



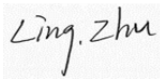
## Appendix B

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

Product Name: Smart POS

Test Model: WIZARPOS Q2

#### Environmental Conditions

|                    |                                                                                                 |
|--------------------|-------------------------------------------------------------------------------------------------|
| Temperature:       | 23.5℃                                                                                           |
| Relative Humidity: | 52.2%                                                                                           |
| ATM Pressure:      | 100.0 kPa                                                                                       |
| Test Engineer:     | <br>Ling Zhu  |
| Supervised by:     | <br>Li Huan |



## B.1 DTS Bandwidth

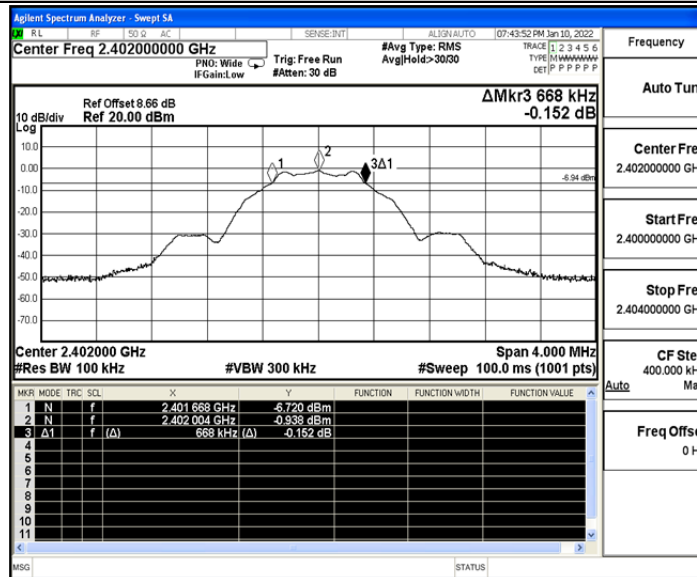
### Test Result

| TestMode | Antenna | Channel | DTS BW [MHz] | FL[MHz]  | FH[MHz]  | Limit[MHz] | Verdict |
|----------|---------|---------|--------------|----------|----------|------------|---------|
| BLE_1M   | Ant1    | 2402    | 0.668        | 2401.668 | 2402.336 | 0.5        | PASS    |
|          |         | 2440    | 0.664        | 2439.668 | 2440.332 | 0.5        | PASS    |
|          |         | 2480    | 0.668        | 2479.664 | 2480.332 | 0.5        | PASS    |

