



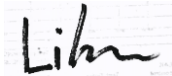
## Appendix A

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

Product Name: Wireless Mouse

Test Model: MC227

#### Environmental Conditions

|                    |                                                                                      |
|--------------------|--------------------------------------------------------------------------------------|
| Temperature:       | 24.2° C                                                                              |
| Relative Humidity: | 57.7%                                                                                |
| ATM Pressure:      | 100.0 kPa                                                                            |
| Test Engineer:     |  |
| Supervised by:     |  |



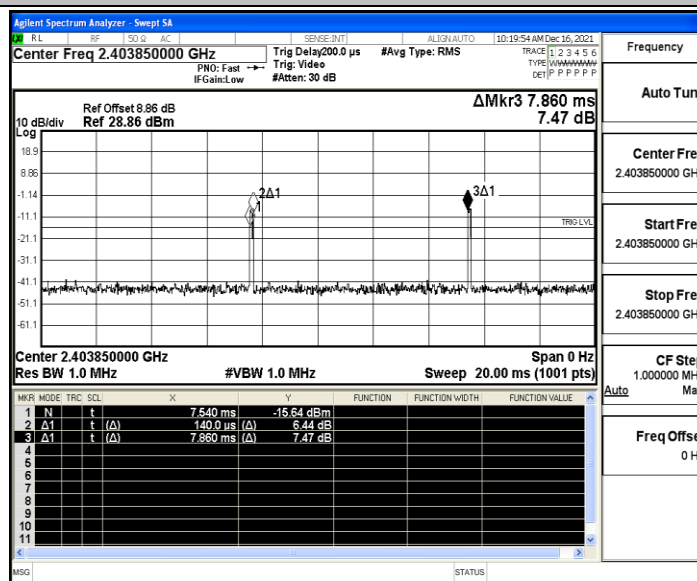
## A.1 Duty Cycle

### Test Result

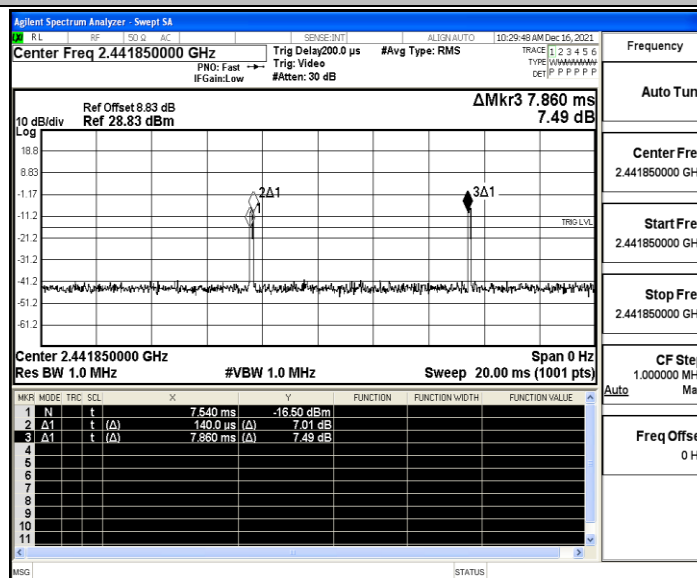
| TestMode | Antenna | Channel | ON Time [ms] | Period [ms] | X      | DC [%] | xFactor | Limit | Verdict |
|----------|---------|---------|--------------|-------------|--------|--------|---------|-------|---------|
| 2.4G     | Ant1    | 2403.85 | 0.14         | 7.86        | 0.0178 | 1.78   | 17.50   | ---   | PASS    |
|          |         | 2441.85 | 0.14         | 7.86        | 0.0178 | 1.78   | 17.50   | ---   | PASS    |
|          |         | 2479.85 | 0.14         | 7.86        | 0.0178 | 1.78   | 17.50   | ---   | PASS    |

