



## Appendix B

### RF Test Data for BT LE V4.2 (DTS) (Conducted Measurement)

**Product Name:** Smartphone

**Trade Mark:** S Smooth

**Test Model:** Smooth 5.5 Lite

#### Environmental Conditions

|                    |           |
|--------------------|-----------|
| Temperature:       | 21.1 ° C  |
| Relative Humidity: | 52.2%     |
| ATM Pressure:      | 100.0 kPa |
| Test Engineer:     | Carl Fu   |
| Supervised by:     | Li Huan   |



## B.1 DTS Bandwidth

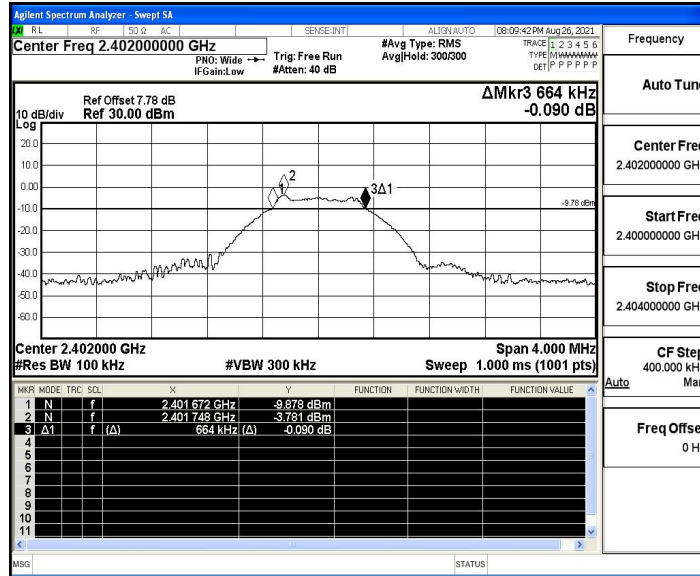
### Test Result

| TestMode | Antenna | Channel | DTS BW [MHz] | FL[MHz]  | FH[MHz]  | Limit[MHz] | Verdict |
|----------|---------|---------|--------------|----------|----------|------------|---------|
| BLE_1M   | Ant1    | 2402    | 0.664        | 2401.672 | 2402.336 | ≥0.5       | PASS    |
|          |         | 2440    | 0.664        | 2439.668 | 2440.332 | ≥0.5       | PASS    |
|          |         | 2480    | 0.680        | 2479.656 | 2480.336 | ≥0.5       | PASS    |

