

## 1. Bandwidth

### 1.1 OBW

#### 1.1.1 Test Result

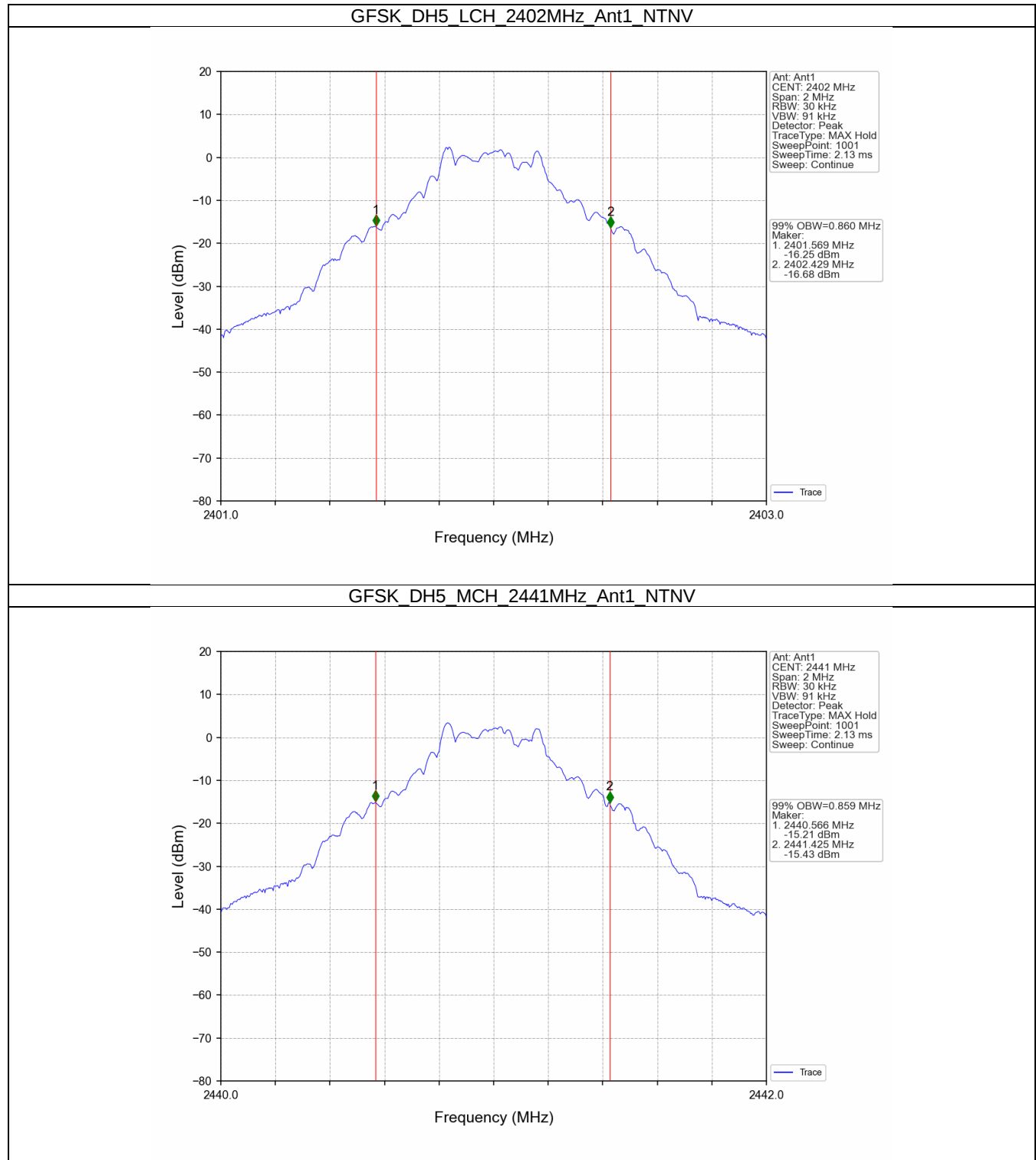
| Mode      | TX Type | Frequency (MHz) | Packet Type | ANT | 99% Occupied Bandwidth (MHz) |       | Verdict |
|-----------|---------|-----------------|-------------|-----|------------------------------|-------|---------|
|           |         |                 |             |     | Result                       | Limit |         |
| GFSK      | SISO    | 2402            | DH5         | 1   | 0.860                        | /     | Pass    |
|           |         | 2441            | DH5         | 1   | 0.859                        | /     | Pass    |
|           |         | 2480            | DH5         | 1   | 0.860                        | /     | Pass    |
| Pi/4DQPSK | SISO    | 2402            | 2DH5        | 1   | 1.177                        | /     | Pass    |
|           |         | 2441            | 2DH5        | 1   | 1.174                        | /     | Pass    |
|           |         | 2480            | 2DH5        | 1   | 1.175                        | /     | Pass    |
| 8DPSK     | SISO    | 2402            | 3DH5        | 1   | 1.178                        | /     | Pass    |
|           |         | 2441            | 3DH5        | 1   | 1.179                        | /     | Pass    |
|           |         | 2480            | 3DH5        | 1   | 1.180                        | /     | Pass    |

### 1.2 20dB BW

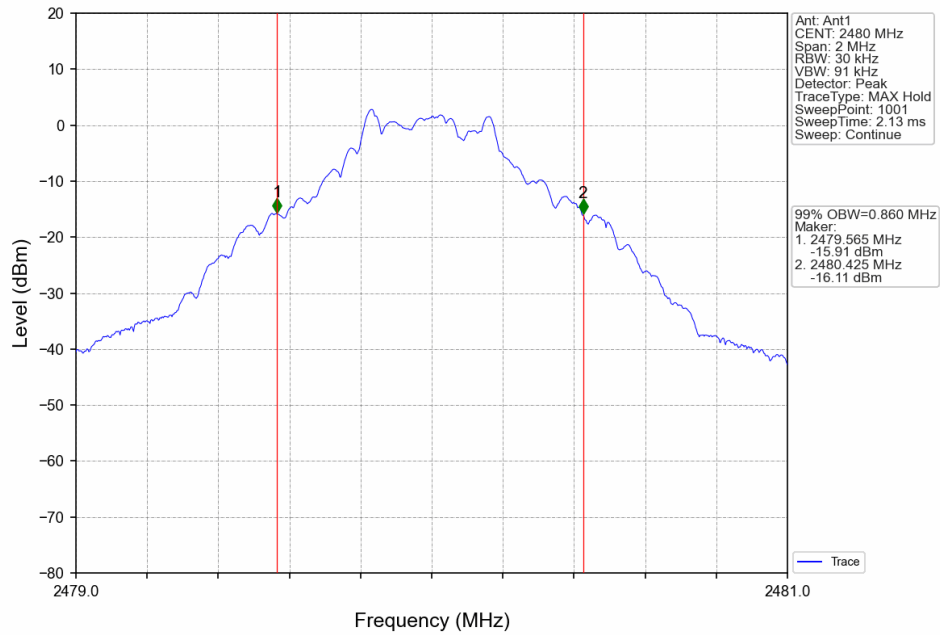
#### 1.2.1 Test Result

| Mode      | TX Type | Frequency (MHz) | Packet Type | ANT | 20dB Bandwidth (MHz) |       | Verdict |
|-----------|---------|-----------------|-------------|-----|----------------------|-------|---------|
|           |         |                 |             |     | Result               | Limit |         |
| GFSK      | SISO    | 2402            | DH5         | 1   | 0.958                | /     | Pass    |
|           |         | 2441            | DH5         | 1   | 0.957                | /     | Pass    |
|           |         | 2480            | DH5         | 1   | 0.957                | /     | Pass    |
| Pi/4DQPSK | SISO    | 2402            | 2DH5        | 1   | 1.295                | /     | Pass    |
|           |         | 2441            | 2DH5        | 1   | 1.295                | /     | Pass    |
|           |         | 2480            | 2DH5        | 1   | 1.298                | /     | Pass    |
| 8DPSK     | SISO    | 2402            | 3DH5        | 1   | 1.311                | /     | Pass    |
|           |         | 2441            | 3DH5        | 1   | 1.313                | /     | Pass    |
|           |         | 2480            | 3DH5        | 1   | 1.312                | /     | Pass    |

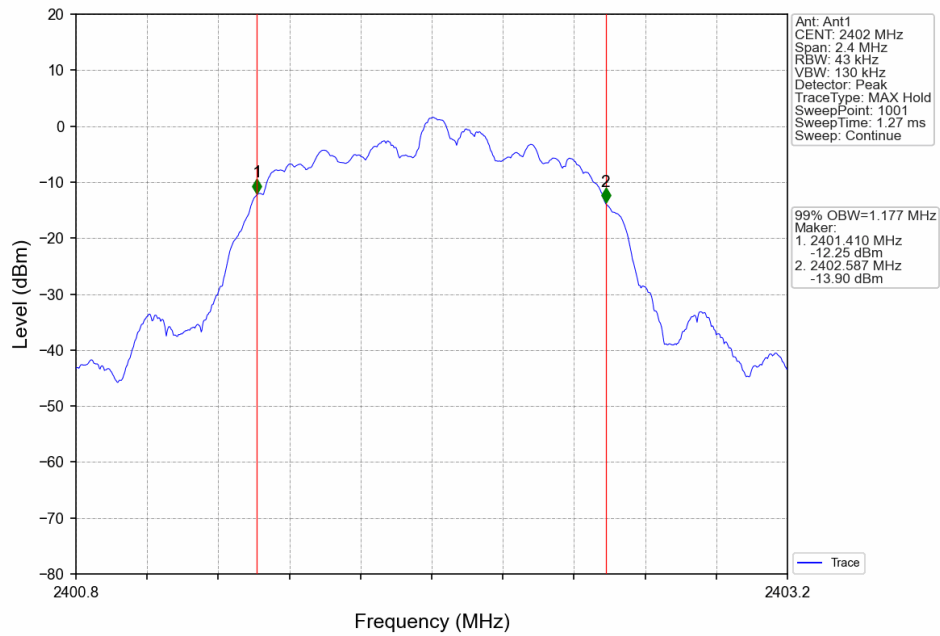
### 1.1.2 Test Graph



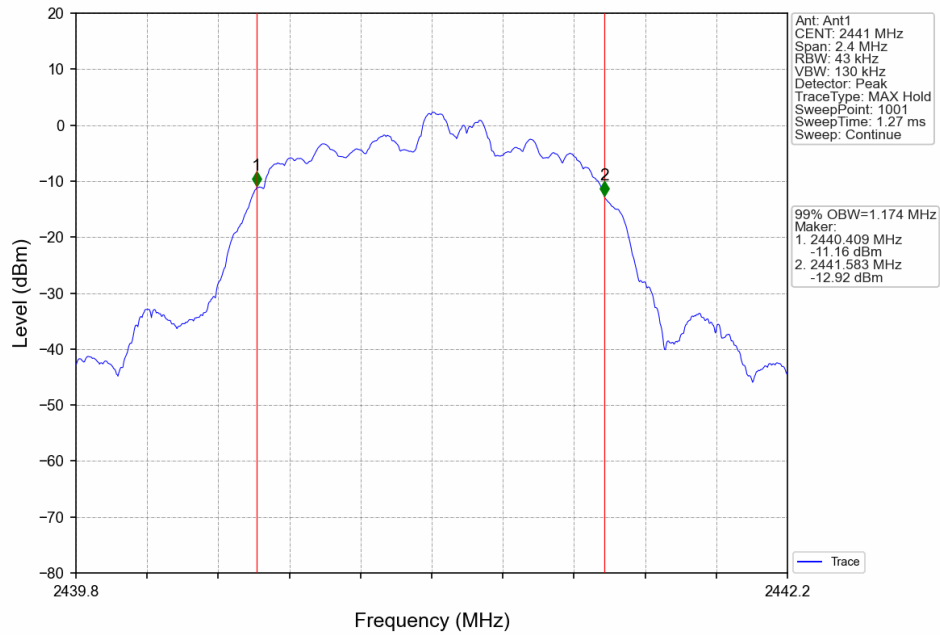
## GFSK\_DH5\_HCH\_2480MHz\_Ant1\_NTNV



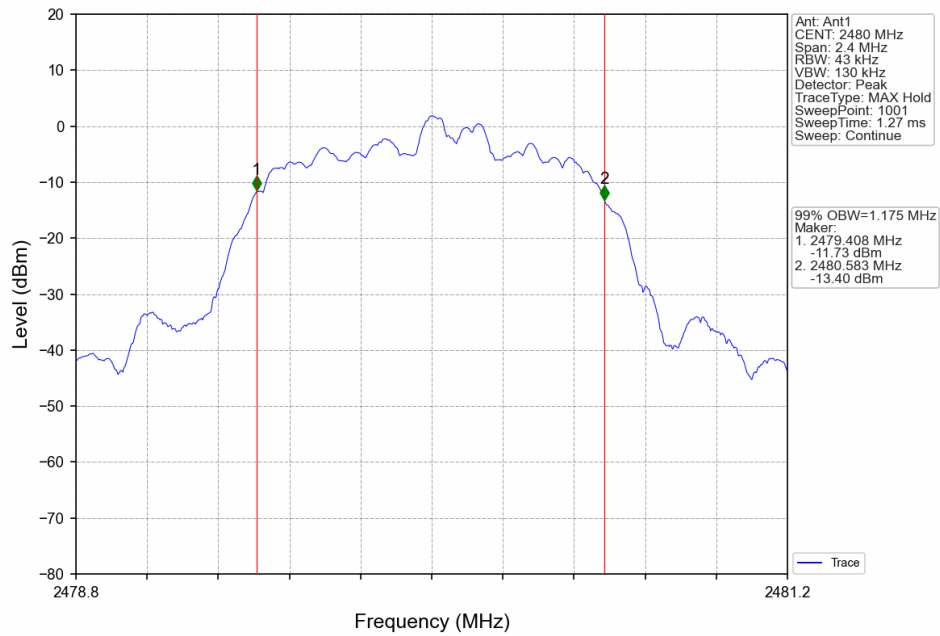
## Pi/4DQPSK\_2DH5\_LCH\_2402MHz\_Ant1\_NTNV



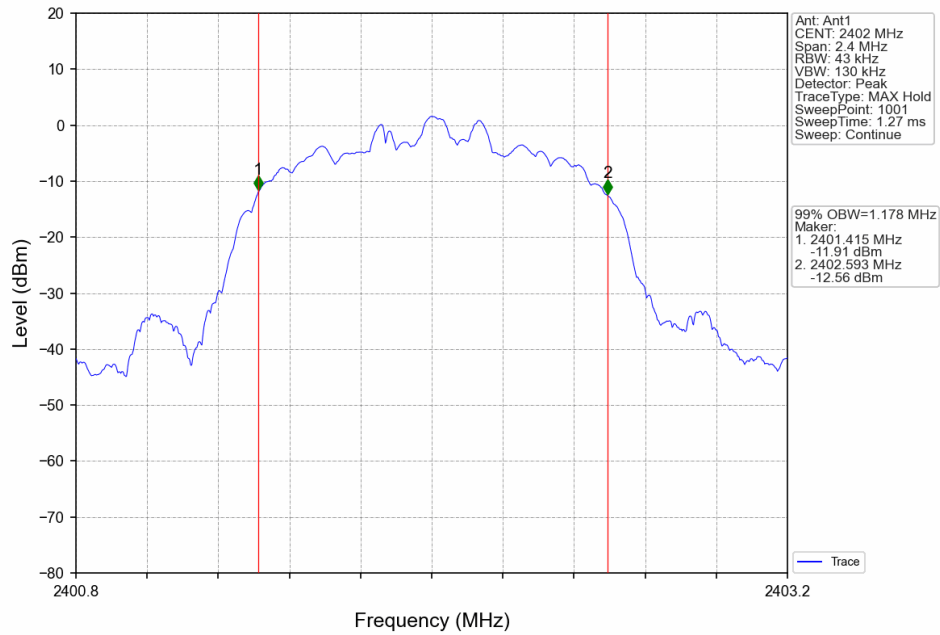
Pi/4DQPSK\_2DH5\_MCH\_2441MHz\_Ant1\_NTNV



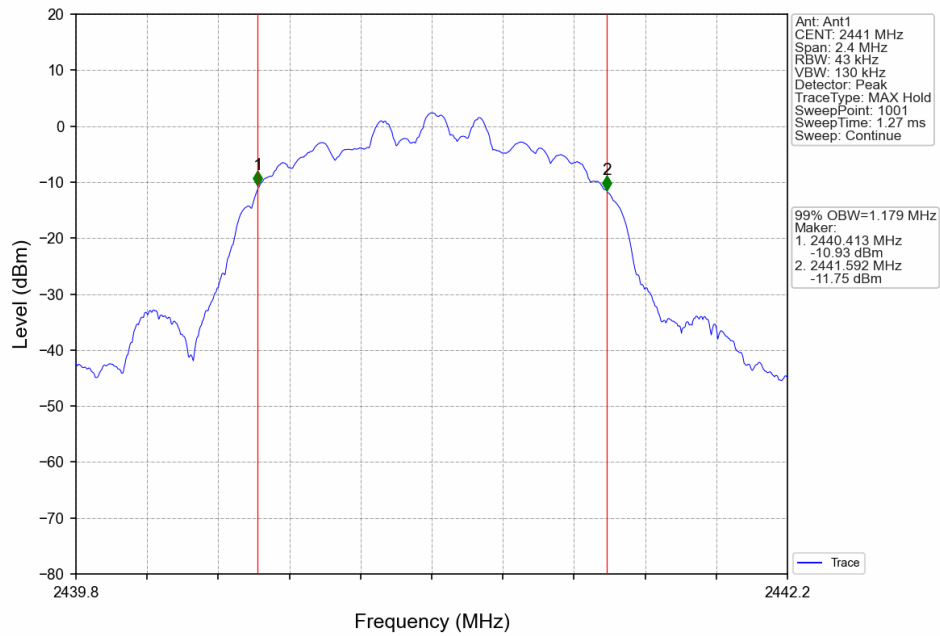
Pi/4DQPSK\_2DH5\_HCH\_2480MHz\_Ant1\_NTNV

