



# RF Test Report

## For BTEK250901011A04-T03

|                      |                       |
|----------------------|-----------------------|
| Project No.:         | BTEK250901011A04E04   |
| Product Description: | 25.2°C, 59%, 101.8kPa |
| Test Engineer:       | Zora                  |
| Test Date:           | 2025-09-30            |



## Test Summary

| Item                                                 | Result |
|------------------------------------------------------|--------|
| Duty Cycle                                           | Pass   |
| Bandwidth                                            | Pass   |
| Maximum Conducted Output Power                       | Pass   |
| Maximum Power Spectral Density                       | Pass   |
| Unwanted Emissions In Non-restricted Frequency Bands | Pass   |



## 1. Duty Cycle

### 1.1 Test Result

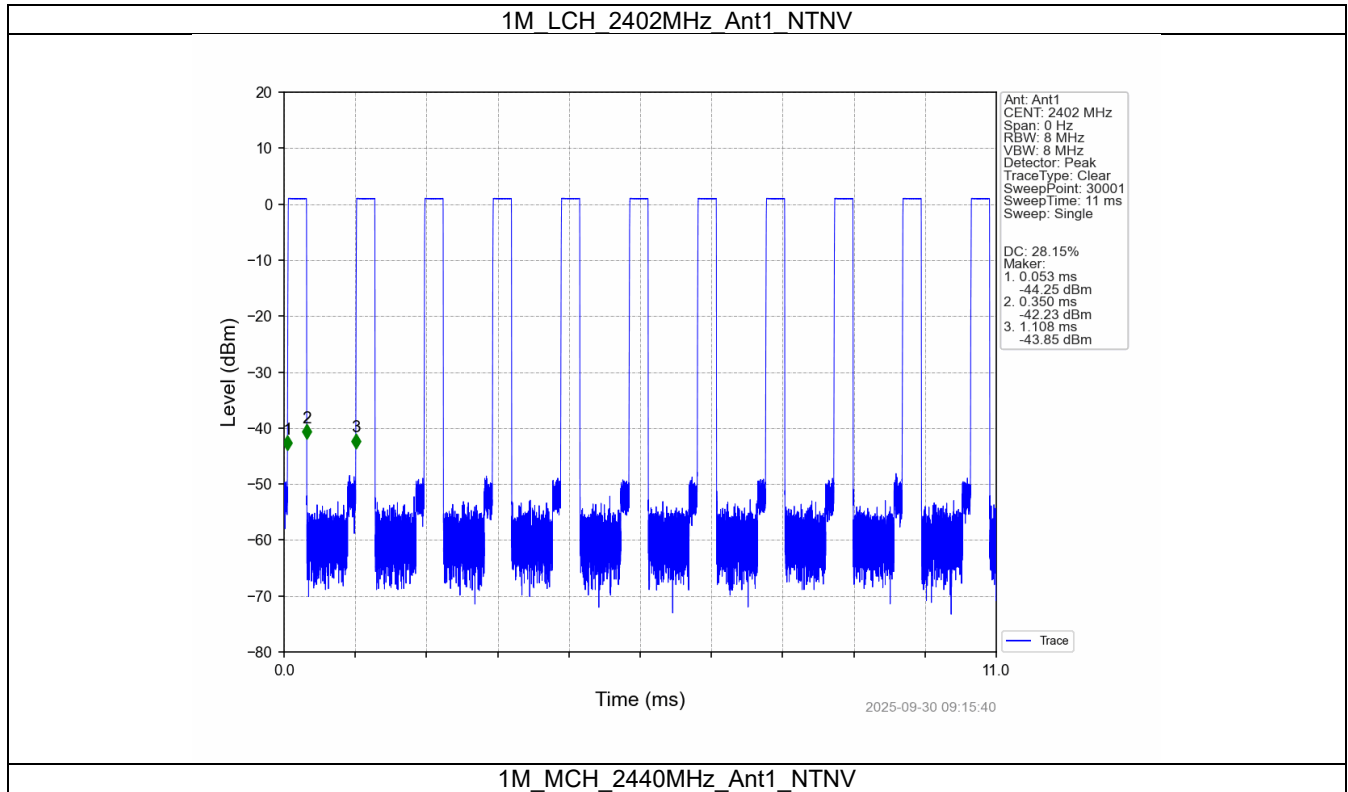
#### 1.1.1 Ant1

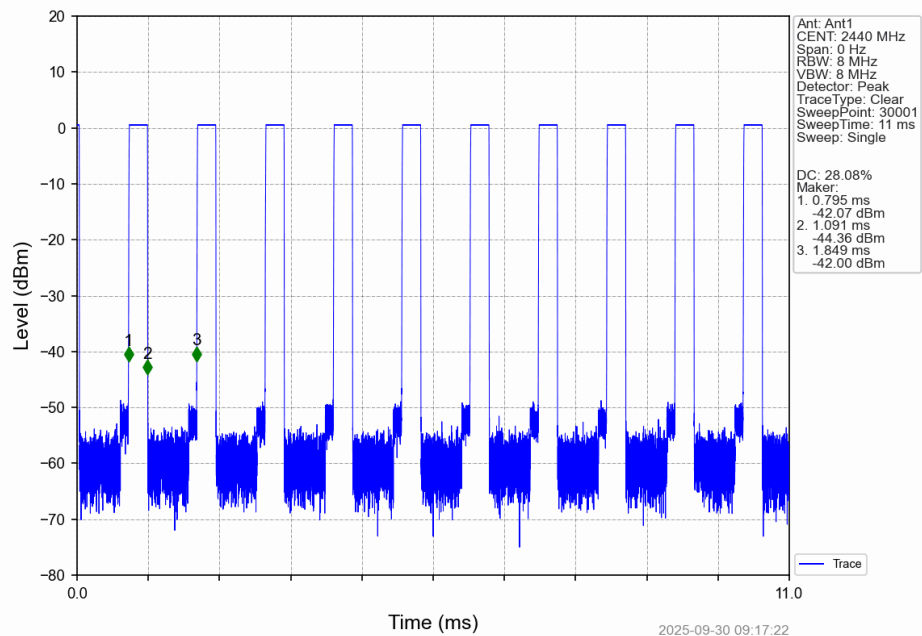
| Ant1 |         |                 |           |             |                |                                   |                       |
|------|---------|-----------------|-----------|-------------|----------------|-----------------------------------|-----------------------|
| Mode | TX Type | Frequency (MHz) | T_on (ms) | Period (ms) | Duty Cycle (%) | Duty Cycle Correction Factor (dB) | Max. DC Variation (%) |
| 1M   | SISO    | 2402            | 0.297     | 1.055       | 28.15          | 5.50                              | 0.00                  |
|      |         | 2440            | 0.296     | 1.054       | 28.08          | 5.52                              | 0.03                  |
|      |         | 2480            | 0.296     | 1.055       | 28.06          | 5.52                              | 0.05                  |

