

**RF Test Data for WLAN(2.4G) (Conducted Measurement)****Product Name: Pro<sup>1</sup> X****Trade Mark: F****Test Model: QX1051****FCC ID: 2AUCLQX1050****Environmental Conditions**

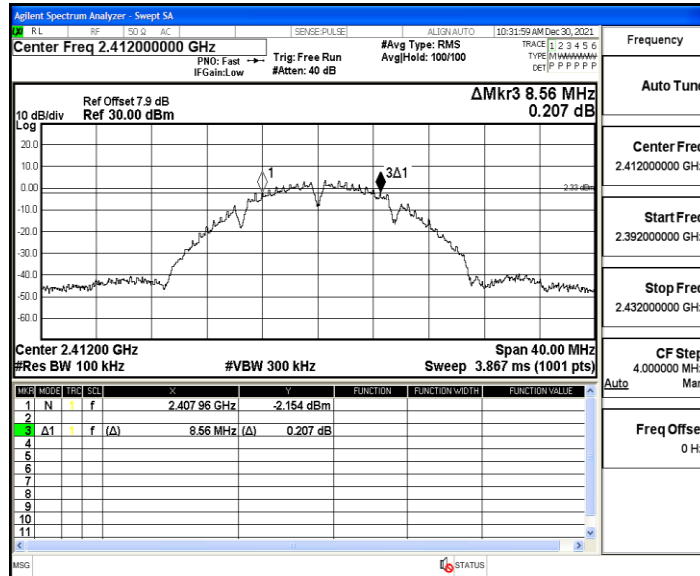
|                    |           |
|--------------------|-----------|
| Temperature:       | 25.5°C    |
| Relative Humidity: | 55%       |
| ATM Pressure:      | 100.0 kPa |
| Test Engineer:     | Anna Hu   |
| Supervised by:     | Hugo Chen |
| NOTE               | N/A       |

**Appendix A: DTS Bandwidth****Test Result**

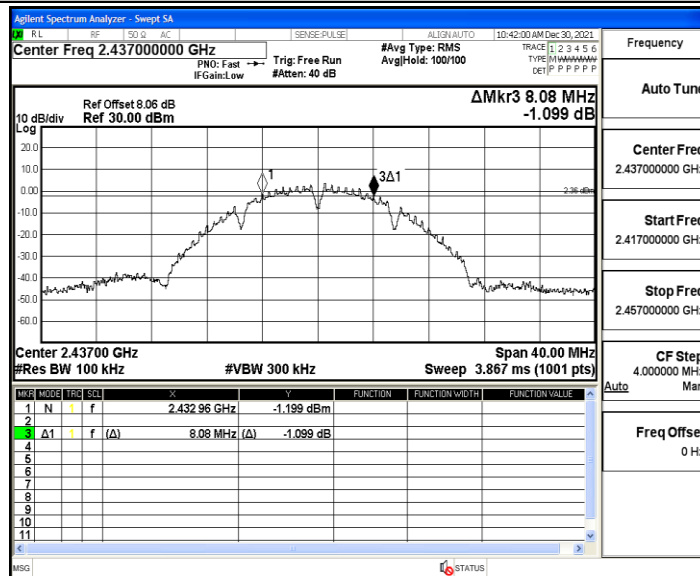
| TestMode  | Antenna | Channel | DTS BW [MHz] | FL[MHz]  | FH[MHz]  | Limit[MHz] | Verdict |
|-----------|---------|---------|--------------|----------|----------|------------|---------|
| 11B       | Ant1    | 2412    | 8.560        | 2407.960 | 2416.520 | 0.5        | PASS    |
|           |         | 2437    | 8.080        | 2432.960 | 2441.040 | 0.5        | PASS    |
|           |         | 2462    | 8.560        | 2457.960 | 2466.520 | 0.5        | PASS    |
| 11G       | Ant1    | 2412    | 15.680       | 2404.480 | 2420.160 | 0.5        | PASS    |
|           |         | 2437    | 15.280       | 2428.880 | 2444.160 | 0.5        | PASS    |
|           |         | 2462    | 11.280       | 2457.000 | 2468.280 | 0.5        | PASS    |
| 11N20SISO | Ant1    | 2412    | 14.720       | 2405.680 | 2420.400 | 0.5        | PASS    |
|           |         | 2437    | 15.960       | 2428.600 | 2444.560 | 0.5        | PASS    |
|           |         | 2462    | 17.280       | 2453.480 | 2470.760 | 0.5        | PASS    |
| 11N40SISO | Ant1    | 2422    | 33.760       | 2405.760 | 2439.520 | 0.5        | PASS    |
|           |         | 2437    | 35.040       | 2419.480 | 2454.520 | 0.5        | PASS    |
|           |         | 2452    | 34.640       | 2434.480 | 2469.120 | 0.5        | PASS    |

