

## **Appendix RF test data for BLE**

## 1. Duty Cycle

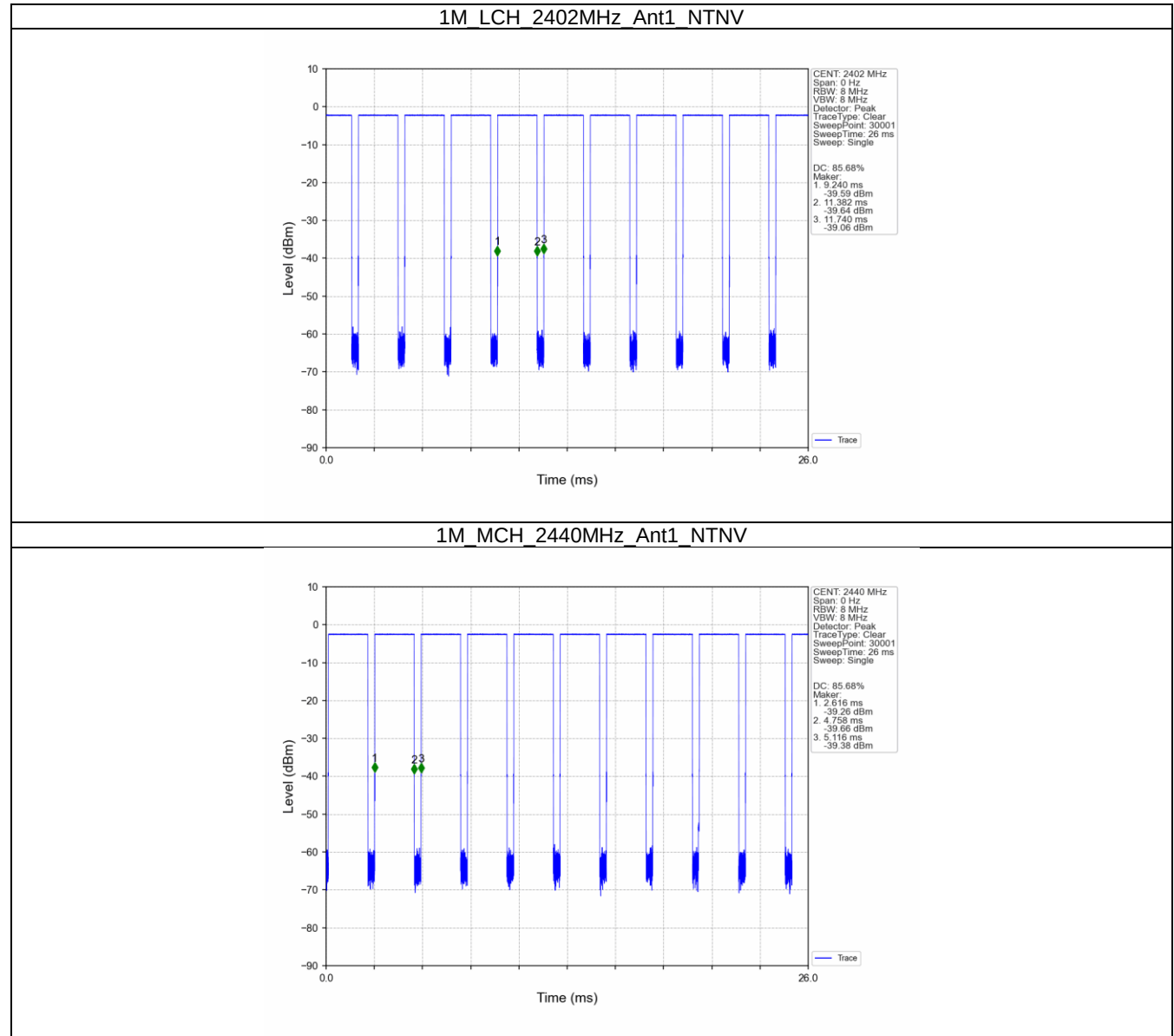
### 1.1 Test Result

#### 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            | 2.142     | 2.500       | 85.68          | 0.67                              | 0.03                  |
|      |         | 2440            | 2.142     | 2.500       | 85.68          | 0.67                              | 1.36                  |
|      |         | 2480            | 2.142     | 2.500       | 85.68          | 0.67                              | 0.03                  |

