

## RF Test Data for WLAN(2.4G) (Conducted Measurement)

Product Name: 4K Set Top Box

Trade Mark: N/A

Test Model: Dongle R 4K-SN8BKAJ

FCC ID: 2AOVU-SN8BKAX

### Environmental Conditions

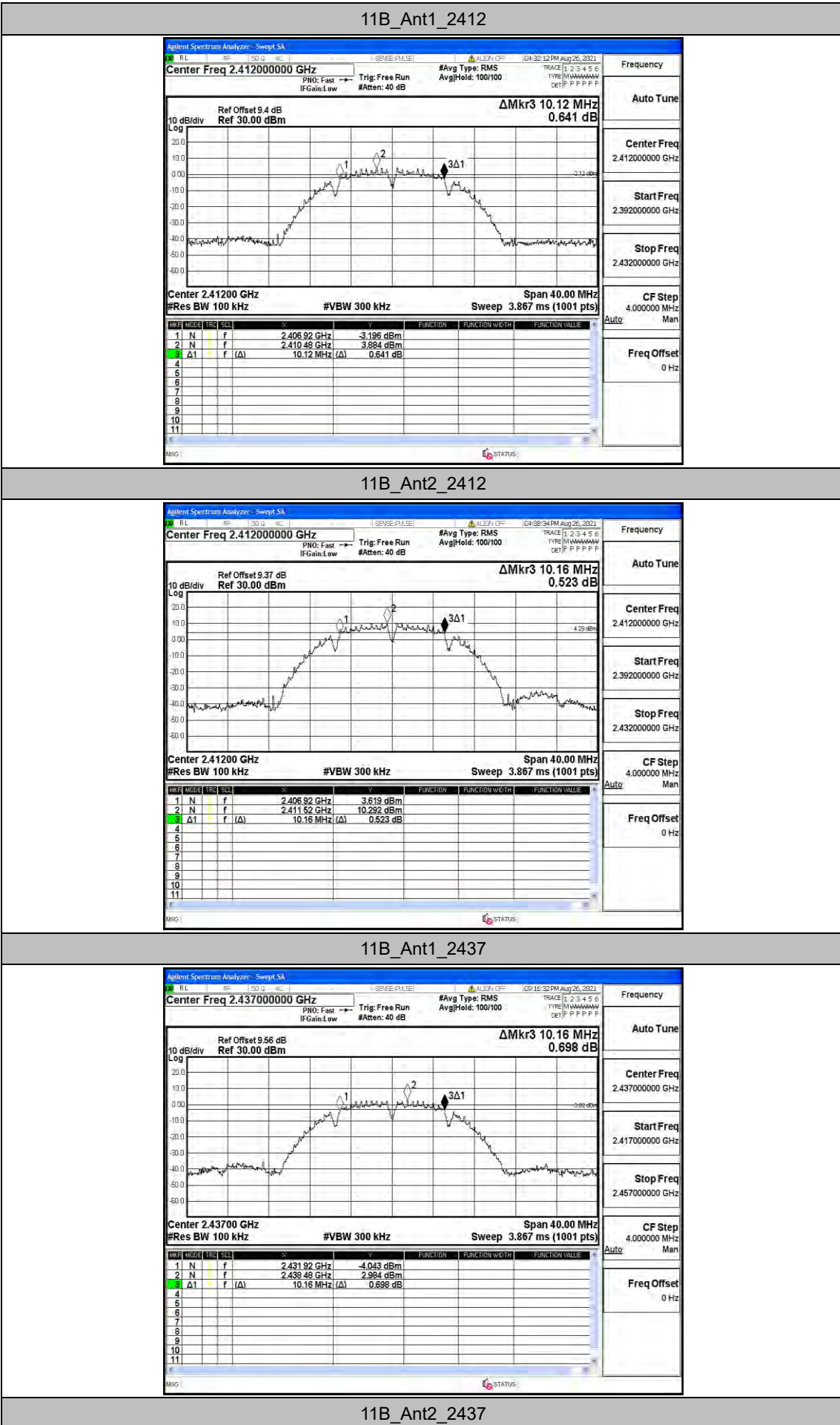
|                    |           |
|--------------------|-----------|
| Temperature:       | 25.5°C    |
| Relative Humidity: | 55%       |
| ATM Pressure:      | 100.0 kPa |
| Test Engineer:     | Anna Hu   |
| Supervised by:     | Hugo Chen |
| NOTE               | N/A       |

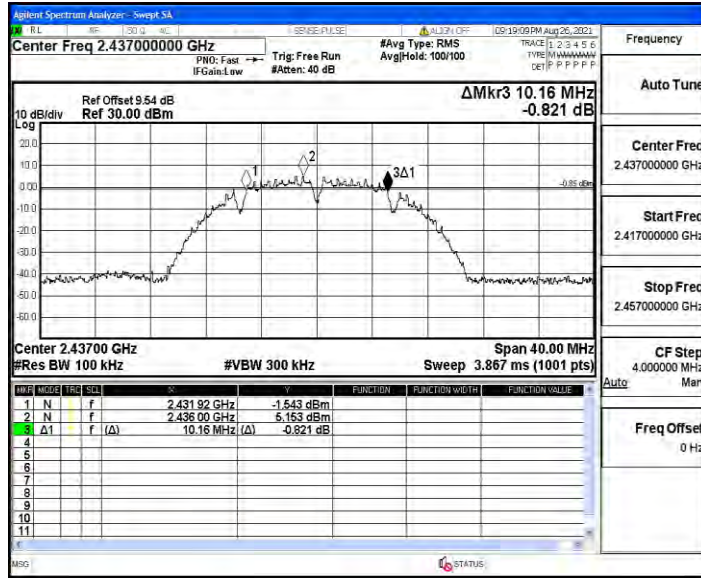
## Appendix A: DTS Bandwidth

### Test Result

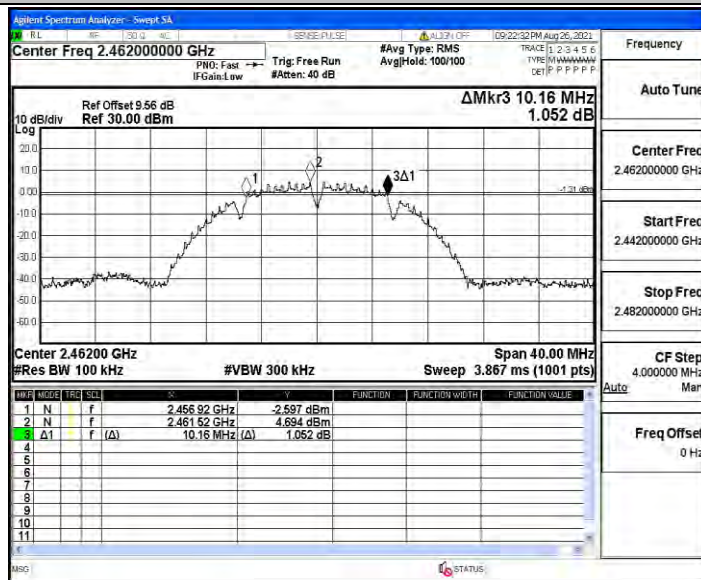
| TestMode  | Antenna | Channel | DTS BW [MHz] | FL[MHz]  | FH[MHz]  | Limit[MHz] | Verdict |
|-----------|---------|---------|--------------|----------|----------|------------|---------|
| 11B       | Ant1    | 2412    | 10.120       | 2406.920 | 2417.040 | 0.5        | PASS    |
|           | Ant2    | 2412    | 10.160       | 2406.920 | 2417.080 | 0.5        | PASS    |
|           | Ant1    | 2437    | 10.160       | 2431.920 | 2442.080 | 0.5        | PASS    |
|           | Ant2    | 2437    | 10.160       | 2431.920 | 2442.080 | 0.5        | PASS    |
|           | Ant1    | 2462    | 10.160       | 2456.920 | 2467.080 | 0.5        | PASS    |
|           | Ant2    | 2462    | 10.120       | 2456.960 | 2467.080 | 0.5        | PASS    |
| 11G       | Ant1    | 2412    | 15.360       | 2404.440 | 2419.800 | 0.5        | PASS    |
|           | Ant2    | 2412    | 16.360       | 2403.840 | 2420.200 | 0.5        | PASS    |
|           | Ant1    | 2437    | 16.360       | 2428.840 | 2445.200 | 0.5        | PASS    |
|           | Ant2    | 2437    | 16.400       | 2428.800 | 2445.200 | 0.5        | PASS    |
|           | Ant1    | 2462    | 15.720       | 2454.080 | 2469.800 | 0.5        | PASS    |
|           | Ant2    | 2462    | 16.000       | 2453.800 | 2469.800 | 0.5        | PASS    |
| 11N20MIMO | Ant1    | 2412    | 16.320       | 2404.120 | 2420.440 | 0.5        | PASS    |
|           | Ant2    | 2412    | 16.960       | 2403.440 | 2420.400 | 0.5        | PASS    |
|           | Ant1    | 2437    | 16.320       | 2428.480 | 2444.800 | 0.5        | PASS    |
|           | Ant2    | 2437    | 17.360       | 2428.200 | 2445.560 | 0.5        | PASS    |
|           | Ant1    | 2462    | 16.080       | 2454.080 | 2470.160 | 0.5        | PASS    |
|           | Ant2    | 2462    | 17.600       | 2453.200 | 2470.800 | 0.5        | PASS    |
| 11N40MIMO | Ant1    | 2422    | 35.040       | 2404.560 | 2439.600 | 0.5        | PASS    |
|           | Ant2    | 2422    | 34.000       | 2404.400 | 2438.400 | 0.5        | PASS    |
|           | Ant1    | 2437    | 35.280       | 2419.320 | 2454.600 | 0.5        | PASS    |
|           | Ant2    | 2437    | 36.000       | 2419.000 | 2455.000 | 0.5        | PASS    |
|           | Ant1    | 2452    | 35.200       | 2434.400 | 2469.600 | 0.5        | PASS    |
|           | Ant2    | 2452    | 35.200       | 2434.400 | 2469.600 | 0.5        | PASS    |