### Test Graphs

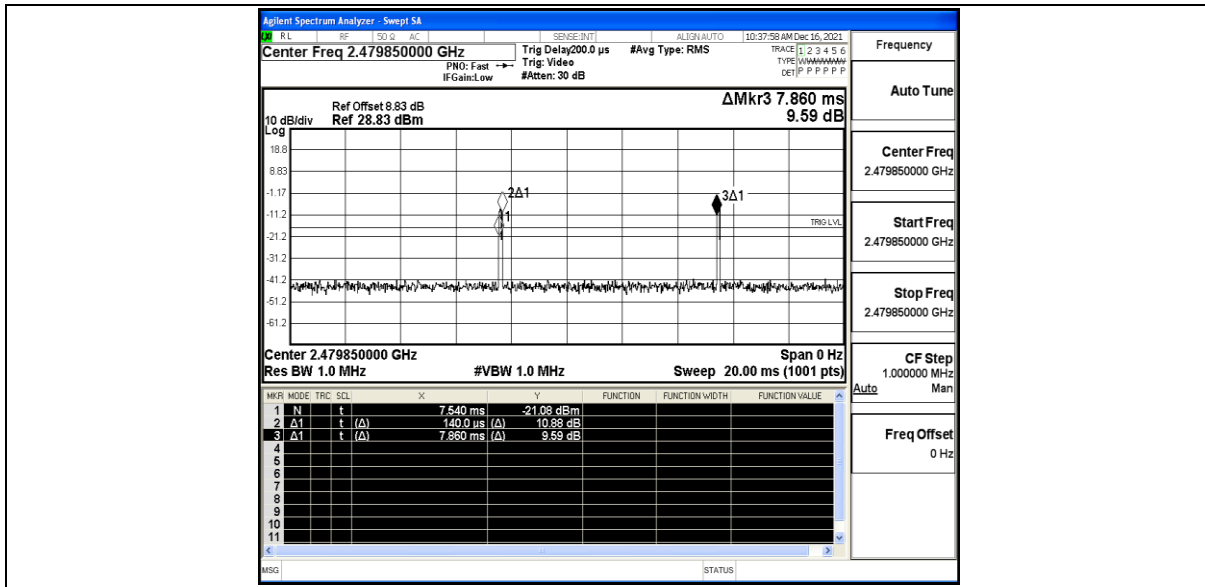
2.4G\_Ant1\_2403.85



2.4G\_Ant1\_2441.85



2.4G\_Ant1\_2479.85





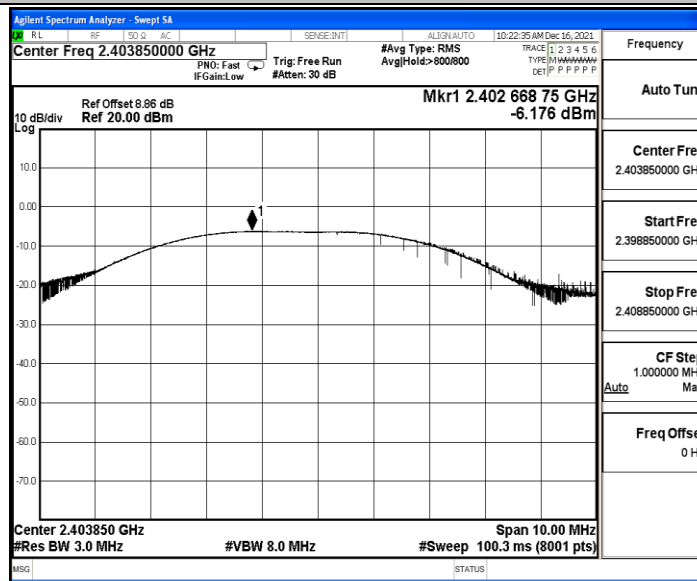
## A.2 Maximum conducted output power

### Test Result

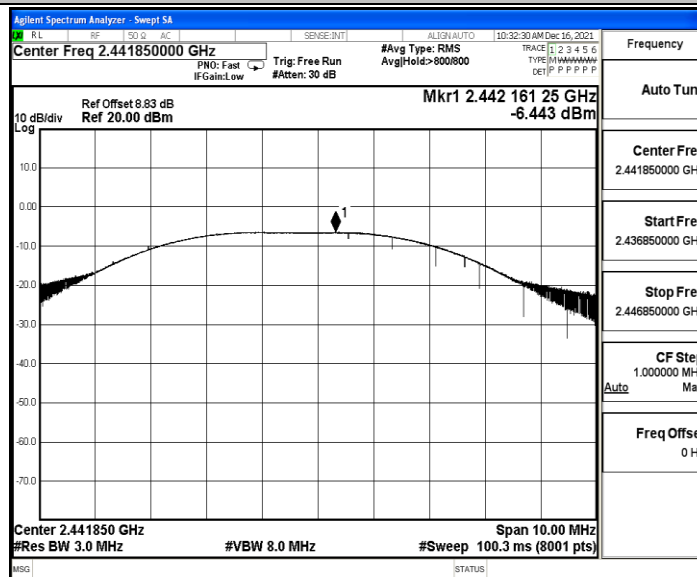
| TestMode | Antenna | Channel | Result[dBm] | Limit[dBm] | Verdict |
|----------|---------|---------|-------------|------------|---------|
| 2.4G     | Ant1    | 2403.85 | -6.18       | ≤30        | PASS    |
|          |         | 2441.85 | -6.44       | ≤30        | PASS    |
|          |         | 2479.85 | -7.06       | ≤30        | PASS    |

### Test Graphs

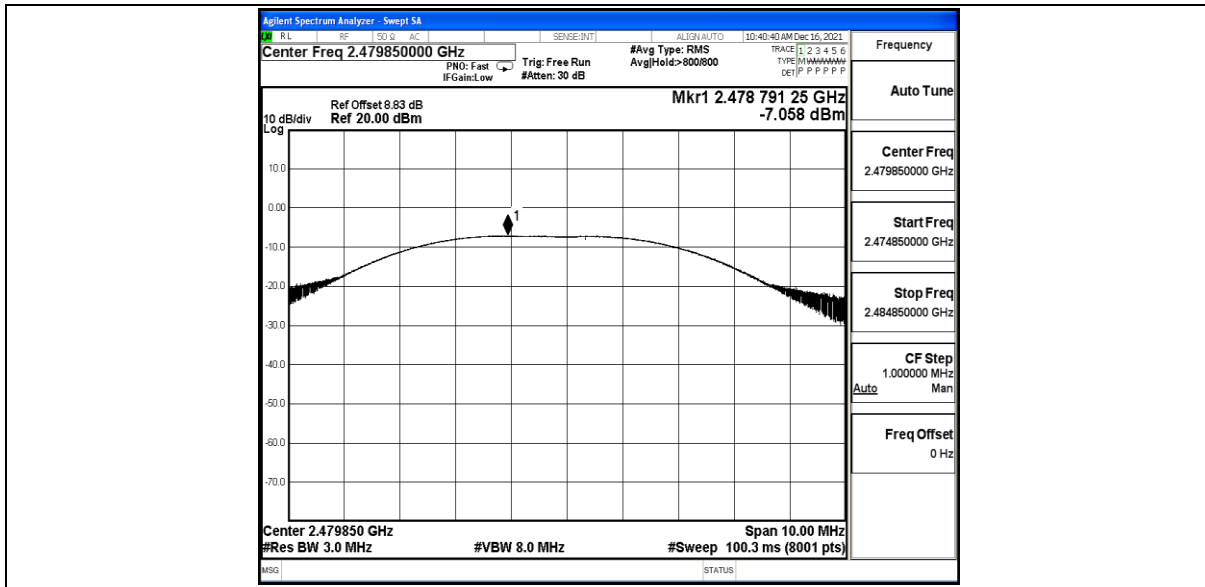
2.4G\_Ant1\_2403.85



2.4G\_Ant1\_2441.85



2.4G\_Ant1\_2479.85





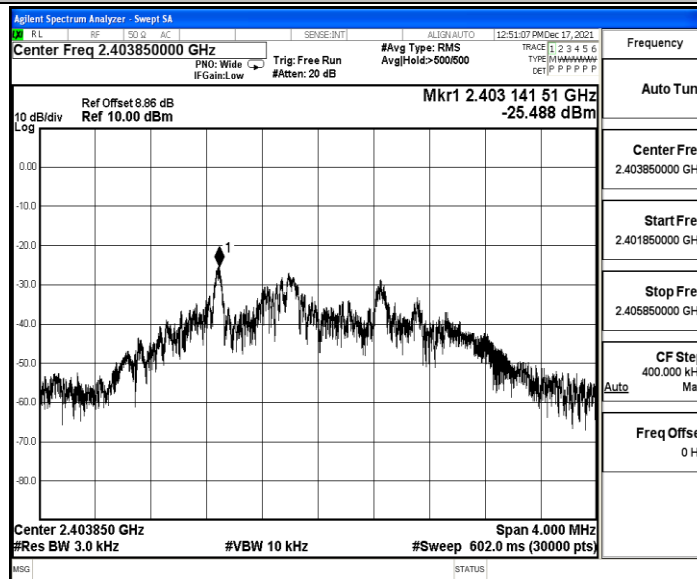
## A.3 Maximum power spectral density

### Test Result

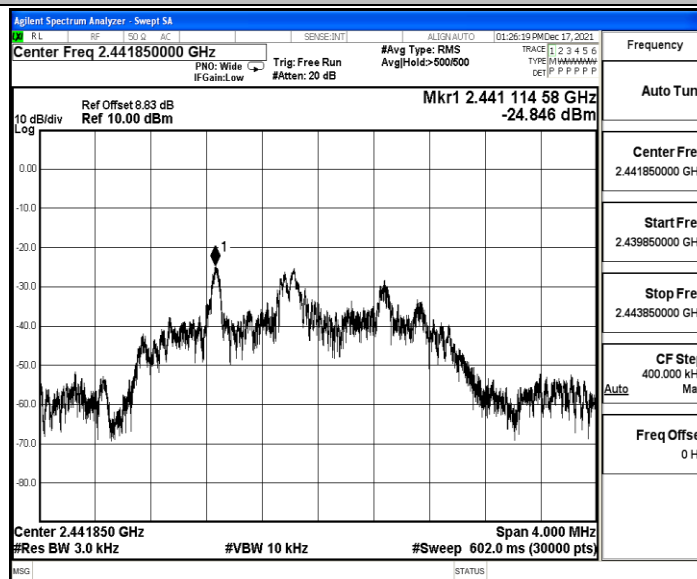
| TestMode | Antenna | Channel | Result[dBm/3kHz] | Limit[dBm/3kHz] | Verdict |
|----------|---------|---------|------------------|-----------------|---------|
| 2.4G     | Ant1    | 2403.85 | -25.49           | ≤8.00           | PASS    |
|          |         | 2441.85 | -24.85           | ≤8.00           | PASS    |
|          |         | 2479.85 | -21.8            | ≤8.00           | PASS    |

