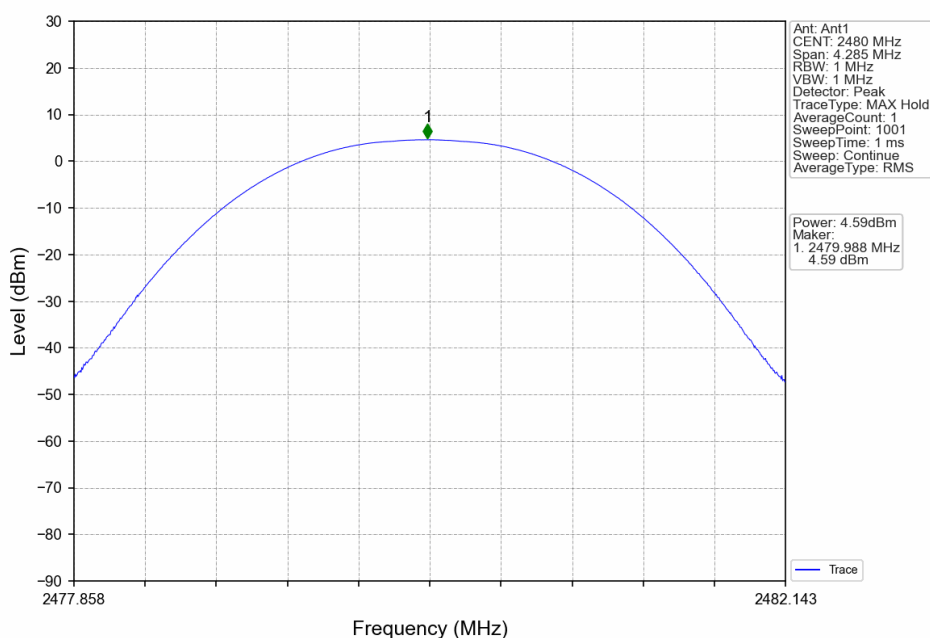
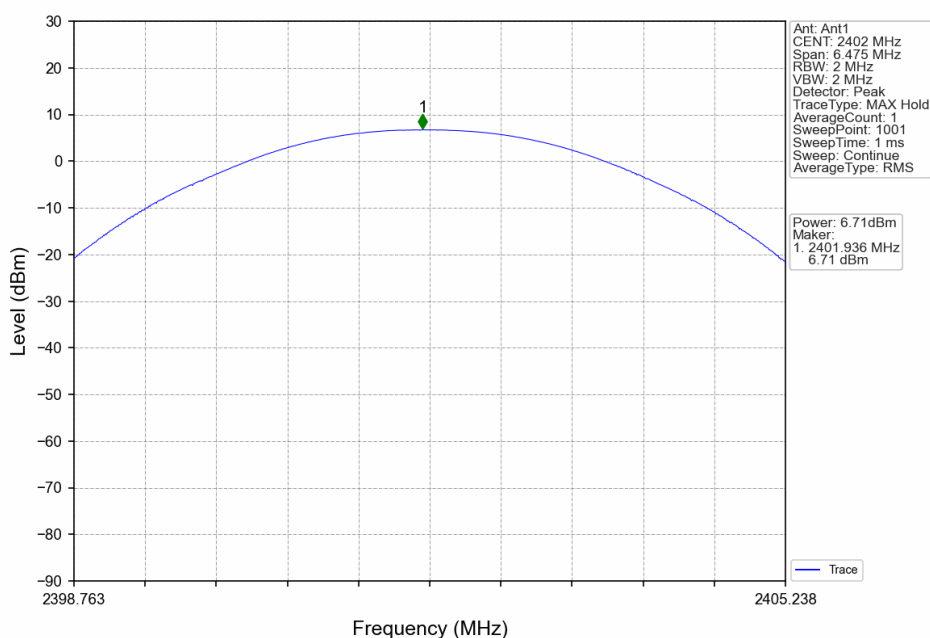


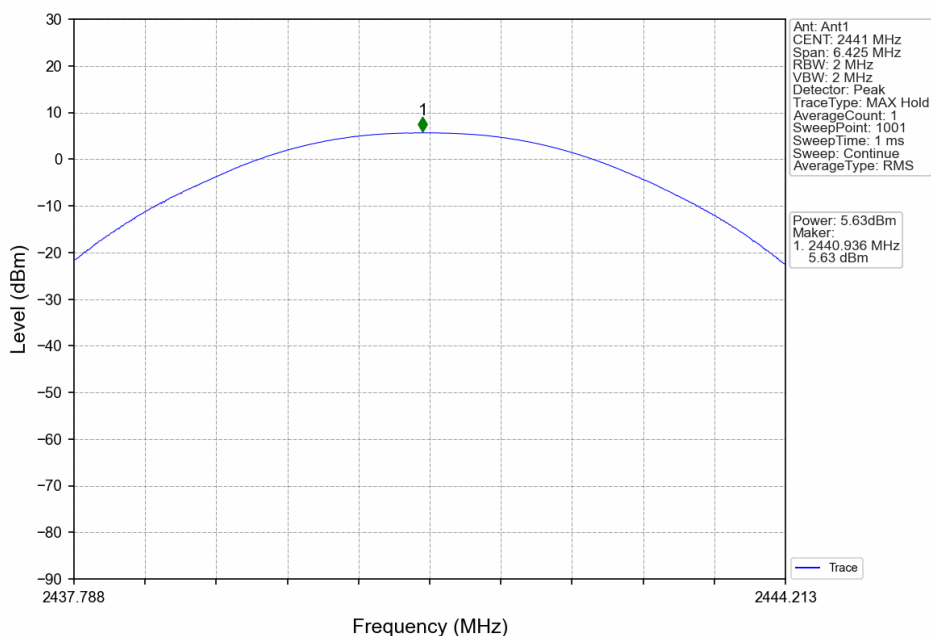
## GFSK\_DH5\_HCH\_2480MHz\_Ant1\_NTNV



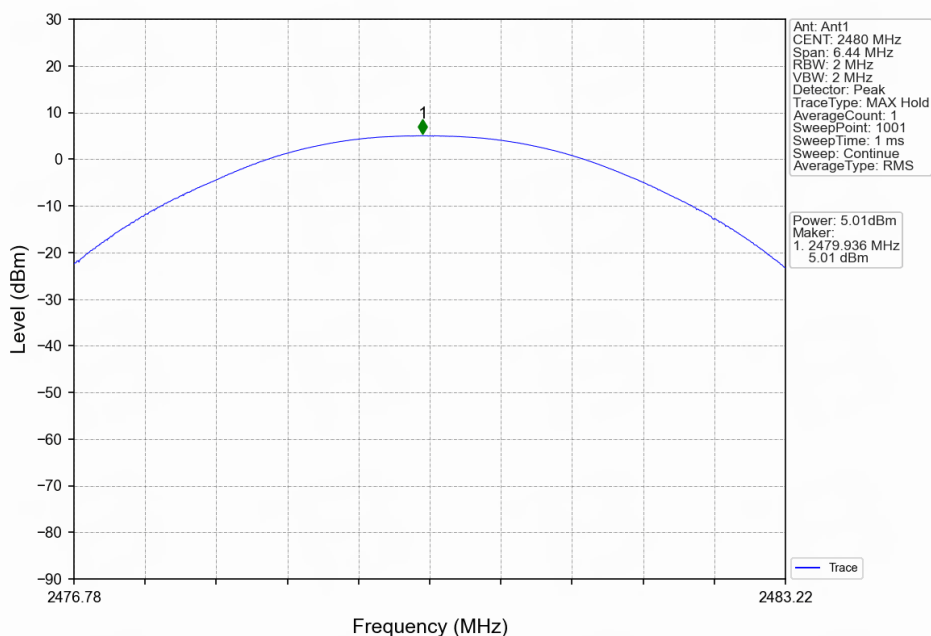
## Pi/4DQPSK\_2DH5\_LCH\_2402MHz\_Ant1\_NTNV



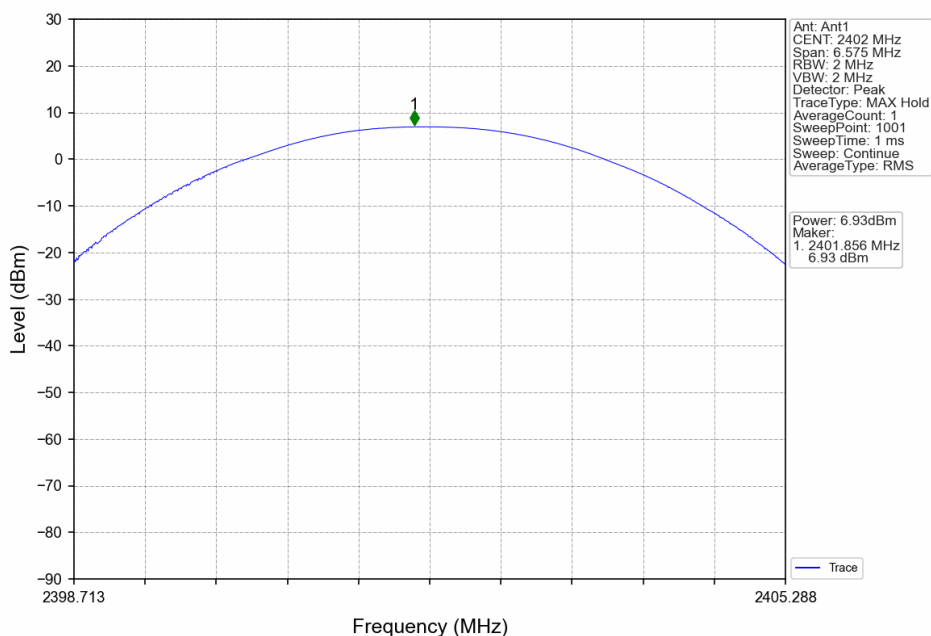
## Pi/4DQPSK\_2DH5\_MCH\_2441MHz\_Ant1\_NTNV



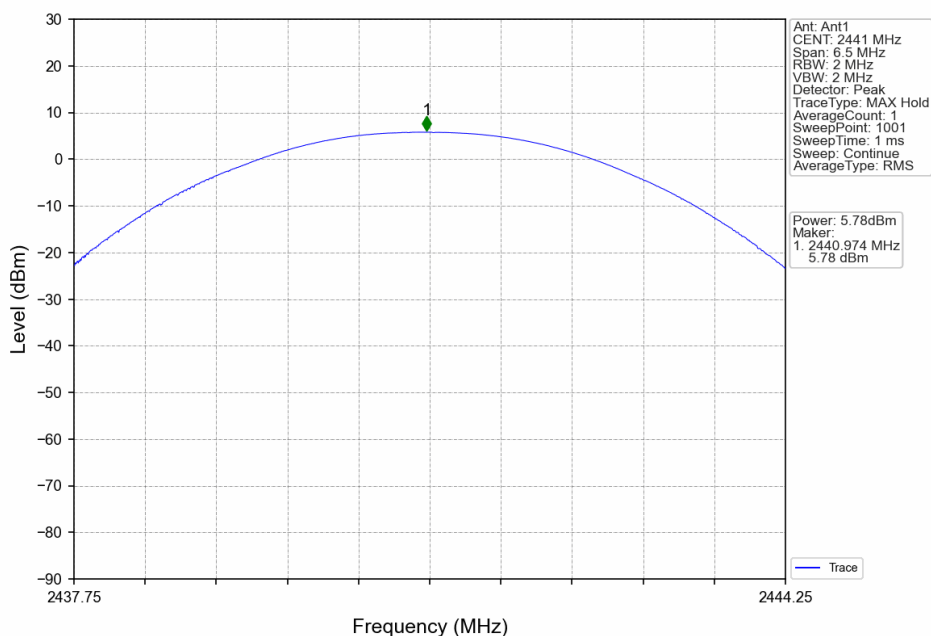
## Pi/4DQPSK\_2DH5\_HCH\_2480MHz\_Ant1\_NTNV



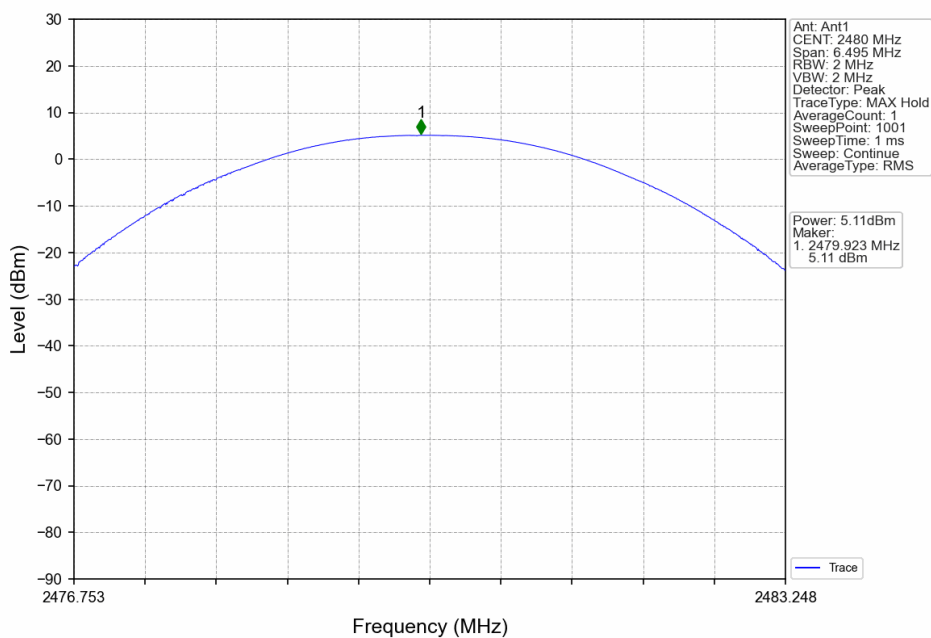
## 8DPSK\_3DH5\_LCH\_2402MHz\_Ant1\_NTNV



