

## **Appendix RF test data for BT2(AC6956C)**

## 1. Bandwidth

### 1.1 Test Result

#### 1.1.1 OBW

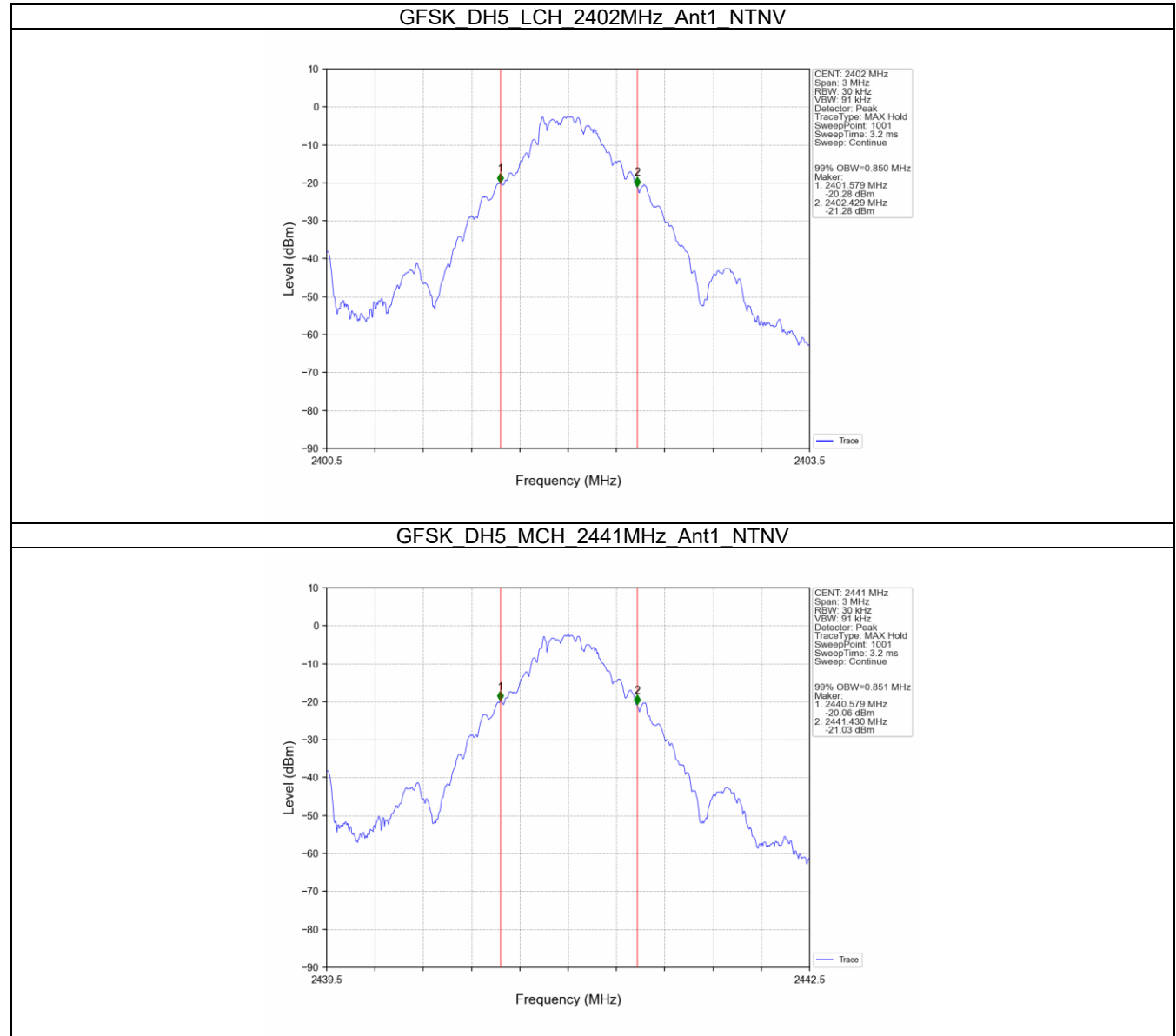
| Mode      | TX Type | Frequency (MHz) | Packet Type | ANT | 99% Occupied Bandwidth (MHz) |       | Verdict |
|-----------|---------|-----------------|-------------|-----|------------------------------|-------|---------|
|           |         |                 |             |     | Result                       | Limit |         |
| GFSK      | SISO    | 2402            | DH5         | 1   | 0.850                        | /     | Pass    |
|           |         | 2441            | DH5         | 1   | 0.851                        | /     | Pass    |
|           |         | 2480            | DH5         | 1   | 0.851                        | /     | Pass    |
| Pi/4DQPSK | SISO    | 2402            | 2DH5        | 1   | 1.179                        | /     | Pass    |
|           |         | 2441            | 2DH5        | 1   | 1.173                        | /     | Pass    |
|           |         | 2480            | 2DH5        | 1   | 1.168                        | /     | Pass    |
| 8DPSK     | SISO    | 2402            | 3DH5        | 1   | 1.183                        | /     | Pass    |
|           |         | 2441            | 3DH5        | 1   | 1.178                        | /     | Pass    |
|           |         | 2480            | 3DH5        | 1   | 1.180                        | /     | Pass    |

#### 1.1.2 20dB BW

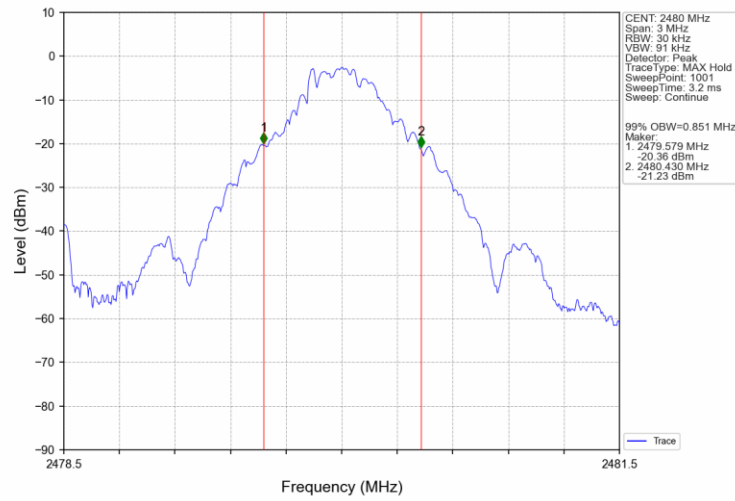
| Mode      | TX Type | Frequency (MHz) | Packet Type | ANT | 20dB Bandwidth (MHz) |       | Verdict |
|-----------|---------|-----------------|-------------|-----|----------------------|-------|---------|
|           |         |                 |             |     | Result               | Limit |         |
| GFSK      | SISO    | 2402            | DH5         | 1   | 0.953                | /     | Pass    |
|           |         | 2441            | DH5         | 1   | 0.954                | /     | Pass    |
|           |         | 2480            | DH5         | 1   | 0.953                | /     | Pass    |
| Pi/4DQPSK | SISO    | 2402            | 2DH5        | 1   | 1.282                | /     | Pass    |
|           |         | 2441            | 2DH5        | 1   | 1.279                | /     | Pass    |
|           |         | 2480            | 2DH5        | 1   | 1.284                | /     | Pass    |
| 8DPSK     | SISO    | 2402            | 3DH5        | 1   | 1.305                | /     | Pass    |
|           |         | 2441            | 3DH5        | 1   | 1.306                | /     | Pass    |
|           |         | 2480            | 3DH5        | 1   | 1.309                | /     | Pass    |

## 1.2 Test Graph

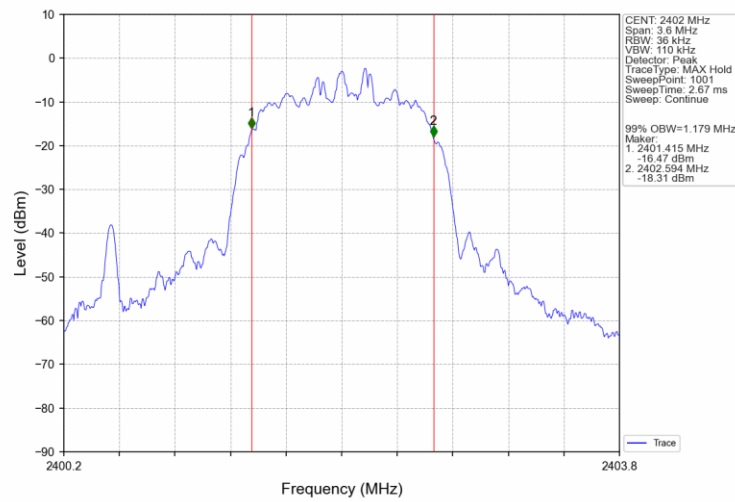
### 1.2.1 OBW



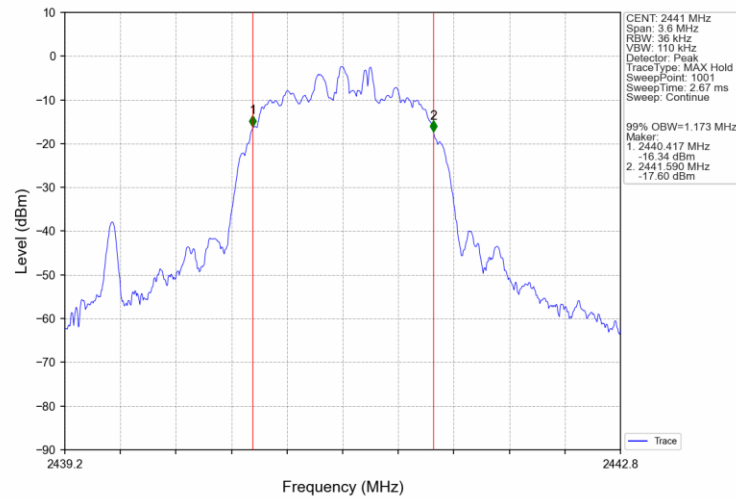
### GFSK DH5\_HCH\_2480MHz\_Ant1\_NTNV



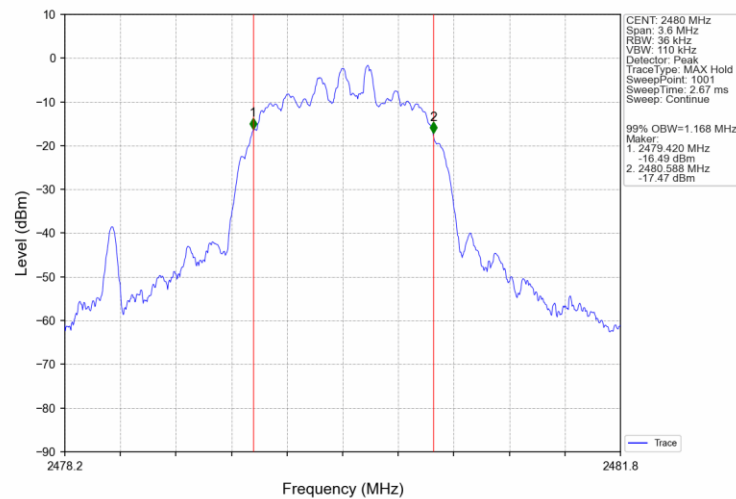
### Pi/4DQPSK\_2DH5\_LCH\_2402MHz\_Ant1\_NTNV



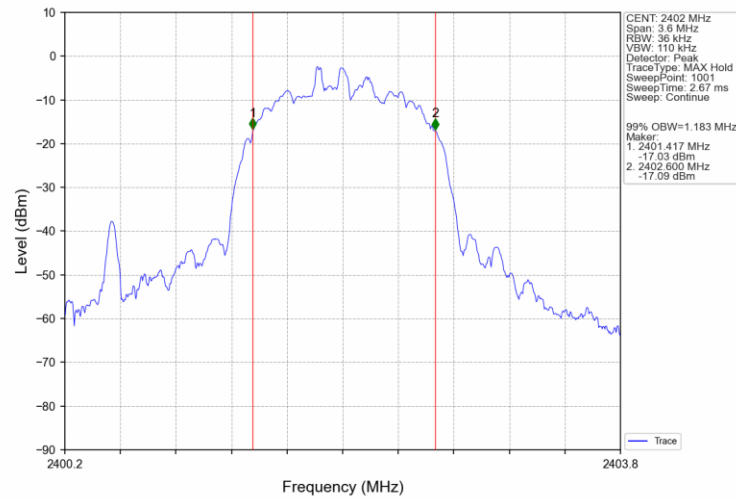
## Pi/4DQPSK\_2DH5\_MCH\_2441MHz\_Ant1\_NTNV



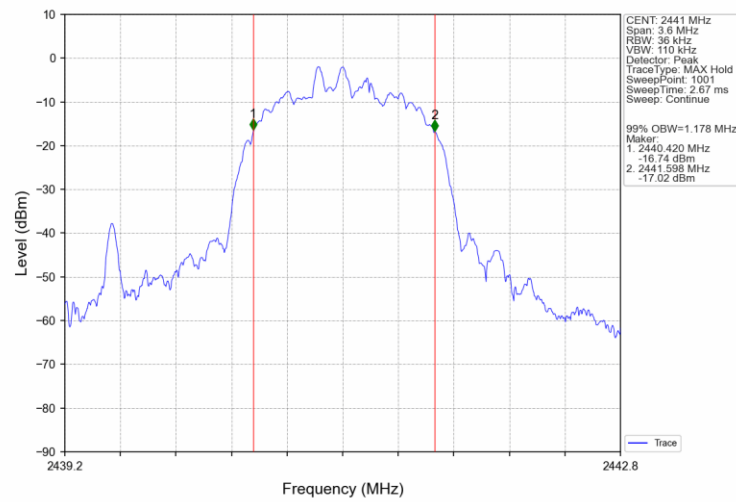
## Pi/4DQPSK\_2DH5\_HCH\_2480MHz\_Ant1\_NTNV



