

## RF Test Data for BT(BLE) (Conducted Measurement)

Product Name: Granary Automatic Pet Feeder - Camera Monitoring 5L

Trade Mark: Petlibro

Test Model: PLAF203

FCC ID: 2A3DE-PLAF203

### Environmental Conditions

|                    |           |
|--------------------|-----------|
| Temperature:       | 25.5°C    |
| Relative Humidity: | 55%       |
| ATM Pressure:      | 100.0 kPa |
| Test Engineer:     | Anna Hu   |
| Supervised by:     | Hugo Chen |
| NOTE               | N/A       |

### Appendix A: DTS Bandwidth

#### Test Result

| TestMode | Antenna | Channel | DTS BW [MHz] | FL[MHz]  | FH[MHz]  | Limit[MHz] | Verdict |
|----------|---------|---------|--------------|----------|----------|------------|---------|
| BLE_1M   | Ant1    | 2402    | 0.808        | 2401.708 | 2402.516 | 0.5        | PASS    |
|          |         | 2440    | 0.744        | 2439.728 | 2440.472 | 0.5        | PASS    |
|          |         | 2480    | 0.792        | 2479.728 | 2480.520 | 0.5        | PASS    |

Test Graphs

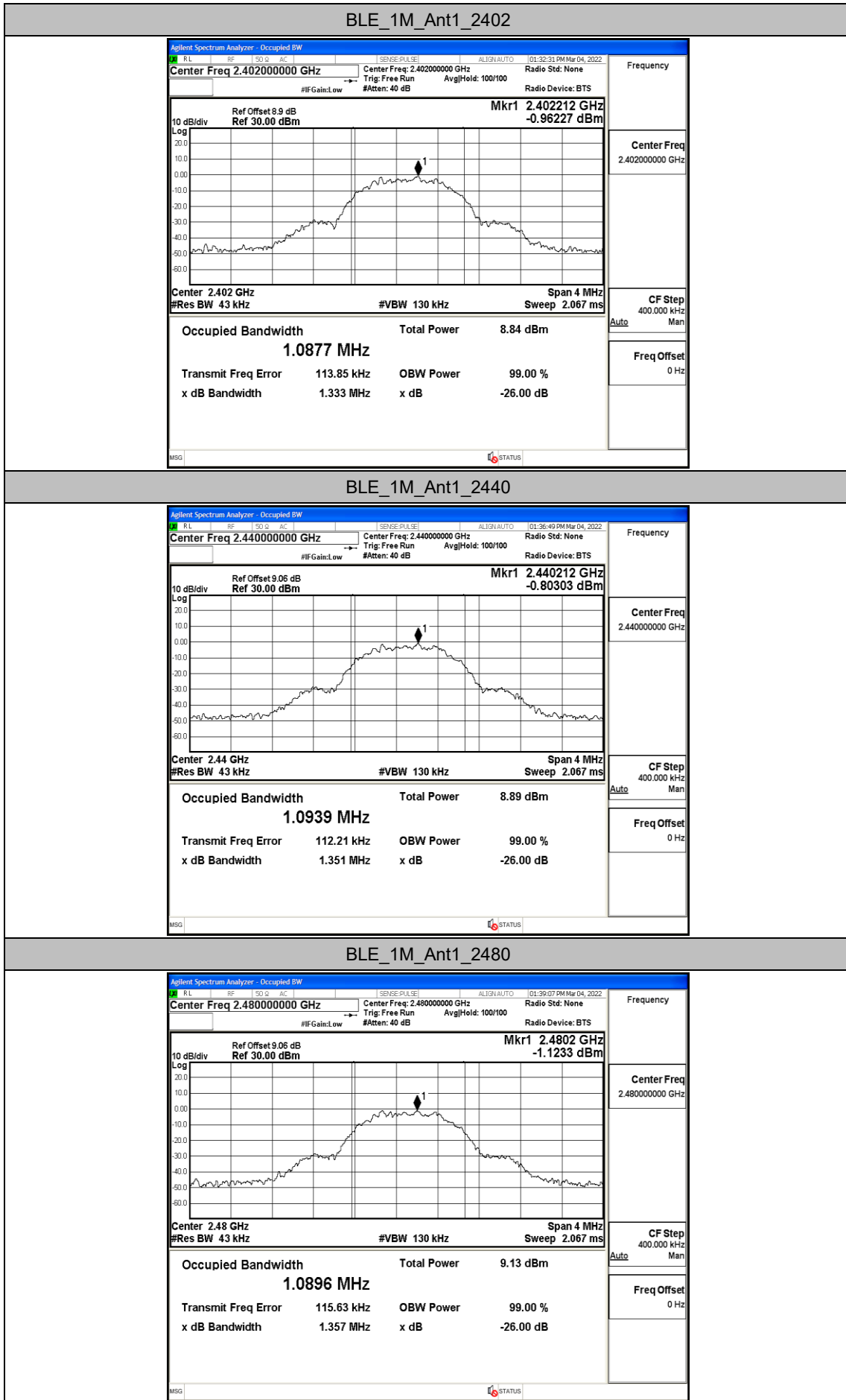


## Appendix B: Occupied Channel Bandwidth

### Test Result

| TestMode | Antenna | Channel | OCB [MHz] | FL[MHz]  | FH[MHz]  | Limit[MHz] | Verdict |
|----------|---------|---------|-----------|----------|----------|------------|---------|
| BLE_1M   | Ant1    | 2402    | 1.0877    | 2401.570 | 2402.658 | ---        | PASS    |
|          |         | 2440    | 1.0939    | 2439.565 | 2440.659 | ---        | PASS    |
|          |         | 2480    | 1.0896    | 2479.571 | 2480.660 | ---        | PASS    |

