# Appendix Test Data for RLAN(5.8G) (Conducted Measurement)

**Product Name: Space Automatic Pet Feeder**

**Trade Mark: PETLIBRO**

**Test Model: PLAF107**

**FCC ID: 2A3DE-PLAF107**

## Environmental Conditions

| | |
|---|---|
| Temperature: | 25.5°C |
| Relative Humidity: | 55% |
| ATM Pressure: | 100.0 kPa |
| Test Engneer: | Anna Hu |
| Supervised by: | Hugo Chen |
| NOTE | N/A |

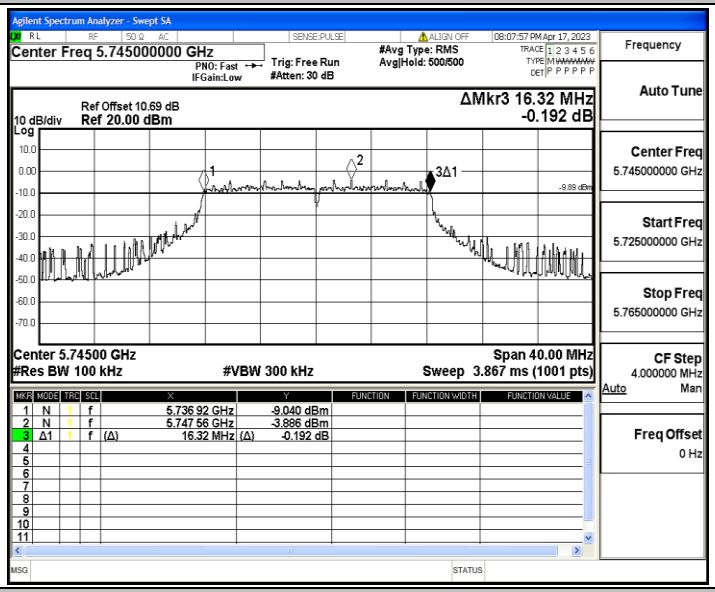
## Appendix A: Min emission bandwidth

### Test Result

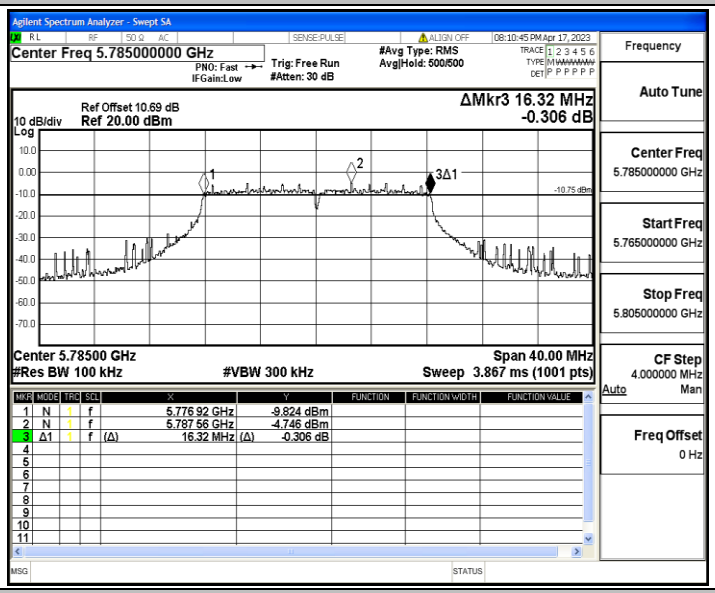
| TestMode | Antenna | Channel | 6db EBW [MHz] | FL[MHz] | FH[MHz] | Limit[MHz] | Verdict |
|---|---|---|---|---|---|---|---|
| 11A | Ant1 | 5745 | 16.320 | 5736.920 | 5753.240 | 0.5 | PASS |
| | | 5785 | 16.320 | 5776.920 | 5793.240 | 0.5 | PASS |
| | | 5825 | 16.320 | 5816.920 | 5833.240 | 0.5 | PASS |
| 11N20MIMO | Ant1 | 5745 | 17.520 | 5736.320 | 5753.840 | 0.5 | PASS |
| | | 5785 | 17.520 | 5776.320 | 5793.840 | 0.5 | PASS |
| | | 5825 | 16.920 | 5816.600 | 5833.520 | 0.5 | PASS |
| 11N40MIMO | Ant1 | 5755 | 35.360 | 5737.480 | 5772.840 | 0.5 | PASS |
| | | 5795 | 35.120 | 5777.560 | 5812.680 | 0.5 | PASS |

