

## **FCC Appendix RF Test Data**

**FCC ID** : 2BQD4-K900

**Company** : Shenzhen Xingyi Intelligent Technology Co., Ltd.

**EUT** : K900

**Model Number** : K900

**Report No.** : CTA25060302403

**Reviewed By** : Eric Wang

## Appendix A: DTS Bandwidth

### Test Result

| TestMode  | Antenna | Frequency[MHz] | DTS BW<br>[MHz] | FL[MHz]  | FH[MHz]  | Limit[MHz] | Verdict |
|-----------|---------|----------------|-----------------|----------|----------|------------|---------|
| 11B       | Ant1    | 2412           | 9.560           | 2407.480 | 2417.040 | 0.5        | PASS    |
|           |         | 2437           | 9.080           | 2432.960 | 2442.040 | 0.5        | PASS    |
|           |         | 2462           | 9.600           | 2457.440 | 2467.040 | 0.5        | PASS    |
| 11G       | Ant1    | 2412           | 15.720          | 2403.880 | 2419.600 | 0.5        | PASS    |
|           |         | 2437           | 15.720          | 2429.440 | 2445.160 | 0.5        | PASS    |
|           |         | 2462           | 15.720          | 2453.840 | 2469.560 | 0.5        | PASS    |
| 11N20SISO | Ant1    | 2412           | 15.920          | 2403.680 | 2419.600 | 0.5        | PASS    |
|           |         | 2437           | 15.920          | 2429.440 | 2445.360 | 0.5        | PASS    |
|           |         | 2462           | 16.200          | 2453.360 | 2469.560 | 0.5        | PASS    |
| 11N40SISO | Ant1    | 2422           | 35.840          | 2404.080 | 2439.920 | 0.5        | PASS    |
|           |         | 2437           | 35.120          | 2419.480 | 2454.600 | 0.5        | PASS    |
|           |         | 2452           | 30.080          | 2434.480 | 2464.560 | 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



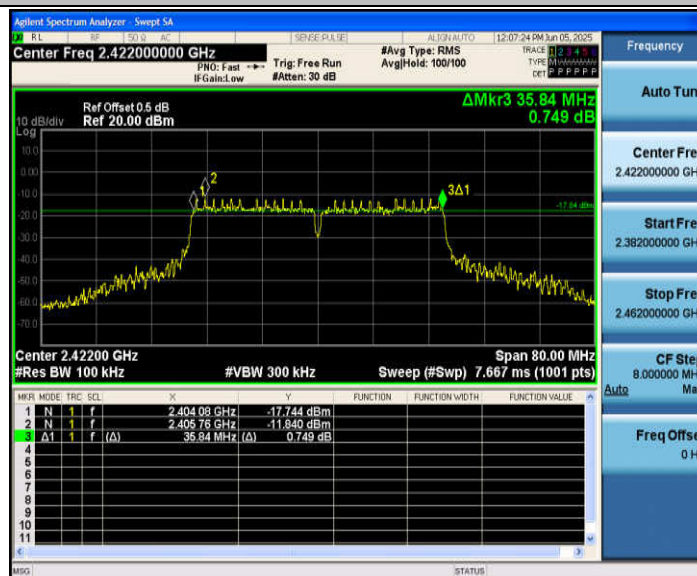
# 11N20SISO\_Ant1\_2437



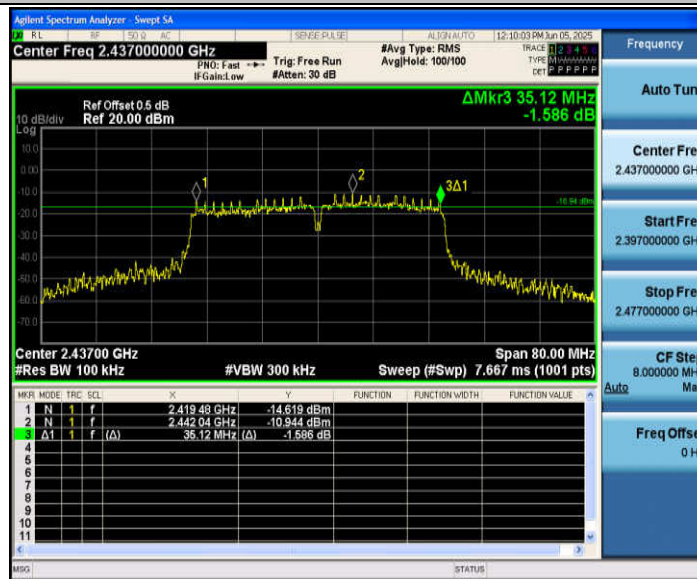
11N20SISO\_Ant1\_2462



11N40SISO\_Ant1\_2422



# 11N40SISO\_Ant1\_2437



# 11N40SISO\_Ant1\_2452



## Appendix B: Occupied Channel Bandwidth

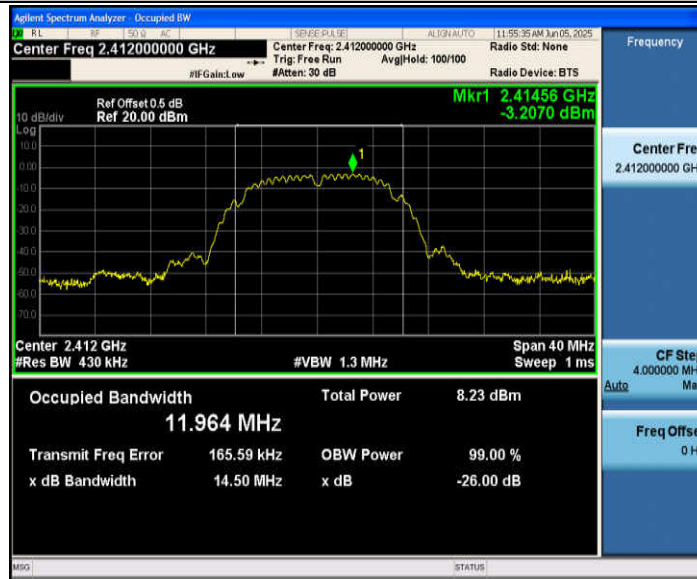
### Test Result

| TestMode  | Antenna | Channel Frequency[MHz] | OCB [MHz] | FL[MHz]   | FH[MHz]   | Limit[MHz] | Verdict |
|-----------|---------|------------------------|-----------|-----------|-----------|------------|---------|
| 11B       | Ant1    | 2412                   | 11.964    | 2406.1836 | 2418.1476 | ---        | ---     |
|           |         | 2437                   | 11.854    | 2431.2346 | 2443.0886 | ---        | ---     |
|           |         | 2462                   | 11.998    | 2456.1370 | 2468.1350 | ---        | ---     |
| 11G       | Ant1    | 2412                   | 16.604    | 2403.6855 | 2420.2895 | ---        | ---     |
|           |         | 2437                   | 16.677    | 2428.7867 | 2445.4637 | ---        | ---     |
|           |         | 2462                   | 16.770    | 2453.4871 | 2470.2571 | ---        | ---     |
| 11N20SISO | Ant1    | 2412                   | 17.613    | 2403.1911 | 2420.8041 | ---        | ---     |
|           |         | 2437                   | 17.606    | 2428.3205 | 2445.9265 | ---        | ---     |
|           |         | 2462                   | 17.781    | 2452.9932 | 2470.7742 | ---        | ---     |
| 11N40SISO | Ant1    | 2422                   | 36.457    | 2403.8896 | 2440.3466 | ---        | ---     |
|           |         | 2437                   | 36.064    | 2419.0358 | 2455.0998 | ---        | ---     |
|           |         | 2452                   | 35.746    | 2434.0097 | 2469.7557 | ---        | ---     |

