

## 1. Bandwidth

### 1.1 Test Result

#### 1.1.1 OBW

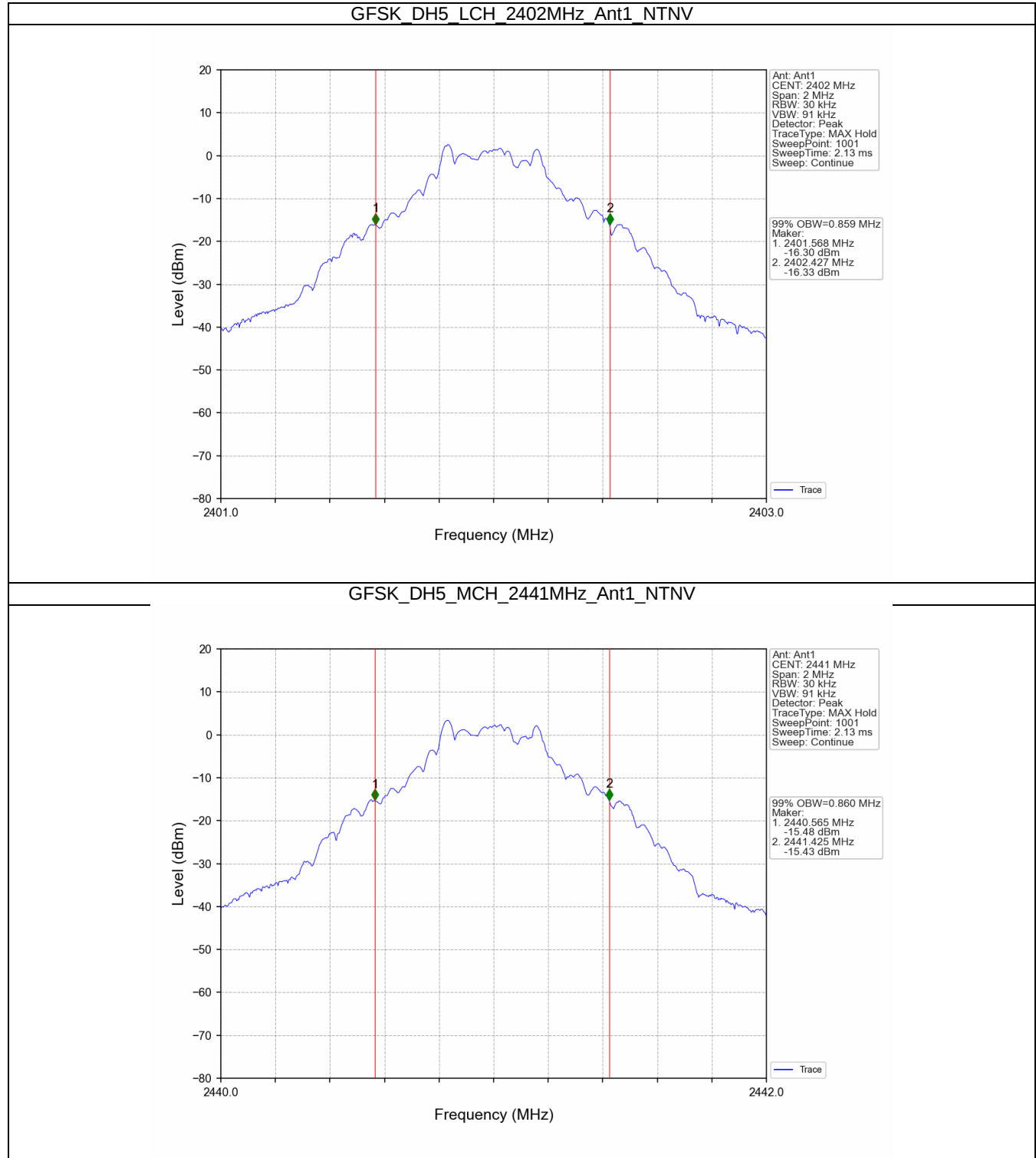
| Mode      | TX Type | Frequency (MHz) | Packet Type | ANT | 99% Occupied Bandwidth (MHz) |       | Verdict |
|-----------|---------|-----------------|-------------|-----|------------------------------|-------|---------|
|           |         |                 |             |     | Result                       | Limit |         |
| GFSK      | SISO    | 2402            | DH5         | 1   | 0.859                        | /     | Pass    |
|           |         | 2441            | DH5         | 1   | 0.860                        | /     | Pass    |
|           |         | 2480            | DH5         | 1   | 0.860                        | /     | Pass    |
| Pi/4DQPSK | SISO    | 2402            | 2DH5        | 1   | 1.176                        | /     | Pass    |
|           |         | 2441            | 2DH5        | 1   | 1.174                        | /     | Pass    |
|           |         | 2480            | 2DH5        | 1   | 1.175                        | /     | Pass    |
| 8DPSK     | SISO    | 2402            | 3DH5        | 1   | 1.179                        | /     | Pass    |
|           |         | 2441            | 3DH5        | 1   | 1.180                        | /     | Pass    |
|           |         | 2480            | 3DH5        | 1   | 1.179                        | /     | Pass    |

#### 1.1.2 20dB BW

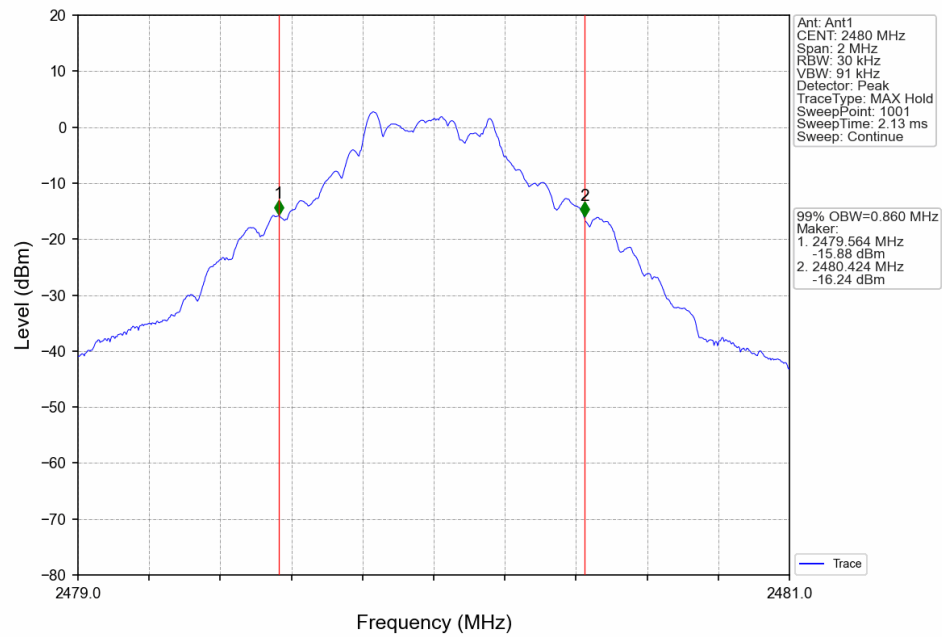
| Mode      | TX Type | Frequency (MHz) | Packet Type | ANT | 20dB Bandwidth (MHz) |       | Verdict |
|-----------|---------|-----------------|-------------|-----|----------------------|-------|---------|
|           |         |                 |             |     | Result               | Limit |         |
| GFSK      | SISO    | 2402            | DH5         | 1   | 0.961                | /     | Pass    |
|           |         | 2441            | DH5         | 1   | 0.958                | /     | Pass    |
|           |         | 2480            | DH5         | 1   | 0.959                | /     | Pass    |
| Pi/4DQPSK | SISO    | 2402            | 2DH5        | 1   | 1.297                | /     | Pass    |
|           |         | 2441            | 2DH5        | 1   | 1.295                | /     | Pass    |
|           |         | 2480            | 2DH5        | 1   | 1.297                | /     | Pass    |
| 8DPSK     | SISO    | 2402            | 3DH5        | 1   | 1.312                | /     | Pass    |
|           |         | 2441            | 3DH5        | 1   | 1.312                | /     | Pass    |
|           |         | 2480            | 3DH5        | 1   | 1.312                | /     | Pass    |

## 1.2 Test Graph

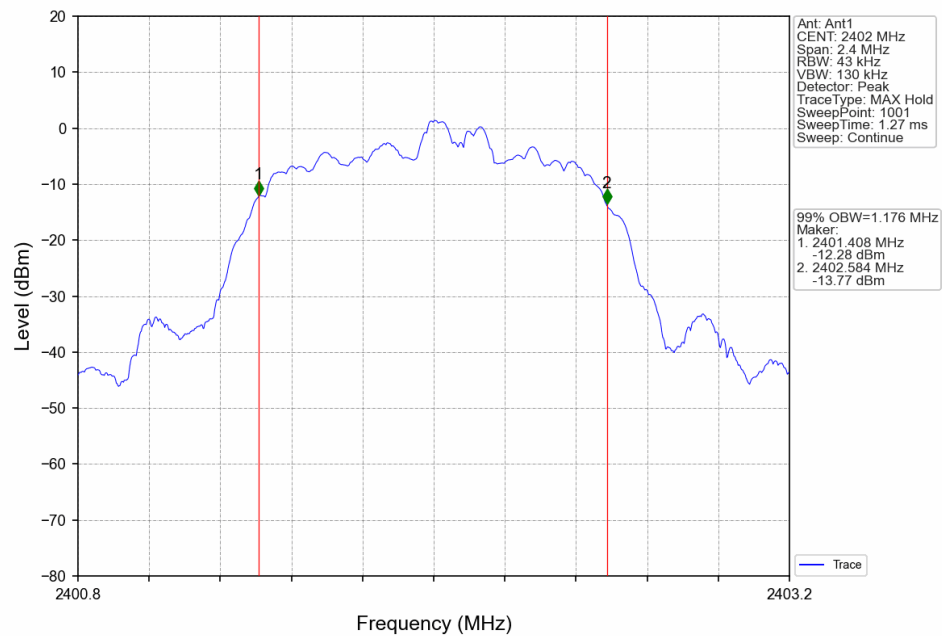
### 1.2.1 OBW



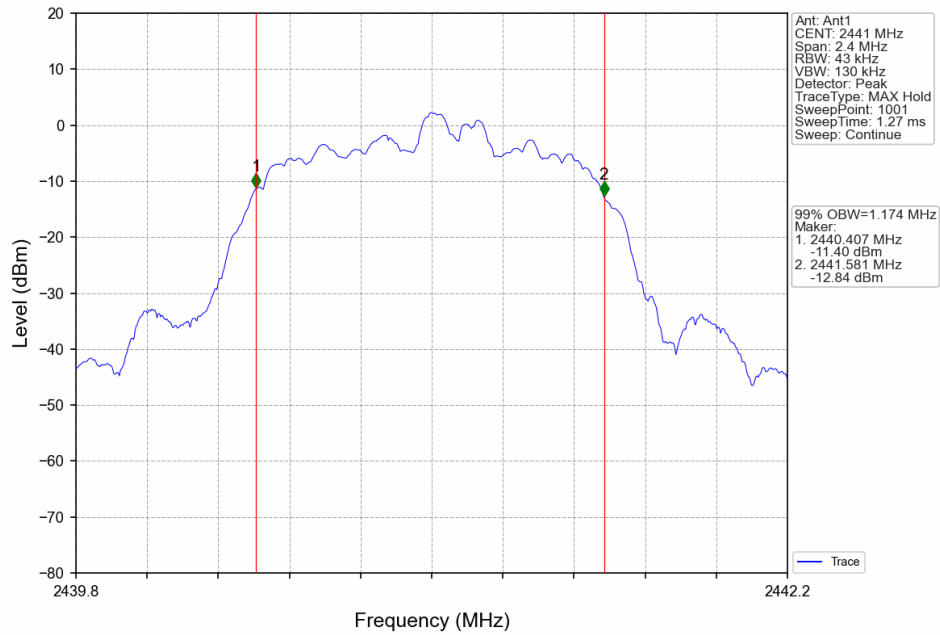
## GFSK\_DH5\_HCH\_2480MHz\_Ant1\_NTNV



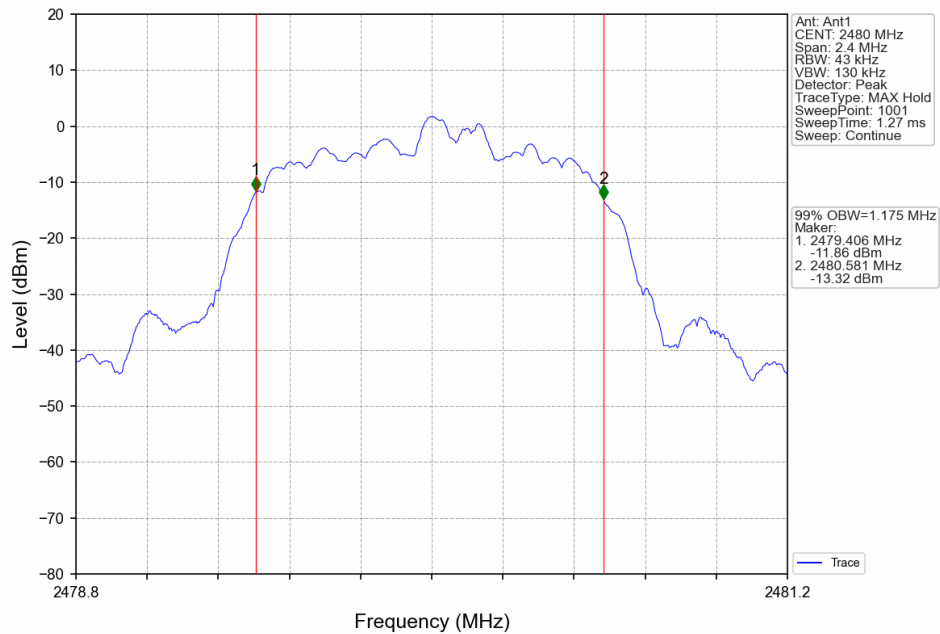
## Pi/4DQPSK\_2DH5\_LCH\_2402MHz\_Ant1\_NTNV



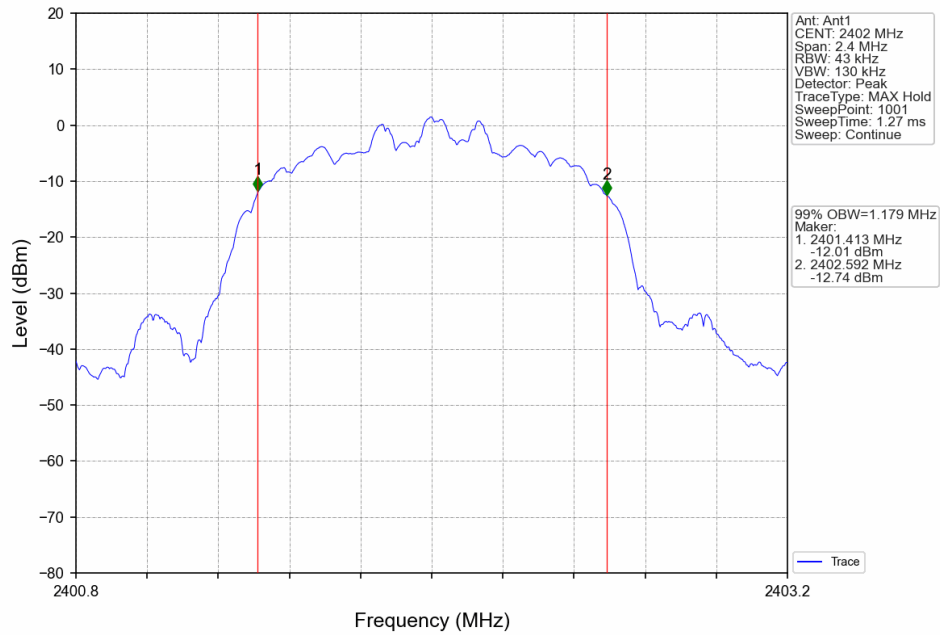
Pi/4DQPSK\_2DH5\_MCH\_2441MHz\_Ant1\_NTNV



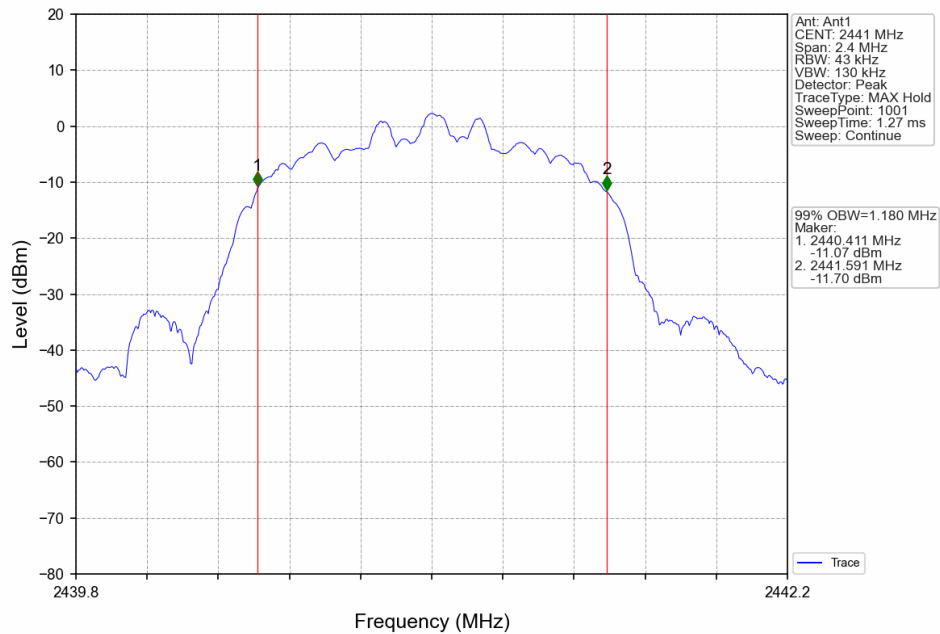
Pi/4DQPSK\_2DH5\_HCH\_2480MHz\_Ant1\_NTNV

