

## Appendix Test Data for BLE (Conducted Measurement)

Product Name: Zikr Ring Noor

Trade Mark: iQIBLA

Test Model: N01

FCC ID: 2A3D8-N01

### Environmental Conditions

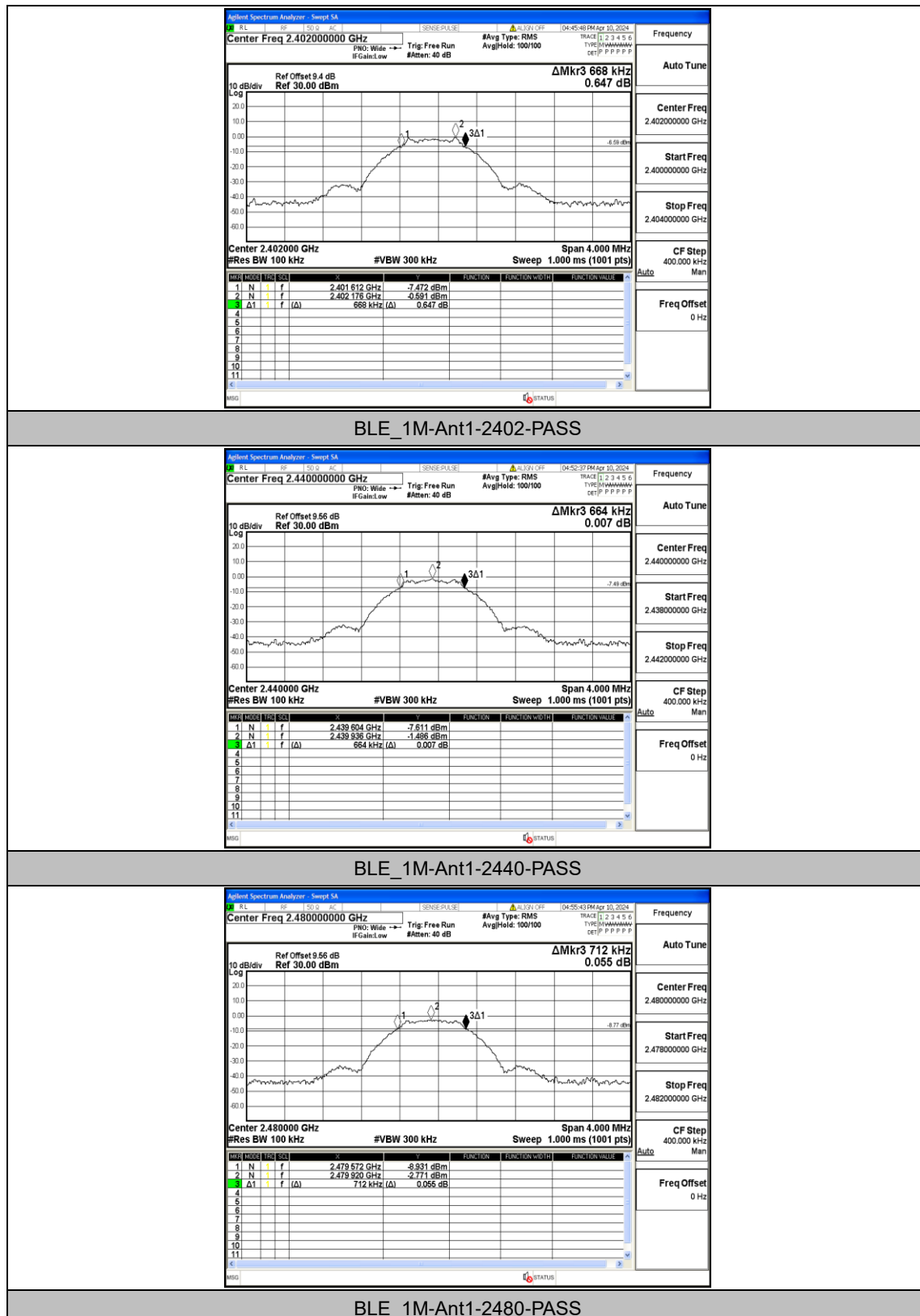
|                    |           |
|--------------------|-----------|
| Temperature:       | 23.8℃     |
| Relative Humidity: | 55%       |
| ATM Pressure:      | 100.0 kPa |
| Test Engineer:     | Anna Hu   |
| Supervised by:     | Hugo Chen |
| NOTE               | N/A       |

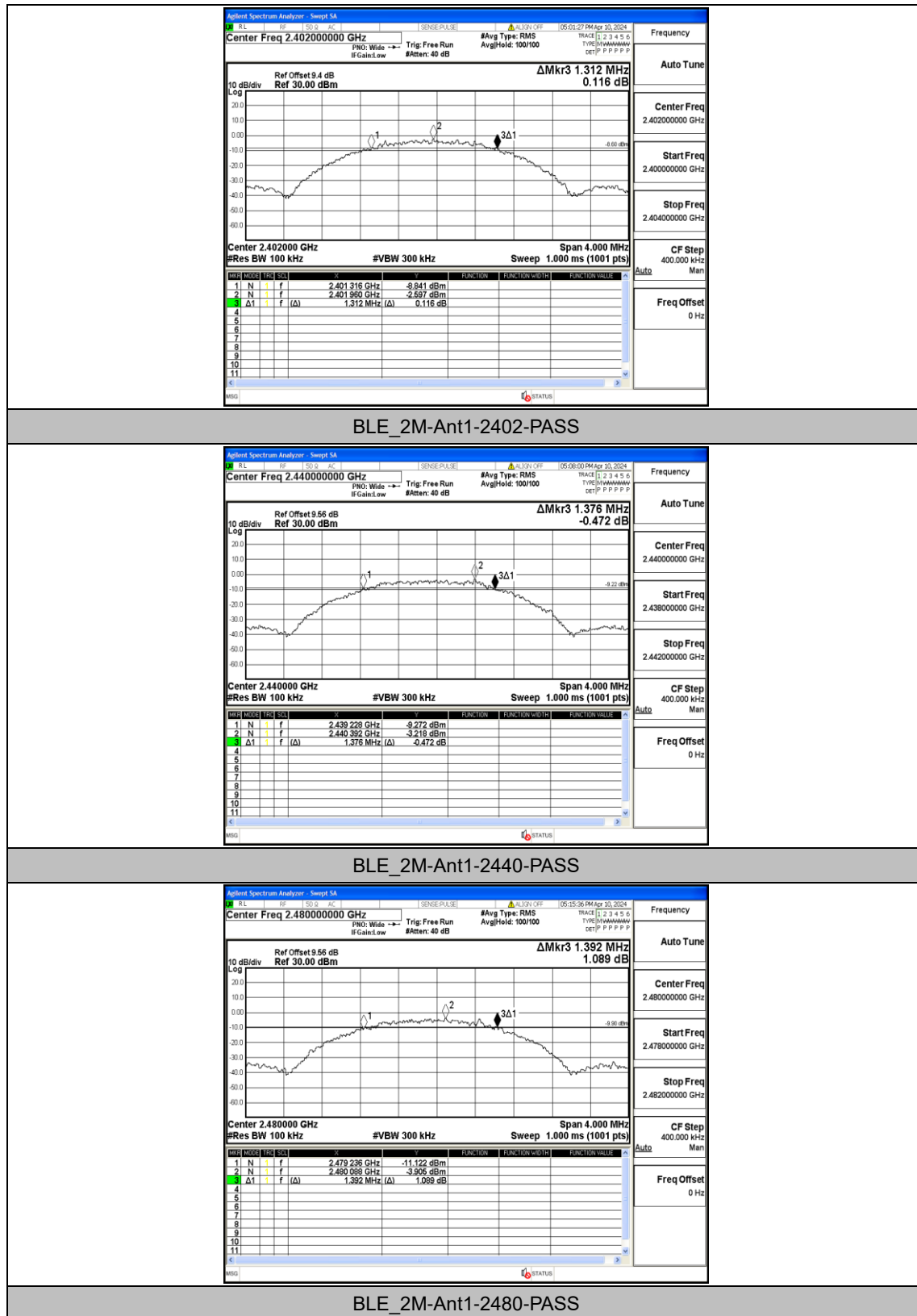
## Appendix A: DTS Bandwidth

### Test Result

| TestMode | Antenna | Frequency[MHz] | DTS BW [MHz] | FL[MHz]  | FH[MHz]  | Limit[MHz] | Verdict |
|----------|---------|----------------|--------------|----------|----------|------------|---------|
| BLE_1M   | Ant1    | 2402           | 0.668        | 2401.612 | 2402.280 | 0.5        | PASS    |
| BLE_1M   | Ant1    | 2440           | 0.664        | 2439.604 | 2440.268 | 0.5        | PASS    |
| BLE_1M   | Ant1    | 2480           | 0.712        | 2479.572 | 2480.284 | 0.5        | PASS    |
| BLE_2M   | Ant1    | 2402           | 1.312        | 2401.316 | 2402.628 | 0.5        | PASS    |
| BLE_2M   | Ant1    | 2440           | 1.376        | 2439.228 | 2440.604 | 0.5        | PASS    |
| BLE_2M   | Ant1    | 2480           | 1.392        | 2479.236 | 2480.628 | 0.5        | PASS    |

