

## Appendix RF Test Data for 2.4G

**Company** : HISONG Music Technology Inc.

**EUT** : HISONG AirStudio S1

**Model Number** : HS-AS1

**Report No.** : CTA26031700203

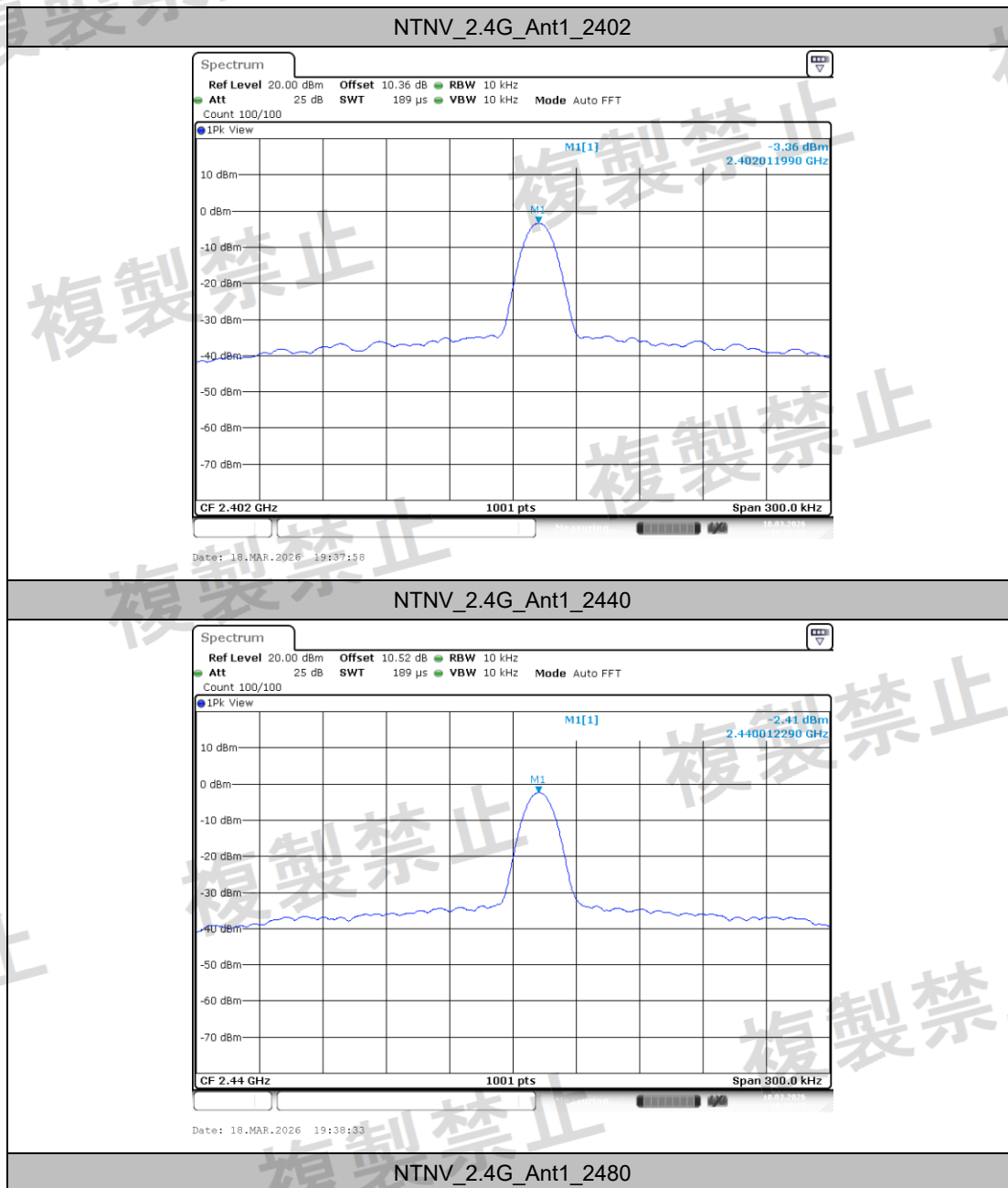
**Reviewed By** : Eric Wang

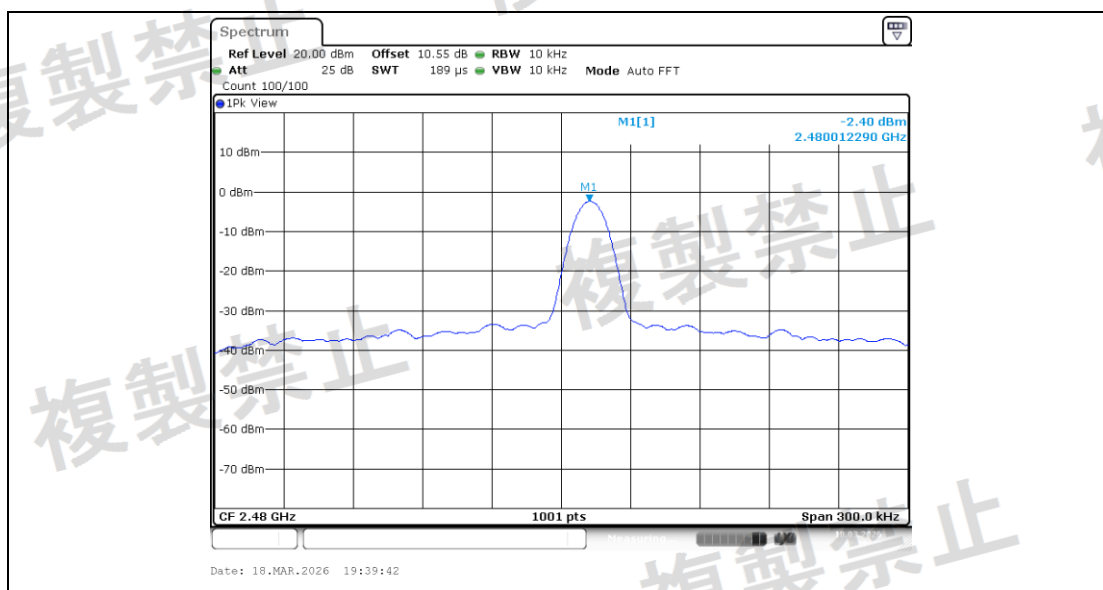
## Appendix A: Frequency Error

### Test Result

| TestCondition | TestMode | Antenna | Freq(MHz) | Result[ppm] | Limit[ppm] | Verdict |
|---------------|----------|---------|-----------|-------------|------------|---------|
| NTNV          | 2.4G     | Ant1    | 2402      | 4.99167     | ±50        | PASS    |
|               |          |         | 2440      | 5.03689     | ±50        | PASS    |
|               |          |         | 2480      | 4.95565     | ±50        | PASS    |

