

## Appendix B of WIFI Results

### DTS Bandwidth

#### Test Result

| TestMode  | Antenna | Frequency[MHz] | DTS BW [MHz] | FL[MHz]  | FH[MHz]  | Limit[MHz] | Verdict |
|-----------|---------|----------------|--------------|----------|----------|------------|---------|
| 11B       | Ant1    | 2412           | 10.000       | 2407.000 | 2417.000 | 0.5        | PASS    |
| 11B       | Ant1    | 2437           | 9.040        | 2432.960 | 2442.000 | 0.5        | PASS    |
| 11B       | Ant1    | 2462           | 10.040       | 2456.960 | 2467.000 | 0.5        | PASS    |
| 11G       | Ant1    | 2412           | 16.320       | 2403.840 | 2420.160 | 0.5        | PASS    |
| 11G       | Ant1    | 2437           | 16.320       | 2428.840 | 2445.160 | 0.5        | PASS    |
| 11G       | Ant1    | 2462           | 16.320       | 2453.840 | 2470.160 | 0.5        | PASS    |
| 11N20SISO | Ant1    | 2412           | 17.200       | 2403.560 | 2420.760 | 0.5        | PASS    |
| 11N20SISO | Ant1    | 2437           | 17.520       | 2428.240 | 2445.760 | 0.5        | PASS    |
| 11N20SISO | Ant1    | 2462           | 17.520       | 2453.240 | 2470.760 | 0.5        | PASS    |
| 11N40SISO | Ant1    | 2422           | 35.040       | 2404.480 | 2439.520 | 0.5        | PASS    |
| 11N40SISO | Ant1    | 2437           | 33.040       | 2421.560 | 2454.600 | 0.5        | PASS    |
| 11N40SISO | Ant1    | 2452           | 34.000       | 2435.120 | 2469.120 | 0.5        | PASS    |

Test Graphs



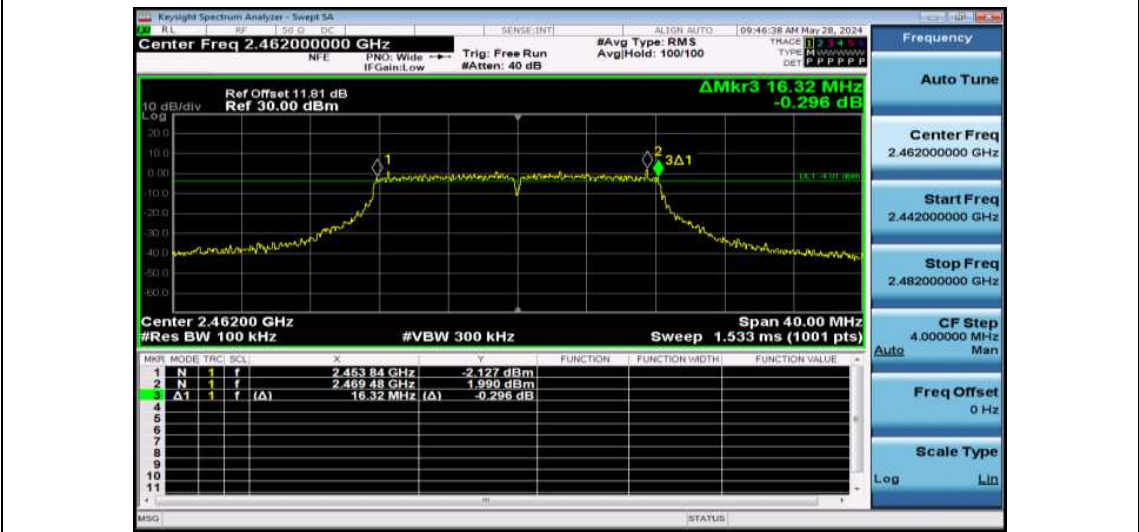
FCC ID: 2A64B-DSX39  
IC: 28593-DSX39



11G-Ant1-2412-PASS



11G-Ant1-2437-PASS



11G-Ant1-2462-PASS

FCC ID:2A64B-DSX39

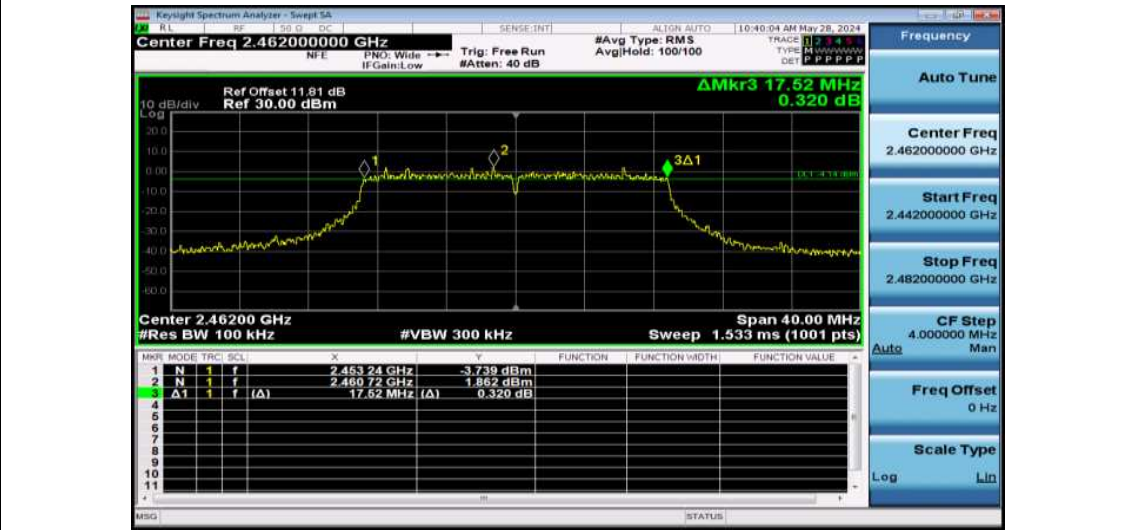
IC:28593-DSX39



11N20SISO-Ant1-2412-PASS



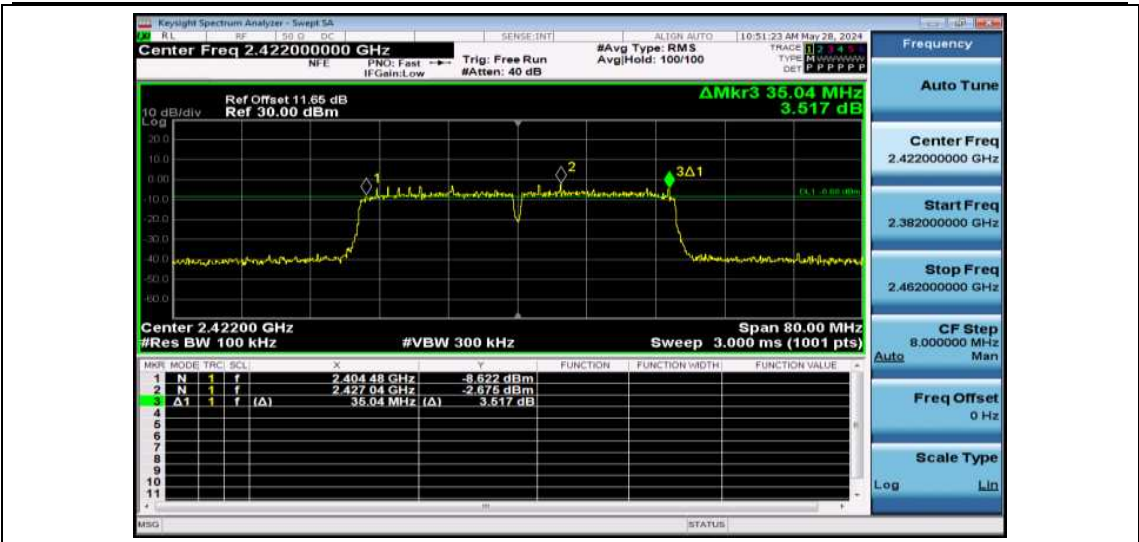
11N20SISO-Ant1-2437-PASS



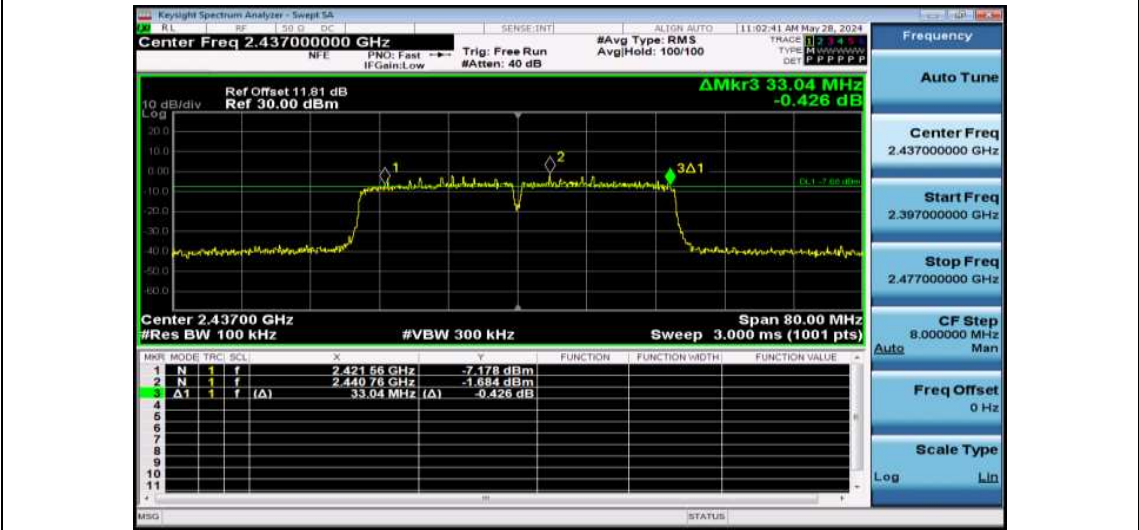
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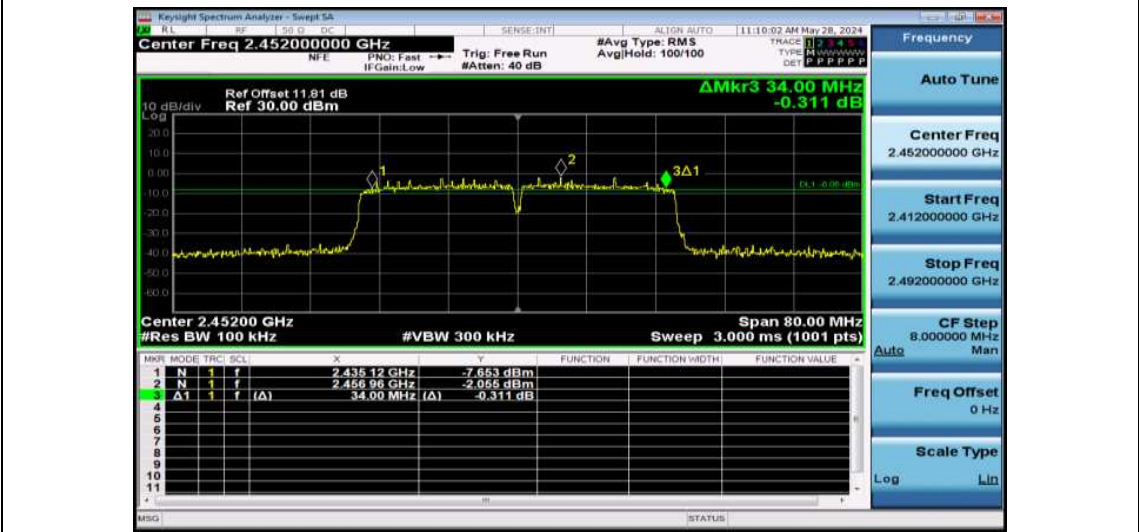
FCC ID: 2A64B-DSX39  
IC: 28593-DSX39



11N40SISO-Ant1-2422-PASS



11N40SISO-Ant1-2437-PASS



11N40SISO-Ant1-2452-PASS

FCC ID: 2A64B-DSX39  
IC: 28593-DSX39

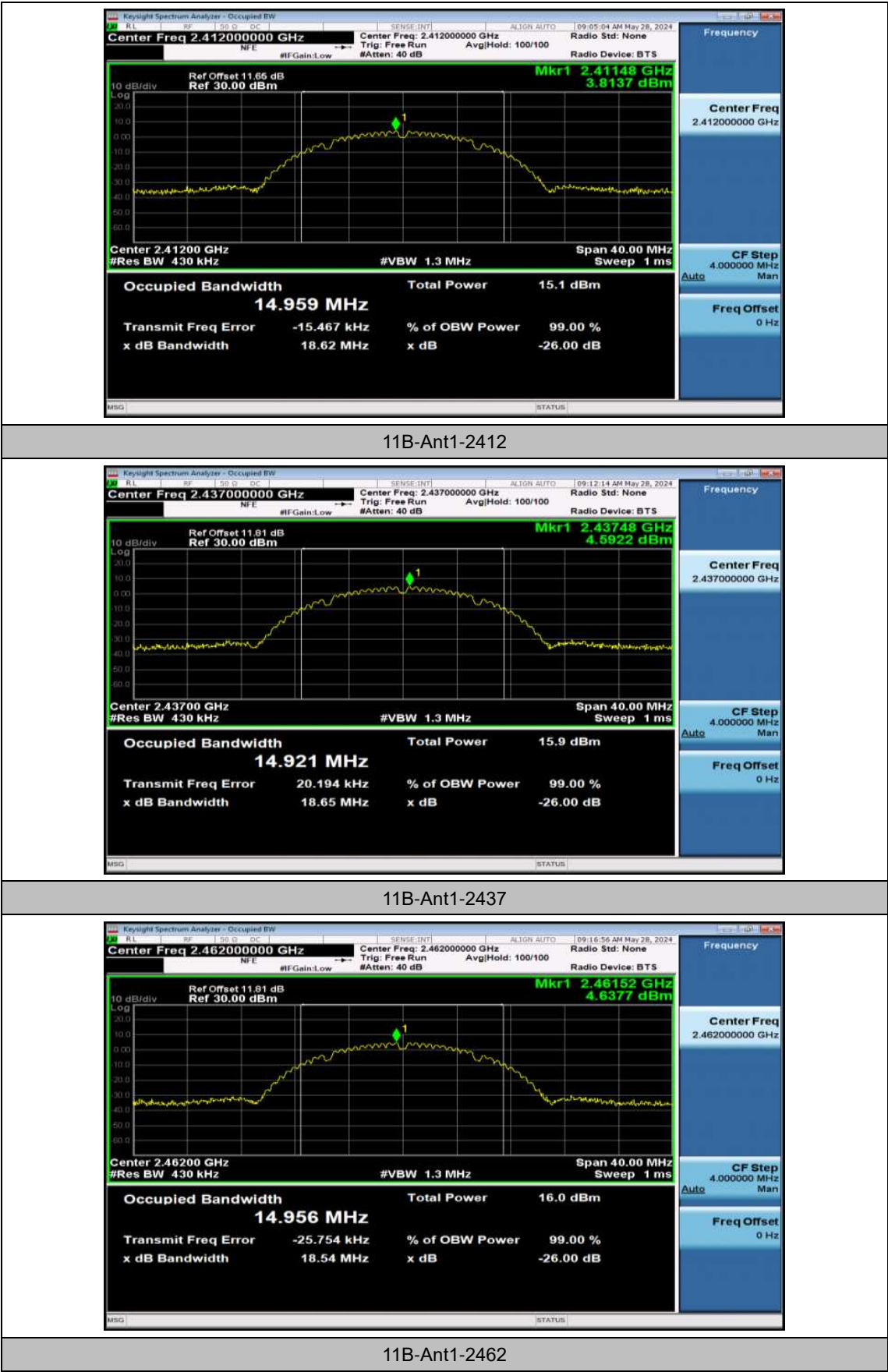
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## Occupied Channel Bandwidth

### Test Result

| TestMode  | Antenna | Channel<br>Frequency[MHz] | OCB<br>[MHz] | FL[MHz]   | FH[MHz]   | Limit[MHz] | Verdict |
|-----------|---------|---------------------------|--------------|-----------|-----------|------------|---------|
| 11B       | Ant1    | 2412                      | 14.959       | 2404.5050 | 2419.4640 | ---        | ---     |
| 11B       | Ant1    | 2437                      | 14.921       | 2429.5597 | 2444.4807 | ---        | ---     |
| 11B       | Ant1    | 2462                      | 14.956       | 2454.4963 | 2469.4523 | ---        | ---     |
| 11G       | Ant1    | 2412                      | 17.061       | 2403.4427 | 2420.5037 | ---        | ---     |
| 11G       | Ant1    | 2437                      | 17.046       | 2428.5592 | 2445.6052 | ---        | ---     |
| 11G       | Ant1    | 2462                      | 17.130       | 2453.4104 | 2470.5404 | ---        | ---     |
| 11N20SISO | Ant1    | 2412                      | 18.023       | 2403.0117 | 2421.0347 | ---        | ---     |
| 11N20SISO | Ant1    | 2437                      | 18.108       | 2427.9544 | 2446.0624 | ---        | ---     |
| 11N20SISO | Ant1    | 2462                      | 18.060       | 2452.9803 | 2471.0403 | ---        | ---     |
| 11N40SISO | Ant1    | 2422                      | 35.903       | 2404.0809 | 2439.9839 | ---        | ---     |
| 11N40SISO | Ant1    | 2437                      | 35.874       | 2419.1087 | 2454.9827 | ---        | ---     |
| 11N40SISO | Ant1    | 2452                      | 35.888       | 2434.0795 | 2469.9675 | ---        | ---     |