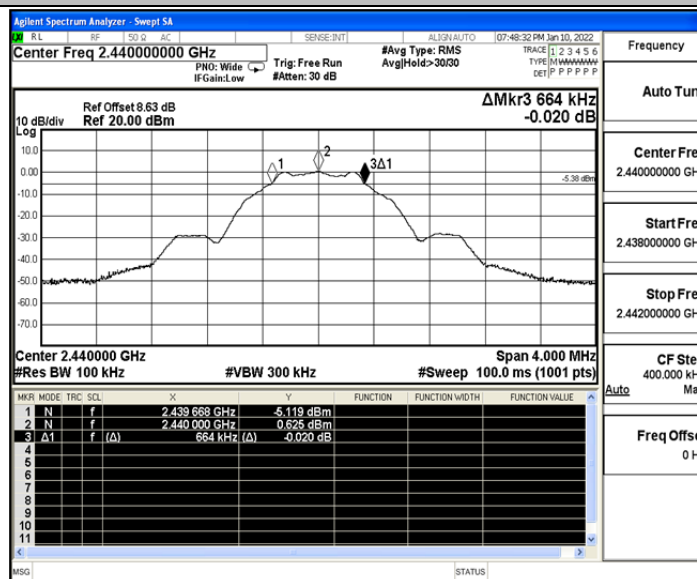


## Test Graphs

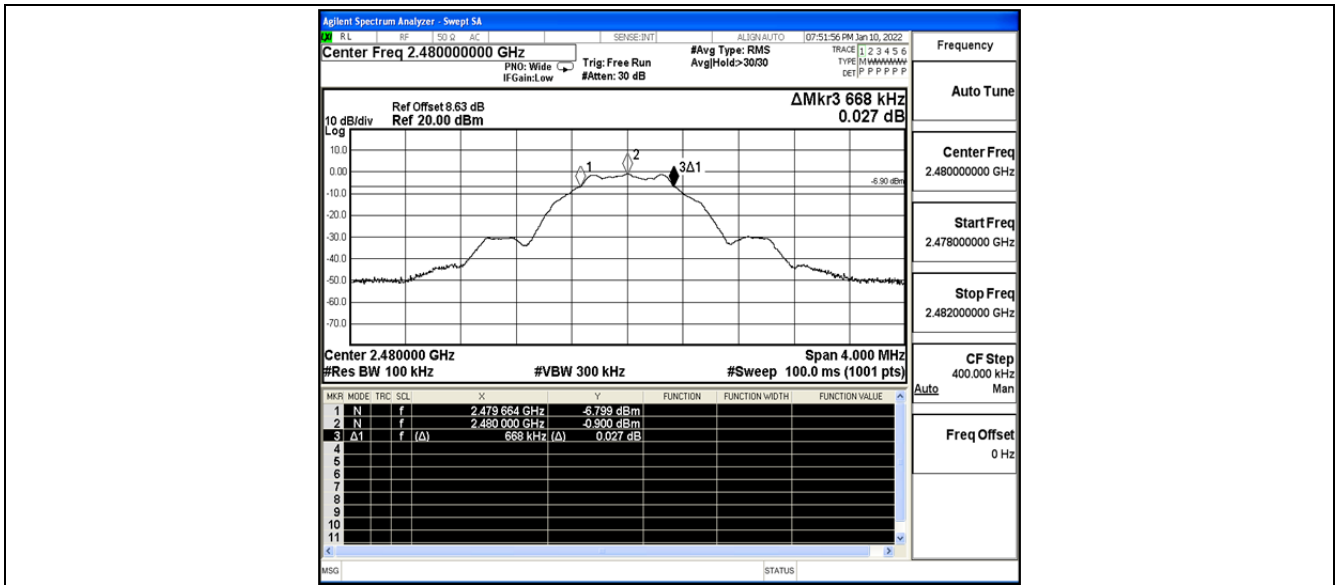
BLE\_1M\_Ant1\_2402



BLE\_1M\_Ant1\_2440



BLE\_1M\_Ant1\_2480





## B.2 Maximum peak conducted output power

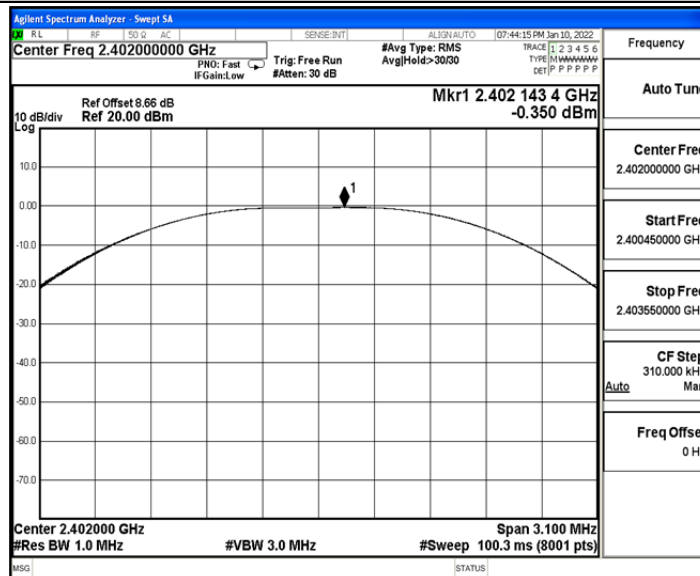
### Test Result

| TestMode | Antenna | Channel | Result[dBm] | Limit[dBm] | Verdict |
|----------|---------|---------|-------------|------------|---------|
| BLE_1M   | Ant1    | 2402    | -0.35       | ≤30        | PASS    |
|          |         | 2440    | 1.16        | ≤30        | PASS    |
|          |         | 2480    | -0.34       | ≤30        | PASS    |