## Test Graphs



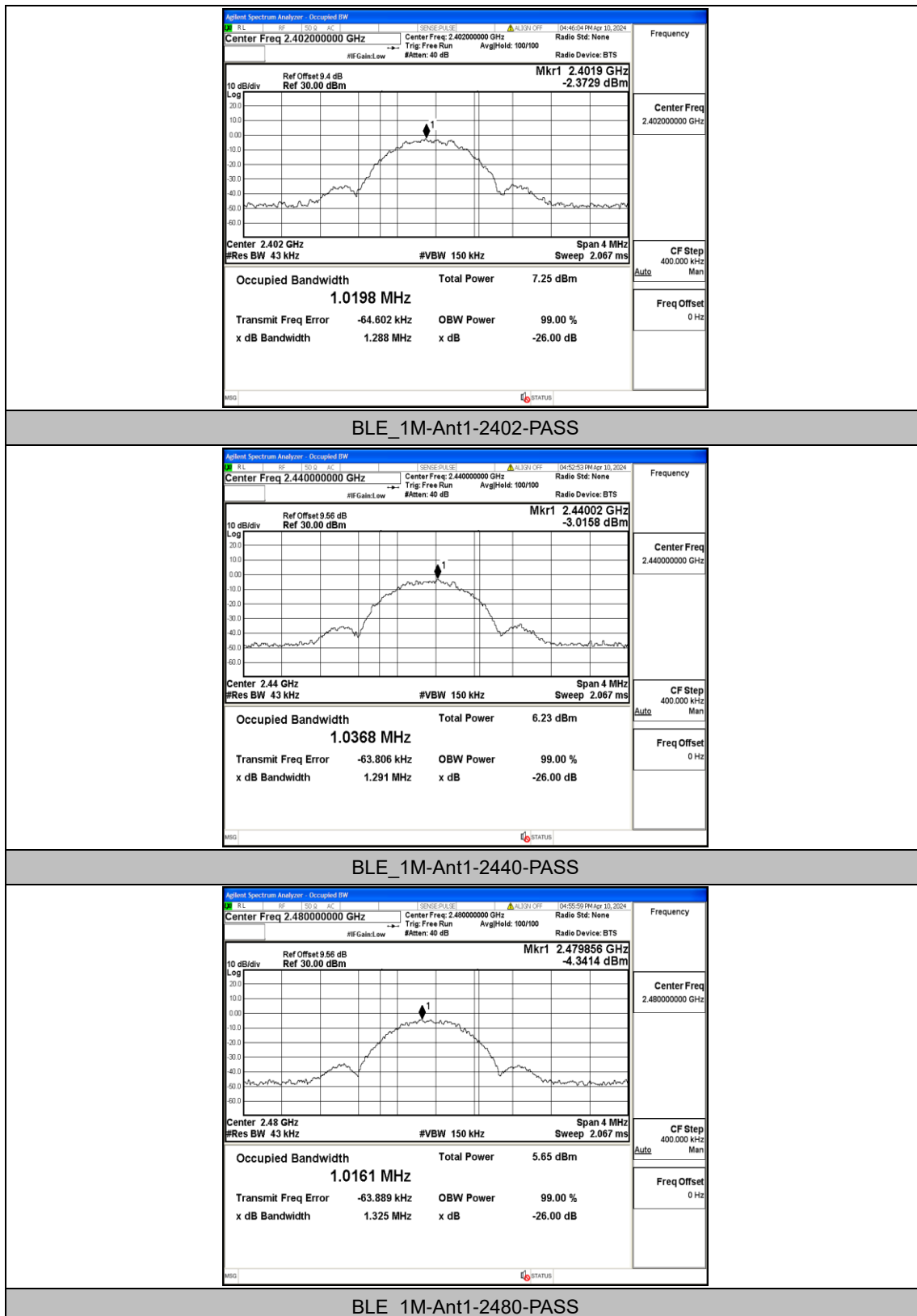


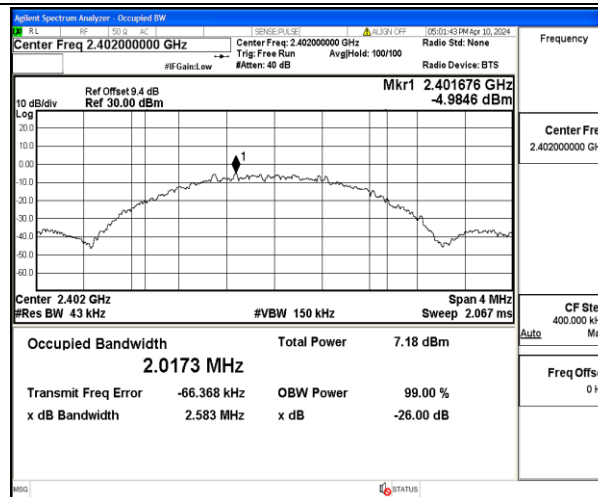
## Appendix B: Occupied Channel Bandwidth

### Test Result

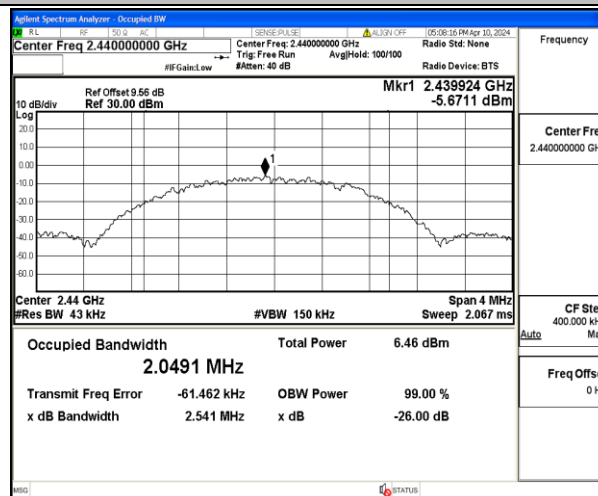
| TestMode | Antenna | Frequency[MHz] | OCB [MHz] | FL[MHz]  | FH[MHz]  | Limit[MHz] | Verdict |
|----------|---------|----------------|-----------|----------|----------|------------|---------|
| BLE_1M   | Ant1    | 2402           | 1.0198    | 2401.426 | 2402.445 | ---        | PASS    |
| BLE_1M   | Ant1    | 2440           | 1.0368    | 2439.418 | 2440.455 | ---        | PASS    |
| BLE_1M   | Ant1    | 2480           | 1.0161    | 2479.428 | 2480.444 | ---        | PASS    |
| BLE_2M   | Ant1    | 2402           | 2.0173    | 2400.925 | 2402.942 | ---        | PASS    |
| BLE_2M   | Ant1    | 2440           | 2.0491    | 2438.914 | 2440.963 | ---        | PASS    |
| BLE_2M   | Ant1    | 2480           | 2.0462    | 2478.911 | 2480.957 | ---        | PASS    |