Test Graphs



FCC ID:2A64B-DSX39

IC:28593-DSX39



11G-Ant1-2412



11G-Ant1-2437



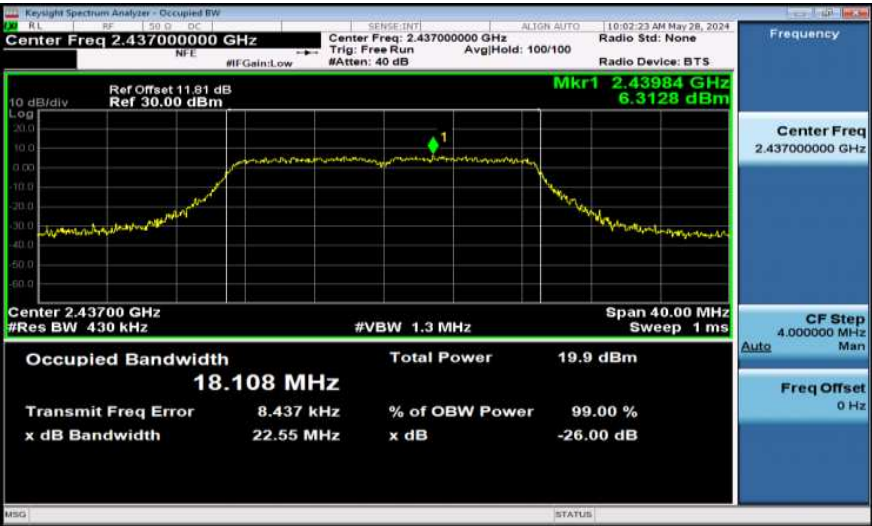
11G-Ant1-2462



FCC ID: 2A64B-DSX39  
IC: 28593-DSX39



11N20SISO-Ant1-2412

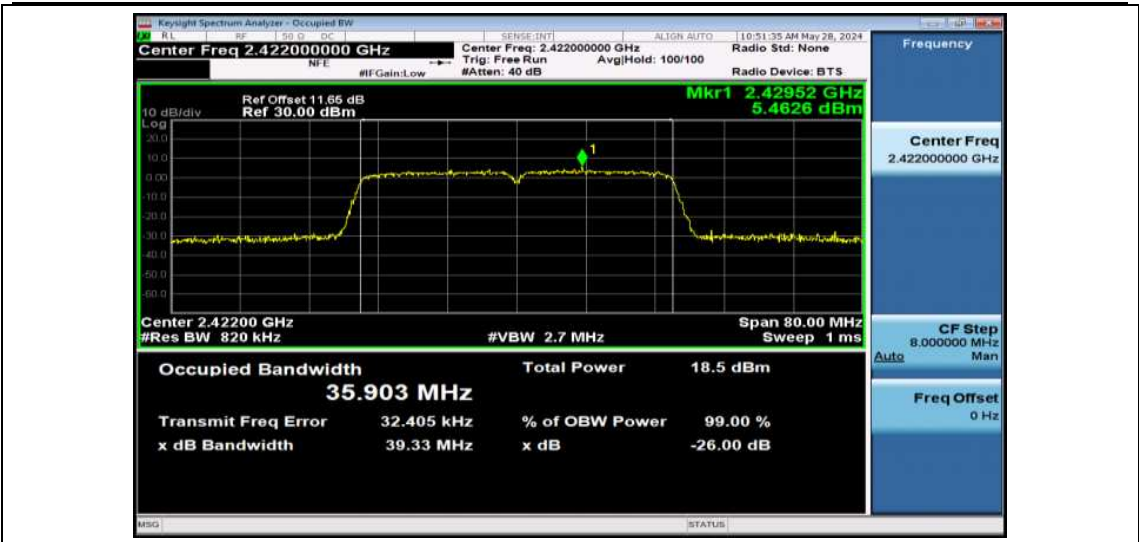


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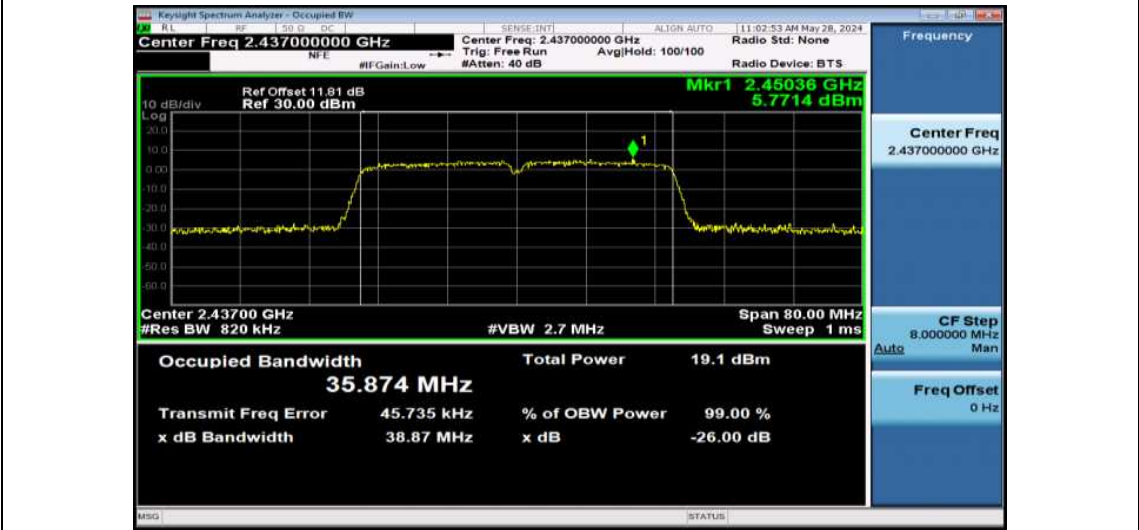


11N20SISO-Ant1-2462

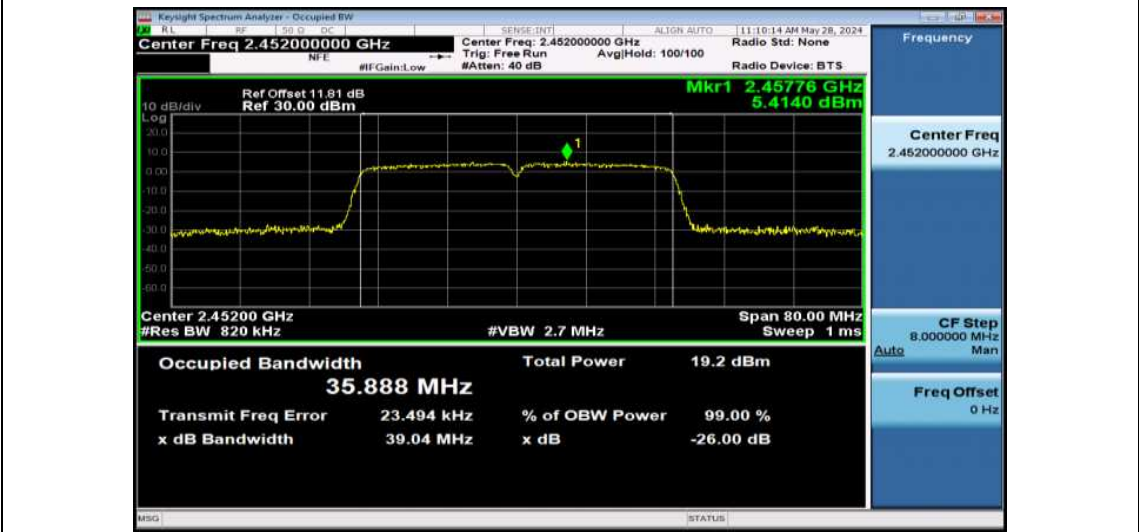
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IC: 28593-DSX39



11N40SISO-Ant1-2422



11N40SISO-Ant1-2437



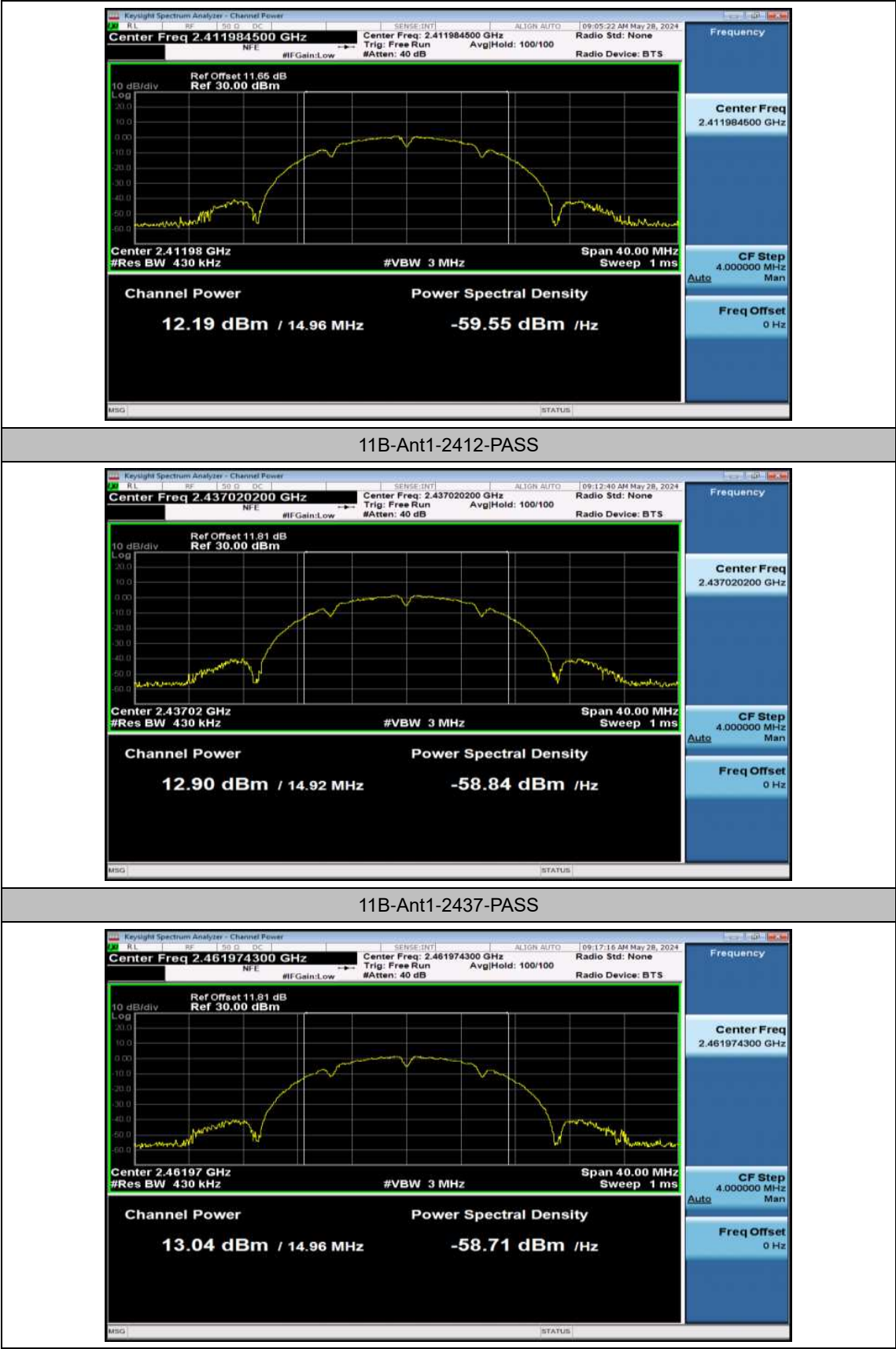
11N40SISO-Ant1-2452

## Maximum conducted output power

### Test Result Average

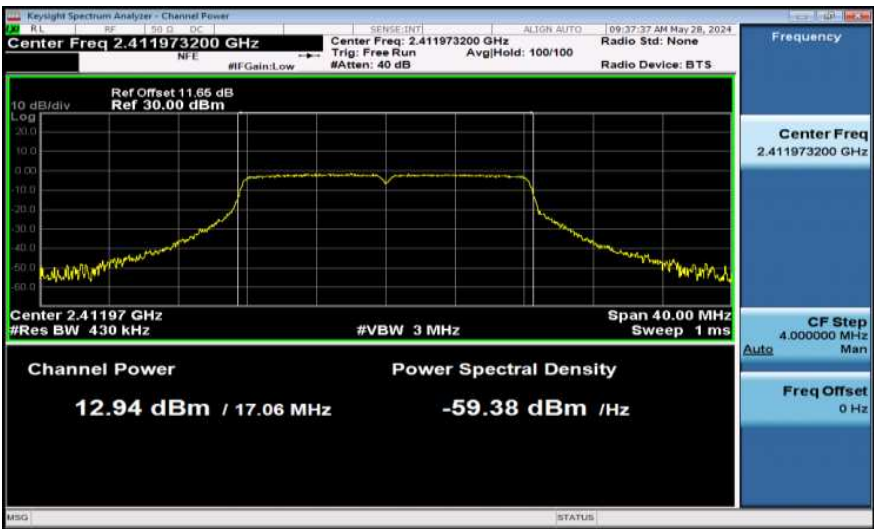
| Test Mode  | Antenna | Frequency [MHz] | Average power [dBm] | Duty Cycle [%] | DC Factor [dBm] | Result [dBm] | Limit [dBm] | Gain [dBi] | EIRP [dBm] | EIRP Limit [dBm] | Verdict |
|------------|---------|-----------------|---------------------|----------------|-----------------|--------------|-------------|------------|------------|------------------|---------|
| 11B        | Ant1    | 2412            | 12.20               | 99.52          | 0.02            | 12.22        | ≤30.00      | 4.19       | 16.41      | ≤36.00           | PASS    |
| 11B        | Ant1    | 2437            | 12.90               | 98.57          | 0.06            | 12.96        | ≤30.00      | 4.19       | 17.15      | ≤36.00           | PASS    |
| 11B        | Ant1    | 2462            | 13.04               | 98.57          | 0.06            | 13.10        | ≤30.00      | 4.19       | 17.29      | ≤36.00           | PASS    |
| 11G        | Ant1    | 2412            | 12.94               | 92.38          | 0.34            | 13.28        | ≤30.00      | 4.19       | 17.47      | ≤36.00           | PASS    |
| 11G        | Ant1    | 2437            | 13.76               | 92.38          | 0.34            | 14.10        | ≤30.00      | 4.19       | 18.29      | ≤36.00           | PASS    |
| 11G        | Ant1    | 2462            | 14.02               | 92.41          | 0.34            | 14.36        | ≤30.00      | 4.19       | 18.55      | ≤36.00           | PASS    |
| 11N20 SISO | Ant1    | 2412            | 12.91               | 93.20          | 0.31            | 13.22        | ≤30.00      | 4.19       | 17.41      | ≤36.00           | PASS    |
| 11N20 SISO | Ant1    | 2437            | 13.61               | 92.31          | 0.35            | 13.96        | ≤30.00      | 4.19       | 18.15      | ≤36.00           | PASS    |
| 11N20 SISO | Ant1    | 2462            | 13.73               | 93.66          | 0.28            | 14.01        | ≤30.00      | 4.19       | 18.20      | ≤36.00           | PASS    |
| 11N40 SISO | Ant1    | 2422            | 11.24               | 85.45          | 0.68            | 11.92        | ≤30.00      | 4.19       | 16.11      | ≤36.00           | PASS    |
| 11N40 SISO | Ant1    | 2437            | 11.74               | 85.59          | 0.68            | 12.42        | ≤30.00      | 4.19       | 16.61      | ≤36.00           | PASS    |
| 11N40 SISO | Ant1    | 2452            | 11.89               | 86.24          | 0.64            | 12.53        | ≤30.00      | 4.19       | 16.72      | ≤36.00           | PASS    |

Test Graphs Average



FCC ID: 2A64B-DSX39  
IC: 28593-DSX39

11B-Ant1-2462-PASS



11G-Ant1-2412-PASS



11G-Ant1-2437-PASS



11G-Ant1-2462-PASS



FCC ID: 2A64B-DSX39  
IC: 28593-DSX39



11N20SISO-Ant1-2412-PASS

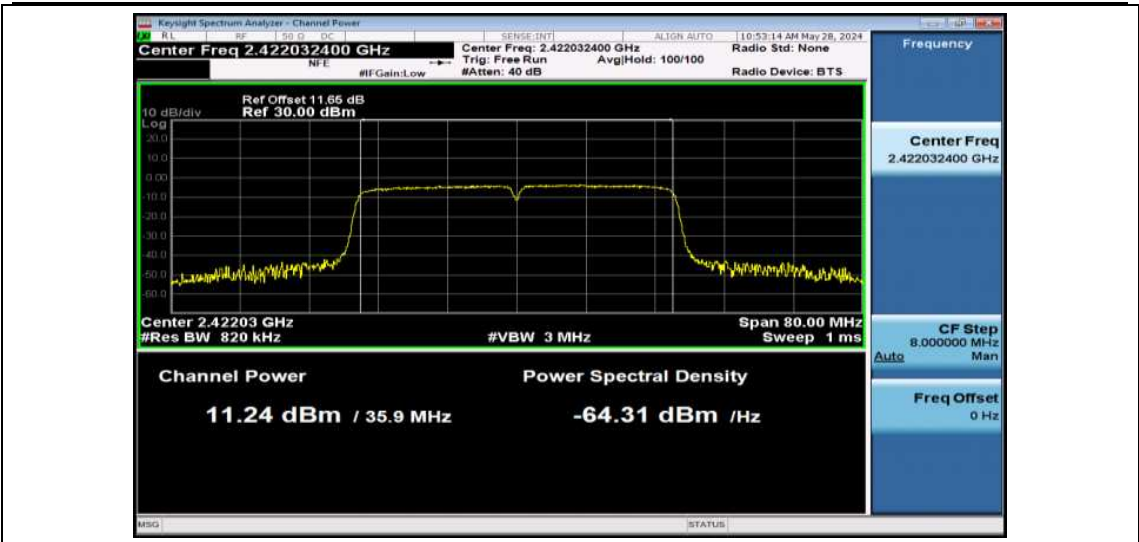


11N20SISO-Ant1-2437-PASS

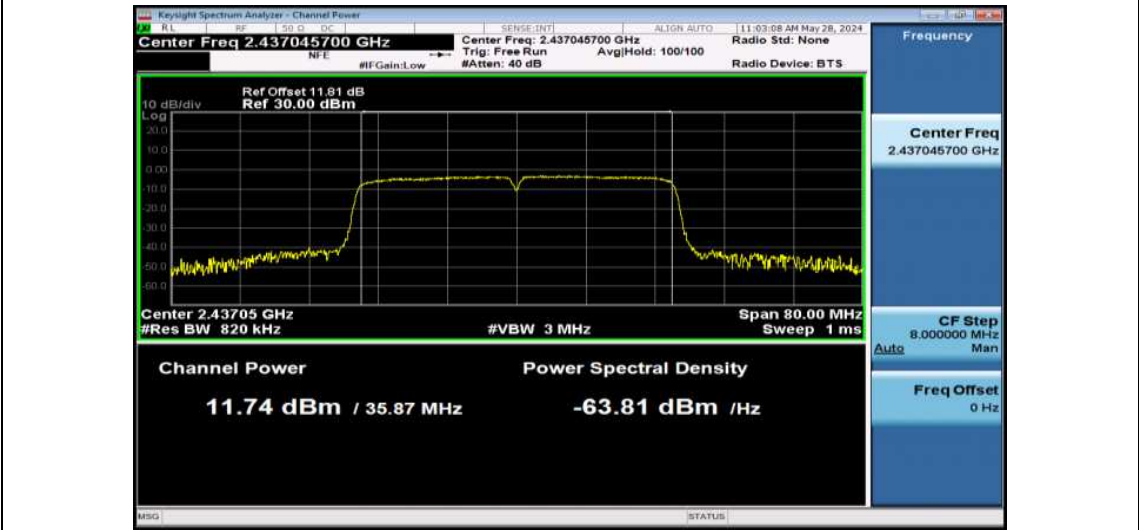


11N20SISO-Ant1-2462-PASS

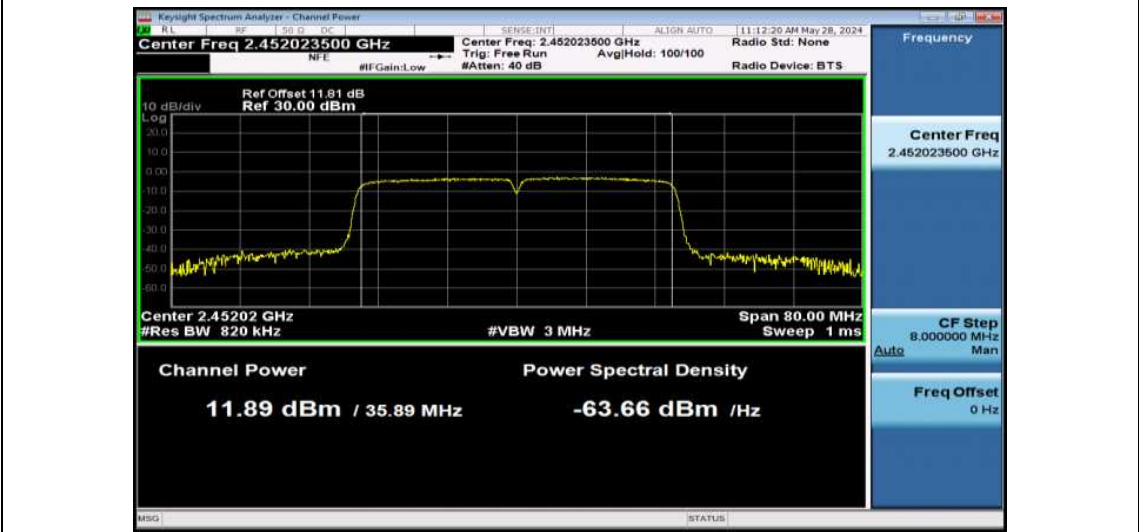
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11N40SISO-Ant1-2422-PASS