## Test Graphs

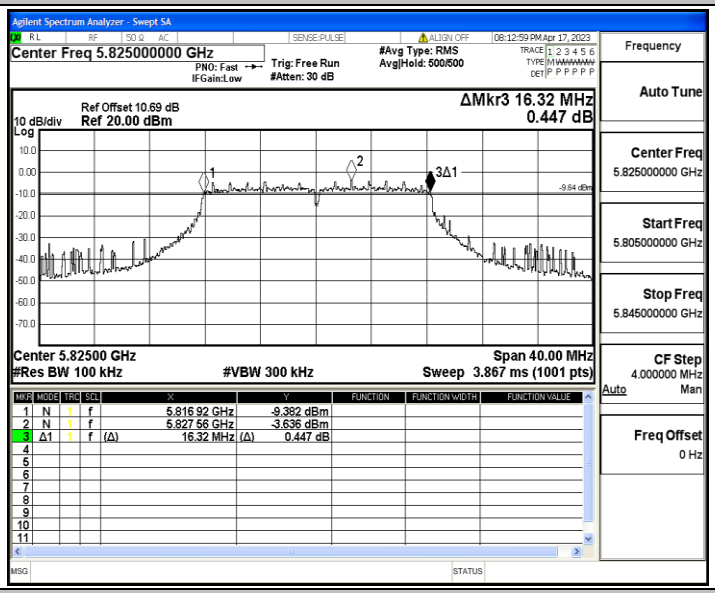
11A_Ant1_5745



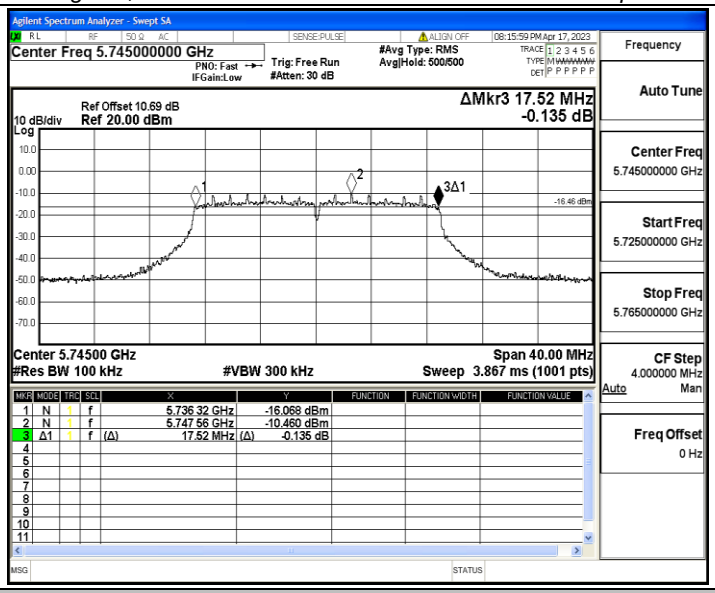

11A_Ant1_5785



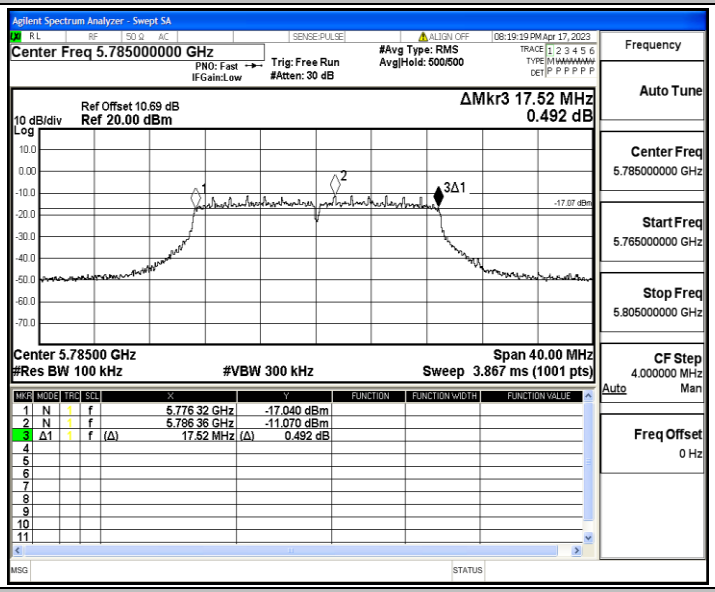

11A_Ant1_5825



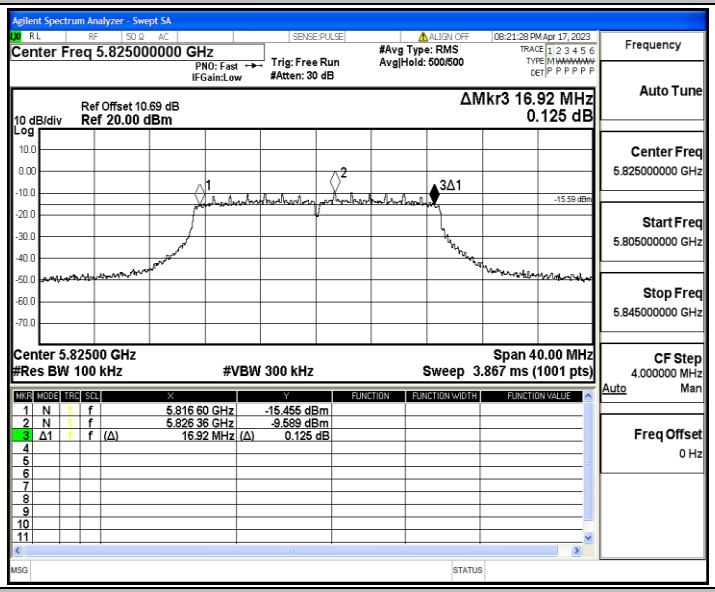

11N20MIMO_Ant1_5745



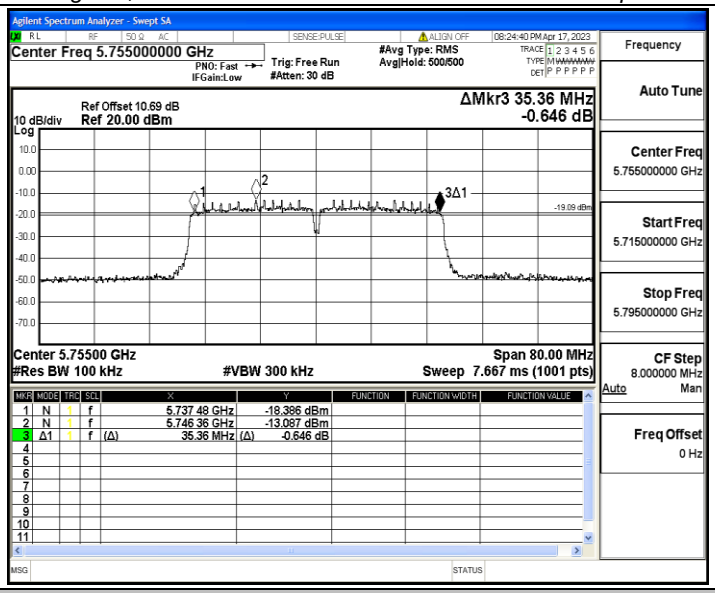

11N20MIMO_Ant1_5785



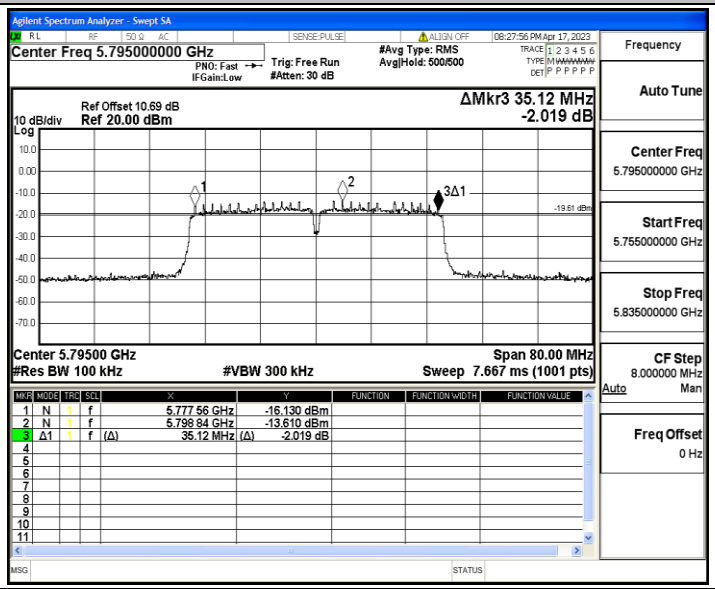

11N20MIMO_Ant1_5825




11N40MIMO_Ant1_5755




11N40MIMO_Ant1_5795



# Appendix B: Maximum conducted output power

## Test Result

| TestMode | Antenna | Channel | Result[dBm] | Limit[dBm] | Verdict |
|---|---|---|---|---|---|
| 11A | Ant1 | 5745 | 7.37 | ≤30.00 | PASS |
| | | 5785 | 6.54 | ≤30.00 | PASS |
| | | 5825 | 7.57 | ≤30.00 | PASS |
| 11N20MIMO | Ant1 | 5745 | 0.84 | ≤30.00 | PASS |
| | | 5785 | 0.33 | ≤30.00 | PASS |
| | | 5825 | 1.39 | ≤30.00 | PASS |
| 11N40MIMO | Ant1 | 5755 | 1.06 | ≤30.00 | PASS |
| | | 5795 | 1.02 | ≤30.00 | PASS |

