# Appendix Test Data

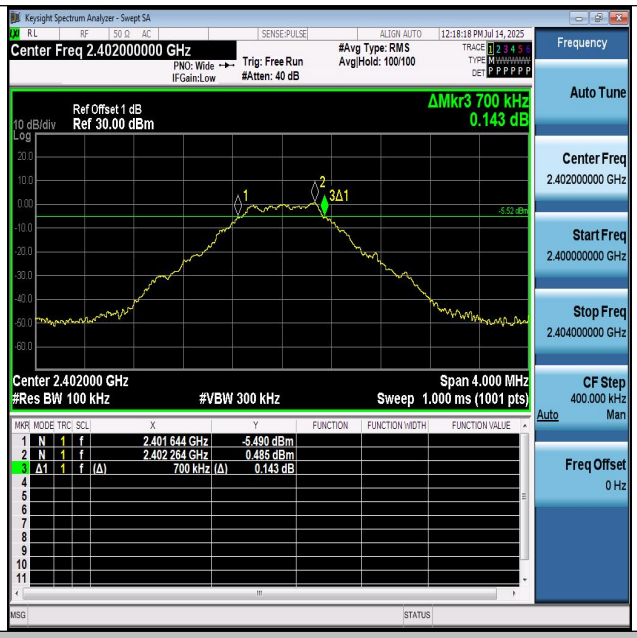
| | | | |
|---|---|---|---|
| Report No.: | 1812C50211712501 | Test Sample No.: | 1-2-2 |
| Start Test Date: | 2025-05-13 | Finish Test Date: | 2025-07-14 |
| Test Engineer: | Alex Peng | Auditor: | Justin Feng |
| Temperature: | 20.3℃ | Relative Humidity: | 50% |
| Pressure: | 101kPa | | |

## Appendix A: 6dB Bandwidth

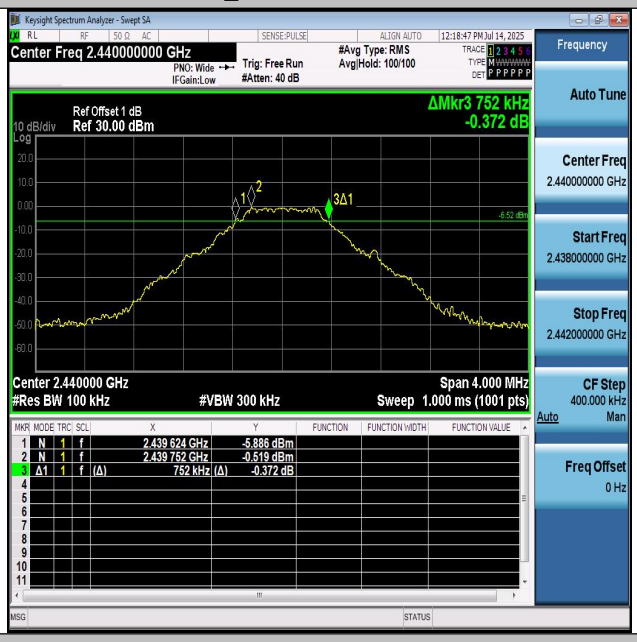
### Test Result

| Test Mode | Antenna | Frequency[MHz] | 6dB BW [MHz] | FL[MHz] | FH[MHz] | Limit[MHz] | Verdict |
|---|---|---|---|---|---|---|---|
| BLE_1M | Ant1 | 2402 | 0.700 | 2401.644 | 2402.344 | 0.5 | PASS |
| BLE_1M | Ant1 | 2440 | 0.752 | 2439.624 | 2440.376 | 0.5 | PASS |
| BLE_1M | Ant1 | 2480 | 0.744 | 2479.620 | 2480.364 | 0.5 | PASS |

