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## Annex for Bluetooth Low Energy

Test Report No.: CTL2512302011-WF02

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FCC ID: 2BCBND0C10

## 1. Bandwidth

### 1.1 Test Result

#### 1.1.1 OBW

| Mode | TX Type | Frequency (MHz) | ANT | 99% Occupied Bandwidth (MHz) |       | Verdict |
|------|---------|-----------------|-----|------------------------------|-------|---------|
|      |         |                 |     | Result                       | Limit |         |
| 1M   | SISO    | 2402            | 1   | 1.033                        | /     | Pass    |
|      |         | 2440            | 1   | 1.033                        | /     | Pass    |
|      |         | 2480            | 1   | 1.035                        | /     | Pass    |
| 2M   | SISO    | 2402            | 1   | 2.056                        | /     | Pass    |
|      |         | 2440            | 1   | 2.069                        | /     | Pass    |
|      |         | 2480            | 1   | 2.062                        | /     | Pass    |

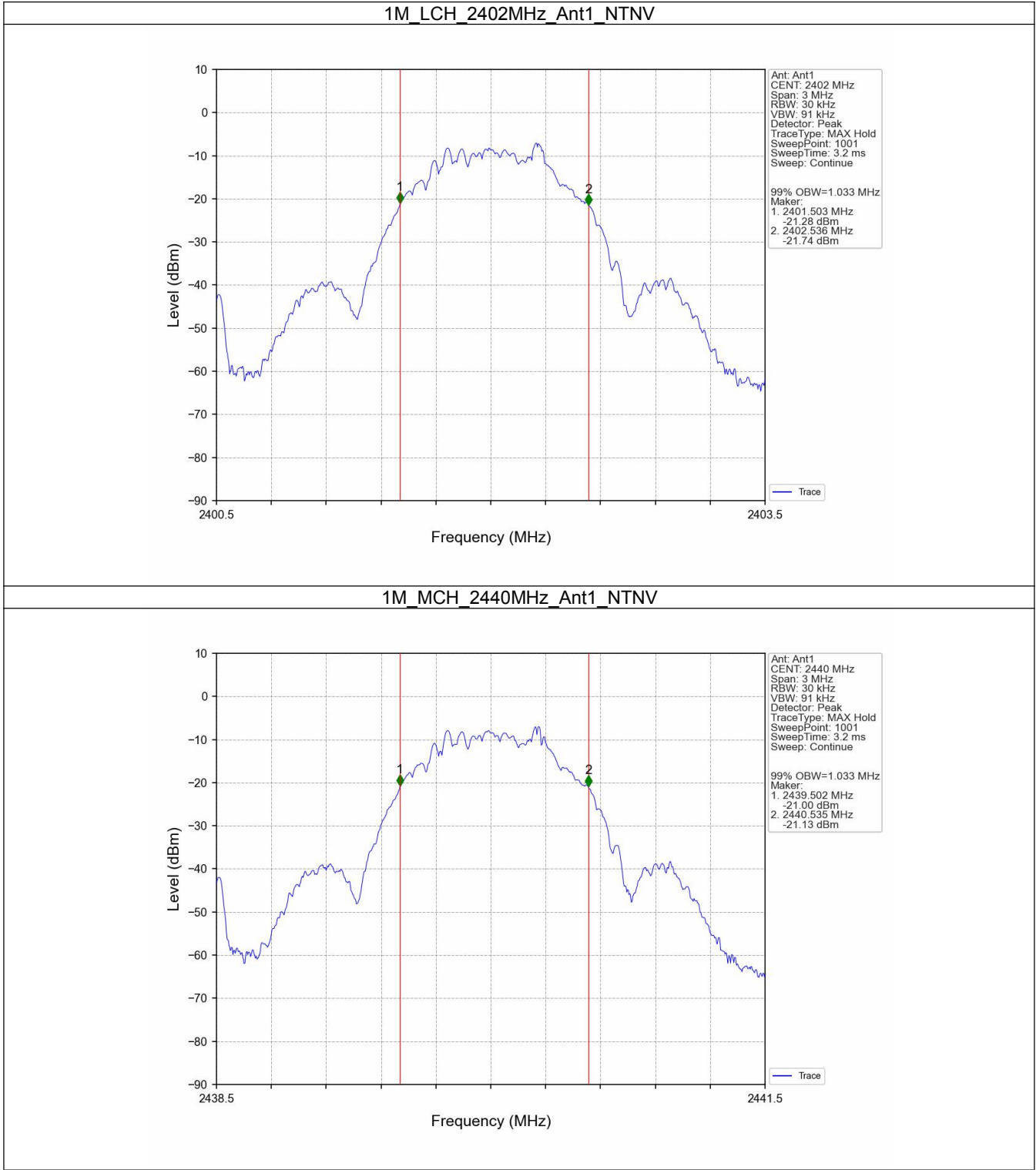
#### 1.1.2 6dB BW

| Mode | TX Type | Frequency (MHz) | ANT | 6dB Bandwidth (MHz) |            | Verdict |
|------|---------|-----------------|-----|---------------------|------------|---------|
|      |         |                 |     | Result              | Limit      |         |
| 1M   | SISO    | 2402            | 1   | 0.660               | $\geq 0.5$ | Pass    |
|      |         | 2440            | 1   | 0.664               | $\geq 0.5$ | Pass    |
|      |         | 2480            | 1   | 0.666               | $\geq 0.5$ | Pass    |
| 2M   | SISO    | 2402            | 1   | 1.168               | $\geq 0.5$ | Pass    |
|      |         | 2440            | 1   | 1.160               | $\geq 0.5$ | Pass    |
|      |         | 2480            | 1   | 1.187               | $\geq 0.5$ | Pass    |