11N40SISO-Ant1-2437-PASS



11N40SISO-Ant1-2452-PASS

FCC ID: 2A64B-DSX39  
IC: 28593-DSX39

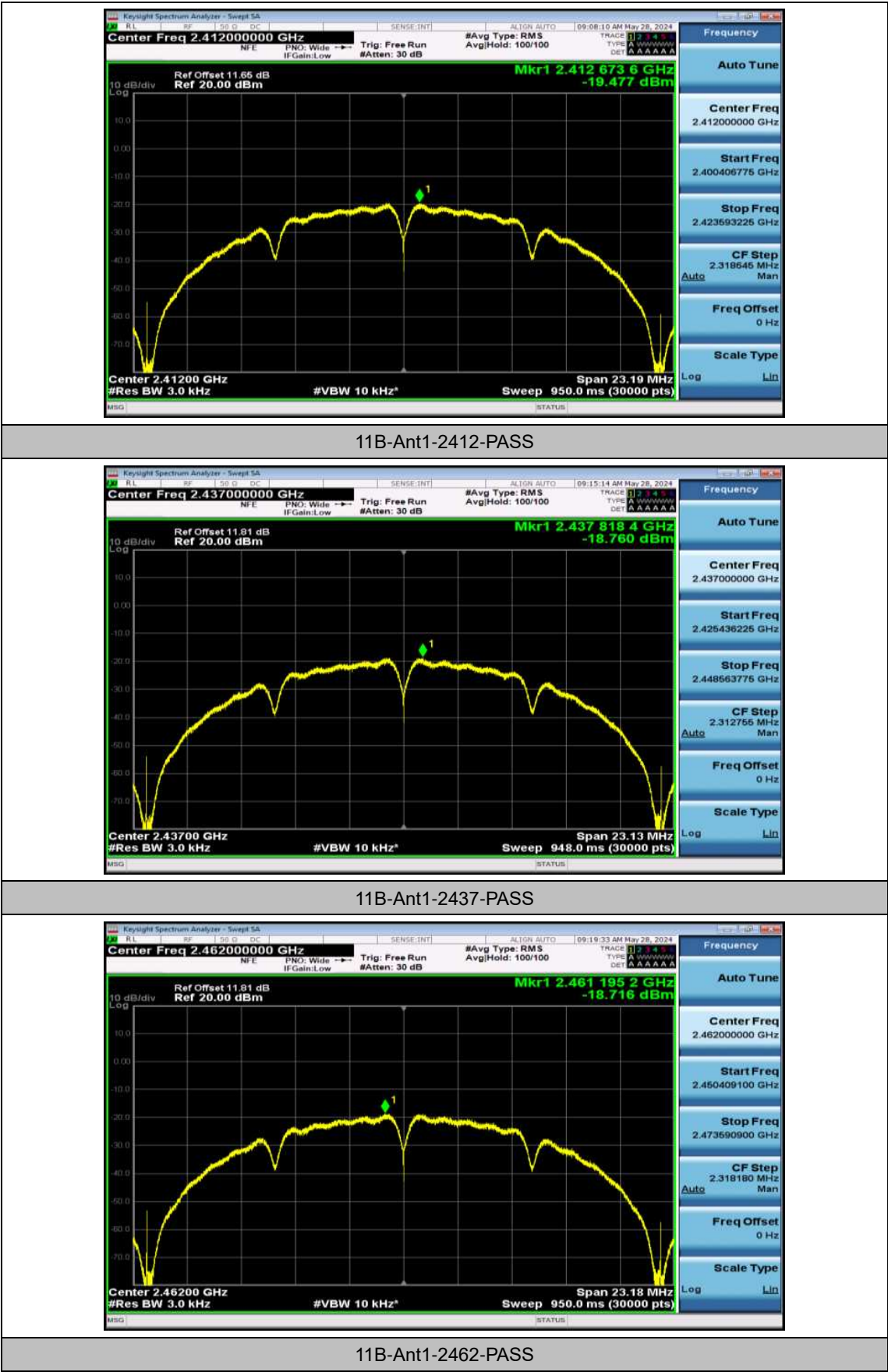
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## Maximum power spectral density

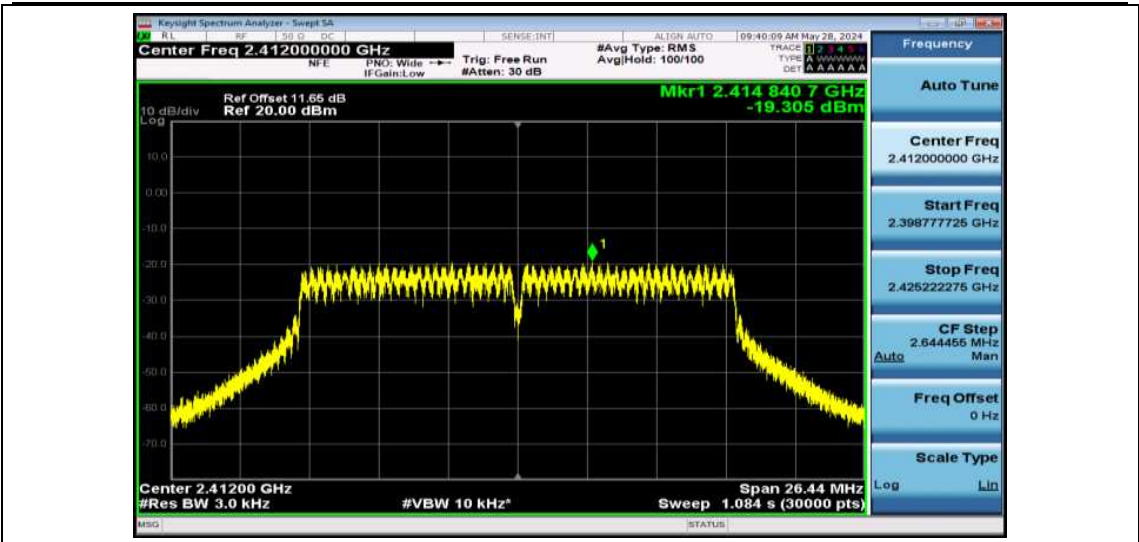
### Test Result

| TestMode  | Antenna | Frequency[MHz] | Result[dBm/3-100kHz] | Limit[dBm/3kHz] | Verdict |
|-----------|---------|----------------|----------------------|-----------------|---------|
| 11B       | Ant1    | 2412           | -19.46               | ≤8.00           | PASS    |
| 11B       | Ant1    | 2437           | -18.70               | ≤8.00           | PASS    |
| 11B       | Ant1    | 2462           | -18.66               | ≤8.00           | PASS    |
| 11G       | Ant1    | 2412           | -18.97               | ≤8.00           | PASS    |
| 11G       | Ant1    | 2437           | -17.05               | ≤8.00           | PASS    |
| 11G       | Ant1    | 2462           | -17.57               | ≤8.00           | PASS    |
| 11N20SISO | Ant1    | 2412           | -18.31               | ≤8.00           | PASS    |
| 11N20SISO | Ant1    | 2437           | -16.89               | ≤8.00           | PASS    |
| 11N20SISO | Ant1    | 2462           | -17.15               | ≤8.00           | PASS    |
| 11N40SISO | Ant1    | 2422           | -21.65               | ≤8.00           | PASS    |
| 11N40SISO | Ant1    | 2437           | -21.02               | ≤8.00           | PASS    |
| 11N40SISO | Ant1    | 2452           | -21.63               | ≤8.00           | PASS    |

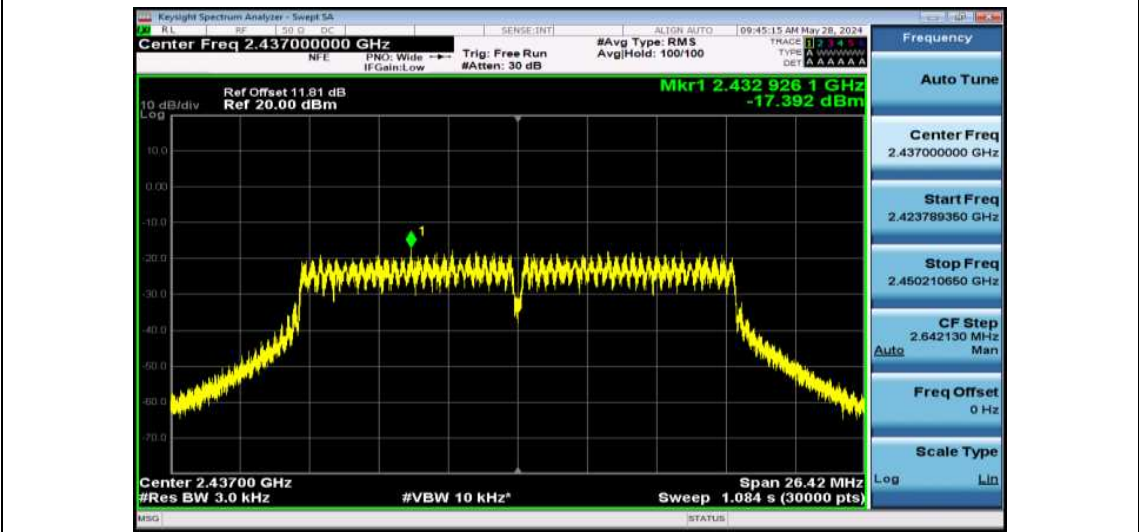
Test Graphs



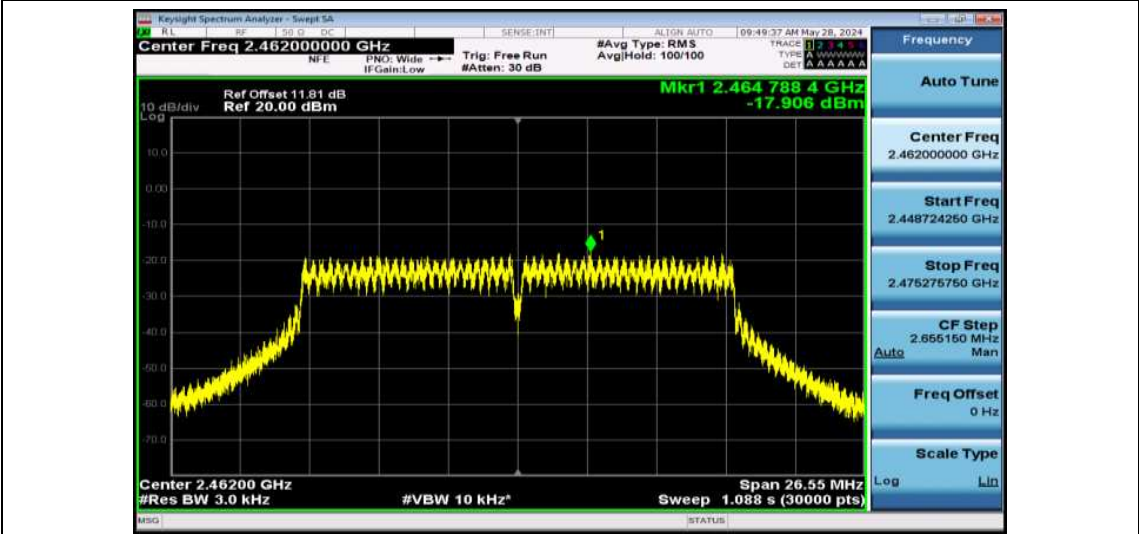
FCC ID: 2A64B-DSX39  
IC: 28593-DSX39



11G-Ant1-2412-PASS



11G-Ant1-2437-PASS

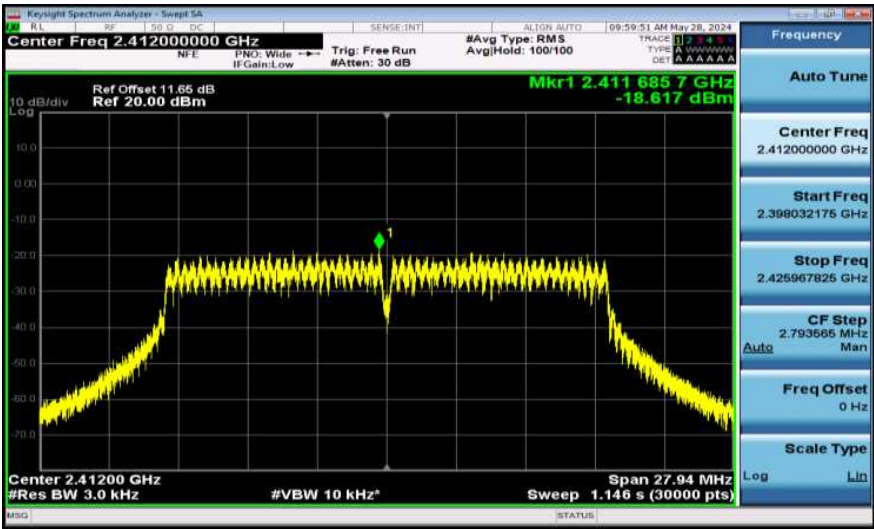


11G-Ant1-2462-PASS

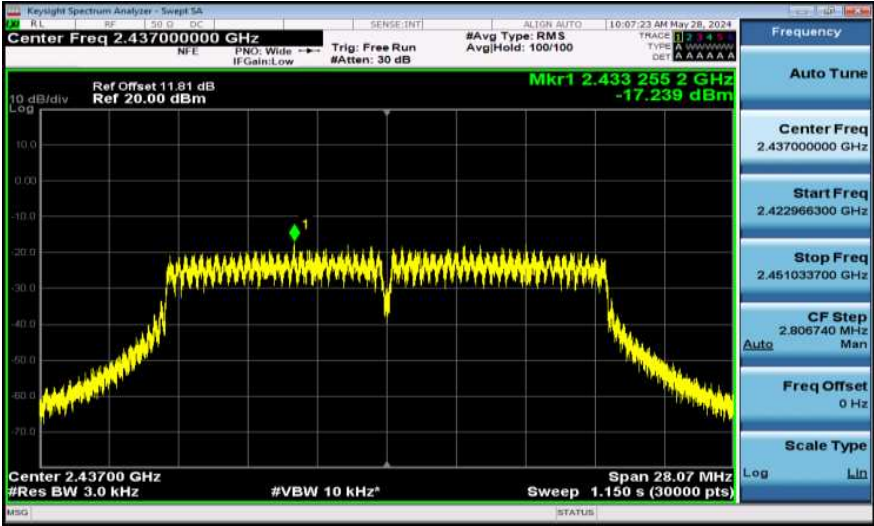


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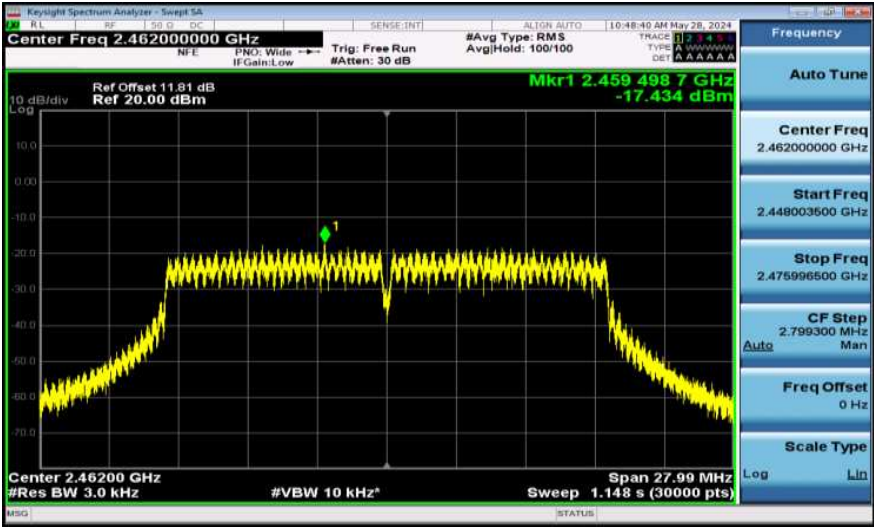
IC:28593-DSX39



