

## 1. Duty Cycle

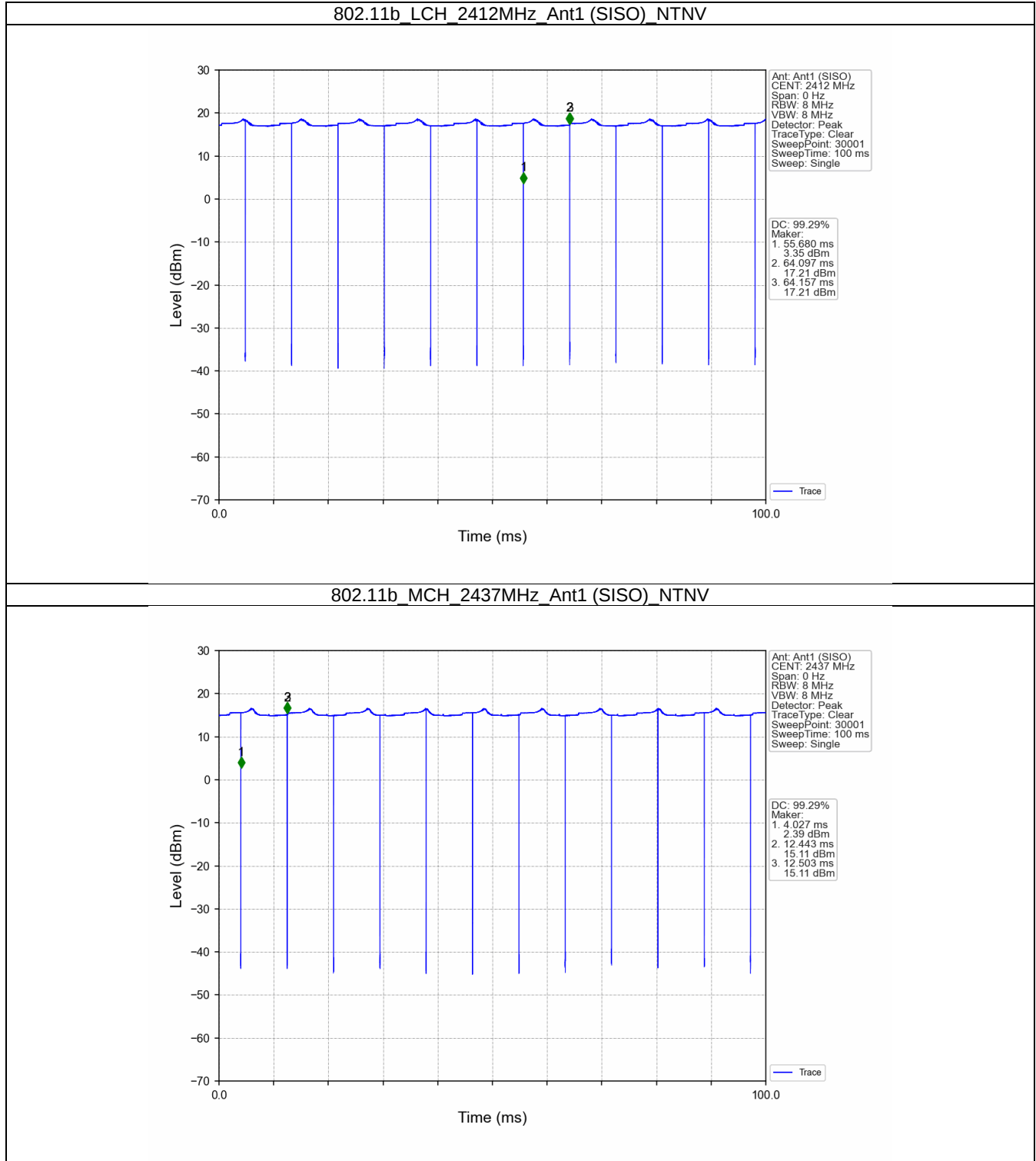
### 1.1 Test Result

#### 1.1.1 Ant1

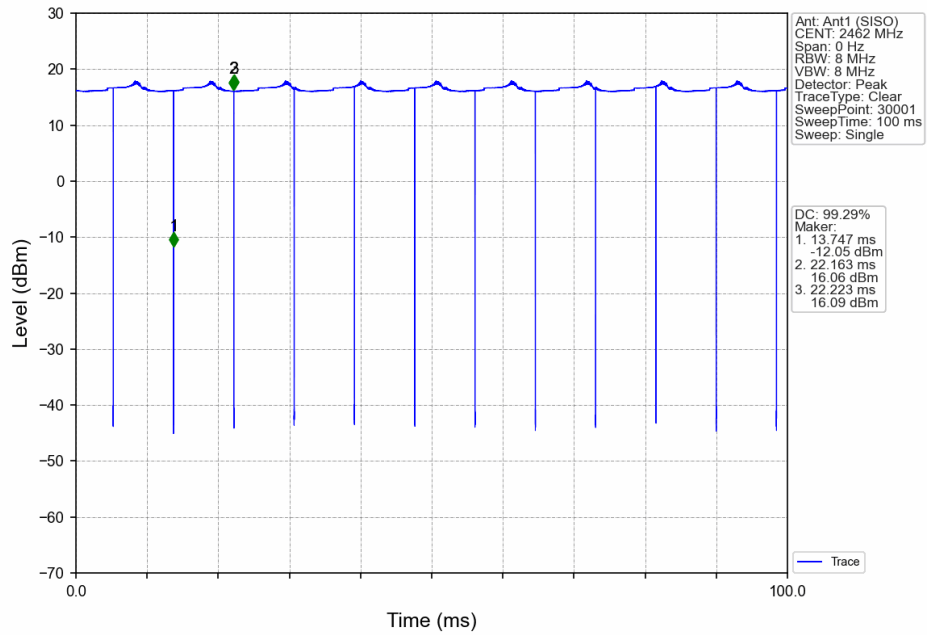
| Ant1           |         |                 |           |             |                |                                   |                       |
|----------------|---------|-----------------|-----------|-------------|----------------|-----------------------------------|-----------------------|
| Mode           | TX Type | Frequency (MHz) | T_on (ms) | Period (ms) | Duty Cycle (%) | Duty Cycle Correction Factor (dB) | Max. DC Variation (%) |
| 802.11b        | SISO    | 2412            | 8.417     | 8.477       | 99.29          | 0.03                              | 0.04                  |
|                |         | 2437            | 8.416     | 8.476       | 99.29          | 0.03                              | 0.04                  |
|                |         | 2462            | 8.416     | 8.476       | 99.29          | 0.03                              | 0.04                  |
| 802.11g        | SISO    | 2412            | 1.397     | 1.460       | 95.68          | 0.19                              | 0.03                  |
|                |         | 2437            | 1.397     | 1.460       | 95.68          | 0.19                              | 0.03                  |
|                |         | 2462            | 1.396     | 1.459       | 95.68          | 0.19                              | 0.03                  |
| 802.11n (HT20) | SISO    | 2412            | 1.181     | 1.244       | 94.94          | 0.23                              | 0.73                  |
|                |         | 2437            | 1.181     | 1.244       | 94.94          | 0.23                              | 0.03                  |
|                |         | 2462            | 1.181     | 1.244       | 94.94          | 0.23                              | 0.03                  |
| 802.11n (HT40) | SISO    | 2422            | 0.587     | 0.649       | 90.45          | 0.44                              | 0.04                  |
|                |         | 2437            | 0.588     | 0.650       | 90.46          | 0.44                              | 0.04                  |
|                |         | 2452            | 0.588     | 0.650       | 90.46          | 0.44                              | 0.03                  |

## 1.2 Test Graph

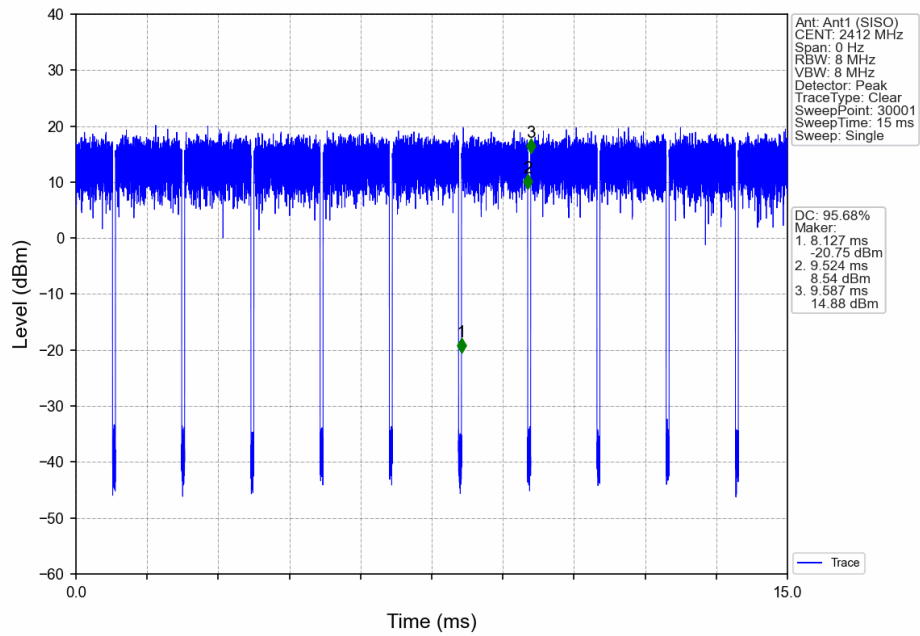
### 1.2.1 Ant1



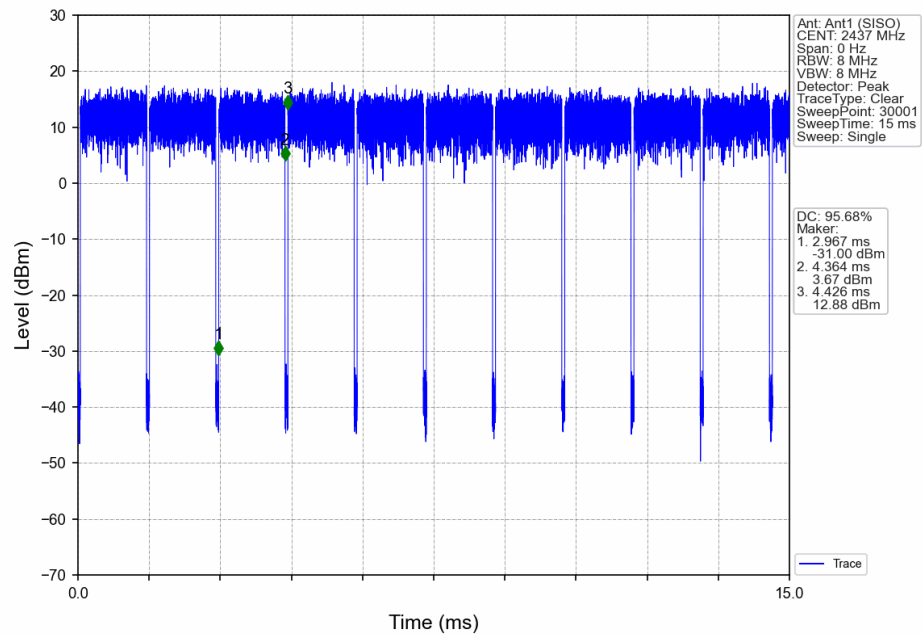
## 802.11b\_HCH\_2462MHz\_Ant1 (SISO)\_NTNV



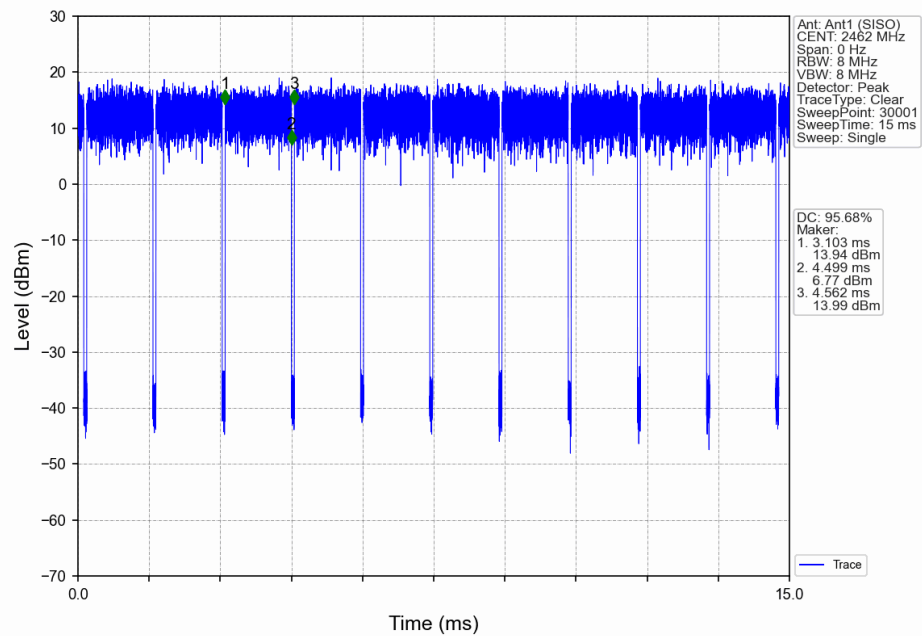
## 802.11g\_LCH\_2412MHz\_Ant1 (SISO)\_NTNV



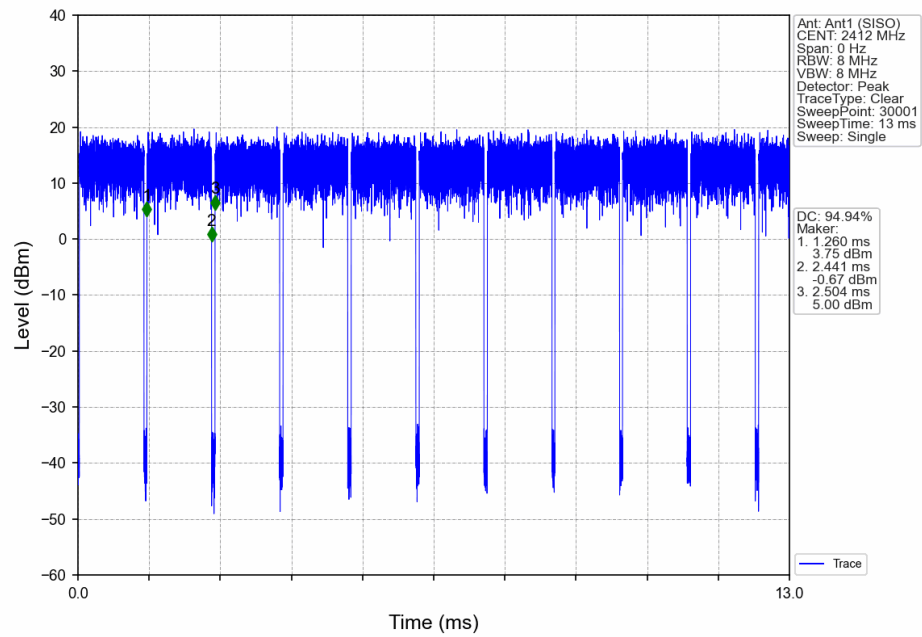
802.11g\_MCH\_2437MHz\_Ant1 (SISO)\_NTNV



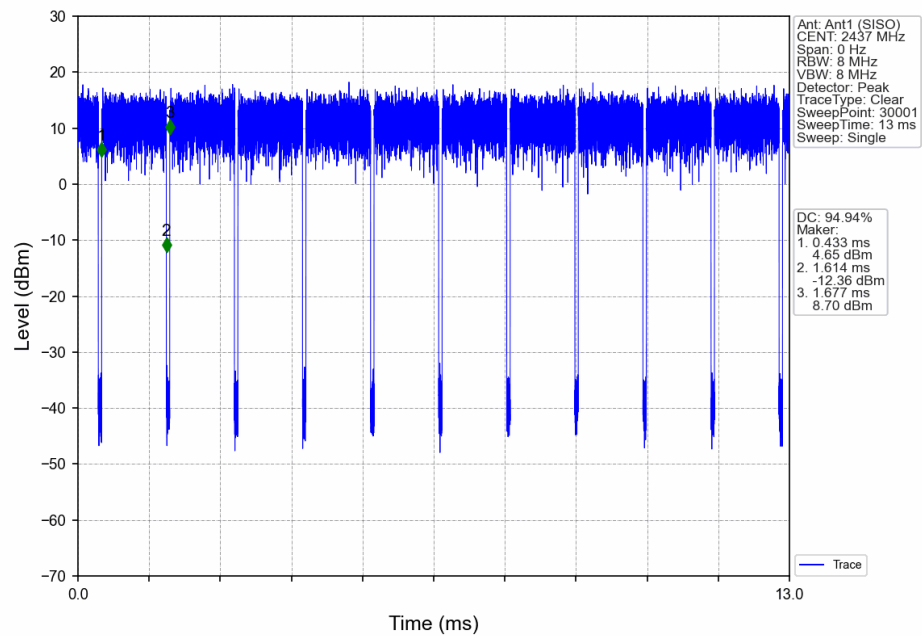
802.11g\_HCH\_2462MHz\_Ant1 (SISO)\_NTNV



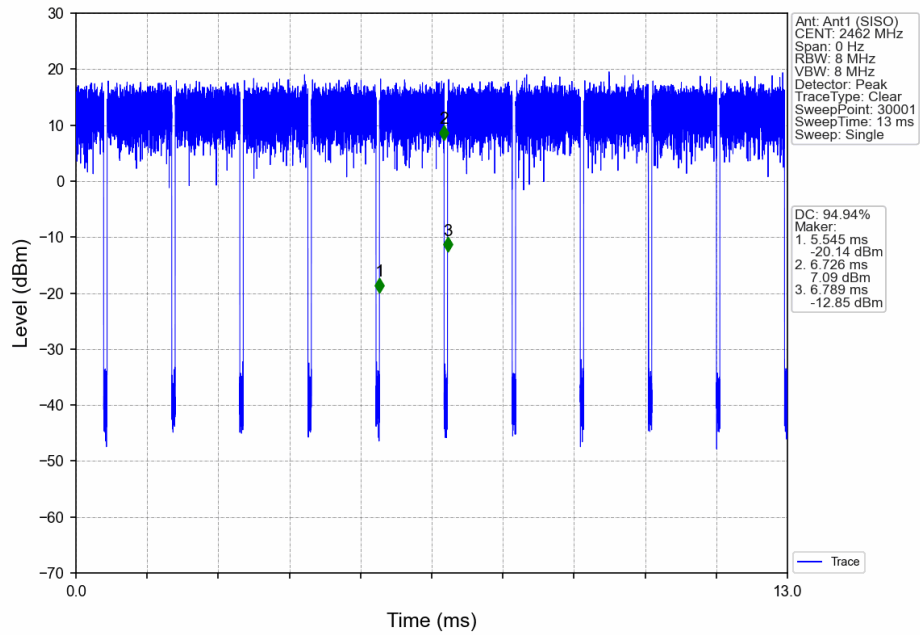
802.11n(HT20)\_LCH\_2412MHz\_Ant1 (SISO)\_NTNV



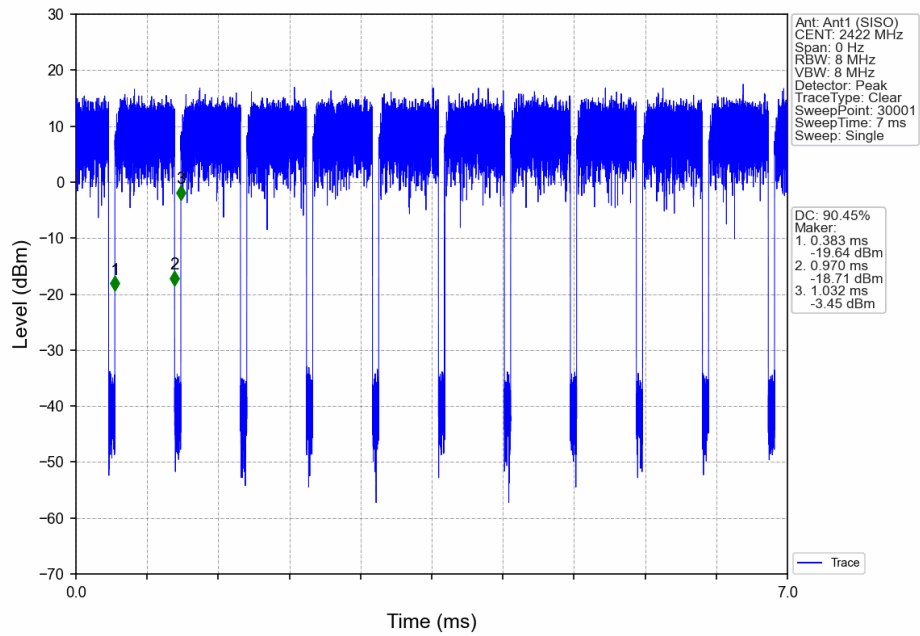
802.11n(HT20)\_MCH\_2437MHz\_Ant1 (SISO)\_NTNV