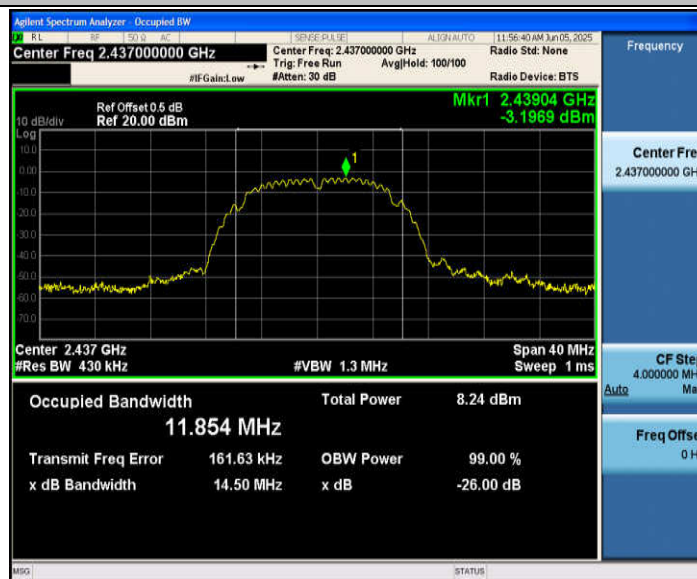


## Test Graphs

11B\_Ant1\_2412



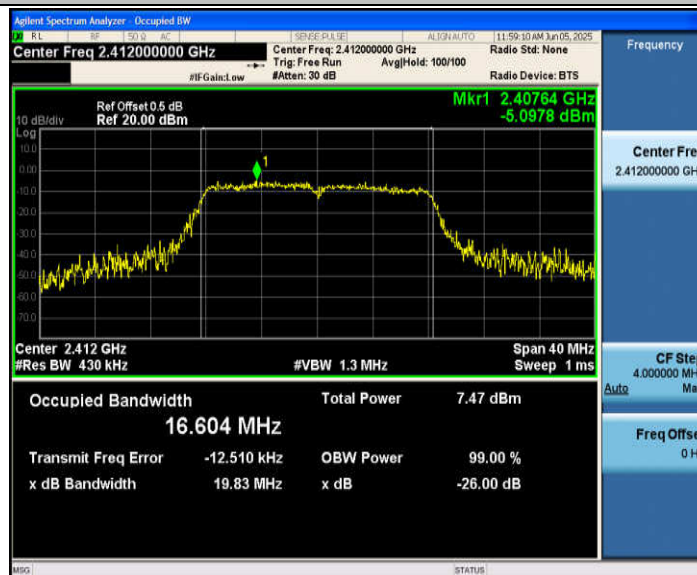
11B\_Ant1\_2437



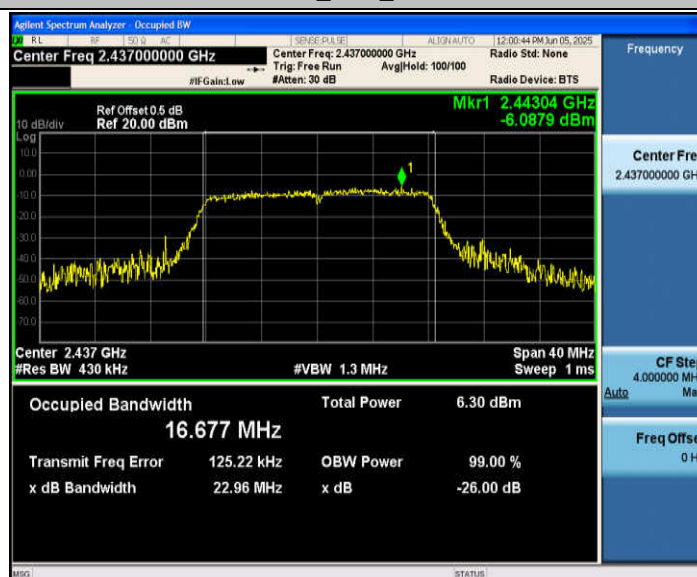
11B\_Ant1\_2462



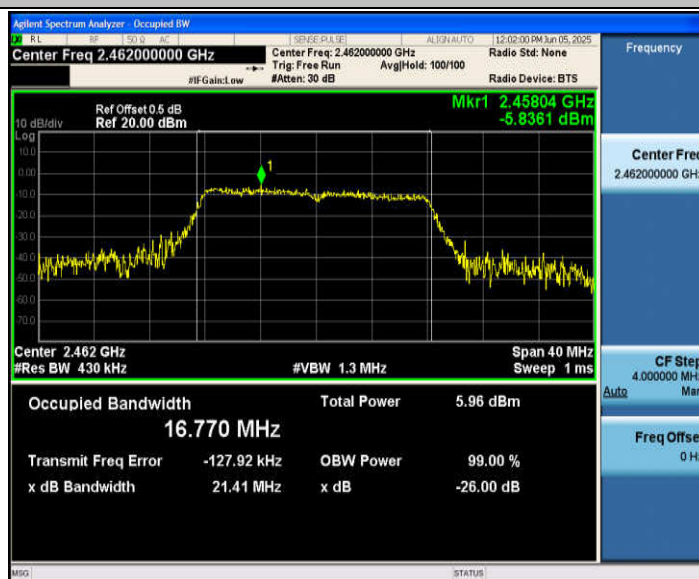
11G\_Ant1\_2412



11G\_Ant1\_2437



# 11G\_Ant1\_2462



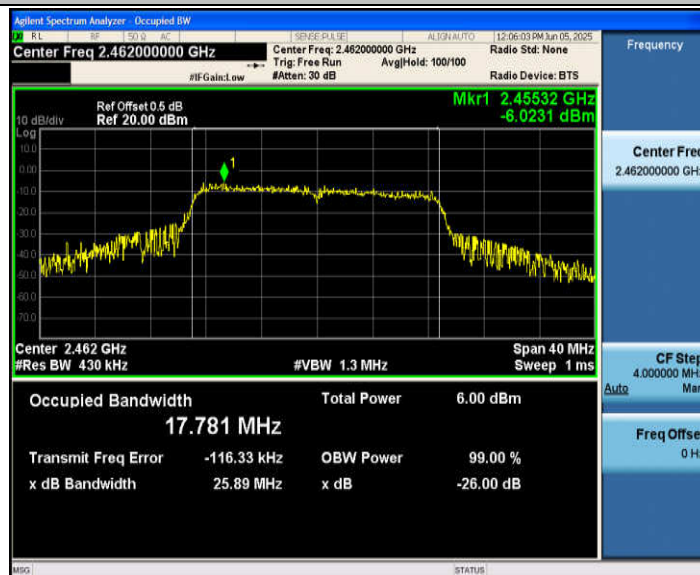
# 11N20SISO\_Ant1\_2412



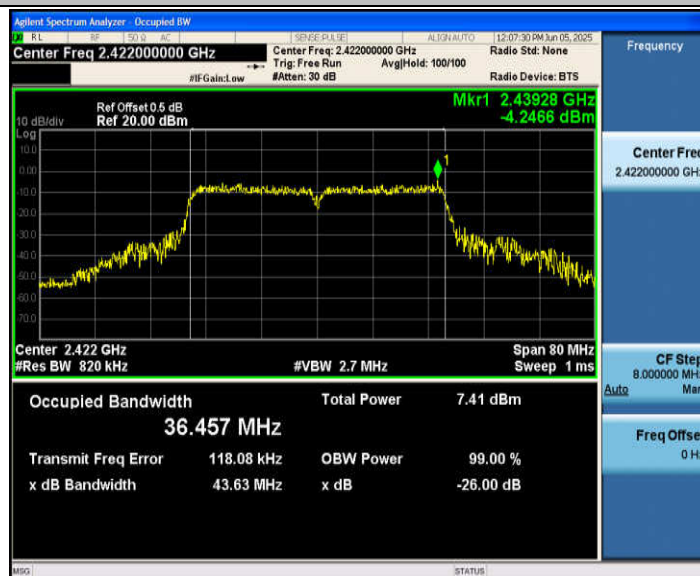
# 11N20SISO\_Ant1\_2437



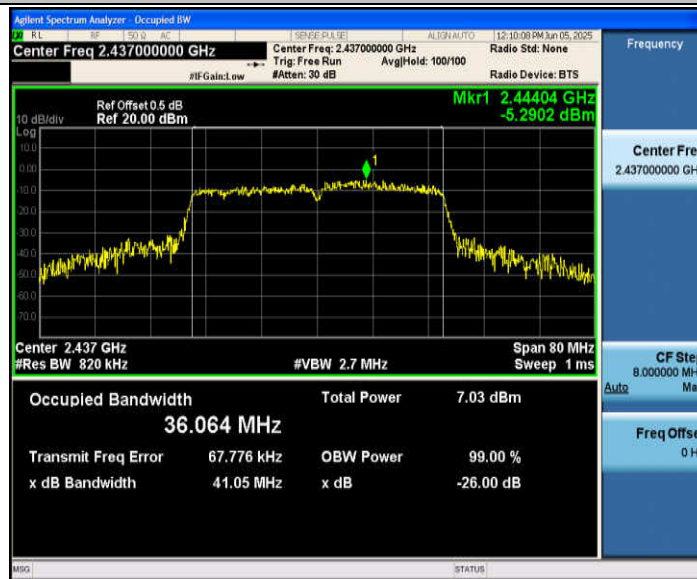
11N20SISO\_Ant1\_2462



11N40SISO\_Ant1\_2422



# 11N40SISO\_Ant1\_2437



# 11N40SISO\_Ant1\_2452



## Appendix C: Maximum conducted output power

### Test Result Peak

| Test Mode | Antenna | Frequency[MHz] | Peak power [dBm] | Limit [dBm] | Verdict |
|-----------|---------|----------------|------------------|-------------|---------|
| 11B       | Ant1    | 2412           | 8.13             | ≤30.00      | PASS    |
|           |         | 2437           | 8.05             | ≤30.00      | PASS    |
|           |         | 2462           | 6.93             | ≤30.00      | PASS    |
| 11G       | Ant1    | 2412           | 8.16             | ≤30.00      | PASS    |
|           |         | 2437           | 6.97             | ≤30.00      | PASS    |
|           |         | 2462           | 6.40             | ≤30.00      | PASS    |
| 11N20SISO | Ant1    | 2412           | 8.03             | ≤30.00      | PASS    |
|           |         | 2437           | 6.88             | ≤30.00      | PASS    |
|           |         | 2462           | 6.45             | ≤30.00      | PASS    |
| 11N40SISO | Ant1    | 2422           | 7.53             | ≤30.00      | PASS    |
|           |         | 2437           | 7.20             | ≤30.00      | PASS    |
|           |         | 2452           | 7.28             | ≤30.00      | PASS    |

## Appendix D: Maximum power spectral density

### Test Result

| TestMode  | Antenna | Frequency[MHz] | Result[dBm/3-100kHz] | Limit[dBm/3kHz] | Verdict |
|-----------|---------|----------------|----------------------|-----------------|---------|
| 11B       | Ant1    | 2412           | -16.83               | ≤8.00           | PASS    |
|           |         | 2437           | -17.66               | ≤8.00           | PASS    |
|           |         | 2462           | -19.07               | ≤8.00           | PASS    |
| 11G       | Ant1    | 2412           | -23.10               | ≤8.00           | PASS    |
|           |         | 2437           | -24.47               | ≤8.00           | PASS    |
|           |         | 2462           | -24.57               | ≤8.00           | PASS    |
| 11N20SISO | Ant1    | 2412           | -25.01               | ≤8.00           | PASS    |
|           |         | 2437           | -23.87               | ≤8.00           | PASS    |
|           |         | 2462           | -25.53               | ≤8.00           | PASS    |
| 11N40SISO | Ant1    | 2422           | -26.99               | ≤8.00           | PASS    |
|           |         | 2437           | -27.55               | ≤8.00           | PASS    |
|           |         | 2452           | -26.18               | ≤8.00           | PASS    |