Test Graphs

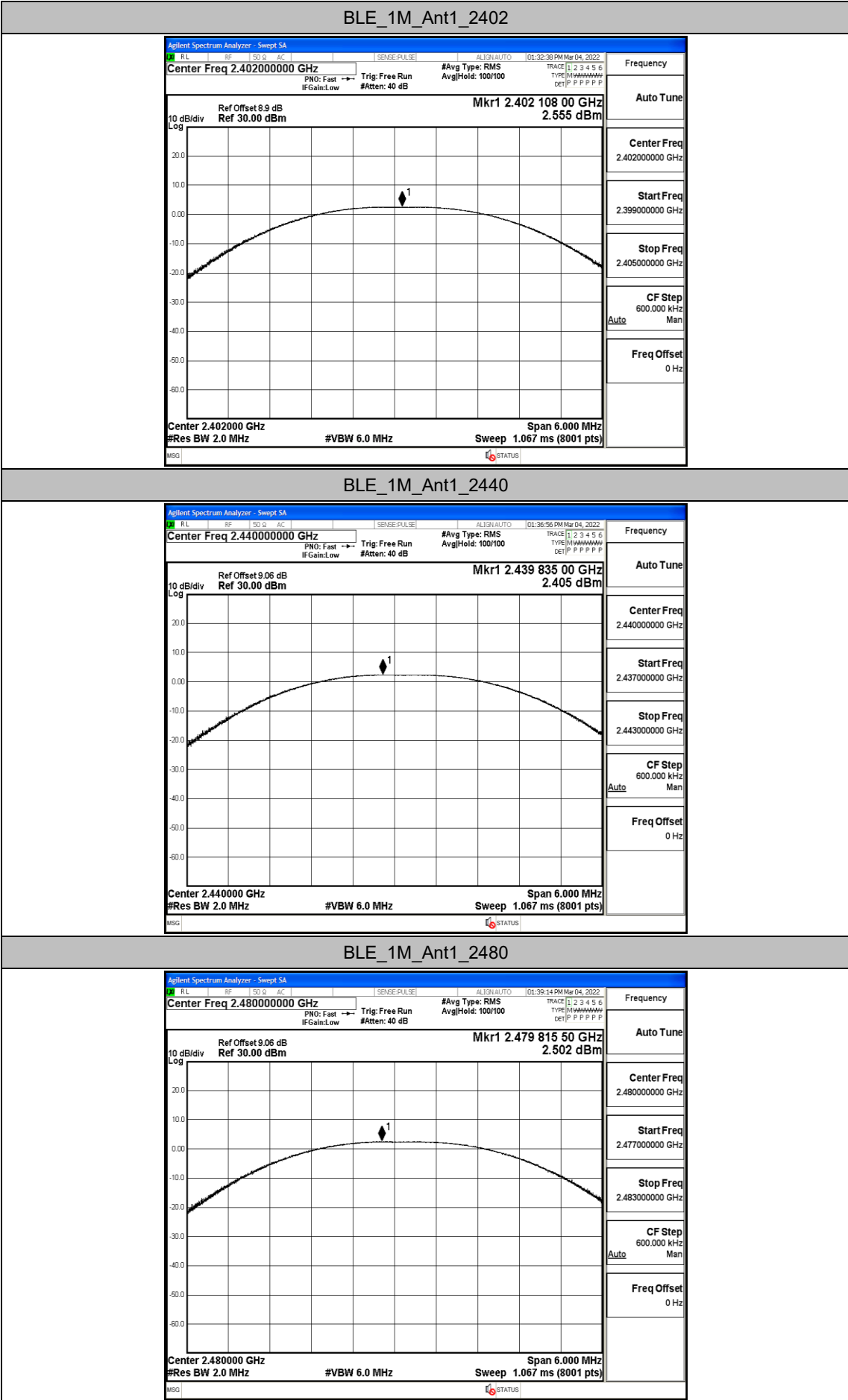


## Appendix C: Maximum conducted output power

### Test Result

| TestMode | Antenna | Channel | Result[dBm] | Limit[dBm] | Verdict |
|----------|---------|---------|-------------|------------|---------|
| BLE_1M   | Ant1    | 2402    | 2.56        | ≤30        | PASS    |
|          |         | 2440    | 2.41        | ≤30        | PASS    |
|          |         | 2480    | 2.5         | ≤30        | PASS    |