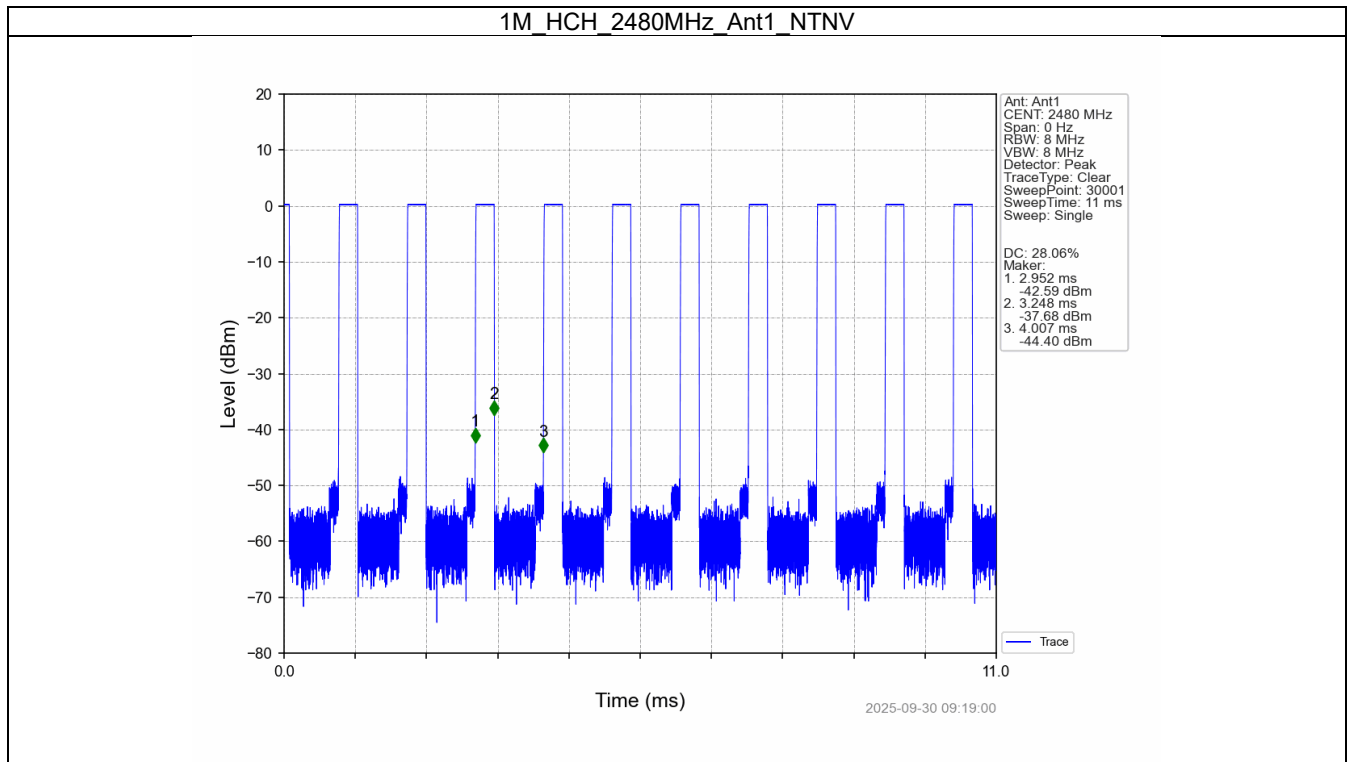


## 1.2 Test Graph

### 1.2.1 Ant1









## 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   | 1.157                        | /     | Pass    |
|      |         | 2440            | 1   | 1.161                        | /     | Pass    |
|      |         | 2480            | 1   | 1.156                        | /     | Pass    |