## Test Graphs

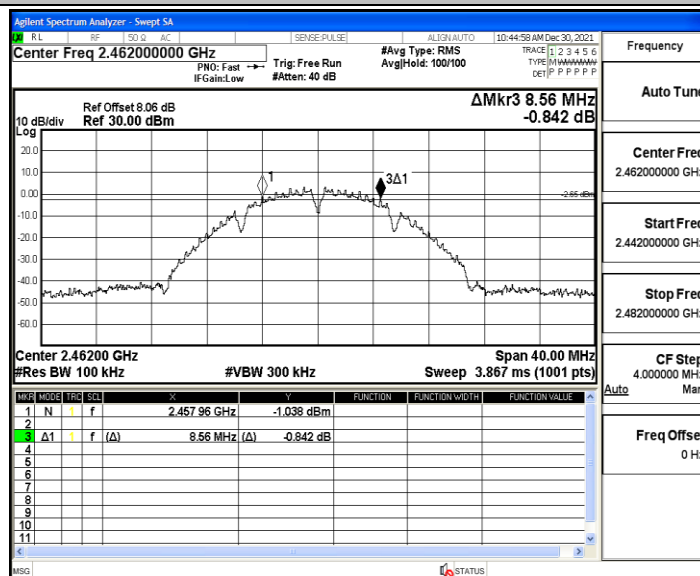
11B\_Ant1\_2412



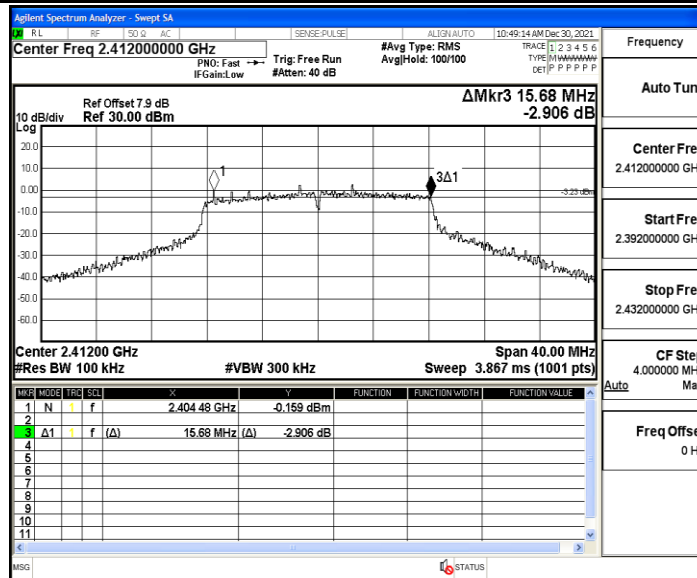
11B\_Ant1\_2437



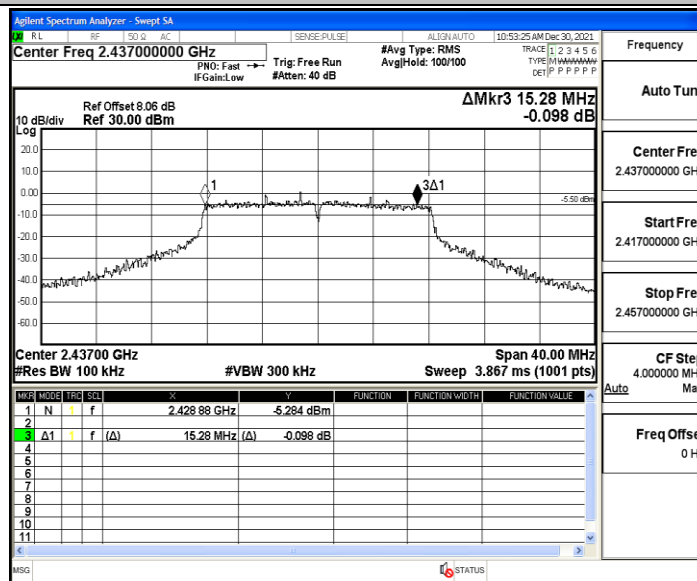
11B\_Ant1\_2462



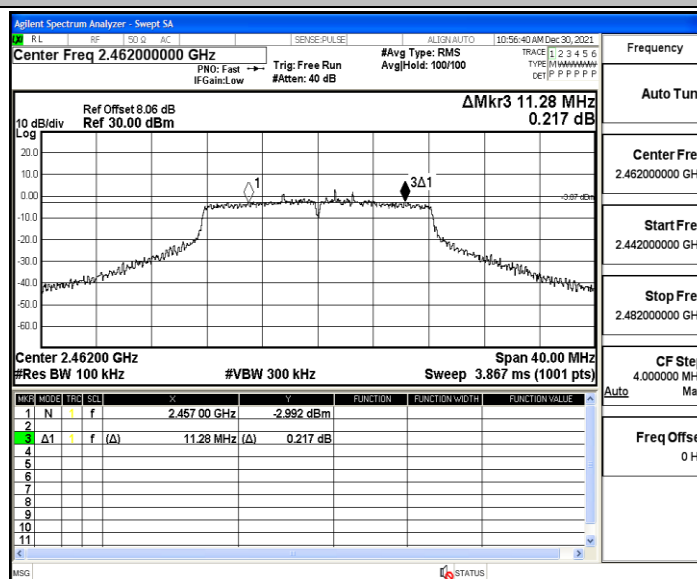
11G\_Ant1\_2412



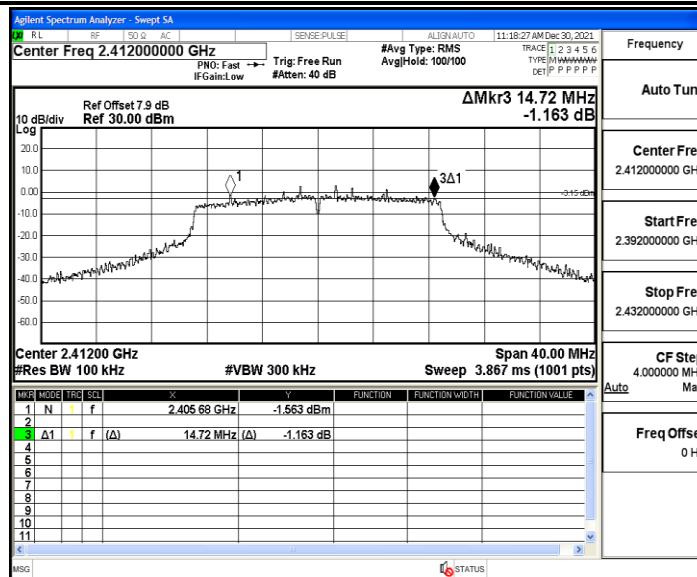
11G\_Ant1\_2437



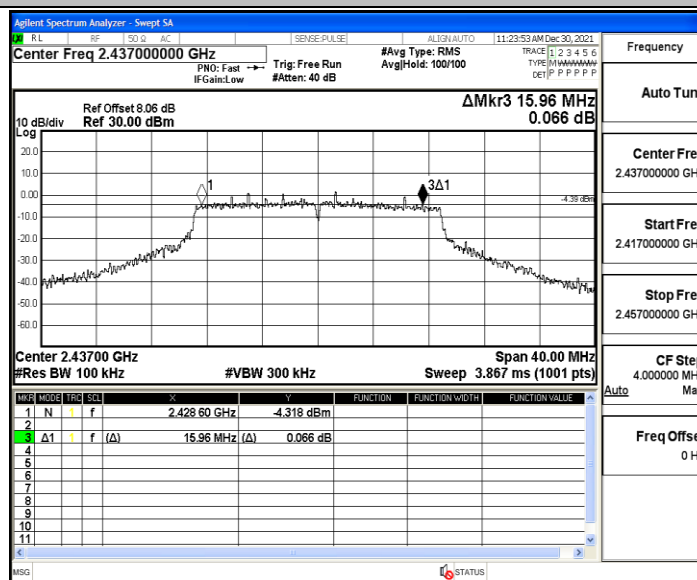
11G\_Ant1\_2462



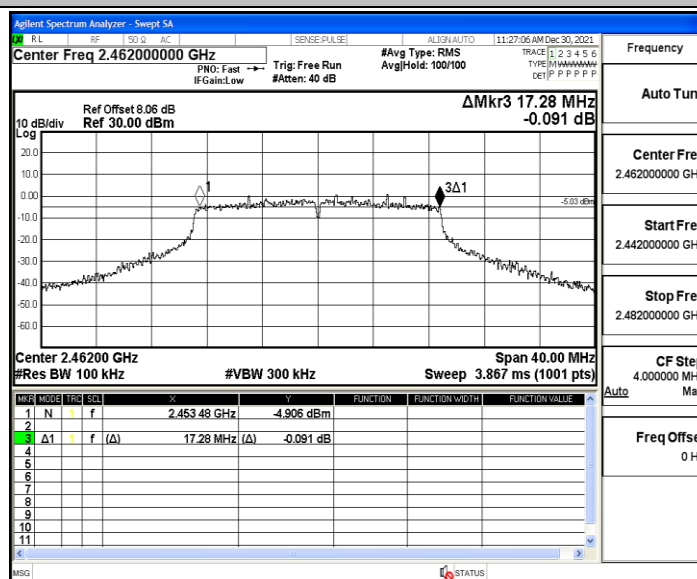
11N20SISO\_Ant1\_2412



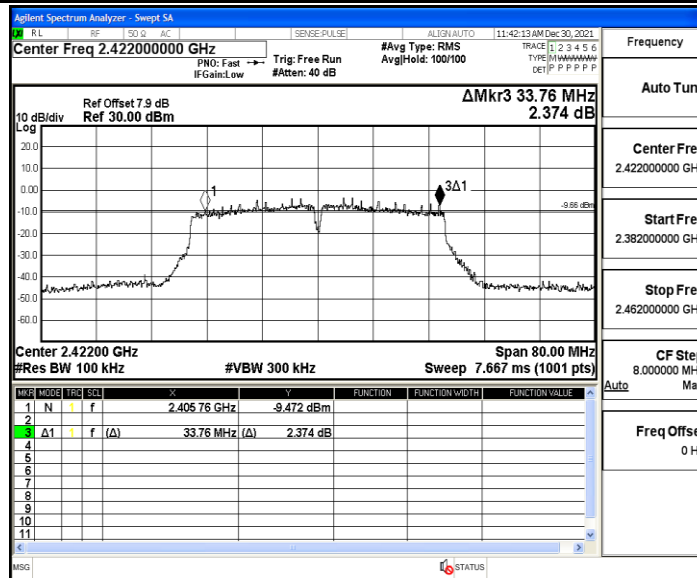
11N20SISO\_Ant1\_2437



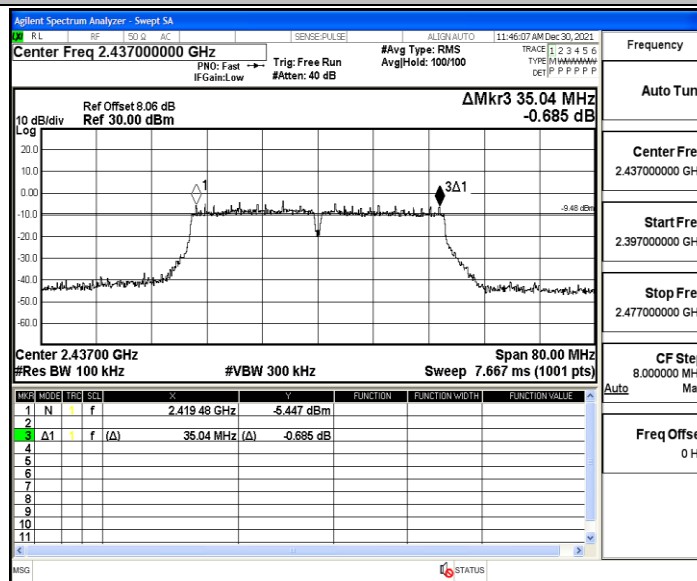
11N20SISO\_Ant1\_2462



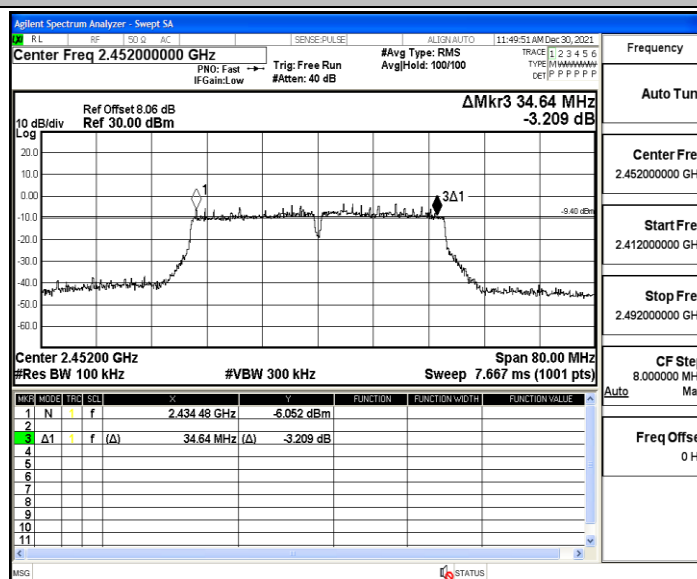
11N40SISO\_Ant1\_2422



11N40SISO\_Ant1\_2437



11N40SISO\_Ant1\_2452



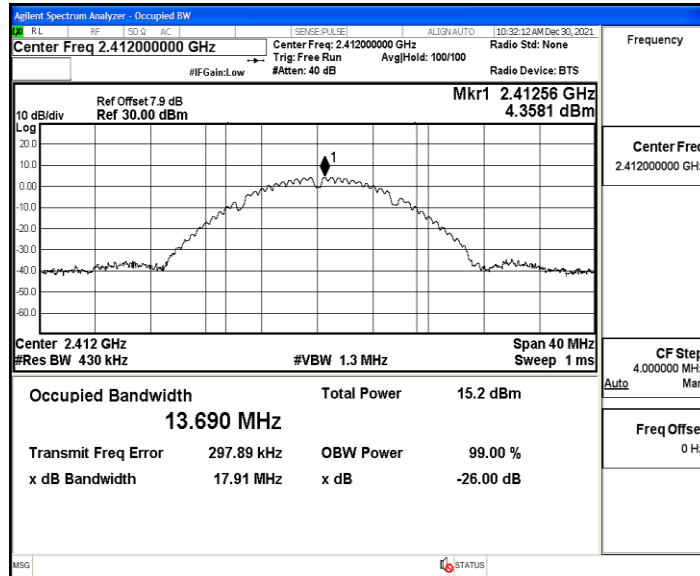
## Appendix B: Occupied Channel Bandwidth

### Test Result

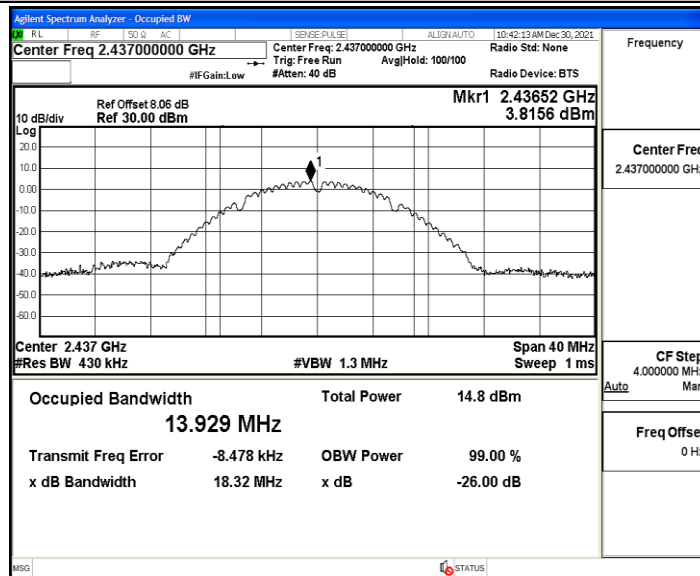
| TestMode  | Antenna | Channel | OCB [MHz] | FL[MHz]  | FH[MHz]  | Limit[MHz] | Verdict |
|-----------|---------|---------|-----------|----------|----------|------------|---------|
| 11B       | Ant1    | 2412    | 13.690    | 2405.453 | 2419.143 | ---        | PASS    |
|           |         | 2437    | 13.929    | 2430.027 | 2443.956 | ---        | PASS    |
|           |         | 2462    | 13.632    | 2455.258 | 2468.890 | ---        | PASS    |
| 11G       | Ant1    | 2412    | 17.002    | 2403.656 | 2420.658 | ---        | PASS    |
|           |         | 2437    | 17.107    | 2428.431 | 2445.538 | ---        | PASS    |
|           |         | 2462    | 16.906    | 2453.563 | 2470.469 | ---        | PASS    |
| 11N20SISO | Ant1    | 2412    | 18.051    | 2403.126 | 2421.177 | ---        | PASS    |
|           |         | 2437    | 18.163    | 2427.909 | 2446.072 | ---        | PASS    |
|           |         | 2462    | 17.967    | 2453.054 | 2471.021 | ---        | PASS    |
| 11N40SISO | Ant1    | 2422    | 36.094    | 2404.091 | 2440.185 | ---        | PASS    |
|           |         | 2437    | 36.468    | 2418.791 | 2455.259 | ---        | PASS    |
|           |         | 2452    | 36.443    | 2433.890 | 2470.333 | ---        | PASS    |

