

## Appendix for 15.247

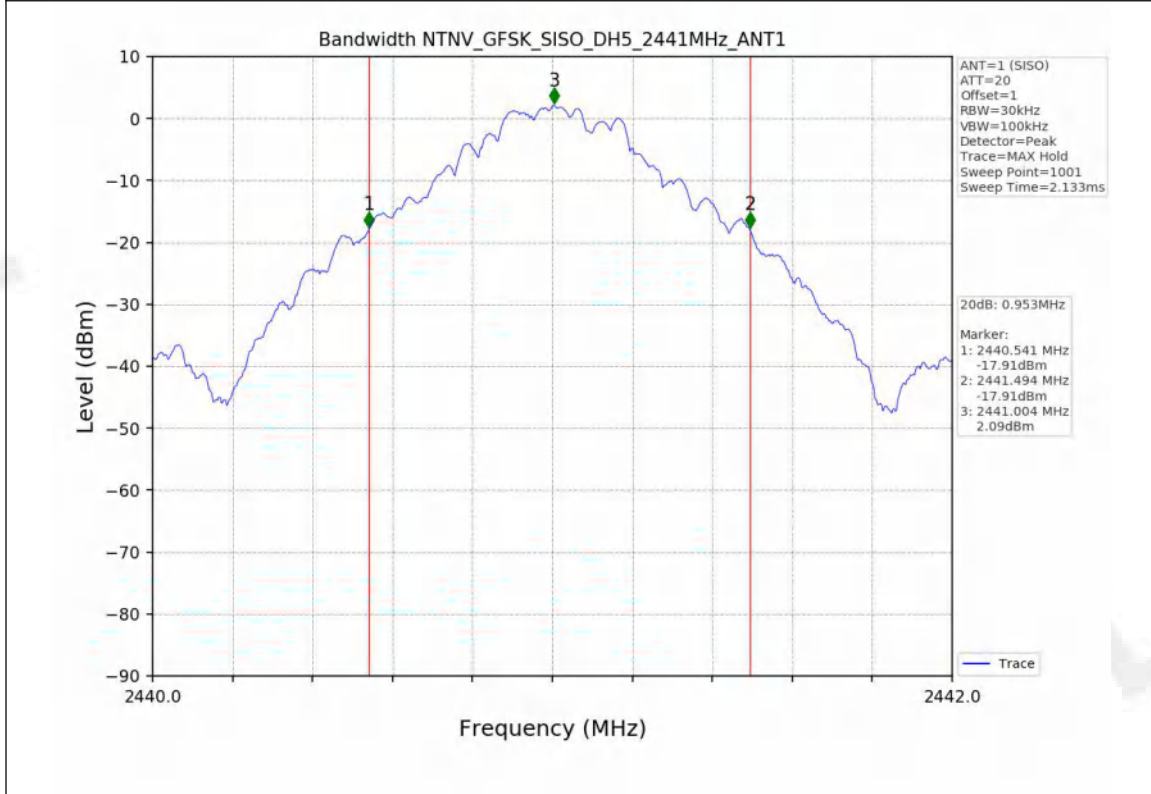
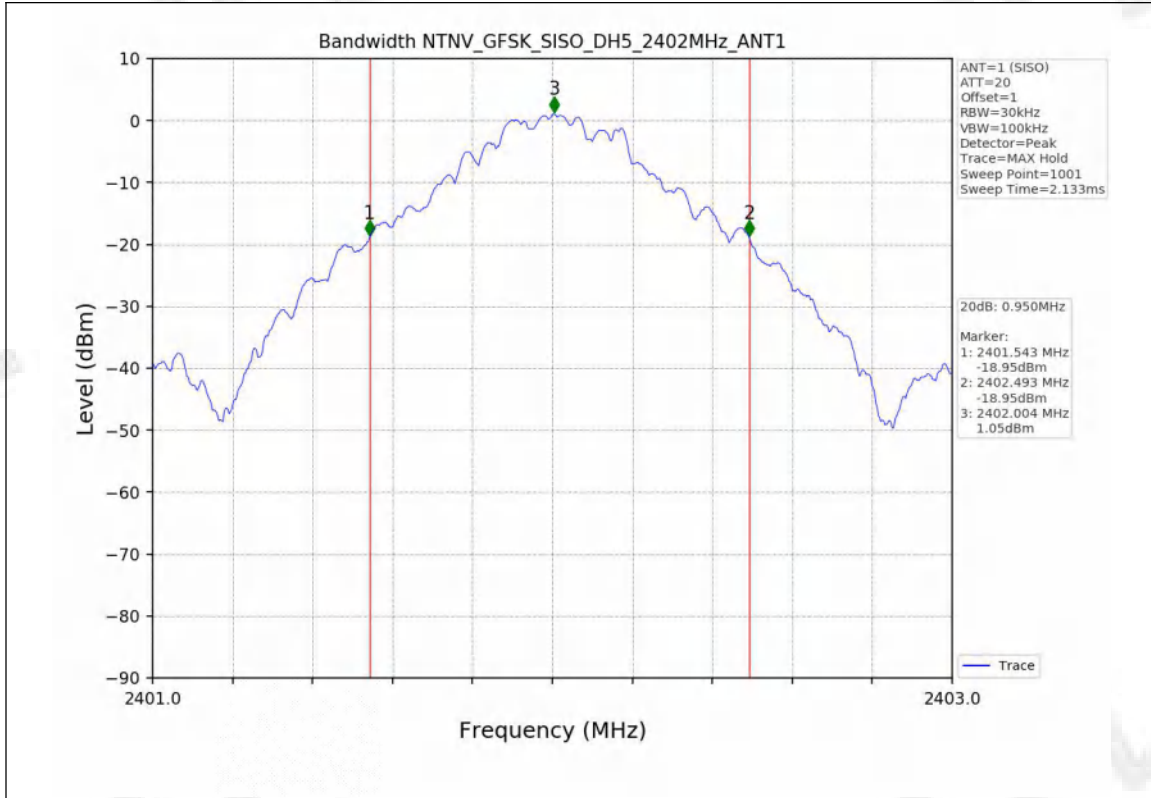
## 1. Bandwidth

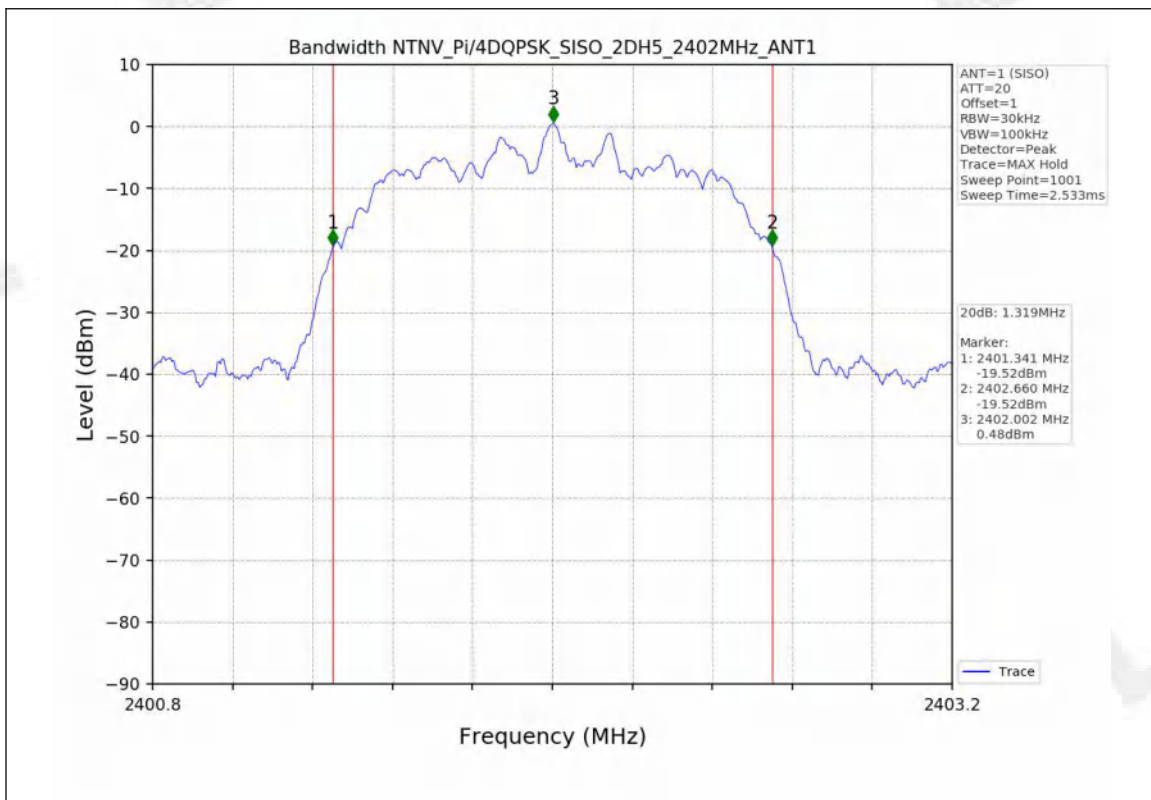
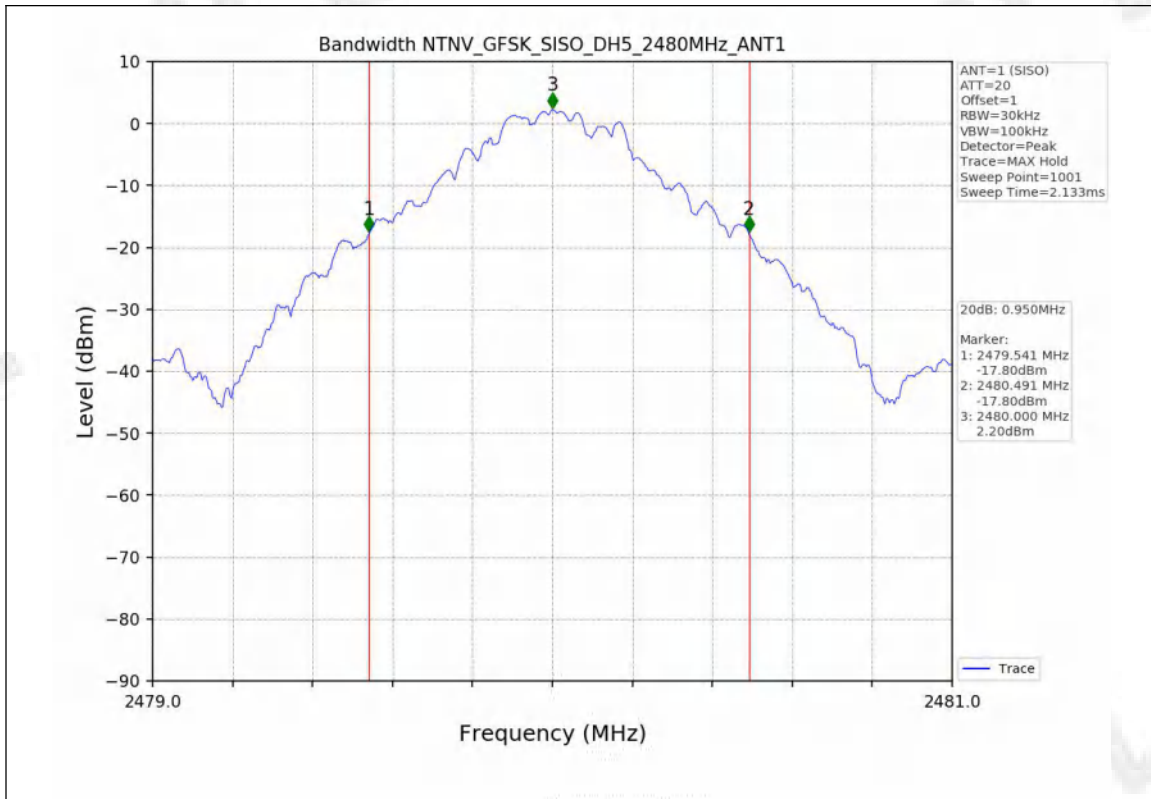
## 1.1 Test Result

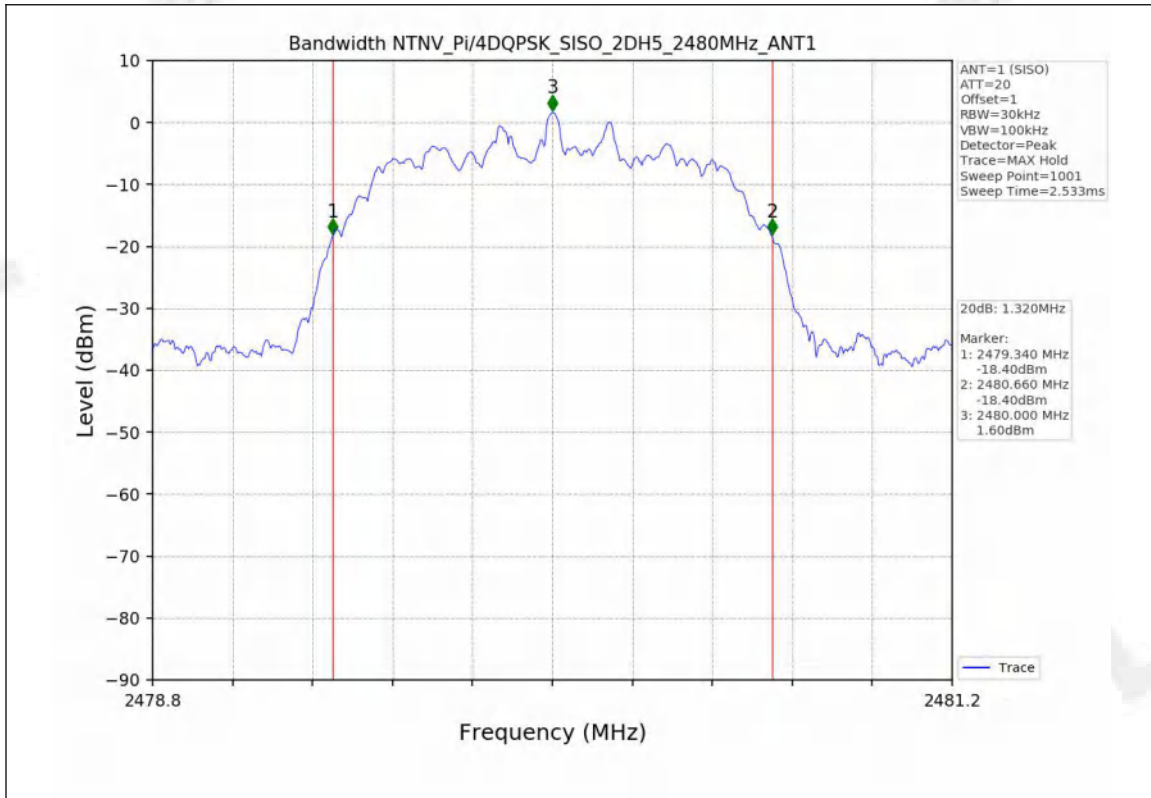
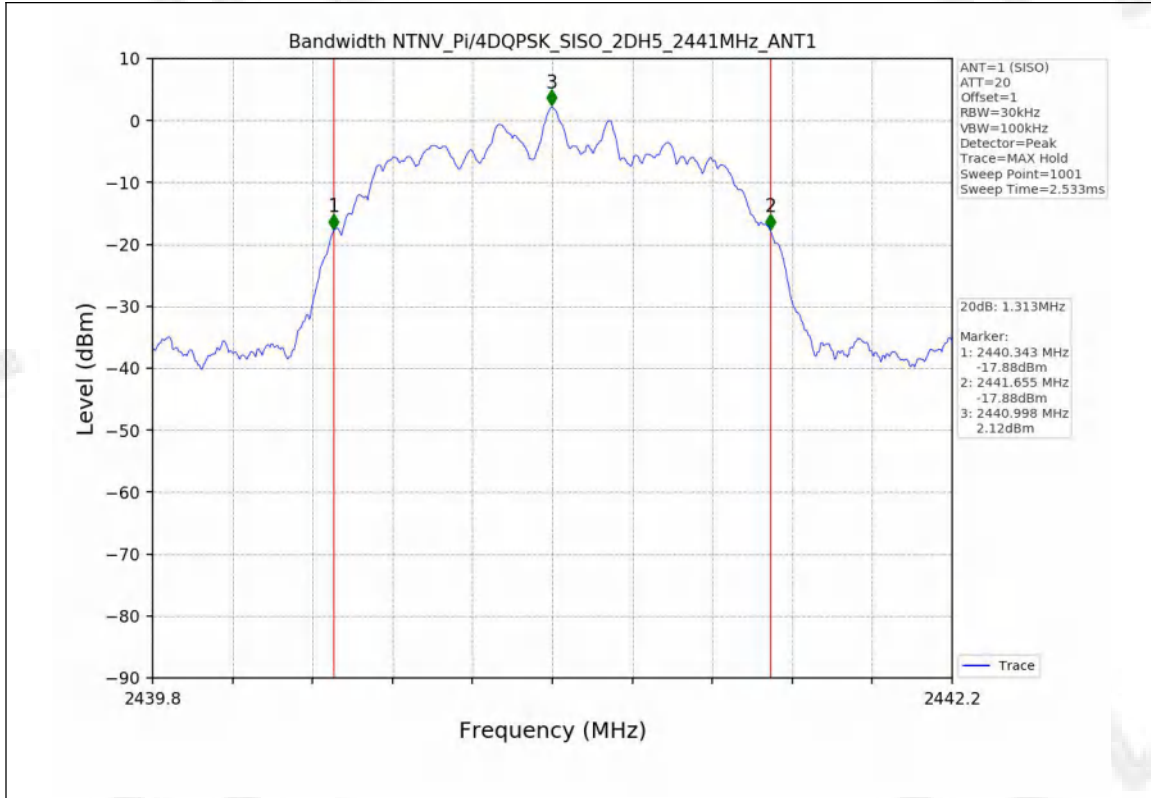
| Test Mode | Frequency (MHz) | TX Type | ANT No. | 20dB Bandwidth    | Verdict |
|-----------|-----------------|---------|---------|-------------------|---------|
|           |                 |         |         | Test Result (MHz) |         |
| GFSK      | 2402            | SISO    | 1       | 0.950             | PASS    |
|           | 2441            | SISO    | 1       | 0.953             | PASS    |
|           | 2480            | SISO    | 1       | 0.950             | PASS    |
| Pi/4DQPSK | 2402            | SISO    | 1       | 1.319             | PASS    |
|           | 2441            | SISO    | 1       | 1.313             | PASS    |
|           | 2480            | SISO    | 1       | 1.320             | PASS    |
| 8DPSK     | 2402            | SISO    | 1       | 1.320             | PASS    |
|           | 2441            | SISO    | 1       | 1.312             | PASS    |
|           | 2480            | SISO    | 1       | 1.317             | PASS    |

