

## 1. Bandwidth

### 1.1 Test Result

#### 1.1.1 OBW

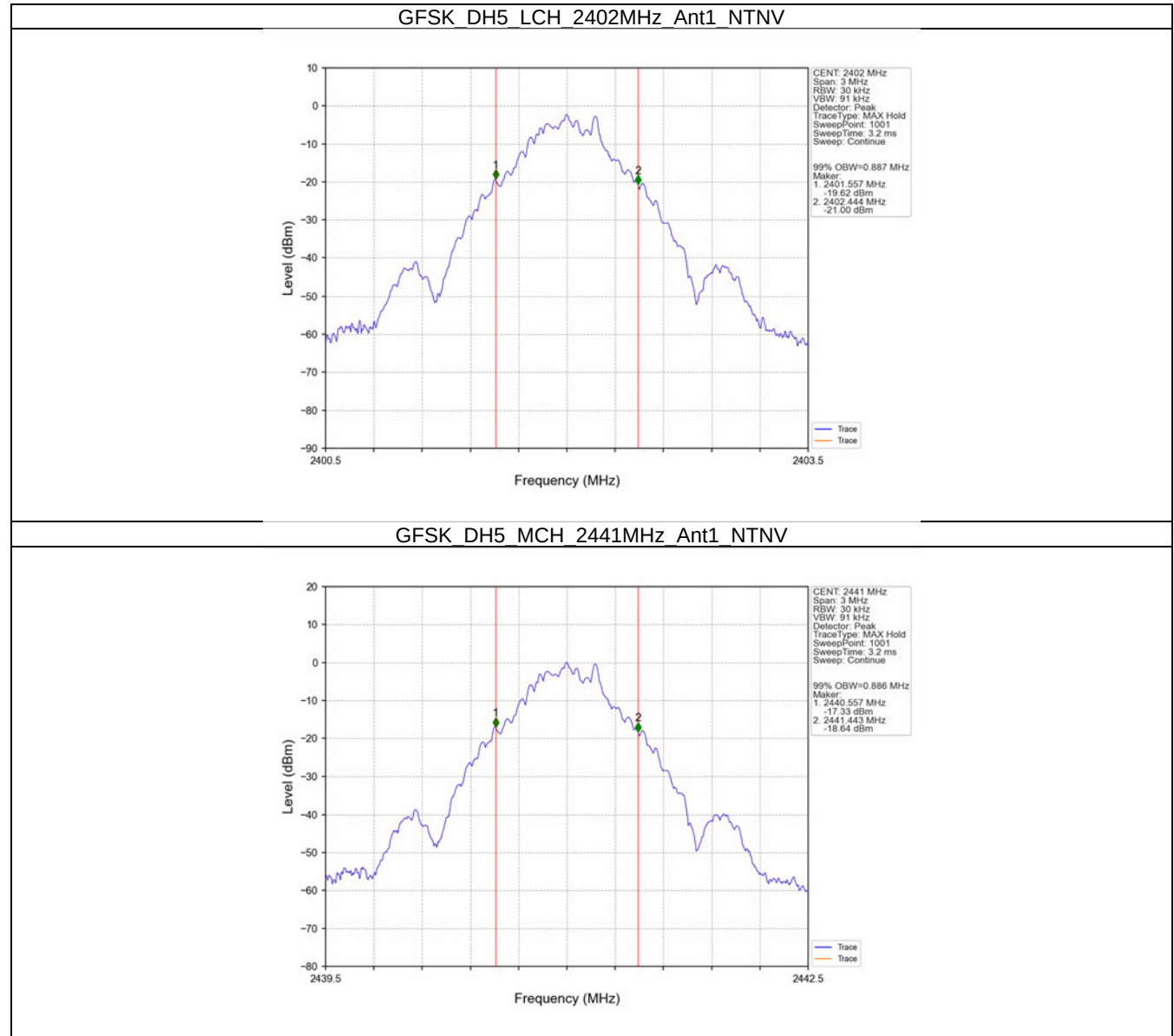
| Mode      | TX Type | Frequency (MHz) | Packet Type | ANT | 99% Occupied Bandwidth (MHz) |       | Verdict |
|-----------|---------|-----------------|-------------|-----|------------------------------|-------|---------|
|           |         |                 |             |     | Result                       | Limit |         |
| GFSK      | SISO    | 2402            | DH5         | 1   | 0.887                        | /     | Pass    |
|           |         | 2441            | DH5         | 1   | 0.886                        | /     | Pass    |
|           |         | 2480            | DH5         | 1   | 0.885                        | /     | Pass    |
| Pi/4DQPSK | SISO    | 2402            | 2DH5        | 1   | 1.116                        | /     | Pass    |
|           |         | 2441            | 2DH5        | 1   | 1.110                        | /     | Pass    |
|           |         | 2480            | 2DH5        | 1   | 1.109                        | /     | Pass    |
| 8DPSK     | SISO    | 2402            | 3DH5        | 1   | 1.128                        | /     | Pass    |
|           |         | 2441            | 3DH5        | 1   | 1.125                        | /     | Pass    |
|           |         | 2480            | 3DH5        | 1   | 1.123                        | /     | Pass    |

#### 1.1.2 20dB BW

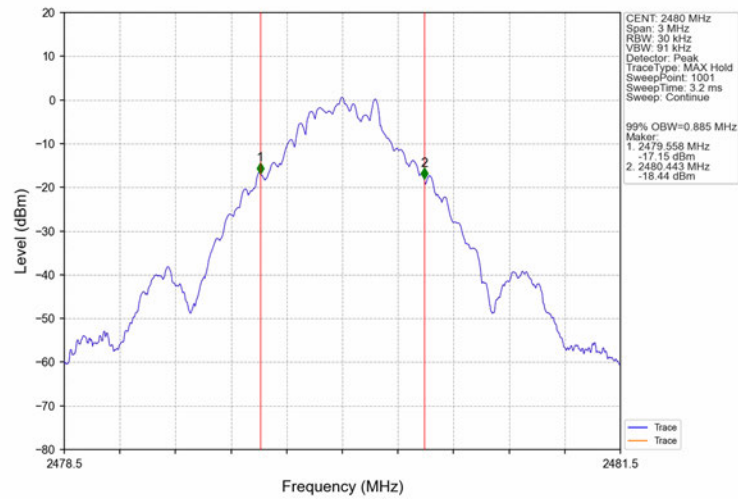
| Mode      | TX Type | Frequency (MHz) | Packet Type | ANT | 20dB Bandwidth (MHz) |       | Verdict |
|-----------|---------|-----------------|-------------|-----|----------------------|-------|---------|
|           |         |                 |             |     | Result               | Limit |         |
| GFSK      | SISO    | 2402            | DH5         | 1   | 0.957                | /     | Pass    |
|           |         | 2441            | DH5         | 1   | 0.957                | /     | Pass    |
|           |         | 2480            | DH5         | 1   | 0.959                | /     | Pass    |
| Pi/4DQPSK | SISO    | 2402            | 2DH5        | 1   | 1.199                | /     | Pass    |
|           |         | 2441            | 2DH5        | 1   | 1.195                | /     | Pass    |
|           |         | 2480            | 2DH5        | 1   | 1.197                | /     | Pass    |
| 8DPSK     | SISO    | 2402            | 3DH5        | 1   | 1.215                | /     | Pass    |
|           |         | 2441            | 3DH5        | 1   | 1.209                | /     | Pass    |
|           |         | 2480            | 3DH5        | 1   | 1.208                | /     | Pass    |

## 1.2 Test Graph

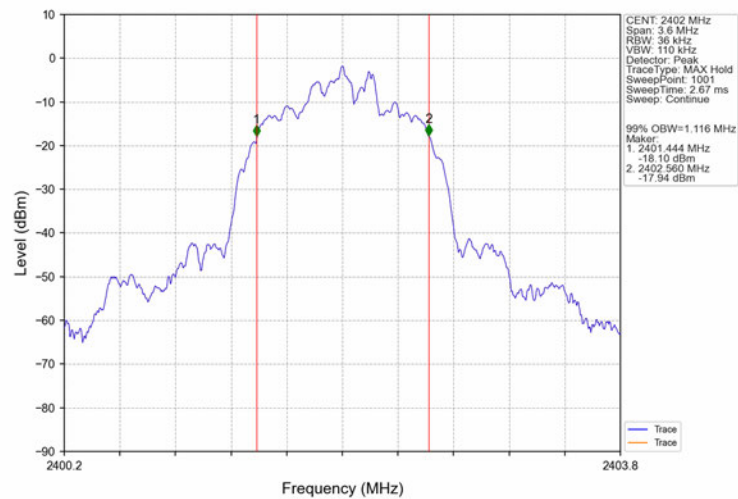
### 1.2.1 OBW



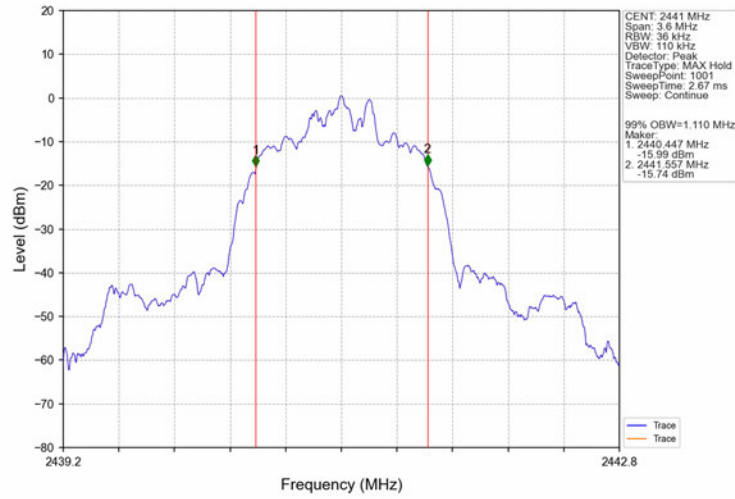
## GFSK\_DH5\_HCH\_2480MHz\_Ant1\_NTNV



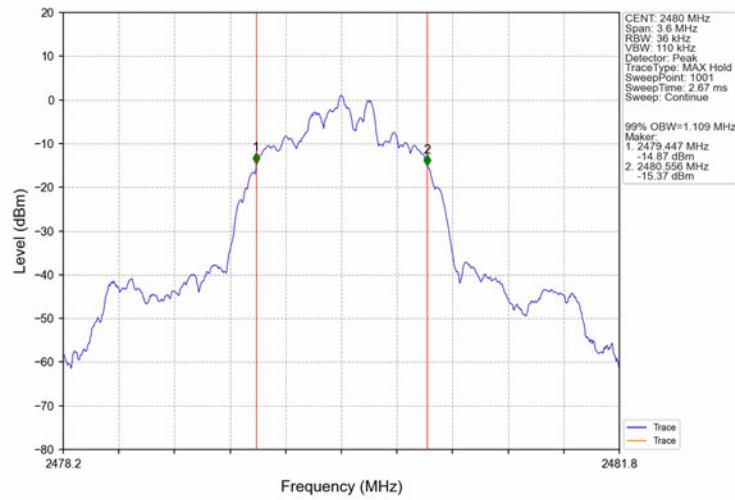
## Pi/4DQPSK\_2DH5\_LCH\_2402MHz\_Ant1\_NTNV



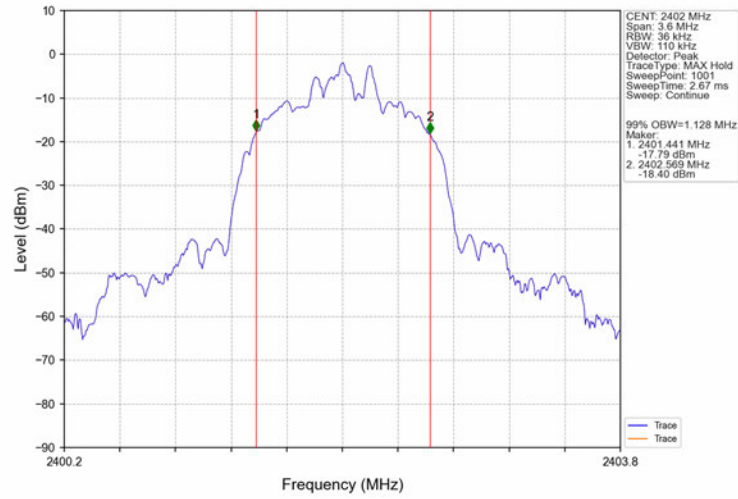
## Pi/4DQPSK\_2DH5\_MCH\_2441MHz\_Ant1\_NTNV



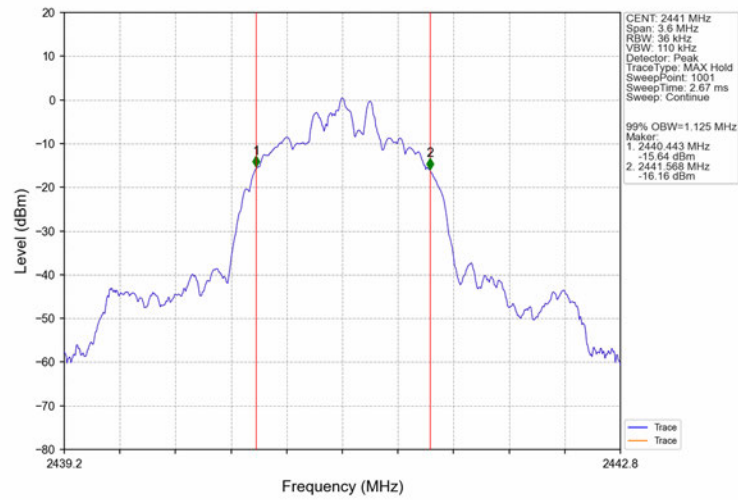
## Pi/4DQPSK\_2DH5\_HCH\_2480MHz\_Ant1\_NTNV



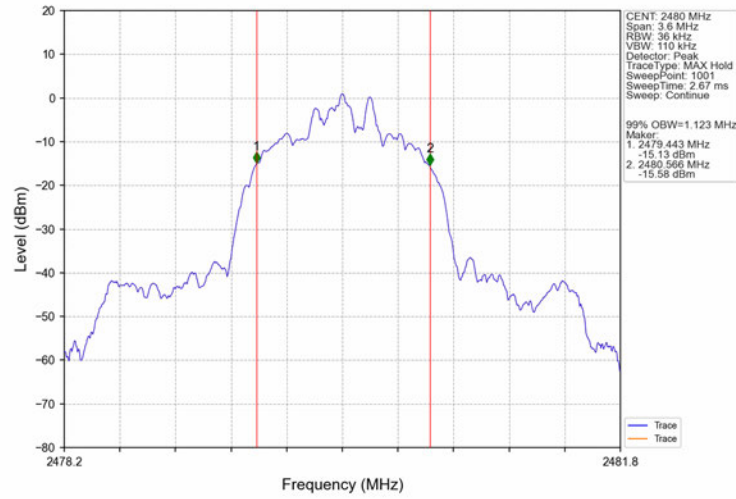
## 8DPSK\_3DH5\_LCH\_2402MHz\_Ant1\_NTNV