## Test Graphs

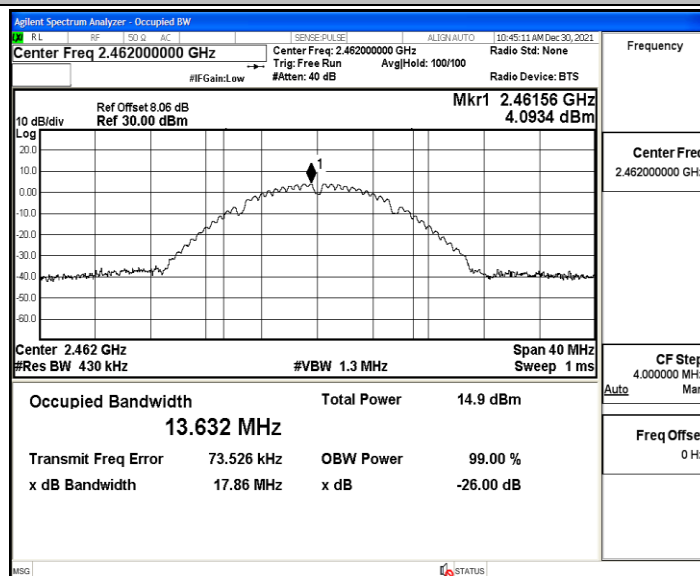
11B\_Ant1\_2412



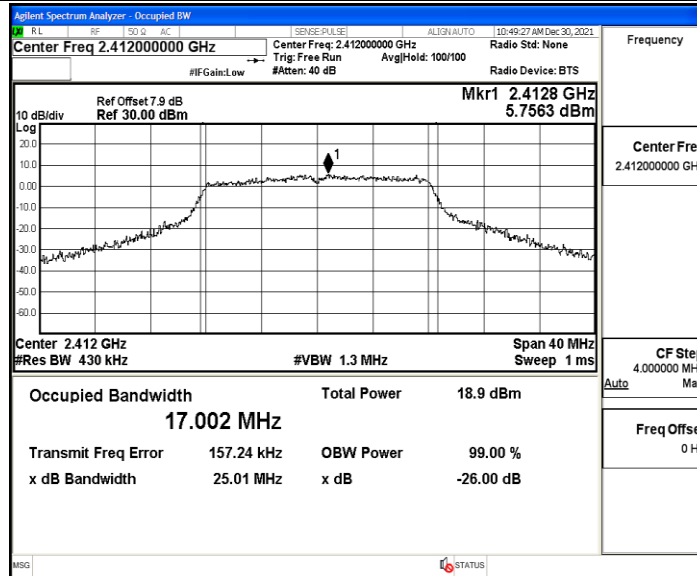
11B\_Ant1\_2437



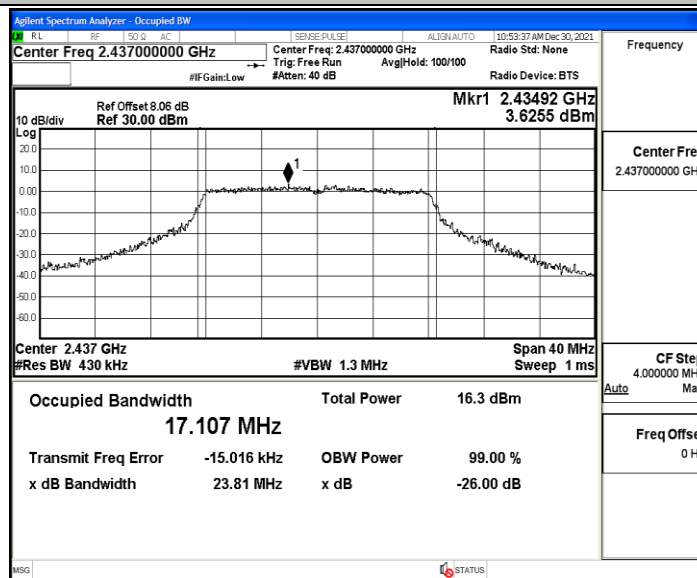
11B\_Ant1\_2462



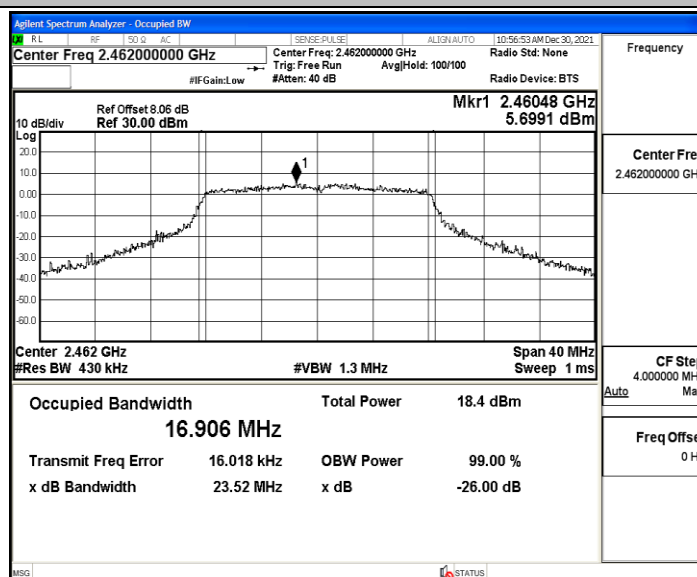
11G\_Ant1\_2412



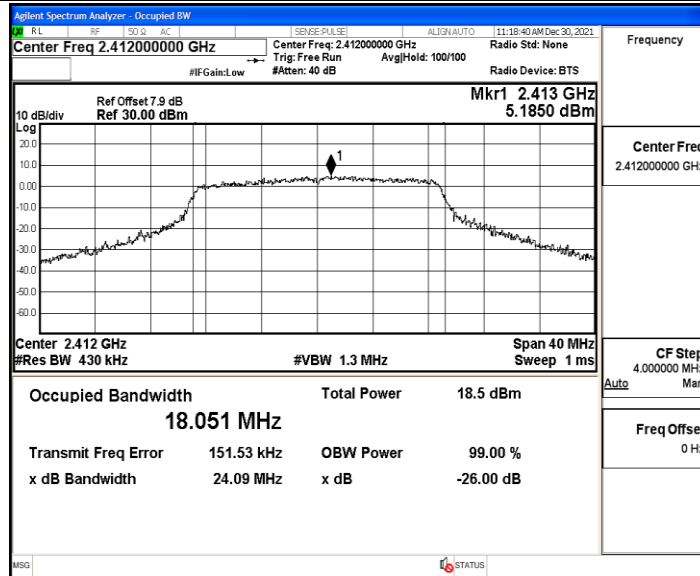
11G\_Ant1\_2437



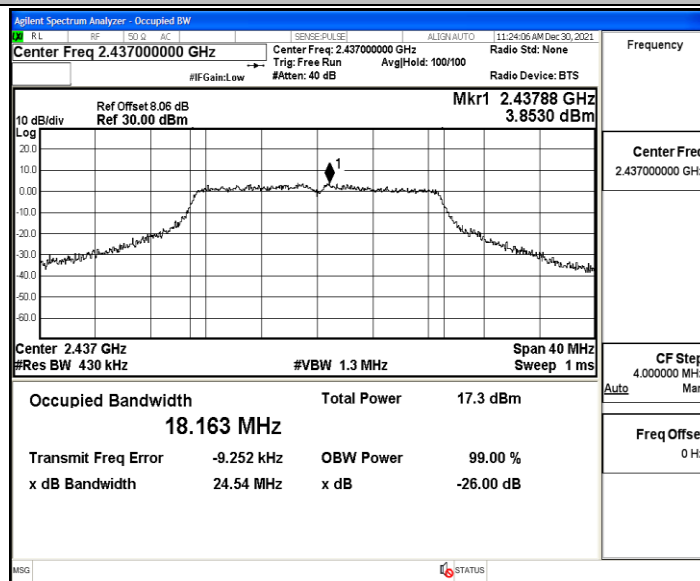
11G\_Ant1\_2462



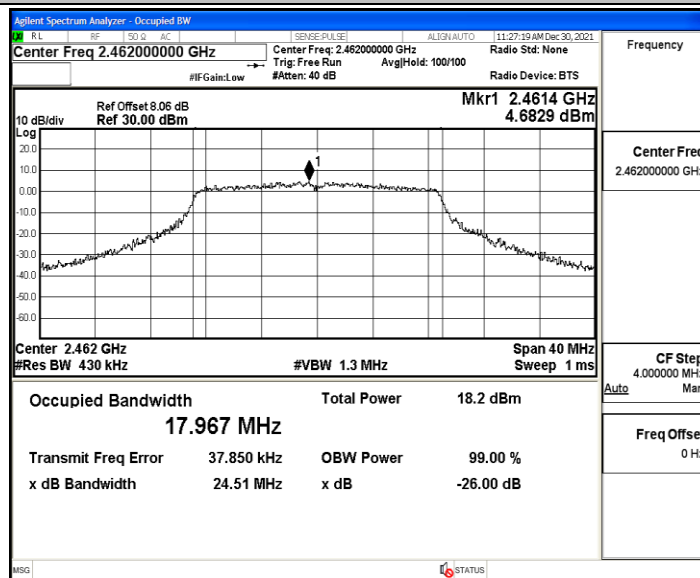
11N20SISO\_Ant1\_2412



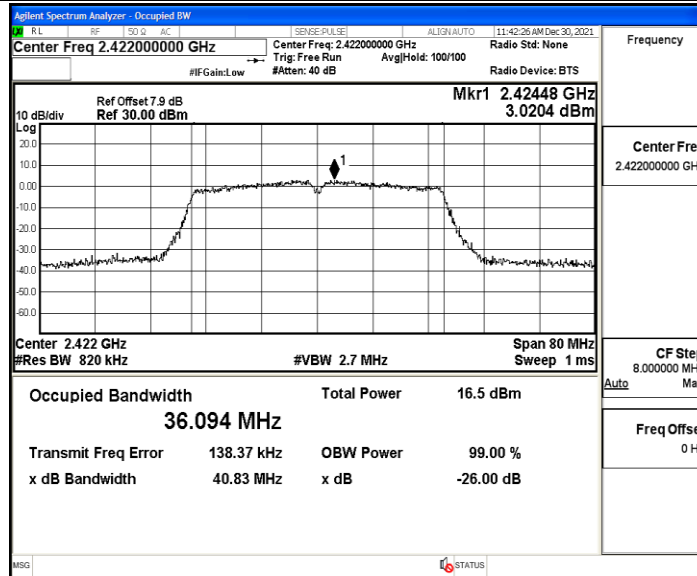
11N20SISO\_Ant1\_2437



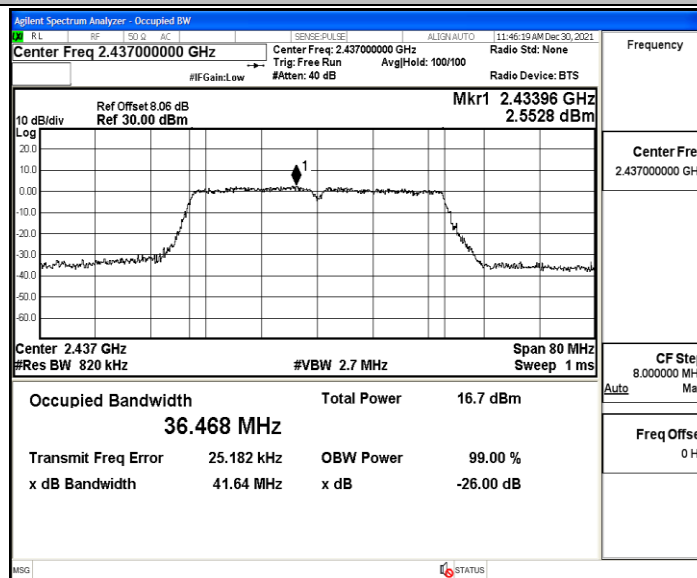
11N20SISO\_Ant1\_2462



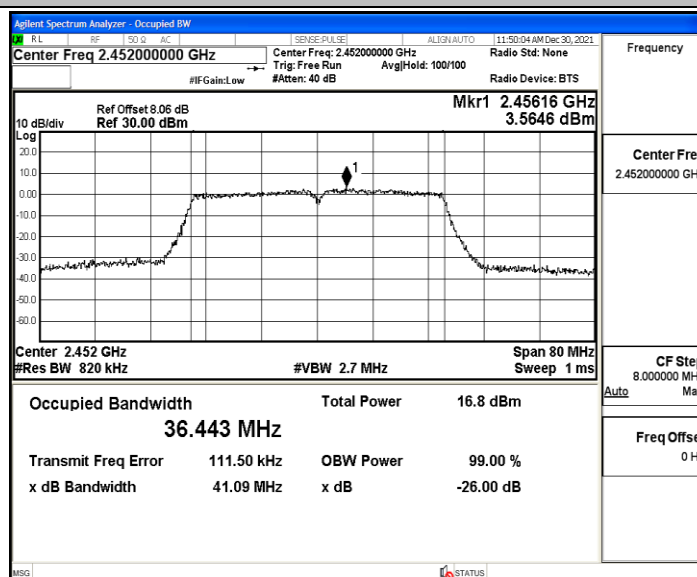
11N40SISO\_Ant1\_2422



11N40SISO\_Ant1\_2437



11N40SISO\_Ant1\_2452



## Appendix C: Maximum conducted output power

### Test Result

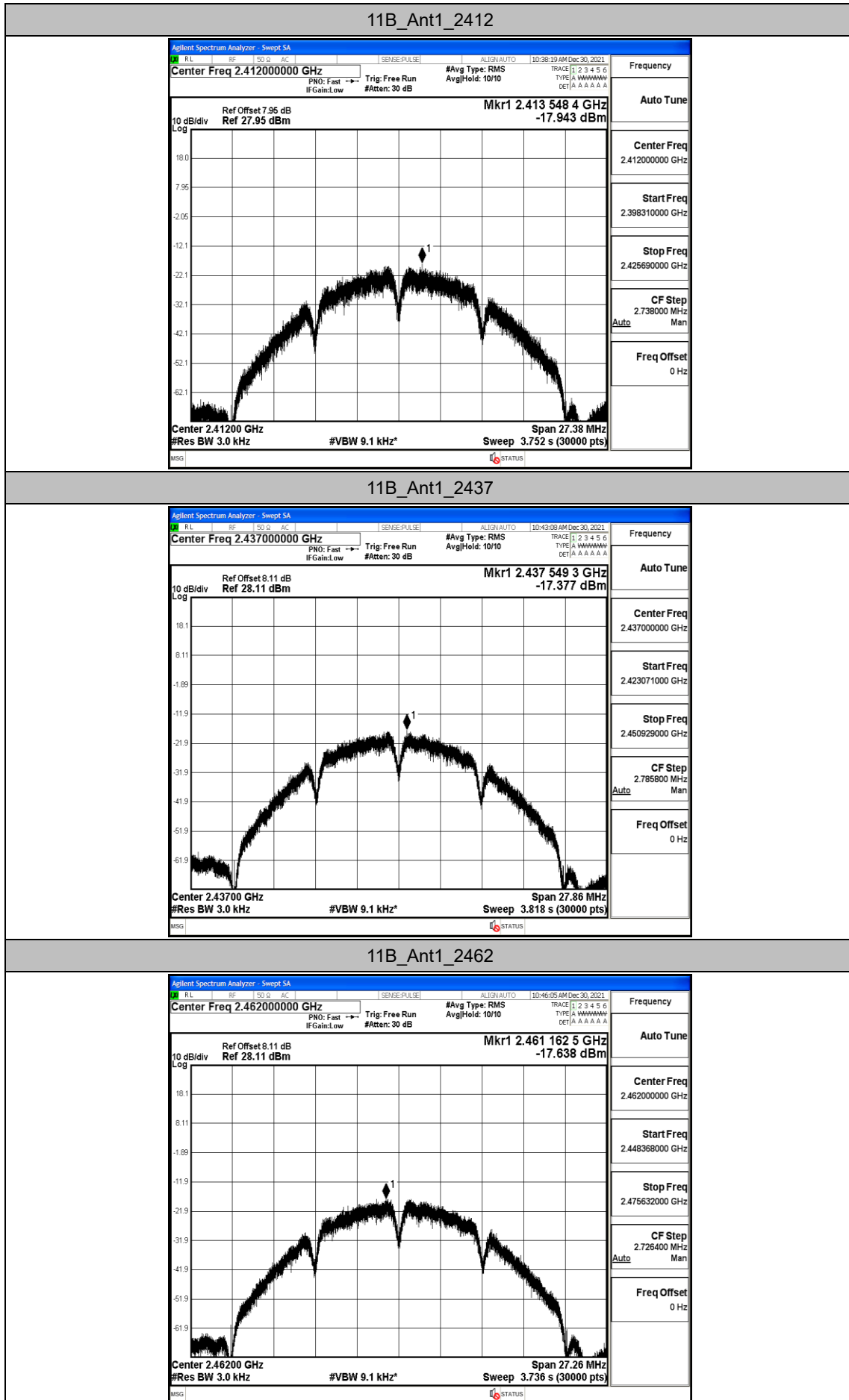
| TestMode  | Antenna | Channel | Result[dBm] | Limit[dBm] | Verdict |
|-----------|---------|---------|-------------|------------|---------|
| 11B       | Ant1    | 2412    | 12.21       | ≤30        | PASS    |
|           |         | 2437    | 11.76       | ≤30        | PASS    |
|           |         | 2462    | 12.02       | ≤30        | PASS    |
| 11G       | Ant1    | 2412    | 12.75       | ≤30        | PASS    |
|           |         | 2437    | 10.23       | ≤30        | PASS    |
|           |         | 2462    | 12.14       | ≤30        | PASS    |
| 11N20SISO | Ant1    | 2412    | 12.21       | ≤30        | PASS    |
|           |         | 2437    | 11.11       | ≤30        | PASS    |
|           |         | 2462    | 11.94       | ≤30        | PASS    |
| 11N40SISO | Ant1    | 2422    | 9.52        | ≤30        | PASS    |
|           |         | 2437    | 9.68        | ≤30        | PASS    |
|           |         | 2452    | 9.82        | ≤30        | PASS    |

## Appendix D: Maximum power spectral density

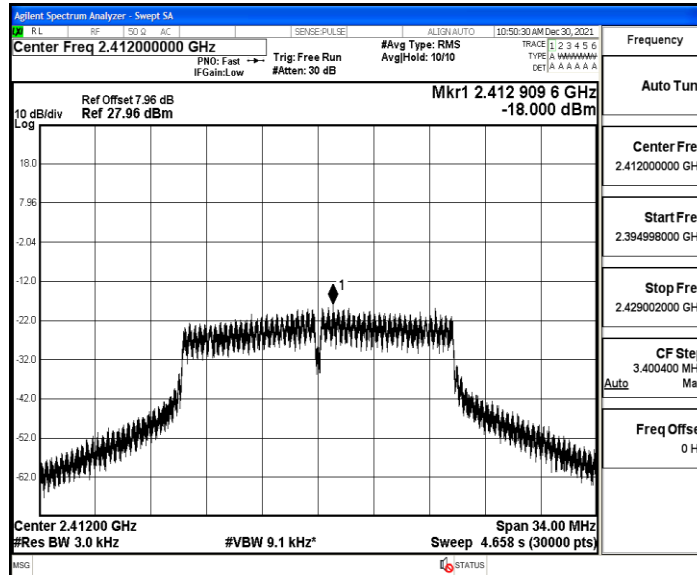
### Test Result

| TestMode  | Antenna | Channel | Result[dBm/3-100kHz] | Limit[dBm/3kHz] | Verdict |
|-----------|---------|---------|----------------------|-----------------|---------|
| 11B       | Ant1    | 2412    | -17.94               | ≤8              | PASS    |
|           |         | 2437    | -17.38               | ≤8              | PASS    |
|           |         | 2462    | -17.64               | ≤8              | PASS    |
| 11G       | Ant1    | 2412    | -18                  | ≤8              | PASS    |
|           |         | 2437    | -21.2                | ≤8              | PASS    |
|           |         | 2462    | -19.14               | ≤8              | PASS    |
| 11N20SISO | Ant1    | 2412    | -19.2                | ≤8              | PASS    |
|           |         | 2437    | -21.41               | ≤8              | PASS    |
|           |         | 2462    | -19.66               | ≤8              | PASS    |
| 11N40SISO | Ant1    | 2422    | -24.94               | ≤8              | PASS    |
|           |         | 2437    | -23.86               | ≤8              | PASS    |
|           |         | 2452    | -25.15               | ≤8              | PASS    |