### Test Graphs

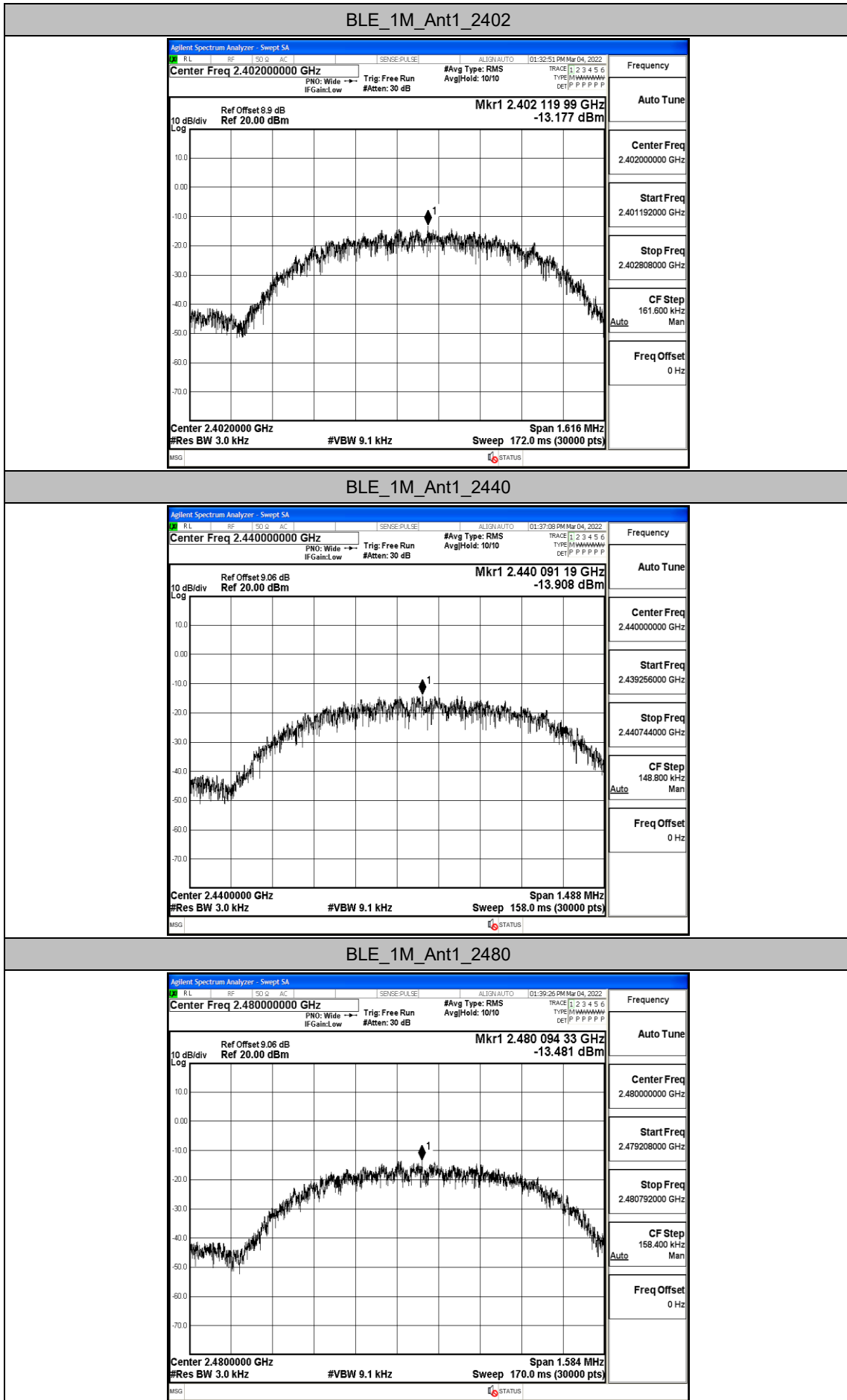


## Appendix D: Maximum power spectral density

### Test Result

| TestMode | Antenna | Channel | Result[dBm/3-100kHz] | Limit[dBm/3kHz] | Verdict |
|----------|---------|---------|----------------------|-----------------|---------|
| BLE_1M   | Ant1    | 2402    | -13.18               | ≤8              | PASS    |
|          |         | 2440    | -13.91               | ≤8              | PASS    |
|          |         | 2480    | -13.48               | ≤8              | PASS    |