## Test Graphs




BLE_1M-Ant1-2402-PASS




BLE_1M-Ant1-2440-PASS

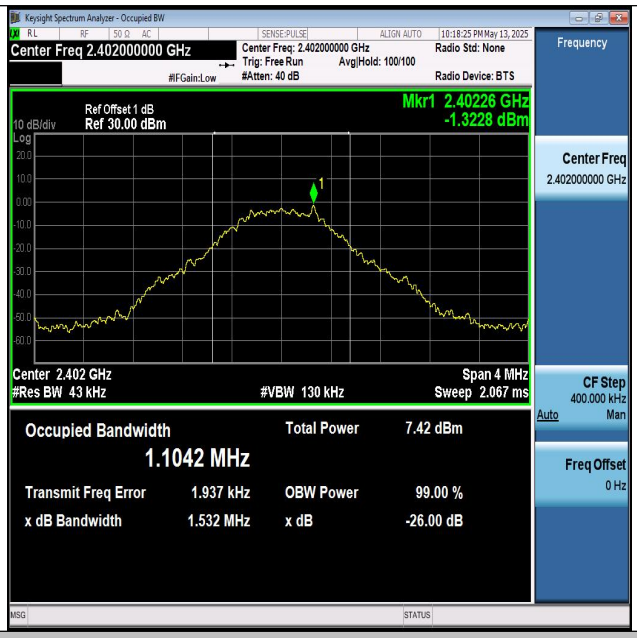
BLE_1M-Ant1-2480-PASS

# Appendix B: 99% Occupied Bandwidth

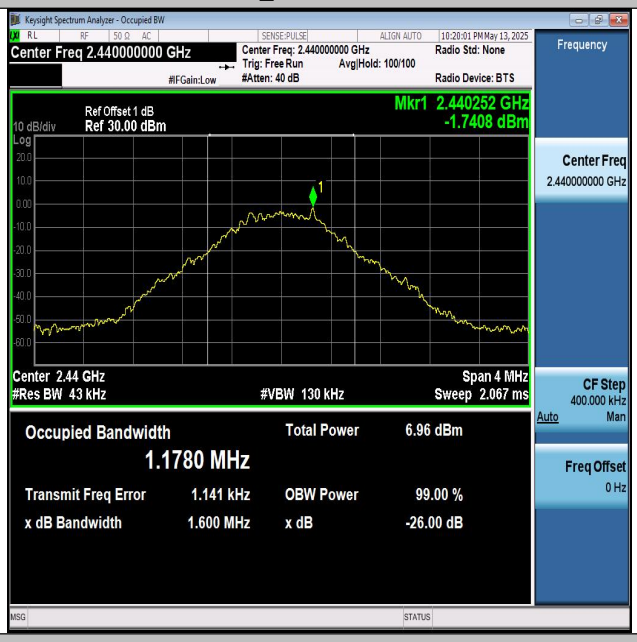
## Test Result

| Test Mode | Antenna | Frequency[MHz] | OCB [MHz] | FL[MHz] | FH[MHz] | Limit[MHz] | Verdict |
|---|---|---|---|---|---|---|---|
| BLE_1M | Ant1 | 2402 | 1.1042 | 2401.4498 | 2402.5540 | --- | --- |
| BLE_1M | Ant1 | 2440 | 1.1780 | 2439.4121 | 2440.5901 | --- | --- |
| BLE_1M | Ant1 | 2480 | 1.2086 | 2479.4010 | 2480.6096 | --- | --- |