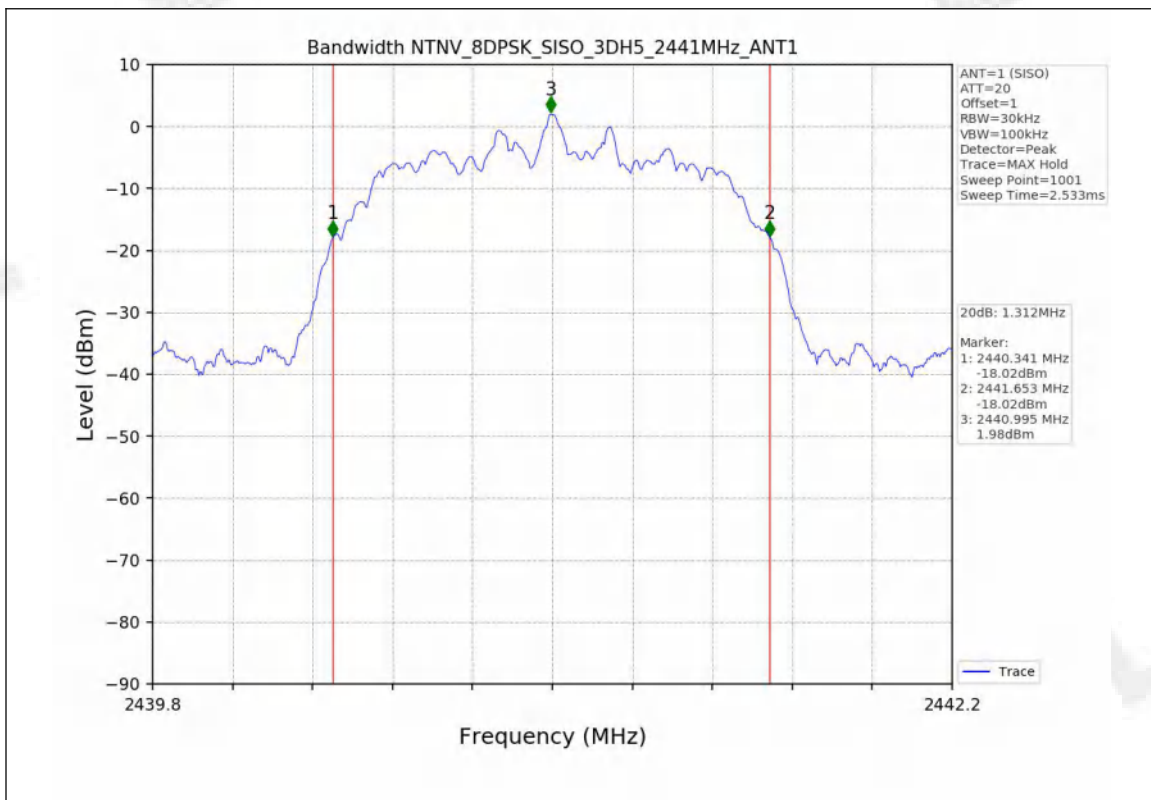
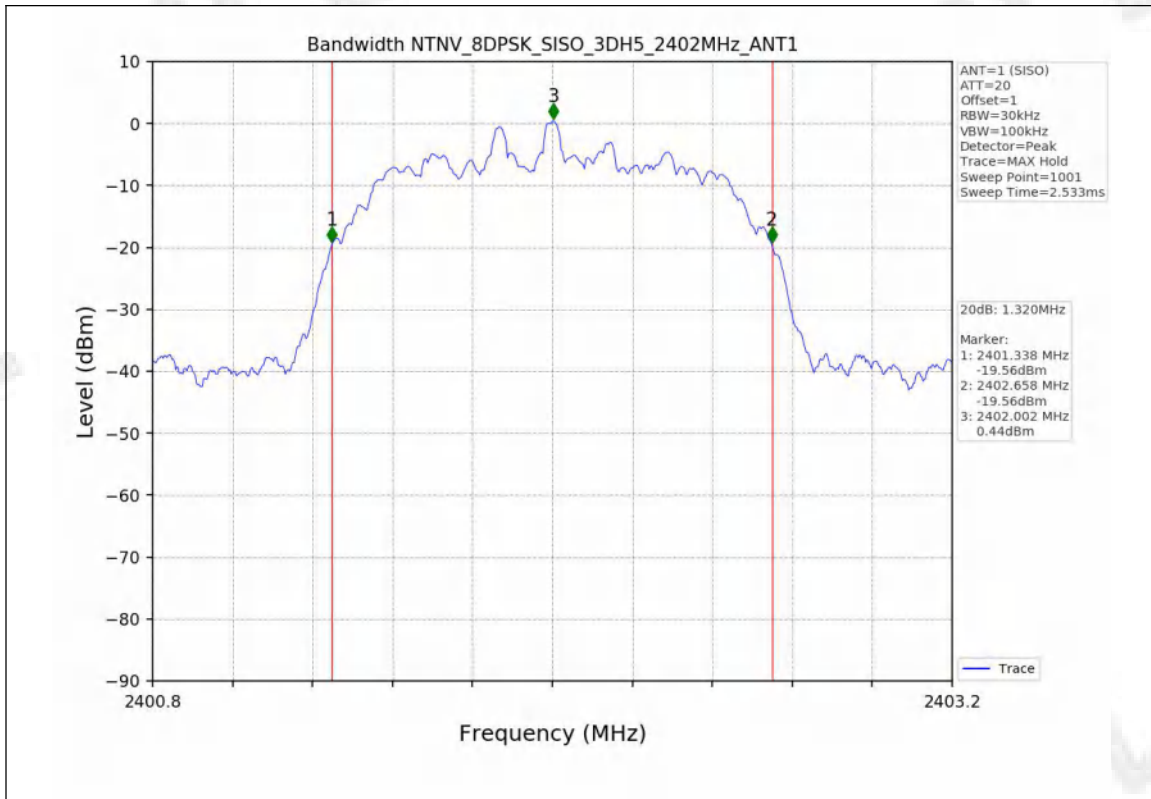
| Test Mode | Frequency (MHz) | TX Type | ANT No. | 99% Occupied Bandwidth |                     |
|-----------|-----------------|---------|---------|------------------------|---------------------|
|           |                 |         |         | Test Result (MHz)      |                     |
| GFSK      | 2402            | SISO    | 1       | 0.853                  | Only for Report Use |
|           | 2441            | SISO    | 1       | 0.853                  | Only for Report Use |
|           | 2480            | SISO    | 1       | 0.856                  | Only for Report Use |
| Pi/4DQPSK | 2402            | SISO    | 1       | 1.193                  | Only for Report Use |
|           | 2441            | SISO    | 1       | 1.185                  | Only for Report Use |
|           | 2480            | SISO    | 1       | 1.185                  | Only for Report Use |
| 8DPSK     | 2402            | SISO    | 1       | 1.186                  | Only for Report Use |
|           | 2441            | SISO    | 1       | 1.183                  | Only for Report Use |
|           | 2480            | SISO    | 1       | 1.191                  | Only for Report Use |

