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

Product Name: DRONE

Trade Mark: /

Test Model: V11 Air

FCC ID: 2BBLM-V11AIR

Environmental Conditions

Temperature:	23.5℃
Relative Humidity:	58%
ATM Pressure:	100.0 kPa
Test Engineer:	Allen Lai
Supervised by:	Max Zhang
NOTE	N/A

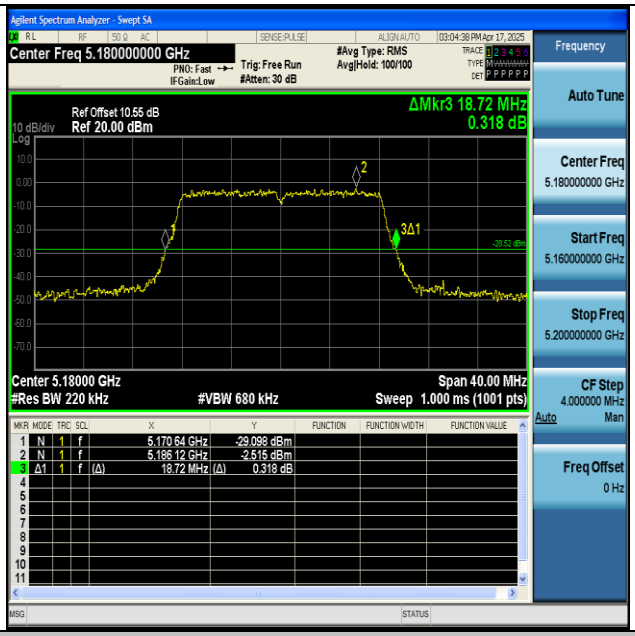
Appendix A1: Emission Bandwidth

Test Result

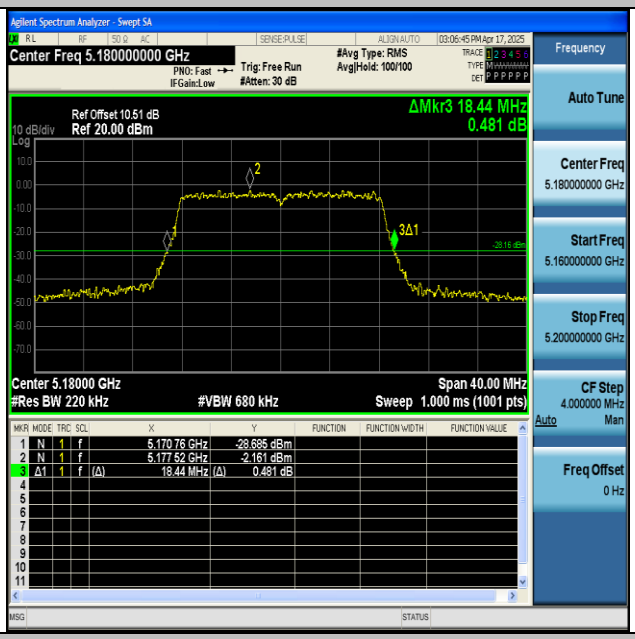
Test Mode	Antenna	Frequency [MHz]	26db EBW [MHz]	FL [MHz]	FH [MHz]	Limit [MHz]	Verdict
11A	Ant1	5180	18.720	5170.640	5189.360	---	---
11A	Ant2	5180	18.440	5170.760	5189.200	---	---
11A	Ant1	5200	18.480	5190.880	5209.360	---	---
11A	Ant2	5200	18.480	5190.800	5209.280	---	---
11A	Ant1	5240	18.440	5230.840	5249.280	---	---
11A	Ant2	5240	18.360	5230.840	5249.200	---	---
11N20MIMO	Ant1	5180	19.480	5170.320	5189.800	---	---
11N20MIMO	Ant2	5180	19.320	5170.400	5189.720	---	---
11N20MIMO	Ant1	5200	19.360	5190.400	5209.760	---	---
11N20MIMO	Ant2	5200	19.440	5190.320	5209.760	---	---
11N20MIMO	Ant1	5240	19.400	5230.360	5249.760	---	---
11N20MIMO	Ant2	5240	19.280	5230.480	5249.760	---	---
11AC20MIMO	Ant1	5180	19.240	5170.360	5189.600	---	---
11AC20MIMO	Ant2	5180	19.360	5170.360	5189.720	---	---
11AC20MIMO	Ant1	5200	19.320	5190.360	5209.680	---	---
11AC20MIMO	Ant2	5200	19.320	5190.400	5209.720	---	---
11AC20MIMO	Ant1	5240	19.400	5230.360	5249.760	---	---
11AC20MIMO	Ant2	5240	19.360	5230.360	5249.720	---	---

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

Test Graphs



11A-Ant1-5180



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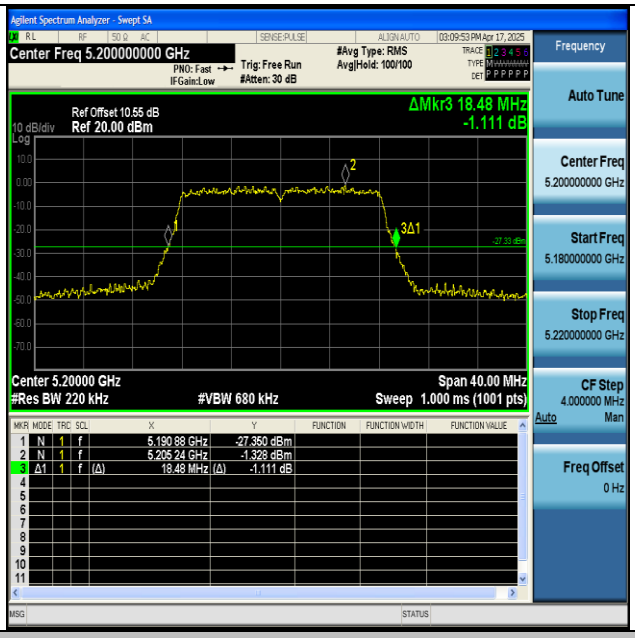