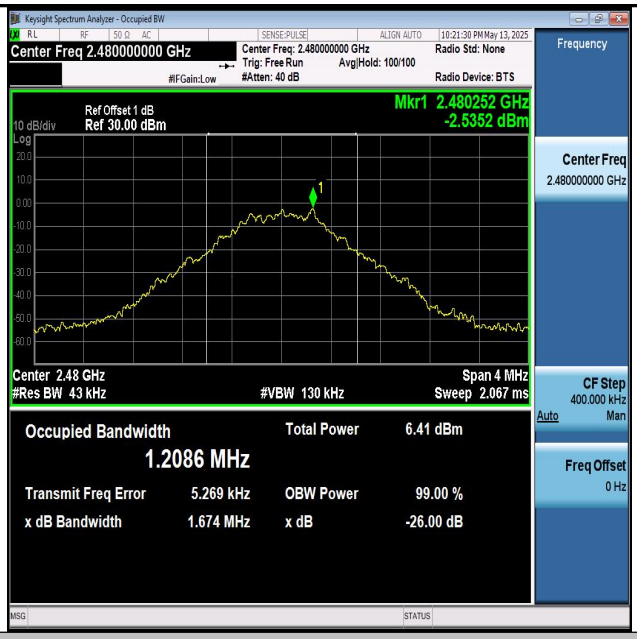
## Test Graphs




BLE_1M-Ant1-2402




BLE_1M-Ant1-2440



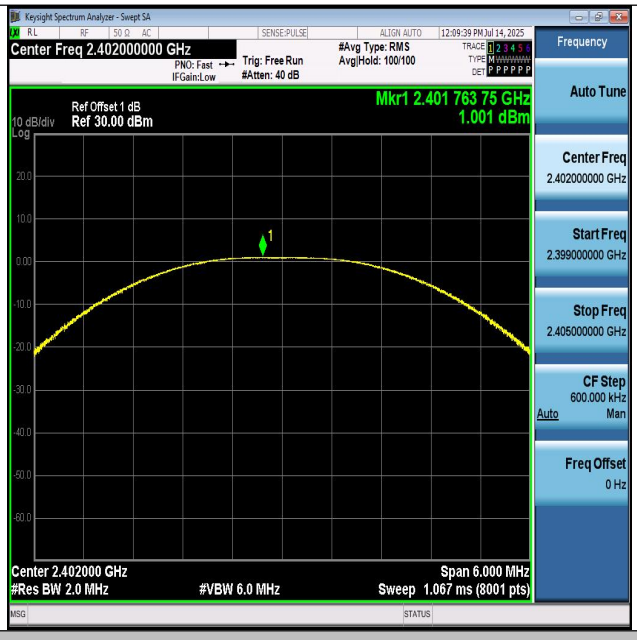

BLE_1M-Ant1-2480

# Appendix C: Maximum conducted output power

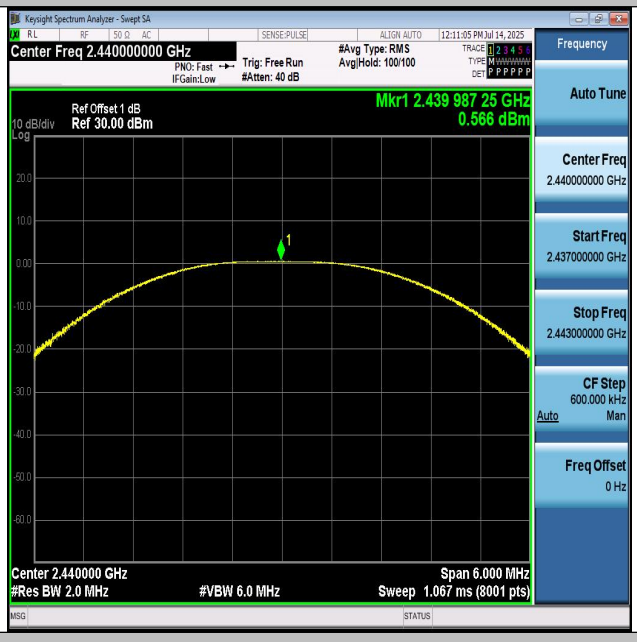
## Test Result Peak

| Test Mode | Antenna | Frequency [MHz] | Conducted Peak Power[dBm] | Conducted Limit[dBm] | Verdict |
|---|---|---|---|---|---|
| BLE_1M | Ant1 | 2402 | 1.00 | ≤30 | PASS |
| BLE_1M | Ant1 | 2440 | 0.57 | ≤30 | PASS |
| BLE_1M | Ant1 | 2480 | 0.05 | ≤30 | PASS |