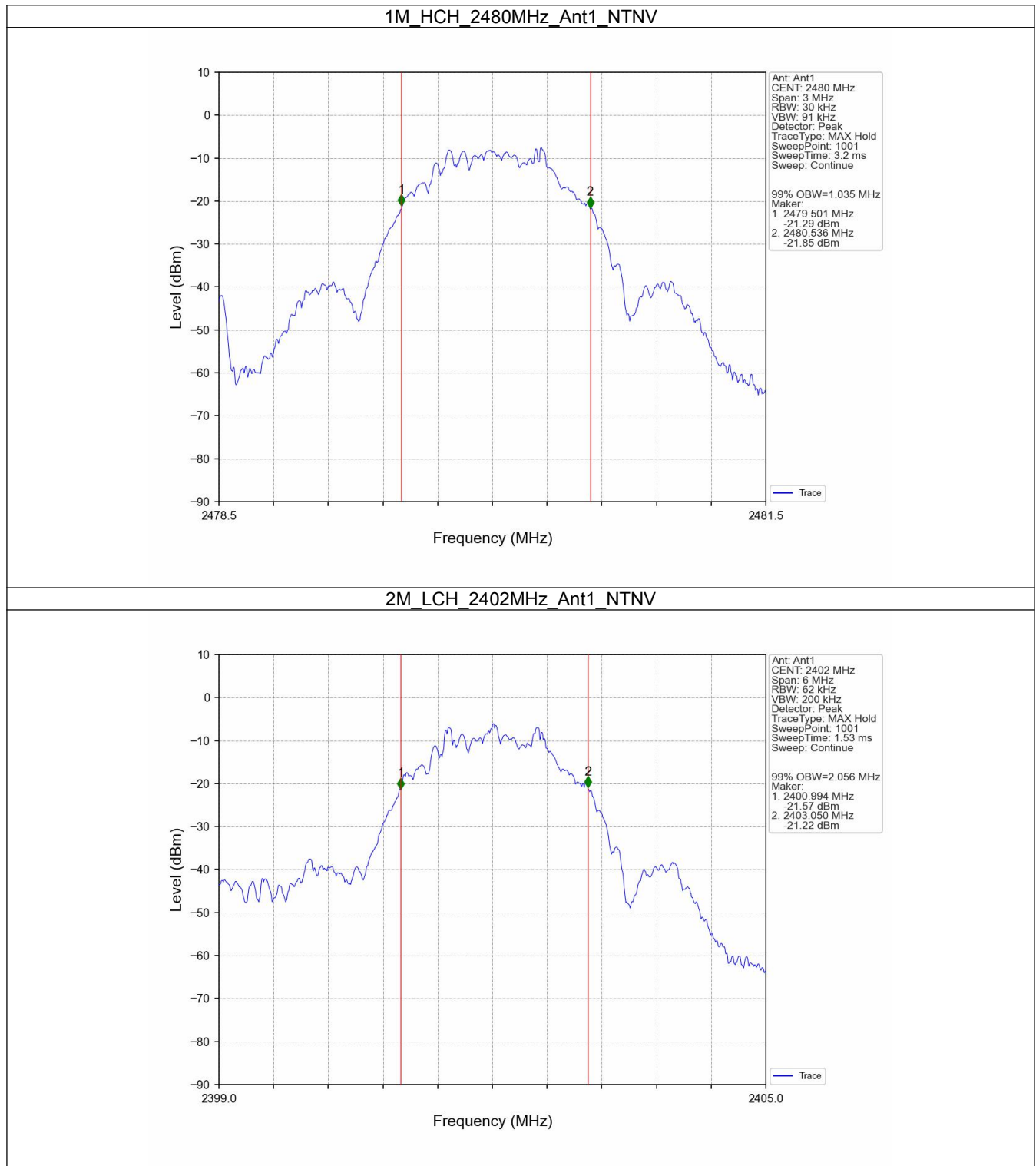
FCC ID: 2BCBND0C10

1.2 Test Graph

1.2.1 OBW

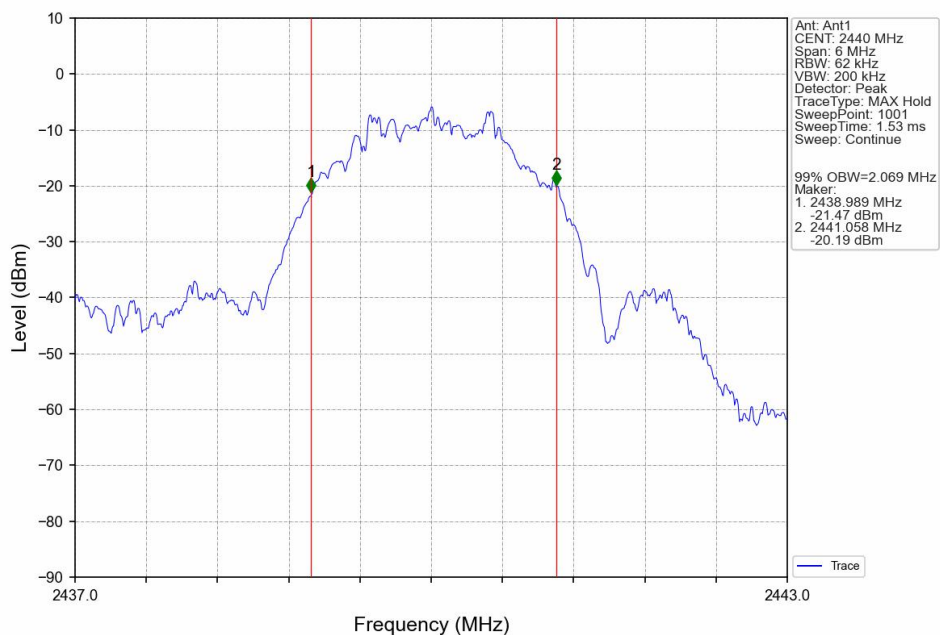


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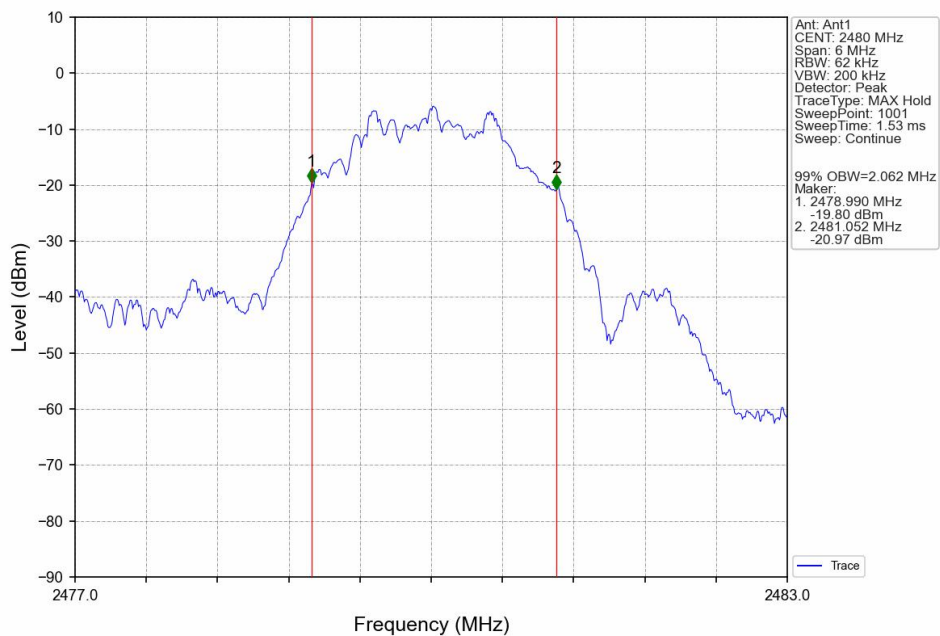