### Test Graphs

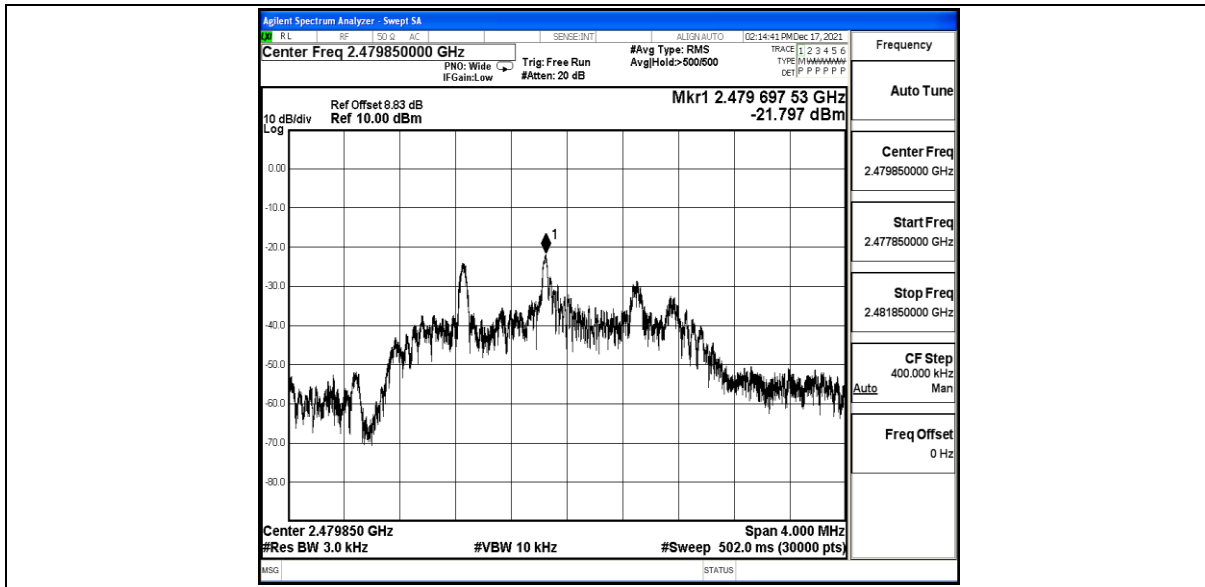
2.4G\_Ant1\_2403.85



2.4G\_Ant1\_2441.85



2.4G\_Ant1\_2479.85





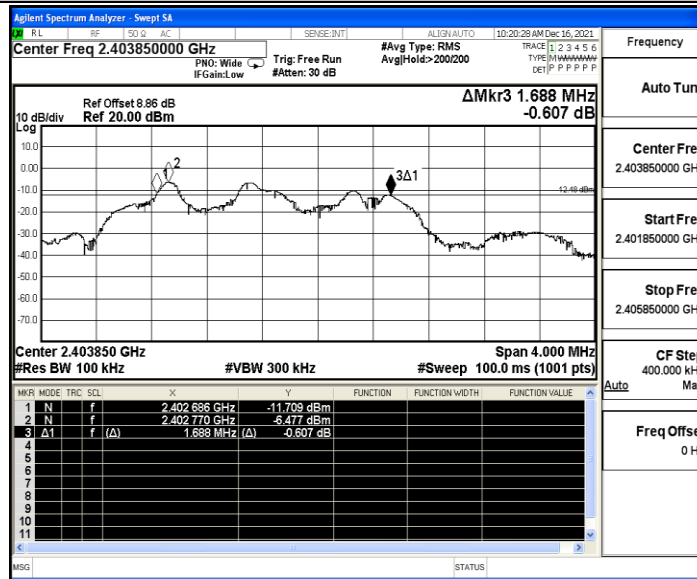
### A.4.1 6dB Bandwidth

| TestMode | Antenna | Channel | DTS BW [MHz] | FL[MHz]  | FH[MHz]  | Limit[MHz] | Verdict |
|----------|---------|---------|--------------|----------|----------|------------|---------|
| 2.4G     | Ant1    | 2403.85 | 1.688        | 2402.686 | 2404.374 | 0.5        | PASS    |
|          |         | 2441.85 | 1.760        | 2440.658 | 2442.418 | 0.5        | PASS    |
|          |         | 2479.85 | 1.832        | 2478.626 | 2480.458 | 0.5        | PASS    |