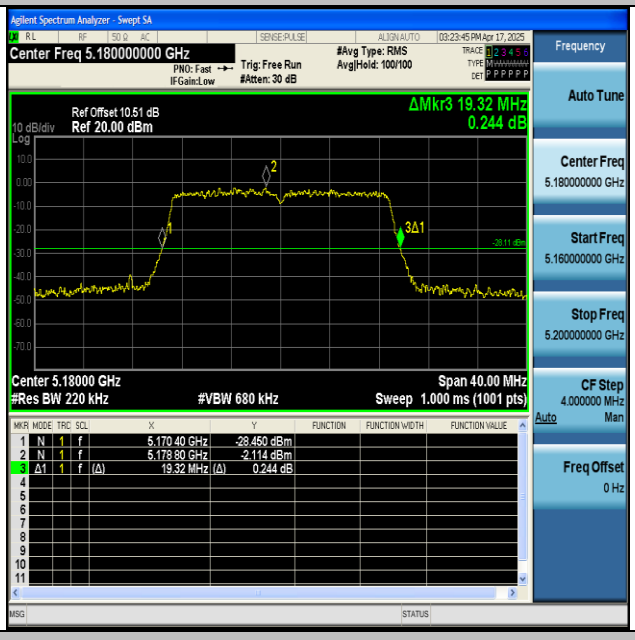
11A-Ant1-5200

11A-Ant2-5200

11A-Ant1-5240

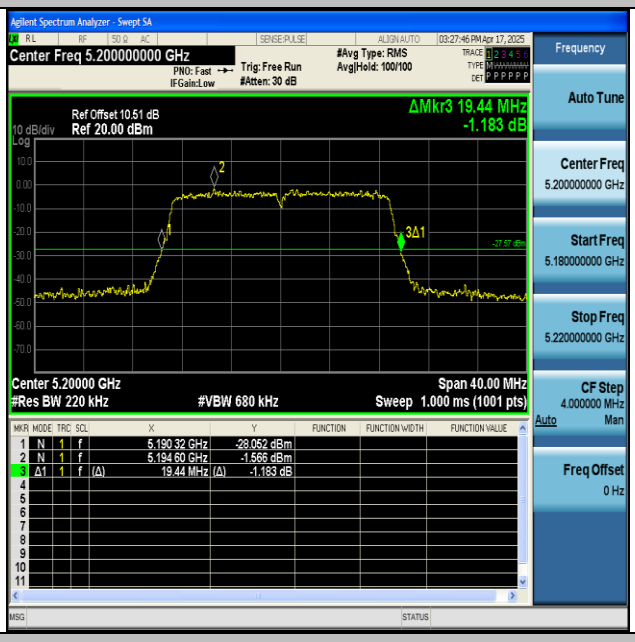
11A-Ant2-5240

11N20MIMO-Ant1-5180



11N20MIMO-Ant2-5180

11N20MIMO-Ant1-5200

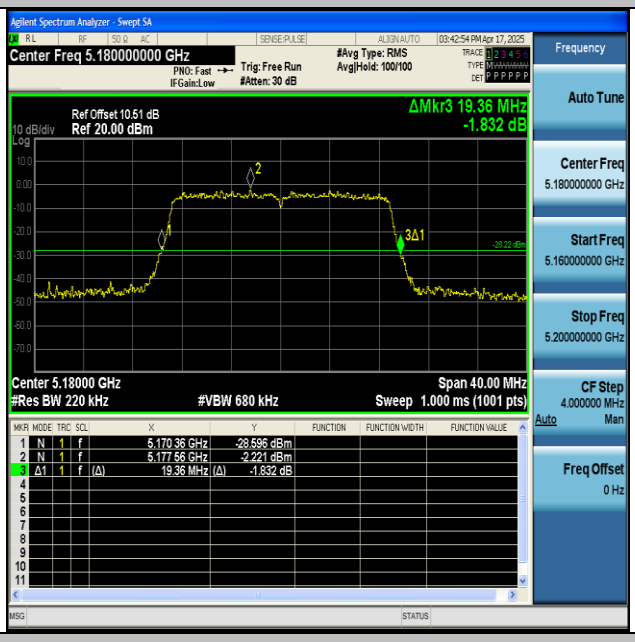


11N20MIMO-Ant2-5200

11N20MIMO-Ant1-5240

11N20MIMO-Ant2-5240

11AC20MIMO-Ant1-5180



11AC20MIMO-Ant2-5180

11AC20MIMO-Ant1-5200

11AC20MIMO-Ant2-5200

11AC20MIMO-Ant1-5240

11AC20MIMO-Ant2-5240

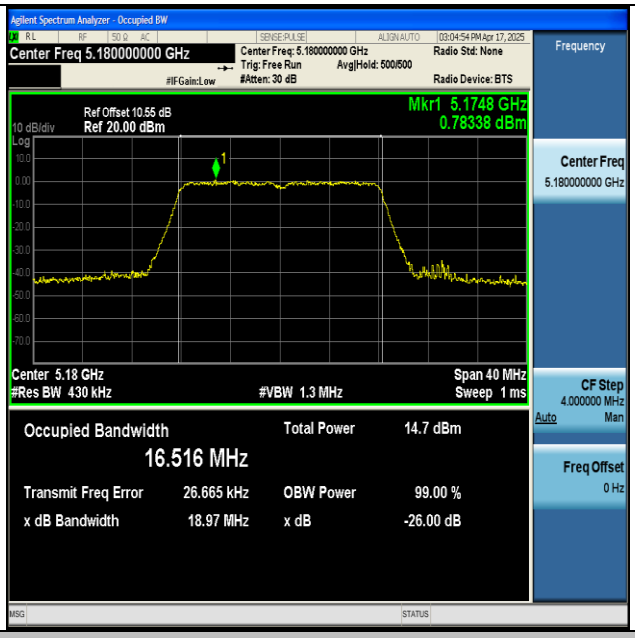
Appendix A2: Occupied channel bandwidth

Test Result

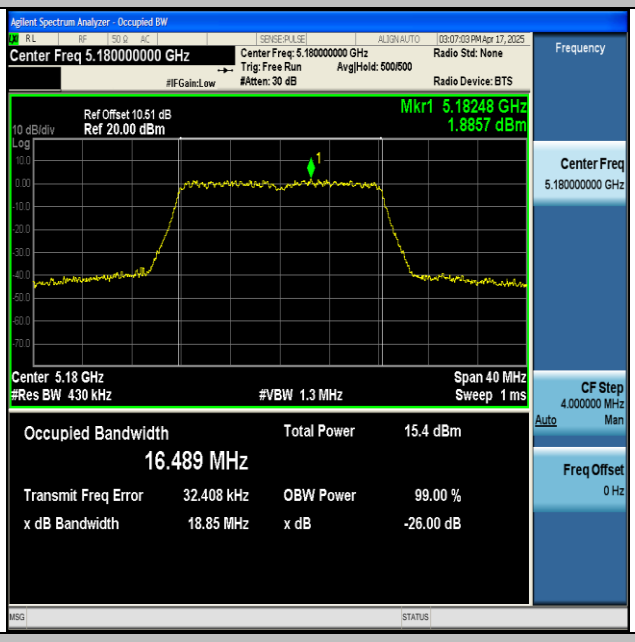
Test Mode	Antenna	Frequency [MHz]	OCB [MHz]	FL [MHz]	FH [MHz]	Limit [MHz]	Verdict
11A	Ant1	5180	16.516	5171.7687	5188.2847	---	---
11A	Ant2	5180	16.489	5171.7879	5188.2769	---	---
11A	Ant1	5200	16.480	5191.7916	5208.2716	---	---
11A	Ant2	5200	16.434	5191.8228	5208.2568	---	---
11A	Ant1	5240	16.478	5231.8030	5248.2810	---	---
11A	Ant2	5240	16.469	5231.8028	5248.2718	---	---
11N20MIMO	Ant1	5180	17.660	5171.2016	5188.8616	---	---
11N20MIMO	Ant2	5180	17.638	5171.2079	5188.8459	---	---
11N20MIMO	Ant1	5200	17.617	5191.2345	5208.8515	---	---
11N20MIMO	Ant2	5200	17.622	5191.2327	5208.8547	---	---
11N20MIMO	Ant1	5240	17.604	5231.2411	5248.8451	---	---
11N20MIMO	Ant2	5240	17.595	5231.2615	5248.8565	---	---
11AC20MIMO	Ant1	5180	17.643	5171.2035	5188.8465	---	---
11AC20MIMO	Ant2	5180	17.647	5171.1942	5188.8412	---	---
11AC20MIMO	Ant1	5200	17.643	5191.2119	5208.8549	---	---
11AC20MIMO	Ant2	5200	17.632	5191.2287	5208.8607	---	---
11AC20MIMO	Ant1	5240	17.618	5231.2284	5248.8464	---	---
11AC20MIMO	Ant2	5240	17.610	5231.2428	5248.8528	---	---

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

Test Graphs



11A-Ant1-5180



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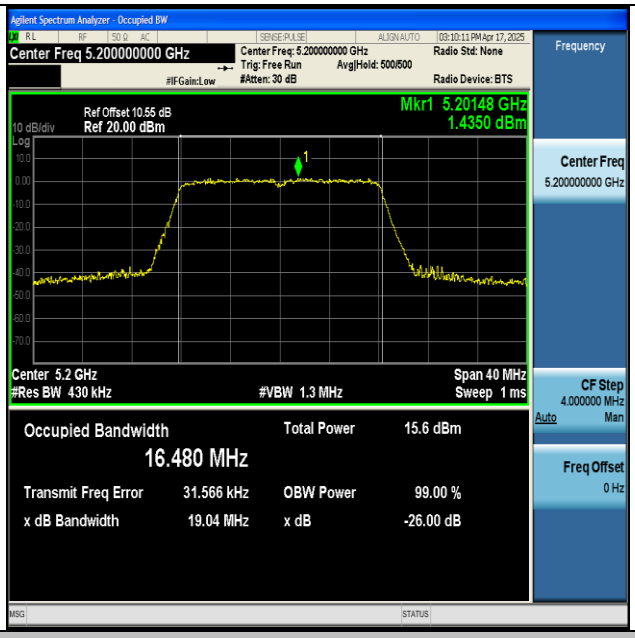
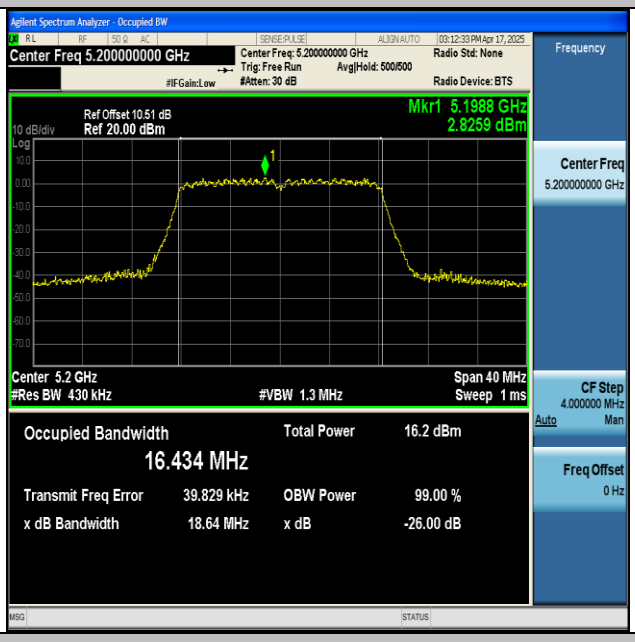
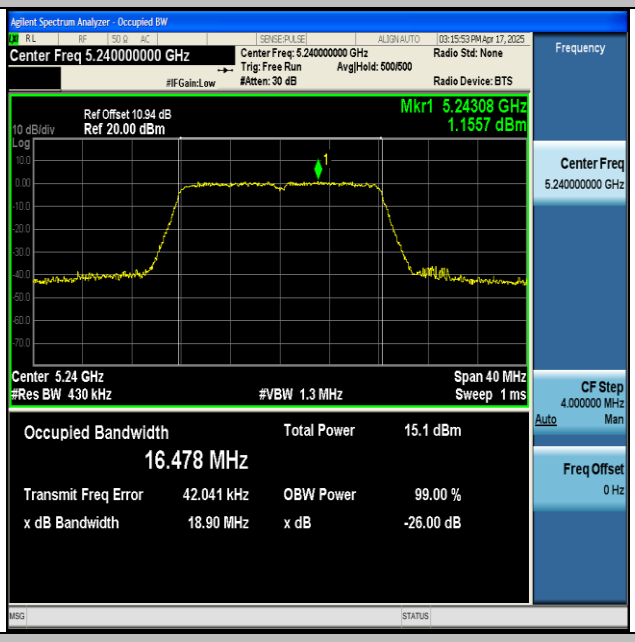