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



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



### 3. Carrier Frequency Separation

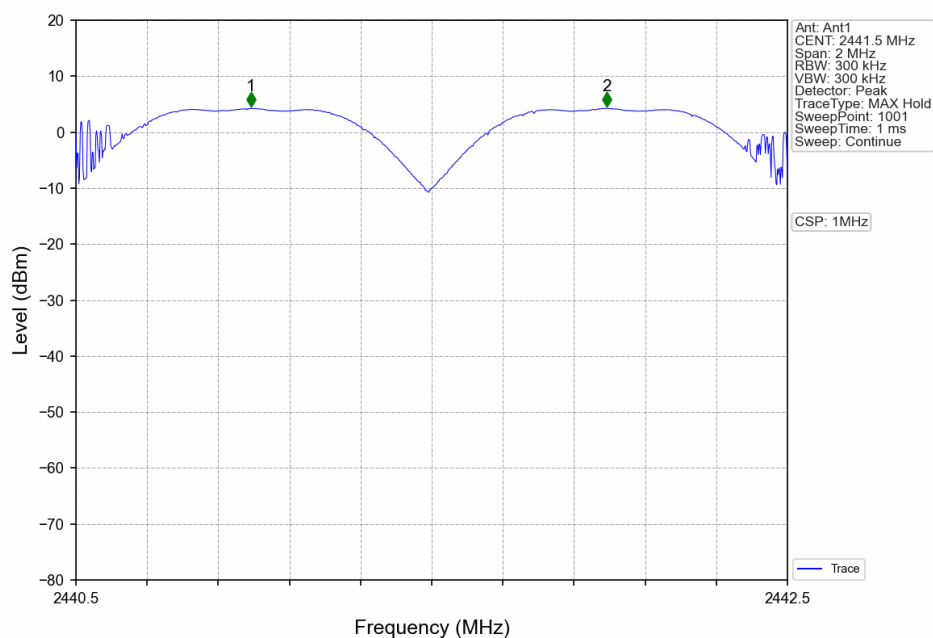
#### 3.1 Ant1

##### 3.1.1 Test Result

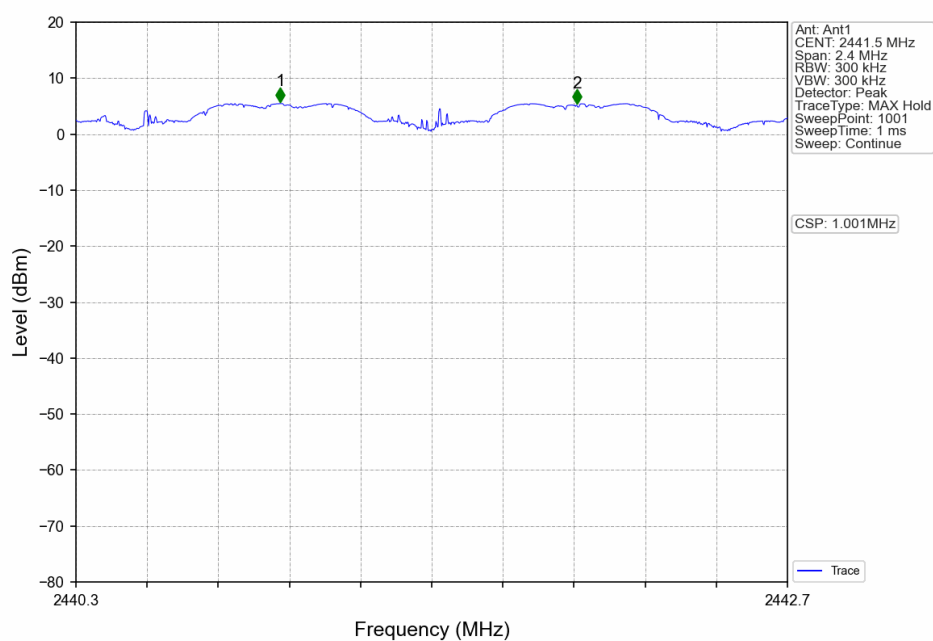
| Mode      | TX<br>Type | Frequency<br>(MHz) | Packet<br>Type | Ant1                        |                         | Limit<br>(MHz) | Verdict |
|-----------|------------|--------------------|----------------|-----------------------------|-------------------------|----------------|---------|
|           |            |                    |                | Channel Separation<br>(MHz) | 20dB Bandwidth<br>(MHz) |                |         |
| GFSK      | SISO       | HOPP               | DH5            | 1.000                       | 0.857                   | $\geq 0.857$   | Pass    |
| Pi/4DQPSK | SISO       | HOPP               | 2DH5           | 1.001                       | 1.295                   | $\geq 0.863$   | Pass    |
| 8DPSK     | SISO       | HOPP               | 3DH5           | 0.991                       | 1.315                   | $\geq 0.877$   | Pass    |

### 3.1.2 Test Graph

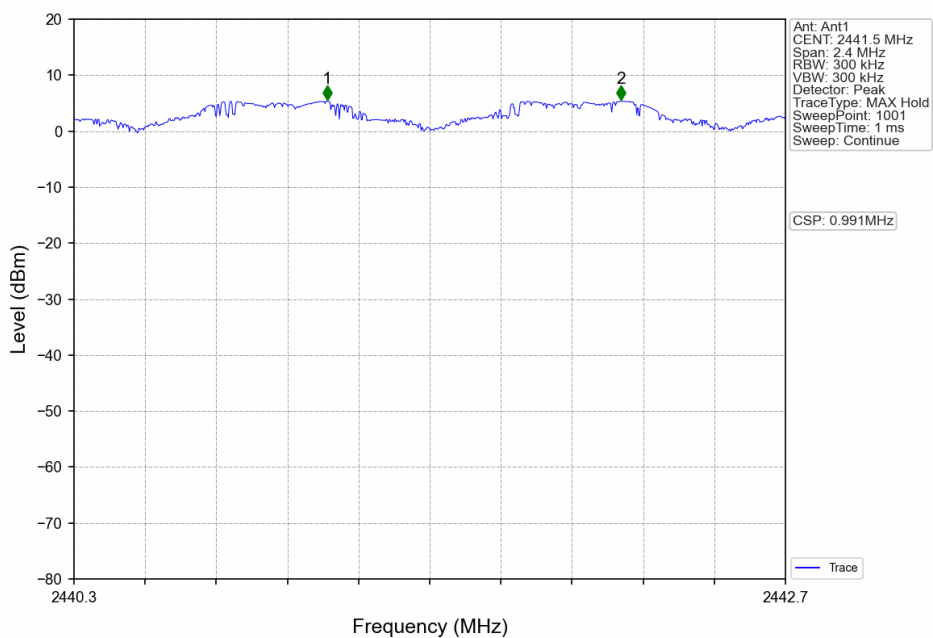
GFSK\_DH5\_HOPP\_Ant1\_NTNV



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



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



## 4. Number of Hopping Frequencies

### 4.1 HoppNum

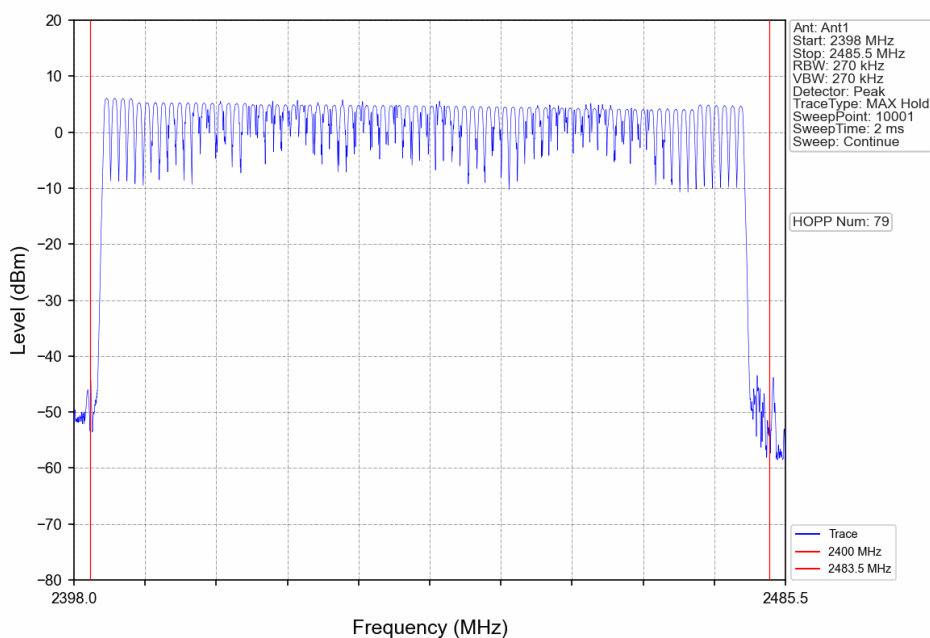
#### 4.1.1 Test Result

| Mode      | TX<br>Type | Frequency<br>(MHz) | Packet<br>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    |

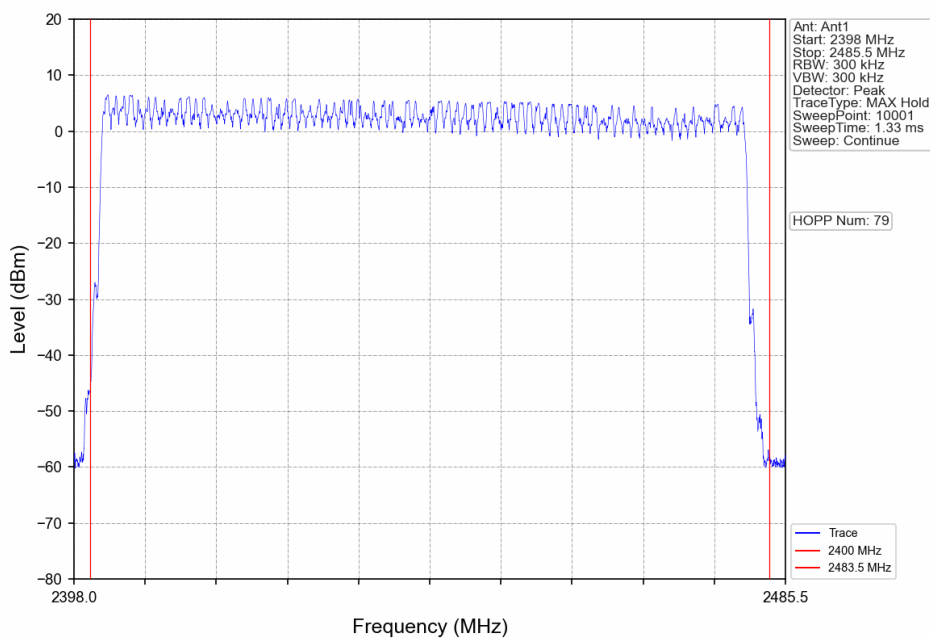


## 4.1.2 Test Graph

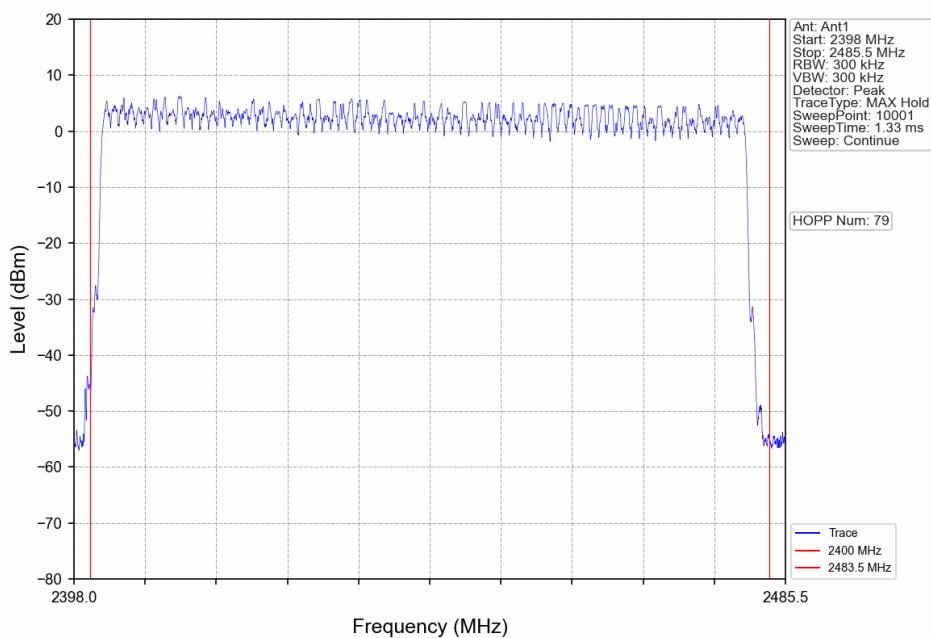
GFSK\_DH5\_HOPP\_Ant1\_NTNV



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



8DPSK\_3DH5\_HOPP\_Ant1\_NTNV



## 5. Time of Occupancy (Dwell Time)

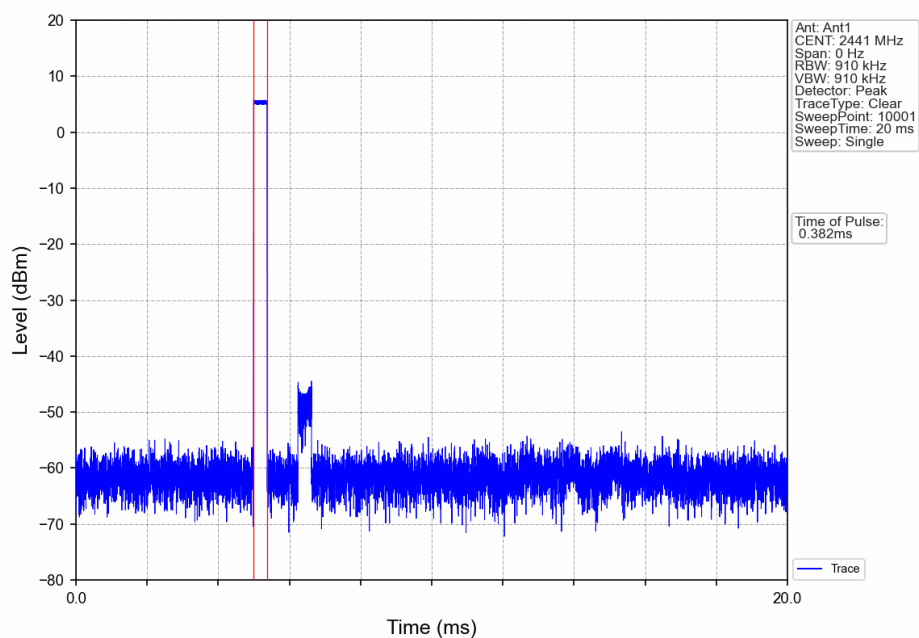
### 5.1 Ant1

#### 5.1.1 Test Result

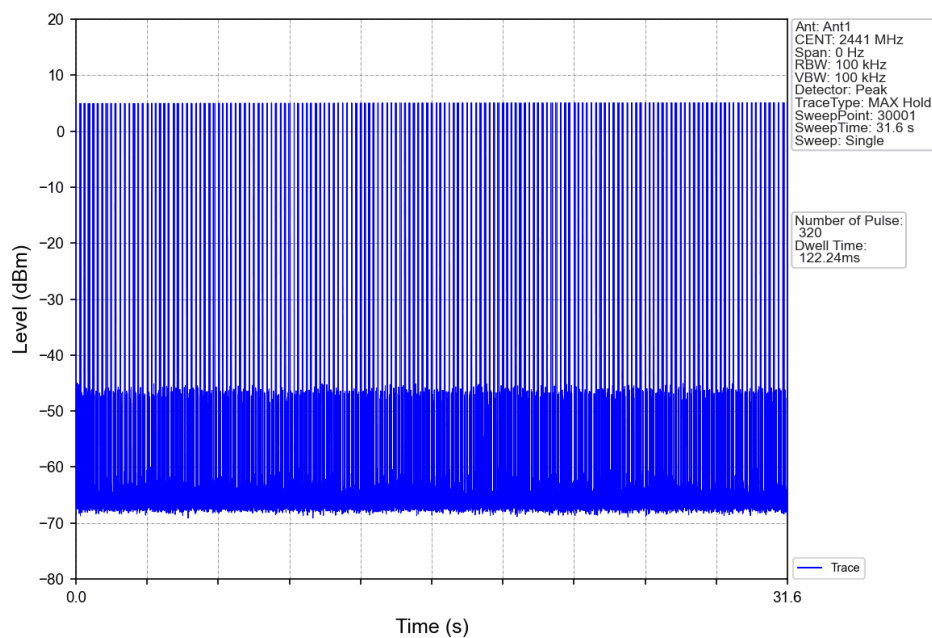
| Mode      | TX Type | Frequency (MHz) | Packet Type | Ant1                          |                        | Num of Pulse in Observation Period | Dwell Time (ms) | Limit (ms) | Verdict |
|-----------|---------|-----------------|-------------|-------------------------------|------------------------|------------------------------------|-----------------|------------|---------|
|           |         |                 |             | Duration of Single Pulse (ms) | Observation Period (s) |                                    |                 |            |         |
| GFSK      | SISO    | HOPP            | DH1         | 0.382                         | 31.600                 | 320                                | 122.240         | <=400      | Pass    |
|           |         |                 | DH3         | 1.638                         | 31.600                 | 160                                | 262.080         | <=400      | Pass    |
|           |         |                 | DH5         | 2.894                         | 31.600                 | 108                                | 312.552         | <=400      | Pass    |
| Pi/4DQPSK | SISO    | HOPP            | 2DH1        | 0.388                         | 31.600                 | 314                                | 121.832         | <=400      | Pass    |
|           |         |                 | 2DH3        | 1.648                         | 31.600                 | 159                                | 262.032         | <=400      | Pass    |
|           |         |                 | 2DH5        | 2.890                         | 31.600                 | 103                                | 297.670         | <=400      | Pass    |
| 8DPSK     | SISO    | HOPP            | 3DH1        | 0.396                         | 31.600                 | 320                                | 126.720         | <=400      | Pass    |
|           |         |                 | 3DH3        | 1.644                         | 31.600                 | 159                                | 261.396         | <=400      | Pass    |
|           |         |                 | 3DH5        | 2.894                         | 31.600                 | 99                                 | 286.506         | <=400      | Pass    |