## Test Graphs



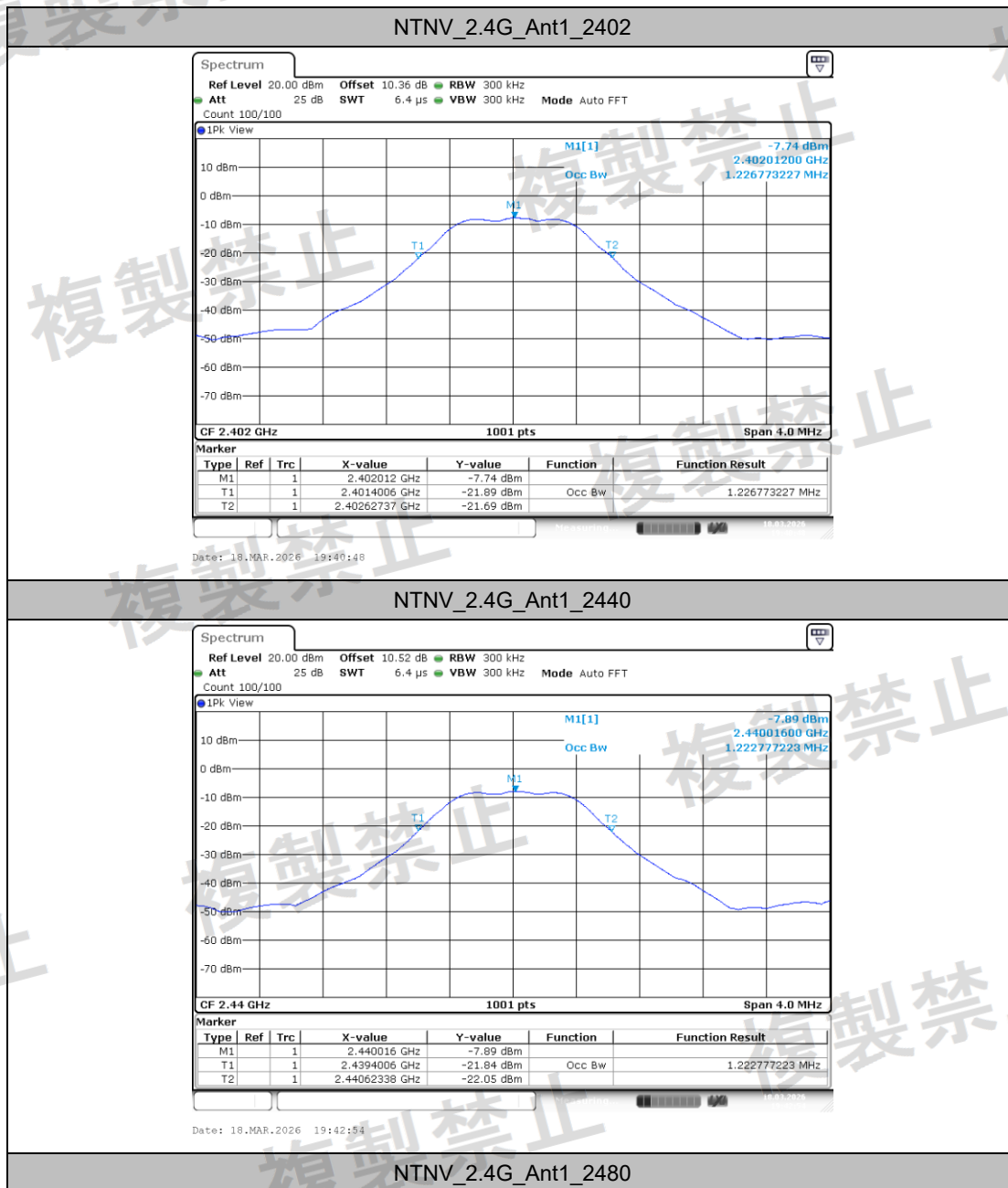


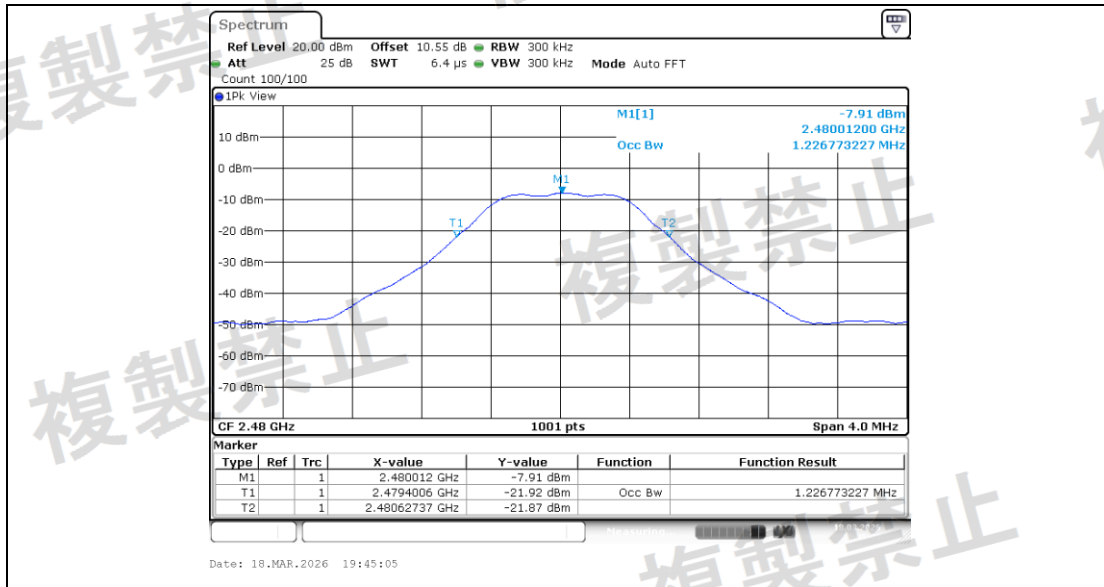
## Appendix B: Occupied Bandwidth

### Test Result

| TestCondition | TestMode | Antenna | Freq(MHz) | Result [MHz] | Limit [MHz] | Verdict |
|---------------|----------|---------|-----------|--------------|-------------|---------|
| NTNV          | 2.4G     | Ant1    | 2402      | 1.227        | ≤26         | PASS    |
|               |          |         | 2440      | 1.223        | ≤26         | PASS    |
|               |          |         | 2480      | 1.227        | ≤26         | PASS    |

