# Appendix Test Data

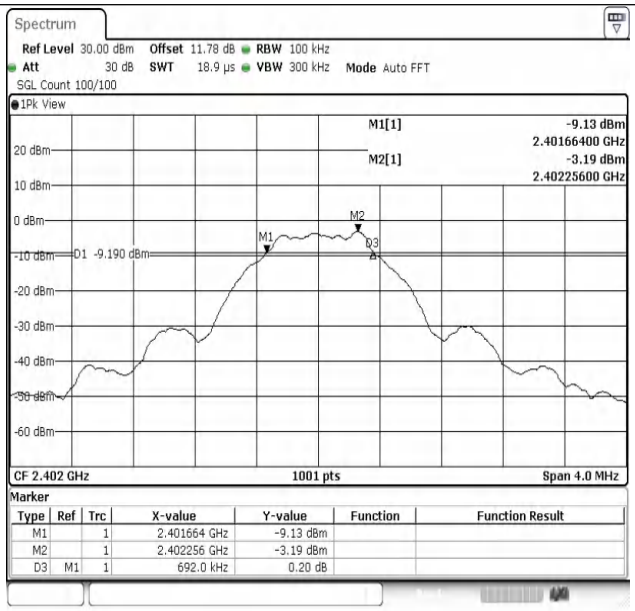
| | | | |
|---|---|---|---|
| Report No.: | 1814C40120612501 | Test Sample No.: | 1-2-2 |
| Start Test Date: | 2024.11.7 | Finish Test Date: | 2024.11.18 |
| Test Engineer: | Joker Huang | Auditor: | Justin Feng |
| Temperature: | 22.7℃ | Relative Humidity: | 57% |
| Pressure: | 101kPa | | |

## Appendix A: 6dB Bandwidth

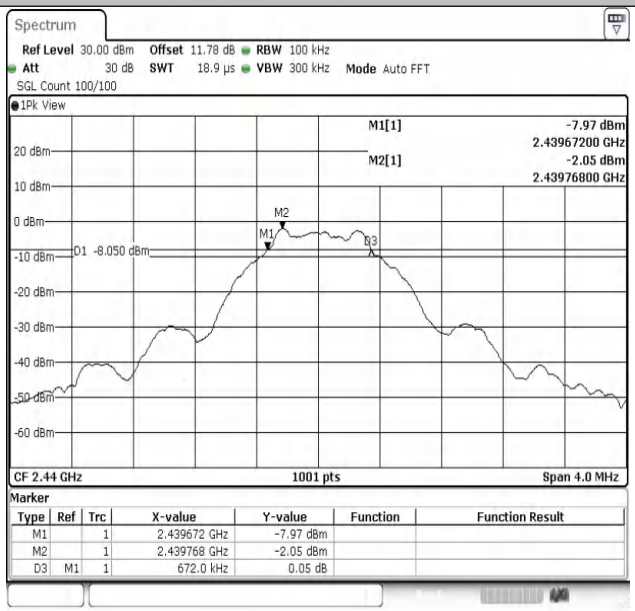
### Test Result

| Test Mode | Antenna | Frequency[MHz] | 6dB BW [MHz] | FL[MHz] | FH[MHz] | Limit[MHz] | Verdict |
|---|---|---|---|---|---|---|---|
| BLE_1M | Ant1 | 2402 | 0.69 | 2401.66 | 2402.36 | 0.5 | PASS |
| BLE_1M | Ant1 | 2440 | 0.67 | 2439.67 | 2440.34 | 0.5 | PASS |
| BLE_1M | Ant1 | 2480 | 0.67 | 2479.68 | 2480.35 | 0.5 | PASS |
| BLE_2M | Ant1 | 2402 | 1.35 | 2401.33 | 2402.68 | 0.5 | PASS |
| BLE_2M | Ant1 | 2440 | 1.08 | 2439.46 | 2440.54 | 0.5 | PASS |
| BLE_2M | Ant1 | 2480 | 1.10 | 2479.46 | 2480.57 | 0.5 | PASS |

