

## ANNEX D TEST DATA

### For

|                      |                                         |
|----------------------|-----------------------------------------|
| Project No.:         | 8232EU123005W                           |
| Client:              | Guangdong Yijia Animation Toys Co., Ltd |
| Product Description: | Bluetooth DANCE MAT                     |
| Model No.:           | MODEL.2024                              |
| FCC ID:              | 2BMGE-MODEL2024                         |
| Technology:          | Bluetooth BDR&EDR                       |
| Test Engineer:       | <i>Mikoy zhu</i>                        |
| Test Date:           | 2024-09-02                              |

**Test Summary**

| Item                                                 | Result |
|------------------------------------------------------|--------|
| Bandwidth                                            | Pass   |
| Maximum Conducted Output Power                       | Pass   |
| Carrier Frequency Separation                         | Pass   |
| Number of Hopping Frequencies                        | Pass   |
| Time of Occupancy (Dwell Time)                       | Pass   |
| Unwanted Emissions In Non-restricted Frequency Bands | Pass   |

## 1. Duty Cycle

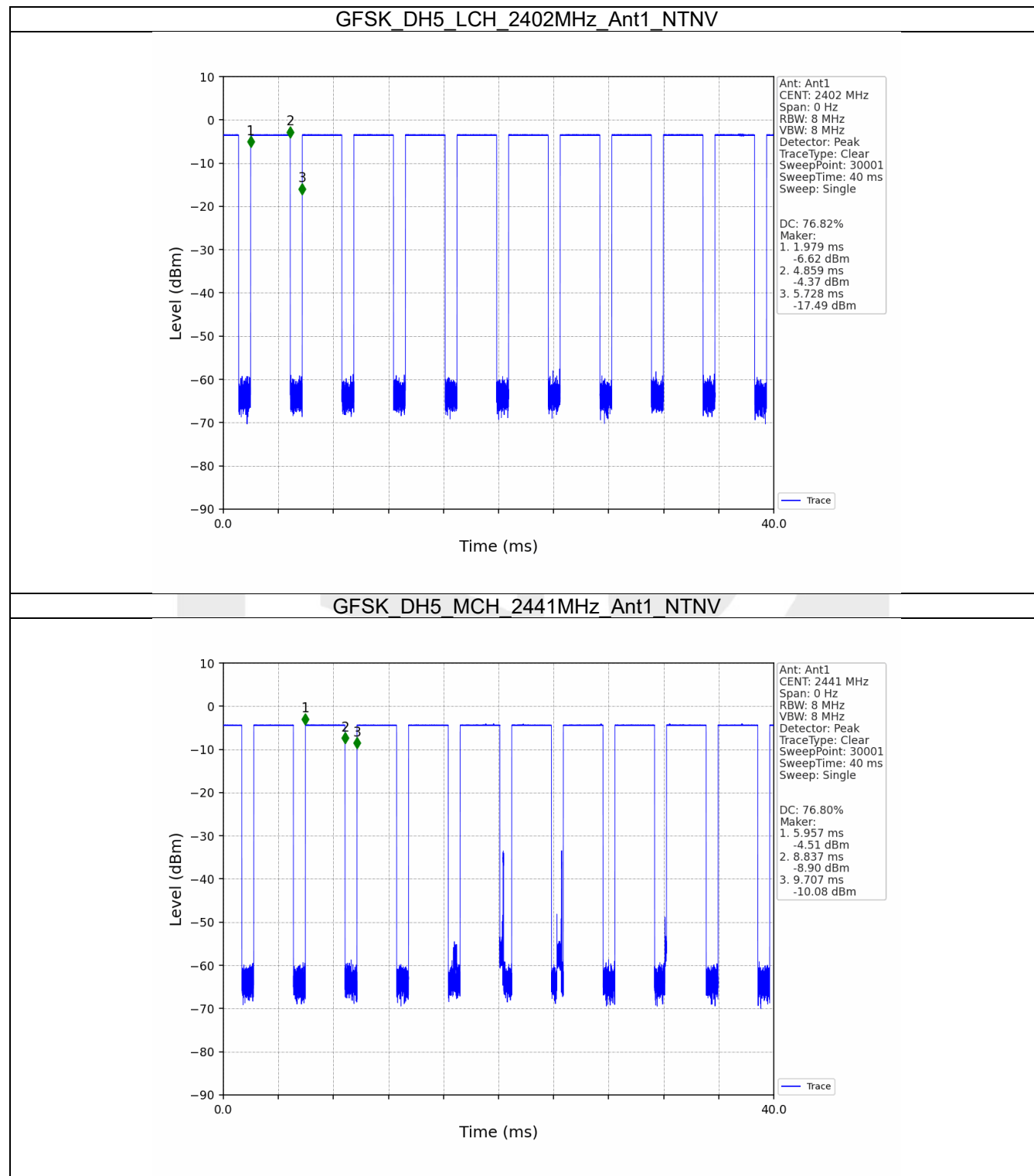
### 1.1 Test Result

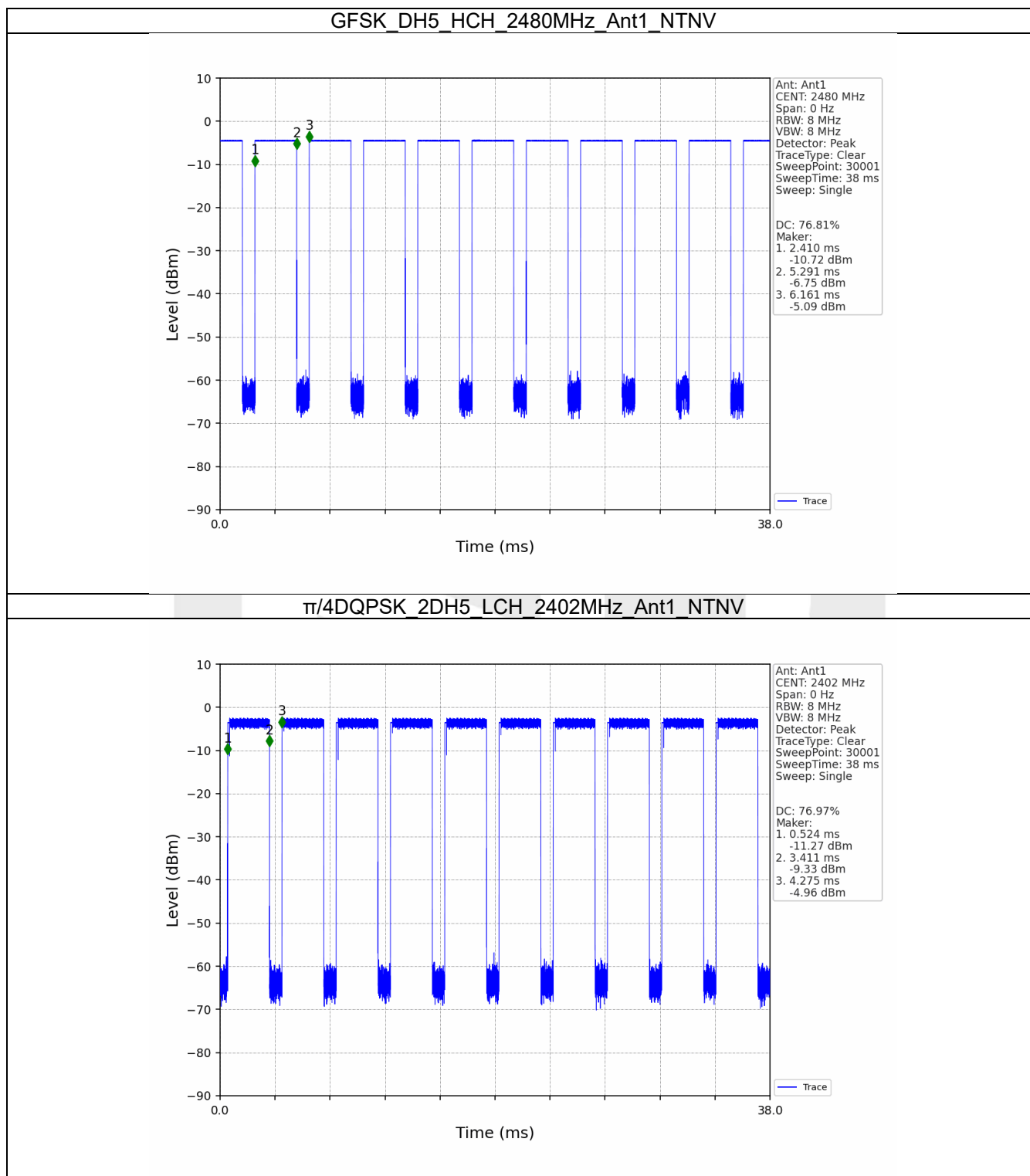
#### 1.1.1 Ant1

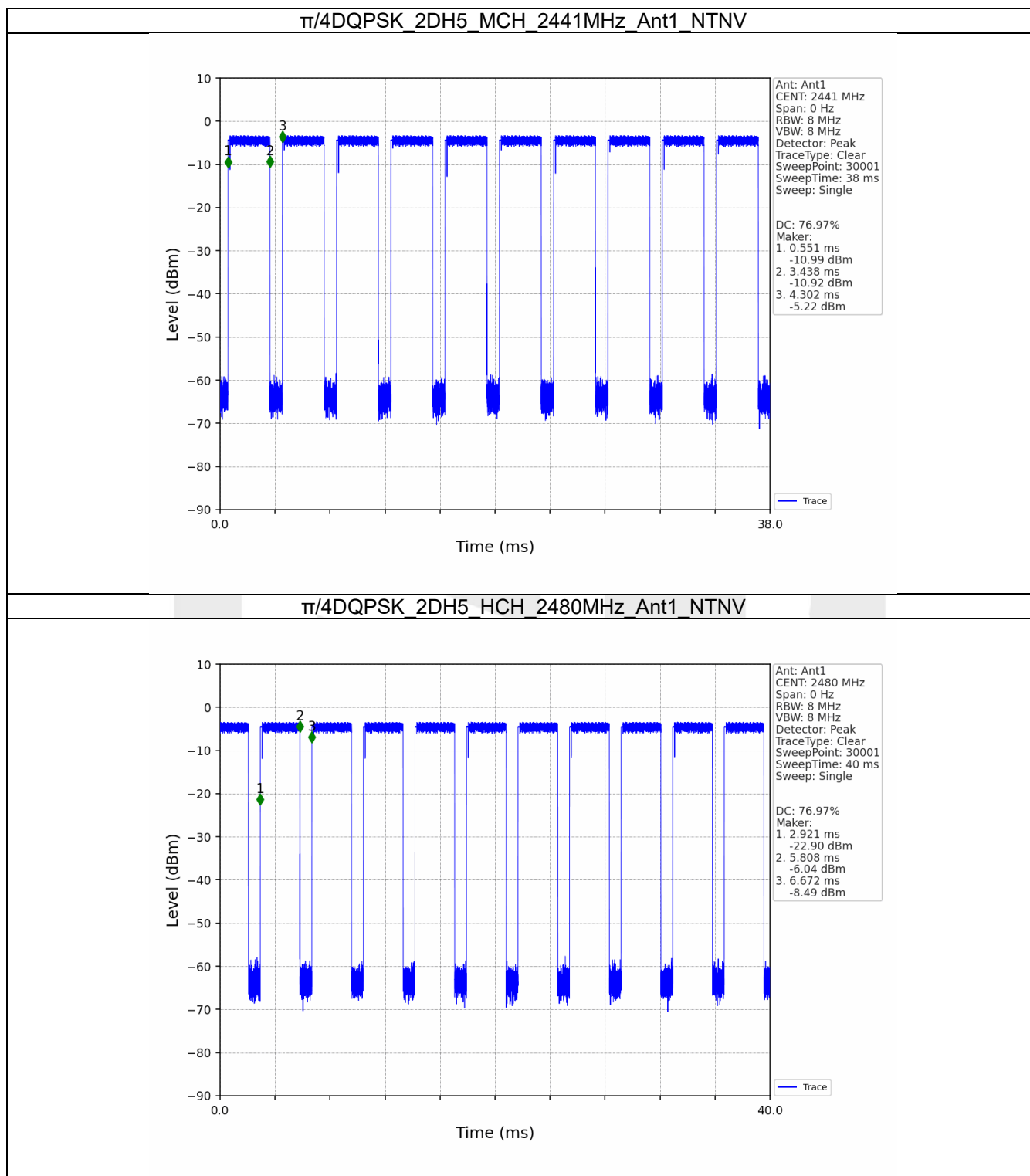
| Ant1          |         |                 |             |                      |             |                |                                   |                       |
|---------------|---------|-----------------|-------------|----------------------|-------------|----------------|-----------------------------------|-----------------------|
| Mode          | TX Type | Frequency (MHz) | Packet Type | T <sub>on</sub> (ms) | Period (ms) | Duty Cycle (%) | Duty Cycle Correction Factor (dB) | Max. DC Variation (%) |
| GFSK          | SISO    | 2402            | DH5         | 2.880                | 3.749       | 76.82          | 1.15                              | 0.01                  |
|               |         | 2441            | DH5         | 2.880                | 3.750       | 76.80          | 1.15                              | 0.01                  |
|               |         | 2480            | DH5         | 2.881                | 3.751       | 76.81          | 1.15                              | 0.03                  |
| $\pi/4$ DQPSK | SISO    | 2402            | 2DH5        | 2.887                | 3.751       | 76.97          | 1.14                              | 0.03                  |
|               |         | 2441            | 2DH5        | 2.887                | 3.751       | 76.97          | 1.14                              | 0.03                  |
|               |         | 2480            | 2DH5        | 2.887                | 3.751       | 76.97          | 1.14                              | 0.03                  |
| 8DPSK         | SISO    | 2402            | 3DH5        | 2.894                | 3.749       | 77.19          | 1.12                              | 0.01                  |
|               |         | 2441            | 3DH5        | 2.888                | 3.749       | 77.03          | 1.13                              | 0.01                  |
|               |         | 2480            | 3DH5        | 2.888                | 3.750       | 77.01          | 1.13                              | 0.01                  |

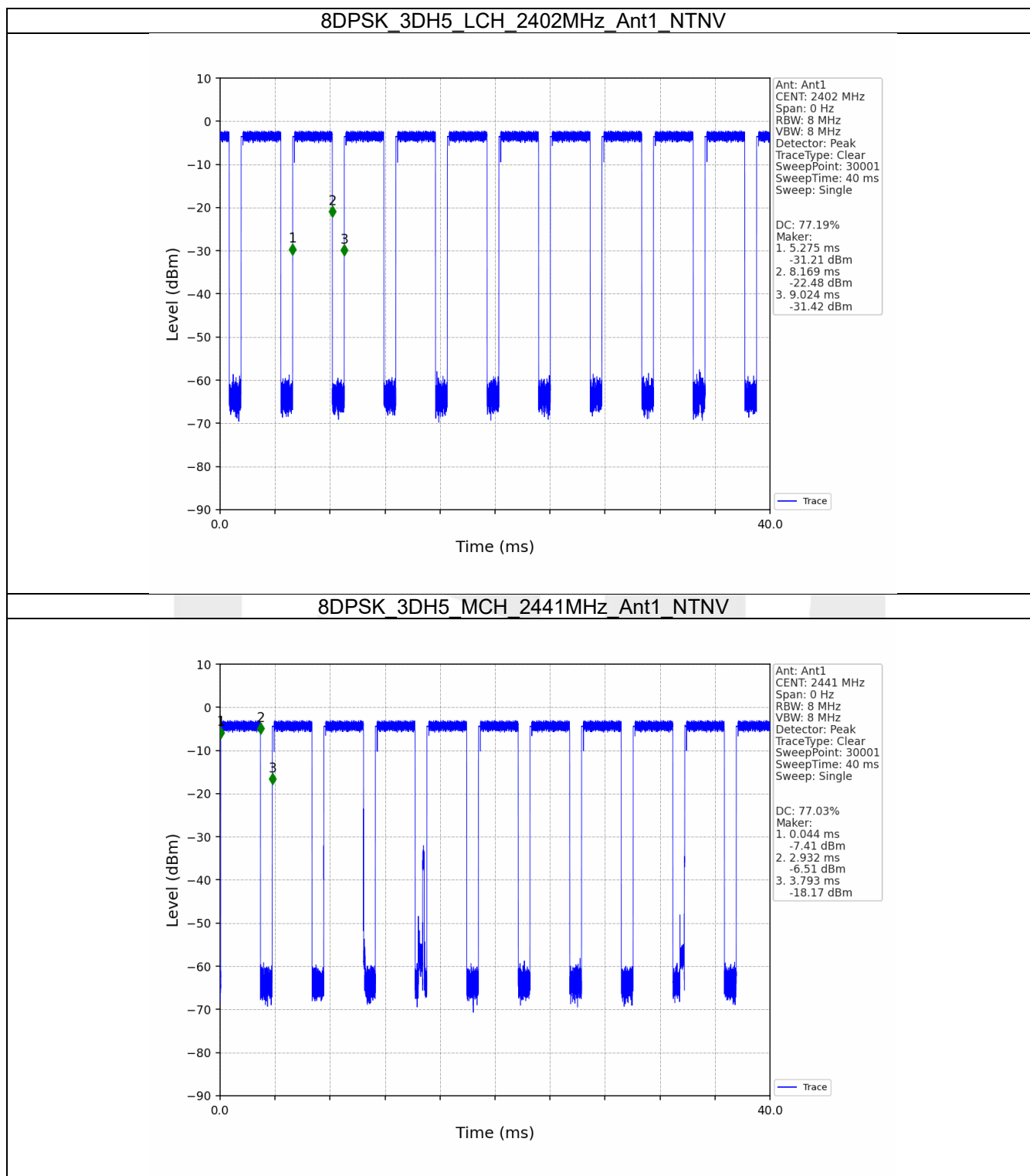
## 1.2 Test Graph

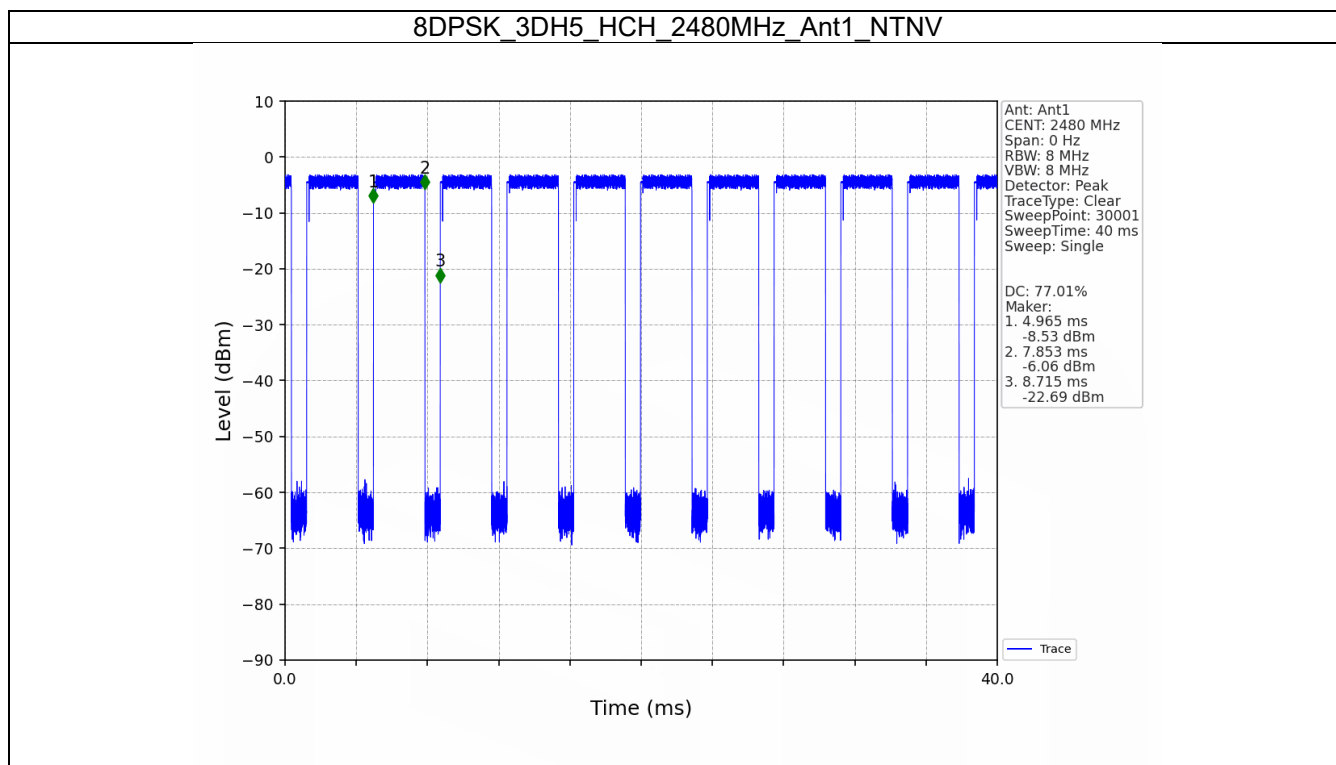
### 1.2.1 Ant1











## 2. Bandwidth

### 2.1 Test Result

#### 2.1.1 OBW

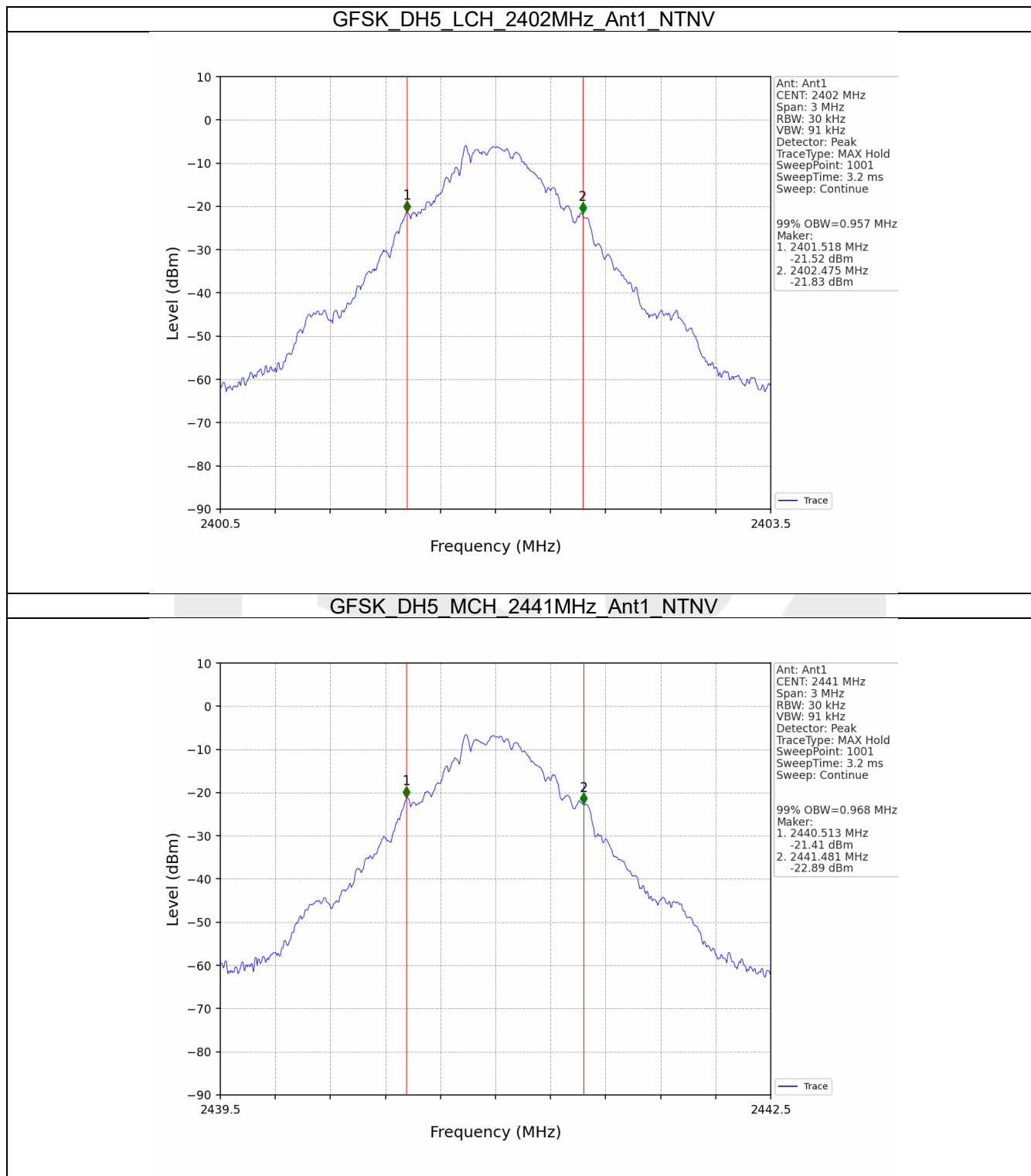
| Mode          | TX Type | Frequency (MHz) | Packet Type | ANT | 99% Occupied Bandwidth (MHz) |       | Verdict |
|---------------|---------|-----------------|-------------|-----|------------------------------|-------|---------|
|               |         |                 |             |     | Result                       | Limit |         |
| GFSK          | SISO    | 2402            | DH5         | 1   | 0.957                        | /     | Pass    |
|               |         | 2441            | DH5         | 1   | 0.968                        | /     | Pass    |
|               |         | 2480            | DH5         | 1   | 0.977                        | /     | Pass    |
| $\pi/4$ DQPSK | SISO    | 2402            | 2DH5        | 1   | 1.225                        | /     | Pass    |
|               |         | 2441            | 2DH5        | 1   | 1.240                        | /     | Pass    |
|               |         | 2480            | 2DH5        | 1   | 1.252                        | /     | Pass    |
| 8DPSK         | SISO    | 2402            | 3DH5        | 1   | 1.222                        | /     | Pass    |
|               |         | 2441            | 3DH5        | 1   | 1.225                        | /     | Pass    |
|               |         | 2480            | 3DH5        | 1   | 1.225                        | /     | Pass    |

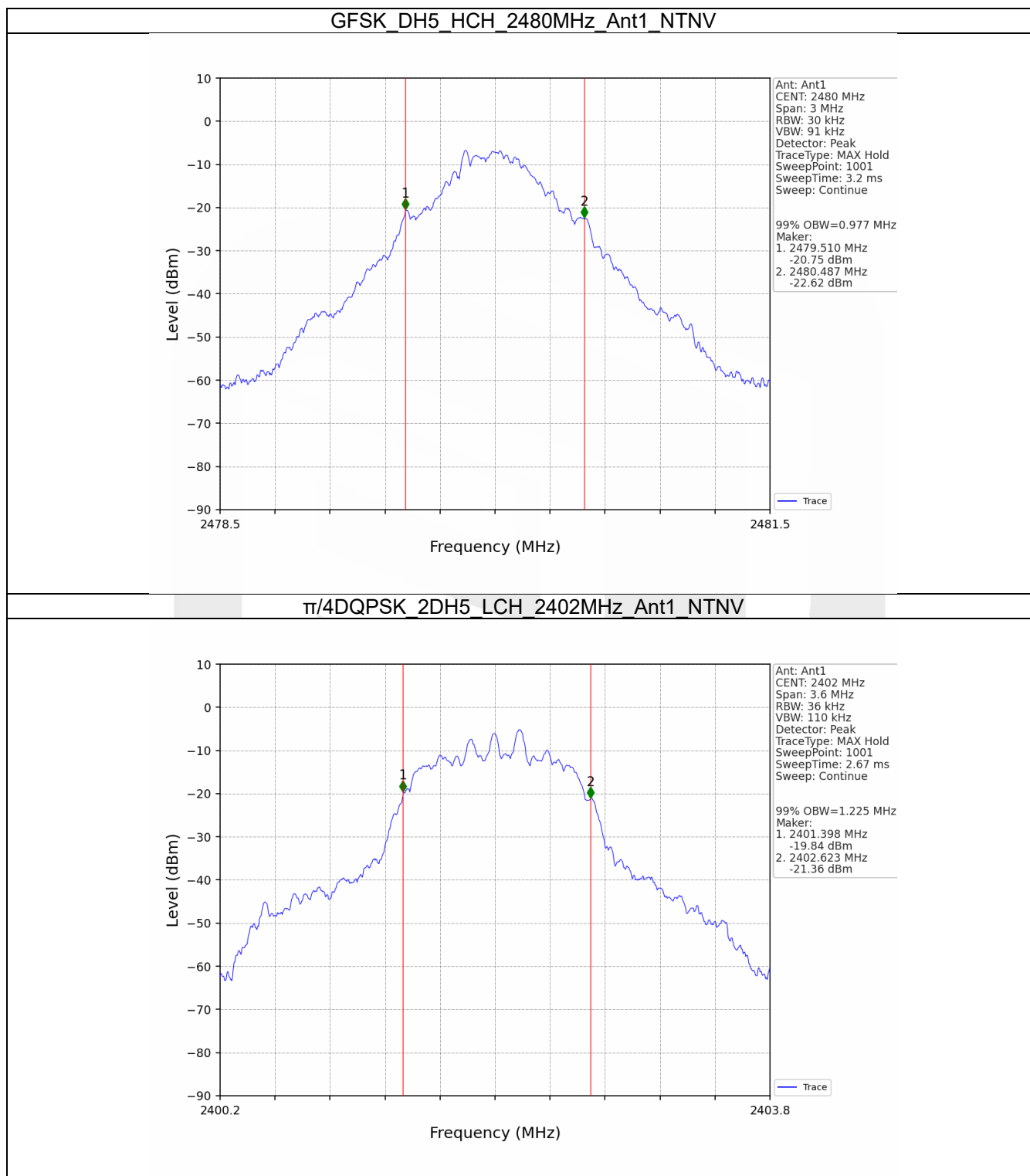
#### 2.1.2 20dB BW

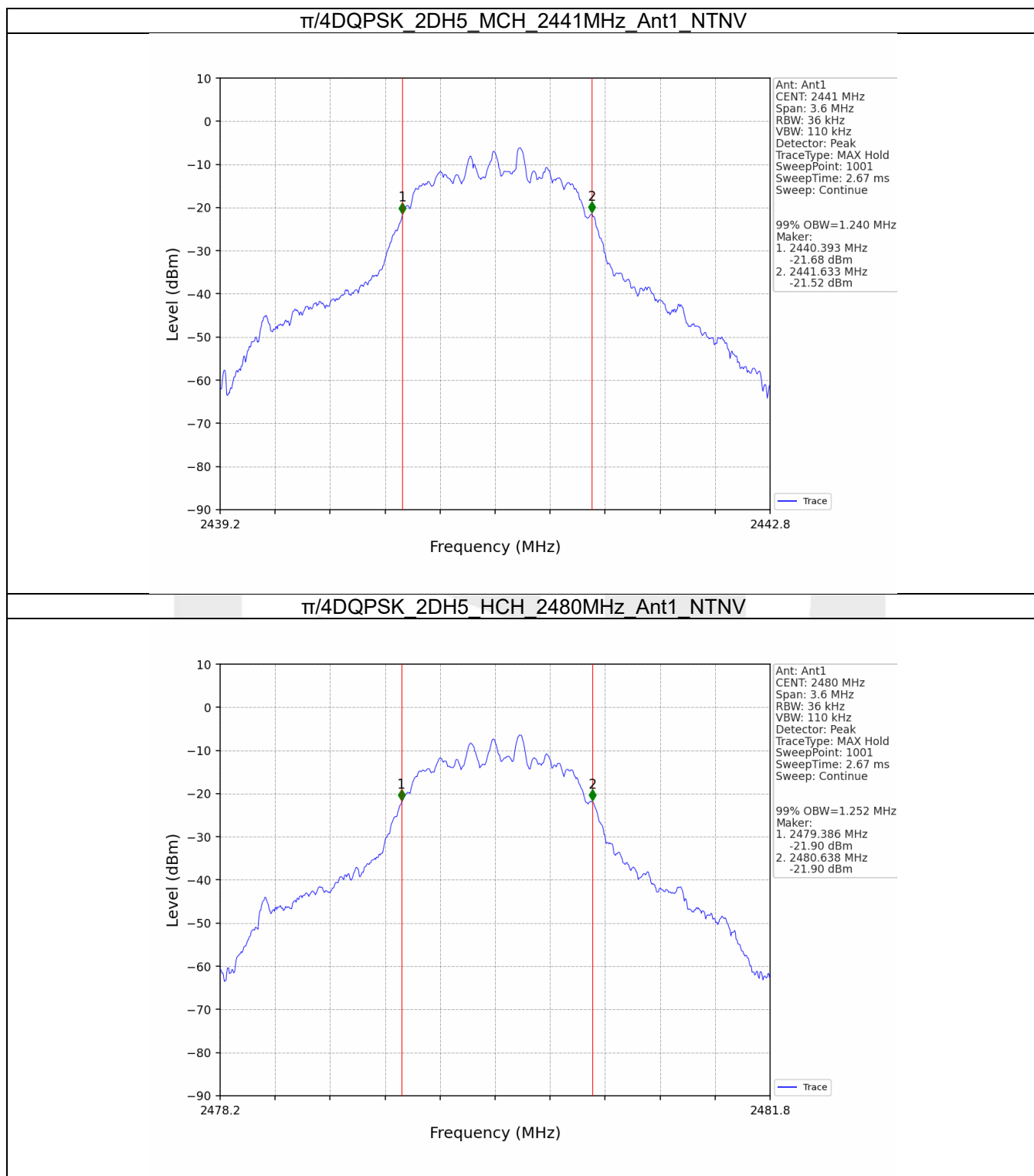
| Mode          | TX Type | Frequency (MHz) | Packet Type | ANT | 20dB Bandwidth (MHz) |       | Verdict |
|---------------|---------|-----------------|-------------|-----|----------------------|-------|---------|
|               |         |                 |             |     | Result               | Limit |         |
| GFSK          | SISO    | 2402            | DH5         | 1   | 1.068                | /     | Pass    |
|               |         | 2441            | DH5         | 1   | 1.067                | /     | Pass    |
|               |         | 2480            | DH5         | 1   | 1.065                | /     | Pass    |
| $\pi/4$ DQPSK | SISO    | 2402            | 2DH5        | 1   | 1.340                | /     | Pass    |
|               |         | 2441            | 2DH5        | 1   | 1.345                | /     | Pass    |
|               |         | 2480            | 2DH5        | 1   | 1.349                | /     | Pass    |
| 8DPSK         | SISO    | 2402            | 3DH5        | 1   | 1.319                | /     | Pass    |
|               |         | 2441            | 3DH5        | 1   | 1.309                | /     | Pass    |
|               |         | 2480            | 3DH5        | 1   | 1.302                | /     | Pass    |