## Test Graphs

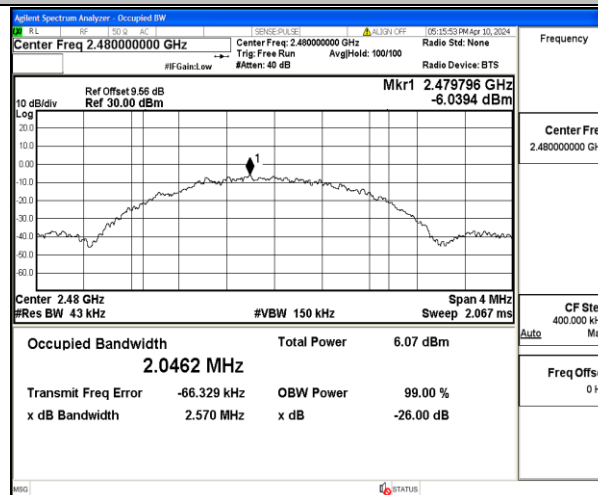




BLE\_2M-Ant1-2402-PASS



BLE\_2M-Ant1-2440-PASS



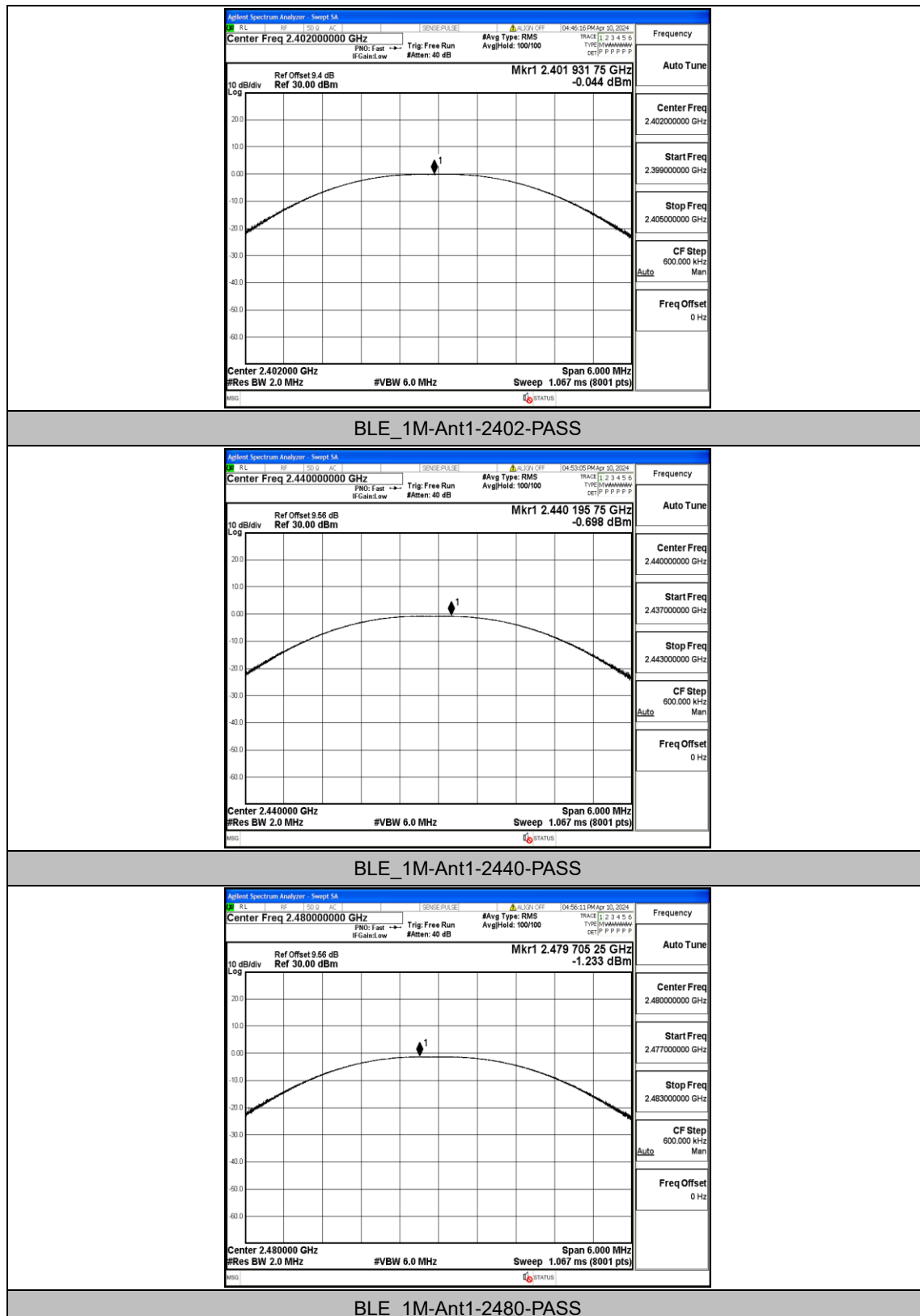
BLE\_2M-Ant1-2480-PASS

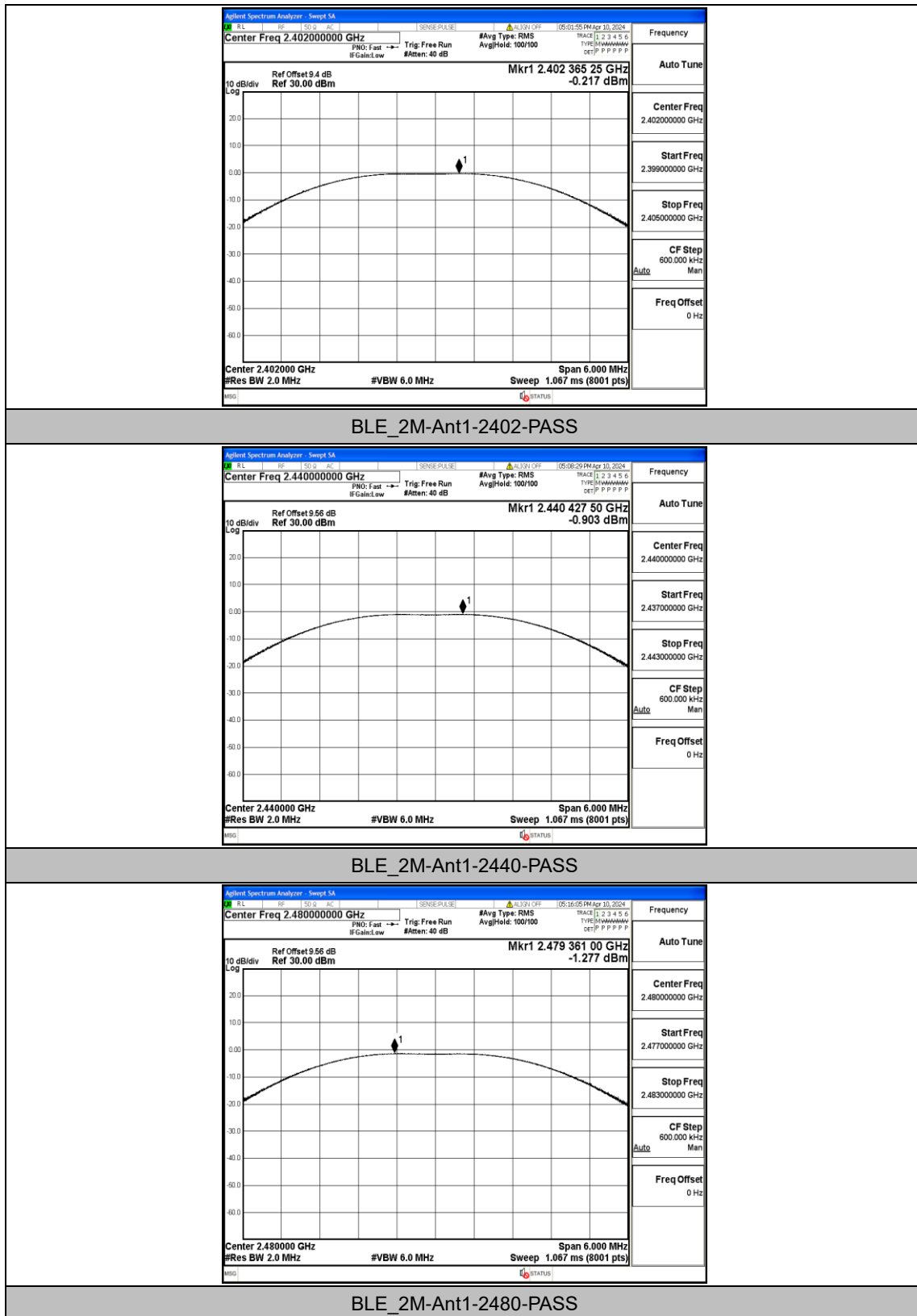
## Appendix C: Maximum peak conducted output power

### Test Result Peak

| TestMode | Antenna | Frequency[MHz] | Conducted Peak Power[dBm] | Conducted Limit[dBm] | Verdict |
|----------|---------|----------------|---------------------------|----------------------|---------|
| BLE_1M   | Ant1    | 2402           | -0.04                     | <=30                 | PASS    |
| BLE_1M   | Ant1    | 2440           | -0.7                      | <=30                 | PASS    |
| BLE_1M   | Ant1    | 2480           | -1.23                     | <=30                 | PASS    |
| BLE_2M   | Ant1    | 2402           | -0.22                     | <=30                 | PASS    |
| BLE_2M   | Ant1    | 2440           | -0.9                      | <=30                 | PASS    |
| BLE_2M   | Ant1    | 2480           | -1.28                     | <=30                 | PASS    |