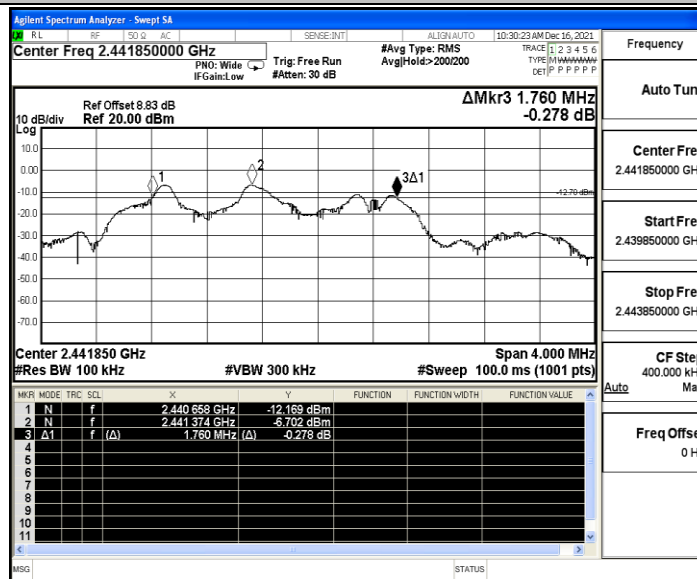


## Test Graphs

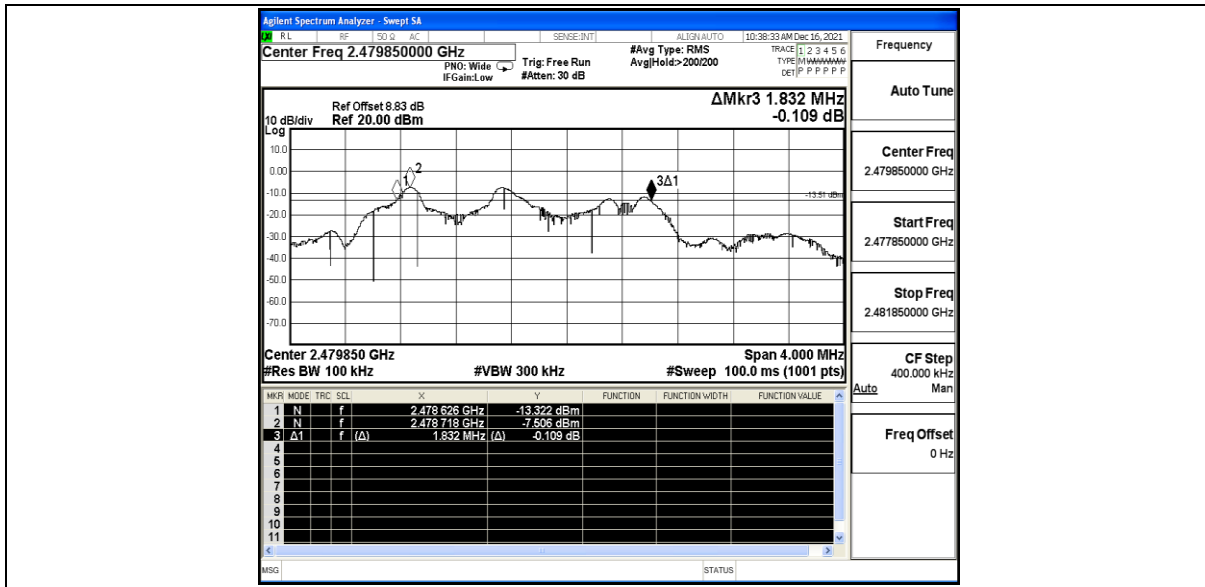
2.4G\_Ant1\_2403.85



2.4G\_Ant1\_2441.85



2.4G\_Ant1\_2479.85



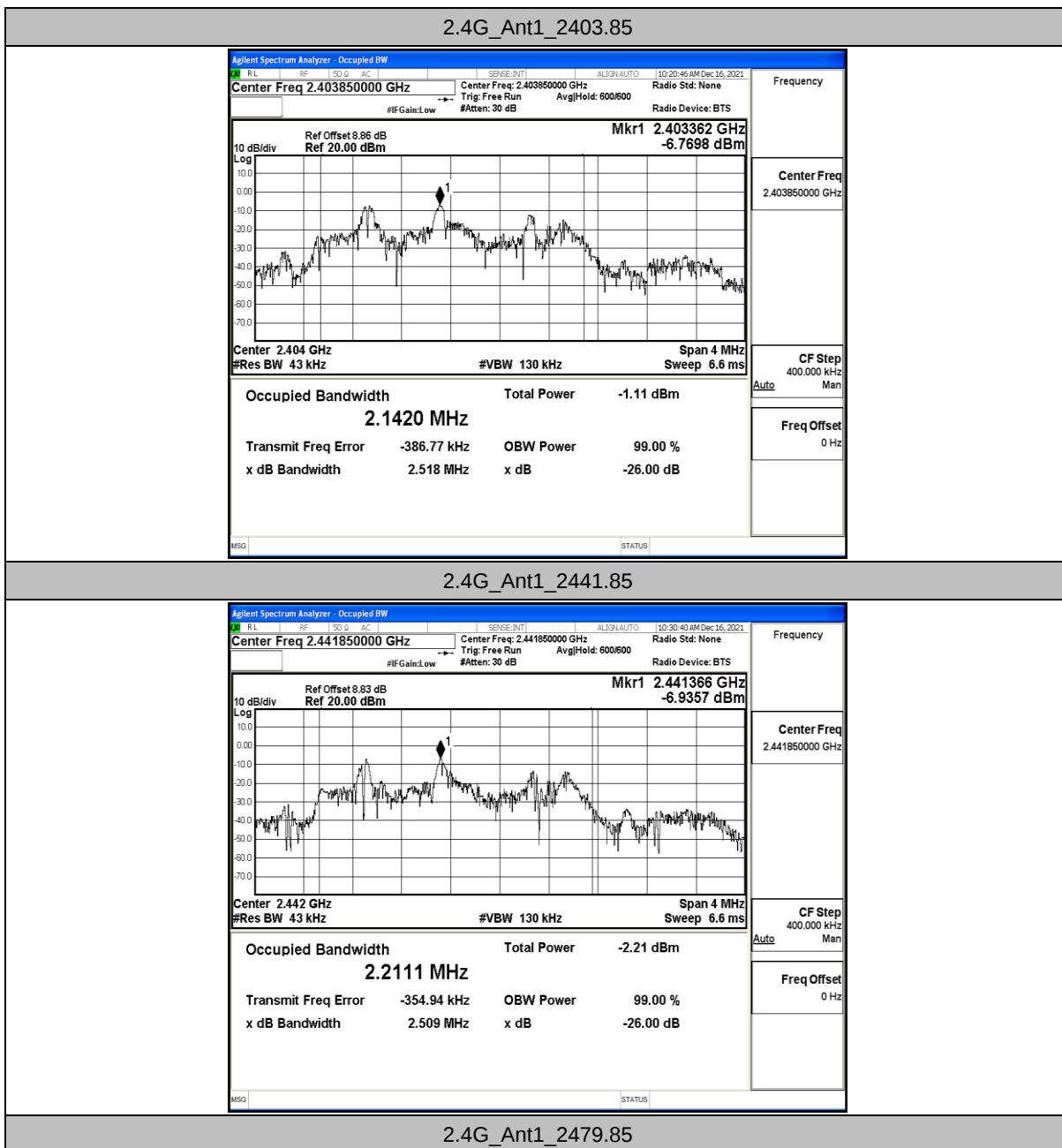


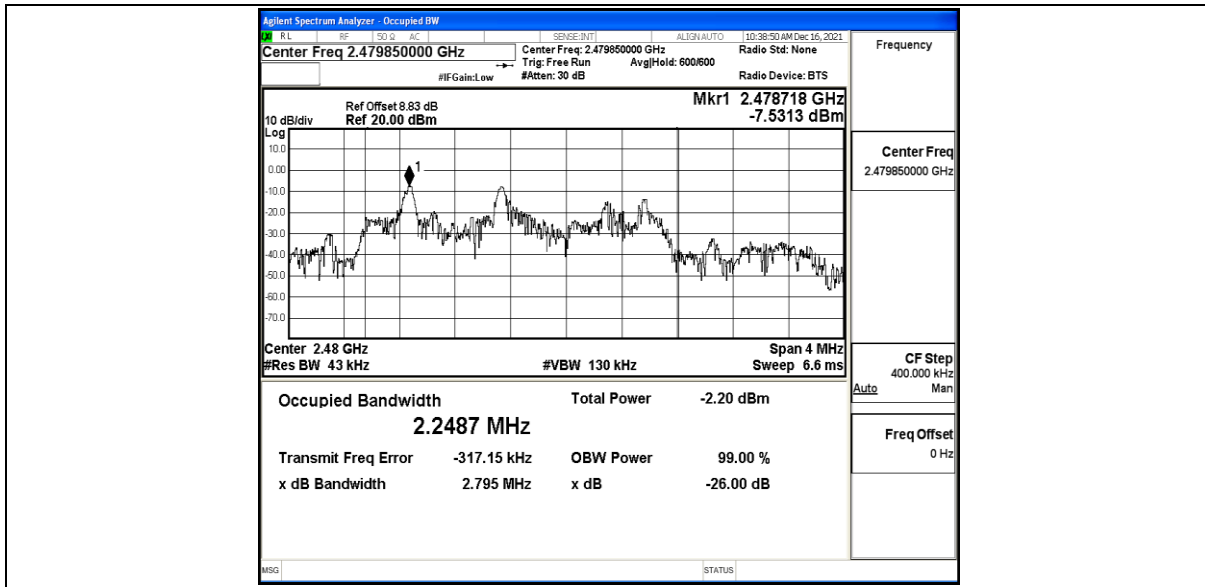
## A.4.2 Occupied Channel Bandwidth

### Test Result

| TestMode | Antenna | Channel | OCB [MHz] | FL[MHz]  | FH[MHz]  | Limit[MHz] | Verdict |
|----------|---------|---------|-----------|----------|----------|------------|---------|
| 2.4G     | Ant1    | 2403.85 | 2.1420    | 2402.392 | 2404.534 | ---        | PASS    |
|          |         | 2441.85 | 2.2111    | 2440.390 | 2442.601 | ---        | PASS    |
|          |         | 2479.85 | 2.2487    | 2478.409 | 2480.657 | ---        | PASS    |