FCC ID: 2BCBND0C10

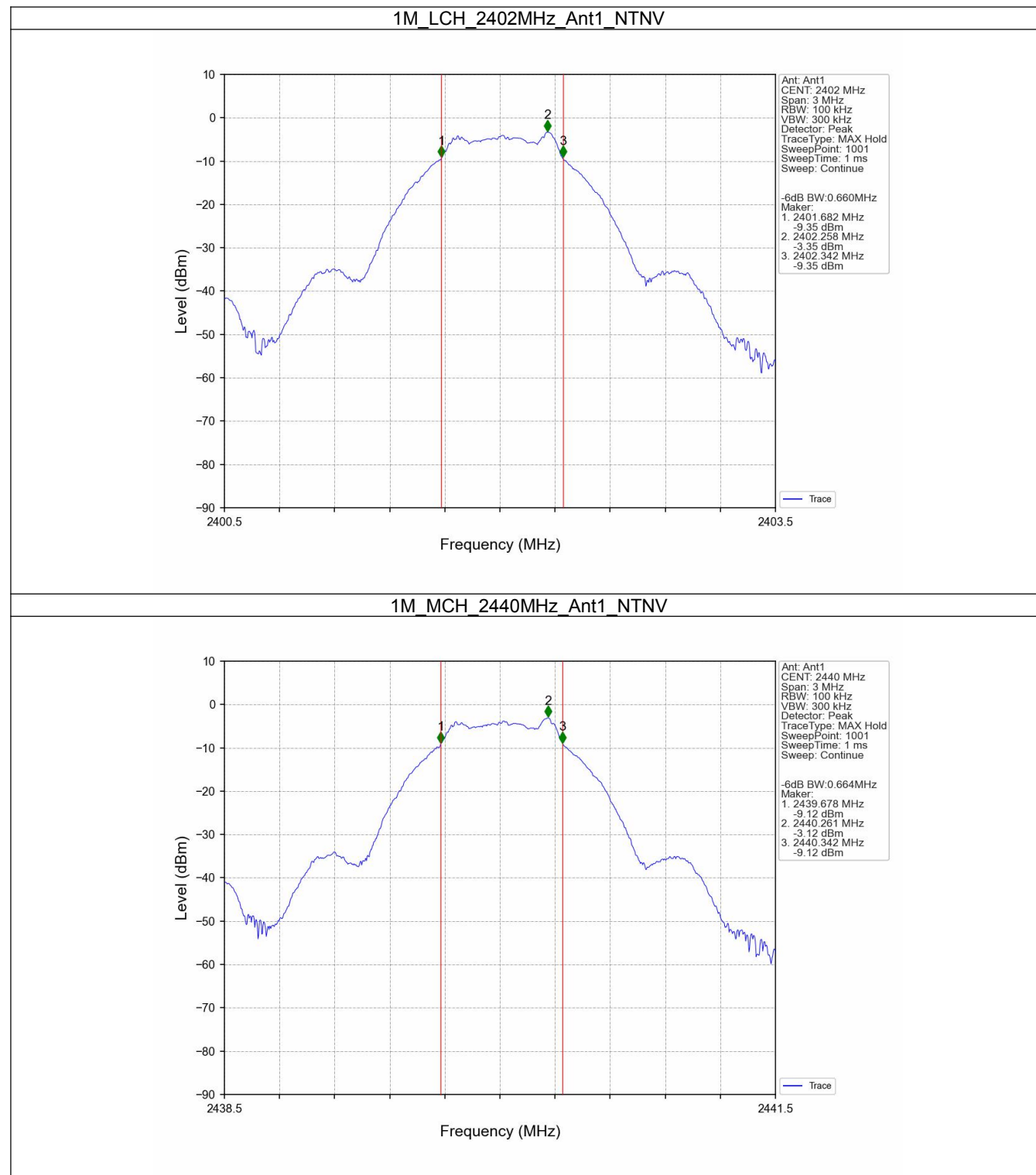
2M\_MCH\_2440MHz\_Ant1\_NTNV



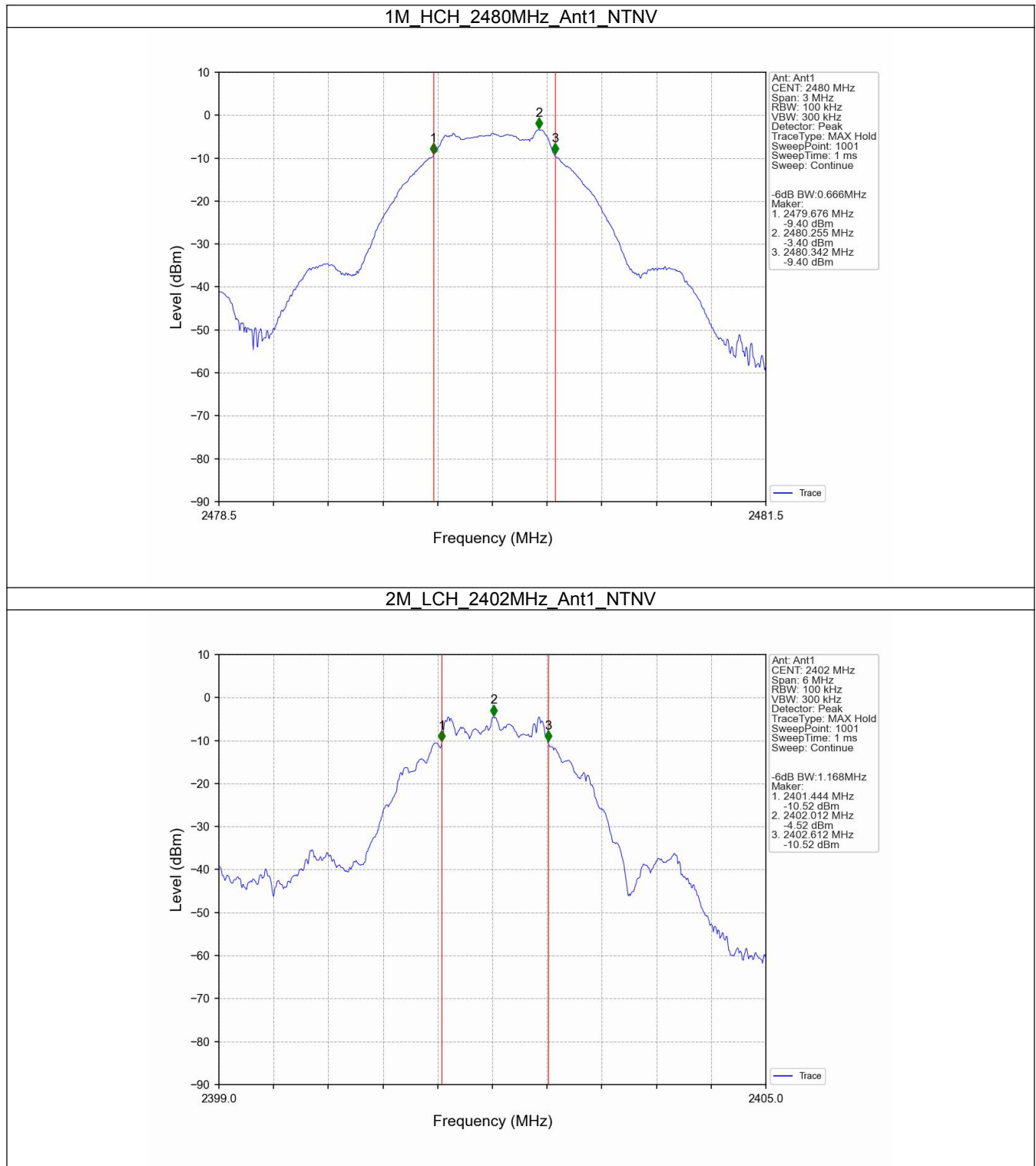
2M\_HCH\_2480MHz\_Ant1\_NTNV



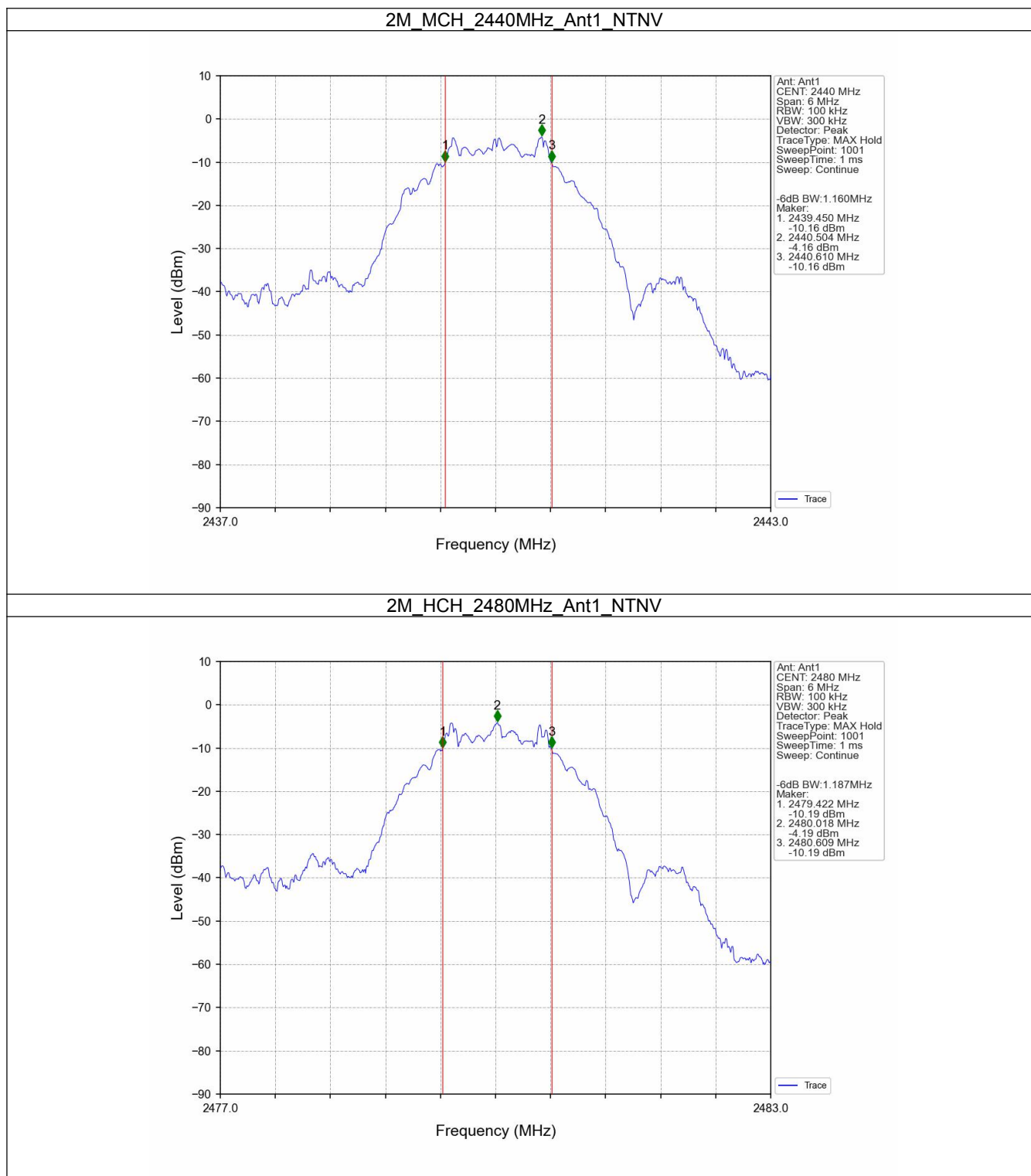
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**1.2.2 6dB BW**

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FCC ID: 2BCBND0C10



FCC ID: 2BCBND0C10

## 2. Maximum Conducted Output Power

### 2.1 Test Result

#### 2.1.1 Power

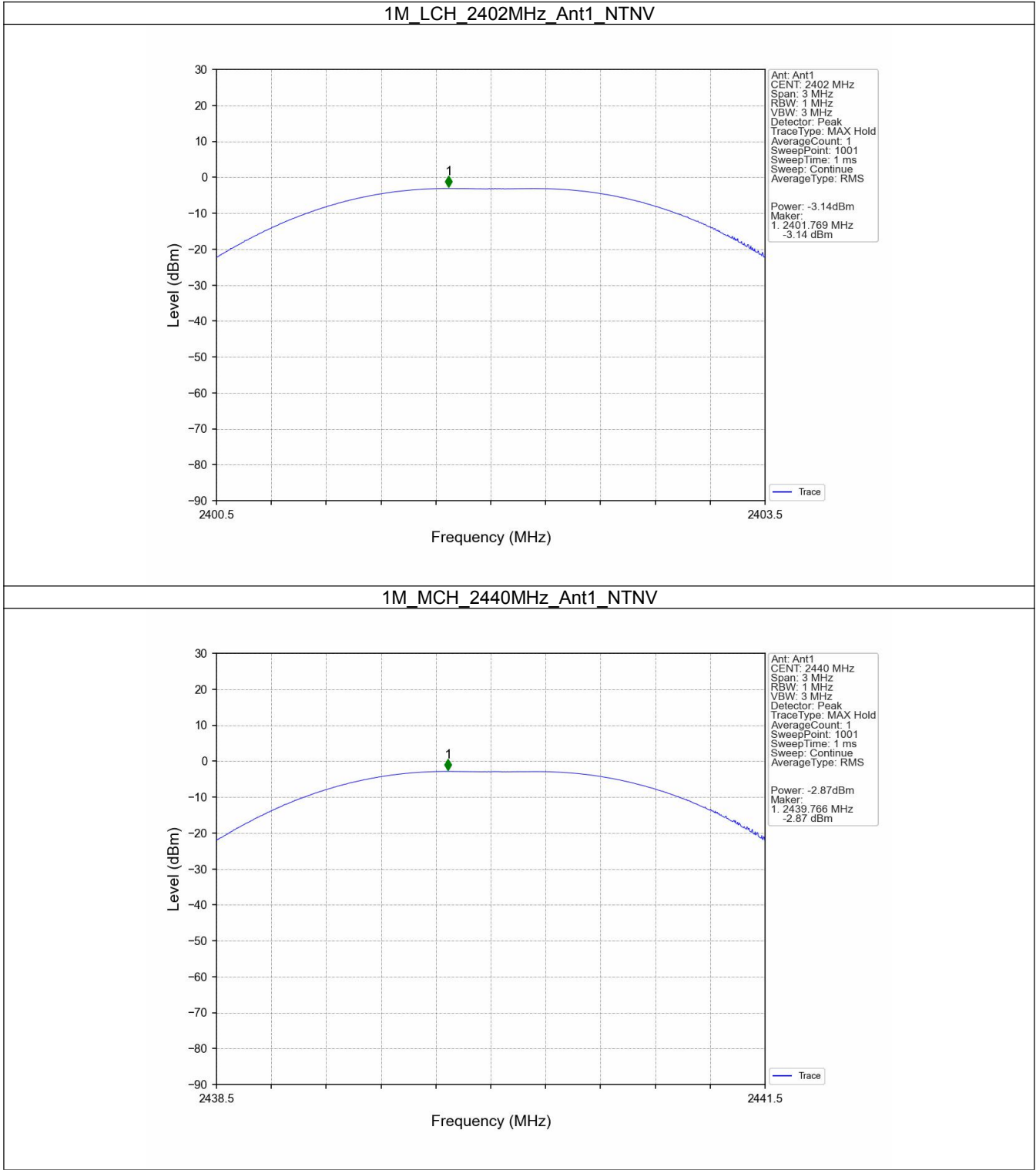
| Mode | TX Type | Frequency (MHz) | Maximum Peak Conducted Output Power (dBm) |       | Verdict |
|------|---------|-----------------|-------------------------------------------|-------|---------|
|      |         |                 | ANT1                                      | Limit |         |
| 1M   | SISO    | 2402            | -3.14                                     | <=30  | Pass    |
|      |         | 2440            | -2.87                                     | <=30  | Pass    |
|      |         | 2480            | -3.04                                     | <=30  | Pass    |
| 2M   | SISO    | 2402            | -3.19                                     | <=30  | Pass    |
|      |         | 2440            | -2.81                                     | <=30  | Pass    |
|      |         | 2480            | -2.92                                     | <=30  | Pass    |

Note1: Antenna Gain: Ant1: 2.08dBi;

