

## Appendix - BLE

### 1. Duty Cycle

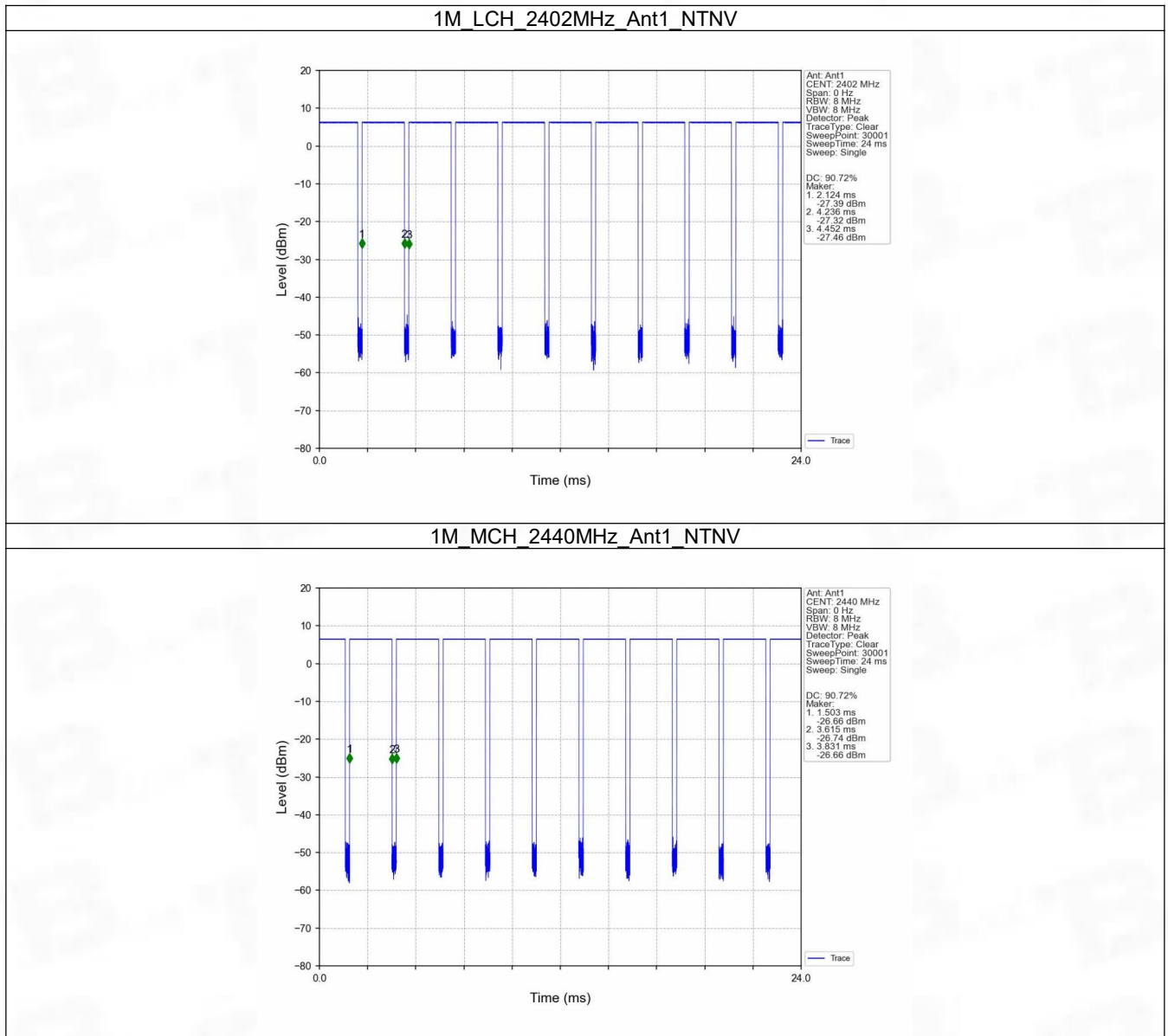
#### 1.1 Test Result

##### 1.1.1 Ant1

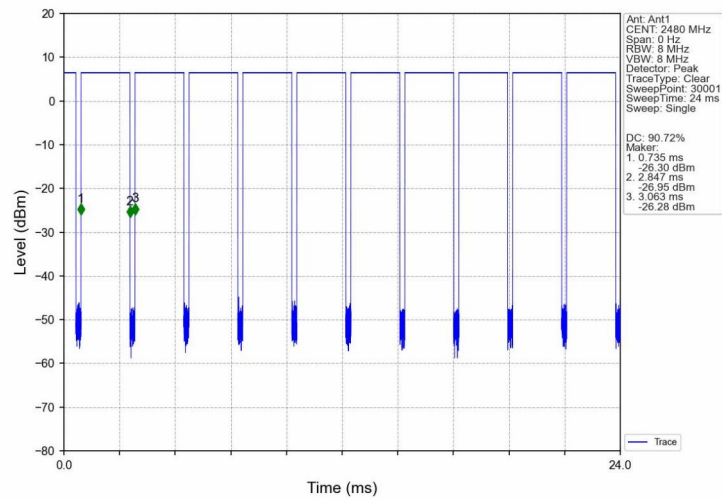
| Ant1 |         |                 |           |             |                |                                   |                       |
|------|---------|-----------------|-----------|-------------|----------------|-----------------------------------|-----------------------|
| Mode | TX Type | Frequency (MHz) | T_on (ms) | Period (ms) | Duty Cycle (%) | Duty Cycle Correction Factor (dB) | Max. DC Variation (%) |
| 1M   | SISO    | 2402            | 2.112     | 2.328       | 90.72          | 0.42                              | 0.03                  |
|      |         | 2440            | 2.112     | 2.328       | 90.72          | 0.42                              | 0.03                  |
|      |         | 2480            | 2.112     | 2.328       | 90.72          | 0.42                              | 0.00                  |
| 2M   | SISO    | 2402            | 1.066     | 1.168       | 91.27          | 0.40                              | 0.03                  |
|      |         | 2440            | 1.066     | 1.168       | 91.27          | 0.40                              | 0.03                  |
|      |         | 2480            | 1.067     | 1.168       | 91.35          | 0.39                              | 0.00                  |