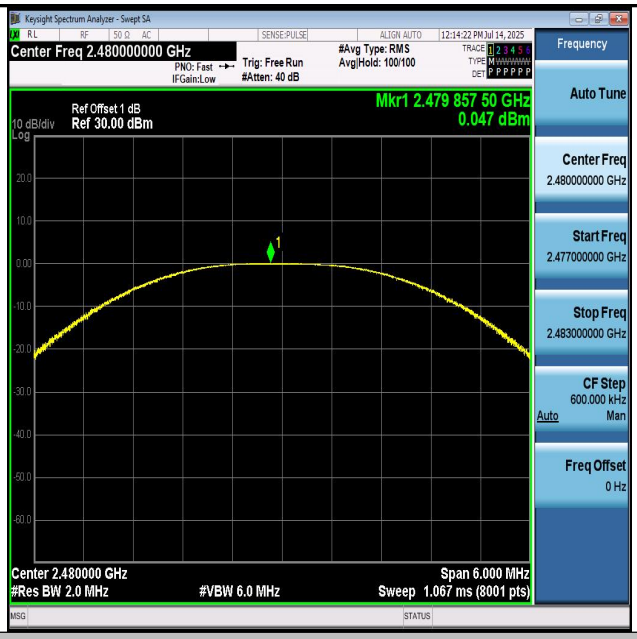
## Test Graphs Peak




BLE_1M-Ant1-2402-PASS




BLE_1M-Ant1-2440-PASS




BLE_1M-Ant1-2480-PASS

# Appendix D: Maximum power spectral density

## Test Result

| TestMode | Antenna | Frequency [MHz] | Result [dBm/30kHz] | Result [dBm/3kHz] | Limit [dBm/3kHz] | Verdict |
|---|---|---|---|---|---|---|
| BLE_1M | Ant1 | 2402 | -4.05 | -14.05 | ≤8.00 | PASS |
| BLE_1M | Ant1 | 2440 | -4.29 | -14.29 | ≤8.00 | PASS |
| BLE_1M | Ant1 | 2480 | -4.54 | -14.54 | ≤8.00 | PASS |

Note:PSD(dBm/3kHz)= PSD(dBm/30kHz)- (10*log(30/3)).

## Test Graphs

BLE_1M-Ant1-2402-PASS

BLE_1M-Ant1-2440-PASS

BLE_1M-Ant1-2480-PASS

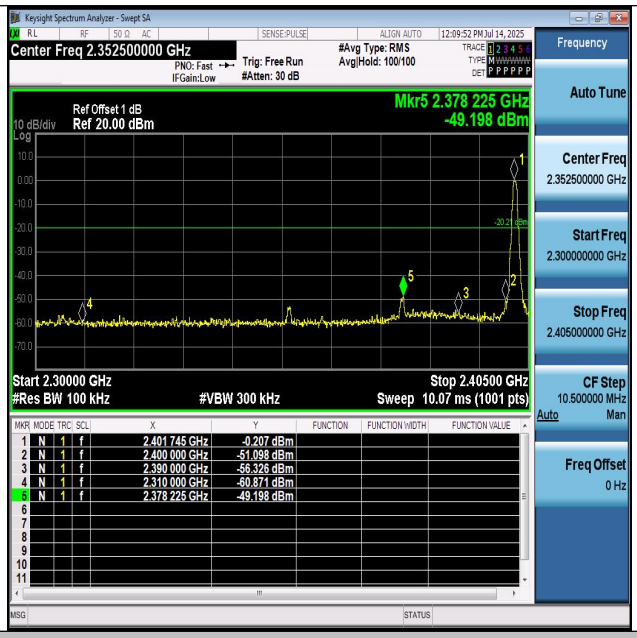
# Appendix E: Band edge measurements

## Test Result

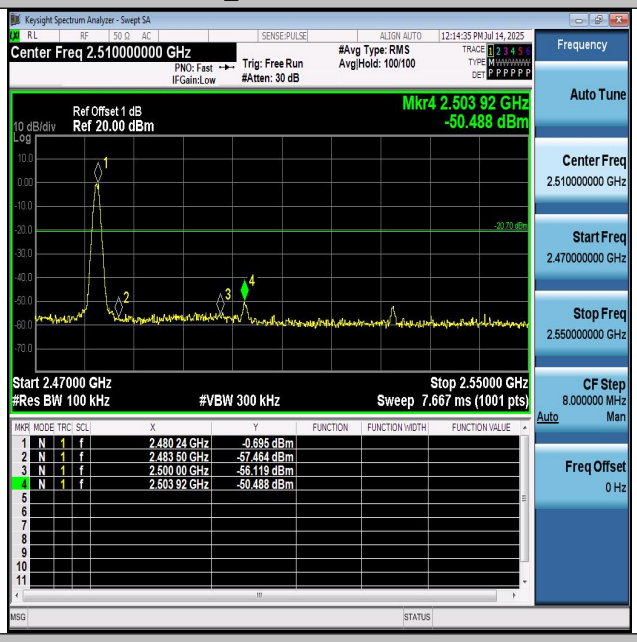
| Test Mode | Antenna | ChName | Frequency [MHz] | RefLevel [dBm] | Result [dBm] | Limit [dBm] | Verdict |
|---|---|---|---|---|---|---|---|
| BLE_1M | Ant1 | Low | 2402 | -0.21 | -49.2 | ≤-20.21 | PASS |
| BLE_1M | Ant1 | High | 2480 | -0.70 | -50.49 | ≤-20.7 | PASS |

Remark:Regarding the spurious emissions from 30MHz to 26.5GHz, the cable lose have been set in the 'offset' of the Spectrum Analyzer during the test.