Test Graphs

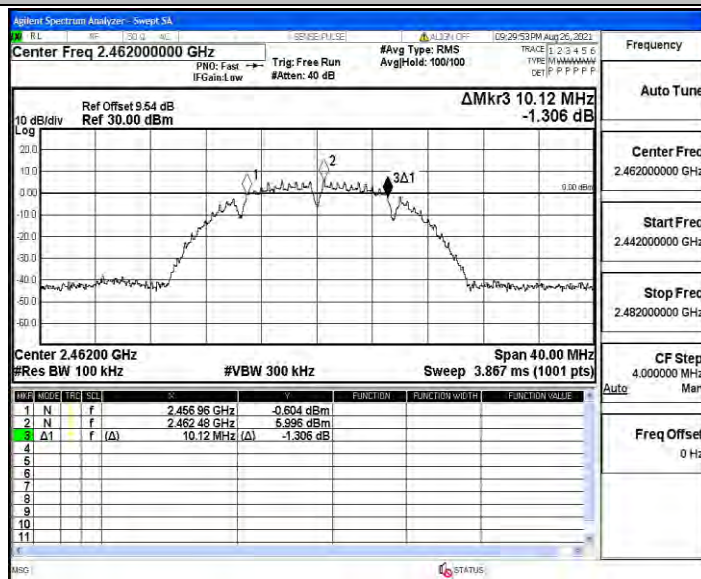




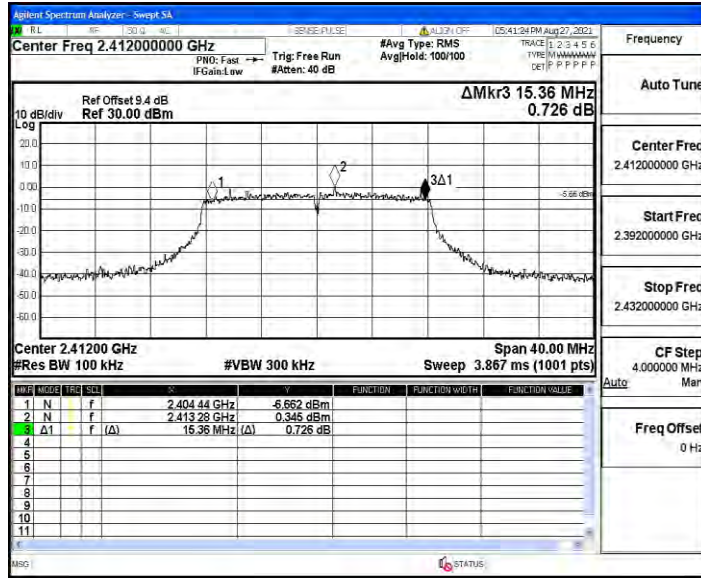
11B\_Ant1\_2462



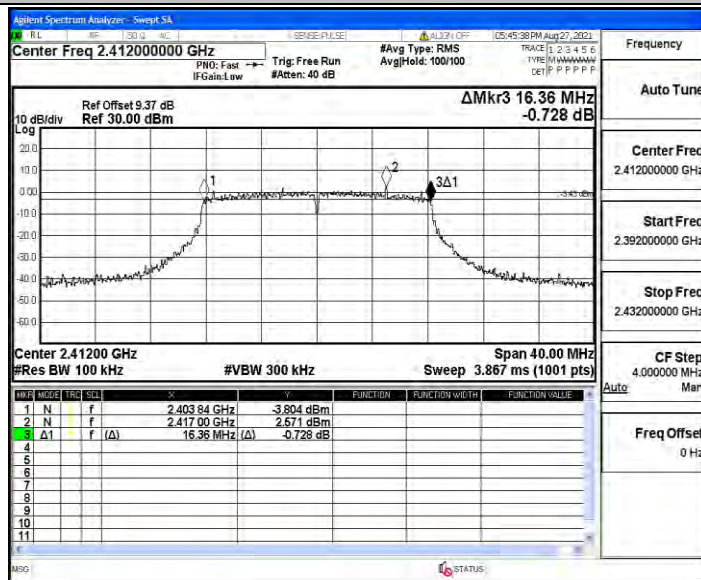
11B\_Ant2\_2462



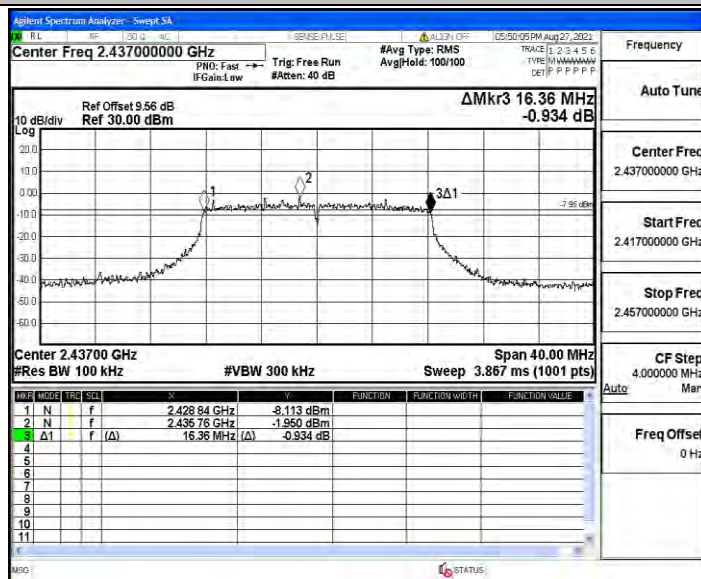
11G\_Ant1\_2412



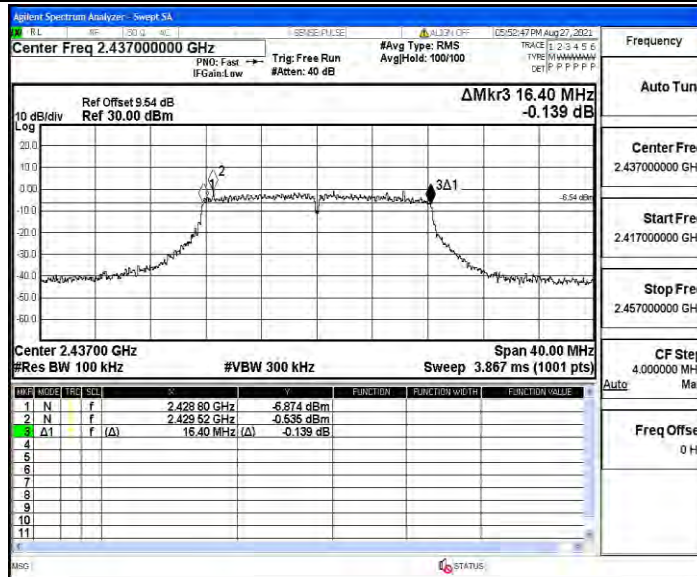
11G\_Ant2\_2412



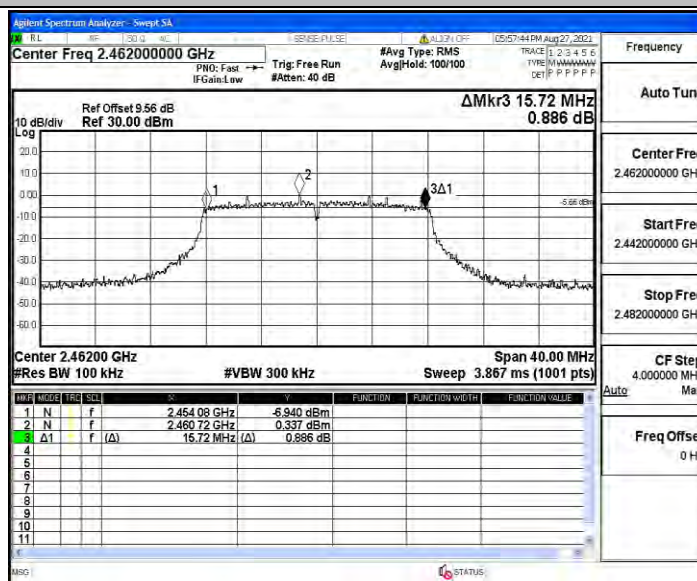
11G\_Ant1\_2437



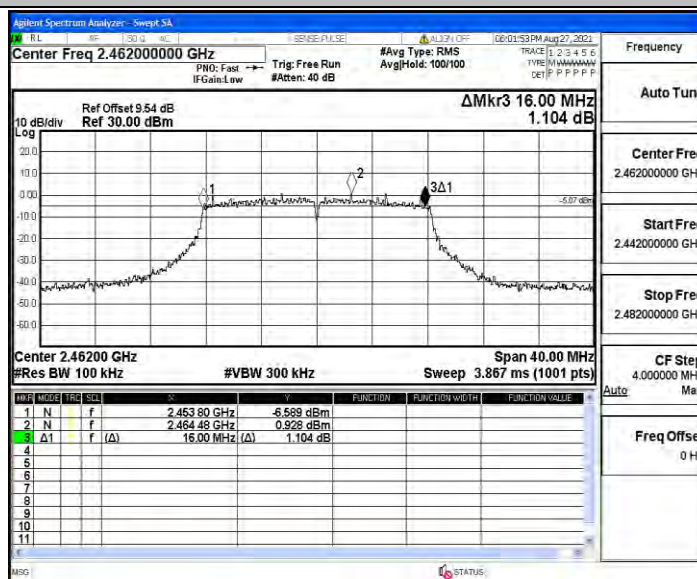
11G\_Ant2\_2437



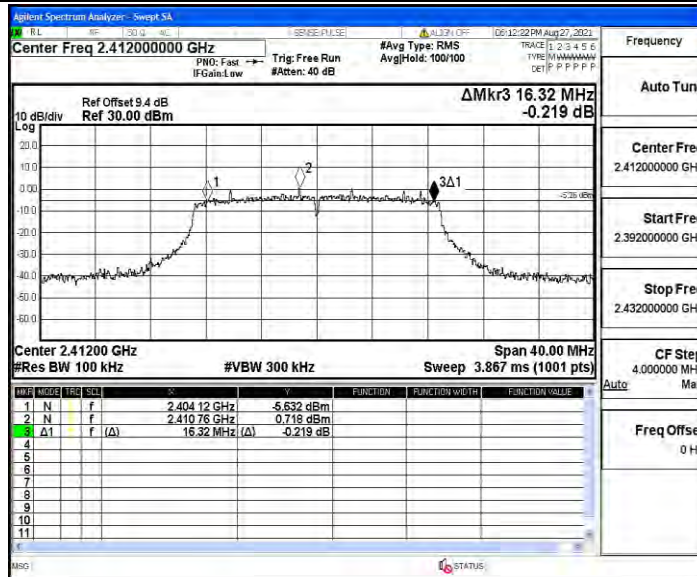
11G\_Ant1\_2462



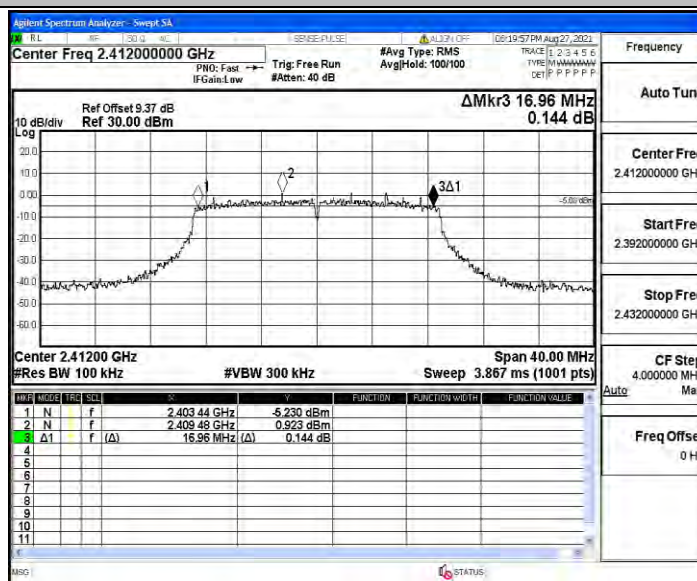
11G\_Ant2\_2462



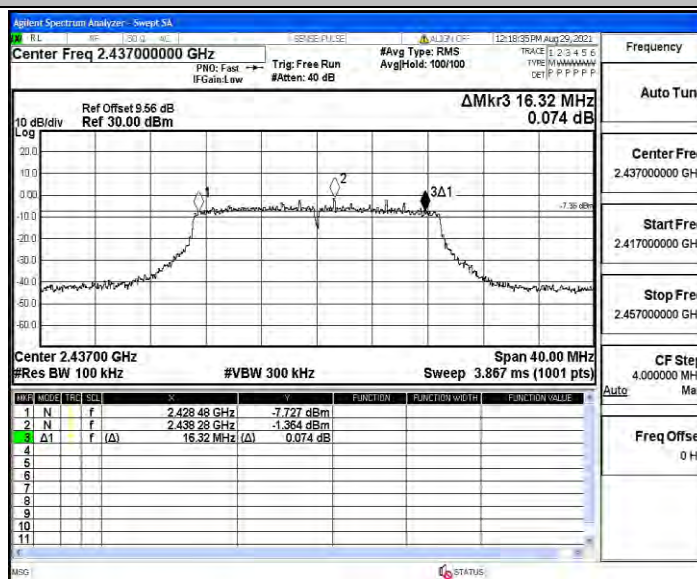
11N20MIMO\_Ant1\_2412



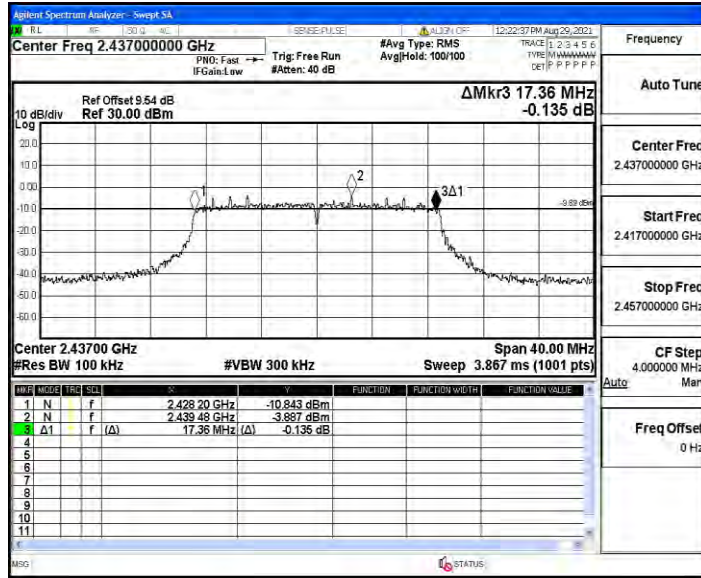
11N20MIMO\_Ant2\_2412



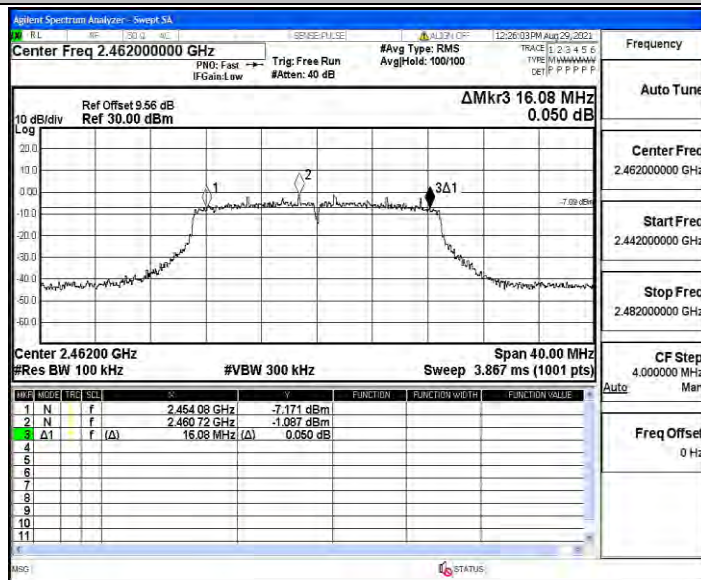
11N20MIMO\_Ant1\_2437



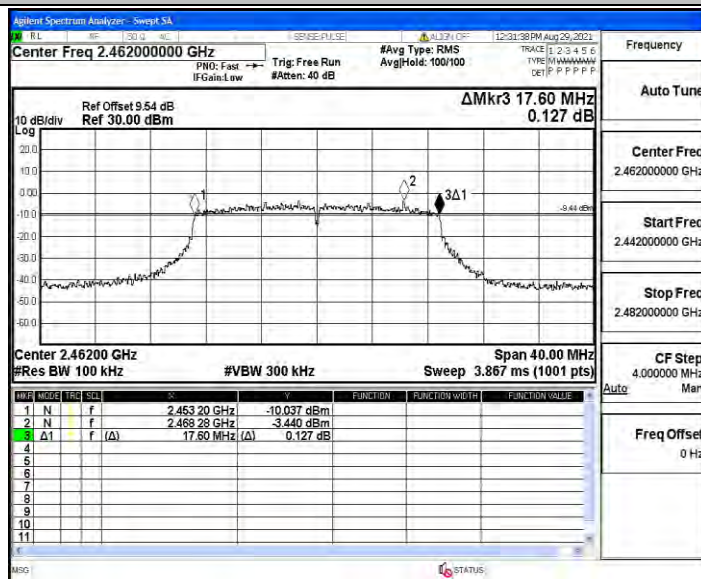
11N20MIMO\_Ant2\_2437



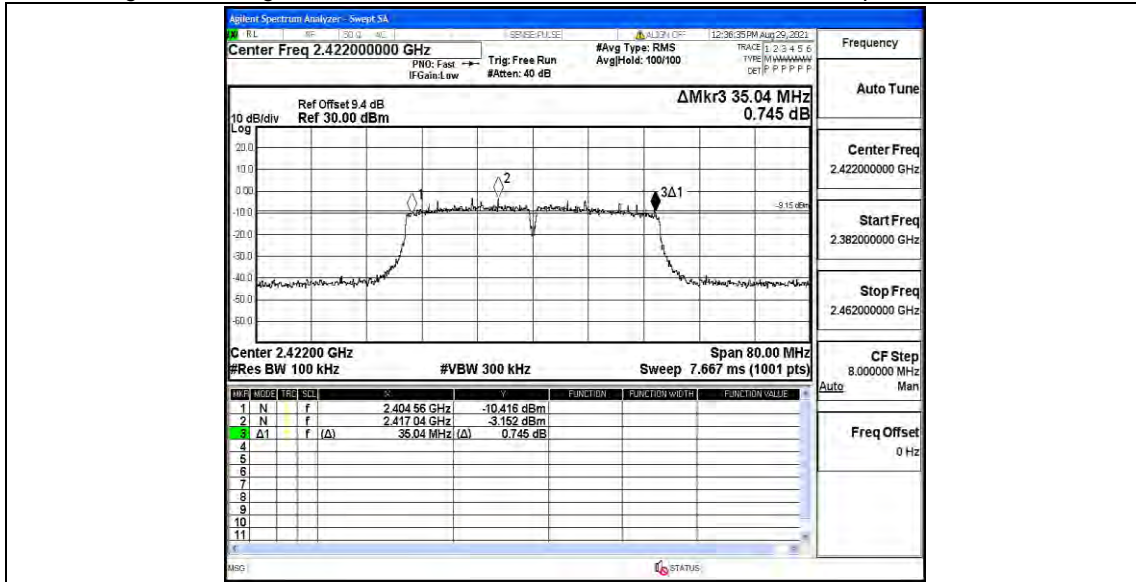
11N20MIMO\_Ant1\_2462



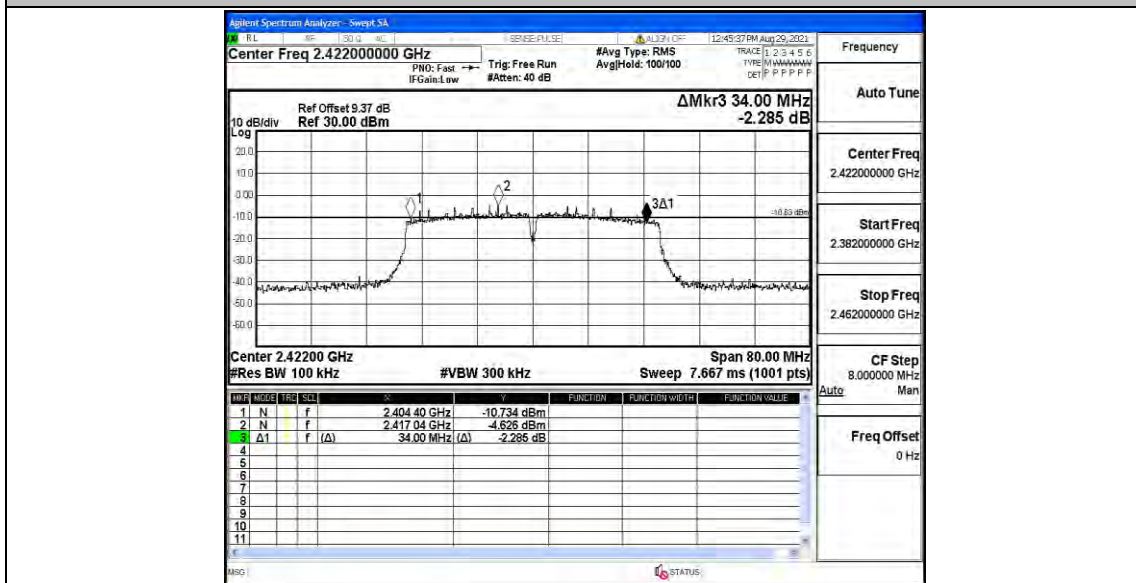
11N20MIMO\_Ant2\_2462



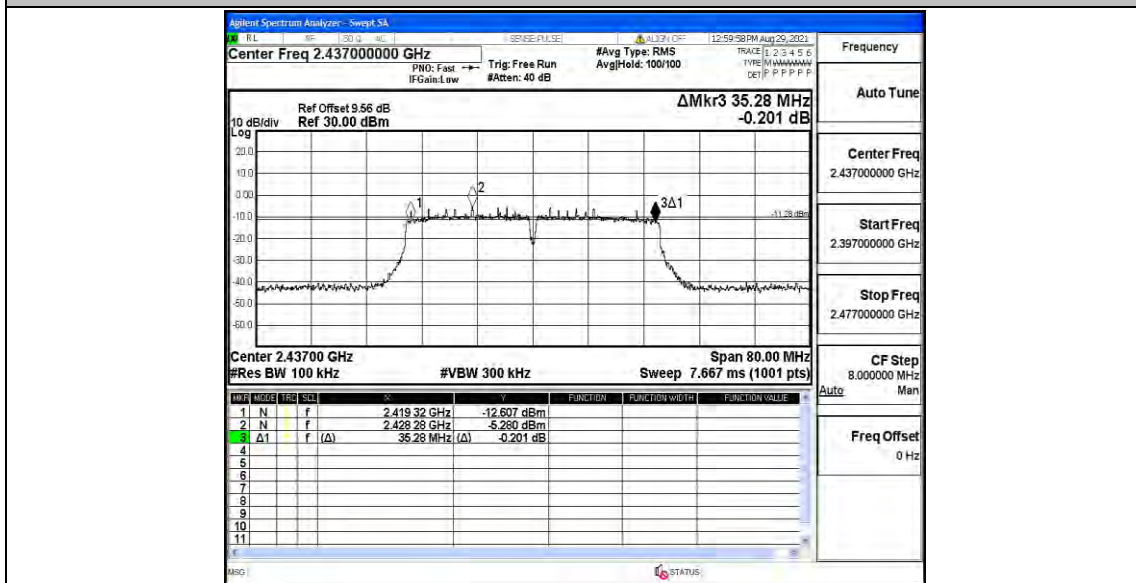
11N40MIMO\_Ant1\_2422



11N40MIMO\_Ant2\_2422

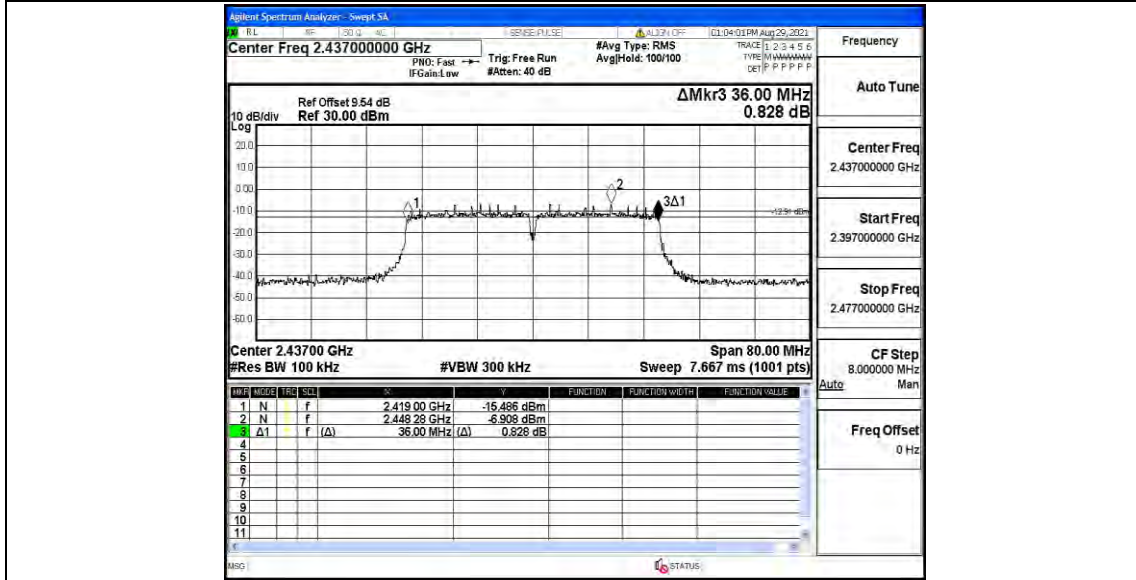


11N40MIMO\_Ant1\_2437

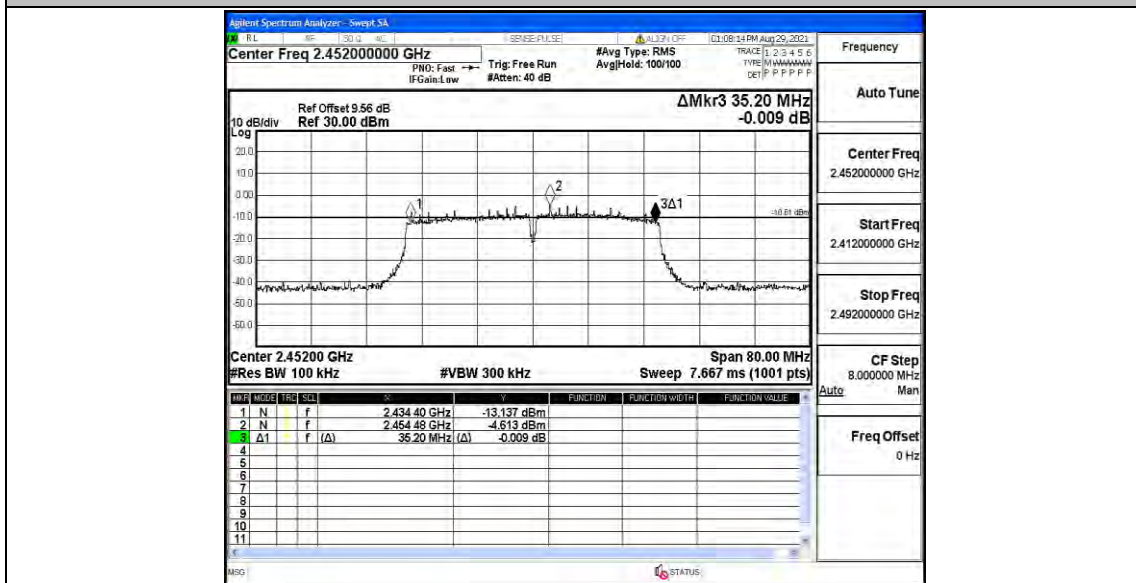


11N40MIMO\_Ant2\_2437

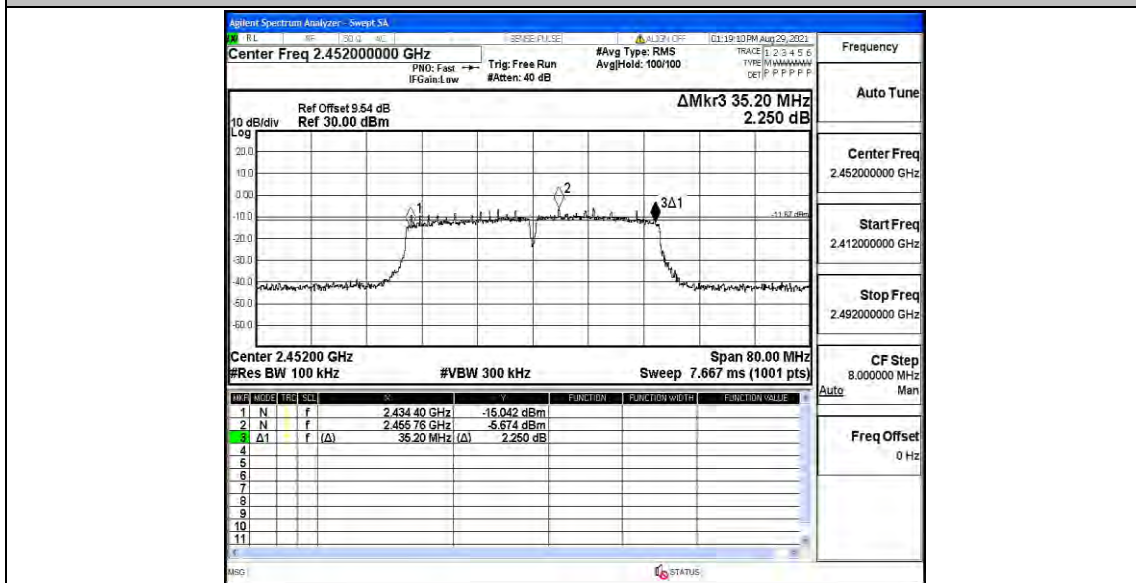




11N40MIMO\_Ant1\_2452



11N40MIMO\_Ant2\_2452

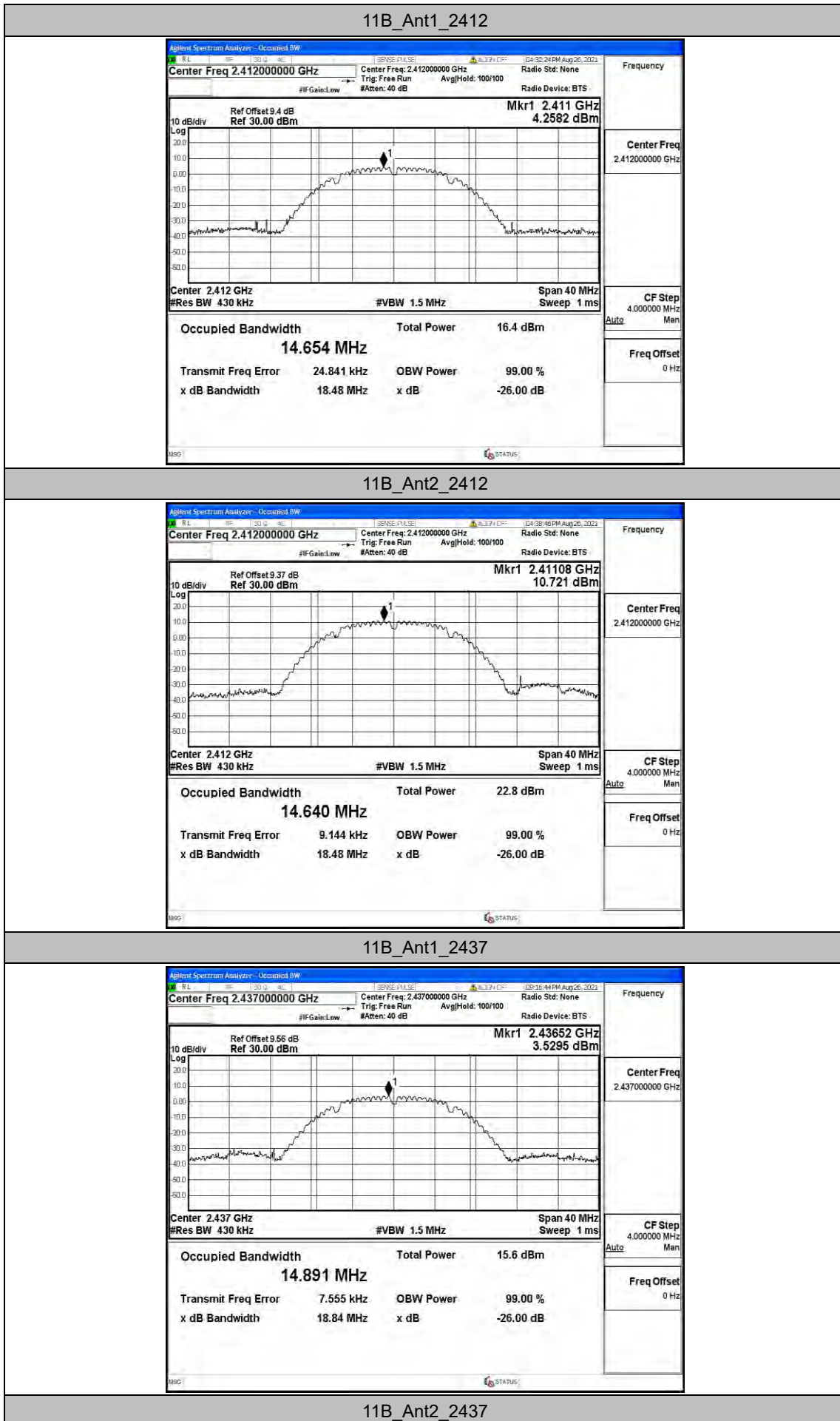


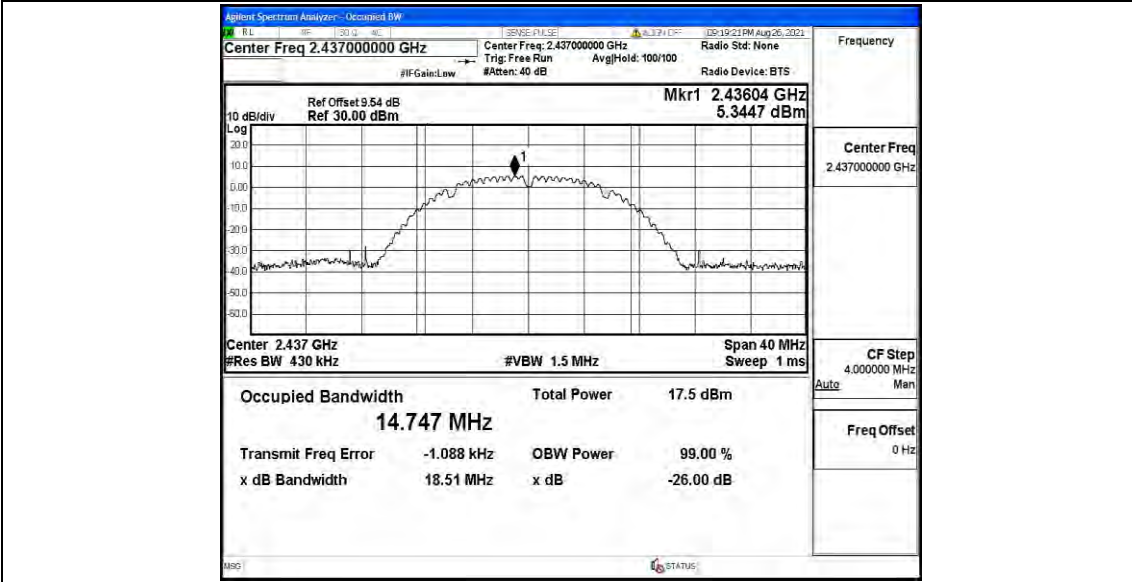
## Appendix B: Occupied Channel Bandwidth

### Test Result

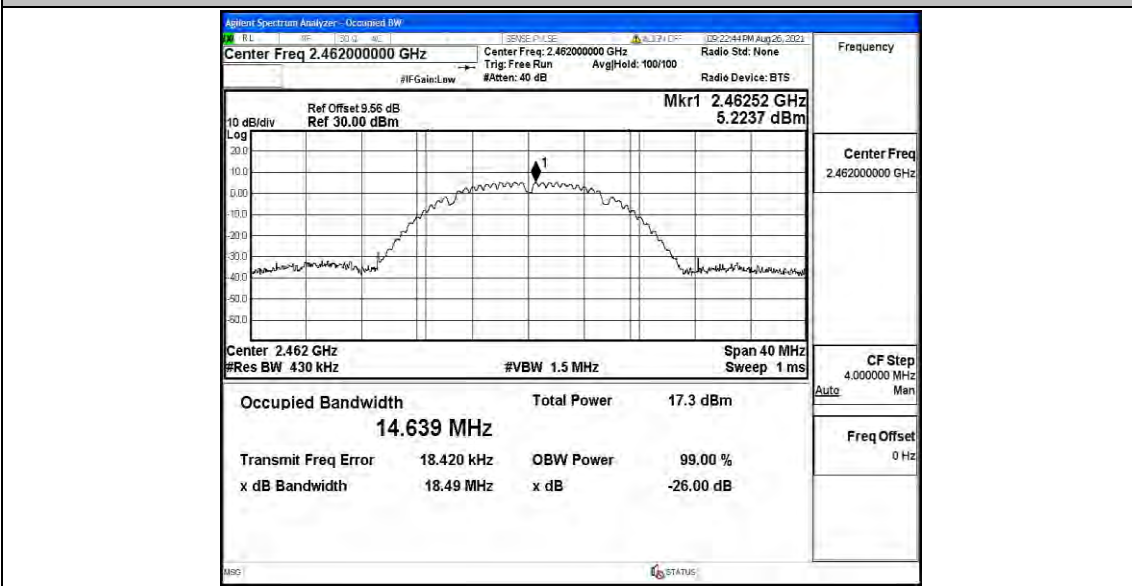
| TestMode  | Antenna | Channel | OCB [MHz] | FL[MHz]  | FH[MHz]  | Limit[MHz] | Verdict |
|-----------|---------|---------|-----------|----------|----------|------------|---------|
| 11B       | Ant1    | 2412    | 14.654    | 2404.698 | 2419.352 | ---        | PASS    |
|           | Ant2    | 2412    | 14.640    | 2404.689 | 2419.329 | ---        | PASS    |
|           | Ant1    | 2437    | 14.891    | 2429.562 | 2444.453 | ---        | PASS    |
|           | Ant2    | 2437    | 14.747    | 2429.625 | 2444.372 | ---        | PASS    |
|           | Ant1    | 2462    | 14.639    | 2454.699 | 2469.338 | ---        | PASS    |
|           | Ant2    | 2462    | 14.492    | 2454.791 | 2469.283 | ---        | PASS    |
| 11G       | Ant1    | 2412    | 16.777    | 2403.683 | 2420.460 | ---        | PASS    |
|           | Ant2    | 2412    | 16.586    | 2403.735 | 2420.321 | ---        | PASS    |
|           | Ant1    | 2437    | 16.874    | 2428.608 | 2445.482 | ---        | PASS    |
|           | Ant2    | 2437    | 16.708    | 2428.634 | 2445.342 | ---        | PASS    |
|           | Ant1    | 2462    | 16.696    | 2453.705 | 2470.401 | ---        | PASS    |
|           | Ant2    | 2462    | 16.573    | 2453.750 | 2470.323 | ---        | PASS    |
| 11N20MIMO | Ant1    | 2412    | 17.924    | 2403.117 | 2421.041 | ---        | PASS    |
|           | Ant2    | 2412    | 17.802    | 2403.139 | 2420.941 | ---        | PASS    |
|           | Ant1    | 2437    | 17.850    | 2428.068 | 2445.918 | ---        | PASS    |
|           | Ant2    | 2437    | 17.974    | 2428.051 | 2446.025 | ---        | PASS    |
|           | Ant1    | 2462    | 17.852    | 2453.093 | 2470.945 | ---        | PASS    |
|           | Ant2    | 2462    | 17.821    | 2453.118 | 2470.939 | ---        | PASS    |
| 11N40MIMO | Ant1    | 2422    | 36.198    | 2403.861 | 2440.059 | ---        | PASS    |
|           | Ant2    | 2422    | 36.262    | 2403.871 | 2440.133 | ---        | PASS    |
|           | Ant1    | 2437    | 36.578    | 2418.817 | 2455.395 | ---        | PASS    |
|           | Ant2    | 2437    | 36.593    | 2418.727 | 2455.320 | ---        | PASS    |
|           | Ant1    | 2452    | 36.274    | 2433.886 | 2470.160 | ---        | PASS    |
|           | Ant2    | 2452    | 36.177    | 2434.046 | 2470.223 | ---        | PASS    |

Test Graphs

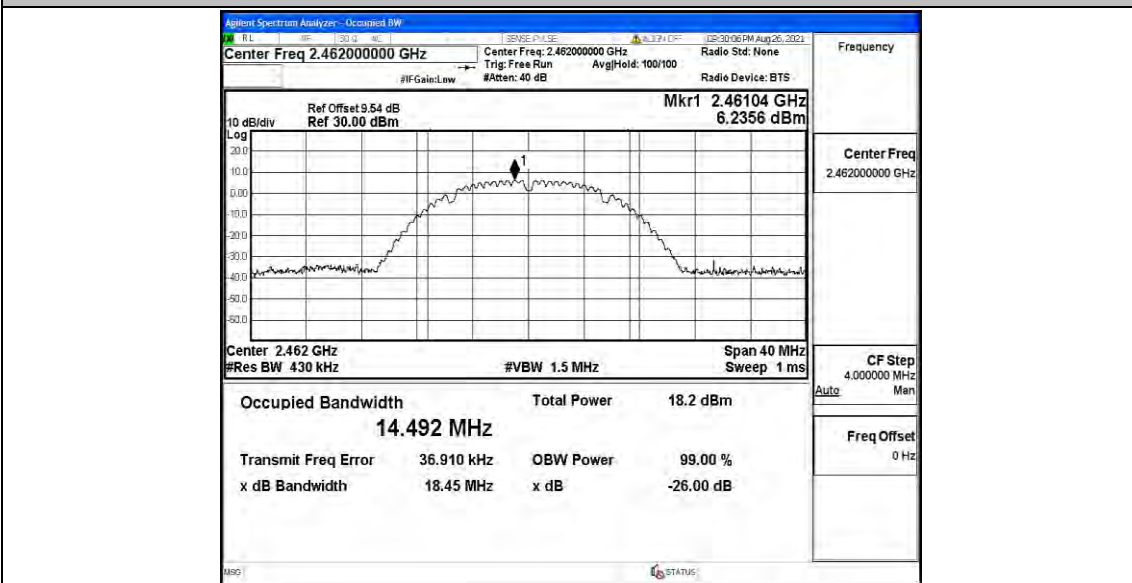




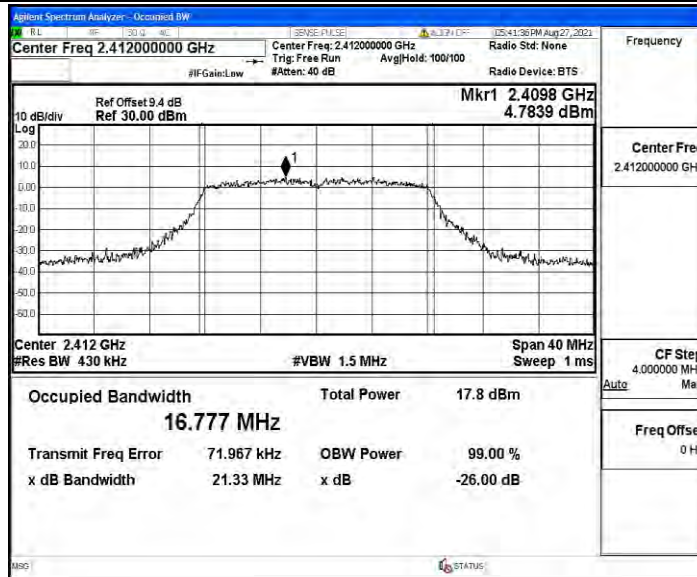
11B\_Ant1\_2462



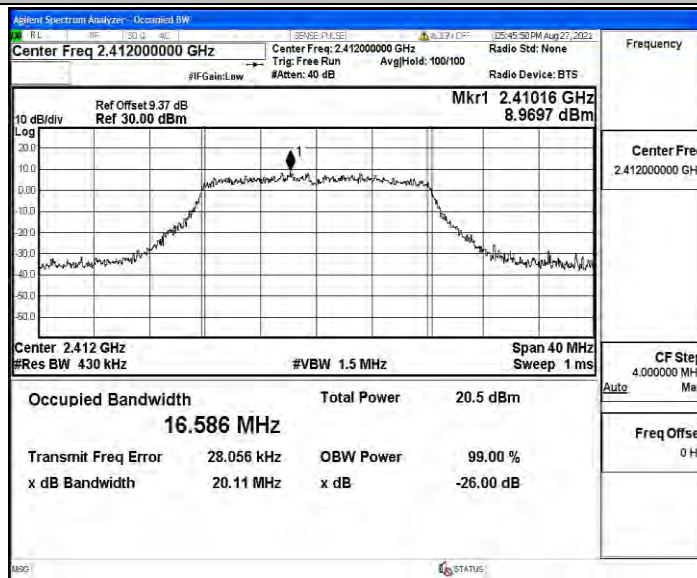
11B\_Ant2\_2462



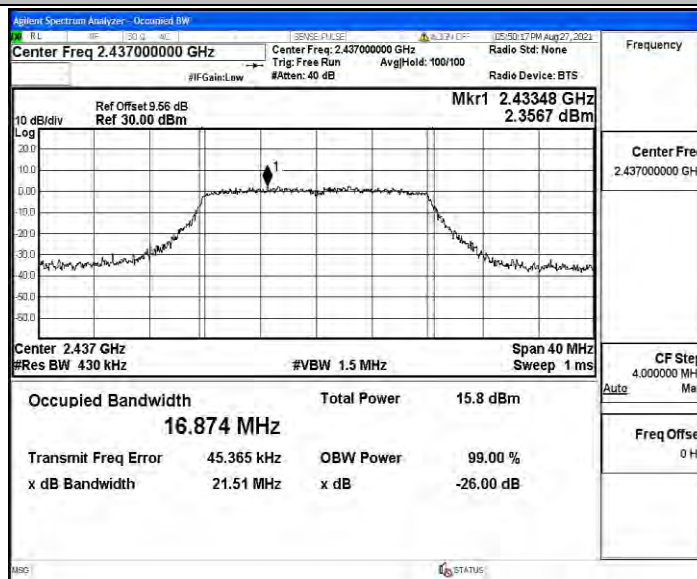
11G\_Ant1\_2412



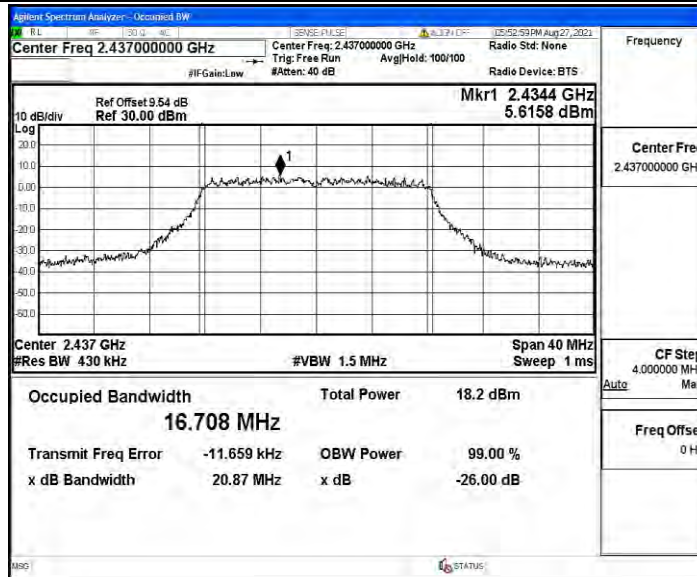
11G\_Ant2\_2412



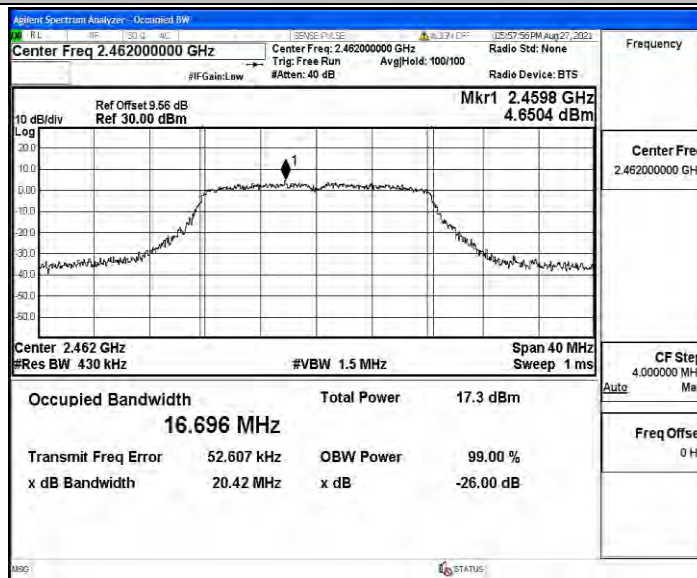
11G\_Ant1\_2437



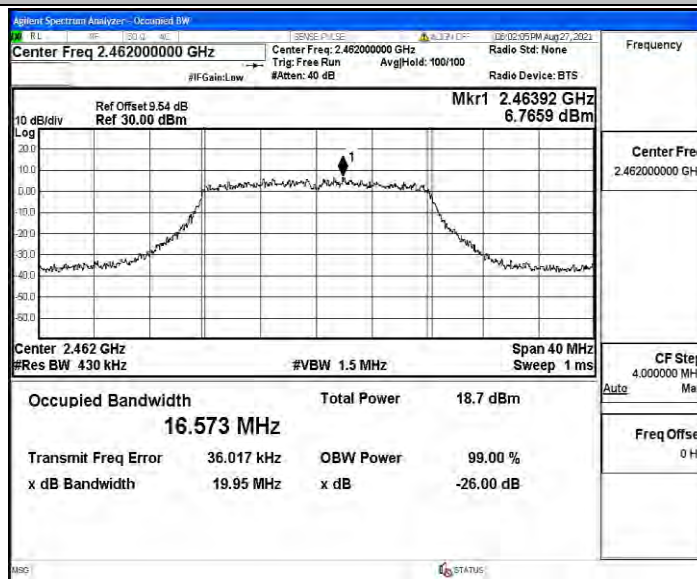
11G\_Ant2\_2437



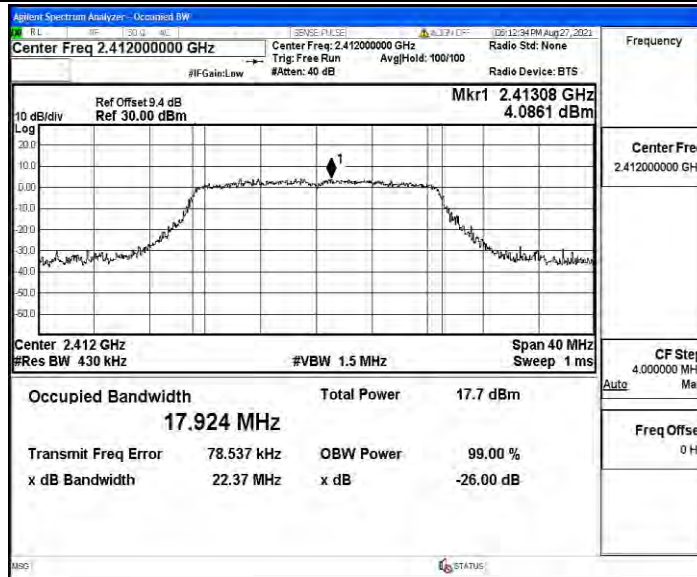
11G\_Ant1\_2462



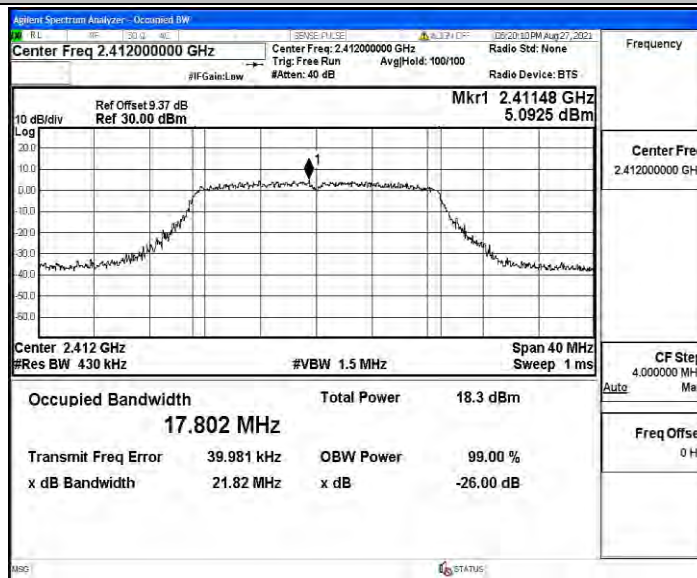
11G\_Ant2\_2462



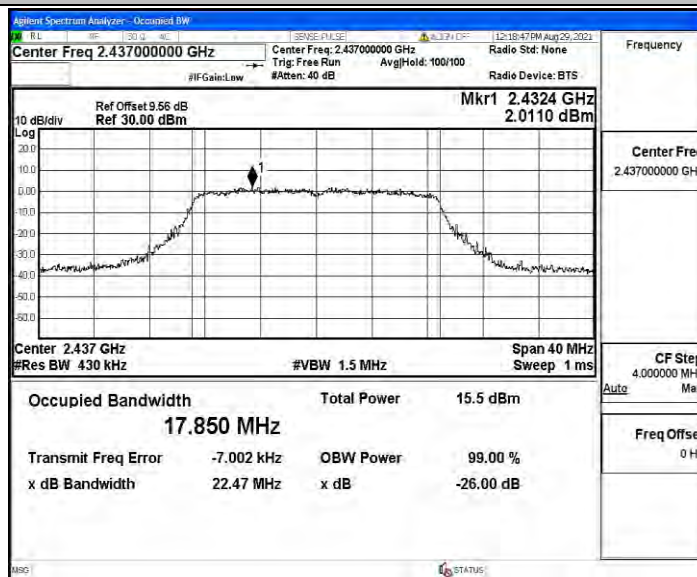
11N20MIMO\_Ant1\_2412



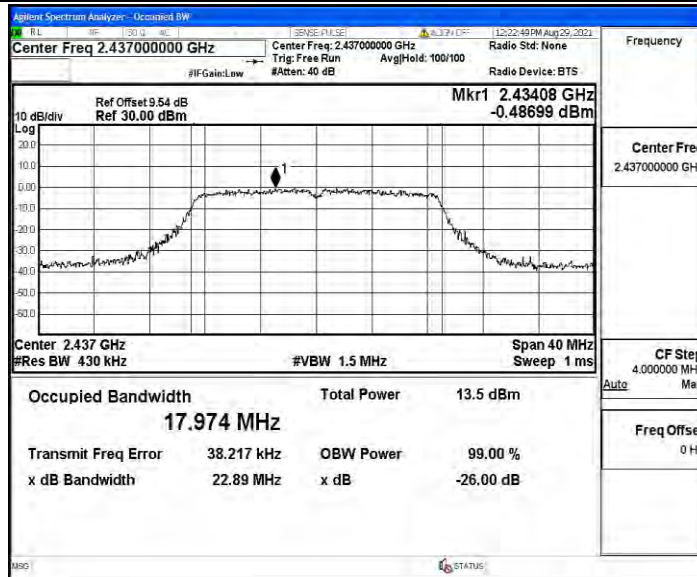
11N20MIMO\_Ant2\_2412



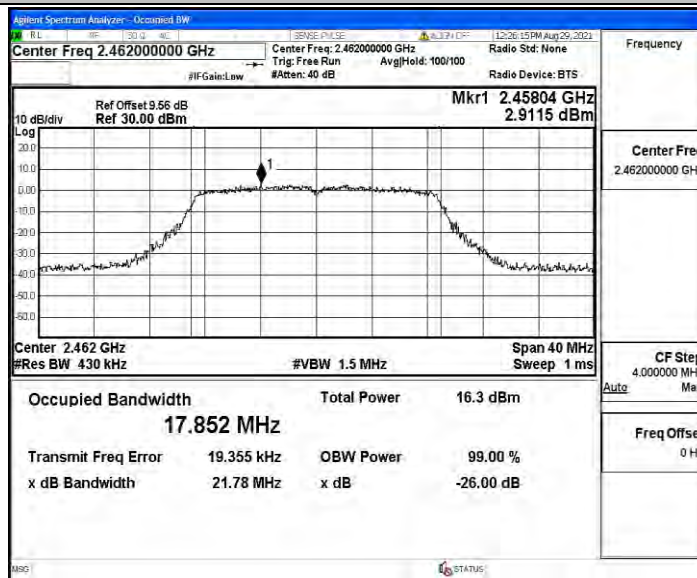
11N20MIMO\_Ant1\_2437



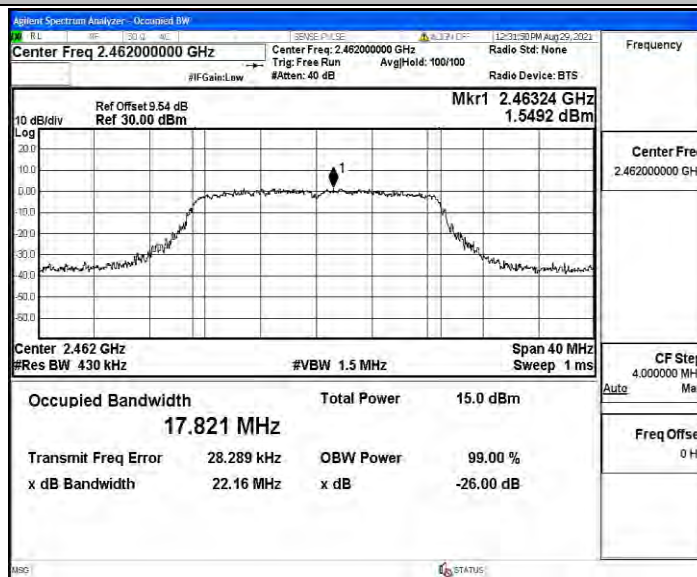
11N20MIMO\_Ant2\_2437



11N20MIMO\_Ant1\_2462

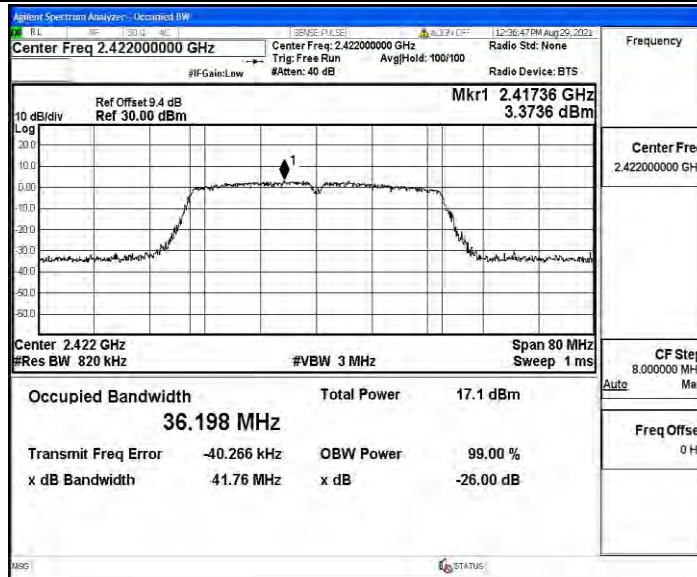


11N20MIMO\_Ant2\_2462

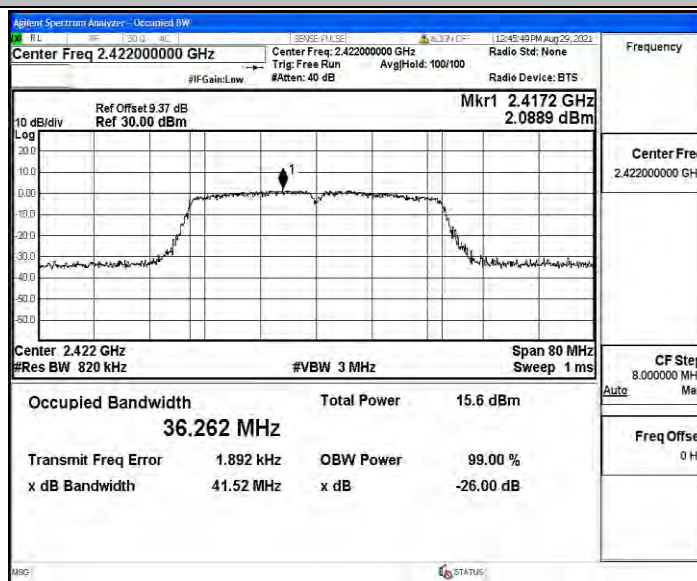


11N40MIMO\_Ant1\_2422

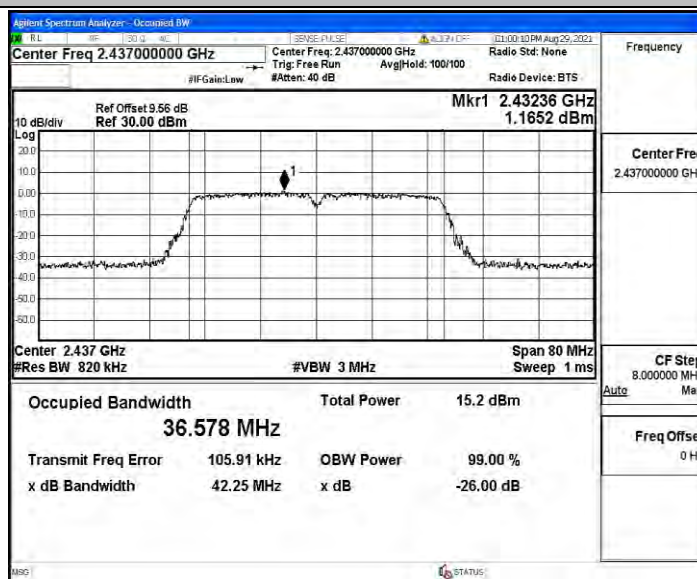




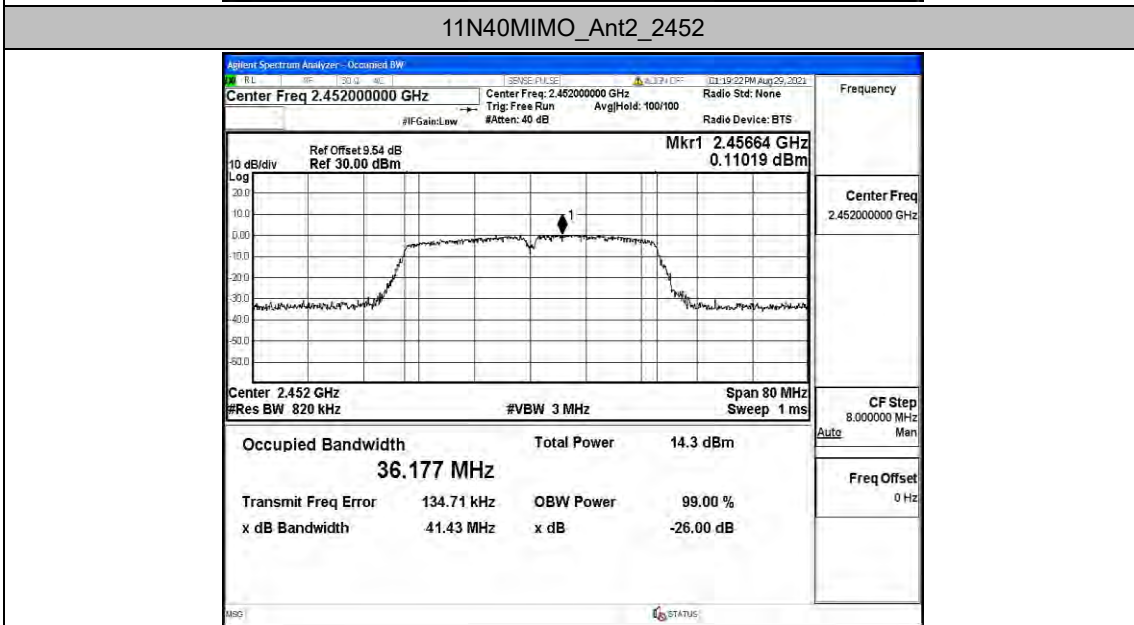
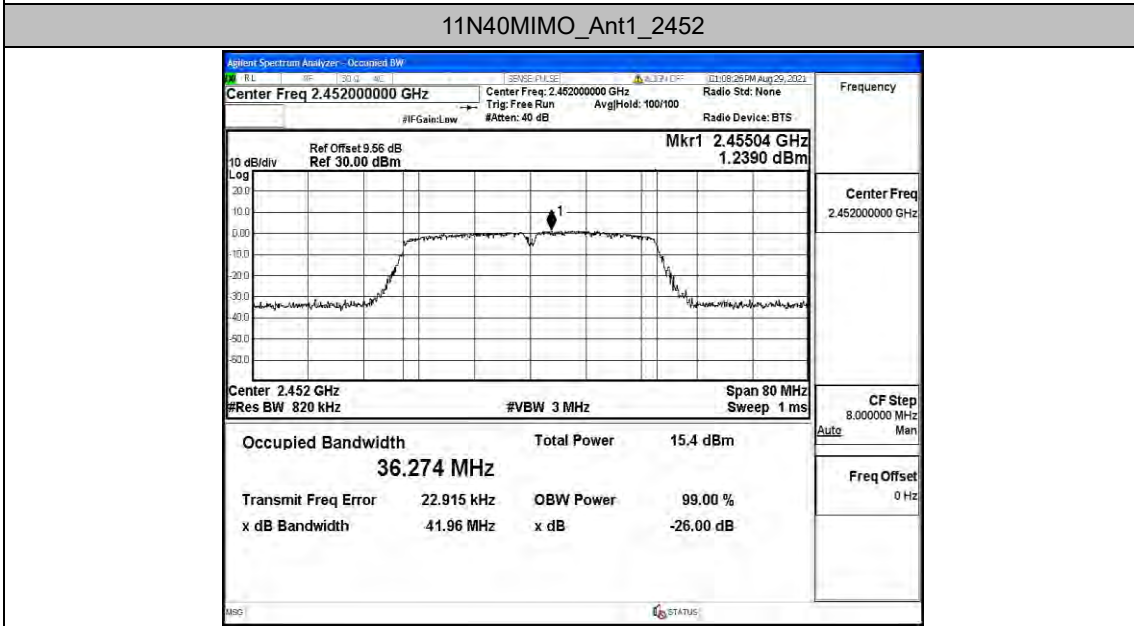
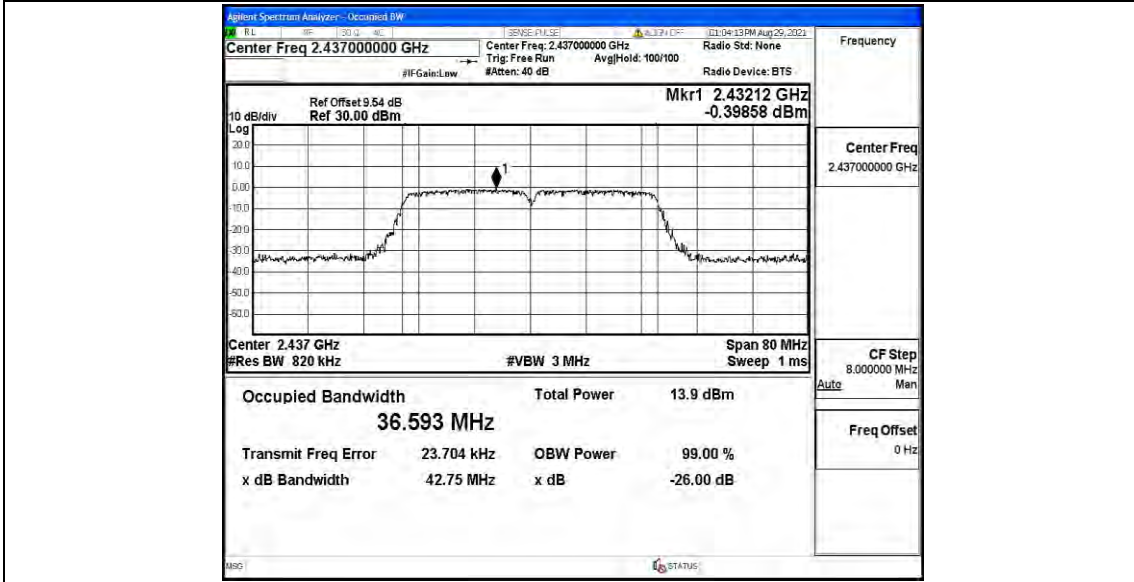
11N40MIMO\_Ant2\_2422