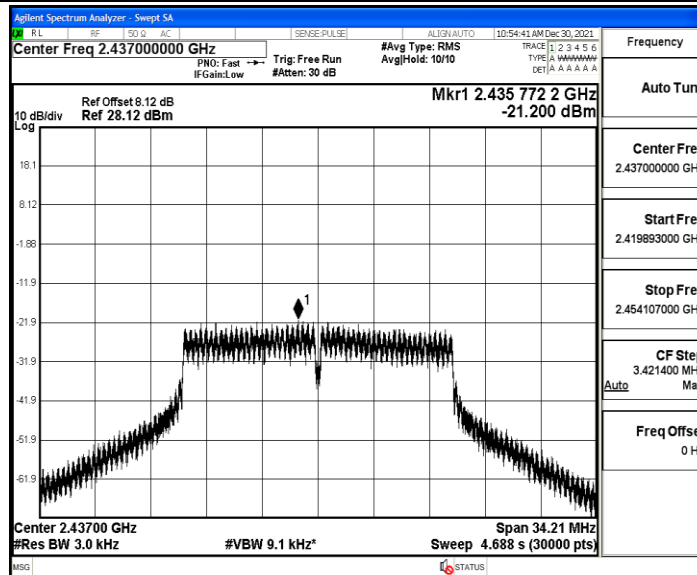
## Test Graphs



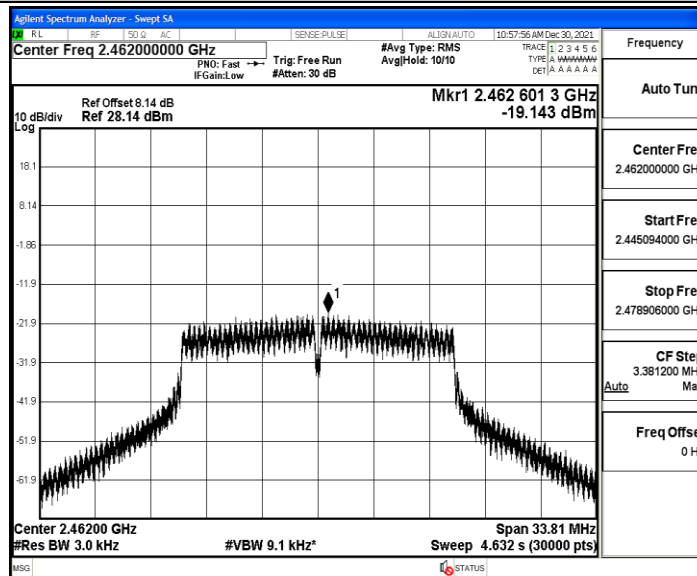
## 11G\_Ant1\_2412



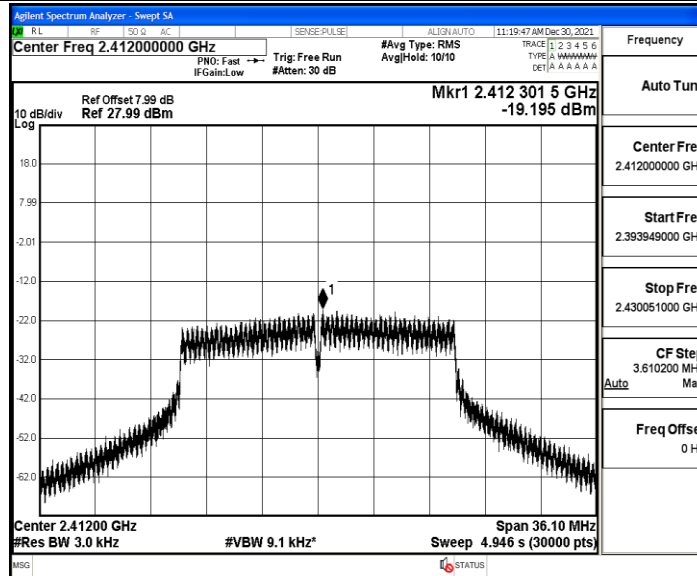
## 11G\_Ant1\_2437



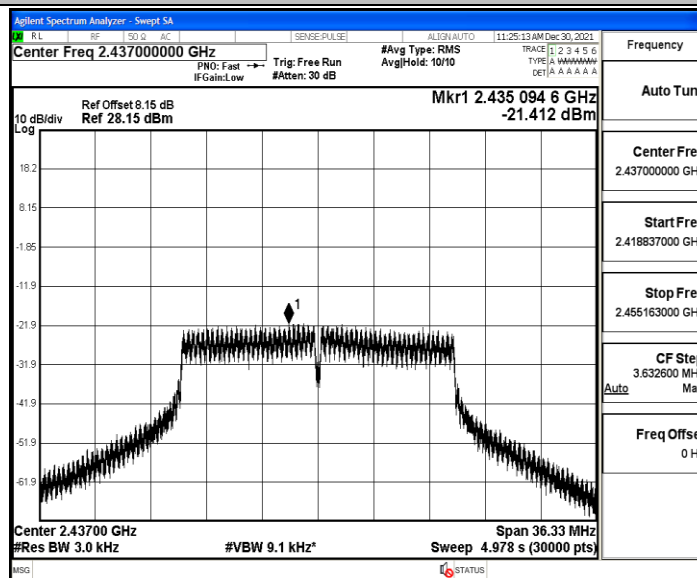
## 11G\_Ant1\_2462



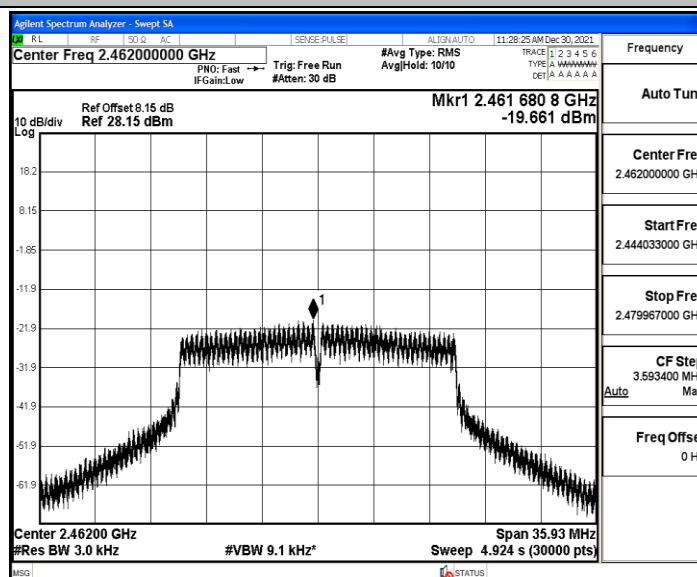
## 11N20SISO\_Ant1\_2412



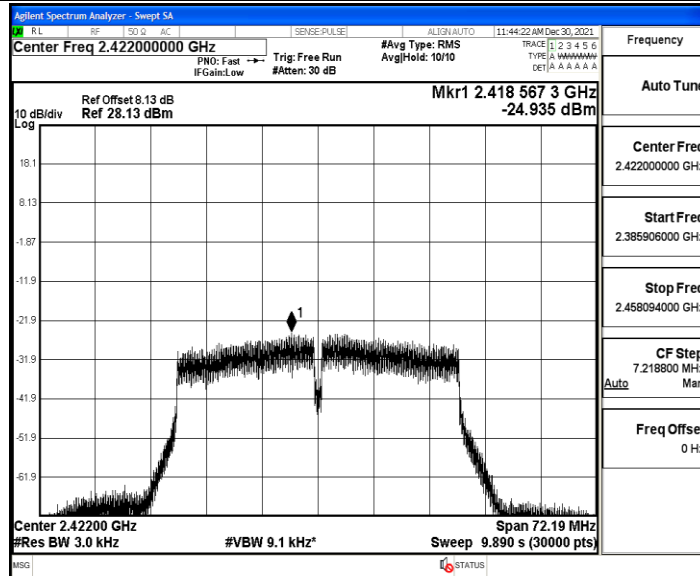
11N20SISO\_Ant1\_2437



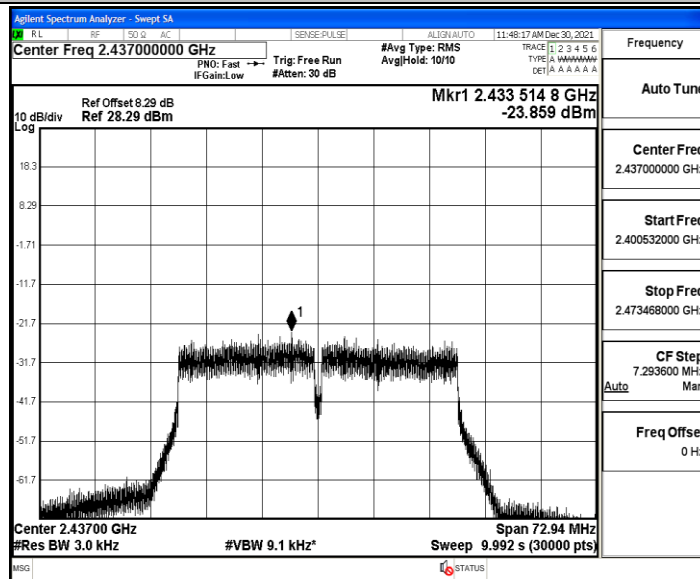
11N20SISO\_Ant1\_2462



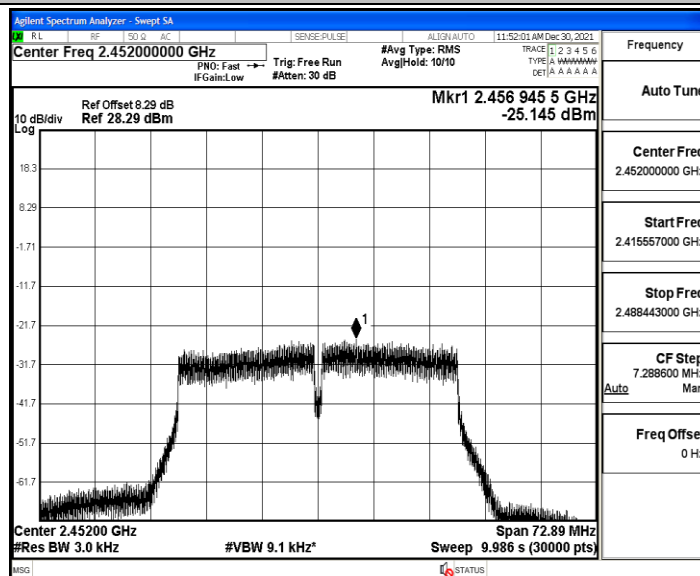
11N40SISO\_Ant1\_2422



11N40SISO\_Ant1\_2437



11N40SISO\_Ant1\_2452



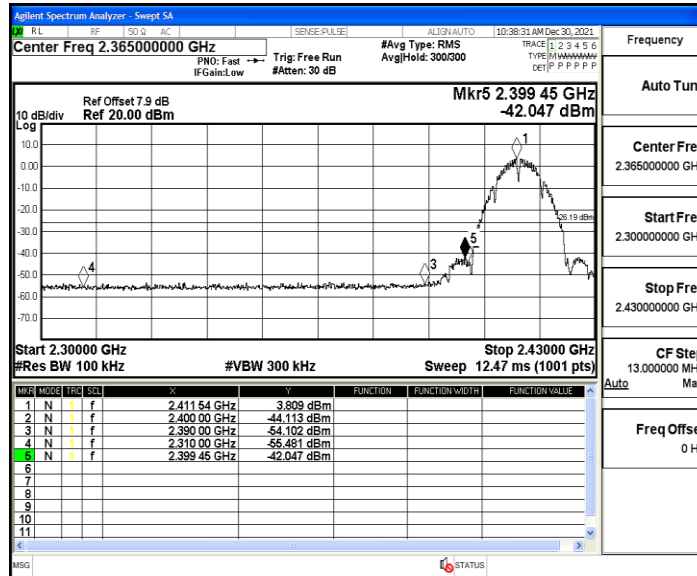
## Appendix E: Band edge measurements

### Test Result

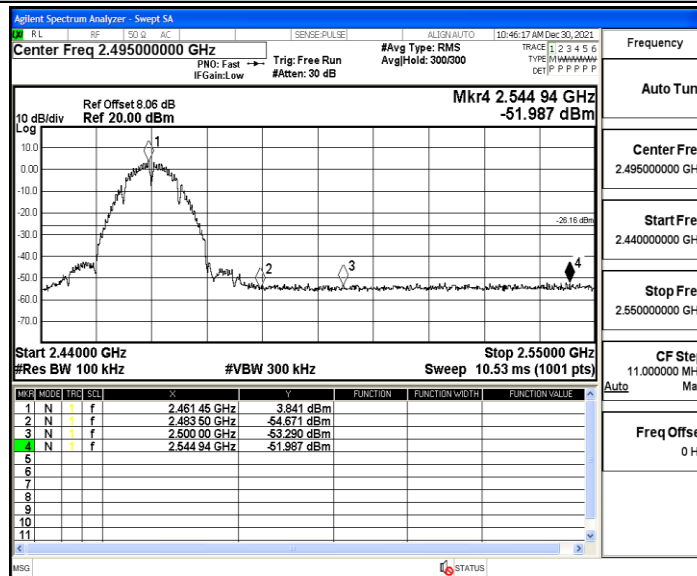
| TestMode  | Antenna | ChName | Channel | RefLevel[dBm] | Result[dBm] | Limit[dBm] | Verdict |
|-----------|---------|--------|---------|---------------|-------------|------------|---------|
| 11B       | Ant1    | Low    | 2412    | 3.81          | -42.05      | ≤-26.19    | PASS    |
|           |         | High   | 2462    | 3.84          | -51.99      | ≤-26.16    | PASS    |
| 11G       | Ant1    | Low    | 2412    | 3.94          | -26.48      | ≤-26.06    | PASS    |
|           |         | High   | 2462    | 2.51          | -46.51      | ≤-27.49    | PASS    |
| 11N20SISO | Ant1    | Low    | 2412    | 1.10          | -29.81      | ≤-28.9     | PASS    |
|           |         | High   | 2462    | 3.12          | -46.52      | ≤-26.88    | PASS    |
| 11N40SISO | Ant1    | Low    | 2422    | -3.20         | -39.6       | ≤-33.2     | PASS    |
|           |         | High   | 2452    | -3.15         | -43.11      | ≤-33.15    | PASS    |