11A-Ant1-5200



11A-Ant2-5200



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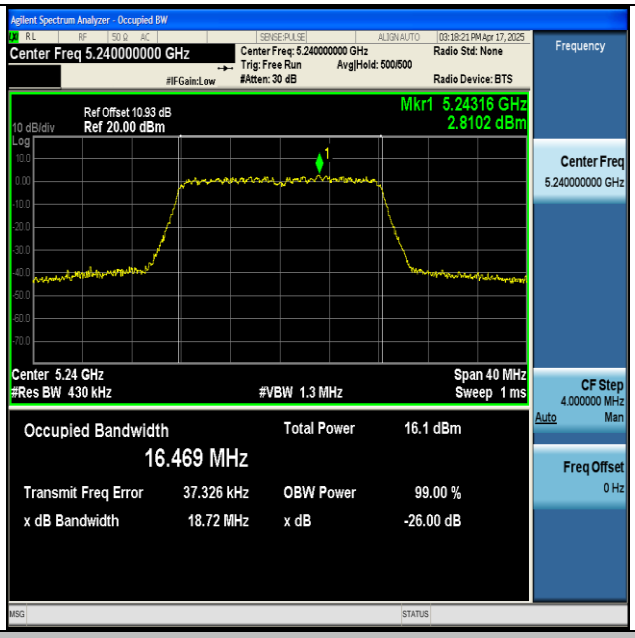
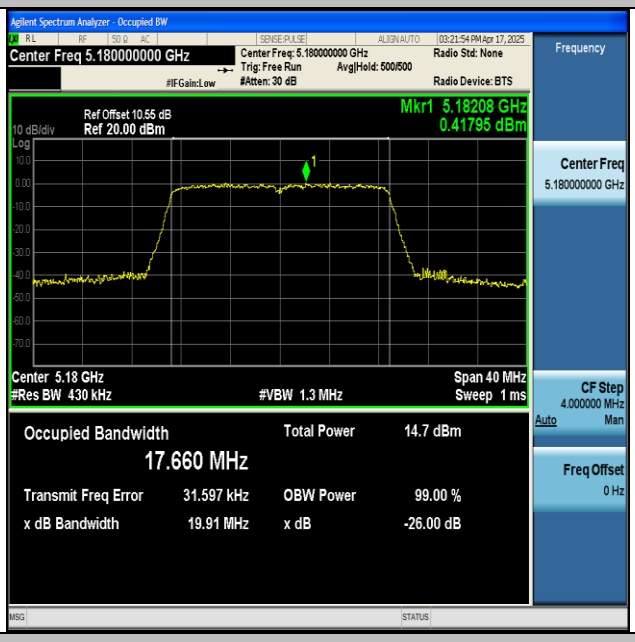


11A-Ant2-5240



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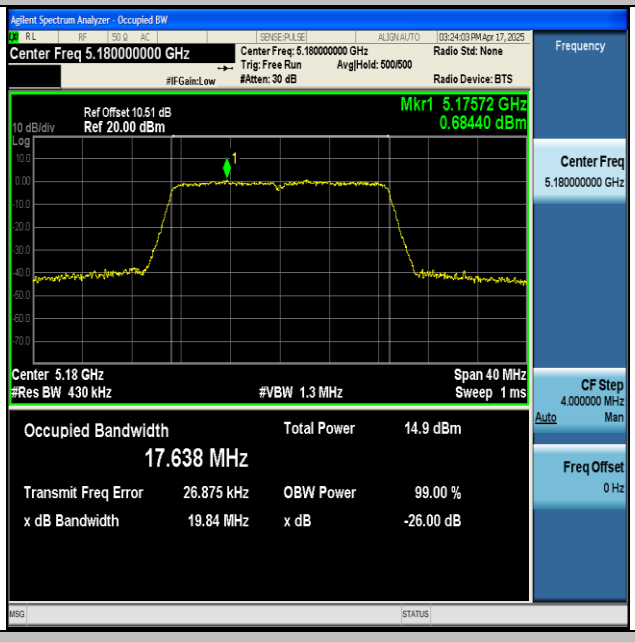

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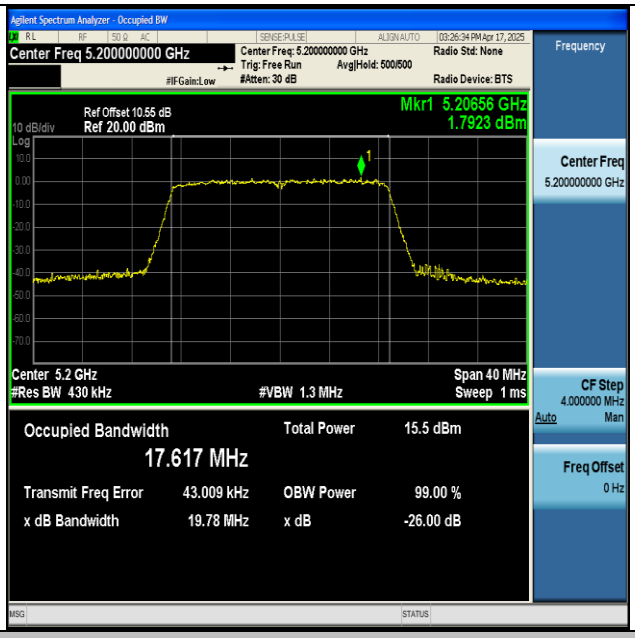

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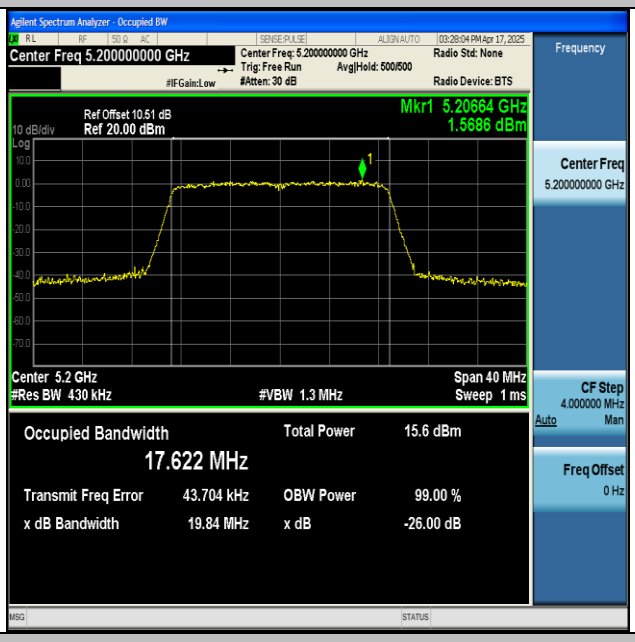