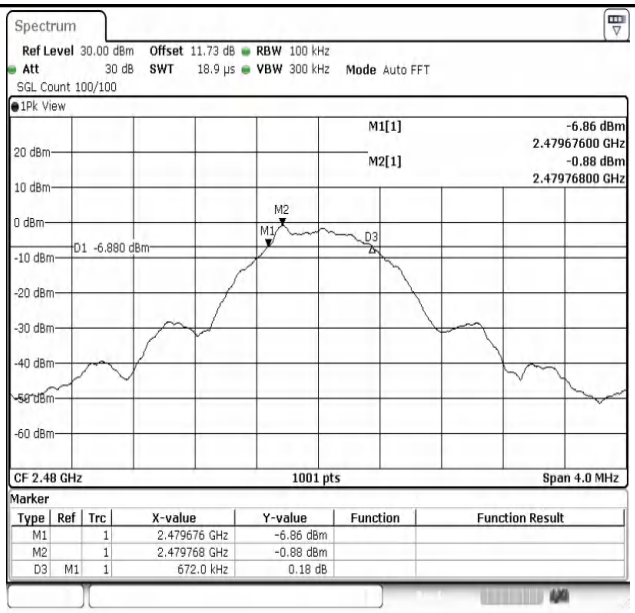
## Test Graphs



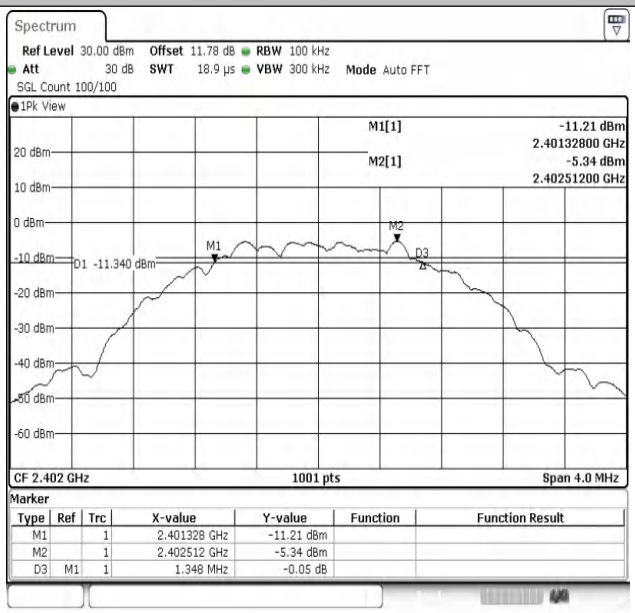

BLE_1M-Ant1-2402-PASS



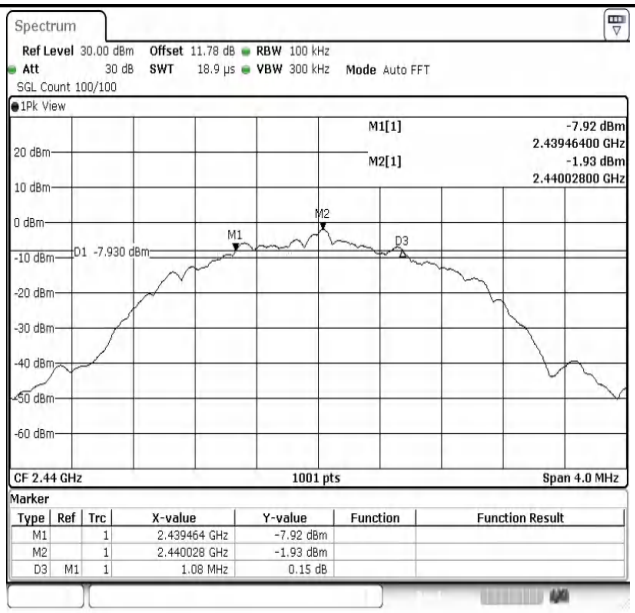

BLE_1M-Ant1-2440-PASS



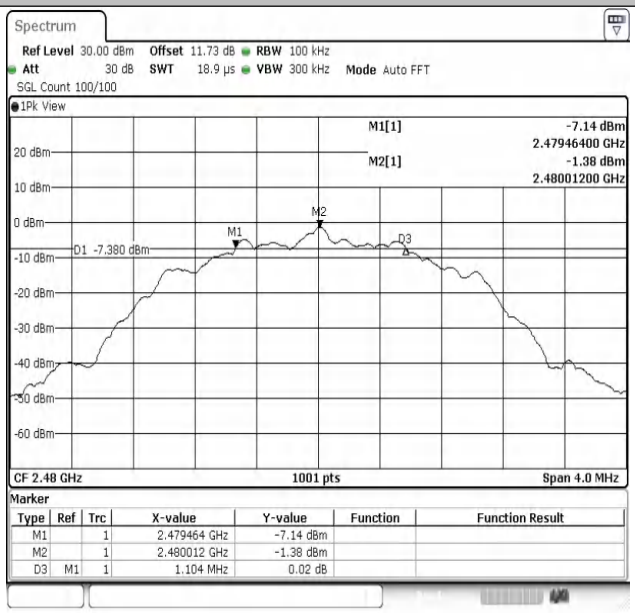

BLE_1M-Ant1-2480-PASS




BLE_2M-Ant1-2402-PASS




BLE_2M-Ant1-2440-PASS



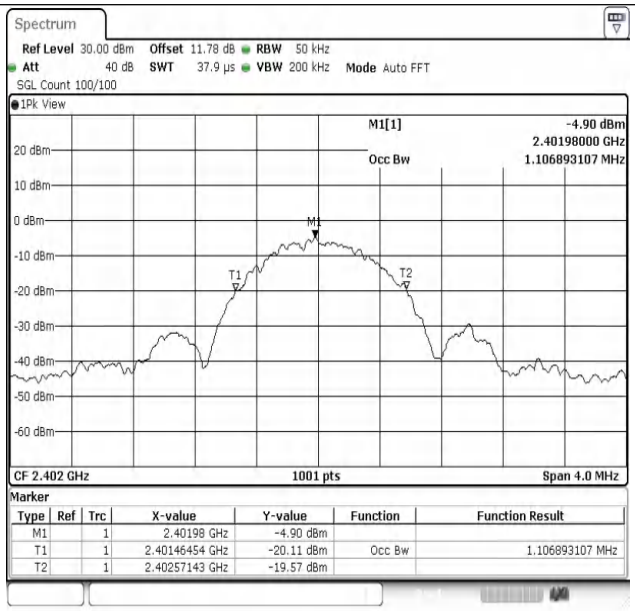

BLE_2M-Ant1-2480-PASS

# Appendix B: 99% Occupied Bandwidth

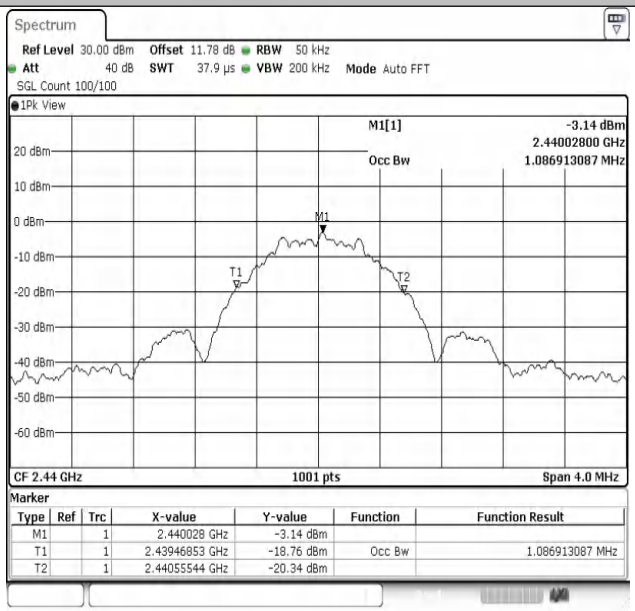
## Test Result

| Test Mode | Antenna | Frequency[MHz] | OCB [MHz] | FL[MHz] | FH[MHz] | Limit[MHz] | Verdict |
|---|---|---|---|---|---|---|---|
| BLE_1M | Ant1 | 2402 | 1.107 | 2401.4645 | 2402.5714 | --- | --- |
| BLE_1M | Ant1 | 2440 | 1.087 | 2439.4685 | 2440.5554 | --- | --- |
| BLE_1M | Ant1 | 2480 | 1.103 | 2479.4645 | 2480.5674 | --- | --- |
| BLE_2M | Ant1 | 2402 | 2.11 | 2400.9570 | 2403.0669 | --- | --- |
| BLE_2M | Ant1 | 2440 | 2.086 | 2438.9770 | 2441.0629 | --- | --- |
| BLE_2M | Ant1 | 2480 | 2.078 | 2478.9810 | 2481.0589 | --- | --- |