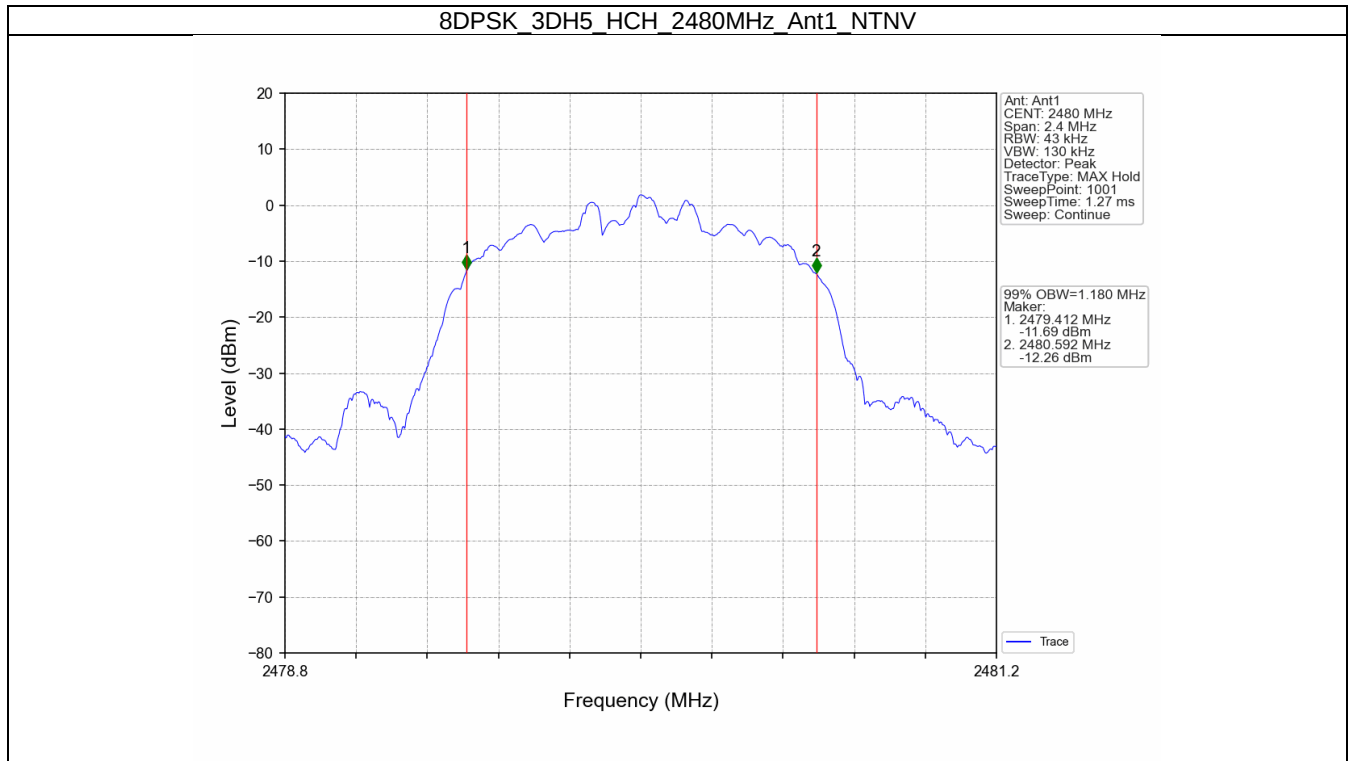


## 8DPSK\_3DH5\_LCH\_2402MHz\_Ant1\_NTNV

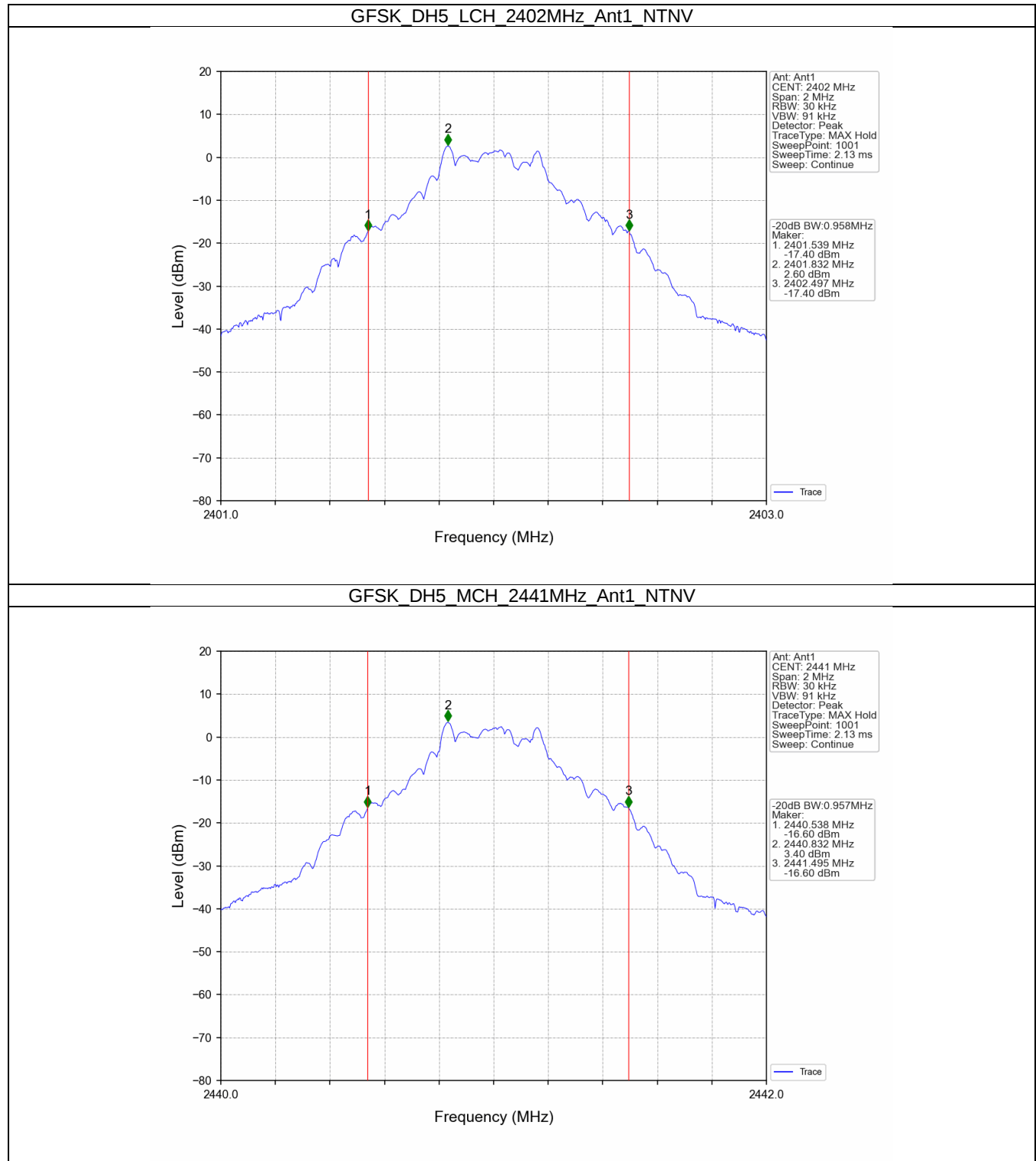


## 8DPSK\_3DH5\_MCH\_2441MHz\_Ant1\_NTNV

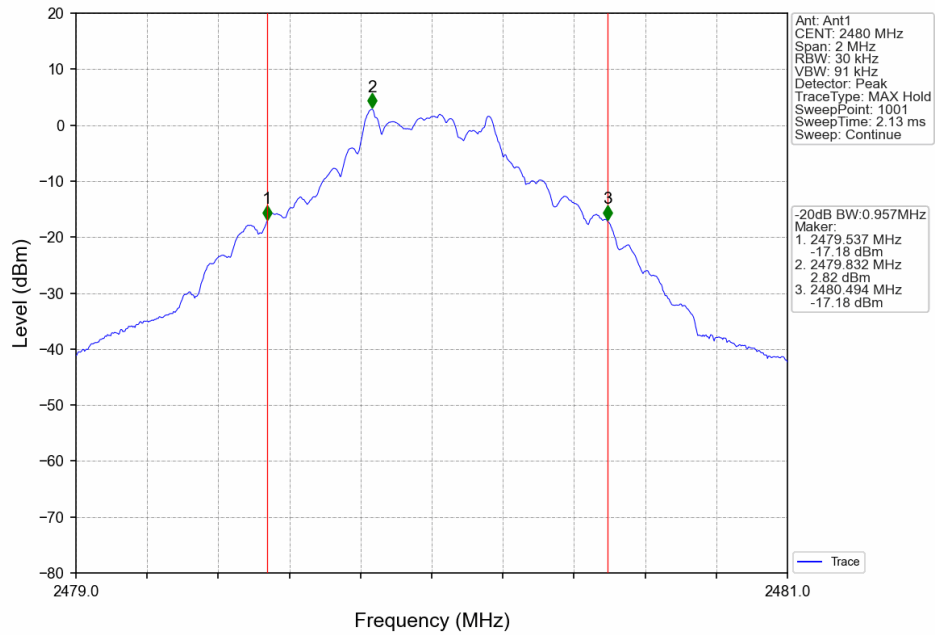




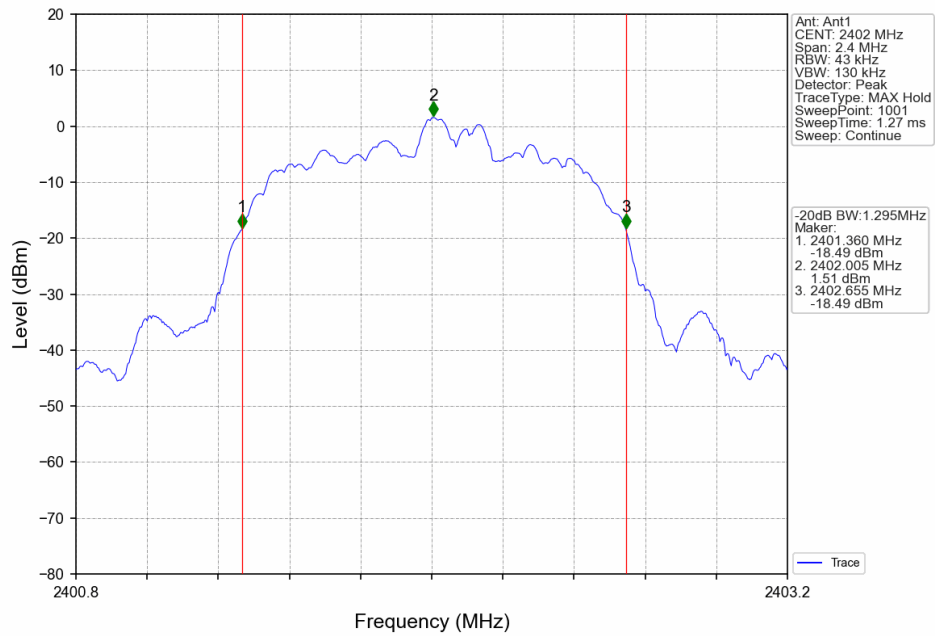
## 1.2.2 Test Graph



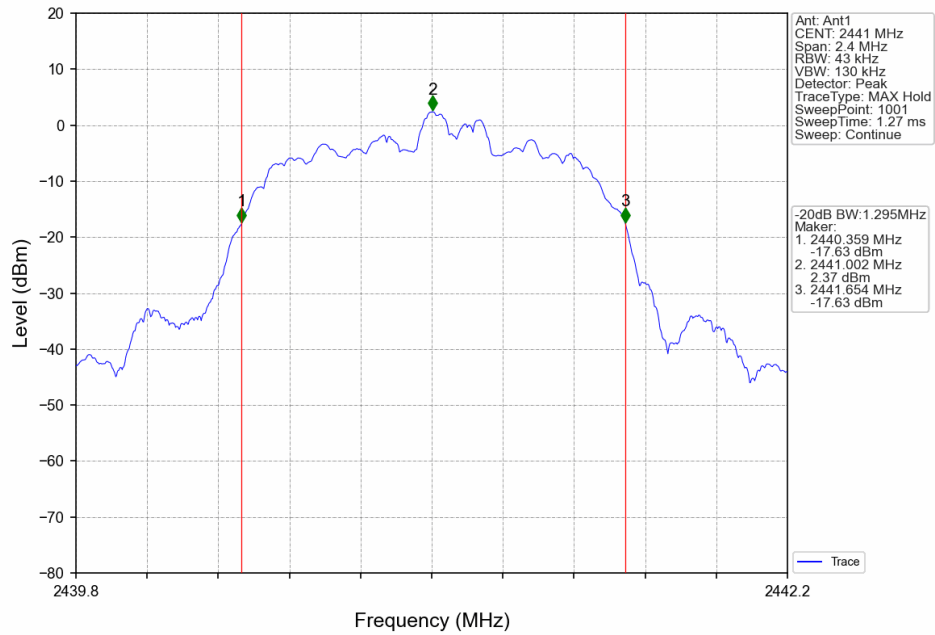
GFSK\_DH5\_HCH\_2480MHz\_Ant1\_NTNV



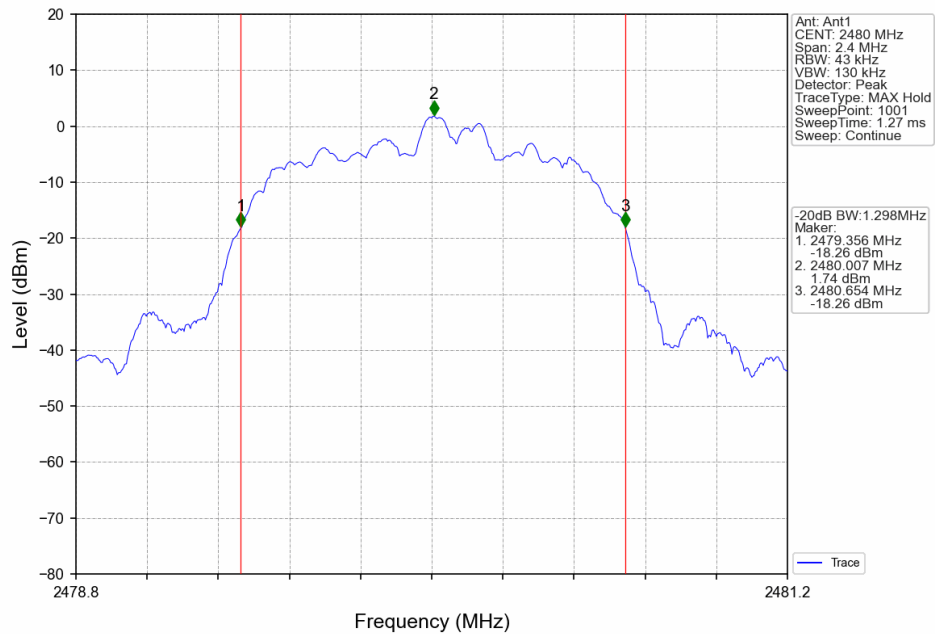
Pi/4DQPSK\_2DH5\_LCH\_2402MHz\_Ant1\_NTNV



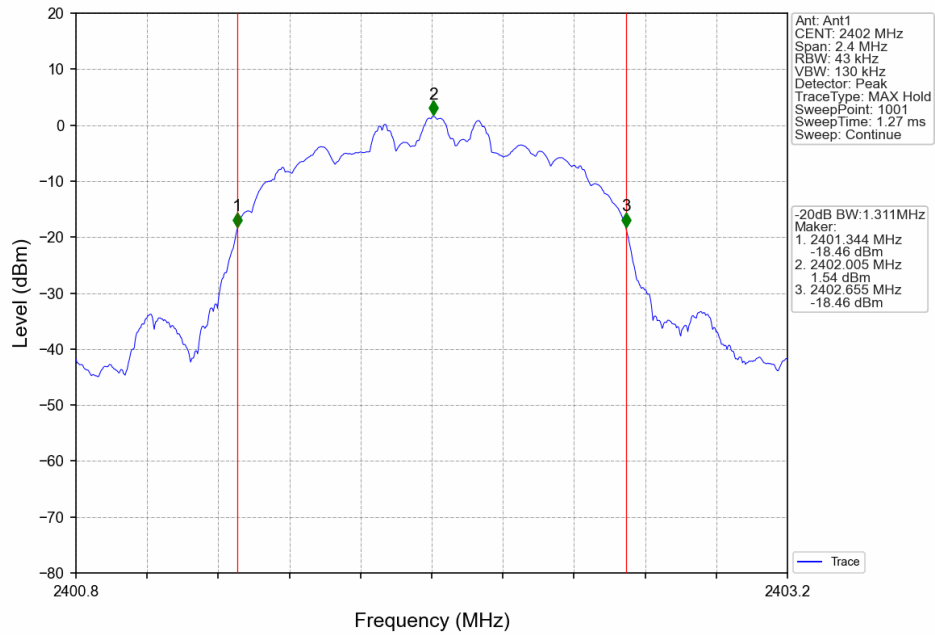
Pi/4DQPSK\_2DH5\_MCH\_2441MHz\_Ant1\_NTNV



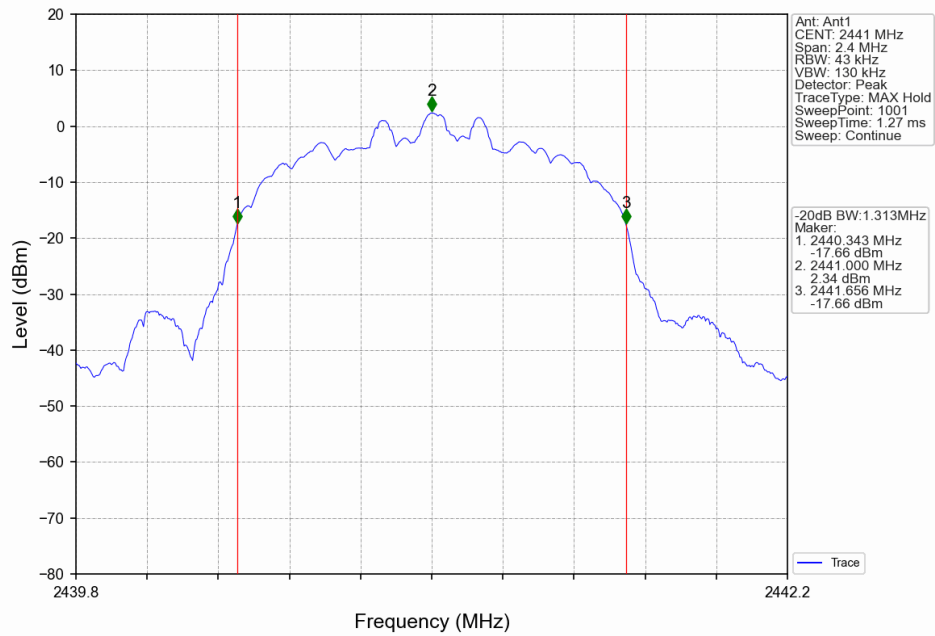
Pi/4DQPSK\_2DH5\_HCH\_2480MHz\_Ant1\_NTNV

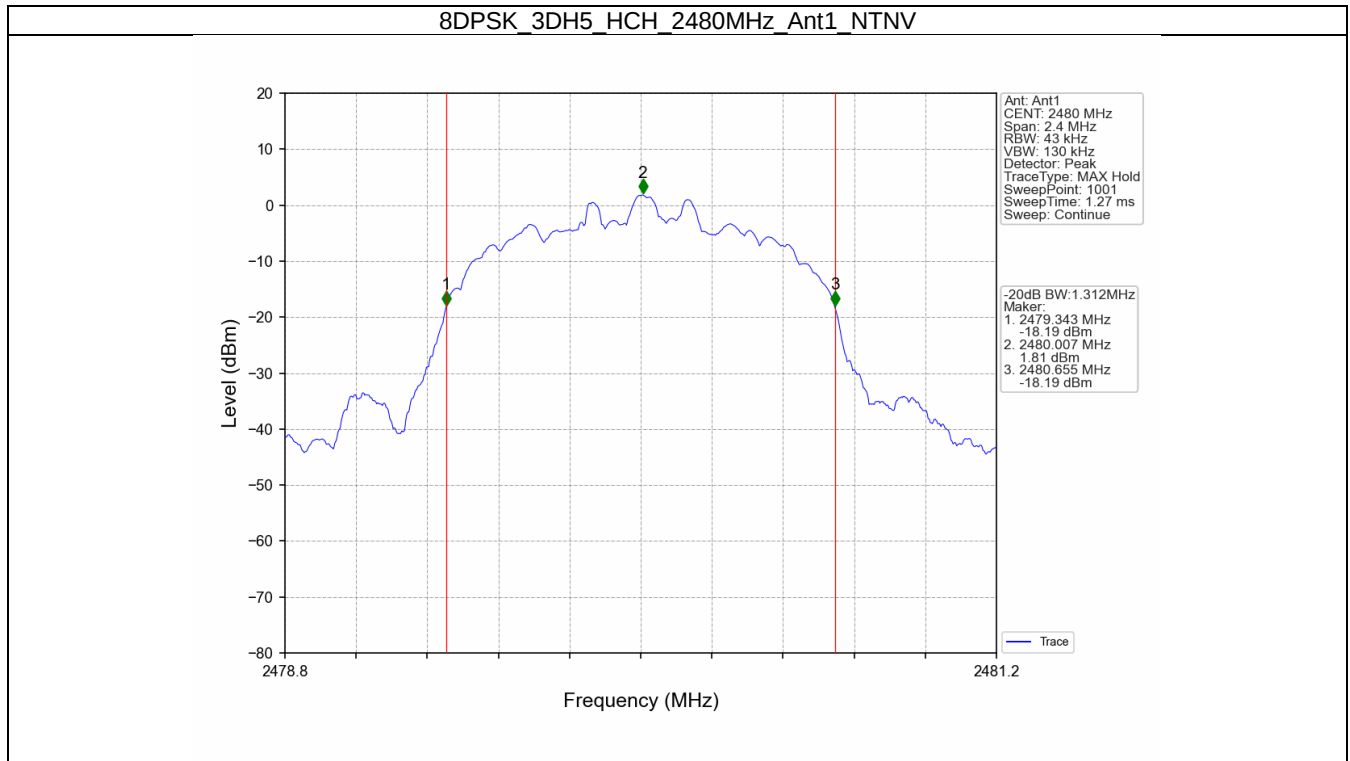


## 8DPSK\_3DH5\_LCH\_2402MHz\_Ant1\_NTNV



## 8DPSK\_3DH5\_MCH\_2441MHz\_Ant1\_NTNV





## 2. Maximum Conducted Output Power

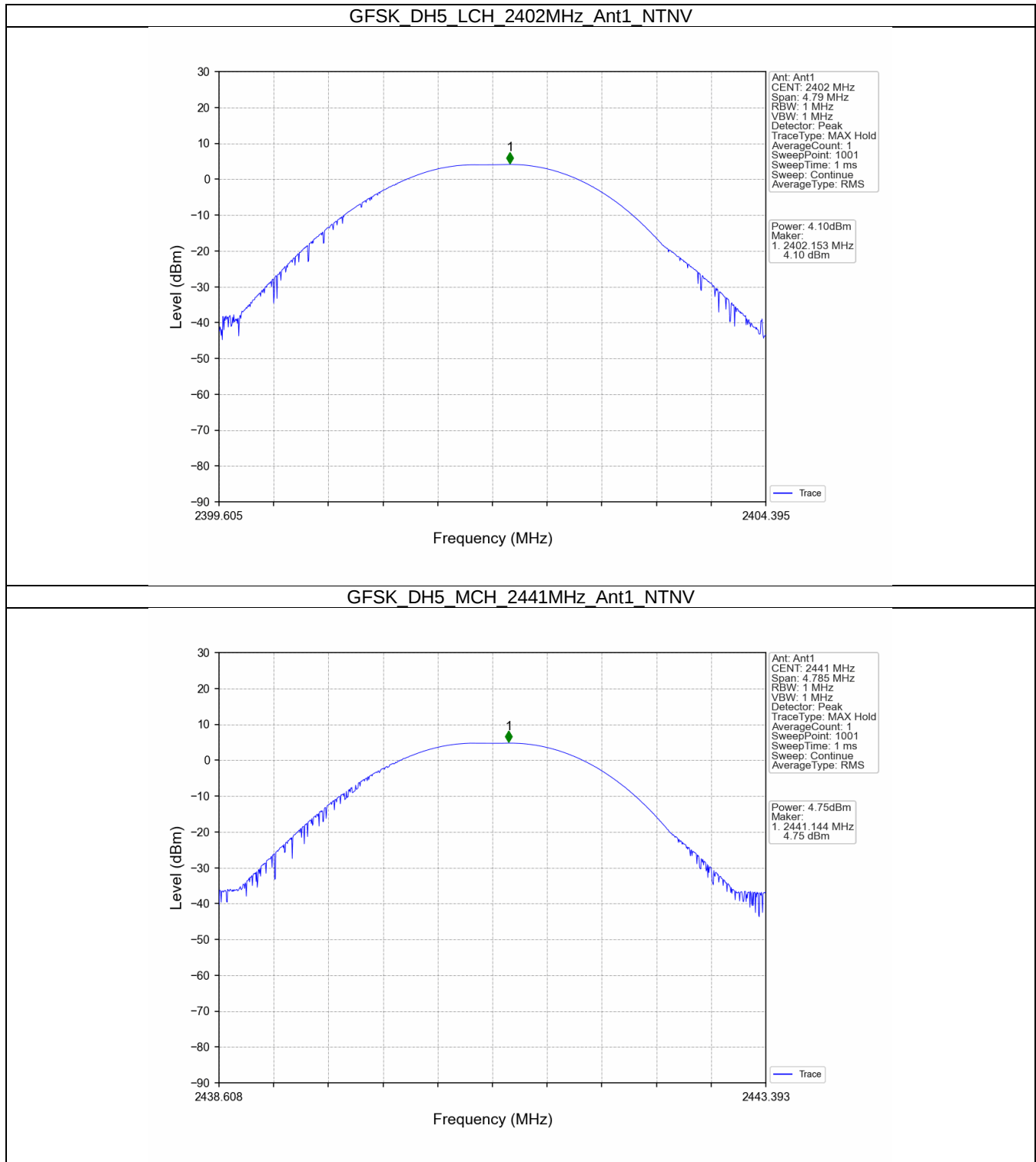
### 2.1 Power

#### 2.1.1 Test Result

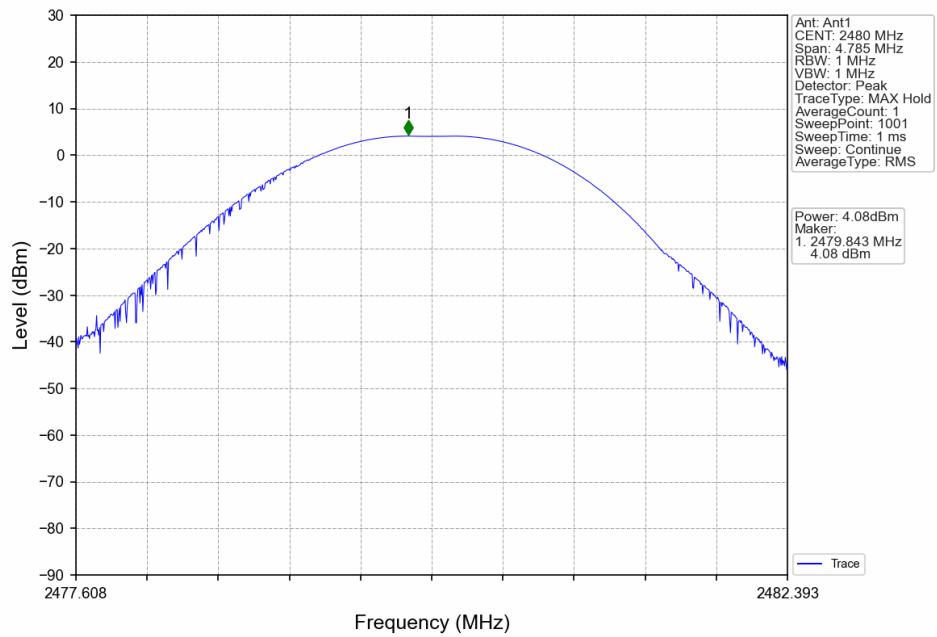
| Mode      | TX Type | Frequency (MHz) | Packet Type | Maximum Peak Conducted Output Power (dBm) |              | Verdict |
|-----------|---------|-----------------|-------------|-------------------------------------------|--------------|---------|
|           |         |                 |             | ANT1                                      | Limit        |         |
| GFSK      | SISO    | 2402            | DH5         | 4.10                                      | $\leq 30$    | Pass    |
|           |         | 2441            | DH5         | 4.75                                      | $\leq 30$    | Pass    |
|           |         | 2480            | DH5         | 4.08                                      | $\leq 30$    | Pass    |
| Pi/4DQPSK | SISO    | 2402            | 2DH5        | 4.26                                      | $\leq 20.97$ | Pass    |
|           |         | 2441            | 2DH5        | 5.02                                      | $\leq 20.97$ | Pass    |
|           |         | 2480            | 2DH5        | 4.43                                      | $\leq 20.97$ | Pass    |
| 8DPSK     | SISO    | 2402            | 3DH5        | 4.48                                      | $\leq 20.97$ | Pass    |
|           |         | 2441            | 3DH5        | 5.31                                      | $\leq 20.97$ | Pass    |
|           |         | 2480            | 3DH5        | 4.71                                      | $\leq 20.97$ | Pass    |

Note1: Antenna Gain: Ant1: -0.58dBi;