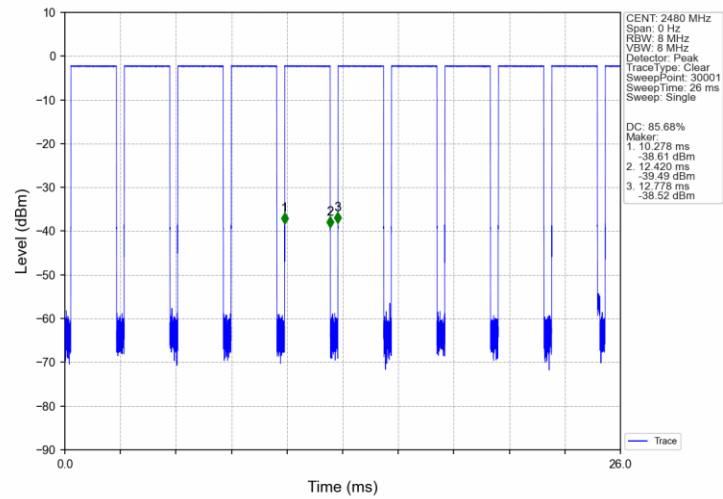
## 1.2 Test Graph

### 1.2.1 Ant1





## 1M HCH 2480MHz Ant1 NTN



## 2. Bandwidth

### 2.1 Test Result

#### 2.1.1 OBW

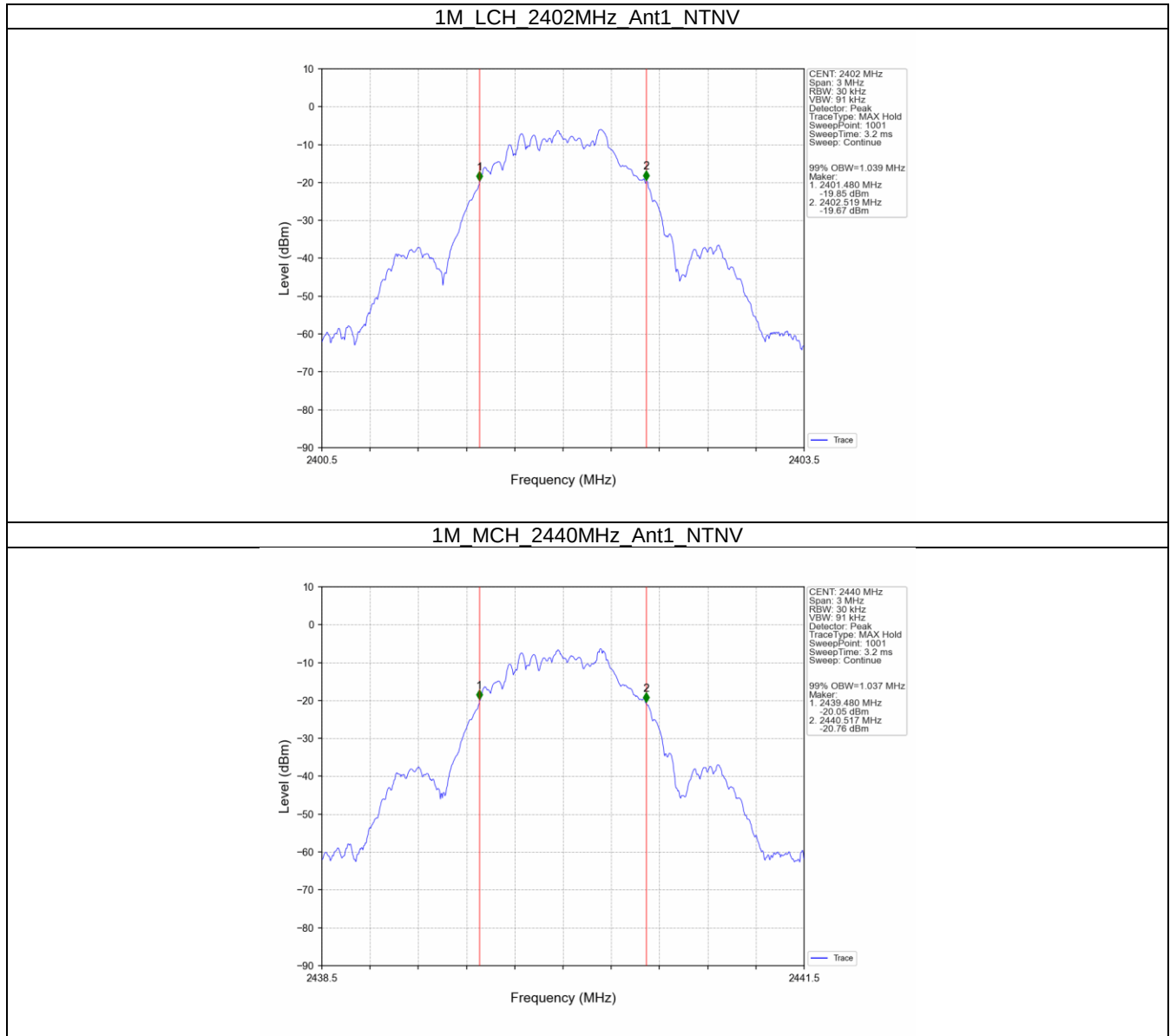
| Mode | TX Type | Frequency (MHz) | ANT | 99% Occupied Bandwidth (MHz) |       | Verdict |
|------|---------|-----------------|-----|------------------------------|-------|---------|
|      |         |                 |     | Result                       | Limit |         |
| 1M   | SISO    | 2402            | 1   | 1.039                        | /     | Pass    |
|      |         | 2440            | 1   | 1.037                        | /     | Pass    |
|      |         | 2480            | 1   | 1.039                        | /     | Pass    |

