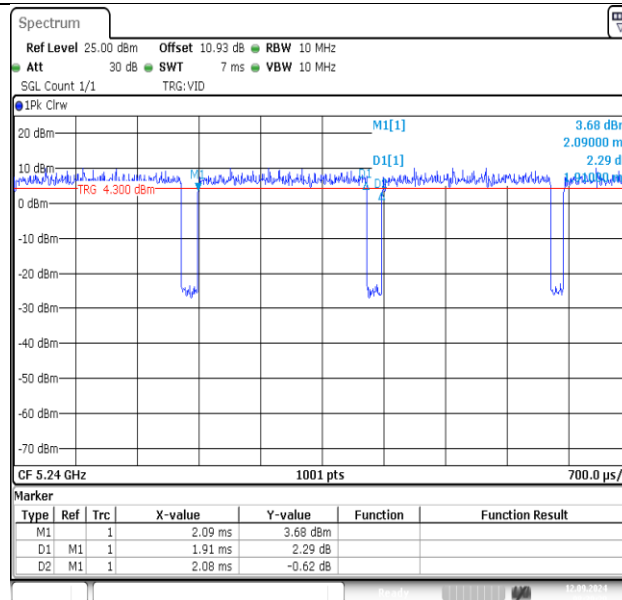
NTNV-11N20MIMO-Ant1-5200



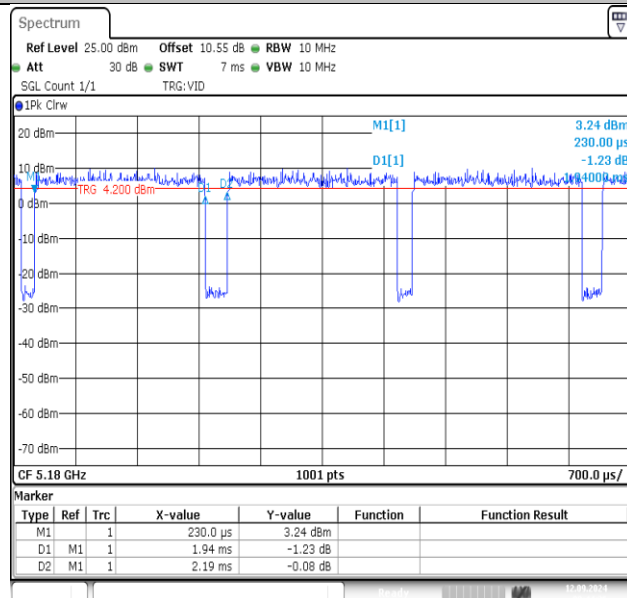
NTNV-11N20MIMO-Ant2-5200



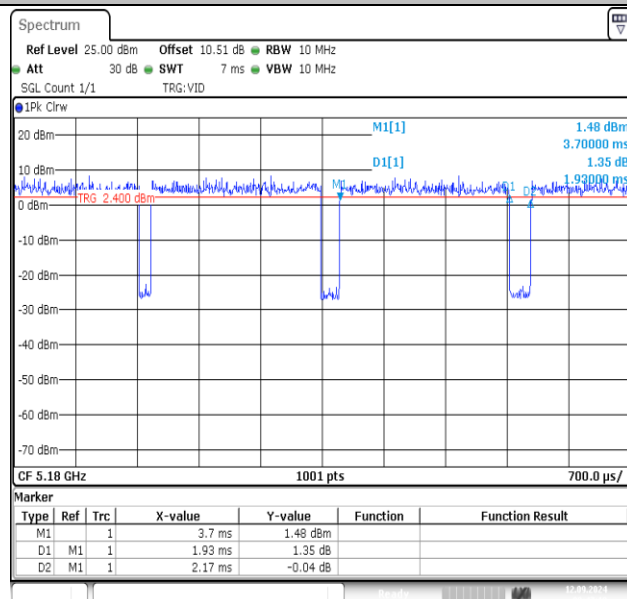
NTNV-11N20MIMO-Ant1-5240



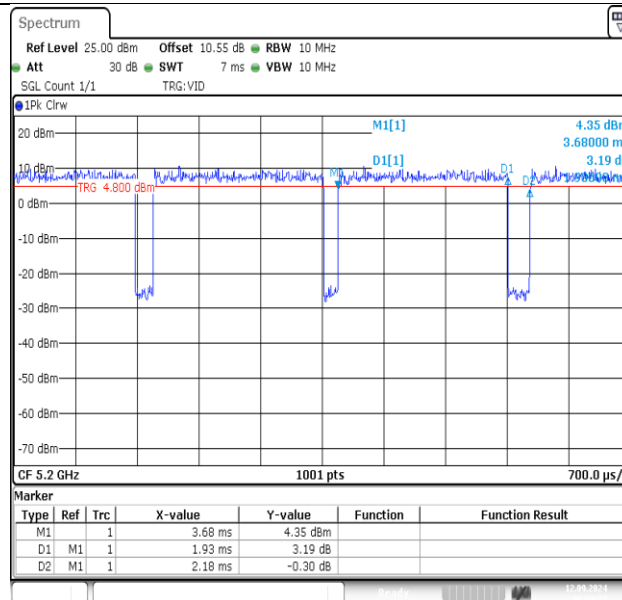