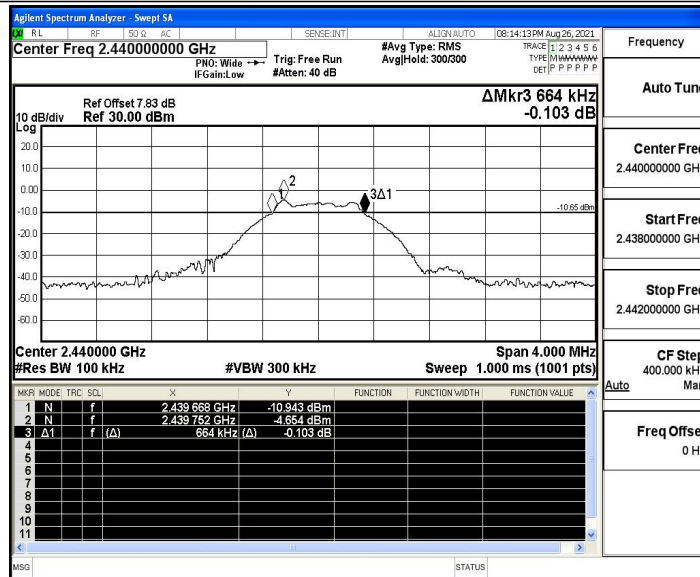


## Test Graphs

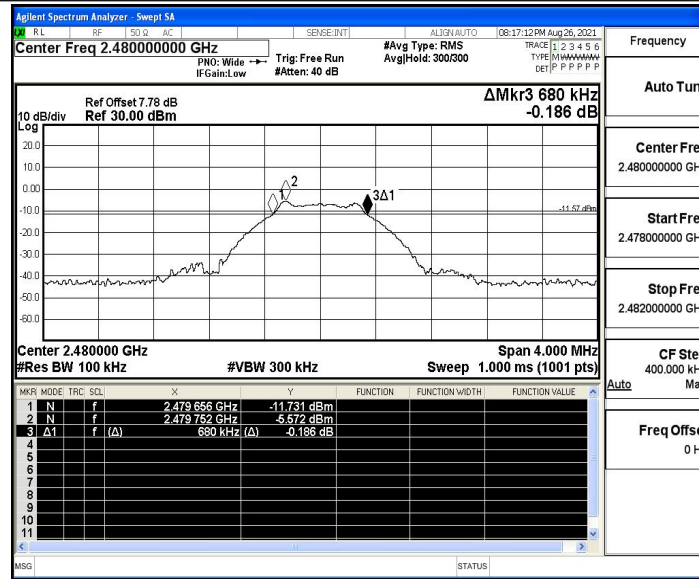
BLE\_1M\_Ant1\_2402



BLE\_1M\_Ant1\_2440



BLE\_1M\_Ant1\_2480





## B.2 Maximum peak conducted output power

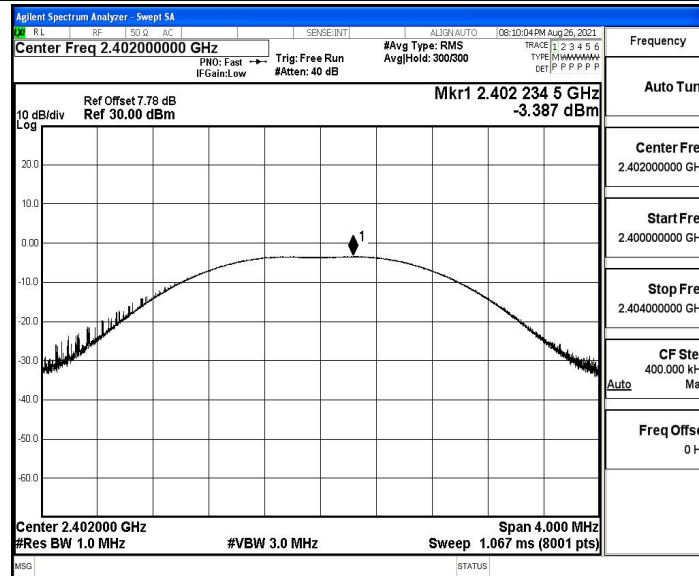
### Test Result

| TestMode | Antenna | Channel | Result[dBm] | Limit[dBm] | Verdict |
|----------|---------|---------|-------------|------------|---------|
| BLE_1M   | Ant1    | 2402    | -3.39       | ≤30        | PASS    |
|          |         | 2440    | -4.36       | ≤30        | PASS    |
|          |         | 2480    | -5.17       | ≤30        | PASS    |