### Test Graphs





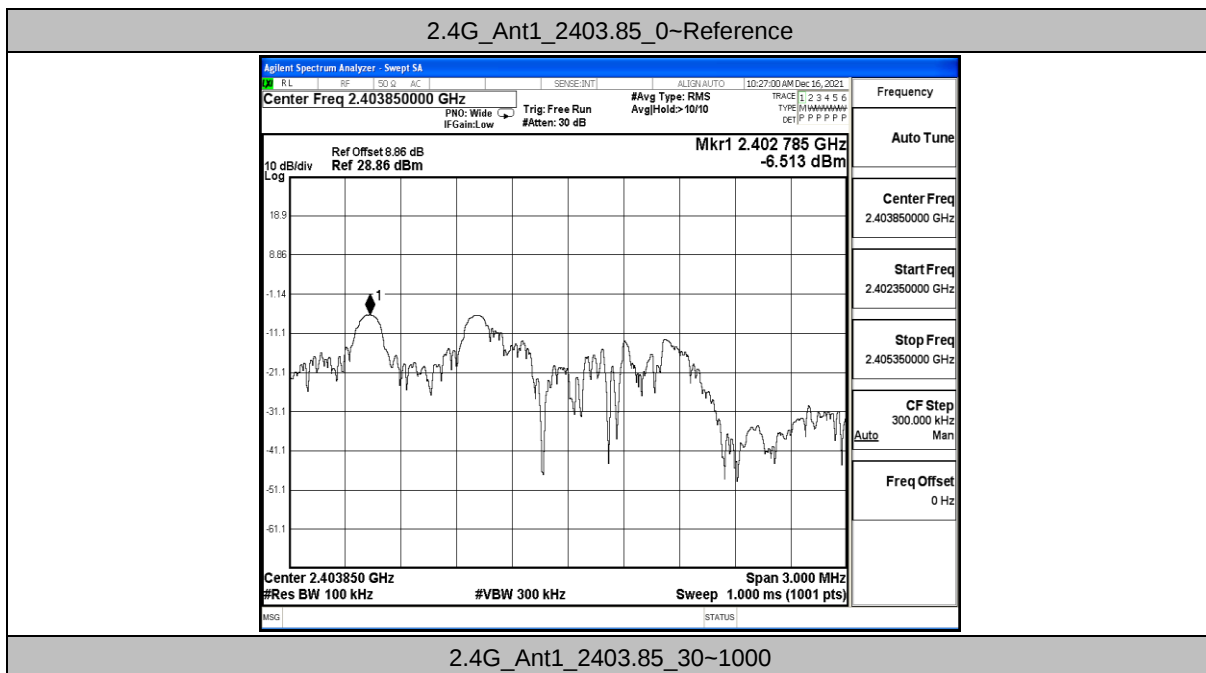


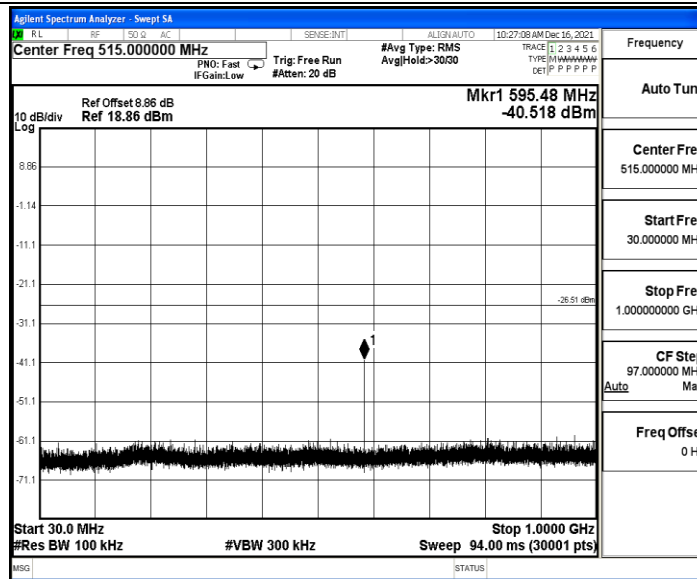
## A.5 Conducted Spurious Emission

### Test Result

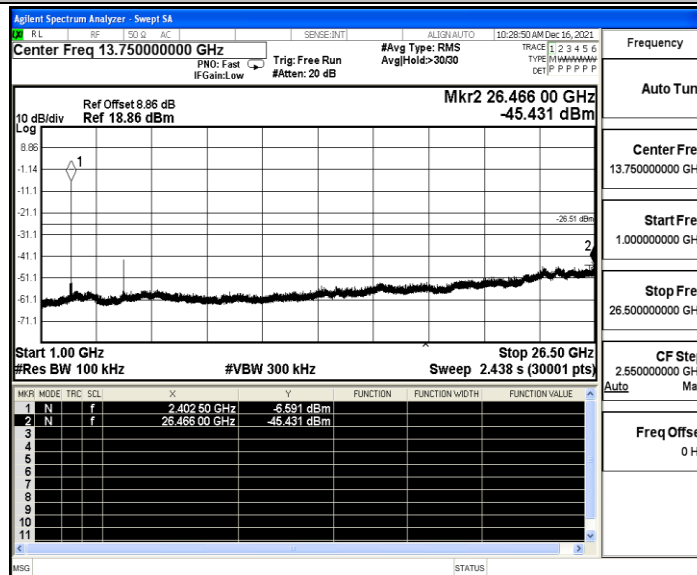
| TestMode | Antenna | Channel | FreqRange<br>[MHz] | RefLevel<br>[dBm] | Result[dBm] | Limit[dBm] | Verdict |
|----------|---------|---------|--------------------|-------------------|-------------|------------|---------|
| 2.4G     | Ant1    | 2403.85 | Reference          | -6.51             | -6.51       | ---        | PASS    |
|          |         |         | 30~1000            | -6.51             | -42.46      | ≤-26.51    | PASS    |
|          |         |         | 1000~26500         | -6.51             | -45.43      | ≤-26.51    | PASS    |
|          |         | 2441.85 | Reference          | -6.79             | -6.79       | ---        | PASS    |
|          |         |         | 30~1000            | -6.79             | -60.12      | ≤-26.79    | PASS    |
|          |         |         | 1000~26500         | -6.79             | -45.99      | ≤-26.79    | PASS    |
|          |         | 2479.85 | Reference          | -7.48             | -7.48       | ---        | PASS    |
|          |         |         | 30~1000            | -7.48             | -60.99      | ≤-27.48    | PASS    |
|          |         |         | 1000~26500         | -7.48             | -37.8       | ≤-27.48    | PASS    |

