

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

Product Name: DRONE

Trade Mark: /

Test Model: F7GIM

FCC ID: 2A5GP-F7GIM

### Environmental Conditions

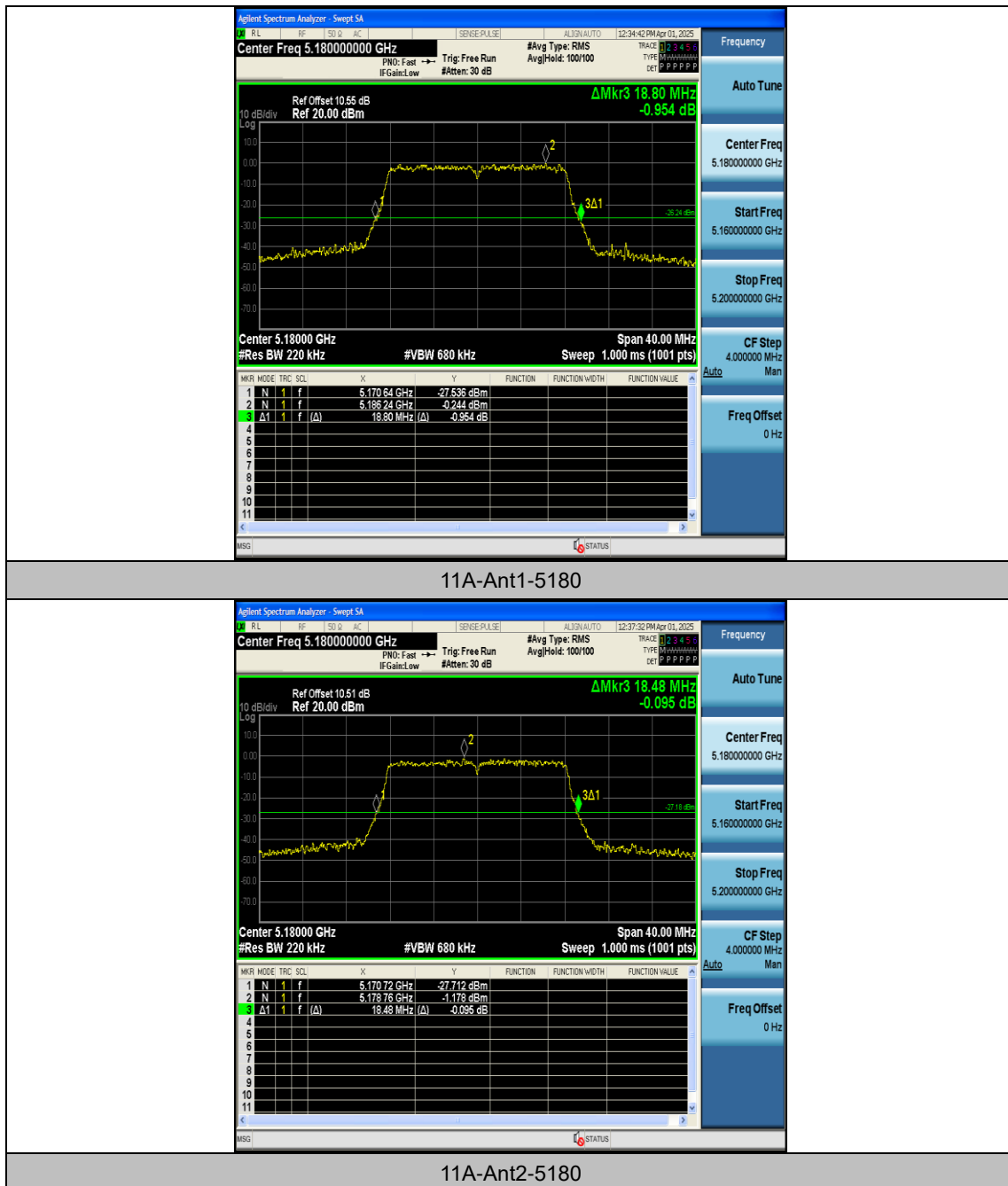
|                    |           |
|--------------------|-----------|
| Temperature:       | 23.5℃     |
| Relative Humidity: | 58%       |
| ATM Pressure:      | 100.0 kPa |
| Test Engineer:     | Allen Lai |
| Supervised by:     | Max Zhang |
| NOTE               | N/A       |

## Appendix A1: Emission Bandwidth

### Test Result

| Test Mode  | Antenna | Frequency<br>[MHz] | 26db EBW<br>[MHz] | FL<br>[MHz] | FH<br>[MHz] | Limit<br>[MHz] | Verdict |
|------------|---------|--------------------|-------------------|-------------|-------------|----------------|---------|
| 11A        | Ant1    | 5180               | 18.800            | 5170.640    | 5189.440    | ---            | ---     |
| 11A        | Ant2    | 5180               | 18.480            | 5170.720    | 5189.200    | ---            | ---     |
| 11A        | Ant1    | 5200               | 18.480            | 5190.720    | 5209.200    | ---            | ---     |
| 11A        | Ant2    | 5200               | 18.400            | 5190.840    | 5209.240    | ---            | ---     |
| 11A        | Ant1    | 5240               | 18.320            | 5230.840    | 5249.160    | ---            | ---     |
| 11A        | Ant2    | 5240               | 18.560            | 5230.720    | 5249.280    | ---            | ---     |
| 11N20MIMO  | Ant1    | 5180               | 19.360            | 5170.320    | 5189.680    | ---            | ---     |
| 11N20MIMO  | Ant2    | 5180               | 19.400            | 5170.320    | 5189.720    | ---            | ---     |
| 11N20MIMO  | Ant1    | 5200               | 19.440            | 5190.320    | 5209.760    | ---            | ---     |
| 11N20MIMO  | Ant2    | 5200               | 19.480            | 5190.280    | 5209.760    | ---            | ---     |
| 11N20MIMO  | Ant1    | 5240               | 19.400            | 5230.400    | 5249.800    | ---            | ---     |
| 11N20MIMO  | Ant2    | 5240               | 19.280            | 5230.440    | 5249.720    | ---            | ---     |
| 11AC20MIMO | Ant1    | 5180               | 19.360            | 5170.240    | 5189.600    | ---            | ---     |
| 11AC20MIMO | Ant2    | 5180               | 19.440            | 5170.280    | 5189.720    | ---            | ---     |
| 11AC20MIMO | Ant1    | 5200               | 19.360            | 5190.360    | 5209.720    | ---            | ---     |
| 11AC20MIMO | Ant2    | 5200               | 19.280            | 5190.400    | 5209.680    | ---            | ---     |
| 11AC20MIMO | Ant1    | 5240               | 19.360            | 5230.360    | 5249.720    | ---            | ---     |
| 11AC20MIMO | Ant2    | 5240               | 19.320            | 5230.320    | 5249.640    | ---            | ---     |