## Test Graphs




BLE_1M-Ant1-2402-PASS




BLE_1M-Ant1-2480-PASS

# Appendix F: Conducted Spurious Emission

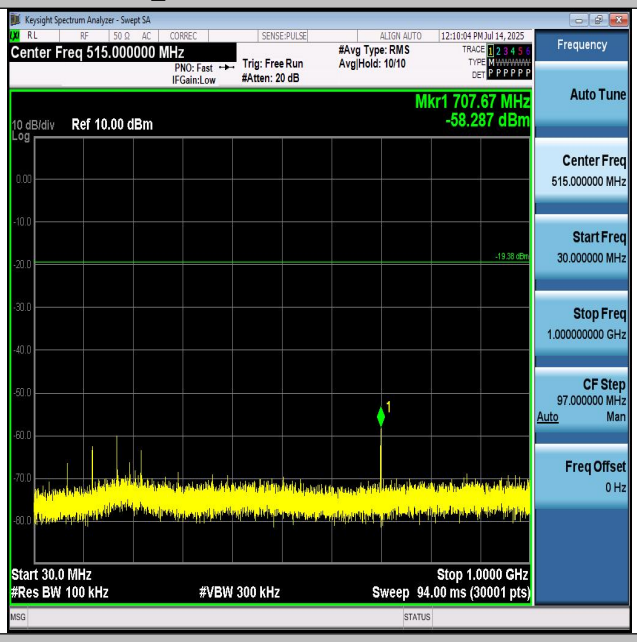
## Test Result

| Test Mode | Antenna | Frequency [MHz] | Freq. Range [MHz] | Ref. Level [dBm] | Result [dBm] | Limit [dBm] | Verdict |
|---|---|---|---|---|---|---|---|
| BLE_1M | Ant1 | 2402 | 0~Reference | 0.62 | 0.62 | --- | PASS |
| BLE_1M | Ant1 | 2402 | 30~1000 | 0.62 | -58.29 | ≤-19.38 | PASS |
| BLE_1M | Ant1 | 2402 | 1000~26500 | 0.62 | -43.26 | ≤-19.38 | PASS |
| BLE_1M | Ant1 | 2440 | 0~Reference | -0.44 | -0.44 | --- | PASS |
| BLE_1M | Ant1 | 2440 | 30~1000 | -0.44 | -57.02 | ≤-20.44 | PASS |
| BLE_1M | Ant1 | 2440 | 1000~26500 | -0.44 | -41.56 | ≤-20.44 | PASS |
| BLE_1M | Ant1 | 2480 | 0~Reference | -0.40 | -0.40 | --- | PASS |
| BLE_1M | Ant1 | 2480 | 30~1000 | -0.40 | -58.68 | ≤-20.4 | PASS |
| BLE_1M | Ant1 | 2480 | 1000~26500 | -0.40 | -42.19 | ≤-20.4 | PASS |

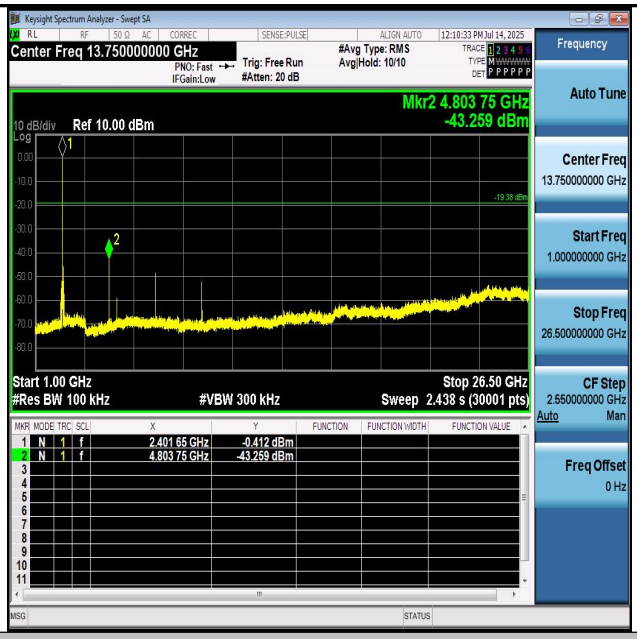
Remark:Regarding the spurious emissions from 30MHz to 26.5GHz, the cable lose and attenuator factors have been set in the 'Input Correction' of the Spectrum Analyzer during the test.