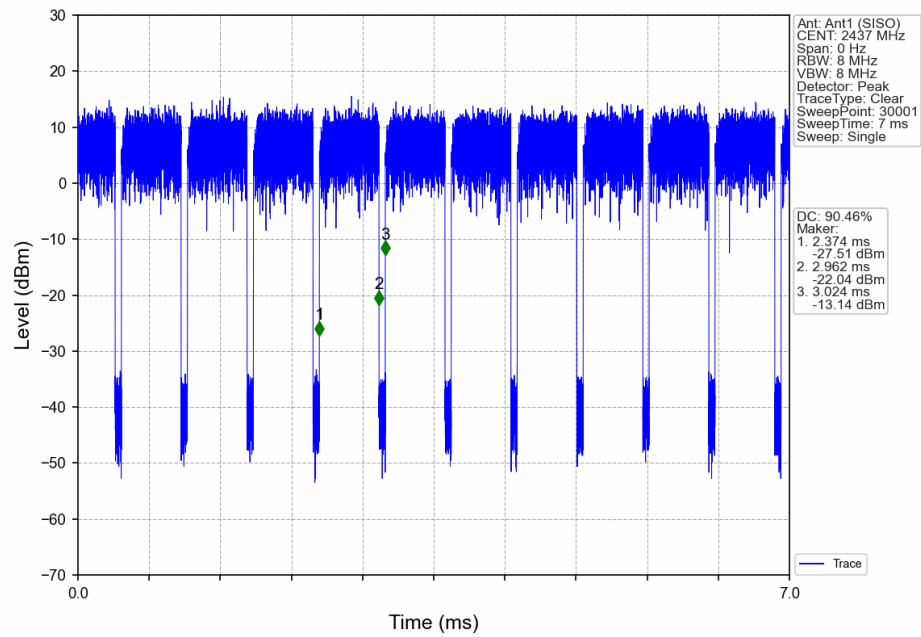
## 802.11n(HT20)\_HCH\_2462MHz\_Ant1 (SISO)\_NTNV



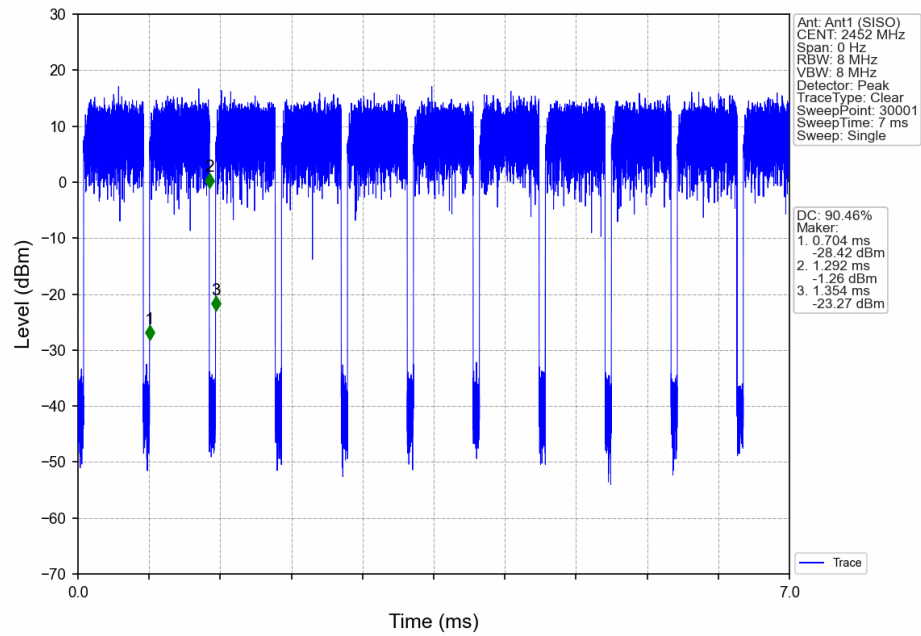
## 802.11n(HT40)\_LCH\_2422MHz\_Ant1 (SISO)\_NTNV



802.11n(HT40)\_MCH\_2437MHz\_Ant1 (SISO)\_NTNV



802.11n(HT40)\_HCH\_2452MHz\_Ant1 (SISO)\_NTNV



## 2. Bandwidth

### 2.1 Test Result

#### 2.1.1 OBW

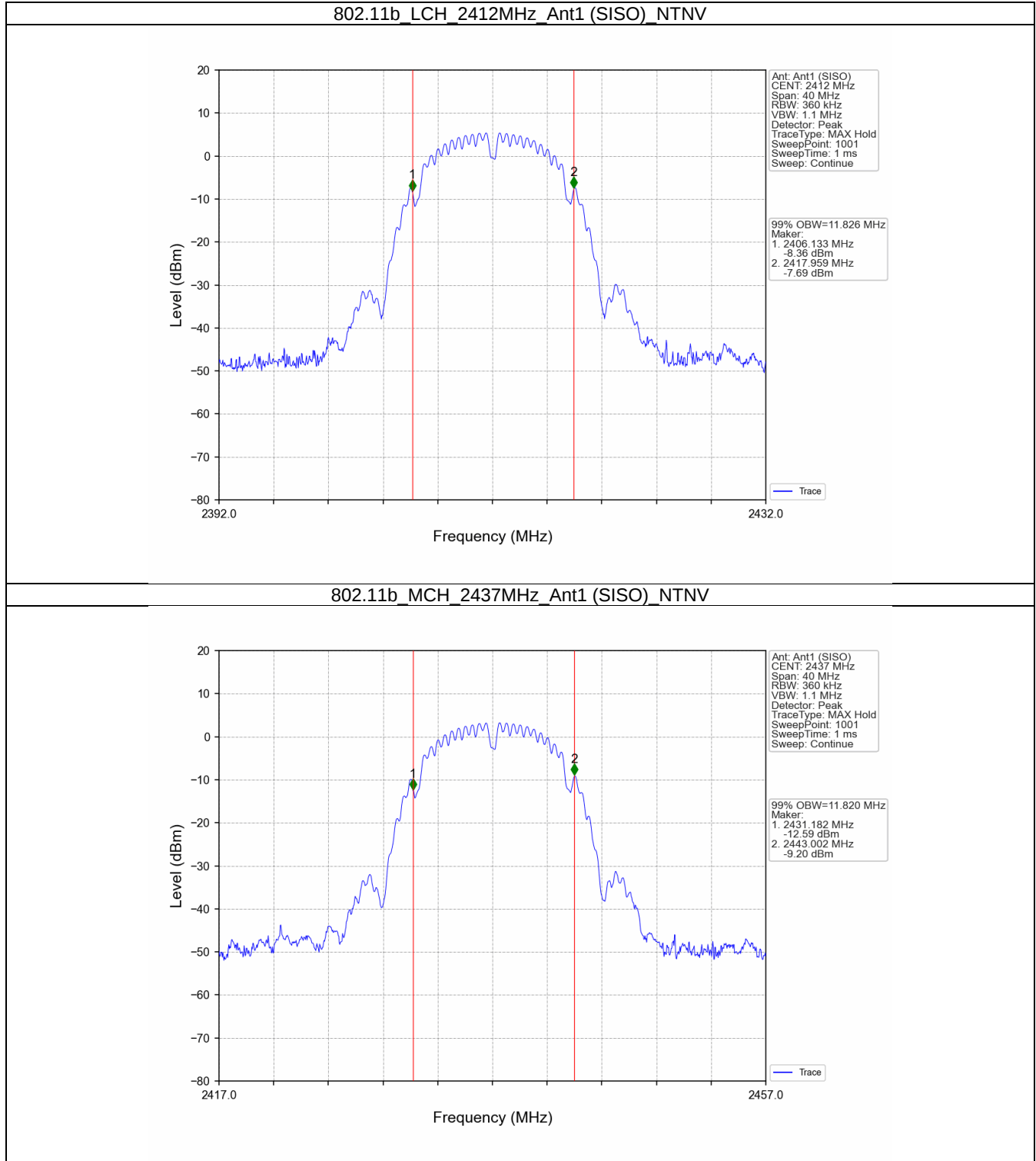
| Mode           | TX Type | Frequency (MHz) | ANT | 99% Occupied Bandwidth (MHz) |       | Verdict |
|----------------|---------|-----------------|-----|------------------------------|-------|---------|
|                |         |                 |     | Result                       | Limit |         |
| 802.11b        | SISO    | 2412            | 1   | 11.826                       | /     | Pass    |
|                |         | 2437            | 1   | 11.820                       | /     | Pass    |
|                |         | 2462            | 1   | 11.751                       | /     | Pass    |
| 802.11g        | SISO    | 2412            | 1   | 17.539                       | /     | Pass    |
|                |         | 2437            | 1   | 17.641                       | /     | Pass    |
|                |         | 2462            | 1   | 17.670                       | /     | Pass    |
| 802.11n (HT20) | SISO    | 2412            | 1   | 18.094                       | /     | Pass    |
|                |         | 2437            | 1   | 18.170                       | /     | Pass    |
|                |         | 2462            | 1   | 18.215                       | /     | Pass    |
| 802.11n (HT40) | SISO    | 2422            | 1   | 36.775                       | /     | Pass    |
|                |         | 2437            | 1   | 36.817                       | /     | Pass    |
|                |         | 2452            | 1   | 36.515                       | /     | Pass    |

#### 2.1.2 6dB BW

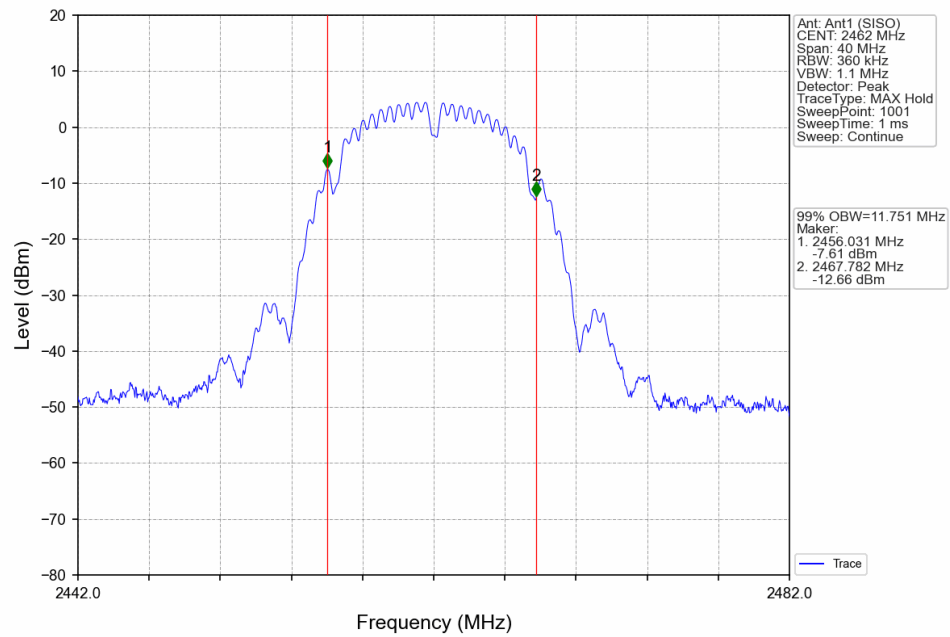
| Mode           | TX Type | Frequency (MHz) | ANT | 6dB Bandwidth (MHz) |            | Verdict |
|----------------|---------|-----------------|-----|---------------------|------------|---------|
|                |         |                 |     | Result              | Limit      |         |
| 802.11b        | SISO    | 2412            | 1   | 8.613               | $\geq 0.5$ | Pass    |
|                |         | 2437            | 1   | 8.617               | $\geq 0.5$ | Pass    |
|                |         | 2462            | 1   | 8.619               | $\geq 0.5$ | Pass    |
| 802.11g        | SISO    | 2412            | 1   | 16.355              | $\geq 0.5$ | Pass    |
|                |         | 2437            | 1   | 16.349              | $\geq 0.5$ | Pass    |
|                |         | 2462            | 1   | 16.108              | $\geq 0.5$ | Pass    |
| 802.11n (HT20) | SISO    | 2412            | 1   | 17.294              | $\geq 0.5$ | Pass    |
|                |         | 2437            | 1   | 17.270              | $\geq 0.5$ | Pass    |
|                |         | 2462            | 1   | 17.128              | $\geq 0.5$ | Pass    |
| 802.11n (HT40) | SISO    | 2422            | 1   | 35.677              | $\geq 0.5$ | Pass    |
|                |         | 2437            | 1   | 35.857              | $\geq 0.5$ | Pass    |
|                |         | 2452            | 1   | 35.565              | $\geq 0.5$ | Pass    |

## 2.2 Test Graph

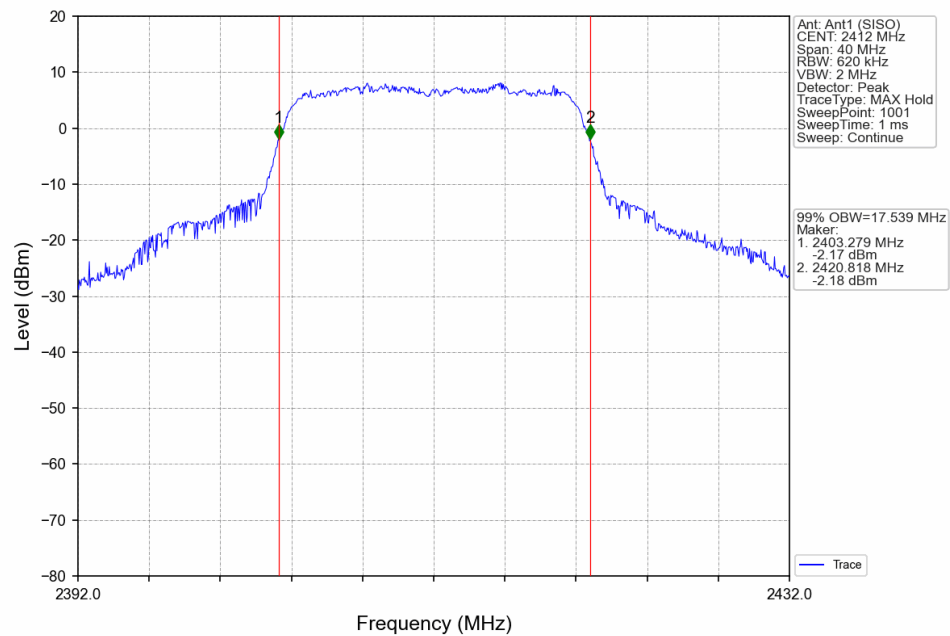
### 2.2.1 OBW



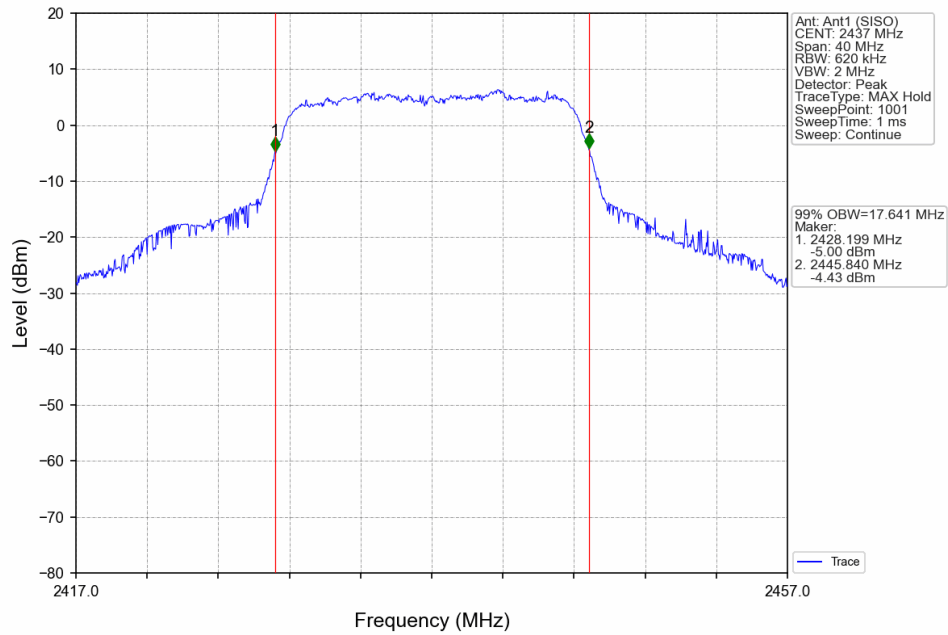
## 802.11b\_HCH\_2462MHz\_Ant1 (SISO)\_NTNV



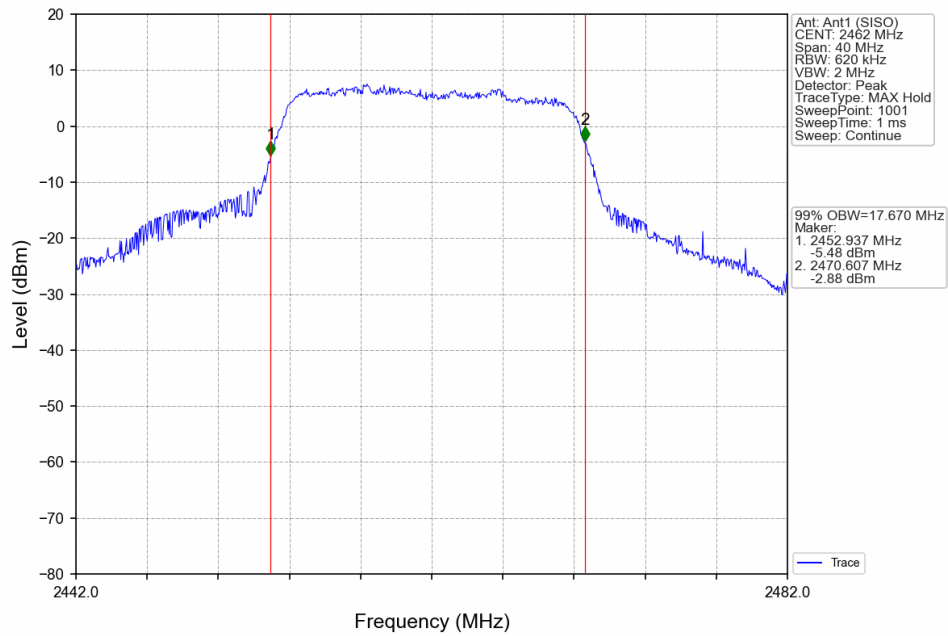
## 802.11g\_LCH\_2412MHz\_Ant1 (SISO)\_NTNV



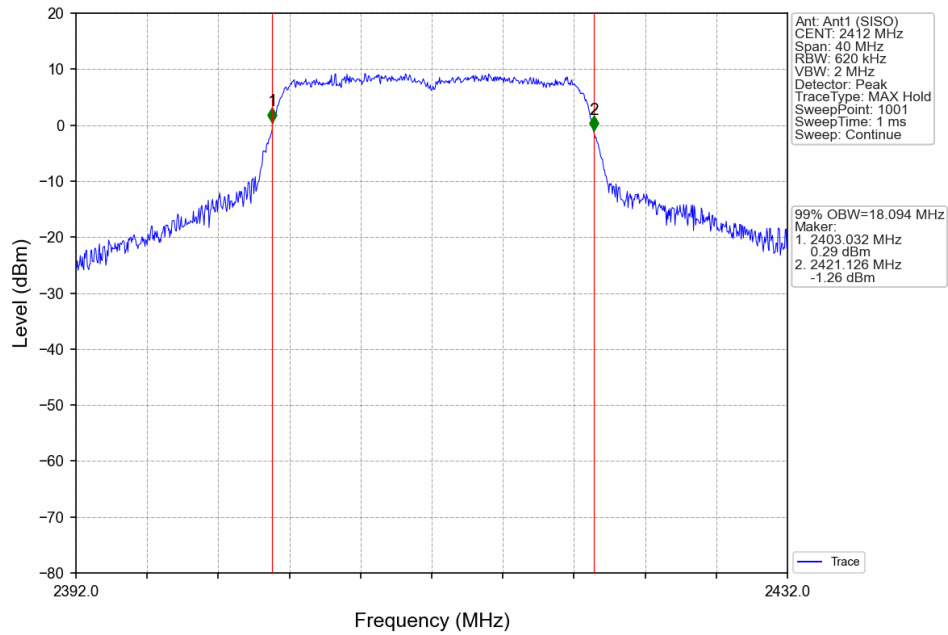
802.11g\_MCH\_2437MHz\_Ant1 (SISO)\_NTNV