## Test Graphs





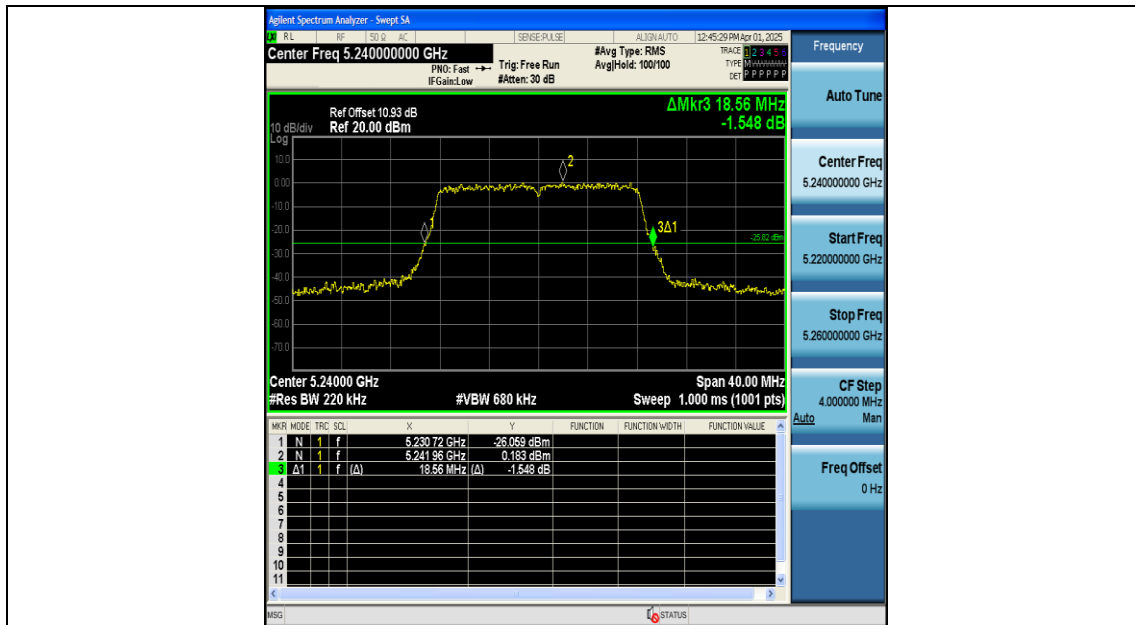
11A-Ant1-5200



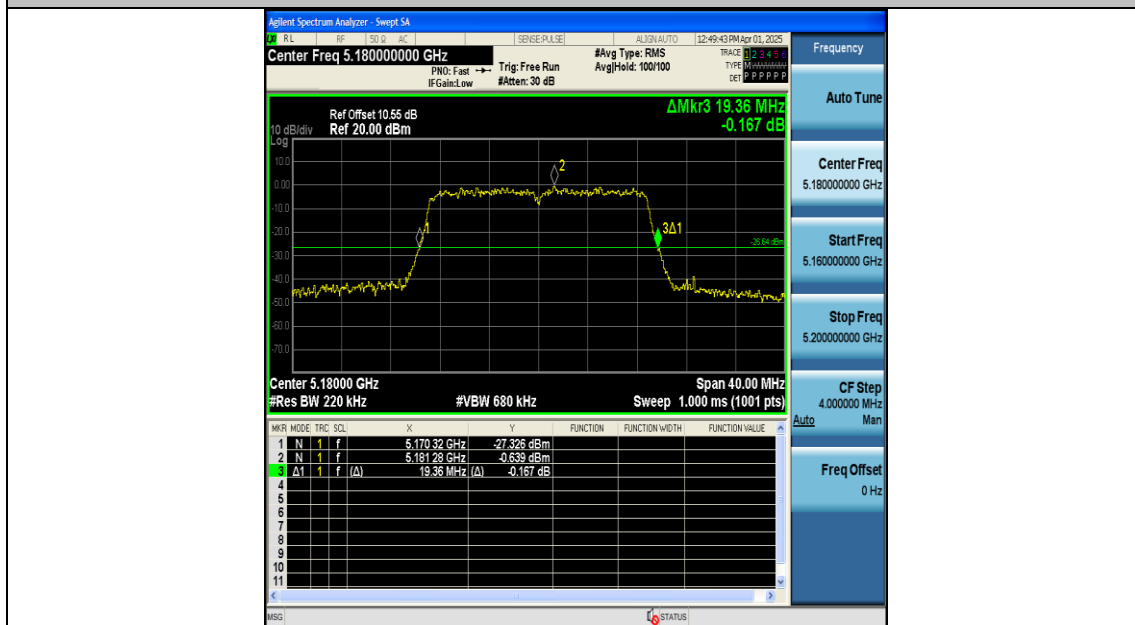
11A-Ant2-5200



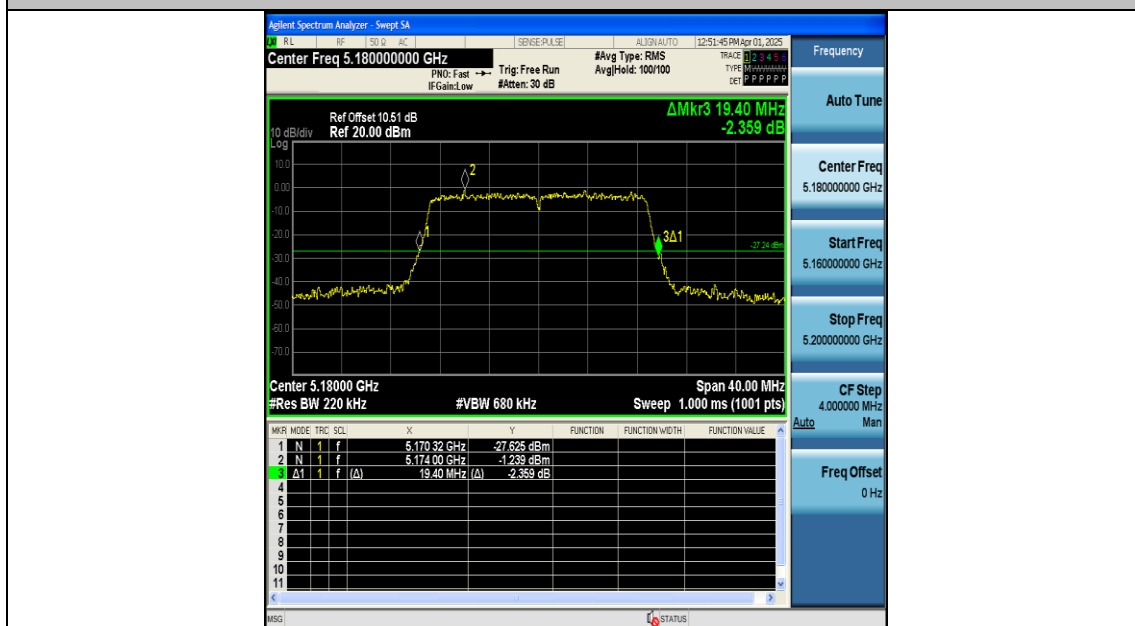
11A-Ant1-5240



11A-Ant2-5240



11N20MIMO-Ant1-5180



11N20MIMO-Ant2-5180



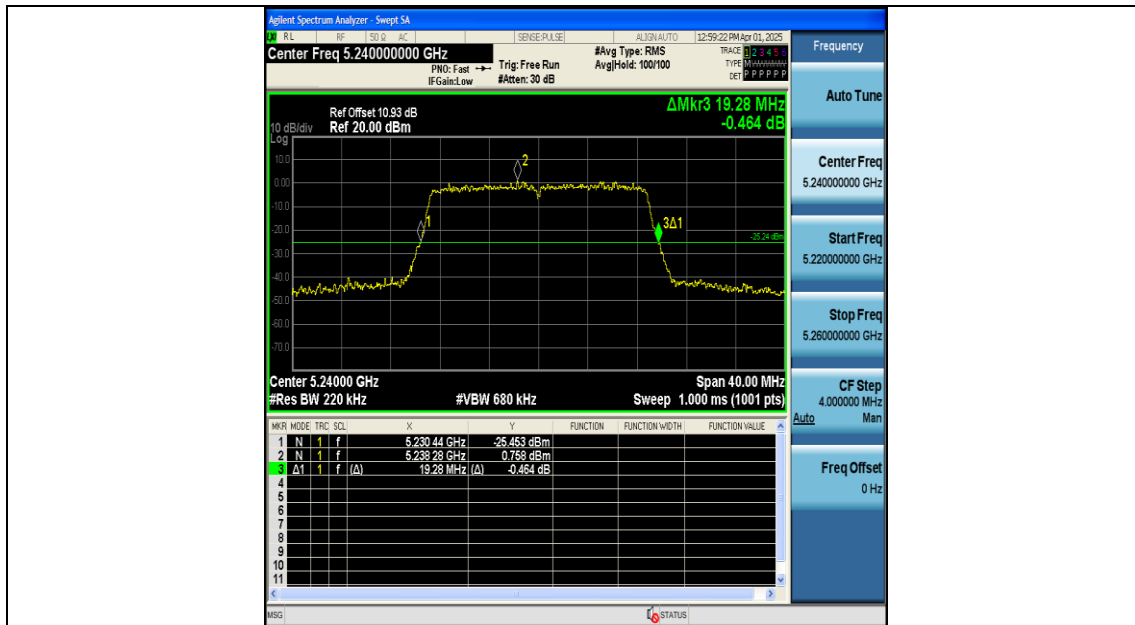
11N20MIMO-Ant1-5200



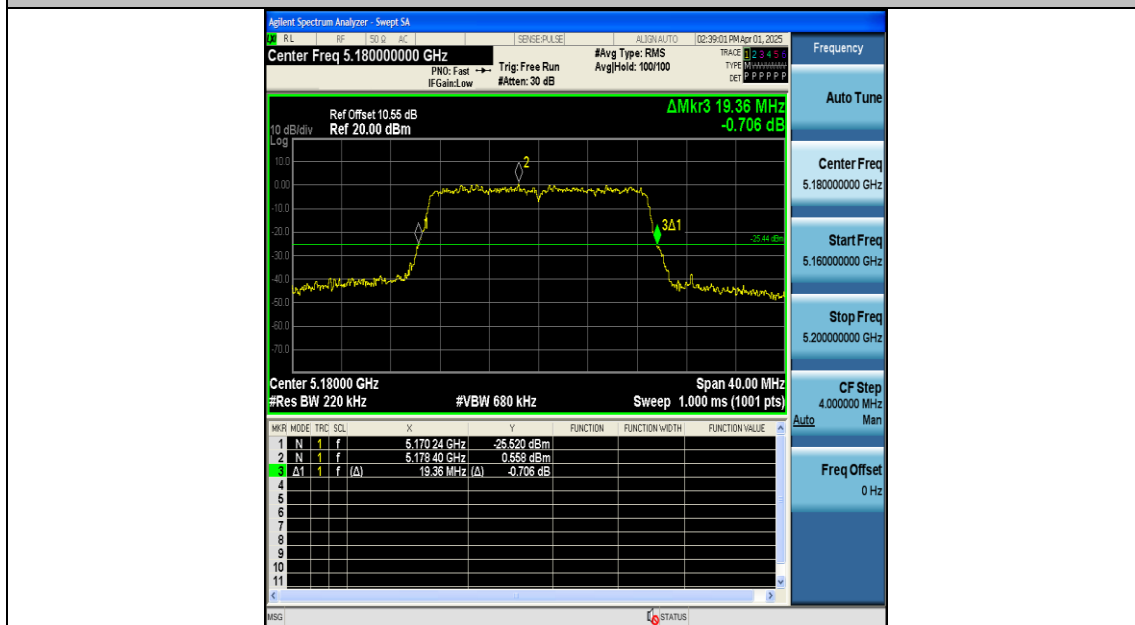
11N20MIMO-Ant2-5200



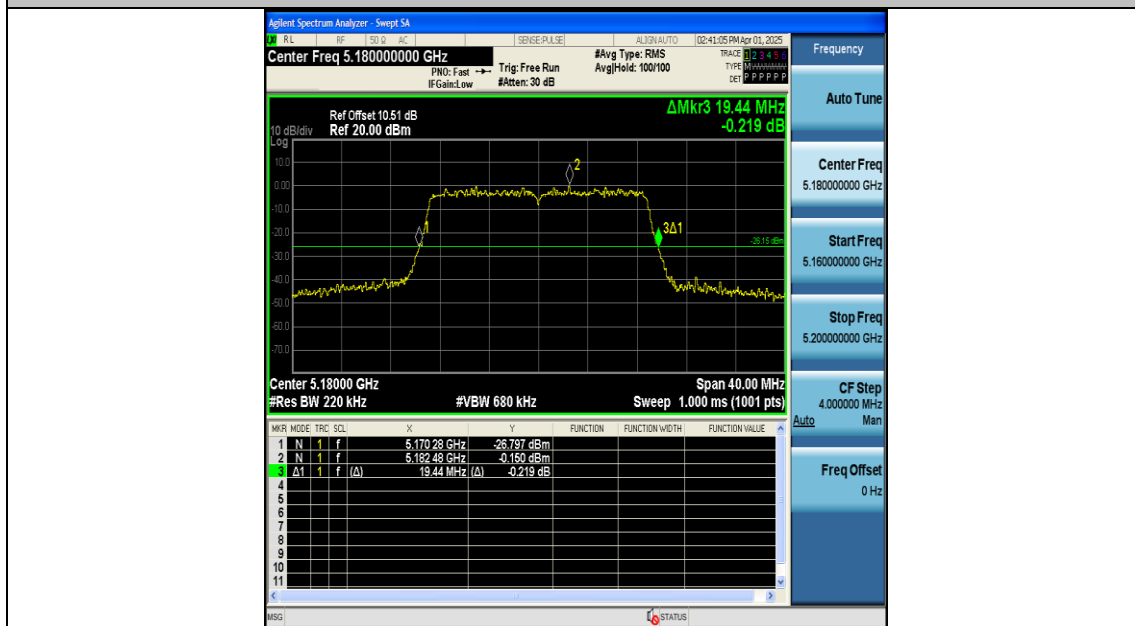
11N20MIMO-Ant1-5240



11N20MIMO-Ant2-5240



11AC20MIMO-Ant1-5180



11AC20MIMO-Ant2-5180





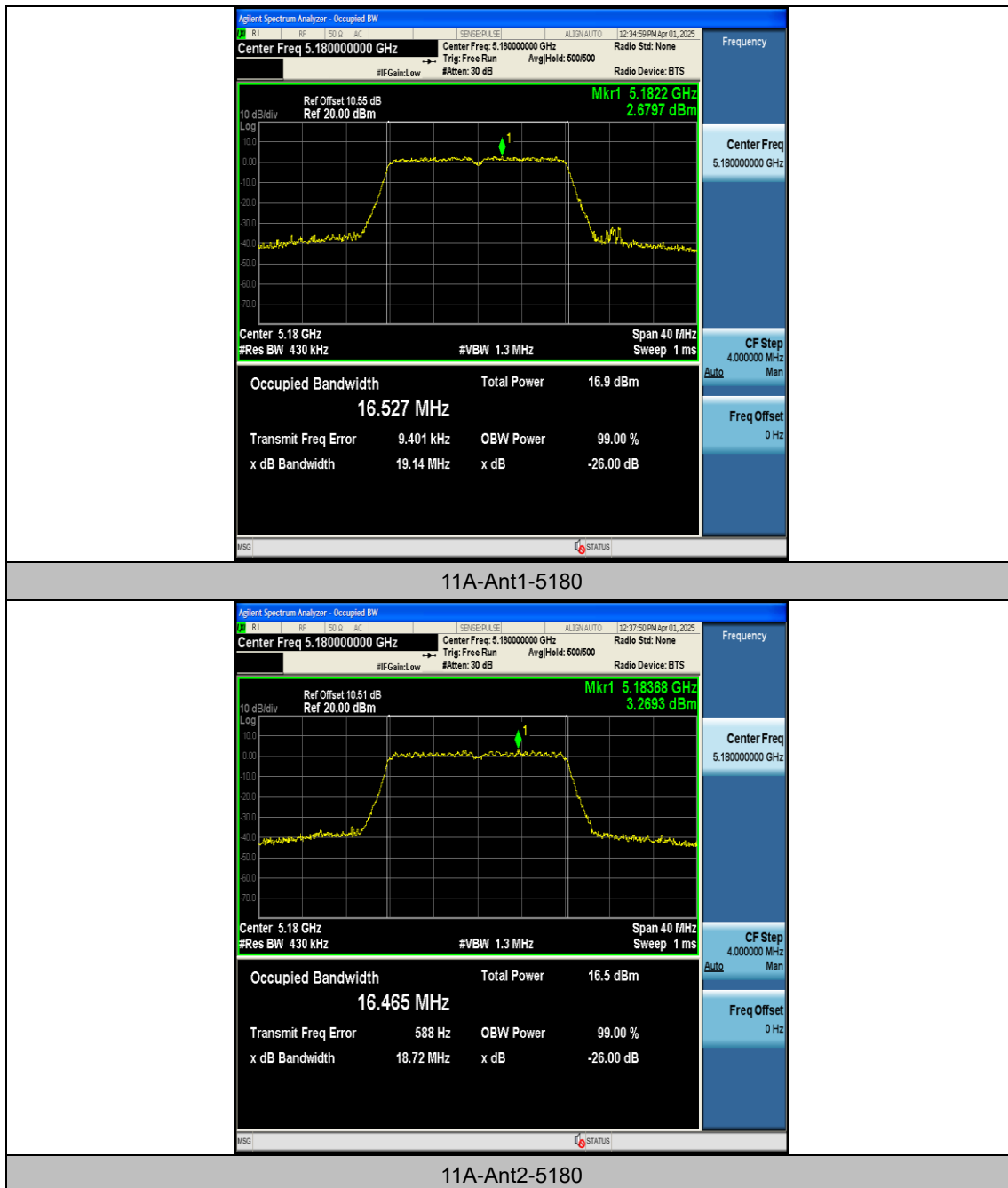


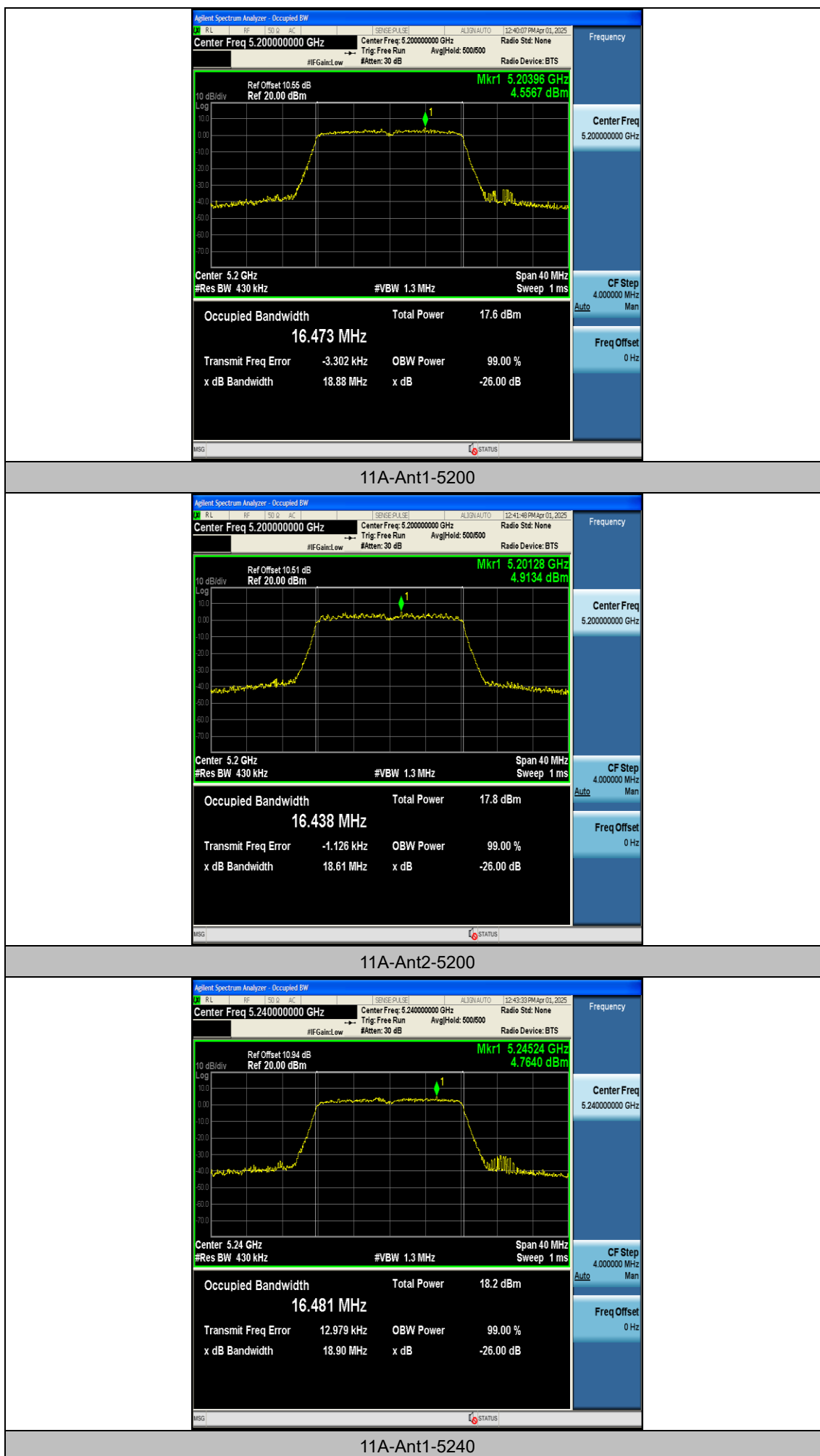
## Appendix A2: Occupied channel bandwidth

### Test Result

| Test Mode  | Antenna | Frequency<br>[MHz] | OCB<br>[MHz] | FL<br>[MHz] | FH<br>[MHz] | Limit<br>[MHz] | Verdict |
|------------|---------|--------------------|--------------|-------------|-------------|----------------|---------|
| 11A        | Ant1    | 5180               | 16.527       | 5171.7459   | 5188.2729   | ---            | ---     |
| 11A        | Ant2    | 5180               | 16.465       | 5171.7681   | 5188.2331   | ---            | ---     |
| 11A        | Ant1    | 5200               | 16.473       | 5191.7602   | 5208.2332   | ---            | ---     |
| 11A        | Ant2    | 5200               | 16.438       | 5191.7799   | 5208.2179   | ---            | ---     |
| 11A        | Ant1    | 5240               | 16.481       | 5231.7725   | 5248.2535   | ---            | ---     |