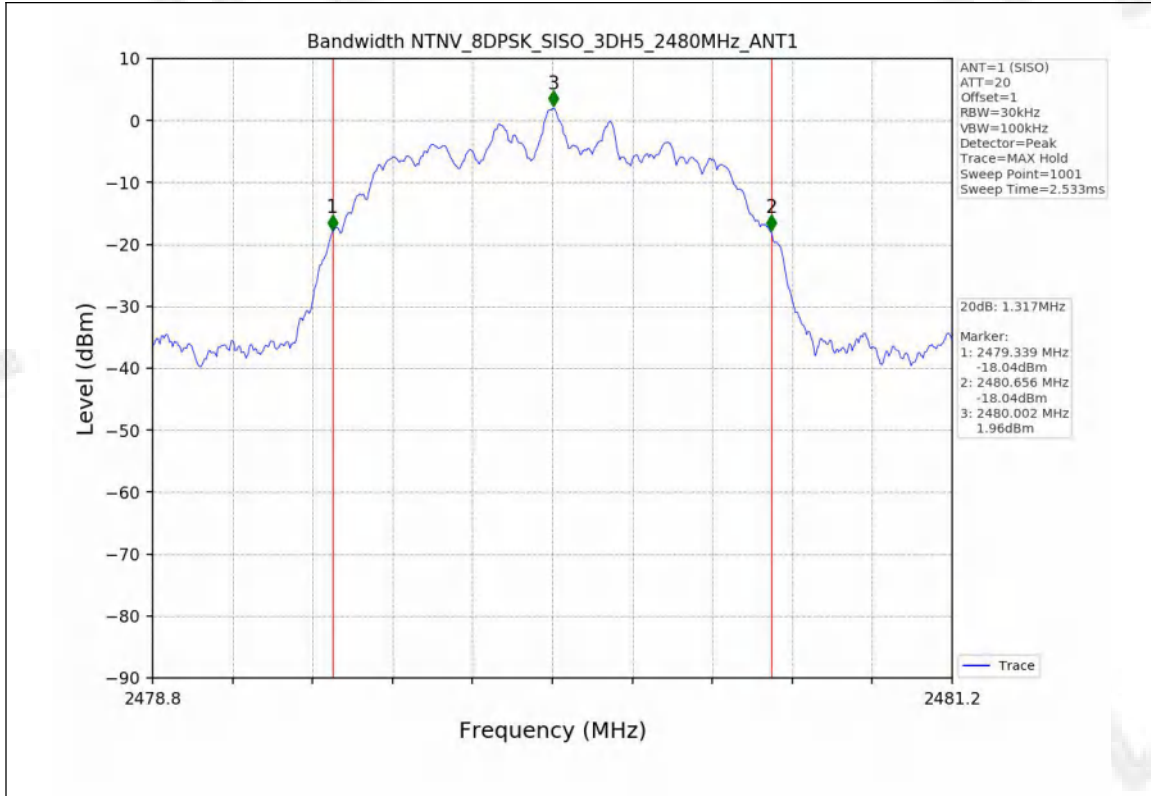
## 1.2 Test Graph - 20dB Bandwidth



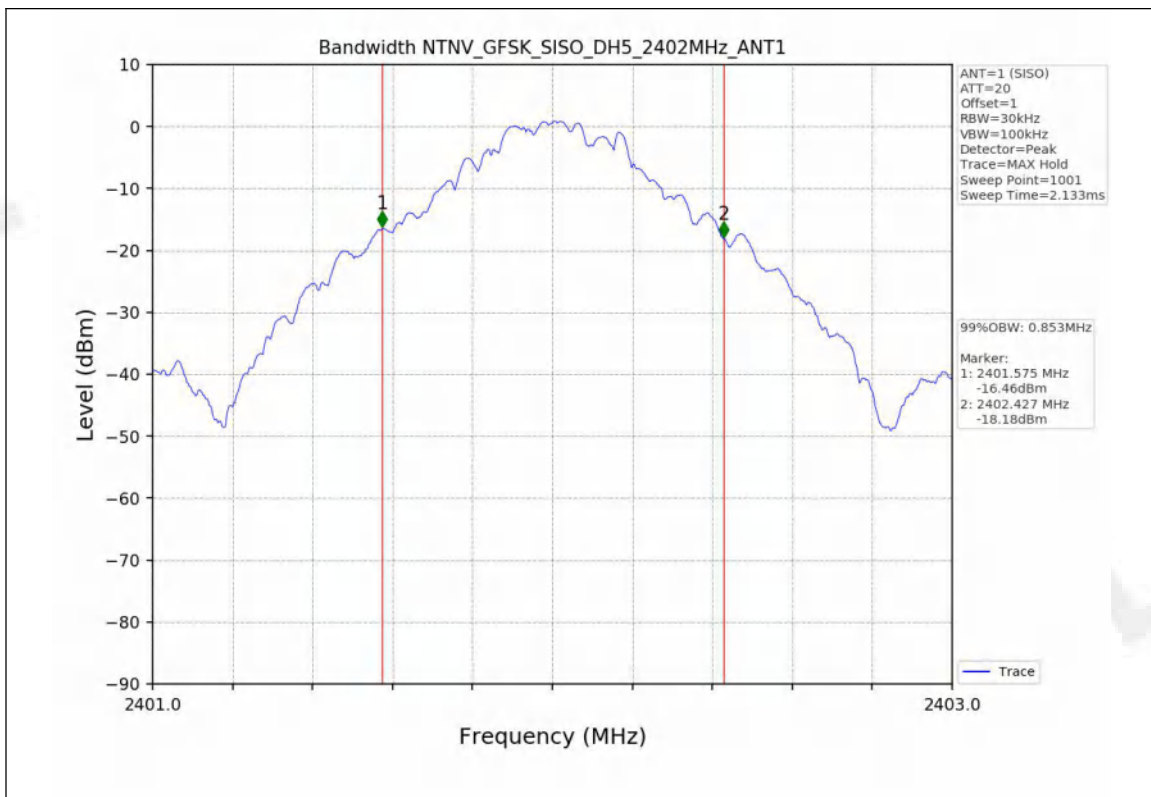


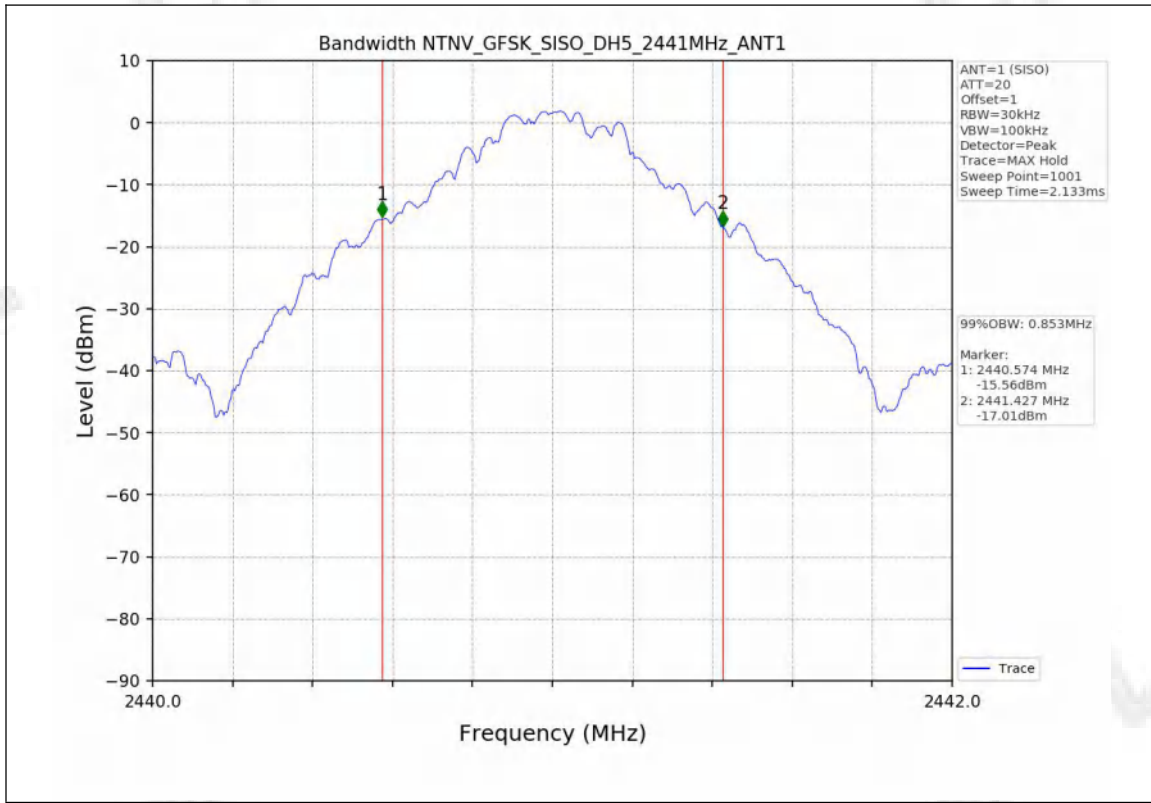


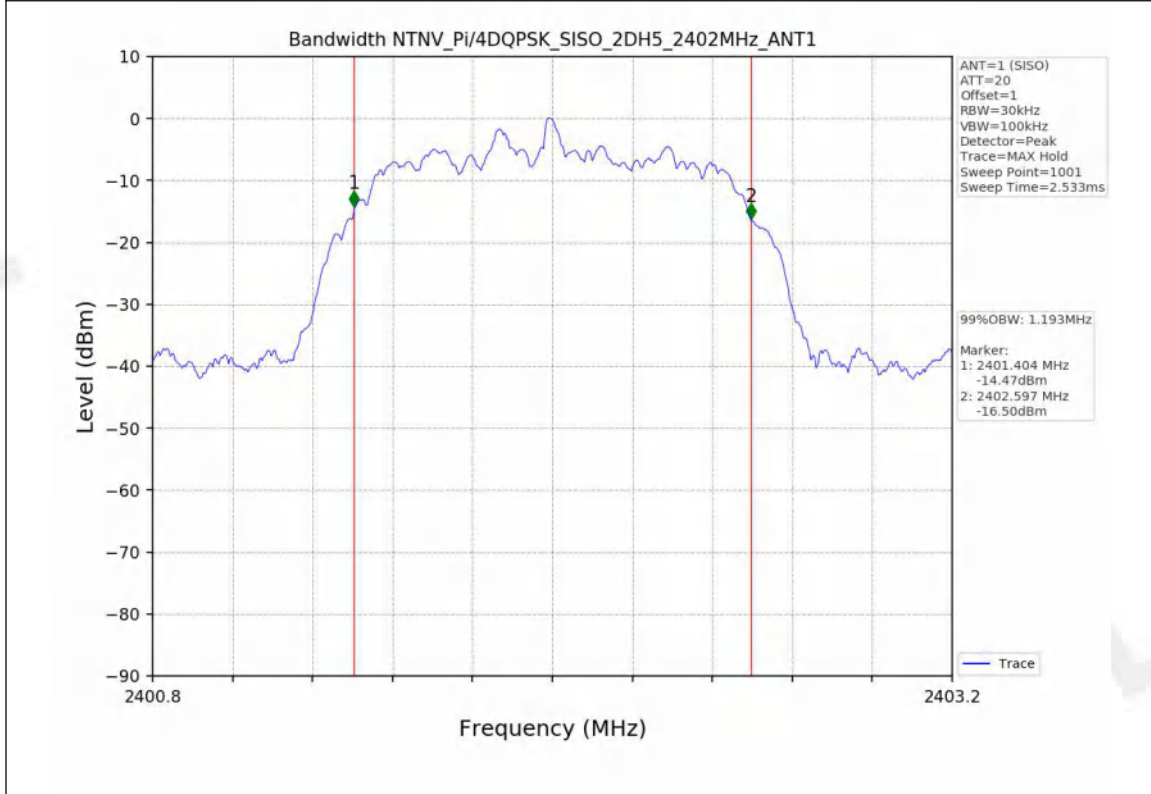
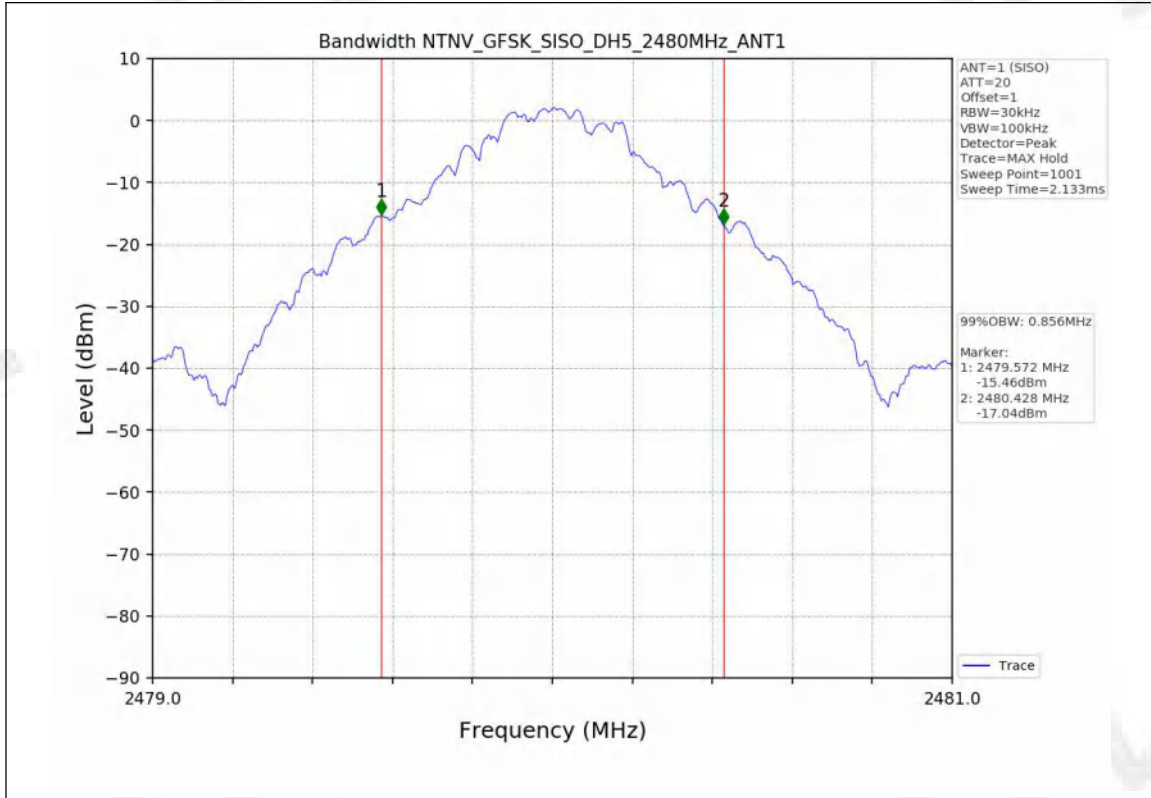


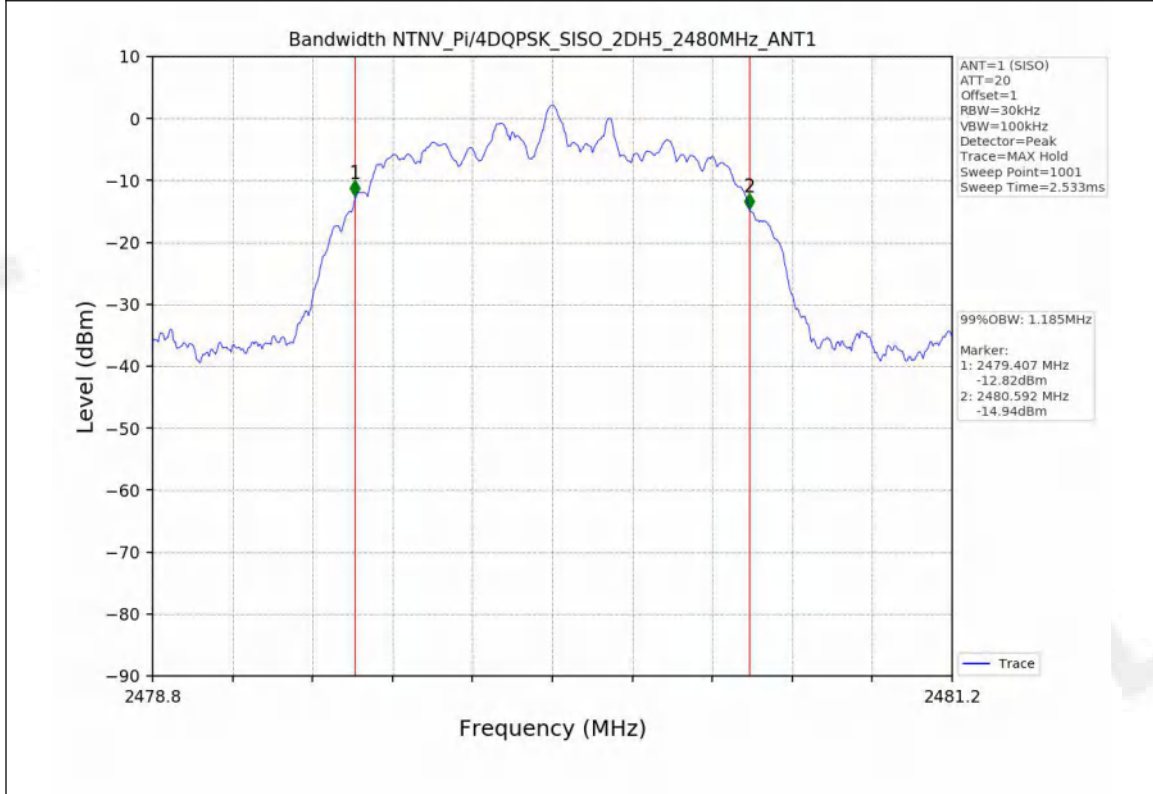
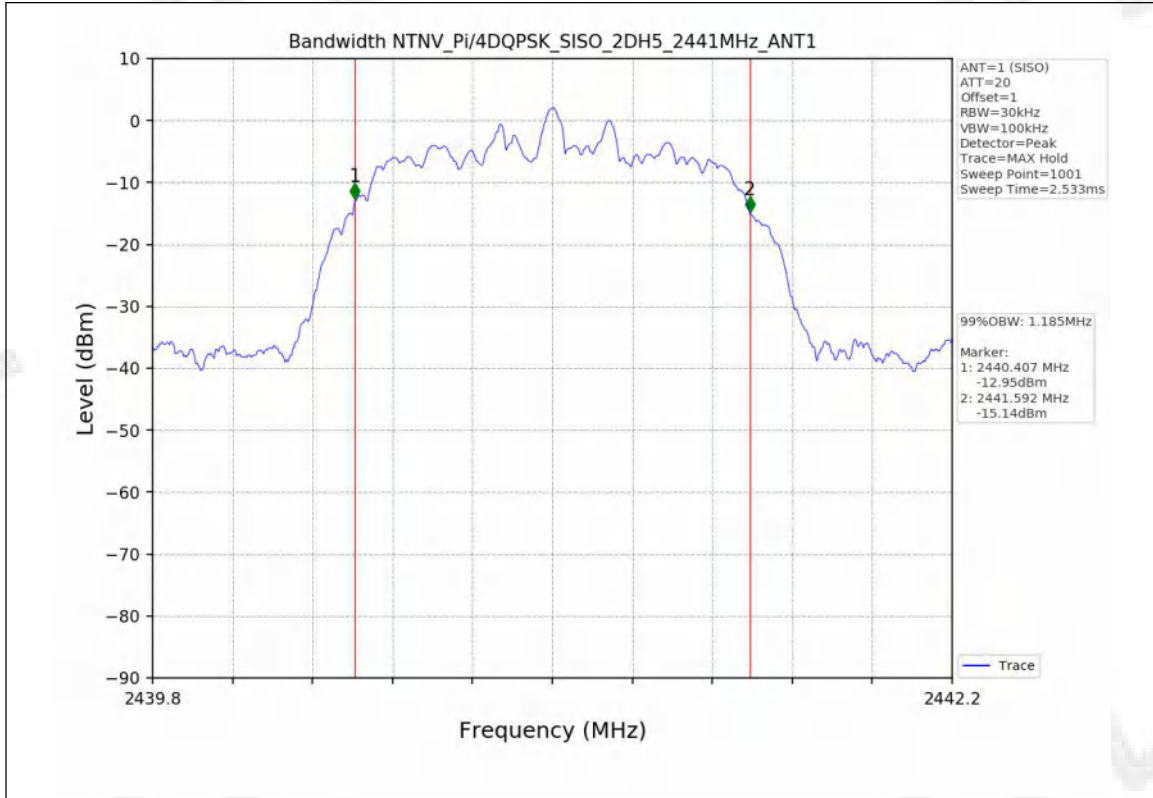


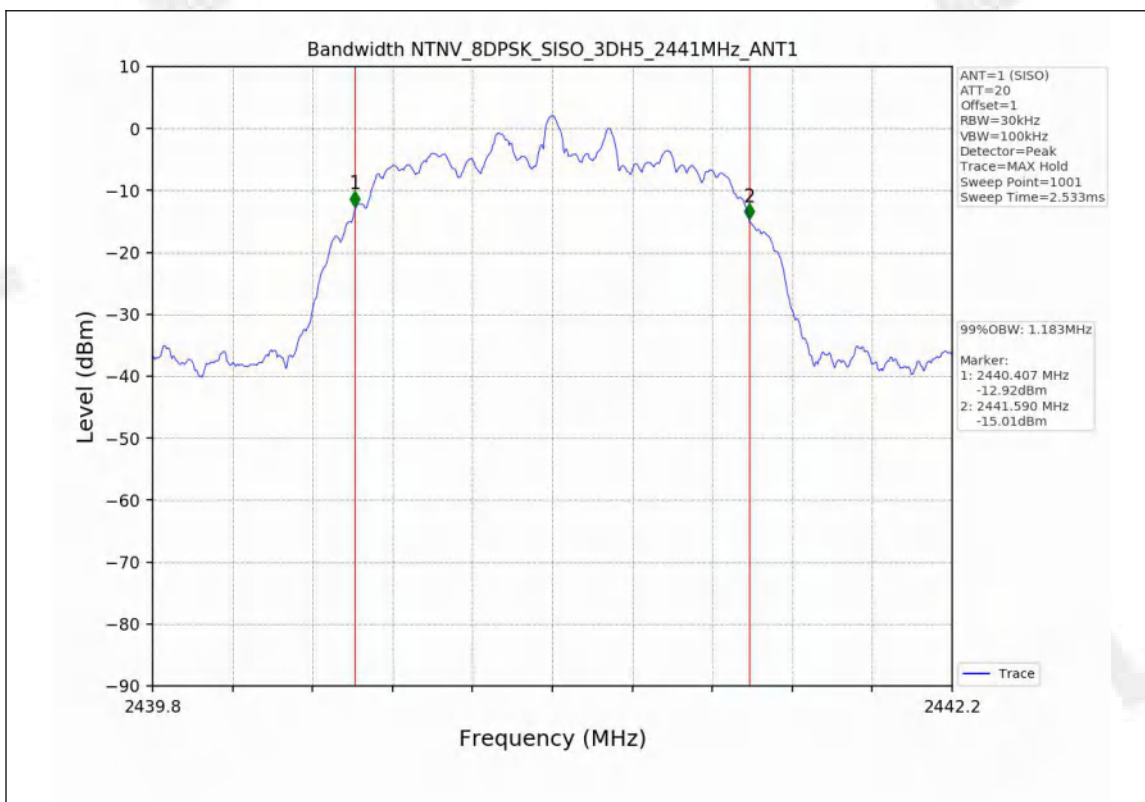
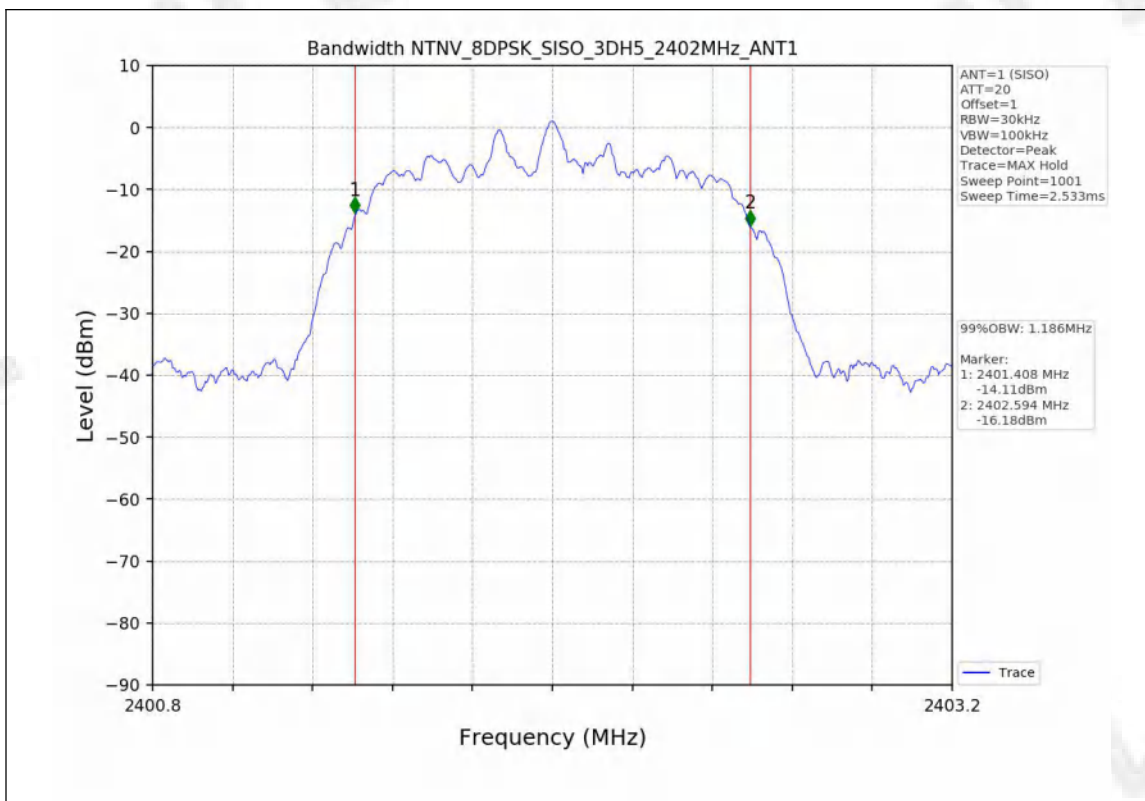
### 1.3 Test Graph - 99% Occupied Bandwidth

