

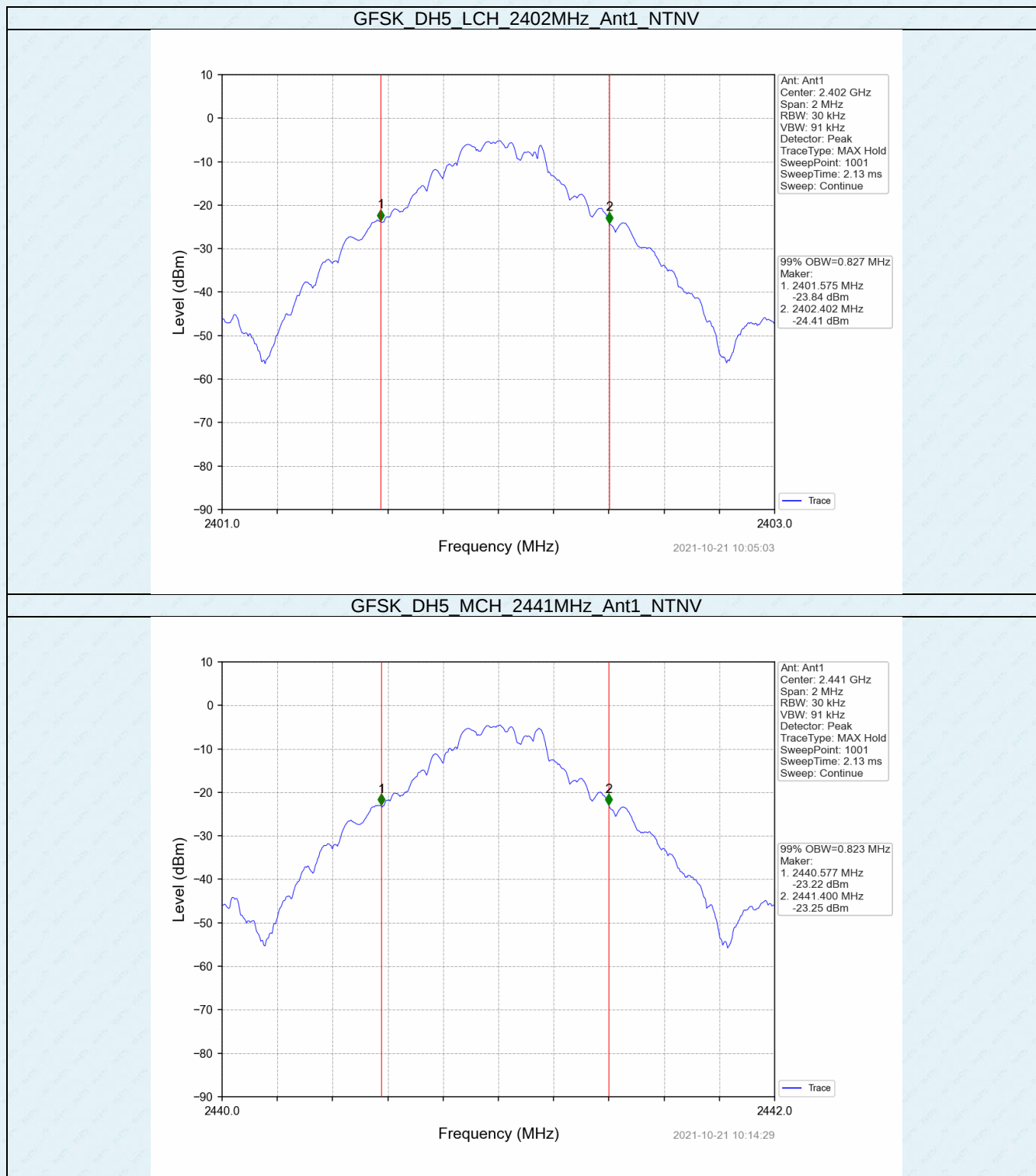
## 1. Bandwidth

### 1.1 OBW

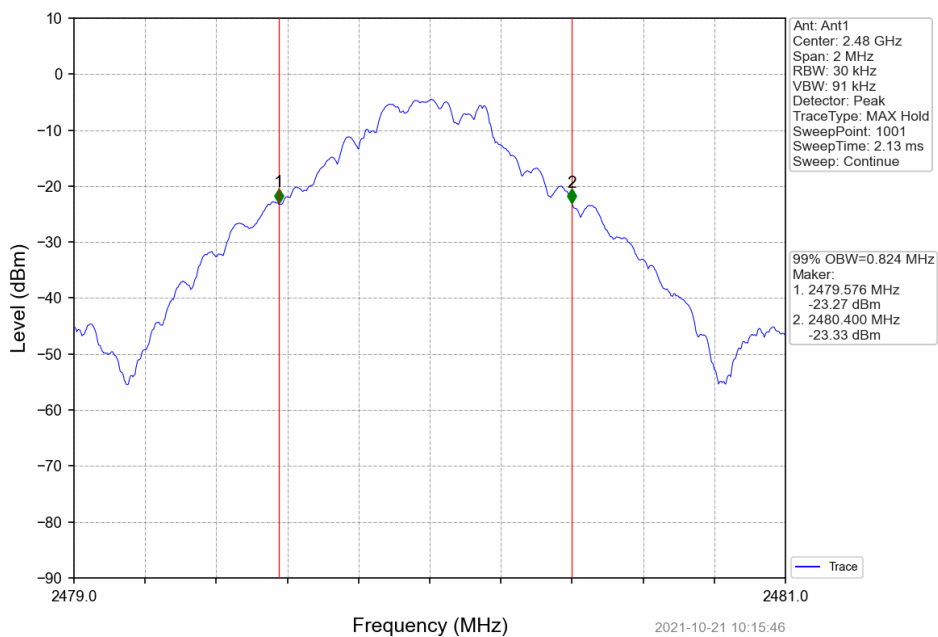
#### 1.1.1 Test Result

| Mode      | TX Type | Frequency (MHz) | Packet Type | Ant | 99% Occupied Bandwidth (MHz) | Verdict |
|-----------|---------|-----------------|-------------|-----|------------------------------|---------|
|           |         |                 |             |     | Result                       |         |
| GFSK      | SISO    | 2402            | DH5         | 1   | 0.827                        | Pass    |
|           |         | 2441            | DH5         | 1   | 0.823                        | Pass    |
|           |         | 2480            | DH5         | 1   | 0.824                        | Pass    |
| Pi/4DQPSK | SISO    | 2402            | 2DH5        | 1   | 1.174                        | Pass    |
|           |         | 2441            | 2DH5        | 1   | 1.174                        | Pass    |
|           |         | 2480            | 2DH5        | 1   | 1.174                        | Pass    |
| 8DPSK     | SISO    | 2402            | 3DH5        | 1   | 1.178                        | Pass    |
|           |         | 2441            | 3DH5        | 1   | 1.177                        | Pass    |
|           |         | 2480            | 3DH5        | 1   | 1.178                        | Pass    |

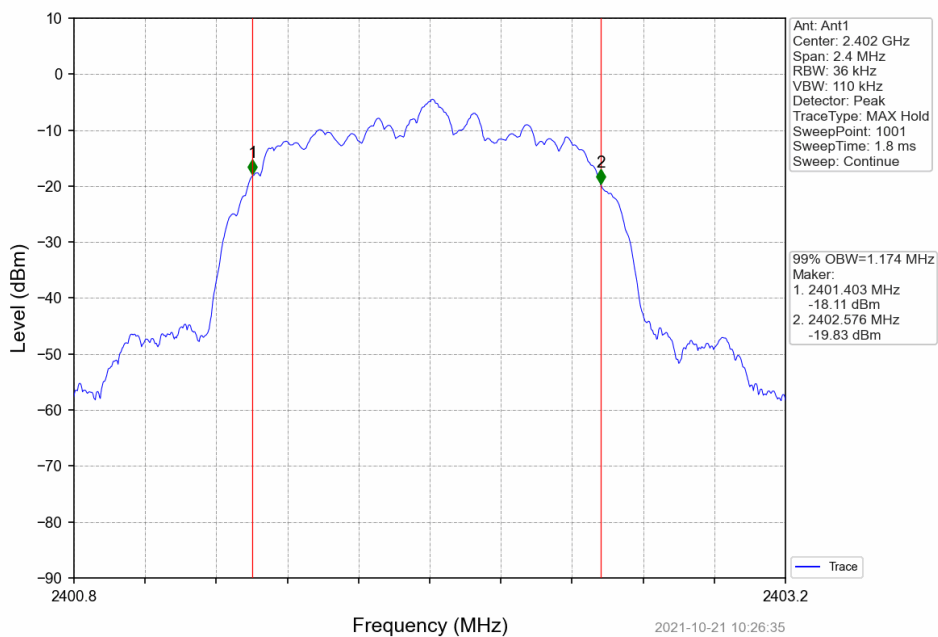
## 1.1.2 Test Graph



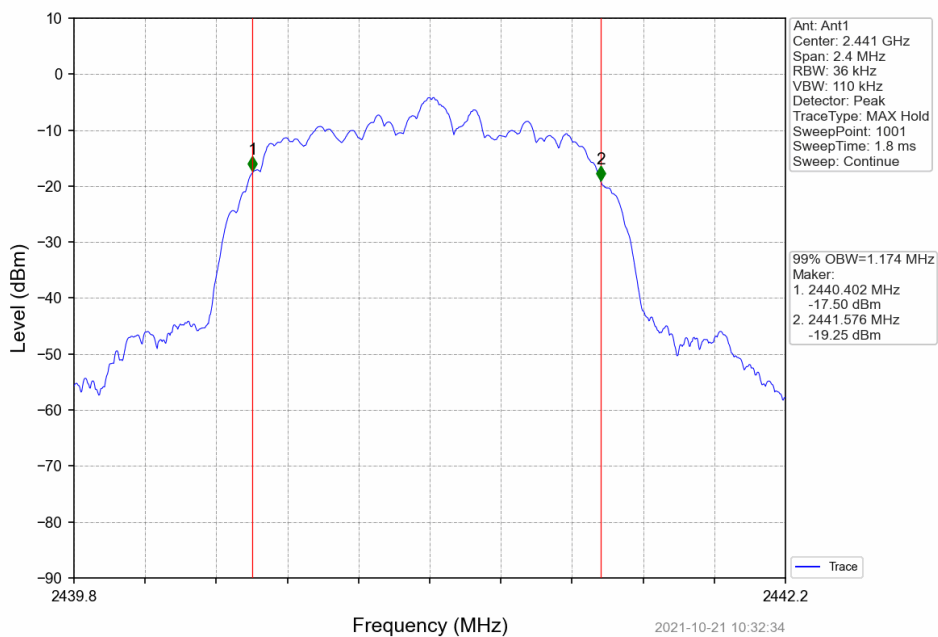
## GFSK\_DH5\_HCH\_2480MHz\_Ant1\_NTNV



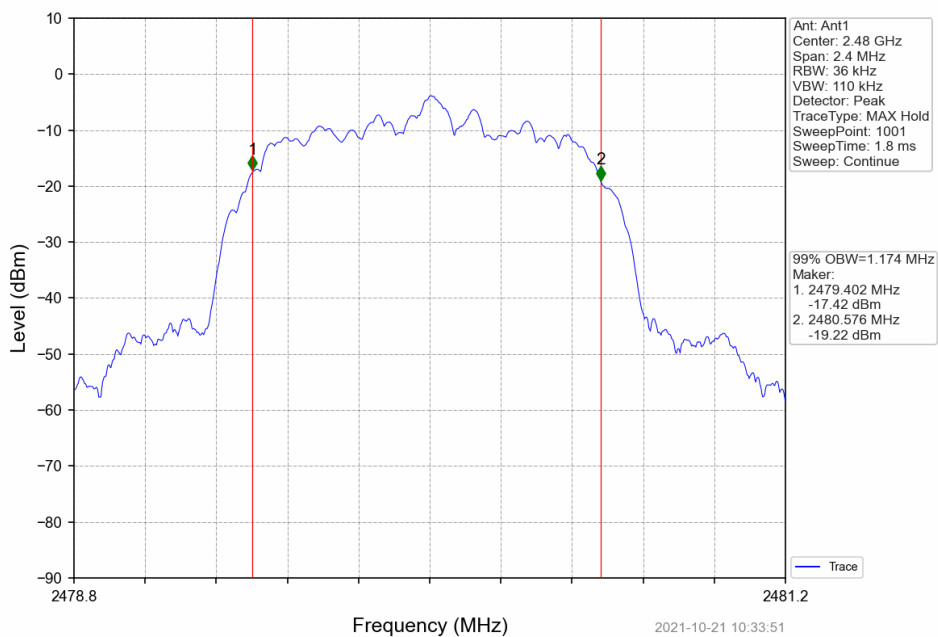
## Pi/4DQPSK\_2DH5\_LCH\_2402MHz\_Ant1\_NTNV



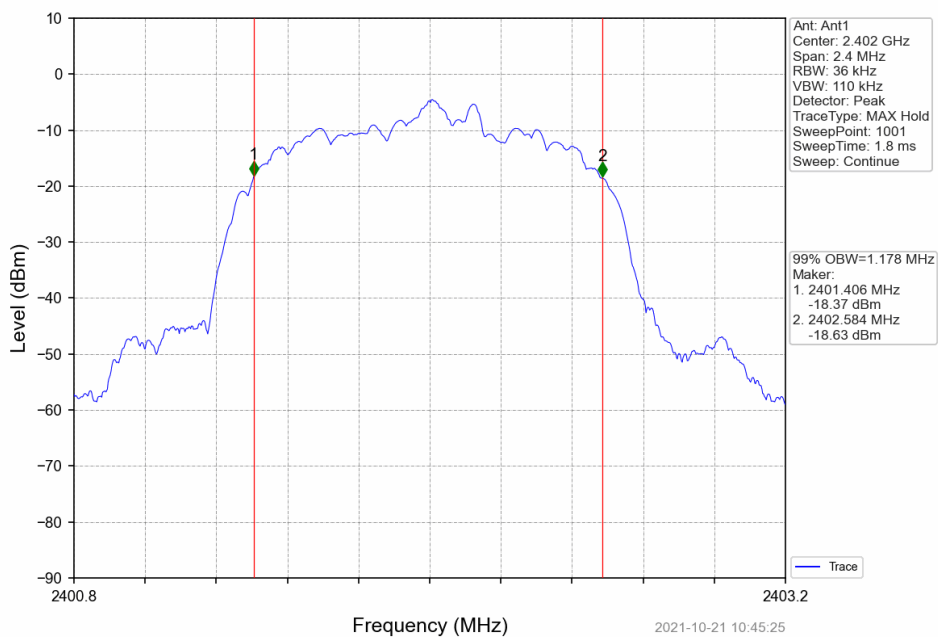
Pi/4DQPSK\_2DH5\_MCH\_2441MHz\_Ant1\_NTNV



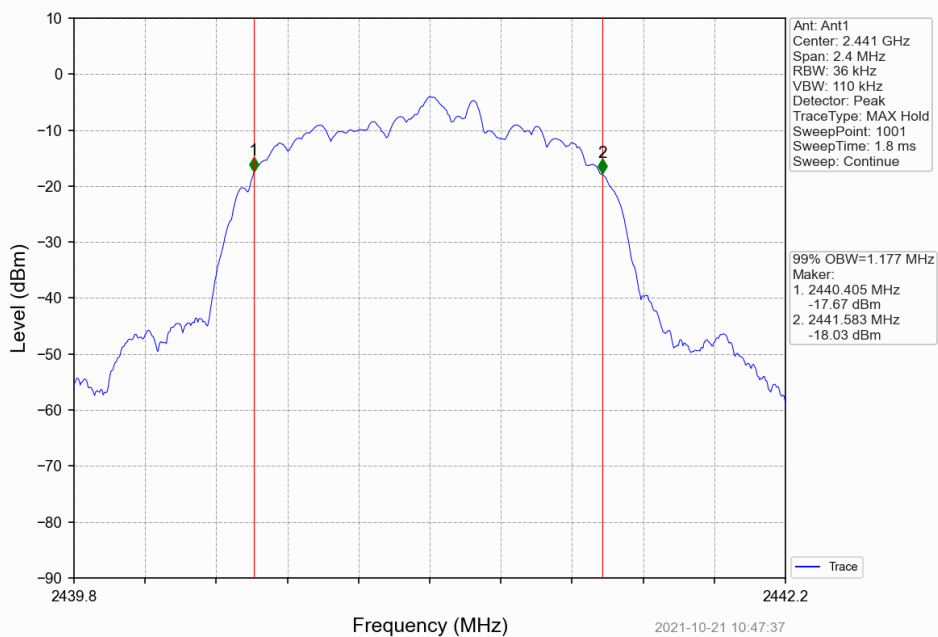
Pi/4DQPSK\_2DH5\_HCH\_2480MHz\_Ant1\_NTNV



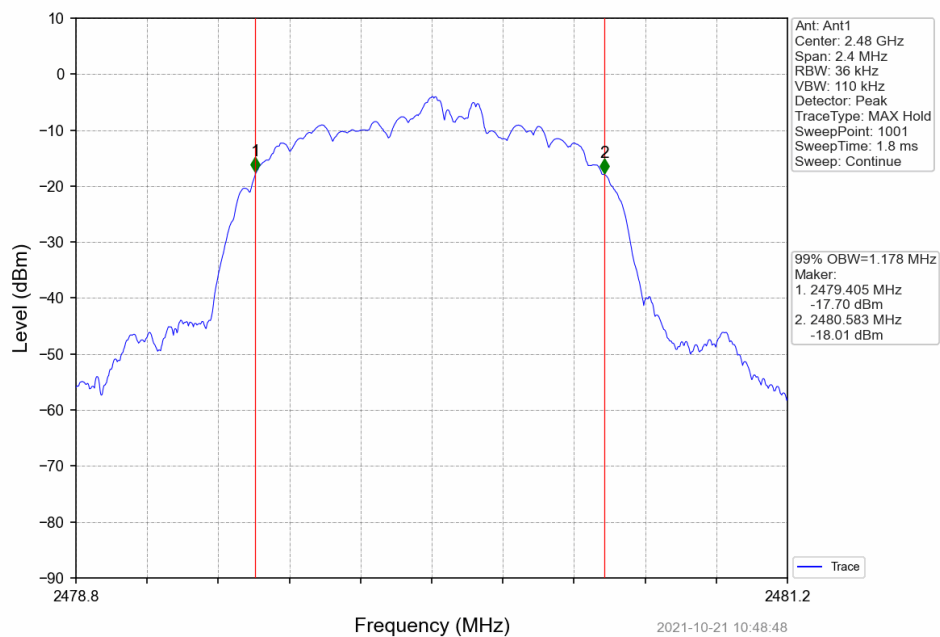
## 8DPSK\_3DH5\_LCH\_2402MHz\_Ant1\_NTNV



