

## **Appendix RF Test Data for 2.4GWIFI**

**FCC ID** : 2BC8R-Y21

**Company** : Shenzhen Decheng Technology Co. , Ltd.

**EUT** : Smart camera

**Model Number** : Y21

**Report No.** : CTA25080401101

**Reviewed By** : Eric Wang

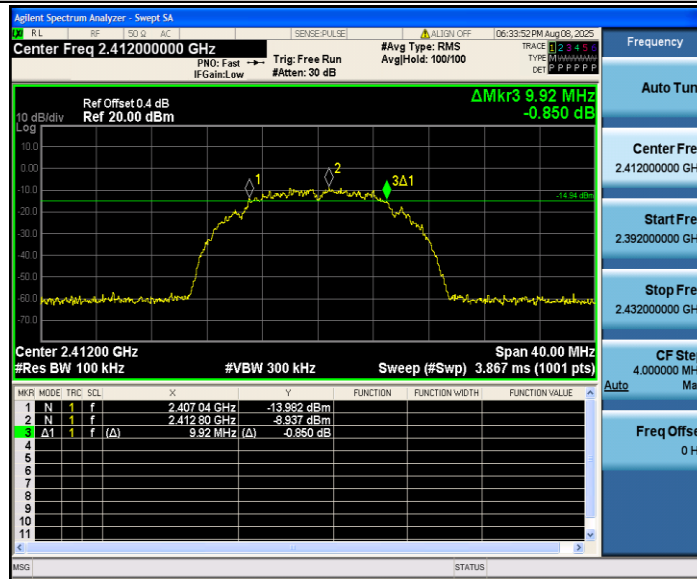
## Appendix A: DTS Bandwidth

### Test Result

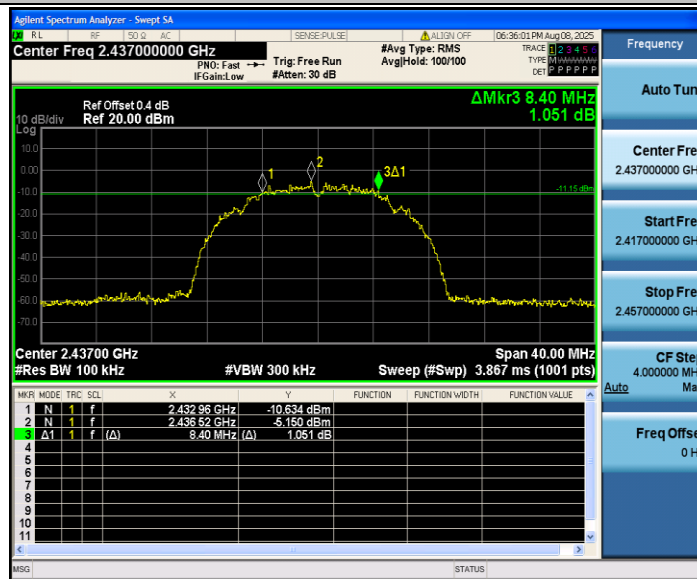
| TestMode  | Antenna | Frequency[MHz] | DTS BW<br>[MHz] | FL[MHz]  | FH[MHz]  | Limit[MHz] | Verdict |
|-----------|---------|----------------|-----------------|----------|----------|------------|---------|
| 11B       | Ant1    | 2412           | 9.920           | 2407.040 | 2416.960 | 0.5        | PASS    |
|           |         | 2437           | 8.400           | 2432.960 | 2441.360 | 0.5        | PASS    |
|           |         | 2462           | 10.000          | 2457.000 | 2467.000 | 0.5        | PASS    |
| 11G       | Ant1    | 2412           | 16.520          | 2403.760 | 2420.280 | 0.5        | PASS    |
|           |         | 2437           | 16.480          | 2428.800 | 2445.280 | 0.5        | PASS    |
|           |         | 2462           | 16.480          | 2453.760 | 2470.240 | 0.5        | PASS    |
| 11N20SISO | Ant1    | 2412           | 17.560          | 2403.240 | 2420.800 | 0.5        | PASS    |
|           |         | 2437           | 17.560          | 2428.240 | 2445.800 | 0.5        | PASS    |
|           |         | 2462           | 17.520          | 2453.240 | 2470.760 | 0.5        | PASS    |