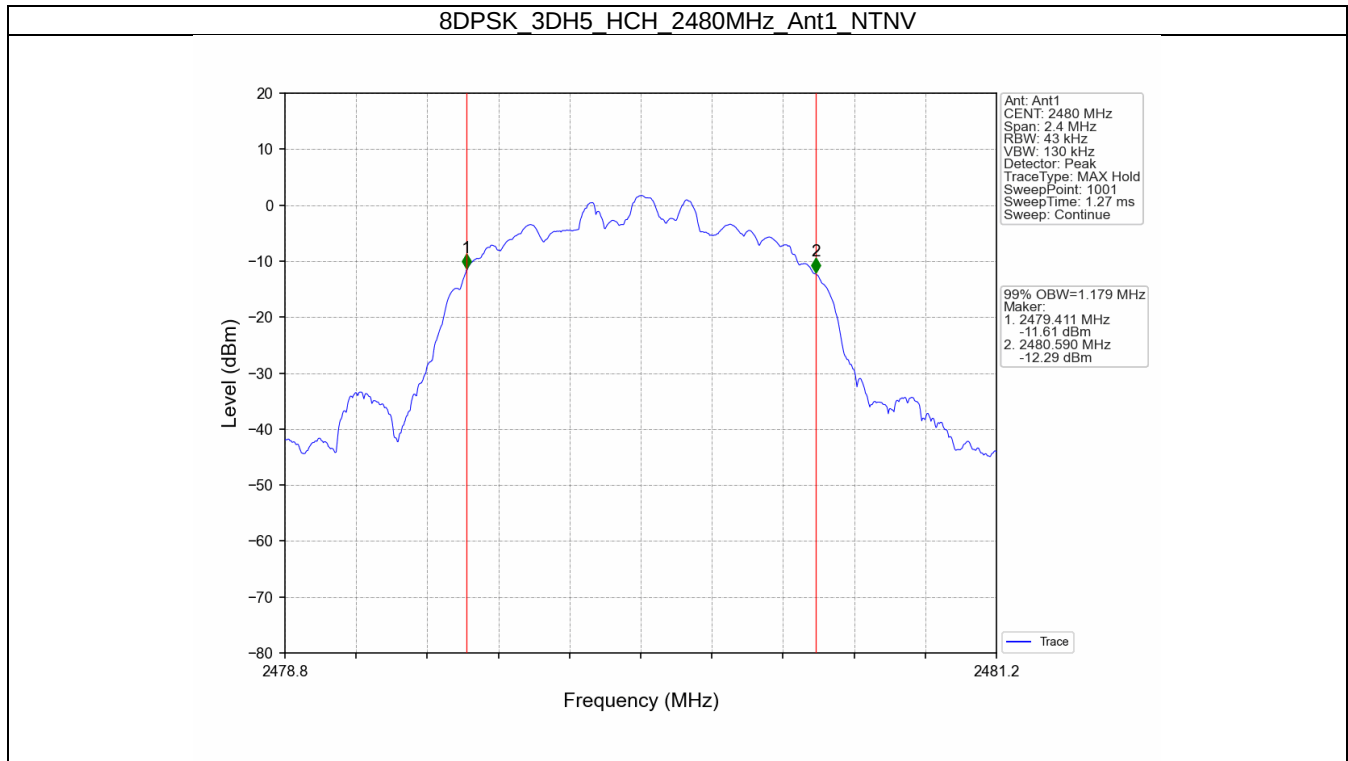


## 8DPSK\_3DH5\_LCH\_2402MHz\_Ant1\_NTNV

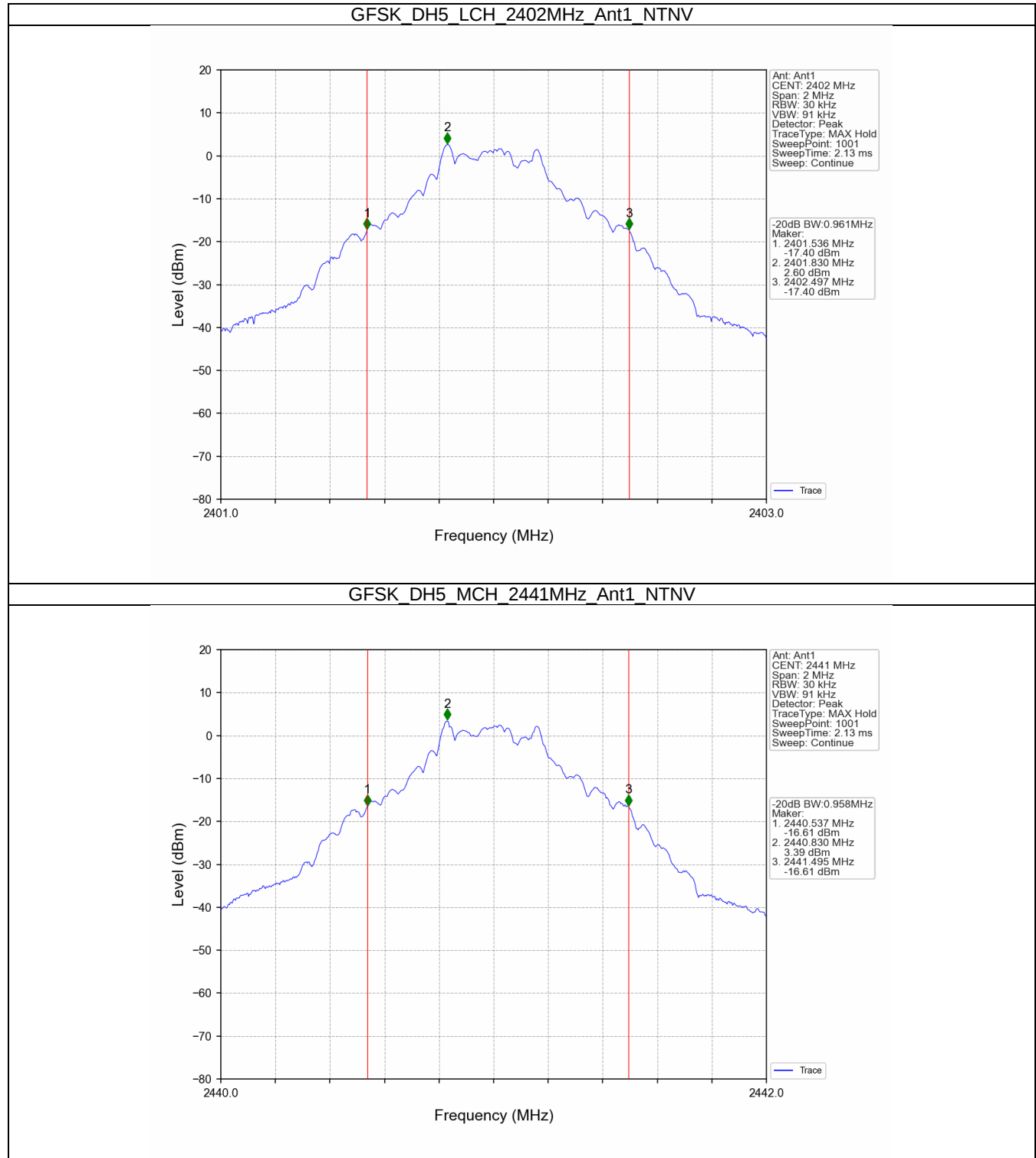


## 8DPSK\_3DH5\_MCH\_2441MHz\_Ant1\_NTNV

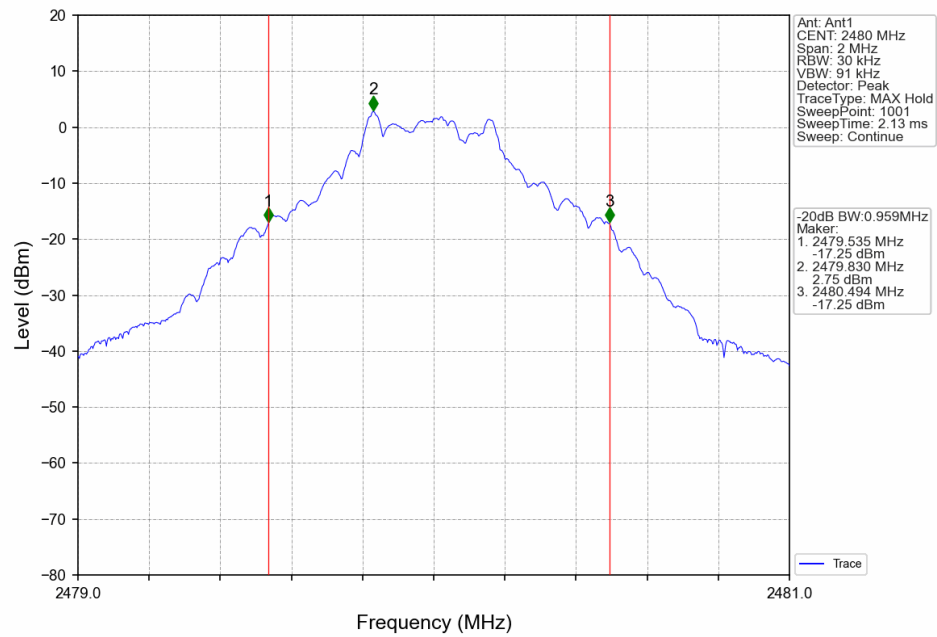




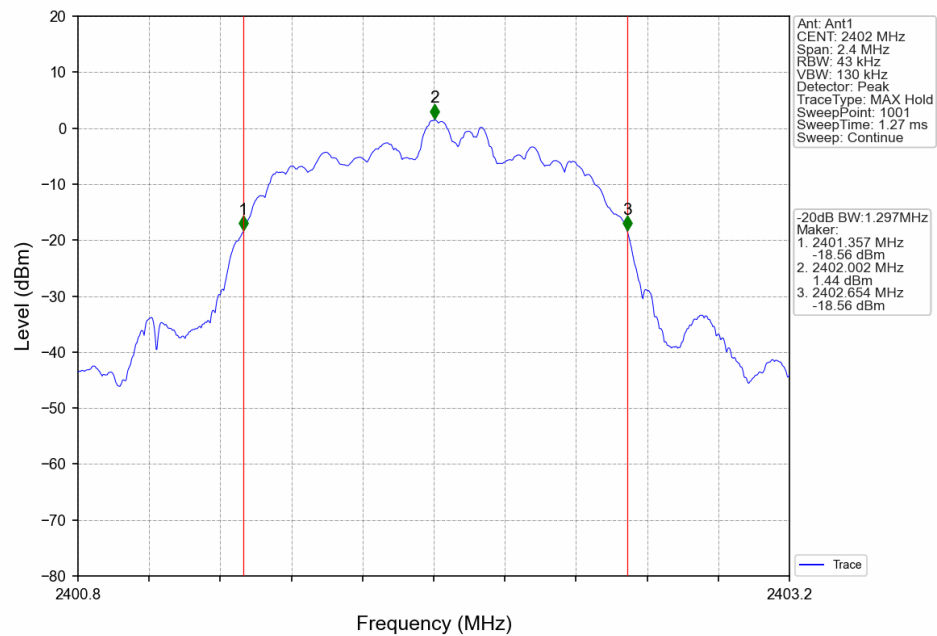
## 1.2.2 20dB BW



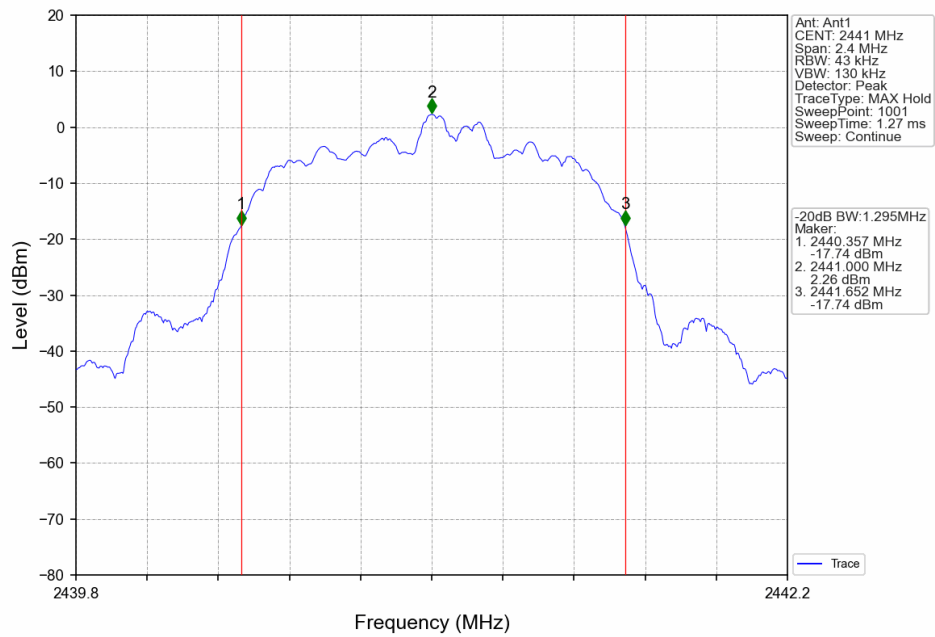
GFSK\_DH5\_HCH\_2480MHz\_Ant1\_NTNV



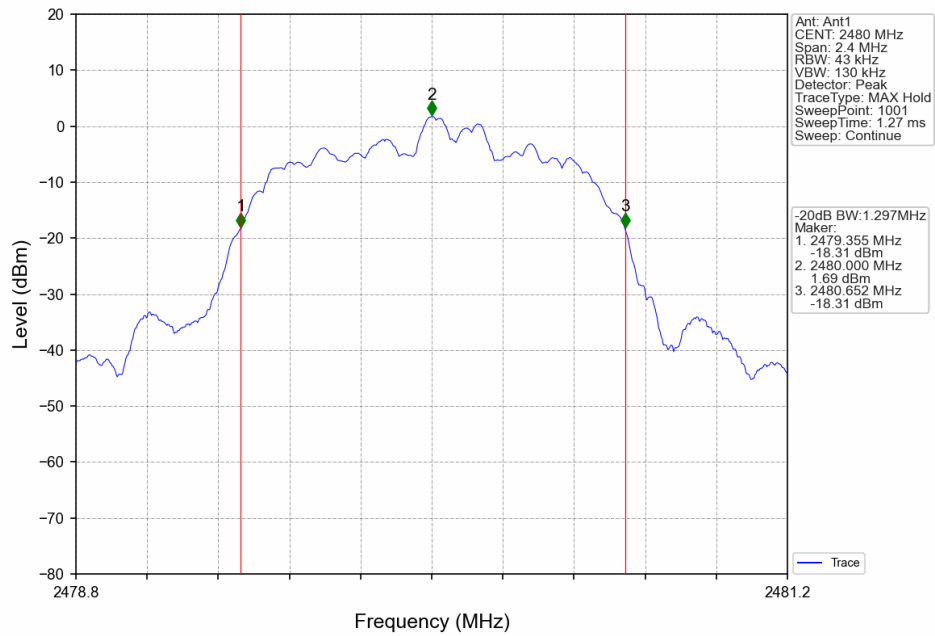
Pi/4DQPSK\_2DH5\_LCH\_2402MHz\_Ant1\_NTNV



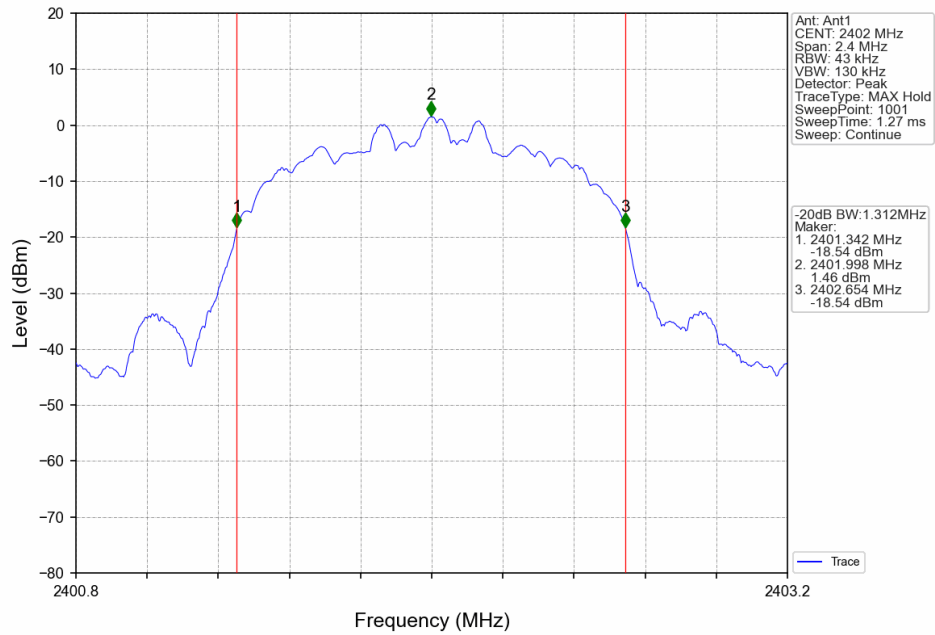
Pi/4DQPSK\_2DH5\_MCH\_2441MHz\_Ant1\_NTNV



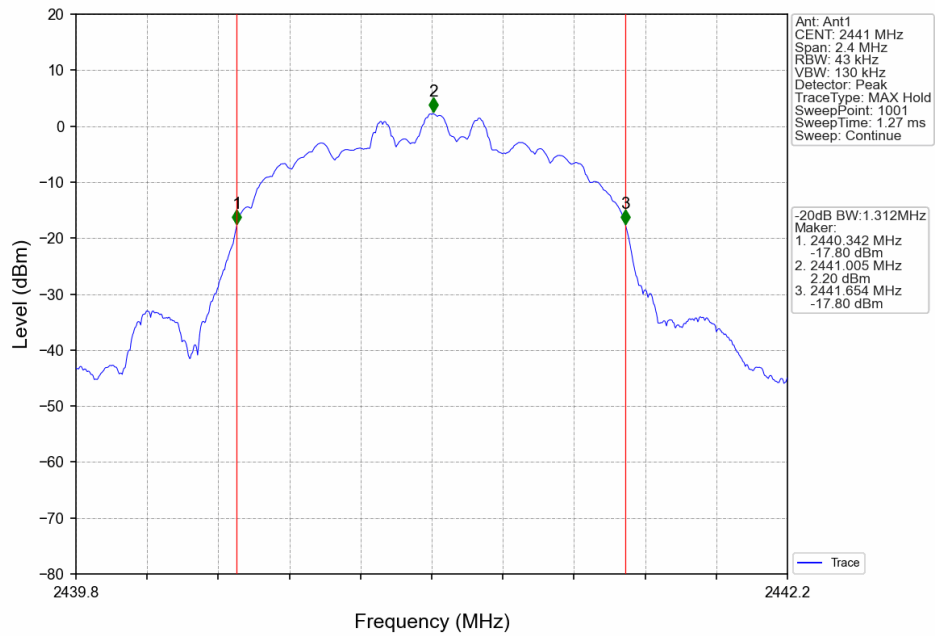
Pi/4DQPSK\_2DH5\_HCH\_2480MHz\_Ant1\_NTNV

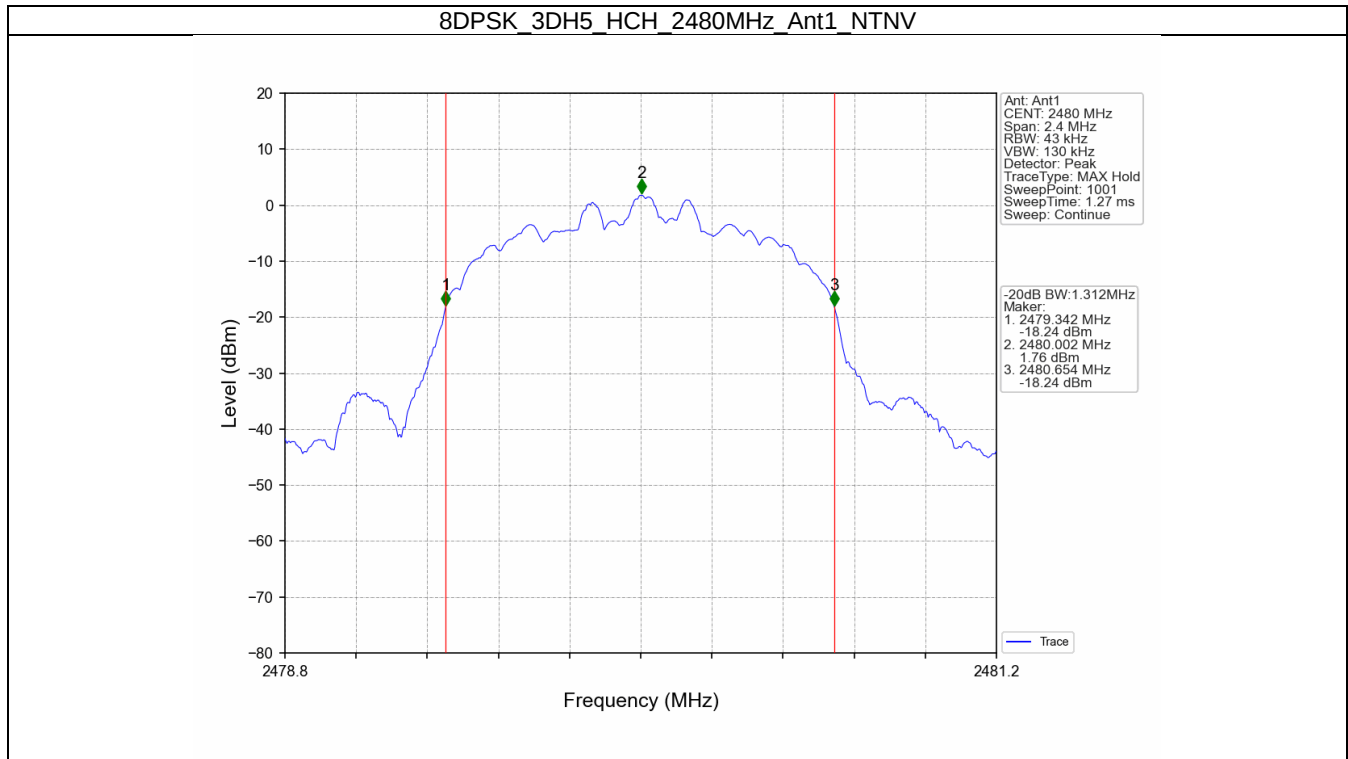


## 8DPSK\_3DH5\_LCH\_2402MHz\_Ant1\_NTNV



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





## 2. Maximum Conducted Output Power

### 2.1 Test Result

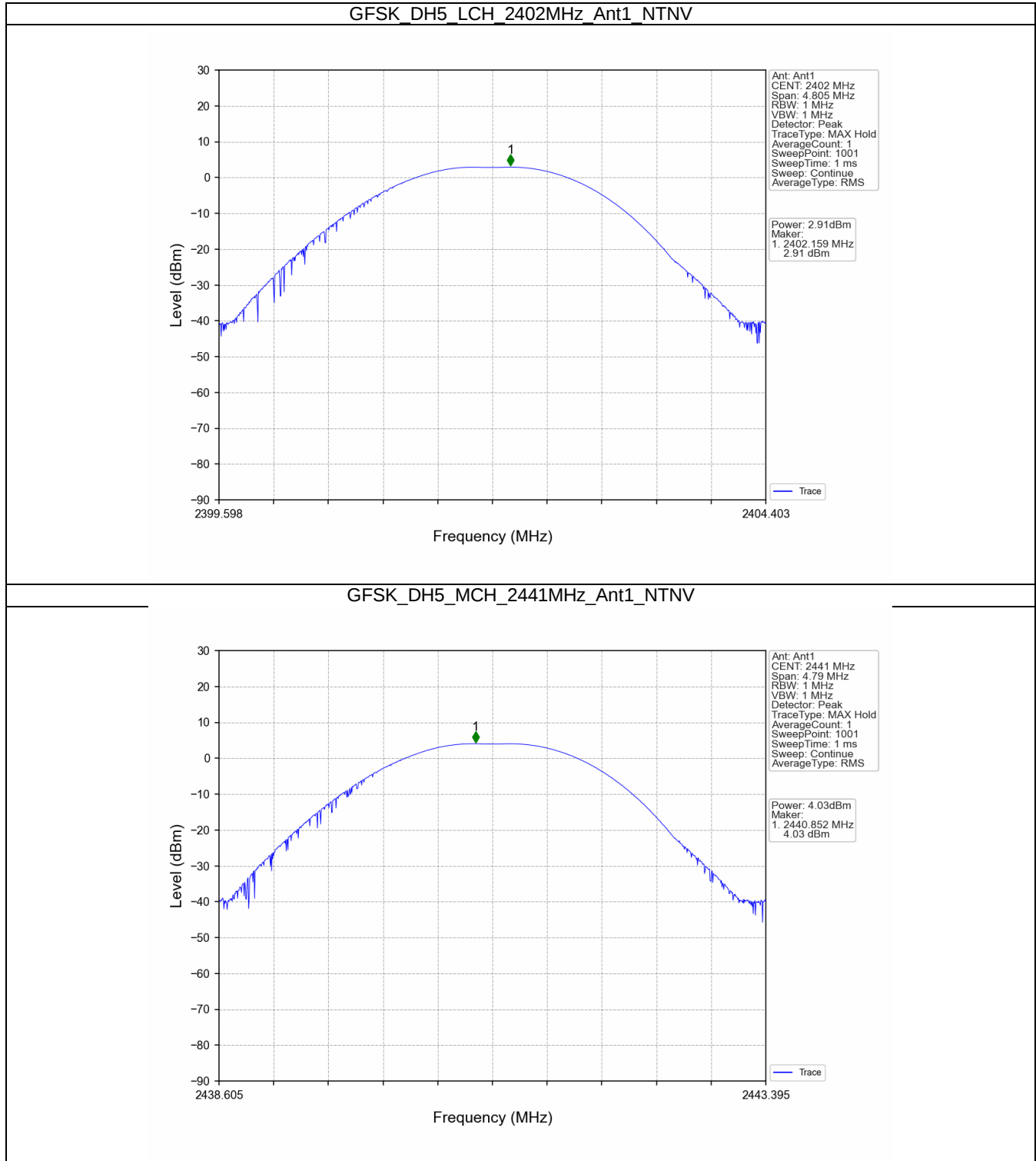
#### 2.1.1 Power

| Mode      | TX Type | Frequency (MHz) | Packet Type | Maximum Peak Conducted Output Power (dBm) |              | Verdict |
|-----------|---------|-----------------|-------------|-------------------------------------------|--------------|---------|
|           |         |                 |             | ANT1                                      | Limit        |         |
| GFSK      | SISO    | 2402            | DH5         | 2.91                                      | $\leq 30$    | Pass    |
|           |         | 2441            | DH5         | 4.03                                      | $\leq 30$    | Pass    |
|           |         | 2480            | DH5         | 4.12                                      | $\leq 30$    | Pass    |
| Pi/4DQPSK | SISO    | 2402            | 2DH5        | 2.85                                      | $\leq 20.97$ | Pass    |
|           |         | 2441            | 2DH5        | 6.06                                      | $\leq 20.97$ | Pass    |
|           |         | 2480            | 2DH5        | 6.23                                      | $\leq 20.97$ | Pass    |
| 8DPSK     | SISO    | 2402            | 3DH5        | 4.84                                      | $\leq 20.97$ | Pass    |
|           |         | 2441            | 3DH5        | 6.24                                      | $\leq 20.97$ | Pass    |
|           |         | 2480            | 3DH5        | 6.39                                      | $\leq 20.97$ | Pass    |