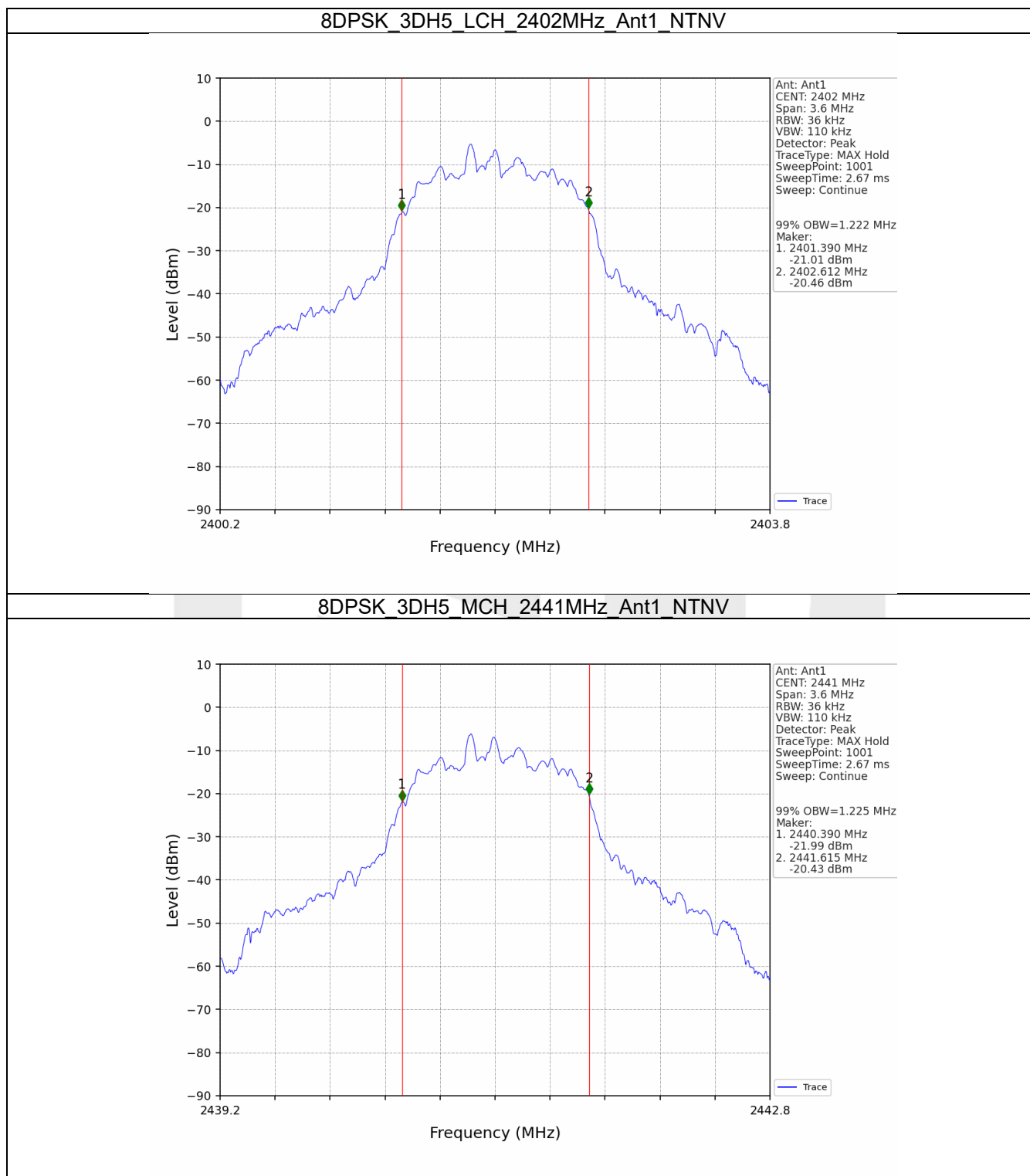
## 2.2 Test Graph

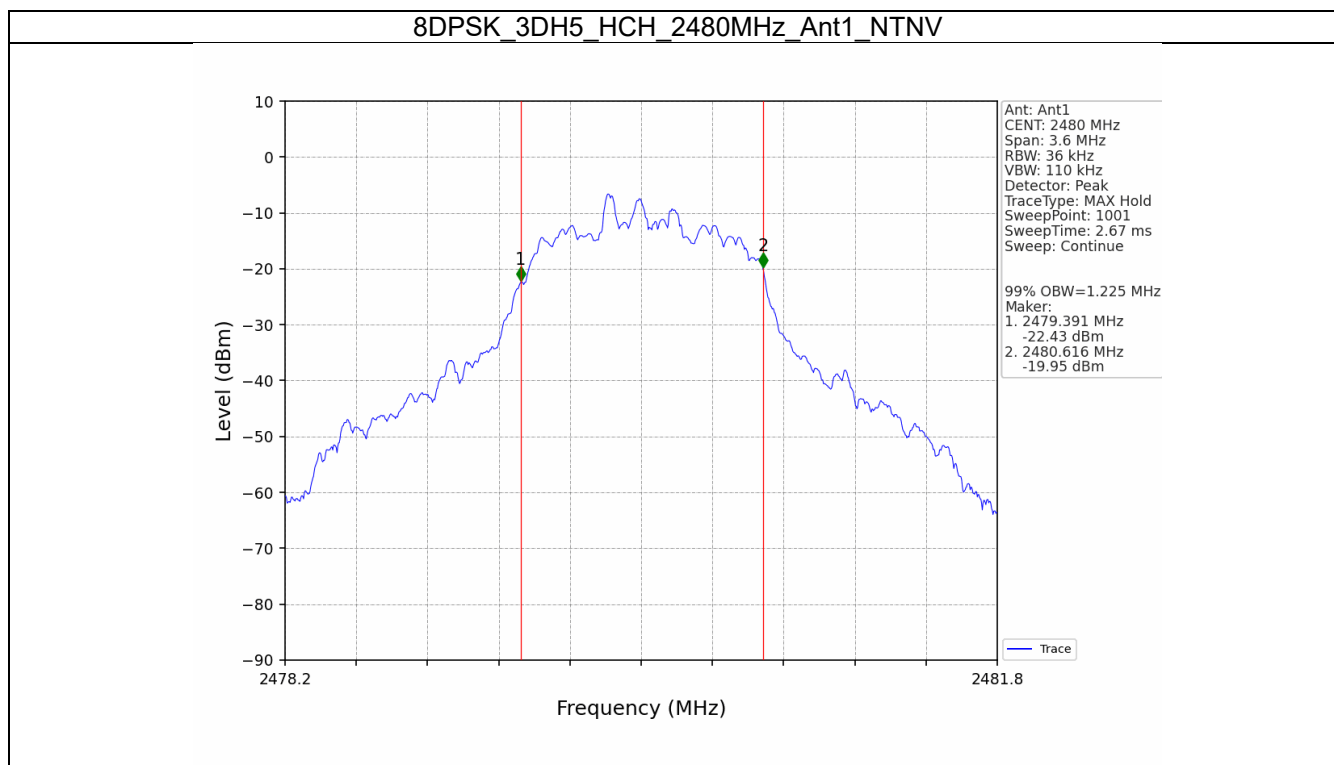
### 2.2.1 OBW



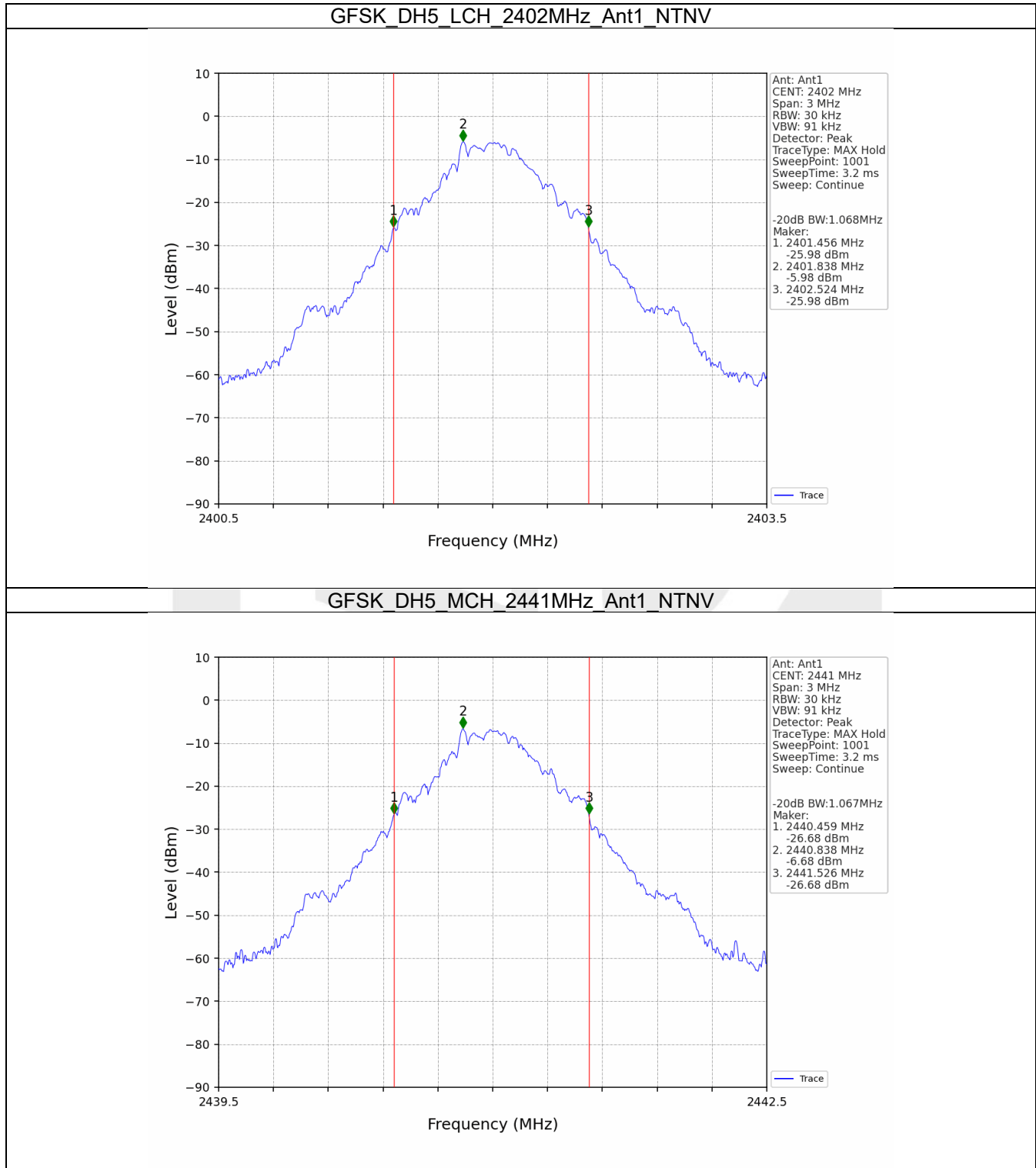


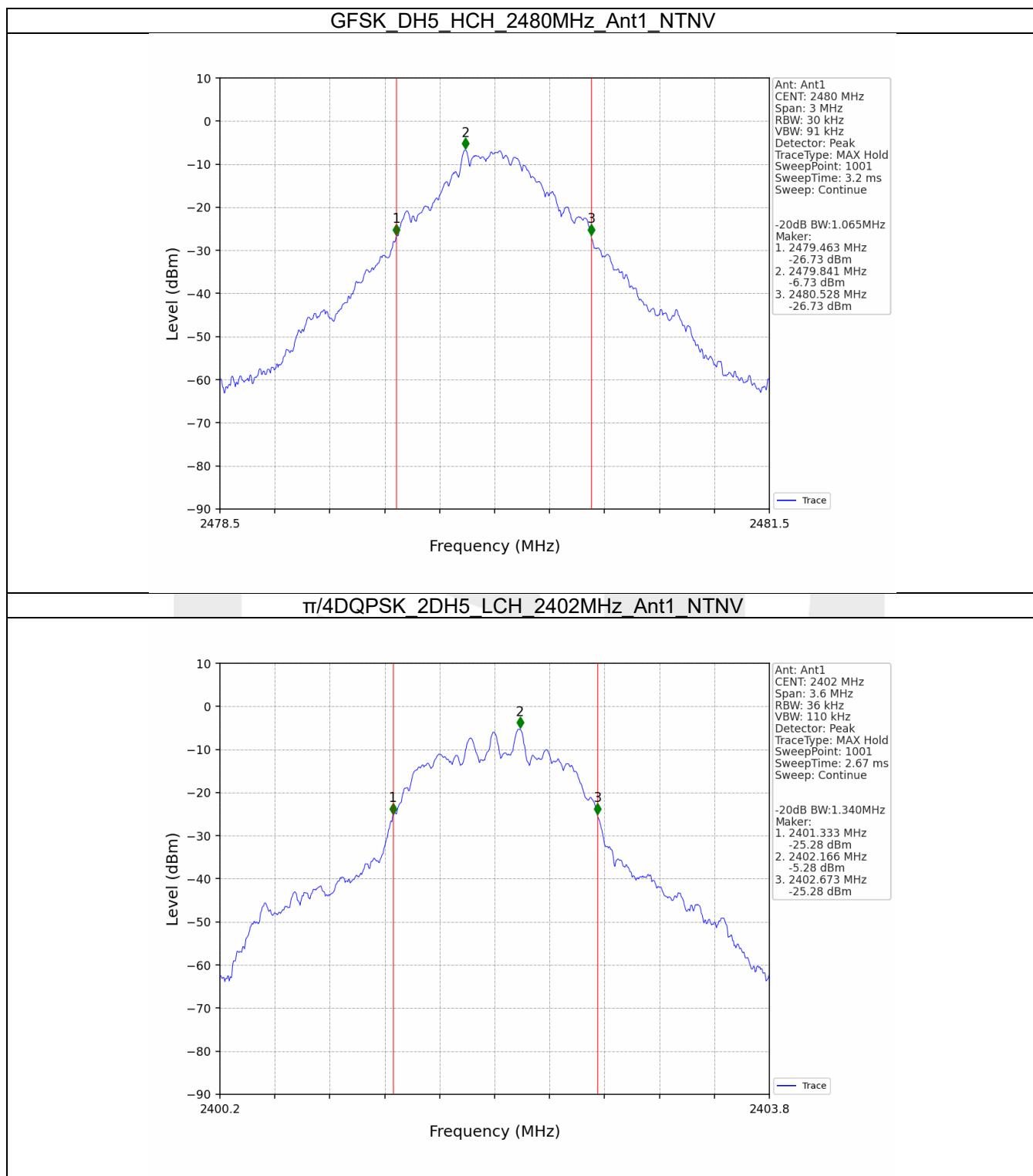


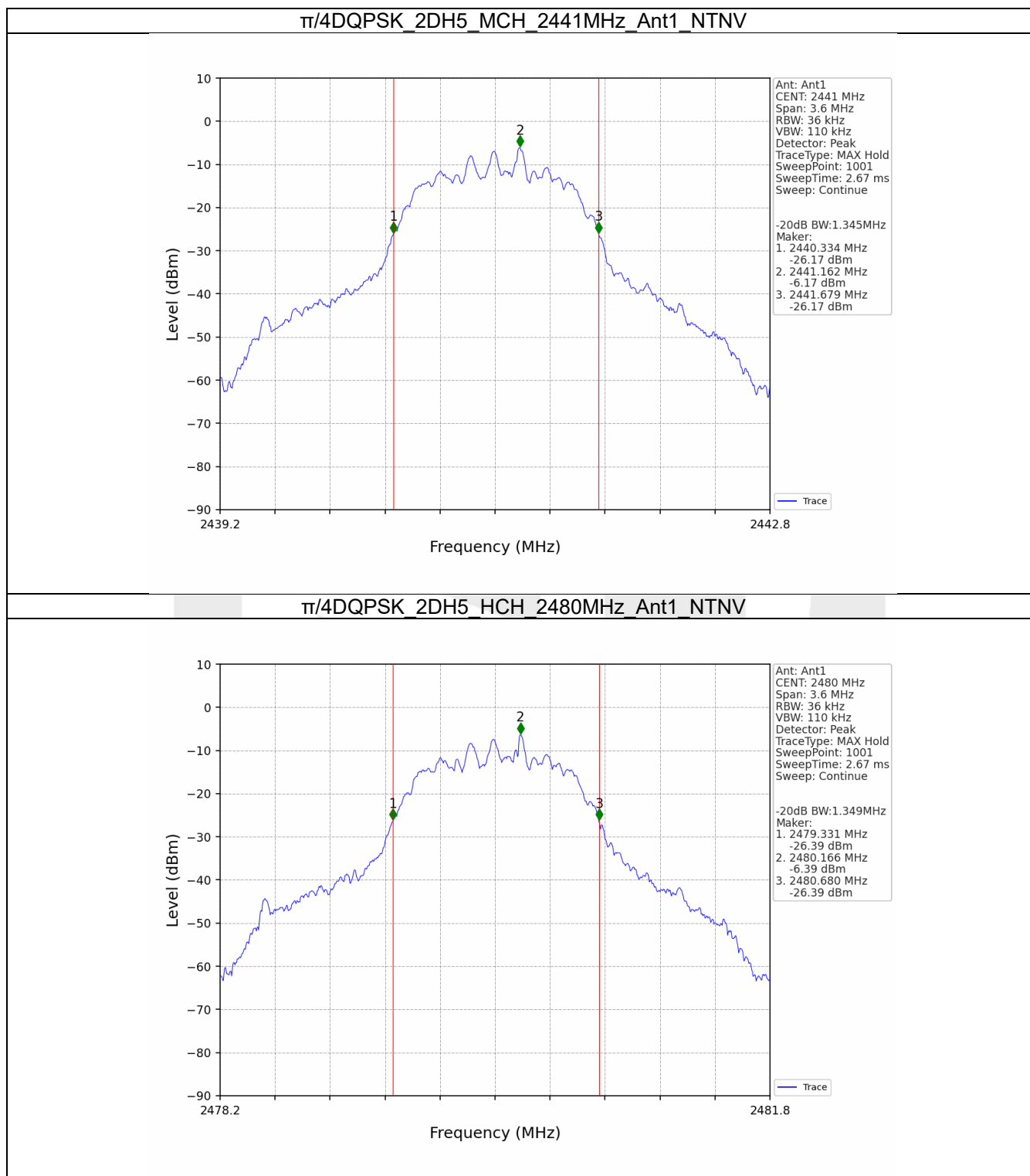


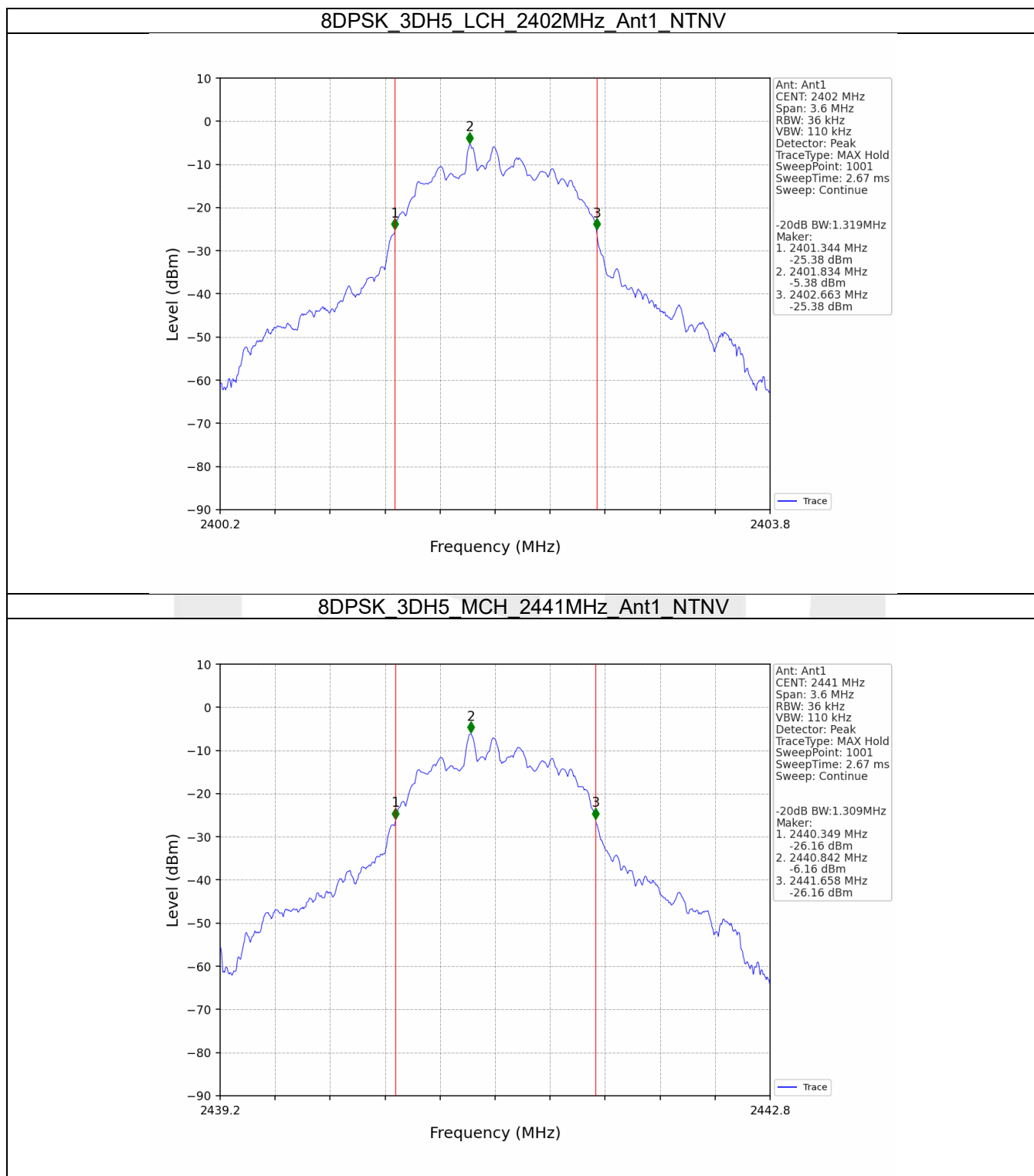


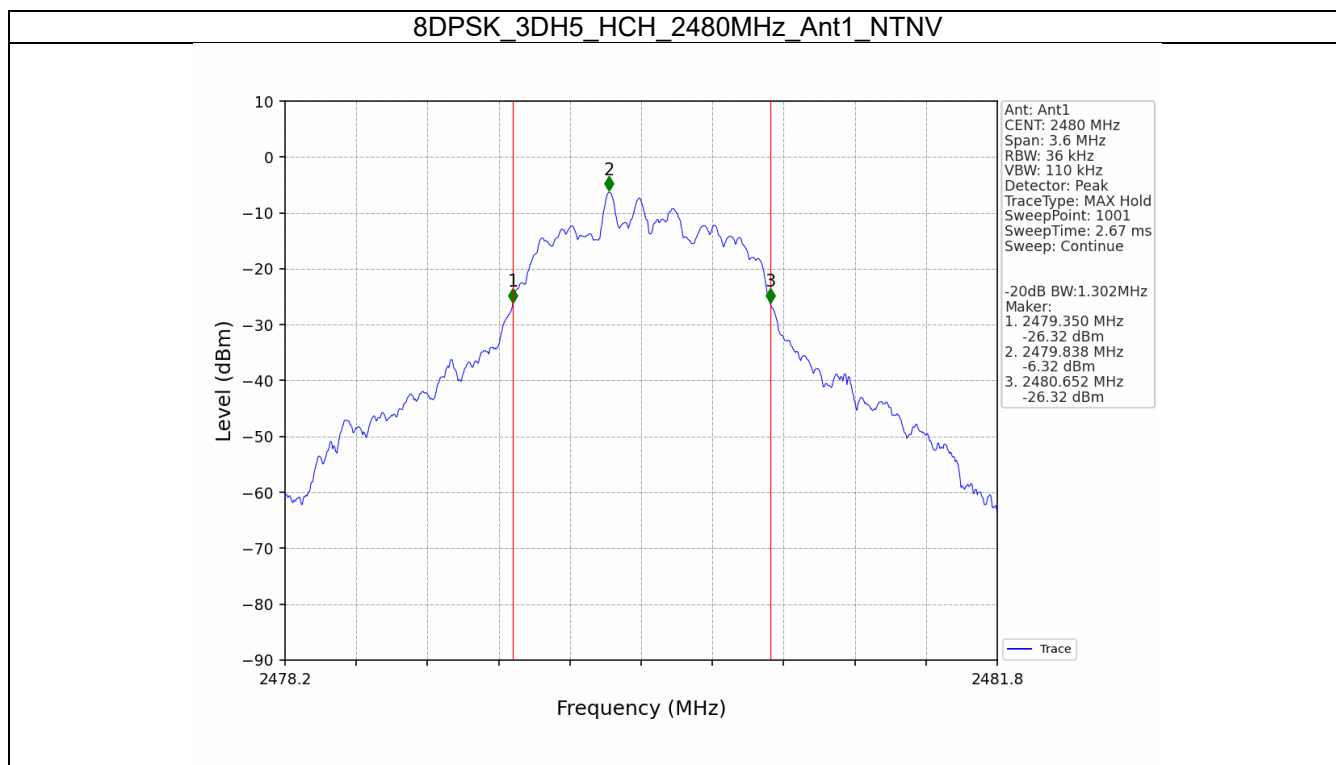
## 2.2.2 20dB BW











### 3. Maximum Conducted Output Power

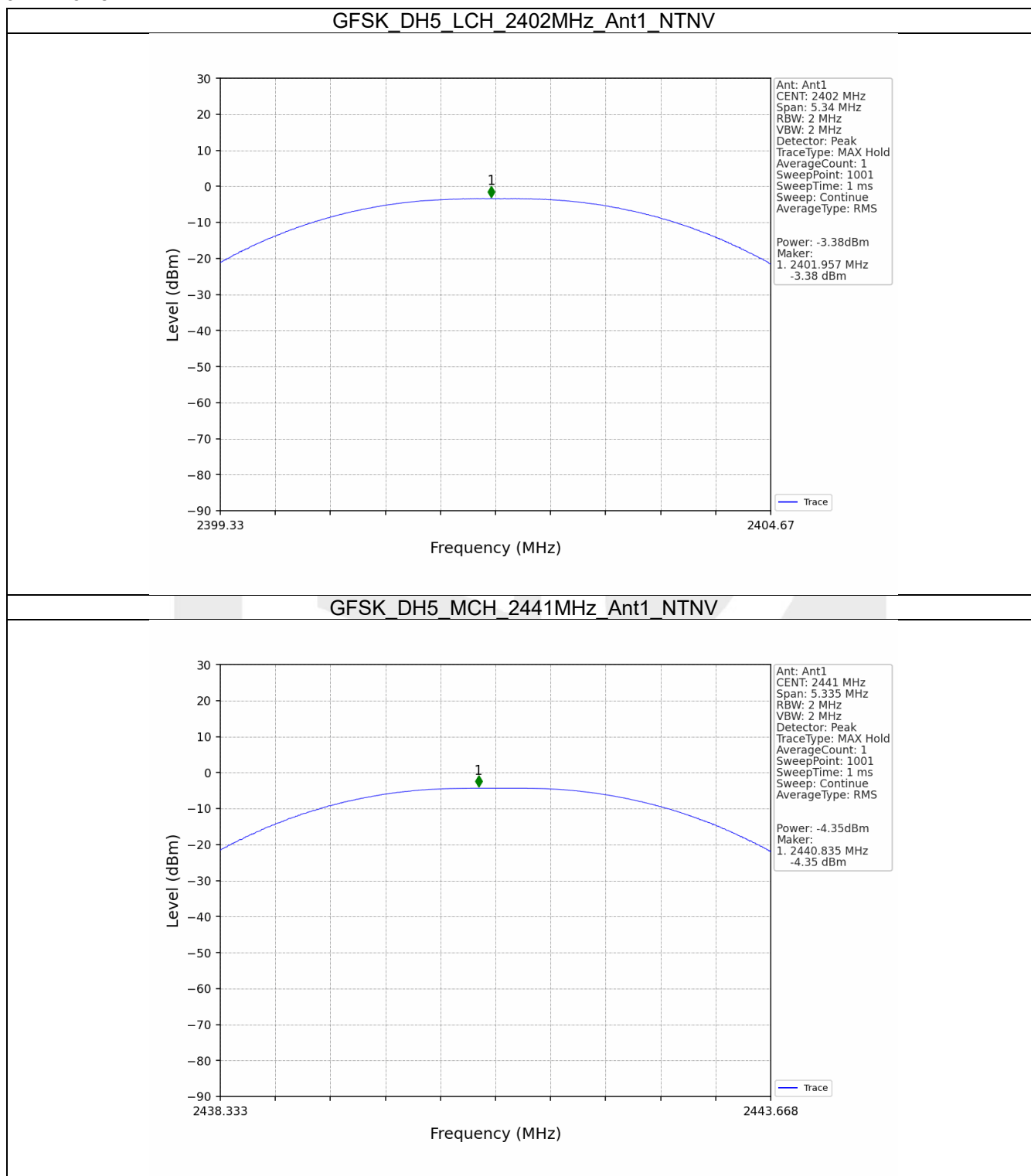
#### 3.1 Test Result

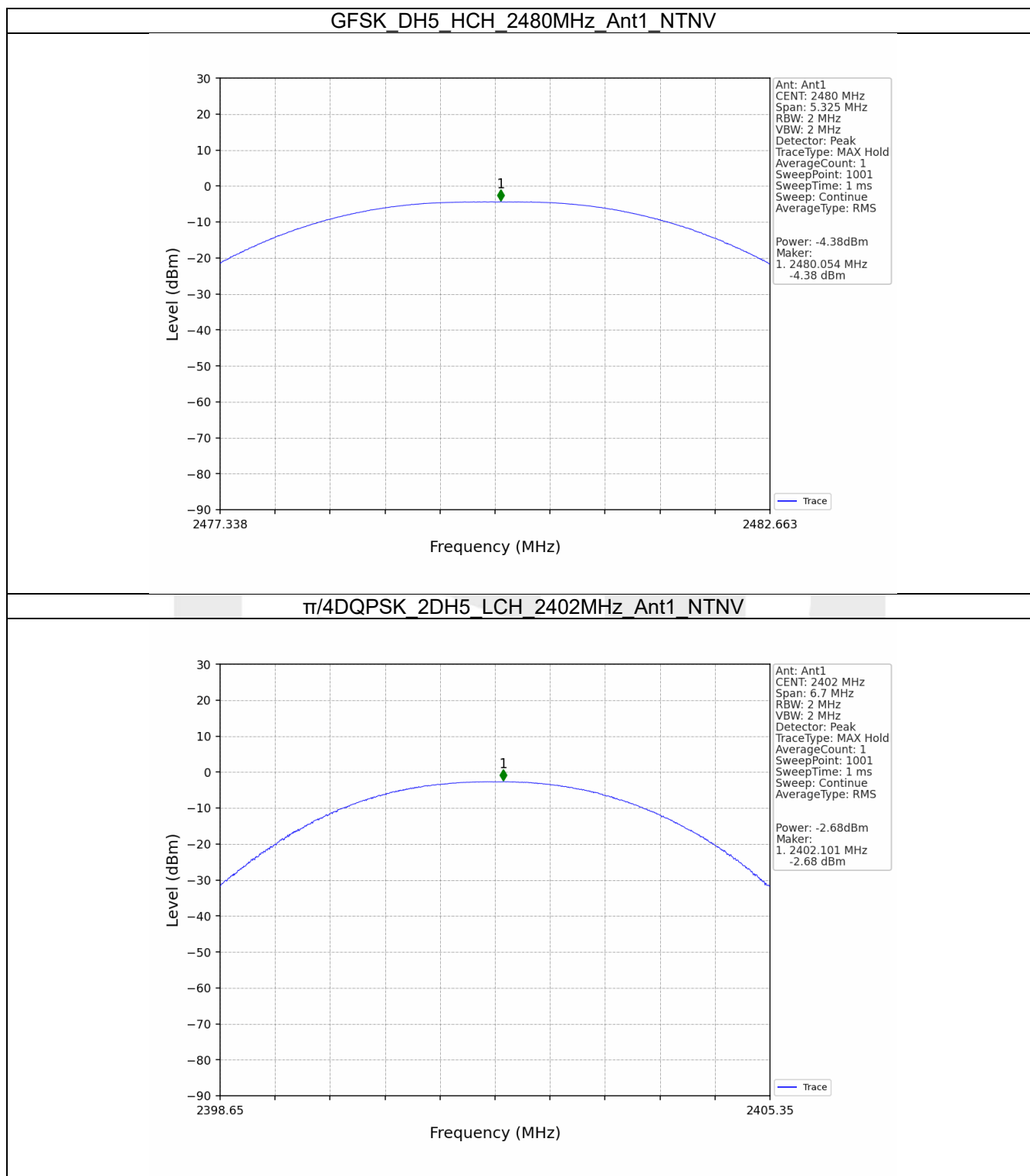
##### 3.1.1 Power

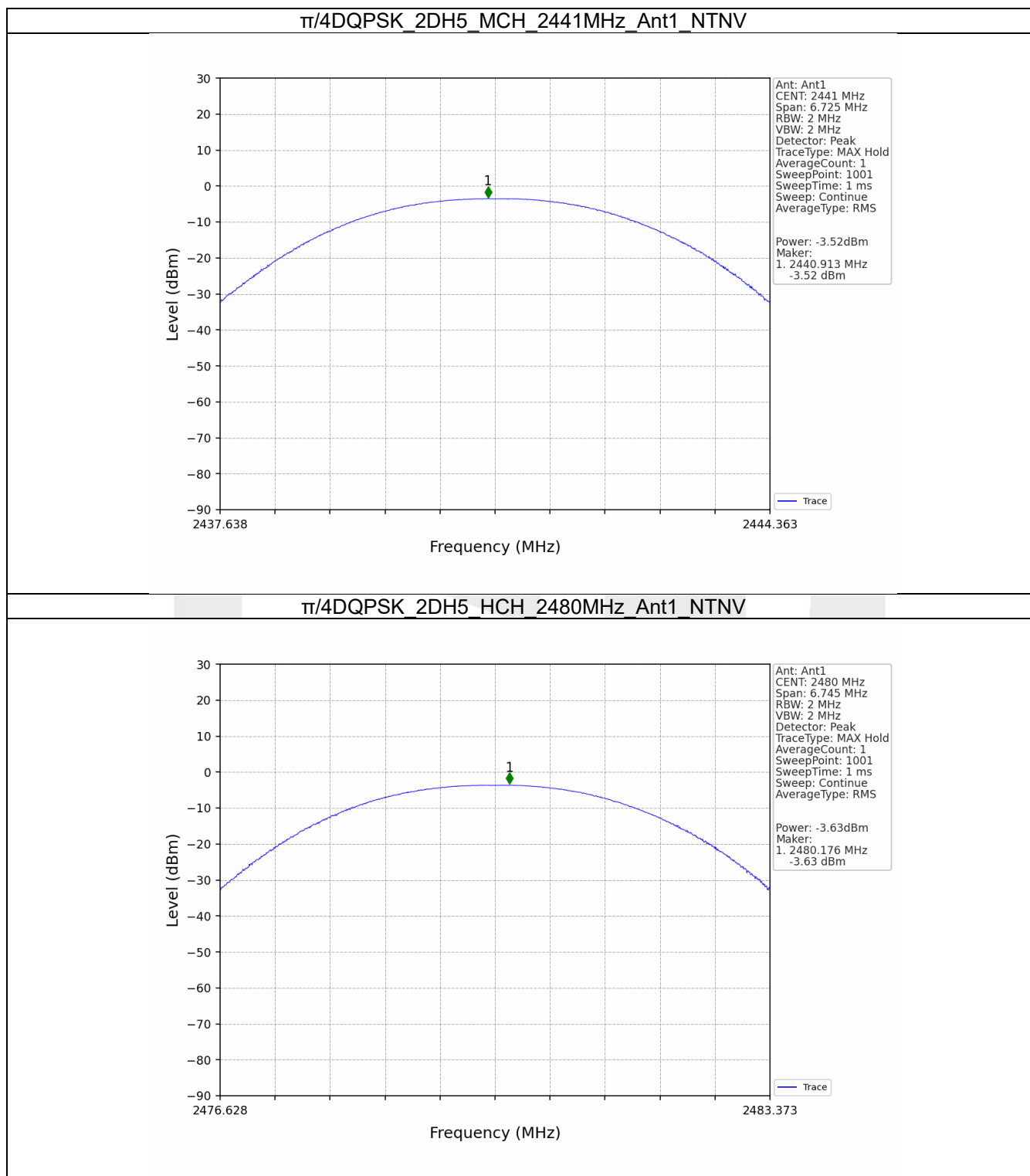
| Mode          | TX Type | Frequency (MHz) | Packet Type | Maximum Peak Conducted Output Power (dBm) |              | Verdict |
|---------------|---------|-----------------|-------------|-------------------------------------------|--------------|---------|
|               |         |                 |             | ANT1                                      | Limit        |         |
| GFSK          | SISO    | 2402            | DH5         | -3.38                                     | $\leq 20.97$ | Pass    |
|               |         | 2441            | DH5         | -4.35                                     | $\leq 20.97$ | Pass    |
|               |         | 2480            | DH5         | -4.38                                     | $\leq 20.97$ | Pass    |
| $\pi/4$ DQPSK | SISO    | 2402            | 2DH5        | -2.68                                     | $\leq 20.97$ | Pass    |
|               |         | 2441            | 2DH5        | -3.52                                     | $\leq 20.97$ | Pass    |
|               |         | 2480            | 2DH5        | -3.63                                     | $\leq 20.97$ | Pass    |
| 8DPSK         | SISO    | 2402            | 3DH5        | -2.27                                     | $\leq 20.97$ | Pass    |
|               |         | 2441            | 3DH5        | -3.18                                     | $\leq 20.97$ | Pass    |