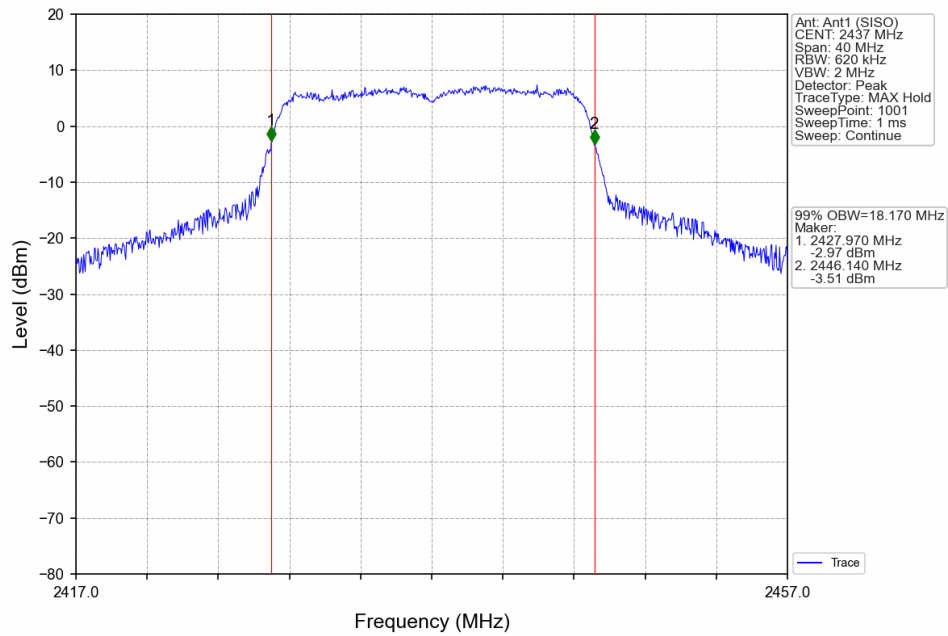
802.11g\_HCH\_2462MHz\_Ant1 (SISO)\_NTNV



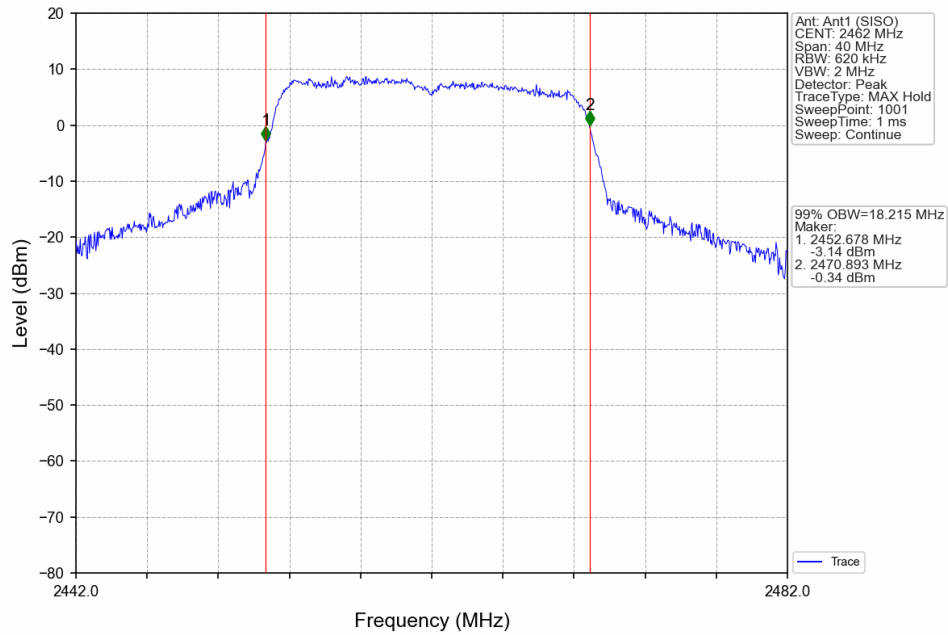
802.11n(HT20)\_LCH\_2412MHz\_Ant1 (SISO)\_NTNV



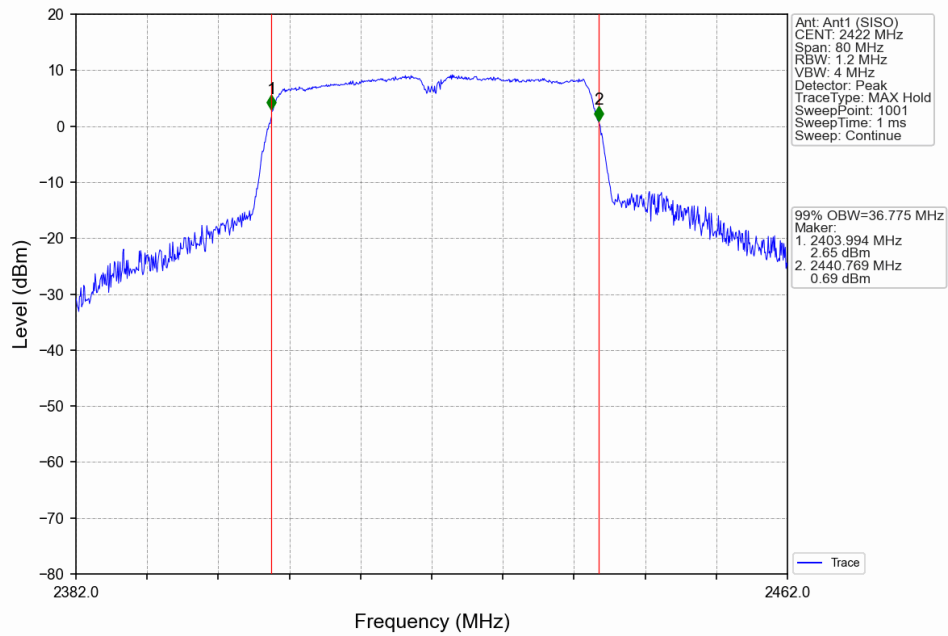
802.11n(HT20)\_MCH\_2437MHz\_Ant1 (SISO)\_NTNV



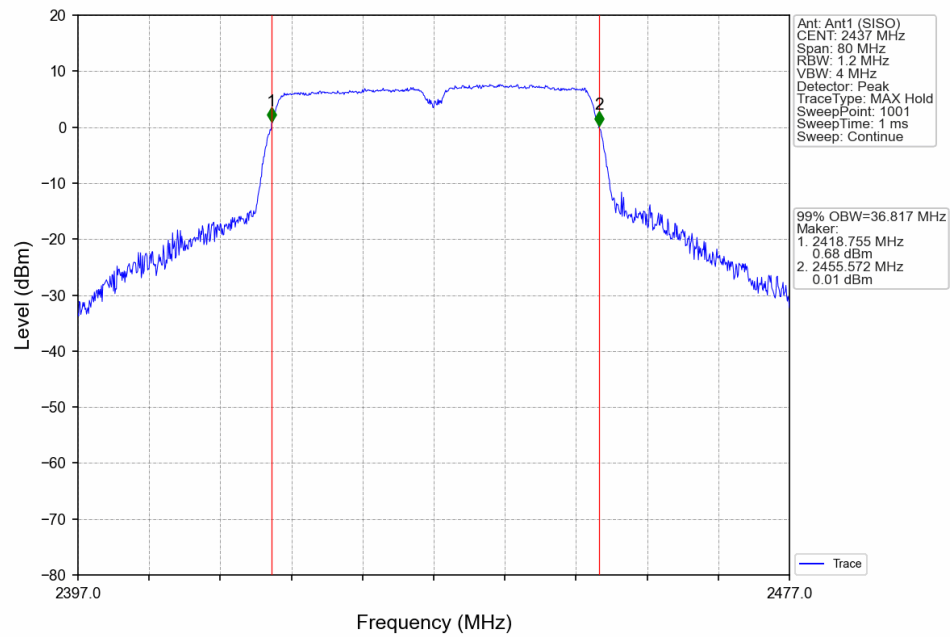
802.11n(HT20)\_HCH\_2462MHz\_Ant1 (SISO)\_NTNV



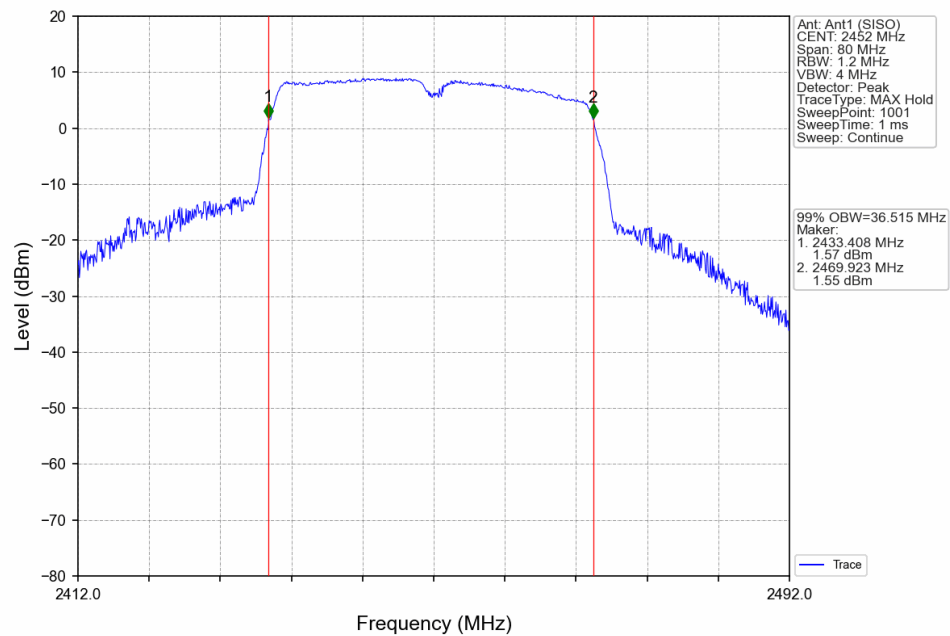
802.11n(HT40)\_LCH\_2422MHz\_Ant1 (SISO)\_NTNV



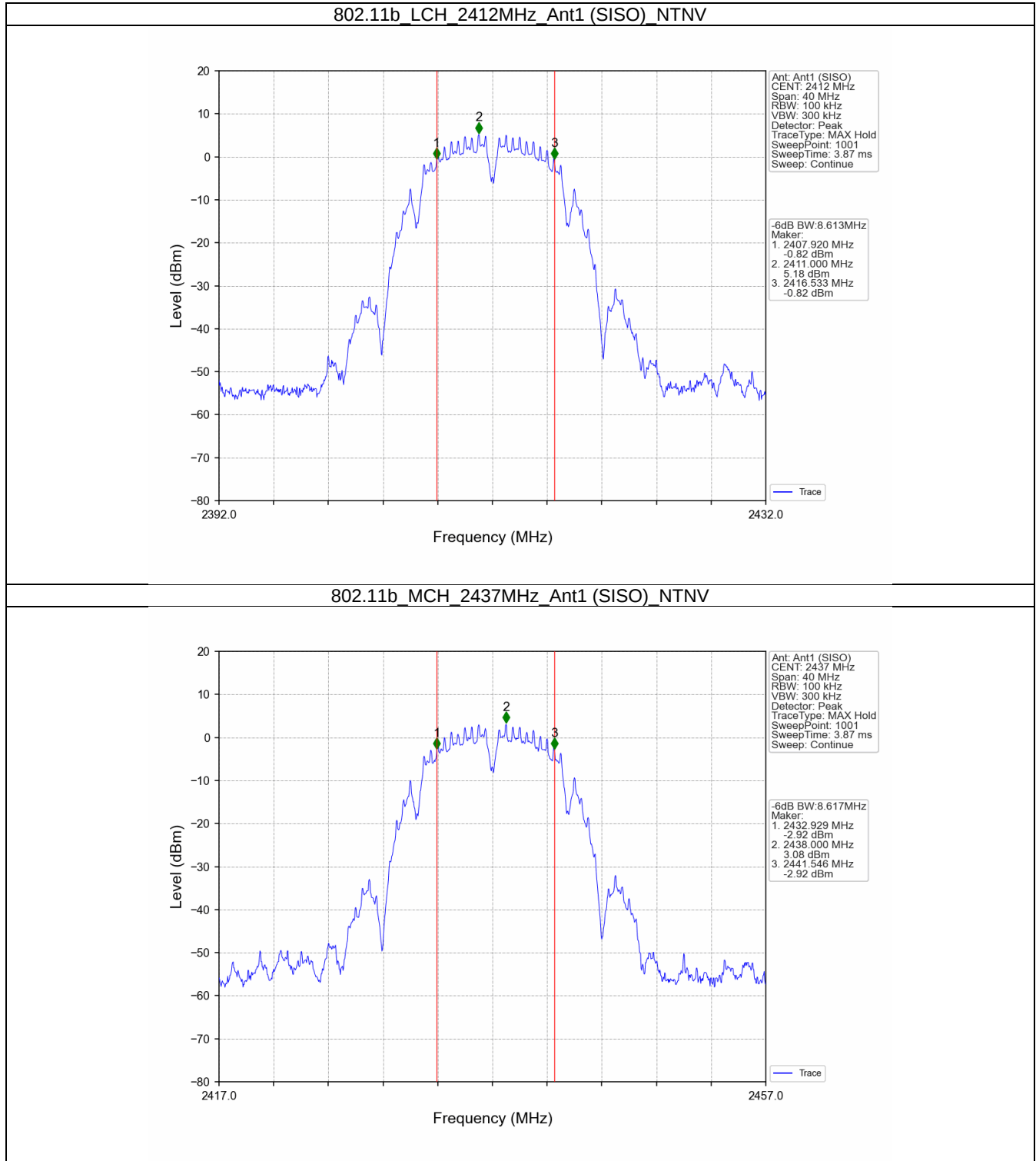
802.11n(HT40)\_MCH\_2437MHz\_Ant1 (SISO)\_NTNV



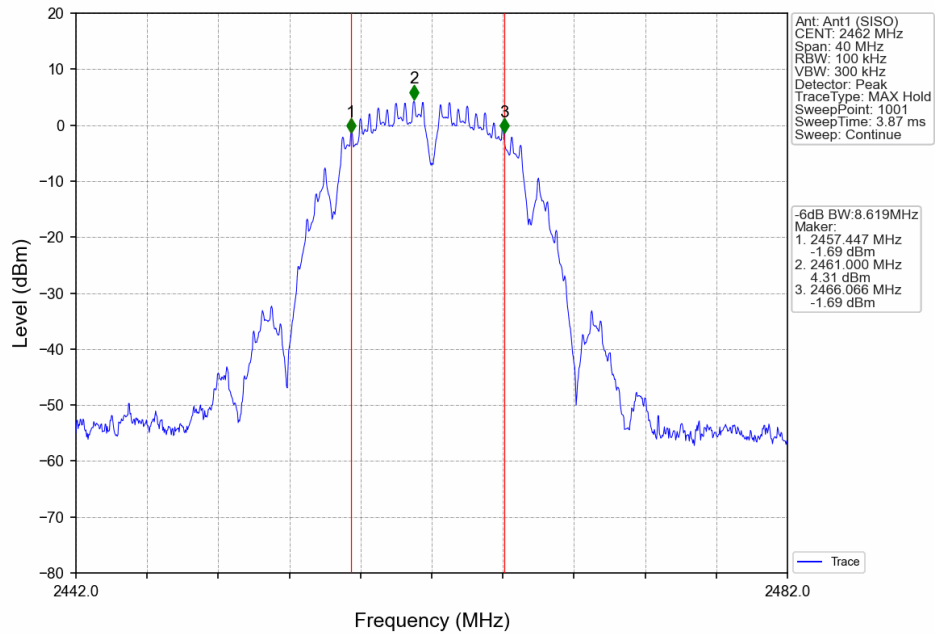
802.11n(HT40)\_HCH\_2452MHz\_Ant1 (SISO)\_NTNV



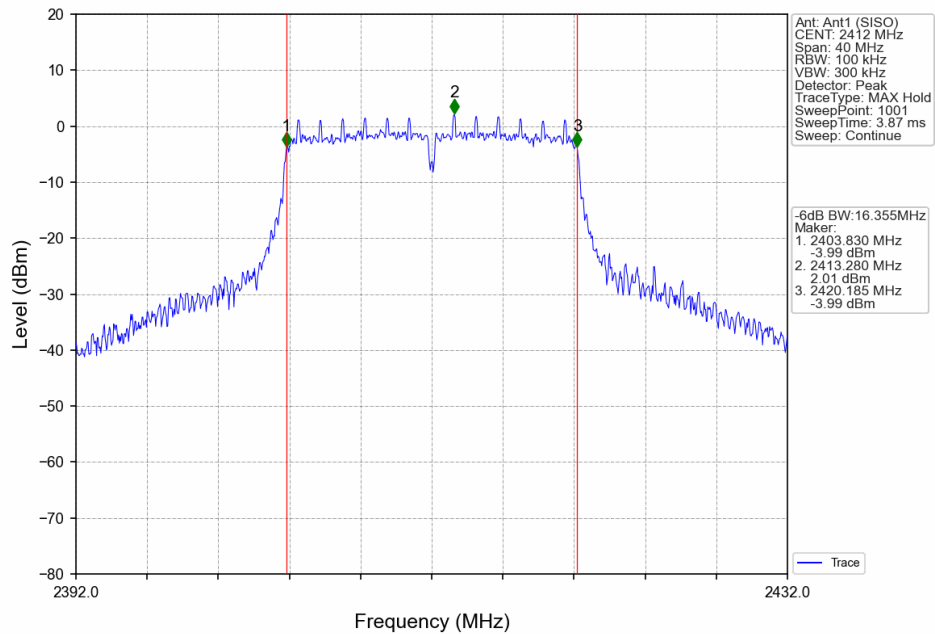
## 2.2.2 6dB BW



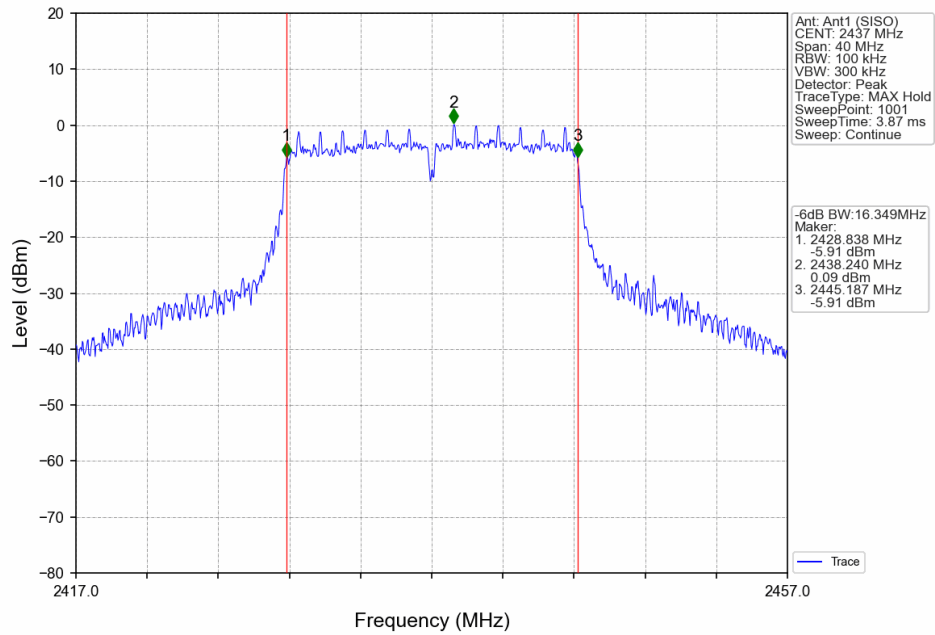
## 802.11b\_HCH\_2462MHz\_Ant1 (SISO)\_NTNV



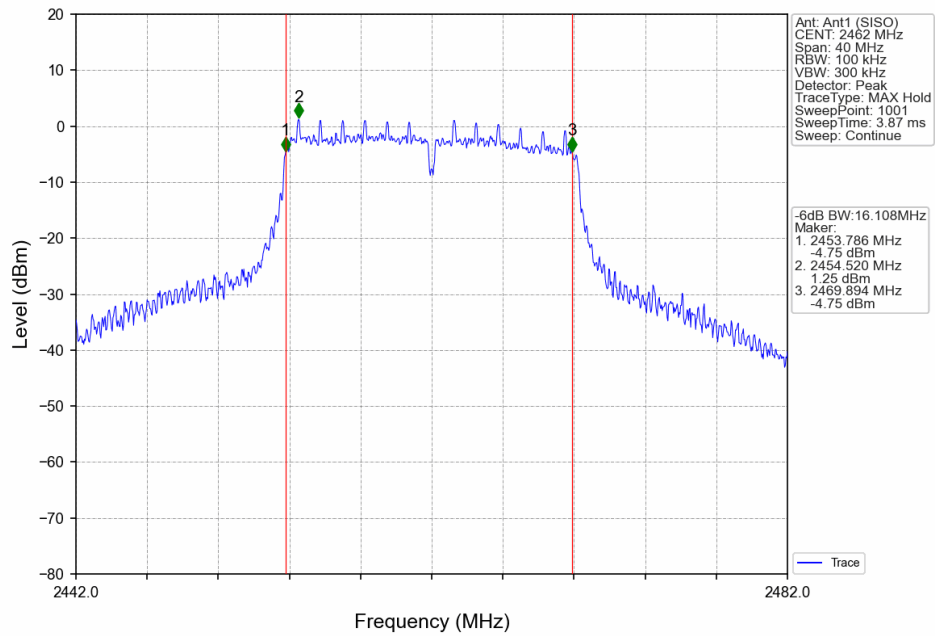
## 802.11g\_LCH\_2412MHz\_Ant1 (SISO)\_NTNV