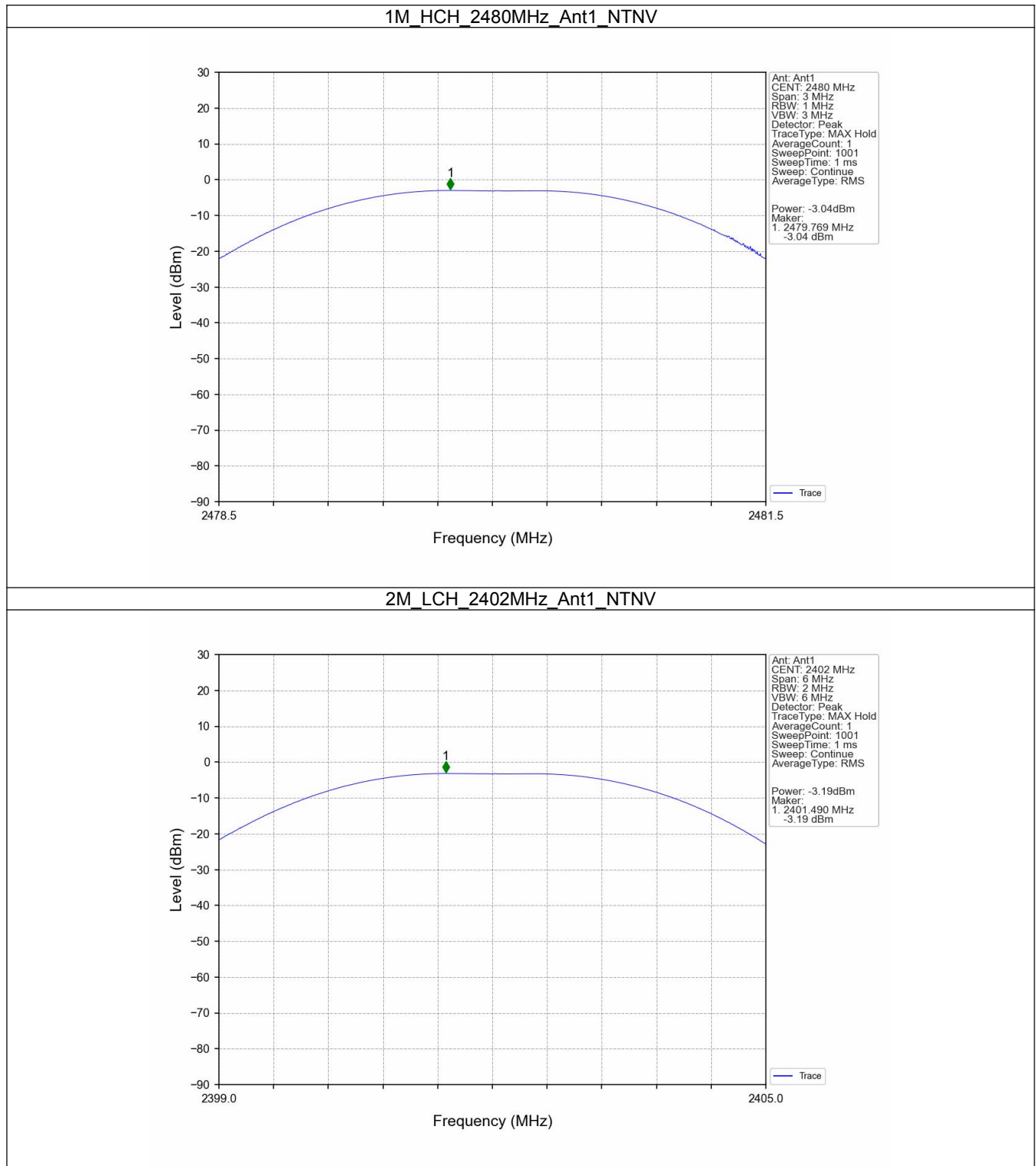
FCC ID: 2BCBND0C10

2.2 Test Graph

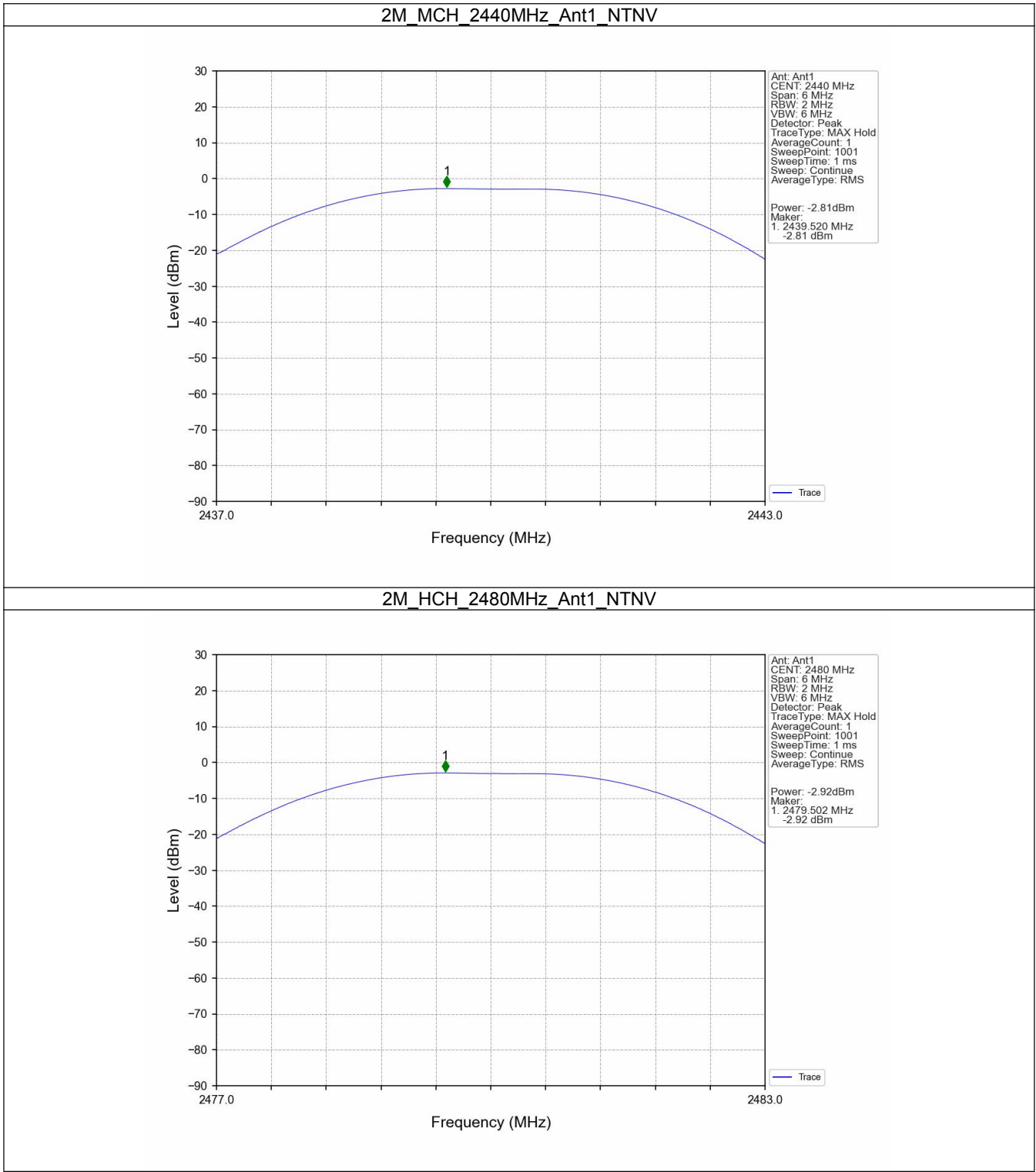
2.2.1 Power



FCC ID: 2BCBND0C10



FCC ID: 2BCBND0C10



FCC ID: 2BCBND0C10

### 3. Maximum Power Spectral Density

#### 3.1 Test Result

##### 3.1.1 PSD

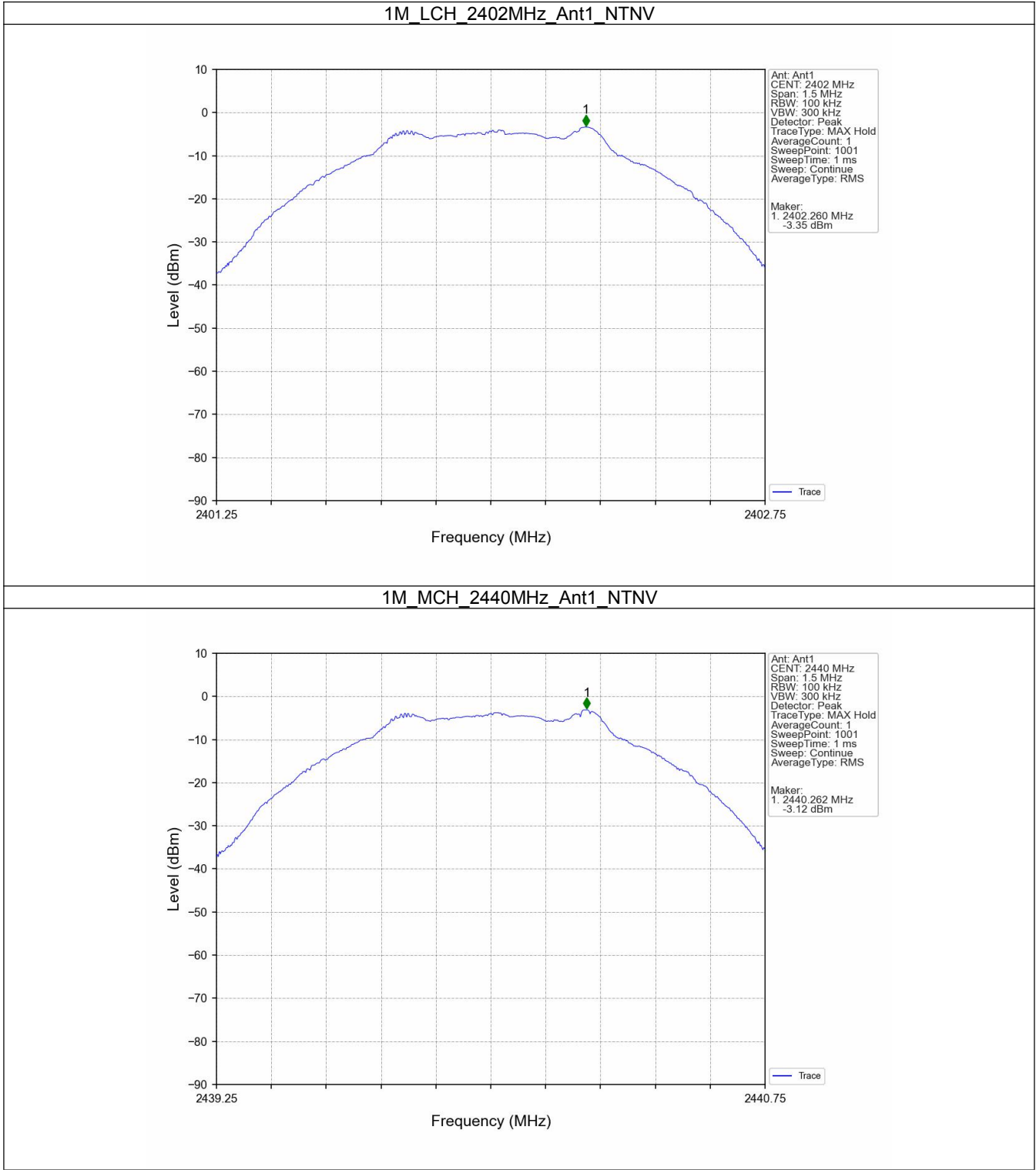
| Mode | TX Type | Frequency (MHz) | Maximum PSD (dBm) |       | Verdict |
|------|---------|-----------------|-------------------|-------|---------|
|      |         |                 | ANT1              | Limit |         |
| 1M   | SISO    | 2402            | -3.35             | <=8   | Pass    |
|      |         | 2440            | -3.12             | <=8   | Pass    |
|      |         | 2480            | -3.31             | <=8   | Pass    |
| 2M   | SISO    | 2402            | -4.49             | <=8   | Pass    |
|      |         | 2440            | -4.07             | <=8   | Pass    |
|      |         | 2480            | -4.19             | <=8   | Pass    |