## 5.1.2 Test Graph

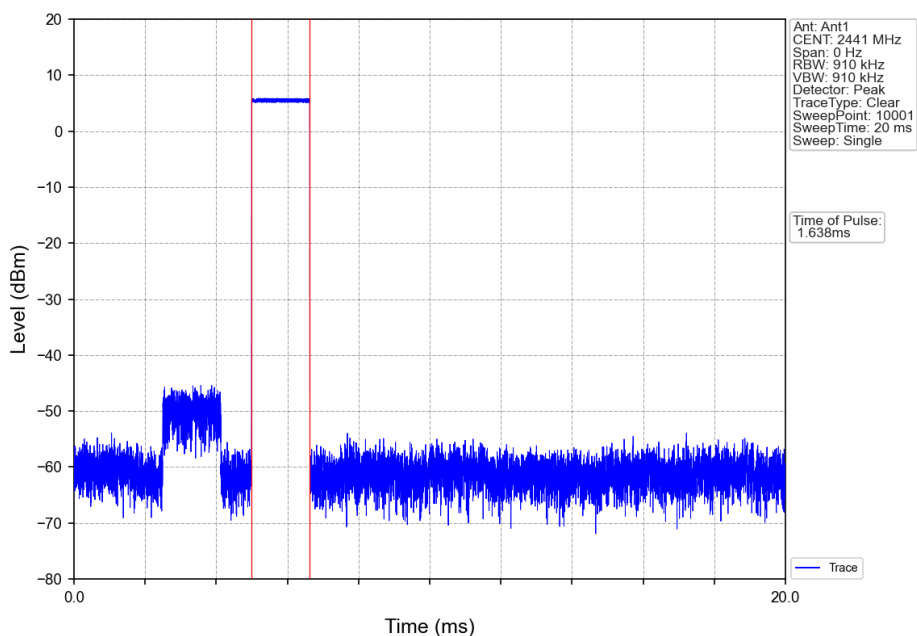
GFSK\_DH1\_HOPP\_Ant1\_NTNV



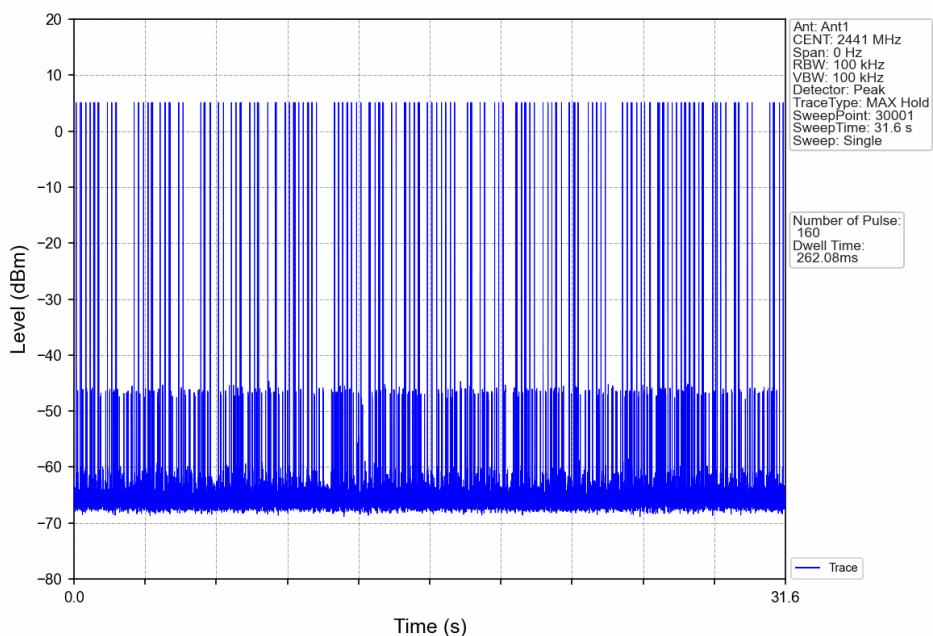
GFSK\_DH1\_HOPP\_Ant1\_NTNV



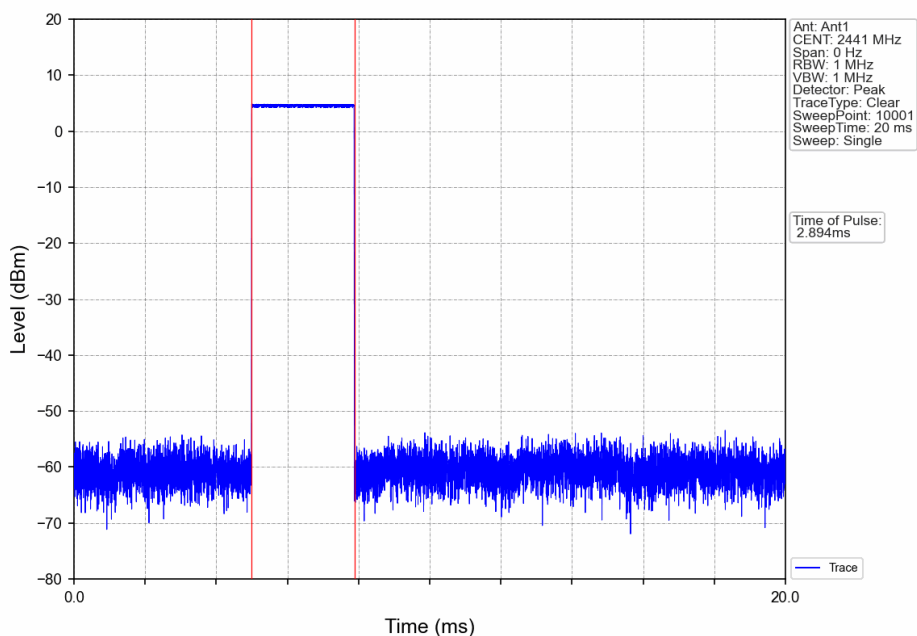
## GFSK\_DH3\_HOPP\_Ant1\_NTNV



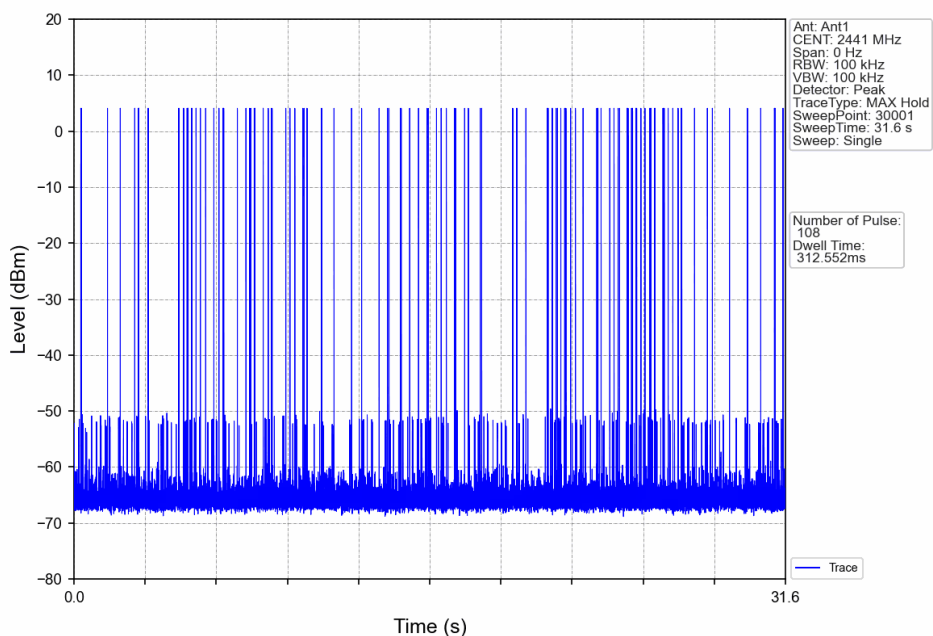
## GFSK\_DH3\_HOPP\_Ant1\_NTNV



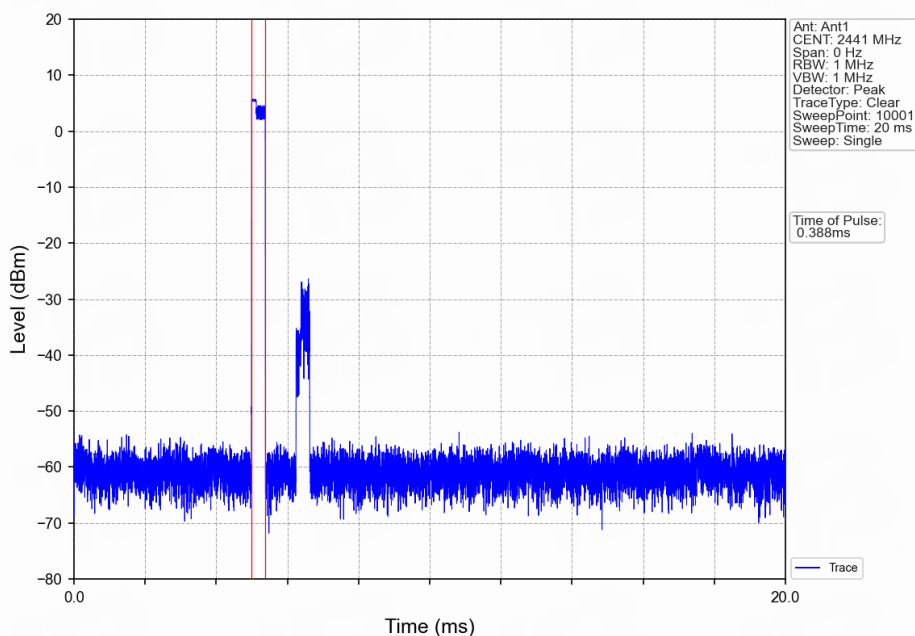
## GFSK\_DH5\_HOPP\_Ant1\_NTNV



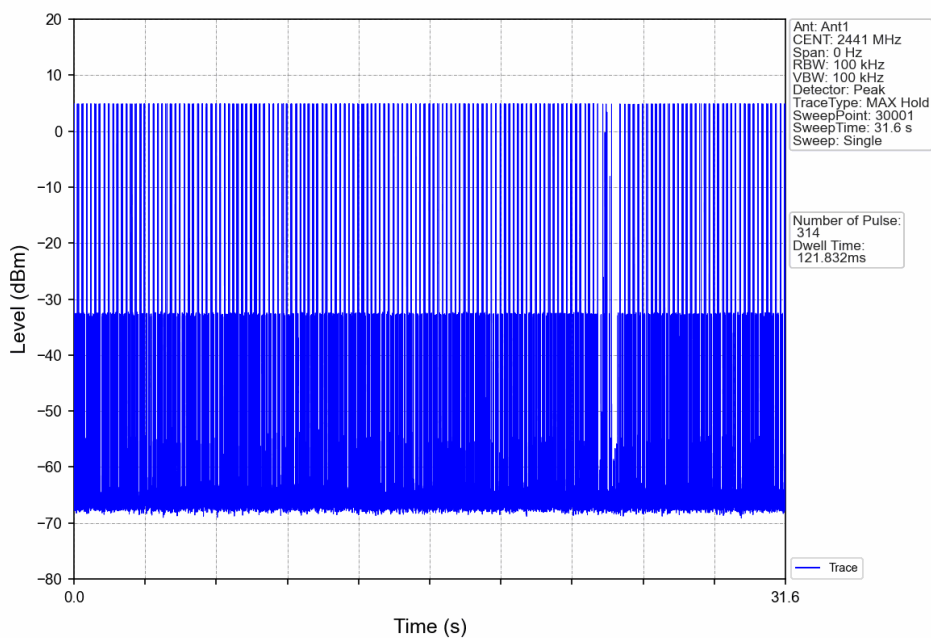
## GFSK\_DH5\_HOPP\_Ant1\_NTNV



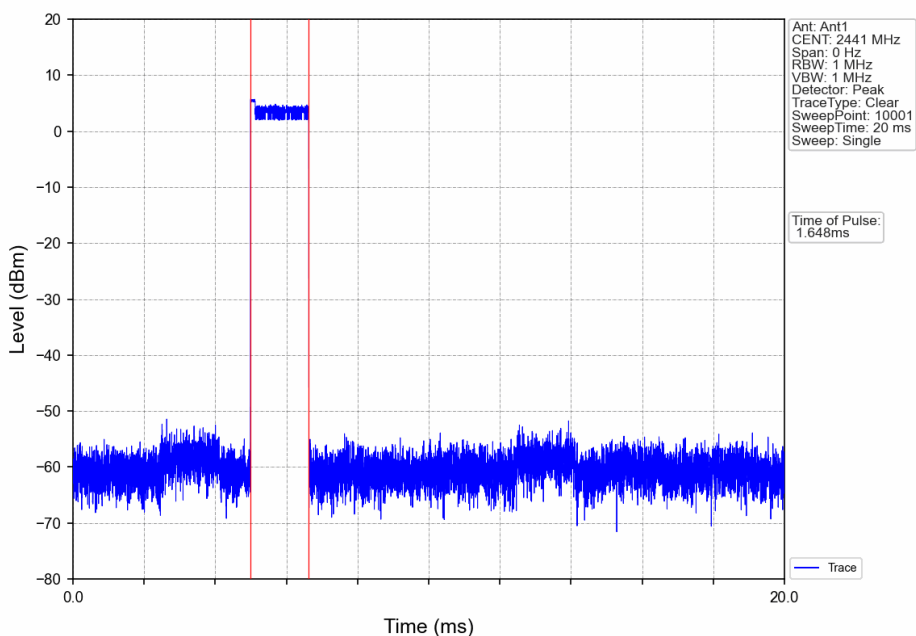
Pi/4DQPSK\_2DH1\_HOPP\_Ant1\_NTNV



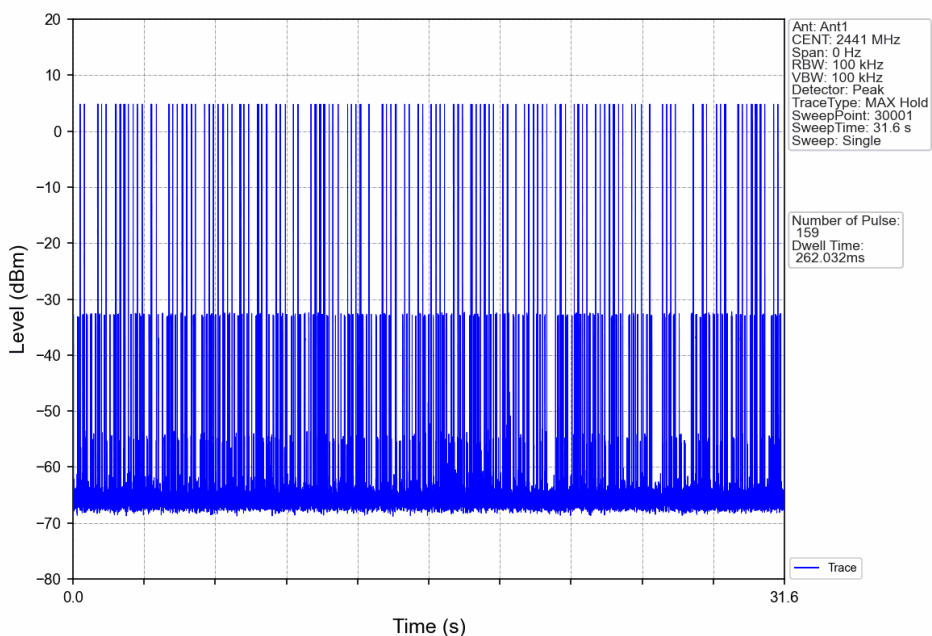
Pi/4DQPSK\_2DH1\_HOPP\_Ant1\_NTNV



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

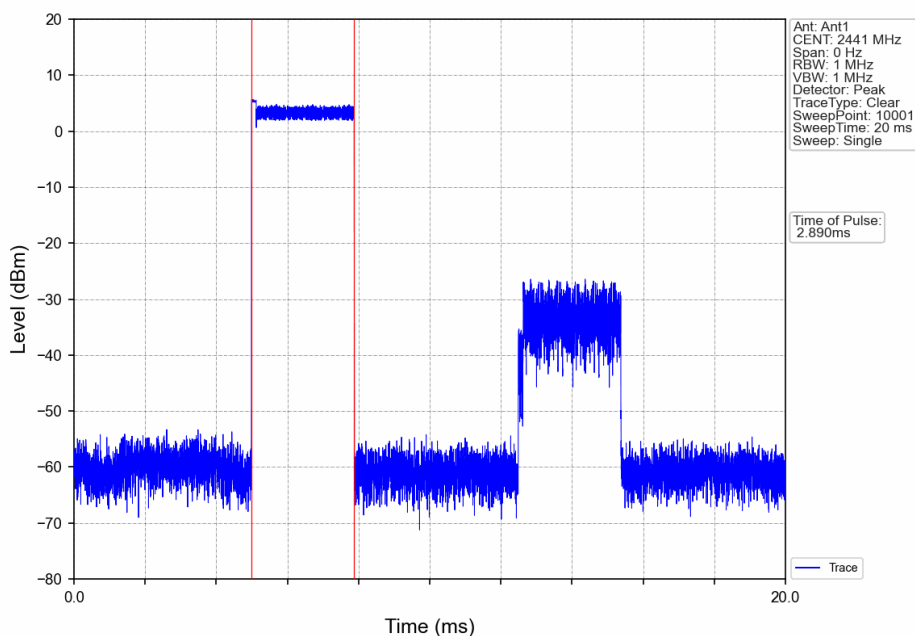


## Pi/4DQPSK\_2DH3\_HOPP\_Ant1\_NTNV

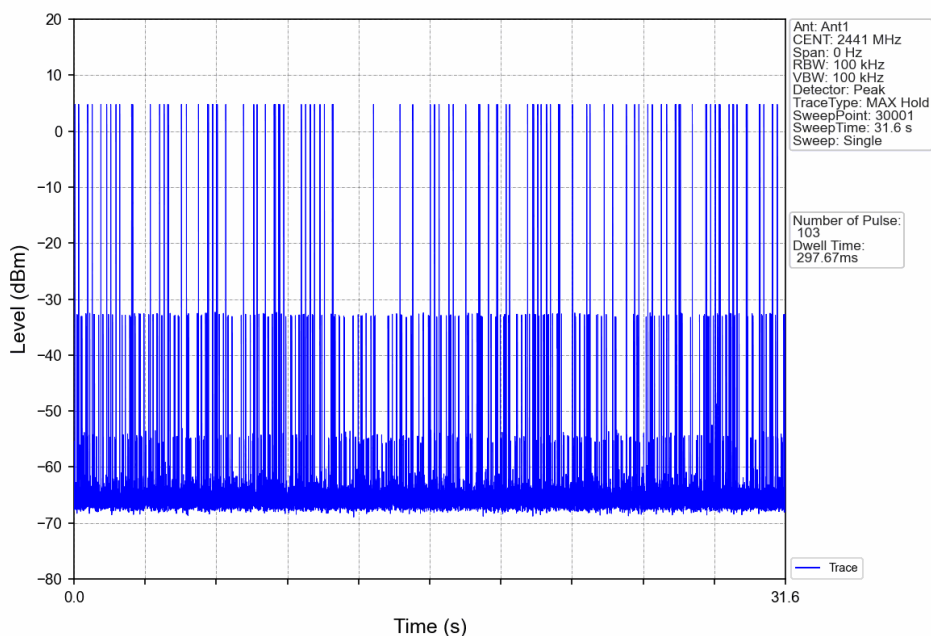




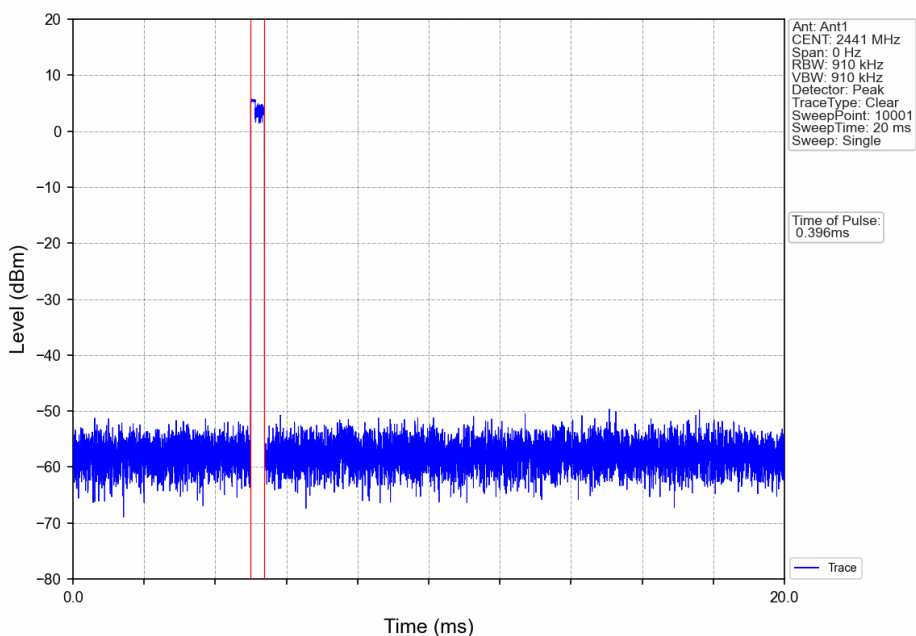
## Pi/4DQPSK\_2DH5\_HOPP\_Ant1\_NTNV



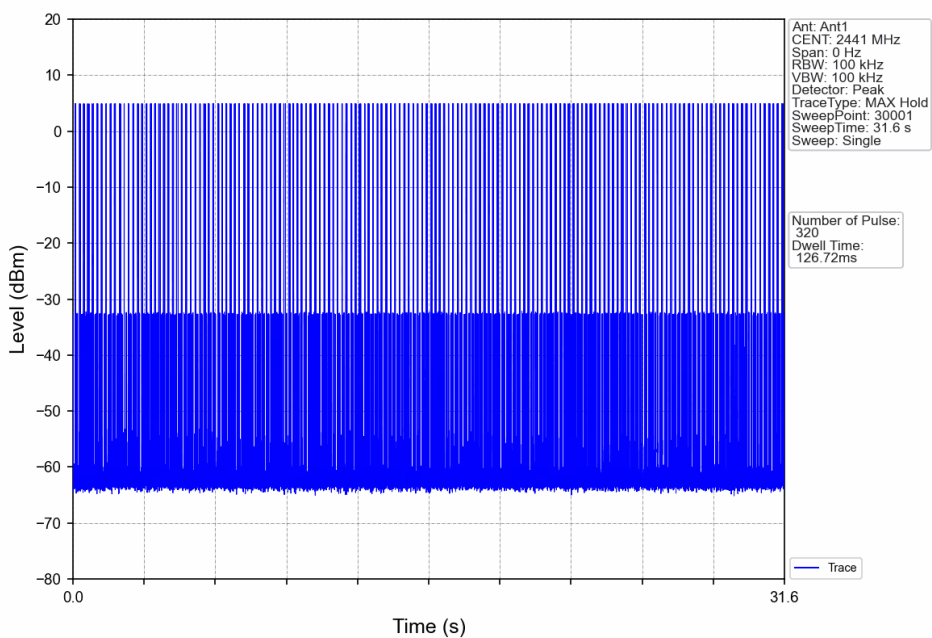
## Pi/4DQPSK\_2DH5\_HOPP\_Ant1\_NTNV



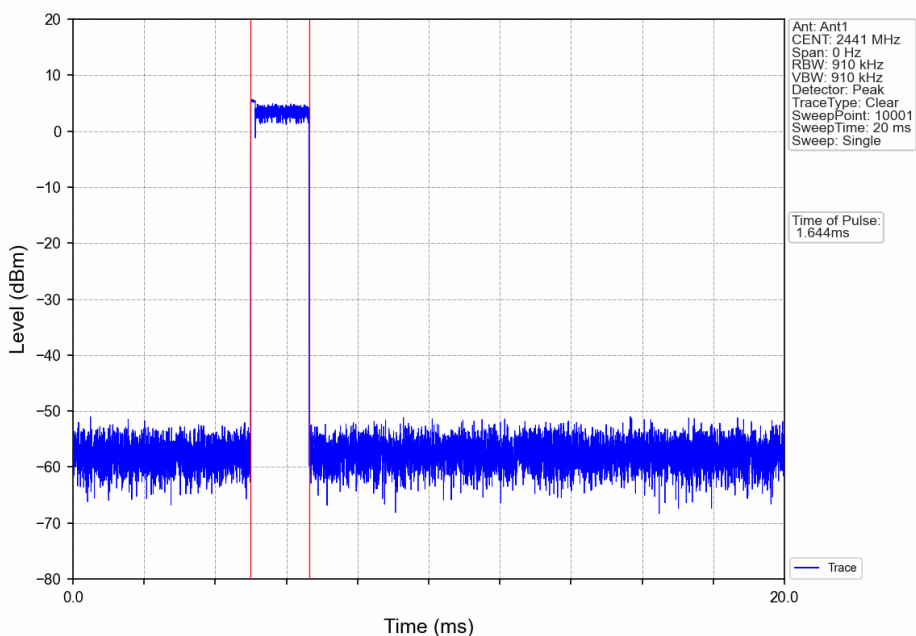