|               |         | 2480            | 3DH5        | -3.28                                     | $\leq 20.97$ | Pass    |

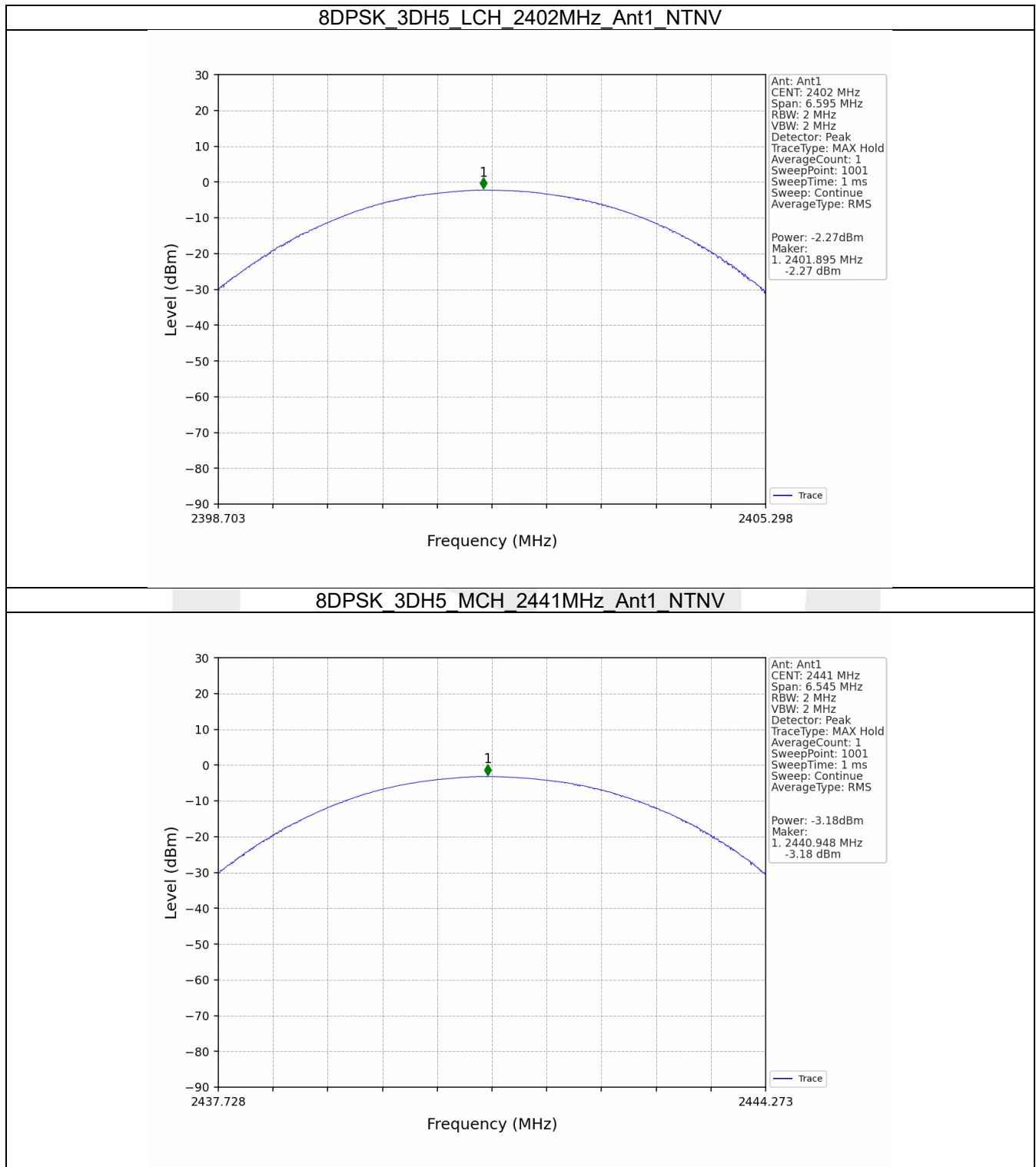
## 3.2 Test Graph

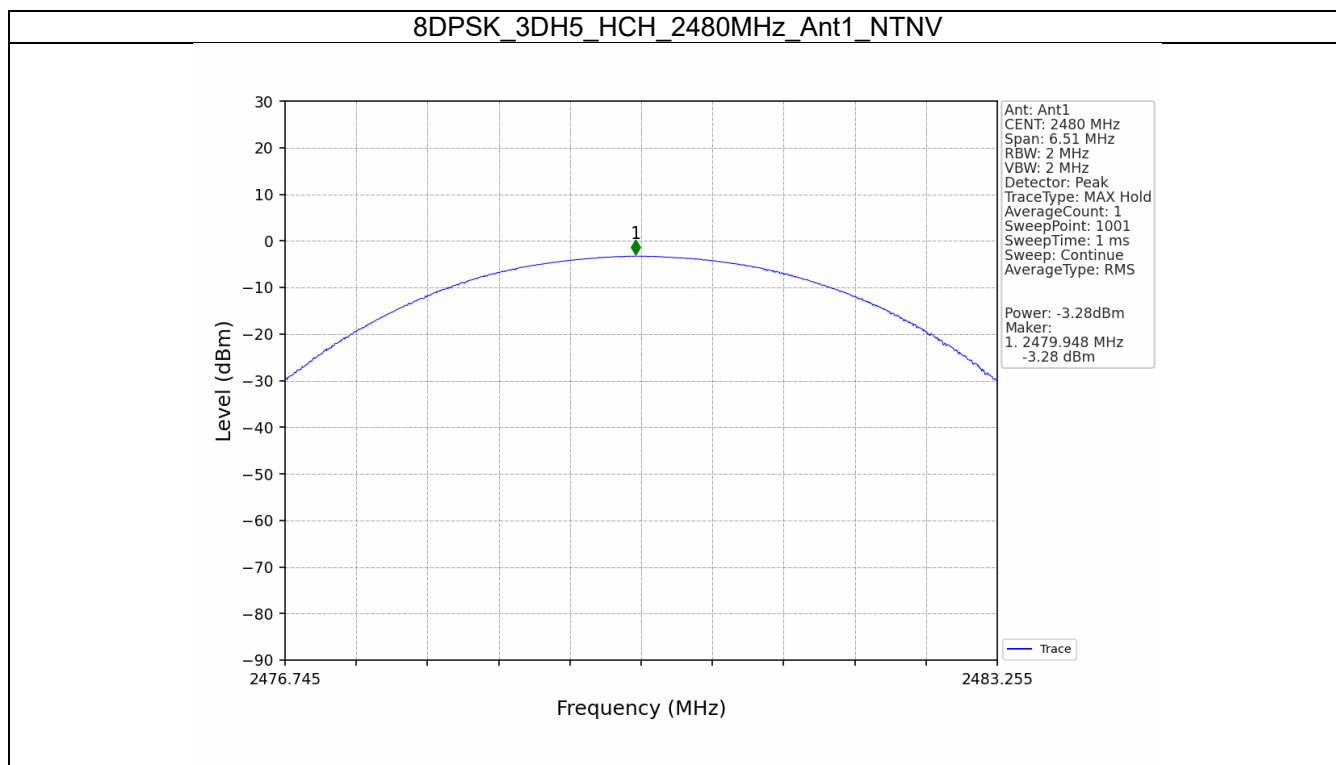
### 3.2.1 Power











#### 4. Carrier Frequency Separation

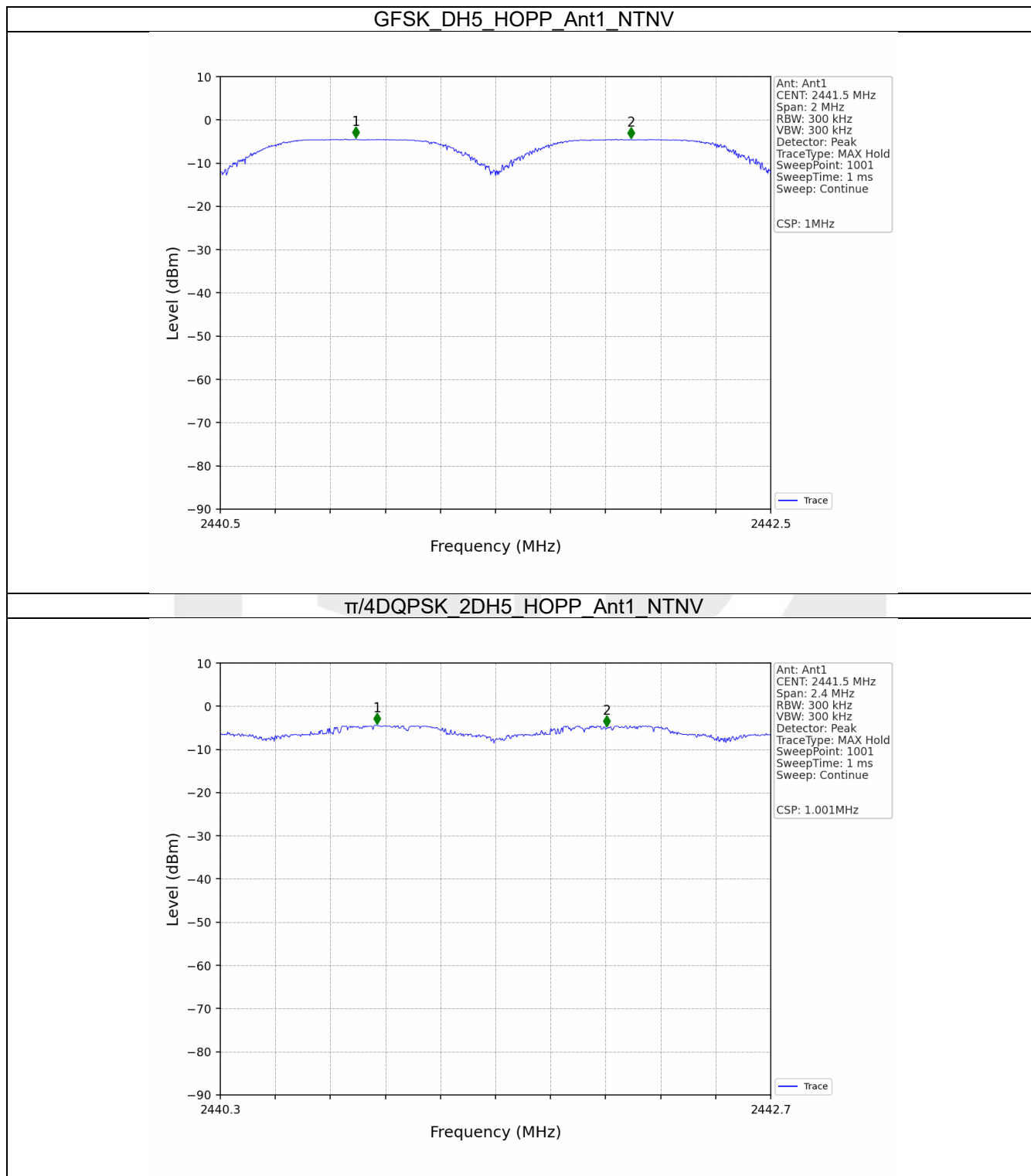
##### 4.1 Test Result

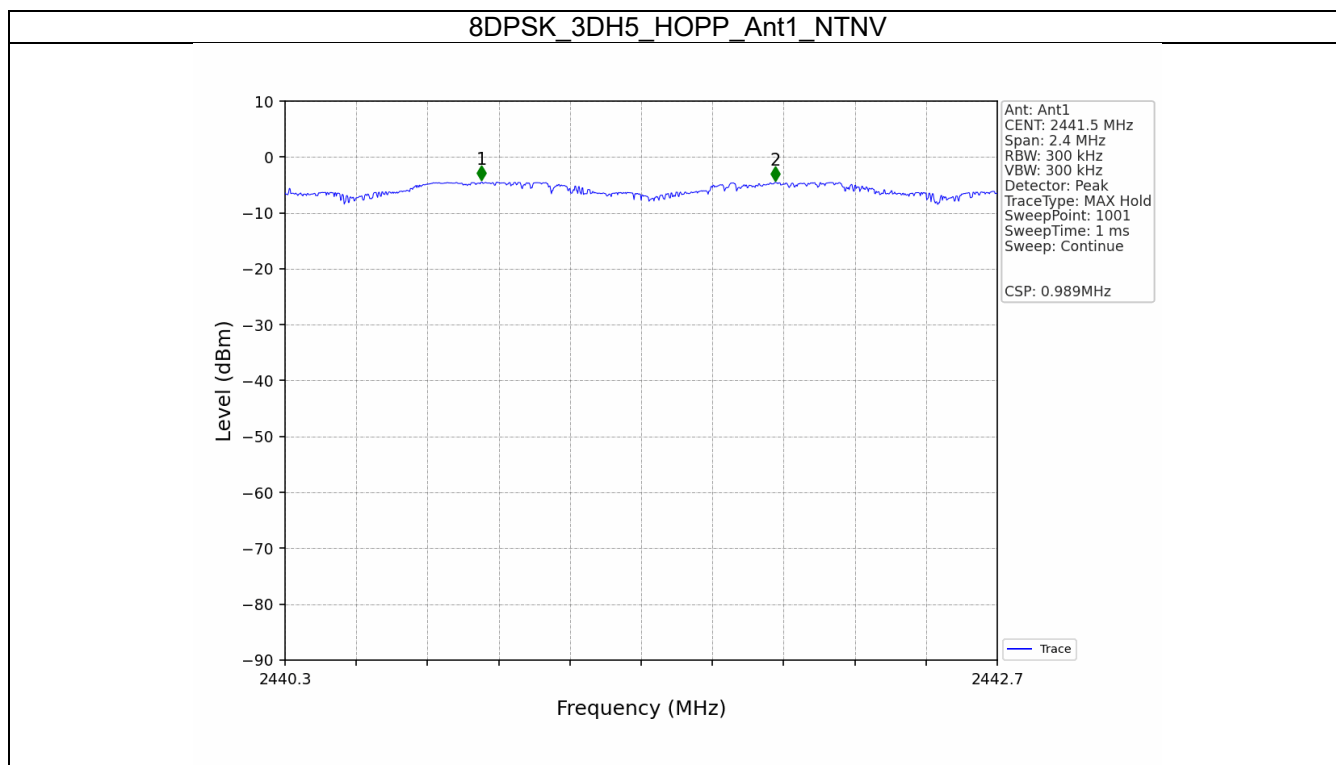
###### 4.1.1 Ant1

| Ant1          |         |                 |             |                          |                      |              |         |
|---------------|---------|-----------------|-------------|--------------------------|----------------------|--------------|---------|
| Mode          | TX Type | Frequency (MHz) | Packet Type | Channel Separation (MHz) | 20dB Bandwidth (MHz) | Limit (MHz)  | Verdict |
| GFSK          | SISO    | HOPP            | DH5         | 1.000                    | 1.068                | $\geq 0.712$ | Pass    |
| $\pi/4$ DQPSK | SISO    | HOPP            | 2DH5        | 1.001                    | 1.349                | $\geq 0.899$ | Pass    |
| 8DPSK         | SISO    | HOPP            | 3DH5        | 0.989                    | 1.319                | $\geq 0.879$ | Pass    |

## 4.2 Test Graph

### 4.2.1 Ant1





## 5. Number of Hopping Frequencies

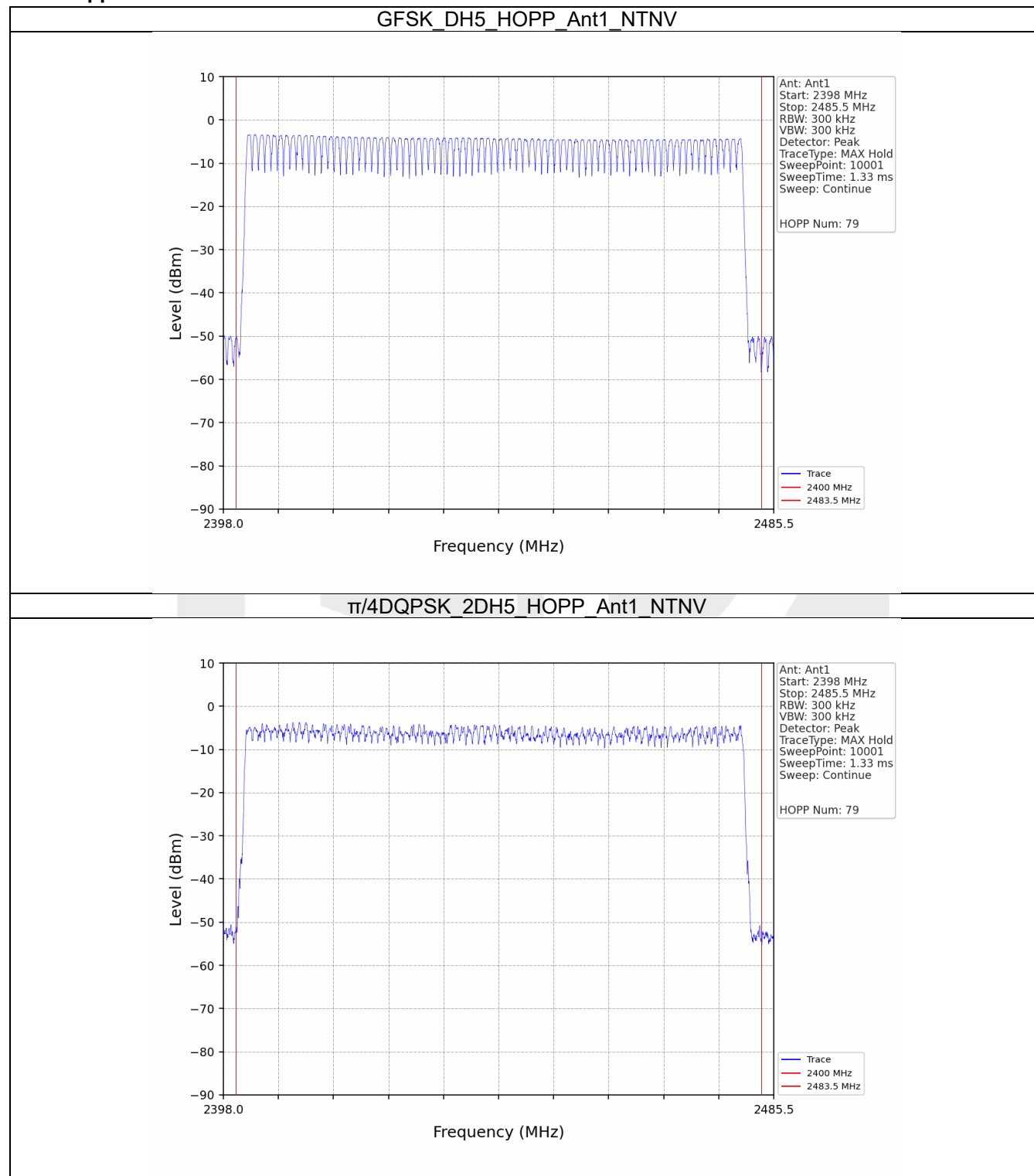
### 5.1 Test Result

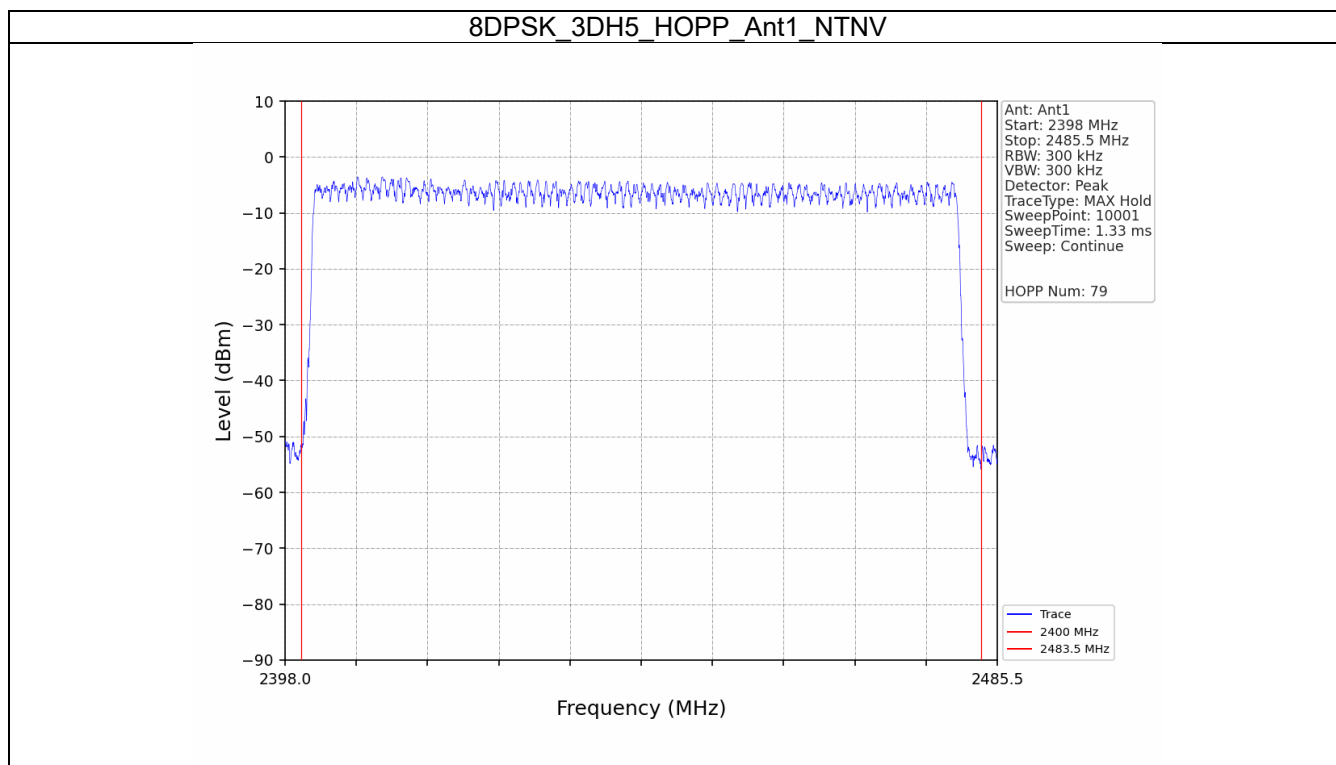
#### 5.1.1 HoppNum

| Mode          | TX Type | Frequency (MHz) | Packet Type | Num of Hopping Frequencies |           | Verdict |
|---------------|---------|-----------------|-------------|----------------------------|-----------|---------|
|               |         |                 |             | ANT1                       | Limit     |         |
| GFSK          | SISO    | HOPP            | DH5         | 79                         | $\geq 15$ | Pass    |
| $\pi/4$ DQPSK | SISO    | HOPP            | 2DH5        | 79                         | $\geq 15$ | Pass    |
| 8DPSK         | SISO    | HOPP            | 3DH5        | 79                         | $\geq 15$ | Pass    |

