

## 1. Bandwidth

### 1.1 Test Result

#### 1.1.1 OBW

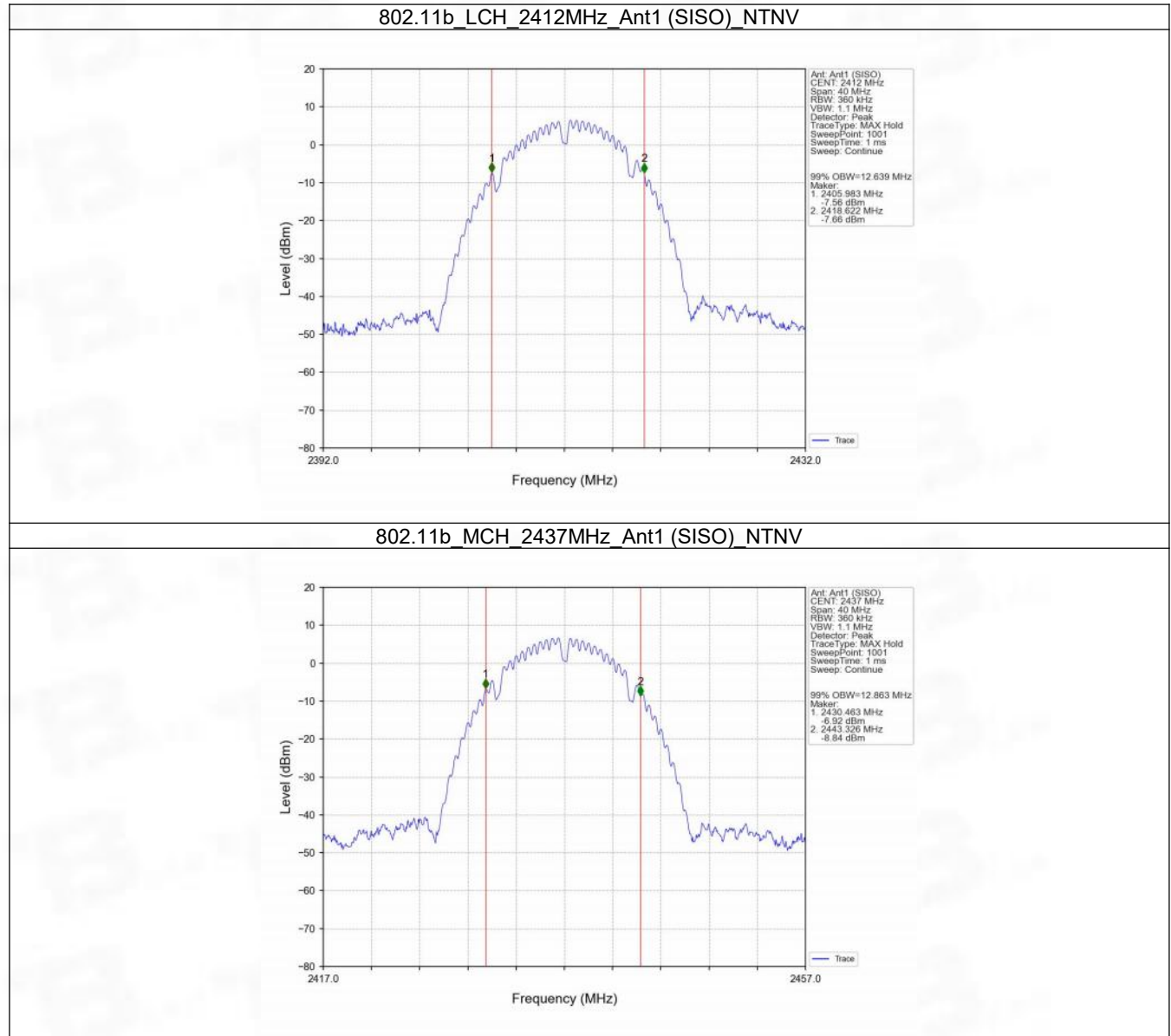
| Mode           | TX Type | Frequency (MHz) | ANT | 99% Occupied Bandwidth (MHz) |       | Verdict |
|----------------|---------|-----------------|-----|------------------------------|-------|---------|
|                |         |                 |     | Result                       | Limit |         |
| 802.11b        | SISO    | 2412            | 1   | 12.639                       | /     | Pass    |
|                |         | 2437            | 1   | 12.863                       | /     | Pass    |
|                |         | 2462            | 1   | 12.685                       | /     | Pass    |
| 802.11g        | SISO    | 2412            | 1   | 17.343                       | /     | Pass    |
|                |         | 2437            | 1   | 17.521                       | /     | Pass    |
|                |         | 2462            | 1   | 17.343                       | /     | Pass    |
| 802.11n (HT20) | SISO    | 2412            | 1   | 18.127                       | /     | Pass    |
|                |         | 2437            | 1   | 18.330                       | /     | Pass    |
|                |         | 2462            | 1   | 18.139                       | /     | Pass    |
| 802.11n (HT40) | SISO    | 2422            | 1   | 35.788                       | /     | Pass    |
|                |         | 2437            | 1   | 36.953                       | /     | Pass    |
|                |         | 2452            | 1   | 37.059                       | /     | Pass    |

#### 1.1.2 6dB BW

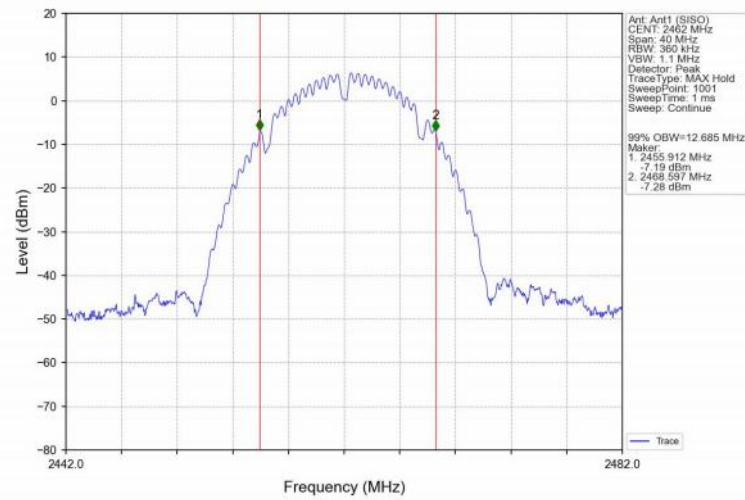
| Mode           | TX Type | Frequency (MHz) | ANT | 6dB Bandwidth (MHz) |            | Verdict |
|----------------|---------|-----------------|-----|---------------------|------------|---------|
|                |         |                 |     | Result              | Limit      |         |
| 802.11b        | SISO    | 2412            | 1   | 8.232               | $\geq 0.5$ | Pass    |
|                |         | 2437            | 1   | 8.233               | $\geq 0.5$ | Pass    |
|                |         | 2462            | 1   | 8.236               | $\geq 0.5$ | Pass    |
| 802.11g        | SISO    | 2412            | 1   | 15.479              | $\geq 0.5$ | Pass    |
|                |         | 2437            | 1   | 16.217              | $\geq 0.5$ | Pass    |
|                |         | 2462            | 1   | 16.087              | $\geq 0.5$ | Pass    |
| 802.11n (HT20) | SISO    | 2412            | 1   | 16.059              | $\geq 0.5$ | Pass    |
|                |         | 2437            | 1   | 17.403              | $\geq 0.5$ | Pass    |
|                |         | 2462            | 1   | 16.684              | $\geq 0.5$ | Pass    |
| 802.11n (HT40) | SISO    | 2422            | 1   | 27.228              | $\geq 0.5$ | Pass    |
|                |         | 2437            | 1   | 36.310              | $\geq 0.5$ | Pass    |
|                |         | 2452            | 1   | 36.261              | $\geq 0.5$ | Pass    |

## 1.2 Test Graph

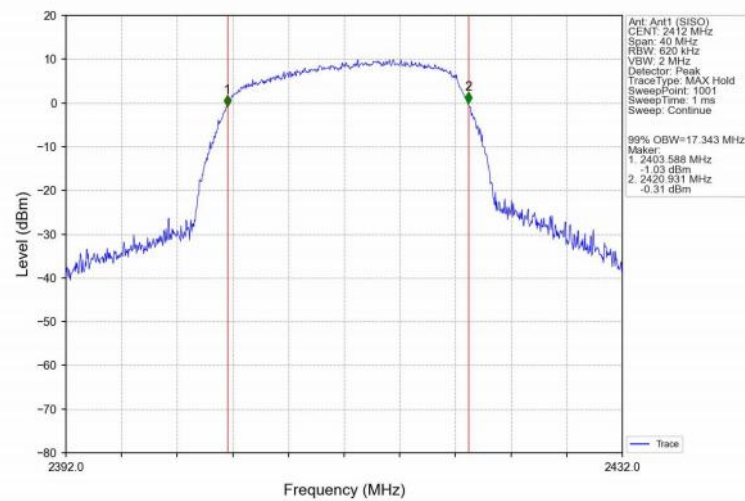
### 1.2.1 OBW



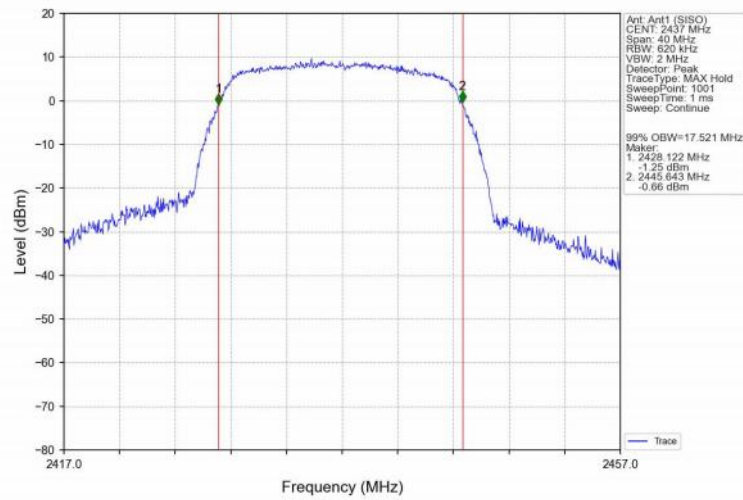
802.11b\_HCH\_2462MHz\_Ant1 (SISO)\_NTNV



