

## Appendix A

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

Product Name: Smart Teddy

Trade Mark: N/A

Test Model: ST-01

FCC ID: 2AZPXST-01

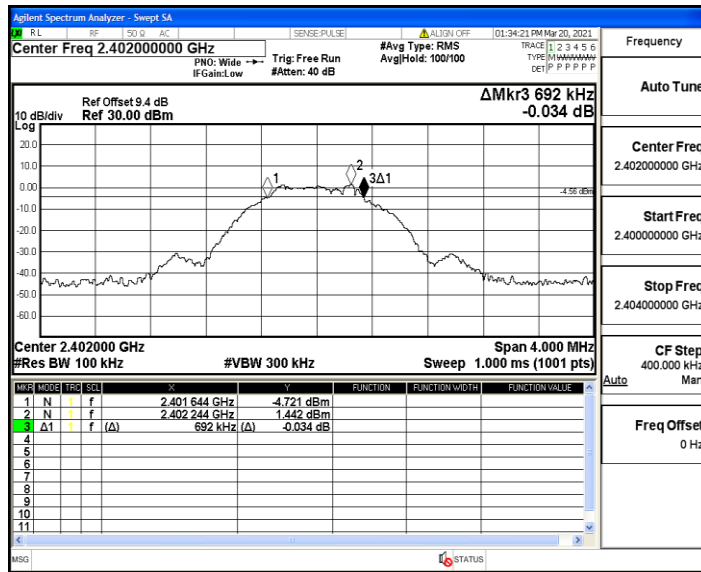
### Environmental Conditions

|                    |           |
|--------------------|-----------|
| Temperature:       | 23.8°C    |
| Relative Humidity: | 51%       |
| ATM Pressure:      | 100.0 kPa |
| Test Engineer:     | Anna Hu   |
| Supervised by:     | Hugo Chen |
| NOTE               | N/A       |

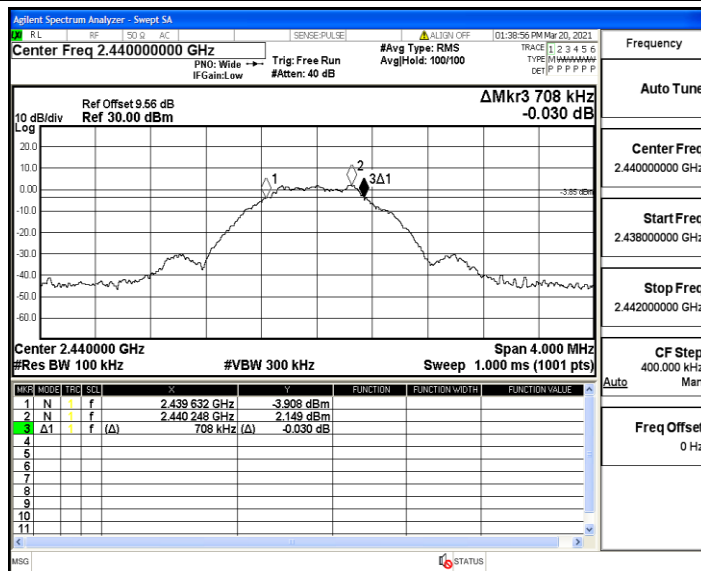
#### A.1. 6dB Bandwidth

| TestMode | Antenna | Channel | DTS BW [MHz] | FL[MHz]  | FH[MHz]  | Limit[MHz] | Verdict |
|----------|---------|---------|--------------|----------|----------|------------|---------|
| BLE_1M   | Ant1    | 2402    | 0.692        | 2401.644 | 2402.336 | 0.5        | PASS    |
|          |         | 2440    | 0.708        | 2439.632 | 2440.340 | 0.5        | PASS    |
|          |         | 2480    | 0.712        | 2479.624 | 2480.336 | 0.5        | PASS    |