## 5.2 Test Graph

### 5.2.1 HoppNum





## 6. Time of Occupancy (Dwell Time)

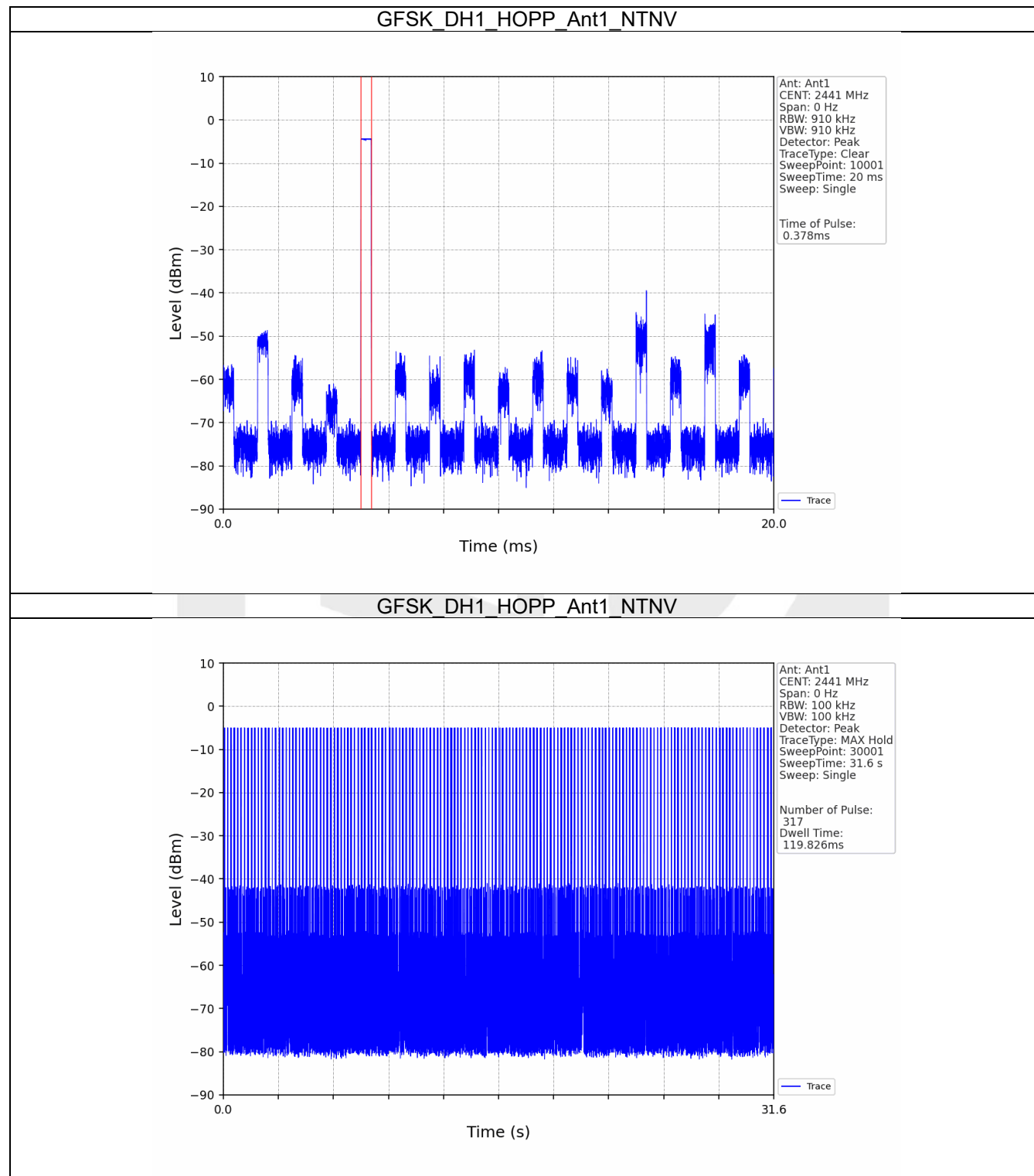
### 6.1 Test Result

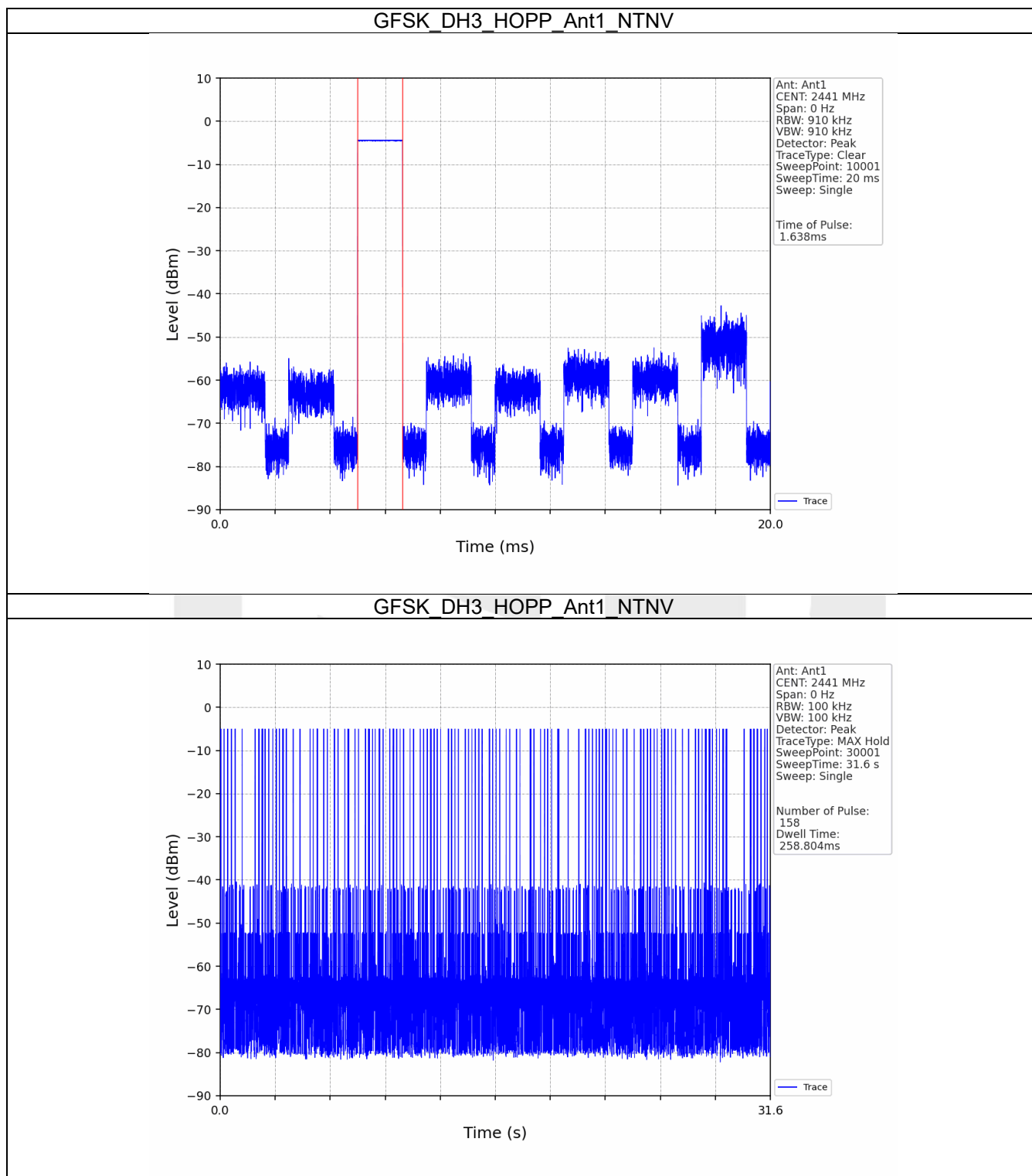
#### 6.1.1 Ant1

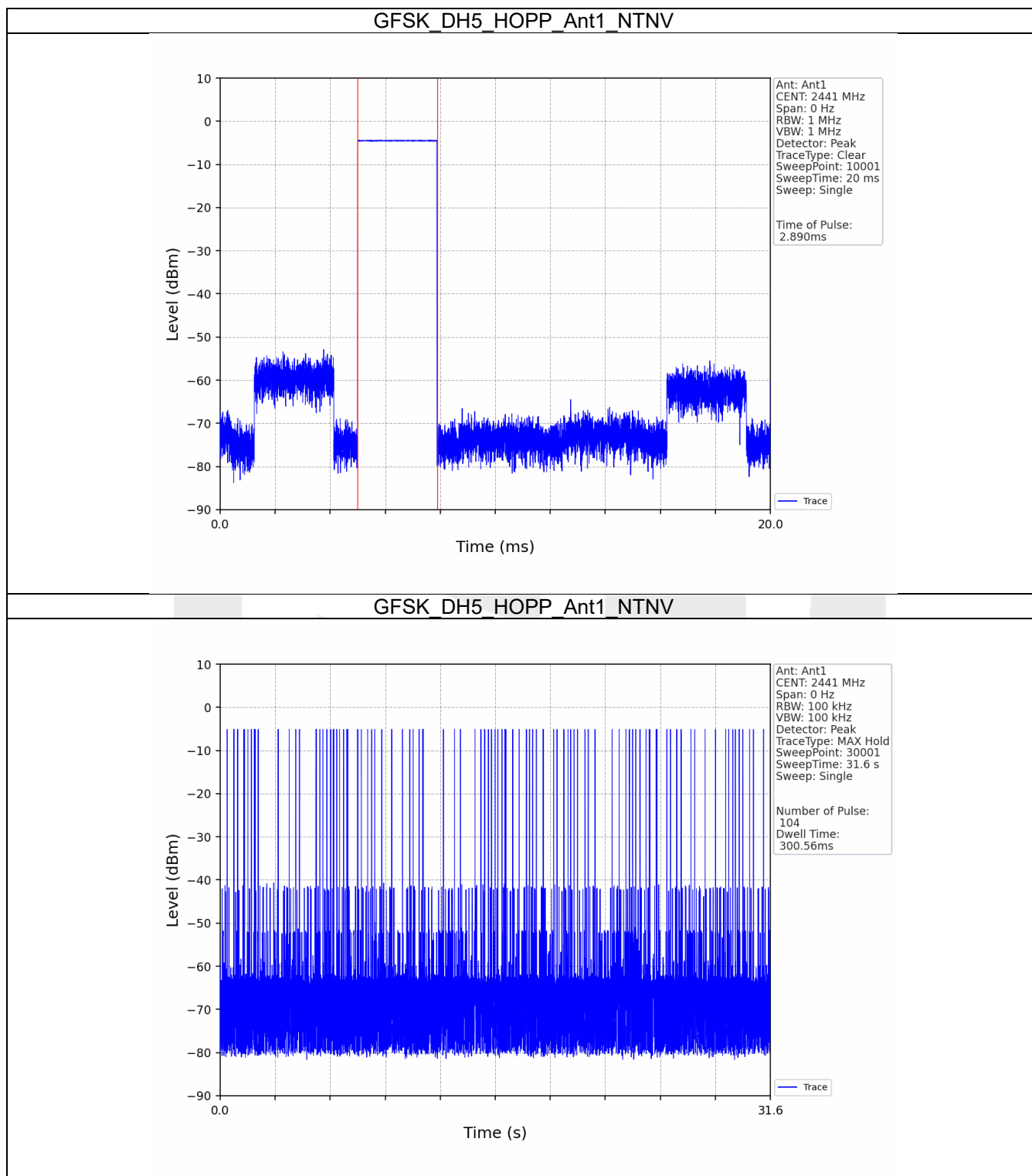
| Ant1          |         |                 |             |                               |                        |                                    |                 |            |         |
|---------------|---------|-----------------|-------------|-------------------------------|------------------------|------------------------------------|-----------------|------------|---------|
| 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         | 0.378                         | 31.600                 | 317                                | 119.826         | <=400      | Pass    |
|               |         |                 | DH3         | 1.638                         | 31.600                 | 158                                | 258.804         | <=400      | Pass    |
|               |         |                 | DH5         | 2.890                         | 31.600                 | 104                                | 300.560         | <=400      | Pass    |
| $\pi/4$ DQPSK | SISO    | HOPP            | 2DH1        | 0.390                         | 31.600                 | 319                                | 124.410         | <=400      | Pass    |
|               |         |                 | 2DH3        | 1.642                         | 31.600                 | 161                                | 264.362         | <=400      | Pass    |
|               |         |                 | 2DH5        | 2.896                         | 31.600                 | 98                                 | 283.808         | <=400      | Pass    |
| 8DPSK         | SISO    | HOPP            | 3DH1        | 0.390                         | 31.600                 | 319                                | 124.410         | <=400      | Pass    |
|               |         |                 | 3DH3        | 1.646                         | 31.600                 | 157                                | 258.422         | <=400      | Pass    |
|               |         |                 | 3DH5        | 2.898                         | 31.600                 | 97                                 | 281.106         | <=400      | Pass    |