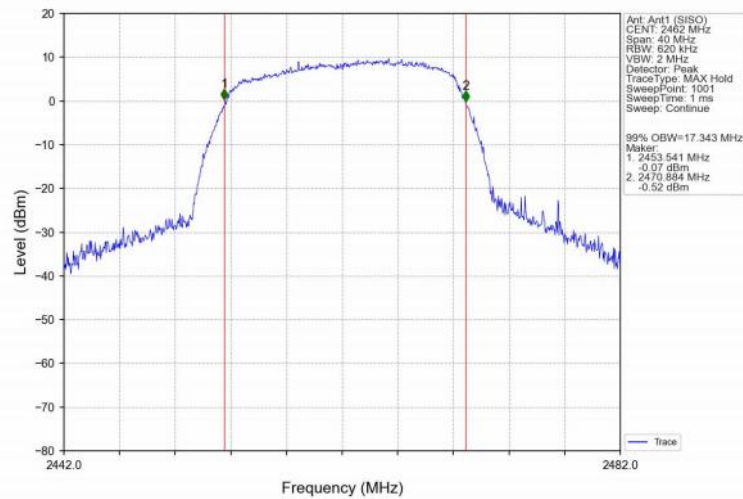
802.11g\_LCH\_2412MHz\_Ant1 (SISO)\_NTNV



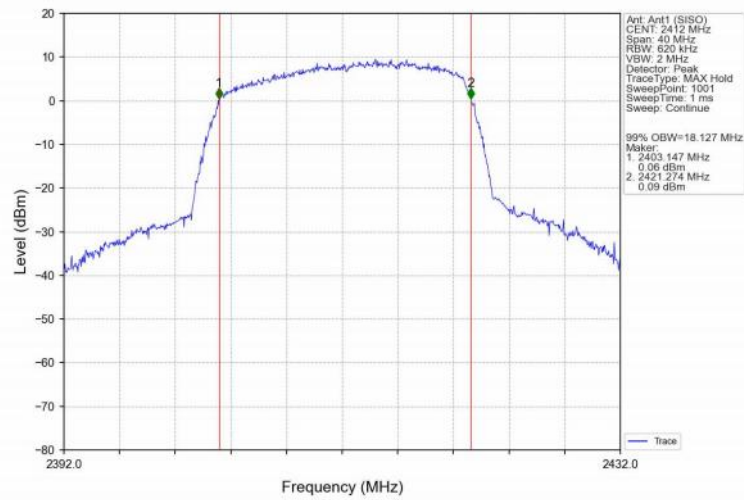
802.11g\_MCH\_2437MHz\_Ant1 (SISO)\_NTNV



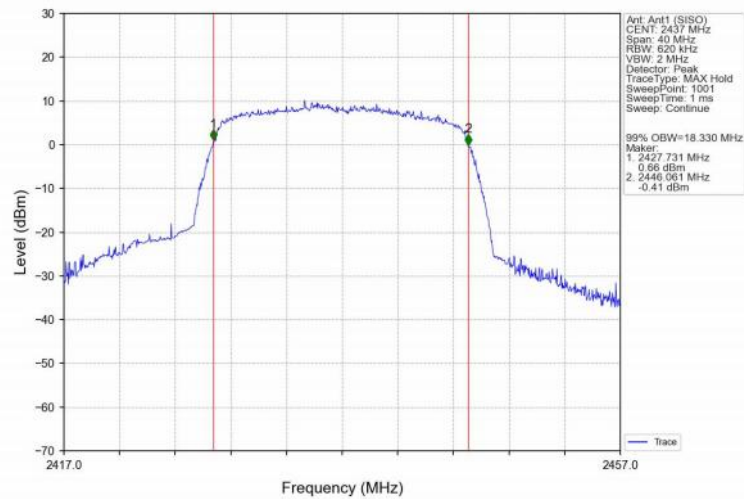
802.11g\_HCH\_2462MHz\_Ant1 (SISO)\_NTNV



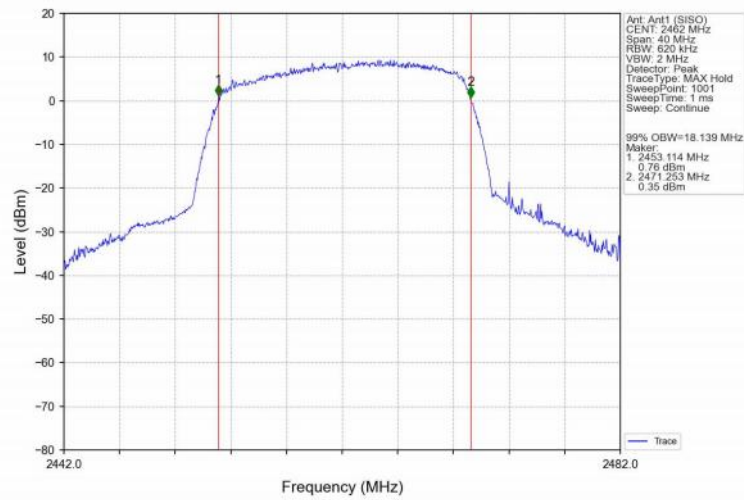
802.11n(HT20)\_LCH\_2412MHz\_Ant1 (SISO)\_NTNV



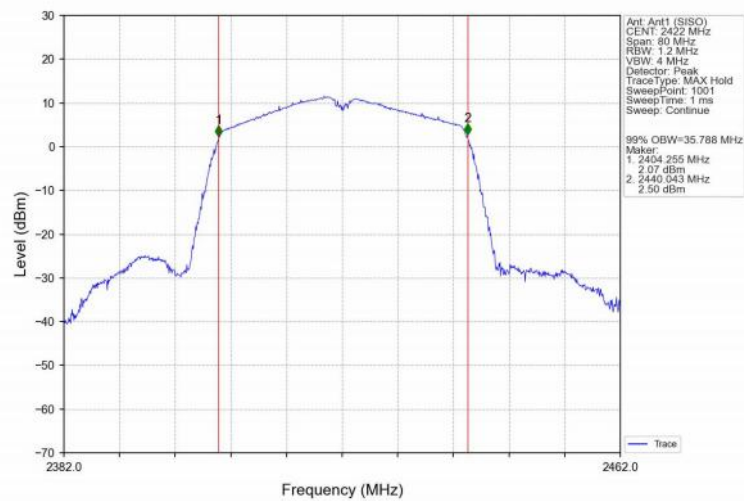
802.11n(HT20)\_MCH\_2437MHz\_Ant1 (SISO)\_NTNV



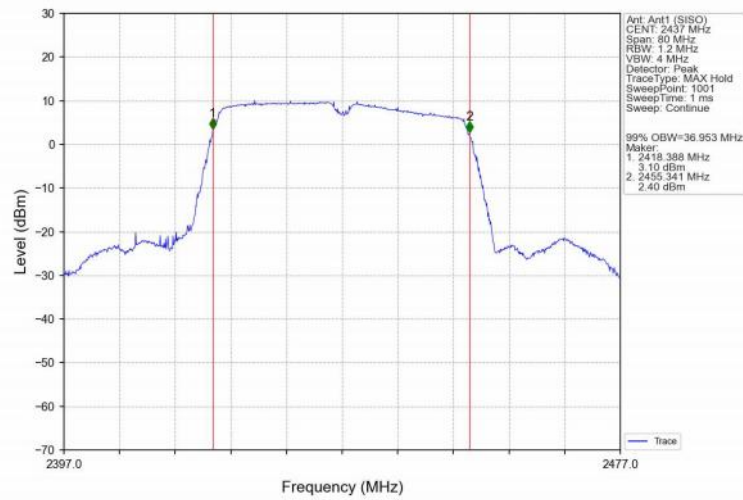
802.11n(HT20)\_HCH\_2462MHz\_Ant1 (SISO)\_NTNV



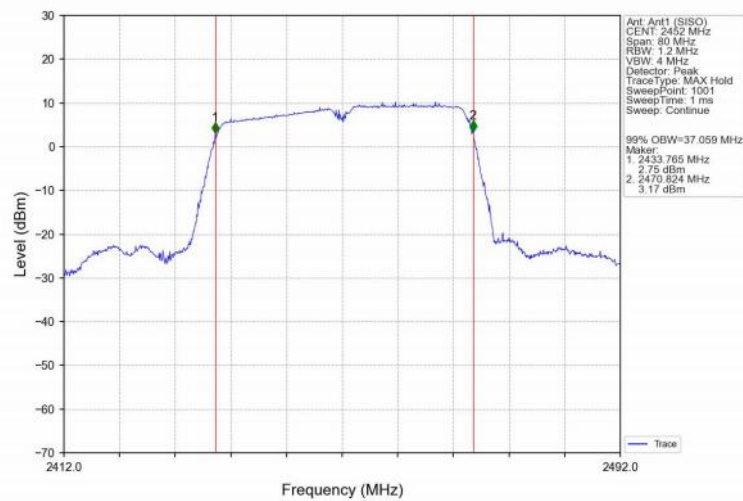
802.11n(HT40)\_LCH\_2422MHz\_Ant1 (SISO)\_NTNV



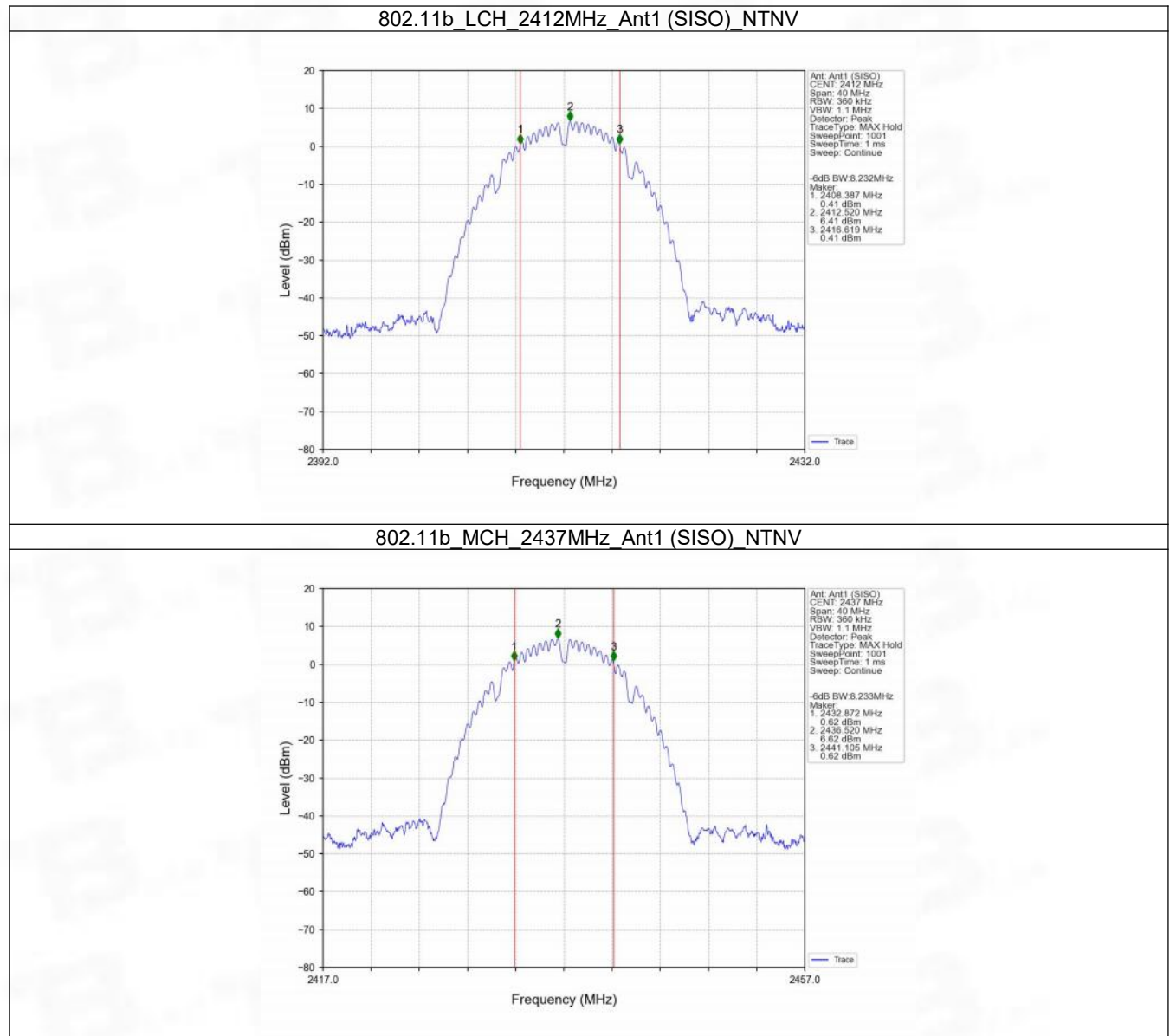
802.11n(HT40)\_MCH\_2437MHz\_Ant1 (SISO)\_NTNV



