

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

Product Name: AoA positioning Locator

Trade Mark: Dusun

Test Model: DSGW-200

FCC ID: 2AUXBDSGW-200

### Environmental Conditions

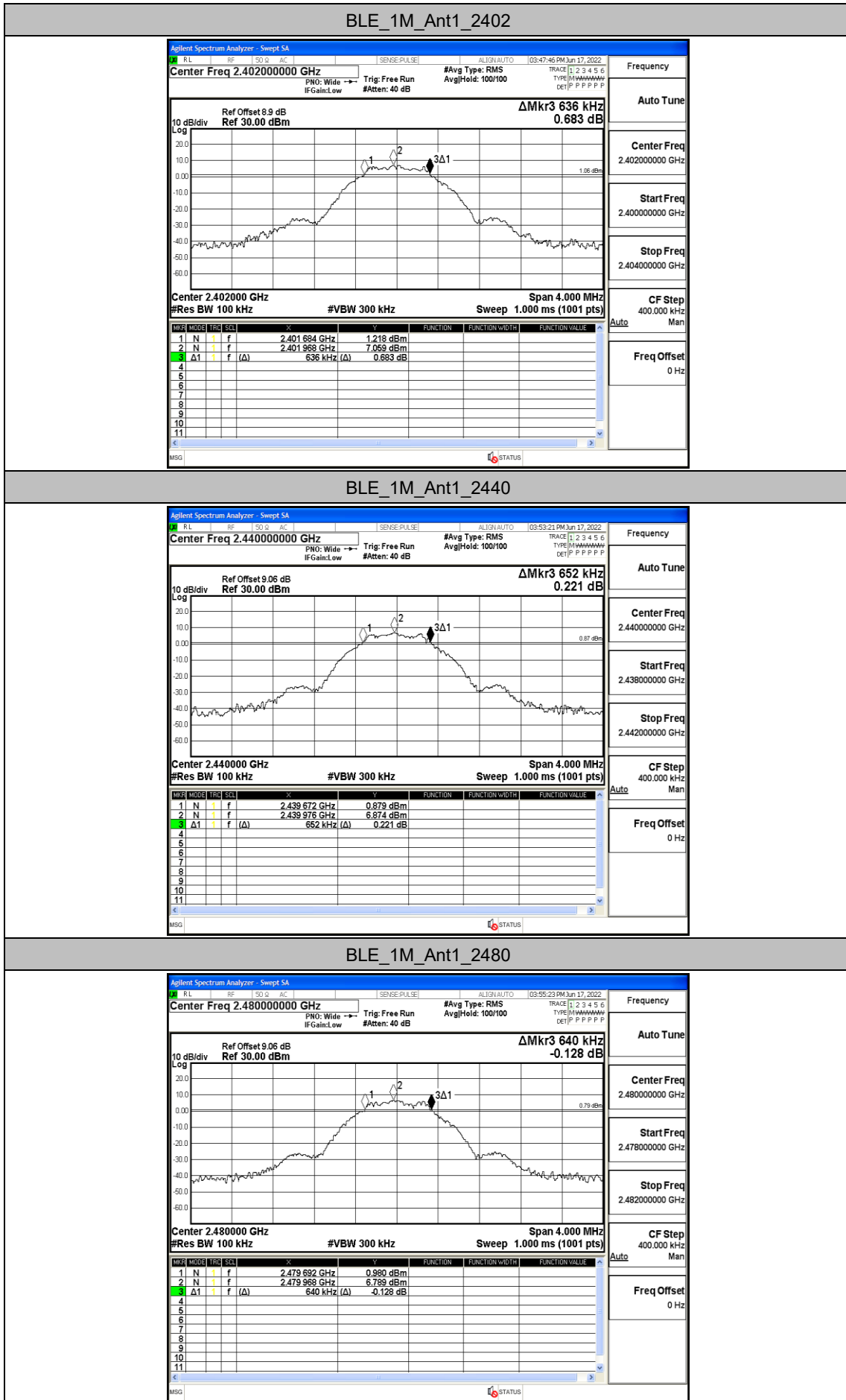
|                    |           |
|--------------------|-----------|
| Temperature:       | 25.5°C    |
| Relative Humidity: | 55%       |
| ATM Pressure:      | 100.0 kPa |
| Test Engineer:     | Anna Hu   |
| Supervised by:     | Hugo Chen |
| NOTE               | N/A       |

## Appendix A: DTS Bandwidth

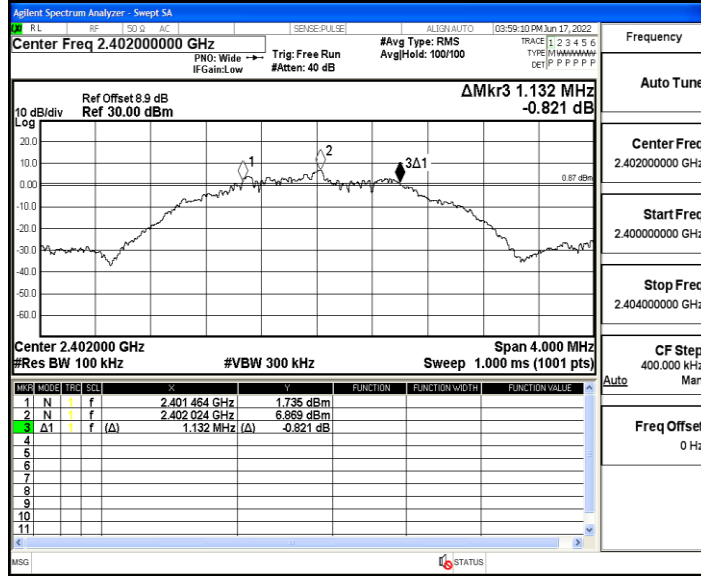
### Test Result

| TestMode | Antenna | Channel | DTS BW [MHz] | FL[MHz]  | FH[MHz]  | Limit[MHz] | Verdict |
|----------|---------|---------|--------------|----------|----------|------------|---------|
| BLE_1M   | Ant1    | 2402    | 0.636        | 2401.684 | 2402.320 | 0.5        | PASS    |
|          |         | 2440    | 0.652        | 2439.672 | 2440.324 | 0.5        | PASS    |
|          |         | 2480    | 0.640        | 2479.692 | 2480.332 | 0.5        | PASS    |
| BLE_2M   | Ant1    | 2402    | 1.132        | 2401.464 | 2402.596 | 0.5        | PASS    |
|          |         | 2440    | 1.096        | 2439.456 | 2440.552 | 0.5        | PASS    |
|          |         | 2480    | 1.124        | 2479.432 | 2480.556 | 0.5        | PASS    |