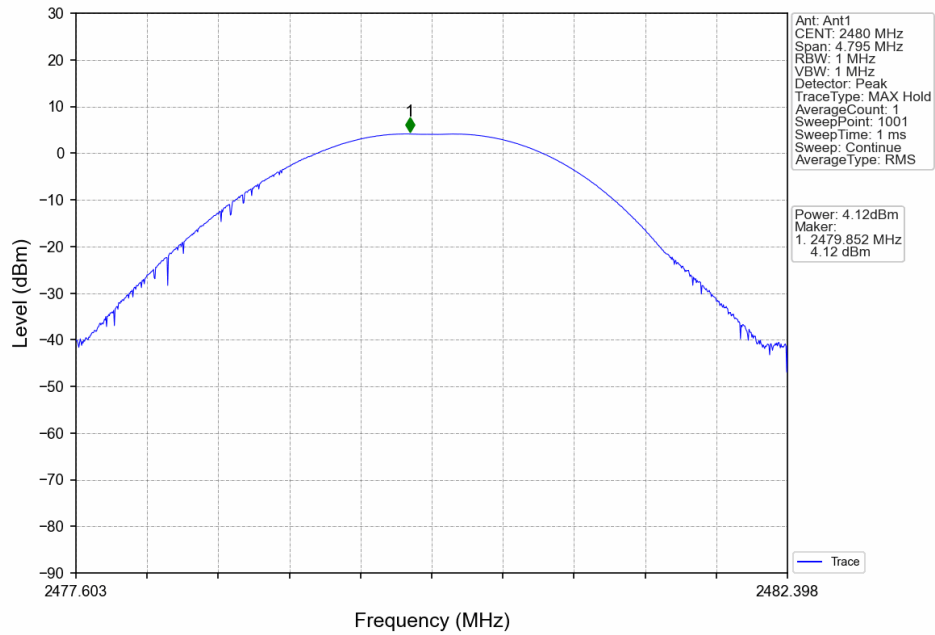
Note1: Antenna Gain: Ant1: 0.00dBi;

## 2.2 Test Graph

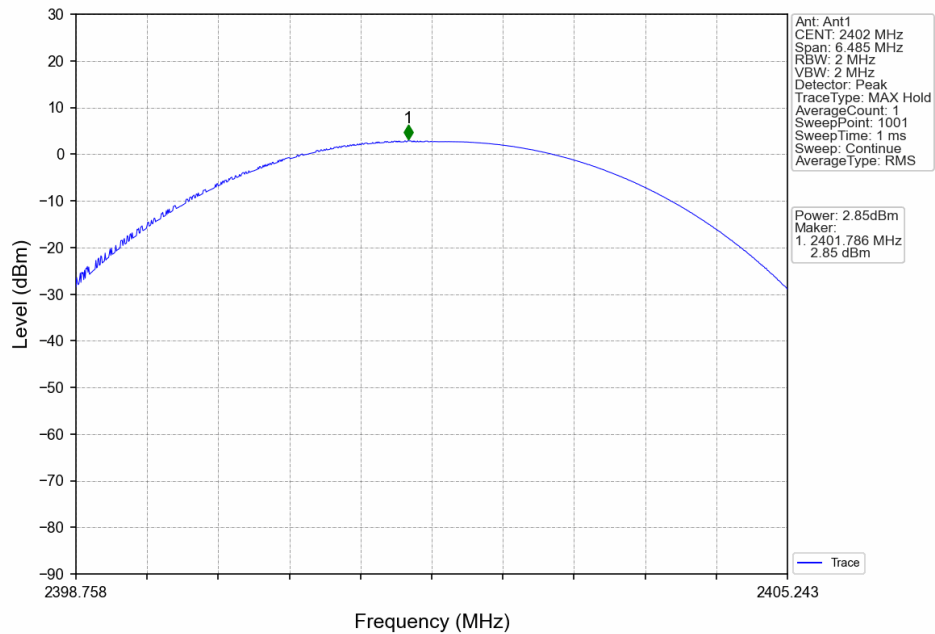
### 2.2.1 Power



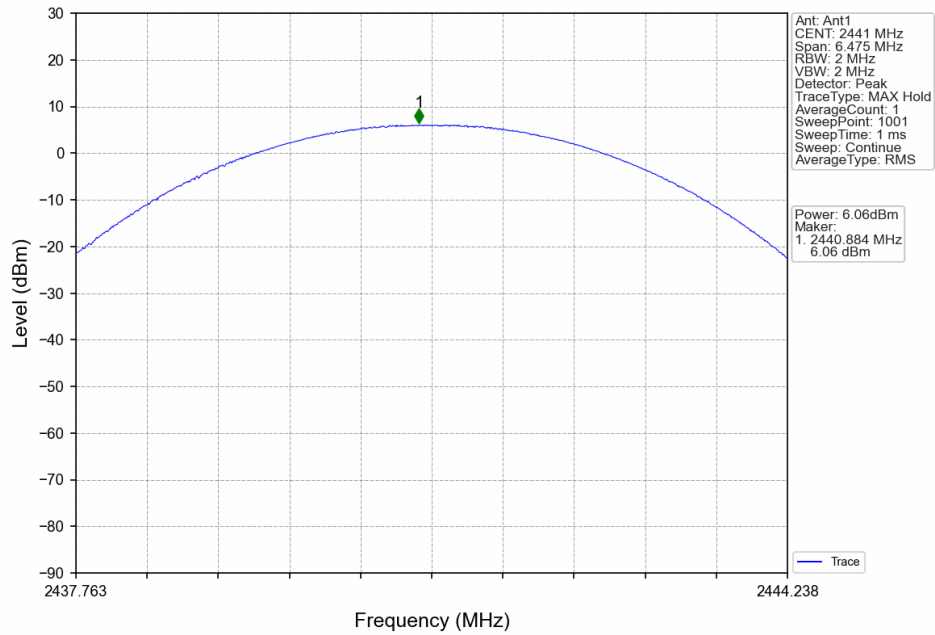
GFSK\_DH5\_HCH\_2480MHz\_Ant1\_NTNV



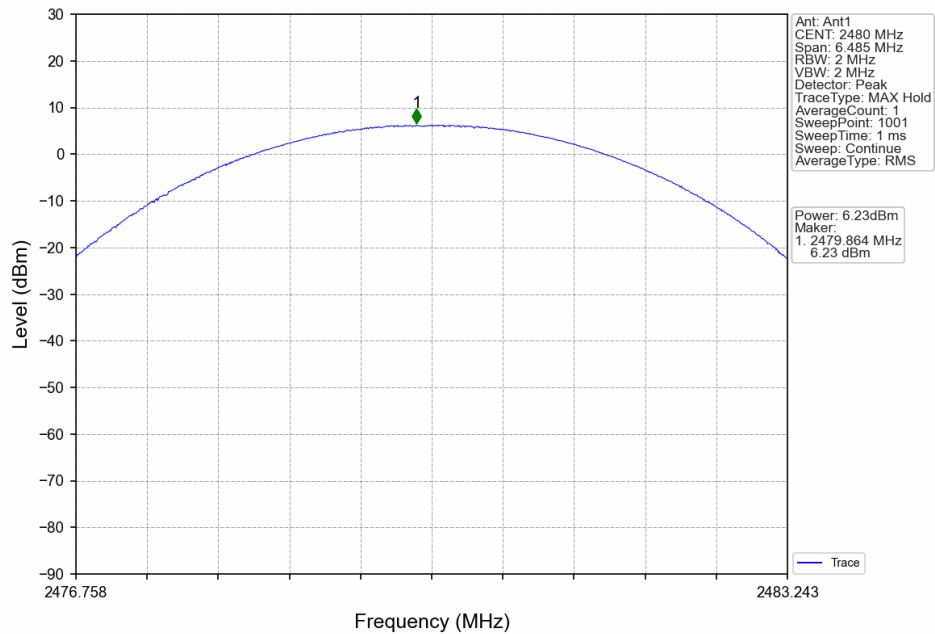
Pi/4DQPSK\_2DH5\_LCH\_2402MHz\_Ant1\_NTNV



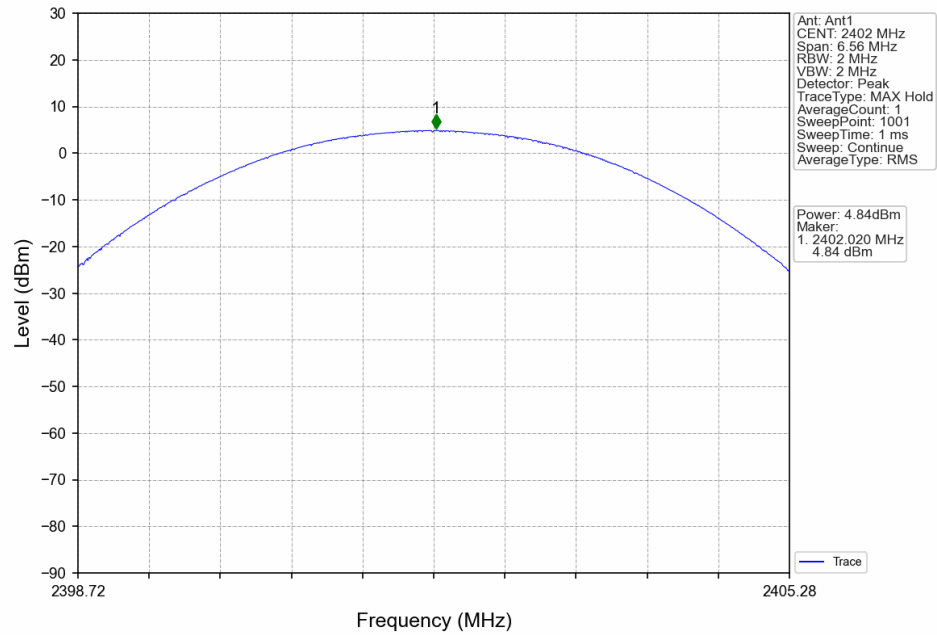
Pi/4DQPSK\_2DH5\_MCH\_2441MHz\_Ant1\_NTNV



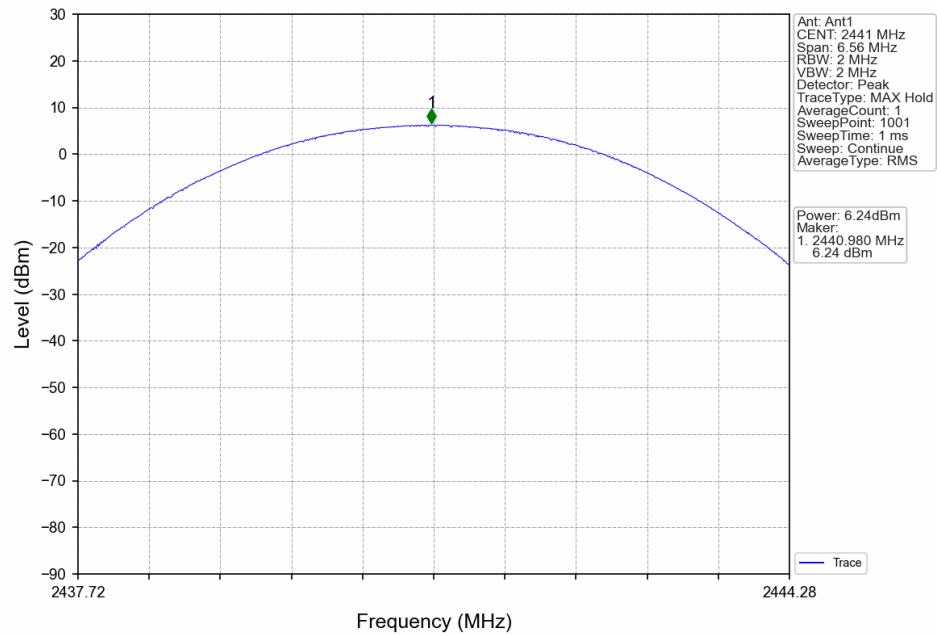
Pi/4DQPSK\_2DH5\_HCH\_2480MHz\_Ant1\_NTNV



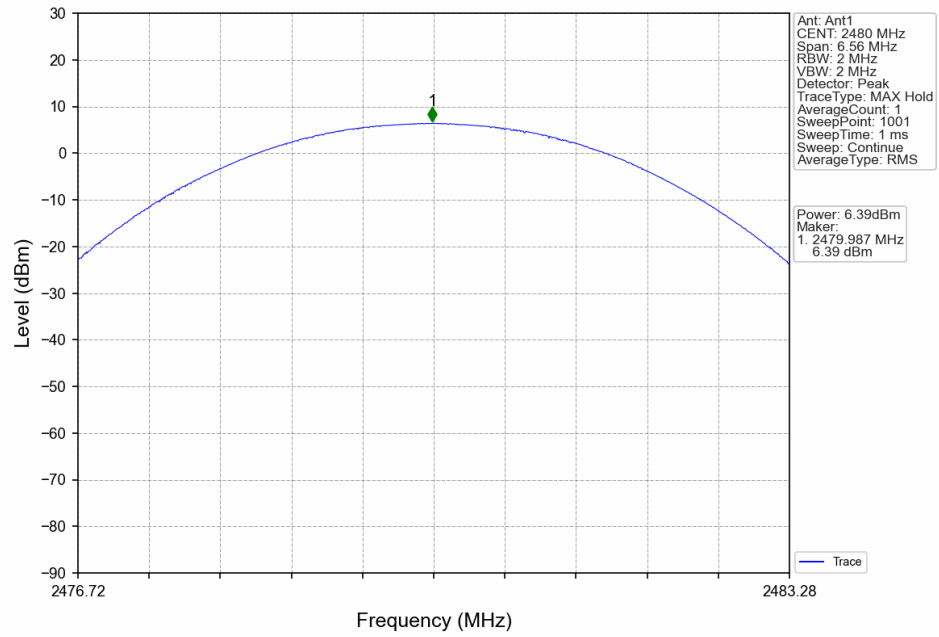
## 8DPSK\_3DH5\_LCH\_2402MHz\_Ant1\_NTNV



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



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



### 3. Carrier Frequency Separation

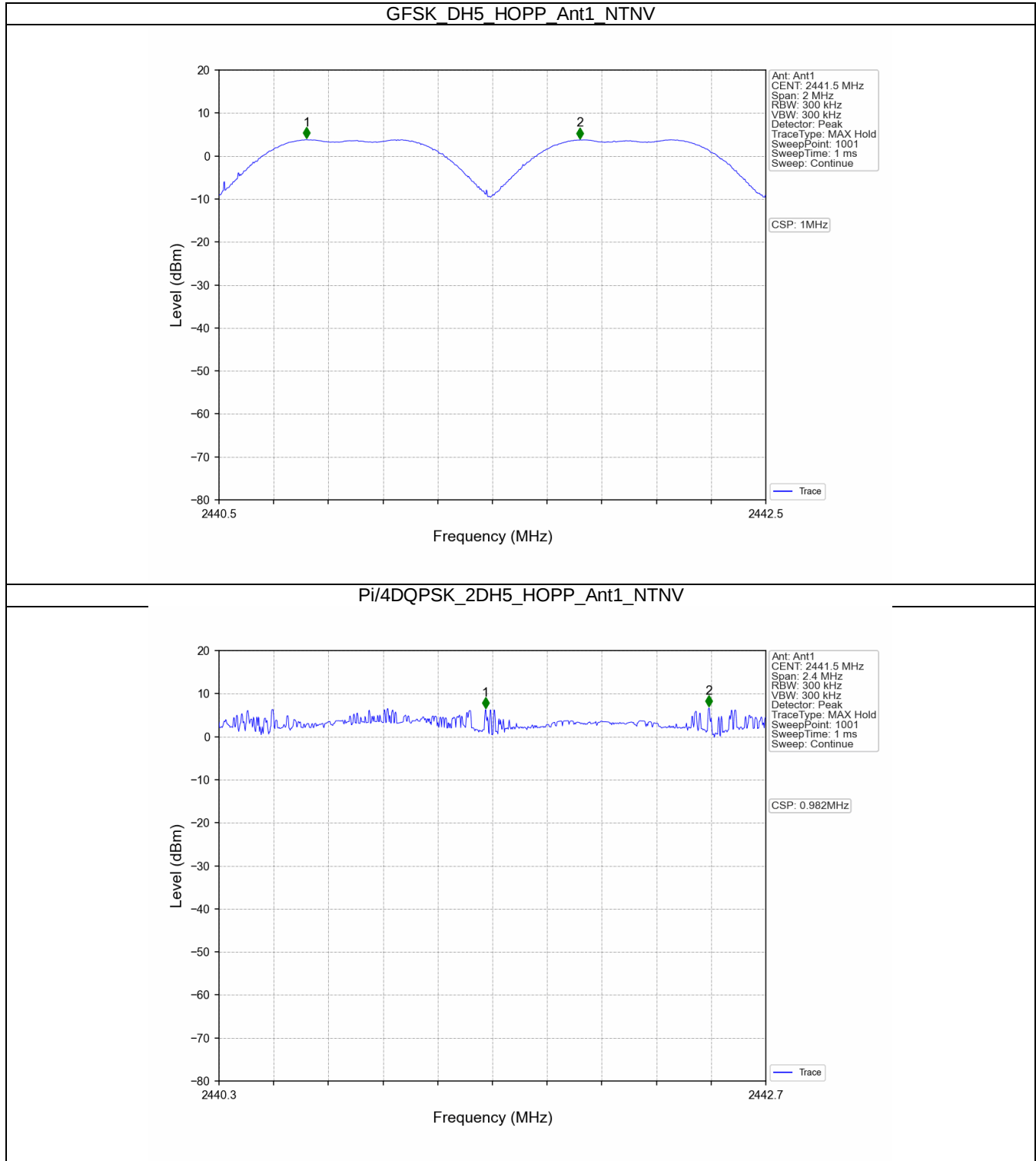
#### 3.1 Test Result

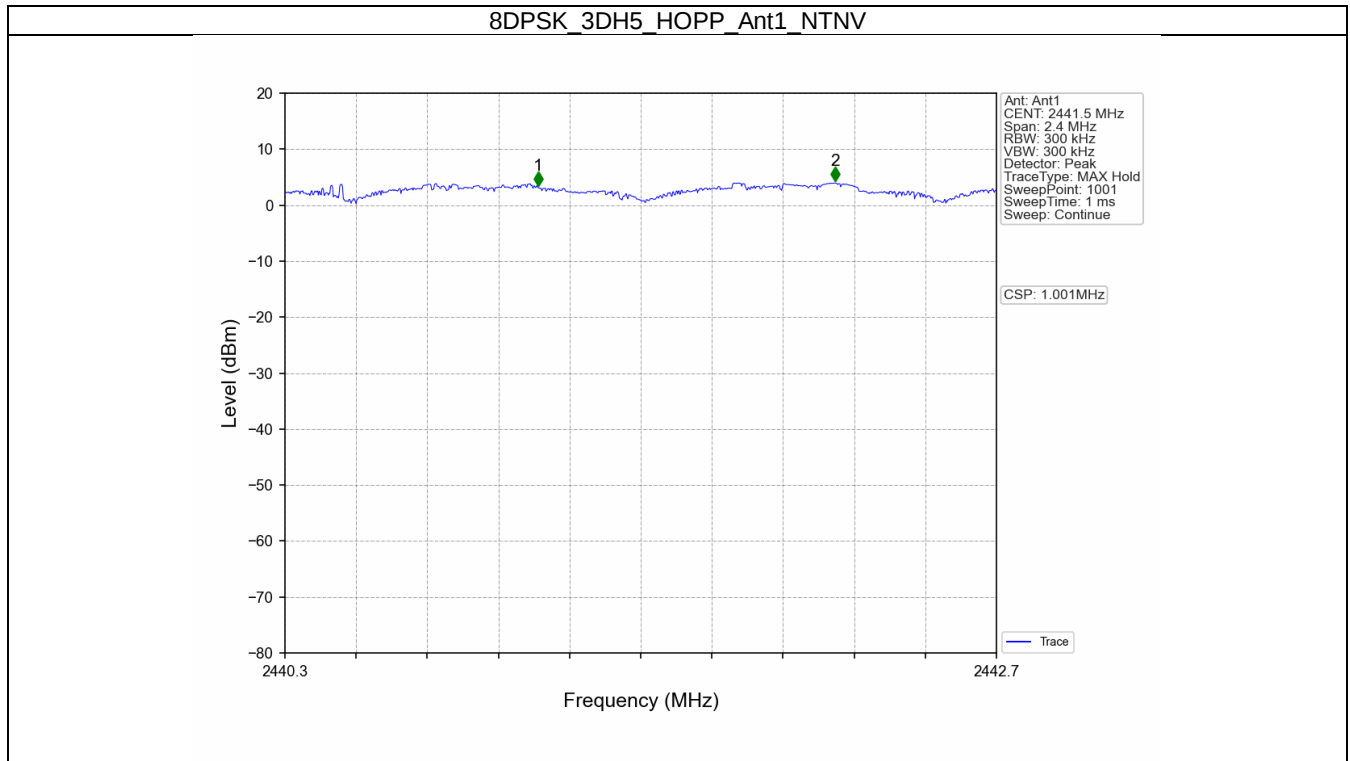
##### 3.1.1 Ant1

| Ant1      |         |                 |             |                          |                      |              |         |
|-----------|---------|-----------------|-------------|--------------------------|----------------------|--------------|---------|
| Mode      | TX Type | Frequency (MHz) | Packet Type | Channel Separation (MHz) | 20dB Bandwidth (MHz) | Limit (MHz)  | Verdict |
| GFSK      | SISO    | HOPP            | DH5         | 1.000                    | 0.961                | $\geq 0.961$ | Pass    |
| Pi/4DQPSK | SISO    | HOPP            | 2DH5        | 0.982                    | 1.297                | $\geq 0.865$ | Pass    |
| 8DPSK     | SISO    | HOPP            | 3DH5        | 1.001                    | 1.312                | $\geq 0.875$ | Pass    |