11N40MIMO\_Ant1\_2437



11N40MIMO\_Ant2\_2437



## Appendix C: Maximum conducted output power

### Test Result

| TestMode  | Antenna | Channel | Result[dBm] | Limit[dBm] | Verdict |
|-----------|---------|---------|-------------|------------|---------|
| 11B       | Ant1    | 2412    | 13.39       | ≤30        | PASS    |
|           | Ant2    | 2412    | 15.21       | ≤30        | PASS    |
|           | Ant1    | 2437    | 12.60       | ≤30        | PASS    |
|           | Ant2    | 2437    | 14.26       | ≤30        | PASS    |
|           | Ant1    | 2462    | 14.18       | ≤30        | PASS    |
|           | Ant2    | 2462    | 15.16       | ≤30        | PASS    |
| 11G       | Ant1    | 2412    | 9.83        | ≤30        | PASS    |
|           | Ant2    | 2412    | 13.39       | ≤30        | PASS    |
|           | Ant1    | 2437    | 9.72        | ≤30        | PASS    |
|           | Ant2    | 2437    | 11.83       | ≤30        | PASS    |
|           | Ant1    | 2462    | 11.45       | ≤30        | PASS    |
|           | Ant2    | 2462    | 12.26       | ≤30        | PASS    |
| 11N20MIMO | Ant1    | 2412    | 9.34        | ≤30        | PASS    |
|           | Ant2    | 2412    | 12.19       | ≤30        | PASS    |
|           | total   | 2412    | 14.0        | ≤30        | PASS    |
|           | Ant1    | 2437    | 9.48        | ≤30        | PASS    |
|           | Ant2    | 2437    | 7.61        | ≤30        | PASS    |
|           | total   | 2437    | 11.7        | ≤30        | PASS    |
|           | Ant1    | 2462    | 10.28       | ≤30        | PASS    |
|           | Ant2    | 2462    | 8.98        | ≤30        | PASS    |
|           | total   | 2462    | 12.7        | ≤30        | PASS    |
| 11N40MIMO | Ant1    | 2422    | 9.33        | ≤30        | PASS    |
|           | Ant2    | 2422    | 7.57        | ≤30        | PASS    |
|           | total   | 2422    | 11.5        | ≤30        | PASS    |
|           | Ant1    | 2437    | 8.50        | ≤30        | PASS    |
|           | Ant2    | 2437    | 7.28        | ≤30        | PASS    |
|           | total   | 2437    | 10.9        | ≤30        | PASS    |
|           | Ant1    | 2452    | 8.41        | ≤30        | PASS    |
|           | Ant2    | 2452    | 7.61        | ≤30        | PASS    |
|           | total   | 2452    | 11.0        | ≤30        | PASS    |

Note: The Duty Cycle Factor and RBW Factor is compensated in the result

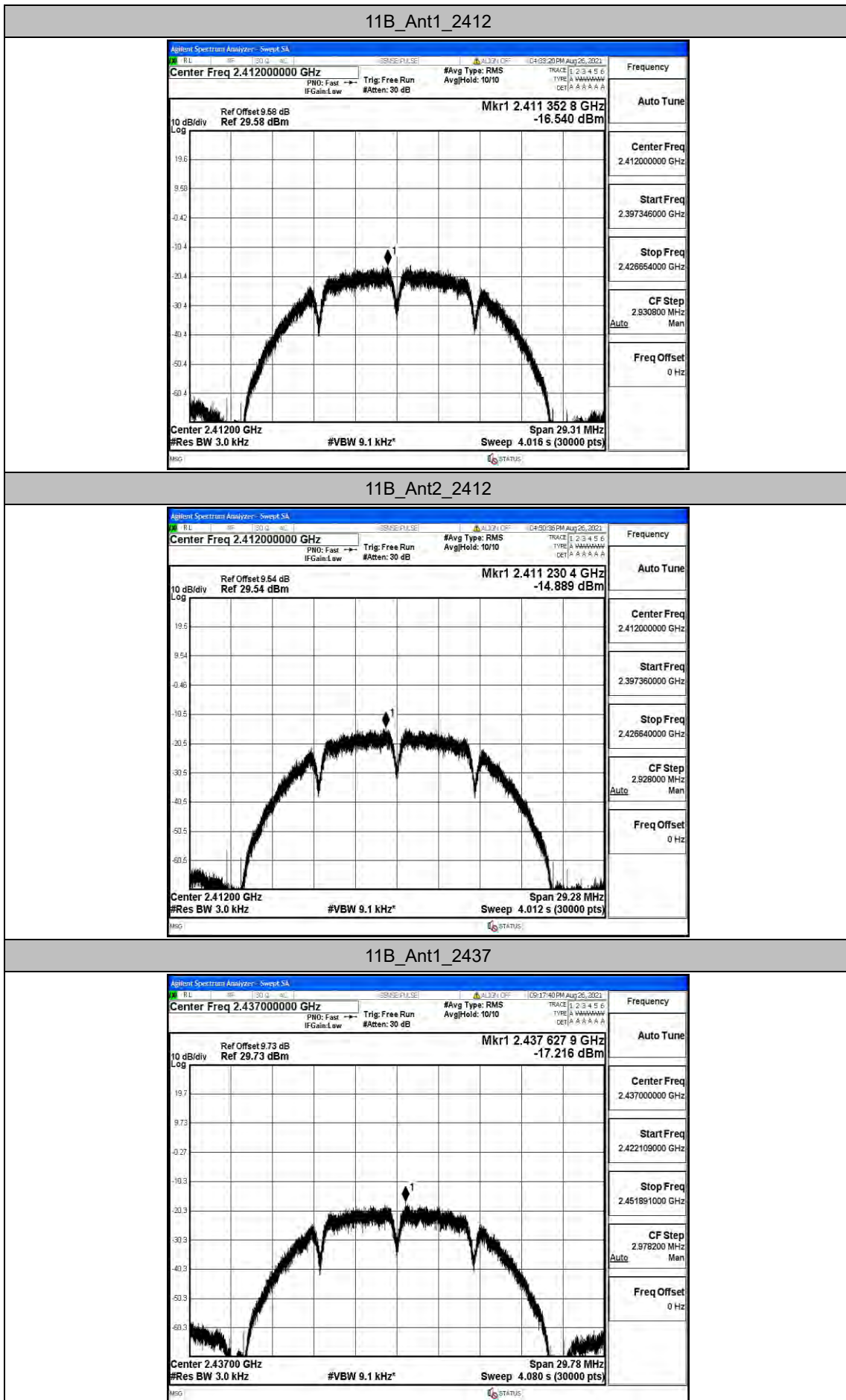
## Appendix D: Maximum power spectral density

### Test Result

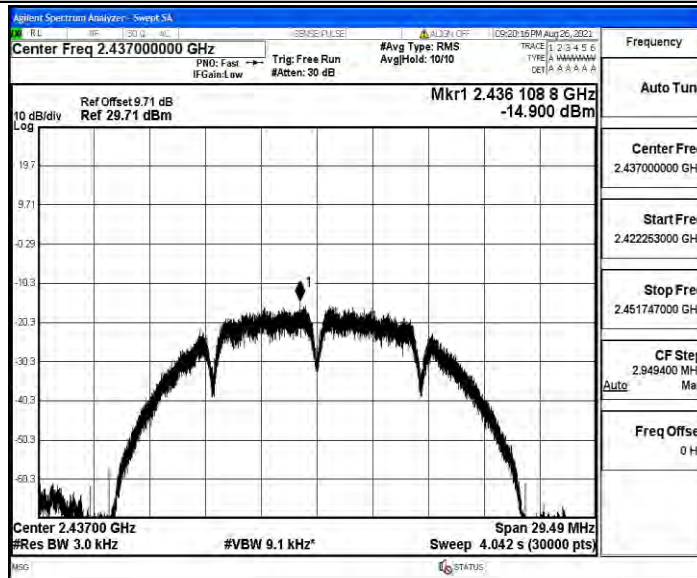
| TestMode  | Antenna | Channel | Result[dBm/3-100kHz] | Limit[dBm/3kHz] | Verdict |
|-----------|---------|---------|----------------------|-----------------|---------|
| 11B       | Ant1    | 2412    | -16.54               | ≤8              | PASS    |
|           | Ant2    | 2412    | -14.89               | ≤8              | PASS    |
|           | Ant1    | 2437    | -17.22               | ≤8              | PASS    |
|           | Ant2    | 2437    | -14.9                | ≤8              | PASS    |
|           | Ant1    | 2462    | -16.18               | ≤8              | PASS    |
|           | Ant2    | 2462    | -14.44               | ≤8              | PASS    |
| 11G       | Ant1    | 2412    | -19.7                | ≤8              | PASS    |
|           | Ant2    | 2412    | -17.4                | ≤8              | PASS    |
|           | Ant1    | 2437    | -19.93               | ≤8              | PASS    |
|           | Ant2    | 2437    | -17.63               | ≤8              | PASS    |
|           | Ant1    | 2462    | -17.78               | ≤8              | PASS    |
|           | Ant2    | 2462    | -17.43               | ≤8              | PASS    |
| 11N20MIMO | Ant1    | 2412    | -19.67               | ≤8              | PASS    |
|           | Ant2    | 2412    | -17.67               | ≤8              | PASS    |
|           | total   | 2412    | -15.55               | ≤8              | PASS    |
|           | Ant1    | 2437    | -20.1                | ≤8              | PASS    |
|           | Ant2    | 2437    | -23.19               | ≤8              | PASS    |
|           | total   | 2437    | -18.37               | ≤8              | PASS    |
|           | Ant1    | 2462    | -19.41               | ≤8              | PASS    |
|           | Ant2    | 2462    | -21.33               | ≤8              | PASS    |
|           | total   | 2462    | -17.25               | ≤8              | PASS    |
| 11N40MIMO | Ant1    | 2422    | -23.19               | ≤8              | PASS    |
|           | Ant2    | 2422    | -21.15               | ≤8              | PASS    |
|           | total   | 2422    | -19.04               | ≤8              | PASS    |
|           | Ant1    | 2437    | -22.99               | ≤8              | PASS    |
|           | Ant2    | 2437    | -24.54               | ≤8              | PASS    |
|           | total   | 2437    | -20.69               | ≤8              | PASS    |
|           | Ant1    | 2452    | -22.83               | ≤8              | PASS    |
|           | Ant2    | 2452    | -24.89               | ≤8              | PASS    |
|           | total   | 2452    | -20.73               | ≤8              | PASS    |