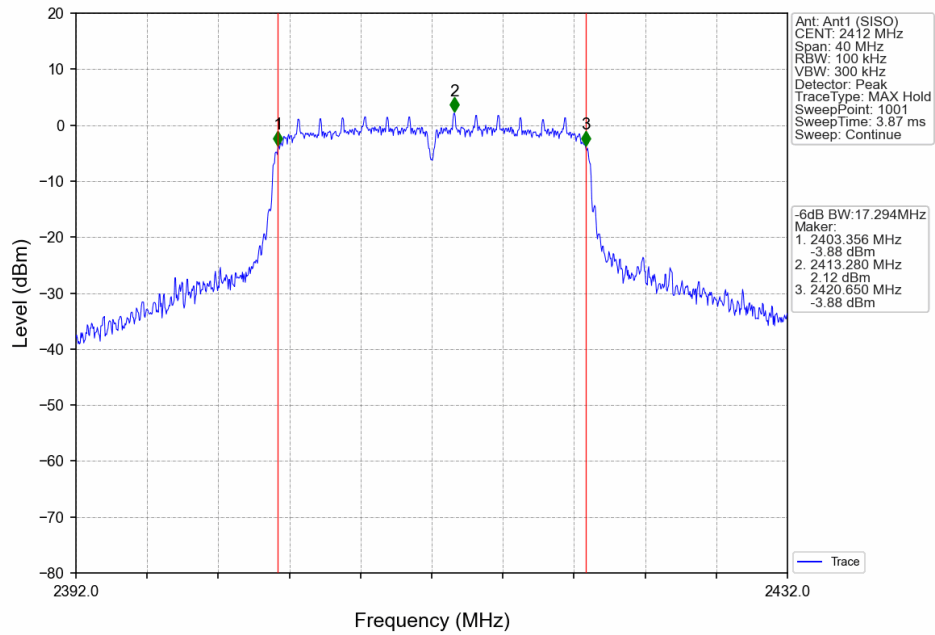
802.11g\_MCH\_2437MHz\_Ant1 (SISO)\_NTNV



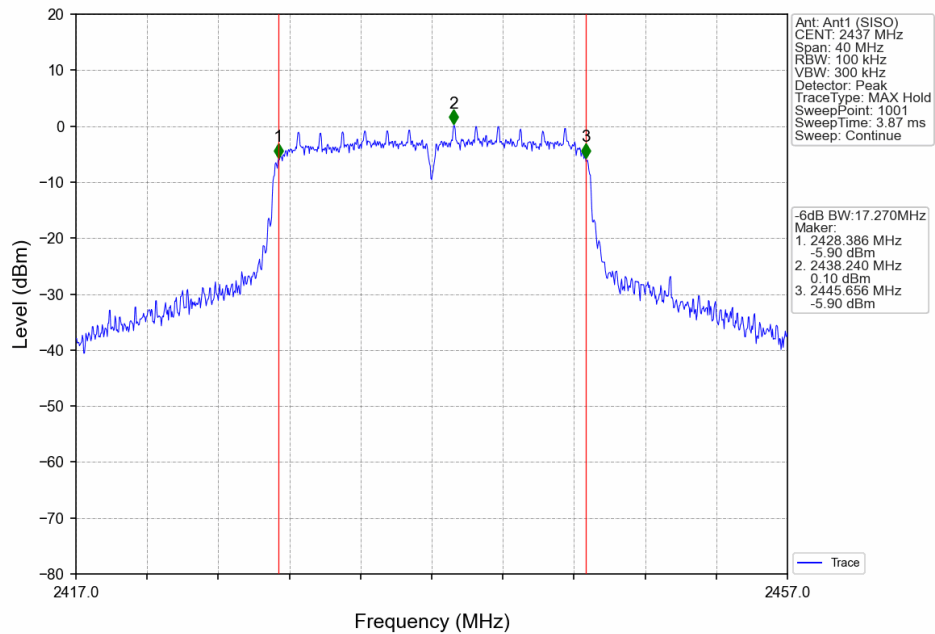
802.11g\_HCH\_2462MHz\_Ant1 (SISO)\_NTNV



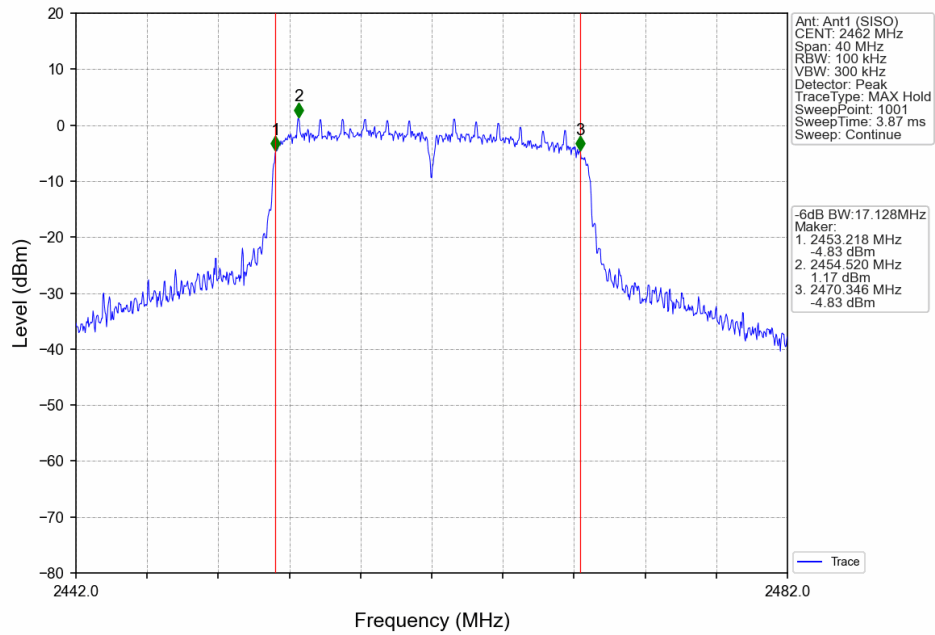
802.11n(HT20)\_LCH\_2412MHz\_Ant1 (SISO)\_NTNV



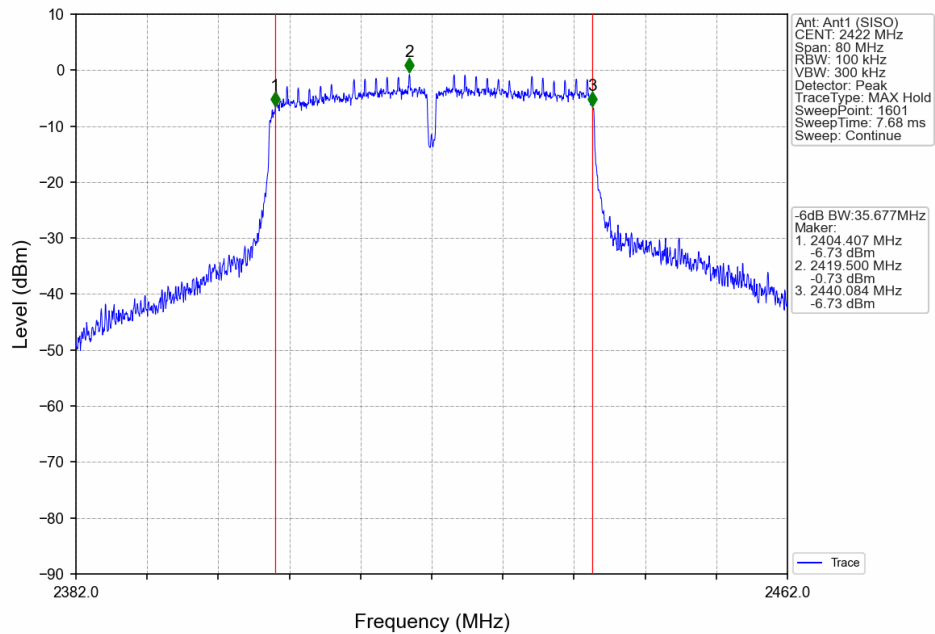
802.11n(HT20)\_MCH\_2437MHz\_Ant1 (SISO)\_NTNV



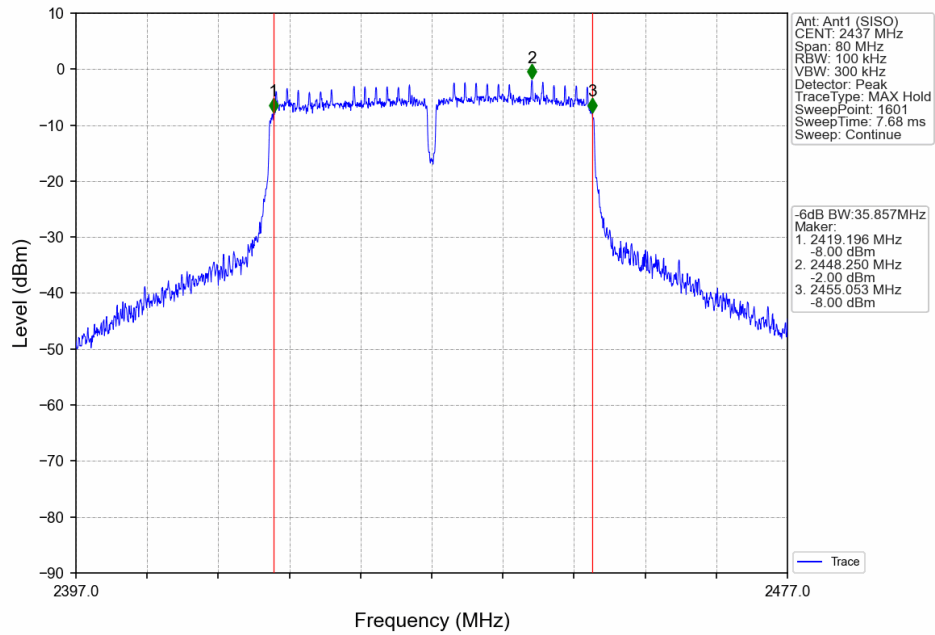
802.11n(HT20)\_HCH\_2462MHz\_Ant1 (SISO)\_NTNV



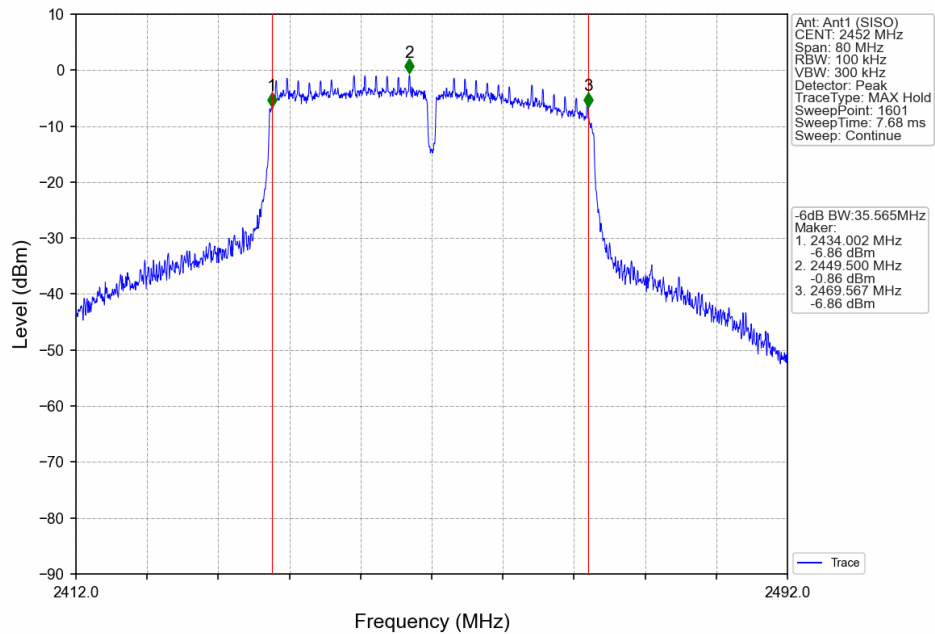
802.11n(HT40)\_LCH\_2422MHz\_Ant1 (SISO)\_NTNV



802.11n(HT40)\_MCH\_2437MHz\_Ant1 (SISO)\_NTNV



802.11n(HT40)\_HCH\_2452MHz\_Ant1 (SISO)\_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 |         |
| 802.11b                              | SISO    | 2412            | 16.00                                     | <=30  | Pass    |
|                                      |         | 2437            | 13.94                                     | <=30  | Pass    |
|                                      |         | 2462            | 15.02                                     | <=30  | Pass    |
| 802.11g                              | SISO    | 2412            | 21.01                                     | <=30  | Pass    |
|                                      |         | 2437            | 18.90                                     | <=30  | Pass    |
|                                      |         | 2462            | 19.92                                     | <=30  | Pass    |
| 802.11n (HT20)                       | SISO    | 2412            | 21.66                                     | <=30  | Pass    |
|                                      |         | 2437            | 19.74                                     | <=30  | Pass    |
|                                      |         | 2462            | 20.82                                     | <=30  | Pass    |
| 802.11n (HT40)                       | SISO    | 2422            | 21.87                                     | <=30  | Pass    |
|                                      |         | 2437            | 20.40                                     | <=30  | Pass    |
|                                      |         | 2452            | 21.33                                     | <=30  | Pass    |
| Note1: Antenna Gain: Ant1: -3.84dBi; |         |                 |                                           |       |         |

## 4. Maximum Power Spectral Density

### 4.1 Test Result

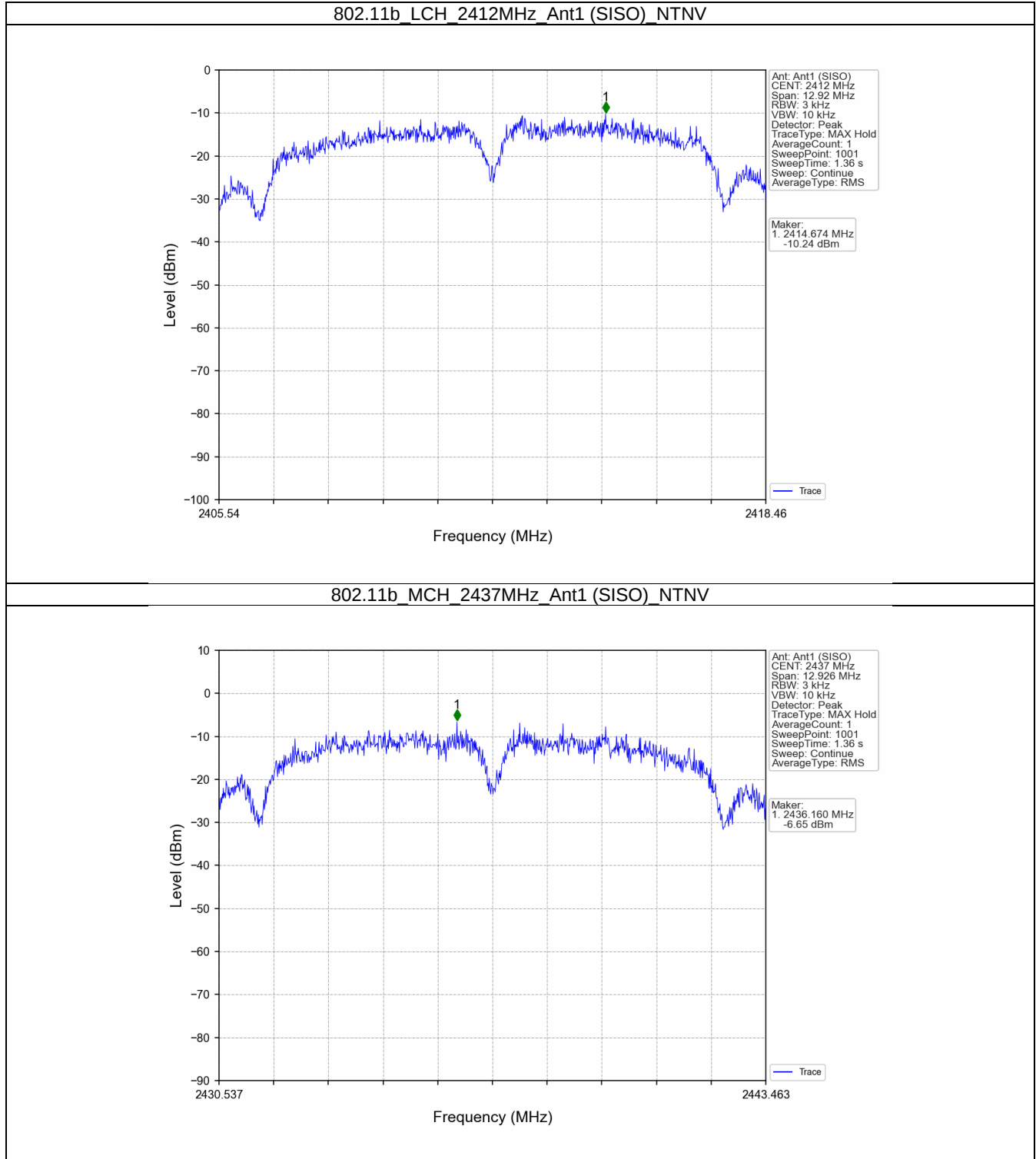
#### 4.1.1 PSD

| Mode           | TX Type | Frequency (MHz) | Maximum PSD (dBm/3kHz) |       | Verdict |
|----------------|---------|-----------------|------------------------|-------|---------|
|                |         |                 | ANT1                   | Limit |         |
| 802.11b        | SISO    | 2412            | -10.24                 | <=8   | Pass    |
|                |         | 2437            | -6.65                  | <=8   | Pass    |
|                |         | 2462            | -5.12                  | <=8   | Pass    |
| 802.11g        | SISO    | 2412            | -12.17                 | <=8   | Pass    |
|                |         | 2437            | -9.13                  | <=8   | Pass    |
|                |         | 2462            | -9.96                  | <=8   | Pass    |
| 802.11n (HT20) | SISO    | 2412            | -11.38                 | <=8   | Pass    |
|                |         | 2437            | -9.00                  | <=8   | Pass    |
|                |         | 2462            | -9.31                  | <=8   | Pass    |
| 802.11n (HT40) | SISO    | 2422            | -13.97                 | <=8   | Pass    |
|                |         | 2437            | -11.26                 | <=8   | Pass    |
|                |         | 2452            | -13.05                 | <=8   | Pass    |

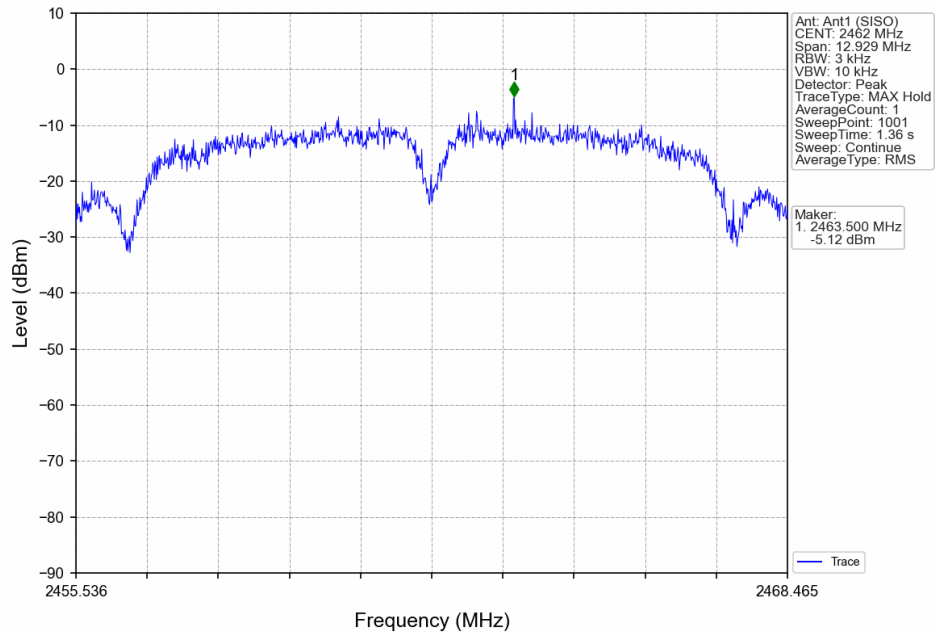
Note1: Antenna Gain: Ant1: -3.84dBi;