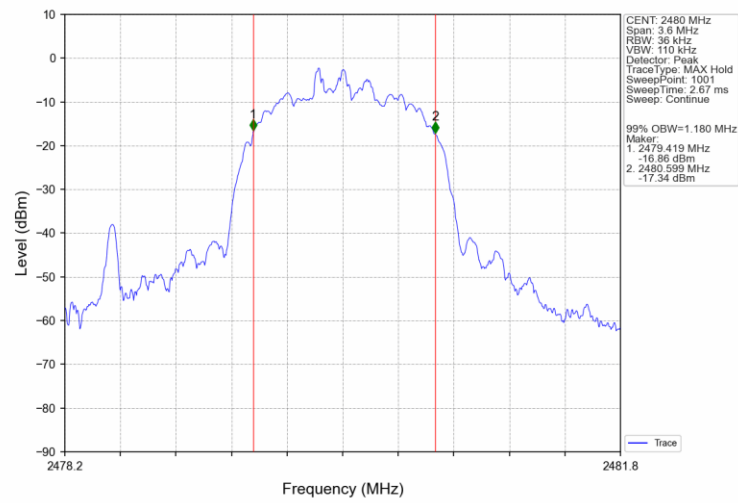
## 8DPSK\_3DH5\_LCH\_2402MHz\_Ant1\_NTNV



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

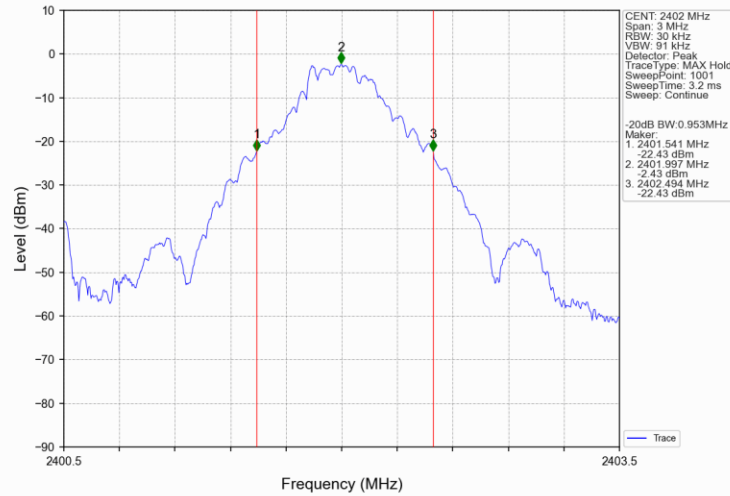


## 8DPSK\_3DH5\_HCH\_2480MHz\_Ant1\_NTNV

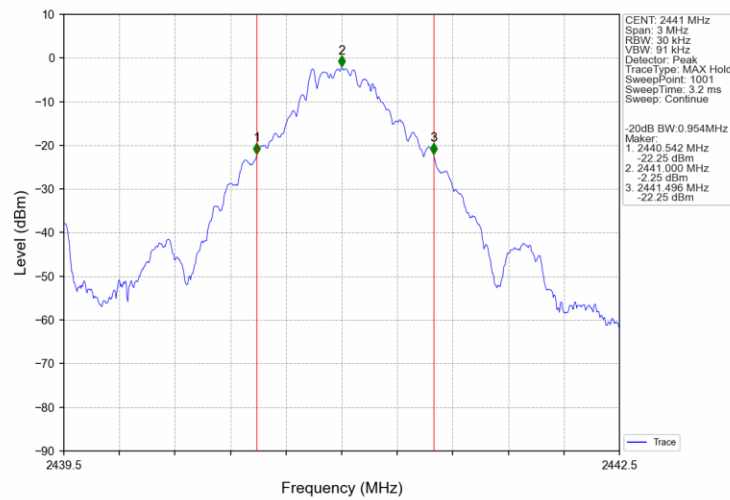


### 1.2.2 20dB BW

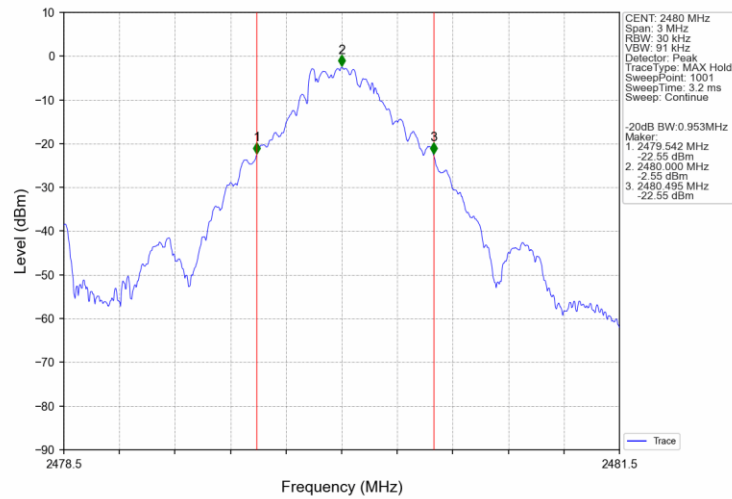
GFSK DH5 LCH 2402MHz Ant1 NTN



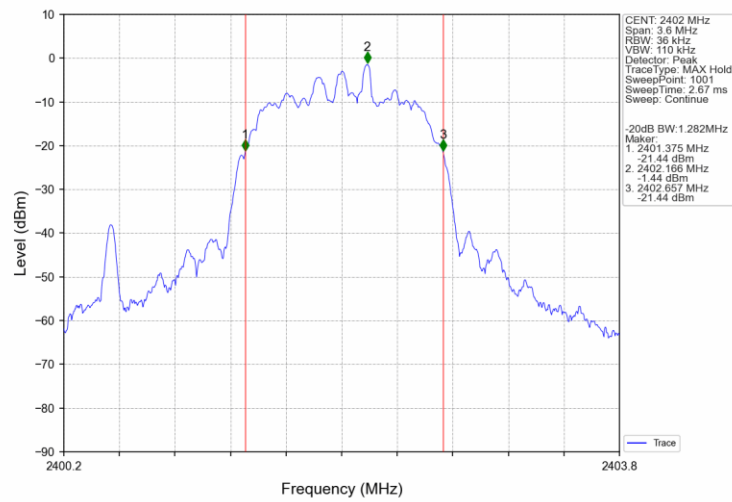
GFSK DH5 MCH 2441MHz Ant1 NTN



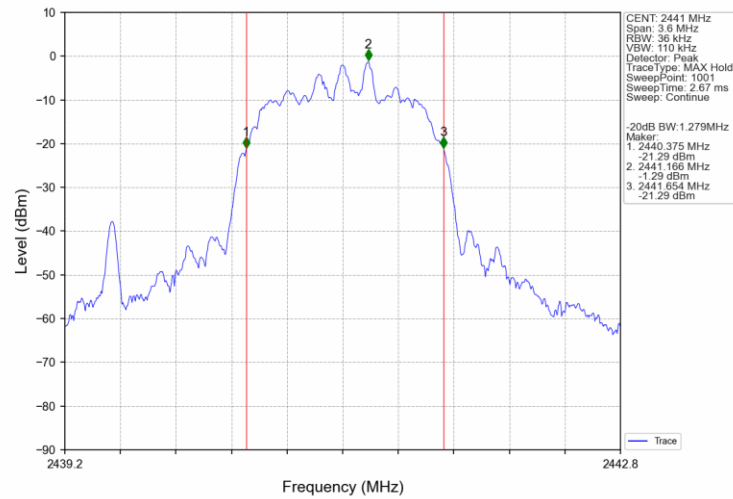
## GFSK DH5\_HCH\_2480MHz\_Ant1\_NTNV



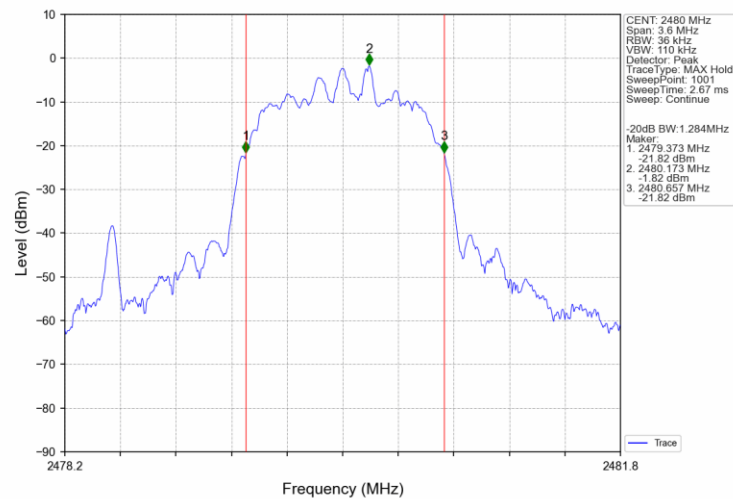
## Pi/4DQPSK\_2DH5\_LCH\_2402MHz\_Ant1\_NTNV



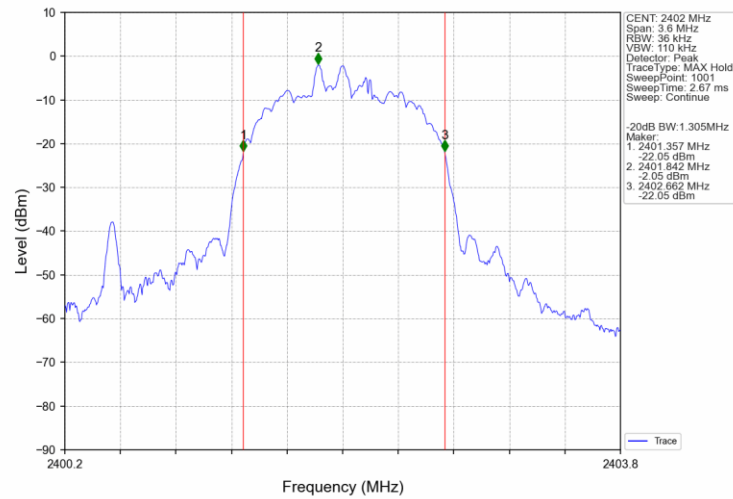
### Pi/4DQPSK\_2DH5\_MCH\_2441MHz\_Ant1\_NTNV



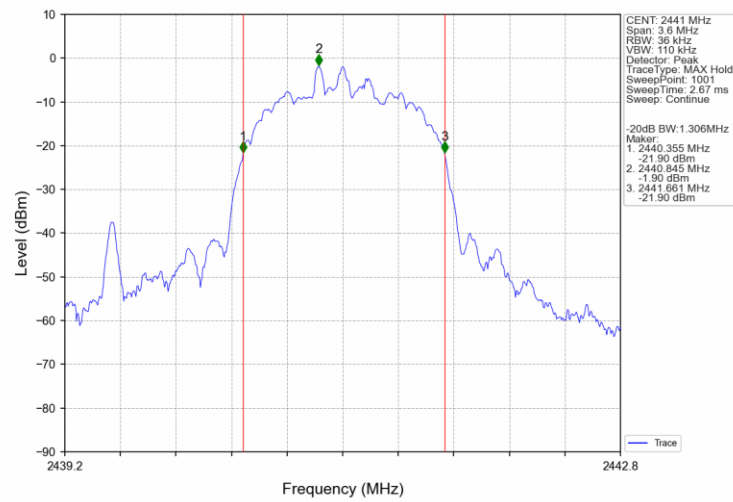
### Pi/4DQPSK\_2DH5\_HCH\_2480MHz\_Ant1\_NTNV



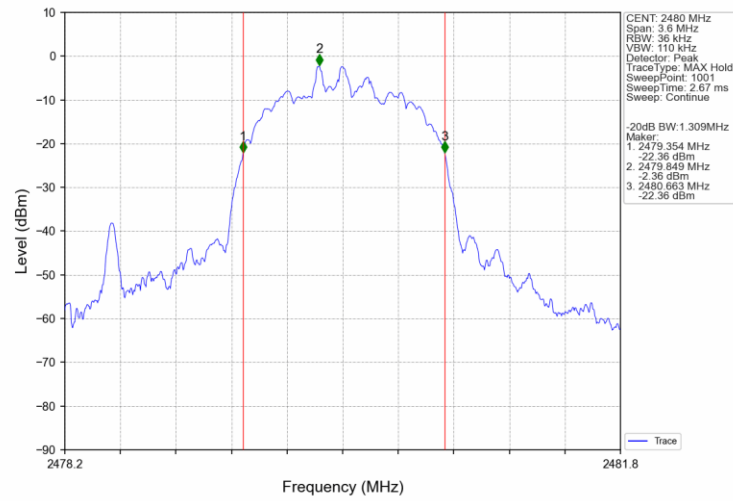
## 8DPSK\_3DH5\_LCH\_2402MHz\_Ant1\_NTNV



## 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         | -0.15                                     | <=30    | Pass    |
|           |         | 2441            | DH5         | -0.06                                     | <=30    | Pass    |
|           |         | 2480            | DH5         | -0.36                                     | <=30    | Pass    |
| Pi/4DQPSK | SISO    | 2402            | 2DH5        | 0.77                                      | <=20.97 | Pass    |
|           |         | 2441            | 2DH5        | 0.88                                      | <=20.97 | Pass    |
|           |         | 2480            | 2DH5        | 0.59                                      | <=20.97 | Pass    |
| 8DPSK     | SISO    | 2402            | 3DH5        | 1.19                                      | <=20.97 | Pass    |
|           |         | 2441            | 3DH5        | 1.29                                      | <=20.97 | Pass    |
|           |         | 2480            | 3DH5        | 0.99                                      | <=20.97 | Pass    |