## Test Graphs Peak



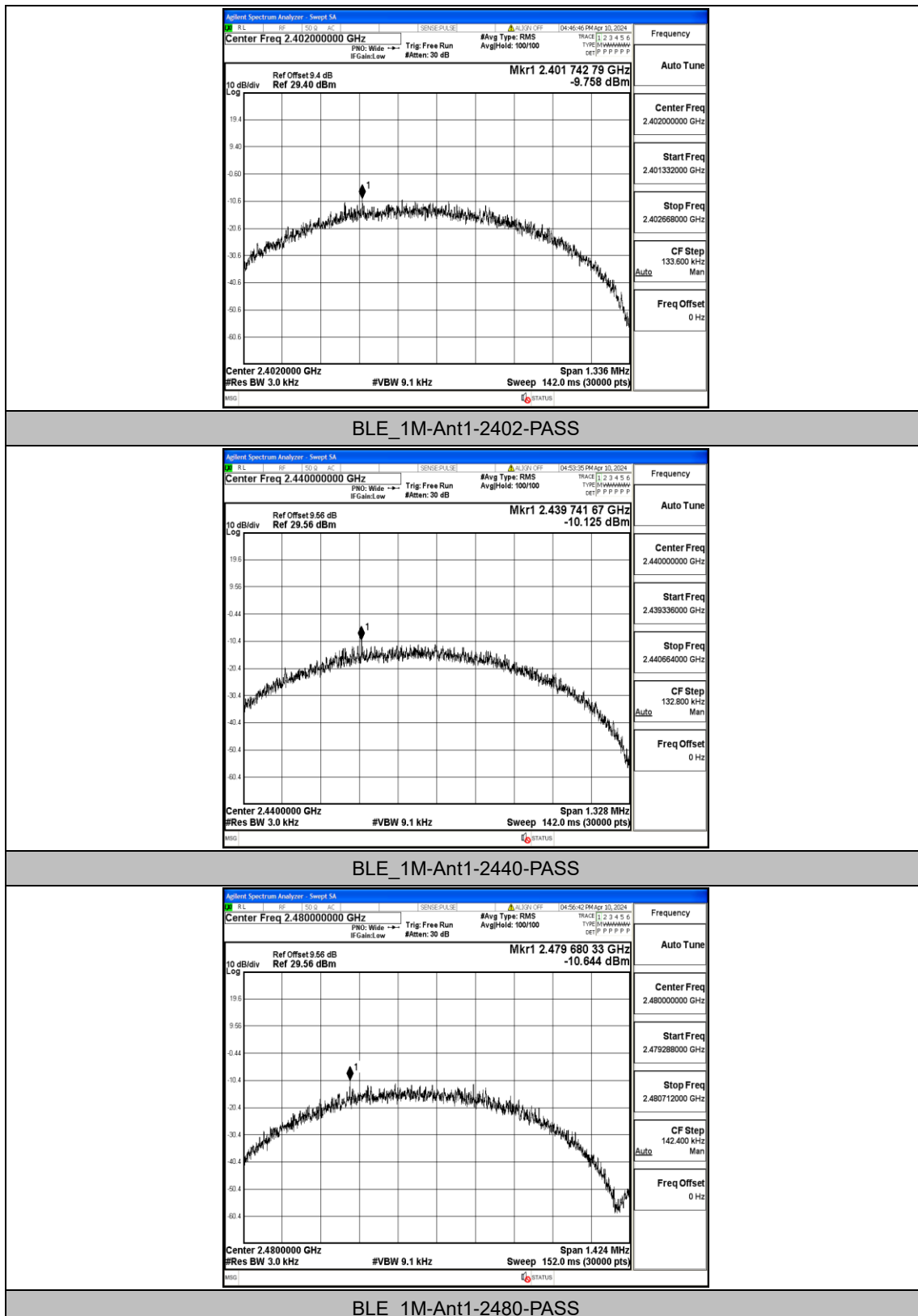


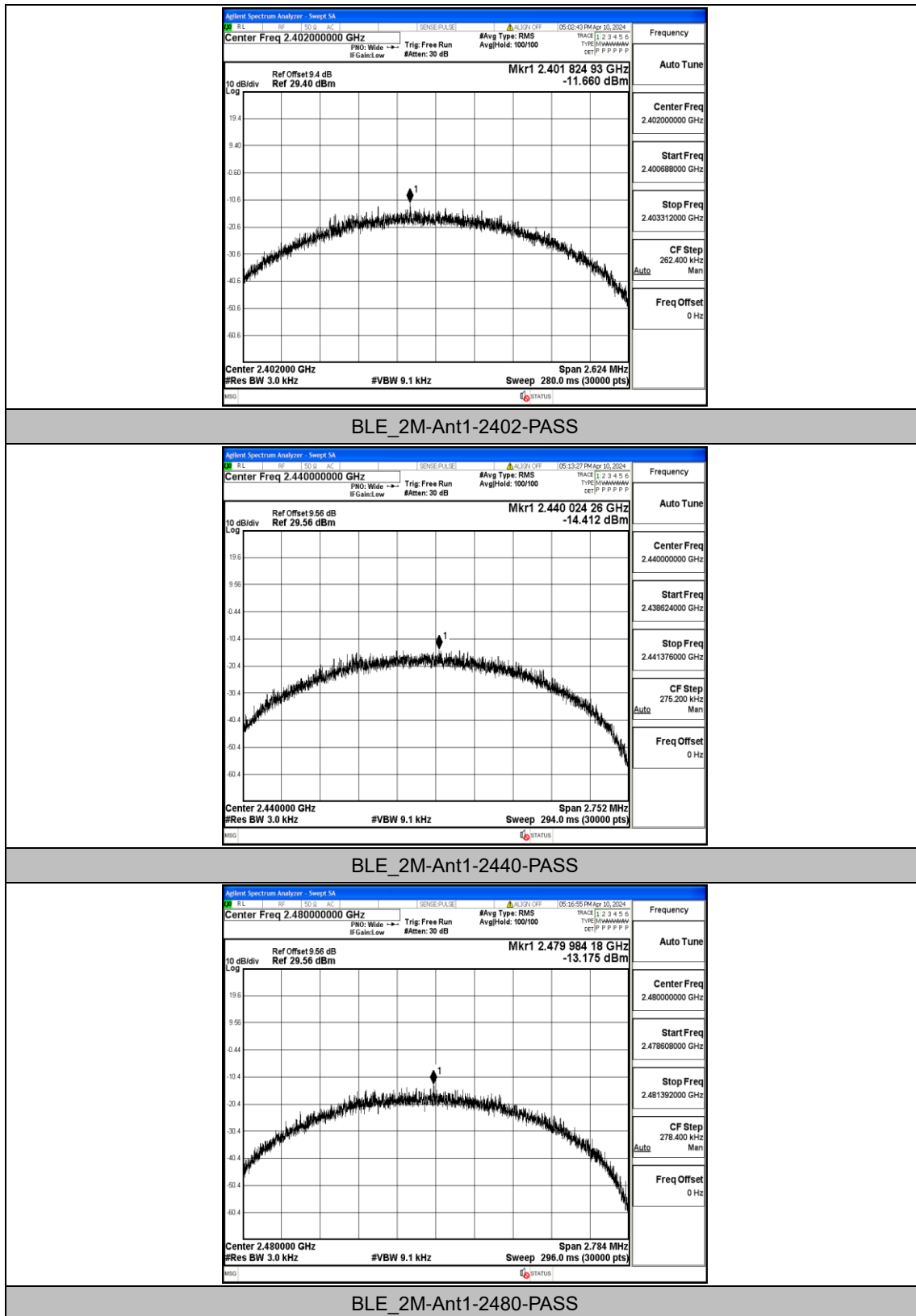
## Appendix D: Maximum peak power spectral density

### Test Result

| TestMode | Antenna | Frequency[MHz] | Result[dBm/3kHz] | Limit[dBm/3kHz] | Verdict |
|----------|---------|----------------|------------------|-----------------|---------|
| BLE_1M   | Ant1    | 2402           | -9.76            | <=8             | PASS    |
| BLE_1M   | Ant1    | 2440           | -10.13           | <=8             | PASS    |
| BLE_1M   | Ant1    | 2480           | -10.64           | <=8             | PASS    |
| BLE_2M   | Ant1    | 2402           | -11.66           | <=8             | PASS    |
| BLE_2M   | Ant1    | 2440           | -14.41           | <=8             | PASS    |
| BLE_2M   | Ant1    | 2480           | -13.18           | <=8             | PASS    |