### Test Graphs



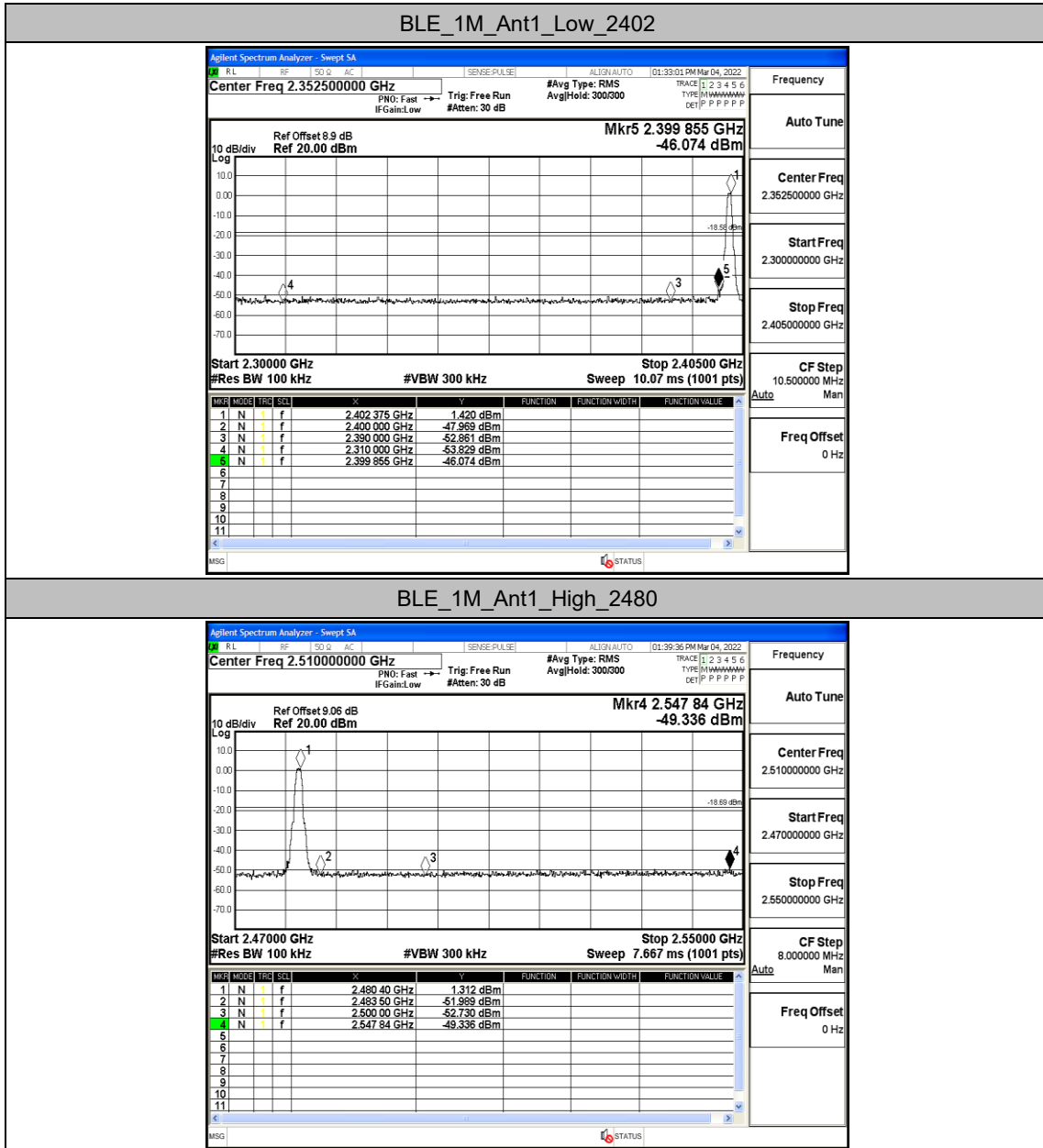


## Appendix E: Band edge measurements

### Test Result

| TestMode | Antenna | ChName | Channel | RefLevel[dBm] | Result[dBm] | Limit[dBm] | Verdict |
|----------|---------|--------|---------|---------------|-------------|------------|---------|
| BLE_1M   | Ant1    | Low    | 2402    | 1.42          | -46.07      | ≤-18.58    | PASS    |
|          |         | High   | 2480    | 1.31          | -49.34      | ≤-18.69    | PASS    |