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



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

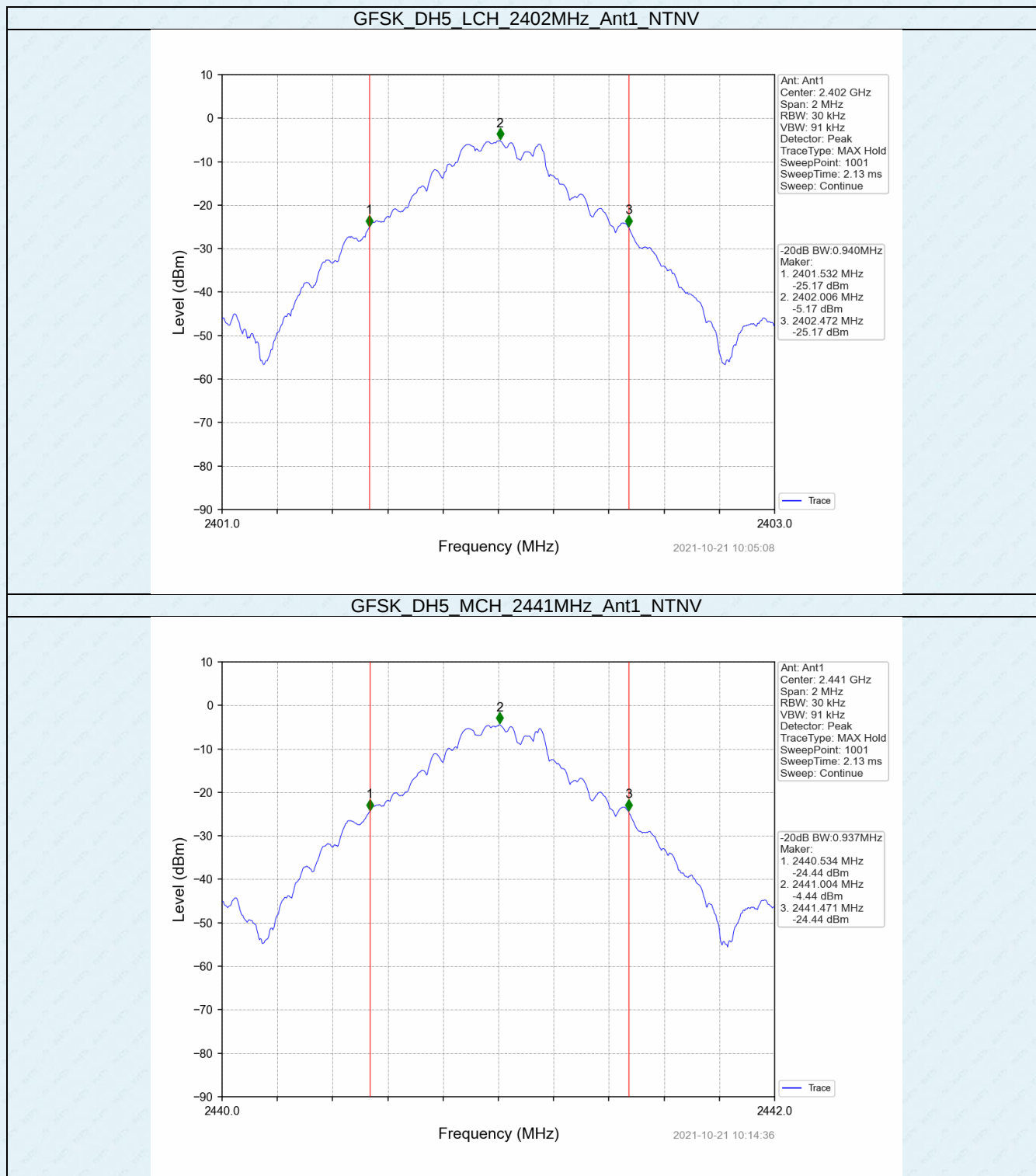


## 1.2 20dB BW

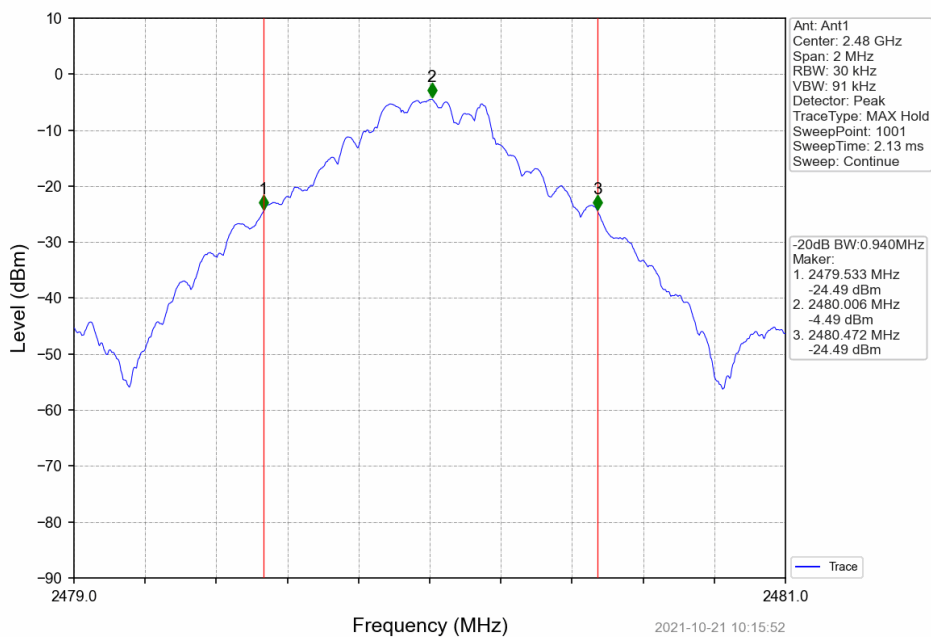
### 1.2.1 Test Result

| Mode      | TX Type | Frequency (MHz) | Packet Type | Ant | 20dB Bandwidth (MHz) | Verdict |
|-----------|---------|-----------------|-------------|-----|----------------------|---------|
|           |         |                 |             |     | Result               |         |
| GFSK      | SISO    | 2402            | DH5         | 1   | 0.940                | Pass    |
|           |         | 2441            | DH5         | 1   | 0.937                | Pass    |
|           |         | 2480            | DH5         | 1   | 0.940                | Pass    |
| Pi/4DQPSK | SISO    | 2402            | 2DH5        | 1   | 1.295                | Pass    |
|           |         | 2441            | 2DH5        | 1   | 1.293                | Pass    |
|           |         | 2480            | 2DH5        | 1   | 1.292                | Pass    |
| 8DPSK     | SISO    | 2402            | 3DH5        | 1   | 1.307                | Pass    |
|           |         | 2441            | 3DH5        | 1   | 1.308                | Pass    |
|           |         | 2480            | 3DH5        | 1   | 1.307                | Pass    |

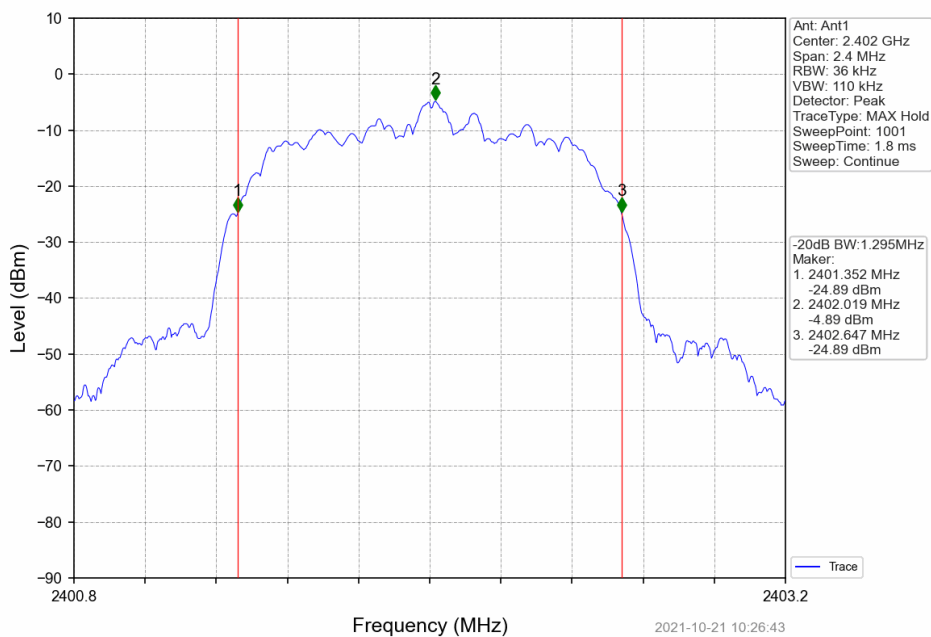
## 1.2.2 Test Graph



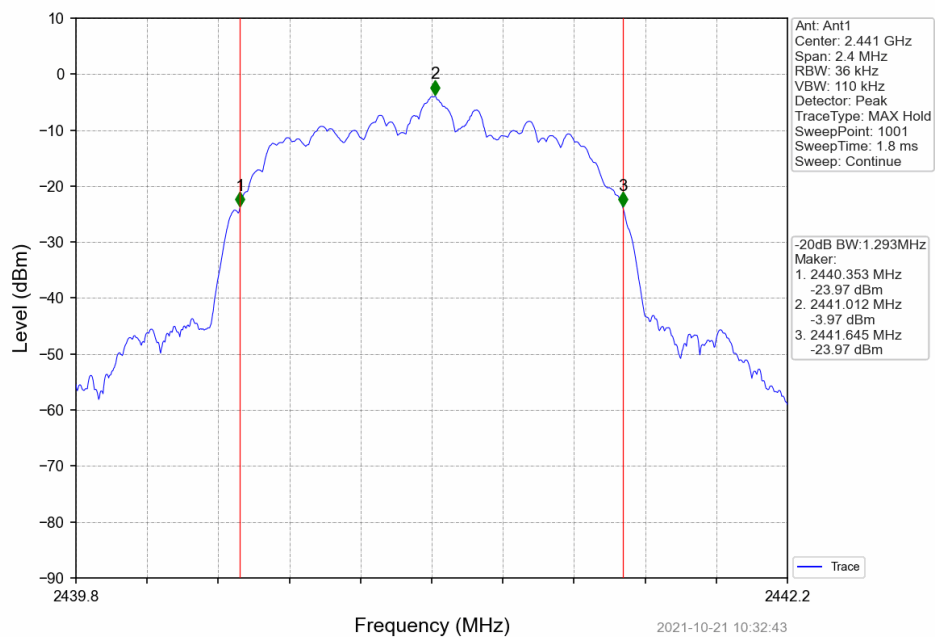
## GFSK\_DH5\_HCH\_2480MHz\_Ant1\_NTNV



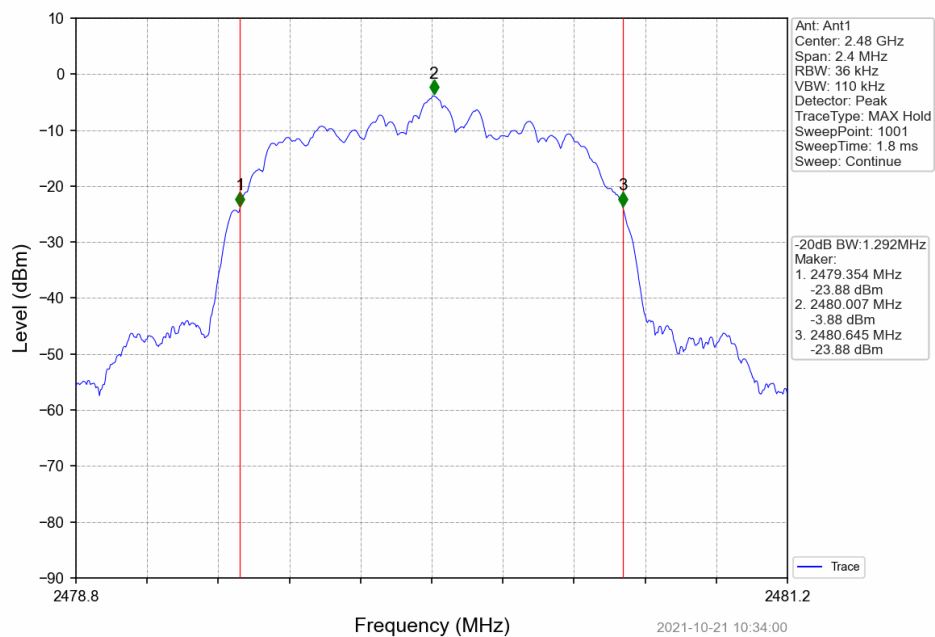
## Pi/4DQPSK\_2DH5\_LCH\_2402MHz\_Ant1\_NTNV



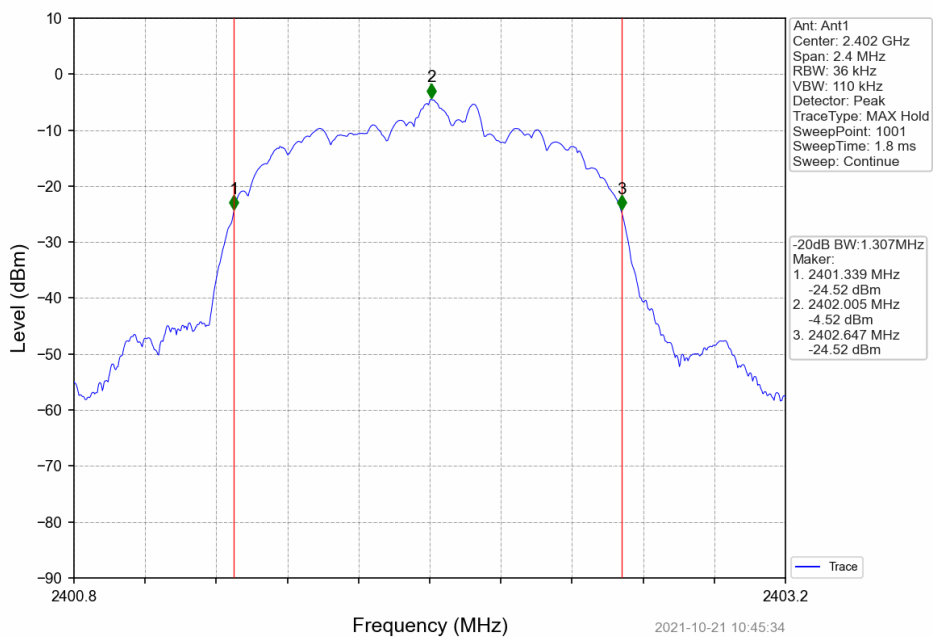
Pi/4DQPSK\_2DH5\_MCH\_2441MHz\_Ant1\_NTNV



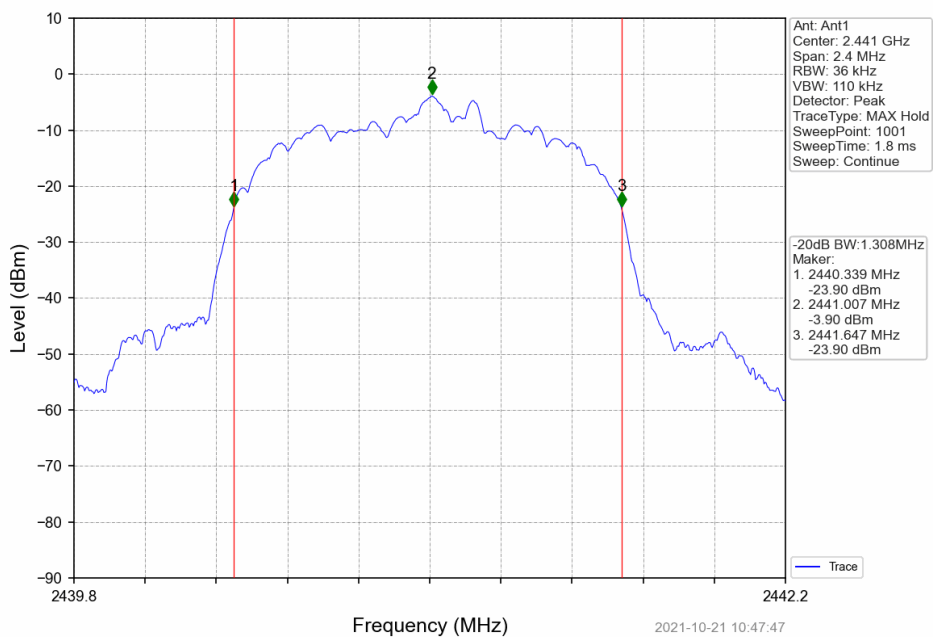
Pi/4DQPSK\_2DH5\_HCH\_2480MHz\_Ant1\_NTNV



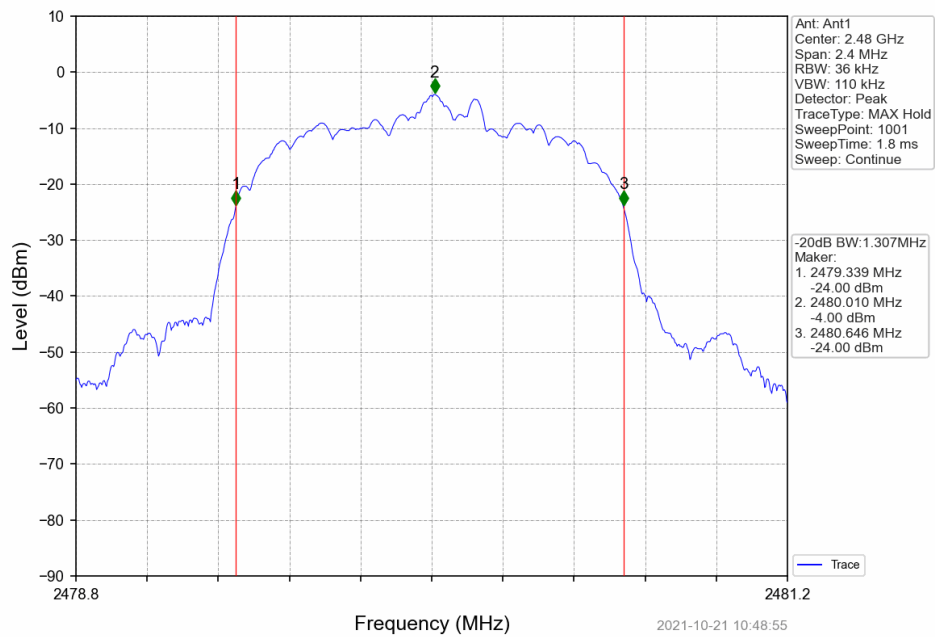
## 8DPSK\_3DH5\_LCH\_2402MHz\_Ant1\_NTNV



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



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



## 2. Maximum Conducted Output Power

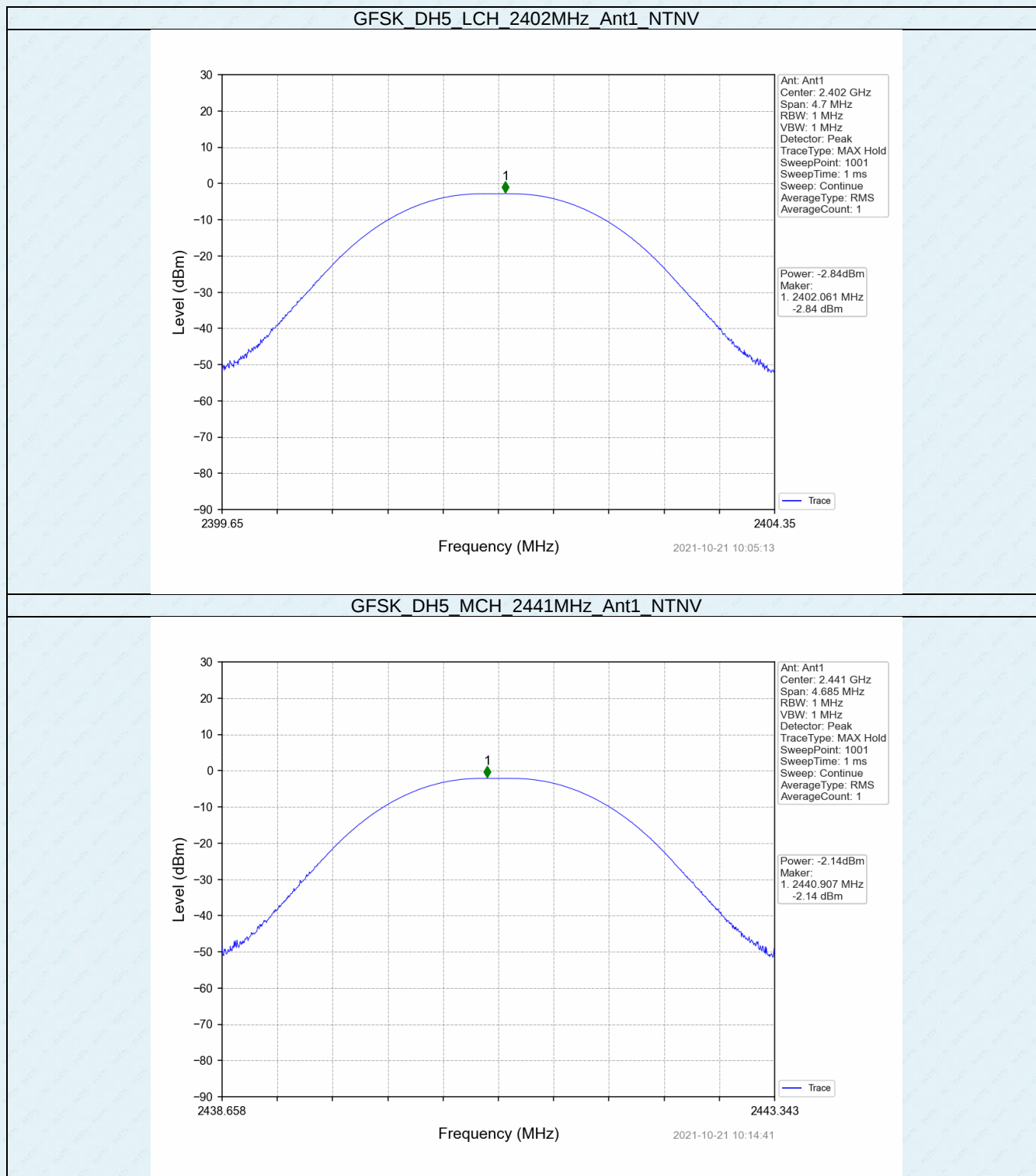
### 2.1 Power

#### 2.1.1 Test Result

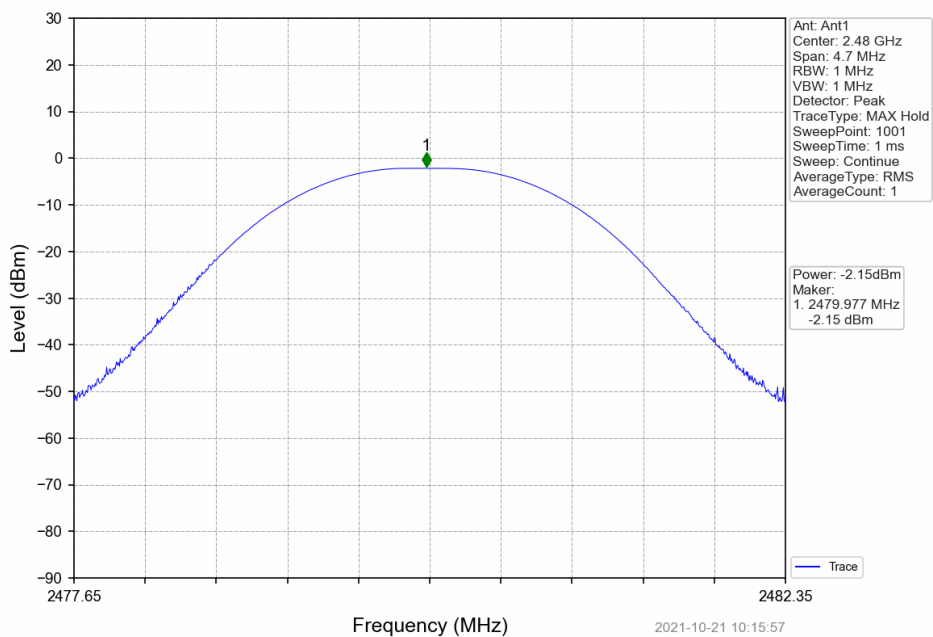
| Mode      | TX Type | Frequency (MHz) | Packet Type | Maximum Peak Conducted Output Power (dBm) |         | Verdict |
|-----------|---------|-----------------|-------------|-------------------------------------------|---------|---------|
|           |         |                 |             | Ant1                                      | Limit   |         |
| GFSK      | SISO    | 2402            | DH5         | -2.84                                     | <=30    | Pass    |
|           |         | 2441            | DH5         | -2.14                                     | <=30    | Pass    |
|           |         | 2480            | DH5         | -2.15                                     | <=30    | Pass    |
| Pi/4DQPSK | SISO    | 2402            | 2DH5        | -0.59                                     | <=20.97 | Pass    |
|           |         | 2441            | 2DH5        | 0.05                                      | <=20.97 | Pass    |
|           |         | 2480            | 2DH5        | 0.04                                      | <=20.97 | Pass    |
| 8DPSK     | SISO    | 2402            | 3DH5        | -0.13                                     | <=20.97 | Pass    |
|           |         | 2441            | 3DH5        | 0.47                                      | <=20.97 | Pass    |
|           |         | 2480            | 3DH5        | 0.47                                      | <=20.97 | Pass    |