Note1: Antenna Gain: Ant1: 2.08dBi;

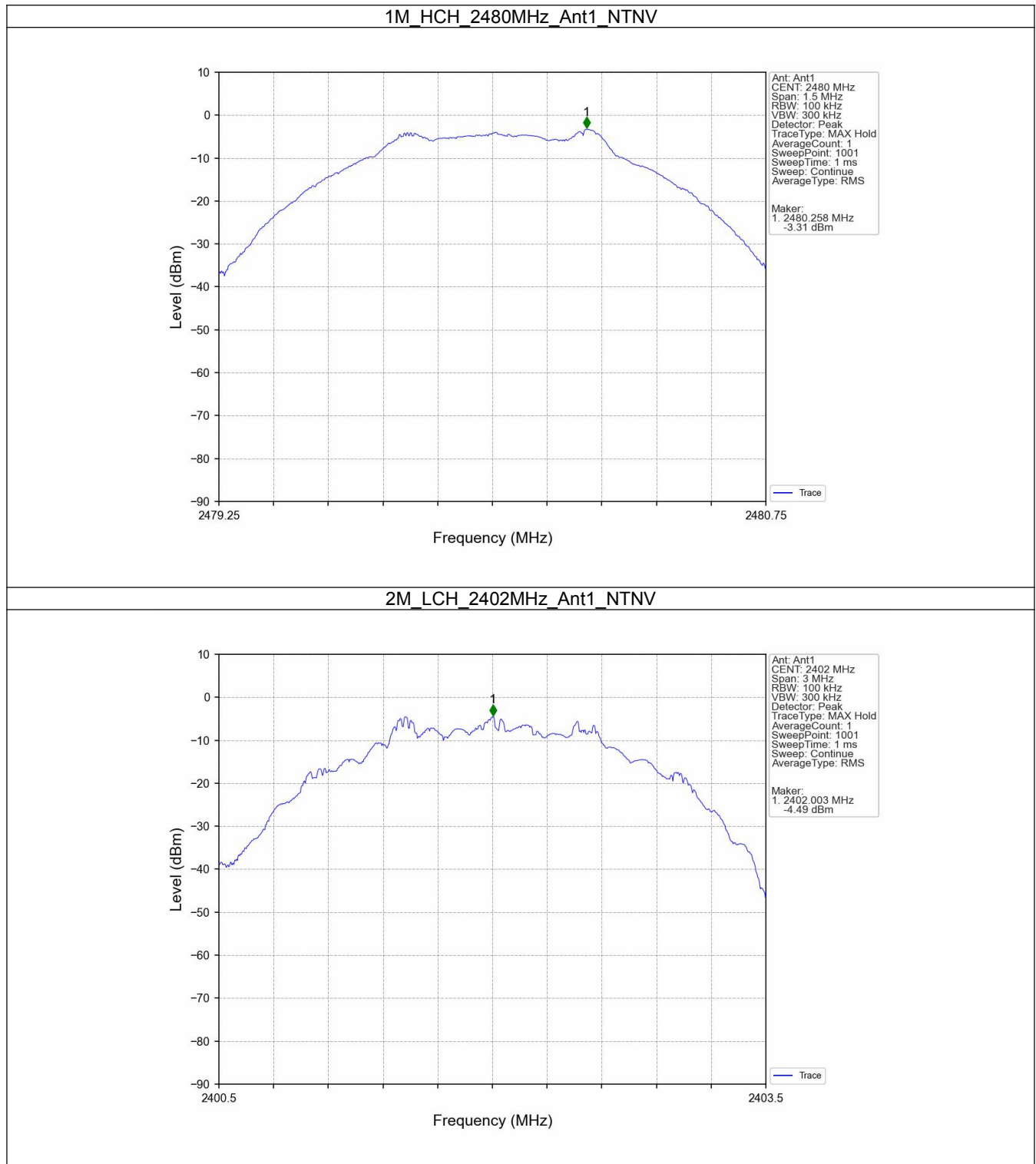
FCC ID: 2BCBND0C10

3.2 Test Graph

3.2.1 PSD

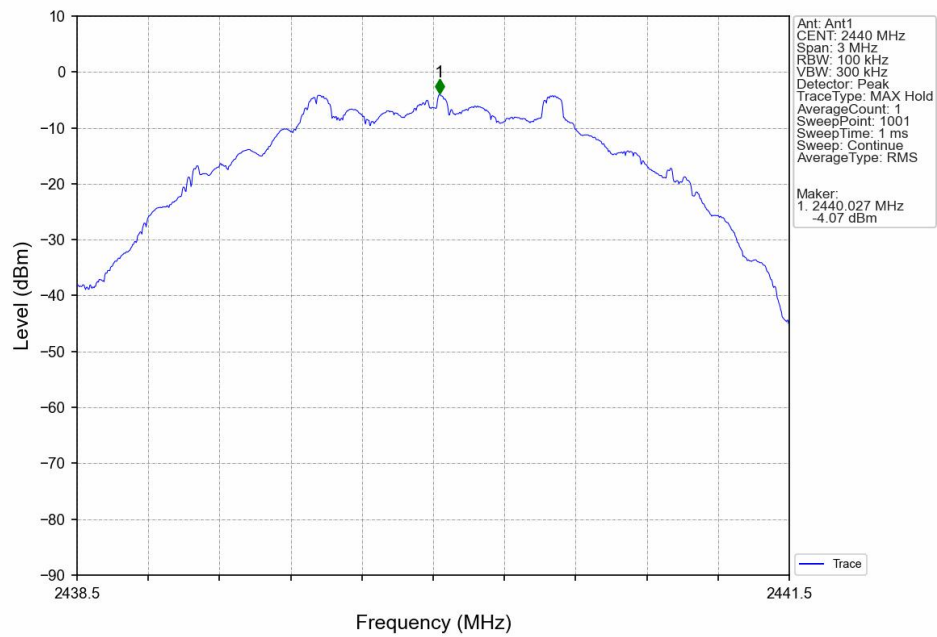


FCC ID: 2BCBND0C10

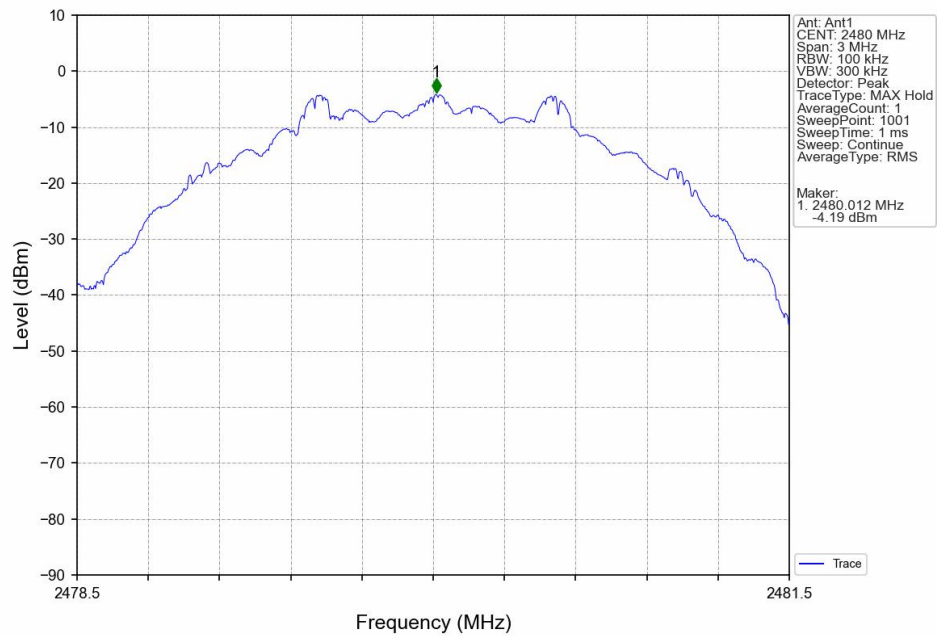


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2M\_MCH\_2440MHz\_Ant1\_NTNV



2M\_HCH\_2480MHz\_Ant1\_NTNV



FCC ID: 2BCBND0C10

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

### 4.1 Test Result

#### 4.1.1 Ref

| Mode | TX Type | Frequency (MHz) | ANT | Level of Reference (dBm) |
|------|---------|-----------------|-----|--------------------------|
| 1M   | SISO    | 2402            | 1   | -3.39                    |
|      |         | 2440            | 1   | -3.13                    |
|      |         | 2480            | 1   | -3.31                    |
| 2M   | SISO    | 2402            | 1   | -4.33                    |
|      |         | 2440            | 1   | -4.03                    |
|      |         | 2480            | 1   | -4.17                    |

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.