Test Graphs

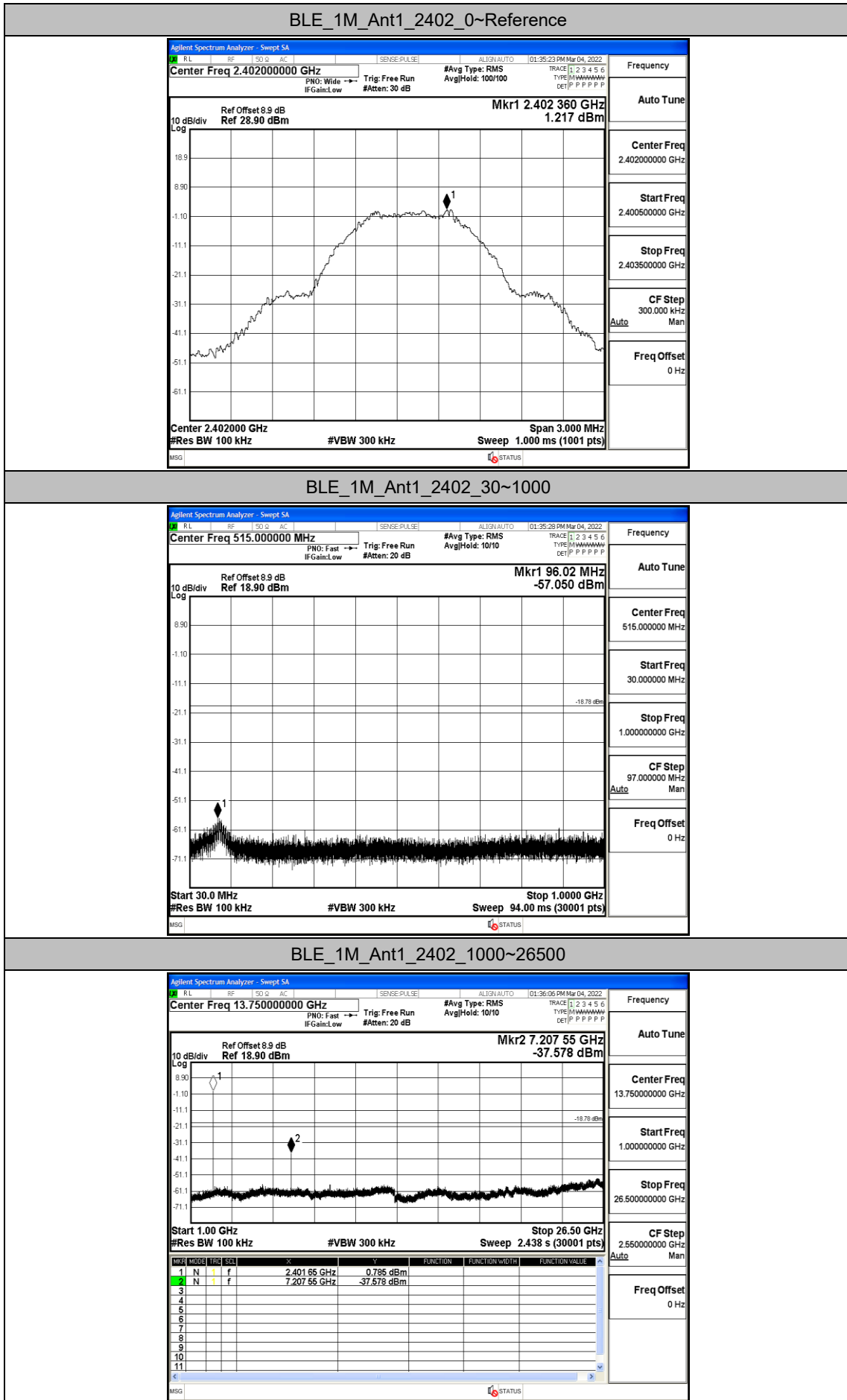


## Appendix F: Conducted Spurious Emission

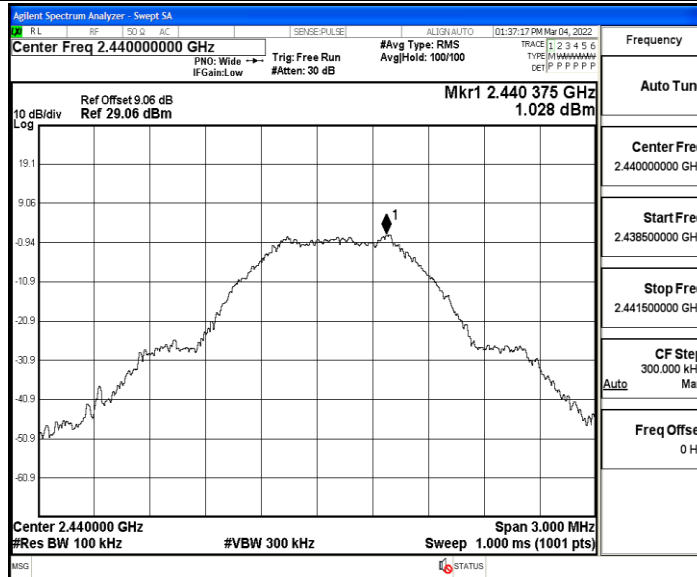
### Test Result

| TestMode | Antenna | Channel | FreqRange [MHz] | RefLevel [dBm] | Result[dBm] | Limit[dBm] | Verdict |
|----------|---------|---------|-----------------|----------------|-------------|------------|---------|
| BLE_1M   | Ant1    | 2402    | Reference       | 1.22           | 1.22        | ---        | PASS    |
|          |         |         | 30~1000         | 1.22           | -57.05      | ≤-18.78    | PASS    |
|          |         |         | 1000~26500      | 1.22           | -37.58      | ≤-18.78    | PASS    |
|          |         | 2440    | Reference       | 1.03           | 1.03        | ---        | PASS    |
|          |         |         | 30~1000         | 1.03           | -56.48      | ≤-18.97    | PASS    |
|          |         |         | 1000~26500      | 1.03           | -37.26      | ≤-18.97    | PASS    |
|          |         | 2480    | Reference       | 1.21           | 1.21        | ---        | PASS    |
|          |         |         | 30~1000         | 1.21           | -58.1       | ≤-18.79    | PASS    |
|          |         |         | 1000~26500      | 1.21           | -35.87      | ≤-18.79    | PASS    |

