

## Appendix Test Data for SRD (Conducted Measurement)

**Product Name:** Wireless Mechanical Keyboard

**Trade Mark:** Keychron

**Test Model:** K7 Max

**FCC ID:** 2ASF4-K7MAX

### Environmental Conditions

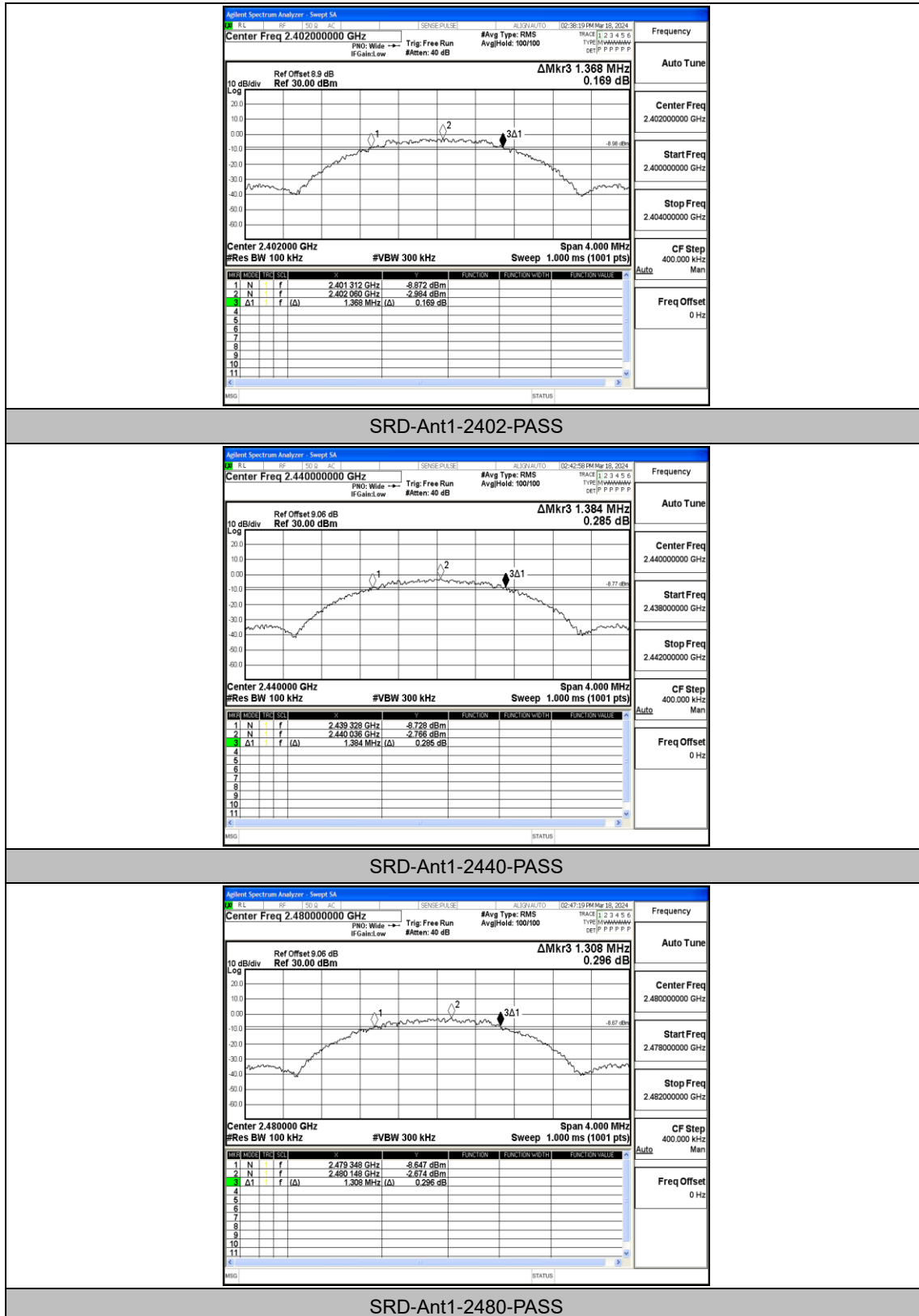
|                    |           |
|--------------------|-----------|
| Temperature:       | 22.8° C   |
| Relative Humidity: | 56%       |
| ATM Pressure:      | 100.0 kPa |
| Test Engineer:     | Anna Hu   |
| Supervised by:     | Hugo Chen |
| NOTE               | N/A       |

## Appendix A: DTS Bandwidth

### Test Result

| TestMode | Antenna | Frequency[MHz] | DTS BW [MHz] | FL[MHz]  | FH[MHz]  | Limit[MHz] | Verdict |
|----------|---------|----------------|--------------|----------|----------|------------|---------|
| SRD      | Ant1    | 2402           | 1.368        | 2401.312 | 2402.680 | 0.5        | PASS    |
| SRD      | Ant1    | 2440           | 1.384        | 2439.328 | 2440.712 | 0.5        | PASS    |
| SRD      | Ant1    | 2480           | 1.308        | 2479.348 | 2480.656 | 0.5        | PASS    |