Note: The Duty Cycle Factor and RBW Factor is compensated in the result

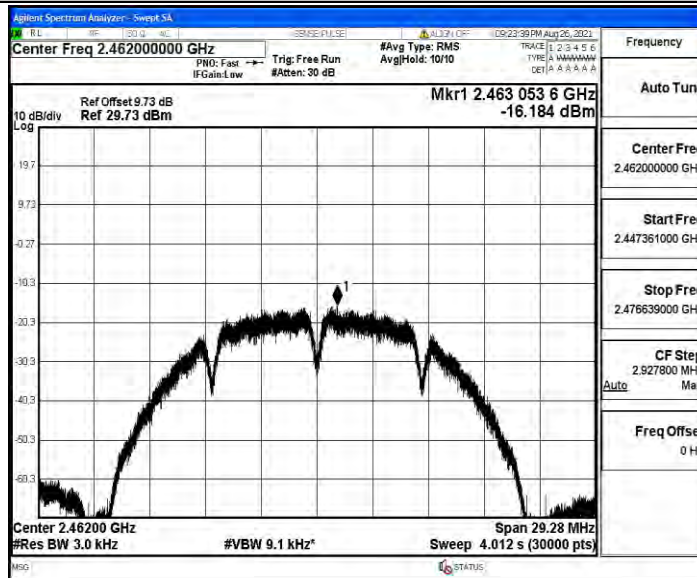
### Test Graphs



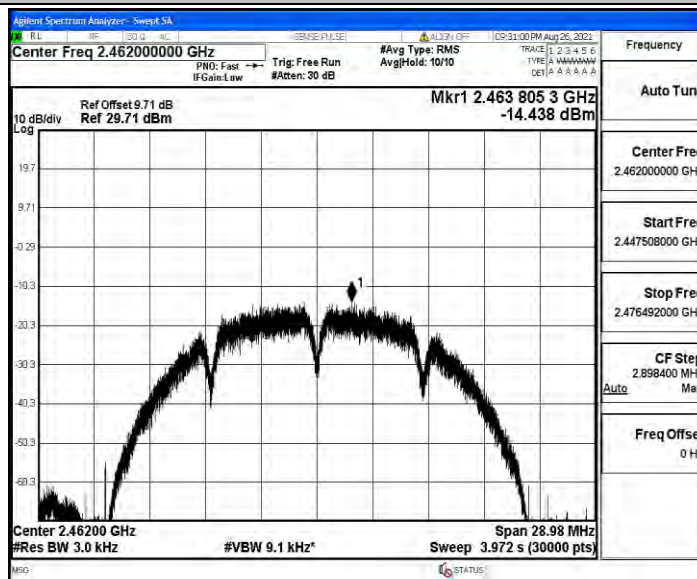
11B\_Ant2\_2437



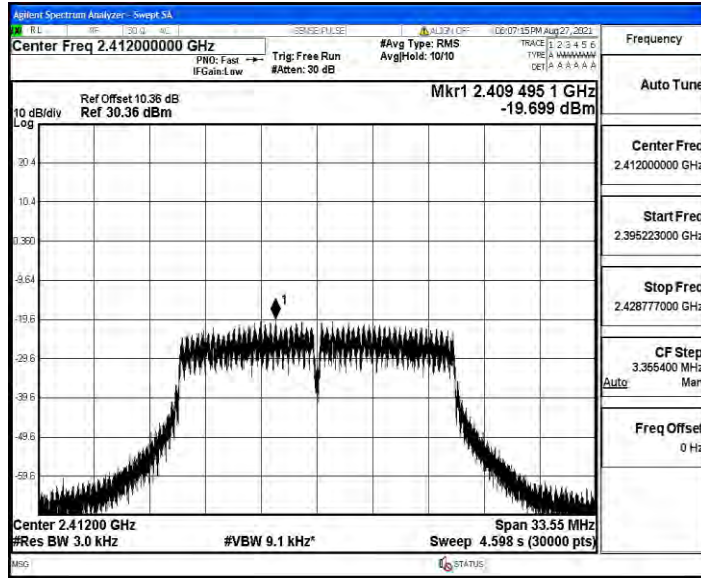
11B\_Ant1\_2462



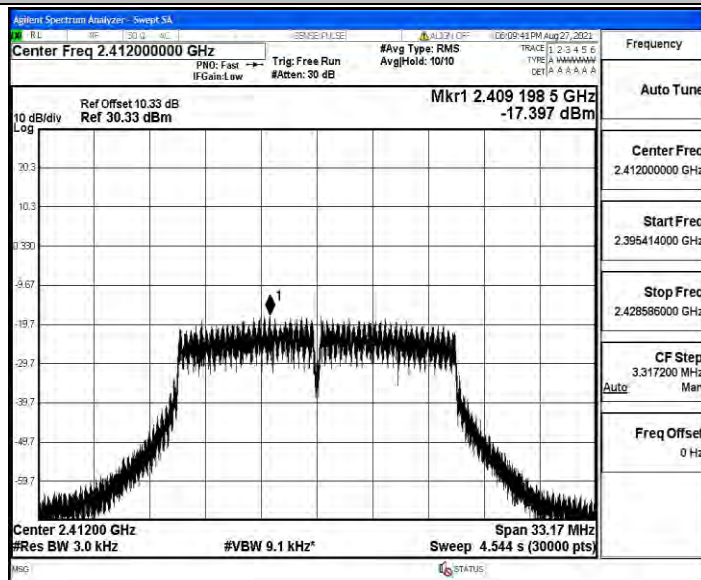
11B\_Ant2\_2462



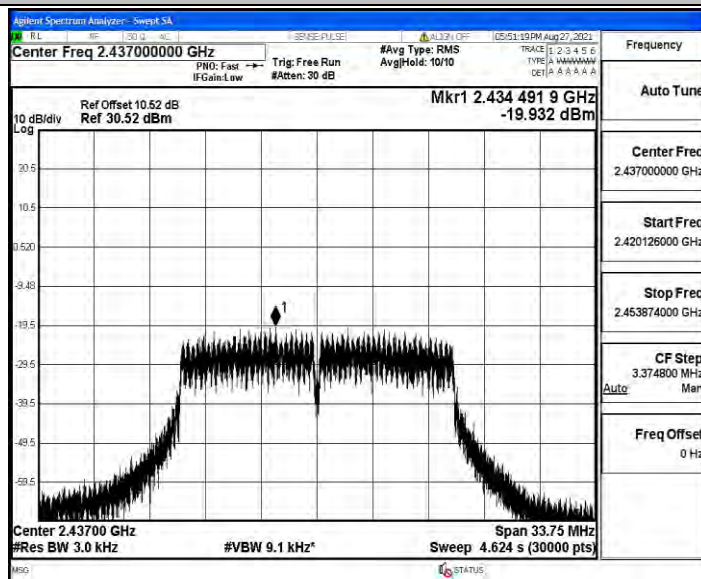
11G\_Ant1\_2412



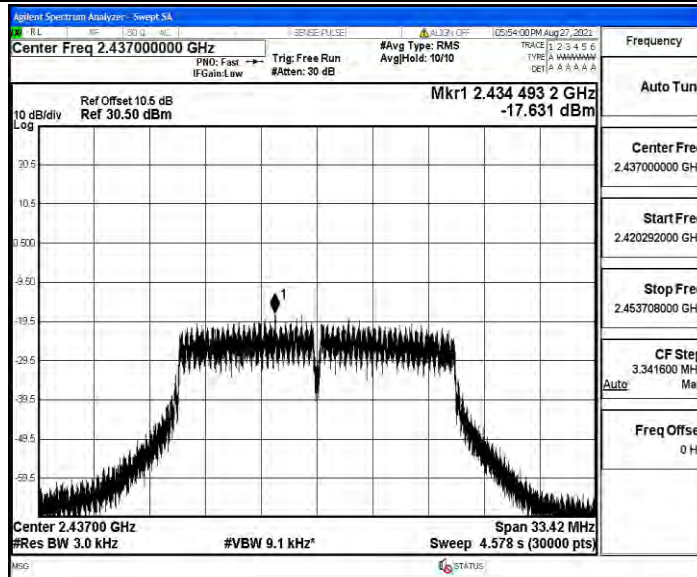
11G\_Ant2\_2412



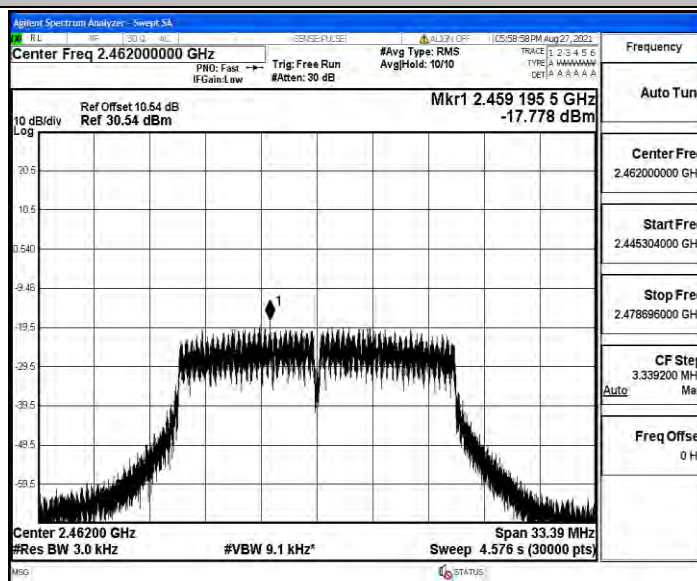
11G\_Ant1\_2437



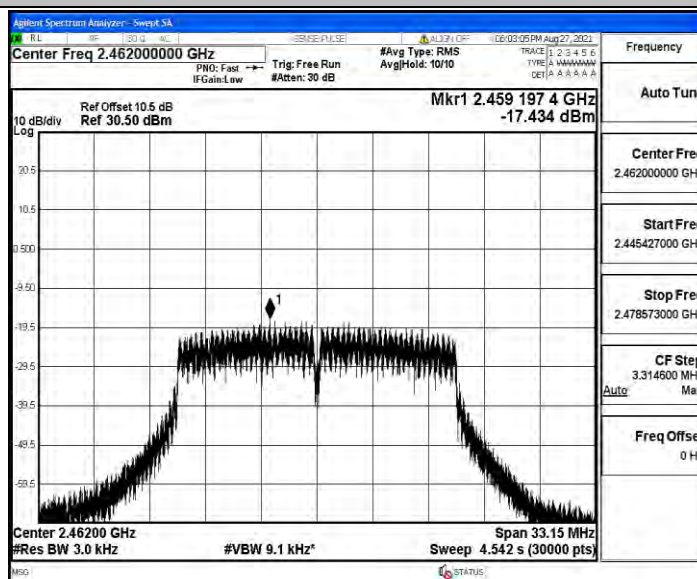
11G\_Ant2\_2437



11G\_Ant1\_2462

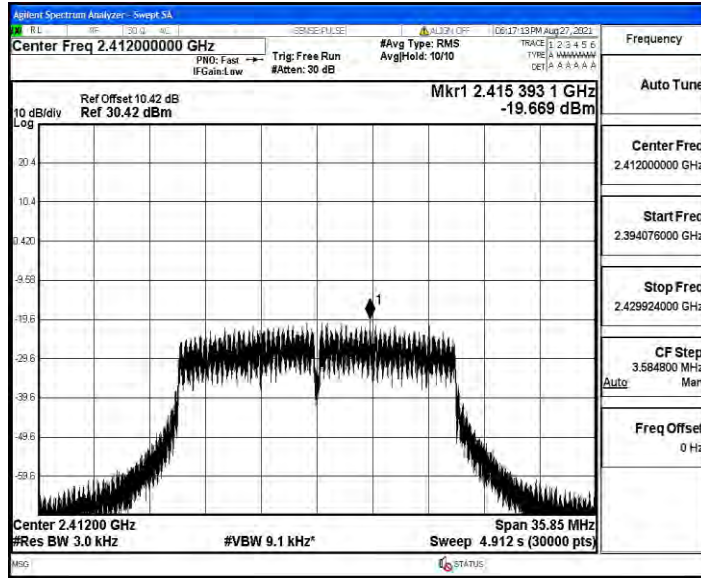


11G\_Ant2\_2462

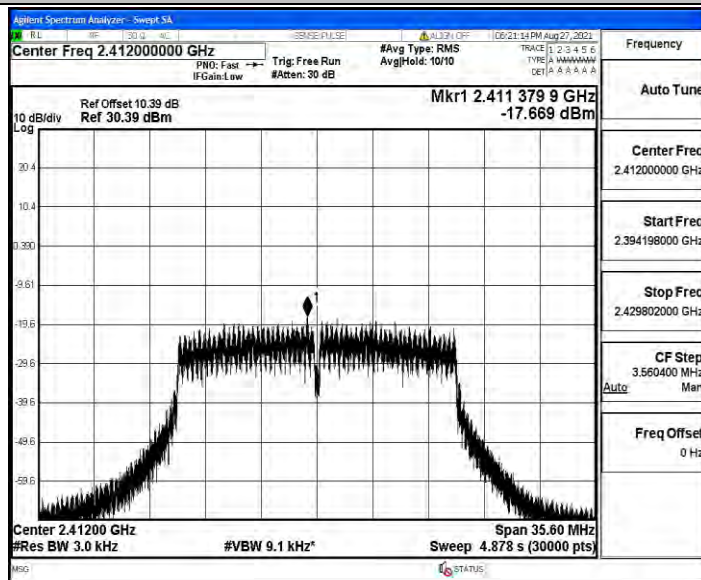


11N20MIMO\_Ant1\_2412

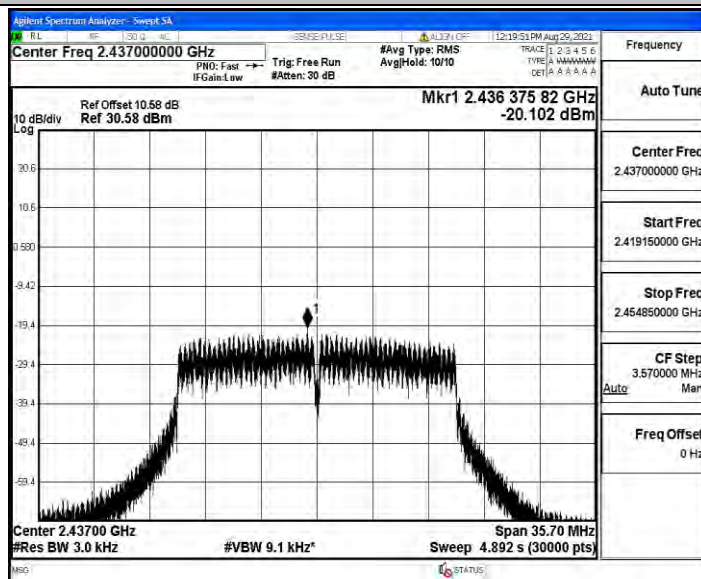




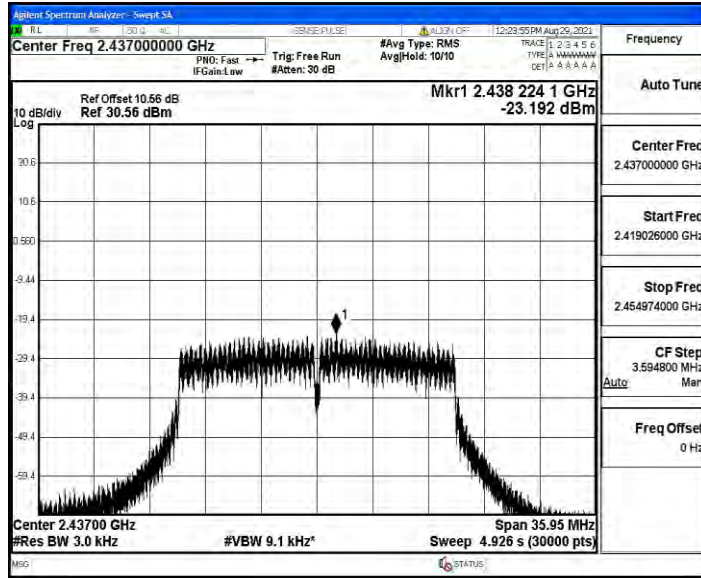
11N20MIMO\_Ant2\_2412



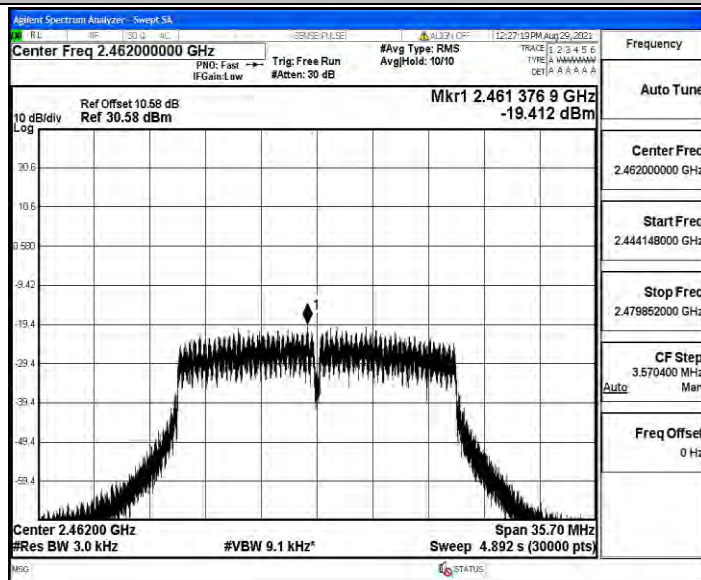
11N20MIMO\_Ant1\_2437



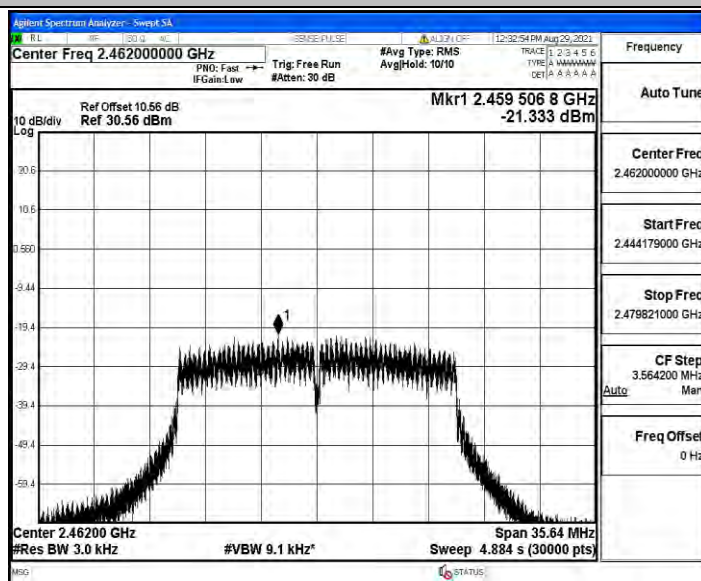
11N20MIMO\_Ant2\_2437



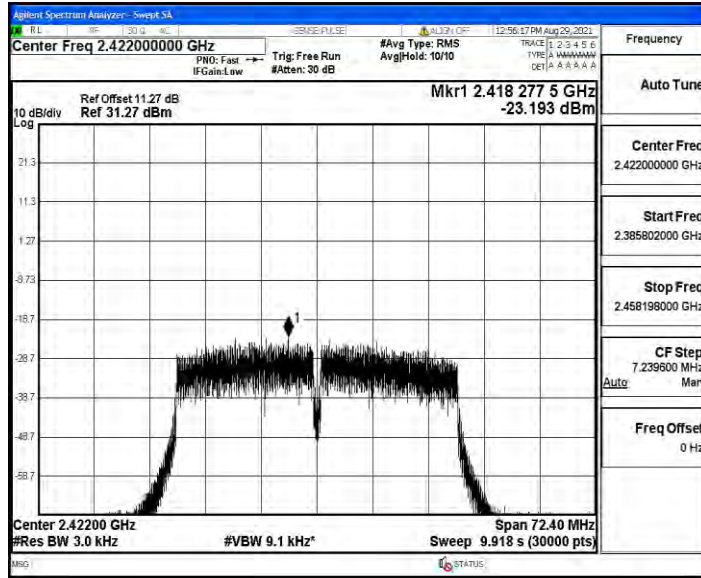
11N20MIMO\_Ant1\_2462



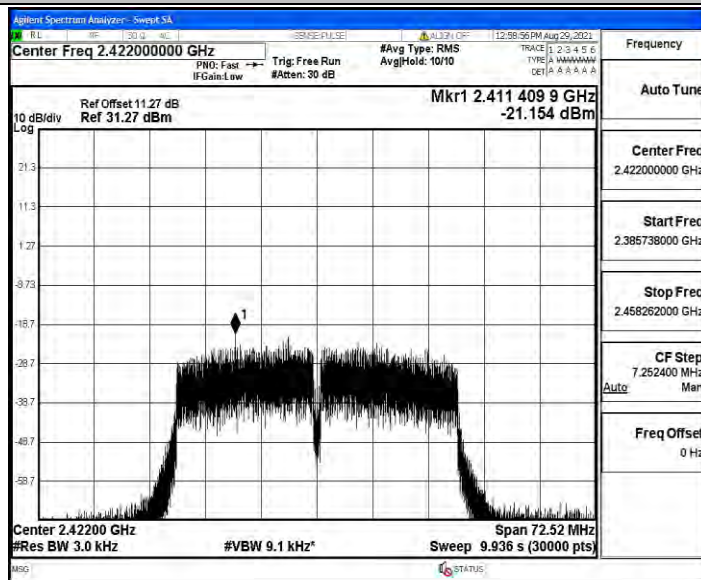
11N20MIMO\_Ant2\_2462



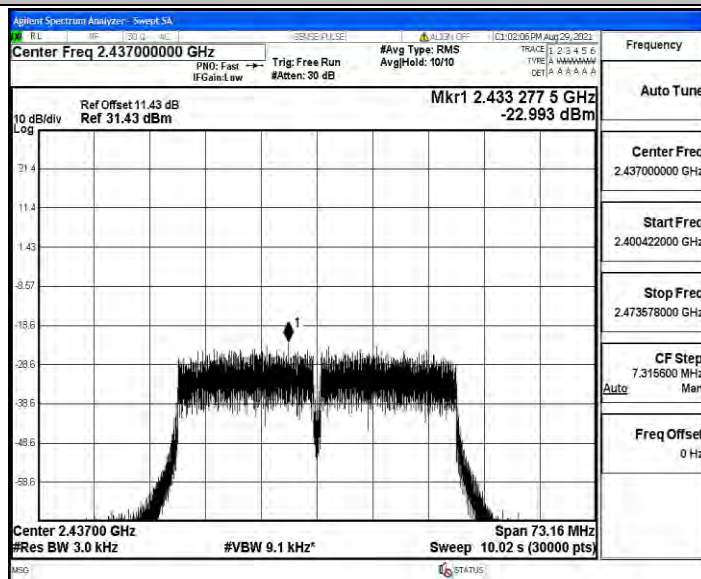
11N40MIMO\_Ant1\_2422



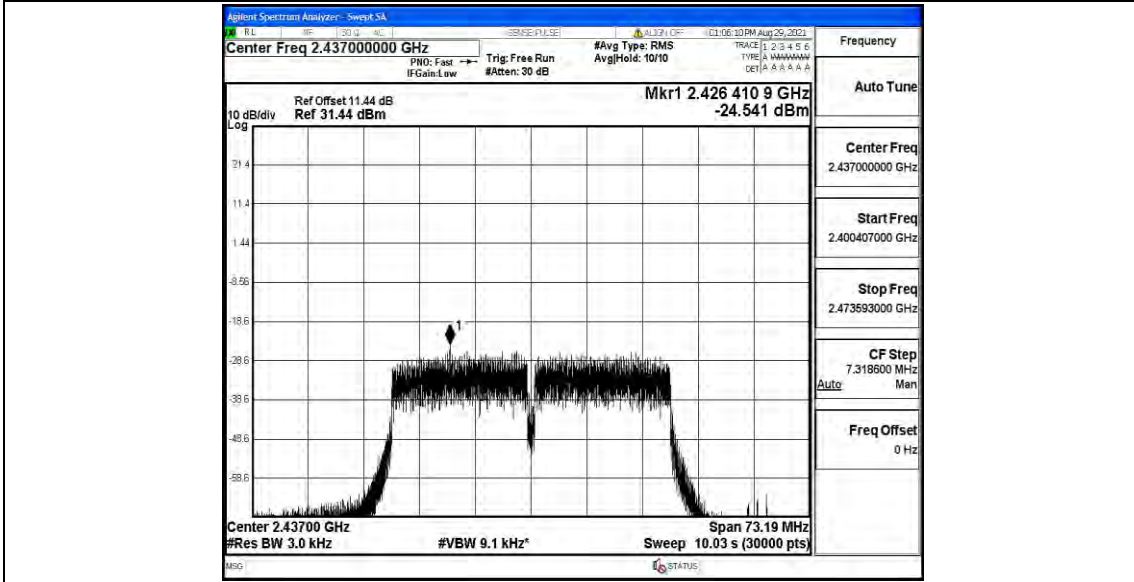
11N40MIMO\_Ant2\_2422



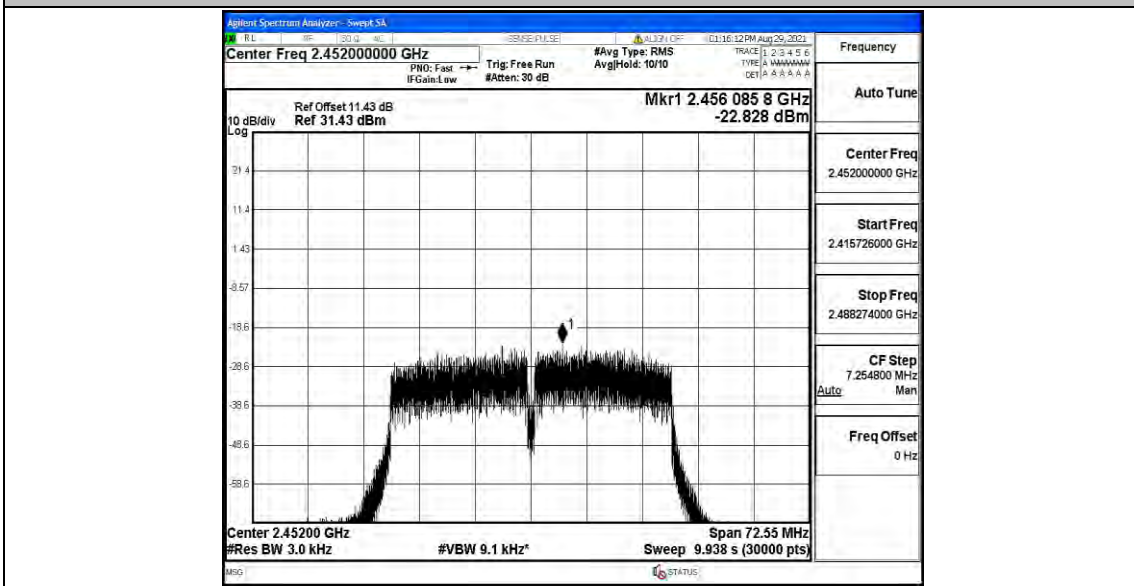
11N40MIMO\_Ant1\_2437



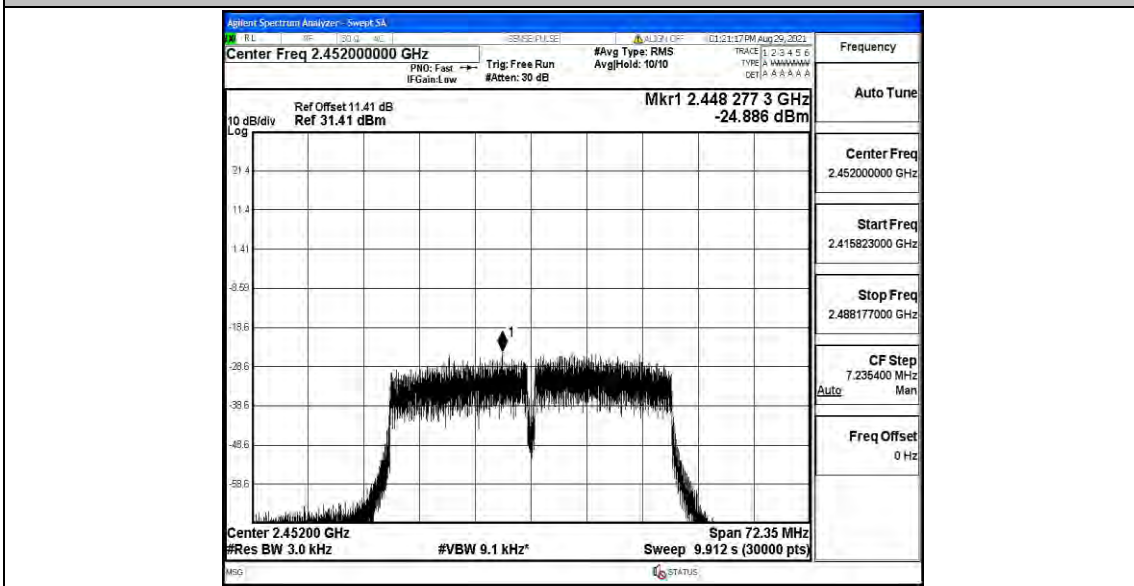
11N40MIMO\_Ant2\_2437



11N40MIMO\_Ant1\_2452



11N40MIMO\_Ant2\_2452

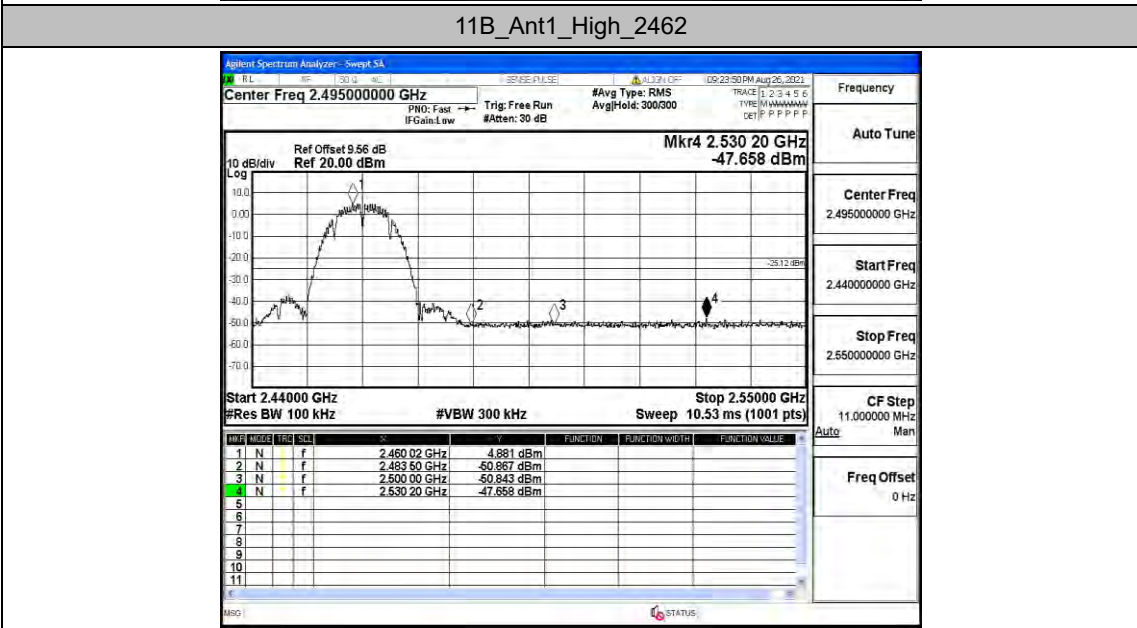
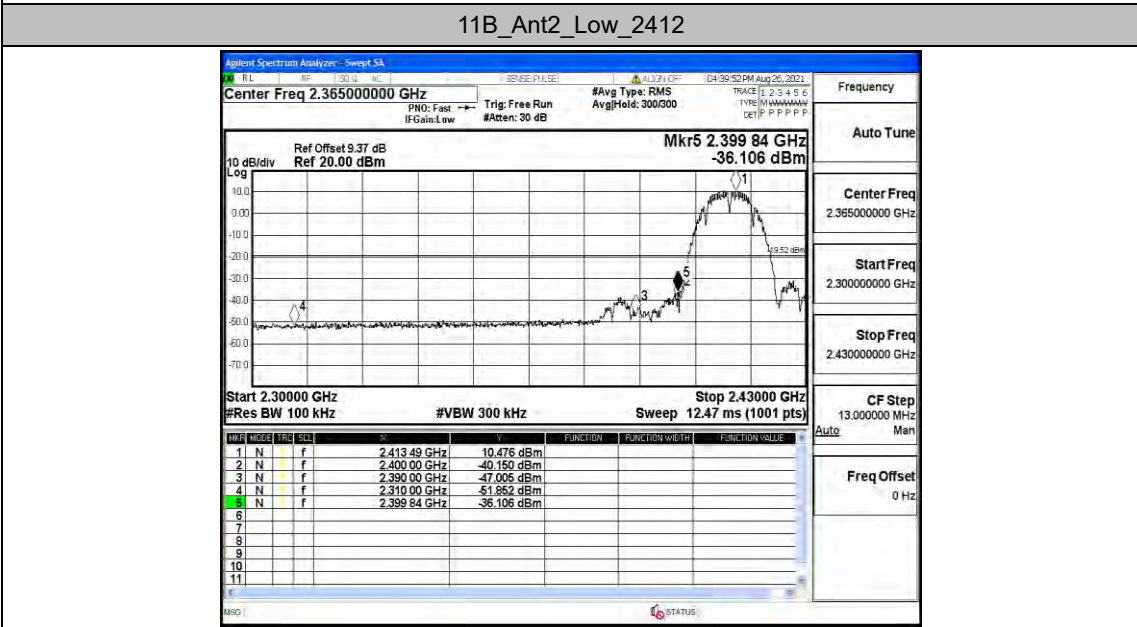
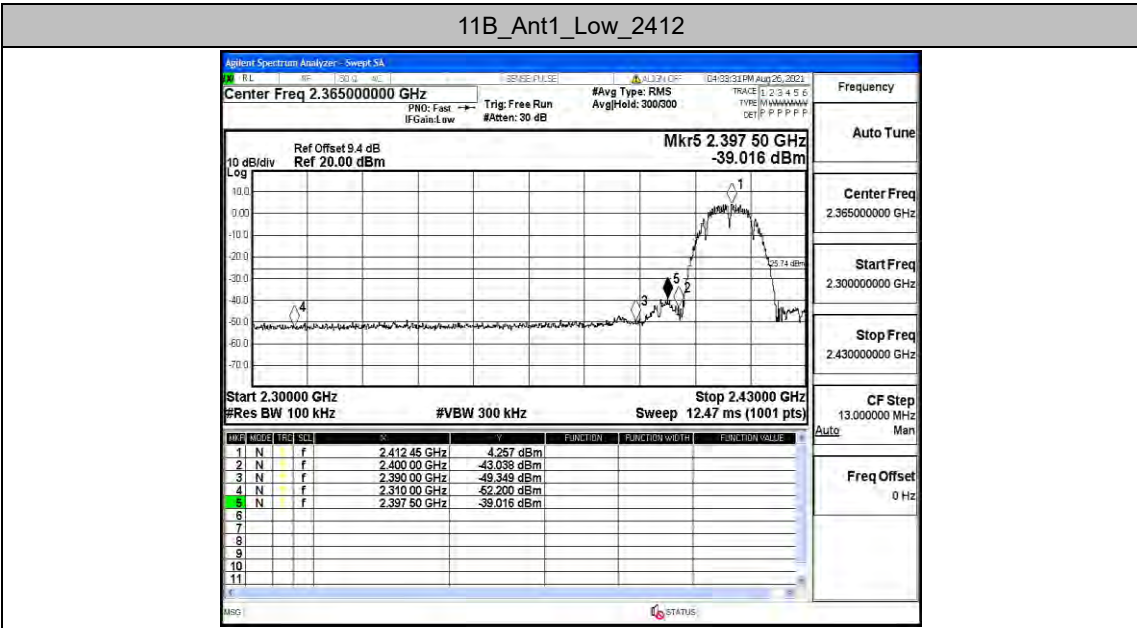


## Appendix E: Band edge measurements

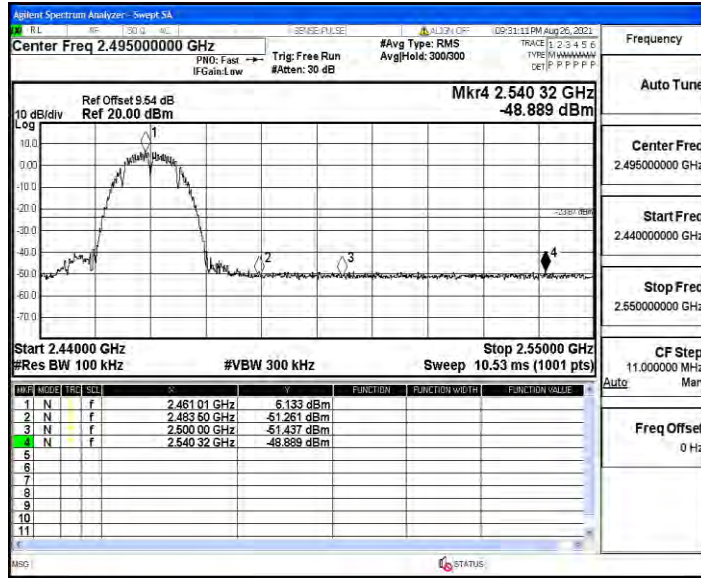
### Test Result

| TestMode  | Antenna | ChName | Channel | RefLevel[dBm] | Result[dBm] | Limit[dBm] | Verdict |
|-----------|---------|--------|---------|---------------|-------------|------------|---------|
| 11B       | Ant1    | Low    | 2412    | 4.26          | -39.02      | ≤-25.74    | PASS    |
|           | Ant2    | Low    | 2412    | 10.48         | -36.11      | ≤-19.52    | PASS    |
|           | Ant1    | High   | 2462    | 4.88          | -47.66      | ≤-25.12    | PASS    |
|           | Ant2    | High   | 2462    | 6.13          | -48.89      | ≤-23.87    | PASS    |
| 11G       | Ant1    | Low    | 2412    | 0.78          | -36.6       | ≤-29.22    | PASS    |
|           | Ant2    | Low    | 2412    | 2.83          | -35         | ≤-27.17    | PASS    |
|           | Ant1    | High   | 2462    | -0.18         | -44.68      | ≤-30.18    | PASS    |
|           | Ant2    | High   | 2462    | 1.84          | -46.7       | ≤-28.16    | PASS    |
| 11N20MIMO | Ant1    | Low    | 2412    | 0.48          | -32.37      | ≤-29.52    | PASS    |
|           | Ant2    | Low    | 2412    | 1.10          | -34.78      | ≤-28.9     | PASS    |
|           | Ant1    | High   | 2462    | -0.32         | -48.88      | ≤-30.32    | PASS    |
|           | Ant2    | High   | 2462    | -2.12         | -48.7       | ≤-32.12    | PASS    |
| 11N40MIMO | Ant1    | Low    | 2422    | -2.75         | -40.91      | ≤-32.75    | PASS    |
|           | Ant2    | Low    | 2422    | -4.47         | -41.06      | ≤-34.47    | PASS    |
|           | Ant1    | High   | 2452    | -5.05         | -46.68      | ≤-35.05    | PASS    |
|           | Ant2    | High   | 2452    | -5.65         | -46.86      | ≤-35.65    | PASS    |

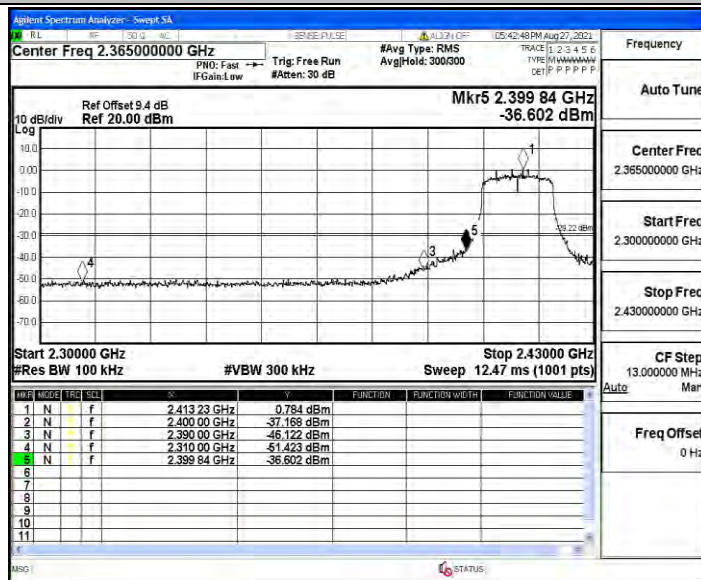
Test Graphs



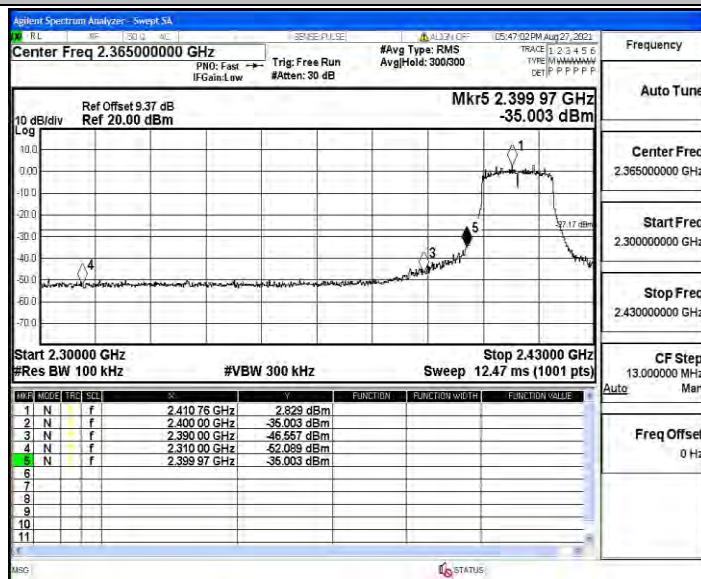
**11B\_Ant2\_High\_2462**



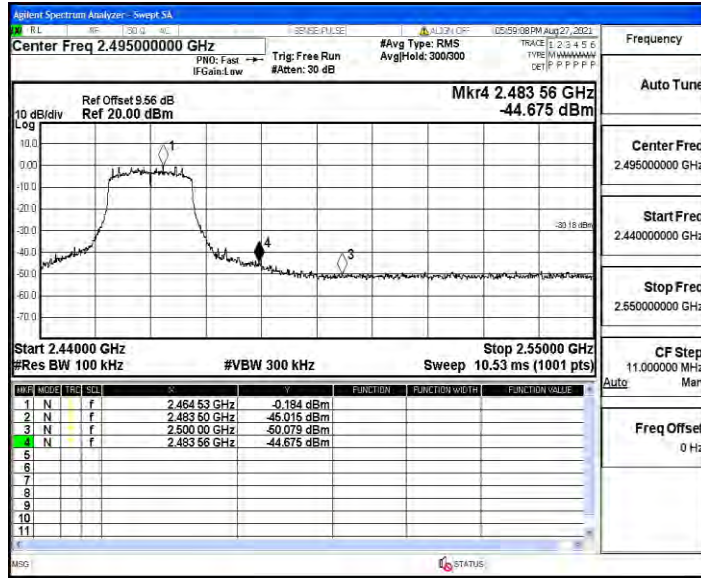
11G\_Ant1\_Low\_2412



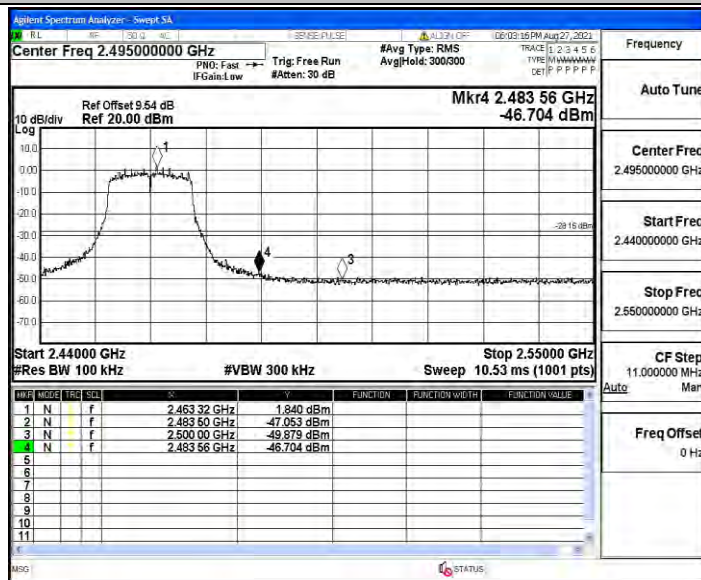
11G\_Ant2\_Low\_2412



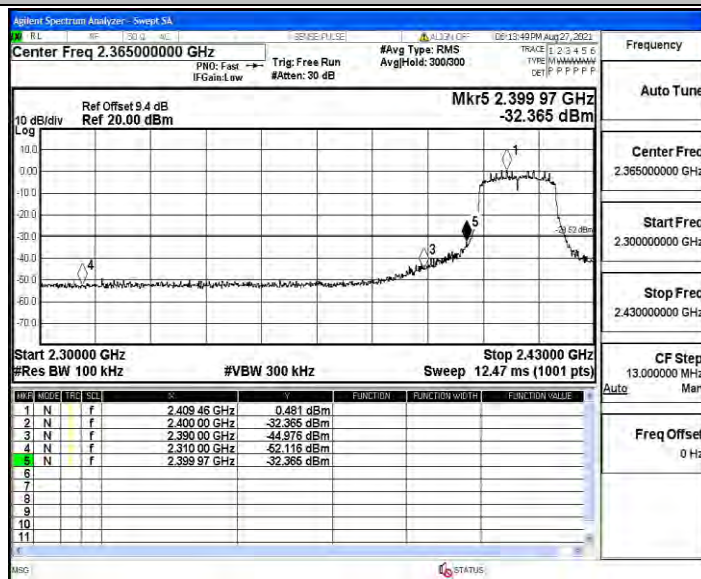
11G\_Ant1\_High\_2462



11G\_Ant2\_High\_2462

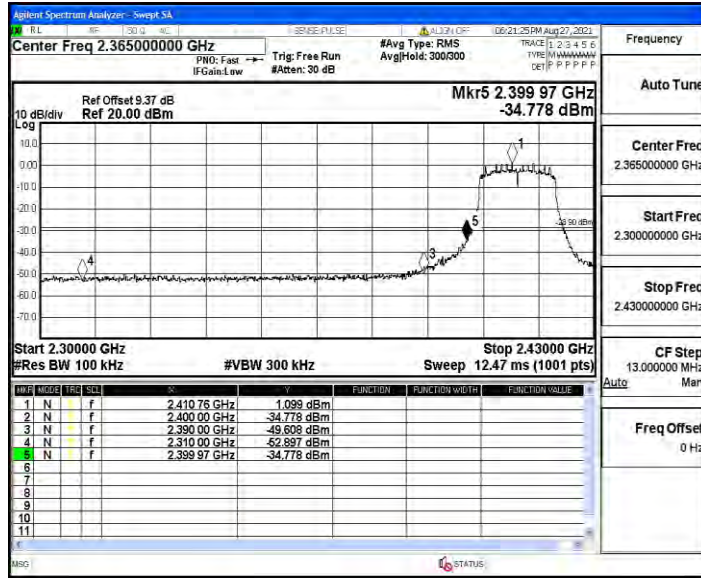


11N20MIMO\_Ant1\_Low\_2412

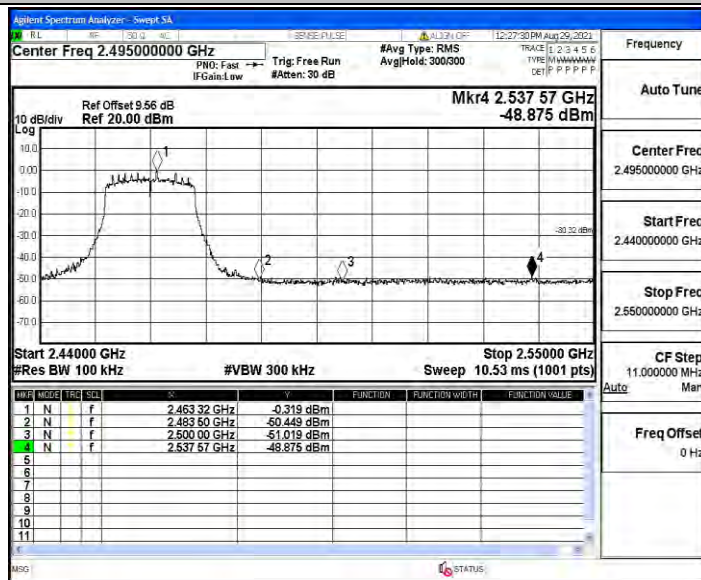


11N20MIMO\_Ant2\_Low\_2412

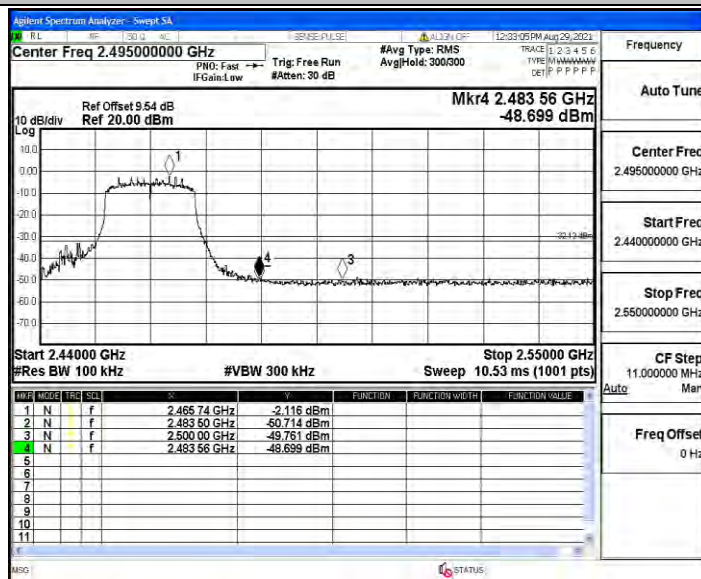




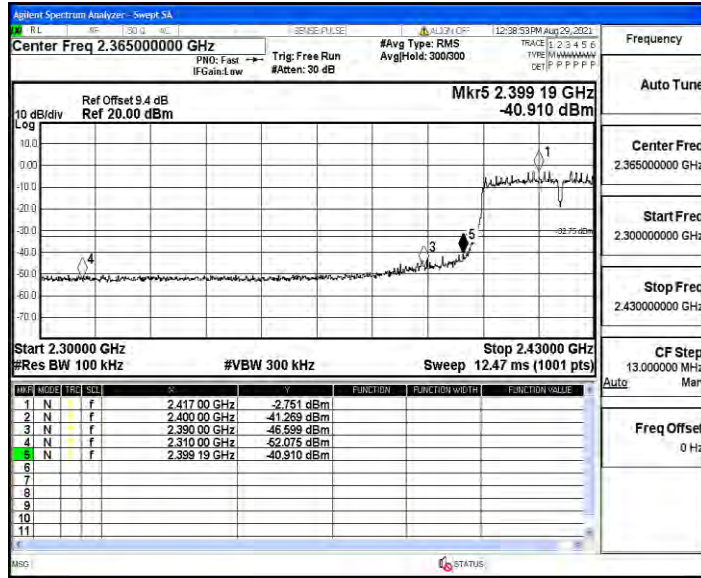
11N20MIMO\_Ant1\_High\_2462



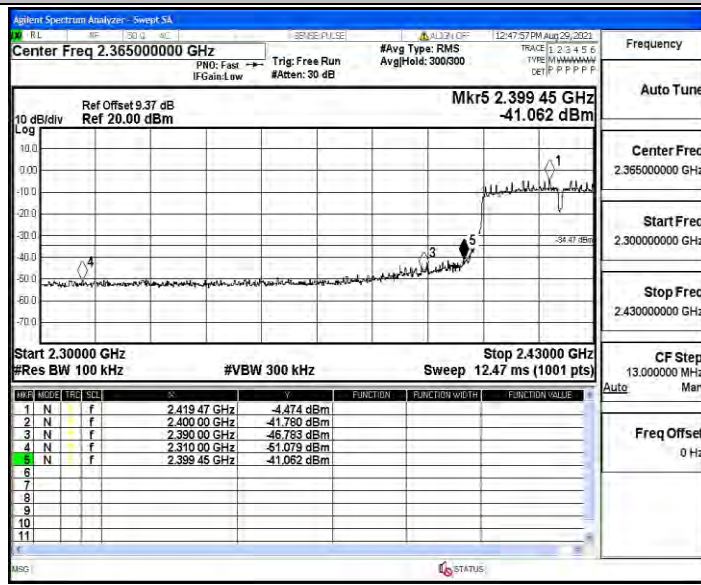
11N20MIMO\_Ant2\_High\_2462



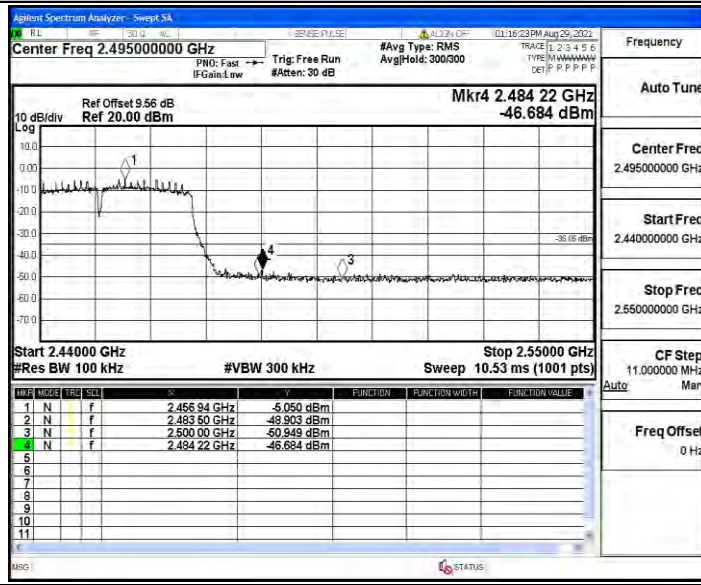
11N40MIMO\_Ant1\_Low\_2422



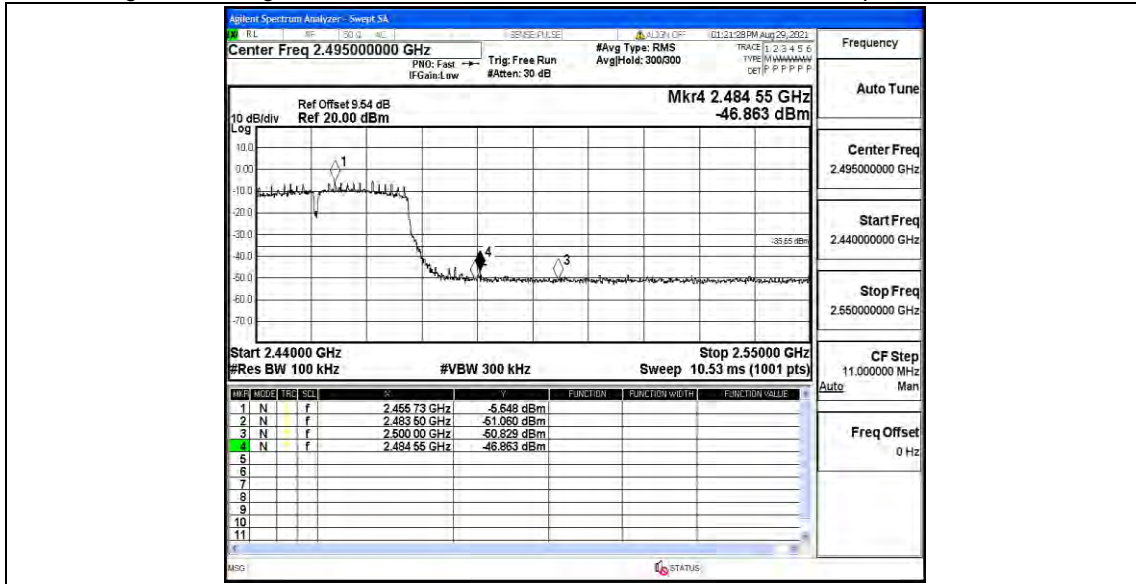
11N40MIMO\_Ant2\_Low\_2422



11N40MIMO\_Ant1\_High\_2452



11N40MIMO\_Ant2\_High\_2452



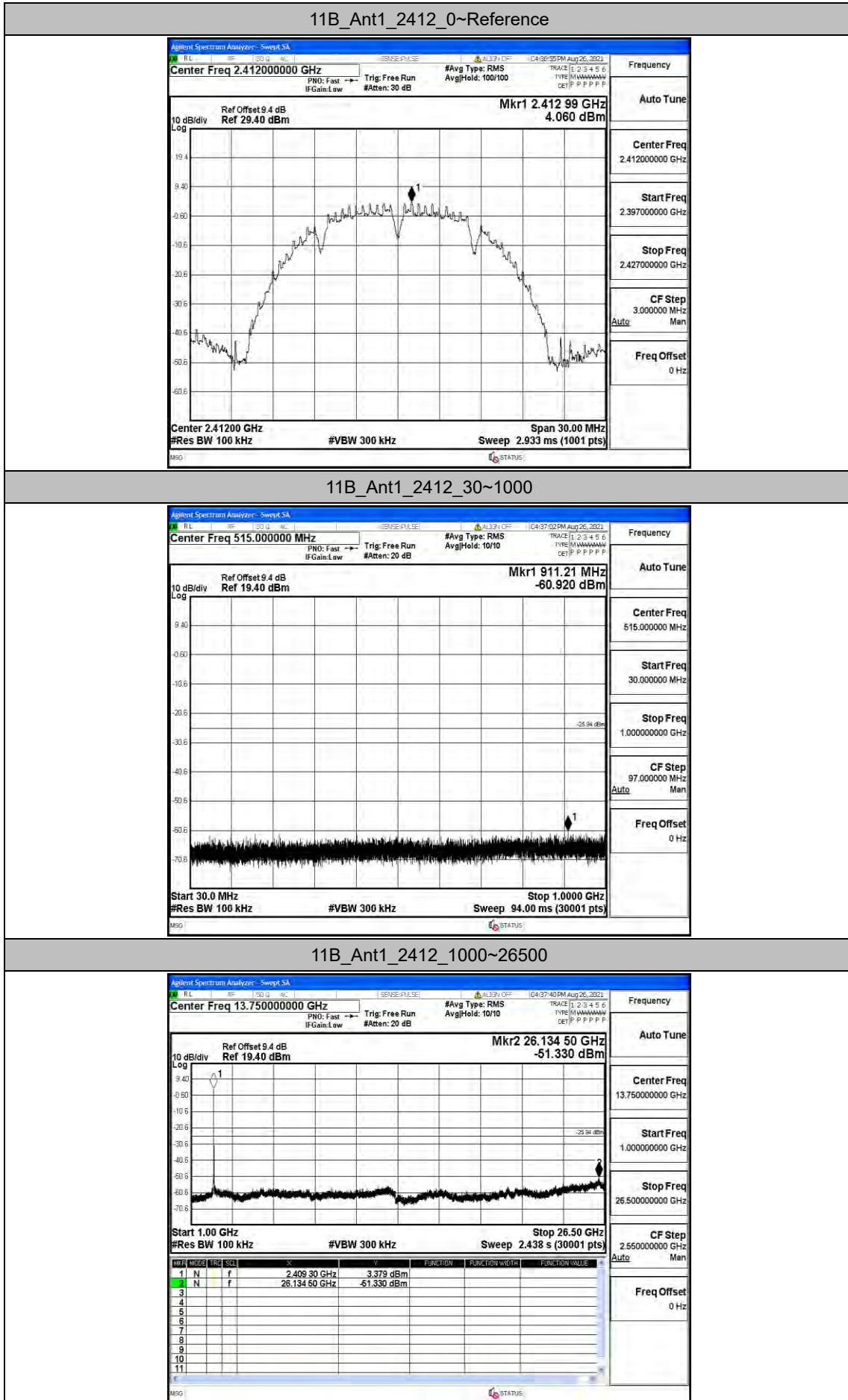
## Appendix F: Conducted Spurious Emission