## Test Graphs



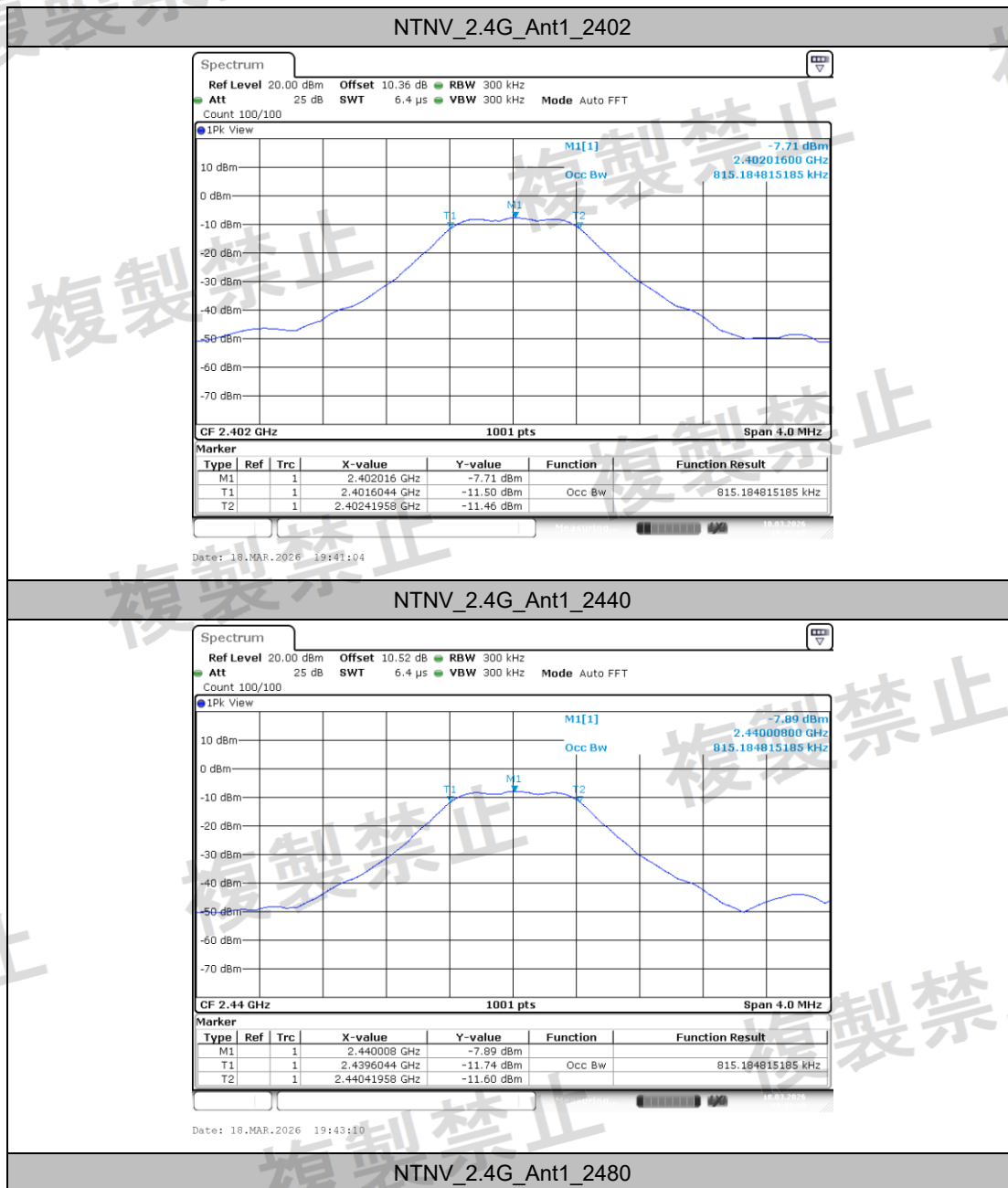


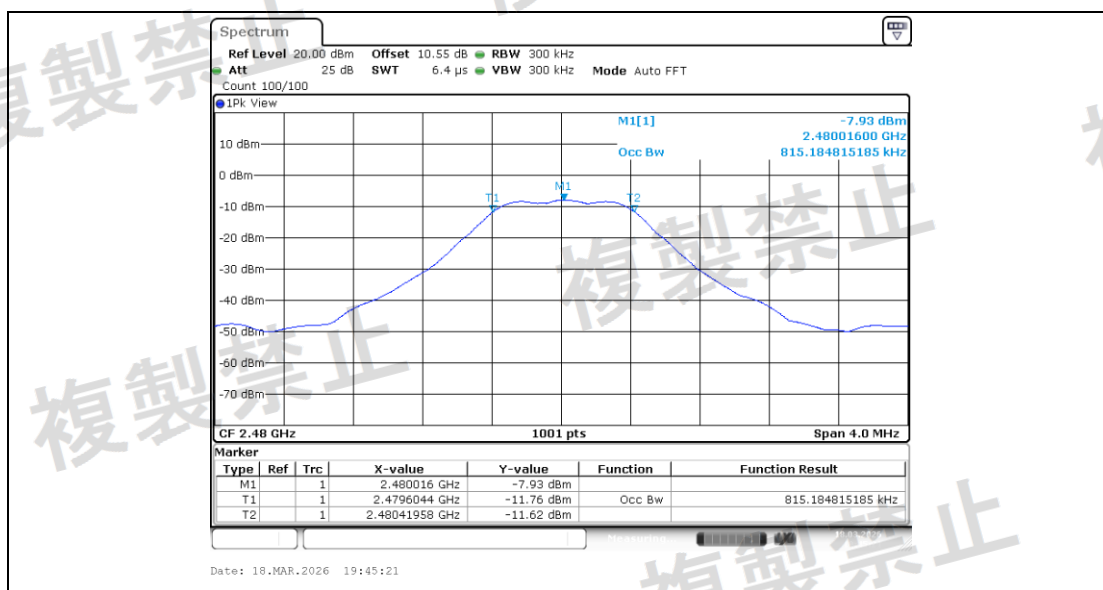
## Appendix C: Spread Bandwidth

### Test Result

| TestCondition | TestMode | Antenna | Freq(MHz) | Result [MHz] | Limit [MHz] | Verdict |
|---------------|----------|---------|-----------|--------------|-------------|---------|
| NTNV          | 2.4G     | Ant1    | 2402      | 0.815        | ≥0.5        | PASS    |
|               |          |         | 2440      | 0.815        | ≥0.5        | PASS    |
|               |          |         | 2480      | 0.815        | ≥0.5        | PASS    |