Note1: Antenna Gain: Ant1: 3.40dBi;

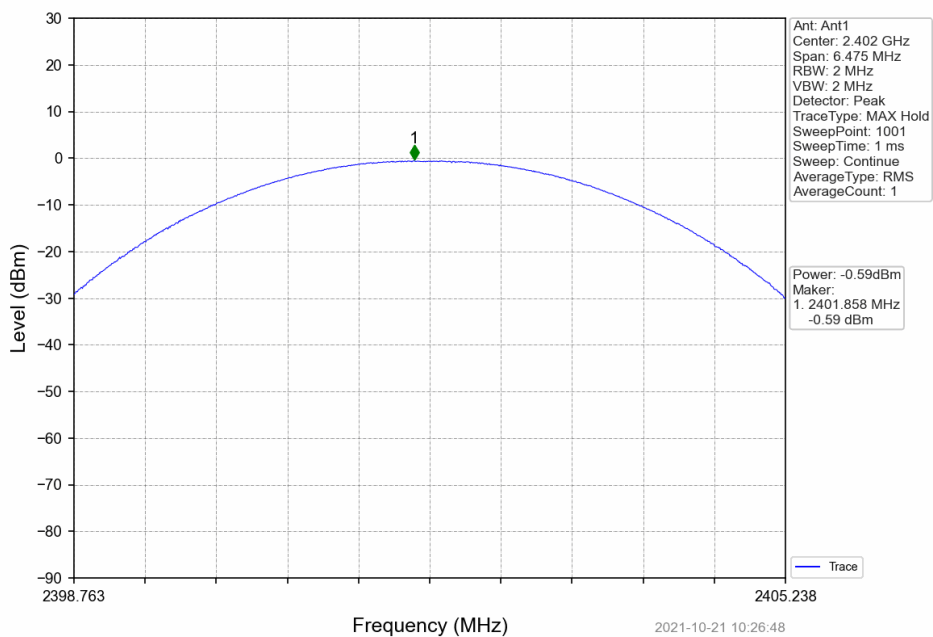
## 2.1.2 Test Graph



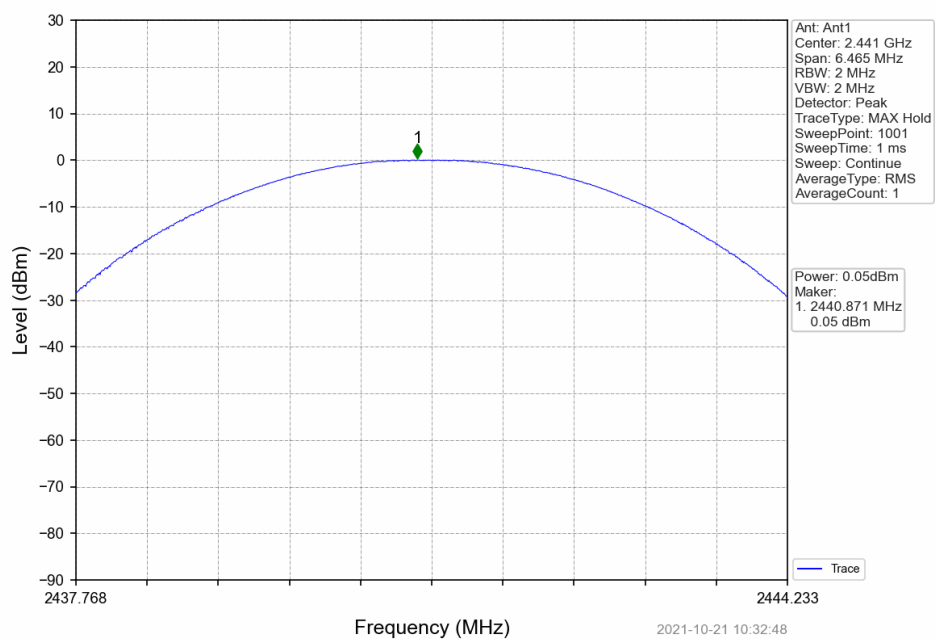
## GFSK\_DH5\_HCH\_2480MHz\_Ant1\_NTNV



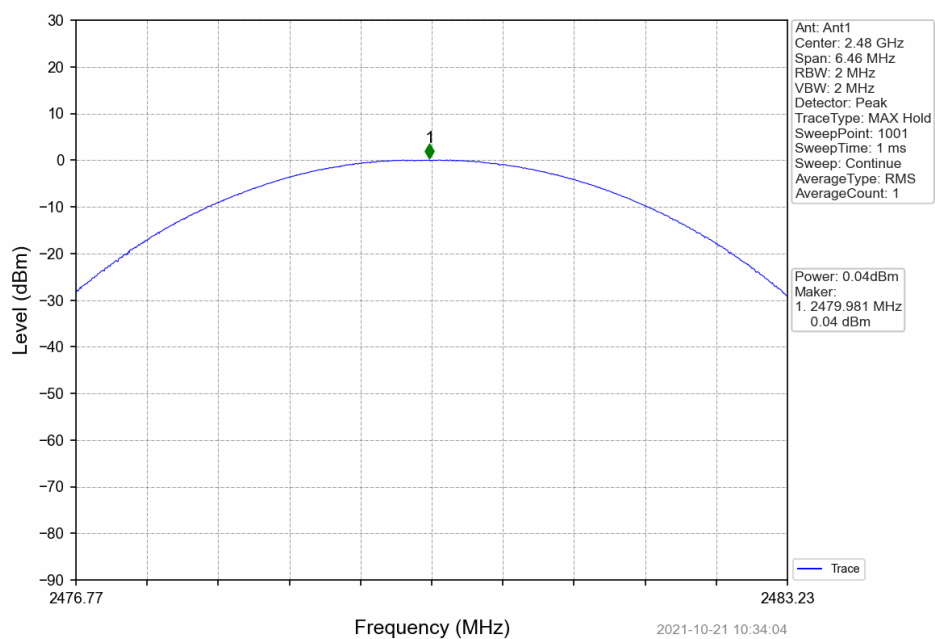
## Pi/4DQPSK\_2DH5\_LCH\_2402MHz\_Ant1\_NTNV



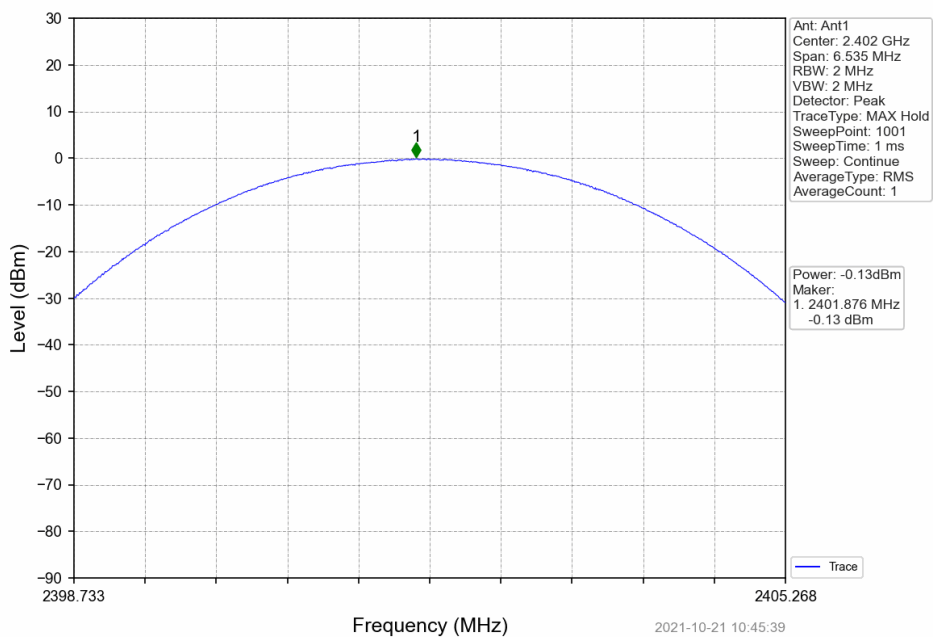
Pi/4DQPSK\_2DH5\_MCH\_2441MHz\_Ant1\_NTNV



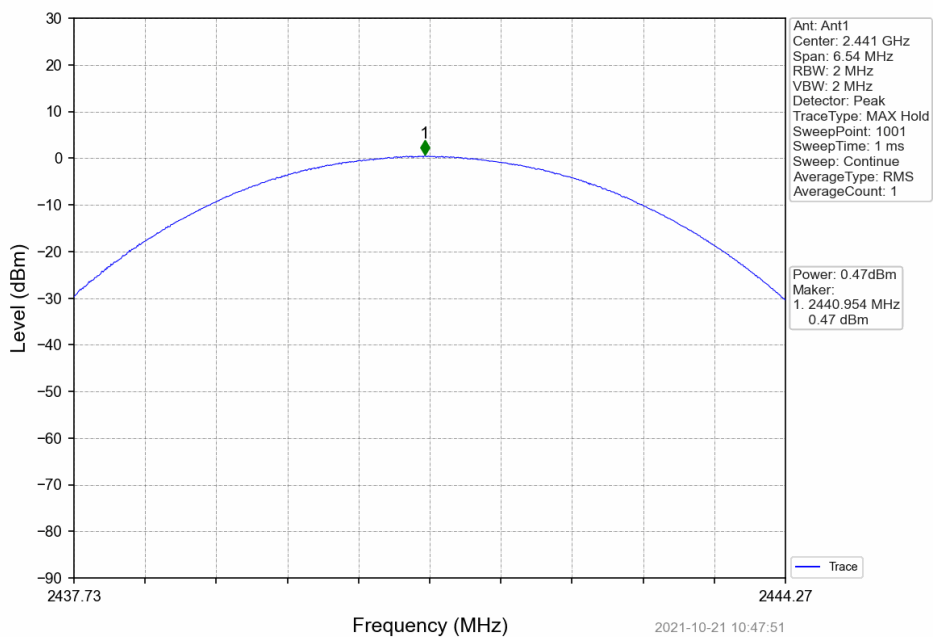
Pi/4DQPSK\_2DH5\_HCH\_2480MHz\_Ant1\_NTNV



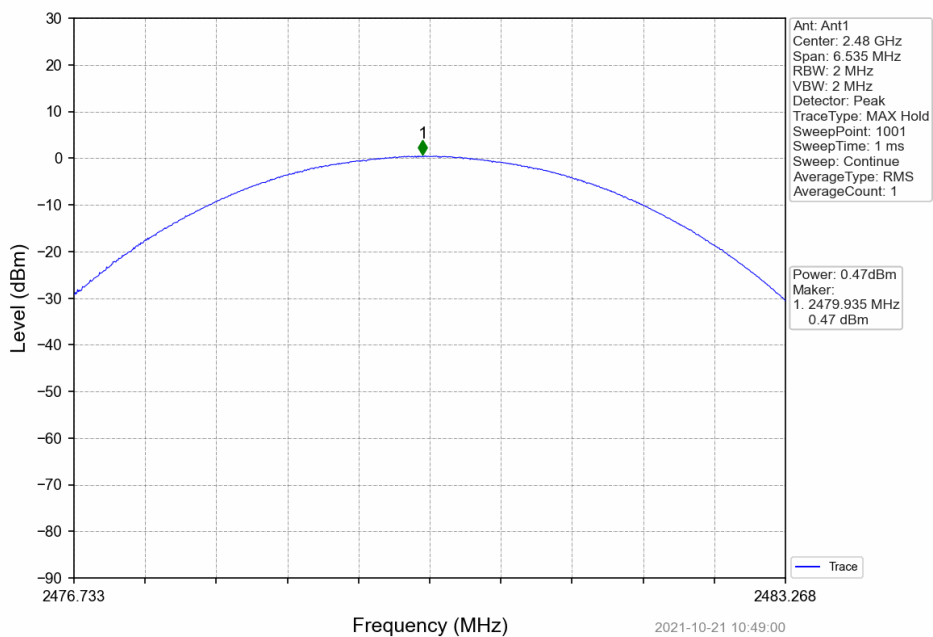
## 8DPSK\_3DH5\_LCH\_2402MHz\_Ant1\_NTNV



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



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



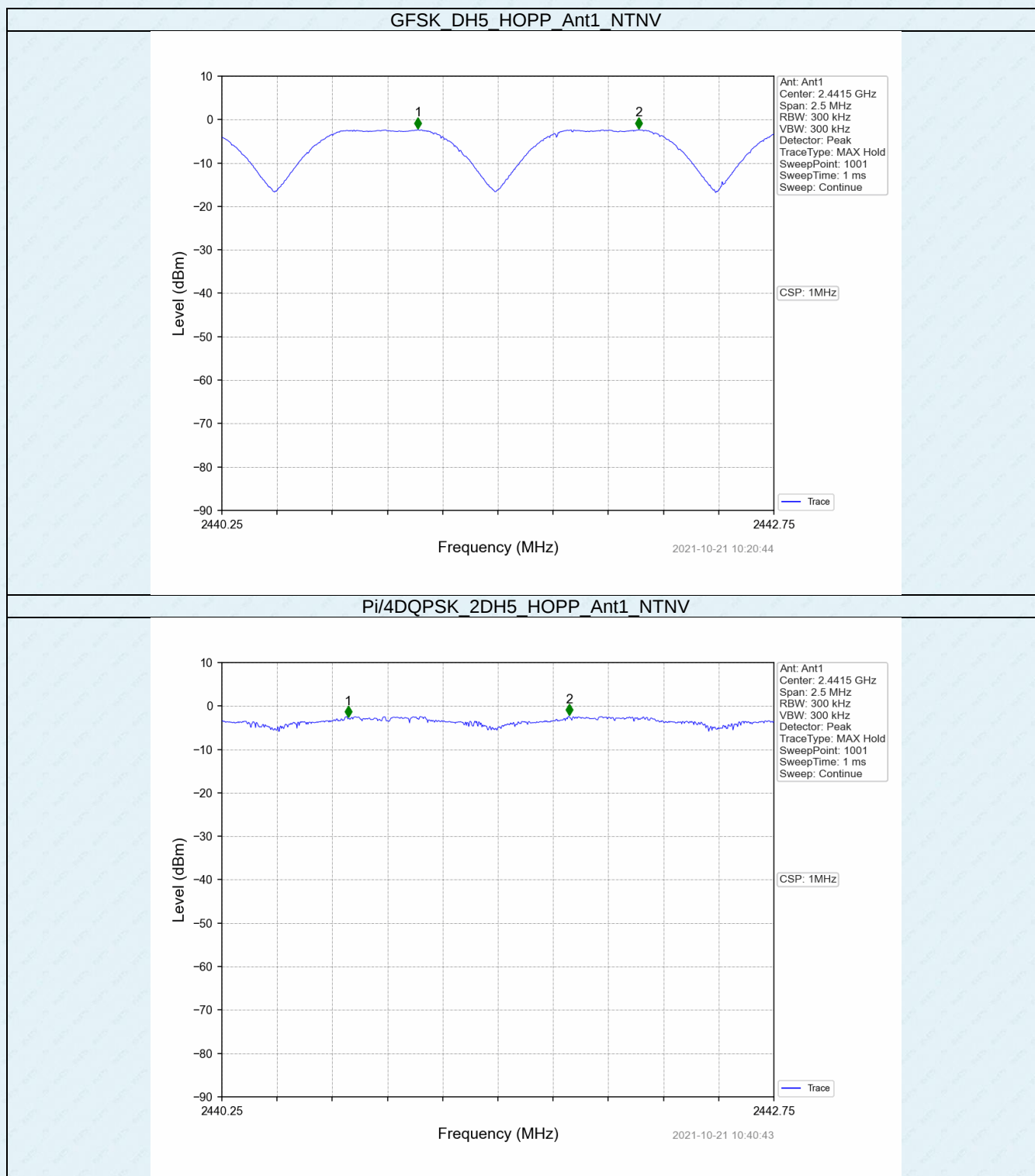
## 3. Carrier Frequency Separation

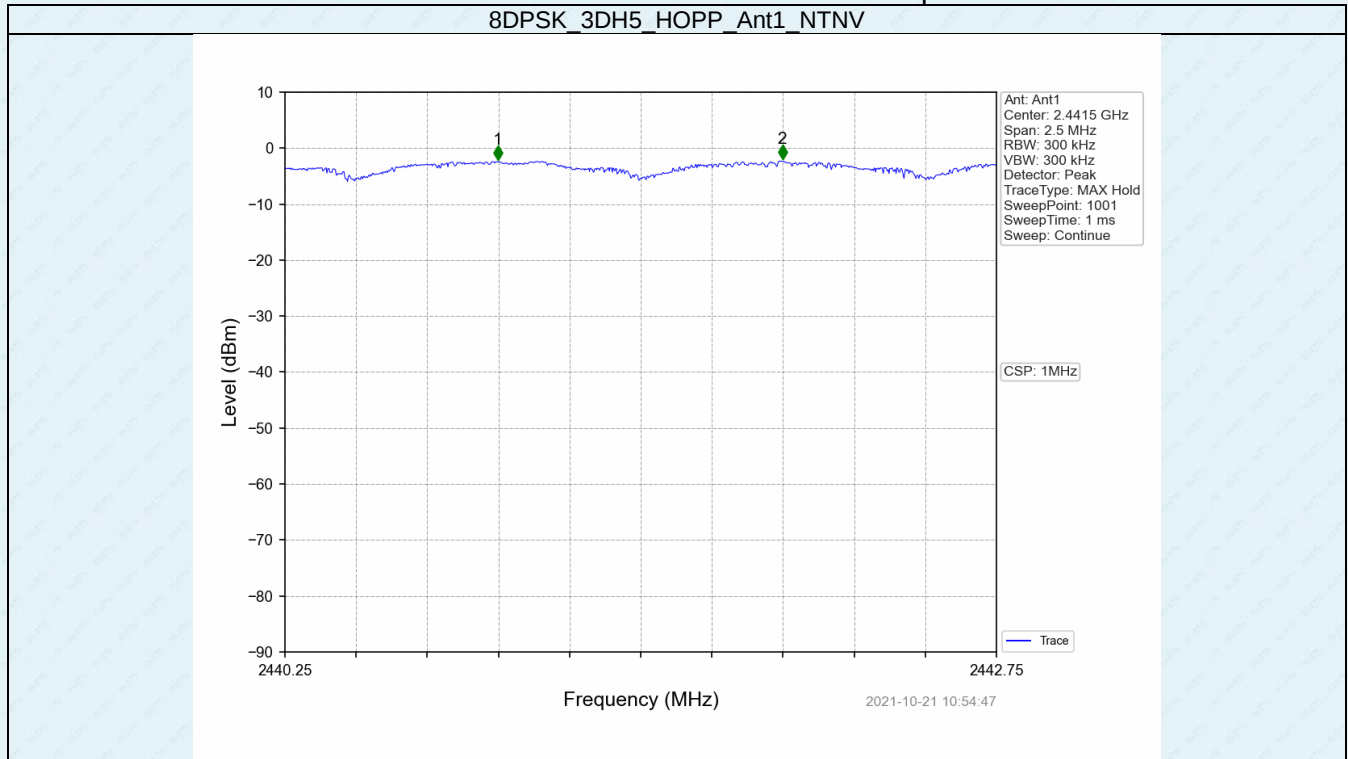
### 3.1 Ant1

#### 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         | 1.000                    | 0.940                | $\geq 0.94$  | Pass    |
| Pi/4DQPSK | SISO    | HOPP            | 2DH5        | 1.000                    | 1.295                | $\geq 0.863$ | Pass    |
| 8DPSK     | SISO    | HOPP            | 3DH5        | 1.000                    | 1.308                | $\geq 0.872$ | Pass    |