Note1: Antenna Gain: Ant1: 3.54dBi;

### 3. Carrier Frequency Separation

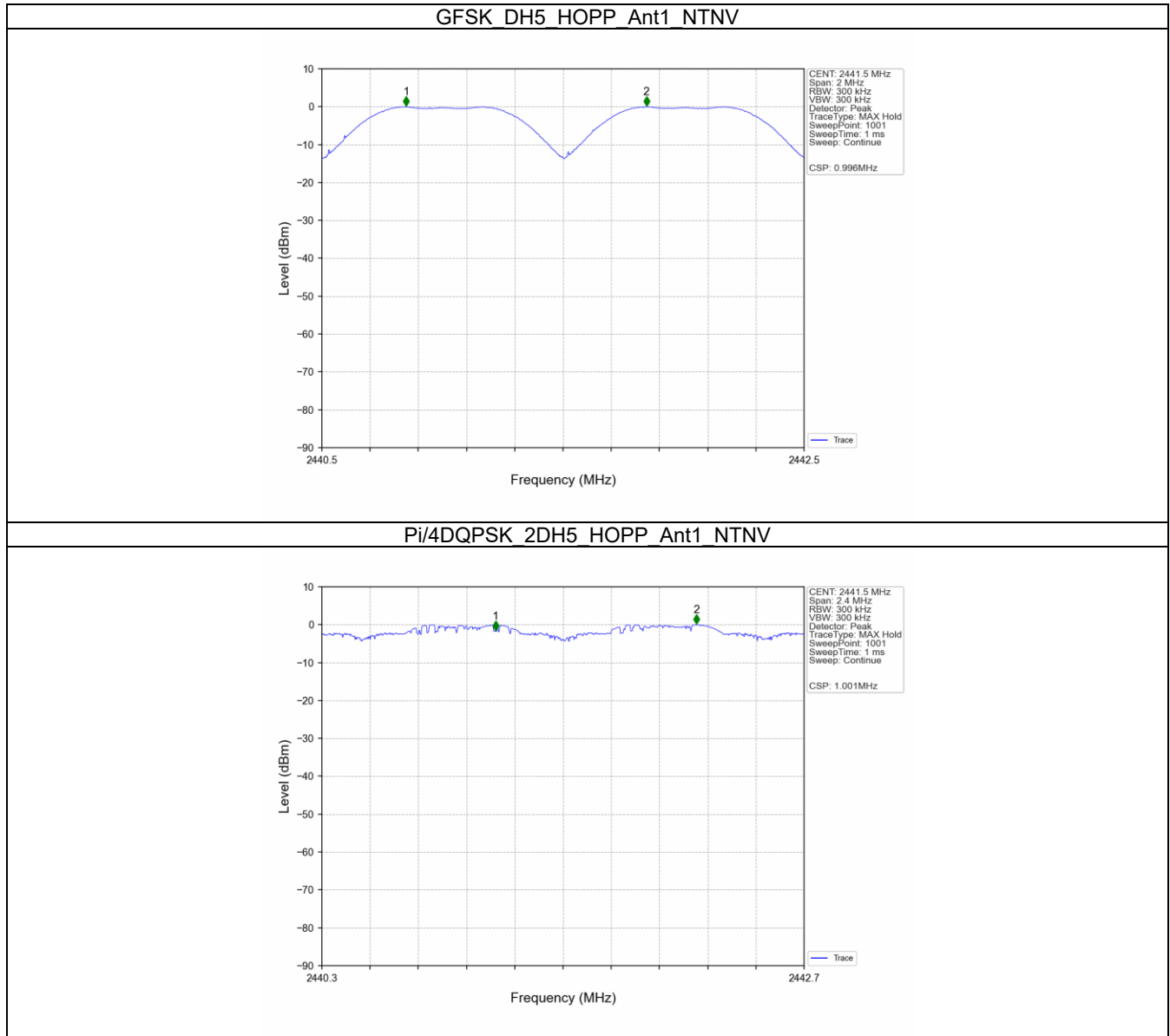
#### 3.1 Test Result

##### 3.1.1 Ant1

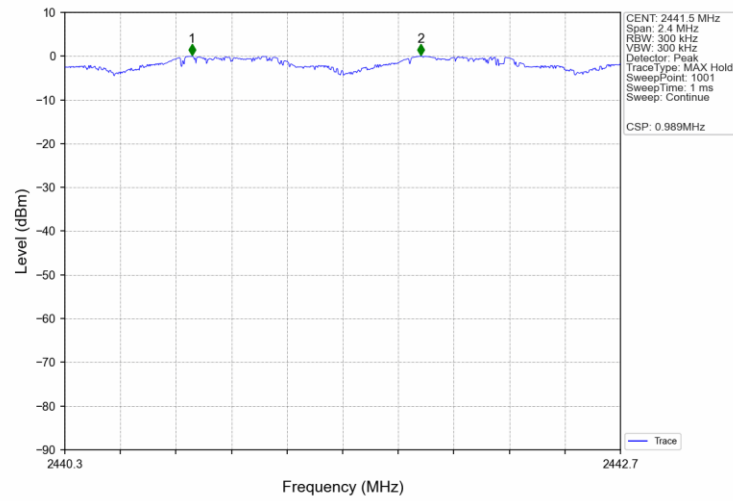
| Ant1      |         |                 |             |                          |                      |              |         |
|-----------|---------|-----------------|-------------|--------------------------|----------------------|--------------|---------|
| Mode      | TX Type | Frequency (MHz) | Packet Type | Channel Separation (MHz) | 20dB Bandwidth (MHz) | Limit (MHz)  | Verdict |
| GFSK      | SISO    | HOPP            | DH5         | 0.996                    | 0.954                | $\geq 0.954$ | Pass    |
| Pi/4DQPSK | SISO    | HOPP            | 2DH5        | 1.001                    | 1.284                | $\geq 0.856$ | Pass    |
| 8DPSK     | SISO    | HOPP            | 3DH5        | 0.989                    | 1.309                | $\geq 0.873$ | Pass    |

## 3.2 Test Graph

### 3.2.1 Ant1



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



## 4. Number of Hopping Frequencies

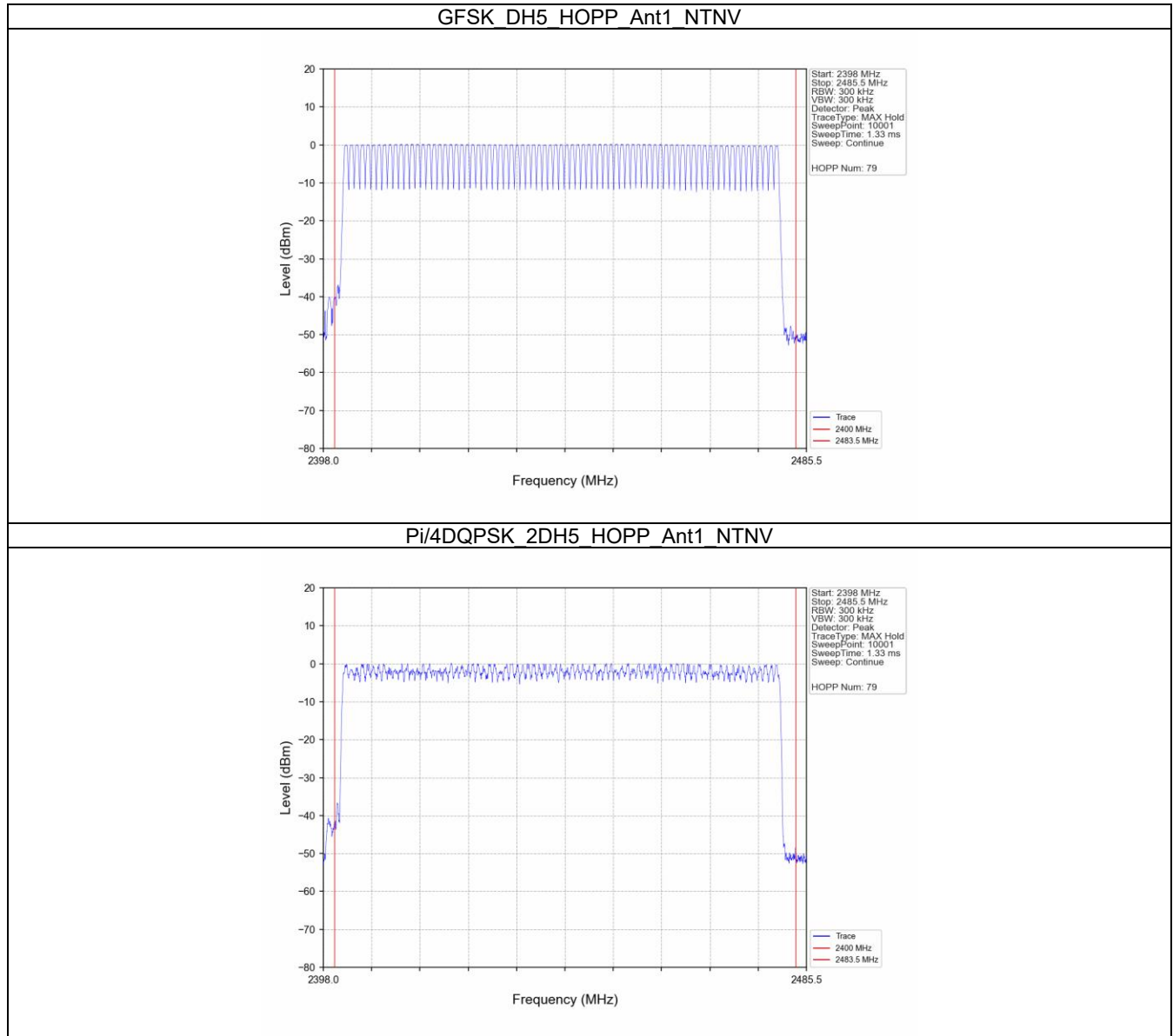
### 4.1 Test Result

#### 4.1.1 HoppNum

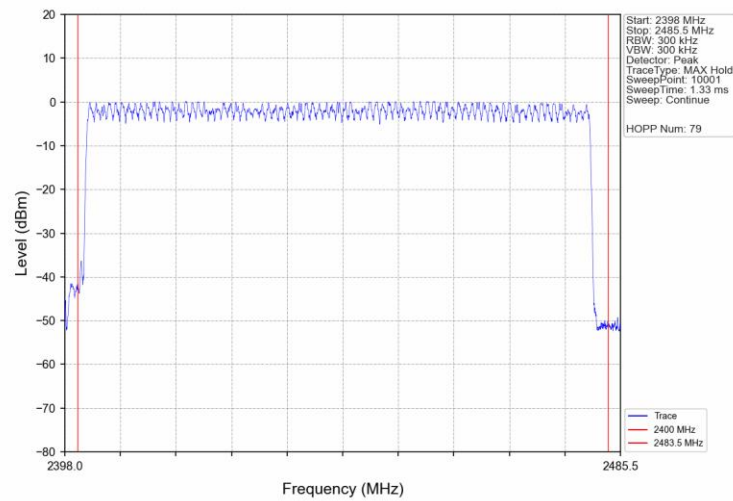
| Mode      | TX Type | Frequency (MHz) | Packet Type | Num of Hopping Frequencies |           | Verdict |
|-----------|---------|-----------------|-------------|----------------------------|-----------|---------|
|           |         |                 |             | ANT1                       | Limit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