## Test Graphs

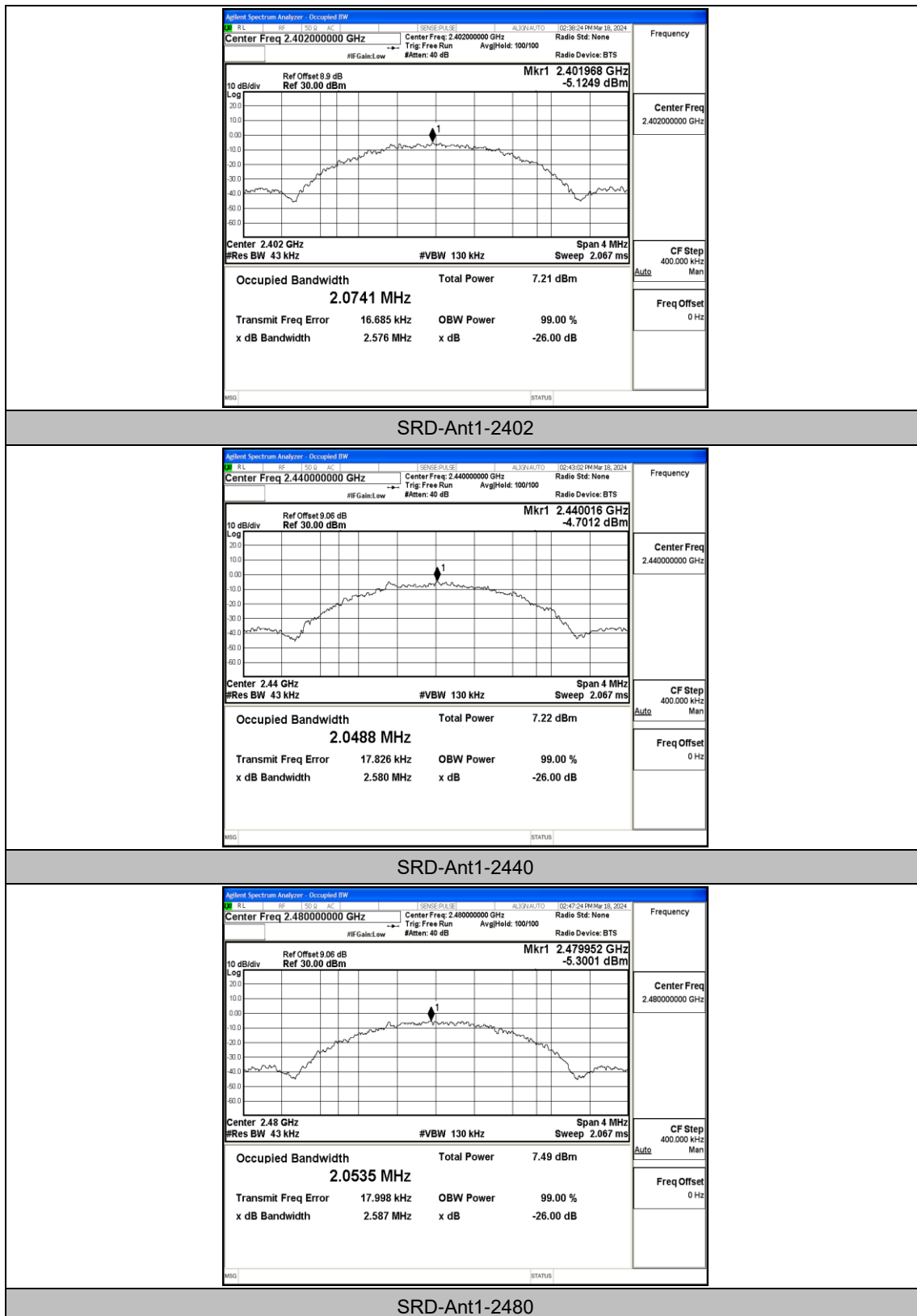


## Appendix B: Occupied Channel Bandwidth

### Test Result

| TestMode | Antenna | Frequency[MHz] | OCB<br>[MHz] | FL[MHz]   | FH[MHz]   | Limit[MHz] | Verdict |
|----------|---------|----------------|--------------|-----------|-----------|------------|---------|
| SRD      | Ant1    | 2402           | 2.0741       | 2400.9796 | 2403.0537 | ---        | ---     |
| SRD      | Ant1    | 2440           | 2.0488       | 2438.9934 | 2441.0422 | ---        | ---     |
| SRD      | Ant1    | 2480           | 2.0535       | 2478.9913 | 2481.0448 | ---        | ---     |