#### 4.1.2 CSE

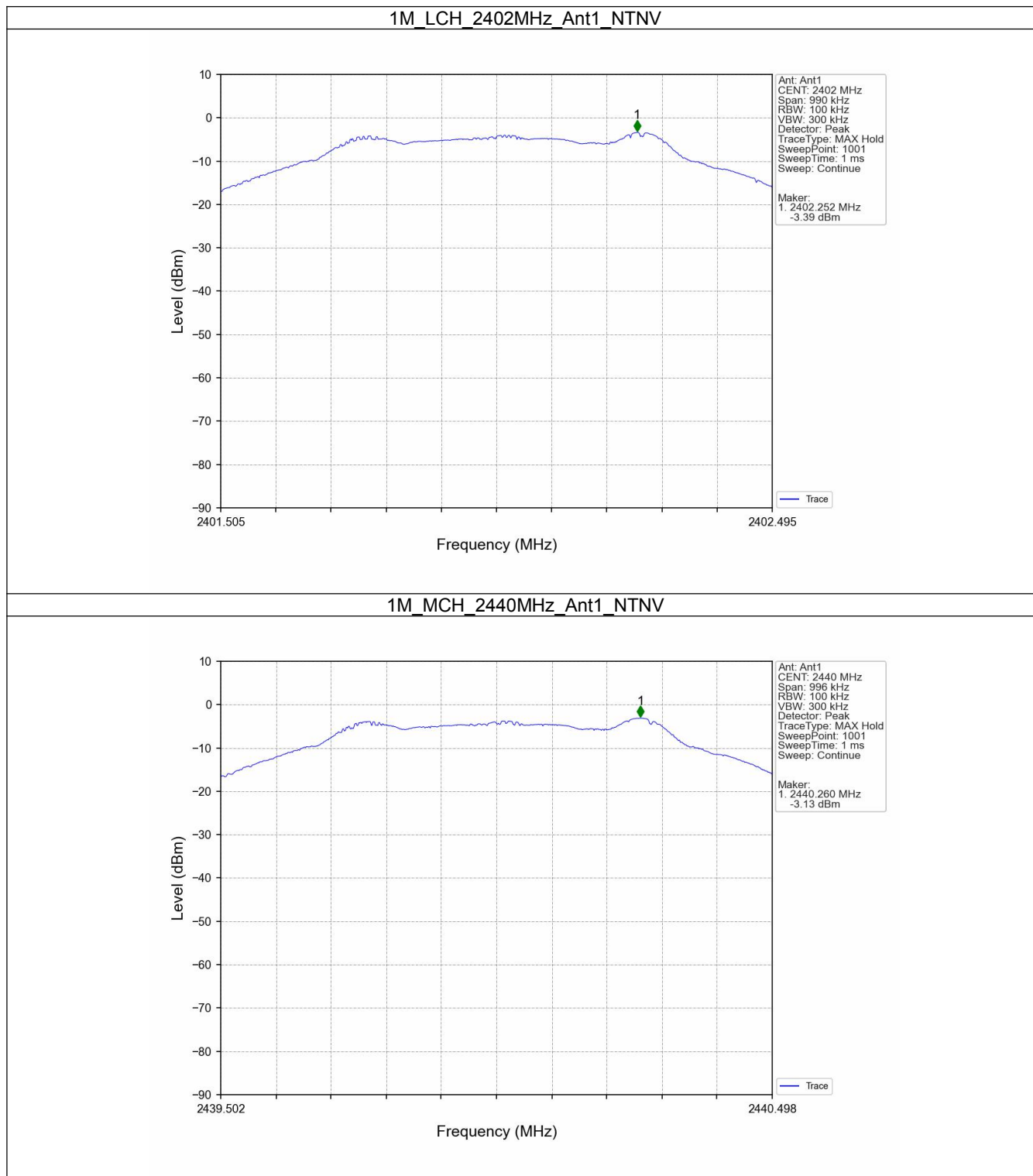
| Mode | TX Type | Frequency (MHz) | ANT | Level of Reference (dBm) | Limit (dBm) | Verdict |
|------|---------|-----------------|-----|--------------------------|-------------|---------|
| 1M   | SISO    | 2402            | 1   | -3.13                    | -23.13      | Pass    |
|      |         | 2440            | 1   | -3.13                    | -23.13      | Pass    |
|      |         | 2480            | 1   | -3.13                    | -23.13      | Pass    |
| 2M   | SISO    | 2402            | 1   | -4.03                    | -24.03      | Pass    |
|      |         | 2440            | 1   | -4.03                    | -24.03      | Pass    |
|      |         | 2480            | 1   | -4.03                    | -24.03      | 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.