### Test Result

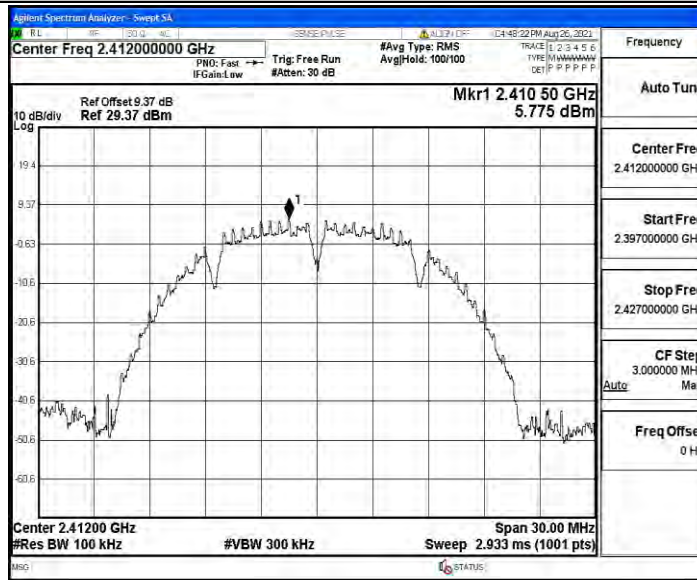
| TestMode  | Antenna | Channel | FreqRange<br>[Mhz] | RefLevel<br>[dBm] | Result<br>[dBm] | Limit<br>[dBm] | Verdict |
|-----------|---------|---------|--------------------|-------------------|-----------------|----------------|---------|
| 11B       | Ant1    | 2412    | Reference          | 4.06              | 4.06            | ---            | PASS    |
|           |         |         | 30~1000            | 4.06              | -60.92          | ≤-25.94        | PASS    |
|           |         |         | 1000~26500         | 4.06              | -51.33          | ≤-25.94        | PASS    |
|           | Ant2    | 2412    | Reference          | 5.78              | 5.78            | ---            | PASS    |
|           |         |         | 30~1000            | 5.78              | -60.98          | ≤-24.23        | PASS    |
|           |         |         | 1000~26500         | 5.78              | -51.36          | ≤-24.23        | PASS    |
|           | Ant1    | 2437    | Reference          | 3.34              | 3.34            | ---            | PASS    |
|           |         |         | 30~1000            | 3.34              | -60.96          | ≤-26.67        | PASS    |
|           |         |         | 1000~26500         | 3.34              | -51.29          | ≤-26.67        | PASS    |
|           | Ant2    | 2437    | Reference          | 4.60              | 4.60            | ---            | PASS    |
|           |         |         | 30~1000            | 4.60              | -59.99          | ≤-25.4         | PASS    |
|           |         |         | 1000~26500         | 4.60              | -48.88          | ≤-25.4         | PASS    |
|           | Ant1    | 2462    | Reference          | 4.92              | 4.92            | ---            | PASS    |
|           |         |         | 30~1000            | 4.92              | -60.86          | ≤-25.08        | PASS    |
|           |         |         | 1000~26500         | 4.92              | -51.67          | ≤-25.08        | PASS    |
|           | Ant2    | 2462    | Reference          | 5.94              | 5.94            | ---            | PASS    |
|           |         |         | 30~1000            | 5.94              | -60.01          | ≤-24.06        | PASS    |
|           |         |         | 1000~26500         | 5.94              | -51.24          | ≤-24.06        | PASS    |
| 11G       | Ant1    | 2412    | Reference          | 0.14              | 0.14            | ---            | PASS    |
|           |         |         | 30~1000            | 0.14              | -61.07          | ≤-29.86        | PASS    |
|           |         |         | 1000~26500         | 0.14              | -50.96          | ≤-29.86        | PASS    |
|           | Ant2    | 2412    | Reference          | 2.36              | 2.36            | ---            | PASS    |
|           |         |         | 30~1000            | 2.36              | -60.18          | ≤-27.64        | PASS    |
|           |         |         | 1000~26500         | 2.36              | -53             | ≤-27.64        | PASS    |
|           | Ant1    | 2437    | Reference          | -1.55             | -1.55           | ---            | PASS    |
|           |         |         | 30~1000            | -1.55             | -60.71          | ≤-31.55        | PASS    |
|           |         |         | 1000~26500         | -1.55             | -50.74          | ≤-31.55        | PASS    |
|           | Ant2    | 2437    | Reference          | 0.26              | 0.26            | ---            | PASS    |
|           |         |         | 30~1000            | 0.26              | -60.66          | ≤-29.75        | PASS    |
|           |         |         | 1000~26500         | 0.26              | -52.15          | ≤-29.75        | PASS    |
|           | Ant1    | 2462    | Reference          | -0.18             | -0.18           | ---            | PASS    |
|           |         |         | 30~1000            | -0.18             | -61.23          | ≤-30.18        | PASS    |
|           |         |         | 1000~26500         | -0.18             | -52.68          | ≤-30.18        | PASS    |
|           | Ant2    | 2462    | Reference          | 1.01              | 1.01            | ---            | PASS    |
|           |         |         | 30~1000            | 1.01              | -60.63          | ≤-28.99        | PASS    |
|           |         |         | 1000~26500         | 1.01              | -50.95          | ≤-28.99        | PASS    |
| 11N20MIMO | Ant1    | 2412    | Reference          | -2.20             | -2.20           | ---            | PASS    |
|           |         |         | 30~1000            | -2.20             | -60.55          | ≤-32.2         | PASS    |
|           |         |         | 1000~26500         | -2.20             | -52.29          | ≤-32.2         | PASS    |
|           | Ant2    | 2412    | Reference          | 0.69              | 0.69            | ---            | PASS    |

|           |      |      |            |       |         |         |      |
|-----------|------|------|------------|-------|---------|---------|------|
|           |      |      | 30~1000    | 0.69  | -61.24  | ≤-29.31 | PASS |
|           |      |      | 1000~26500 | 0.69  | -52.4   | ≤-29.31 | PASS |
|           | Ant1 | 2437 | Reference  | -1.71 | -1.71   | ---     | PASS |
|           |      |      | 30~1000    | -1.71 | -61.26  | ≤-31.71 | PASS |
|           | Ant2 | 2437 | 1000~26500 | -1.71 | -52.39  | ≤-31.71 | PASS |
|           |      |      | Reference  | -3.75 | -3.75   | ---     | PASS |
|           |      |      | 30~1000    | -3.75 | -59.3   | ≤-33.75 | PASS |
|           | Ant1 | 2462 | 1000~26500 | -3.75 | -52.51  | ≤-33.75 | PASS |
|           |      |      | Reference  | -0.78 | -0.78   | ---     | PASS |
|           |      |      | 30~1000    | -0.78 | -61.57  | ≤-30.78 | PASS |
|           | Ant2 | 2462 | 1000~26500 | -0.78 | -52.28  | ≤-30.78 | PASS |
|           |      |      | Reference  | -1.98 | -1.98   | ---     | PASS |
| 30~1000   |      |      | -1.98      | -59.5 | ≤-31.98 | PASS    |      |
| 11N40MIMO | Ant1 | 2422 | 1000~26500 | -1.98 | -51.44  | ≤-31.98 | PASS |
|           |      |      | Reference  | -2.84 | -2.84   | ---     | PASS |
|           |      |      | 30~1000    | -2.84 | -61.04  | ≤-32.84 | PASS |
|           | Ant2 | 2422 | 1000~26500 | -2.84 | -52.49  | ≤-32.84 | PASS |
|           |      |      | Reference  | -5.62 | -5.62   | ---     | PASS |
|           |      |      | 30~1000    | -5.62 | -61.1   | ≤-35.62 | PASS |
|           | Ant1 | 2437 | 1000~26500 | -5.62 | -52.48  | ≤-35.62 | PASS |
|           |      |      | Reference  | -5.53 | -5.53   | ---     | PASS |
|           |      |      | 30~1000    | -5.53 | -60.99  | ≤-35.53 | PASS |
|           | Ant2 | 2437 | 1000~26500 | -5.53 | -51.79  | ≤-35.53 | PASS |
|           |      |      | Reference  | -7.00 | -7.00   | ---     | PASS |
|           |      |      | 30~1000    | -7.00 | -60.2   | ≤-37    | PASS |
|           | Ant1 | 2452 | 1000~26500 | -7.00 | -49.61  | ≤-37    | PASS |
|           |      |      | Reference  | -4.84 | -4.84   | ---     | PASS |
|           |      |      | 30~1000    | -4.84 | -60.65  | ≤-34.84 | PASS |
|           | Ant2 | 2452 | 1000~26500 | -4.84 | -52.38  | ≤-34.84 | PASS |
|           |      |      | Reference  | -5.63 | -5.63   | ---     | PASS |
|           |      |      | 30~1000    | -5.63 | -61.04  | ≤-35.63 | PASS |
|           |      |      | 1000~26500 | -5.63 | -45.8   | ≤-35.63 | PASS |