## 8DPSK\_3DH1\_HOPP\_Ant1\_NTNV



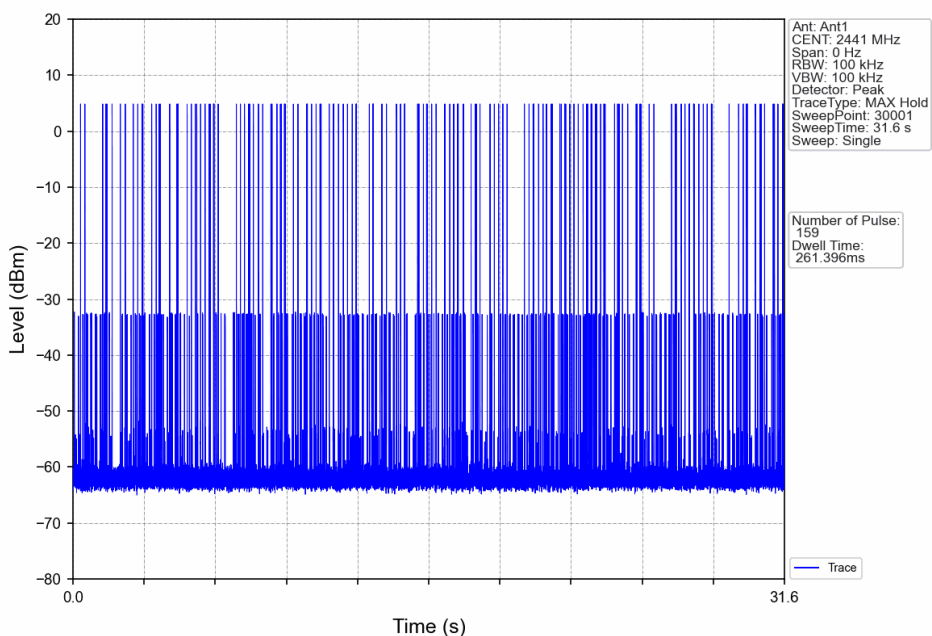
## 8DPSK\_3DH1\_HOPP\_Ant1\_NTNV



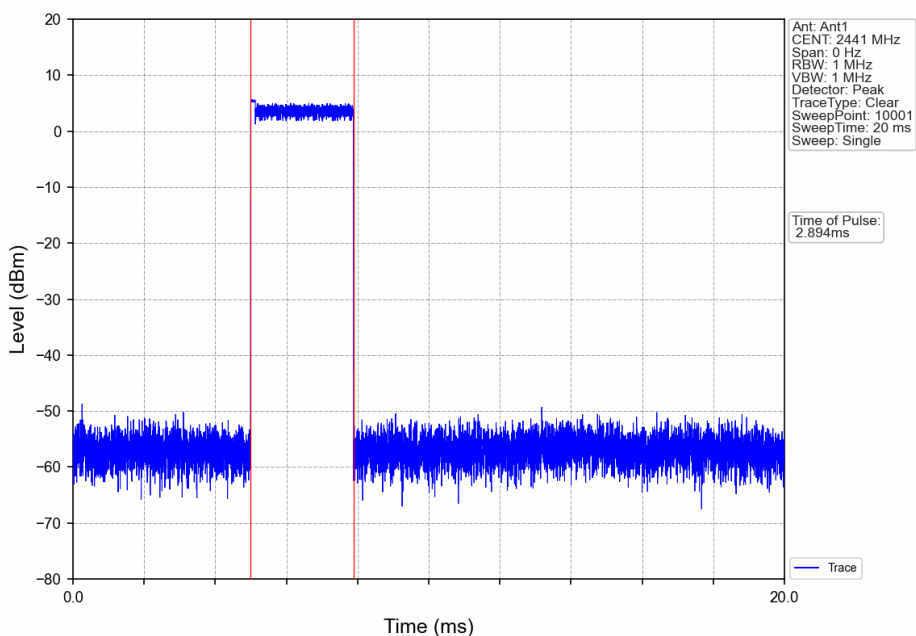
## 8DPSK\_3DH3\_HOPP\_Ant1\_NTNV



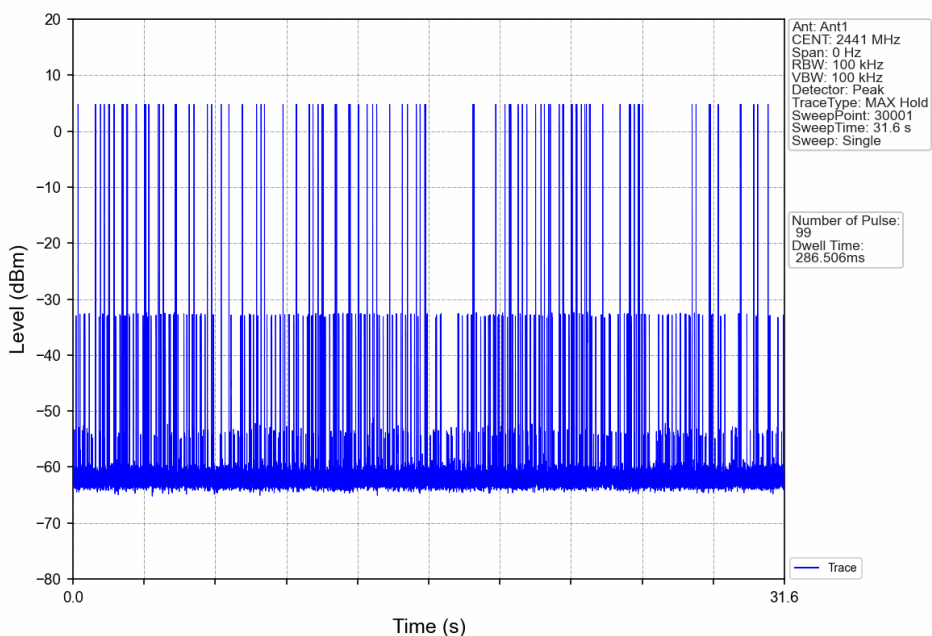
## 8DPSK\_3DH3\_HOPP\_Ant1\_NTNV



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



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



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

### 6.1 Ref

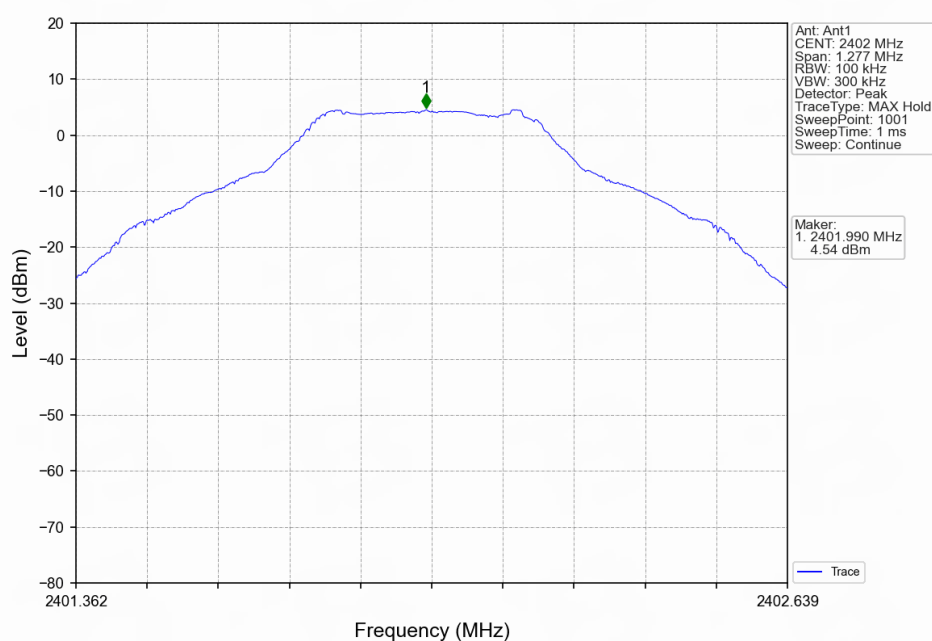
#### 6.1.1 Test Result

| Mode      | TX Type | Frequency (MHz) | Packet Type | ANT | Level of Reference (dBm) |
|-----------|---------|-----------------|-------------|-----|--------------------------|
| GFSK      | SISO    | 2402            | DH5         | 1   | 4.54                     |
|           |         | 2441            | DH5         | 1   | 3.93                     |
|           |         | 2480            | DH5         | 1   | 4.05                     |
| Pi/4DQPSK | SISO    | 2402            | 2DH5        | 1   | 6.10                     |