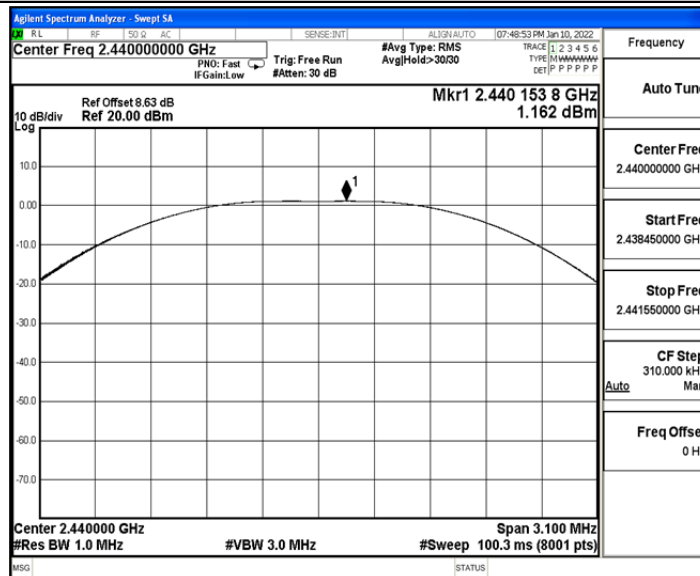


## Test Graphs

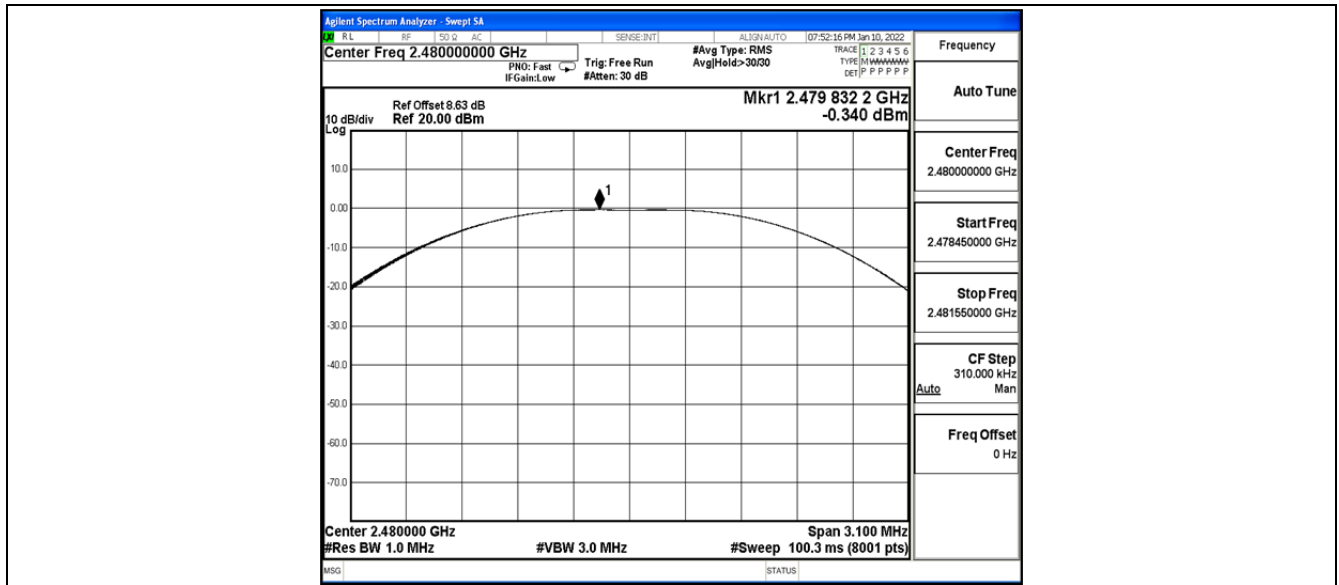
BLE\_1M\_Ant1\_2402



BLE\_1M\_Ant1\_2440



BLE\_1M\_Ant1\_2480





## B.3 Maximum power spectral density

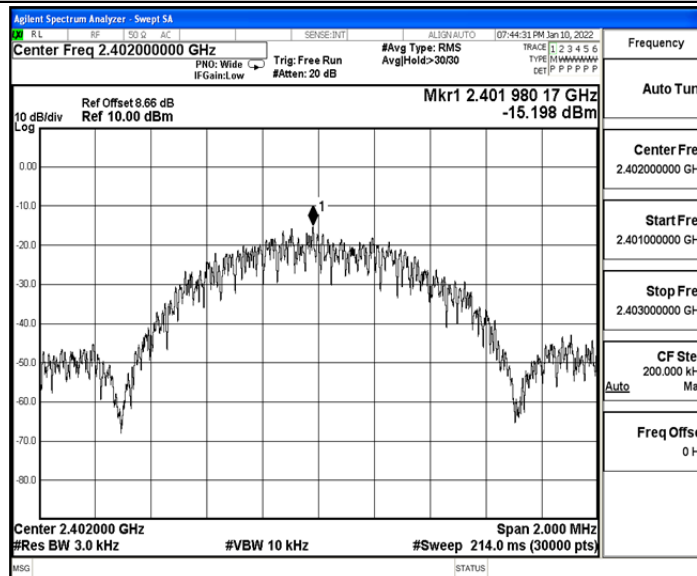
### Test Result

| TestMode | Antenna | Channel | Result[dBm/3-100kHz] | Limit[dBm/3kHz] | Verdict |
|----------|---------|---------|----------------------|-----------------|---------|
| BLE_1M   | Ant1    | 2402    | -15.2                | ≤8.00           | PASS    |
|          |         | 2440    | -13.62               | ≤8.00           | PASS    |
|          |         | 2480    | -15.29               | ≤8.00           | PASS    |