## Test Graphs



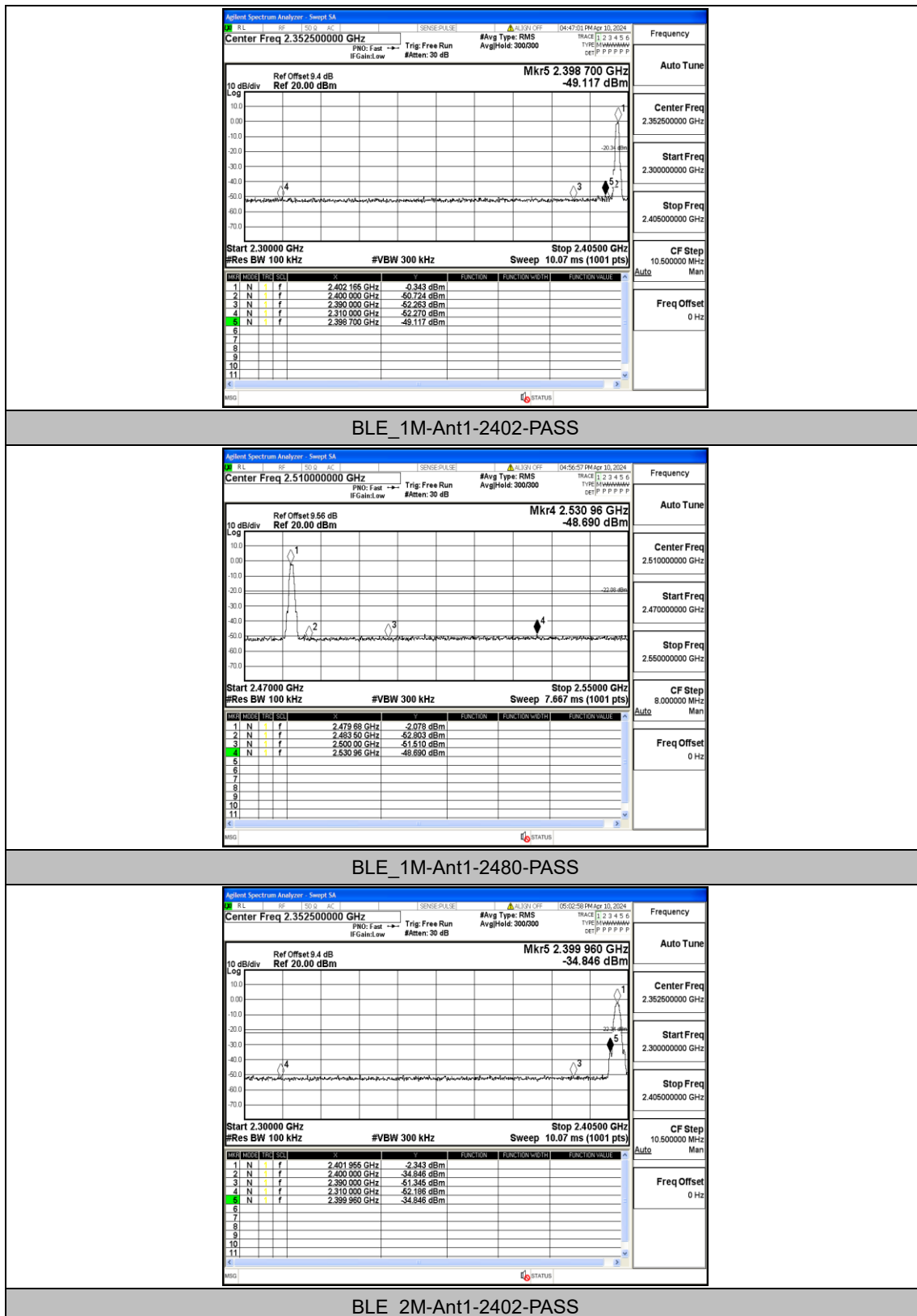


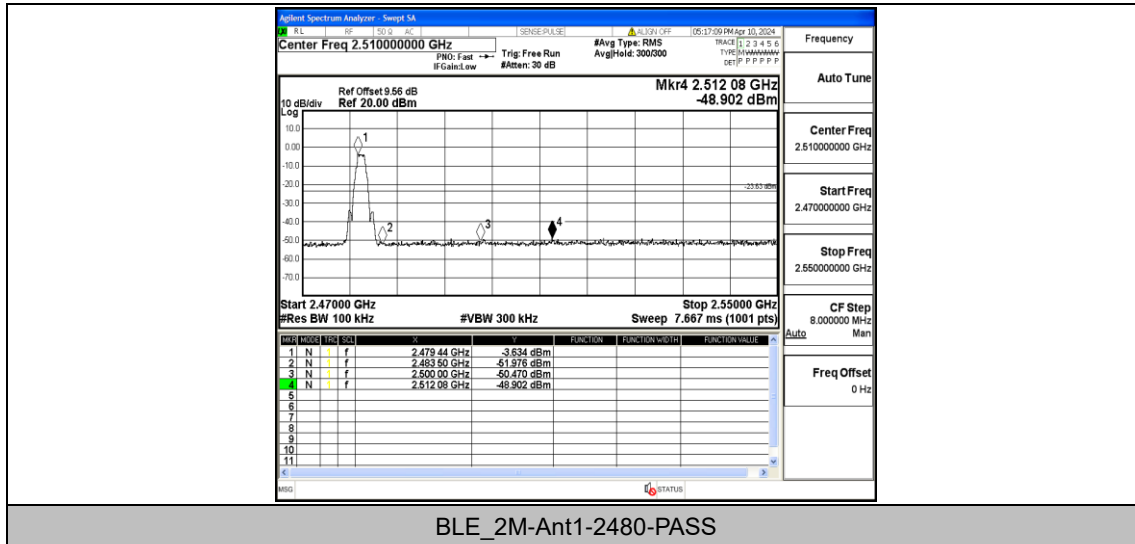
## Appendix E: Band edge measurements

### Test Result

| TestMode | Antenna | Channel | Frequency[MHz] | RefLevel[dBm] | Result[dBm] | Limit[dBm] | Verdict |
|----------|---------|---------|----------------|---------------|-------------|------------|---------|
| BLE_1M   | Ant1    | Low     | 2402           | -0.34         | -49.12      | <=-20.34   | PASS    |
| BLE_1M   | Ant1    | High    | 2480           | -2.08         | -48.69      | <=-22.08   | PASS    |
| BLE_2M   | Ant1    | Low     | 2402           | -2.34         | -34.85      | <=-22.34   | PASS    |
| BLE_2M   | Ant1    | High    | 2480           | -3.63         | -48.9       | <=-23.63   | PASS    |