## Test Graphs

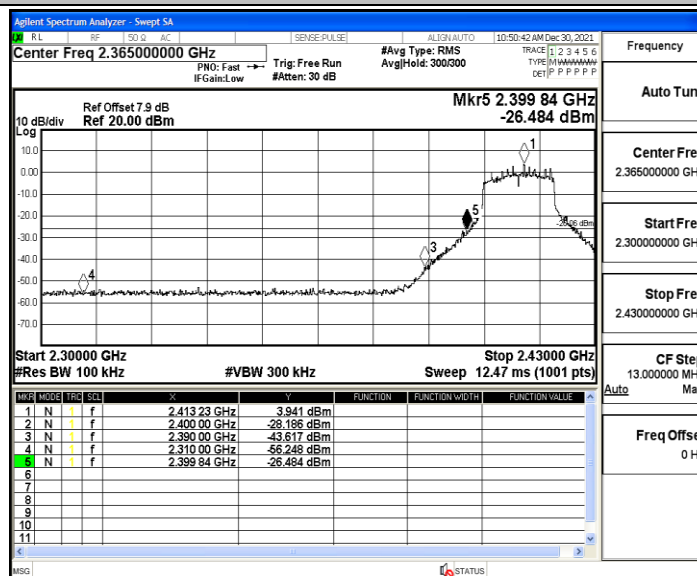
11B\_Ant1\_Low\_2412



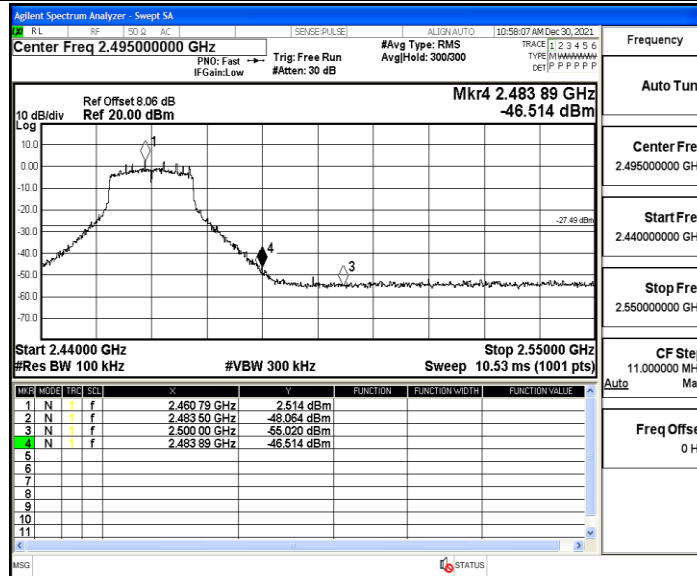
11B\_Ant1\_High\_2462



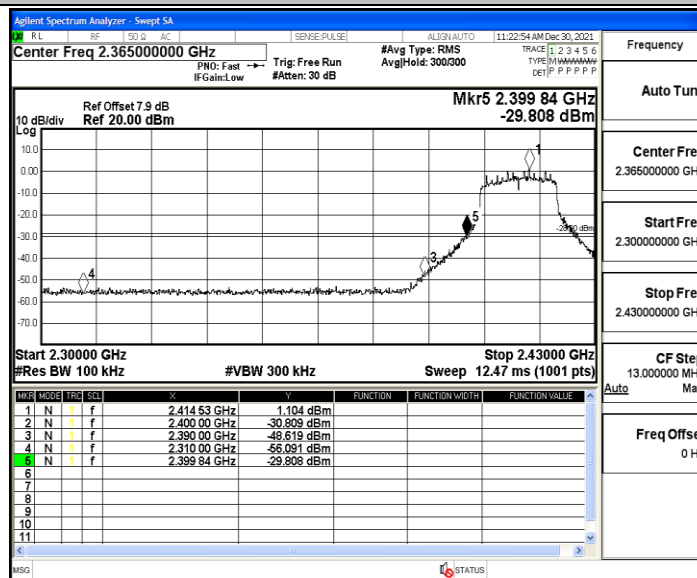
11G\_Ant1\_Low\_2412



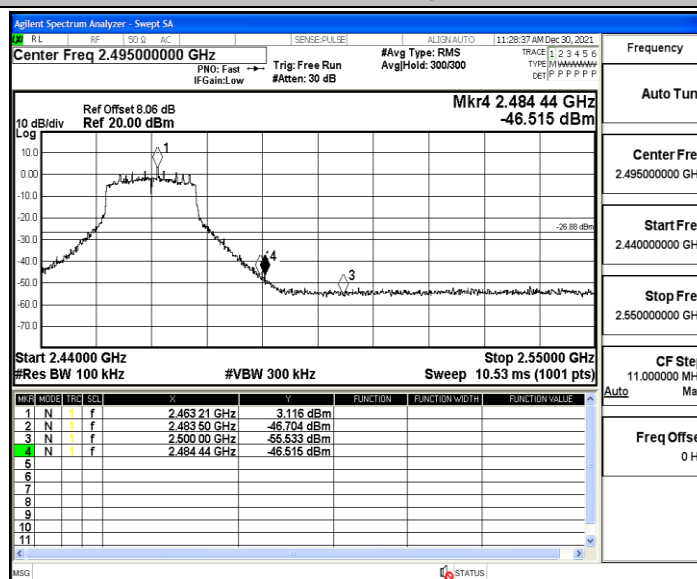
11G\_Ant1\_High\_2462



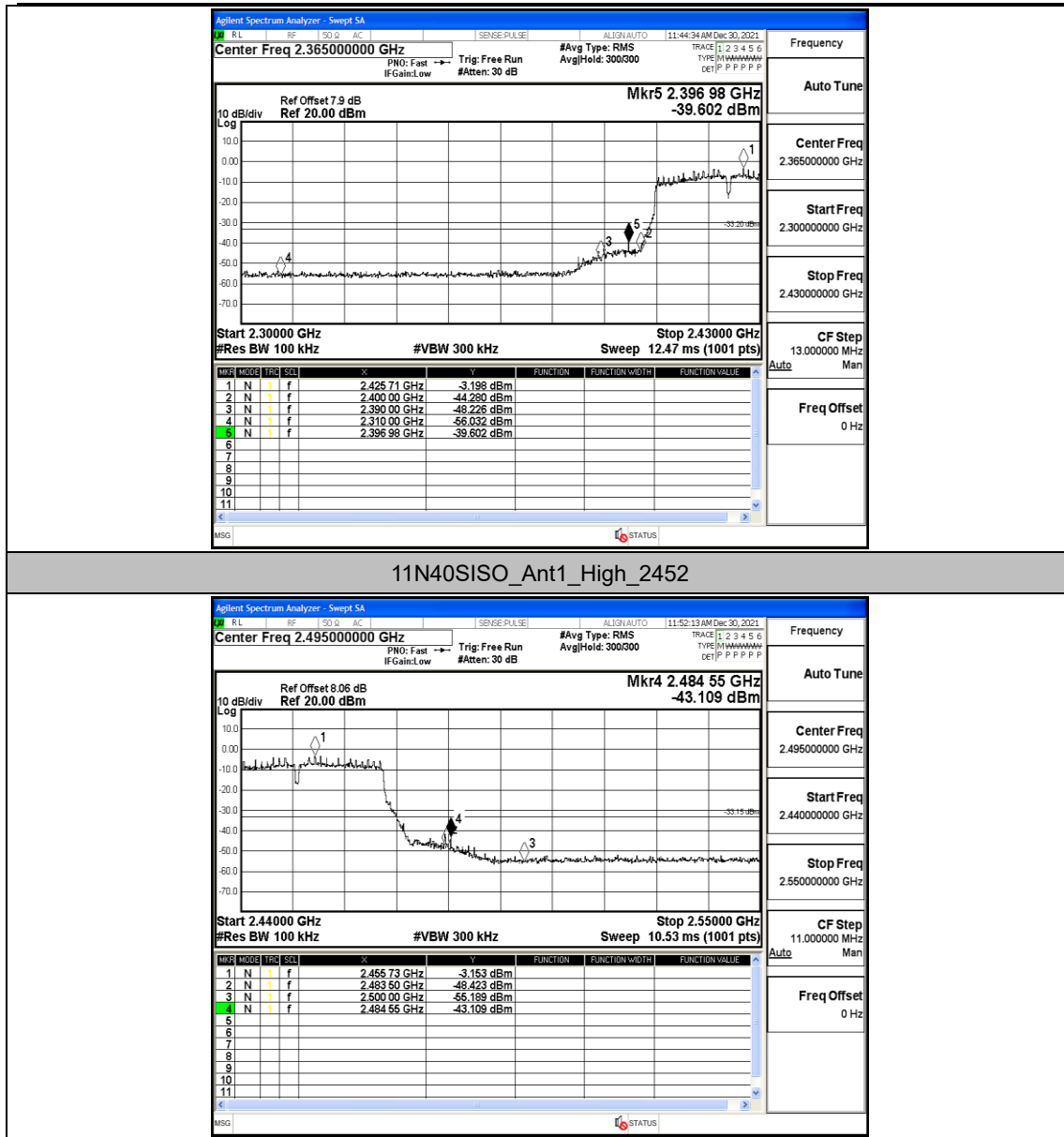
11N20SISO\_Ant1\_Low\_2412



11N20SISO\_Ant1\_High\_2462



11N40SISO\_Ant1\_Low\_2422

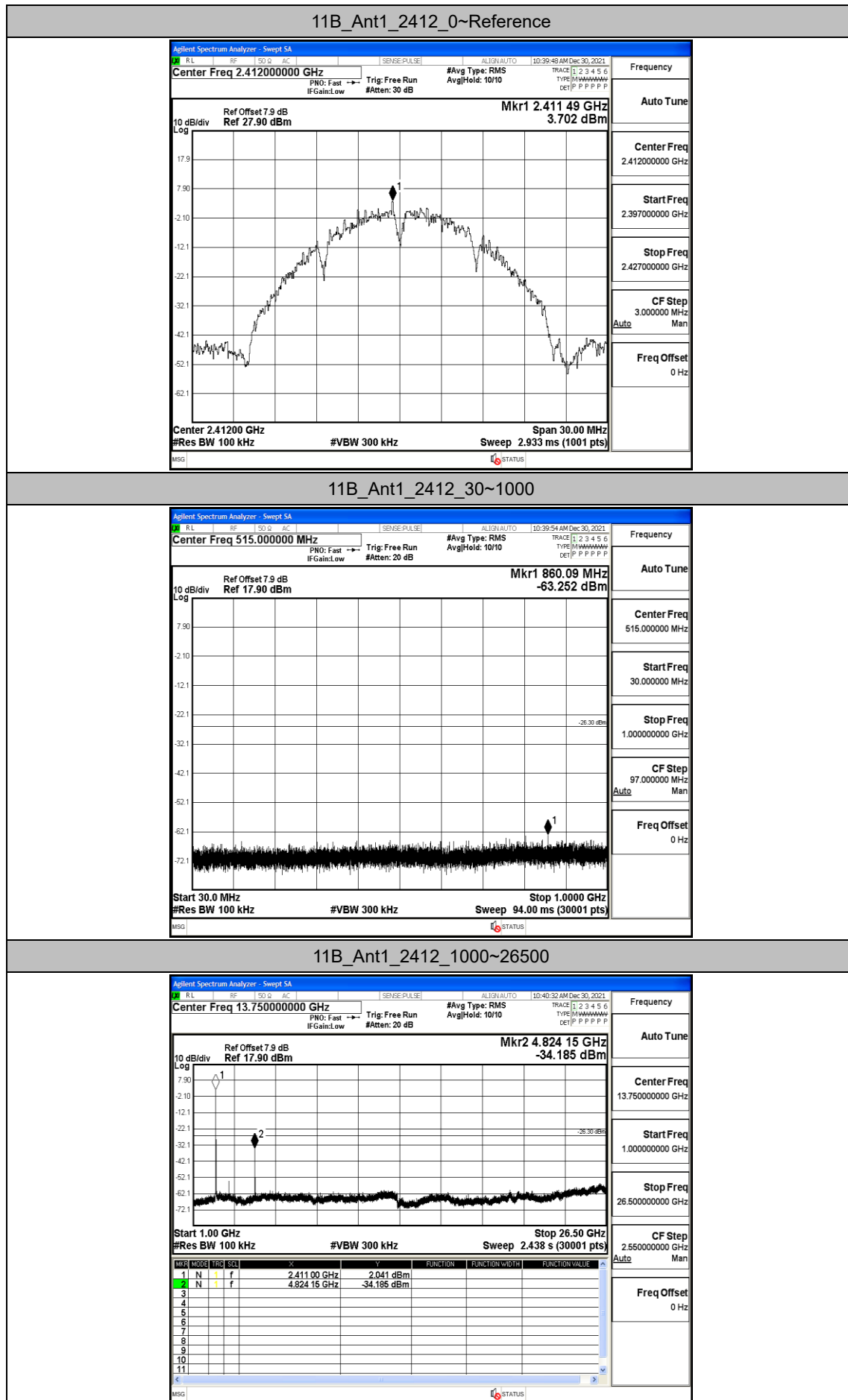


## Appendix F: Conducted Spurious Emission

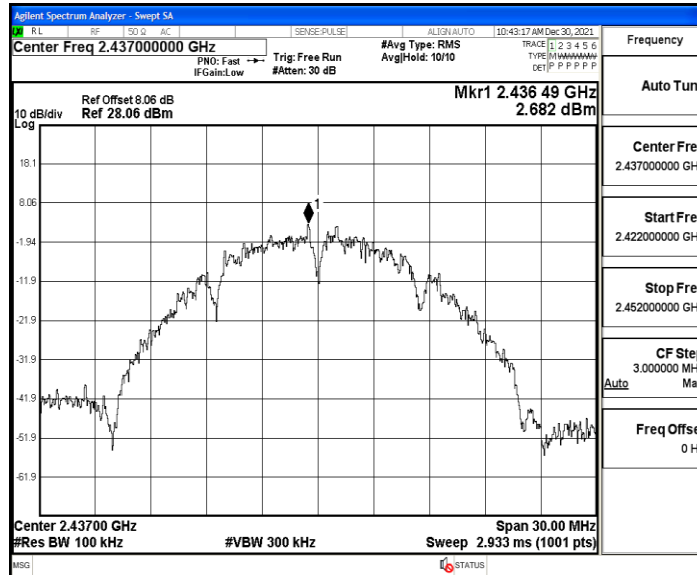
### Test Result

| TestMode  | Antenna | Channel | FreqRange<br>[Mhz] | RefLevel<br>[dBm] | Result<br>[dBm] | Limit<br>[dBm] | Verdict |
|-----------|---------|---------|--------------------|-------------------|-----------------|----------------|---------|
| 11B       | Ant1    | 2412    | Reference          | 3.70              | 3.70            | ---            | PASS    |
|           |         |         | 30~1000            | 3.70              | -63.25          | ≤-26.3         | PASS    |
|           |         |         | 1000~26500         | 3.70              | -34.19          | ≤-26.3         | PASS    |
|           |         | 2437    | Reference          | 2.68              | 2.68            | ---            | PASS    |
|           |         |         | 30~1000            | 2.68              | -63.94          | ≤-27.32        | PASS    |
|           |         |         | 1000~26500         | 2.68              | -34.18          | ≤-27.32        | PASS    |
|           |         | 2462    | Reference          | 1.97              | 1.97            | ---            | PASS    |
|           |         |         | 30~1000            | 1.97              | -63.61          | ≤-28.03        | PASS    |
|           |         |         | 1000~26500         | 1.97              | -35.66          | ≤-28.03        | PASS    |
| 11G       | Ant1    | 2412    | Reference          | 0.07              | 0.07            | ---            | PASS    |
|           |         |         | 30~1000            | 0.07              | -64.21          | ≤-29.93        | PASS    |
|           |         |         | 1000~26500         | 0.07              | -43.94          | ≤-29.93        | PASS    |
|           |         | 2437    | Reference          | -2.80             | -2.80           | ---            | PASS    |
|           |         |         | 30~1000            | -2.80             | -64.08          | ≤-32.8         | PASS    |
|           |         |         | 1000~26500         | -2.80             | -42.34          | ≤-32.8         | PASS    |
|           |         | 2462    | Reference          | -1.49             | -1.49           | ---            | PASS    |
|           |         |         | 30~1000            | -1.49             | -64.31          | ≤-31.49        | PASS    |
|           |         |         | 1000~26500         | -1.49             | -45.9           | ≤-31.49        | PASS    |
| 11N20SISO | Ant1    | 2412    | Reference          | -1.80             | -1.80           | ---            | PASS    |
|           |         |         | 30~1000            | -1.80             | -63.81          | ≤-31.8         | PASS    |
|           |         |         | 1000~26500         | -1.80             | -44.73          | ≤-31.8         | PASS    |
|           |         | 2437    | Reference          | -1.39             | -1.39           | ---            | PASS    |
|           |         |         | 30~1000            | -1.39             | -62.75          | ≤-31.39        | PASS    |
|           |         |         | 1000~26500         | -1.39             | -44.86          | ≤-31.39        | PASS    |
|           |         | 2462    | Reference          | 2.88              | 2.88            | ---            | PASS    |
|           |         |         | 30~1000            | 2.88              | -63.64          | ≤-27.12        | PASS    |
|           |         |         | 1000~26500         | 2.88              | -45.75          | ≤-27.12        | PASS    |
| 11N40SISO | Ant1    | 2422    | Reference          | -4.30             | -4.30           | ---            | PASS    |
|           |         |         | 30~1000            | -4.30             | -64.58          | ≤-34.3         | PASS    |
|           |         |         | 1000~26500         | -4.30             | -52.88          | ≤-34.3         | PASS    |
|           |         | 2437    | Reference          | -5.47             | -5.47           | ---            | PASS    |
|           |         |         | 30~1000            | -5.47             | -64.09          | ≤-35.47        | PASS    |
|           |         |         | 1000~26500         | -5.47             | -52.26          | ≤-35.47        | PASS    |
|           |         | 2452    | Reference          | -6.88             | -6.88           | ---            | PASS    |
|           |         |         | 30~1000            | -6.88             | -63.87          | ≤-36.88        | PASS    |
|           |         |         | 1000~26500         | -6.88             | -48.12          | ≤-36.88        | PASS    |