## 1.2 Test Graph

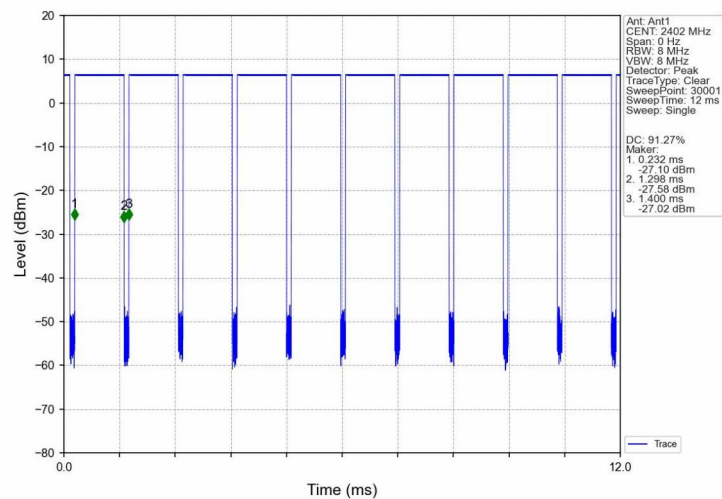
### 1.2.1 Ant1



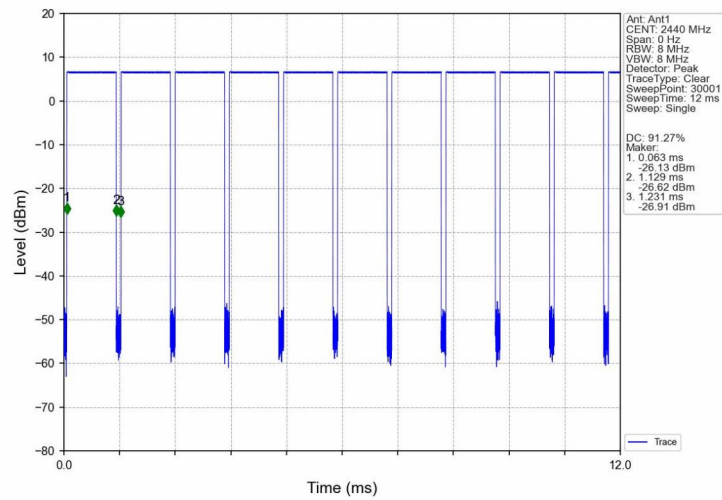
1M\_HCH\_2480MHz\_Ant1\_NTNV



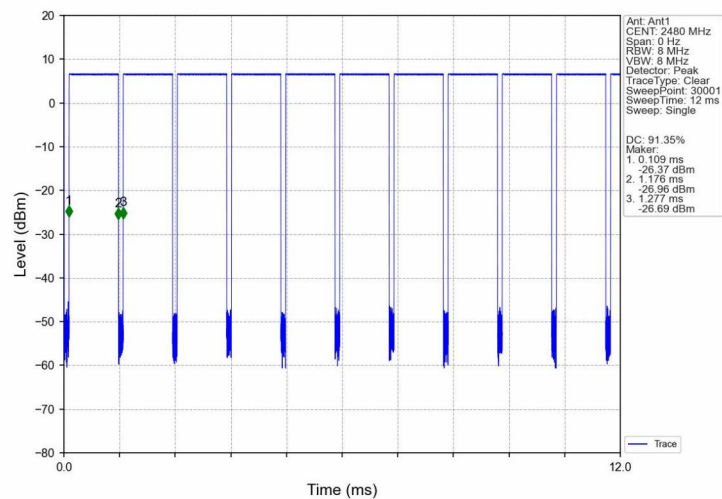
2M\_LCH\_2402MHz\_Ant1\_NTNV



## 2M\_MCH\_2440MHz\_Ant1\_NTNV



## 2M\_HCH\_2480MHz\_Ant1\_NTNV



## 2. Bandwidth

### 2.1 Test Result

#### 2.1.1 OBW

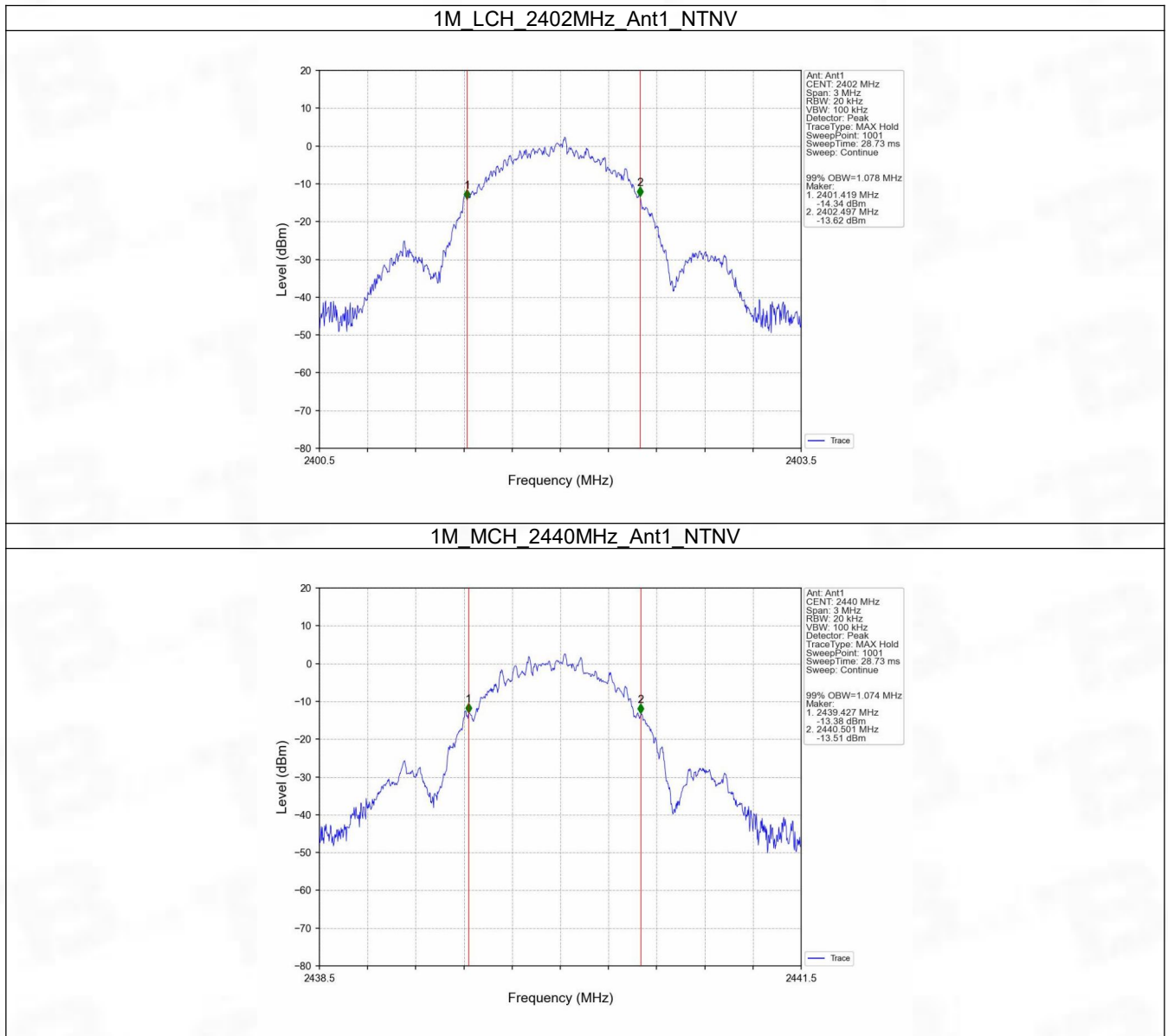
| Mode | TX Type | Frequency (MHz) | ANT | 99% Occupied Bandwidth (MHz) |       | Verdict |
|------|---------|-----------------|-----|------------------------------|-------|---------|
|      |         |                 |     | Result                       | Limit |         |
| 1M   | SISO    | 2402            | 1   | 1.078                        | /     | Pass    |
|      |         | 2440            | 1   | 1.074                        | /     | Pass    |
|      |         | 2480            | 1   | 1.076                        | /     | Pass    |
| 2M   | SISO    | 2402            | 1   | 2.132                        | /     | Pass    |
|      |         | 2440            | 1   | 2.137                        | /     | Pass    |
|      |         | 2480            | 1   | 2.135                        | /     | Pass    |

#### 2.1.2 6dB BW

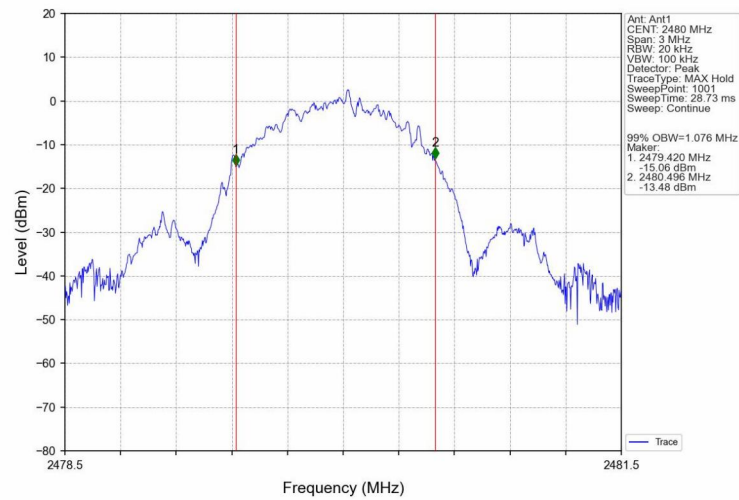
| Mode | TX Type | Frequency (MHz) | ANT | 6dB Bandwidth (MHz) |            | Verdict |
|------|---------|-----------------|-----|---------------------|------------|---------|
|      |         |                 |     | Result              | Limit      |         |
| 1M   | SISO    | 2402            | 1   | 0.702               | $\geq 0.5$ | Pass    |
|      |         | 2440            | 1   | 0.704               | $\geq 0.5$ | Pass    |
|      |         | 2480            | 1   | 0.699               | $\geq 0.5$ | Pass    |
| 2M   | SISO    | 2402            | 1   | 1.226               | $\geq 0.5$ | Pass    |
|      |         | 2440            | 1   | 1.145               | $\geq 0.5$ | Pass    |
|      |         | 2480            | 1   | 1.226               | $\geq 0.5$ | Pass    |