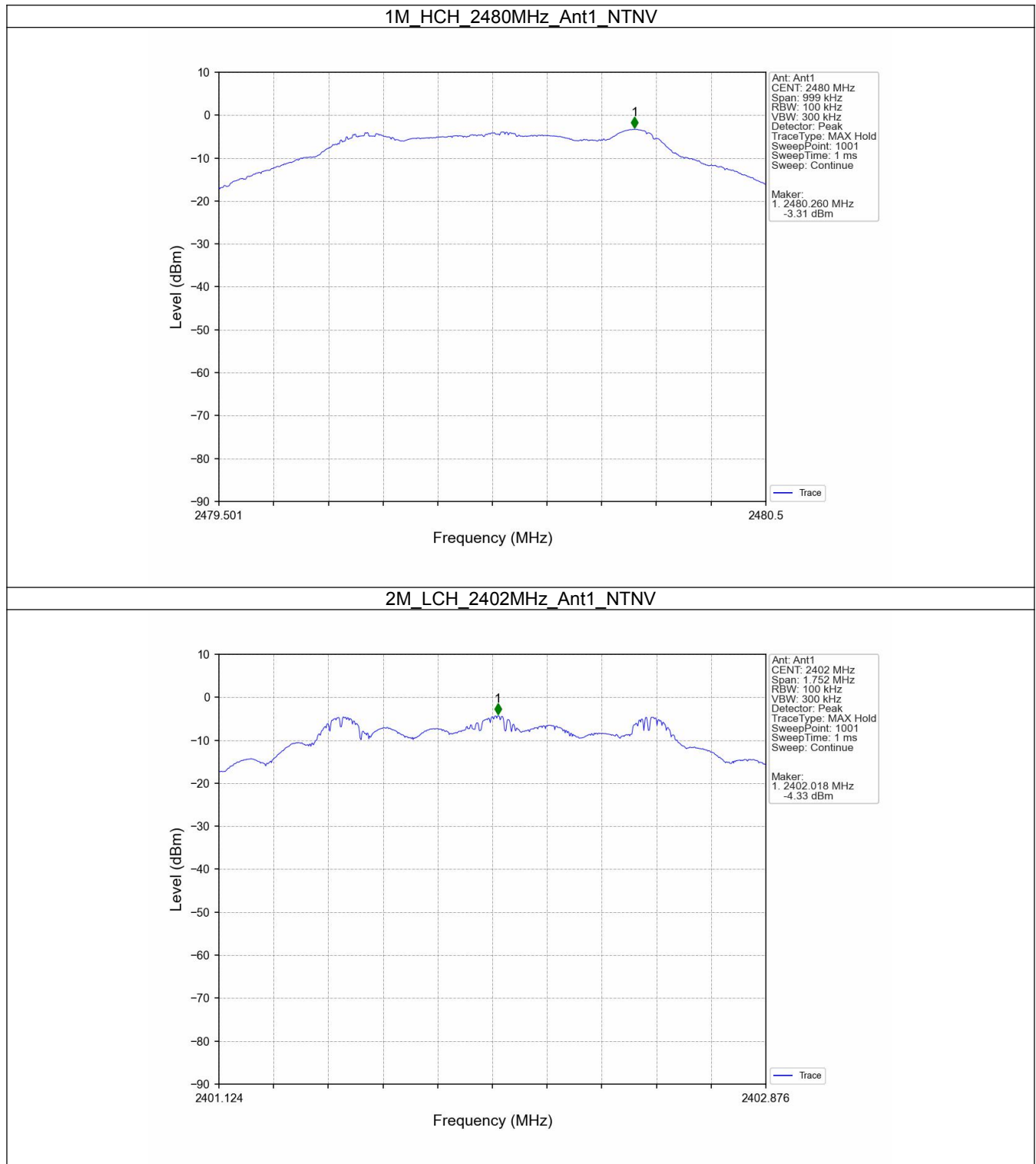
FCC ID: 2BCBND0C10

## 4.2 Test Graph

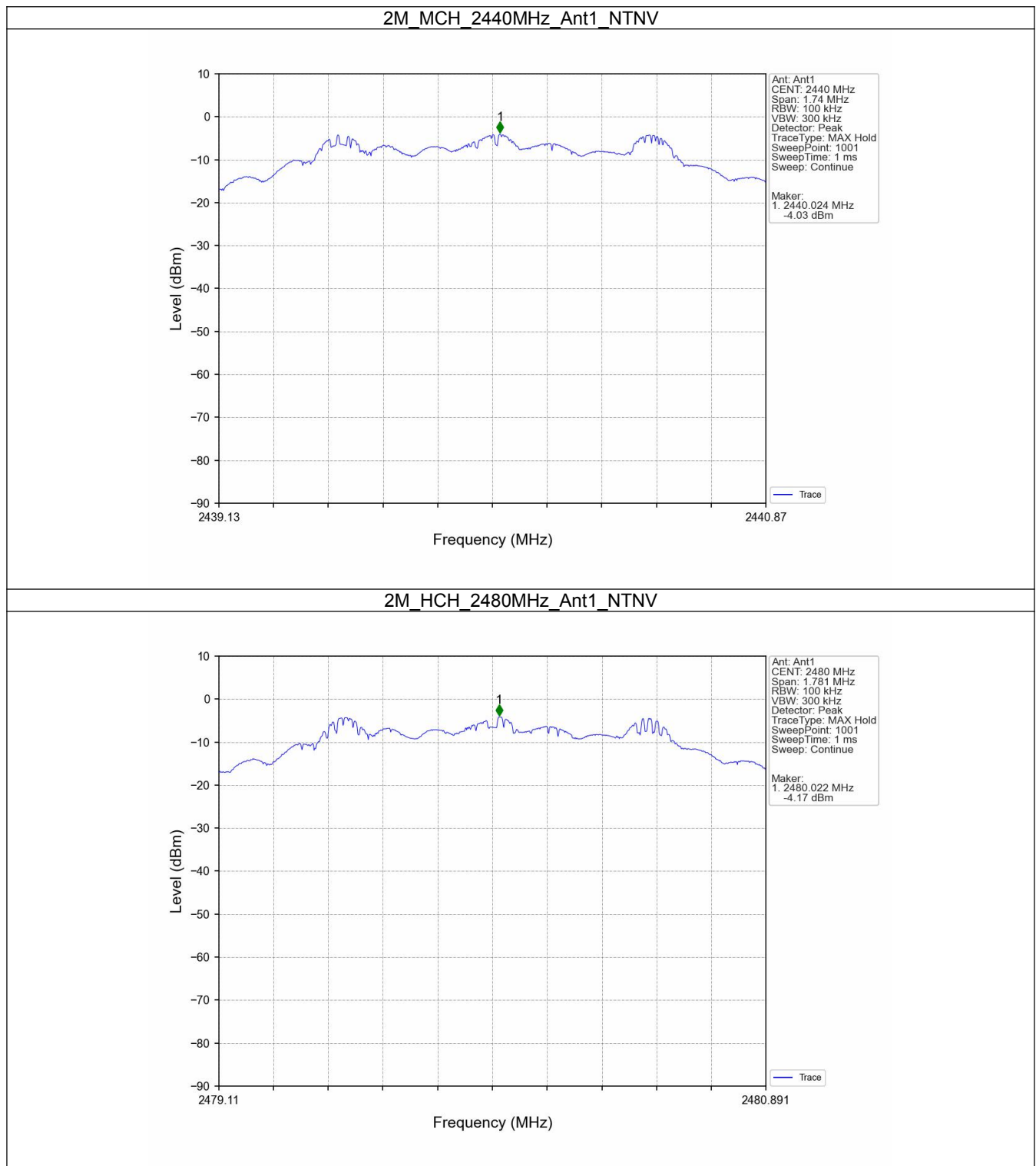
### 4.2.1 Ref



FCC ID: 2BCBND0C10

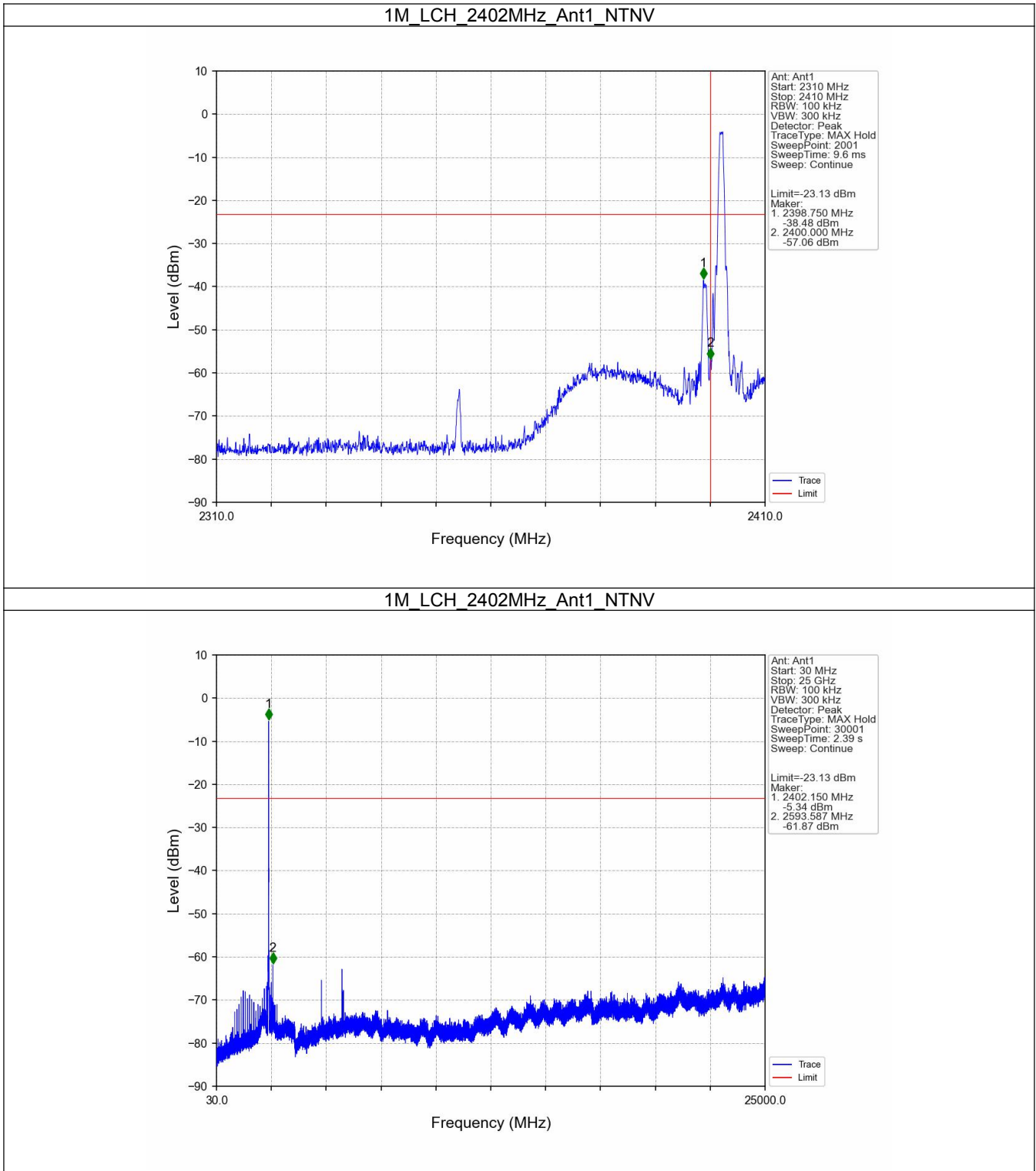


FCC ID: 2BCBND0C10

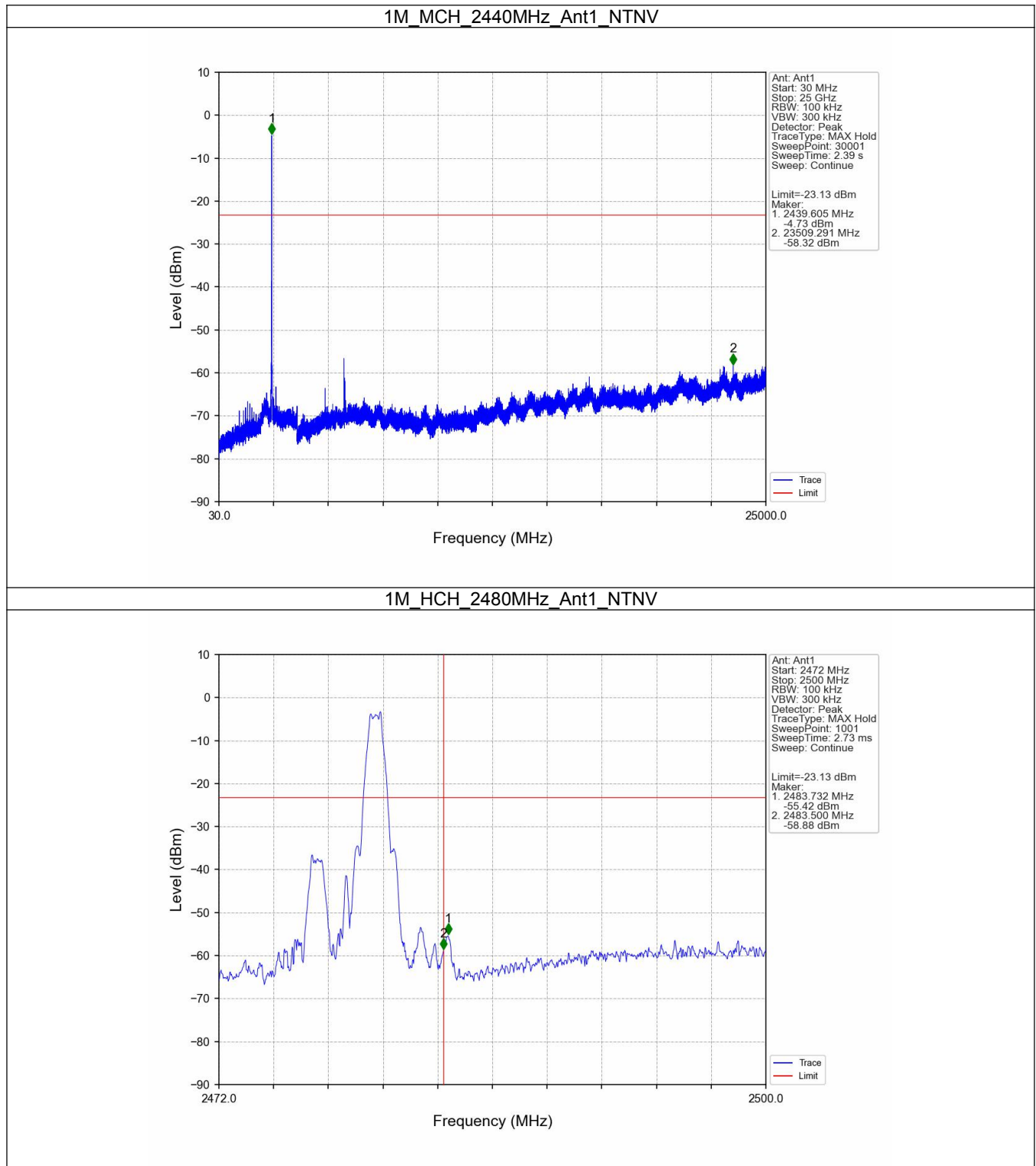


FCC ID: 2BCBND0C10

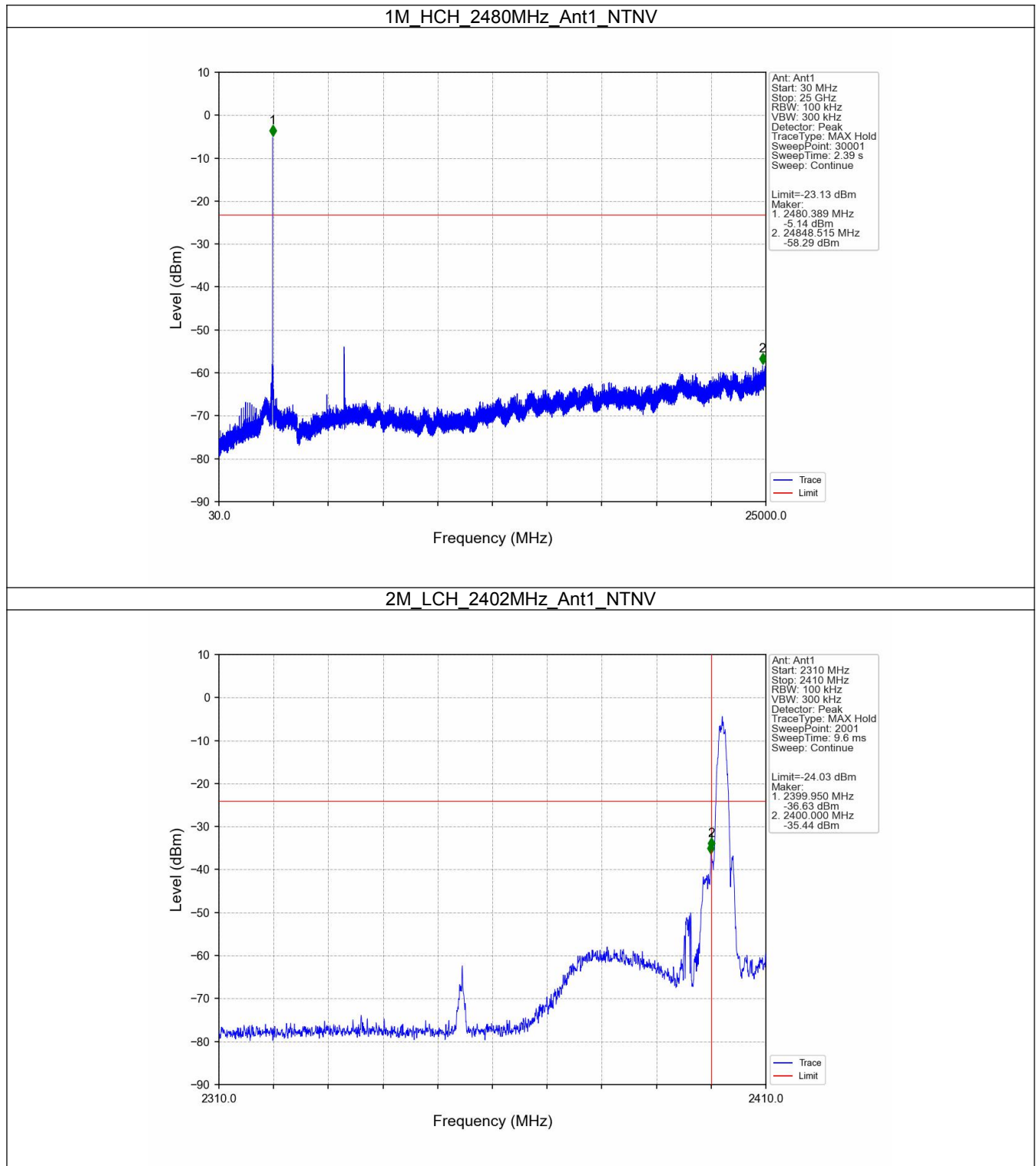
4.2.2 CSE



