

## Appendix RF Test Data for BLE

**Company** : Shenzhen Wenfengsheng Electronics Co., Ltd.  
**EUT** : Wireless Earphone  
**Model Number** : A18PRO  
**Report No.** : CTA25112002101  
**Reviewed By** : Eric Wang

## Appendix A: Frequency Error

### Test Result

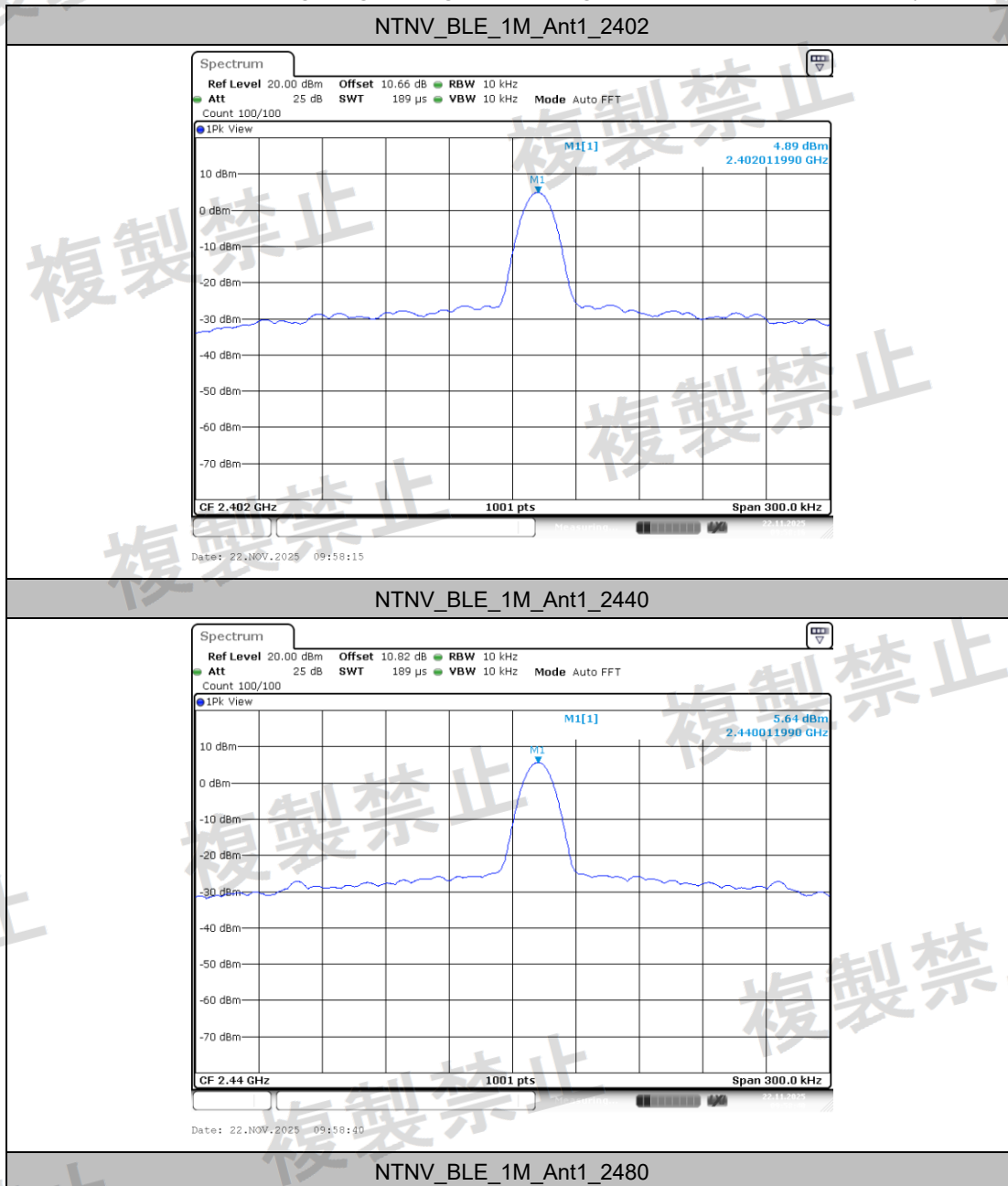
| TestCondition | TestMode | Antenna | Freq(MHz) | Result[ppm] | Limit[ppm] | Verdict |
|---------------|----------|---------|-----------|-------------|------------|---------|
| NTNV          | BLE_1M   | Ant1    | 2402      | 4.99167     | ±50        | PASS    |
|               |          |         | 2440      | 4.91393     | ±50        | PASS    |
|               |          |         | 2480      | 4.83468     | ±50        | PASS    |

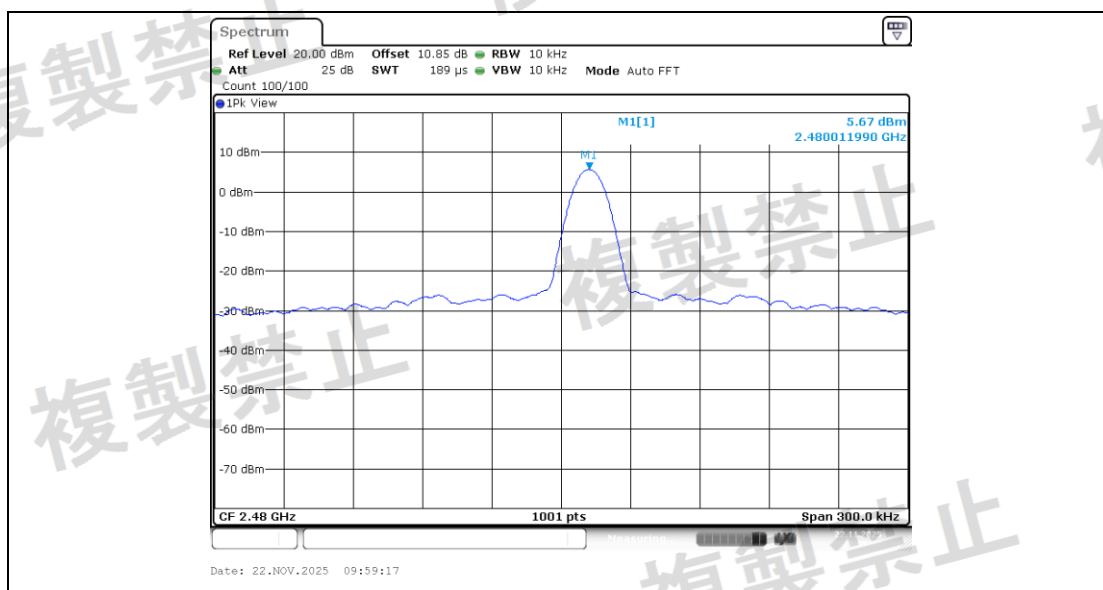
| TestCondition | TestMode | Antenna | Freq(MHz) | Result[ppm] | Limit[ppm] | Verdict |
|---------------|----------|---------|-----------|-------------|------------|---------|
| NTLV          | BLE_1M   | Ant1    | 2402      | 4.79215     | ±50        | PASS    |
|               |          |         | 2440      | 4.70964     | ±50        | PASS    |
|               |          |         | 2480      | 4.62834     | ±50        | PASS    |

| TestCondition | TestMode | Antenna | Freq(MHz) | Result[ppm] | Limit[ppm] | Verdict |
|---------------|----------|---------|-----------|-------------|------------|---------|
| NTHV          | BLE_1M   | Ant1    | 2402      | 4.77358     | ±50        | PASS    |
|               |          |         | 2440      | 4.70164     | ±50        | PASS    |
|               |          |         | 2480      | 4.61359     | ±50        | PASS    |

## Test Graphs

Note: We test Normal Voltage, High Voltage, Low Voltage, and recorded the worst test plot.