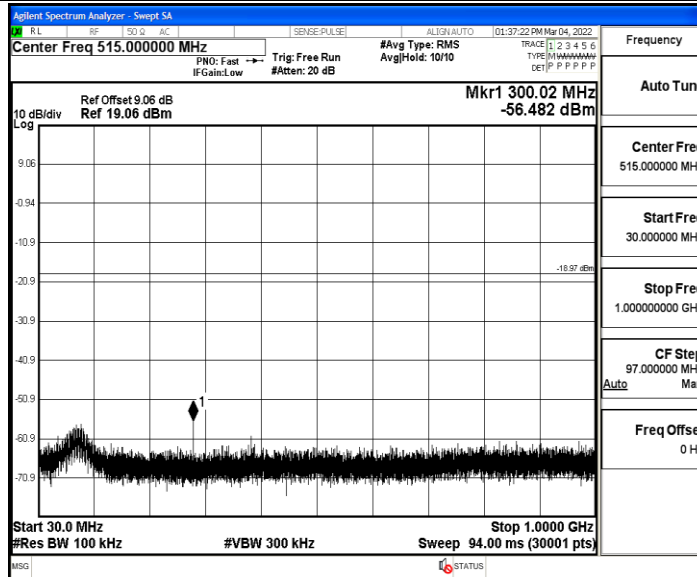
Test Graphs



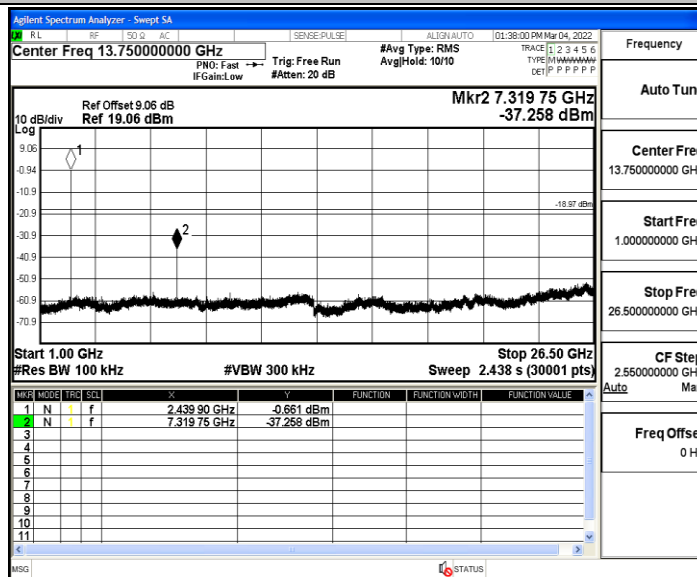
BLE\_1M\_Ant1\_2440\_0~Reference



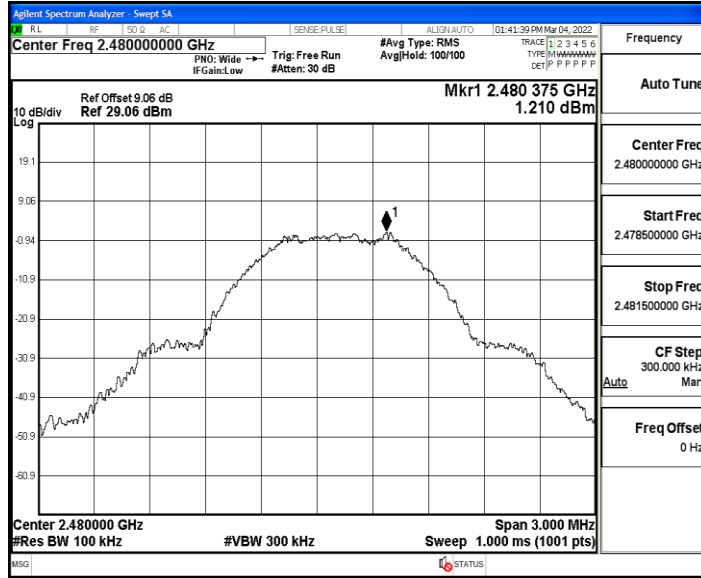
BLE\_1M\_Ant1\_2440\_30~1000



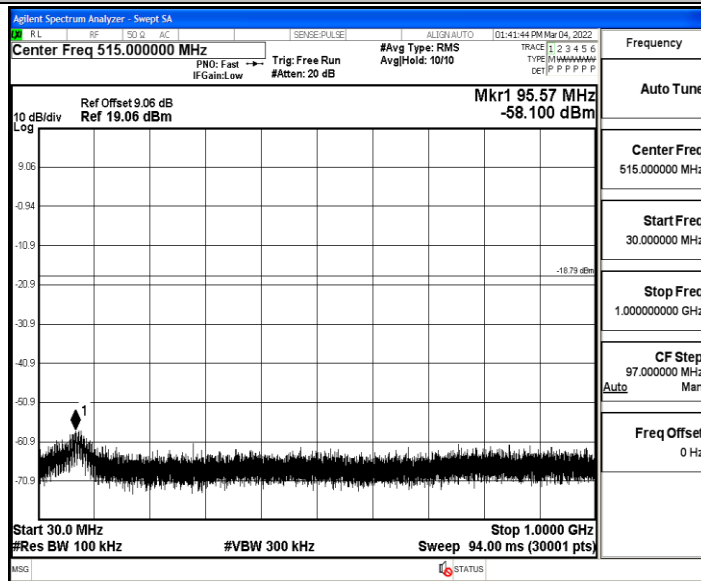
BLE\_1M\_Ant1\_2440\_1000~26500



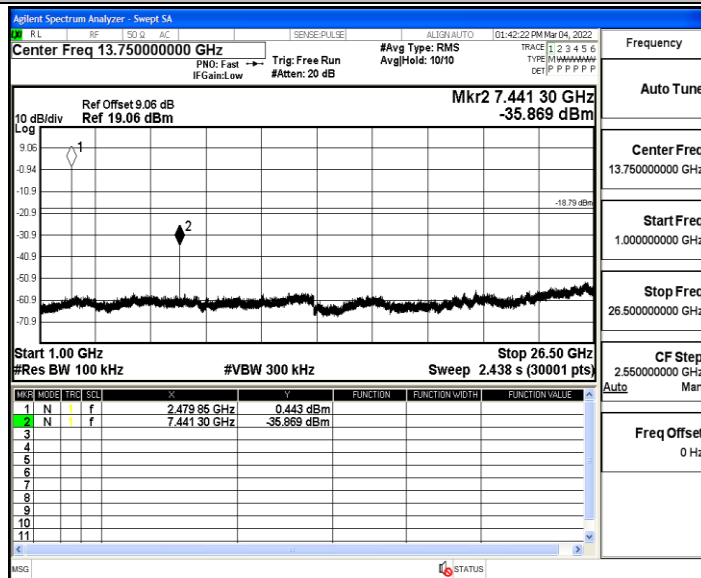
BLE\_1M\_Ant1\_2480\_0~Reference



BLE\_1M\_Ant1\_2480\_30~1000



BLE\_1M\_Ant1\_2480\_1000~26500

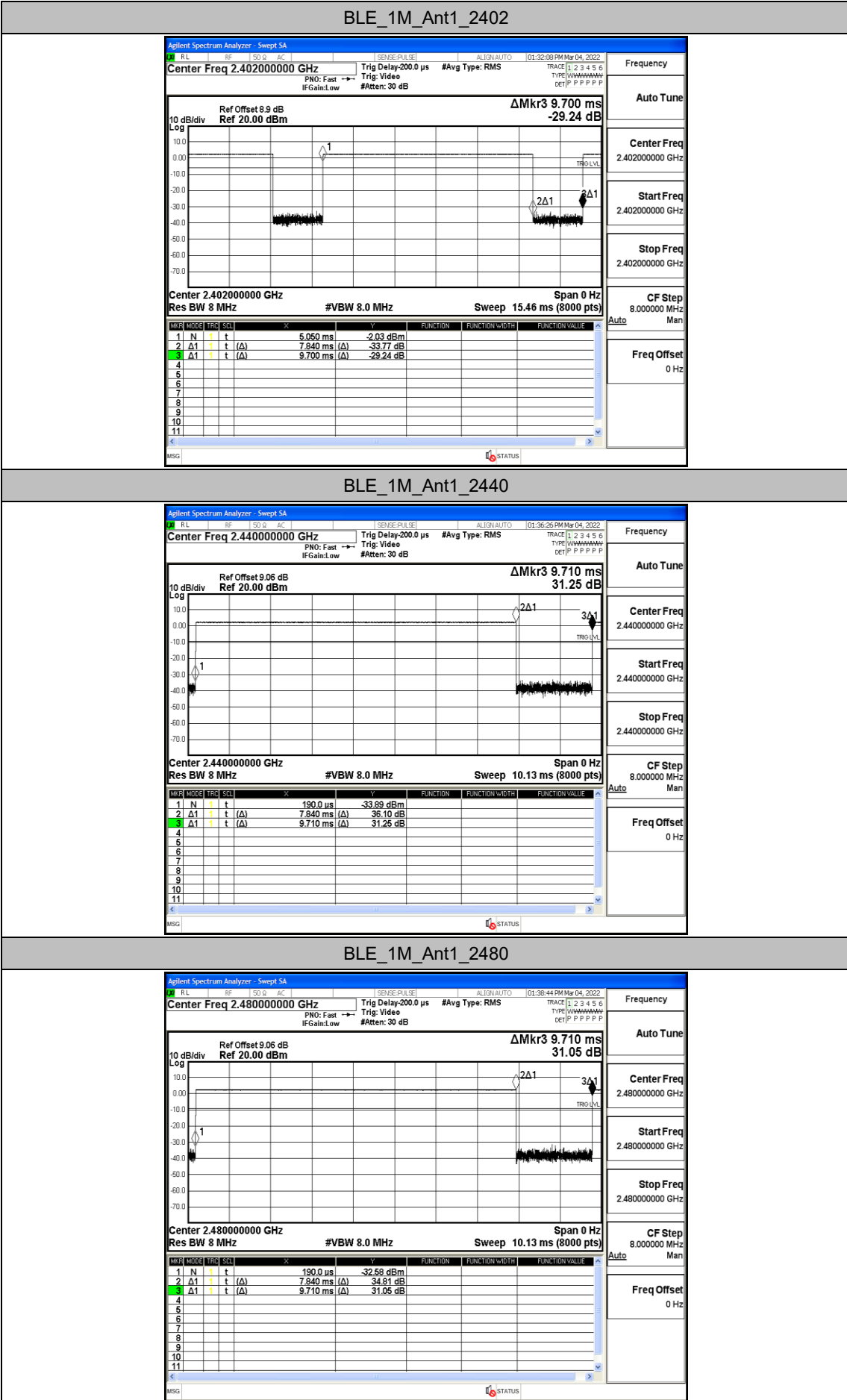


## Appendix G: Duty Cycle

### Test Result

| TestMode | Antenna | Channel | Transmission Duration [ms] | Transmission Period [ms] | Duty Cycle [%] | 1/B [kHz] |
|----------|---------|---------|----------------------------|--------------------------|----------------|-----------|
| BLE_1M   | Ant1    | 2402    | 7.84                       | 9.70                     | 80.82          | 0.13      |
|          |         | 2440    | 7.84                       | 9.71                     | 80.74          | 0.13      |
|          |         | 2480    | 7.84                       | 9.71                     | 80.74          | 0.13      |