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

# Appendix C: Maximum power spectral density

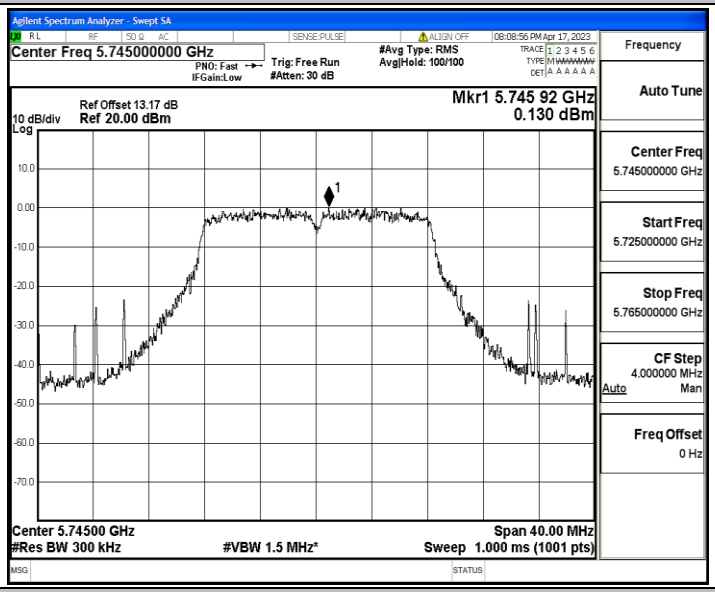
## Test Result

| TestMode | Antenna | Channel | Result [dBm/MHz] | Limit[dBm/MHz] | Verdict |
|---|---|---|---|---|---|
| 11A | Ant1 | 5745 | 0.13 | ≤30.00 | PASS |
| | | 5785 | -0.61 | ≤30.00 | PASS |
| | | 5825 | 0.22 | ≤30.00 | PASS |
| 11N20MIMO | Ant1 | 5745 | -7 | ≤30.00 | PASS |
| | | 5785 | -6.63 | ≤30.00 | PASS |
| | | 5825 | -5.78 | ≤30.00 | PASS |
| 11N40MIMO | Ant1 | 5755 | -9.01 | ≤30.00 | PASS |
| | | 5795 | -9.34 | ≤30.00 | PASS |

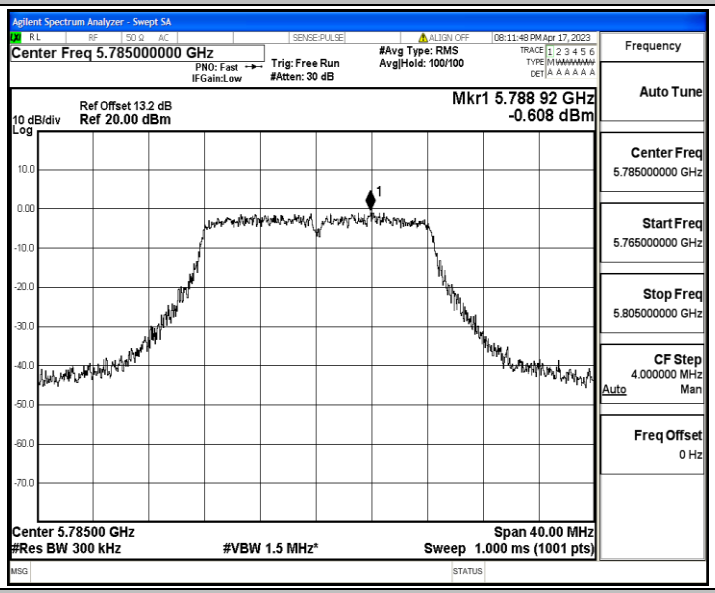
Note：1.The Result and Limit Unit is dBm/500 kHz in the band 5.725–5.85 GHz.
2.The Duty Cycle Factor and RBW Factor is compensated in the graph.

