



## RF Test Data for RLAN(5. 8G) (Conducted Measurement)

Product Name: Wanbo Projector

Trade Mark: wanbo

Test Model: X5S

FCC ID: 2A7PI-X5S

### 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 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    | 5745               | 16.979       | 5736.4282   | 5753.4072   | ---            | ---     |
| 11A        | Ant2    | 5745               | 16.685       | 5736.5873   | 5753.2723   | ---            | ---     |
| 11A        | Ant1    | 5785               | 16.877       | 5776.4877   | 5793.3647   | ---            | ---     |
| 11A        | Ant2    | 5785               | 16.638       | 5776.6492   | 5793.2872   | ---            | ---     |
| 11A        | Ant1    | 5825               | 16.859       | 5816.5312   | 5833.3902   | ---            | ---     |
| 11A        | Ant2    | 5825               | 16.613       | 5816.6740   | 5833.2870   | ---            | ---     |
| 11N20MIMO  | Ant1    | 5745               | 17.668       | 5736.1419   | 5753.8099   | ---            | ---     |
| 11N20MIMO  | Ant2    | 5745               | 17.673       | 5736.1488   | 5753.8218   | ---            | ---     |
| 11N20MIMO  | Ant1    | 5785               | 17.713       | 5776.1359   | 5793.8489   | ---            | ---     |
| 11N20MIMO  | Ant2    | 5785               | 17.646       | 5776.1606   | 5793.8066   | ---            | ---     |
| 11N20MIMO  | Ant1    | 5825               | 17.684       | 5816.1695   | 5833.8535   | ---            | ---     |
| 11N20MIMO  | Ant2    | 5825               | 17.625       | 5816.2090   | 5833.8340   | ---            | ---     |
| 11N40MIMO  | Ant1    | 5755               | 36.336       | 5736.9329   | 5773.2689   | ---            | ---     |
| 11N40MIMO  | Ant2    | 5755               | 36.296       | 5736.8878   | 5773.1838   | ---            | ---     |
| 11N40MIMO  | Ant1    | 5795               | 36.279       | 5776.9170   | 5813.1960   | ---            | ---     |
| 11N40MIMO  | Ant2    | 5795               | 36.308       | 5776.8938   | 5813.2018   | ---            | ---     |
| 11AC20MIMO | Ant1    | 5745               | 17.688       | 5736.1446   | 5753.8326   | ---            | ---     |
| 11AC20MIMO | Ant2    | 5745               | 17.697       | 5736.1256   | 5753.8226   | ---            | ---     |
| 11AC20MIMO | Ant1    | 5785               | 17.700       | 5776.1501   | 5793.8501   | ---            | ---     |
| 11AC20MIMO | Ant2    | 5785               | 17.687       | 5776.1514   | 5793.8384   | ---            | ---     |
| 11AC20MIMO | Ant1    | 5825               | 17.655       | 5816.1854   | 5833.8404   | ---            | ---     |
| 11AC20MIMO | Ant2    | 5825               | 17.664       | 5816.1671   | 5833.8311   | ---            | ---     |





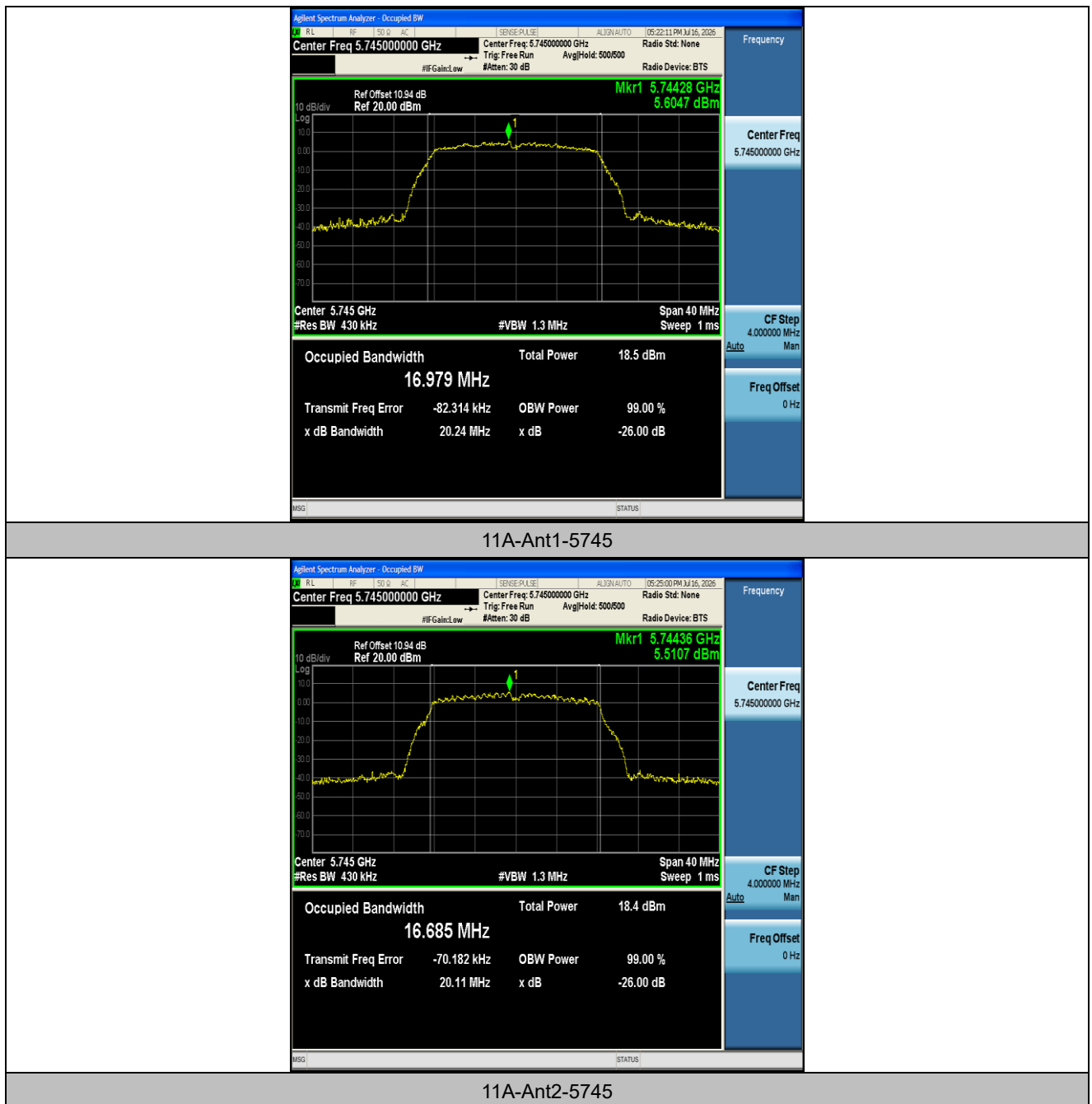
|            |      |      |        |           |           |     |     |
|------------|------|------|--------|-----------|-----------|-----|-----|
| 11AC40MIMO | Ant1 | 5755 | 36.258 | 5736.9558 | 5773.2138 | --- | --- |
| 11AC40MIMO | Ant2 | 5755 | 36.261 | 5736.9039 | 5773.1649 | --- | --- |
| 11AC40MIMO | Ant1 | 5795 | 36.194 | 5776.9364 | 5813.1304 | --- | --- |
| 11AC40MIMO | Ant2 | 5795 | 36.198 | 5776.9375 | 5813.1355 | --- | --- |
| 11AC80MIMO | Ant1 | 5775 | 75.814 | 5737.1973 | 5813.0113 | --- | --- |
| 11AC80MIMO | Ant2 | 5775 | 75.718 | 5737.1815 | 5812.8995 | --- | --- |

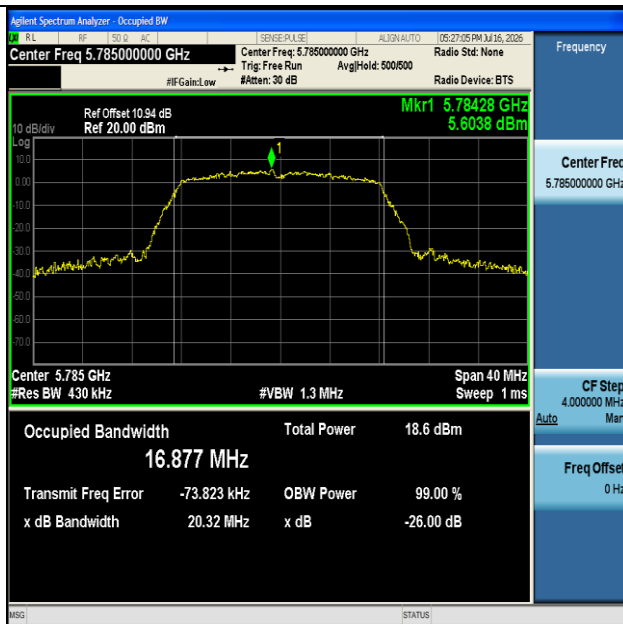
Note: offset(dB) = cable loss(dB) + attenuator factor(dB)