| 11A        | Ant2    | 5240               | 16.463       | 5231.7794   | 5248.2424   | ---            | ---     |
| 11N20MIMO  | Ant1    | 5180               | 17.655       | 5171.1739   | 5188.8289   | ---            | ---     |
| 11N20MIMO  | Ant2    | 5180               | 17.670       | 5171.1599   | 5188.8299   | ---            | ---     |
| 11N20MIMO  | Ant1    | 5200               | 17.583       | 5191.2190   | 5208.8020   | ---            | ---     |
| 11N20MIMO  | Ant2    | 5200               | 17.601       | 5191.2159   | 5208.8169   | ---            | ---     |
| 11N20MIMO  | Ant1    | 5240               | 17.627       | 5231.2000   | 5248.8270   | ---            | ---     |
| 11N20MIMO  | Ant2    | 5240               | 17.626       | 5231.2013   | 5248.8273   | ---            | ---     |
| 11AC20MIMO | Ant1    | 5180               | 17.655       | 5171.1645   | 5188.8195   | ---            | ---     |
| 11AC20MIMO | Ant2    | 5180               | 17.650       | 5171.1632   | 5188.8132   | ---            | ---     |
| 11AC20MIMO | Ant1    | 5200               | 17.616       | 5191.1901   | 5208.8061   | ---            | ---     |
| 11AC20MIMO | Ant2    | 5200               | 17.606       | 5191.1969   | 5208.8029   | ---            | ---     |
| 11AC20MIMO | Ant1    | 5240               | 17.603       | 5231.2141   | 5248.8171   | ---            | ---     |
| 11AC20MIMO | Ant2    | 5240               | 17.601       | 5231.2129   | 5248.8139   | ---            | ---     |