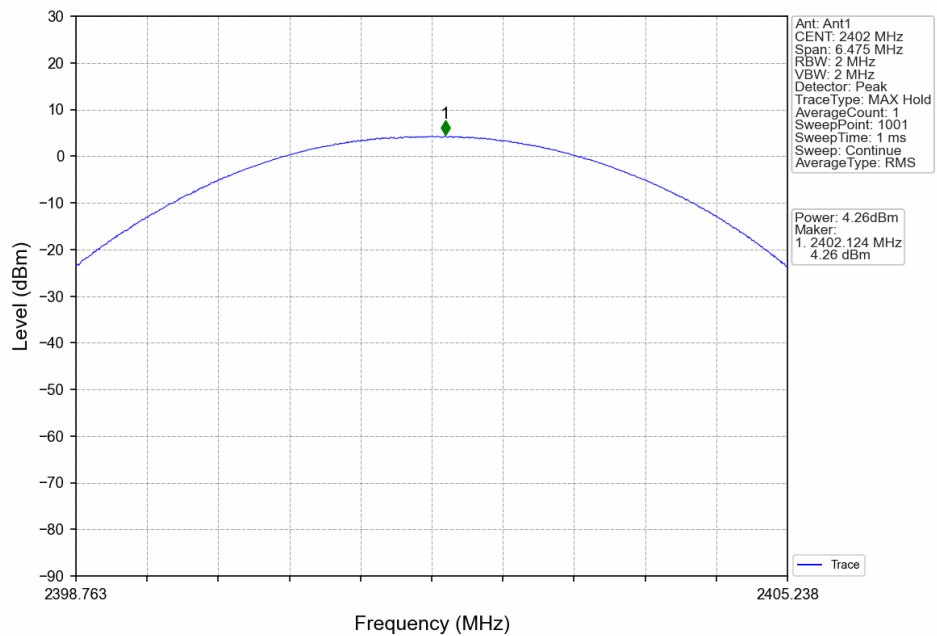
## 2.1.2 Test Graph



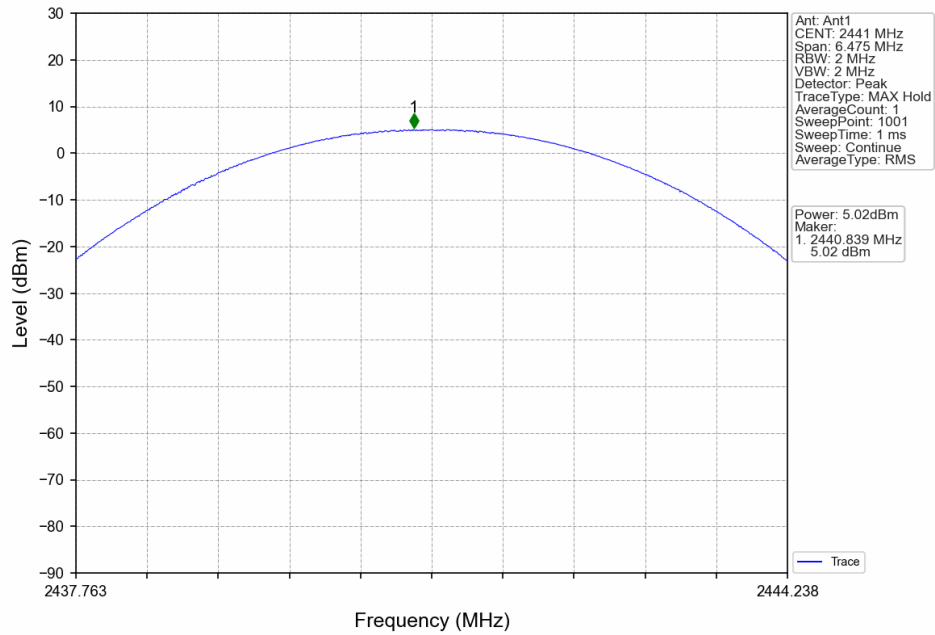
GFSK\_DH5\_HCH\_2480MHz\_Ant1\_NTNV



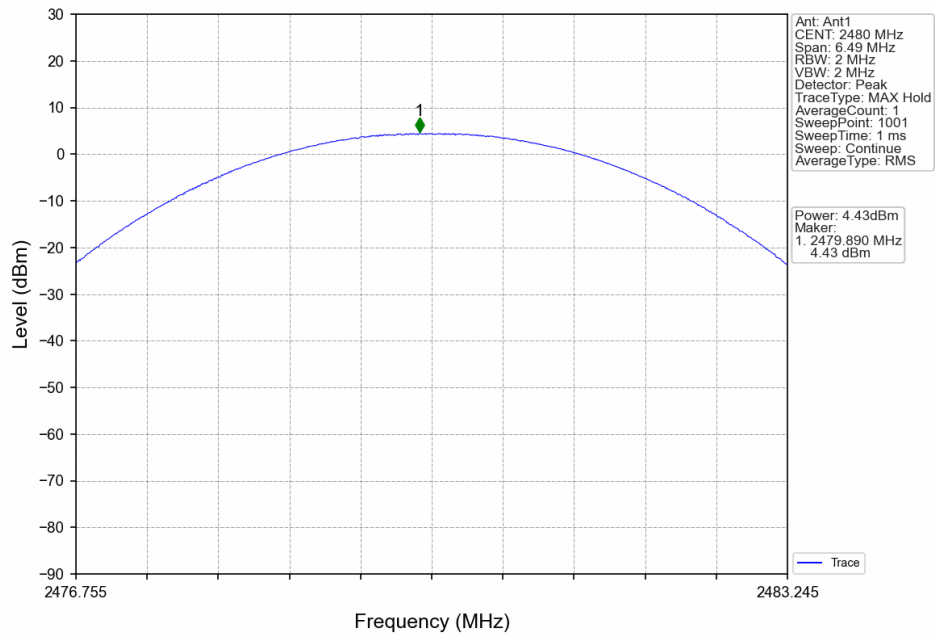
Pi/4DQPSK\_2DH5\_LCH\_2402MHz\_Ant1\_NTNV



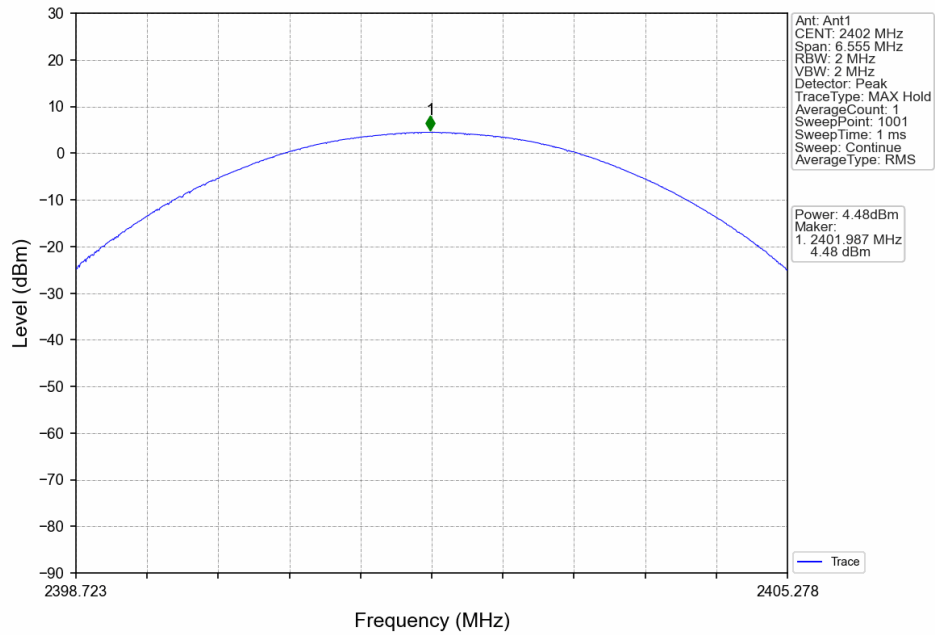
Pi/4DQPSK\_2DH5\_MCH\_2441MHz\_Ant1\_NTNV



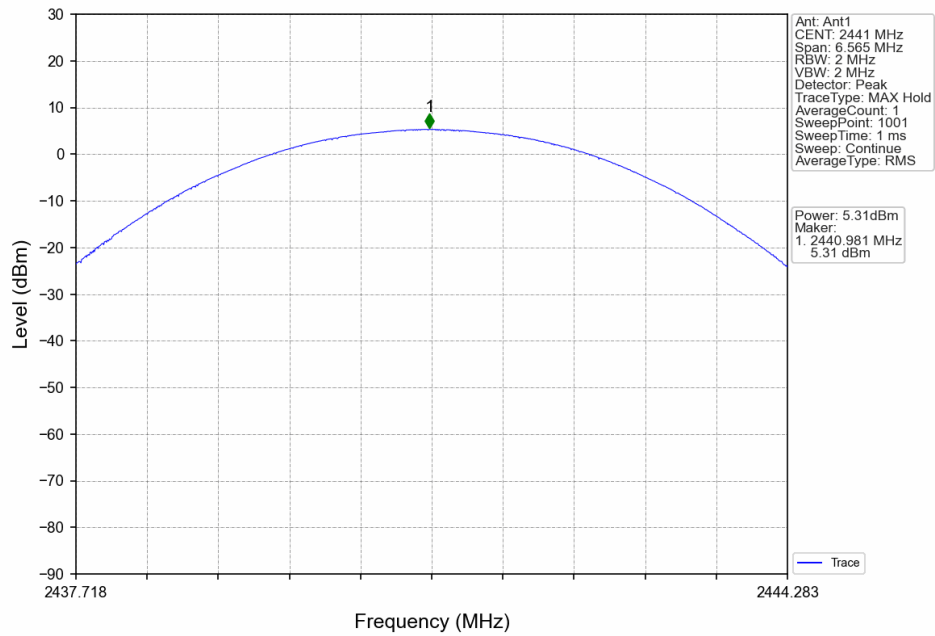
Pi/4DQPSK\_2DH5\_HCH\_2480MHz\_Ant1\_NTNV

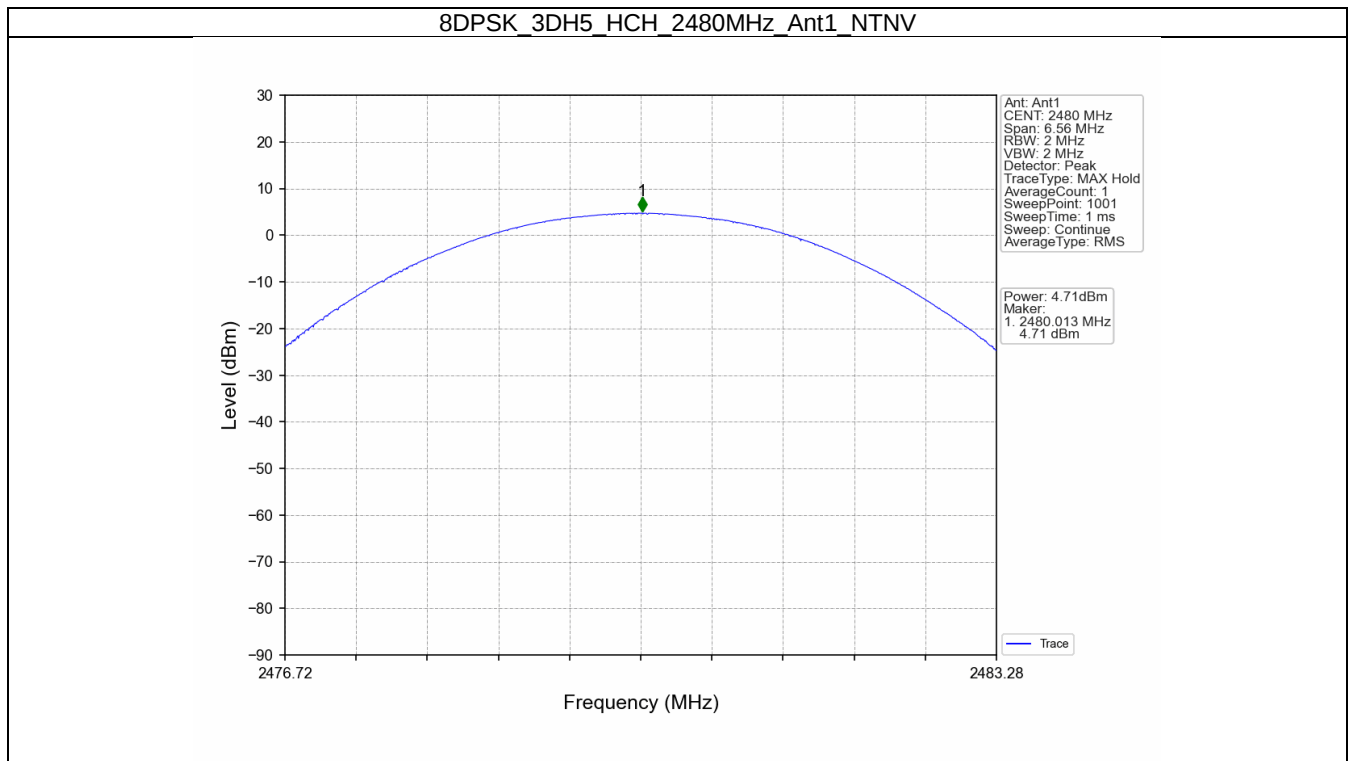


8DPSK\_3DH5\_LCH\_2402MHz\_Ant1\_NTNV



8DPSK\_3DH5\_MCH\_2441MHz\_Ant1\_NTNV





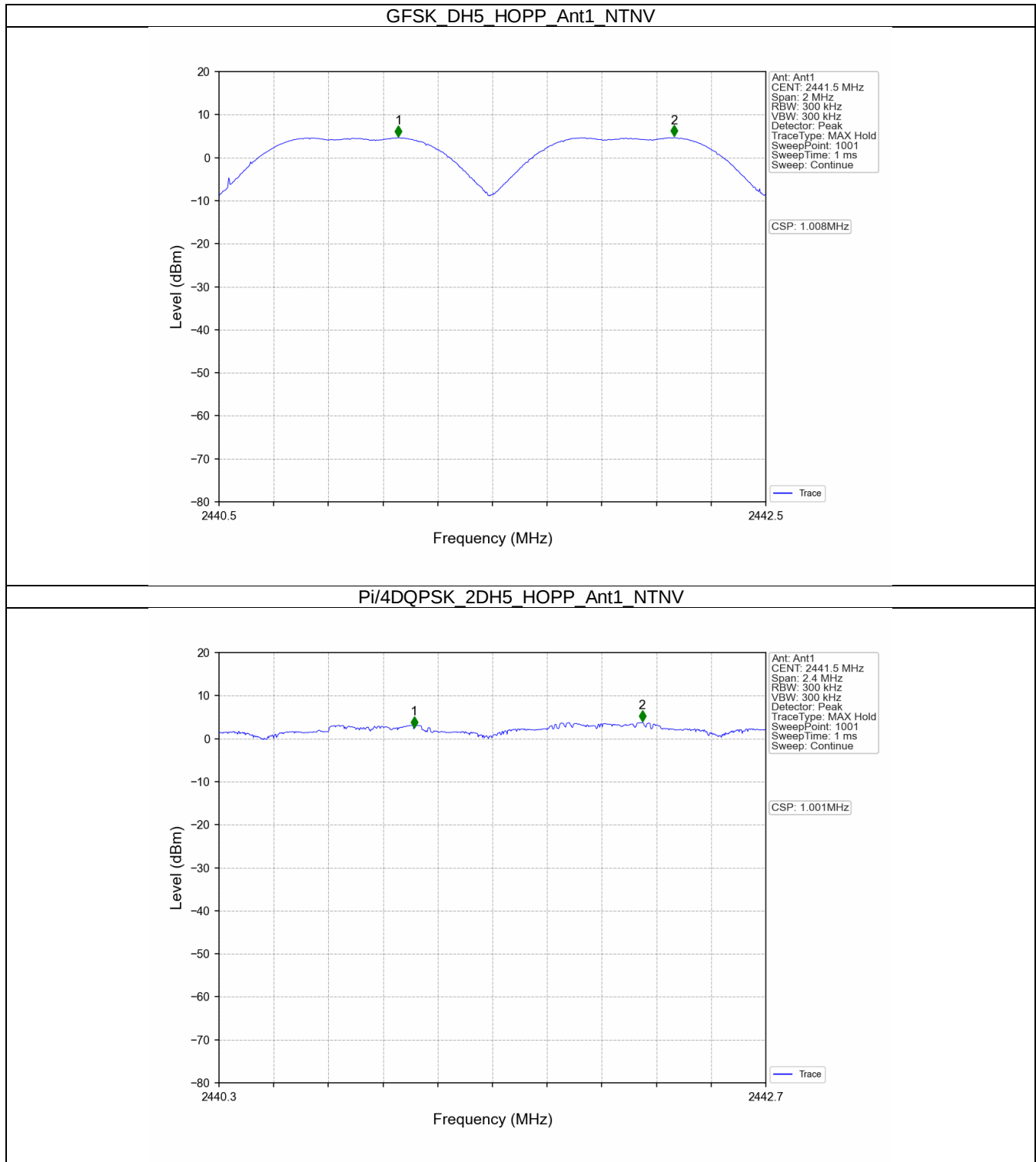
### 3. Carrier Frequency Separation

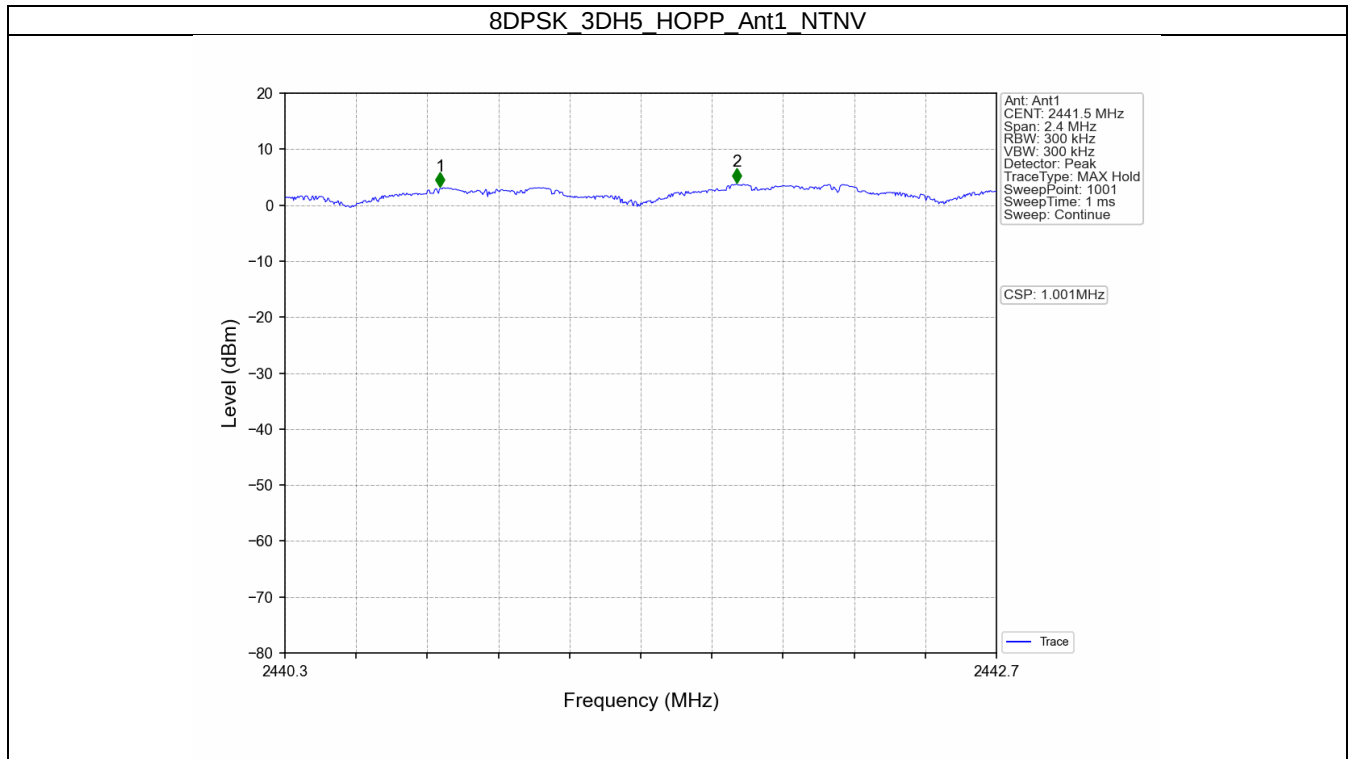
#### 3.1 Ant1

##### 3.1.1 Test Result

| Ant1      |         |                 |             |                          |                      |              |         |
|-----------|---------|-----------------|-------------|--------------------------|----------------------|--------------|---------|
| Mode      | TX Type | Frequency (MHz) | Packet Type | Channel Separation (MHz) | 20dB Bandwidth (MHz) | Limit (MHz)  | Verdict |
| GFSK      | SISO    | HOPP            | DH5         | 1.008                    | 0.958                | $\geq 0.958$ | Pass    |
| Pi/4DQPSK | SISO    | HOPP            | 2DH5        | 1.001                    | 1.298                | $\geq 0.865$ | Pass    |
| 8DPSK     | SISO    | HOPP            | 3DH5        | 1.001                    | 1.313                | $\geq 0.875$ | Pass    |