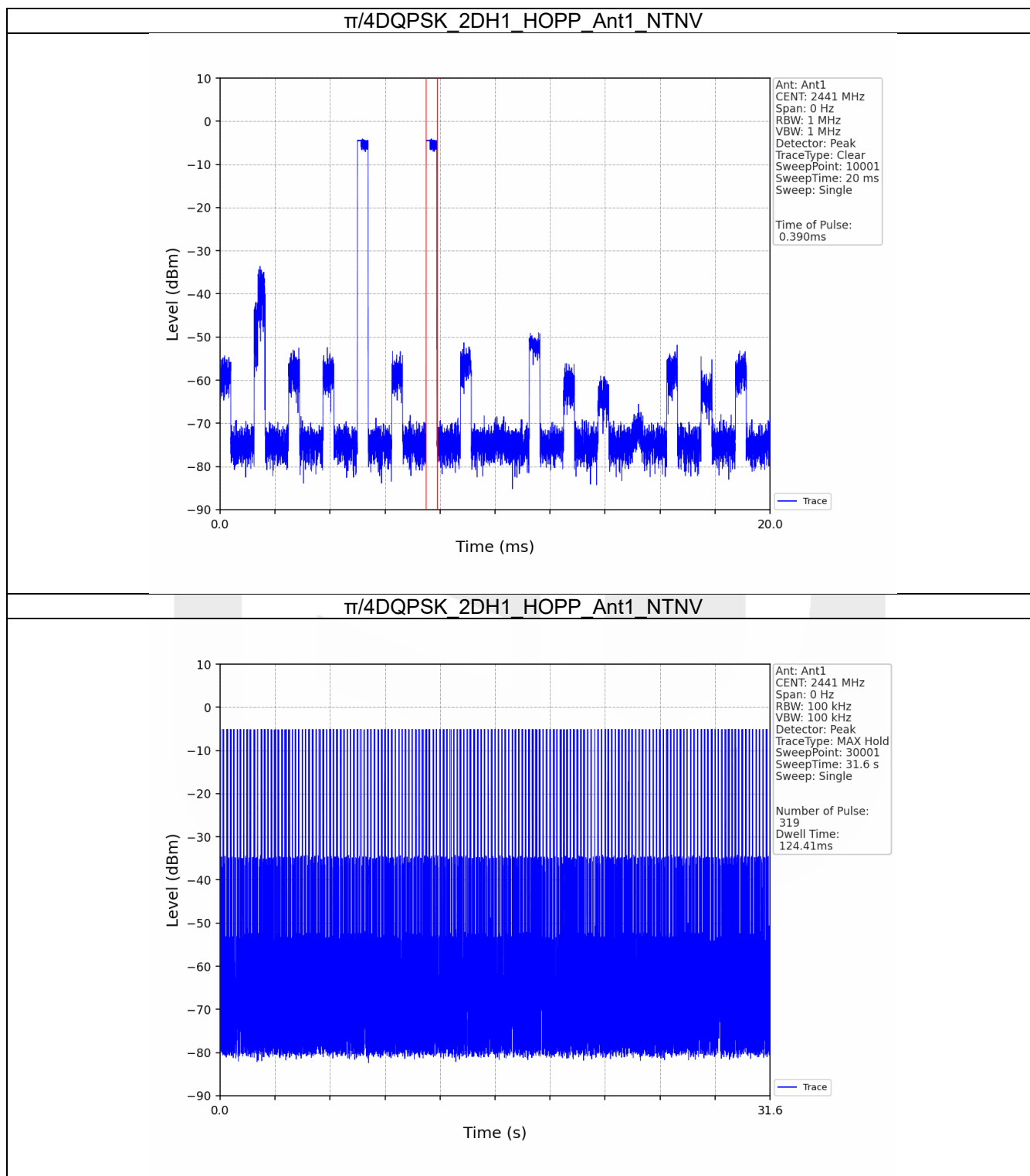
## 6.2 Test Graph

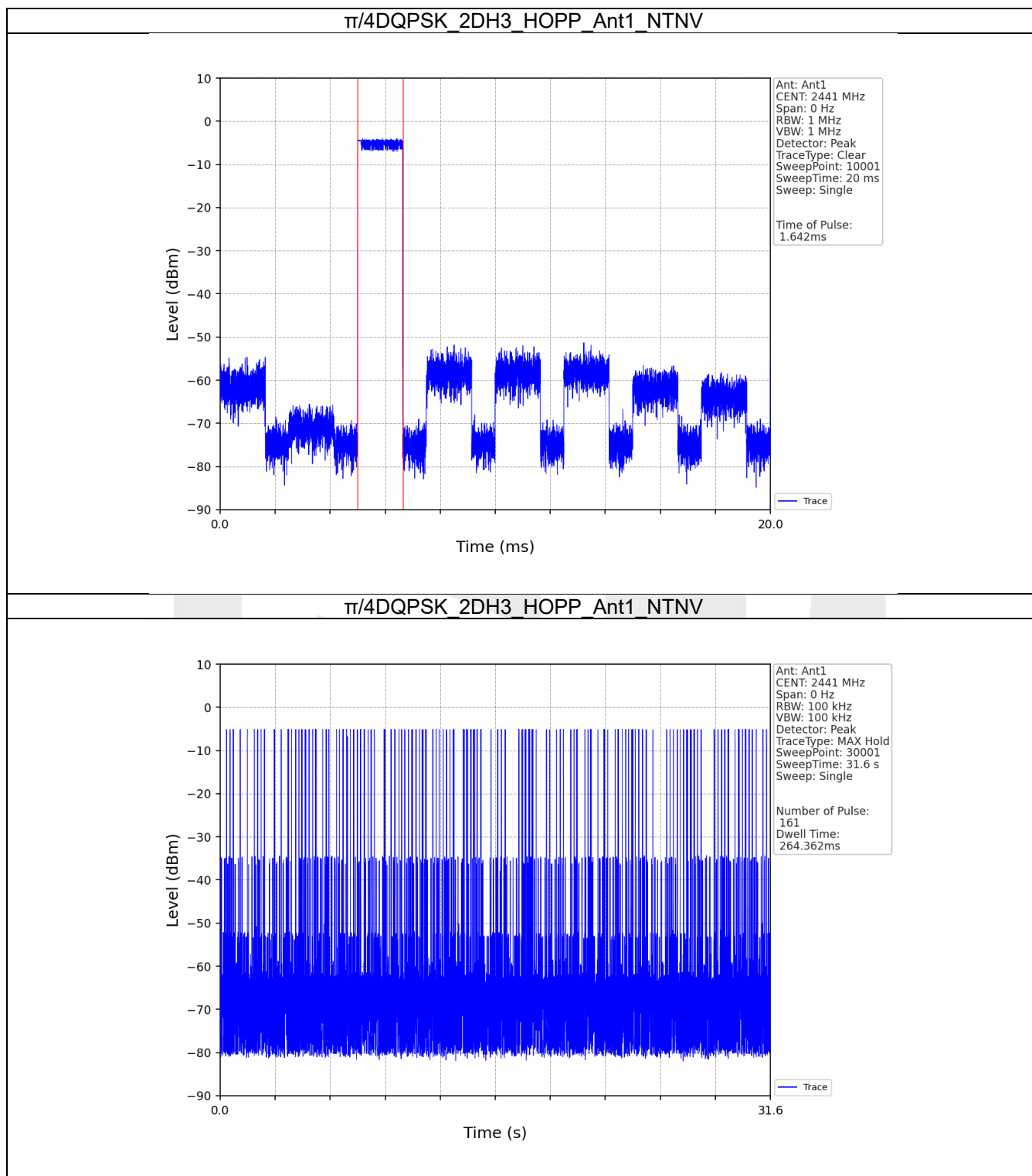
### 6.2.1 Ant1

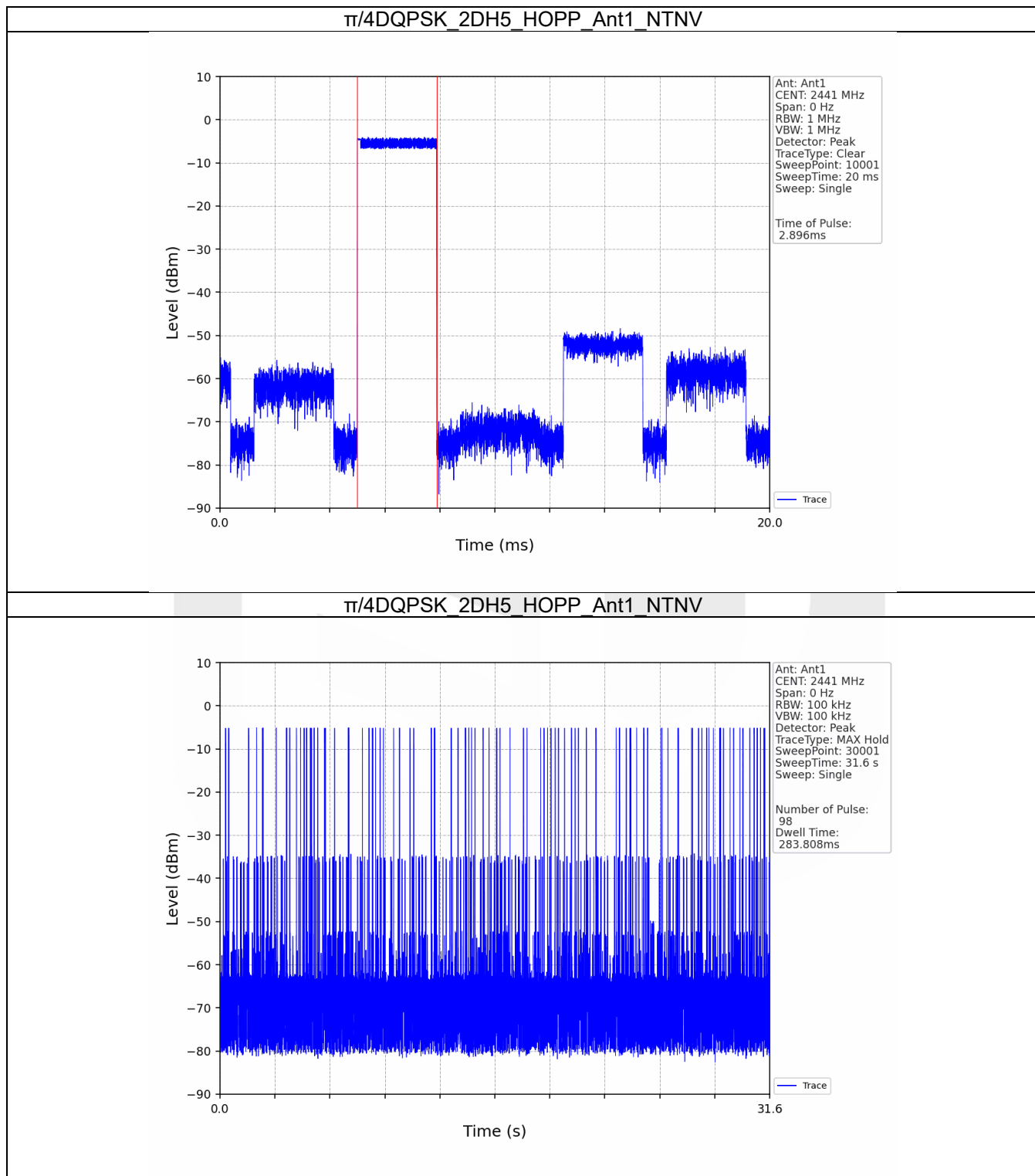


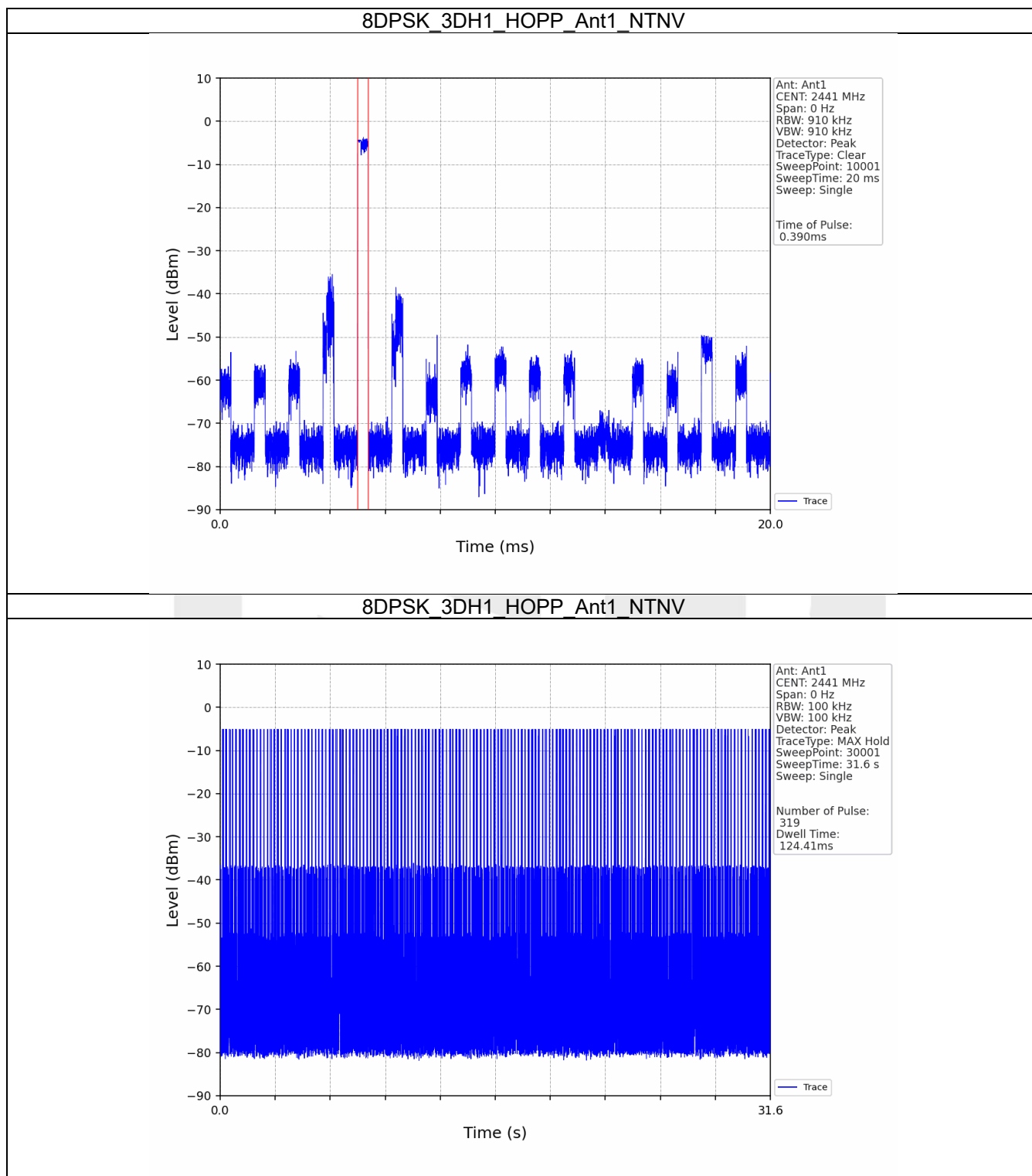


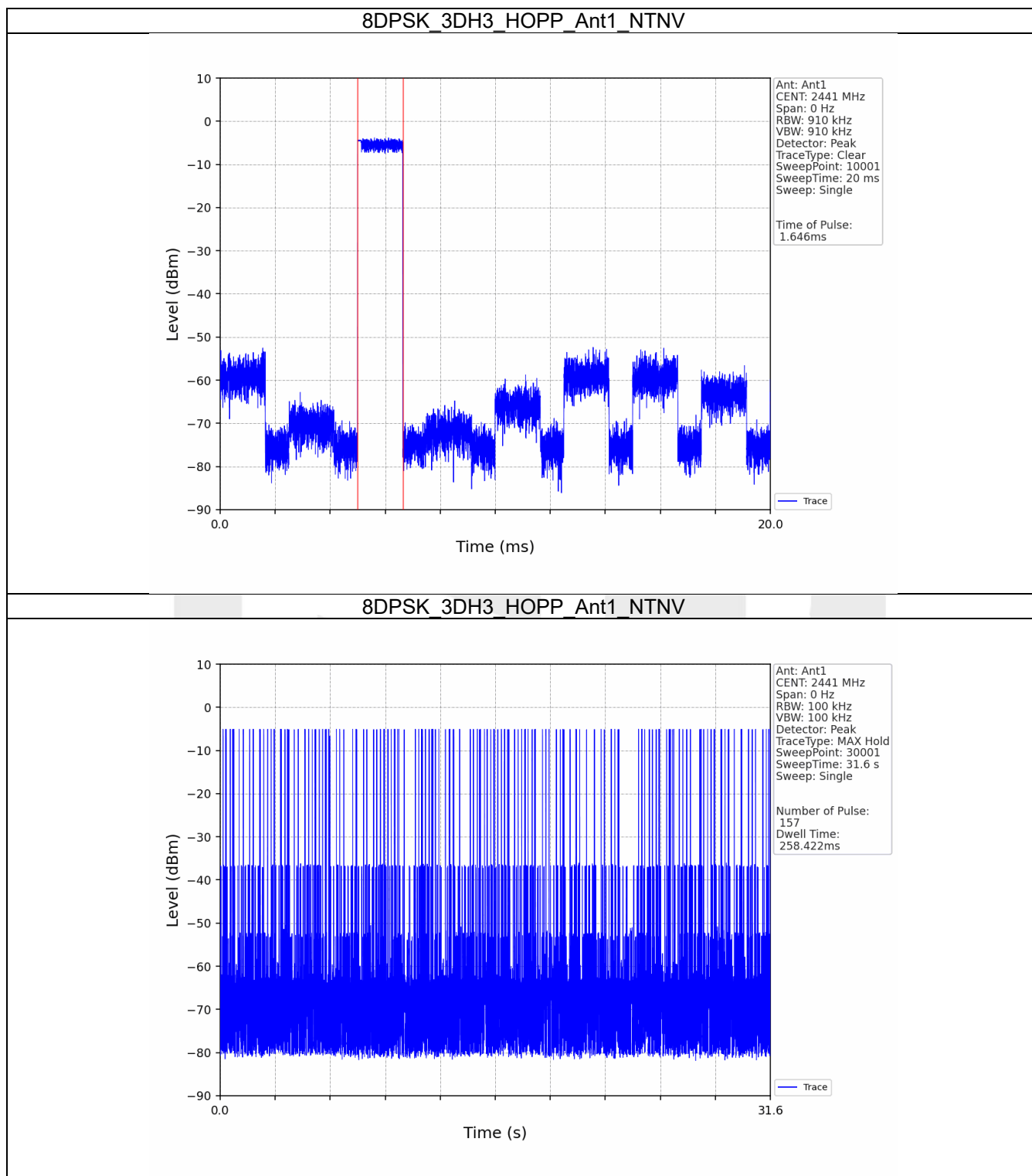


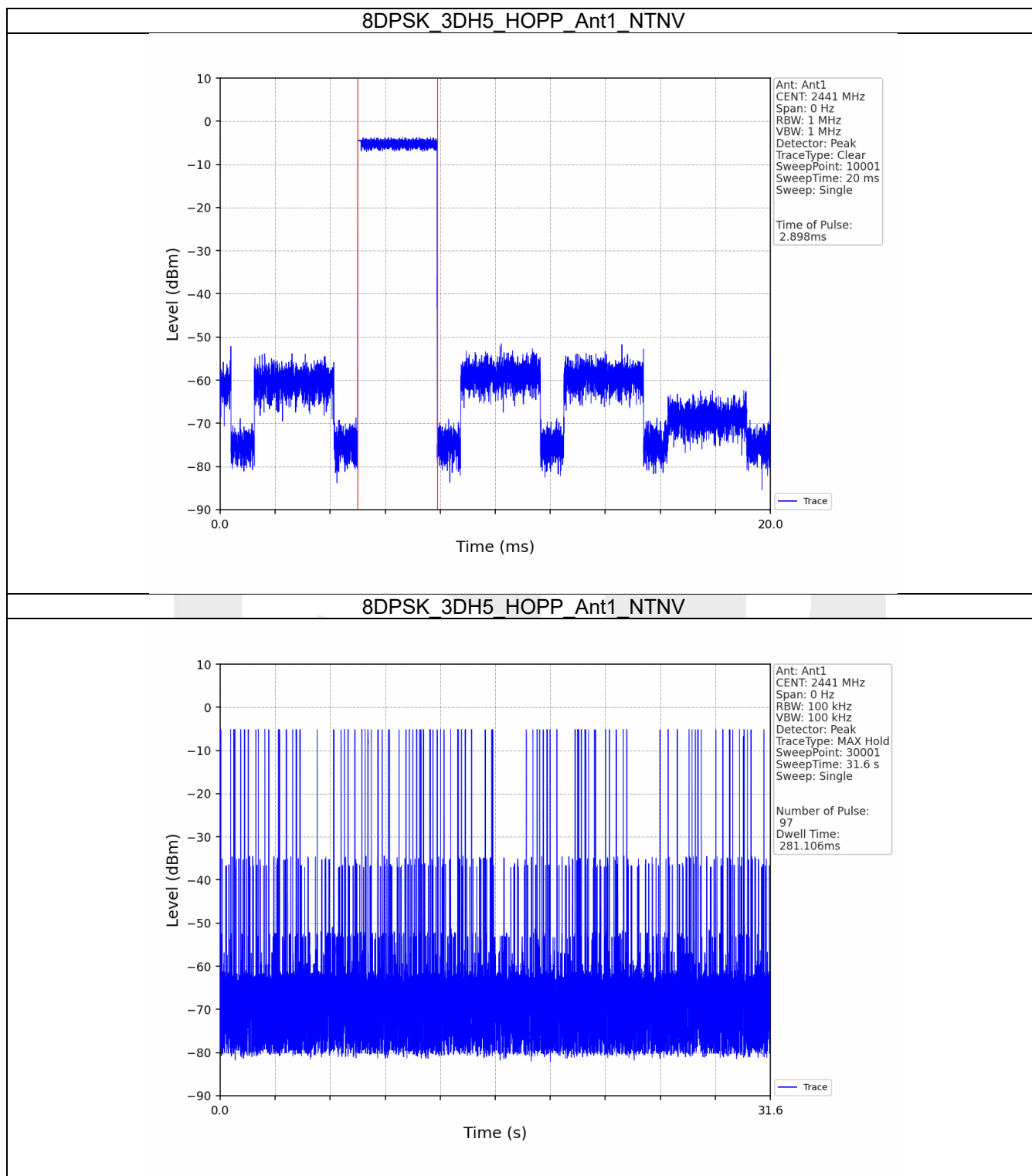












## 7. Unwanted Emissions In Non-restricted Frequency Bands

### 7.1 Test Result

#### 7.1.1 Ref

| Mode          | TX Type | Frequency (MHz) | Packet Type | ANT | Level of Reference (dBm) |
|---------------|---------|-----------------|-------------|-----|--------------------------|
| GFSK          | SISO    | 2402            | DH5         | 1   | -3.83                    |
|               |         | 2441            | DH5         | 1   | -4.76                    |
|               |         | 2480            | DH5         | 1   | -4.95                    |
|               |         | HOPP            | DH5         | 1   | -3.75                    |
|               |         |                 |             |     | -3.75                    |
| $\pi/4$ DQPSK | SISO    | 2402            | 2DH5        | 1   | -3.84                    |
|               |         | 2441            | 2DH5        | 1   | -4.75                    |
|               |         | 2480            | 2DH5        | 1   | -4.95                    |
|               |         | HOPP            | 2DH5        | 1   | -3.81                    |
|               |         |                 |             |     | -3.81                    |
| 8DPSK         | SISO    | 2402            | 3DH5        | 1   | -3.73                    |
|               |         | 2441            | 3DH5        | 1   | -4.76                    |
|               |         | 2480            | 3DH5        | 1   | -4.93                    |
|               |         | HOPP            | 3DH5        | 1   | -3.95                    |
|               |         |                 |             |     | -3.95                    |

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.

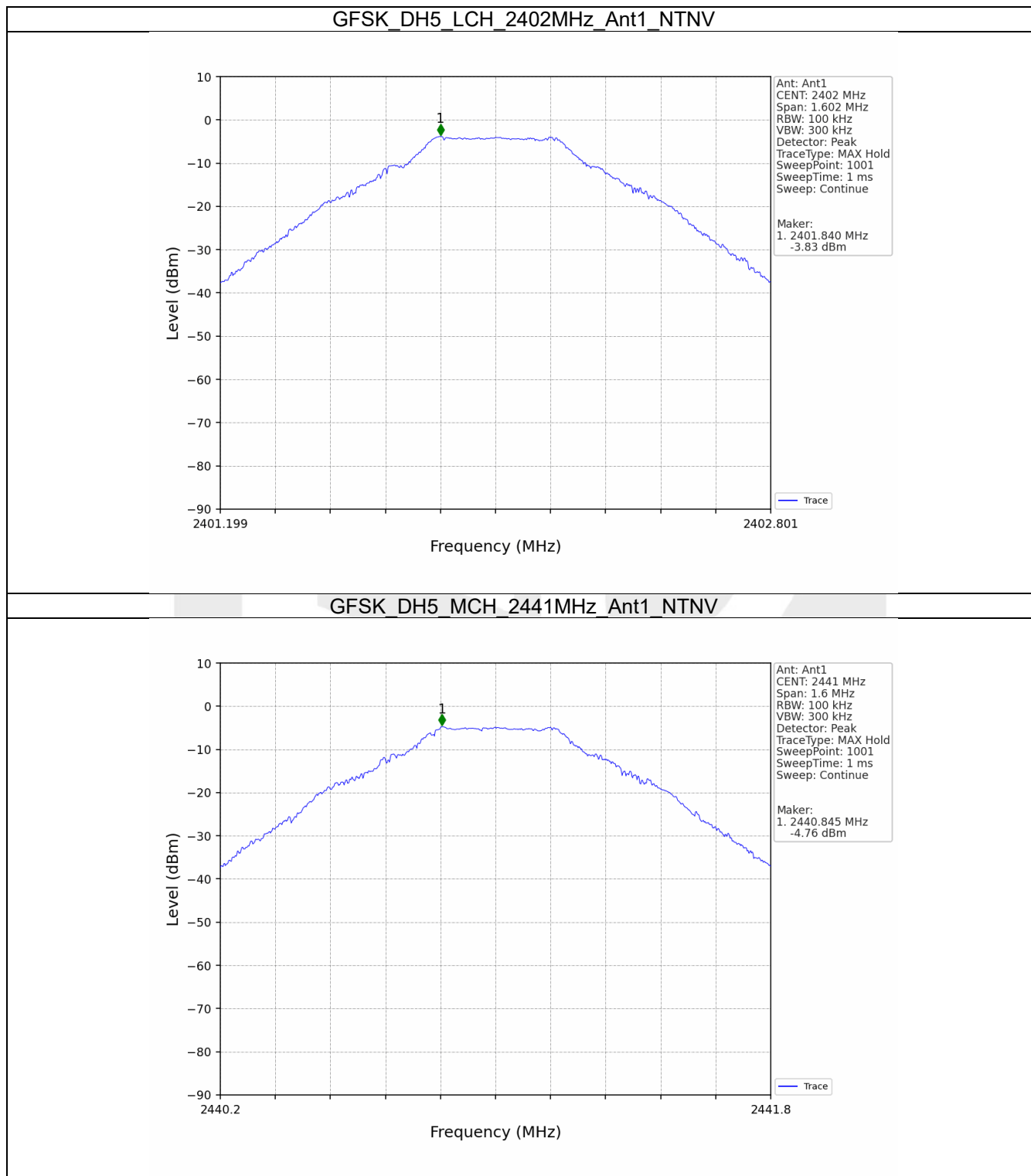
#### 7.1.2 CSE

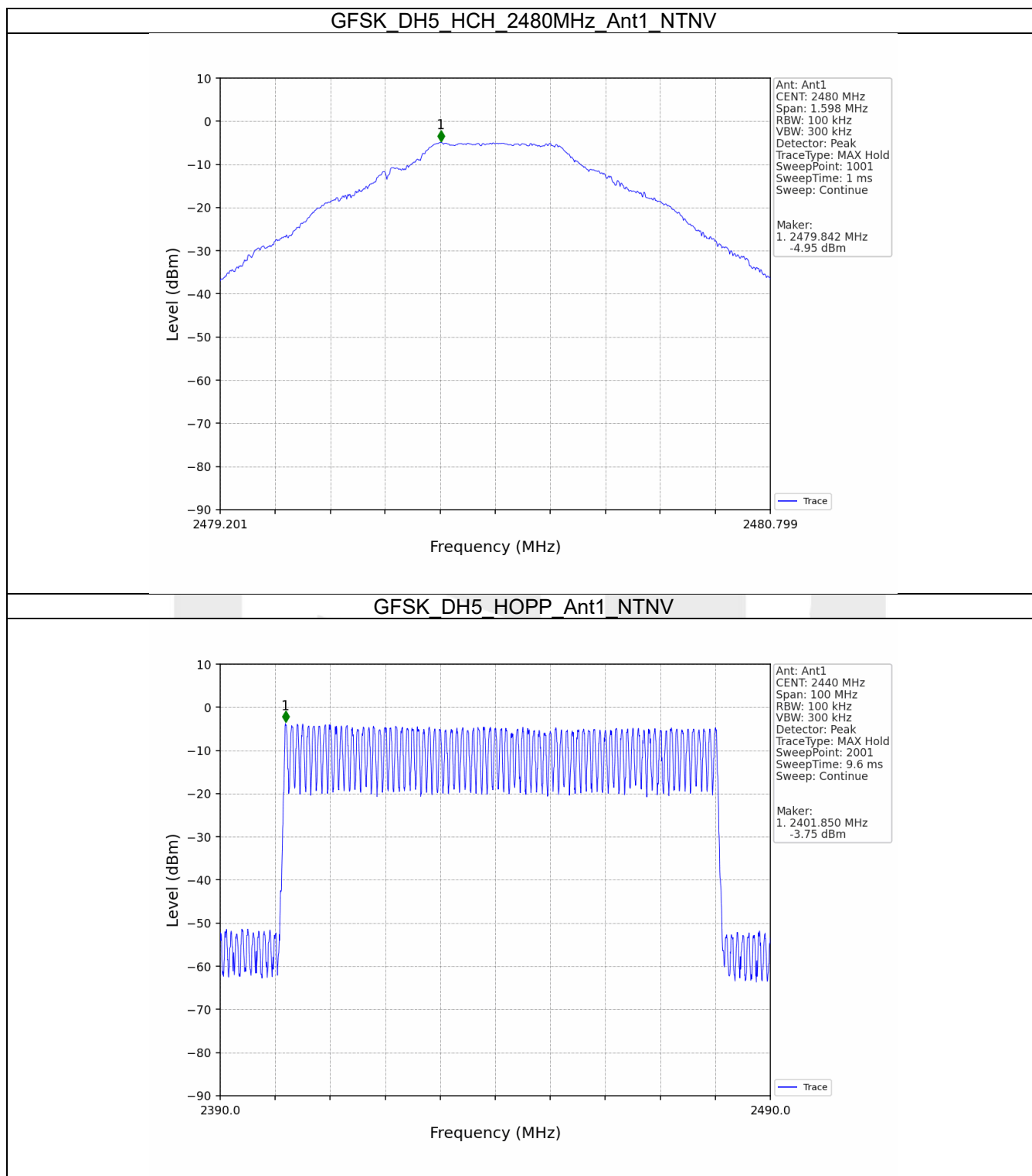
| Mode          | TX Type | Frequency (MHz) | Packet Type | ANT | Level of Reference (dBm) | Limit (dBm) | Verdict |
|---------------|---------|-----------------|-------------|-----|--------------------------|-------------|---------|
| GFSK          | SISO    | 2402            | DH5         | 1   | -3.83                    | -23.83      | Pass    |
|               |         | 2441            | DH5         | 1   | -4.76                    | -24.76      | Pass    |
|               |         | 2480            | DH5         | 1   | -4.95                    | -24.95      | Pass    |
|               |         | HOPP            | DH5         | 1   | -3.75                    | -23.75      | Pass    |
|               |         |                 |             |     | -3.75                    | -23.75      | Pass    |
| $\pi/4$ DQPSK | SISO    | 2402            | 2DH5        | 1   | -3.84                    | -23.84      | Pass    |
|               |         | 2441            | 2DH5        | 1   | -4.75                    | -24.75      | Pass    |
|               |         | 2480            | 2DH5        | 1   | -4.95                    | -24.95      | Pass    |
|               |         | HOPP            | 2DH5        | 1   | -3.81                    | -23.81      | Pass    |
|               |         |                 |             |     | -3.81                    | -23.81      | Pass    |
| 8DPSK         | SISO    | 2402            | 3DH5        | 1   | -3.73                    | -23.73      | Pass    |
|               |         | 2441            | 3DH5        | 1   | -4.76                    | -24.76      | Pass    |
|               |         | 2480            | 3DH5        | 1   | -4.93                    | -24.93      | Pass    |
|               |         | HOPP            | 3DH5        | 1   | -3.95                    | -23.95      | Pass    |
|               |         |                 |             |     | -3.95                    | -23.95      | Pass    |

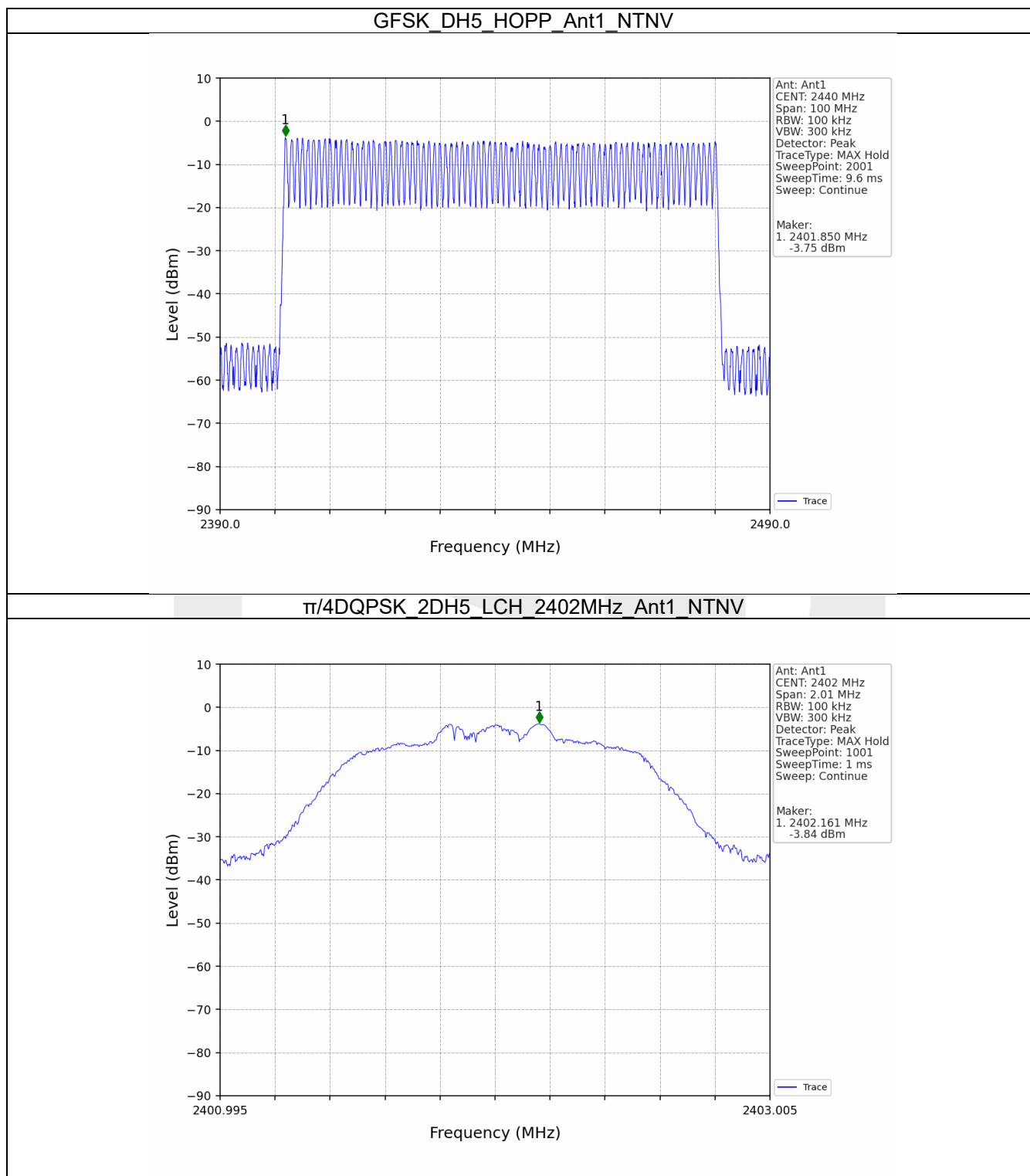
Note1: Refer to FCC Part 15.247 (d) and ANSI C63.10-2020, the channel contains the maximum PSD level was used to establish the reference level.