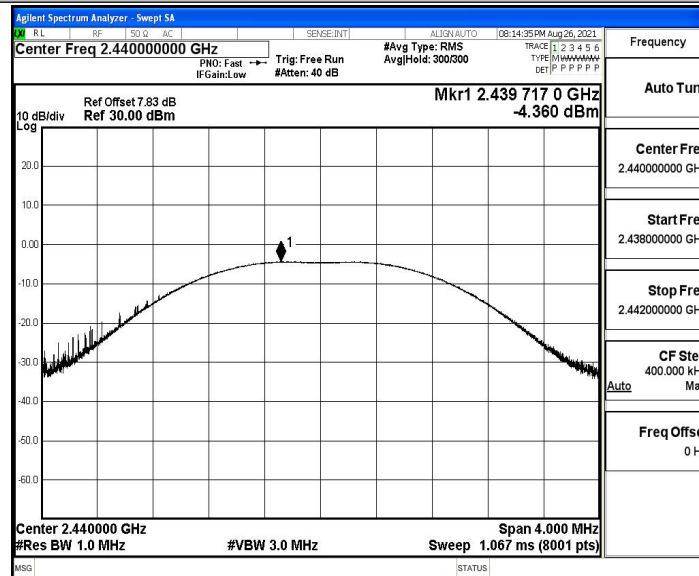


## Test Graphs

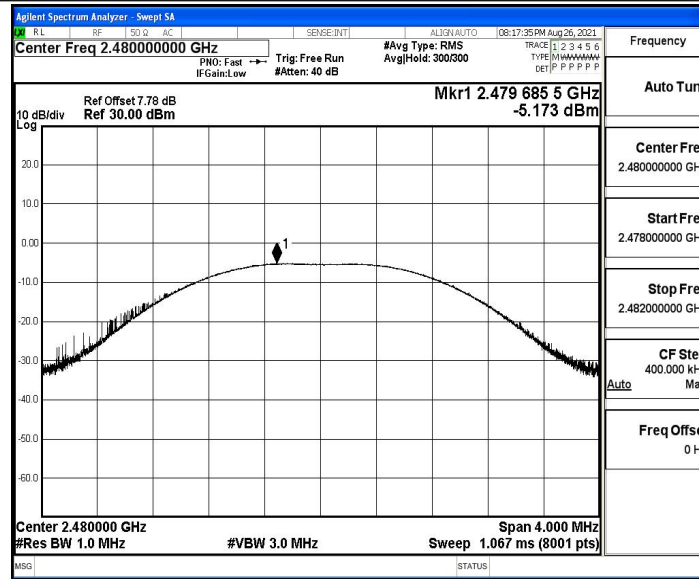
BLE\_1M\_Ant1\_2402



BLE\_1M\_Ant1\_2440



BLE\_1M\_Ant1\_2480





## B.3 Maximum power spectral density

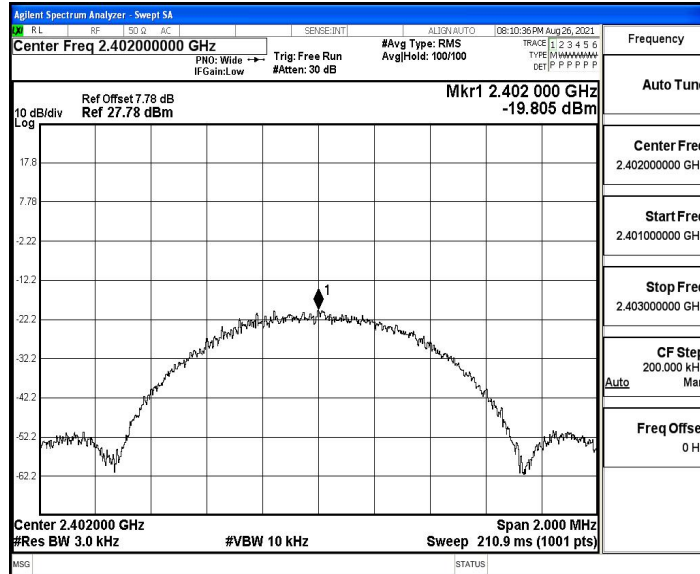
### Test Result

| TestMode | Antenna | Channel | Result[dBm/3-100kHz] | Limit[dBm/3kHz] | Verdict |
|----------|---------|---------|----------------------|-----------------|---------|
| BLE_1M   | Ant1    | 2402    | -19.81               | ≤8              | PASS    |
|          |         | 2440    | -20.68               | ≤8              | PASS    |
|          |         | 2480    | -21.58               | ≤8              | PASS    |