## Test Graphs



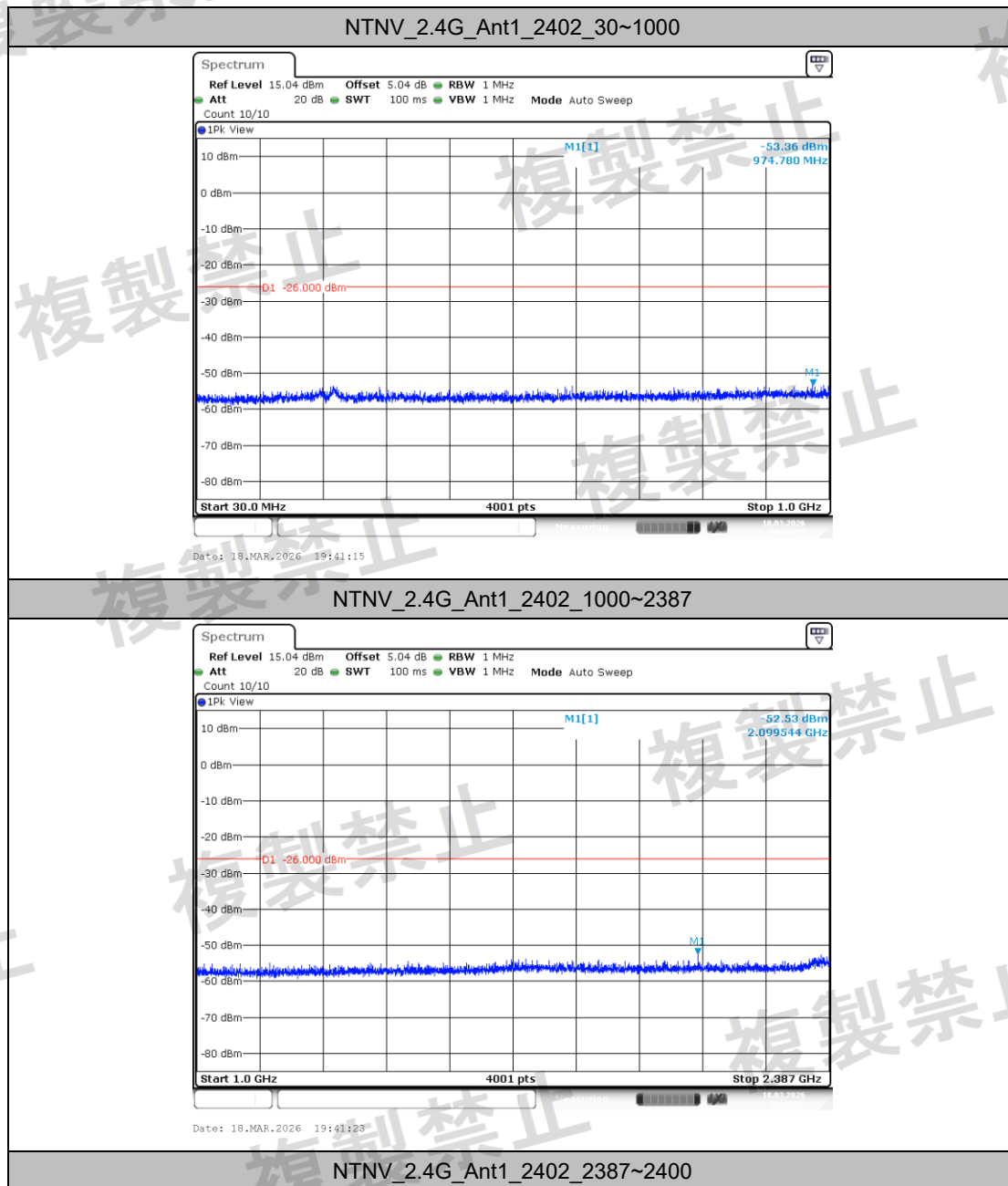


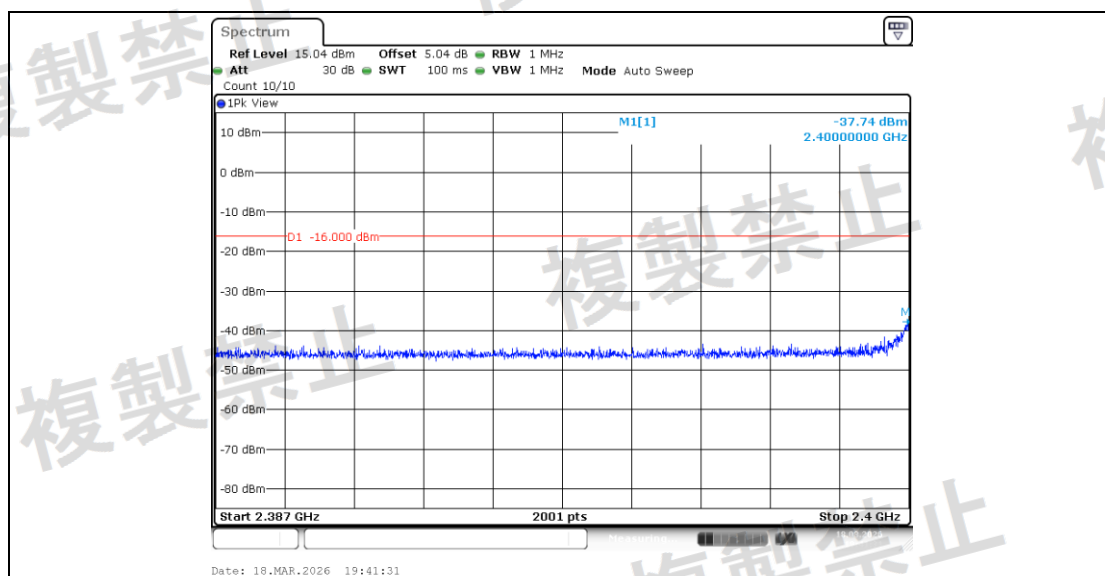
## Appendix D: Spurious Emission of TX

### Test Result

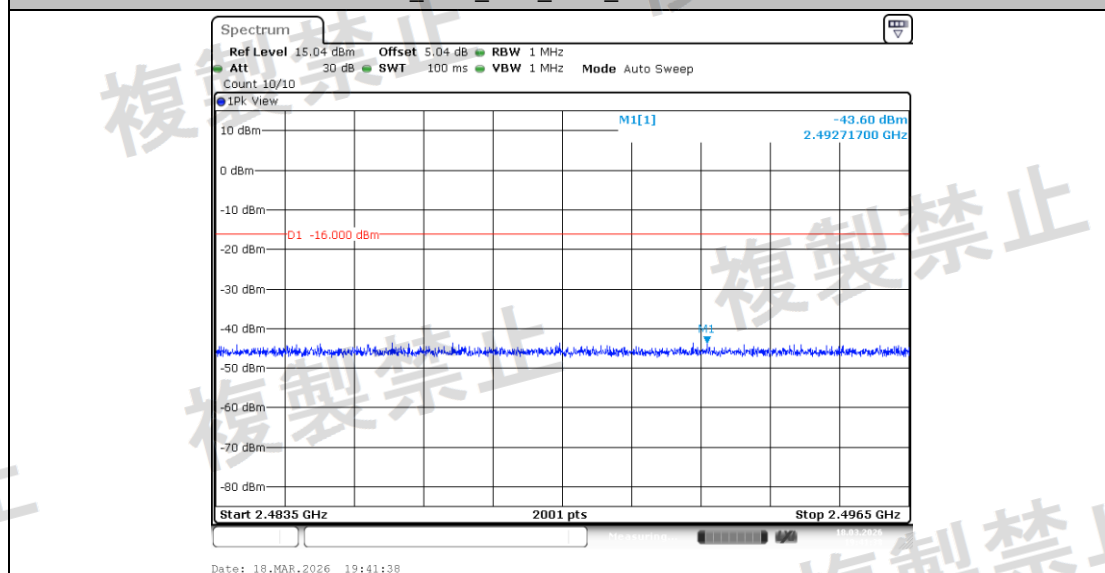
| TestCondition | TestMode | Antenna | Freq(MHz) | Freq.Range [MHz] | Freq. [MHz] | Result [dBm] | Limit [dBm] | Result [μW] | Limit [μW] | Verdict |
|---------------|----------|---------|-----------|------------------|-------------|--------------|-------------|-------------|------------|---------|
| NTNV          | 2.4G     | Ant1    | 2402      | 30~1000          | 974.78      | -53.36       | ≤-26        | 0.00461     | ≤2.5       | PASS    |
|               |          |         |           | 1000~2387        | 2099.54     | -52.53       | ≤-26        | 0.00558     | ≤2.5       | PASS    |
|               |          |         |           | 2387~2400        | 2400.00     | -37.74       | ≤-16        | 0.16827     | ≤25        | PASS    |
|               |          |         |           | 2483.5~2496.5    | 2492.72     | -43.60       | ≤-16        | 0.04365     | ≤25        | PASS    |
|               |          |         |           | 2496.5~13000     | 4804.64     | -48.05       | ≤-26        | 0.01567     | ≤2.5       | PASS    |
|               |          |         | 2440      | 30~1000          | 808.18      | -53.15       | ≤-26        | 0.00484     | ≤2.5       | PASS    |
|               |          |         |           | 1000~2387        | 2347.12     | -53.43       | ≤-26        | 0.00454     | ≤2.5       | PASS    |
|               |          |         |           | 2387~2400        | 2397.95     | -43.72       | ≤-16        | 0.04246     | ≤25        | PASS    |
|               |          |         |           | 2483.5~2496.5    | 2495.58     | -43.51       | ≤-16        | 0.04457     | ≤25        | PASS    |
|               |          |         |           | 2496.5~13000     | 4879.74     | -48.62       | ≤-26        | 0.01374     | ≤2.5       | PASS    |
|               |          |         | 2480      | 30~1000          | 970.42      | -52.83       | ≤-26        | 0.00521     | ≤2.5       | PASS    |
|               |          |         |           | 1000~2387        | 2357.87     | -53.13       | ≤-26        | 0.00486     | ≤2.5       | PASS    |
|               |          |         |           | 2387~2400        | 2389.67     | -43.61       | ≤-16        | 0.04355     | ≤25        | PASS    |
|               |          |         |           | 2483.5~2496.5    | 2490.20     | -43.07       | ≤-16        | 0.04932     | ≤25        | PASS    |
|               |          |         |           | 2496.5~13000     | 5213.76     | -46.49       | ≤-26        | 0.02244     | ≤2.5       | PASS    |