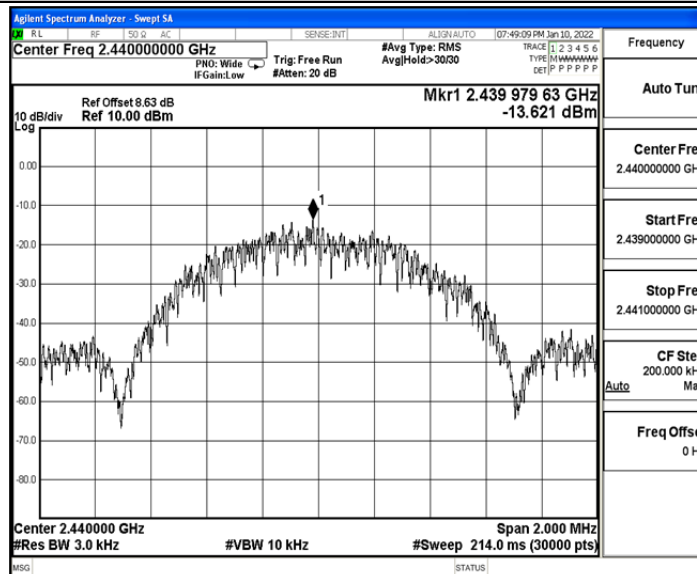


## Test Graphs

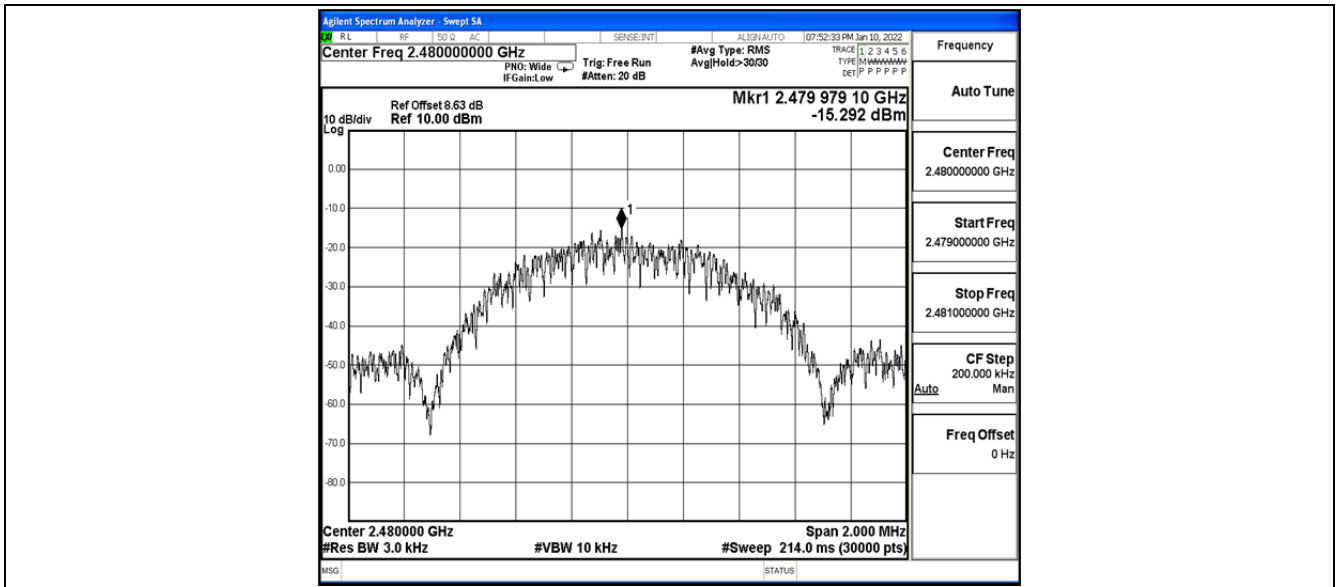
BLE\_1M\_Ant1\_2402



BLE\_1M\_Ant1\_2440



BLE\_1M\_Ant1\_2480





## B.4 Band edge measurements

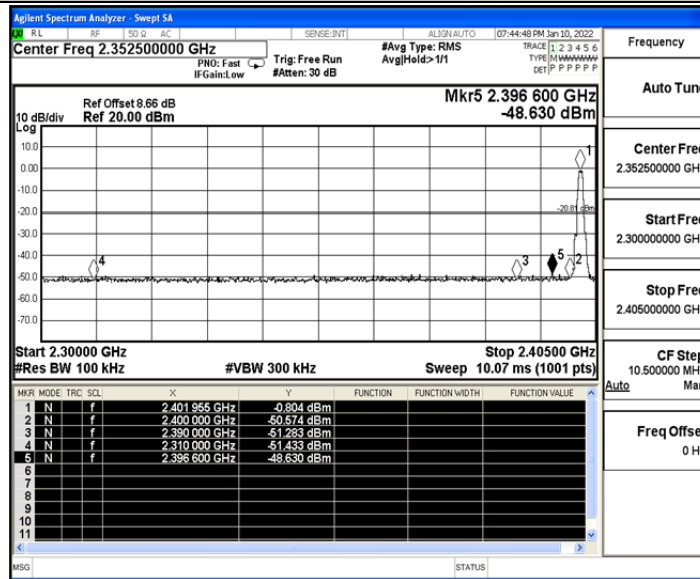
### Test Result

| TestMode | Antenna | ChName | Channel | RefLevel[dBm] | Result[dBm] | Limit[dBm]    | Verdict |
|----------|---------|--------|---------|---------------|-------------|---------------|---------|
| BLE_1M   | Ant1    | Low    | 2402    | -0.81         | -48.63      | $\leq -20.81$ | PASS    |
|          |         | High   | 2480    | -0.77         | -47.72      | $\leq -20.77$ | PASS    |

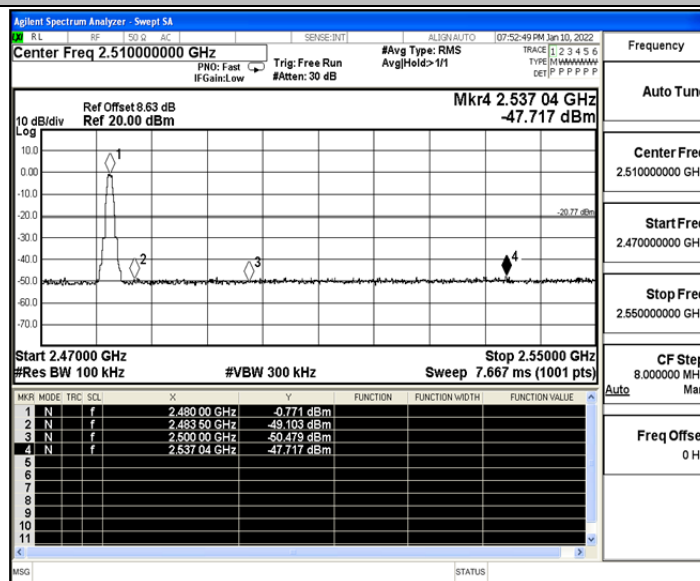


## Test Graphs

BLE\_1M\_Ant1\_Low\_2402



BLE\_1M\_Ant1\_High\_2480





## B.5 Conducted Spurious Emission

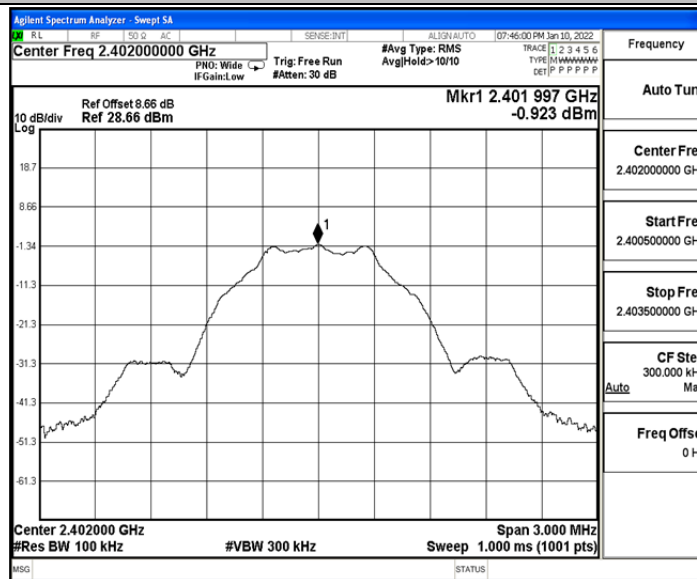
### Test Result

| TestMode | Antenna | Channel | FreqRange<br>[MHz] | RefLevel<br>[dBm] | Result[dBm] | Limit[dBm]    | Verdict |
|----------|---------|---------|--------------------|-------------------|-------------|---------------|---------|
| BLE_1M   | Ant1    | 2402    | Reference          | -0.92             | -0.92       | ---           | PASS    |
|          |         |         | 30~1000            | -0.92             | -60.84      | $\leq -20.92$ | PASS    |
|          |         |         | 1000~26500         | -0.92             | -46.05      | $\leq -20.92$ | PASS    |
|          |         | 2440    | Reference          | 0.63              | 0.63        | ---           | PASS    |
|          |         |         | 30~1000            | 0.63              | -60.52      | $\leq -19.37$ | PASS    |
|          |         |         | 1000~26500         | 0.63              | -46.3       | $\leq -19.37$ | PASS    |
|          |         | 2480    | Reference          | -0.89             | -0.89       | ---           | PASS    |
|          |         |         | 30~1000            | -0.89             | -60.41      | $\leq -20.89$ | PASS    |
|          |         |         | 1000~26500         | -0.89             | -45.04      | $\leq -20.89$ | PASS    |