## Test Graphs

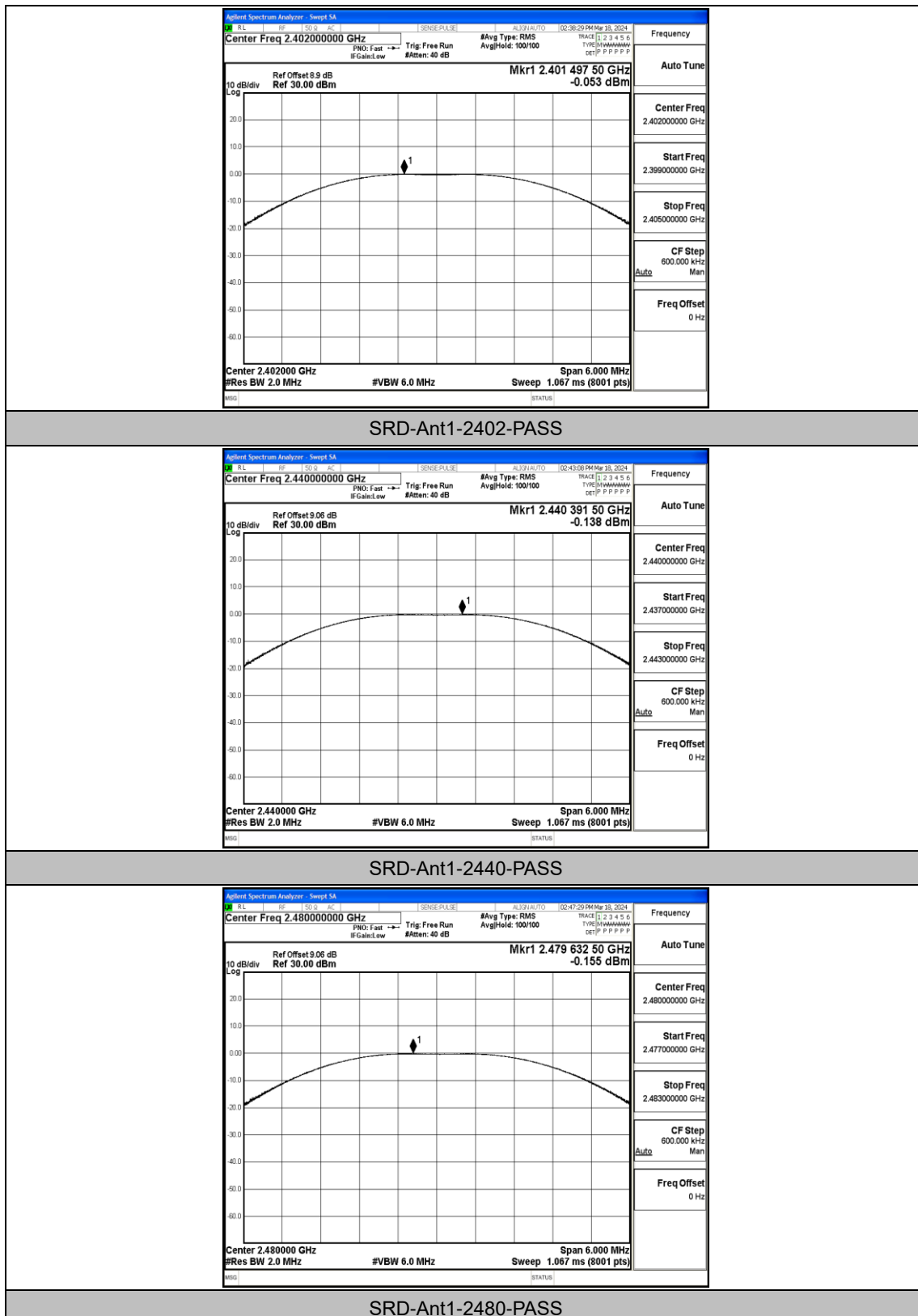


## Appendix C: Maximum peak conducted output power

### Test Result Peak

| TestMode | Antenna | Frequency[MHz] | Conducted<br>Peak<br>Power[dBm] | Conducted<br>Limit[dBm] | Verdict |
|----------|---------|----------------|---------------------------------|-------------------------|---------|
| SRD      | Ant1    | 2402           | -0.05                           | ≤30                     | PASS    |
| SRD      | Ant1    | 2440           | -0.14                           | ≤30                     | PASS    |
| SRD      | Ant1    | 2480           | -0.16                           | ≤30                     | PASS    |