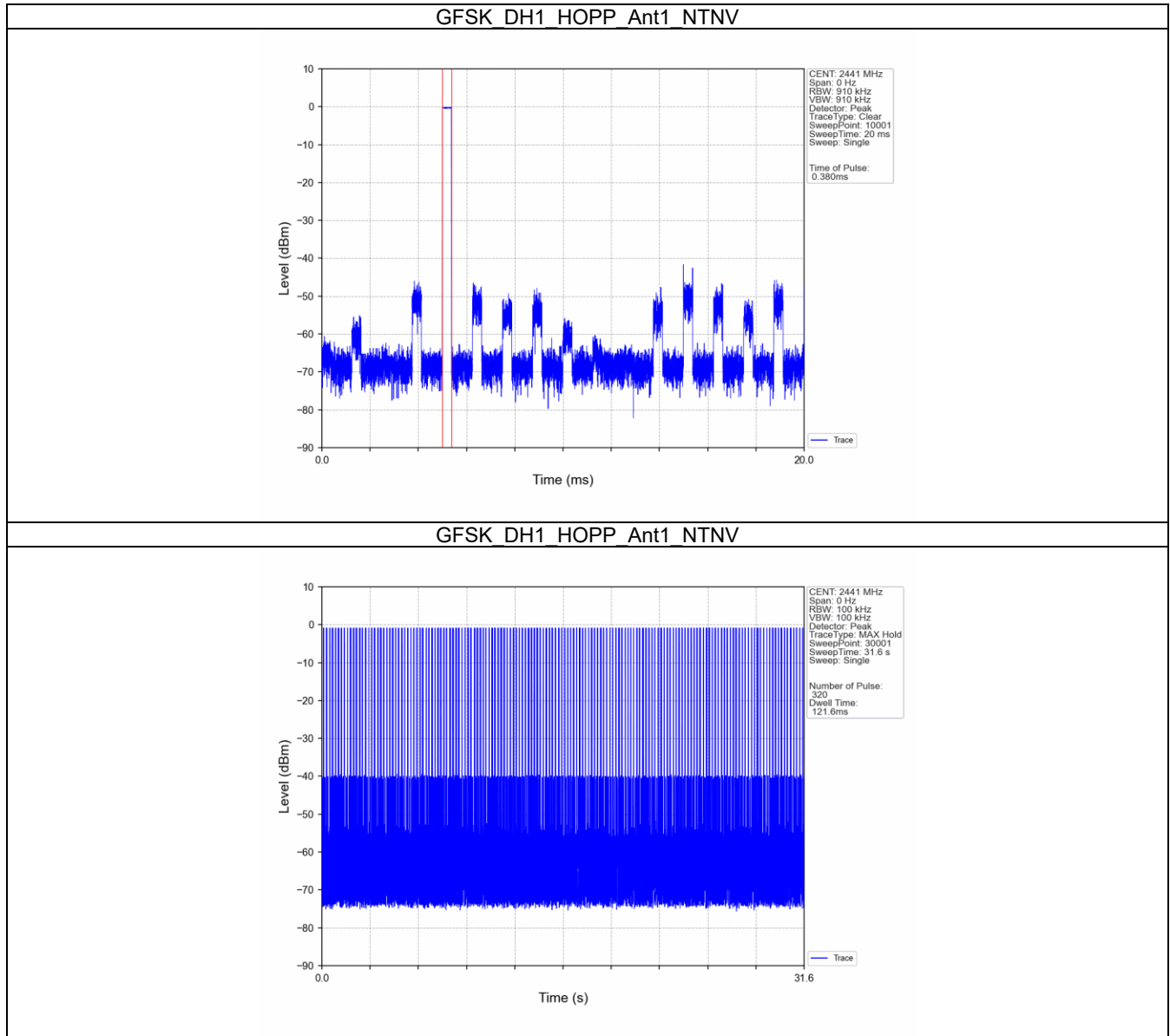
### 5.1 Test Result

#### 5.1.1 Ant1

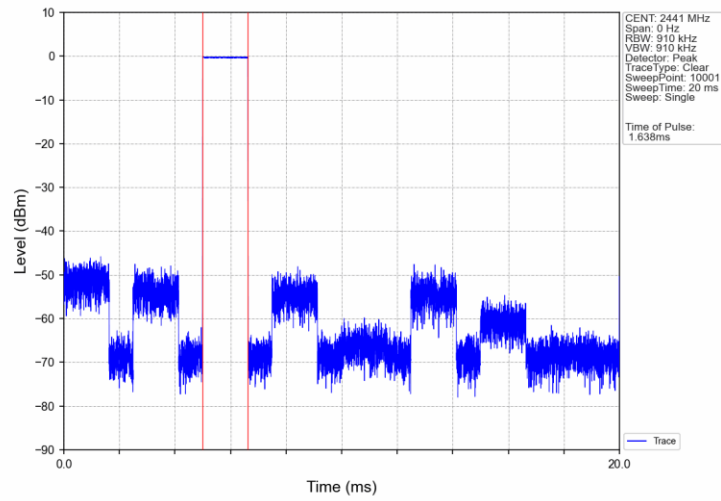
| Ant1      |         |                 |             |                               |                        |                                    |                 |            |         |
|-----------|---------|-----------------|-------------|-------------------------------|------------------------|------------------------------------|-----------------|------------|---------|
| 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         | 0.380                         | 31.600                 | 320                                | 121.600         | <=400      | Pass    |
|           |         |                 | DH3         | 1.638                         | 31.600                 | 158                                | 258.804         | <=400      | Pass    |
|           |         |                 | DH5         | 2.888                         | 31.600                 | 105                                | 303.240         | <=400      | Pass    |
| Pi/4DQPSK | SISO    | HOPP            | 2DH1        | 0.390                         | 31.600                 | 317                                | 123.630         | <=400      | Pass    |
|           |         |                 | 2DH3        | 1.642                         | 31.600                 | 151                                | 247.942         | <=400      | Pass    |
|           |         |                 | 2DH5        | 2.896                         | 31.600                 | 115                                | 333.040         | <=400      | Pass    |
| 8DPSK     | SISO    | HOPP            | 3DH1        | 0.392                         | 31.600                 | 319                                | 125.048         | <=400      | Pass    |
|           |         |                 | 3DH3        | 1.644                         | 31.600                 | 159                                | 261.396         | <=400      | Pass    |
|           |         |                 | 3DH5        | 2.896                         | 31.600                 | 115                                | 333.040         | <=400      | Pass    |