### Test Graphs

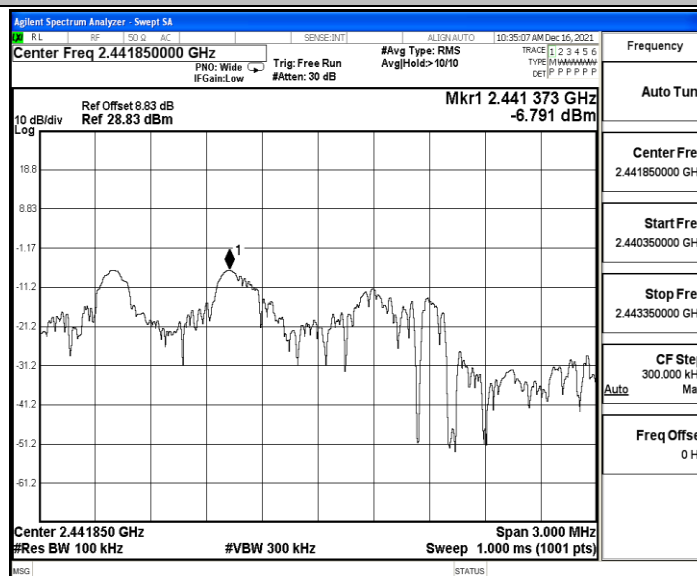




2.4G\_Ant1\_2403.85\_1000~26500

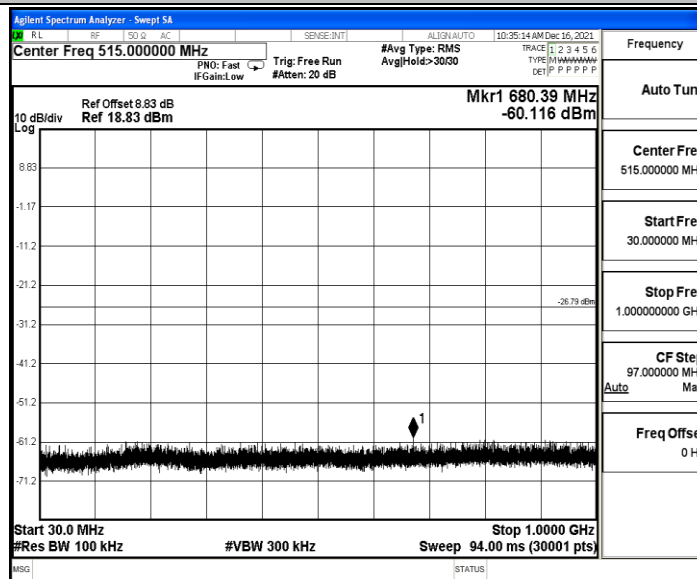


2.4G\_Ant1\_2441.85\_0-Reference

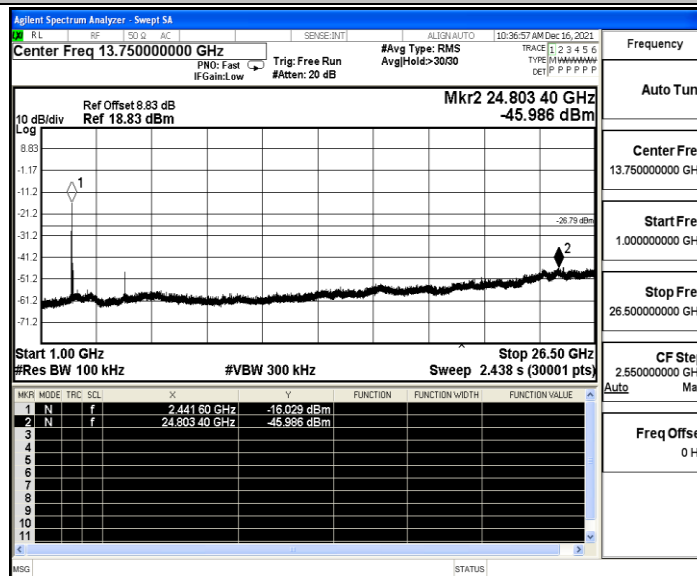




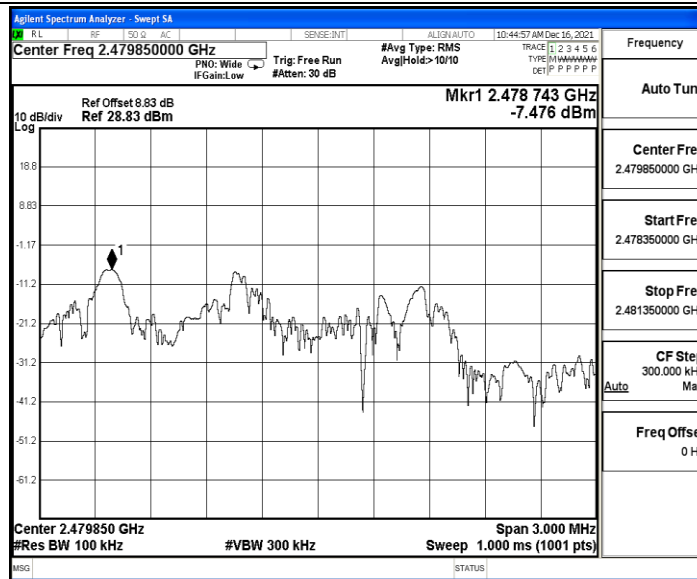
## 2.4G\_Ant1\_2441.85\_30~1000



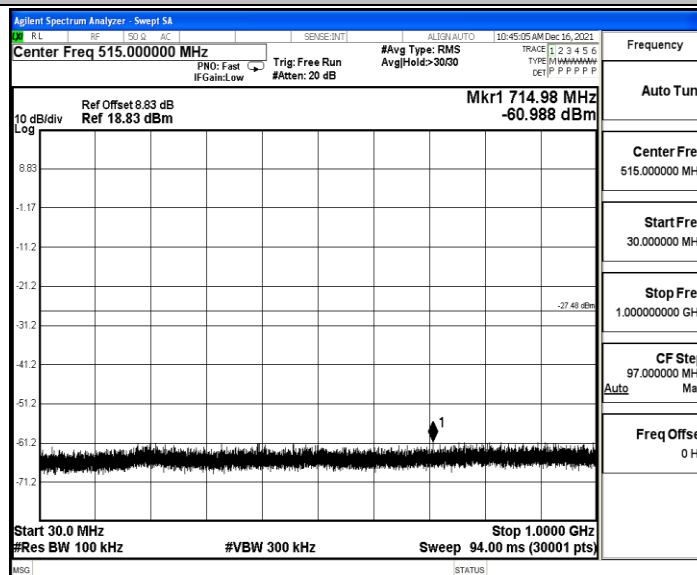
## 2.4G\_Ant1\_2441.85\_1000~26500



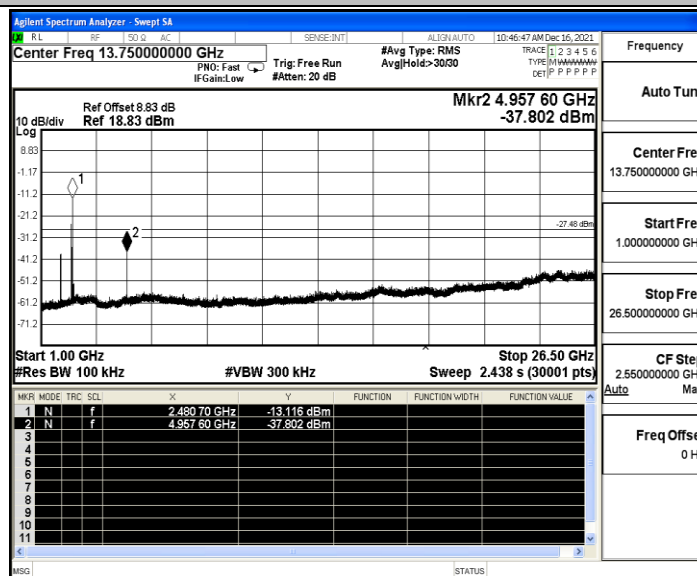
## 2.4G\_Ant1\_2479.85\_0~Reference



2.4G\_Ant1\_2479.85\_30~1000