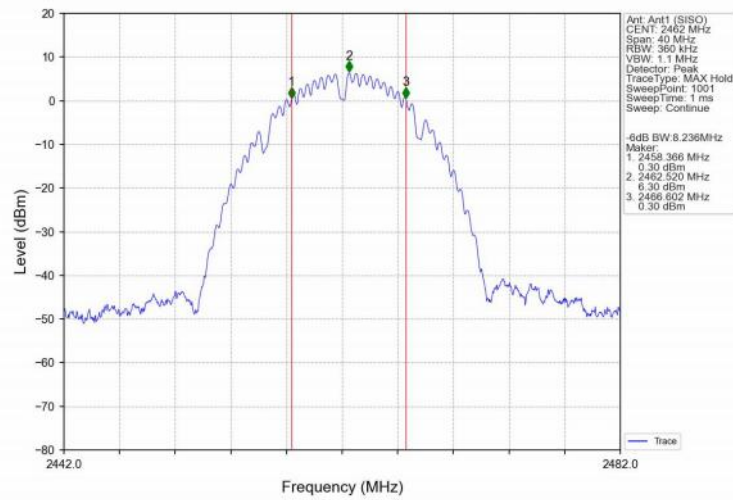
802.11n(HT40)\_HCH\_2452MHz\_Ant1 (SISO)\_NTNV



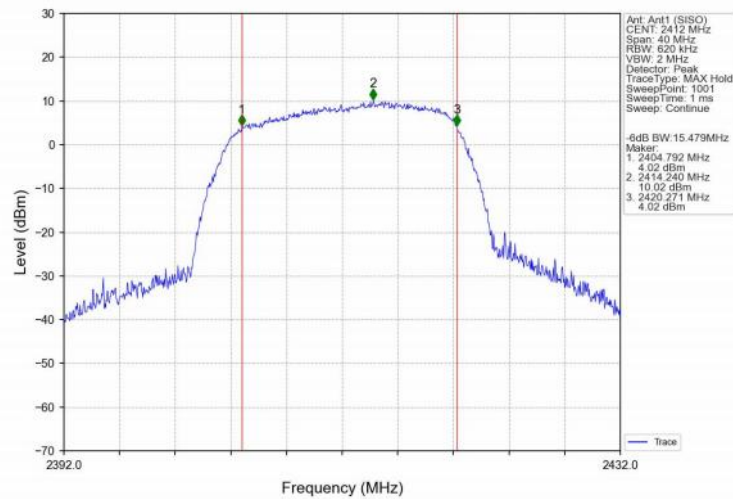
### 1.2.2 6dB BW



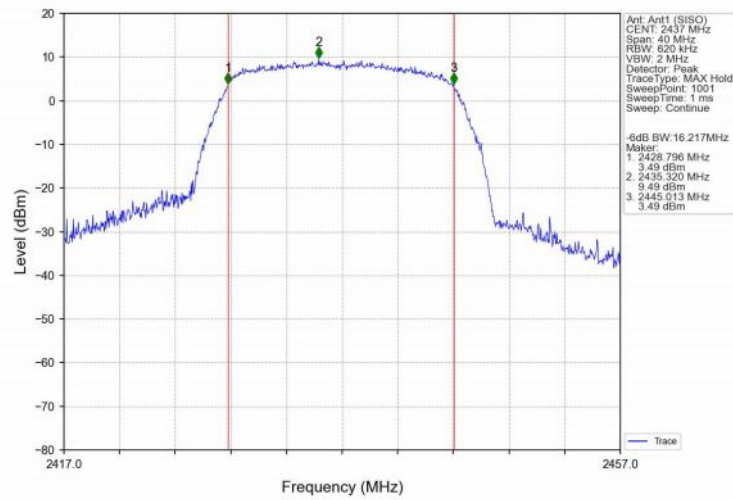
802.11b\_HCH\_2462MHz\_Ant1 (SISO)\_NTNV



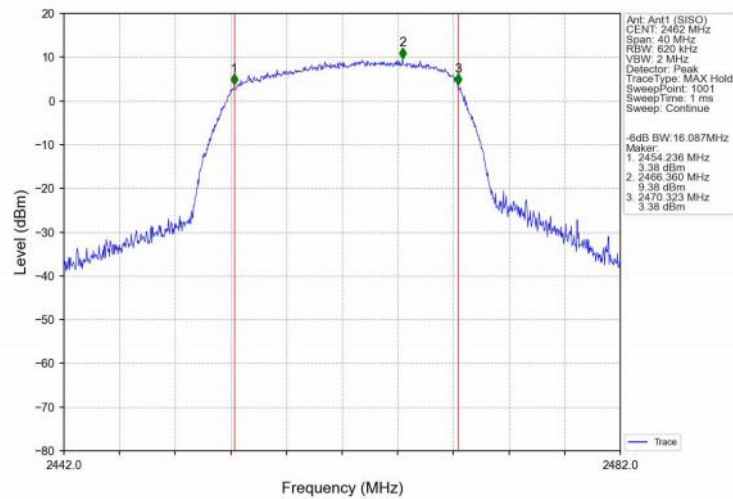
802.11g\_LCH\_2412MHz\_Ant1 (SISO)\_NTNV



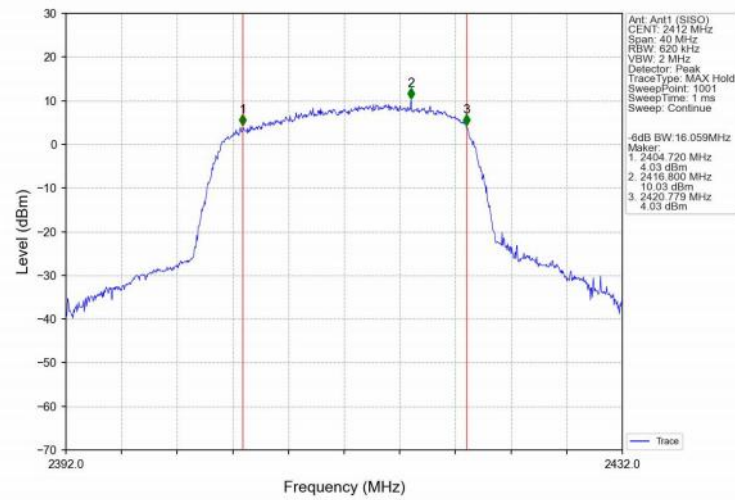
802.11g\_MCH\_2437MHz\_Ant1 (SISO)\_NTNV



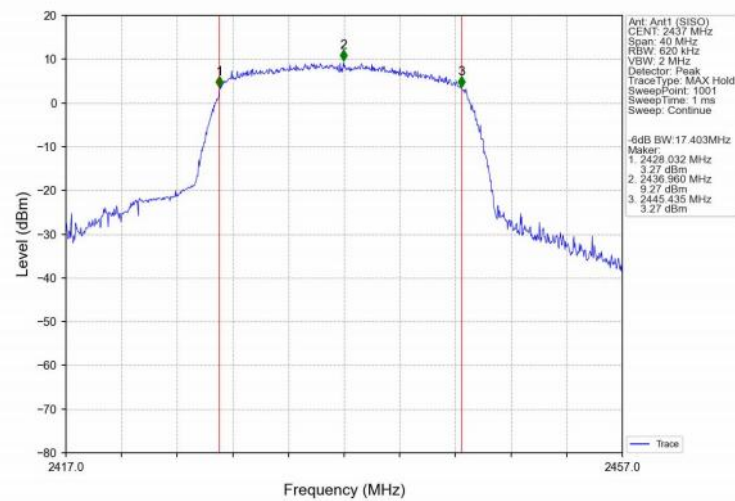
802.11g\_HCH\_2462MHz\_Ant1 (SISO)\_NTNV



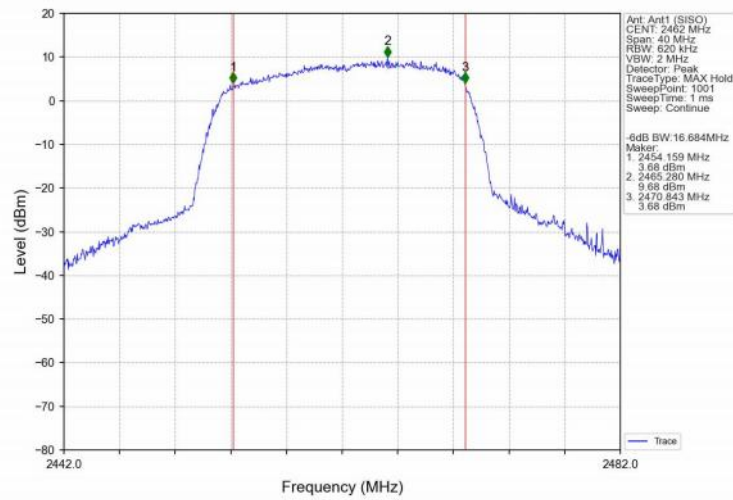
802.11n(HT20)\_LCH\_2412MHz\_Ant1 (SISO)\_NTNV