## 2.2 Test Graph

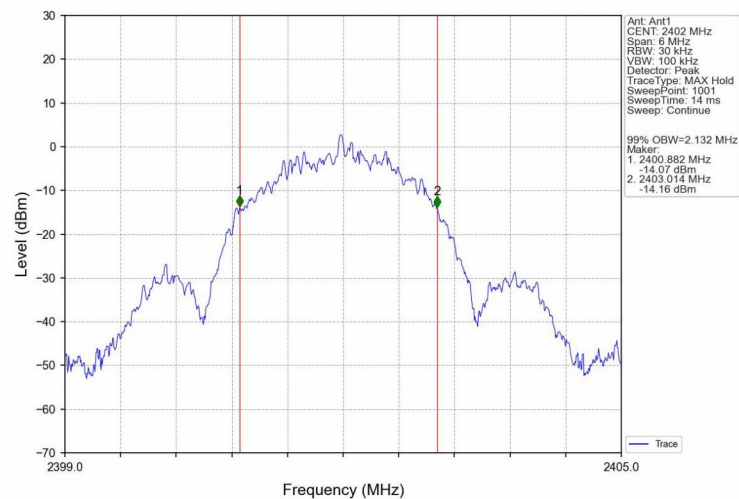
### 2.2.1 OBW



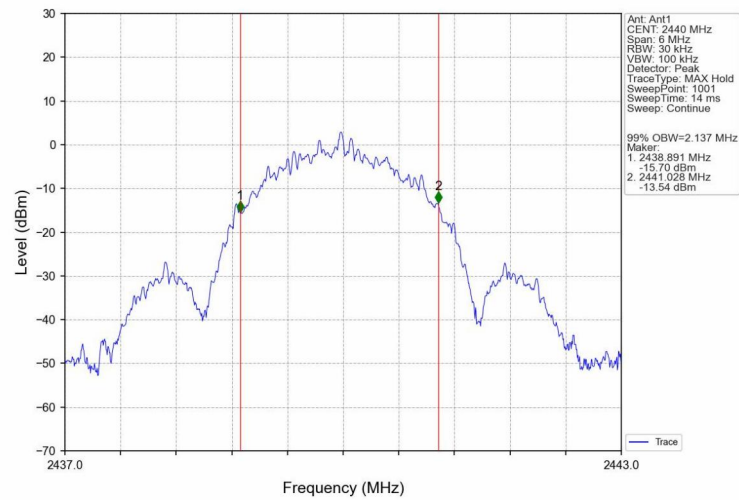
1M\_HCH\_2480MHz\_Ant1\_NTNV



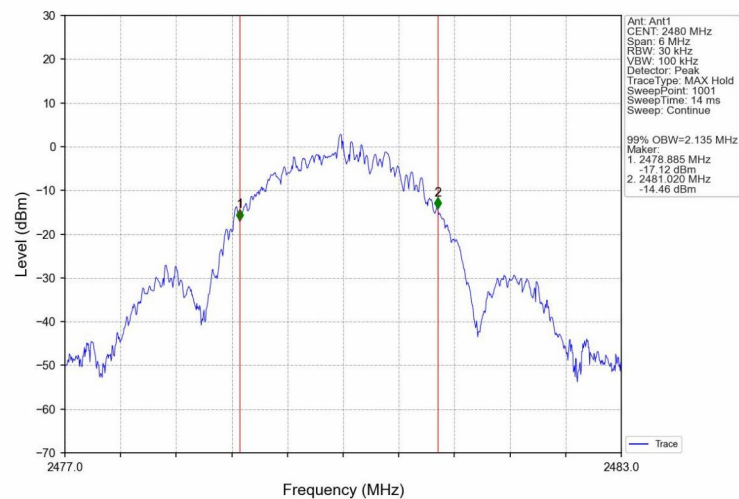
2M\_LCH\_2402MHz\_Ant1\_NTNV



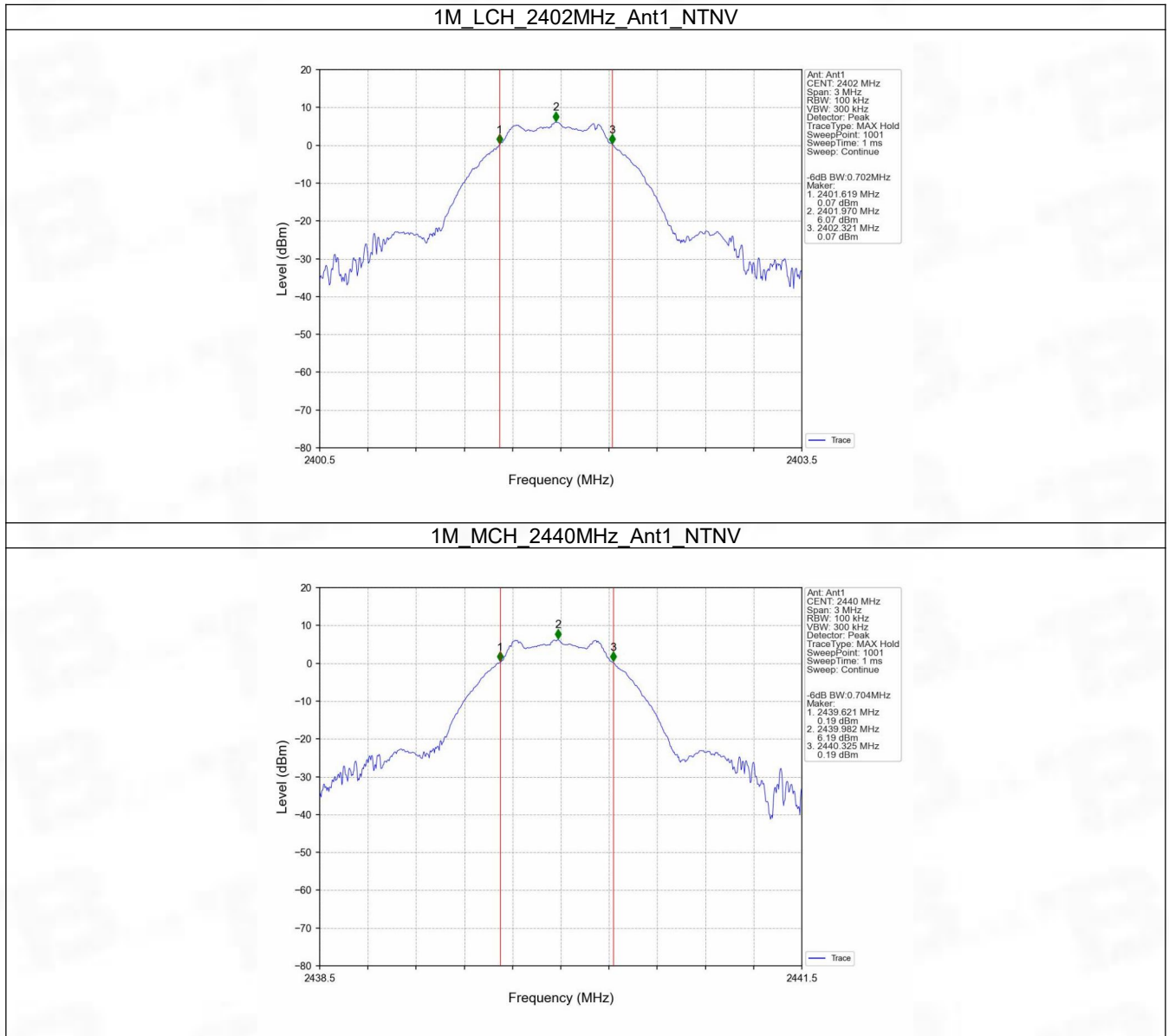
2M\_MCH\_2440MHz\_Ant1\_NTNV



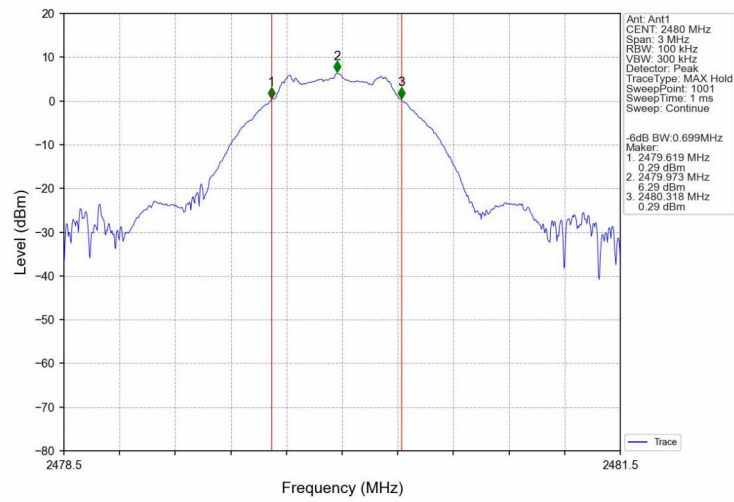
2M\_HCH\_2480MHz\_Ant1\_NTNV



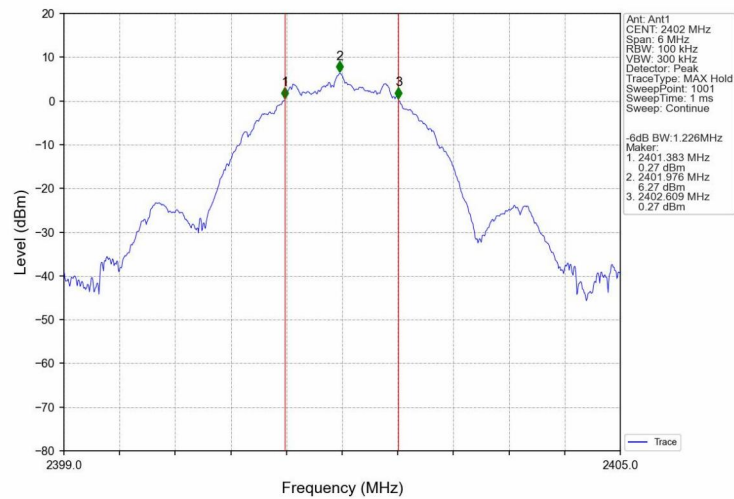
## 2.2.2 6dB BW



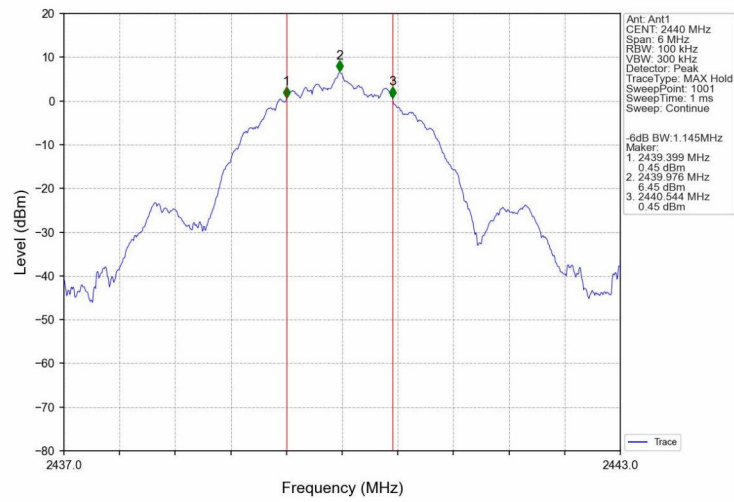
1M\_HCH\_2480MHz\_Ant1\_NTNV



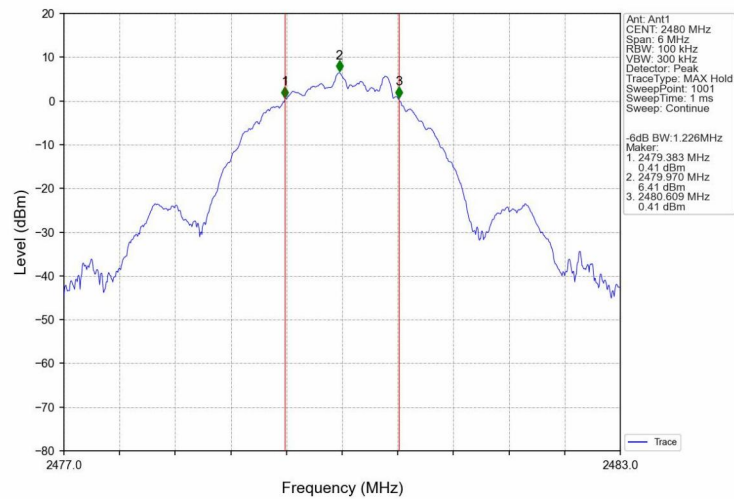
2M\_LCH\_2402MHz\_Ant1\_NTNV



2M\_MCH\_2440MHz\_Ant1\_NTNV



2M\_HCH\_2480MHz\_Ant1\_NTNV



### 3. Maximum Conducted Output Power

#### 3.1 Test Result

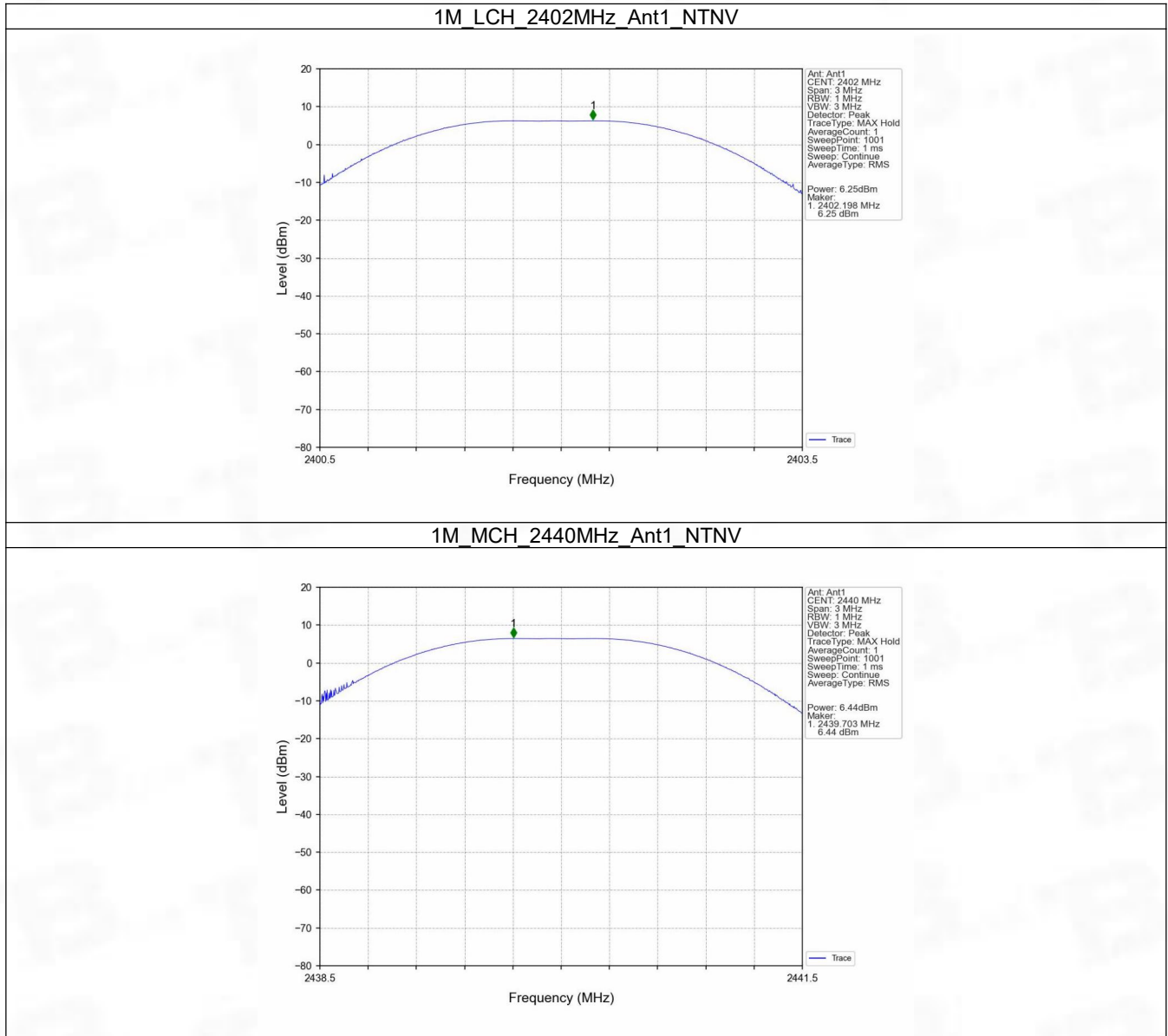
##### 3.1.1 Power

| Mode | TX Type | Frequency (MHz) | Maximum Peak Conducted Output Power (dBm) |           | Verdict |
|------|---------|-----------------|-------------------------------------------|-----------|---------|
|      |         |                 | ANT1                                      | Limit     |         |
| 1M   | SISO    | 2402            | 6.25                                      | $\leq 30$ | Pass    |
|      |         | 2440            | 6.44                                      | $\leq 30$ | Pass    |
|      |         | 2480            | 6.49                                      | $\leq 30$ | Pass    |
| 2M   | SISO    | 2402            | 6.41                                      | $\leq 30$ | Pass    |
|      |         | 2440            | 6.58                                      | $\leq 30$ | Pass    |
|      |         | 2480            | 6.59                                      | $\leq 30$ | Pass    |

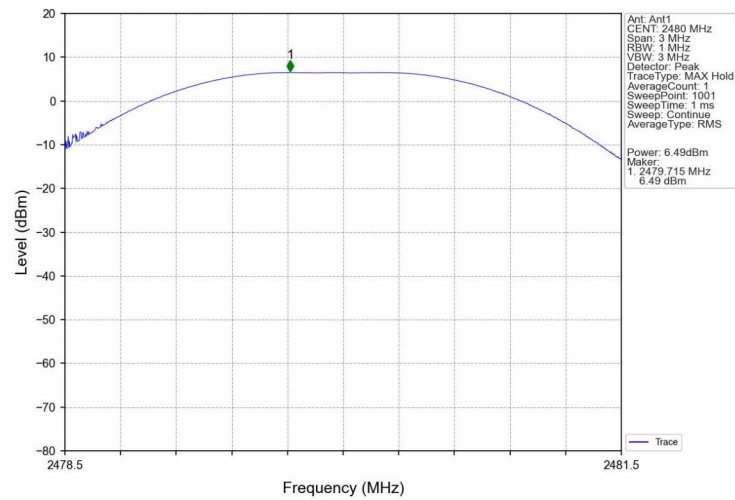
Note1: Antenna Gain: Ant1: -2.20dBi;