11N20SISO-Ant1-2412-PASS

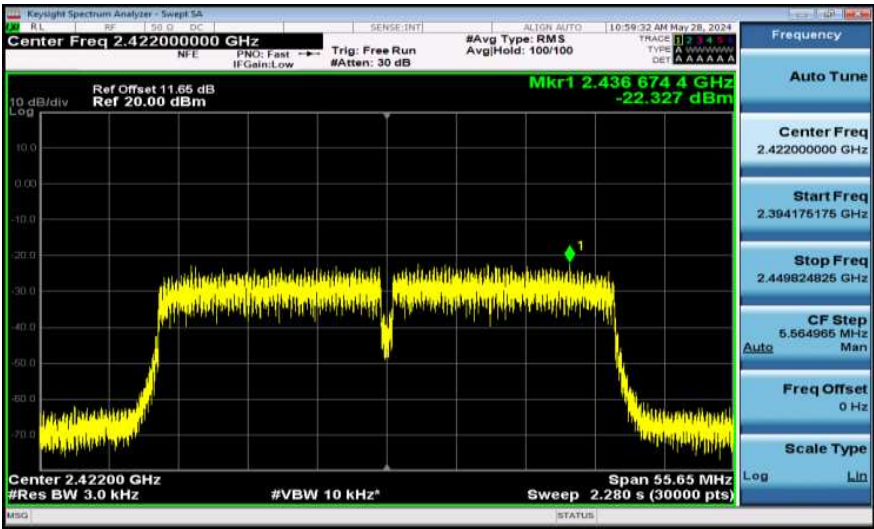


11N20SISO-Ant1-2437-PASS

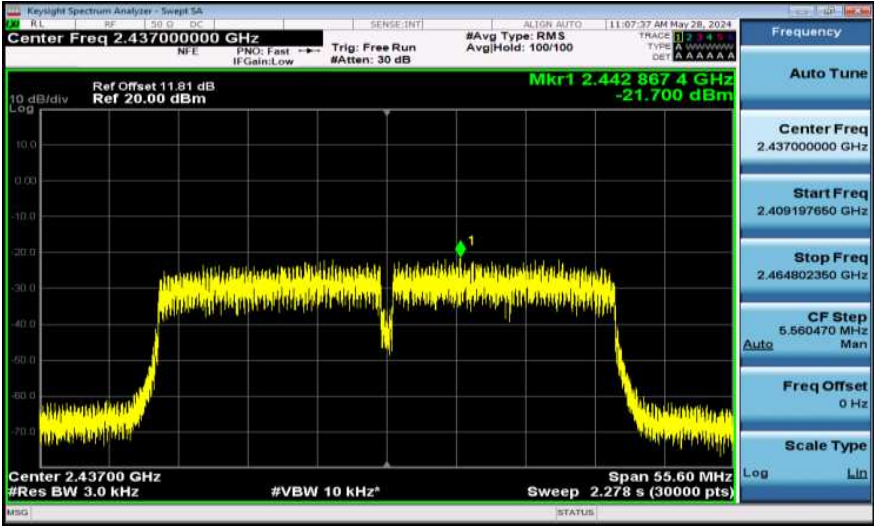


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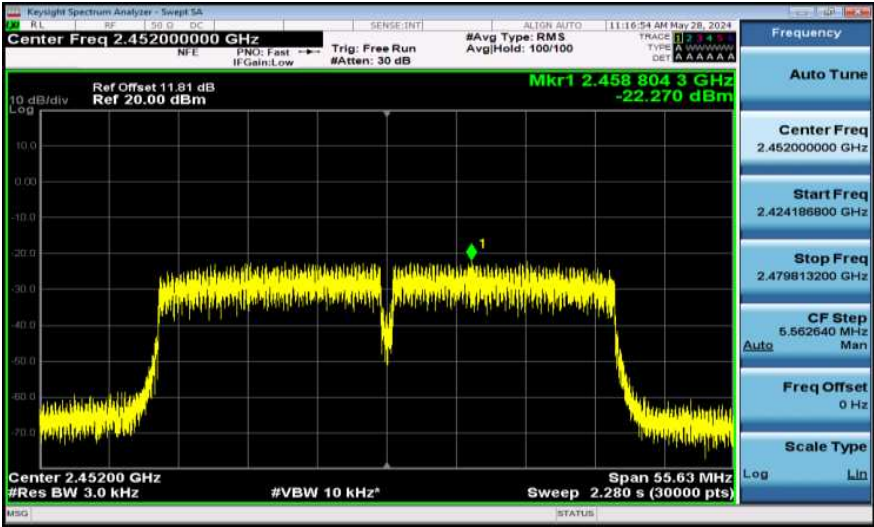
FCC ID: 2A64B-DSX39  
IC: 28593-DSX39



11N40SISO-Ant1-2422-PASS



11N40SISO-Ant1-2437-PASS



11N40SISO-Ant1-2452-PASS

FCC ID: 2A64B-DSX39  
IC: 28593-DSX39

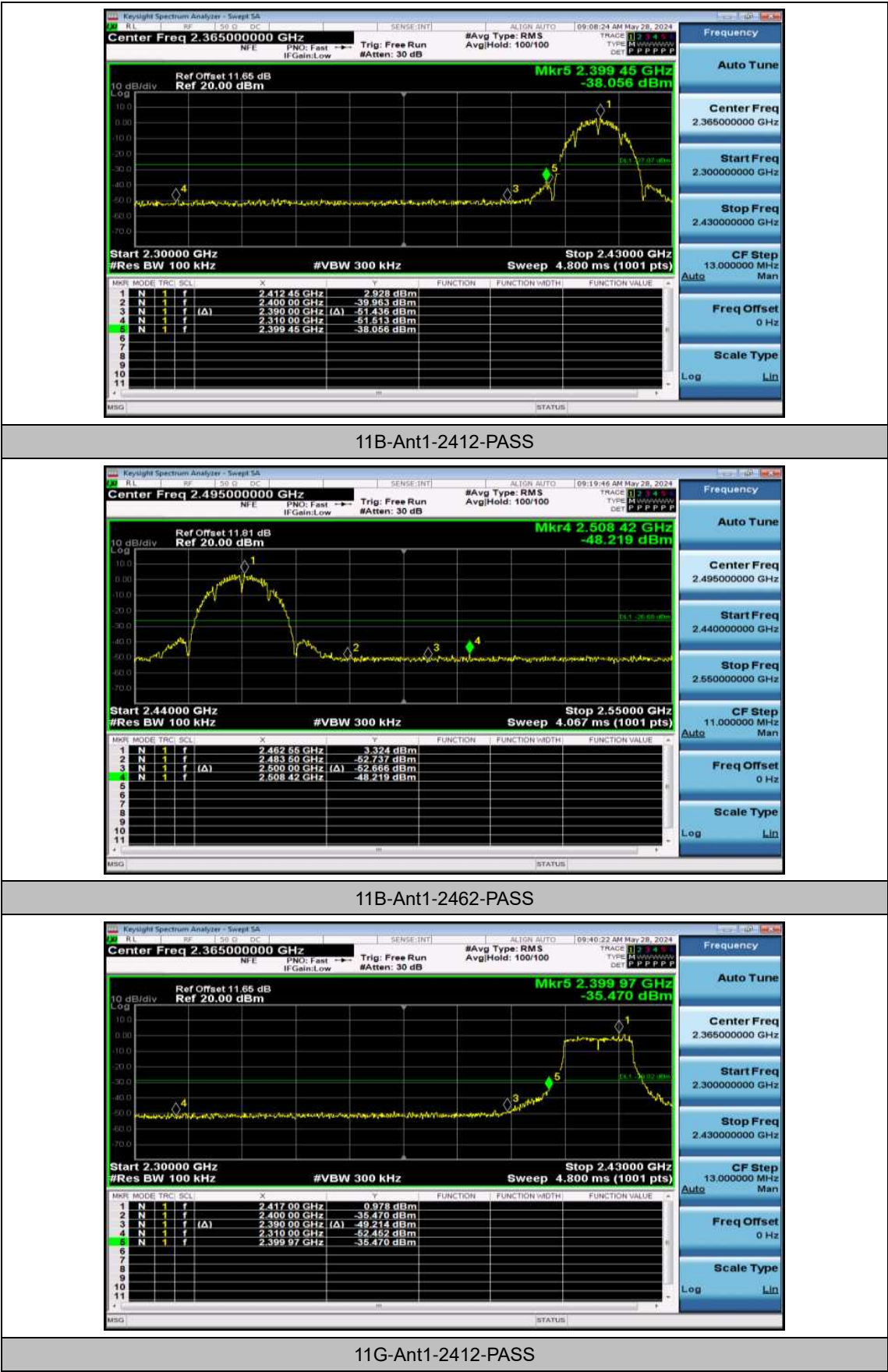
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## Band edge measurements

### Test Result

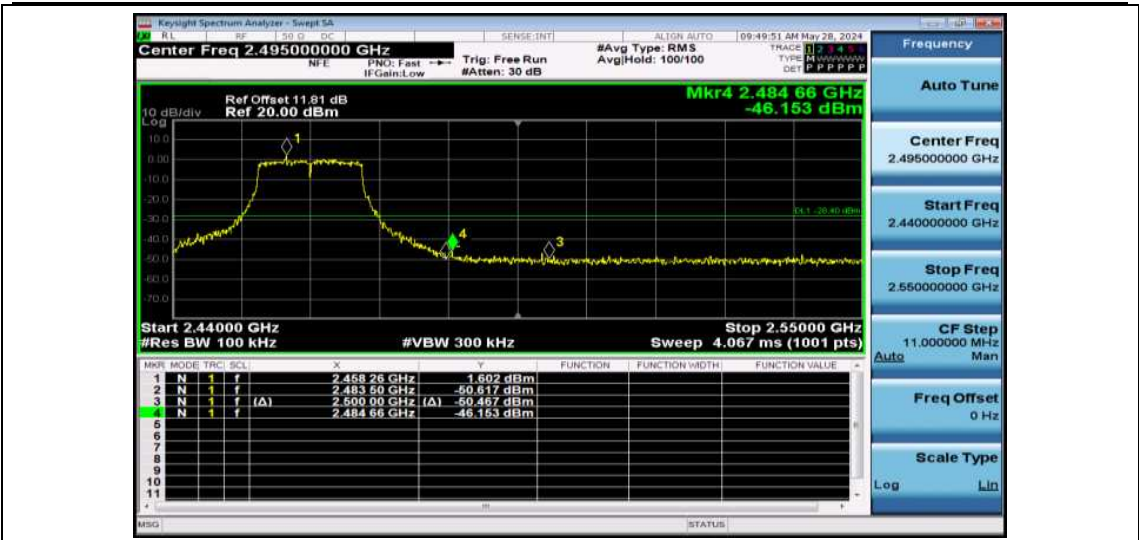
| TestMode  | Antenna | ChName | Frequency[MHz] | RefLevel[dBm] | Result[dBm] | Limit[dBm] | Verdict |
|-----------|---------|--------|----------------|---------------|-------------|------------|---------|
| 11B       | Ant1    | Low    | 2412           | 2.93          | -38.06      | ≤-27.07    | PASS    |
| 11B       | Ant1    | High   | 2462           | 3.32          | -48.22      | ≤-26.68    | PASS    |
| 11G       | Ant1    | Low    | 2412           | 0.98          | -35.47      | ≤-29.02    | PASS    |
| 11G       | Ant1    | High   | 2462           | 1.60          | -46.15      | ≤-28.4     | PASS    |
| 11N20SISO | Ant1    | Low    | 2412           | 0.85          | -33.72      | ≤-29.15    | PASS    |
| 11N20SISO | Ant1    | High   | 2462           | 2.78          | -46.36      | ≤-27.22    | PASS    |
| 11N40SISO | Ant1    | Low    | 2422           | -2.81         | -40.34      | ≤-32.81    | PASS    |
| 11N40SISO | Ant1    | High   | 2452           | -1.47         | -39.62      | ≤-31.47    | PASS    |