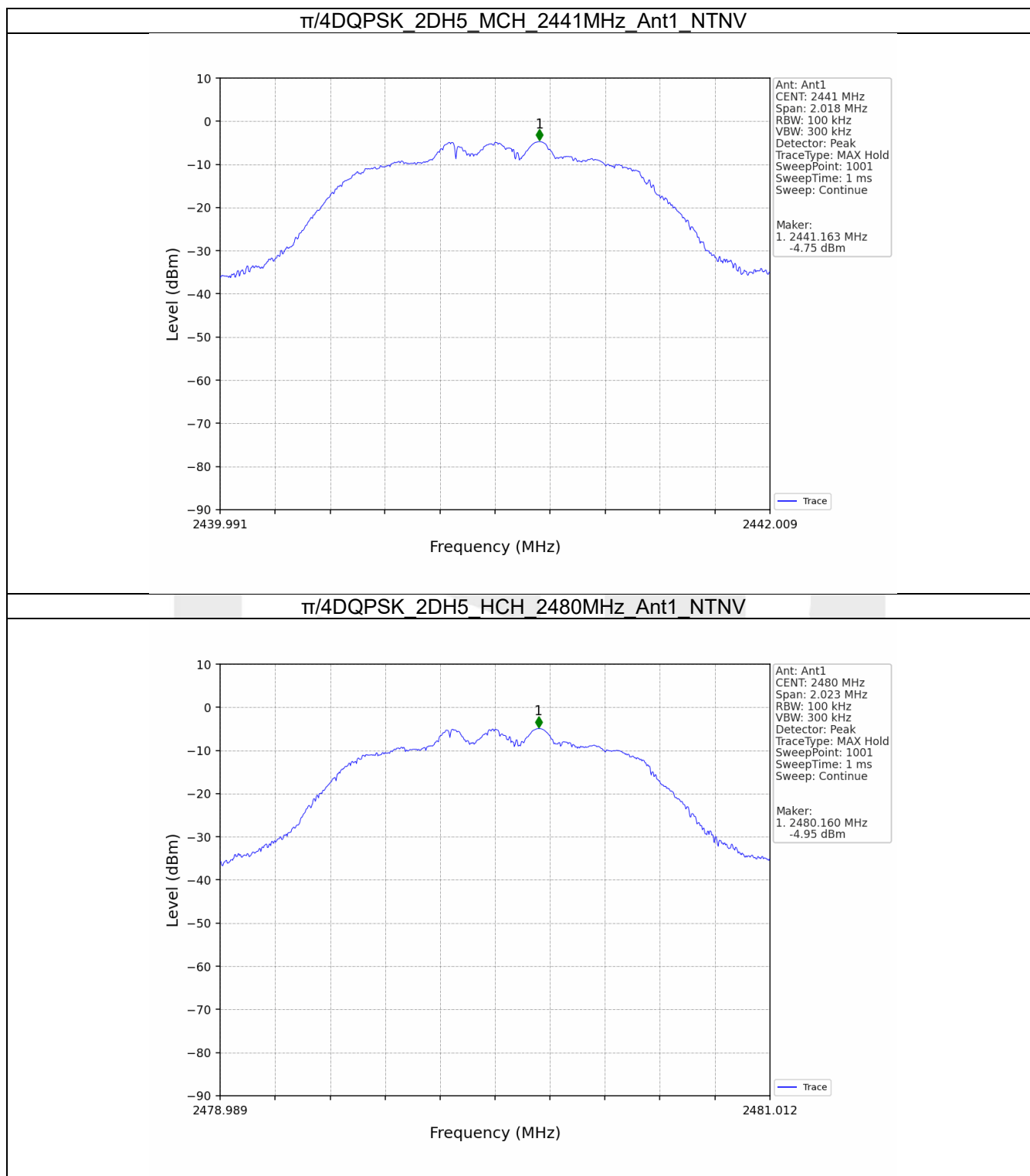
## 7.2 Test Graph

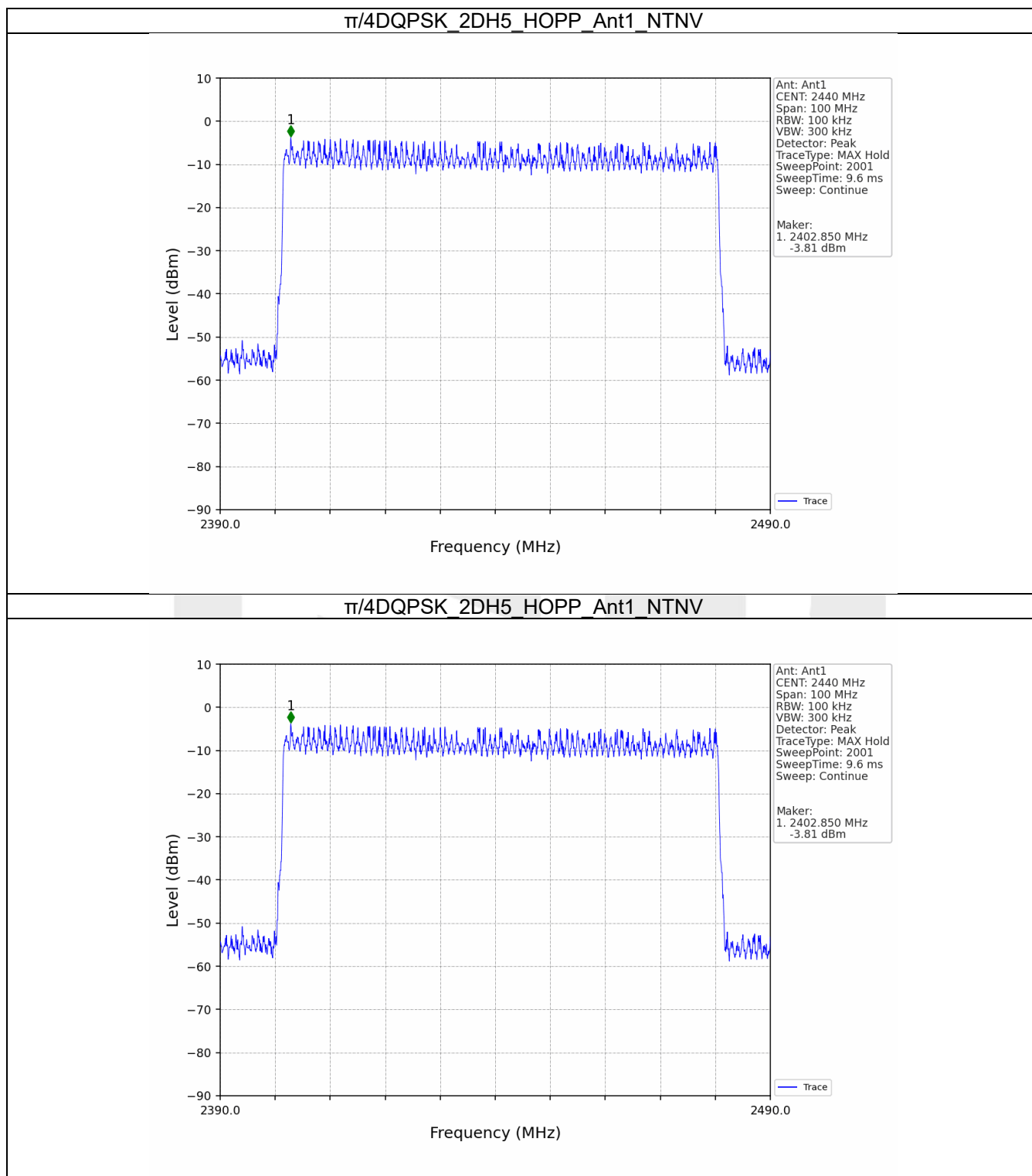
### 7.2.1 Ref

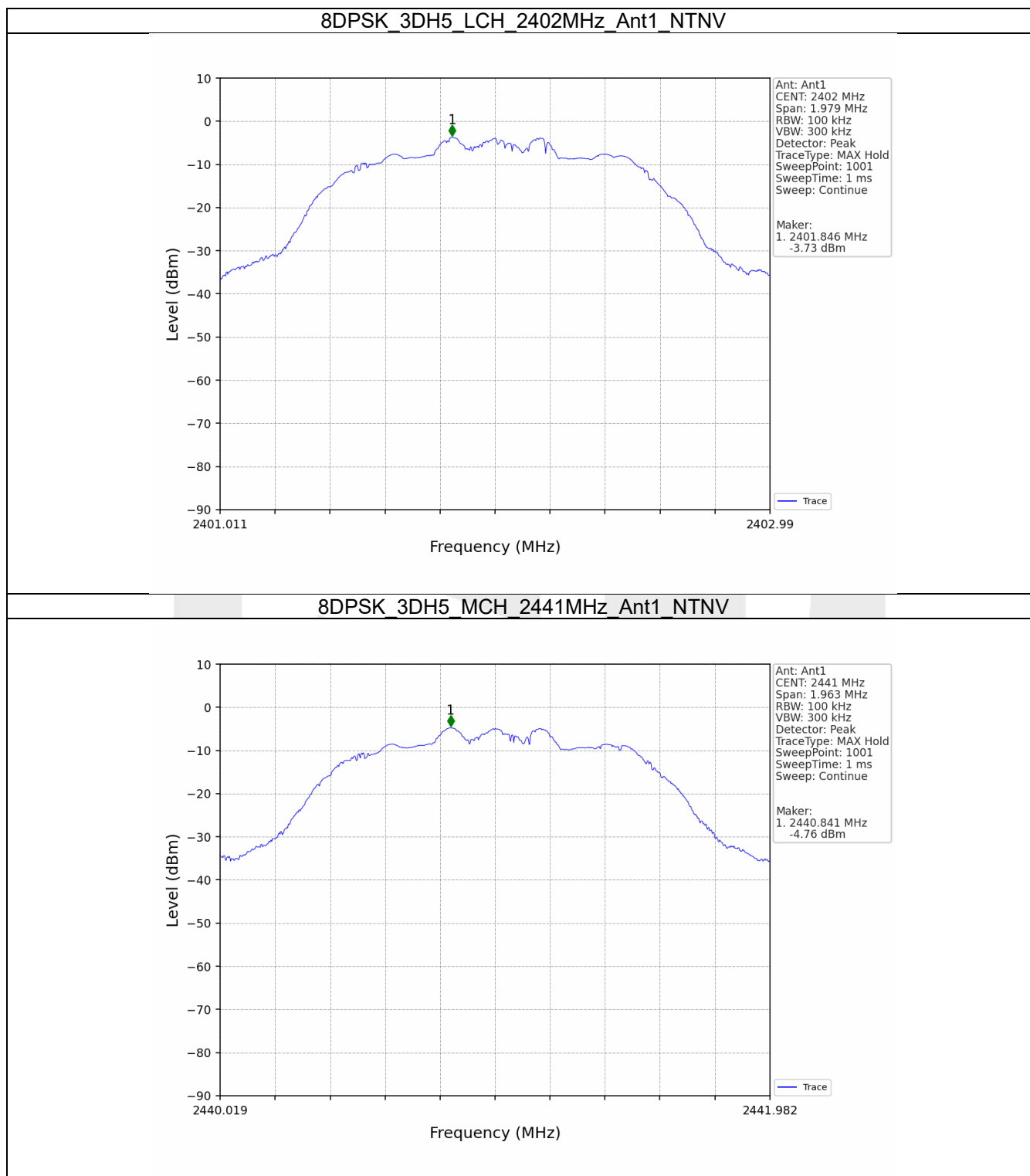


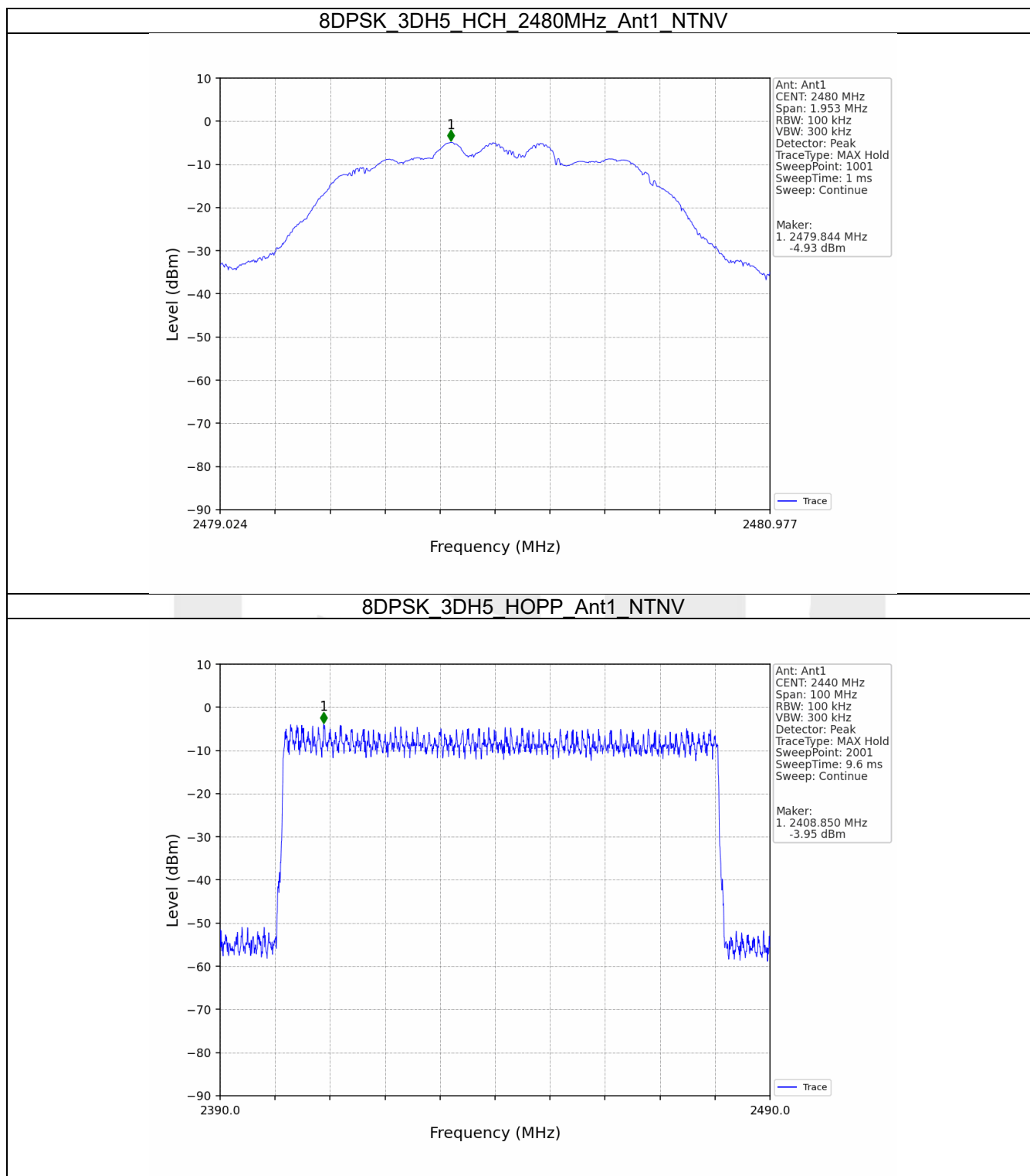


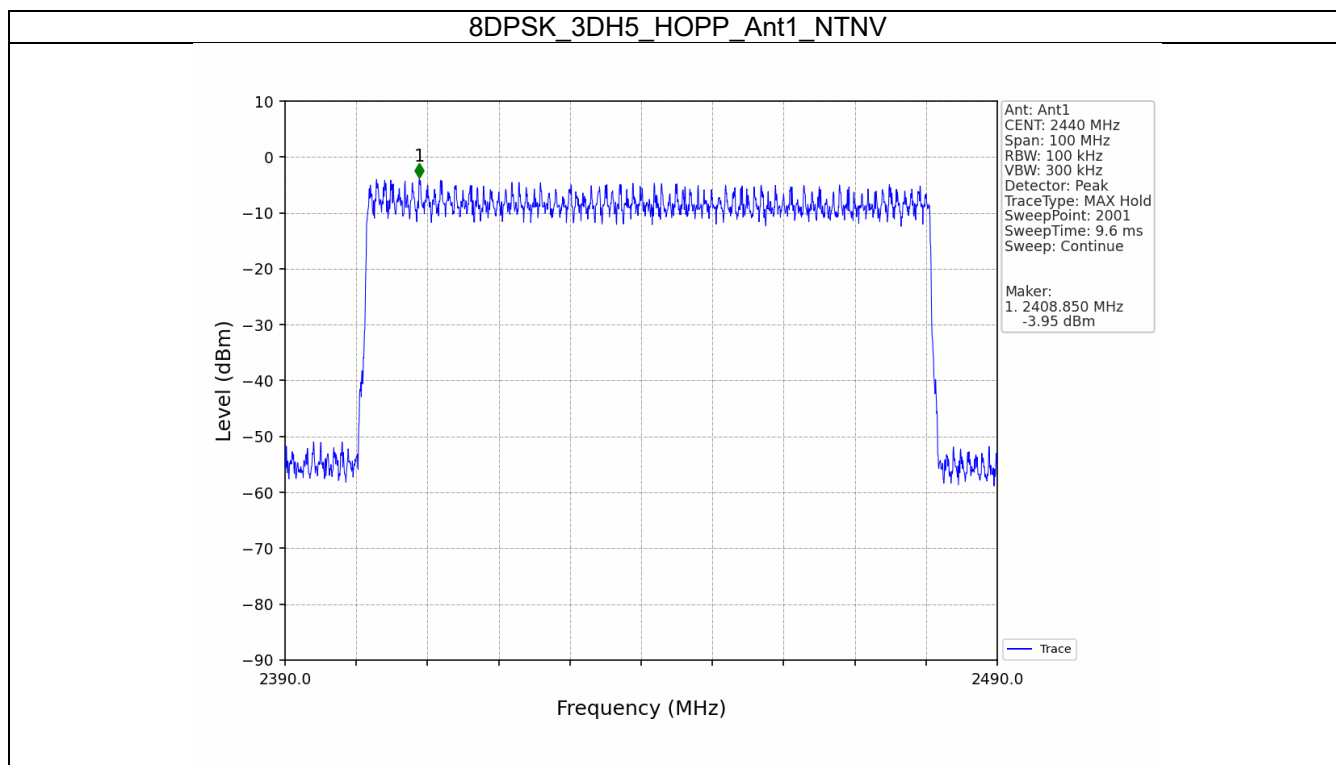




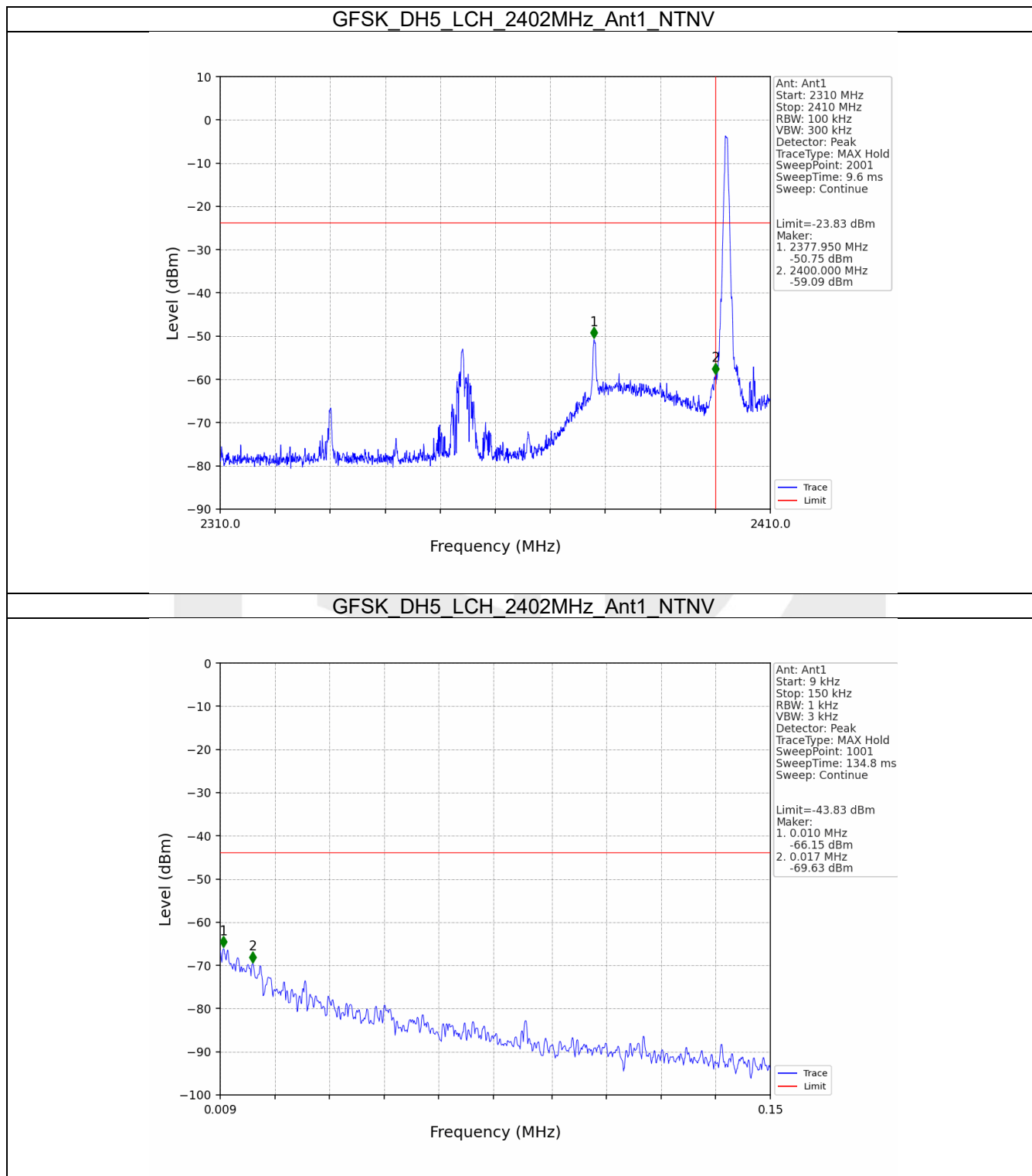


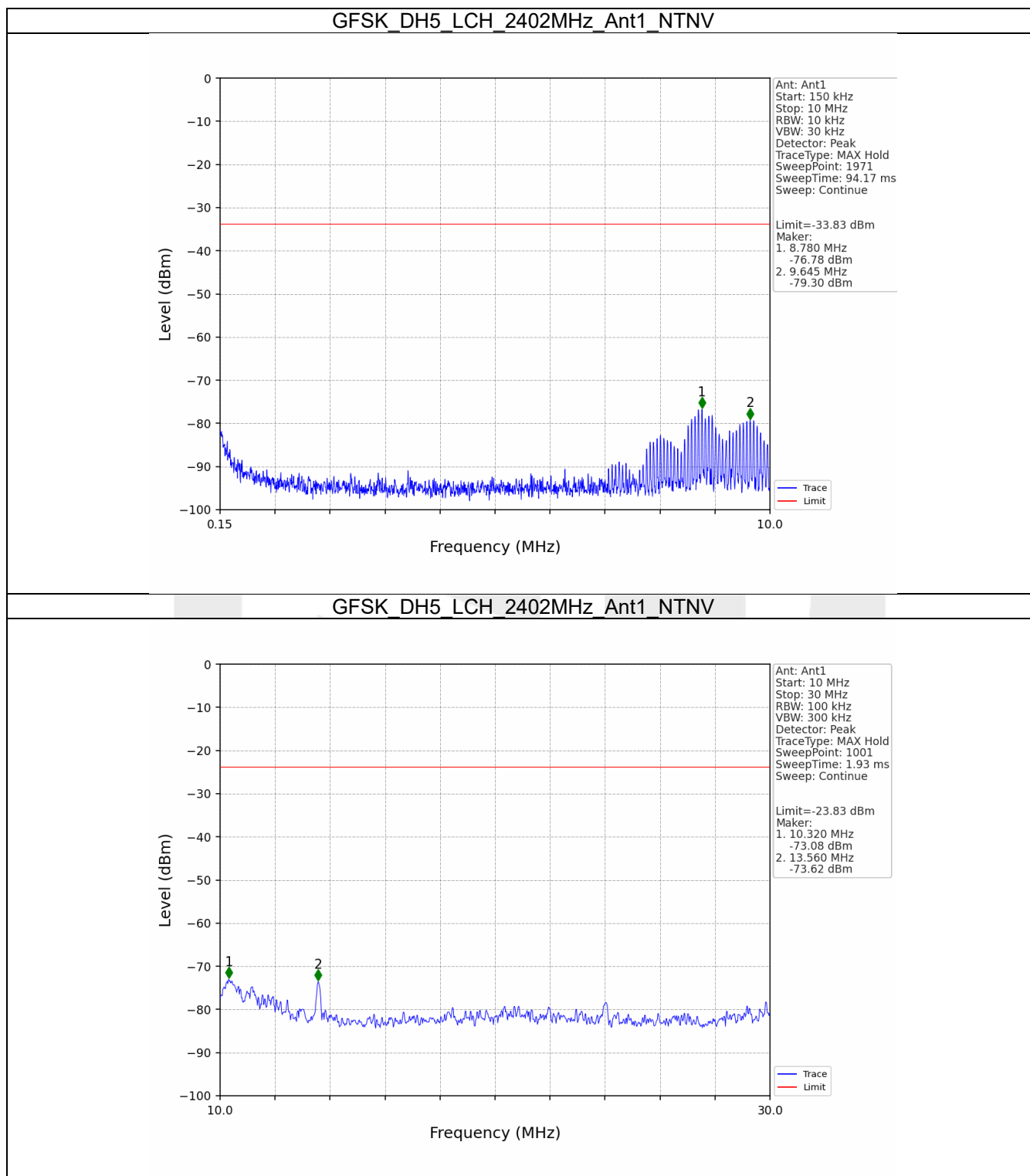


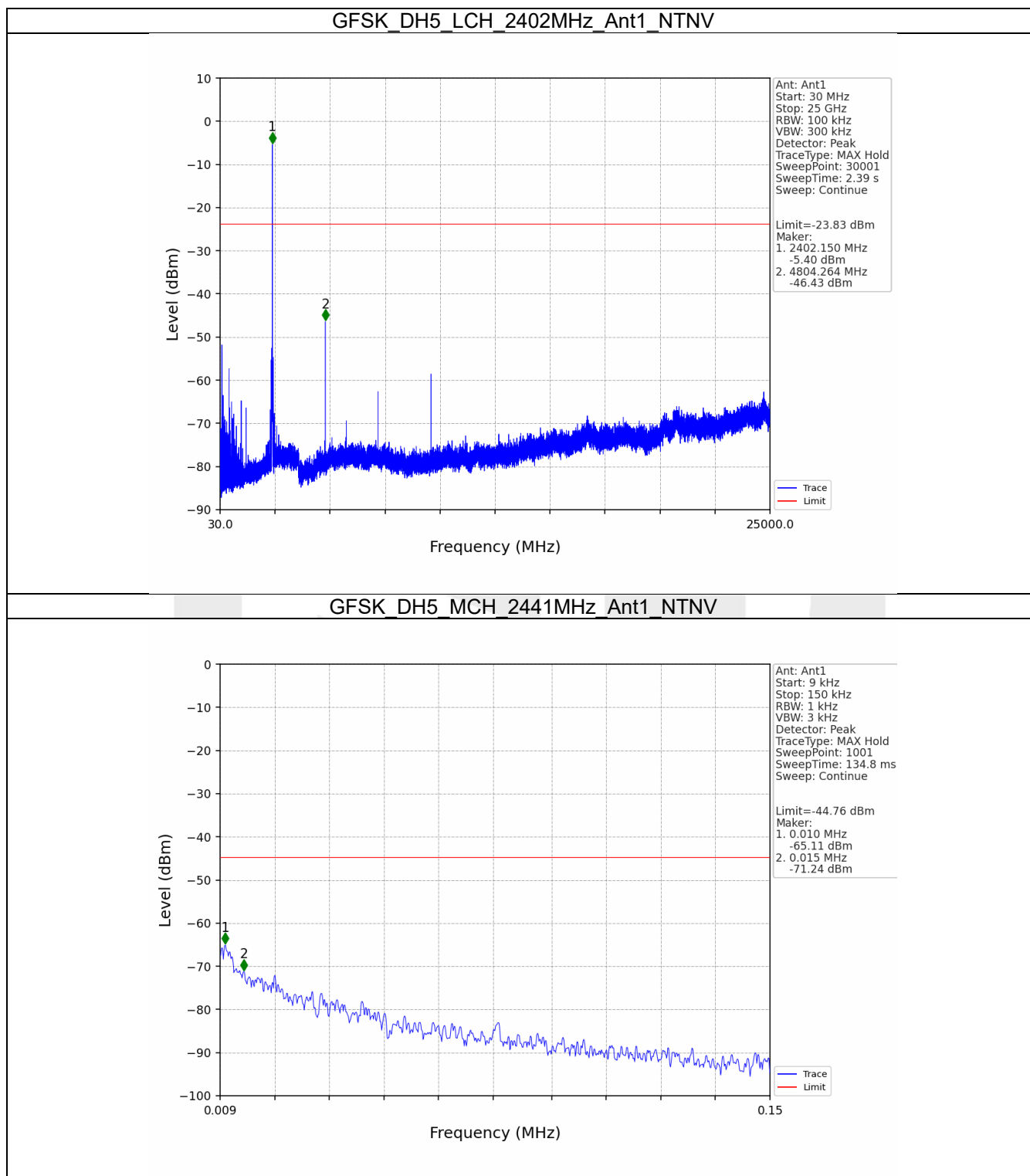


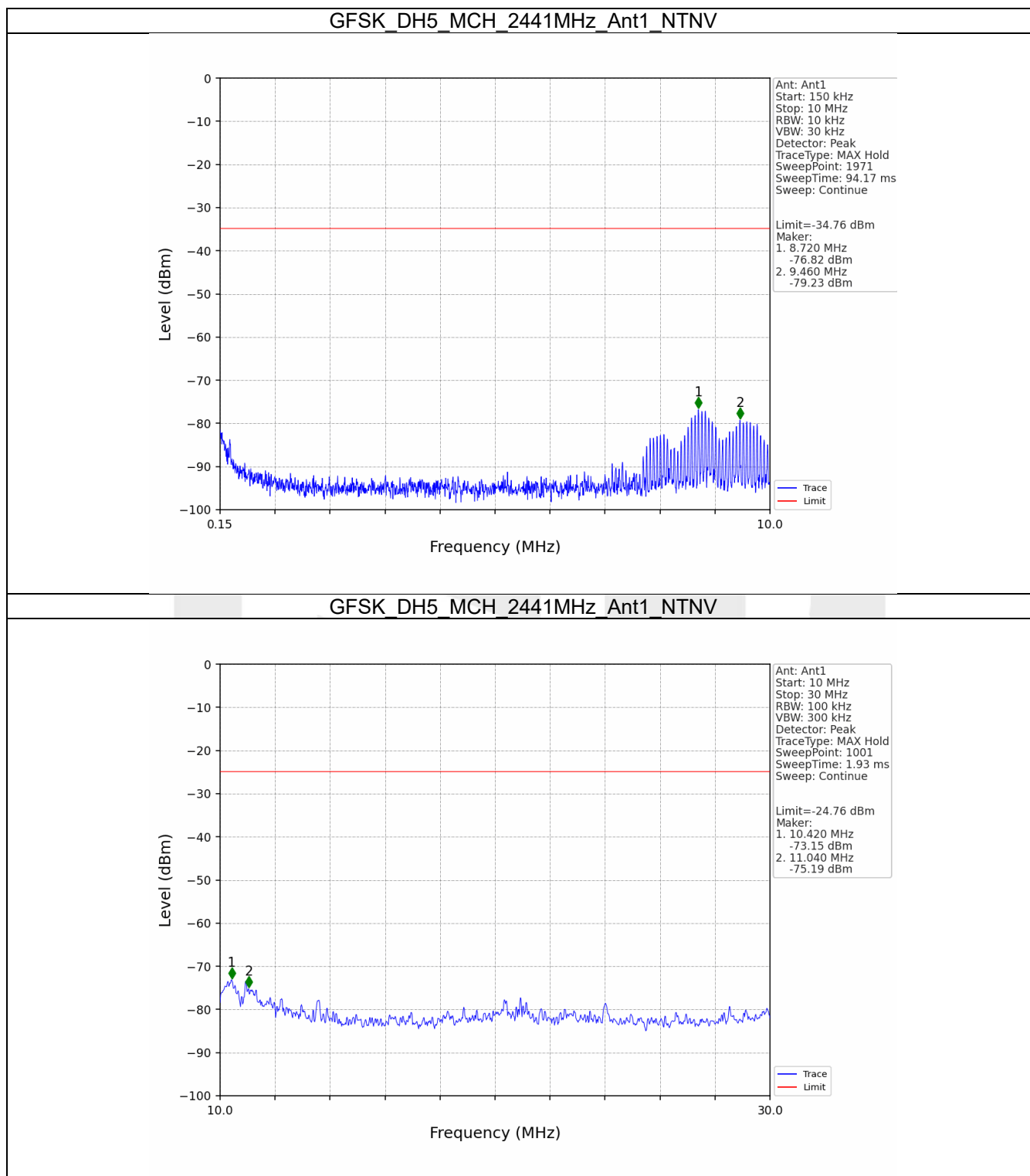


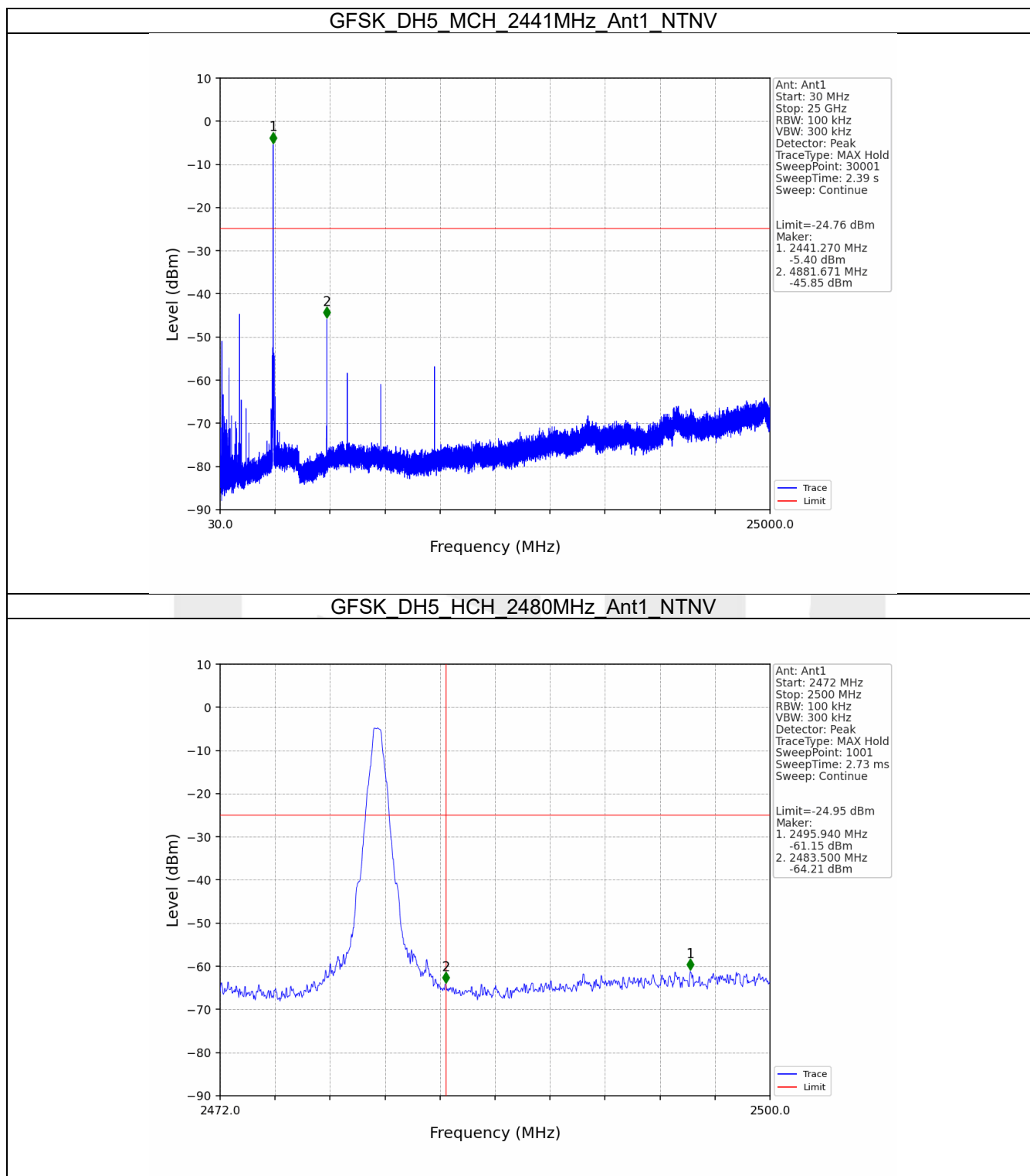