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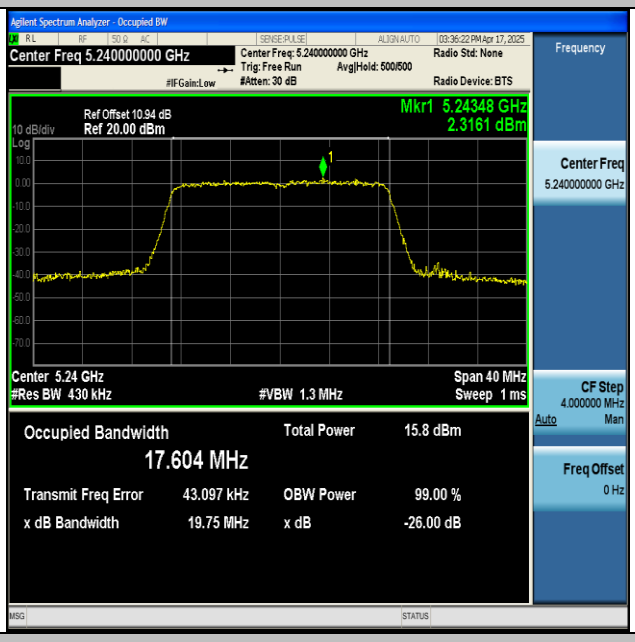

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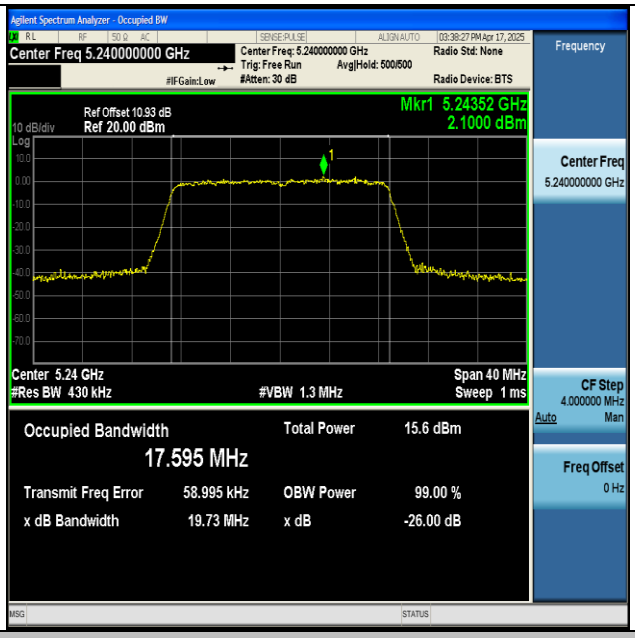

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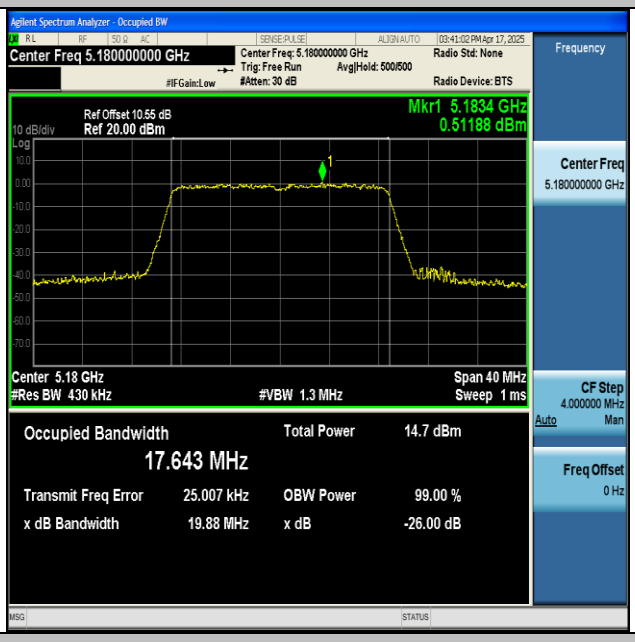

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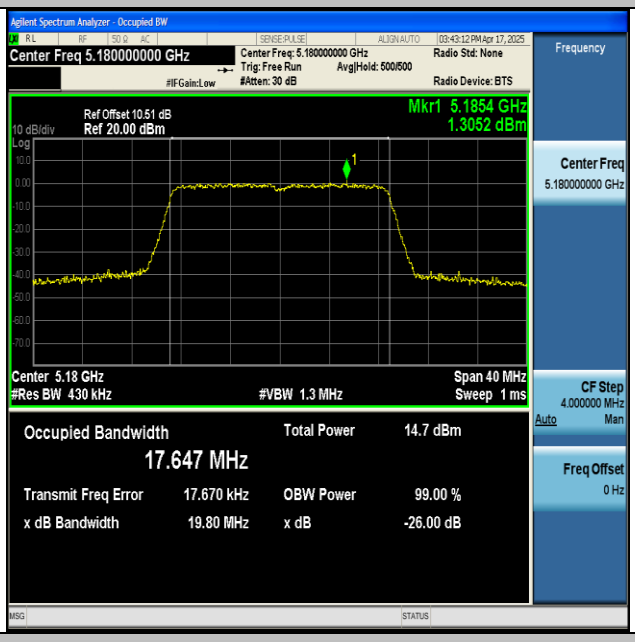
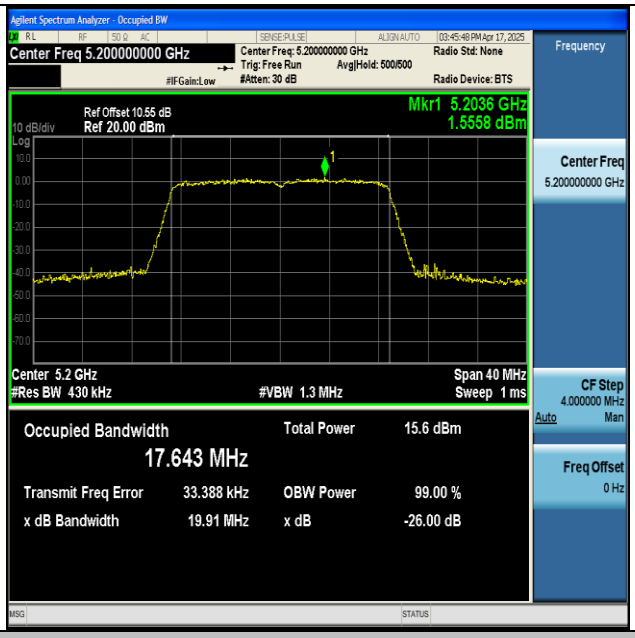


11AC20MIMO-Ant2-5180



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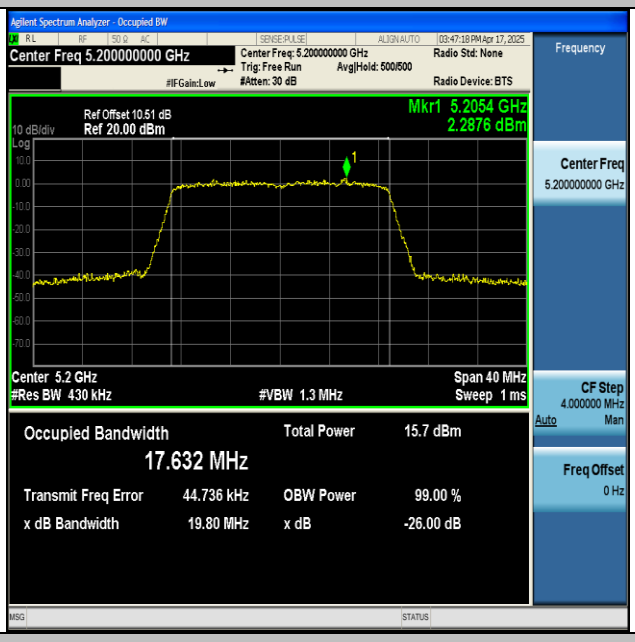
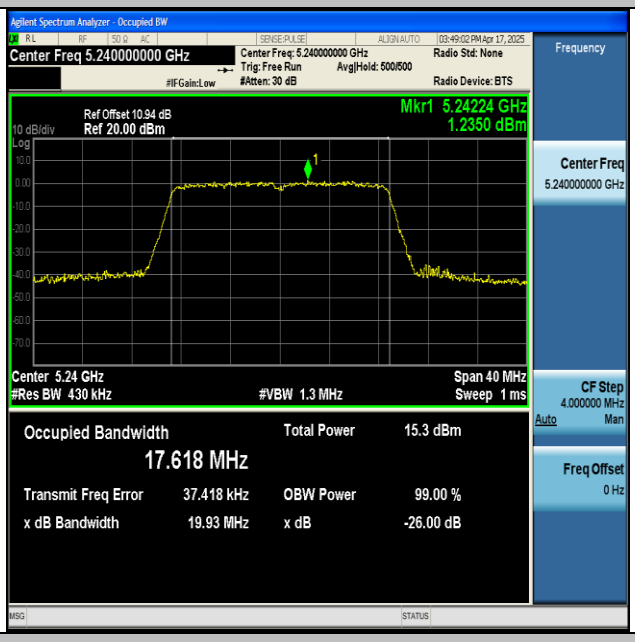
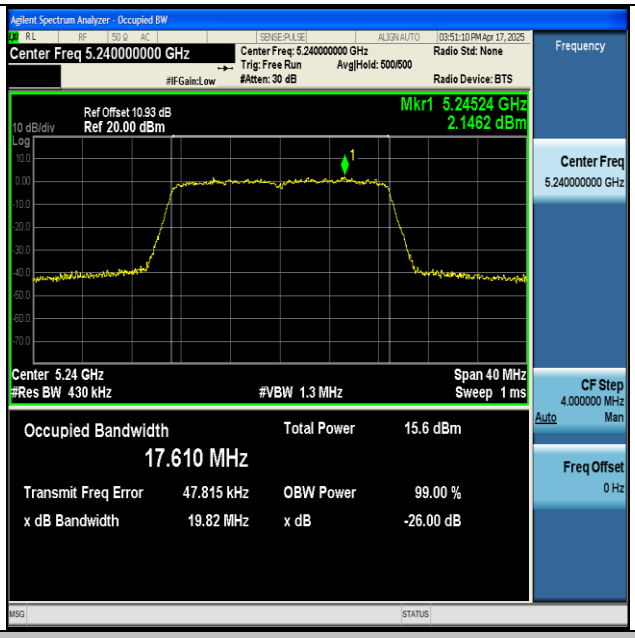