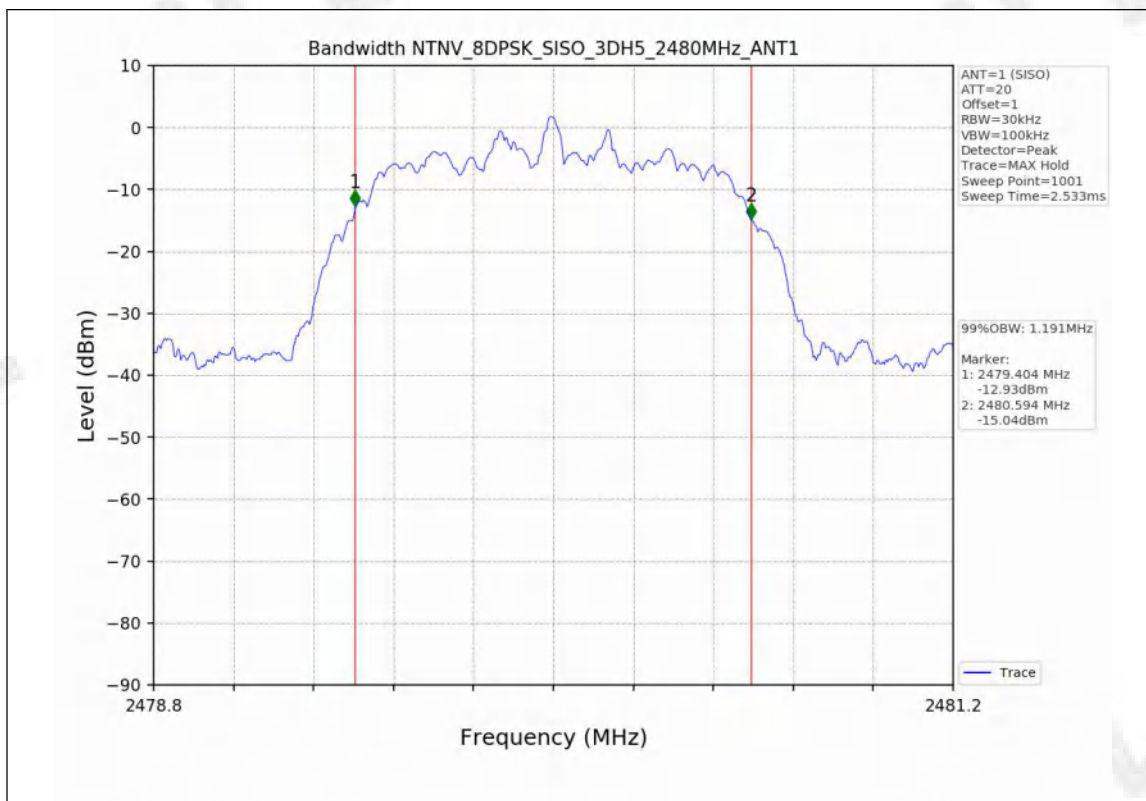










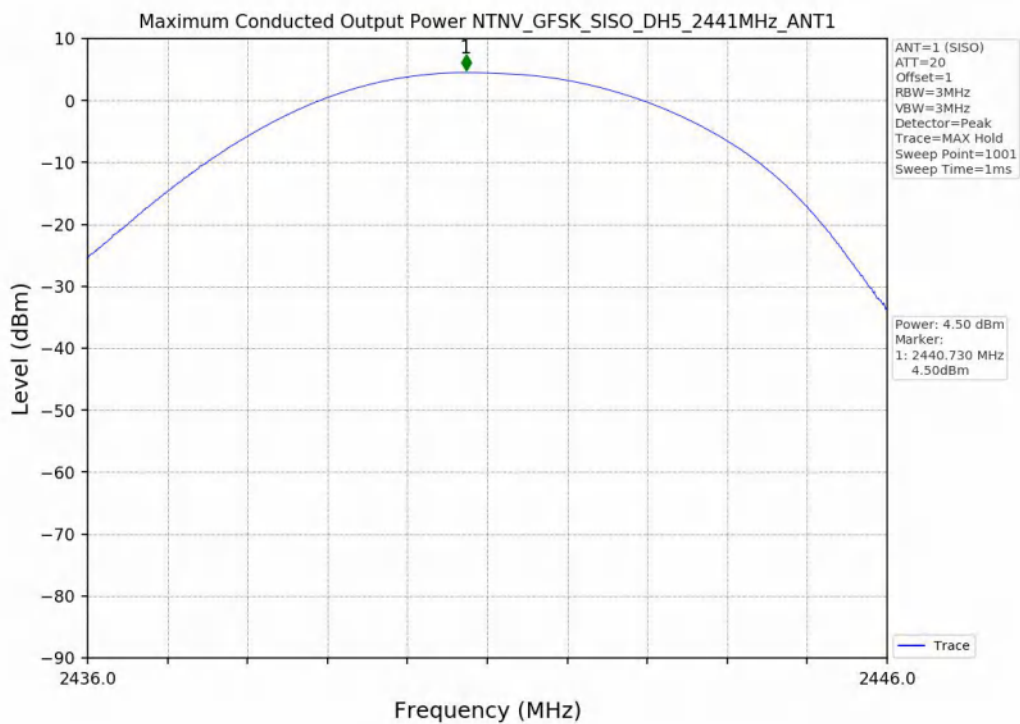


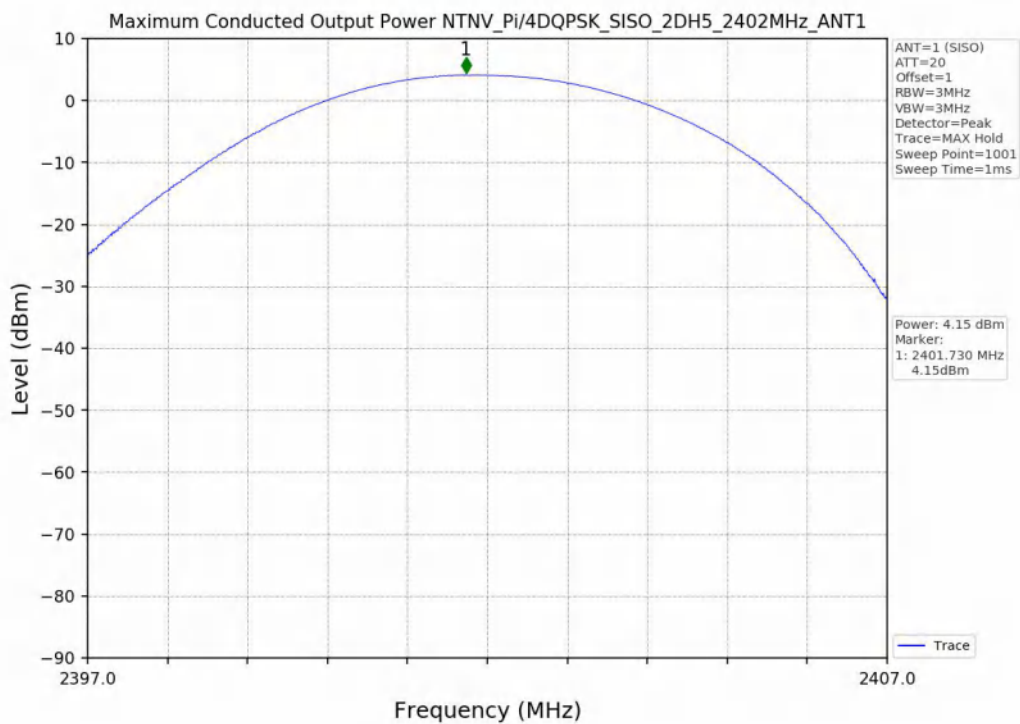
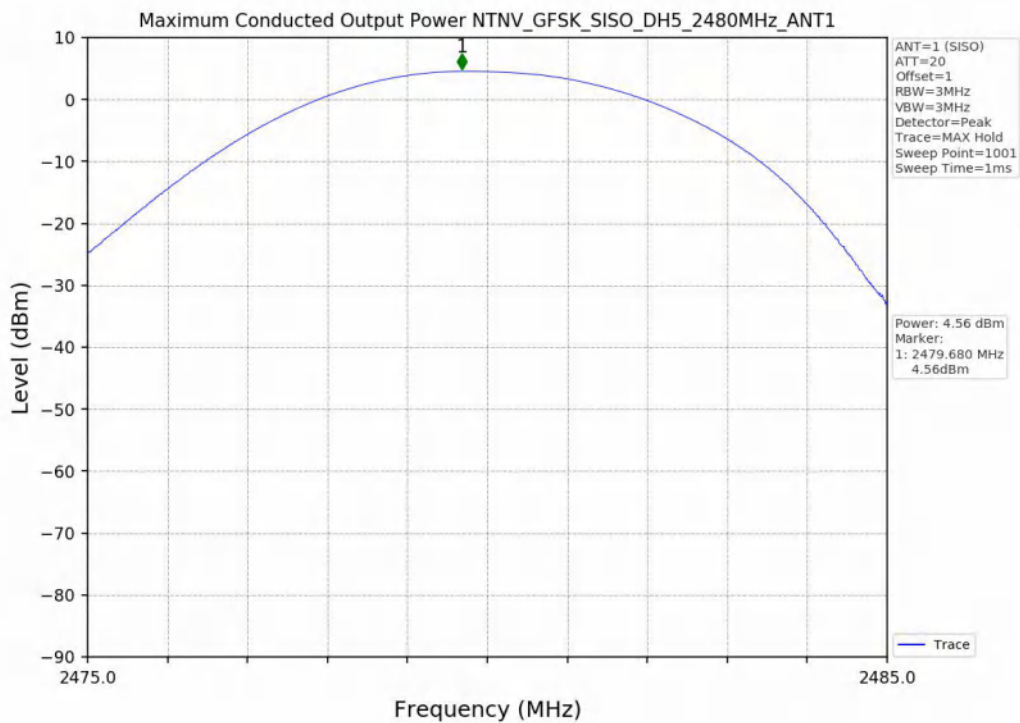
## 2. Maximum Conducted Output Power

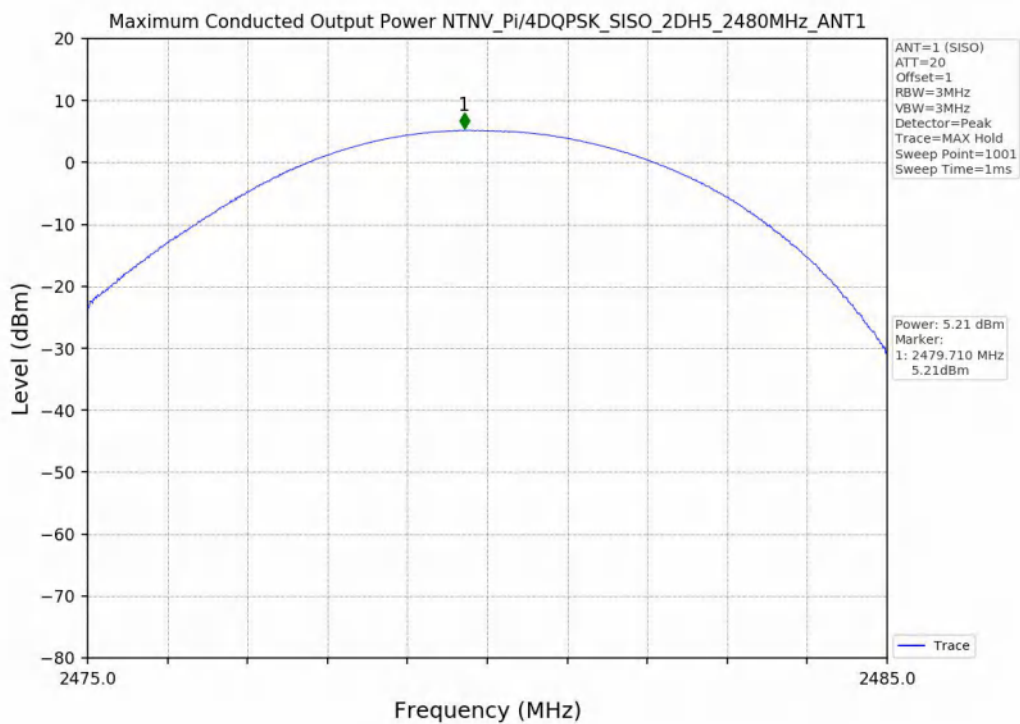
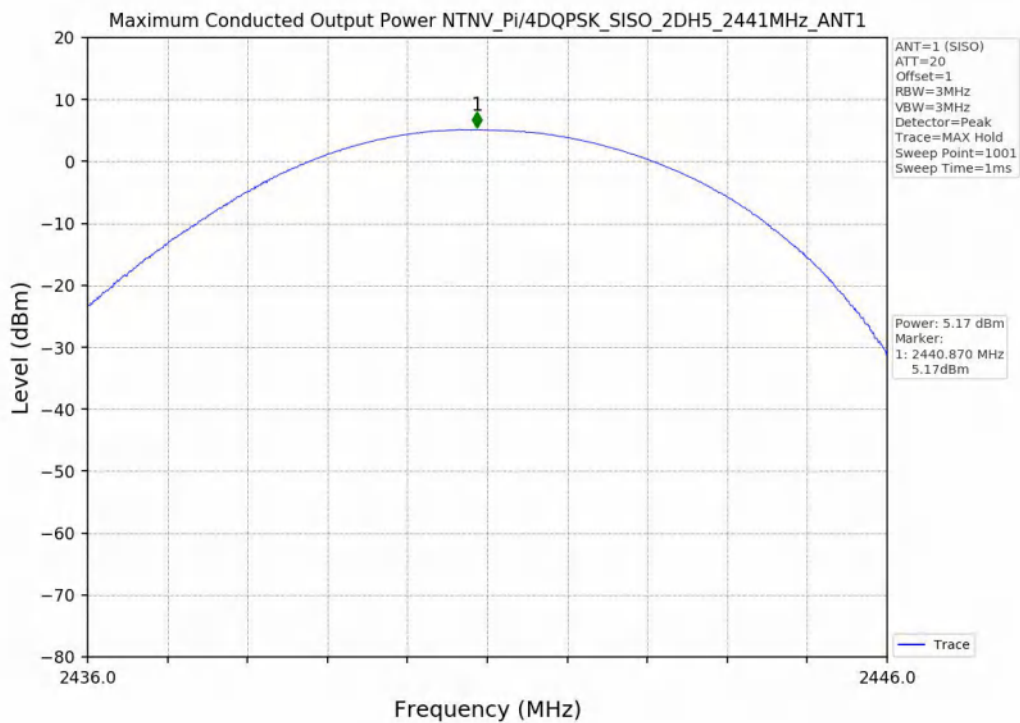
### 2.1 Test Result