## Test Graphs

11B\_Ant1\_2412



11B\_Ant1\_2437

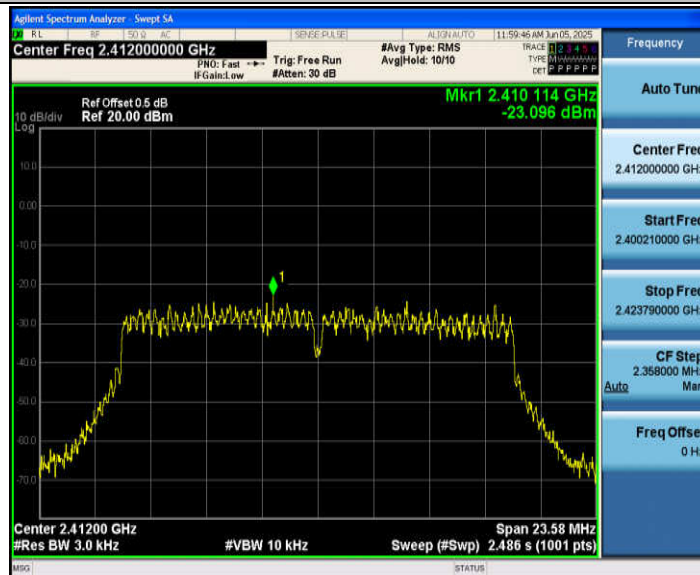


11B\_Ant1\_2462





11G\_Ant1\_2412



11G\_Ant1\_2437



# 11G\_Ant1\_2462



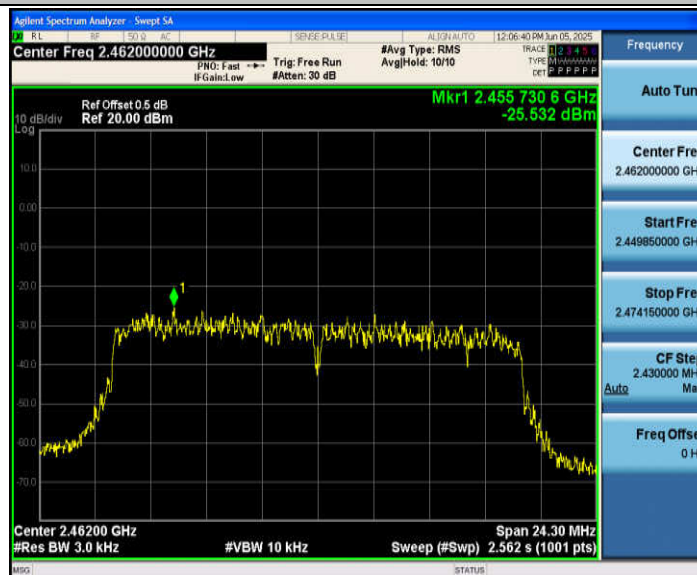
# 11N20SISO\_Ant1\_2412



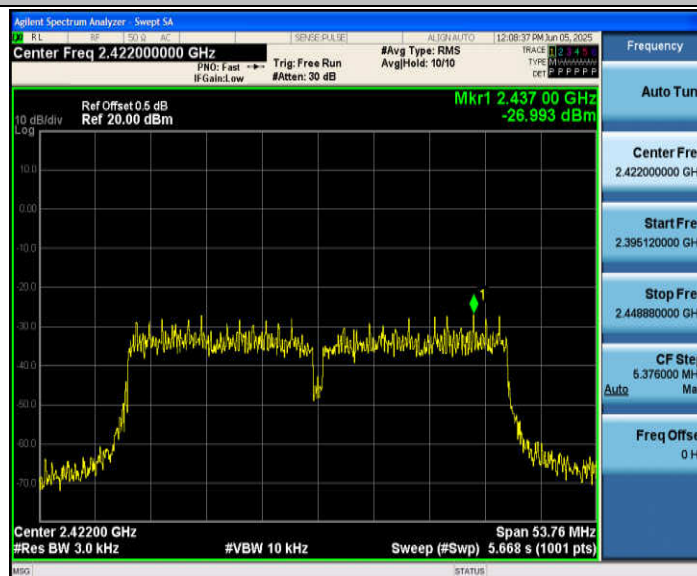
# 11N20SISO\_Ant1\_2437



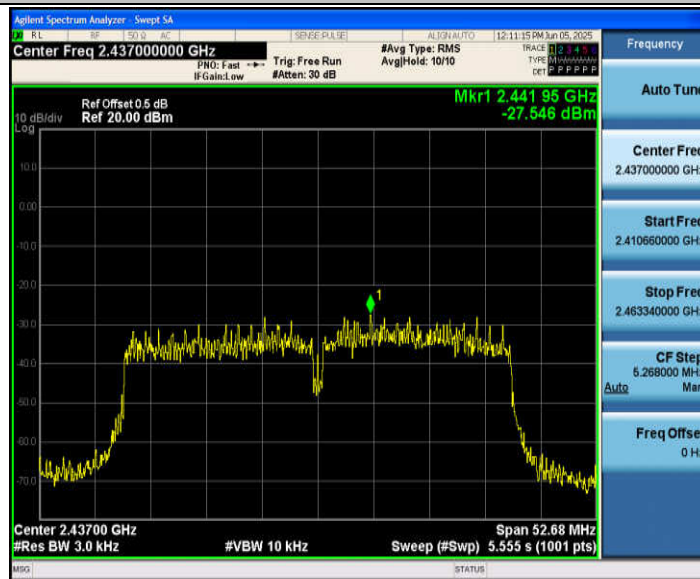
11N20SISO\_Ant1\_2462



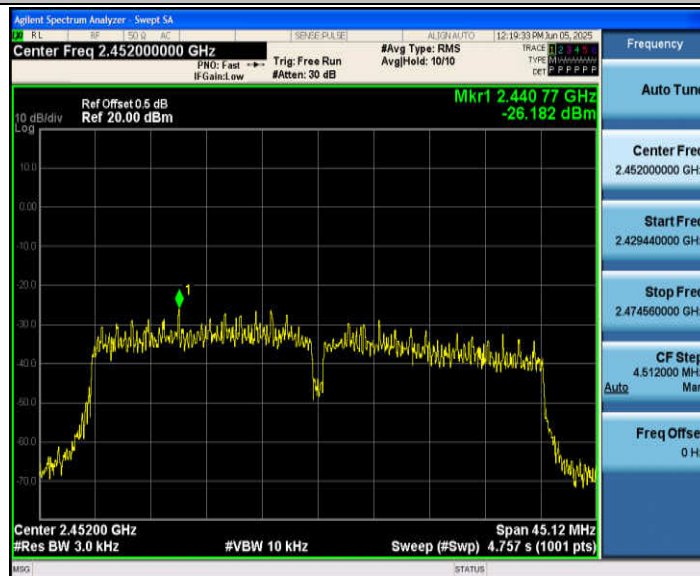
11N40SISO\_Ant1\_2422



# 11N40SISO\_Ant1\_2437



# 11N40SISO\_Ant1\_2452



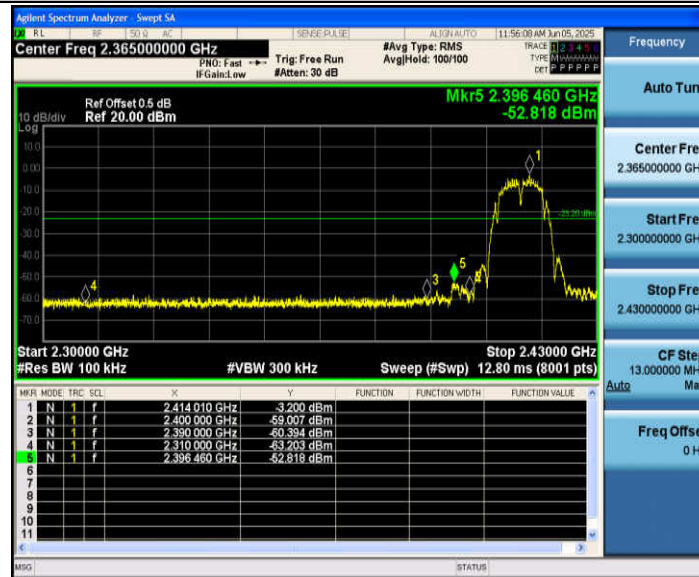
## Appendix E: Band edge measurements

### Test Result

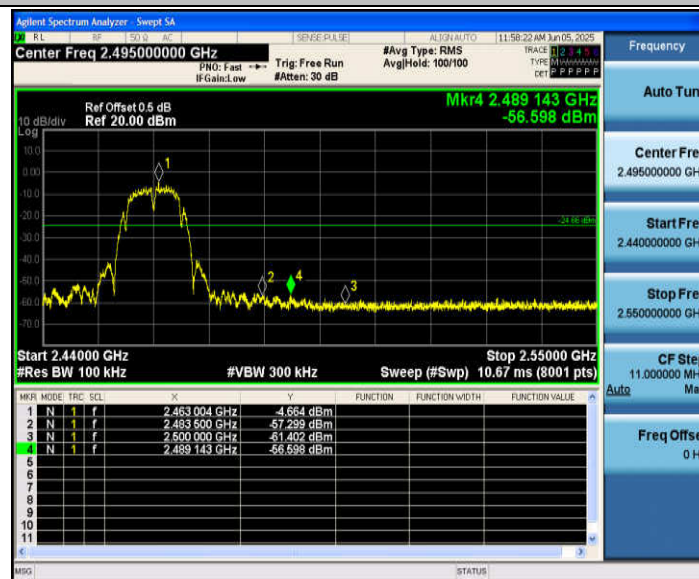
| TestMode  | Antenna | Channel Name | Frequency[MHz] | RefLevel[dBm] | Result[dBm] | Limit[dBm] | Verdict |
|-----------|---------|--------------|----------------|---------------|-------------|------------|---------|
| 11B       | Ant1    | Low          | 2412           | -3.20         | -52.82      | ≤-23.2     | PASS    |
|           |         | High         | 2462           | -4.66         | -56.6       | ≤-24.66    | PASS    |
| 11G       | Ant1    | Low          | 2412           | -8.34         | -44.11      | ≤-28.34    | PASS    |
|           |         | High         | 2462           | -9.03         | -53         | ≤-29.03    | PASS    |
| 11N20SISO | Ant1    | Low          | 2412           | -8.33         | -42.5       | ≤-28.33    | PASS    |
|           |         | High         | 2462           | -9.00         | -54.57      | ≤-29       | PASS    |
| 11N40SISO | Ant1    | Low          | 2422           | -11.94        | -42.86      | ≤-31.94    | PASS    |
|           |         | High         | 2452           | -10.31        | -48.62      | ≤-30.31    | PASS    |