2.4G\_Ant1\_2479.85\_1000~26500



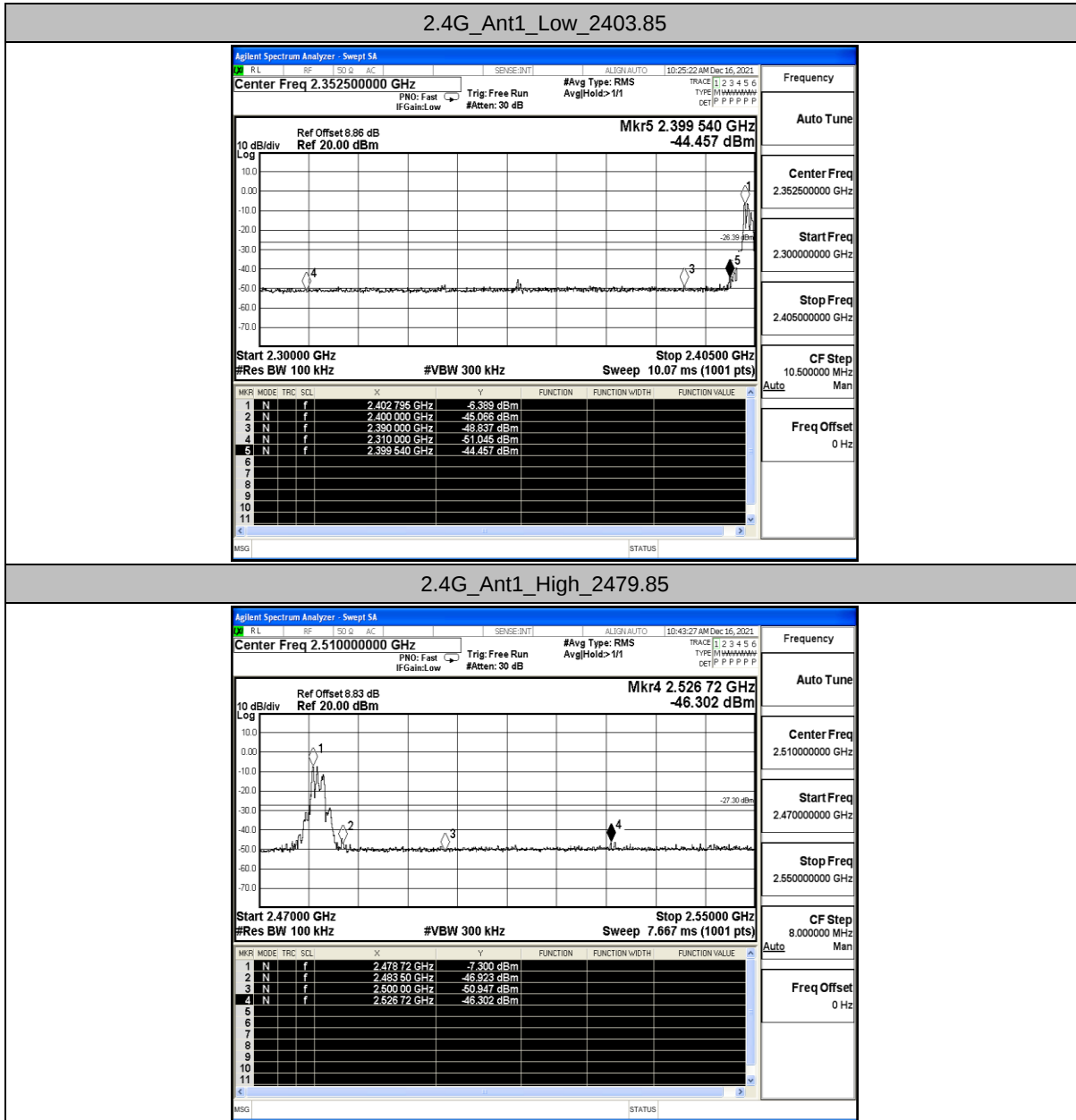


## A.6 Band edge measurements

### Test Result

| TestMode | Antenna | ChName | Channel | RefLevel[dBm] | Result[dBm] | Limit[dBm]    | Verdict |
|----------|---------|--------|---------|---------------|-------------|---------------|---------|
| 2.4G     | Ant1    | Low    | 2403.85 | -6.39         | -44.46      | $\leq -26.39$ | PASS    |
|          |         | High   | 2479.85 | -7.30         | -46.3       | $\leq -27.3$  | PASS    |