## 5.2 Test Graph

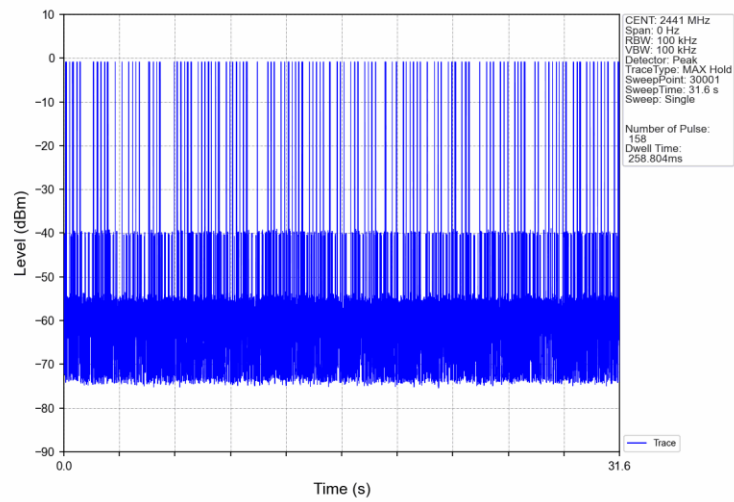
### 5.2.1 Ant1



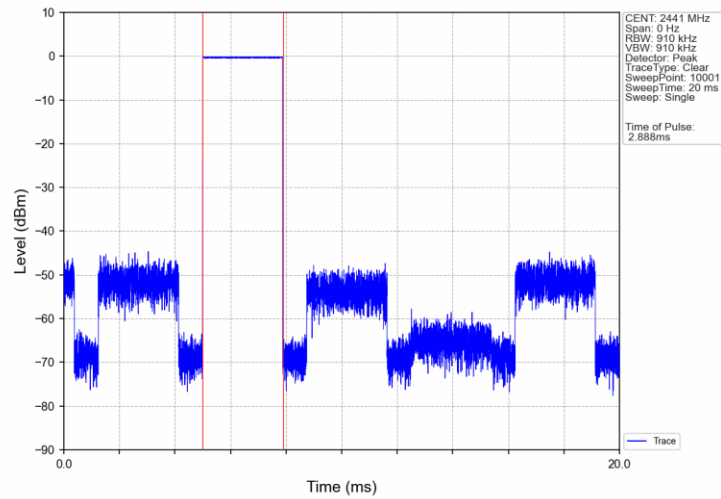
## GFSK\_DH3\_HOPP\_Ant1\_NTNV



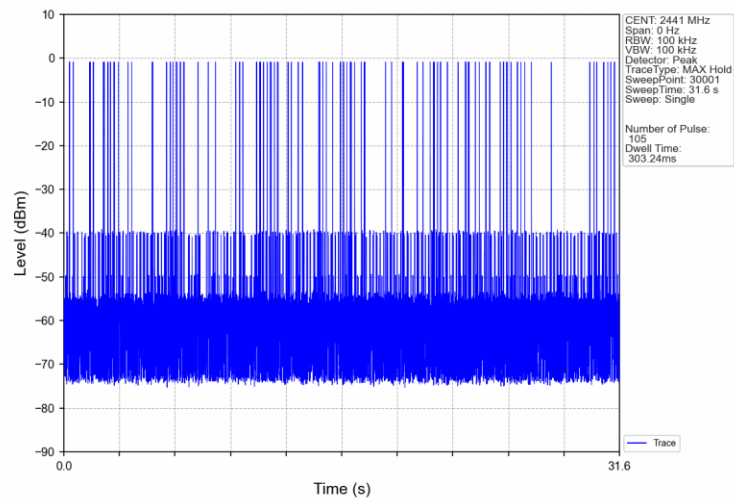
## GFSK\_DH3\_HOPP\_Ant1\_NTNV



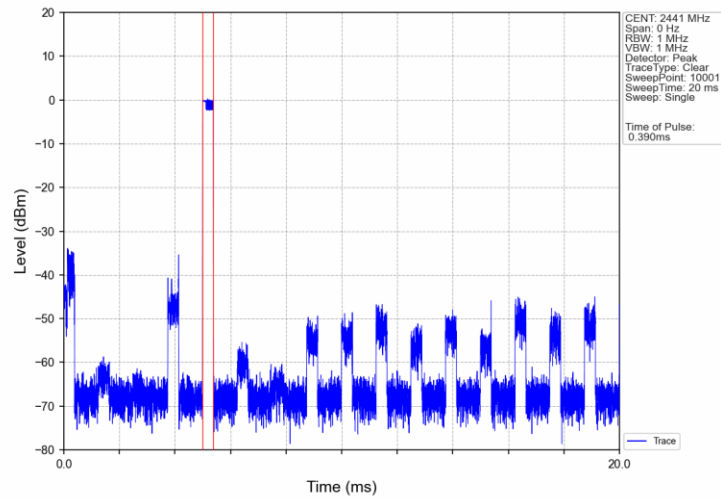
## GFSK\_DH5\_HOPP\_Ant1\_NTNV



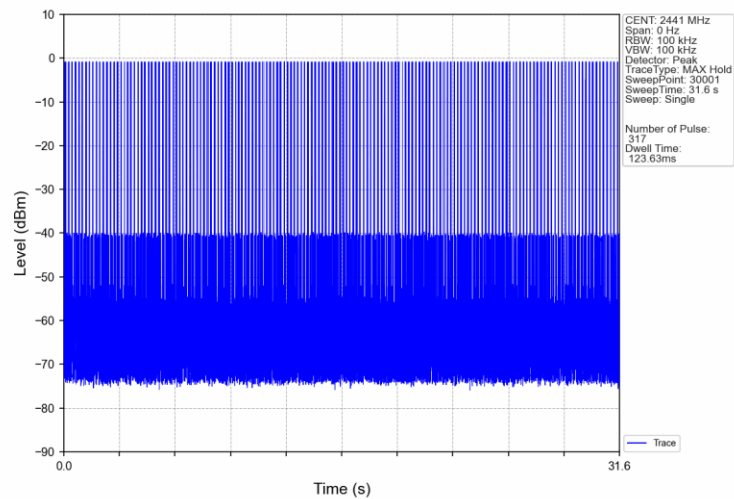
## GFSK\_DH5\_HOPP\_Ant1\_NTNV



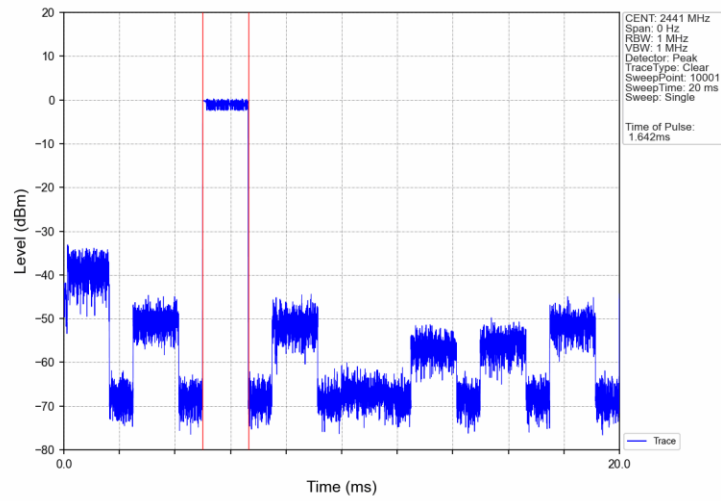
### Pi/4DQPSK\_2DH1\_HOPP\_Ant1\_NTNV



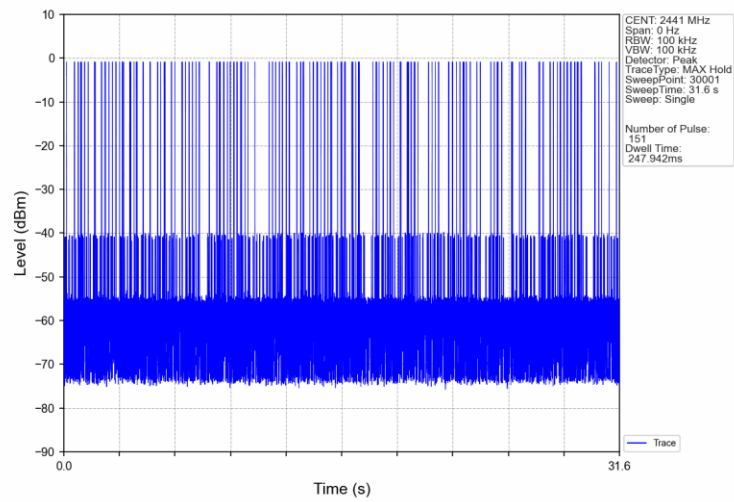
### Pi/4DQPSK\_2DH1\_HOPP\_Ant1\_NTNV



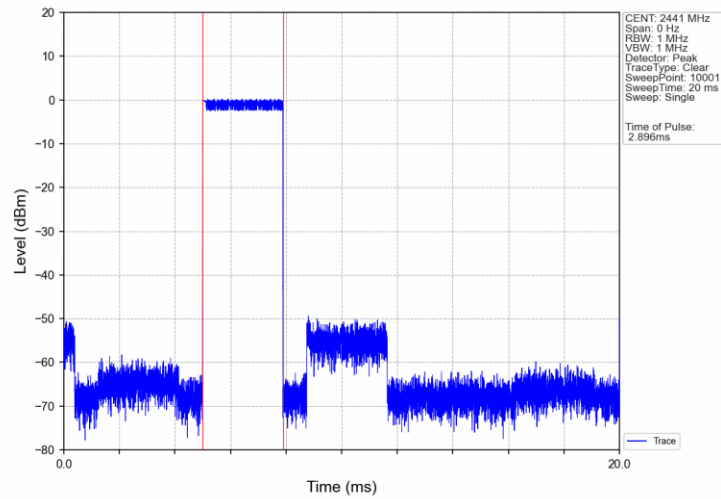
### Pi/4DQPSK\_2DH3\_HOPP\_Ant1\_NTNV



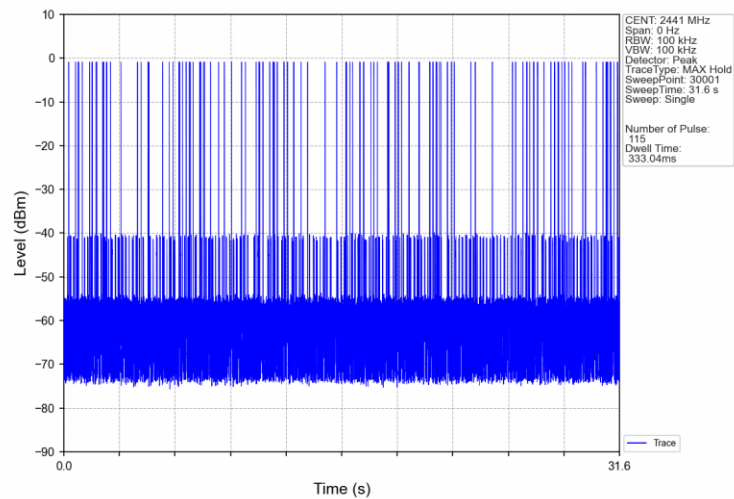
### Pi/4DQPSK\_2DH3\_HOPP\_Ant1\_NTNV



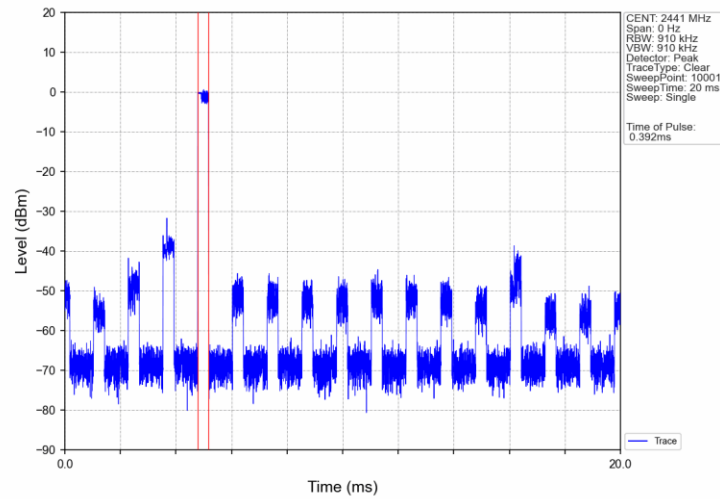
## Pi/4DQPSK\_2DH5\_HOPP\_Ant1\_NTNV



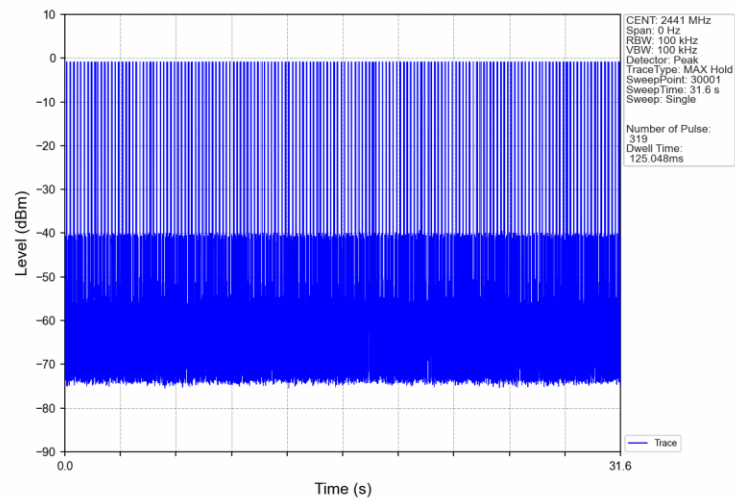
## Pi/4DQPSK\_2DH5\_HOPP\_Ant1\_NTNV



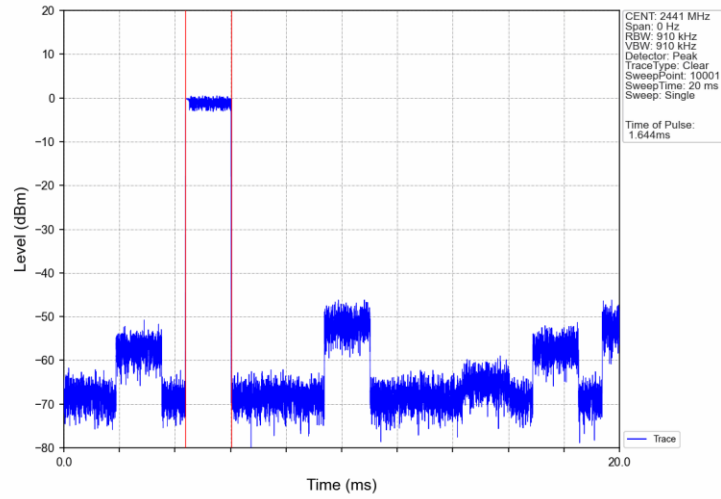
## 8DPSK\_3DH1\_HOPP\_Ant1\_NTNV



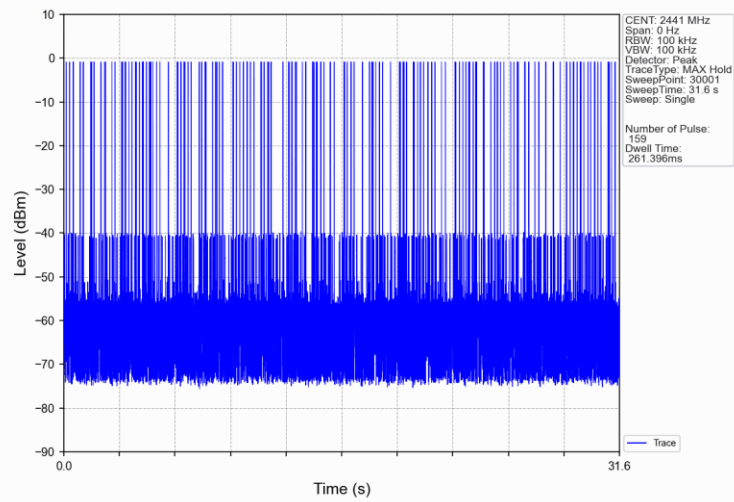
## 8DPSK\_3DH1\_HOPP\_Ant1\_NTNV



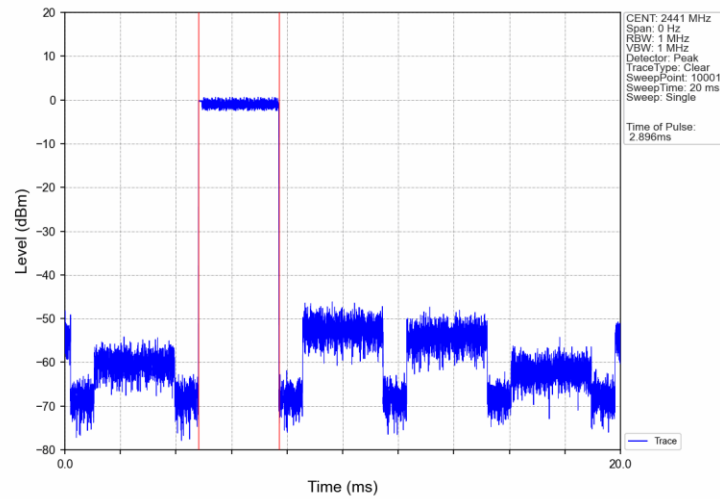
## 8DPSK\_3DH3\_HOPP\_Ant1\_NTNV



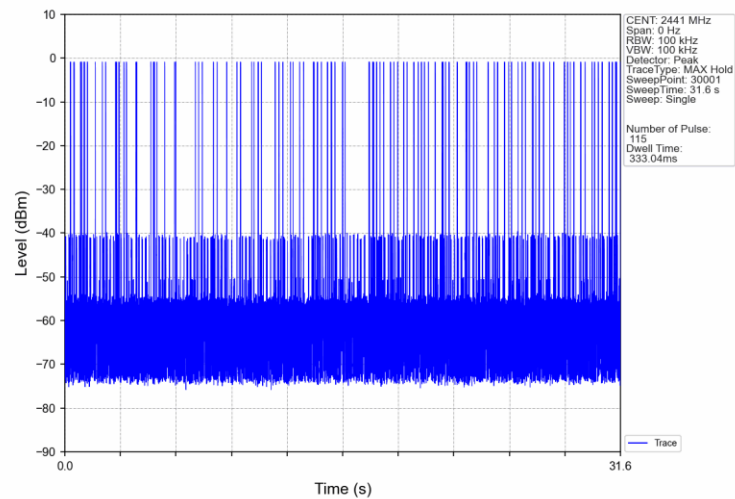
## 8DPSK\_3DH3\_HOPP\_Ant1\_NTNV



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



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

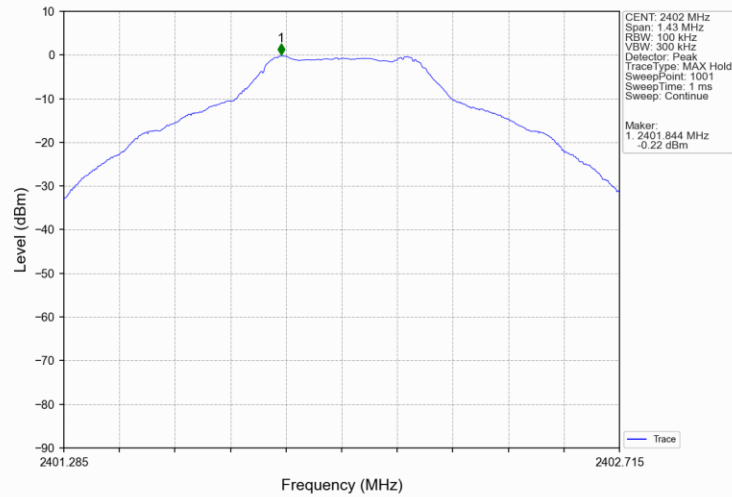


Note1: Refer to FCC Part 15.247 (d) and ANSI C63.10-2020, the channel contains the maximum PSD level was used to establish the reference level.