## Test Graphs



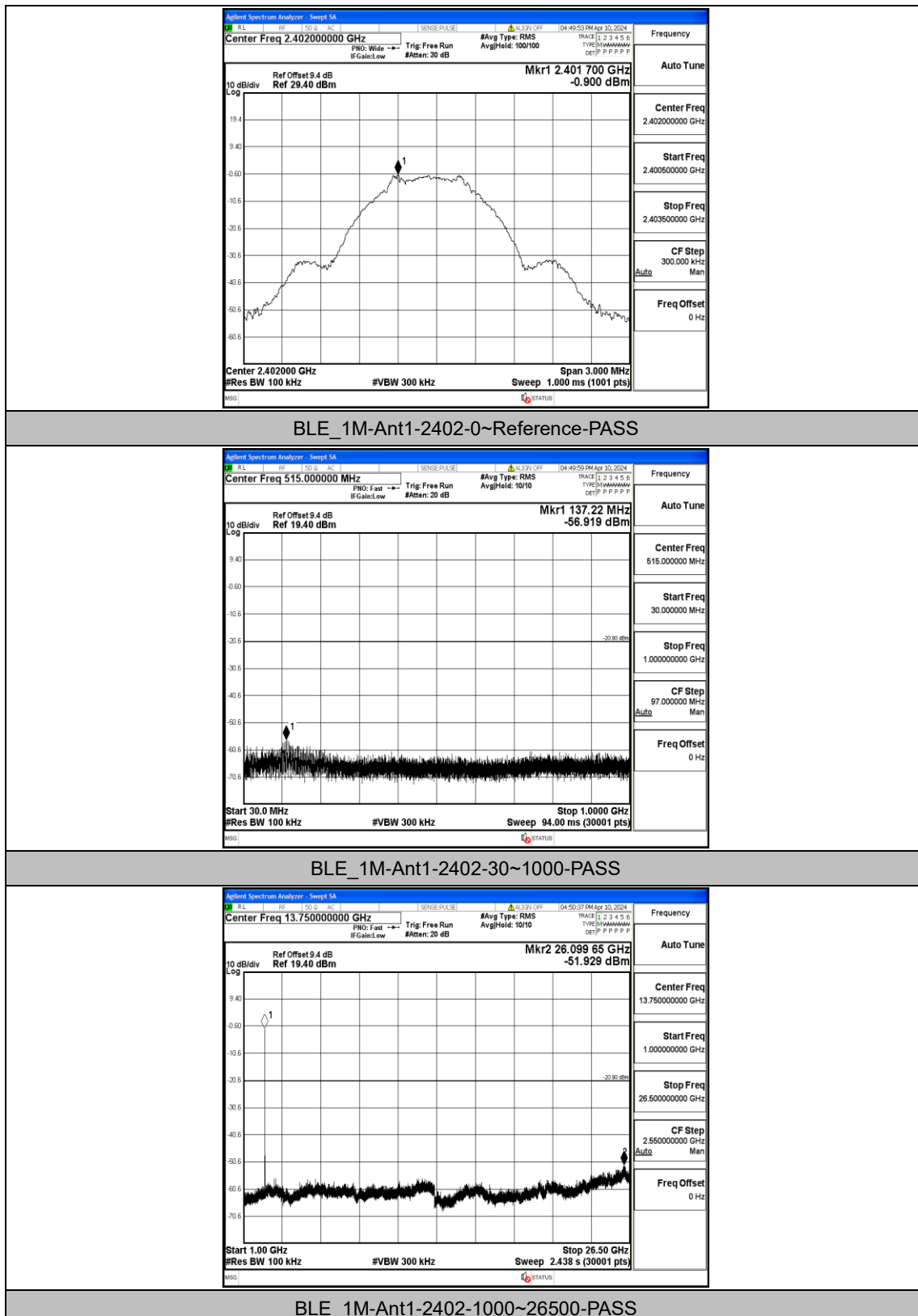


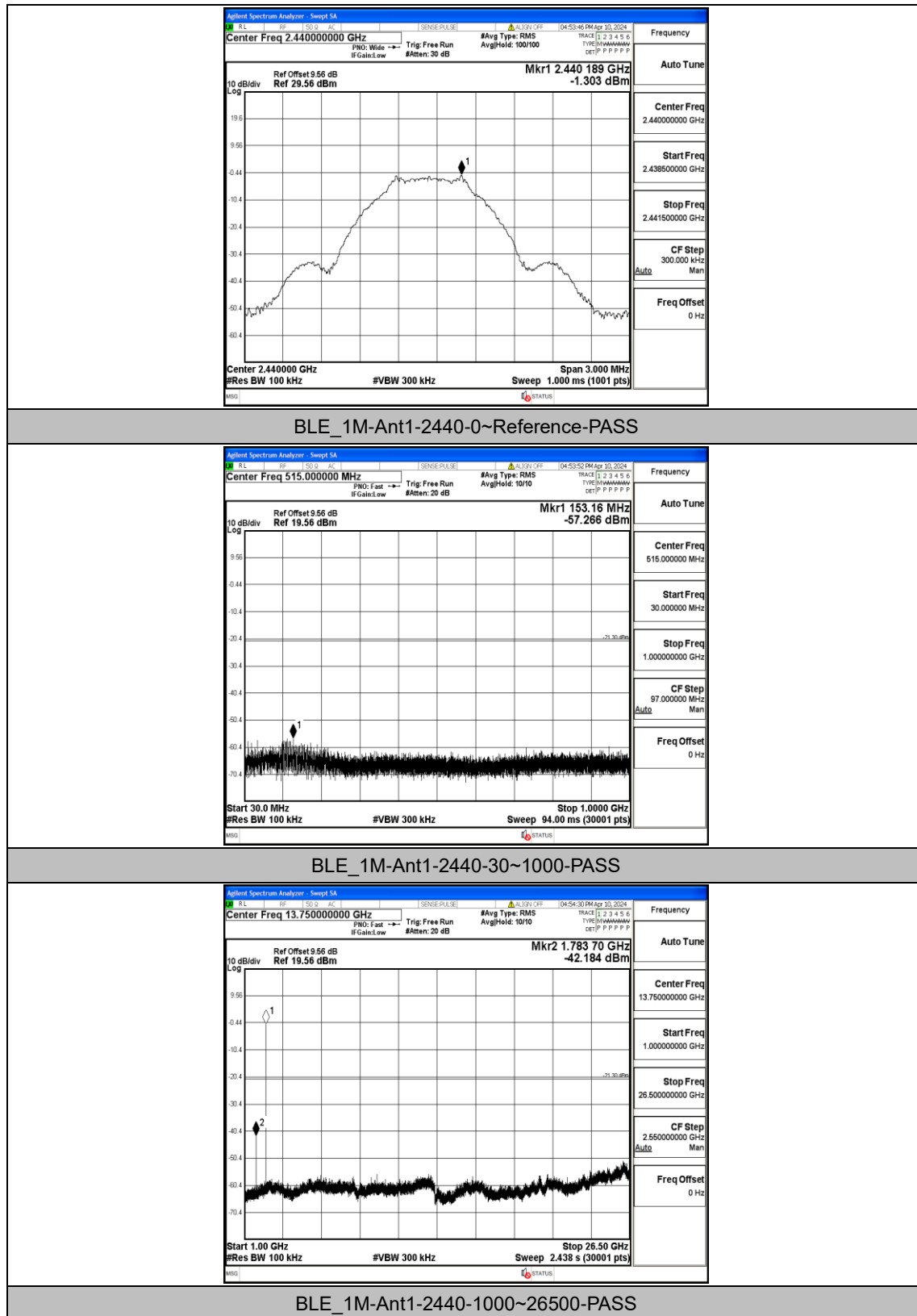
## Appendix F: Conducted Spurious Emission

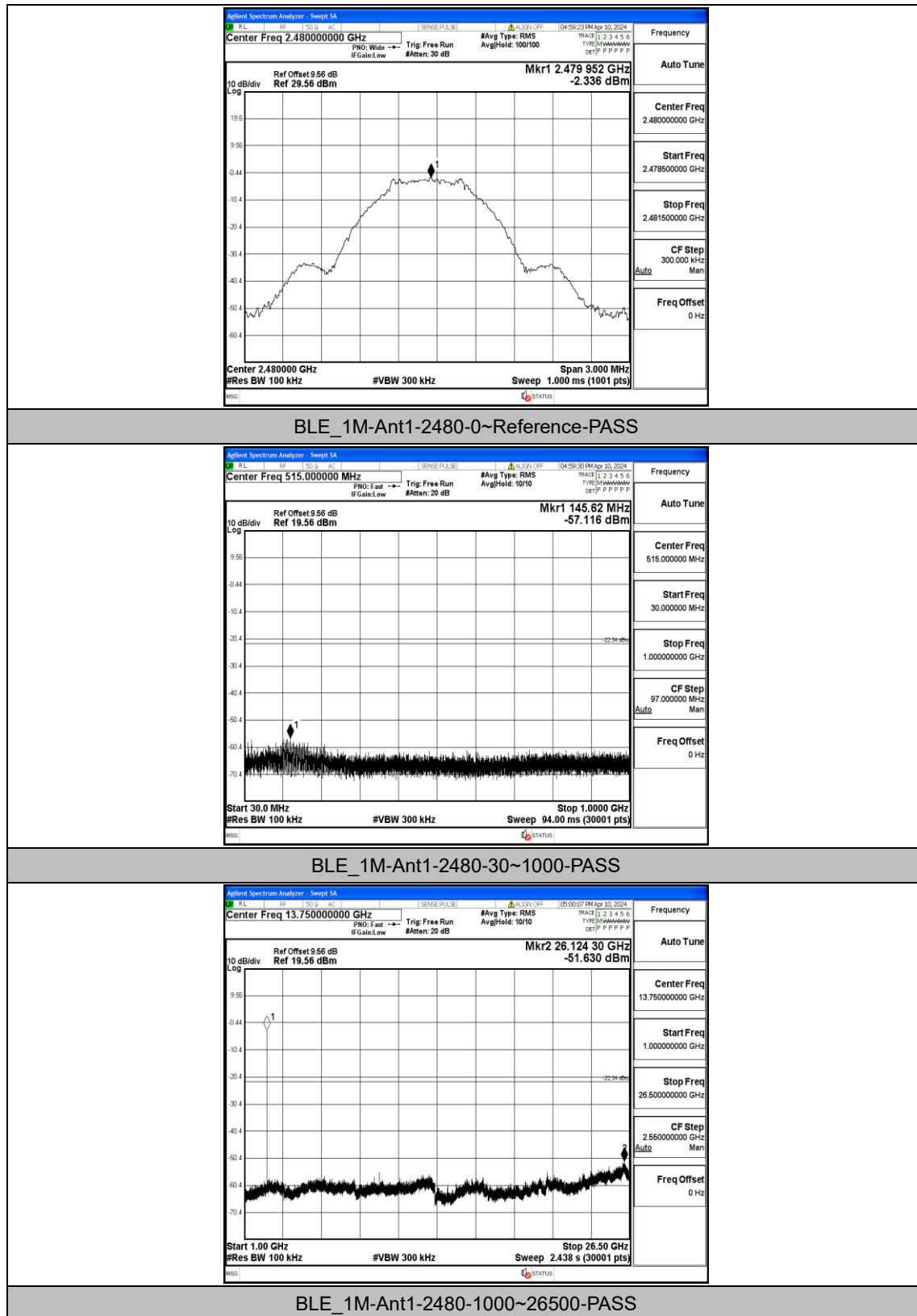
### Test Result

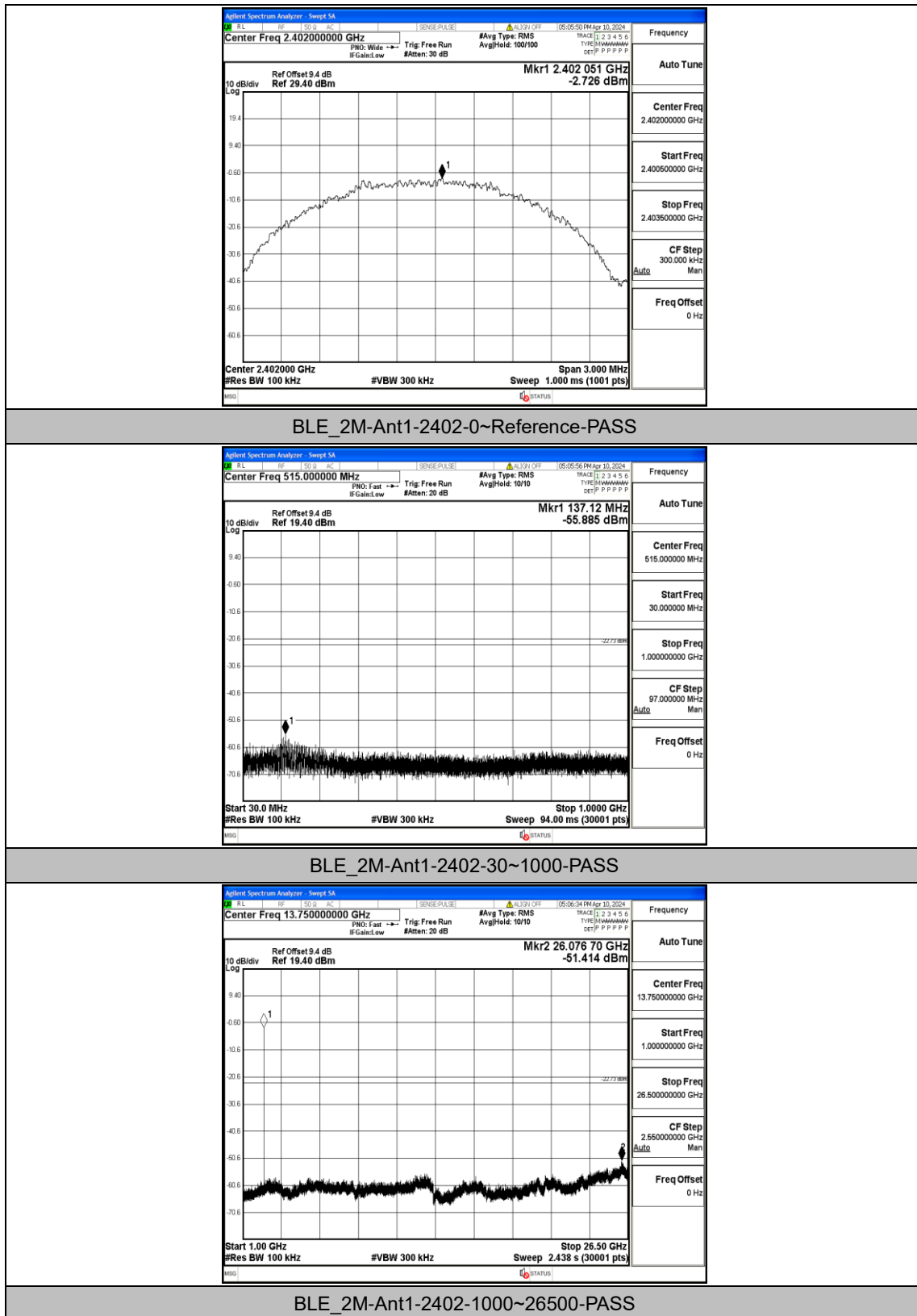
| TestMode | Antenna | Frequency[MHz] | FreqRange [MHz] | RefLevel [dBm] | Result[dBm] | Limit[dBm] | Verdict |
|----------|---------|----------------|-----------------|----------------|-------------|------------|---------|
| BLE_1M   | Ant1    | 2402           | 0~Reference     | -0.90          | -0.90       | ---        | PASS    |
| BLE_1M   | Ant1    | 2402           | 30~1000         | -0.90          | -56.92      | <=-20.9    | PASS    |
| BLE_1M   | Ant1    | 2402           | 1000~26500      | -0.90          | -51.93      | <=-20.9    | PASS    |
| BLE_1M   | Ant1    | 2440           | 0~Reference     | -1.30          | -1.30       | ---        | PASS    |
| BLE_1M   | Ant1    | 2440           | 30~1000         | -1.30          | -57.27      | <=-21.3    | PASS    |
| BLE_1M   | Ant1    | 2440           | 1000~26500      | -1.30          | -42.18      | <=-21.3    | PASS    |
| BLE_1M   | Ant1    | 2480           | 0~Reference     | -2.34          | -2.34       | ---        | PASS    |