#### 2.1.2 6dB BW

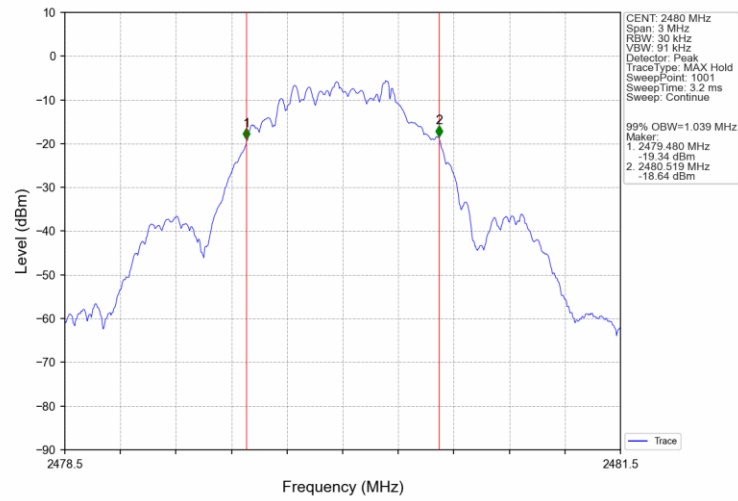
| Mode | TX Type | Frequency (MHz) | ANT | 6dB Bandwidth (MHz) |            | Verdict |
|------|---------|-----------------|-----|---------------------|------------|---------|
|      |         |                 |     | Result              | Limit      |         |
| 1M   | SISO    | 2402            | 1   | 0.669               | $\geq 0.5$ | Pass    |
|      |         | 2440            | 1   | 0.669               | $\geq 0.5$ | Pass    |
|      |         | 2480            | 1   | 0.669               | $\geq 0.5$ | Pass    |

## 2.2 Test Graph

### 2.2.1 OBW

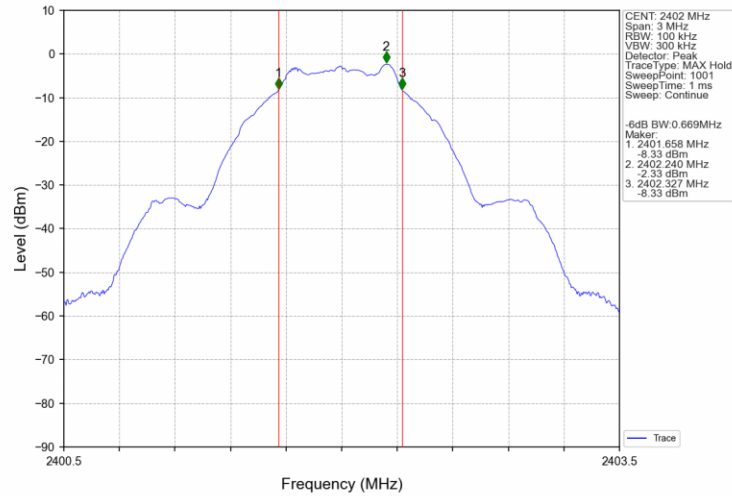


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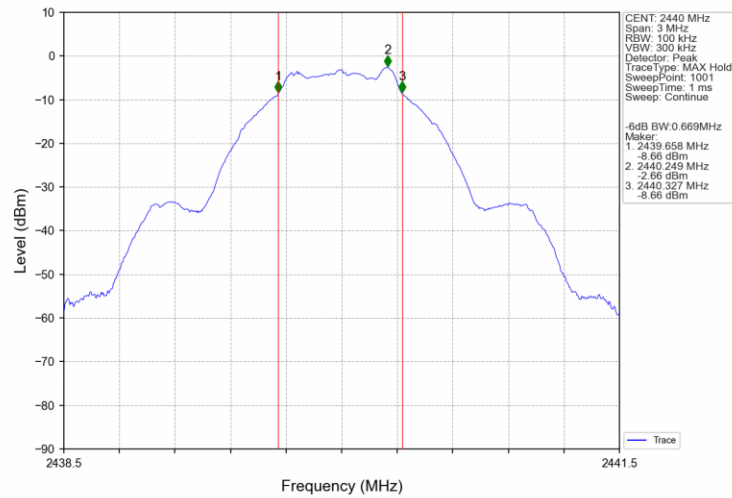