NTNV-11N20MIMO-Ant2-5240



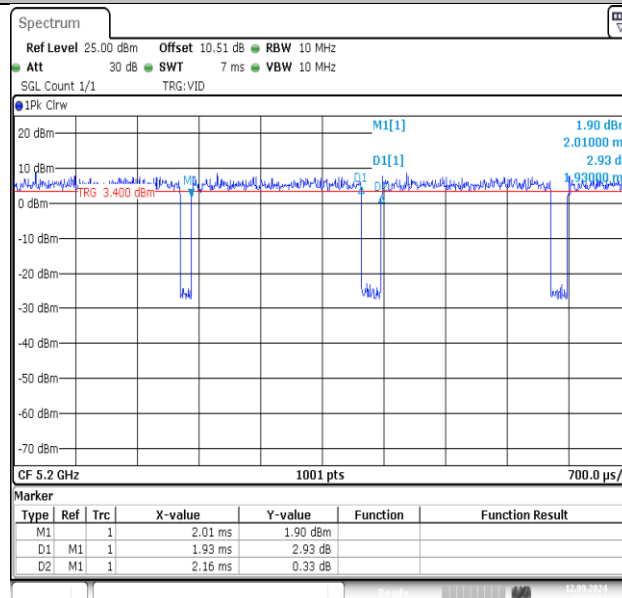
NTNV-11AC20MIMO-Ant1-5180



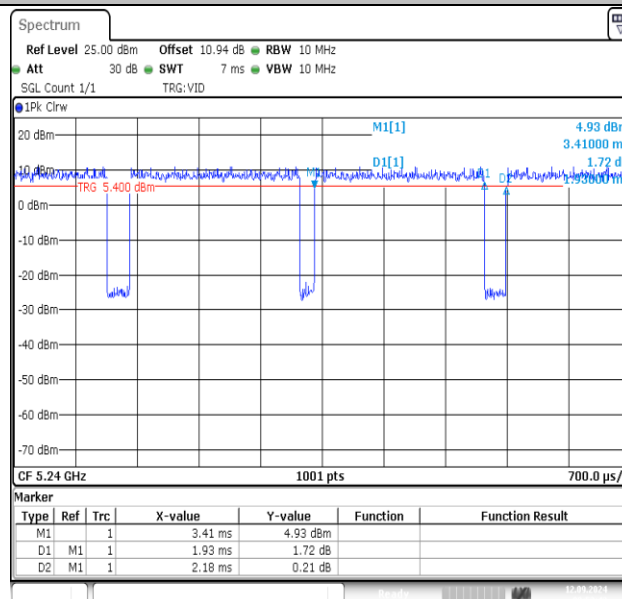
NTNV-11AC20MIMO-Ant2-5180



NTNV-11AC20MIMO-Ant1-5200



NTNV-11AC20MIMO-Ant2-5200



NTNV-11AC20MIMO-Ant1-5240