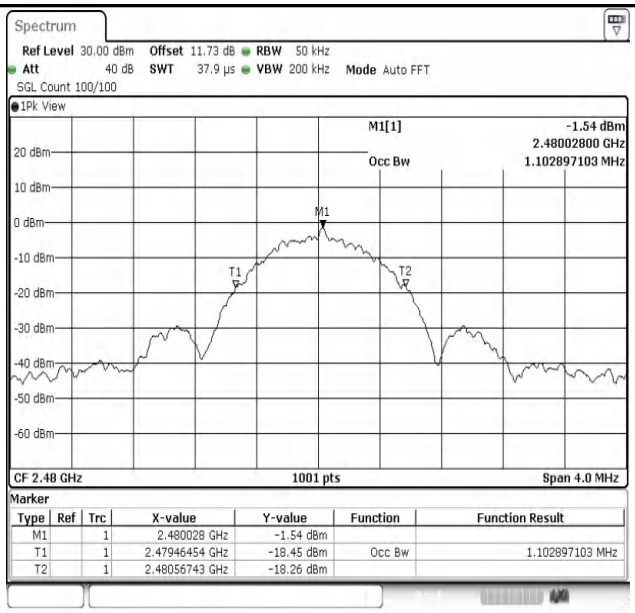
## Test Graphs



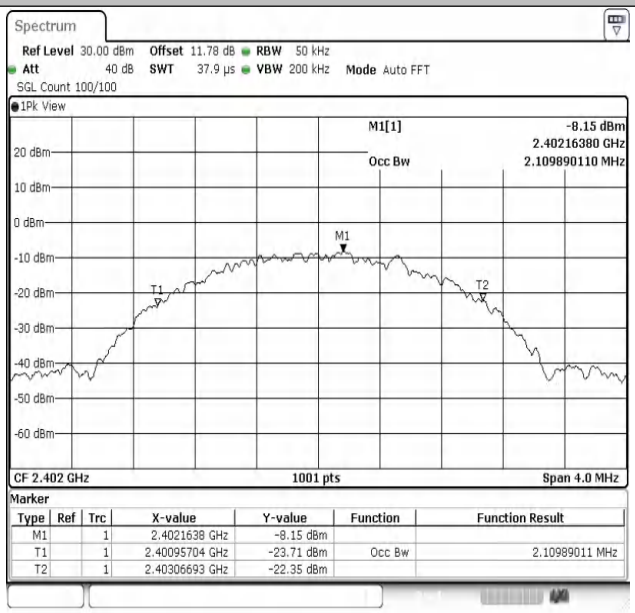

BLE_1M-Ant1-2402



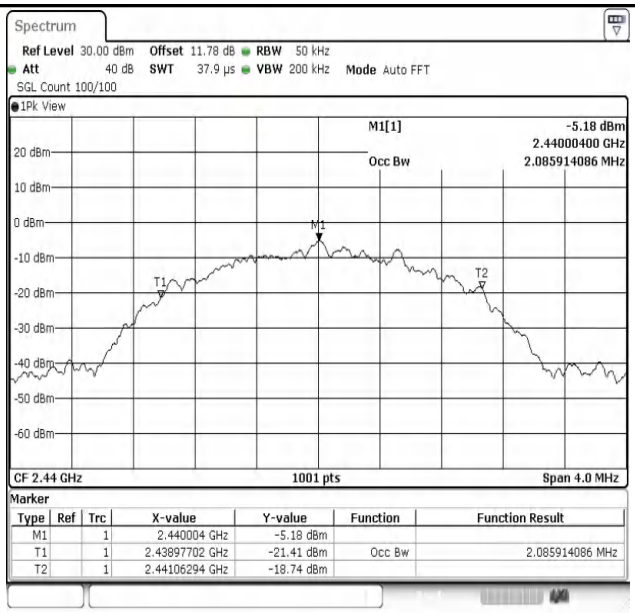

BLE_1M-Ant1-2440



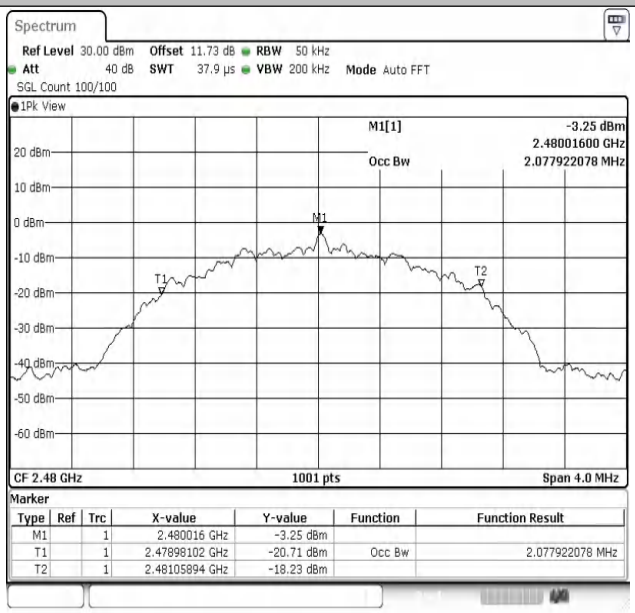

BLE_1M-Ant1-2480




BLE_2M-Ant1-2402




BLE_2M-Ant1-2440



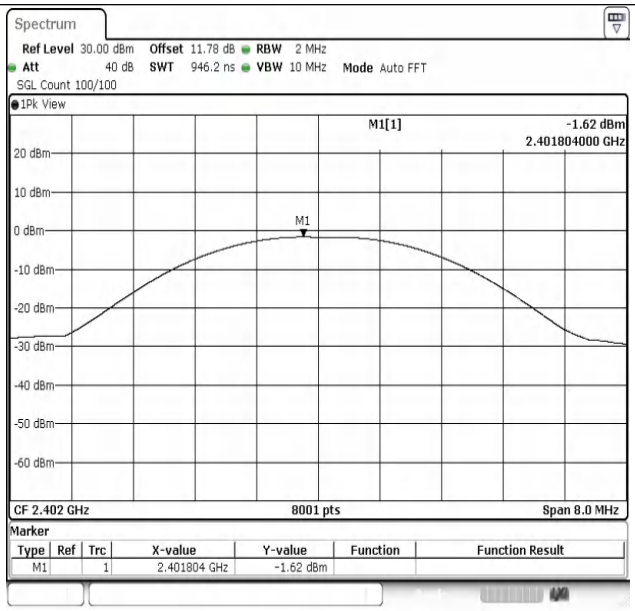

BLE_2M-Ant1-2480

# Appendix C: Maximum conducted output power

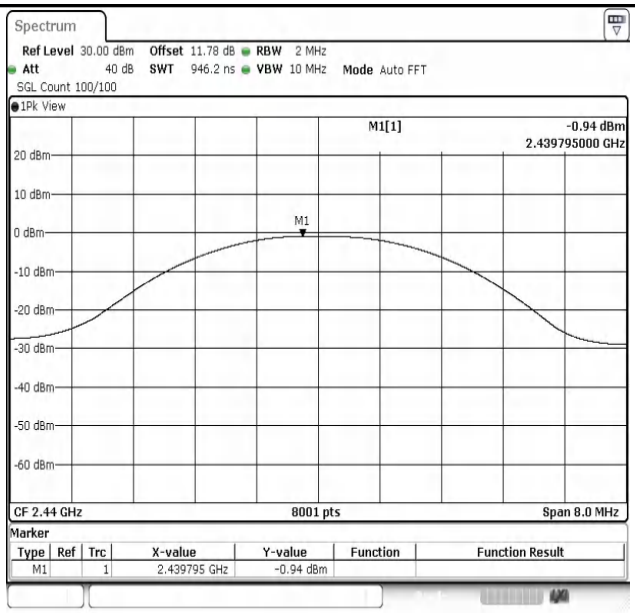
## Test Result Peak

| Test Mode | Antenna | Frequency [MHz] | Conducted Peak Power[dBm] | Conducted Limit[dBm] | Verdict |
|---|---|---|---|---|---|
| BLE_1M | Ant1 | 2402 | -1.62 | ≤30 | PASS |
| BLE_1M | Ant1 | 2440 | -0.94 | ≤30 | PASS |
| BLE_1M | Ant1 | 2480 | -0.02 | ≤30 | PASS |
| BLE_2M | Ant1 | 2402 | -1.54 | ≤30 | PASS |
| BLE_2M | Ant1 | 2440 | -0.93 | ≤30 | PASS |
| BLE_2M | Ant1 | 2480 | 0.00 | ≤30 | PASS |

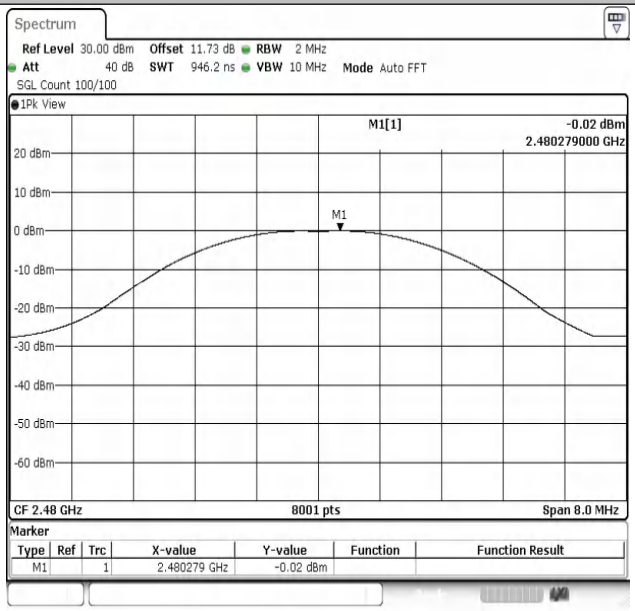
## Test Graphs Peak



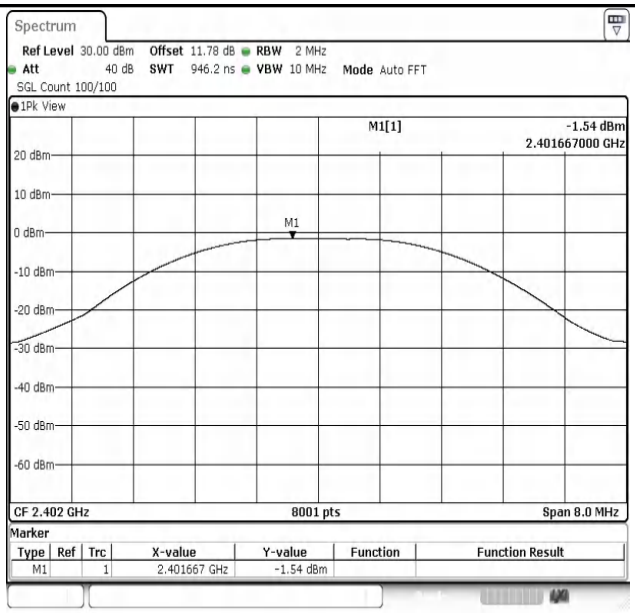

BLE_1M-Ant1-2402-PASS



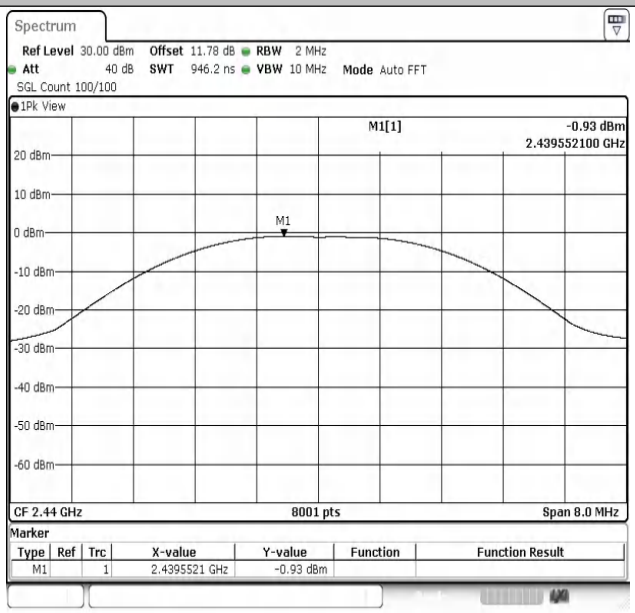

BLE_1M-Ant1-2440-PASS



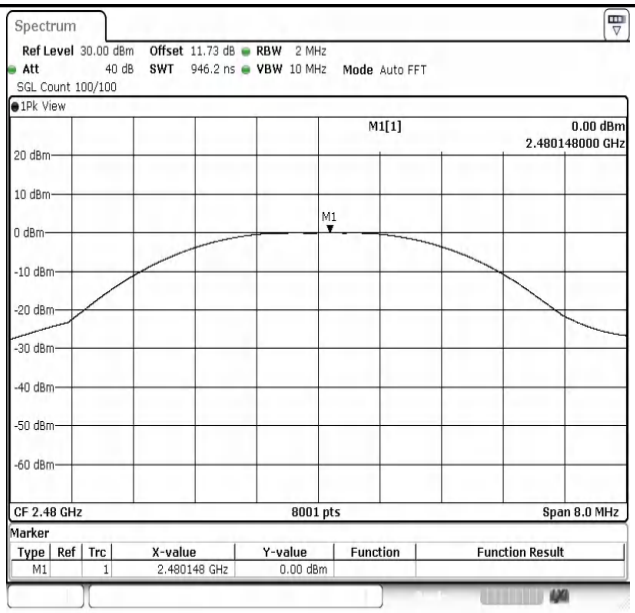

BLE_1M-Ant1-2480-PASS




BLE_2M-Ant1-2402-PASS




BLE_2M-Ant1-2440-PASS



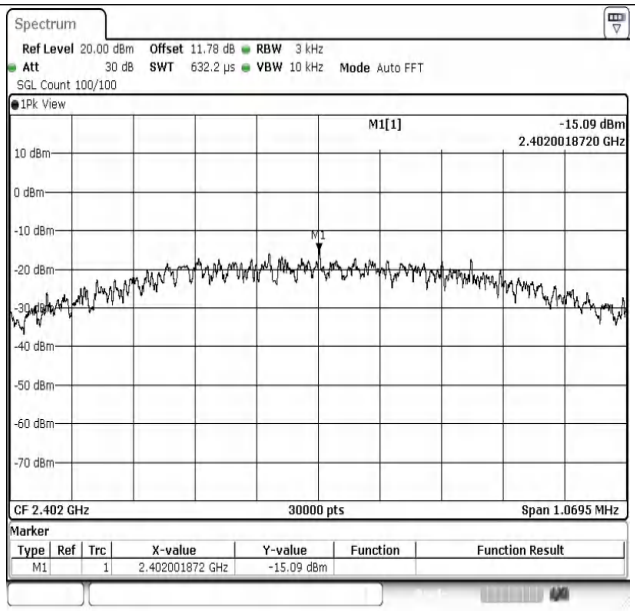

BLE_2M-Ant1-2480-PASS

# Appendix D: Maximum power spectral density

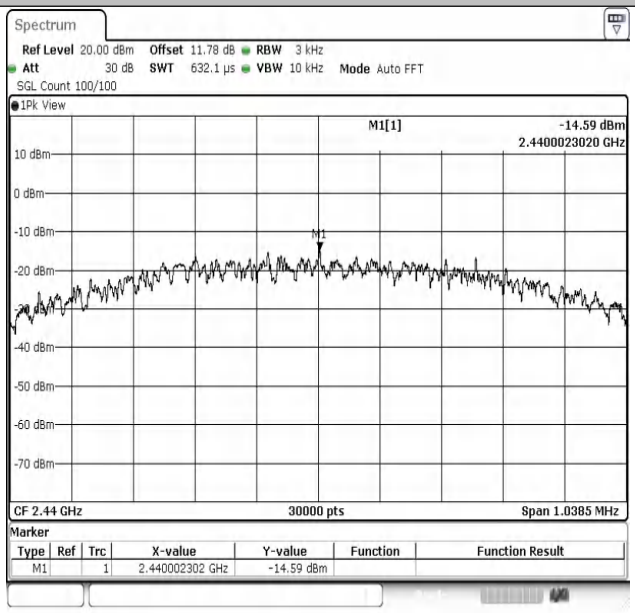
## Test Result

| TestMode | Antenna | Frequency[MHz] | Result[dBm/3kHz] | Limit[dBm/3kHz] | Verdict |
|---|---|---|---|---|---|
| BLE_1M | Ant1 | 2402 | -15.09 | ≤8.00 | PASS |
| BLE_1M | Ant1 | 2440 | -14.59 | ≤8.00 | PASS |
| BLE_1M | Ant1 | 2480 | -13.56 | ≤8.00 | PASS |
| BLE_2M | Ant1 | 2402 | -17.64 | ≤8.00 | PASS |
| BLE_2M | Ant1 | 2440 | -17.07 | ≤8.00 | PASS |
| BLE_2M | Ant1 | 2480 | -16.13 | ≤8.00 | PASS |