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

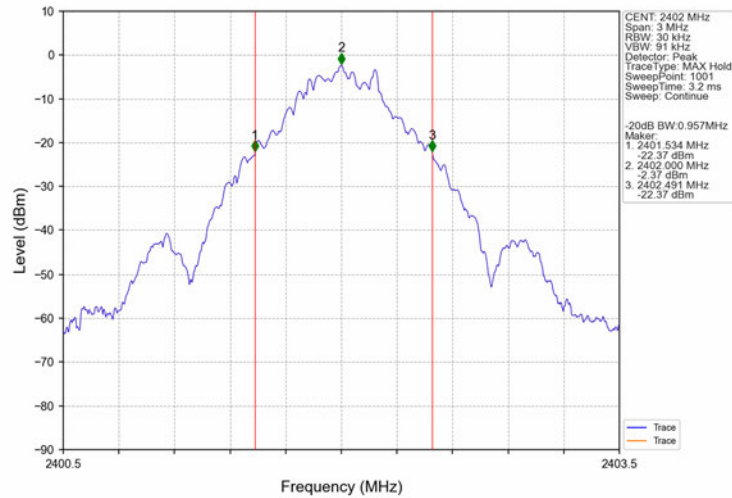


## 8DPSK\_3DH5\_HCH\_2480MHz\_Ant1\_NTNV

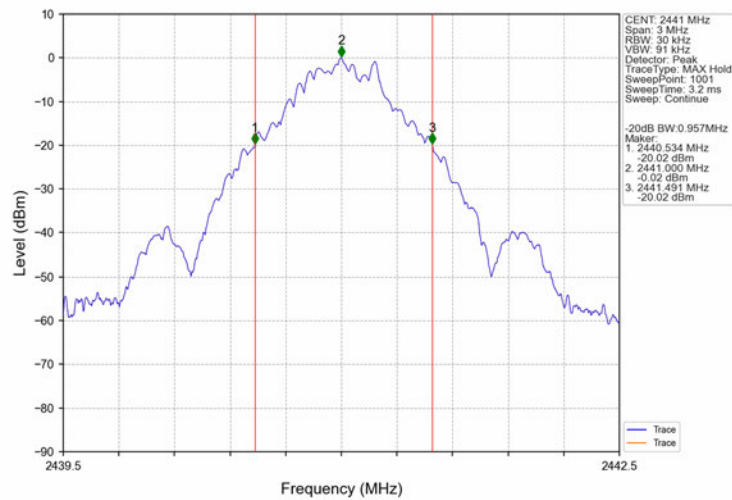


### 1.2.2 20dB BW

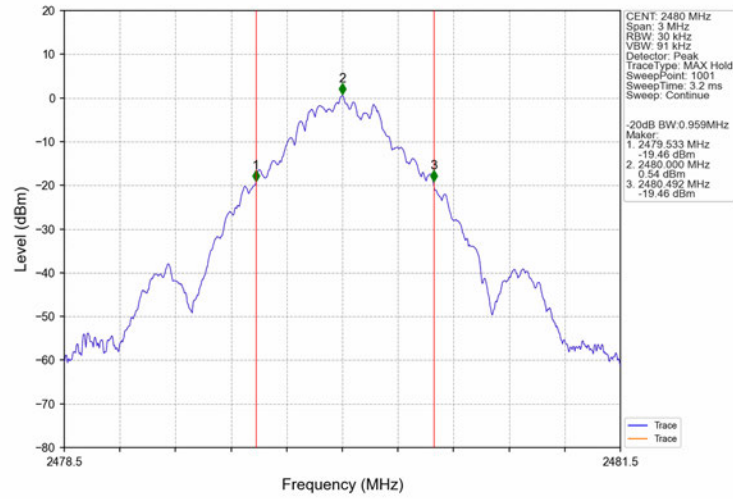
GFSK DH5 LCH 2402MHz Ant1 NTN



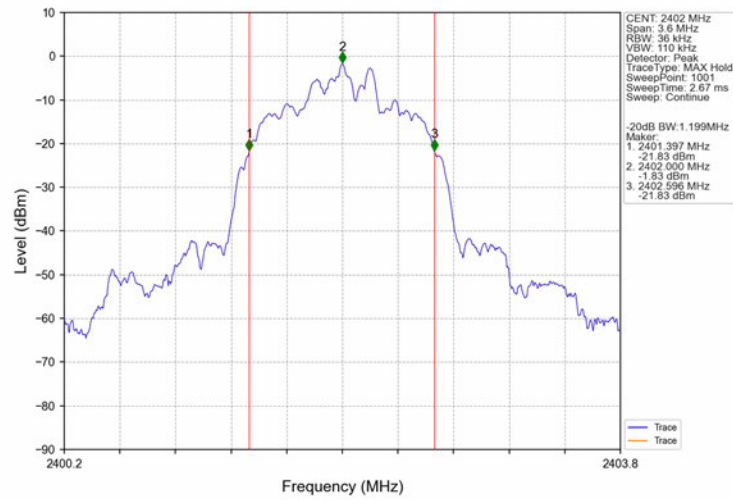
GFSK DH5 MCH 2441MHz Ant1 NTN



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

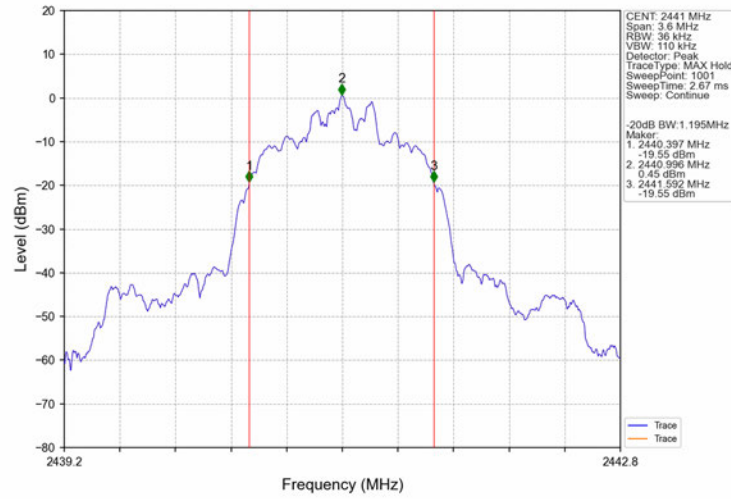


## Pi/4DQPSK\_2DH5\_LCH\_2402MHz\_Ant1\_NTNV

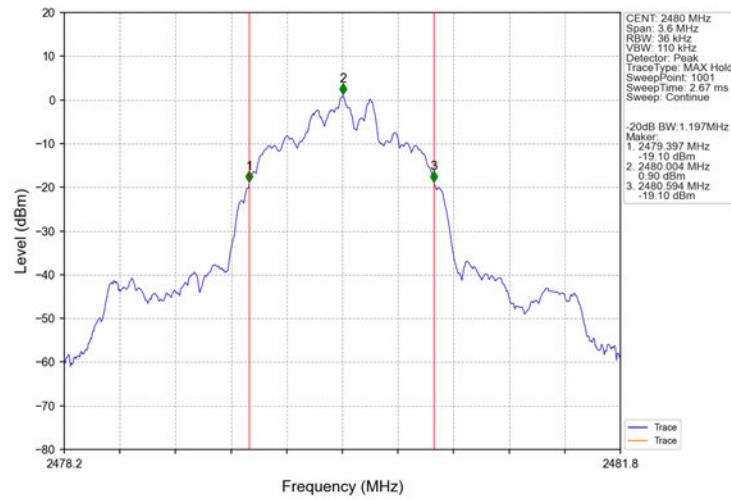




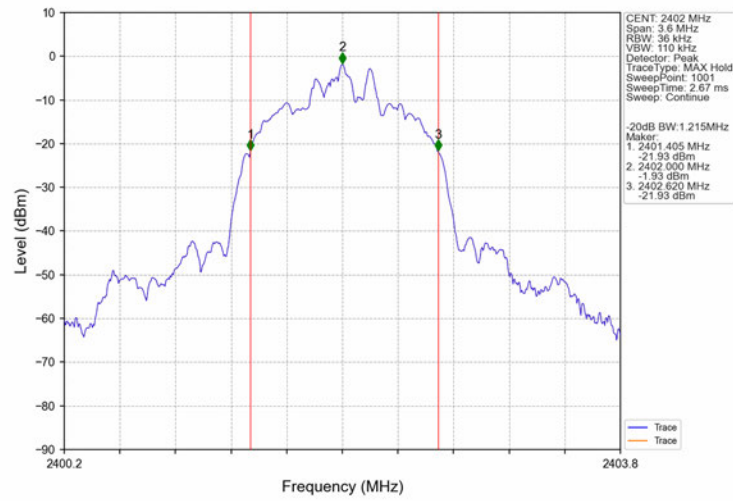
## Pi/4DQPSK\_2DH5\_MCH\_2441MHz\_Ant1\_NTNV



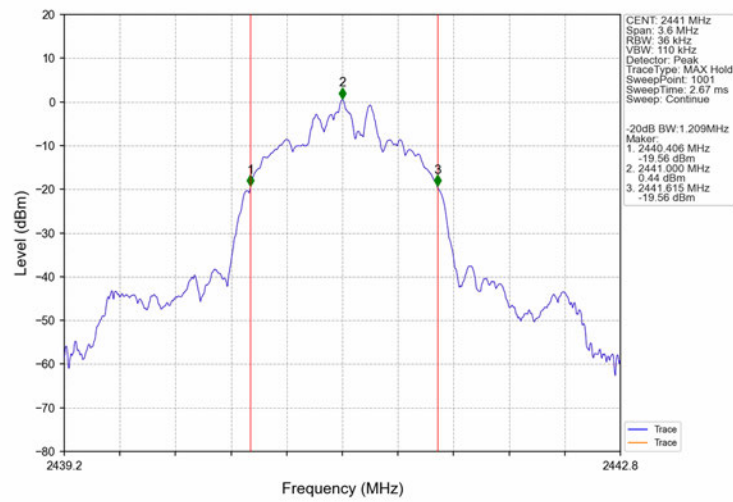
## Pi/4DQPSK\_2DH5\_HCH\_2480MHz\_Ant1\_NTNV



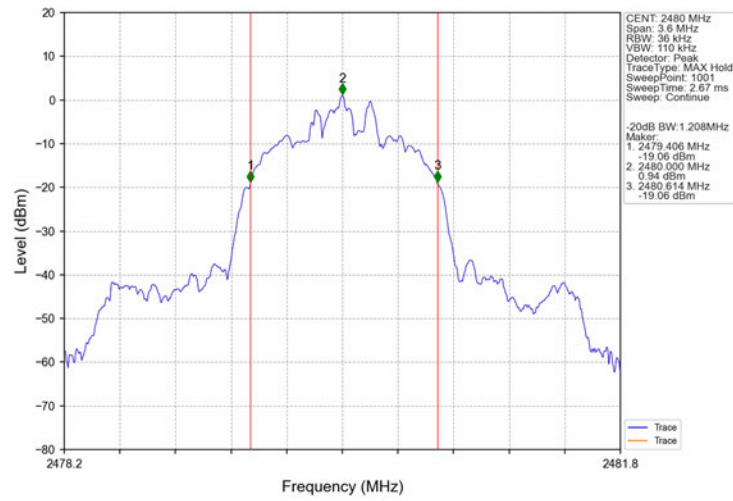
## 8DPSK\_3DH5\_LCH\_2402MHz\_Ant1\_NTNV



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



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



## 2. Maximum Conducted Output Power

### 2.1 Test Result

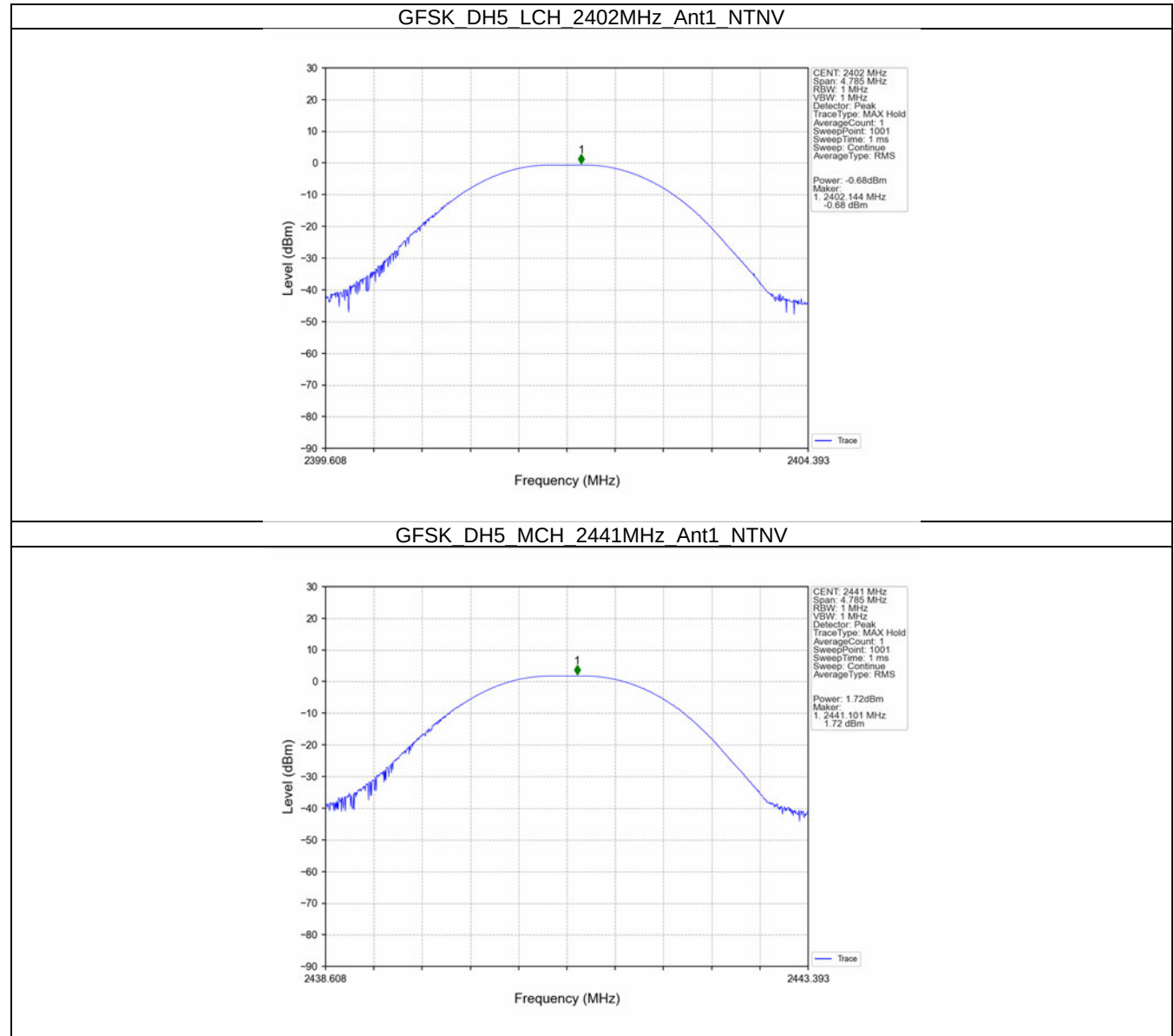
#### 2.1.1 Power

| Mode      | TX Type | Frequency (MHz) | Packet Type | Maximum Peak Conducted Output Power (dBm) |              | Verdict |
|-----------|---------|-----------------|-------------|-------------------------------------------|--------------|---------|
|           |         |                 |             | ANT1                                      | Limit        |         |
| GFSK      | SISO    | 2402            | DH5         | -0.68                                     | $\leq 30$    | Pass    |
|           |         | 2441            | DH5         | 1.72                                      | $\leq 30$    | Pass    |
|           |         | 2480            | DH5         | 2.27                                      | $\leq 30$    | Pass    |
| Pi/4DQPSK | SISO    | 2402            | 2DH5        | -0.66                                     | $\leq 20.97$ | Pass    |
|           |         | 2441            | 2DH5        | 1.76                                      | $\leq 20.97$ | Pass    |
|           |         | 2480            | 2DH5        | 2.31                                      | $\leq 20.97$ | Pass    |
| 8DPSK     | SISO    | 2402            | 3DH5        | -0.63                                     | $\leq 20.97$ | Pass    |
|           |         | 2441            | 3DH5        | 1.77                                      | $\leq 20.97$ | Pass    |
|           |         | 2480            | 3DH5        | 2.31                                      | $\leq 20.97$ | Pass    |