|           |         | 2441            | 2DH5        | 1   | 5.12                     |
|           |         | 2480            | 2DH5        | 1   | 4.42                     |
| 8DPSK     | SISO    | 2402            | 3DH5        | 1   | 6.18                     |
|           |         | 2441            | 3DH5        | 1   | 5.27                     |
|           |         | 2480            | 3DH5        | 1   | 4.64                     |

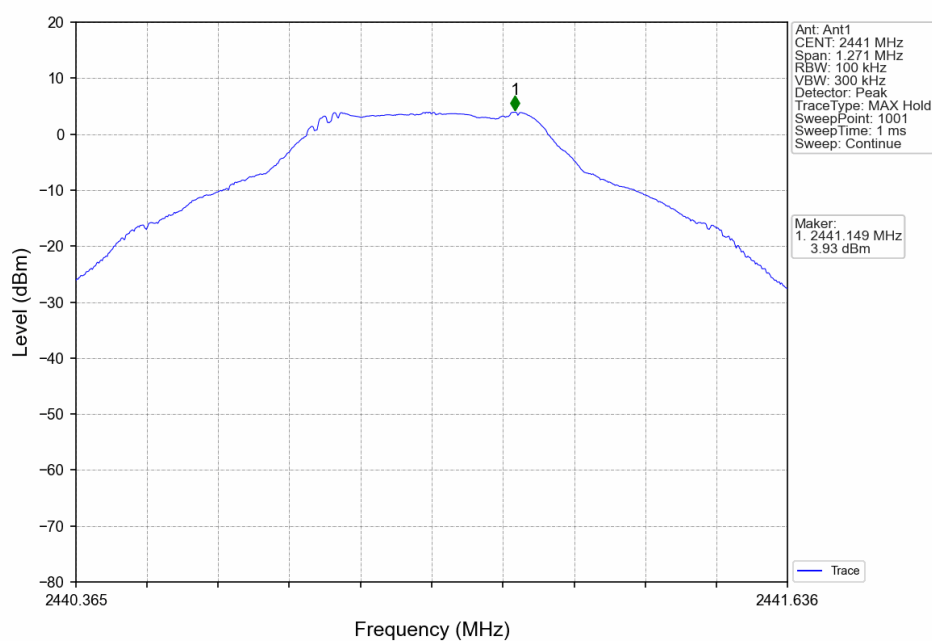
Note1: Refer to FCC Part 15.247 (d) and ANSI C63.10-2013, the channel contains the maximum PSD level was used to establish the reference level.

## 6.1.2 Test Graph

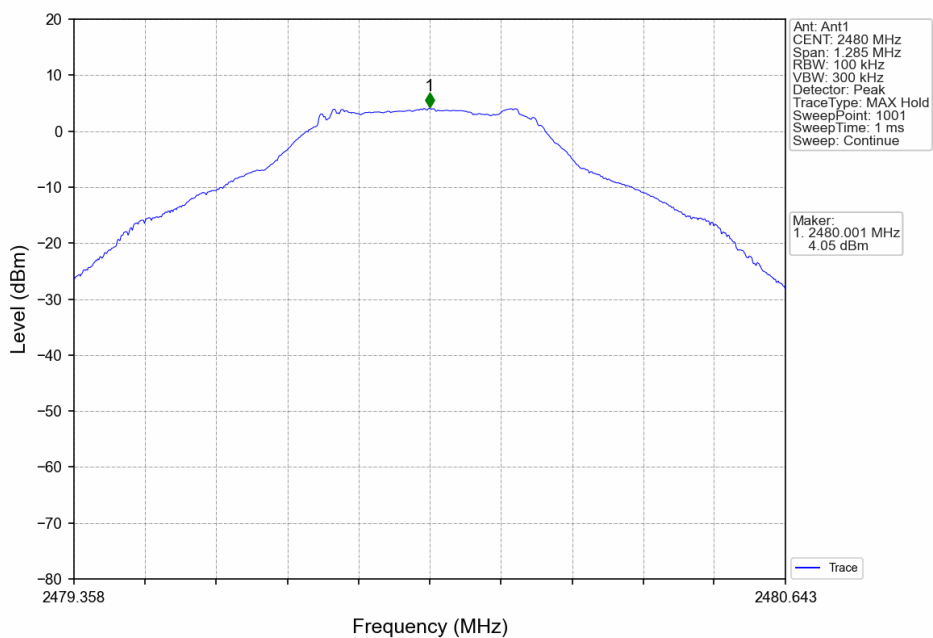
GFSK\_DH5\_LCH\_2402MHz\_Ant1\_NTNV



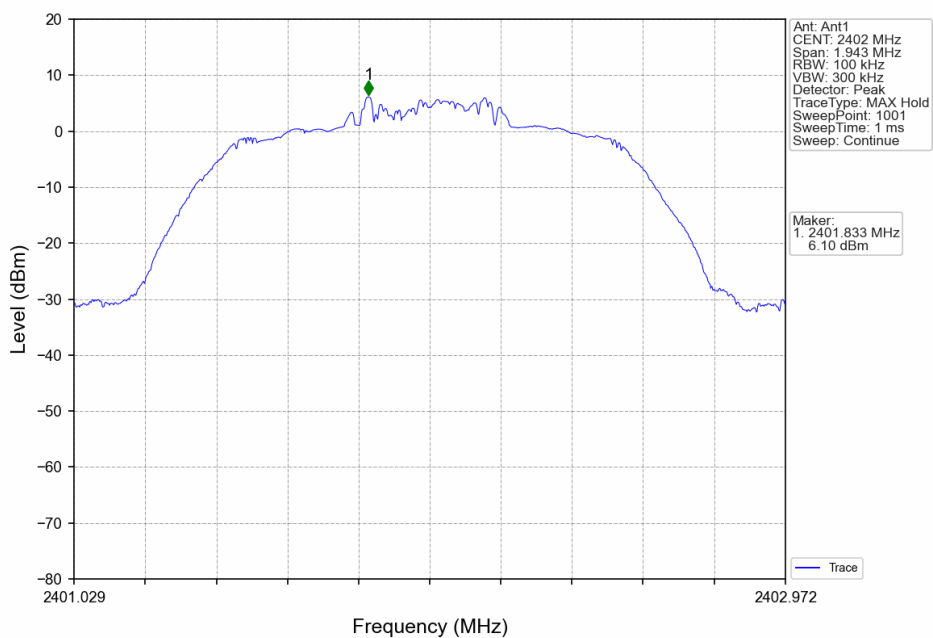
GFSK\_DH5\_MCH\_2441MHz\_Ant1\_NTNV



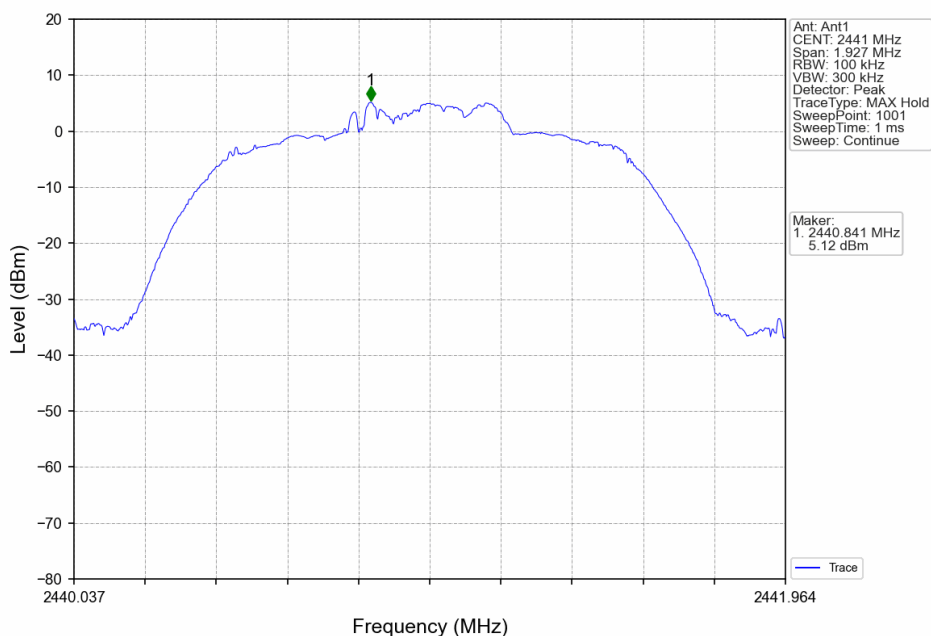
## GFSK\_DH5\_HCH\_2480MHz\_Ant1\_NTNV



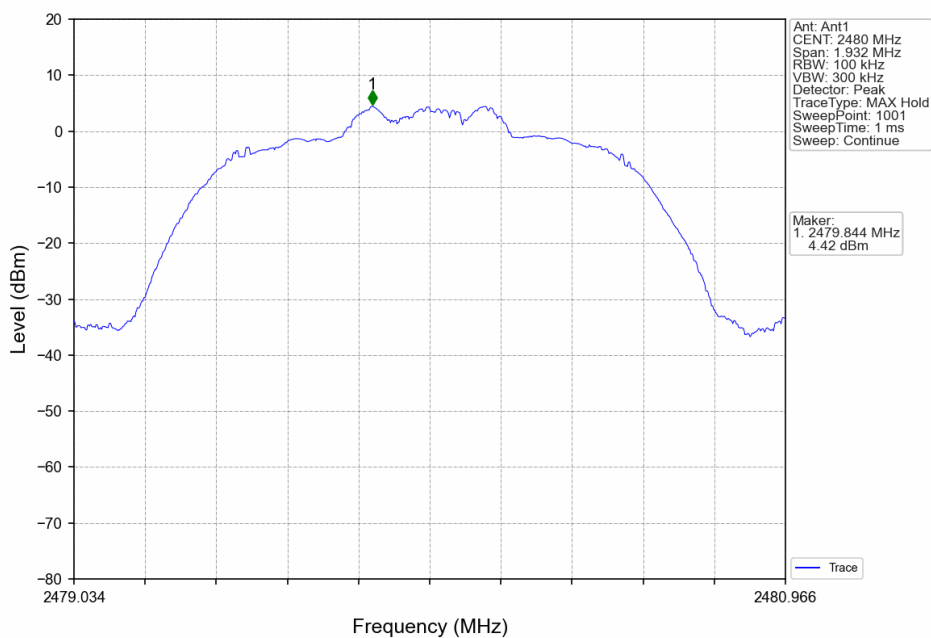
## Pi/4DQPSK\_2DH5\_LCH\_2402MHz\_Ant1\_NTNV