## 3.2 Test Graph

### 3.2.1 Ant1





## 4. Number of Hopping Frequencies

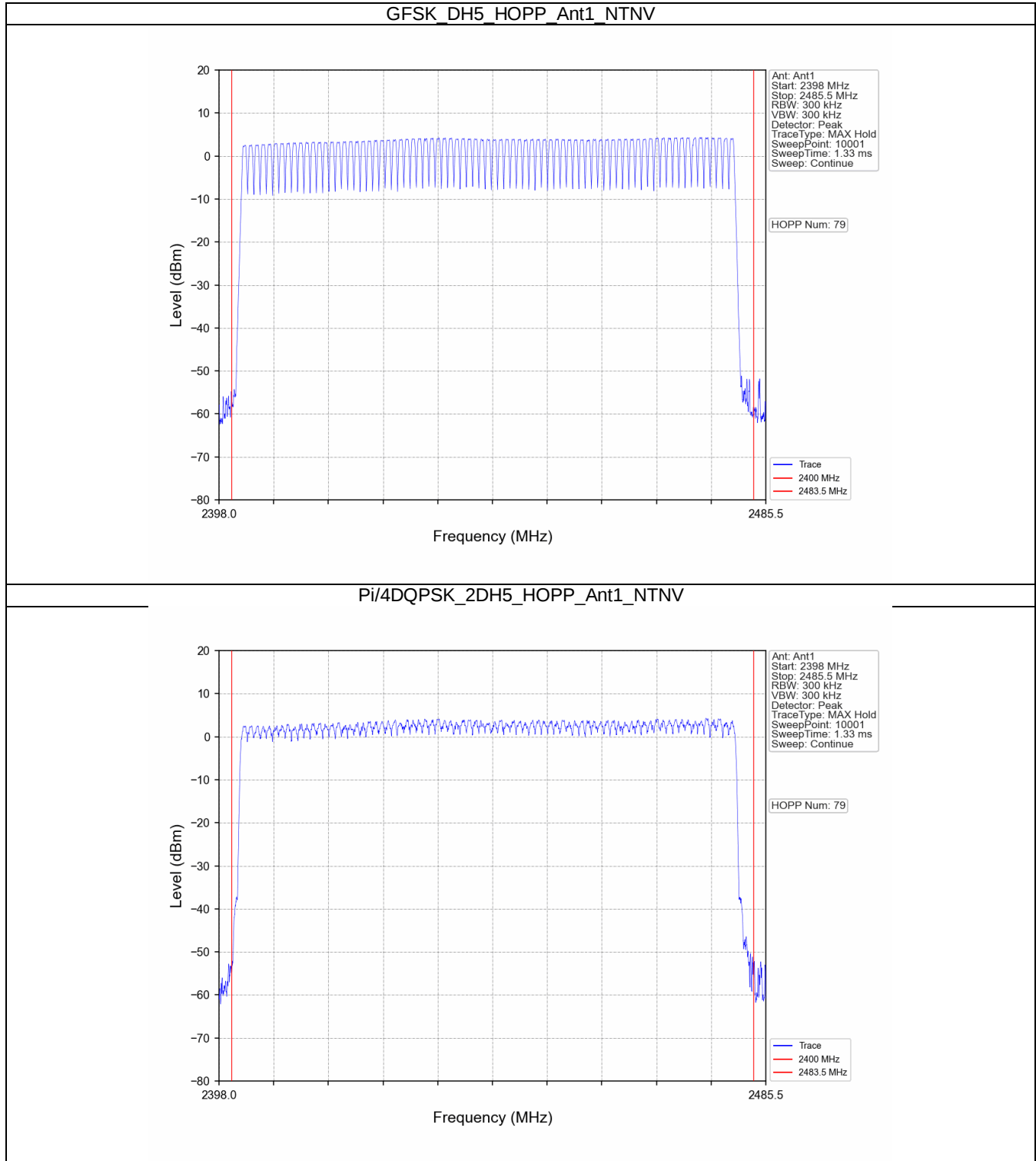
### 4.1 Test Result

#### 4.1.1 HoppNum

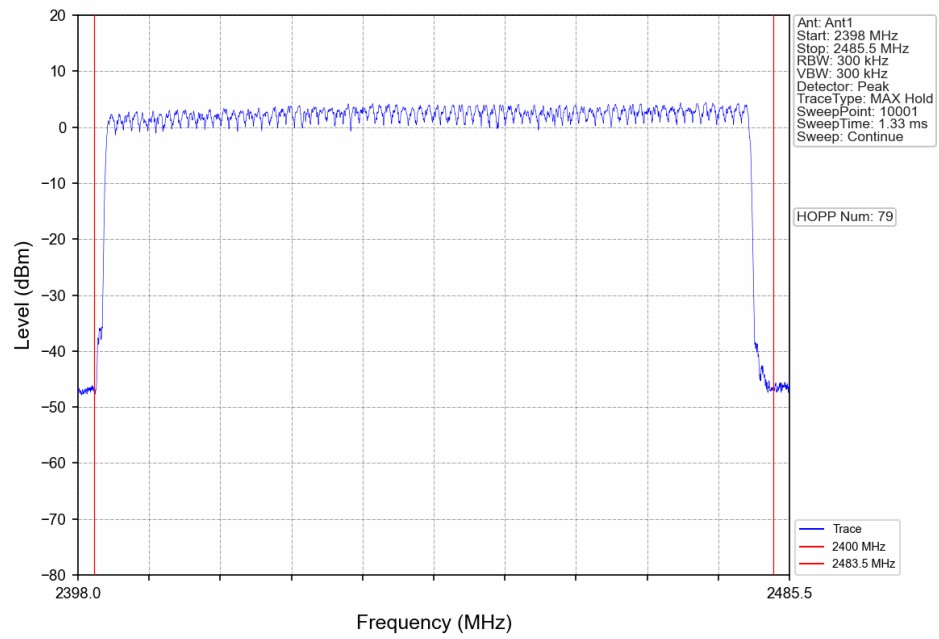
| Mode      | TX Type | Frequency (MHz) | Packet Type | Num of Hopping Frequencies |           | Verdict |
|-----------|---------|-----------------|-------------|----------------------------|-----------|---------|
|           |         |                 |             | ANT1                       | Limit     |         |
| 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    |

## 4.2 Test Graph

### 4.2.1 HoppNum



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



## 5. Time of Occupancy (Dwell Time)

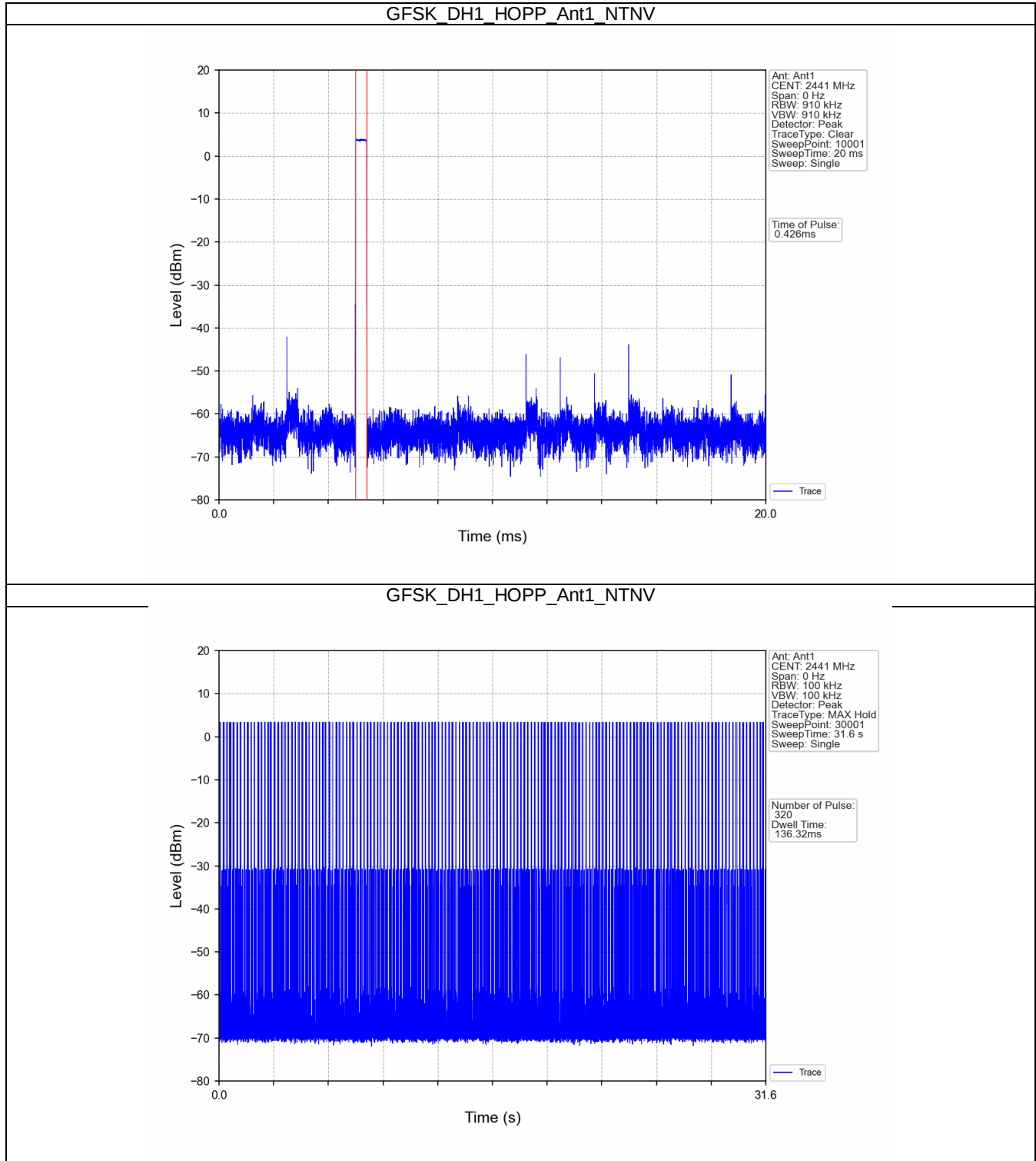
### 5.1 Test Result

#### 5.1.1 Ant1

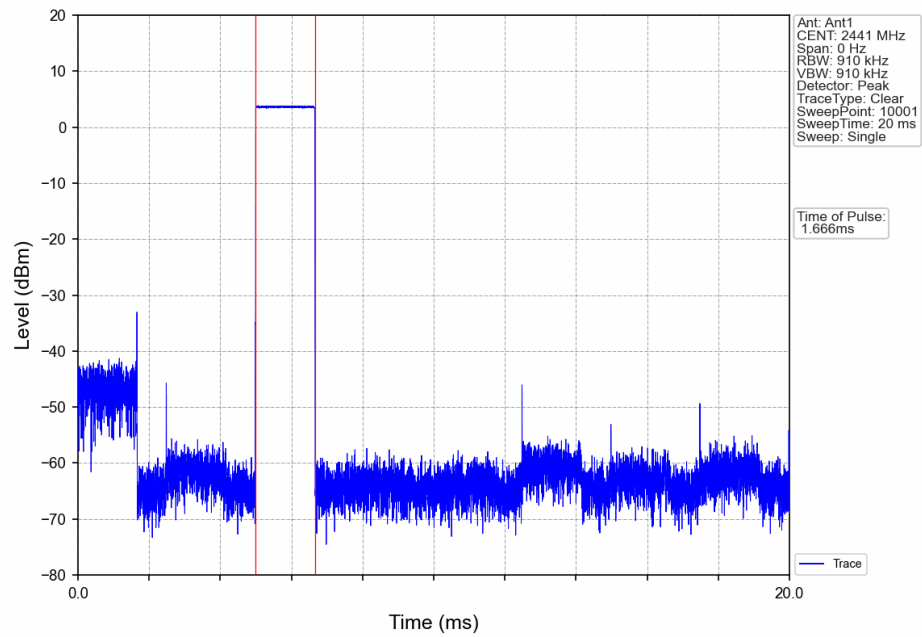
| Ant1      |         |                 |             |                               |                        |                                    |                 |            |         |
|-----------|---------|-----------------|-------------|-------------------------------|------------------------|------------------------------------|-----------------|------------|---------|
| 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         | 0.426                         | 31.600                 | 320                                | 136.320         | <=400      | Pass    |
|           |         |                 | DH3         | 1.666                         | 31.600                 | 156                                | 259.896         | <=400      | Pass    |
|           |         |                 | DH5         | 2.932                         | 31.600                 | 102                                | 299.064         | <=400      | Pass    |
| Pi/4DQPSK | SISO    | HOPP            | 2DH1        | 0.416                         | 31.600                 | 319                                | 132.704         | <=400      | Pass    |
|           |         |                 | 2DH3        | 1.668                         | 31.600                 | 150                                | 250.200         | <=400      | Pass    |
|           |         |                 | 2DH5        | 2.920                         | 31.600                 | 109                                | 318.280         | <=400      | Pass    |
| 8DPSK     | SISO    | HOPP            | 3DH1        | 0.400                         | 31.600                 | 320                                | 128.000         | <=400      | Pass    |
|           |         |                 | 3DH3        | 1.666                         | 31.600                 | 153                                | 254.898         | <=400      | Pass    |
|           |         |                 | 3DH5        | 2.916                         | 31.600                 | 107                                | 312.012         | <=400      | Pass    |