## Test Graphs

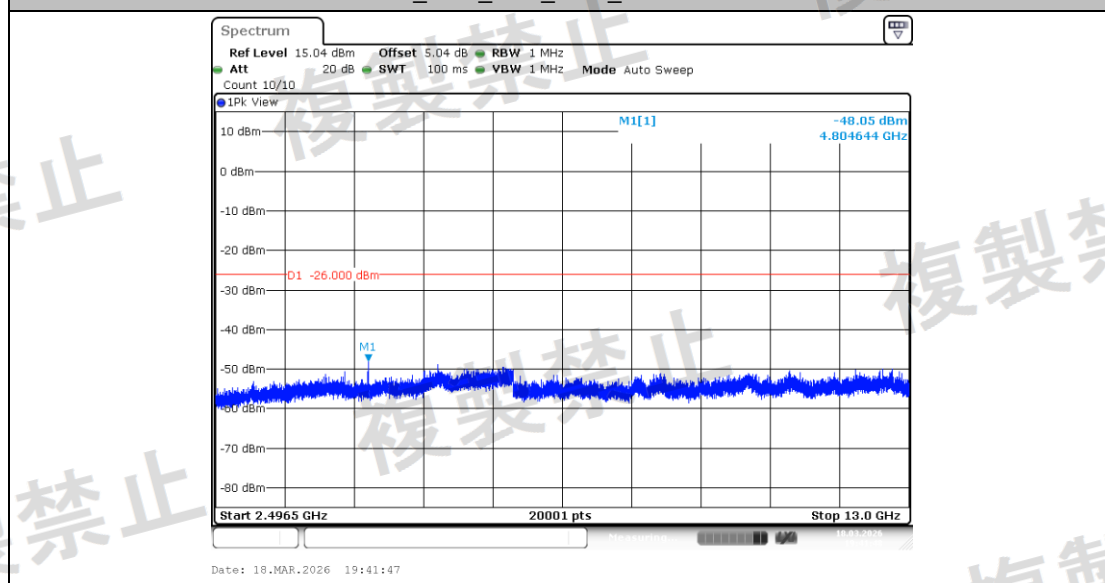


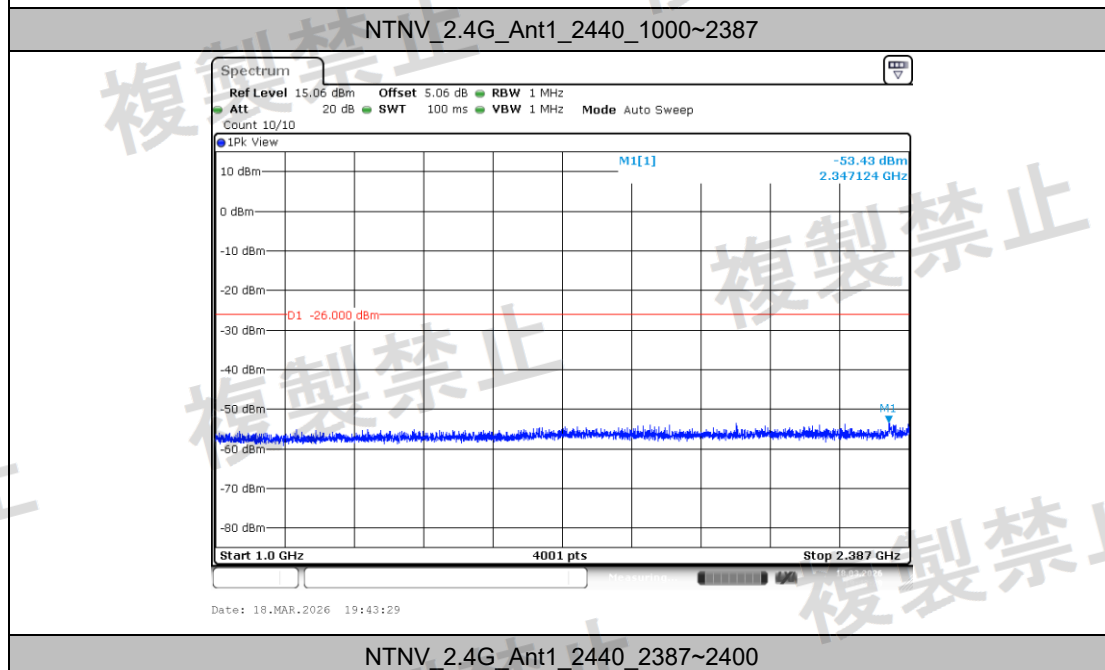
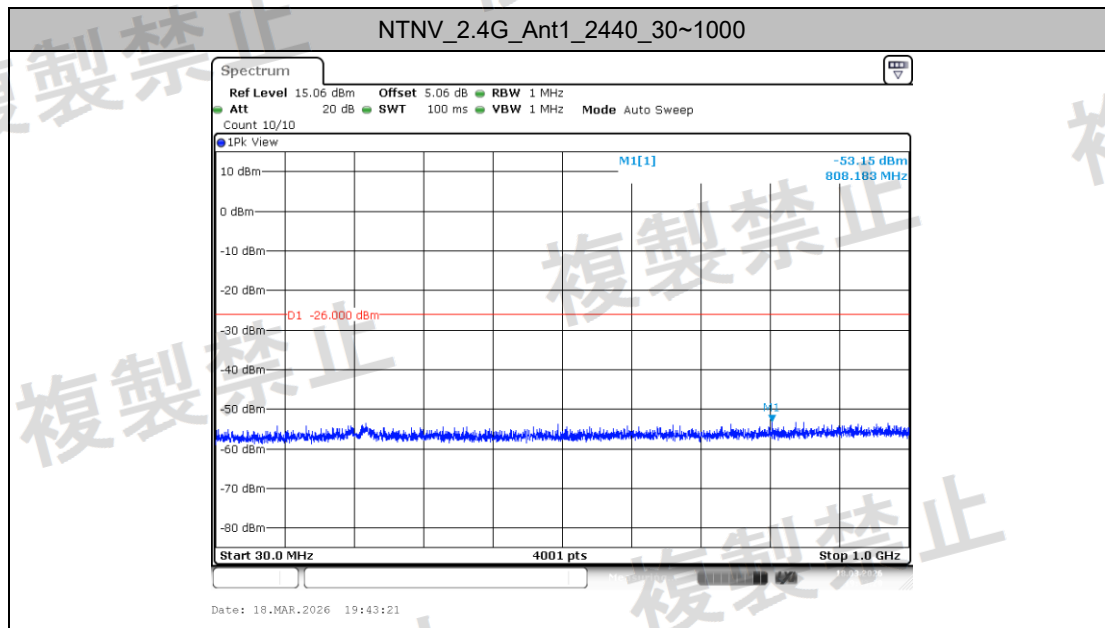