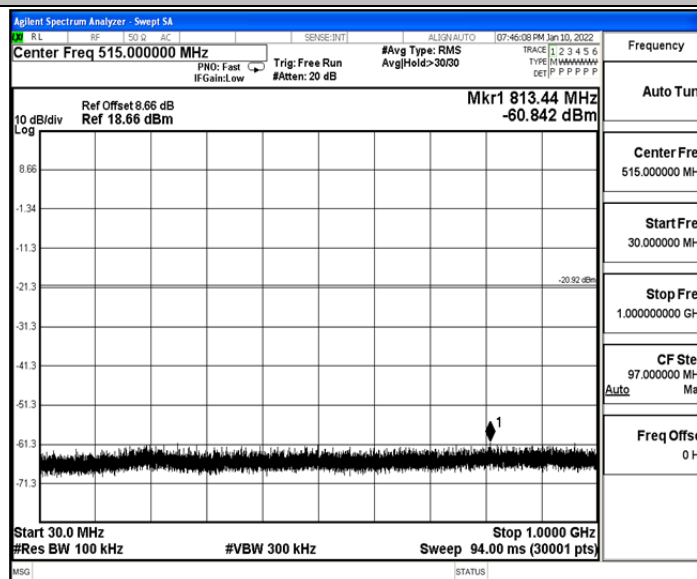


## Test Graphs

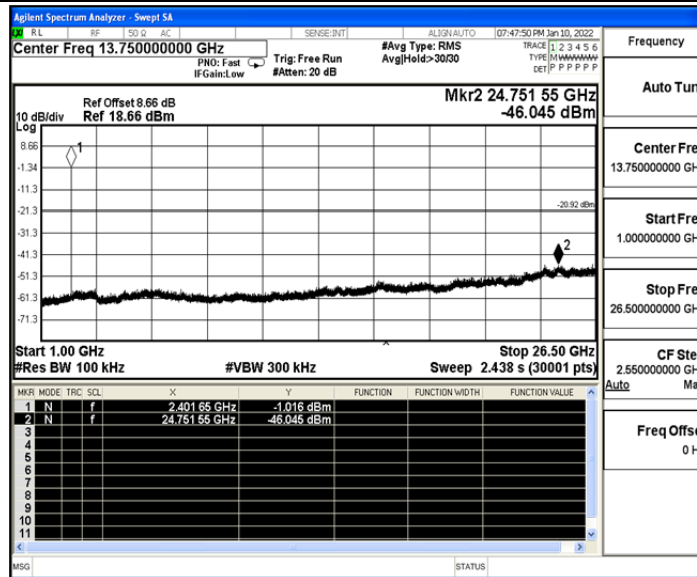
BLE\_1M\_Ant1\_2402\_0~Reference



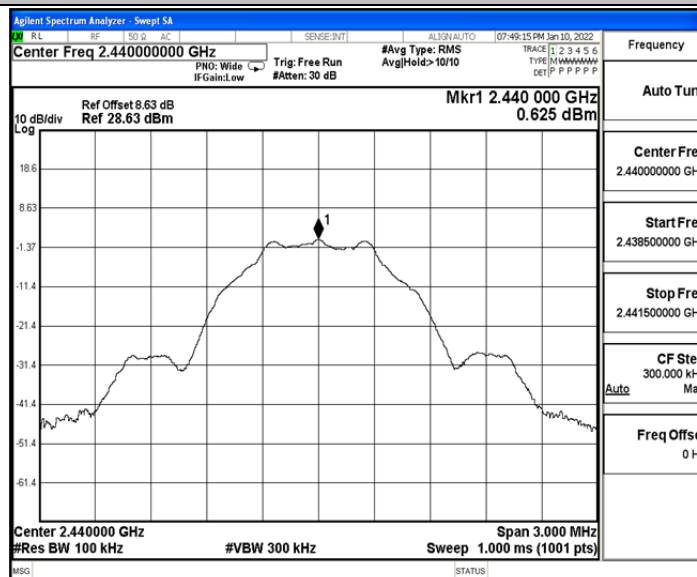
BLE\_1M\_Ant1\_2402\_30~1000



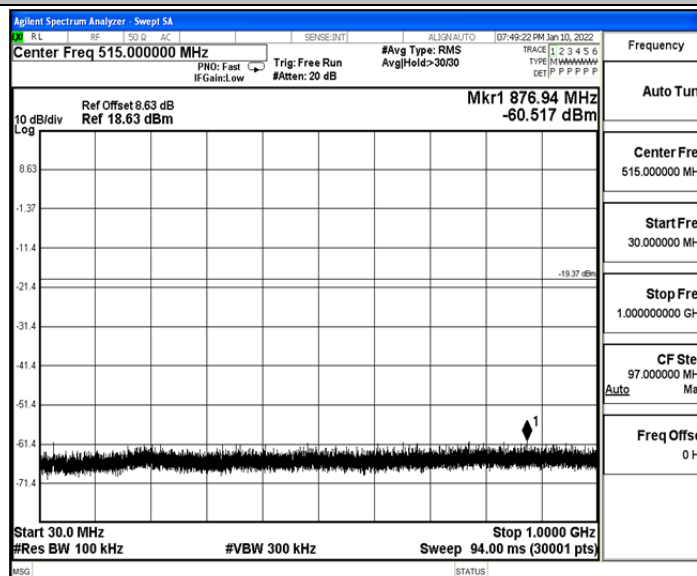
BLE\_1M\_Ant1\_2402\_1000~26500



BLE\_1M\_Ant1\_2440\_0~Reference

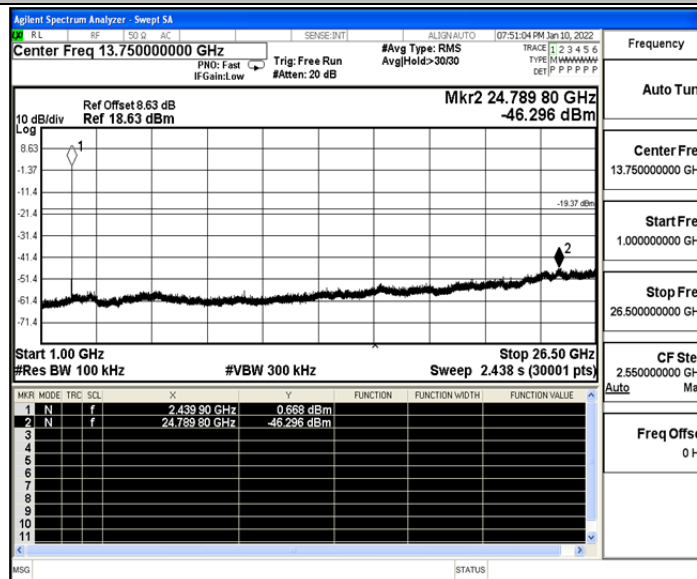


BLE\_1M\_Ant1\_2440\_30~1000

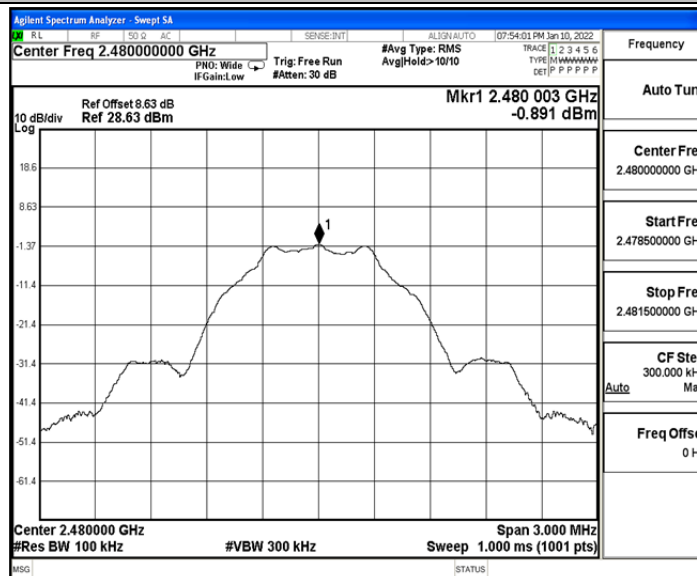




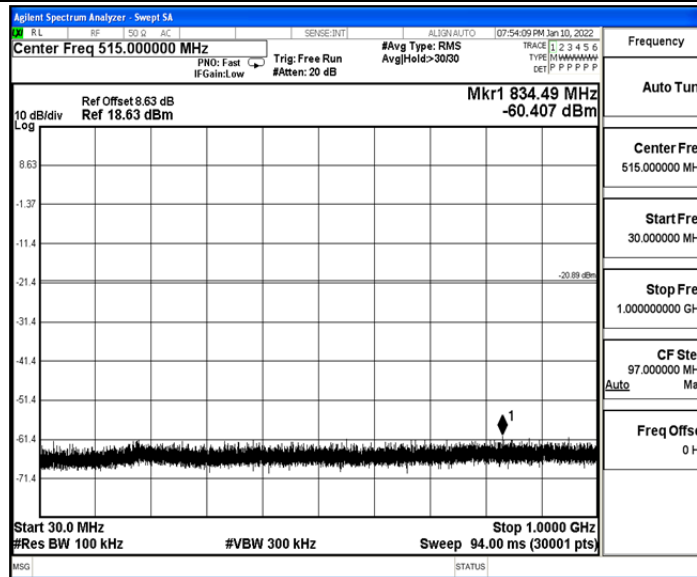
## BLE\_1M\_Ant1\_2440\_1000~26500



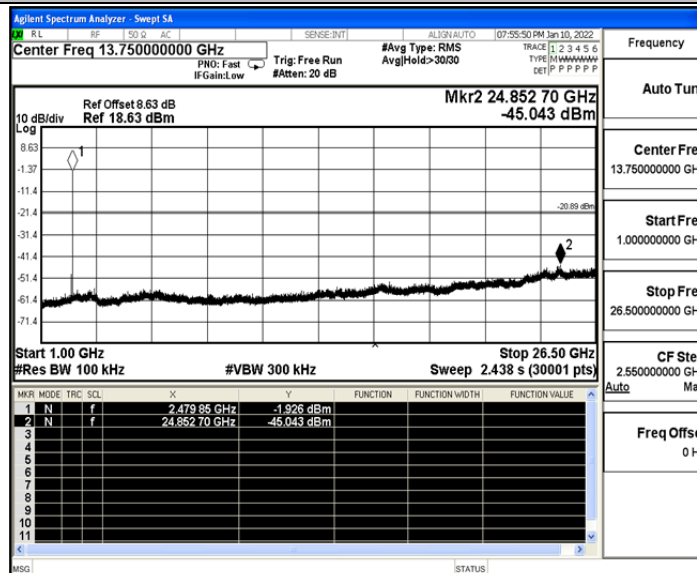
## BLE\_1M\_Ant1\_2480\_0~Reference



## BLE\_1M\_Ant1\_2480\_30~1000



## BLE\_1M\_Ant1\_2480\_1000~26500





## B.6 Duty Cycle

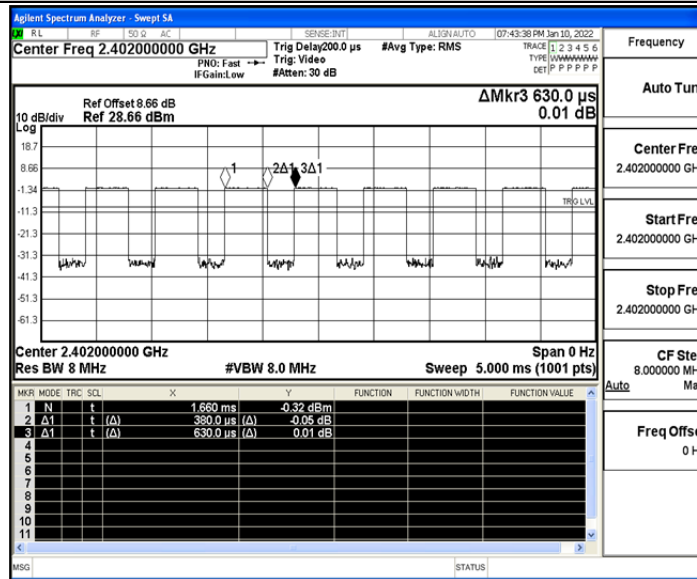
### Test Result

| TestMode | Antenna | Channel | ON Time<br>[ms] | Period<br>[ms] | X      | DC [%] | xFactor | Limit | Verdict |
|----------|---------|---------|-----------------|----------------|--------|--------|---------|-------|---------|
| BLE_1M   | Ant1    | 2402    | 0.38            | 0.63           | 0.6032 | 60.32  | 2.20    | ---   | ---     |
|          |         | 2440    | 0.38            | 0.63           | 0.6032 | 60.32  | 2.20    | ---   | ---     |
|          |         | 2480    | 0.38            | 0.63           | 0.6032 | 60.32  | 2.20    | ---   | ---     |