## 5.2 Test Graph

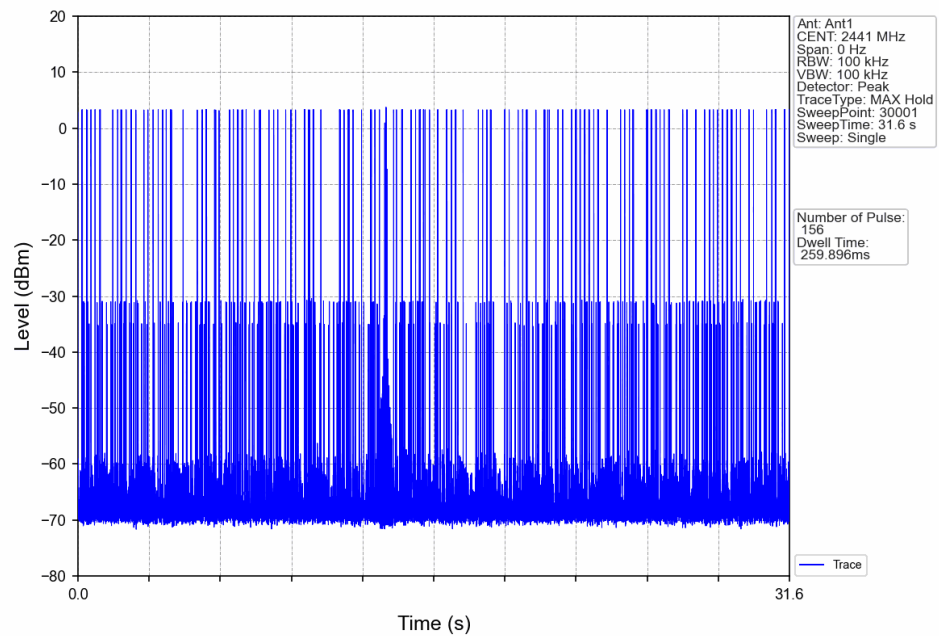
### 5.2.1 Ant1



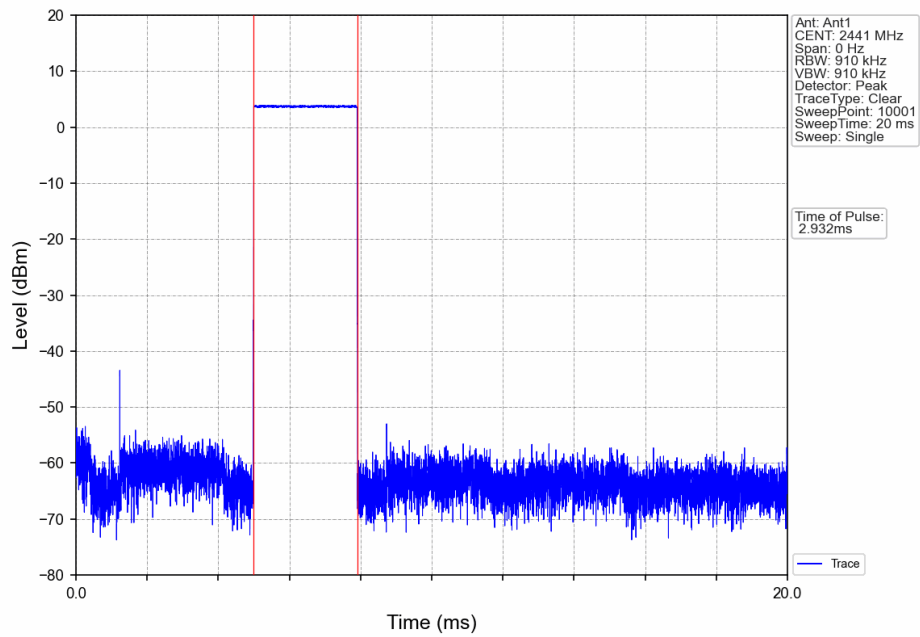
GFSK\_DH3\_HOPP\_Ant1\_NTNV



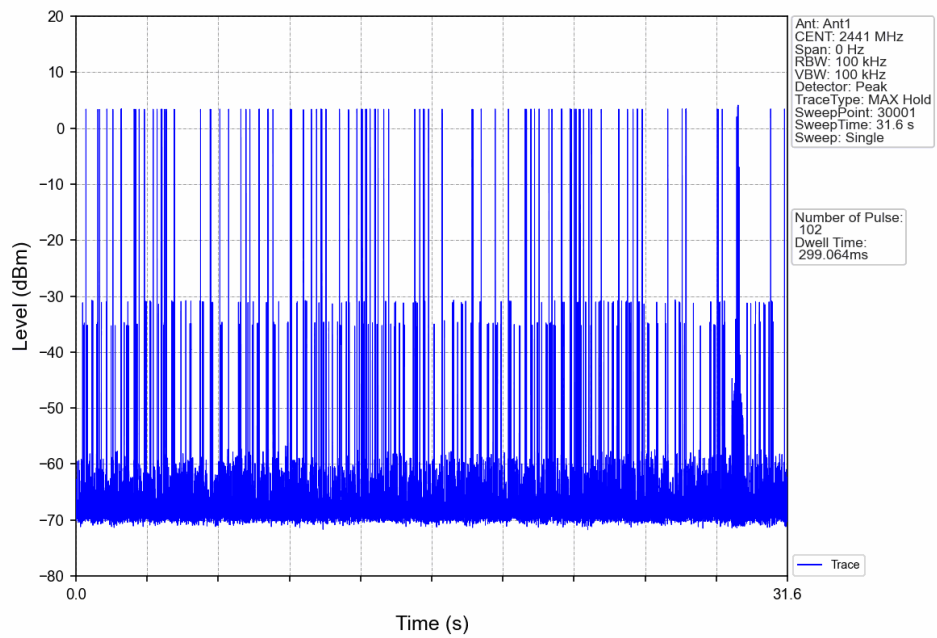
GFSK\_DH3\_HOPP\_Ant1\_NTNV



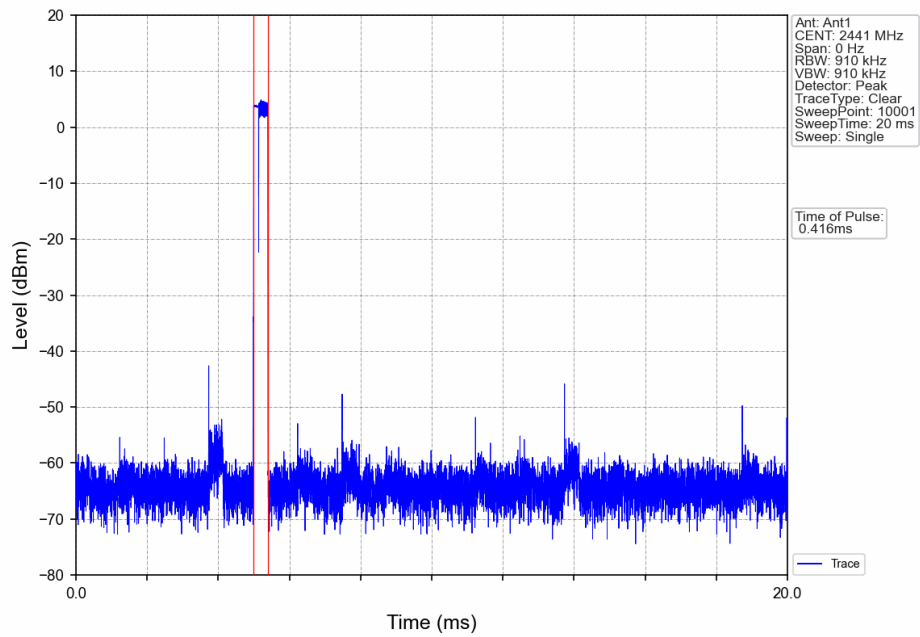
GFSK\_DH5\_HOPP\_Ant1\_NTNV



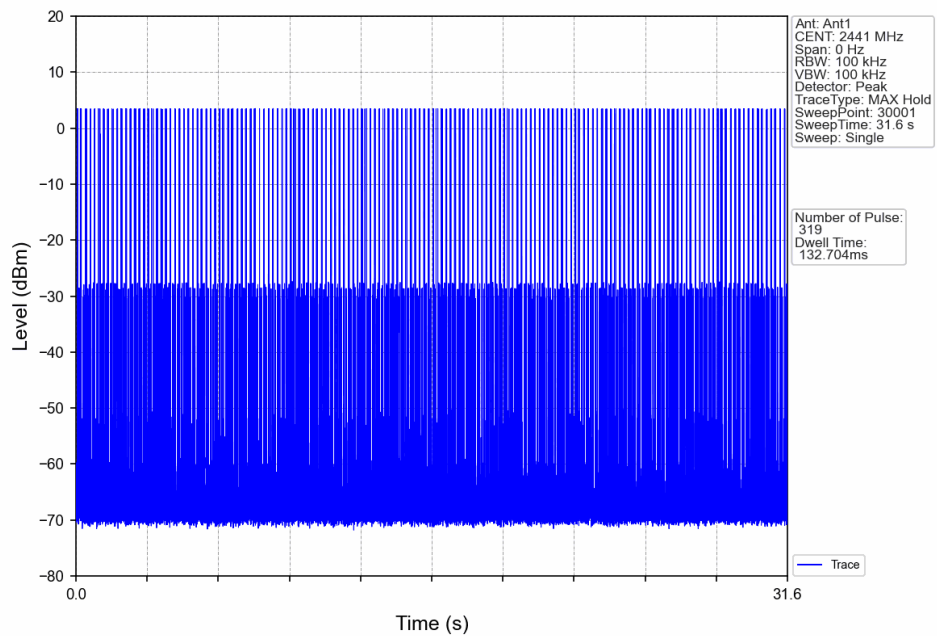
GFSK\_DH5\_HOPP\_Ant1\_NTNV



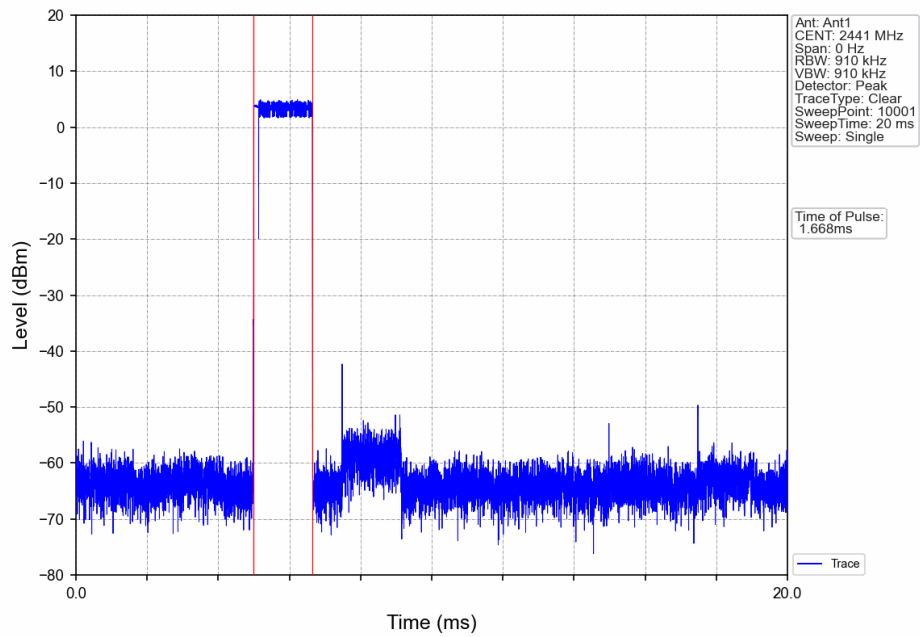
Pi/4DQPSK\_2DH1\_HOPP\_Ant1\_NTNV



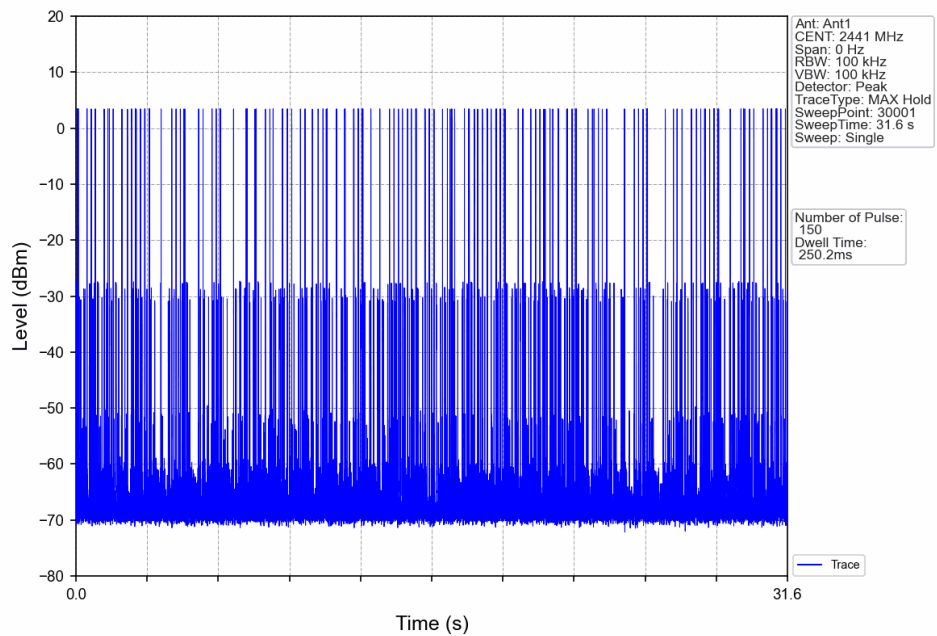
Pi/4DQPSK\_2DH1\_HOPP\_Ant1\_NTNV



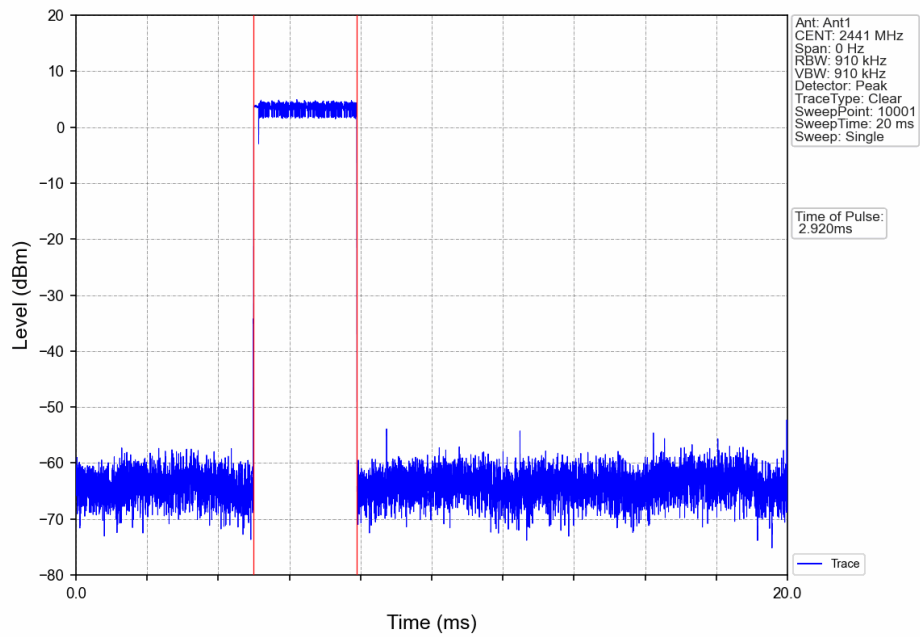
Pi/4DQPSK\_2DH3\_HOPP\_Ant1\_NTNV



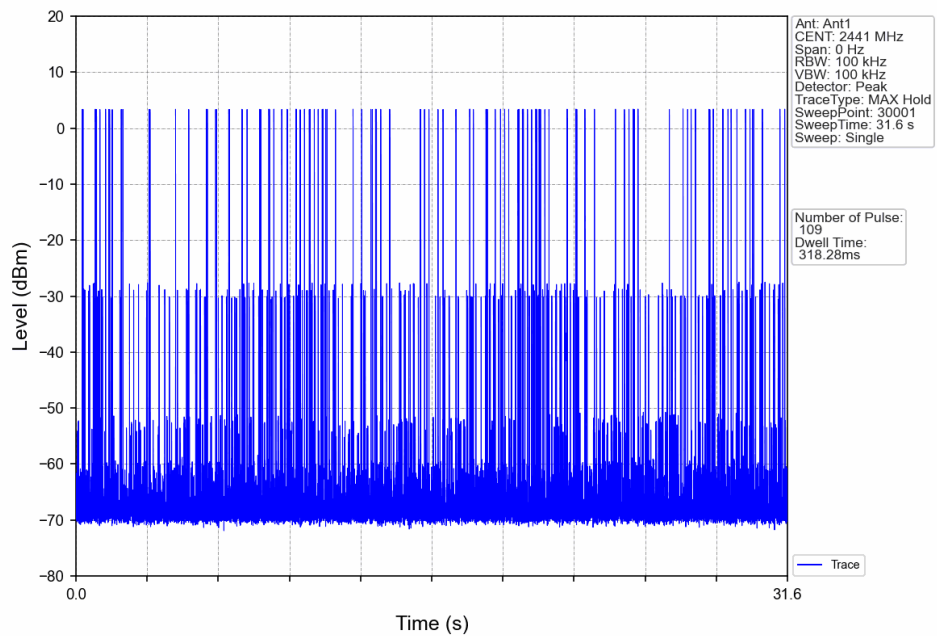
Pi/4DQPSK\_2DH3\_HOPP\_Ant1\_NTNV



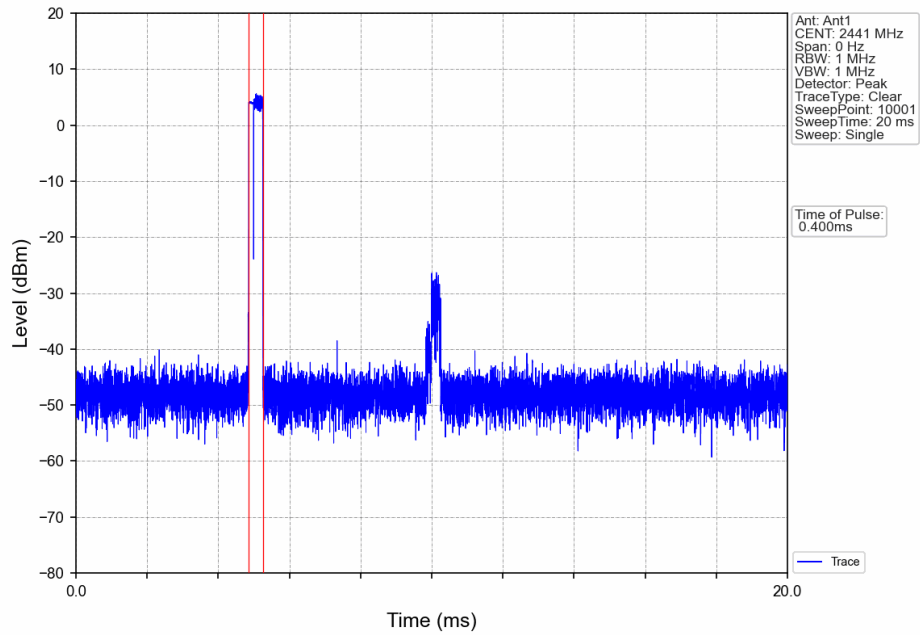
Pi/4DQPSK\_2DH5\_HOPP\_Ant1\_NTNV



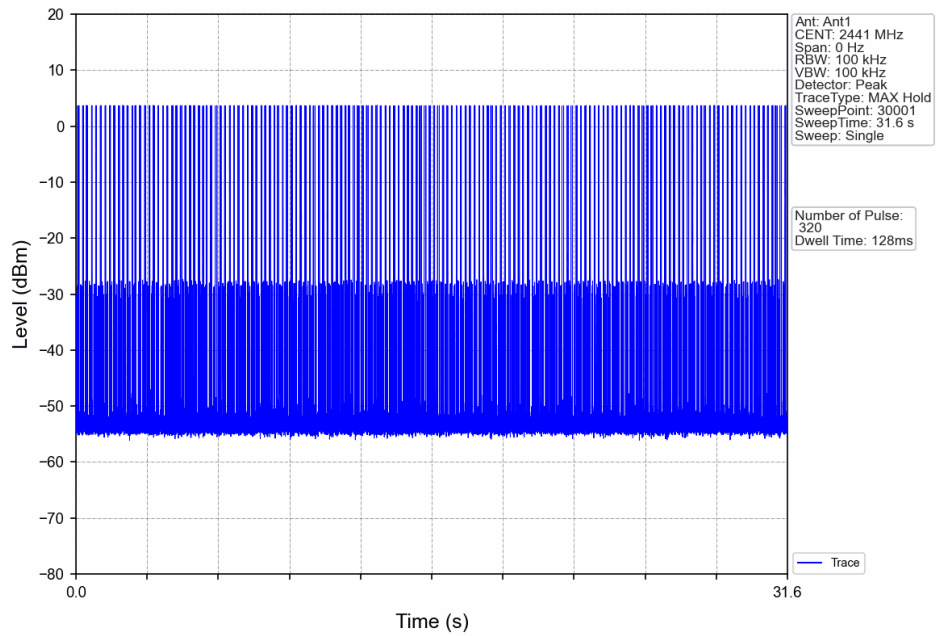
Pi/4DQPSK\_2DH5\_HOPP\_Ant1\_NTNV



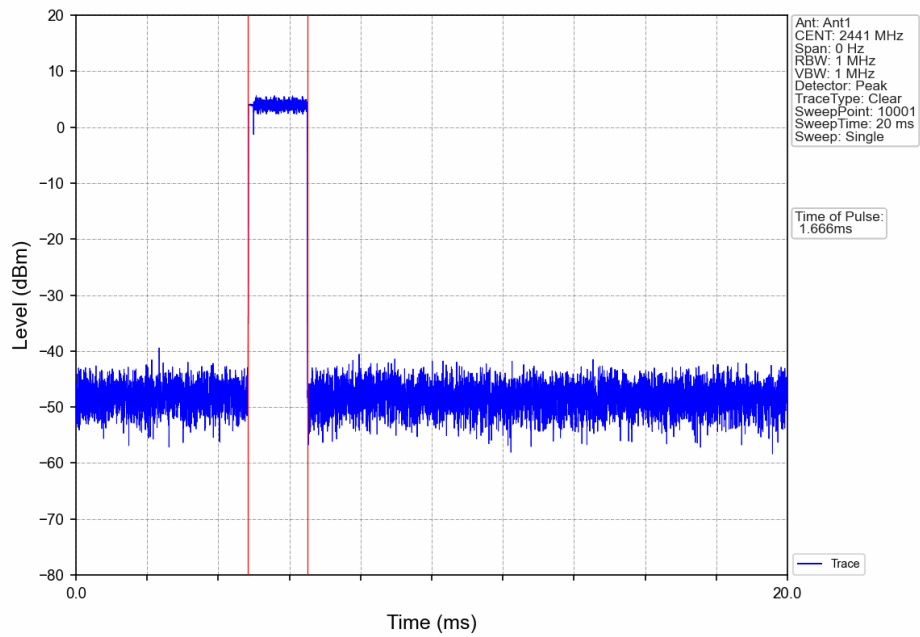
## 8DPSK\_3DH1\_HOPP\_Ant1\_NTNV



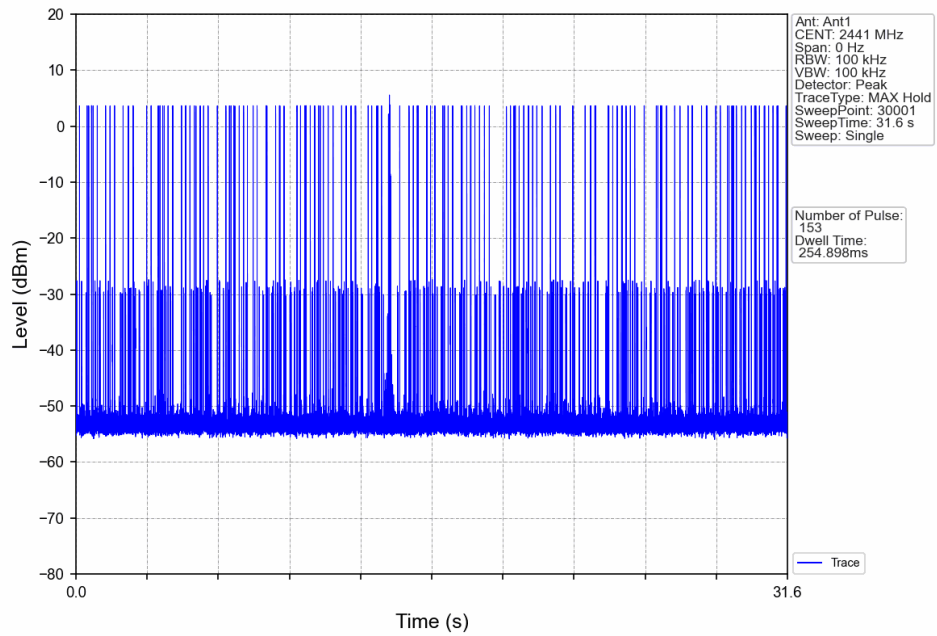
## 8DPSK\_3DH1\_HOPP\_Ant1\_NTNV



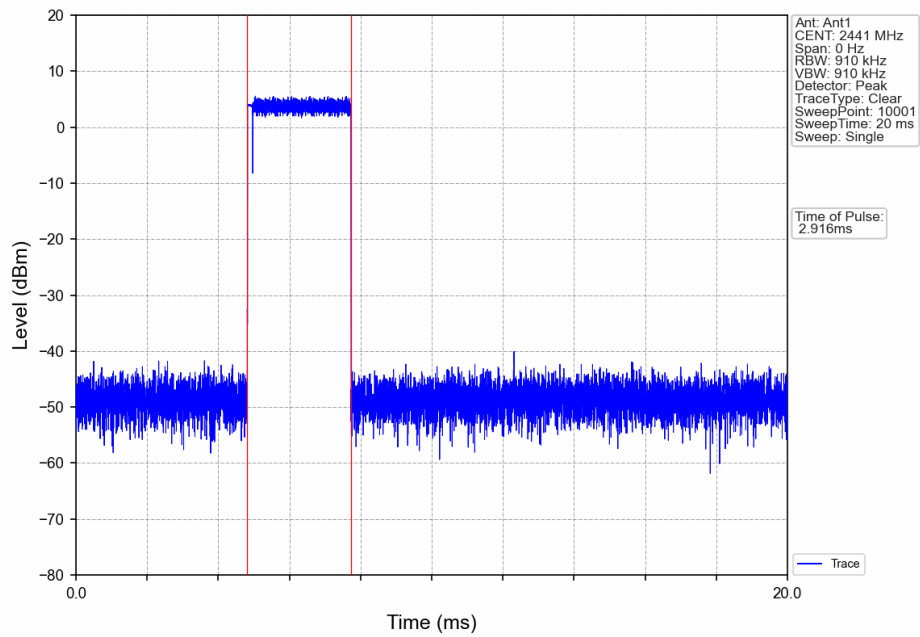
## 8DPSK\_3DH3\_HOPP\_Ant1\_NTNV



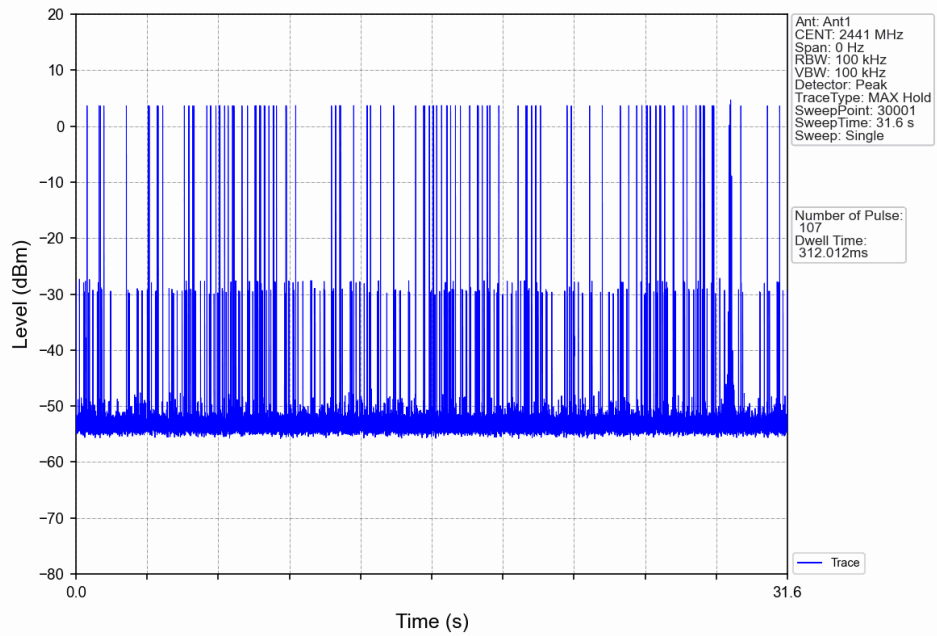
## 8DPSK\_3DH3\_HOPP\_Ant1\_NTNV



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



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



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

### 6.1 Test Result

#### 6.1.1 Ref

| Mode      | TX Type | Frequency (MHz) | Packet Type | ANT | Level of Reference (dBm) |
|-----------|---------|-----------------|-------------|-----|--------------------------|
| GFSK      | SISO    | 2402            | DH5         | 1   | 2.66                     |
|           |         | 2441            | DH5         | 1   | 3.81                     |
|           |         | 2480            | DH5         | 1   | 3.91                     |
|           |         | HOPP            | DH5         | 1   | 4.15                     |
|           |         |                 |             |     | 4.15                     |
| Pi/4DQPSK | SISO    | 2402            | 2DH5        | 1   | 2.46                     |
|           |         | 2441            | 2DH5        | 1   | 3.77                     |
|           |         | 2480            | 2DH5        | 1   | 3.93                     |
|           |         | HOPP            | 2DH5        | 1   | 4.26                     |
|           |         |                 |             |     | 4.26                     |
| 8DPSK     | SISO    | 2402            | 3DH5        | 1   | 2.44                     |
|           |         | 2441            | 3DH5        | 1   | 3.82                     |
|           |         | 2480            | 3DH5        | 1   | 4.00                     |
|           |         | HOPP            | 3DH5        | 1   | 4.33                     |
|           |         |                 |             |     | 4.33                     |

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.

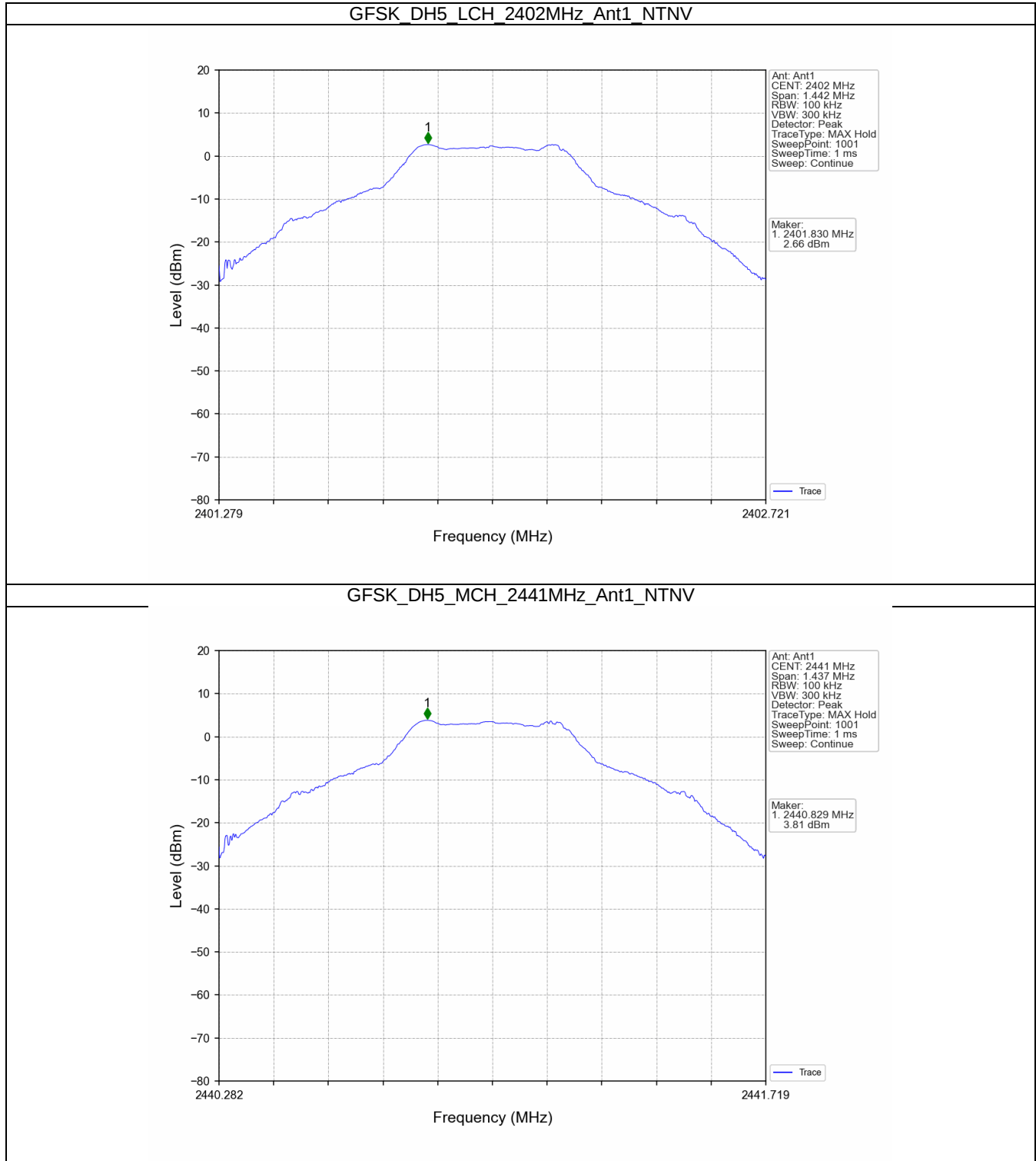
#### 6.1.2 CSE

| Mode      | TX Type | Frequency (MHz) | Packet Type | ANT | Level of Reference (dBm) | Limit (dBm) | Verdict |
|-----------|---------|-----------------|-------------|-----|--------------------------|-------------|---------|
| GFSK      | SISO    | 2402            | DH5         | 1   | 2.66                     | -17.34      | Pass    |
|           |         | 2441            | DH5         | 1   | 3.81                     | -16.19      | Pass    |
|           |         | 2480            | DH5         | 1   | 3.91                     | -16.09      | Pass    |
|           |         | HOPP            | DH5         | 1   | 4.15                     | -15.85      | Pass    |
|           |         |                 |             |     | 4.15                     | -15.85      | Pass    |
| Pi/4DQPSK | SISO    | 2402            | 2DH5        | 1   | 2.46                     | -17.54      | Pass    |
|           |         | 2441            | 2DH5        | 1   | 3.77                     | -16.23      | Pass    |
|           |         | 2480            | 2DH5        | 1   | 3.93                     | -16.07      | Pass    |
|           |         | HOPP            | 2DH5        | 1   | 4.26                     | -15.74      | Pass    |
|           |         |                 |             |     | 4.26                     | -15.74      | Pass    |
| 8DPSK     | SISO    | 2402            | 3DH5        | 1   | 2.44                     | -17.56      | Pass    |
|           |         | 2441            | 3DH5        | 1   | 3.82                     | -16.18      | Pass    |
|           |         | 2480            | 3DH5        | 1   | 4.00                     | -16.00      | Pass    |
|           |         | HOPP            | 3DH5        | 1   | 4.33                     | -15.67      | Pass    |
|           |         |                 |             |     | 4.33                     | -15.67      | Pass    |