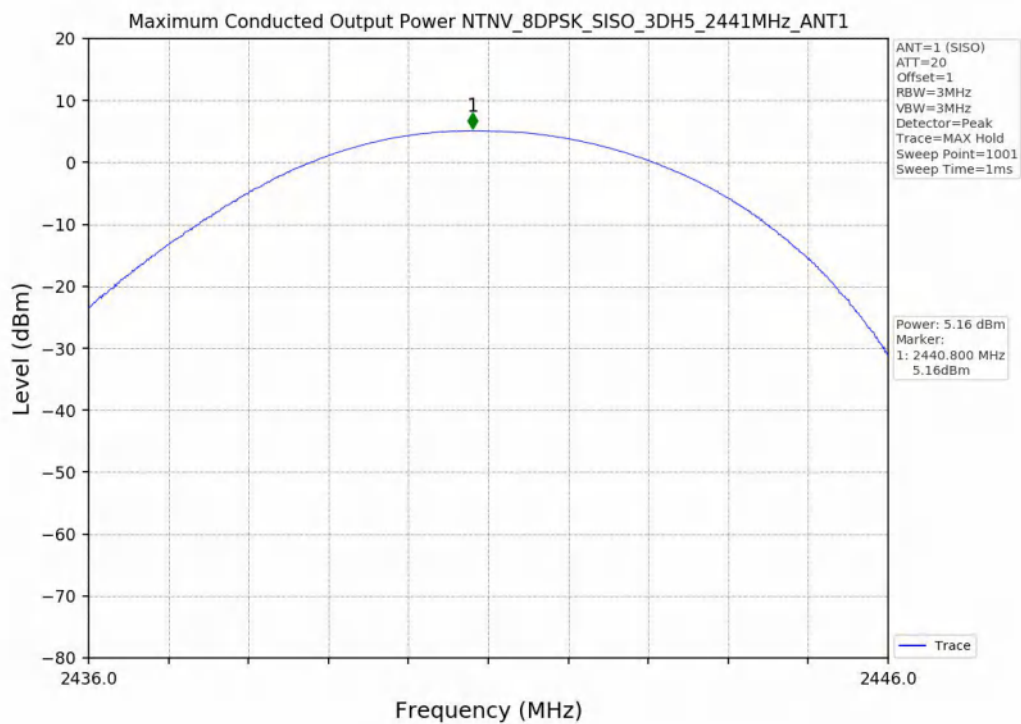
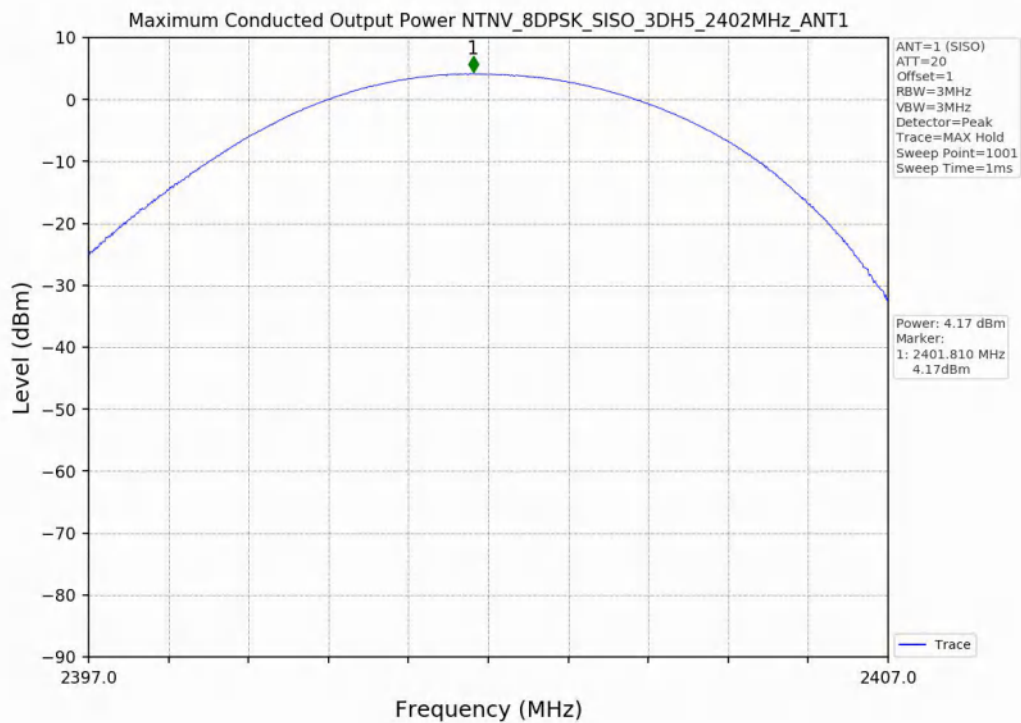
| Test Mode | Frequency (MHz) | Tx Type | Measured Peak Output Power (dBm) | Limits (dBm) | Verdict |
|-----------|-----------------|---------|----------------------------------|--------------|---------|
|           |                 |         | Ant 1                            |              |         |
| GFSK      | 2402            | SISO    | 3.44                             | 30           | PASS    |
|           | 2441            | SISO    | 4.50                             | 30           | PASS    |
|           | 2480            | SISO    | 4.56                             | 30           | PASS    |
| Pi/4DQPSK | 2402            | SISO    | 4.15                             | 20.97        | PASS    |
|           | 2441            | SISO    | 5.17                             | 20.97        | PASS    |
|           | 2480            | SISO    | 5.21                             | 20.97        | PASS    |
| 8DPSK     | 2402            | SISO    | 4.17                             | 20.97        | PASS    |
|           | 2441            | SISO    | 5.16                             | 20.97        | PASS    |
|           | 2480            | SISO    | 5.20                             | 20.97        | PASS    |

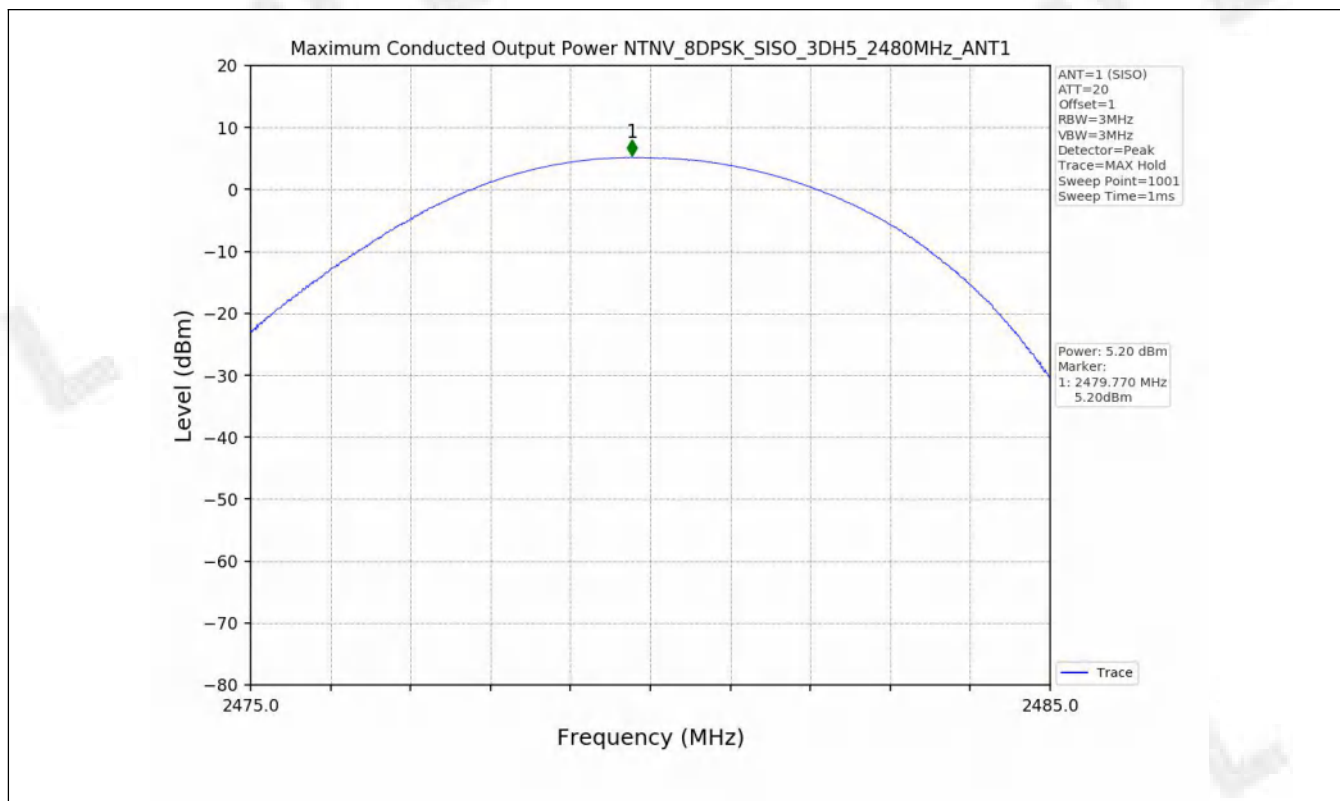
### 2.2 Test Graph









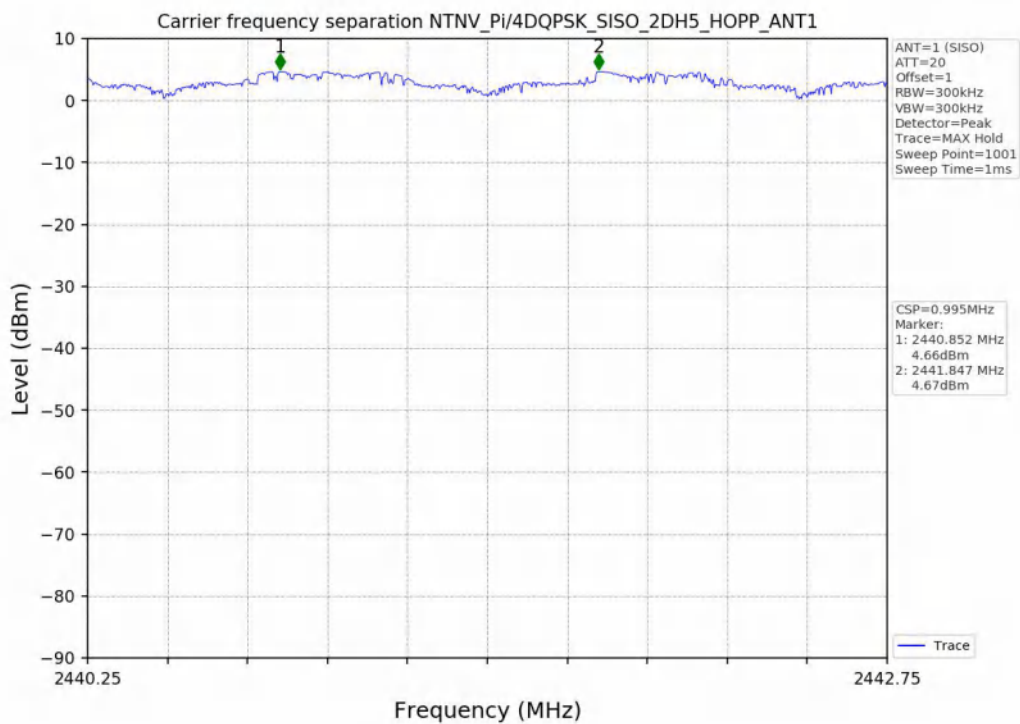
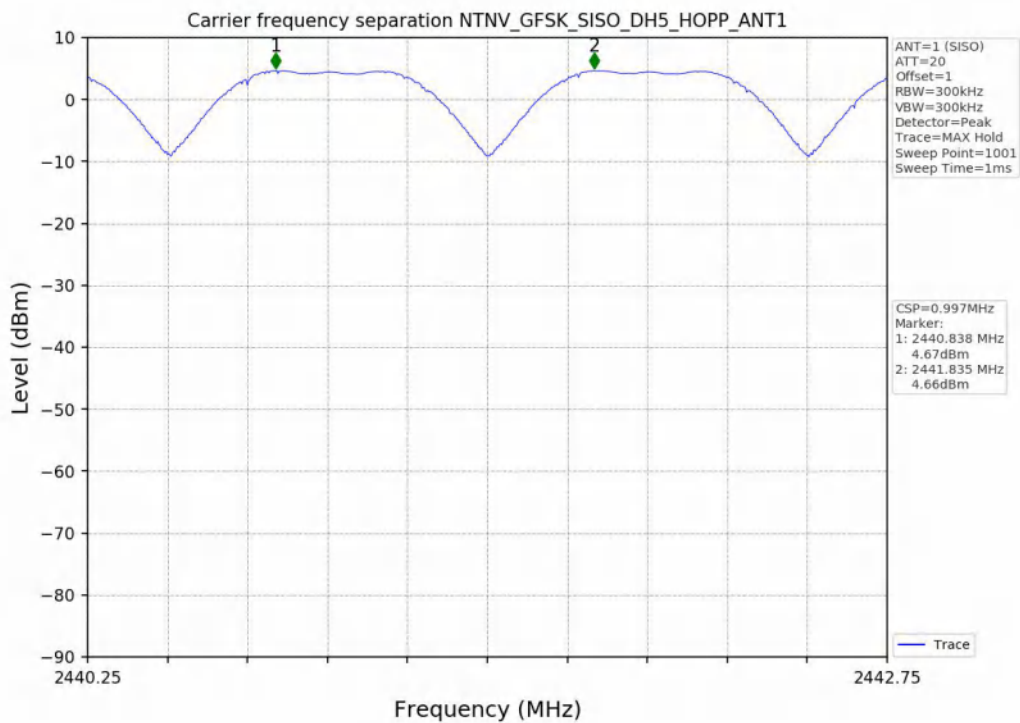


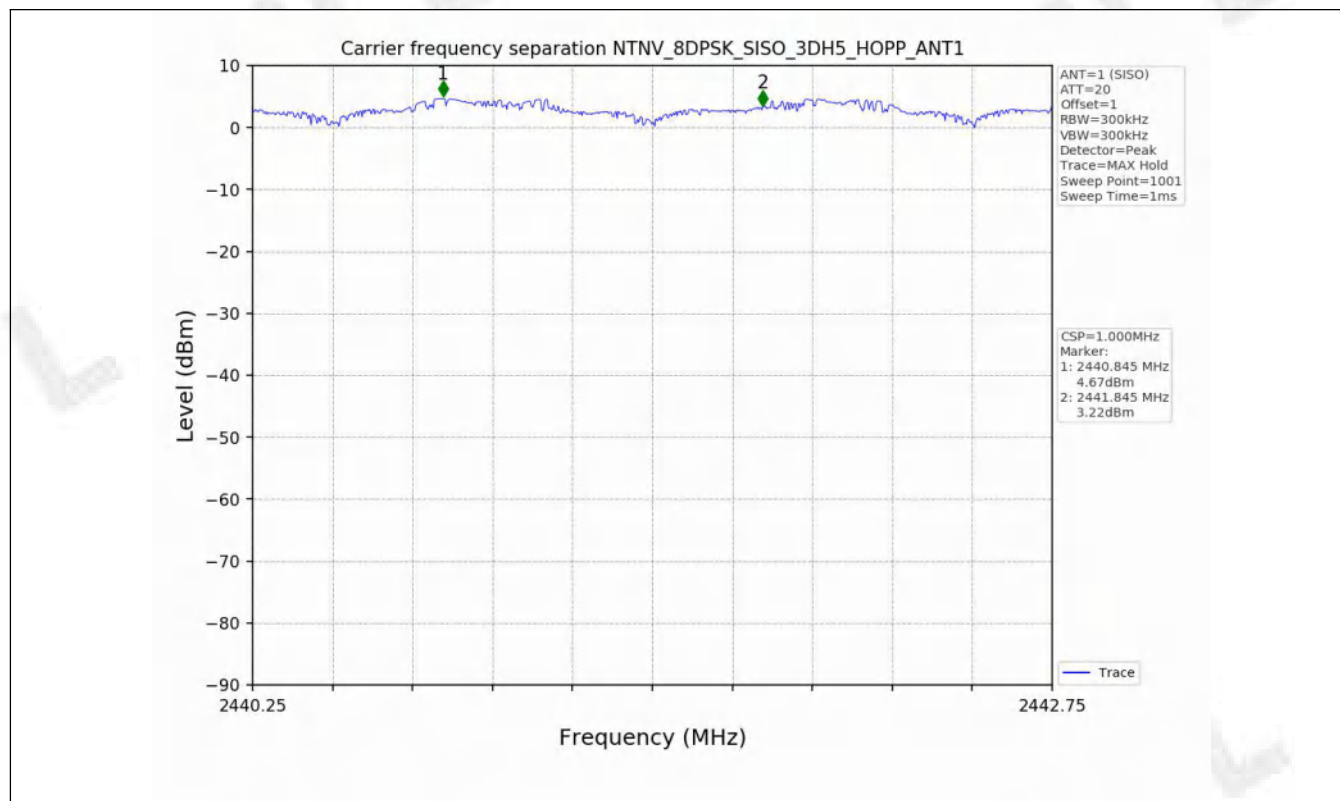
### 3. Carrier frequency separation

#### 3.1 Test Result

| Test Mode | TX Type | ANT No. | Channel Separation (MHz) | 20dB Bandwidth (MHz) | Limits (MHz) | Verdict |
|-----------|---------|---------|--------------------------|----------------------|--------------|---------|
| GFSK      | SISO    | 1       | 0.997                    | 0.953                | $\geq 0.953$ | PASS    |
| Pi/4DQPSK | SISO    | 1       | 0.995                    | 1.320                | $\geq 0.880$ | PASS    |
| 8DPSK     | SISO    | 1       | 1.000                    | 1.320                | $\geq 0.880$ | PASS    |