## Test Graphs Peak

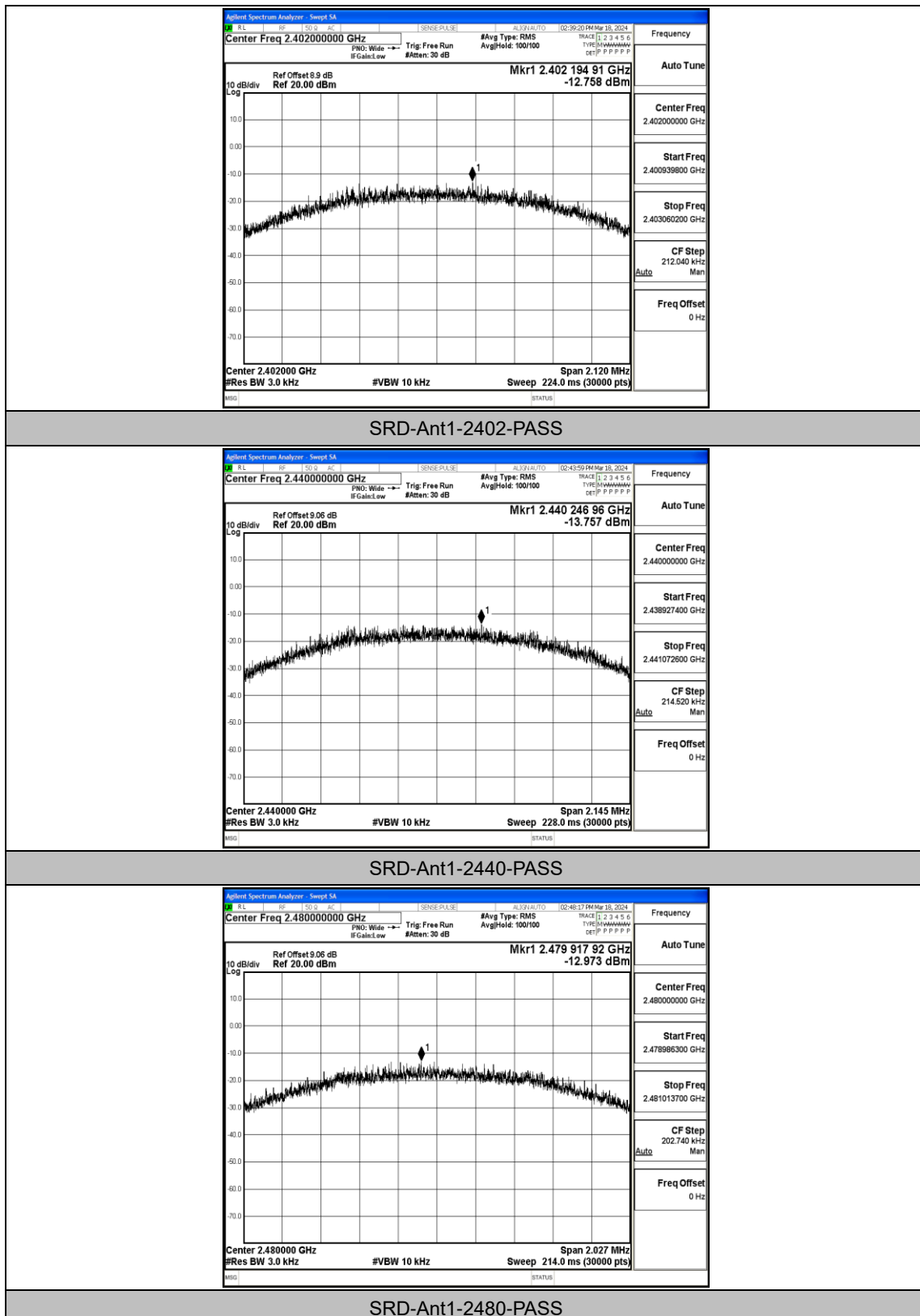


## Appendix D: Maximum peak power spectral density

### Test Result

| TestMode | Antenna | Frequency[MHz] | Result[dBm/3kHz] | Limit[dBm/3kHz] | Verdict |
|----------|---------|----------------|------------------|-----------------|---------|
| SRD      | Ant1    | 2402           | -12.76           | ≤8.00           | PASS    |
| SRD      | Ant1    | 2440           | -13.76           | ≤8.00           | PASS    |
| SRD      | Ant1    | 2480           | -12.97           | ≤8.00           | PASS    |

## Test Graphs

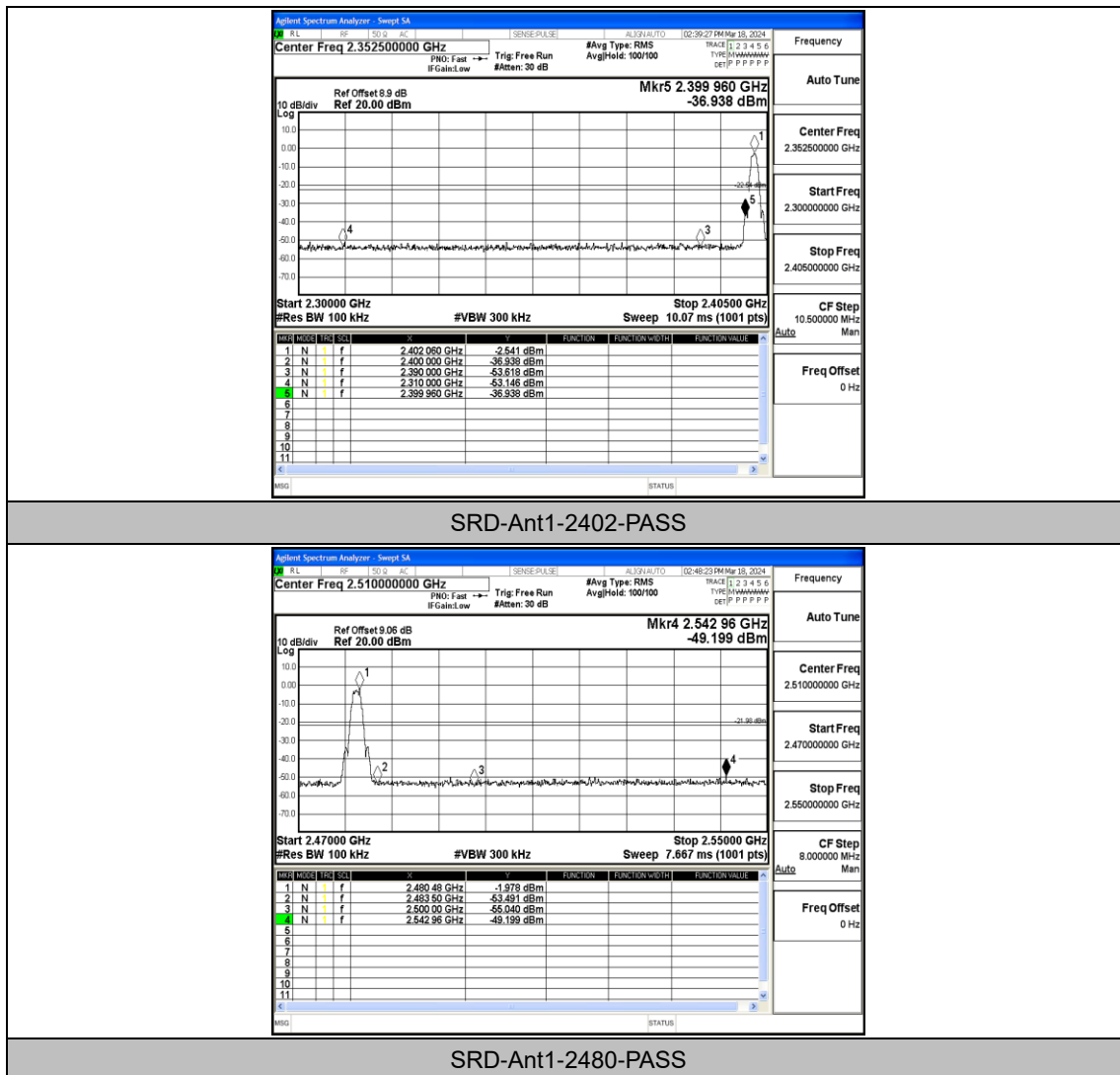


## Appendix E: Band edge measurements

### Test Result

| TestMode | Antenna | Channel | Frequency[MHz] | RefLevel[dBm] | Result[dBm] | Limit[dBm] | Verdict |
|----------|---------|---------|----------------|---------------|-------------|------------|---------|
| SRD      | Ant1    | Low     | 2402           | -2.54         | -36.94      | ≤-22.54    | PASS    |
| SRD      | Ant1    | High    | 2480           | -1.98         | -49.2       | ≤-21.98    | PASS    |