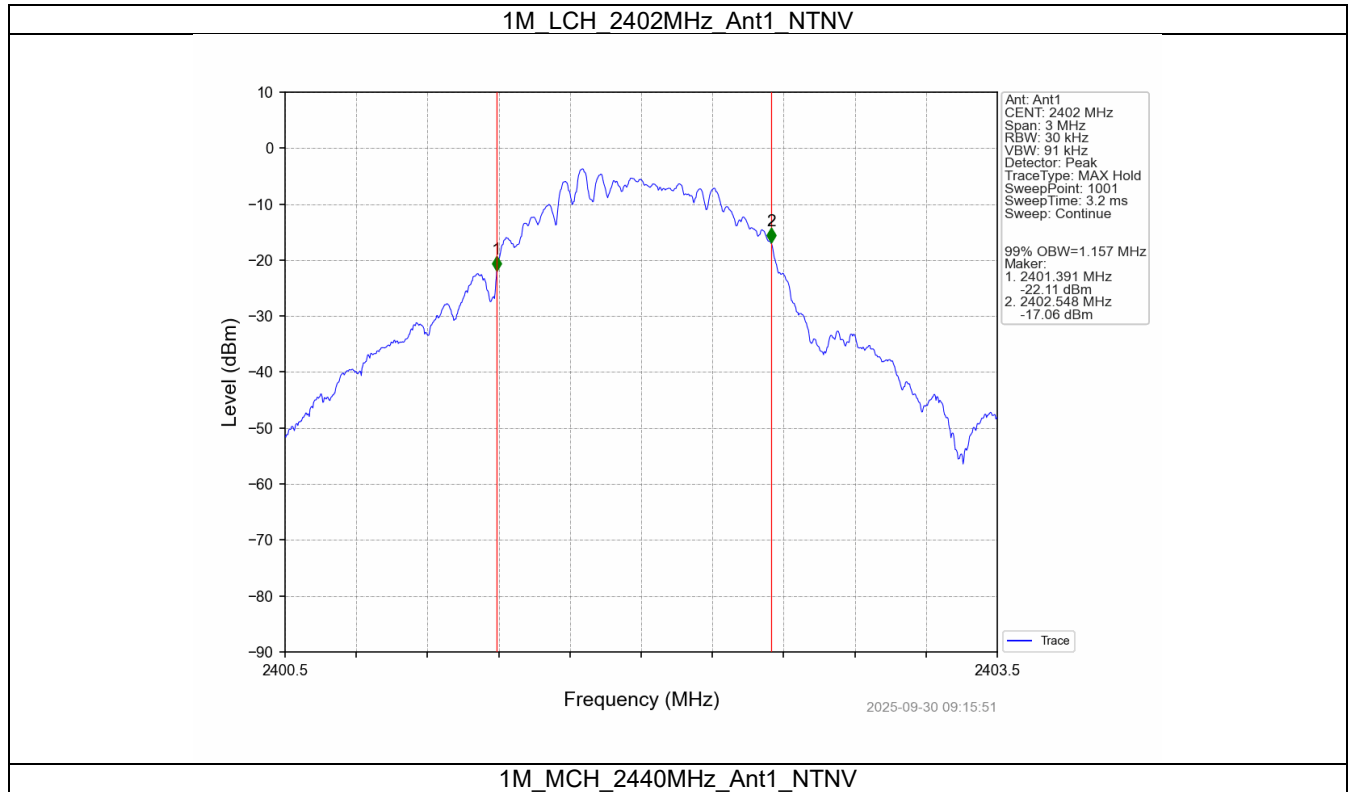
#### 2.1.2 6dB BW

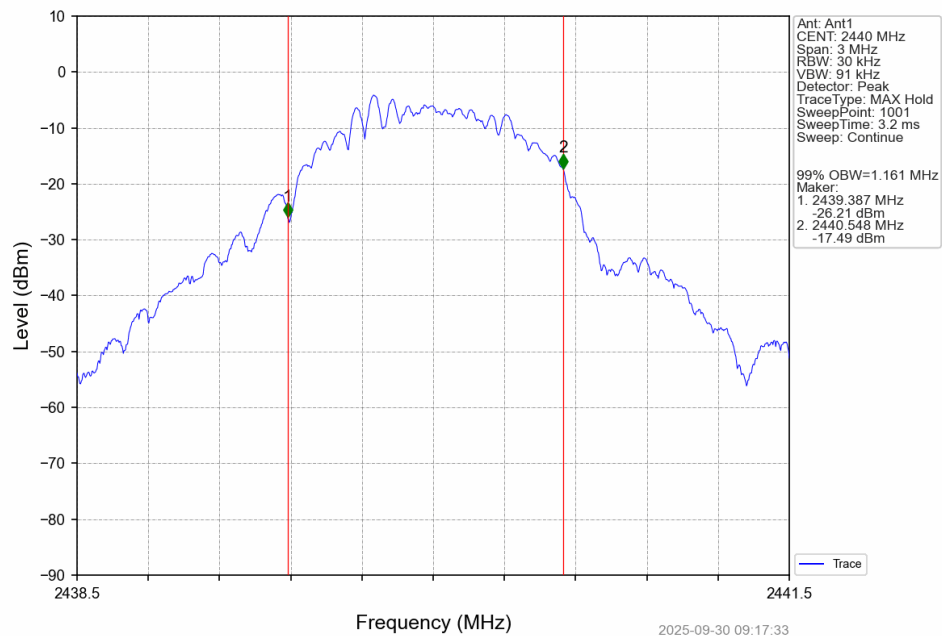
| Mode | TX Type | Frequency (MHz) | ANT | 6dB Bandwidth (MHz) |            | Verdict |
|------|---------|-----------------|-----|---------------------|------------|---------|
|      |         |                 |     | Result              | Limit      |         |
| 1M   | SISO    | 2402            | 1   | 0.770               | $\geq 0.5$ | Pass    |
|      |         | 2440            | 1   | 0.773               | $\geq 0.5$ | Pass    |
|      |         | 2480            | 1   | 0.785               | $\geq 0.5$ | Pass    |