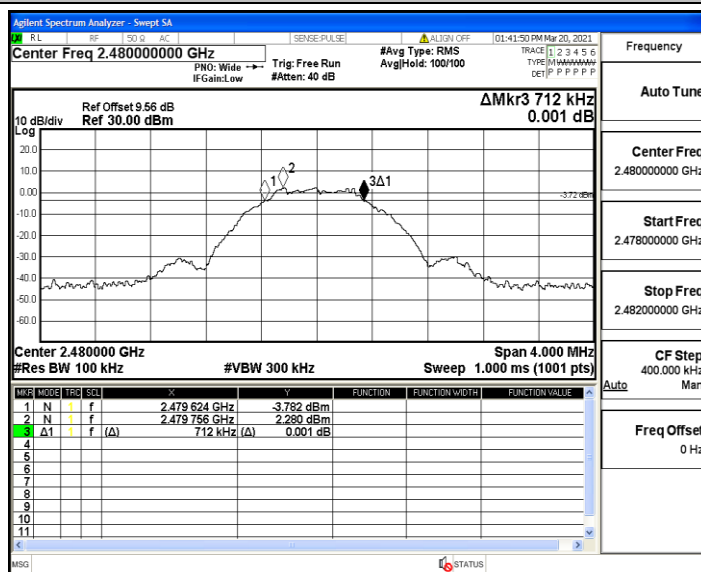
BLE\_1M\_Ant1\_2402



BLE\_1M\_Ant1\_2440



BLE\_1M\_Ant1\_2480



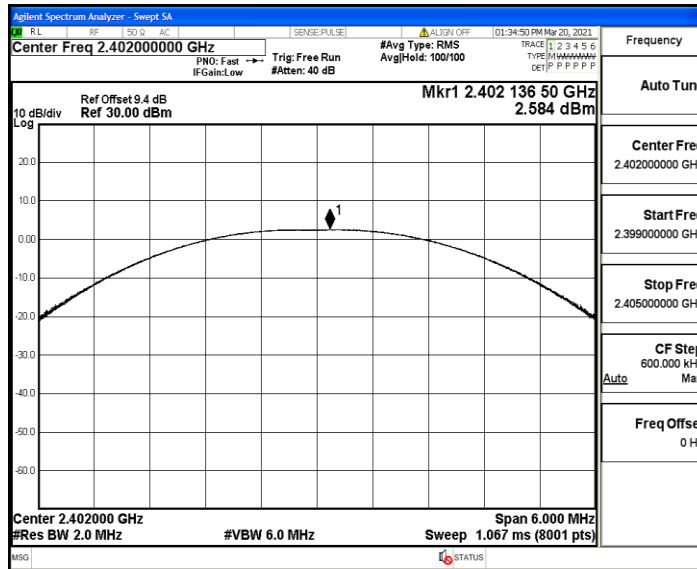
**A.2. Occupied Bandwidth**

| Test Mode | Test Channel | Ant | OBW[MHz] | Limit[MHz] | Verdict |
|-----------|--------------|-----|----------|------------|---------|
|-----------|--------------|-----|----------|------------|---------|

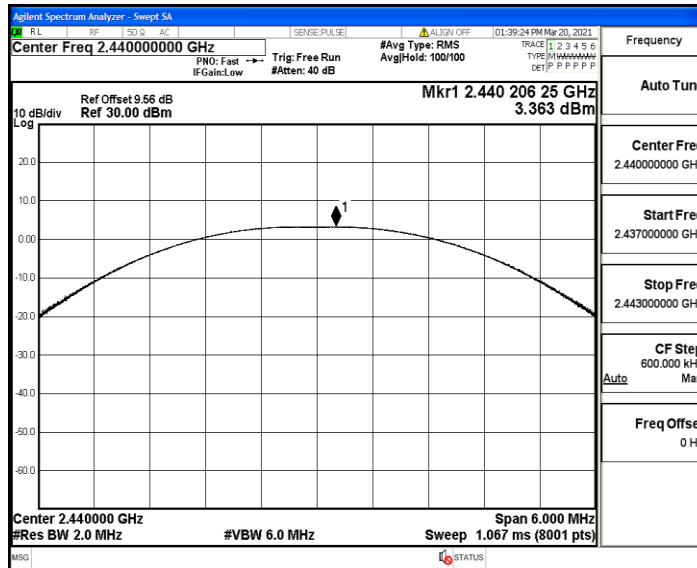
**A.3. Maximum peak conducted output power**

| TestMode | Antenna | Channel | Result[dBm] | Limit[dBm] | Verdict |
|----------|---------|---------|-------------|------------|---------|
| BLE_1M   | Ant1    | 2402    | 2.58        | <=30       | PASS    |
|          |         | 2440    | 3.36        | <=30       | PASS    |
|          |         | 2480    | 3.54        | <=30       | PASS    |