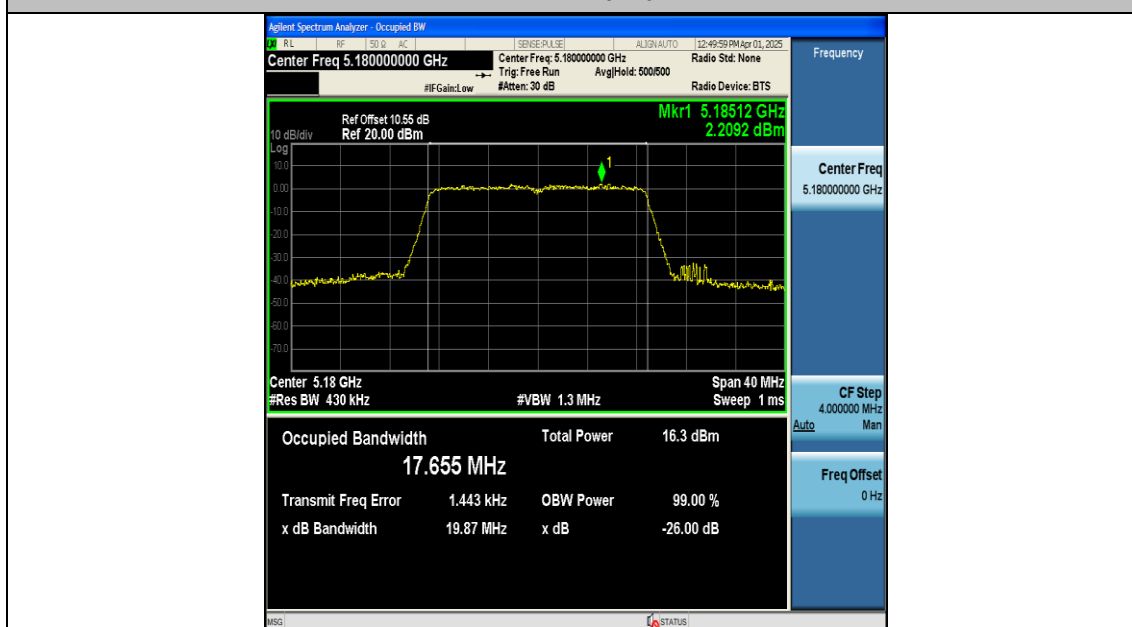
## Test Graphs



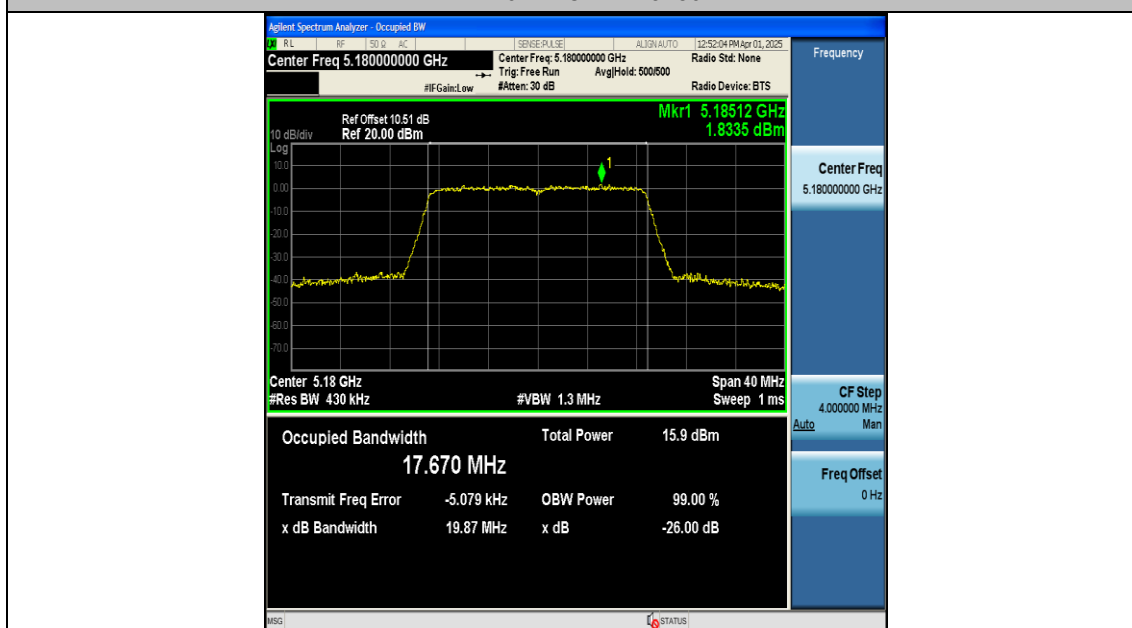




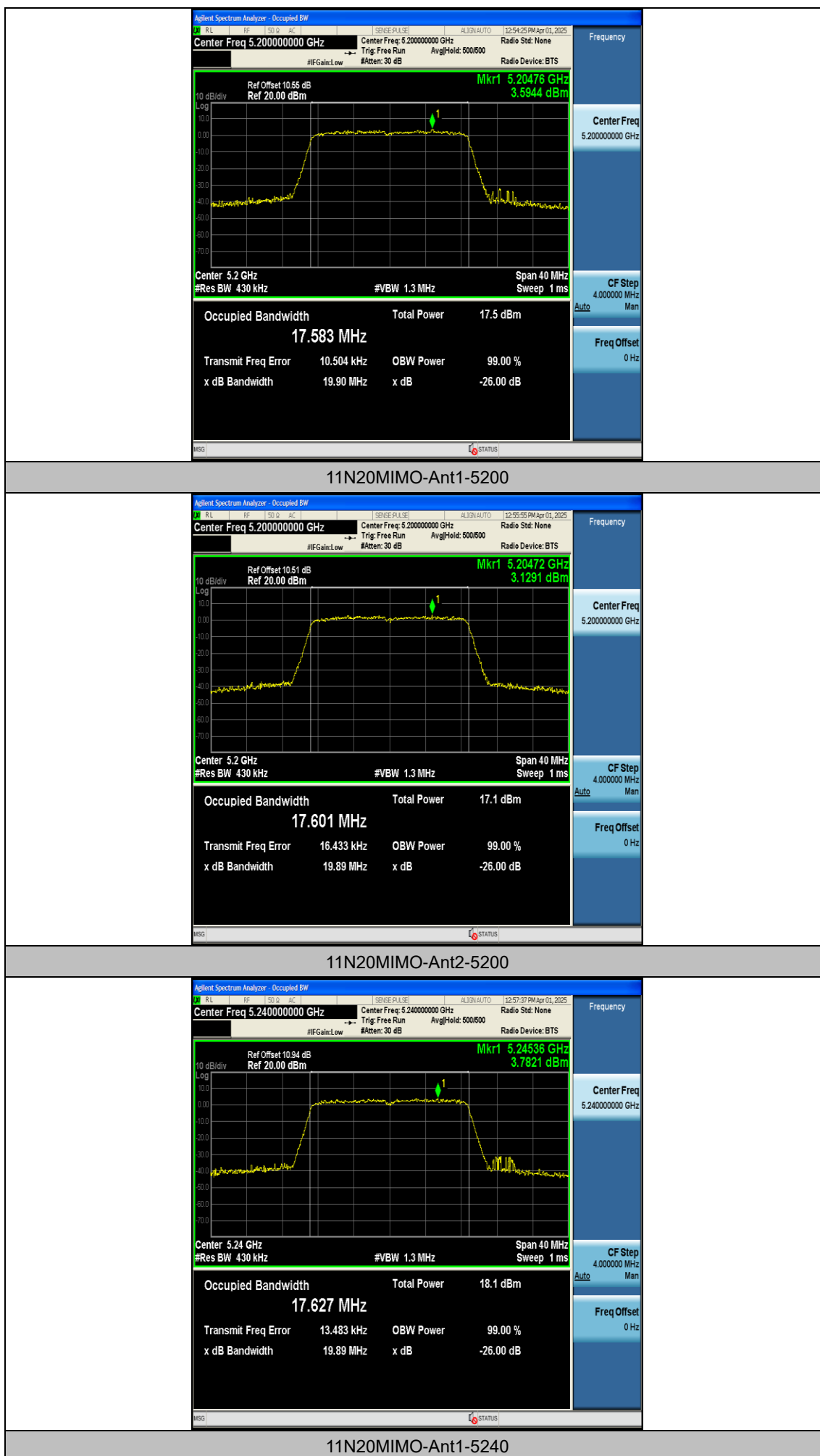
11A-Ant2-5240

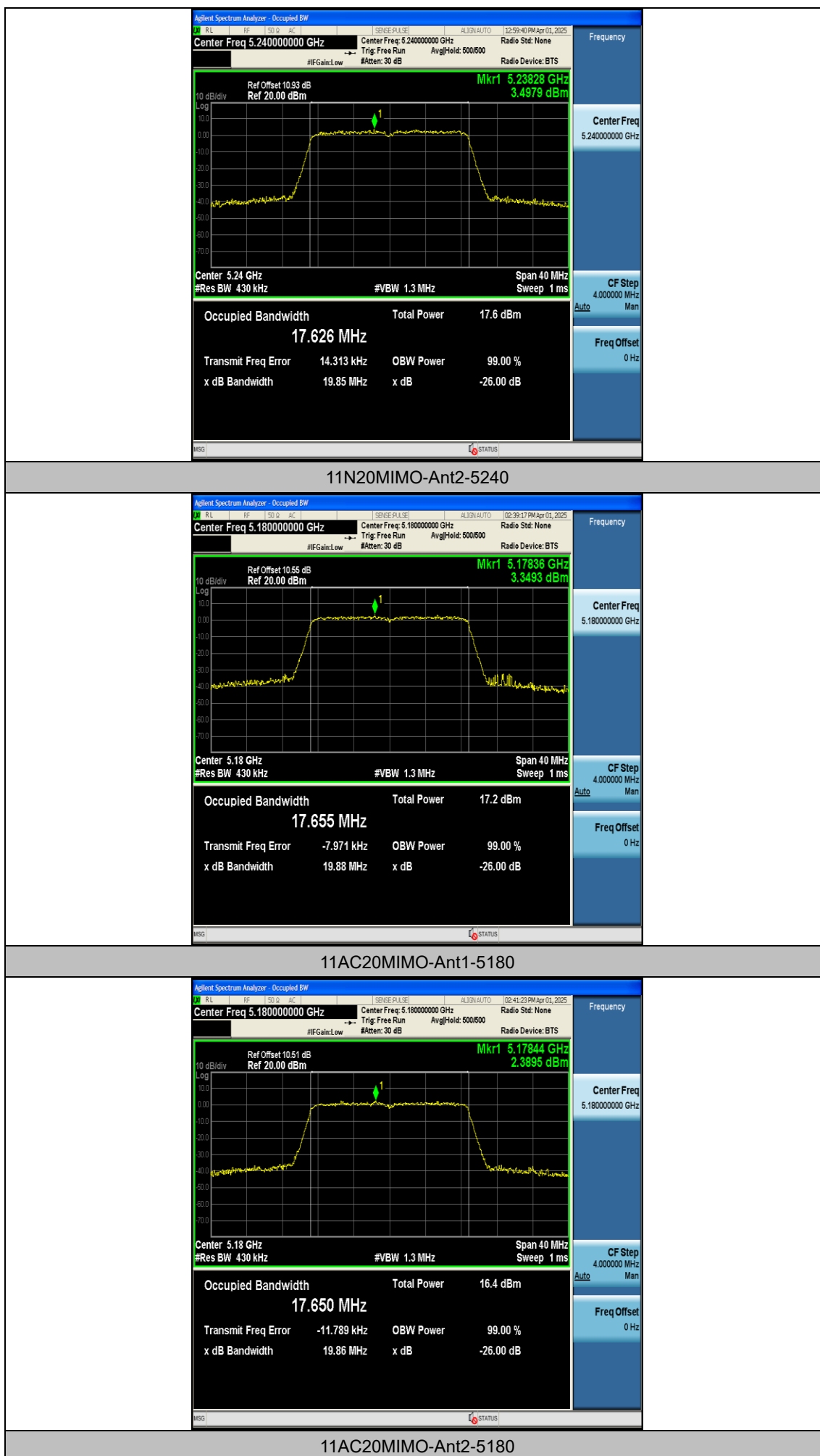


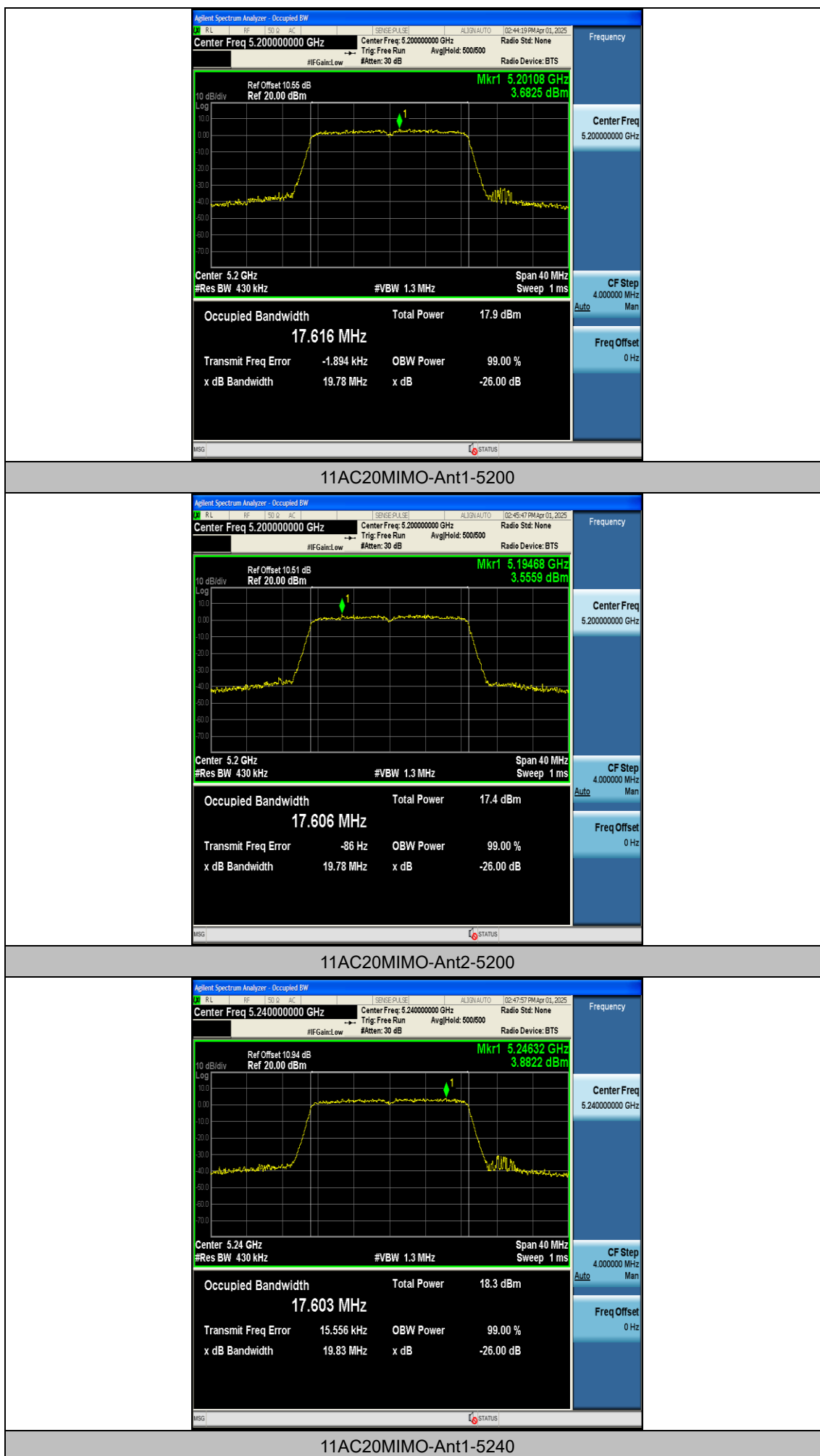
11N20MIMO-Ant1-5180

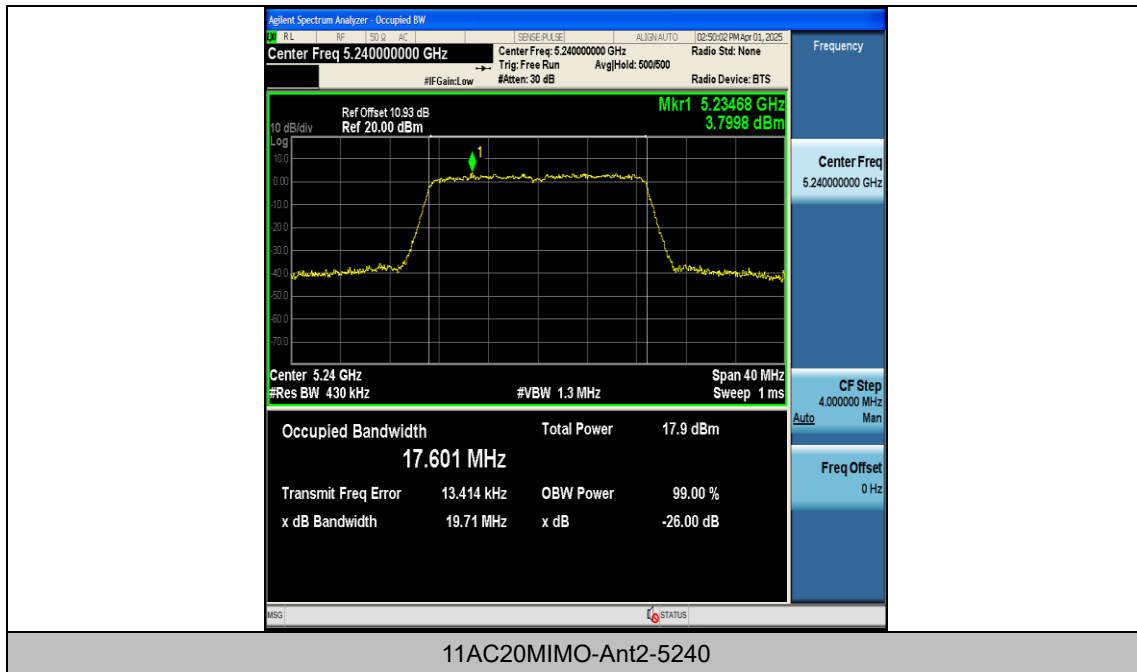


11N20MIMO-Ant2-5180











## Appendix B: Maximum conducted output power

### Test Result

| Test Mode  | Antenna | Frequency<br>[MHz] | Conducted<br>Power<br>[dBm] | Conducted<br>Limit<br>[dBm] | Verdict |
|------------|---------|--------------------|-----------------------------|-----------------------------|---------|
| 11A        | Ant1    | 5180               | 10.06                       | ≤23.98                      | PASS    |
| 11A        | Ant2    | 5180               | 9.38                        | ≤23.98                      | PASS    |
| 11A        | Ant1    | 5200               | 10.97                       | ≤23.98                      | PASS    |
| 11A        | Ant2    | 5200               | 10.64                       | ≤23.98                      | PASS    |
| 11A        | Ant1    | 5240               | 11.52                       | ≤23.98                      | PASS    |
| 11A        | Ant2    | 5240               | 11.15                       | ≤23.98                      | PASS    |
| 11N20MIMO  | Ant1    | 5180               | 9.76                        | ≤23.98                      | PASS    |
| 11N20MIMO  | Ant2    | 5180               | 9.37                        | ≤23.98                      | PASS    |
| 11N20MIMO  | total   | 5180               | 12.58                       | ≤23.98                      | PASS    |
| 11N20MIMO  | Ant1    | 5200               | 10.79                       | ≤23.98                      | PASS    |
| 11N20MIMO  | Ant2    | 5200               | 10.45                       | ≤23.98                      | PASS    |
| 11N20MIMO  | total   | 5200               | 13.63                       | ≤23.98                      | PASS    |
| 11N20MIMO  | Ant1    | 5240               | 11.46                       | ≤23.98                      | PASS    |
| 11N20MIMO  | Ant2    | 5240               | 10.94                       | ≤23.98                      | PASS    |
| 11N20MIMO  | total   | 5240               | 14.22                       | ≤23.98                      | PASS    |
| 11AC20MIMO | Ant1    | 5180               | 10.22                       | ≤23.98                      | PASS    |
| 11AC20MIMO | Ant2    | 5180               | 9.77                        | ≤23.98                      | PASS    |
| 11AC20MIMO | total   | 5180               | 13.01                       | ≤23.98                      | PASS    |
| 11AC20MIMO | Ant1    | 5200               | 11.17                       | ≤23.98                      | PASS    |
| 11AC20MIMO | Ant2    | 5200               | 10.79                       | ≤23.98                      | PASS    |