FCC ID: 2BCBND0C10

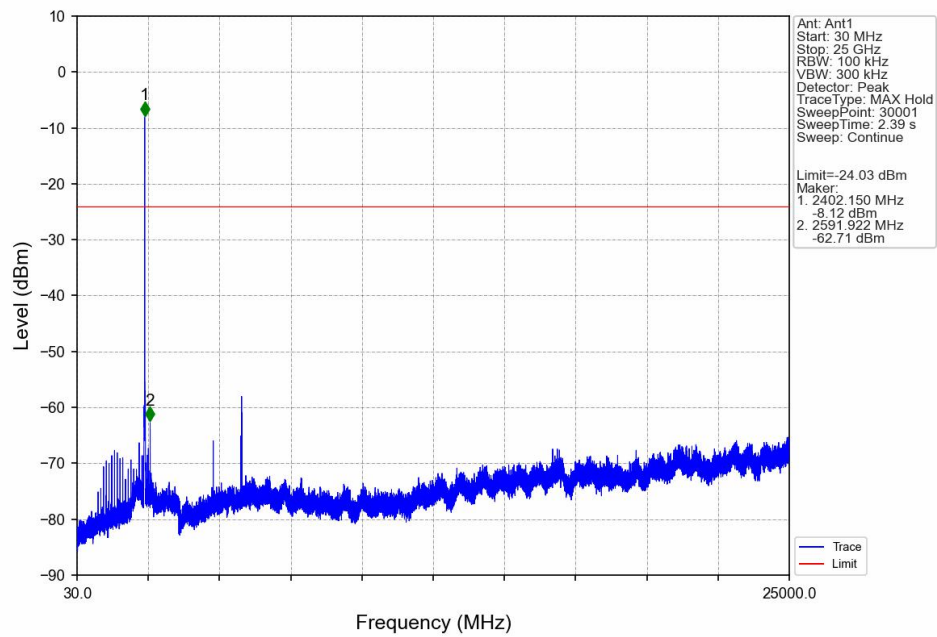


FCC ID: 2BCBND0C10

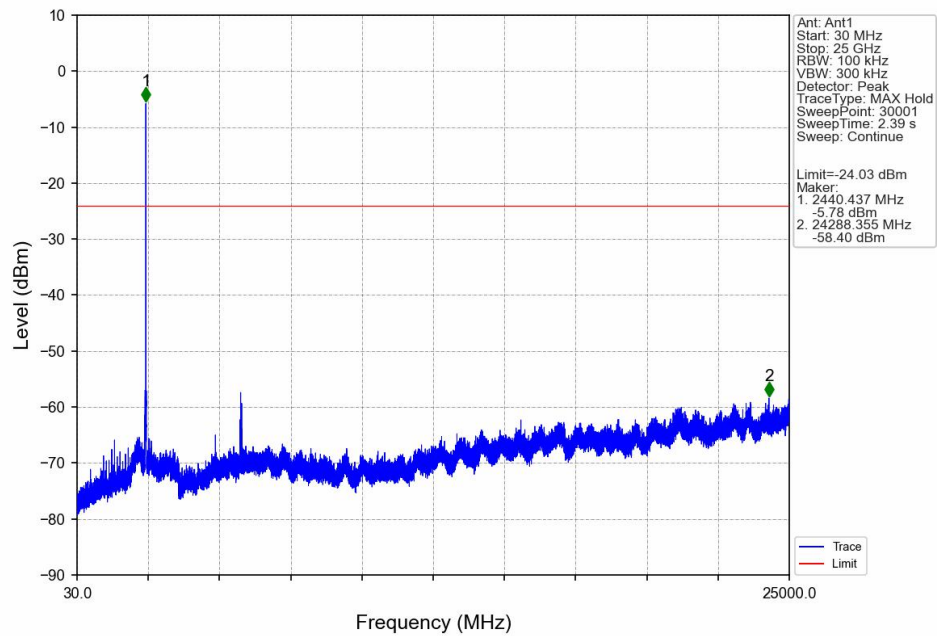


FCC ID: 2BCBND0C10

2M\_LCH\_2402MHz\_Ant1\_NTNV

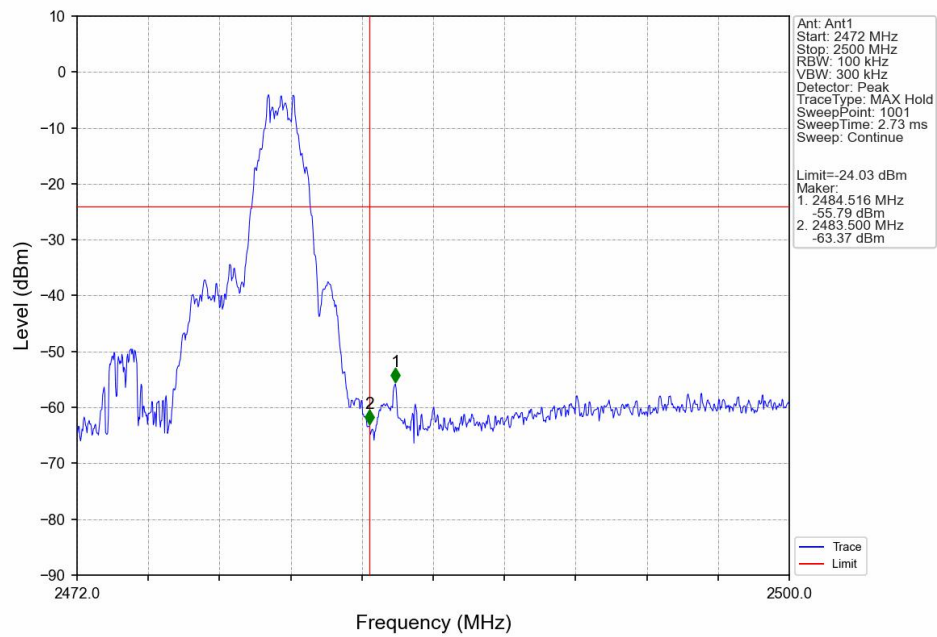


2M\_MCH\_2440MHz\_Ant1\_NTNV



FCC ID: 2BCBND0C10

2M\_HCH\_2480MHz\_Ant1\_NTNV



2M\_HCH\_2480MHz\_Ant1\_NTNV