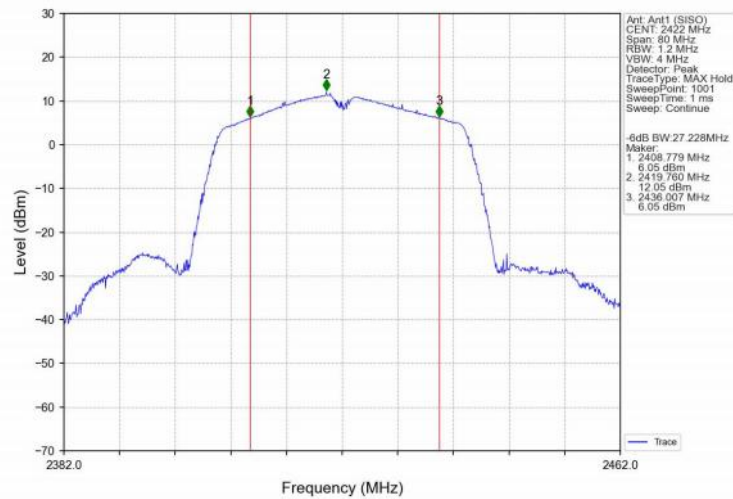
802.11n(HT20)\_MCH\_2437MHz\_Ant1 (SISO)\_NTNV



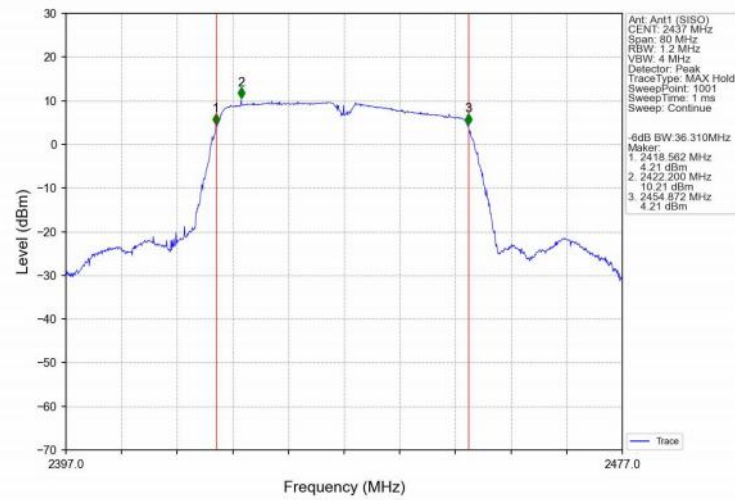
802.11n(HT20)\_HCH\_2462MHz\_Ant1 (SISO)\_NTNV



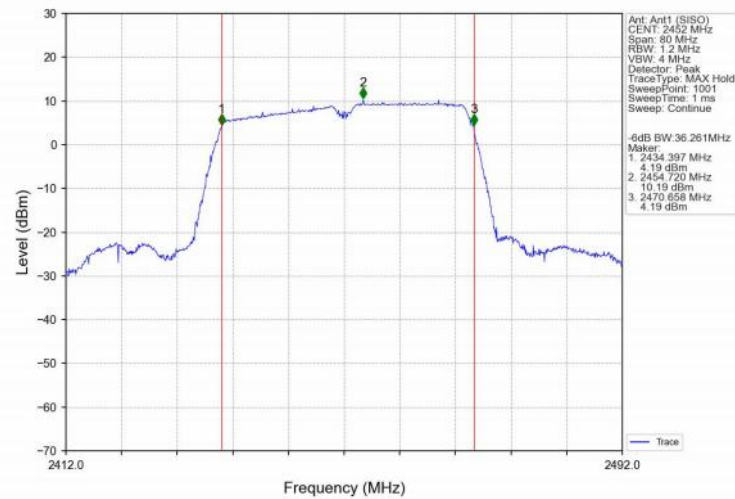
802.11n(HT40)\_LCH\_2422MHz\_Ant1 (SISO)\_NTNV



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



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



## 2. Maximum Conducted Output Power

### 2.1 Test Result

#### 2.1.1 Power

| Mode           | TX Type | Frequency (MHz) | Maximum Average Conducted Output Power (dBm) |       | Verdict |
|----------------|---------|-----------------|----------------------------------------------|-------|---------|
|                |         |                 | ANT1                                         | Limit |         |
| 802.11b        | SISO    | 2412            | 14.02                                        | <=30  | Pass    |
|                |         | 2437            | 14.30                                        | <=30  | Pass    |
|                |         | 2462            | 13.88                                        | <=30  | Pass    |
| 802.11g        | SISO    | 2412            | 13.77                                        | <=30  | Pass    |
|                |         | 2437            | 13.62                                        | <=30  | Pass    |
|                |         | 2462            | 13.62                                        | <=30  | Pass    |
| 802.11n (HT20) | SISO    | 2412            | 13.53                                        | <=30  | Pass    |
|                |         | 2437            | 13.92                                        | <=30  | Pass    |
|                |         | 2462            | 13.62                                        | <=30  | Pass    |
| 802.11n (HT40) | SISO    | 2422            | 14.13                                        | <=30  | Pass    |
|                |         | 2437            | 14.13                                        | <=30  | Pass    |
|                |         | 2452            | 13.94                                        | <=30  | Pass    |

Note1: Antenna Gain: Ant1: 2.81dBi;

## 3. Maximum Power Spectral Density

### 3.1 Test Result

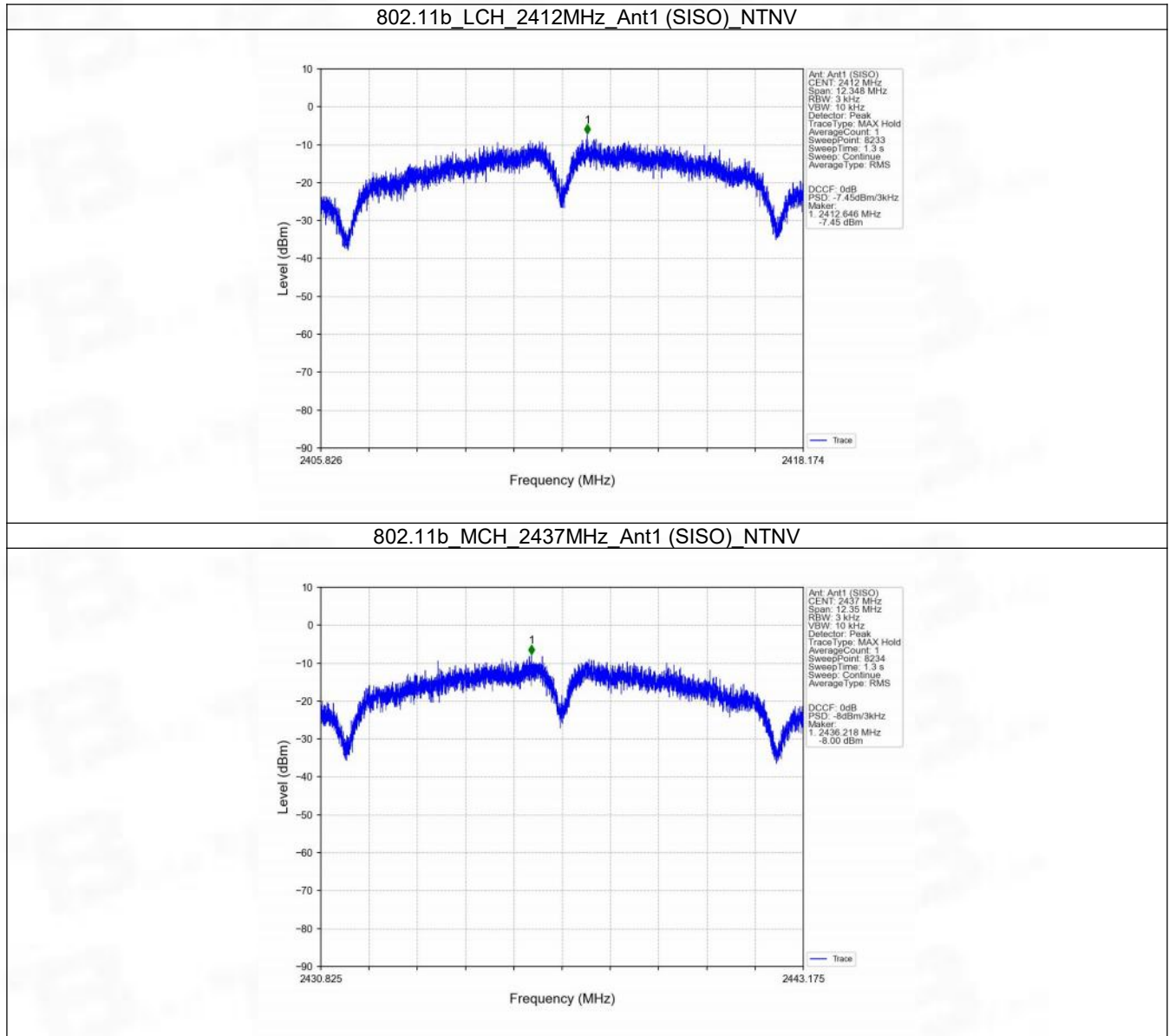
#### 3.1.1 PSD

| Mode           | TX Type | Frequency (MHz) | Maximum PSD (dBm/3kHz) |       | Verdict |
|----------------|---------|-----------------|------------------------|-------|---------|
|                |         |                 | ANT1                   | Limit |         |
| 802.11b        | SISO    | 2412            | -7.45                  | <=8   | Pass    |
|                |         | 2437            | -8.00                  | <=8   | Pass    |
|                |         | 2462            | -7.74                  | <=8   | Pass    |
| 802.11g        | SISO    | 2412            | -10.48                 | <=8   | Pass    |
|                |         | 2437            | -9.40                  | <=8   | Pass    |
|                |         | 2462            | -9.29                  | <=8   | Pass    |
| 802.11n (HT20) | SISO    | 2412            | -11.04                 | <=8   | Pass    |
|                |         | 2437            | -9.98                  | <=8   | Pass    |
|                |         | 2462            | -10.75                 | <=8   | Pass    |
| 802.11n (HT40) | SISO    | 2422            | -11.53                 | <=8   | Pass    |
|                |         | 2437            | -10.91                 | <=8   | Pass    |
|                |         | 2452            | -14.06                 | <=8   | Pass    |