| 11AC20MIMO | total   | 5200               | 13.99                       | ≤23.98                      | PASS    |
| 11AC20MIMO | Ant1    | 5240               | 11.83                       | ≤23.98                      | PASS    |
| 11AC20MIMO | Ant2    | 5240               | 11.07                       | ≤23.98                      | PASS    |
| 11AC20MIMO | total   | 5240               | 14.48                       | ≤23.98                      | PASS    |

Note: The Power Sensor offset(dB) = attenuator factor(dB) + cable loss(dB) + Duty Cycle Factor(dB).

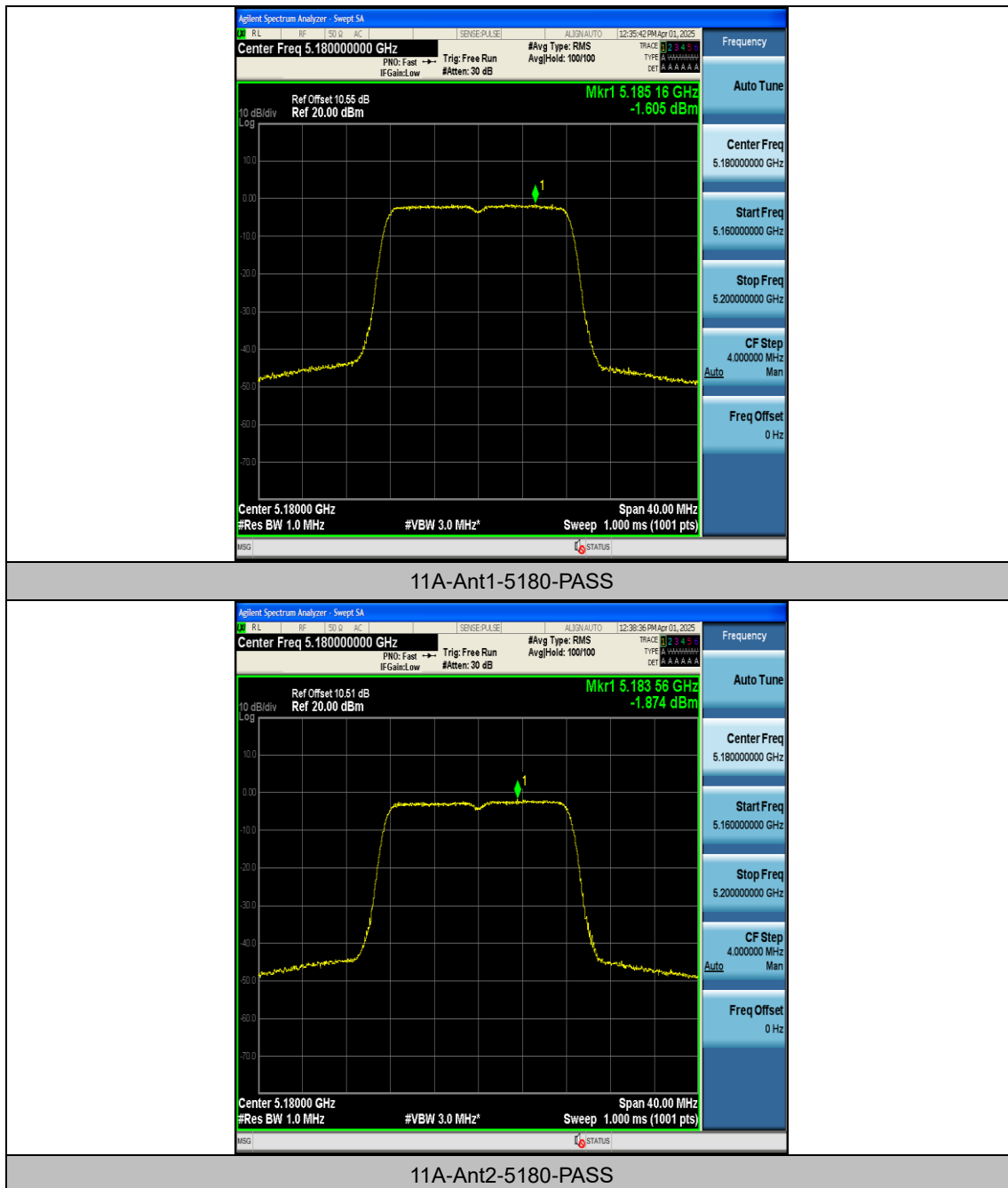
## Appendix C: Maximum power spectral density

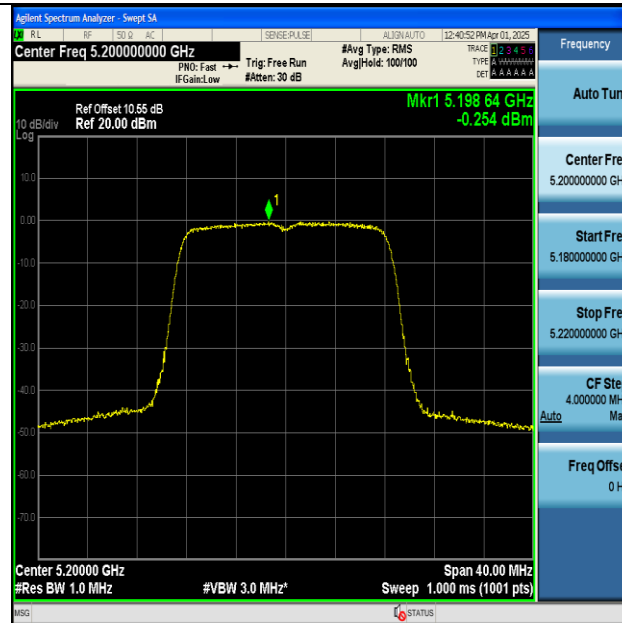
### Test Result

| Test Mode  | Antenna | Frequency [MHz] | Result [dBm/MHz] | Limit [dBm/MHz] | Verdict |
|------------|---------|-----------------|------------------|-----------------|---------|
| 11A        | Ant1    | 5180            | -1.21            | ≤11.00          | PASS    |
| 11A        | Ant2    | 5180            | -1.49            | ≤11.00          | PASS    |
| 11A        | Ant1    | 5200            | 0.15             | ≤11.00          | PASS    |
| 11A        | Ant2    | 5200            | -0.49            | ≤11.00          | PASS    |
| 11A        | Ant1    | 5240            | 0.67             | ≤11.00          | PASS    |
| 11A        | Ant2    | 5240            | -0.07            | ≤11.00          | PASS    |
| 11N20MIMO  | Ant1    | 5180            | -2.05            | ≤11.00          | PASS    |
| 11N20MIMO  | Ant2    | 5180            | -1.90            | ≤11.00          | PASS    |
| 11N20MIMO  | total   | 5180            | 1.04             | ≤10.26          | PASS    |
| 11N20MIMO  | Ant1    | 5200            | -0.28            | ≤11.00          | PASS    |
| 11N20MIMO  | Ant2    | 5200            | -0.45            | ≤11.00          | PASS    |
| 11N20MIMO  | total   | 5200            | 2.65             | ≤10.26          | PASS    |
| 11N20MIMO  | Ant1    | 5240            | 0.47             | ≤11.00          | PASS    |
| 11N20MIMO  | Ant2    | 5240            | -0.08            | ≤11.00          | PASS    |
| 11N20MIMO  | total   | 5240            | 3.21             | ≤10.26          | PASS    |
| 11AC20MIMO | Ant1    | 5180            | -1.08            | ≤11.00          | PASS    |
| 11AC20MIMO | Ant2    | 5180            | -1.62            | ≤11.00          | PASS    |
| 11AC20MIMO | total   | 5180            | 1.67             | ≤10.26          | PASS    |
| 11AC20MIMO | Ant1    | 5200            | 0.07             | ≤11.00          | PASS    |
| 11AC20MIMO | Ant2    | 5200            | -0.28            | ≤11.00          | PASS    |
| 11AC20MIMO | total   | 5200            | 2.91             | ≤10.26          | PASS    |
| 11AC20MIMO | Ant1    | 5240            | 0.54             | ≤11.00          | PASS    |
| 11AC20MIMO | Ant2    | 5240            | 0.03             | ≤11.00          | PASS    |
| 11AC20MIMO | total   | 5240            | 3.30             | ≤10.26          | PASS    |