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

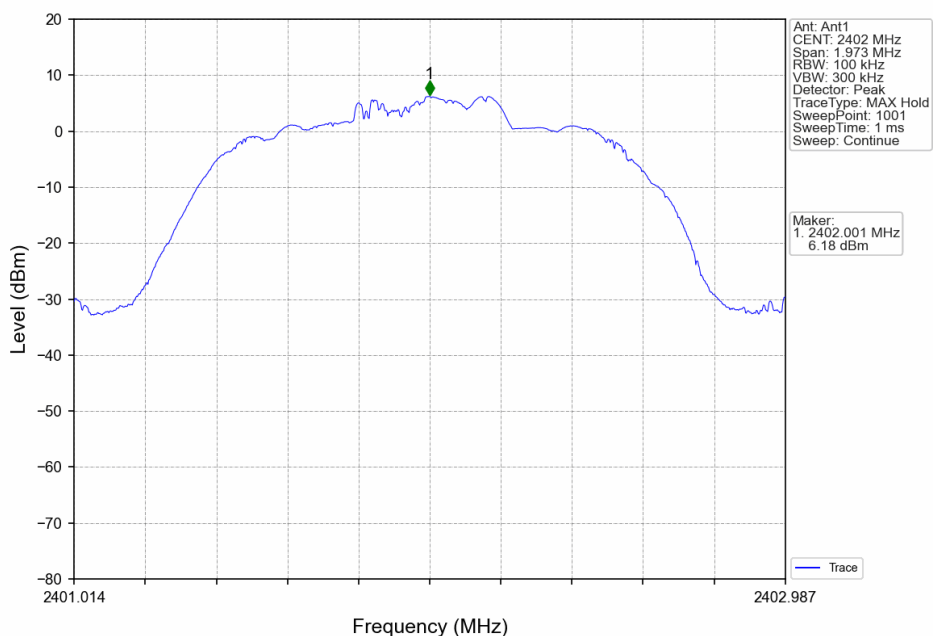


Pi/4DQPSK\_2DH5\_HCH\_2480MHz\_Ant1\_NTNV

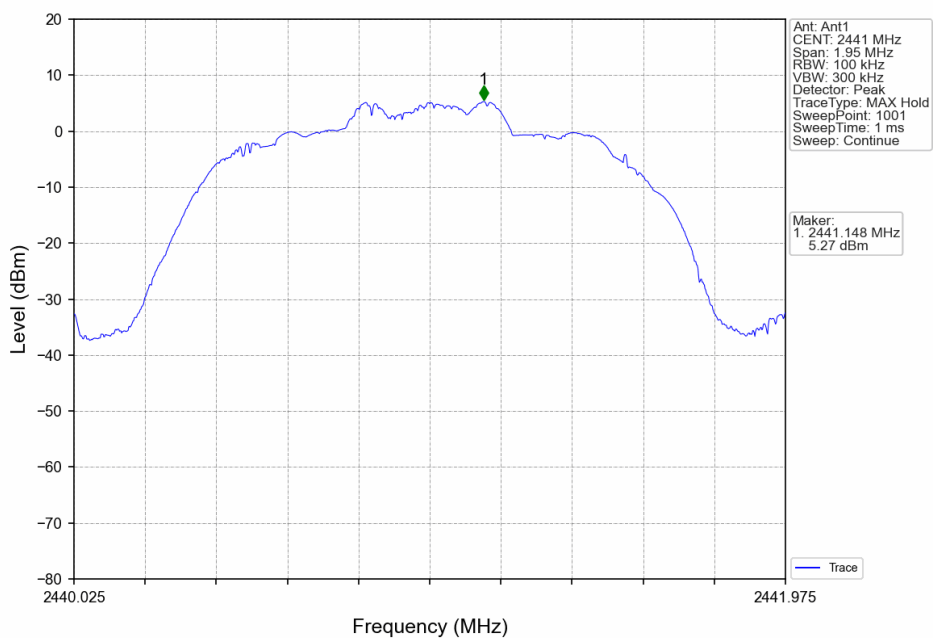




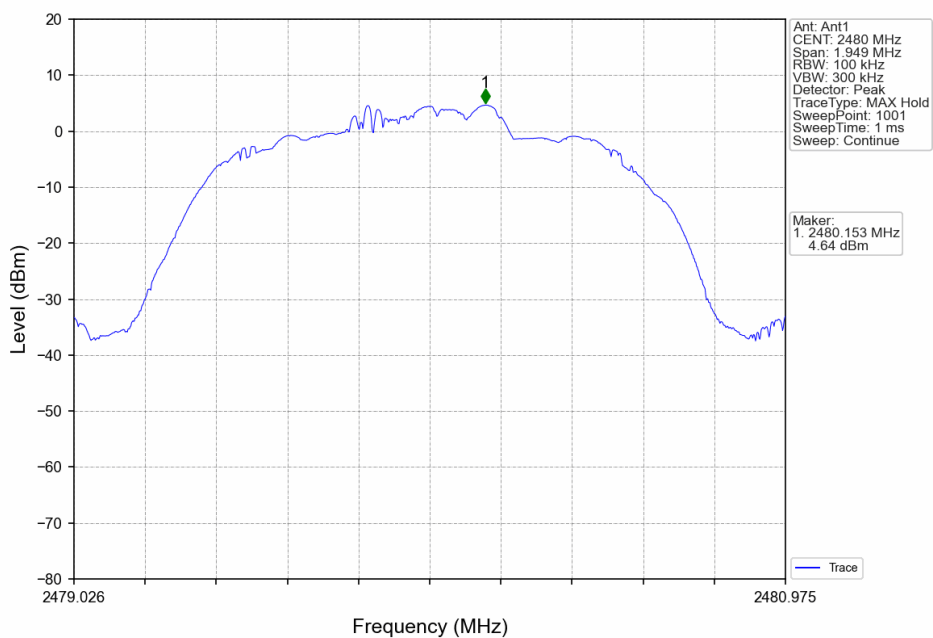
## 8DPSK\_3DH5\_LCH\_2402MHz\_Ant1\_NTNV



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



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



## 6.2 CSE

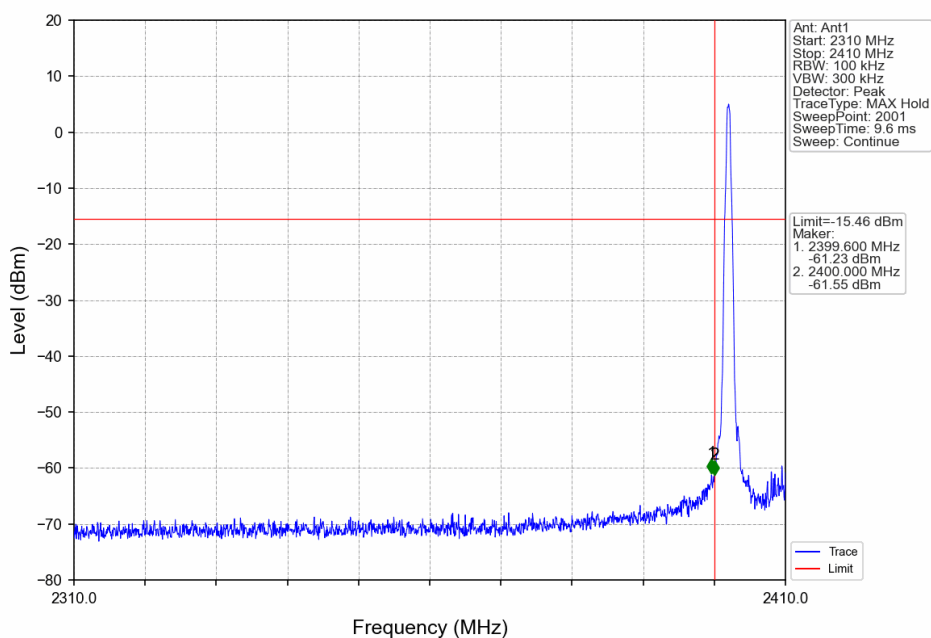
### 6.2.1 Test Result

| Mode      | TX Type | Frequency (MHz) | Packet Type | ANT | Level of Reference (dBm) | Limit (dBm) | Verdict |
|-----------|---------|-----------------|-------------|-----|--------------------------|-------------|---------|
| GFSK      | SISO    | 2402            | DH5         | 1   | 4.54                     | -15.46      | Pass    |
|           |         | 2441            | DH5         | 1   | 4.54                     | -15.46      | Pass    |
|           |         | 2480            | DH5         | 1   | 4.54                     | -15.46      | Pass    |
|           |         | HOPP            | DH5         | 1   | 4.54                     | -15.46      | Pass    |
|           |         |                 |             |     | 4.54                     | -15.46      | Pass    |
| Pi/4DQPSK | SISO    | 2402            | 2DH5        | 1   | 6.10                     | -13.90      | Pass    |
|           |         | 2441            | 2DH5        | 1   | 6.10                     | -13.90      | Pass    |
|           |         | 2480            | 2DH5        | 1   | 6.10                     | -13.90      | Pass    |
|           |         | HOPP            | 2DH5        | 1   | 6.10                     | -13.90      | Pass    |
|           |         |                 |             |     | 6.10                     | -13.90      | Pass    |
| 8DPSK     | SISO    | 2402            | 3DH5        | 1   | 6.18                     | -13.82      | Pass    |
|           |         | 2441            | 3DH5        | 1   | 6.18                     | -13.82      | Pass    |
|           |         | 2480            | 3DH5        | 1   | 6.18                     | -13.82      | Pass    |
|           |         | HOPP            | 3DH5        | 1   | 6.18                     | -13.82      | Pass    |
|           |         |                 |             |     | 6.18                     | -13.82      | Pass    |

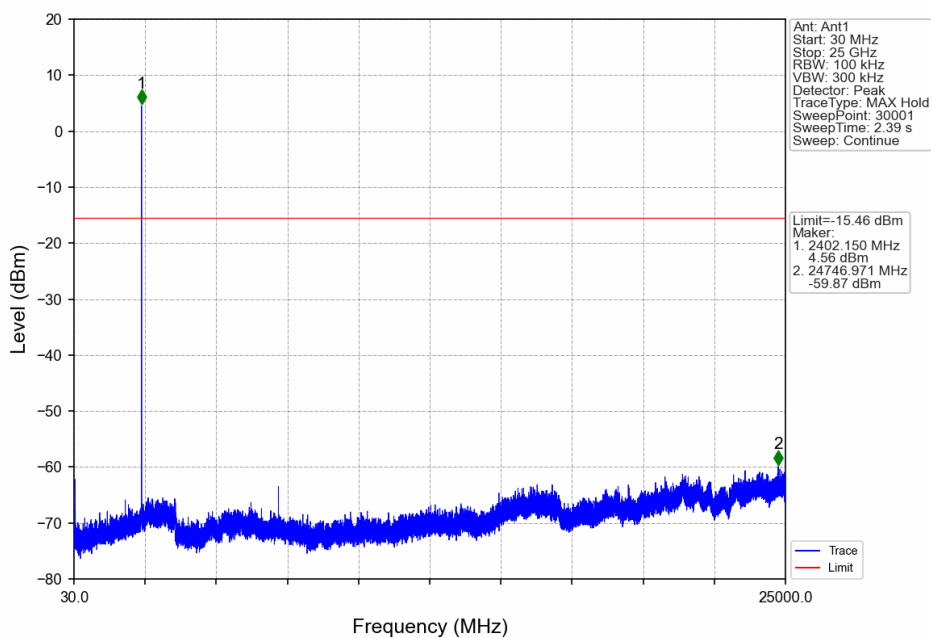
Note1: Refer to FCC Part 15.247 (d) and ANSI C63.10-2013, the channel contains the maximum PSD level was used to establish the reference level.