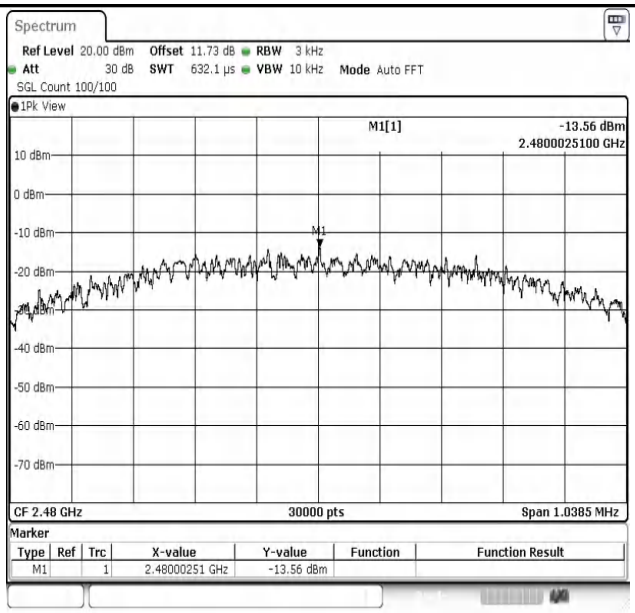
## Test Graphs



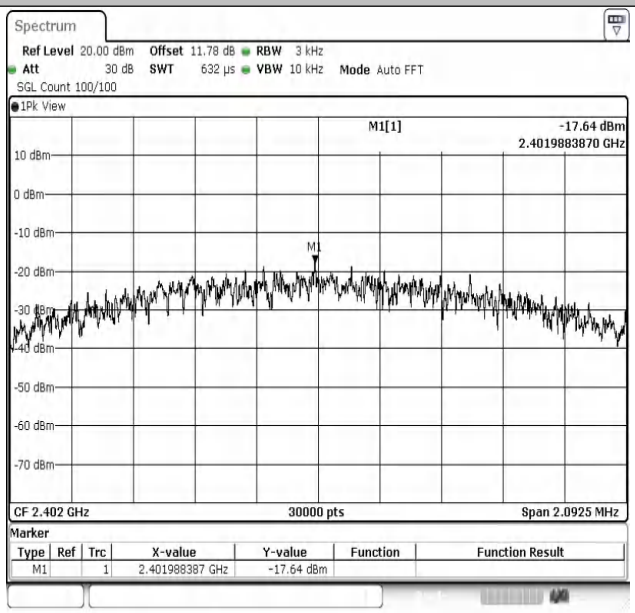

BLE_1M-Ant1-2402-PASS



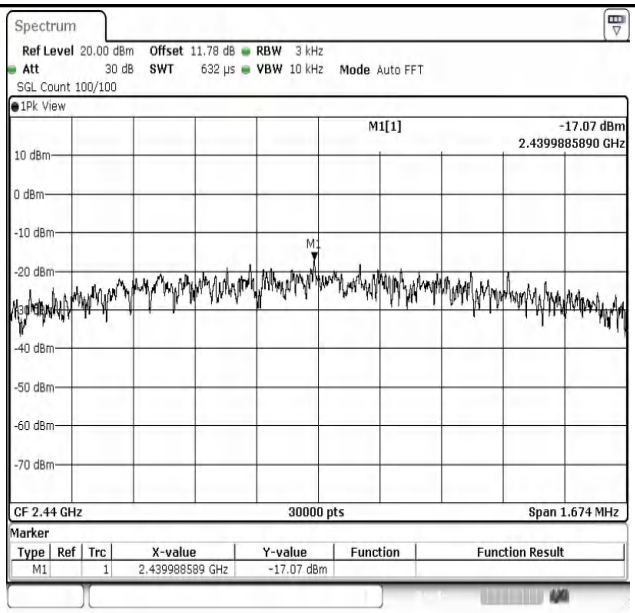

BLE_1M-Ant1-2440-PASS



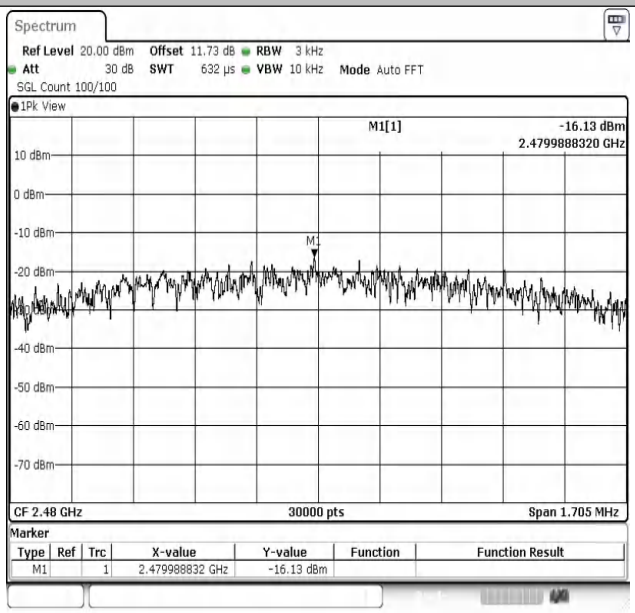

BLE_1M-Ant1-2480-PASS




BLE_2M-Ant1-2402-PASS




BLE_2M-Ant1-2440-PASS



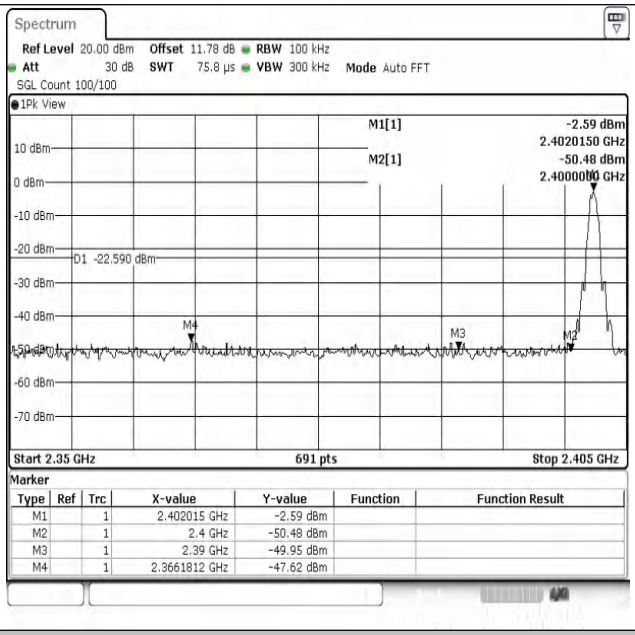

BLE_2M-Ant1-2480-PASS

# Appendix E: Band edge measurements

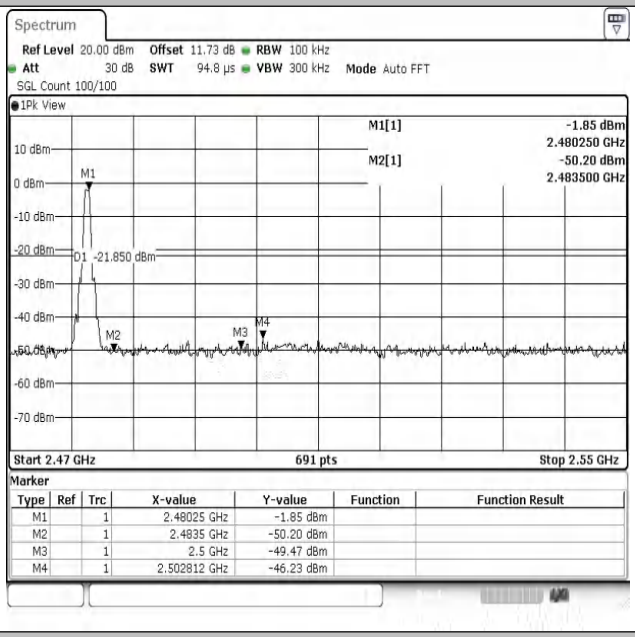
## Test Result

| Test Mode | Antenna | ChName | Frequency [MHz] | RefLevel [dBm] | Result [dBm] | Limit [dBm] | Verdict |
|---|---|---|---|---|---|---|---|
| BLE_1M | Ant1 | Low | 2402 | -2.59 | -47.62 | ≤-22.59 | PASS |
| BLE_1M | Ant1 | High | 2480 | -1.85 | -46.23 | ≤-21.85 | PASS |
| BLE_2M | Ant1 | Low | 2402 | -2.05 | -47.6 | ≤-22.05 | PASS |
| BLE_2M | Ant1 | High | 2480 | -2.75 | -46.03 | ≤-22.75 | PASS |