## Test Graphs

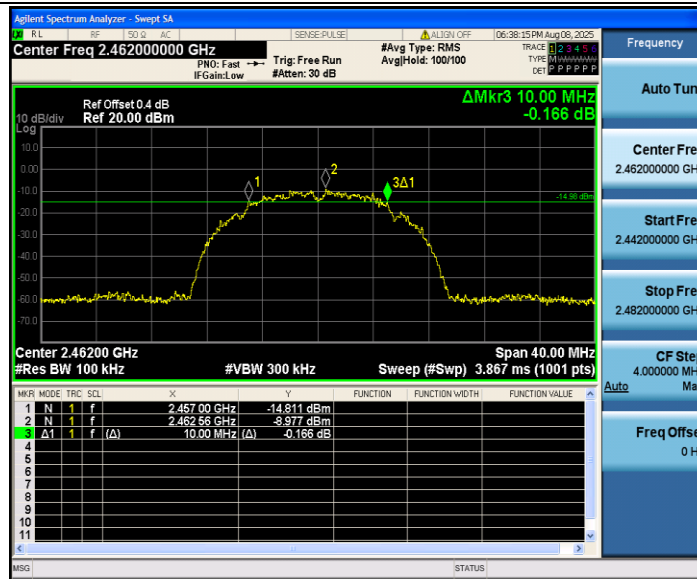
11B\_Ant1\_2412



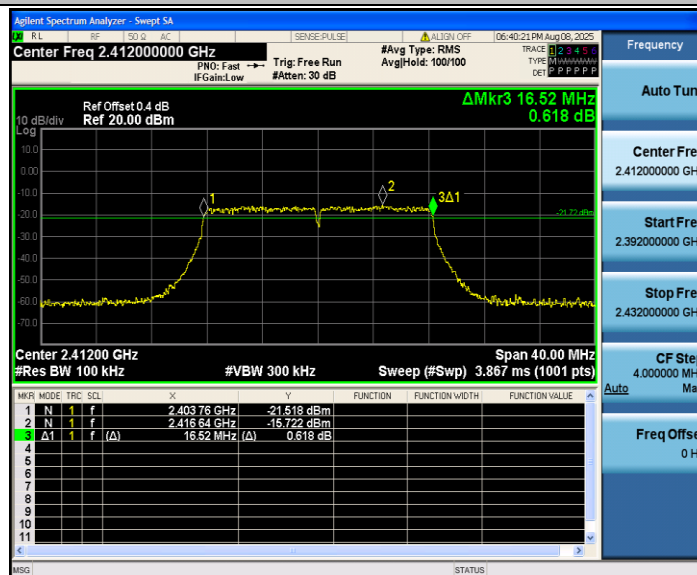
11B\_Ant1\_2437



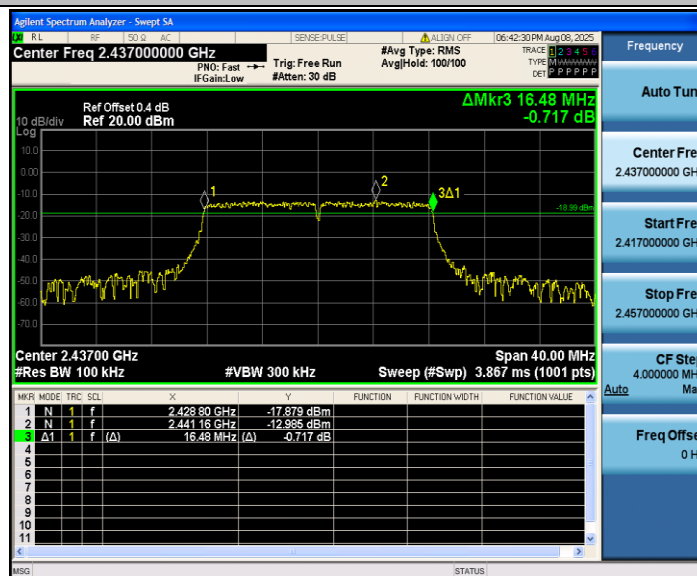
11B\_Ant1\_2462



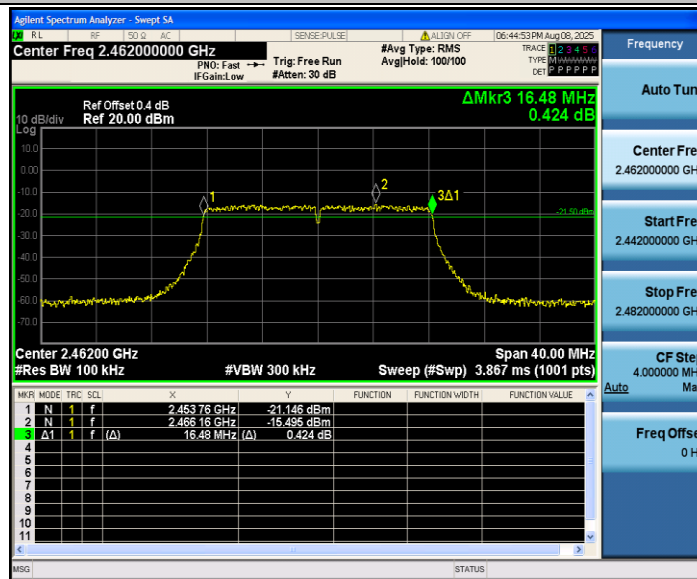
11G\_Ant1\_2412



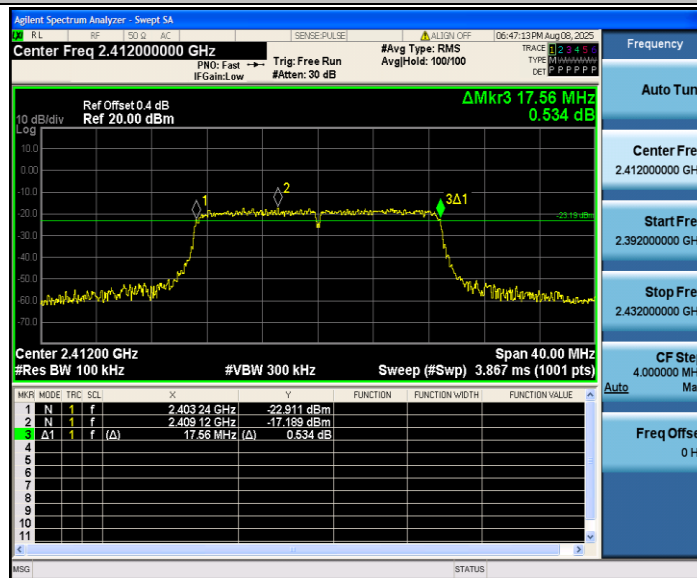
11G\_Ant1\_2437



# 11G\_Ant1\_2462



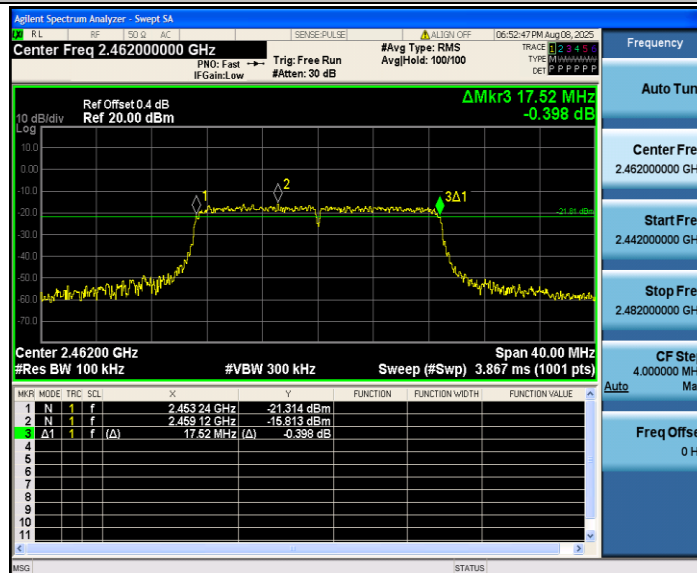
# 11N20SISO\_Ant1\_2412



# 11N20SISO\_Ant1\_2437



11N20SISO\_Ant1\_2462



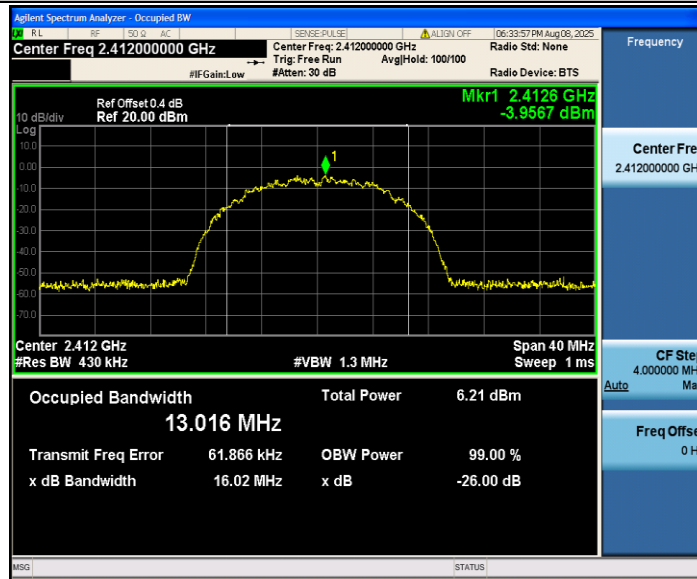
## Appendix B: Occupied Channel Bandwidth

### Test Result

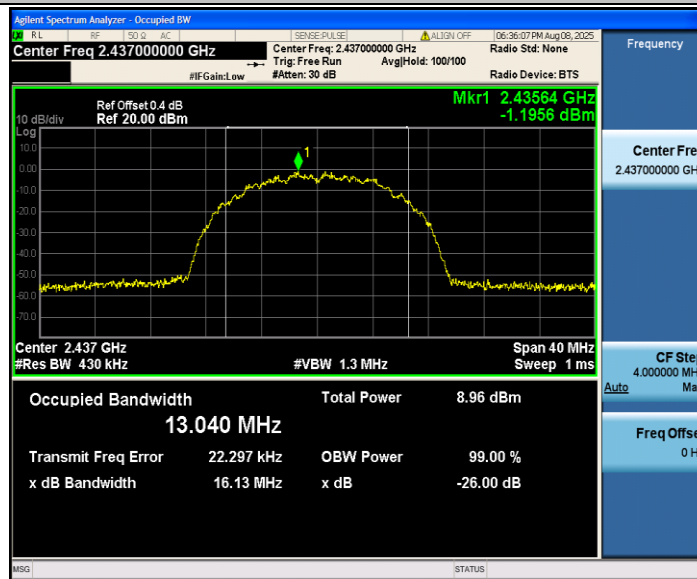
| TestMode  | Antenna | Channel Frequency[MHz] | OCB [MHz] | FL[MHz]   | FH[MHz]   | Limit[MHz] | Verdict |
|-----------|---------|------------------------|-----------|-----------|-----------|------------|---------|
| 11B       | Ant1    | 2412                   | 13.016    | 2405.5539 | 2418.5699 | ---        | ---     |
|           |         | 2437                   | 13.040    | 2430.5023 | 2443.5423 | ---        | ---     |
|           |         | 2462                   | 12.982    | 2455.5421 | 2468.5241 | ---        | ---     |
| 11G       | Ant1    | 2412                   | 16.592    | 2403.7565 | 2420.3485 | ---        | ---     |
|           |         | 2437                   | 16.615    | 2428.7226 | 2445.3376 | ---        | ---     |
|           |         | 2462                   | 16.604    | 2453.7275 | 2470.3315 | ---        | ---     |
| 11N20SISO | Ant1    | 2412                   | 17.471    | 2403.3316 | 2420.8026 | ---        | ---     |
|           |         | 2437                   | 17.454    | 2428.3174 | 2445.7714 | ---        | ---     |
|           |         | 2462                   | 17.447    | 2453.3202 | 2470.7672 | ---        | ---     |