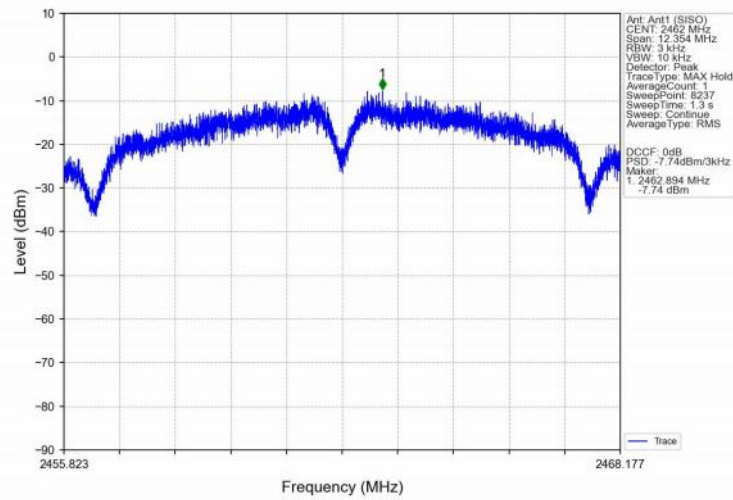
Note1: Antenna Gain: Ant1: 2.81dBi;

## 3.2 Test Graph

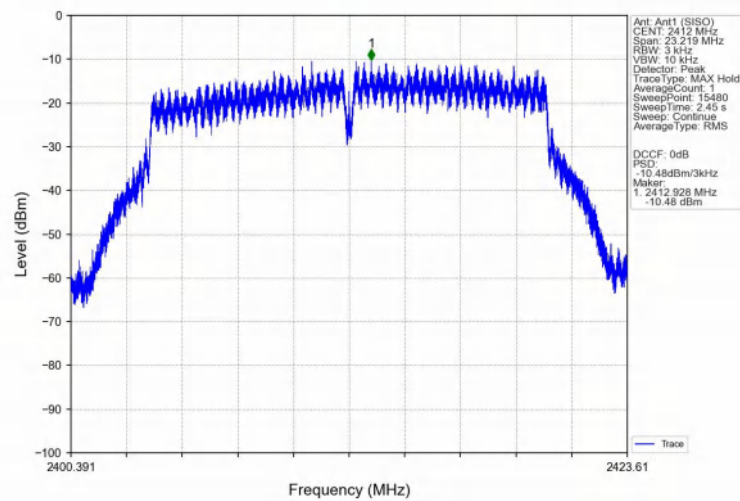
### 3.2.1 PSD



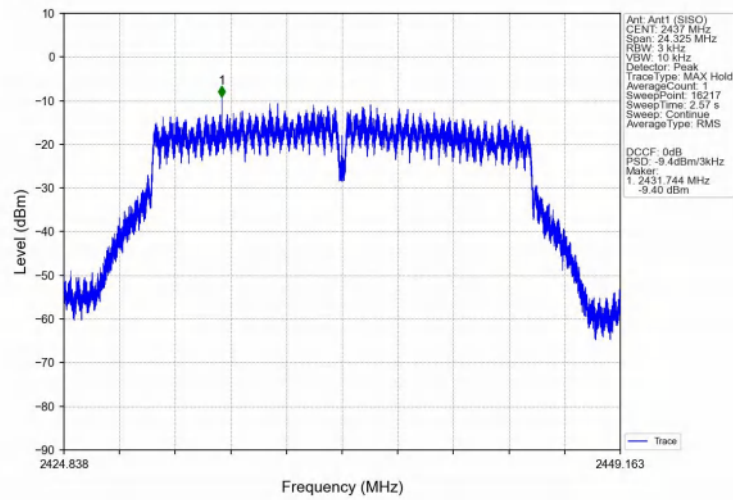
802.11b\_HCH\_2462MHz\_Ant1 (SISO)\_NTNV



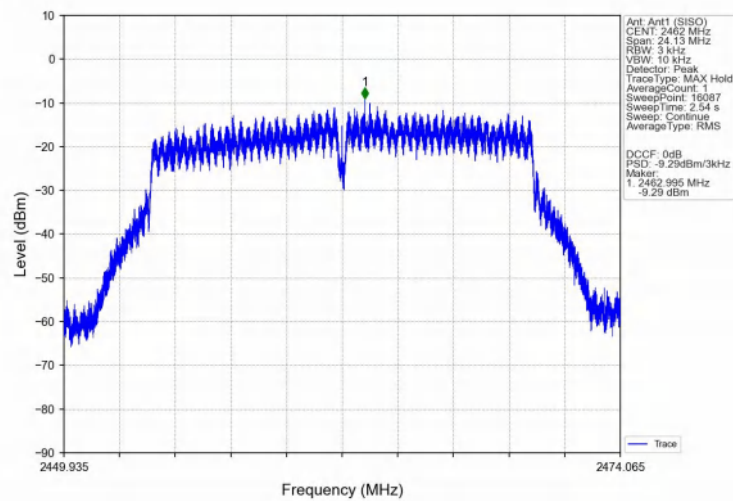
802.11g\_LCH\_2412MHz\_Ant1 (SISO)\_NTNV



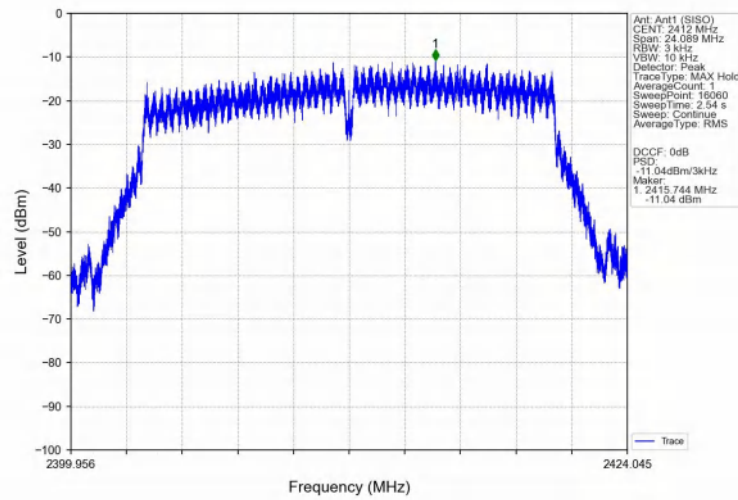
802.11g\_MCH\_2437MHz\_Ant1 (SISO)\_NTNV



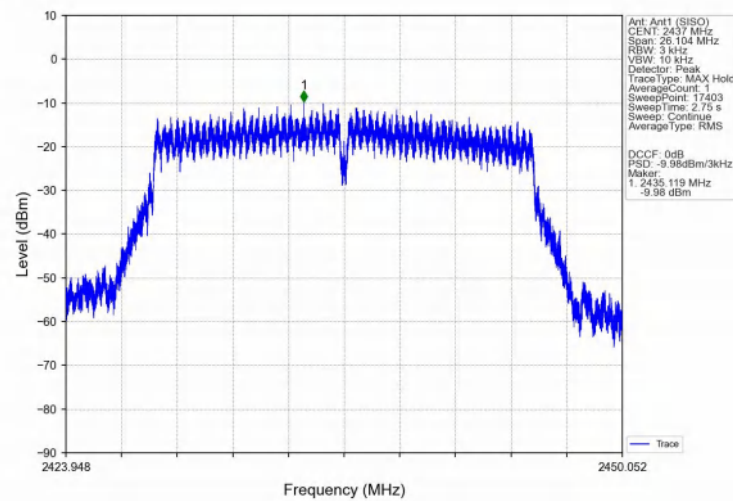
802.11g\_HCH\_2462MHz\_Ant1 (SISO)\_NTNV



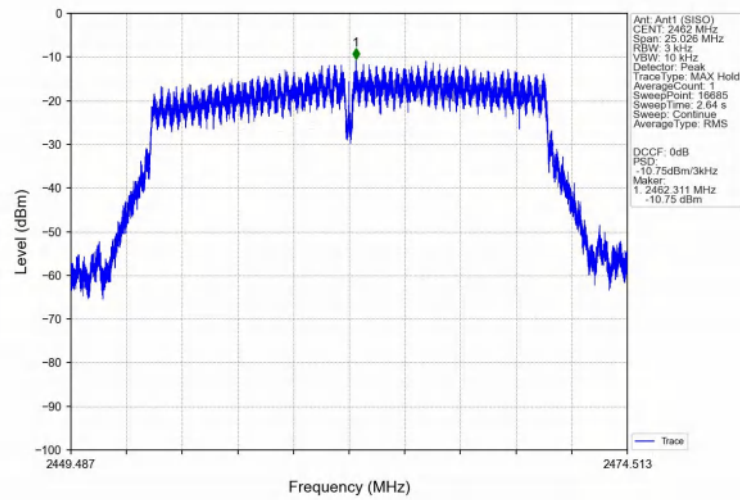
802.11n(HT20)\_LCH\_2412MHz\_Ant1 (SISO)\_NTNV



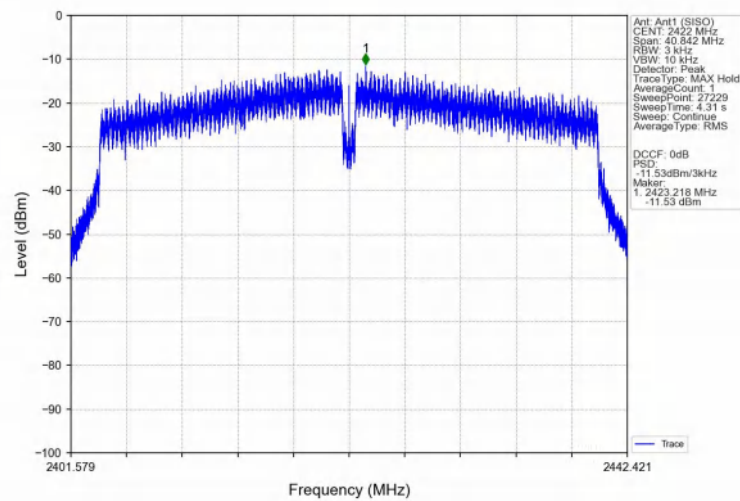
802.11n(HT20)\_MCH\_2437MHz\_Ant1 (SISO)\_NTNV



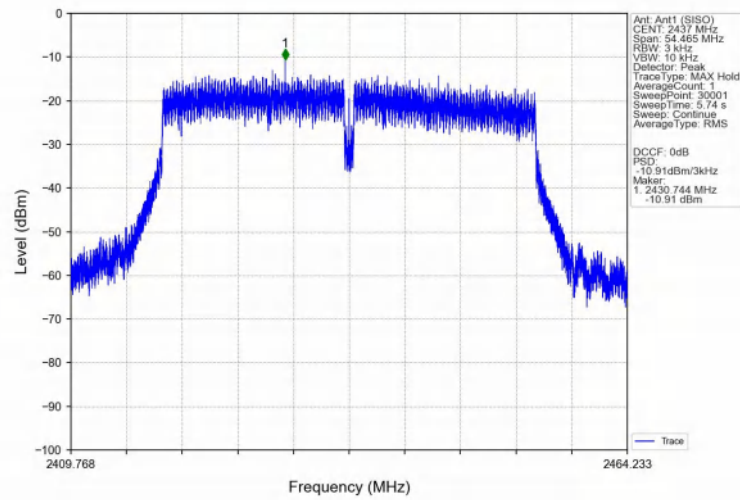
802.11n(HT20)\_HCH\_2462MHz\_Ant1 (SISO)\_NTNV