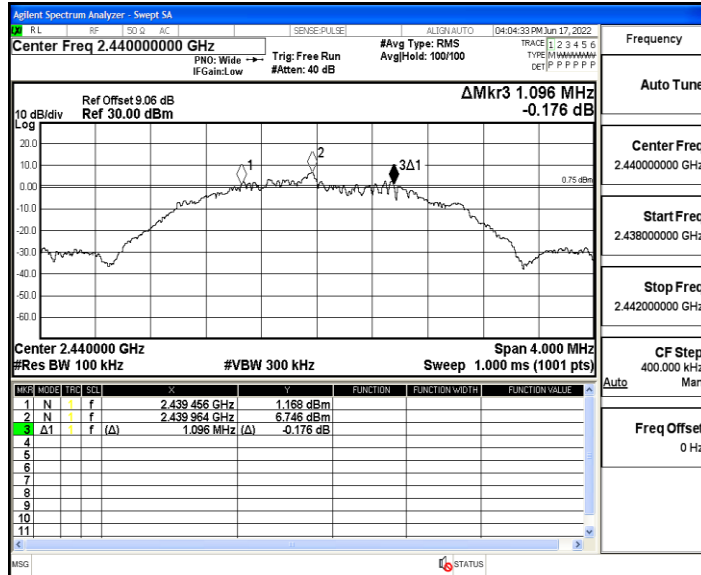
Test Graphs



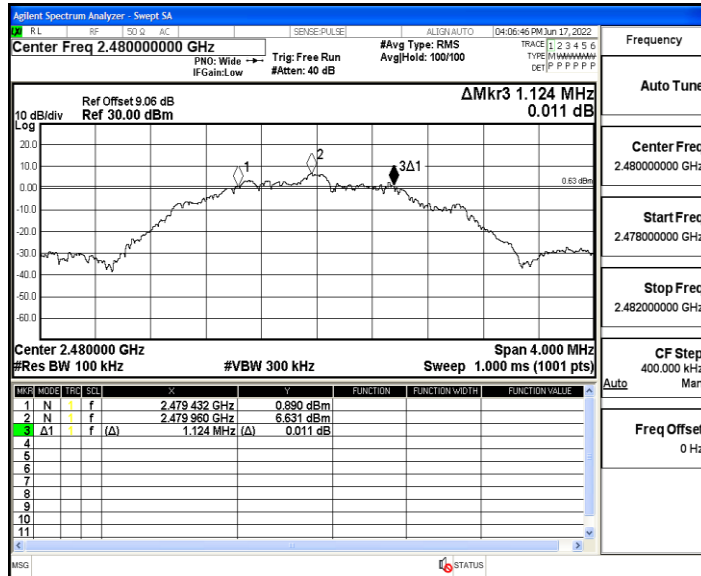
BLE\_2M\_Ant1\_2402



BLE\_2M\_Ant1\_2440



BLE\_2M\_Ant1\_2480

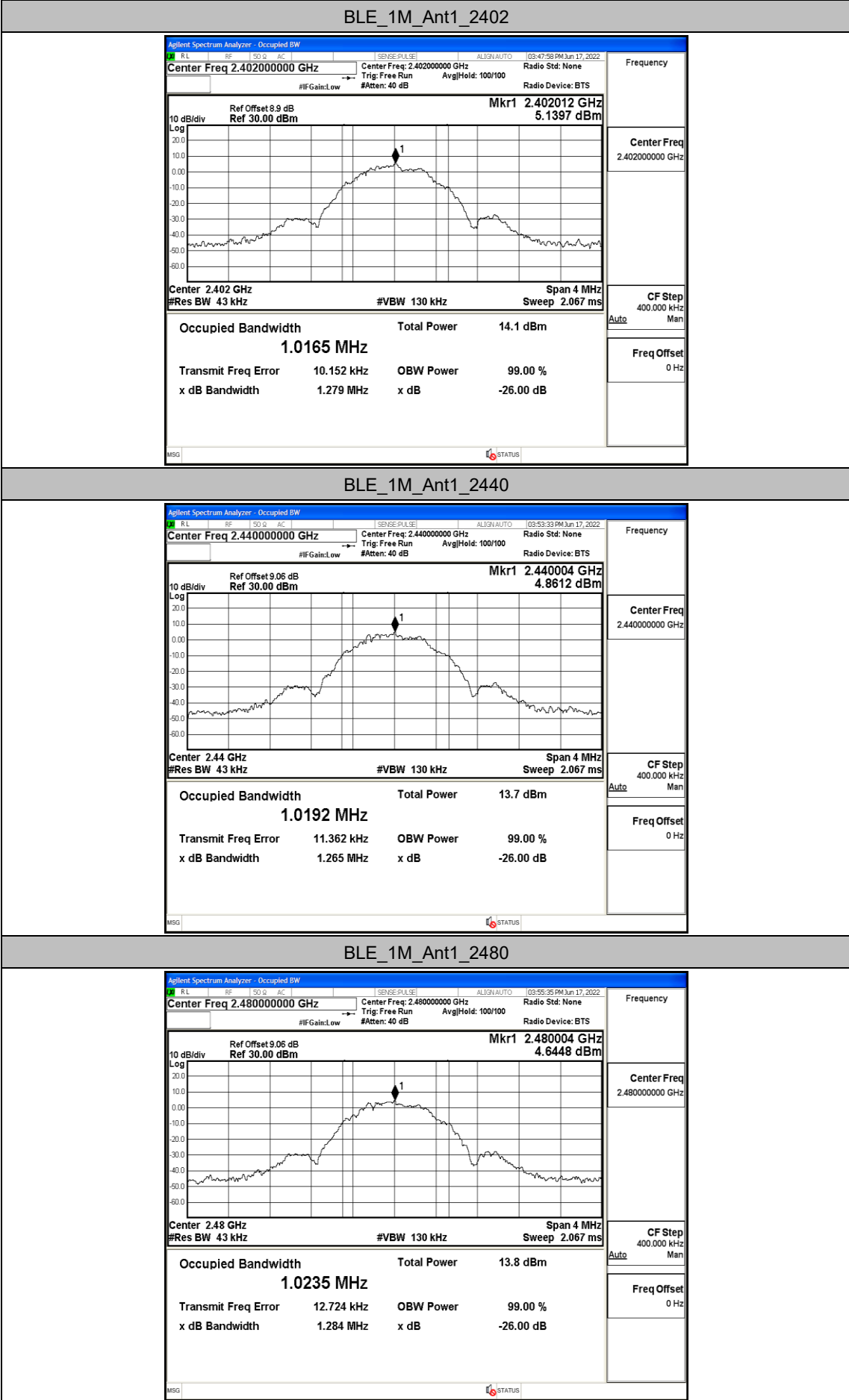


## Appendix B: Occupied Channel Bandwidth

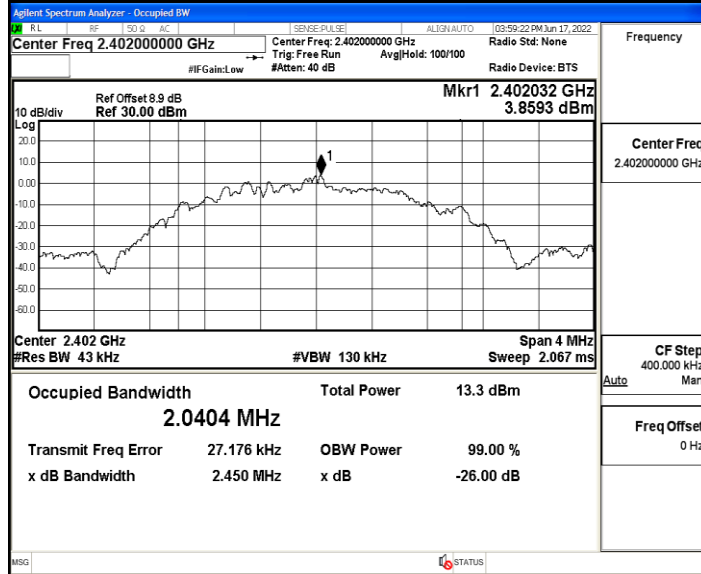
### Test Result

| TestMode | Antenna | Channel | OCB [MHz] | FL[MHz]  | FH[MHz]  | Limit[MHz] | Verdict |
|----------|---------|---------|-----------|----------|----------|------------|---------|
| BLE_1M   | Ant1    | 2402    | 1.0165    | 2401.502 | 2402.518 | ---        | ---     |
|          |         | 2440    | 1.0192    | 2439.502 | 2440.521 | ---        | ---     |
|          |         | 2480    | 1.0235    | 2479.501 | 2480.524 | ---        | ---     |
| BLE_2M   | Ant1    | 2402    | 2.0404    | 2401.007 | 2403.047 | ---        | ---     |
|          |         | 2440    | 2.0282    | 2439.009 | 2441.038 | ---        | ---     |
|          |         | 2480    | 2.0304    | 2479.011 | 2481.042 | ---        | ---     |