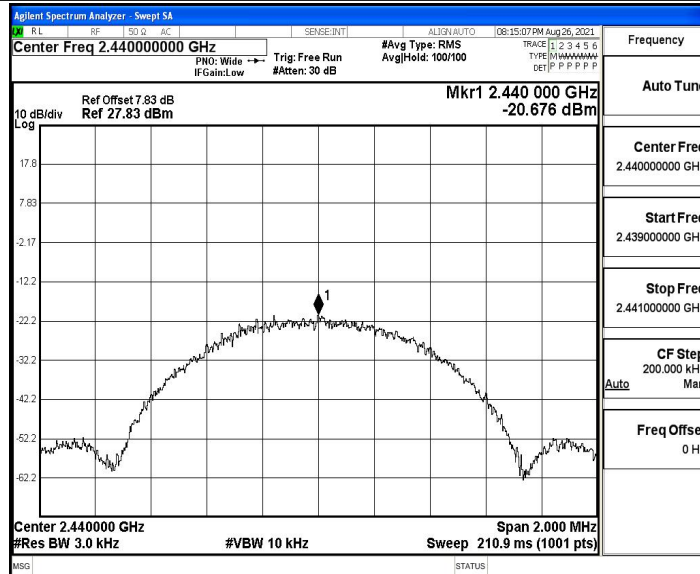


## Test Graphs

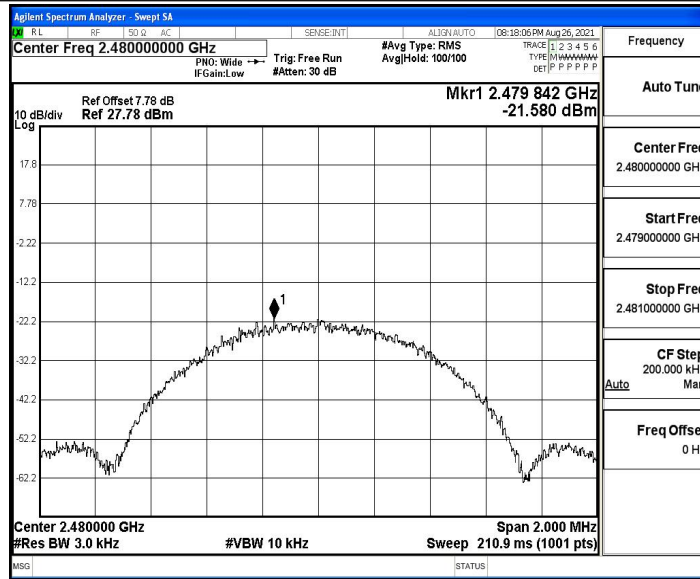
BLE\_1M\_Ant1\_2402



BLE\_1M\_Ant1\_2440



BLE\_1M\_Ant1\_2480





## B.4 Band edge measurements

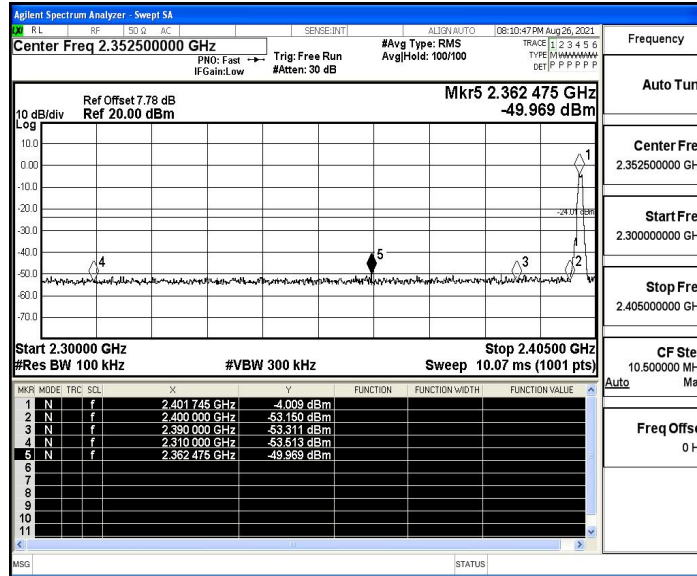
### Test Result

| TestMode | Antenna | ChName | Channel | RefLevel[dBm] | Result[dBm] | Limit[dBm]    | Verdict |
|----------|---------|--------|---------|---------------|-------------|---------------|---------|
| BLE_1M   | Ant1    | Low    | 2402    | -4.01         | -49.97      | $\leq -24.01$ | PASS    |
|          |         | High   | 2480    | -5.53         | -49.34      | $\leq -25.53$ | PASS    |