## 6.2.2 Test Graph

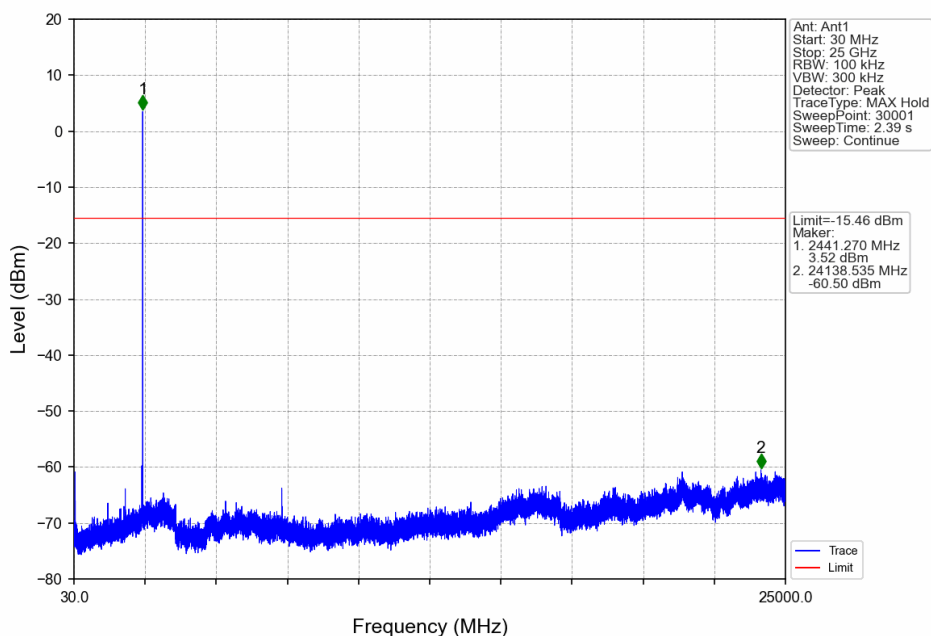
GFSK\_DH5\_LCH\_2402MHz\_Ant1\_NTNV



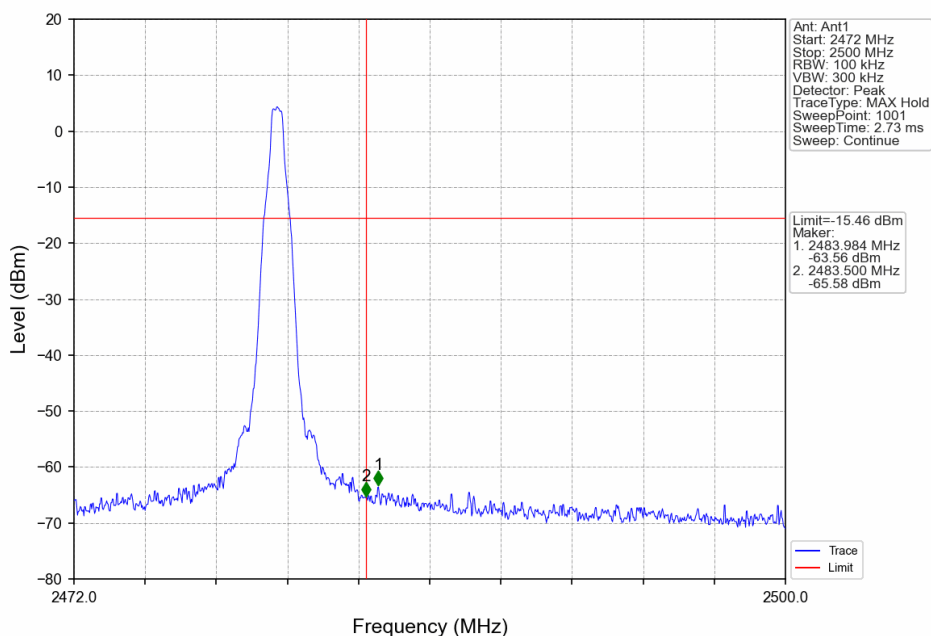
GFSK\_DH5\_LCH\_2402MHz\_Ant1\_NTNV



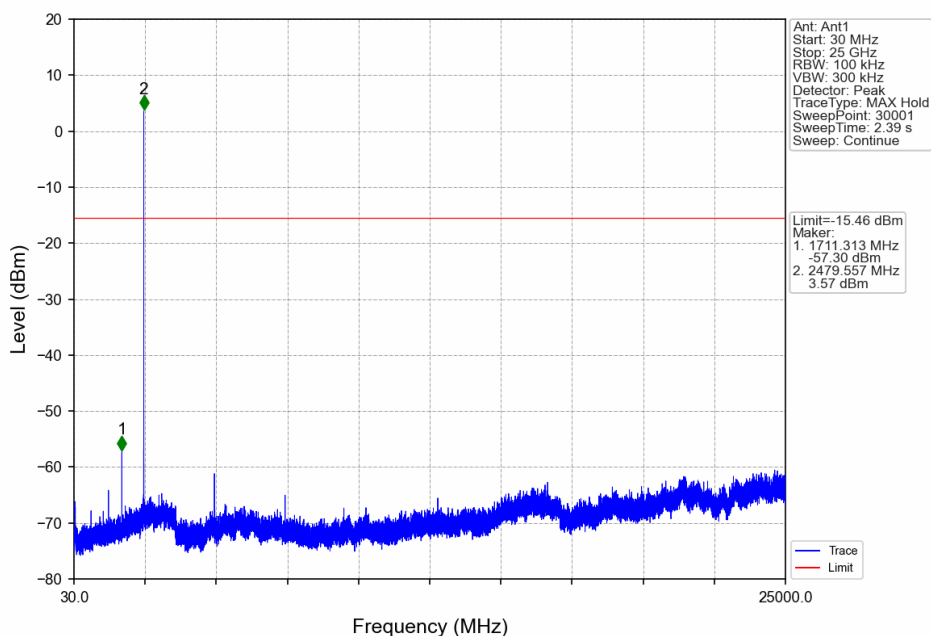
## GFSK\_DH5\_MCH\_2441MHz\_Ant1\_NTNV



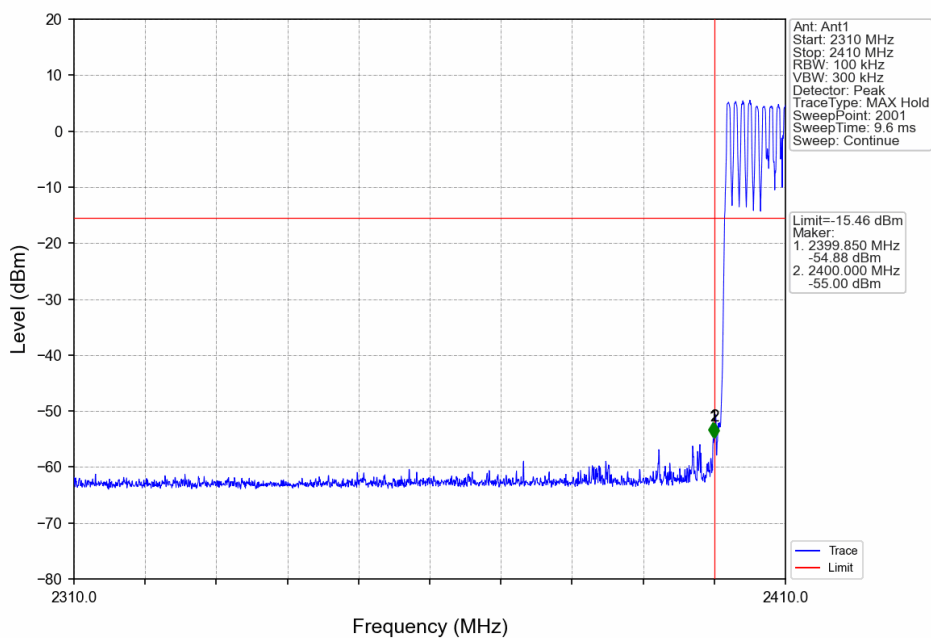
## GFSK\_DH5\_HCH\_2480MHz\_Ant1\_NTNV



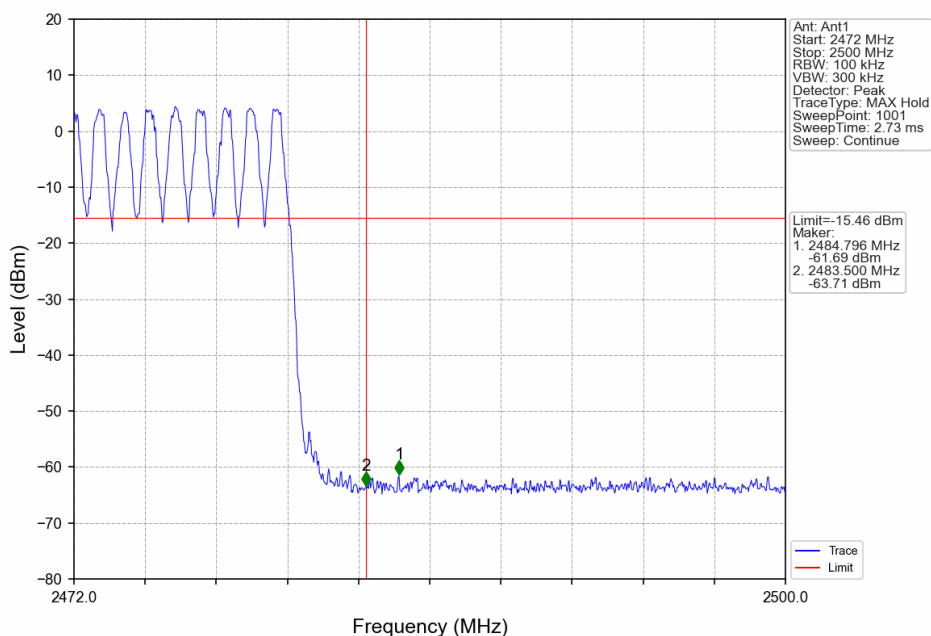
## GFSK\_DH5\_HCH\_2480MHz\_Ant1\_NTNV



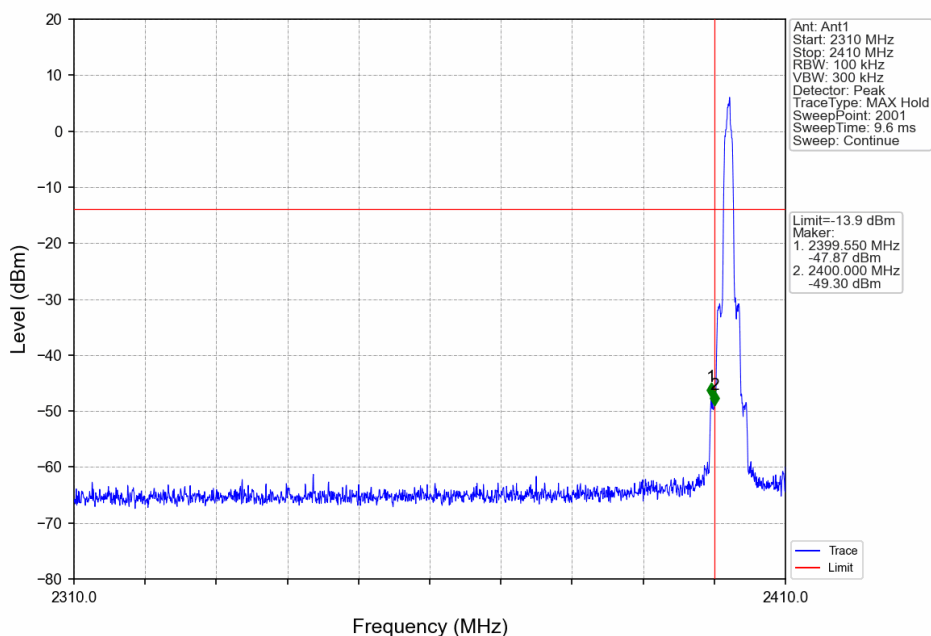
## GFSK\_DH5\_HOPP\_Ant1\_NTNV



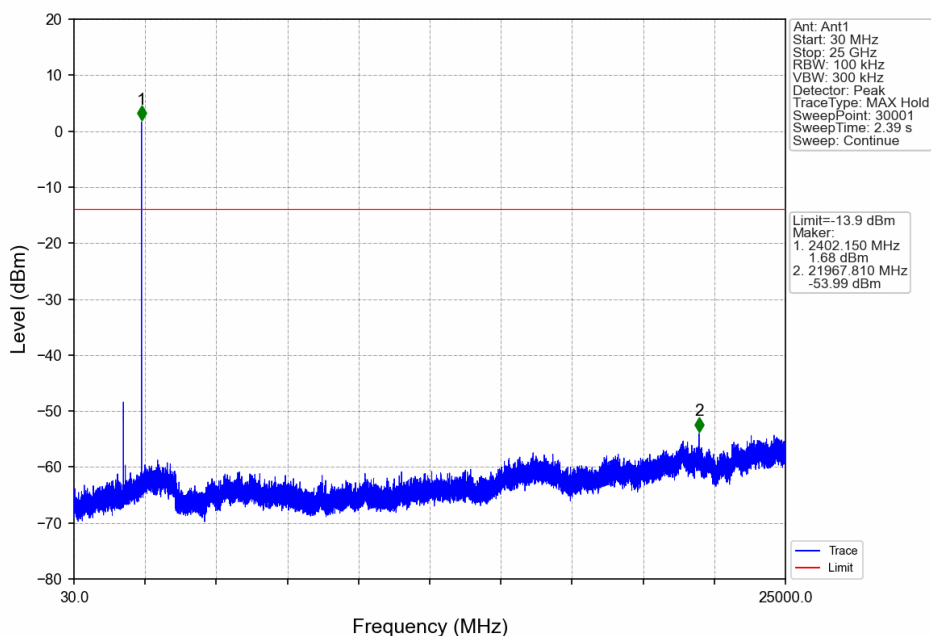
## GFSK\_DH5\_HOPP\_Ant1\_NTNV



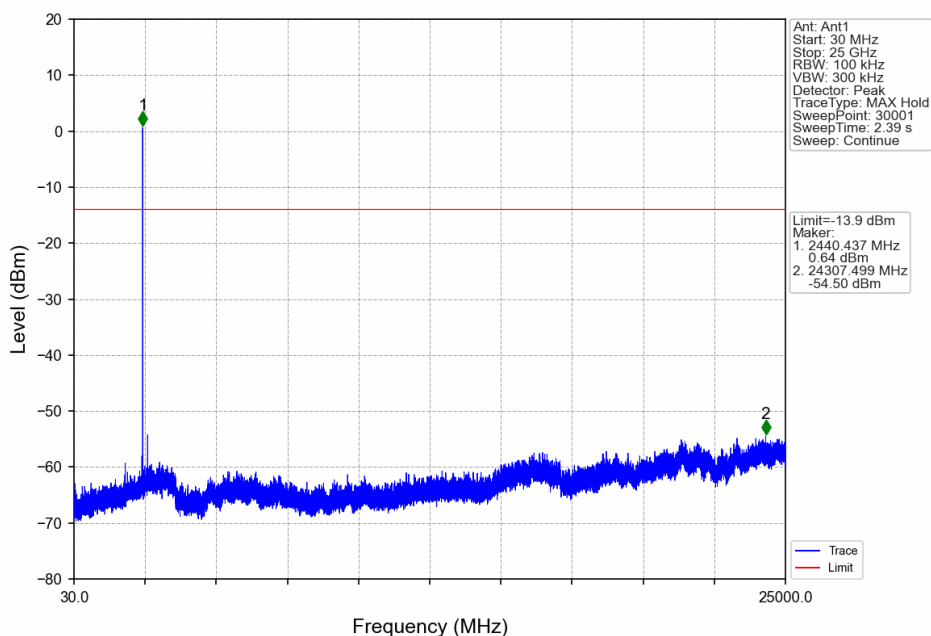
## Pi/4DQPSK\_2DH5\_LCH\_2402MHz\_Ant1\_NTNV



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

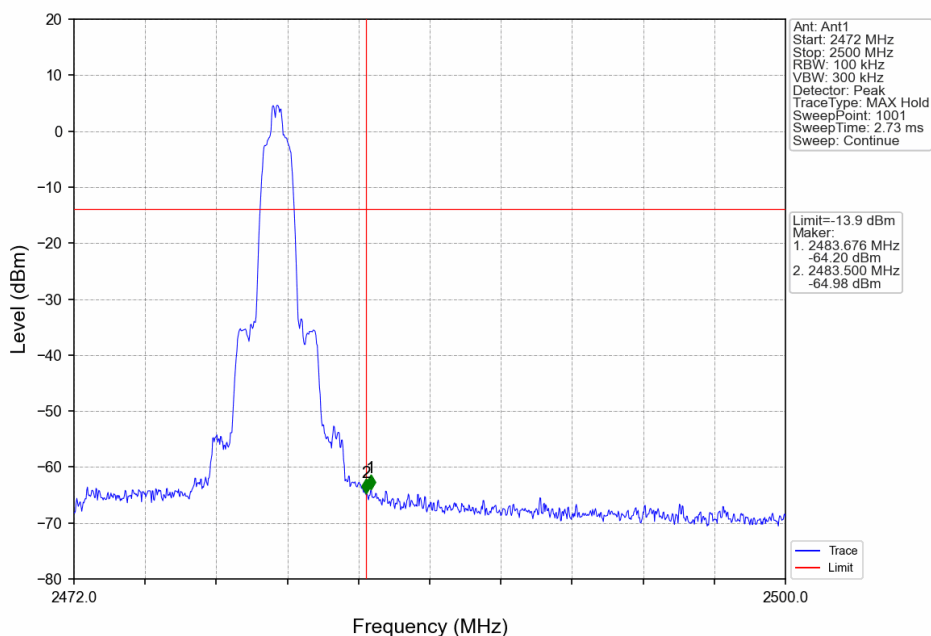


## Pi/4DQPSK\_2DH5\_MCH\_2441MHz\_Ant1\_NTNV

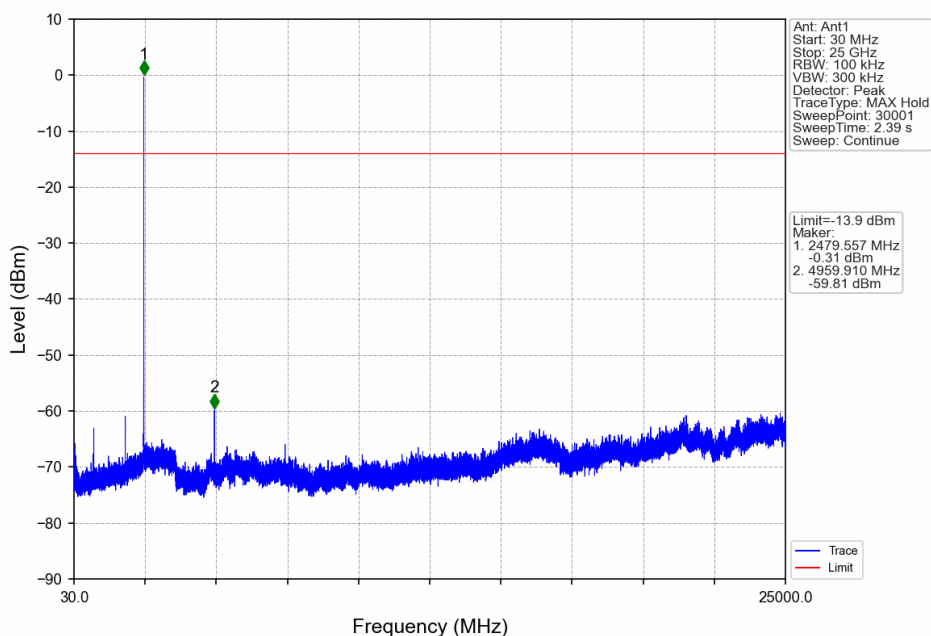




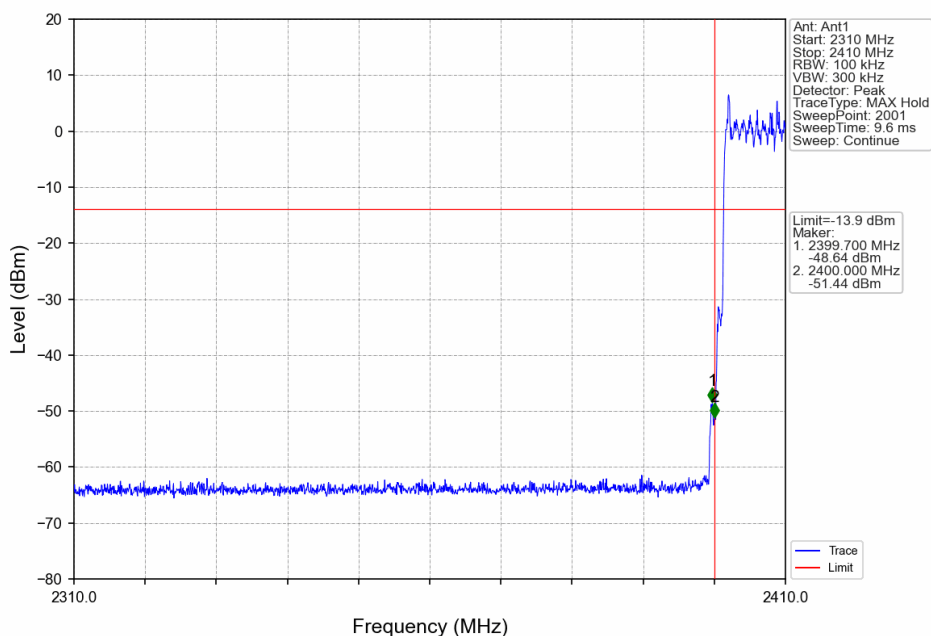
## Pi/4DQPSK\_2DH5\_HCH\_2480MHz\_Ant1\_NTNV