## Test Graphs

11B\_Ant1\_Low\_2412

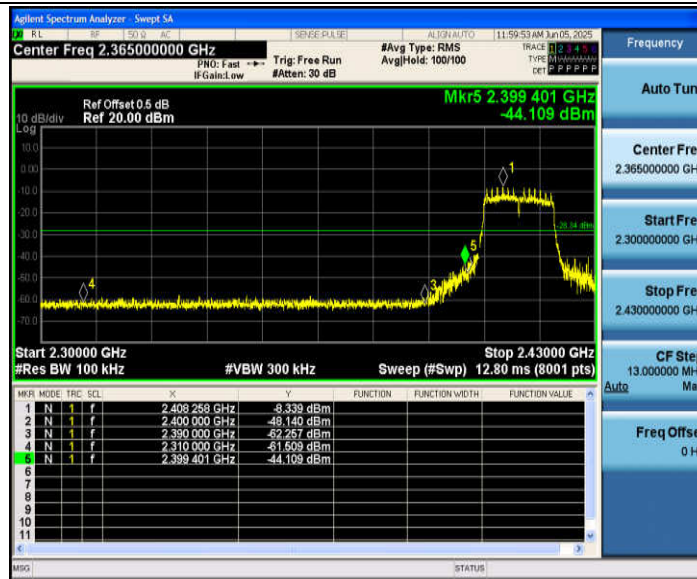


11B\_Ant1\_High\_2462

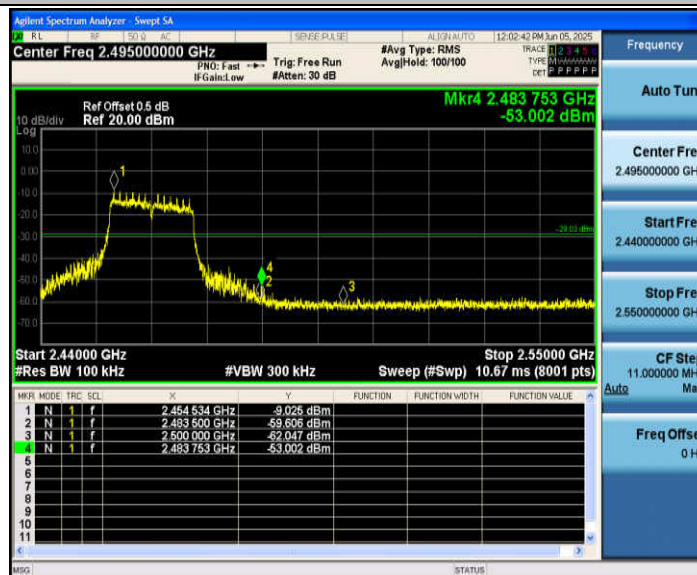


11G\_Ant1\_Low\_2412

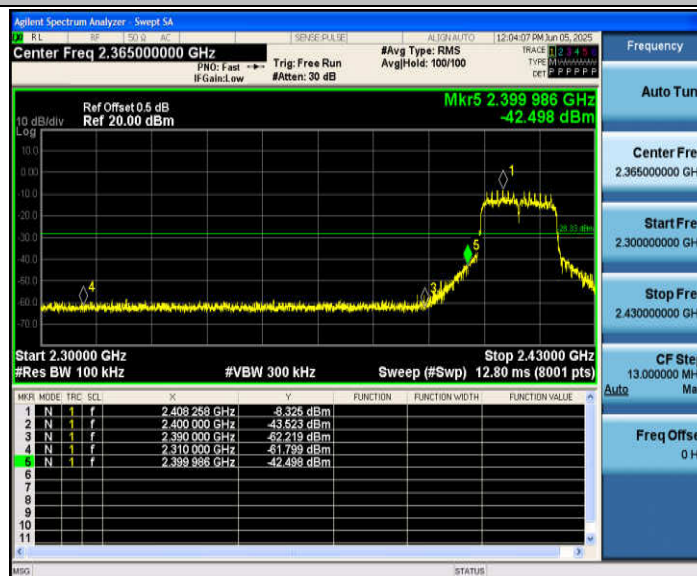




11G\_Ant1\_High\_2462



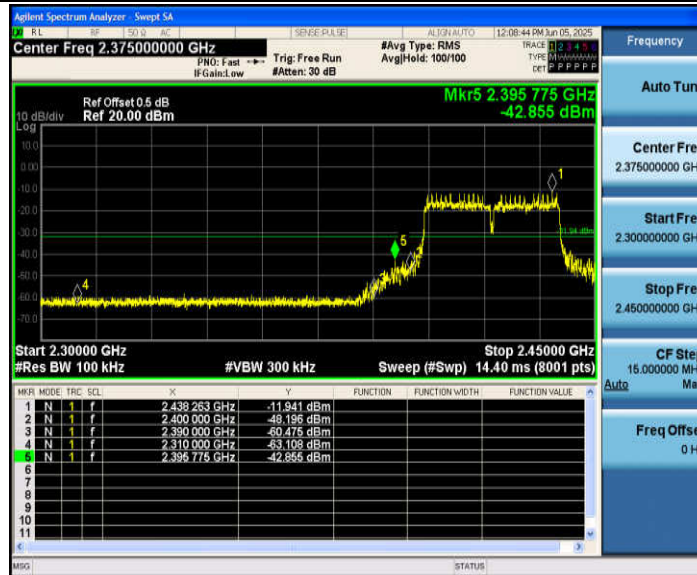
11N20SISO\_Ant1\_Low\_2412



# 11N20SISO\_Ant1\_High\_2462

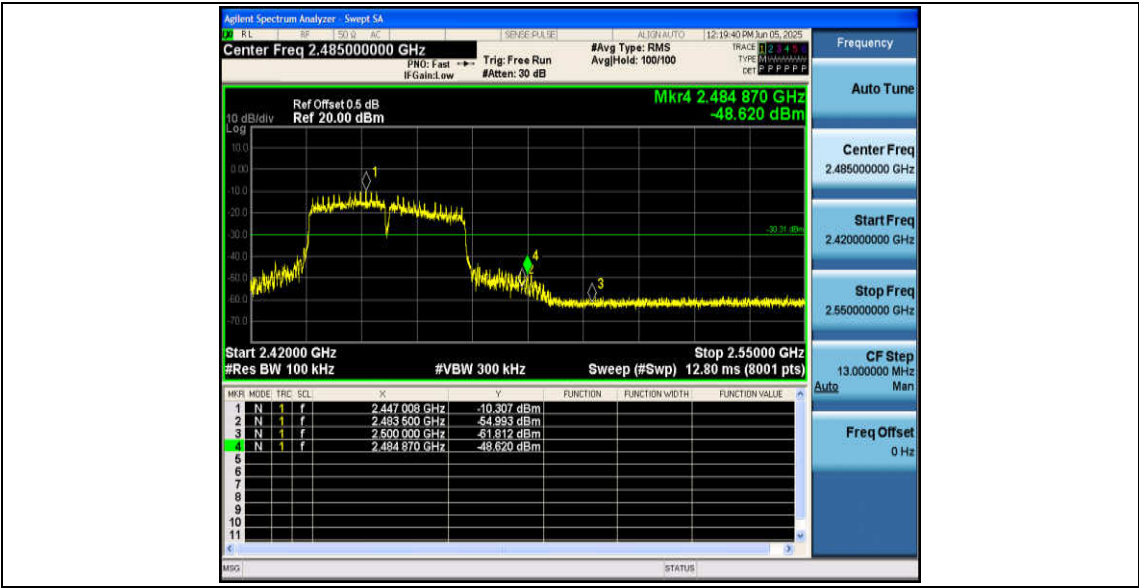


# 11N40SISO\_Ant1\_Low\_2422



# 11N40SISO\_Ant1\_High\_2452





## Appendix F: Conducted Spurious Emission

### Test Result

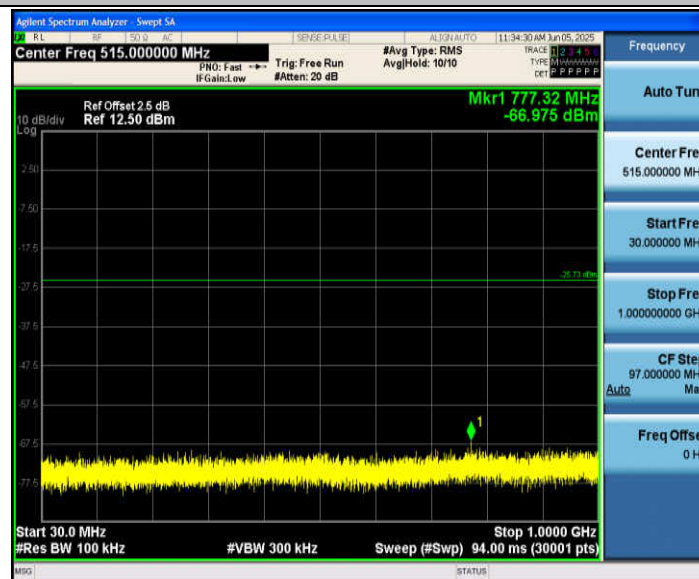
| TestMode  | Antenna | Frequency[MHz] | FreqRange [Mhz] | RefLevel [dBm] | Result [dBm] | Limit [dBm] | Verdict |
|-----------|---------|----------------|-----------------|----------------|--------------|-------------|---------|
| 11B       | Ant1    | 2412           | Reference       | -5.73          | -5.73        | ---         | PASS    |
|           |         |                | 30~1000         | -5.73          | -66.98       | ≤-25.73     | PASS    |
|           |         |                | 1000~26500      | -5.73          | -48.55       | ≤-25.73     | PASS    |
|           |         | 2437           | Reference       | -5.14          | -5.14        | ---         | PASS    |
|           |         |                | 30~1000         | -5.14          | -66.89       | ≤-25.14     | PASS    |
|           |         |                | 1000~26500      | -5.14          | -46.98       | ≤-25.14     | PASS    |
|           |         | 2462           | Reference       | -5.67          | -5.67        | ---         | PASS    |
|           |         |                | 30~1000         | -5.67          | -68.02       | ≤-25.67     | PASS    |
|           |         |                | 1000~26500      | -5.67          | -41.87       | ≤-25.67     | PASS    |
| 11G       | Ant1    | 2412           | Reference       | -8.49          | -8.49        | ---         | PASS    |
|           |         |                | 30~1000         | -8.49          | -67.14       | ≤-28.49     | PASS    |
|           |         |                | 1000~26500      | -8.49          | -55.06       | ≤-28.49     | PASS    |
|           |         | 2437           | Reference       | -9.75          | -9.75        | ---         | PASS    |
|           |         |                | 30~1000         | -9.75          | -68.17       | ≤-29.75     | PASS    |
|           |         |                | 1000~26500      | -9.75          | -54.13       | ≤-29.75     | PASS    |
|           |         | 2462           | Reference       | -9.82          | -9.82        | ---         | PASS    |
|           |         |                | 30~1000         | -9.82          | -67.89       | ≤-29.82     | PASS    |
|           |         |                | 1000~26500      | -9.82          | -52.67       | ≤-29.82     | PASS    |
| 11N20SISO | Ant1    | 2412           | Reference       | -8.61          | -8.61        | ---         | PASS    |
|           |         |                | 30~1000         | -8.61          | -68.11       | ≤-28.61     | PASS    |
|           |         |                | 1000~26500      | -8.61          | -48.12       | ≤-28.61     | PASS    |
|           |         | 2437           | Reference       | -9.08          | -9.08        | ---         | PASS    |
|           |         |                | 30~1000         | -9.08          | -67.47       | ≤-29.08     | PASS    |
|           |         |                | 1000~26500      | -9.08          | -46.41       | ≤-29.08     | PASS    |
|           |         | 2462           | Reference       | -9.10          | -9.10        | ---         | PASS    |
|           |         |                | 30~1000         | -9.10          | -67.3        | ≤-29.1      | PASS    |
|           |         |                | 1000~26500      | -9.10          | -51.08       | ≤-29.1      | PASS    |
| 11N40SISO | Ant1    | 2422           | Reference       | -11.97         | -11.97       | ---         | PASS    |
|           |         |                | 30~1000         | -11.97         | -67.55       | ≤-31.97     | PASS    |
|           |         |                | 1000~26500      | -11.97         | -51.94       | ≤-31.97     | PASS    |
|           |         | 2437           | Reference       | -12.05         | -12.05       | ---         | PASS    |
|           |         |                | 30~1000         | -12.05         | -68.07       | ≤-32.05     | PASS    |
|           |         |                | 1000~26500      | -12.05         | -49.47       | ≤-32.05     | PASS    |
|           |         | 2452           | Reference       | -9.61          | -9.61        | ---         | PASS    |
|           |         |                | 30~1000         | -9.61          | -67.69       | ≤-29.61     | PASS    |
|           |         |                | 1000~26500      | -9.61          | -51.27       | ≤-29.61     | PASS    |