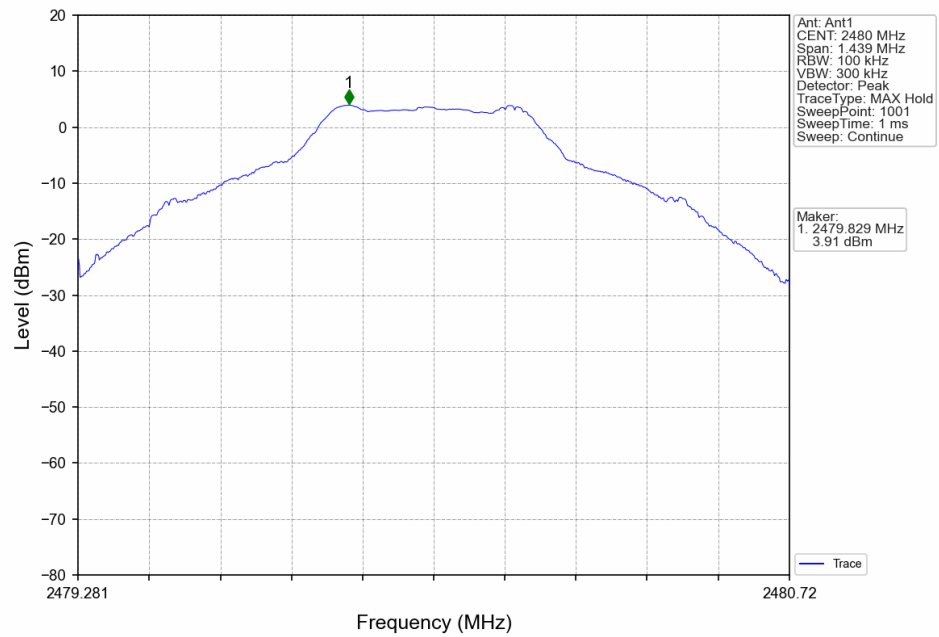
Note1: Refer to FCC Part 15.247 (d) and ANSI C63.10-2013, the channel contains the maximum PSD level was used to establish the reference level.

## 6.2 Test Graph

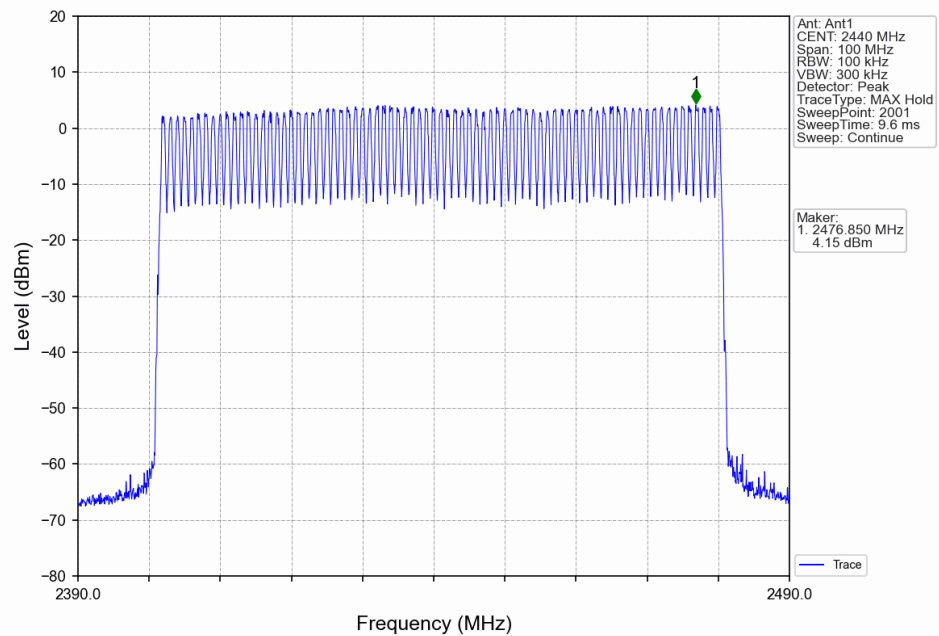
### 6.2.1 Ref



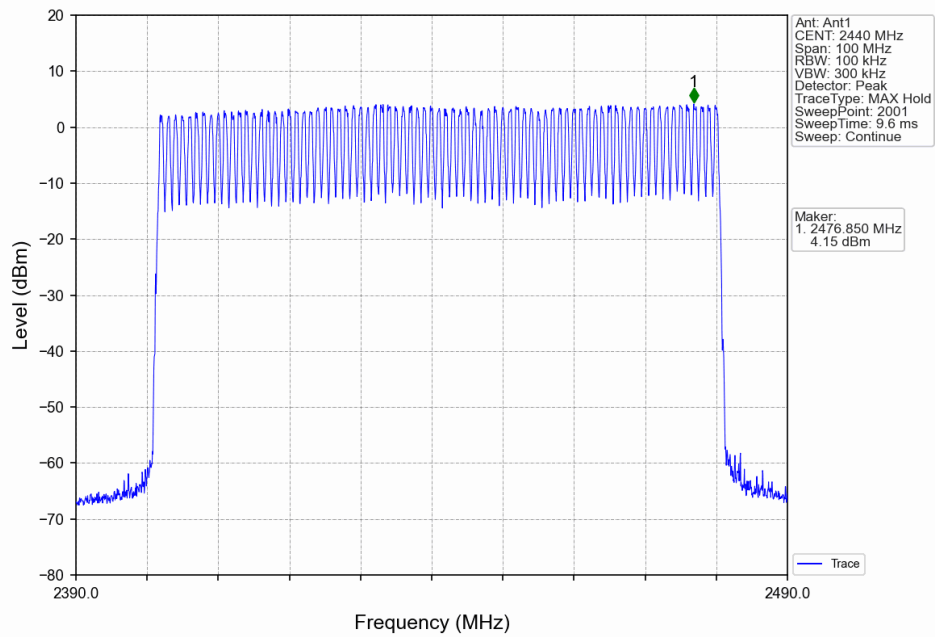
GFSK\_DH5\_HCH\_2480MHz\_Ant1\_NTNV



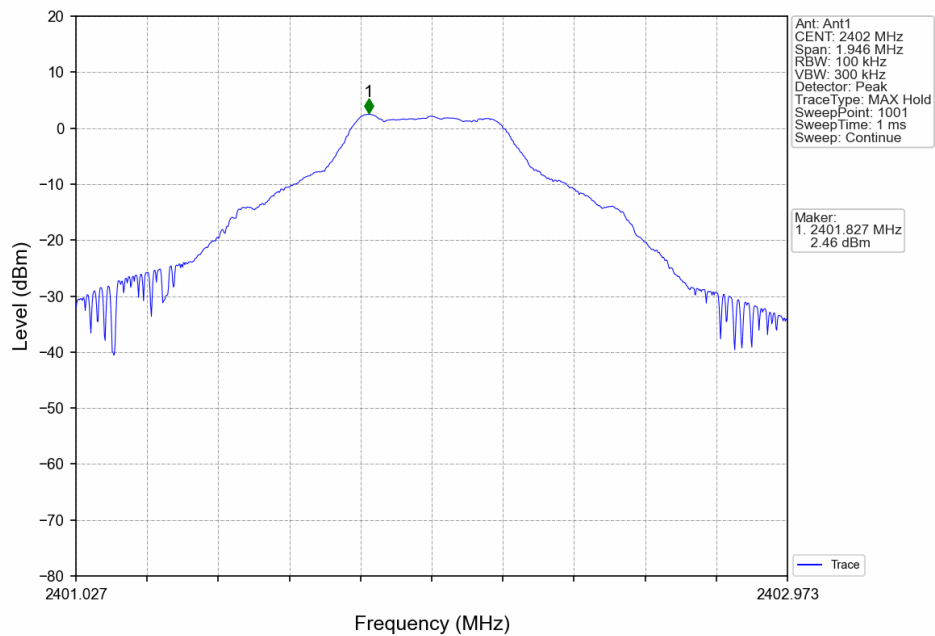
GFSK\_DH5\_HOPP\_Ant1\_NTNV



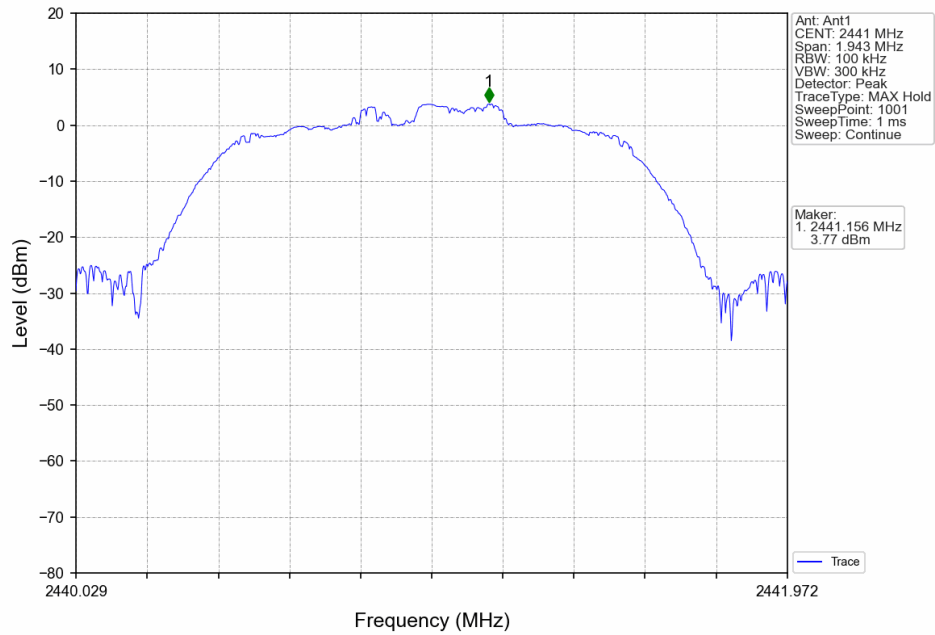
GFSK\_DH5\_HOPP\_Ant1\_NTNV



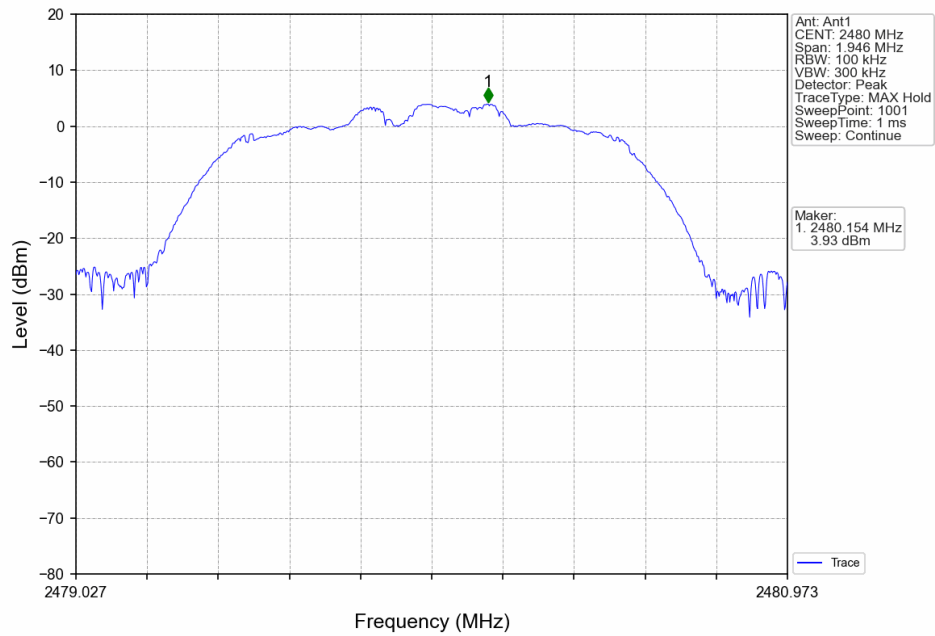
Pi/4DQPSK\_2DH5\_LCH\_2402MHz\_Ant1\_NTNV



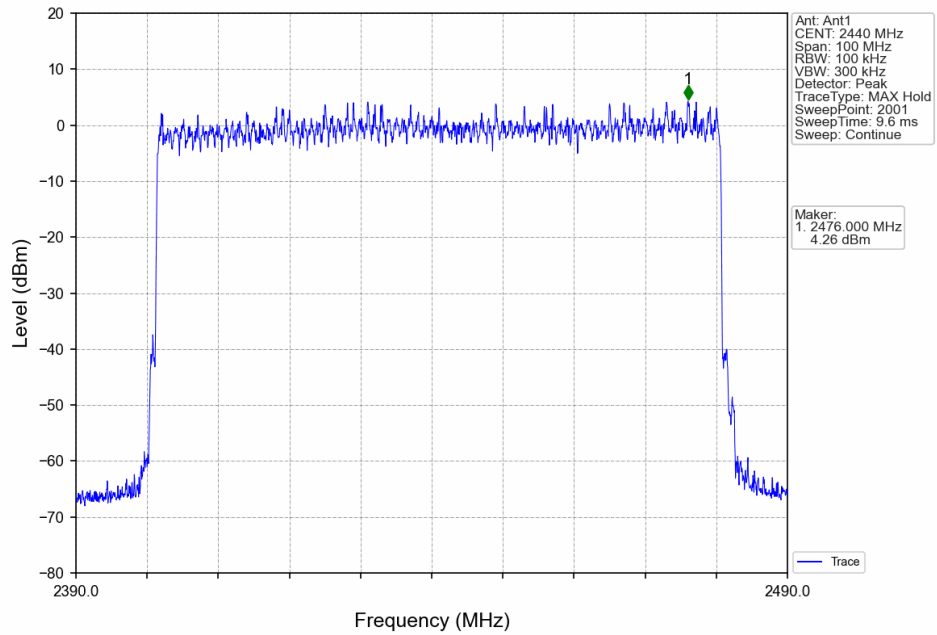
Pi/4DQPSK\_2DH5\_MCH\_2441MHz\_Ant1\_NTNV



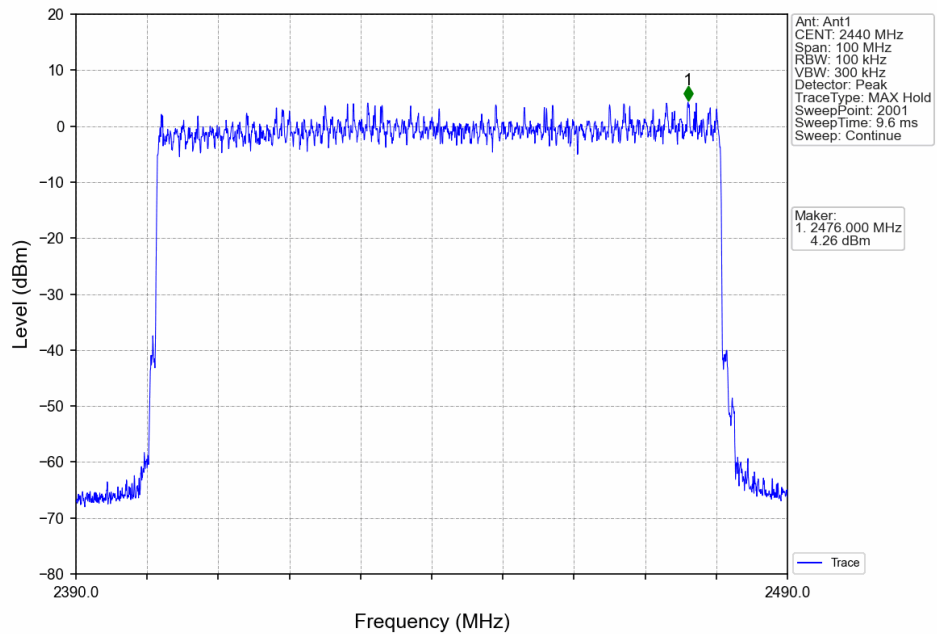
Pi/4DQPSK\_2DH5\_HCH\_2480MHz\_Ant1\_NTNV