## Test Graphs

11B\_Ant1\_2412



11B\_Ant1\_2437

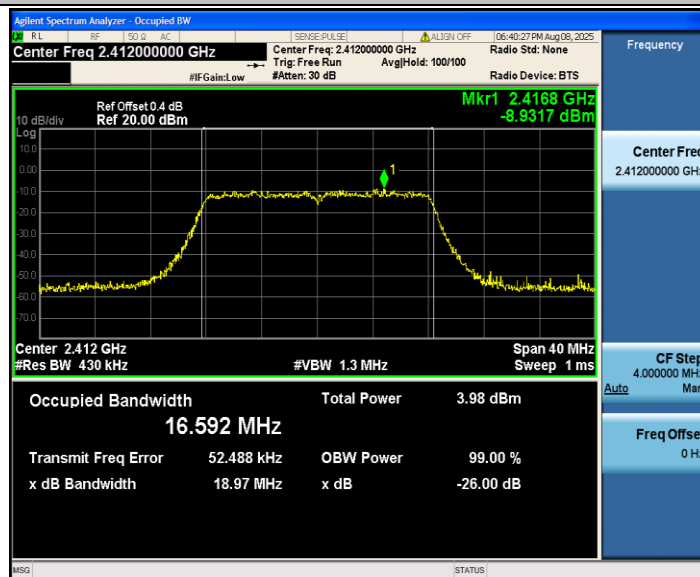


11B\_Ant1\_2462

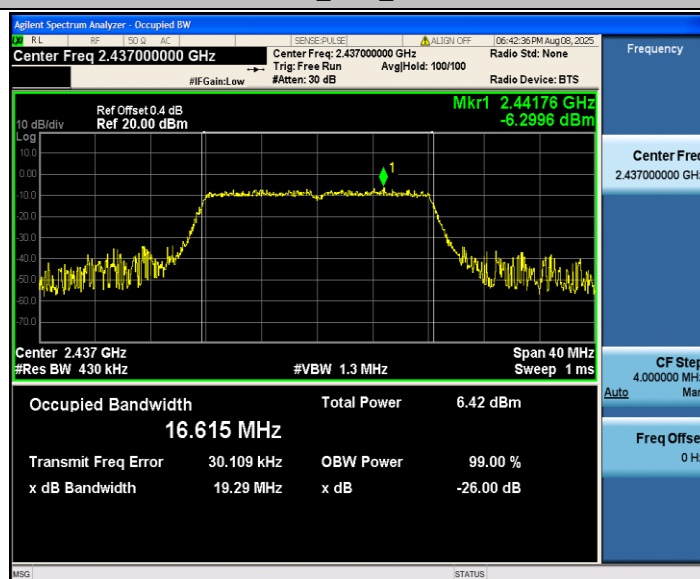




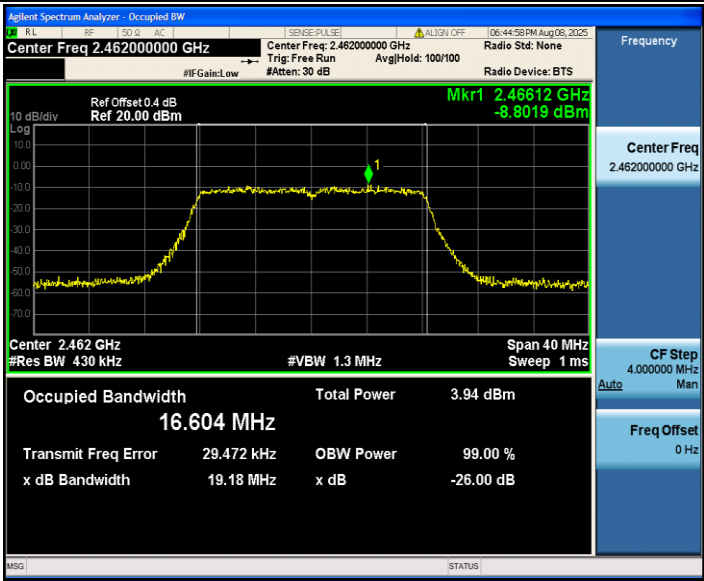
11G\_Ant1\_2412



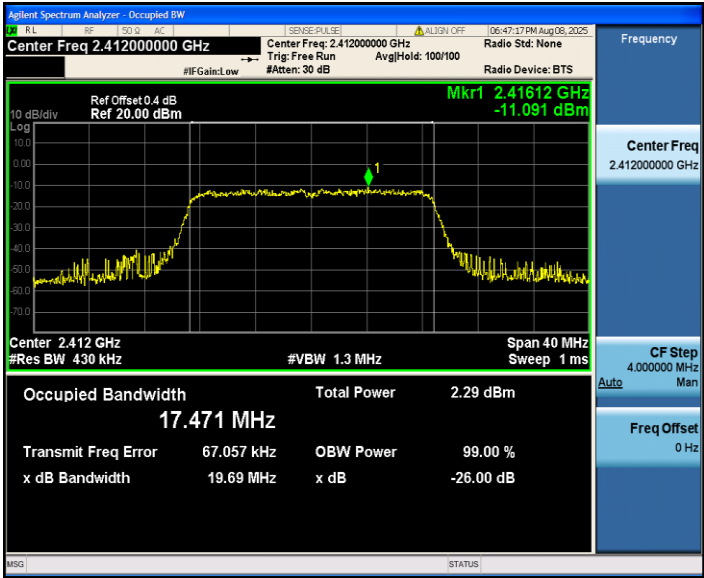
11G\_Ant1\_2437



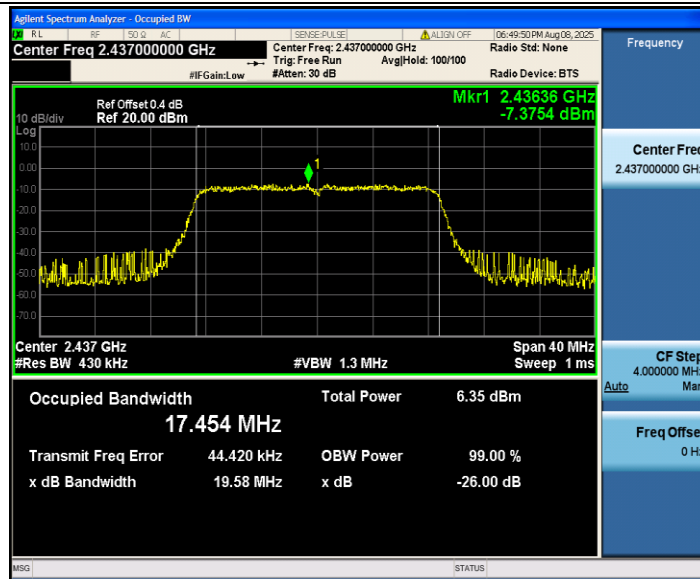
11G\_Ant1\_2462



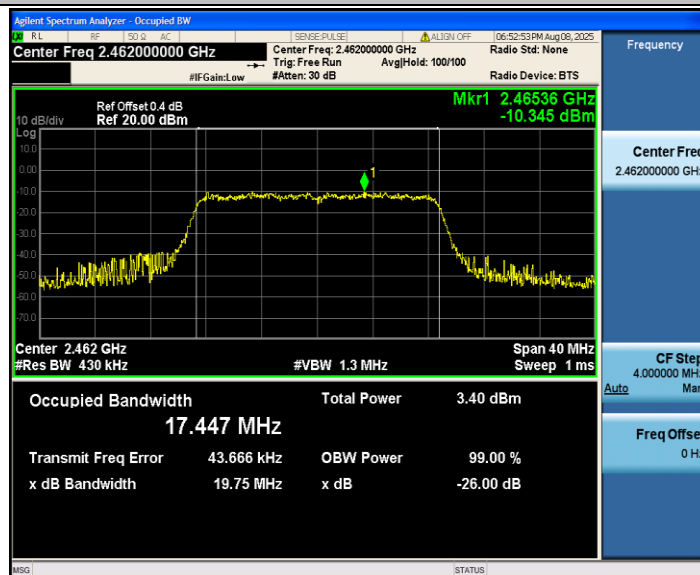
11N20SISO\_Ant1\_2412



11N20SISO\_Ant1\_2437



11N20SISO\_Ant1\_2462



## Appendix C: Maximum conducted output power

### Test Result Peak

| Test Mode | Antenna | Frequency[MHz] | Peak power [dBm] | Limit [dBm] | Verdict |
|-----------|---------|----------------|------------------|-------------|---------|
| 11B       | Ant1    | 2412           | 5.97             | ≤30.00      | PASS    |
|           |         | 2437           | 5.92             | ≤30.00      | PASS    |
|           |         | 2462           | 5.48             | ≤30.00      | PASS    |
| 11G       | Ant1    | 2412           | 4.81             | ≤30.00      | PASS    |
|           |         | 2437           | 7.22             | ≤30.00      | PASS    |
|           |         | 2462           | 4.64             | ≤30.00      | PASS    |
| 11N20SISO | Ant1    | 2412           | 5.13             | ≤30.00      | PASS    |
|           |         | 2437           | 5.11             | ≤30.00      | PASS    |
|           |         | 2462           | 4.57             | ≤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           | -23.04               | ≤8.00           | PASS    |
|           |         | 2437           | -23.00               | ≤8.00           | PASS    |
|           |         | 2462           | -23.80               | ≤8.00           | PASS    |
| 11G       | Ant1    | 2412           | -29.70               | ≤8.00           | PASS    |
|           |         | 2437           | -29.28               | ≤8.00           | PASS    |
|           |         | 2462           | -29.62               | ≤8.00           | PASS    |
| 11N20SISO | Ant1    | 2412           | -29.56               | ≤8.00           | PASS    |
|           |         | 2437           | -29.14               | ≤8.00           | PASS    |
|           |         | 2462           | -29.89               | ≤8.00           | PASS    |