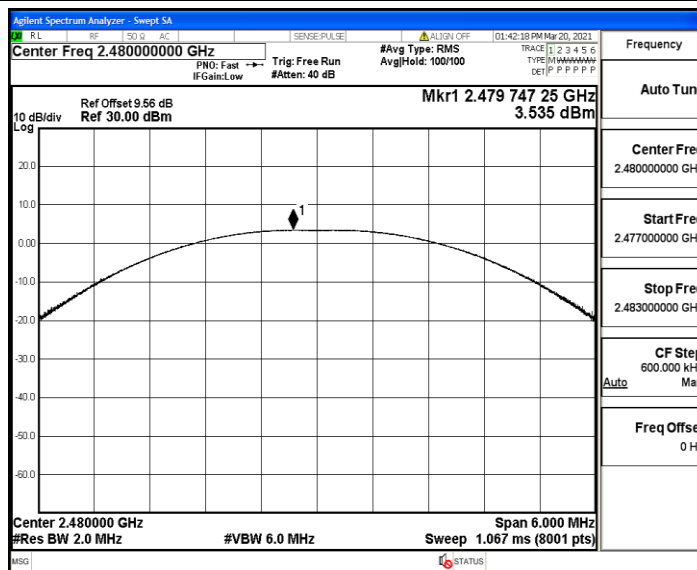
BLE\_1M\_Ant1\_2402



BLE\_1M\_Ant1\_2440



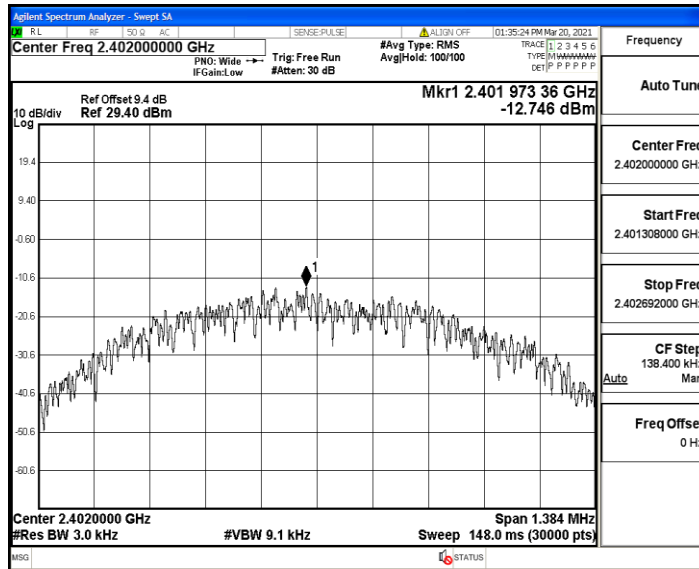
BLE\_1M\_Ant1\_2480



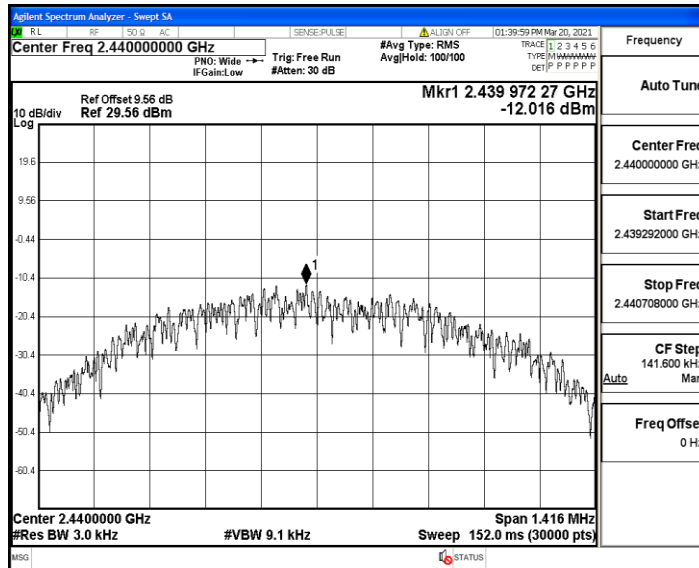
**A.4. Maximum Peak power spectral density**

| TestMode | Antenna | Channel | Result[dBm/3-100kHz] | Limit[dBm/3kHz] | Verdict |
|----------|---------|---------|----------------------|-----------------|---------|
| BLE_1M   | Ant1    | 2402    | -12.75               | <=8             | PASS    |
|          |         | 2440    | -12.02               | <=8             | PASS    |
|          |         | 2480    | -11.74               | <=8             | PASS    |