## 3.1.2 Test Graph





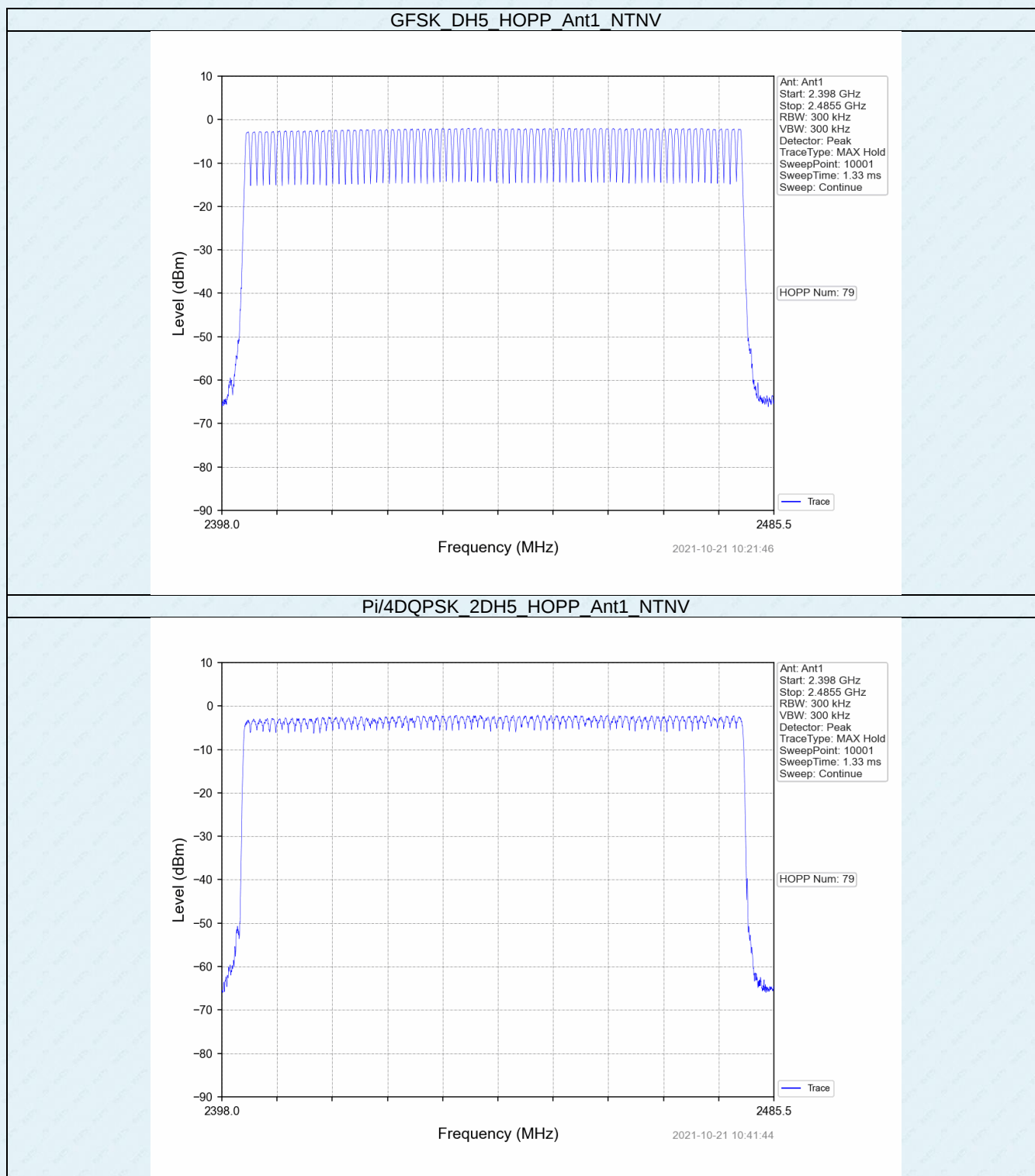
## 4. Number of Hopping Frequencies

### 4.1 HoppNum

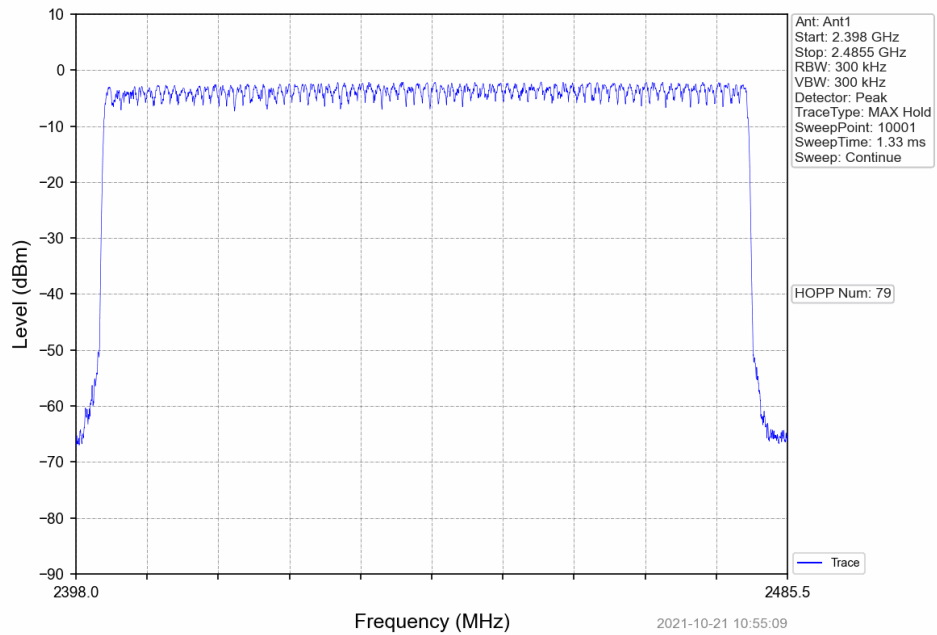
#### 4.1.1 Test Result

| Mode      | TX Type | Frequency (MHz) | Packet Type | Num of Hopping Frequencies |       | Verdict |
|-----------|---------|-----------------|-------------|----------------------------|-------|---------|
|           |         |                 |             | Ant1                       | Limit |         |
| GFSK      | SISO    | HOPP            | DH5         | 79                         | >=15  | Pass    |
| PI/4DQPSK | SISO    | HOPP            | 2DH5        | 79                         | >=15  | Pass    |
| 8DPSK     | SISO    | HOPP            | 3DH5        | 79                         | >=15  | Pass    |

## 4.1.2 Test Graph



8DPSK\_3DH5\_HOPP\_Ant1\_NTNV



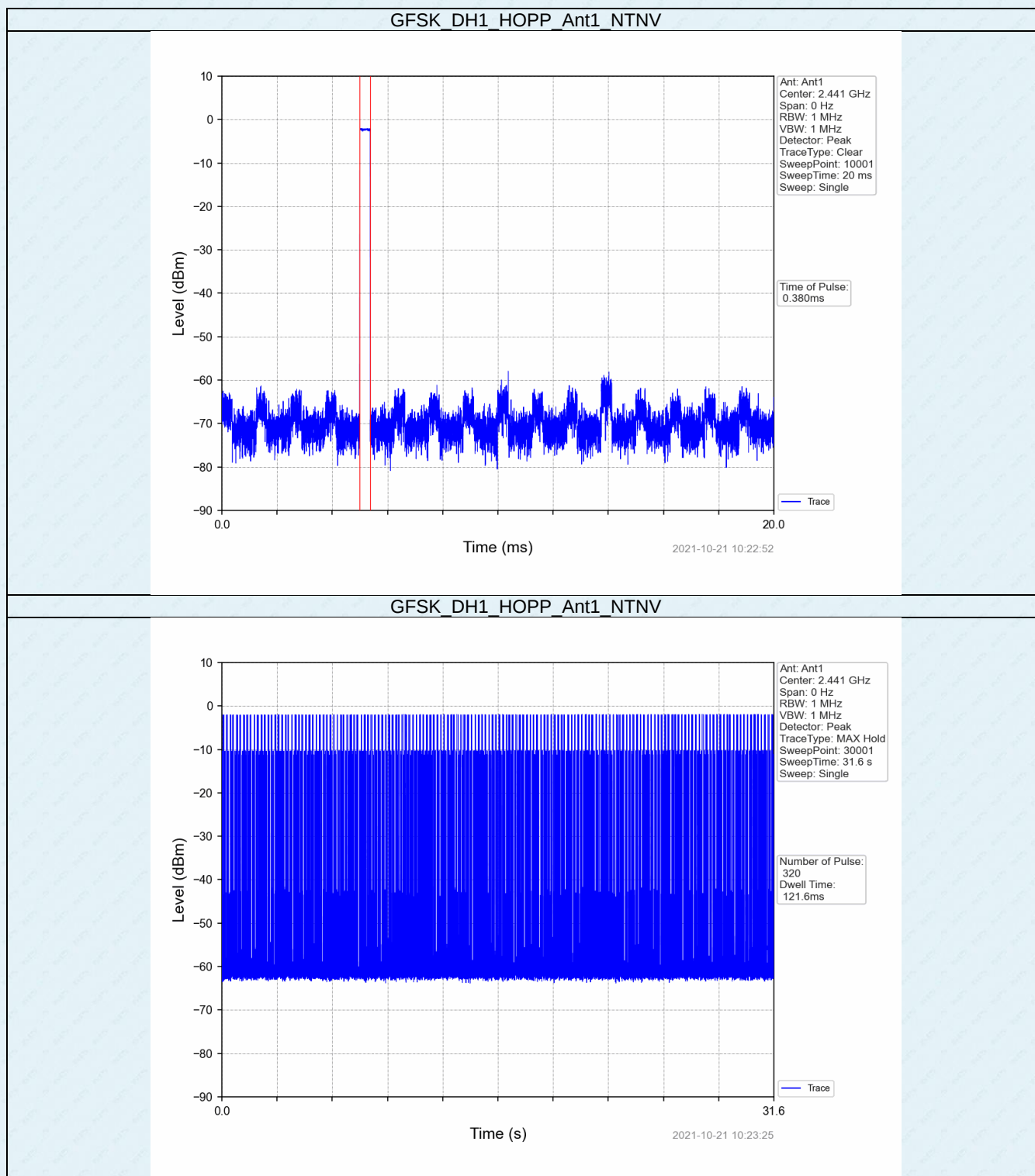
## 5. Time of Occupancy (Dwell Time)

### 5.1 Ant1

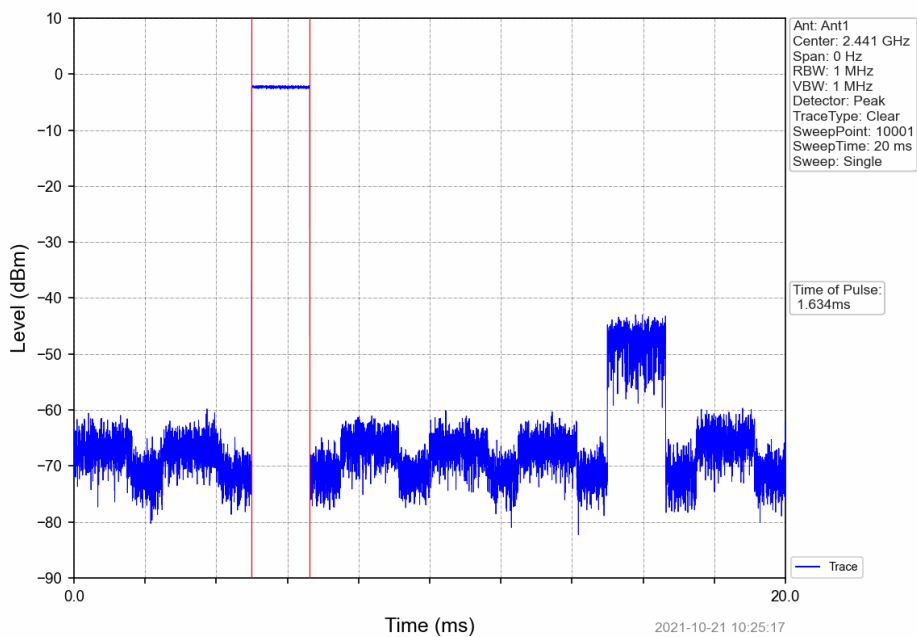
#### 5.1.1 Test Result

| 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         | 0.380                         | 31.600                 | 320                                | 121.600         | <=400      | Pass    |
|           |         |                 | DH3         | 1.634                         | 31.600                 | 160                                | 261.440         | <=400      | Pass    |
|           |         |                 | DH5         | 2.882                         | 31.600                 | 103                                | 296.846         | <=400      | Pass    |
| Pi/4DQPSK | SISO    | HOPP            | 2DH1        | 0.396                         | 31.600                 | 318                                | 125.928         | <=400      | Pass    |
|           |         |                 | 2DH3        | 1.644                         | 31.600                 | 154                                | 253.176         | <=400      | Pass    |
|           |         |                 | 2DH5        | 2.890                         | 31.600                 | 95                                 | 274.550         | <=400      | Pass    |
| 8DPSK     | SISO    | HOPP            | 3DH1        | 0.390                         | 31.600                 | 320                                | 124.800         | <=400      | Pass    |
|           |         |                 | 3DH3        | 0.392                         | 31.600                 | 320                                | 125.440         | <=400      | Pass    |
|           |         |                 | 3DH5        | 2.894                         | 31.600                 | 97                                 | 280.718         | <=400      | Pass    |