#### 3.2 Test Graph



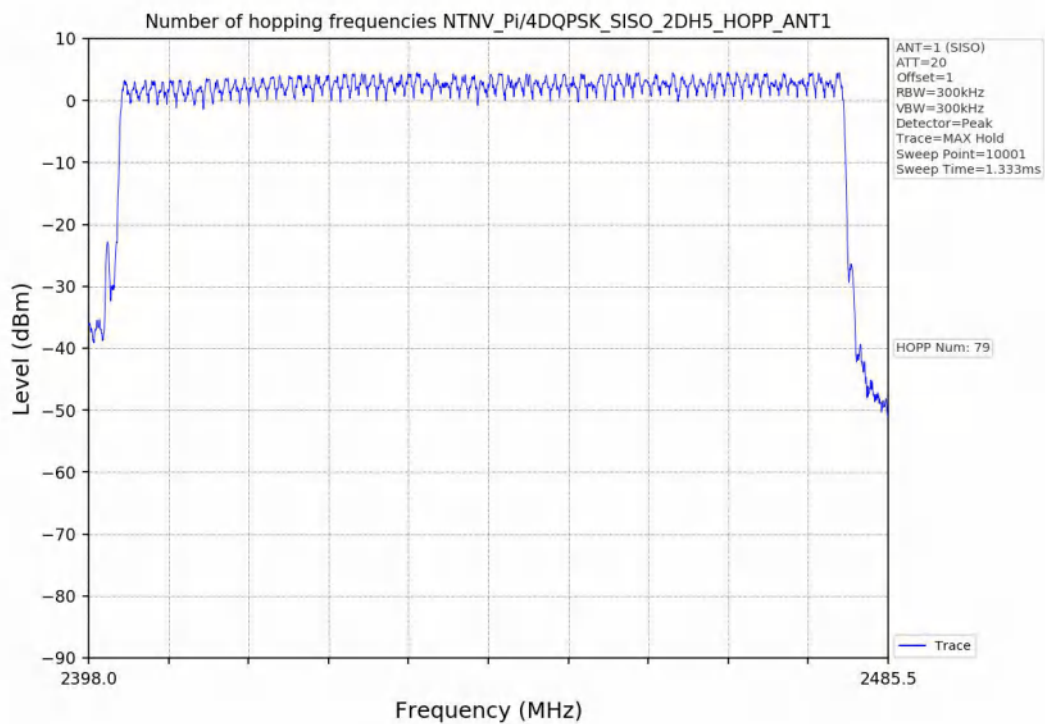
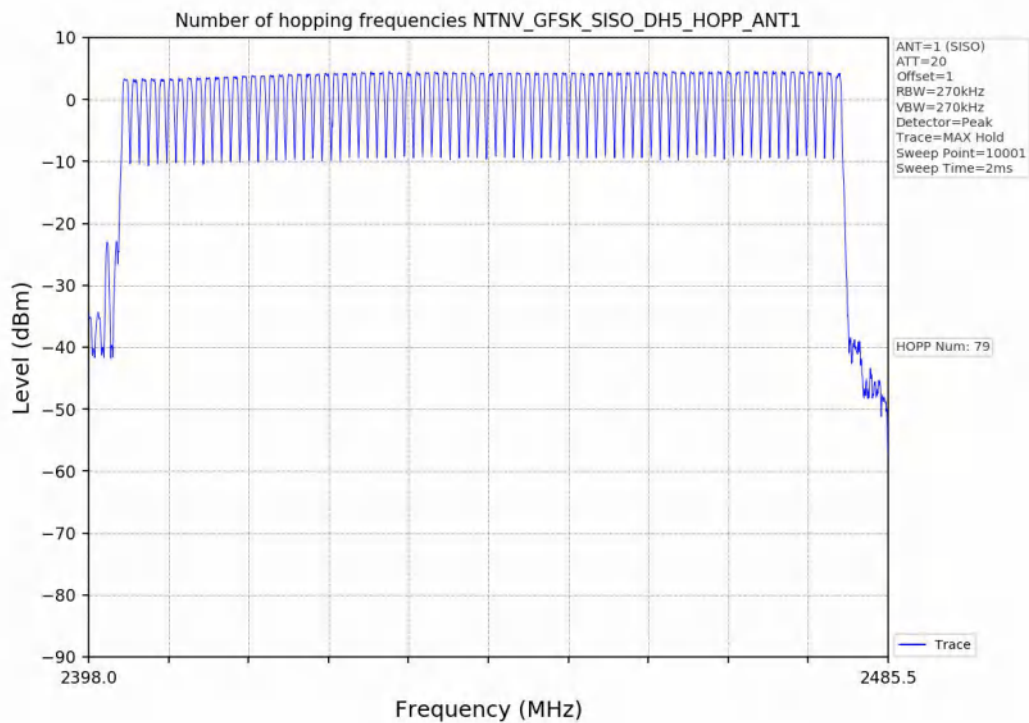


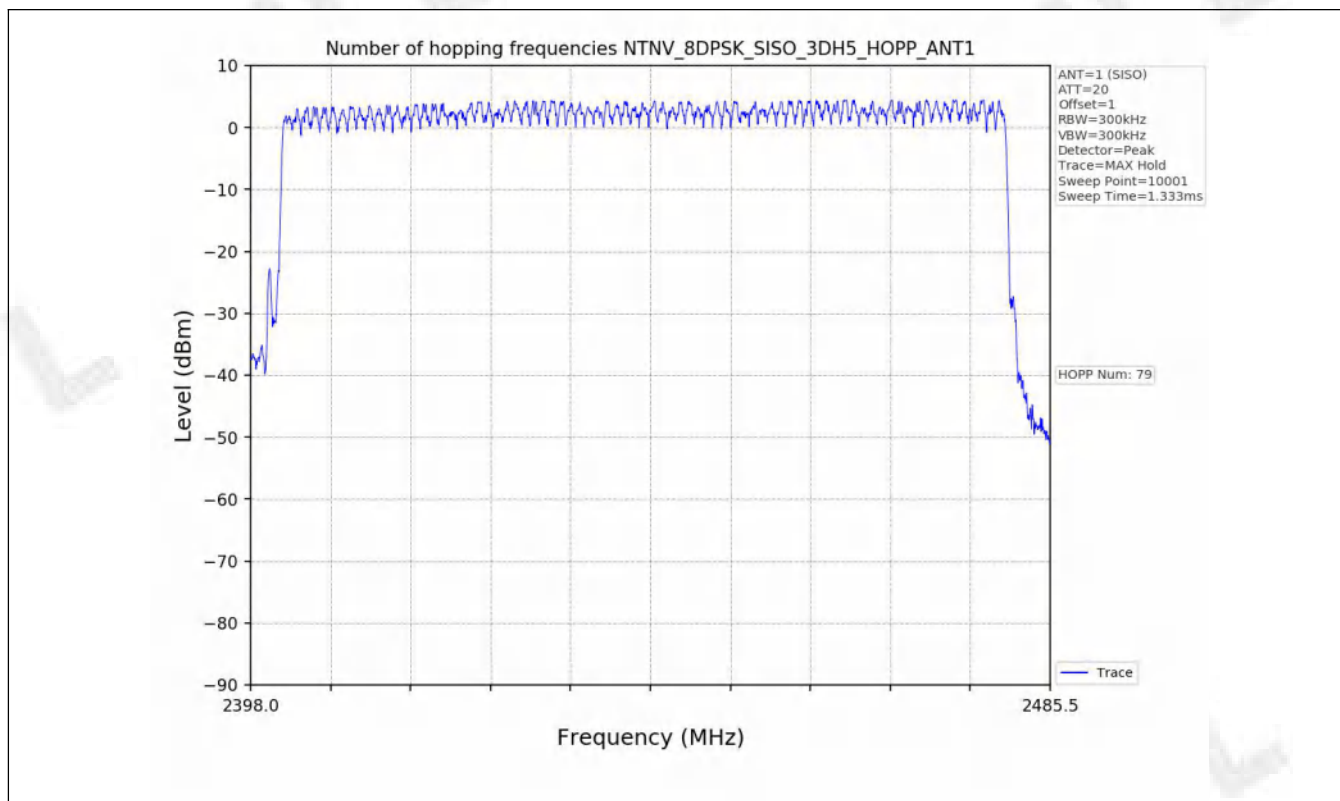
## 4. Number of hopping frequencies

### 4.1 Test Result

| Test Mode | TX Type | ANT No. | Num of Hopping Frequencies | Limits    | Verdict |
|-----------|---------|---------|----------------------------|-----------|---------|
| GFSK      | SISO    | 1       | 79                         | $\geq 15$ | PASS    |
| Pi/4DQPSK | SISO    | 1       | 79                         | $\geq 15$ | PASS    |
| 8DPSK     | SISO    | 1       | 79                         | $\geq 15$ | PASS    |

### 4.2 Test Graph



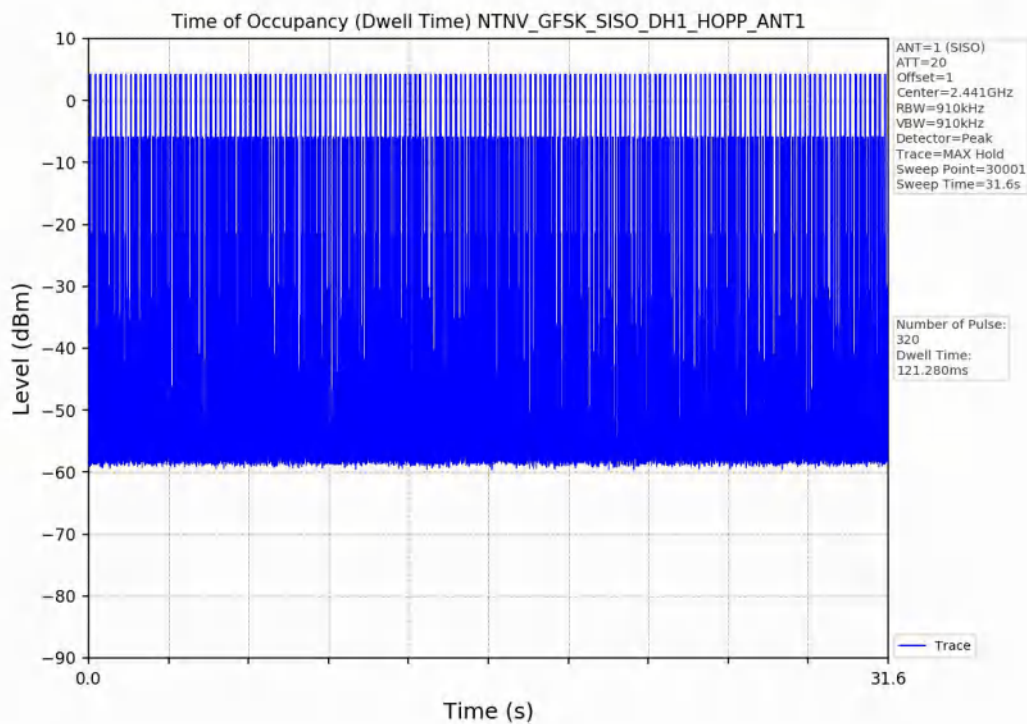
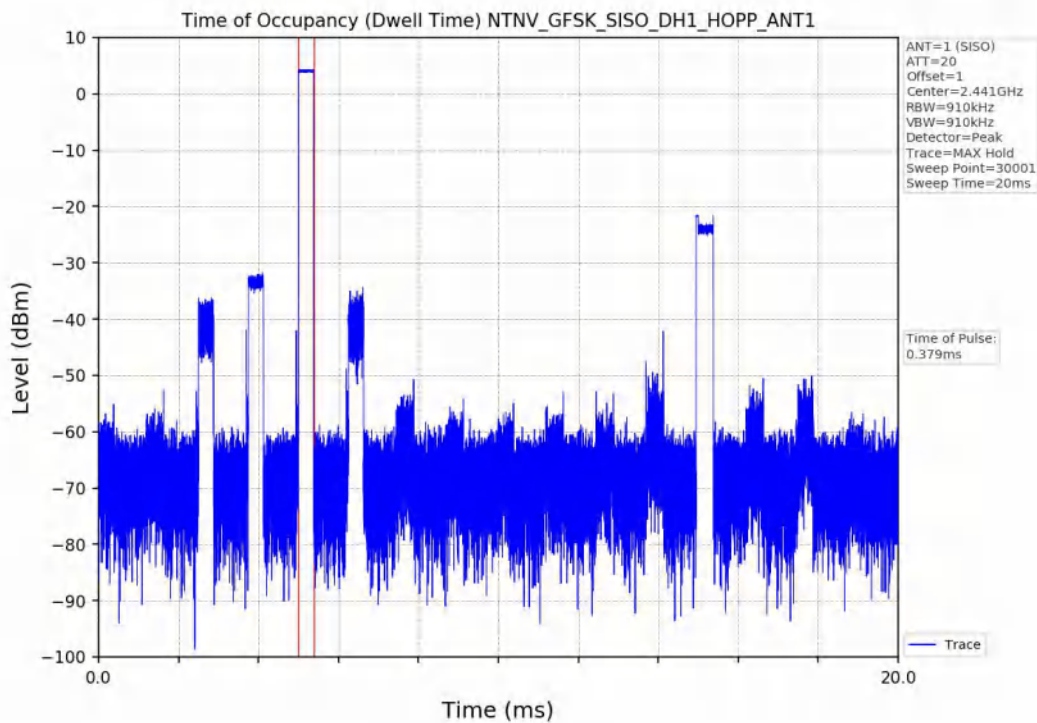


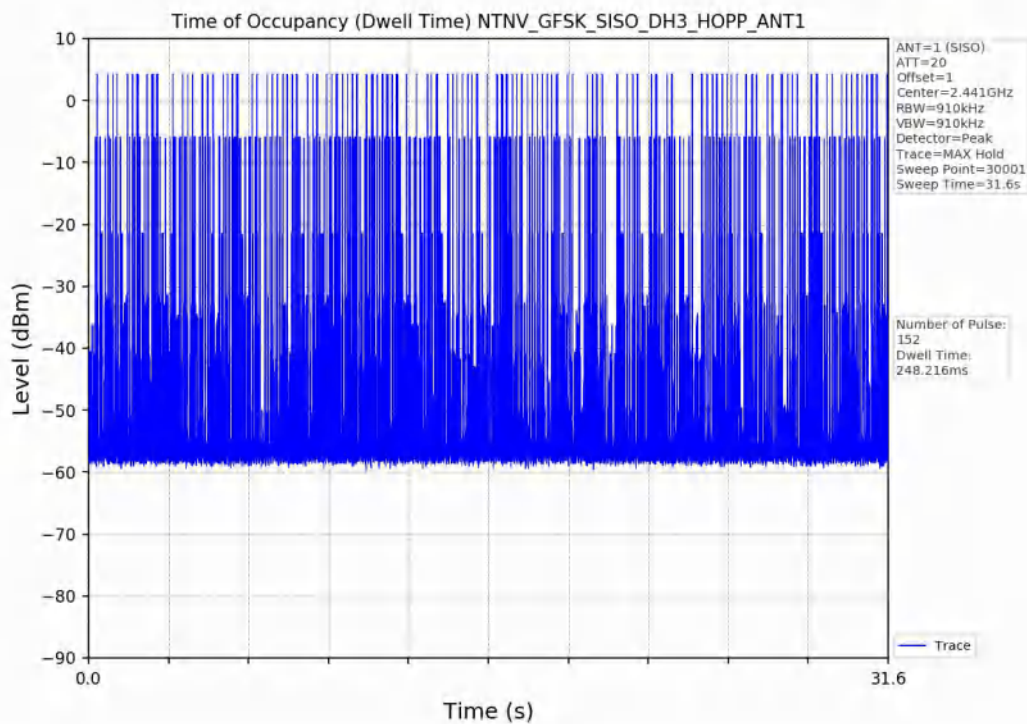
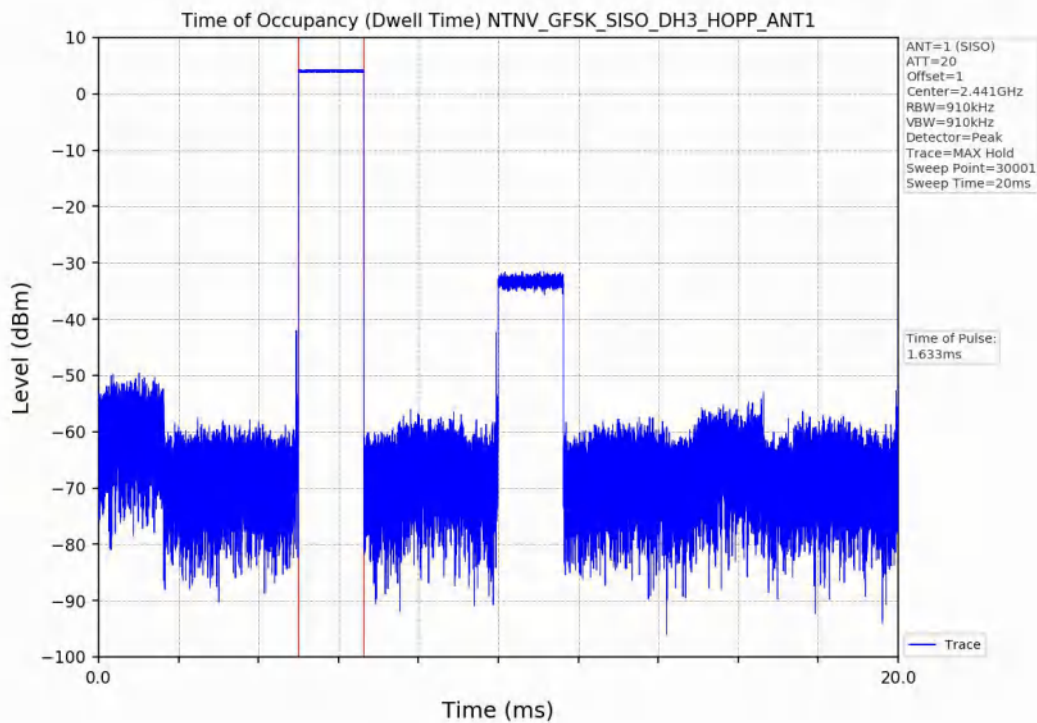
## 5. Time of Occupancy (Dwell Time)