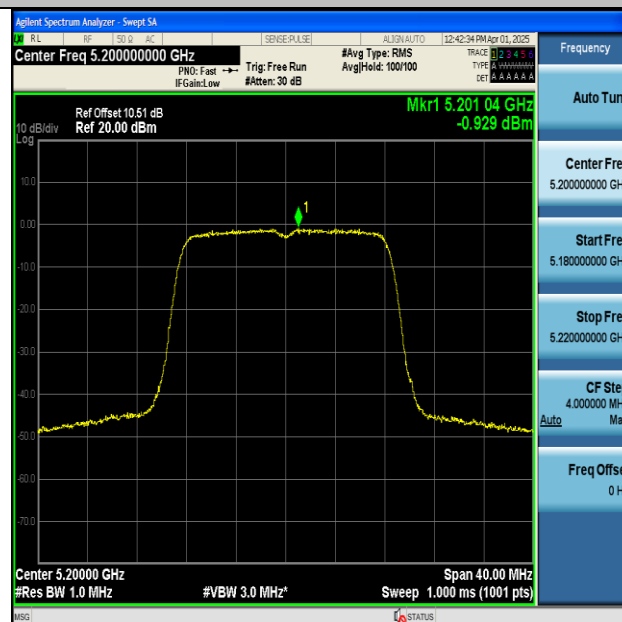
Note: The SA offset(dB) = attenuator factor(dB) + cable loss(dB) + Duty Cycle Factor(dB).