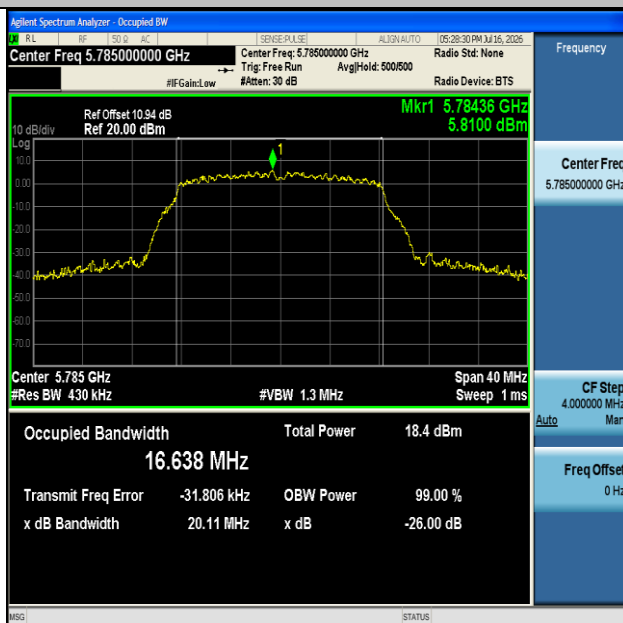


## Test Graphs





11A-Ant1-5785



11A-Ant2-5785



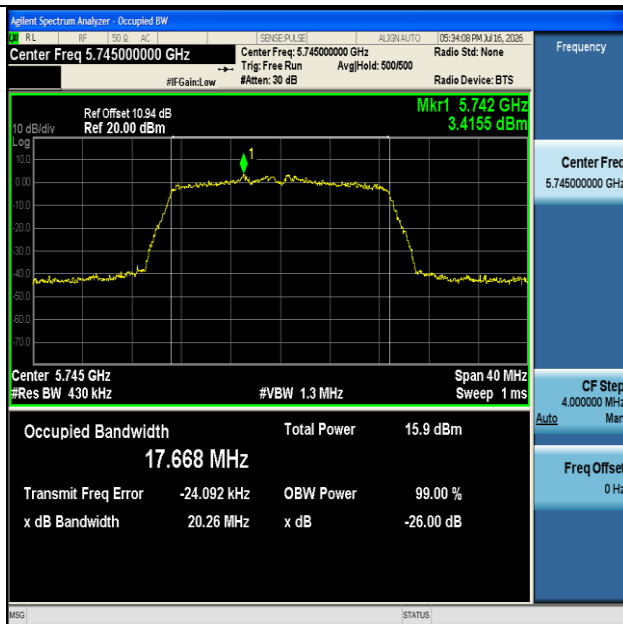


11A-Ant1-5825

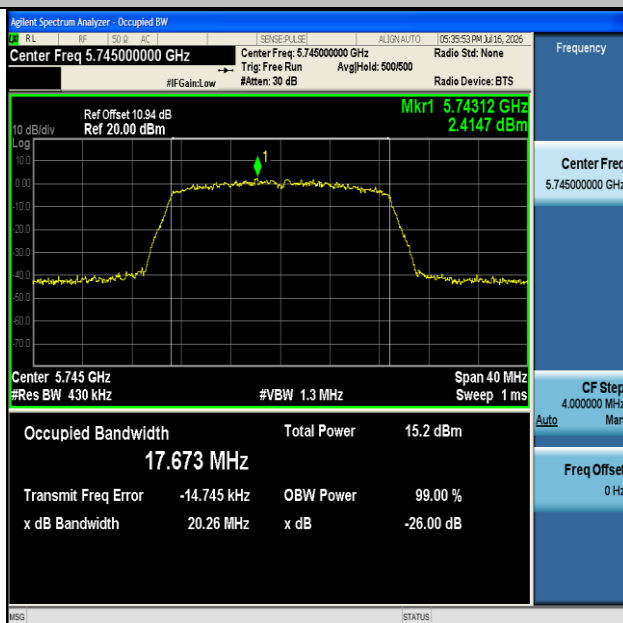


11A-Ant2-5825



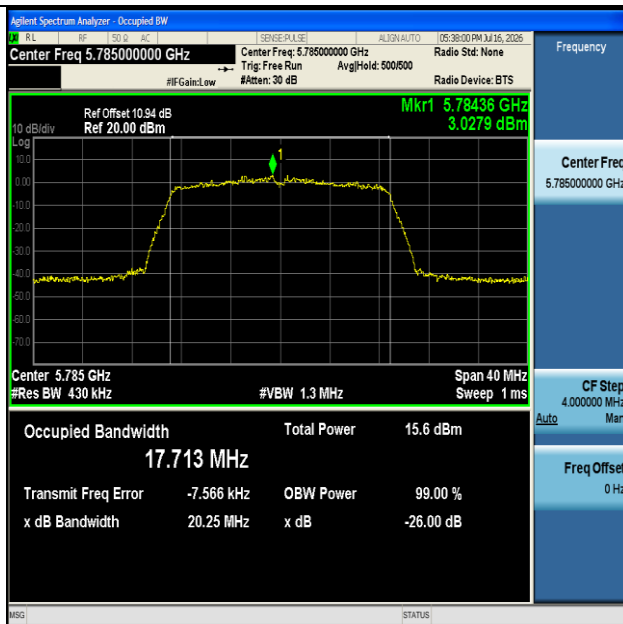


11N20MIMO-Ant1-5745

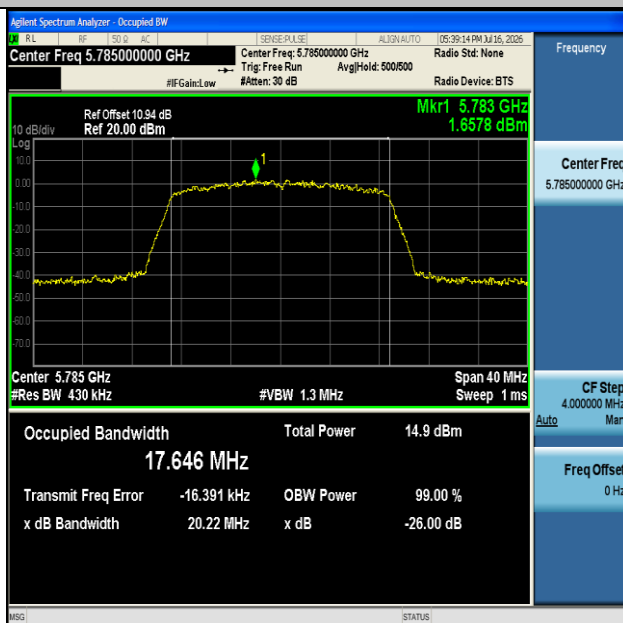


11N20MIMO-Ant2-5745



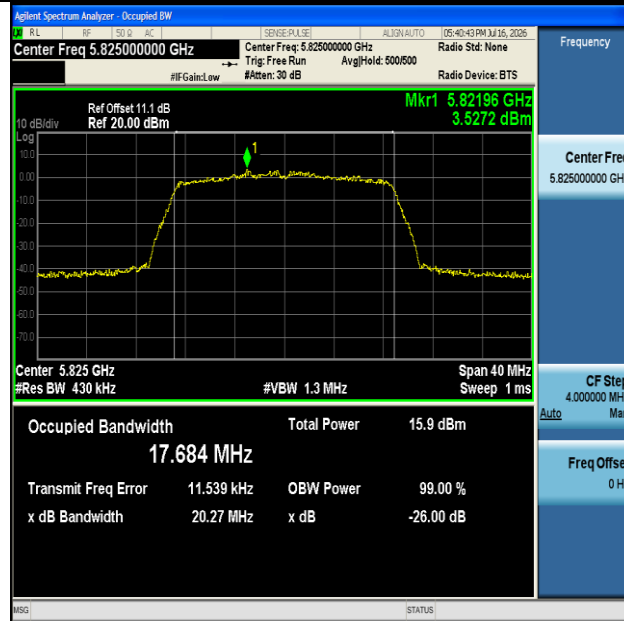


11N20MIMO-Ant1-5785



11N20MIMO-Ant2-5785





11N20MIMO-Ant1-5825



11N20MIMO-Ant2-5825



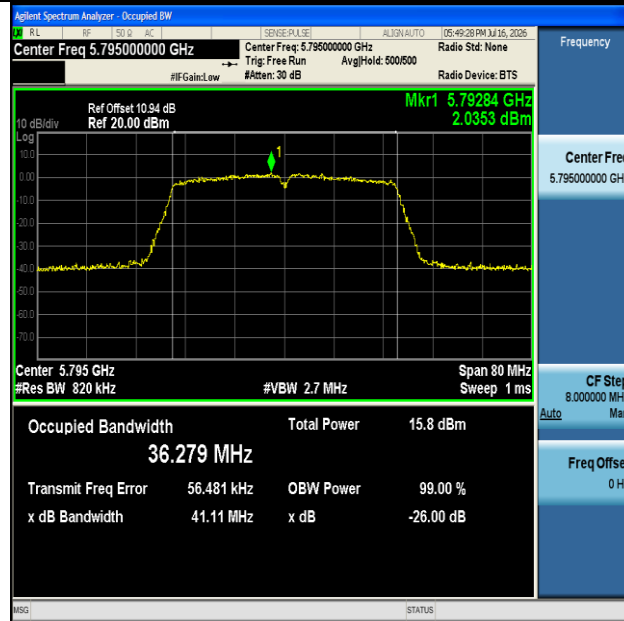


11N40MIMO-Ant1-5755



11N40MIMO-Ant2-5755



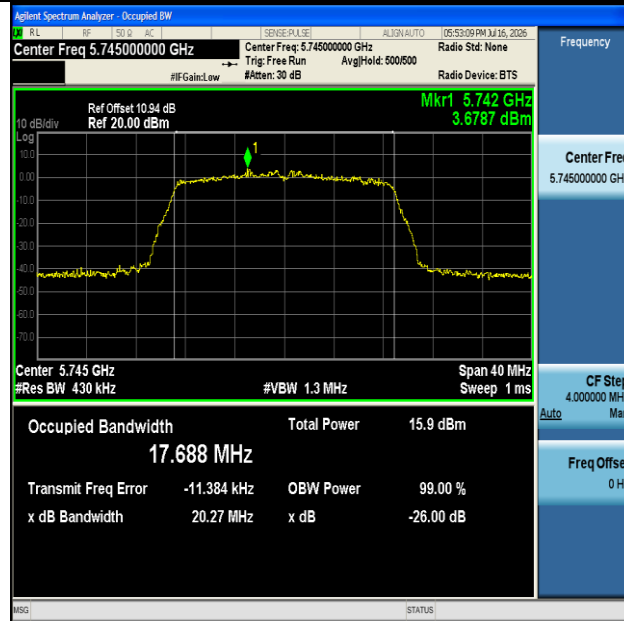


11N40MIMO-Ant1-5795



11N40MIMO-Ant2-5795



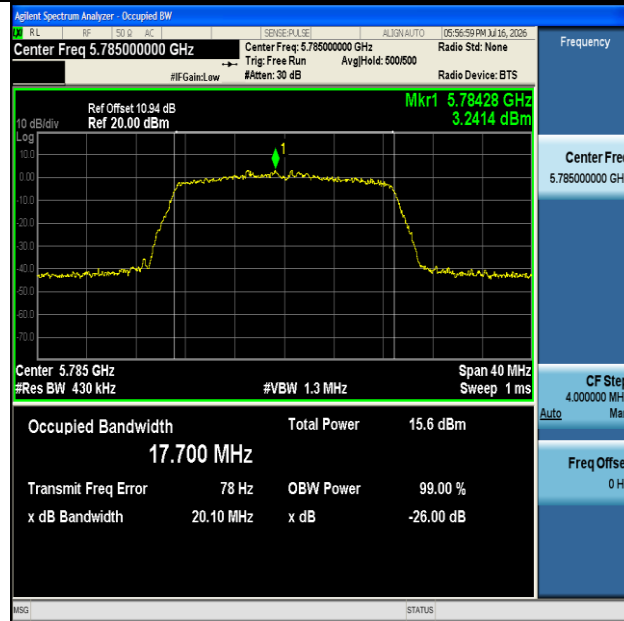


11AC20MIMO-Ant1-5745

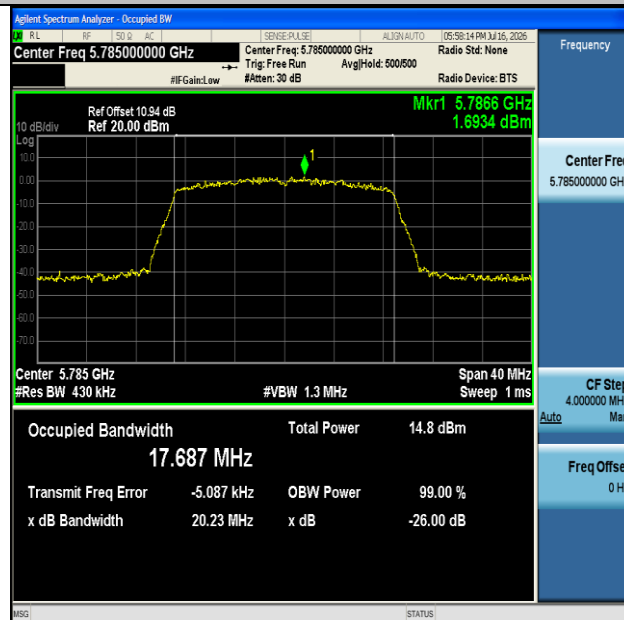


11AC20MIMO-Ant2-5745



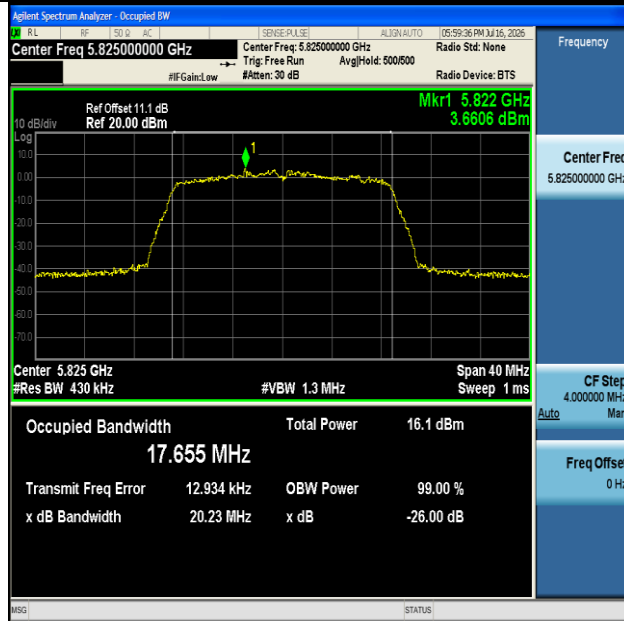


11AC20MIMO-Ant1-5785



11AC20MIMO-Ant2-5785



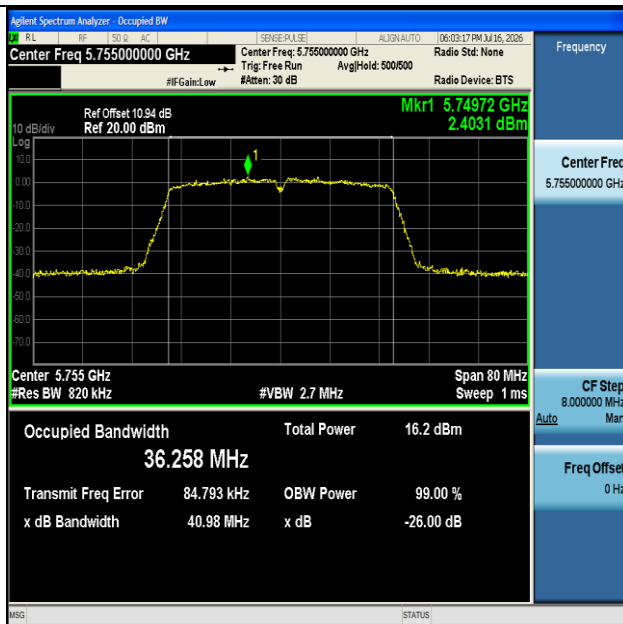


11AC20MIMO-Ant1-5825

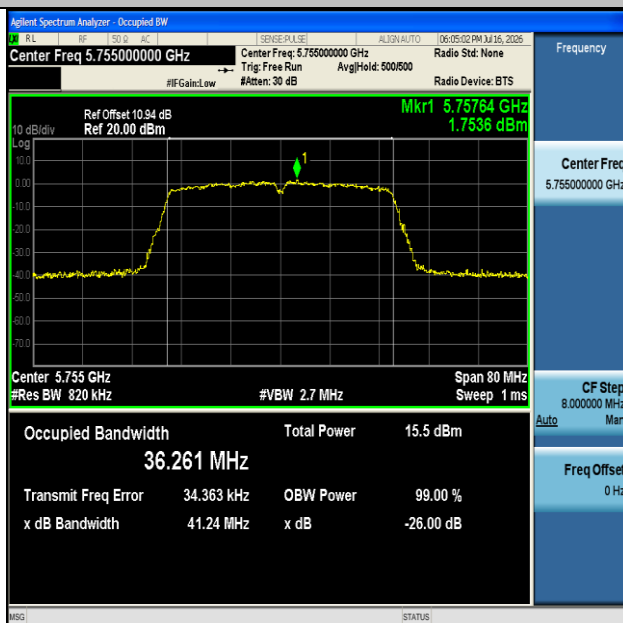


11AC20MIMO-Ant2-5825





11AC40MIMO-Ant1-5755

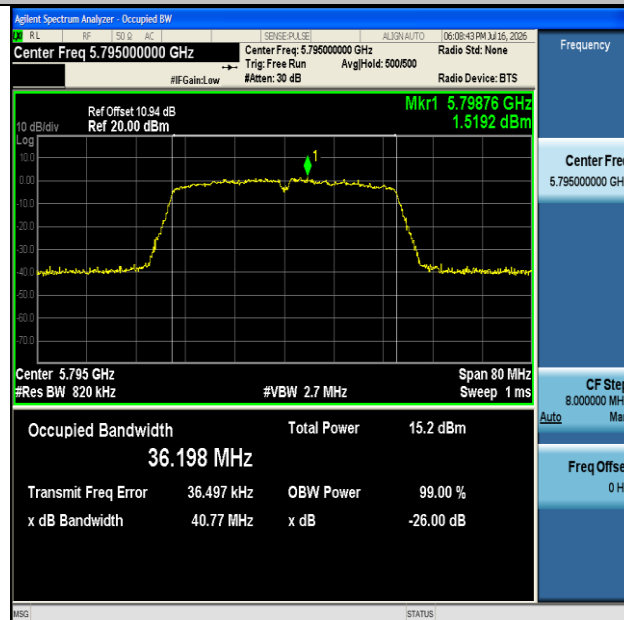


11AC40MIMO-Ant2-5755



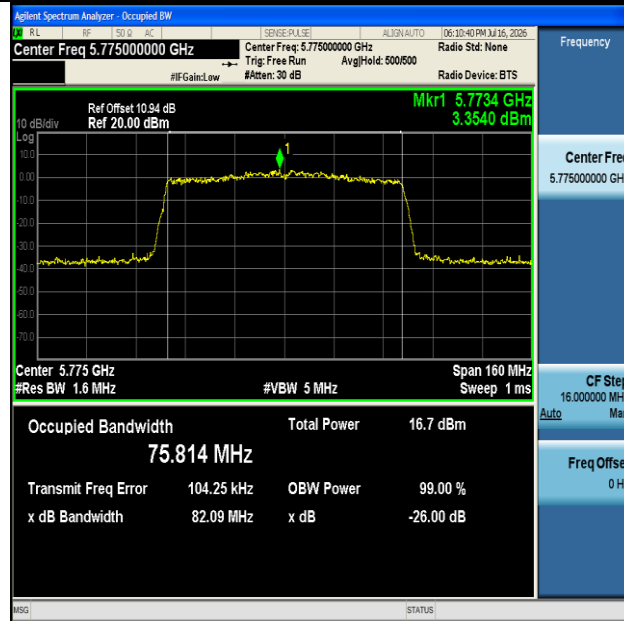


11AC40MIMO-Ant1-5795

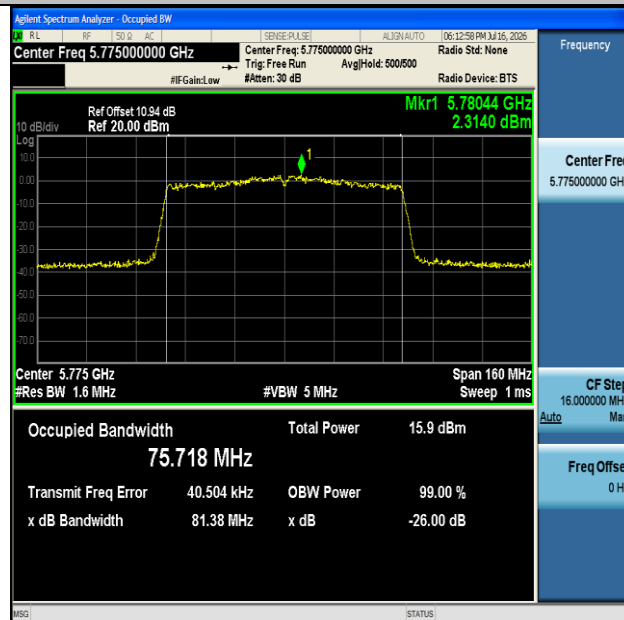


11AC40MIMO-Ant2-5795





11AC80MIMO-Ant1-5775



11AC80MIMO-Ant2-5775





## Appendix A: Min emission bandwidth

### Test Result

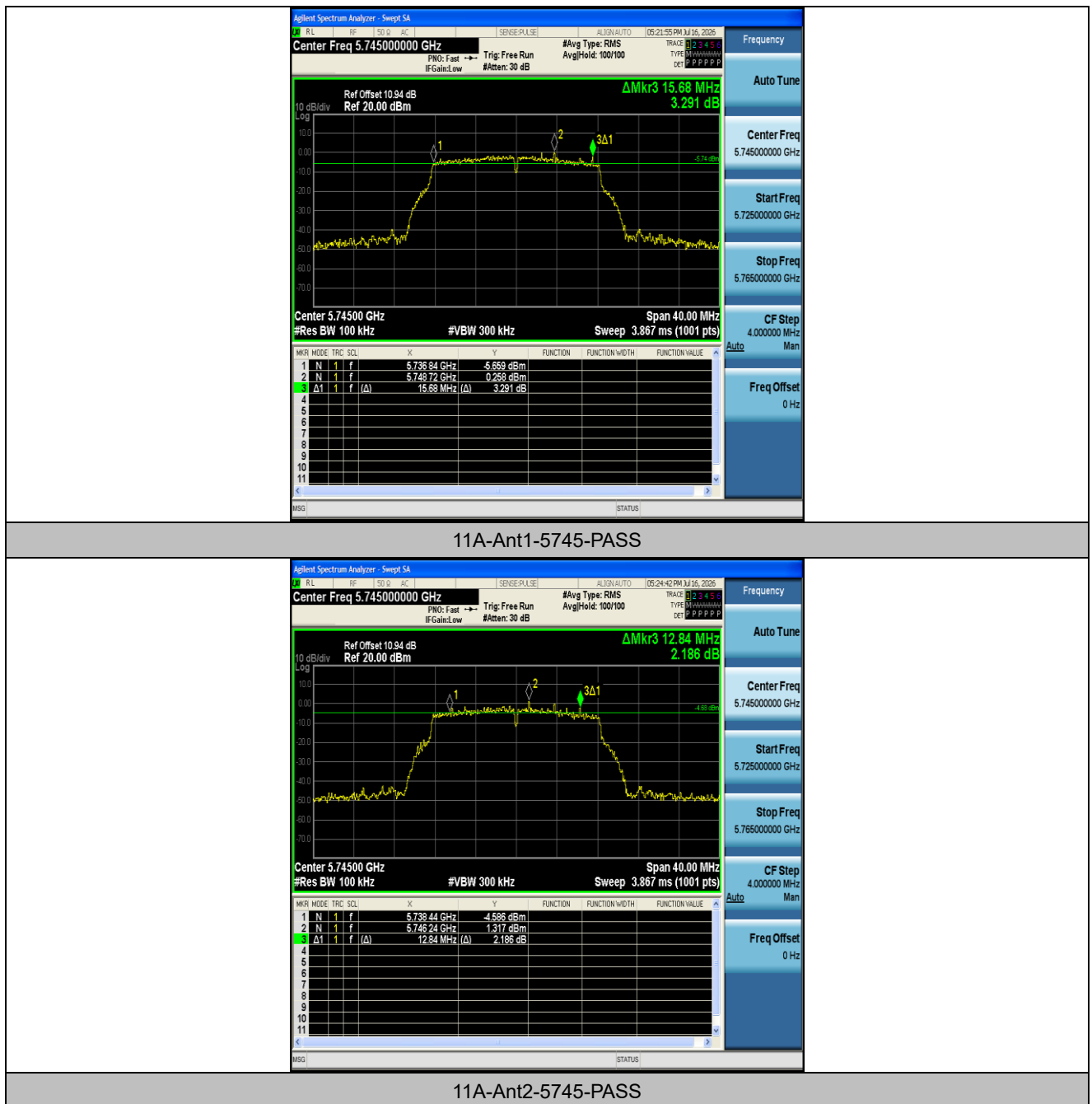
| Test Mode  | Antenna | Frequency<br>[MHz] | 6db EBW<br>[MHz] | FL<br>[MHz] | FH<br>[MHz] | Limit<br>[MHz] | Verdict |
|------------|---------|--------------------|------------------|-------------|-------------|----------------|---------|
| 11A        | Ant1    | 5745               | 15.680           | 5736.840    | 5752.520    | 0.5            | PASS    |
| 11A        | Ant2    | 5745               | 12.840           | 5738.440    | 5751.280    | 0.5            | PASS    |
| 11A        | Ant1    | 5785               | 15.120           | 5777.400    | 5792.520    | 0.5            | PASS    |
| 11A        | Ant2    | 5785               | 15.080           | 5777.440    | 5792.520    | 0.5            | PASS    |
| 11A        | Ant1    | 5825               | 10.400           | 5820.200    | 5830.600    | 0.5            | PASS    |
| 11A        | Ant2    | 5825               | 15.640           | 5817.480    | 5833.120    | 0.5            | PASS    |
| 11N20MIMO  | Ant1    | 5745               | 15.960           | 5736.560    | 5752.520    | 0.5            | PASS    |
| 11N20MIMO  | Ant2    | 5745               | 15.080           | 5737.440    | 5752.520    | 0.5            | PASS    |