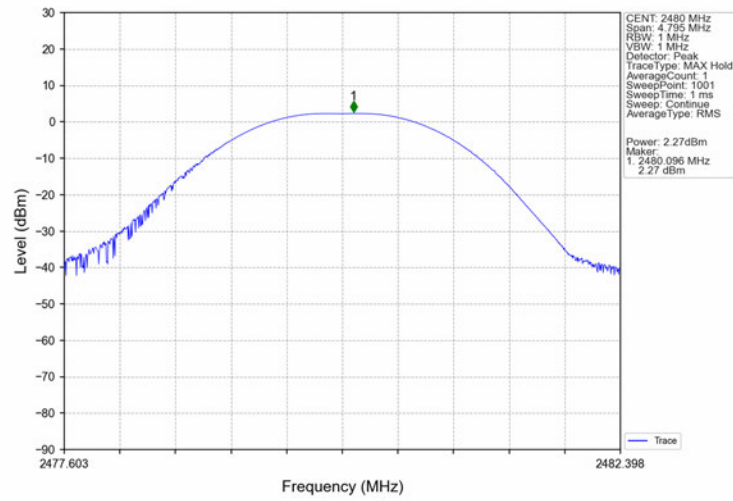
Note1: Antenna Gain: Ant1: 1.90dBi;

## 2.2 Test Graph

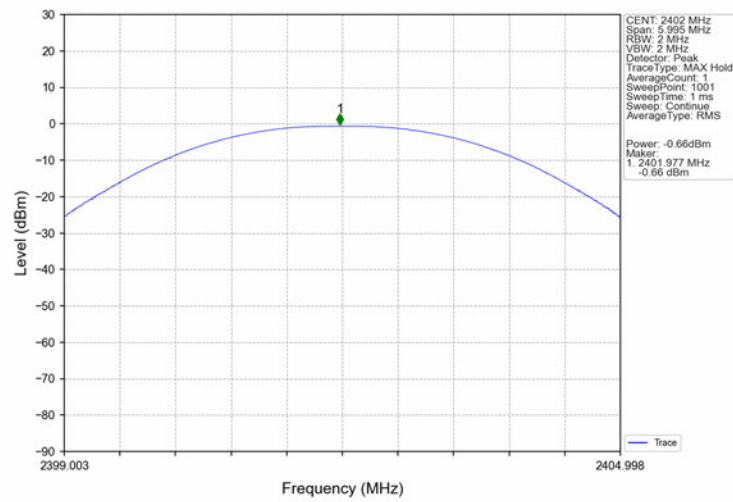
### 2.2.1 Power



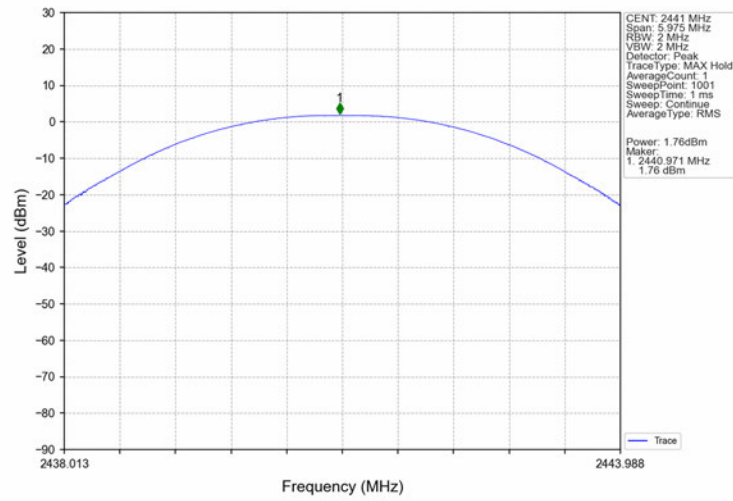
## GFSK\_DH5\_HCH\_2480MHz\_Ant1\_NTNV



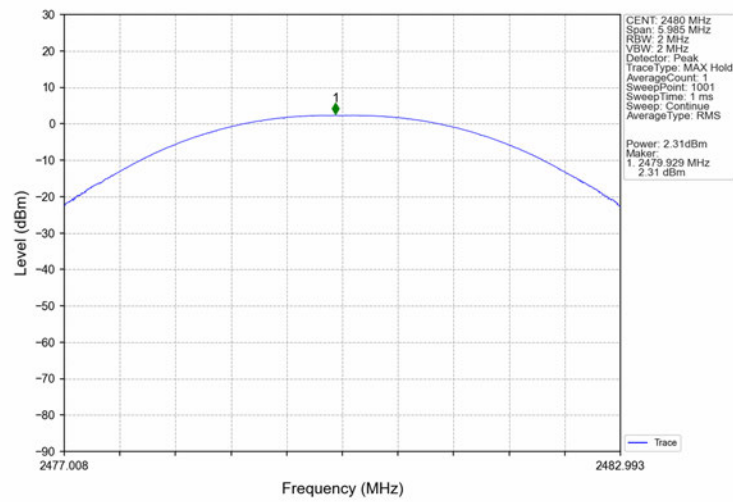
## Pi/4DQPSK\_2DH5\_LCH\_2402MHz\_Ant1\_NTNV



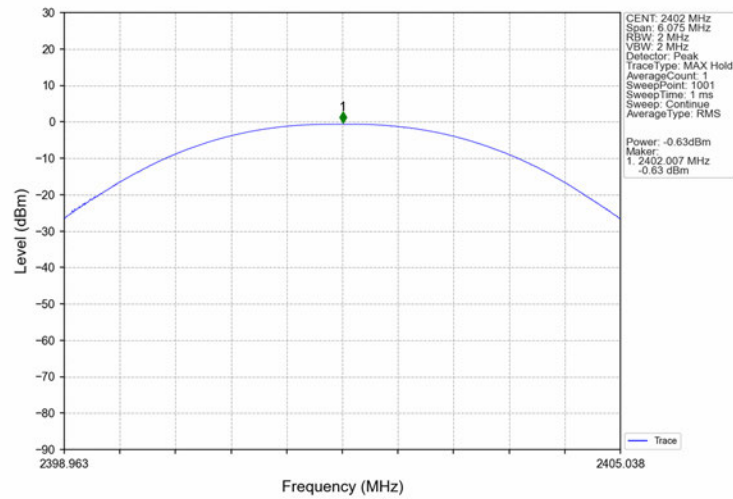
### Pi/4DQPSK\_2DH5\_MCH\_2441MHz\_Ant1\_NTNV



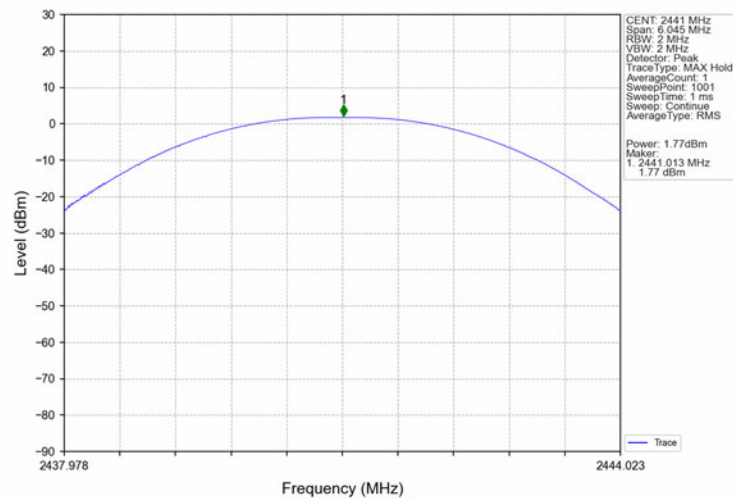
### Pi/4DQPSK\_2DH5\_HCH\_2480MHz\_Ant1\_NTNV



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

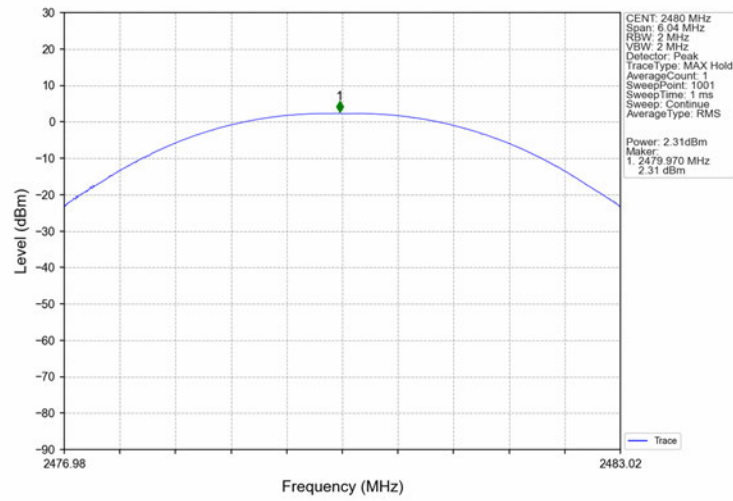


## 8DPSK\_3DH5\_MCH\_2441MHz\_Ant1\_NTNV





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



### 3. Carrier Frequency Separation

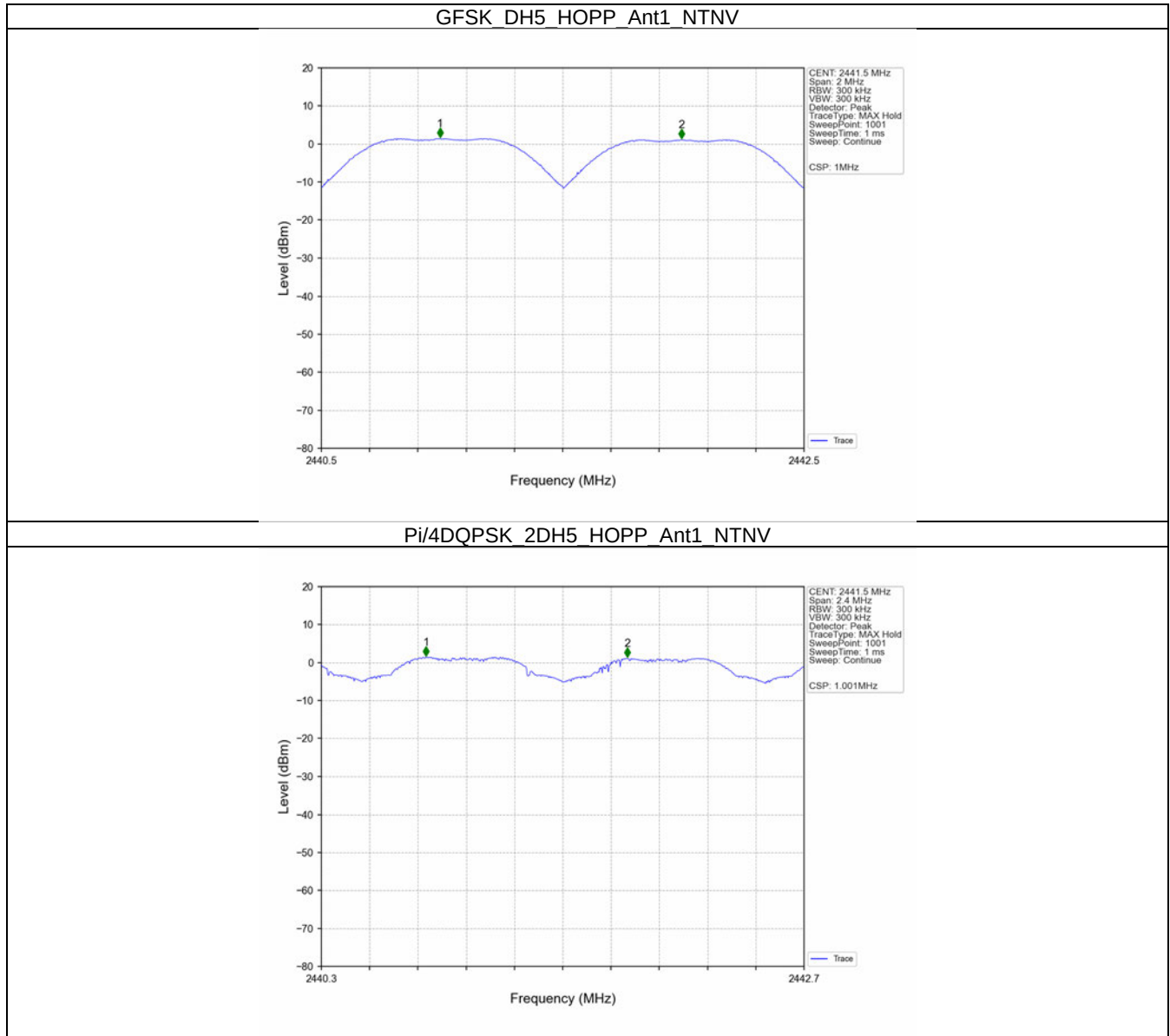
#### 3.1 Test Result

##### 3.1.1 Ant1

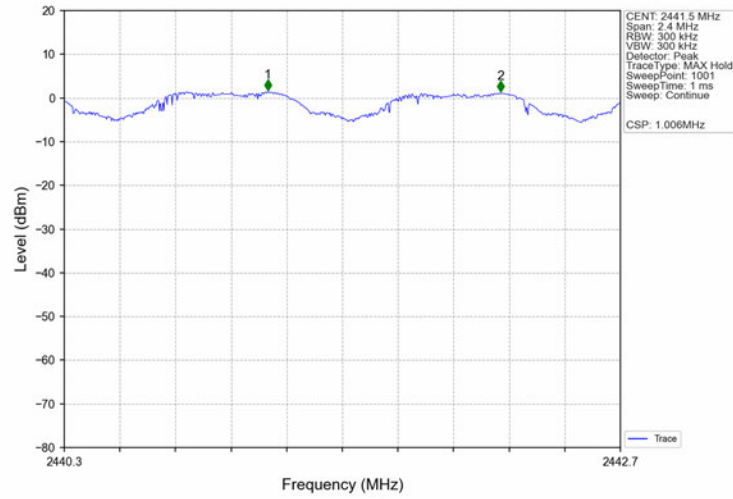
| Ant1      |         |                 |             |                          |                      |              |         |
|-----------|---------|-----------------|-------------|--------------------------|----------------------|--------------|---------|
| Mode      | TX Type | Frequency (MHz) | Packet Type | Channel Separation (MHz) | 20dB Bandwidth (MHz) | Limit (MHz)  | Verdict |
| GFSK      | SISO    | HOPP            | DH5         | 1.000                    | 0.959                | $\geq 0.959$ | Pass    |
| PI/4DQPSK | SISO    | HOPP            | 2DH5        | 1.001                    | 1.199                | $\geq 0.799$ | Pass    |
| 8DPSK     | SISO    | HOPP            | 3DH5        | 1.006                    | 1.215                | $\geq 0.81$  | Pass    |