## 3.2 Test Graph

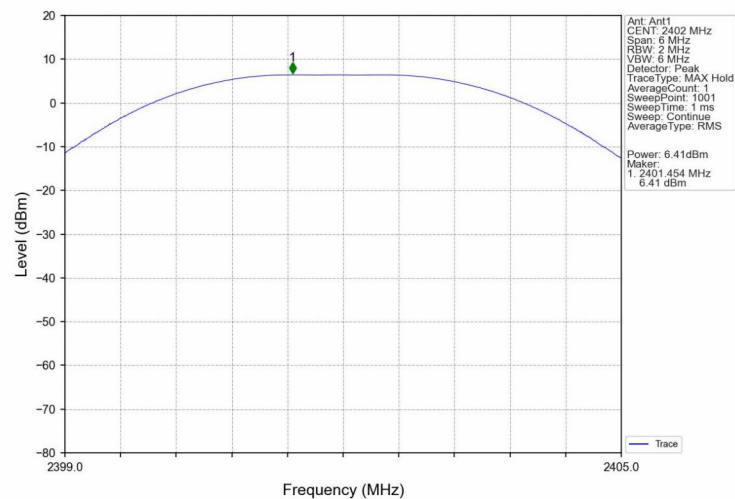
### 3.2.1 Power



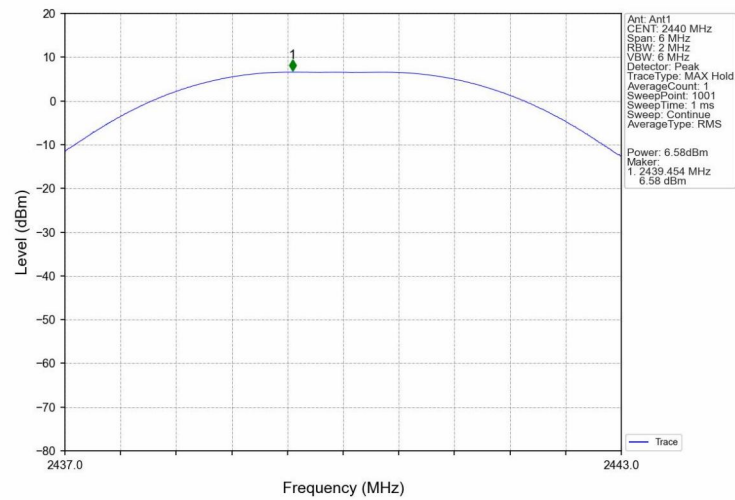
1M\_HCH\_2480MHz\_Ant1\_NTNV



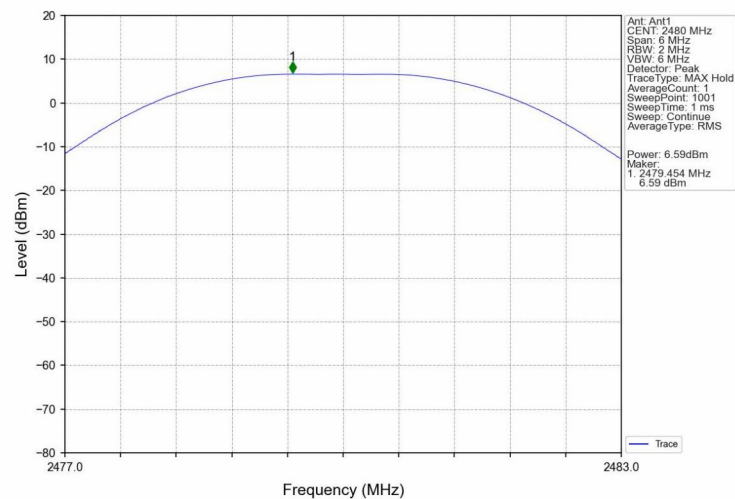
2M\_LCH\_2402MHz\_Ant1\_NTNV



2M\_MCH\_2440MHz\_Ant1\_NTNV



2M\_HCH\_2480MHz\_Ant1\_NTNV



## 4. Maximum Power Spectral Density

### 4.1 Test Result

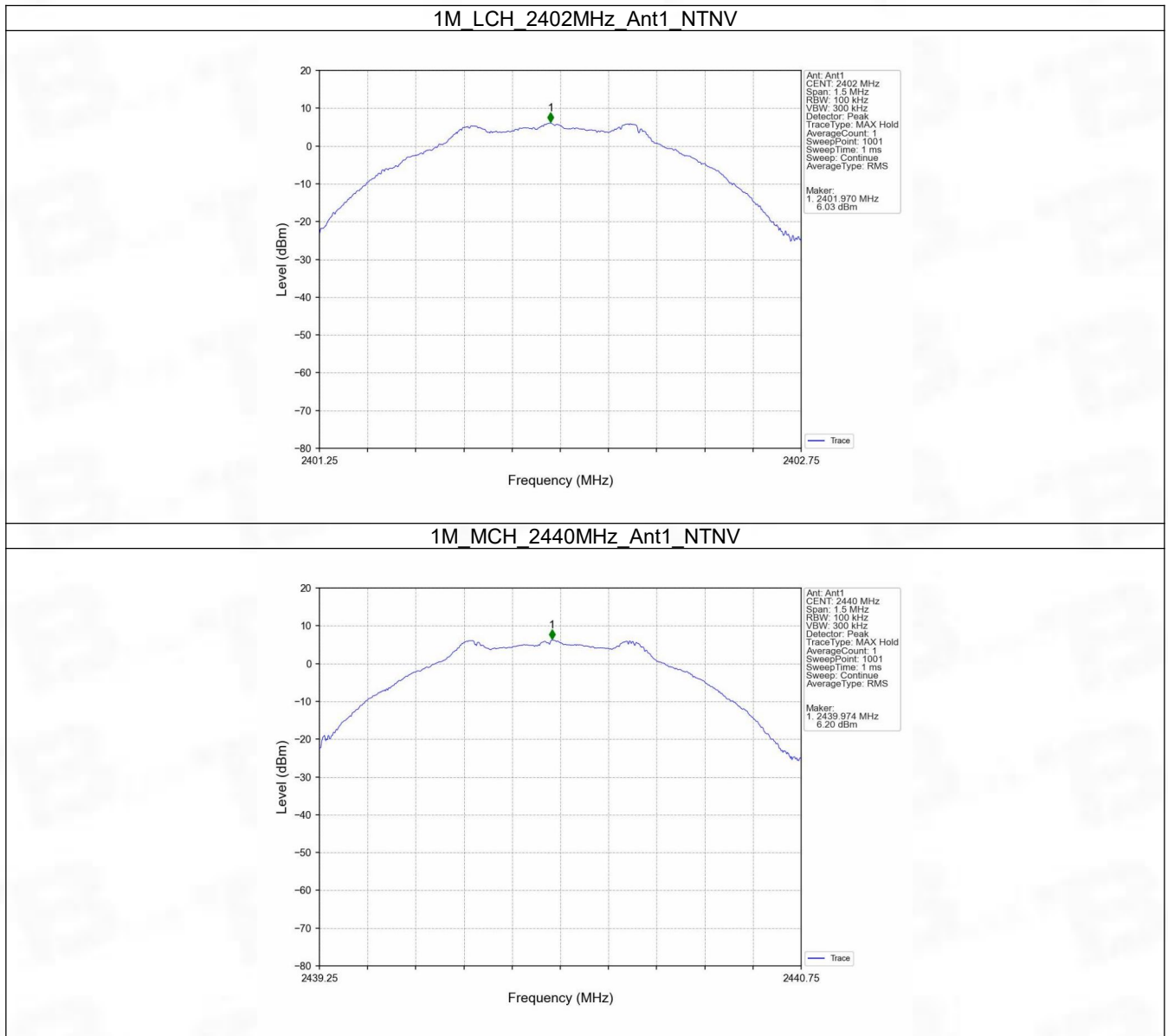
#### 4.1.1 PSD

| Mode | TX Type | Frequency (MHz) | Maximum PSD (dBm) |       | Verdict |
|------|---------|-----------------|-------------------|-------|---------|
|      |         |                 | ANT1              | Limit |         |
| 1M   | SISO    | 2402            | 6.03              | <=8   | Pass    |
|      |         | 2440            | 6.20              | <=8   | Pass    |
|      |         | 2480            | 6.17              | <=8   | Pass    |
| 2M   | SISO    | 2402            | 6.14              | <=8   | Pass    |
|      |         | 2440            | 6.30              | <=8   | Pass    |
|      |         | 2480            | 6.33              | <=8   | Pass    |

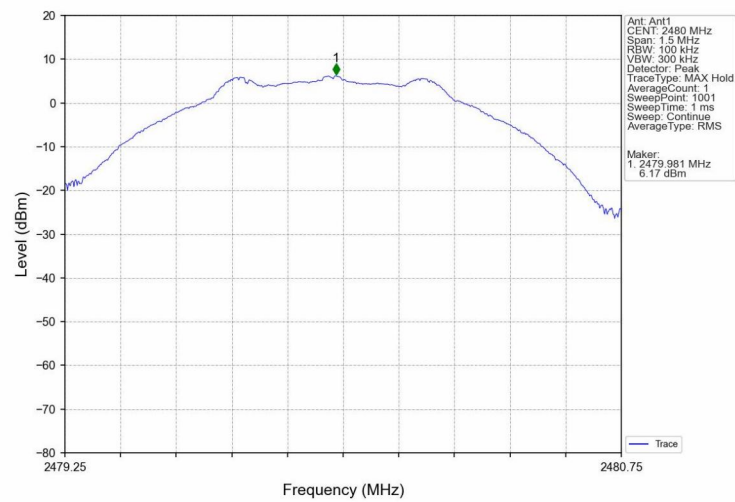
Note1: Antenna Gain: Ant1: -2.20dBi;