Test Graphs

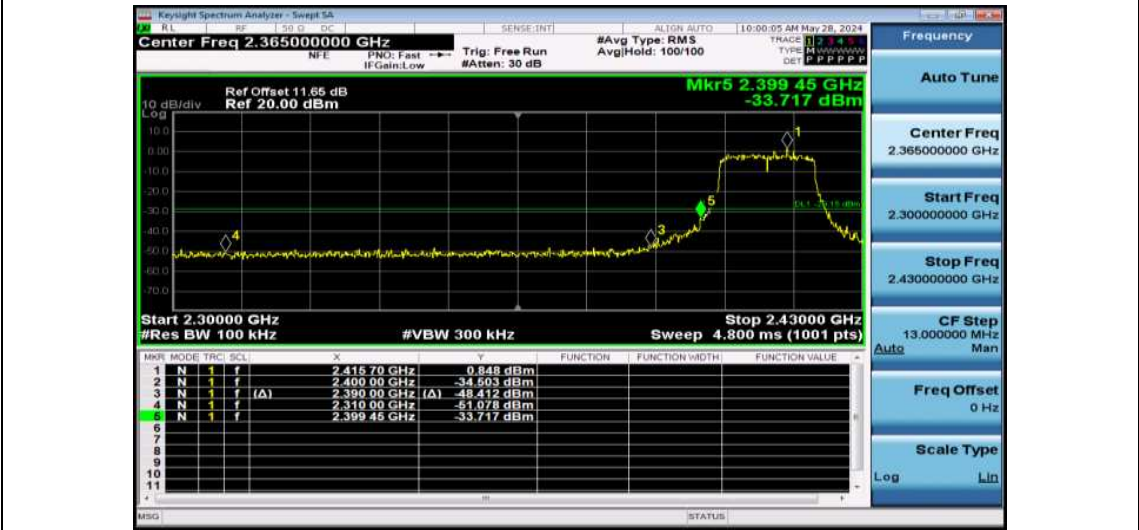




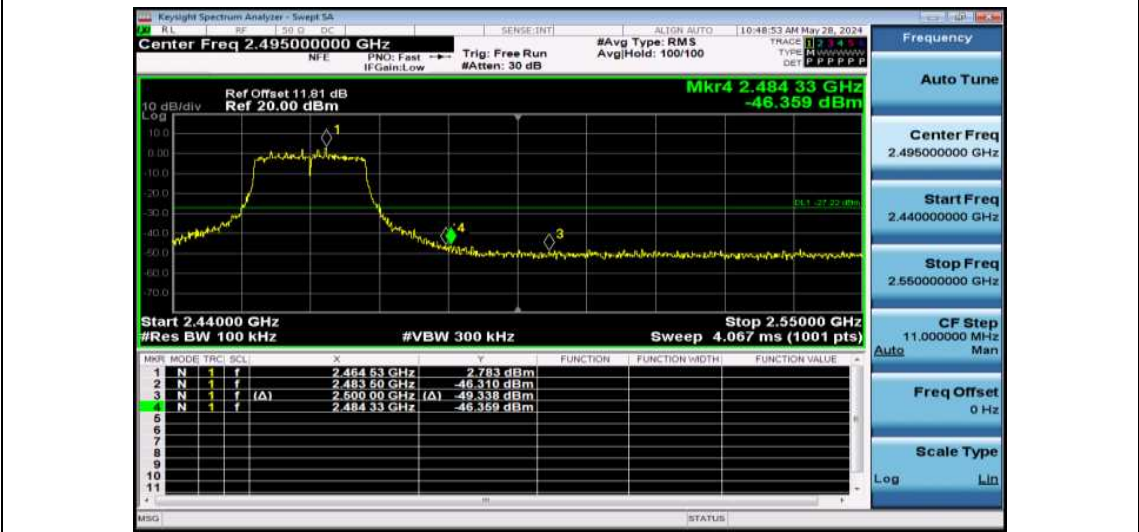
FCC ID: 2A64B-DSX39  
IC: 28593-DSX39



11G-Ant1-2462-PASS



11N20SISO-Ant1-2412-PASS

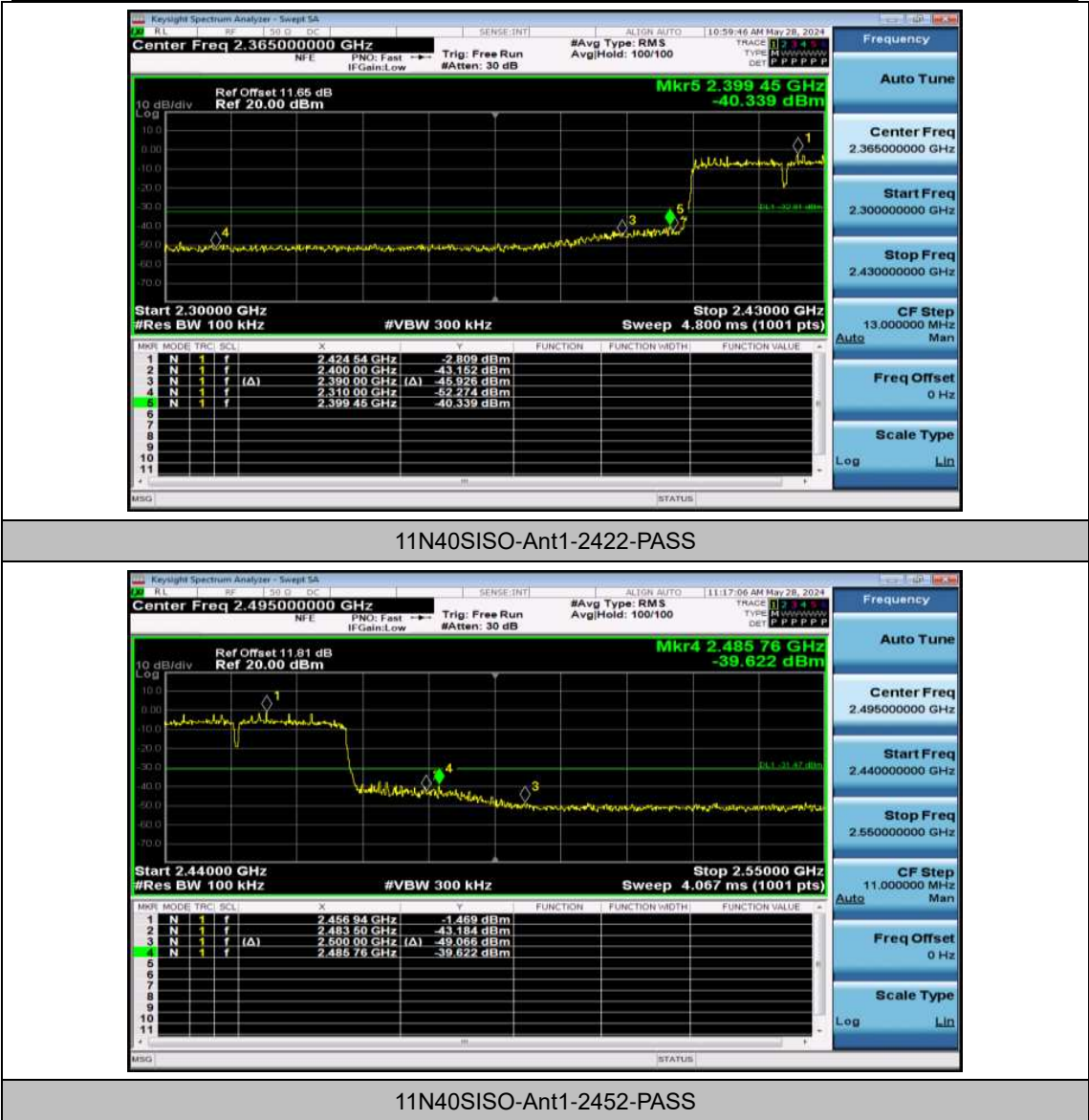


11N20SISO-Ant1-2462-PASS



FCC ID:2A64B-DSX39

IC:28593-DSX39



FCC ID: 2A64B-DSX39

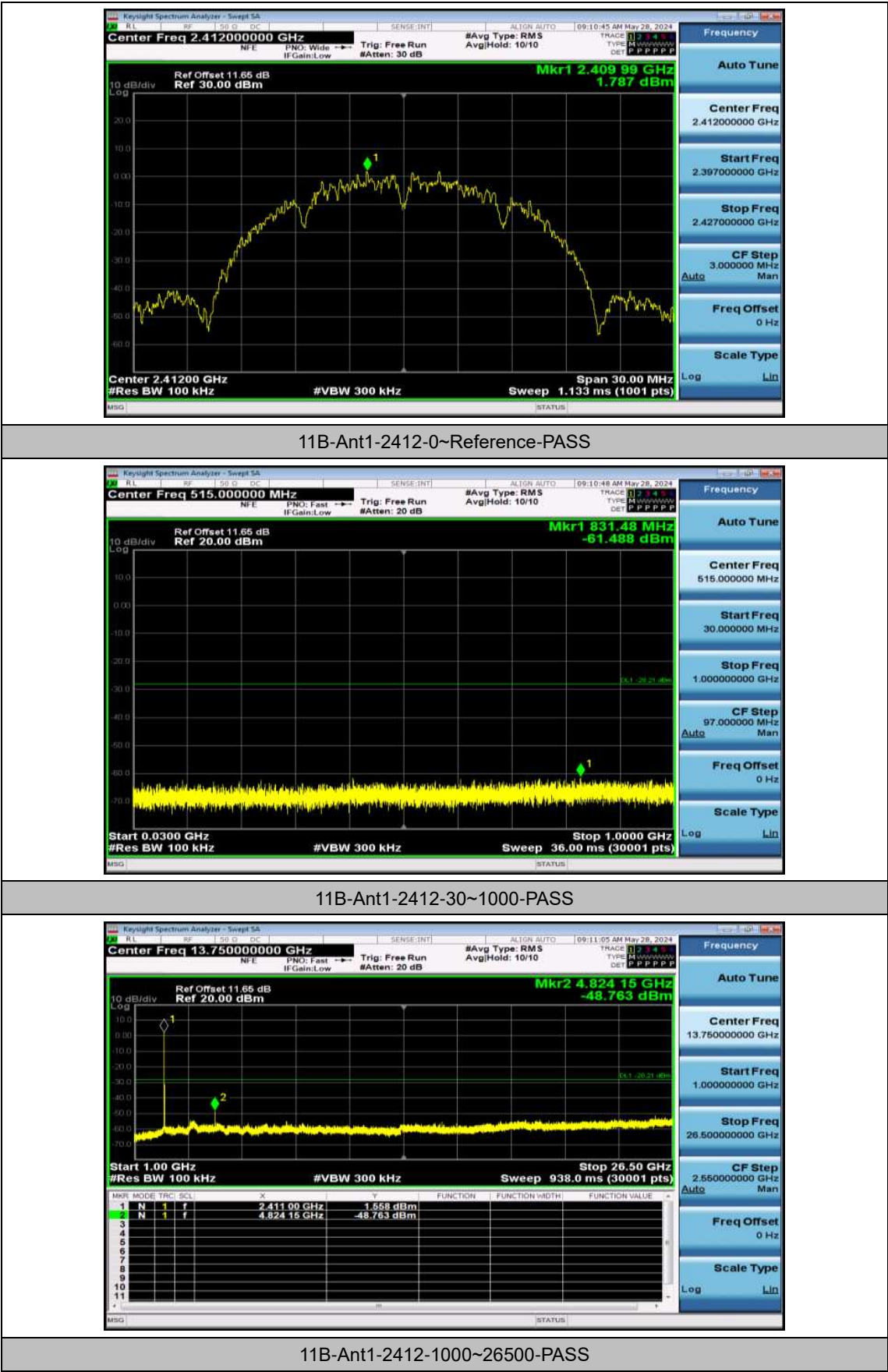
IC: 28593-DSX39

## Conducted Spurious Emission

### Test Result

| TestMode  | Antenna | Frequency[MHz] | FreqRange [Mhz] | RefLevel [dBm] | Result [dBm] | Limit [dBm] | Verdict |
|-----------|---------|----------------|-----------------|----------------|--------------|-------------|---------|
| 11B       | Ant1    | 2412           | 0~Reference     | 1.79           | 1.79         | ---         | PASS    |
| 11B       | Ant1    | 2412           | 30~1000         | 1.79           | -61.49       | ≤-28.21     | PASS    |
| 11B       | Ant1    | 2412           | 1000~26500      | 1.79           | -48.76       | ≤-28.21     | PASS    |
| 11B       | Ant1    | 2437           | 0~Reference     | 4.26           | 4.26         | ---         | PASS    |
| 11B       | Ant1    | 2437           | 30~1000         | 4.26           | -60.48       | ≤-25.74     | PASS    |
| 11B       | Ant1    | 2437           | 1000~26500      | 4.26           | -48.73       | ≤-25.74     | PASS    |
| 11B       | Ant1    | 2462           | 0~Reference     | 3.50           | 3.50         | ---         | PASS    |
| 11B       | Ant1    | 2462           | 30~1000         | 3.50           | -60.93       | ≤-26.5      | PASS    |
| 11B       | Ant1    | 2462           | 1000~26500      | 3.50           | -51.36       | ≤-26.5      | PASS    |
| 11G       | Ant1    | 2412           | 0~Reference     | 1.74           | 1.74         | ---         | PASS    |
| 11G       | Ant1    | 2412           | 30~1000         | 1.74           | -60.54       | ≤-28.26     | PASS    |
| 11G       | Ant1    | 2412           | 1000~26500      | 1.74           | -50.03       | ≤-28.26     | PASS    |
| 11G       | Ant1    | 2437           | 0~Reference     | -0.74          | -0.74        | ---         | PASS    |
| 11G       | Ant1    | 2437           | 30~1000         | -0.74          | -60.55       | ≤-30.74     | PASS    |
| 11G       | Ant1    | 2437           | 1000~26500      | -0.74          | -51.94       | ≤-30.74     | PASS    |
| 11G       | Ant1    | 2462           | 0~Reference     | -0.58          | -0.58        | ---         | PASS    |
| 11G       | Ant1    | 2462           | 30~1000         | -0.58          | -60.36       | ≤-30.58     | PASS    |
| 11G       | Ant1    | 2462           | 1000~26500      | -0.58          | -52.89       | ≤-30.58     | PASS    |
| 11N20SISO | Ant1    | 2412           | 0~Reference     | -1.69          | -1.69        | ---         | PASS    |
| 11N20SISO | Ant1    | 2412           | 30~1000         | -1.69          | -61.21       | ≤-31.69     | PASS    |
| 11N20SISO | Ant1    | 2412           | 1000~26500      | -1.69          | -50.87       | ≤-31.69     | PASS    |
| 11N20SISO | Ant1    | 2437           | 0~Reference     | -1.41          | -1.41        | ---         | PASS    |
| 11N20SISO | Ant1    | 2437           | 30~1000         | -1.41          | -60.82       | ≤-31.41     | PASS    |
| 11N20SISO | Ant1    | 2437           | 1000~26500      | -1.41          | -51.94       | ≤-31.41     | PASS    |
| 11N20SISO | Ant1    | 2462           | 0~Reference     | -0.42          | -0.42        | ---         | PASS    |
| 11N20SISO | Ant1    | 2462           | 30~1000         | -0.42          | -61.04       | ≤-30.42     | PASS    |
| 11N20SISO | Ant1    | 2462           | 1000~26500      | -0.42          | -51.62       | ≤-30.42     | PASS    |
| 11N40SISO | Ant1    | 2422           | 0~Reference     | -4.05          | -4.05        | ---         | PASS    |
| 11N40SISO | Ant1    | 2422           | 30~1000         | -4.05          | -60.51       | ≤-34.05     | PASS    |
| 11N40SISO | Ant1    | 2422           | 1000~26500      | -4.05          | -52.29       | ≤-34.05     | PASS    |
| 11N40SISO | Ant1    | 2437           | 0~Reference     | -2.49          | -2.49        | ---         | PASS    |
| 11N40SISO | Ant1    | 2437           | 30~1000         | -2.49          | -61.16       | ≤-32.49     | PASS    |
| 11N40SISO | Ant1    | 2437           | 1000~26500      | -2.49          | -51.82       | ≤-32.49     | PASS    |
| 11N40SISO | Ant1    | 2452           | 0~Reference     | -4.85          | -4.85        | ---         | PASS    |
| 11N40SISO | Ant1    | 2452           | 30~1000         | -4.85          | -60.35       | ≤-34.85     | PASS    |
| 11N40SISO | Ant1    | 2452           | 1000~26500      | -4.85          | -51.89       | ≤-34.85     | PASS    |

Test Graphs

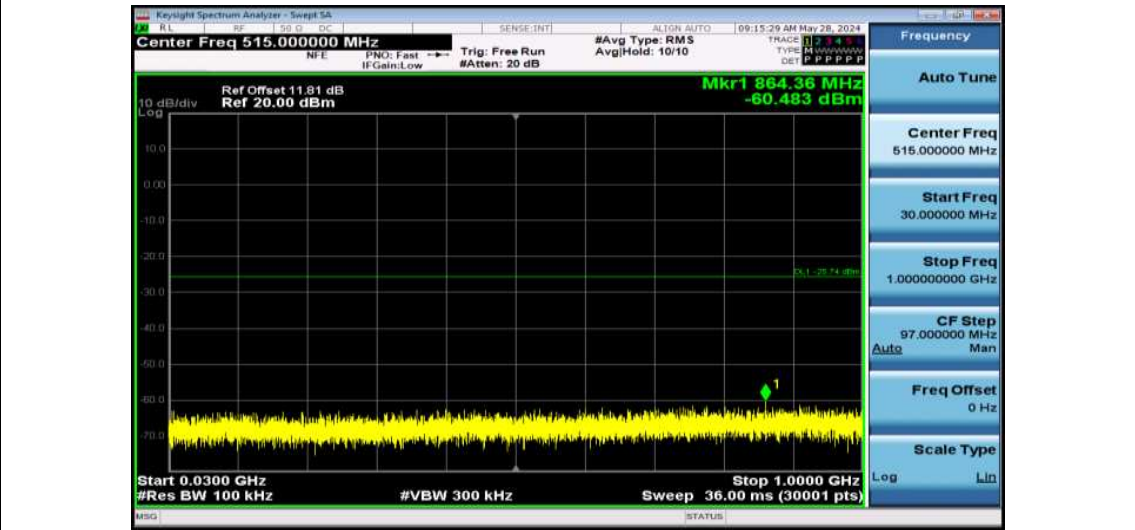


FCC ID:2A64B-DSX39

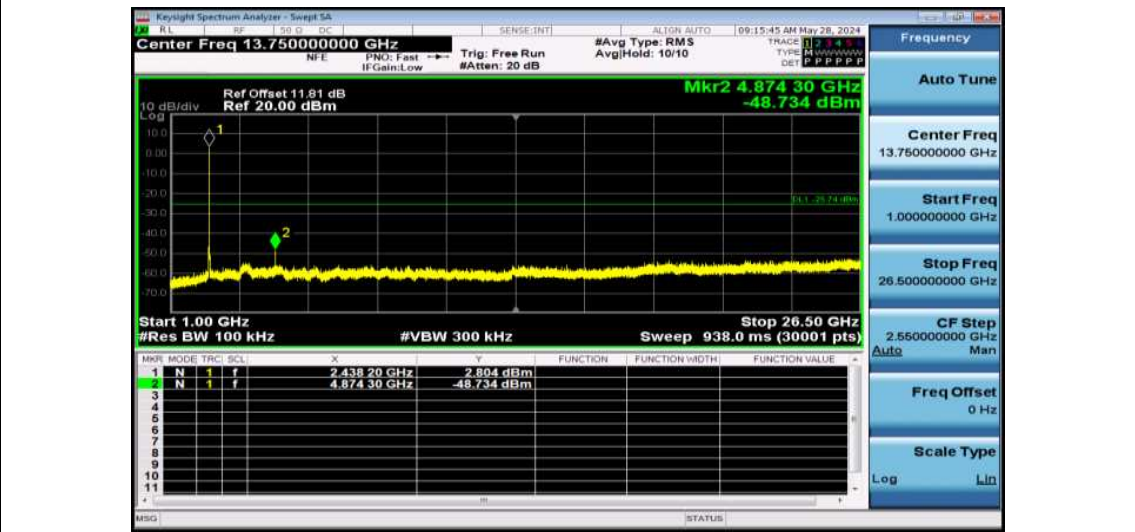
IC:28593-DSX39



11B-Ant1-2437-0~Reference-PASS



11B-Ant1-2437-30~1000-PASS

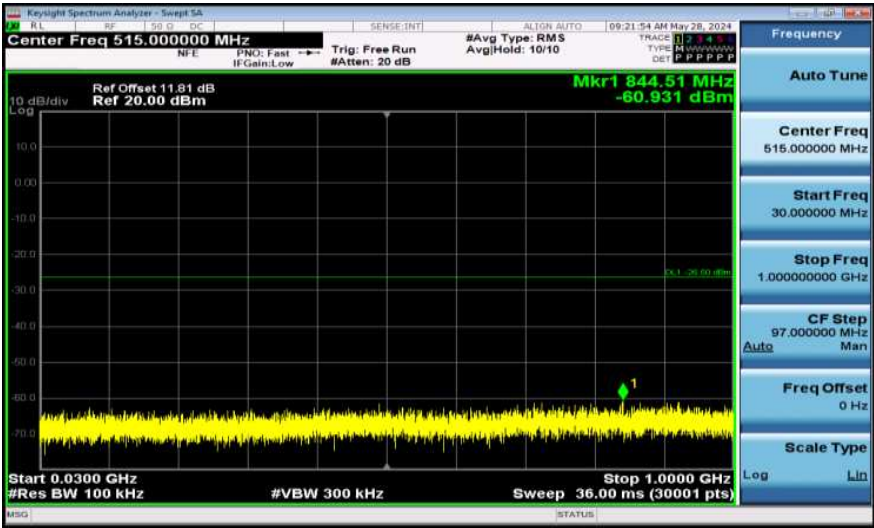


11B-Ant1-2437-1000~26500-PASS

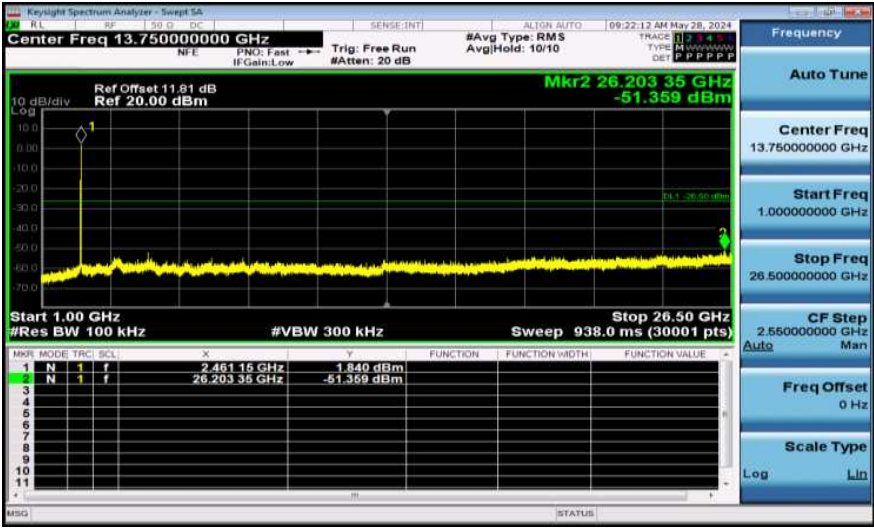
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IC: 28593-DSX39



11B-Ant1-2462-0~Reference-PASS



11B-Ant1-2462-30~1000-PASS

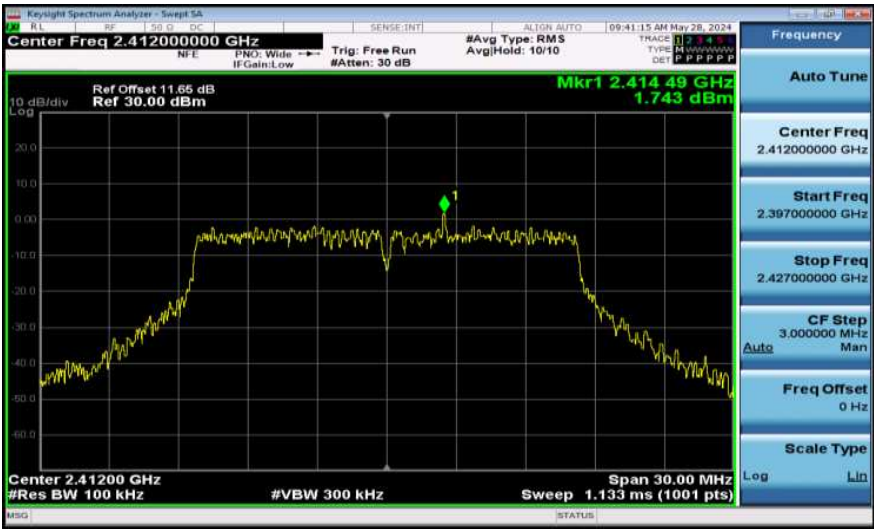


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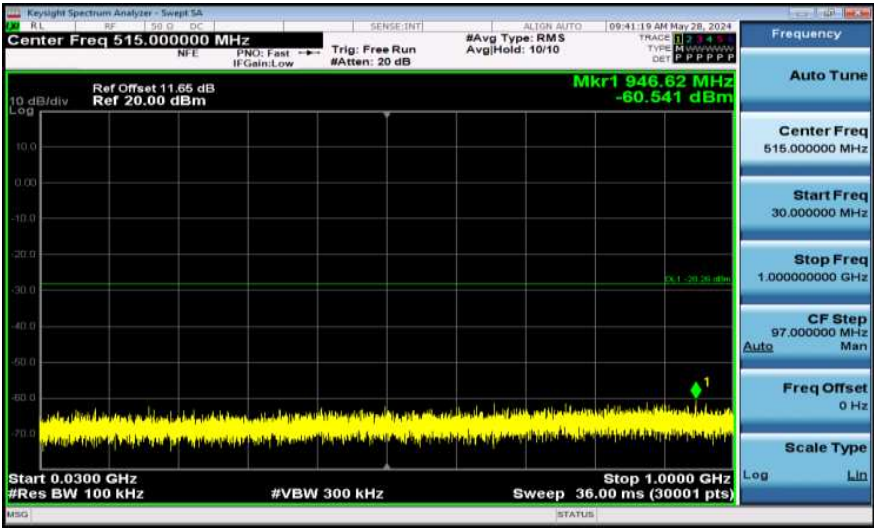


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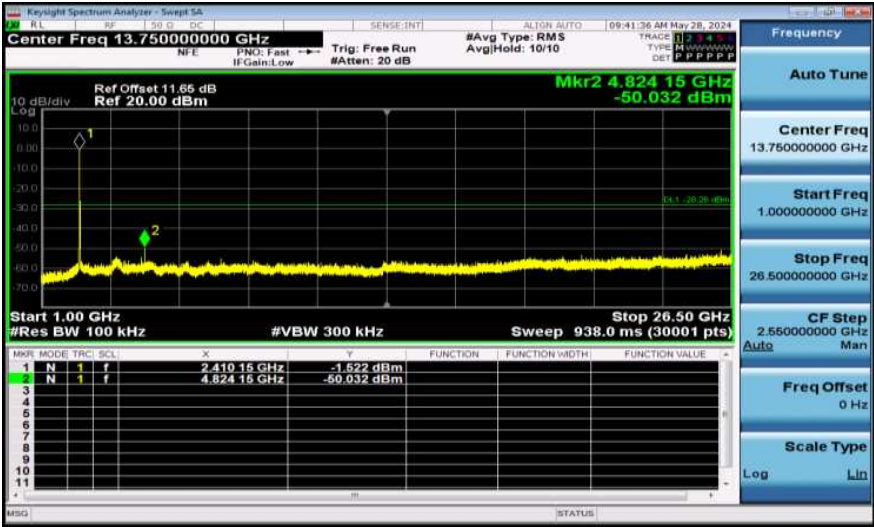
IC:28593-DSX39