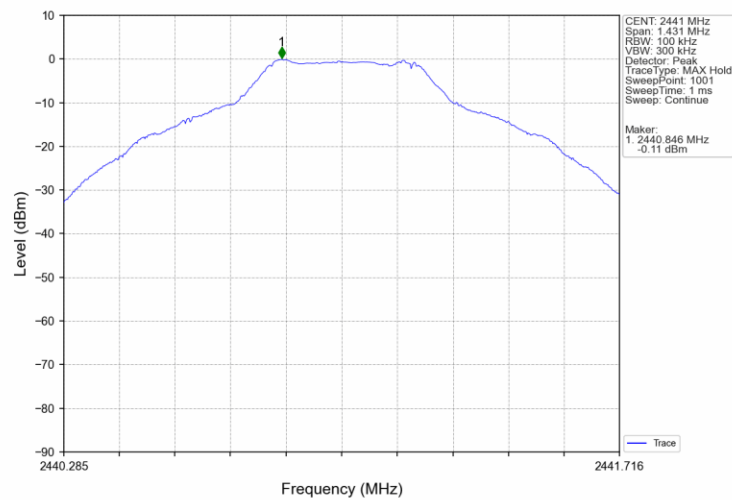
## 6.2 Test Graph

### 6.2.1 Ref

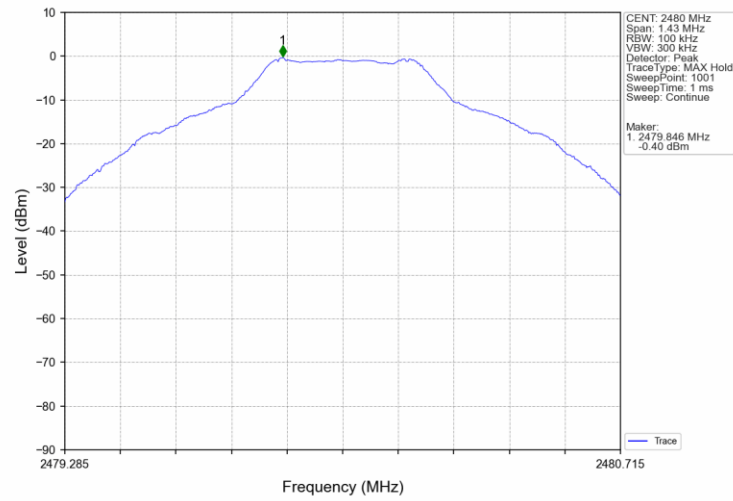
GFSK DH5 LCH 2402MHz Ant1 NTN



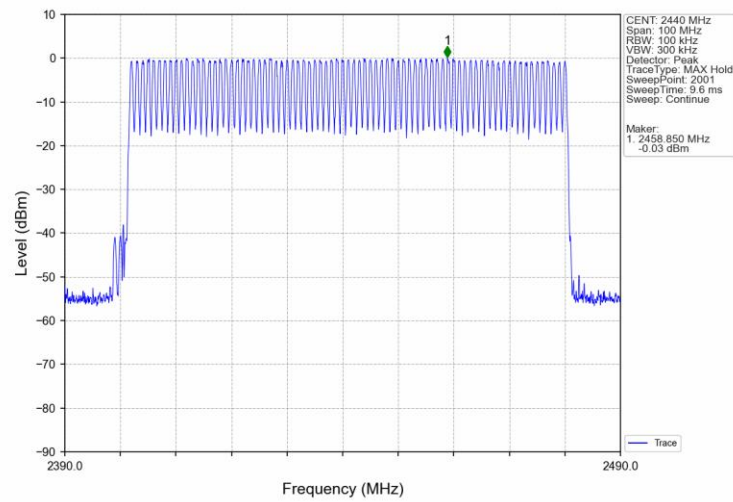
GFSK DH5 MCH 2441MHz Ant1 NTN



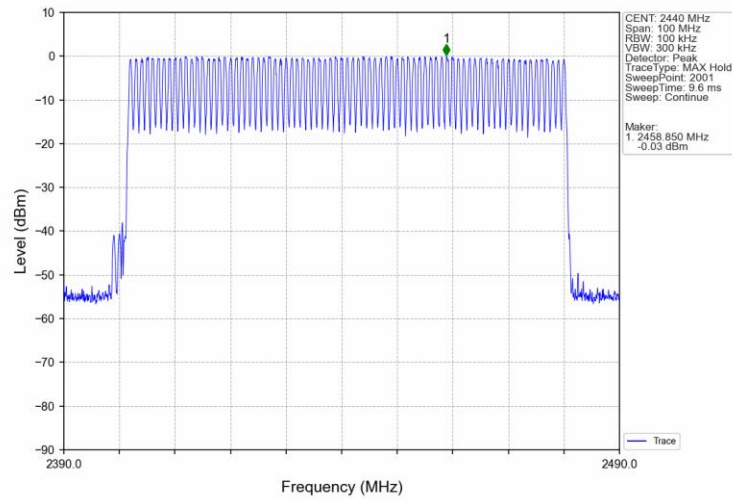
## GFSK\_DH5\_HCH\_2480MHz\_Ant1\_NTNV



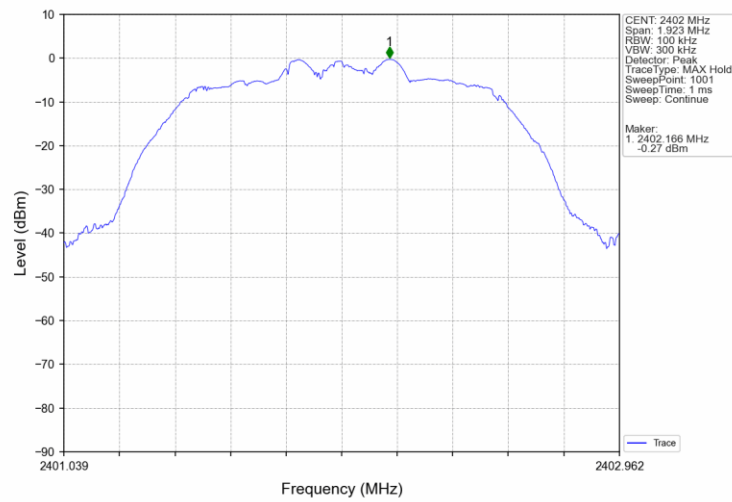
## GFSK\_DH5\_HOPP\_Ant1\_NTNV



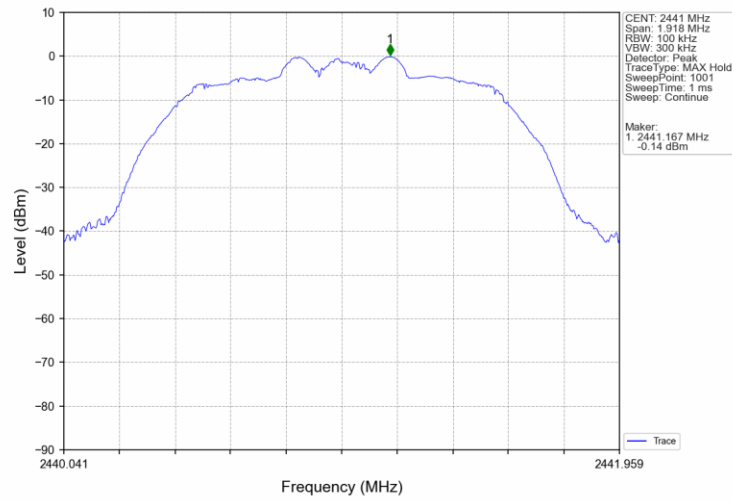
## GFSK\_DH5\_HOPP\_Ant1\_NTNV



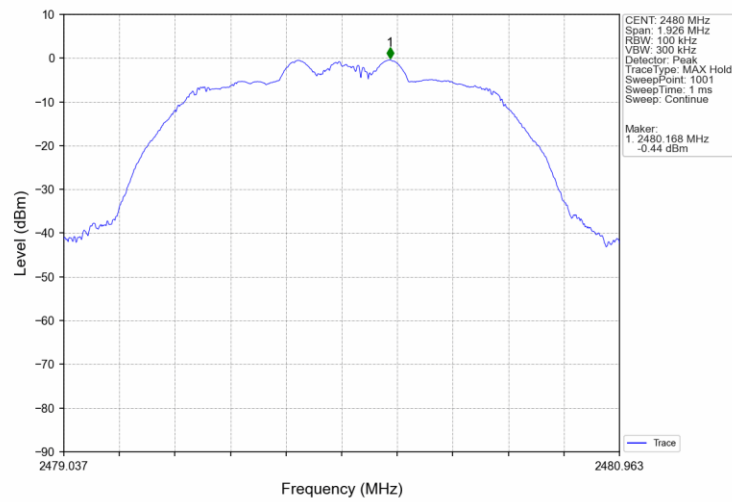
## Pi/4DQPSK\_2DH5\_LCH\_2402MHz\_Ant1\_NTNV



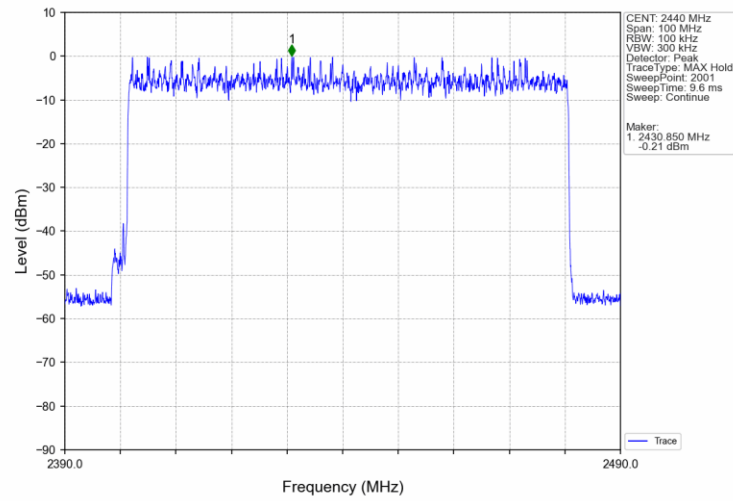
Pi/4DQPSK\_2DH5\_MCH\_2441MHz\_Ant1\_NTNV



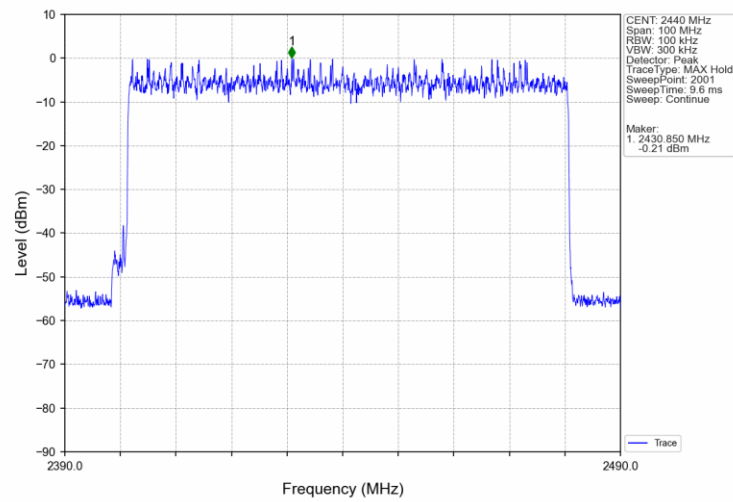
Pi/4DQPSK\_2DH5\_HCH\_2480MHz\_Ant1\_NTNV



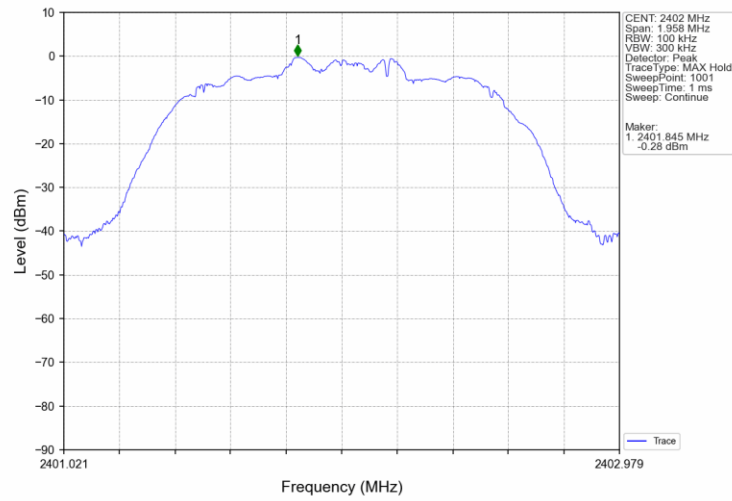
## Pi/4DQPSK\_2DH5\_HOPP\_Ant1\_NTNV



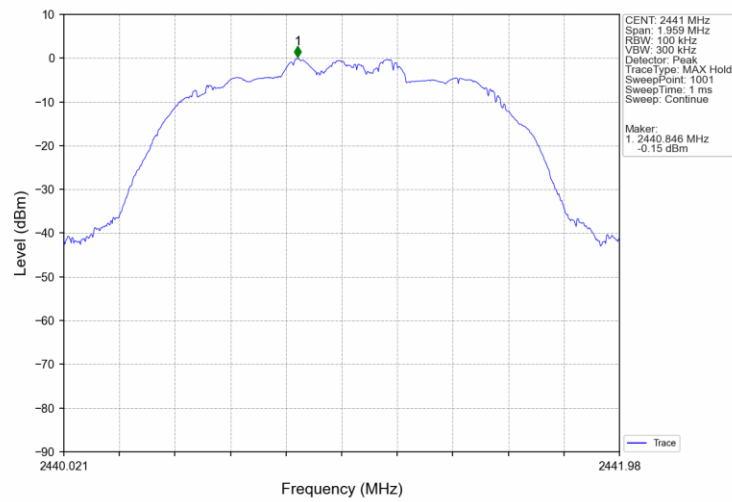
## Pi/4DQPSK\_2DH5\_HOPP\_Ant1\_NTNV



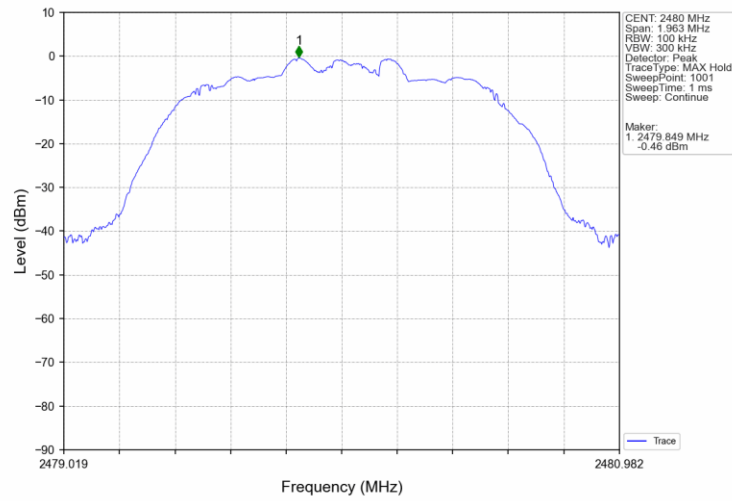
## 8DPSK\_3DH5\_LCH\_2402MHz\_Ant1\_NTNV



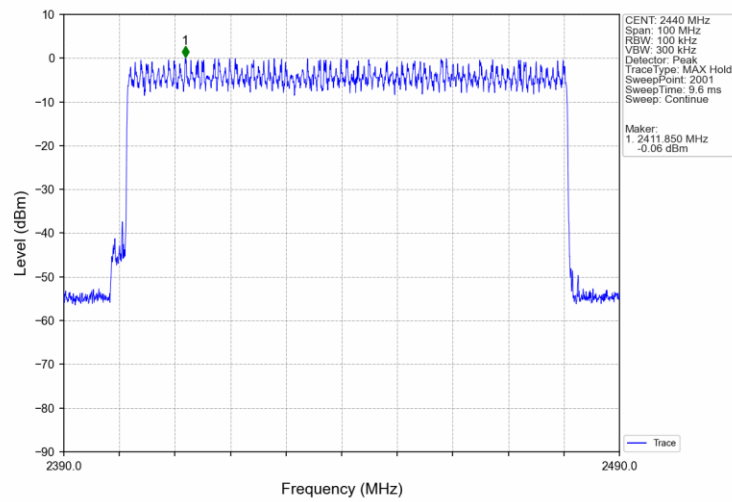
## 8DPSK\_3DH5\_MCH\_2441MHz\_Ant1\_NTNV