## Test Graphs

11B\_Ant1\_2412



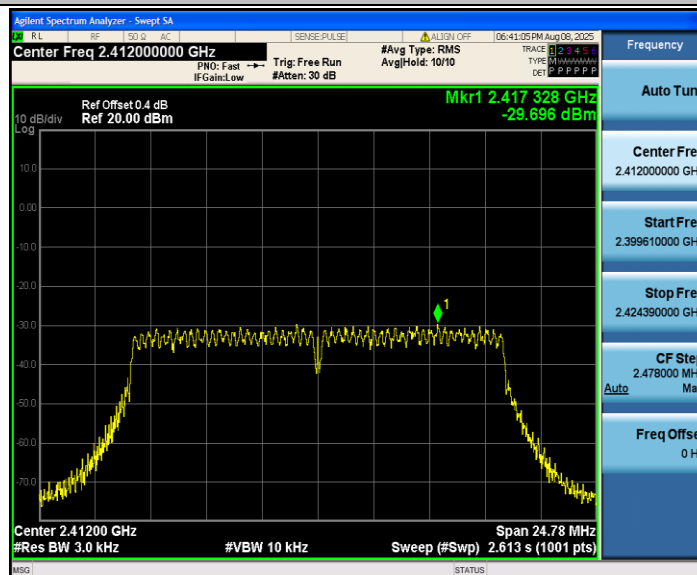
11B\_Ant1\_2437



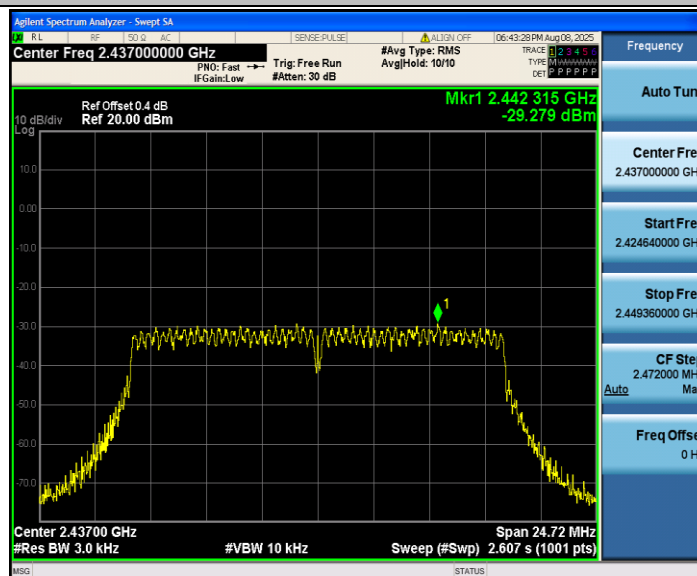
11B\_Ant1\_2462



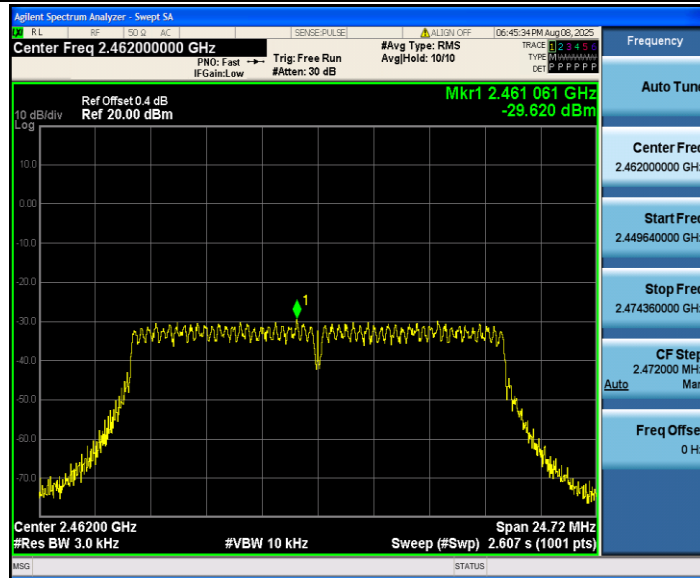
11G\_Ant1\_2412



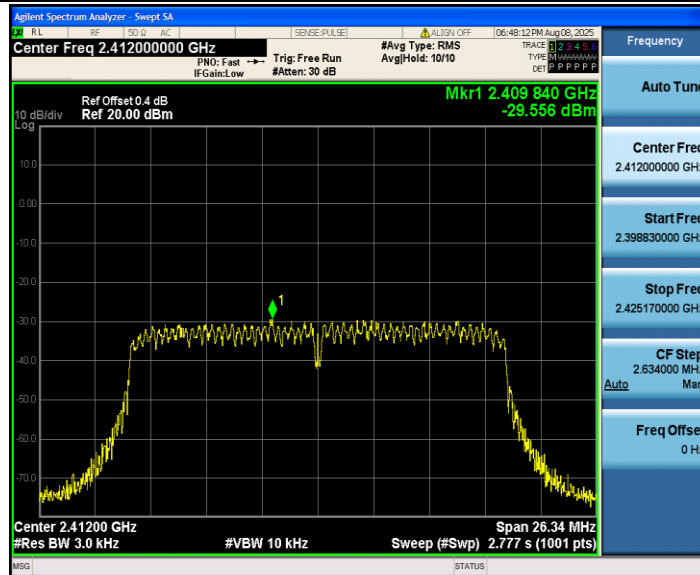
11G\_Ant1\_2437



# 11G\_Ant1\_2462

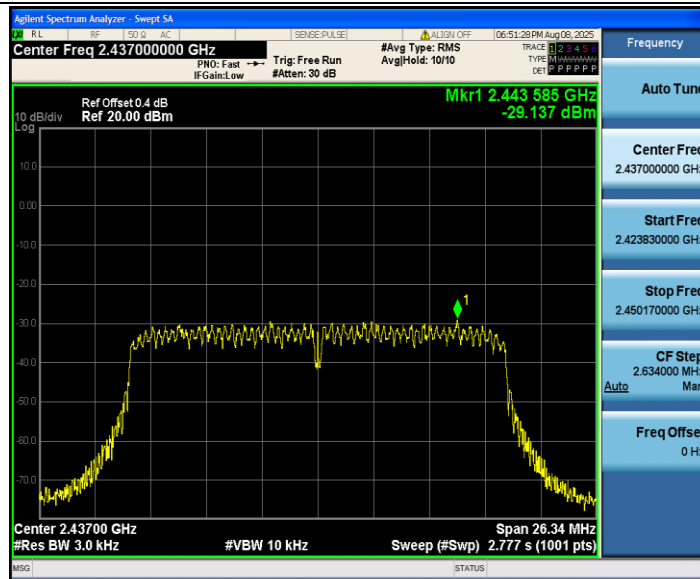


# 11N20SISO\_Ant1\_2412

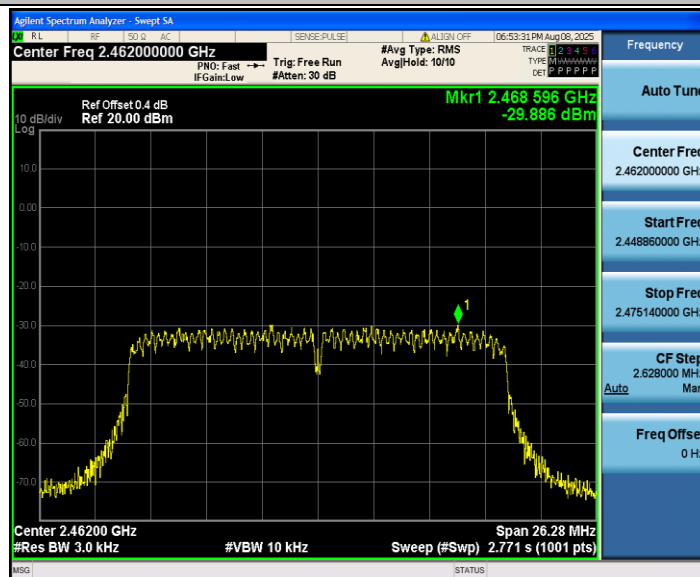


# 11N20SISO\_Ant1\_2437





11N20SISO\_Ant1\_2462



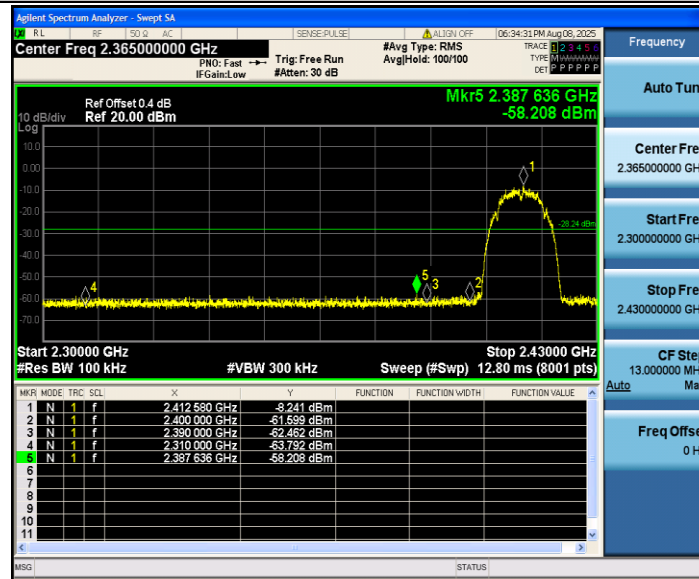
## Appendix E: Band edge measurements

### Test Result

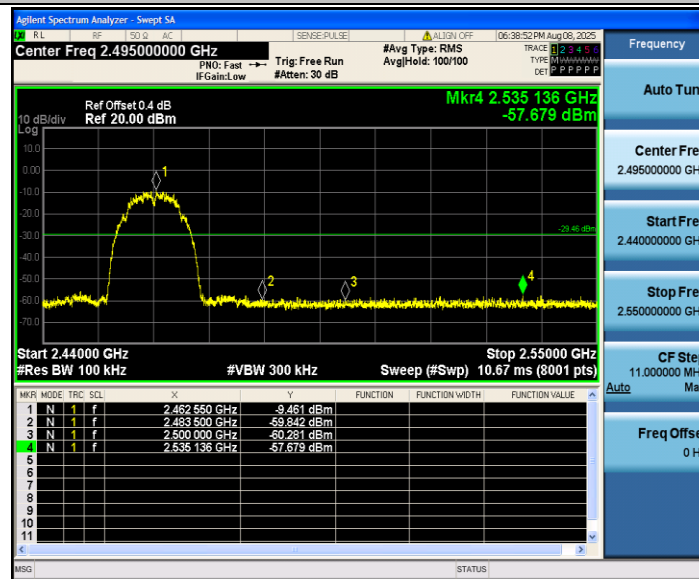
| TestMode  | Antenna | Channel Name | Frequency[MHz] | RefLevel[dBm] | Result[dBm] | Limit[dBm] | Verdict |
|-----------|---------|--------------|----------------|---------------|-------------|------------|---------|
| 11B       | Ant1    | Low          | 2412           | -8.24         | -58.21      | ≤-28.24    | PASS    |