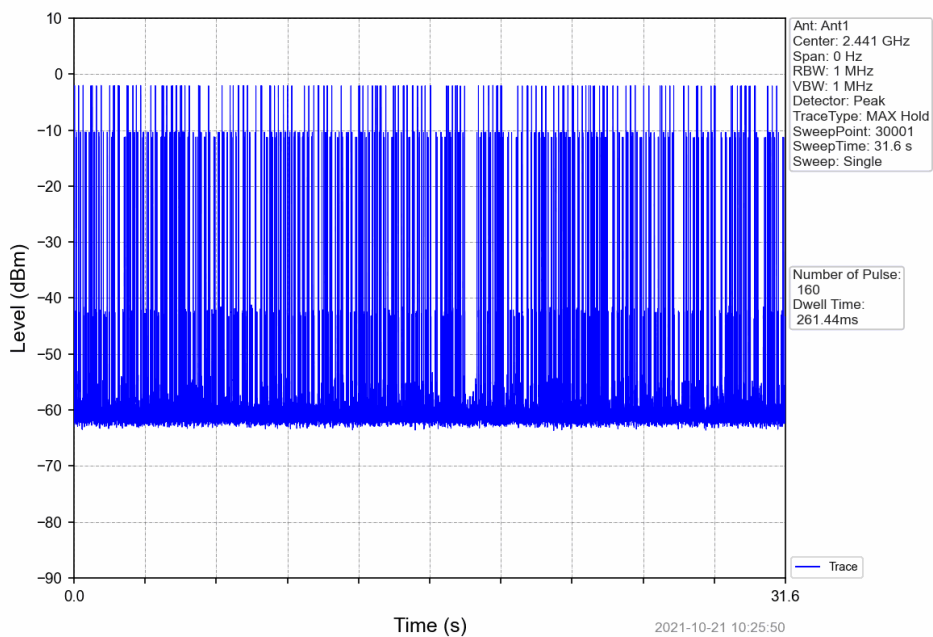
## 5.1.2 Test Graph



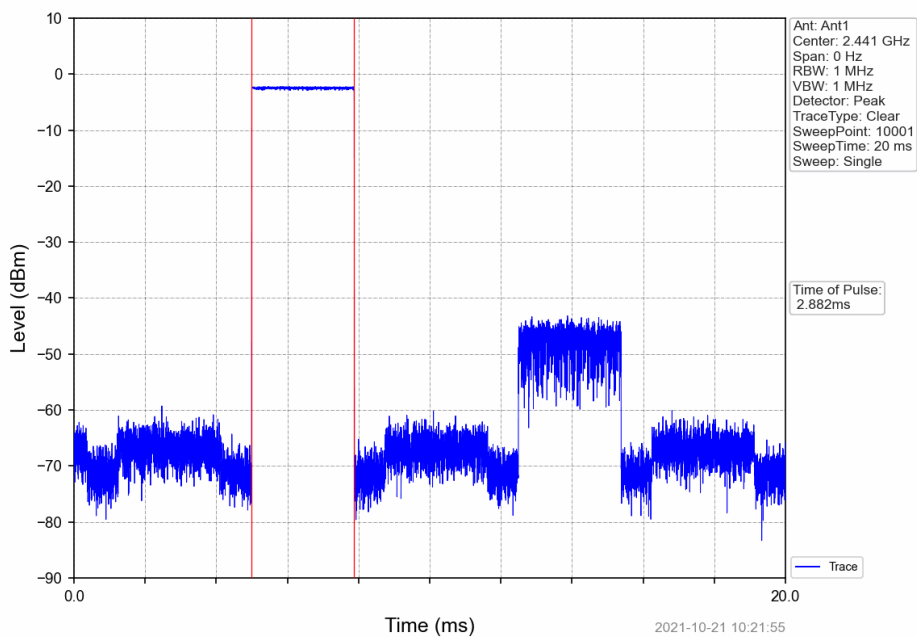
## GFSK\_DH3\_HOPP\_Ant1\_NTNV



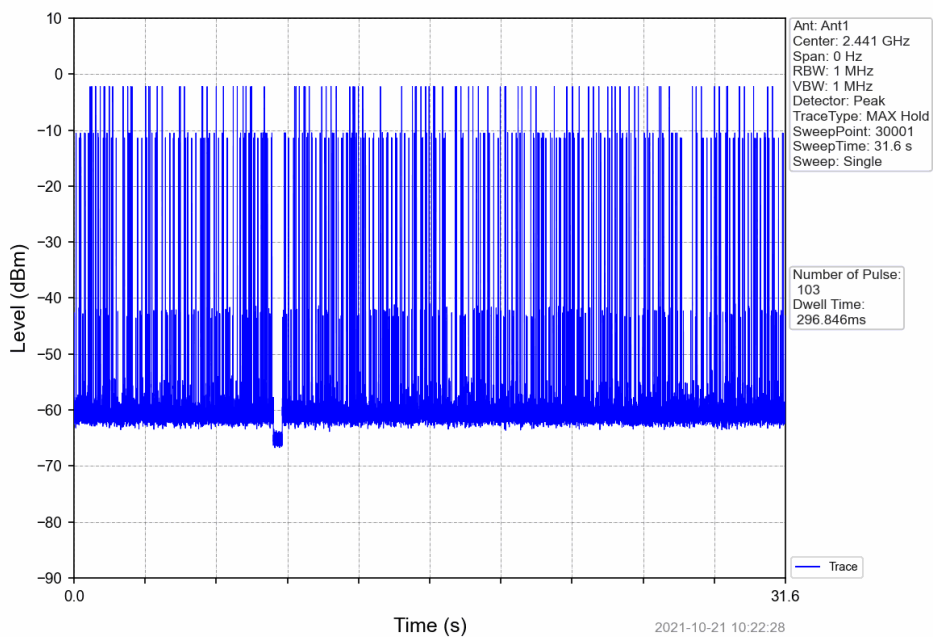
## GFSK\_DH3\_HOPP\_Ant1\_NTNV



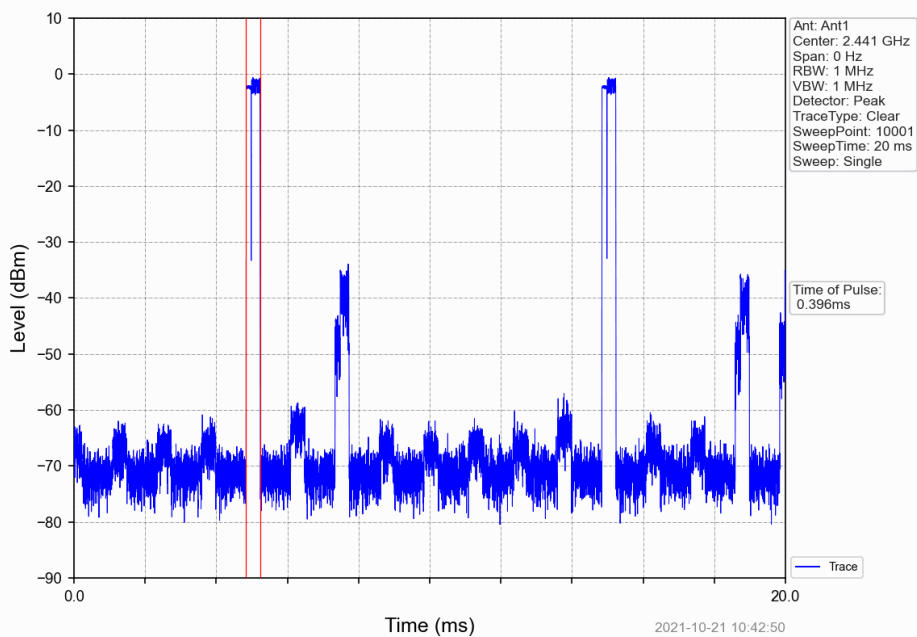
## GFSK\_DH5\_HOPP\_Ant1\_NTNV



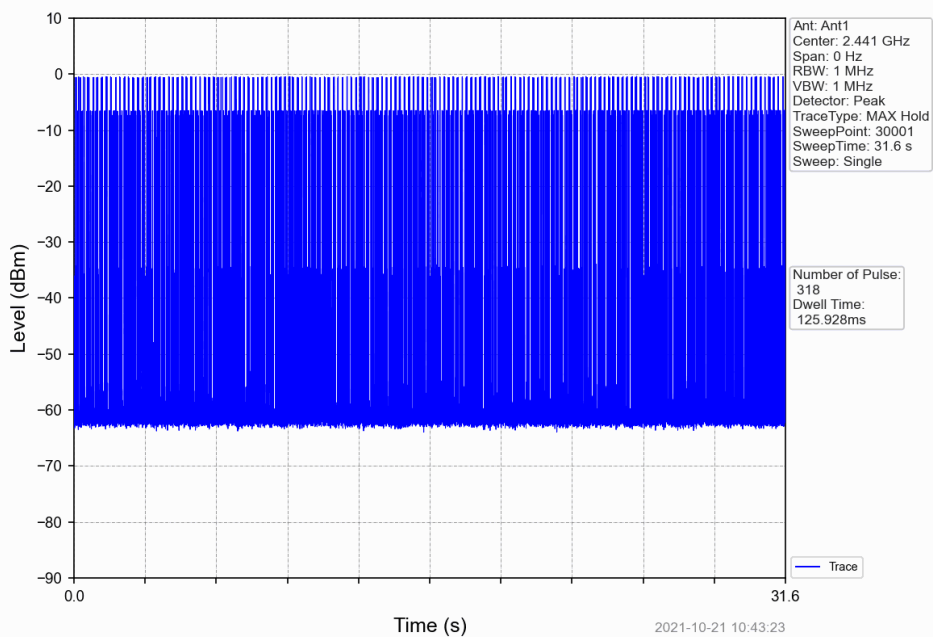
## GFSK\_DH5\_HOPP\_Ant1\_NTNV



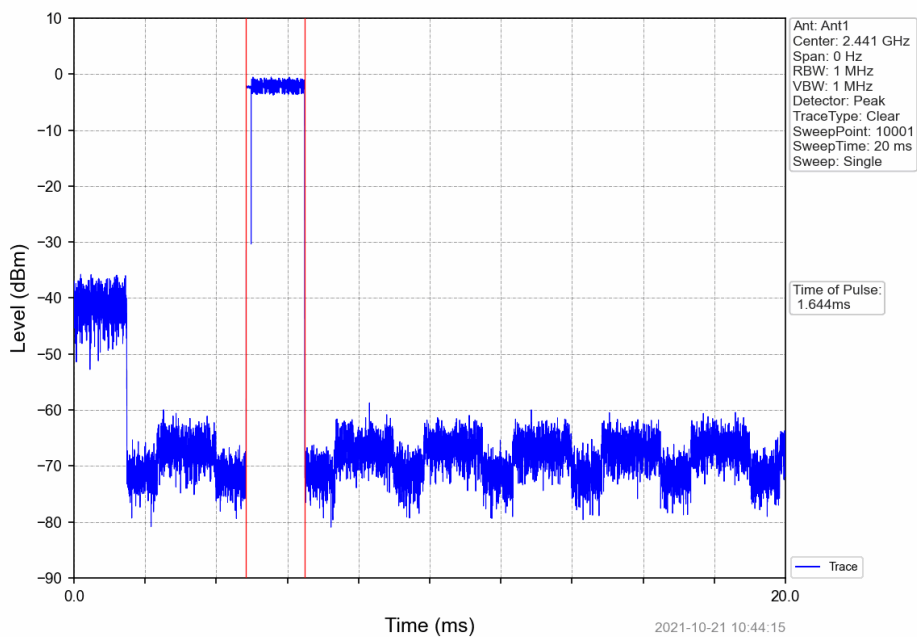
## Pi/4DQPSK\_2DH1\_HOPP\_Ant1\_NTNV



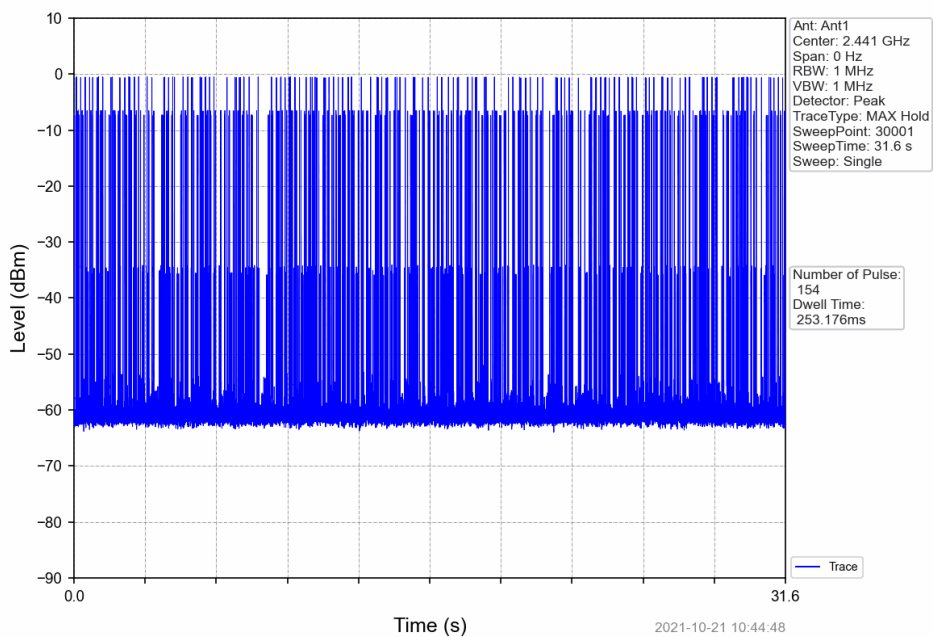
## Pi/4DQPSK\_2DH1\_HOPP\_Ant1\_NTNV



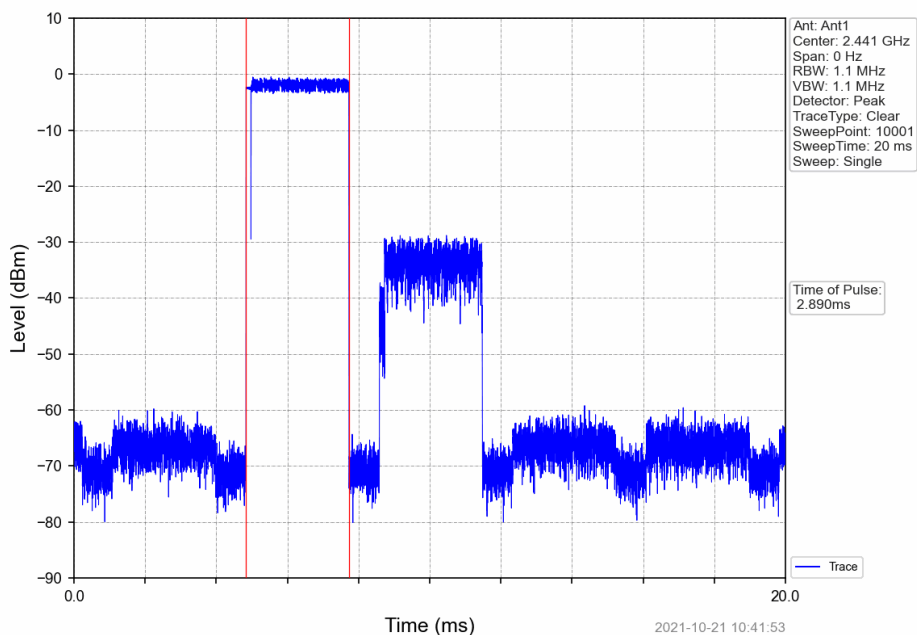
## Pi/4DQPSK\_2DH3\_HOPP\_Ant1\_NTNV



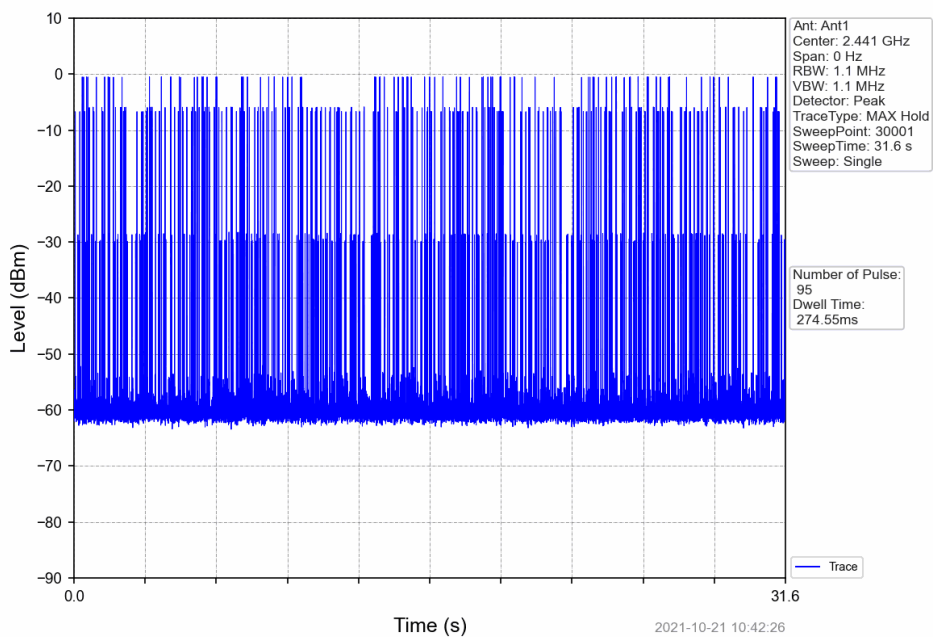
## Pi/4DQPSK\_2DH3\_HOPP\_Ant1\_NTNV



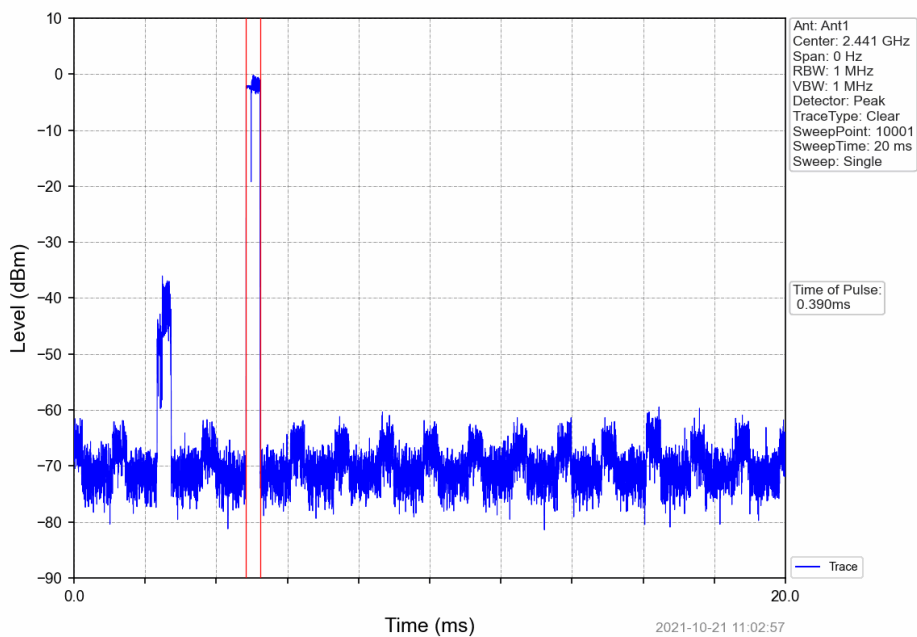
## Pi/4DQPSK\_2DH5\_HOPP\_Ant1\_NTNV



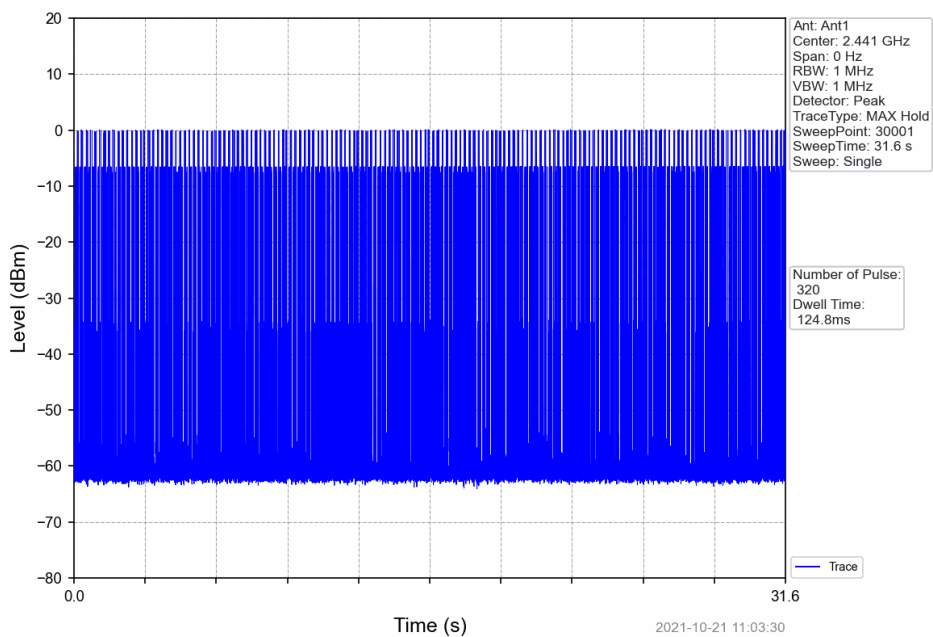
## Pi/4DQPSK\_2DH5\_HOPP\_Ant1\_NTNV



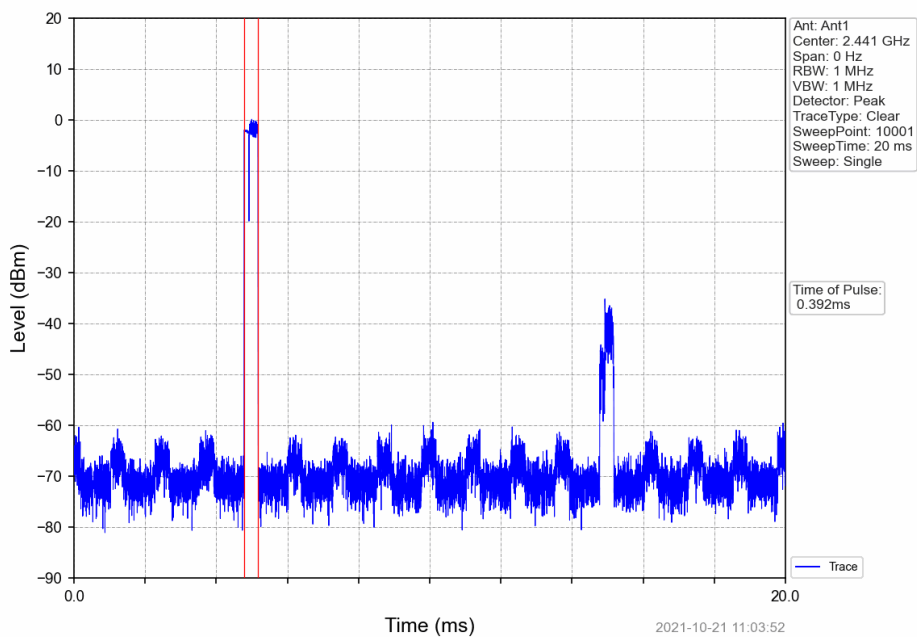
## 8DPSK\_3DH1\_HOPP\_Ant1\_NTNV



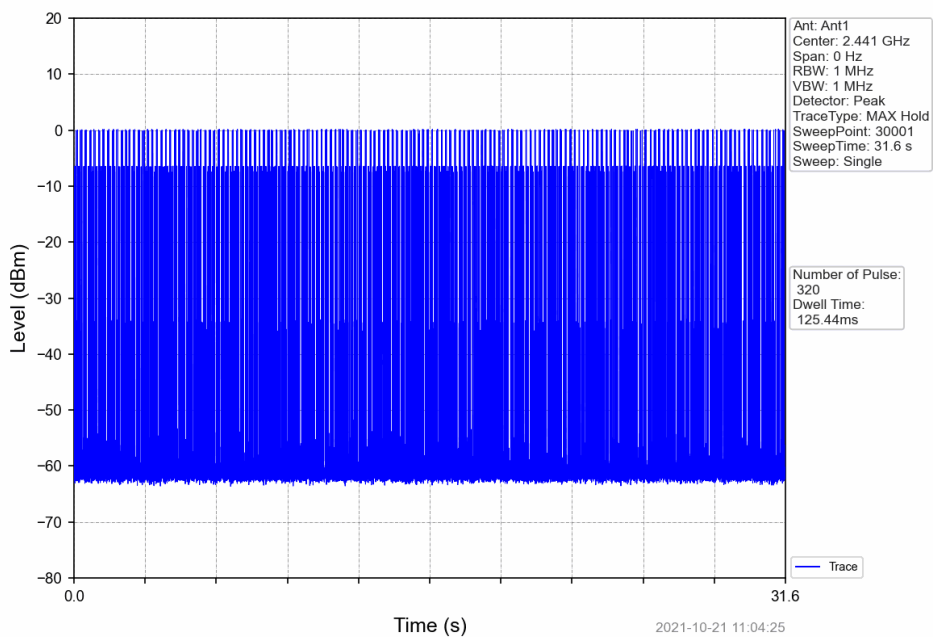
## 8DPSK\_3DH1\_HOPP\_Ant1\_NTNV



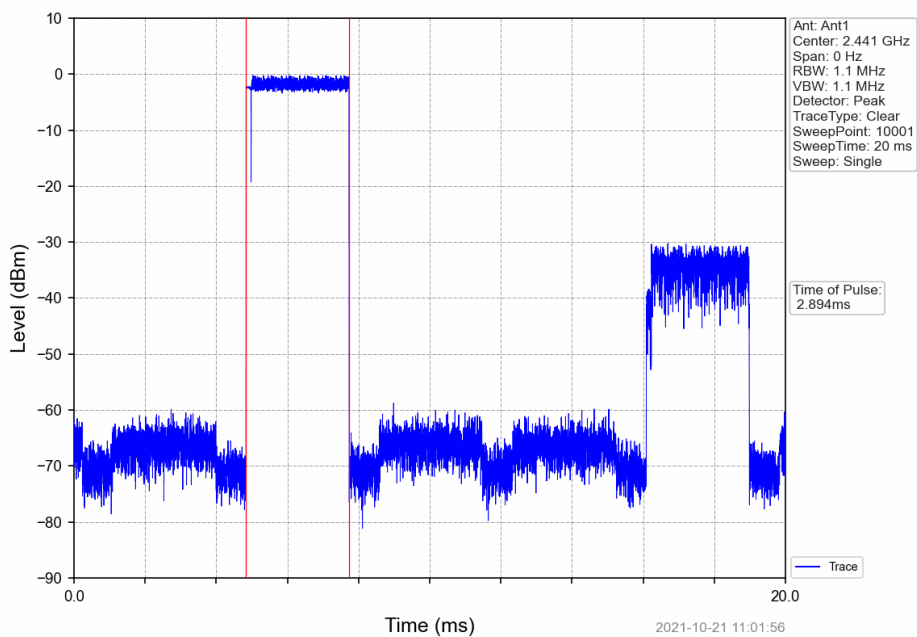
## 8DPSK\_3DH3\_HOPP\_Ant1\_NTNV



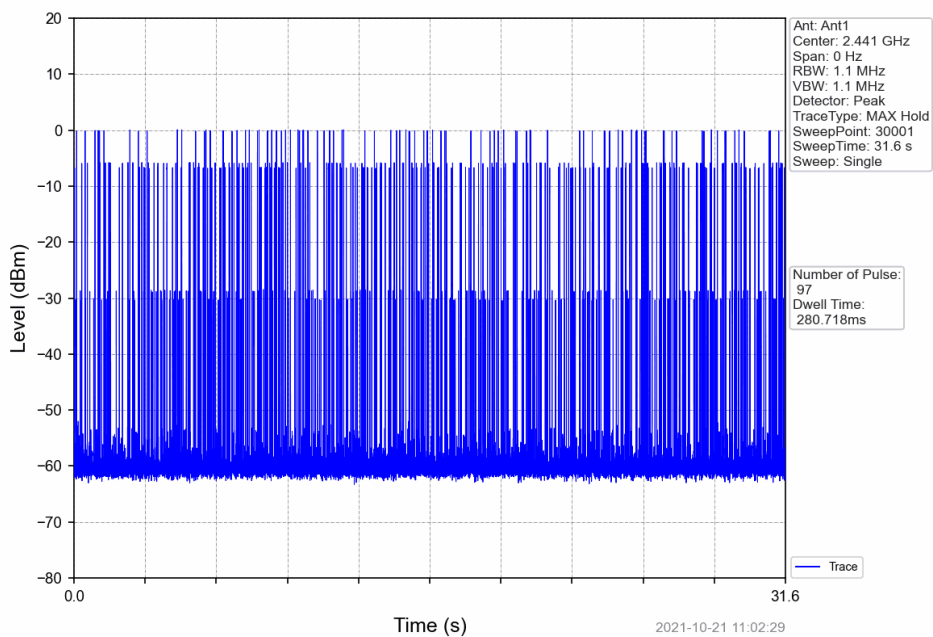
## 8DPSK\_3DH3\_HOPP\_Ant1\_NTNV



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



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



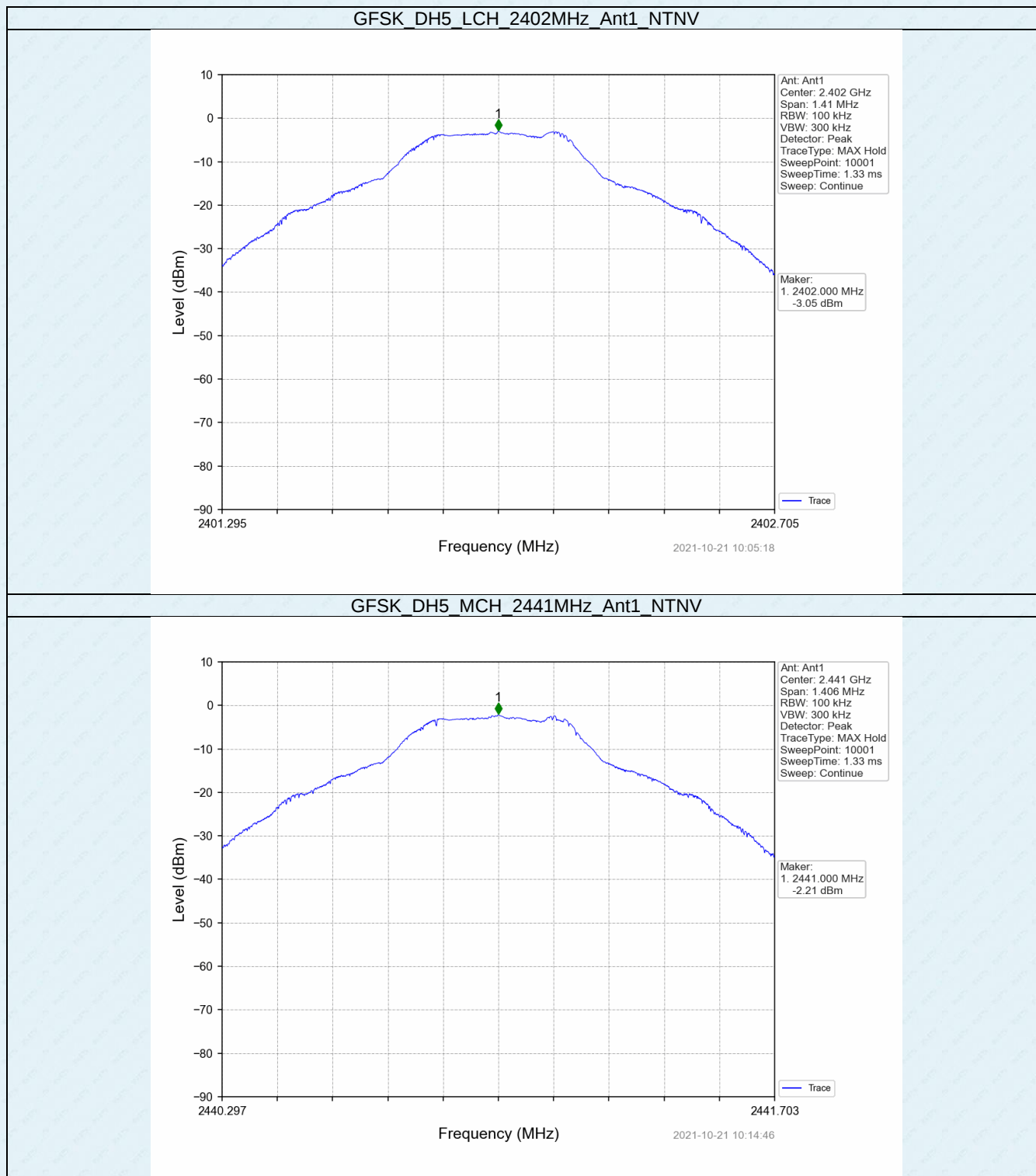
## 6. Unwanted Emissions In Non-restricted Frequency Bands

### 6.1 Ref

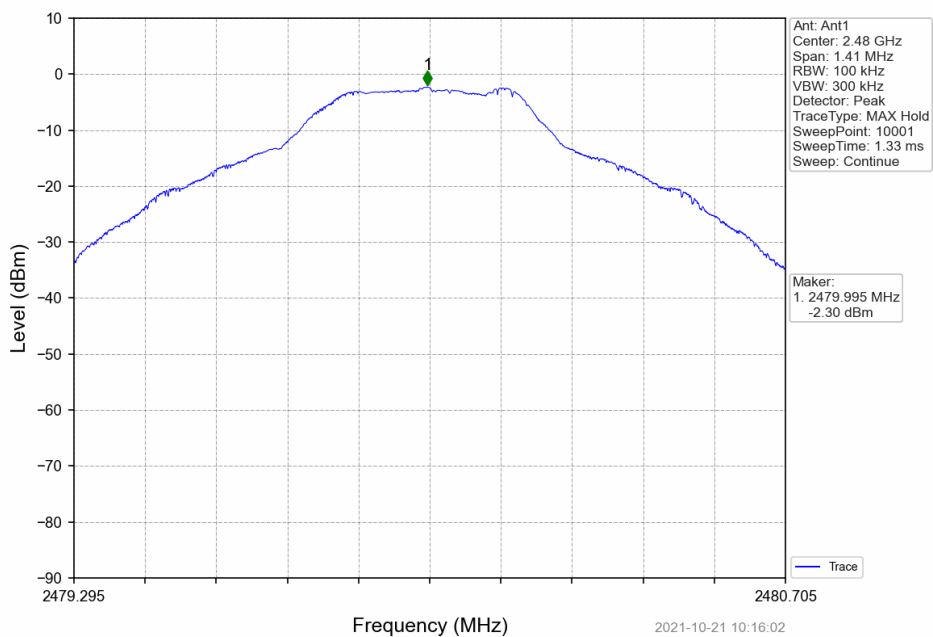
#### 6.1.1 Test Result

| Mode                                                                                                                                            | TX Type | Frequency (MHz) | Packet Type | Ant | Level of Reference (dBm) |
|-------------------------------------------------------------------------------------------------------------------------------------------------|---------|-----------------|-------------|-----|--------------------------|
| GFSK                                                                                                                                            | SISO    | 2402            | DH5         | 1   | -3.05                    |