## Test Graphs

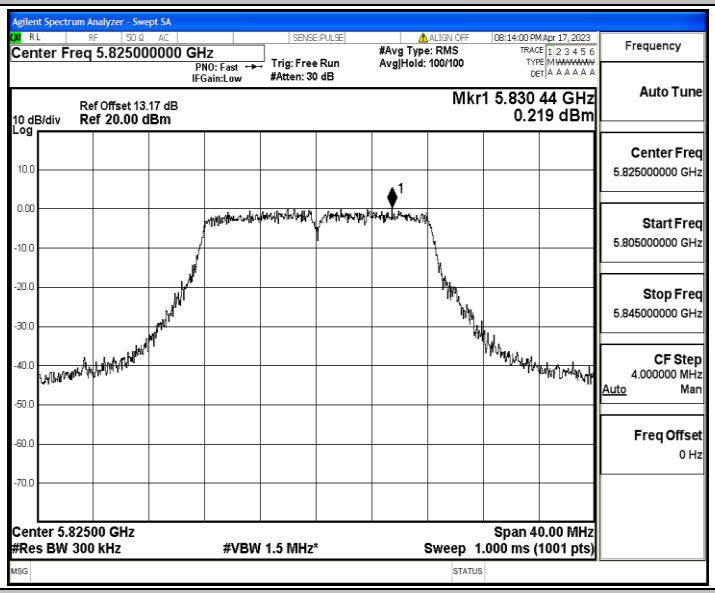
11A_Ant1_5745



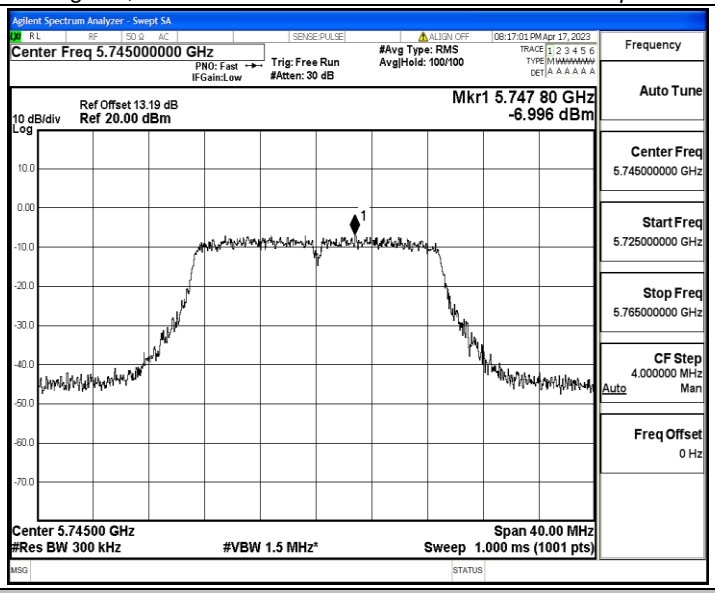

11A_Ant1_5785



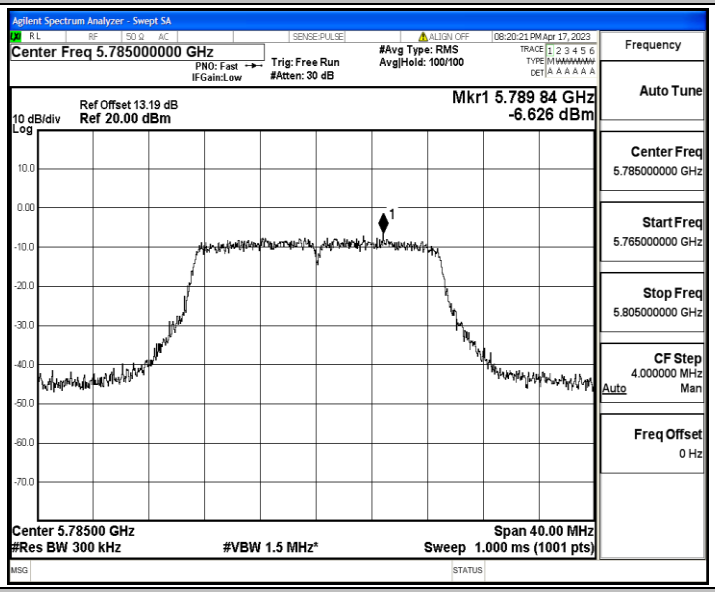

11A_Ant1_5825



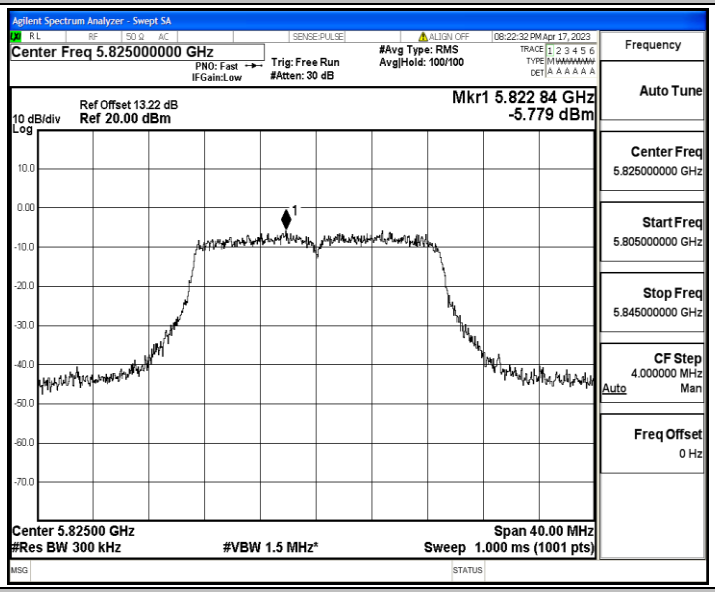

11N20MIMO_Ant1_5745



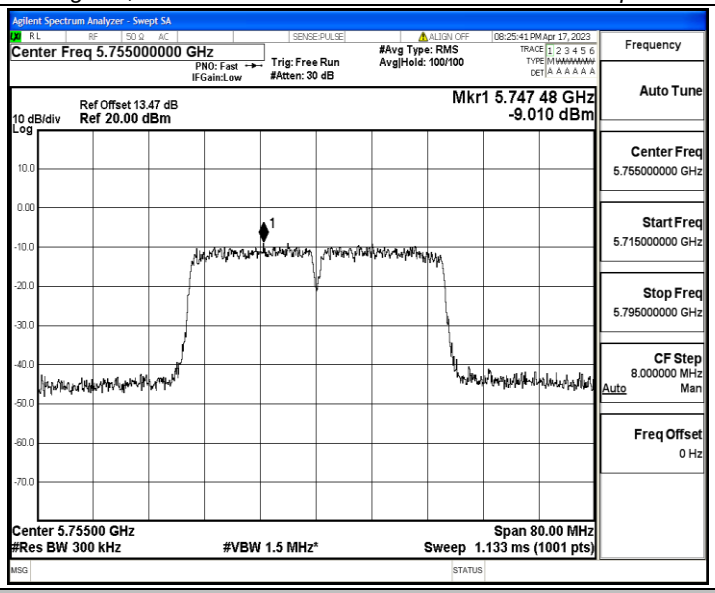

11N20MIMO_Ant1_5785



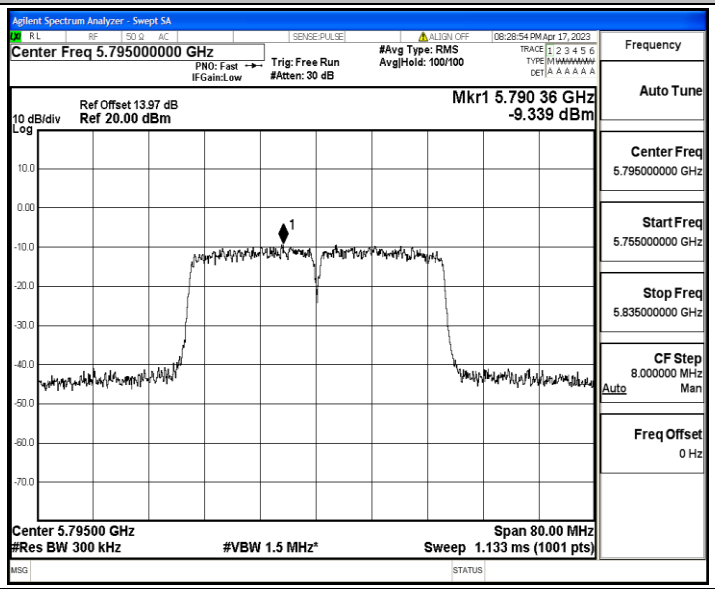

11N20MIMO_Ant1_5825




11N40MIMO_Ant1_5755




11N40MIMO_Ant1_5795



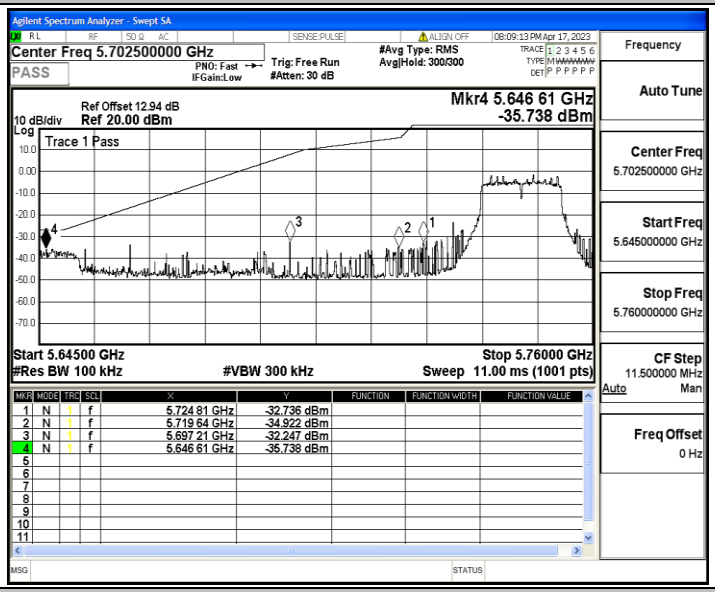
# Appendix D: Band edge measurements

## Test Result

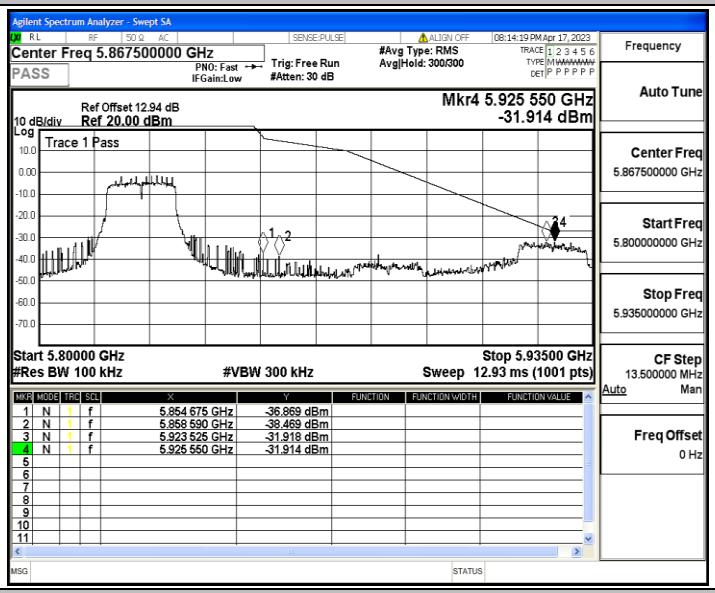
| TestMode | Antenna | ChName | Channel | FreqRange [MHz] | Result [dBm] | Limit [dBm] | Verdict |
|---|---|---|---|---|---|---|---|
| 11A | Ant1 | Low | 5745 | 5650~5700 | -32.25 | ≤7.94 | PASS |
| | | | | 5700~5720 | -34.92 | ≤15.50 | PASS |
| | | | | 5720~5725 | -32.74 | ≤26.57 | PASS |
| | | | | 5760~5650 | -35.74 | ≤-27 | PASS |
| | | High | 5825 | 5850~5855 | -36.87 | ≤26.26 | PASS |