|           |         | High         | 2462           | -9.46         | -57.68      | ≤-29.46    | PASS    |
| 11G       | Ant1    | Low          | 2412           | -15.36        | -57.04      | ≤-35.36    | PASS    |
|           |         | High         | 2462           | -15.90        | -57.67      | ≤-35.9     | PASS    |
| 11N20SISO | Ant1    | Low          | 2412           | -15.93        | -57.08      | ≤-35.93    | PASS    |
|           |         | High         | 2462           | -16.13        | -56.73      | ≤-36.13    | PASS    |

## Test Graphs

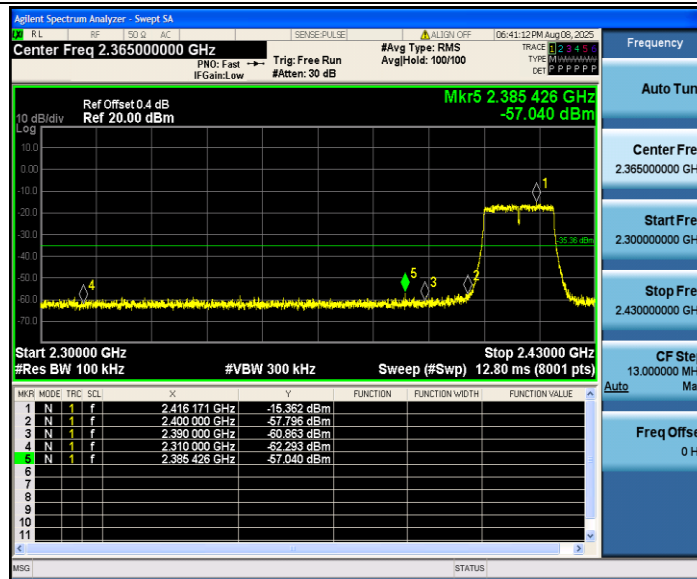
11B\_Ant1\_Low\_2412



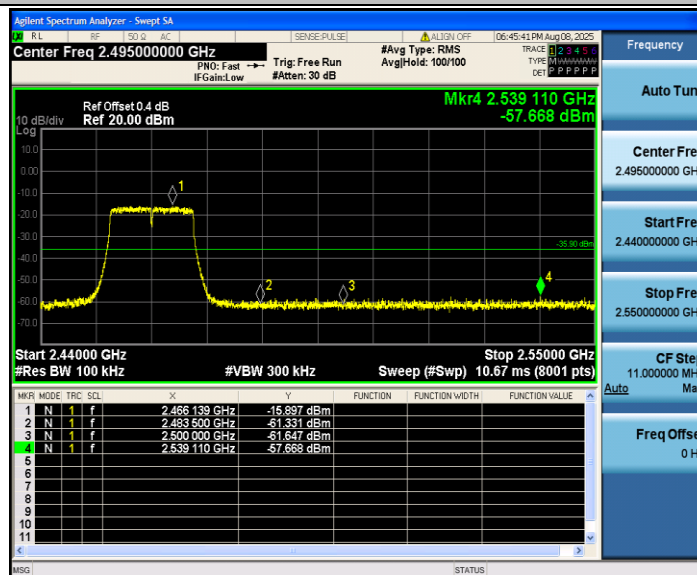
11B\_Ant1\_High\_2462



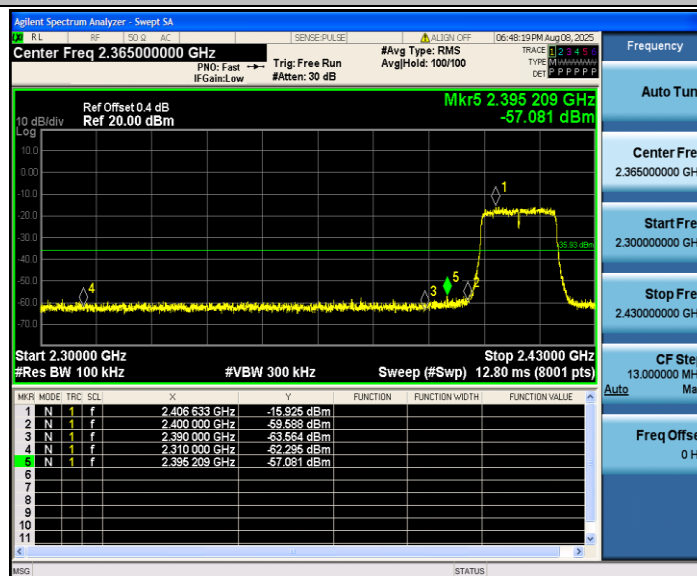
11G\_Ant1\_Low\_2412



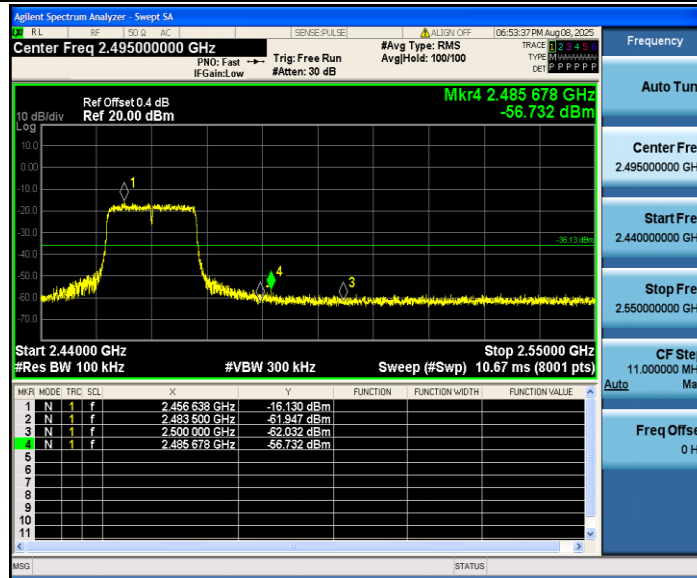
11G\_Ant1\_High\_2462



11N20SISO\_Ant1\_Low\_2412



# 11N20SISO\_Ant1\_High\_2462



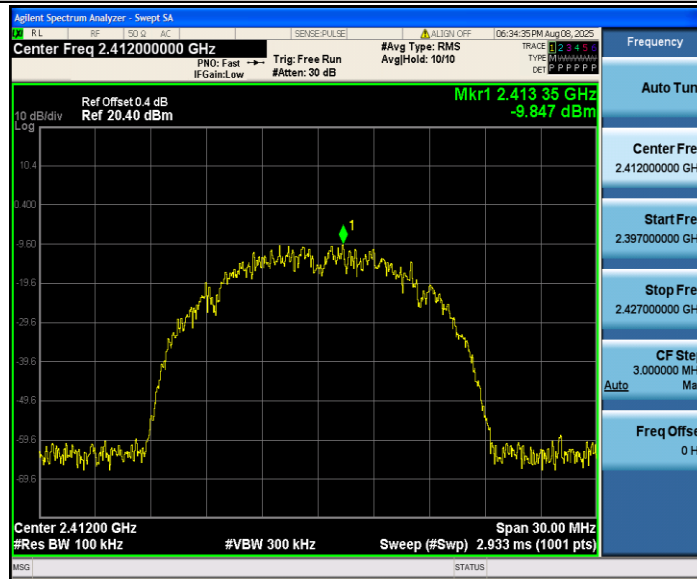
## Appendix F: Conducted Spurious Emission