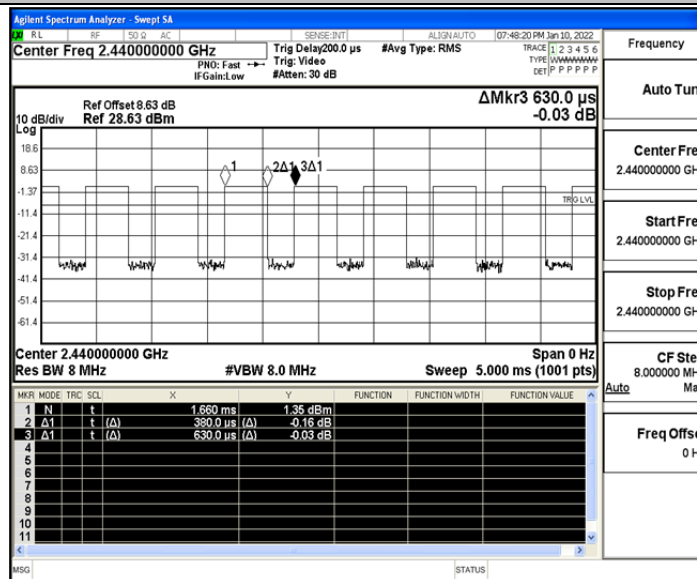


## Test Graphs

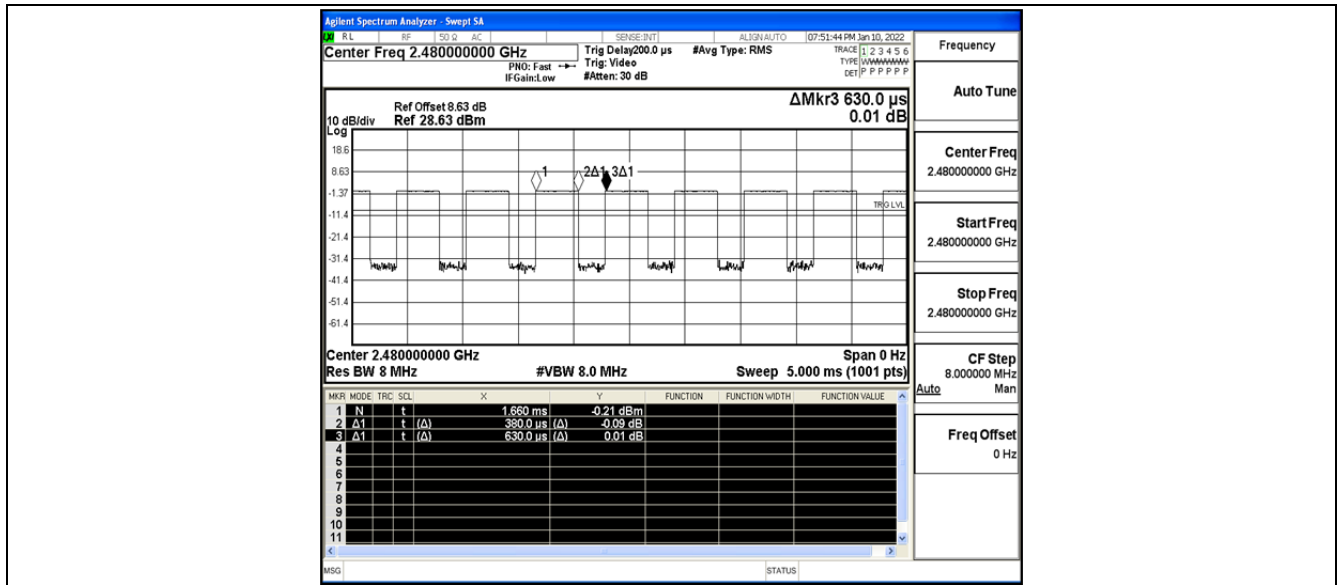
BLE\_1M\_Ant1\_2402



BLE\_1M\_Ant1\_2440



BLE\_1M\_Ant1\_2480





## B.7 Emissions in Restricted Bands

### Test Result

| TestMode | Antenna | ChName | Channel | Detector | Freq. [MHz] | Result [dBm] | Limit [dBm] | Result [dBuV/m] | Limit [dBuV/m] | Verdict |
|----------|---------|--------|---------|----------|-------------|--------------|-------------|-----------------|----------------|---------|
| BLE_1M   | Ant1    | Low    | 2402    | AV       | 2310.000    | -47.4        | ≤-41.20     | 47.80           | ≤54            | PASS    |
|          |         |        |         | AV       | 2377.595    | -46.65       | ≤-41.20     | 48.55           | ≤54            | PASS    |
|          |         |        |         | AV       | 2390.000    | -47.13       | ≤-41.20     | 48.07           | ≤54            | PASS    |
|          |         |        |         | Peak     | 2310.000    | -37.92       | ≤-21.20     | 57.28           | ≤74            | PASS    |
|          |         |        |         | Peak     | 2373.920    | -36.94       | ≤-21.20     | 58.26           | ≤74            | PASS    |