| 11N20MIMO  | Ant1    | 5785               | 15.120           | 5777.400    | 5792.520    | 0.5            | PASS    |
| 11N20MIMO  | Ant2    | 5785               | 15.400           | 5777.120    | 5792.520    | 0.5            | PASS    |
| 11N20MIMO  | Ant1    | 5825               | 16.000           | 5817.440    | 5833.440    | 0.5            | PASS    |
| 11N20MIMO  | Ant2    | 5825               | 15.080           | 5817.440    | 5832.520    | 0.5            | PASS    |
| 11N40MIMO  | Ant1    | 5755               | 35.760           | 5737.080    | 5772.840    | 0.5            | PASS    |
| 11N40MIMO  | Ant2    | 5755               | 35.360           | 5737.160    | 5772.520    | 0.5            | PASS    |
| 11N40MIMO  | Ant1    | 5795               | 35.120           | 5777.400    | 5812.520    | 0.5            | PASS    |
| 11N40MIMO  | Ant2    | 5795               | 35.120           | 5777.400    | 5812.520    | 0.5            | PASS    |
| 11AC20MIMO | Ant1    | 5745               | 16.600           | 5736.840    | 5753.440    | 0.5            | PASS    |
| 11AC20MIMO | Ant2    | 5745               | 16.040           | 5737.080    | 5753.120    | 0.5            | PASS    |
| 11AC20MIMO | Ant1    | 5785               | 15.920           | 5776.560    | 5792.480    | 0.5            | PASS    |
| 11AC20MIMO | Ant2    | 5785               | 15.120           | 5777.400    | 5792.520    | 0.5            | PASS    |
| 11AC20MIMO | Ant1    | 5825               | 15.960           | 5817.440    | 5833.400    | 0.5            | PASS    |
| 11AC20MIMO | Ant2    | 5825               | 15.080           | 5817.440    | 5832.520    | 0.5            | PASS    |
| 11AC40MIMO | Ant1    | 5755               | 35.120           | 5737.400    | 5772.520    | 0.5            | PASS    |
| 11AC40MIMO | Ant2    | 5755               | 35.680           | 5736.840    | 5772.520    | 0.5            | PASS    |
| 11AC40MIMO | Ant1    | 5795               | 35.440           | 5777.080    | 5812.520    | 0.5            | PASS    |
| 11AC40MIMO | Ant2    | 5795               | 35.680           | 5776.840    | 5812.520    | 0.5            | PASS    |
| 11AC80MIMO | Ant1    | 5775               | 75.200           | 5737.400    | 5812.600    | 0.5            | PASS    |
| 11AC80MIMO | Ant2    | 5775               | 75.200           | 5737.400    | 5812.600    | 0.5            | PASS    |

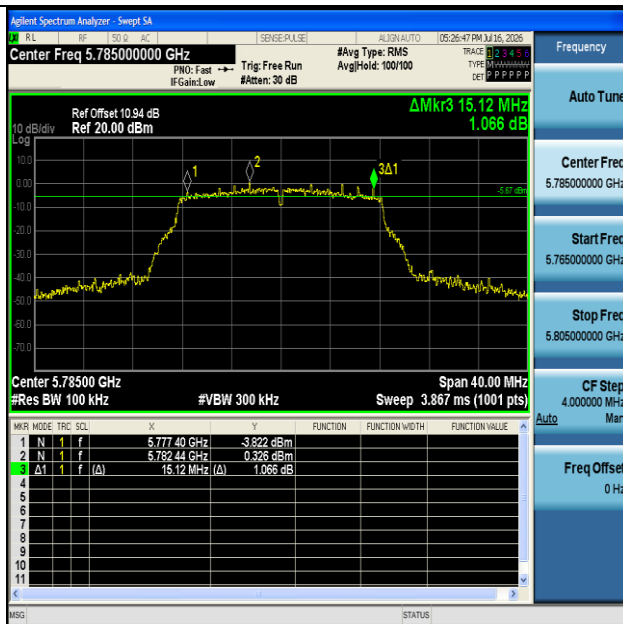
Note: offset(dB) = cable loss(dB) + attenuator factor(dB)