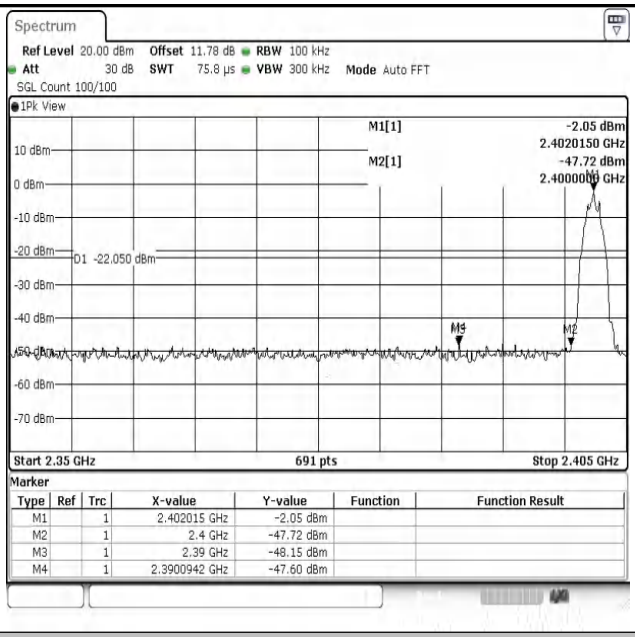
## Test Graphs



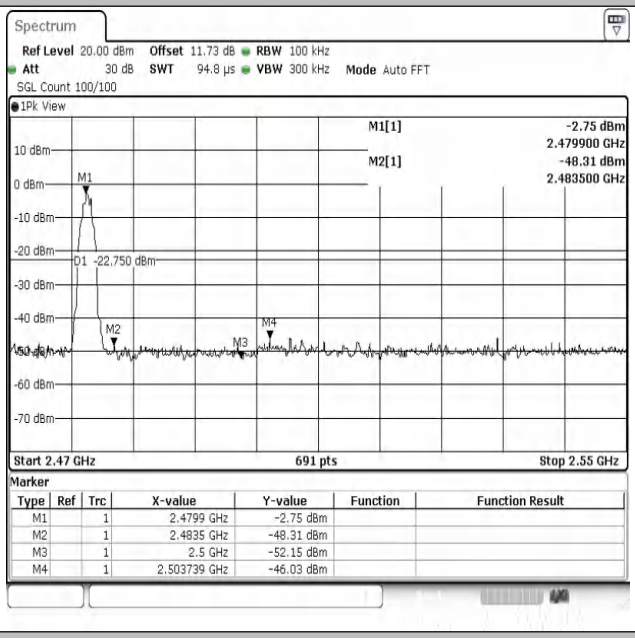

BLE_1M-Ant1-2402-PASS




BLE_1M-Ant1-2480-PASS




BLE_2M-Ant1-2402-PASS



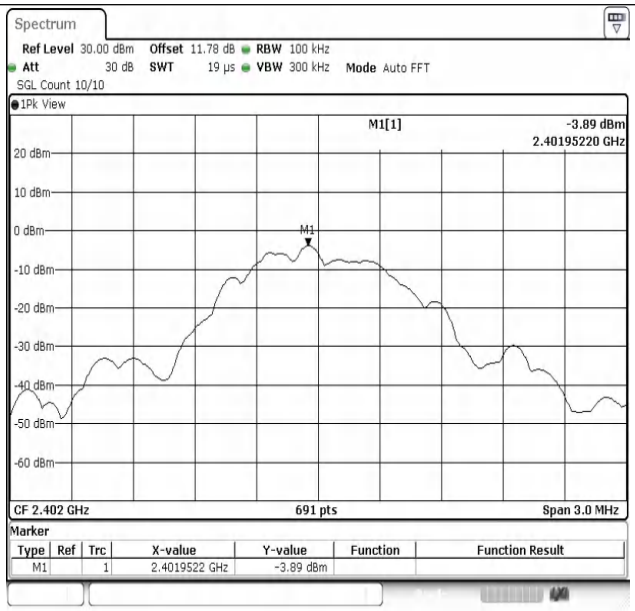

BLE_2M-Ant1-2480-PASS

# Appendix F: Conducted Spurious Emission

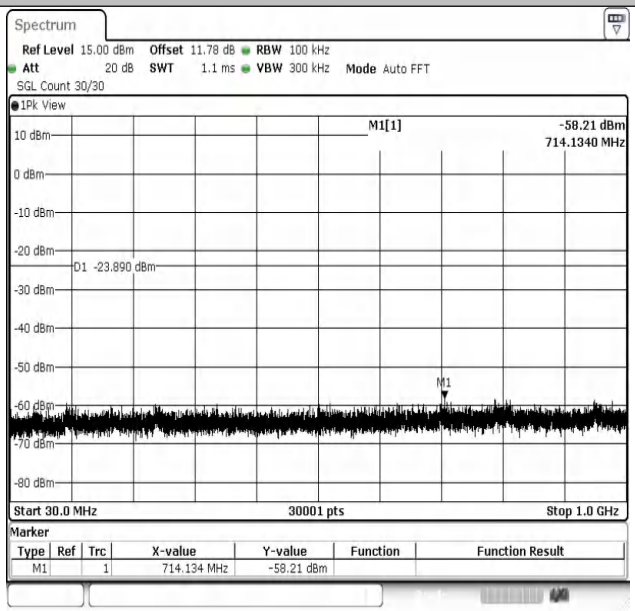
## Test Result

| Test Mode | Antenna | Frequency [MHz] | Freq. Range [MHz] | Ref. Level [dBm] | Result [dBm] | Limit [dBm] | Verdict |
|---|---|---|---|---|---|---|---|
| BLE_1M | Ant1 | 2402 | 0~Reference | -3.89 | -3.89 | --- | PASS |
| BLE_1M | Ant1 | 2402 | 30~1000 | -3.89 | -58.21 | ≤-23.89 | PASS |
| BLE_1M | Ant1 | 2402 | 1000~26500 | -3.89 | -43.06 | ≤-23.89 | PASS |
| BLE_1M | Ant1 | 2440 | 0~Reference | -3.69 | -3.69 | --- | PASS |
| BLE_1M | Ant1 | 2440 | 30~1000 | -3.69 | -58.28 | ≤-23.69 | PASS |
| BLE_1M | Ant1 | 2440 | 1000~26500 | -3.69 | -38.8 | ≤-23.69 | PASS |
| BLE_1M | Ant1 | 2480 | 0~Reference | -2.99 | -2.99 | --- | PASS |
| BLE_1M | Ant1 | 2480 | 30~1000 | -2.99 | -57.94 | ≤-22.99 | PASS |
| BLE_1M | Ant1 | 2480 | 1000~26500 | -2.99 | -39.01 | ≤-22.99 | PASS |
| BLE_2M | Ant1 | 2402 | 0~Reference | -5.49 | -5.49 | --- | PASS |
| BLE_2M | Ant1 | 2402 | 30~1000 | -5.49 | -58.11 | ≤-25.49 | PASS |
| BLE_2M | Ant1 | 2402 | 1000~26500 | -5.49 | -44.25 | ≤-25.49 | PASS |
| BLE_2M | Ant1 | 2440 | 0~Reference | -4.15 | -4.15 | --- | PASS |
| BLE_2M | Ant1 | 2440 | 30~1000 | -4.15 | -58.56 | ≤-24.15 | PASS |
| BLE_2M | Ant1 | 2440 | 1000~26500 | -4.15 | -43.17 | ≤-24.15 | PASS |
| BLE_2M | Ant1 | 2480 | 0~Reference | -5.00 | -5.00 | --- | PASS |
| BLE_2M | Ant1 | 2480 | 30~1000 | -5.00 | -57.78 | ≤-25 | PASS |
| BLE_2M | Ant1 | 2480 | 1000~26500 | -5.00 | -37.47 | ≤-25 | PASS |