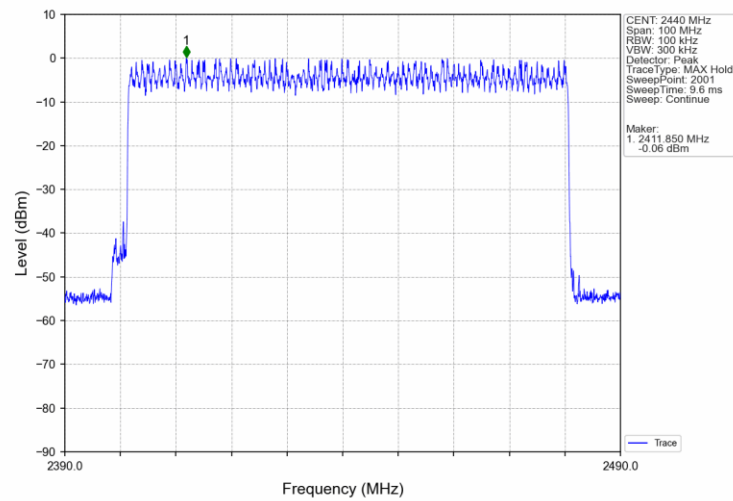
## 8DPSK\_3DH5\_HCH\_2480MHz\_Ant1\_NTNV



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

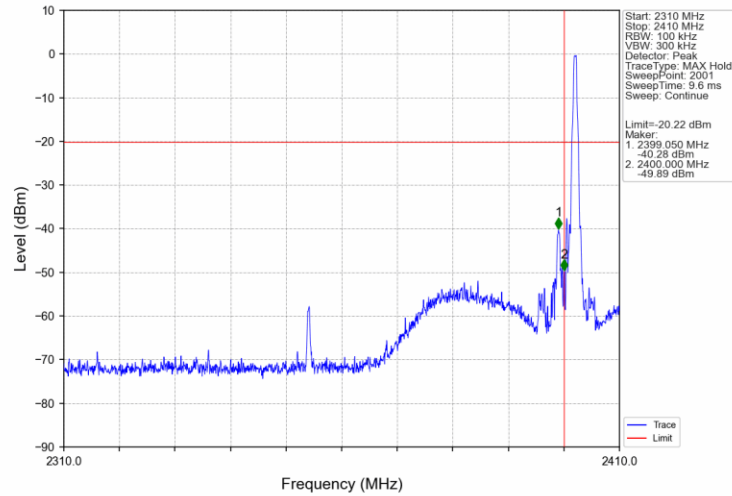


## 8DPSK\_3DH5\_HOPP\_Ant1\_NTNV

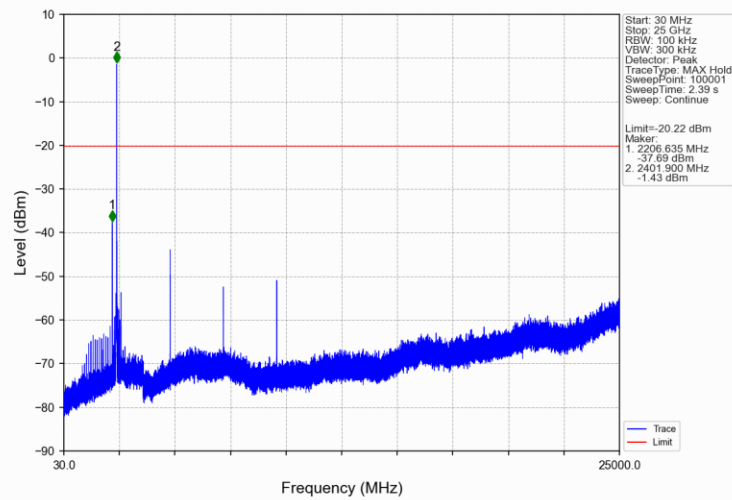


## 6.2.2 CSE

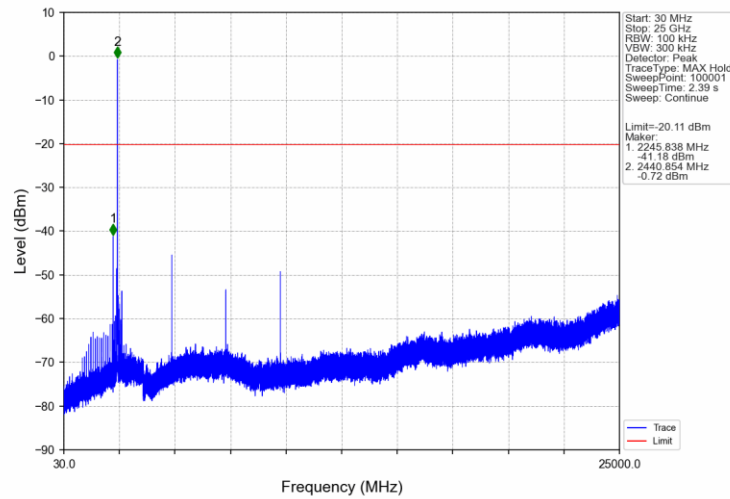
GFSK DH5 LCH 2402MHz Ant1 NTN



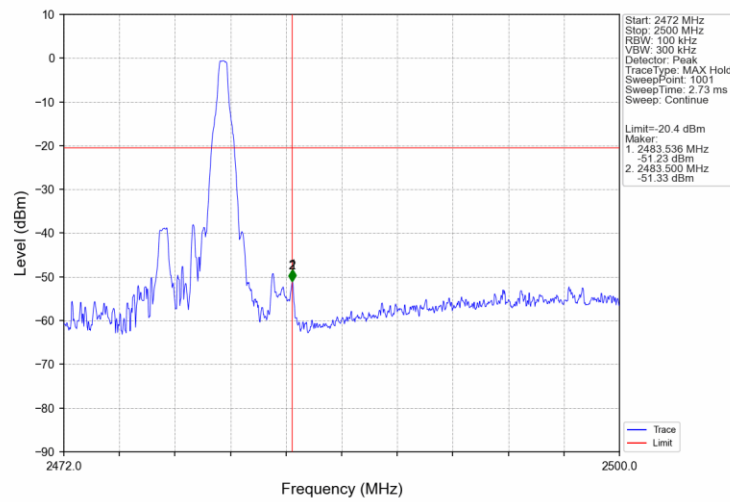
GFSK DH5 LCH 2402MHz Ant1 NTN



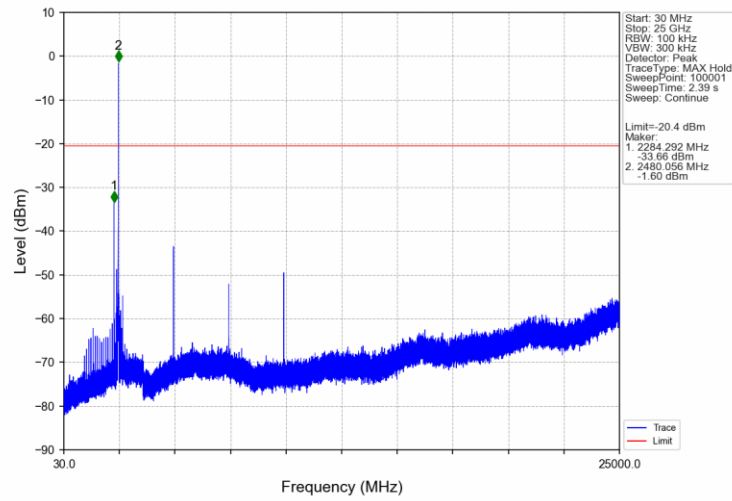
### GFSK\_DH5\_MCH\_2441MHz\_Ant1\_NTNV



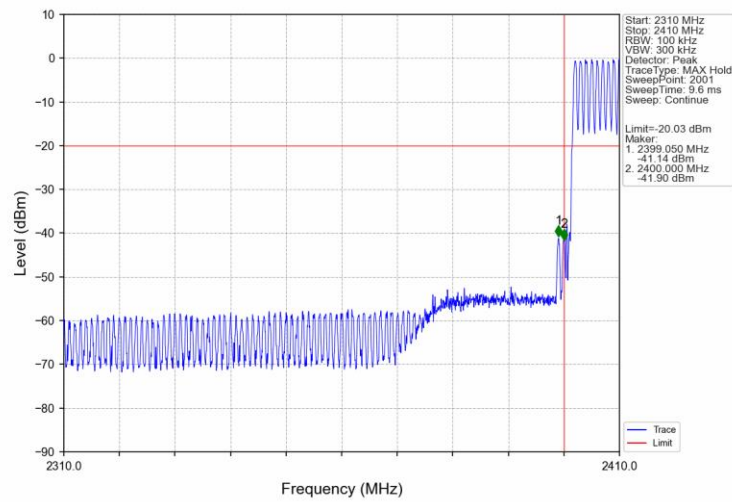
### GFSK\_DH5\_HCH\_2480MHz\_Ant1\_NTNV



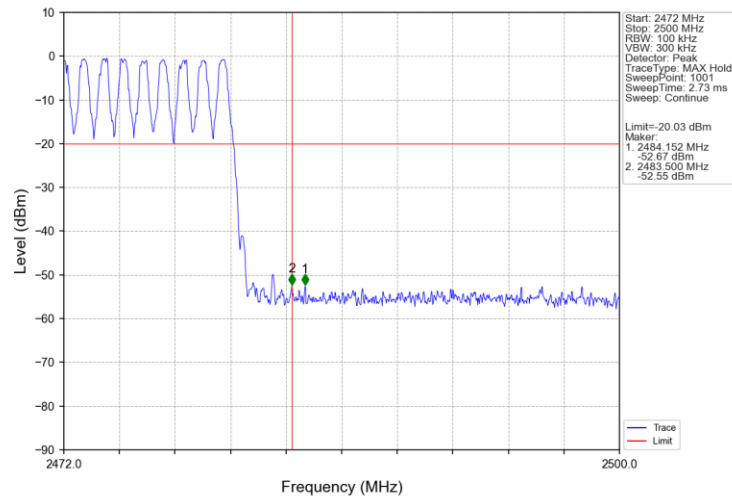
## GFSK\_DH5\_HCH\_2480MHz\_Ant1\_NTNV



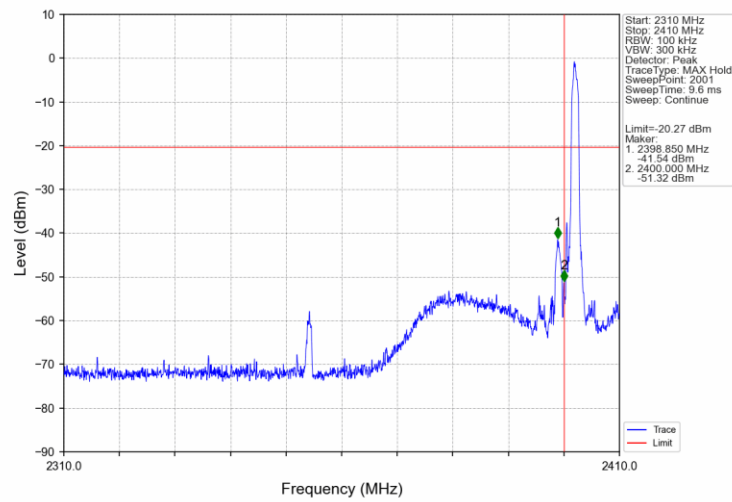
## GFSK\_DH5\_HOPP\_Ant1\_NTNV



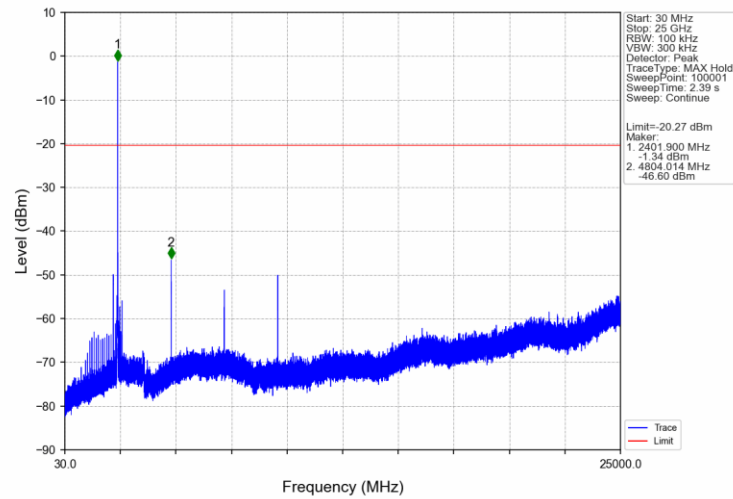
## GFSK\_DH5\_HOPP\_Ant1\_NTNV



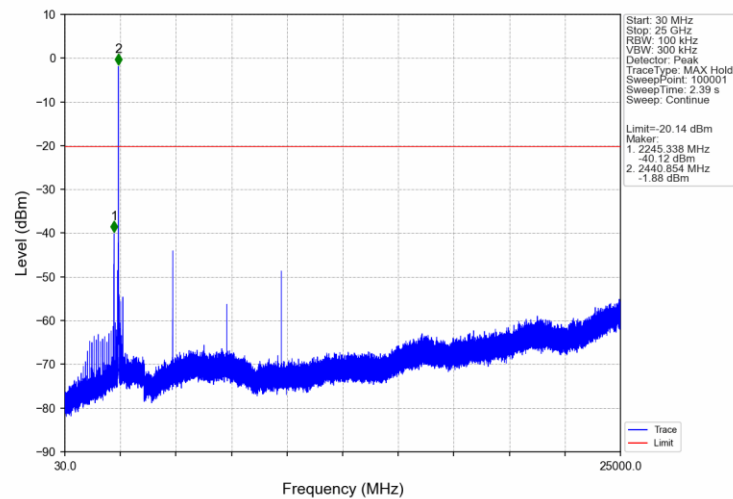
## Pi/4DQPSK\_2DH5\_LCH\_2402MHz\_Ant1\_NTNV