|          |         |        |         | Peak     | 2390.000    | -39.55       | ≤-21.20     | 55.65           | ≤74            | PASS    |
|          |         | High   | 2480    | AV       | 2483.500    | -46.41       | ≤-41.20     | 48.79           | ≤54            | PASS    |
|          |         |        |         | AV       | 2483.520    | -46.41       | ≤-41.20     | 48.79           | ≤54            | PASS    |
|          |         |        |         | AV       | 2500.000    | -46.55       | ≤-41.20     | 48.65           | ≤54            | PASS    |
|          |         |        |         | Peak     | 2483.500    | -37.87       | ≤-21.20     | 57.33           | ≤74            | PASS    |
|          |         |        |         | Peak     | 2489.680    | -35.75       | ≤-21.20     | 59.45           | ≤74            | PASS    |
|          |         |        |         | Peak     | 2500.000    | -38.05       | ≤-21.20     | 57.15           | ≤74            | PASS    |

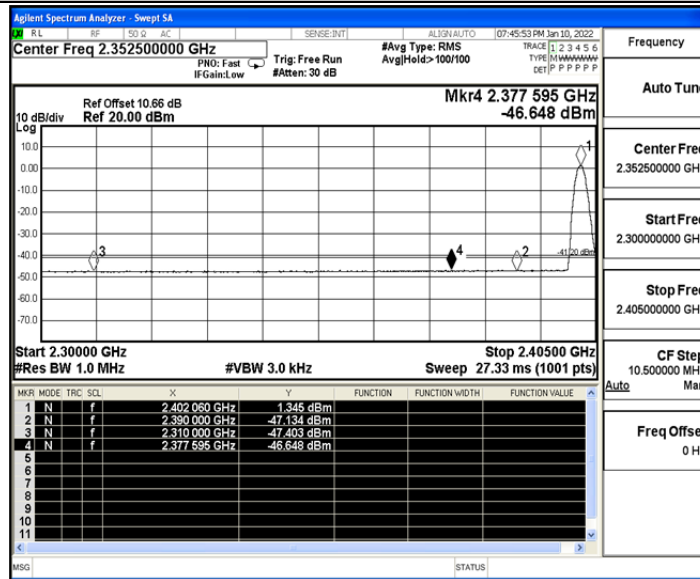
Note:

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.

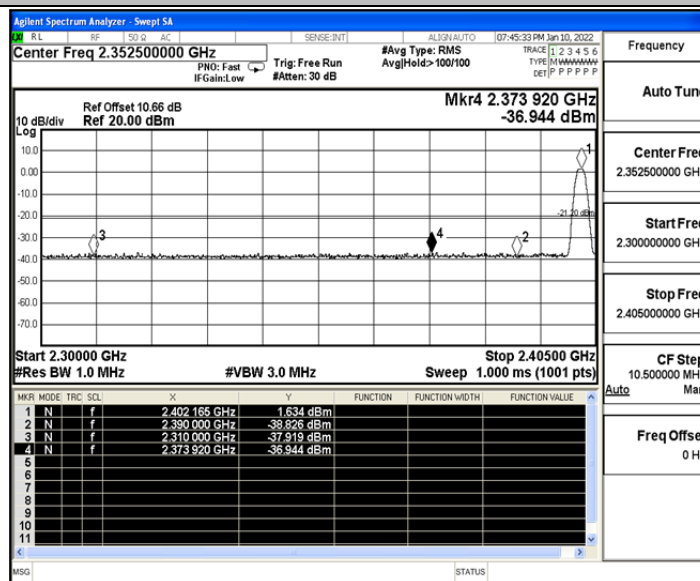


## Test Graphs

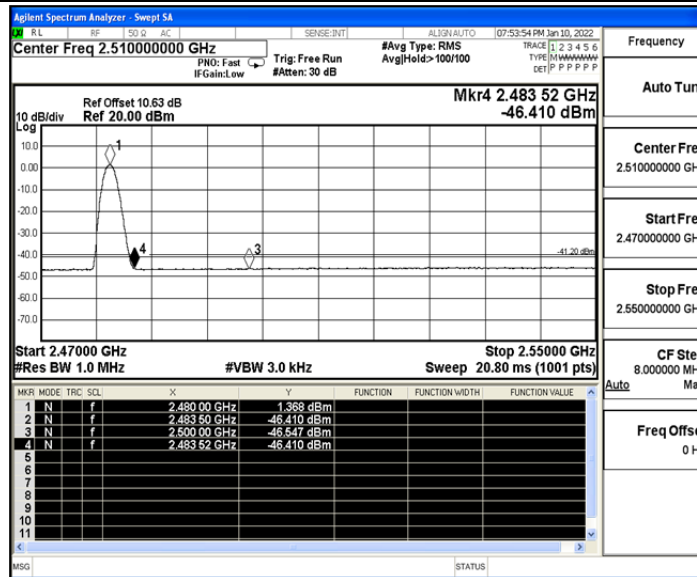
BLE\_1M\_Ant1\_Low\_2402\_AV



BLE\_1M\_Ant1\_Low\_2402\_Peak



BLE\_1M\_Ant1\_High\_2480\_AV



BLE\_1M\_Ant1\_High\_2480\_Peak