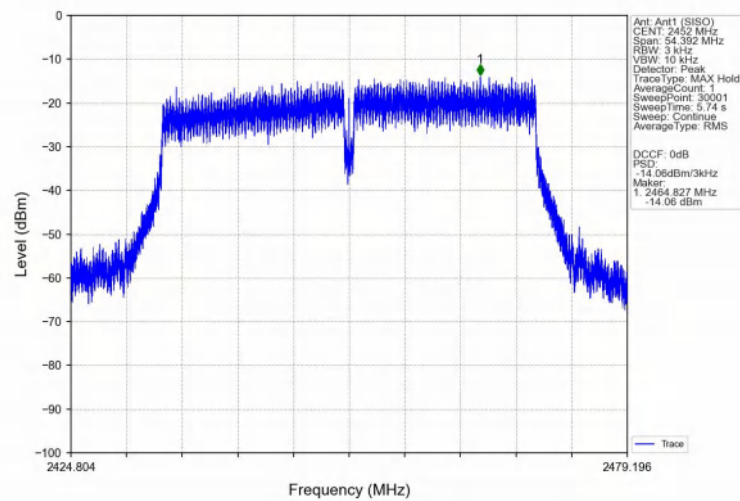
802.11n(HT40)\_LCH\_2422MHz\_Ant1 (SISO)\_NTNV



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



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



## 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) |
|----------------|---------|-----------------|-----|--------------------------|
| 802.11b        | SISO    | 2412            | 1   | 6.35                     |
|                |         | 2437            | 1   | 6.44                     |
|                |         | 2462            | 1   | 6.22                     |
| 802.11g        | SISO    | 2412            | 1   | 3.69                     |
|                |         | 2437            | 1   | 3.20                     |
|                |         | 2462            | 1   | 3.79                     |
| 802.11n (HT20) | SISO    | 2412            | 1   | 3.88                     |
|                |         | 2437            | 1   | 3.83                     |
|                |         | 2462            | 1   | 3.88                     |
| 802.11n (HT40) | SISO    | 2422            | 1   | 2.52                     |
|                |         | 2437            | 1   | 0.75                     |
|                |         | 2452            | 1   | 0.69                     |

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.

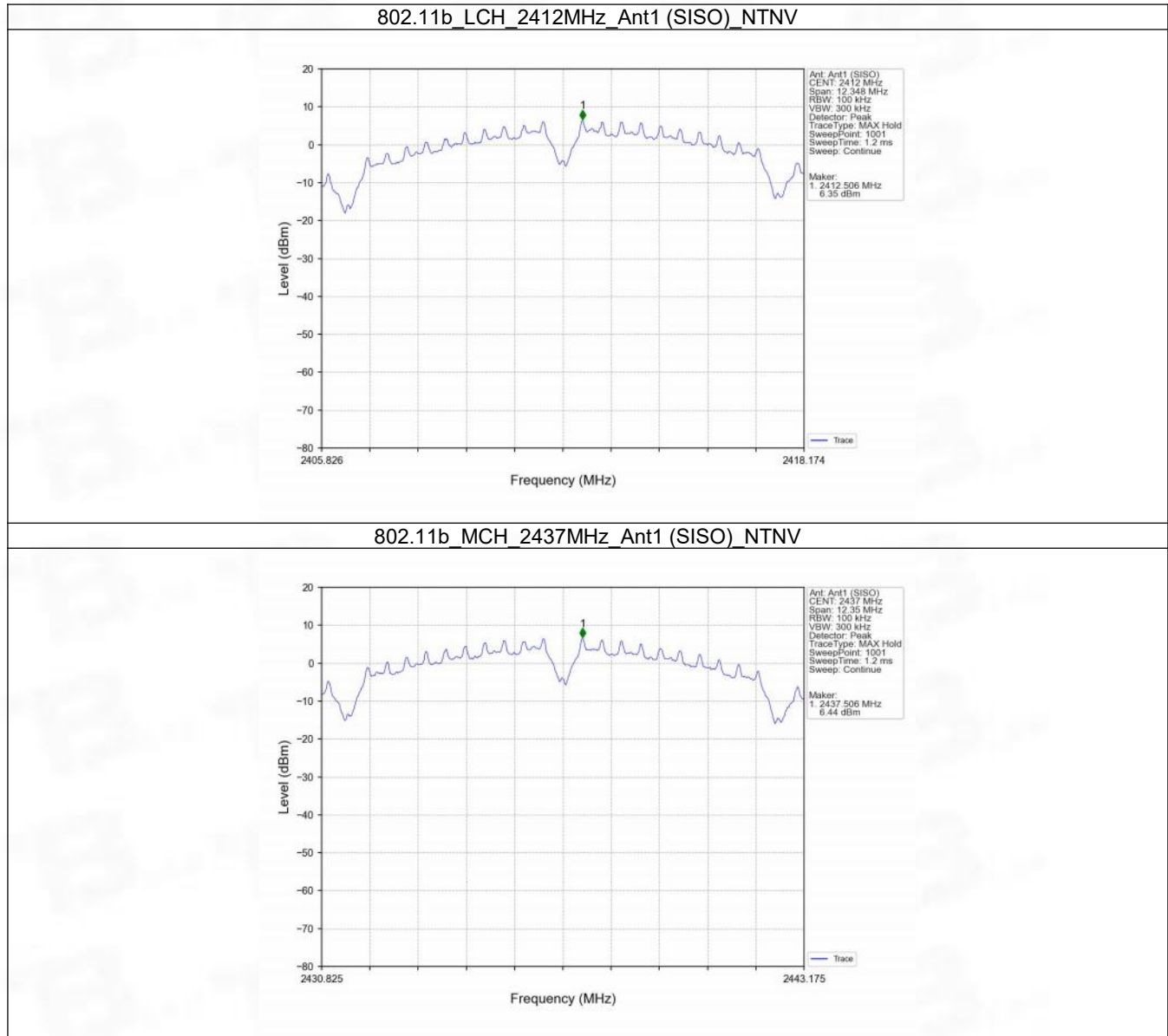
#### 4.1.2 CSE

| Mode           | TX Type | Frequency (MHz) | ANT | Level of Reference (dBm) | Limit (dBm) | Verdict |
|----------------|---------|-----------------|-----|--------------------------|-------------|---------|
| 802.11b        | SISO    | 2412            | 1   | 6.44                     | -23.56      | Pass    |
|                |         | 2437            | 1   | 6.44                     | -23.56      | Pass    |
|                |         | 2462            | 1   | 6.44                     | -23.56      | Pass    |
| 802.11g        | SISO    | 2412            | 1   | 3.79                     | -26.21      | Pass    |
|                |         | 2437            | 1   | 3.79                     | -26.21      | Pass    |
|                |         | 2462            | 1   | 3.79                     | -26.21      | Pass    |
| 802.11n (HT20) | SISO    | 2412            | 1   | 3.88                     | -26.12      | Pass    |
|                |         | 2437            | 1   | 3.88                     | -26.12      | Pass    |
|                |         | 2462            | 1   | 3.88                     | -26.12      | Pass    |
| 802.11n (HT40) | SISO    | 2422            | 1   | 2.52                     | -27.48      | Pass    |
|                |         | 2437            | 1   | 2.52                     | -27.48      | Pass    |
|                |         | 2452            | 1   | 2.52                     | -27.48      | Pass    |

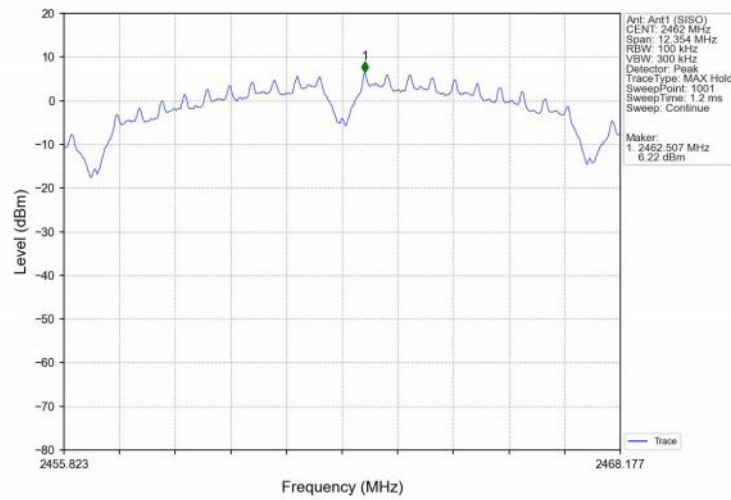
Note1: Refer to FCC Part 15.247 (d) and ANSI C63.10-2020, the channel contains the maximum PSD level was used to establish the reference level.

## 4.2 Test Graph

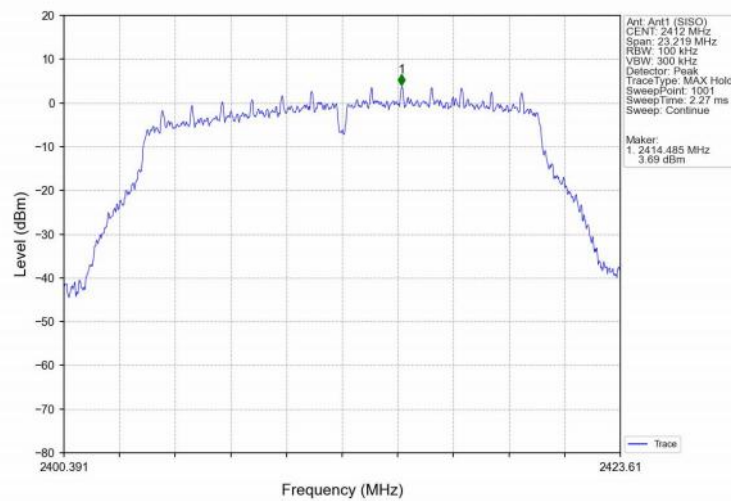
### 4.2.1 Ref



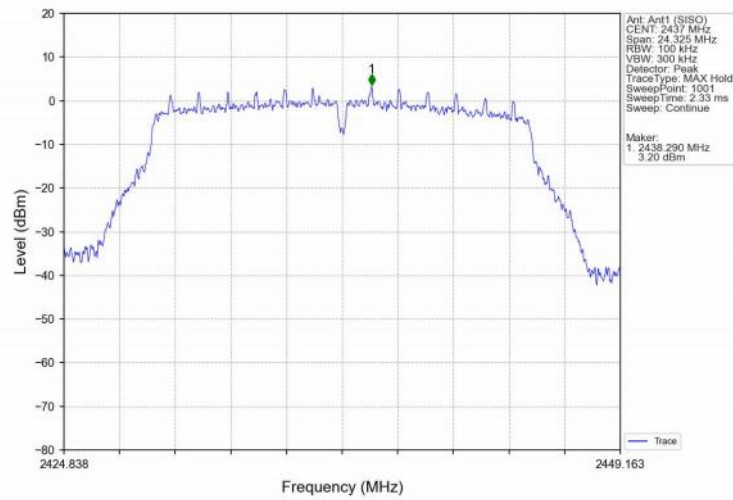
## 802.11b\_HCH\_2462MHz\_Ant1 (SISO)\_NTNV