11G-Ant1-2412-0~Reference-PASS



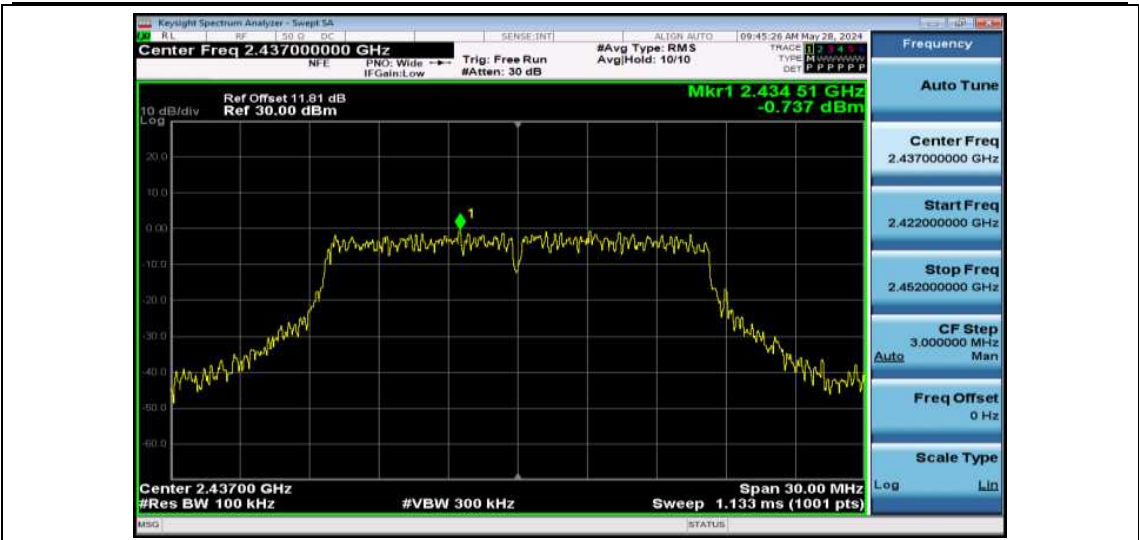
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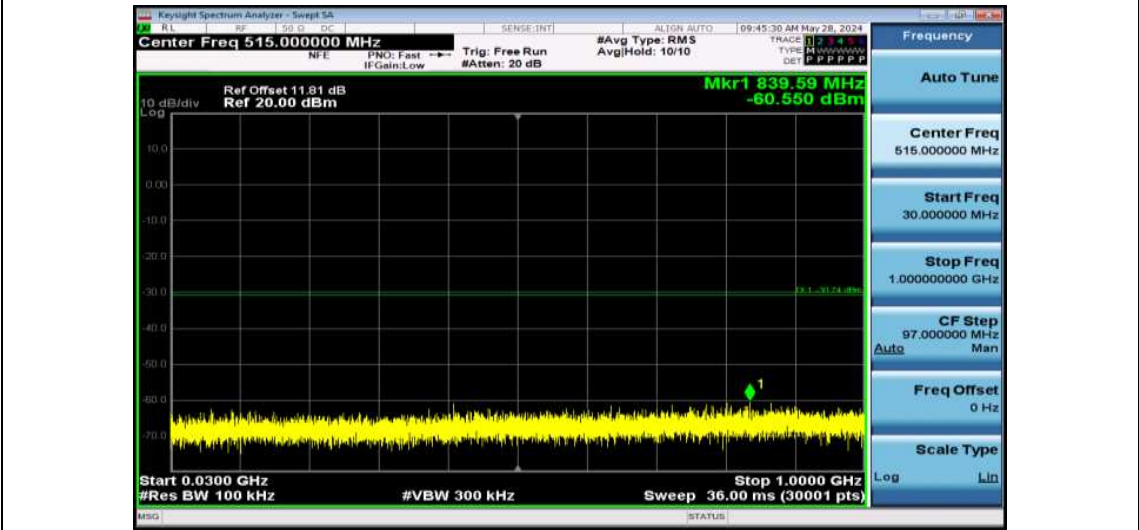
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FCC ID:2A64B-DSX39

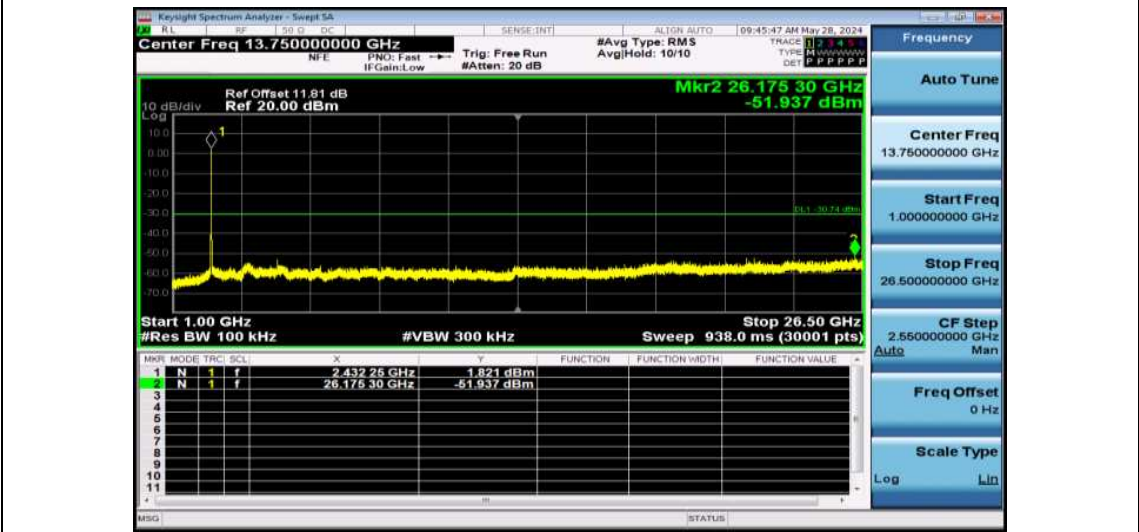
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11G-Ant1-2437-0~Reference-PASS



11G-Ant1-2437-30~1000-PASS



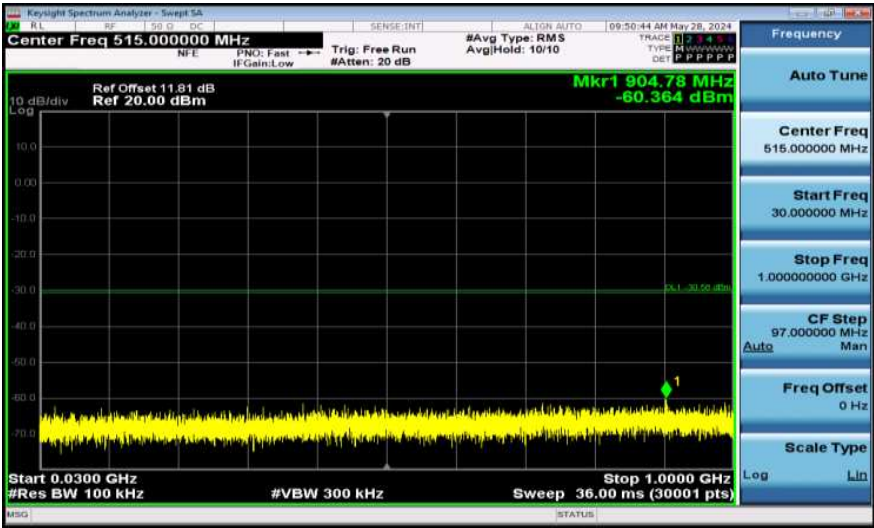
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FCC ID:2A64B-DSX39

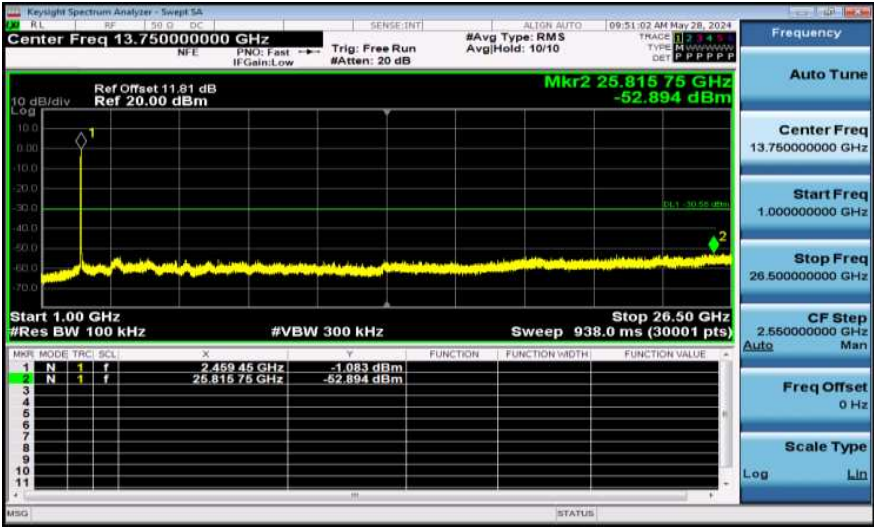
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11G-Ant1-2462-0~Reference-PASS



11G-Ant1-2462-30~1000-PASS



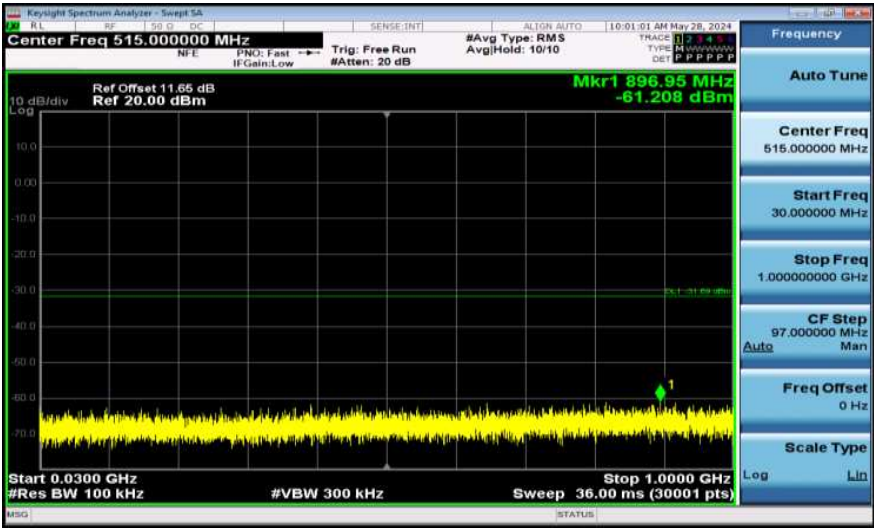
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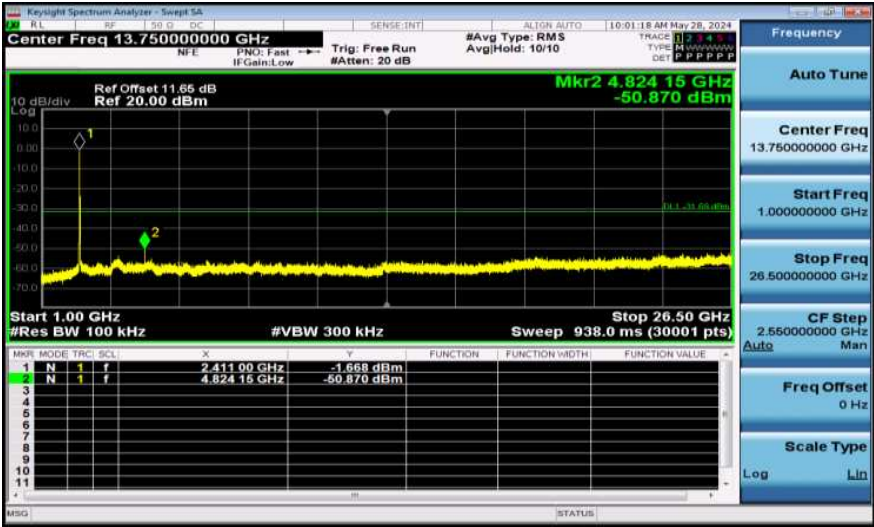
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11N20SISO-Ant1-2412-0~Reference-PASS



11N20SISO-Ant1-2412-30~1000-PASS

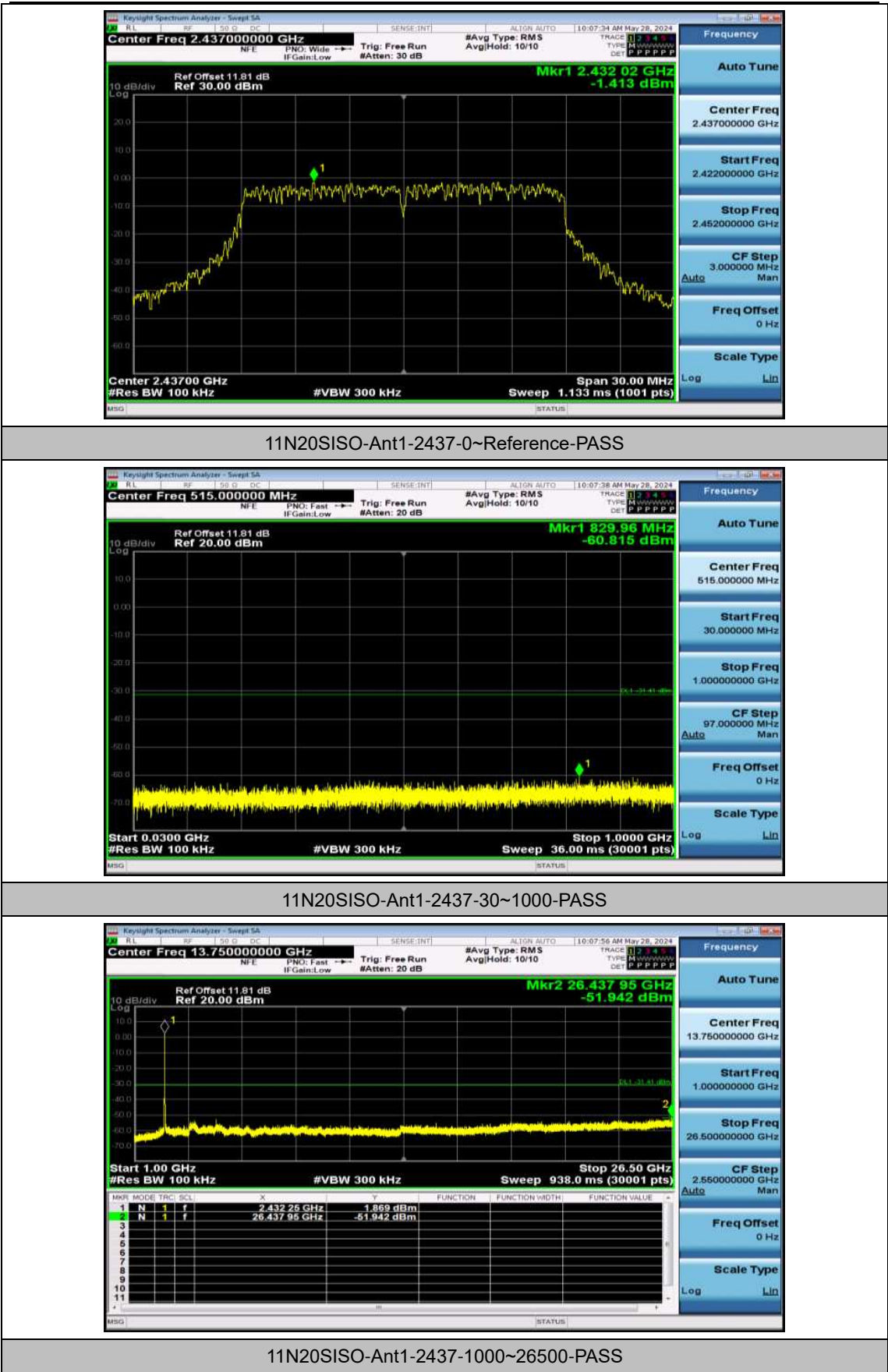


11N20SISO-Ant1-2412-1000~26500-PASS



FCC ID:2A64B-DSX39

IC:28593-DSX39



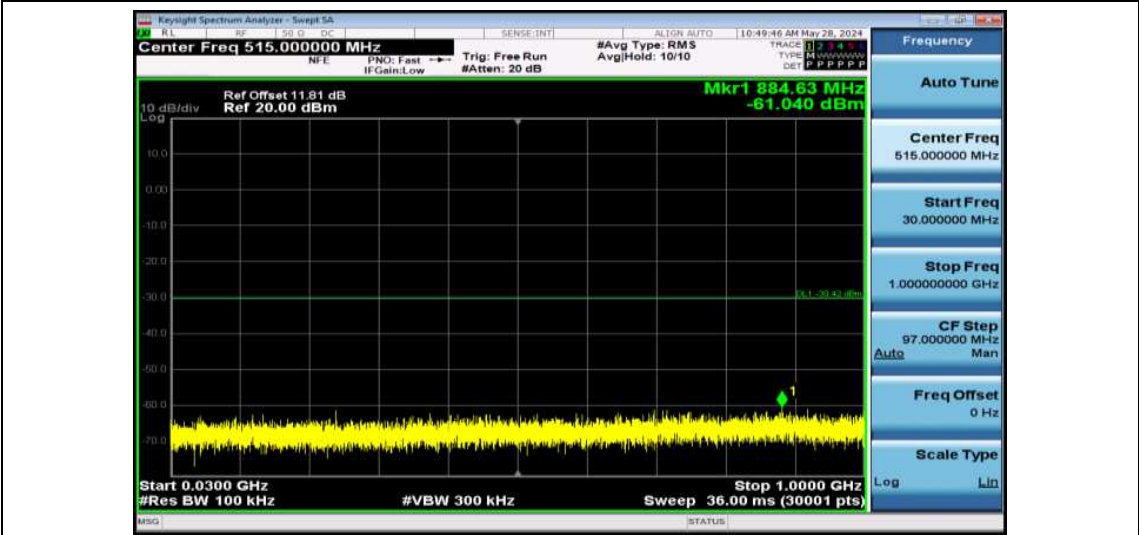


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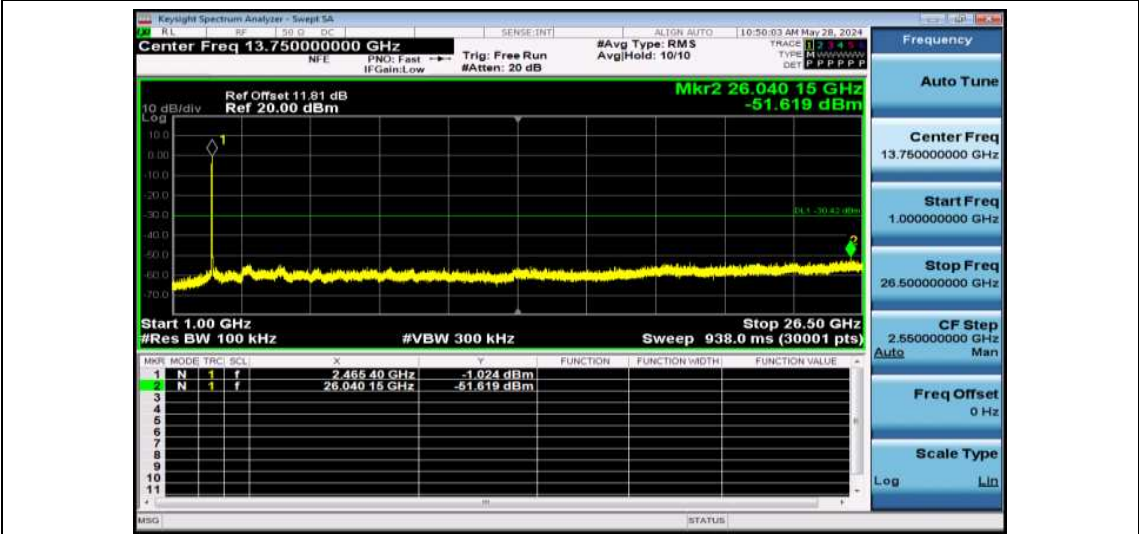
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11N20SISO-Ant1-2462-0~Reference-PASS