| | | | | 5855~5875 | -38.47 | ≤11.01 | PASS |
| | | | | 5875~5925 | -31.92 | ≤8.91 | PASS |
| | | | | 5925~5935 | -31.91 | ≤-27 | PASS |
| 11N20MIMO | Ant1 | Low | 5745 | 5650~5700 | -43.14 | ≤-25.76 | PASS |
| | | | | 5700~5720 | -45.61 | ≤11.89 | PASS |
| | | | | 5720~5725 | -46.04 | ≤24.73 | PASS |
| | | | | 5760~5650 | -42.66 | ≤-27 | PASS |
| | | High | 5825 | 5850~5855 | -46.42 | ≤16.41 | PASS |
| | | | | 5855~5875 | -46 | ≤13.05 | PASS |
| | | | | 5875~5925 | -38.51 | ≤6.51 | PASS |
| | | | | 5925~5935 | -39.2 | ≤-27 | PASS |
| 11N40MIMO | Ant1 | Low | 5755 | 5650~5700 | -43.47 | ≤-20.91 | PASS |
| | | | | 5700~5720 | -46.33 | ≤15.54 | PASS |
| | | | | 5720~5725 | -45.74 | ≤22.82 | PASS |
| | | | | 5780~5650 | -44.83 | ≤-27 | PASS |
| | | High | 5795 | 5850~5855 | -45.82 | ≤26.19 | PASS |
| | | | | 5855~5875 | -43.97 | ≤14.29 | PASS |
| | | | | 5875~5925 | -41.89 | ≤-17.40 | PASS |
| | | | | 5925~5935 | -44.89 | ≤-27 | PASS |