### Test Result

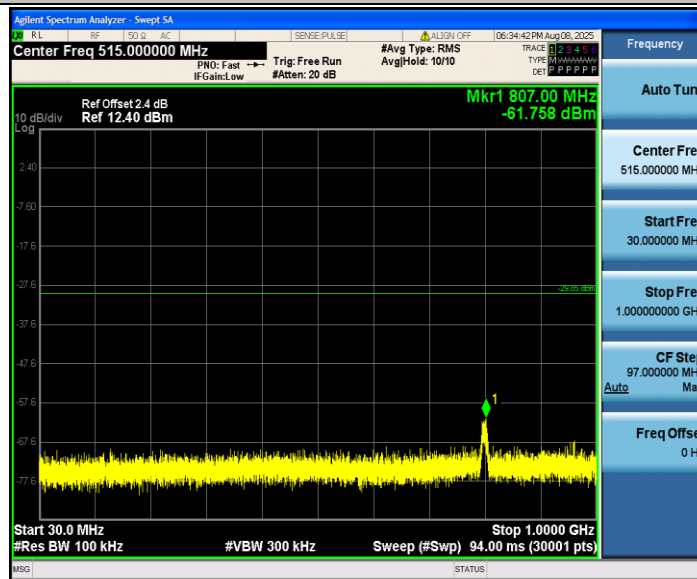
| TestMode  | Antenna | Frequency[MHz] | FreqRange [Mhz] | RefLevel [dBm] | Result [dBm] | Limit [dBm] | Verdict |
|-----------|---------|----------------|-----------------|----------------|--------------|-------------|---------|
| 11B       | Ant1    | 2412           | Reference       | -9.85          | -9.85        | ---         | PASS    |
|           |         |                | 30~1000         | -9.85          | -61.76       | ≤-29.85     | PASS    |
|           |         |                | 1000~26500      | -9.85          | -44.51       | ≤-29.85     | PASS    |
|           |         | 2437           | Reference       | -8.81          | -8.81        | ---         | PASS    |
|           |         |                | 30~1000         | -8.81          | -61.92       | ≤-28.81     | PASS    |
|           |         |                | 1000~26500      | -8.81          | -44.92       | ≤-28.81     | PASS    |
|           |         | 2462           | Reference       | -10.36         | -10.36       | ---         | PASS    |
|           |         |                | 30~1000         | -10.36         | -61.35       | ≤-30.36     | PASS    |
|           |         |                | 1000~26500      | -10.36         | -45.97       | ≤-30.36     | PASS    |
| 11G       | Ant1    | 2412           | Reference       | -16.04         | -16.04       | ---         | PASS    |
|           |         |                | 30~1000         | -16.04         | -64.72       | ≤-36.04     | PASS    |
|           |         |                | 1000~26500      | -16.04         | -44.55       | ≤-36.04     | PASS    |
|           |         | 2437           | Reference       | -15.59         | -15.59       | ---         | PASS    |
|           |         |                | 30~1000         | -15.59         | -63.87       | ≤-35.59     | PASS    |
|           |         |                | 1000~26500      | -15.59         | -44.89       | ≤-35.59     | PASS    |
|           |         | 2462           | Reference       | -16.25         | -16.25       | ---         | PASS    |
|           |         |                | 30~1000         | -16.25         | -65.25       | ≤-36.25     | PASS    |
|           |         |                | 1000~26500      | -16.25         | -45.15       | ≤-36.25     | PASS    |
| 11N20SISO | Ant1    | 2412           | Reference       | -15.86         | -15.86       | ---         | PASS    |
|           |         |                | 30~1000         | -15.86         | -65.29       | ≤-35.86     | PASS    |
|           |         |                | 1000~26500      | -15.86         | -44.48       | ≤-35.86     | PASS    |
|           |         | 2437           | Reference       | -16.25         | -16.25       | ---         | PASS    |
|           |         |                | 30~1000         | -16.25         | -65.26       | ≤-36.25     | PASS    |
|           |         |                | 1000~26500      | -16.25         | -44.87       | ≤-36.25     | PASS    |
|           |         | 2462           | Reference       | -17.04         | -17.04       | ---         | PASS    |
|           |         |                | 30~1000         | -17.04         | -64.63       | ≤-37.04     | PASS    |
|           |         |                | 1000~26500      | -17.04         | -45.76       | ≤-37.04     | PASS    |