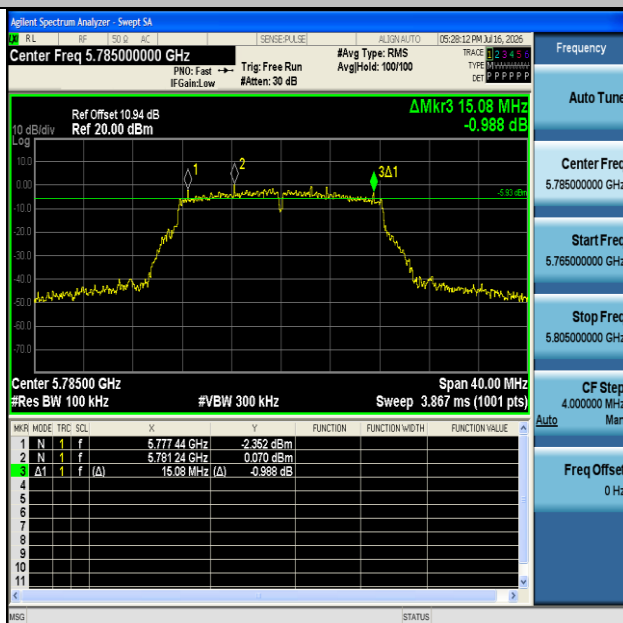


## Test Graphs



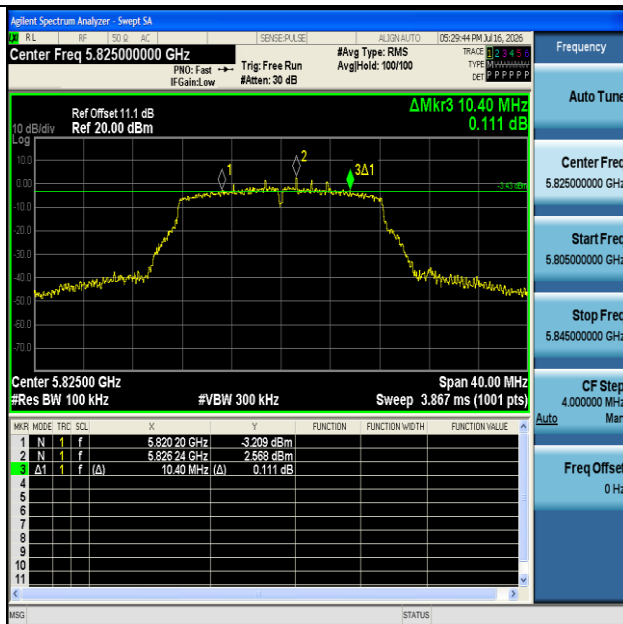


11A-Ant1-5785-PASS

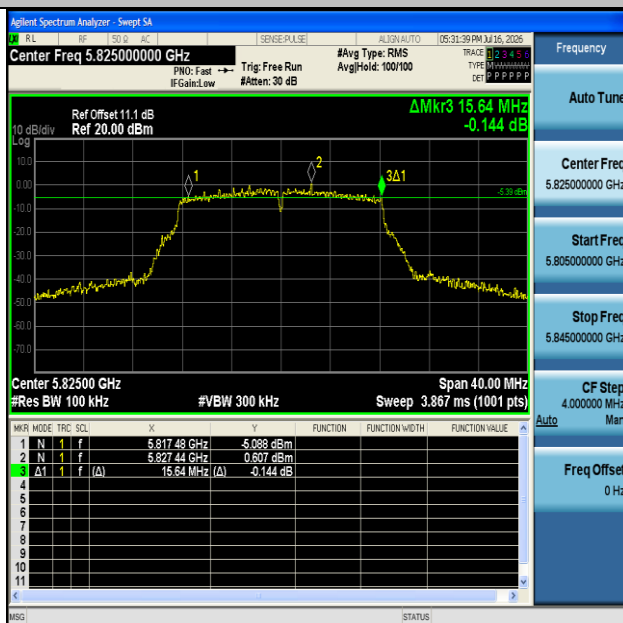


11A-Ant2-5785-PASS



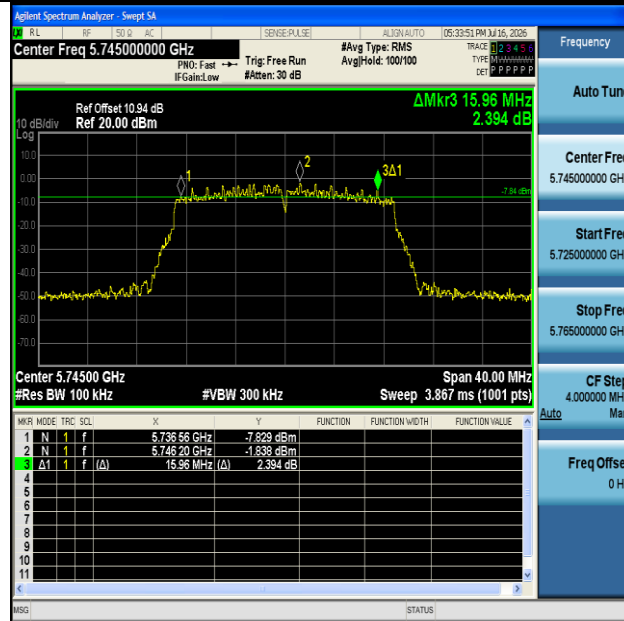


11A-Ant1-5825-PASS

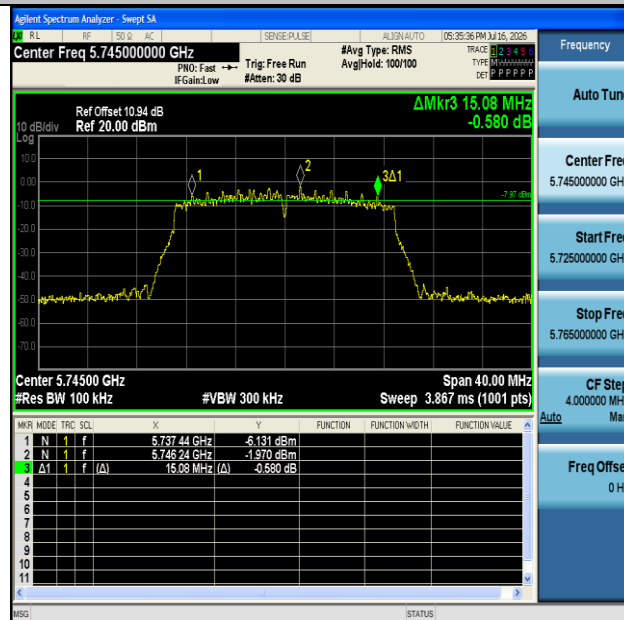


11A-Ant2-5825-PASS



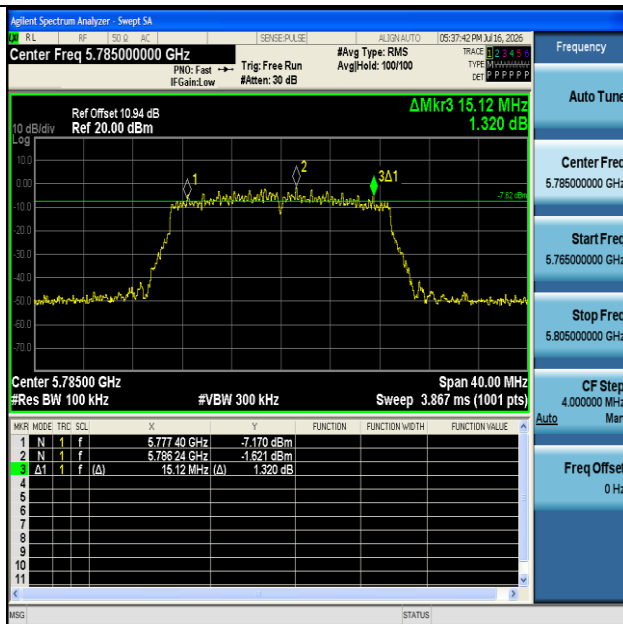


11N20MIMO-Ant1-5745-PASS

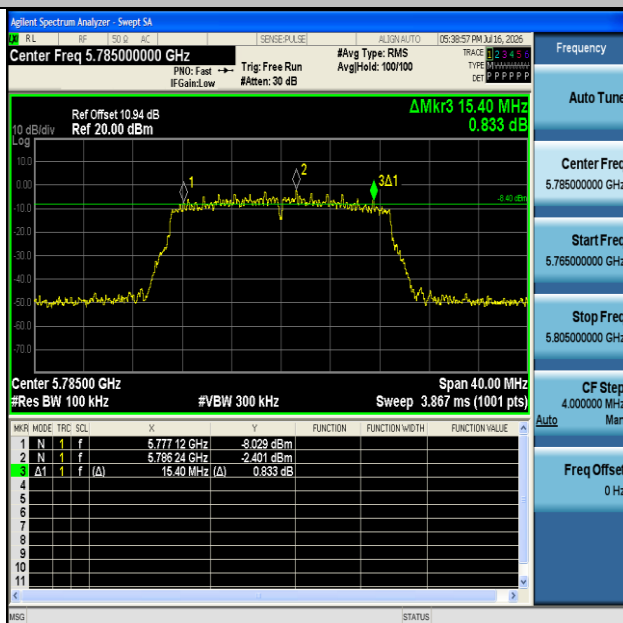


11N20MIMO-Ant2-5745-PASS





11N20MIMO-Ant1-5785-PASS

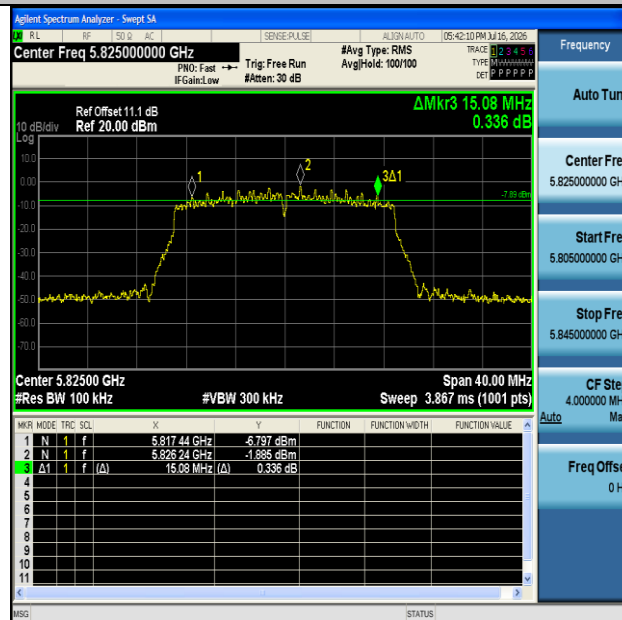


11N20MIMO-Ant2-5785-PASS



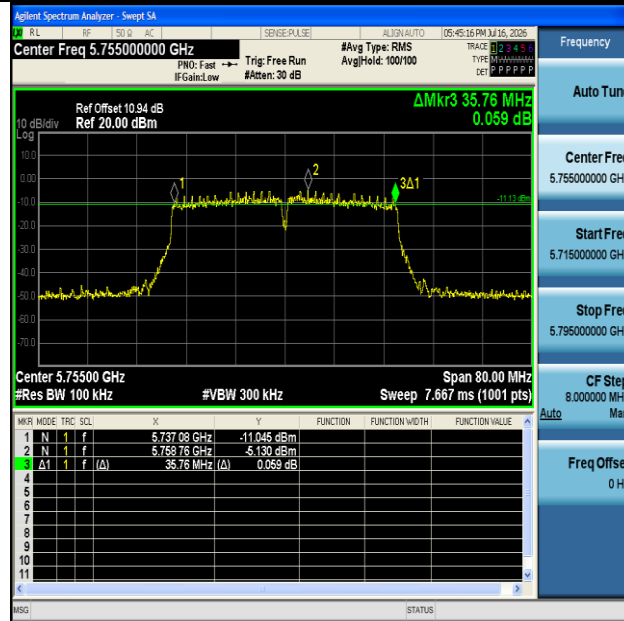


11N20MIMO-Ant1-5825-PASS

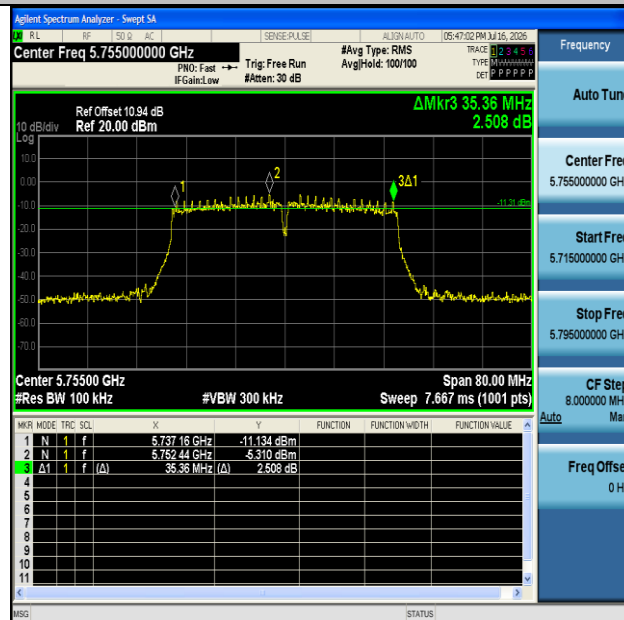


11N20MIMO-Ant2-5825-PASS



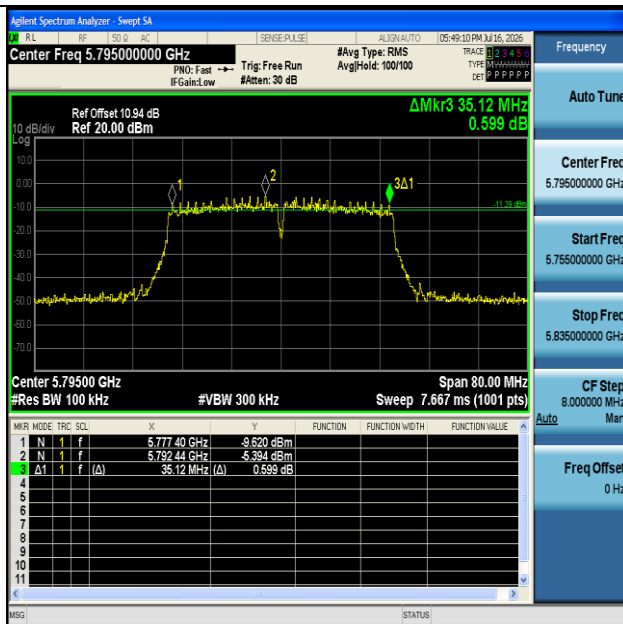


11N40MIMO-Ant1-5755-PASS

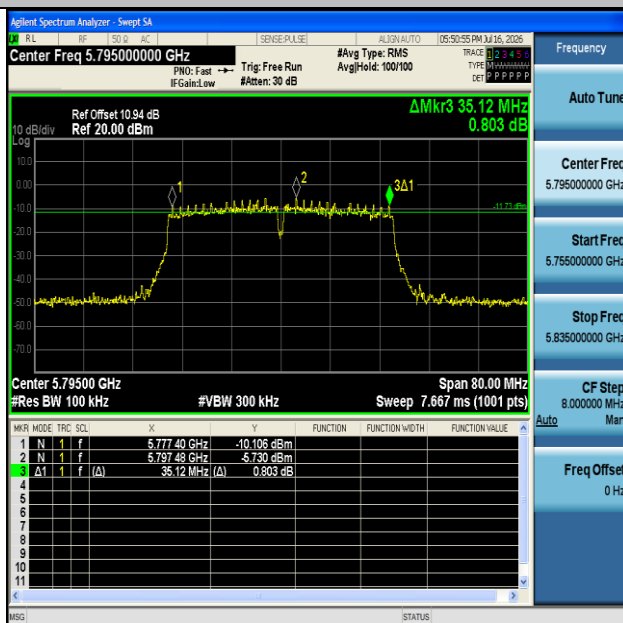


11N40MIMO-Ant2-5755-PASS



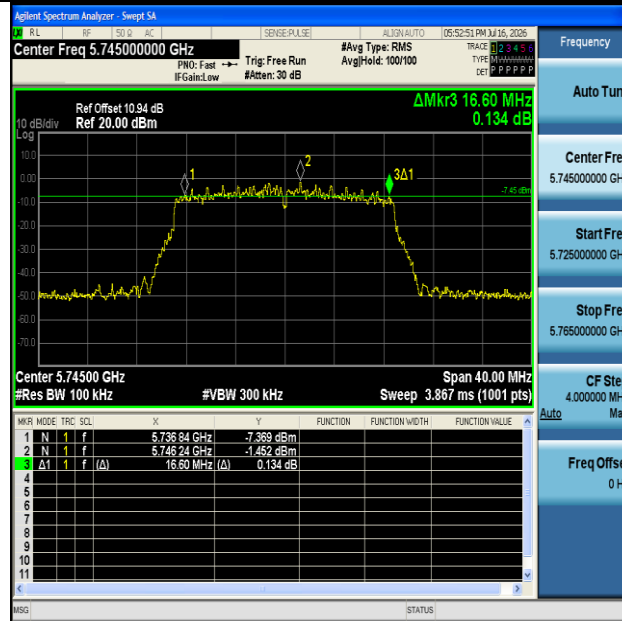


11N40MIMO-Ant1-5795-PASS

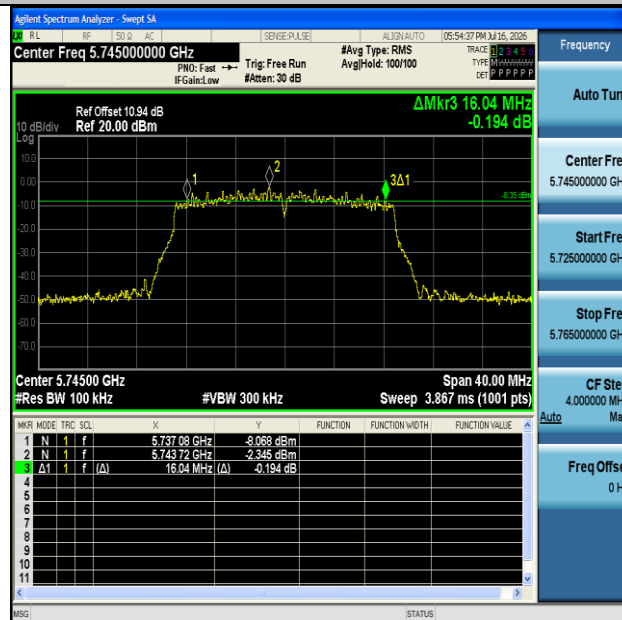


11N40MIMO-Ant2-5795-PASS



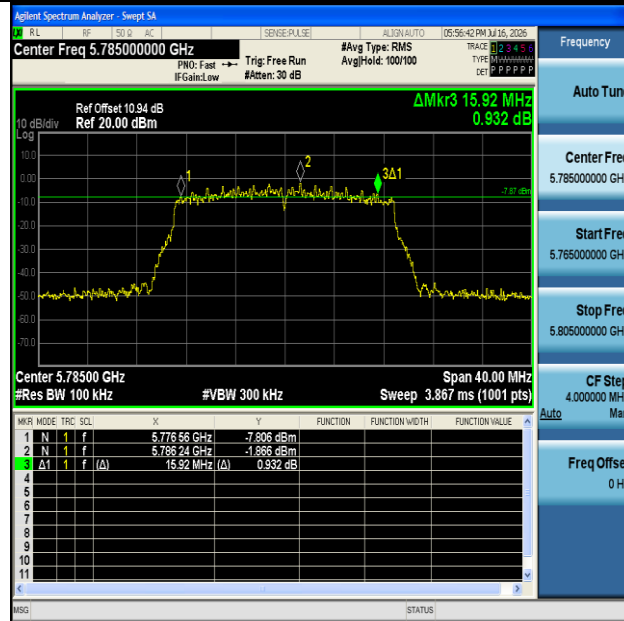


11AC20MIMO-Ant1-5745-PASS

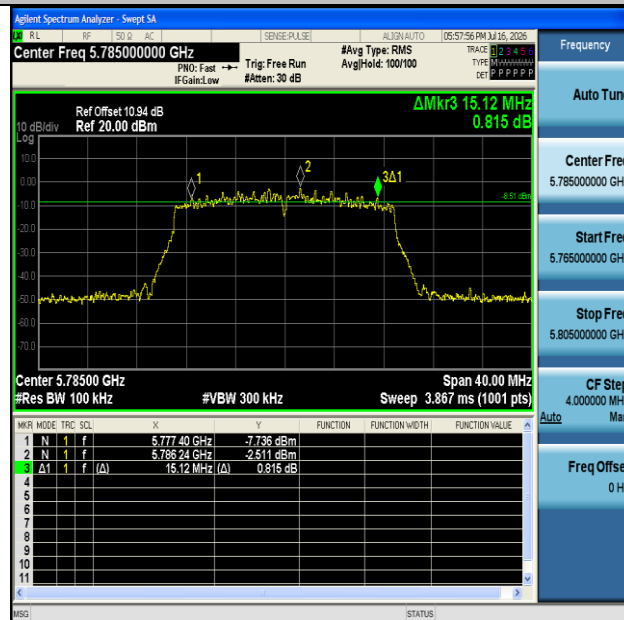


11AC20MIMO-Ant2-5745-PASS





11AC20MIMO-Ant1-5785-PASS

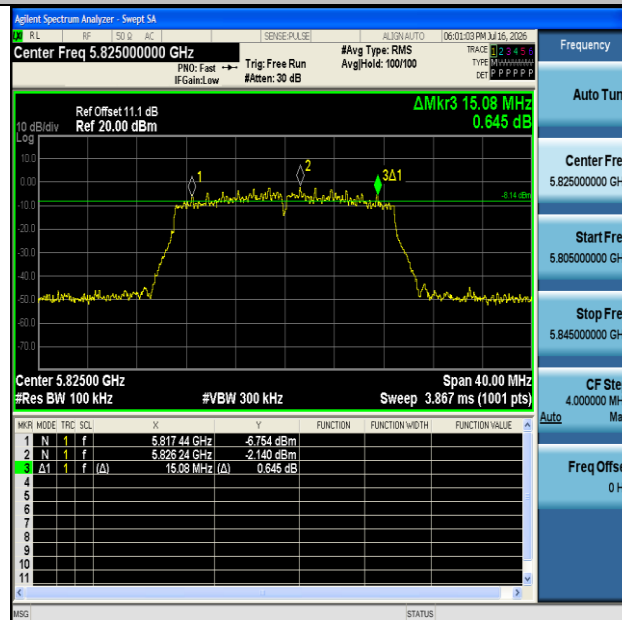


11AC20MIMO-Ant2-5785-PASS



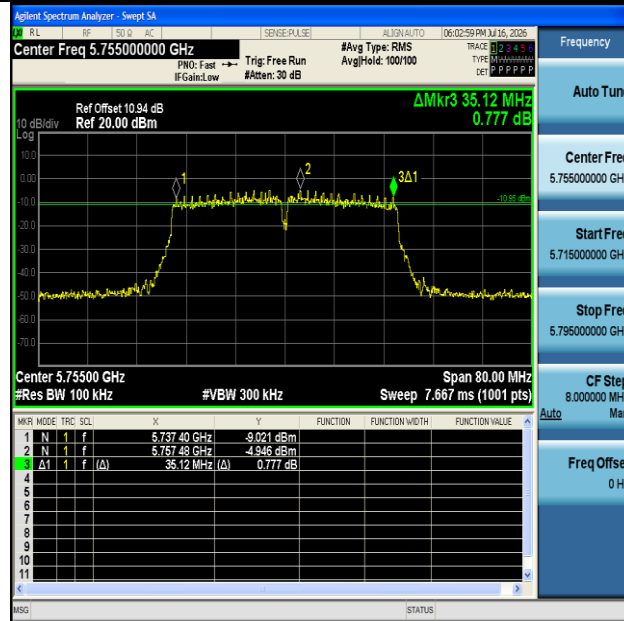


11AC20MIMO-Ant1-5825-PASS

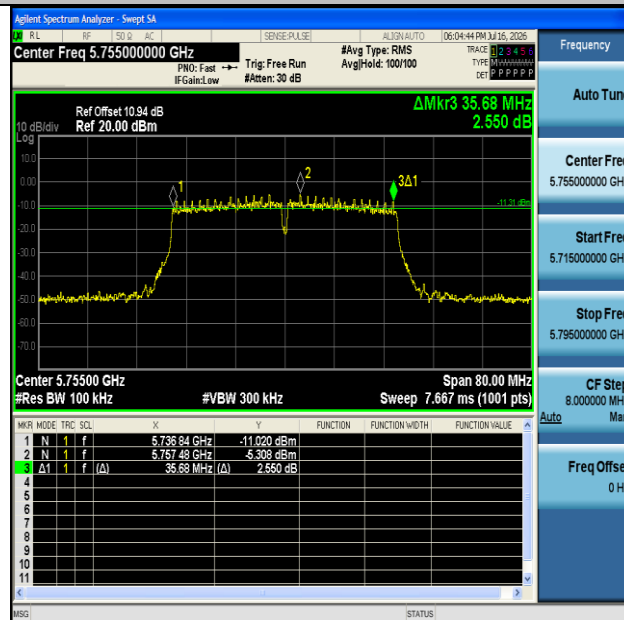


11AC20MIMO-Ant2-5825-PASS



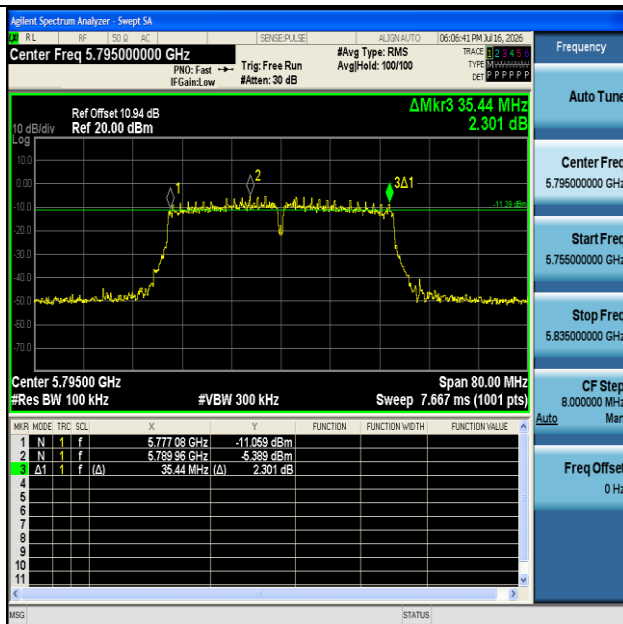


11AC40MIMO-Ant1-5755-PASS

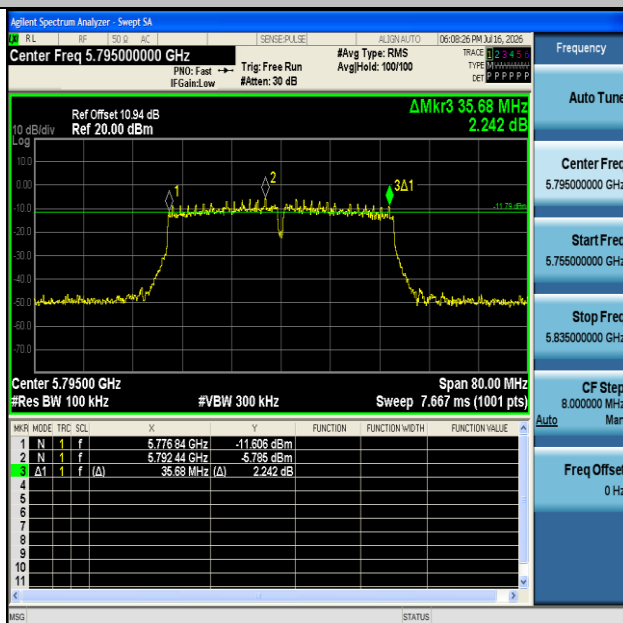


11AC40MIMO-Ant2-5755-PASS



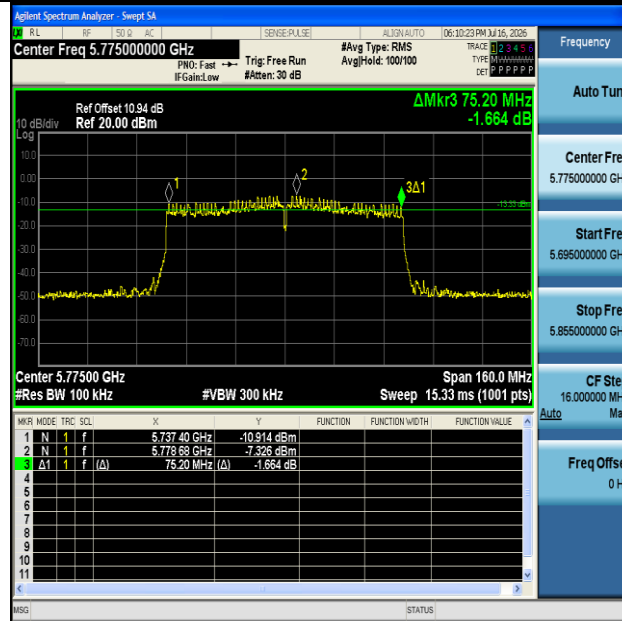


11AC40MIMO-Ant1-5795-PASS

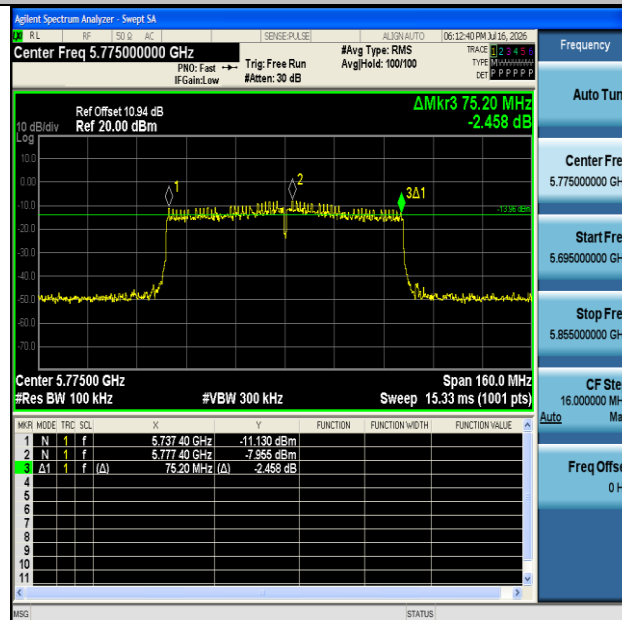


11AC40MIMO-Ant2-5795-PASS





11AC80MIMO-Ant1-5775-PASS



11AC80MIMO-Ant2-5775-PASS





## Appendix B: Maximum conducted output power

### Test Result

| Test Mode  | Antenna | Frequency [MHz] | Conducted Power [dBm] | Conducted Limit [dBm] | Verdict |
|------------|---------|-----------------|-----------------------|-----------------------|---------|
| 11A        | Ant1    | 5745            | 11.87                 | ≤30.00                | PASS    |
| 11A        | Ant2    | 5745            | 11.24                 | ≤30.00                | PASS    |
| 11A        | Ant1    | 5785            | 11.91                 | ≤30.00                | PASS    |
| 11A        | Ant2    | 5785            | 11.30                 | ≤30.00                | PASS    |
| 11A        | Ant1    | 5825            | 12.34                 | ≤30.00                | PASS    |
| 11A        | Ant2    | 5825            | 11.70                 | ≤30.00                | PASS    |
| 11N20MIMO  | Ant1    | 5745            | 8.72                  | ≤30.00                | PASS    |
| 11N20MIMO  | Ant2    | 5745            | 7.78                  | ≤30.00                | PASS    |
| 11N20MIMO  | total   | 5745            | 11.29                 | ≤30.00                | PASS    |
| 11N20MIMO  | Ant1    | 5785            | 8.56                  | ≤30.00                | PASS    |
| 11N20MIMO  | Ant2    | 5785            | 7.51                  | ≤30.00                | PASS    |
| 11N20MIMO  | total   | 5785            | 11.08                 | ≤30.00                | PASS    |
| 11N20MIMO  | Ant1    | 5825            | 8.71                  | ≤30.00                | PASS    |
| 11N20MIMO  | Ant2    | 5825            | 8.05                  | ≤30.00                | PASS    |
| 11N20MIMO  | total   | 5825            | 11.40                 | ≤30.00                | PASS    |
| 11N40MIMO  | Ant1    | 5755            | 8.30                  | ≤30.00                | PASS    |
| 11N40MIMO  | Ant2    | 5755            | 7.67                  | ≤30.00                | PASS    |
| 11N40MIMO  | total   | 5755            | 11.01                 | ≤30.00                | PASS    |
| 11N40MIMO  | Ant1    | 5795            | 8.36                  | ≤30.00                | PASS    |
| 11N40MIMO  | Ant2    | 5795            | 7.37                  | ≤30.00                | PASS    |
| 11N40MIMO  | total   | 5795            | 10.90                 | ≤30.00                | PASS    |