### 3.1.2 Test Graph





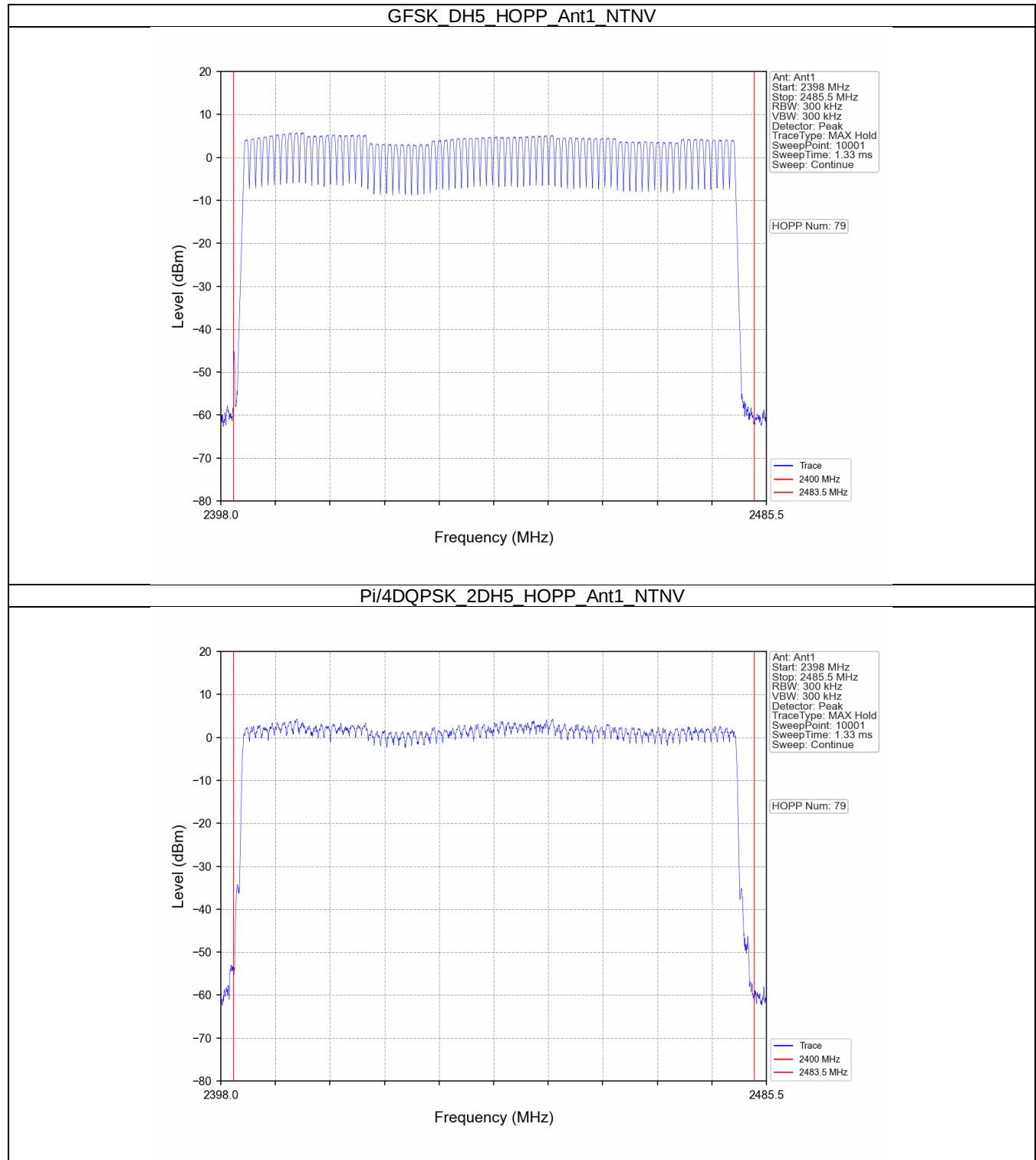
## 4. Number of Hopping Frequencies

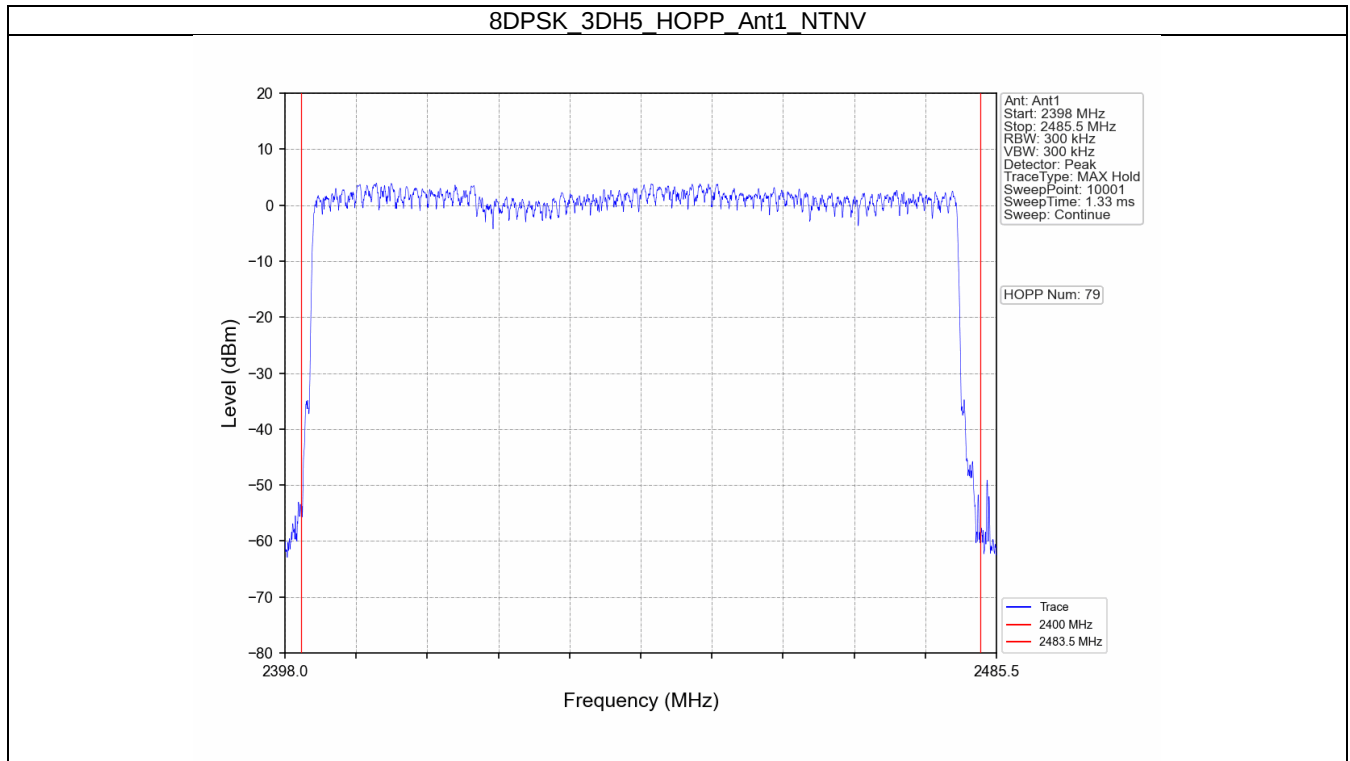
### 4.1 HoppNum

#### 4.1.1 Test Result

| Mode      | TX Type | Frequency (MHz) | Packet Type | Num of Hopping Frequencies |           | Verdict |
|-----------|---------|-----------------|-------------|----------------------------|-----------|---------|
|           |         |                 |             | ANT1                       | Limit     |         |
| GFSK      | SISO    | HOPP            | DH5         | 79                         | $\geq 15$ | Pass    |
| Pi/4DQPSK | SISO    | HOPP            | 2DH5        | 79                         | $\geq 15$ | Pass    |
| 8DPSK     | SISO    | HOPP            | 3DH5        | 79                         | $\geq 15$ | Pass    |

### 4.1.2 Test Graph





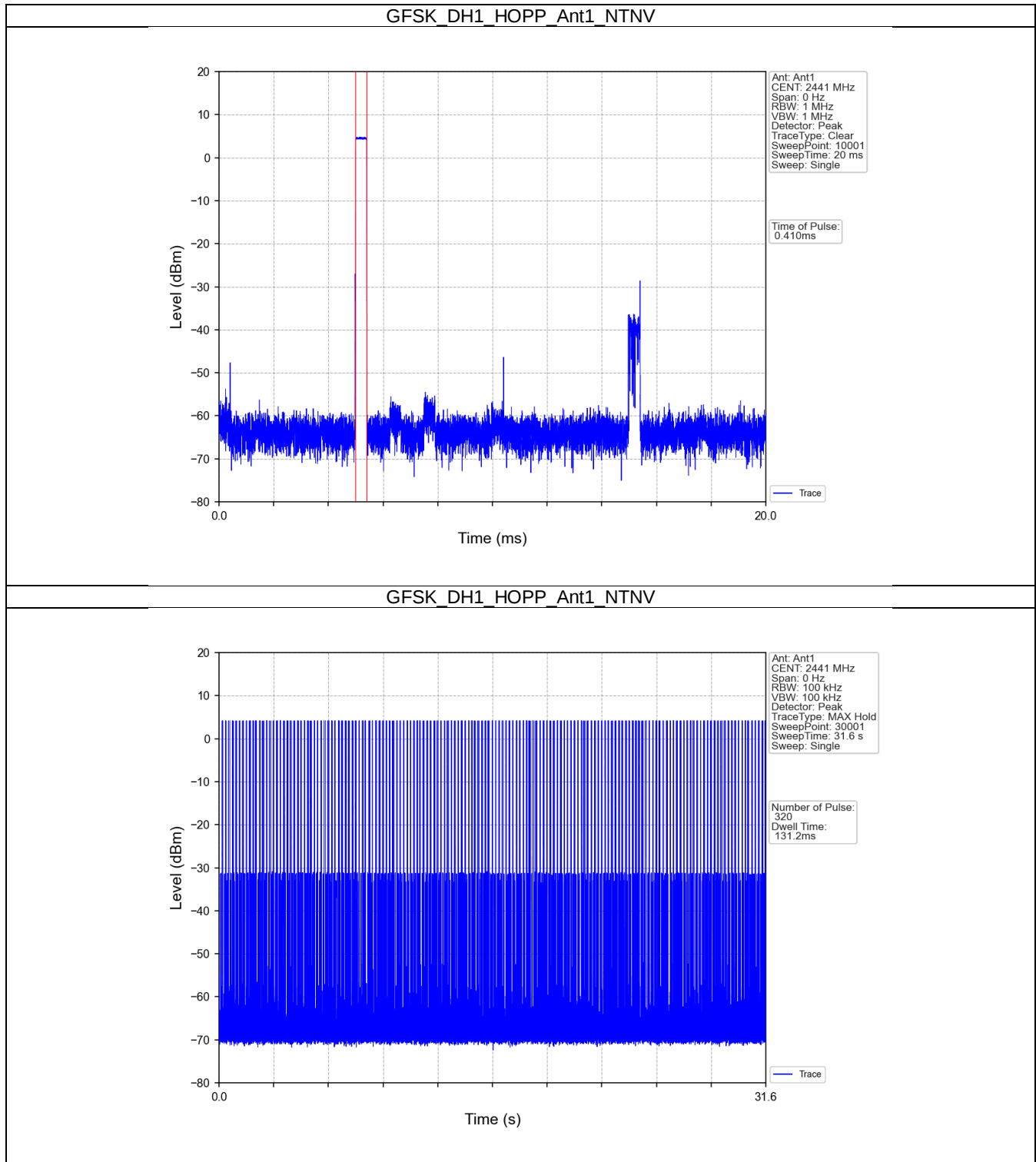
## 5. Time of Occupancy (Dwell Time)

### 5.1 Ant1

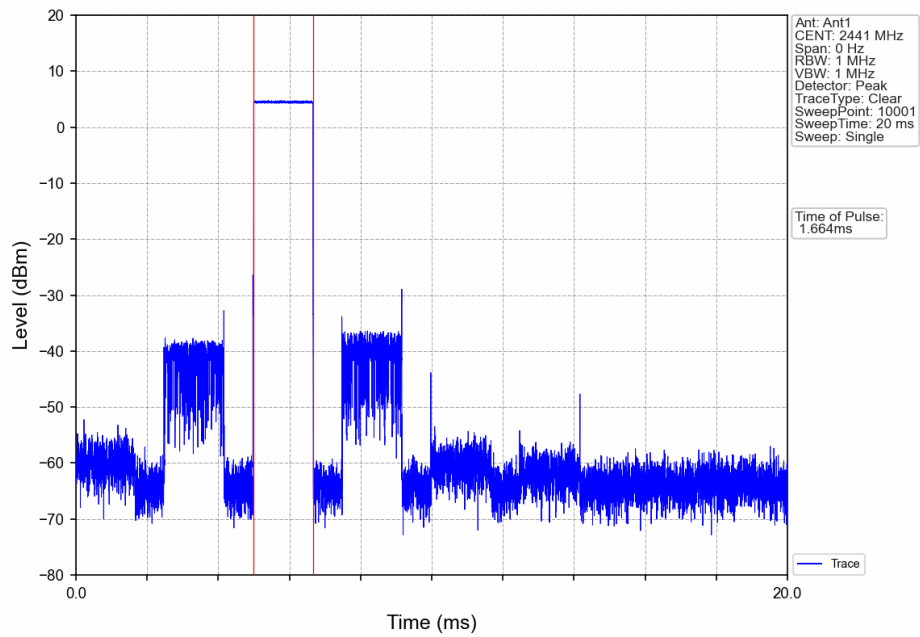
#### 5.1.1 Test Result

| Ant1      |         |                 |             |                               |                        |                                    |                 |            |         |
|-----------|---------|-----------------|-------------|-------------------------------|------------------------|------------------------------------|-----------------|------------|---------|
| Mode      | TX Type | Frequency (MHz) | Packet Type | Duration of Single Pulse (ms) | Observation Period (s) | Num of Pulse in Observation Period | Dwell Time (ms) | Limit (ms) | Verdict |
| GFSK      | SISO    | HOPP            | DH1         | 0.410                         | 31.600                 | 320                                | 131.200         | <=400      | Pass    |
|           |         |                 | DH3         | 1.664                         | 31.600                 | 157                                | 261.248         | <=400      | Pass    |
|           |         |                 | DH5         | 2.944                         | 31.600                 | 111                                | 326.784         | <=400      | Pass    |
| Pi/4DQPSK | SISO    | HOPP            | 2DH1        | 0.402                         | 31.600                 | 320                                | 128.640         | <=400      | Pass    |
|           |         |                 | 2DH3        | 1.654                         | 31.600                 | 152                                | 251.408         | <=400      | Pass    |
|           |         |                 | 2DH5        | 2.934                         | 31.600                 | 115                                | 337.410         | <=400      | Pass    |
| 8DPSK     | SISO    | HOPP            | 3DH1        | 0.400                         | 31.600                 | 318                                | 127.200         | <=400      | Pass    |
|           |         |                 | 3DH3        | 1.680                         | 31.600                 | 166                                | 278.880         | <=400      | Pass    |
|           |         |                 | 3DH5        | 2.932                         | 31.600                 | 108                                | 316.656         | <=400      | Pass    |