11AC20MIMO-Ant2-5200



11AC20MIMO-Ant1-5240



11AC20MIMO-Ant2-5240

Appendix B: Maximum conducted output power

Test Result

Test Mode	Antenna	Frequency [MHz]	Conducted Power [dBm]	Conducted Limit [dBm]	Verdict
11A	Ant1	5180	8.15	≤23.98	PASS
11A	Ant2	5180	8.45	≤23.98	PASS
11A	Ant1	5200	9.06	≤23.98	PASS
11A	Ant2	5200	8.90	≤23.98	PASS
11A	Ant1	5240	8.71	≤23.98	PASS
11A	Ant2	5240	9.01	≤23.98	PASS
11N20MIMO	Ant1	5180	8.16	≤23.98	PASS
11N20MIMO	Ant2	5180	8.46	≤23.98	PASS
11N20MIMO	total	5180	11.32	≤23.98	PASS
11N20MIMO	Ant1	5200	8.80	≤23.98	PASS
11N20MIMO	Ant2	5200	9.14	≤23.98	PASS
11N20MIMO	total	5200	11.98	≤23.98	PASS
11N20MIMO	Ant1	5240	8.96	≤23.98	PASS
11N20MIMO	Ant2	5240	8.96	≤23.98	PASS
11N20MIMO	total	5240	11.97	≤23.98	PASS
11AC20MIMO	Ant1	5180	8.18	≤23.98	PASS
11AC20MIMO	Ant2	5180	8.19	≤23.98	PASS
11AC20MIMO	total	5180	11.20	≤23.98	PASS
11AC20MIMO	Ant1	5200	8.89	≤23.98	PASS
11AC20MIMO	Ant2	5200	9.15	≤23.98	PASS
11AC20MIMO	total	5200	12.03	≤23.98	PASS
11AC20MIMO	Ant1	5240	8.73	≤23.98	PASS
11AC20MIMO	Ant2	5240	9.06	≤23.98	PASS
11AC20MIMO	total	5240	11.91	≤23.98	PASS

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

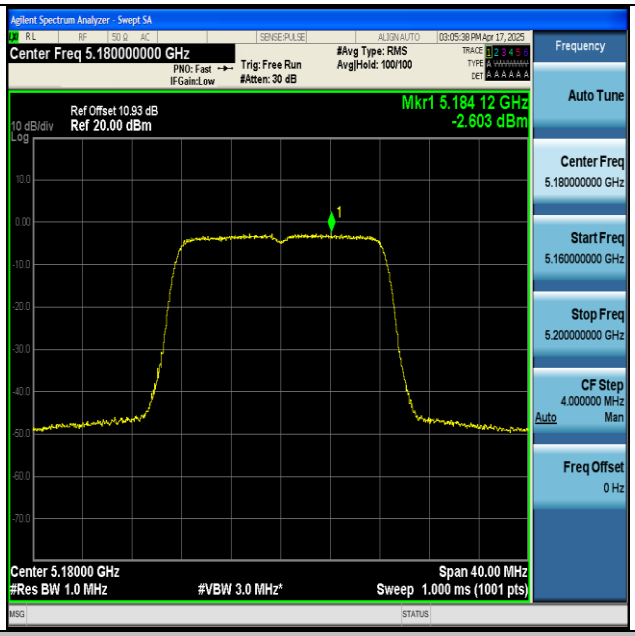
Appendix C: Maximum power spectral density

Test Result

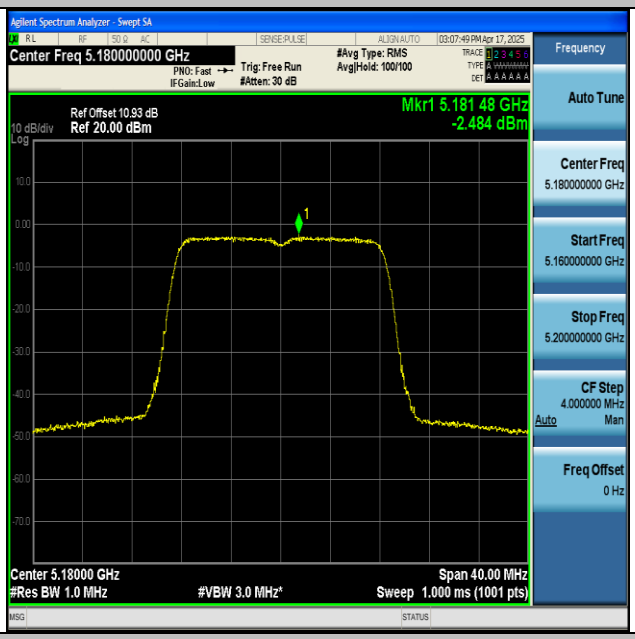
Test Mode	Antenna	Frequency [MHz]	Result [dBm/MHz]	Limit [dBm/MHz]	Verdict
11A	Ant1	5180	-2.60	≤11.00	PASS
11A	Ant2	5180	-2.48	≤11.00	PASS
11A	Ant1	5200	-1.83	≤11.00	PASS
11A	Ant2	5200	-1.91	≤11.00	PASS
11A	Ant1	5240	-2.43	≤11.00	PASS
11A	Ant2	5240	-1.94	≤11.00	PASS
11N20MIMO	Ant1	5180	-3.12	≤11.00	PASS
11N20MIMO	Ant2	5180	-2.93	≤11.00	PASS
11N20MIMO	total	5180	-0.01	≤10.64	PASS
11N20MIMO	Ant1	5200	-2.55	≤11.00	PASS
11N20MIMO	Ant2	5200	-2.29	≤11.00	PASS
11N20MIMO	total	5200	0.59	≤10.64	PASS
11N20MIMO	Ant1	5240	-2.31	≤11.00	PASS
11N20MIMO	Ant2	5240	-2.09	≤11.00	PASS
11N20MIMO	total	5240	0.81	≤10.64	PASS
11AC20MIMO	Ant1	5180	-3.15	≤11.00	PASS
11AC20MIMO	Ant2	5180	-3.09	≤11.00	PASS
11AC20MIMO	total	5180	-0.11	≤10.64	PASS
11AC20MIMO	Ant1	5200	-1.79	≤11.00	PASS
11AC20MIMO	Ant2	5200	-1.75	≤11.00	PASS
11AC20MIMO	total	5200	1.24	≤10.64	PASS
11AC20MIMO	Ant1	5240	-2.47	≤11.00	PASS
11AC20MIMO	Ant2	5240	-2.38	≤11.00	PASS
11AC20MIMO	total	5240	0.59	≤10.64	PASS