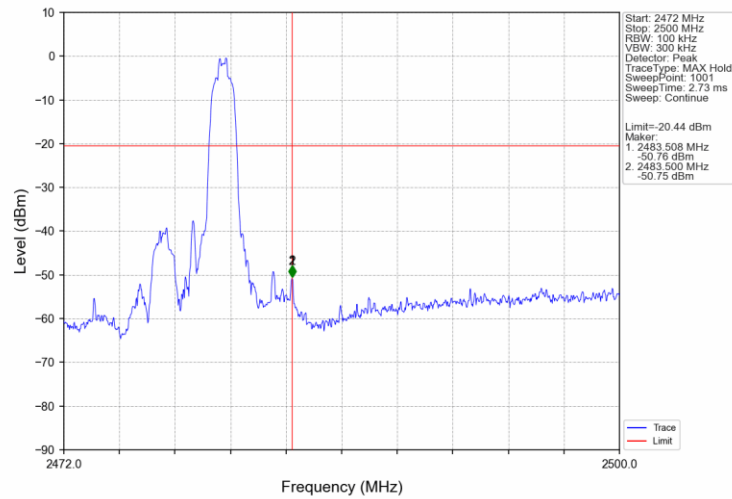
## Pi/4DQPSK\_2DH5\_LCH\_2402MHz\_Ant1\_NTNV



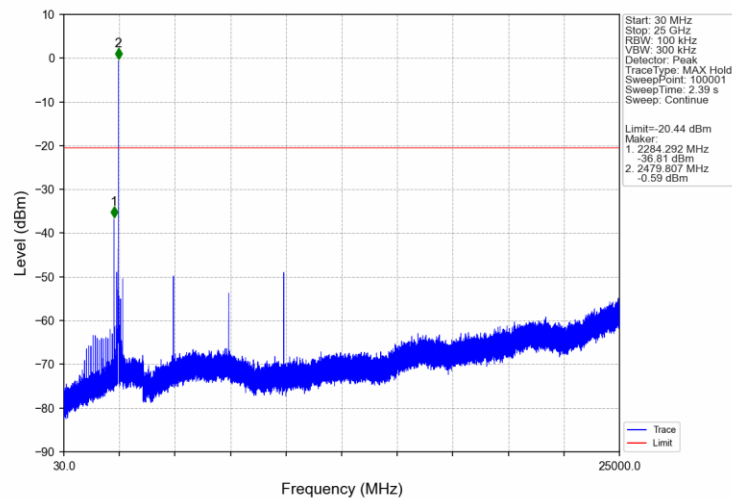
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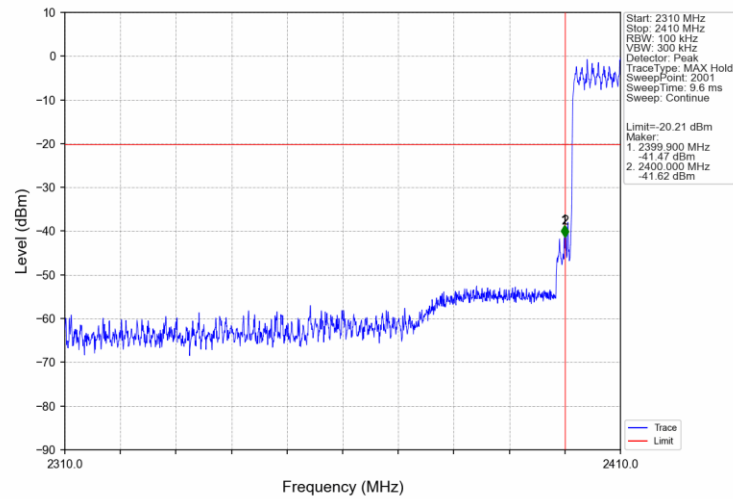
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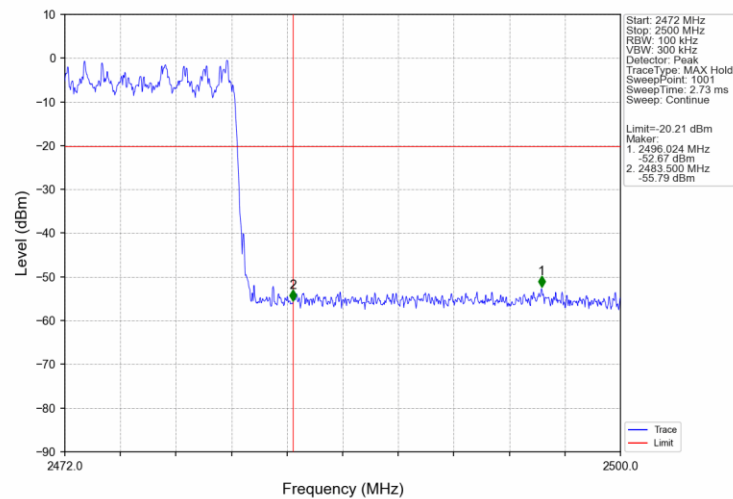
## Pi/4DQPSK\_2DH5\_HCH\_2480MHz\_Ant1\_NTNV



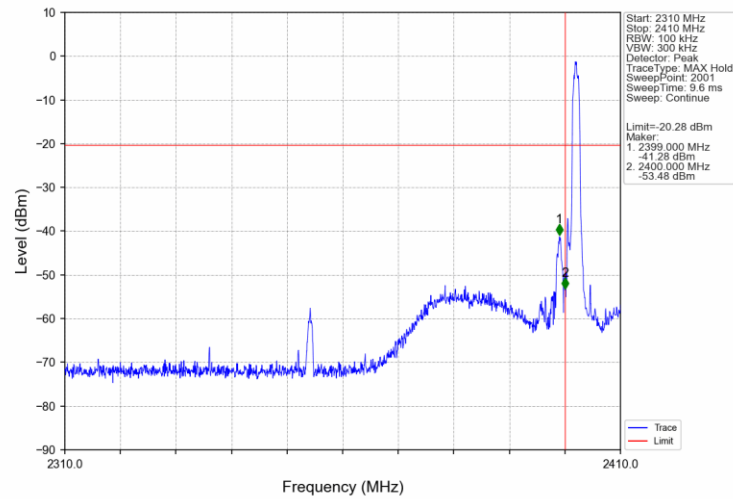
## Pi/4DQPSK\_2DH5\_HOPP\_Ant1\_NTNV



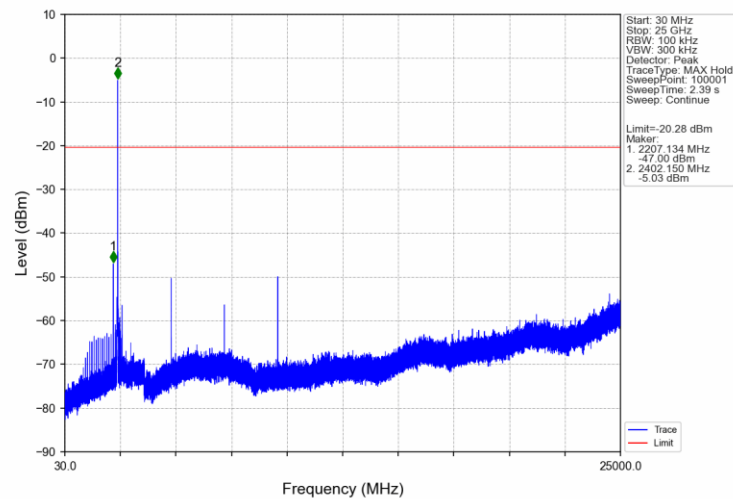
## Pi/4DQPSK\_2DH5\_HOPP\_Ant1\_NTNV



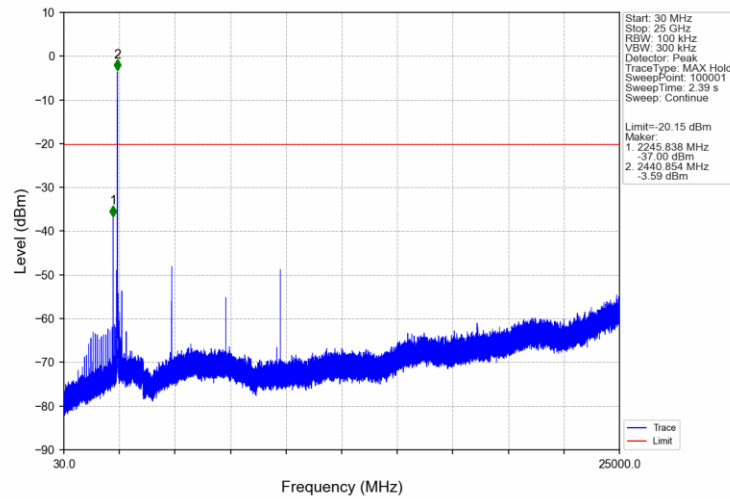
## 8DPSK\_3DH5\_LCH\_2402MHz\_Ant1\_NTNV



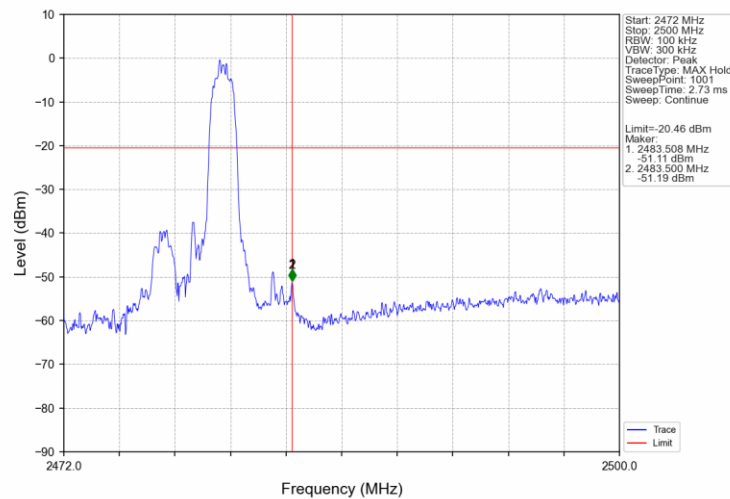
## 8DPSK\_3DH5\_LCH\_2402MHz\_Ant1\_NTNV



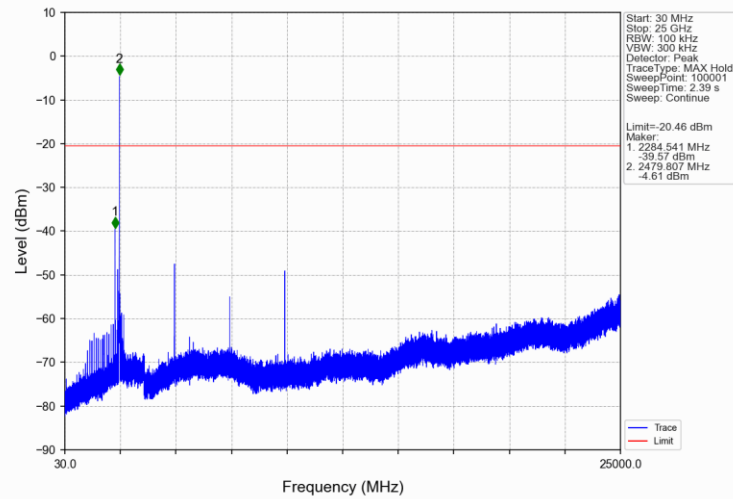
## 8DPSK\_3DH5\_MCH\_2441MHz\_Ant1\_NTNV



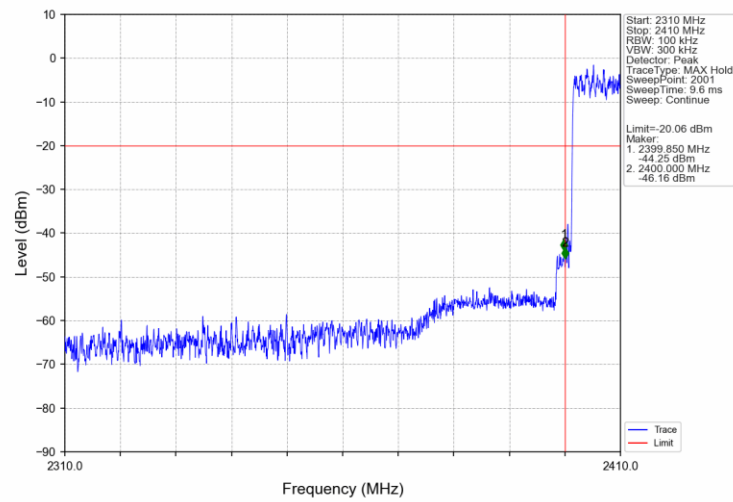
## 8DPSK\_3DH5\_HCH\_2480MHz\_Ant1\_NTNV



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

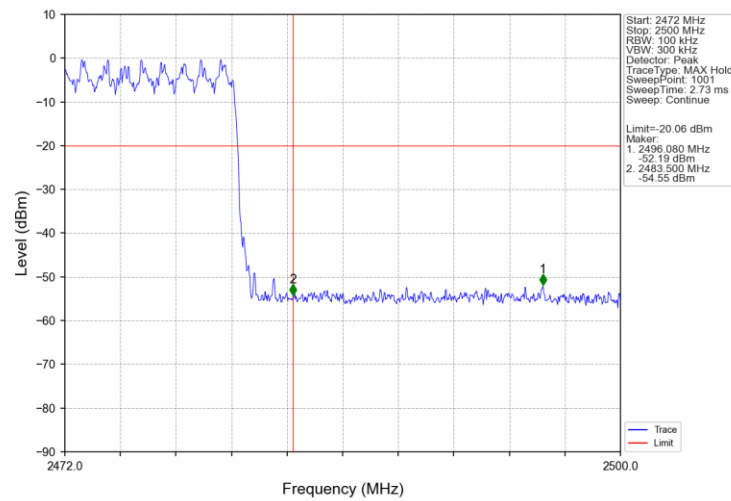


## 8DPSK\_3DH5\_HOPP\_Ant1\_NTNV





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



\*\*\*\*\* End of Report \*\*\*\*\*