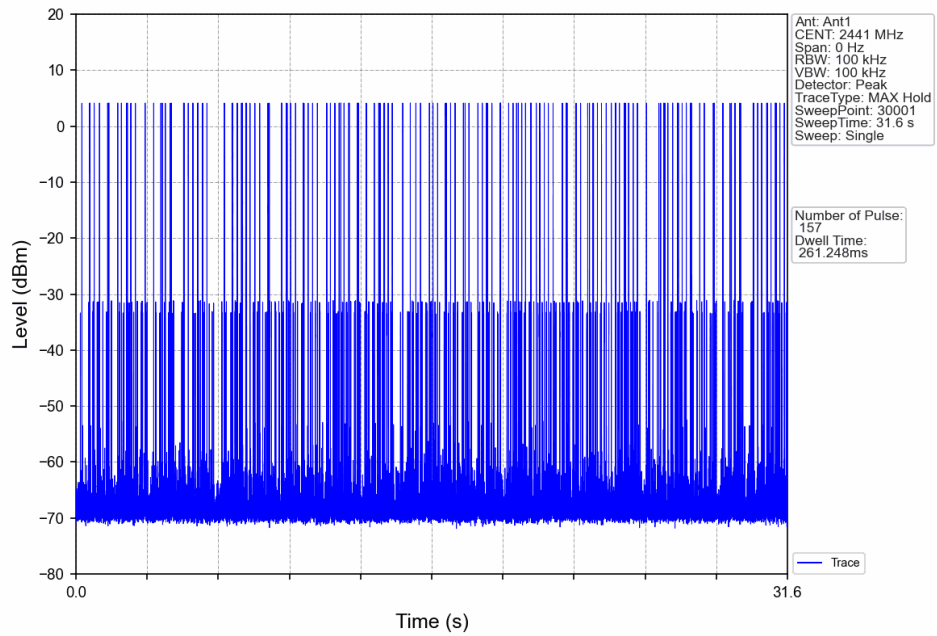
### 5.1.2 Test Graph



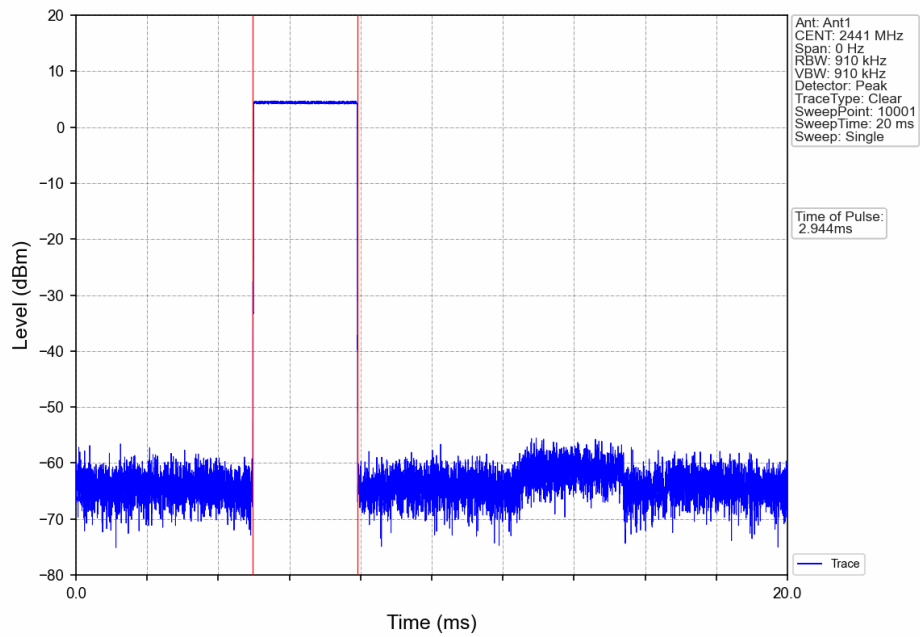
GFSK\_DH3\_HOPP\_Ant1\_NTNV



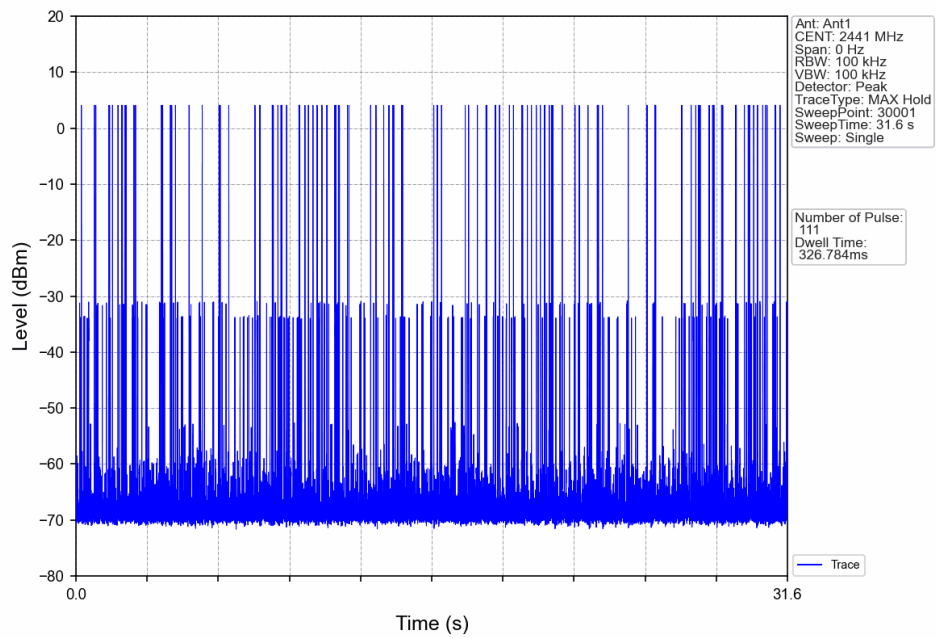
GFSK\_DH3\_HOPP\_Ant1\_NTNV



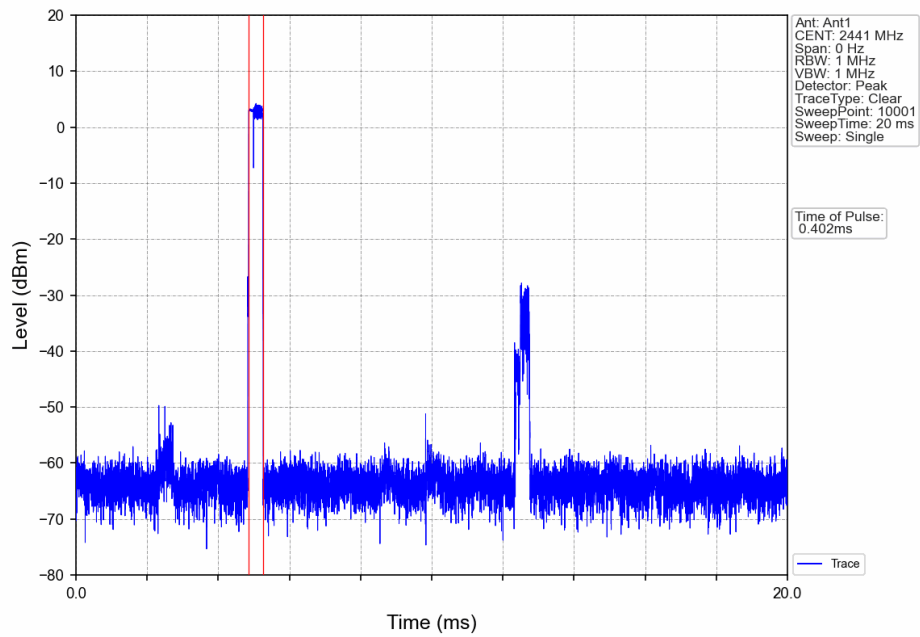
GFSK\_DH5\_HOPP\_Ant1\_NTNV



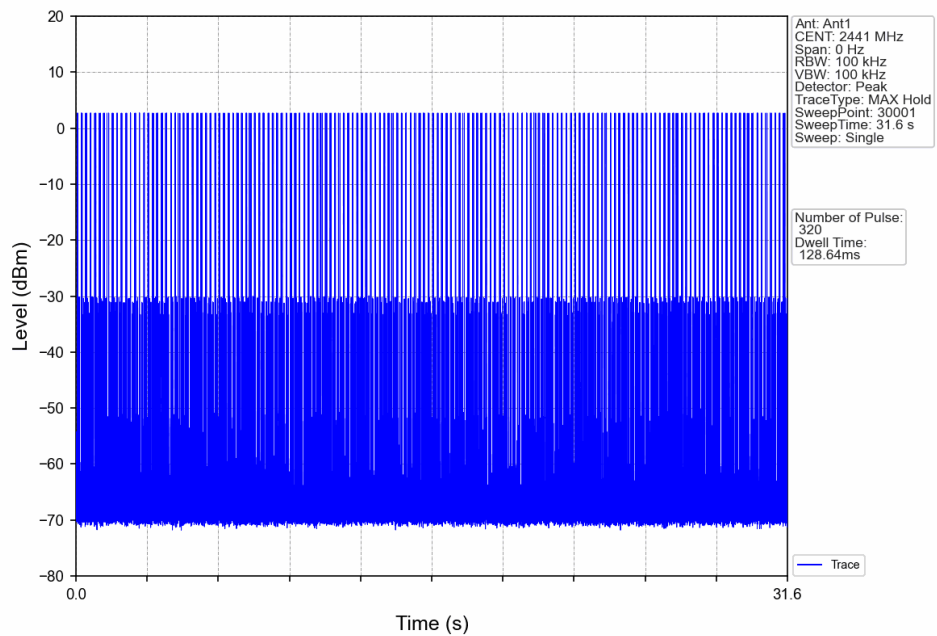
GFSK\_DH5\_HOPP\_Ant1\_NTNV



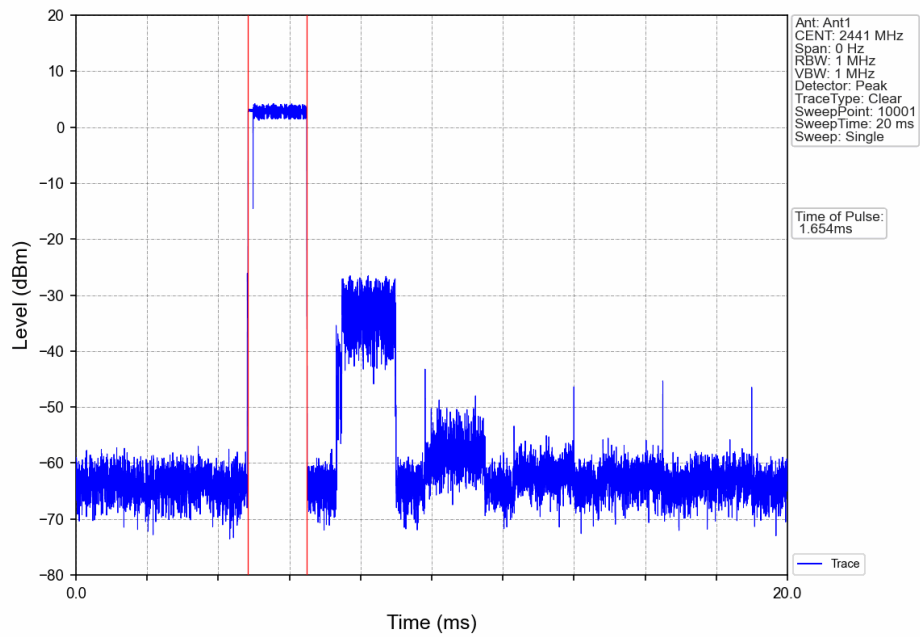
Pi/4DQPSK\_2DH1\_HOPP\_Ant1\_NTNV



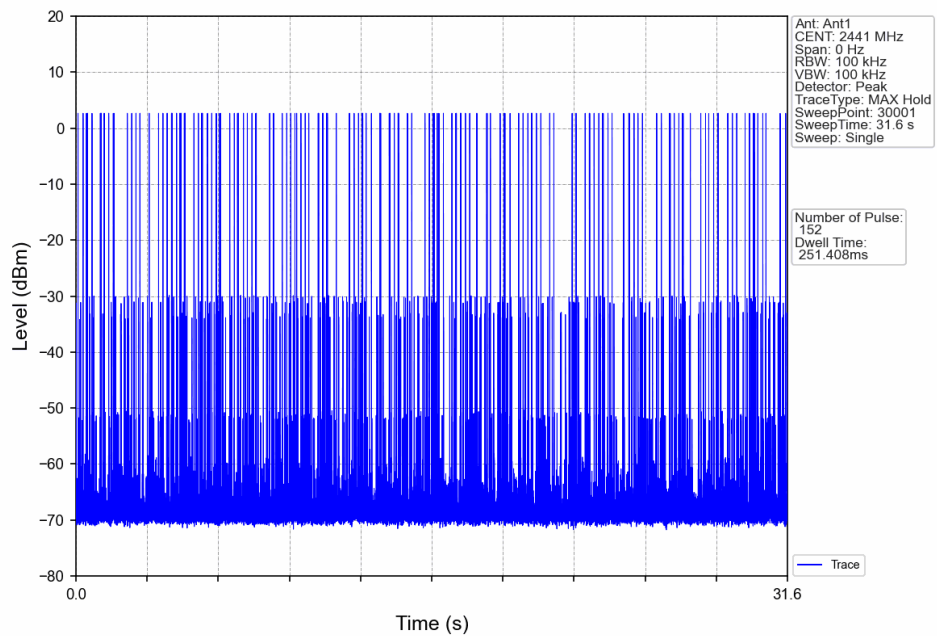
Pi/4DQPSK\_2DH1\_HOPP\_Ant1\_NTNV



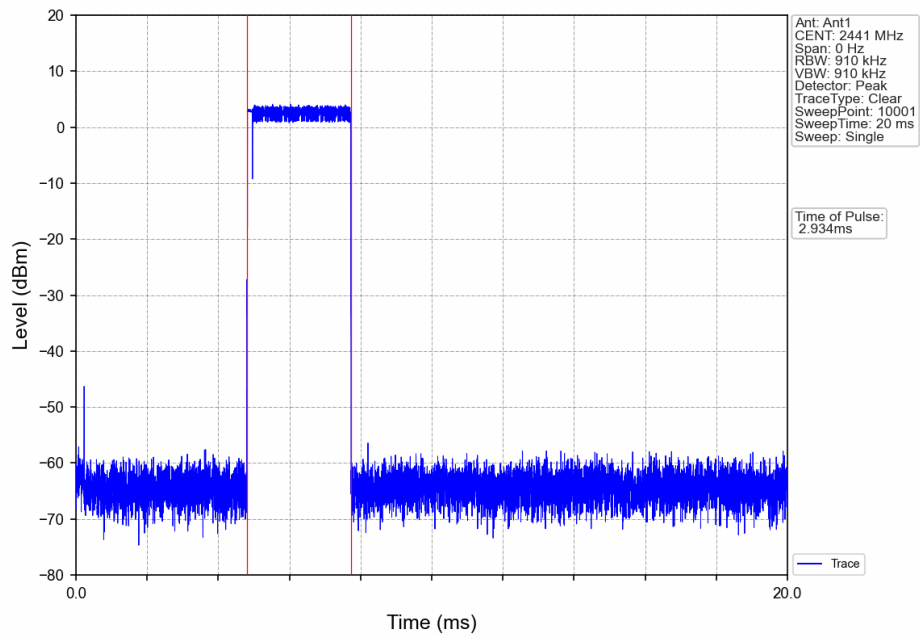
Pi/4DQPSK\_2DH3\_HOPP\_Ant1\_NTNV



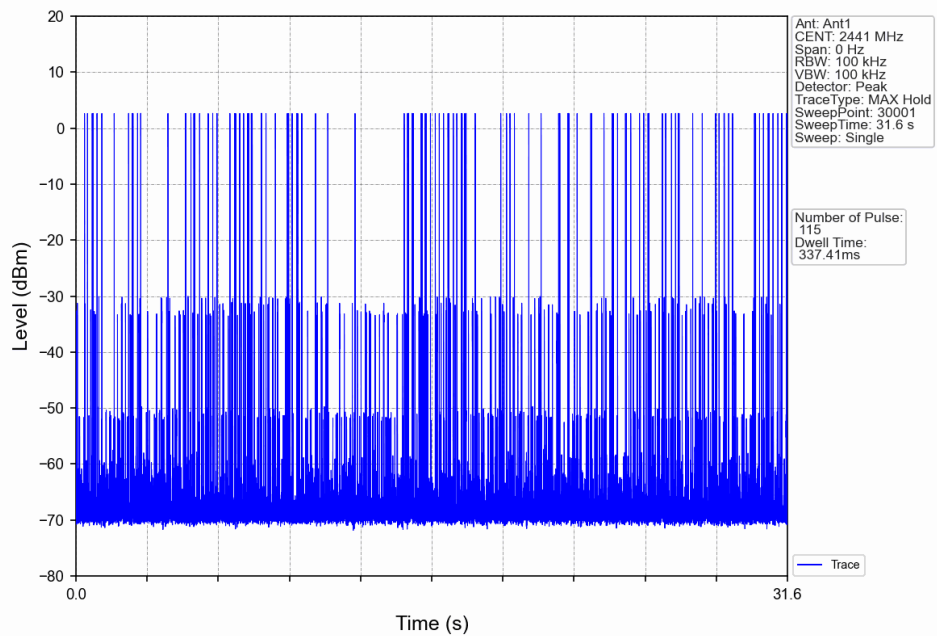
Pi/4DQPSK\_2DH3\_HOPP\_Ant1\_NTNV



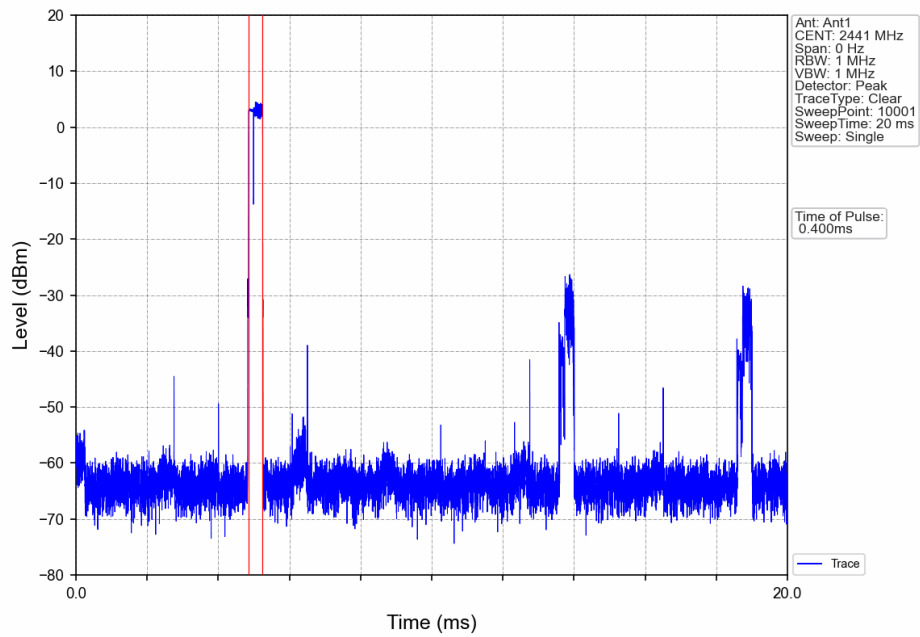
Pi/4DQPSK\_2DH5\_HOPP\_Ant1\_NTNV



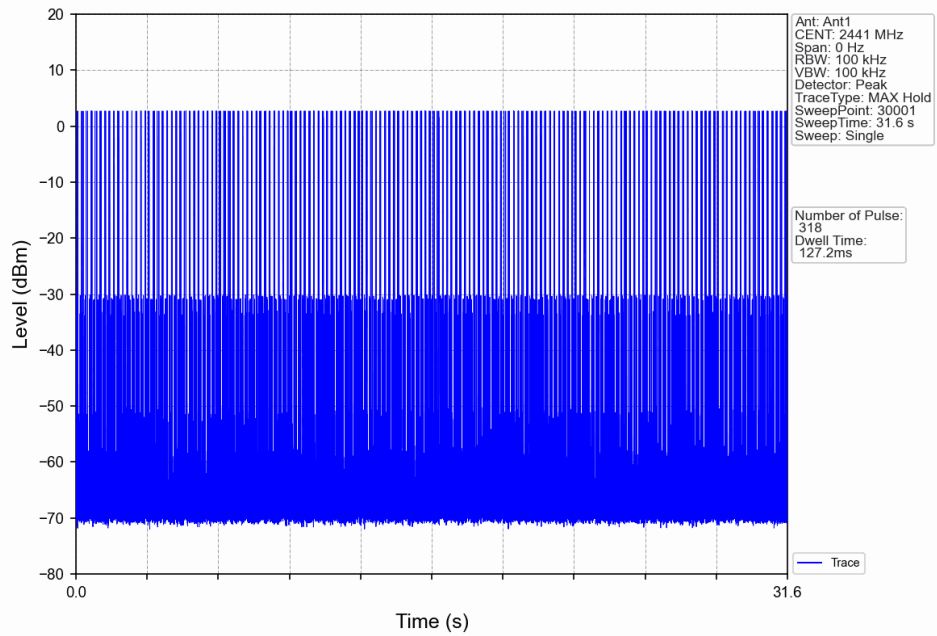
Pi/4DQPSK\_2DH5\_HOPP\_Ant1\_NTNV



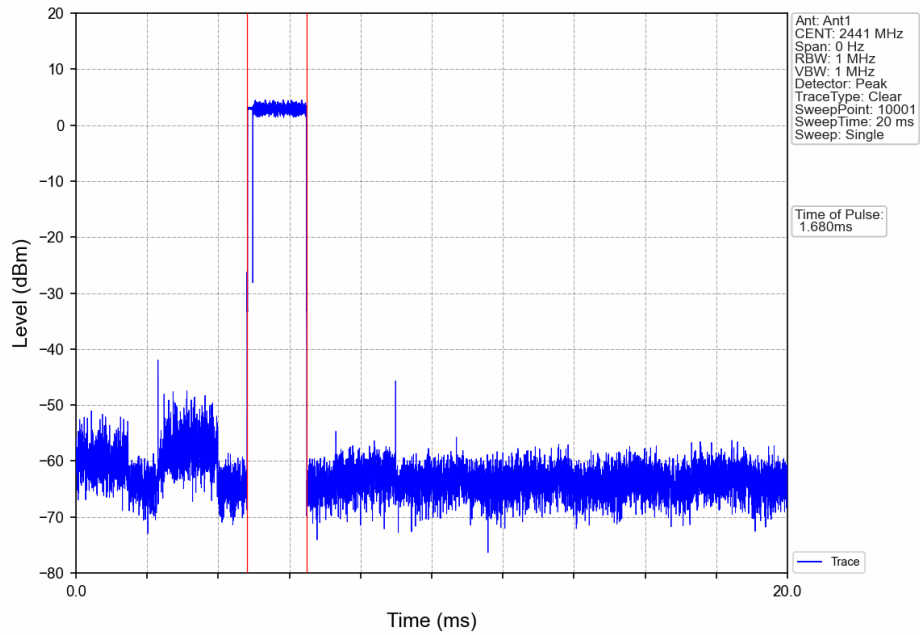
## 8DPSK\_3DH1\_HOPP\_Ant1\_NTNV



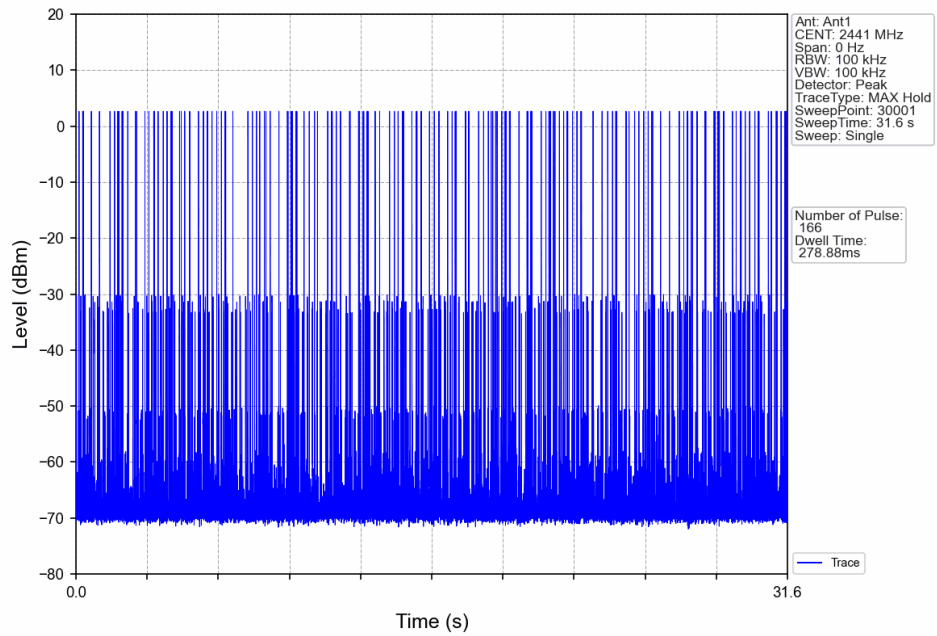
## 8DPSK\_3DH1\_HOPP\_Ant1\_NTNV



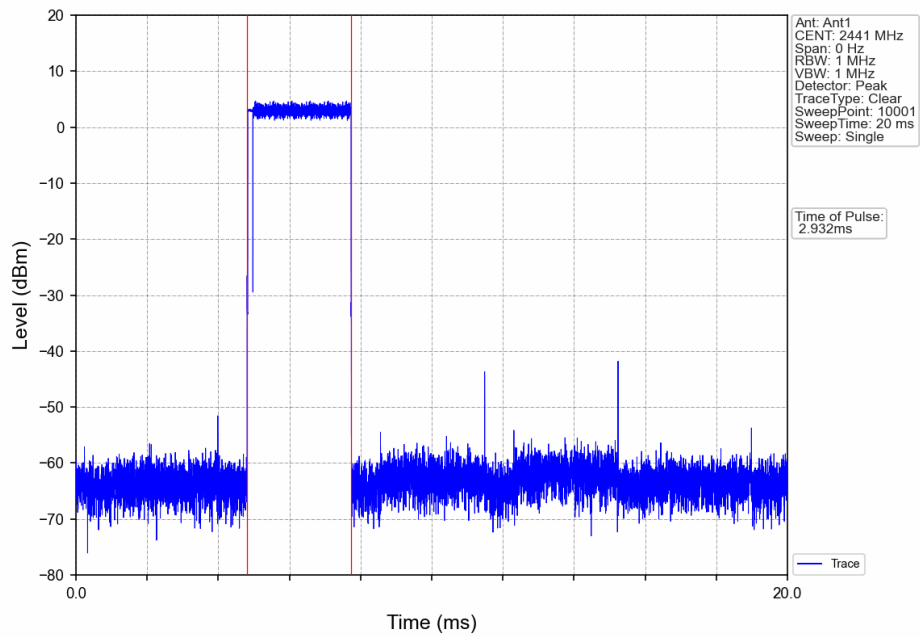
8DPSK\_3DH3\_HOPP\_Ant1\_NTNV



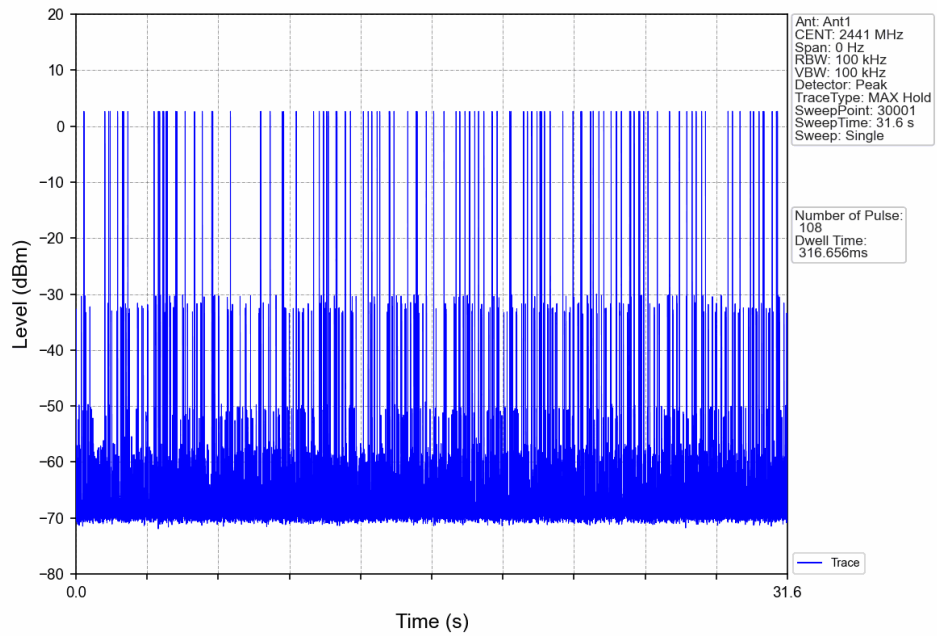
8DPSK\_3DH3\_HOPP\_Ant1\_NTNV



8DPSK\_3DH5\_HOPP\_Ant1\_NTNV



8DPSK\_3DH5\_HOPP\_Ant1\_NTNV



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

### 6.1 Ref

#### 6.1.1 Test Result

| Mode      | TX Type | Frequency (MHz) | Packet Type | ANT | Level of Reference (dBm) |
|-----------|---------|-----------------|-------------|-----|--------------------------|
| GFSK      | SISO    | 2402            | DH5         | 1   | 3.77                     |
|           |         | 2441            | DH5         | 1   | 4.43                     |
|           |         | 2480            | DH5         | 1   | 3.79                     |
|           |         | HOPP            | DH5         | 1   | 5.31                     |
|           |         |                 |             |     | 5.31                     |
| Pi/4DQPSK | SISO    | 2402            | 2DH5        | 1   | 2.04                     |
|           |         | 2441            | 2DH5        | 1   | 2.75                     |
|           |         | 2480            | 2DH5        | 1   | 2.00                     |
|           |         | HOPP            | 2DH5        | 1   | 3.76                     |
|           |         |                 |             |     | 3.76                     |
| 8DPSK     | SISO    | 2402            | 3DH5        | 1   | 2.22                     |
|           |         | 2441            | 3DH5        | 1   | 2.96                     |
|           |         | 2480            | 3DH5        | 1   | 2.37                     |
|           |         | HOPP            | 3DH5        | 1   | 4.03                     |
|           |         |                 |             |     | 4.03                     |

Note1: Refer to FCC Part 15.247 (d) and ANSI C63.10-2013, the channel contains the maximum PSD level was used to establish the reference level.

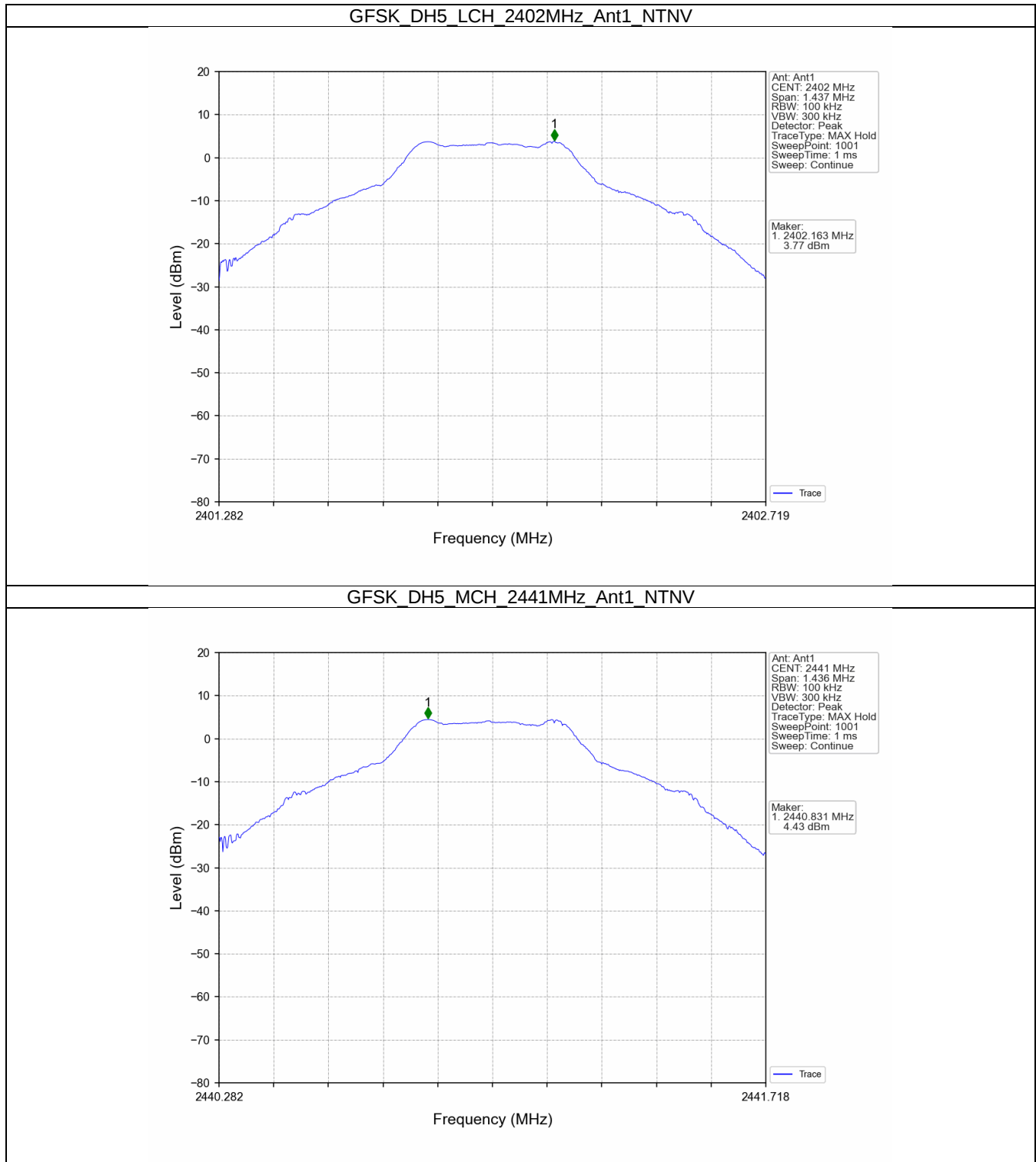
### 6.2 CSE

#### 6.2.1 Test Result

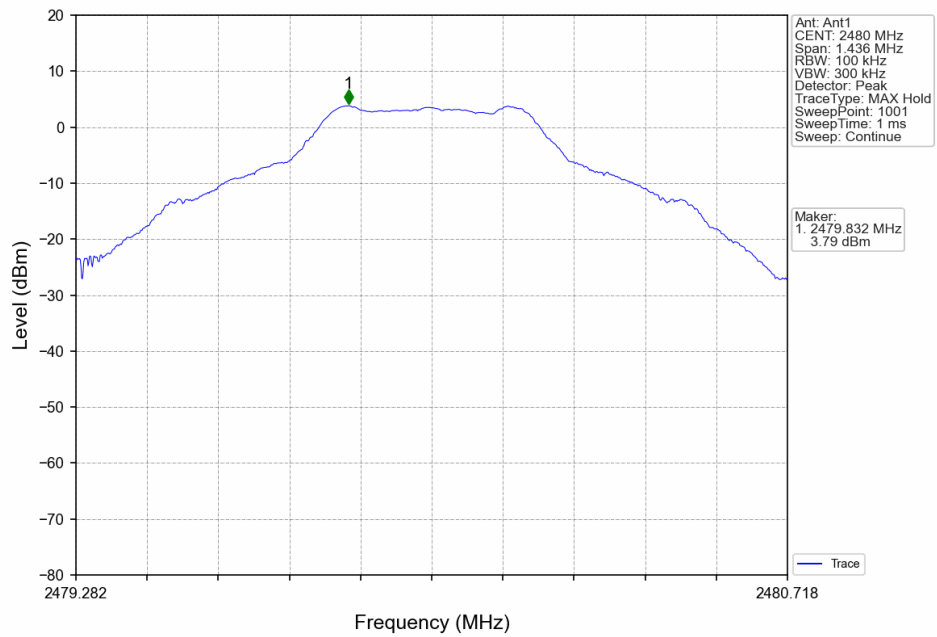
| Mode      | TX Type | Frequency (MHz) | Packet Type | ANT | Level of Reference (dBm) | Limit (dBm) | Verdict |
|-----------|---------|-----------------|-------------|-----|--------------------------|-------------|---------|
| GFSK      | SISO    | 2402            | DH5         | 1   | 3.77                     | -16.23      | Pass    |
|           |         | 2441            | DH5         | 1   | 4.43                     | -15.57      | Pass    |
|           |         | 2480            | DH5         | 1   | 3.79                     | -16.21      | Pass    |
|           |         | HOPP            | DH5         | 1   | 5.31                     | -14.69      | Pass    |
|           |         |                 |             |     | 5.31                     | -14.69      | Pass    |
| Pi/4DQPSK | SISO    | 2402            | 2DH5        | 1   | 2.04                     | -17.96      | Pass    |
|           |         | 2441            | 2DH5        | 1   | 2.75                     | -17.25      | Pass    |
|           |         | 2480            | 2DH5        | 1   | 2.00                     | -18.00      | Pass    |
|           |         | HOPP            | 2DH5        | 1   | 3.76                     | -16.24      | Pass    |
|           |         |                 |             |     | 3.76                     | -16.24      | Pass    |
| 8DPSK     | SISO    | 2402            | 3DH5        | 1   | 2.22                     | -17.78      | Pass    |
|           |         | 2441            | 3DH5        | 1   | 2.96                     | -17.04      | Pass    |
|           |         | 2480            | 3DH5        | 1   | 2.37                     | -17.63      | Pass    |
|           |         | HOPP            | 3DH5        | 1   | 4.03                     | -15.97      | Pass    |
|           |         |                 |             |     | 4.03                     | -15.97      | Pass    |

Note1: Refer to FCC Part 15.247 (d) and ANSI C63.10-2013, the channel contains the maximum PSD level was used to establish the reference level.