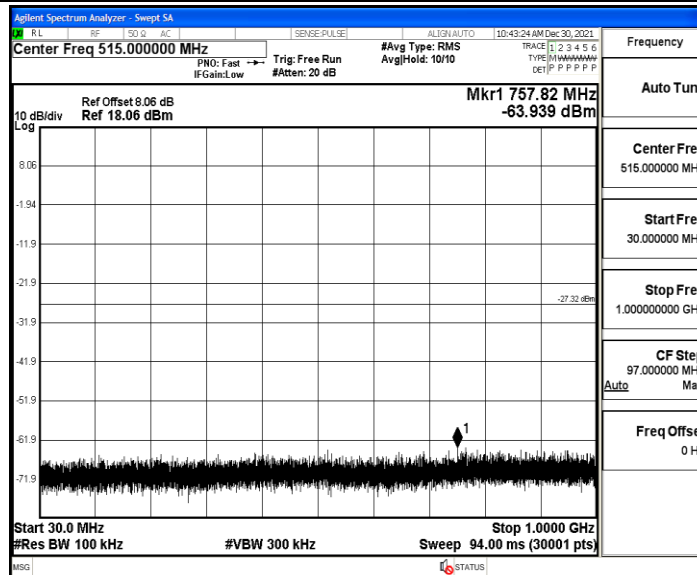
## Test Graphs



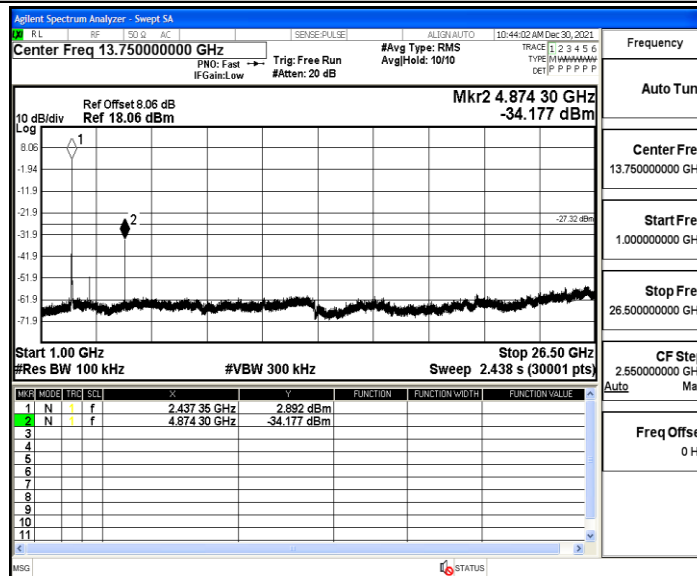
## 11B\_Ant1\_2437\_0~Reference



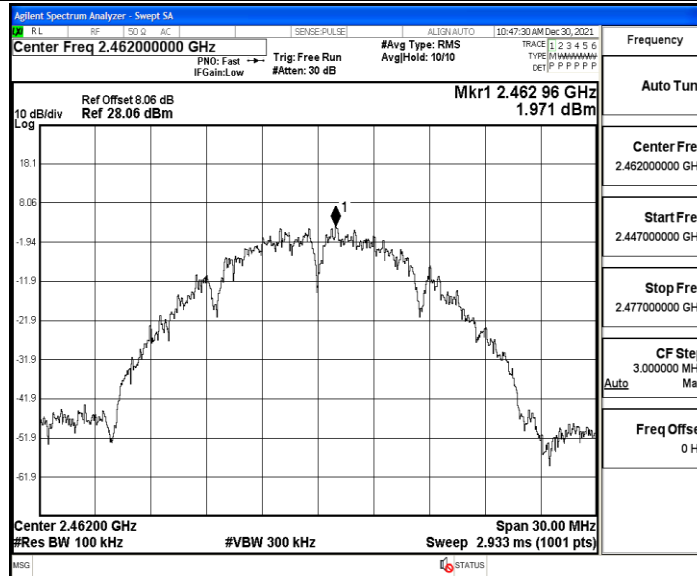
## 11B\_Ant1\_2437\_30~1000



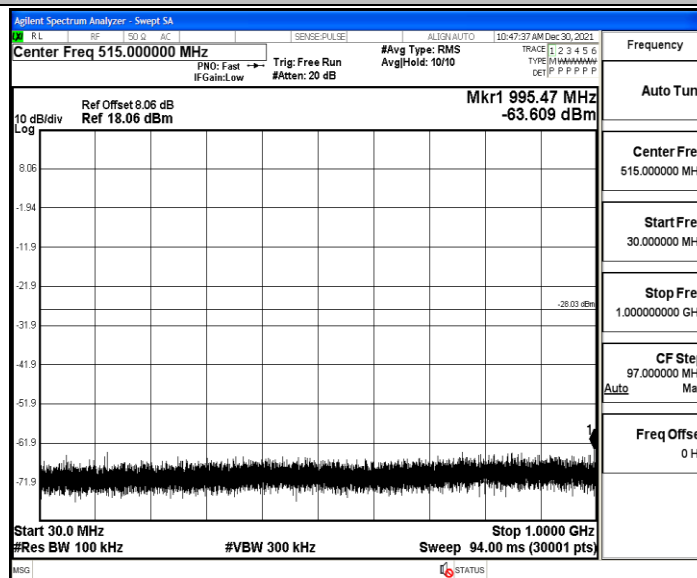
## 11B\_Ant1\_2437\_1000~26500



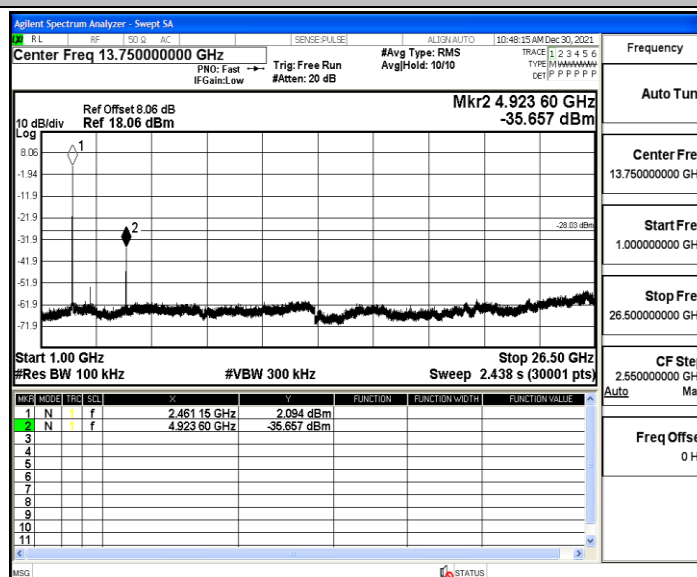
## 11B\_Ant1\_2462\_0~Reference



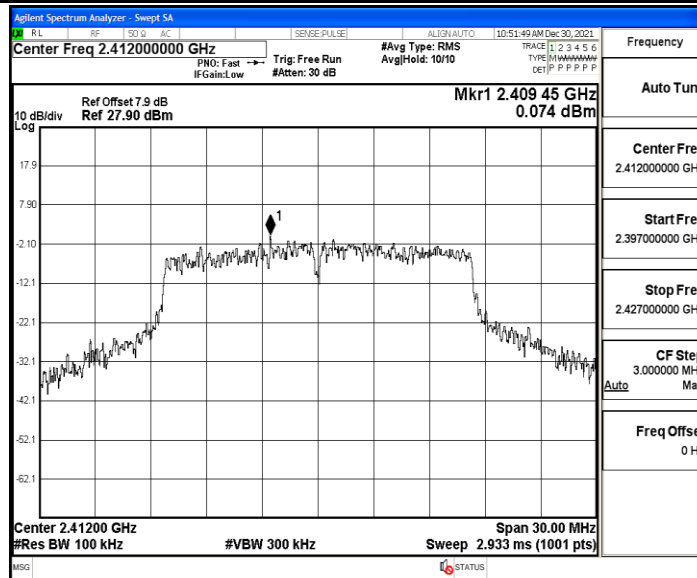
11B\_Ant1\_2462\_30~1000



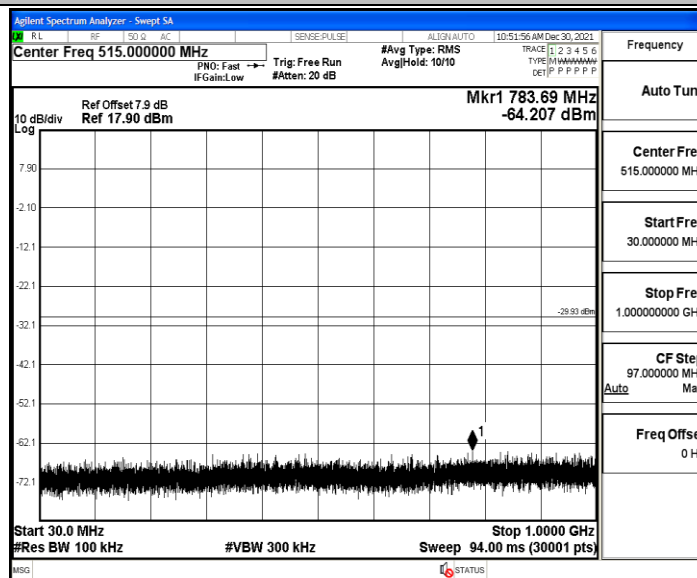
11B\_Ant1\_2462\_1000~26500



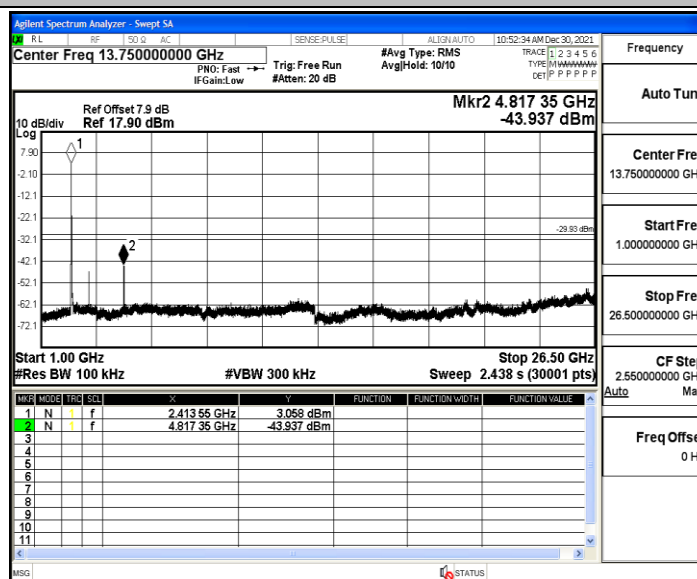
11G\_Ant1\_2412\_0~Reference



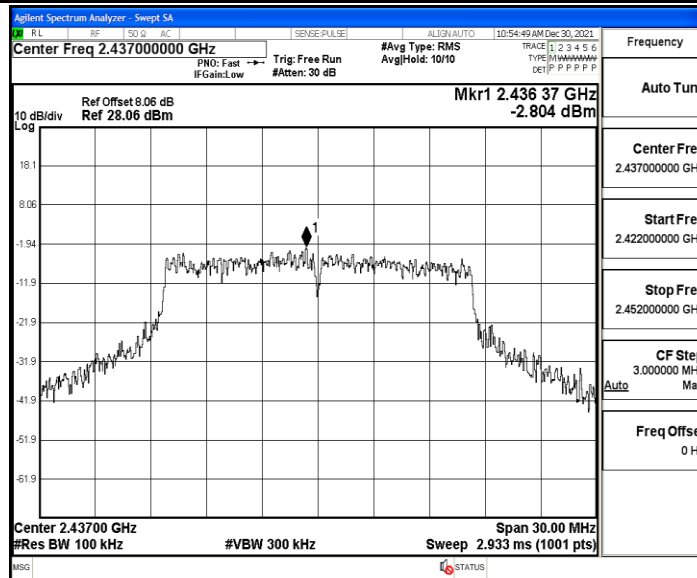
11G\_Ant1\_2412\_30~1000



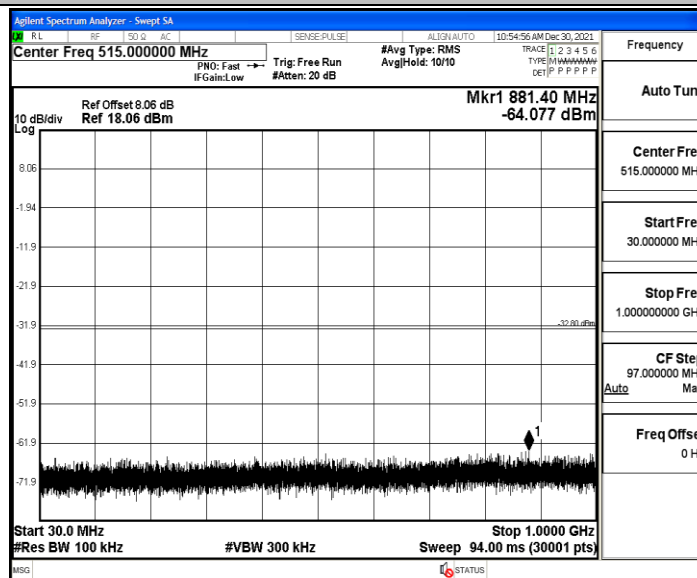
11G\_Ant1\_2412\_1000~26500



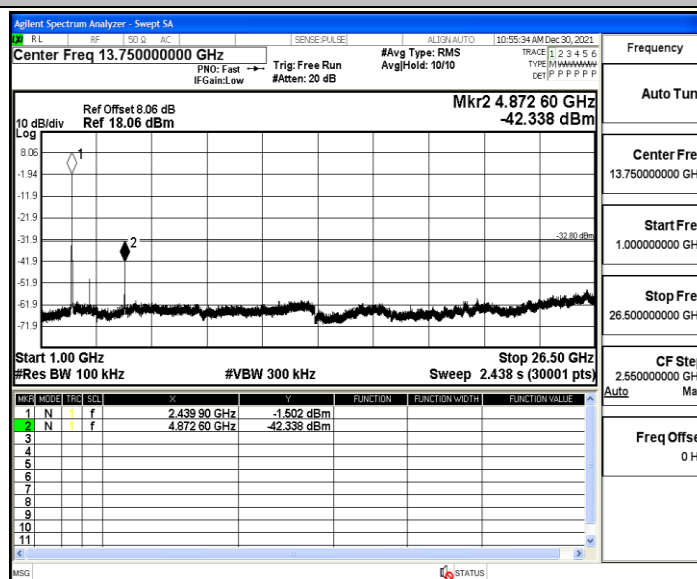
11G\_Ant1\_2437\_0~Reference



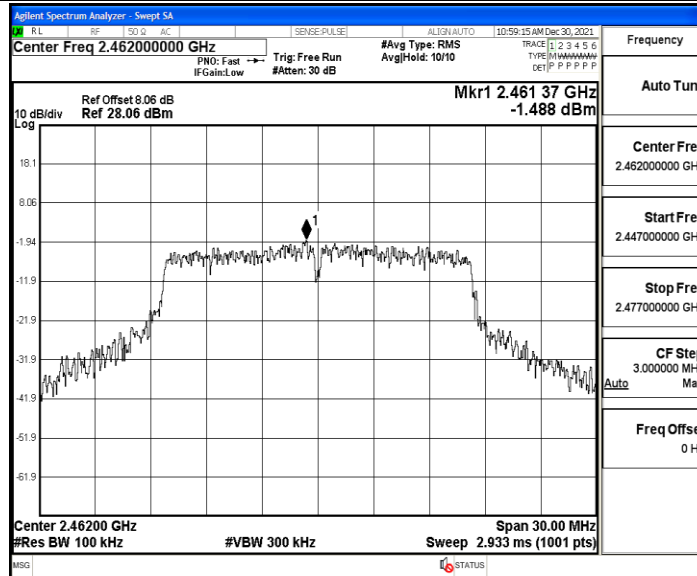
11G\_Ant1\_2437\_30~1000



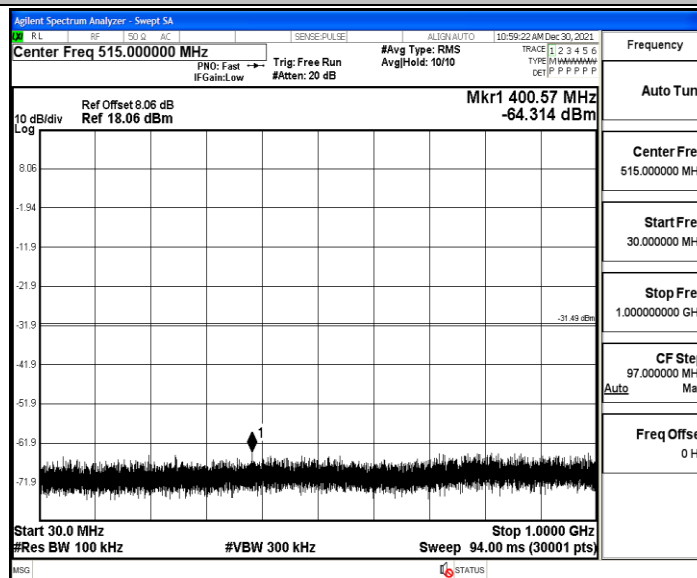
11G\_Ant1\_2437\_1000~26500



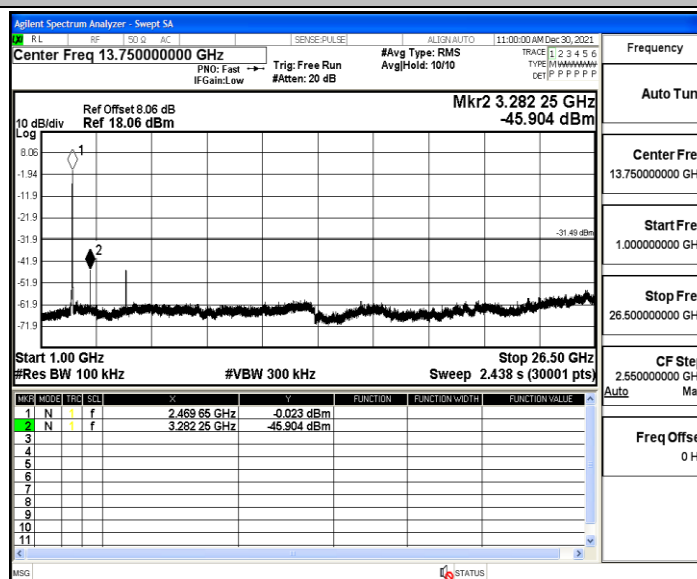
11G\_Ant1\_2462\_0~Reference



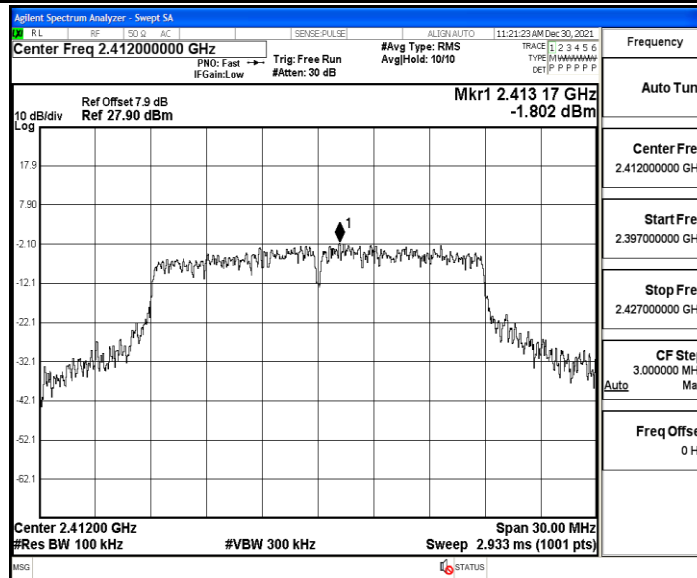
11G\_Ant1\_2462\_30~1000



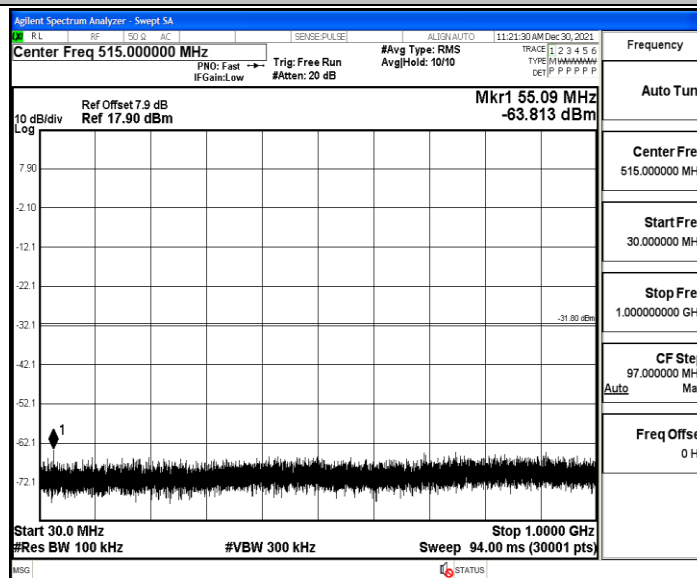
11G\_Ant1\_2462\_1000~26500



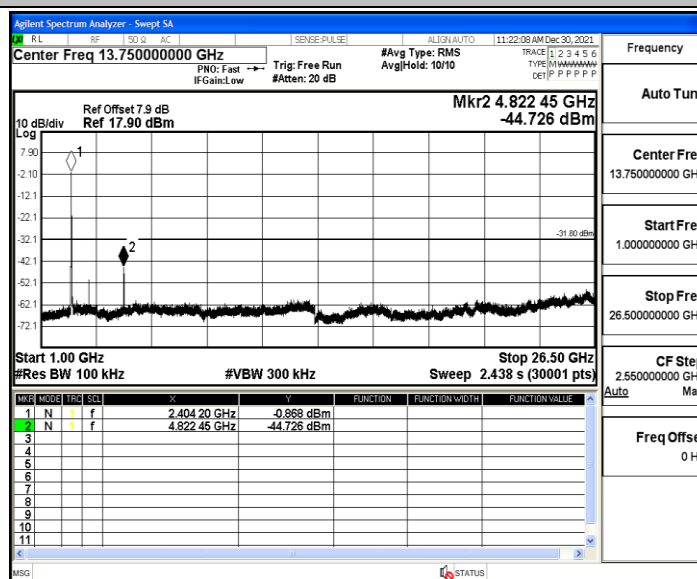
11N20SISO\_Ant1\_2412\_0~Reference



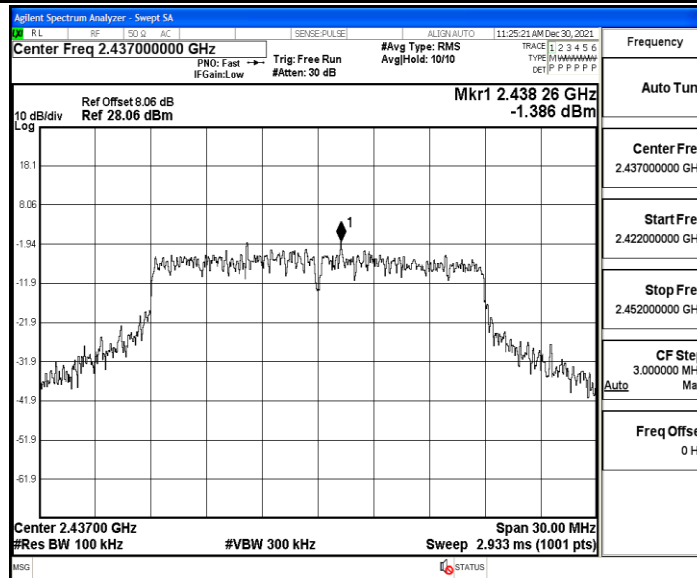
11N20SISO\_Ant1\_2412\_30~1000



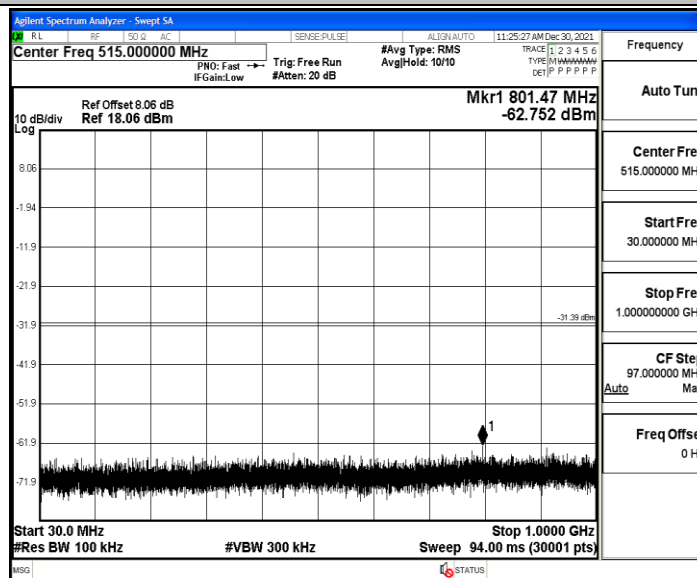
11N20SISO\_Ant1\_2412\_1000~26500



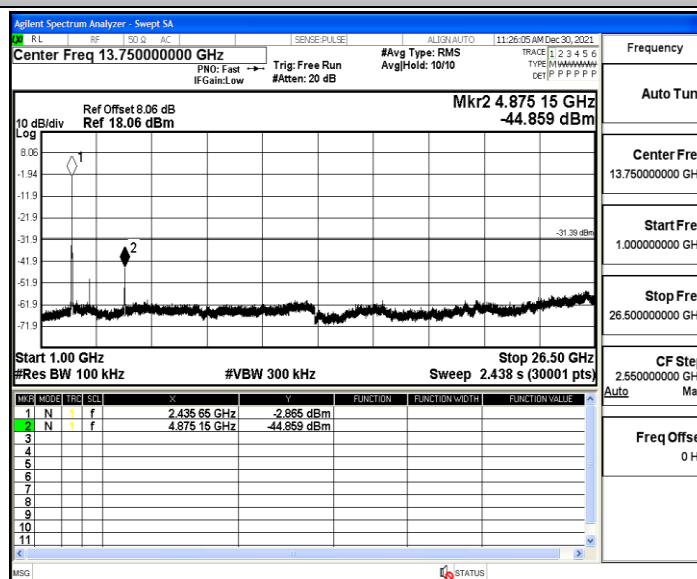
11N20SISO\_Ant1\_2437\_0~Reference



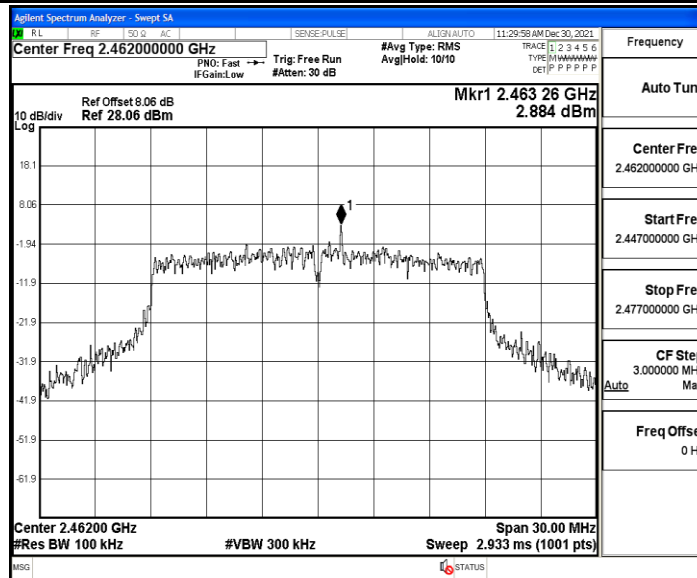
11N20SISO\_Ant1\_2437\_30~1000



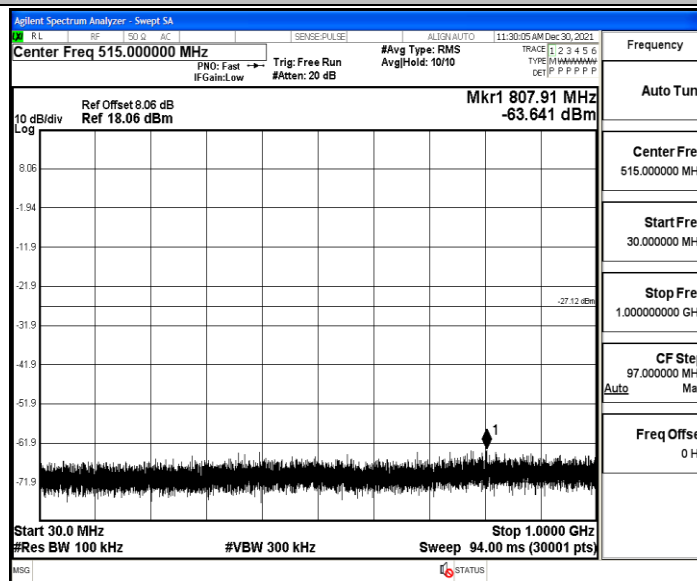
11N20SISO\_Ant1\_2437\_1000~26500