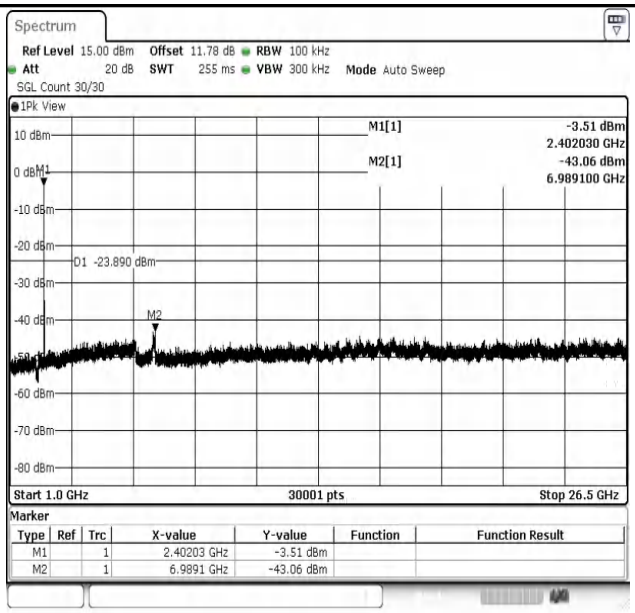
## Test Graphs



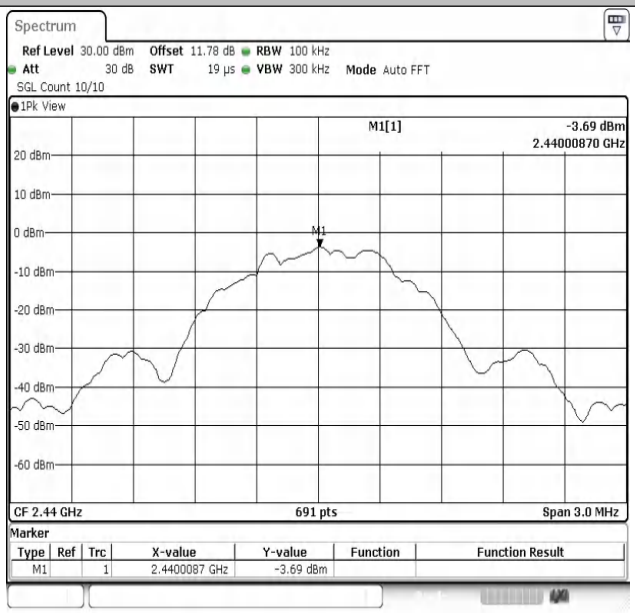

BLE_1M-Ant1-2402-0~Reference-PASS



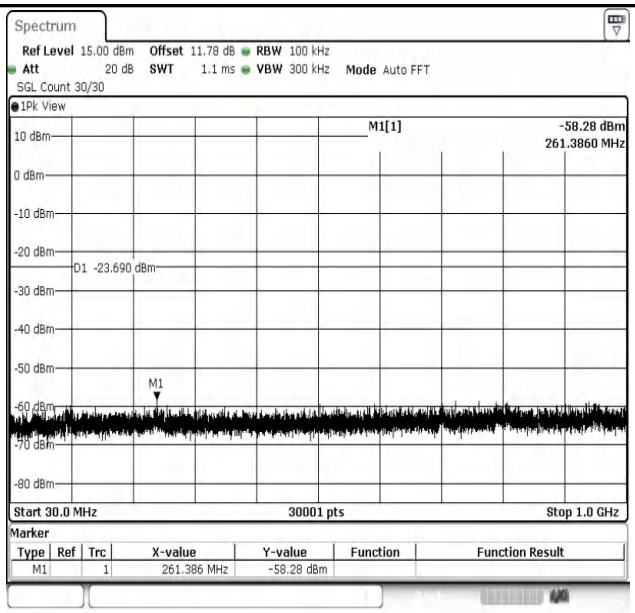

BLE_1M-Ant1-2402-30~1000-PASS



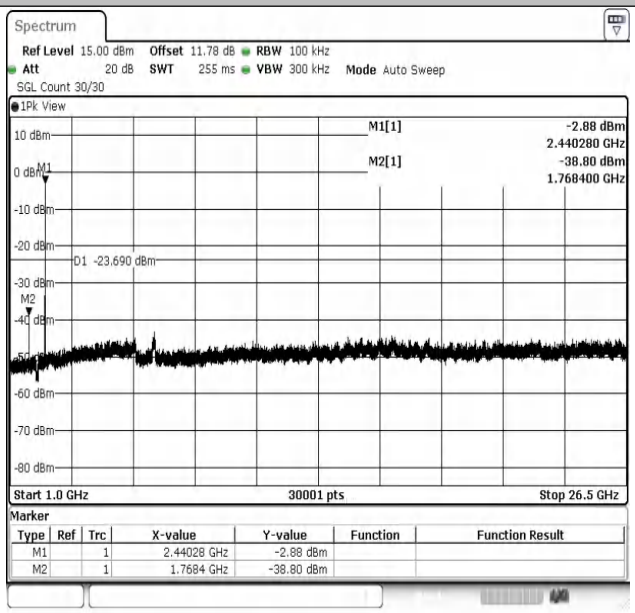

BLE_1M-Ant1-2402-1000~26500-PASS



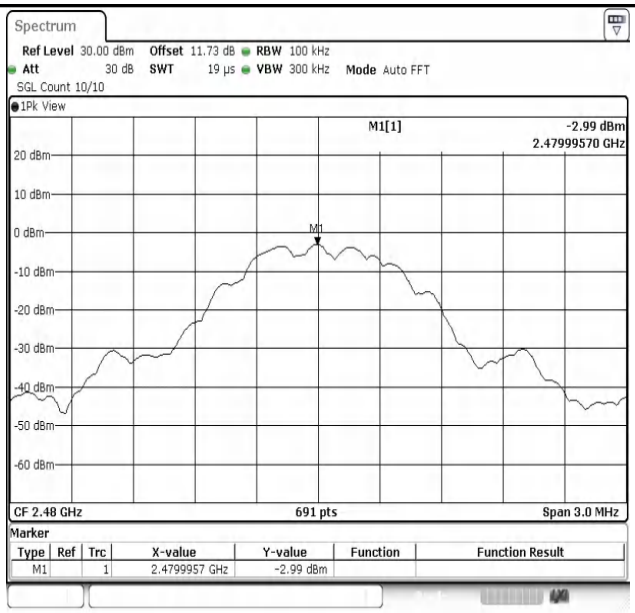

BLE_1M-Ant1-2440-0~Reference-PASS



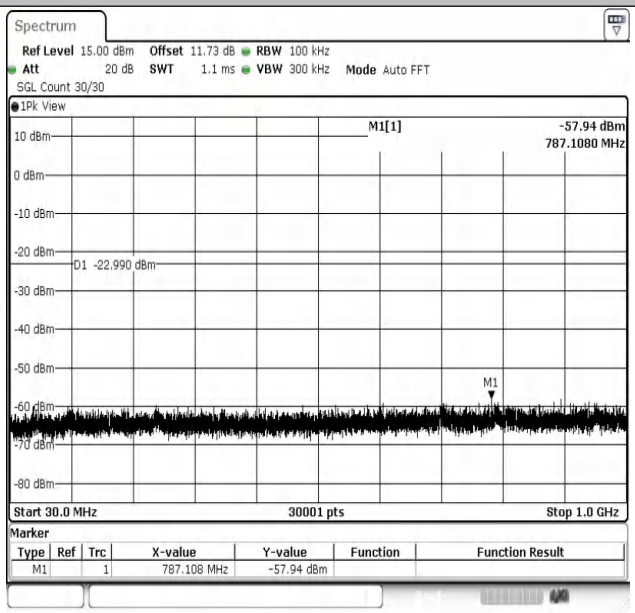

BLE_1M-Ant1-2440-30~1000-PASS



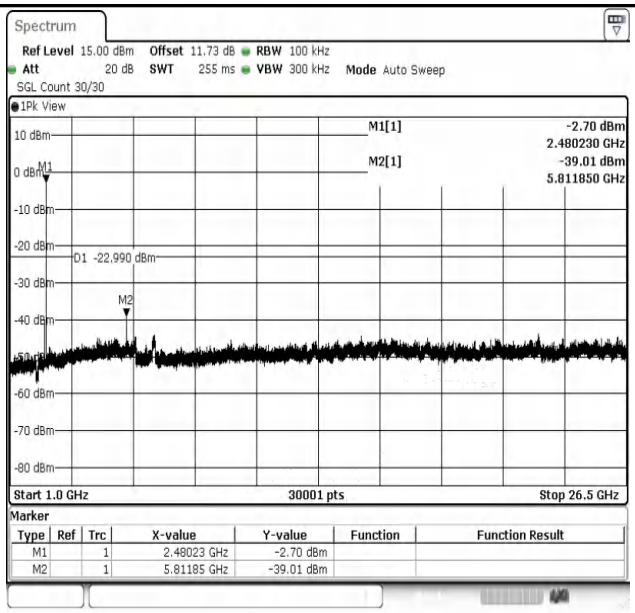

BLE_1M-Ant1-2440-1000~26500-PASS



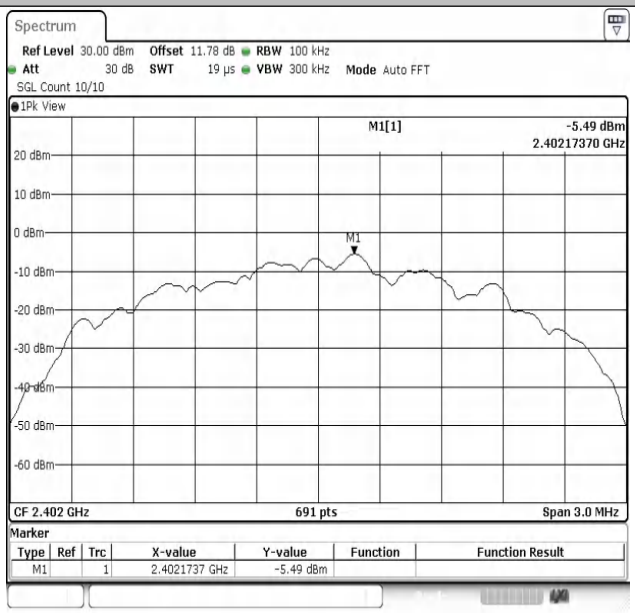