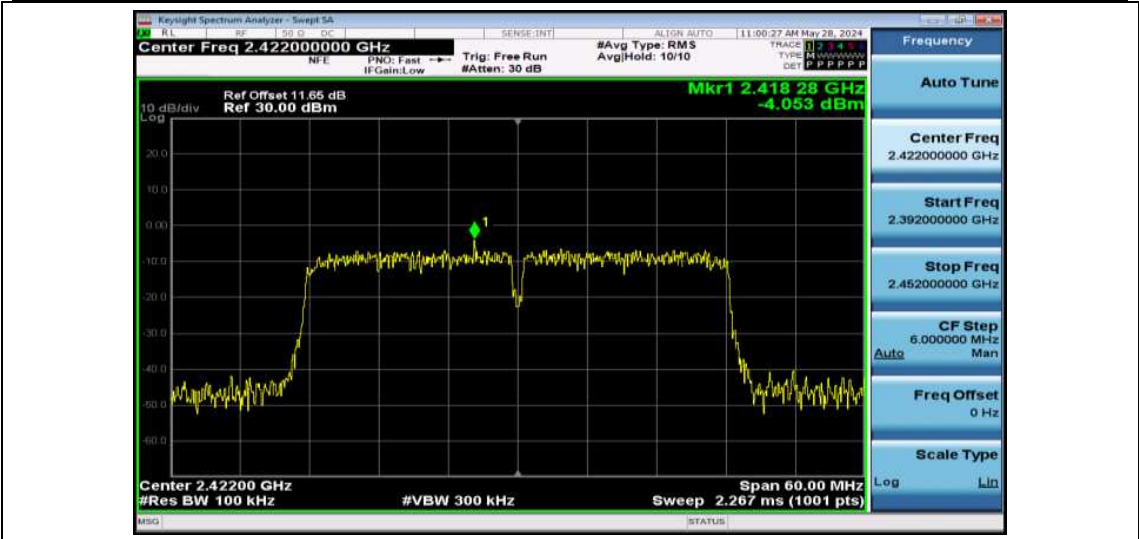
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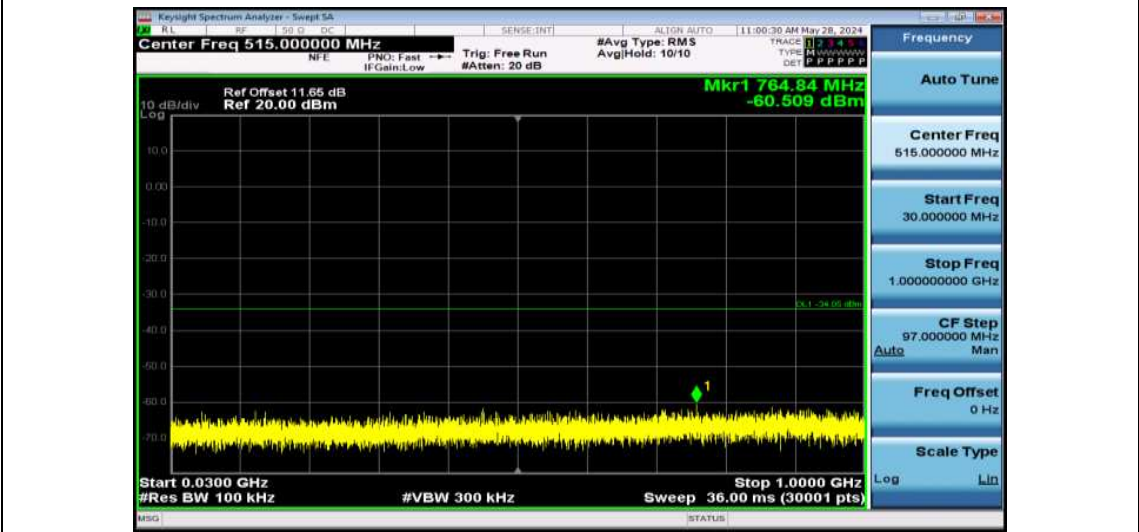
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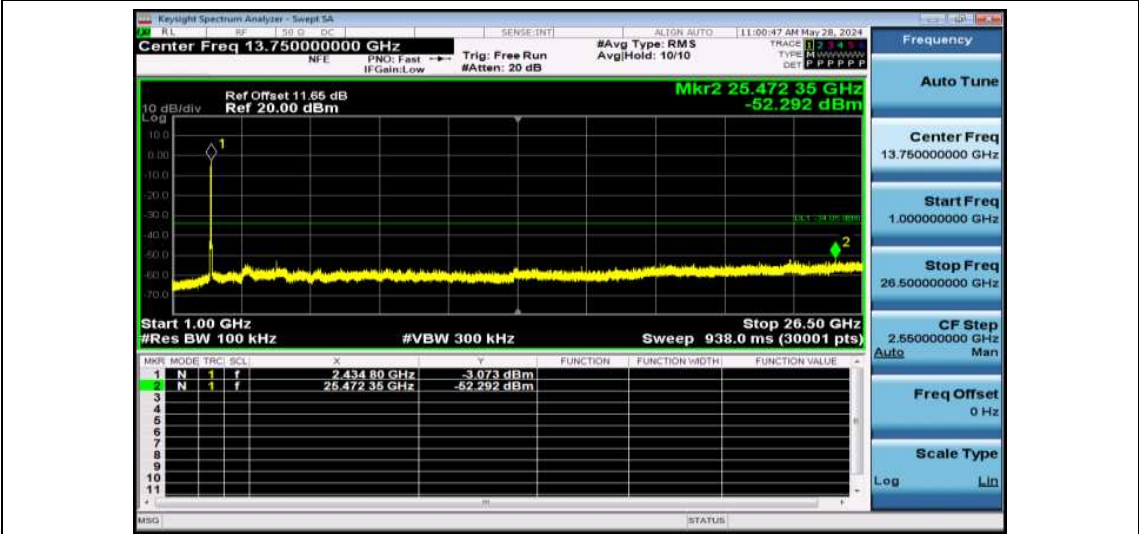
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11N40SISO-Ant1-2422-0~Reference-PASS

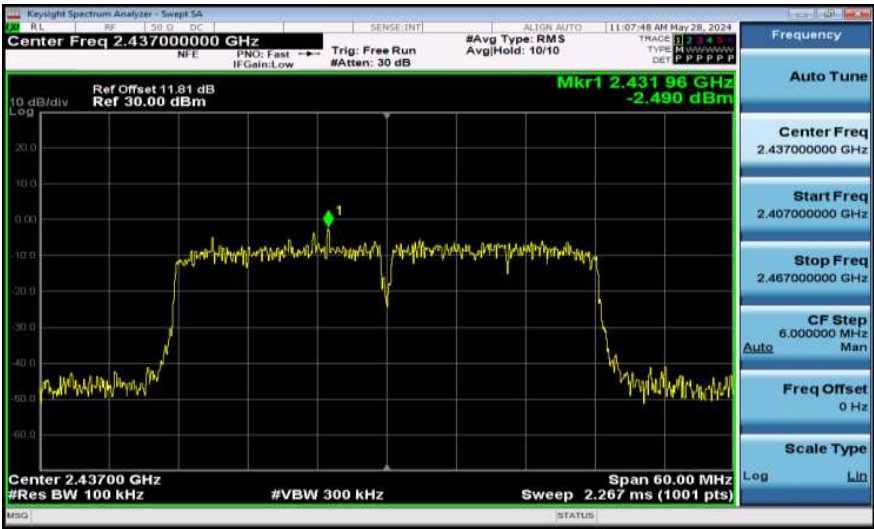


11N40SISO-Ant1-2422-30~1000-PASS

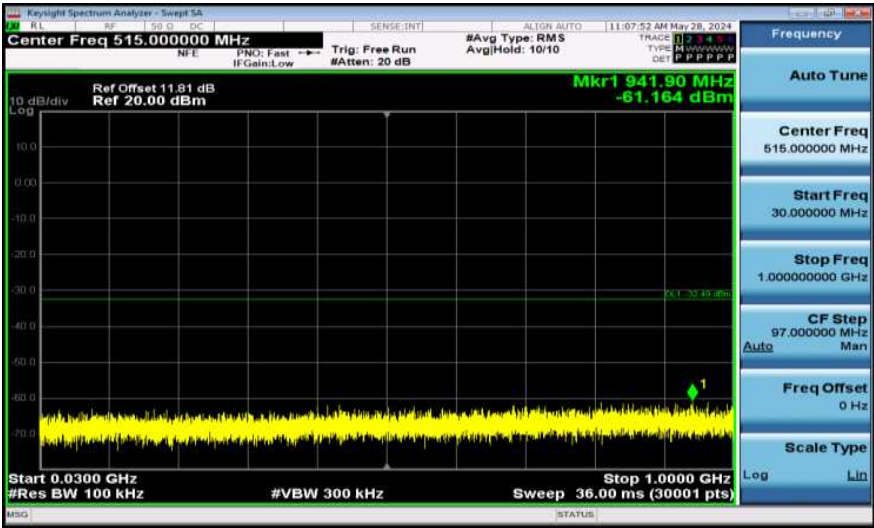


11N40SISO-Ant1-2422-1000~26500-PASS

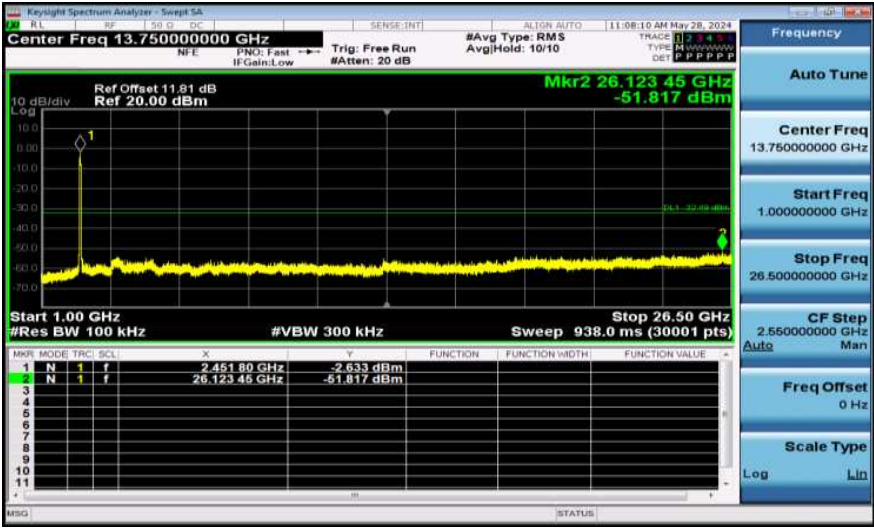
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IC: 28593-DSX39



11N40SISO-Ant1-2437-0~Reference-PASS

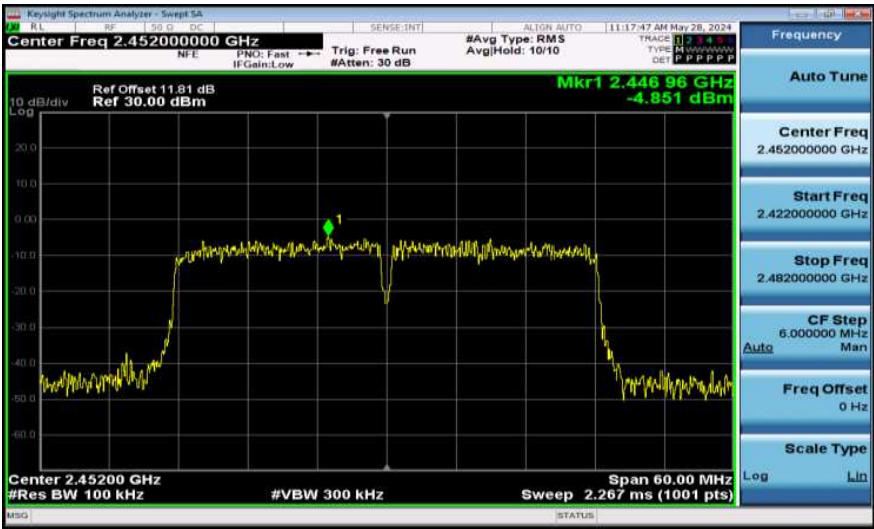


11N40SISO-Ant1-2437-30~1000-PASS

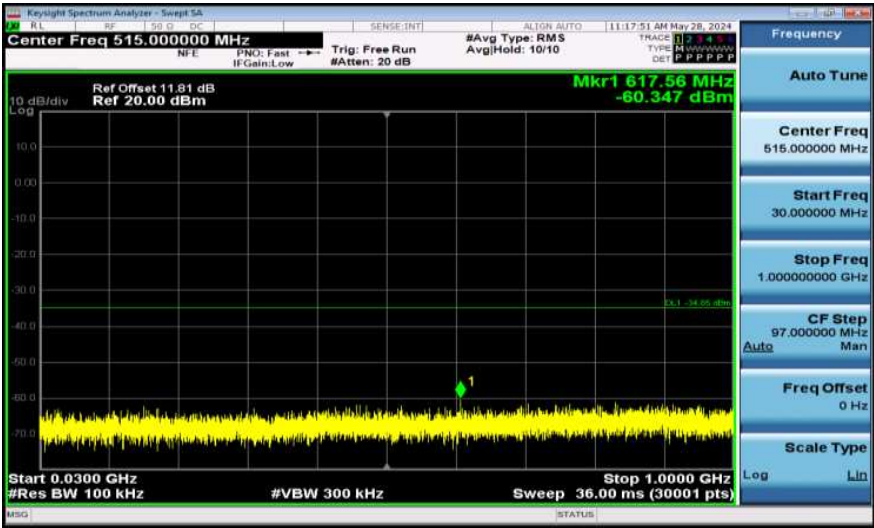


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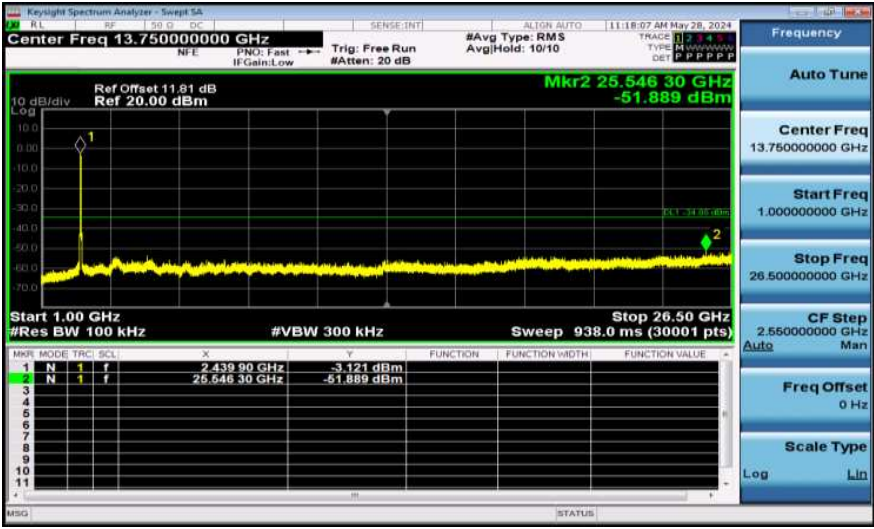
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IC: 28593-DSX39



11N40SISO-Ant1-2452-0~Reference-PASS



11N40SISO-Ant1-2452-30~1000-PASS



11N40SISO-Ant1-2452-1000~26500-PASS



FCC ID: 2A64B-DSX39  
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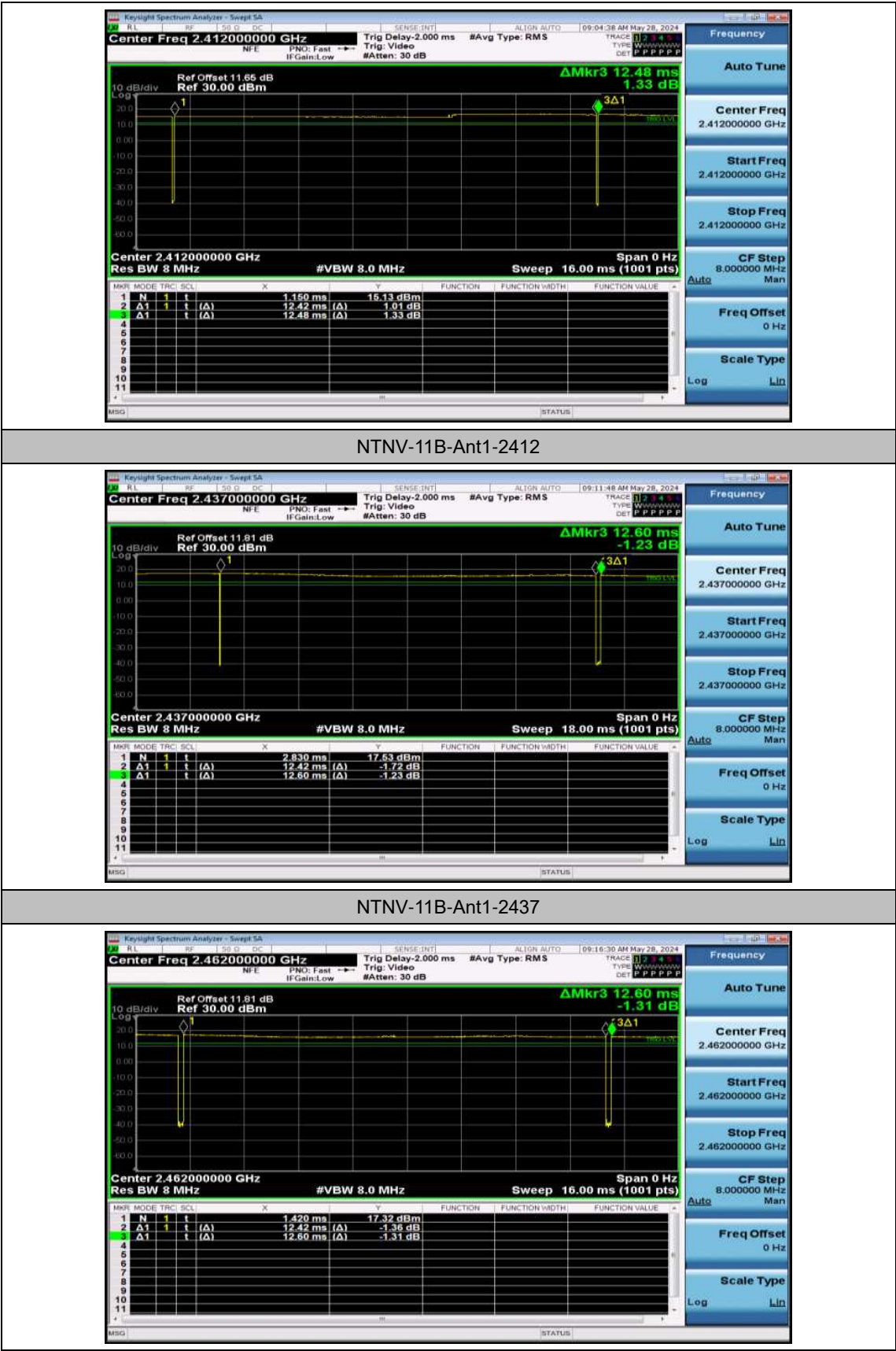
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## Duty Cycle