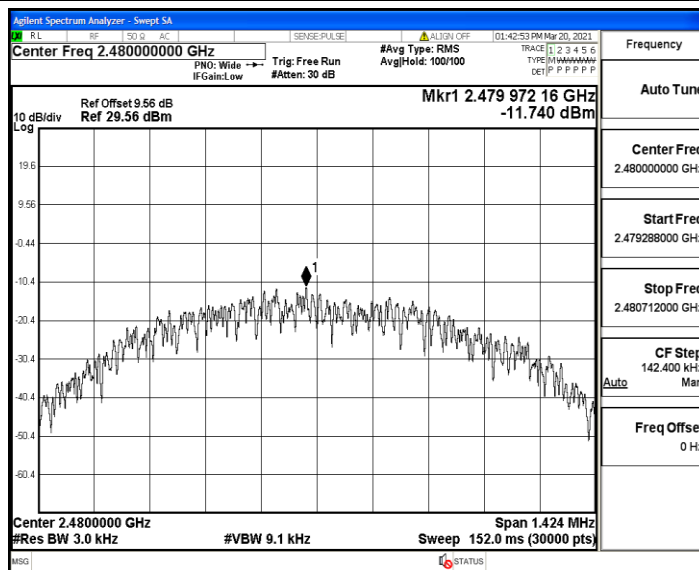
BLE\_1M\_Ant1\_2402



BLE\_1M\_Ant1\_2440



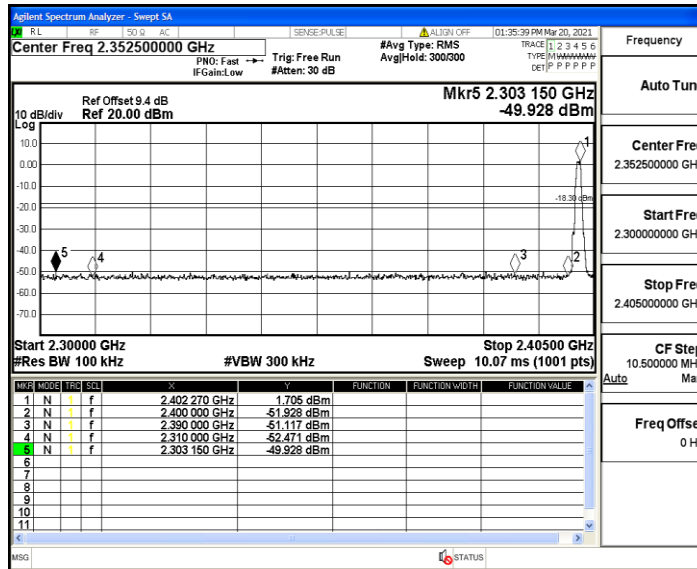
BLE\_1M\_Ant1\_2480



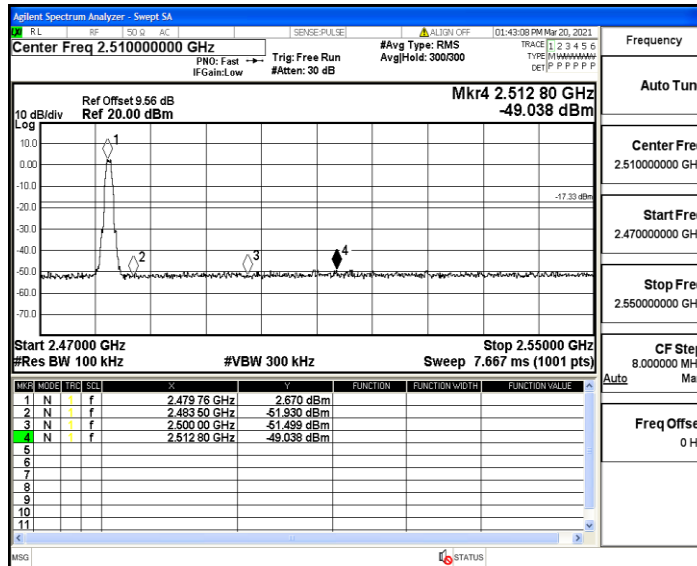
**A.5. Band-edge for RF Conducted Emissions**

| TestMode | Antenna | ChName | Channel | RefLevel[dBm] | Result[dBm] | Limit[dBm] | Verdict |
|----------|---------|--------|---------|---------------|-------------|------------|---------|
| BLE_1M   | Ant1    | Low    | 2402    | 1.71          | -49.93      | <=-18.3    | PASS    |
|          |         | High   | 2480    | 2.67          | -49.04      | <=-17.33   | PASS    |