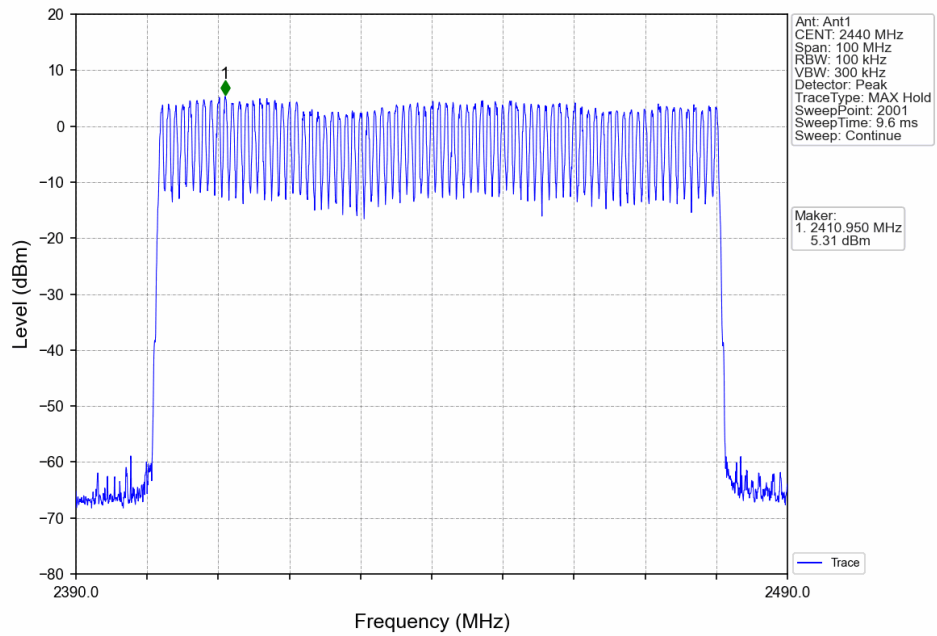
### 6.1.2 Test Graph



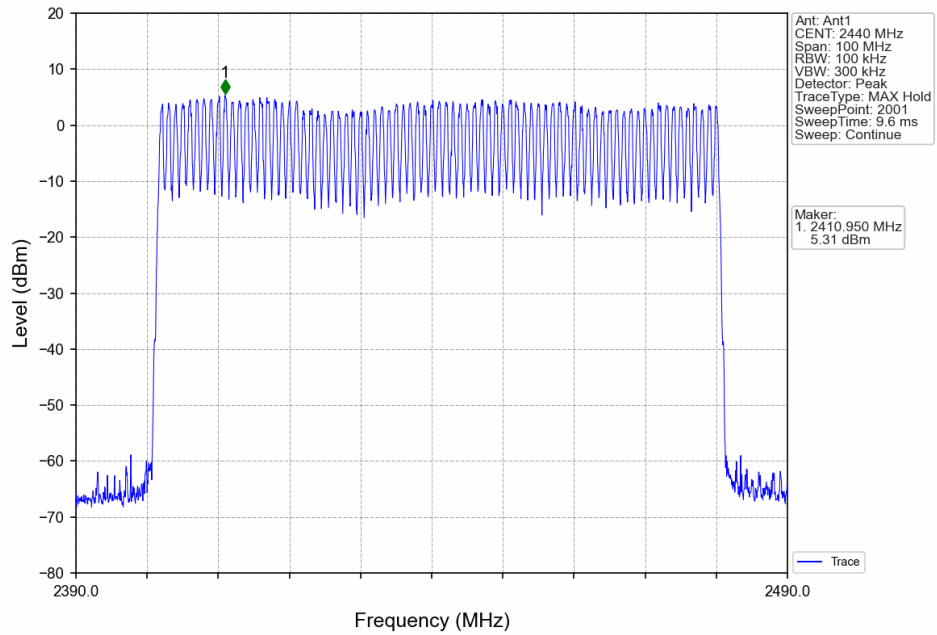
GFSK\_DH5\_HCH\_2480MHz\_Ant1\_NTNV



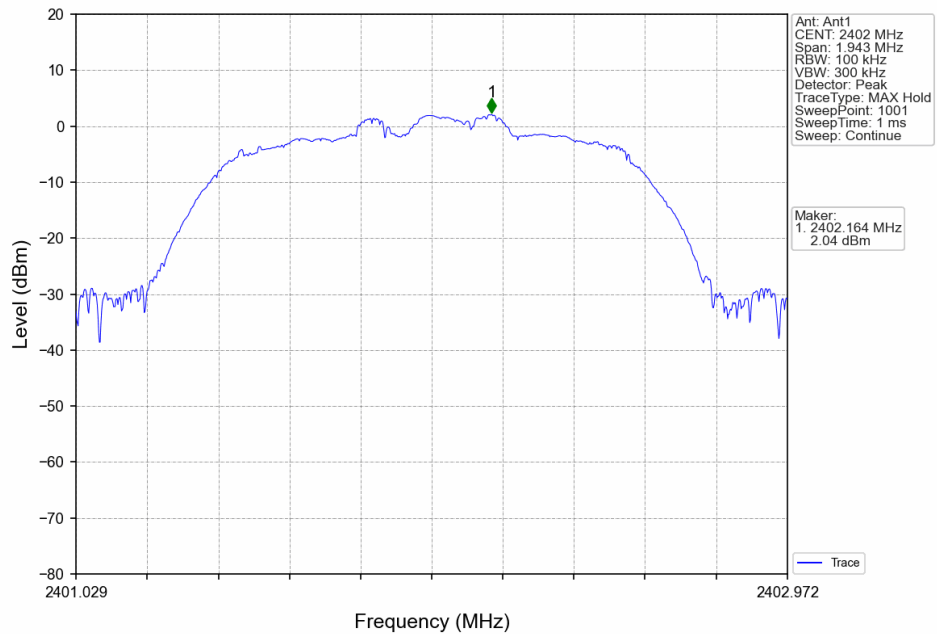
GFSK\_DH5\_HOPP\_2440MHz\_Ant1\_NTNV



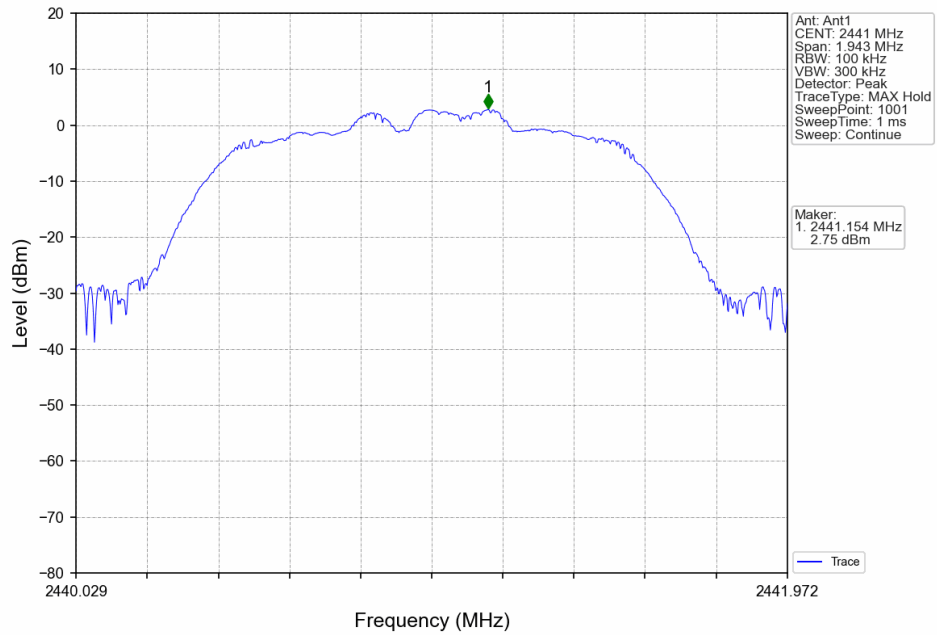
## GFSK\_DH5\_HOPP\_Ant1\_NTNV



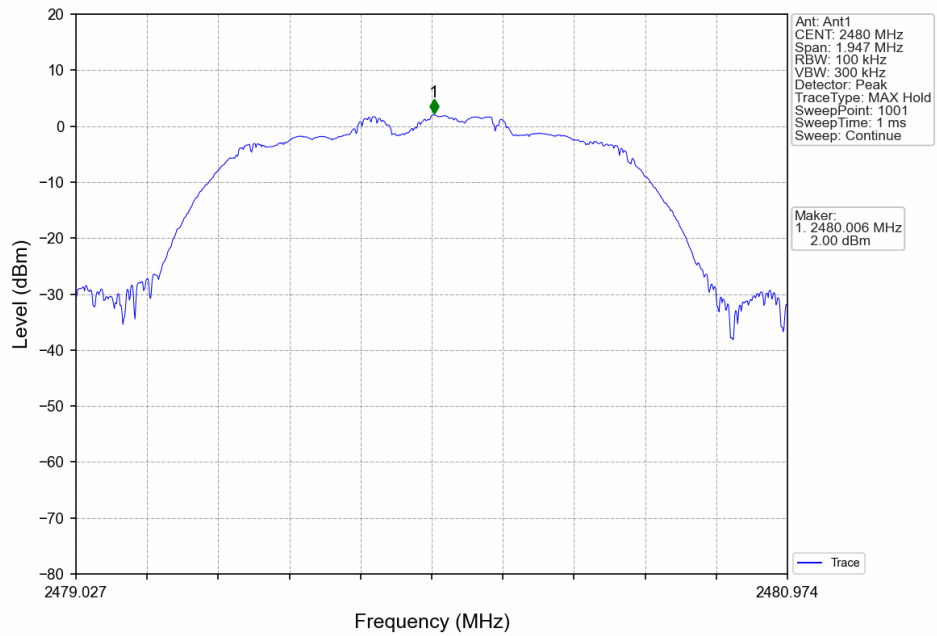
## Pi/4DQPSK\_2DH5\_LCH\_2402MHz\_Ant1\_NTNV



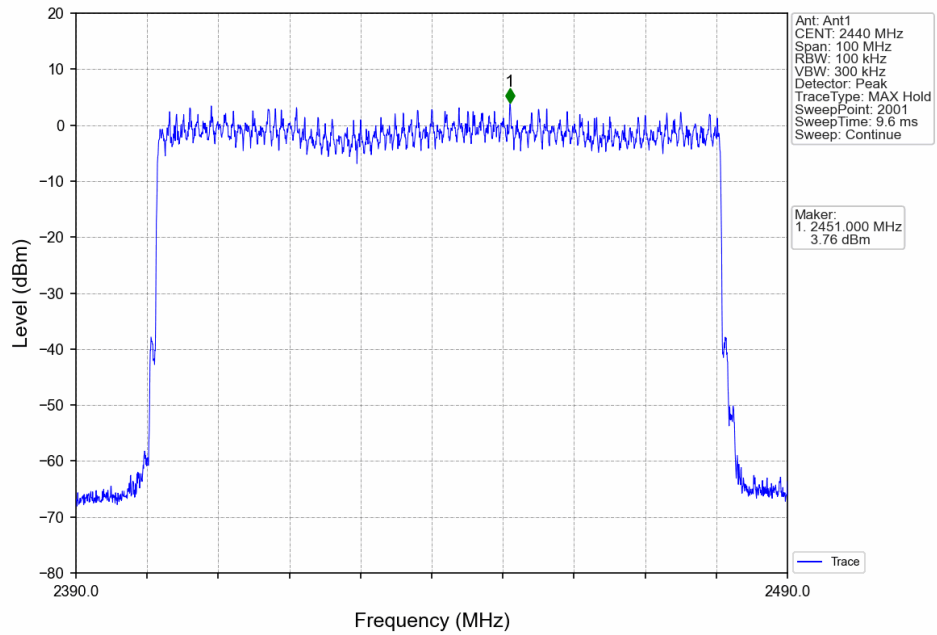
Pi/4DQPSK\_2DH5\_MCH\_2441MHz\_Ant1\_NTNV



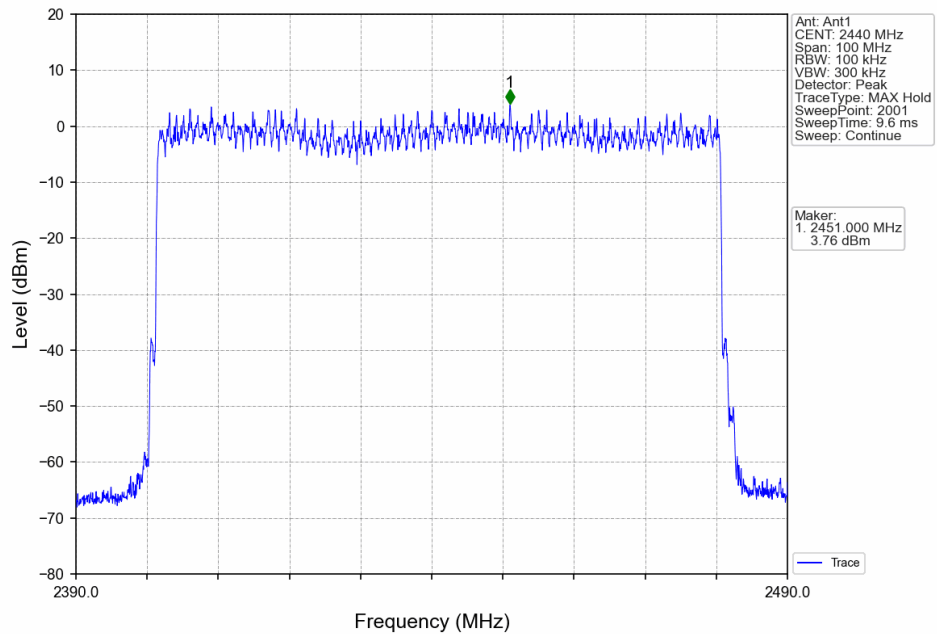
Pi/4DQPSK\_2DH5\_HCH\_2480MHz\_Ant1\_NTNV