### Test Result

| TestMode  | Antenna | Frequency[MHz] | Transmission<br>Duration<br>[ms] | Transmission<br>Period [ms] | Duty Cycle<br>[%] | Factor |
|-----------|---------|----------------|----------------------------------|-----------------------------|-------------------|--------|
| 11B       | Ant1    | 2412           | 12.42                            | 12.48                       | 99.52             | 0.02   |
| 11B       | Ant1    | 2437           | 12.42                            | 12.60                       | 98.57             | 0.06   |
| 11B       | Ant1    | 2462           | 12.42                            | 12.60                       | 98.57             | 0.06   |
| 11G       | Ant1    | 2412           | 2.06                             | 2.23                        | 92.38             | 0.34   |
| 11G       | Ant1    | 2437           | 2.06                             | 2.23                        | 92.38             | 0.34   |
| 11G       | Ant1    | 2462           | 2.07                             | 2.24                        | 92.41             | 0.34   |
| 11N20SISO | Ant1    | 2412           | 1.92                             | 2.06                        | 93.20             | 0.31   |
| 11N20SISO | Ant1    | 2437           | 1.92                             | 2.08                        | 92.31             | 0.35   |
| 11N20SISO | Ant1    | 2462           | 1.92                             | 2.05                        | 93.66             | 0.28   |
| 11N40SISO | Ant1    | 2422           | 0.94                             | 1.10                        | 85.45             | 0.68   |
| 11N40SISO | Ant1    | 2437           | 0.95                             | 1.11                        | 85.59             | 0.68   |
| 11N40SISO | Ant1    | 2452           | 0.94                             | 1.09                        | 86.24             | 0.64   |

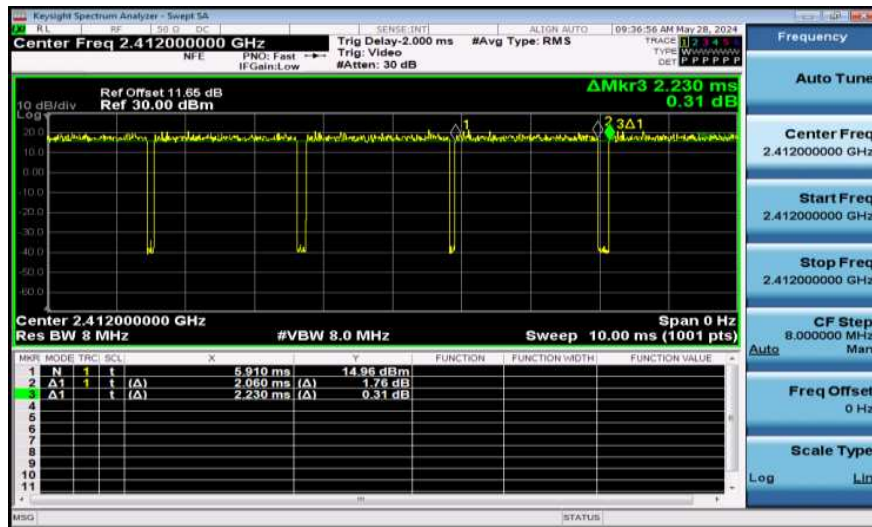
Test Graphs



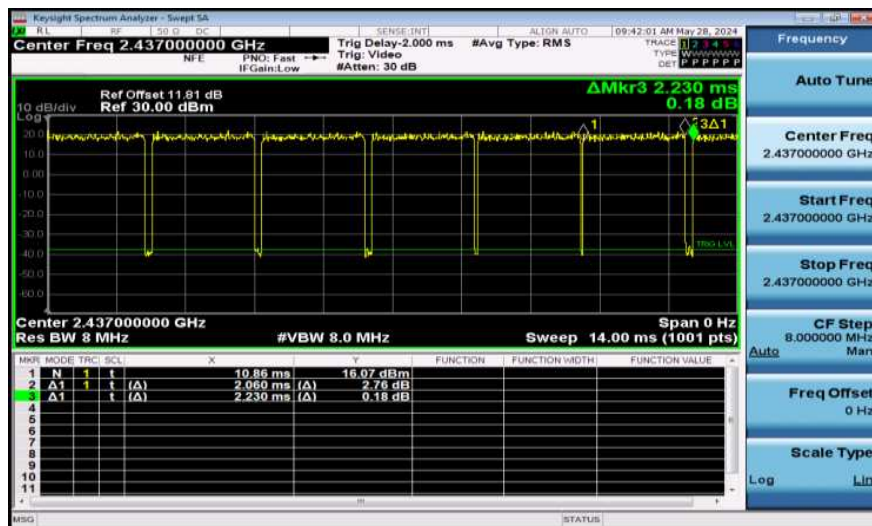
## 2A64B-DSX39

**28593-DSX39**

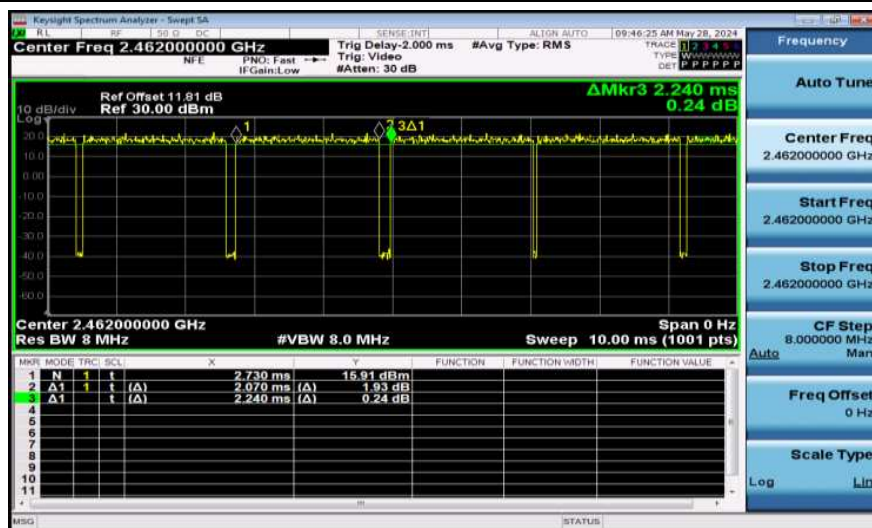
NTNV-11B-Ant1-2462



NTNV-11G-Ant1-2412



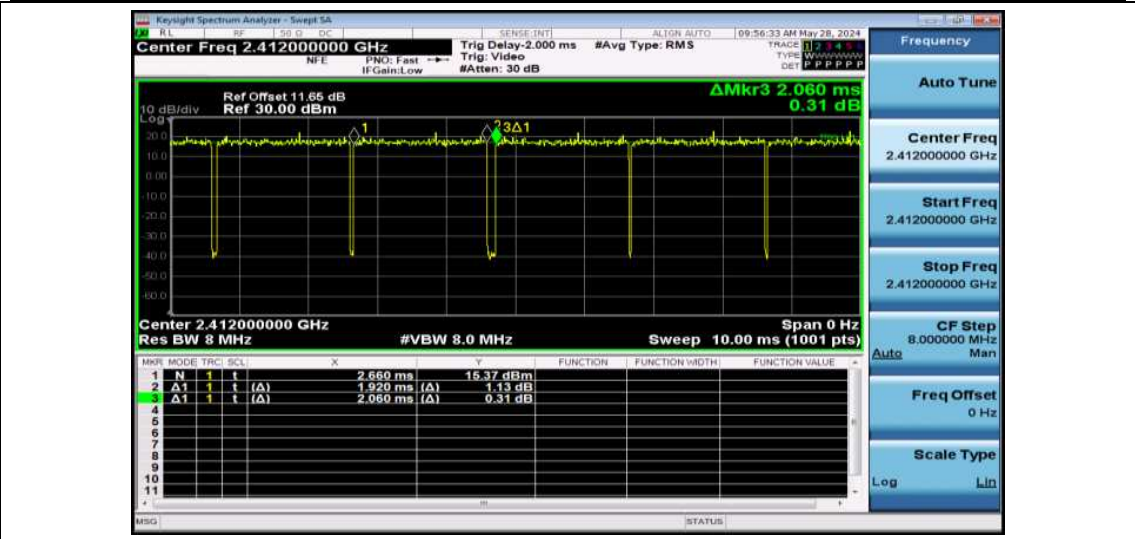
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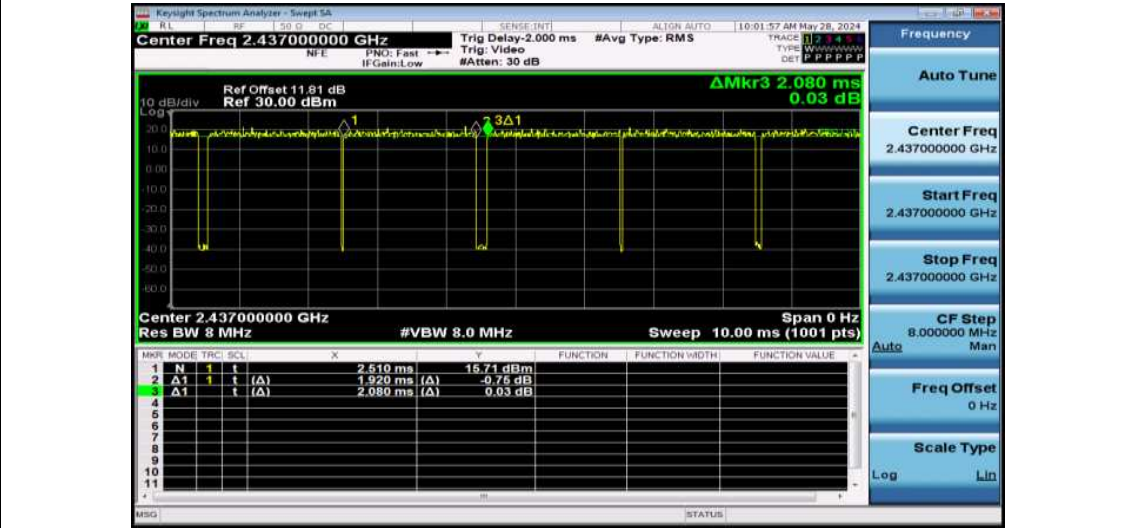
NTNV-11G-Ant1-2462

FCC ID:2A64B-DSX39

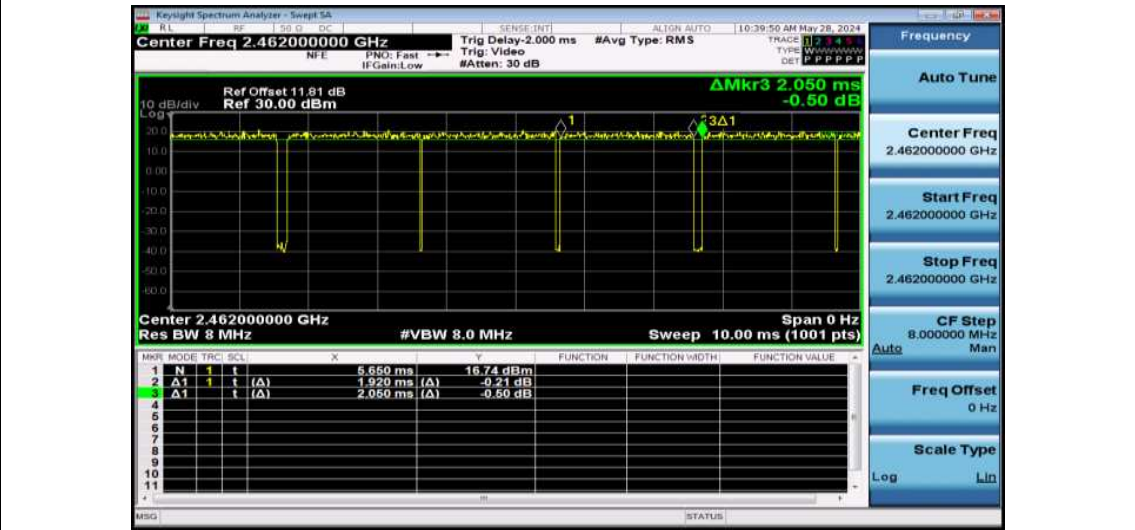
IC:28593-DSX39



NTNV-11N20SISO-Ant1-2412



NTNV-11N20SISO-Ant1-2437

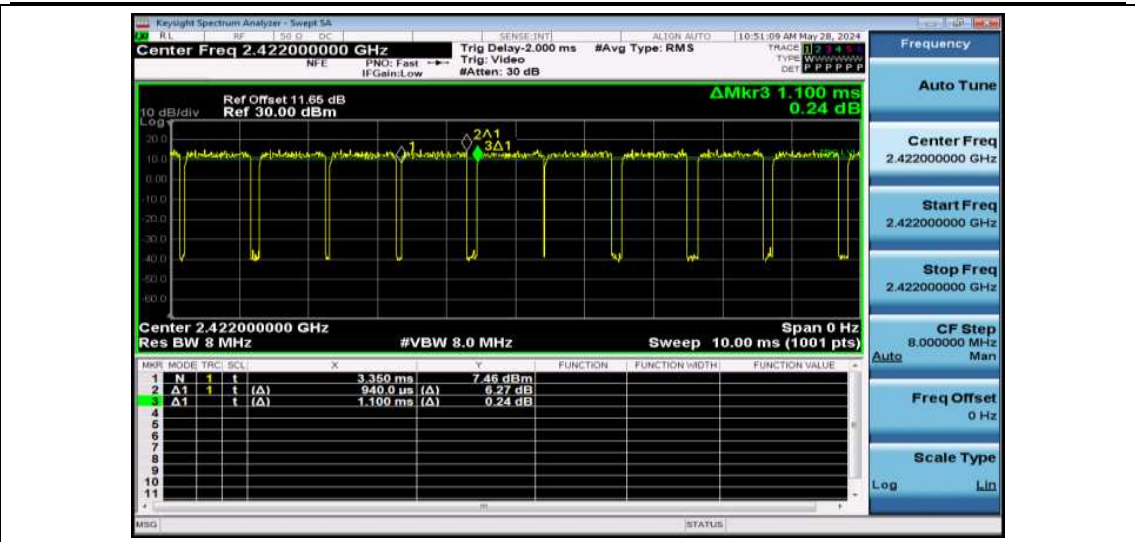


NTNV-11N20SISO-Ant1-2462

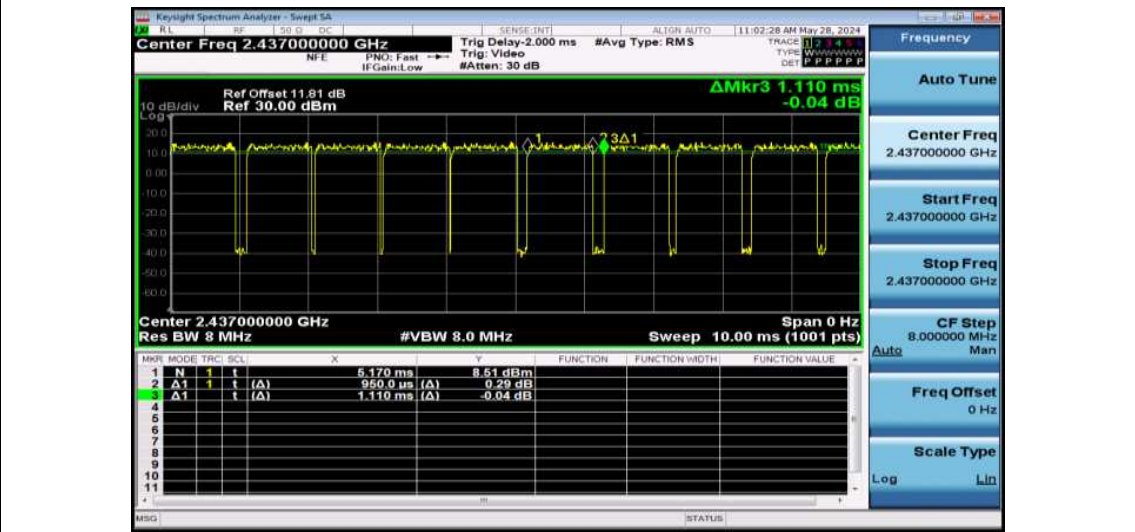


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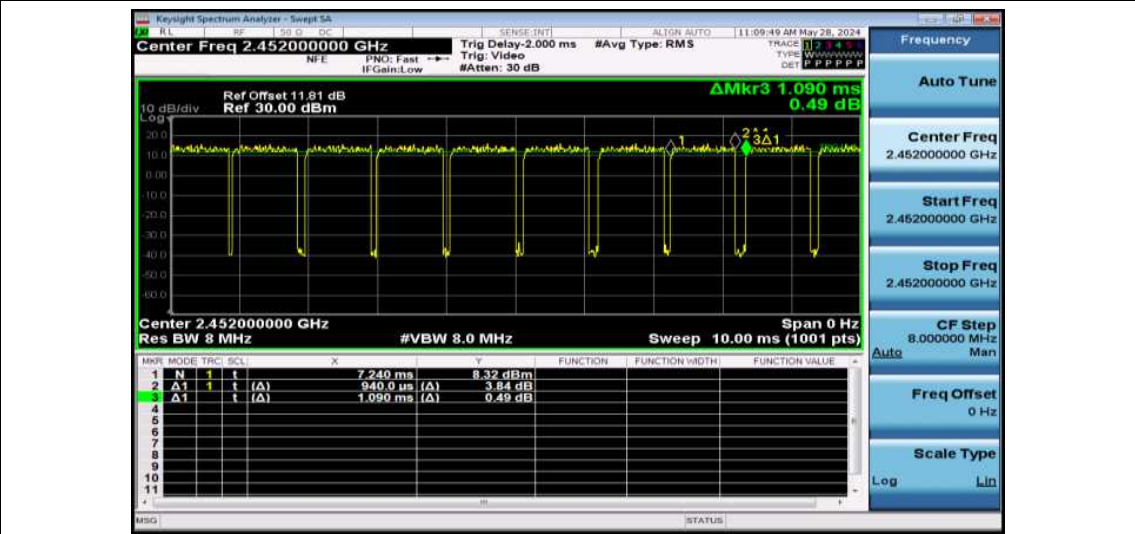
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NTNV-11N40SISO-Ant1-2422



NTNV-11N40SISO-Ant1-2437



NTNV-11N40SISO-Ant1-2452