## Test Graphs

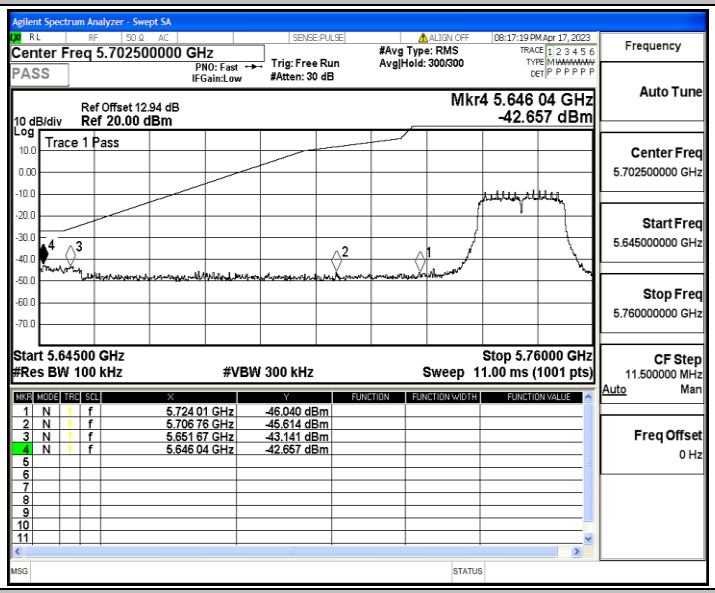
11A_Ant1_Low_5745



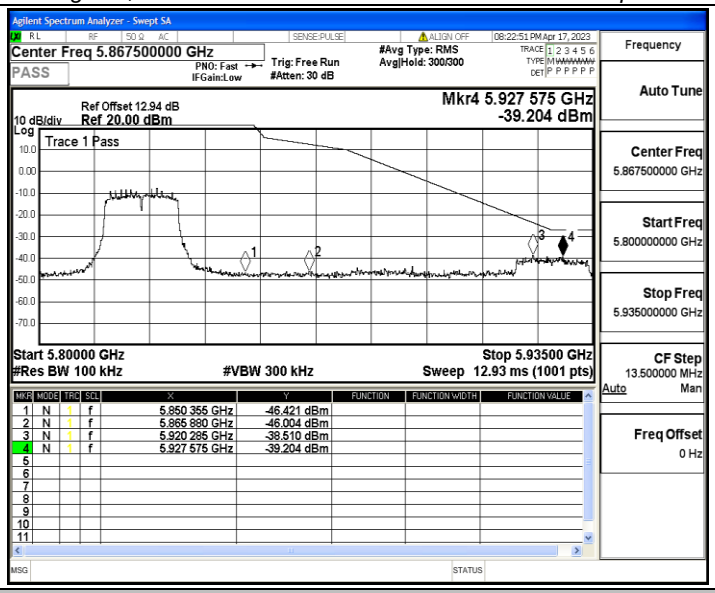

11A_Ant1_High_5825



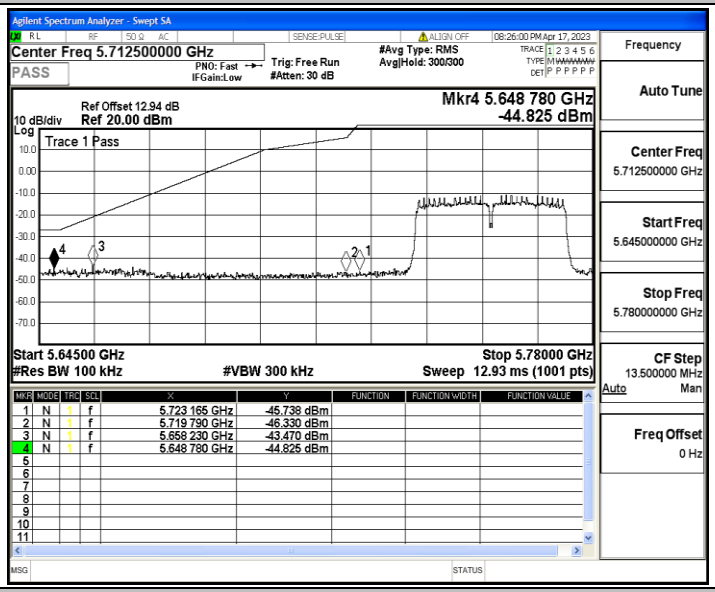

11N20MIMO_Ant1_Low_5745



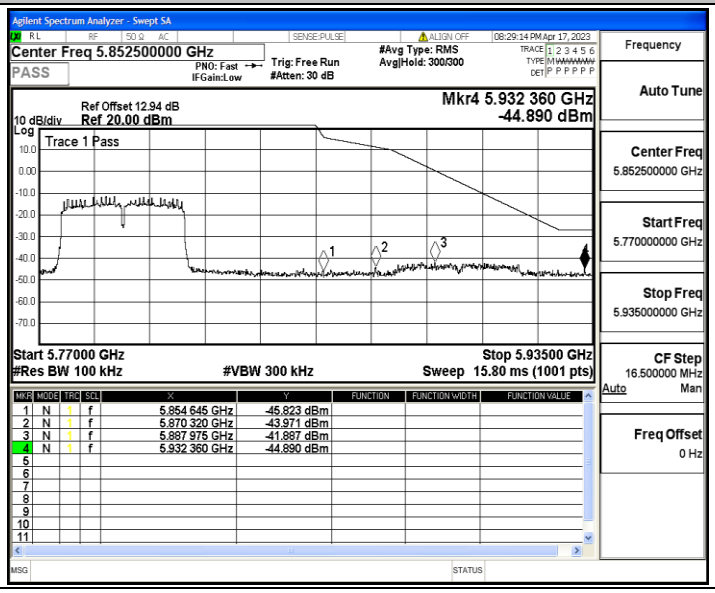

11N20MIMO_Ant1_High_5825




11N40MIMO_Ant1_Low_5755




11N40MIMO_Ant1_High_5795



# Appendix E: Frequency Stability

## Test Result

Ant1

| Frequency (MHz) | Enviroment Temperature (Degree) | Voltage (VAC) | Measured Frequency (MHz) | Limit Range (MHz) | Test Results |
|---|---|---|---|---|---|
| 5745 | 20 | 132 | 5744.924523 | 5745 – 5825 | PASS |
| 5745 | 20 | 108 | 5744.984171 | 5745 – 5825 | PASS |
| 5745 | 50 | 120 | 5744.936586 | 5745 – 5825 | PASS |
| 5745 | 40 | 120 | 5744.905883 | 5745 – 5825 | PASS |
| 5745 | 30 | 120 | 5744.926768 | 5745 – 5825 | PASS |
| 5745 | 20 | 120 | 5744.963012 | 5745 – 5825 | PASS |
| 5745 | 10 | 120 | 5744.948956 | 5745 – 5825 | PASS |
| 5745 | 0 | 120 | 5745.071155 | 5745 – 5825 | PASS |
| 5745 | -10 | 120 | 5745.001966 | 5745 – 5825 | PASS |
| 5745 | -20 | 120 | 5745.001562 | 5745 – 5825 | PASS |
| 5745 | -30 | 120 | 5744.936541 | 5745 – 5825 | PASS |

Ant1

| Frequency (MHz) | Enviroment Temperature (Dregree) | Voltage (VAC) | Measured Frequency (MHz) | Limit Range (MHz) | Test Results |
|---|---|---|---|---|---|
| 5785 | 20 | 132 | 5785.028635 | 5745 – 5825 | PASS |
| 5785 | 20 | 108 | 5784.959042 | 5745 – 5825 | PASS |
| 5785 | 50 | 120 | 5784.994066 | 5745 – 5825 | PASS |
| 5785 | 40 | 120 | 5785.083100 | 5745 – 5825 | PASS |
| 5785 | 30 | 120 | 5784.929608 | 5745 – 5825 | PASS |
| 5785 | 20 | 120 | 5785.049143 | 5745 – 5825 | PASS |
| 5785 | 10 | 120 | 5784.916514 | 5745 – 5825 | PASS |
| 5785 | 0 | 120 | 5785.036429 | 5745 – 5825 | PASS |
| 5785 | -10 | 120 | 5785.029746 | 5745 – 5825 | PASS |
| 5785 | -20 | 120 | 5785.023191 | 5745 – 5825 | PASS |
| 5785 | -30 | 120 | 5785.022850 | 5745 – 5825 | PASS |

Ant1

| Frequency (MHz) | Enviroment Temperature (Dregree) | Voltage (VAC) | Measured Frequency (MHz) | Limit Range (MHz) | Test Results |
|---|---|---|---|---|---|
| 5825 | 20 | 132 | 5825.034726 | 5745 – 5825 | PASS |
| 5825 | 20 | 108 | 5825.069746 | 5745 – 5825 | PASS |
| 5825 | 50 | 120 | 5824.957736 | 5745 – 5825 | PASS |
| 5825 | 40 | 120 | 5825.023443 | 5745 – 5825 | PASS |
| 5825 | 30 | 120 | 5824.926015 | 5745 – 5825 | PASS |
| 5825 | 20 | 120 | 5824.902382 | 5745 – 5825 | PASS |
| 5825 | 10 | 120 | 5825.008040 | 5745 – 5825 | PASS |
| 5825 | 0 | 120 | 5825.047791 | 5745 – 5825 | PASS |
| 5825 | -10 | 120 | 5825.014268 | 5745 – 5825 | PASS |
| 5825 | -20 | 120 | 5824.942612 | 5745 – 5825 | PASS |
| 5825 | -30 | 120 | 5825.096712 | 5745 – 5825 | PASS |