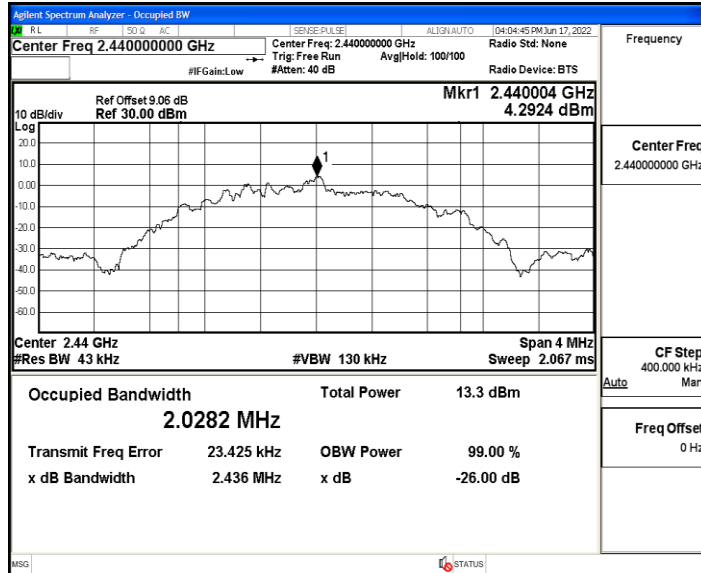
### Test Graphs



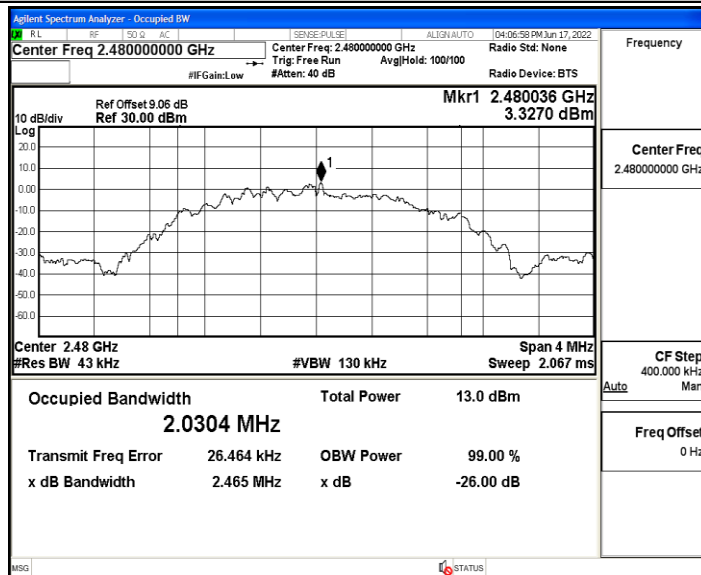
BLE\_2M\_Ant1\_2402



BLE\_2M\_Ant1\_2440



BLE\_2M\_Ant1\_2480

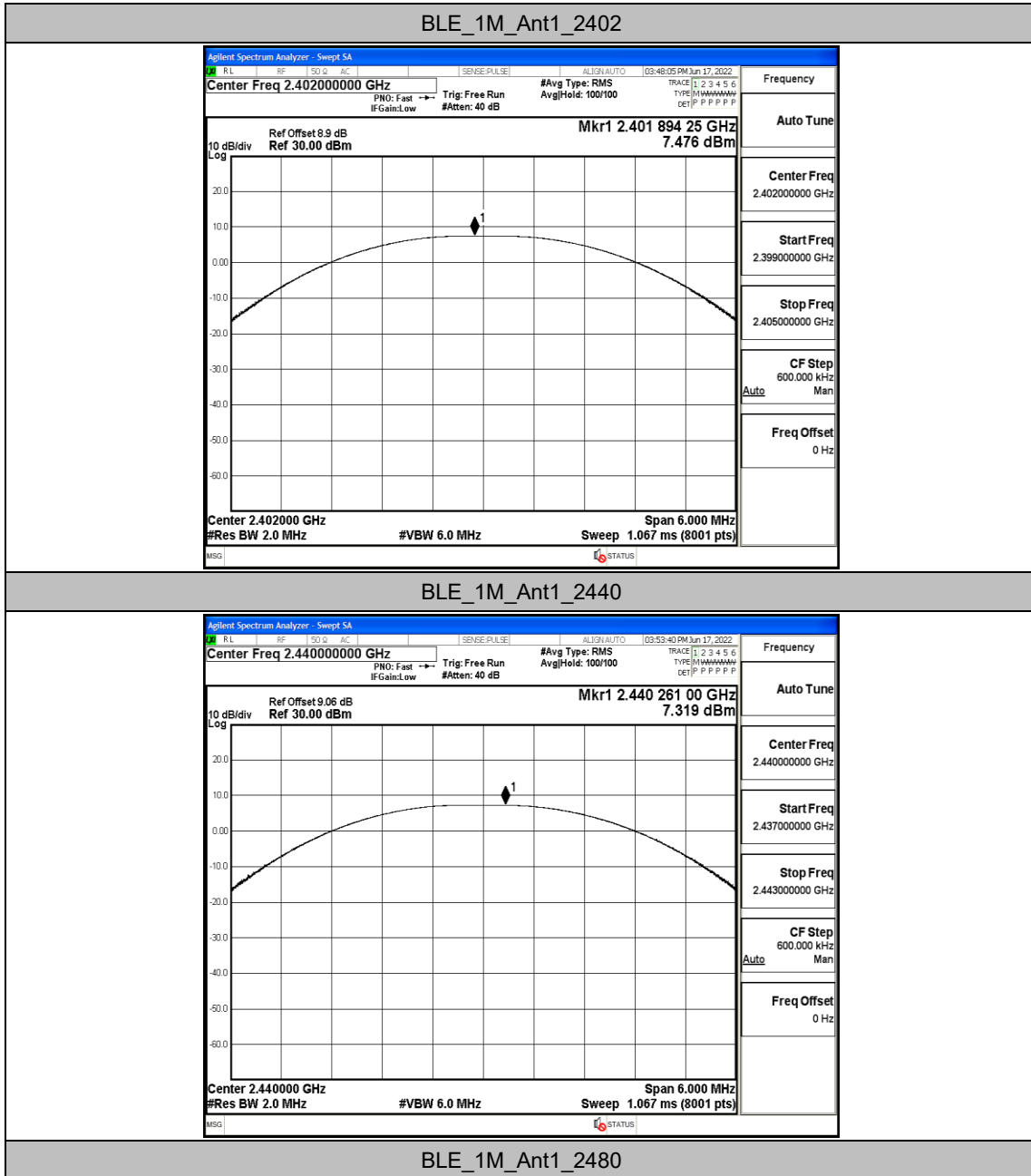


## Appendix C: Maximum Peak conducted output power

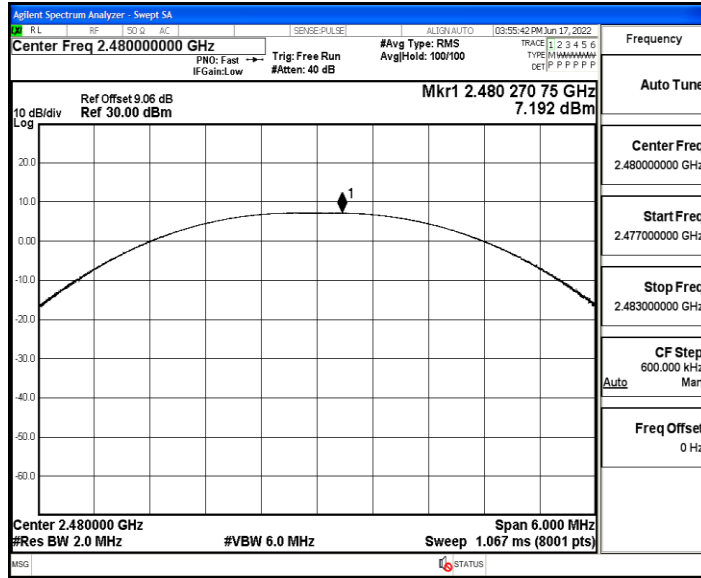
### Test Result

| TestMode | Antenna | Channel | Result[dBm] | Limit[dBm] | Verdict |
|----------|---------|---------|-------------|------------|---------|
| BLE_1M   | Ant1    | 2402    | 7.48        | ≤30        | PASS    |
|          |         | 2440    | 7.32        | ≤30        | PASS    |
|          |         | 2480    | 7.19        | ≤30        | PASS    |
| BLE_2M   | Ant1    | 2402    | 7.5         | ≤30        | PASS    |
|          |         | 2440    | 7.31        | ≤30        | PASS    |
|          |         | 2480    | 7.2         | ≤30        | PASS    |

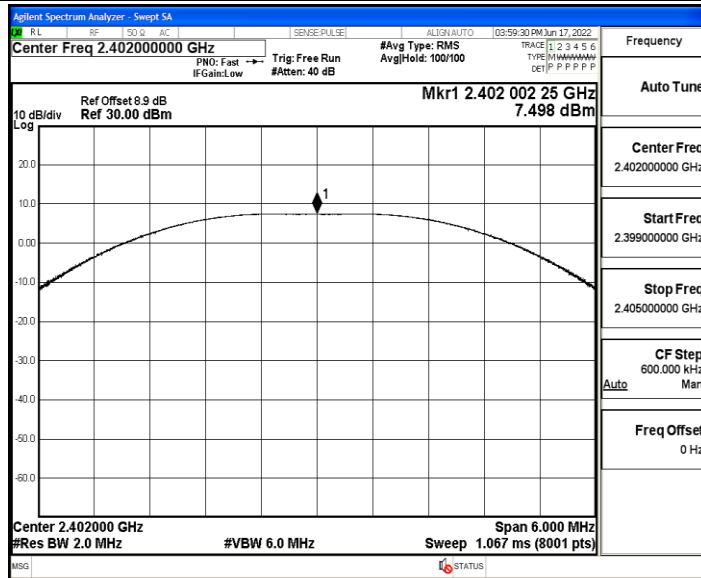
### Test Graphs



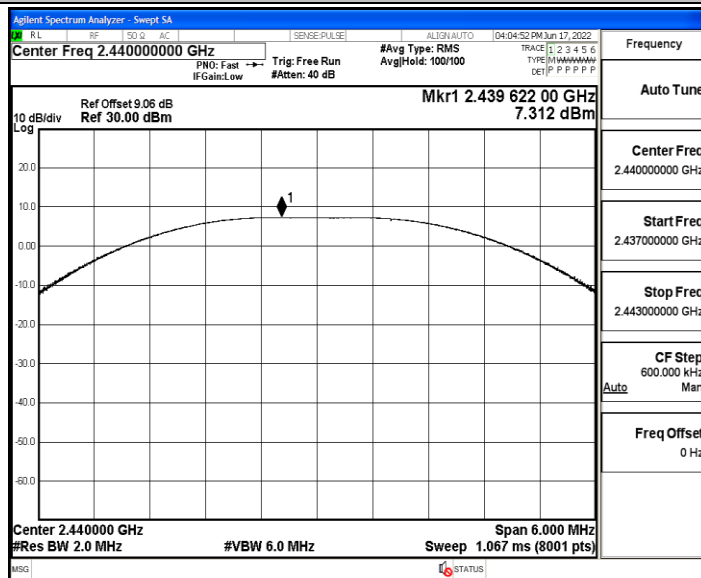




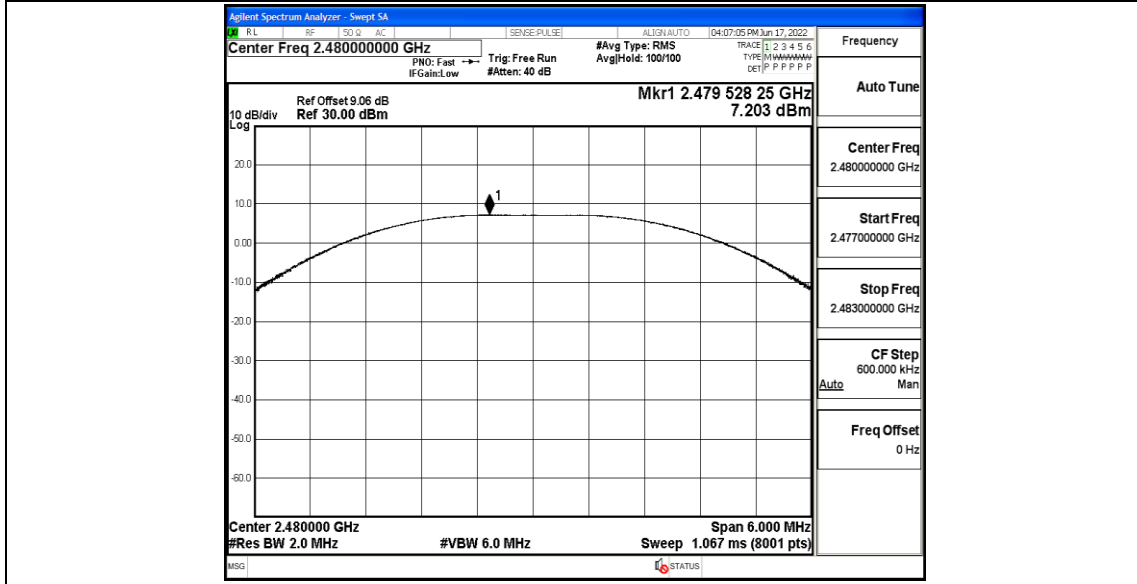
BLE\_2M\_Ant1\_2402



BLE\_2M\_Ant1\_2440



BLE\_2M\_Ant1\_2480

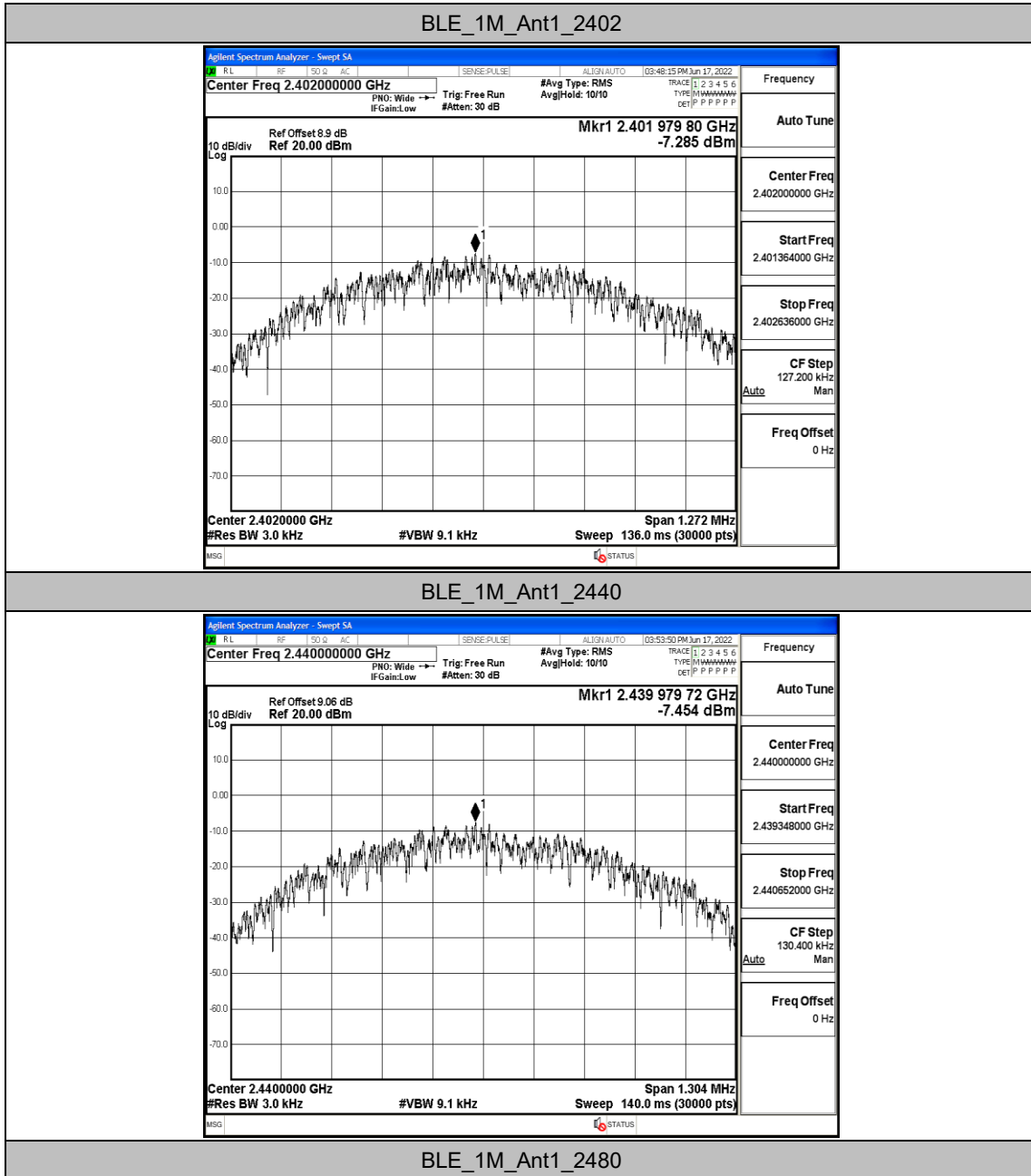


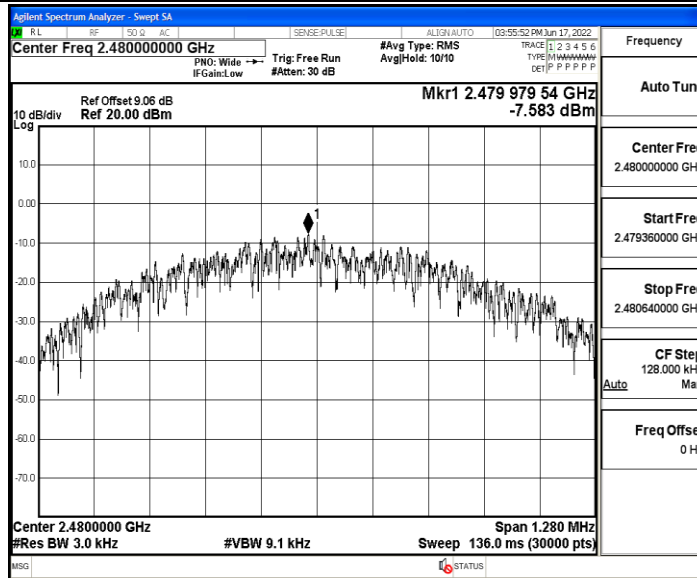
## Appendix D: Maximum power spectral density