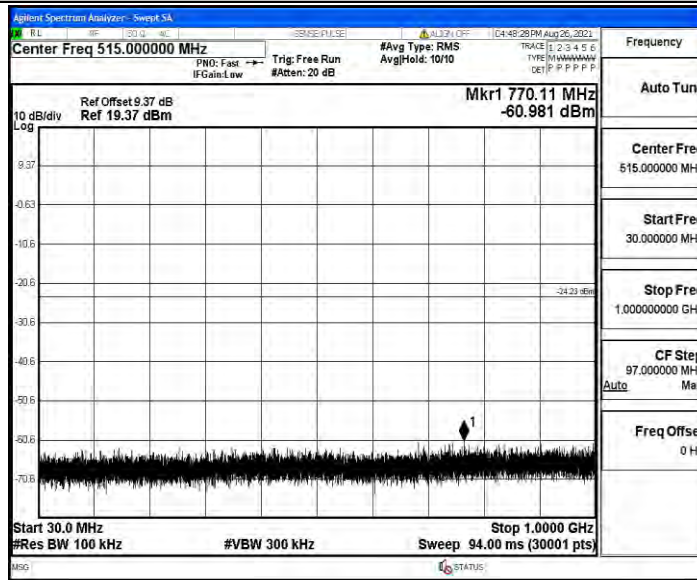
Test Graphs



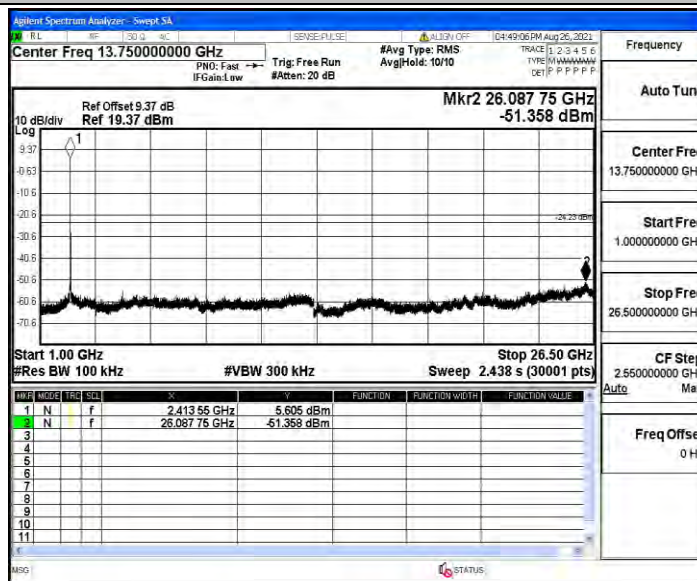
11B\_Ant2\_2412\_0~Reference



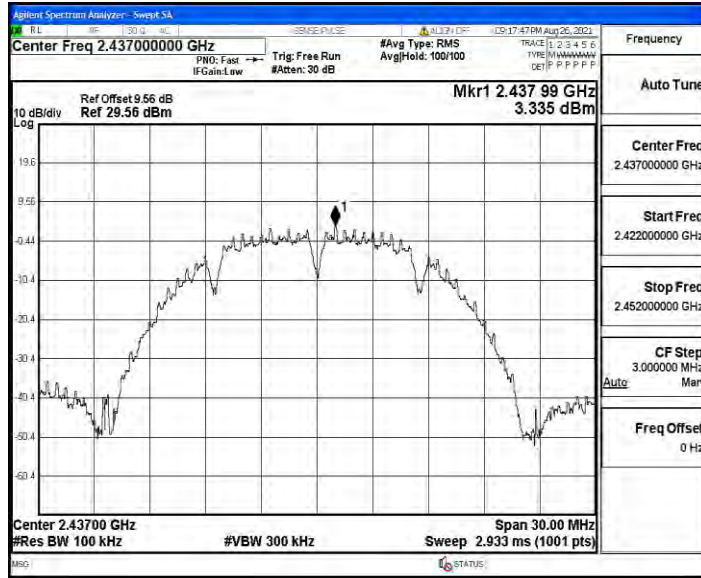
11B\_Ant2\_2412\_30~1000



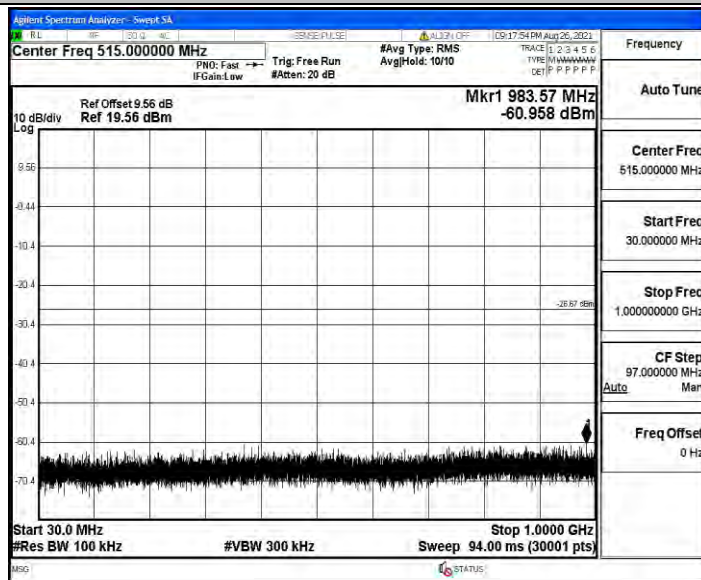
11B\_Ant2\_2412\_1000~26500



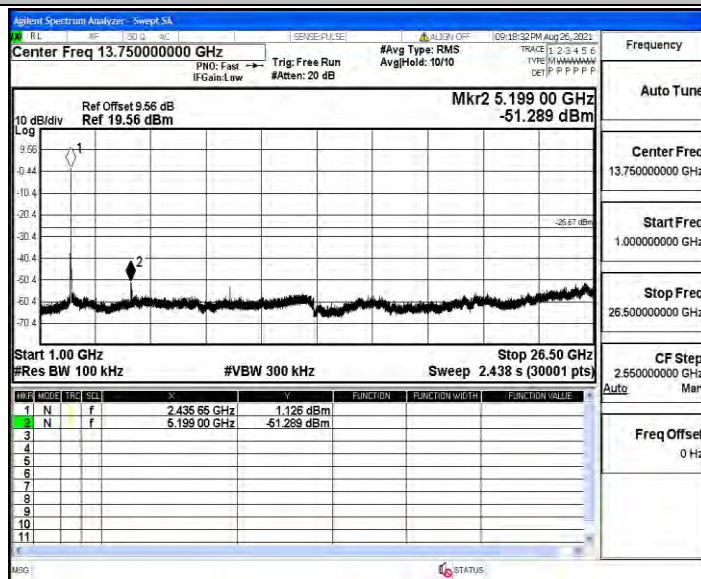
11B\_Ant1\_2437\_0~Reference



11B\_Ant1\_2437\_30~1000

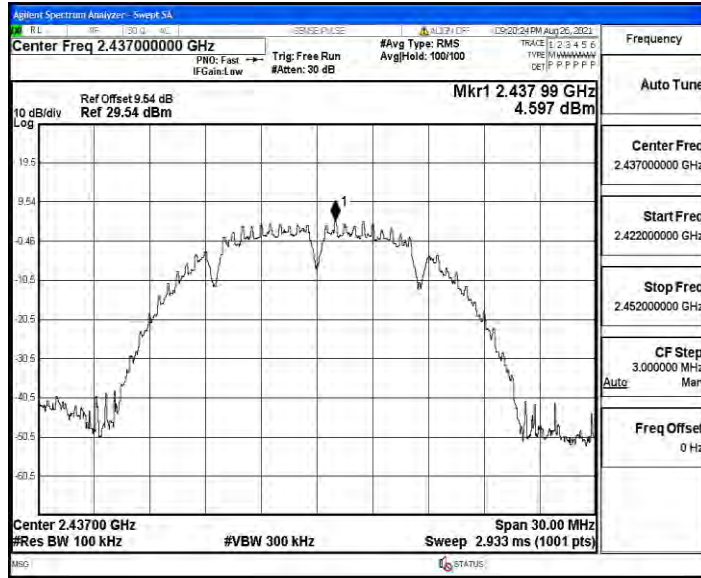


11B\_Ant1\_2437\_1000~26500

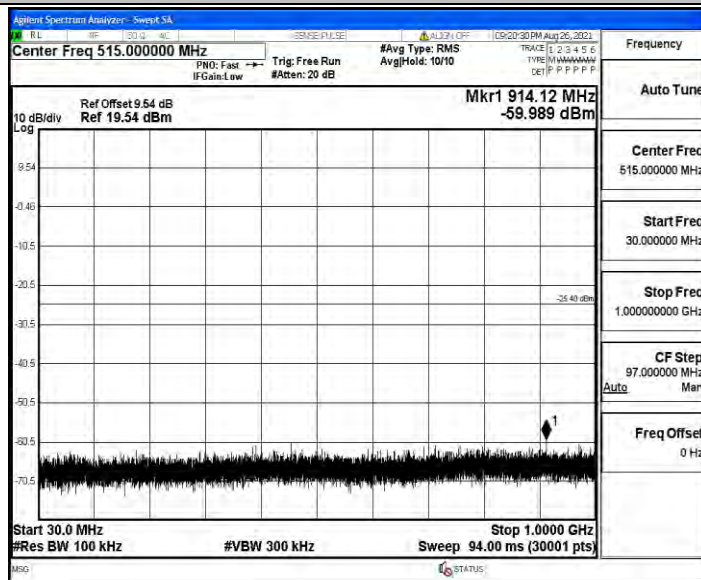


11B\_Ant2\_2437\_0~Reference

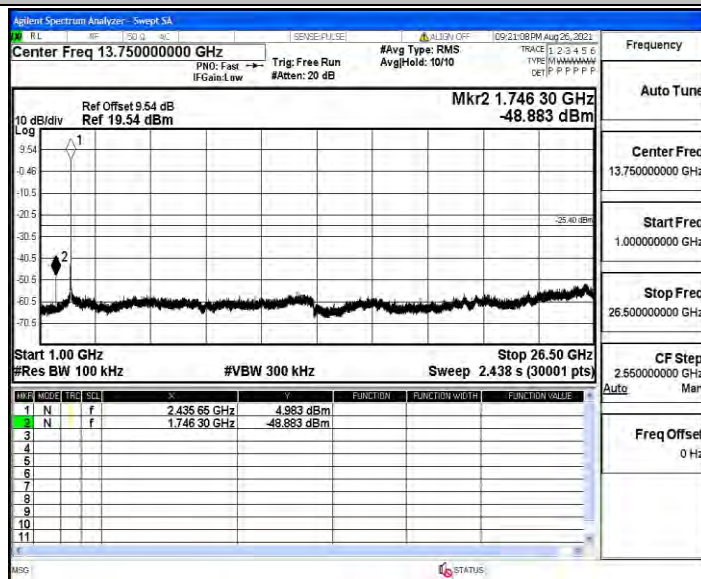




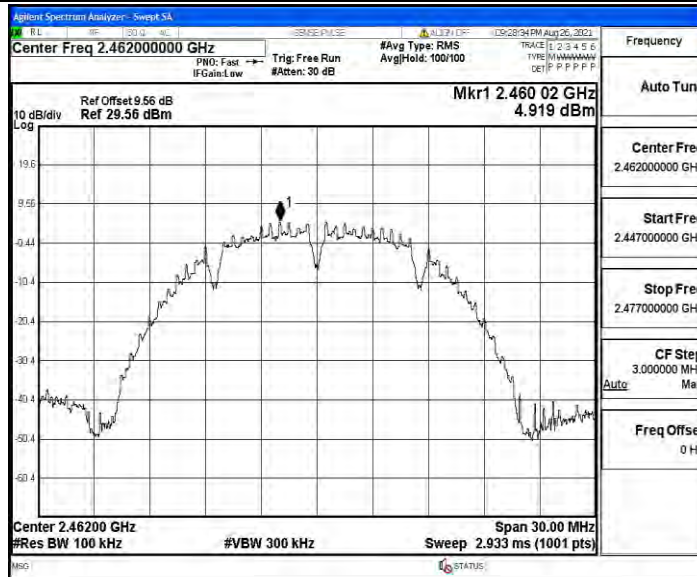
11B\_Ant2\_2437\_30~1000



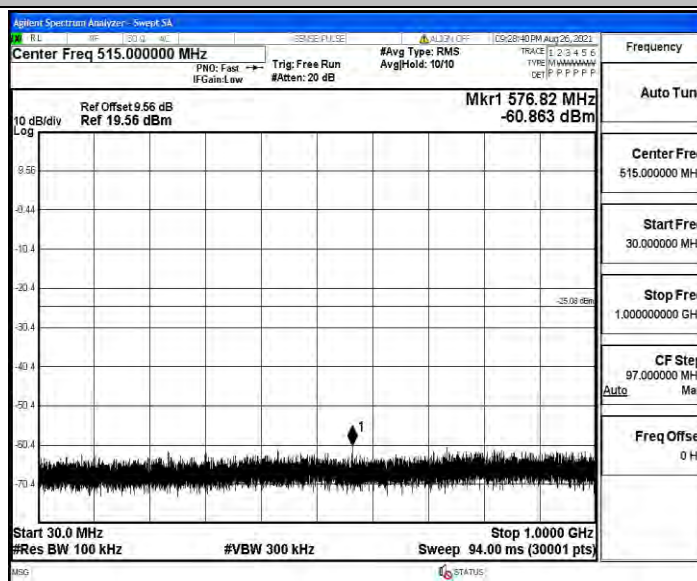
11B\_Ant2\_2437\_1000~26500



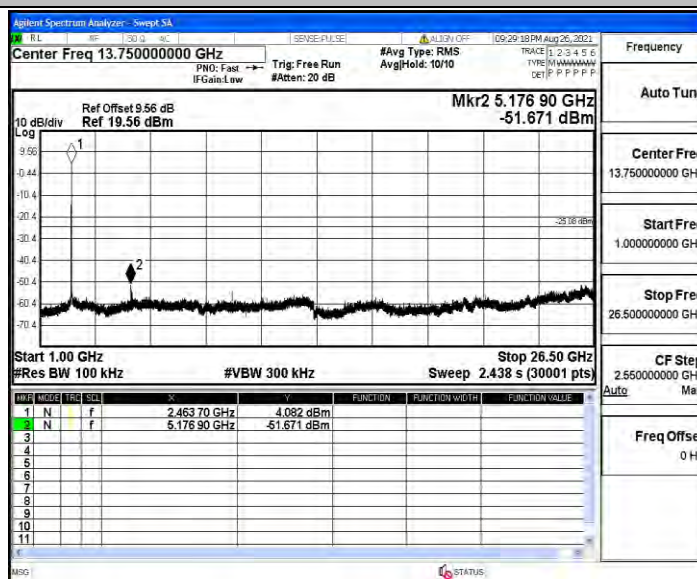
11B\_Ant1\_2462\_0~Reference



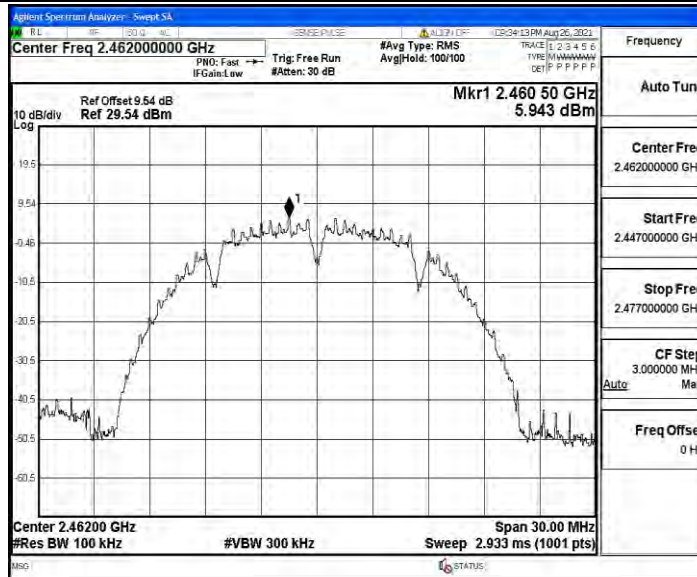
11B\_Ant1\_2462\_30~1000



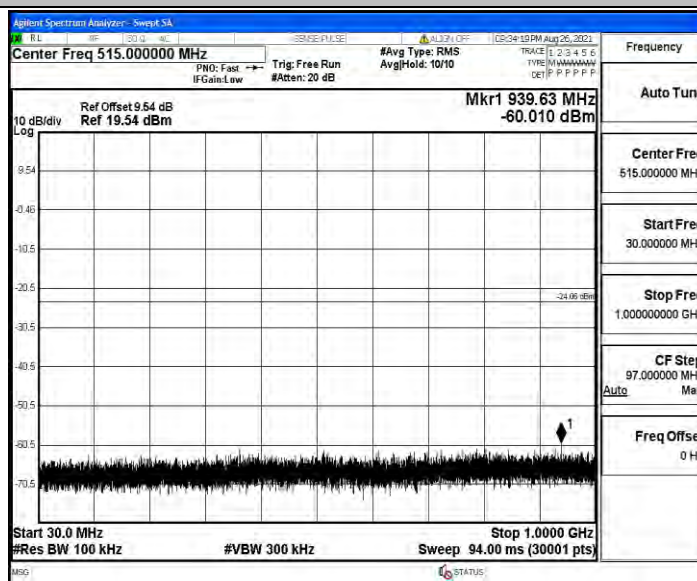
11B\_Ant1\_2462\_1000~26500



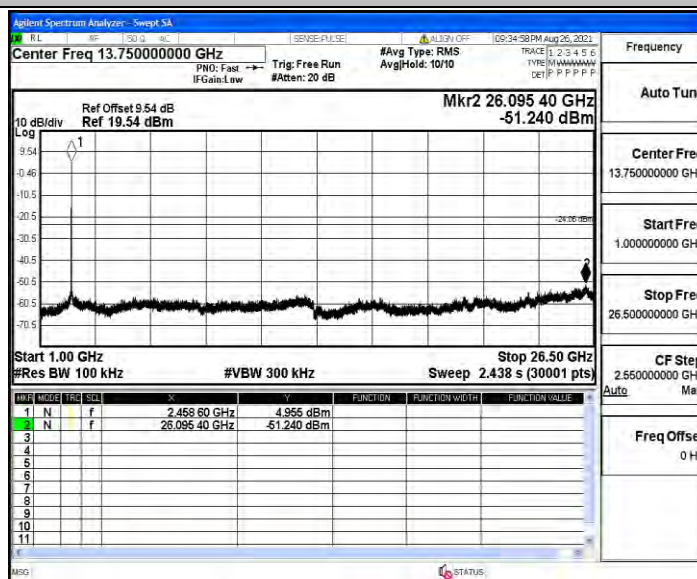
11B\_Ant2\_2462\_0~Reference



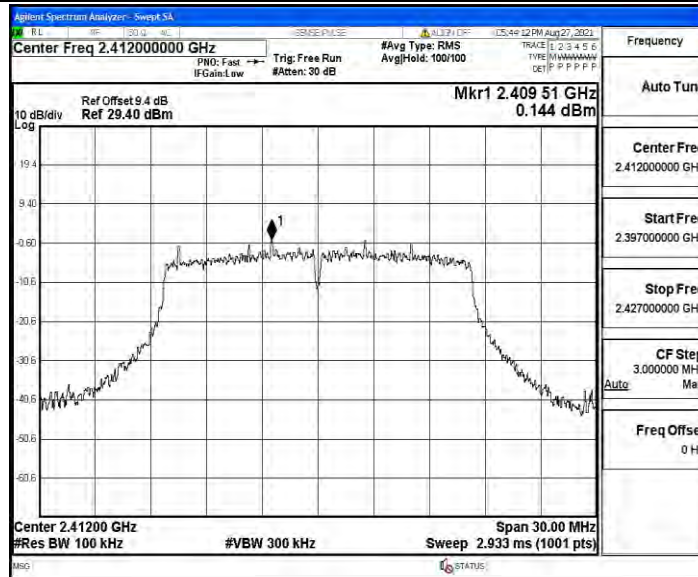
11B\_Ant2\_2462\_30~1000



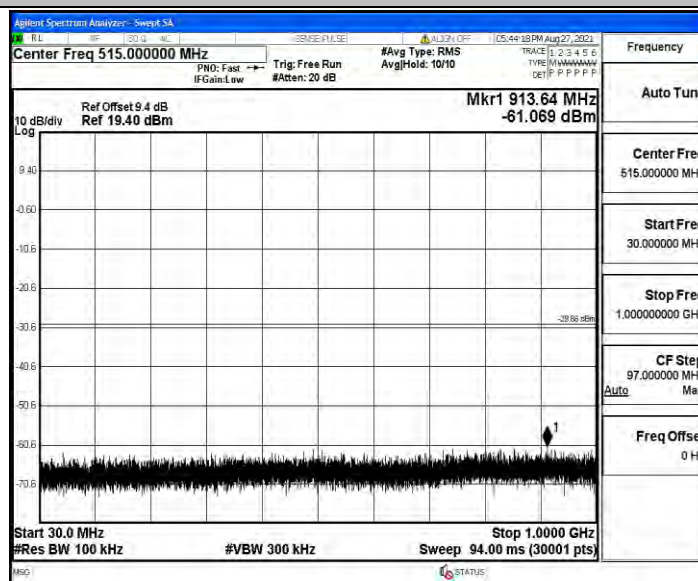
11B\_Ant2\_2462\_1000~26500



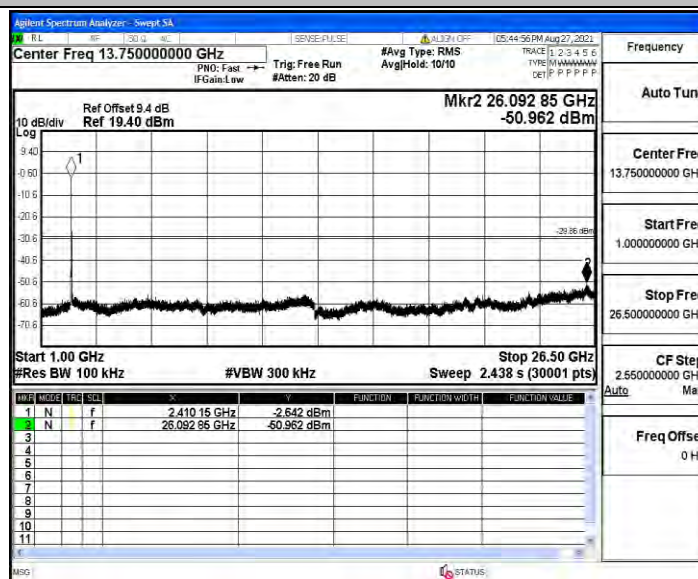
11G\_Ant1\_2412\_0~Reference



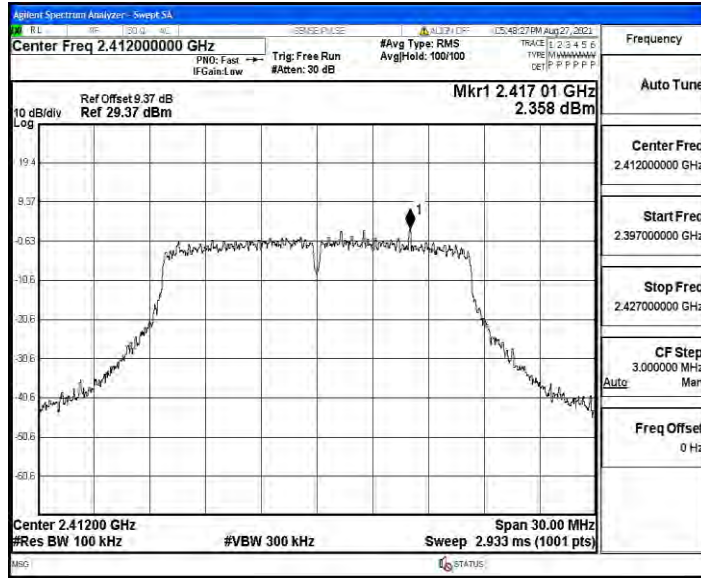
11G\_Ant1\_2412\_30~1000



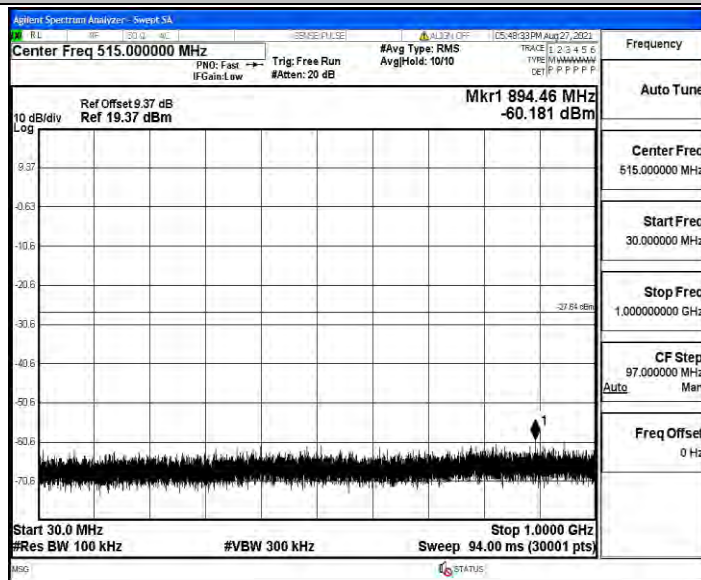
11G\_Ant1\_2412\_1000~26500



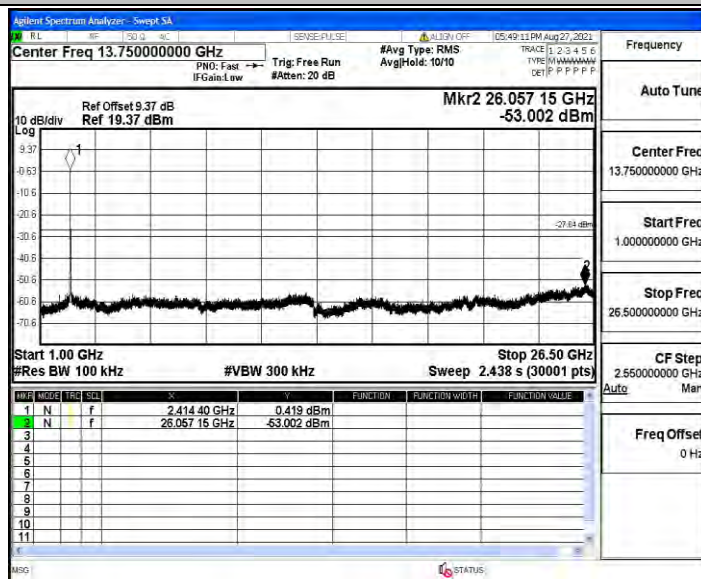
11G\_Ant2\_2412\_0~Reference



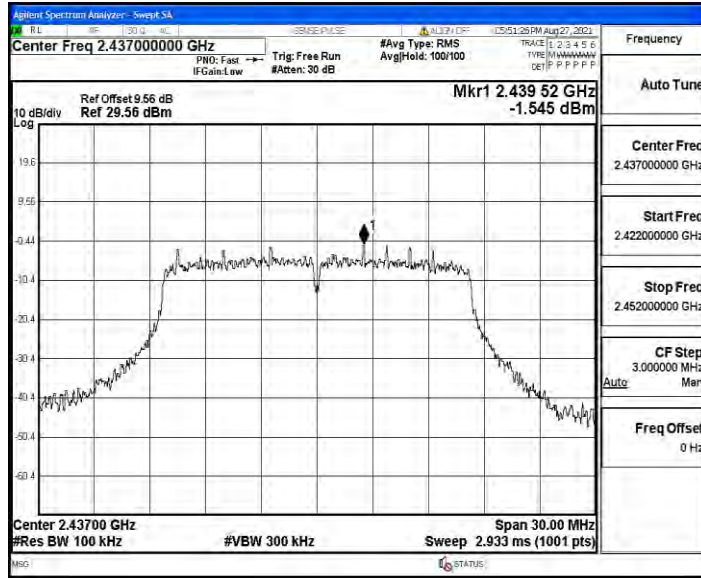
11G\_Ant2\_2412\_30~1000



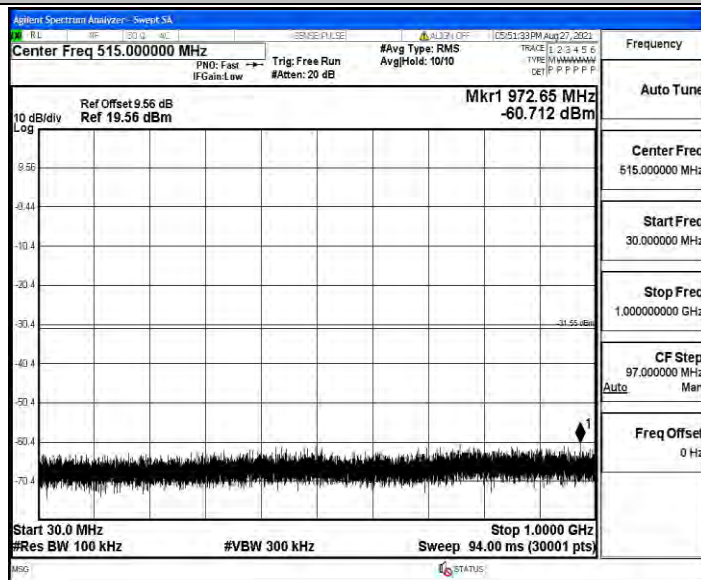
11G\_Ant2\_2412\_1000~26500



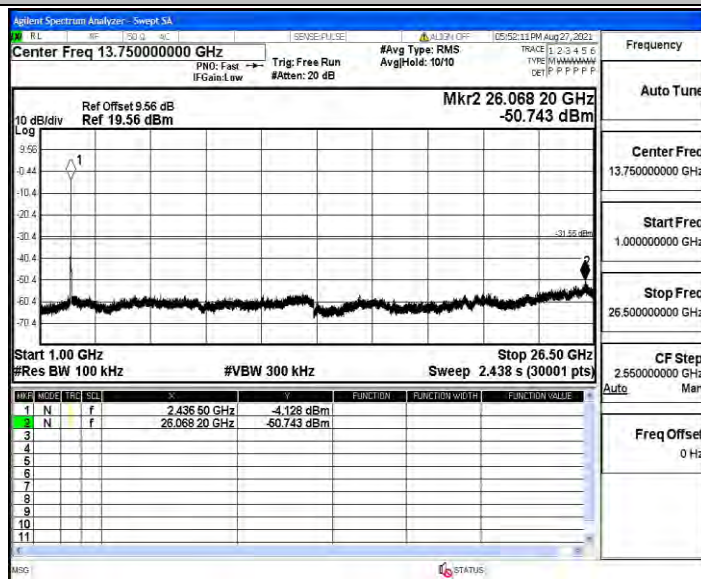
11G\_Ant1\_2437\_0~Reference



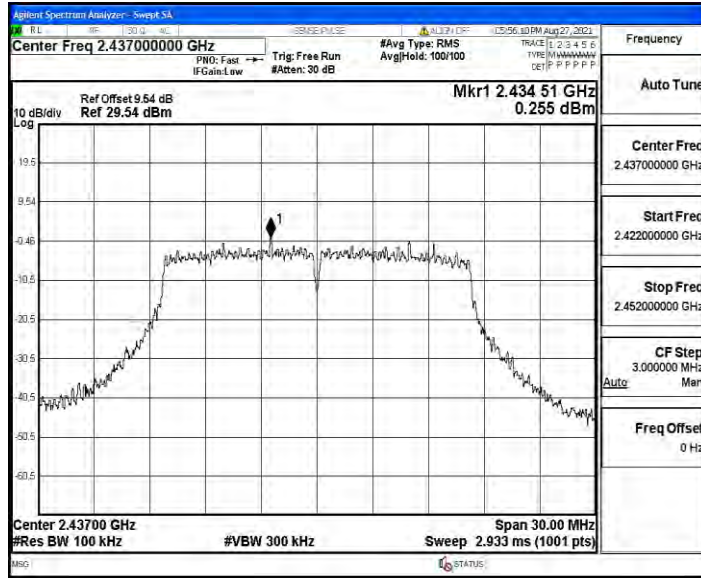
11G\_Ant1\_2437\_30~1000



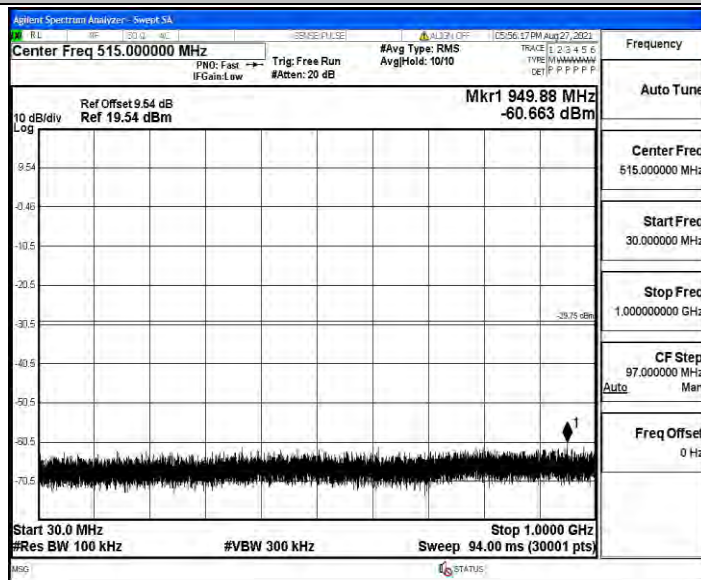
11G\_Ant1\_2437\_1000~26500



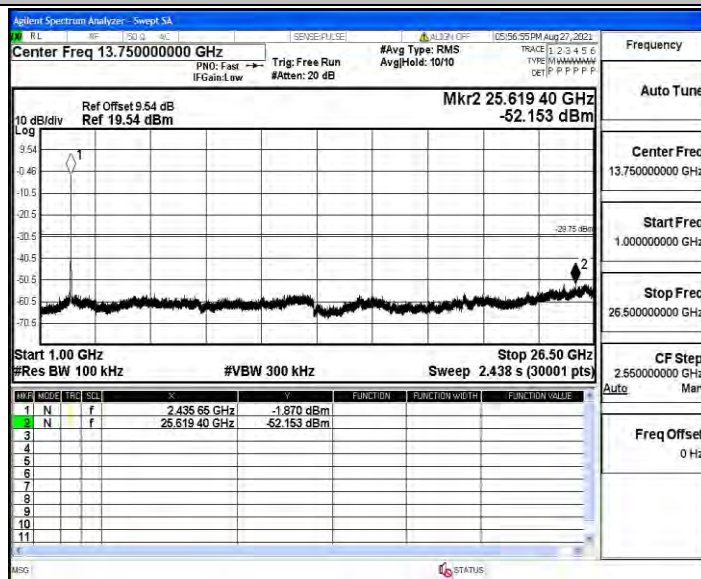
11G\_Ant2\_2437\_0~Reference



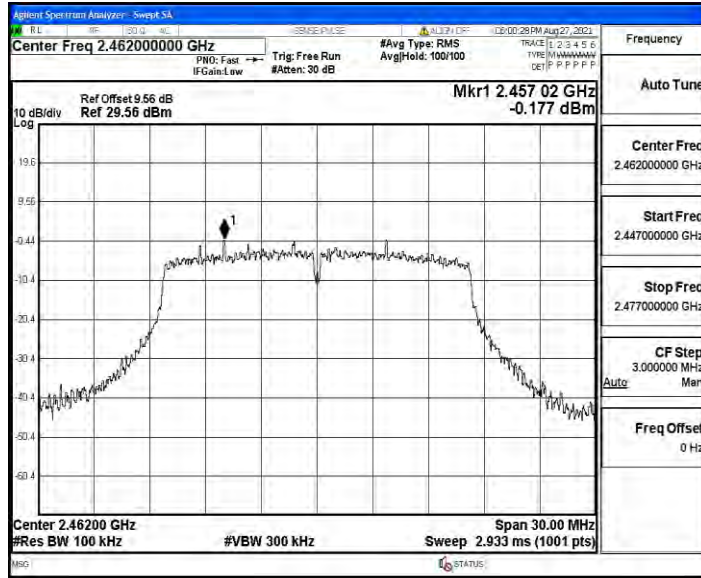
11G\_Ant2\_2437\_30~1000



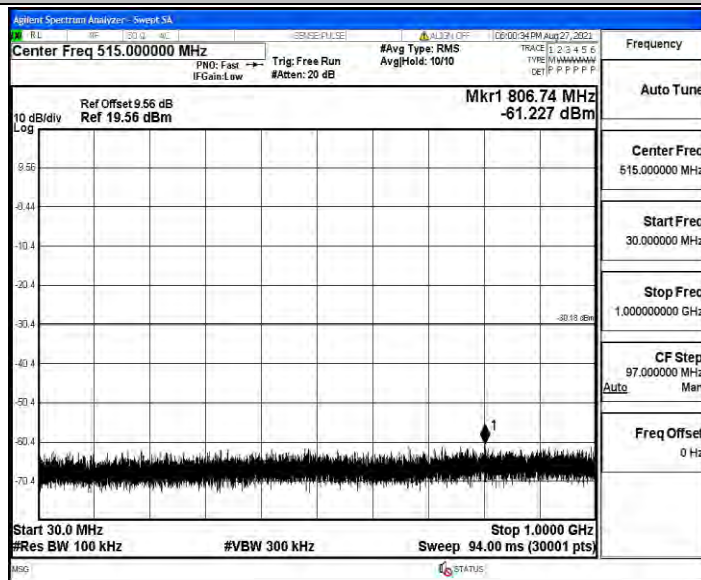
11G\_Ant2\_2437\_1000~26500



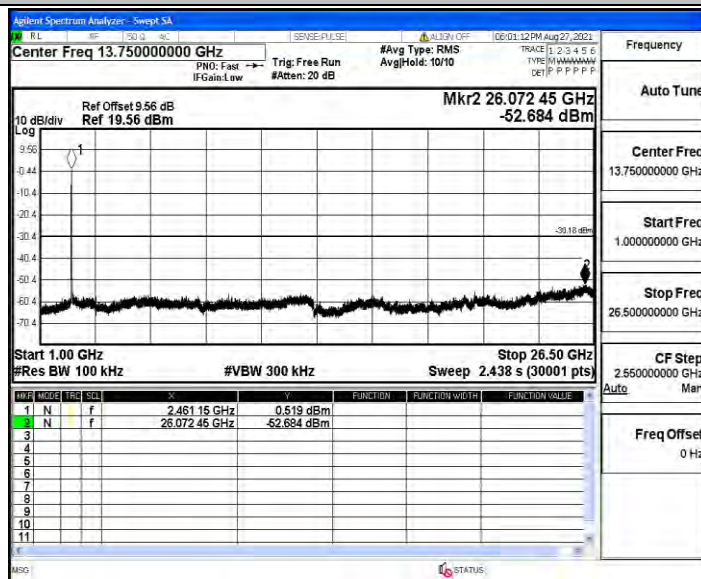
11G\_Ant1\_2462\_0~Reference



11G\_Ant1\_2462\_30~1000

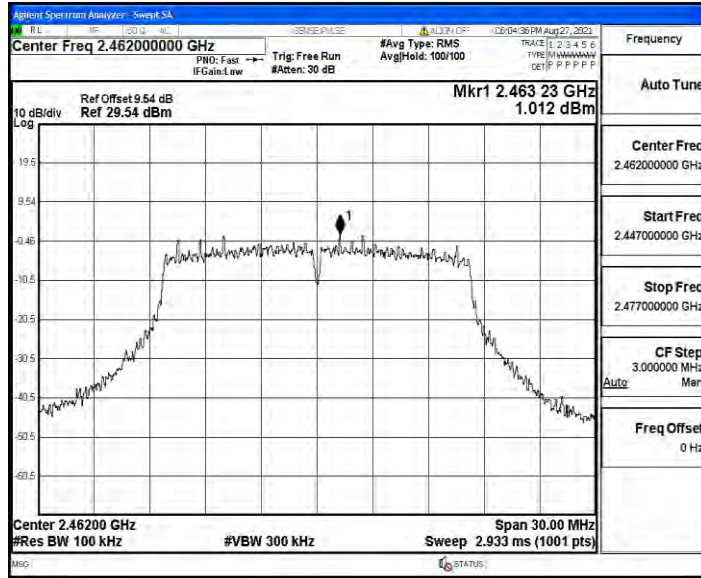


11G\_Ant1\_2462\_1000~26500

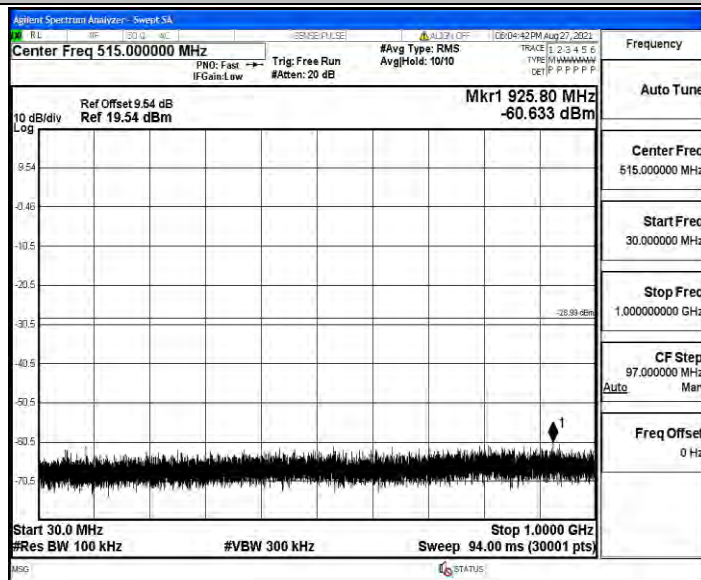


11G\_Ant2\_2462\_0~Reference

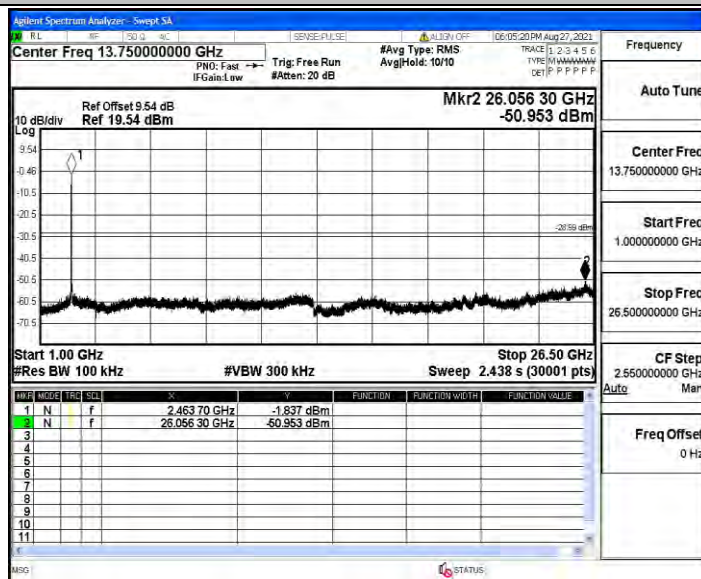




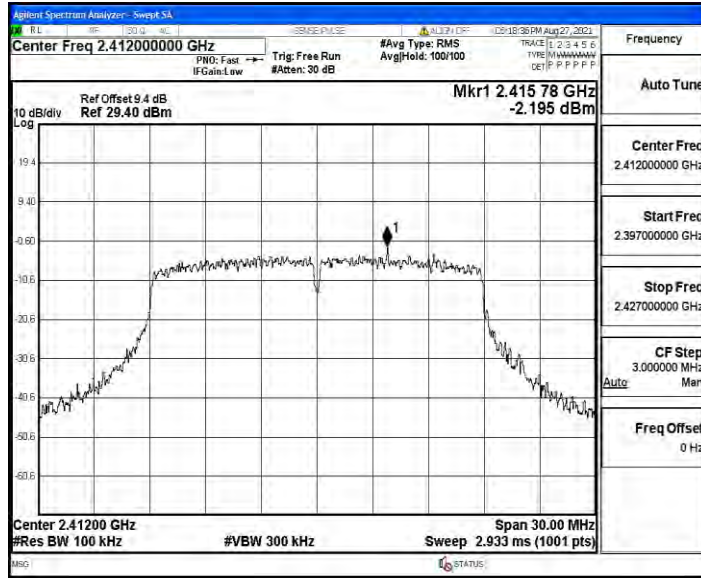
11G\_Ant2\_2462\_30~1000



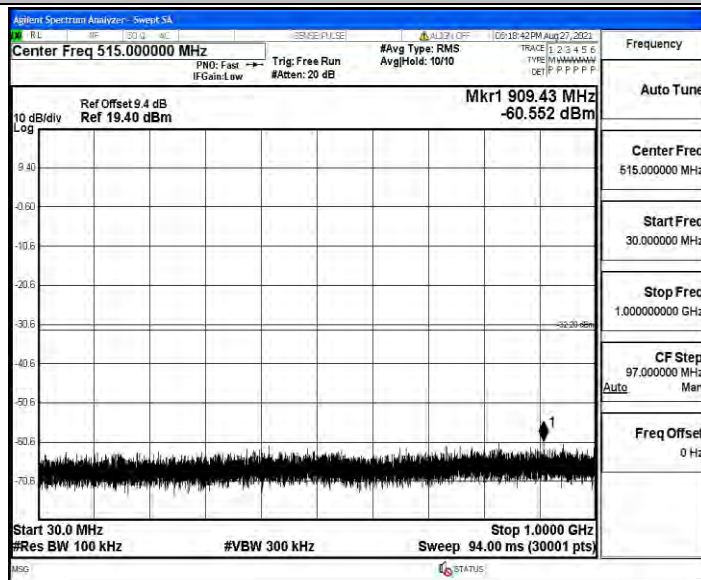
11G\_Ant2\_2462\_1000~26500



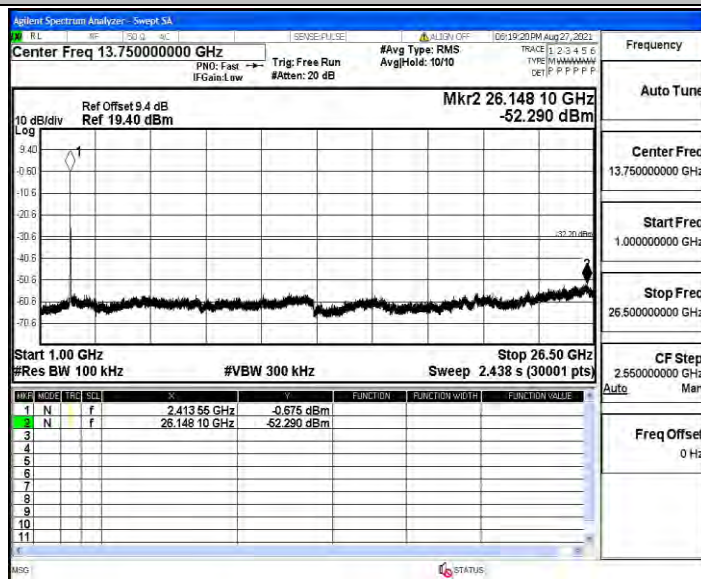
11N20MIMO\_Ant1\_2412\_0~Reference



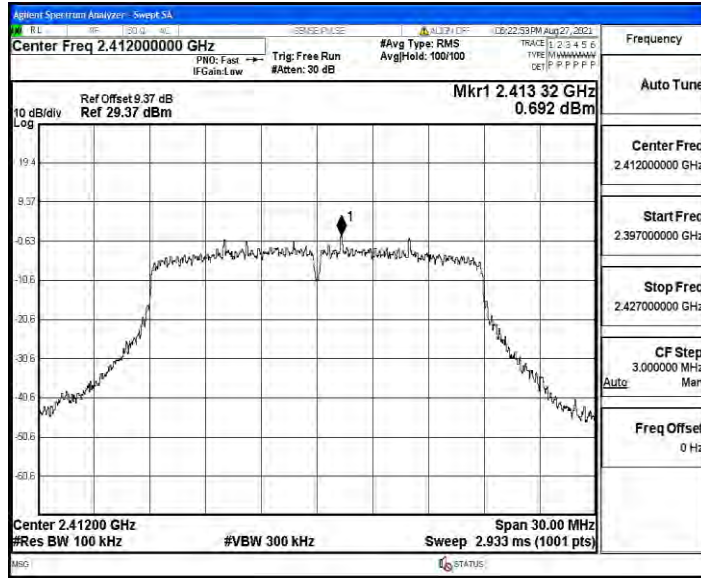
11N20MIMO\_Ant1\_2412\_30~1000



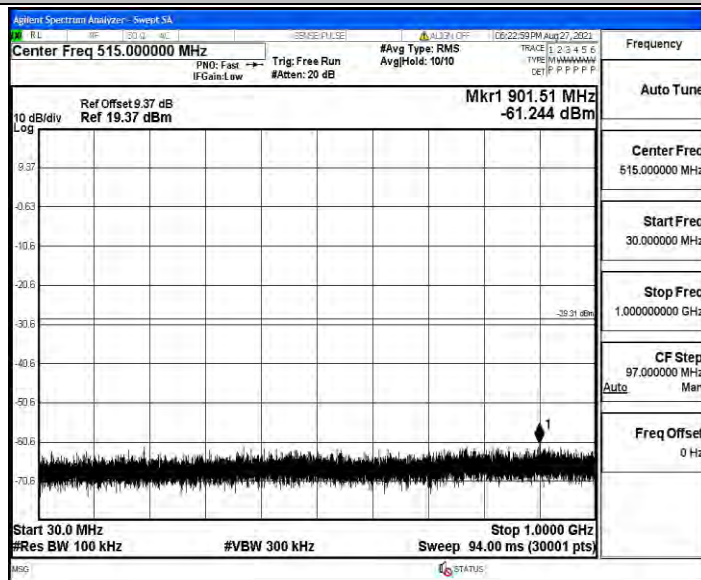
11N20MIMO\_Ant1\_2412\_1000~26500



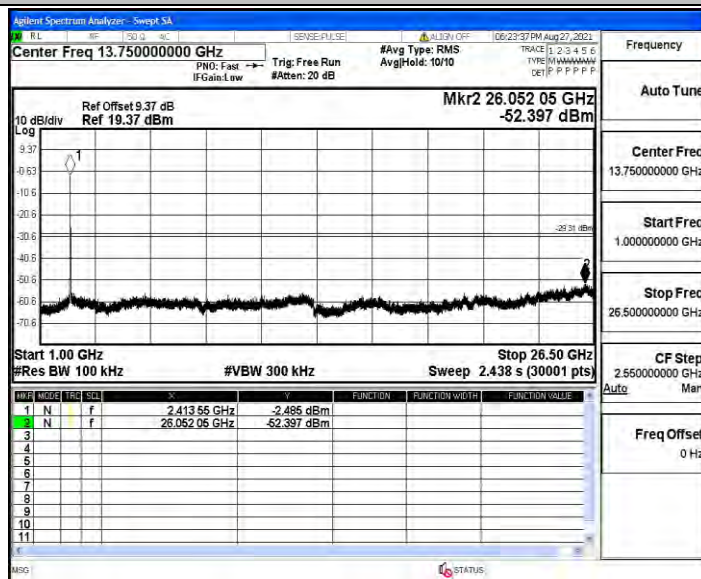
11N20MIMO\_Ant2\_2412\_0~Reference



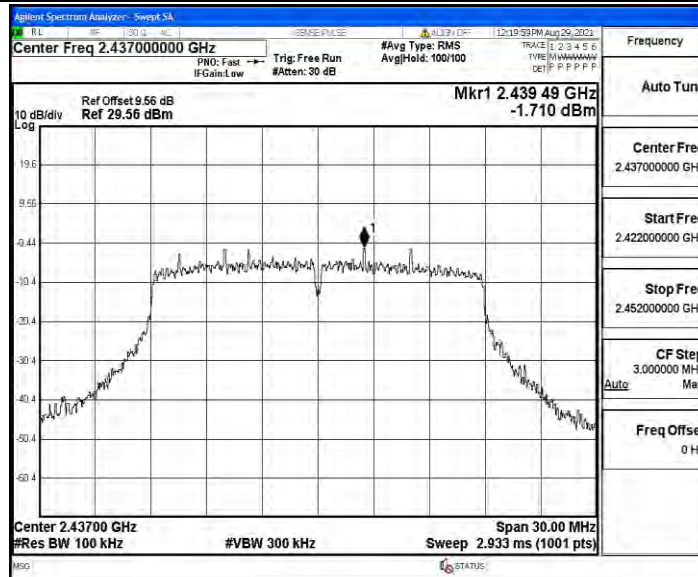
11N20MIMO\_Ant2\_2412\_30~1000



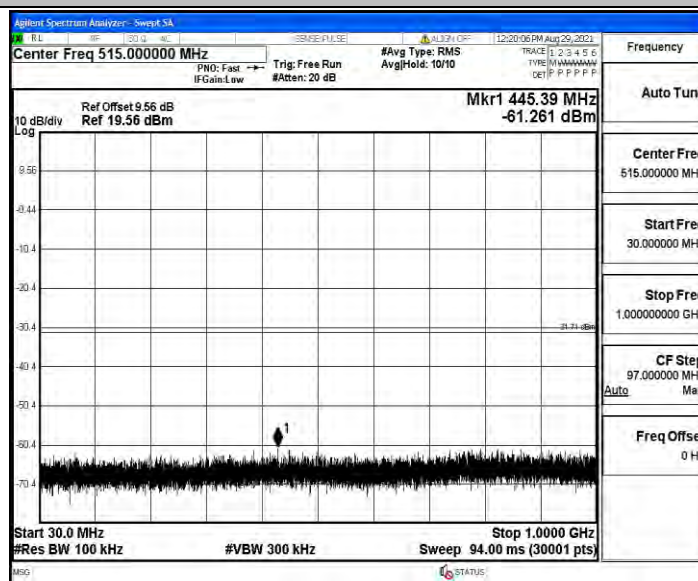
11N20MIMO\_Ant2\_2412\_1000~26500



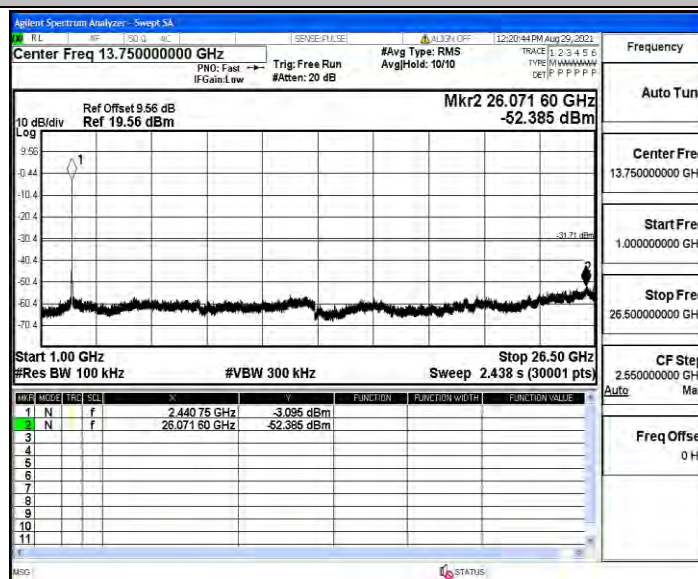
11N20MIMO\_Ant1\_2437\_0~Reference



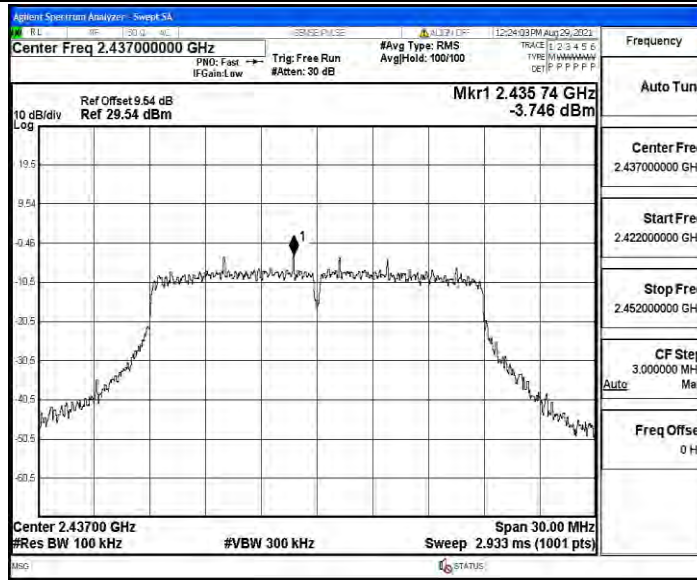
11N20MIMO\_Ant1\_2437\_30~1000



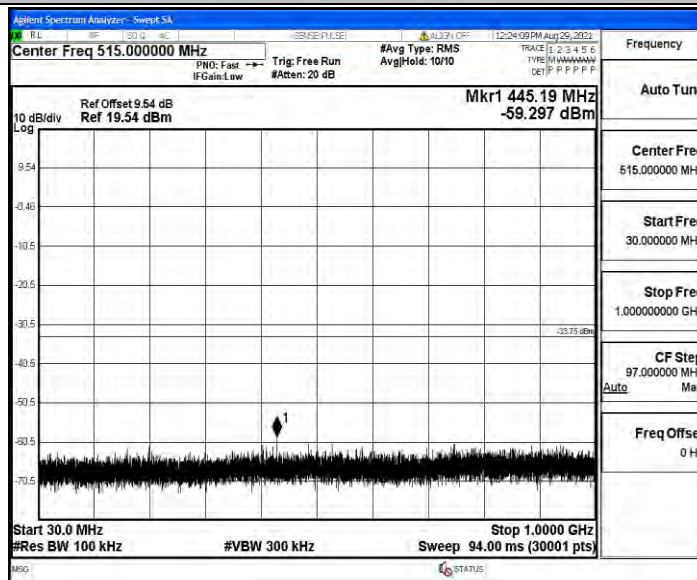
11N20MIMO\_Ant1\_2437\_1000~26500



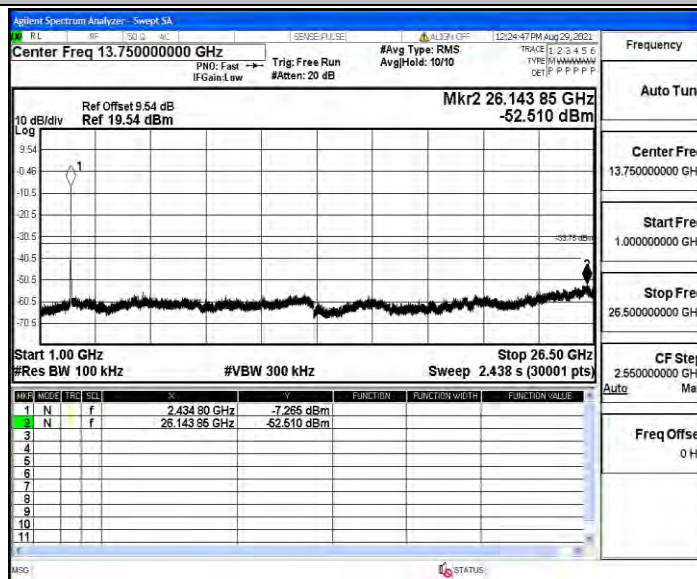
11N20MIMO\_Ant2\_2437\_0~Reference



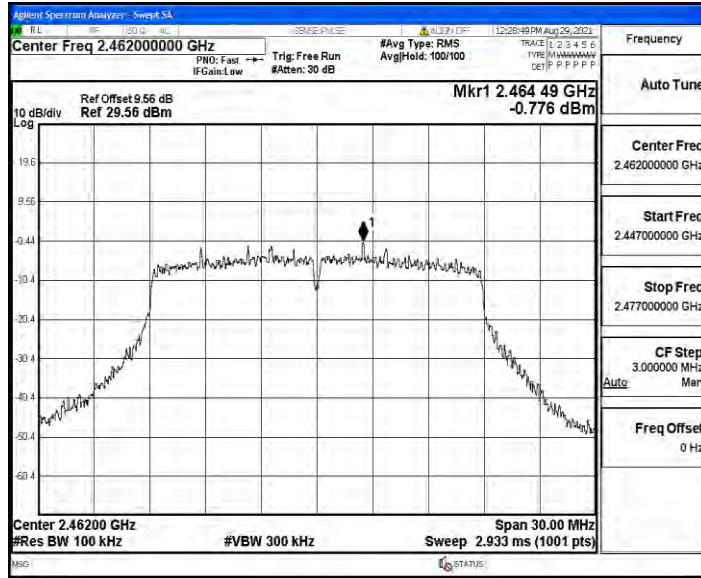
11N20MIMO\_Ant2\_2437\_30~1000



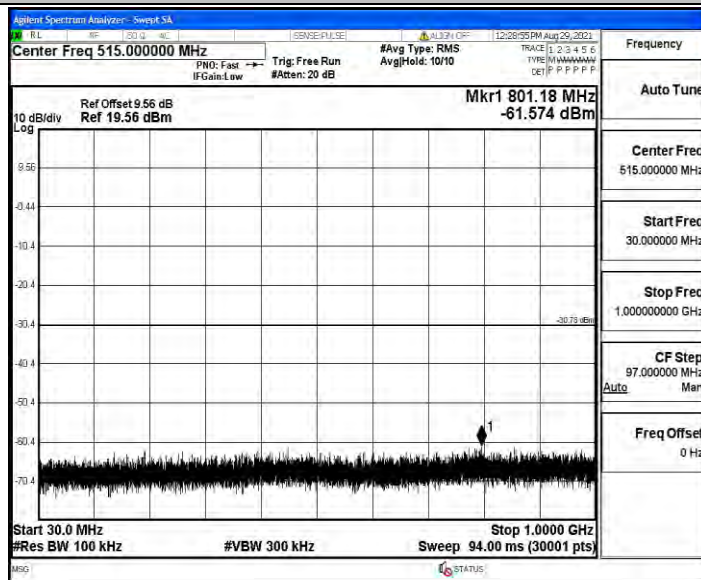
11N20MIMO\_Ant2\_2437\_1000~26500



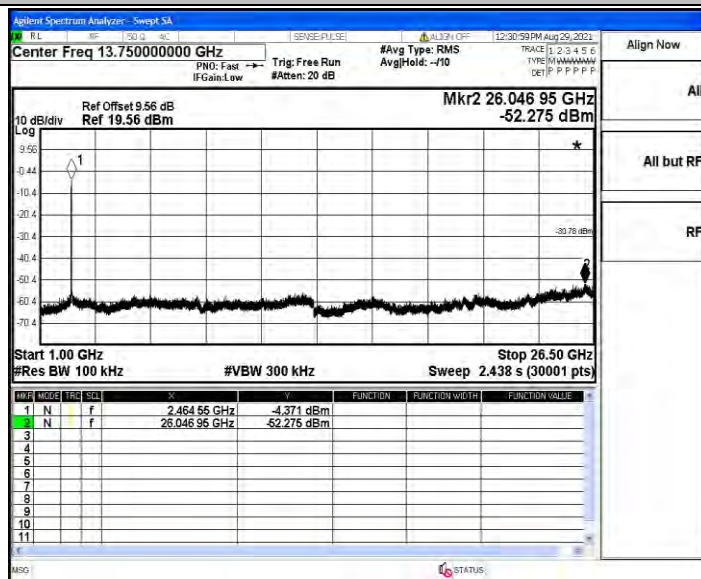
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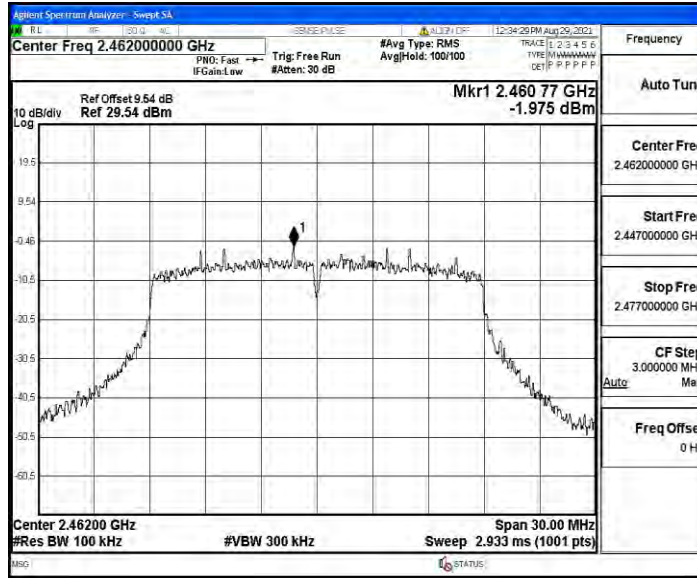
11N20MIMO\_Ant1\_2462\_30~1000