Test Graphs





## Appendix H: Emissions in Restricted Bands

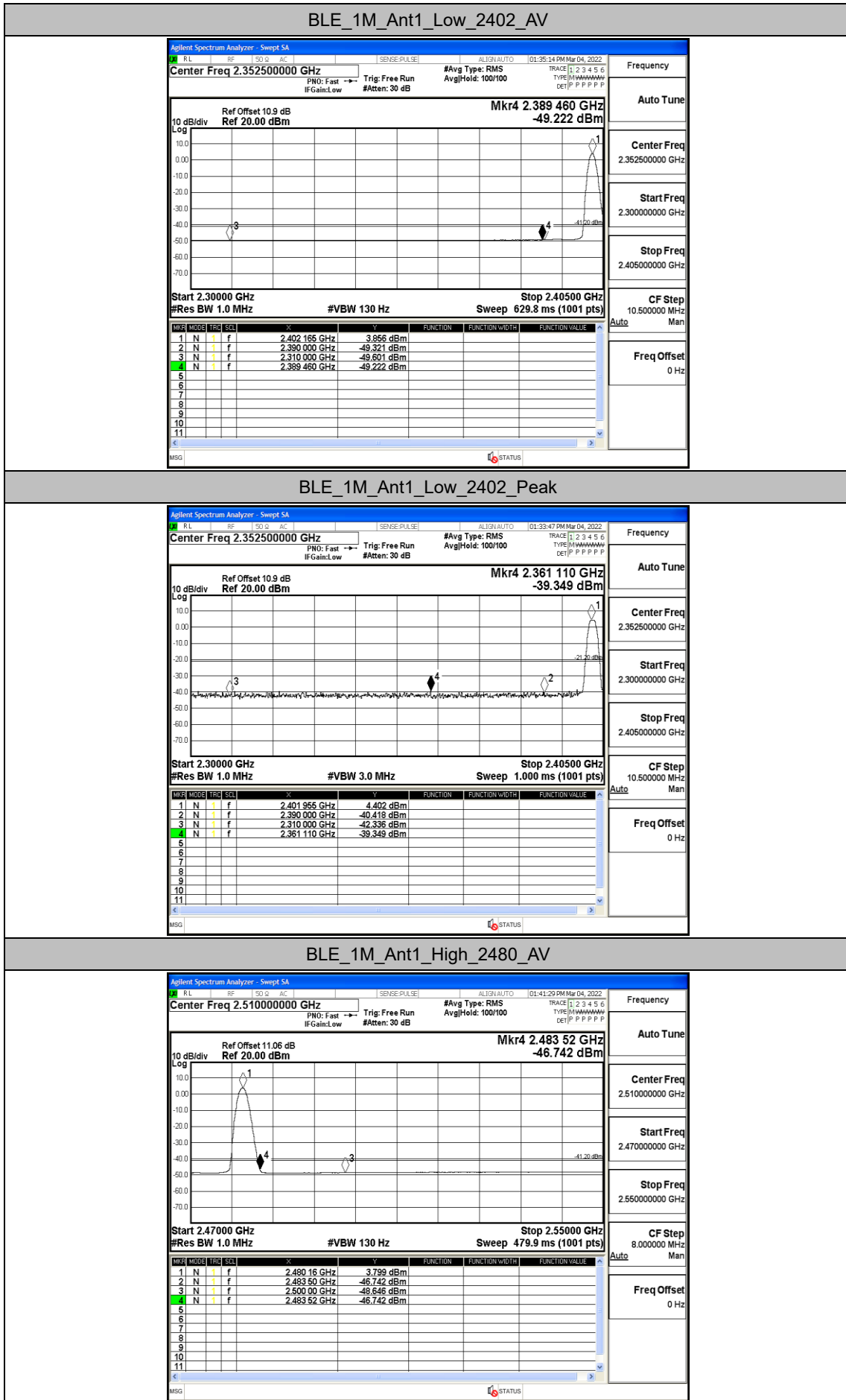
### Test Result

| TestMode | Antenna | ChName | Channel | Detector | Freq. [MHz] | Result [dBm] | Limit [dBm] | Verdict |
|----------|---------|--------|---------|----------|-------------|--------------|-------------|---------|
| BLE_1M   | Ant1    | Low    | 2402    | AV       | 2310.000    | -49.6        | ≤-41.20     | PASS    |
|          |         |        |         | AV       | 2389.460    | -49.22       | ≤-41.20     | PASS    |
|          |         |        |         | AV       | 2390.000    | -49.32       | ≤-41.20     | PASS    |
|          |         |        |         | Peak     | 2310.000    | -42.34       | ≤-21.20     | PASS    |
|          |         |        |         | Peak     | 2361.110    | -39.35       | ≤-21.20     | PASS    |
|          |         |        |         | Peak     | 2390.000    | -40.42       | ≤-21.20     | PASS    |
|          |         | High   | 2480    | AV       | 2483.500    | -46.74       | ≤-41.20     | PASS    |
|          |         |        |         | AV       | 2483.520    | -46.74       | ≤-41.20     | PASS    |
|          |         |        |         | AV       | 2500.000    | -48.65       | ≤-41.20     | PASS    |
|          |         |        |         | Peak     | 2483.500    | -41.53       | ≤-21.20     | PASS    |
|          |         |        |         | Peak     | 2494.880    | -39.1        | ≤-21.20     | PASS    |
|          |         |        |         | Peak     | 2500.000    | -42.03       | ≤-21.20     | PASS    |

#### Note:

1. The Antenna Gain is compensated in the graph with 2dBi and Antenna Gain which is Higher.
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



BLE\_1M\_Ant1\_High\_2480\_Peak