## 4.2 Test Graph

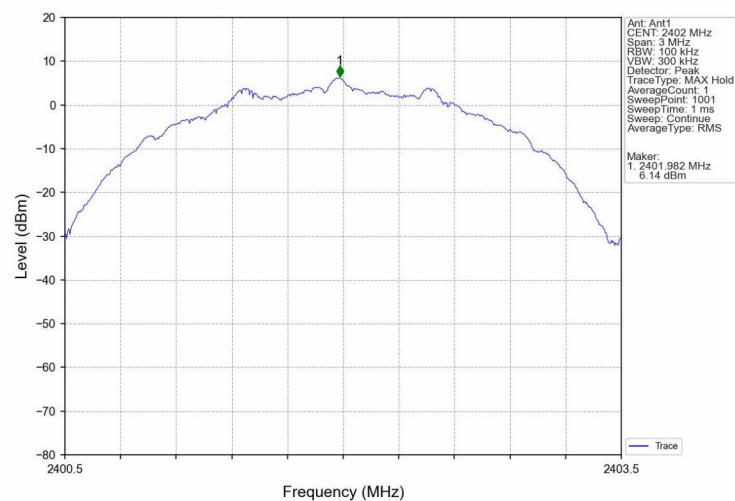
### 4.2.1 PSD



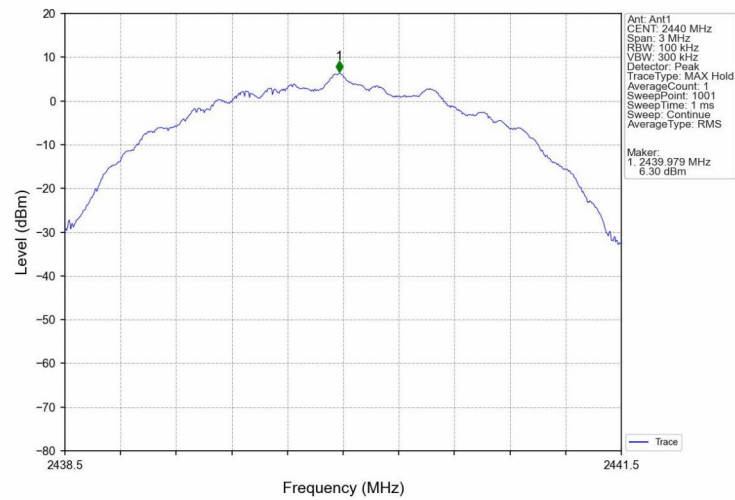
1M\_HCH\_2480MHz\_Ant1\_NTNV



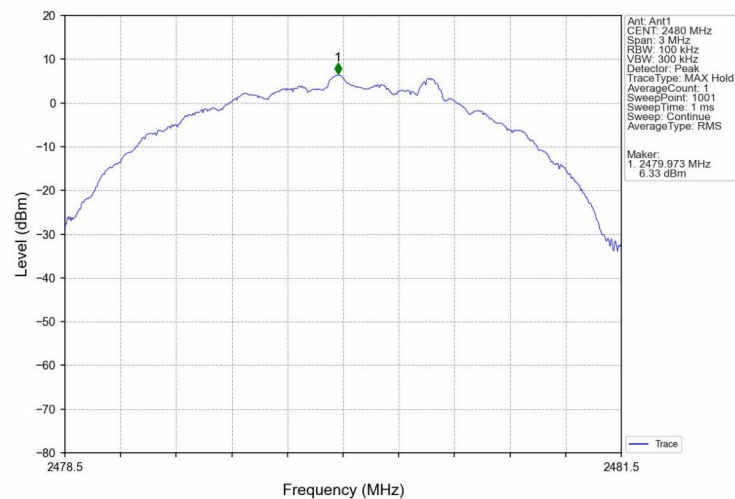
2M\_LCH\_2402MHz\_Ant1\_NTNV



2M\_MCH\_2440MHz\_Ant1\_NTNV



2M\_HCH\_2480MHz\_Ant1\_NTNV



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

### 5.1 Test Result

#### 5.1.1 Ref

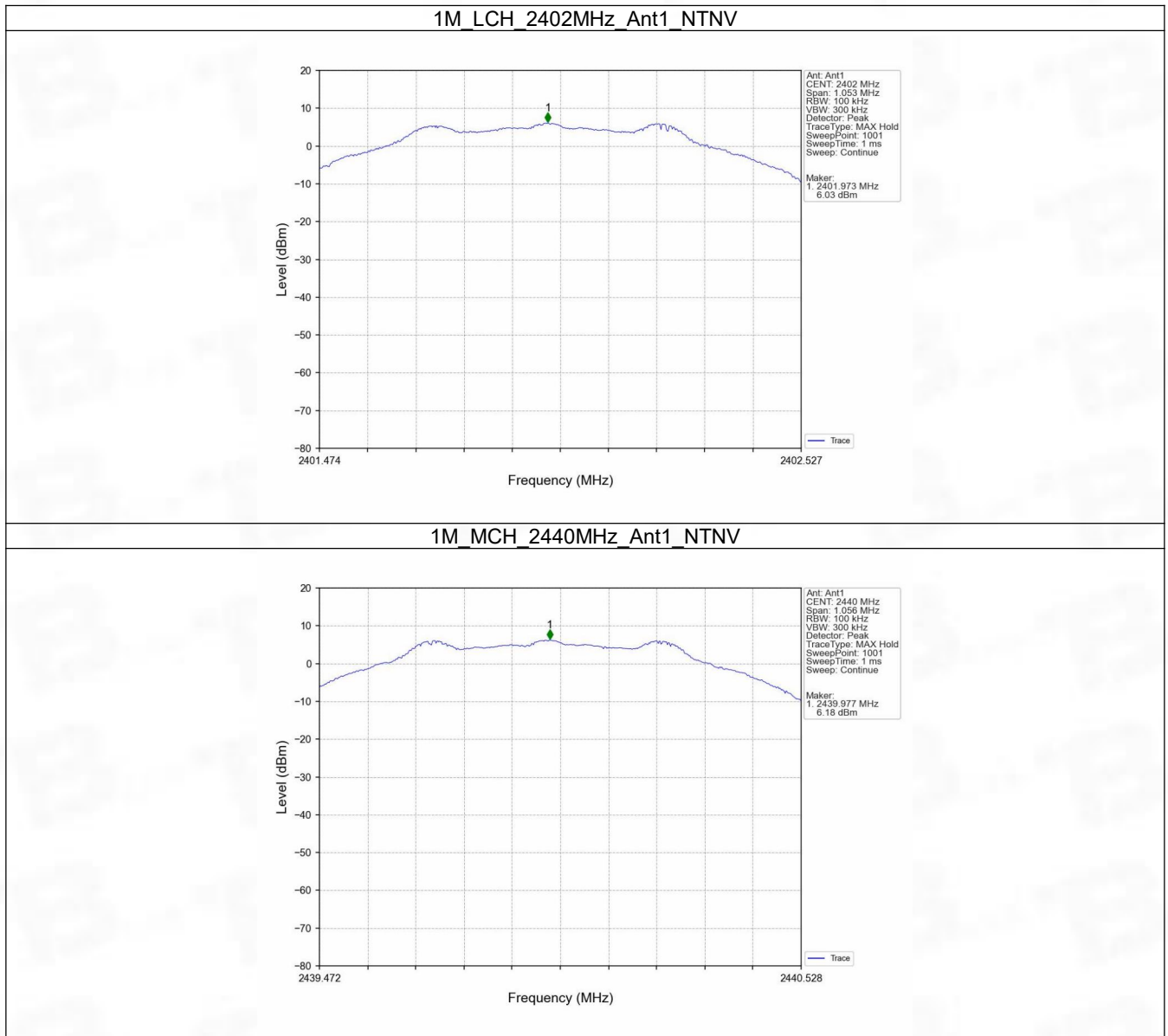
| Mode | TX Type | Frequency (MHz) | ANT | Level of Reference (dBm) |
|------|---------|-----------------|-----|--------------------------|
| 1M   | SISO    | 2402            | 1   | 6.03                     |
|      |         | 2440            | 1   | 6.18                     |
|      |         | 2480            | 1   | 6.21                     |
| 2M   | SISO    | 2402            | 1   | 6.11                     |
|      |         | 2440            | 1   | 6.28                     |
|      |         | 2480            | 1   | 6.29                     |

#### 5.1.2 CSE

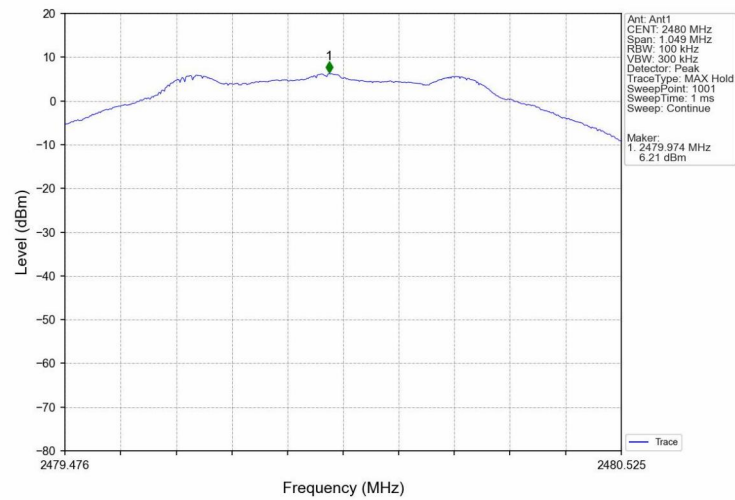
| Mode | TX Type | Frequency (MHz) | ANT | Level of Reference (dBm) | Limit (dBm) | Verdict |
|------|---------|-----------------|-----|--------------------------|-------------|---------|
| 1M   | SISO    | 2402            | 1   | 6.03                     | -13.97      | Pass    |
|      |         | 2440            | 1   | 6.18                     | -13.82      | Pass    |
|      |         | 2480            | 1   | 6.21                     | -13.79      | Pass    |
| 2M   | SISO    | 2402            | 1   | 6.11                     | -13.89      | Pass    |
|      |         | 2440            | 1   | 6.28                     | -13.72      | Pass    |
|      |         | 2480            | 1   | 6.29                     | -13.71      | Pass    |