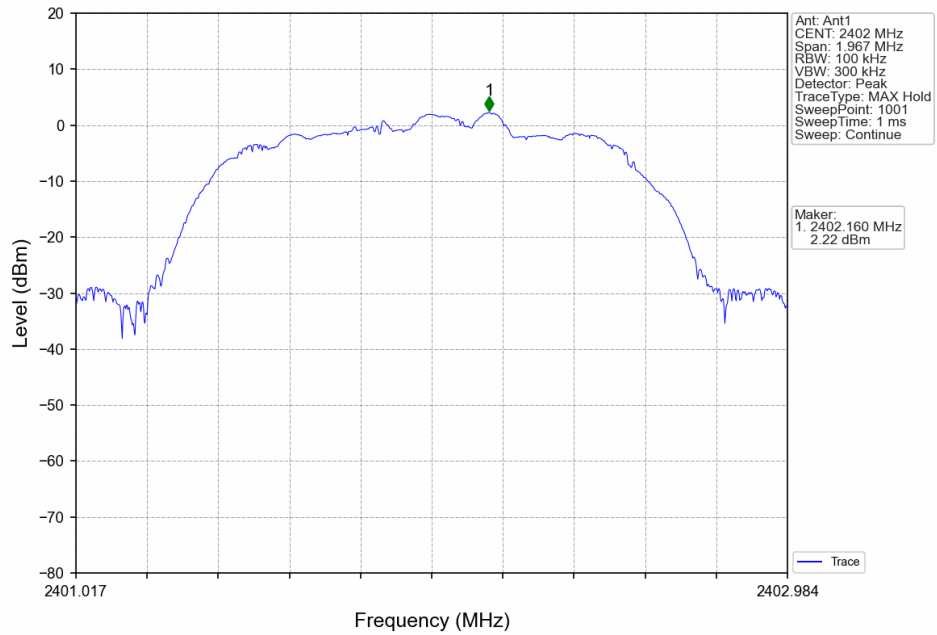
Pi/4DQPSK\_2DH5\_HOPP\_Ant1\_NTNV



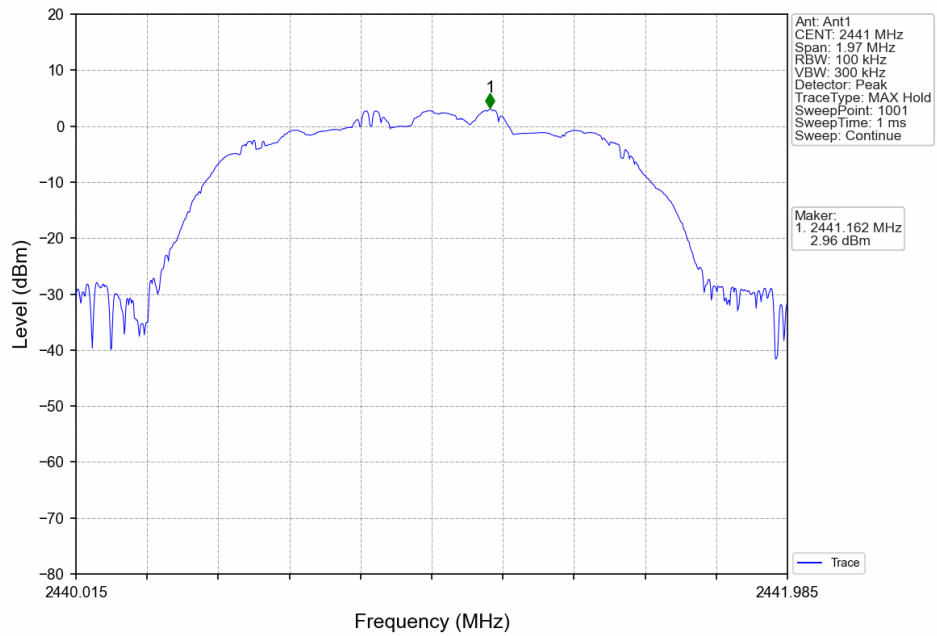
Pi/4DQPSK\_2DH5\_HOPP\_Ant1\_NTNV



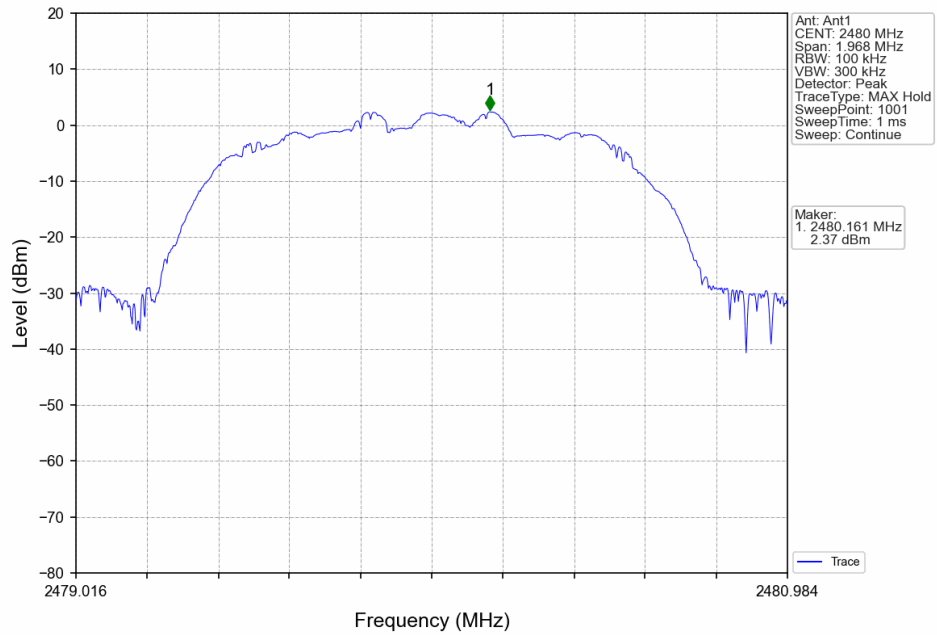
8DPSK\_3DH5\_LCH\_2402MHz\_Ant1\_NTNV



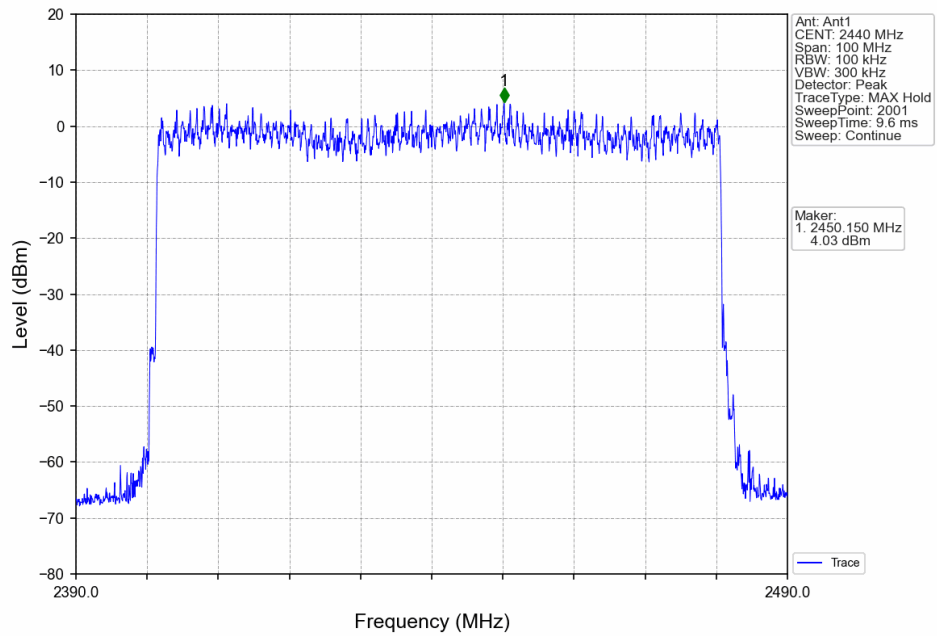
8DPSK\_3DH5\_MCH\_2441MHz\_Ant1\_NTNV

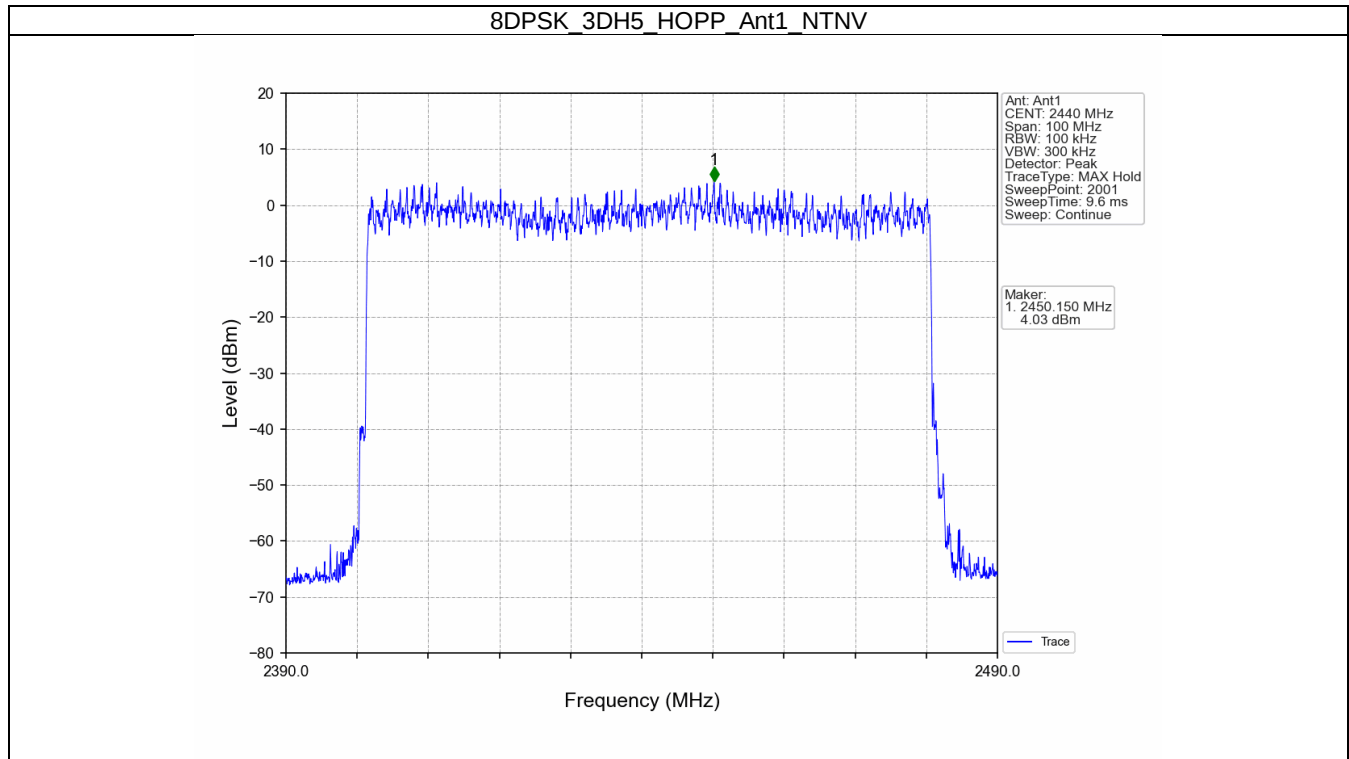


8DPSK\_3DH5\_HCH\_2480MHz\_Ant1\_NTNV

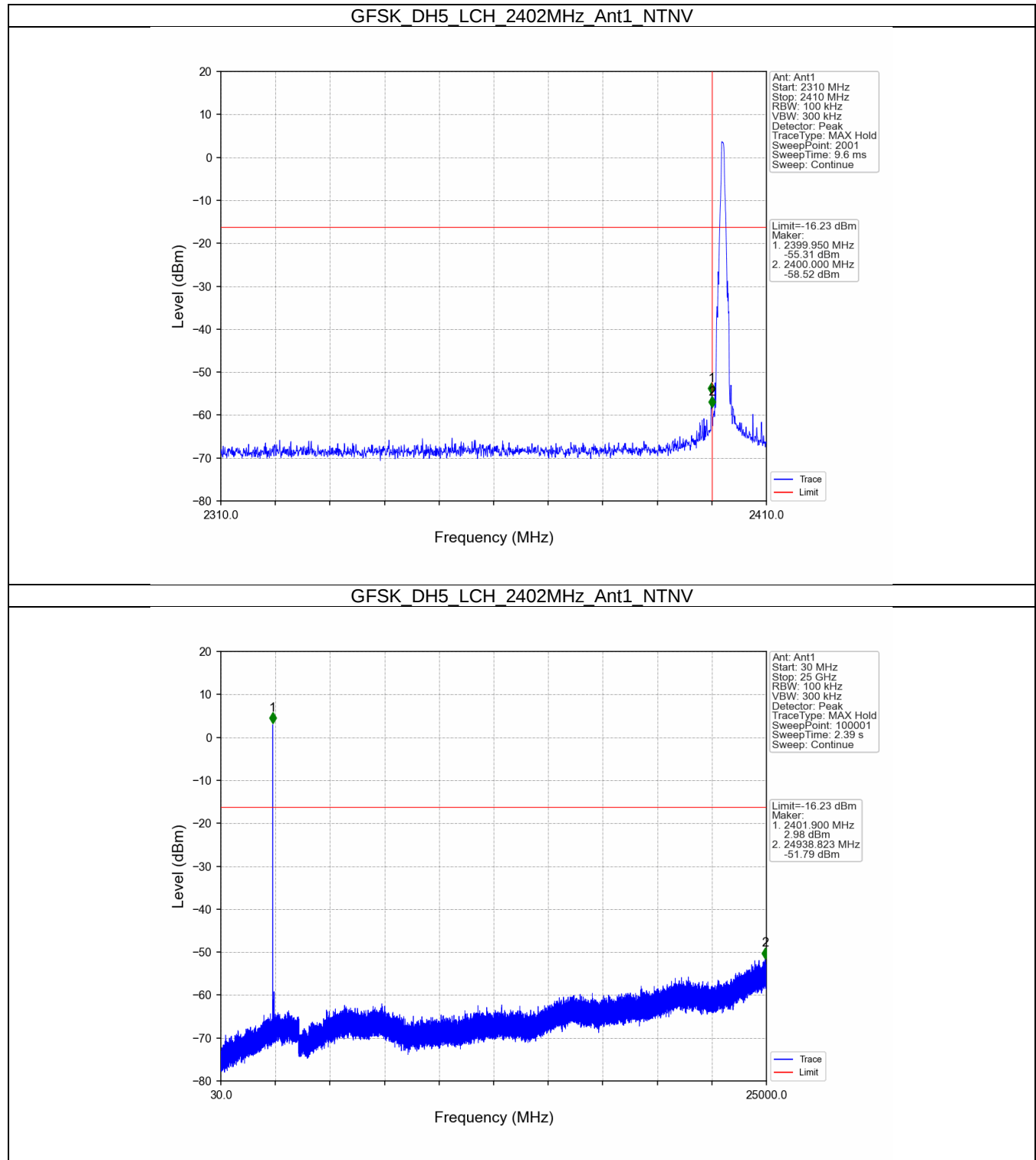


8DPSK\_3DH5\_HOPP\_Ant1\_NTNV

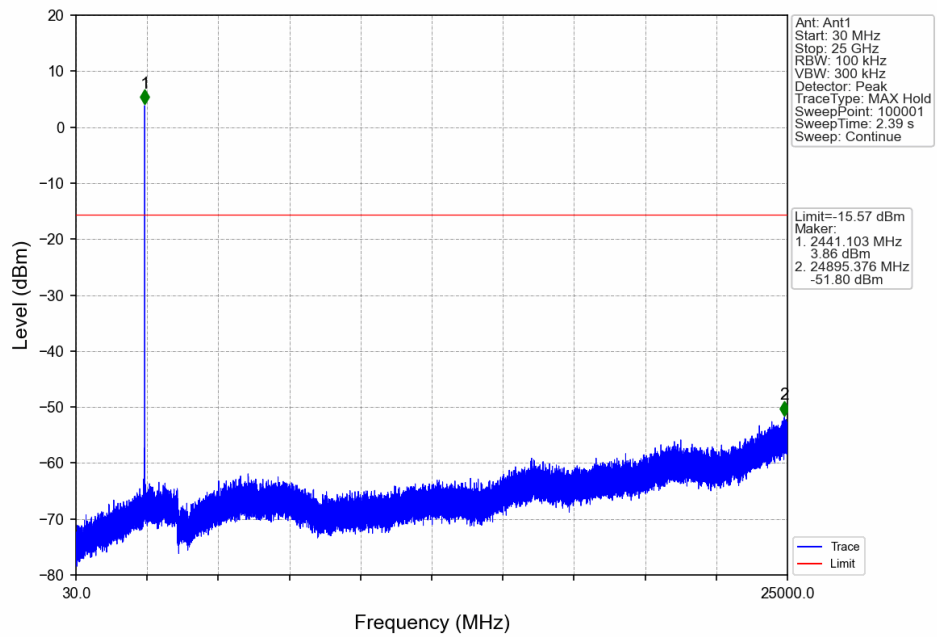




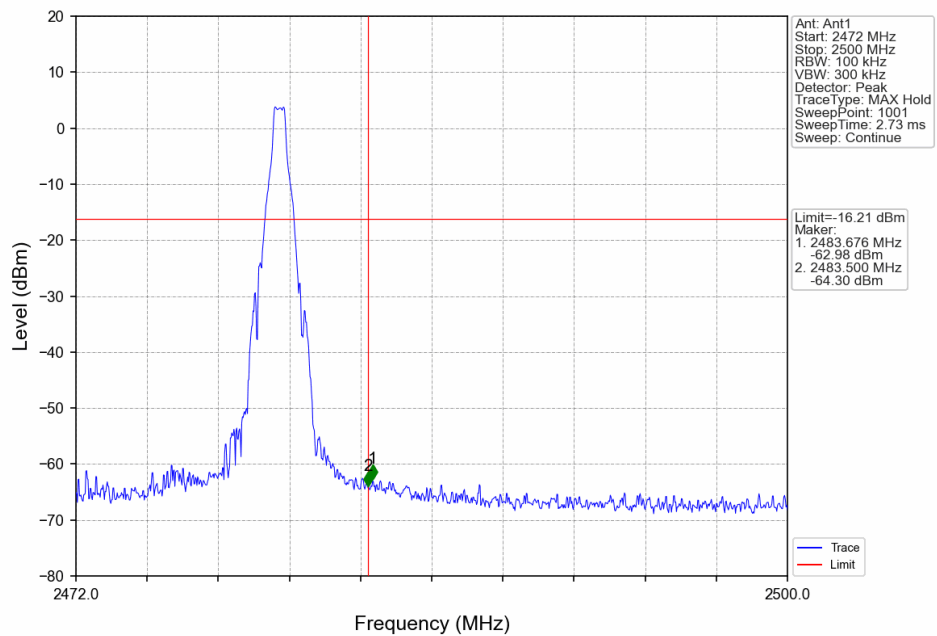
## 6.2.2 Test Graph



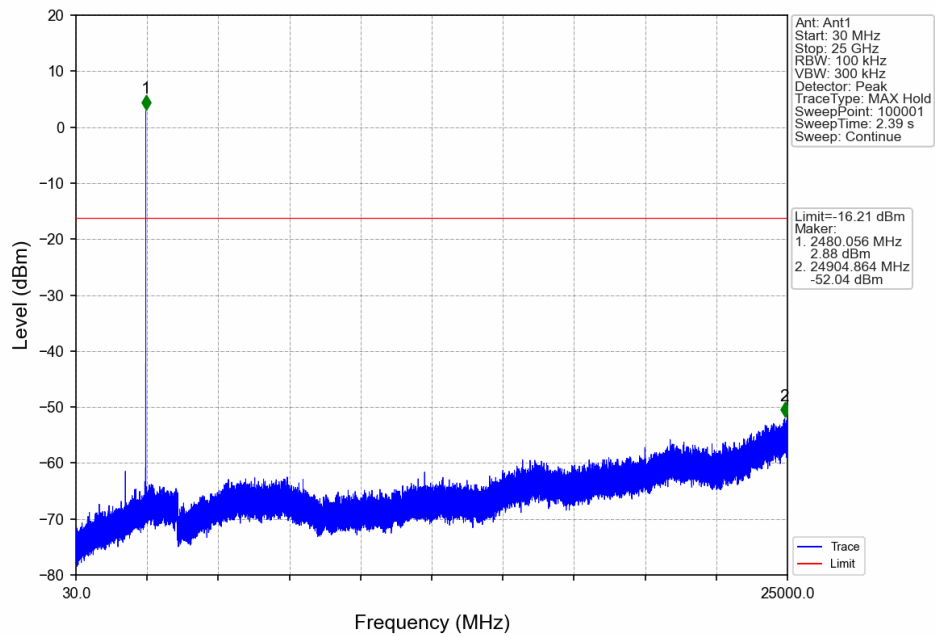
GFSK\_DH5\_MCH\_2441MHz\_Ant1\_NTNV



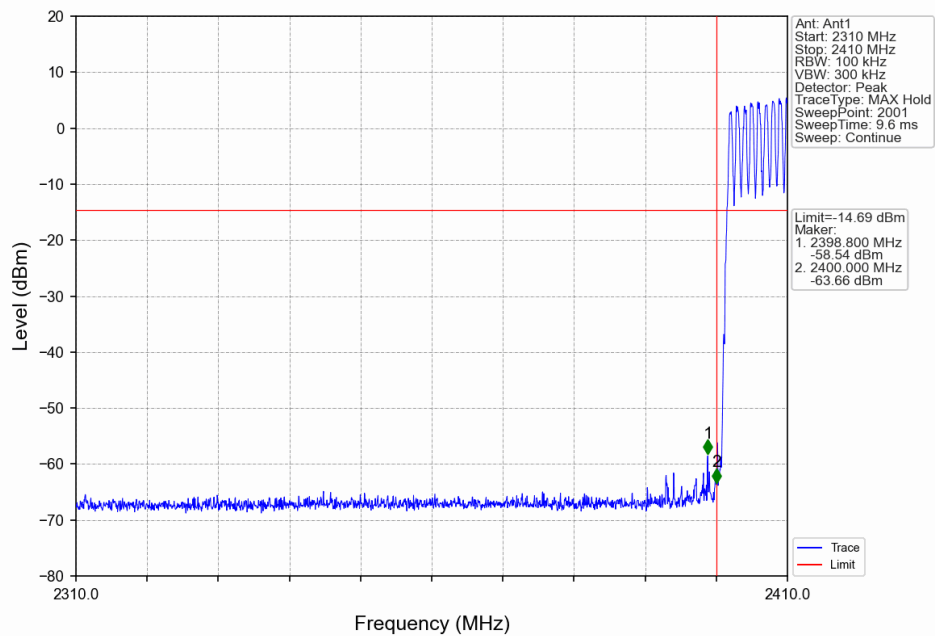
GFSK\_DH5\_HCH\_2480MHz\_Ant1\_NTNV



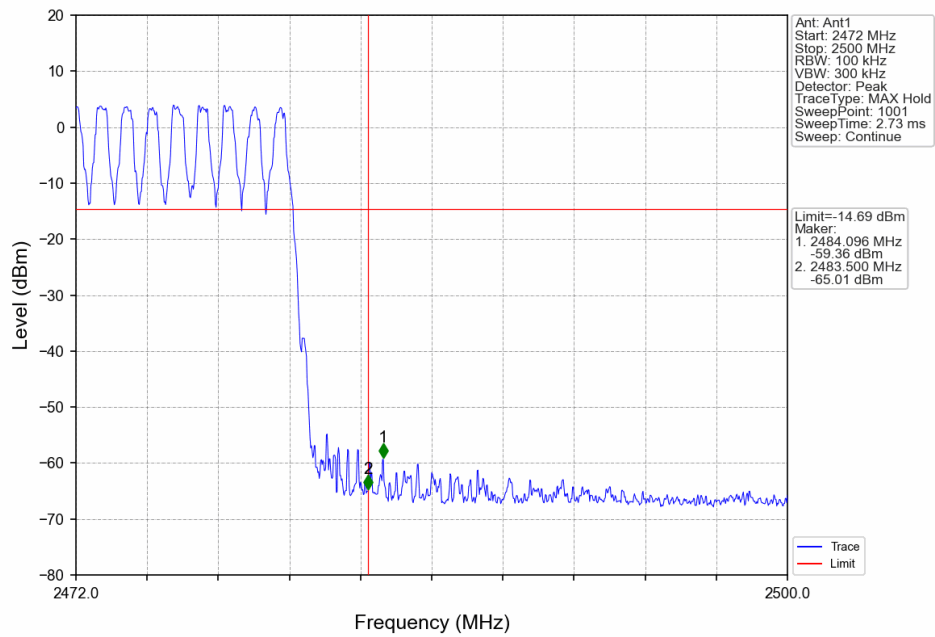
## GFSK\_DH5\_HCH\_2480MHz\_Ant1\_NTNV



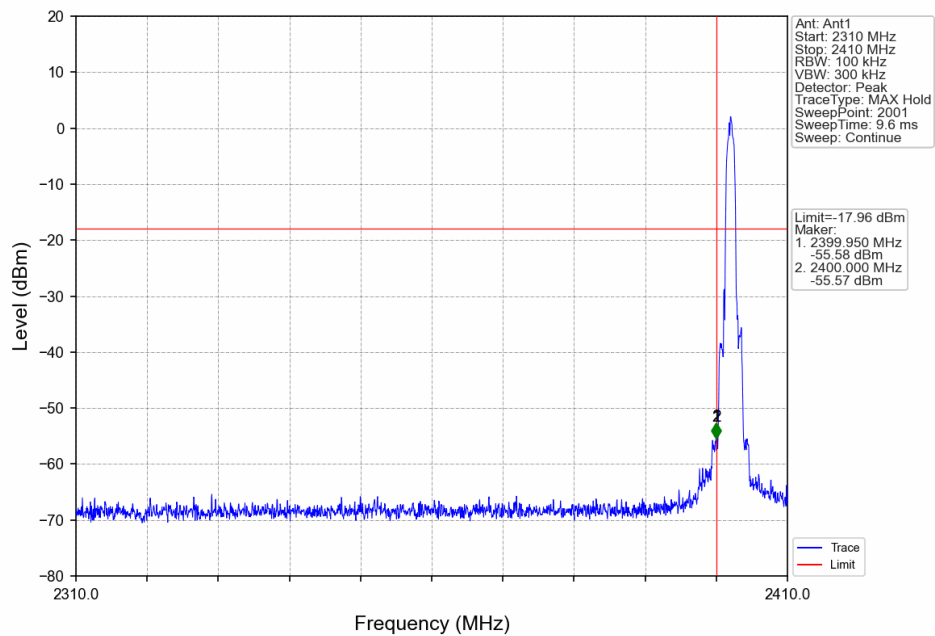
## GFSK\_DH5\_HOPP\_2410MHz\_Ant1\_NTNV



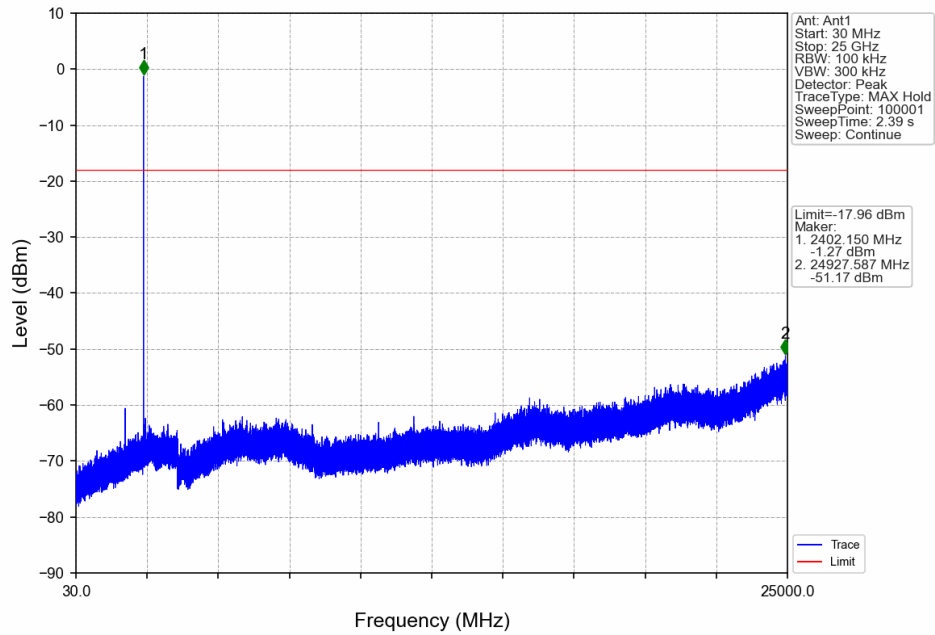
## GFSK\_DH5\_HOPP\_Ant1\_NTNV



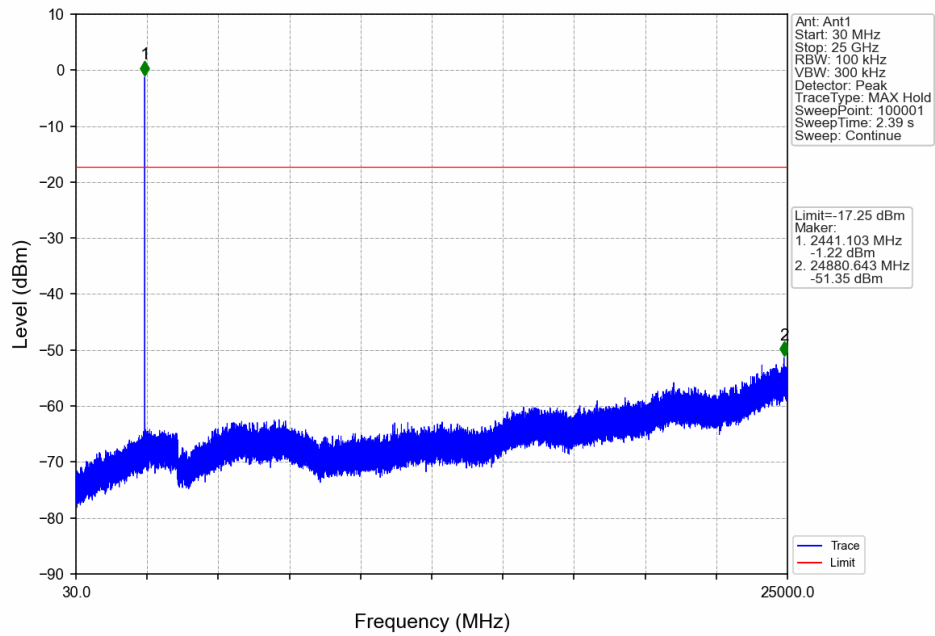
## Pi/4DQPSK\_2DH5\_LCH\_2402MHz\_Ant1\_NTNV