## Test Graphs

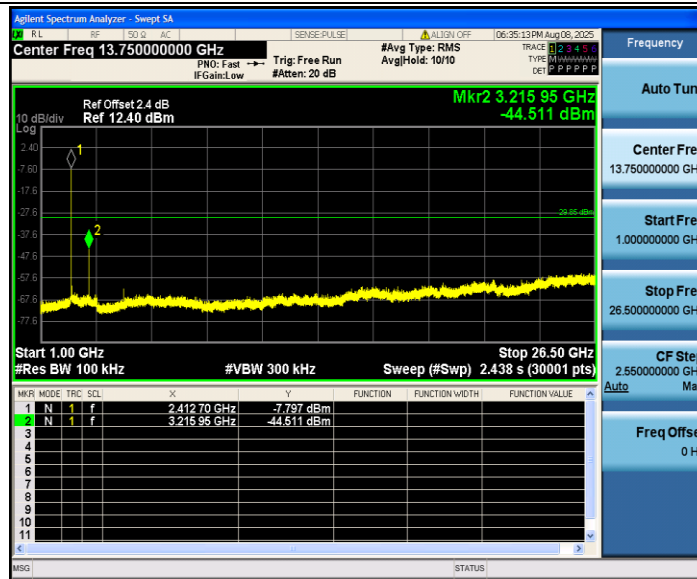
11B\_Ant1\_2412\_0~Reference



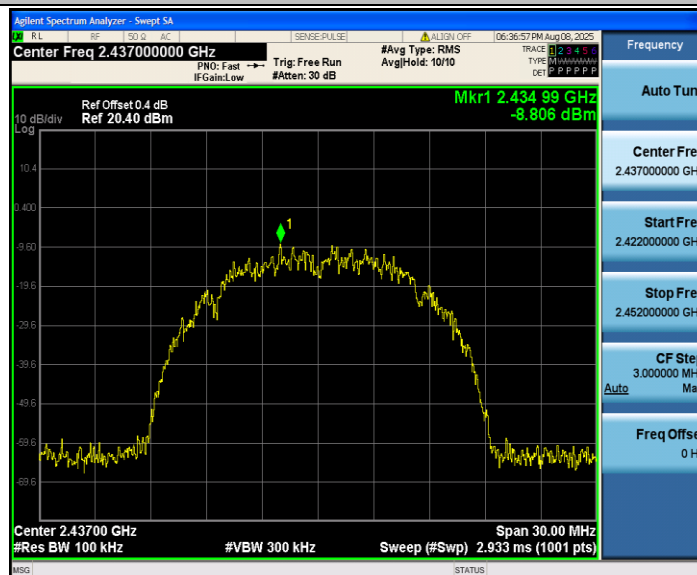
11B\_Ant1\_2412\_30~1000



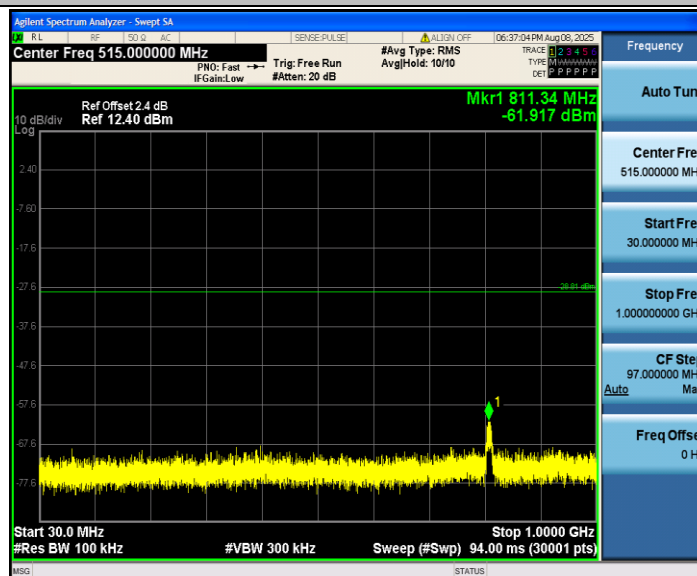
11B\_Ant1\_2412\_1000~26500



11B\_Ant1\_2437\_0~Reference

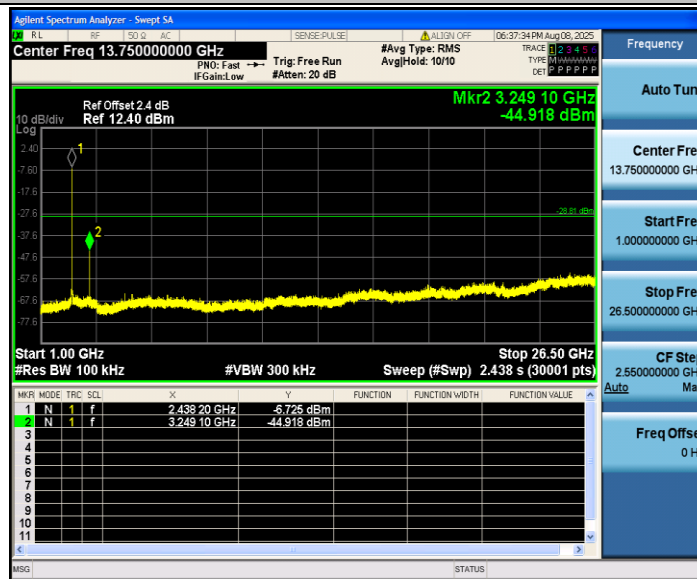


11B\_Ant1\_2437\_30~1000

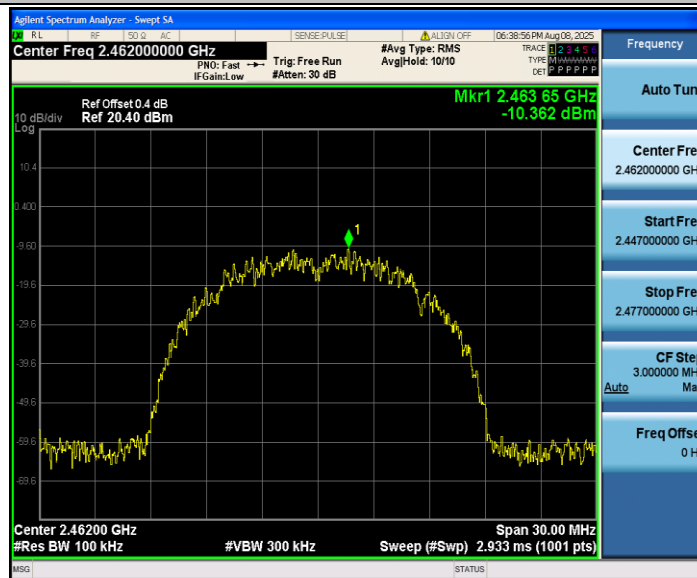




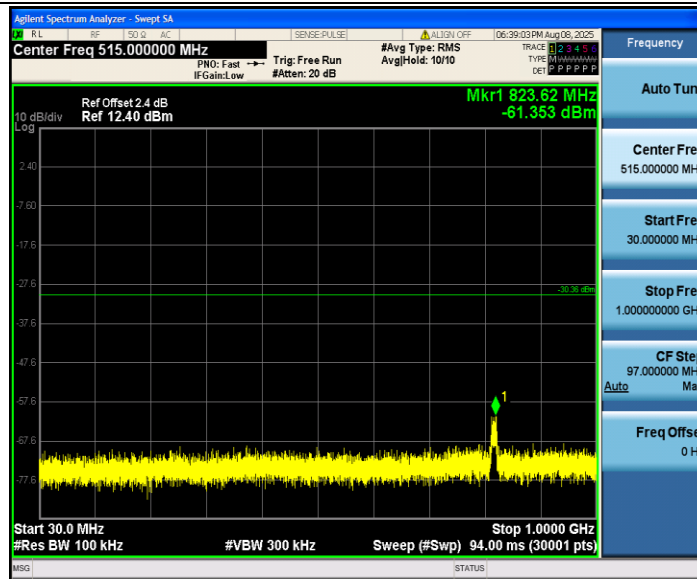
# 11B\_Ant1\_2437\_1000~26500



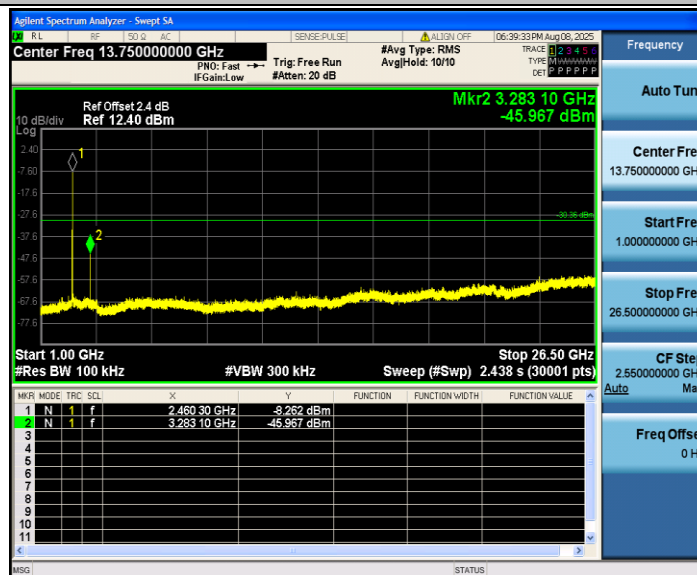
# 11B\_Ant1\_2462\_0~Reference



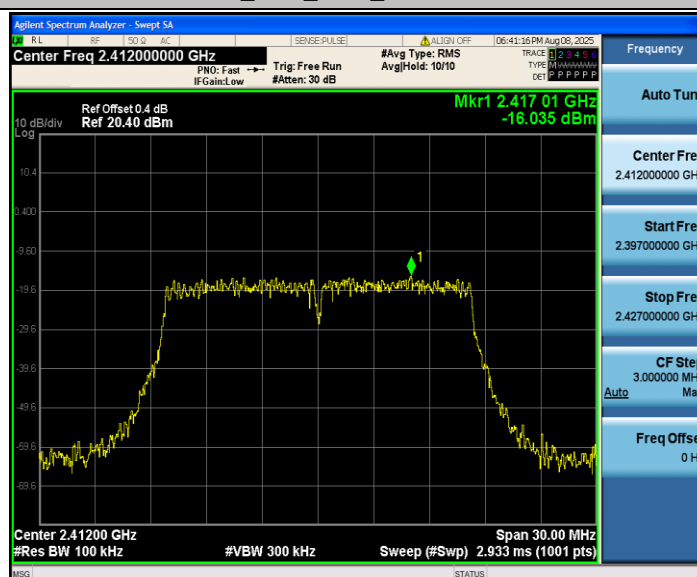
# 11B\_Ant1\_2462\_30~1000



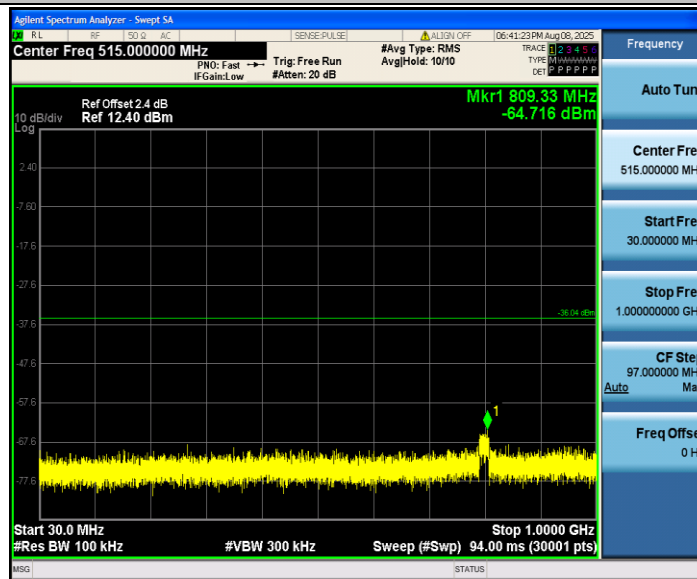