## Test Graphs

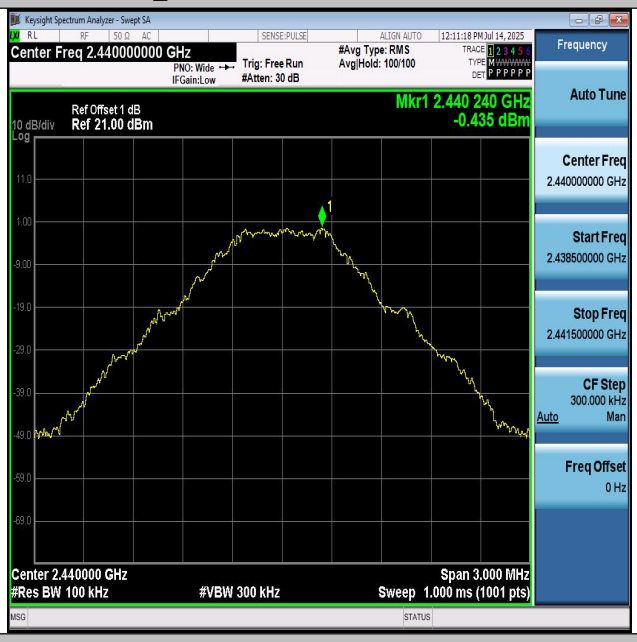
BLE_1M-Ant1-2402-0~Reference-PASS



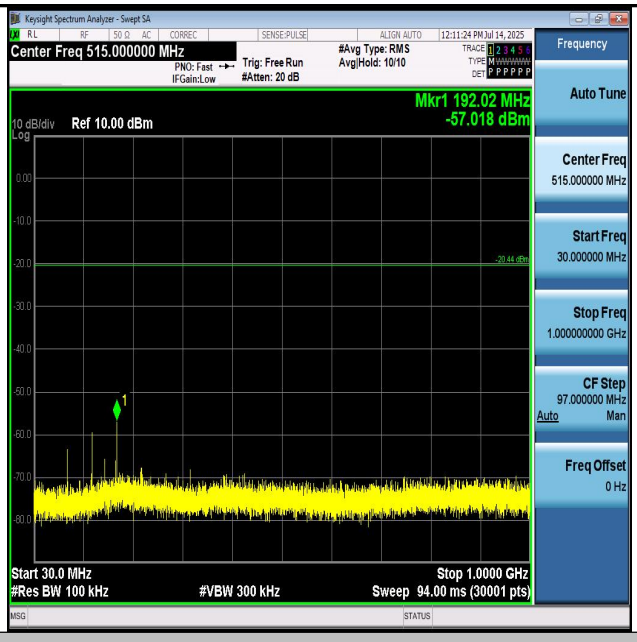

BLE_1M-Ant1-2402-30~1000-PASS



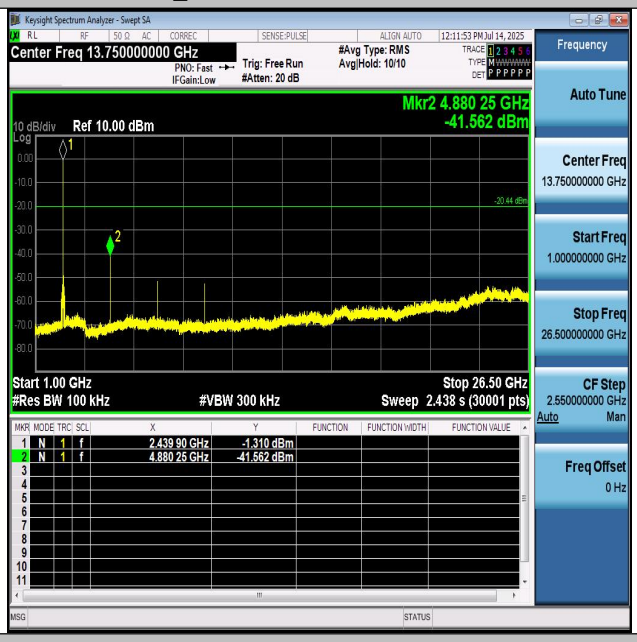

BLE_1M-Ant1-2402-1000~26500-PASS




BLE_1M-Ant1-2440-0~Reference-PASS

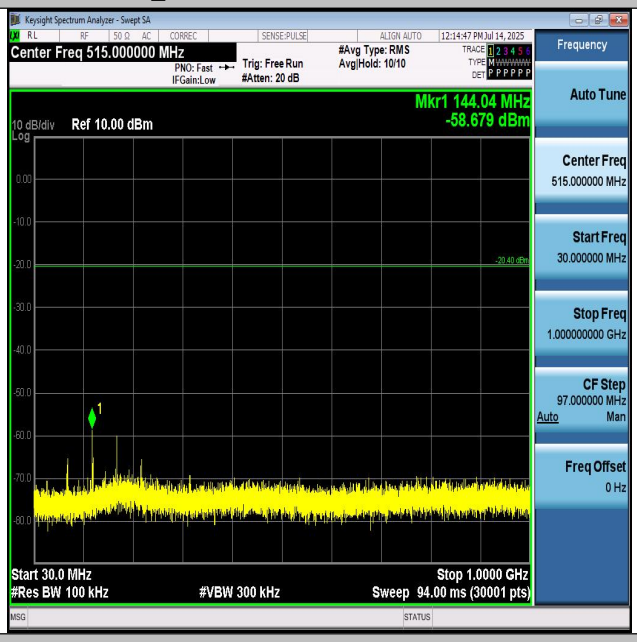



BLE_1M-Ant1-2440-30~1000-PASS