## Test Graphs

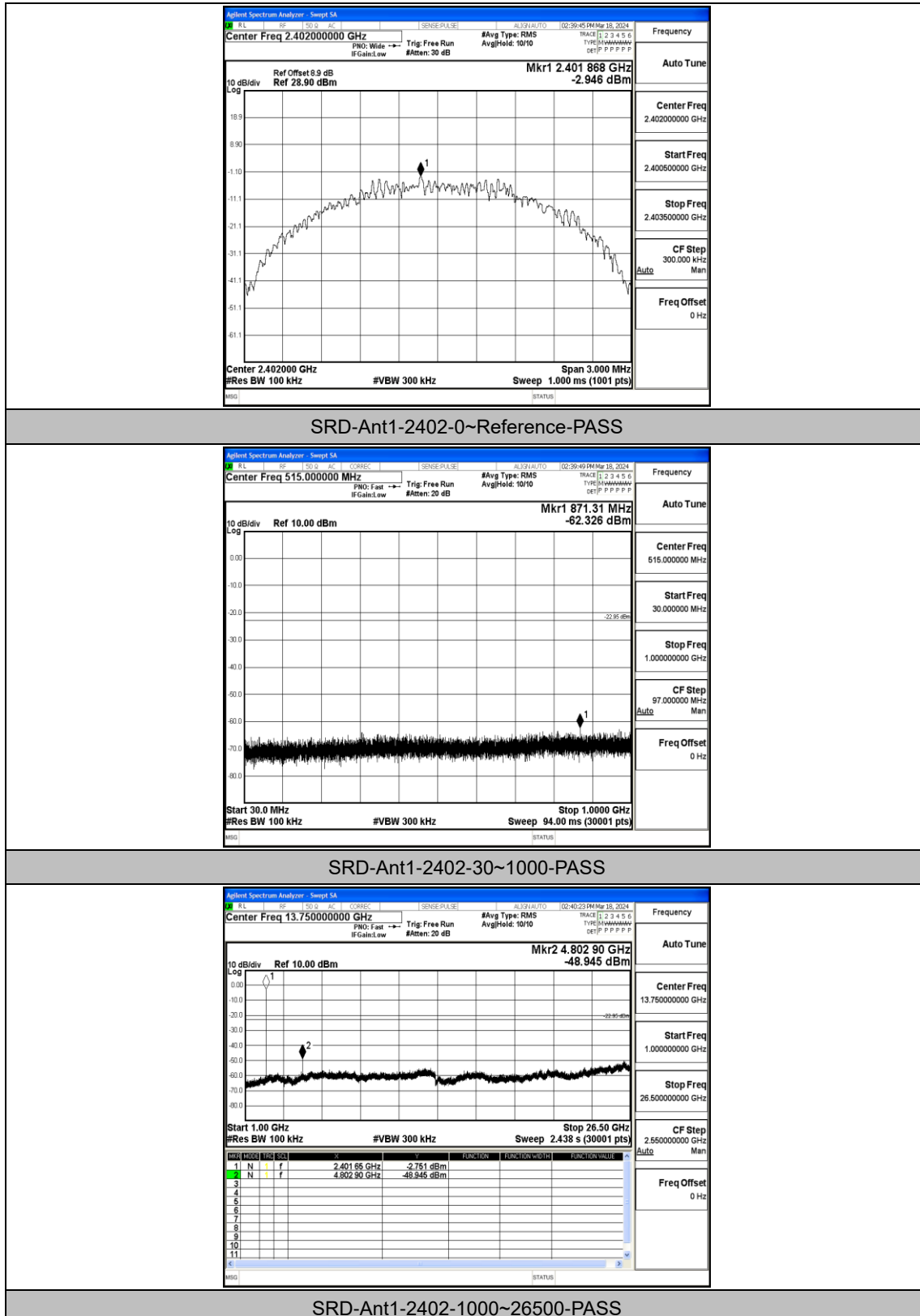


## Appendix F: Conducted Spurious Emission

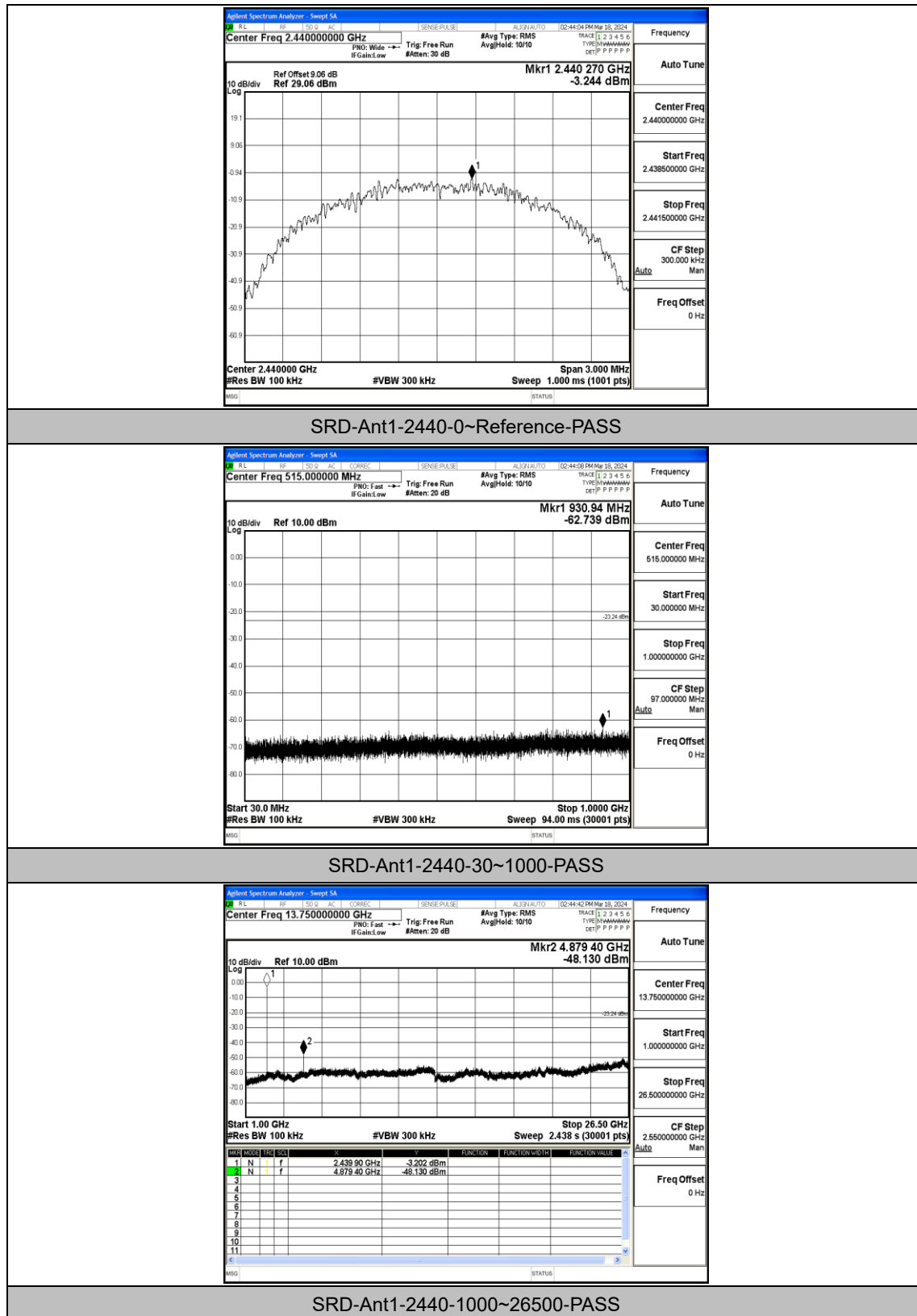
### Test Result

| TestMode | Antenna | Frequency[MHz] | FreqRange [MHz] | RefLevel [dBm] | Result[dBm] | Limit[dBm] | Verdict |
|----------|---------|----------------|-----------------|----------------|-------------|------------|---------|
| SRD      | Ant1    | 2402           | 0~Reference     | -2.95          | -2.95       | ---        | PASS    |
| SRD      | Ant1    | 2402           | 30~1000         | -2.95          | -62.33      | ≤-22.95    | PASS    |
| SRD      | Ant1    | 2402           | 1000~26500      | -2.95          | -48.95      | ≤-22.95    | PASS    |
| SRD      | Ant1    | 2440           | 0~Reference     | -3.24          | -3.24       | ---        | PASS    |
| SRD      | Ant1    | 2440           | 30~1000         | -3.24          | -62.74      | ≤-23.24    | PASS    |
| SRD      | Ant1    | 2440           | 1000~26500      | -3.24          | -48.13      | ≤-23.24    | PASS    |
| SRD      | Ant1    | 2480           | 0~Reference     | -2.88          | -2.88       | ---        | PASS    |
| SRD      | Ant1    | 2480           | 30~1000         | -2.88          | -62.75      | ≤-22.88    | PASS    |
| SRD      | Ant1    | 2480           | 1000~26500      | -2.88          | -49.36      | ≤-22.88    | PASS    |