## Test Graphs

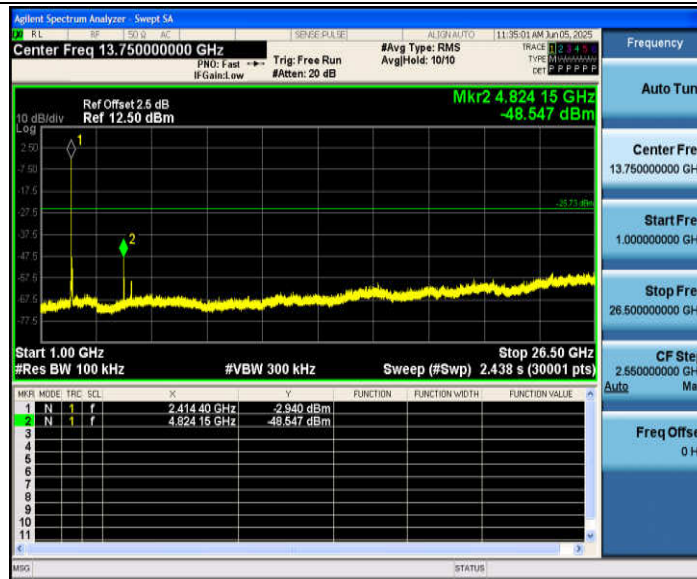
11B\_Ant1\_2412\_0~Reference



11B\_Ant1\_2412\_30~1000



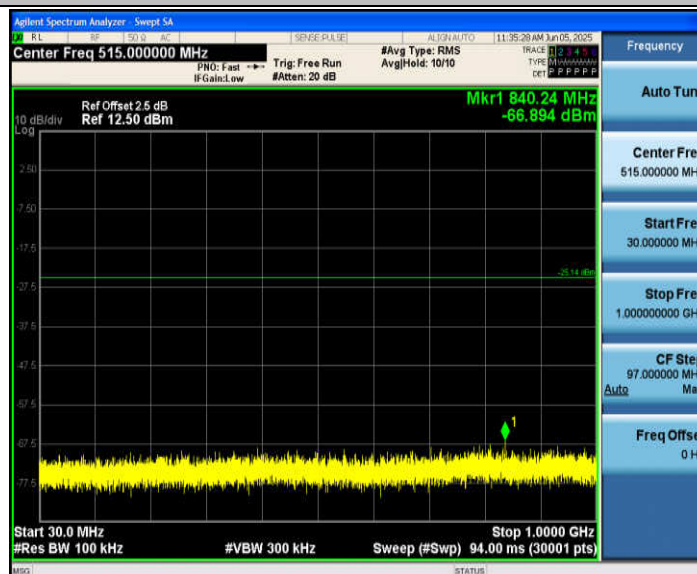
11B\_Ant1\_2412\_1000~26500



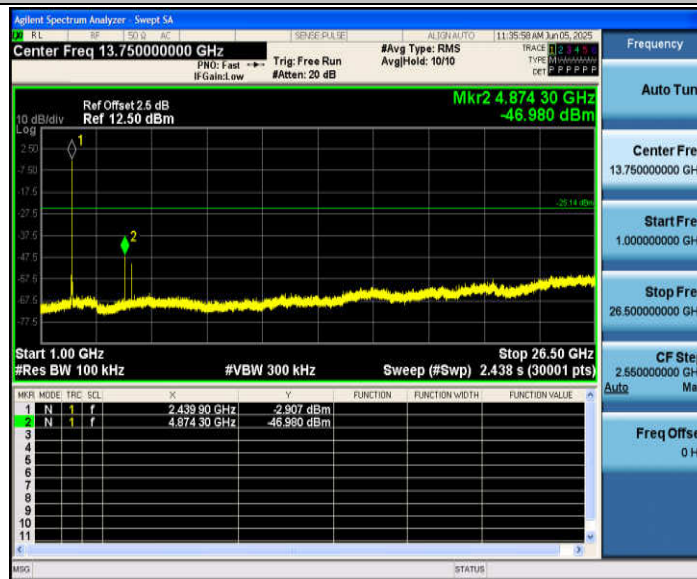
11B\_Ant1\_2437\_0~Reference



11B\_Ant1\_2437\_30~1000



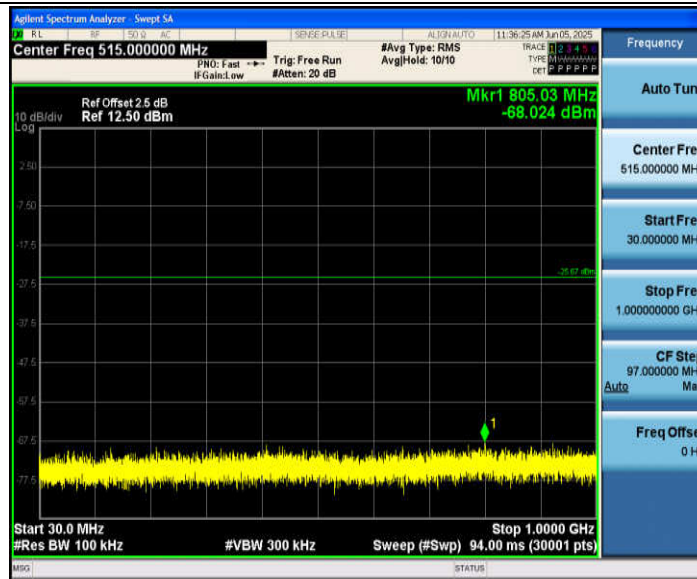
# 11B\_Ant1\_2437\_1000~26500



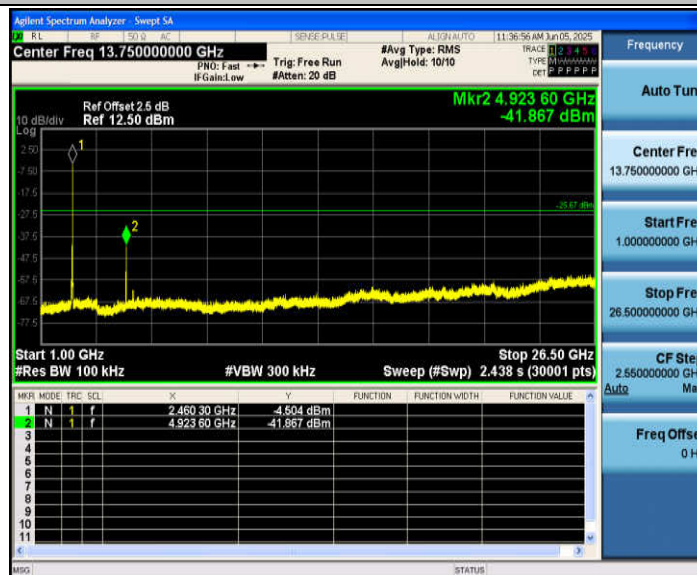
# 11B\_Ant1\_2462\_0~Reference



# 11B\_Ant1\_2462\_30~1000



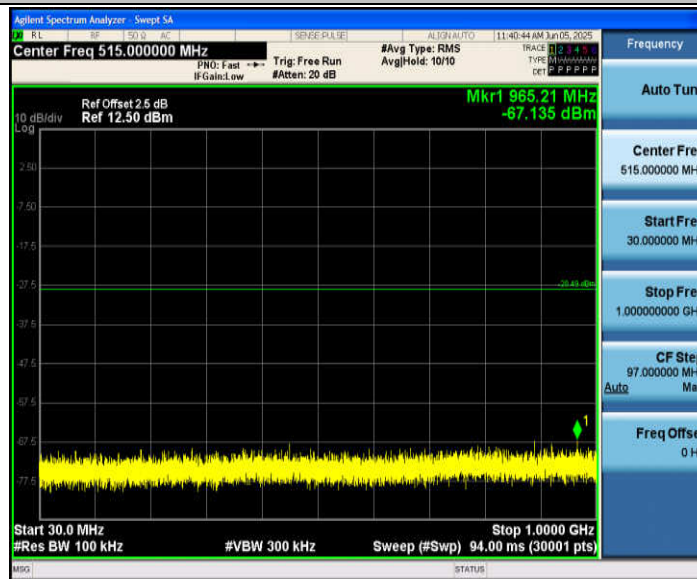
11B\_Ant1\_2462\_1000~26500



11G\_Ant1\_2412\_0~Reference



# 11G\_Ant1\_2412\_30~1000



# 11G\_Ant1\_2412\_1000~26500

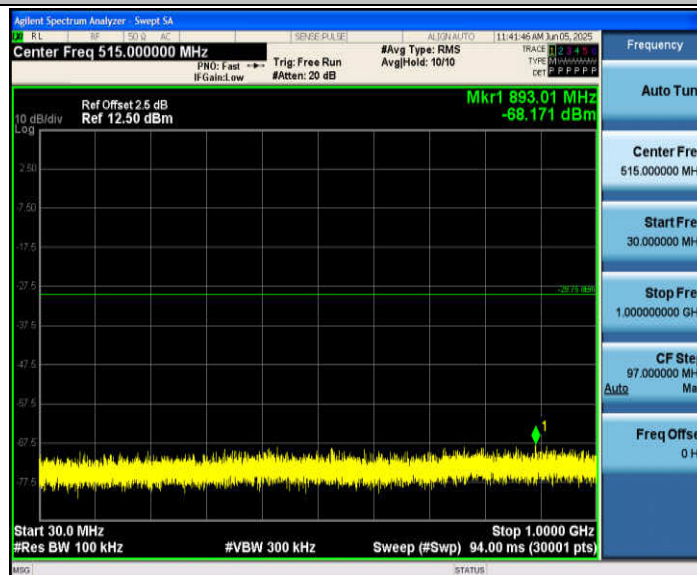


# 11G\_Ant1\_2437\_0~Reference

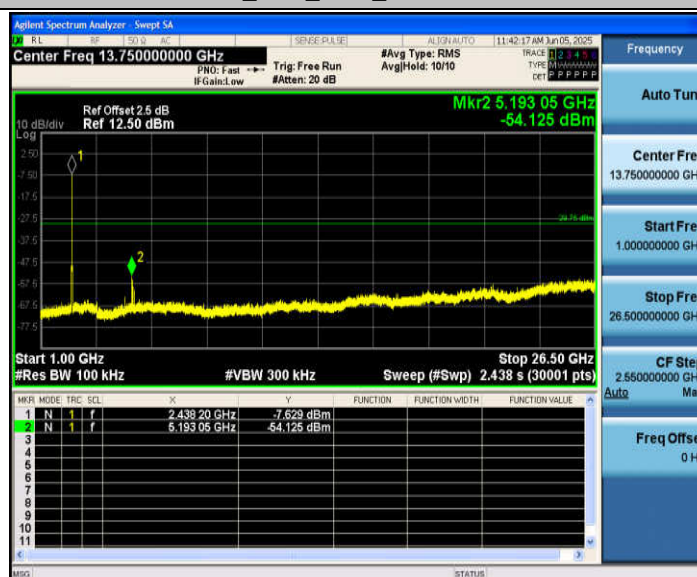




11G\_Ant1\_2437\_30~1000



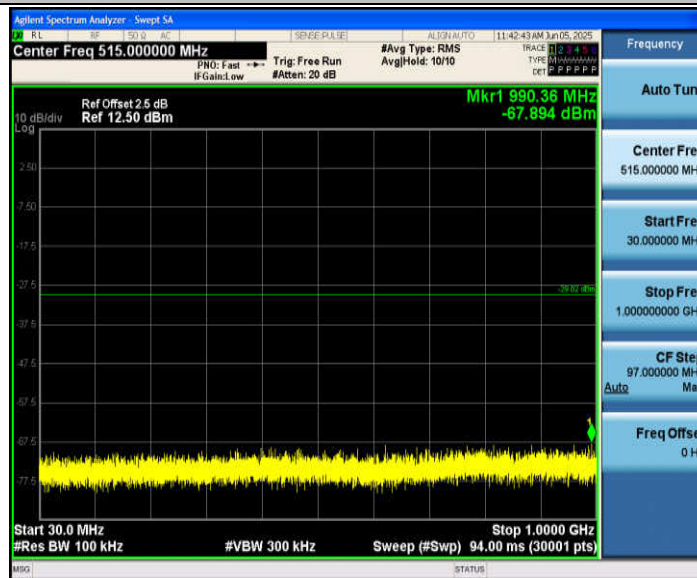
11G\_Ant1\_2437\_1000~26500



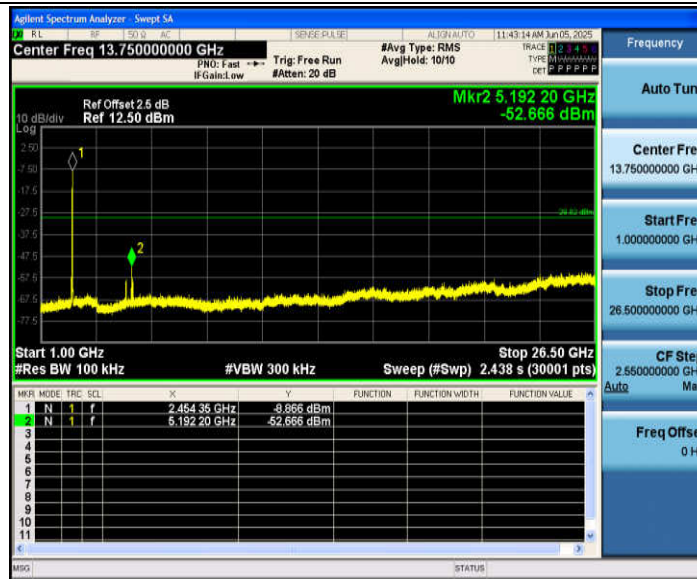
# 11G\_Ant1\_2462\_0~Reference



# 11G\_Ant1\_2462\_30~1000



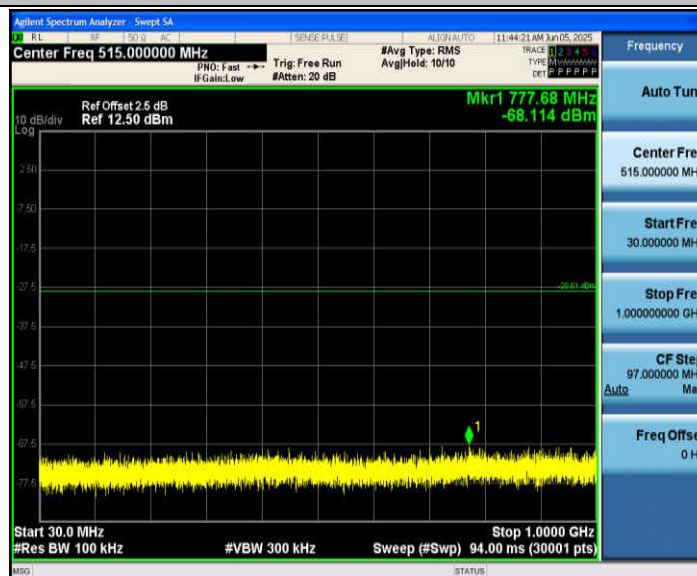
# 11G\_Ant1\_2462\_1000~26500



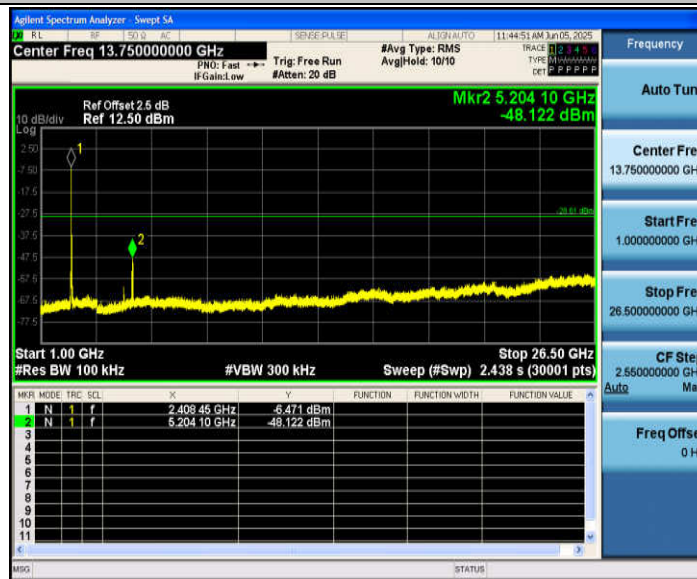
11N20ISO\_Ant1\_2412\_0~Reference



11N20ISO\_Ant1\_2412\_30~1000



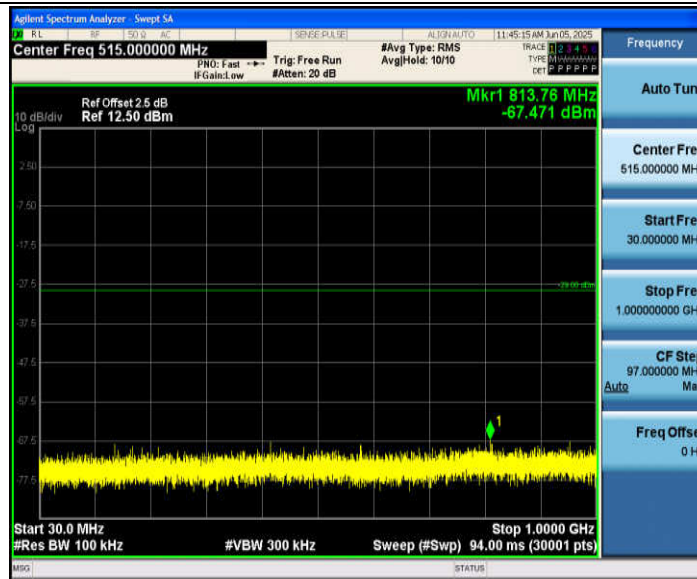
# 11N20SISO\_Ant1\_2412\_1000~26500



# 11N20SISO\_Ant1\_2437\_0~Reference



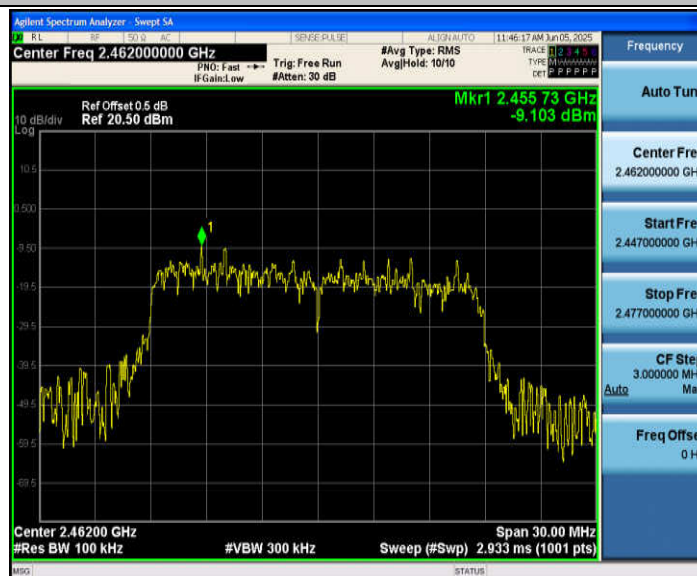