## Appendix B: Occupied Bandwidth

### Test Result

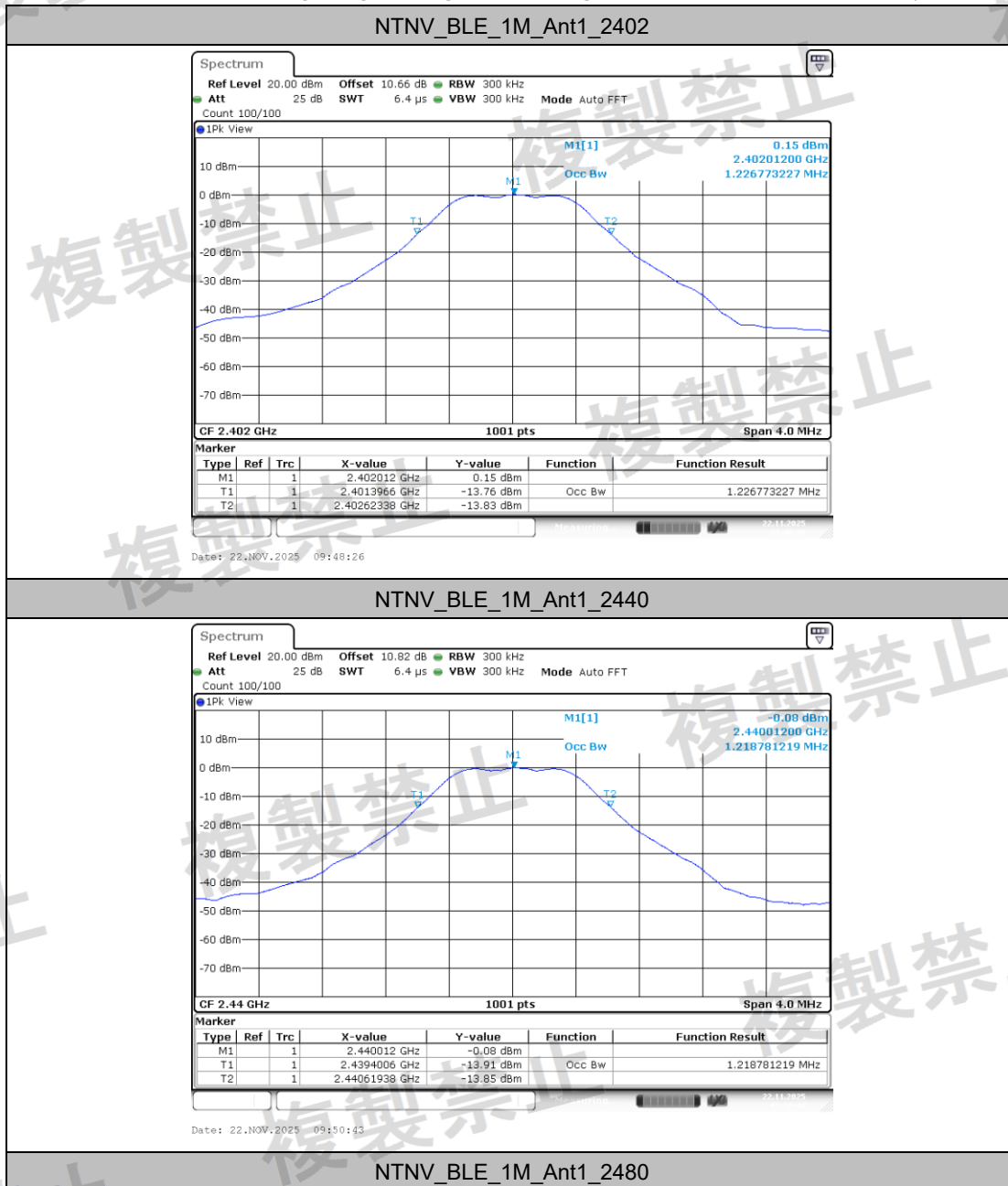
| TestCondition | TestMode | Antenna | Freq(MHz) | Result [MHz] | Limit [MHz] | Verdict |
|---------------|----------|---------|-----------|--------------|-------------|---------|
| NTNV          | BLE_1M   | Ant1    | 2402      | 1.227        | ≤26         | PASS    |
|               |          |         | 2440      | 1.219        | ≤26         | PASS    |
|               |          |         | 2480      | 1.223        | ≤26         | PASS    |

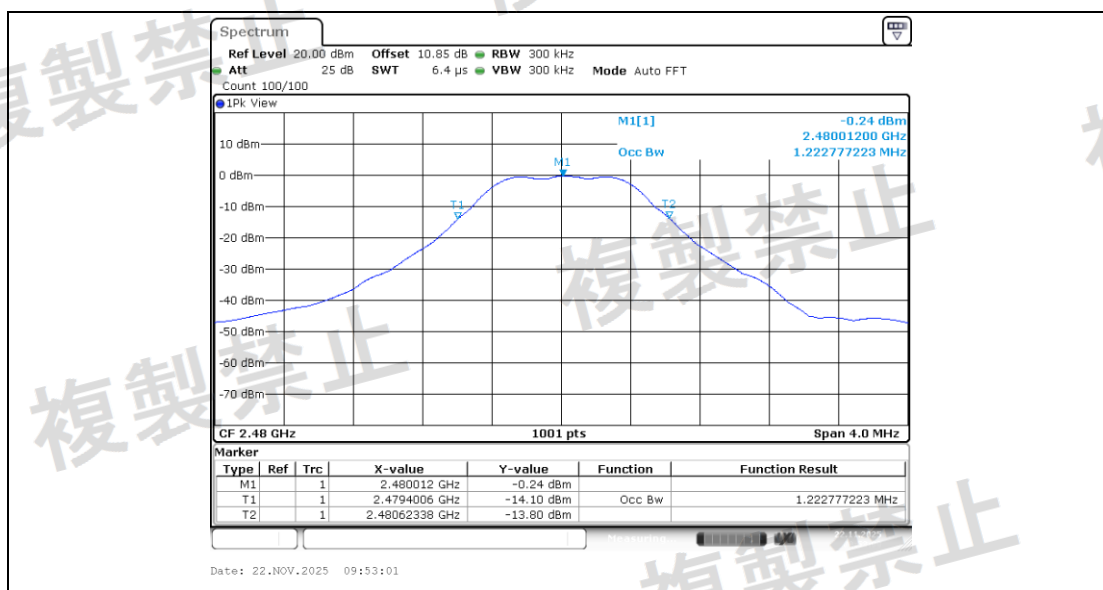
| TestCondition | TestMode | Antenna | Freq(MHz) | Result [MHz] | Limit [MHz] | Verdict |
|---------------|----------|---------|-----------|--------------|-------------|---------|
| NTLV          | BLE_1M   | Ant1    | 2402      | 1.221        | ≤26         | PASS    |
|               |          |         | 2440      | 1.214        | ≤26         | PASS    |
|               |          |         | 2480      | 1.219        | ≤26         | PASS    |

| TestCondition | TestMode | Antenna | Freq(MHz) | Result [MHz] | Limit [MHz] | Verdict |
|---------------|----------|---------|-----------|--------------|-------------|---------|
| NTHV          | BLE_1M   | Ant1    | 2402      | 1.217        | ≤26         | PASS    |
|               |          |         | 2440      | 1.210        | ≤26         | PASS    |
|               |          |         | 2480      | 1.215        | ≤26         | PASS    |

## Test Graphs

Note: We test Normal Voltage, High Voltage, Low Voltage, and recorded the worst test plot.