## 3.2 Test Graph

### 3.2.1 Ant1



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



## 4. Number of Hopping Frequencies

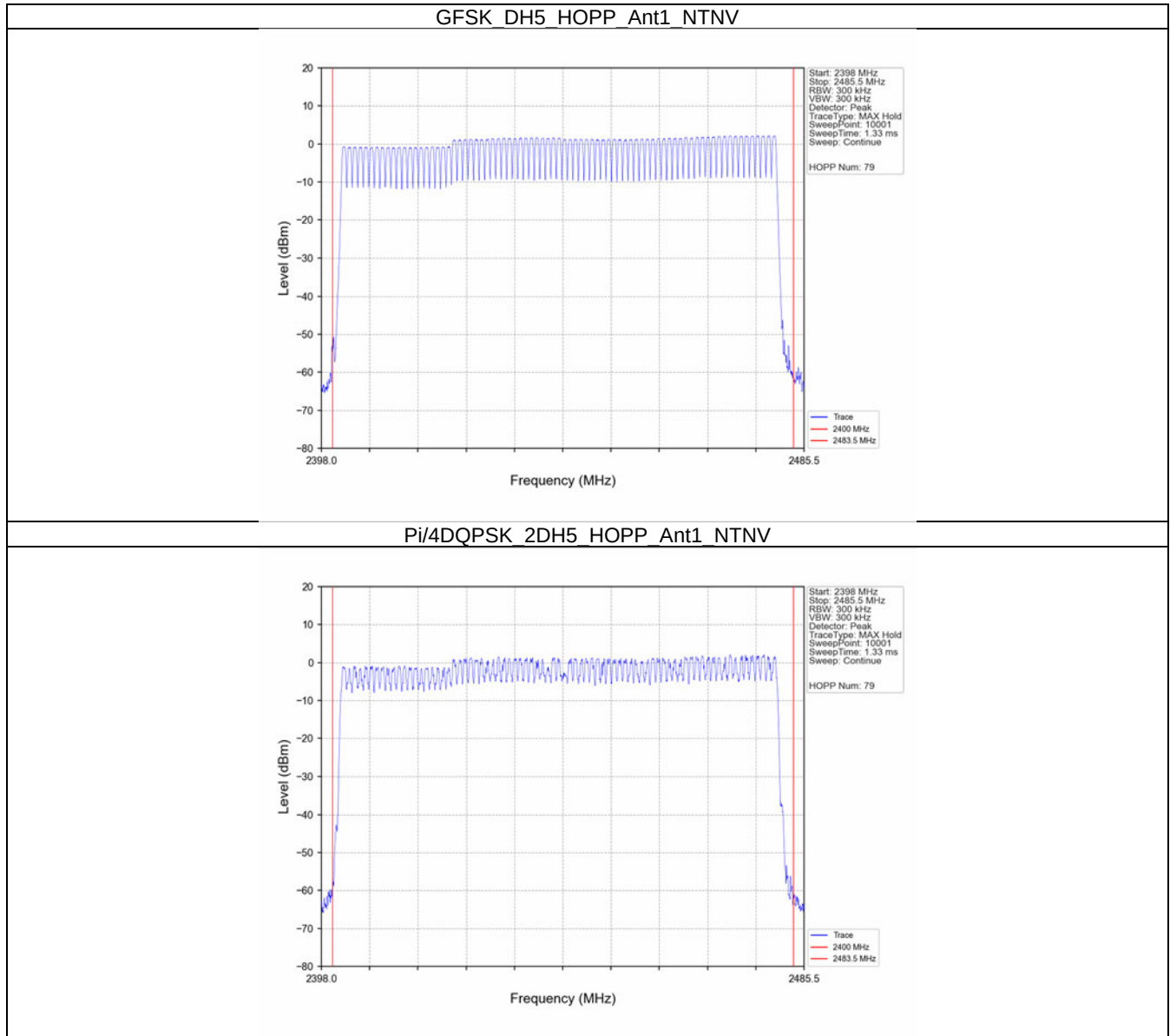
### 4.1 Test Result

#### 4.1.1 HoppNum

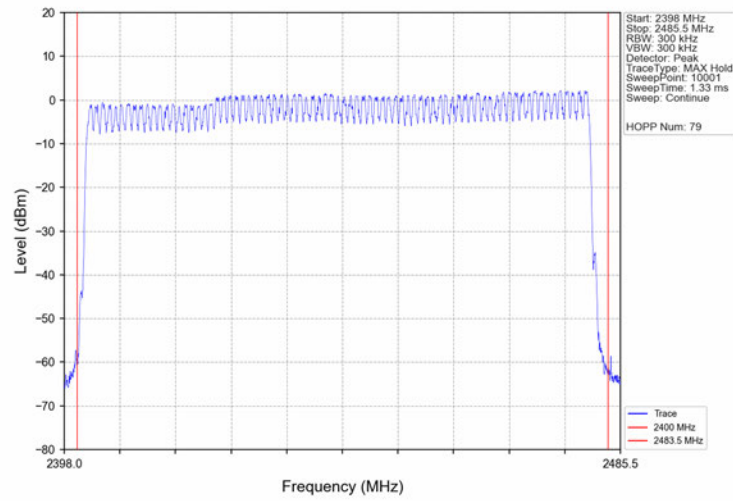
| Mode      | TX Type | Frequency (MHz) | Packet Type | Num of Hopping Frequencies |           | Verdict |
|-----------|---------|-----------------|-------------|----------------------------|-----------|---------|
|           |         |                 |             | ANT1                       | Limit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

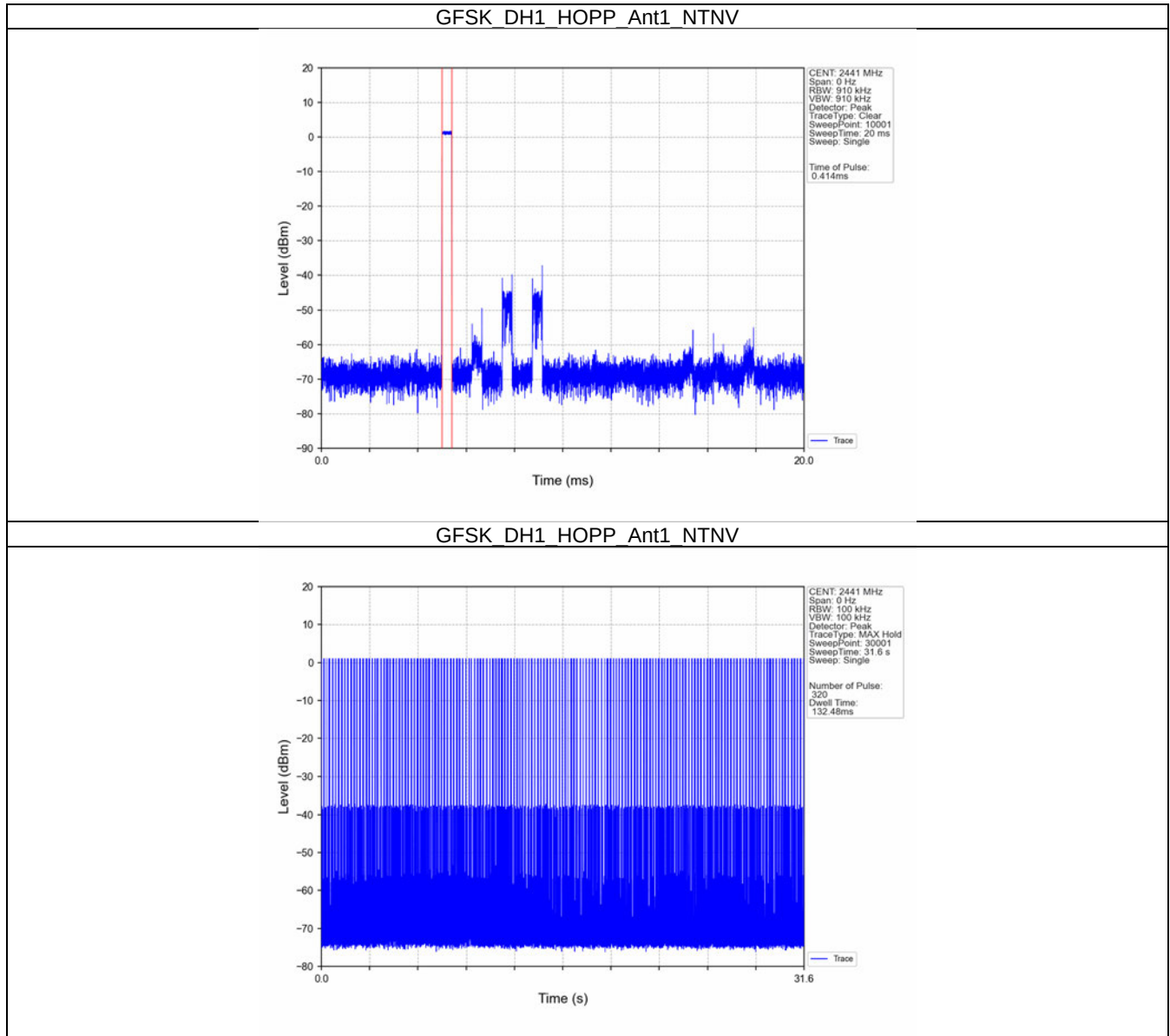
#### 5.1.1 Ant1

| 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         | 0.414                         | 31.600                 | 320                                | 132.480         | <=400      | Pass    |
|           |         |                 | DH3         | 1.670                         | 31.600                 | 157                                | 262.190         | <=400      | Pass    |
|           |         |                 | DH5         | 2.918                         | 31.600                 | 101                                | 294.718         | <=400      | Pass    |
| Pi/4DQPSK | SISO    | HOPP            | 2DH1        | 0.424                         | 31.600                 | 320                                | 135.680         | <=400      | Pass    |
|           |         |                 | 2DH3        | 1.674                         | 31.600                 | 147                                | 246.078         | <=400      | Pass    |
|           |         |                 | 2DH5        | 2.924                         | 31.600                 | 107                                | 312.868         | <=400      | Pass    |
| 8DPSK     | SISO    | HOPP            | 3DH1        | 0.424                         | 31.600                 | 320                                | 135.680         | <=400      | Pass    |
|           |         |                 | 3DH3        | 1.674                         | 31.600                 | 165                                | 276.210         | <=400      | Pass    |
|           |         |                 | 3DH5        | 2.926                         | 31.600                 | 102                                | 298.452         | <=400      | Pass    |