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

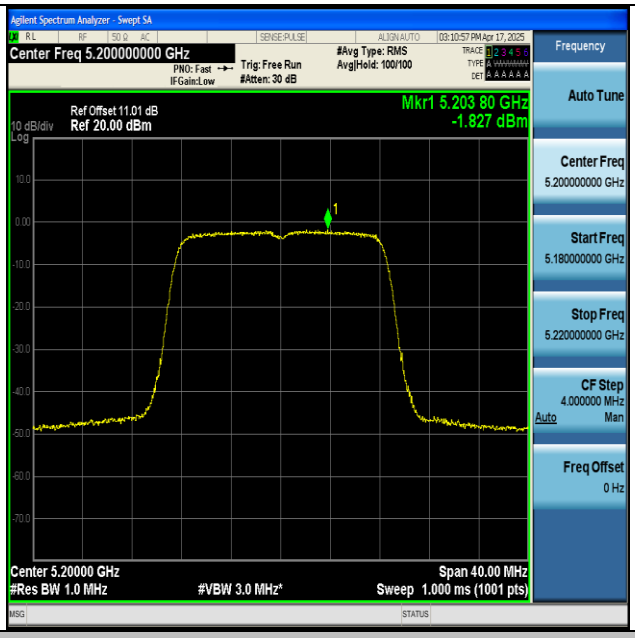
Test Graphs



11A-Ant1-5180-PASS



11A-Ant2-5180-PASS



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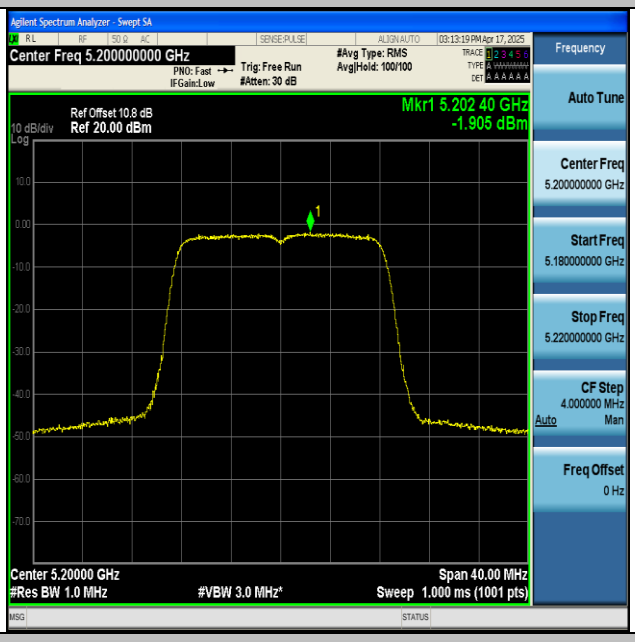
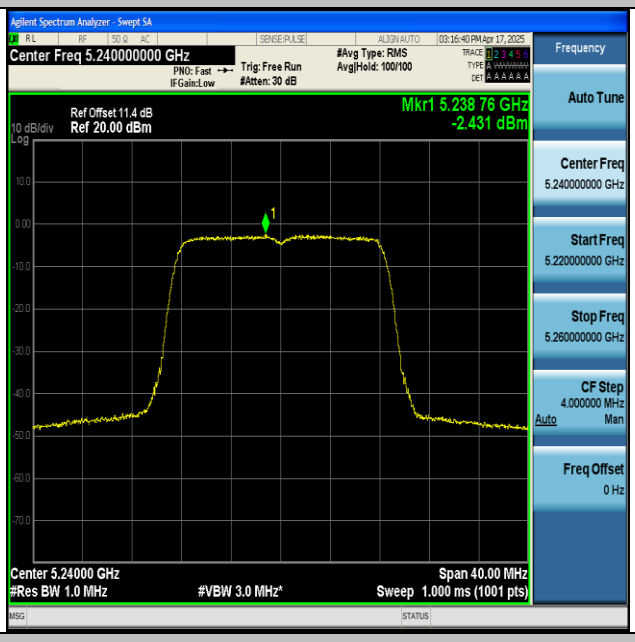
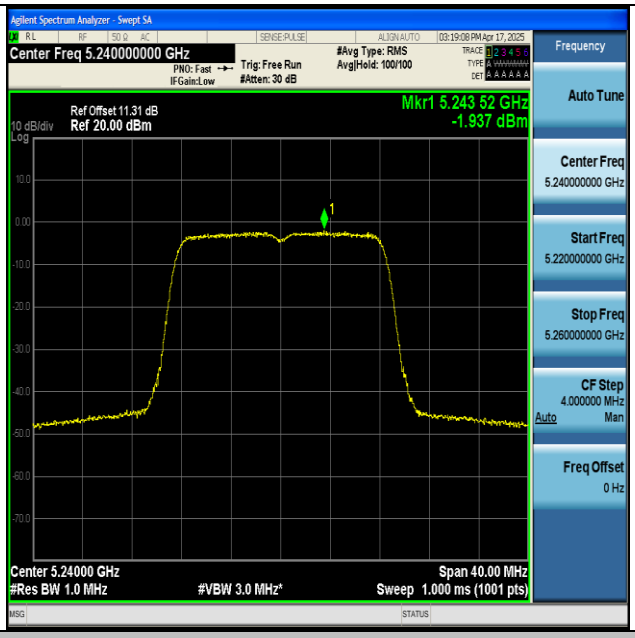