## 2.2.2 6dB BW

1M LCH 2402MHz Ant1 NTN

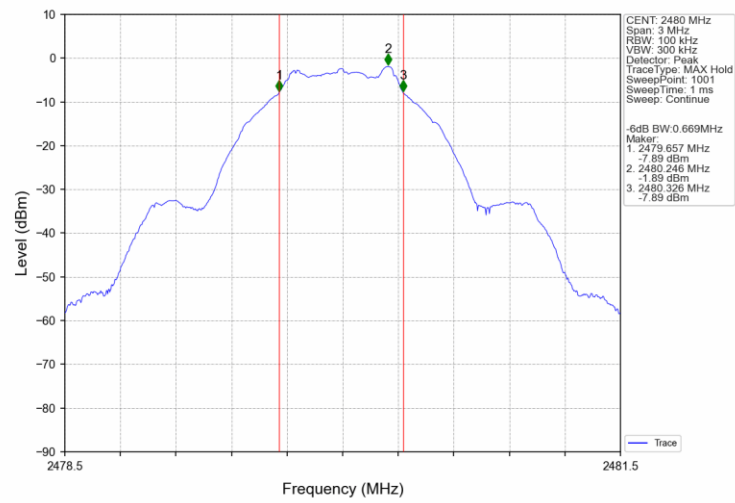


1M MCH 2440MHz Ant1 NTN





## 1M HCH 2480MHz Ant1 NTV



### 3. Maximum Conducted Output Power

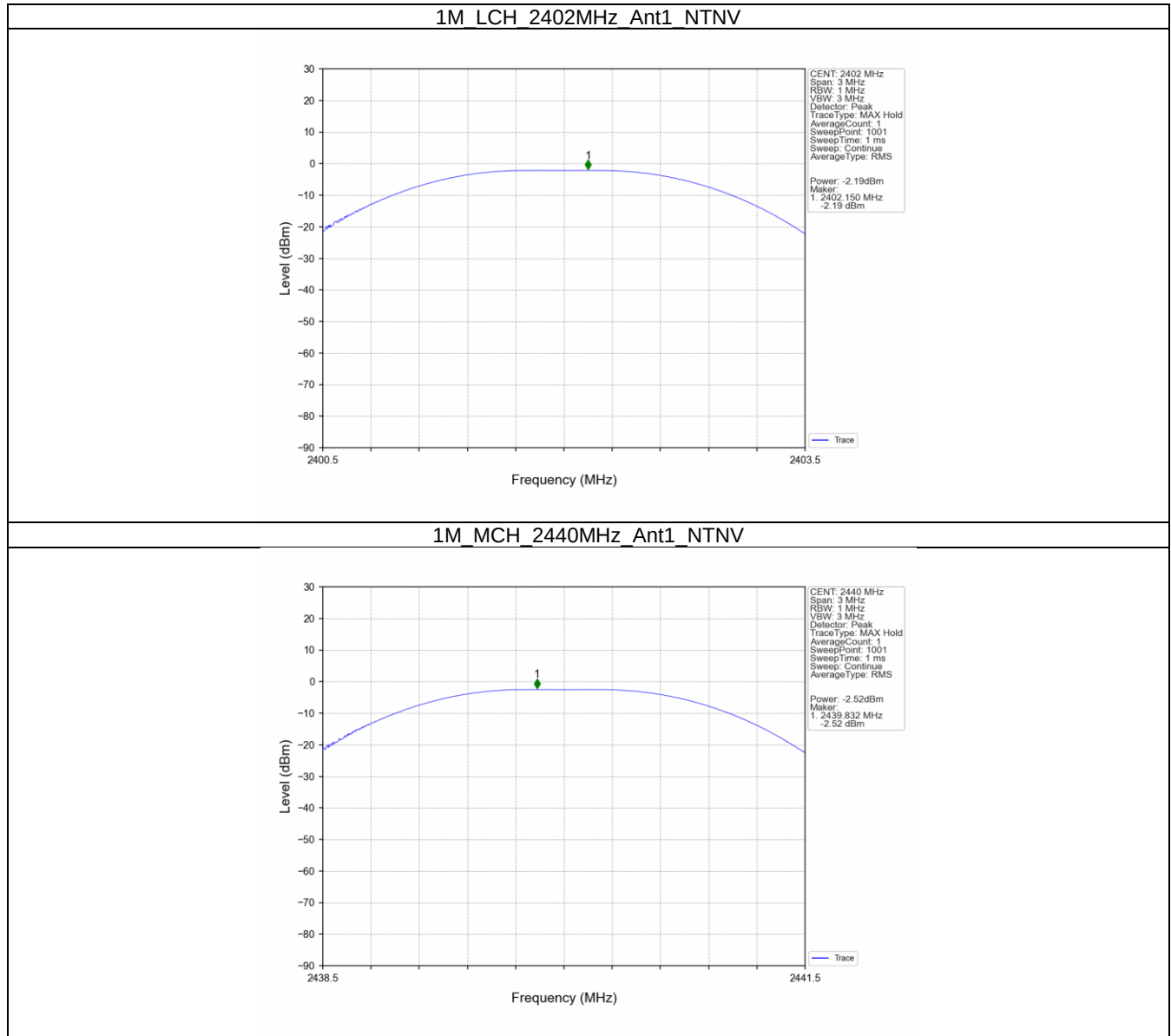
#### 3.1 Test Result

##### 3.1.1 Power

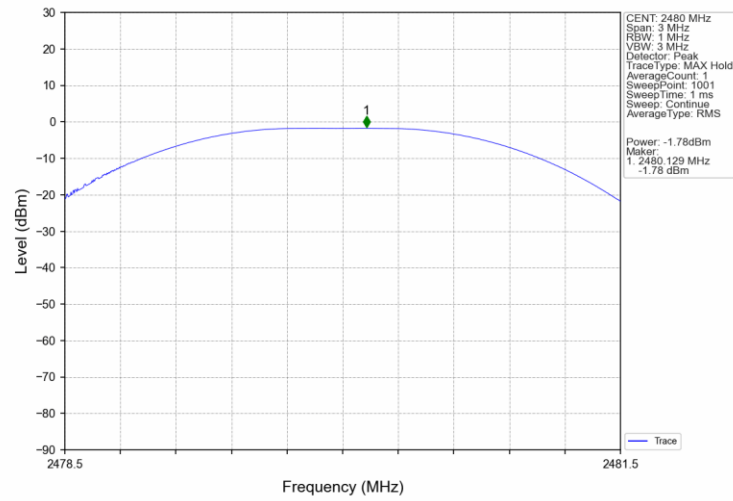
| Mode | TX Type | Frequency (MHz) | Maximum Peak Conducted Output Power (dBm) |           | Verdict |
|------|---------|-----------------|-------------------------------------------|-----------|---------|
|      |         |                 | ANT1                                      | Limit     |         |
| 1M   | SISO    | 2402            | -2.19                                     | $\leq 30$ | Pass    |
|      |         | 2440            | -2.52                                     | $\leq 30$ | Pass    |
|      |         | 2480            | -1.78                                     | $\leq 30$ | Pass    |