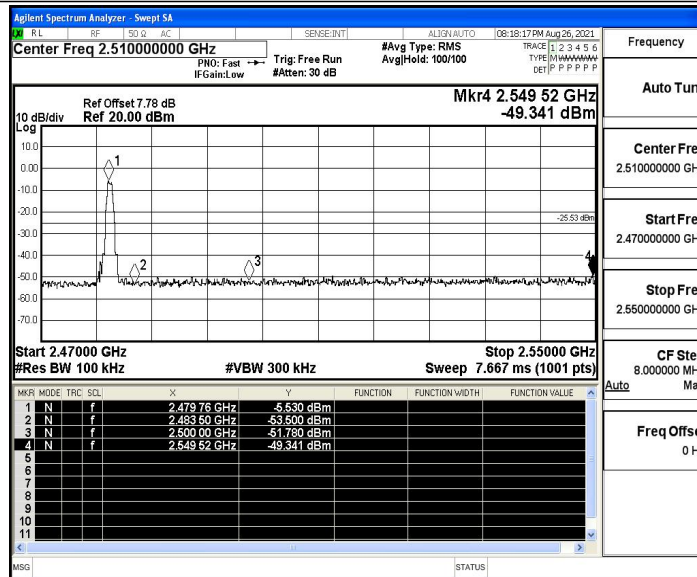


## Test Graphs

BLE\_1M\_Ant1\_Low\_2402



BLE\_1M\_Ant1\_High\_2480





## B.5 Conducted Spurious Emission

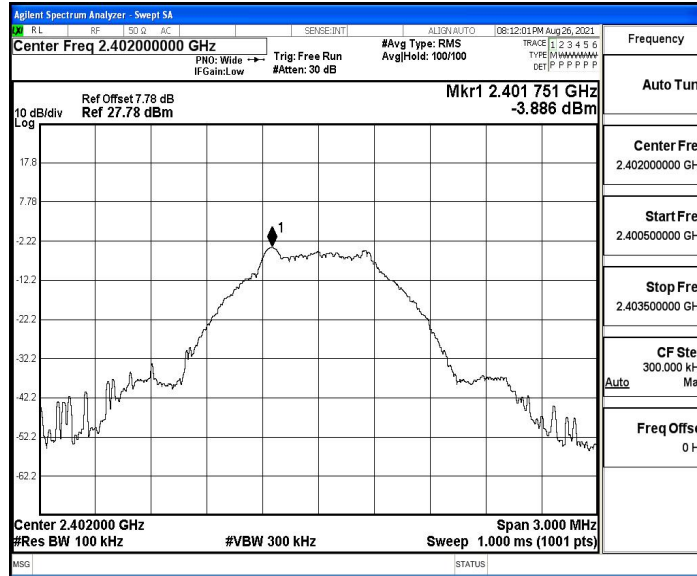
### Test Result

| TestMode | Antenna | Channel | FreqRange<br>[MHz] | RefLevel<br>[dBm] | Result[dBm] | Limit[dBm]    | Verdict |
|----------|---------|---------|--------------------|-------------------|-------------|---------------|---------|
| BLE_1M   | Ant1    | 2402    | Reference          | -3.89             | -3.89       | ---           | PASS    |
|          |         |         | 30~1000            | -3.89             | -60.64      | $\leq -23.89$ | PASS    |
|          |         |         | 1000~26500         | -3.89             | -47.75      | $\leq -23.89$ | PASS    |
|          |         | 2440    | Reference          | -4.78             | -4.78       | ---           | PASS    |
|          |         |         | 30~1000            | -4.78             | -60.71      | $\leq -24.78$ | PASS    |
|          |         |         | 1000~26500         | -4.78             | -47.53      | $\leq -24.78$ | PASS    |
|          |         | 2480    | Reference          | -5.61             | -5.61       | ---           | PASS    |
|          |         |         | 30~1000            | -5.61             | -61.39      | $\leq -25.61$ | PASS    |
|          |         |         | 1000~26500         | -5.61             | -47.31      | $\leq -25.61$ | PASS    |