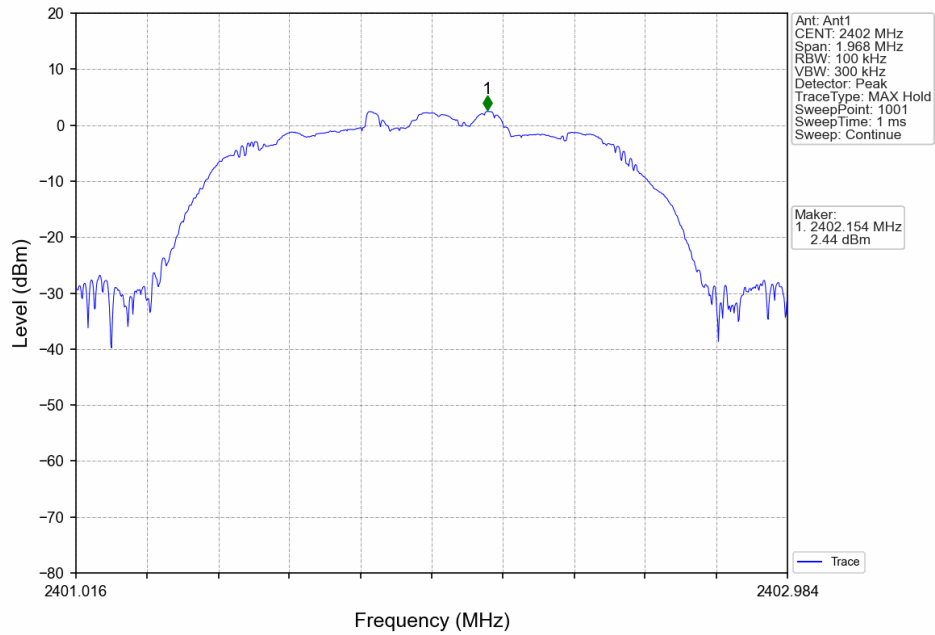
Pi/4DQPSK\_2DH5\_HOPP\_Ant1\_NTNV



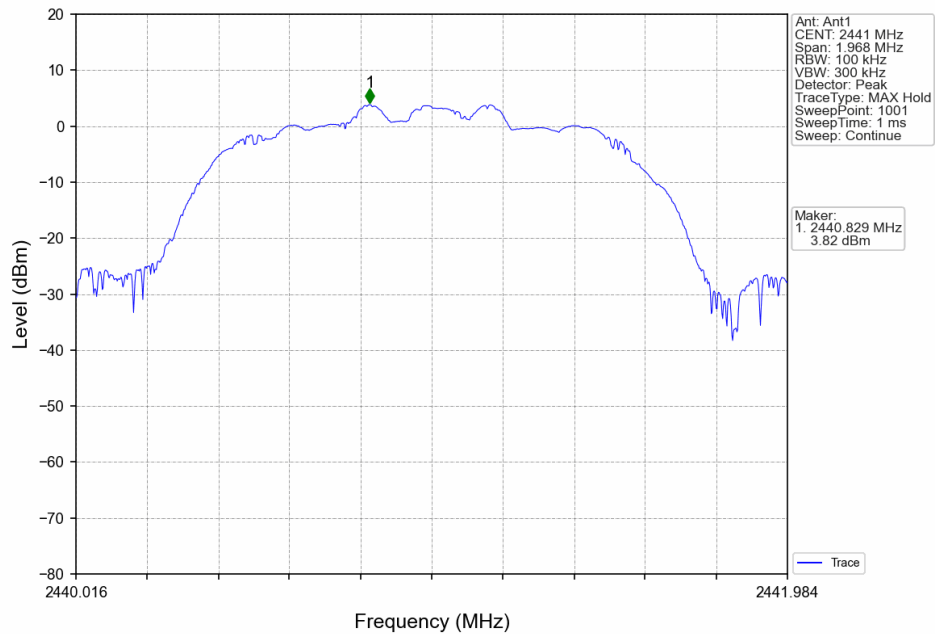
Pi/4DQPSK\_2DH5\_HOPP\_Ant1\_NTNV



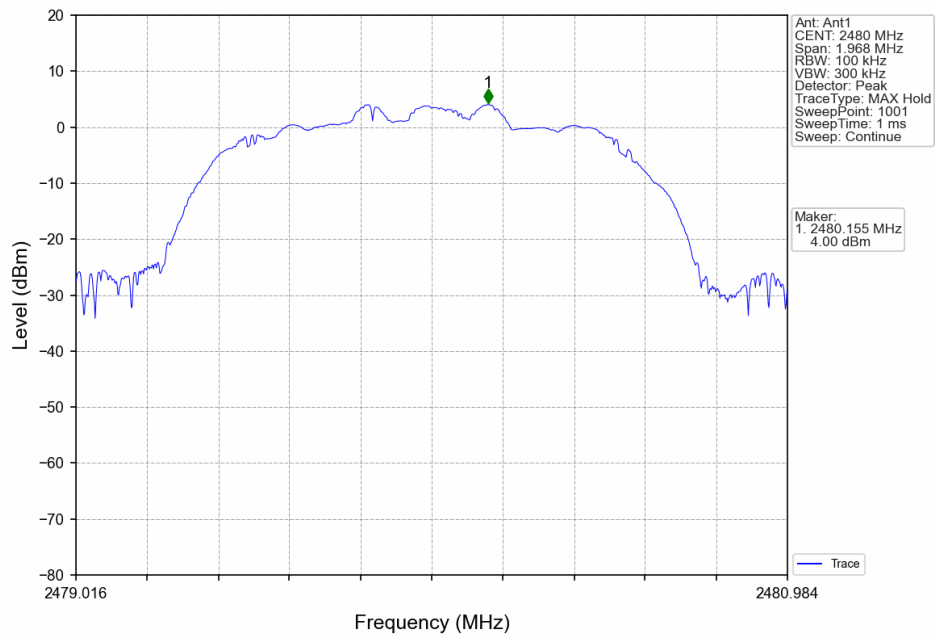
8DPSK\_3DH5\_LCH\_2402MHz\_Ant1\_NTNV



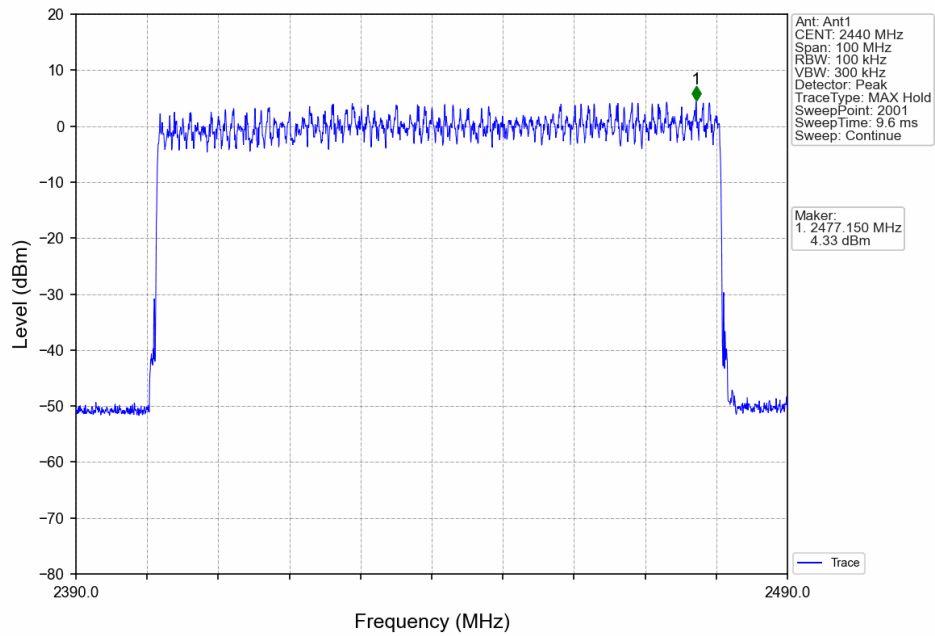
8DPSK\_3DH5\_MCH\_2441MHz\_Ant1\_NTNV



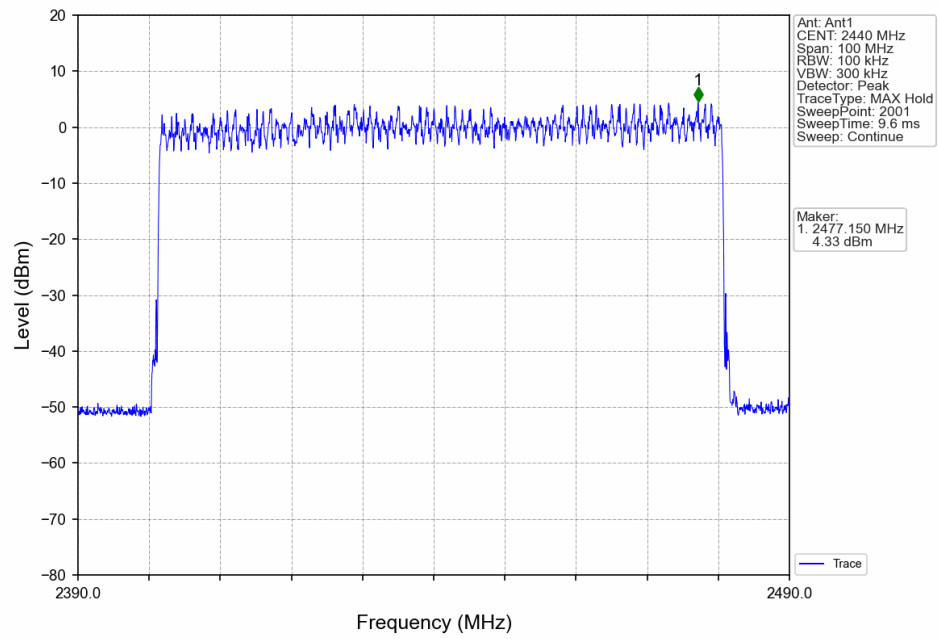
## 8DPSK\_3DH5\_HCH\_2480MHz\_Ant1\_NTNV



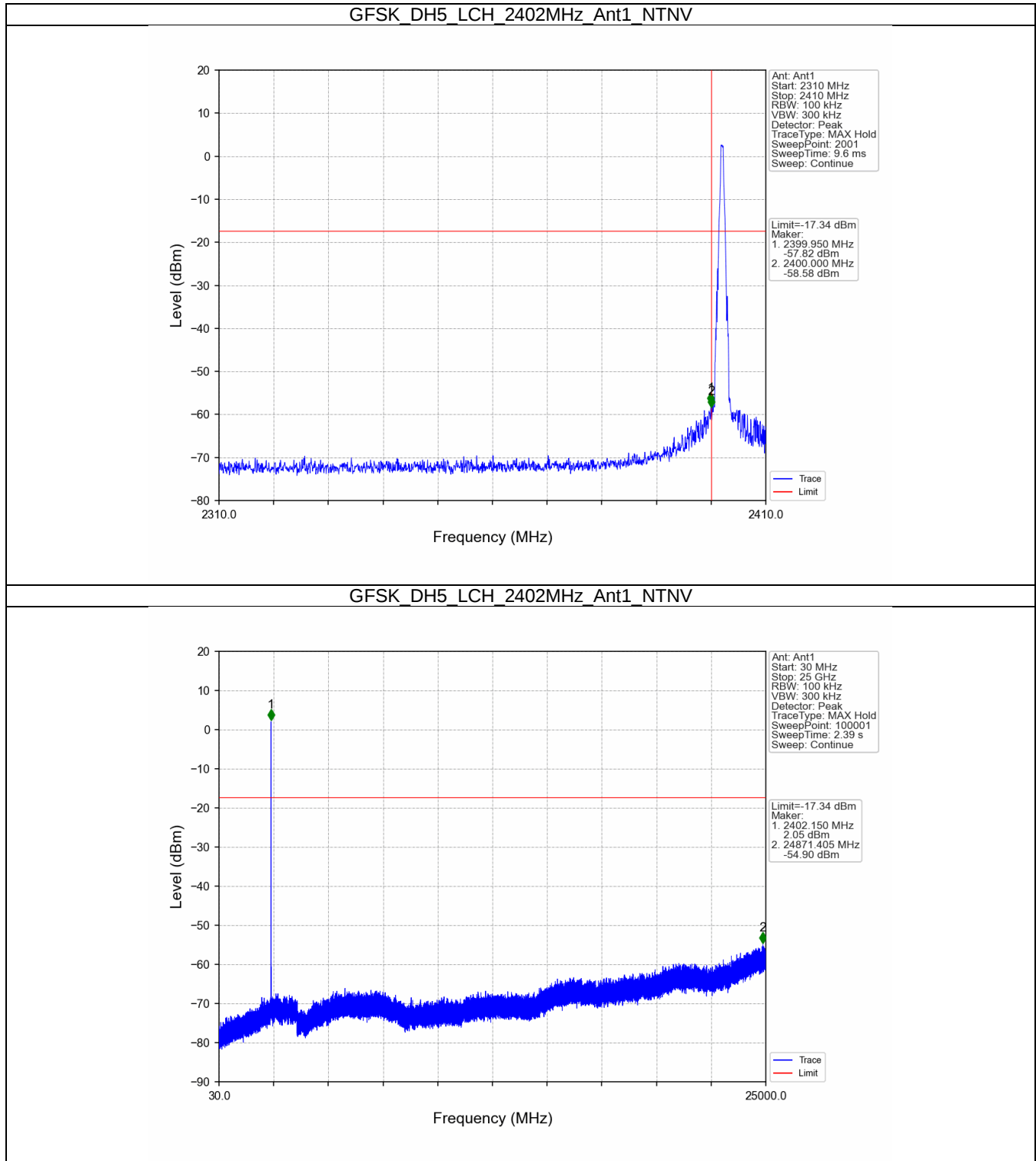
## 8DPSK\_3DH5\_HOPP\_Ant1\_NTNV



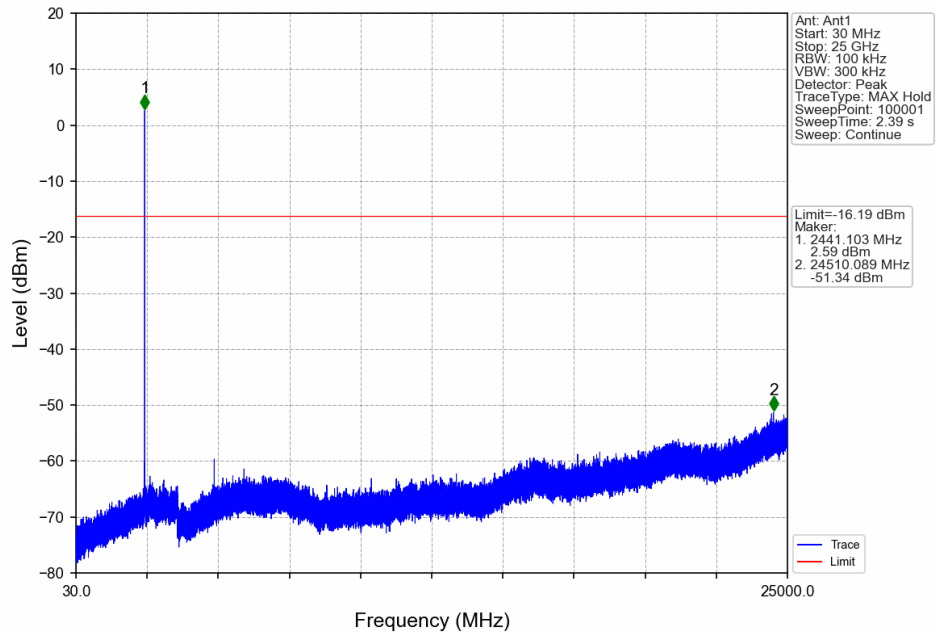
## 8DPSK\_3DH5\_HOPP\_Ant1\_NTNV



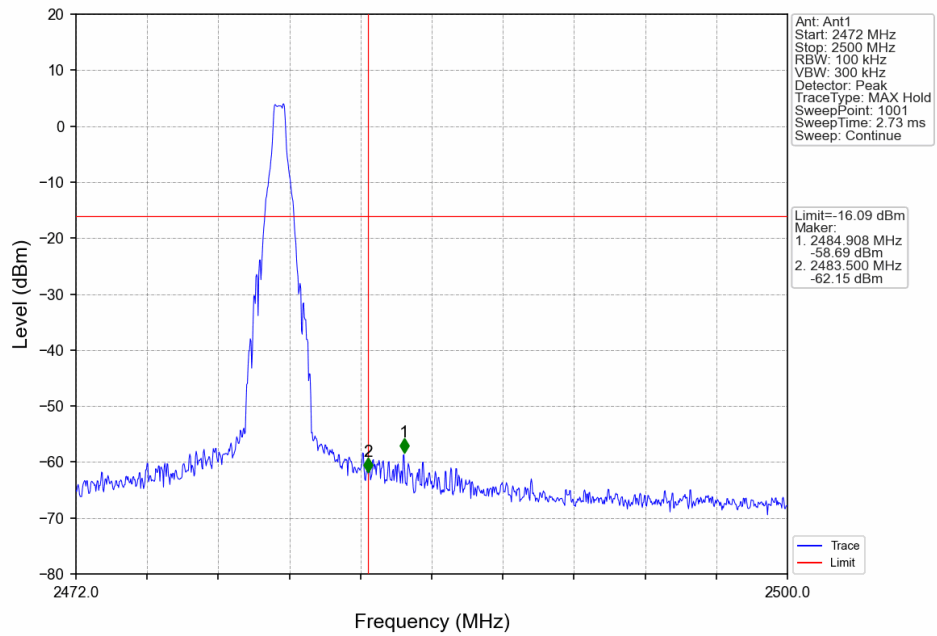
## 6.2.2 CSE



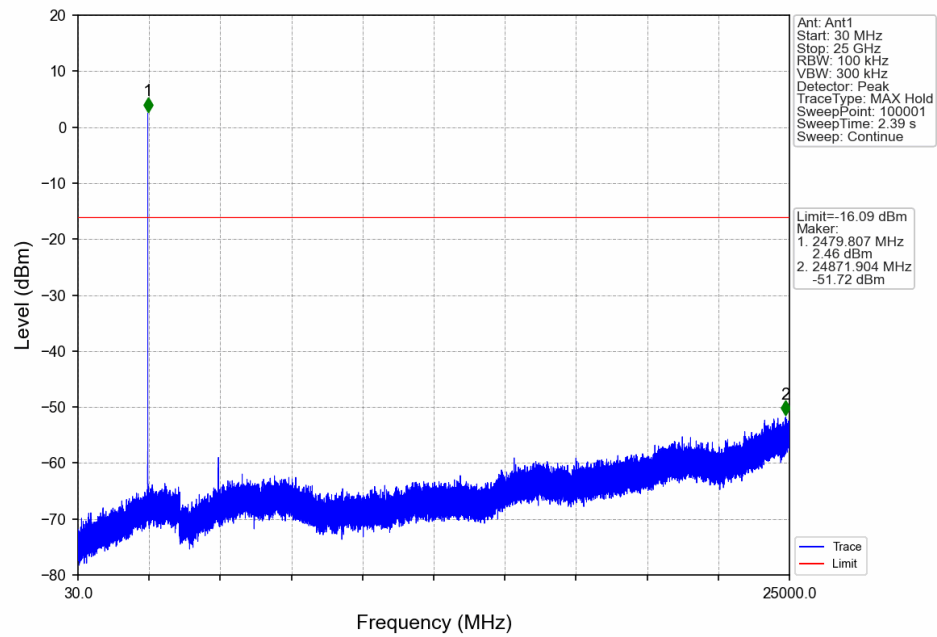
## GFSK\_DH5\_MCH\_2441MHz\_Ant1\_NTNV



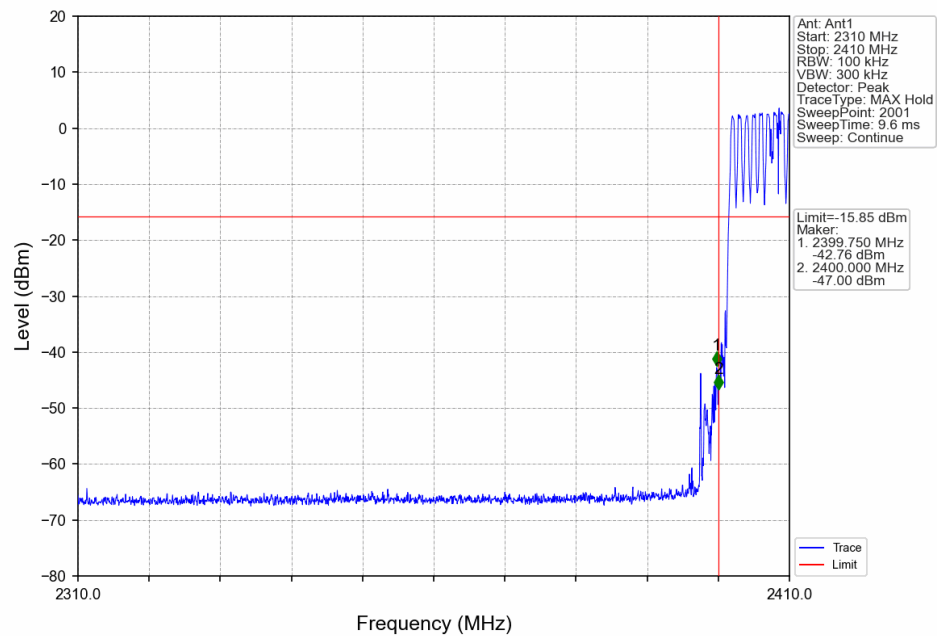
## GFSK\_DH5\_HCH\_2480MHz\_Ant1\_NTNV



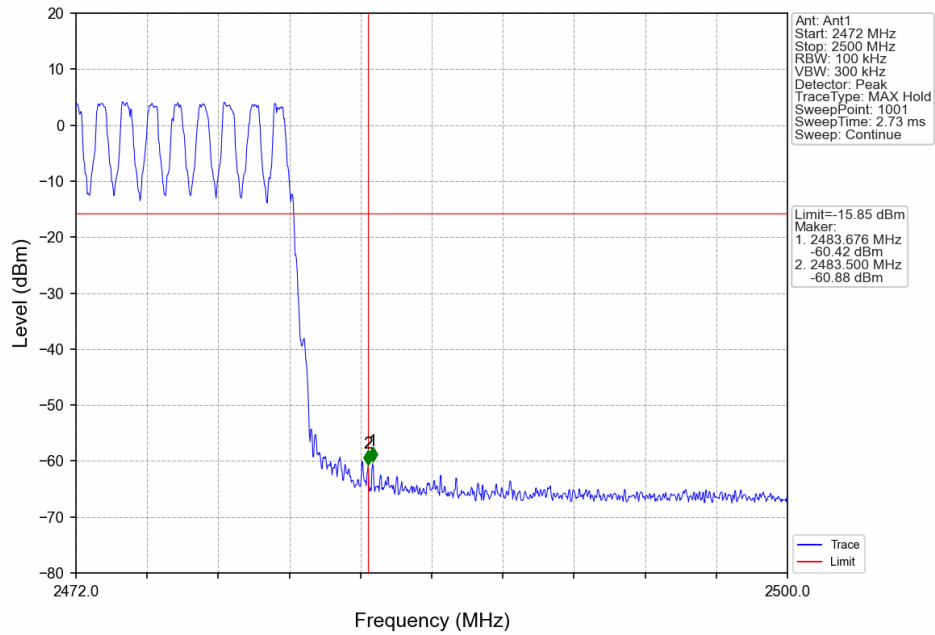
## GFSK\_DH5\_HCH\_2480MHz\_Ant1\_NTNV



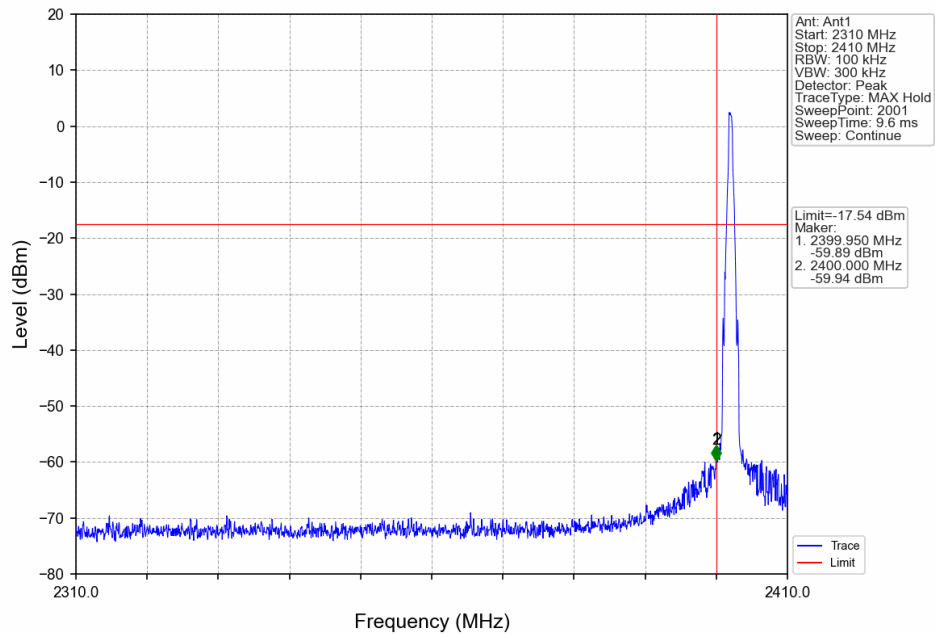
## GFSK\_DH5\_HOPP\_2410MHz\_Ant1\_NTNV



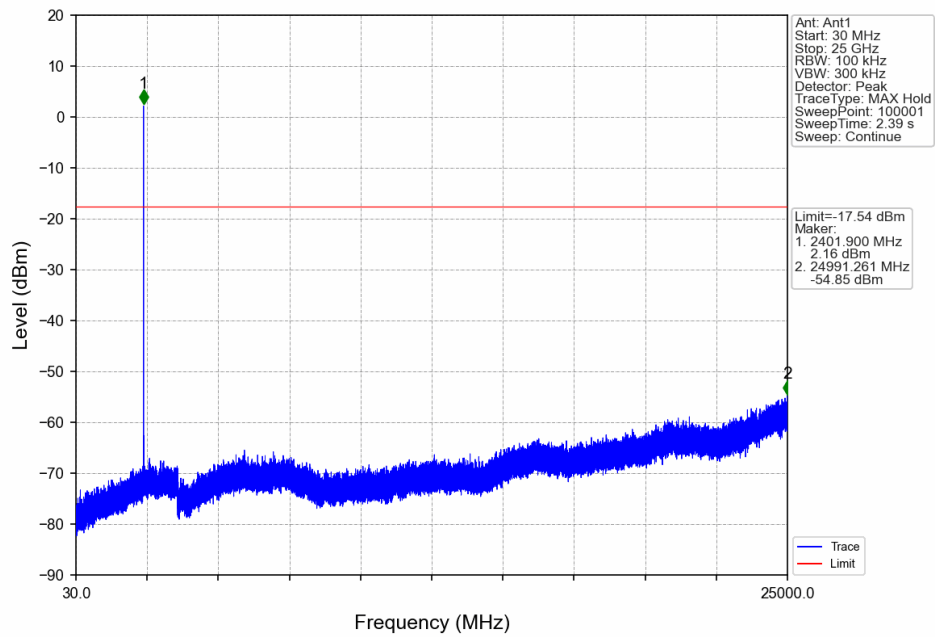
## GFSK\_DH5\_HOPP\_Ant1\_NTNV



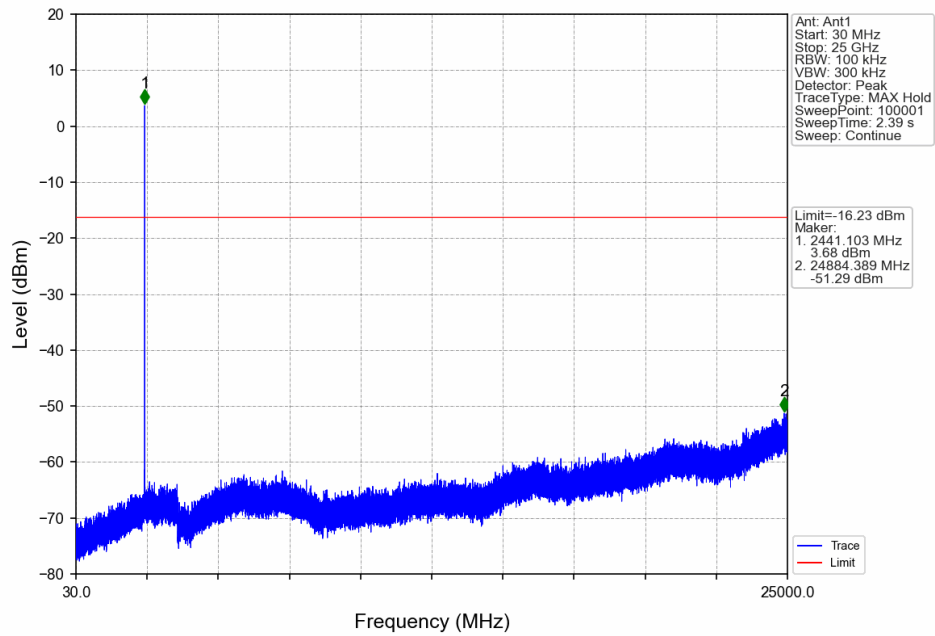
## Pi/4DQPSK\_2DH5\_LCH\_2402MHz\_Ant1\_NTNV