## 3.2 Test Graph

### 3.2.1 Power



## 1M HCH 2480MHz Ant1 NTN



## 4. Maximum Power Spectral Density

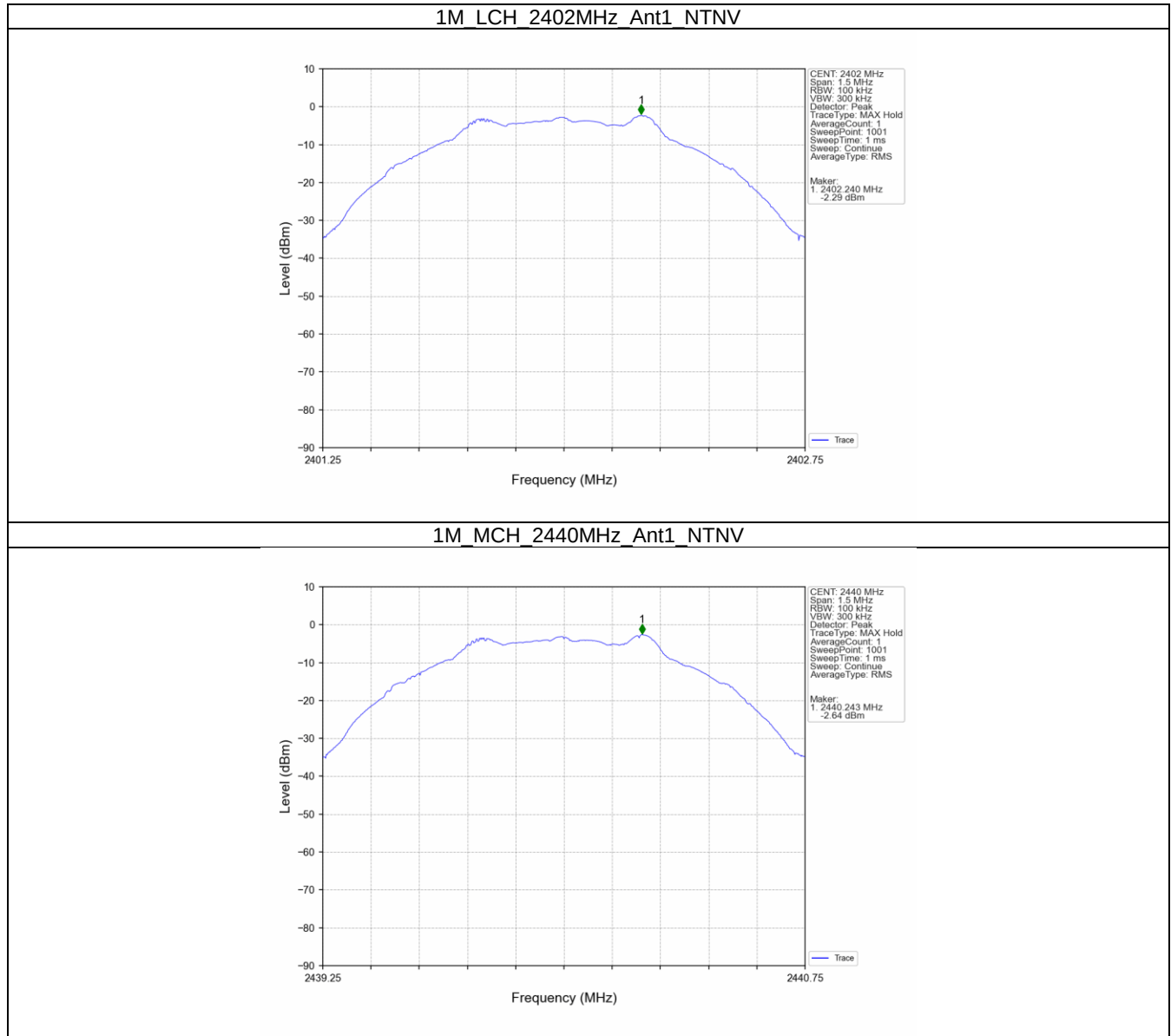
### 4.1 Test Result

#### 4.1.1 PSD

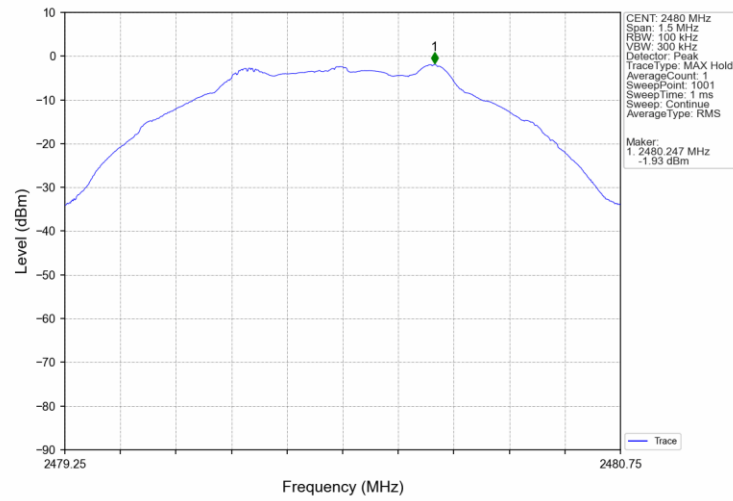
| Mode | TX Type | Frequency (MHz) | Maximum PSD (dBm) |       | Verdict |
|------|---------|-----------------|-------------------|-------|---------|
|      |         |                 | ANT1              | Limit |         |
| 1M   | SISO    | 2402            | -2.29             | <=8   | Pass    |
|      |         | 2440            | -2.64             | <=8   | Pass    |
|      |         | 2480            | -1.93             | <=8   | Pass    |