## 4.2 Test Graph

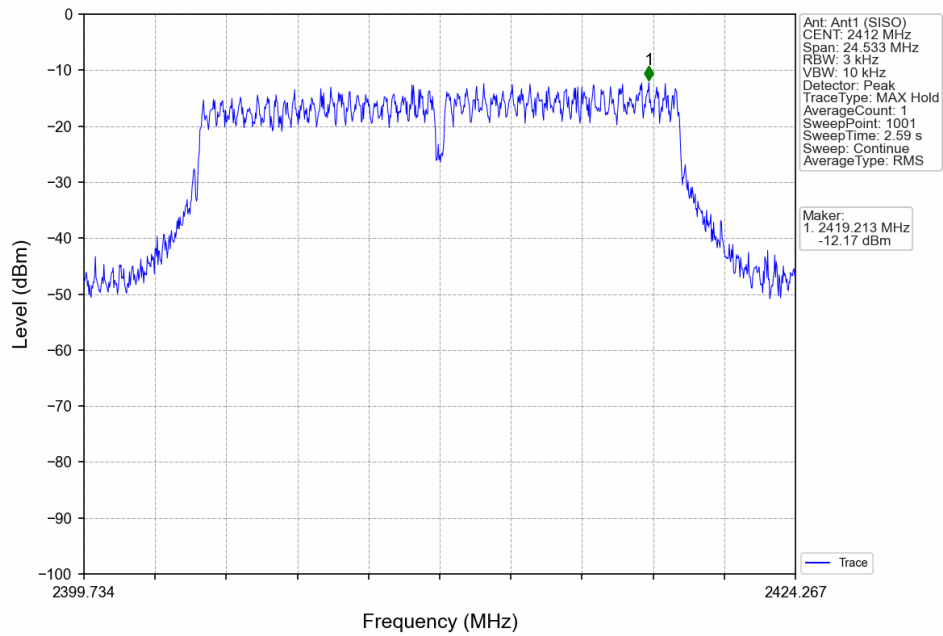
### 4.2.1 PSD



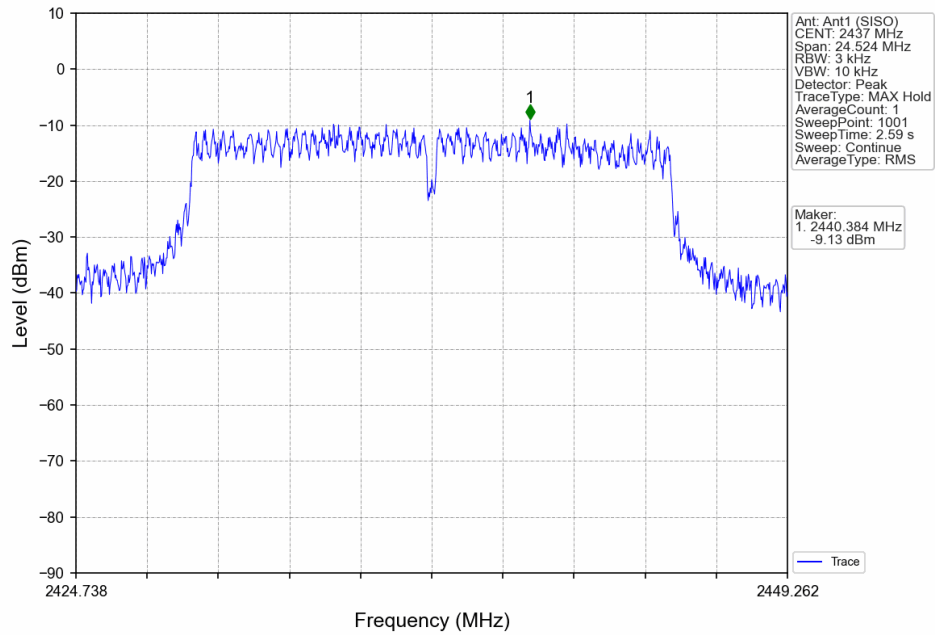
## 802.11b\_HCH\_2462MHz\_Ant1 (SISO)\_NTNV



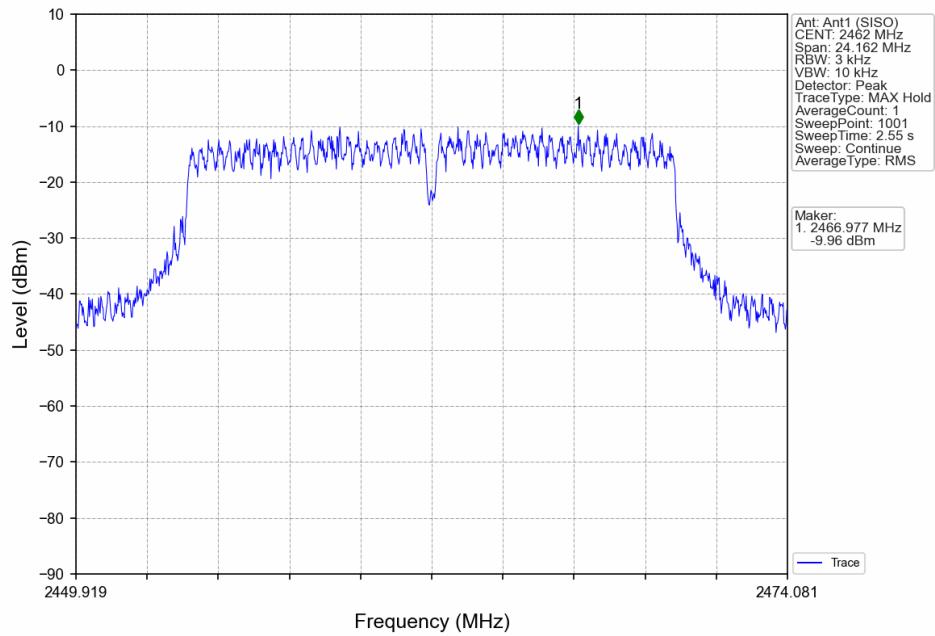
## 802.11g\_LCH\_2412MHz\_Ant1 (SISO)\_NTNV



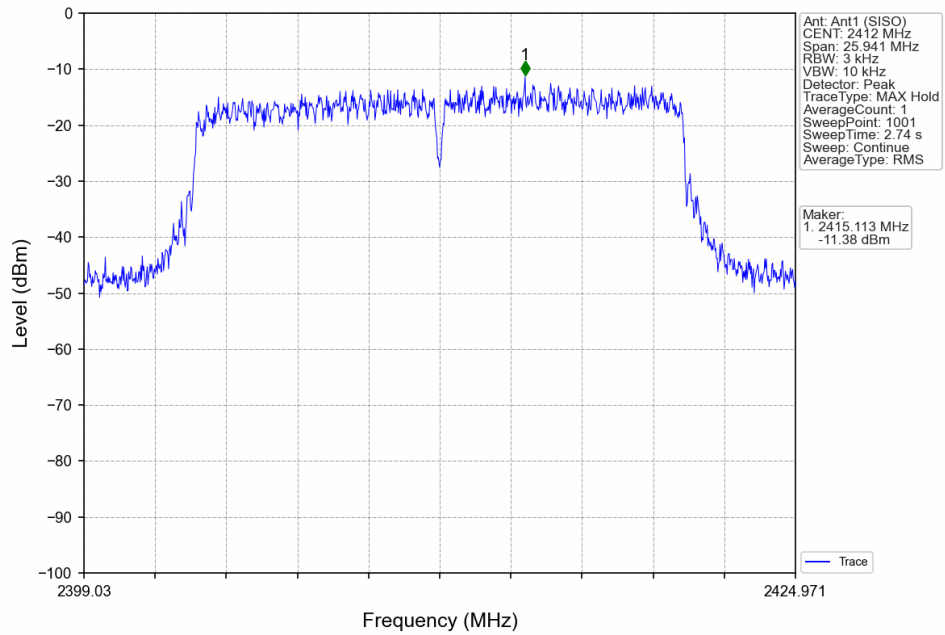
802.11g\_MCH\_2437MHz\_Ant1 (SISO)\_NTNV



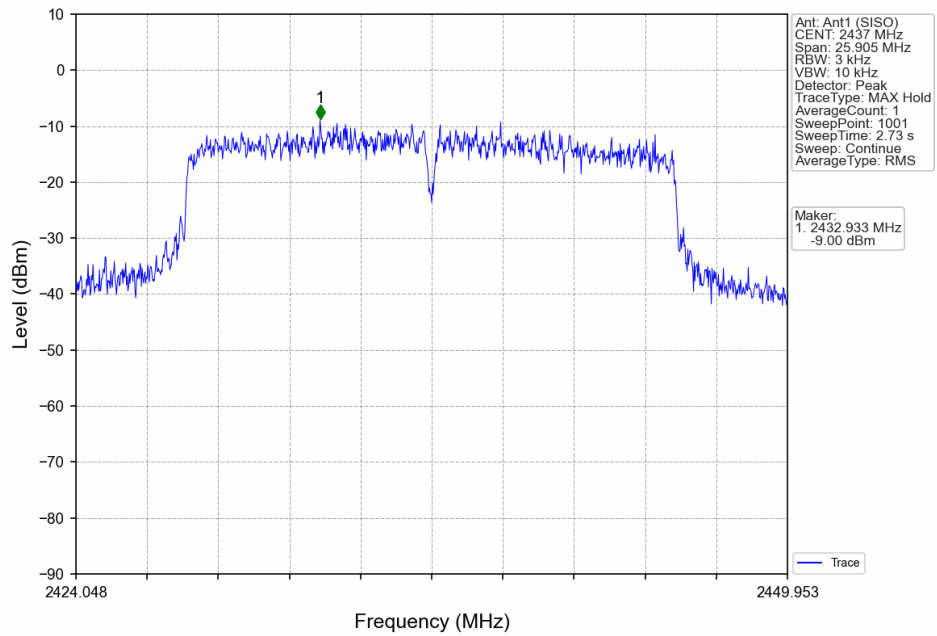
802.11g\_HCH\_2462MHz\_Ant1 (SISO)\_NTNV



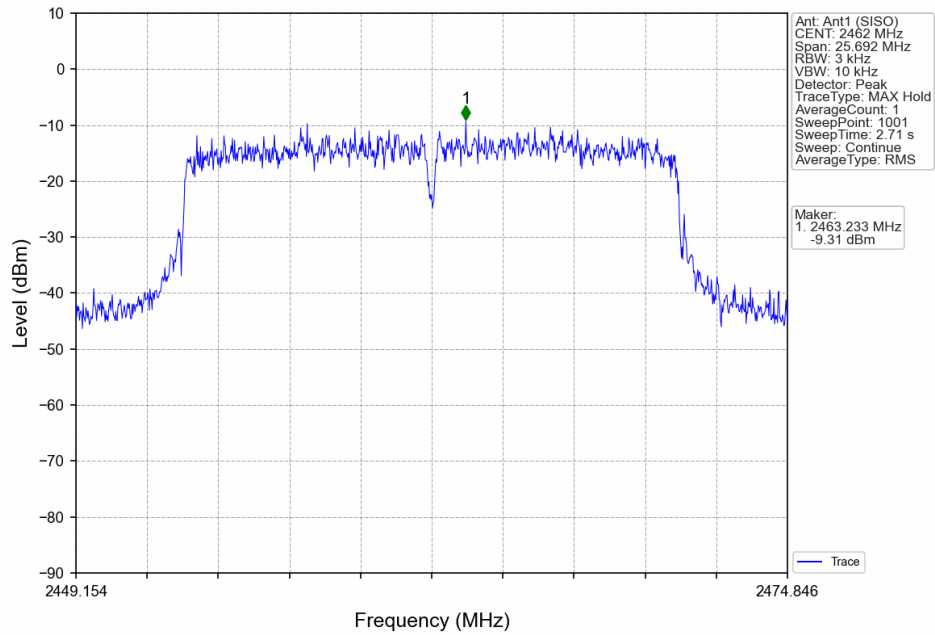
802.11n(HT20)\_LCH\_2412MHz\_Ant1 (SISO)\_NTNV



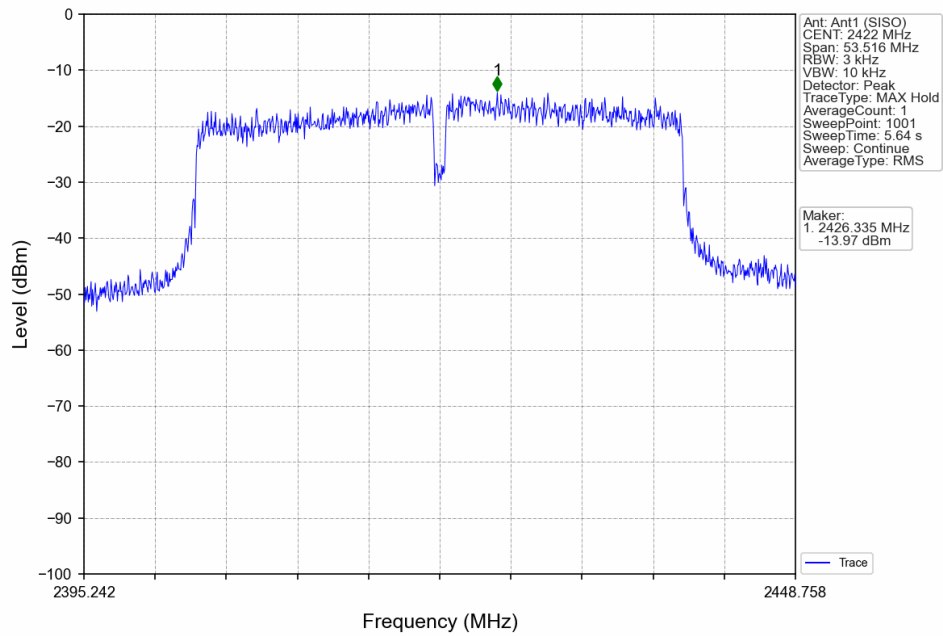
802.11n(HT20)\_MCH\_2437MHz\_Ant1 (SISO)\_NTNV



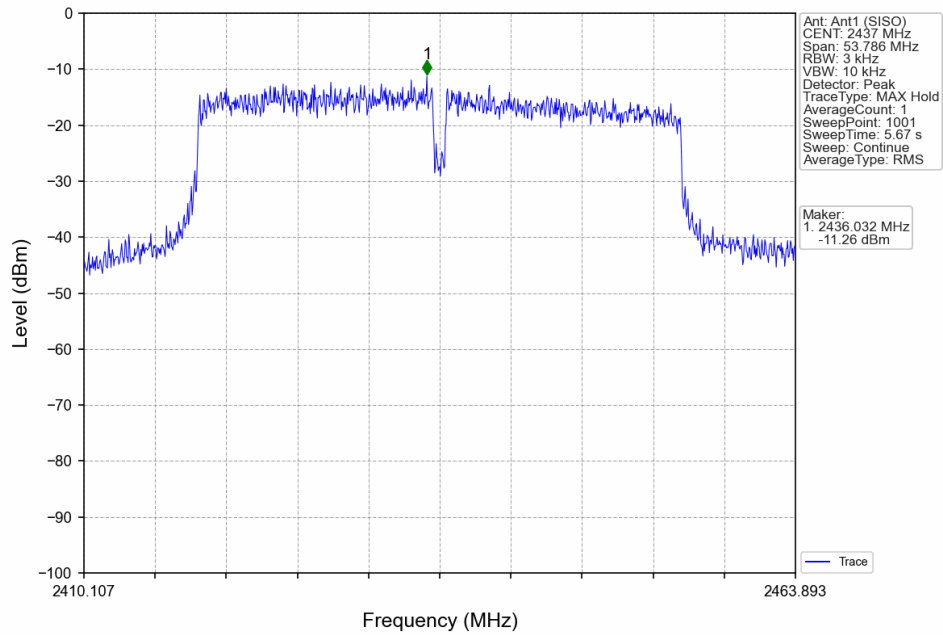
802.11n(HT20)\_HCH\_2462MHz\_Ant1 (SISO)\_NTNV



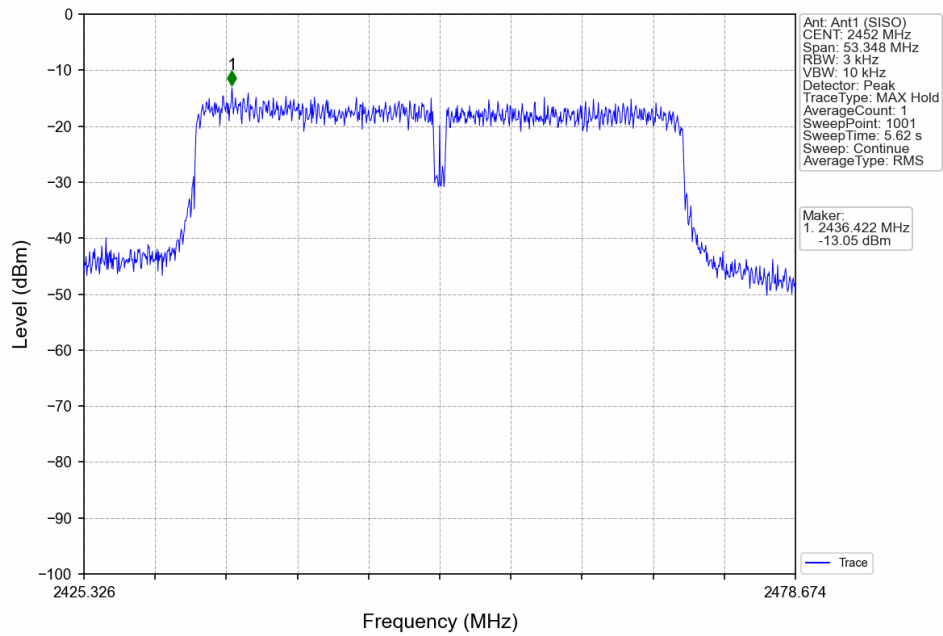
802.11n(HT40)\_LCH\_2422MHz\_Ant1 (SISO)\_NTNV



802.11n(HT40)\_MCH\_2437MHz\_Ant1 (SISO)\_NTNV



802.11n(HT40)\_HCH\_2452MHz\_Ant1 (SISO)\_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) |
|----------------|---------|-----------------|-----|--------------------------|
| 802.11b        | SISO    | 2412            | 1   | 3.74                     |
|                |         | 2437            | 1   | 7.21                     |
|                |         | 2462            | 1   | 5.80                     |
| 802.11g        | SISO    | 2412            | 1   | 3.68                     |
|                |         | 2437            | 1   | 6.49                     |
|                |         | 2462            | 1   | 5.54                     |
| 802.11n (HT20) | SISO    | 2412            | 1   | 3.71                     |
|                |         | 2437            | 1   | 6.62                     |
|                |         | 2462            | 1   | 5.22                     |
| 802.11n (HT40) | SISO    | 2422            | 1   | 1.96                     |
|                |         | 2437            | 1   | 3.43                     |
|                |         | 2452            | 1   | 1.91                     |

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.