11B\_Ant1\_2462\_1000~26500



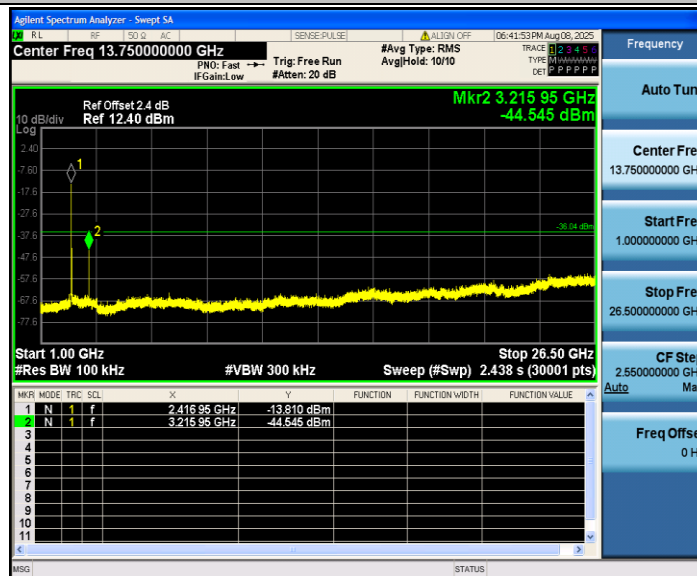
11G\_Ant1\_2412\_0~Reference



# 11G\_Ant1\_2412\_30~1000



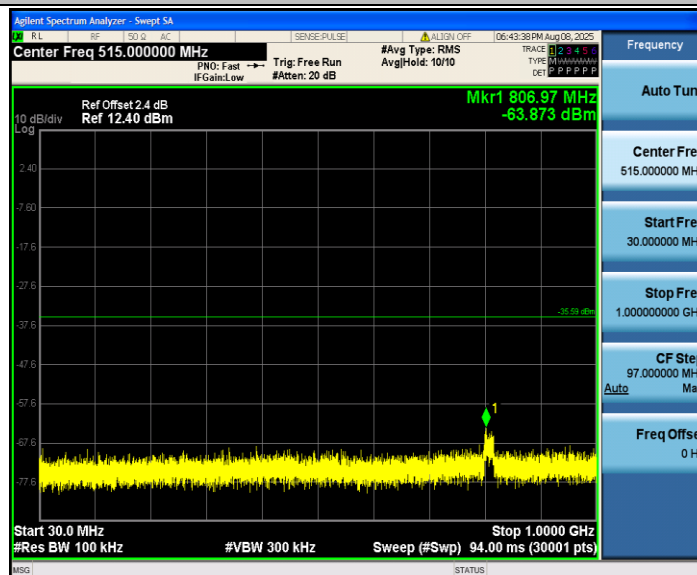
# 11G\_Ant1\_2412\_1000~26500



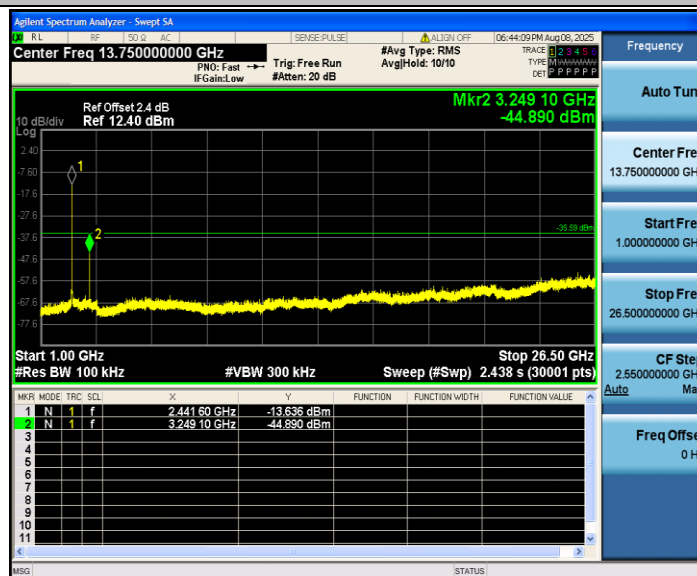
# 11G\_Ant1\_2437\_0~Reference



11G\_Ant1\_2437\_30~1000



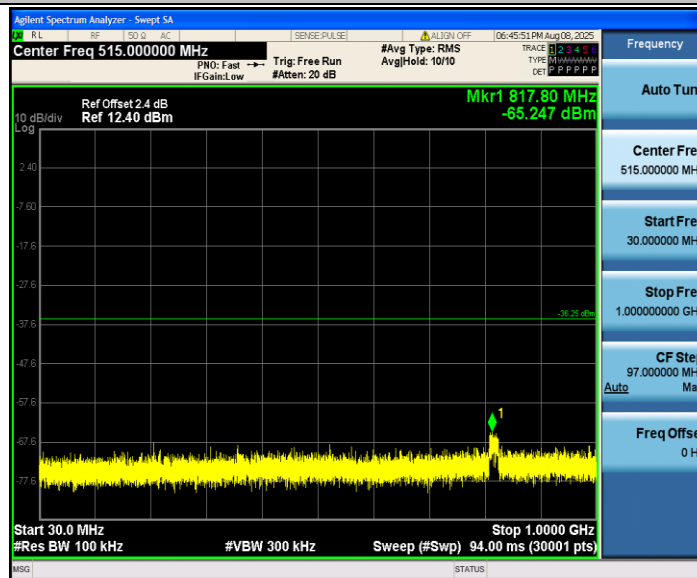
11G\_Ant1\_2437\_1000~26500



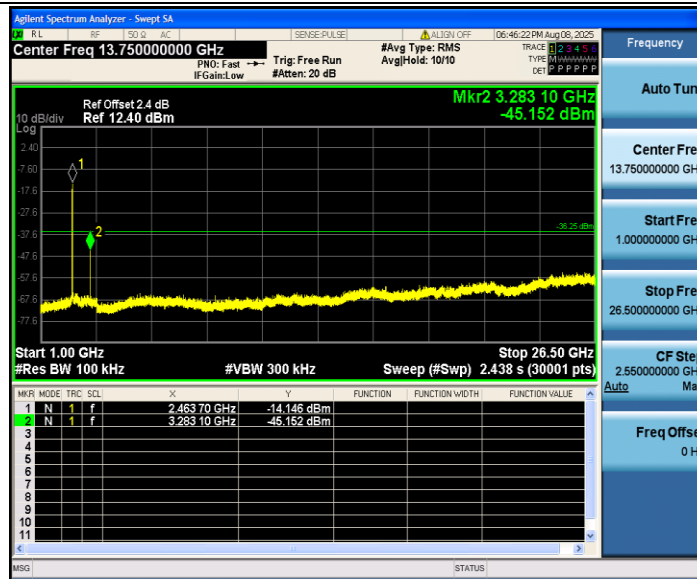
# 11G\_Ant1\_2462\_0~Reference



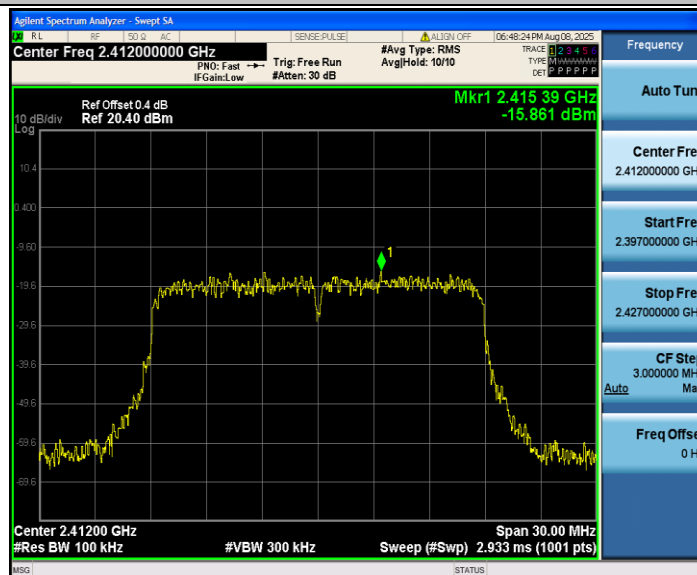
# 11G\_Ant1\_2462\_30~1000



# 11G\_Ant1\_2462\_1000~26500



11N20SISO\_Ant1\_2412\_0~Reference



11N20SISO\_Ant1\_2412\_30~1000