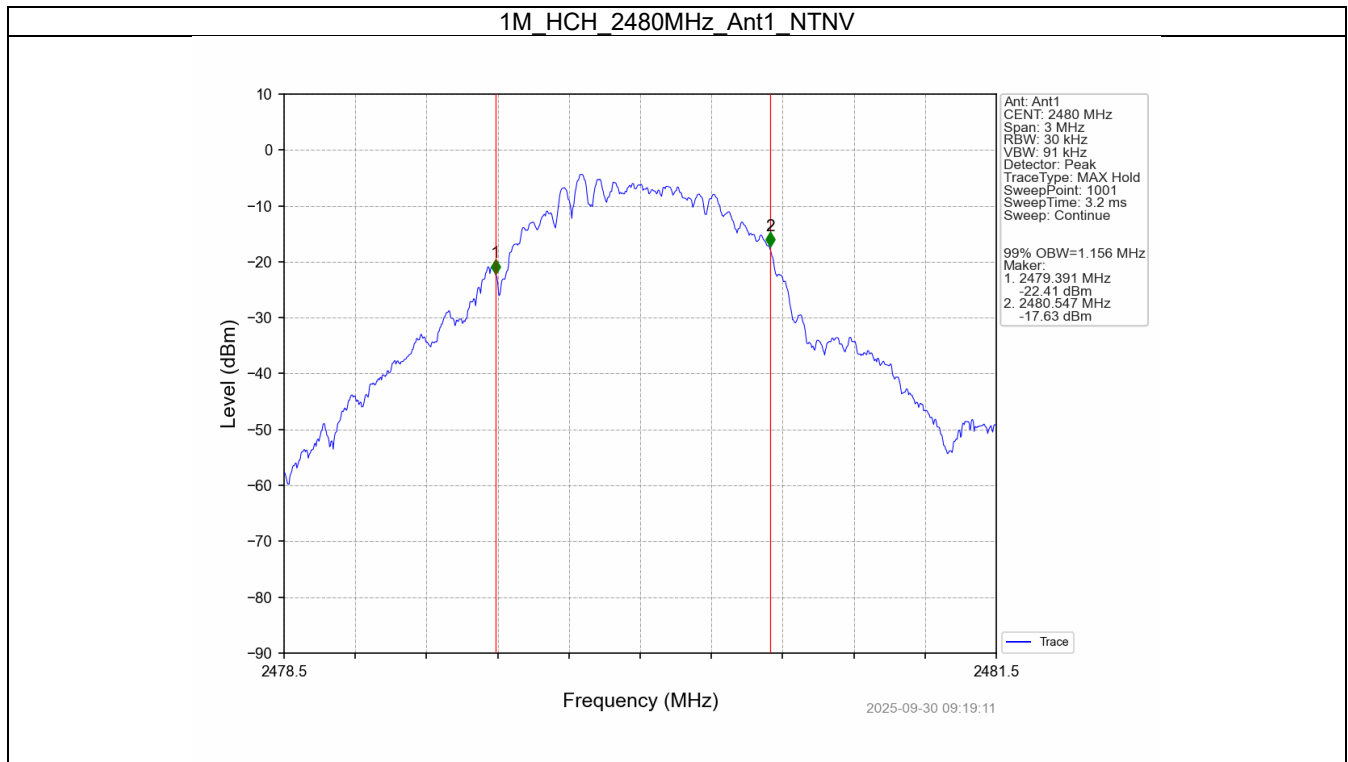


## 2.2 Test Graph

### 2.2.1 OBW

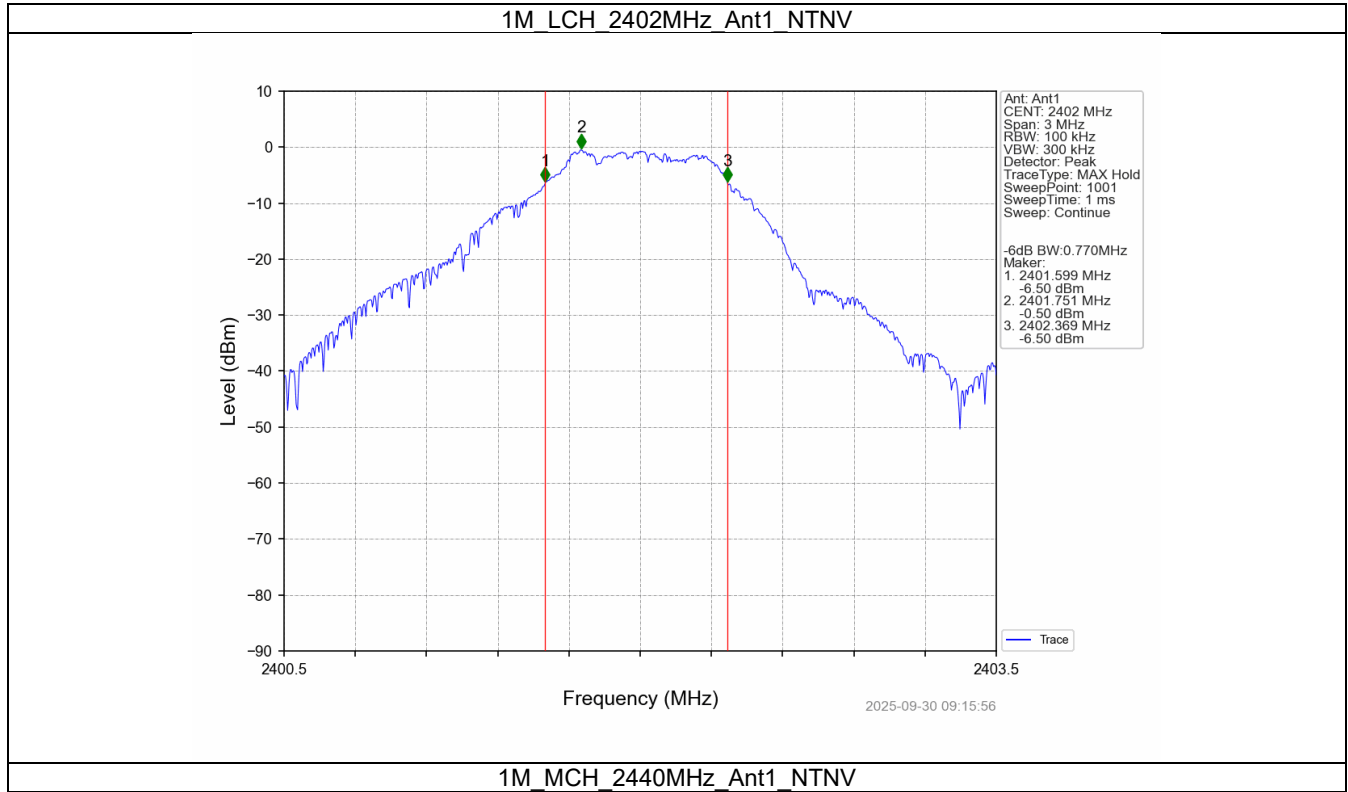


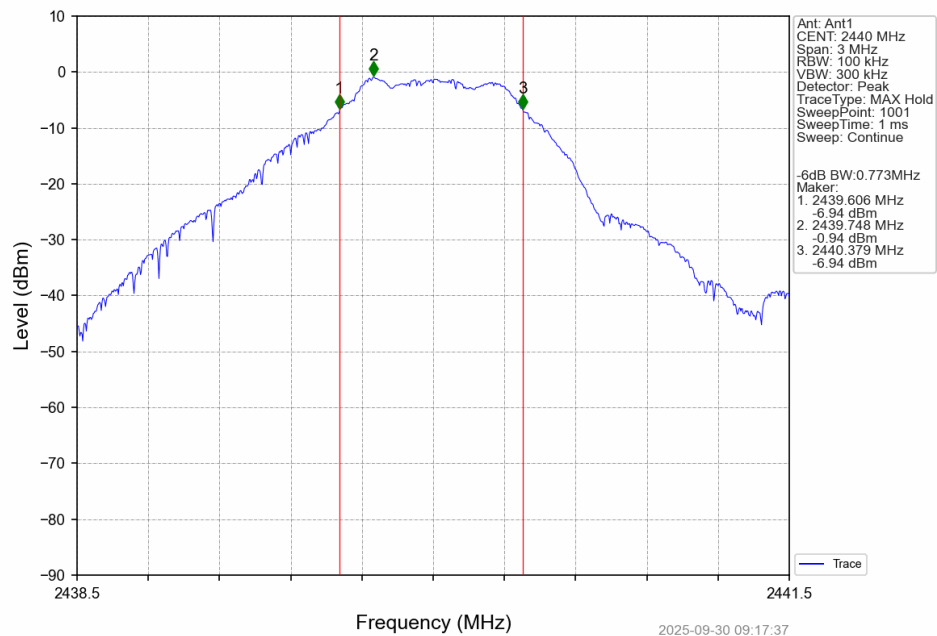


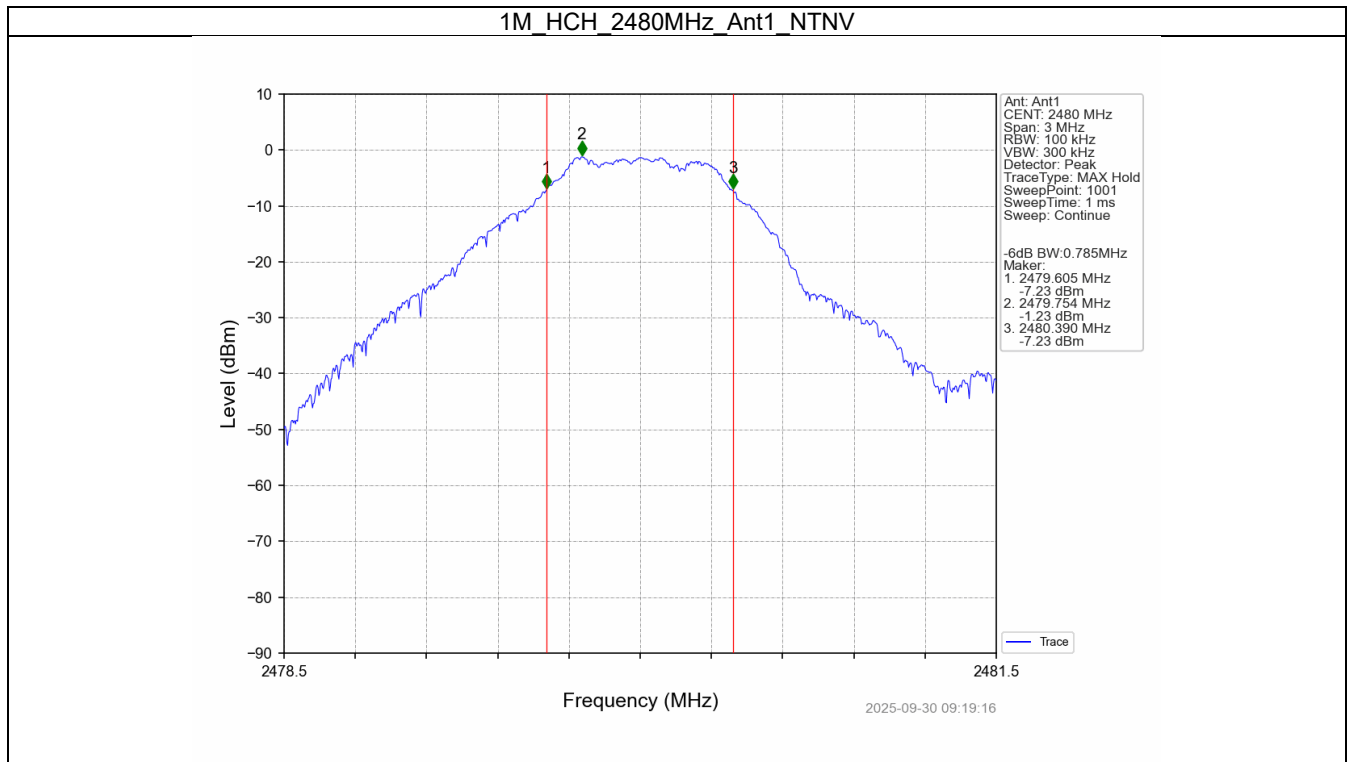




### 2.2.2 6dB BW









### 3. Maximum Conducted Output Power

#### 3.1 Test Result

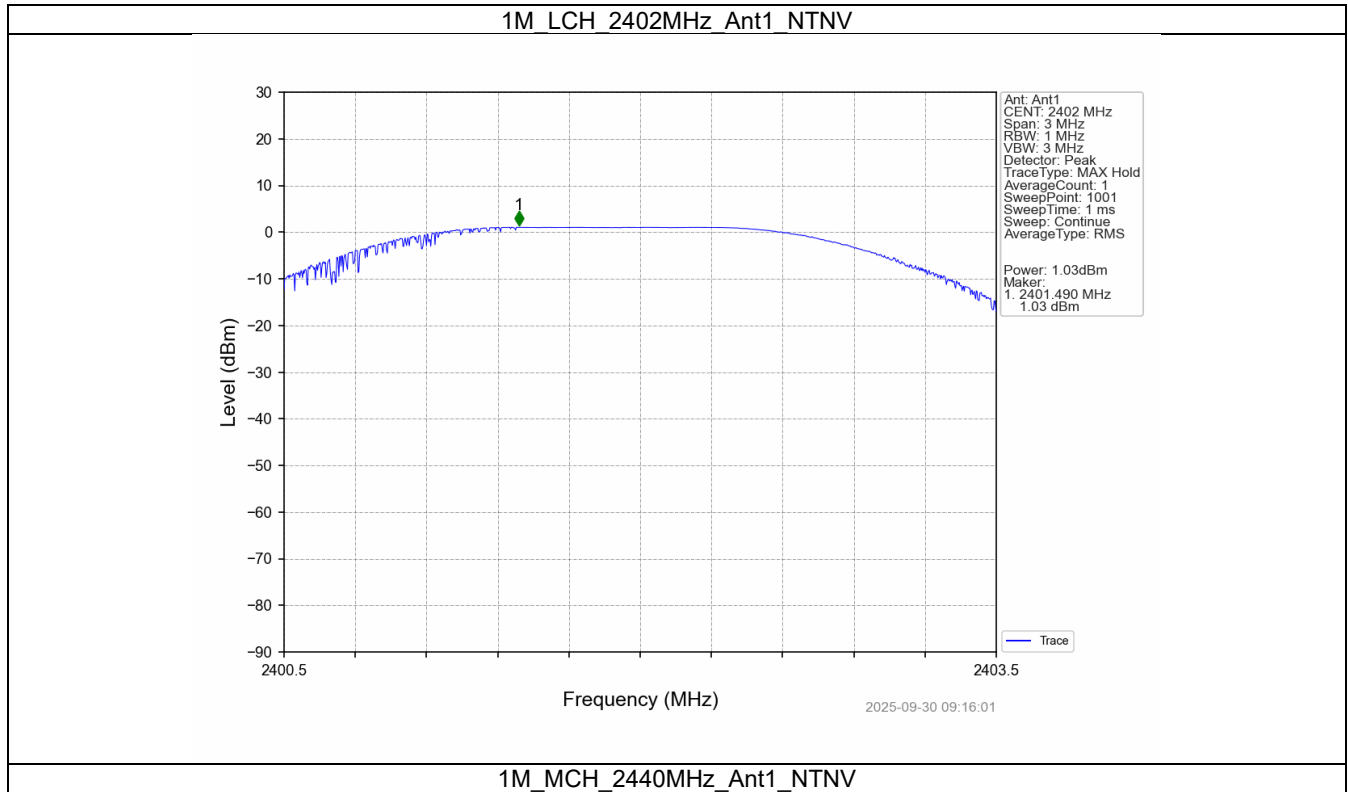
##### 3.1.1 Power

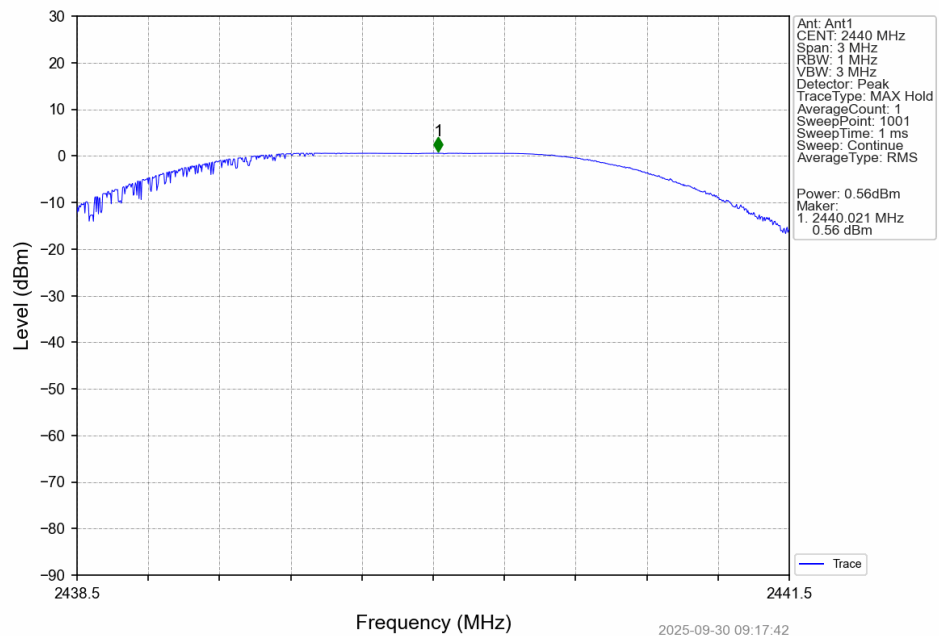
| Mode                                | TX Type | Frequency (MHz) | Maximum Peak Conducted Output Power (dBm) |       | Verdict |
|-------------------------------------|---------|-----------------|-------------------------------------------|-------|---------|
|                                     |         |                 | ANT1                                      | Limit |         |
| 1M                                  | SISO    | 2402            | 1.03                                      | <=30  | Pass    |
|                                     |         | 2440            | 0.56                                      | <=30  | Pass    |
|                                     |         | 2480            | 0.30                                      | <=30  | Pass    |
| Note1: Antenna Gain: Ant1: 0.00dBi; |         |                 |                                           |       |         |