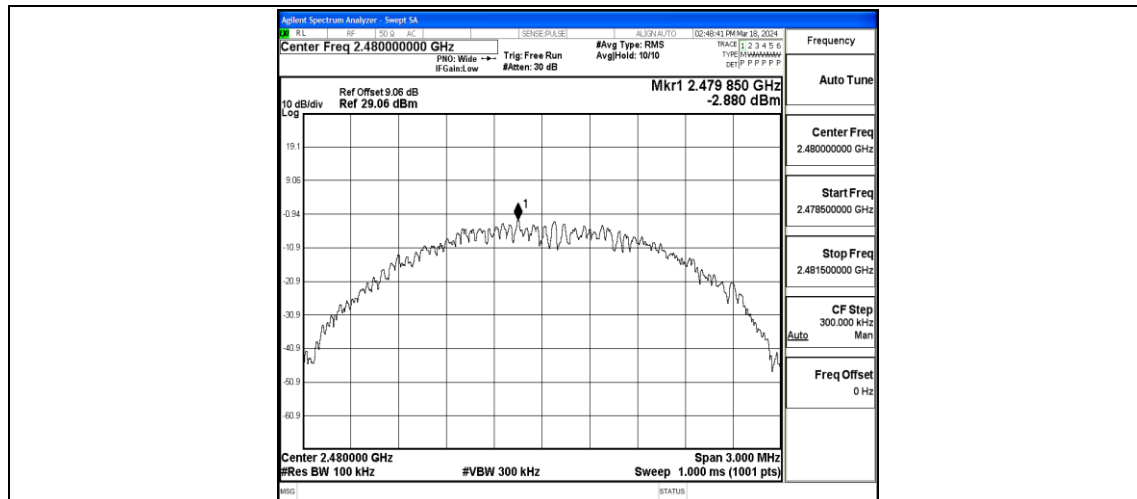
## Test Graphs



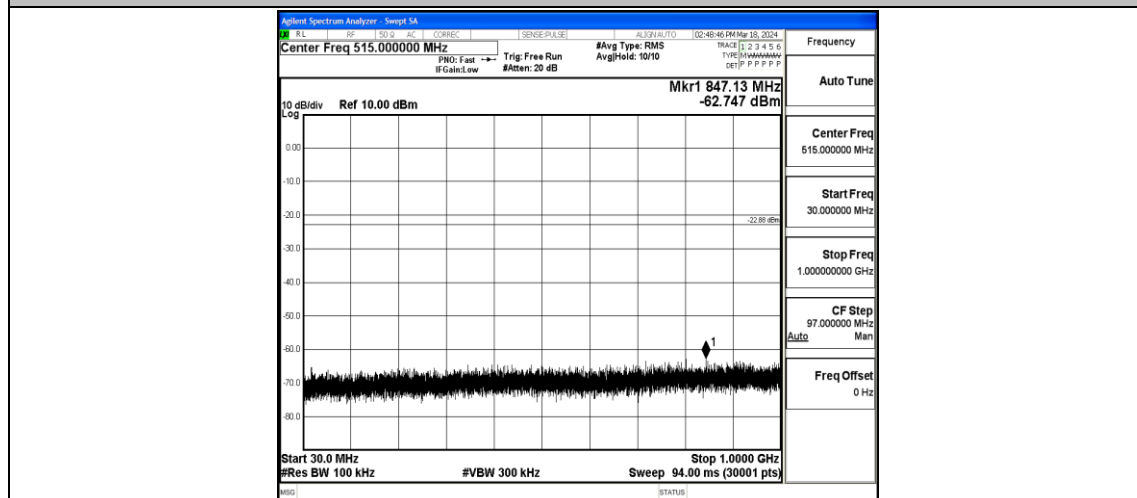
SRD-Ant1-2402-1000~26500-PASS



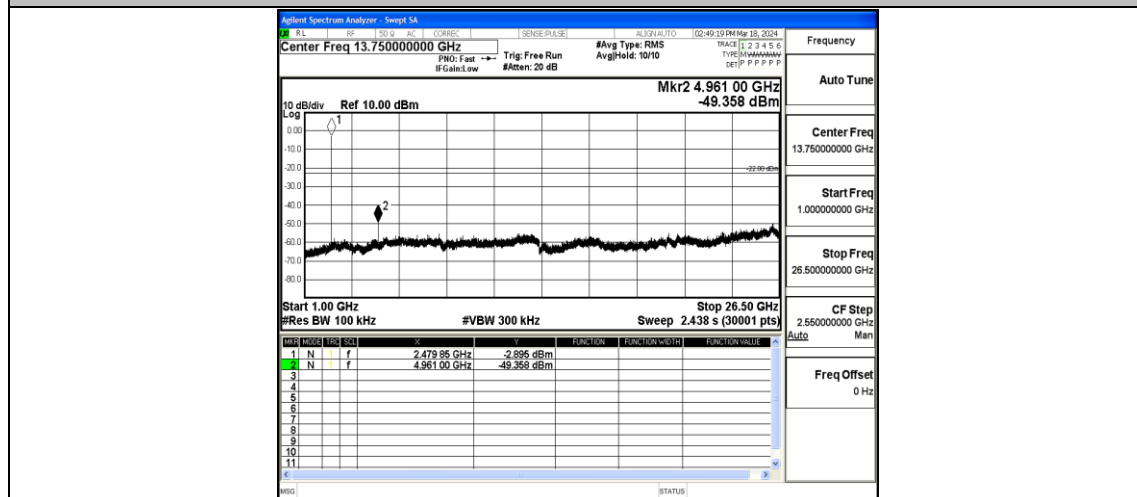
SRD-Ant1-2440-1000~26500-PASS



SRD-Ant1-2480-0~Reference-PASS



SRD-Ant1-2480-30~1000-PASS



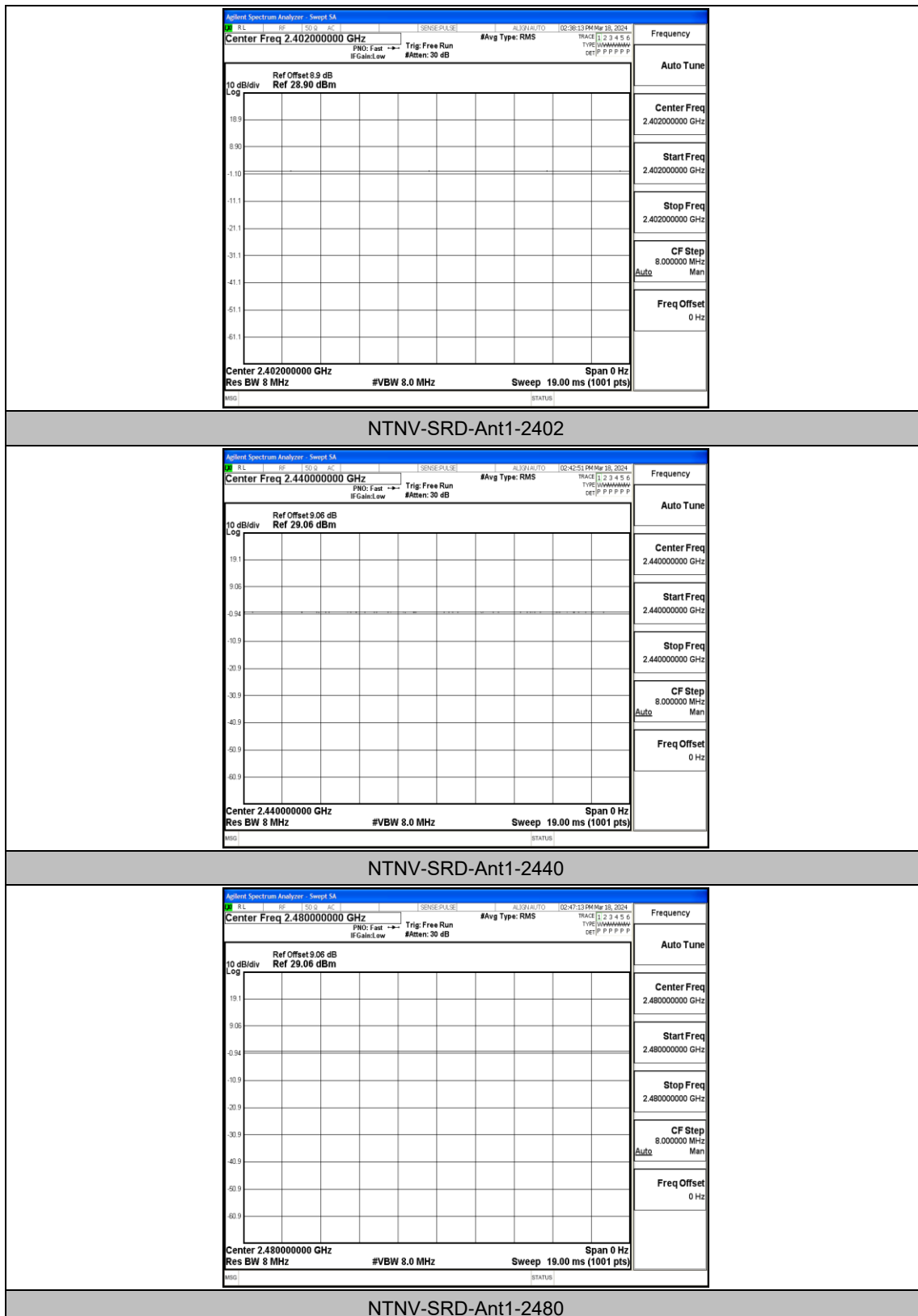
SRD-Ant1-2480-1000~26500-PASS

## Appendix G: Duty Cycle

### Test Result

| TestMode | Antenna | Frequency[MHz] | ON Time<br>[ms] | Period<br>[ms] | Duty Cycle<br>[%] |
|----------|---------|----------------|-----------------|----------------|-------------------|
| BLE_1M   | Ant1    | 2402           | 19.00           | 19.00          | 100               |
| BLE_1M   | Ant1    | 2440           | 19.00           | 19.00          | 100               |
| BLE_1M   | Ant1    | 2480           | 19.00           | 19.00          | 100               |

## Test Graphs



## Appendix H: Emissions in Restricted Bands

### Test Result

| TestMode | Antenna | ChName | Frequency[MHz] | Detector | Freq [MHz] | Result [dBm] | Limit [dBm] | Result [dBuV/m] | Limit [dBuV/m] | Verdict |
|----------|---------|--------|----------------|----------|------------|--------------|-------------|-----------------|----------------|---------|
| SRD      | Ant1    | Low    | 2402           | Peak     | 2390.000   | -43.55       | ≤-21.20     | 51.65           | ≤74            | PASS    |
| SRD      | Ant1    | Low    | 2402           | Peak     | 2310.000   | -44.07       | ≤-21.20     | 51.13           | ≤74            | PASS    |