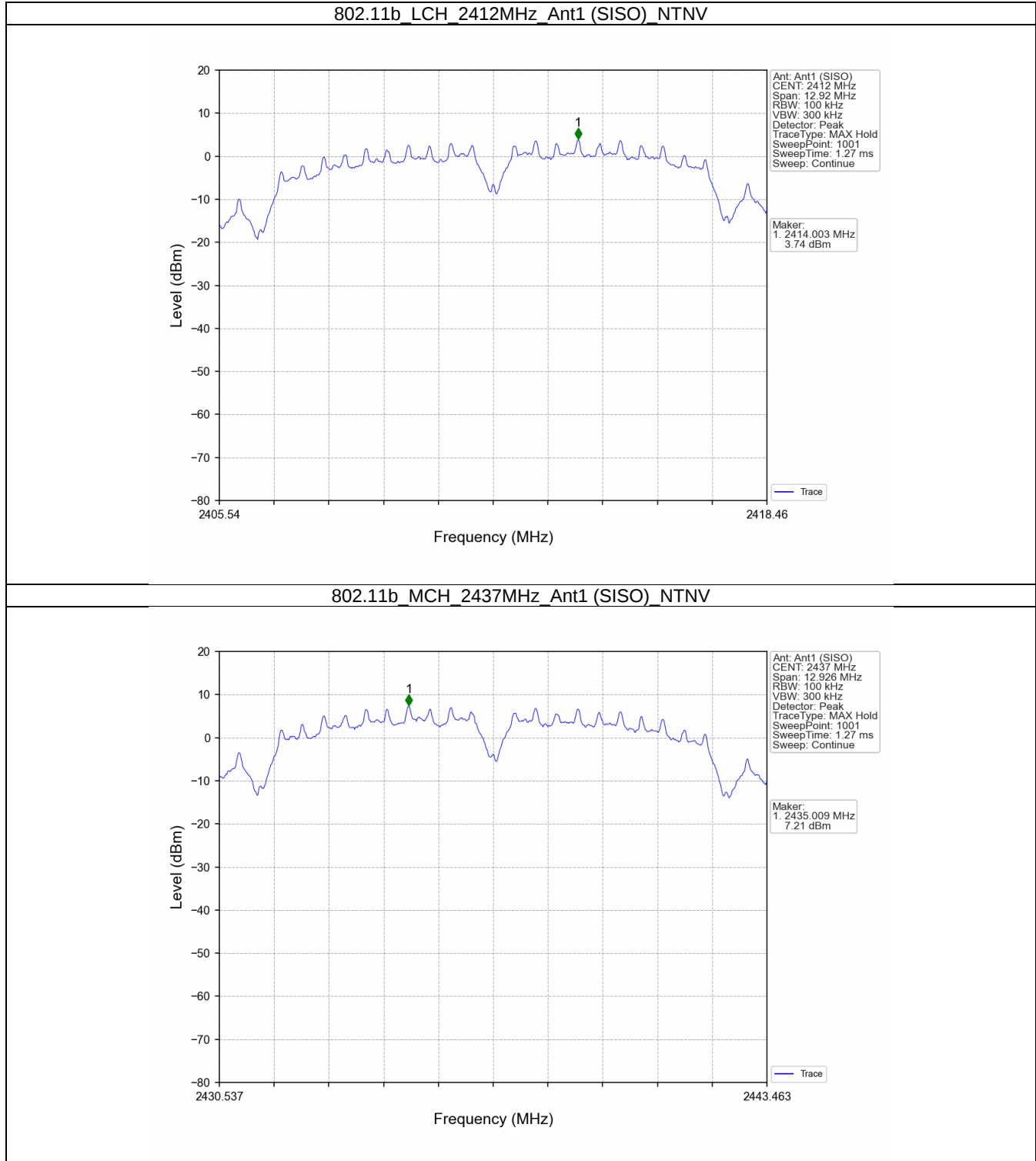
#### 5.1.2 CSE

| Mode           | TX Type | Frequency (MHz) | ANT | Level of Reference (dBm) | Limit (dBm) | Verdict |
|----------------|---------|-----------------|-----|--------------------------|-------------|---------|
| 802.11b        | SISO    | 2412            | 1   | 3.74                     | -16.26      | Pass    |
|                |         | 2437            | 1   | 7.21                     | -12.79      | Pass    |
|                |         | 2462            | 1   | 5.80                     | -14.20      | Pass    |
| 802.11g        | SISO    | 2412            | 1   | 3.68                     | -16.32      | Pass    |
|                |         | 2437            | 1   | 6.49                     | -13.51      | Pass    |
|                |         | 2462            | 1   | 5.54                     | -14.46      | Pass    |
| 802.11n (HT20) | SISO    | 2412            | 1   | 3.71                     | -16.29      | Pass    |
|                |         | 2437            | 1   | 6.62                     | -13.38      | Pass    |
|                |         | 2462            | 1   | 5.22                     | -14.78      | Pass    |
| 802.11n (HT40) | SISO    | 2422            | 1   | 1.96                     | -18.04      | Pass    |
|                |         | 2437            | 1   | 3.43                     | -16.57      | Pass    |
|                |         | 2452            | 1   | 1.91                     | -18.09      | Pass    |

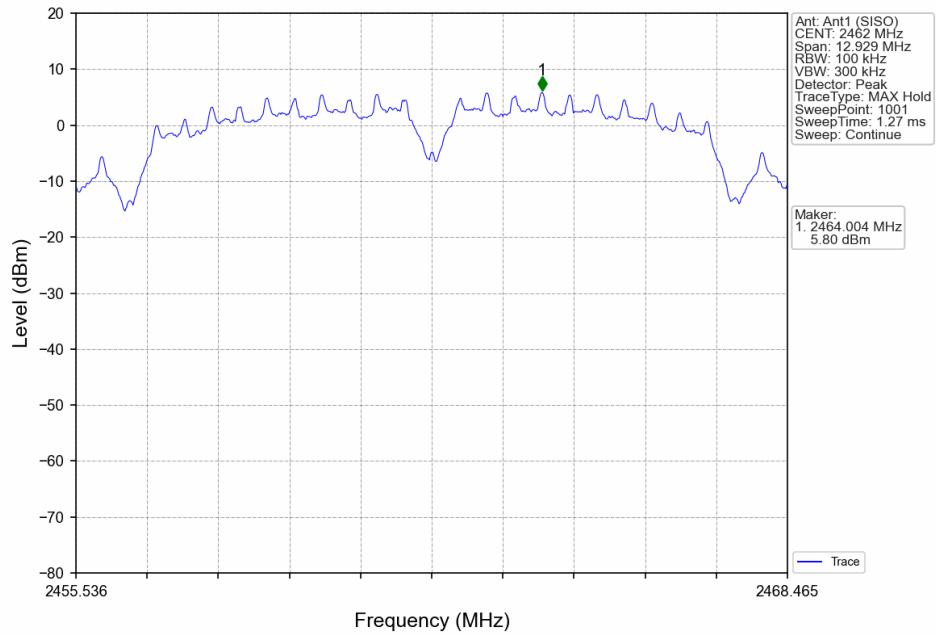
Note1: Refer to FCC Part 15.247 (d) and ANSI C63.10-2013, the channel contains the maximum PSD level was used to establish the reference level.

## 5.2 Test Graph

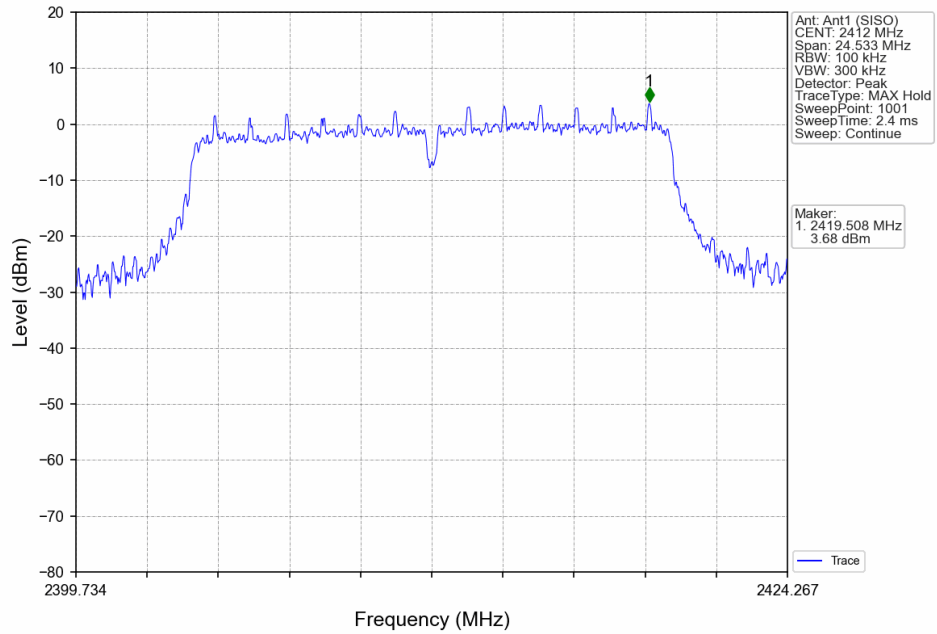
### 5.2.1 Ref



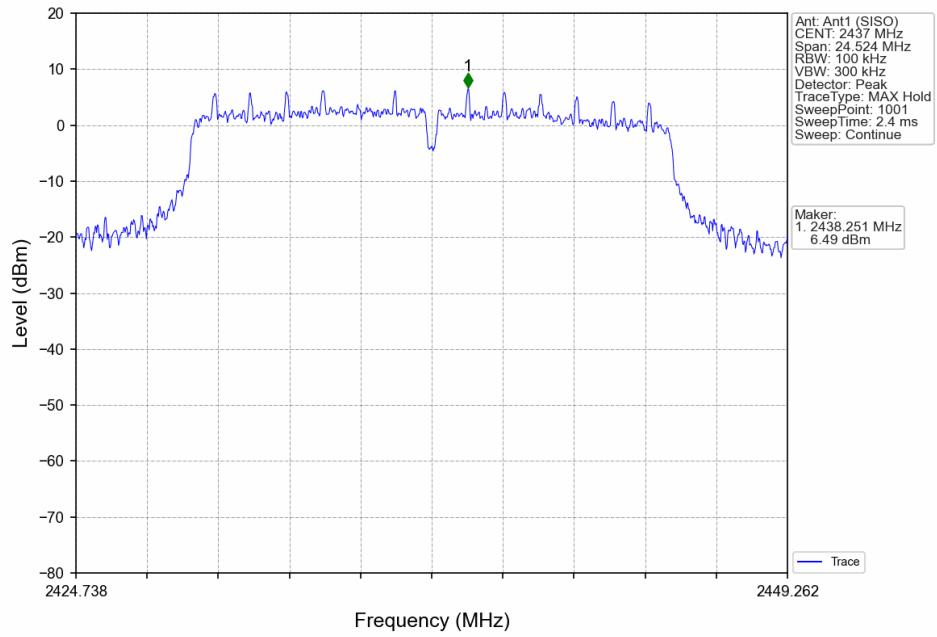
802.11b\_HCH\_2462MHz\_Ant1 (SISO)\_NTNV



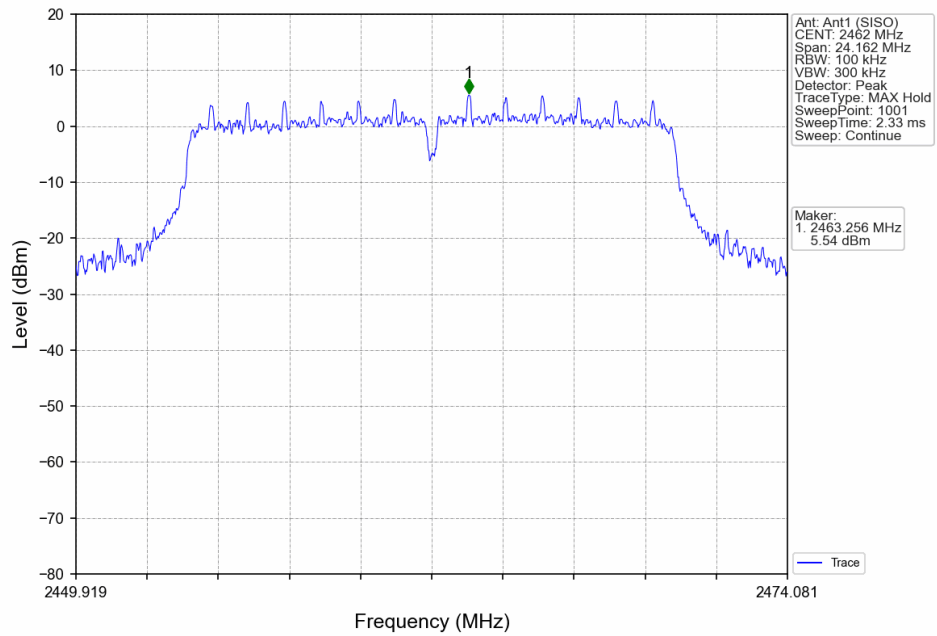
802.11g\_LCH\_2412MHz\_Ant1 (SISO)\_NTNV



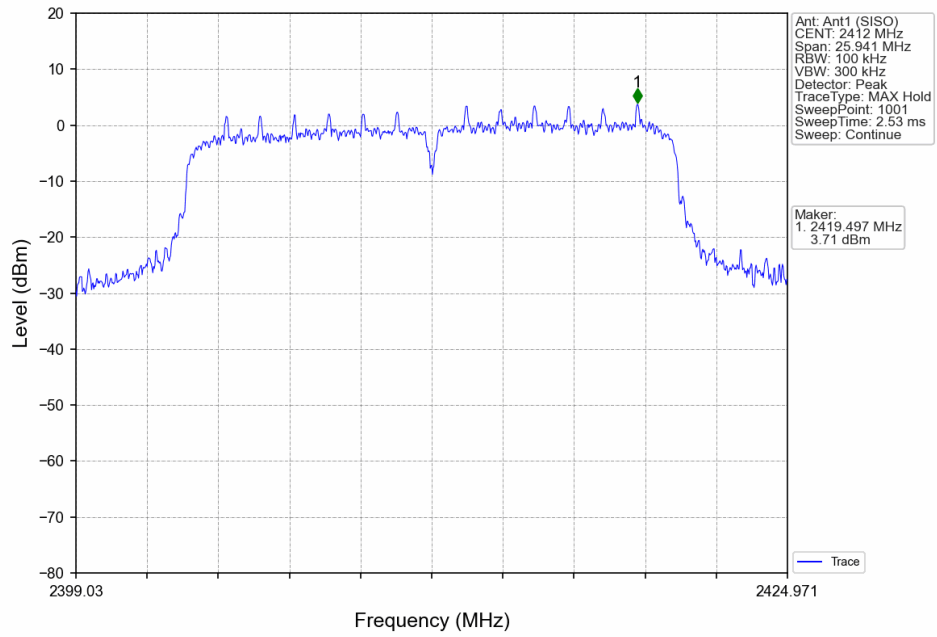
802.11g\_MCH\_2437MHz\_Ant1 (SISO)\_NTNV



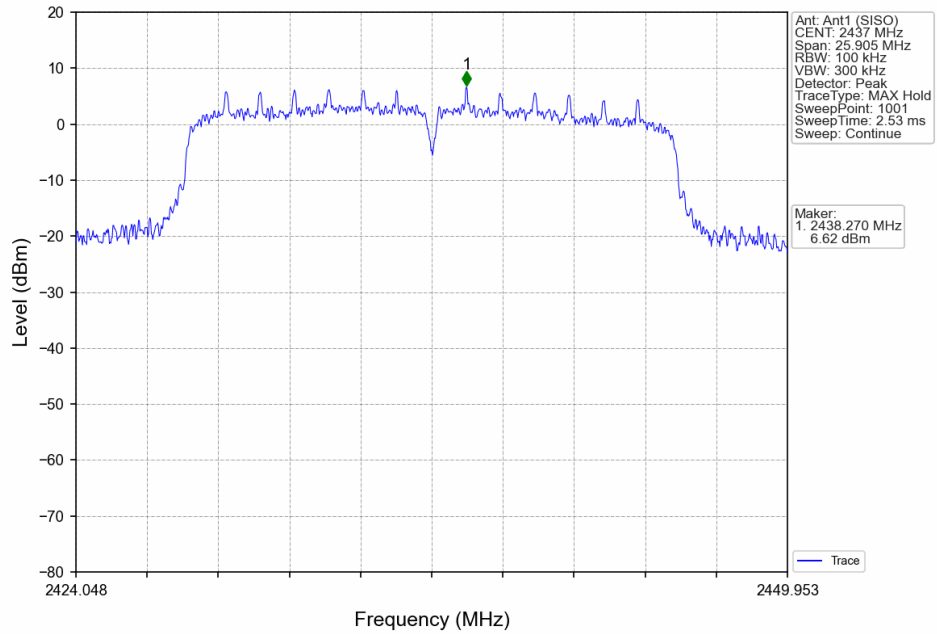
802.11g\_HCH\_2462MHz\_Ant1 (SISO)\_NTNV



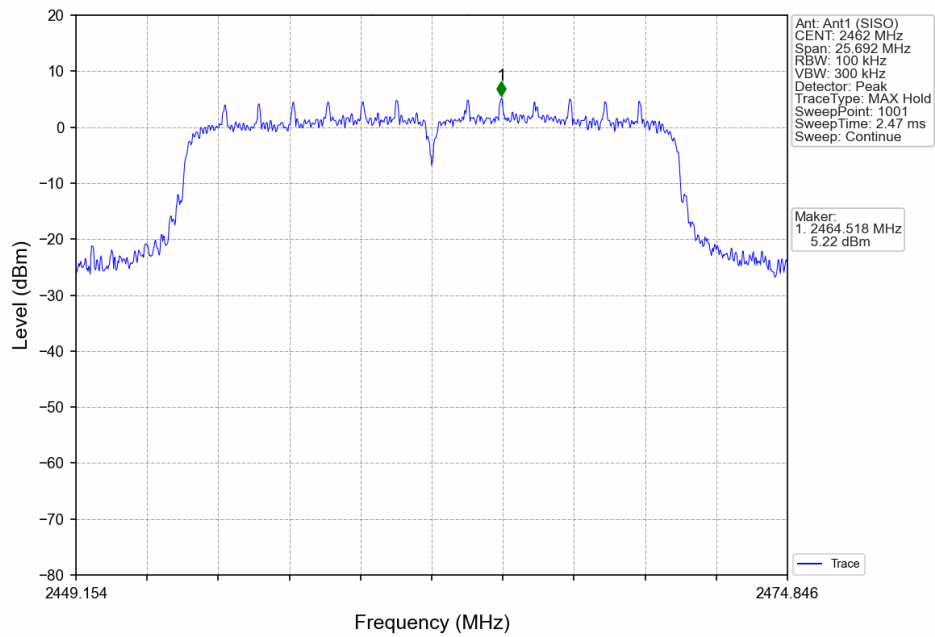
802.11n(HT20)\_LCH\_2412MHz\_Ant1 (SISO)\_NTNV



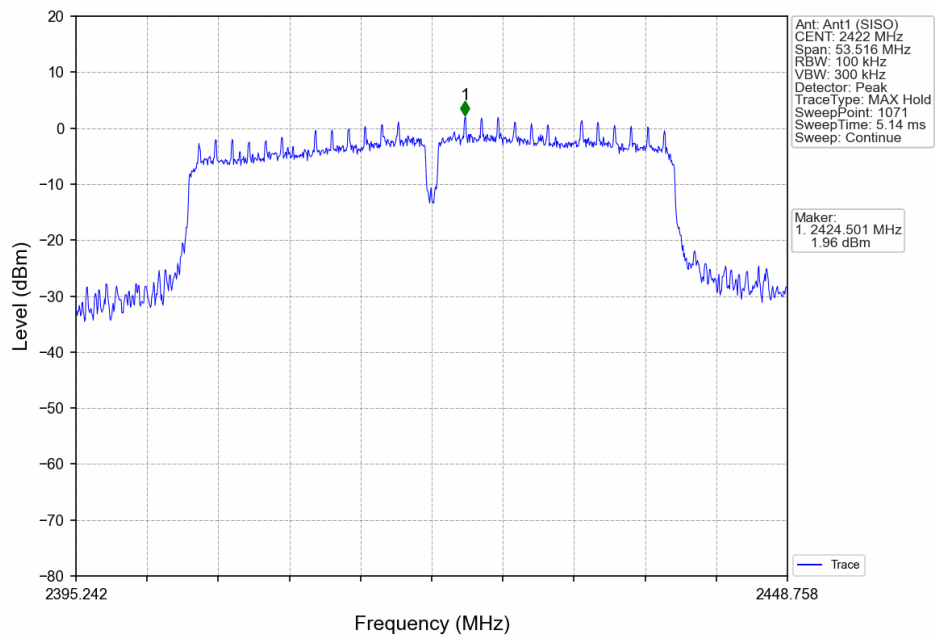
802.11n(HT20)\_MCH\_2437MHz\_Ant1 (SISO)\_NTNV



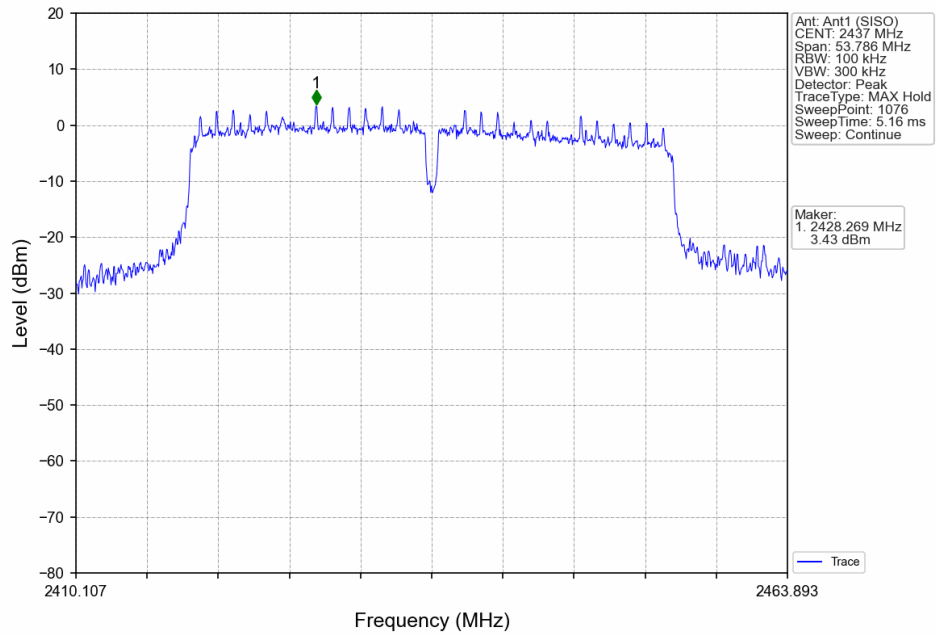
802.11n(HT20)\_HCH\_2462MHz\_Ant1 (SISO)\_NTNV