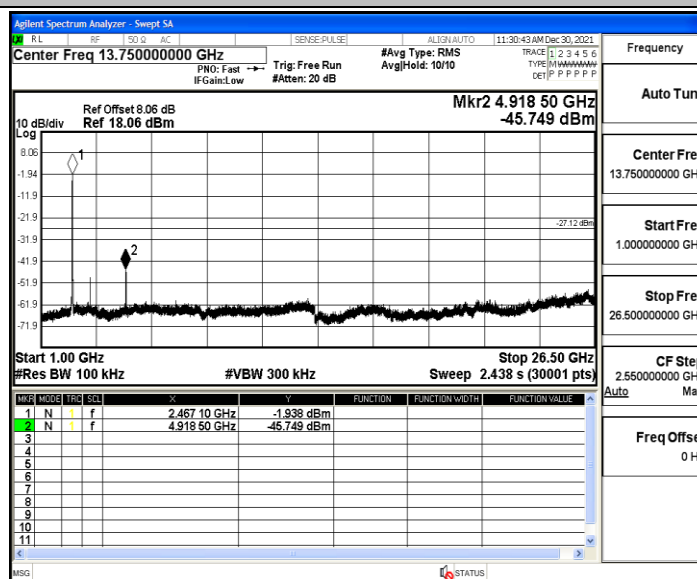
11N20SISO\_Ant1\_2462\_0~Reference



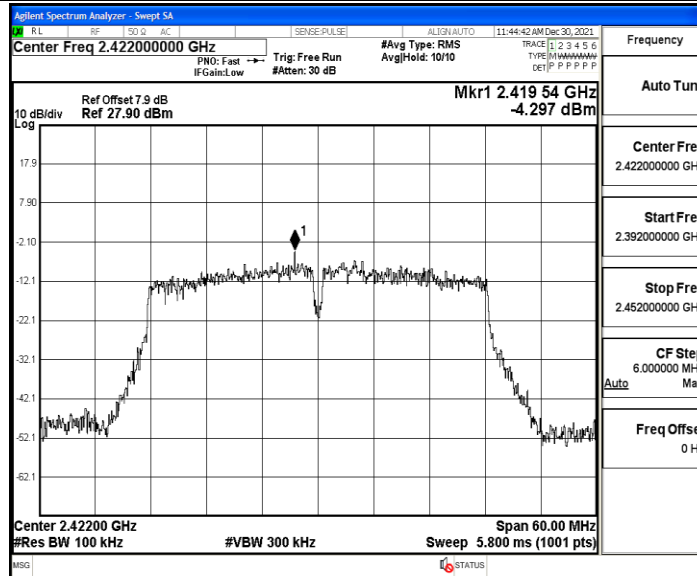
11N20SISO\_Ant1\_2462\_30~1000



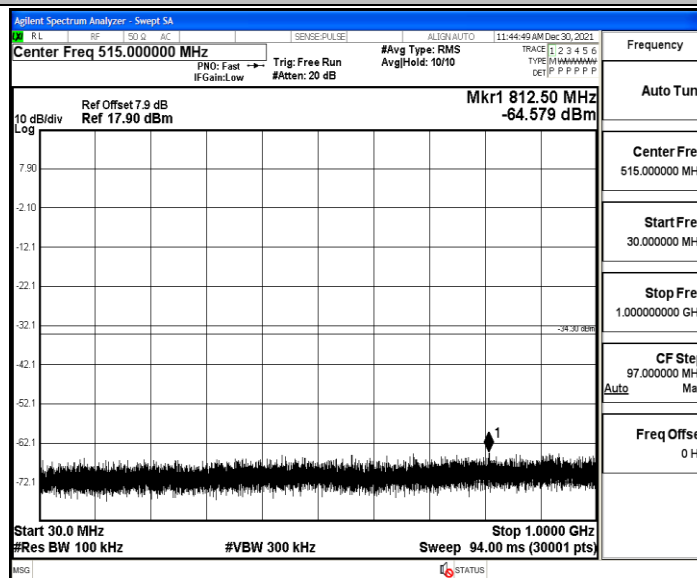
11N20SISO\_Ant1\_2462\_1000~26500



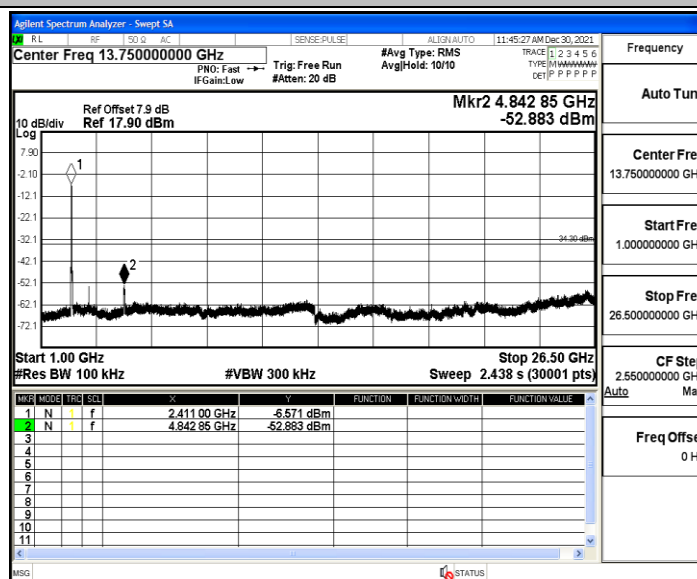
11N40SISO\_Ant1\_2422\_0~Reference



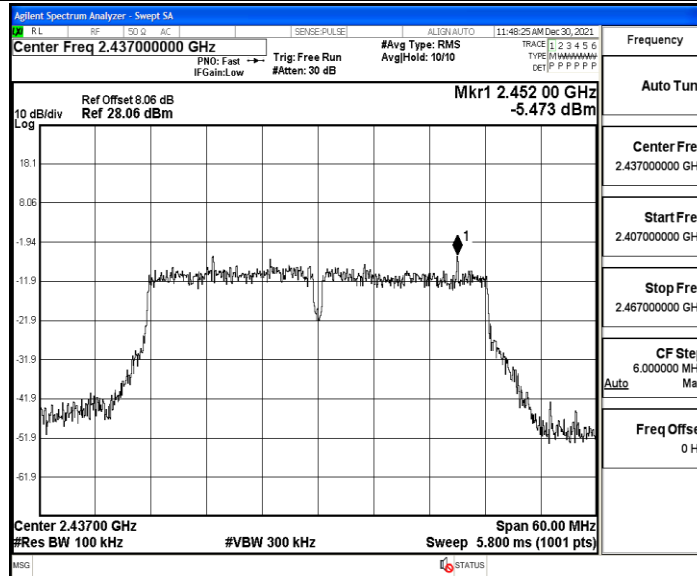
11N40SISO\_Ant1\_2422\_30~1000



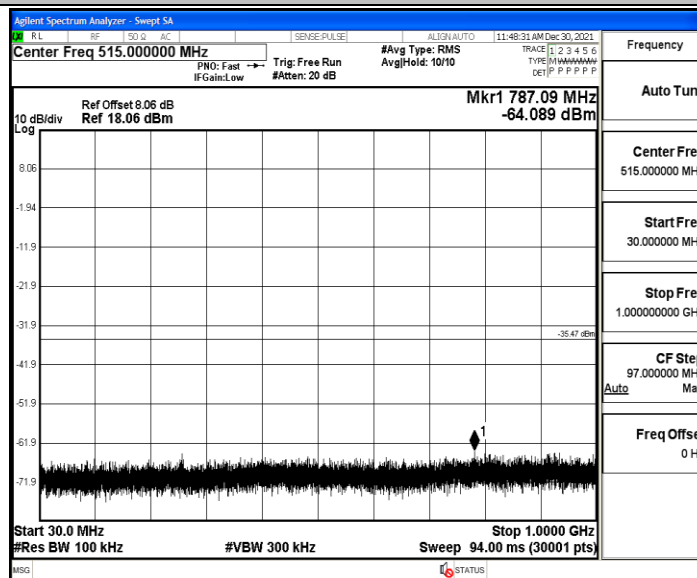
11N40SISO\_Ant1\_2422\_1000~26500



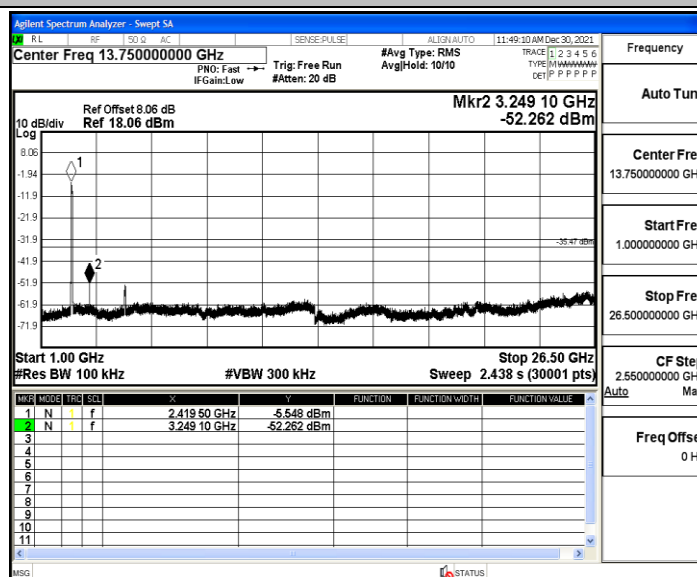
11N40SISO\_Ant1\_2437\_0~Reference



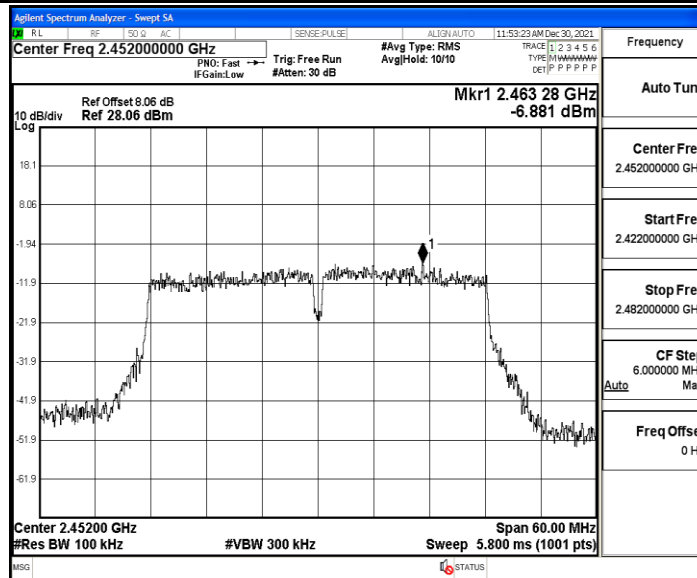
11N40SISO\_Ant1\_2437\_30~1000



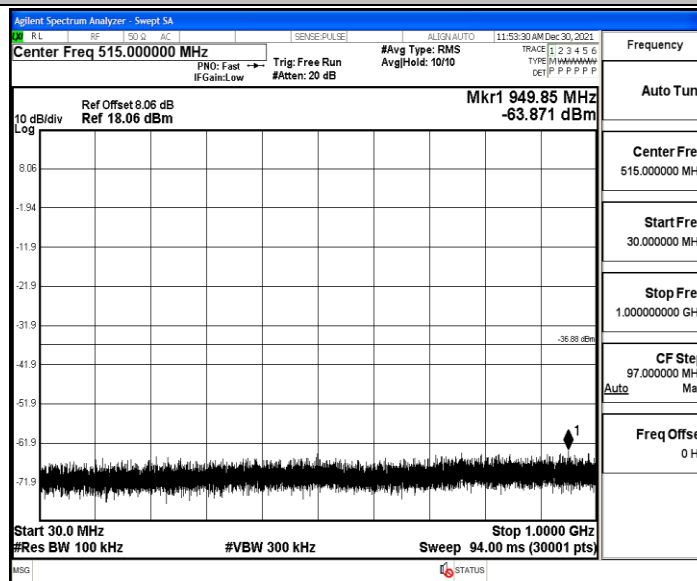
11N40SISO\_Ant1\_2437\_1000~26500



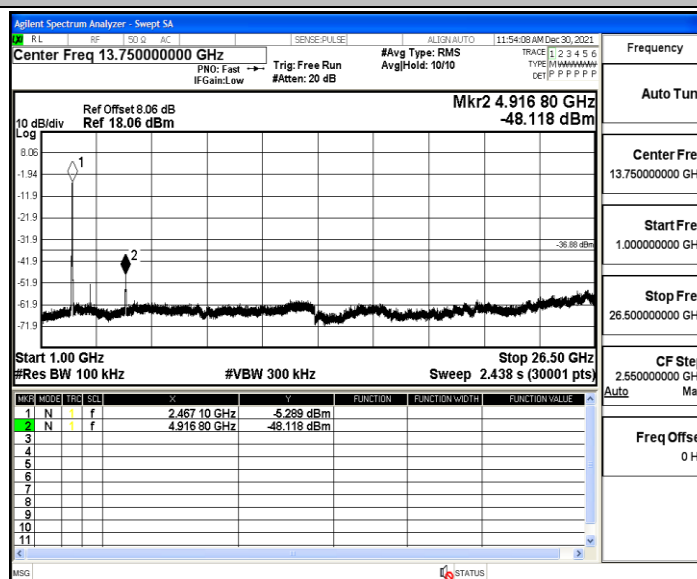
11N40SISO\_Ant1\_2452\_0~Reference



11N40SISO\_Ant1\_2452\_30~1000



11N40SISO\_Ant1\_2452\_1000~26500



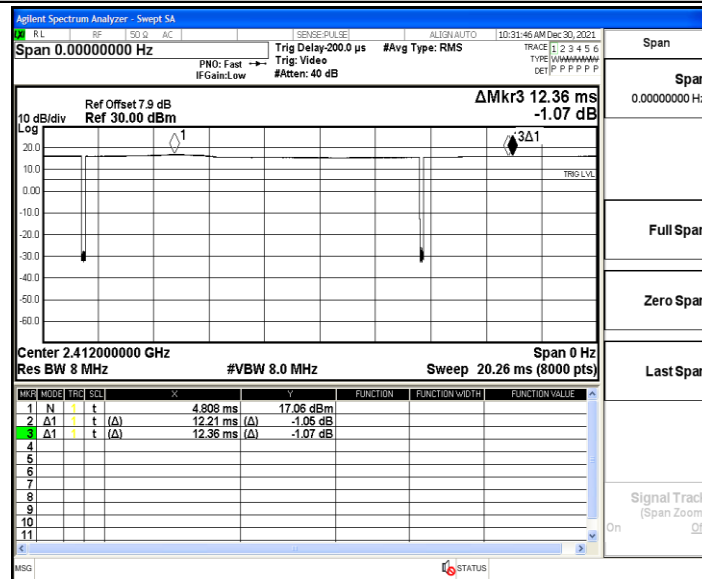
## Appendix G: Duty Cycle

### Test Result

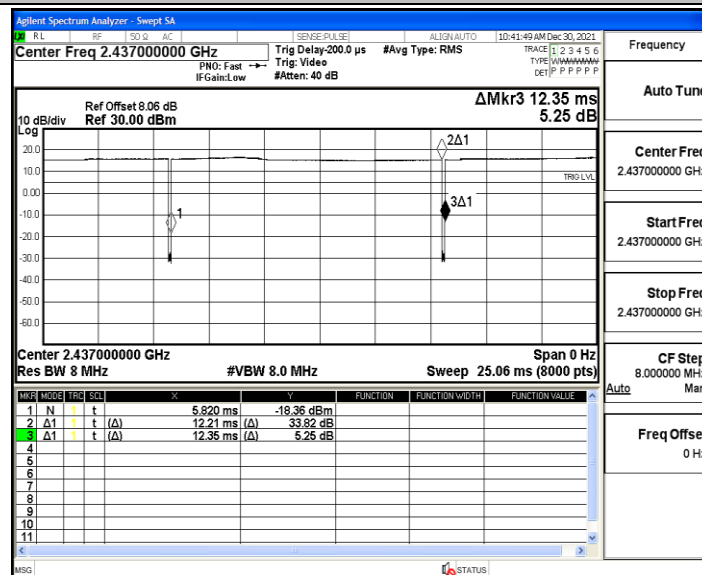
| TestMode  | Antenna | Channel | Transmission Duration [ms] | Transmission Period [ms] | Duty Cycle [%] | 1/T  |
|-----------|---------|---------|----------------------------|--------------------------|----------------|------|
| 11B       | Ant1    | 2412    | 12.21                      | 12.36                    | 98.79          | 0.08 |
|           |         | 2437    | 12.21                      | 12.35                    | 98.87          | 0.08 |
|           |         | 2462    | 12.21                      | 12.36                    | 98.79          | 0.08 |
| 11G       | Ant1    | 2412    | 2.03                       | 2.06                     | 98.54          | 0.49 |