# 11N20SISO\_Ant1\_2437\_30~1000



11N20SISO\_Ant1\_2437\_1000~26500

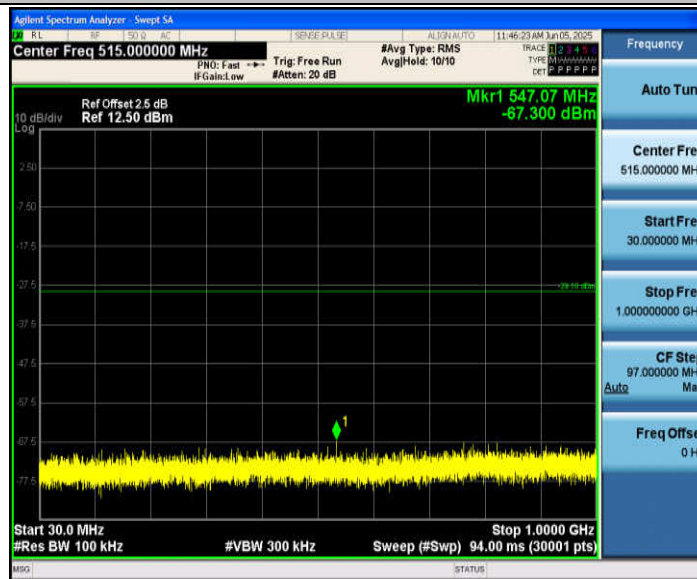


11N20SISO\_Ant1\_2462\_0~Reference





# 11N20SISO\_Ant1\_2462\_30~1000



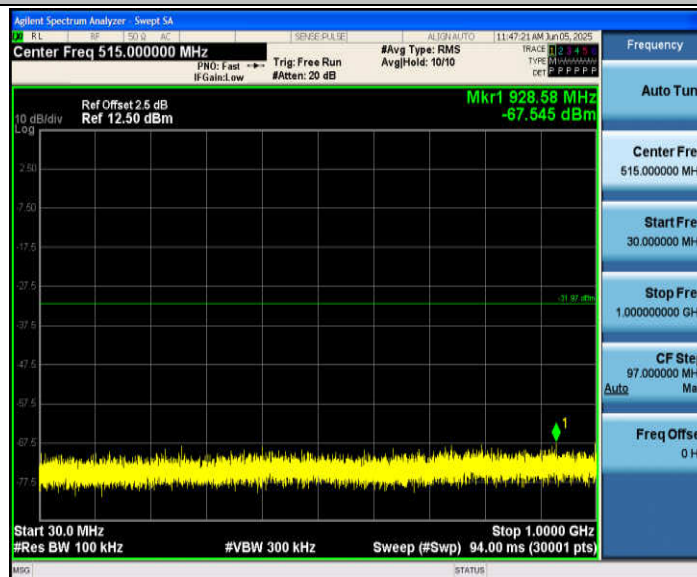
# 11N20SISO\_Ant1\_2462\_1000~26500



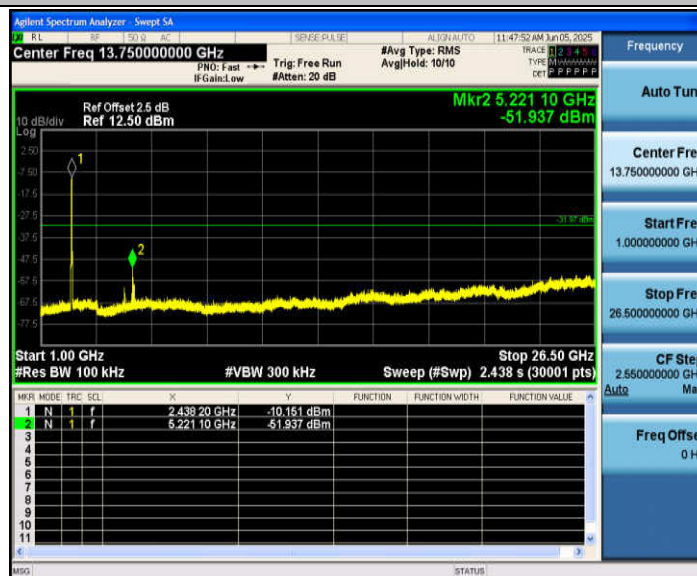
# 11N40SISO\_Ant1\_2422\_0~Reference



11N40SISO\_Ant1\_2422\_30~1000

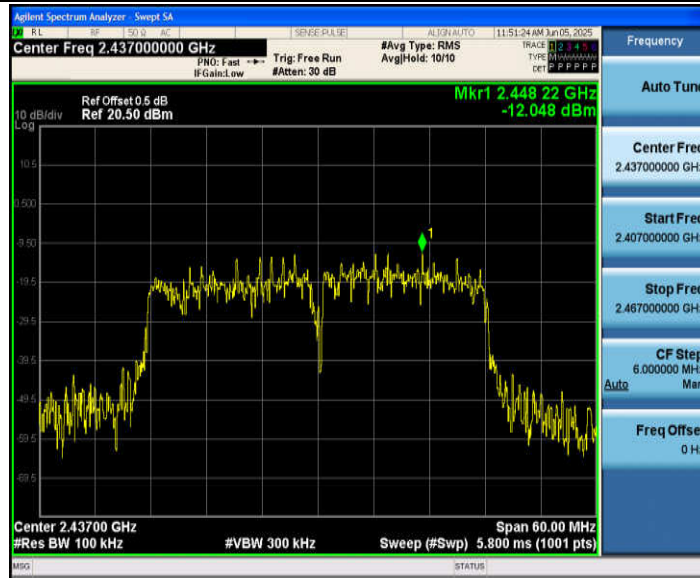


11N40SISO\_Ant1\_2422\_1000~26500

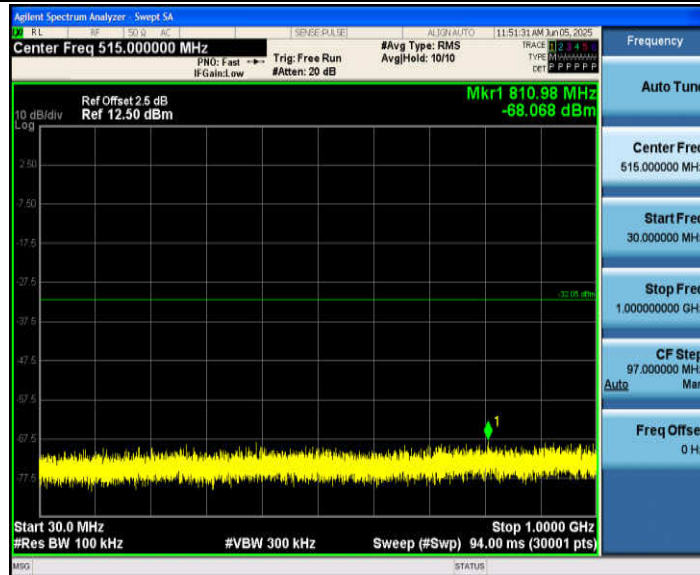




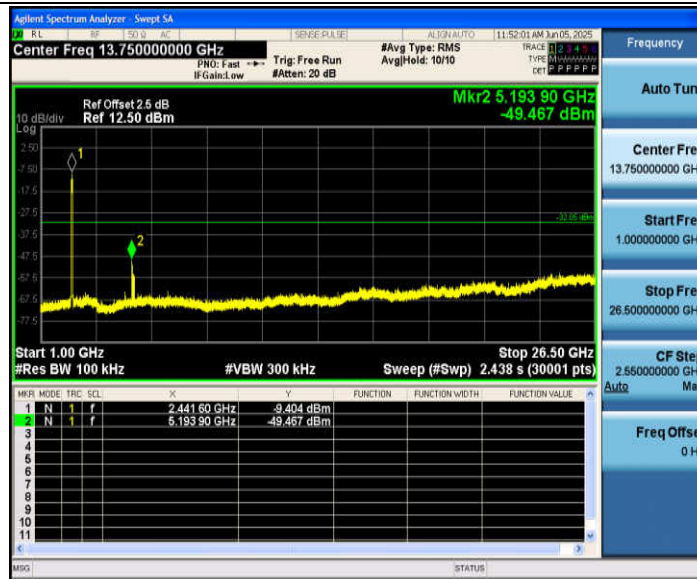
# 11N40SISO\_Ant1\_2437\_0~Reference



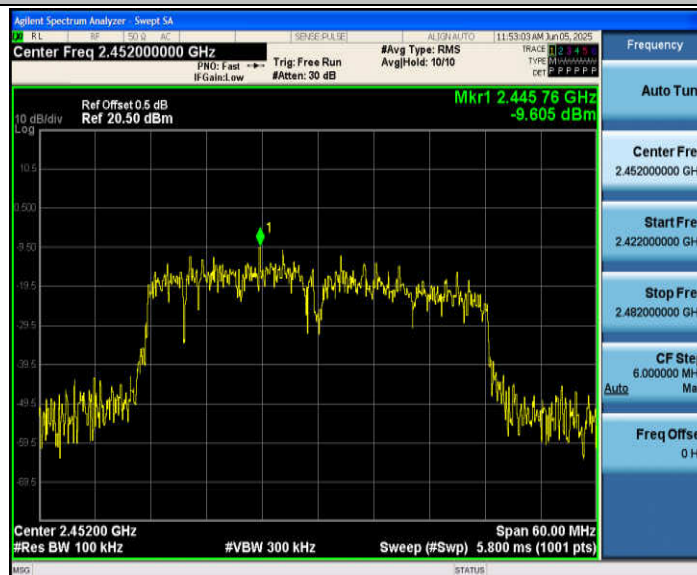
# 11N40SISO\_Ant1\_2437\_30~1000



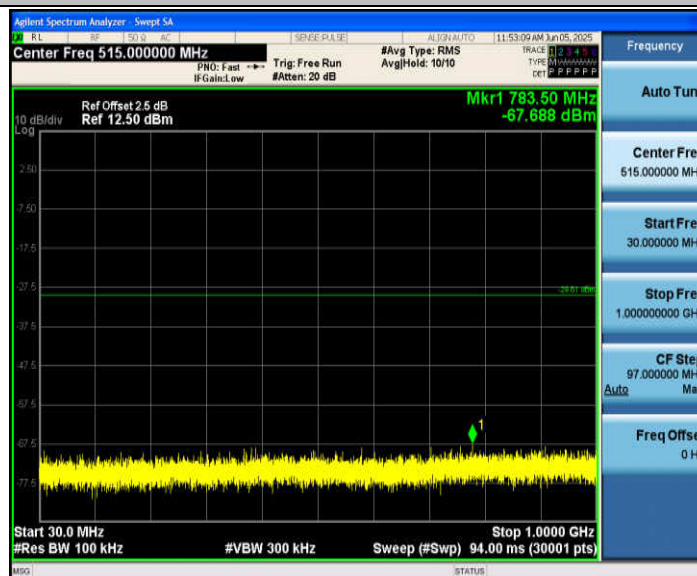
# 11N40SISO\_Ant1\_2437\_1000~26500

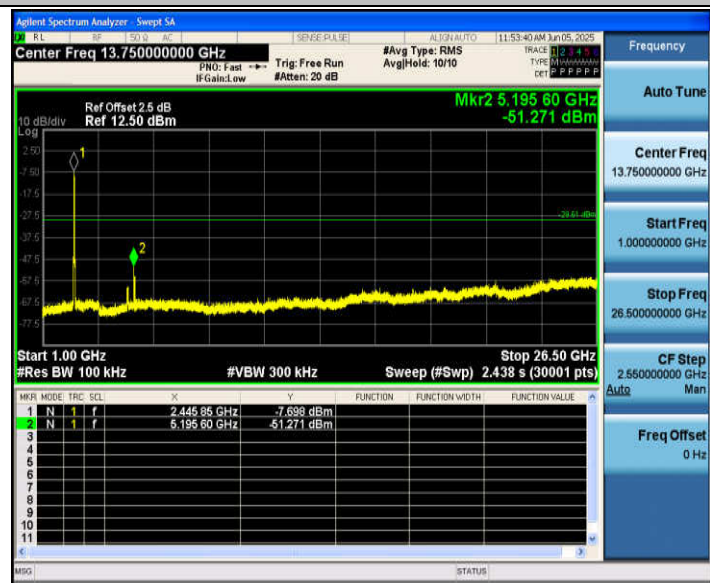


11N40ISO\_Ant1\_2452\_0~Reference



11N40ISO\_Ant1\_2452\_30~1000





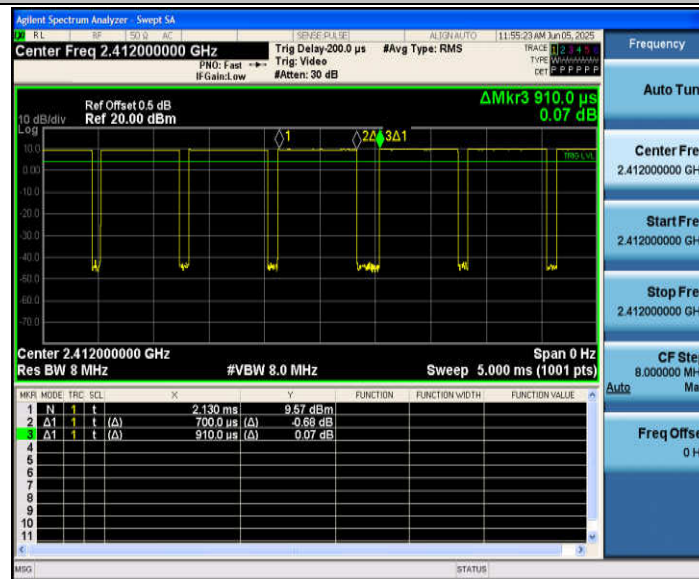
## Appendix G: Duty Cycle

### Test Result

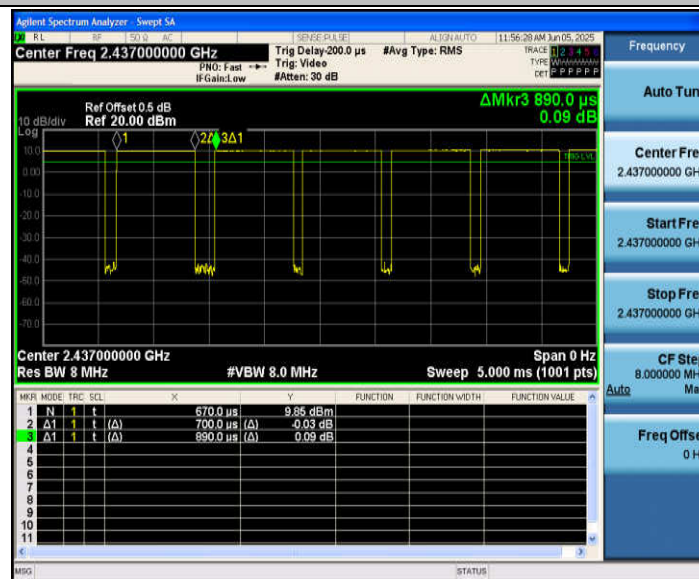
| TestMode  | Antenna | Frequency[MHz] | Transmission Duration [ms] | Transmission Period [ms] | Duty Cycle [%] |
|-----------|---------|----------------|----------------------------|--------------------------|----------------|
| 11B       | Ant1    | 2412           | 0.70                       | 0.91                     | 76.92          |
|           |         | 2437           | 0.70                       | 0.89                     | 78.65          |
|           |         | 2462           | 0.71                       | 0.91                     | 78.02          |
| 11G       | Ant1    | 2412           | 0.11                       | 0.29                     | 37.93          |
|           |         | 2437           | 0.11                       | 0.33                     | 33.33          |
|           |         | 2462           | 0.12                       | 0.31                     | 38.71          |
| 11N20SISO | Ant1    | 2412           | 0.11                       | 0.31                     | 35.48          |
|           |         | 2437           | 0.11                       | 0.31                     | 35.48          |
|           |         | 2462           | 0.11                       | 0.31                     | 35.48          |
| 11N40SISO | Ant1    | 2422           | 0.07                       | 0.27                     | 25.93          |
|           |         | 2437           | 0.07                       | 0.28                     | 25.00          |
|           |         | 2452           | 0.07                       | 0.24                     | 29.17          |