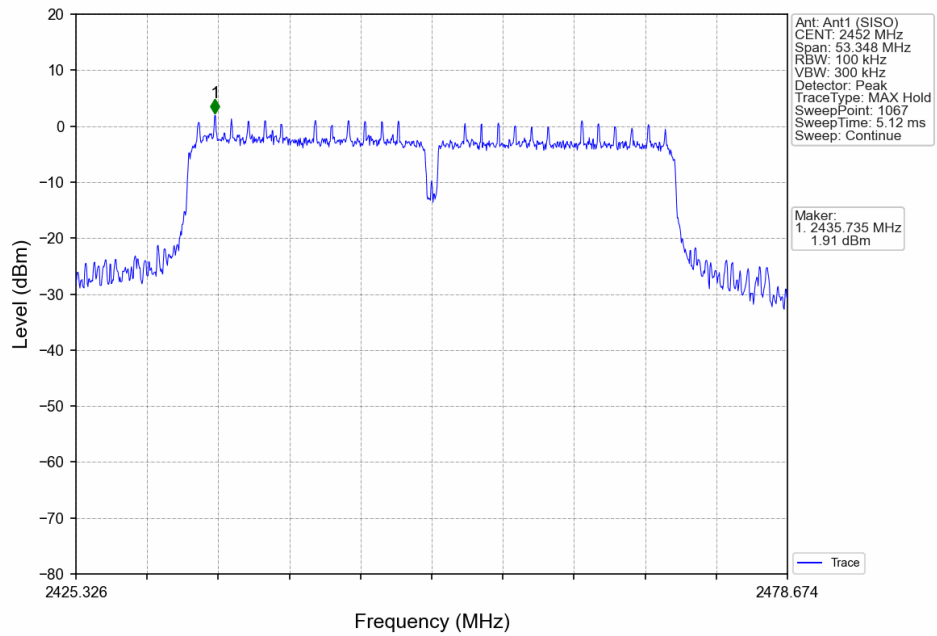
802.11n(HT40)\_LCH\_2422MHz\_Ant1 (SISO)\_NTNV



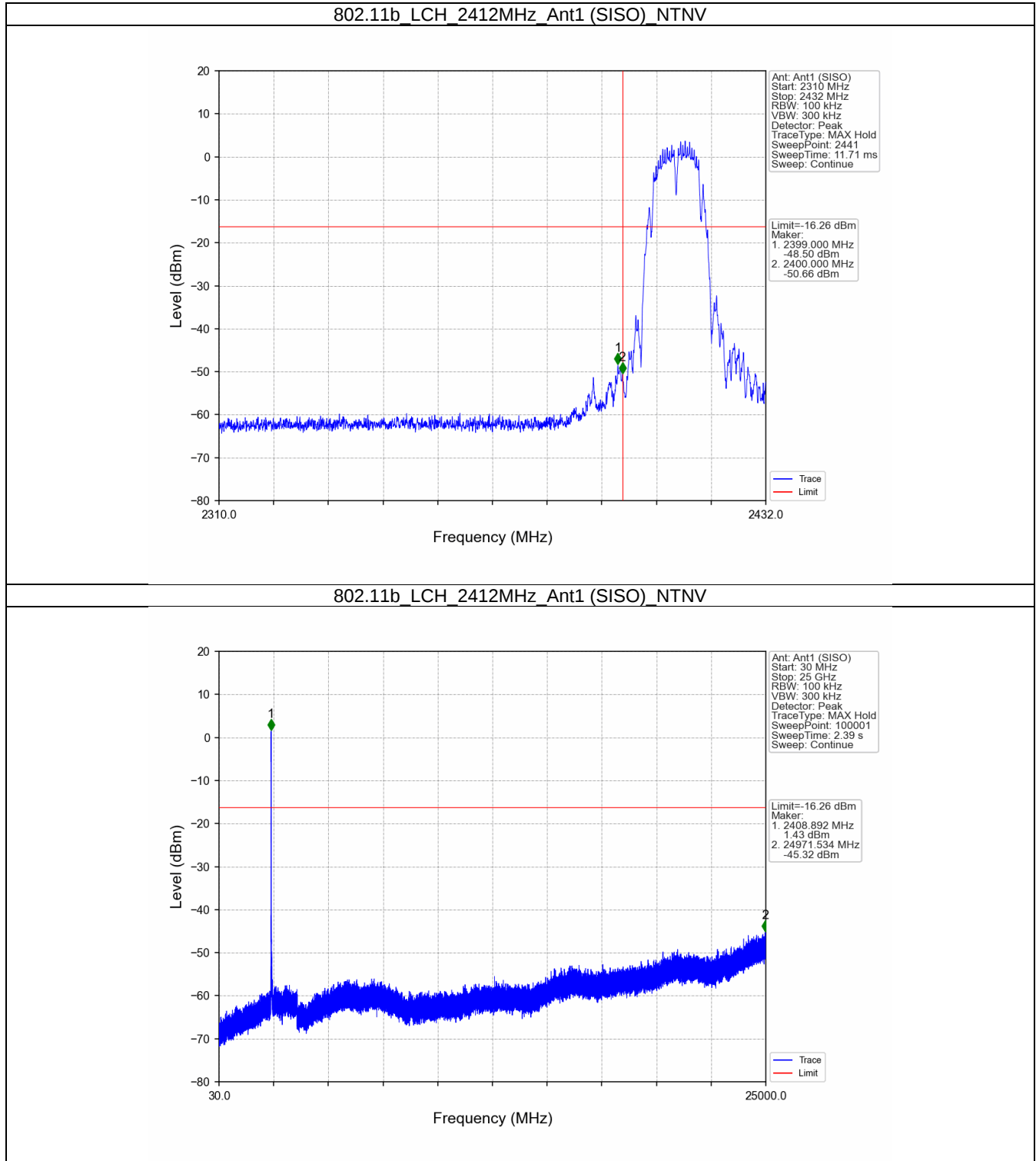
802.11n(HT40)\_MCH\_2437MHz\_Ant1 (SISO)\_NTNV



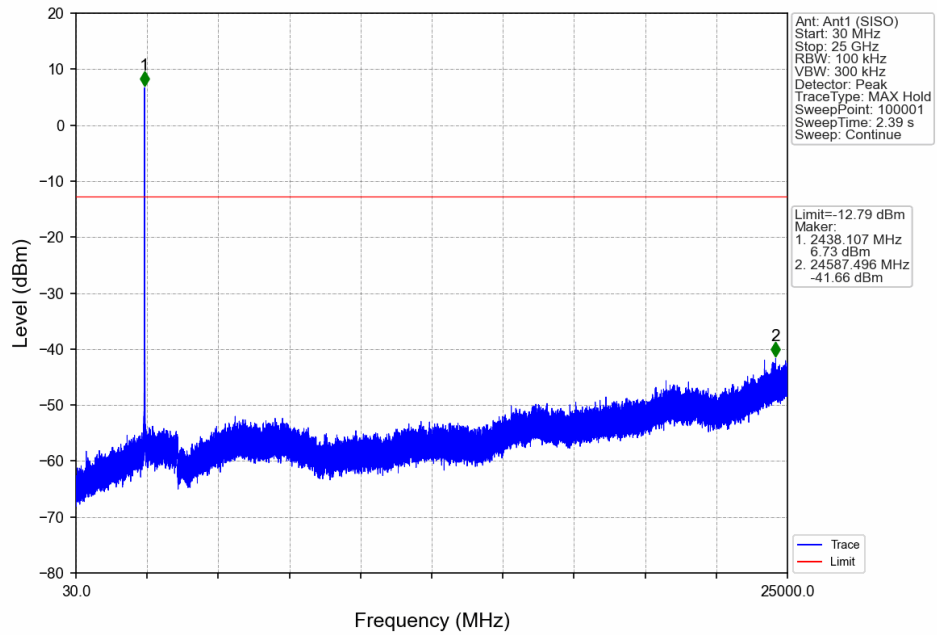
802.11n(HT40)\_HCH\_2452MHz\_Ant1 (SISO)\_NTNV



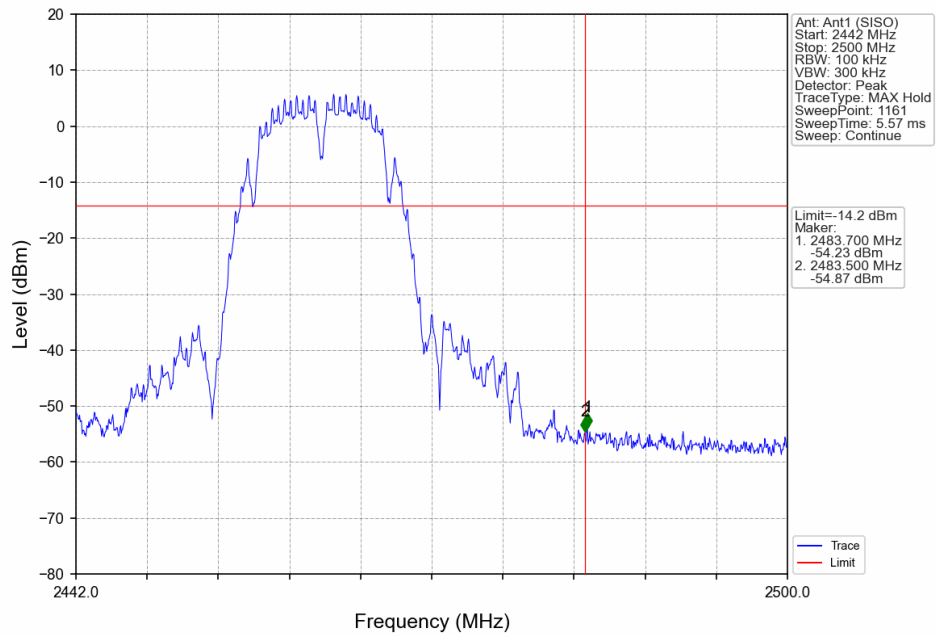
## 5.2.2 CSE



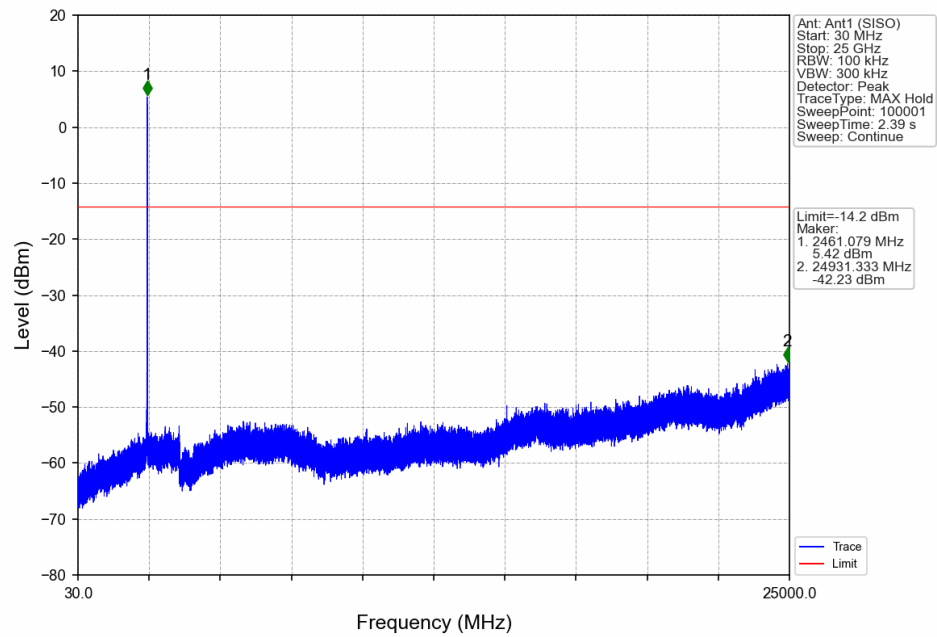
## 802.11b\_MCH\_2437MHz\_Ant1 (SISO)\_NTNV



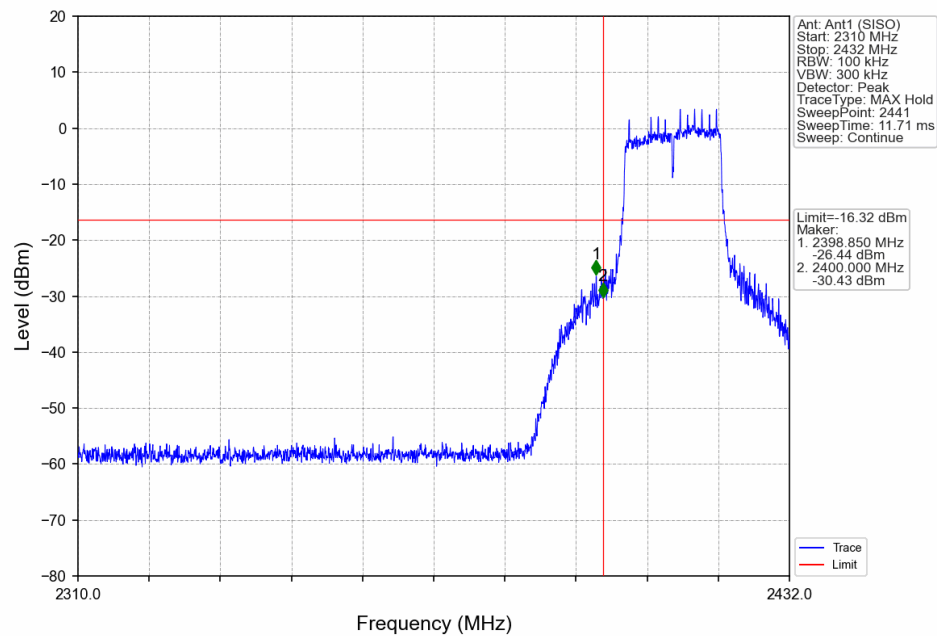
## 802.11b\_HCH\_2462MHz\_Ant1 (SISO)\_NTNV



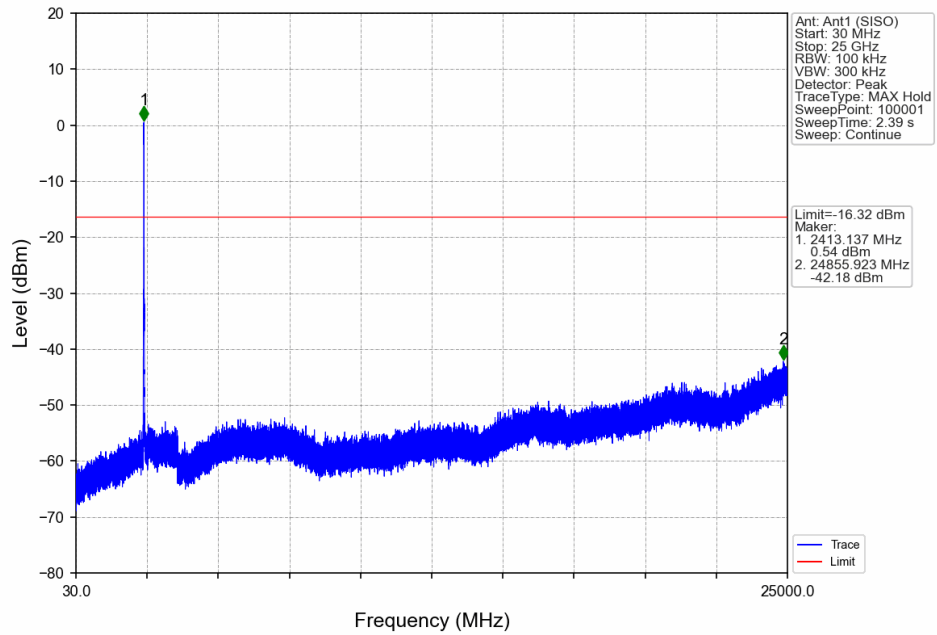
## 802.11b\_HCH\_2462MHz\_Ant1 (SISO)\_NTNV



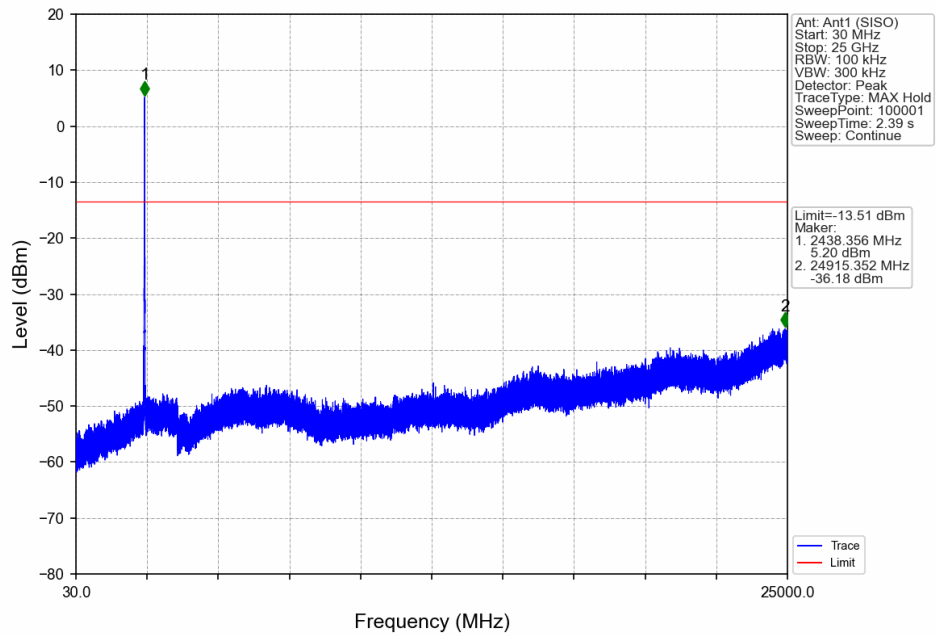
## 802.11g\_LCH\_2412MHz\_Ant1 (SISO)\_NTNV



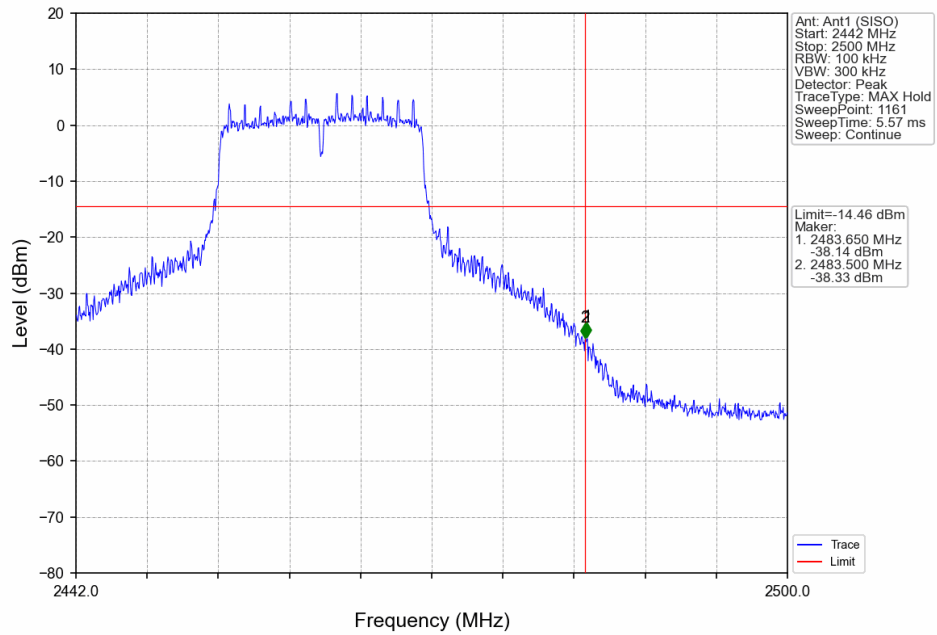
802.11g\_LCH\_2412MHz\_Ant1 (SISO)\_NTNV



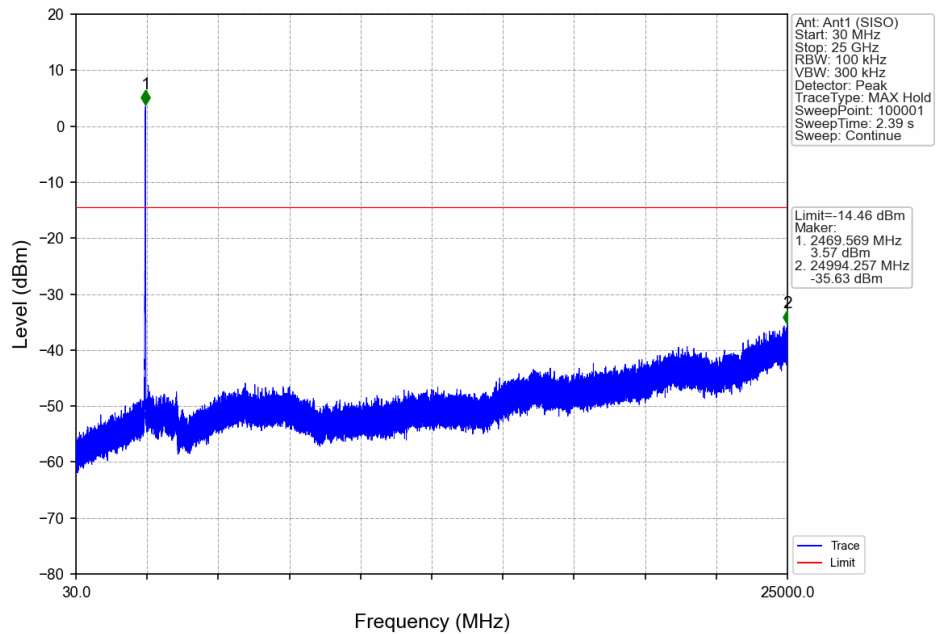
802.11g\_MCH\_2437MHz\_Ant1 (SISO)\_NTNV