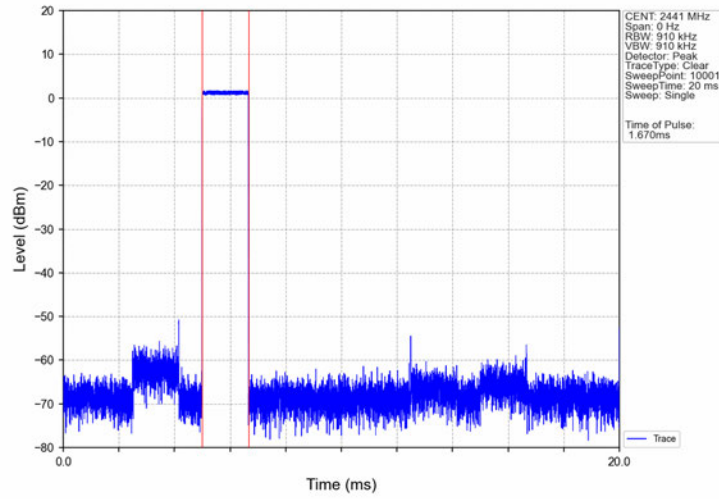


## 5.2 Test Graph

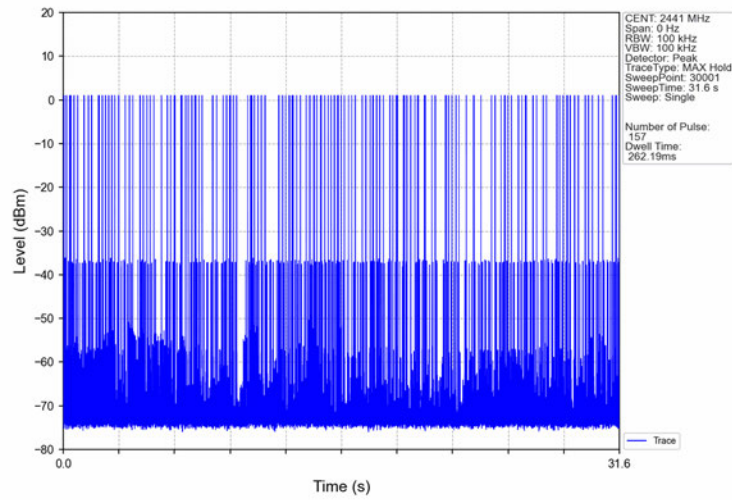
### 5.2.1 Ant1



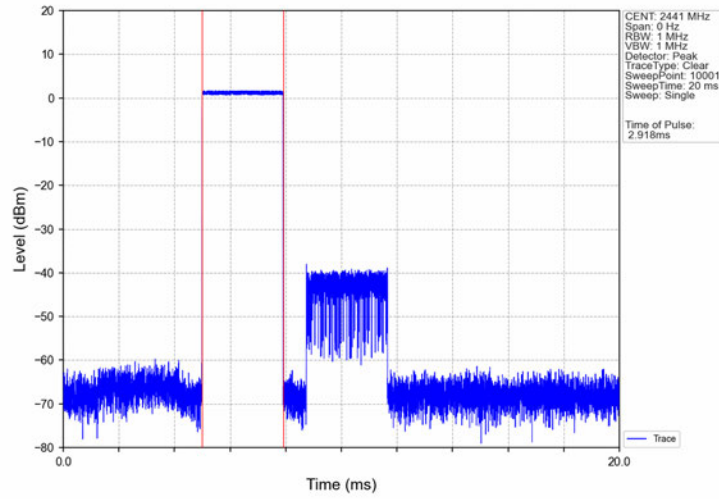
## GFSK\_DH3\_HOPP\_Ant1\_NTNV



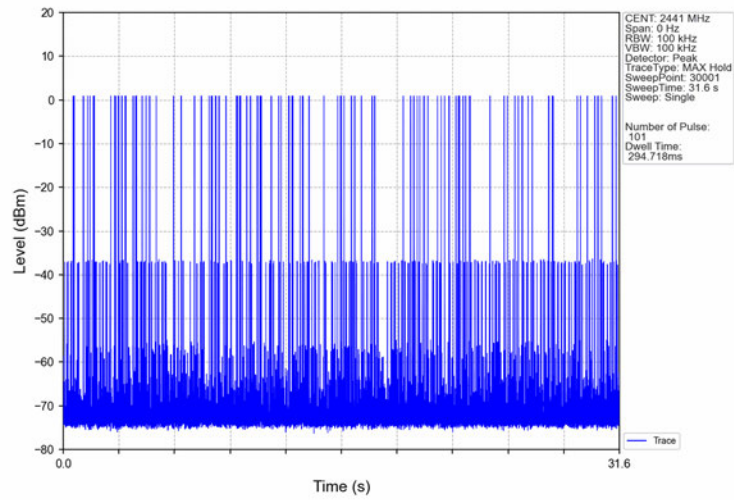
## GFSK\_DH3\_HOPP\_Ant1\_NTNV



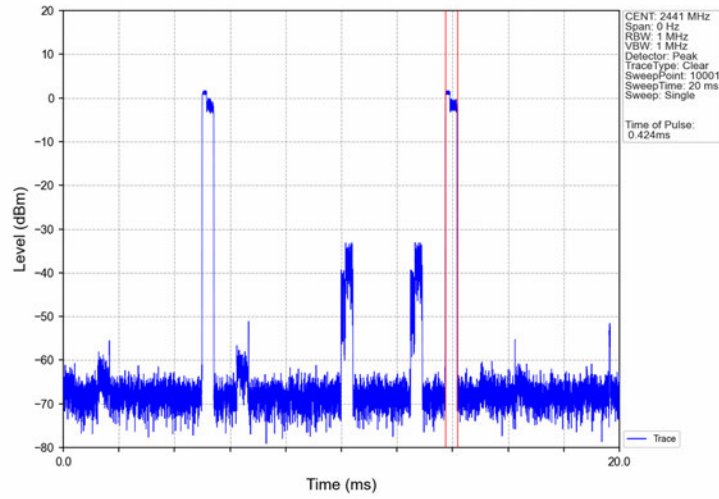
## GFSK\_DH5\_HOPP\_Ant1\_NTNV



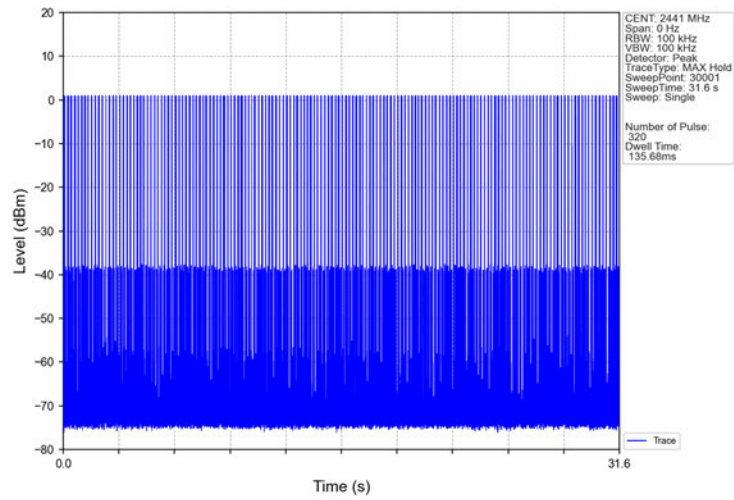
## GFSK\_DH5\_HOPP\_Ant1\_NTNV



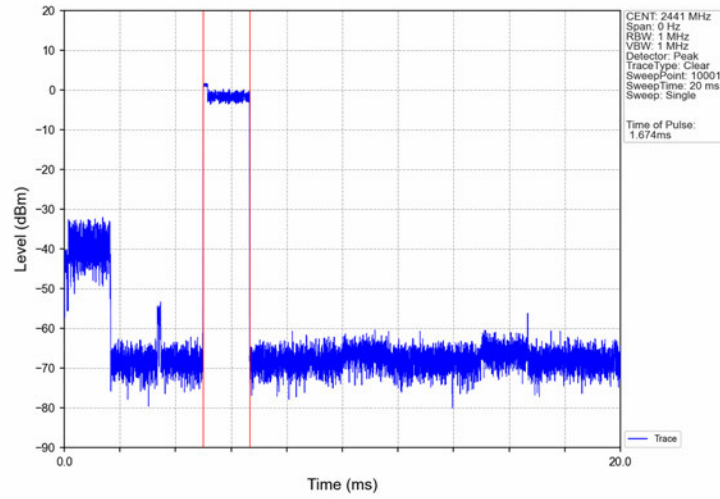
## Pi/4DQPSK\_2DH1\_HOPP\_Ant1\_NTNV



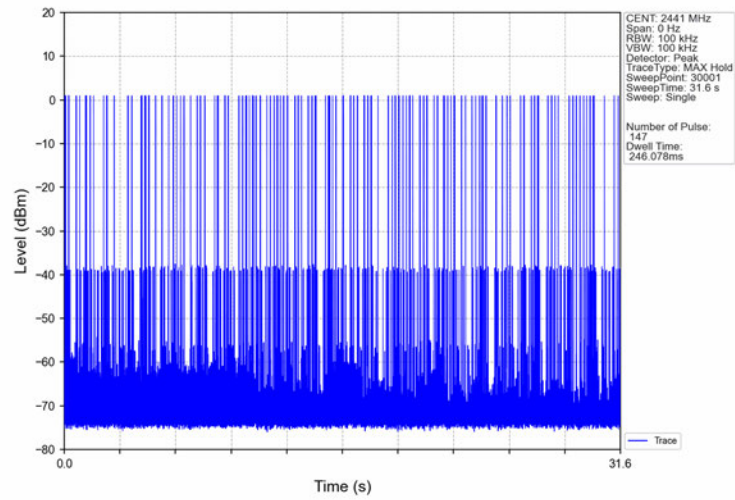
## Pi/4DQPSK\_2DH1\_HOPP\_Ant1\_NTNV



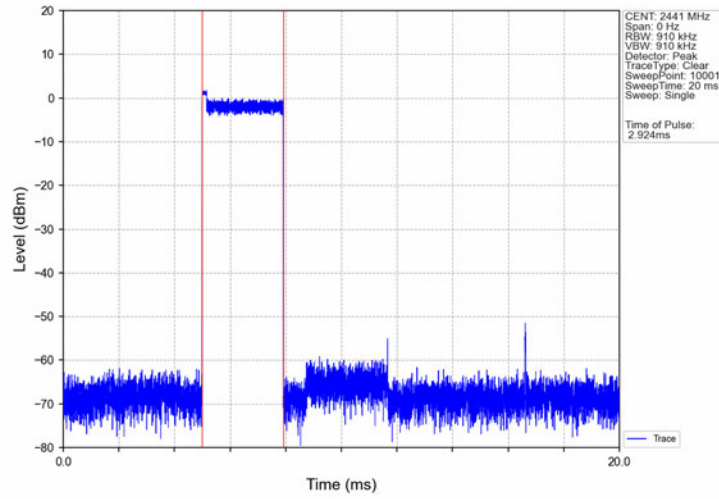
## Pi/4DQPSK\_2DH3\_HOPP\_Ant1\_NTNV



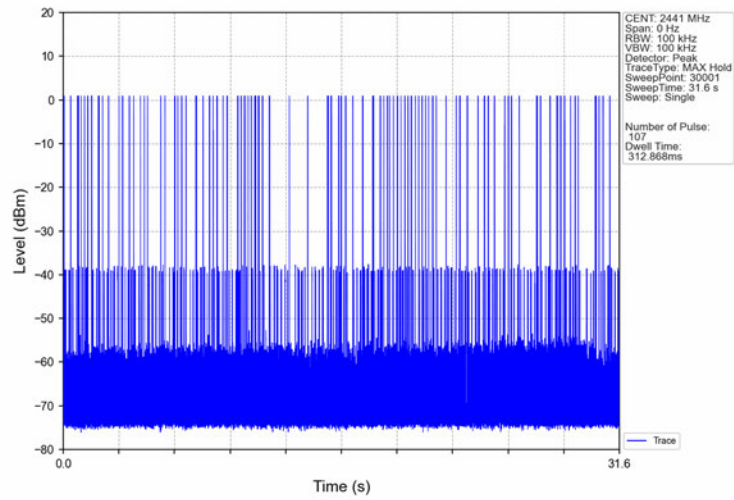
## Pi/4DQPSK\_2DH3\_HOPP\_Ant1\_NTNV



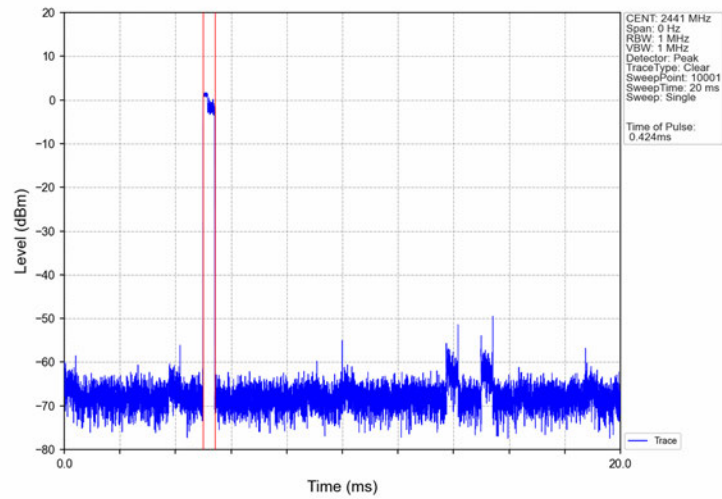
## Pi/4DQPSK\_2DH5\_HOPP\_Ant1\_NTNV



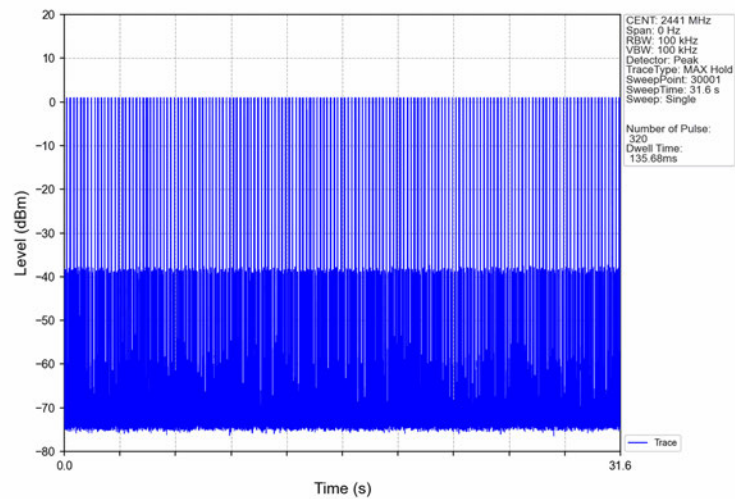
## Pi/4DQPSK\_2DH5\_HOPP\_Ant1\_NTNV



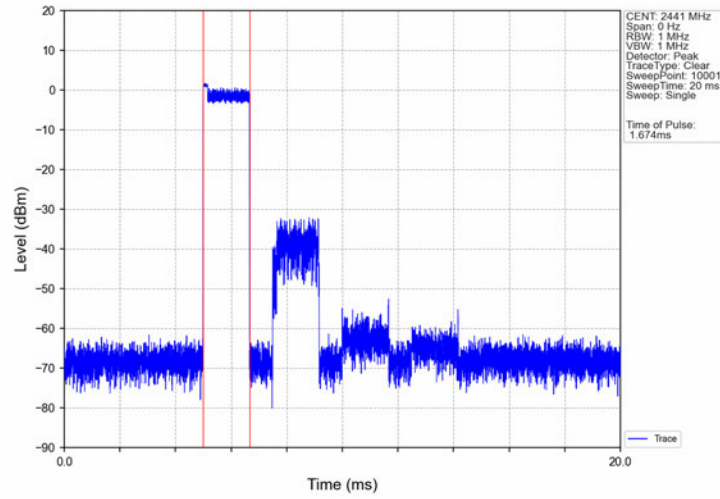
## 8DPSK\_3DH1\_HOPP\_Ant1\_NTNV



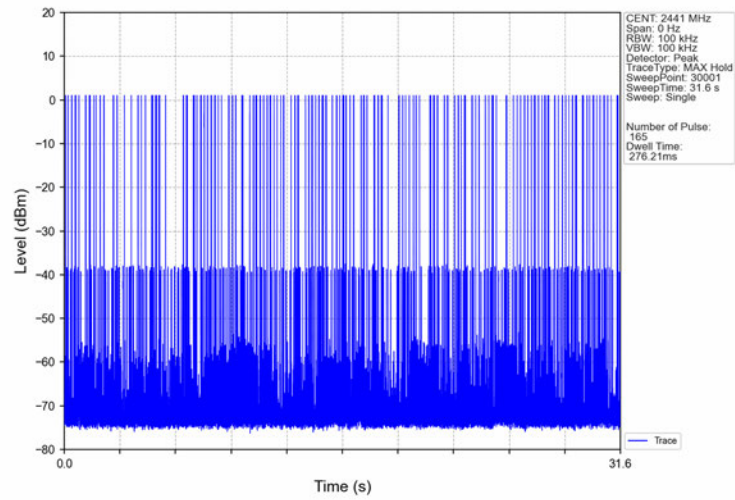