|                                                                                                                                                 |         | 2441            | DH5         | 1   | -2.21                    |
|                                                                                                                                                 |         | 2480            | DH5         | 1   | -2.30                    |
| Pi/4DQPSK                                                                                                                                       | SISO    | 2402            | 2DH5        | 1   | -2.99                    |
|                                                                                                                                                 |         | 2441            | 2DH5        | 1   | -2.32                    |
|                                                                                                                                                 |         | 2480            | 2DH5        | 1   | -2.31                    |
| 8DPSK                                                                                                                                           | SISO    | 2402            | 3DH5        | 1   | -2.94                    |
|                                                                                                                                                 |         | 2441            | 3DH5        | 1   | -2.50                    |
|                                                                                                                                                 |         | 2480            | 3DH5        | 1   | -2.47                    |
| 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. |         |                 |             |     |                          |

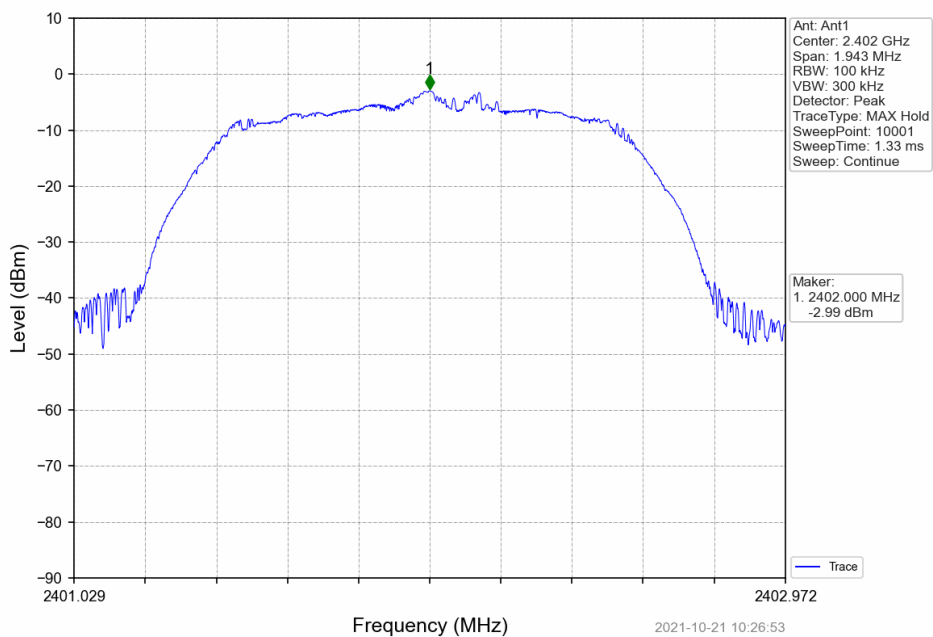
## 6.1.2 Test Graph



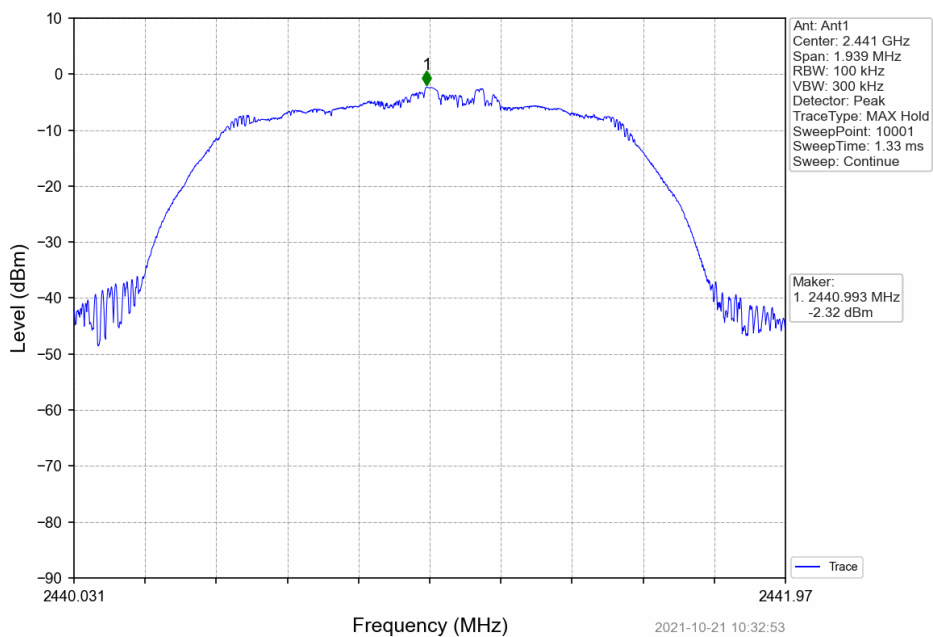
## GFSK\_DH5\_HCH\_2480MHz\_Ant1\_NTNV



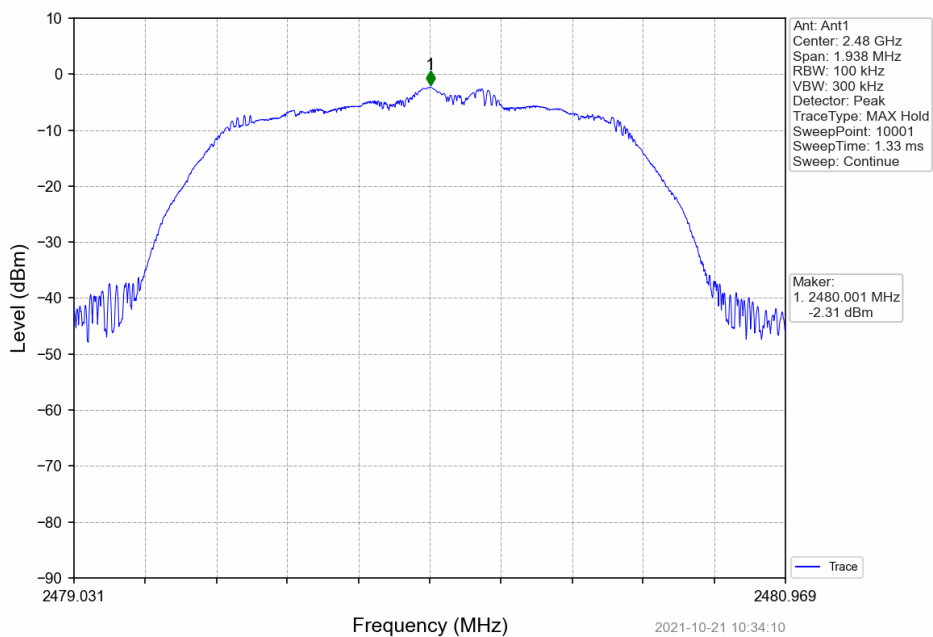
## Pi/4DQPSK\_2DH5\_LCH\_2402MHz\_Ant1\_NTNV



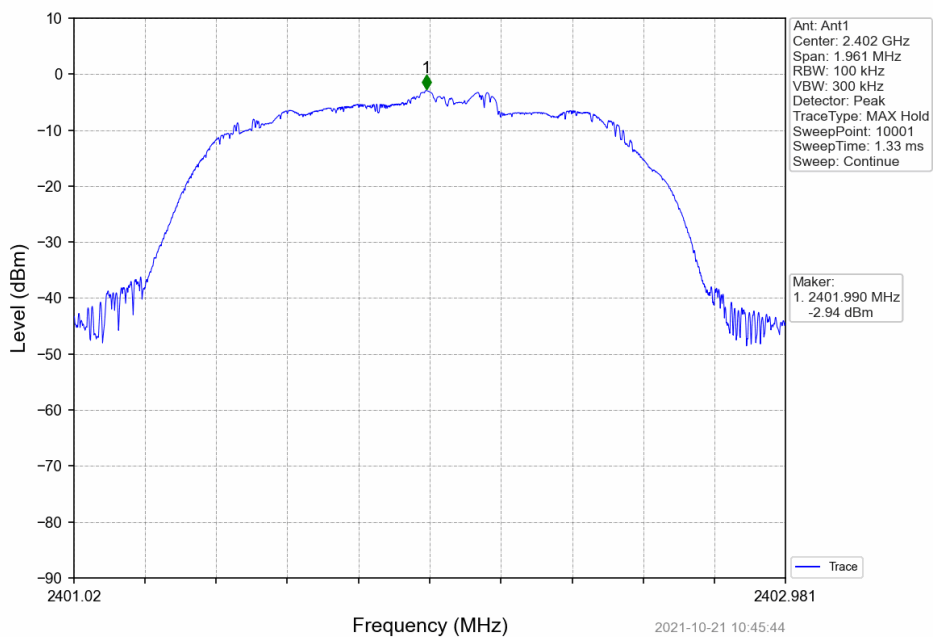
Pi/4DQPSK\_2DH5\_MCH\_2441MHz\_Ant1\_NTNV



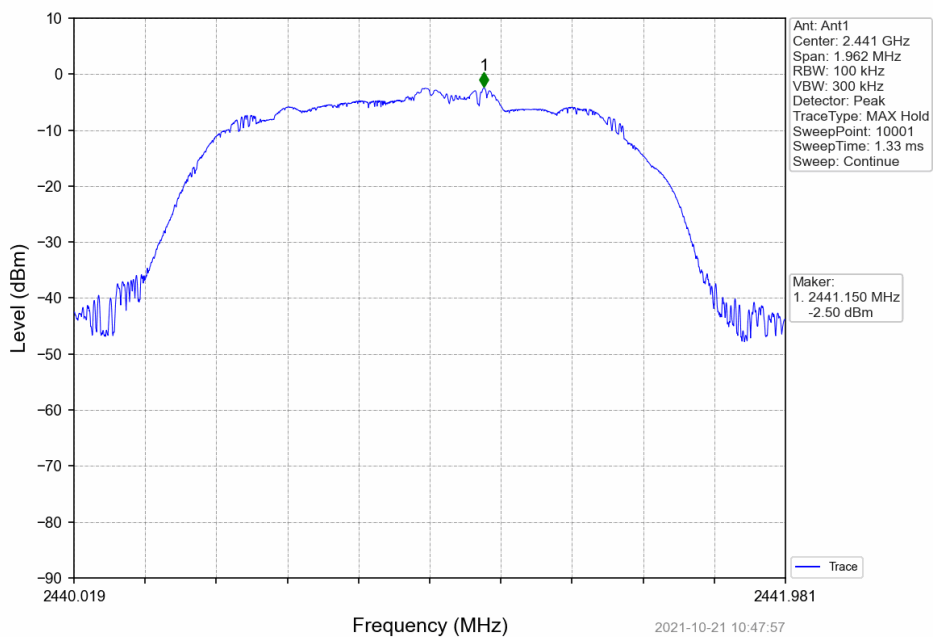
Pi/4DQPSK\_2DH5\_HCH\_2480MHz\_Ant1\_NTNV