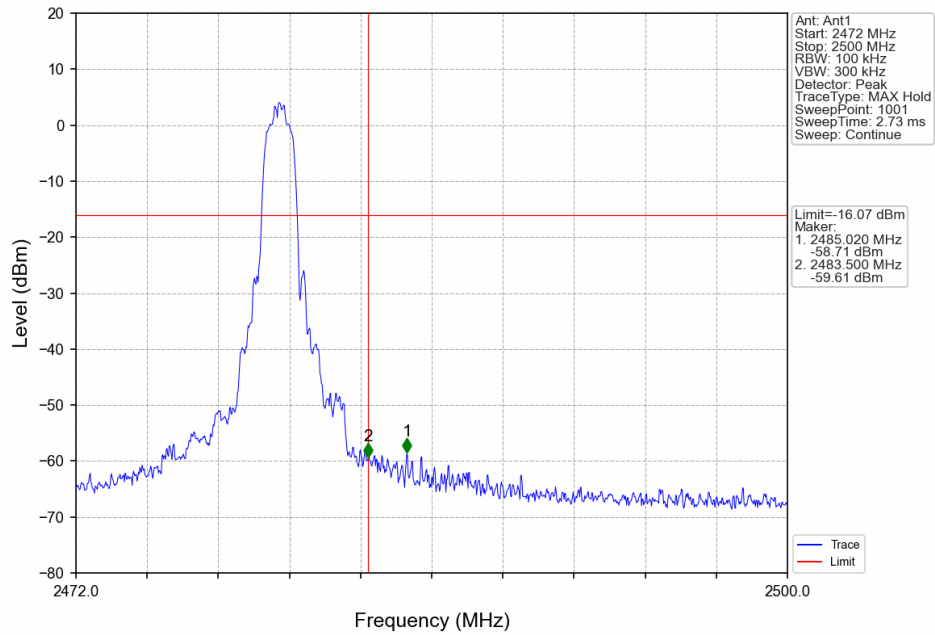
Pi/4DQPSK\_2DH5\_LCH\_2402MHz\_Ant1\_NTNV



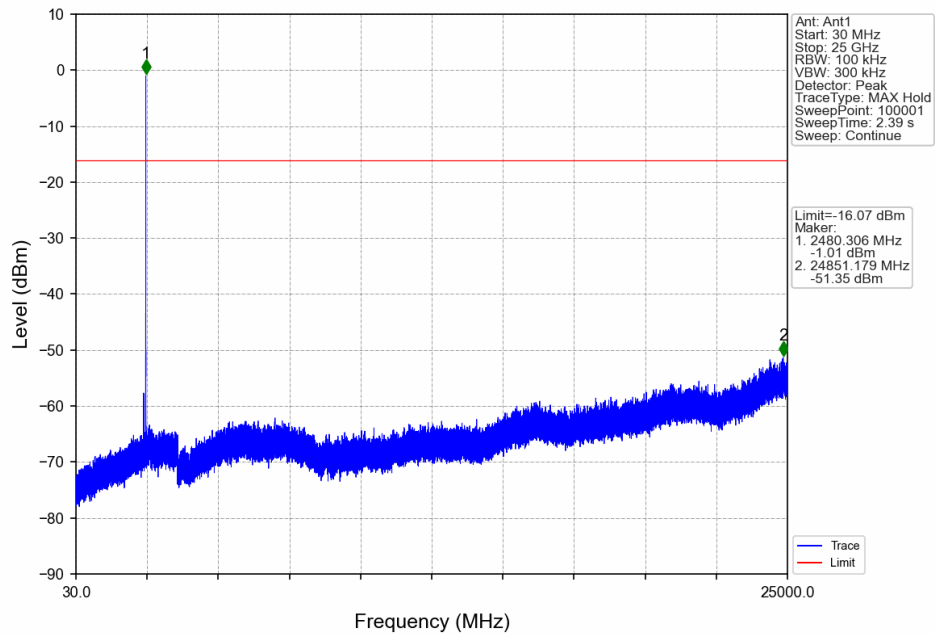
Pi/4DQPSK\_2DH5\_MCH\_2441MHz\_Ant1\_NTNV



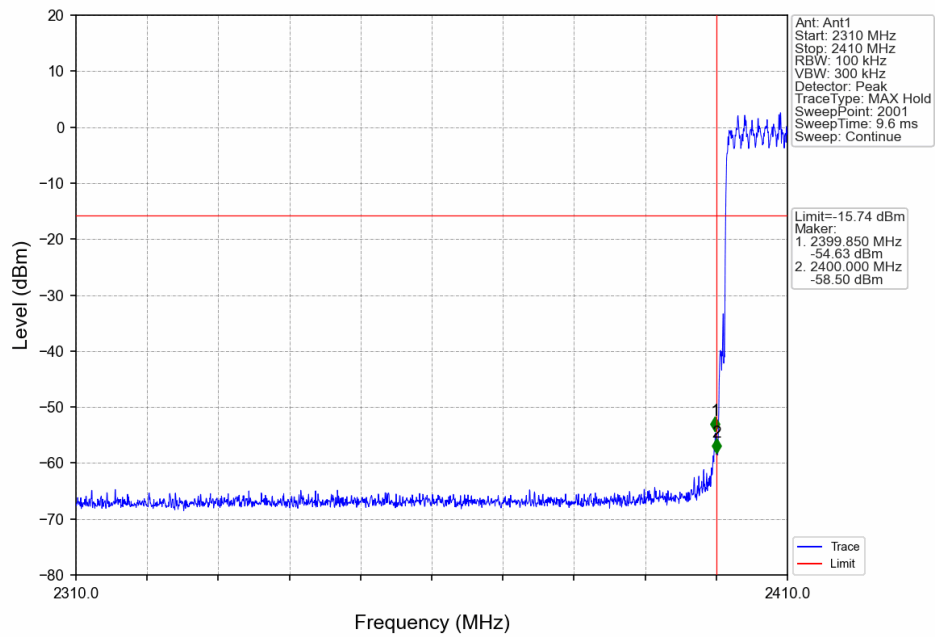
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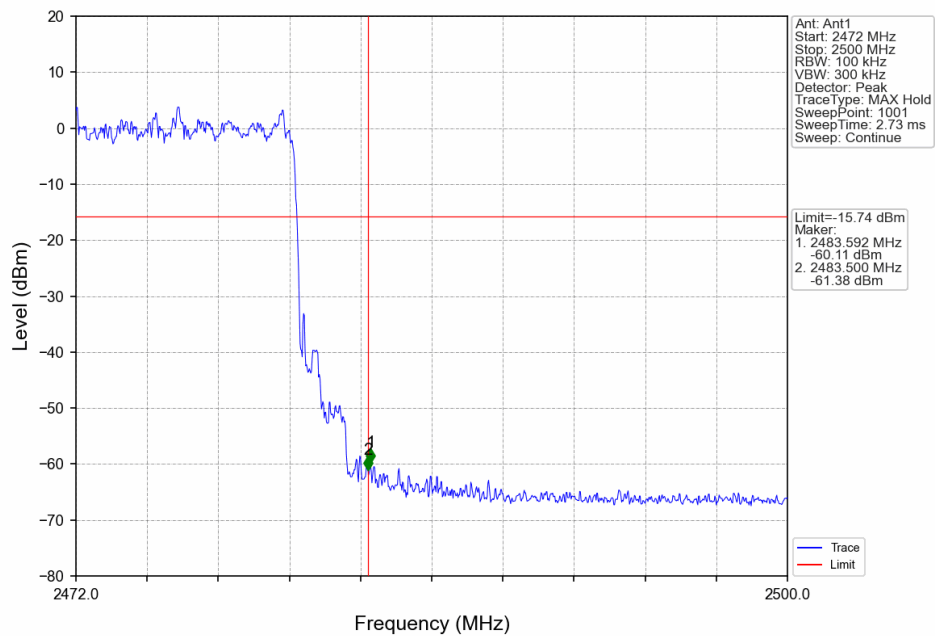
Pi/4DQPSK\_2DH5\_HCH\_2480MHz\_Ant1\_NTNV



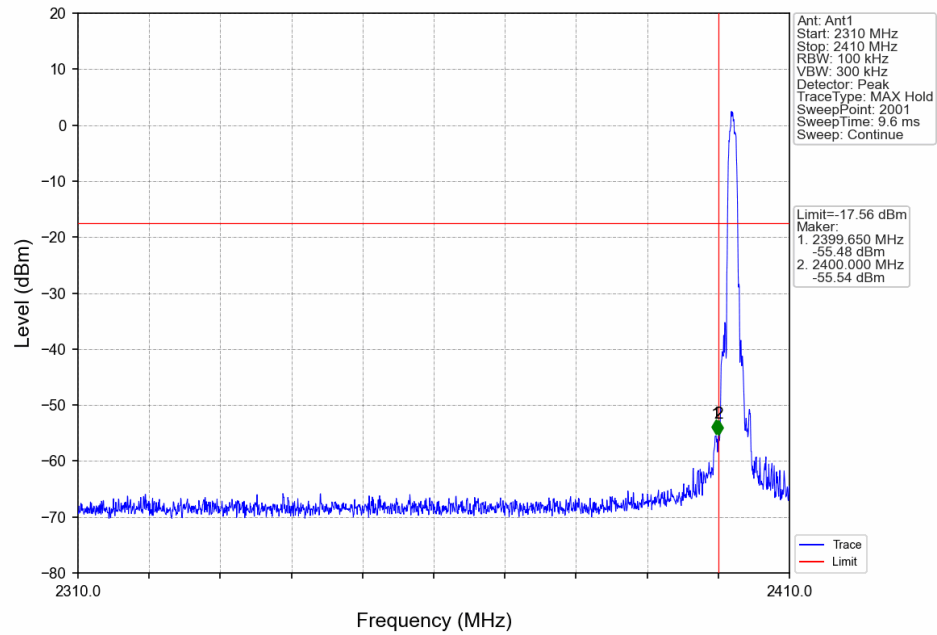
Pi/4DQPSK\_2DH5\_HOPP\_Ant1\_NTNV



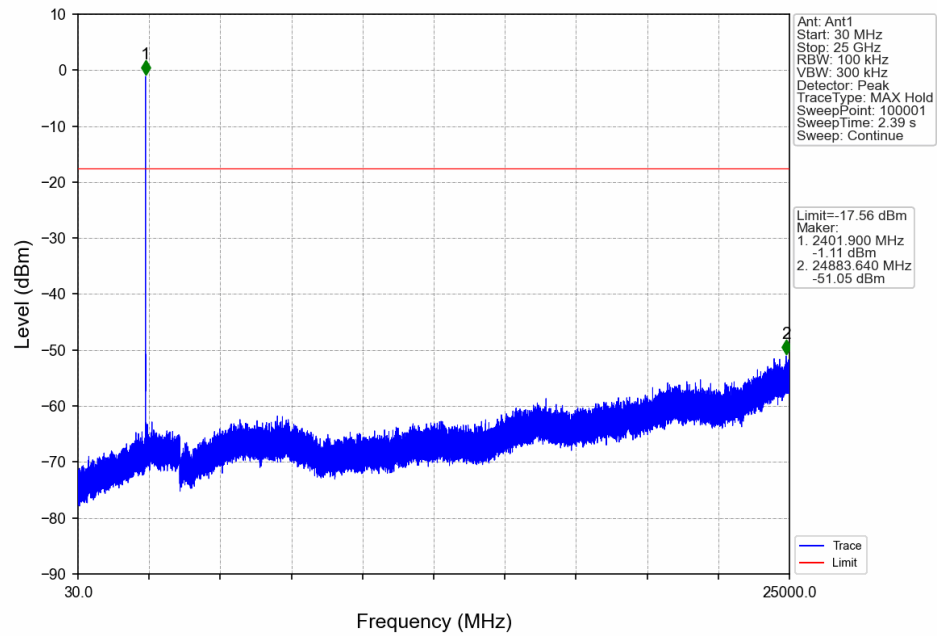
Pi/4DQPSK\_2DH5\_HOPP\_Ant1\_NTNV



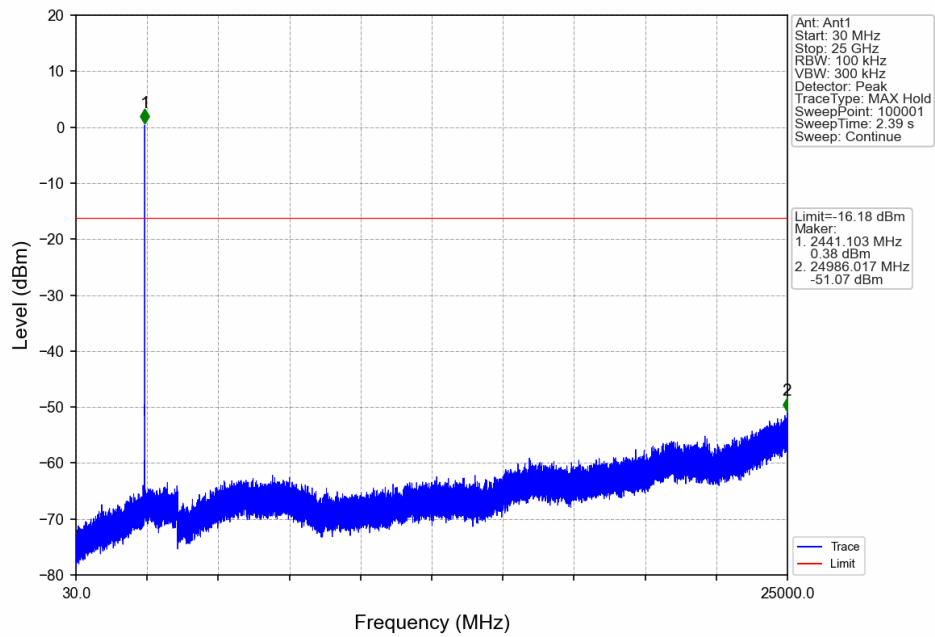
## 8DPSK\_3DH5\_LCH\_2402MHz\_Ant1\_NTNV



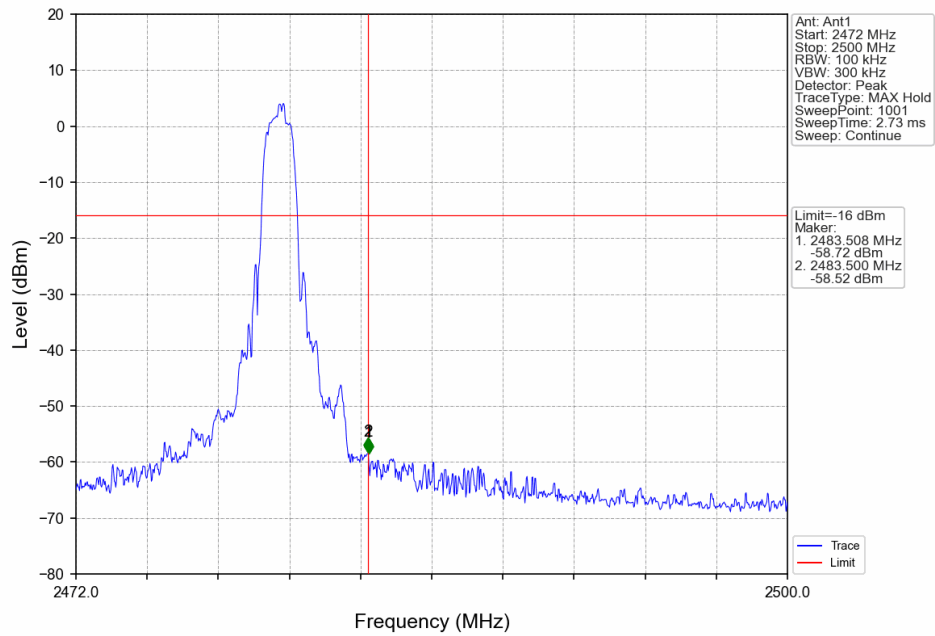
## 8DPSK\_3DH5\_LCH\_2402MHz\_Ant1\_NTNV



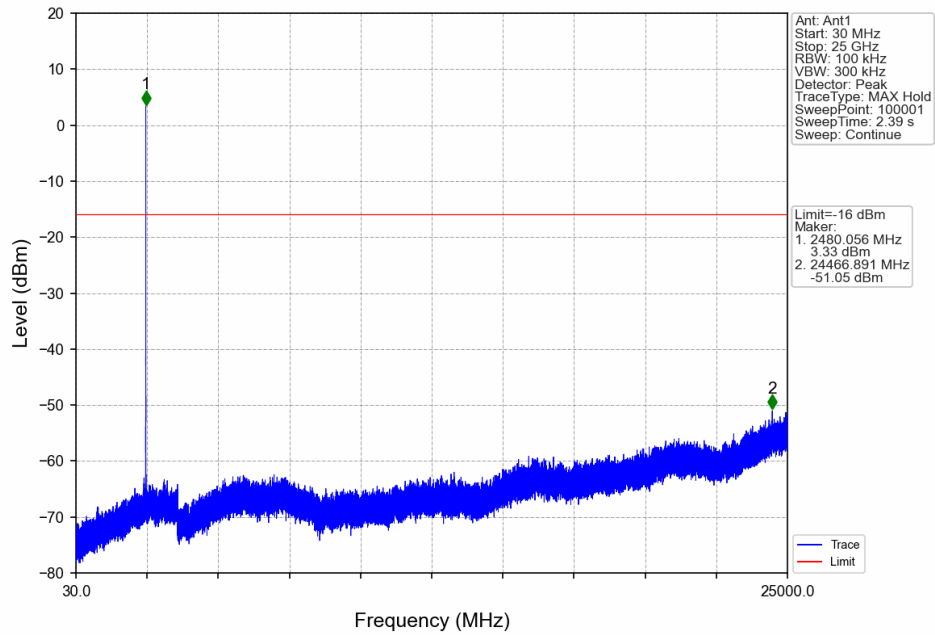
## 8DPSK\_3DH5\_MCH\_2441MHz\_Ant1\_NTNV



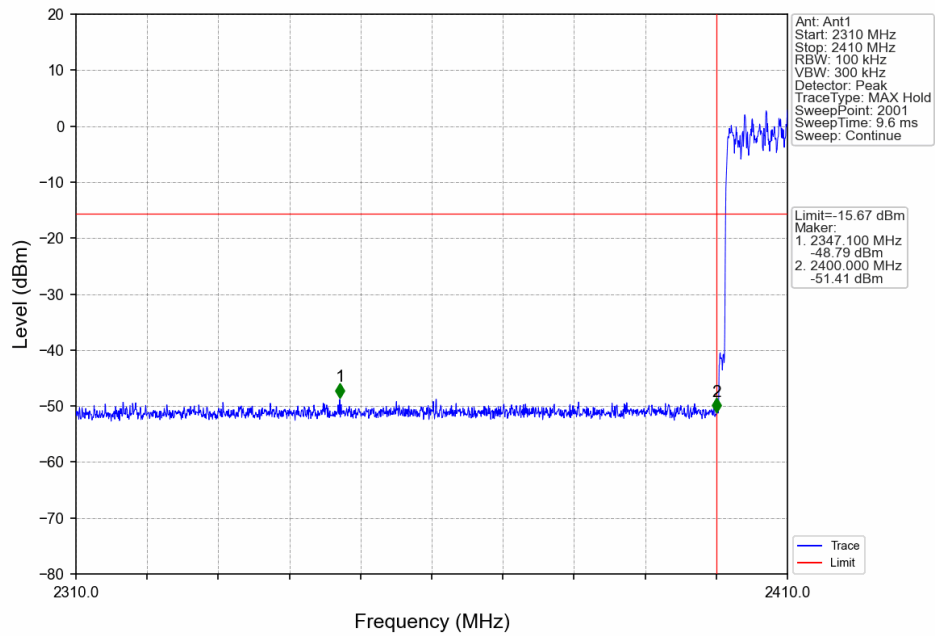
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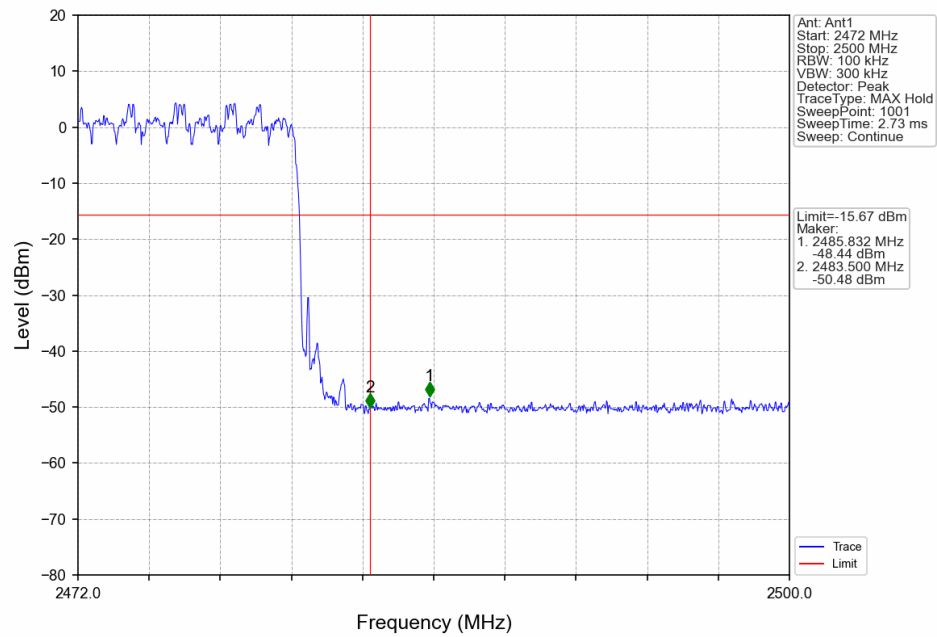
## 8DPSK\_3DH5\_HCH\_2480MHz\_Ant1\_NTNV



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



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



## 7. Form731

### 7.1 Test Result

#### 7.1.1 Form731

| Lower Freq (MHz) | High Freq (MHz) | MAX Power (W) | MAX Power (dBm) |
|------------------|-----------------|---------------|-----------------|
| 2402             | 2480            | 0.0044        | 6.39            |