Ant1

| Frequency (MHz) | Enviroment Temperature (Dregree) | Voltage (VAC) | Measured Frequency (MHz) | Limit Range (MHz) | Test Results |
|---|---|---|---|---|---|
| 5755 | 20 | 132 | 5754.956015 | 5745 – 5825 | PASS |
| 5755 | 20 | 108 | 5755.047958 | 5745 – 5825 | PASS |
| 5755 | 50 | 120 | 5755.016844 | 5745 – 5825 | PASS |
| 5755 | 40 | 120 | 5754.930665 | 5745 – 5825 | PASS |
| 5755 | 30 | 120 | 5754.987357 | 5745 – 5825 | PASS |
| 5755 | 20 | 120 | 5755.050520 | 5745 – 5825 | PASS |
| 5755 | 10 | 120 | 5755.002318 | 5745 – 5825 | PASS |
| 5755 | 0 | 120 | 5754.904199 | 5745 – 5825 | PASS |
| 5755 | -10 | 120 | 5754.912868 | 5745 – 5825 | PASS |
| 5755 | -20 | 120 | 5755.009034 | 5745 – 5825 | PASS |
| 5755 | -30 | 120 | 5754.948612 | 5745 – 5825 | PASS |

Ant1

| Frequency (MHz) | Enviroment Temperature (Dregree) | Voltage (VAC) | Measured Frequency (MHz) | Limit Range (MHz) | Test Results |
|---|---|---|---|---|---|
| 5795 | 20 | 132 | 5795.010549 | 5745 – 5825 | PASS |
| 5795 | 20 | 108 | 5794.952219 | 5745 – 5825 | PASS |
| 5795 | 50 | 120 | 5794.944608 | 5745 – 5825 | PASS |
| 5795 | 40 | 120 | 5795.006313 | 5745 – 5825 | PASS |
| 5795 | 30 | 120 | 5794.960532 | 5745 – 5825 | PASS |
| 5795 | 20 | 120 | 5795.072197 | 5745 – 5825 | PASS |
| 5795 | 10 | 120 | 5795.015755 | 5745 – 5825 | PASS |
| 5795 | 0 | 120 | 5794.944830 | 5745 – 5825 | PASS |
| 5795 | -10 | 120 | 5794.931370 | 5745 – 5825 | PASS |
| 5795 | -20 | 120 | 5795.074691 | 5745 – 5825 | PASS |
| 5795 | -30 | 120 | 5795.000282 | 5745 – 5825 | PASS |

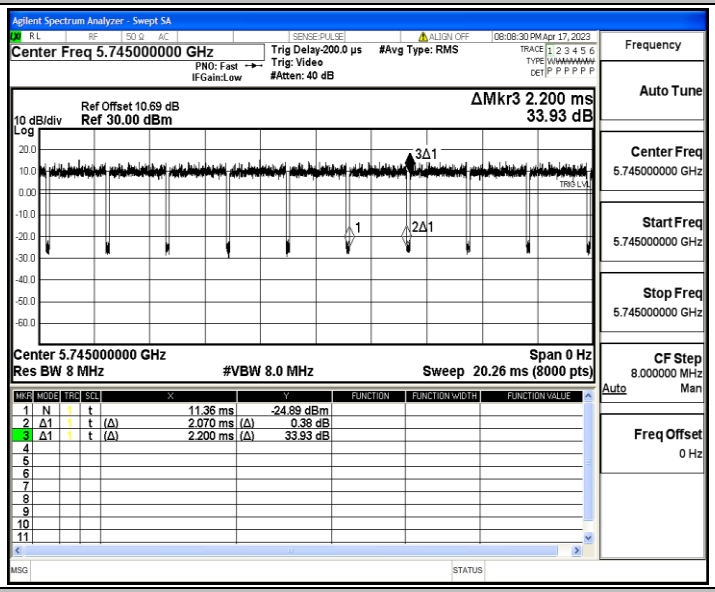
# Appendix F: Duty Cycle

## Test Result

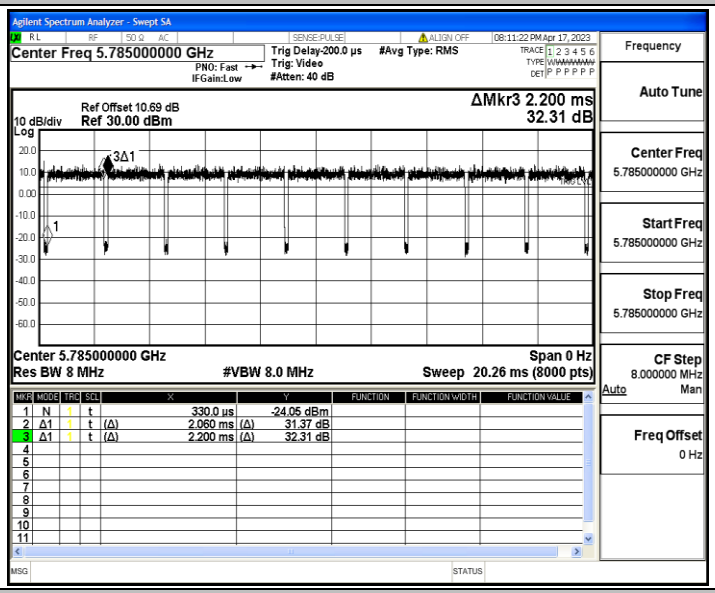
| TestMode | Antenna | Channel | Transmission Duration [ms] | Transmission Period [ms] | Duty Cycle [%] | 1/T [kHz] |
|---|---|---|---|---|---|---|
| 11A | Ant1 | 5745 | 2.07 | 2.20 | 94.09 | 0.48 |
| | | 5785 | 2.06 | 2.20 | 93.64 | 0.49 |
| | | 5825 | 2.07 | 2.20 | 94.09 | 0.48 |
| 11N20MIMO | Ant1 | 5745 | 1.92 | 2.05 | 93.66 | 0.52 |
| | | 5785 | 1.92 | 2.05 | 93.66 | 0.52 |
| | | 5825 | 1.92 | 2.06 | 93.20 | 0.52 |
| 11N40MIMO | Ant1 | 5755 | 0.94 | 1.07 | 87.85 | 1.06 |
| | | 5795 | 0.94 | 1.20 | 78.33 | 1.06 |