## 8DPSK\_3DH1\_HOPP\_Ant1\_NTNV



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

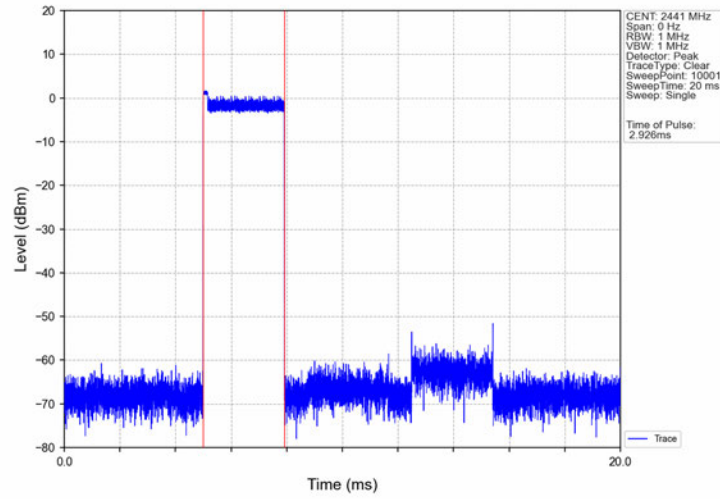


## 8DPSK\_3DH3\_HOPP\_Ant1\_NTNV

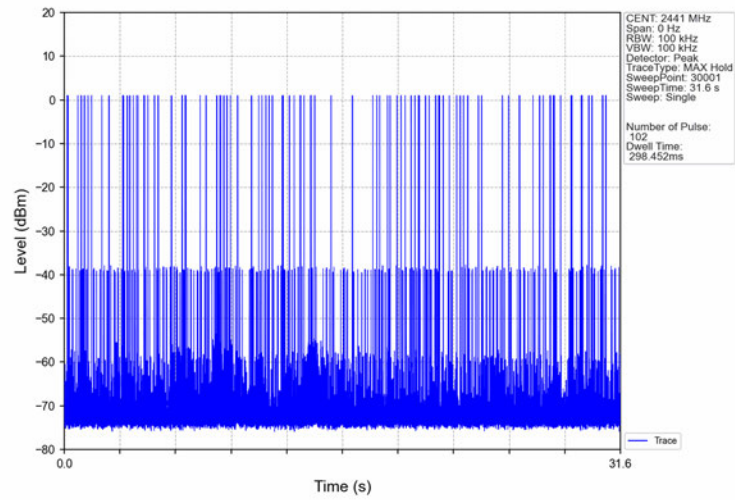




## 8DPSK\_3DH5\_HOPP\_Ant1\_NTNV



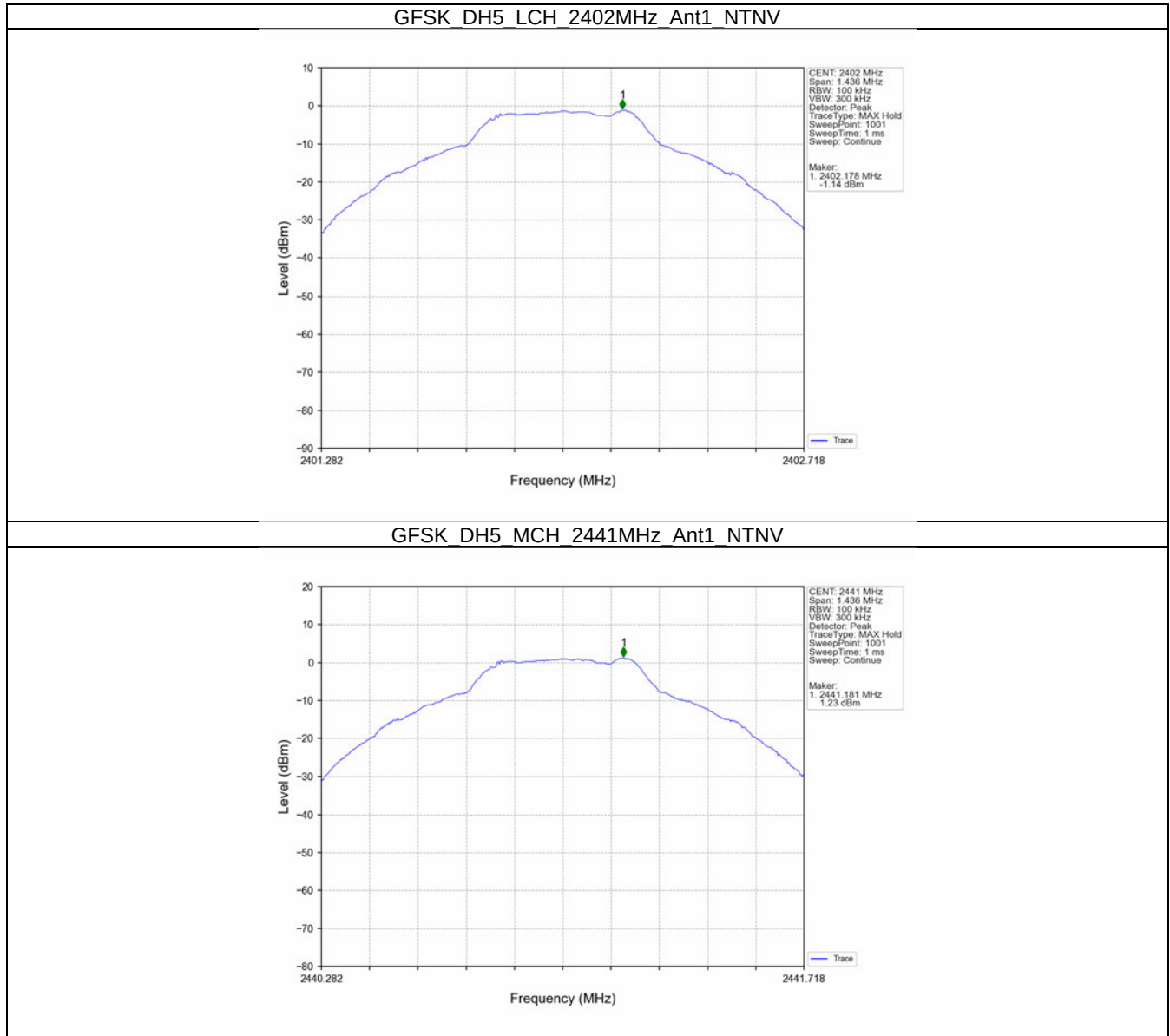
## 8DPSK\_3DH5\_HOPP\_Ant1\_NTNV



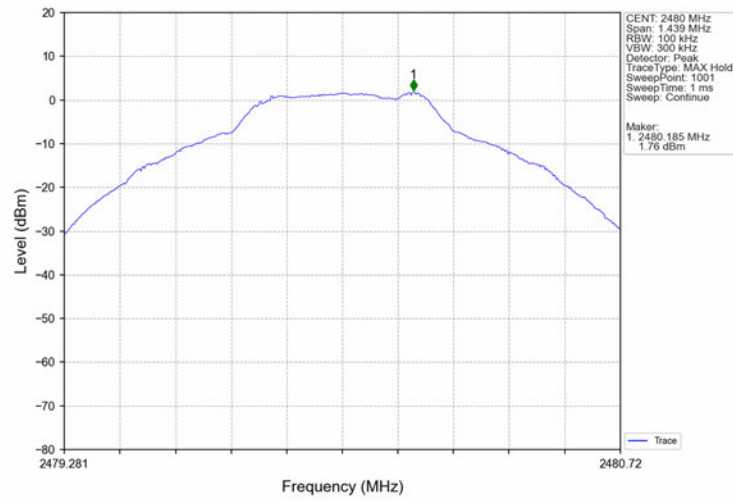
Note1: Refer to FCC Part 15.247 (d) and ANSI C63.10-2013, the channel contains the maximum PSD level was used to establish the reference level.

## 6.2 Test Graph

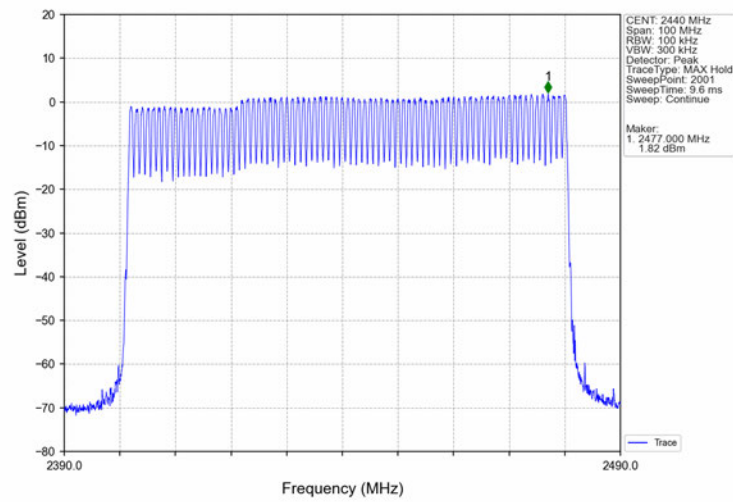
### 6.2.1 Ref



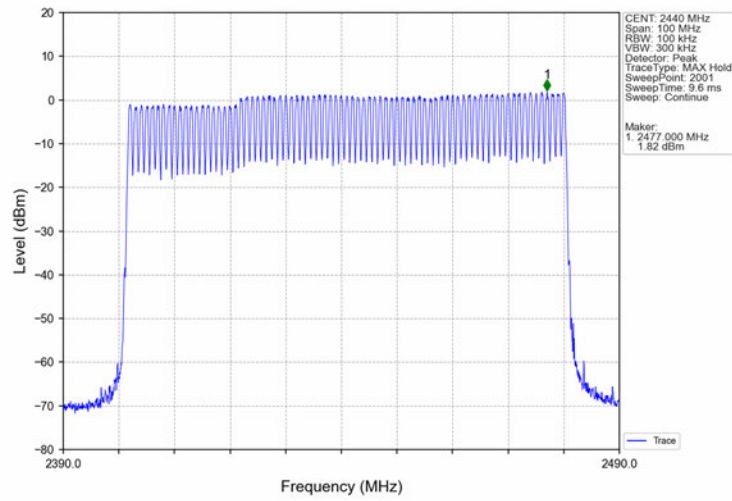
## GFSK\_DH5\_HCH\_2480MHz\_Ant1\_NTNV



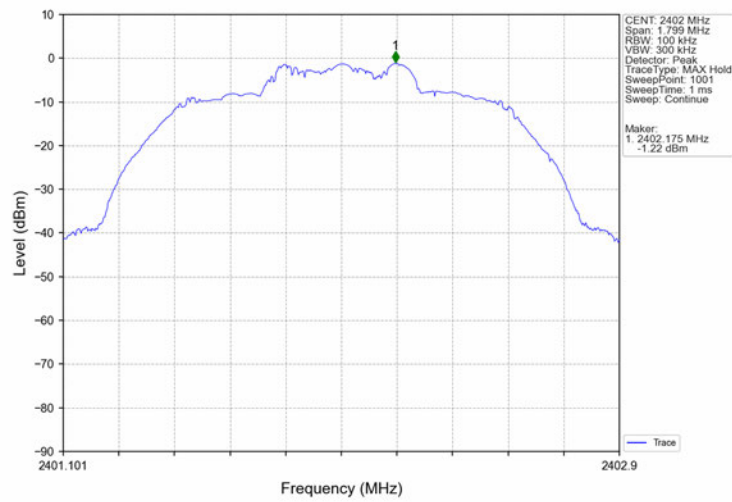
## GFSK\_DH5\_HOPP\_2480MHz\_Ant1\_NTNV



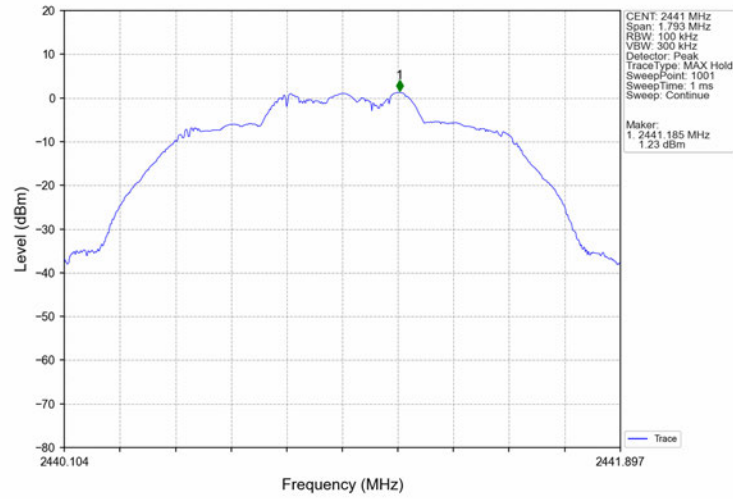
## GFSK\_DH5\_HOPP\_Ant1\_NTNV



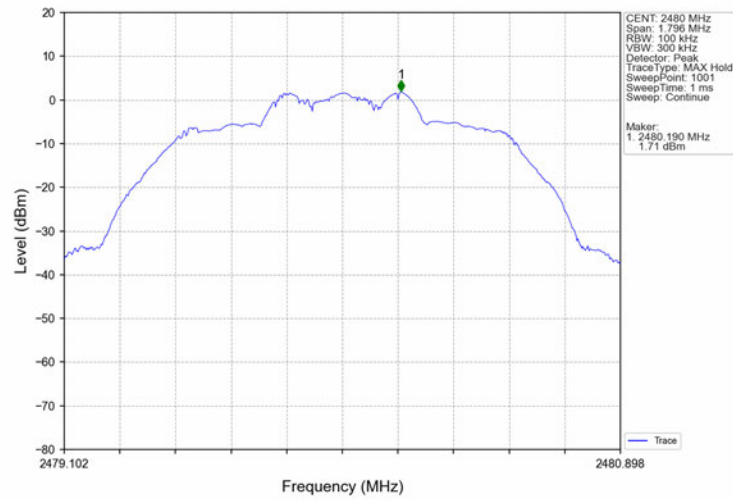
## Pi/4DQPSK\_2DH5\_LCH\_2402MHz\_Ant1\_NTNV



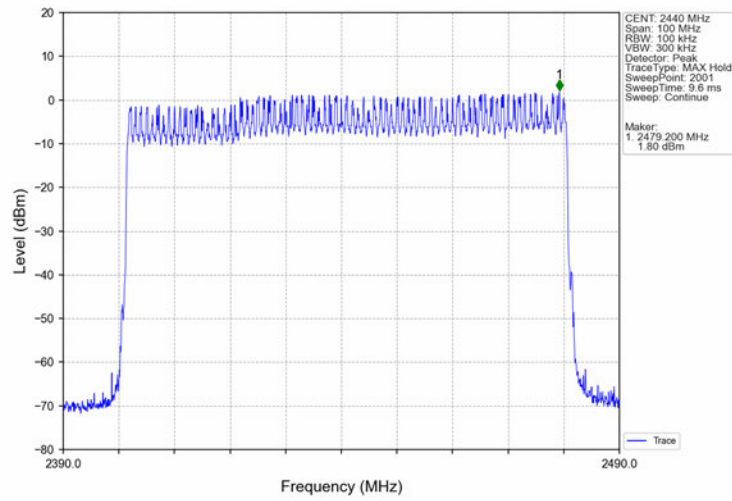
Pi/4DQPSK\_2DH5\_MCH\_2441MHz\_Ant1\_NTNV



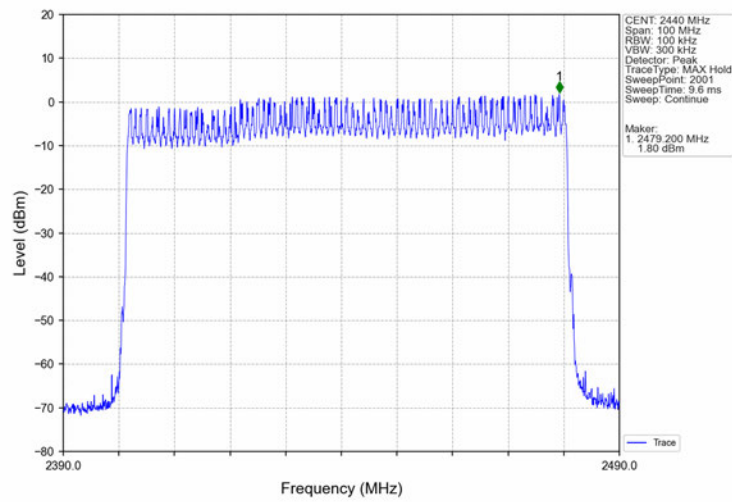
Pi/4DQPSK\_2DH5\_HCH\_2480MHz\_Ant1\_NTNV