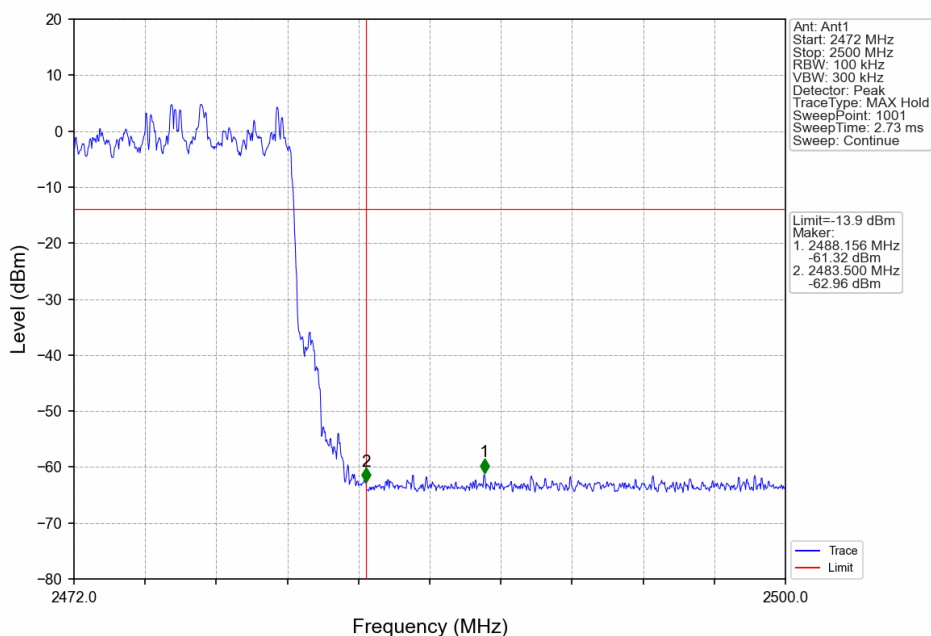
## Pi/4DQPSK\_2DH5\_HCH\_2480MHz\_Ant1\_NTNV



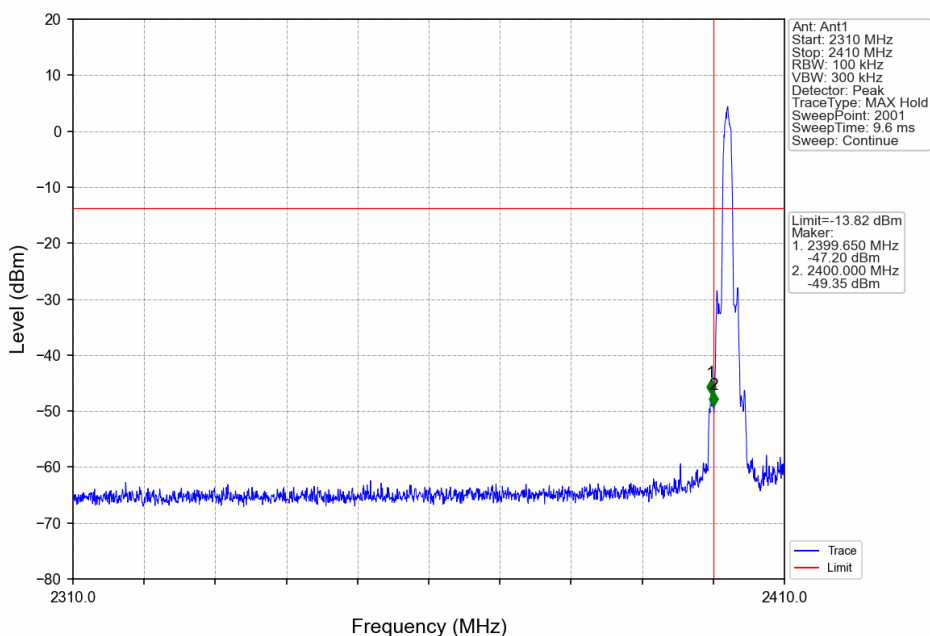
## Pi/4DQPSK\_2DH5\_HOPP\_Ant1\_NTNV



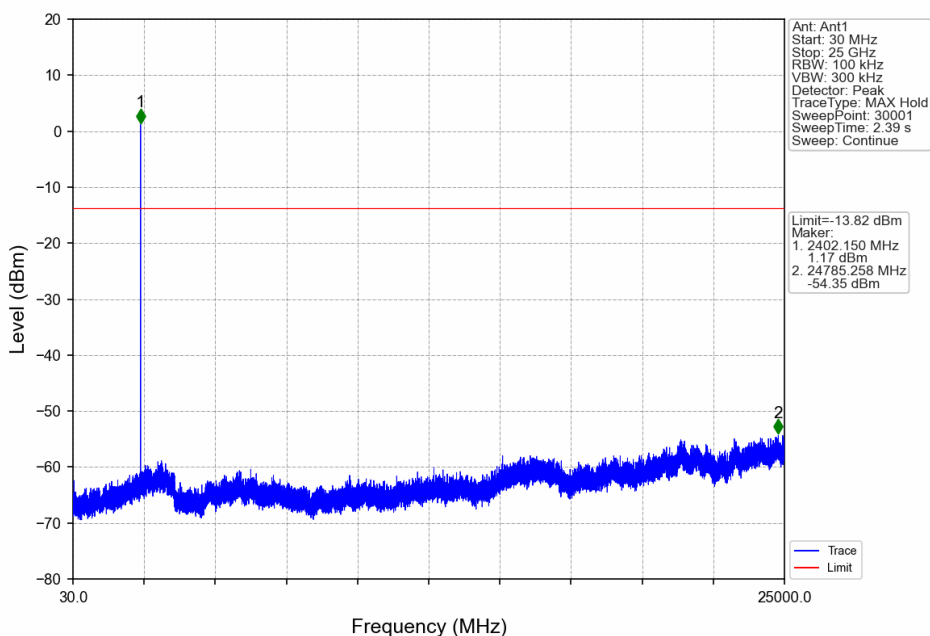
## Pi/4DQPSK\_2DH5\_HOPP\_Ant1\_NTNV



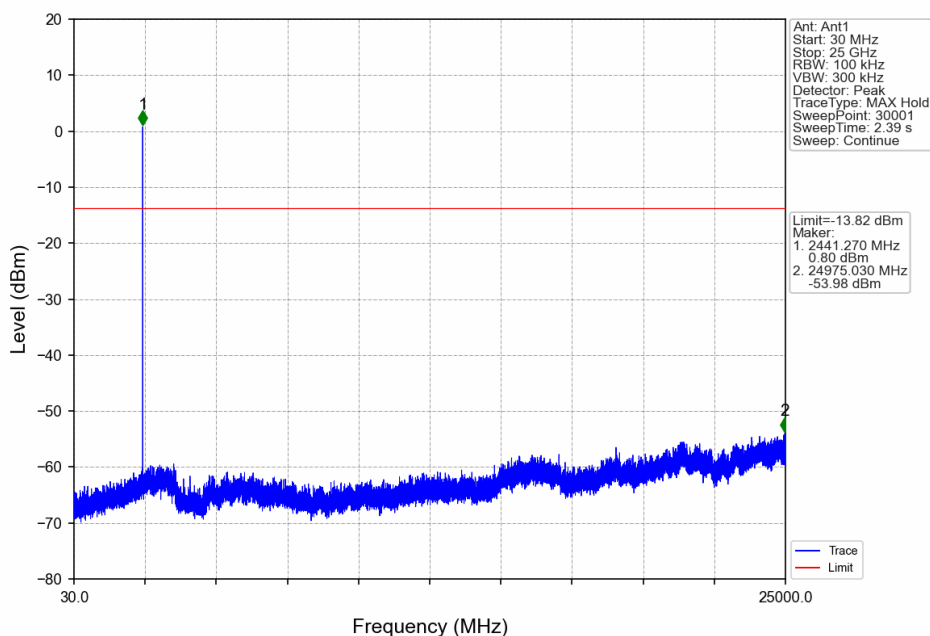
## 8DPSK\_3DH5\_LCH\_2402MHz\_Ant1\_NTNV



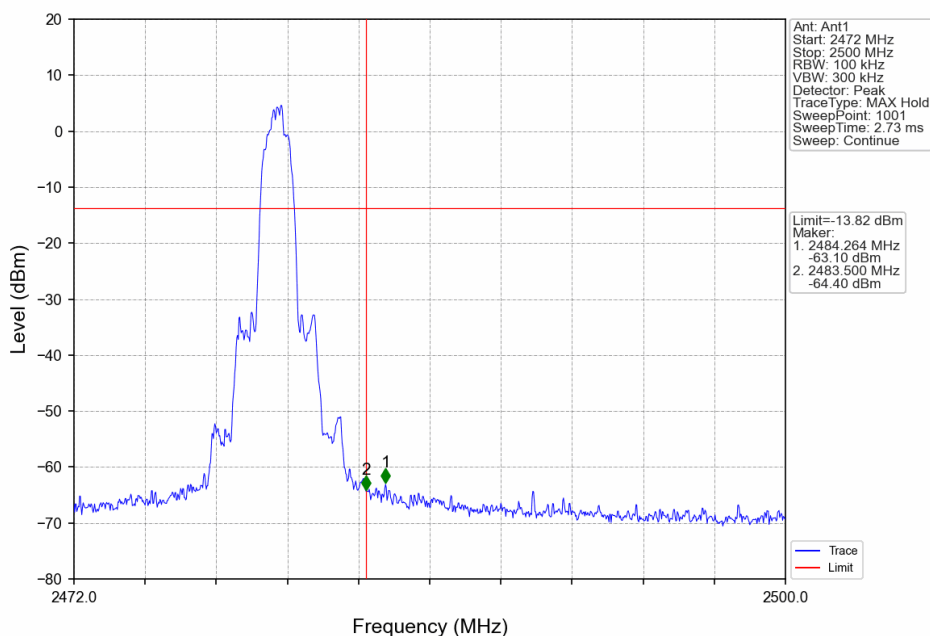
## 8DPSK\_3DH5\_LCH\_2402MHz\_Ant1\_NTNV



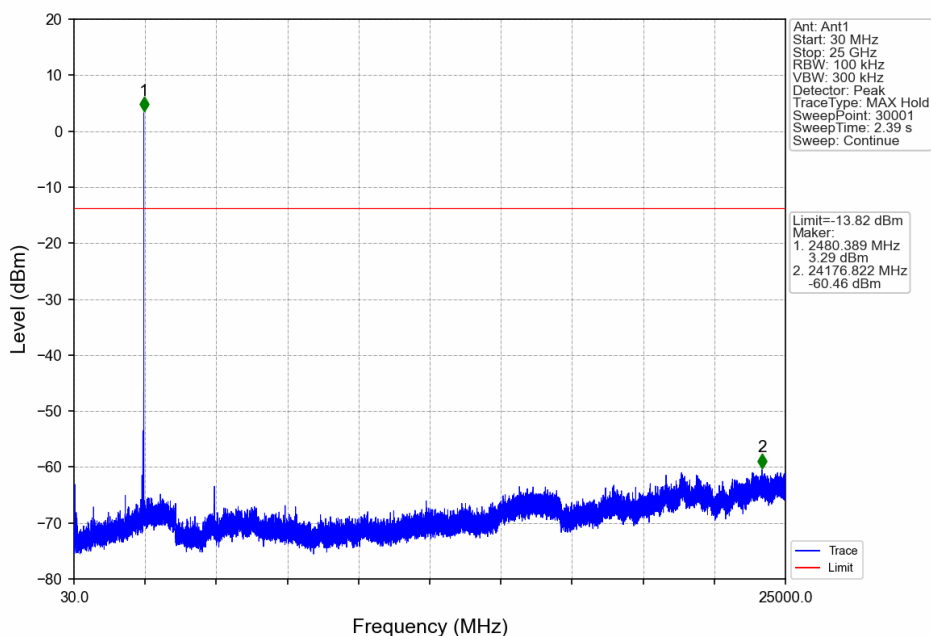
## 8DPSK\_3DH5\_MCH\_2441MHz\_Ant1\_NTNV



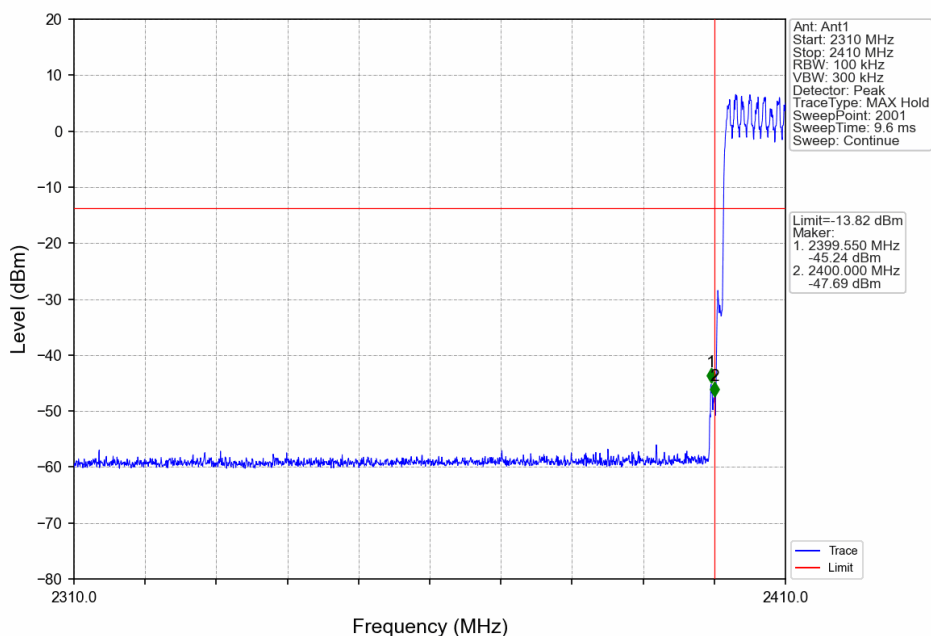
## 8DPSK\_3DH5\_HCH\_2480MHz\_Ant1\_NTNV



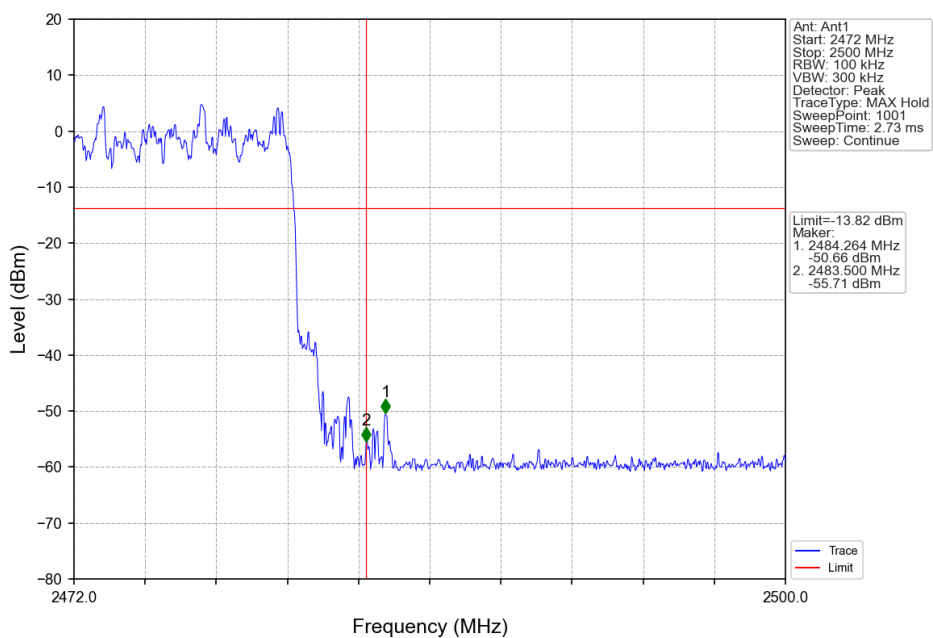
## 8DPSK\_3DH5\_HCH\_2480MHz\_Ant1\_NTNV



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



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



## 7. Form731

### 7.1 Form731

#### 7.1.1 Test Result

Lower Freq (MHz)  
2402

High Freq (MHz)  
2480

MAX Power (W)  
0.0049

MAX Power (dBm)  
6.93



Test Report Number: BTF231009R00101



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**-- END OF REPORT --**