## Test Graphs

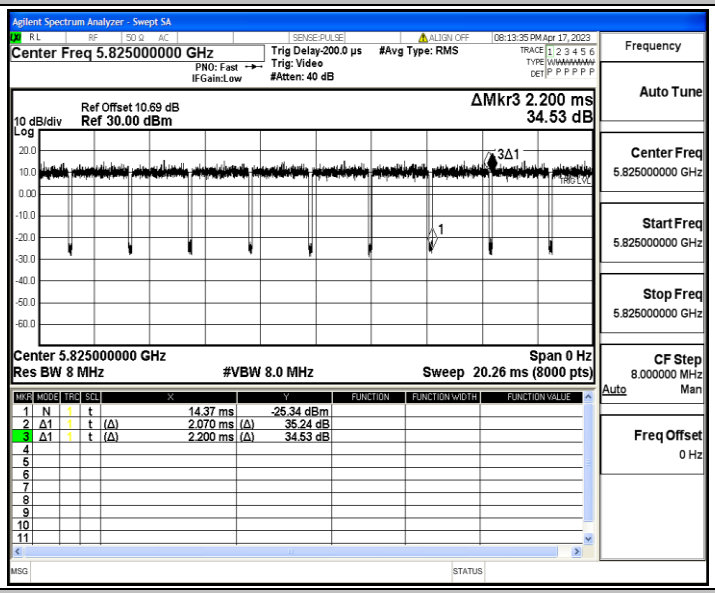
11A_Ant1_5745



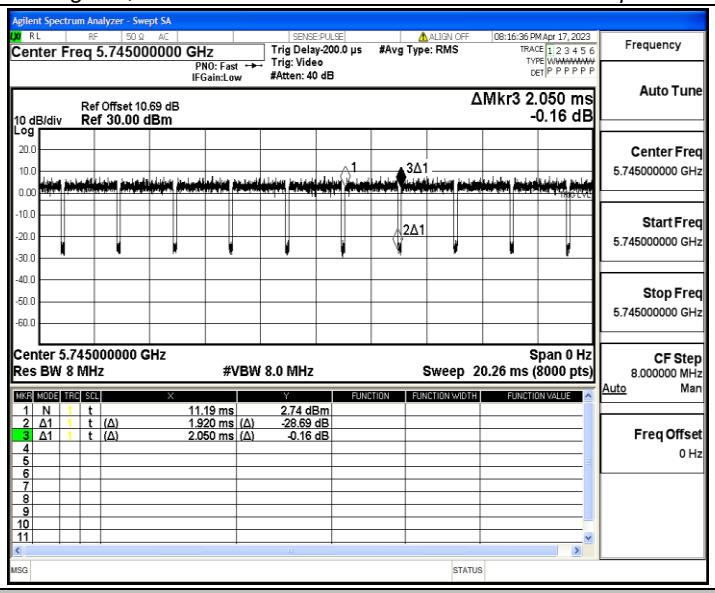

11A_Ant1_5785



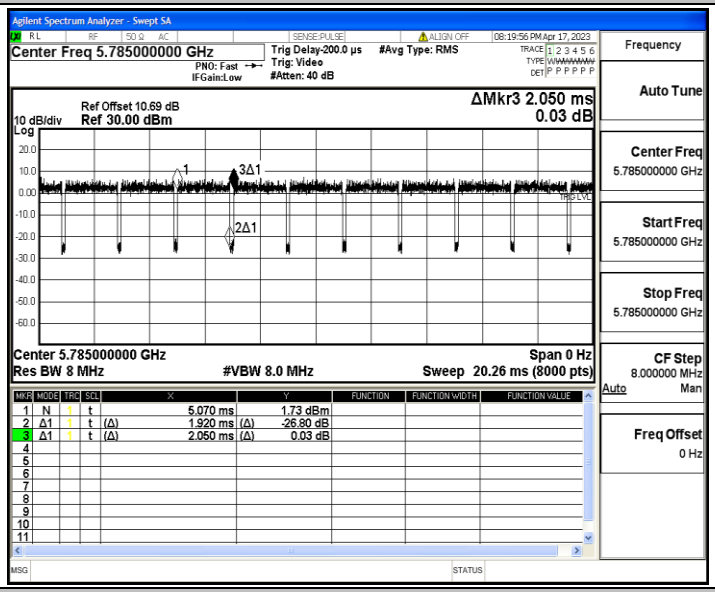

11A_Ant1_5825



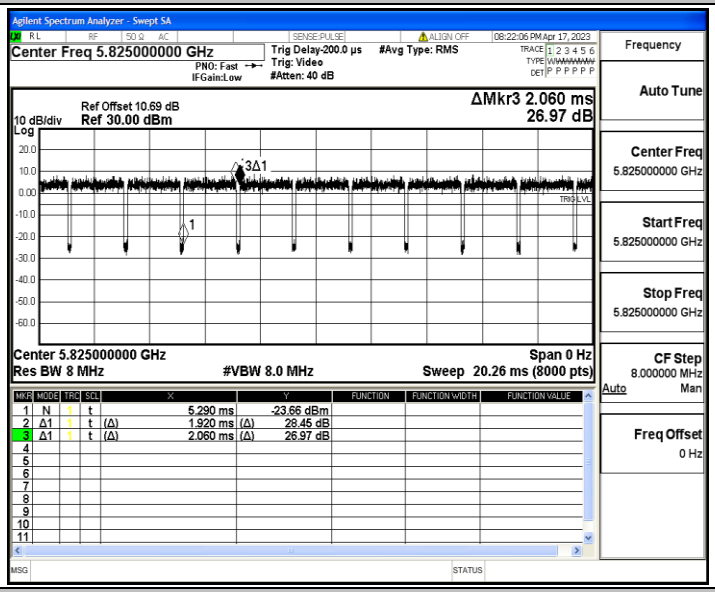

11N20MIMO_Ant1_5745



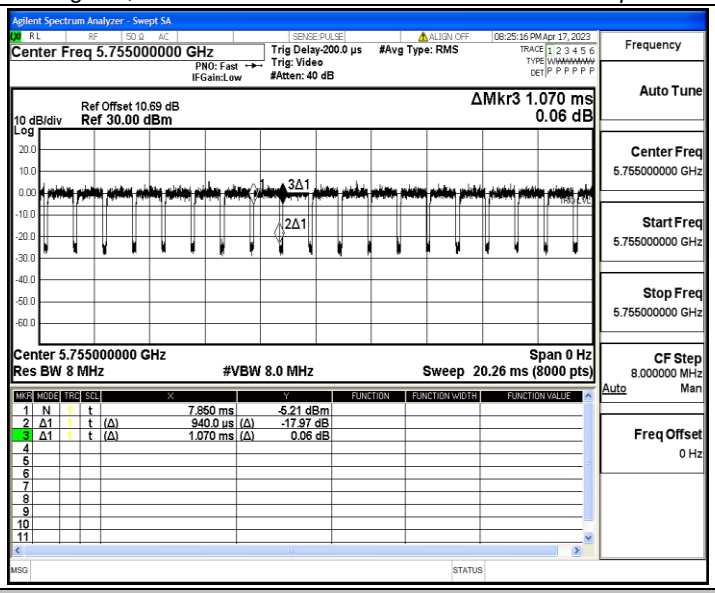

11N20MIMO_Ant1_5785




11N20MIMO_Ant1_5825




11N40MIMO_Ant1_5755




11N40MIMO_Ant1_5795