## 4.2 Test Graph

### 4.2.1 PSD



## 1M HCH 2480MHz Ant1 NTVN

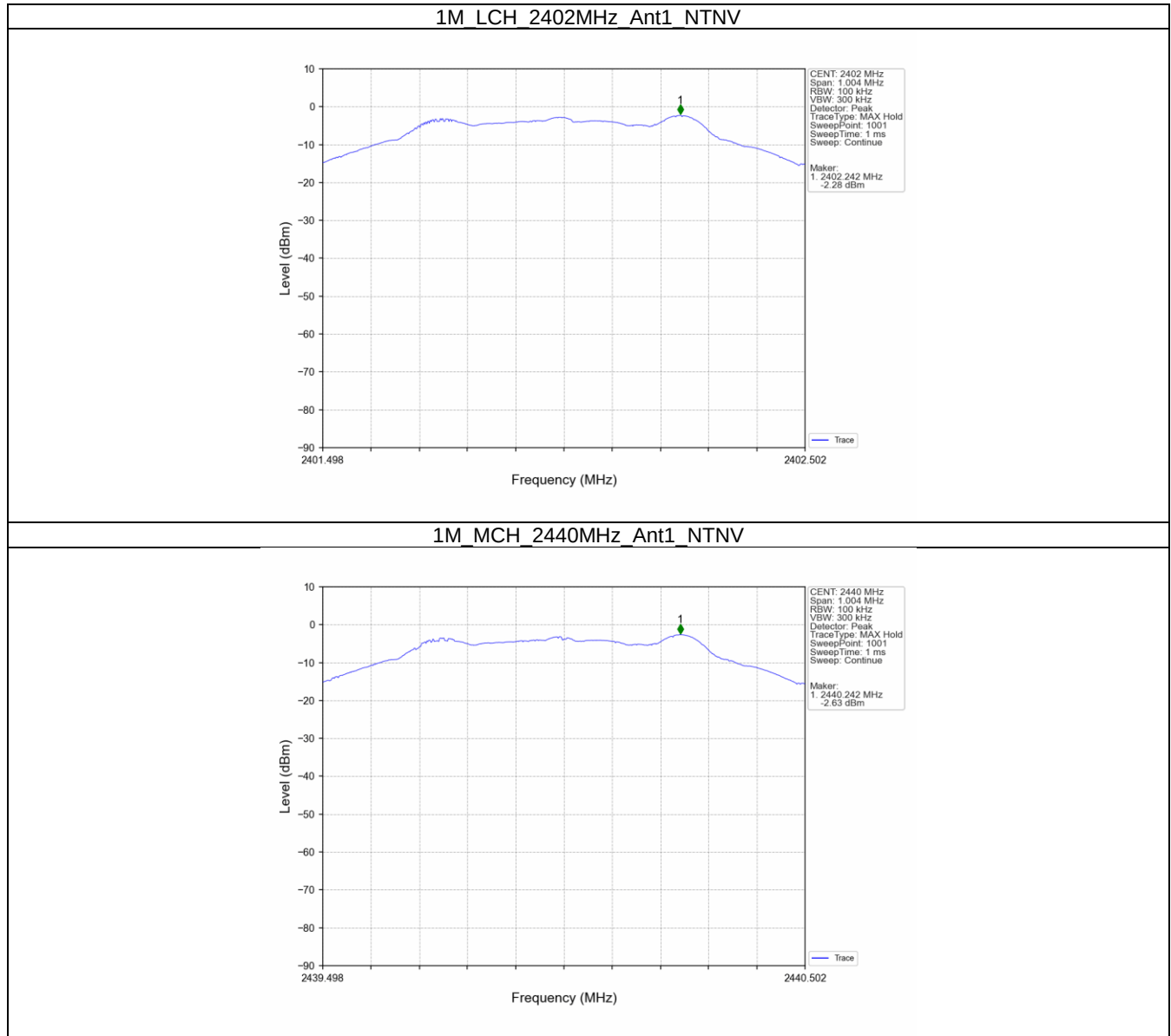




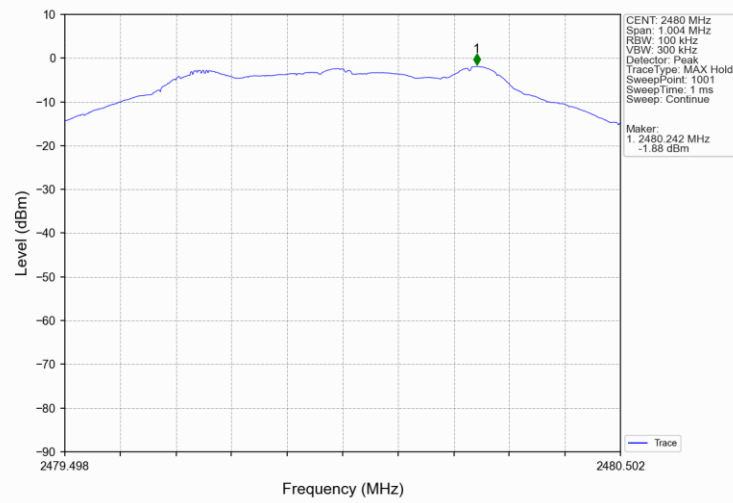
| Mode                                                                                                                                            | TX Type | Frequency (MHz) | ANT | Level of Reference (dBm) | Limit (dBm) | Verdict |
|-------------------------------------------------------------------------------------------------------------------------------------------------|---------|-----------------|-----|--------------------------|-------------|---------|
| 1M                                                                                                                                              | SISO    | 2402            | 1   | -2.28                    | -22.28      | Pass    |
|                                                                                                                                                 |         | 2440            | 1   | -2.63                    | -22.63      | Pass    |
|                                                                                                                                                 |         | 2480            | 1   | -1.88                    | -21.88      | 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. |         |                 |     |                          |             |         |