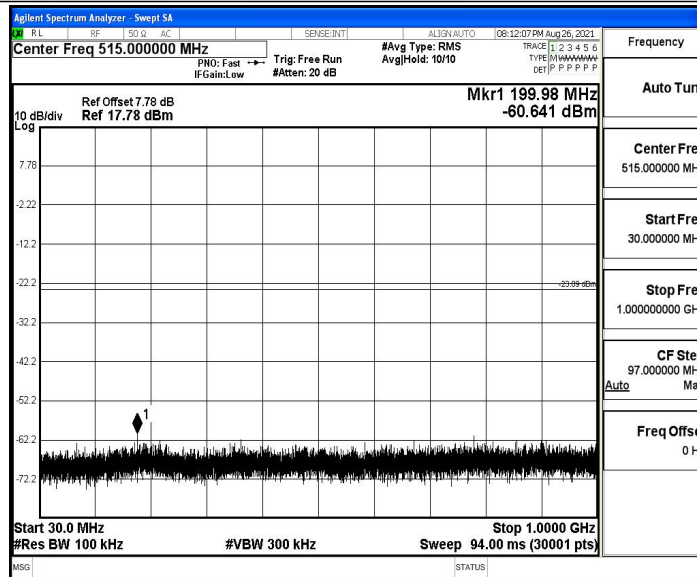


## Test Graphs

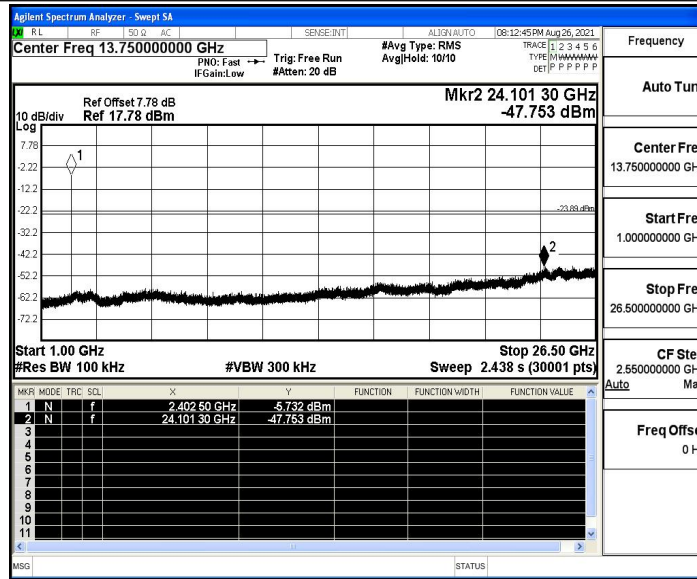
BLE\_1M\_Ant1\_2402\_0~Reference



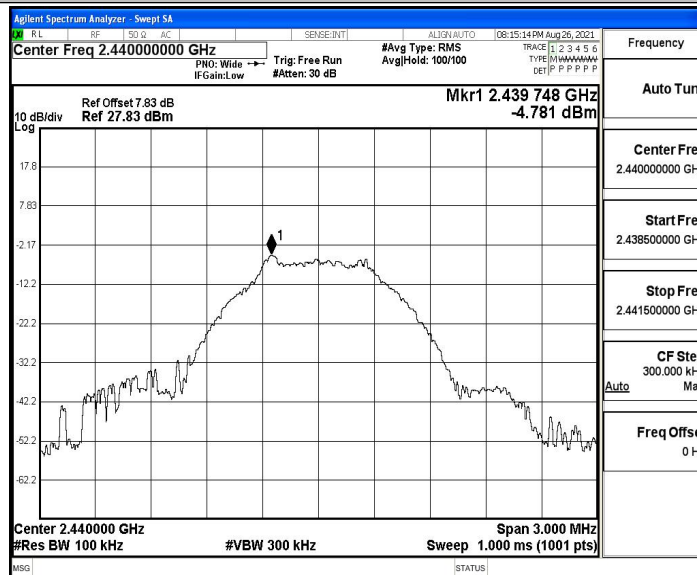
BLE\_1M\_Ant1\_2402\_30~1000



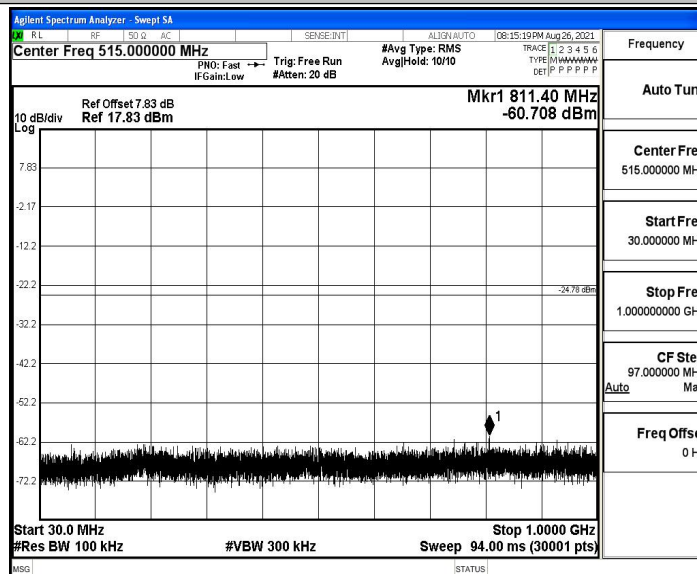
BLE\_1M\_Ant1\_2402\_1000~26500



BLE\_1M\_Ant1\_2440\_0~Reference

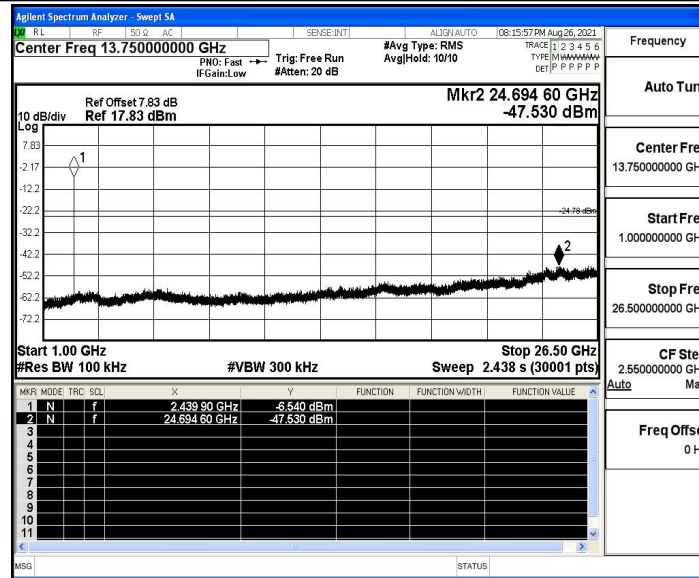


BLE\_1M\_Ant1\_2440\_30~1000

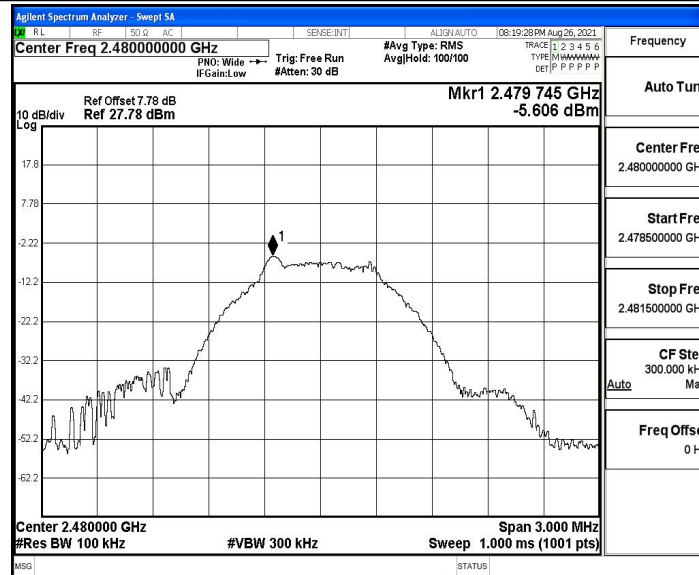




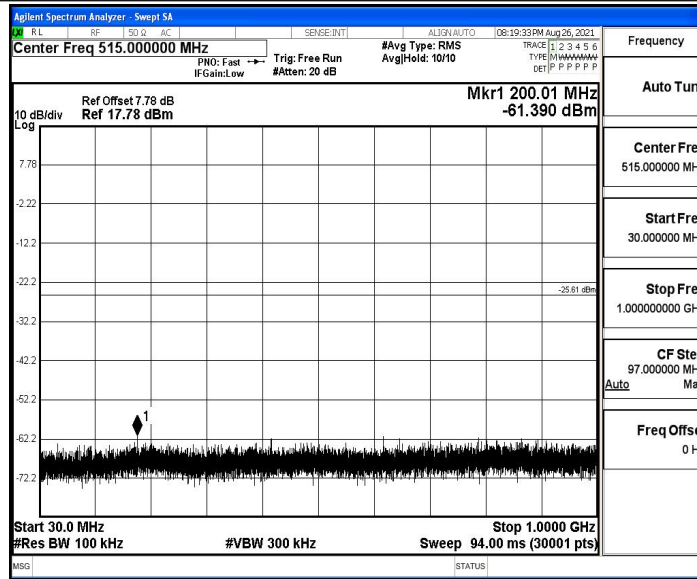
BLE\_1M\_Ant1\_2440\_1000~26500



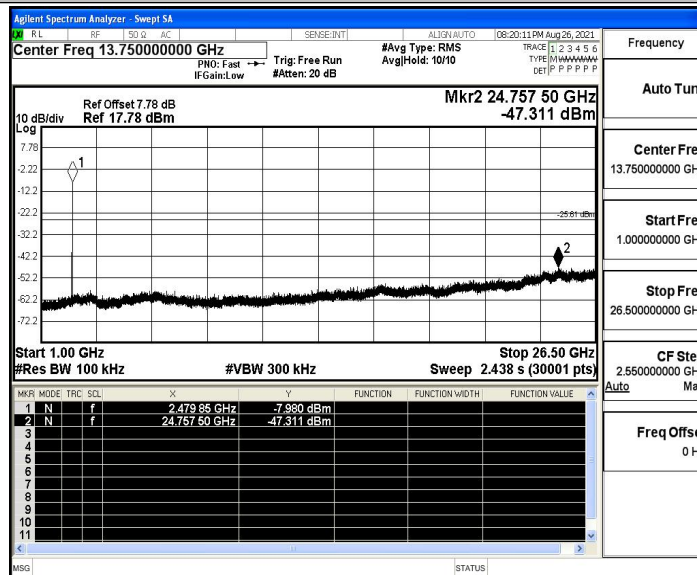
BLE\_1M\_Ant1\_2480\_0~Reference



BLE\_1M\_Ant1\_2480\_30~1000



BLE\_1M\_Ant1\_2480\_1000~26500





## B.7 Emissions in Restricted Bands

### Test Result

| TestMode | Antenna | ChName | Channel | Detector | Freq.<br>[MHz] | Result<br>[dBm] | Limit<br>[dBm] | Result<br>[dBuV/m] | Limit<br>[dBuV/m] | Verdict |
|----------|---------|--------|---------|----------|----------------|-----------------|----------------|--------------------|-------------------|---------|
| BLE_1M   | Ant1    | Low    | 2402    | AV       | 2310.000       | -49.01          | ≤-41.20        | 46.19              | ≤54               | PASS    |
|          |         |        |         | AV       | 2389.880       | -48.45          | ≤-41.20        | 46.75              | ≤54               | PASS    |
|          |         |        |         | AV       | 2390.000       | -48.45          | ≤-41.20        | 46.75              | ≤54               | PASS    |
|          |         |        |         | Peak     | 2310.000       | -42.4           | ≤-21.20        | 52.80              | ≤74               | PASS    |
|          |         |        |         | Peak     | 2324.675       | -39.09          | ≤-21.20        | 56.11              | ≤74               | PASS    |
|          |         |        |         | Peak     | 2390.000       | -42.62          | ≤-21.20        | 52.58              | ≤74               | PASS    |
|          |         | High   | 2480    | AV       | 2483.500       | -48.05          | ≤-41.20        | 47.15              | ≤54               | PASS    |
|          |         |        |         | AV       | 2498.480       | -47.82          | ≤-41.20        | 47.38              | ≤54               | PASS    |
|          |         |        |         | AV       | 2500.000       | -47.89          | ≤-41.20        | 47.31              | ≤54               | PASS    |
|          |         |        |         | Peak     | 2483.500       | -41.51          | ≤-21.20        | 53.69              | ≤74               | PASS    |
|          |         |        |         | Peak     | 2499.280       | -37.9           | ≤-21.20        | 57.30              | ≤74               | PASS    |
|          |         |        |         | Peak     | 2500.000       | -41.85          | ≤-21.20        | 53.35              | ≤74               | PASS    |