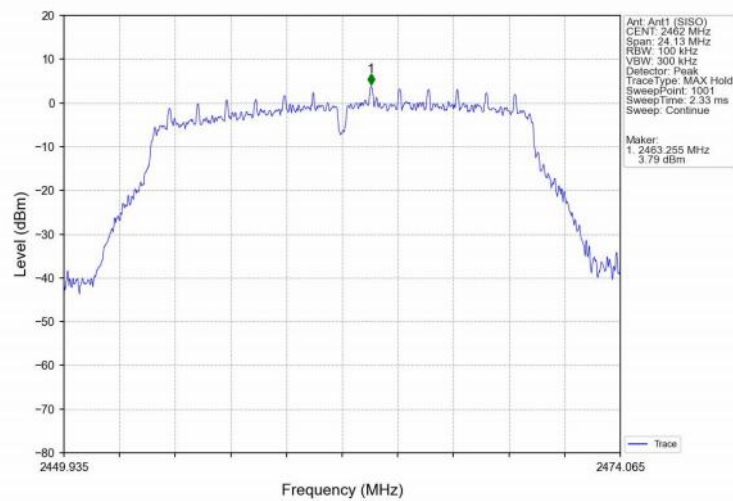
## 802.11g\_LCH\_2412MHz\_Ant1 (SISO)\_NTNV



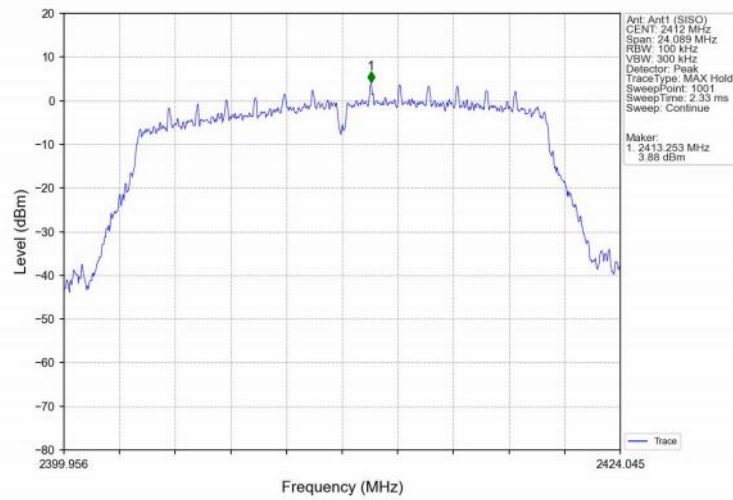
802.11g\_MCH\_2437MHz\_Ant1 (SISO)\_NTNV



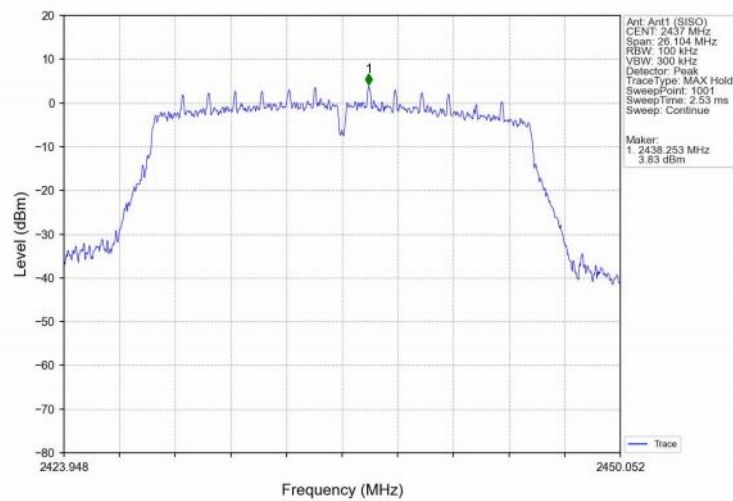
802.11g\_HCH\_2462MHz\_Ant1 (SISO)\_NTNV



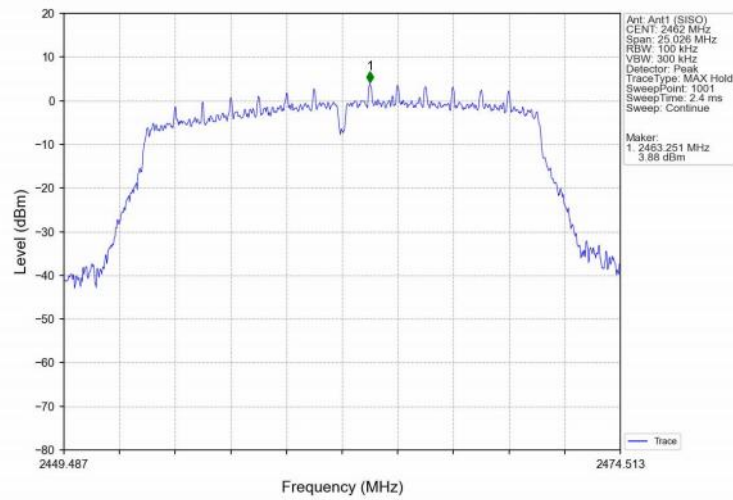
802.11n(HT20)\_LCH\_2412MHz\_Ant1 (SISO)\_NTNV



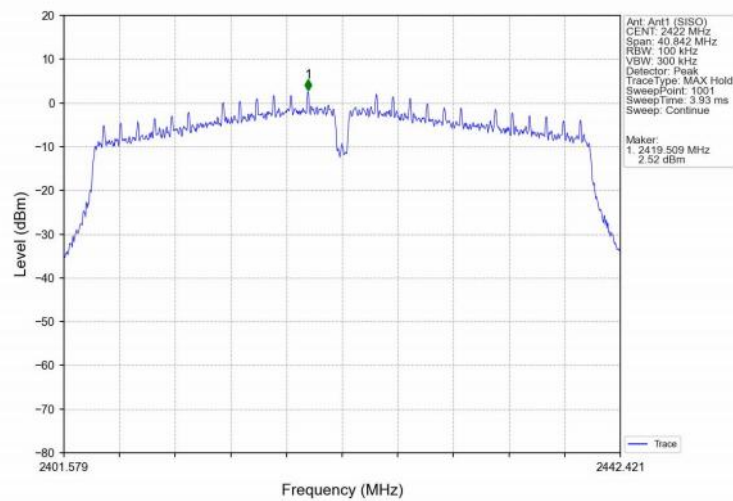
802.11n(HT20)\_MCH\_2437MHz\_Ant1 (SISO)\_NTNV



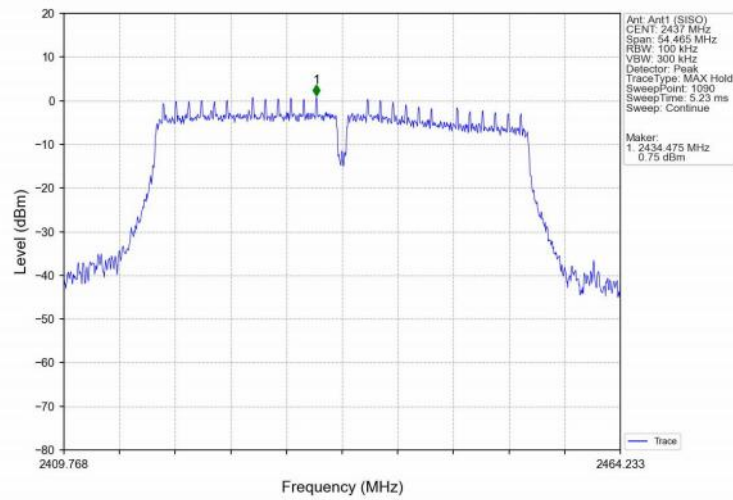
802.11n(HT20)\_HCH\_2462MHz\_Ant1 (SISO)\_NTNV



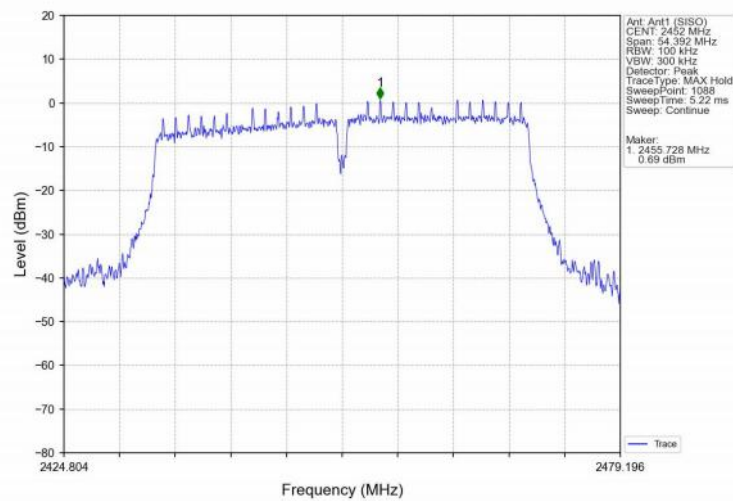
802.11n(HT40)\_LCH\_2422MHz\_Ant1 (SISO)\_NTNV