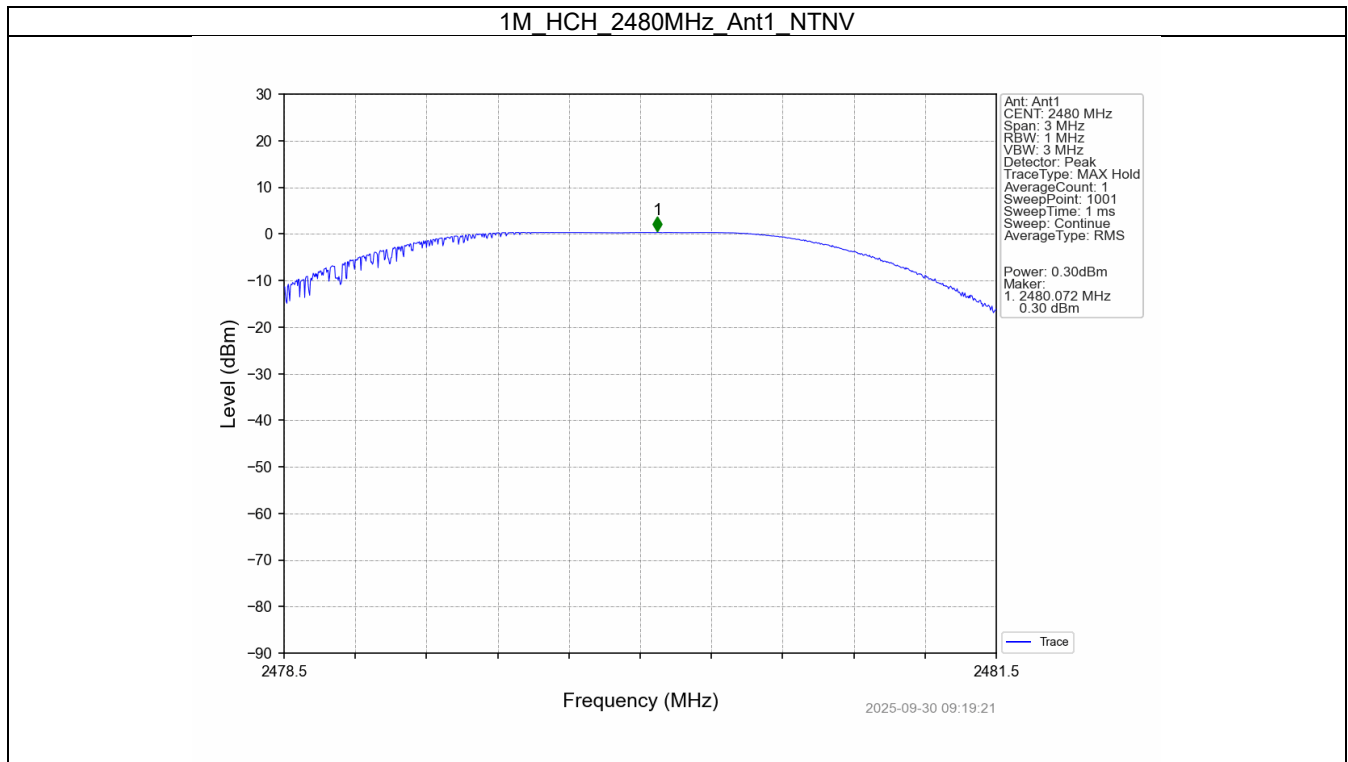


## 3.2 Test Graph

### 3.2.1 Power









## 4. Maximum Power Spectral Density

### 4.1 Test Result

#### 4.1.1 PSD

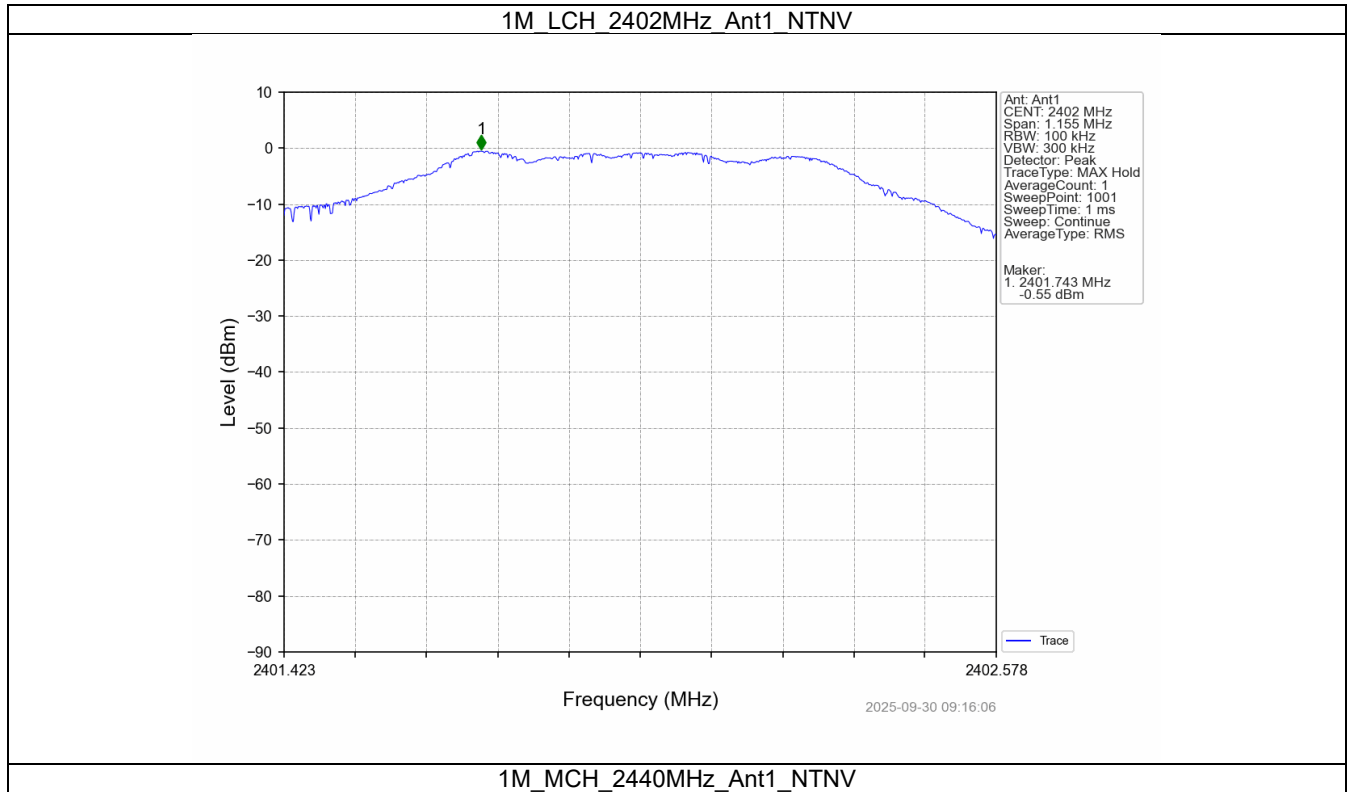
| Mode | TX Type | Frequency (MHz) | Maximum PSD (dBm) |       | Verdict |
|------|---------|-----------------|-------------------|-------|---------|
|      |         |                 | ANT1              | Limit |         |
| 1M   | SISO    | 2402            | -0.55             | <=8   | Pass    |
|      |         | 2440            | -0.99             | <=8   | Pass    |
|      |         | 2480            | -1.26             | <=8   | Pass    |

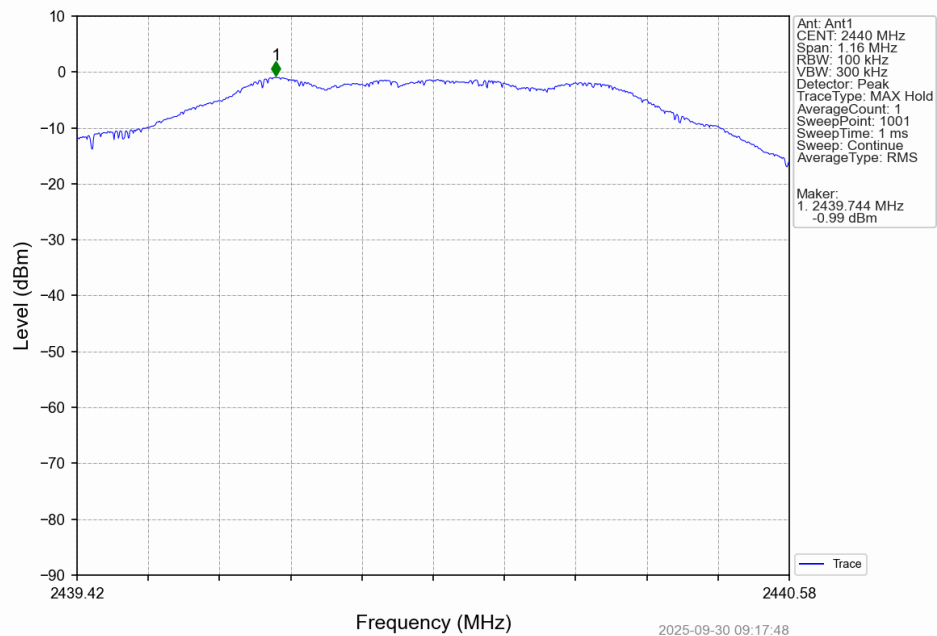
Note1: Antenna Gain: Ant1: 0.00dBi;