BLE\_1M\_Ant1\_Low\_2402



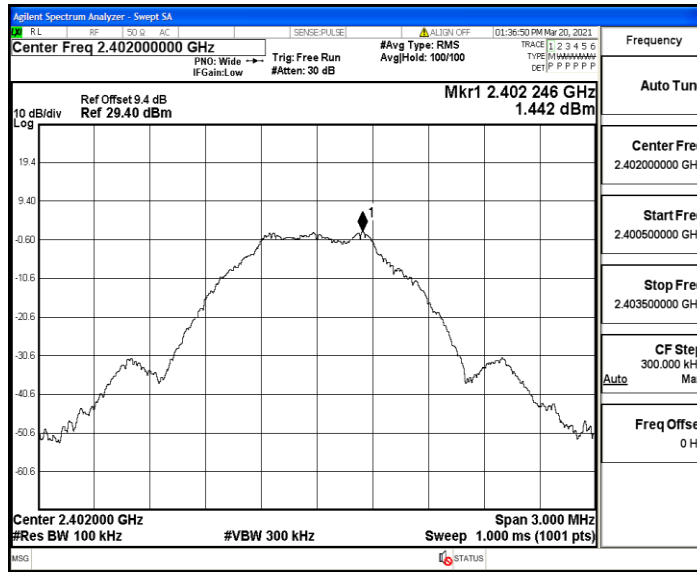
BLE\_1M\_Ant1\_High\_2480



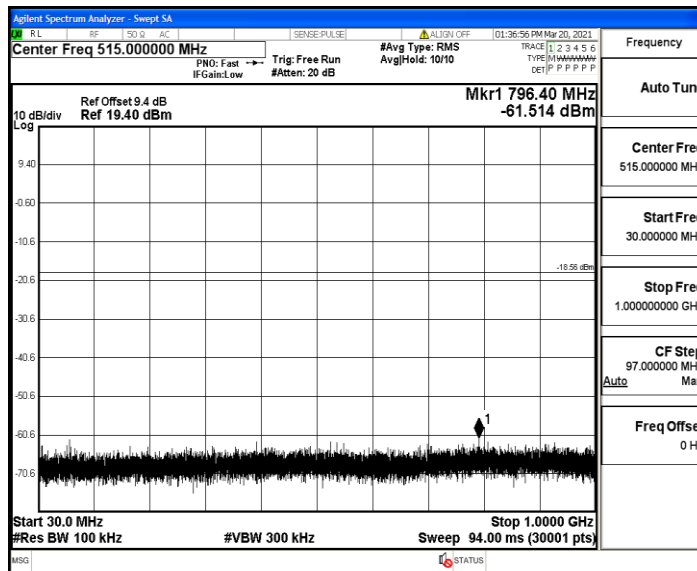


### A.6. RF Conducted Spurious Emissions

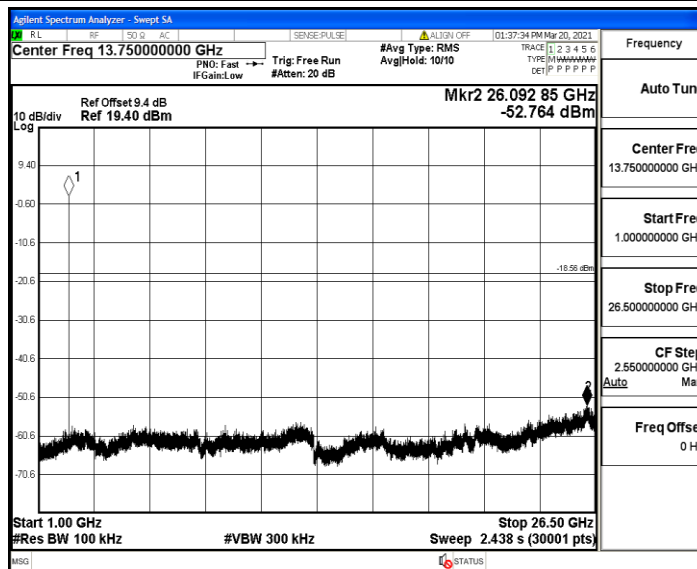
BLE\_1M\_Ant1\_2402\_0~Reference



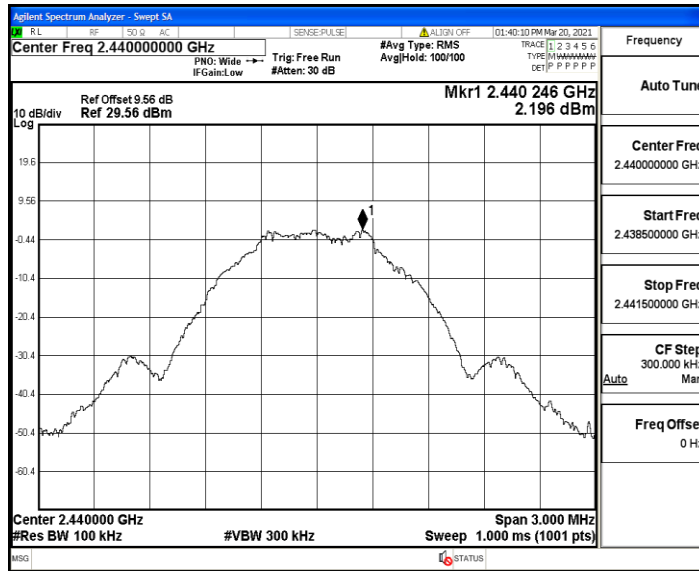
BLE\_1M\_Ant1\_2402\_30~1000



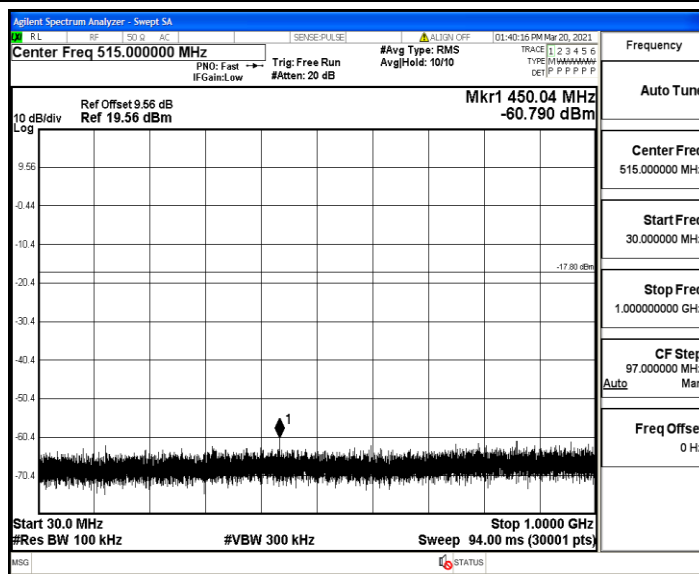
BLE\_1M\_Ant1\_2402\_1000~26500



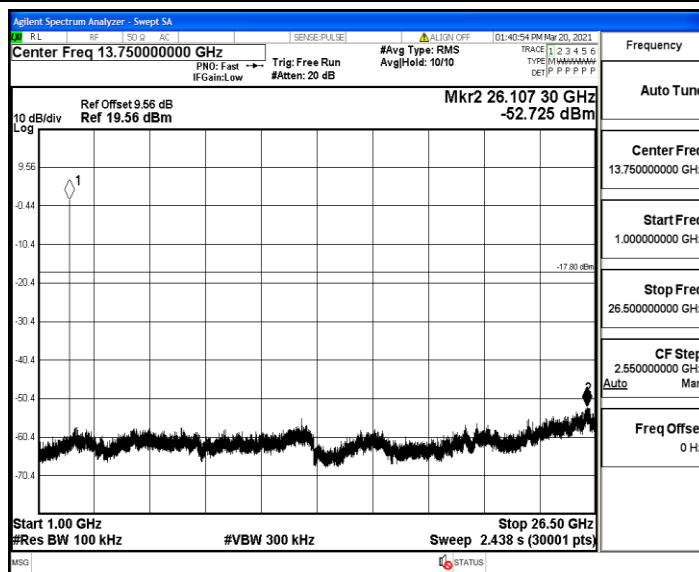
BLE\_1M\_Ant1\_2440\_0~Reference



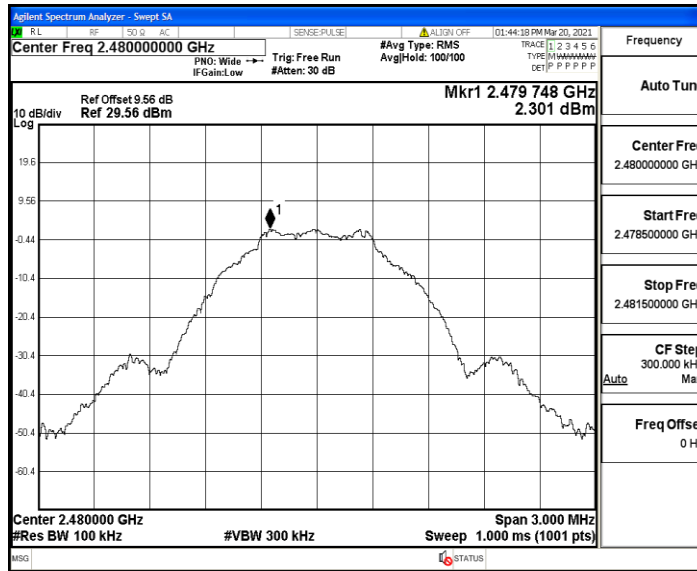
BLE\_1M\_Ant1\_2440\_30~1000



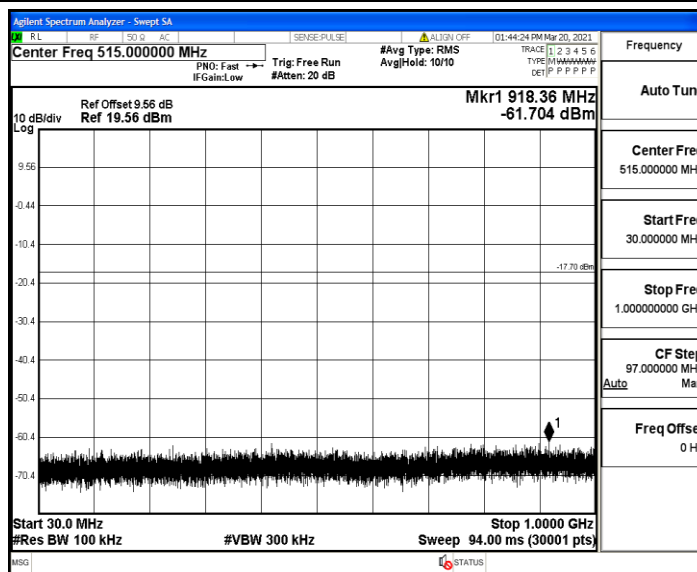
BLE\_1M\_Ant1\_2440\_1000~26500



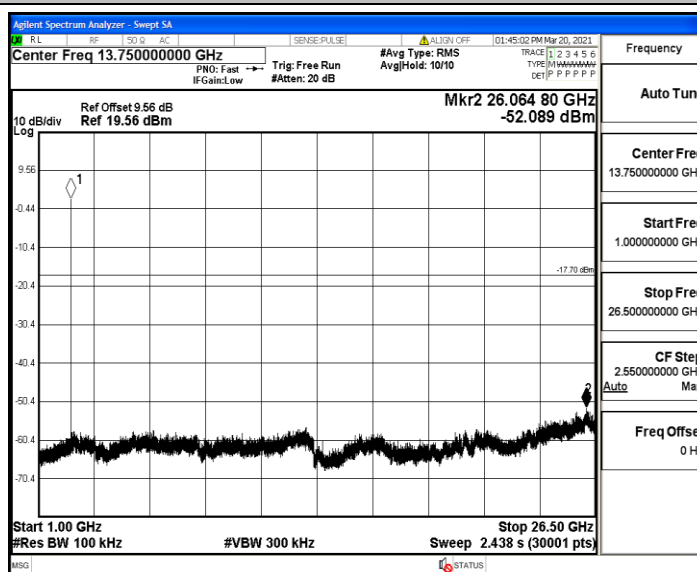
BLE\_1M\_Ant1\_2480\_0~Reference



BLE\_1M\_Ant1\_2480\_30~1000



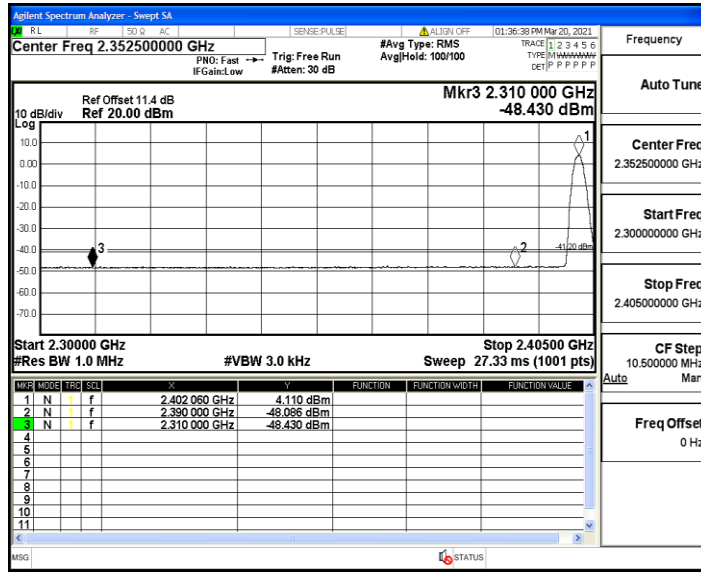