NTNV\_2.4G\_Ant1\_2402\_2483.5~2496.5

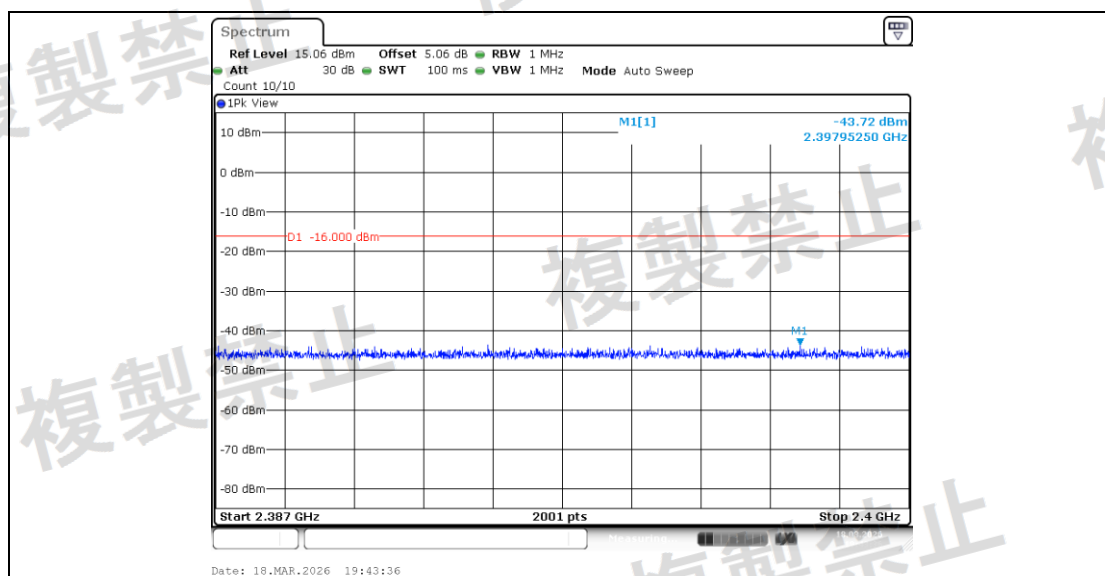


NTNV\_2.4G\_Ant1\_2402\_2496.5~13000

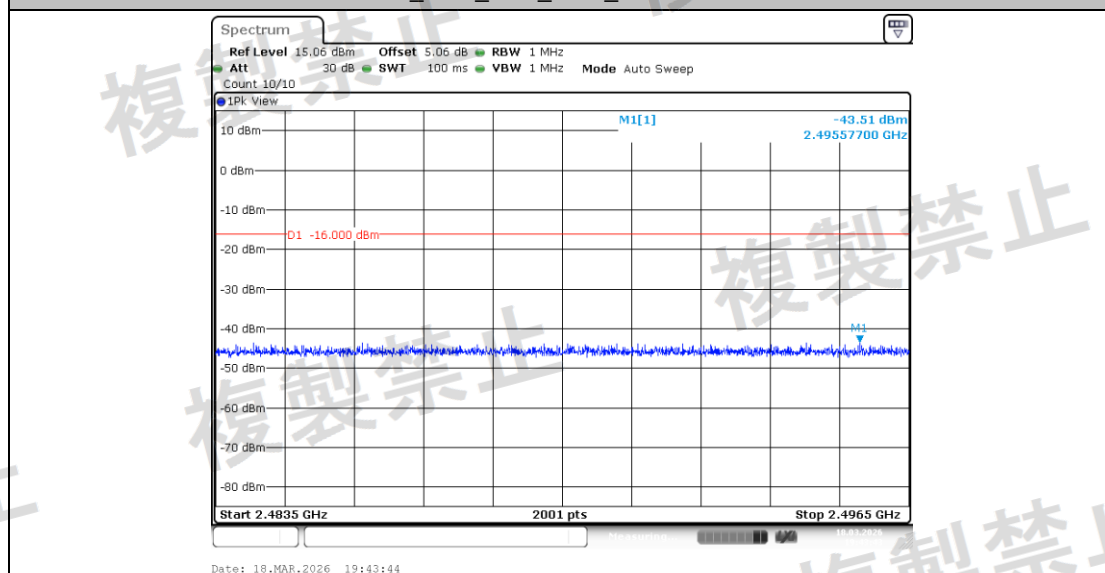




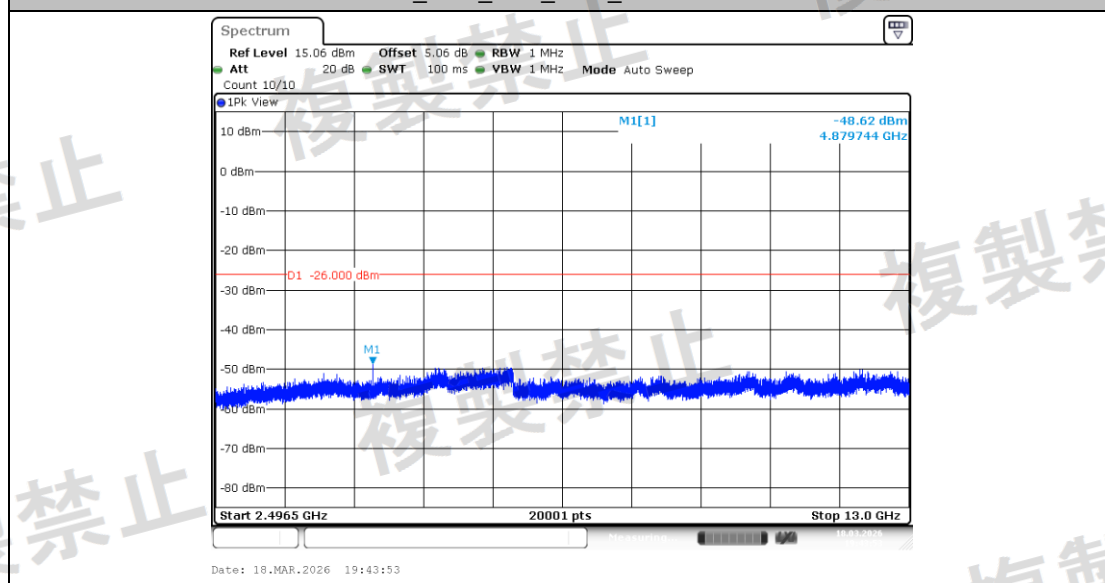
NTNV\_2.4G\_Ant1\_2440\_2387~2400

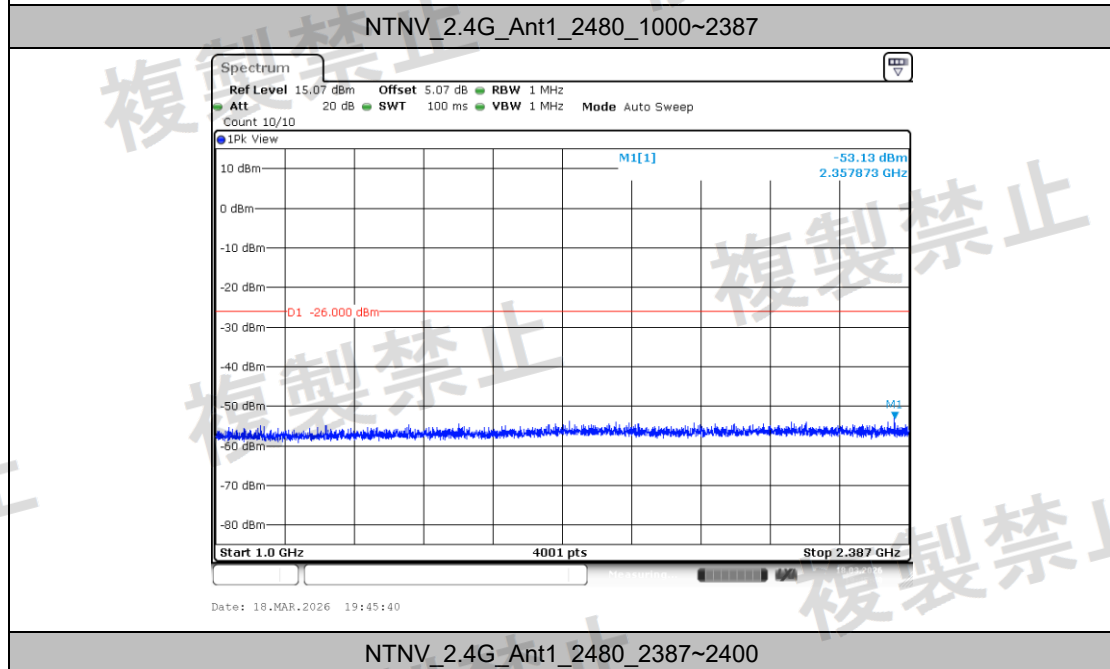
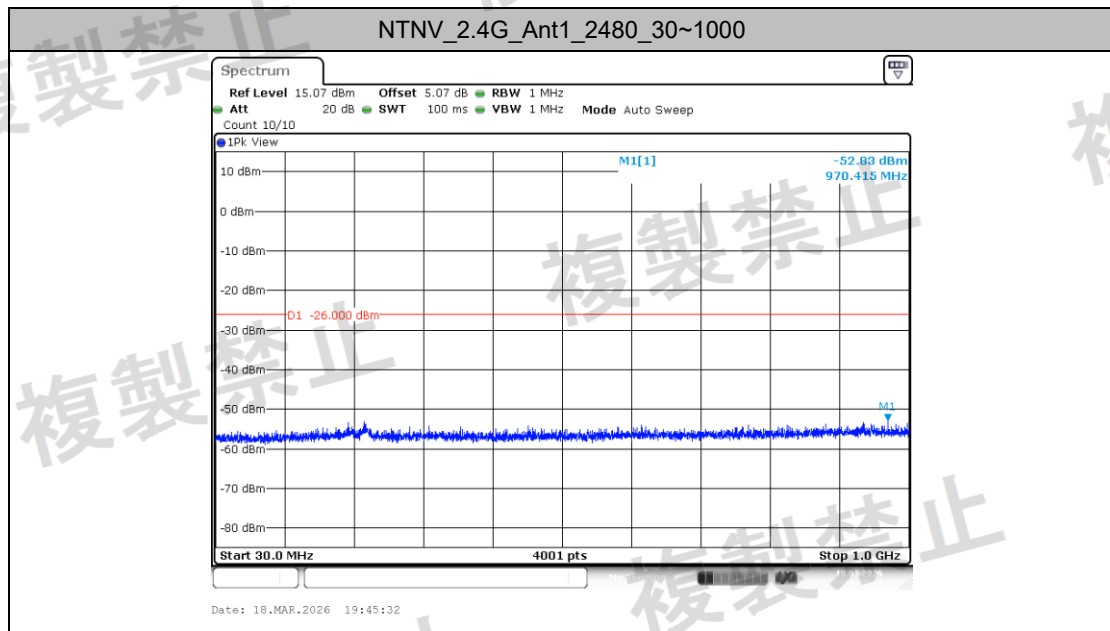