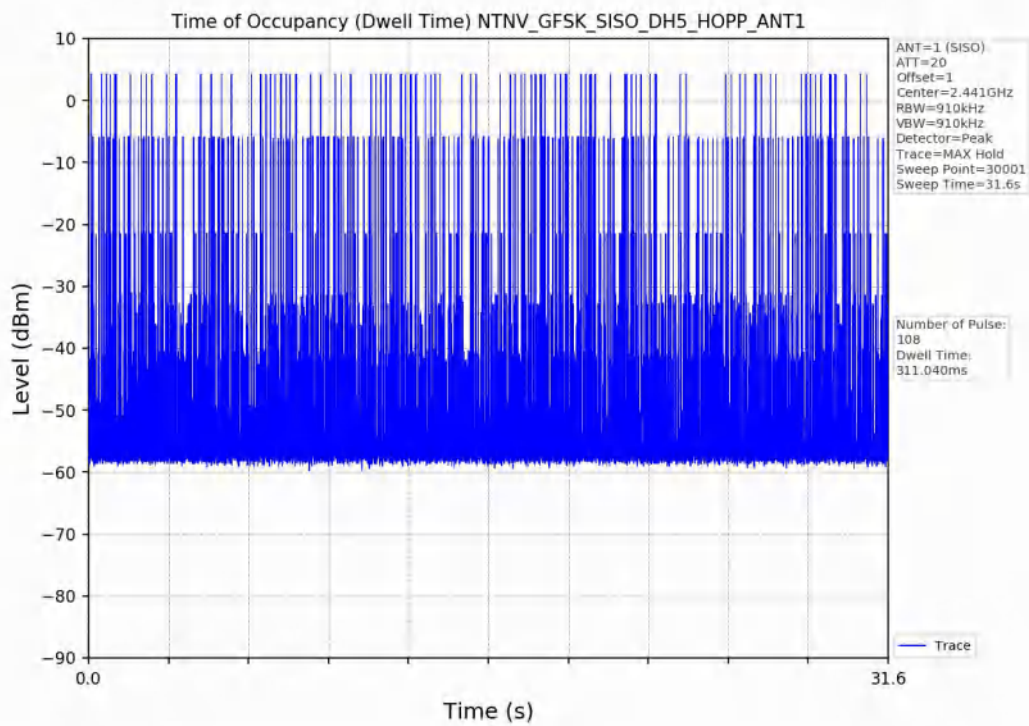
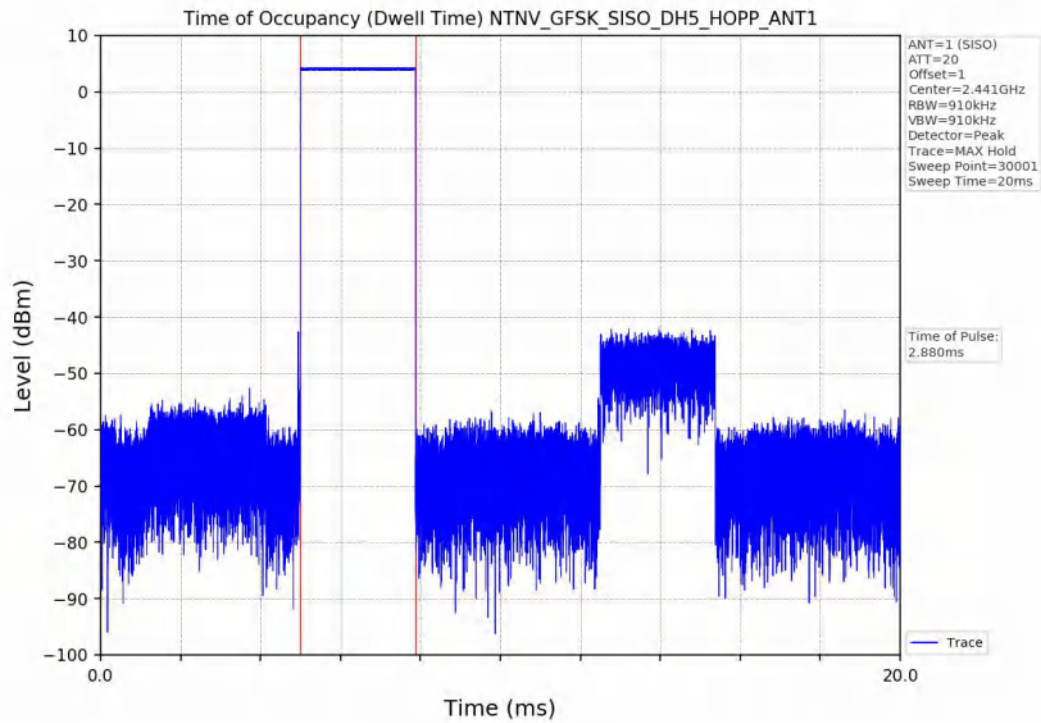
### 5.1 Test Result

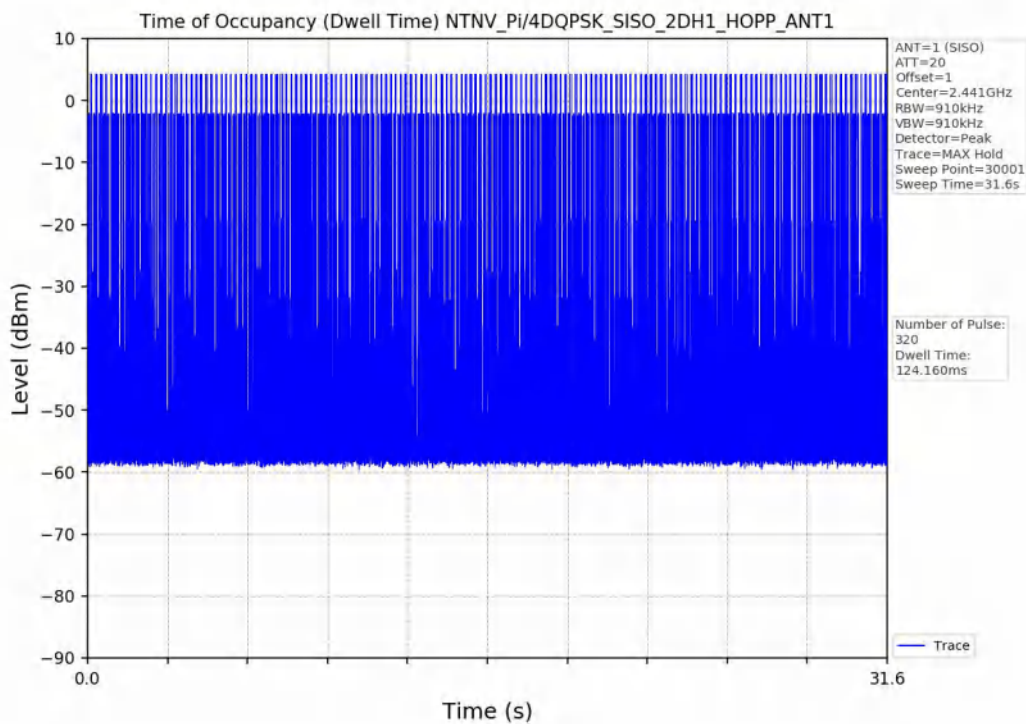
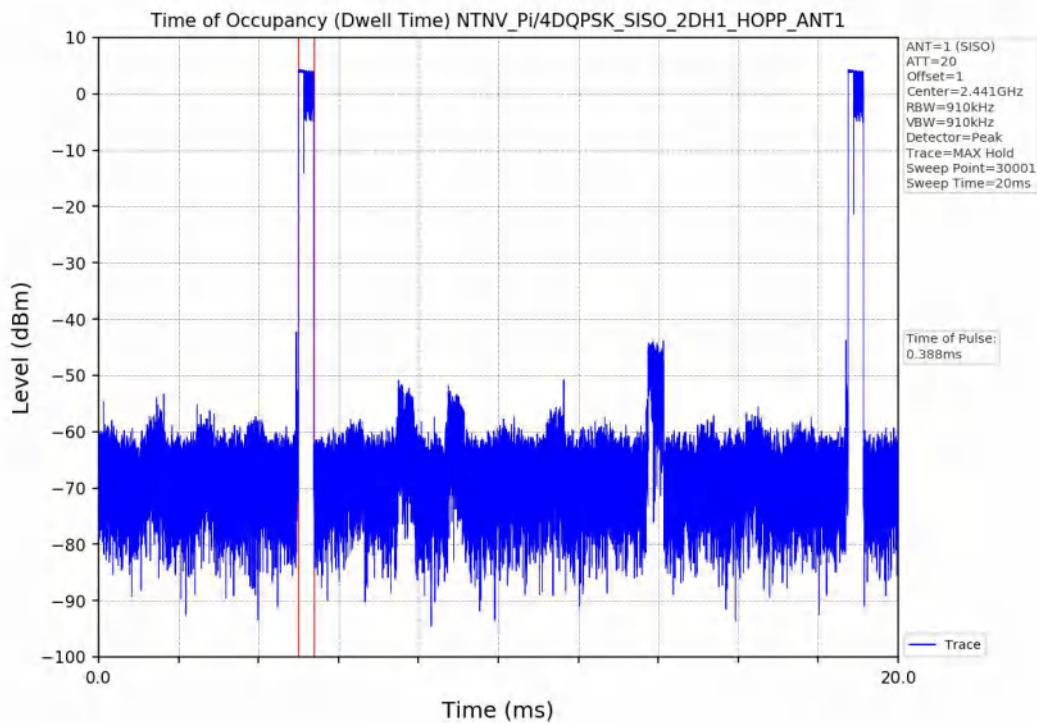
| Test Mode | Packet Type | TX Type | ANT No. | Duration of Single Pulse (ms) | Observation Period (s) | Num of Pulse in Observation Period | Dwell Time (ms) | Limits (ms) | Verdict |
|-----------|-------------|---------|---------|-------------------------------|------------------------|------------------------------------|-----------------|-------------|---------|
| GFSK      | DH1         | SISO    | 1       | 0.379                         | 31.6                   | 320                                | 121.280         | ≤400        | PASS    |
|           | DH3         | SISO    | 1       | 1.633                         | 31.6                   | 152                                | 248.216         | ≤400        | PASS    |
|           | DH5         | SISO    | 1       | 2.880                         | 31.6                   | 108                                | 311.040         | ≤400        | PASS    |
| Pi/4DQPSK | 2DH1        | SISO    | 1       | 0.388                         | 31.6                   | 320                                | 124.160         | ≤400        | PASS    |
|           | 2DH3        | SISO    | 1       | 1.640                         | 31.6                   | 164                                | 268.960         | ≤400        | PASS    |
|           | 2DH5        | SISO    | 1       | 2.889                         | 31.6                   | 108                                | 312.012         | ≤400        | PASS    |
| 8DPSK     | 3DH1        | SISO    | 1       | 0.389                         | 31.6                   | 320                                | 124.480         | ≤400        | PASS    |
|           | 3DH3        | SISO    | 1       | 1.639                         | 31.6                   | 155                                | 254.045         | ≤400        | PASS    |
|           | 3DH5        | SISO    | 1       | 2.888                         | 31.6                   | 101                                | 291.688         | ≤400        | PASS    |

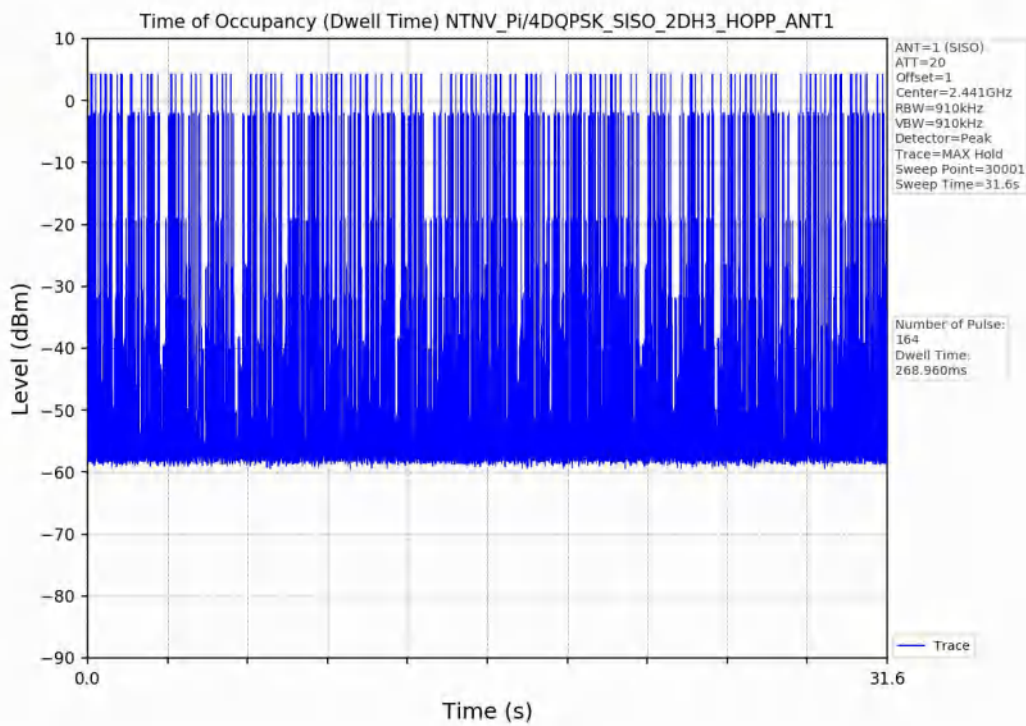
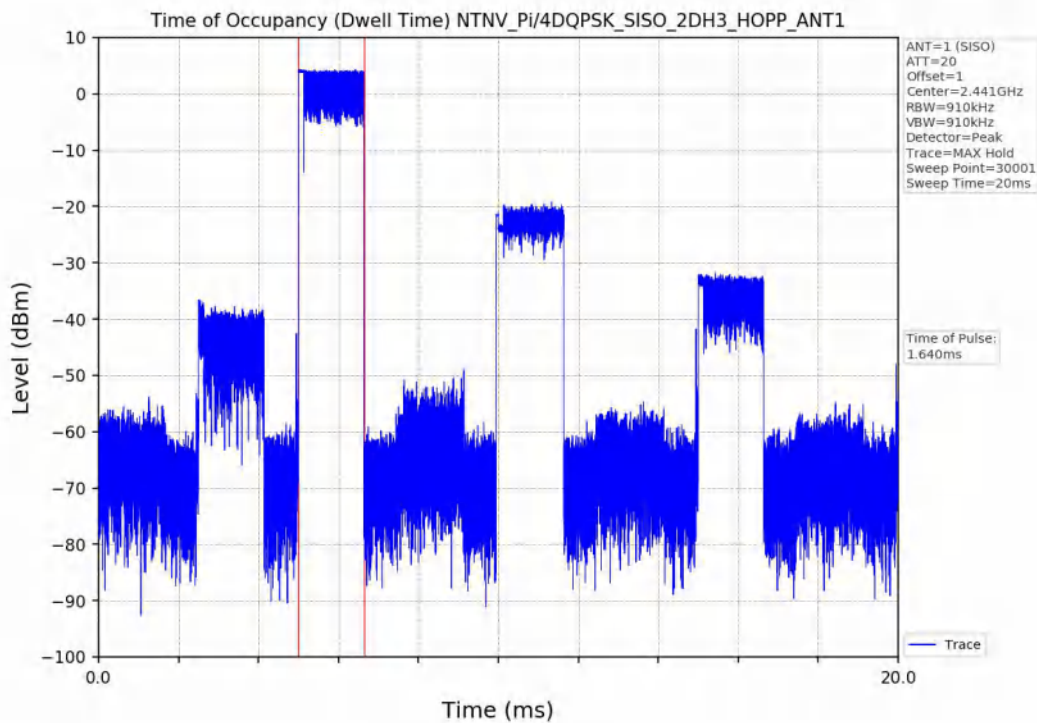
### 5.2 Test Graph

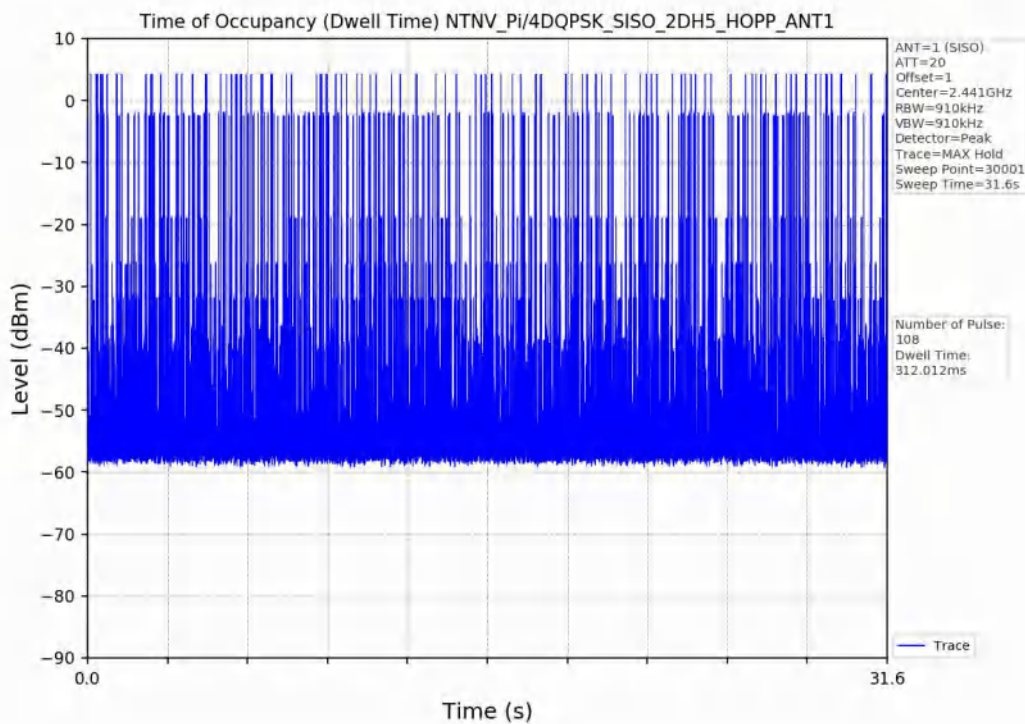
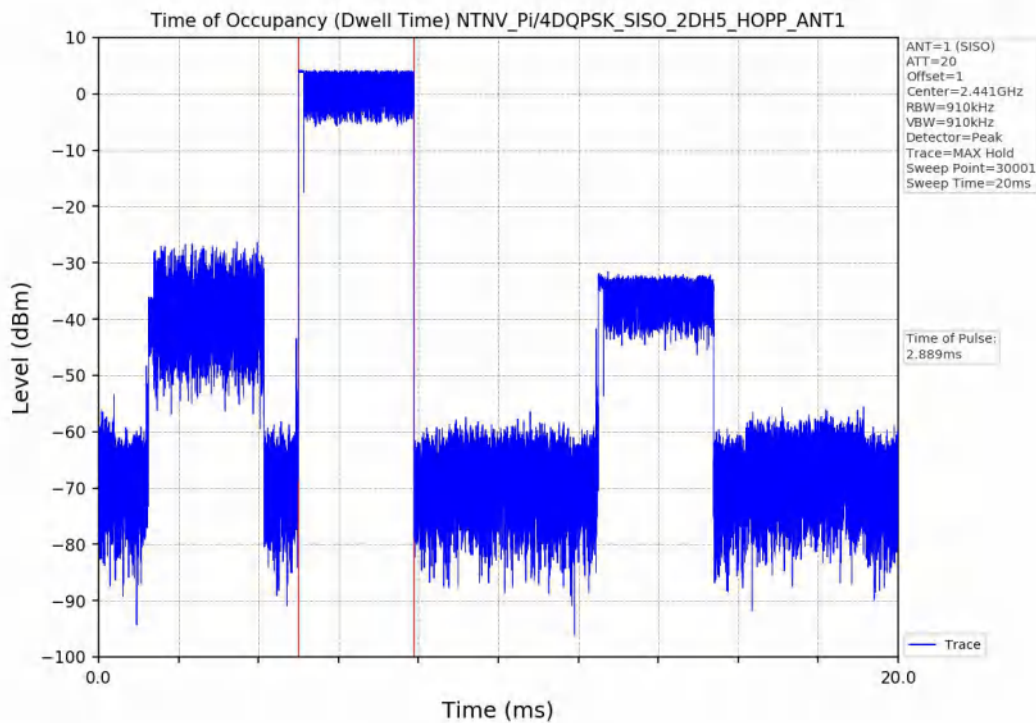