## Test Graphs

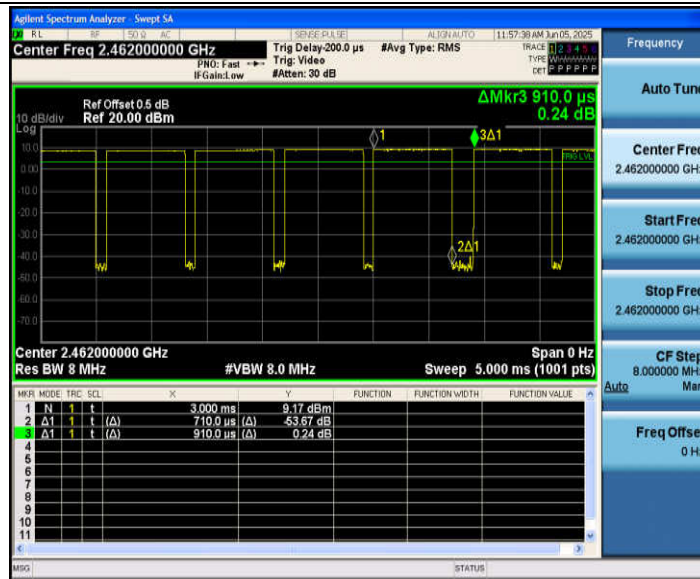
11B\_Ant1\_2412



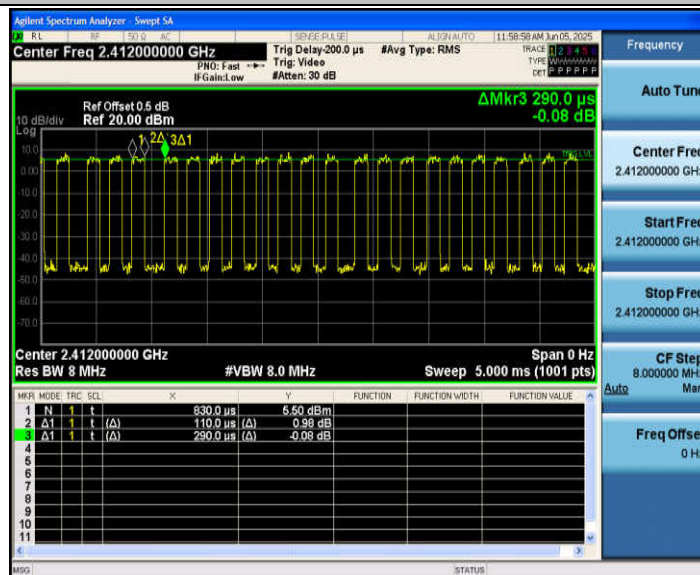
11B\_Ant1\_2437



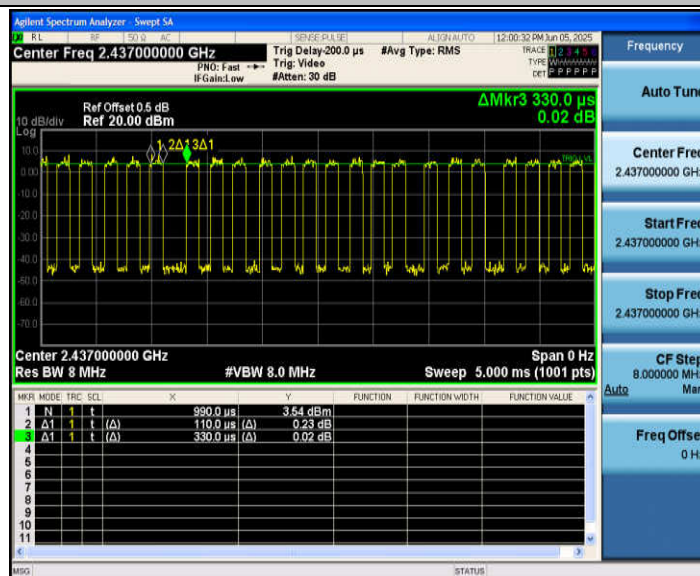
11B\_Ant1\_2462



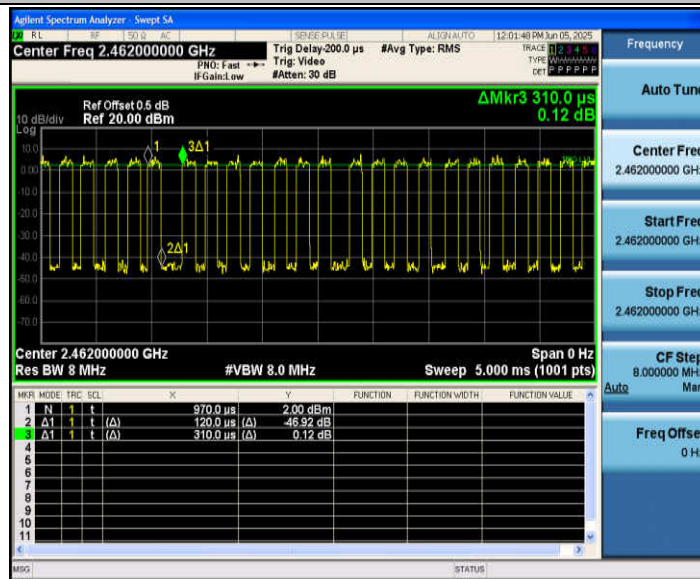
11G\_Ant1\_2412



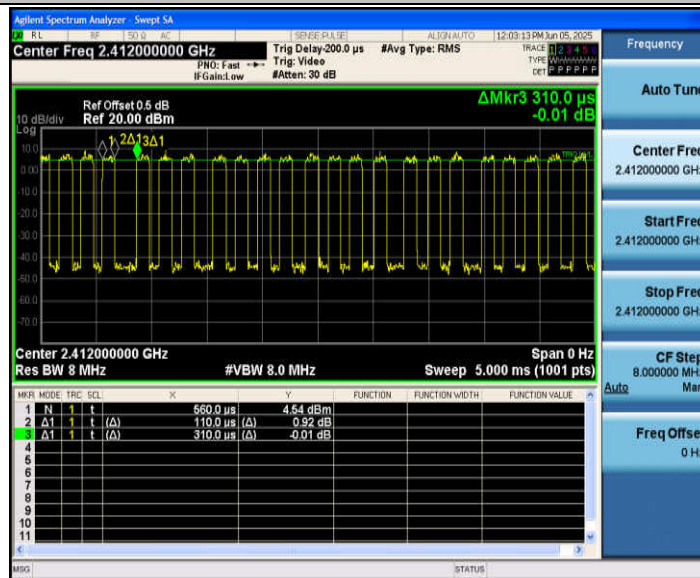
11G\_Ant1\_2437



# 11G\_Ant1\_2462

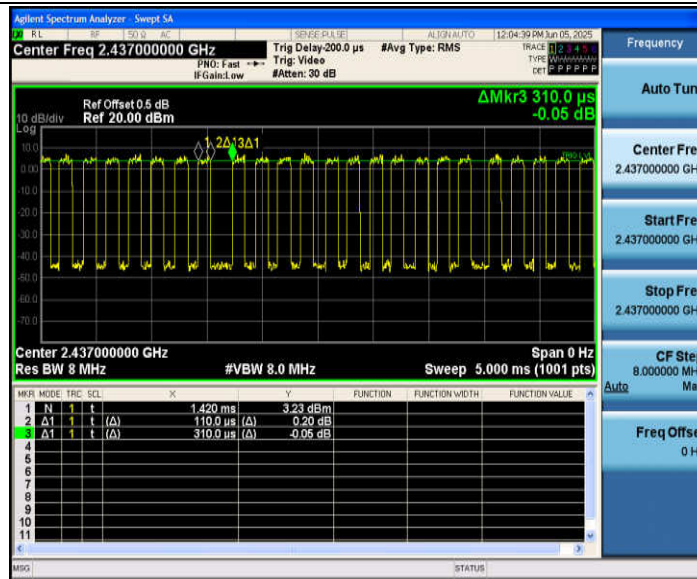


# 11N20SISO\_Ant1\_2412

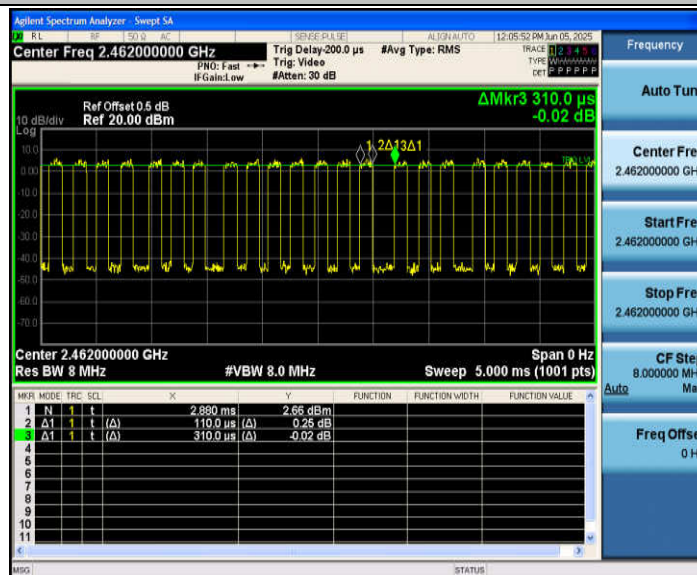


# 11N20SISO\_Ant1\_2437

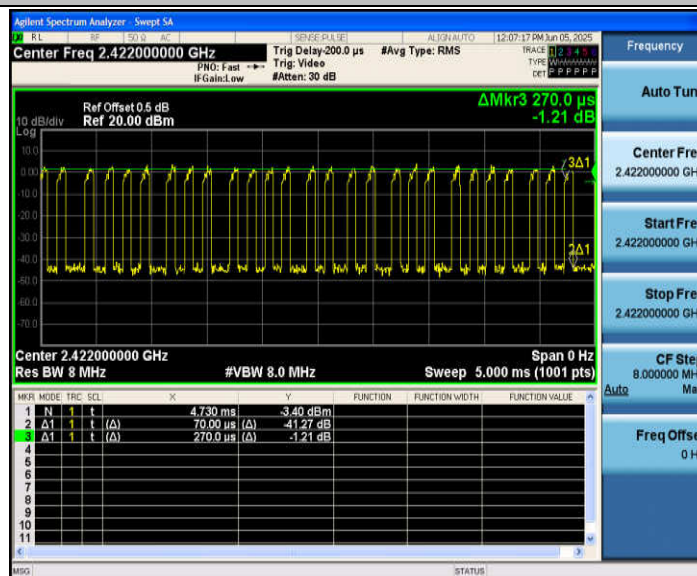




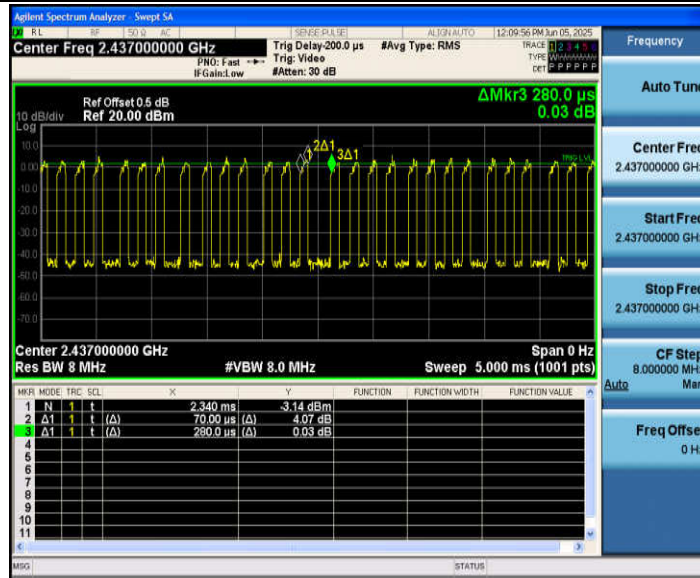
11N20SISO\_Ant1\_2462



11N40SISO\_Ant1\_2422



# 11N40SISO\_Ant1\_2437



# 11N40SISO\_Ant1\_2452