### Test Result

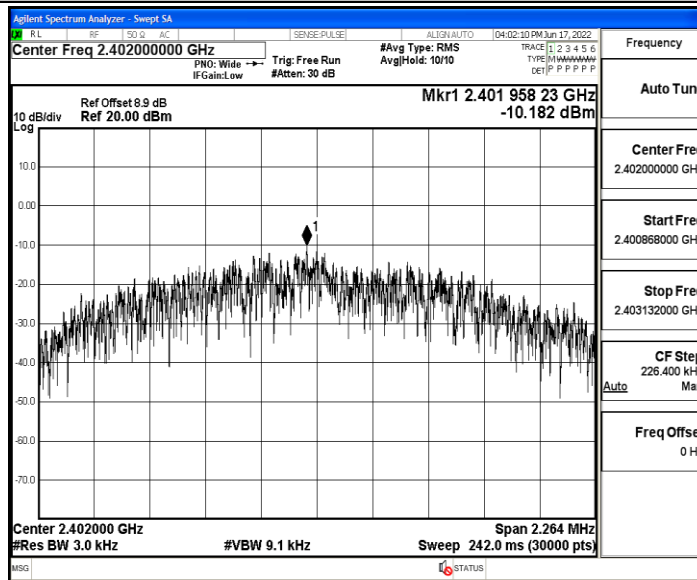
| TestMode | Antenna | Channel | Result[dBm/3-100kHz] | Limit[dBm/3kHz] | Verdict |
|----------|---------|---------|----------------------|-----------------|---------|
| BLE_1M   | Ant1    | 2402    | -7.29                | ≤8.00           | PASS    |
|          |         | 2440    | -7.45                | ≤8.00           | PASS    |
|          |         | 2480    | -7.58                | ≤8.00           | PASS    |
| BLE_2M   | Ant1    | 2402    | -10.18               | ≤8.00           | PASS    |
|          |         | 2440    | -10.43               | ≤8.00           | PASS    |
|          |         | 2480    | -10.5                | ≤8.00           | PASS    |

### Test Graphs

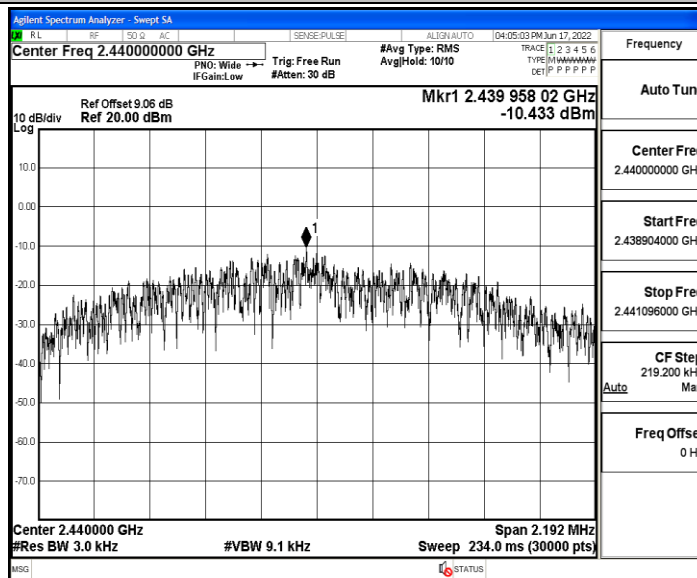




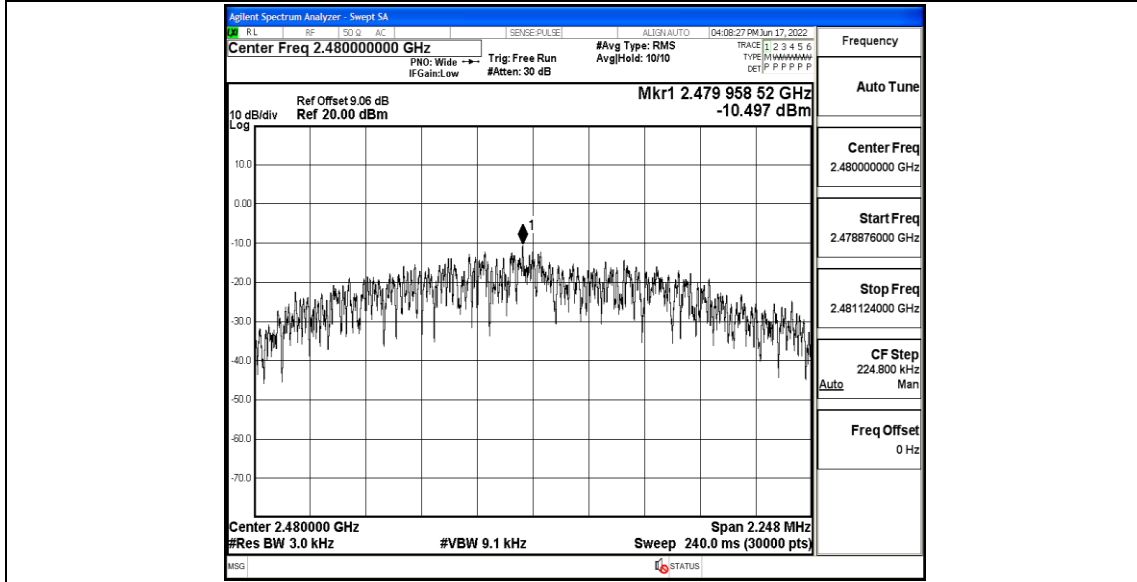
BLE\_2M\_Ant1\_2402



BLE\_2M\_Ant1\_2440



BLE\_2M\_Ant1\_2480

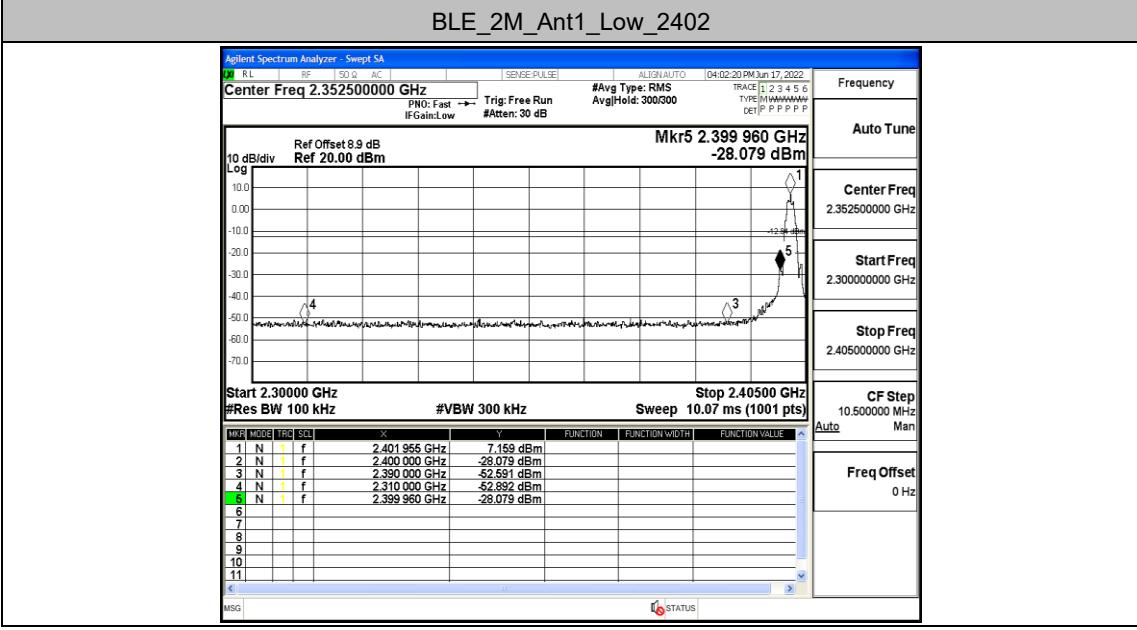
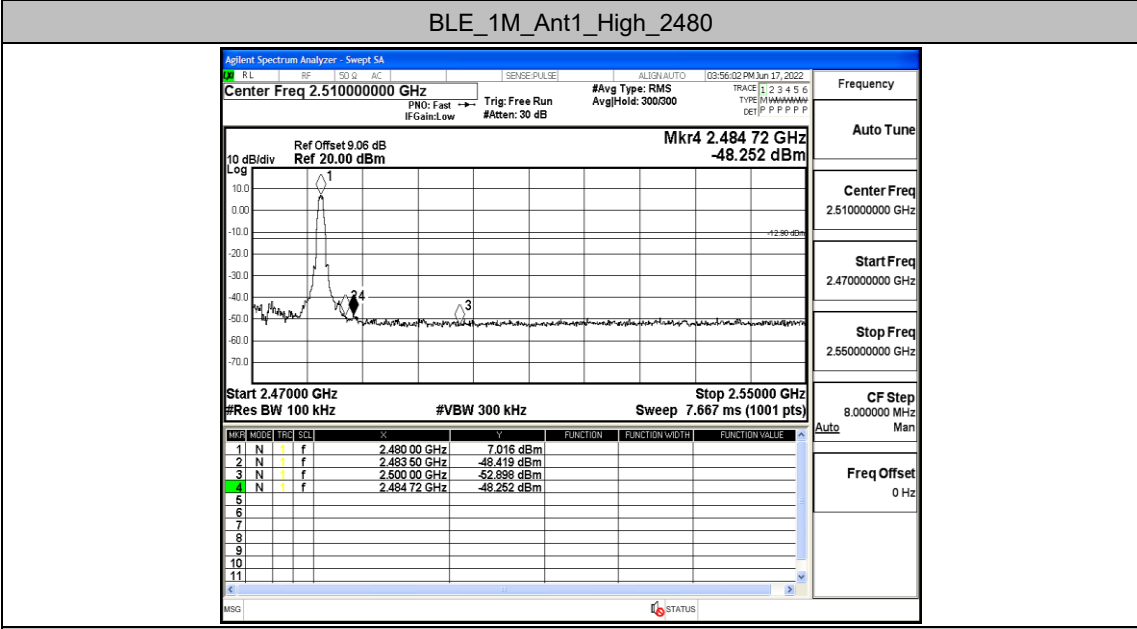
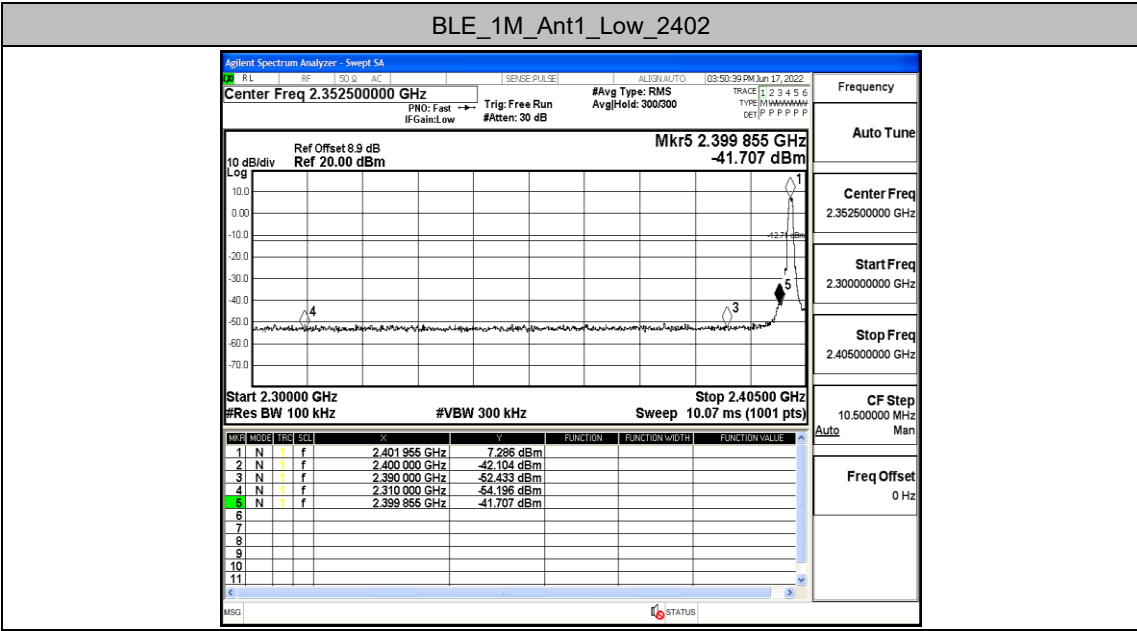