BLE\_1M\_Ant1\_2480\_1000~26500



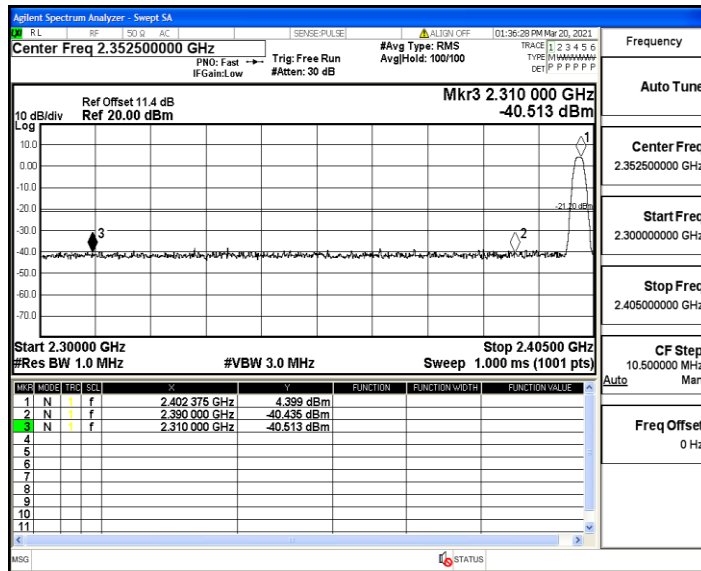
**A.7. Restrict-band band-edge measurements**

| TestMode | Antenna | ChName | Channel | Detector | Freq.<br>[MHz] | Result<br>[dBm] | Limit<br>[dBm] | Verdict |
|----------|---------|--------|---------|----------|----------------|-----------------|----------------|---------|
| BLE_1M   | Ant1    | Low    | 2402    | AV       | 2310.000       | -48.43          | <=-41.20       | PASS    |
|          |         |        |         | AV       | 2365.835       | -47.59          | <=-41.20       | PASS    |
|          |         |        |         | AV       | 2390.000       | -48.09          | <=-41.20       | PASS    |
|          |         |        |         | Peak     | 2310.000       | -40.51          | <=-21.20       | PASS    |
|          |         |        |         | Peak     | 2329.400       | -38.31          | <=-21.20       | PASS    |
|          |         |        |         | Peak     | 2390.000       | -40.44          | <=-21.20       | PASS    |
|          |         | High   | 2480    | AV       | 2483.500       | -46.35          | <=-41.20       | PASS    |
|          |         |        |         | AV       | 2500.000       | -47.49          | <=-41.20       | PASS    |
|          |         |        |         | Peak     | 2483.500       | -41.37          | <=-21.20       | PASS    |
|          |         |        |         | Peak     | 2498.560       | -38.01          | <=-21.20       | PASS    |
|          |         |        | Peak    | 2500.000 | -41.6          | <=-21.20        | PASS           |         |