## 7.2.2 CSE

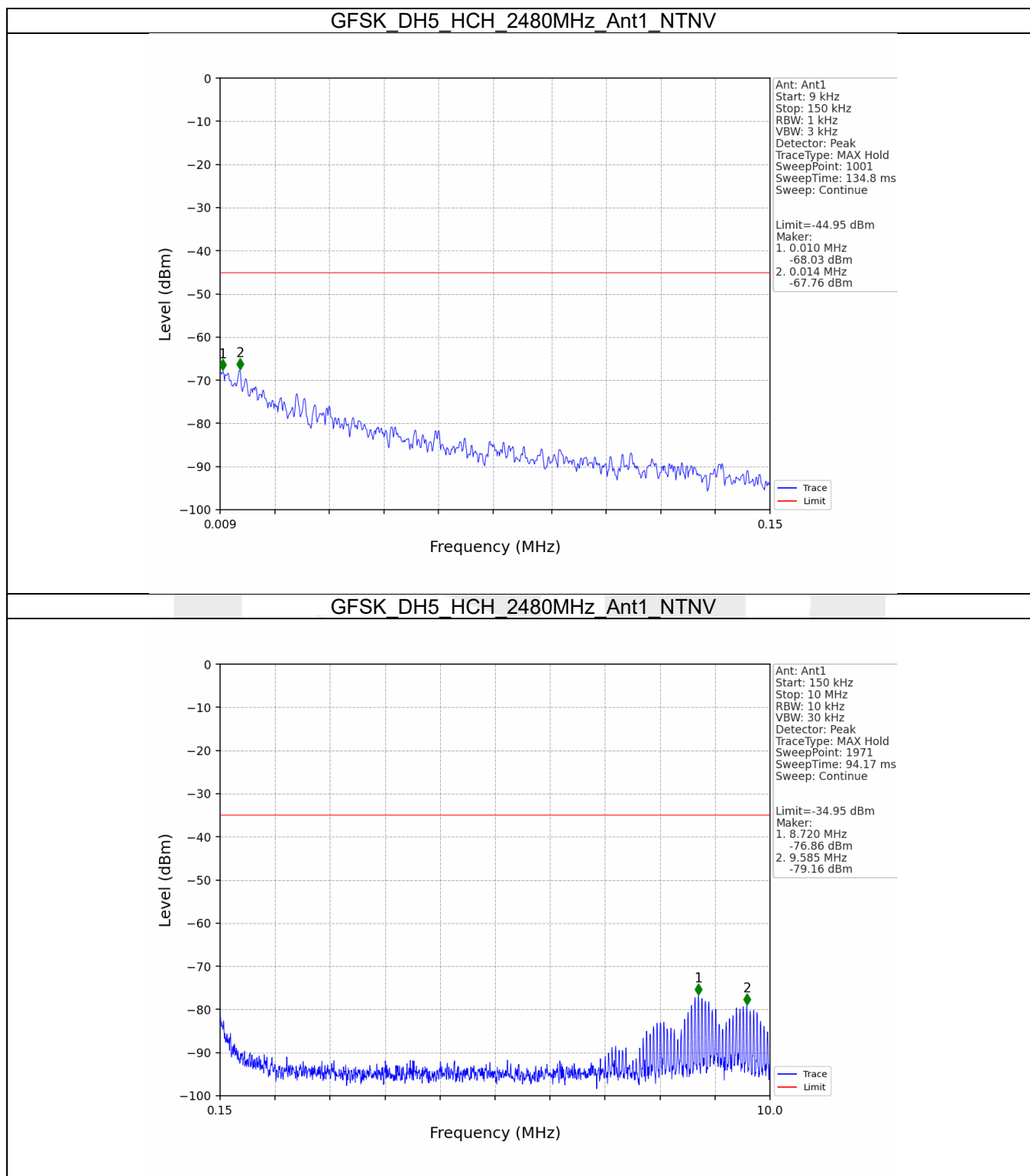


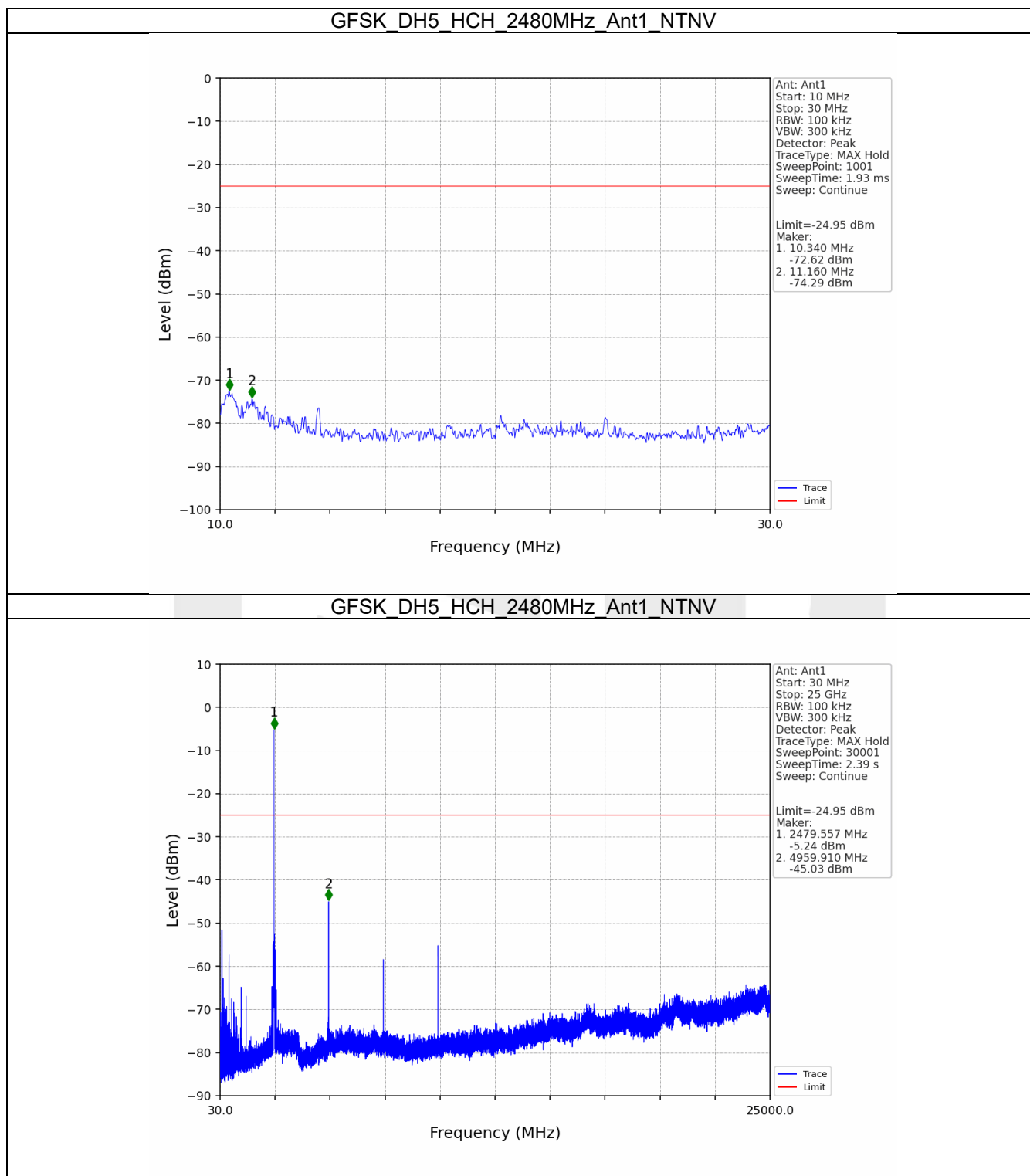


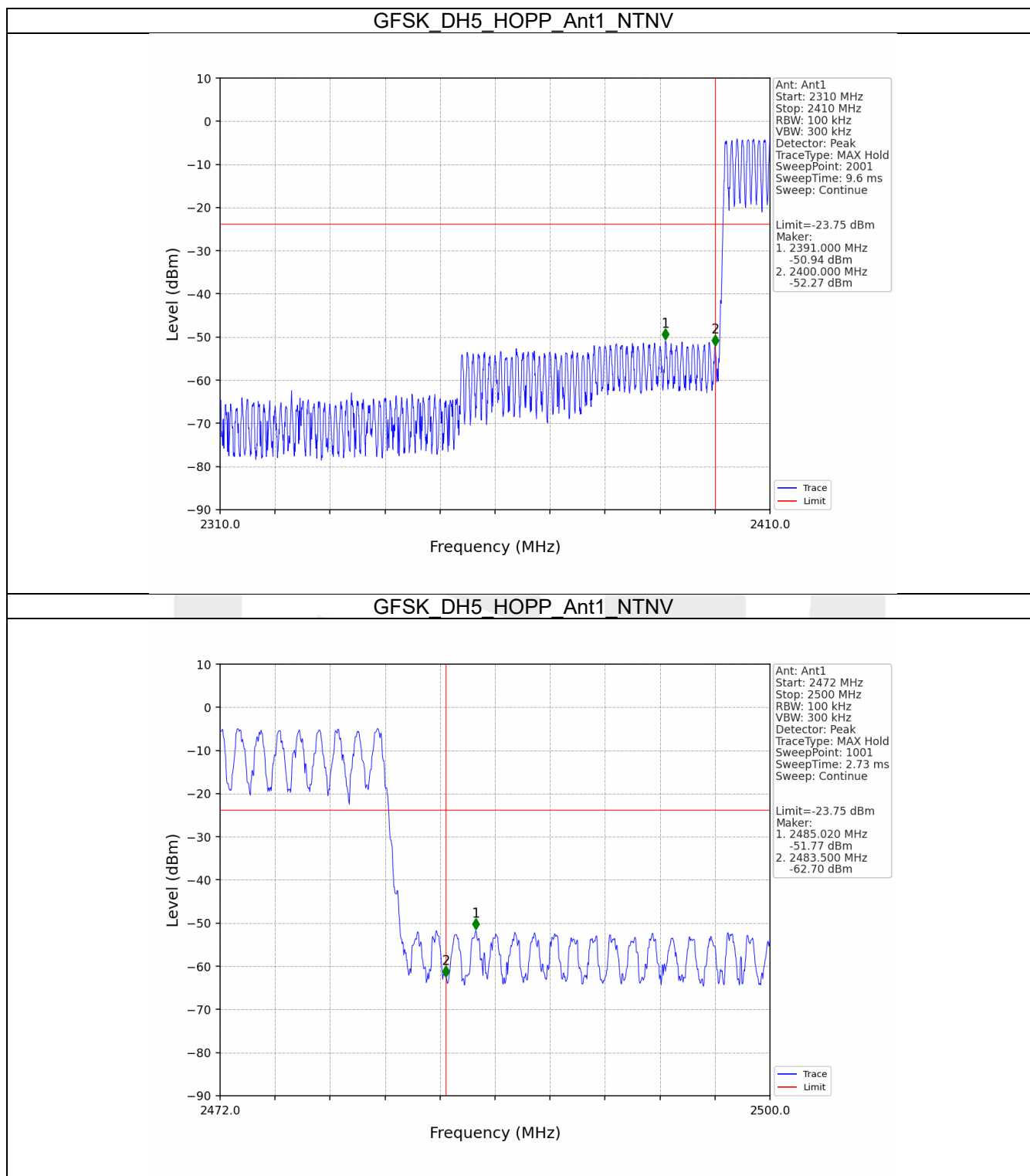


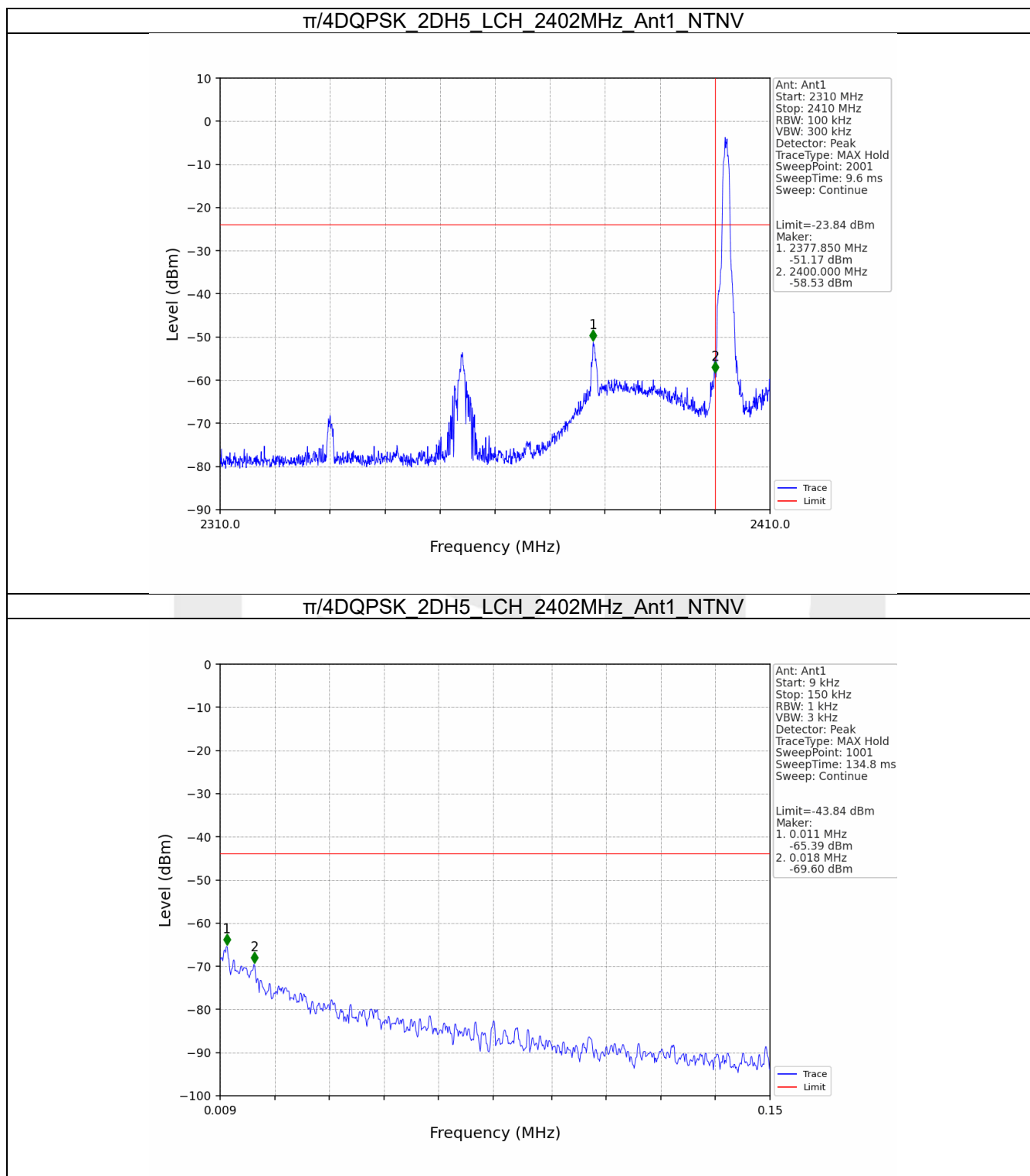


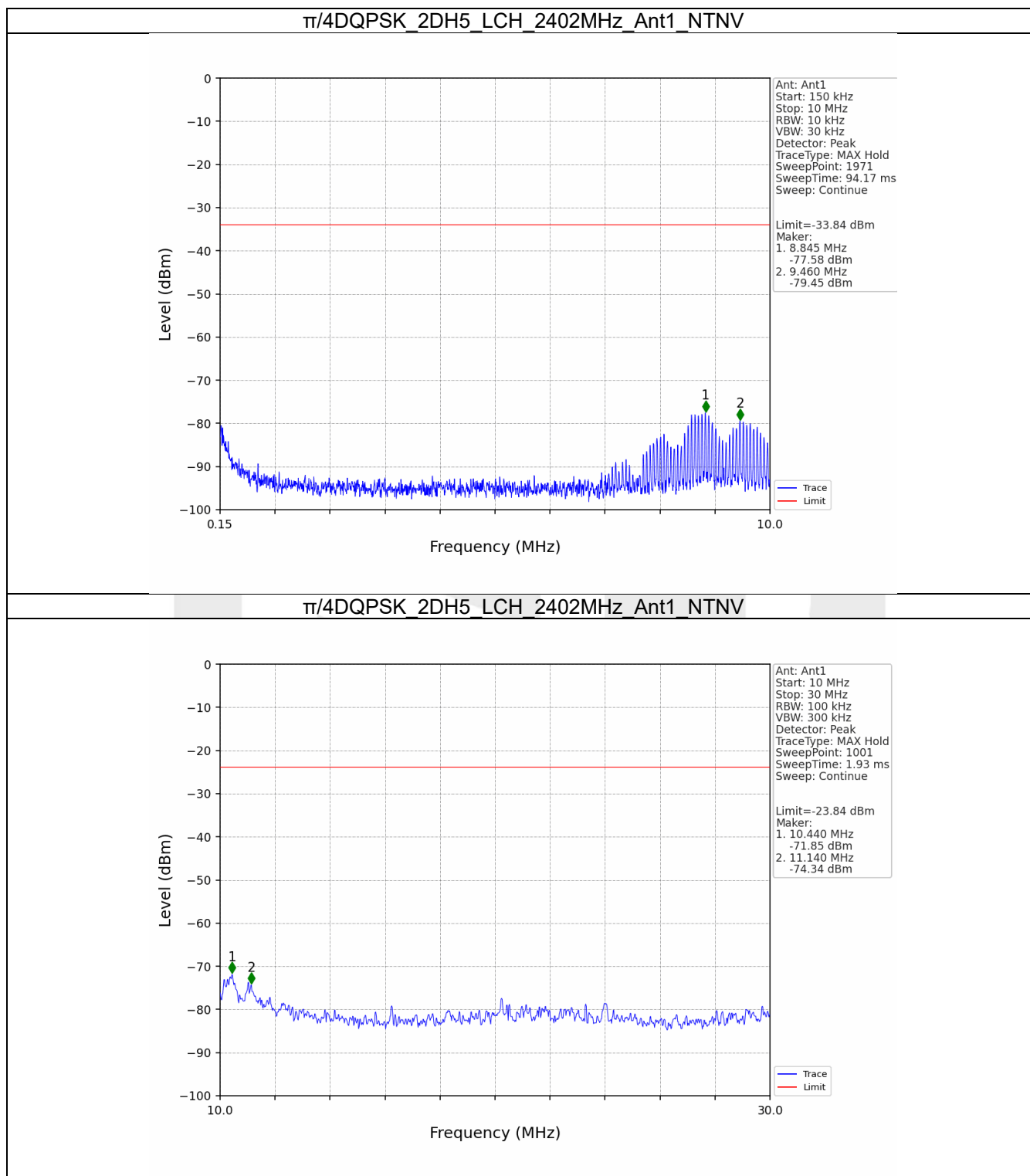


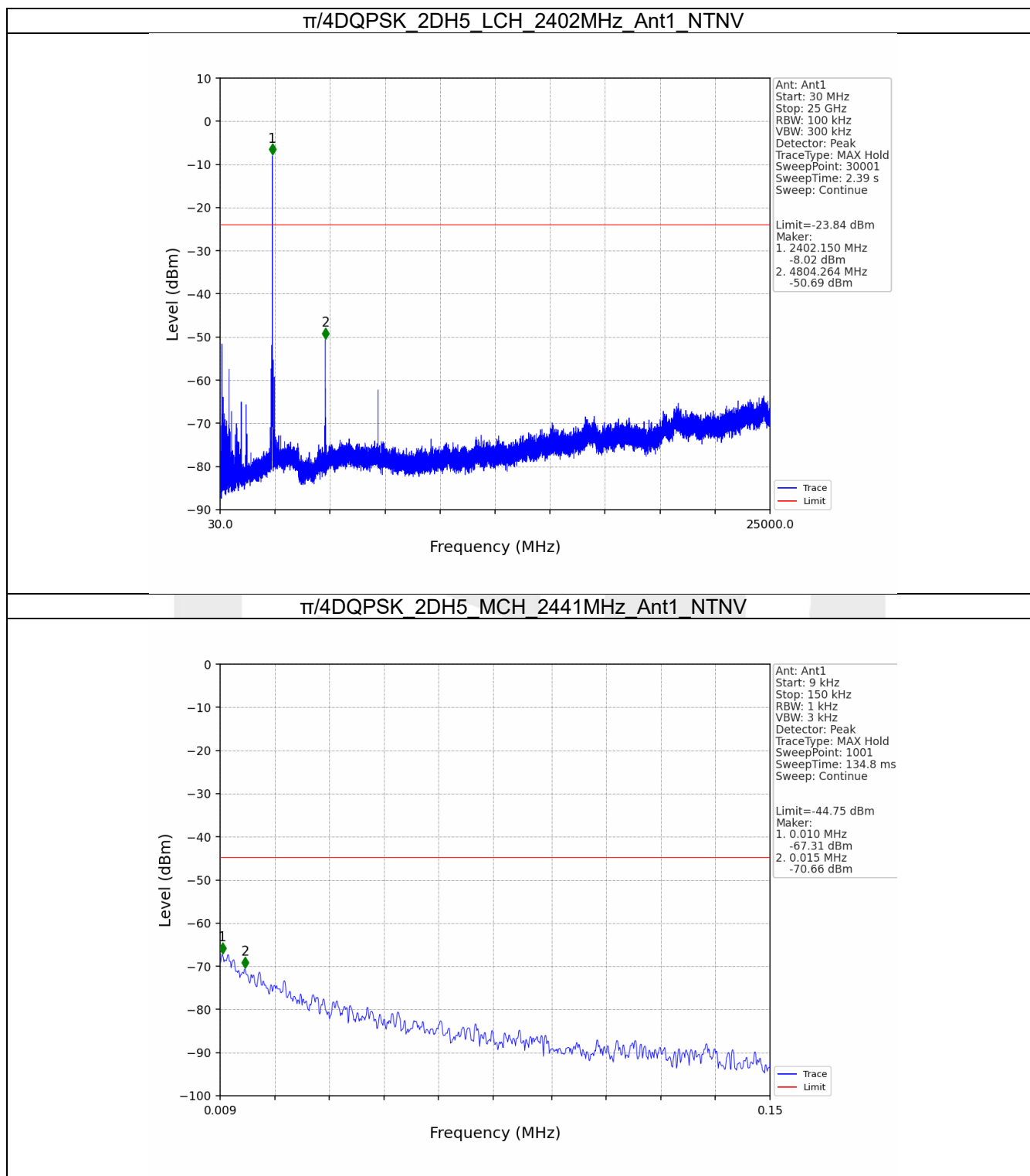


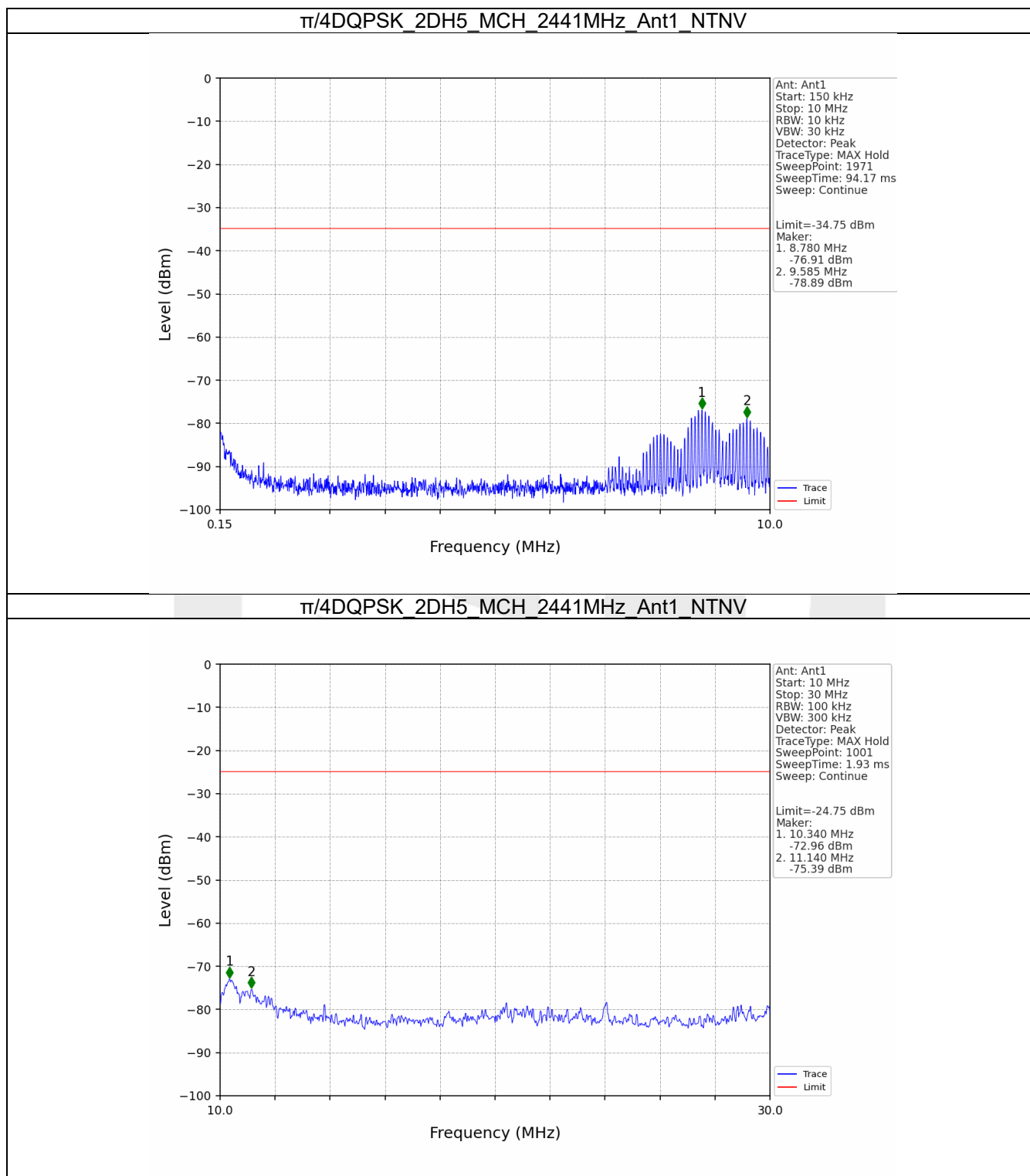


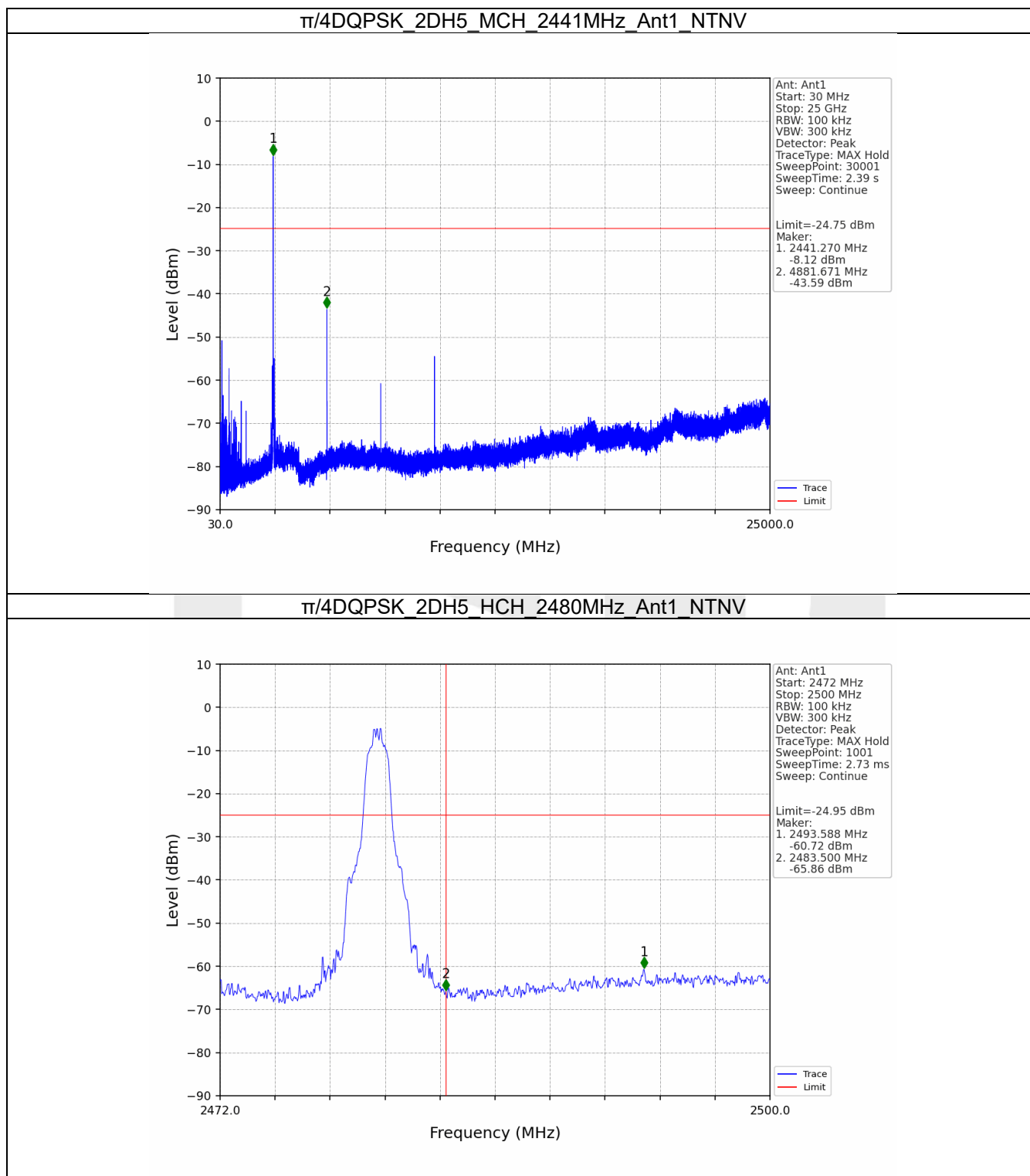


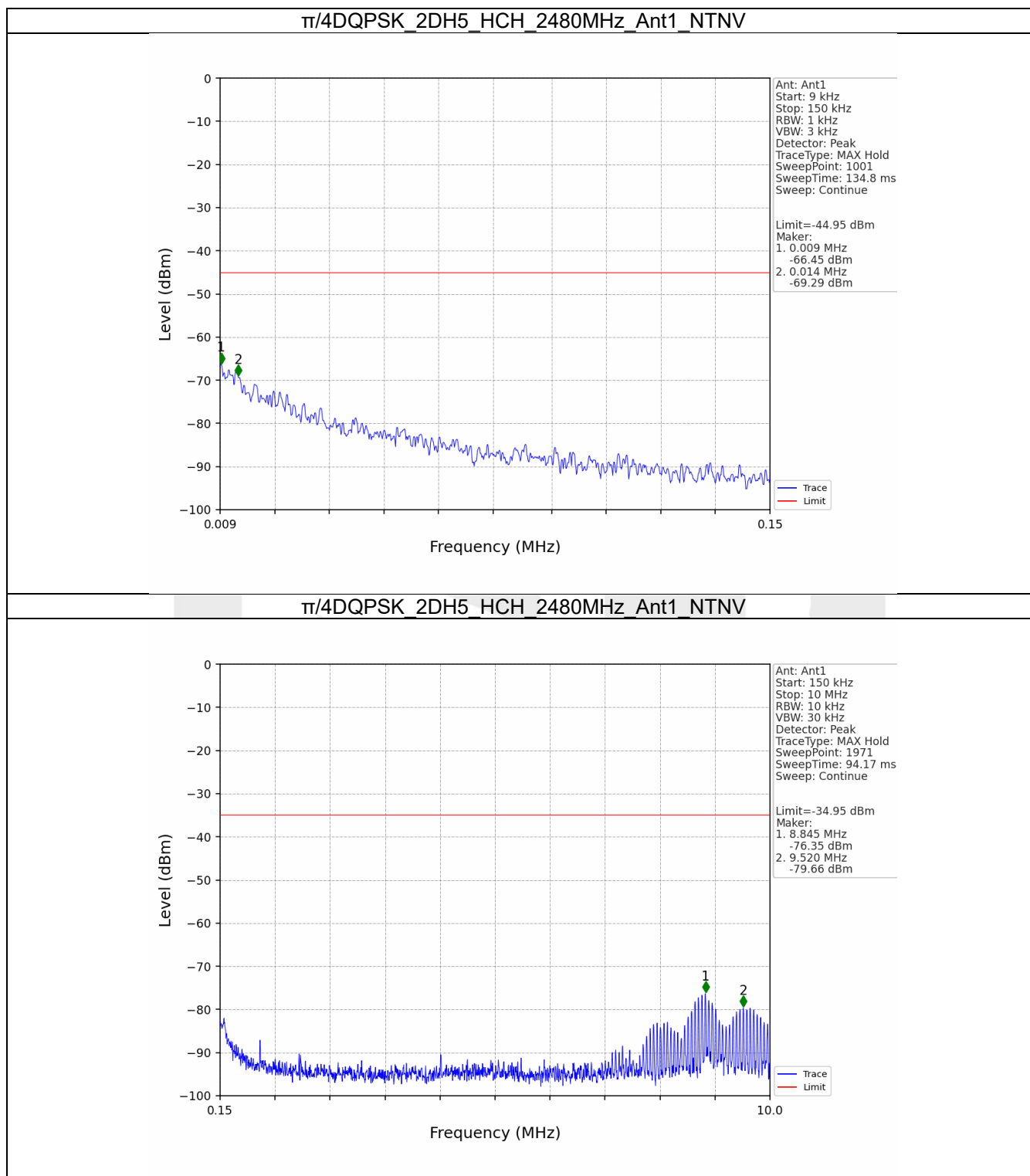


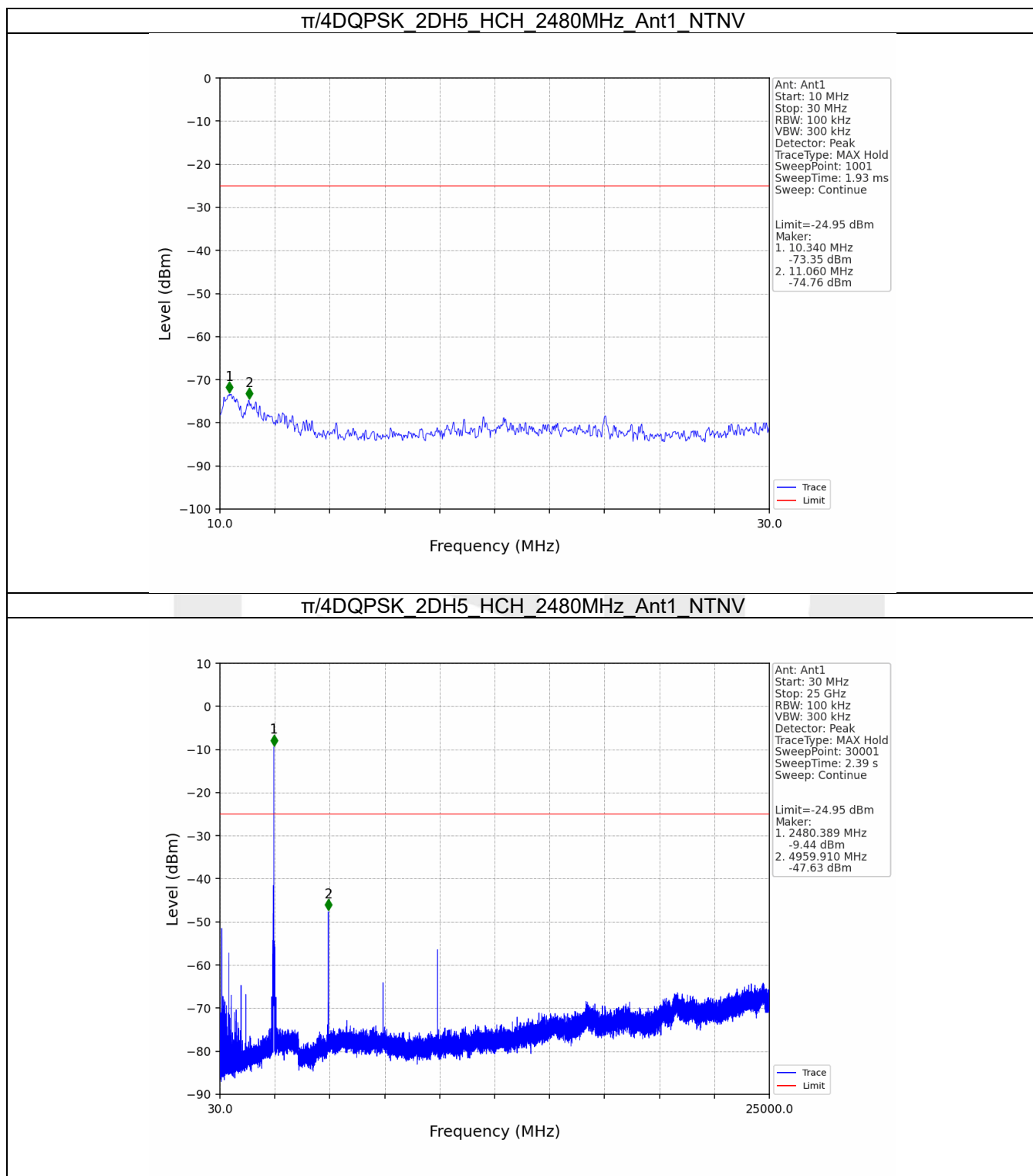