## Appendix C: Spread Bandwidth

### Test Result

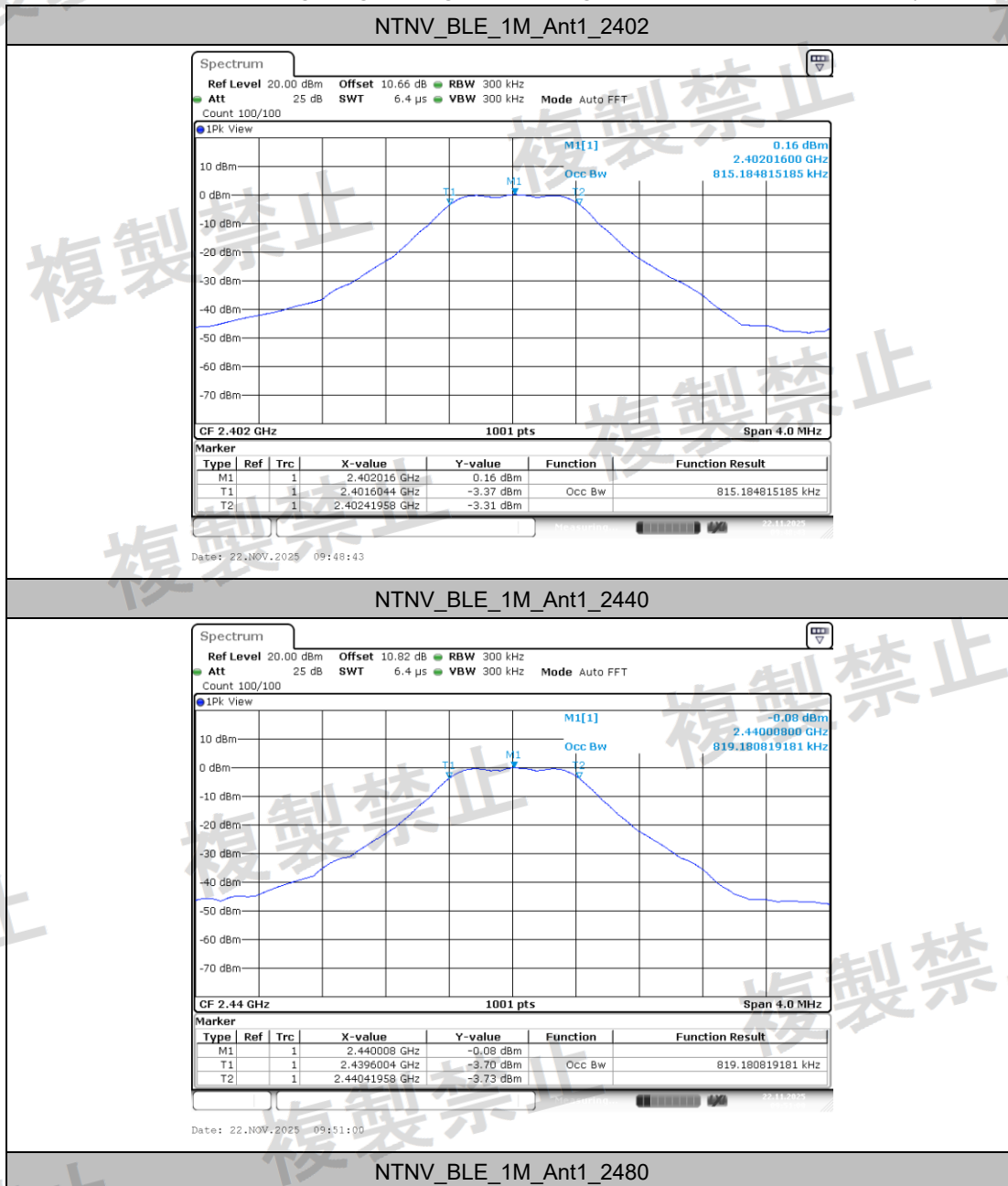
| TestCondition | TestMode | Antenna | Freq(MHz) | Result [MHz] | Limit [MHz] | Verdict |
|---------------|----------|---------|-----------|--------------|-------------|---------|
| NTNV          | BLE_1M   | Ant1    | 2402      | 0.815        | ≥0.5        | PASS    |
|               |          |         | 2440      | 0.819        | ≥0.5        | PASS    |
|               |          |         | 2480      | 0.823        | ≥0.5        | PASS    |

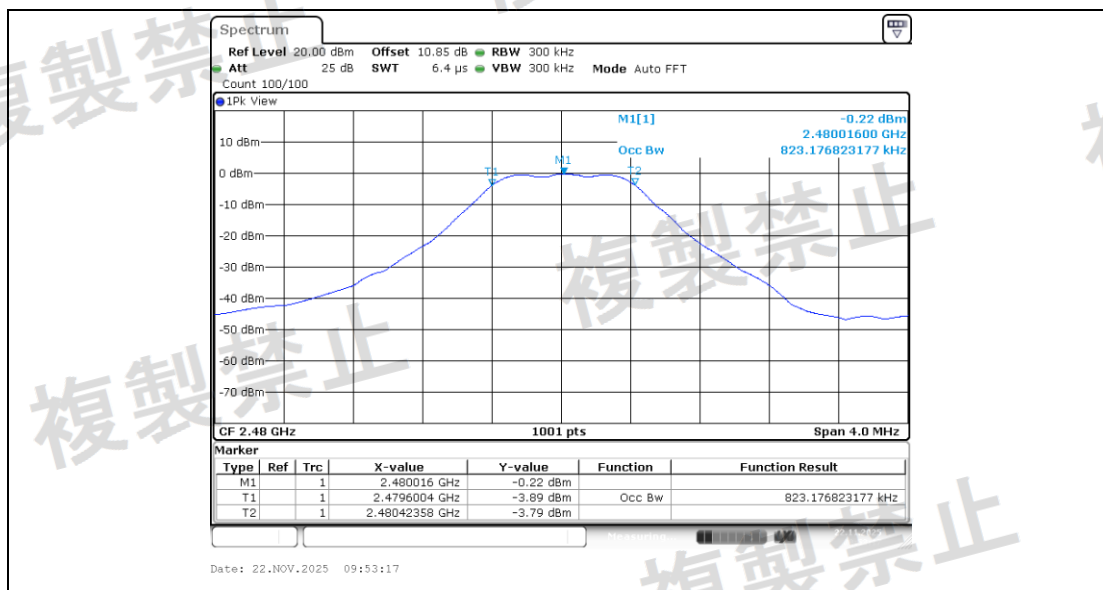
| TestCondition | TestMode | Antenna | Freq(MHz) | Result [MHz] | Limit [MHz] | Verdict |
|---------------|----------|---------|-----------|--------------|-------------|---------|
| NTLV          | BLE_1M   | Ant1    | 2402      | 0.811        | ≥0.5        | PASS    |
|               |          |         | 2440      | 0.815        | ≥0.5        | PASS    |
|               |          |         | 2480      | 0.820        | ≥0.5        | PASS    |

| TestCondition | TestMode | Antenna | Freq(MHz) | Result [MHz] | Limit [MHz] | Verdict |
|---------------|----------|---------|-----------|--------------|-------------|---------|
| NTHV          | BLE_1M   | Ant1    | 2402      | 0.808        | ≥0.5        | PASS    |
|               |          |         | 2440      | 0.811        | ≥0.5        | PASS    |
|               |          |         | 2480      | 0.817        | ≥0.5        | PASS    |

## Test Graphs

Note: We test Normal Voltage, High Voltage, Low Voltage, and recorded the worst test plot.