BLE_1M-Ant1-2480-0~Reference-PASS



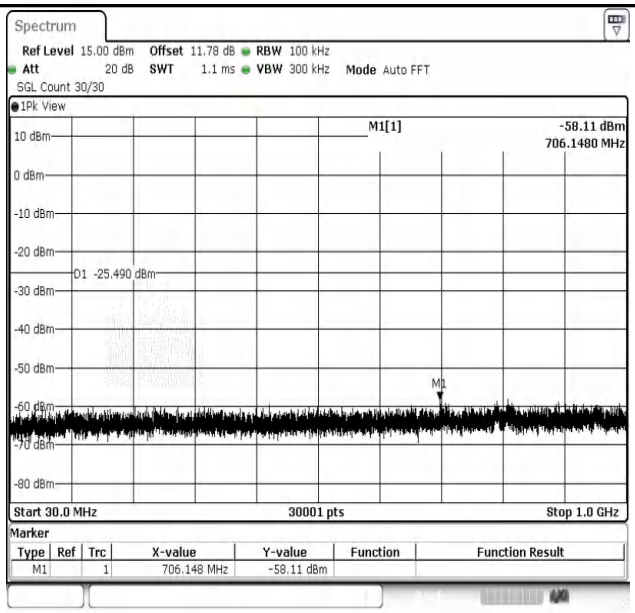

BLE_1M-Ant1-2480-30~1000-PASS



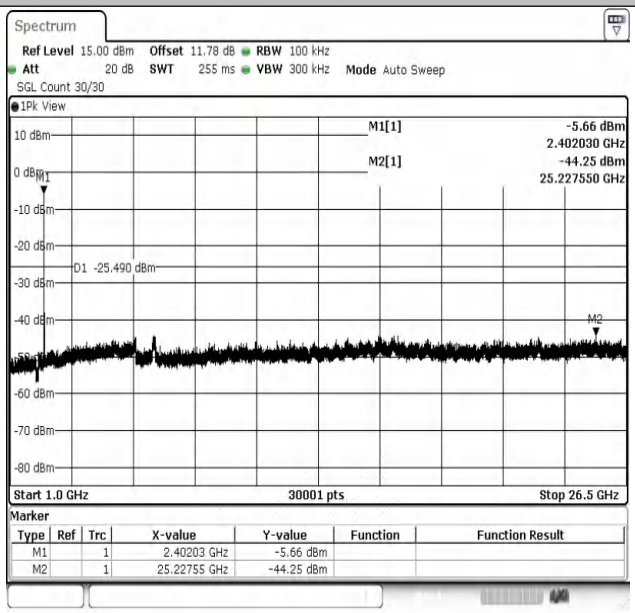

BLE_1M-Ant1-2480-1000~26500-PASS



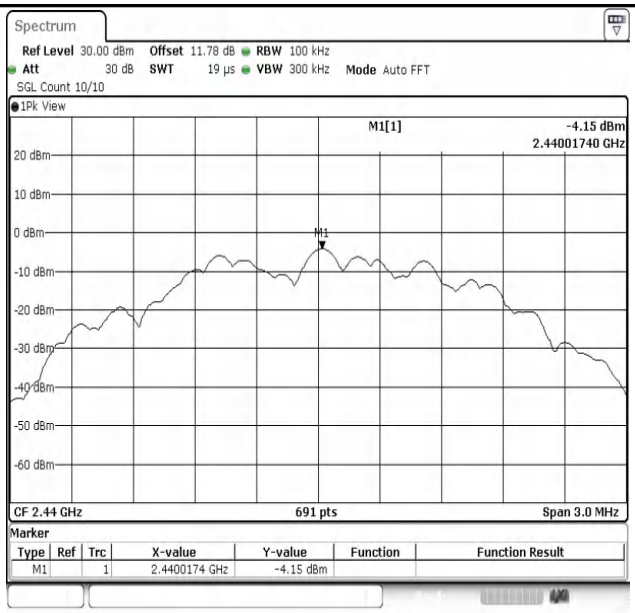

BLE_2M-Ant1-2402-0~Reference-PASS



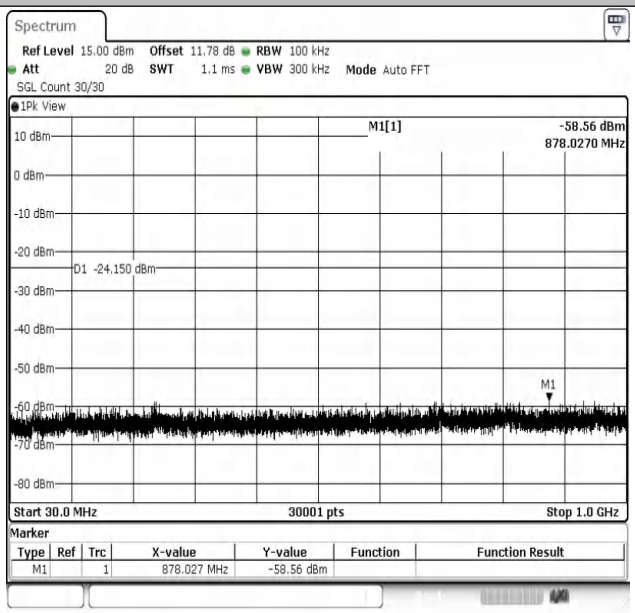

BLE_2M-Ant1-2402-30~1000-PASS




BLE_2M-Ant1-2402-1000~26500-PASS




BLE_2M-Ant1-2440-0~Reference-PASS

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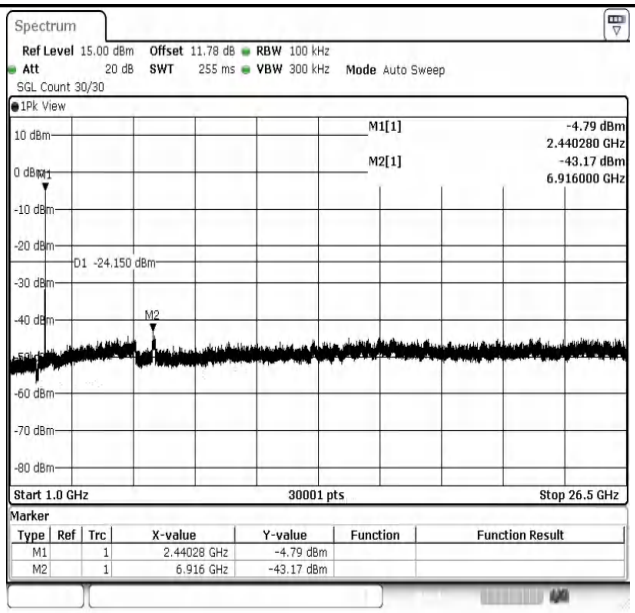
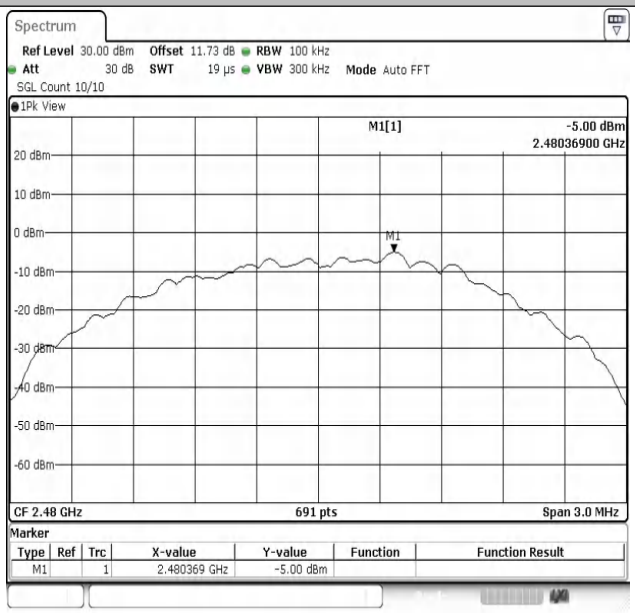
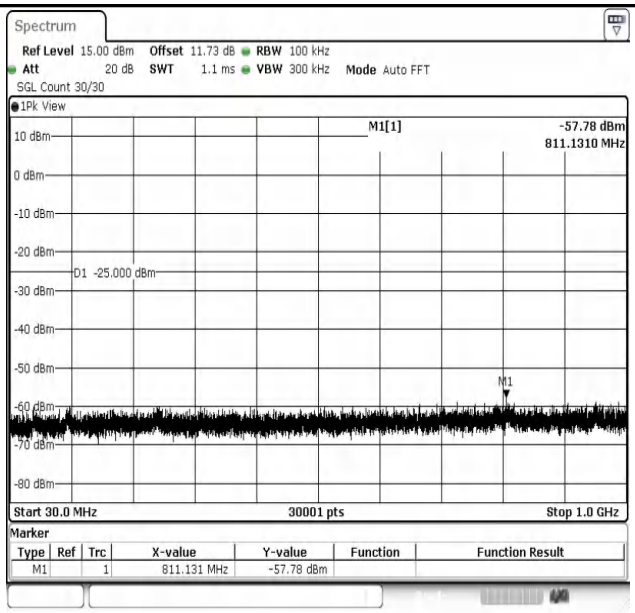