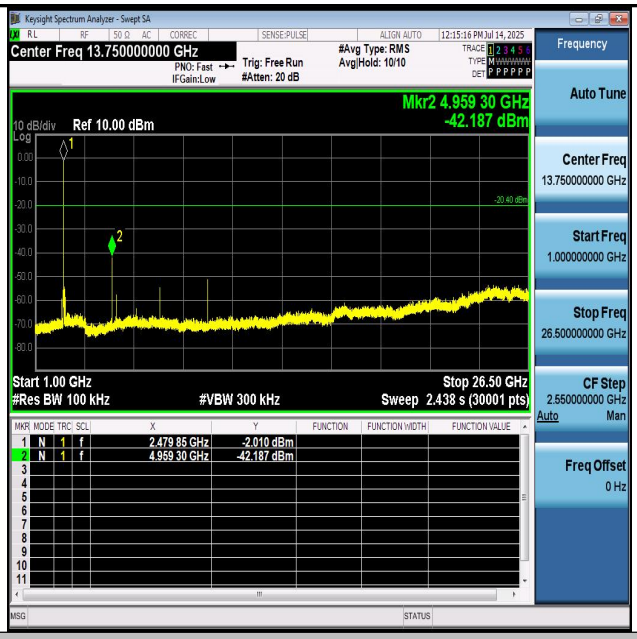



BLE_1M-Ant1-2440-1000~26500-PASS

BLE_1M-Ant1-2480-0~Reference-PASS




BLE_1M-Ant1-2480-30~1000-PASS



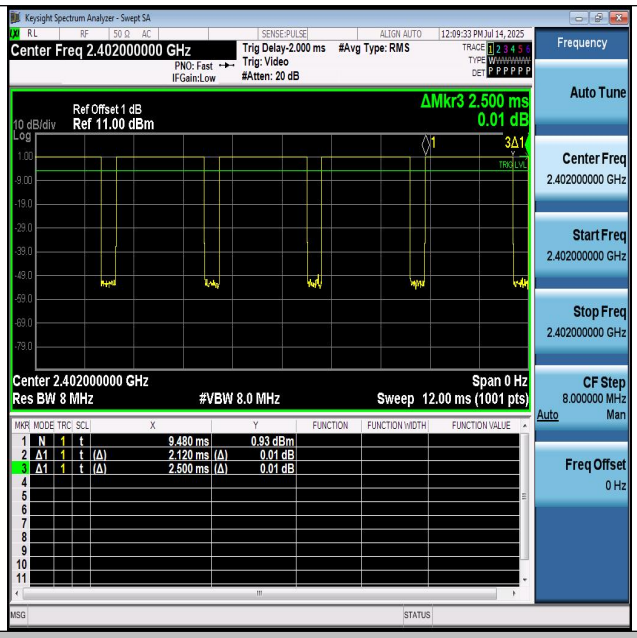

BLE_1M-Ant1-2480-1000~26500-PASS

# Appendix G: Duty Cycle

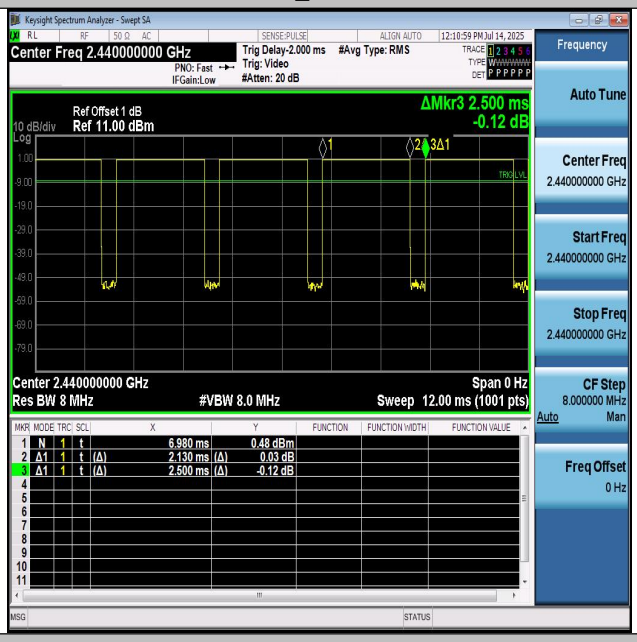
## Test Result

| Test Mode | Antenna | Frequency [MHz] | ON Time [ms] | Period [ms] | Duty Cycle [%] | Duty Cycle Factor[dB] |