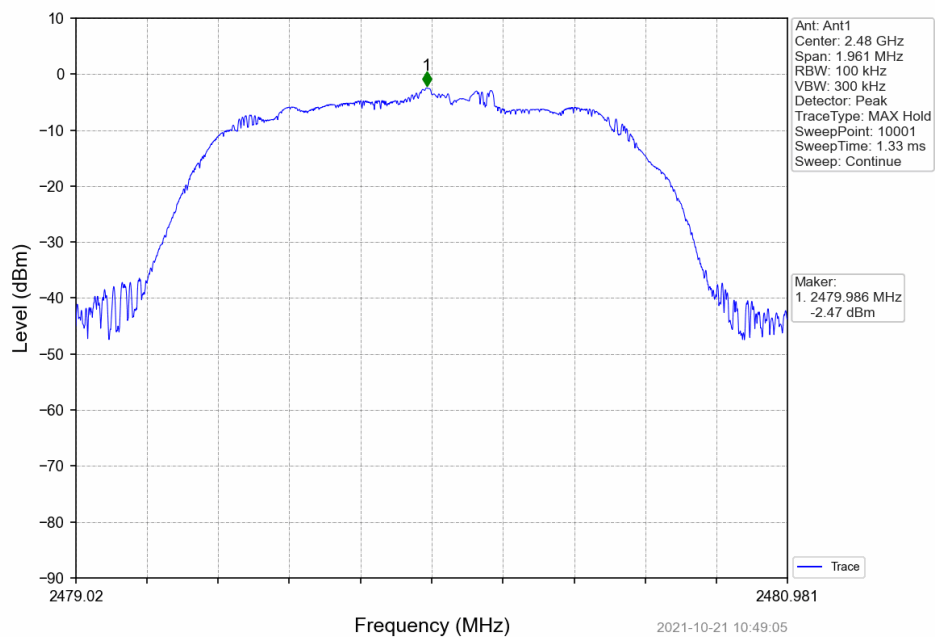
8DPSK\_3DH5\_LCH\_2402MHz\_Ant1\_NTNV



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



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



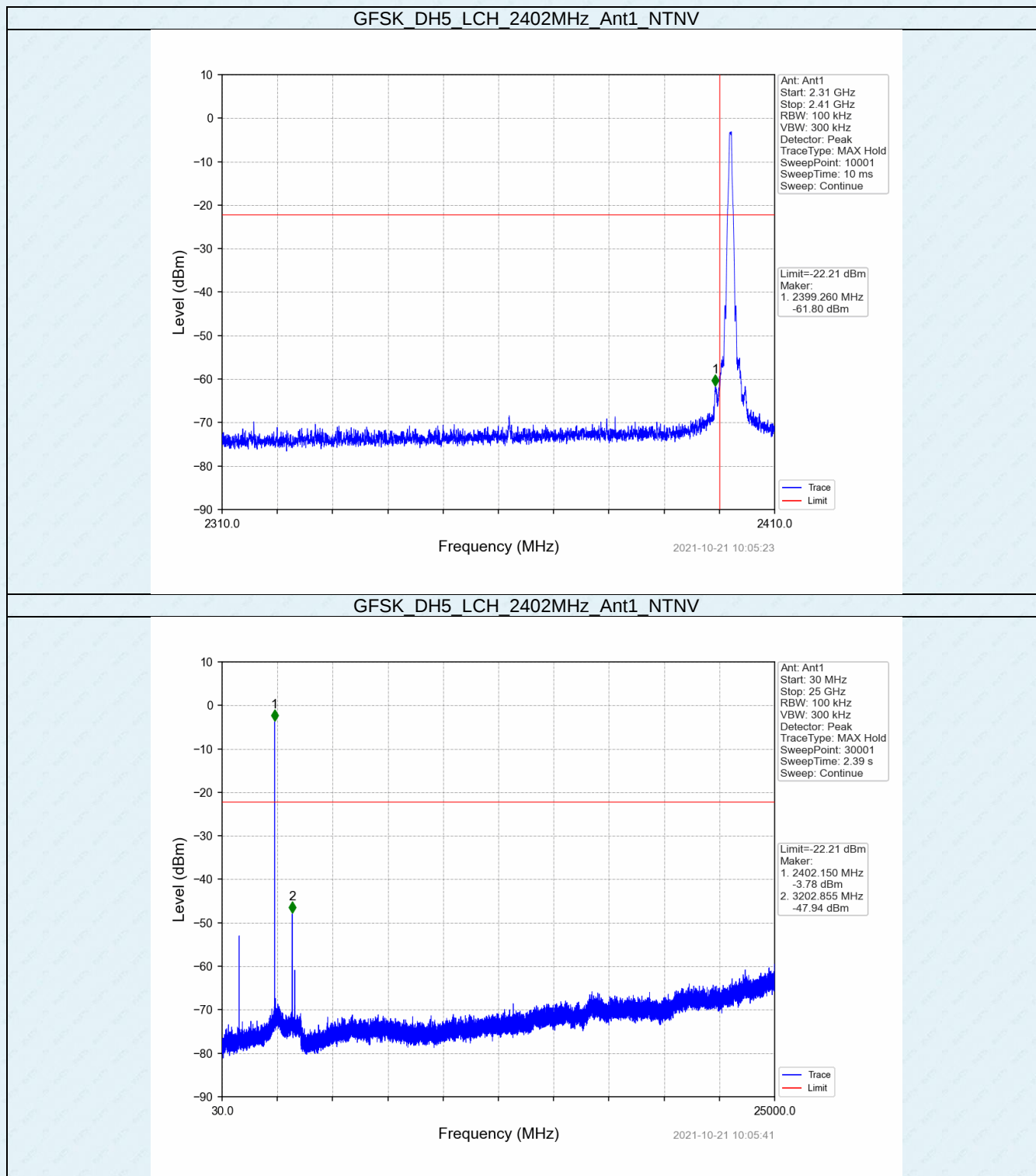
## 6.2 CSE

### 6.2.1 Test Result

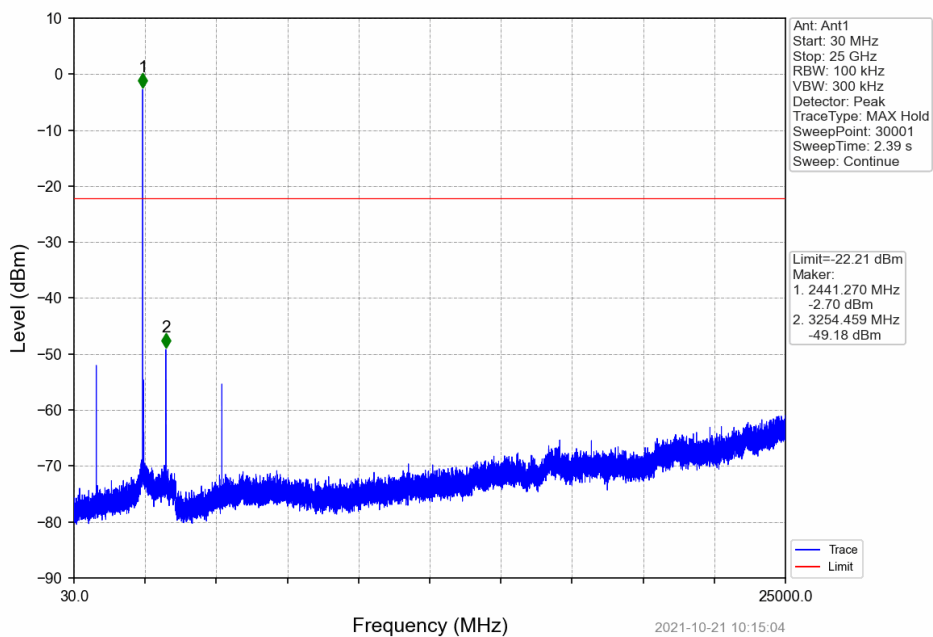
| Mode      | TX Type | Frequency (MHz) | Packet Type | Ant | Level of Reference (dBm) | Limit (dBm) | Verdict |
|-----------|---------|-----------------|-------------|-----|--------------------------|-------------|---------|
| GFSK      | SISO    | 2402            | DH5         | 1   | -2.21                    | -22.21      | Pass    |
|           |         | 2441            | DH5         | 1   | -2.21                    | -22.21      | Pass    |
|           |         | 2480            | DH5         | 1   | -2.21                    | -22.21      | Pass    |
|           |         | HOPP            | DH5         | 1   | -2.21                    | -22.21      | Pass    |
| Pi/4DQPSK | SISO    | 2402            | 2DH5        | 1   | -2.31                    | -22.31      | Pass    |
|           |         | 2441            | 2DH5        | 1   | -2.31                    | -22.31      | Pass    |
|           |         | 2480            | 2DH5        | 1   | -2.31                    | -22.31      | Pass    |
|           |         | HOPP            | 2DH5        | 1   | -2.31                    | -22.31      | Pass    |
| 8DPSK     | SISO    | 2402            | 3DH5        | 1   | -2.47                    | -22.47      | Pass    |
|           |         | 2441            | 3DH5        | 1   | -2.47                    | -22.47      | Pass    |
|           |         | 2480            | 3DH5        | 1   | -2.47                    | -22.47      | Pass    |
|           |         | HOPP            | 3DH5        | 1   | -2.47                    | -22.47      | 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.

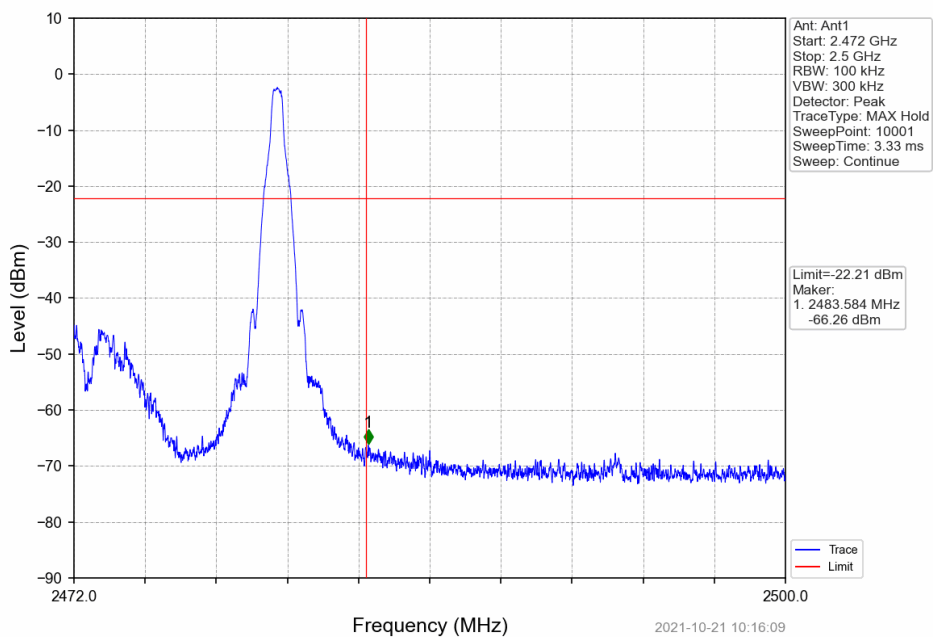
## 6.2.2 Test Graph



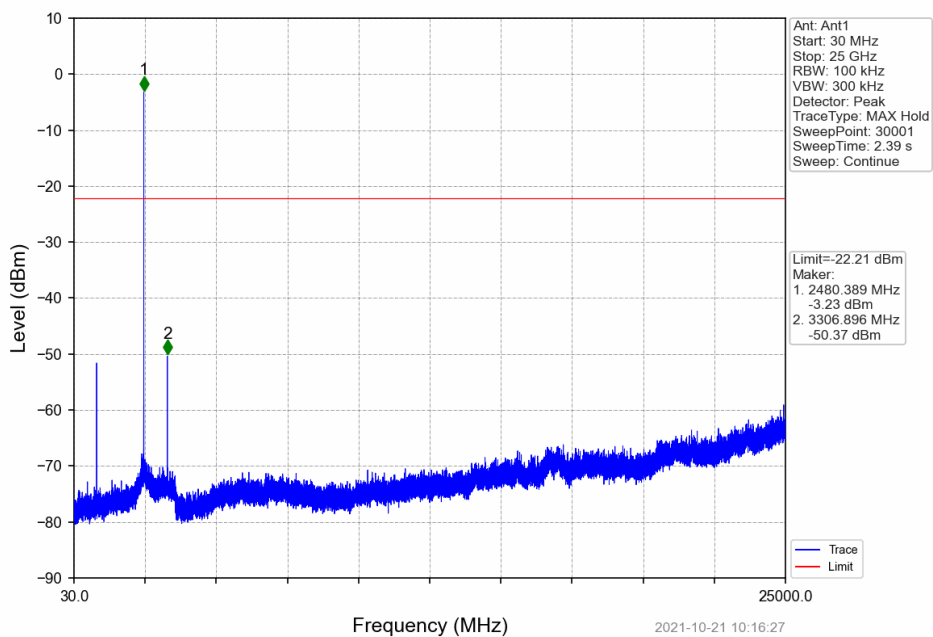
## GFSK\_DH5\_MCH\_2441MHz\_Ant1\_NTNV



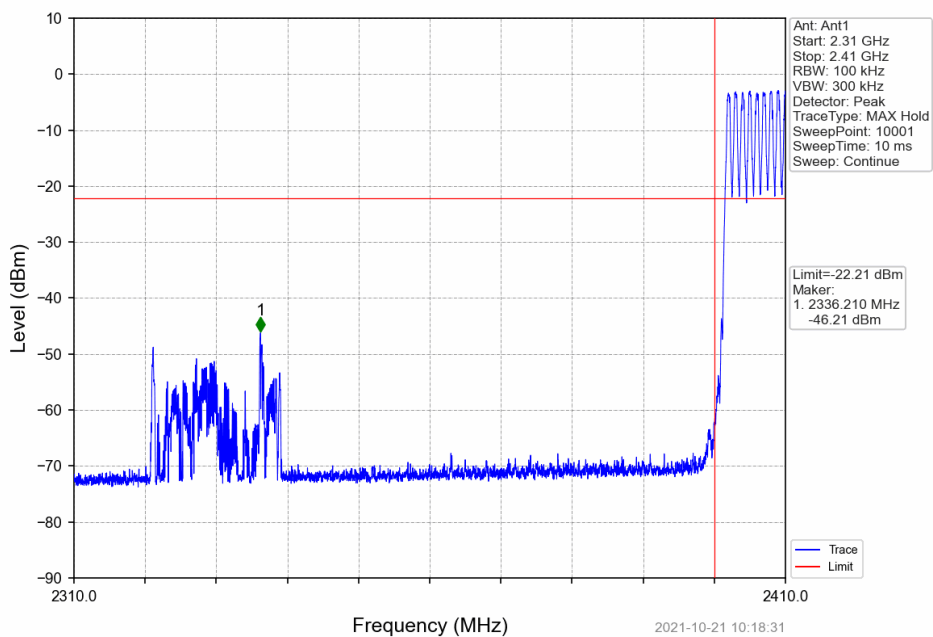
## GFSK\_DH5\_HCH\_2480MHz\_Ant1\_NTNV



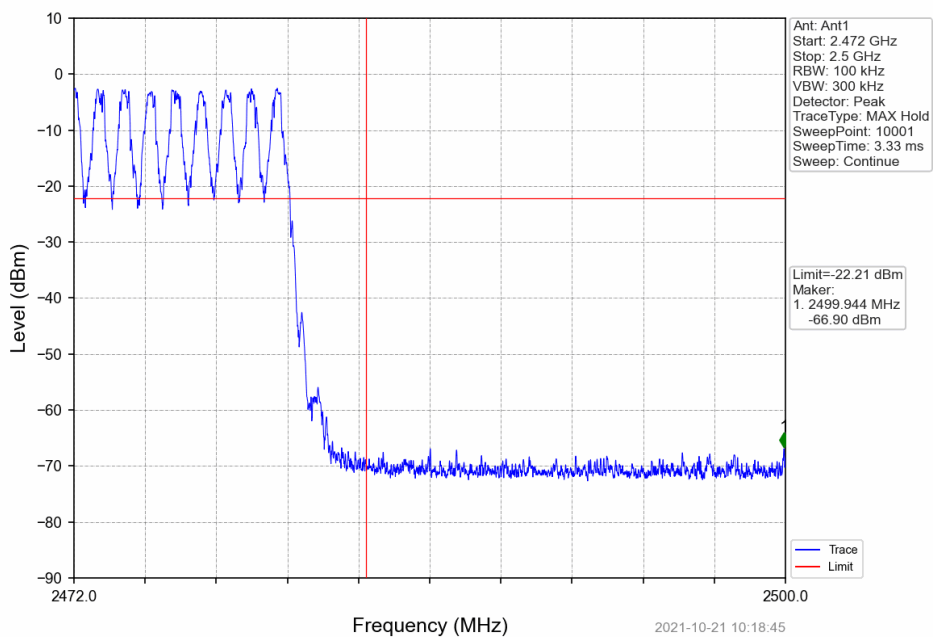
## GFSK\_DH5\_HCH\_2480MHz\_Ant1\_NTNV



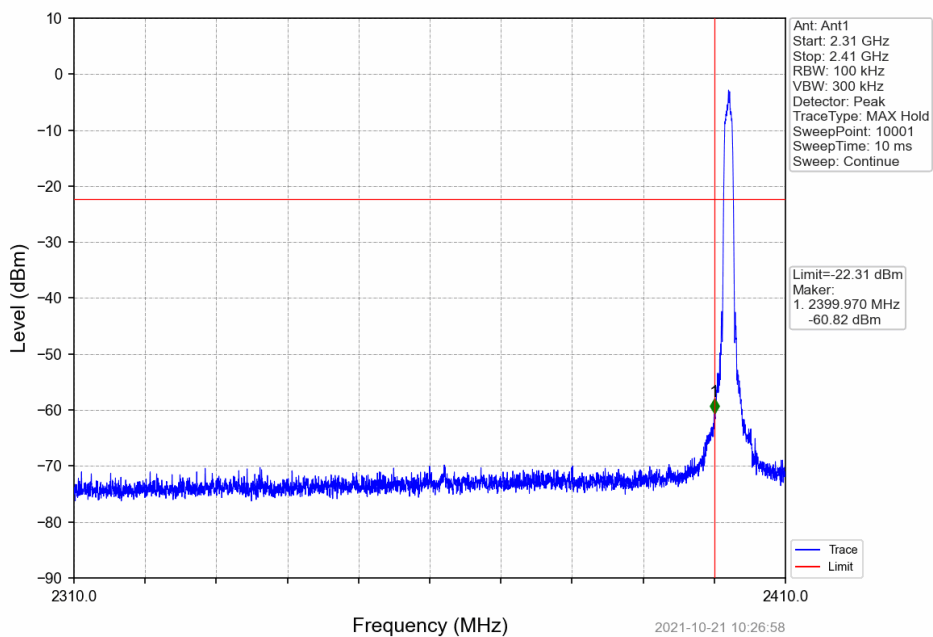
## GFSK\_DH5\_HOPP\_Ant1\_NTNV



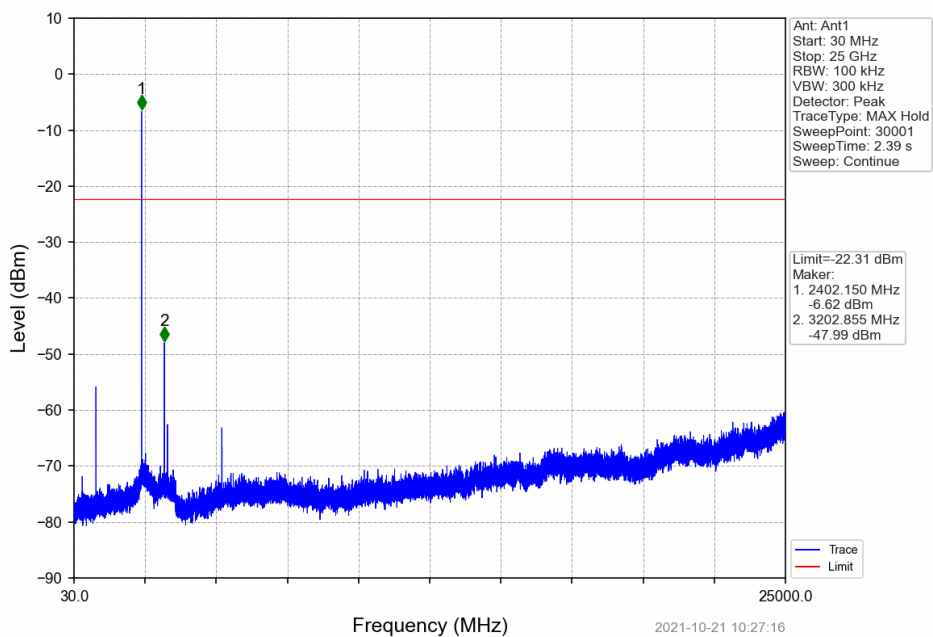
## GFSK\_DH5\_HOPP\_Ant1\_NTNV



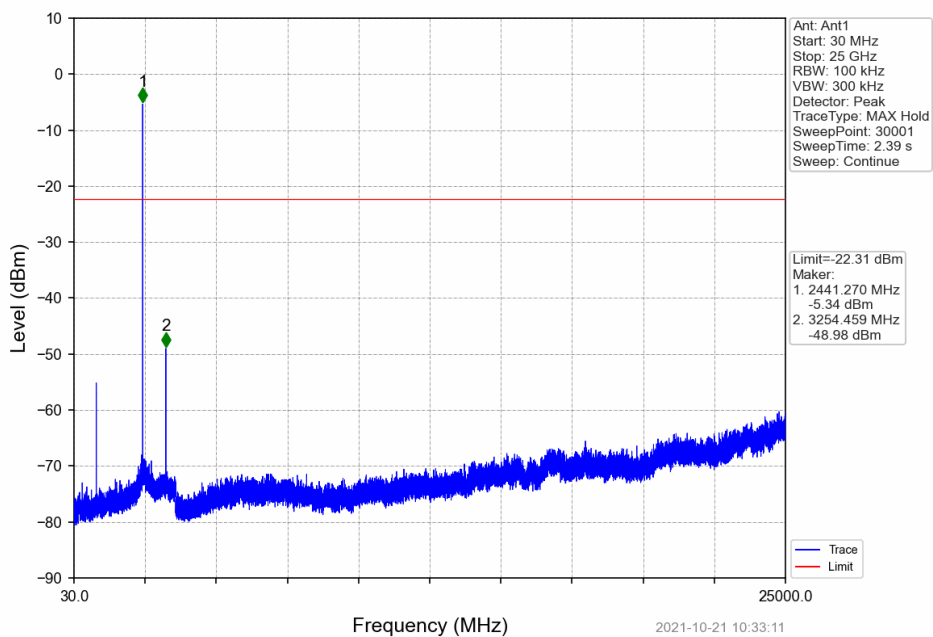
## Pi/4DQPSK\_2DH5\_LCH\_2402MHz\_Ant1\_NTNV



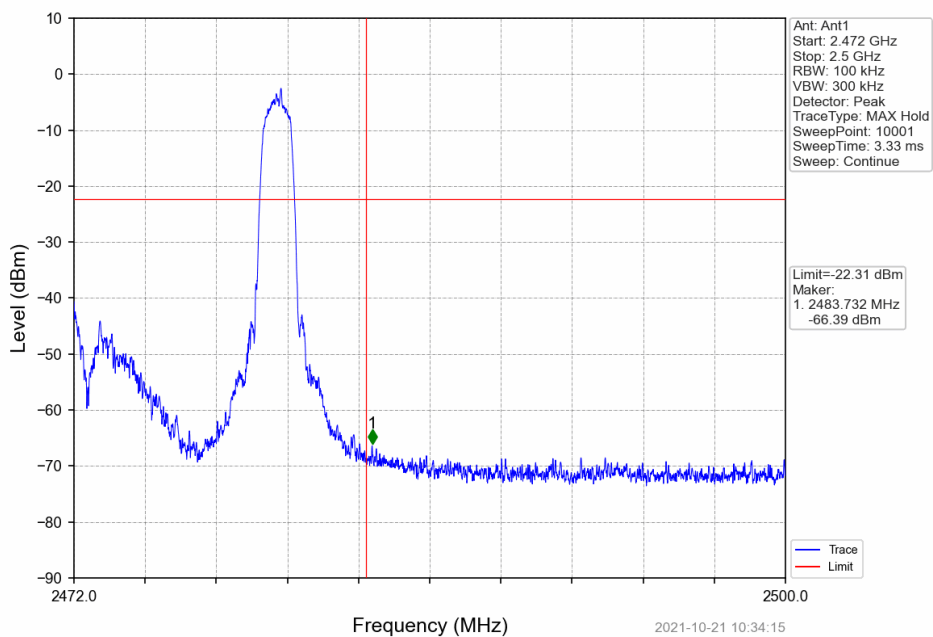
Pi/4DQPSK\_2DH5\_LCH\_2402MHz\_Ant1\_NTNV