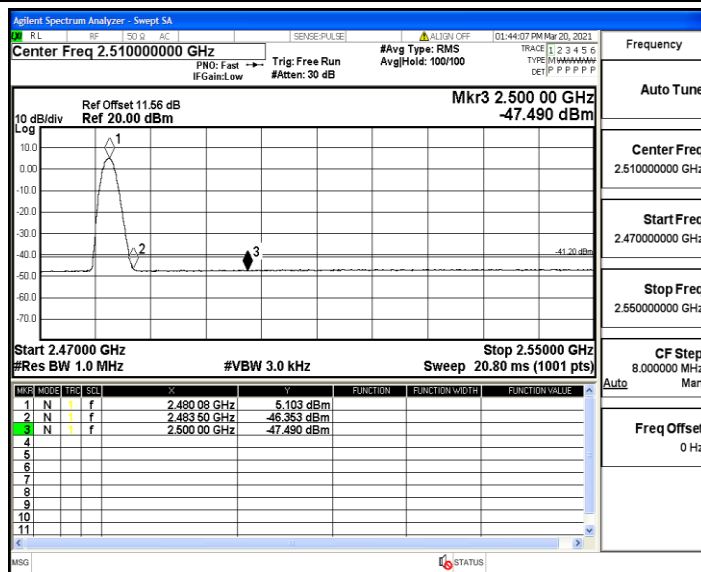
BLE\_1M\_Ant1\_Low\_2402\_AV



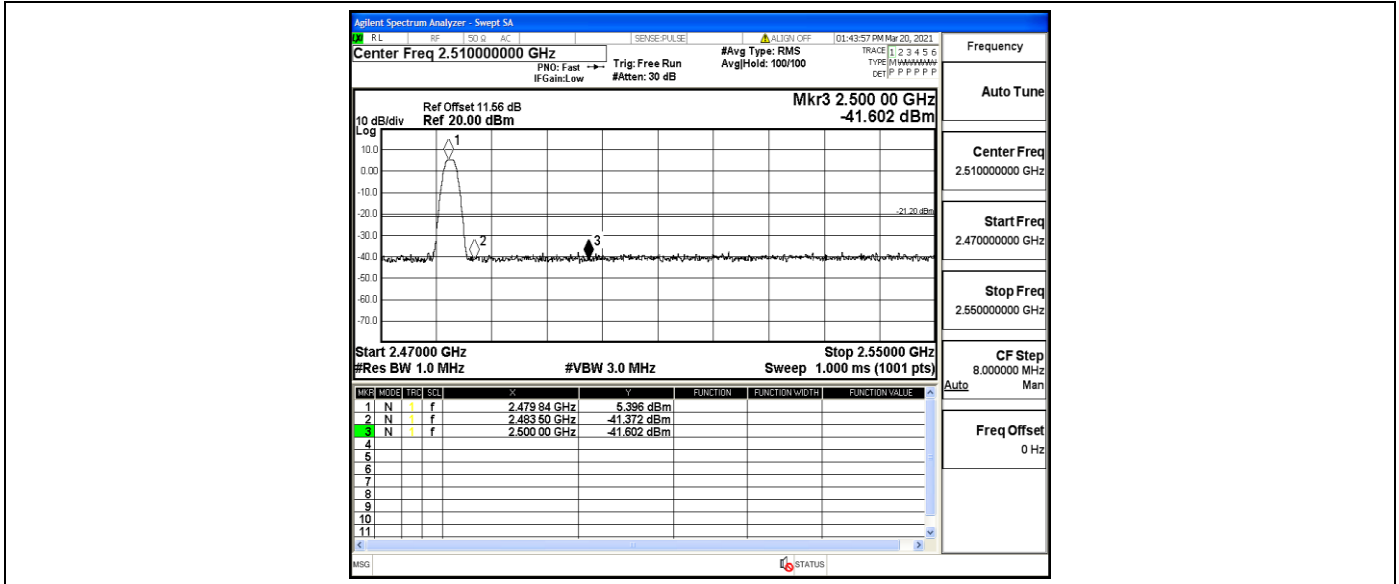
BLE\_1M\_Ant1\_Low\_2402\_Peak



BLE\_1M\_Ant1\_High\_2480\_AV



BLE\_1M\_Ant1\_High\_2480\_Peak

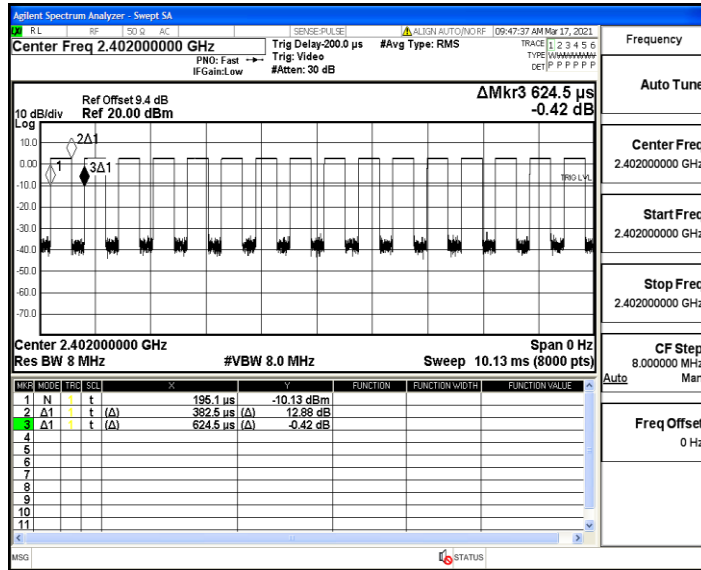


1. The Antenna Gain is compensated in the graph with 2dBi and Antenna Gain which is Higher.
2. The limit in dBm for average detector is conversion from 54dBuV/m, according to 15.209(a). The limit in dBm for peak detector is 20dB above the limit of average detector in dBm.

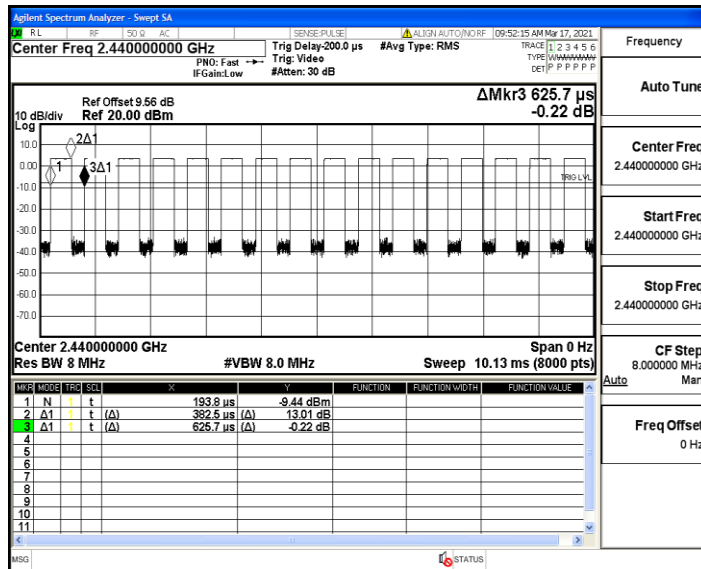
**A.8. Duty Cycle**

| TestMode | Antenna | Channel | Transmission Duration [ms] | Transmission Period [ms] | Duty Cycle [%] | 1/B[KHz] |
|----------|---------|---------|----------------------------|--------------------------|----------------|----------|
| BLE_1M   | Ant1    | 2402    | 0.38                       | 0.62                     | 61.29          | 2.63     |
|          |         | 2440    | 0.38                       | 0.63                     | 60.32          | 2.63     |
|          |         | 2480    | 0.38                       | 0.63                     | 60.32          | 2.63     |

BLE\_1M\_Ant1\_2402



BLE\_1M\_Ant1\_2440



BLE\_1M\_Ant1\_2480