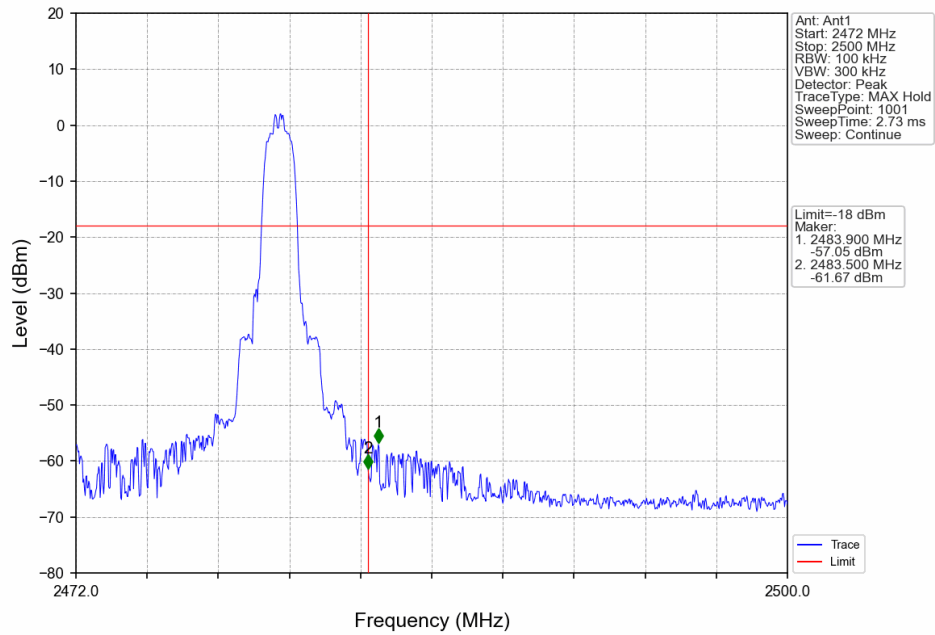
Pi/4DQPSK\_2DH5\_LCH\_2402MHz\_Ant1\_NTNV



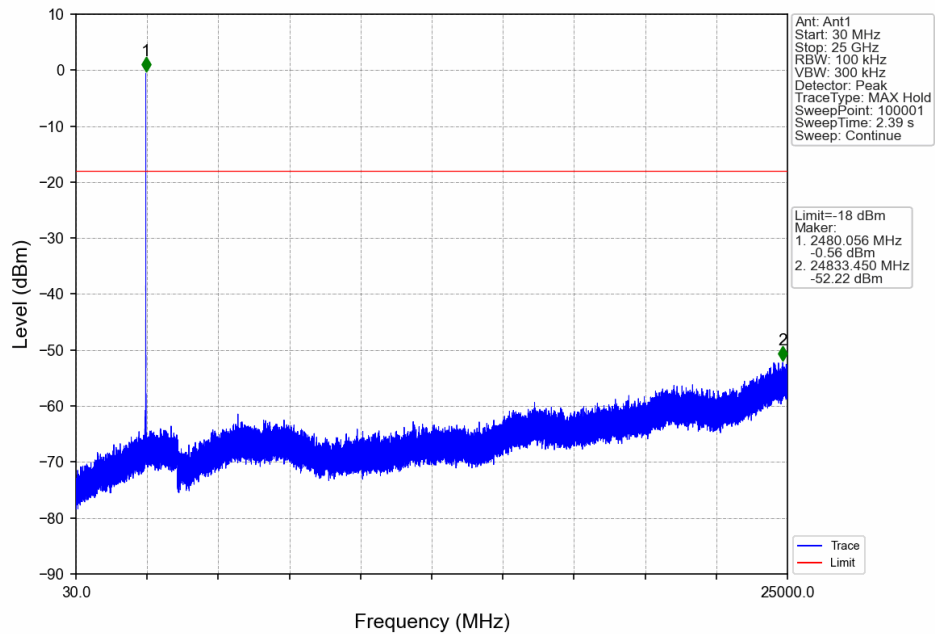
Pi/4DQPSK\_2DH5\_MCH\_2441MHz\_Ant1\_NTNV



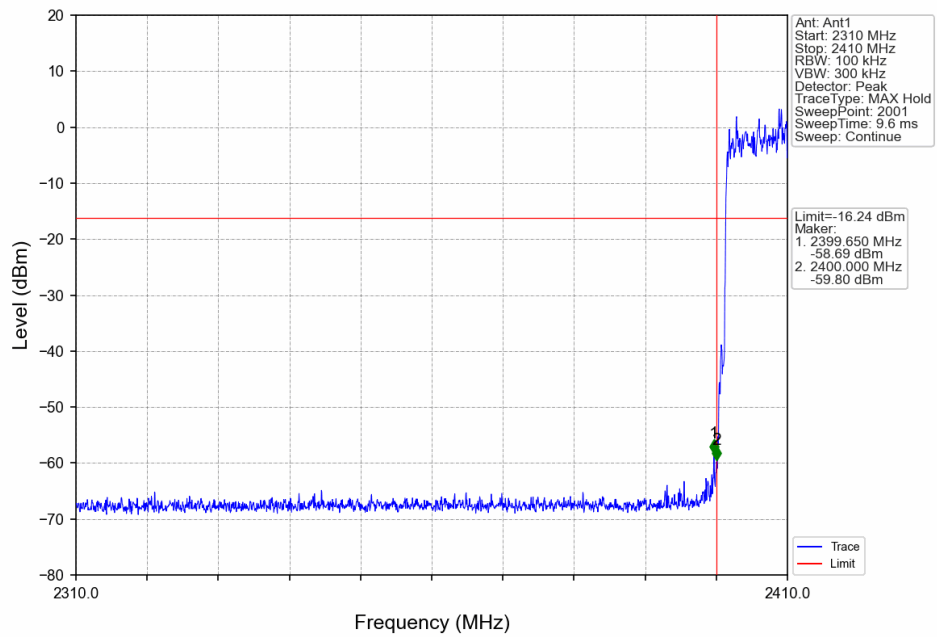
Pi/4DQPSK\_2DH5\_HCH\_2480MHz\_Ant1\_NTNV



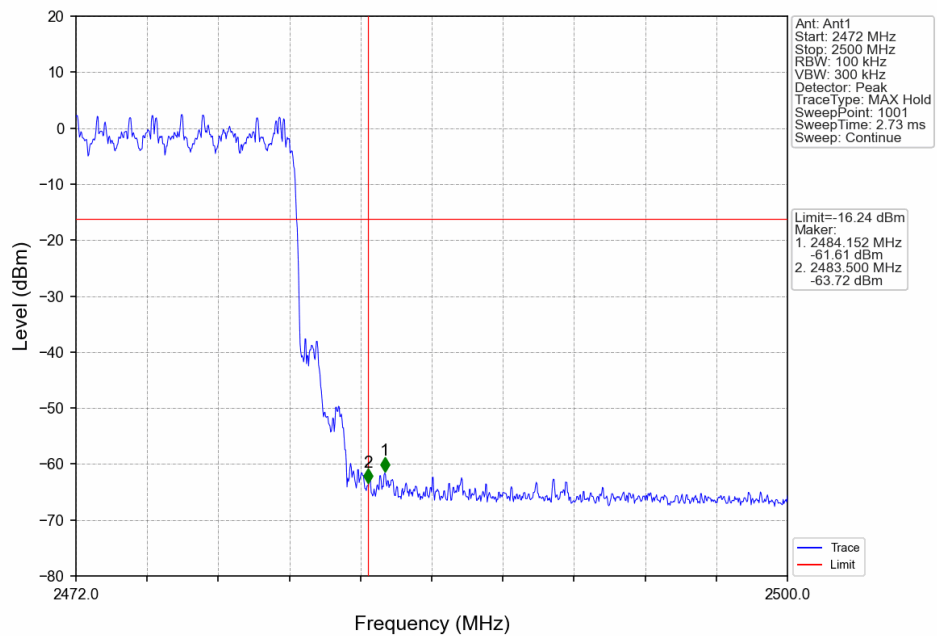
Pi/4DQPSK\_2DH5\_HCH\_2480MHz\_Ant1\_NTNV



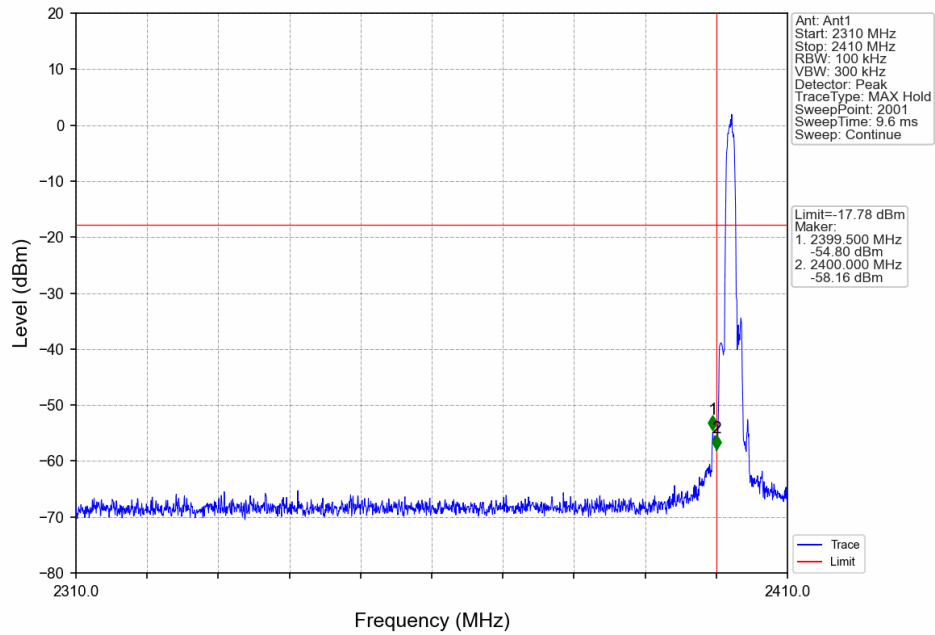
Pi/4DQPSK\_2DH5\_HOPP\_Ant1\_NTNV



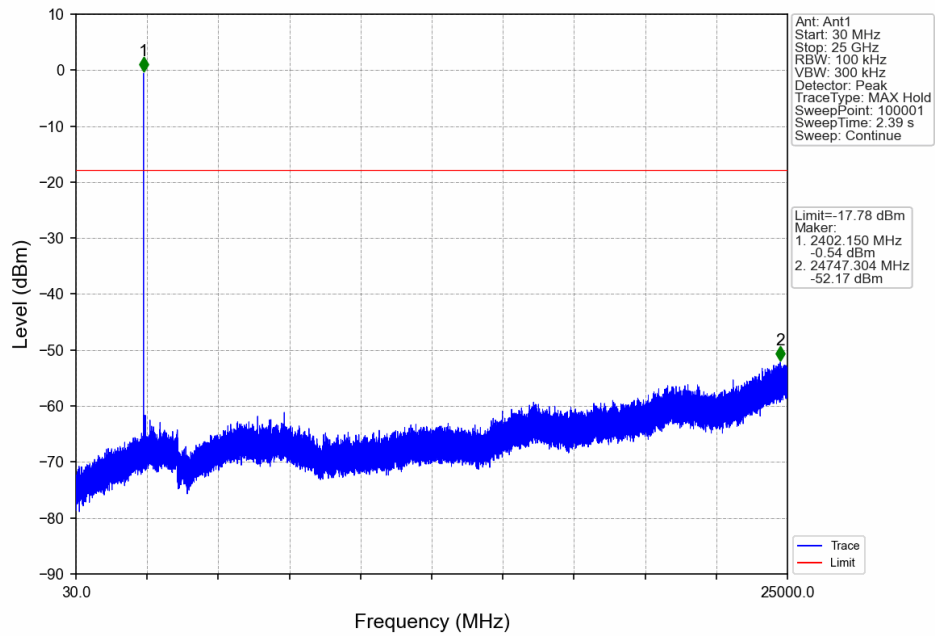
Pi/4DQPSK\_2DH5\_HOPP\_Ant1\_NTNV



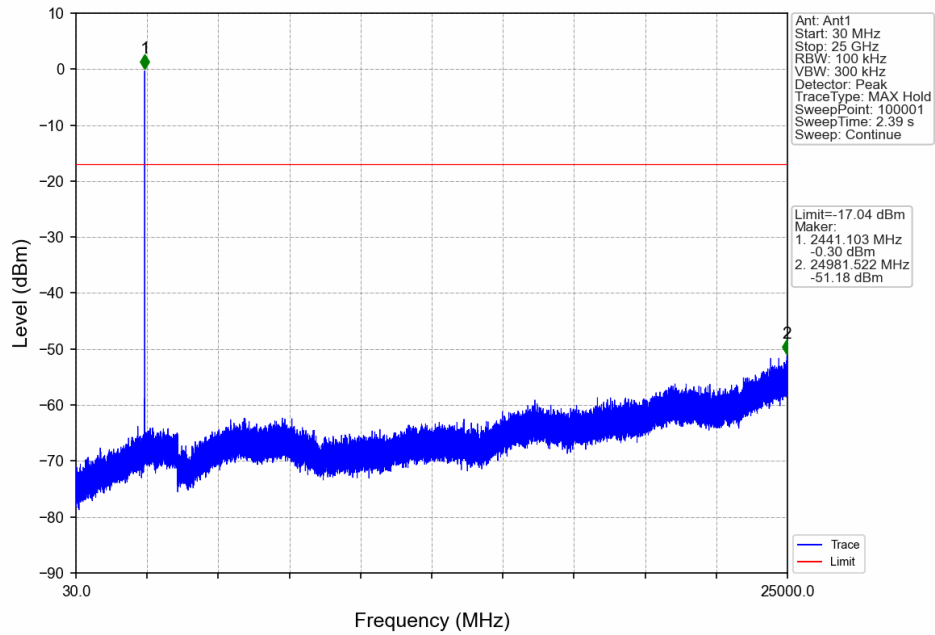
## 8DPSK\_3DH5\_LCH\_2402MHz\_Ant1\_NTNV



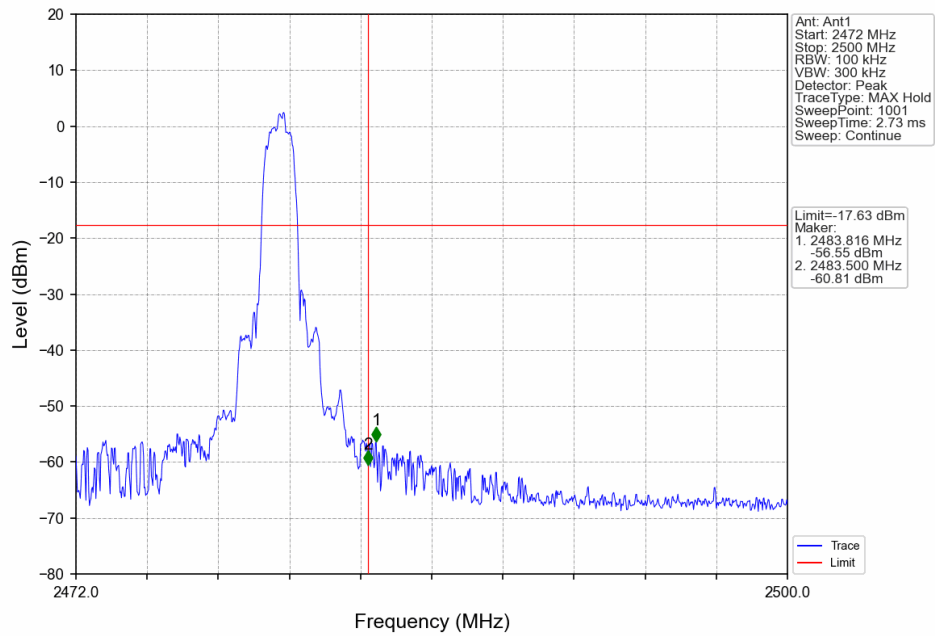
## 8DPSK\_3DH5\_LCH\_2402MHz\_Ant1\_NTNV



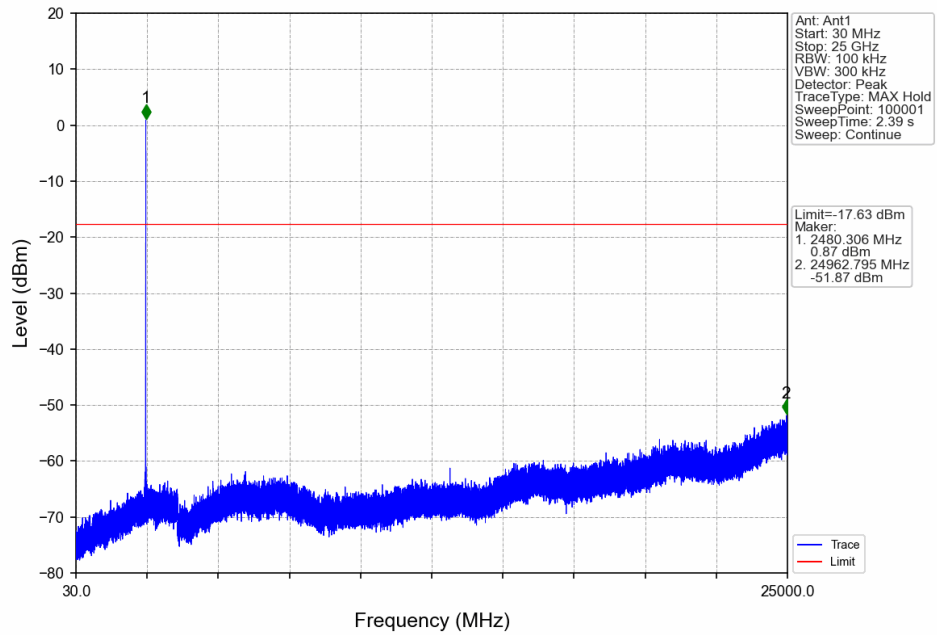
8DPSK\_3DH5\_MCH\_2441MHz\_Ant1\_NTNV



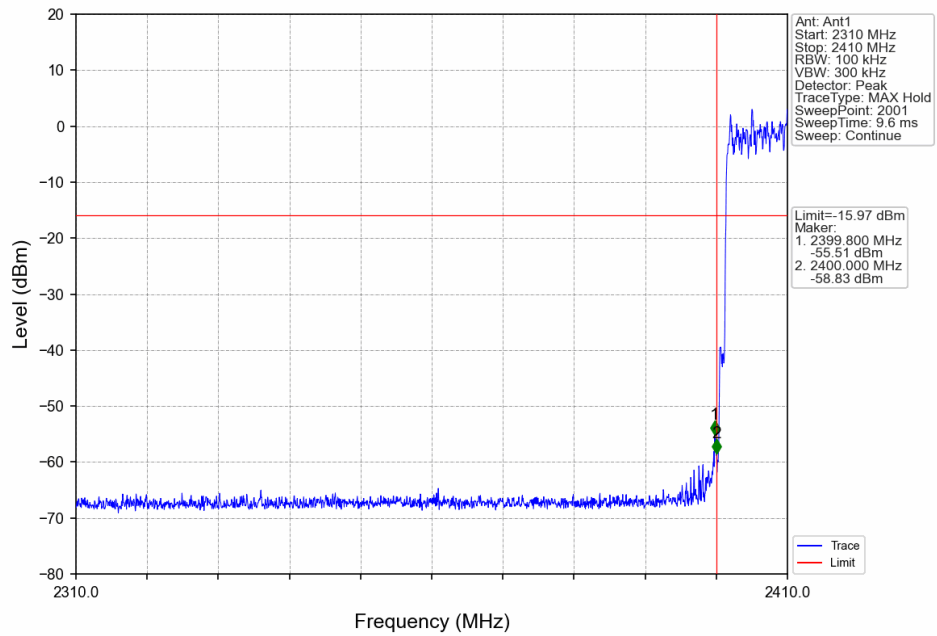
8DPSK\_3DH5\_HCH\_2480MHz\_Ant1\_NTNV

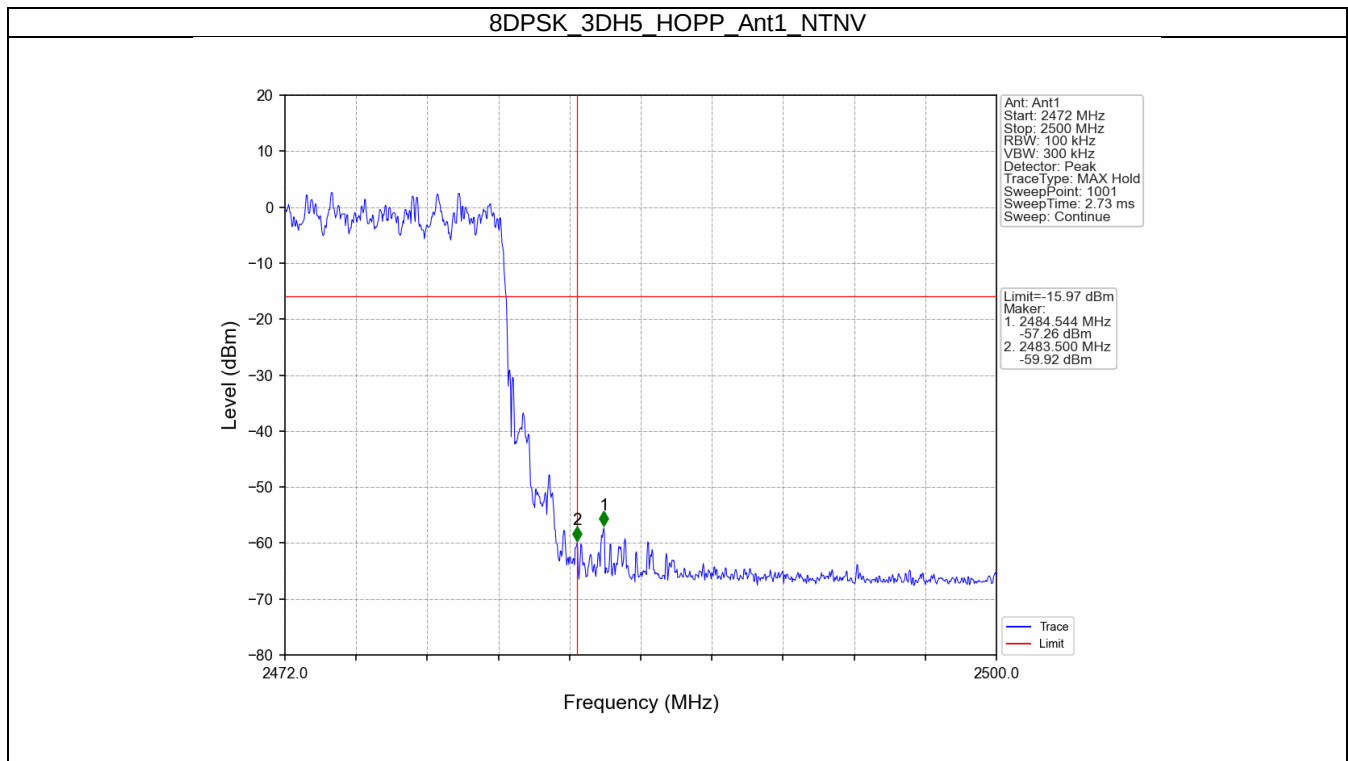


## 8DPSK\_3DH5\_HCH\_2480MHz\_Ant1\_NTNV



## 8DPSK\_3DH5\_HOPP\_Ant1\_NTNV





## 7. Form731

### 7.1 Form731

#### 7.1.1 Test Result

| Lower Freq (MHz) | High Freq (MHz) | MAX Power (W) | MAX Power (dBm) |
|------------------|-----------------|---------------|-----------------|
| 2402             | 2480            | 0.0034        | 5.31            |