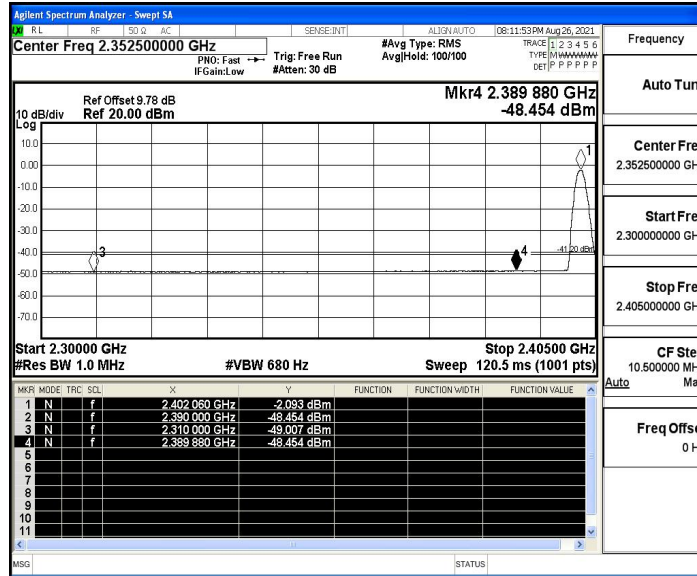
#### Note:

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.

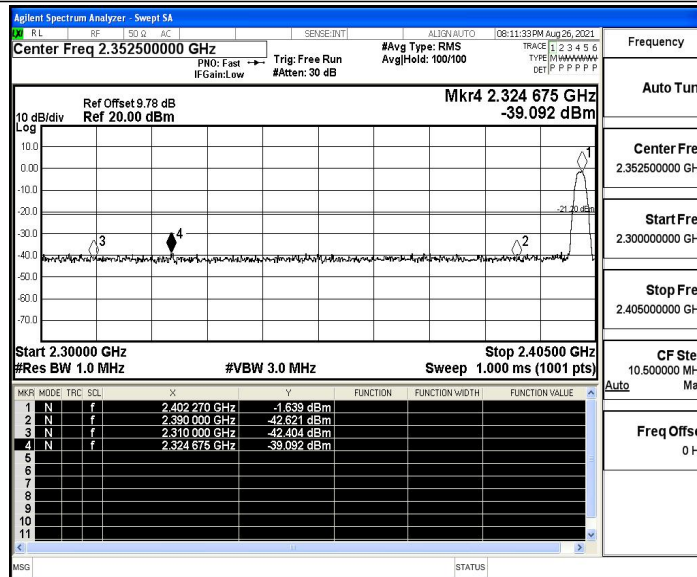


## Test Graphs

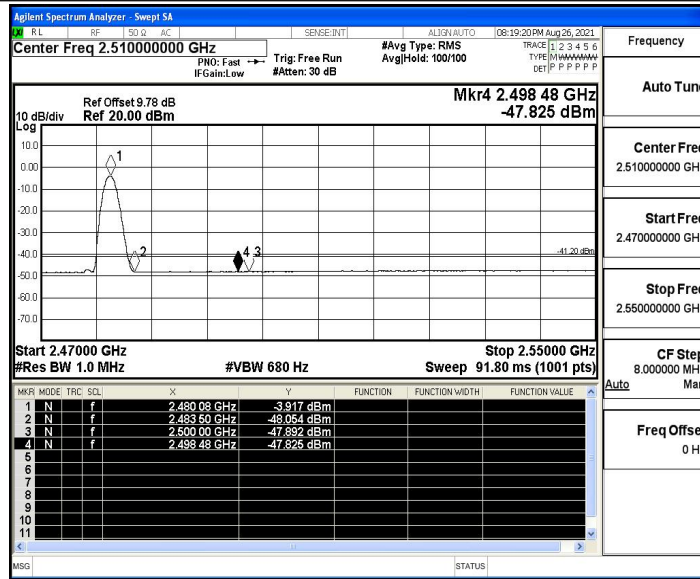
BLE\_1M\_Ant1\_Low\_2402\_AV



BLE\_1M\_Ant1\_Low\_2402\_Peak



BLE\_1M\_Ant1\_High\_2480\_AV



BLE\_1M\_Ant1\_High\_2480\_Peak