## 5.2 Test Graph

### 5.2.1 Ref

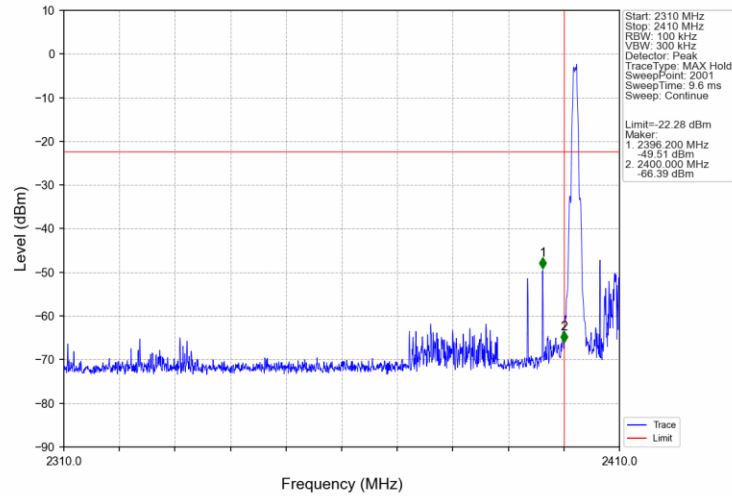


## 1M HCH 2480MHz Ant1 NTV

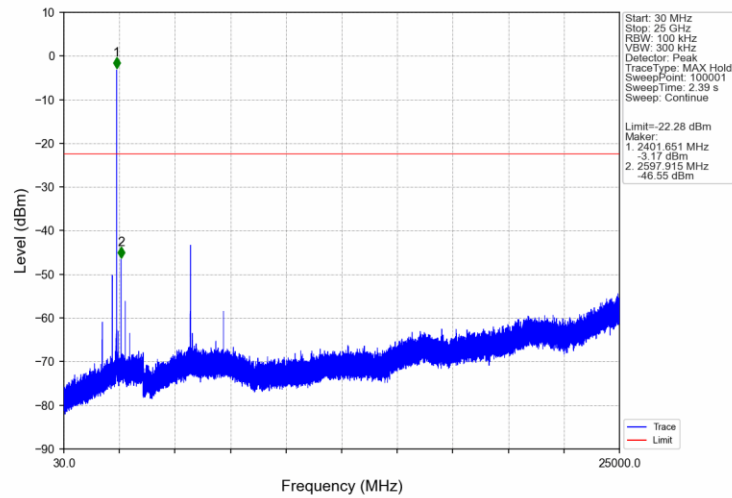


## 5.2.2 CSE

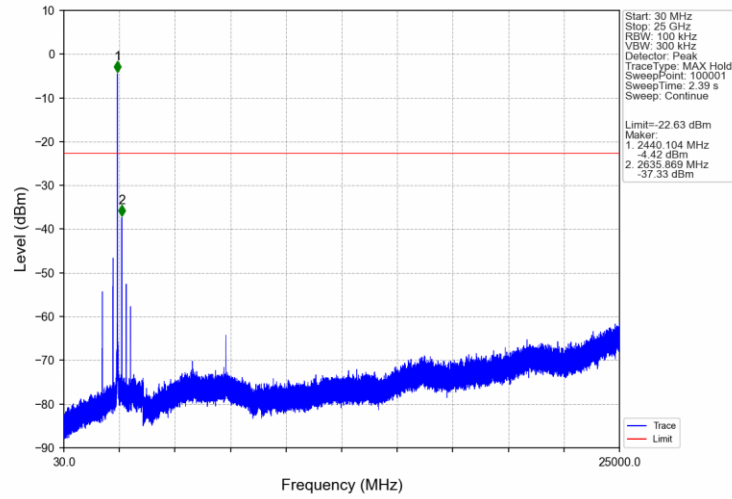
1M LCH 2402MHz Ant1 NTN



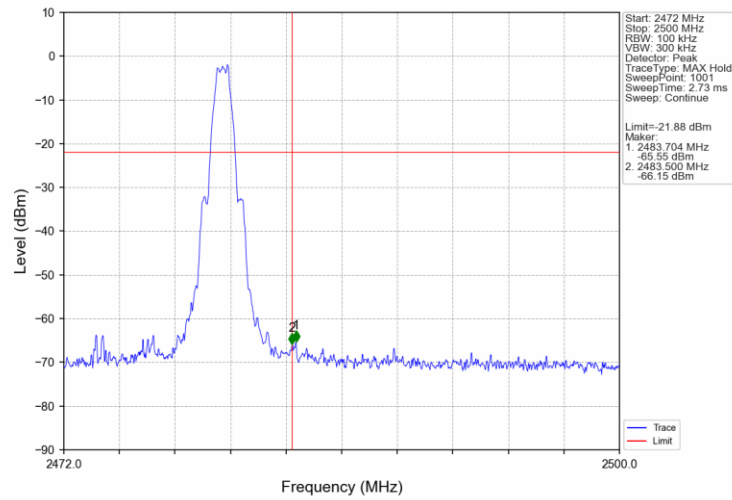
1M LCH 2402MHz Ant1 NTN



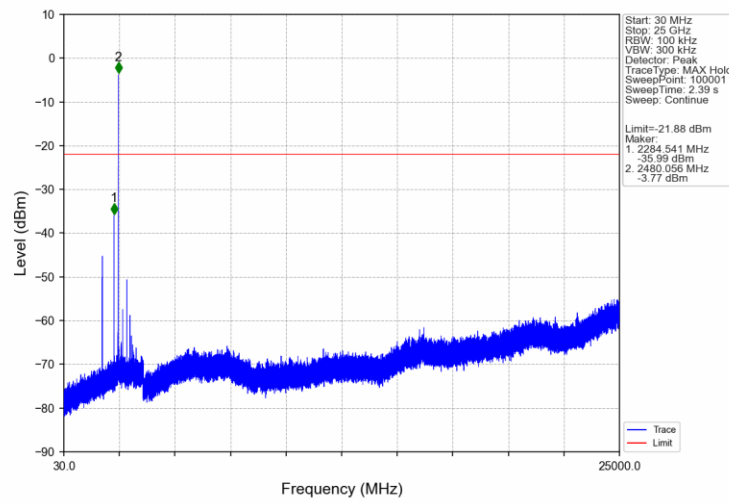
## 1M\_MCH\_2440MHz\_Ant1\_NTNV



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



## 1M HCH 2480MHz Ant1 NTVN





## 6. Form731

### 6.1 Test Result

#### 6.1.1 Form731

| Lower Freq (MHz) | High Freq (MHz) | MAX Power (W) | MAX Power (dBm) |
|------------------|-----------------|---------------|-----------------|
| 2402             | 2480            | 0.0007        | -1.78           |

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