| 11AC20MIMO | Ant1    | 5745            | 8.70                  | ≤30.00                | PASS    |
| 11AC20MIMO | Ant2    | 5745            | 8.10                  | ≤30.00                | PASS    |
| 11AC20MIMO | total   | 5745            | 11.42                 | ≤30.00                | PASS    |
| 11AC20MIMO | Ant1    | 5785            | 8.59                  | ≤30.00                | PASS    |
| 11AC20MIMO | Ant2    | 5785            | 7.53                  | ≤30.00                | PASS    |
| 11AC20MIMO | total   | 5785            | 11.10                 | ≤30.00                | PASS    |
| 11AC20MIMO | Ant1    | 5825            | 9.03                  | ≤30.00                | PASS    |
| 11AC20MIMO | Ant2    | 5825            | 8.05                  | ≤30.00                | PASS    |
| 11AC20MIMO | total   | 5825            | 11.58                 | ≤30.00                | PASS    |
| 11AC40MIMO | Ant1    | 5755            | 8.39                  | ≤30.00                | PASS    |
| 11AC40MIMO | Ant2    | 5755            | 8.09                  | ≤30.00                | PASS    |
| 11AC40MIMO | total   | 5755            | 11.25                 | ≤30.00                | PASS    |
| 11AC40MIMO | Ant1    | 5795            | 8.13                  | ≤30.00                | PASS    |
| 11AC40MIMO | Ant2    | 5795            | 7.73                  | ≤30.00                | PASS    |
| 11AC40MIMO | total   | 5795            | 10.94                 | ≤30.00                | PASS    |
| 11AC80MIMO | Ant1    | 5775            | 8.65                  | ≤30.00                | PASS    |





|            |       |      |       |        |      |
|------------|-------|------|-------|--------|------|
| 11AC80MIMO | Ant2  | 5775 | 7.32  | ≤30.00 | PASS |
| 11AC80MIMO | total | 5775 | 11.05 | ≤30.00 | PASS |

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





## Appendix C: Maximum power spectral density

### Test Result

| Frequency<br>[MHz] | Test<br>Mode  | Antenna | Result<br>[dBm/300K<br>Hz] | Result<br>[dBm/500K<br>Hz] | DC Factor<br>[dB] | RBW Factor<br>[dB] | Limit<br>[dBm/500K<br>Hz] | Verdict |
|--------------------|---------------|---------|----------------------------|----------------------------|-------------------|--------------------|---------------------------|---------|
| 5745               | 11A           | Ant1    | -3.41                      | -1.04                      | 0.15              | 2.22               | ≤30.00                    | PASS    |
| 5745               | 11A           | Ant2    | -3.98                      | -1.61                      | 0.15              | 2.22               | ≤30.00                    | PASS    |
| 5785               | 11A           | Ant1    | -3.50                      | -1.13                      | 0.15              | 2.22               | ≤30.00                    | PASS    |
| 5785               | 11A           | Ant2    | -3.63                      | -1.26                      | 0.15              | 2.22               | ≤30.00                    | PASS    |
| 5825               | 11A           | Ant1    | -2.73                      | -0.36                      | 0.15              | 2.22               | ≤30.00                    | PASS    |
| 5825               | 11A           | Ant2    | -3.79                      | -1.45                      | 0.12              | 2.22               | ≤30.00                    | PASS    |
| 5745               | 11N20MI<br>MO | Ant1    | -7.35                      | -3.95                      | 1.18              | 2.22               | ≤30.00                    | PASS    |
| 5745               | 11N20MI<br>MO | Ant2    | -7.97                      | -4.83                      | 0.92              | 2.22               | ≤30.00                    | PASS    |
| 5745               | 11N20MI<br>MO | total   | ---                        | -1.36                      | ---               | ---                | ≤30.00                    | PASS    |
| 5785               | 11N20MI<br>MO | Ant1    | -7.18                      | -3.78                      | 1.18              | 2.22               | ≤30.00                    | PASS    |