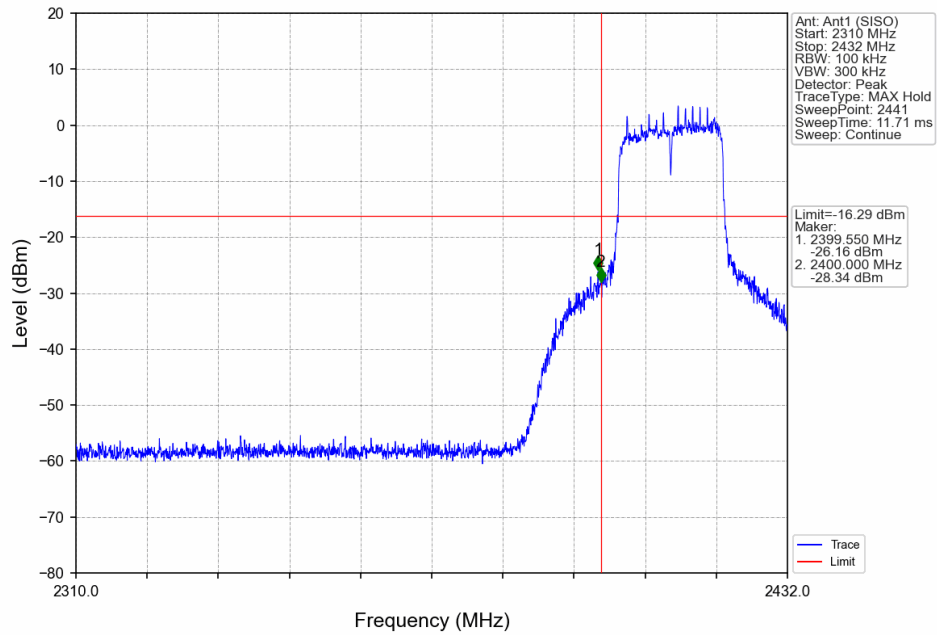
## 802.11g\_HCH\_2462MHz\_Ant1 (SISO)\_NTNV



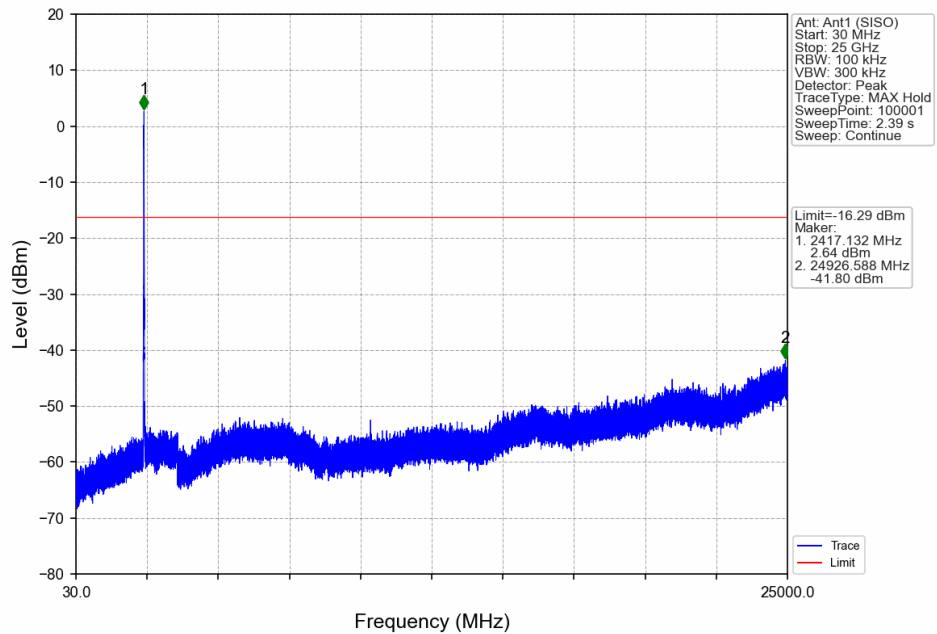
## 802.11g\_HCH\_2462MHz\_Ant1 (SISO)\_NTNV



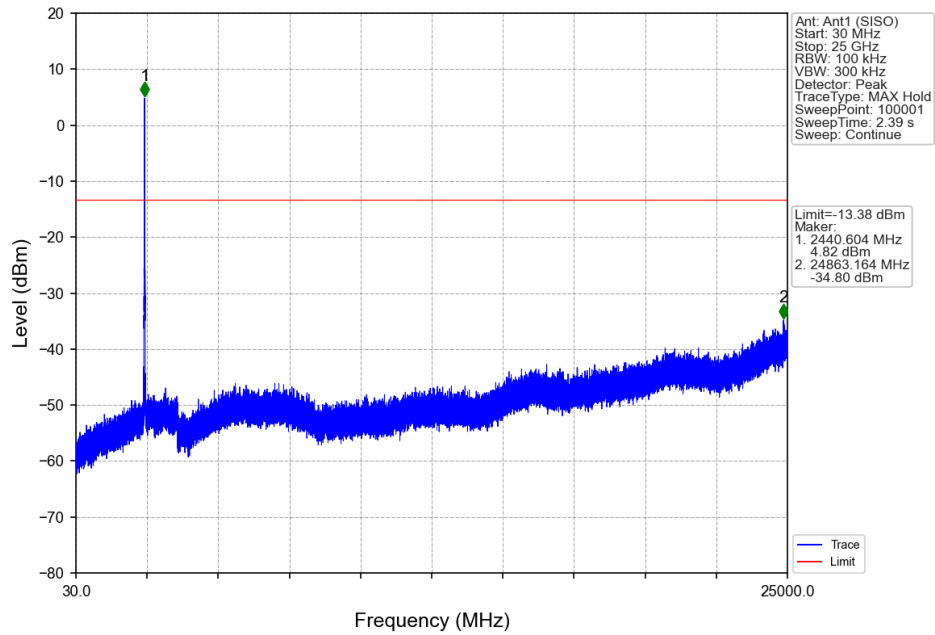
802.11n(HT20)\_LCH\_2412MHz\_Ant1 (SISO)\_NTNV



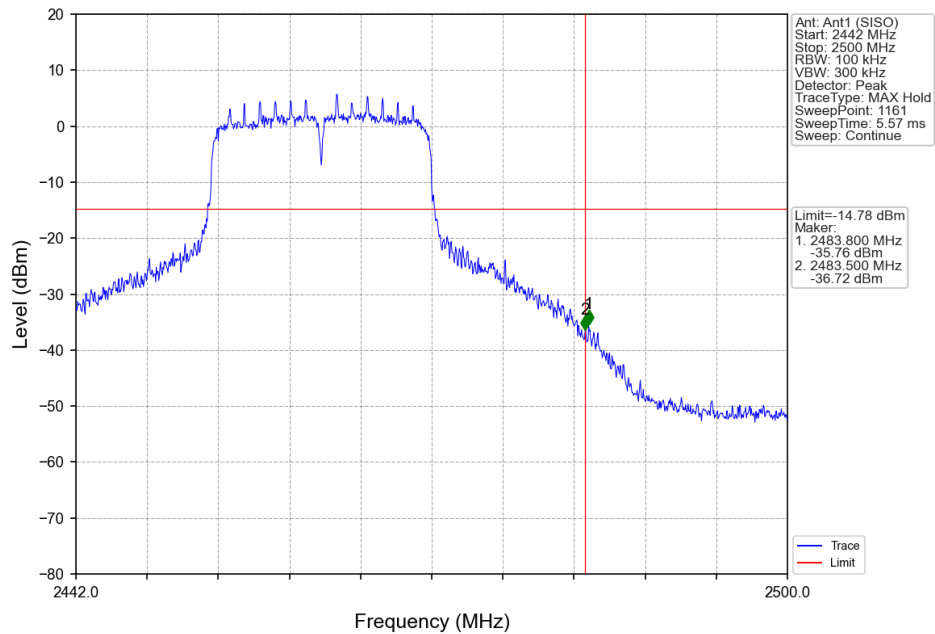
802.11n(HT20)\_LCH\_2412MHz\_Ant1 (SISO)\_NTNV



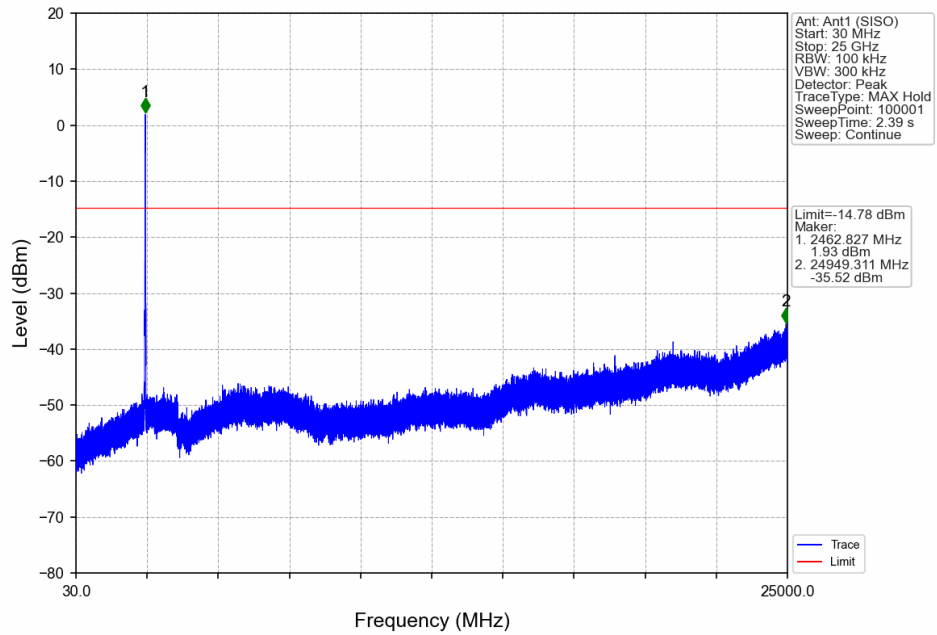
802.11n(HT20)\_MCH\_2437MHz\_Ant1 (SISO)\_NTNV



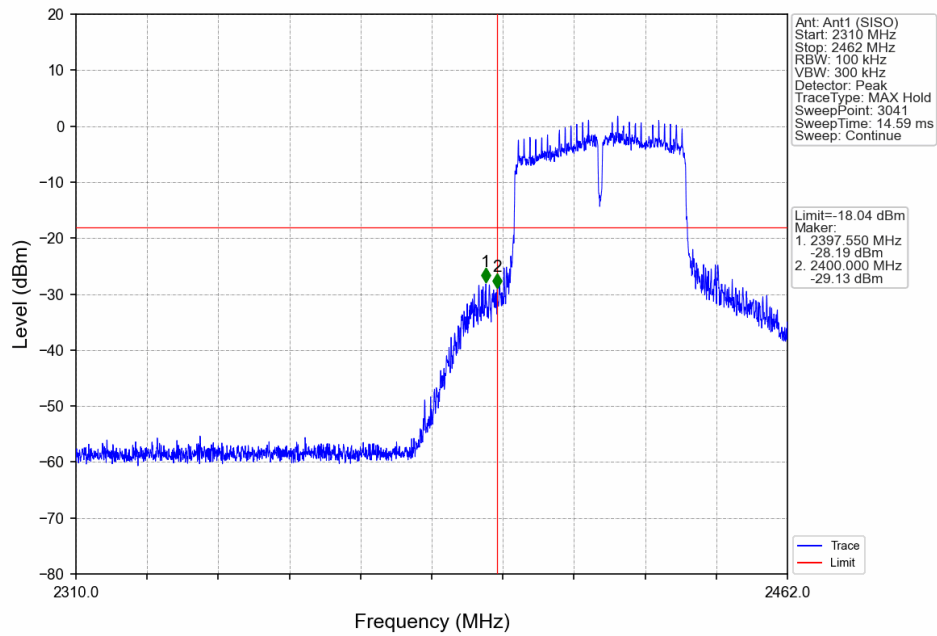
802.11n(HT20)\_HCH\_2462MHz\_Ant1 (SISO)\_NTNV



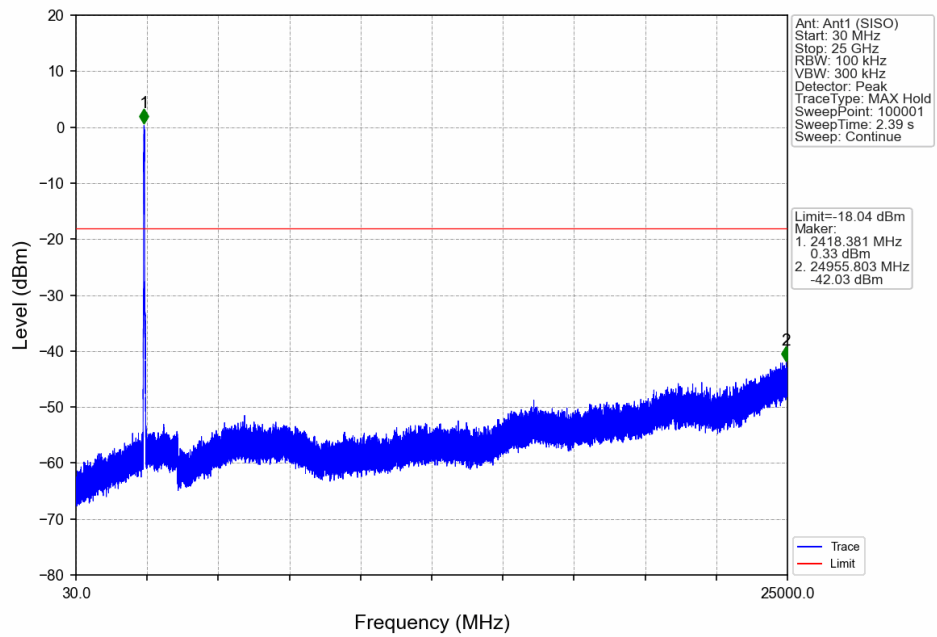
802.11n(HT20)\_HCH\_2462MHz\_Ant1 (SISO)\_NTNV



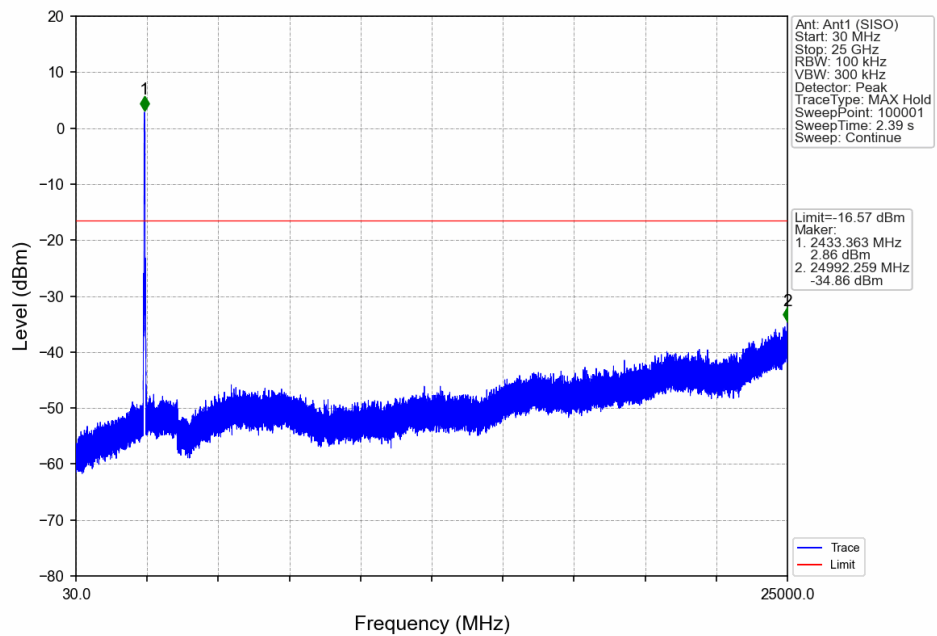
802.11n(HT40)\_LCH\_2422MHz\_Ant1 (SISO)\_NTNV



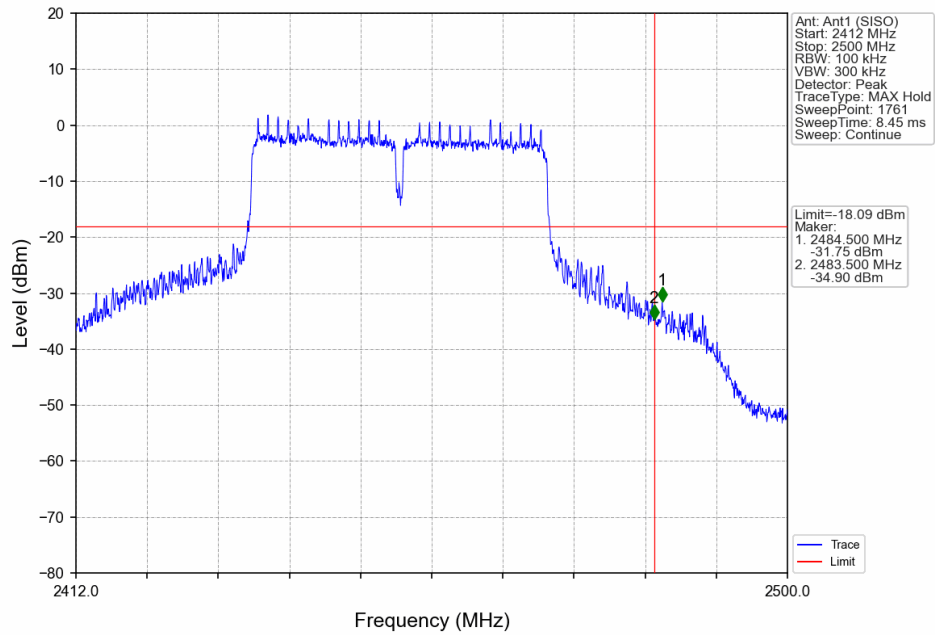
802.11n(HT40)\_LCH\_2422MHz\_Ant1 (SISO)\_NTNV



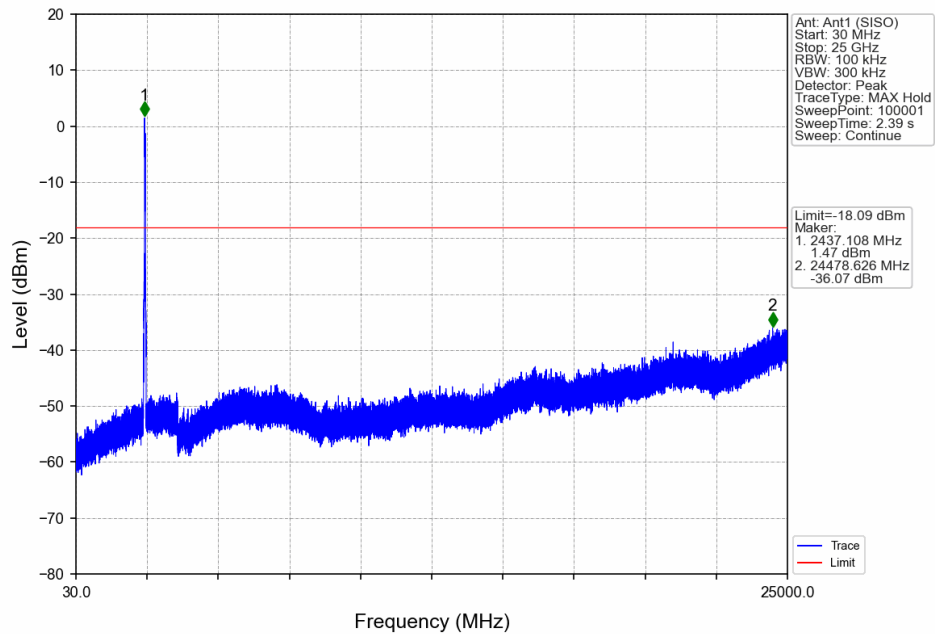
802.11n(HT40)\_MCH\_2437MHz\_Ant1 (SISO)\_NTNV



802.11n(HT40)\_HCH\_2452MHz\_Ant1 (SISO)\_NTNV



802.11n(HT40)\_HCH\_2452MHz\_Ant1 (SISO)\_NTNV



## 6. Form731

### 6.1 Test Result

#### 6.1.1 Form731

| Lower Freq (MHz) | High Freq (MHz) | MAX Power (W) | MAX Power (dBm) |
|------------------|-----------------|---------------|-----------------|
| 2422             | 2452            | 0.1538        | 21.87           |