| SRD      | Ant1    | Low    | 2402           | Peak     | 2380.745   | -40.57       | ≤-21.20     | 54.63           | ≤74            | PASS    |
| SRD      | Ant1    | Low    | 2402           | AV       | 2390.000   | -50.49       | ≤-41.20     | 44.71           | ≤54            | PASS    |
| SRD      | Ant1    | Low    | 2402           | AV       | 2310.000   | -50.09       | ≤-41.20     | 45.11           | ≤54            | PASS    |
| SRD      | Ant1    | Low    | 2402           | AV       | 2387.570   | -49.59       | ≤-41.20     | 45.61           | ≤54            | PASS    |
| SRD      | Ant1    | High   | 2480           | Peak     | 2483.500   | -43.78       | ≤-21.20     | 51.42           | ≤74            | PASS    |
| SRD      | Ant1    | High   | 2480           | Peak     | 2500.000   | -42.8        | ≤-21.20     | 52.40           | ≤74            | PASS    |
| SRD      | Ant1    | High   | 2480           | Peak     | 2490.000   | -38.72       | ≤-21.20     | 56.48           | ≤74            | PASS    |
| SRD      | Ant1    | High   | 2480           | AV       | 2483.500   | -48.82       | ≤-41.20     | 46.38           | ≤54            | PASS    |
| SRD      | Ant1    | High   | 2480           | AV       | 2500.000   | -50.1        | ≤-41.20     | 45.10           | ≤54            | PASS    |
| SRD      | Ant1    | High   | 2480           | AV       | 2483.520   | -48.82       | ≤-41.20     | 46.38           | ≤54            | 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