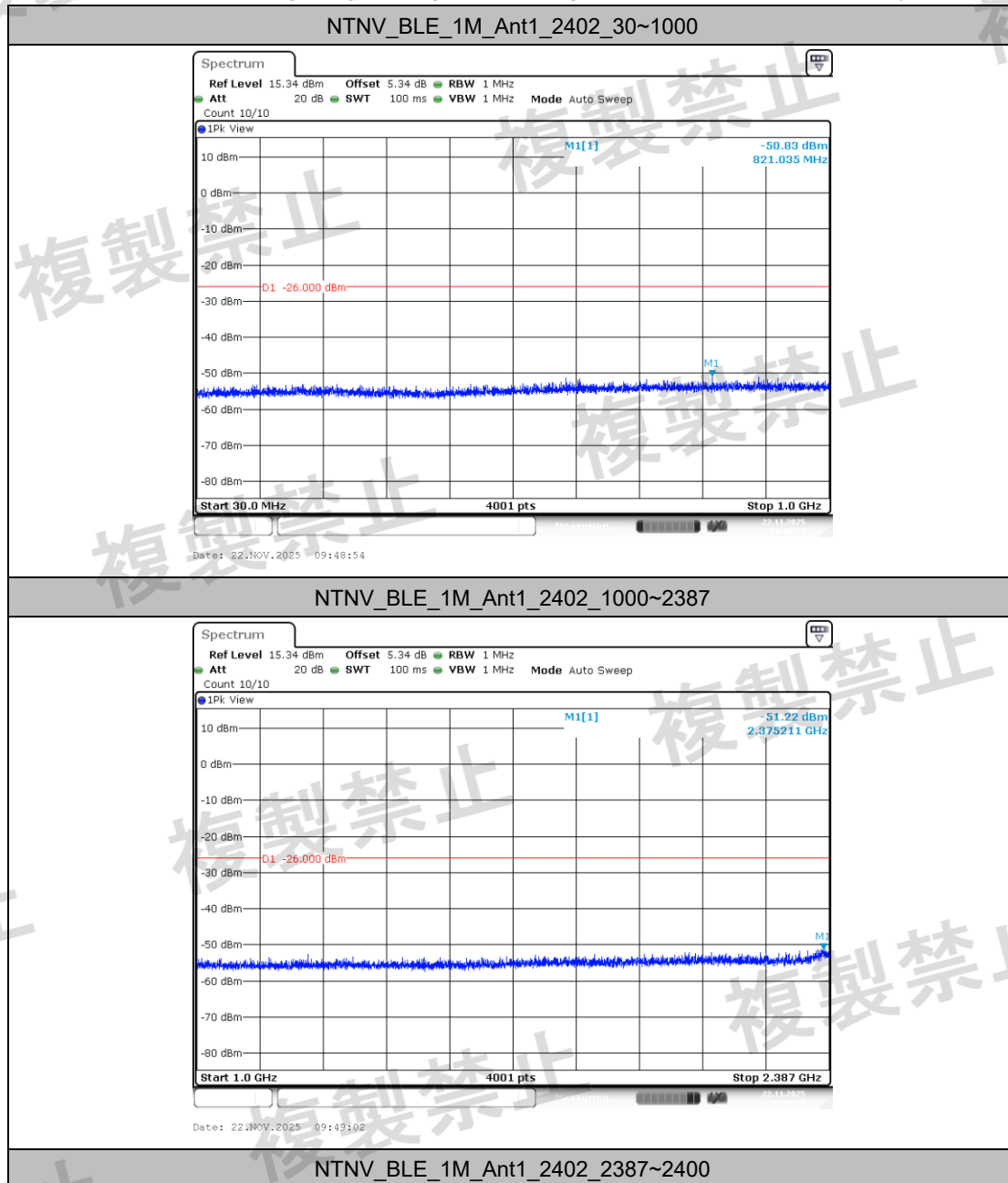
## Appendix D: Spurious Emission of TX

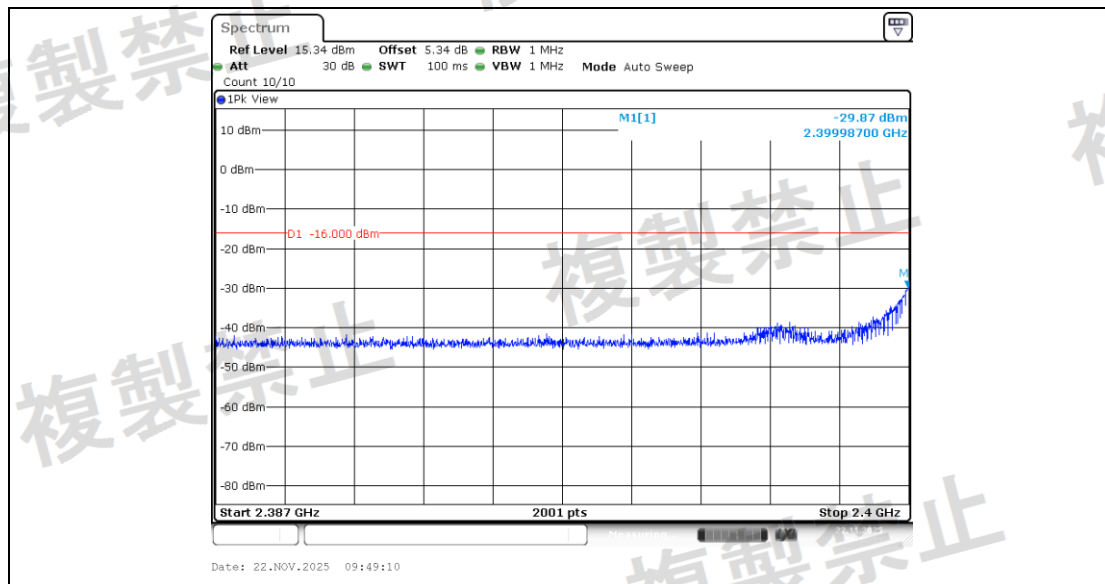
### Test Result

| TestCondition | TestMode | Antenna | Freq(MHz) | Freq.Range [MHz] | Freq. [MHz] | Result [dBm] | Limit [dBm] | Result [μW] | Limit [μW] | Verdict |
|---------------|----------|---------|-----------|------------------|-------------|--------------|-------------|-------------|------------|---------|
| NTNV          | BLE_1M   | Ant1    | 2402      | 30~1000          | 821.04      | -50.83       | ≤-26        | 0.00826     | ≤2.5       | PASS    |
|               |          |         |           | 1000~2387        | 2375.21     | -51.22       | ≤-26        | 0.00755     | ≤2.5       | PASS    |
|               |          |         |           | 2387~2400        | 2399.99     | -29.87       | ≤-16        | 1.03039     | ≤25        | PASS    |
|               |          |         |           | 2483.5~2496.5    | 2495.88     | -41.79       | ≤-16        | 0.06622     | ≤25        | PASS    |
|               |          |         |           | 2496.5~13000     | 4803.59     | -42.23       | ≤-26        | 0.05984     | ≤2.5       | PASS    |
|               |          |         | 2440      | 30~1000          | 754.35      | -51.53       | ≤-26        | 0.00703     | ≤2.5       | PASS    |
|               |          |         |           | 1000~2387        | 2380.07     | -52.01       | ≤-26        | 0.00630     | ≤2.5       | PASS    |
|               |          |         |           | 2387~2400        | 2396.74     | -41.30       | ≤-16        | 0.07413     | ≤25        | PASS    |
|               |          |         |           | 2483.5~2496.5    | 2484.15     | -41.14       | ≤-16        | 0.07691     | ≤25        | PASS    |
|               |          |         |           | 2496.5~13000     | 4879.22     | -42.01       | ≤-26        | 0.06295     | ≤2.5       | PASS    |
|               |          |         | 2480      | 30~1000          | 765.99      | -50.40       | ≤-26        | 0.00912     | ≤2.5       | PASS    |
|               |          |         |           | 1000~2387        | 2107.17     | -51.78       | ≤-26        | 0.00664     | ≤2.5       | PASS    |
|               |          |         |           | 2387~2400        | 2397.88     | -41.78       | ≤-16        | 0.06637     | ≤25        | PASS    |
|               |          |         |           | 2483.5~2496.5    | 2484.51     | -38.84       | ≤-16        | 0.13062     | ≤25        | PASS    |
|               |          |         |           | 2496.5~13000     | 4959.05     | -41.13       | ≤-26        | 0.07709     | ≤2.5       | PASS    |

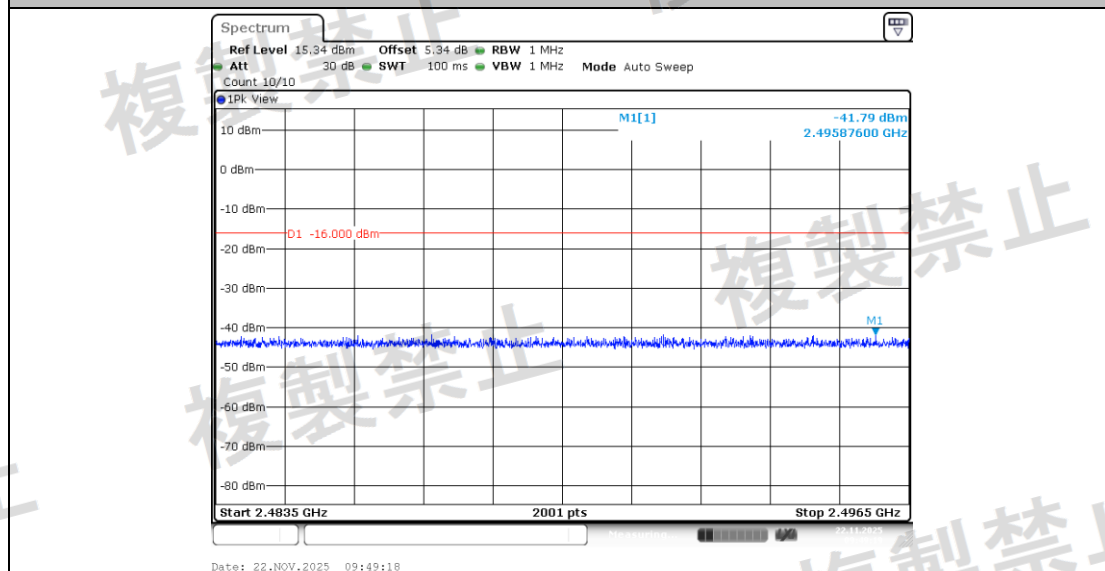
## Test Graphs

Note: We test Normal Voltage, High Voltage, Low Voltage, and recorded the worst test plot.