## Test Graphs

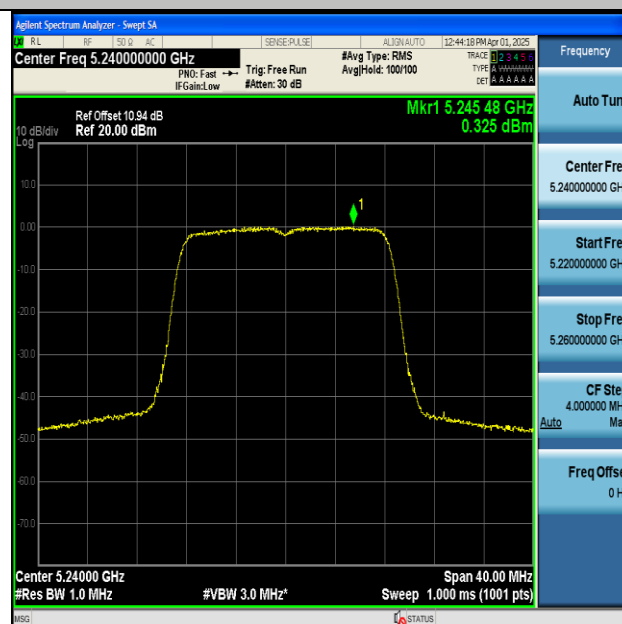




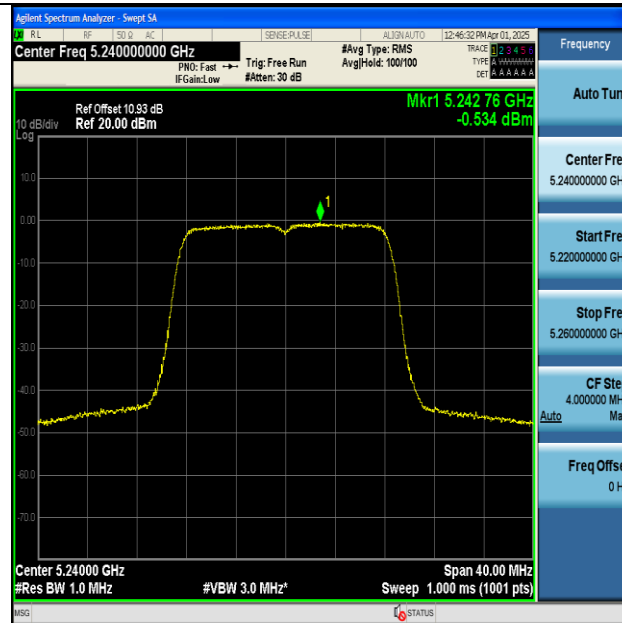
11A-Ant1-5200-PASS



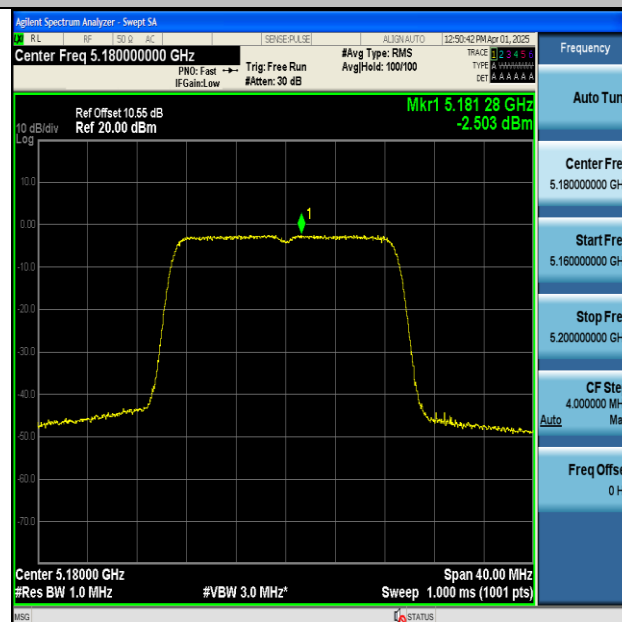
11A-Ant2-5200-PASS



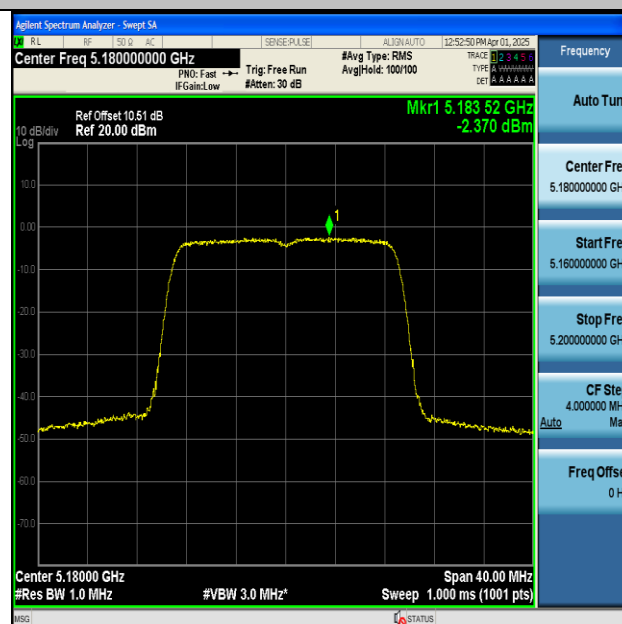
11A-Ant1-5240-PASS



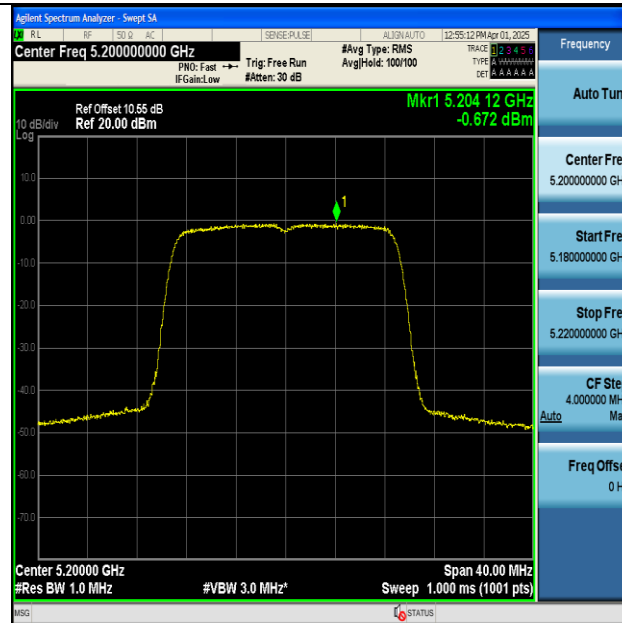
11A-Ant2-5240-PASS



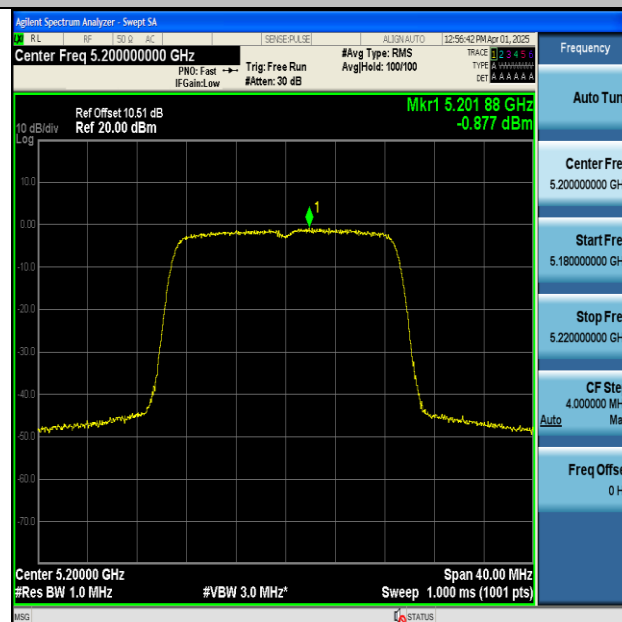
11N20MIMO-Ant1-5180-PASS



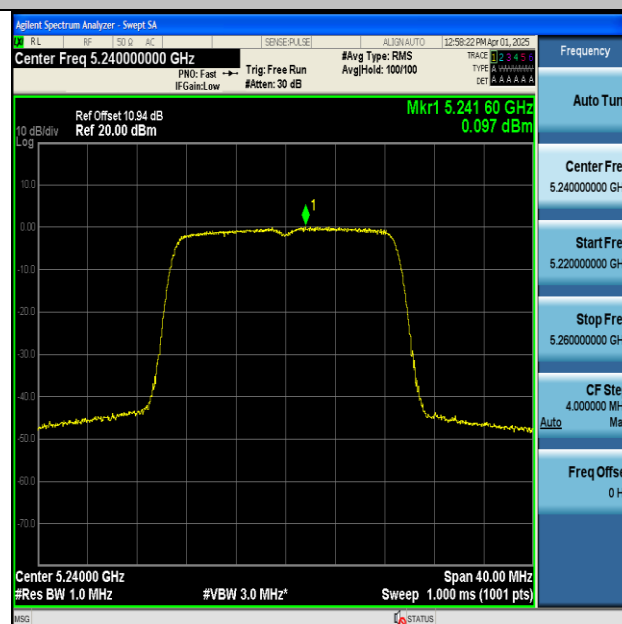
11N20MIMO-Ant2-5180-PASS



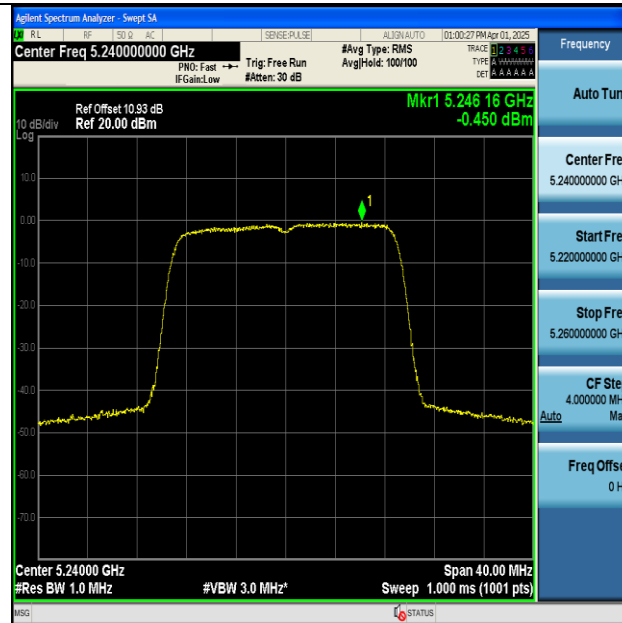
11N20MIMO-Ant1-5200-PASS



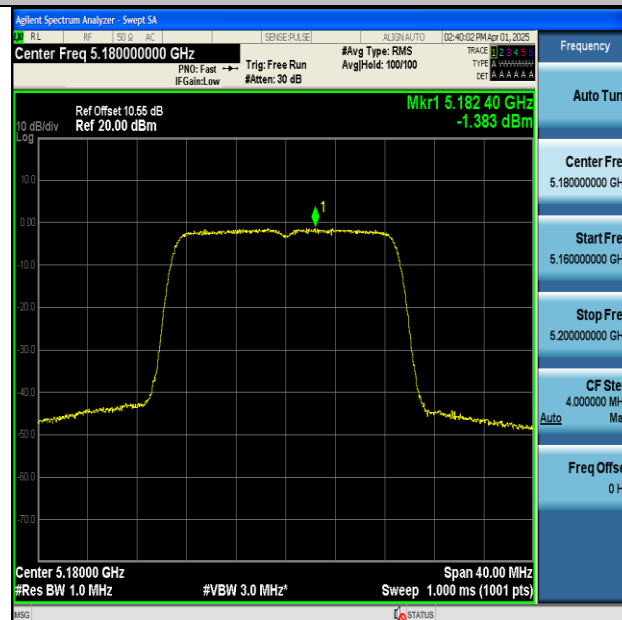
11N20MIMO-Ant2-5200-PASS



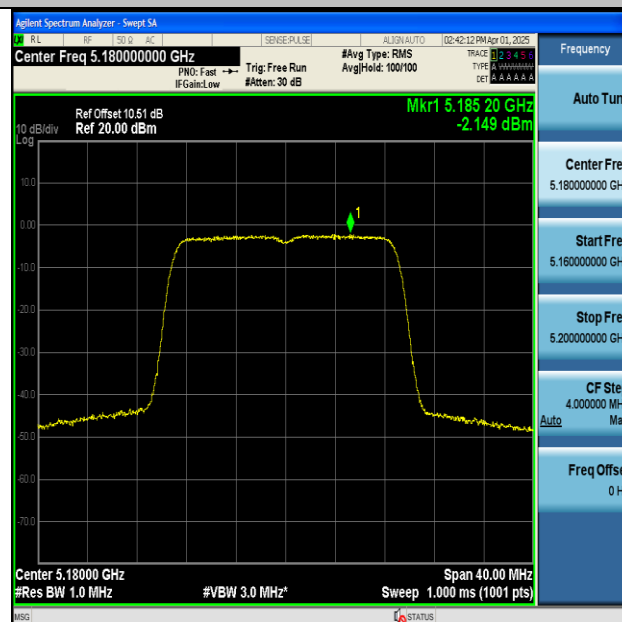
11N20MIMO-Ant1-5240-PASS



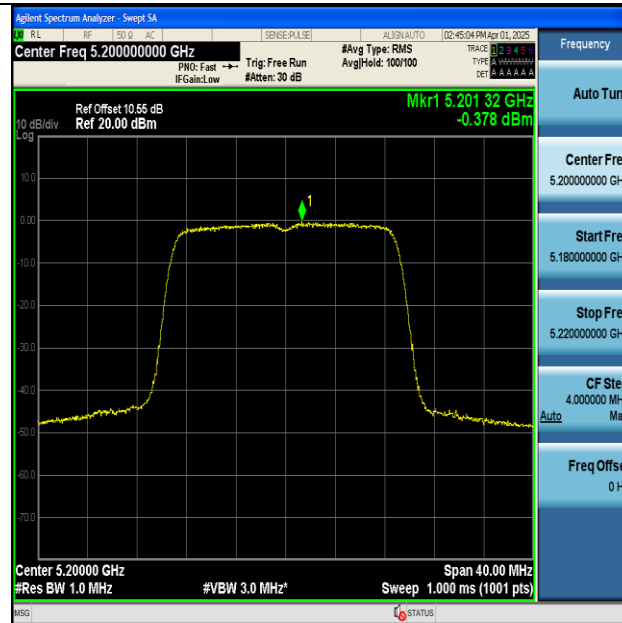
11N20MIMO-Ant2-5240-PASS



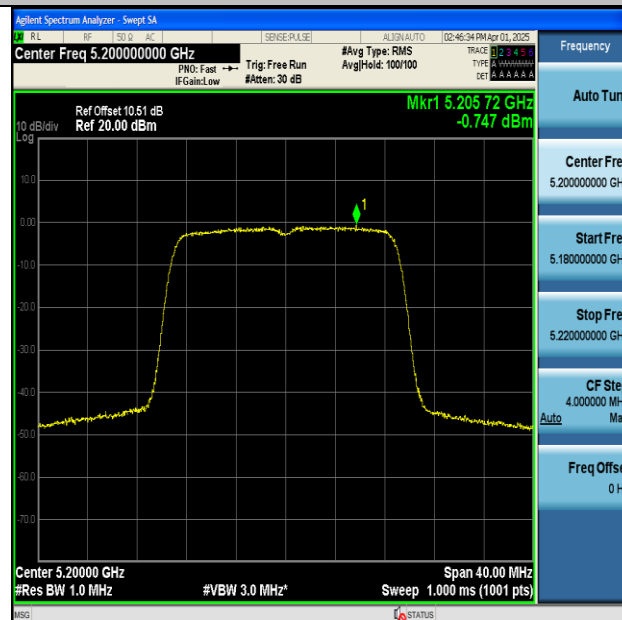
11AC20MIMO-Ant1-5180-PASS



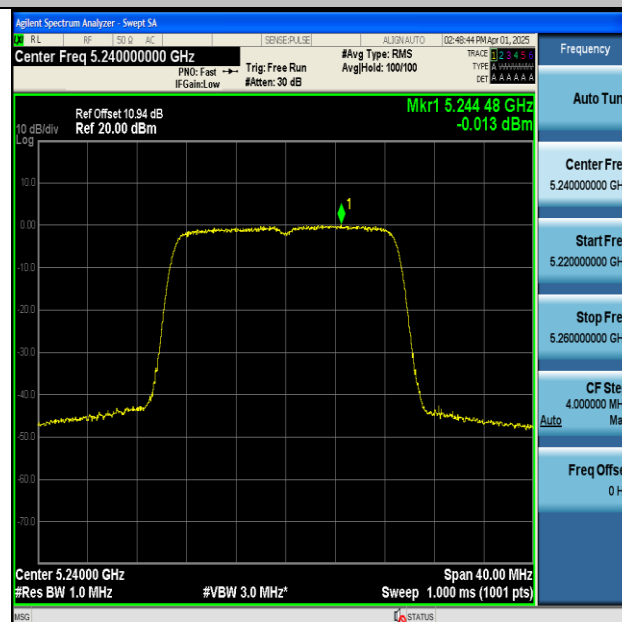
11AC20MIMO-Ant2-5180-PASS



11AC20MIMO-Ant1-5200-PASS

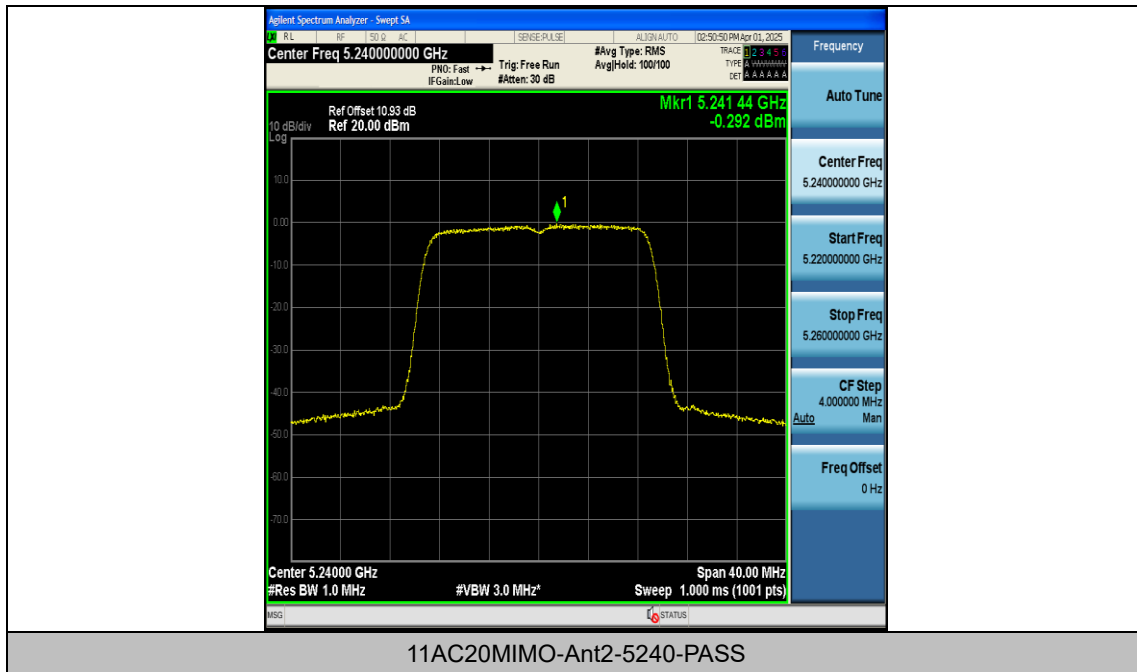


11AC20MIMO-Ant2-5200-PASS



11AC20MIMO-Ant1-5240-PASS



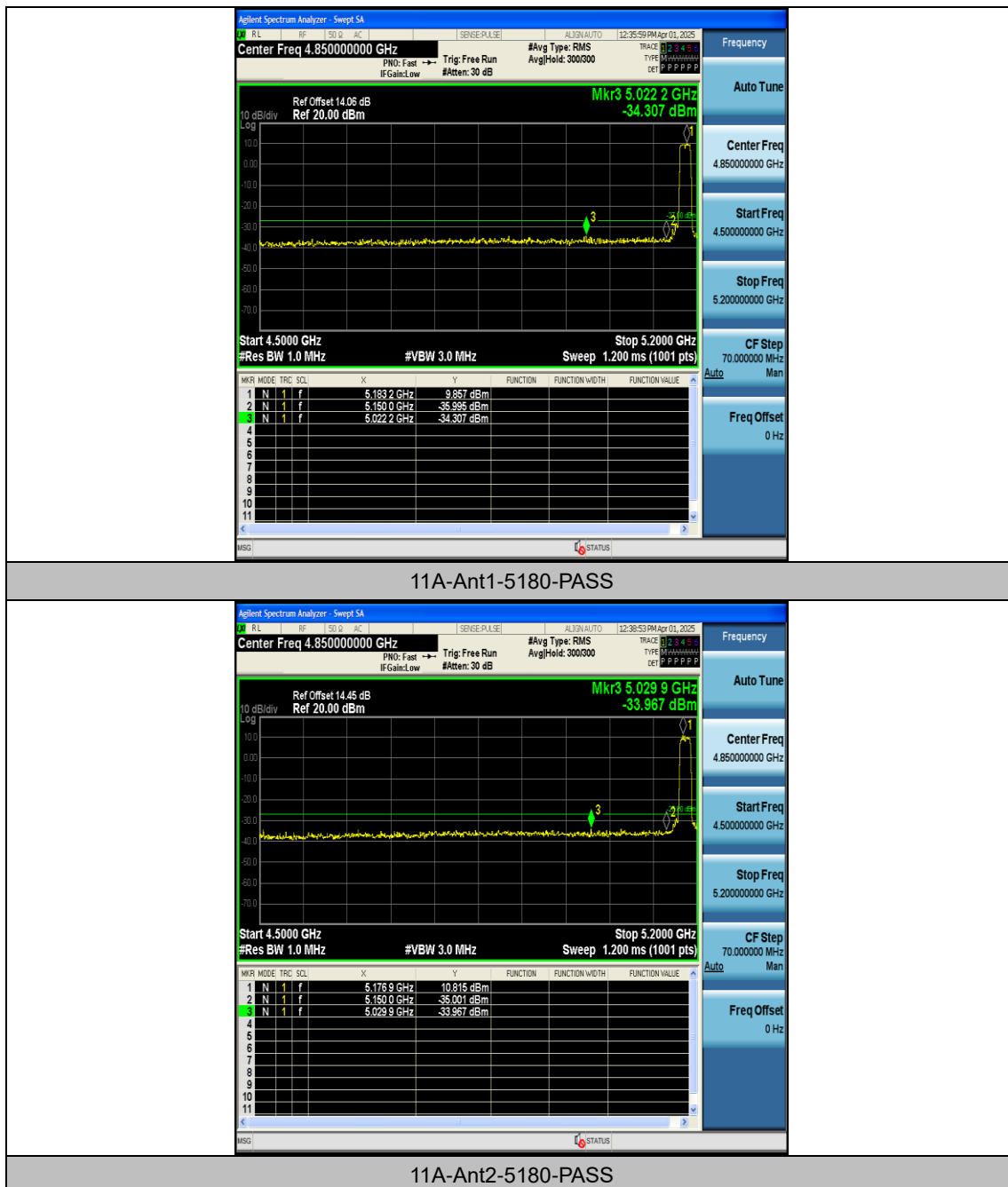


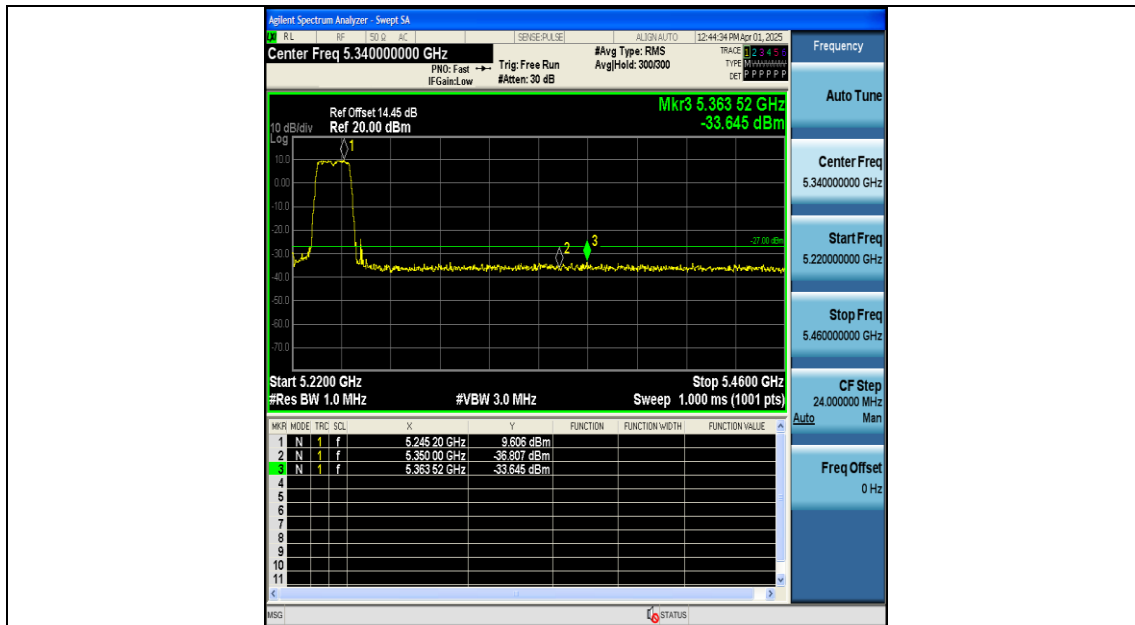
## Appendix D: Band edge measurements

### Test Result

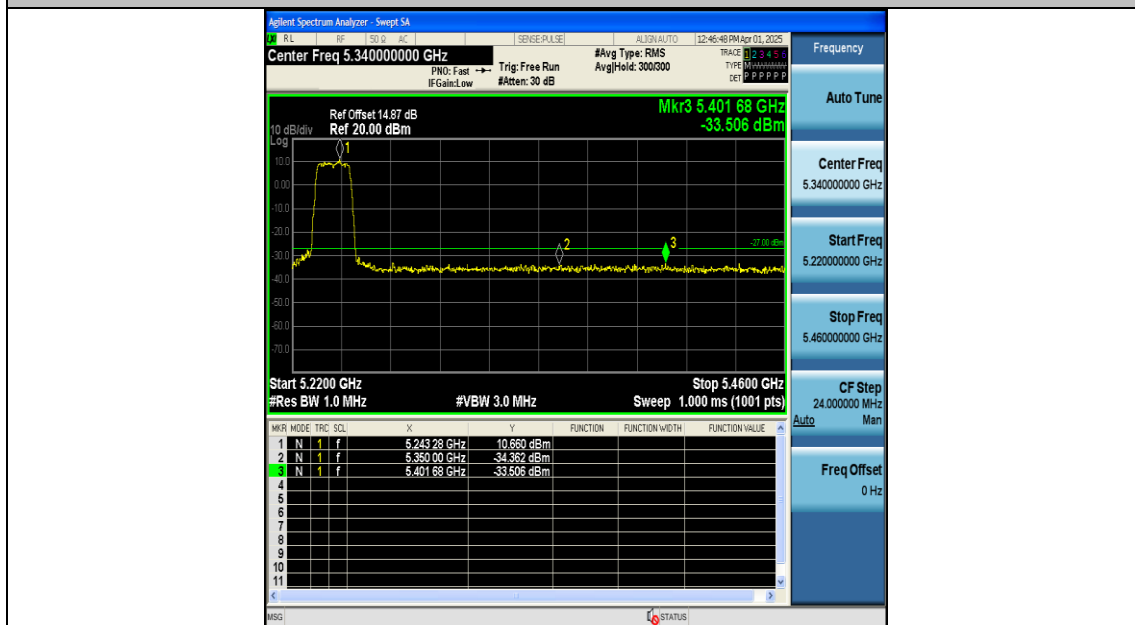
| Test Mode  | Antenna | Ch. Name | Frequency [MHz] | Result [dBm] | Limit [dBm] | Verdict |