## Appendix E: Band edge measurements

### Test Result

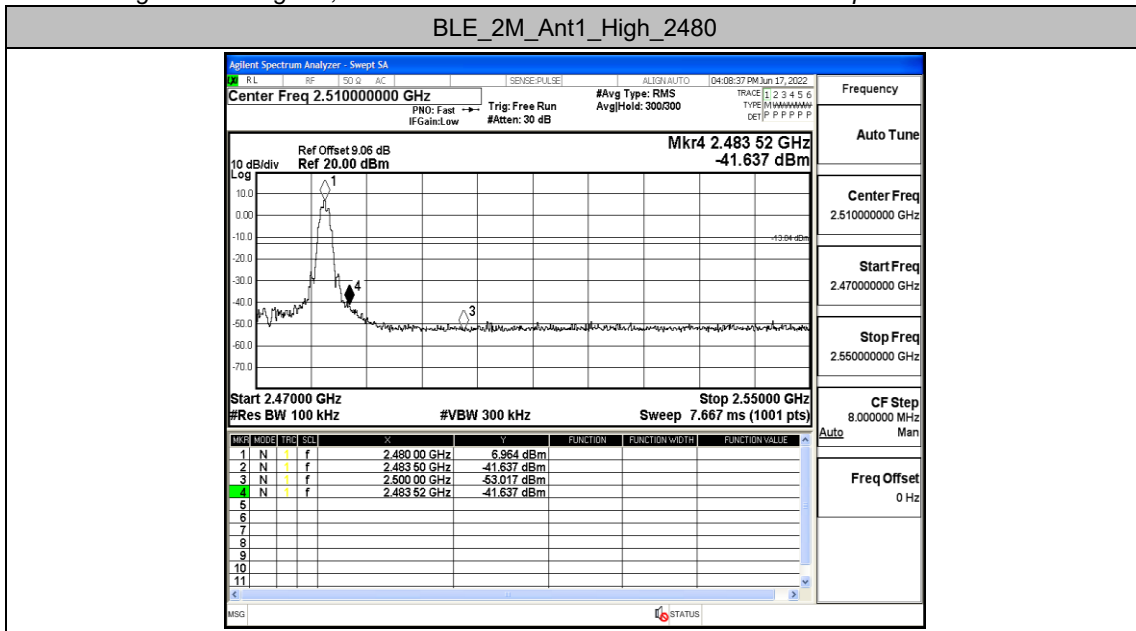
| TestMode | Antenna | ChName | Channel | RefLevel[dBm] | Result[dBm] | Limit[dBm] | Verdict |
|----------|---------|--------|---------|---------------|-------------|------------|---------|
| BLE_1M   | Ant1    | Low    | 2402    | 7.29          | -41.71      | ≤-12.71    | PASS    |
|          |         | High   | 2480    | 7.02          | -48.25      | ≤-12.98    | PASS    |
| BLE_2M   | Ant1    | Low    | 2402    | 7.16          | -28.08      | ≤-12.84    | PASS    |
|          |         | High   | 2480    | 6.96          | -41.64      | ≤-13.04    | PASS    |

Test Graphs





BLE\_2M\_Ant1\_High\_2480

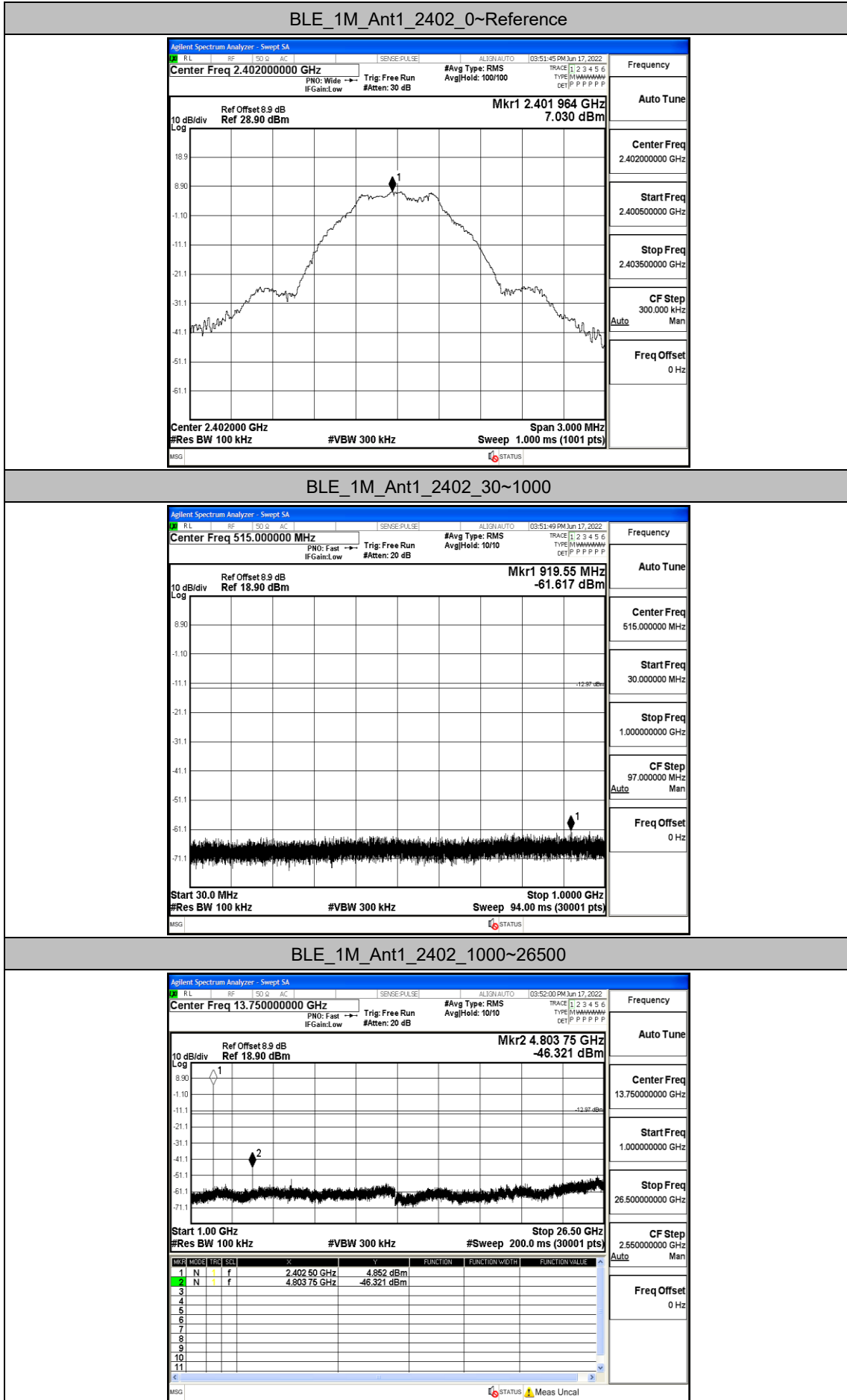


## Appendix F: Conducted Spurious Emission

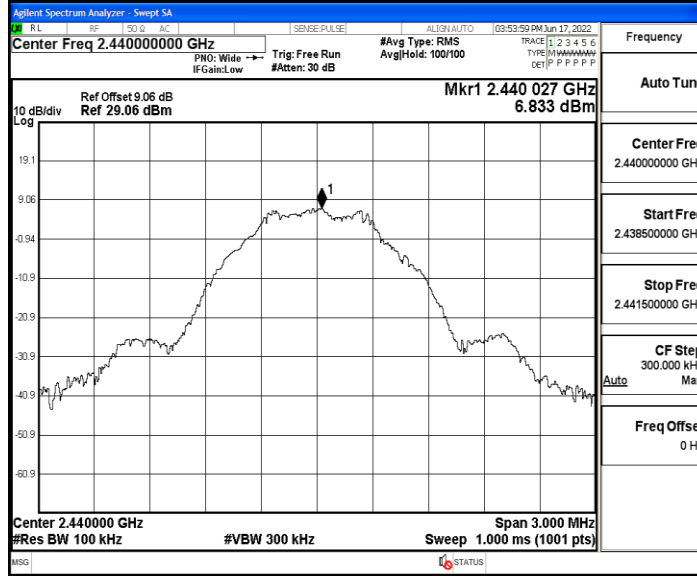
### Test Result

| TestMode | Antenna | Channel | FreqRange [MHz] | RefLevel [dBm] | Result[dBm] | Limit[dBm] | Verdict |
|----------|---------|---------|-----------------|----------------|-------------|------------|---------|
| BLE_1M   | Ant1    | 2402    | Reference       | 7.03           | 7.03        | ---        | PASS    |
|          |         |         | 30~1000         | 7.03           | -61.62      | ≤-12.97    | PASS    |
|          |         |         | 1000~26500      | 7.03           | -46.32      | ≤-12.97    | PASS    |
|          |         | 2440    | Reference       | 6.83           | 6.83        | ---        | PASS    |
|          |         |         | 30~1000         | 6.83           | -60.72      | ≤-13.17    | PASS    |
|          |         |         | 1000~26500      | 6.83           | -46.4       | ≤-13.17    | PASS    |
|          |         | 2480    | Reference       | 6.81           | 6.81        | ---        | PASS    |
|          |         |         | 30~1000         | 6.81           | -60.98      | ≤-13.19    | PASS    |
|          |         |         | 1000~26500      | 6.81           | -45.69      | ≤-13.19    | PASS    |
| BLE_2M   | Ant1    | 2402    | Reference       | 6.93           | 6.93        | ---        | PASS    |
|          |         |         | 30~1000         | 6.93           | -61.8       | ≤-13.07    | PASS    |
|          |         |         | 1000~26500      | 6.93           | -49.81      | ≤-13.07    | PASS    |
|          |         | 2440    | Reference       | 6.70           | 6.70        | ---        | PASS    |
|          |         |         | 30~1000         | 6.70           | -61.57      | ≤-13.3     | PASS    |
|          |         |         | 1000~26500      | 6.70           | -48.23      | ≤-13.3     | PASS    |
|          |         | 2480    | Reference       | 6.32           | 6.32        | ---        | PASS    |
|          |         |         | 30~1000         | 6.32           | -61.71      | ≤-13.68    | PASS    |
|          |         |         | 1000~26500      | 6.32           | -47.25      | ≤-13.68    | PASS    |