| 5785               | 11N20MI<br>MO | Ant2    | -8.29                      | -5.15                      | 0.92              | 2.22               | ≤30.00                    | PASS    |
| 5785               | 11N20MI<br>MO | total   | ---                        | -1.40                      | ---               | ---                | ≤30.00                    | PASS    |
| 5825               | 11N20MI<br>MO | Ant1    | -6.84                      | -3.70                      | 0.92              | 2.22               | ≤30.00                    | PASS    |
| 5825               | 11N20MI<br>MO | Ant2    | -7.17                      | -4.03                      | 0.92              | 2.22               | ≤30.00                    | PASS    |
| 5825               | 11N20MI<br>MO | total   | ---                        | -0.85                      | ---               | ---                | ≤30.00                    | PASS    |
| 5755               | 11N40MI<br>MO | Ant1    | -10.67                     | -6.99                      | 1.46              | 2.22               | ≤30.00                    | PASS    |
| 5755               | 11N40MI<br>MO | Ant2    | -10.73                     | -7.05                      | 1.46              | 2.22               | ≤30.00                    | PASS    |
| 5755               | 11N40MI<br>MO | total   | ---                        | -4.01                      | ---               | ---                | ≤30.00                    | PASS    |
| 5795               | 11N40MI<br>MO | Ant1    | -11.03                     | -7.05                      | 1.76              | 2.22               | ≤30.00                    | PASS    |
| 5795               | 11N40MI<br>MO | Ant2    | -11.67                     | -7.99                      | 1.46              | 2.22               | ≤30.00                    | PASS    |
| 5795               | 11N40MI<br>MO | total   | ---                        | -4.48                      | ---               | ---                | ≤30.00                    | PASS    |
| 5745               | 11AC20        | Ant1    | -7.54                      | -4.20                      | 1.12              | 2.22               | ≤30.00                    | PASS    |





|      |                |       |        |        |      |      |        |      |
|------|----------------|-------|--------|--------|------|------|--------|------|
|      | MIMO           |       |        |        |      |      |        |      |
| 5745 | 11AC20<br>MIMO | Ant2  | -7.45  | -4.05  | 1.18 | 2.22 | ≤30.00 | PASS |
| 5745 | 11AC20<br>MIMO | total | ---    | -1.11  | ---  | ---  | ≤30.00 | PASS |
| 5785 | 11AC20<br>MIMO | Ant1  | -7.41  | -4.01  | 1.18 | 2.22 | ≤30.00 | PASS |
| 5785 | 11AC20<br>MIMO | Ant2  | -8.45  | -5.31  | 0.92 | 2.22 | ≤30.00 | PASS |
| 5785 | 11AC20<br>MIMO | total | ---    | -1.60  | ---  | ---  | ≤30.00 | PASS |
| 5825 | 11AC20<br>MIMO | Ant1  | -7.28  | -3.94  | 1.12 | 2.22 | ≤30.00 | PASS |
| 5825 | 11AC20<br>MIMO | Ant2  | -7.62  | -4.48  | 0.92 | 2.22 | ≤30.00 | PASS |
| 5825 | 11AC20<br>MIMO | total | ---    | -1.19  | ---  | ---  | ≤30.00 | PASS |
| 5755 | 11AC40<br>MIMO | Ant1  | -10.83 | -7.15  | 1.46 | 2.22 | ≤30.00 | PASS |
| 5755 | 11AC40<br>MIMO | Ant2  | -11.20 | -7.22  | 1.76 | 2.22 | ≤30.00 | PASS |
| 5755 | 11AC40<br>MIMO | total | ---    | -4.17  | ---  | ---  | ≤30.00 | PASS |
| 5795 | 11AC40<br>MIMO | Ant1  | -11.10 | -7.42  | 1.46 | 2.22 | ≤30.00 | PASS |
| 5795 | 11AC40<br>MIMO | Ant2  | -11.87 | -7.89  | 1.76 | 2.22 | ≤30.00 | PASS |
| 5795 | 11AC40<br>MIMO | total | ---    | -4.64  | ---  | ---  | ≤30.00 | PASS |
| 5775 | 11AC80<br>MIMO | Ant1  | -13.36 | -8.80  | 2.34 | 2.22 | ≤30.00 | PASS |
| 5775 | 11AC80<br>MIMO | Ant2  | -14.02 | -10.04 | 1.76 | 2.22 | ≤30.00 | PASS |
| 5775 | 11AC80<br>MIMO | total | ---    | -6.37  | ---  | ---  | ≤30.00 | PASS |

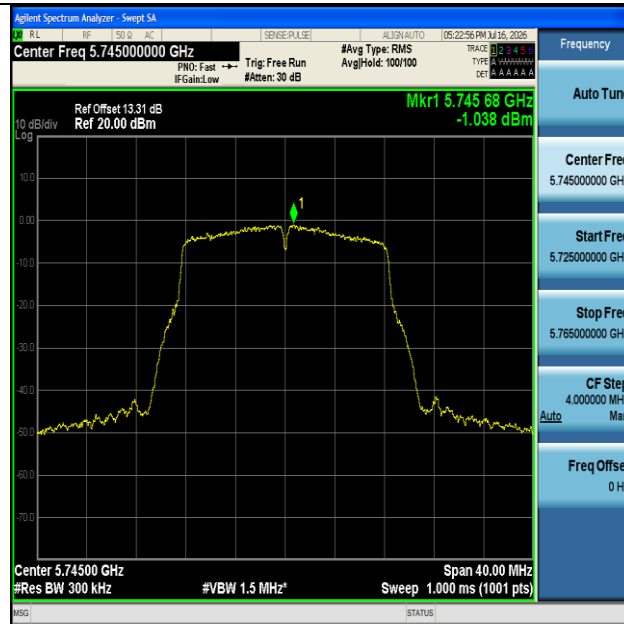
Note: offset(dB) = cable loss(dB) + attenuator factor(dB) + Duty Cycle Factor(dB)

Result[dBm/500KHz] = Result[dBm/300KHz] + RB Factor(dB)