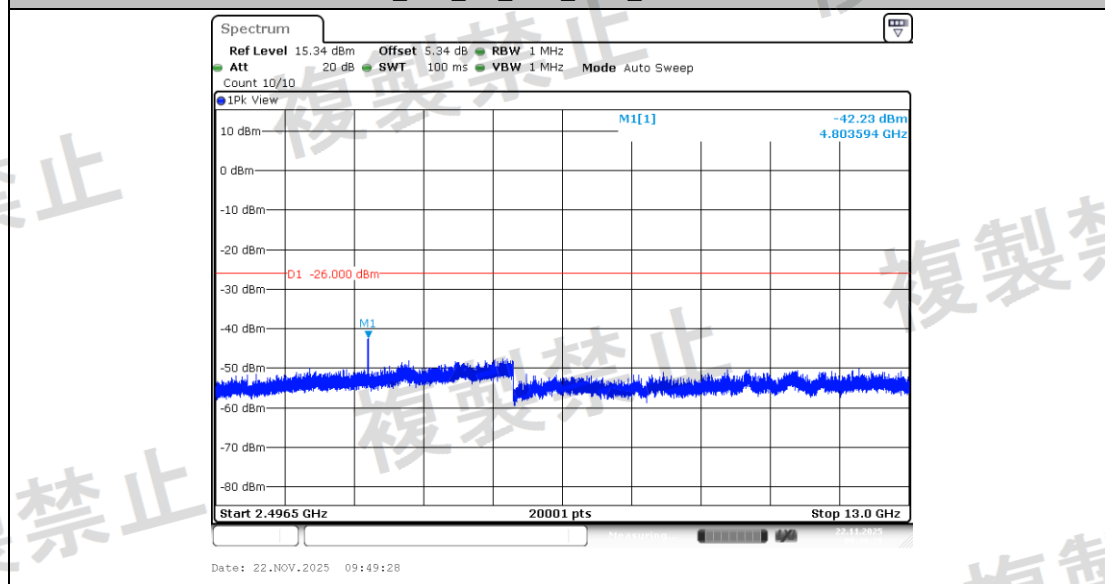


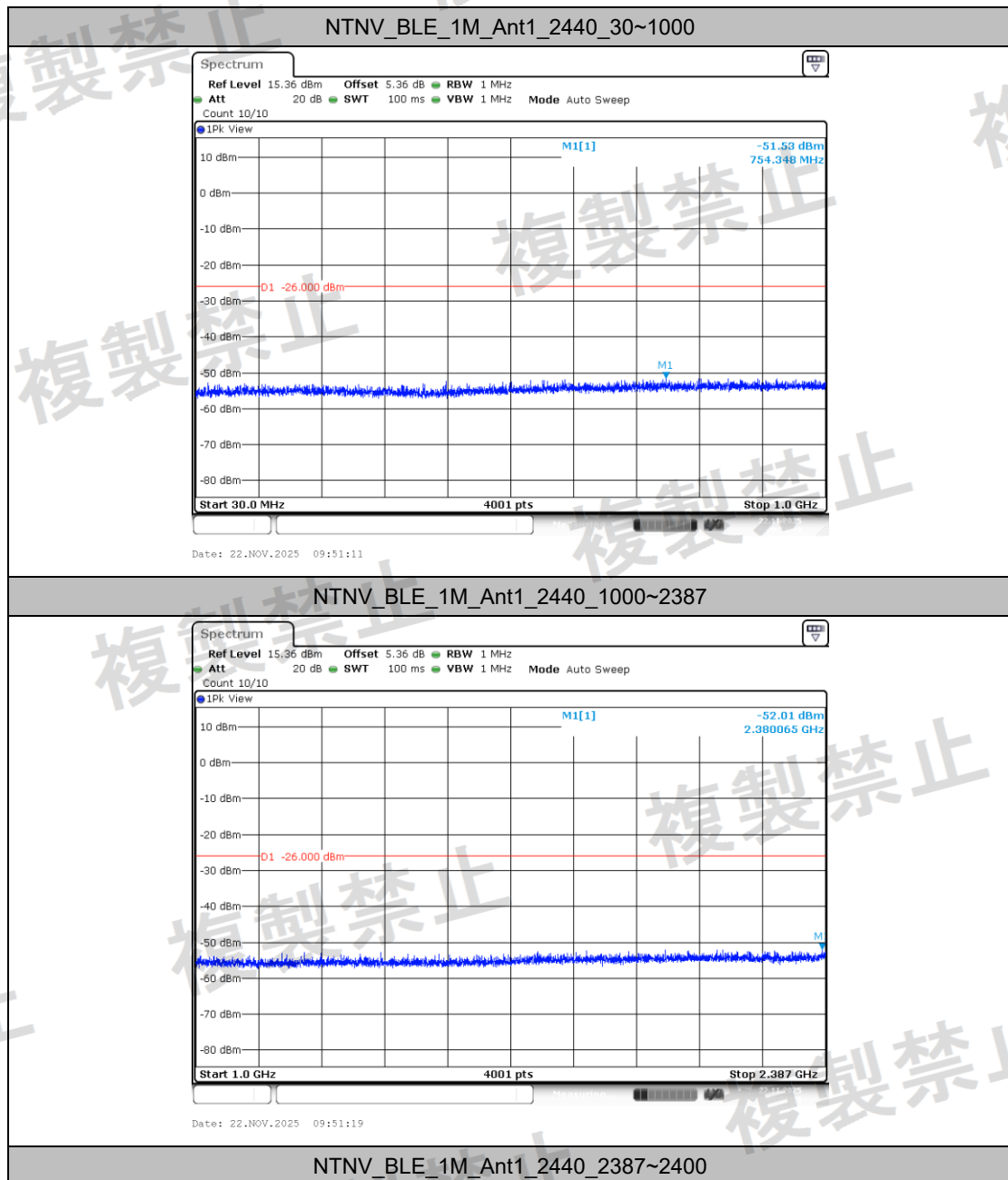


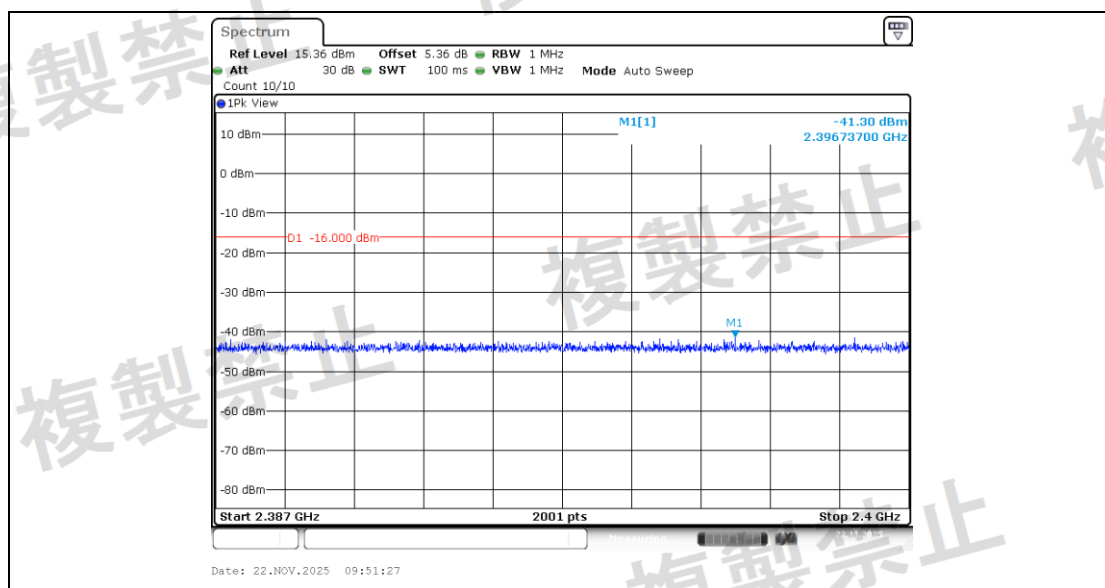
NTNV\_BLE\_1M\_Ant1\_2402\_2483.5~2496.5