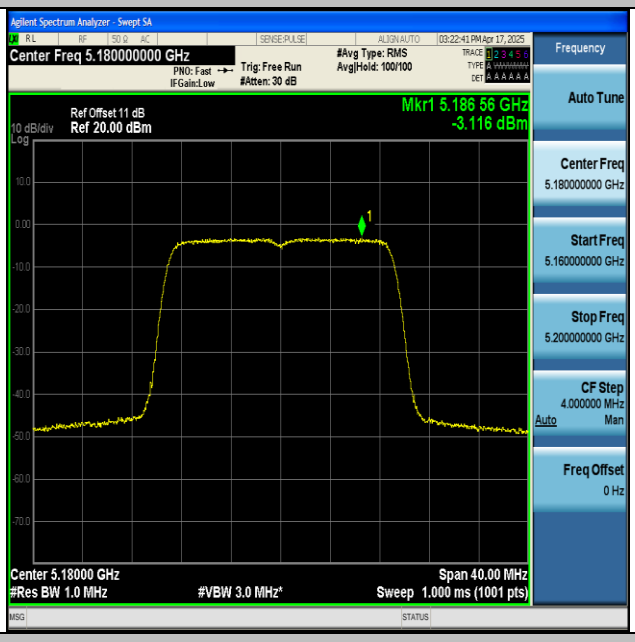
11A-Ant2-5200-PASS



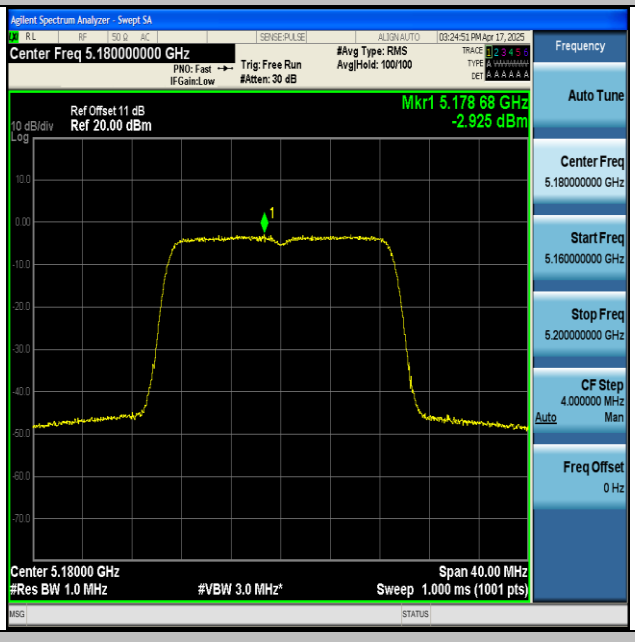
11A-Ant1-5240-PASS



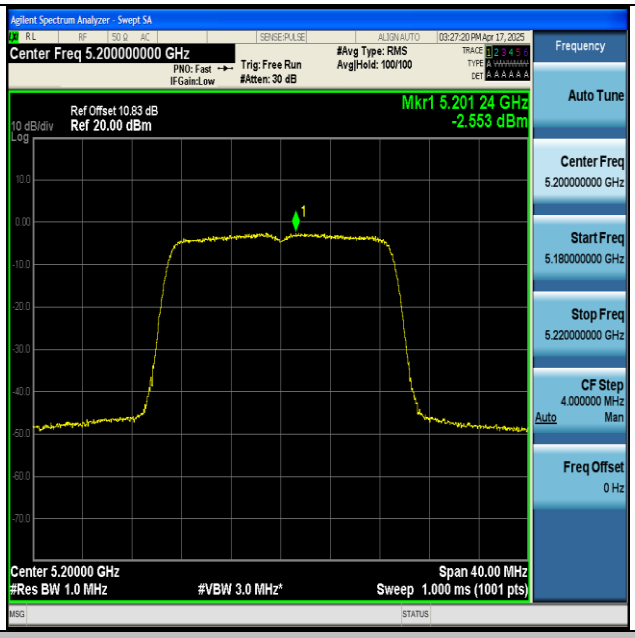
11A-Ant2-5240-PASS



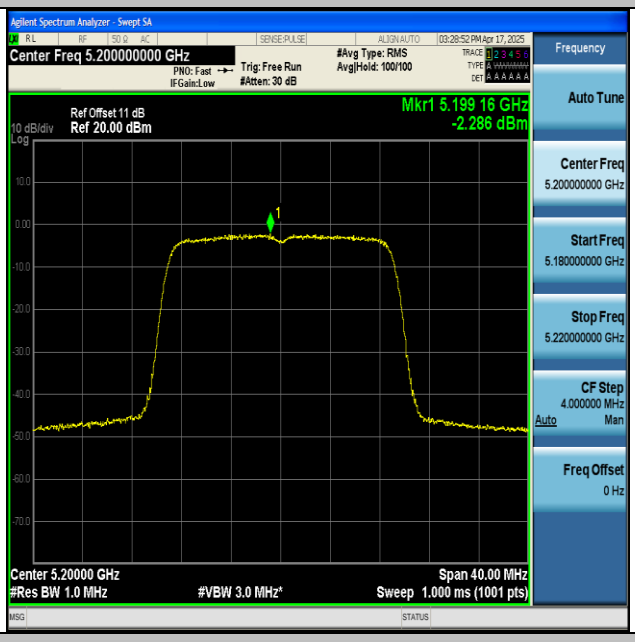
11N20MIMO-Ant1-5180-PASS



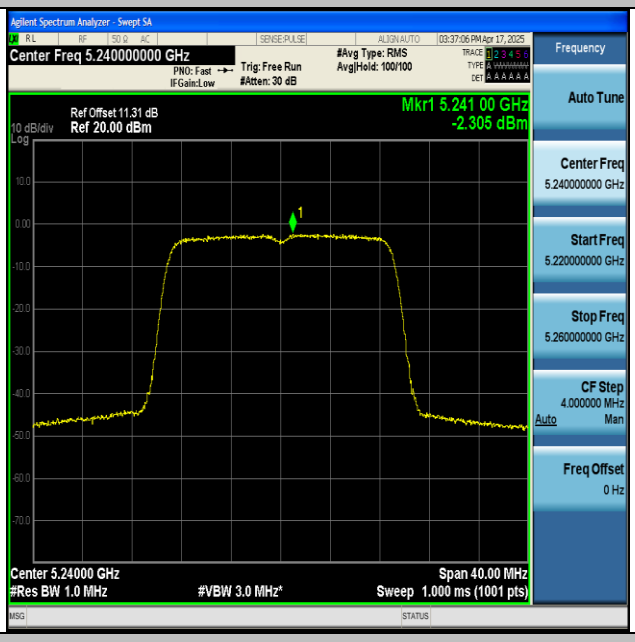
11N20MIMO-Ant2-5180-PASS



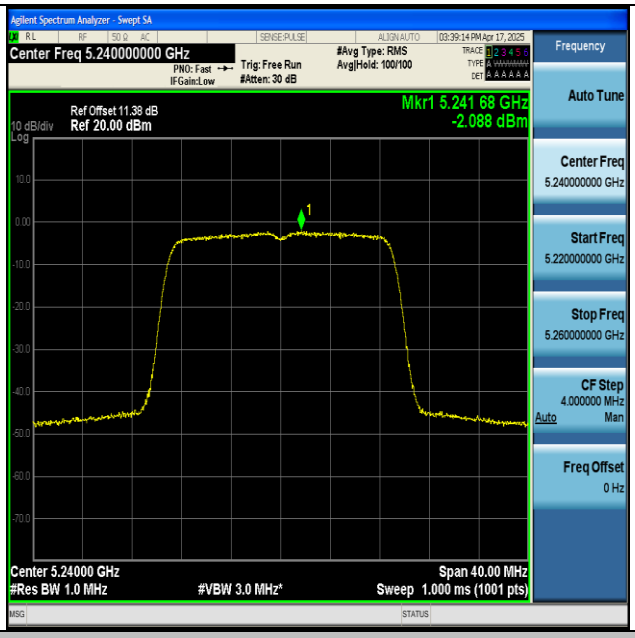
11N20MIMO-Ant1-5200-PASS



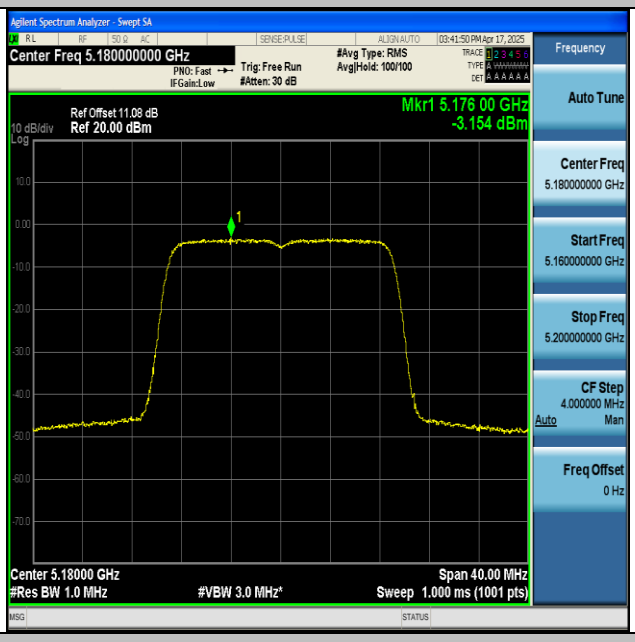
11N20MIMO-Ant2-5200-PASS



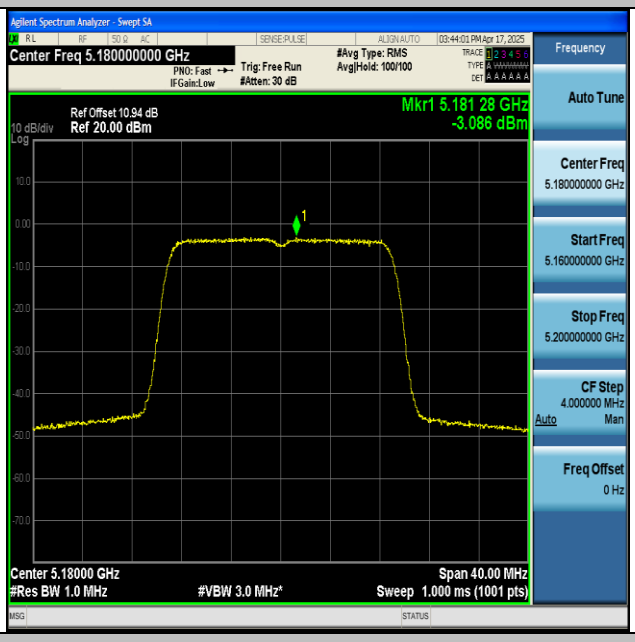
11N20MIMO-Ant1-5240-PASS



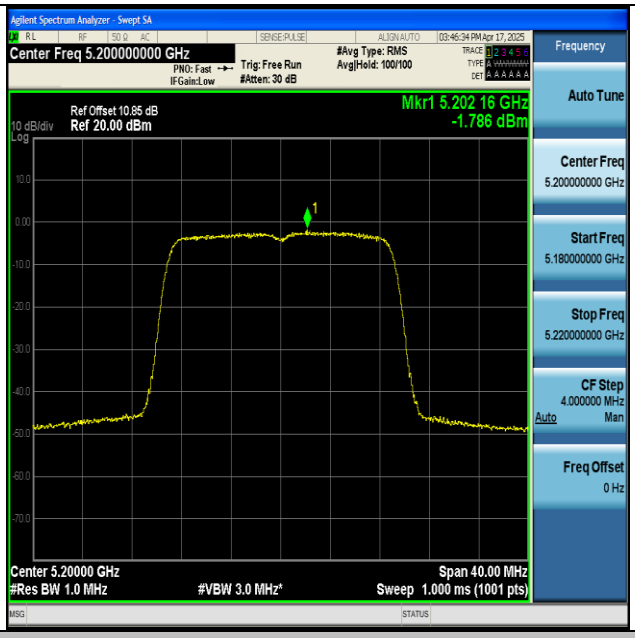
11N20MIMO-Ant2-5240-PASS



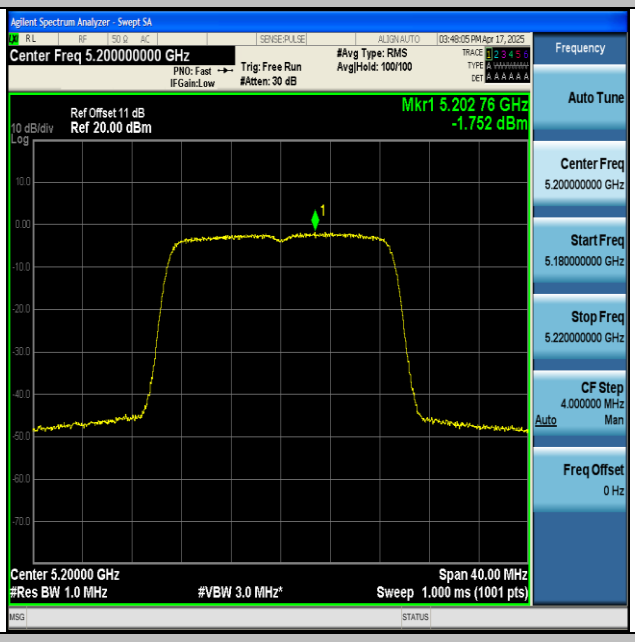
11AC20MIMO-Ant1-5180-PASS



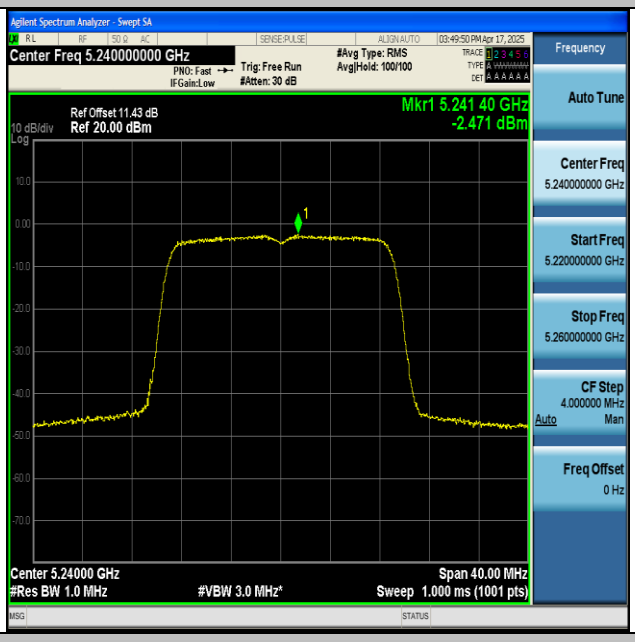
11AC20MIMO-Ant2-5180-PASS



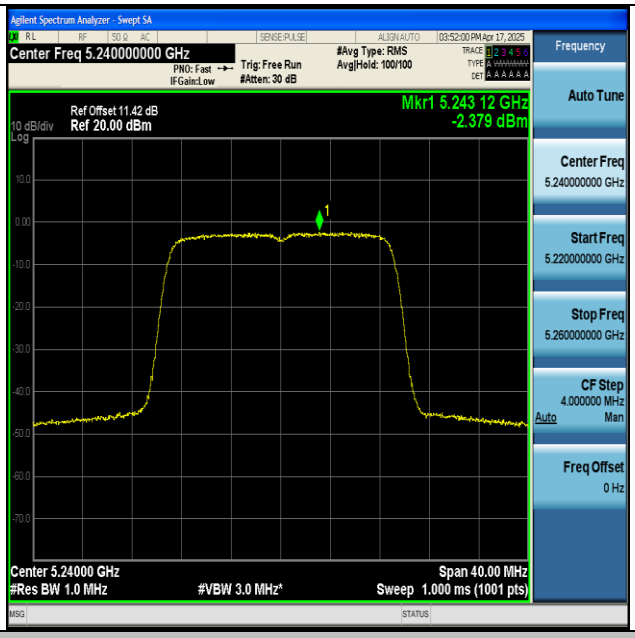
11AC20MIMO-Ant1-5200-PASS



11AC20MIMO-Ant2-5200-PASS



11AC20MIMO-Ant1-5240-PASS