|           |         | 2437    | 2.03                       | 2.06                     | 98.54          | 0.49 |
|           |         | 2462    | 2.03                       | 2.07                     | 98.07          | 0.49 |
| 11N20SISO | Ant1    | 2412    | 1.89                       | 1.93                     | 97.93          | 0.53 |
|           |         | 2437    | 1.88                       | 1.92                     | 97.92          | 0.53 |
|           |         | 2462    | 1.89                       | 1.93                     | 97.93          | 0.53 |
| 11N40SISO | Ant1    | 2422    | 0.93                       | 0.98                     | 94.90          | 1.08 |
|           |         | 2437    | 0.93                       | 0.98                     | 94.90          | 1.08 |
|           |         | 2452    | 0.93                       | 0.98                     | 94.90          | 1.08 |

## Test Graphs

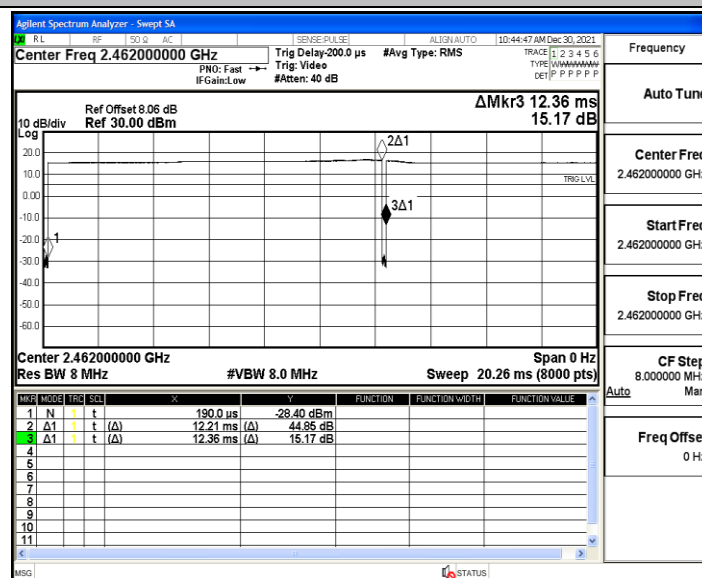
11B\_Ant1\_2412



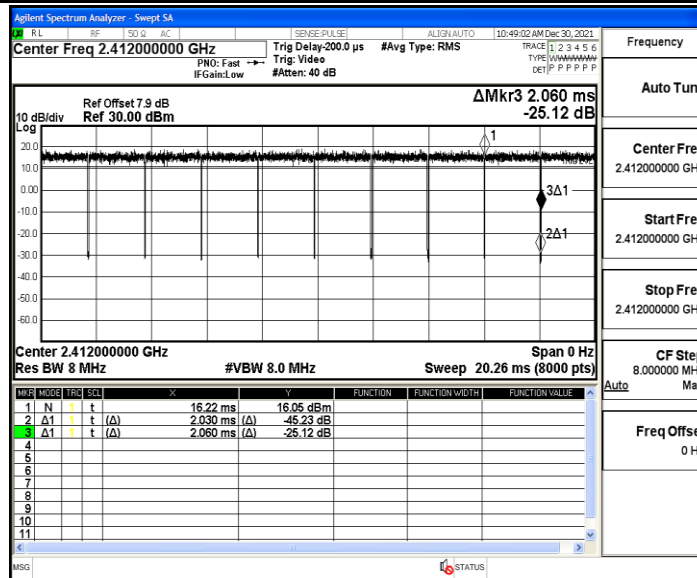
11B\_Ant1\_2437



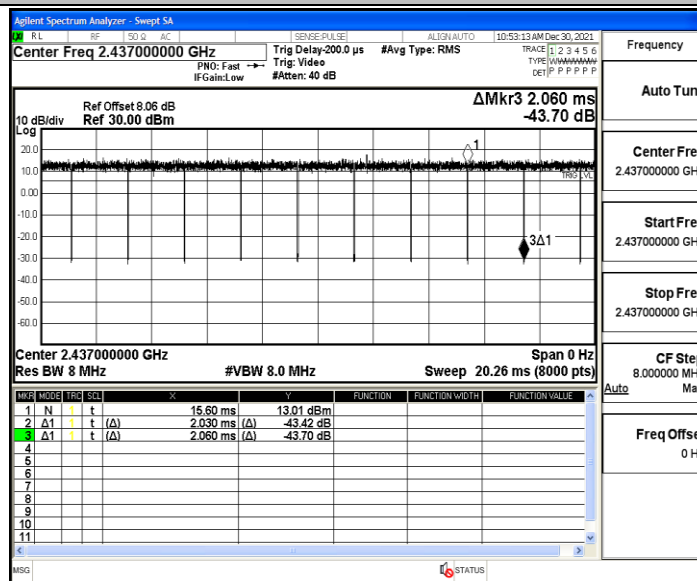
11B\_Ant1\_2462



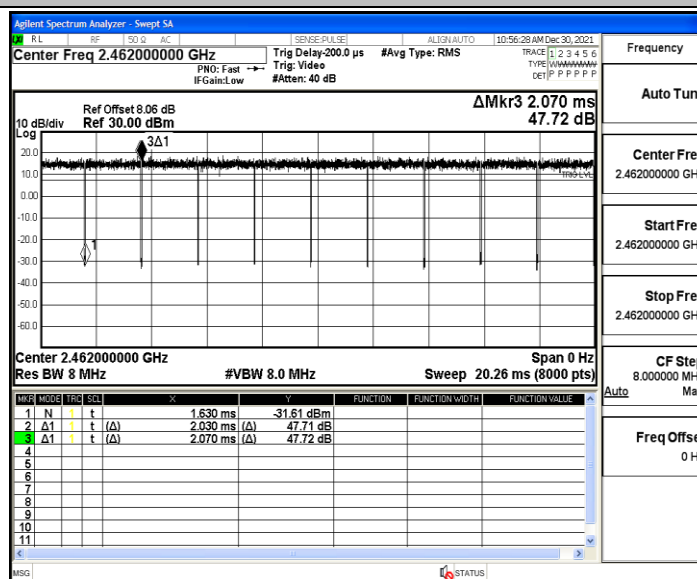
11G\_Ant1\_2412



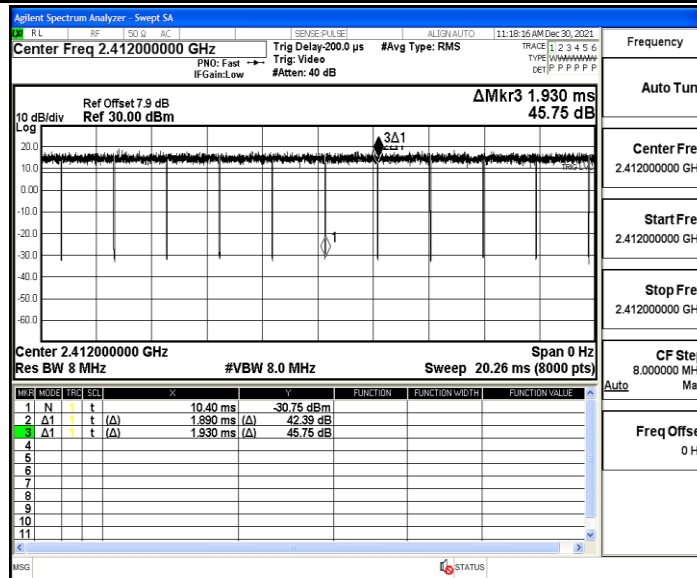
11G\_Ant1\_2437



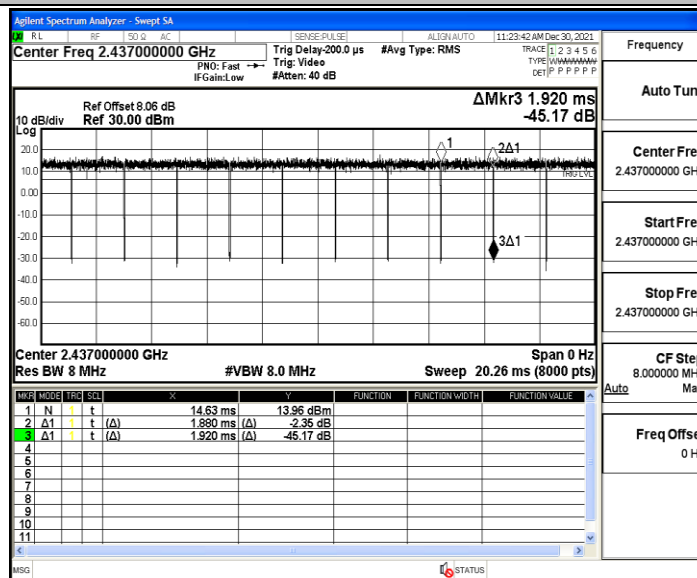
11G\_Ant1\_2462



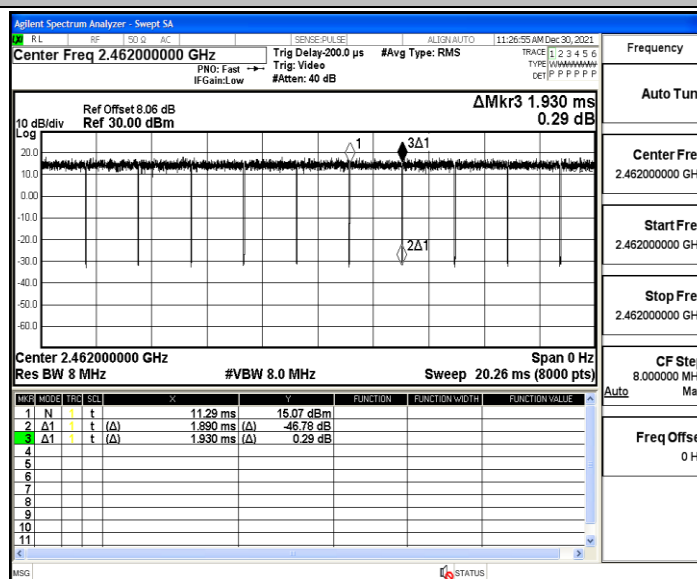
11N20SISO\_Ant1\_2412



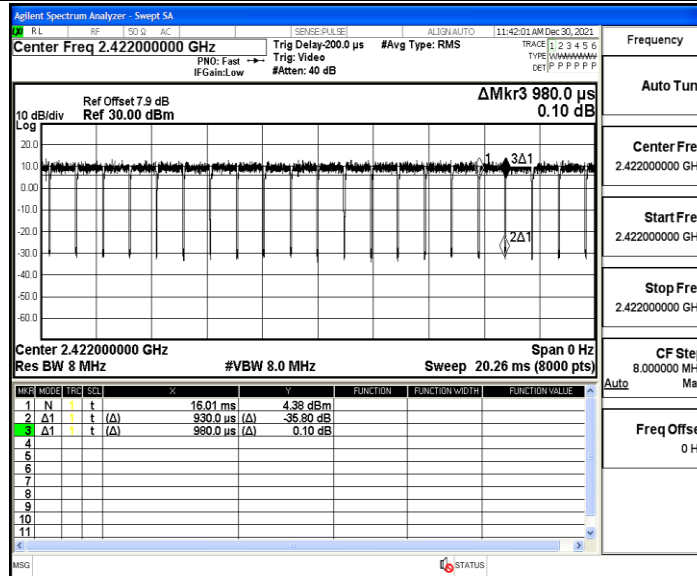
11N20SISO\_Ant1\_2437



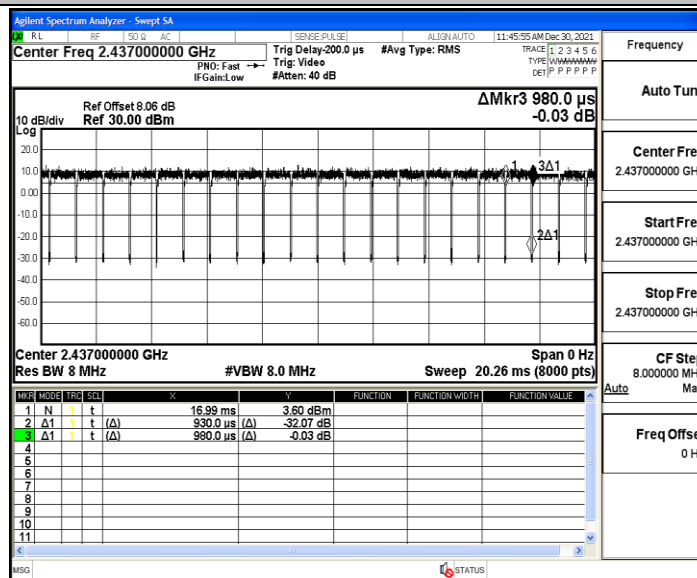
11N20SISO\_Ant1\_2462



11N40SISO\_Ant1\_2422



11N40SISO\_Ant1\_2437



11N40SISO\_Ant1\_2452