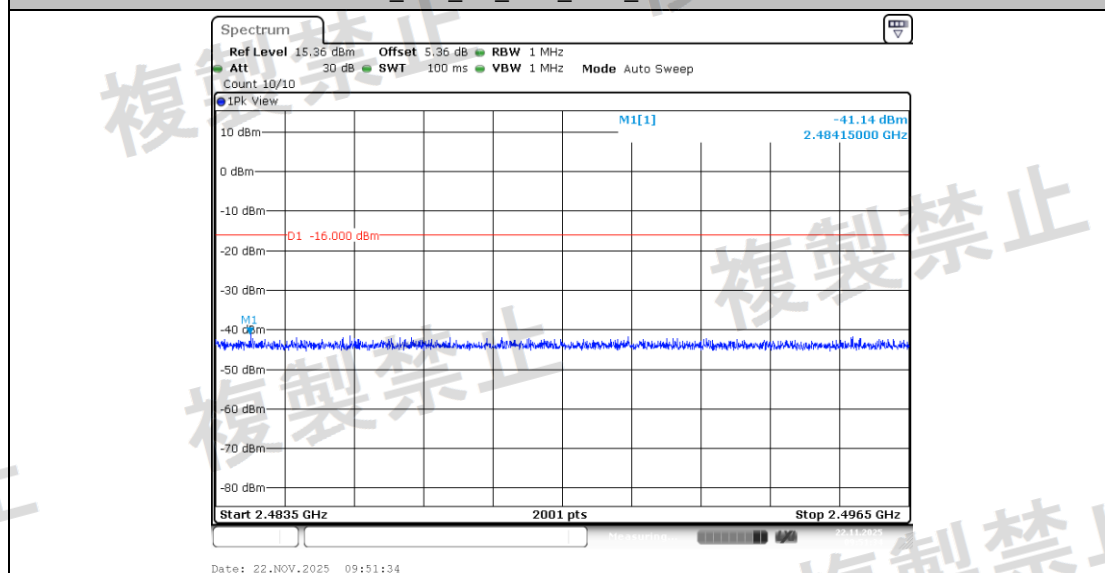
NTNV\_BLE\_1M\_Ant1\_2402\_2496.5~13000



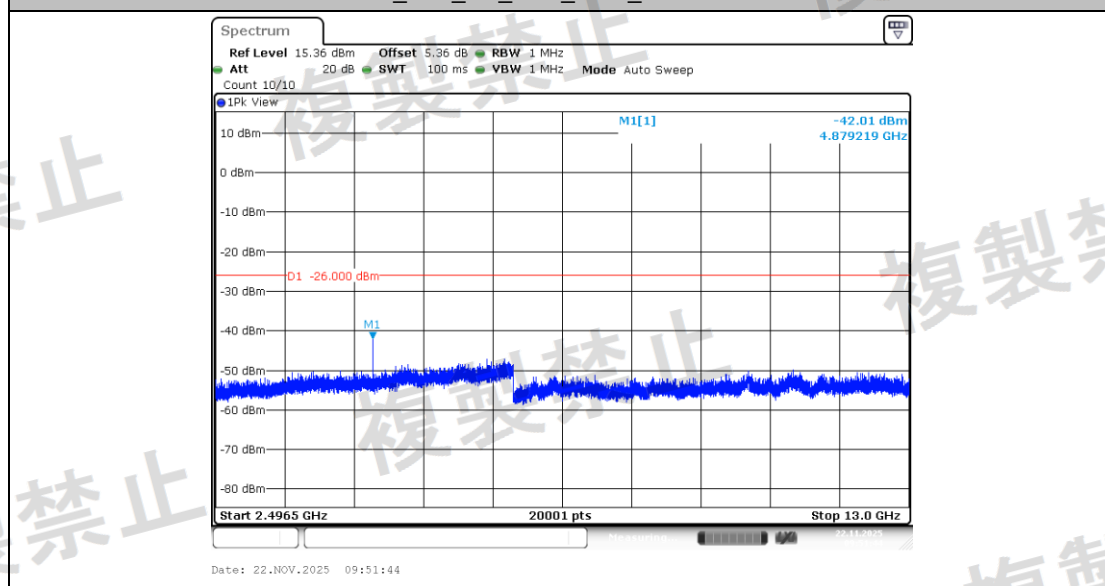


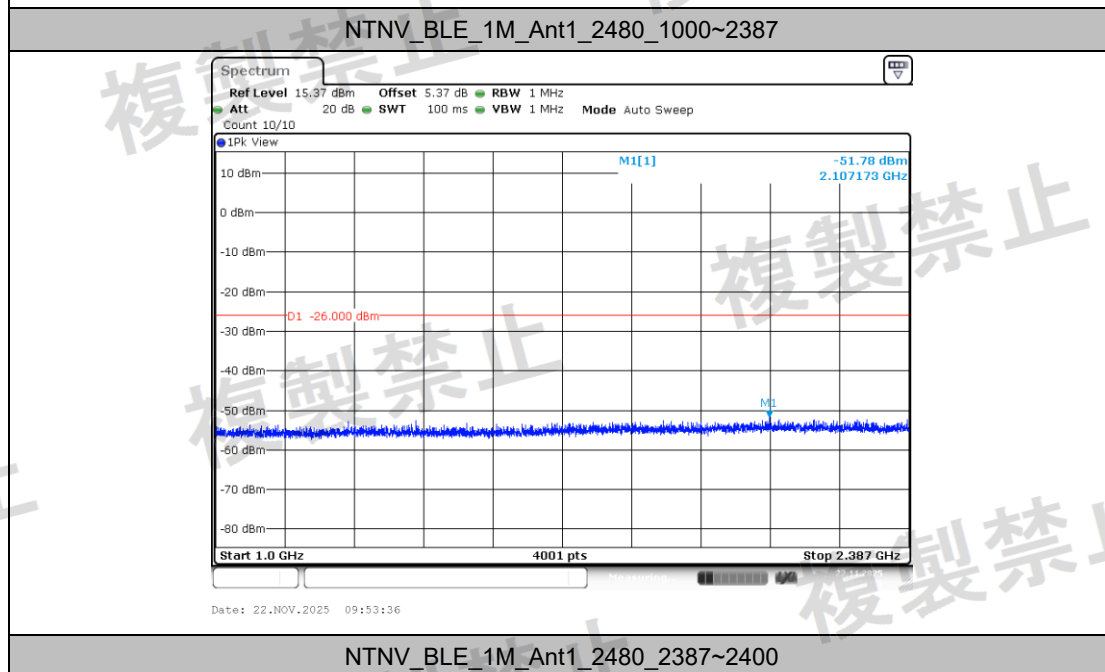
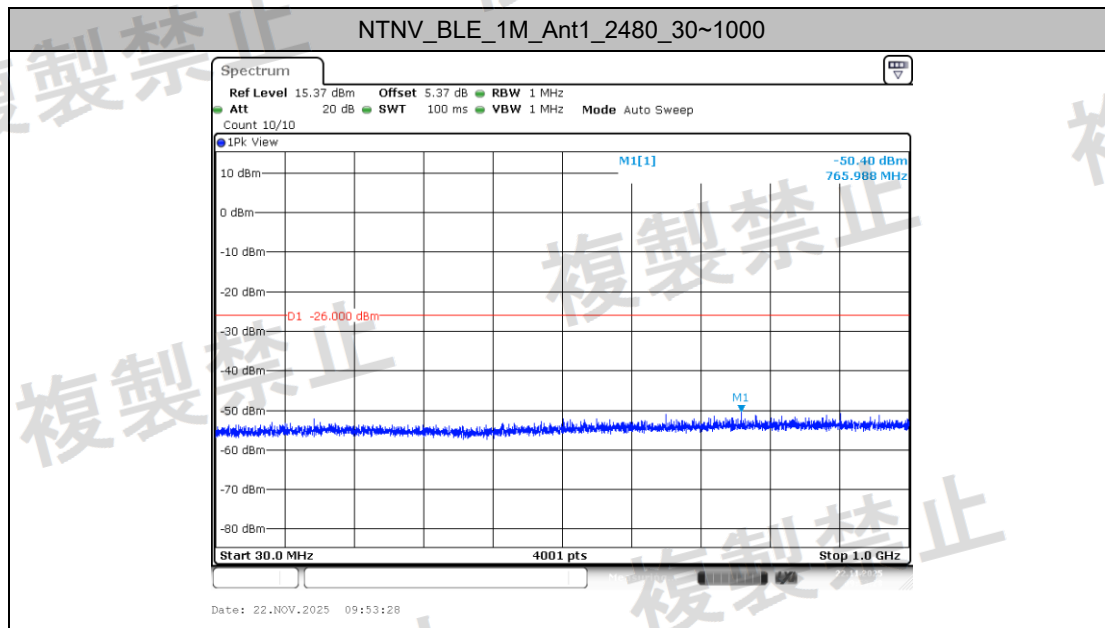