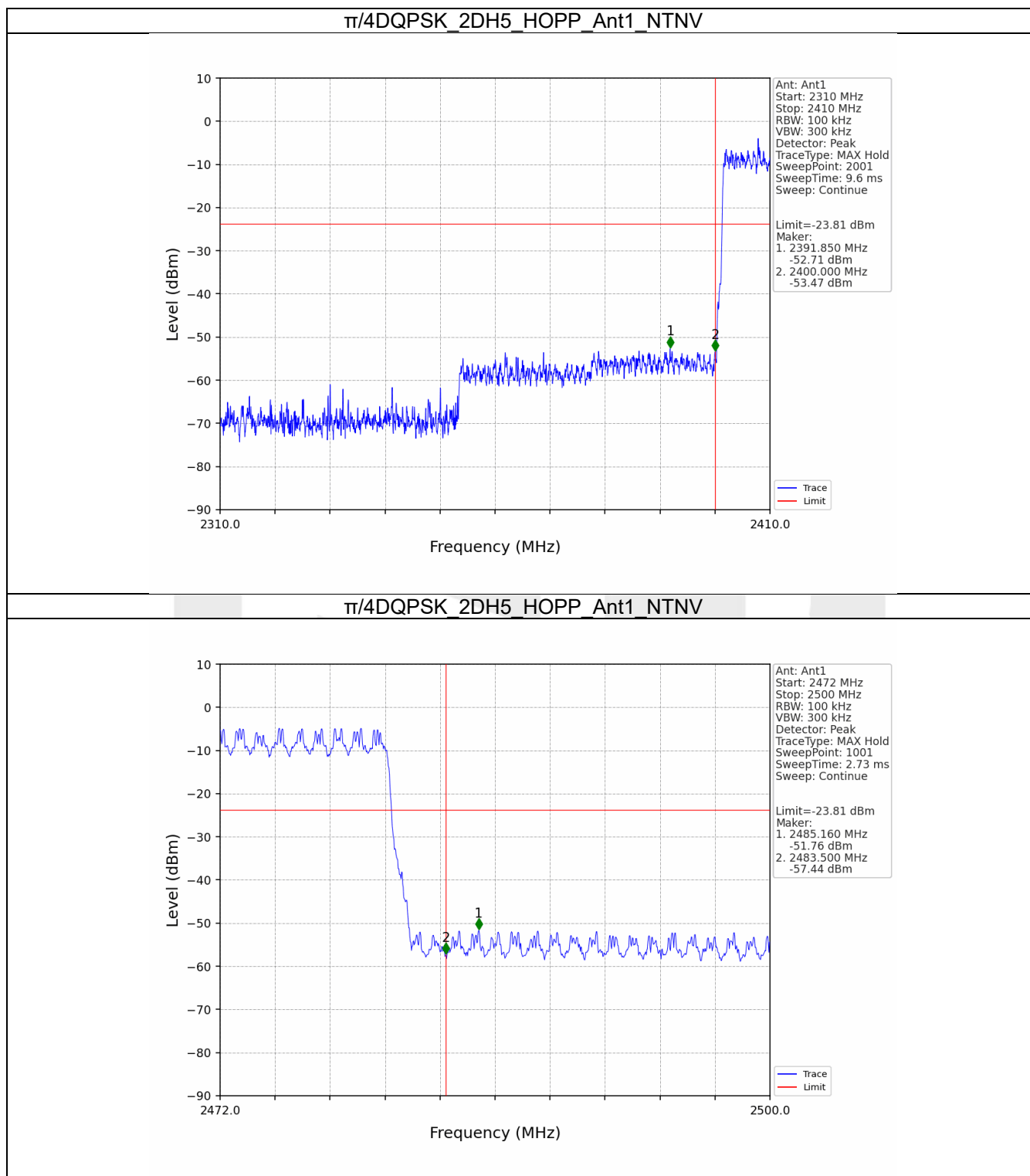


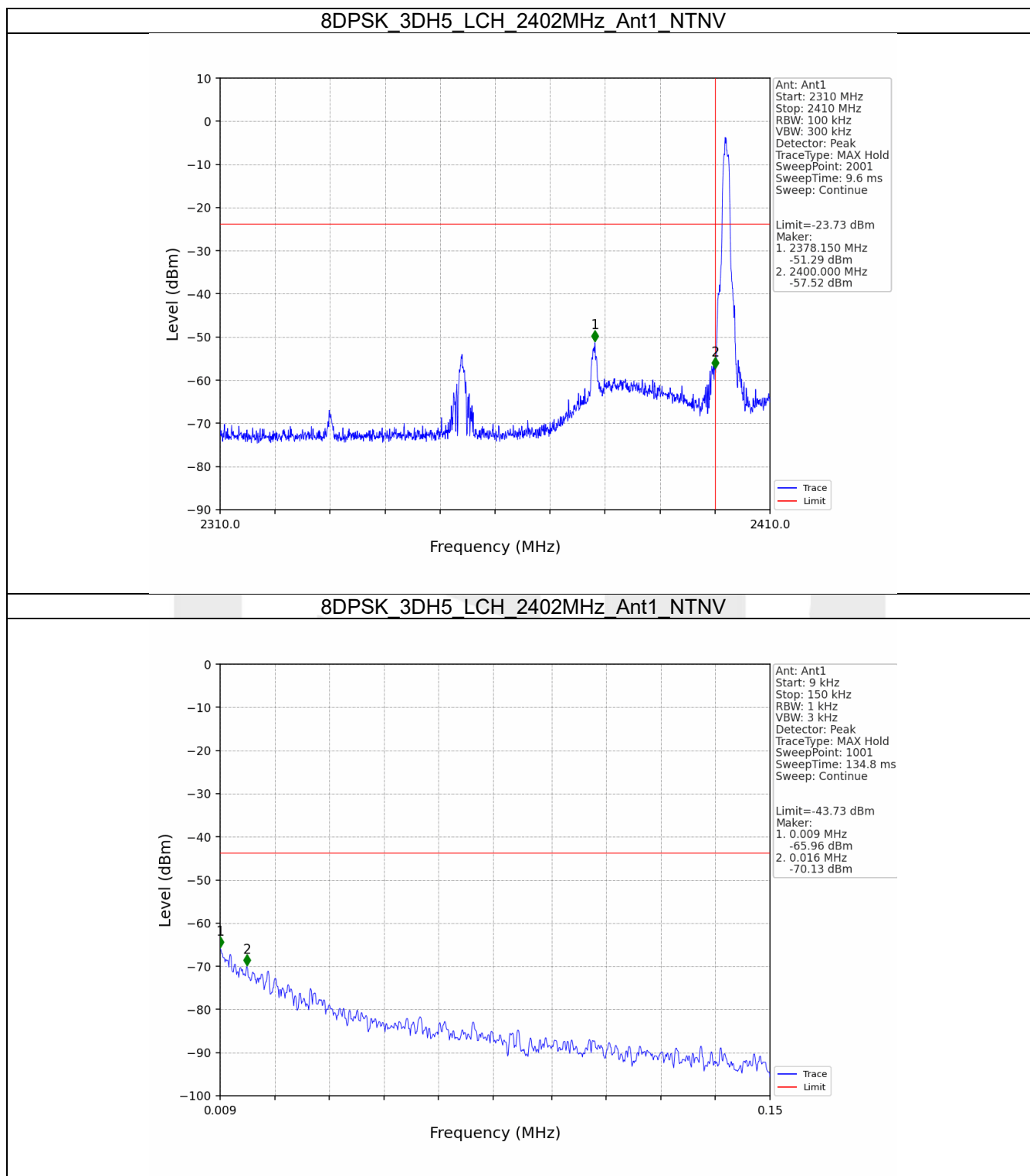


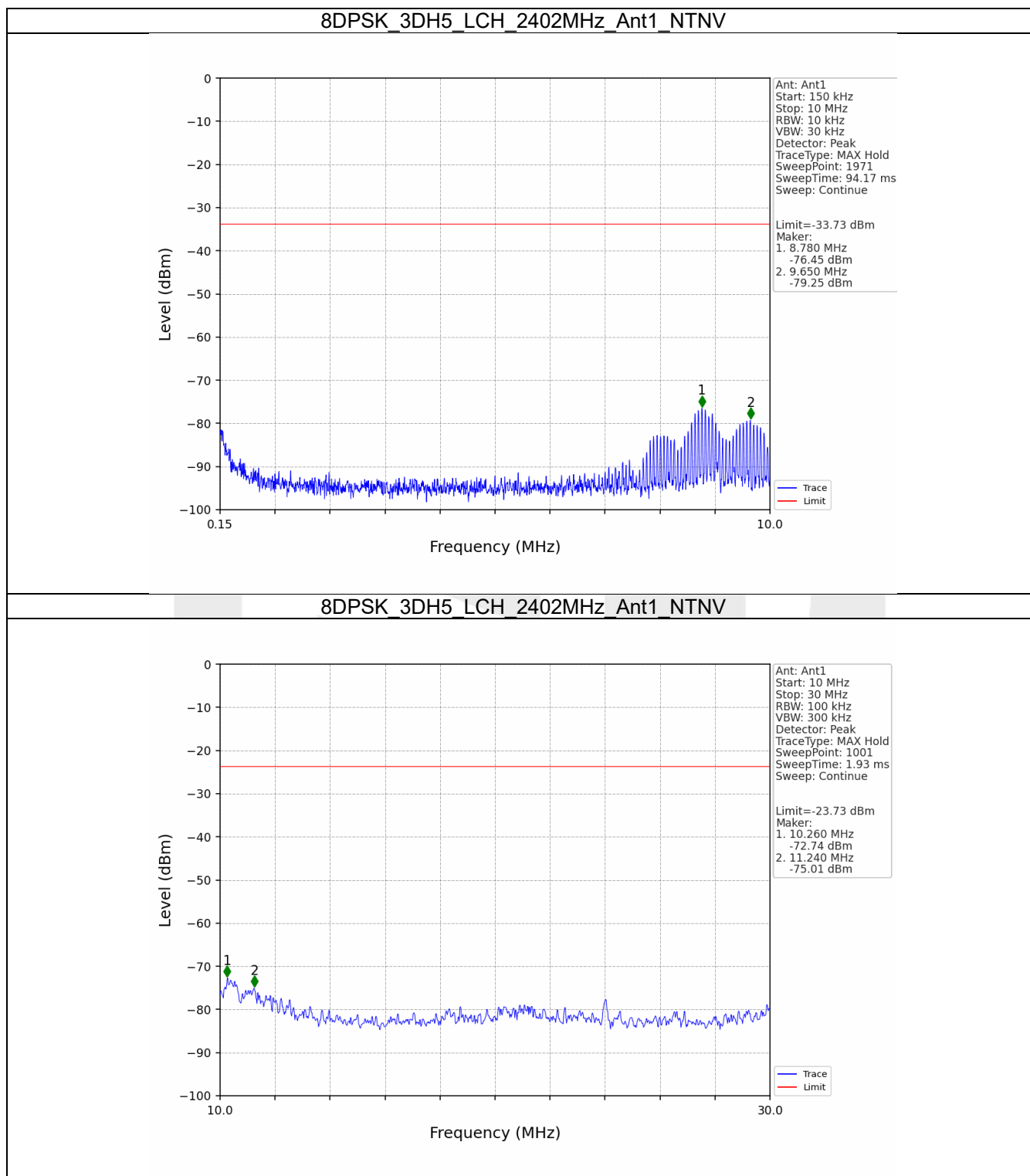


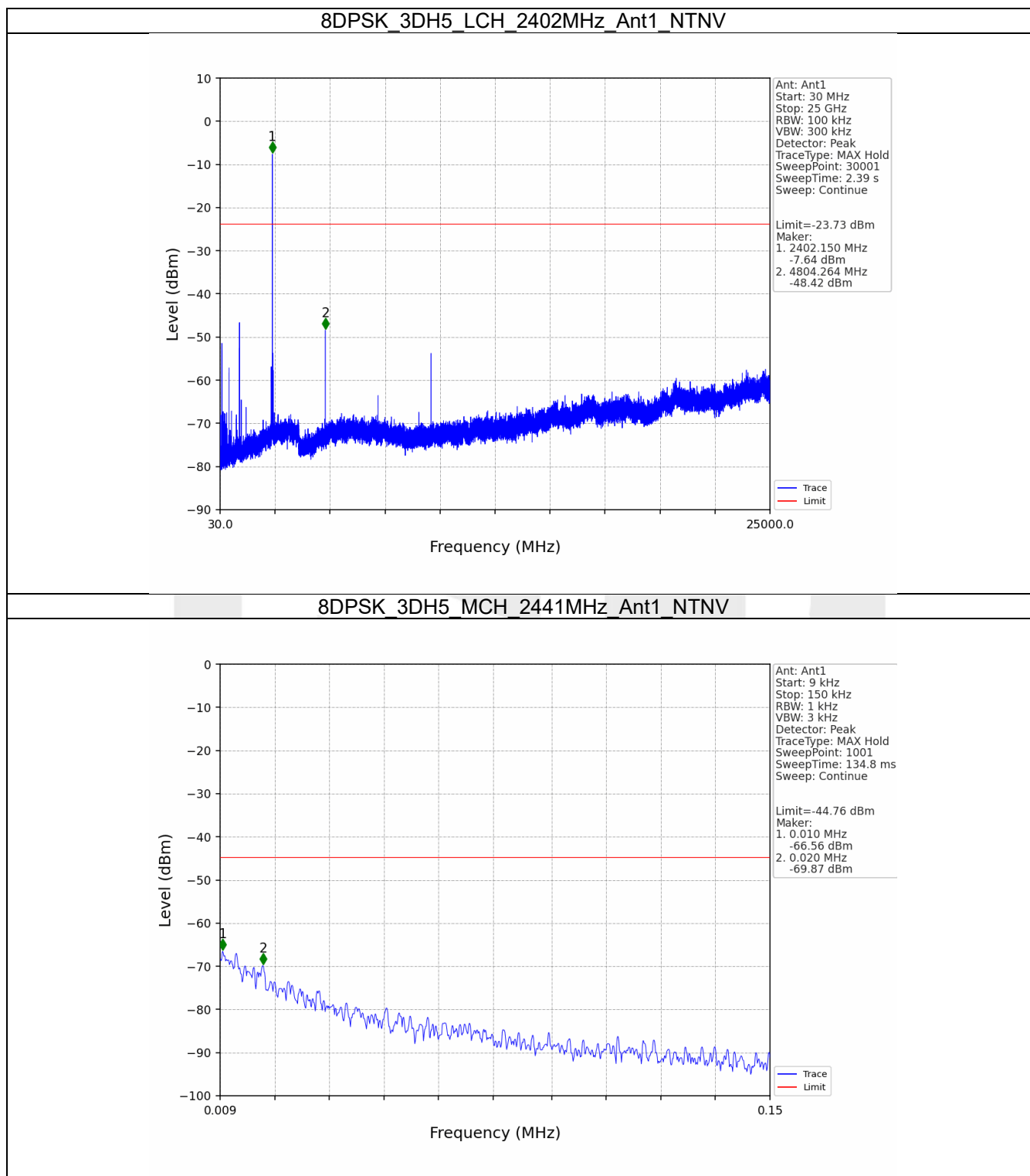


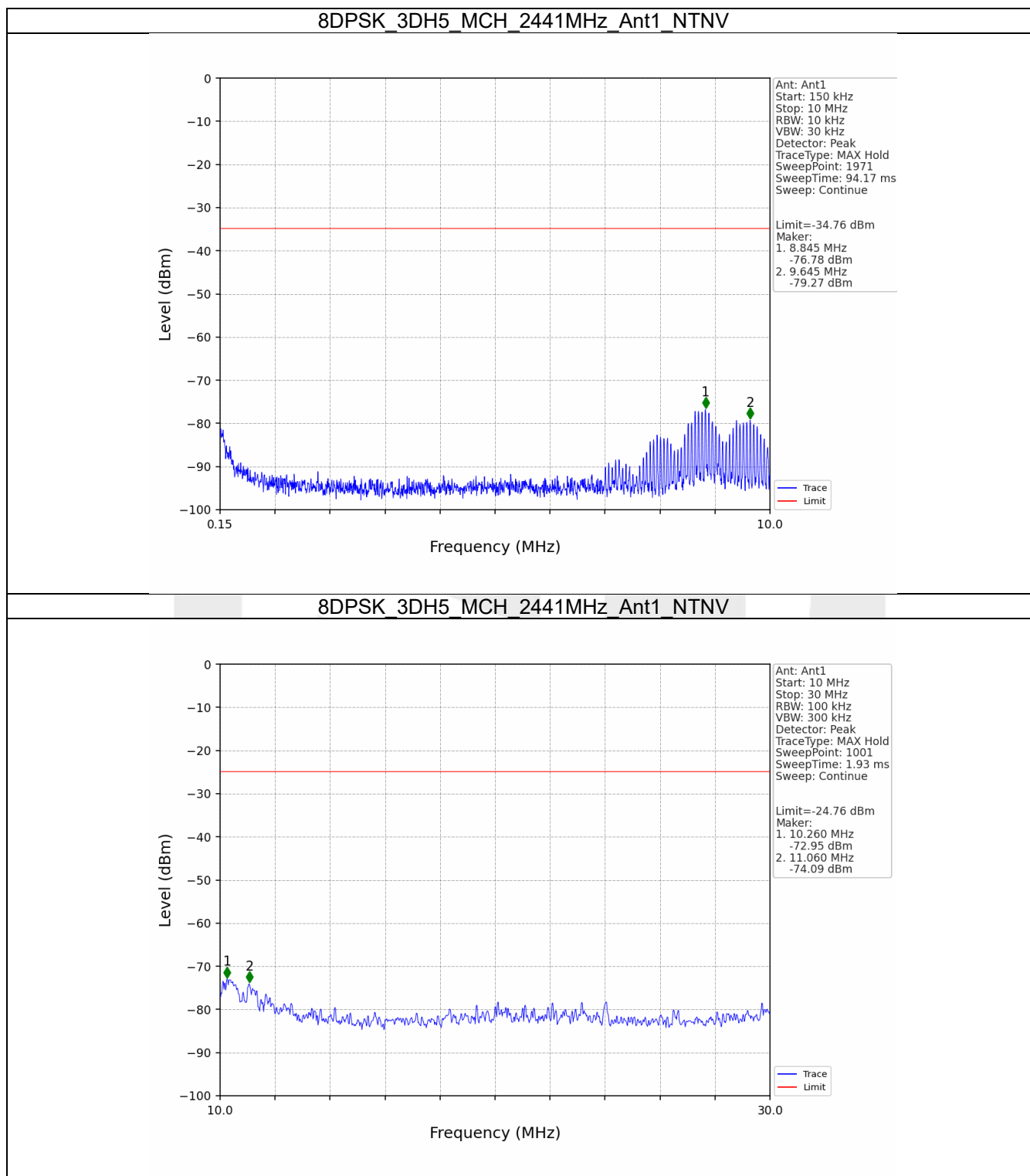


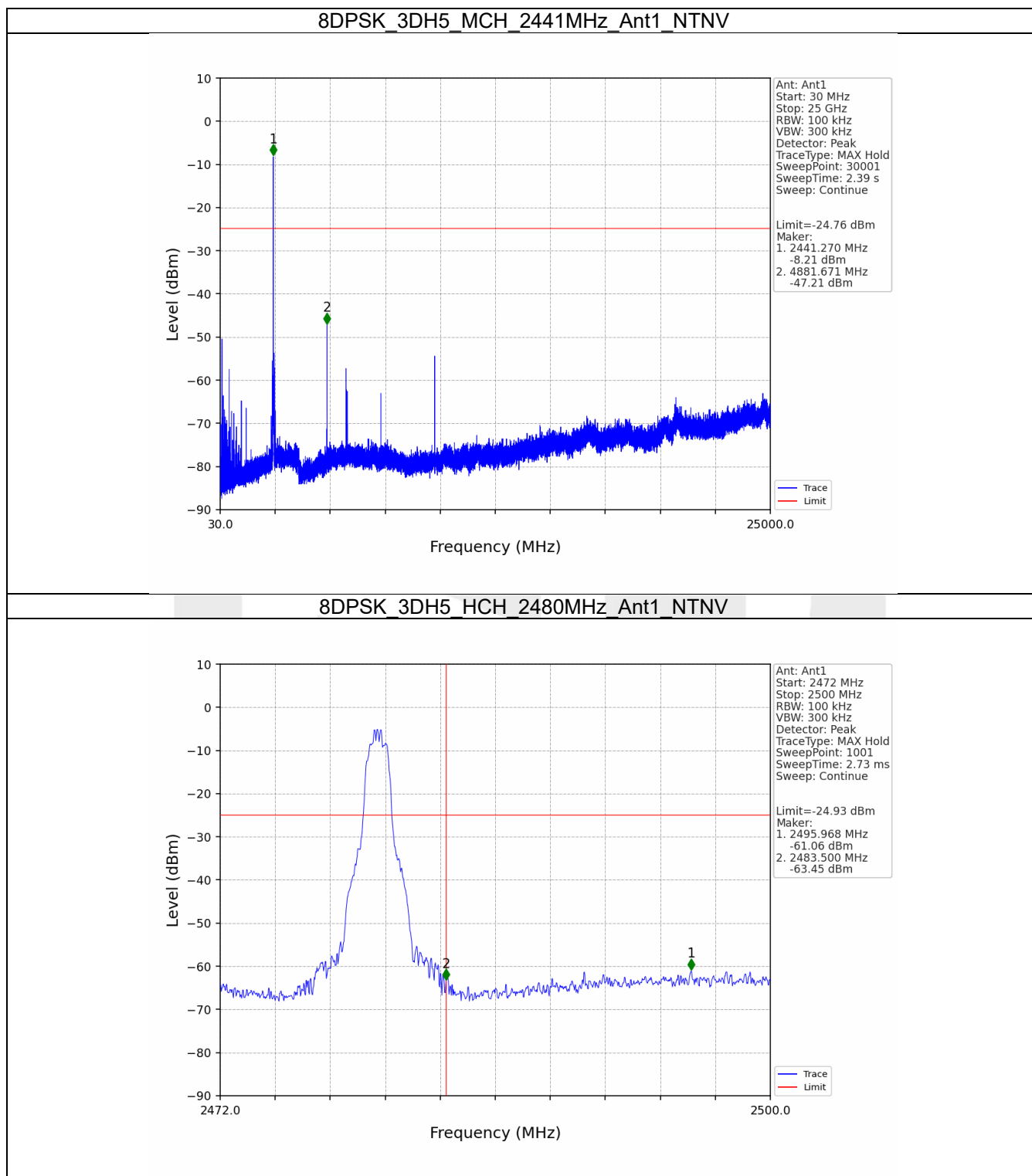


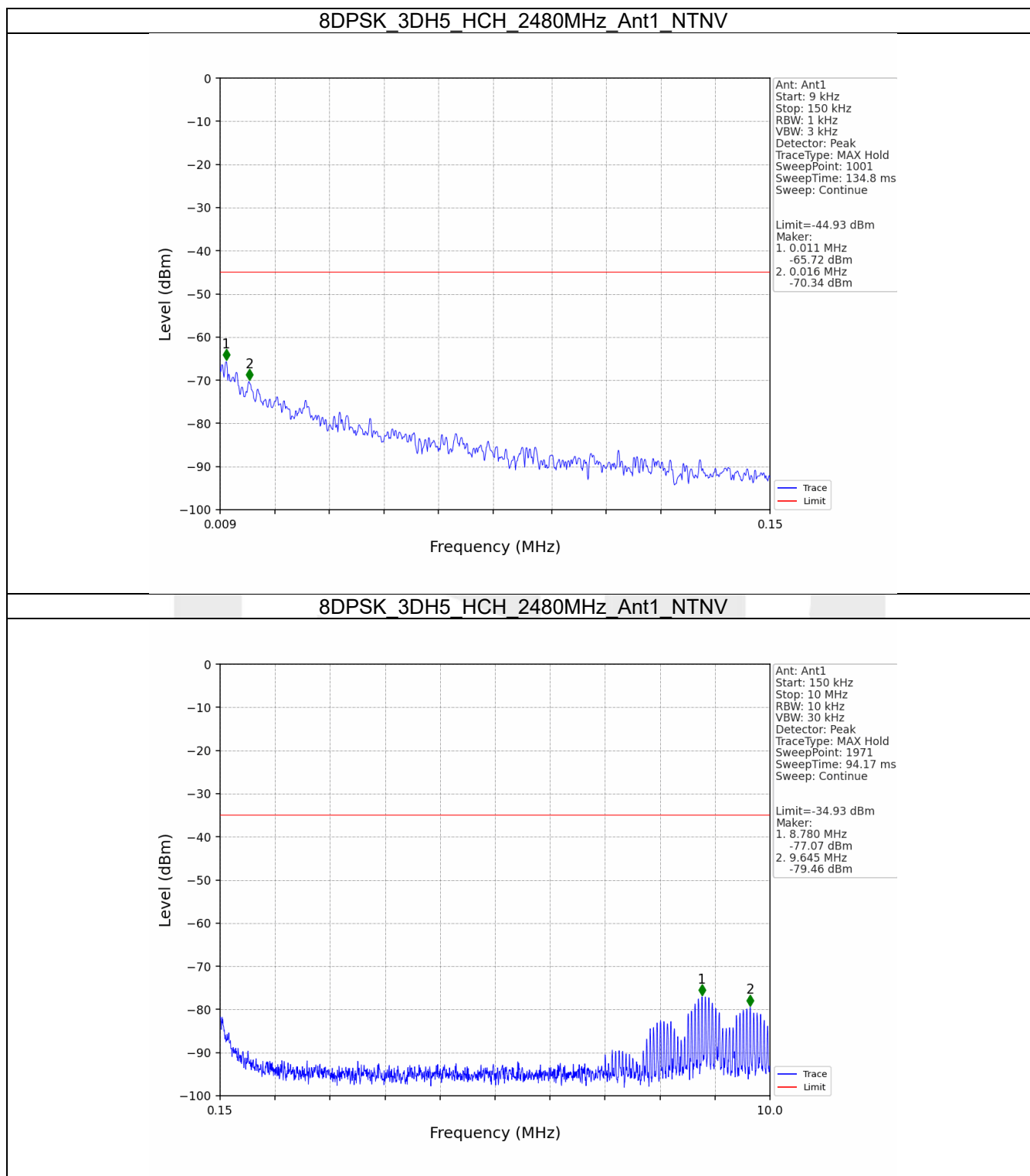


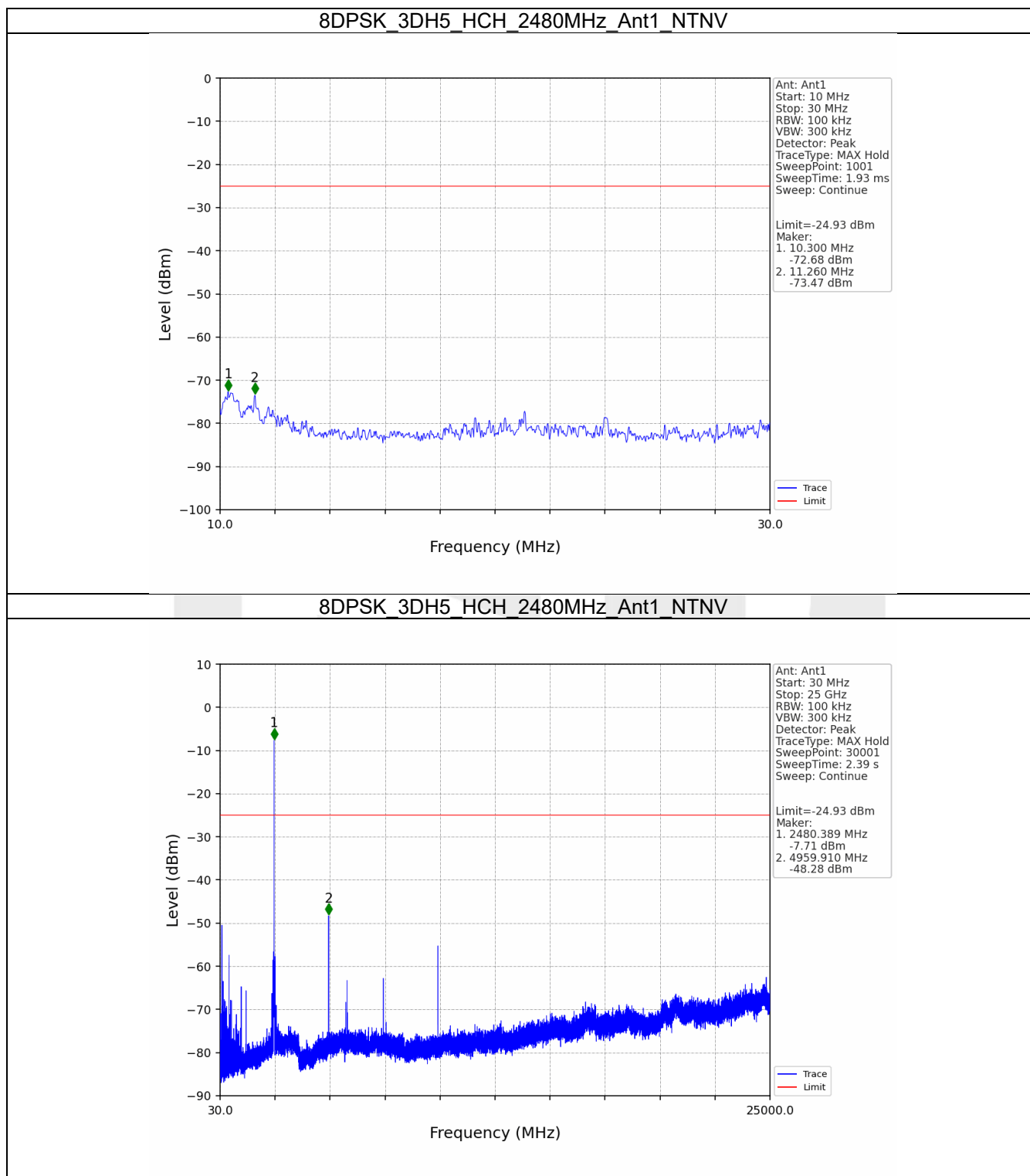


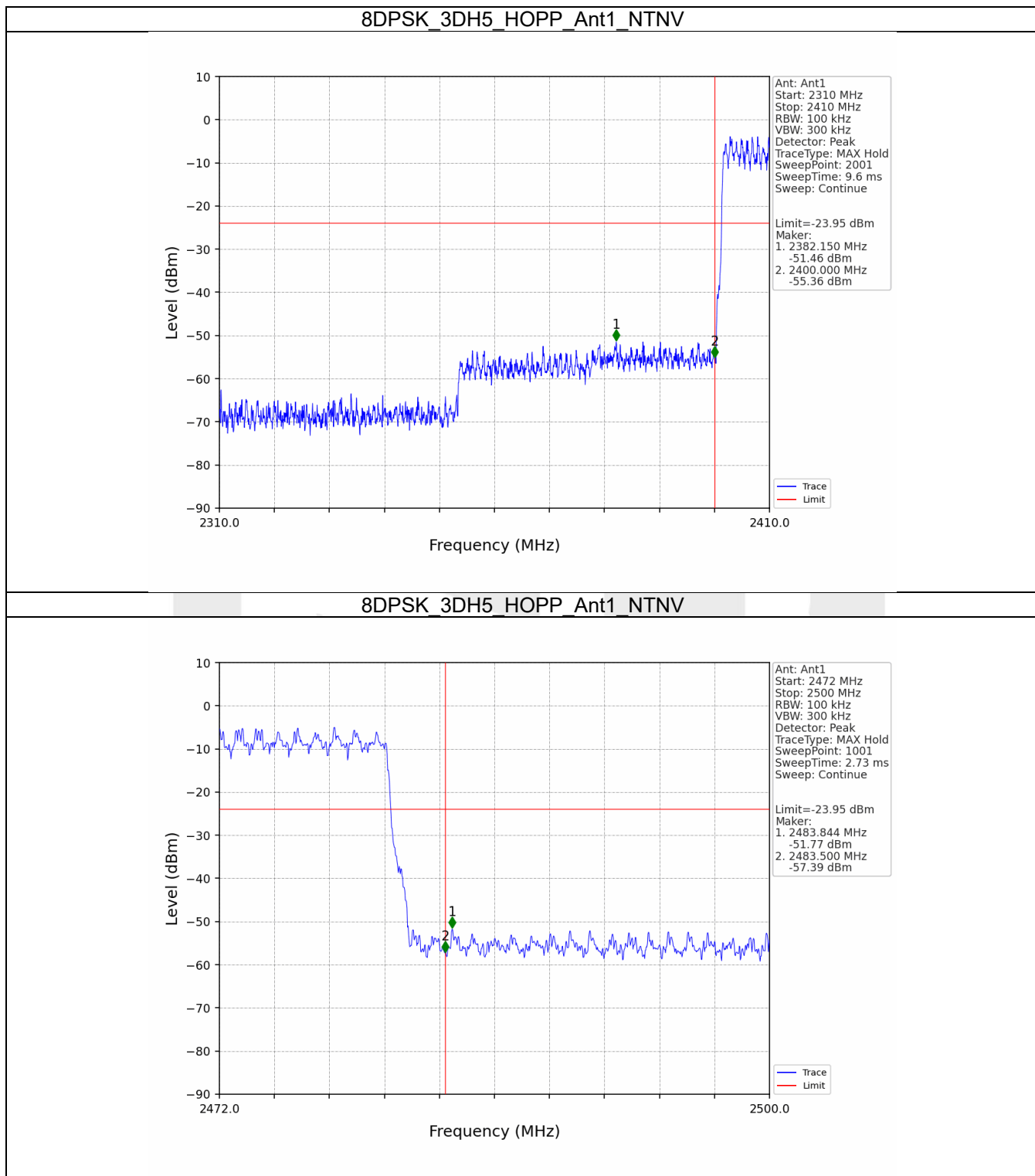












----- End of Report -----