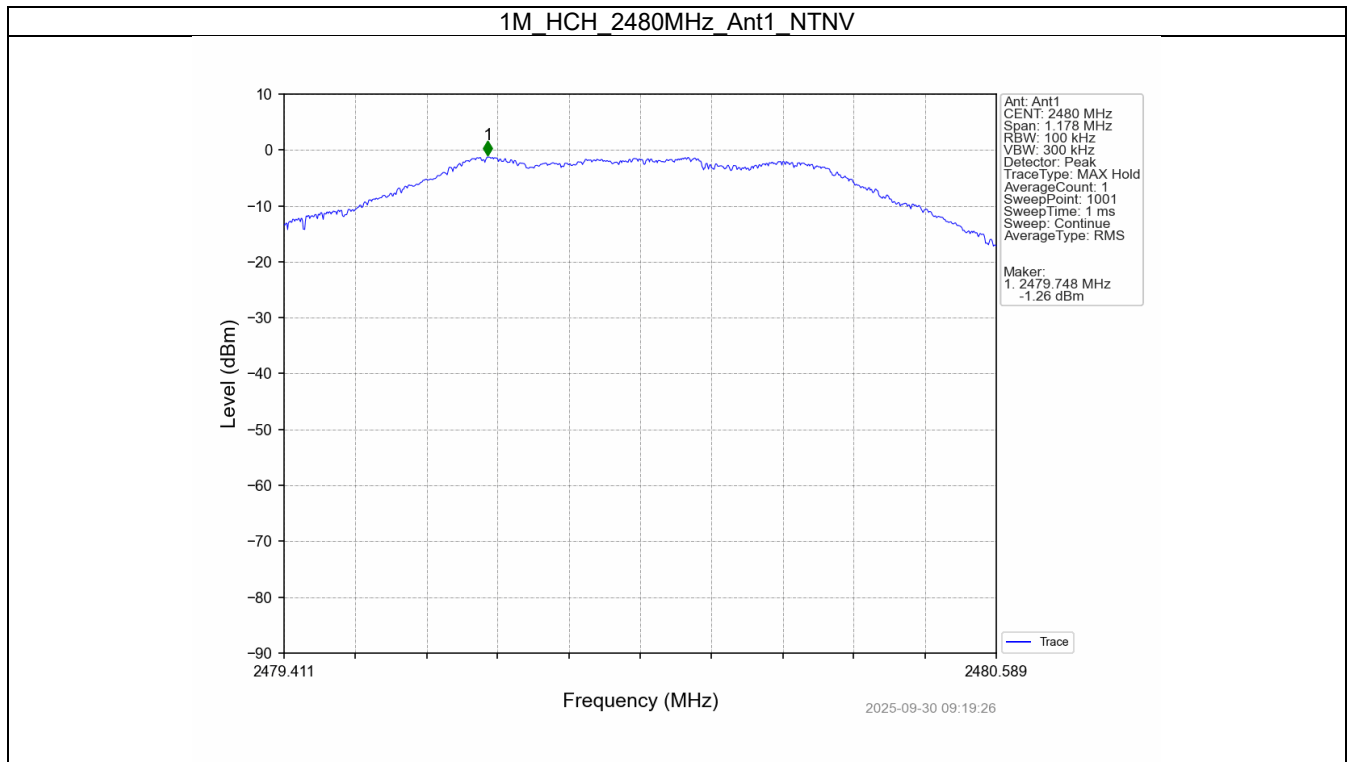


## 4.2 Test Graph

### 4.2.1 PSD









## 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   | -0.55                    |
|                                                                                                                                                 |         | 2440            | 1   | -1.00                    |
|                                                                                                                                                 |         | 2480            | 1   | -1.29                    |
| Note1: Refer to FCC Part 15.247 (d) and ANSI C63.10-2013, the channel contains the maximum PSD level was used to establish the reference level. |         |                 |     |                          |