NTNV\_BLE\_1M\_Ant1\_2440\_2483.5~2496.5

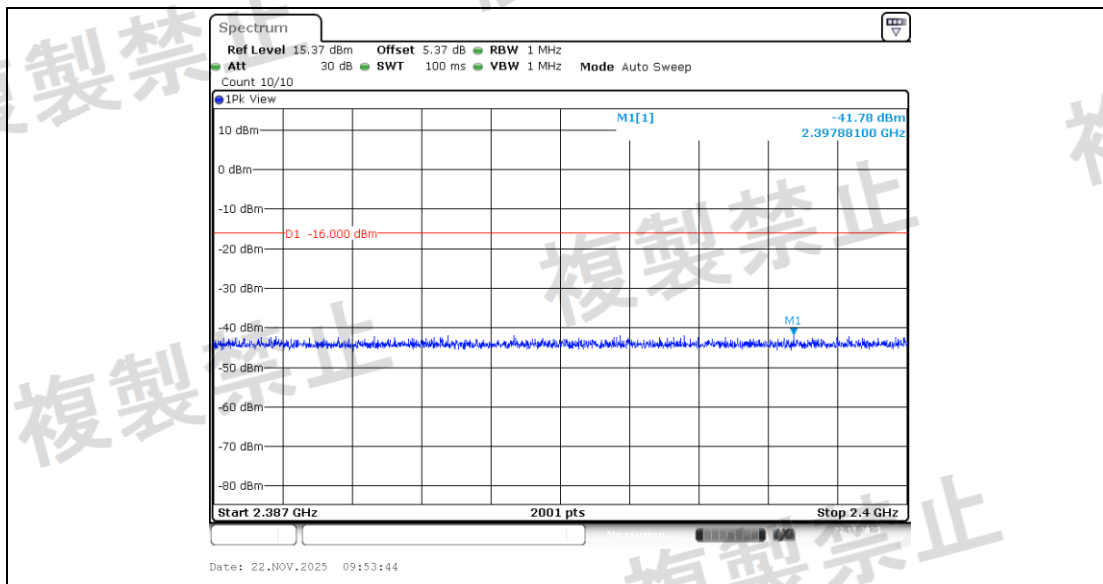


NTNV\_BLE\_1M\_Ant1\_2440\_2496.5~13000

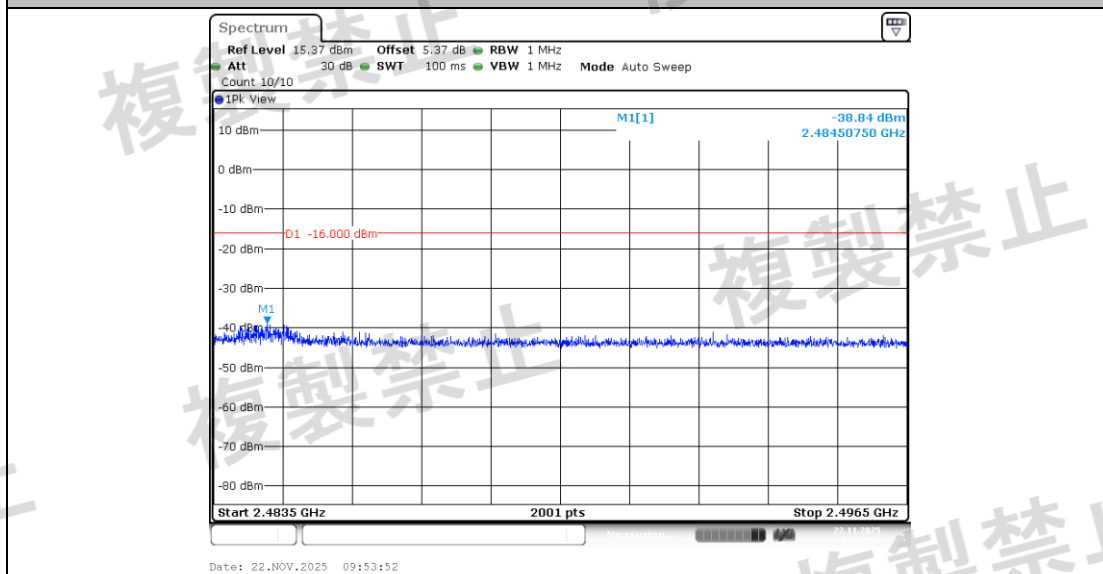




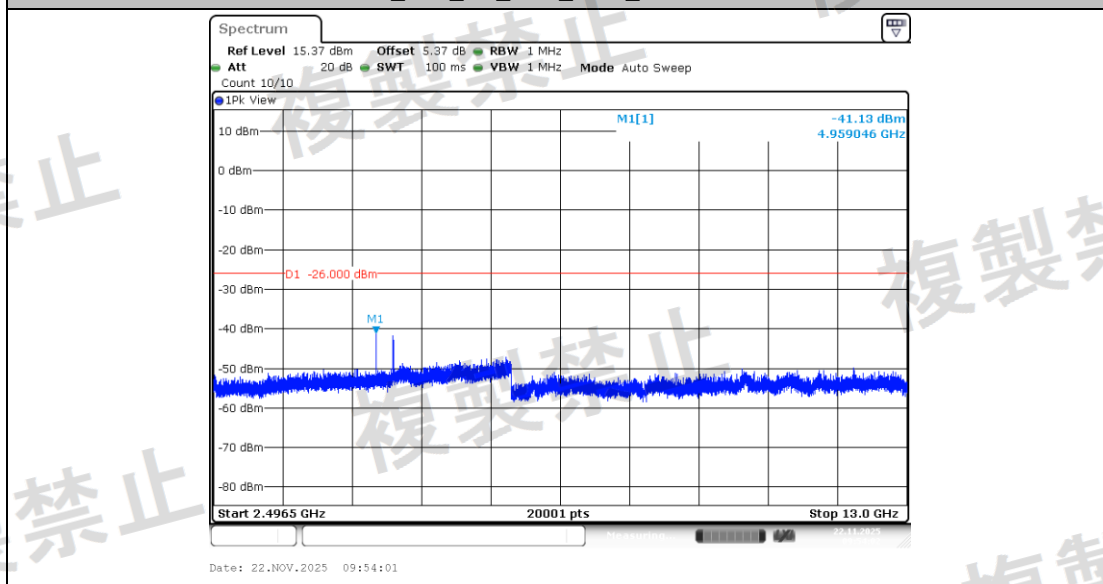
NTNV\_BLE\_1M\_Ant1\_2480\_2387~2400



NTNV\_BLE\_1M\_Ant1\_2480\_2483.5~2496.5



NTNV\_BLE\_1M\_Ant1\_2480\_2496.5~13000



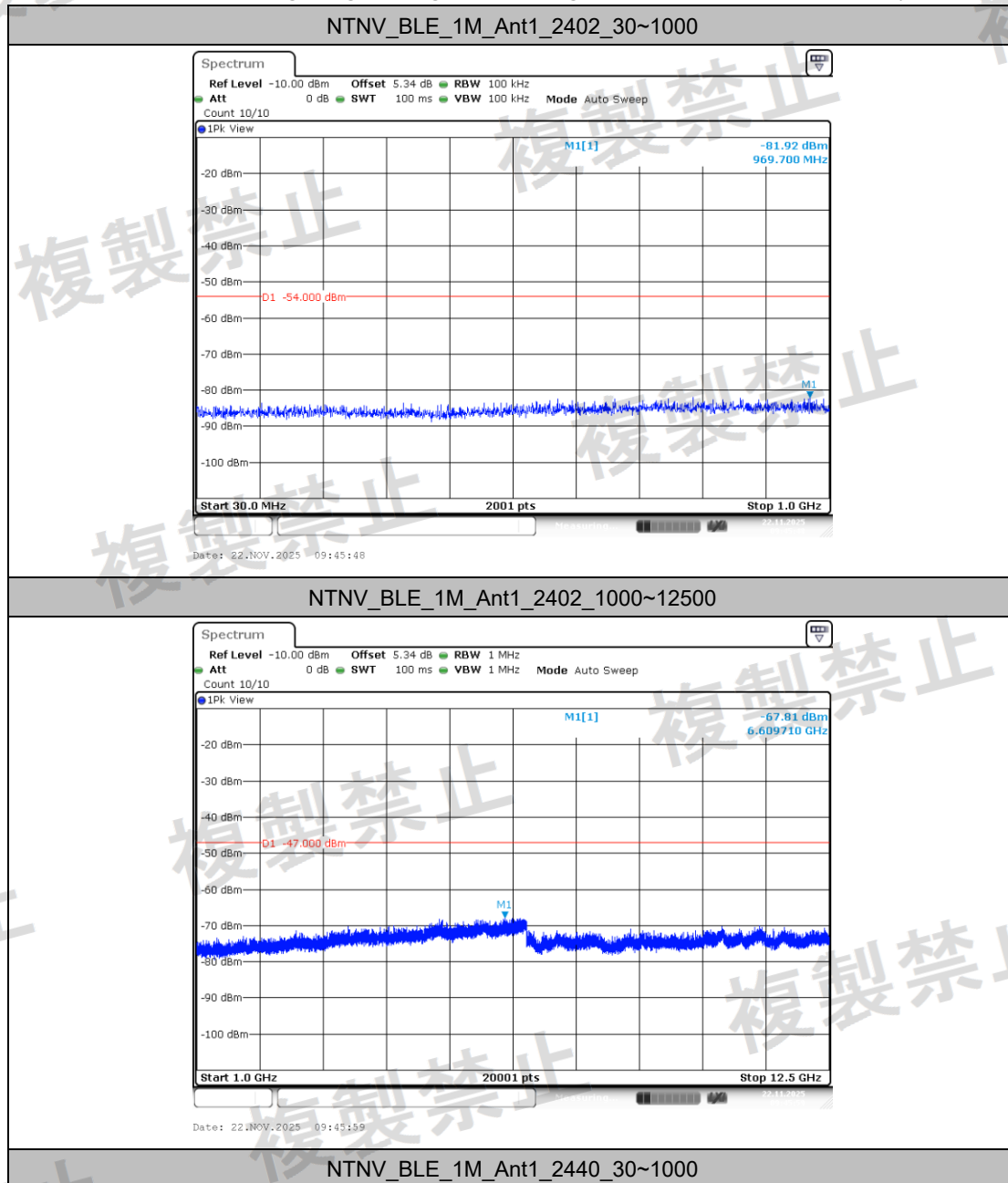
## Appendix E: Spurious Emission of RX

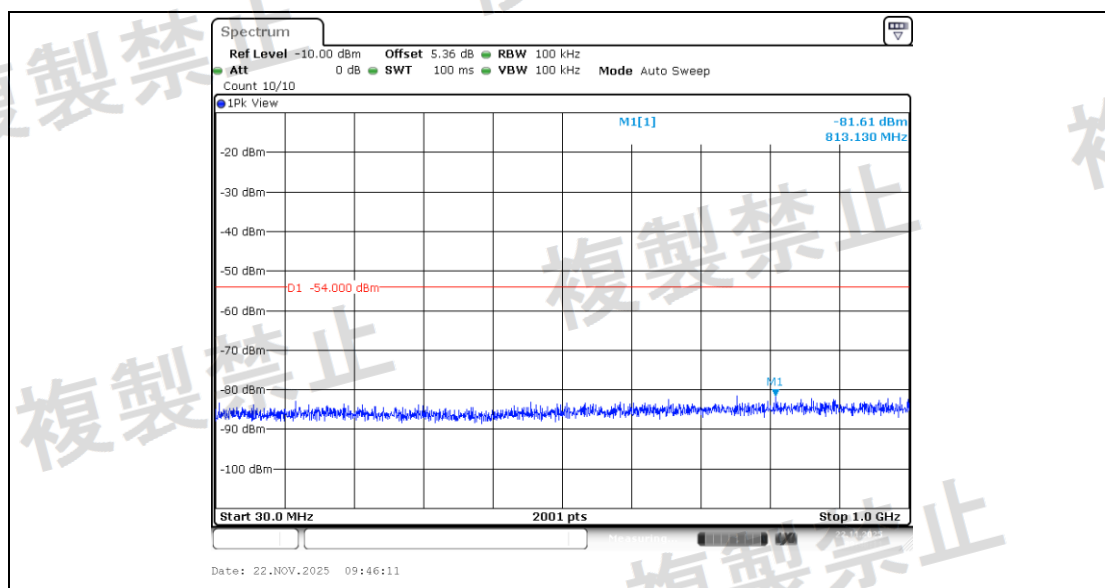
### Test Result

| TestCondition | TestMode | Antenna | Freq(MHz) | Freq.Range [MHz] | Freq. [MHz] | Result [dBm] | Limit [dBm] | Result [nW] | Limit [nW] | Verdict |
|---------------|----------|---------|-----------|------------------|-------------|--------------|-------------|-------------|------------|---------|
| NTNV          | BLE_1M   | Ant1    | 2402      | 30~1000          | 969.70      | -81.92       | ≤-54        | 0.00643     | ≤4         | PASS    |