## 5.2 Test Graph

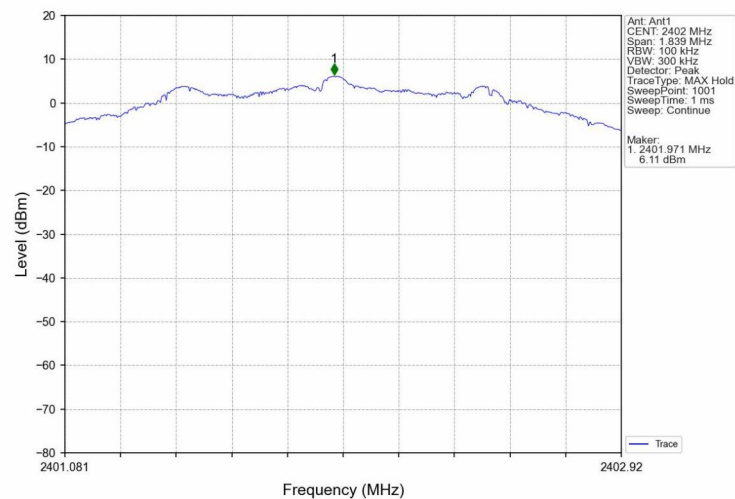
### 5.2.1 Ref



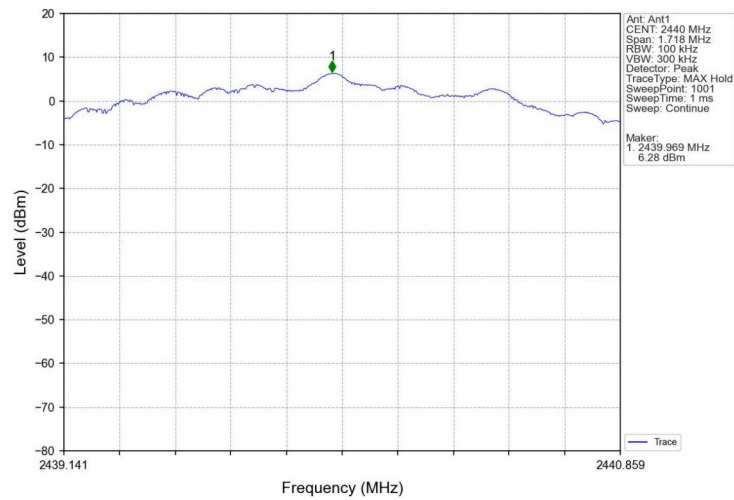
1M\_HCH\_2480MHz\_Ant1\_NTNV



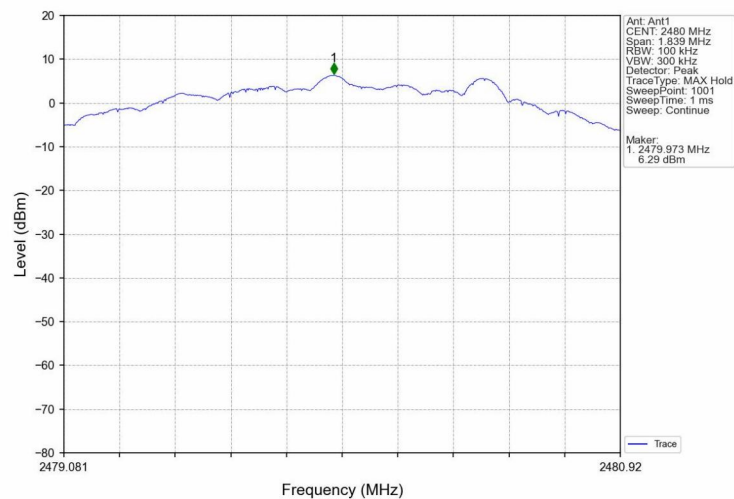
2M\_LCH\_2402MHz\_Ant1\_NTNV



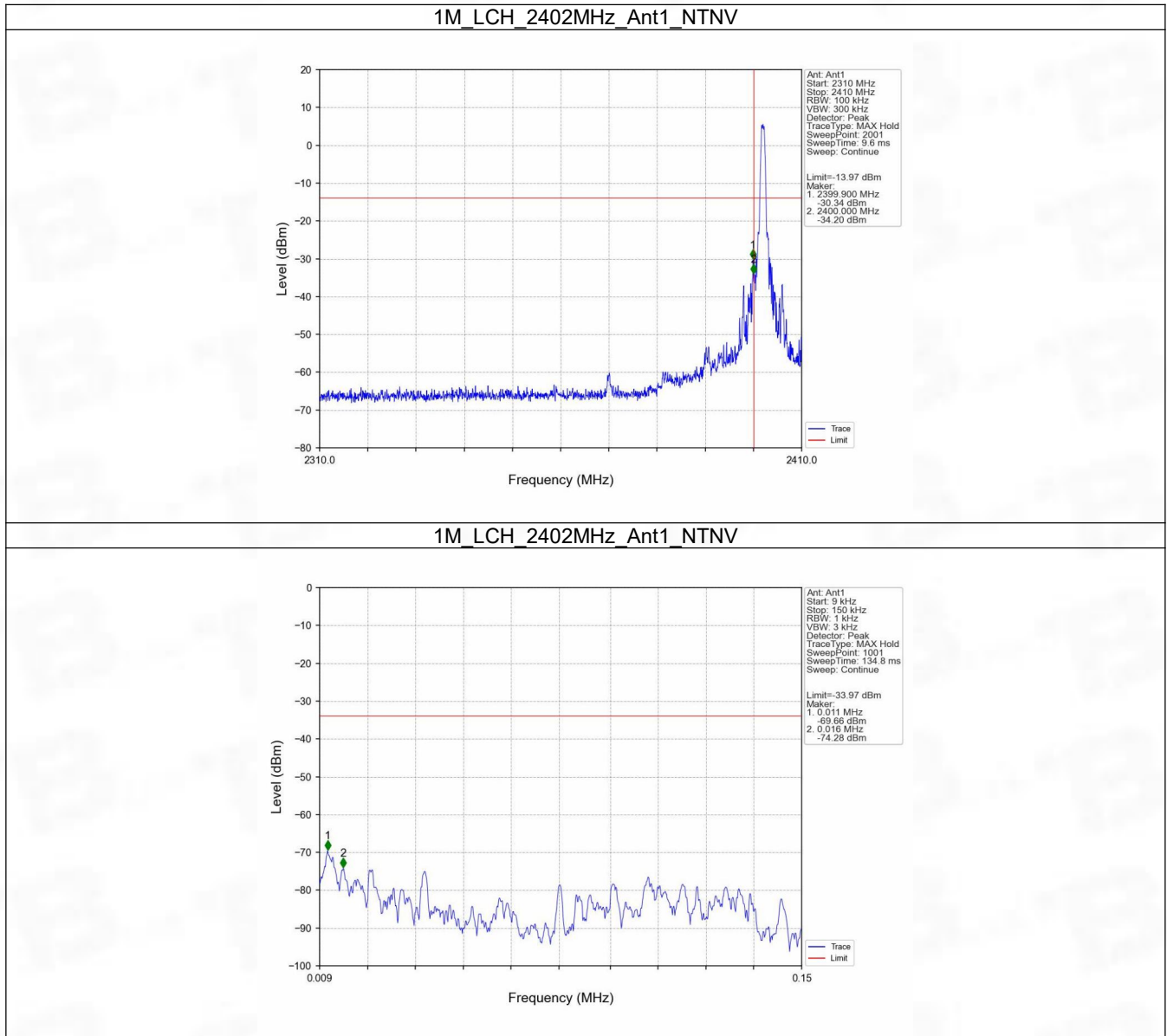
2M\_MCH\_2440MHz\_Ant1\_NTNV



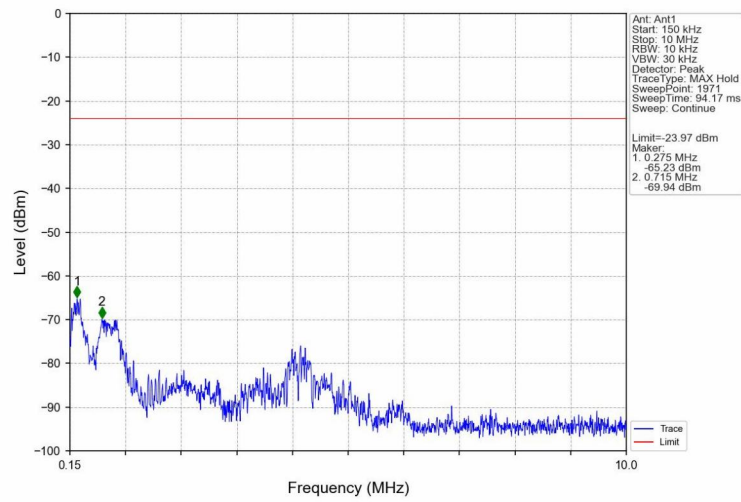
2M\_HCH\_2480MHz\_Ant1\_NTNV



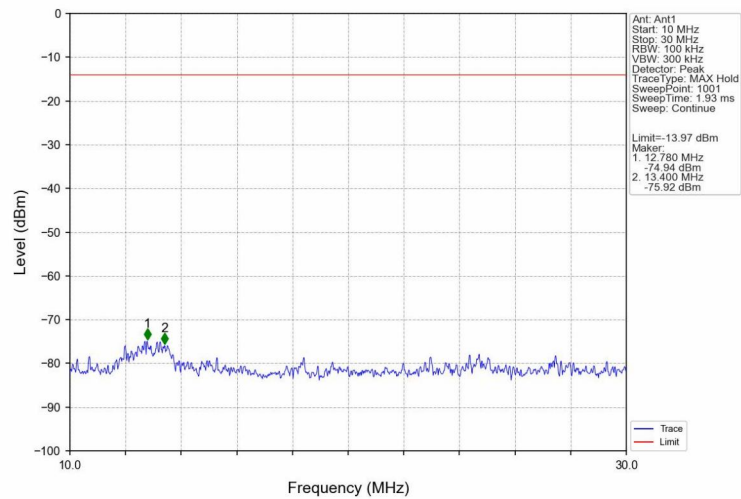
## 5.2.2 CSE



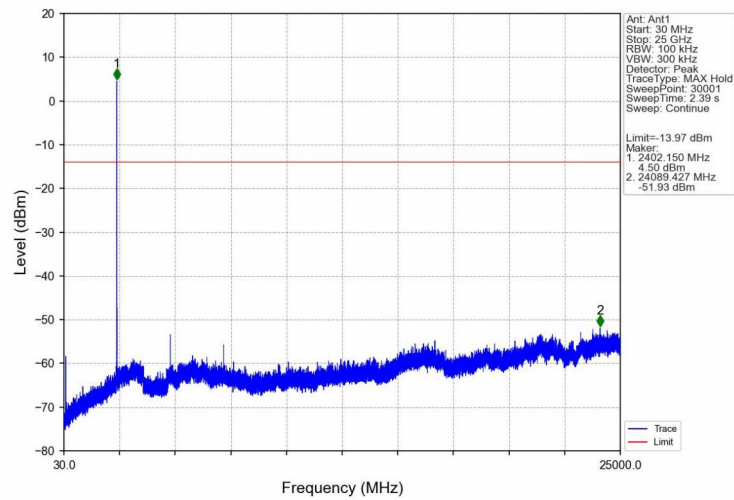
1M\_LCH\_2402MHz\_Ant1\_NTNV



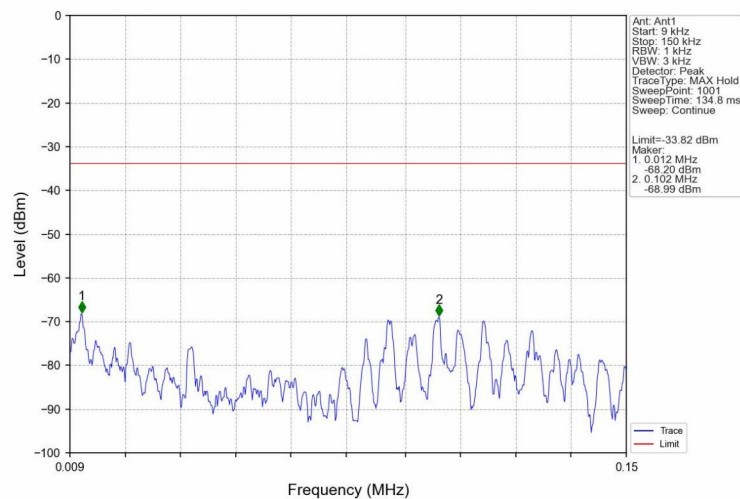
1M\_LCH\_2402MHz\_Ant1\_NTNV



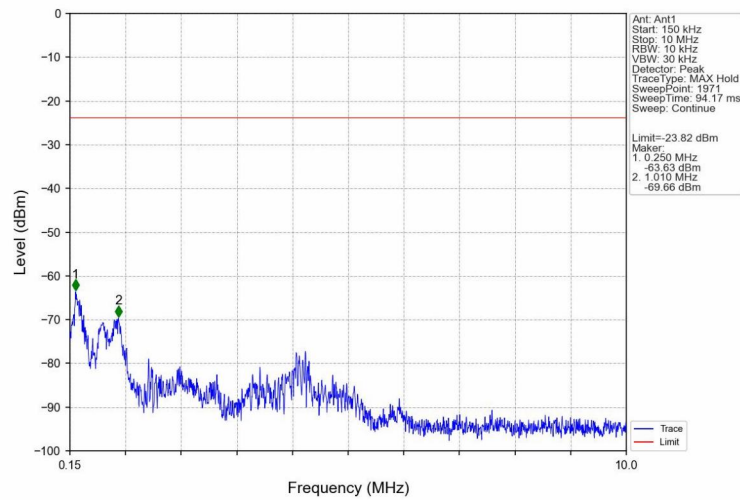
## 1M\_LCH\_2402MHz\_Ant1\_NTNV



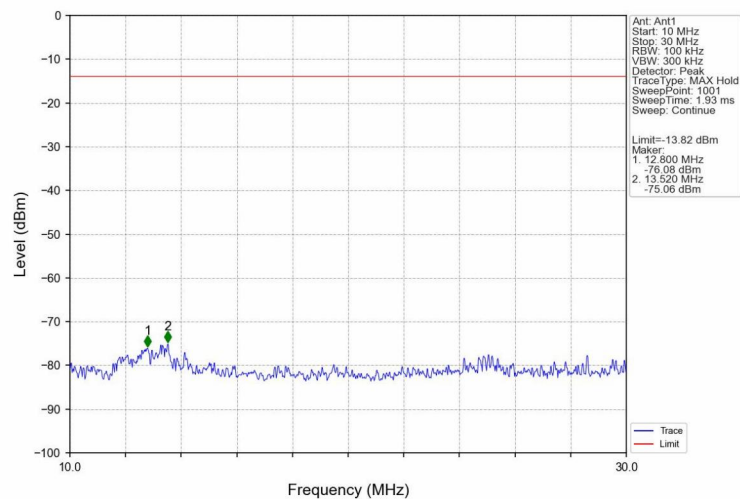
## 1M\_MCH\_2440MHz\_Ant1\_NTNV



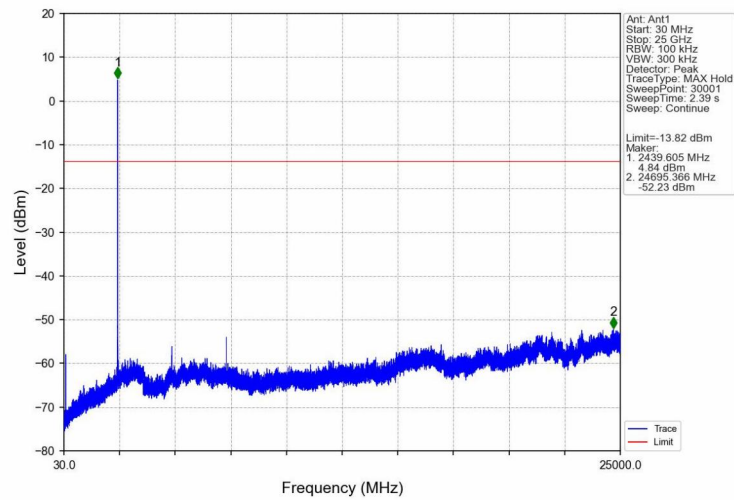
1M\_MCH\_2440MHz\_Ant1\_NTNV



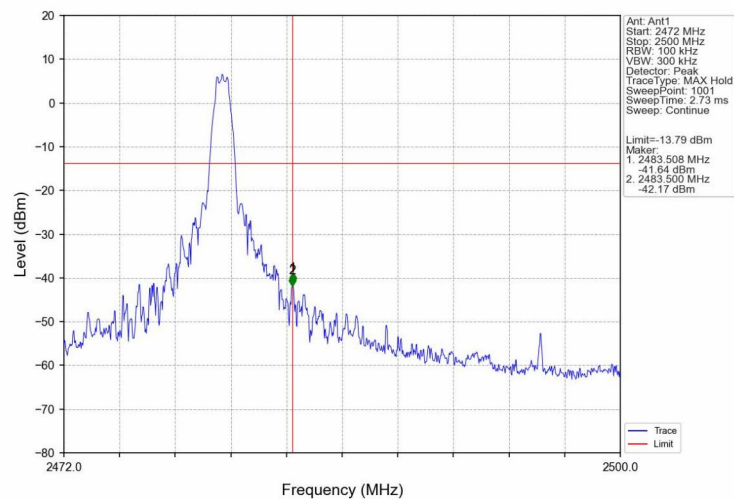
1M\_MCH\_2440MHz\_Ant1\_NTNV