|------------|---------|----------|-----------------|--------------|-------------|---------|
| 11A        | Ant1    | Low      | 5180            | -34.31       | $\leq -27$  | PASS    |
| 11A        | Ant2    | Low      | 5180            | -33.97       | $\leq -27$  | PASS    |
| 11A        | Ant1    | High     | 5240            | -33.65       | $\leq -27$  | PASS    |
| 11A        | Ant2    | High     | 5240            | -33.51       | $\leq -27$  | PASS    |
| 11N20MIMO  | Ant1    | Low      | 5180            | -34.63       | $\leq -27$  | PASS    |
| 11N20MIMO  | Ant2    | Low      | 5180            | -33.67       | $\leq -27$  | PASS    |
| 11N20MIMO  | Ant1    | High     | 5240            | -33.89       | $\leq -27$  | PASS    |
| 11N20MIMO  | Ant2    | High     | 5240            | -33.83       | $\leq -27$  | PASS    |
| 11AC20MIMO | Ant1    | Low      | 5180            | -33.51       | $\leq -27$  | PASS    |
| 11AC20MIMO | Ant2    | Low      | 5180            | -34.27       | $\leq -27$  | PASS    |
| 11AC20MIMO | Ant1    | High     | 5240            | -33.29       | $\leq -27$  | PASS    |
| 11AC20MIMO | Ant2    | High     | 5240            | -33.75       | $\leq -27$  | PASS    |

## Test Graphs

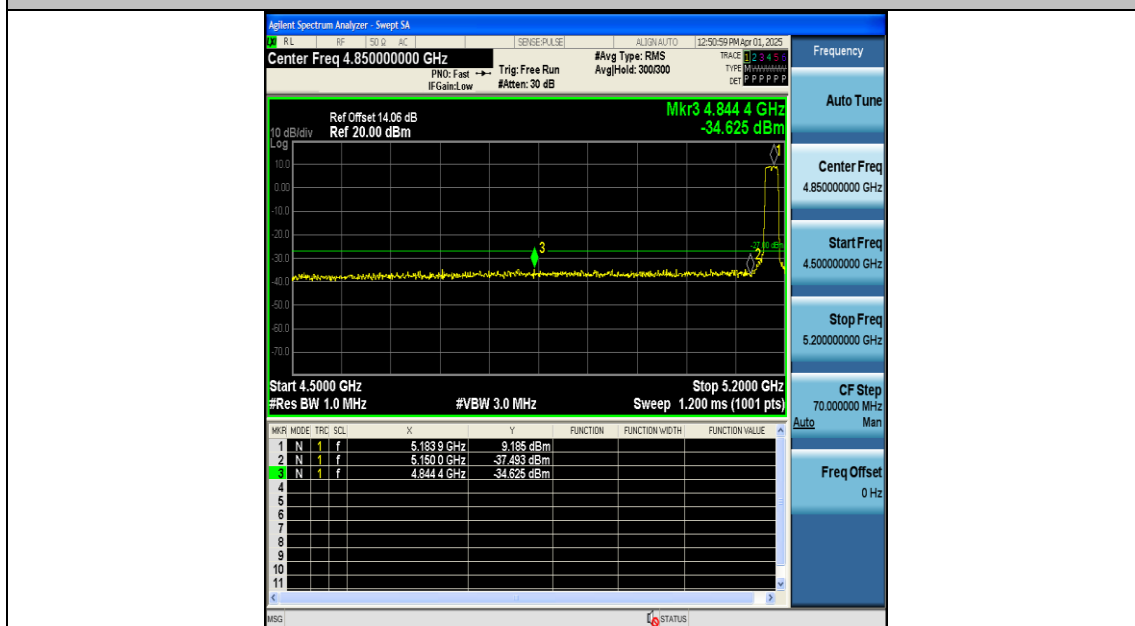




11A-Ant1-5240-PASS



11A-Ant2-5240-PASS



11N20MIMO-Ant1-5180-PASS