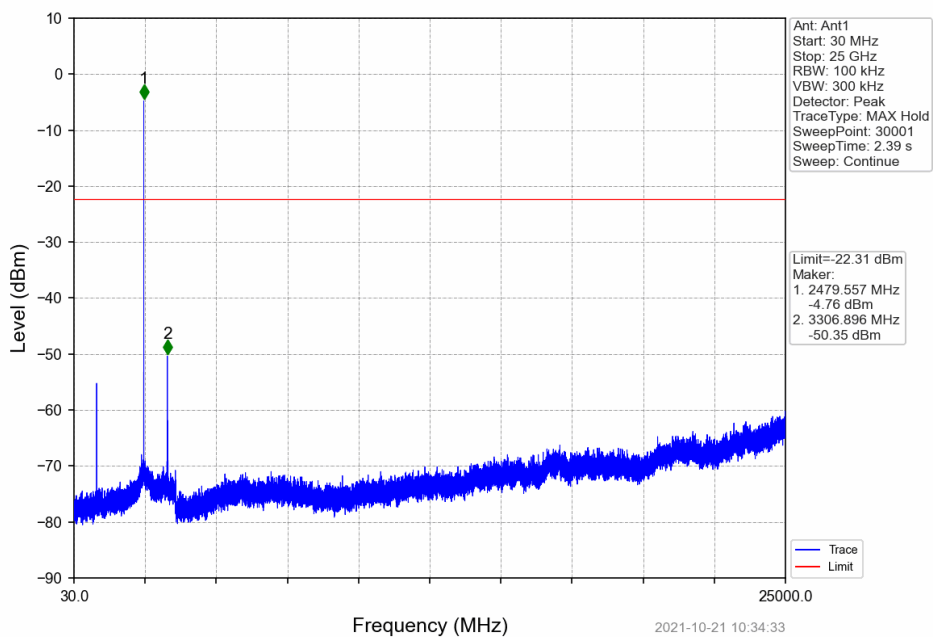
Pi/4DQPSK\_2DH5\_MCH\_2441MHz\_Ant1\_NTNV



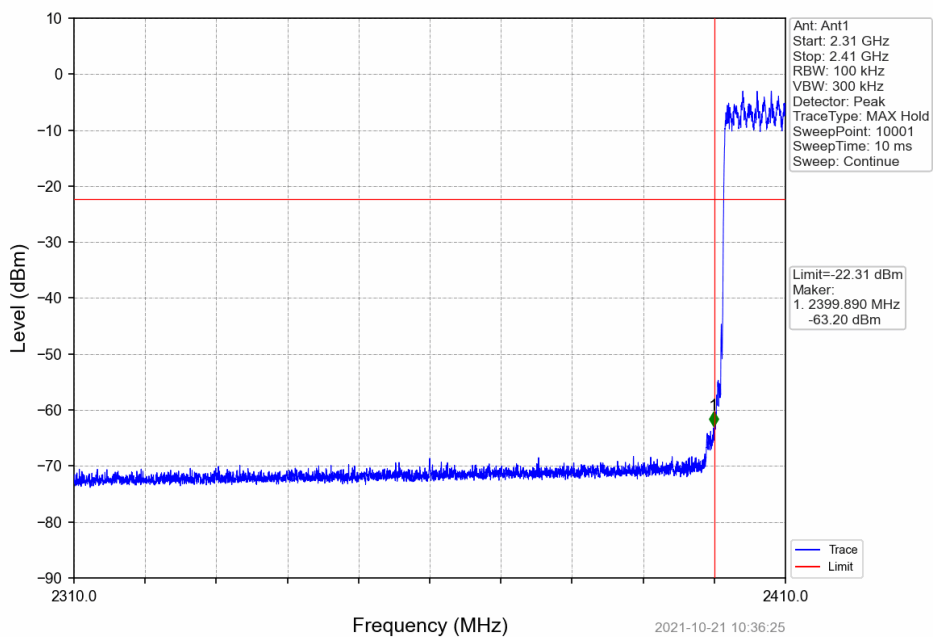
Pi/4DQPSK\_2DH5\_HCH\_2480MHz\_Ant1\_NTNV



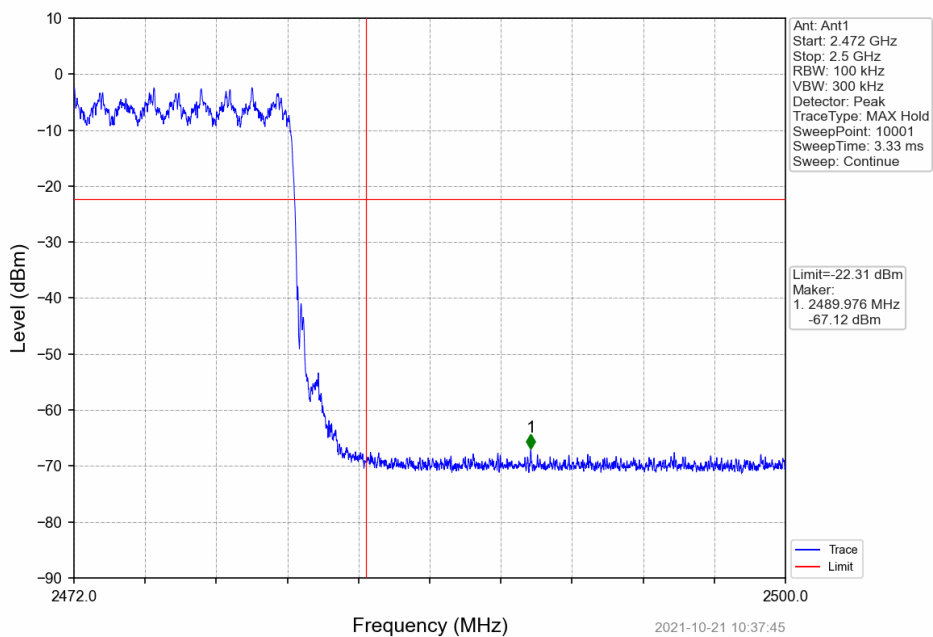
Pi/4DQPSK\_2DH5\_HCH\_2480MHz\_Ant1\_NTNV



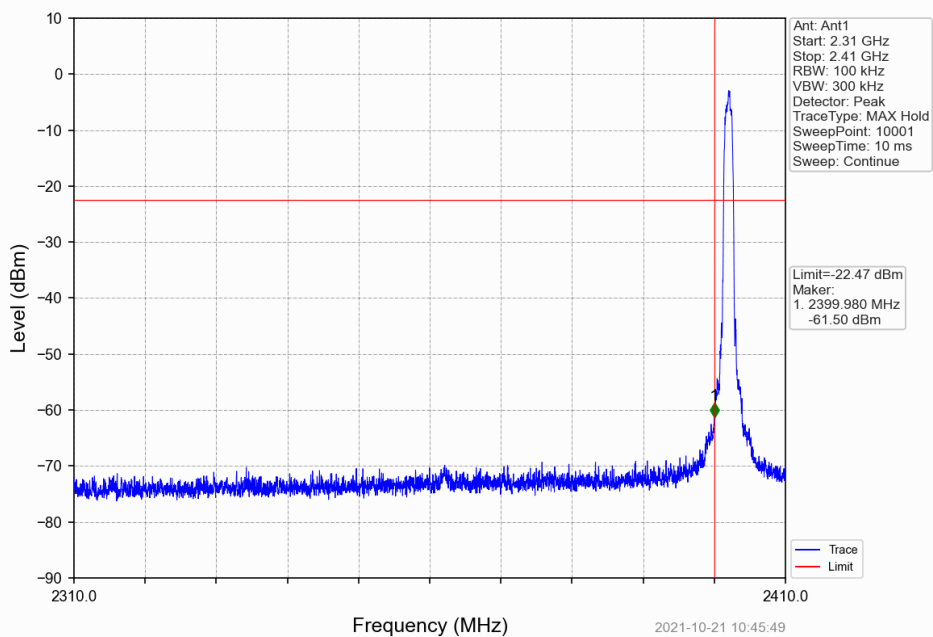
Pi/4DQPSK\_2DH5\_HOPP\_Ant1\_NTNV



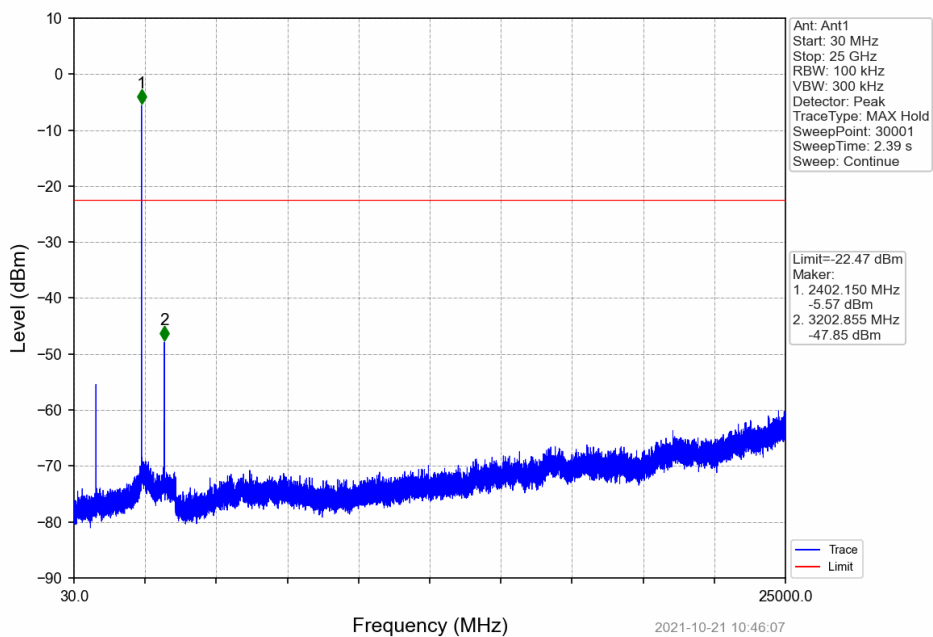
Pi/4DQPSK\_2DH5\_HOPP\_Ant1\_NTNV



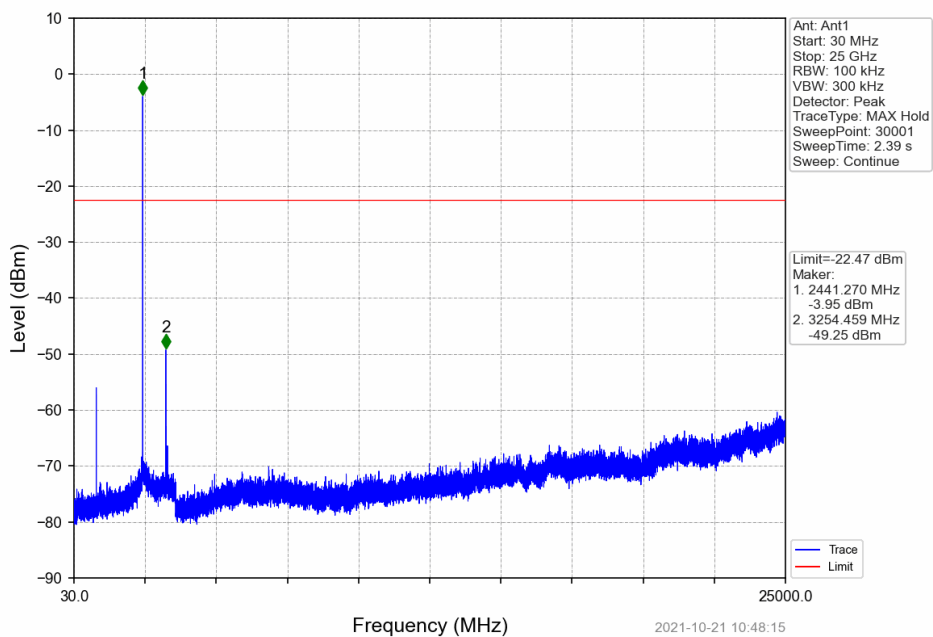
## 8DPSK\_3DH5\_LCH\_2402MHz\_Ant1\_NTNV



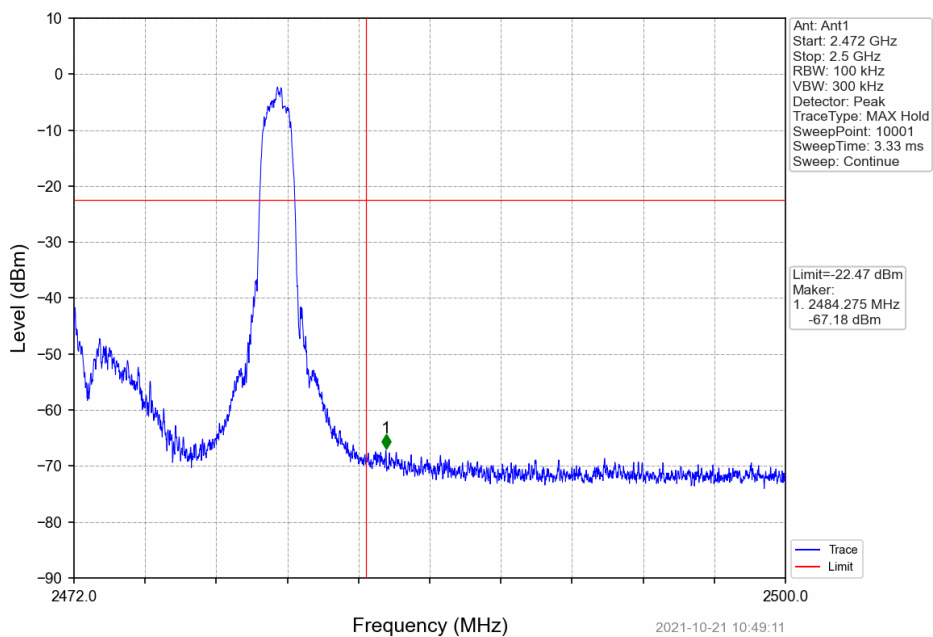
## 8DPSK\_3DH5\_LCH\_2402MHz\_Ant1\_NTNV



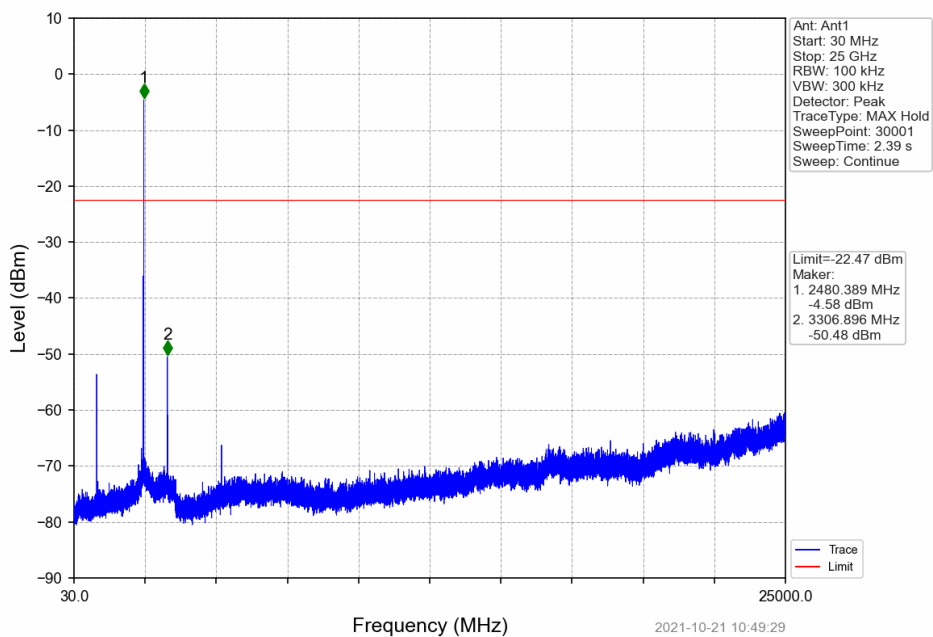
## 8DPSK\_3DH5\_MCH\_2441MHz\_Ant1\_NTNV



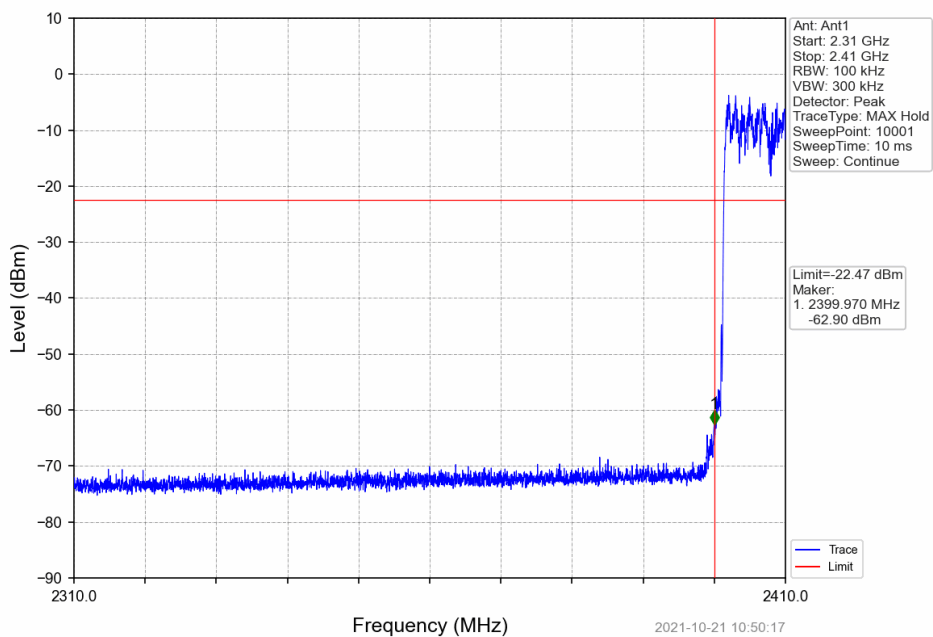
## 8DPSK\_3DH5\_HCH\_2480MHz\_Ant1\_NTNV

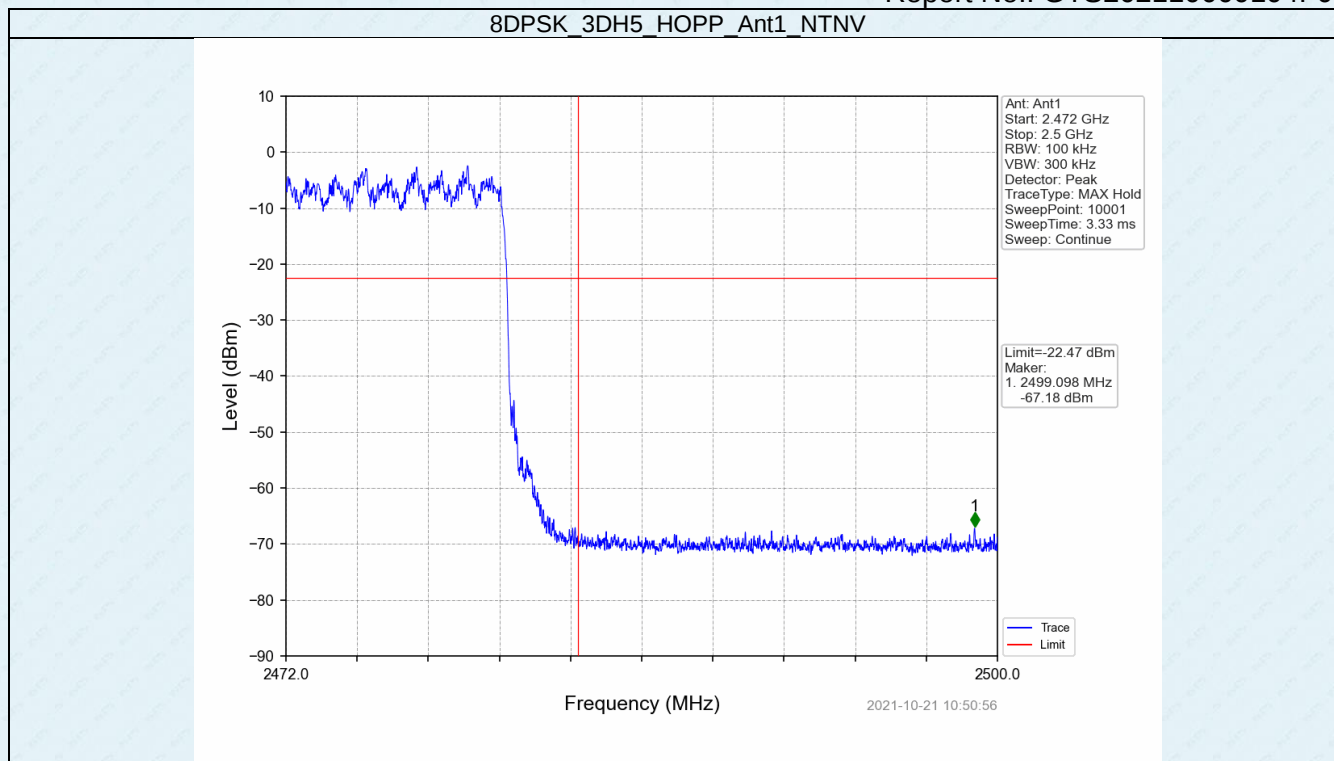


## 8DPSK\_3DH5\_HCH\_2480MHz\_Ant1\_NTNV



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





-----End-----