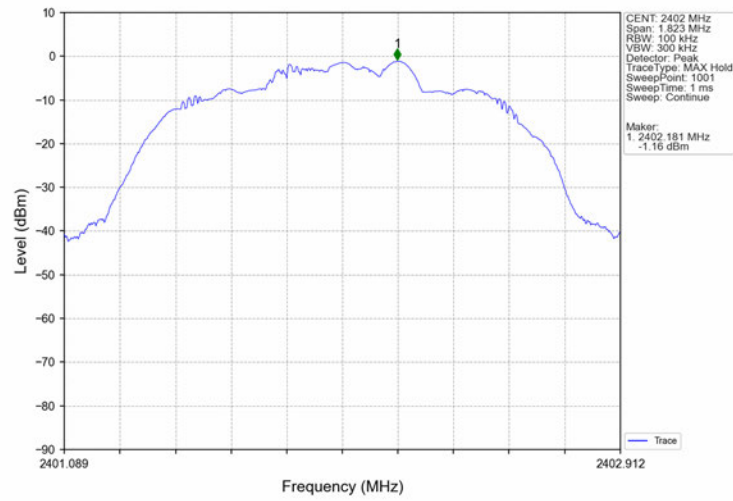
## Pi/4DQPSK\_2DH5\_HOPP\_Ant1\_NTNV



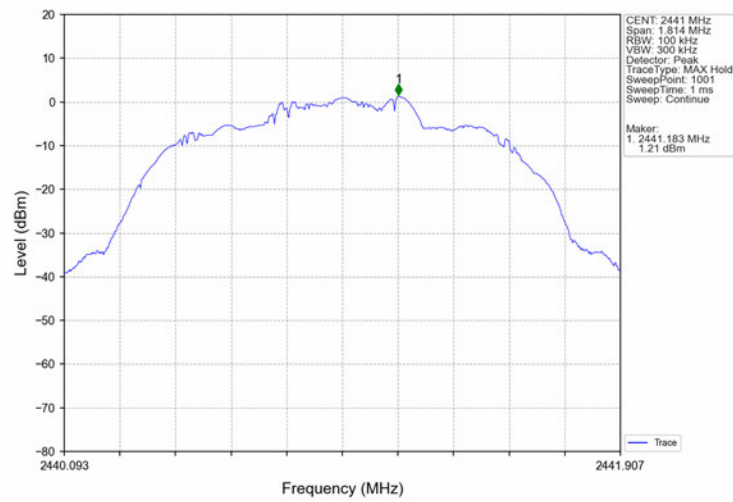
## Pi/4DQPSK\_2DH5\_HOPP\_Ant1\_NTNV



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

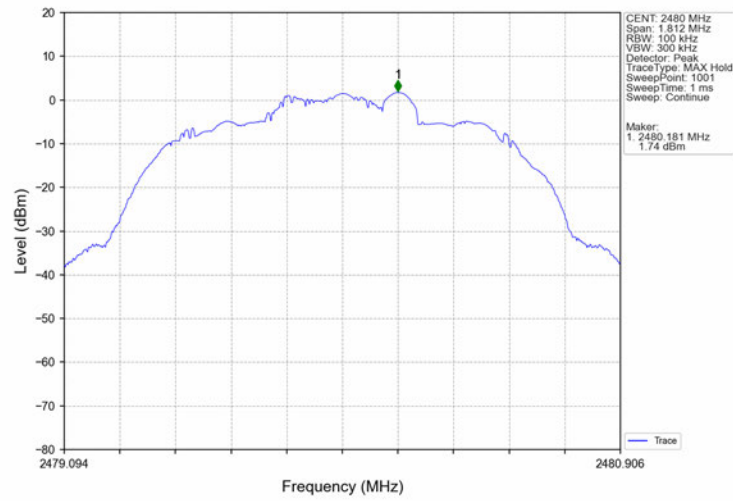


## 8DPSK\_3DH5\_MCH\_2441MHz\_Ant1\_NTNV

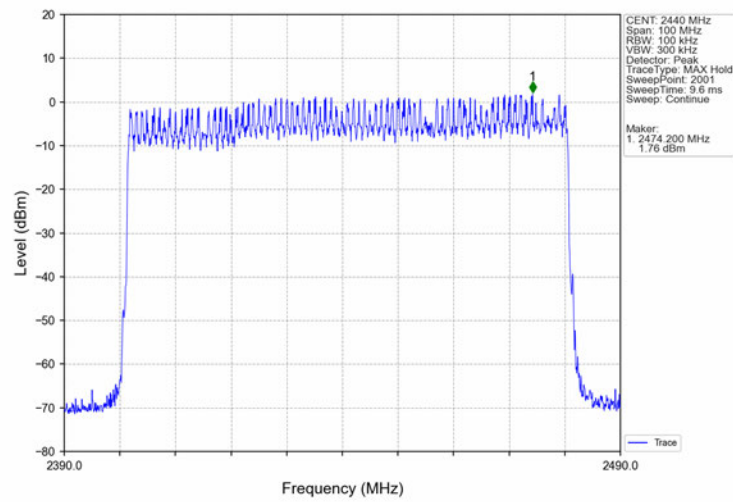




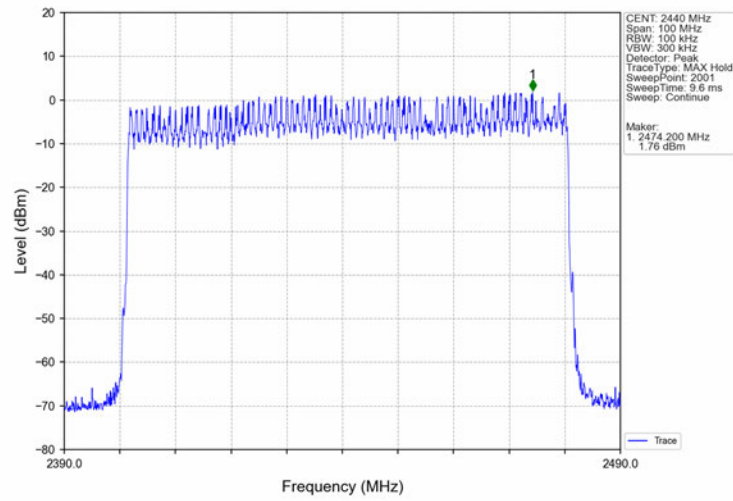
8DPSK\_3DH5\_HCH\_2480MHz\_Ant1\_NTNV



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

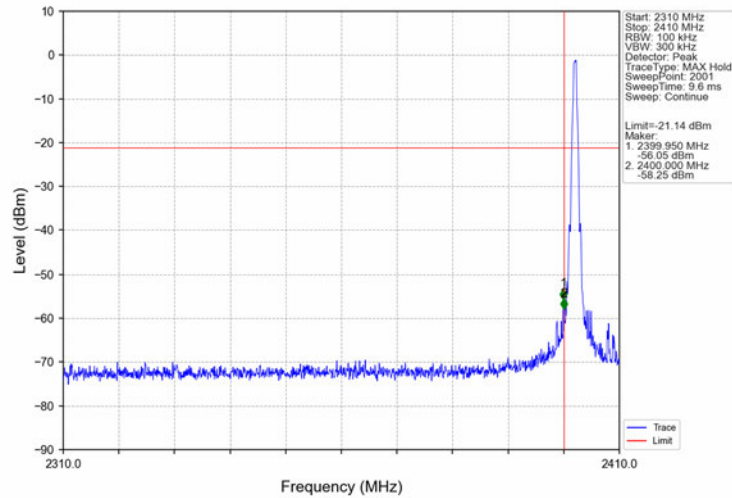


## 8DPSK\_3DH5\_HOPP\_Ant1\_NTNV

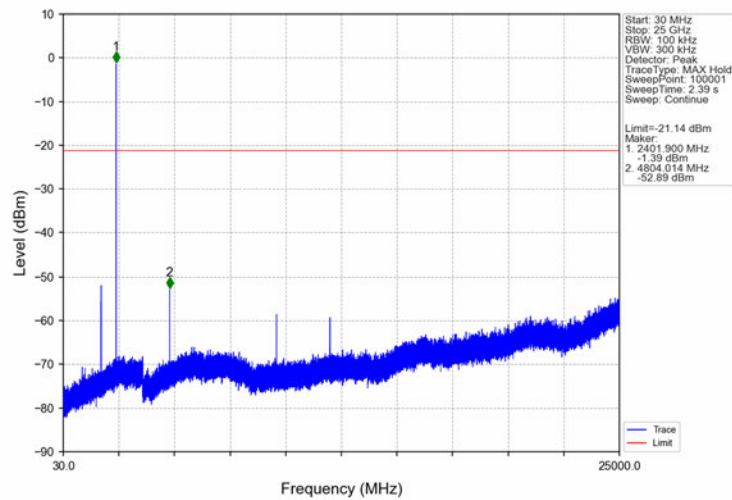


## 6.2.2 CSE

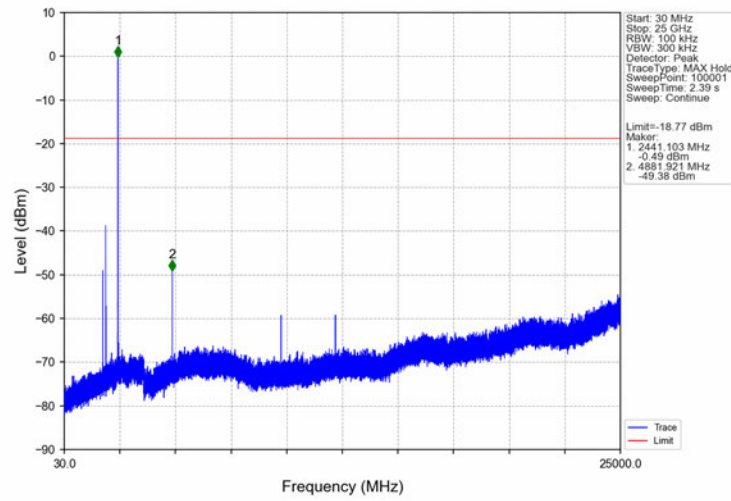
GFSK DH5 LCH 2402MHz Ant1 NTN



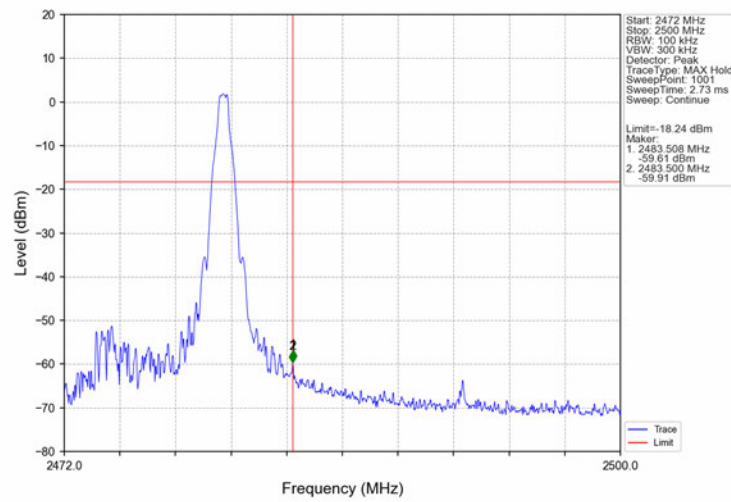
GFSK DH5 LCH 2402MHz Ant1 NTN



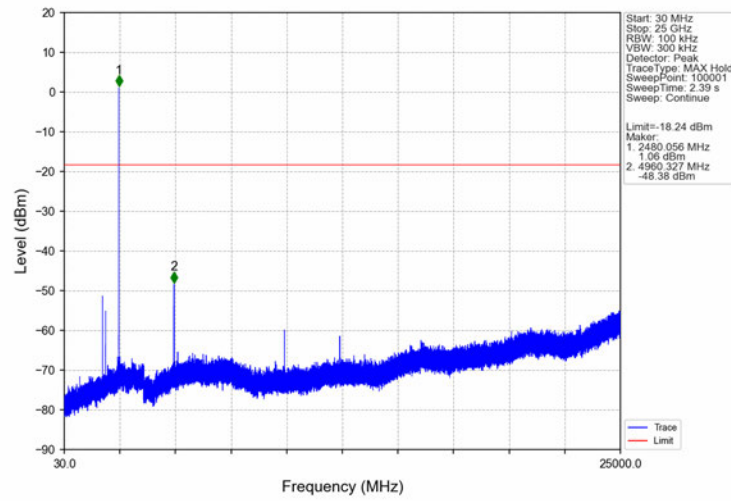
## GFSK\_DH5\_MCH\_2441MHz\_Ant1\_NTNV



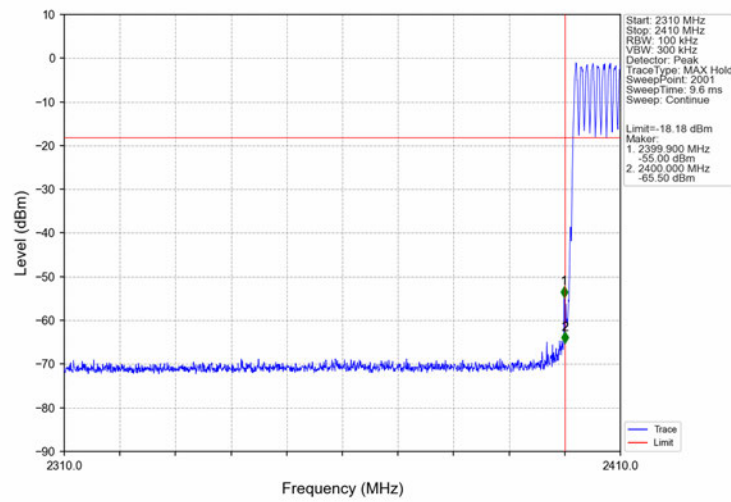
## GFSK\_DH5\_HCH\_2480MHz\_Ant1\_NTNV



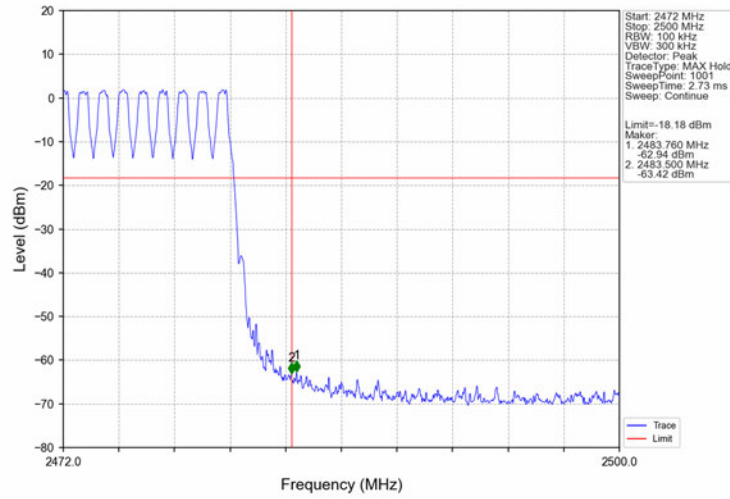
## GFSK\_DH5\_HCH\_2480MHz\_Ant1\_NTNV



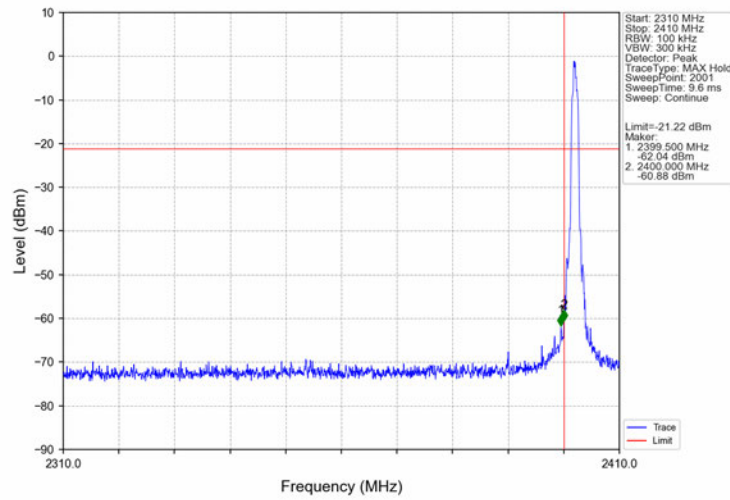
## GFSK\_DH5\_HOPP\_2410MHz\_Ant1\_NTNV



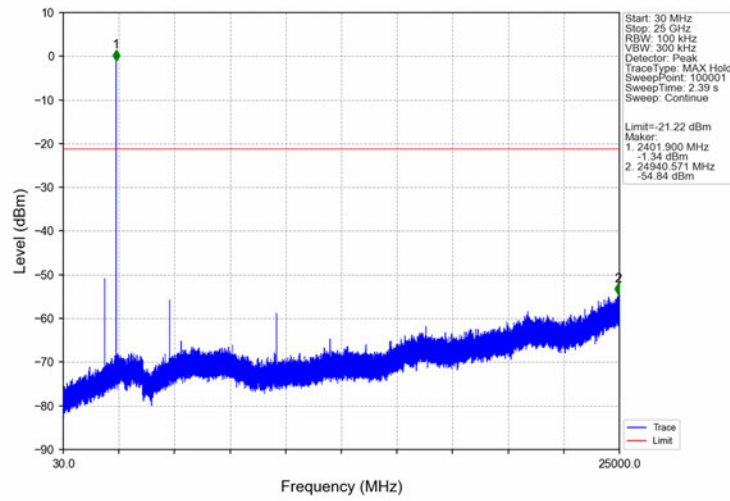
## GFSK\_DH5\_HOPP\_Ant1\_NTNV



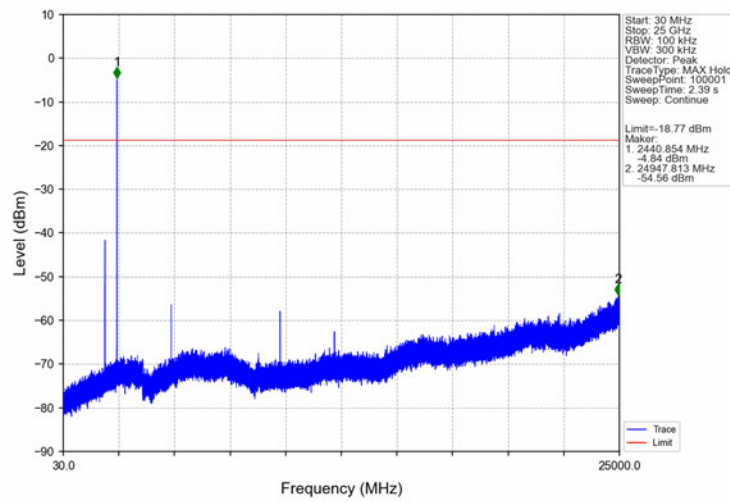
## Pi/4DQPSK\_2DH5\_LCH\_2402MHz\_Ant1\_NTNV