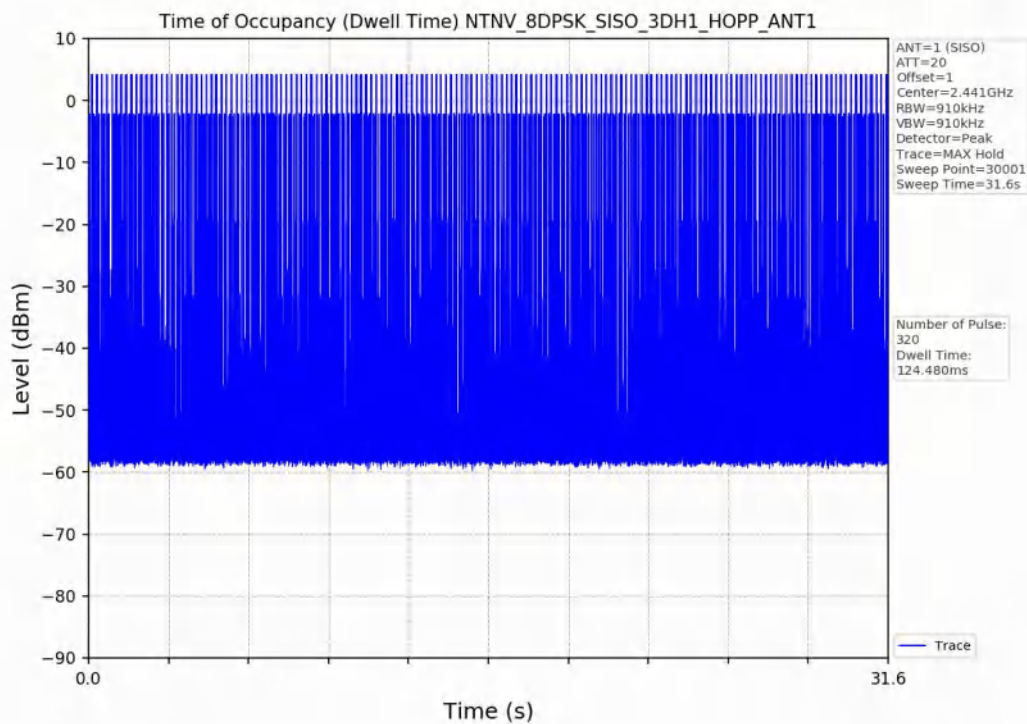
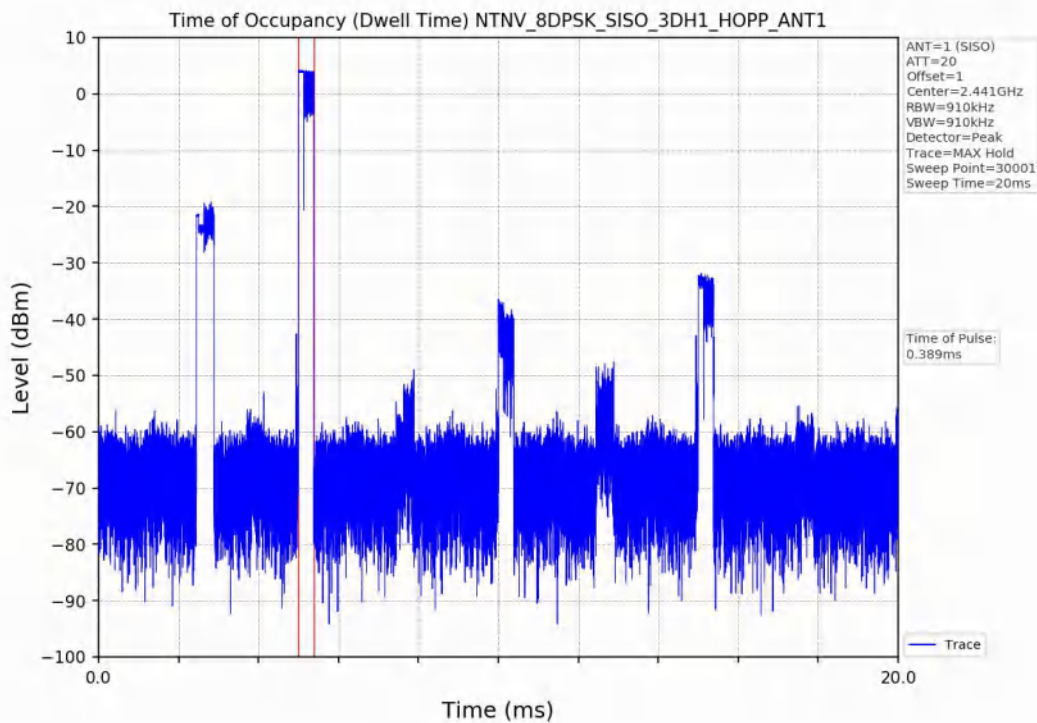


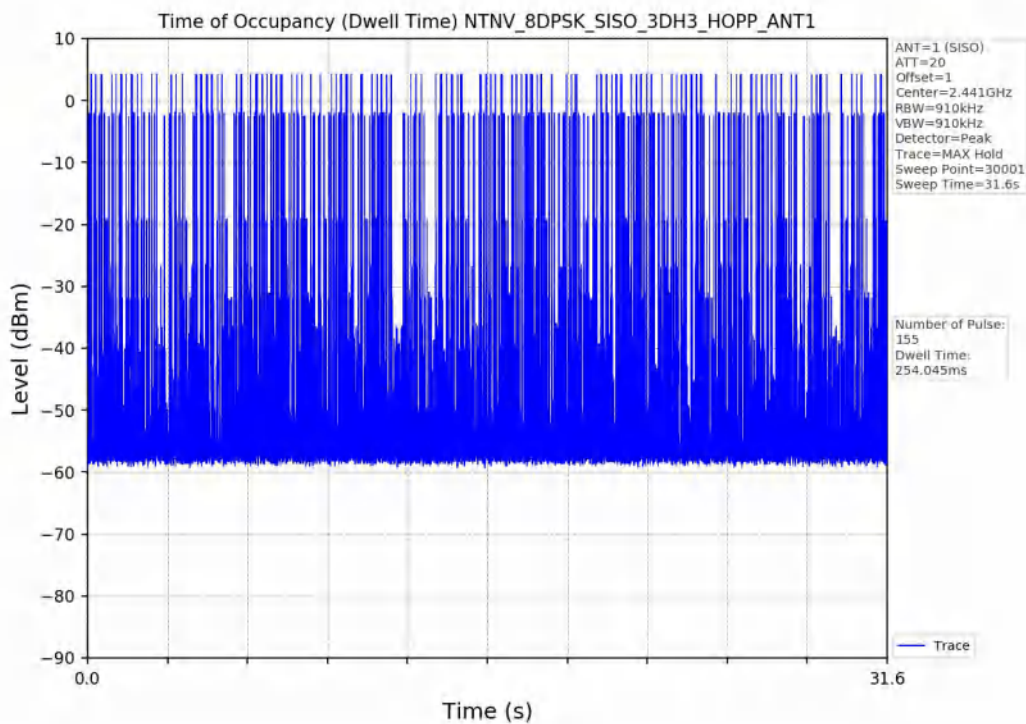
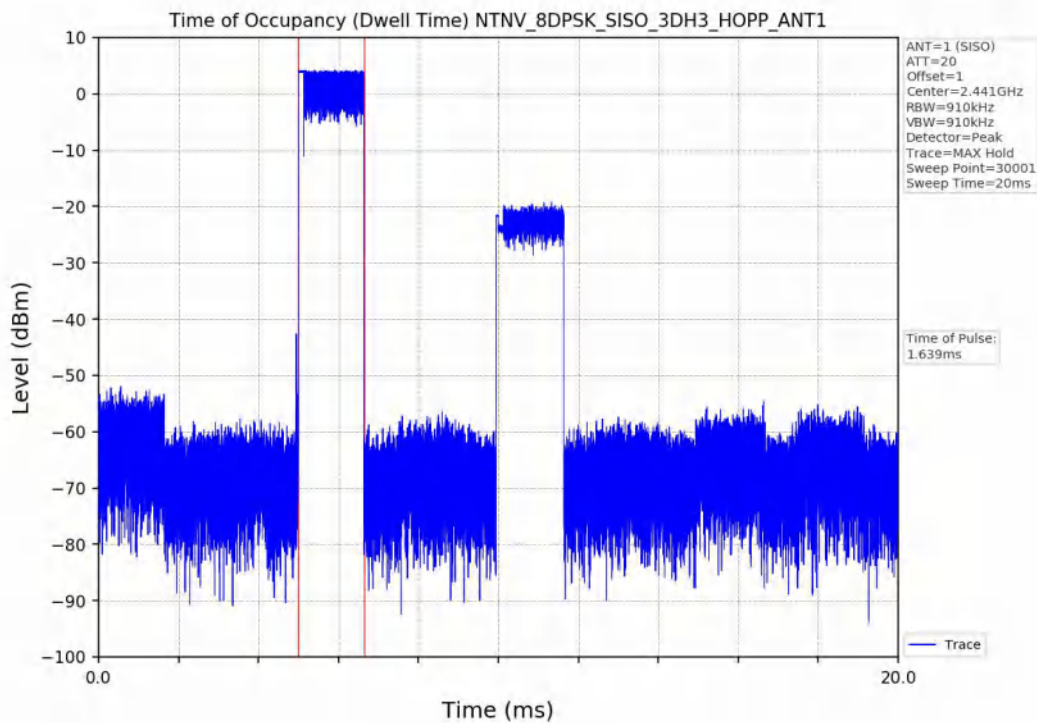


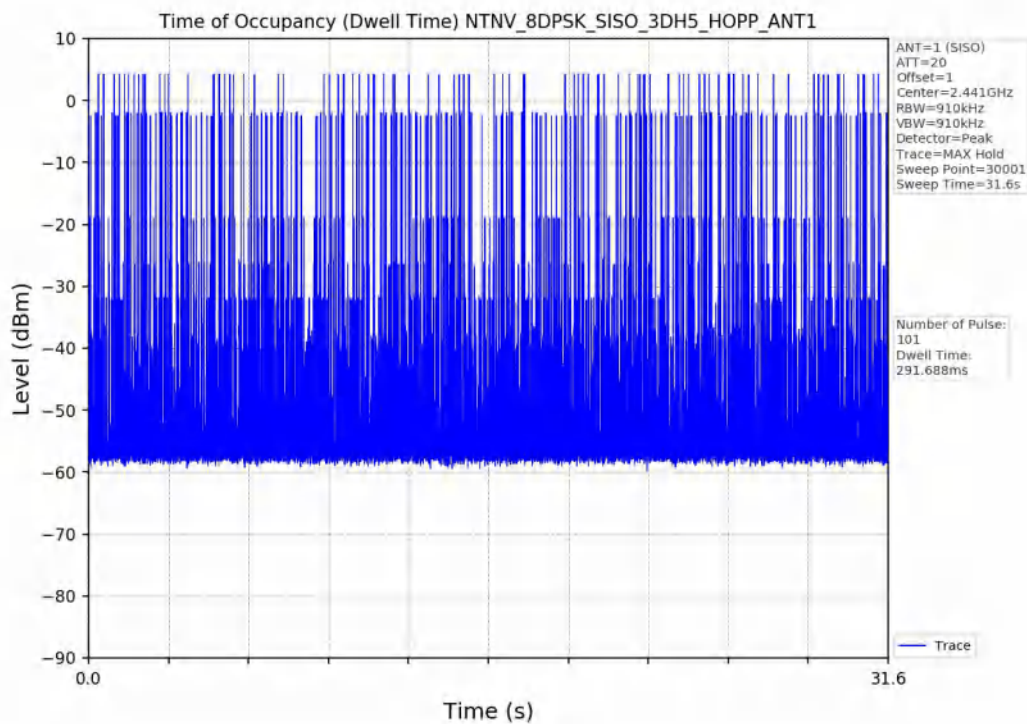
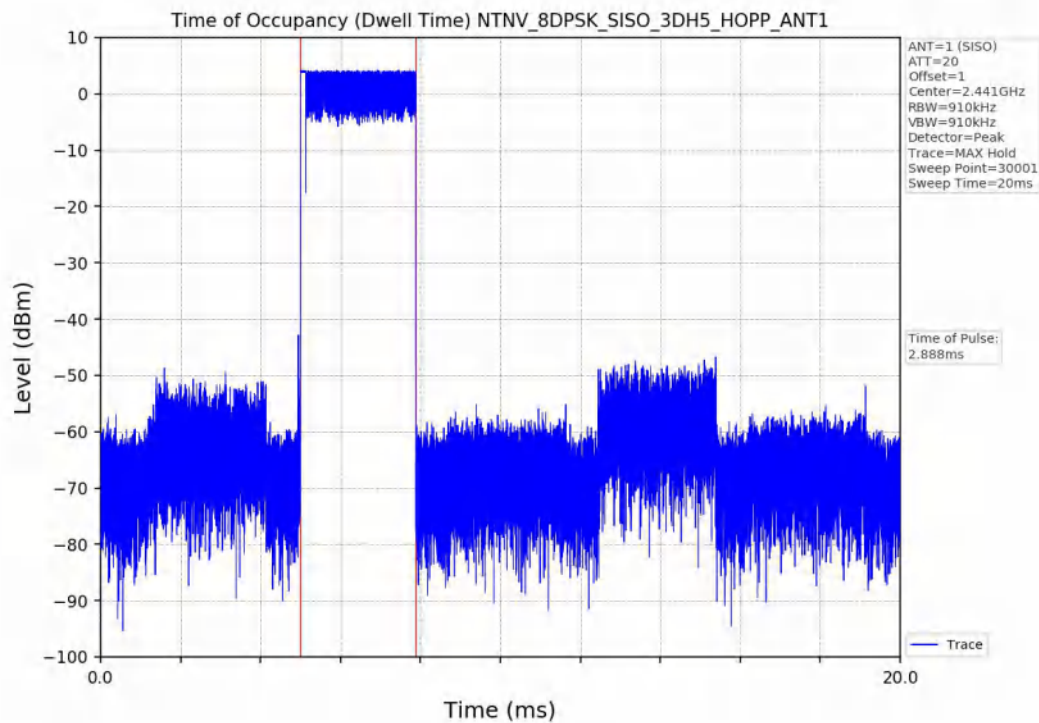












## 6. Unwanted Emissions in Non-restricted Frequency Bands

### 6.1 Test Result

| Test Mode | Frequency (MHz) | TX Type | ANT No. | Spurious Conducted Emission (dBm) | Limits (dBm) | Verdict |
|-----------|-----------------|---------|---------|-----------------------------------|--------------|---------|
| GFSK      | 2402            | SISO    | 1       | Refer to test graph               | -15.92       | PASS    |
|           | 2441            | SISO    | 1       | Refer to test graph               | -15.92       | PASS    |
|           | 2480            | SISO    | 1       | Refer to test graph               | -15.92       | PASS    |
|           | Hopping         | SISO    | 1       | Refer to test graph               | -15.92       | PASS    |
| Pi/4DQPSK | 2402            | SISO    | 1       | Refer to test graph               | -15.72       | PASS    |
|           | 2441            | SISO    | 1       | Refer to test graph               | -15.72       | PASS    |
|           | 2480            | SISO    | 1       | Refer to test graph               | -15.72       | PASS    |
|           | Hopping         | SISO    | 1       | Refer to test graph               | -15.72       | PASS    |
| 8DPSK     | 2402            | SISO    | 1       | Refer to test graph               | -15.78       | PASS    |
|           | 2441            | SISO    | 1       | Refer to test graph               | -15.78       | PASS    |
|           | 2480            | SISO    | 1       | Refer to test graph               | -15.78       | PASS    |
|           | Hopping         | SISO    | 1       | Refer to test graph               | -15.78       | PASS    |

### 6.2 Test Graph