|---|---|---|---|---|---|---|
| BLE_1M | Ant1 | 2402 | 2.12 | 2.50 | 84.80 | 0.72 |
| BLE_1M | Ant1 | 2440 | 2.13 | 2.50 | 85.20 | 0.70 |
| BLE_1M | Ant1 | 2480 | 2.12 | 2.50 | 84.80 | 0.72 |

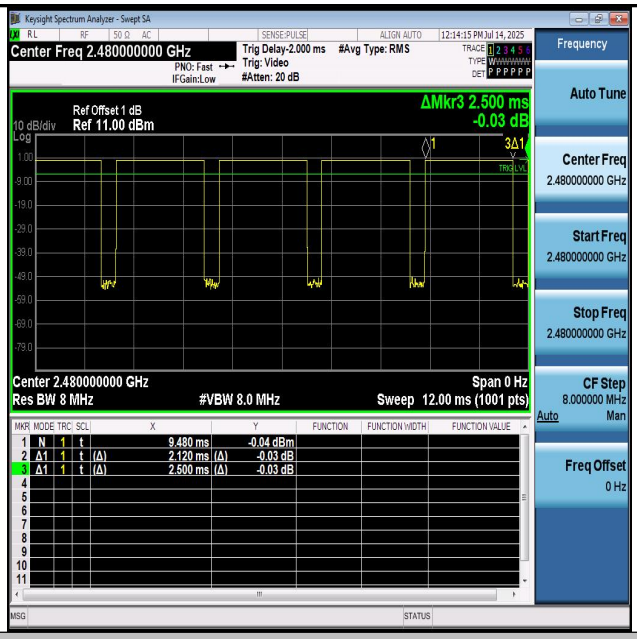
## Test Graphs




NTNV-BLE_1M-Ant1-2402




NTNV-BLE_1M-Ant1-2440




NTNV-BLE_1M-Ant1-2480

---End---