## Test Graphs



11A-Ant1-5745-PASS



11A-Ant2-5745-PASS



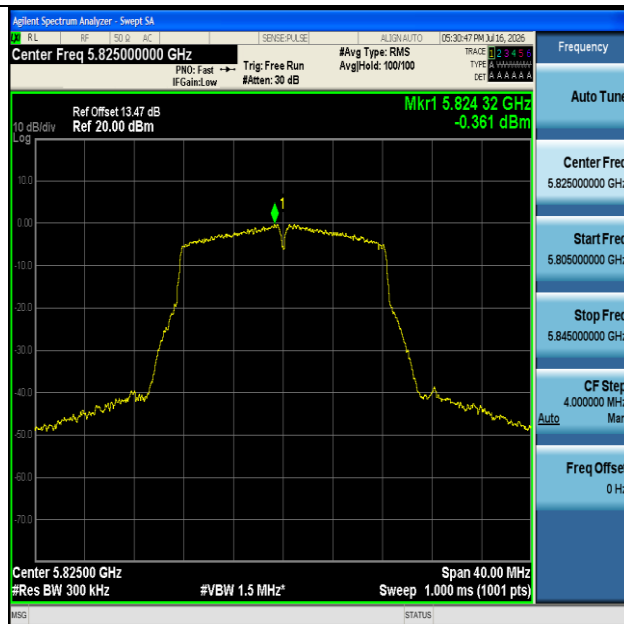


11A-Ant1-5785-PASS

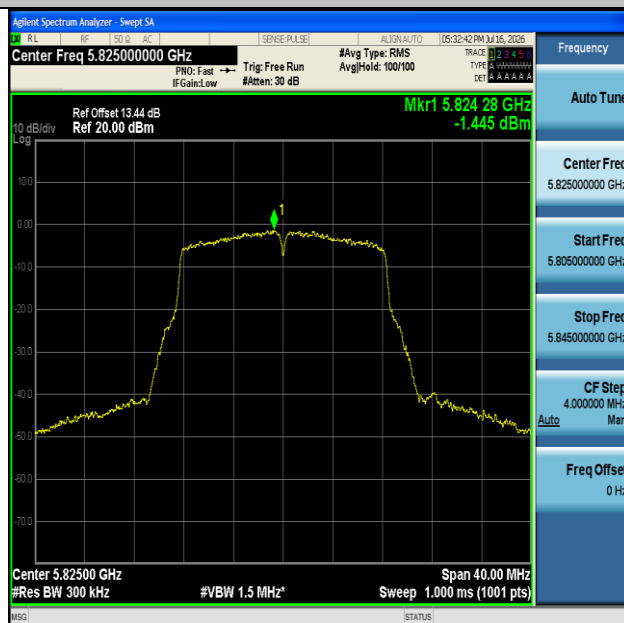


11A-Ant2-5785-PASS





11A-Ant1-5825-PASS



11A-Ant2-5825-PASS





11N20MIMO-Ant1-5745-PASS



11N20MIMO-Ant2-5745-PASS





11N20MIMO-Ant1-5785-PASS



11N20MIMO-Ant2-5785-PASS



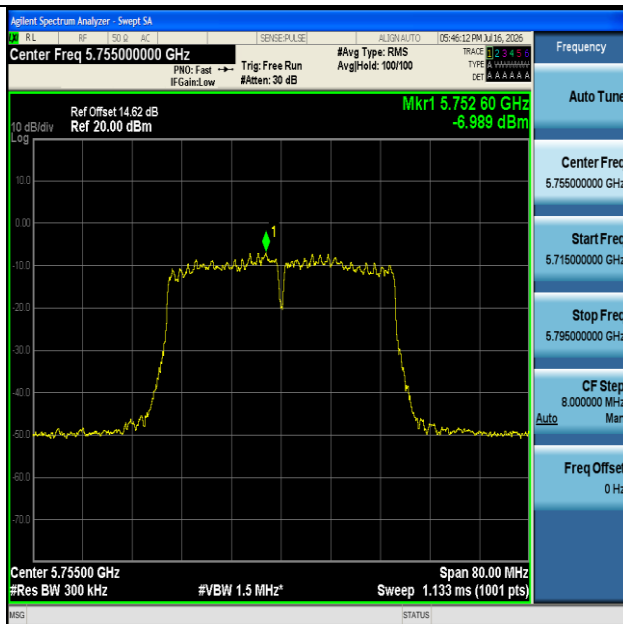


11N20MIMO-Ant1-5825-PASS

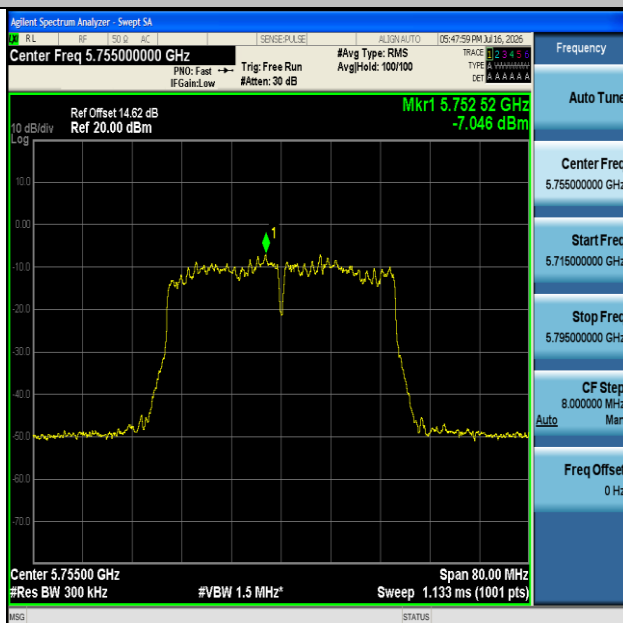


11N20MIMO-Ant2-5825-PASS





11N40MIMO-Ant1-5755-PASS

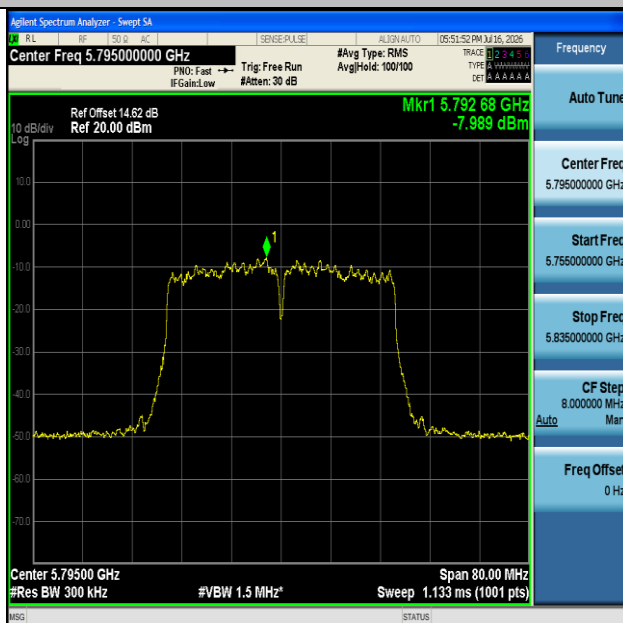


11N40MIMO-Ant2-5755-PASS



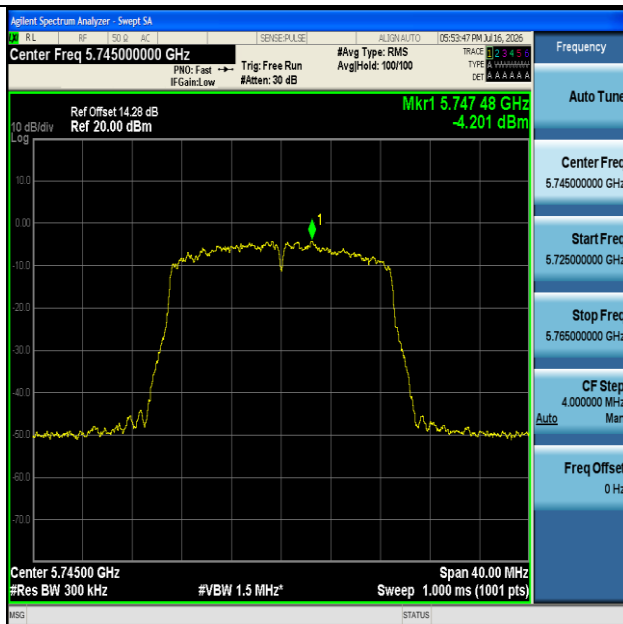


11N40MIMO-Ant1-5795-PASS

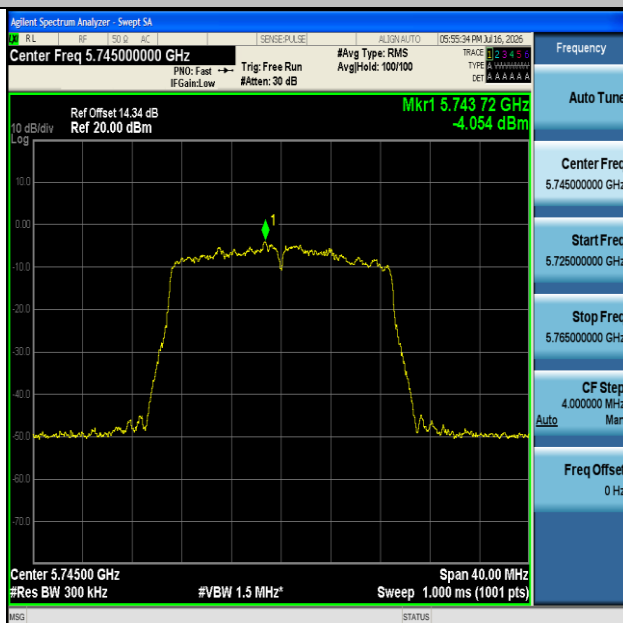


11N40MIMO-Ant2-5795-PASS





11AC20MIMO-Ant1-5745-PASS

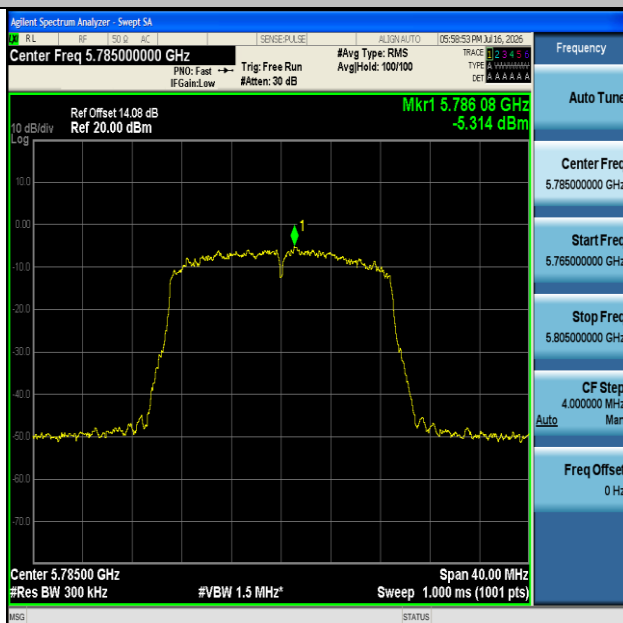


11AC20MIMO-Ant2-5745-PASS





11AC20MIMO-Ant1-5785-PASS



11AC20MIMO-Ant2-5785-PASS



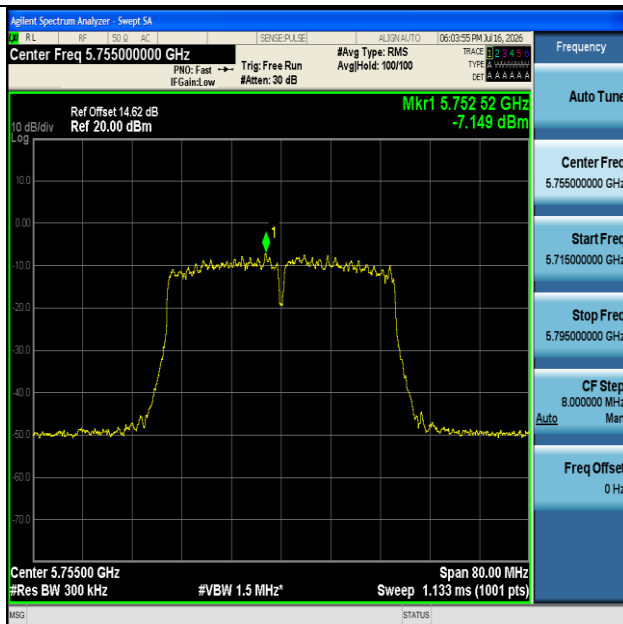


11AC20MIMO-Ant1-5825-PASS

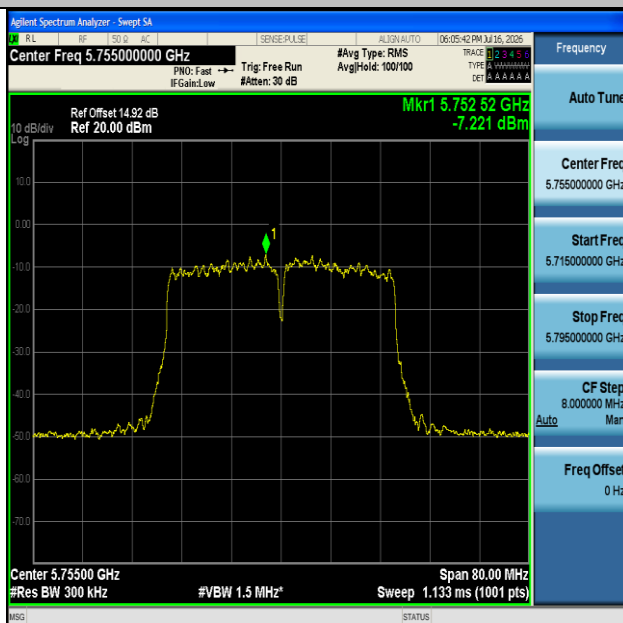


11AC20MIMO-Ant2-5825-PASS





11AC40MIMO-Ant1-5755-PASS

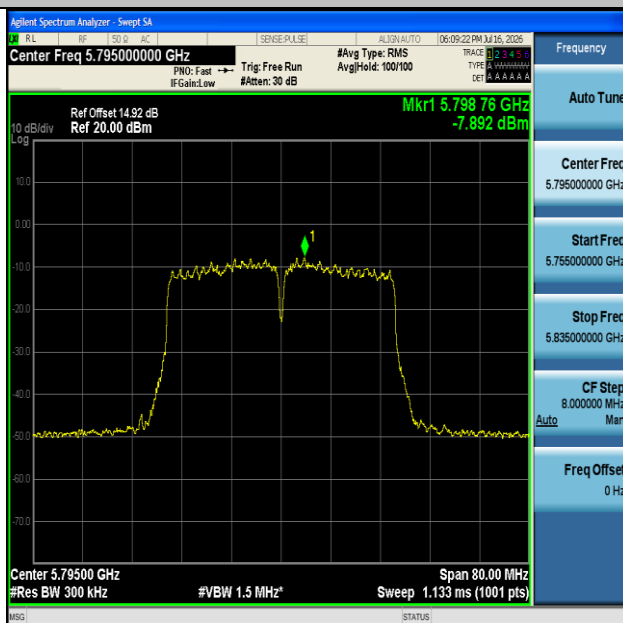


11AC40MIMO-Ant2-5755-PASS



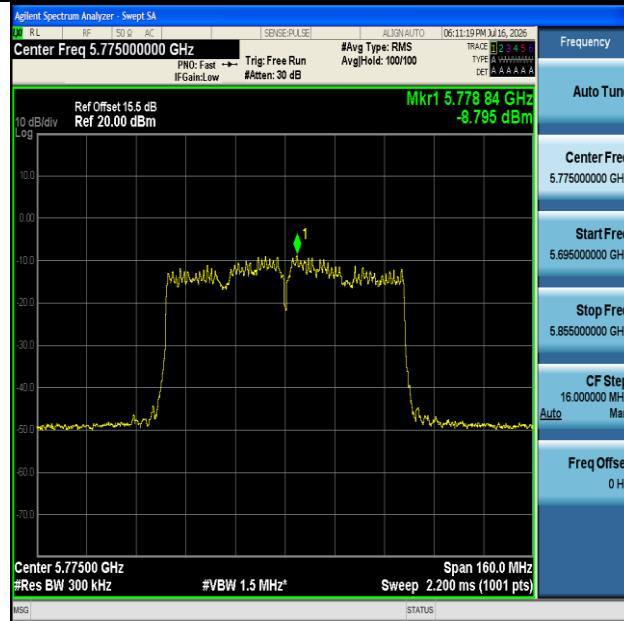


11AC40MIMO-Ant1-5795-PASS



11AC40MIMO-Ant2-5795-PASS





11AC80MIMO-Ant1-5775-PASS



11AC80MIMO-Ant2-5775-PASS





## Appendix D: Band edge measurements

### Test Result

| Test Mode     | Antenna | Ch. Name | Frequency [MHz] | Freq. Range [MHz] | Result [dBm] | Limit [dBm] | Verdict |
|---------------|---------|----------|-----------------|-------------------|--------------|-------------|---------|
| 11A           | Ant1    | Low      | 5745            | 5720~5725         | -38.7        | ≤15.82      | PASS    |
| 11A           | Ant1    | Low      | 5745            | 5700~5720         | -37.4        | ≤10.54      | PASS    |
| 11A           | Ant1    | Low      | 5745            | 5650~5700         | -39.72       | ≤-26.87     | PASS    |
| 11A           | Ant1    | Low      | 5745            | 5760~5650         | -38.52       | ≤-27        | PASS    |
| 11A           | Ant2    | Low      | 5745            | 5720~5725         | -37.65       | ≤16.08      | PASS    |
| 11A           | Ant2    | Low      | 5745            | 5700~5720         | -37.96       | ≤10.31      | PASS    |
| 11A           | Ant2    | Low      | 5745            | 5650~5700         | -38.28       | ≤-26.19     | PASS    |
| 11A           | Ant2    | Low      | 5745            | 5760~5650         | -37.95       | ≤-27        | PASS    |
| 11A           | Ant1    | High     | 5825            | 5850~5855         | -38.27       | ≤15.73      | PASS    |
| 11A           | Ant1    | High     | 5825            | 5855~5875         | -37.02       | ≤11.15      | PASS    |
| 11A           | Ant1    | High     | 5825            | 5875~5925         | -37.47       | ≤-26.61     | PASS    |
| 11A           | Ant1    | High     | 5825            | 5925~5935         | -37.32       | ≤-27        | PASS    |
| 11A           | Ant2    | High     | 5825            | 5850~5855         | -38.2        | ≤15.73      | PASS    |
| 11A           | Ant2    | High     | 5825            | 5855~5875         | -37.97       | ≤10.78      | PASS    |
| 11A           | Ant2    | High     | 5825            | 5875~5925         | -37.81       | ≤-26.61     | PASS    |
| 11A           | Ant2    | High     | 5825            | 5925~5935         | -36.63       | ≤-27        | PASS    |
| 11N20MIM<br>O | Ant1    | Low      | 5745            | 5720~5725         | -37.47       | ≤16.34      | PASS    |
| 11N20MIM<br>O | Ant1    | Low      | 5745            | 5700~5720         | -36.1        | ≤11.51      | PASS    |
| 11N20MIM<br>O | Ant1    | Low      | 5745            | 5650~5700         | -39.53       | ≤-26.96     | PASS    |
| 11N20MIM<br>O | Ant1    | Low      | 5745            | 5760~5650         | -38.19       | ≤-27        | PASS    |
| 11N20MIM<br>O | Ant2    | Low      | 5745            | 5720~5725         | -38.51       | ≤17.39      | PASS    |
| 11N20MIM<br>O | Ant2    | Low      | 5745            | 5700~5720         | -38.54       | ≤10.51      | PASS    |
| 11N20MIM<br>O | Ant2    | Low      | 5745            | 5650~5700         | -40.43       | ≤-26.79     | PASS    |
| 11N20MIM<br>O | Ant2    | Low      | 5745            | 5760~5650         | -39.28       | ≤-27        | PASS    |
| 11N20MIM<br>O | Ant1    | High     | 5825            | 5850~5855         | -38.2        | ≤15.73      | PASS    |
| 11N20MIM<br>O | Ant1    | High     | 5825            | 5855~5875         | -38.06       | ≤10.06      | PASS    |
| 11N20MIM<br>O | Ant1    | High     | 5825            | 5875~5925         | -37.43       | ≤-25.21     | PASS    |





|                |      |      |      |           |        |         |      |
|----------------|------|------|------|-----------|--------|---------|------|
| 11N20MIM<br>O  | Ant1 | High | 5825 | 5925~5935 | -38.32 | ≤-27    | PASS |
| 11N20MIM<br>O  | Ant2 | High | 5825 | 5850~5855 | -38.17 | ≤15.73  | PASS |
| 11N20MIM<br>O  | Ant2 | High | 5825 | 5855~5875 | -37.02 | ≤10.32  | PASS |
| 11N20MIM<br>O  | Ant2 | High | 5825 | 5875~5925 | -39.37 | ≤-26.81 | PASS |
| 11N20MIM<br>O  | Ant2 | High | 5825 | 5925~5935 | -36.63 | ≤-27    | PASS |
| 11N40MIM<br>O  | Ant1 | Low  | 5755 | 5720~5725 | -39.14 | ≤16.04  | PASS |
| 11N40MIM<br>O  | Ant1 | Low  | 5755 | 5700~5720 | -38.62 | ≤10.40  | PASS |
| 11N40MIM<br>O  | Ant1 | Low  | 5755 | 5650~5700 | -39.21 | ≤-26.60 | PASS |