### Test Graphs





## A.7 Emissions in Restricted Bands

### Test Result

| TestMode | Antenna | ChName | Channel | Detector | Freq.<br>[MHz] | Result<br>[dBm] | Limit<br>[dBm] | Result<br>[dBuV/m] | Limit<br>[dBuV/m] | Verdict |
|----------|---------|--------|---------|----------|----------------|-----------------|----------------|--------------------|-------------------|---------|
| 2.4G     | Ant1    | Low    | 2403.85 | AV       | 2310.000       | -46.27          | ≤-41.20        | 48.93              | ≤54               | PASS    |
|          |         |        |         | AV       | 2355.230       | -42.21          | ≤-41.20        | 52.99              | ≤54               | PASS    |
|          |         |        |         | AV       | 2390.000       | -45.38          | ≤-41.20        | 49.82              | ≤54               | PASS    |
|          |         |        |         | Peak     | 2310.000       | -38.34          | ≤-21.20        | 56.86              | ≤74               | PASS    |
|          |         |        |         | Peak     | 2377.910       | -35.81          | ≤-21.20        | 59.39              | ≤74               | PASS    |
|          |         |        |         | Peak     | 2390.000       | -38.88          | ≤-21.20        | 56.32              | ≤74               | PASS    |
|          |         | High   | 2479.85 | AV       | 2483.500       | -45.7           | ≤-41.20        | 49.50              | ≤54               | PASS    |
|          |         |        |         | AV       | 2492.640       | -44.78          | ≤-41.20        | 50.42              | ≤54               | PASS    |
|          |         |        |         | AV       | 2500.000       | -45.27          | ≤-41.20        | 49.93              | ≤54               | PASS    |
|          |         |        |         | Peak     | 2483.500       | -38.21          | ≤-21.20        | 56.99              | ≤74               | PASS    |
|          |         |        |         | Peak     | 2487.920       | -35.85          | ≤-21.20        | 59.35              | ≤74               | PASS    |
|          |         |        |         | Peak     | 2500.000       | -37.34          | ≤-21.20        | 57.86              | ≤74               | PASS    |

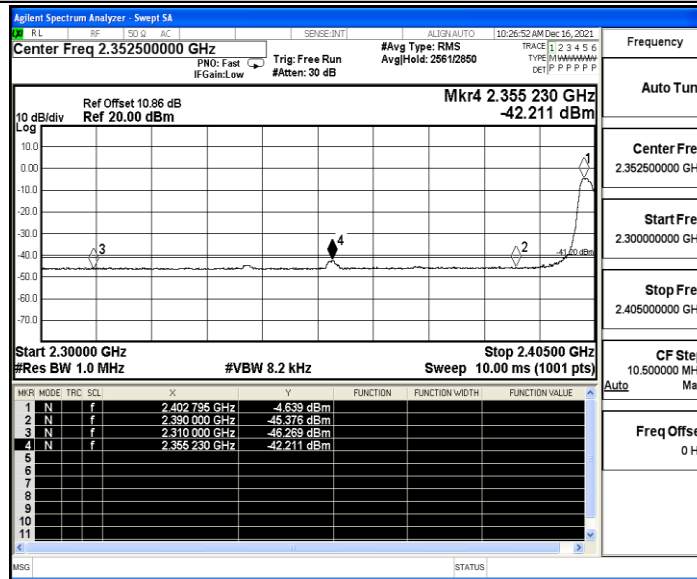
Note:

1. The Antenna Gain is compensated in the graph.
2. The limit in dBm for average detector is conversion from 54dBuV/m, according to 15.209(a). The limit in dBm for peak detector is 20dB above the limit of average detector in dBm.

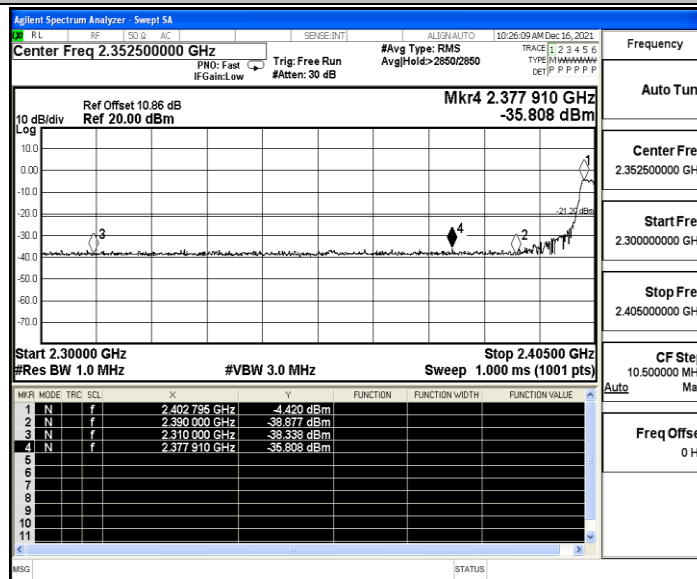


## Test Graphs

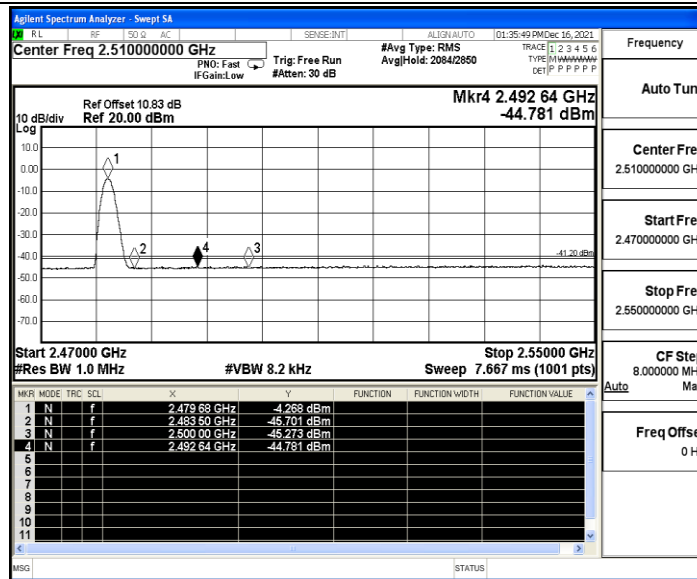
2.4G\_Ant1\_Low\_2403.85\_AV



2.4G\_Ant1\_Low\_2403.85\_Peak



2.4G\_Ant1\_High\_2479.85\_AV



2.4G\_Ant1\_High\_2479.85\_Peak