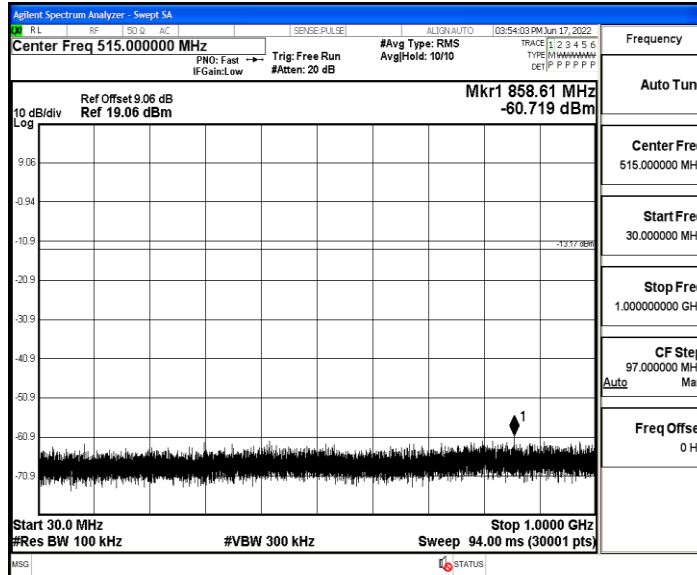
Test Graphs



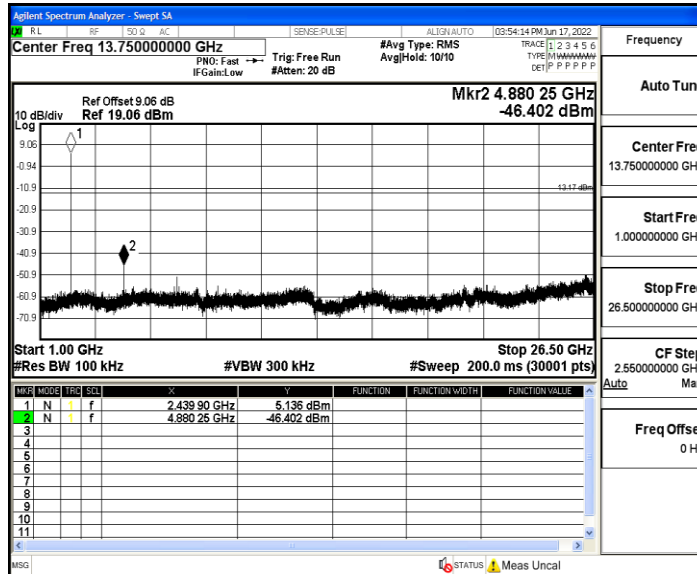
BLE\_1M\_Ant1\_2440\_0~Reference



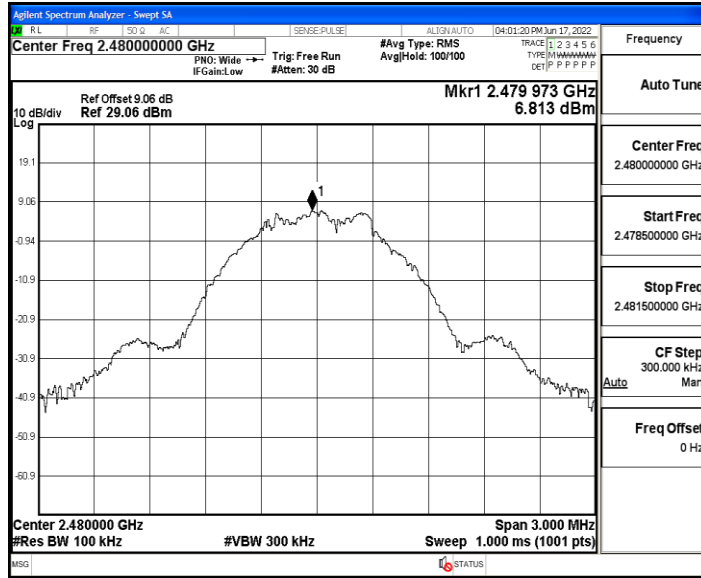
BLE\_1M\_Ant1\_2440\_30~1000



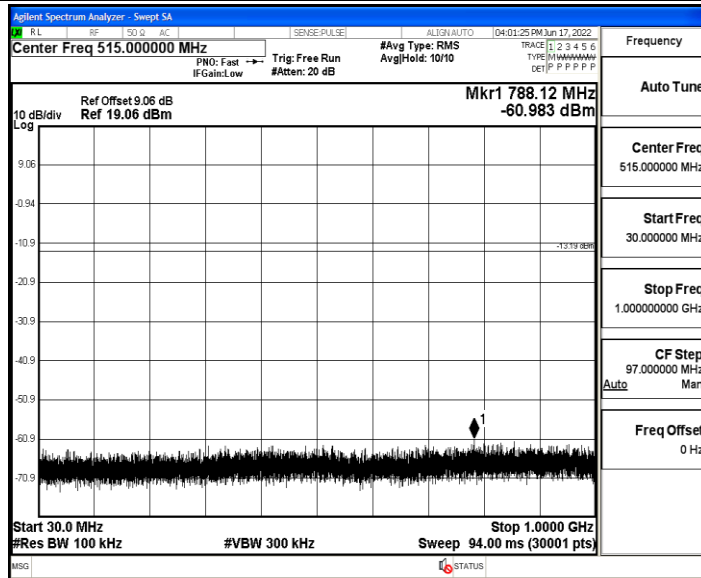
BLE\_1M\_Ant1\_2440\_1000~26500



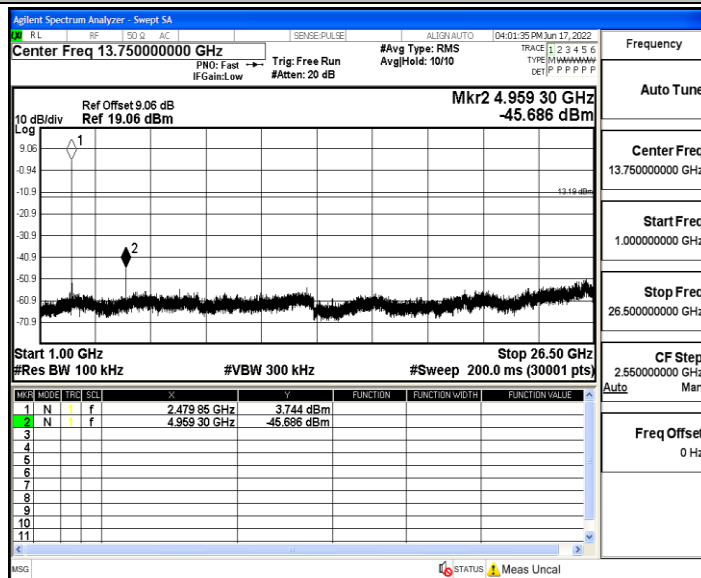
BLE\_1M\_Ant1\_2480\_0~Reference



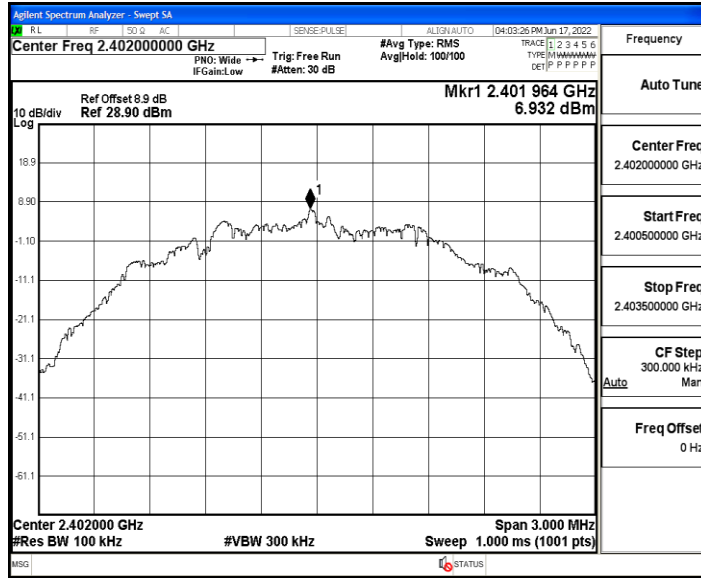
BLE\_1M\_Ant1\_2480\_30~1000



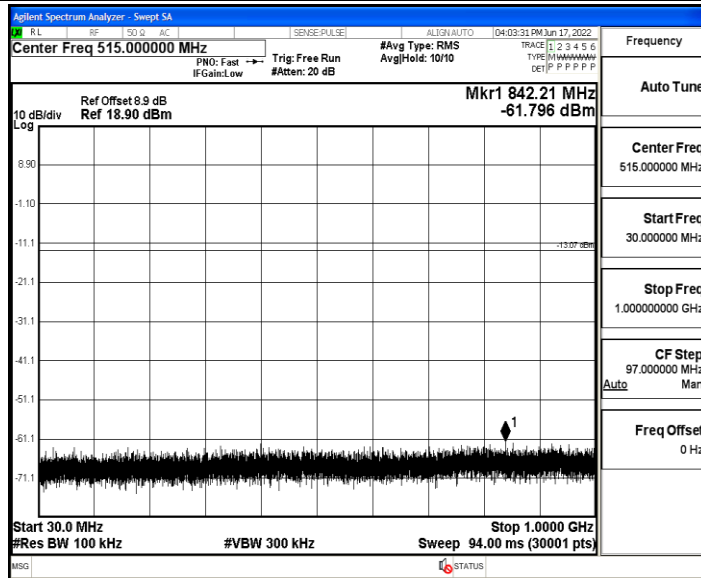
BLE\_1M\_Ant1\_2480\_1000~26500



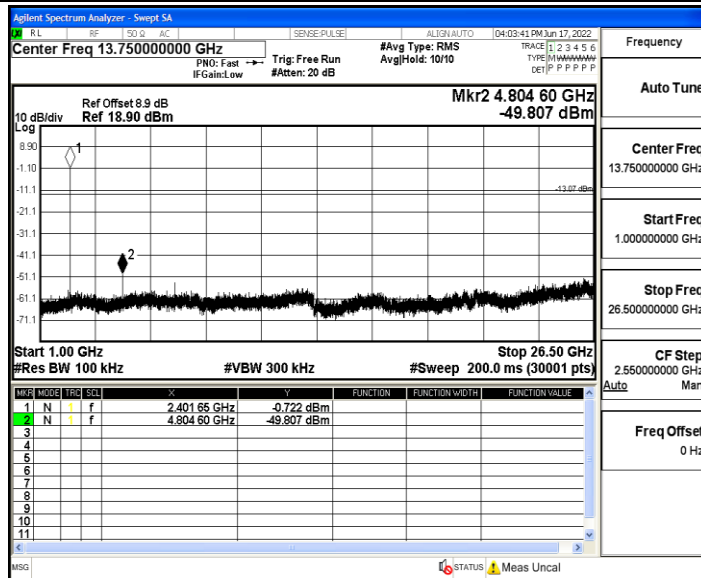
BLE\_2M\_Ant1\_2402\_0~Reference



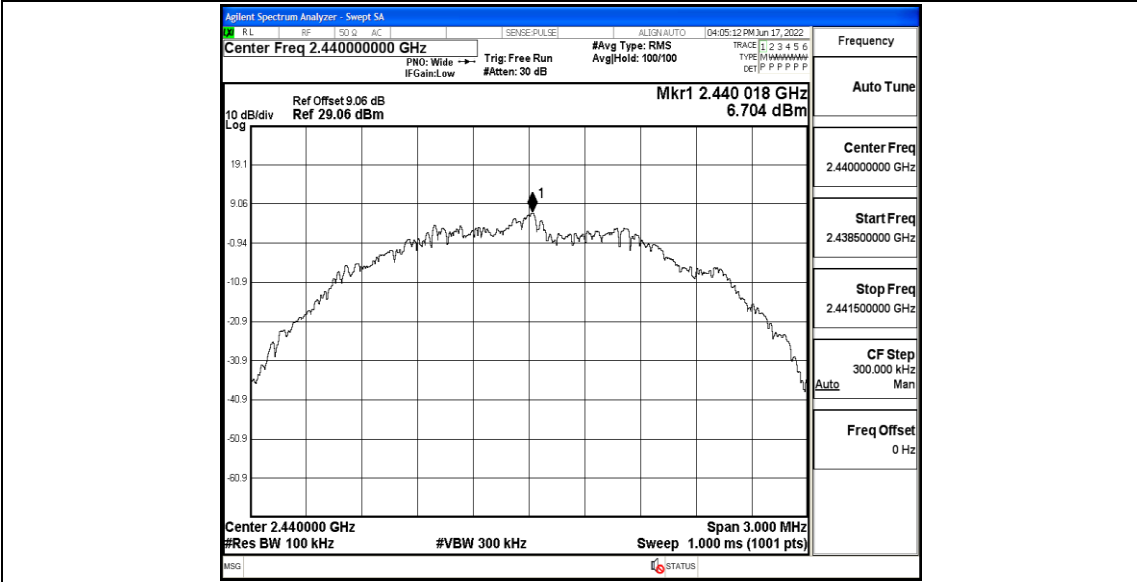
BLE\_2M\_Ant1\_2402\_30~1000



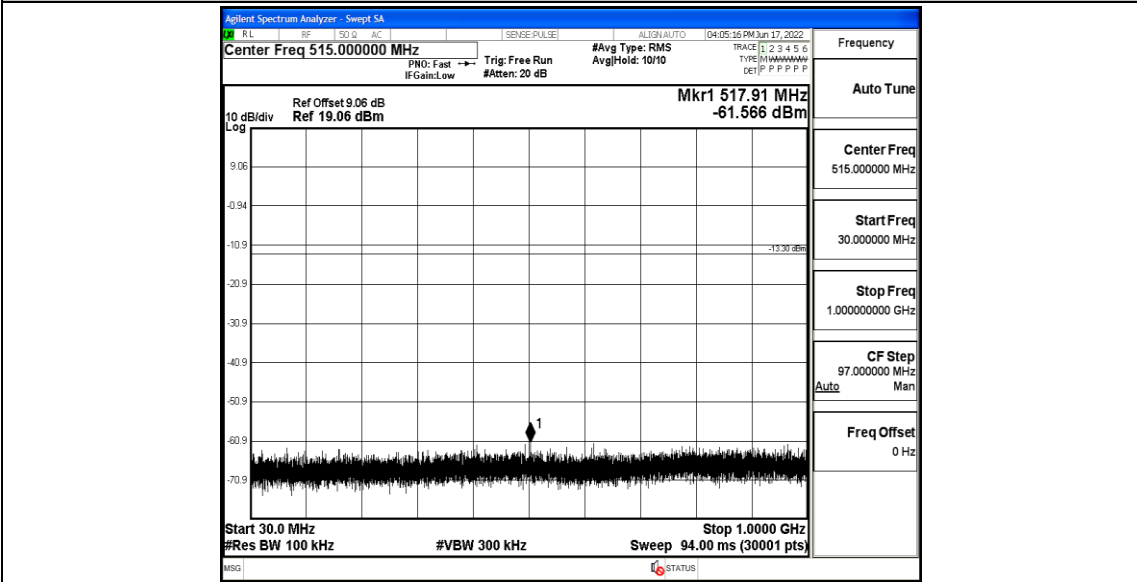
BLE\_2M\_Ant1\_2402\_1000~26500



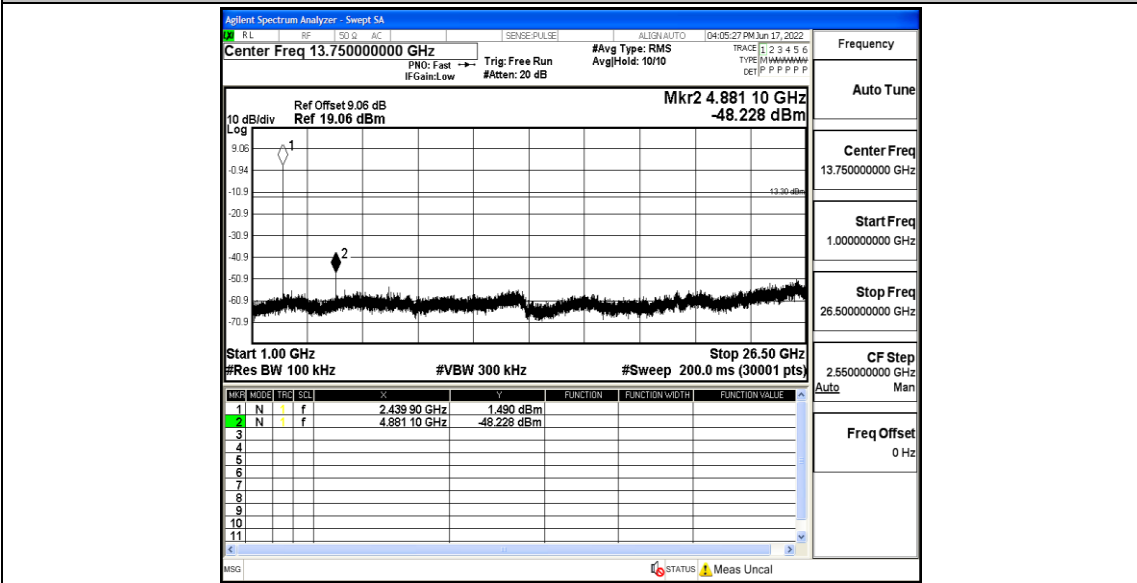