11AC20MIMO-Ant2-5240-PASS

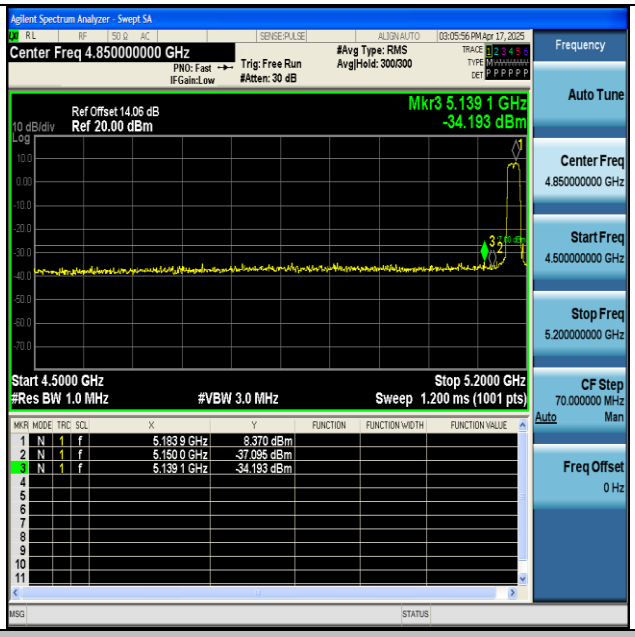
Appendix D: Band edge measurements

Test Result

Test Mode	Antenna	Ch. Name	Frequency [MHz]	Result [dBm]	Limit [dBm]	Verdict
11A	Ant1	Low	5180	-34.19	≤-27	PASS
11A	Ant2	Low	5180	-32.73	≤-27	PASS
11A	Ant1	High	5240	-33.57	≤-27	PASS
11A	Ant2	High	5240	-33.06	≤-27	PASS
11N20MIMO	Ant1	Low	5180	-33.84	≤-27	PASS
11N20MIMO	Ant2	Low	5180	-34.18	≤-27	PASS
11N20MIMO	Ant1	High	5240	-33.78	≤-27	PASS
11N20MIMO	Ant2	High	5240	-33.46	≤-27	PASS
11AC20MIMO	Ant1	Low	5180	-34.72	≤-27	PASS
11AC20MIMO	Ant2	Low	5180	-33.66	≤-27	PASS
11AC20MIMO	Ant1	High	5240	-33.89	≤-27	PASS
11AC20MIMO	Ant2	High	5240	-32.05	≤-27	PASS

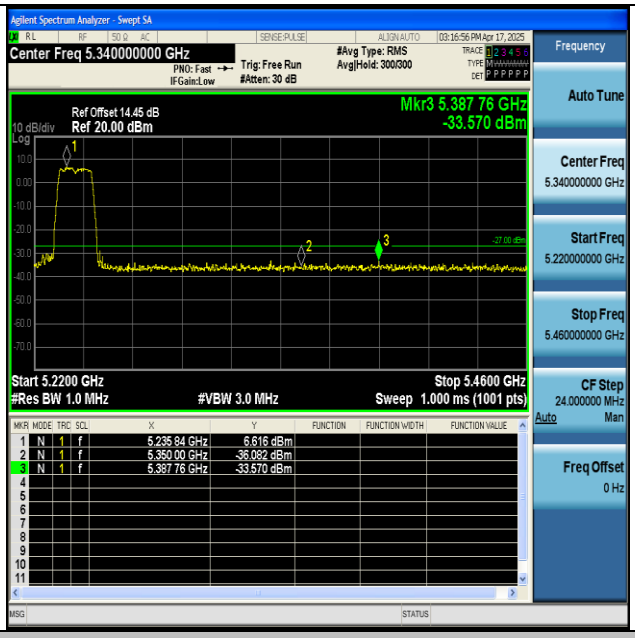
Note: offset(dB) = cable loss(dB) + attenuator factor(dB)

Test Graphs



11A-Ant1-5180-PASS

11A-Ant2-5180-PASS



11A-Ant1-5240-PASS

11A-Ant2-5240-PASS

11N20MIMO-Ant1-5180-PASS