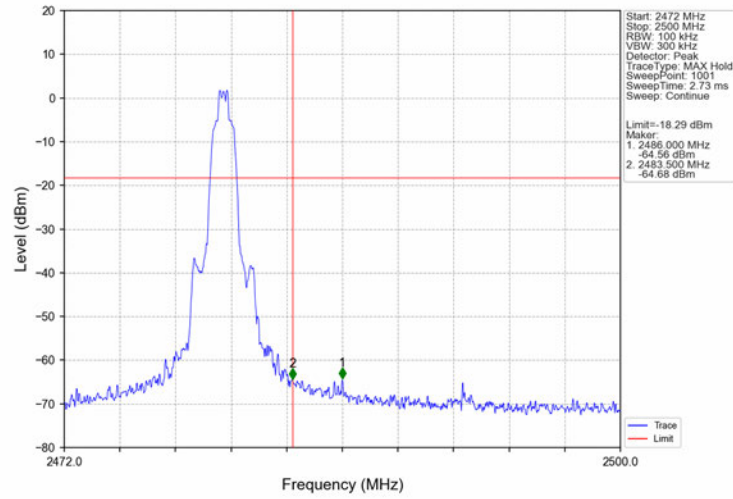
## Pi/4DQPSK\_2DH5\_LCH\_2402MHz\_Ant1\_NTNV



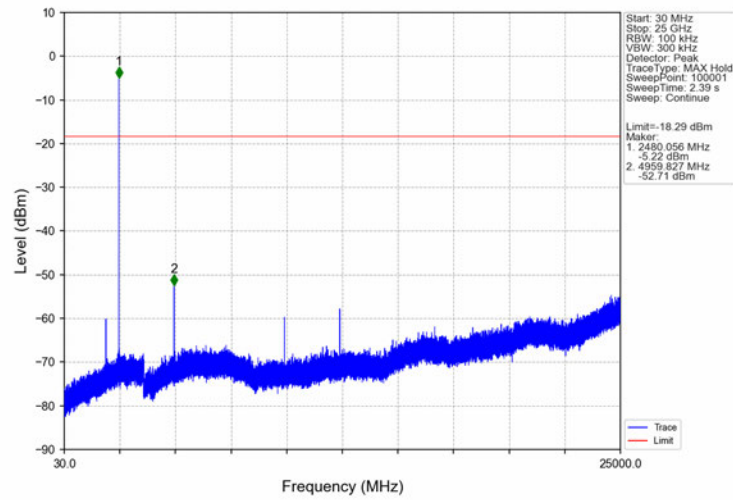
## Pi/4DQPSK\_2DH5\_MCH\_2441MHz\_Ant1\_NTNV



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

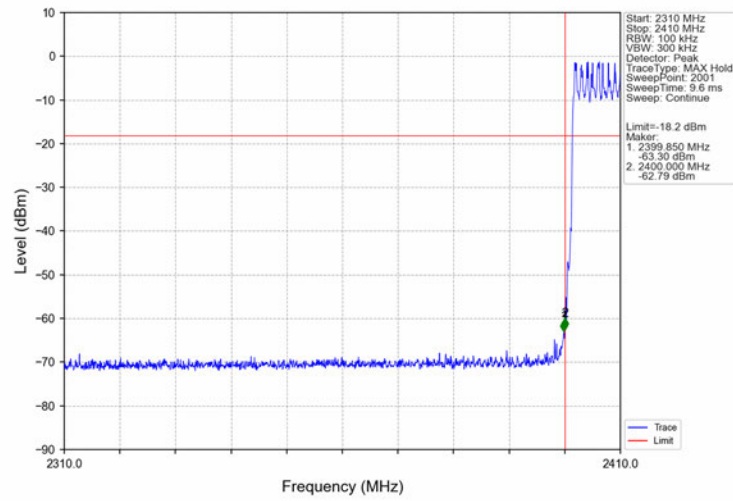


## Pi/4DQPSK\_2DH5\_HCH\_2480MHz\_Ant1\_NTNV

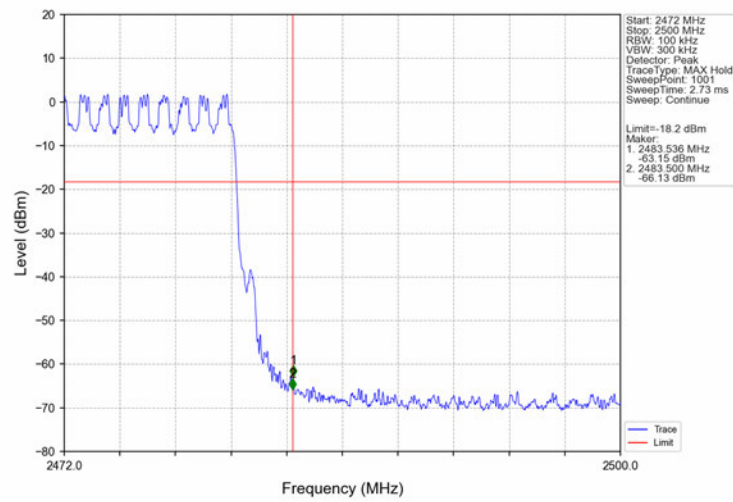




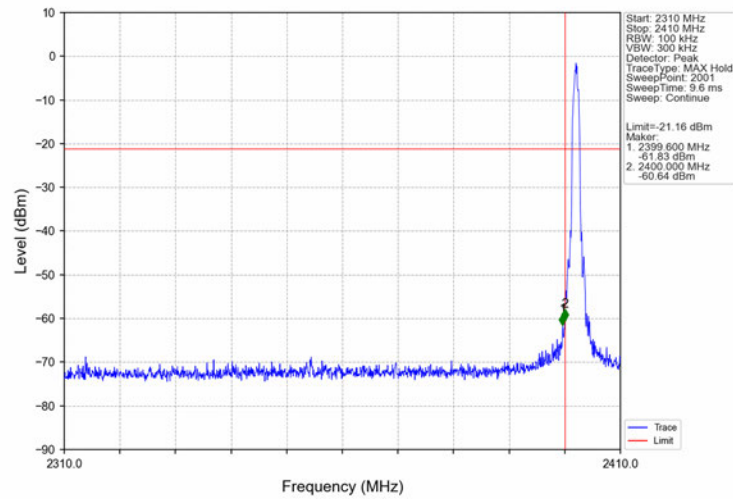
## Pi/4DQPSK\_2DH5\_HOPP\_Ant1\_NTNV



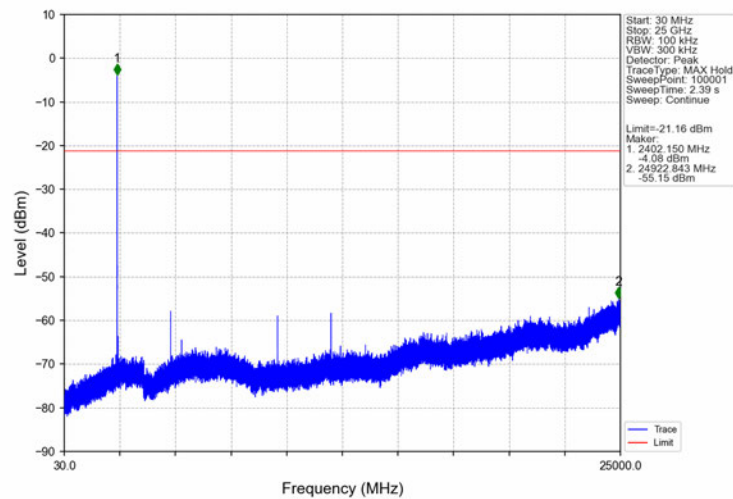
## Pi/4DQPSK\_2DH5\_HOPP\_Ant1\_NTNV



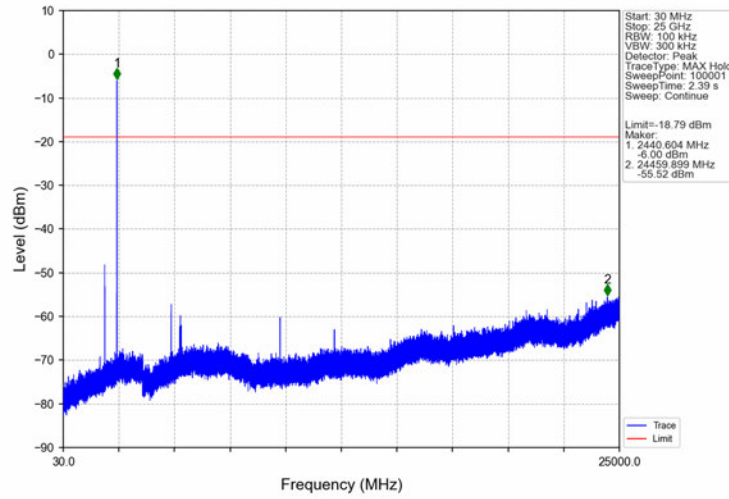
## 8DPSK\_3DH5\_LCH\_2402MHz\_Ant1\_NTNV



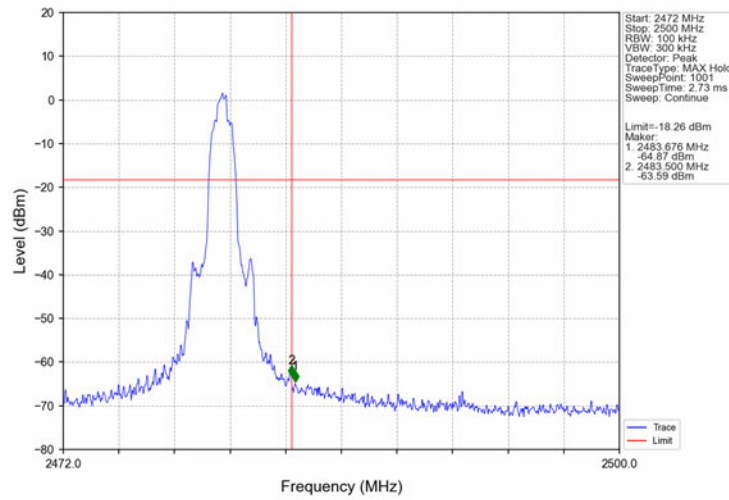
## 8DPSK\_3DH5\_LCH\_2402MHz\_Ant1\_NTNV



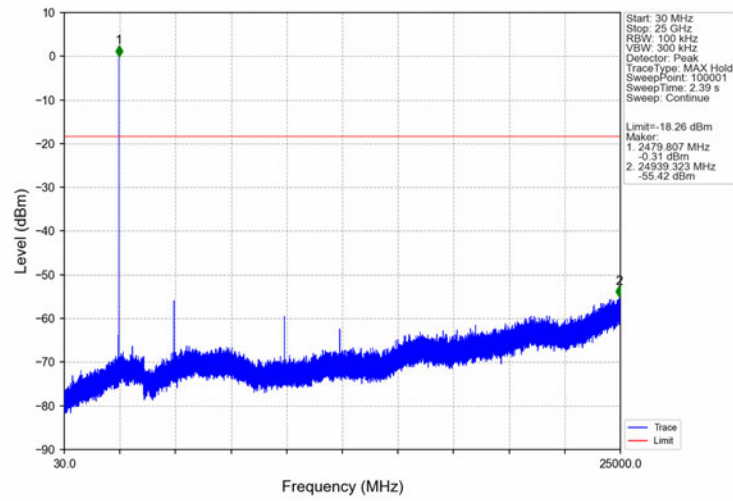
## 8DPSK\_3DH5\_MCH\_2441MHz\_Ant1\_NTNV



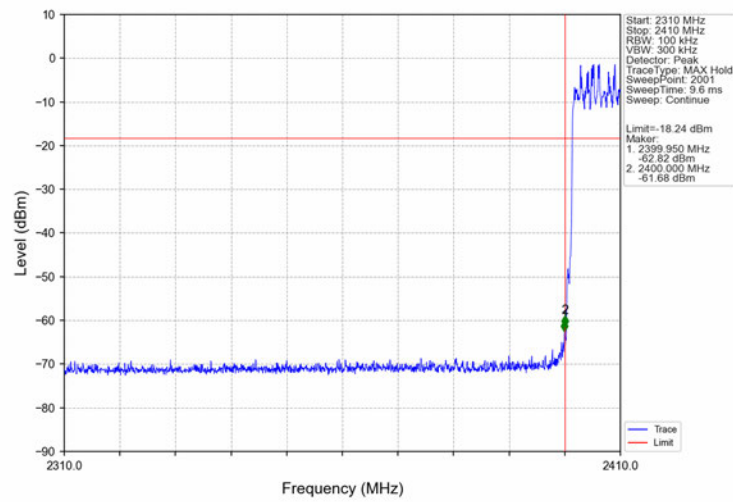
## 8DPSK\_3DH5\_HCH\_2480MHz\_Ant1\_NTNV



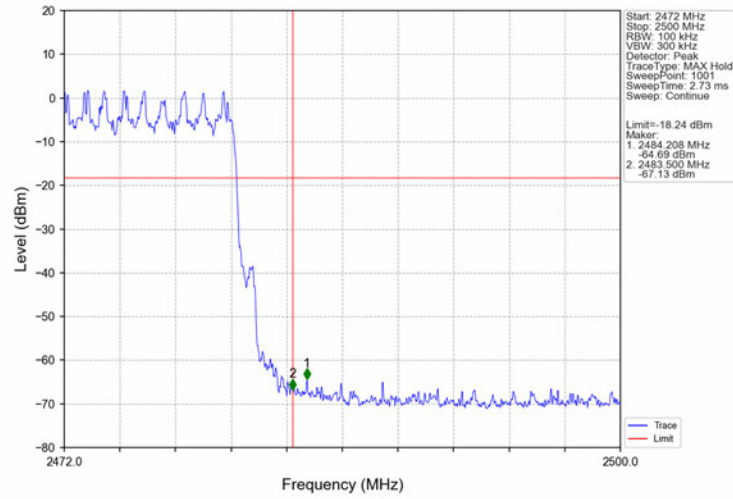
## 8DPSK\_3DH5\_HCH\_2480MHz\_Ant1\_NTNV



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



## 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            | 0.0017        | 2.31            |