| BLE_1M   | Ant1    | 2480           | 30~1000         | -2.34          | -57.12      | <=-22.34   | PASS    |
| BLE_1M   | Ant1    | 2480           | 1000~26500      | -2.34          | -51.63      | <=-22.34   | PASS    |
| BLE_2M   | Ant1    | 2402           | 0~Reference     | -2.73          | -2.73       | ---        | PASS    |
| BLE_2M   | Ant1    | 2402           | 30~1000         | -2.73          | -55.89      | <=-22.73   | PASS    |
| BLE_2M   | Ant1    | 2402           | 1000~26500      | -2.73          | -51.41      | <=-22.73   | PASS    |
| BLE_2M   | Ant1    | 2440           | 0~Reference     | -2.75          | -2.75       | ---        | PASS    |
| BLE_2M   | Ant1    | 2440           | 30~1000         | -2.75          | -56.91      | <=-22.75   | PASS    |
| BLE_2M   | Ant1    | 2440           | 1000~26500      | -2.75          | -47.88      | <=-22.75   | PASS    |
| BLE_2M   | Ant1    | 2480           | 0~Reference     | -4.59          | -4.59       | ---        | PASS    |
| BLE_2M   | Ant1    | 2480           | 30~1000         | -4.59          | -57.36      | <=-24.59   | PASS    |
| BLE_2M   | Ant1    | 2480           | 1000~26500      | -4.59          | -42.71      | <=-24.59   | PASS    |