| 11N40MIM<br>O  | Ant1 | Low  | 5755 | 5780~5650 | -36.77 | ≤-27    | PASS |
| 11N40MIM<br>O  | Ant2 | Low  | 5755 | 5720~5725 | -38.09 | ≤16.35  | PASS |
| 11N40MIM<br>O  | Ant2 | Low  | 5755 | 5700~5720 | -38.51 | ≤10.32  | PASS |
| 11N40MIM<br>O  | Ant2 | Low  | 5755 | 5650~5700 | -39.01 | ≤-26.90 | PASS |
| 11N40MIM<br>O  | Ant2 | Low  | 5755 | 5780~5650 | -38.3  | ≤-27    | PASS |
| 11N40MIM<br>O  | Ant1 | High | 5795 | 5850~5855 | -37.94 | ≤16.03  | PASS |
| 11N40MIM<br>O  | Ant1 | High | 5795 | 5855~5875 | -37.46 | ≤11.13  | PASS |
| 11N40MIM<br>O  | Ant1 | High | 5795 | 5875~5925 | -38.83 | ≤-26.95 | PASS |
| 11N40MIM<br>O  | Ant1 | High | 5795 | 5925~5935 | -37.89 | ≤-27    | PASS |
| 11N40MIM<br>O  | Ant2 | High | 5795 | 5850~5855 | -38.64 | ≤16.41  | PASS |
| 11N40MIM<br>O  | Ant2 | High | 5795 | 5855~5875 | -37.27 | ≤10.16  | PASS |
| 11N40MIM<br>O  | Ant2 | High | 5795 | 5875~5925 | -38.66 | ≤-26.95 | PASS |
| 11N40MIM<br>O  | Ant2 | High | 5795 | 5925~5935 | -38.63 | ≤-27    | PASS |
| 11AC20MI<br>MO | Ant1 | Low  | 5745 | 5720~5725 | -38.17 | ≤16.34  | PASS |





|                |      |      |      |           |        |         |      |
|----------------|------|------|------|-----------|--------|---------|------|
| 11AC20MI<br>MO | Ant1 | Low  | 5745 | 5700~5720 | -38.31 | ≤10.18  | PASS |
| 11AC20MI<br>MO | Ant1 | Low  | 5745 | 5650~5700 | -39.62 | ≤-26.53 | PASS |
| 11AC20MI<br>MO | Ant1 | Low  | 5745 | 5760~5650 | -39.12 | ≤-27    | PASS |
| 11AC20MI<br>MO | Ant2 | Low  | 5745 | 5720~5725 | -38.1  | ≤16.34  | PASS |
| 11AC20MI<br>MO | Ant2 | Low  | 5745 | 5700~5720 | -38.96 | ≤10.09  | PASS |
| 11AC20MI<br>MO | Ant2 | Low  | 5745 | 5650~5700 | -39.72 | ≤-26.45 | PASS |
| 11AC20MI<br>MO | Ant2 | Low  | 5745 | 5760~5650 | -38.35 | ≤-27    | PASS |
| 11AC20MI<br>MO | Ant1 | High | 5825 | 5850~5855 | -38.69 | ≤15.73  | PASS |
| 11AC20MI<br>MO | Ant1 | High | 5825 | 5855~5875 | -38.16 | ≤10.36  | PASS |
| 11AC20MI<br>MO | Ant1 | High | 5825 | 5875~5925 | -39.1  | ≤-26.71 | PASS |
| 11AC20MI<br>MO | Ant1 | High | 5825 | 5925~5935 | -37.83 | ≤-27    | PASS |
| 11AC20MI<br>MO | Ant2 | High | 5825 | 5850~5855 | -39.48 | ≤15.73  | PASS |
| 11AC20MI<br>MO | Ant2 | High | 5825 | 5855~5875 | -37.3  | ≤10.36  | PASS |
| 11AC20MI<br>MO | Ant2 | High | 5825 | 5875~5925 | -39.49 | ≤-26.91 | PASS |
| 11AC20MI<br>MO | Ant2 | High | 5825 | 5925~5935 | -38.29 | ≤-27    | PASS |
| 11AC40MI<br>MO | Ant1 | Low  | 5755 | 5720~5725 | -37.56 | ≤16.35  | PASS |
| 11AC40MI<br>MO | Ant1 | Low  | 5755 | 5700~5720 | -38.11 | ≤10.02  | PASS |
| 11AC40MI<br>MO | Ant1 | Low  | 5755 | 5650~5700 | -38.79 | ≤-26.10 | PASS |
| 11AC40MI<br>MO | Ant1 | Low  | 5755 | 5780~5650 | -38.64 | ≤-27    | PASS |
| 11AC40MI<br>MO | Ant2 | Low  | 5755 | 5720~5725 | -38.73 | ≤16.04  | PASS |
| 11AC40MI<br>MO | Ant2 | Low  | 5755 | 5700~5720 | -37.69 | ≤10.48  | PASS |
| 11AC40MI<br>MO | Ant2 | Low  | 5755 | 5650~5700 | -38.52 | ≤-25.90 | PASS |





|                |      |      |      |           |        |               |      |
|----------------|------|------|------|-----------|--------|---------------|------|
| 11AC40MI<br>MO | Ant2 | Low  | 5755 | 5780~5650 | -38.92 | $\leq -27$    | PASS |
| 11AC40MI<br>MO | Ant1 | High | 5795 | 5850~5855 | -38.39 | $\leq 16.79$  | PASS |
| 11AC40MI<br>MO | Ant1 | High | 5795 | 5855~5875 | -37.32 | $\leq 10.66$  | PASS |
| 11AC40MI<br>MO | Ant1 | High | 5795 | 5875~5925 | -38.99 | $\leq -26.95$ | PASS |
| 11AC40MI<br>MO | Ant1 | High | 5795 | 5925~5935 | -38.3  | $\leq -27$    | PASS |
| 11AC40MI<br>MO | Ant2 | High | 5795 | 5850~5855 | -39.07 | $\leq 15.66$  | PASS |
| 11AC40MI<br>MO | Ant2 | High | 5795 | 5855~5875 | -37.33 | $\leq 10.02$  | PASS |
| 11AC40MI<br>MO | Ant2 | High | 5795 | 5875~5925 | -38.89 | $\leq -26.46$ | PASS |
| 11AC40MI<br>MO | Ant2 | High | 5795 | 5925~5935 | -38.24 | $\leq -27$    | PASS |
| 11AC80MI<br>MO | Ant1 | Low  | 5775 | 5720~5725 | -39.69 | $\leq 15.65$  | PASS |
| 11AC80MI<br>MO | Ant1 | Low  | 5775 | 5700~5720 | -37.12 | $\leq 11.01$  | PASS |
| 11AC80MI<br>MO | Ant1 | Low  | 5775 | 5650~5700 | -38.84 | $\leq -26.46$ | PASS |
| 11AC80MI<br>MO | Ant1 | Low  | 5775 | 5800~5650 | -37.83 | $\leq -27$    | PASS |
| 11AC80MI<br>MO | Ant1 | High | 5775 | 5850~5855 | -39.38 | $\leq 15.84$  | PASS |
| 11AC80MI<br>MO | Ant1 | High | 5775 | 5855~5875 | -37.82 | $\leq 10.40$  | PASS |
| 11AC80MI<br>MO | Ant1 | High | 5775 | 5875~5925 | -39.69 | $\leq -26.87$ | PASS |
| 11AC80MI<br>MO | Ant1 | High | 5775 | 5925~5935 | -37.79 | $\leq -27$    | PASS |
| 11AC80MI<br>MO | Ant2 | Low  | 5775 | 5720~5725 | -39.3  | $\leq 15.65$  | PASS |
| 11AC80MI<br>MO | Ant2 | Low  | 5775 | 5700~5720 | -38.36 | $\leq 10.05$  | PASS |
| 11AC80MI<br>MO | Ant2 | Low  | 5775 | 5650~5700 | -39.14 | $\leq -26.46$ | PASS |
| 11AC80MI<br>MO | Ant2 | Low  | 5775 | 5800~5650 | -39.15 | $\leq -27$    | PASS |
| 11AC80MI<br>MO | Ant2 | High | 5775 | 5850~5855 | -37.98 | $\leq 16.68$  | PASS |





|                |      |      |      |           |        |         |      |
|----------------|------|------|------|-----------|--------|---------|------|
| 11AC80MI<br>MO | Ant2 | High | 5775 | 5855~5875 | -38.53 | ≤10.40  | PASS |
| 11AC80MI<br>MO | Ant2 | High | 5775 | 5875~5925 | -37.27 | ≤-25.91 | PASS |
| 11AC80MI<br>MO | Ant2 | High | 5775 | 5925~5935 | -36.61 | ≤-27    | PASS |

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





## Test Graphs