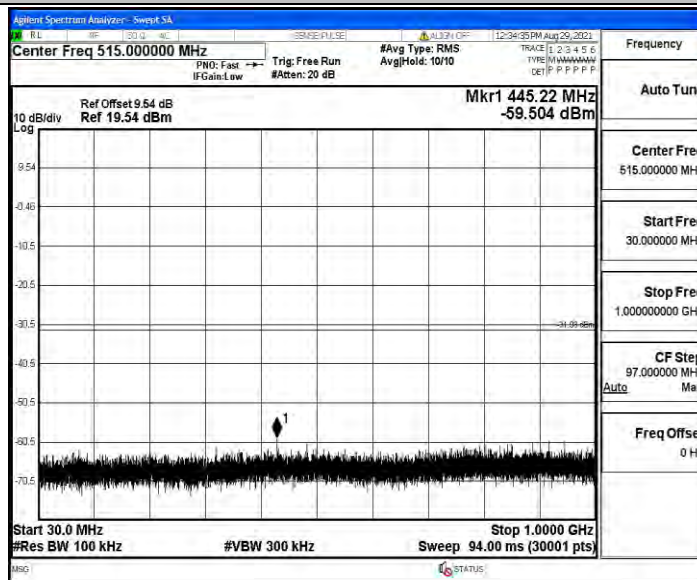
11N20MIMO\_Ant1\_2462\_1000~26500



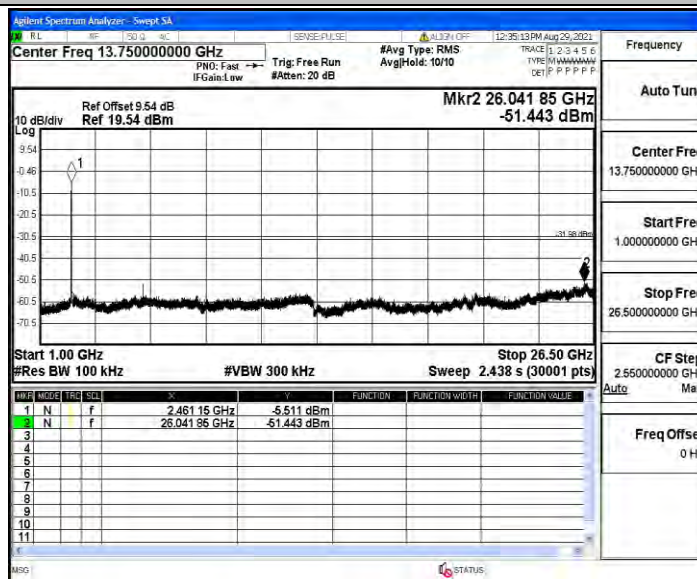
11N20MIMO\_Ant2\_2462\_0~Reference



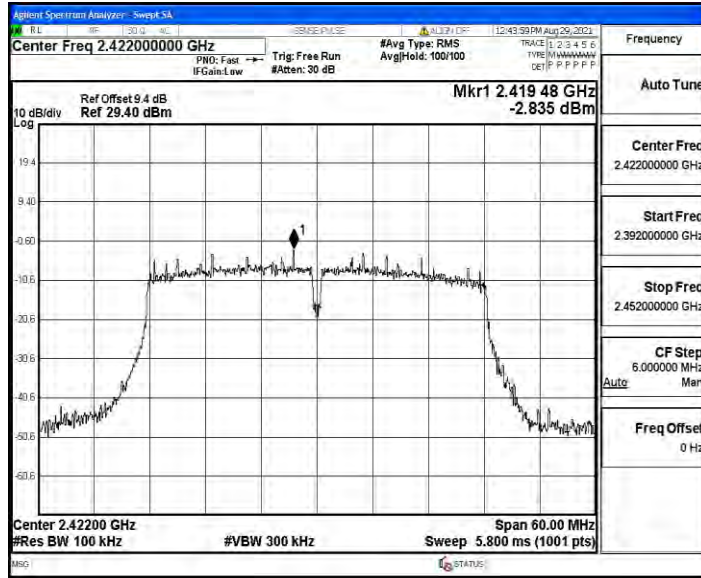
11N20MIMO\_Ant2\_2462\_30~1000



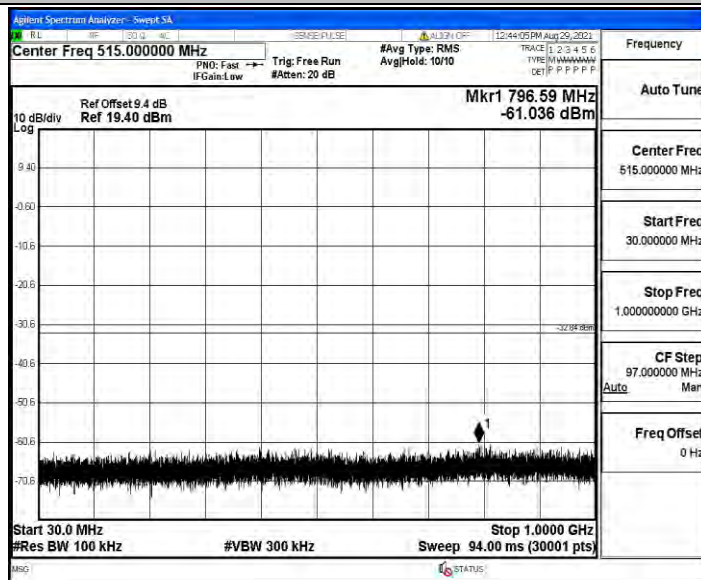
11N20MIMO\_Ant2\_2462\_1000~26500



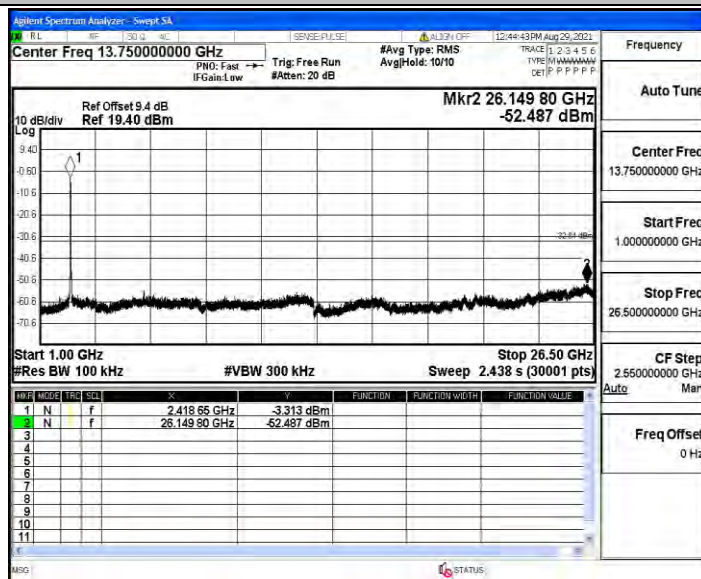
11N40MIMO\_Ant1\_2422\_0~Reference



11N40MIMO\_Ant1\_2422\_30~1000

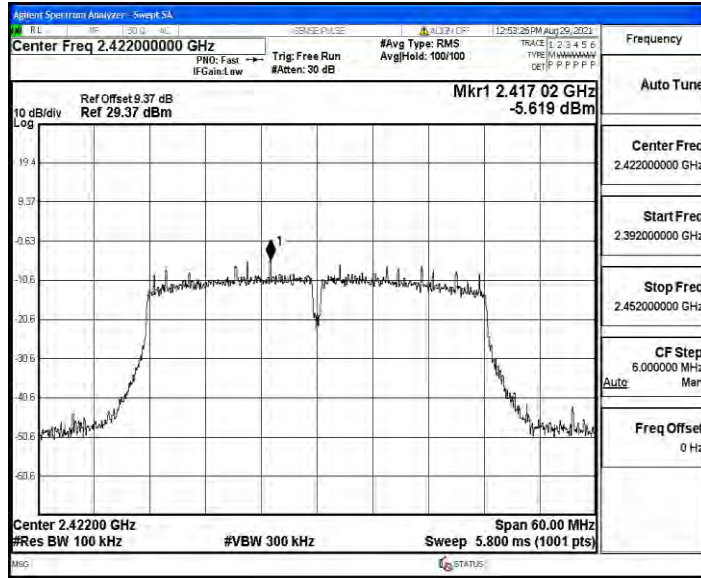


11N40MIMO\_Ant1\_2422\_1000~26500

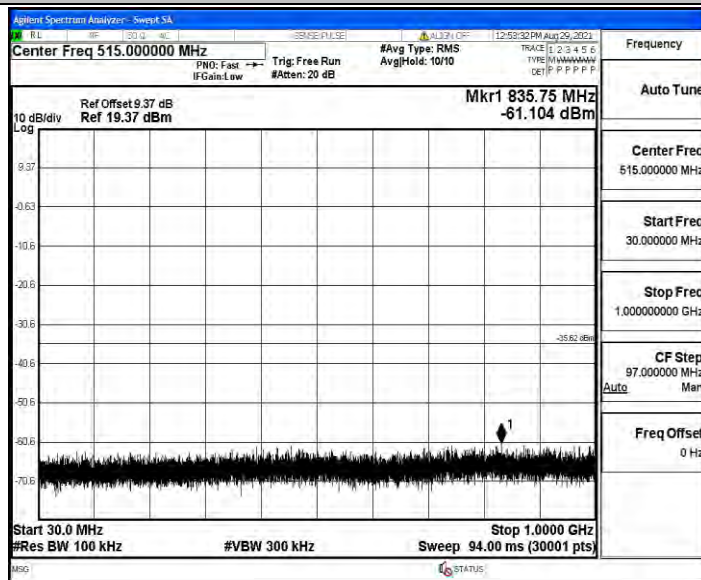


11N40MIMO\_Ant2\_2422\_0~Reference

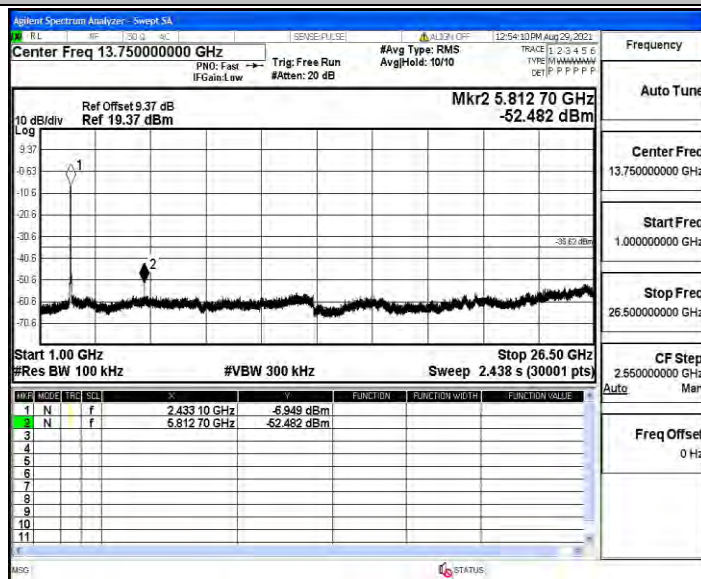




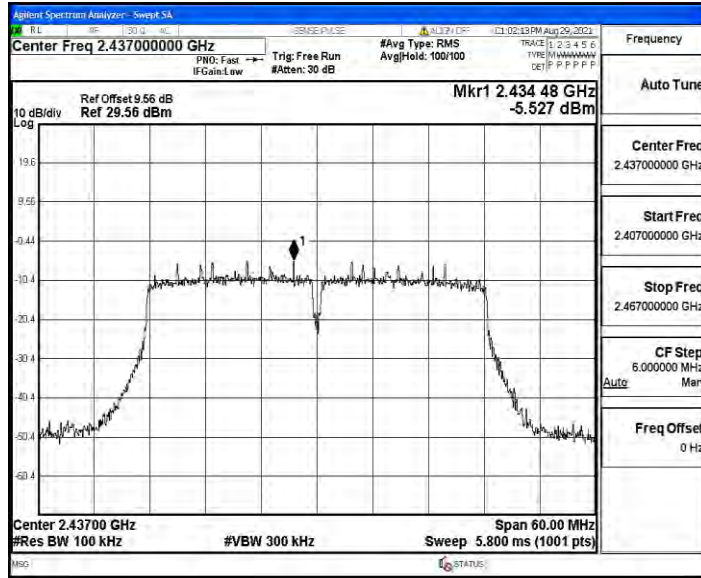
11N40MIMO\_Ant2\_2422\_30~1000



11N40MIMO\_Ant2\_2422\_1000~26500

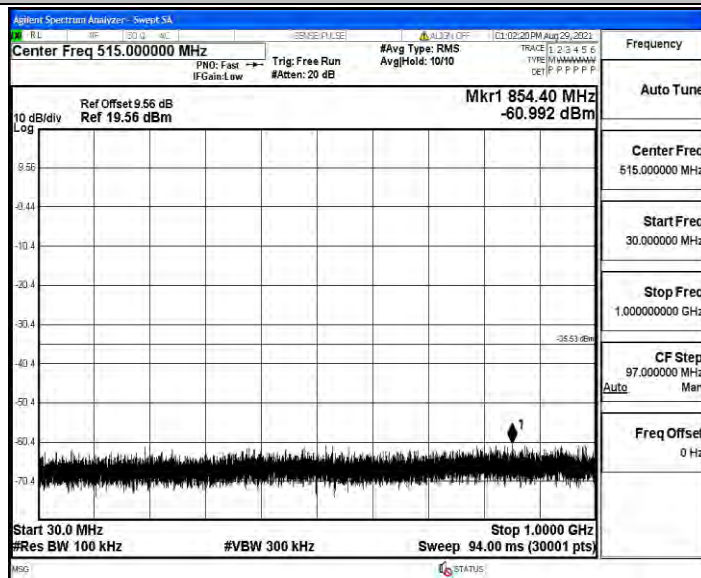


11N40MIMO\_Ant1\_2437\_0~Reference



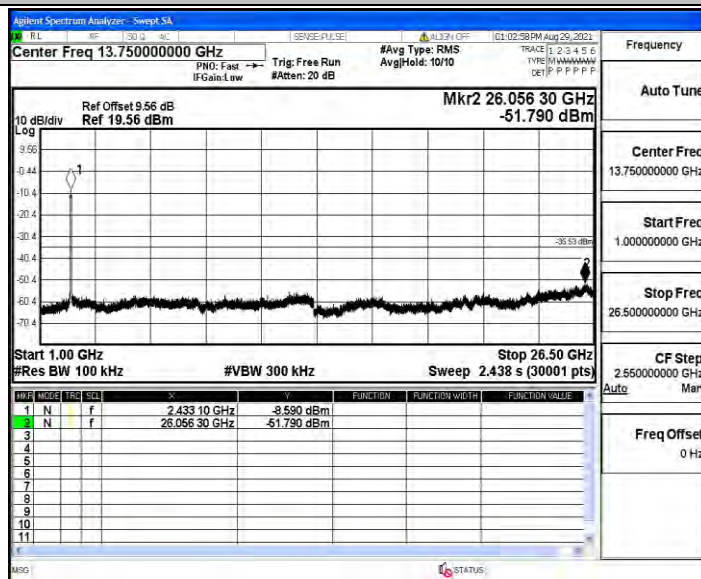
|                                     |
|-------------------------------------|
| Frequency                           |
| Auto Tune                           |
| Center Freq<br>2.43700000 GHz       |
| Start Freq<br>2.407000000 GHz       |
| Stop Freq<br>2.467000000 GHz        |
| CF Step<br>6.000000 MHz<br>Auto Man |
| Freq Offset<br>0 Hz                 |

11N40MIMO\_Ant1\_2437\_30~1000



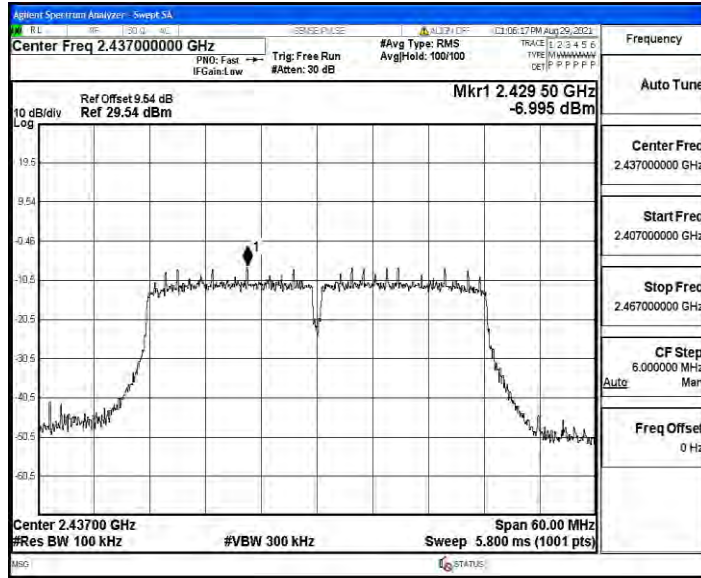
|                                      |
|--------------------------------------|
| Frequency                            |
| Auto Tune                            |
| Center Freq<br>515.000000 MHz        |
| Start Freq<br>30.000000 MHz          |
| Stop Freq<br>1.000000000 GHz         |
| CF Step<br>97.000000 MHz<br>Auto Man |
| Freq Offset<br>0 Hz                  |

11N40MIMO\_Ant1\_2437\_1000~26500

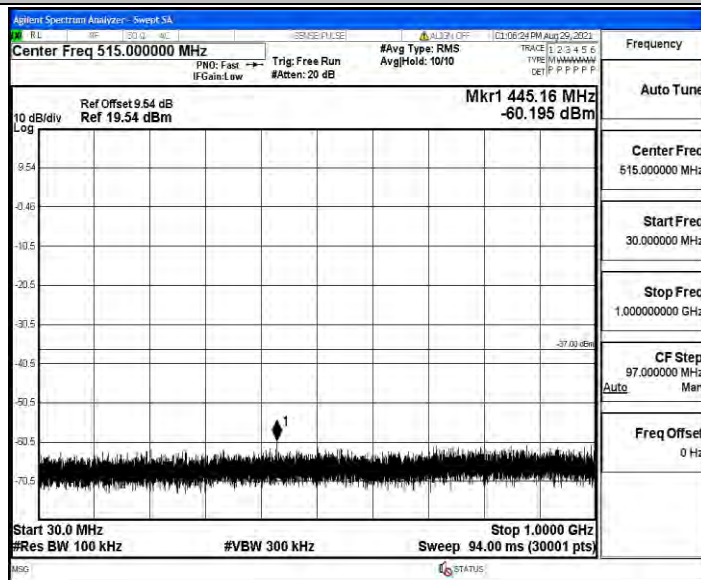


|  |
|--|
| Frequency                              |
| Auto Tune                              |
| Center Freq<br>13.75000000 GHz         |
| Start Freq<br>1.000000000 GHz          |
| Stop Freq<br>26.500000000 GHz          |
| CF Step<br>2.550000000 GHz<br>Auto Man |
| Freq Offset<br>0 Hz                    |

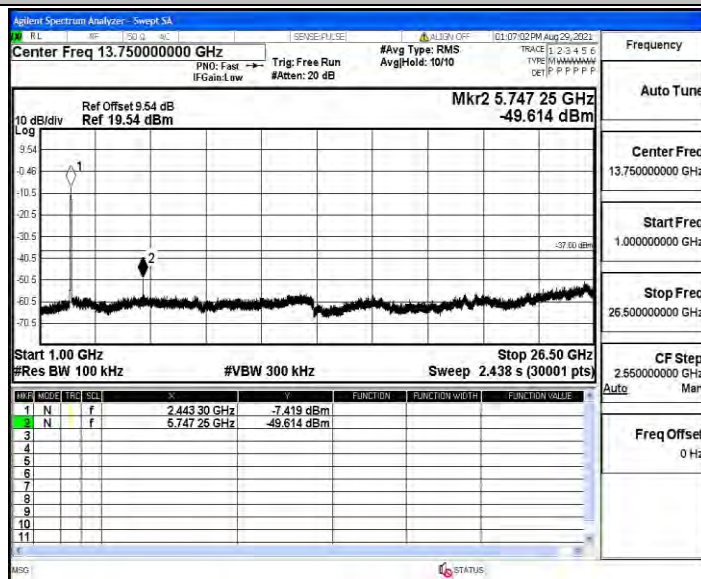
11N40MIMO\_Ant2\_2437\_0~Reference



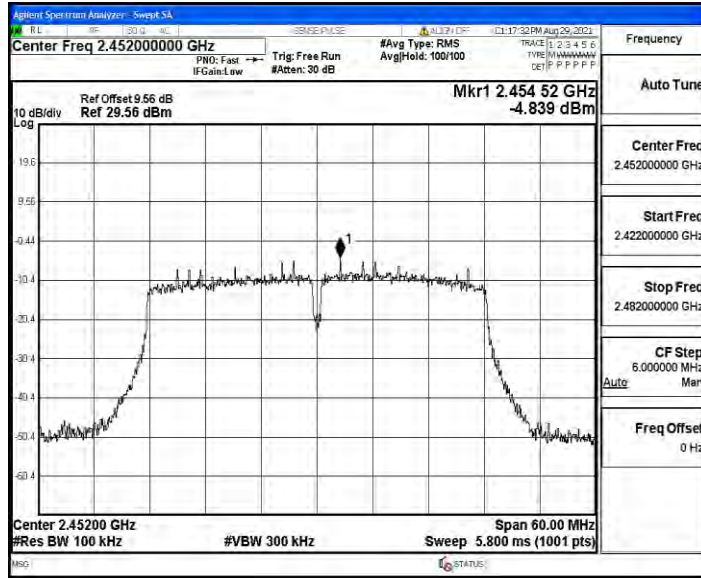
11N40MIMO\_Ant2\_2437\_30~1000



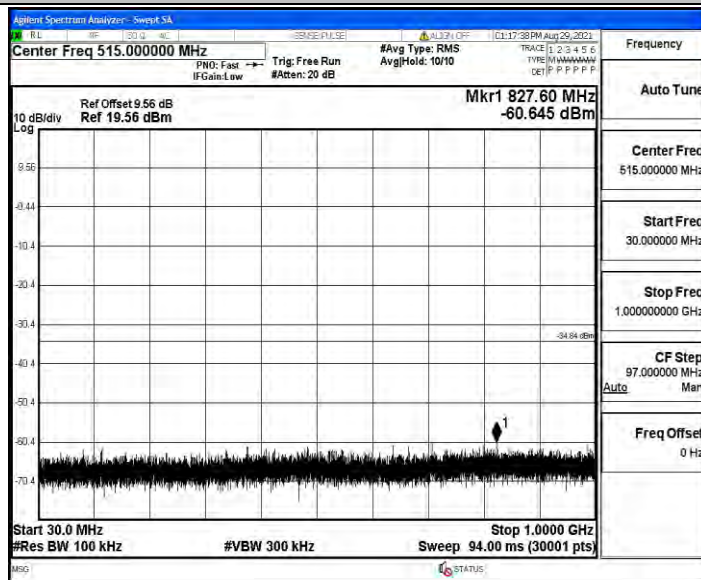
11N40MIMO\_Ant2\_2437\_1000~26500



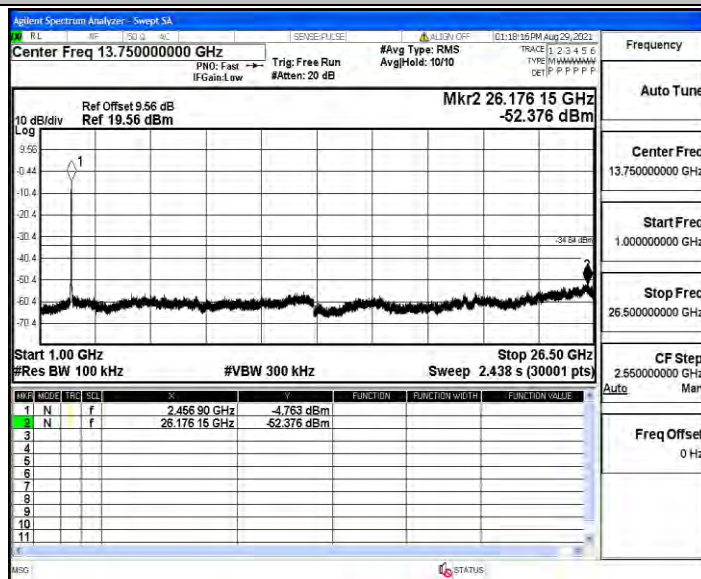
11N40MIMO\_Ant1\_2452\_0~Reference



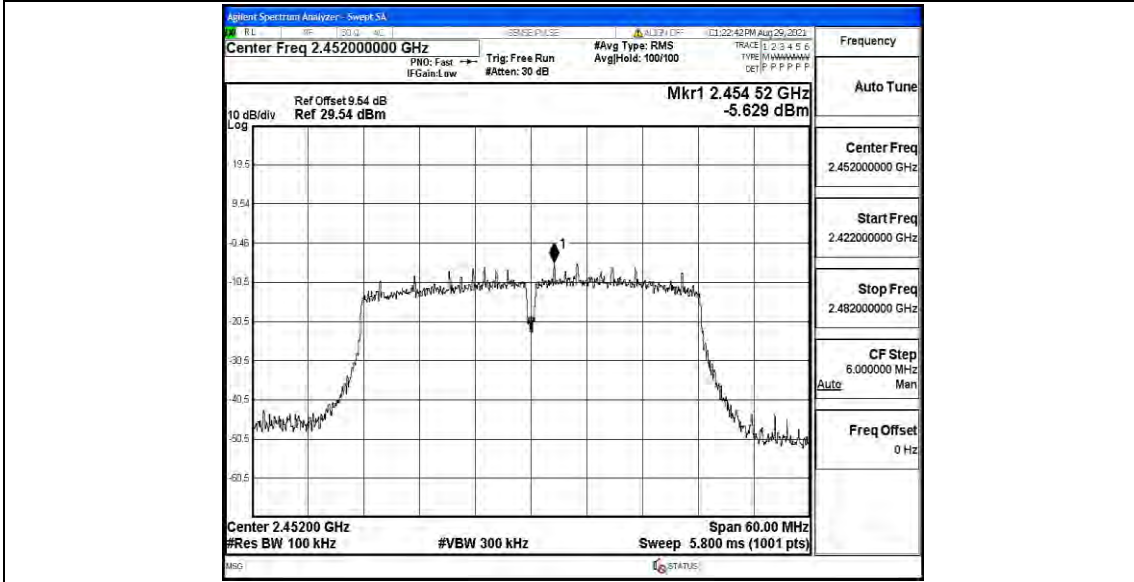
11N40MIMO\_Ant1\_2452\_30~1000



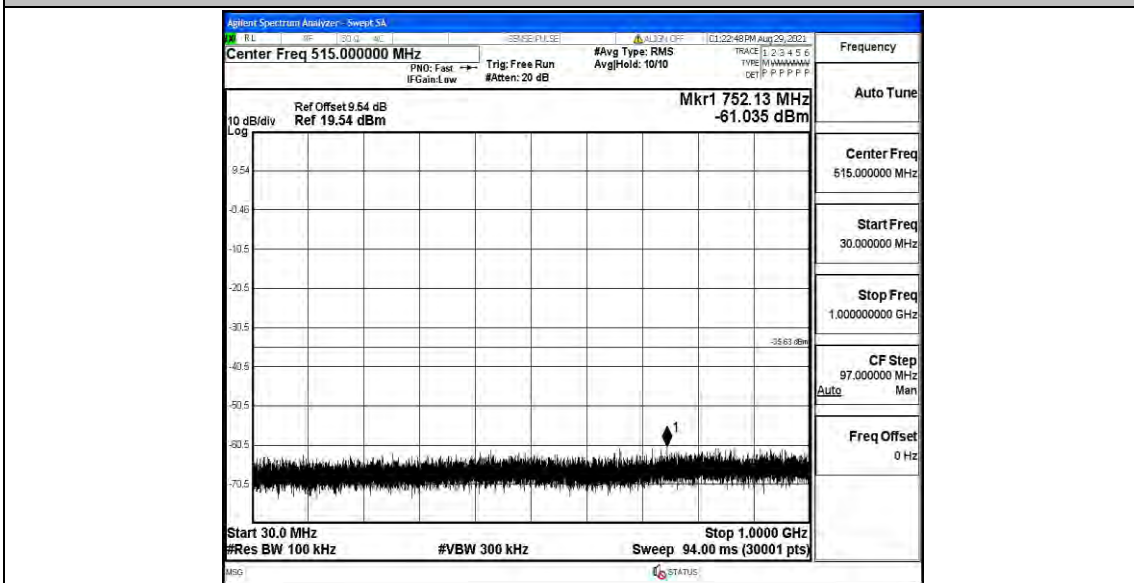
11N40MIMO\_Ant1\_2452\_1000~26500



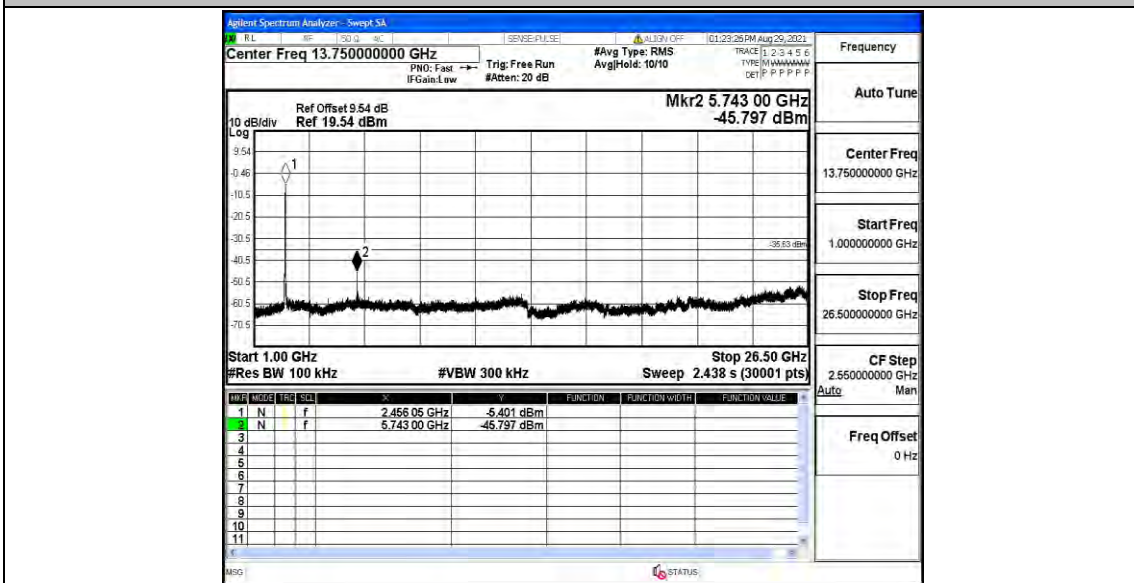
11N40MIMO\_Ant2\_2452\_0~Reference



11N40MIMO\_Ant2\_2452\_30~1000



11N40MIMO\_Ant2\_2452\_1000~26500

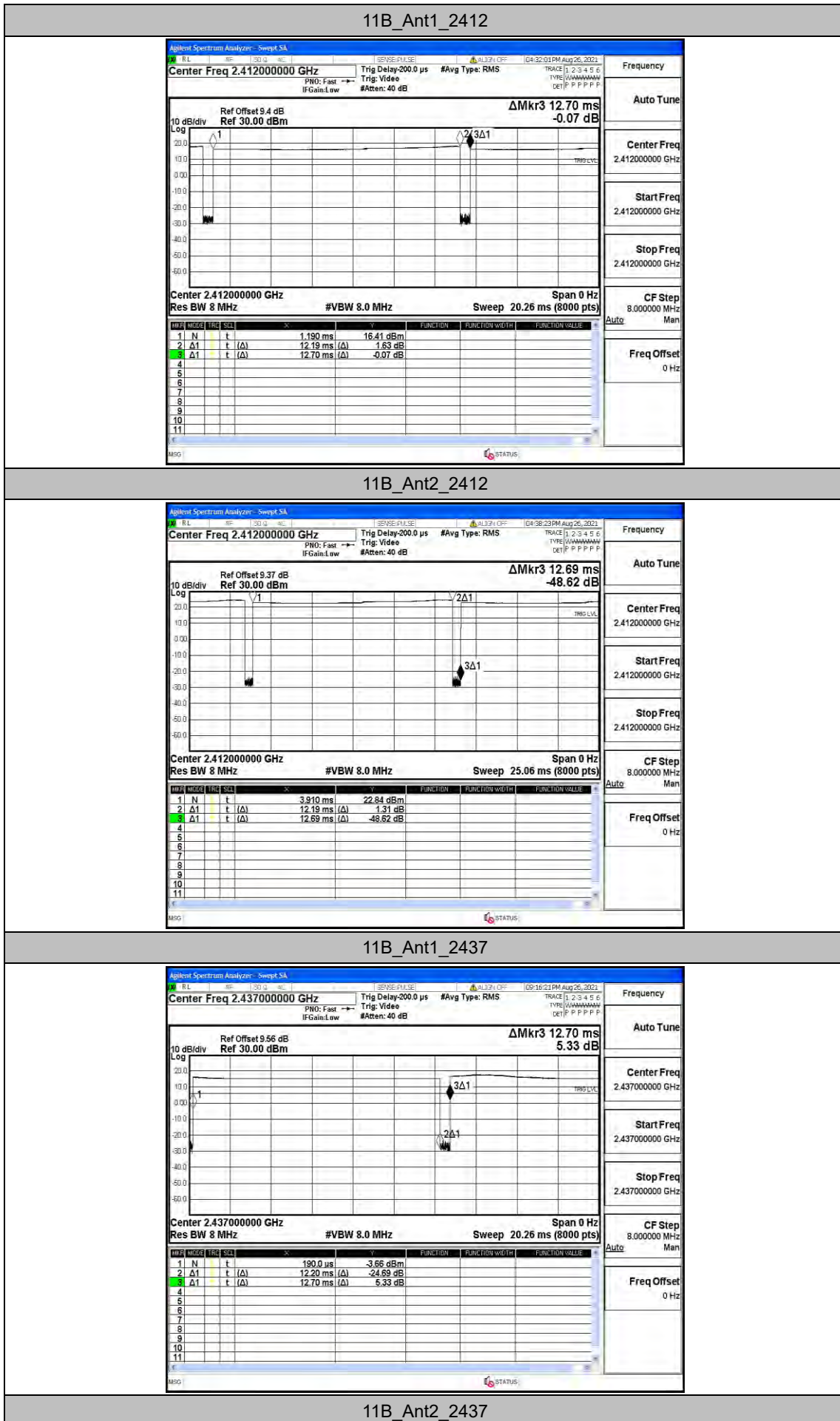


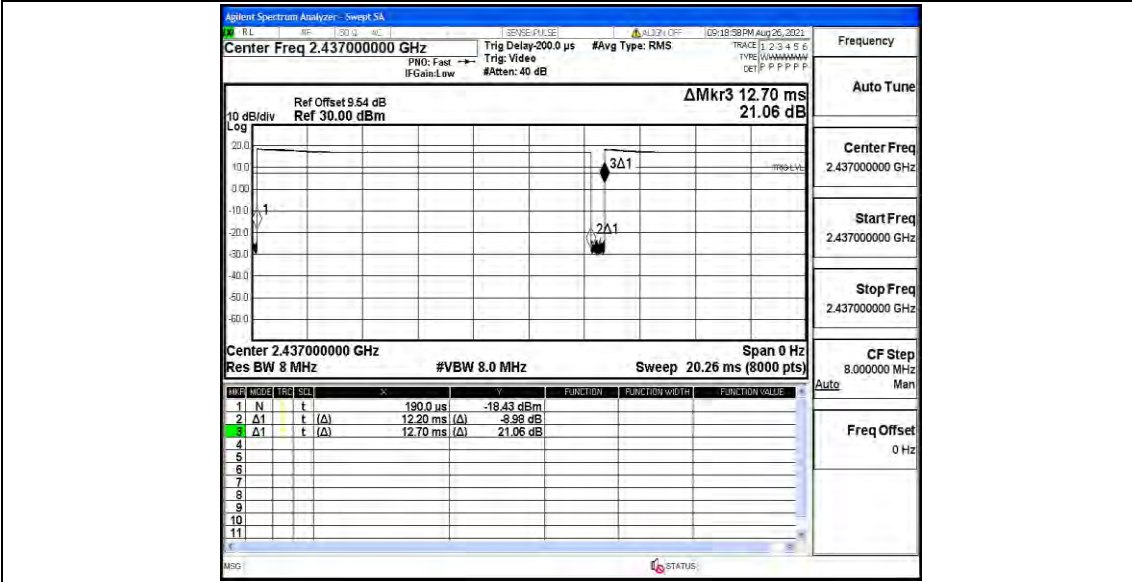
## Appendix G: Duty Cycle

### Test Result

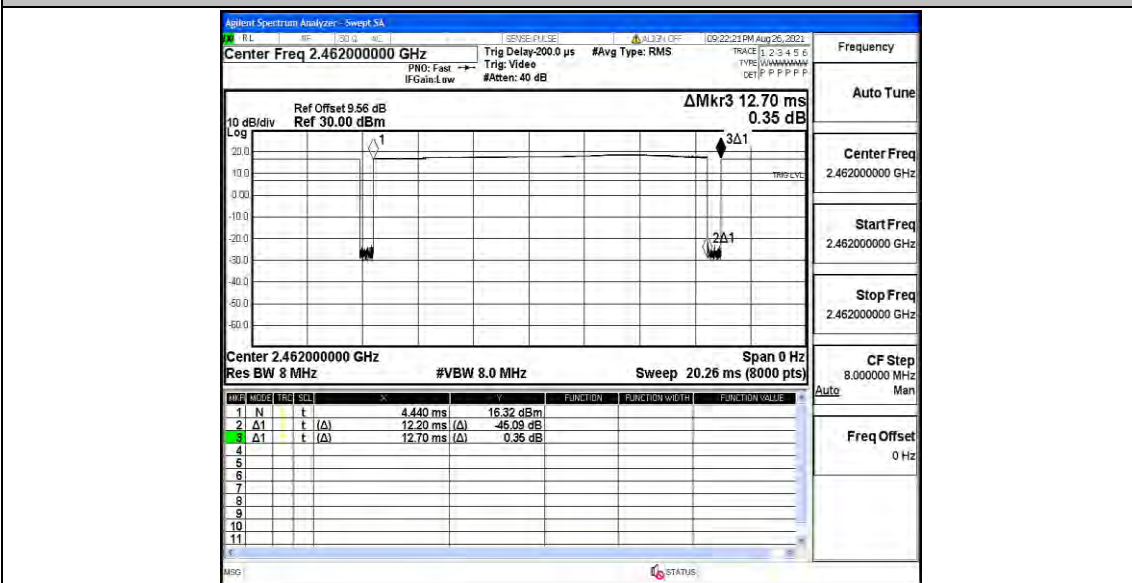
| TestMode  | Antenna | Channel | Transmission Duration [ms] | Transmission Period [ms] | Duty Cycle [%] | 1/B[kHz] |
|-----------|---------|---------|----------------------------|--------------------------|----------------|----------|
| 11B       | Ant1    | 2412    | 12.19                      | 12.70                    | 95.98          | 0.08     |
|           | Ant2    | 2412    | 12.19                      | 12.69                    | 96.06          | 0.08     |
|           | Ant1    | 2437    | 12.20                      | 12.70                    | 96.06          | 0.08     |
|           | Ant2    | 2437    | 12.20                      | 12.70                    | 96.06          | 0.08     |
|           | Ant1    | 2462    | 12.20                      | 12.70                    | 96.06          | 0.08     |
|           | Ant2    | 2462    | 12.20                      | 12.70                    | 96.06          | 0.08     |
| 11G       | Ant1    | 2412    | 2.02                       | 2.52                     | 80.16          | 0.4      |
|           | Ant2    | 2412    | 2.02                       | 2.52                     | 80.16          | 0.4      |
|           | Ant1    | 2437    | 2.03                       | 2.53                     | 80.24          | 0.4      |
|           | Ant2    | 2437    | 2.02                       | 2.52                     | 80.16          | 0.4      |
|           | Ant1    | 2462    | 2.02                       | 2.53                     | 79.84          | 0.4      |
|           | Ant2    | 2462    | 2.02                       | 2.52                     | 80.16          | 0.4      |
| 11N20MIMO | Ant1    | 2412    | 1.89                       | 2.39                     | 79.08          | 0.42     |
|           | Ant2    | 2412    | 1.88                       | 2.38                     | 78.99          | 0.42     |
|           | Ant1    | 2437    | 1.89                       | 2.39                     | 79.08          | 0.42     |
|           | Ant2    | 2437    | 1.89                       | 2.39                     | 79.08          | 0.42     |
|           | Ant1    | 2462    | 1.89                       | 2.39                     | 79.08          | 0.42     |
|           | Ant2    | 2462    | 1.89                       | 2.39                     | 79.08          | 0.42     |
| 11N40MIMO | Ant1    | 2422    | 0.93                       | 1.43                     | 65.03          | 0.7      |
|           | Ant2    | 2422    | 0.93                       | 1.44                     | 64.58          | 0.69     |
|           | Ant1    | 2437    | 0.93                       | 1.43                     | 65.03          | 0.7      |
|           | Ant2    | 2437    | 0.93                       | 1.44                     | 64.58          | 0.69     |
|           | Ant1    | 2452    | 0.93                       | 1.43                     | 65.03          | 0.7      |
|           | Ant2    | 2452    | 0.93                       | 1.43                     | 65.03          | 0.7      |