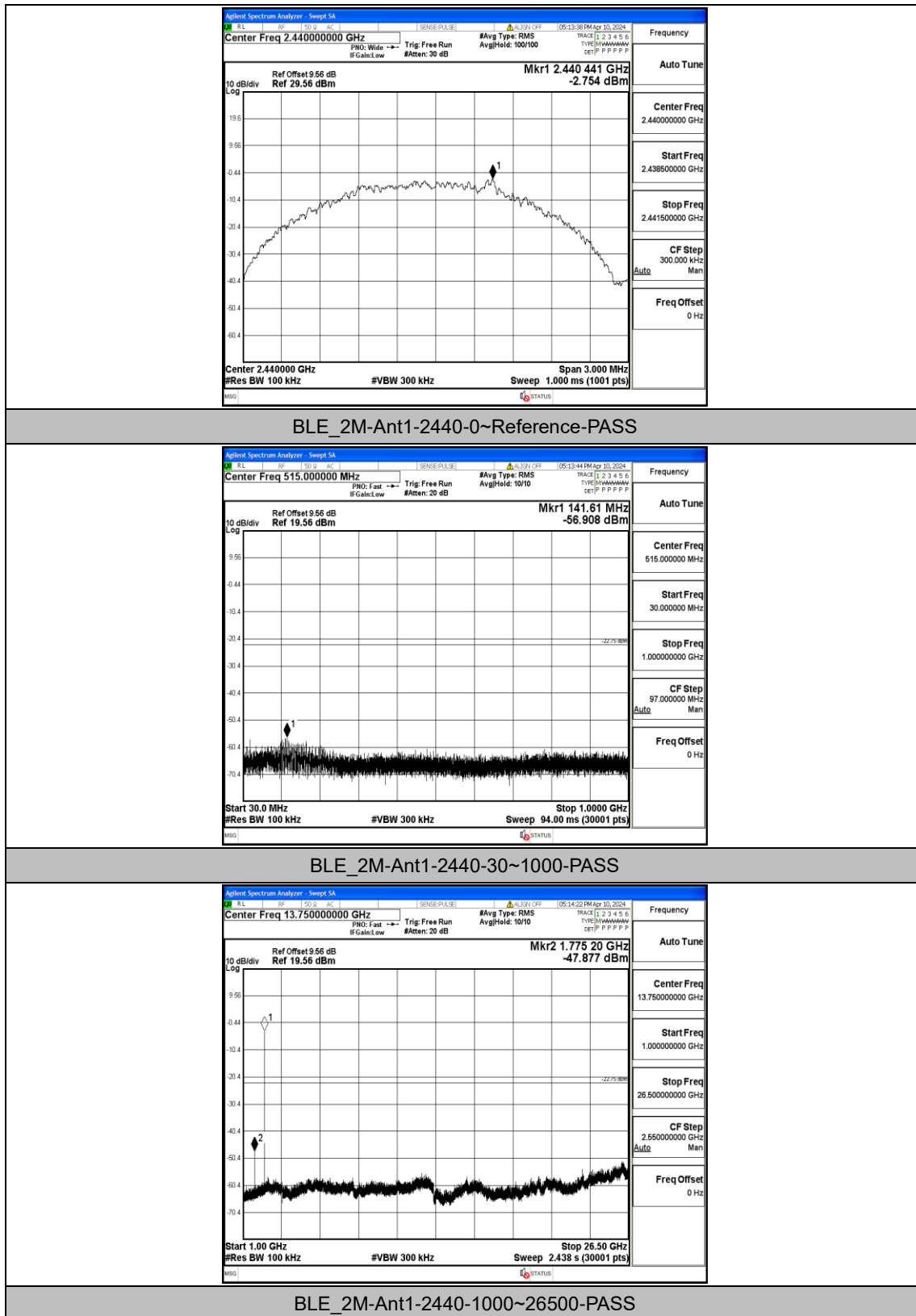
## Test Graphs

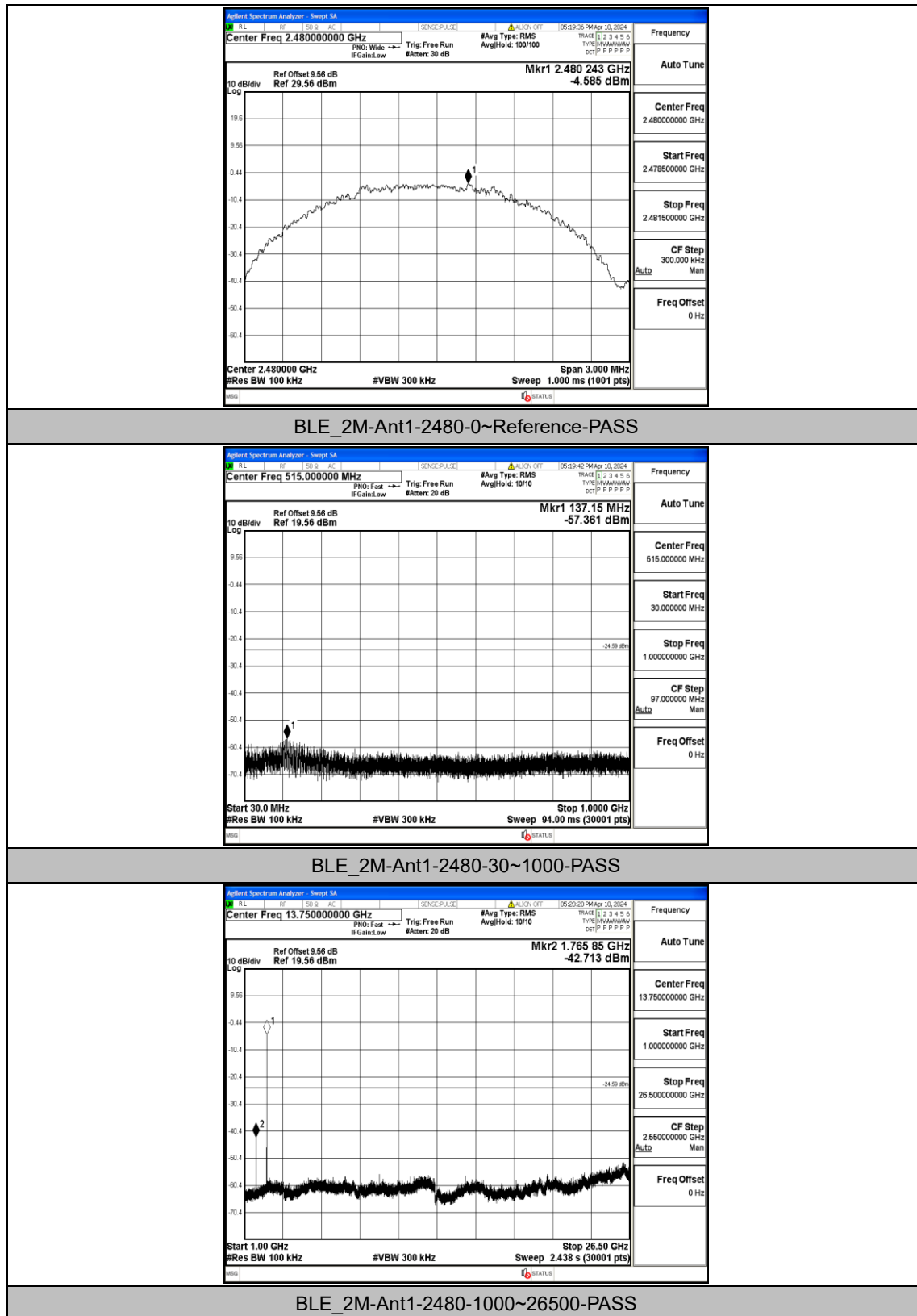










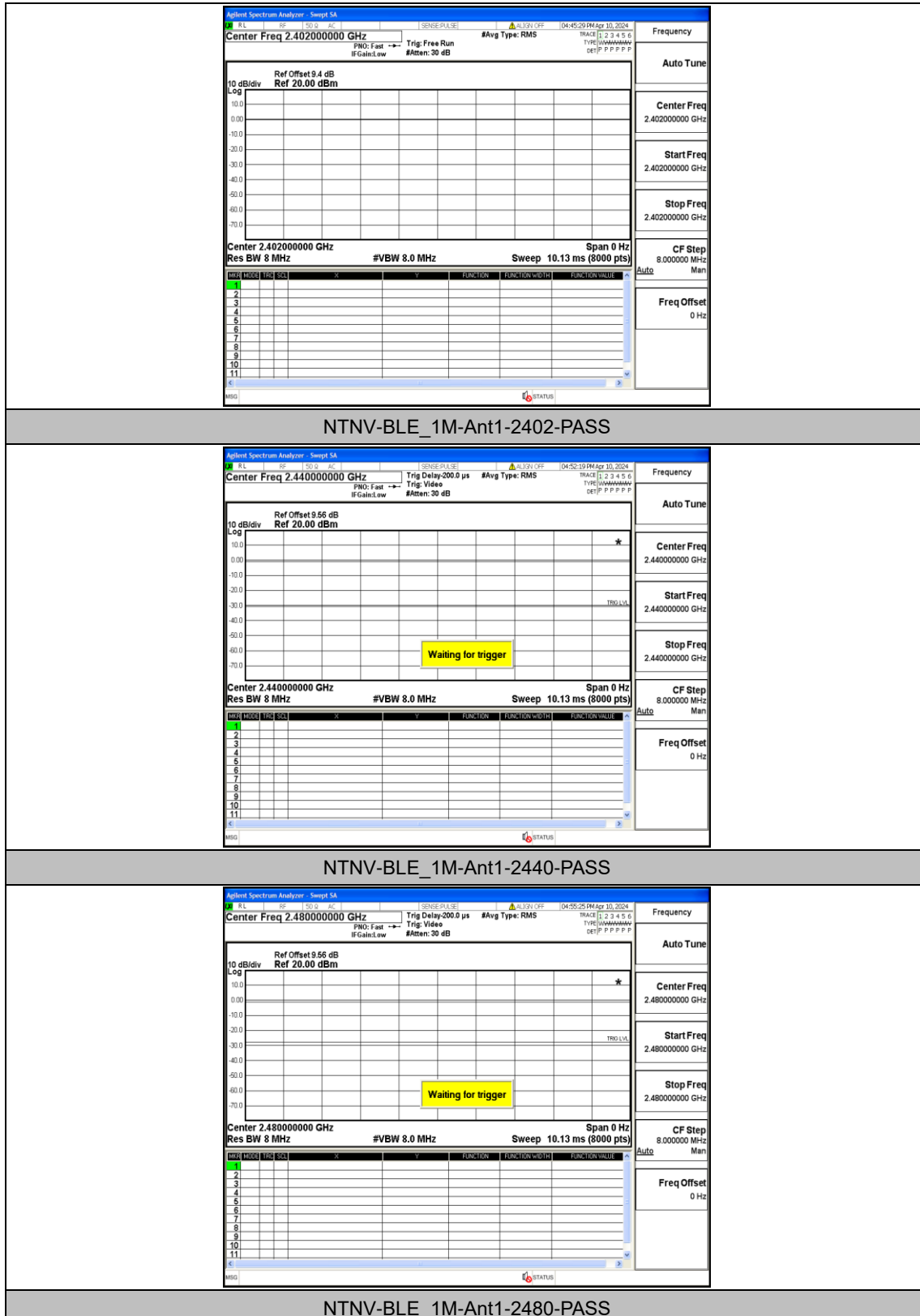


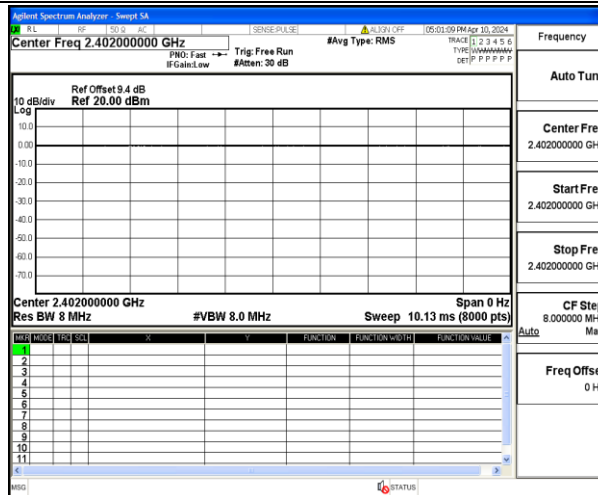
## Appendix G: Duty Cycle

### Test Result

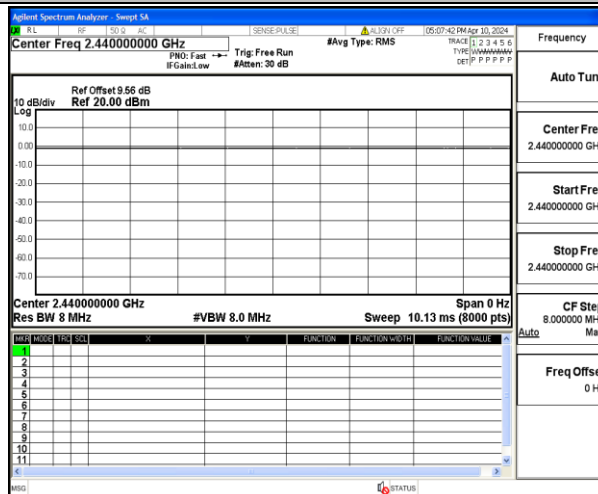
| TestMode | Antenna | Frequency[MHz] | ON Time<br>[ms] | Period<br>[ms] | Duty Cycle<br>[%] | Duty Cycle<br>Factor[dB] |
|----------|---------|----------------|-----------------|----------------|-------------------|--------------------------|
| BLE_1M   | Ant1    | 2402           | 10.00           | 10.00          | 100.00            | 0.00                     |
| BLE_1M   | Ant1    | 2440           | 10.00           | 10.00          | 100.00            | 0.00                     |
| BLE_1M   | Ant1    | 2480           | 10.00           | 10.00          | 100.00            | 0.00                     |
| BLE_2M   | Ant1    | 2402           | 10.00           | 10.00          | 100.00            | 0.00                     |
| BLE_2M   | Ant1    | 2440           | 10.00           | 10.00          | 100.00            | 0.00                     |
| BLE_2M   | Ant1    | 2480           | 10.00           | 10.00          | 100.00            | 0.00                     |

## Test Graphs

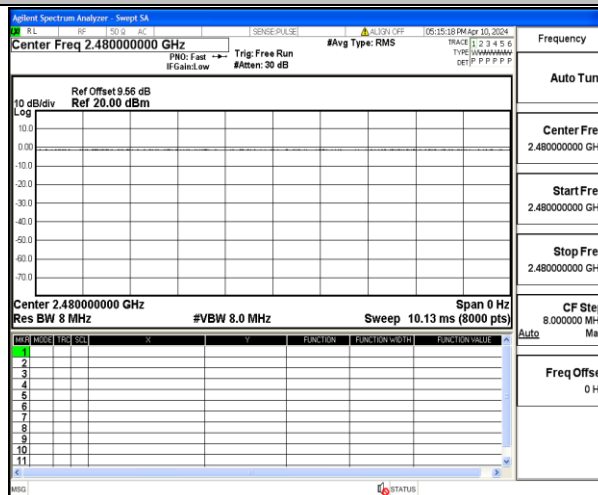




NTNV-BLE\_2M-Ant1-2402-PASS



NTNV-BLE\_2M-Ant1-2440-PASS



NTNV-BLE\_2M-Ant1-2480-PASS