BLE\_2M\_Ant1\_2440\_0~Reference



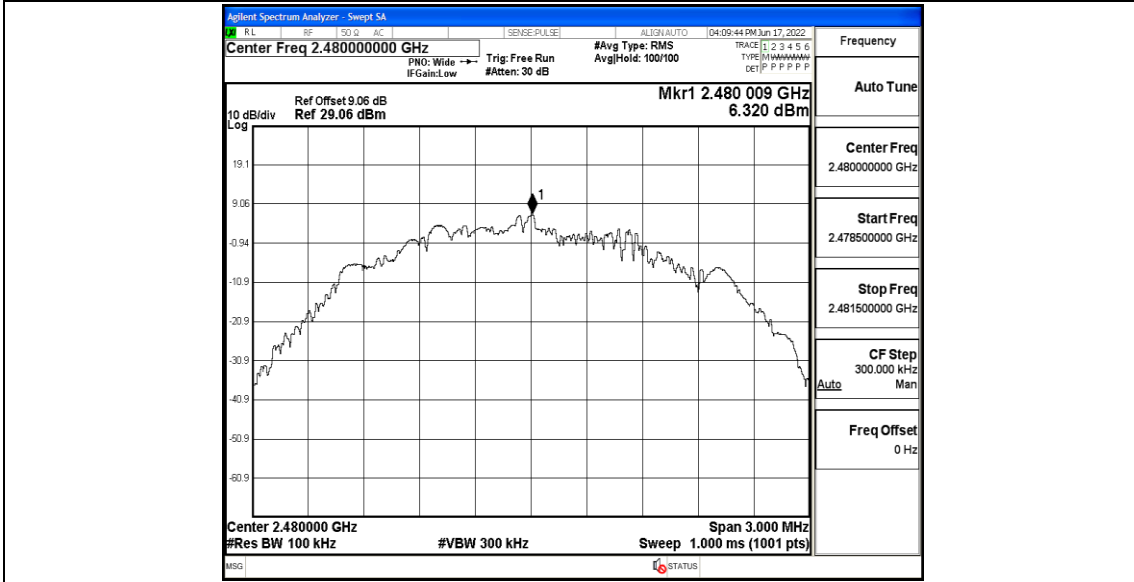
BLE\_2M\_Ant1\_2440\_30~1000



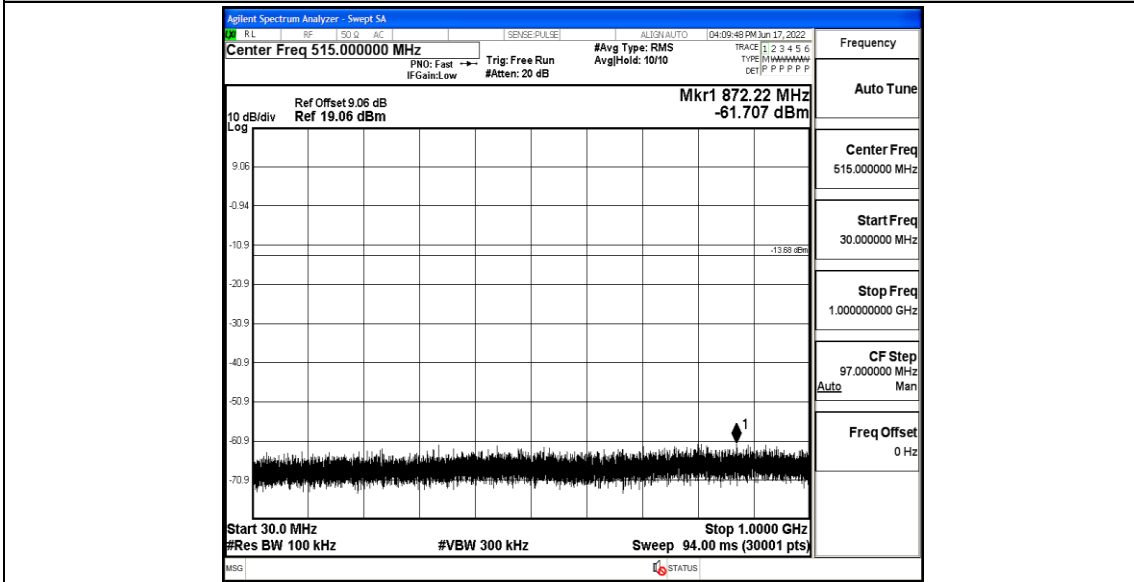
BLE\_2M\_Ant1\_2440\_1000~26500



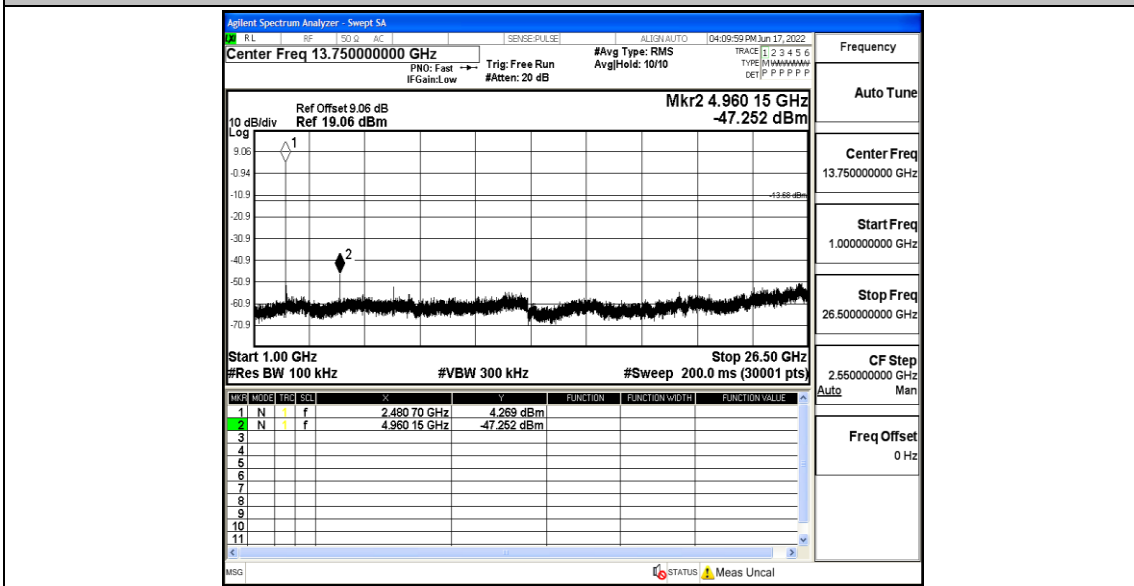
BLE\_2M\_Ant1\_2480\_0~Reference



BLE\_2M\_Ant1\_2480\_30~1000



BLE\_2M\_Ant1\_2480\_1000~26500



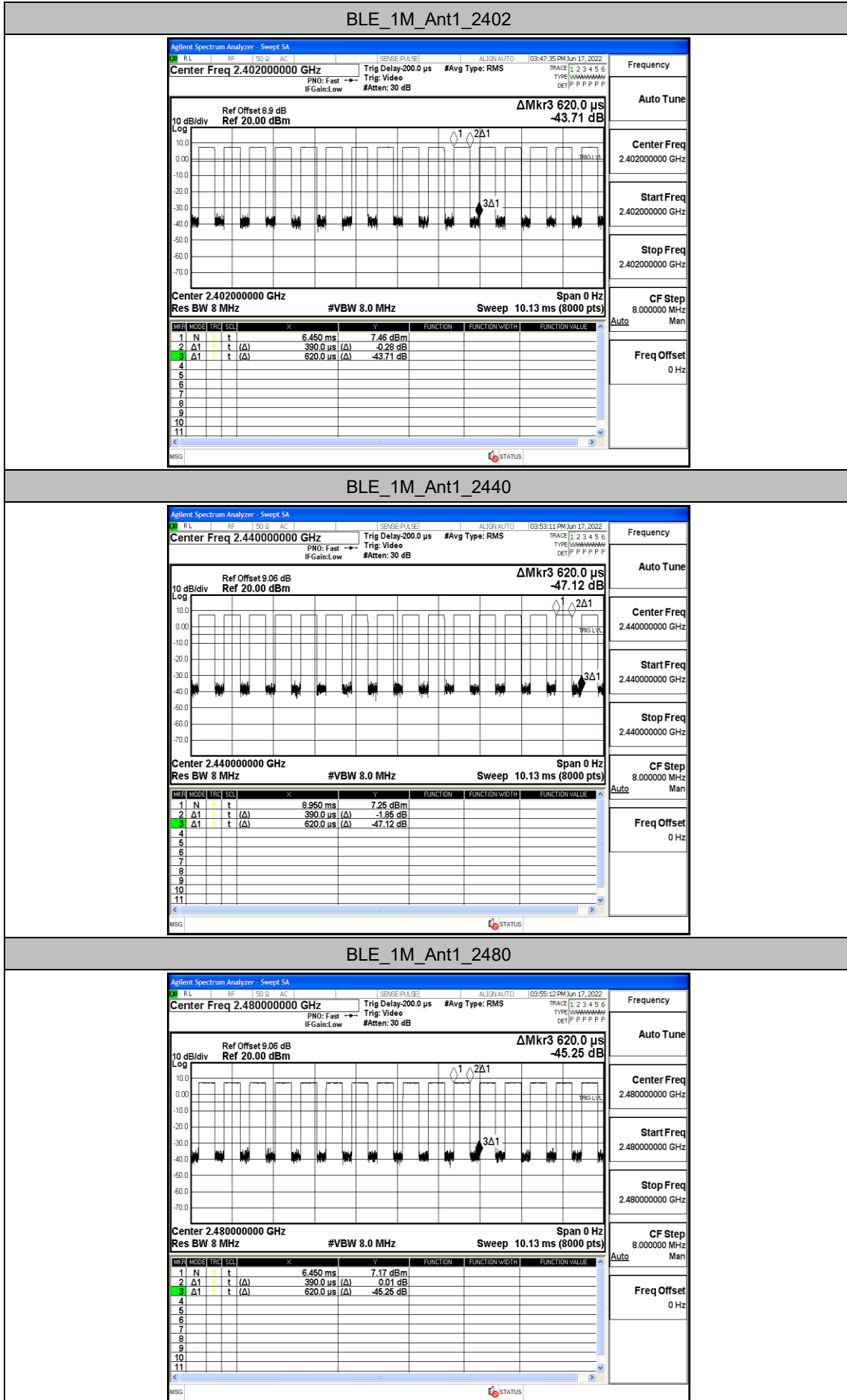


## Appendix G: Duty Cycle

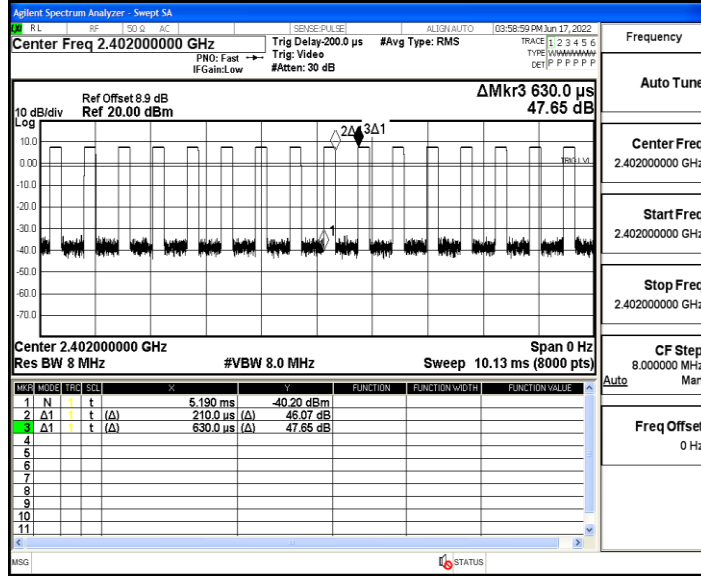
### Test Result

| TestMode | Antenna | Channel | Transmission Duration [ms] | Transmission Period [ms] | Duty Cycle [%] | 1/T[kHz] |
|----------|---------|---------|----------------------------|--------------------------|----------------|----------|
| BLE_1M   | Ant1    | 2402    | 0.39                       | 0.62                     | 62.90          | 2.56     |