Test Graphs

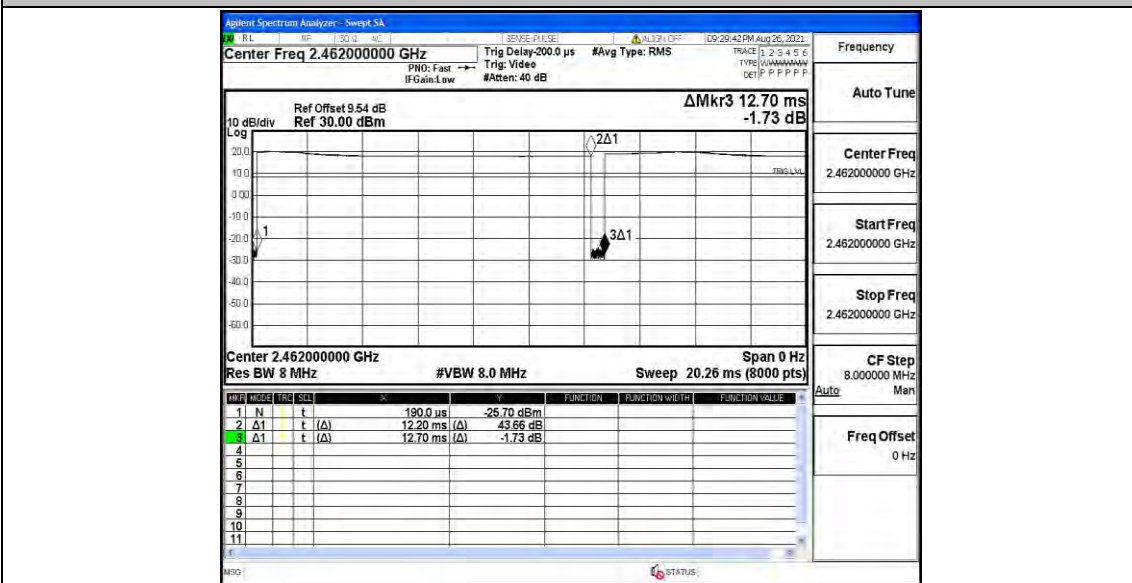




11B\_Ant1\_2462

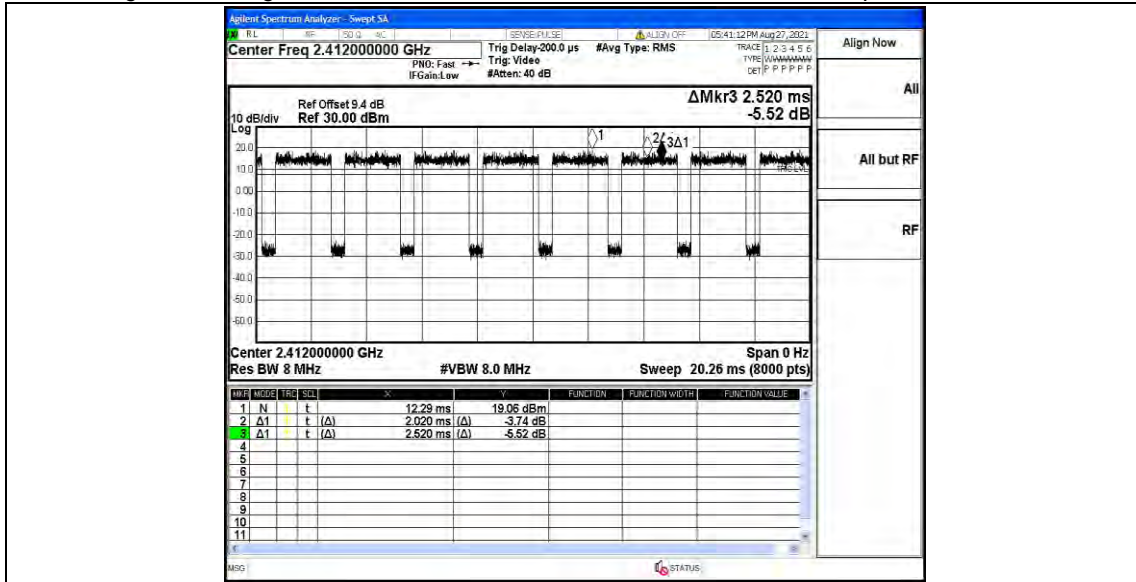


11B\_Ant2\_2462

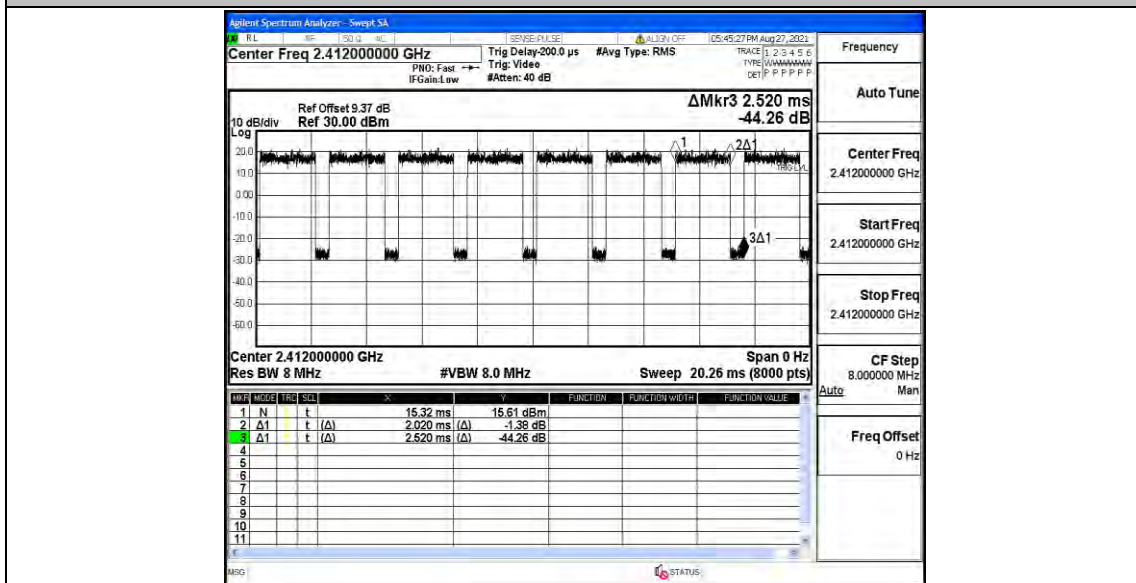


11G\_Ant1\_2412

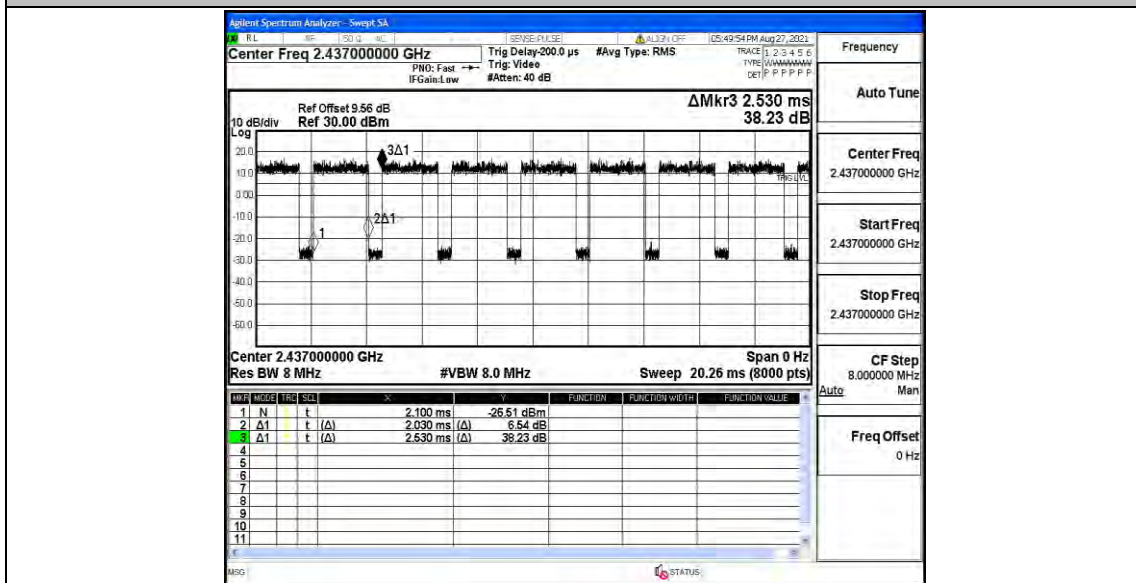




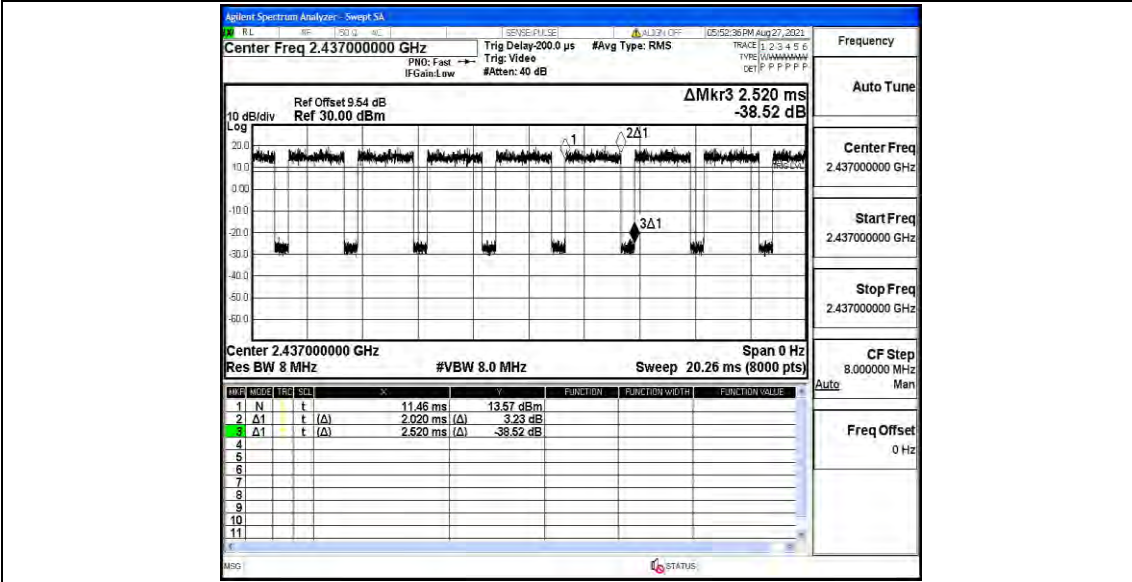
11G\_Ant2\_2412



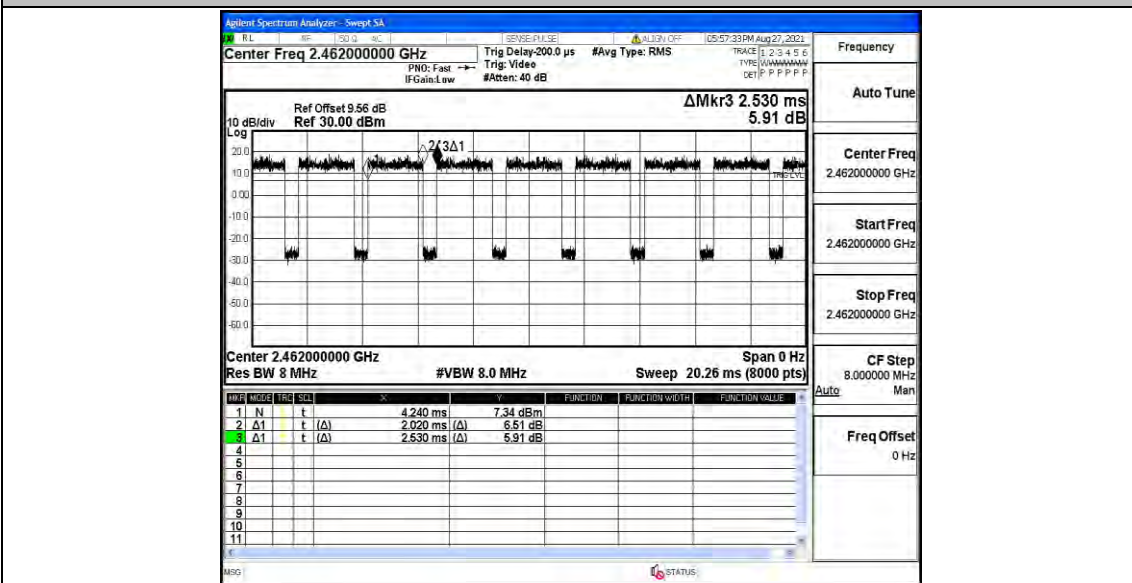
11G\_Ant1\_2437



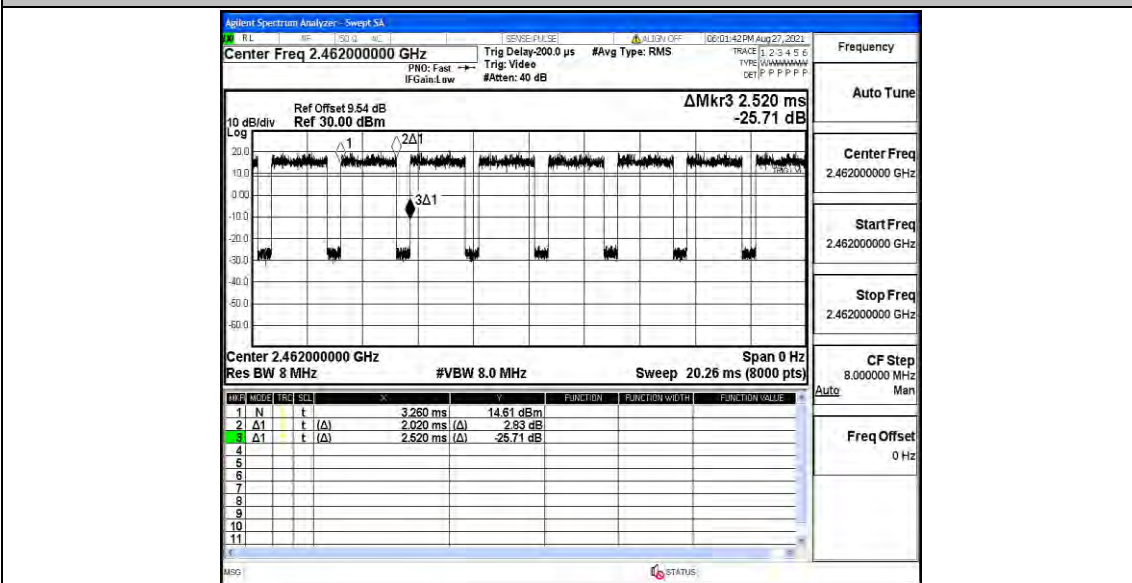
11G\_Ant2\_2437



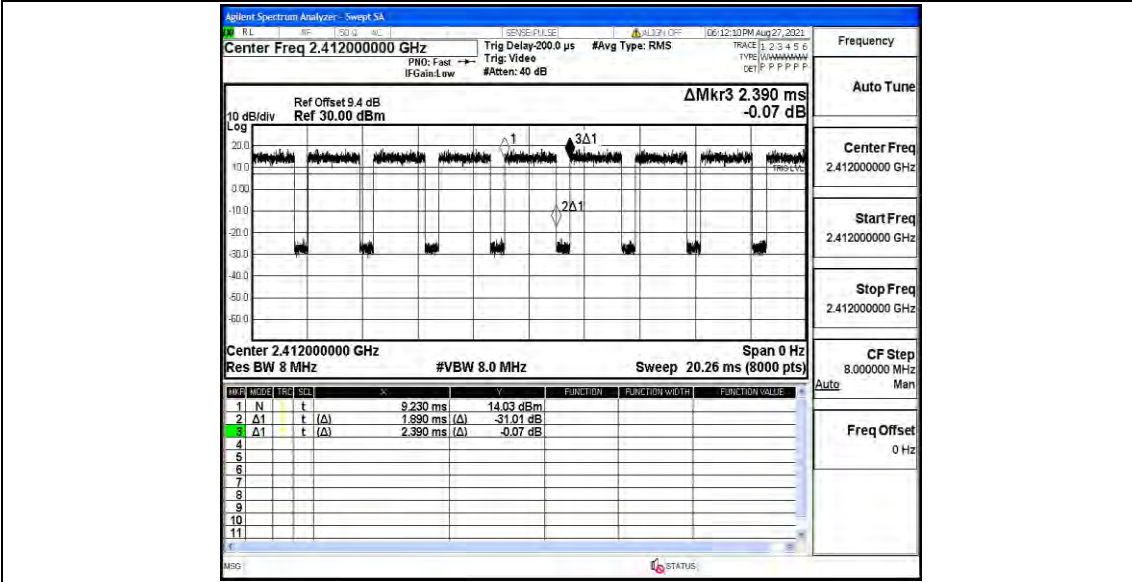
11G\_Ant1\_2462



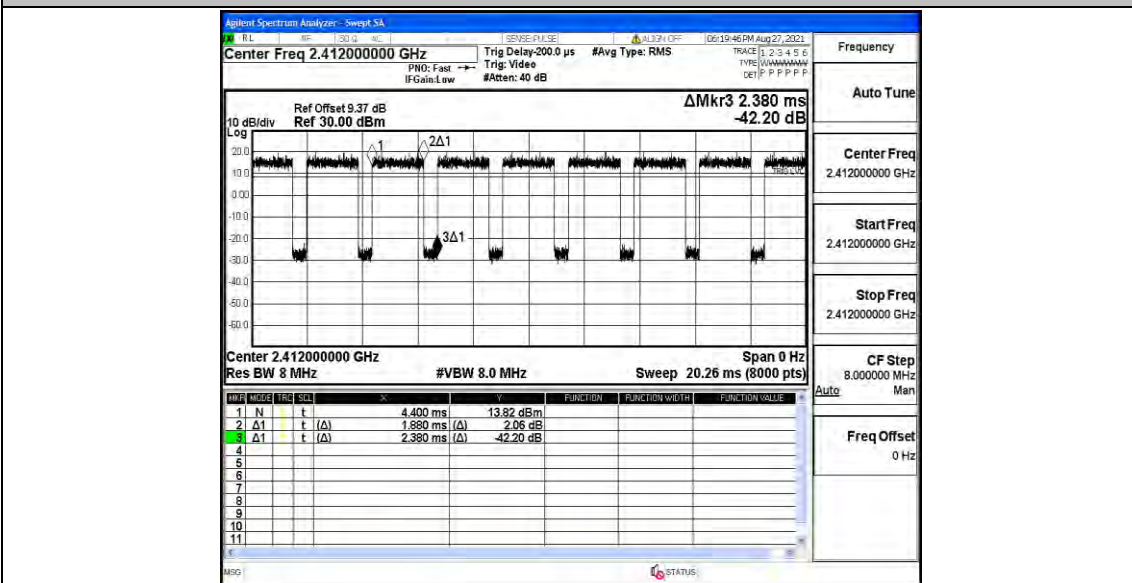
11G\_Ant2\_2462



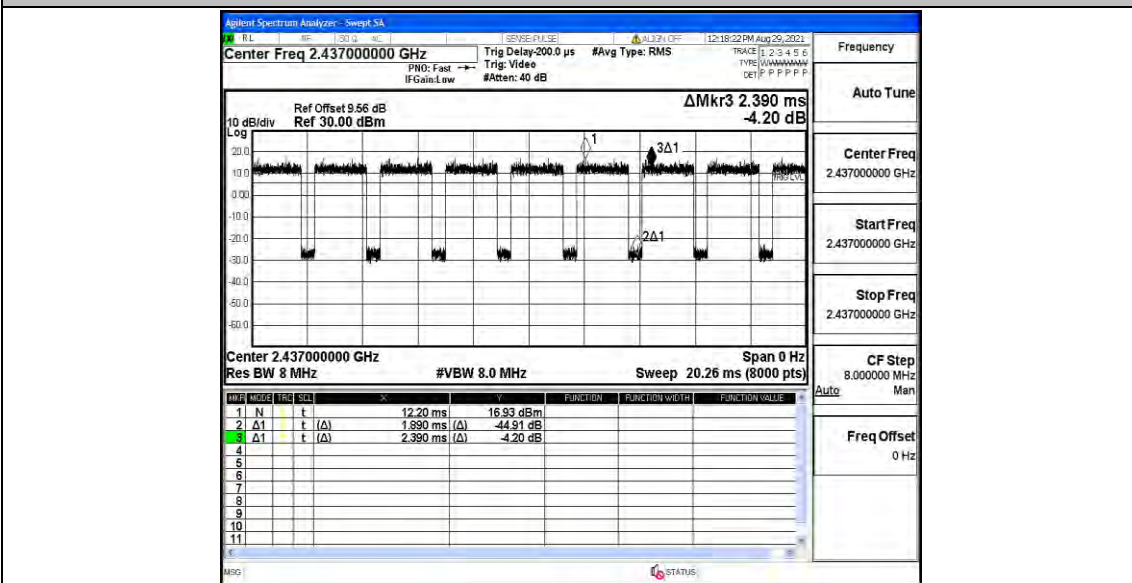
11N20MIMO\_Ant1\_2412



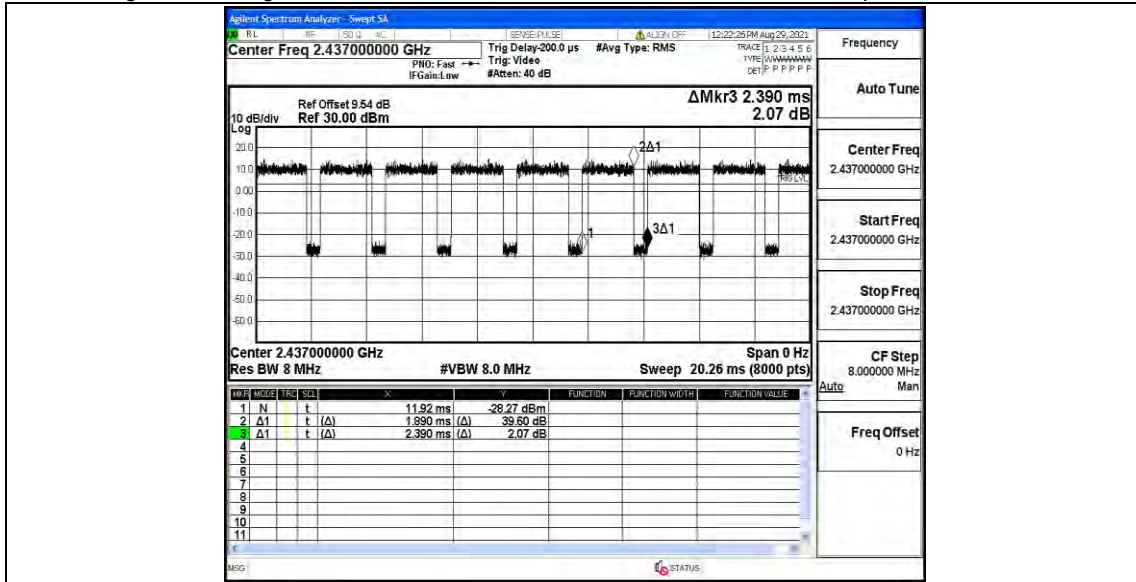
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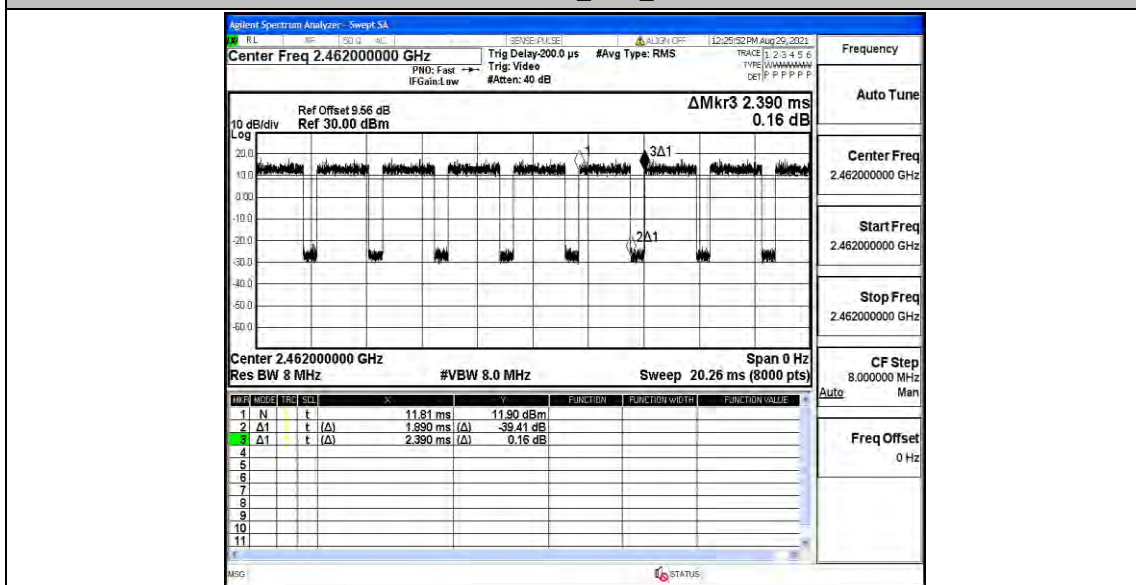
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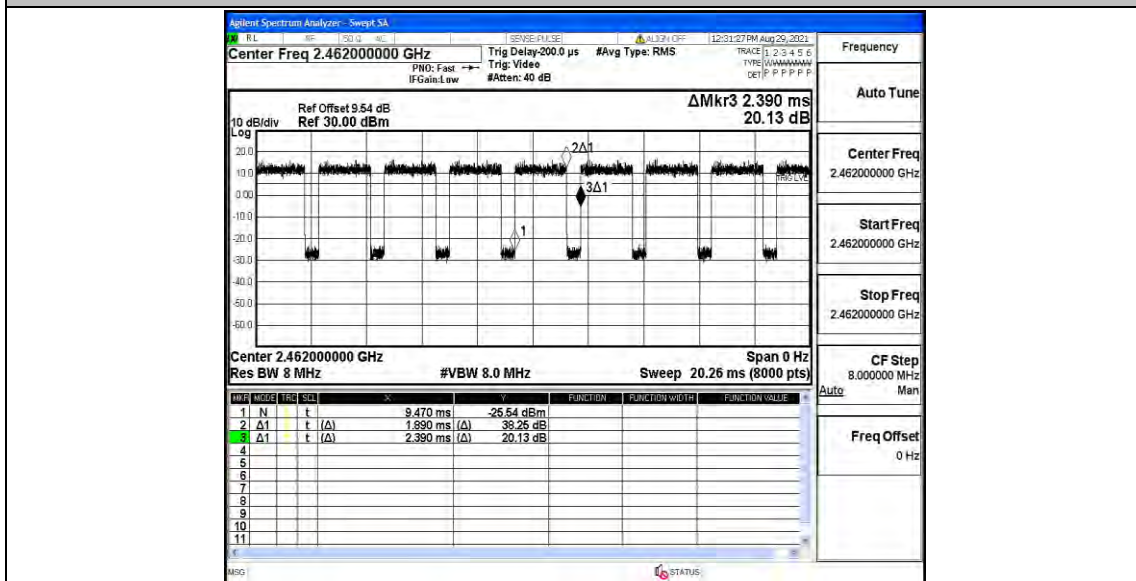
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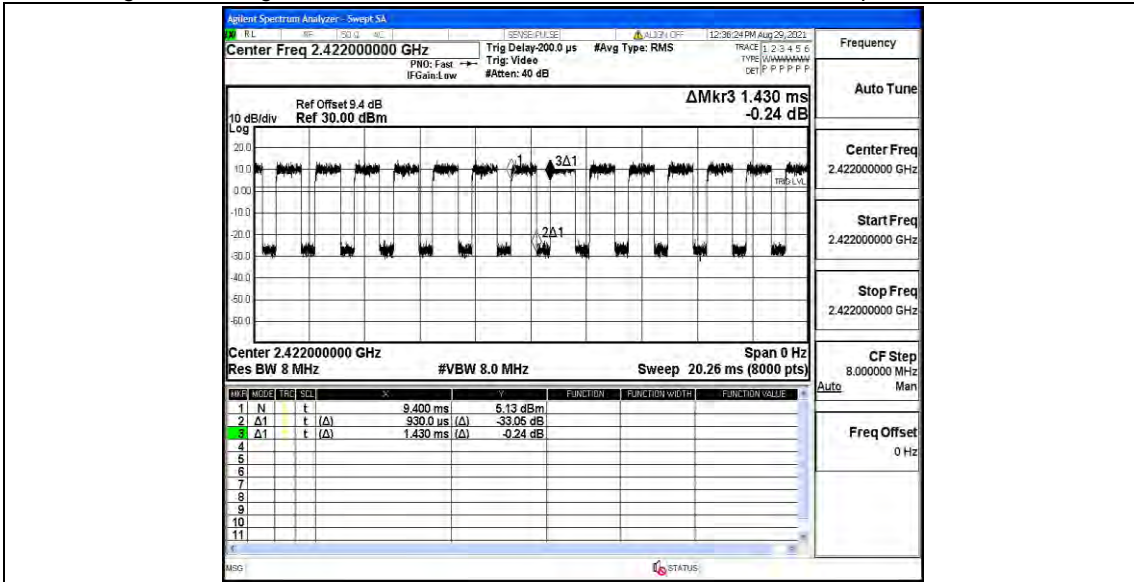
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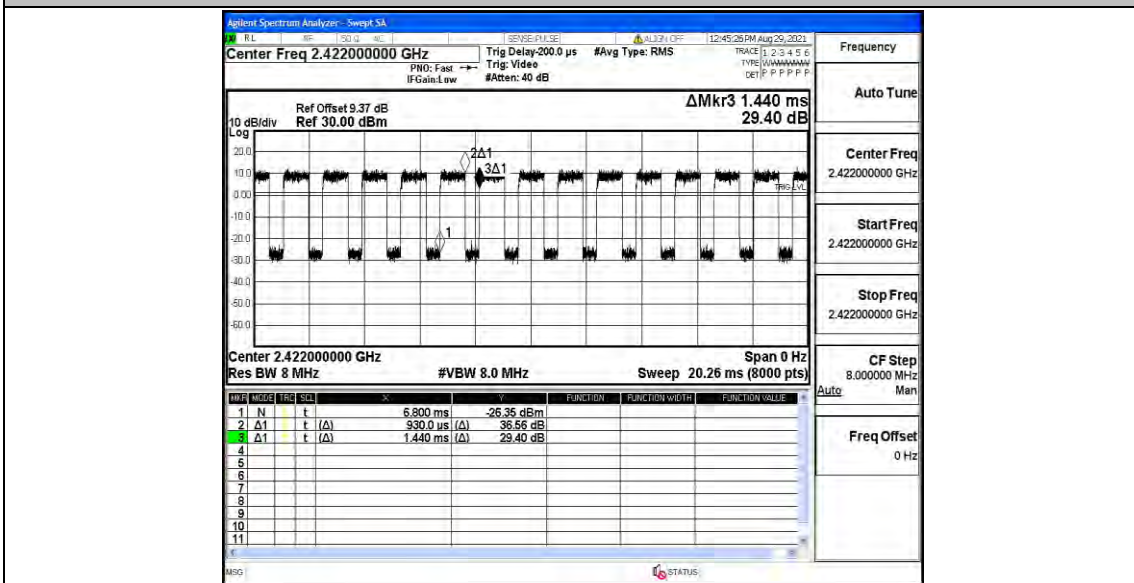
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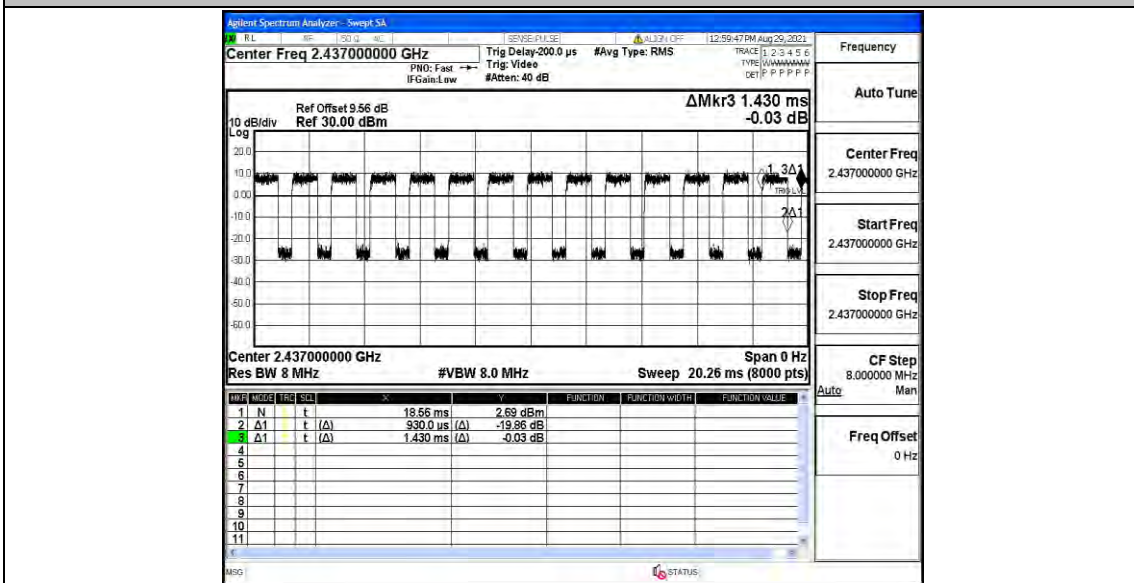
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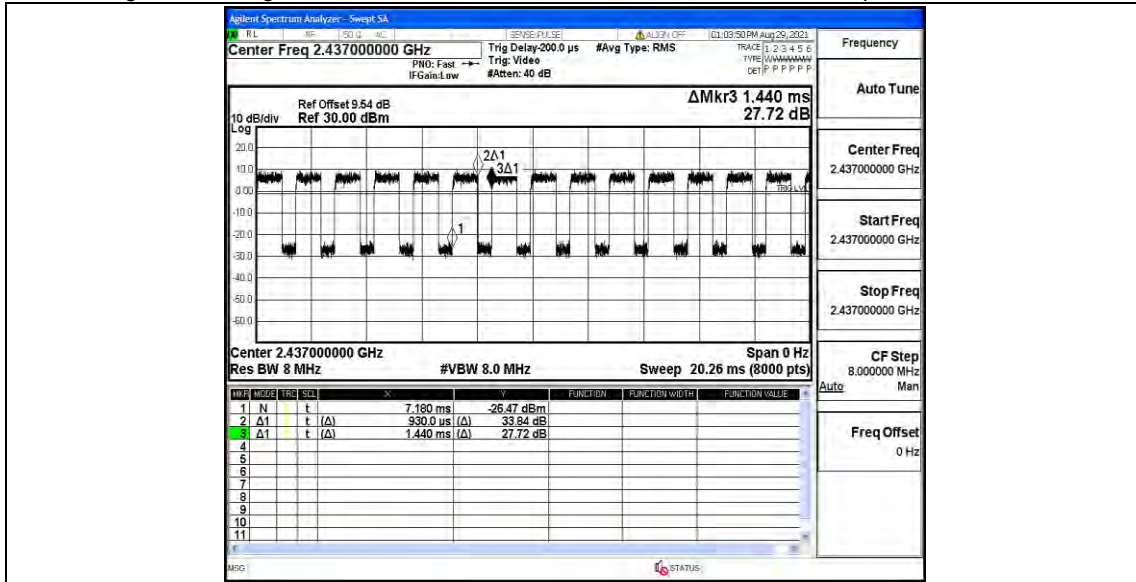
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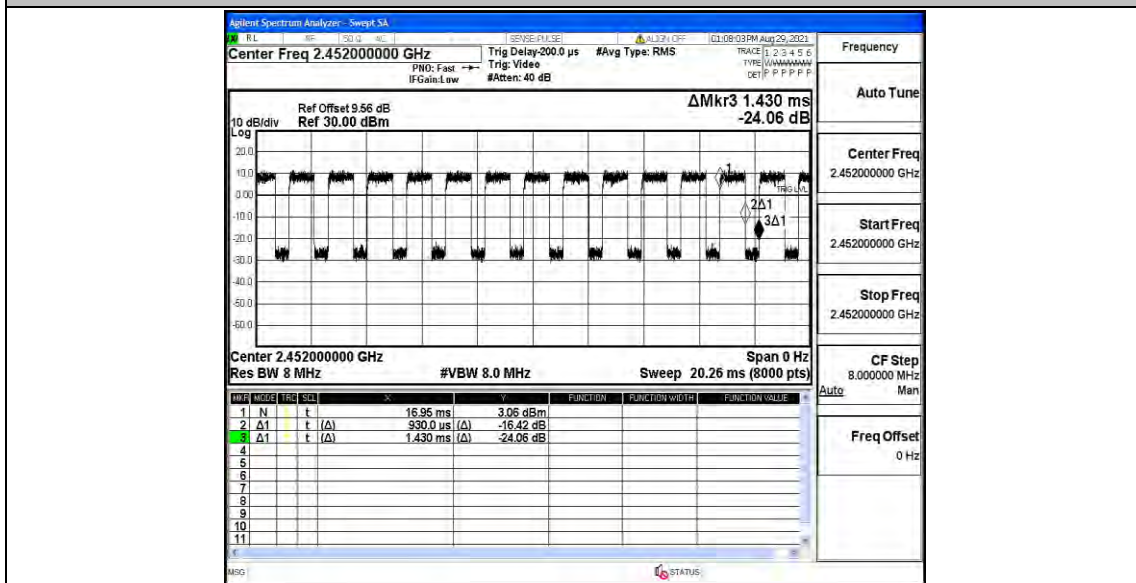
11N40MIMO\_Ant1\_2437



11N40MIMO\_Ant2\_2437



11N40MIMO\_Ant1\_2452



11N40MIMO\_Ant2\_2452