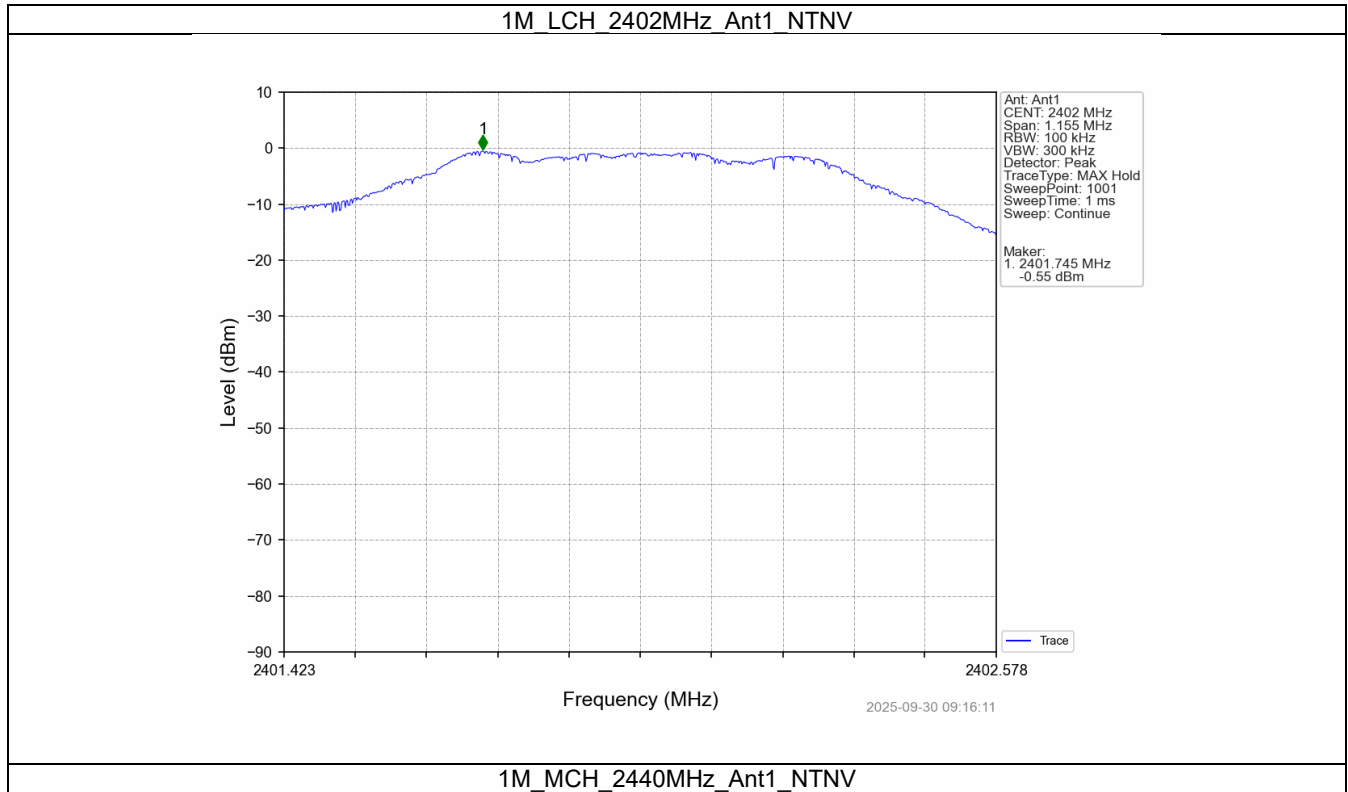
#### 5.1.2 CSE

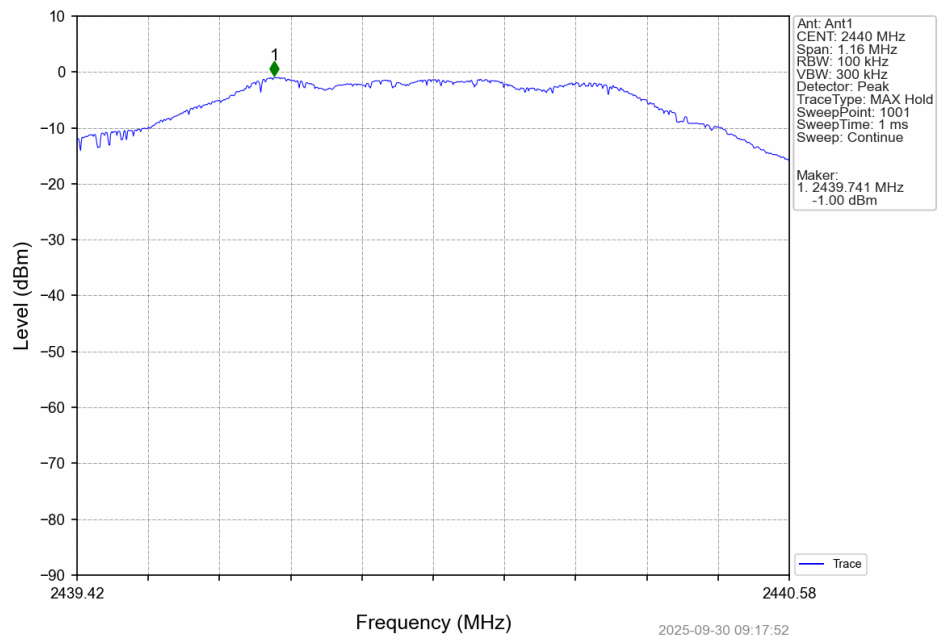
| Mode                                                                                                                                            | TX Type | Frequency (MHz) | ANT | Level of Reference (dBm) | Limit (dBm) | Verdict |
|-------------------------------------------------------------------------------------------------------------------------------------------------|---------|-----------------|-----|--------------------------|-------------|---------|
| 1M                                                                                                                                              | SISO    | 2402            | 1   | -0.55                    | -20.55      | Pass    |
|                                                                                                                                                 |         | 2440            | 1   | -0.55                    | -20.55      | Pass    |
|                                                                                                                                                 |         | 2480            | 1   | -0.55                    | -20.55      | Pass    |
| Note1: Refer to FCC Part 15.247 (d) and ANSI C63.10-2013, the channel contains the maximum PSD level was used to establish the reference level. |         |                 |     |                          |             |         |

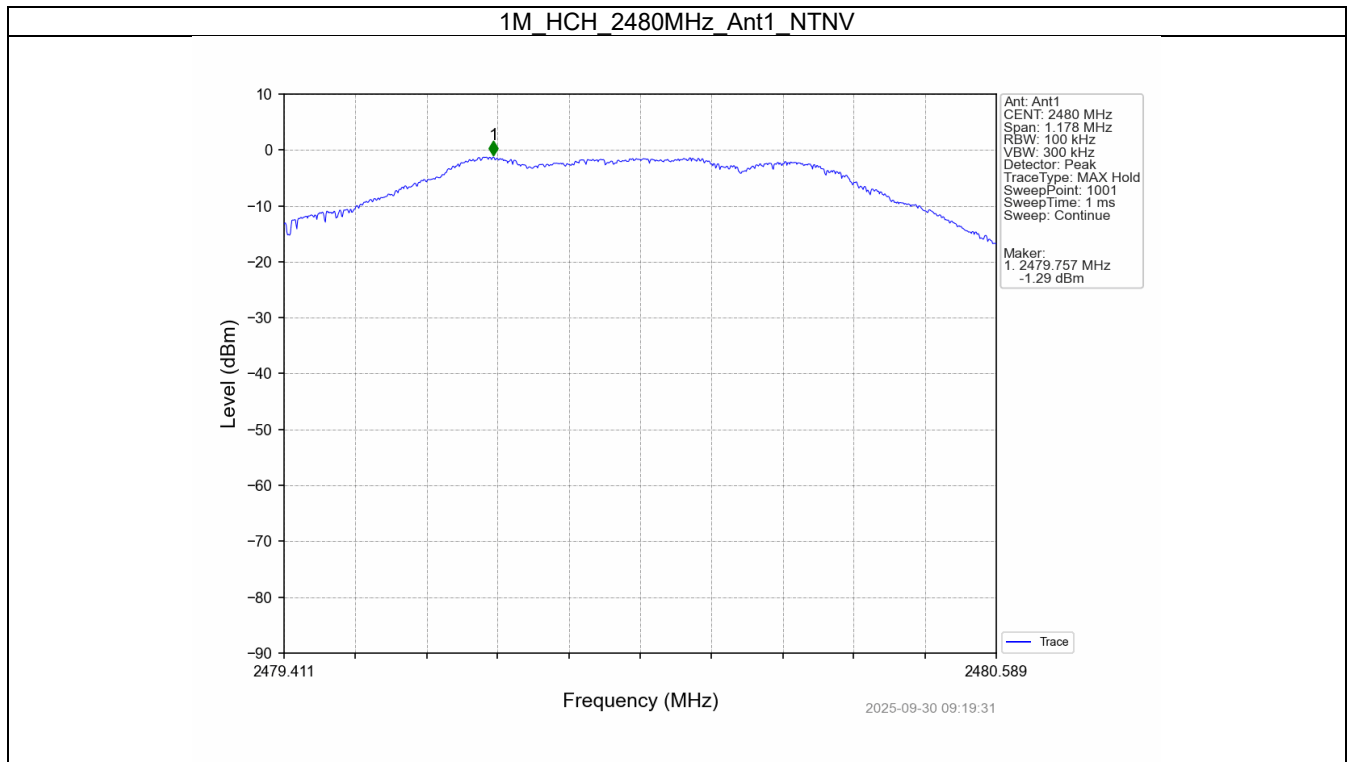


## 5.2 Test Graph

### 5.2.1 Ref









### 5.2.2 CSE