|          |         | 2440    | 0.39                       | 0.62                     | 62.90          | 2.56     |
|          |         | 2480    | 0.39                       | 0.62                     | 62.90          | 2.56     |
| BLE_2M   | Ant1    | 2402    | 0.21                       | 0.63                     | 33.33          | 4.76     |
|          |         | 2440    | 0.21                       | 0.63                     | 33.33          | 4.76     |
|          |         | 2480    | 0.21                       | 0.62                     | 33.87          | 4.76     |

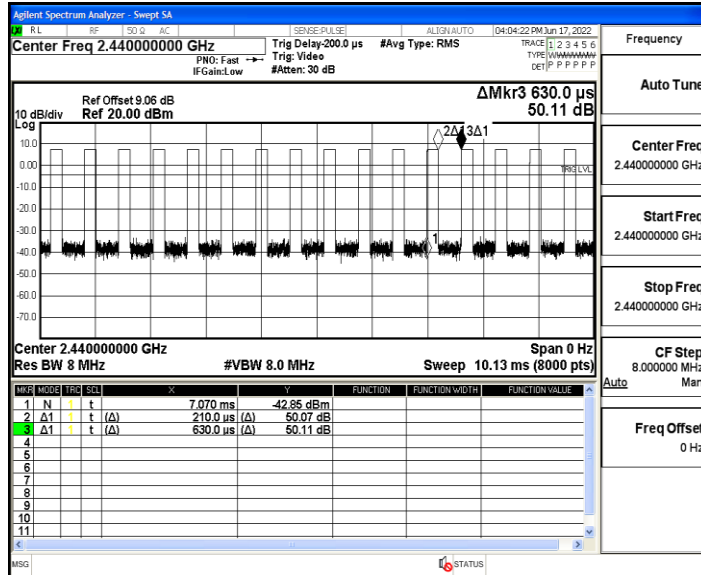
### Test Graphs



BLE\_2M\_Ant1\_2402



BLE\_2M\_Ant1\_2440



BLE\_2M\_Ant1\_2480