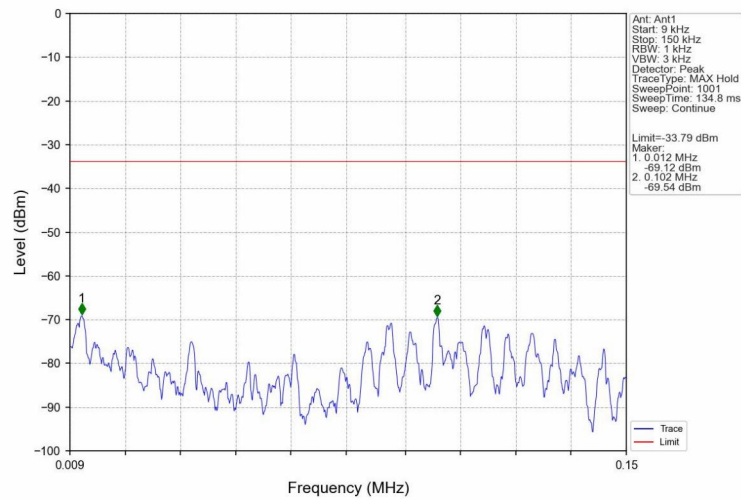
## 1M\_MCH\_2440MHz\_Ant1\_NTNV



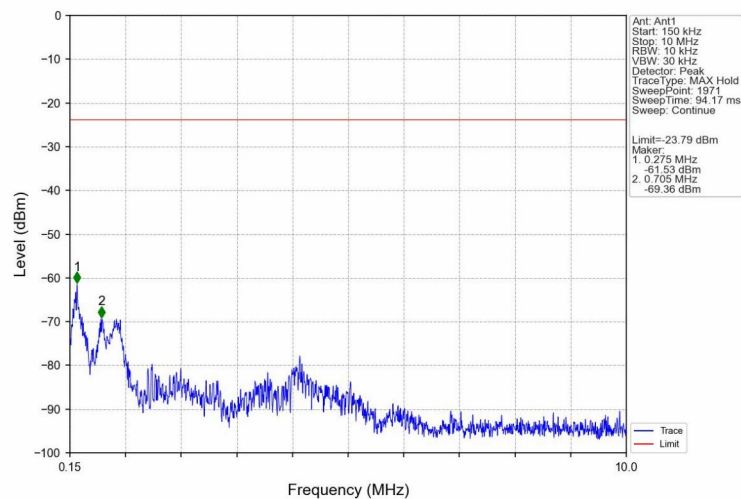
## 1M\_HCH\_2480MHz\_Ant1\_NTNV



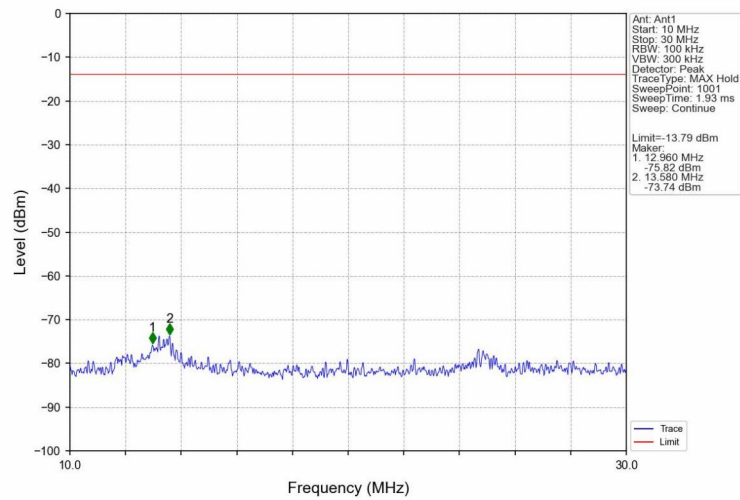
1M\_HCH\_2480MHz\_Ant1\_NTNV



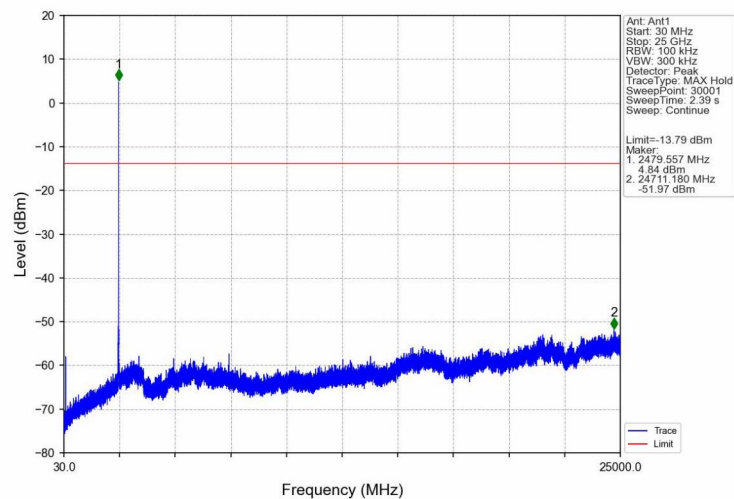
1M\_HCH\_2480MHz\_Ant1\_NTNV



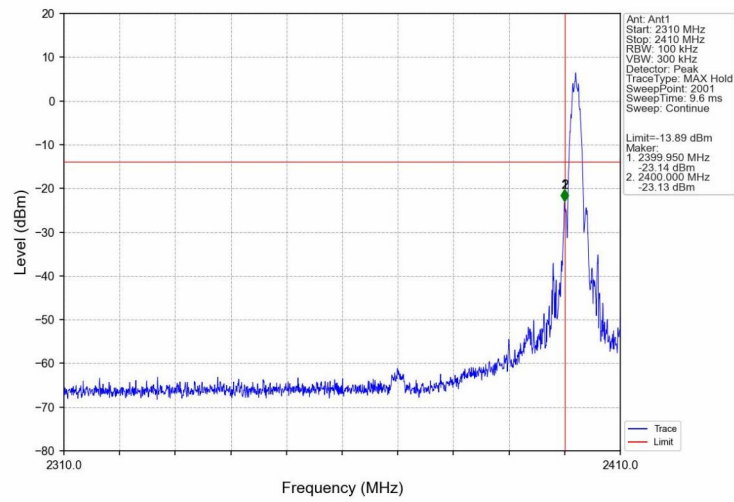
## 1M\_HCH\_2480MHz\_Ant1\_NTNV



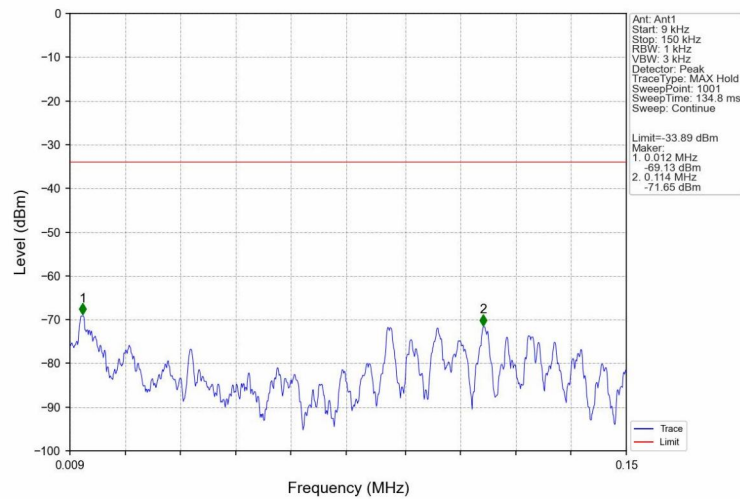
## 1M\_HCH\_2480MHz\_Ant1\_NTNV



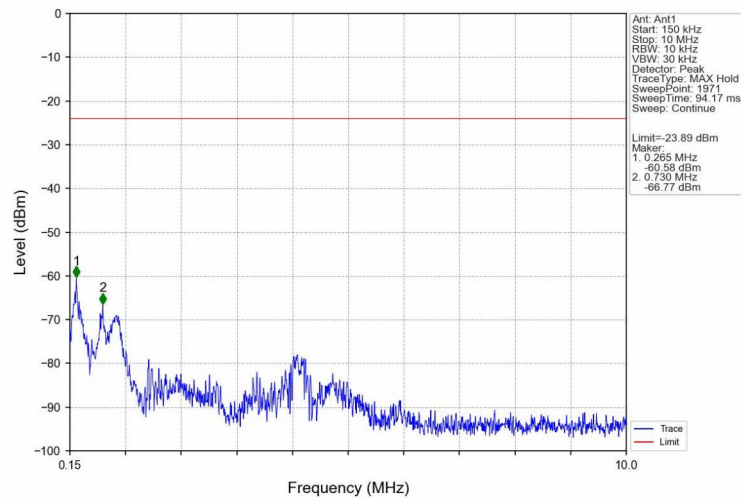
2M\_LCH\_2402MHz\_Ant1\_NTNV



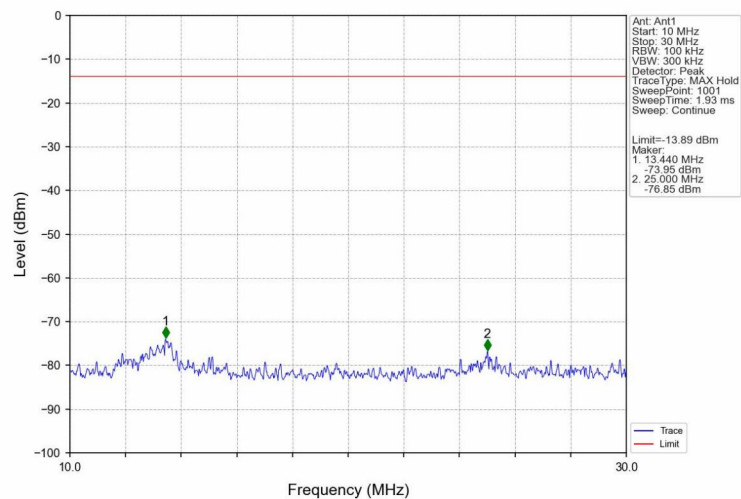
2M\_LCH\_2402MHz\_Ant1\_NTNV



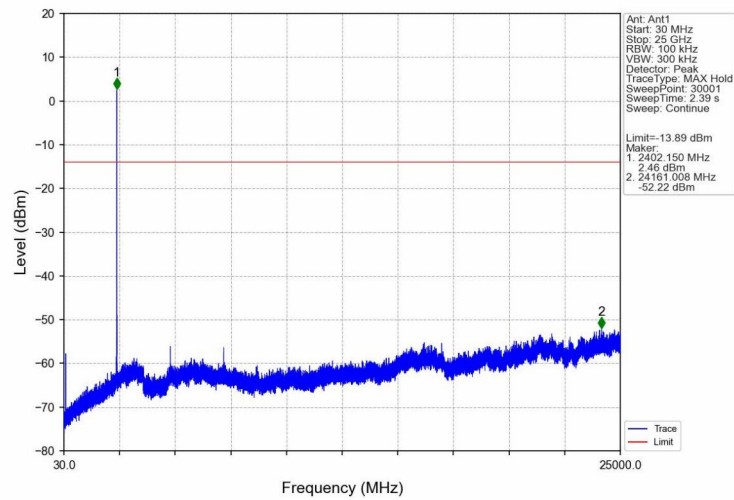
## 2M\_LCH\_2402MHz\_Ant1\_NTNV



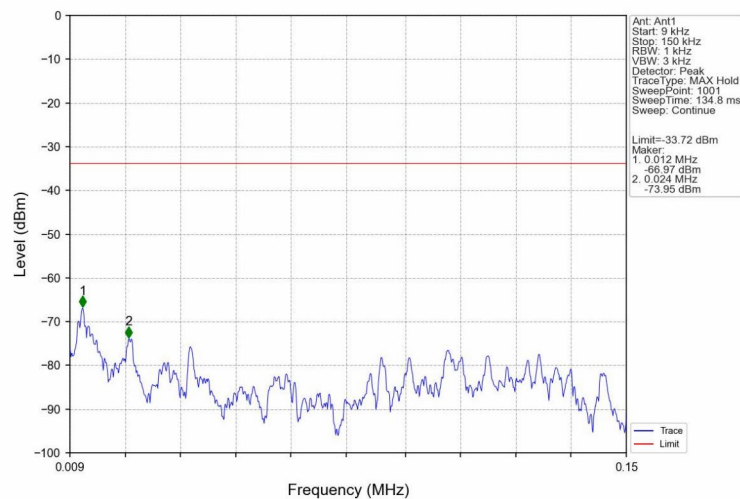
## 2M\_LCH\_2402MHz\_Ant1\_NTNV



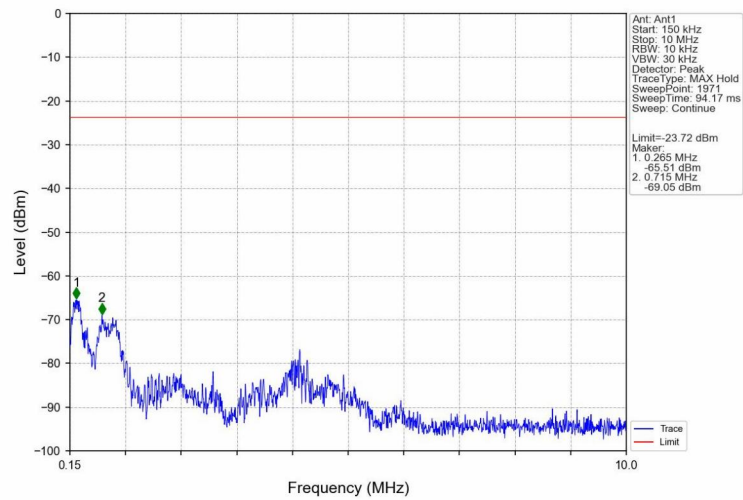
## 2M\_LCH\_2402MHz\_Ant1\_NTNV



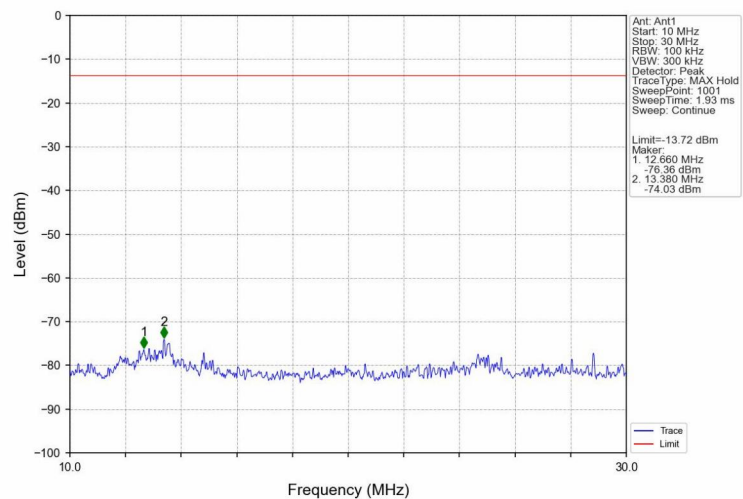