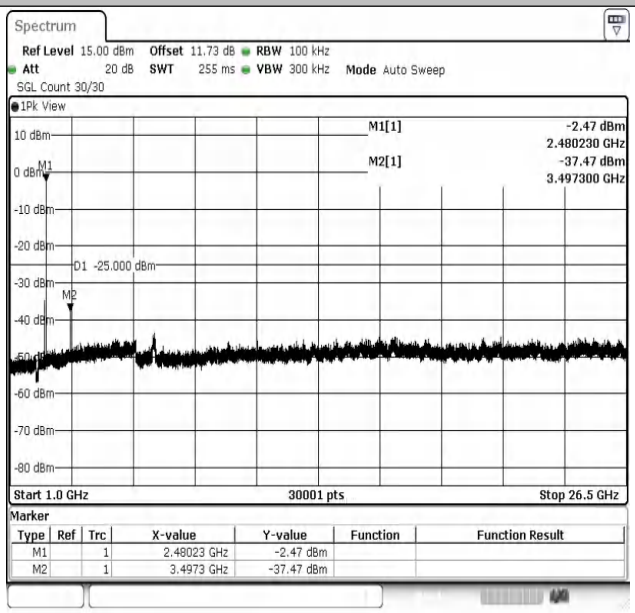

BLE_2M-Ant1-2440-1000~26500-PASS




BLE_2M-Ant1-2480-0~Reference-PASS




BLE_2M-Ant1-2480-30~1000-PASS



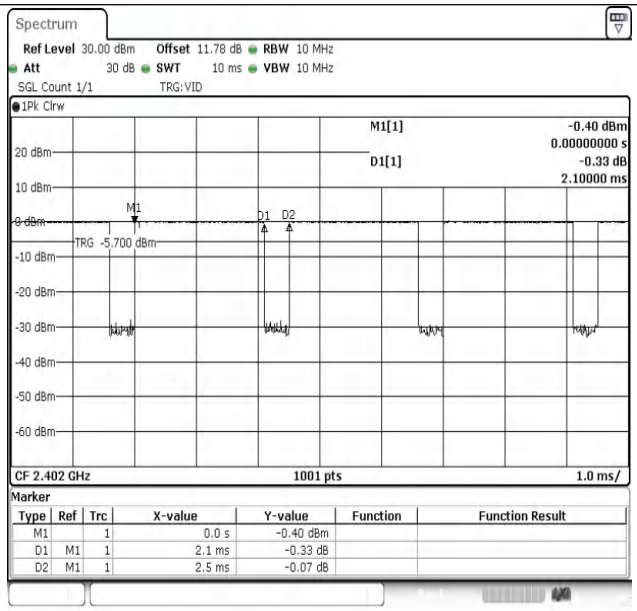

BLE_2M-Ant1-2480-1000~26500-PASS

# Appendix G: Duty Cycle

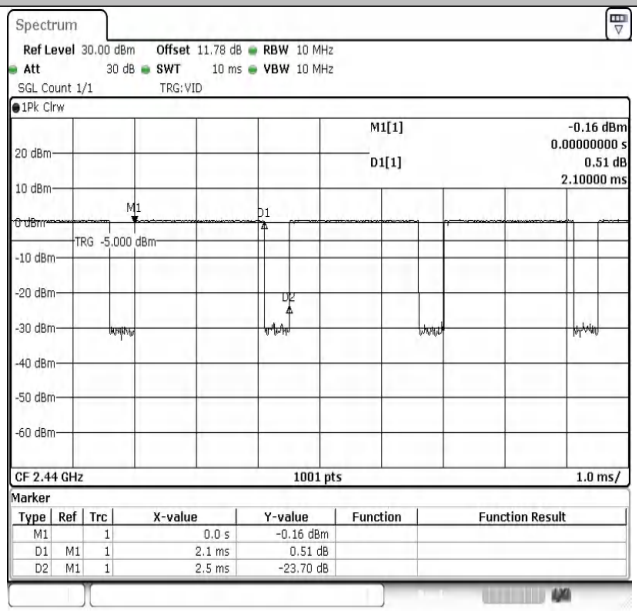
## Test Result

| Test Mode | Antenna | Frequency [MHz] | ON Time [ms] | Period [ms] | Duty Cycle [%] | Duty Cycle Factor[dB] |
|---|---|---|---|---|---|---|
| BLE_1M | Ant1 | 2402 | 2.10 | 2.50 | 84.00 | 0.76 |
| BLE_1M | Ant1 | 2440 | 2.10 | 2.50 | 84.00 | 0.76 |
| BLE_1M | Ant1 | 2480 | 2.10 | 2.50 | 84.00 | 0.76 |
| BLE_2M | Ant1 | 2402 | 1.06 | 1.88 | 56.38 | 2.49 |
| BLE_2M | Ant1 | 2440 | 1.06 | 1.88 | 56.38 | 2.49 |
| BLE_2M | Ant1 | 2480 | 1.06 | 1.88 | 56.38 | 2.49 |

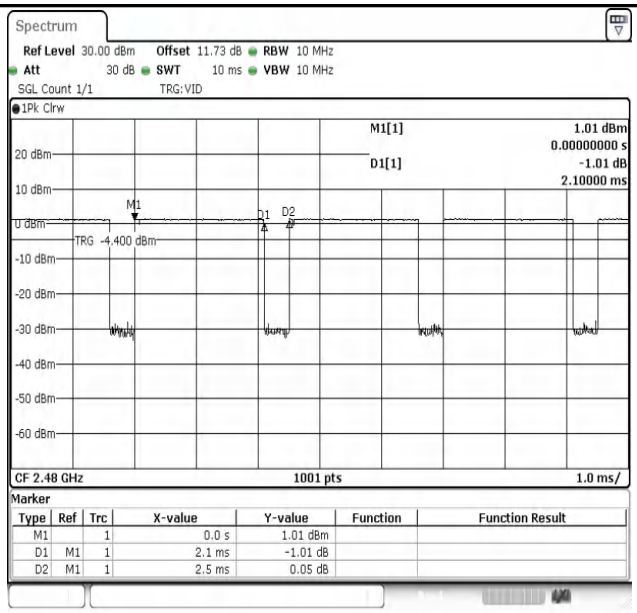
## Test Graphs



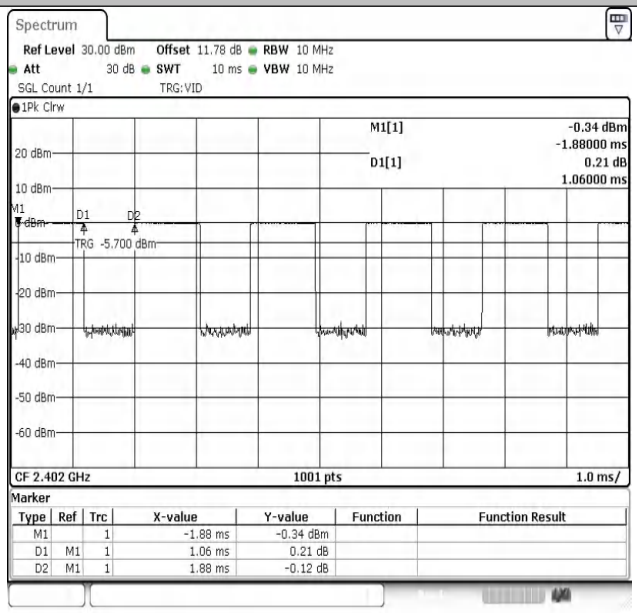

NTNV-BLE_1M-Ant1-2402



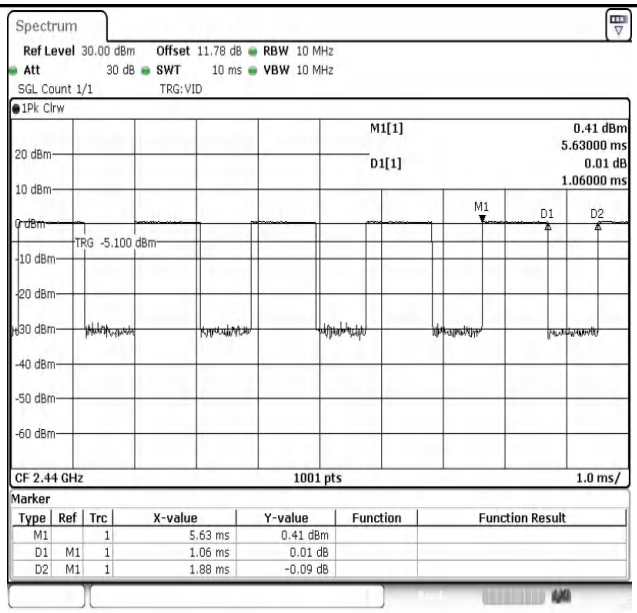

NTNV-BLE_1M-Ant1-2440



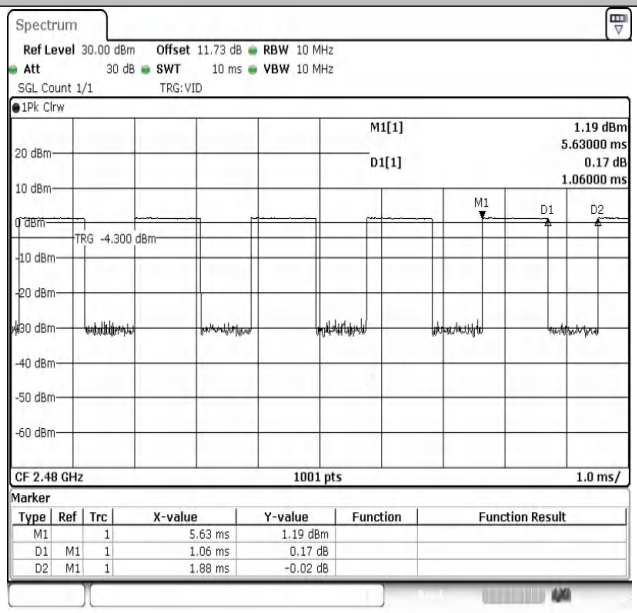

NTNV-BLE_1M-Ant1-2480




NTNV-BLE_2M-Ant1-2402




NTNV-BLE_2M-Ant1-2440




NTNV-BLE_2M-Ant1-2480

---End---