|               |          |         |           | 1000~12500       | 6609.71     | -67.81       | ≤-47        | 0.16558     | ≤20        | PASS    |
|               |          |         | 2440      | 30~1000          | 813.13      | -81.61       | ≤-54        | 0.00690     | ≤4         | PASS    |
|               |          |         |           | 1000~12500       | 6845.45     | -66.26       | ≤-47        | 0.23659     | ≤20        | PASS    |
|               |          |         | 2480      | 30~1000          | 771.44      | -81.83       | ≤-54        | 0.00656     | ≤4         | PASS    |
|               |          |         |           | 1000~12500       | 5525.89     | -67.47       | ≤-47        | 0.17906     | ≤20        | PASS    |

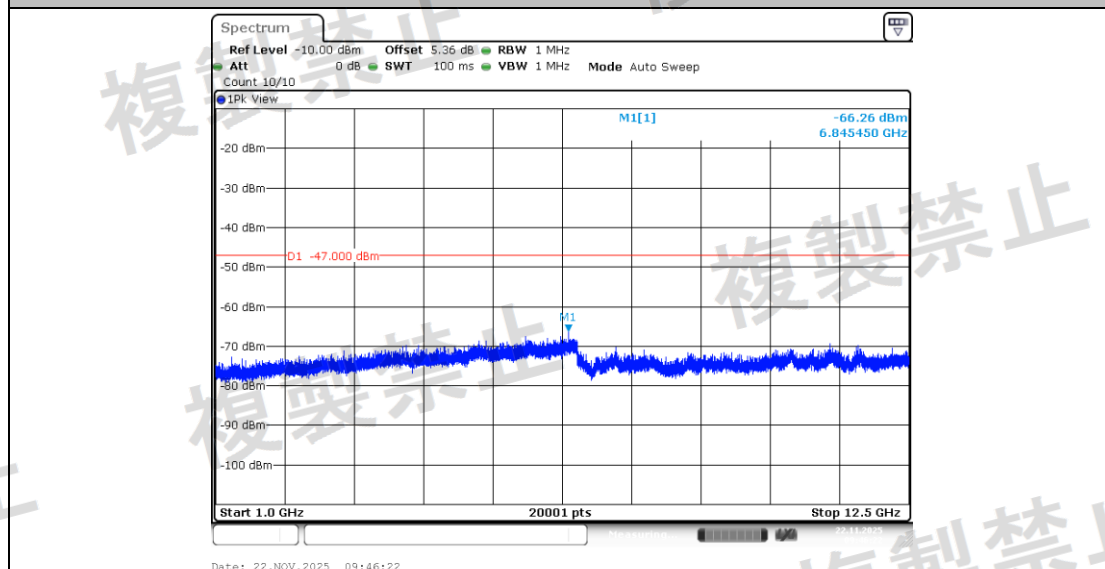
## Test Graphs

Note: We test Normal Voltage, High Voltage, Low Voltage, and recorded the worst test plot.





NTNV\_BLE\_1M\_Ant1\_2440\_1000~12500



NTNV\_BLE\_1M\_Ant1\_2480\_30~1000