## 2M\_MCH\_2440MHz\_Ant1\_NTNV



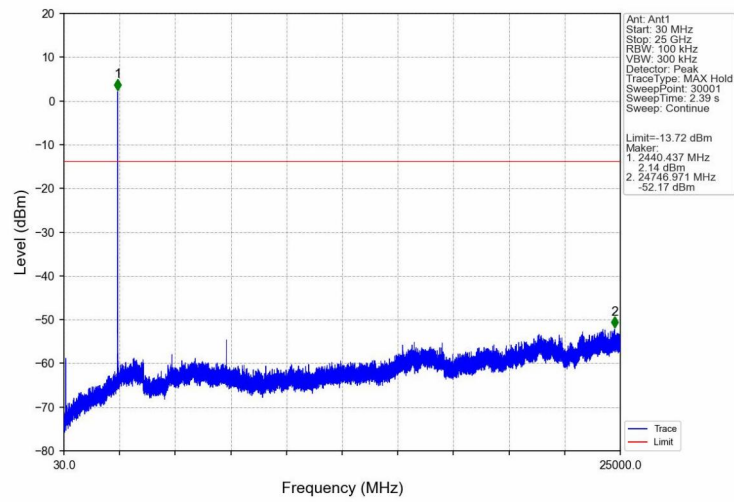
## 2M\_MCH\_2440MHz\_Ant1\_NTNV



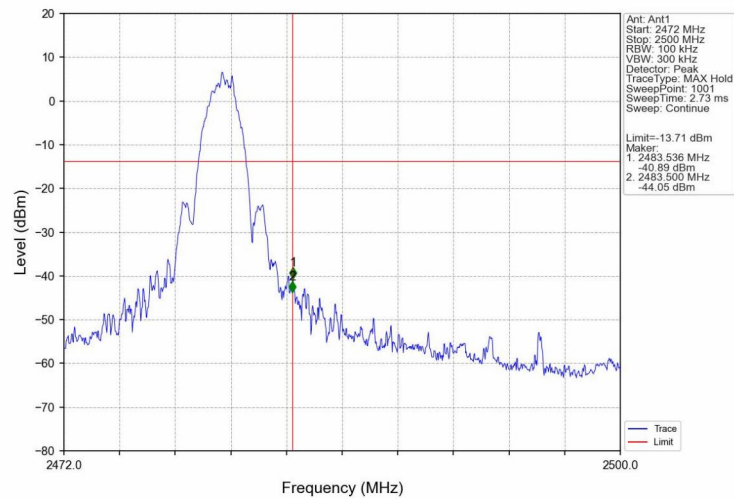
## 2M\_MCH\_2440MHz\_Ant1\_NTNV



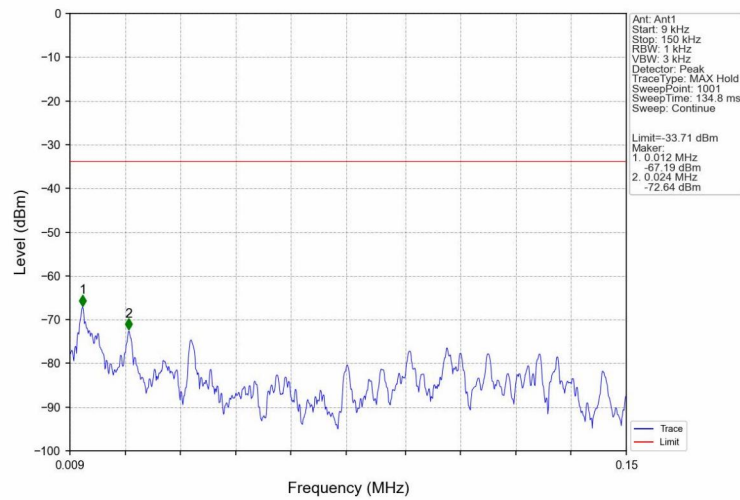
## 2M\_MCH\_2440MHz\_Ant1\_NTNV



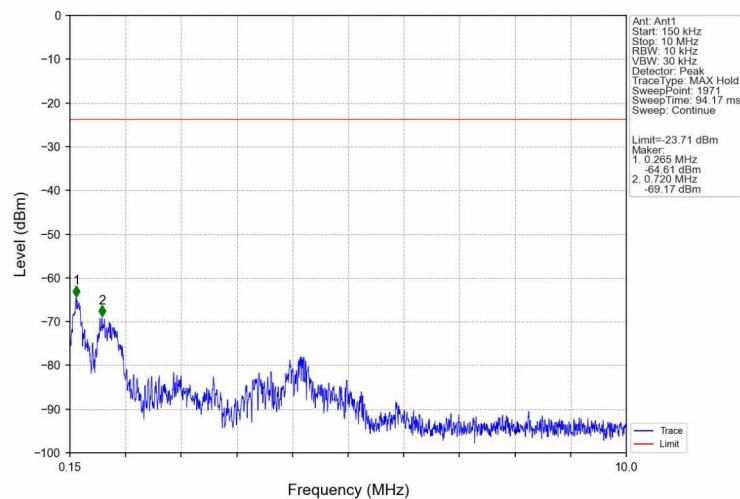
## 2M\_HCH\_2480MHz\_Ant1\_NTNV



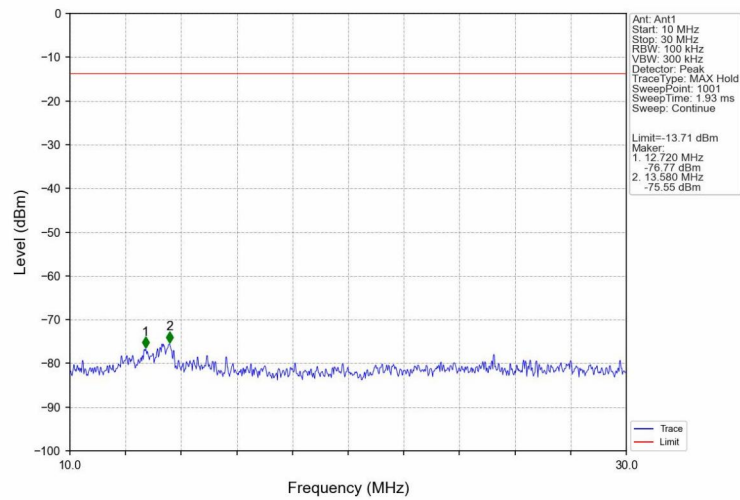
## 2M\_HCH\_2480MHz\_Ant1\_NTNV



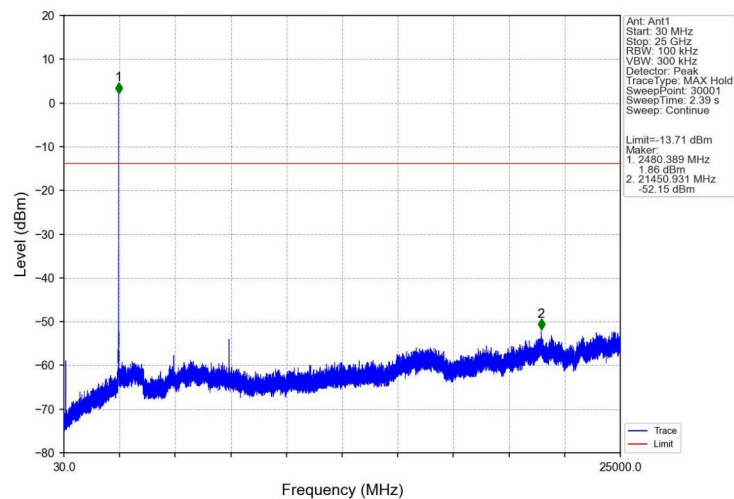
## 2M\_HCH\_2480MHz\_Ant1\_NTNV



2M\_HCH\_2480MHz\_Ant1\_NTNV



2M\_HCH\_2480MHz\_Ant1\_NTNV



## 6. Form731

### 6.1 Test Result

#### 6.1.1 Form731

| Lower Freq (MHz) | High Freq (MHz) | MAX Power (W) | MAX Power (dBm) |
|------------------|-----------------|---------------|-----------------|
| 2402             | 2480            | 0.0046        | 6.59            |