NTNV\_2.4G\_Ant1\_2440\_2483.5~2496.5

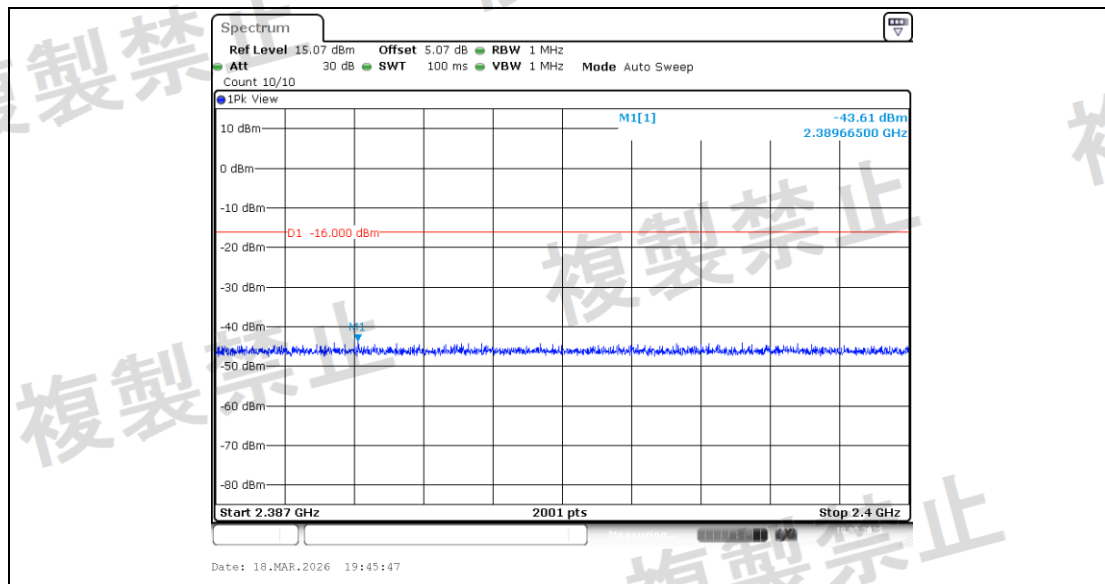


NTNV\_2.4G\_Ant1\_2440\_2496.5~13000

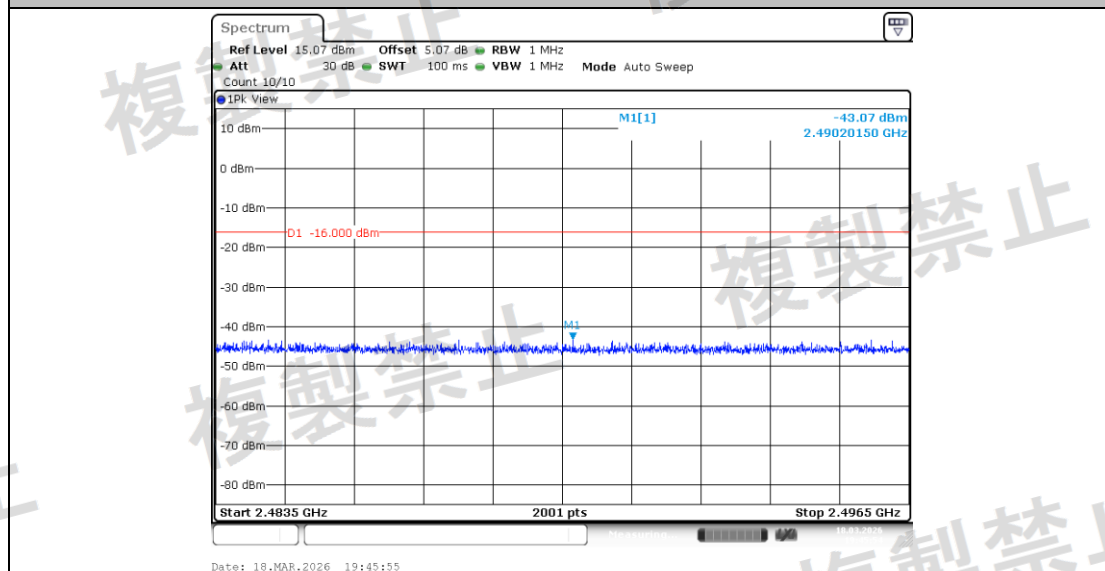




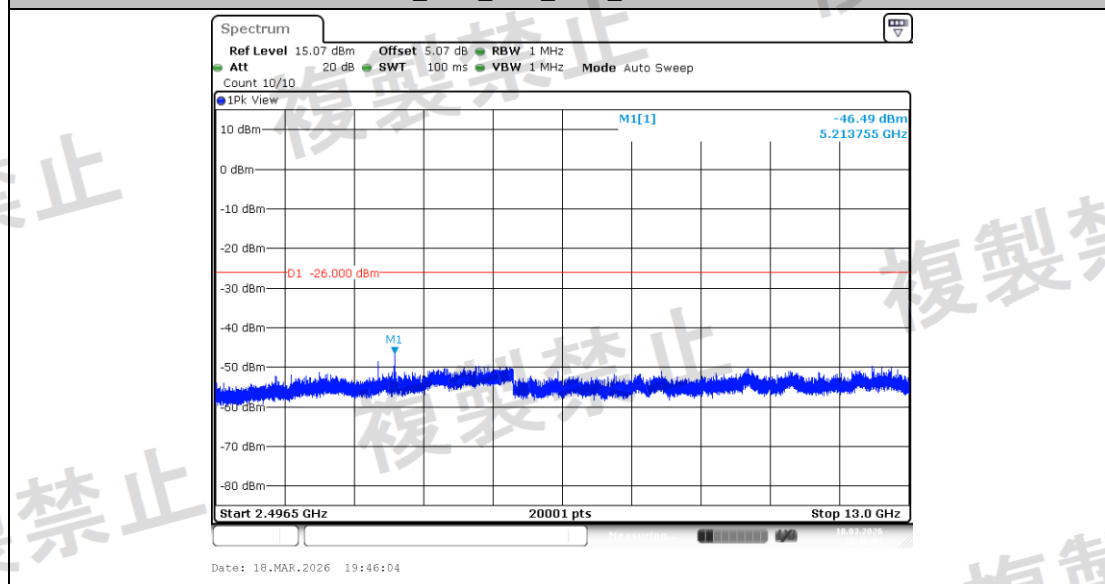
NTNV\_2.4G\_Ant1\_2480\_2387~2400



NTNV\_2.4G\_Ant1\_2480\_2483.5~2496.5



NTNV\_2.4G\_Ant1\_2480\_2496.5~13000

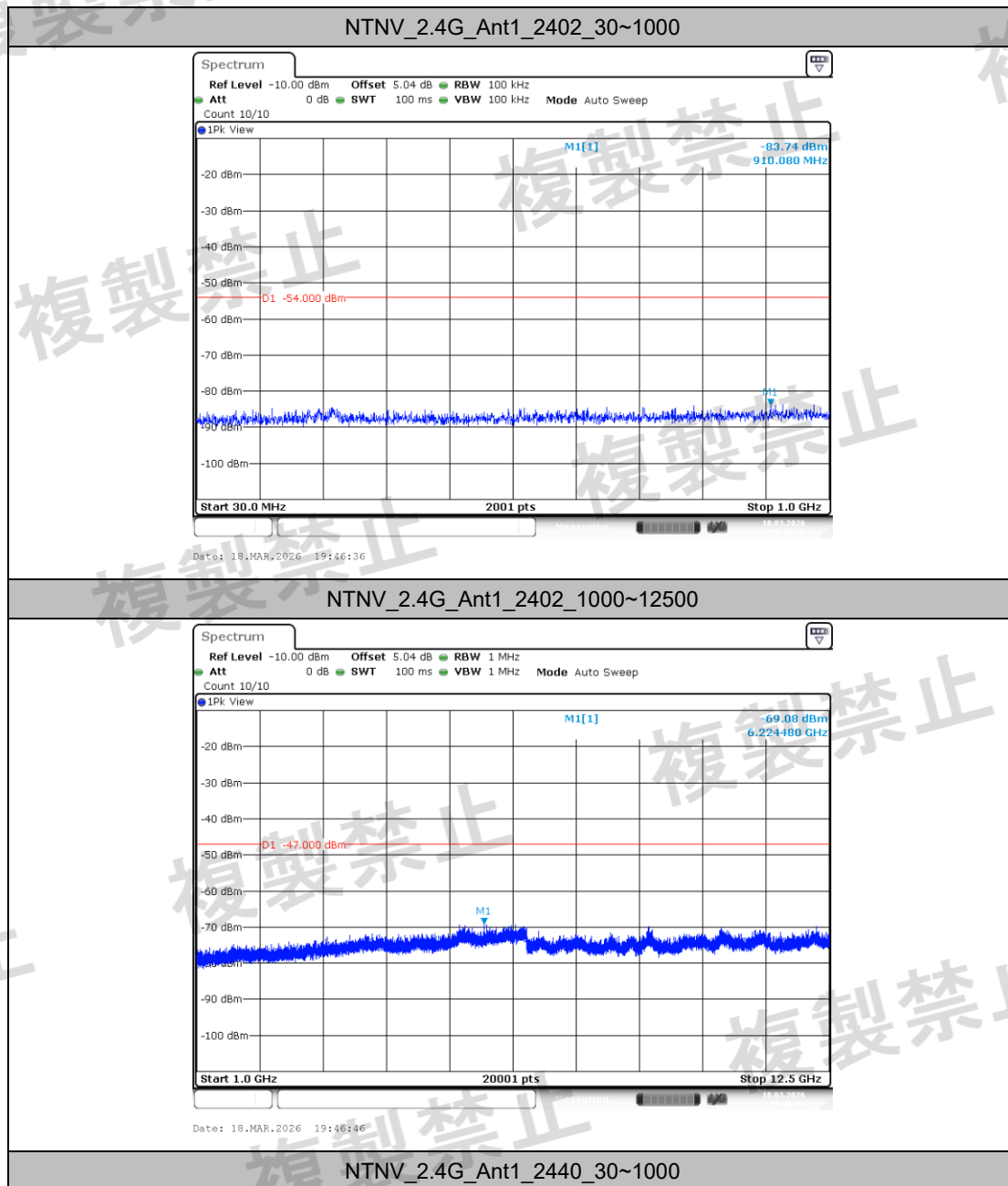


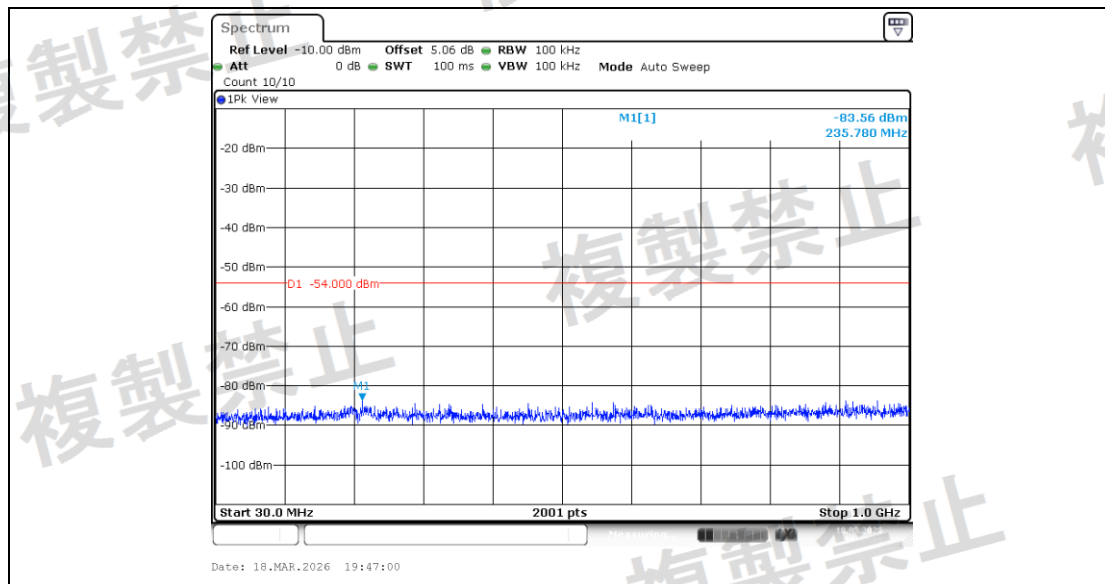
## Appendix E: Spurious Emission of RX

### Test Result

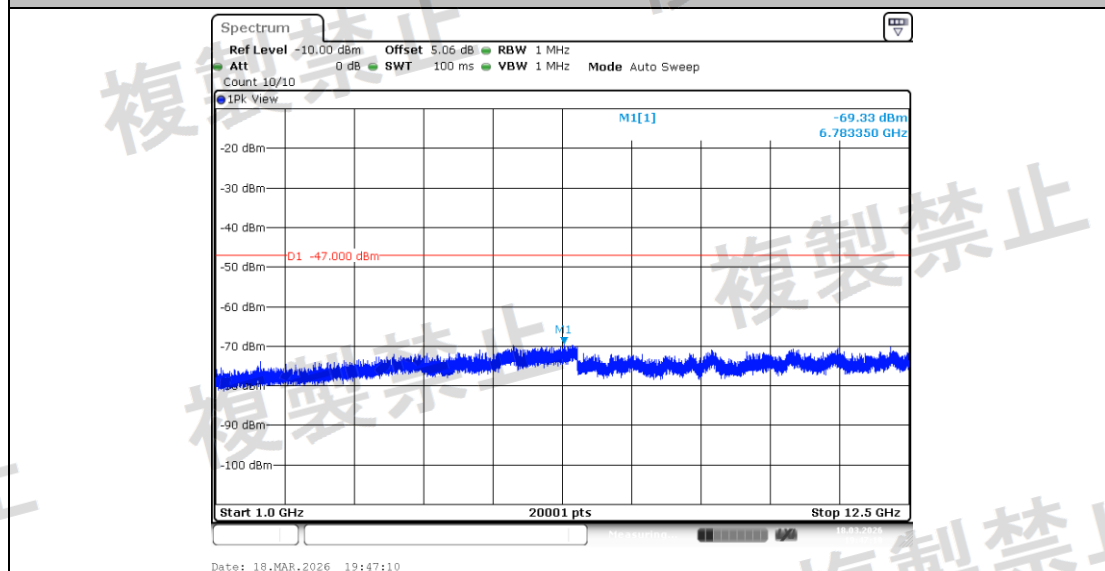
| TestCondition | TestMode | Antenna | Freq(MHz) | Freq.Range [MHz] | Freq. [MHz] | Result [dBm] | Limit [dBm] | Result [nW] | Limit [nW] | Verdict |
|---------------|----------|---------|-----------|------------------|-------------|--------------|-------------|-------------|------------|---------|
| NTNV          | 2.4G     | Ant1    | 2402      | 30~1000          | 910.08      | -83.74       | ≤-54        | 0.00423     | ≤4         | PASS    |
|               |          |         |           | 1000~12500       | 6224.48     | -69.08       | ≤-47        | 0.12359     | ≤20        | PASS    |
|               |          |         | 2440      | 30~1000          | 235.78      | -83.56       | ≤-54        | 0.00441     | ≤4         | PASS    |
|               |          |         |           | 1000~12500       | 6783.35     | -69.33       | ≤-47        | 0.11668     | ≤20        | PASS    |
|               |          |         | 2480      | 30~1000          | 948.86      | -83.35       | ≤-54        | 0.00462     | ≤4         | PASS    |
|               |          |         |           | 1000~12500       | 6951.81     | -68.70       | ≤-47        | 0.13490     | ≤20        | PASS    |

## Test Graphs





NTNV\_2.4G\_Ant1\_2440\_1000~12500



NTNV\_2.4G\_Ant1\_2480\_30~1000