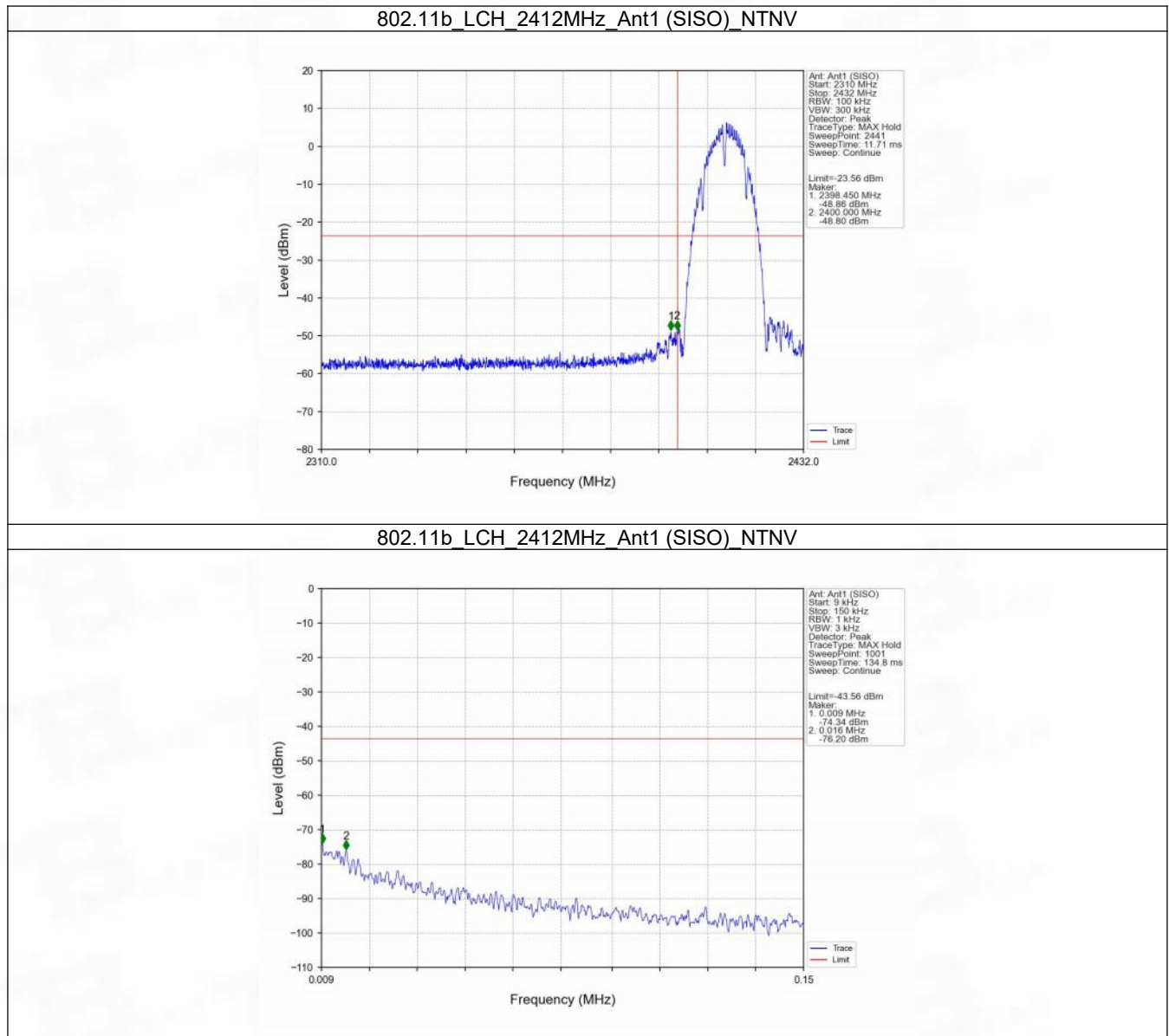
802.11n(HT40)\_MCH\_2437MHz\_Ant1 (SISO)\_NTNV



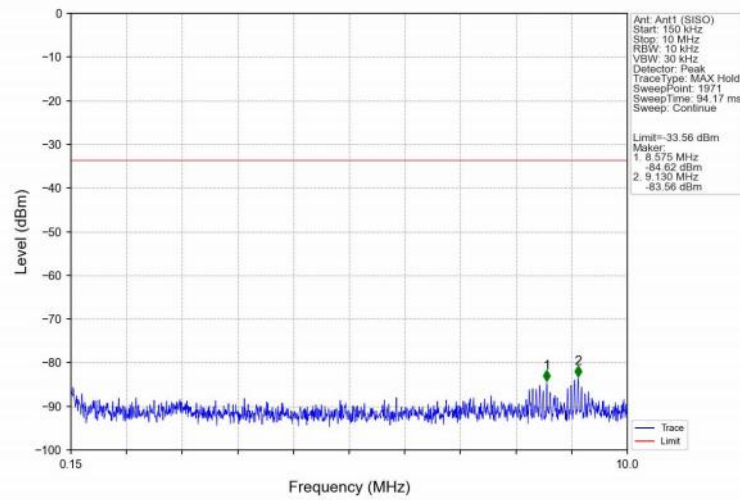
802.11n(HT40)\_HCH\_2452MHz\_Ant1 (SISO)\_NTNV



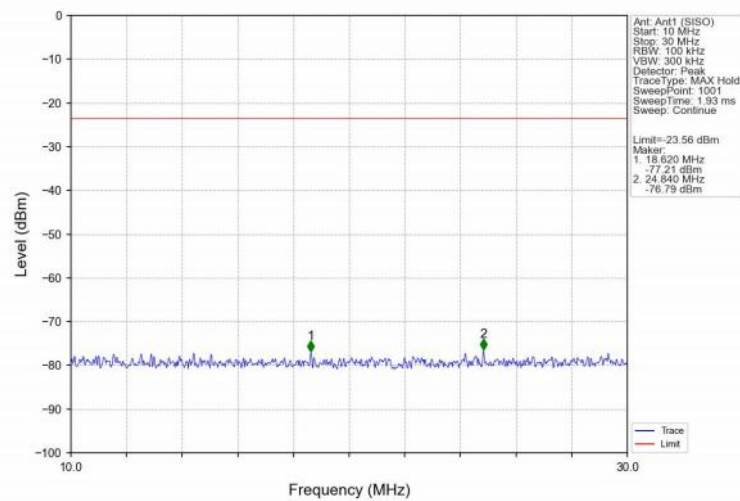
#### 4.2.2 CSE



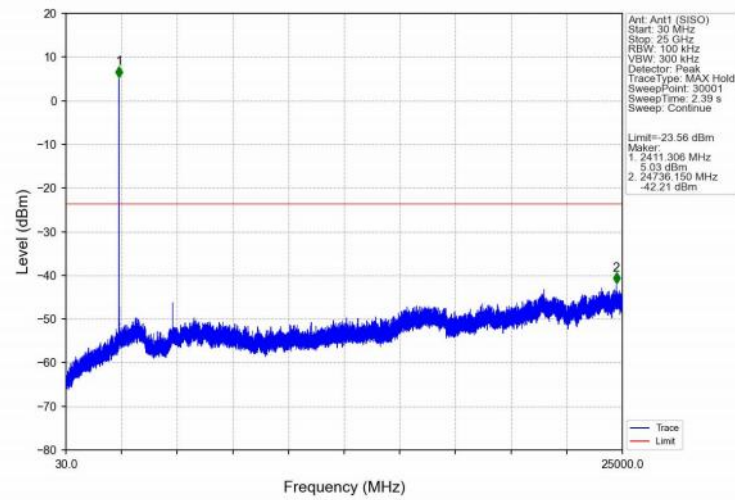
## 802.11b\_LCH\_2412MHz\_Ant1 (SISO)\_NTNV



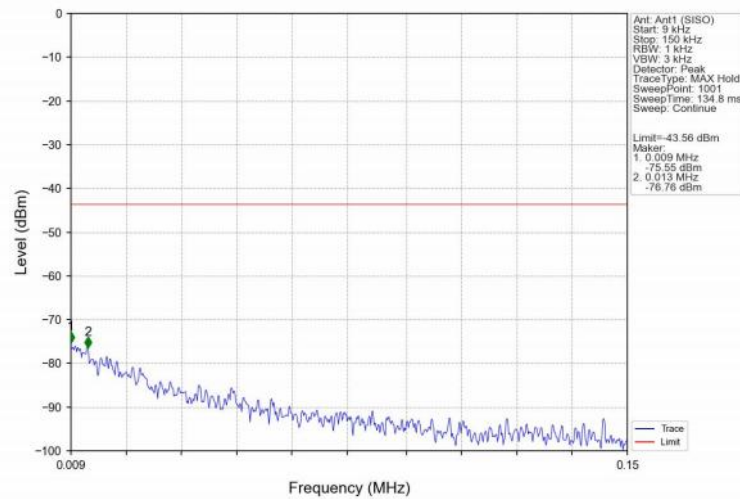
## 802.11b\_LCH\_2412MHz\_Ant1 (SISO)\_NTNV



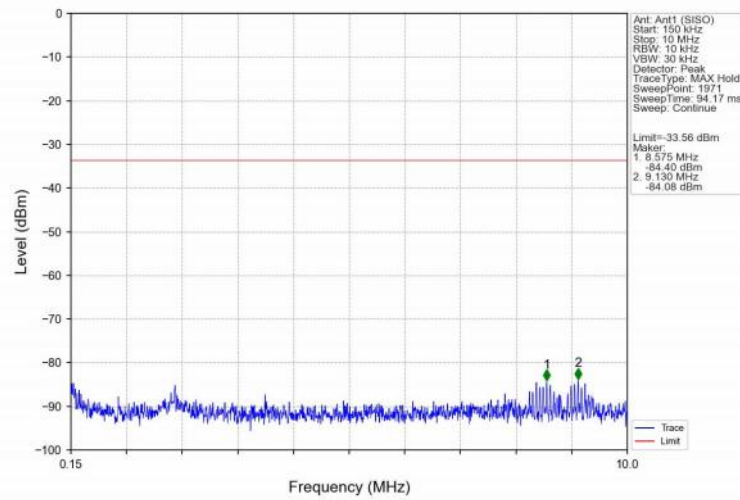
## 802.11b\_LCH\_2412MHz\_Ant1 (SISO)\_NTNV



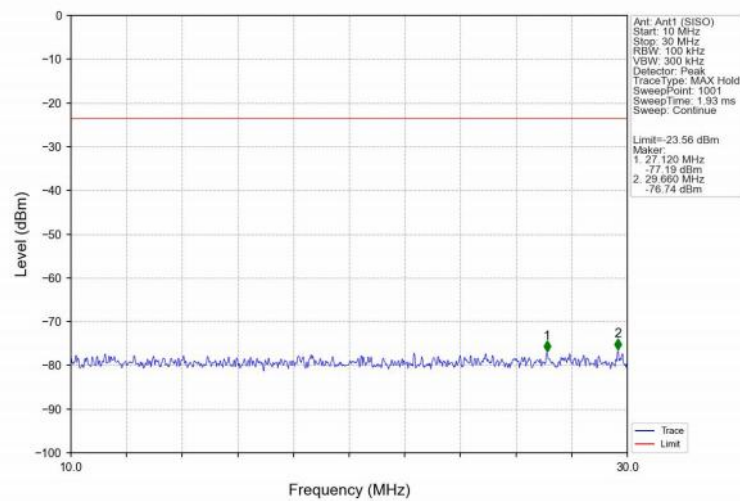
## 802.11b\_MCH\_2437MHz\_Ant1 (SISO)\_NTNV



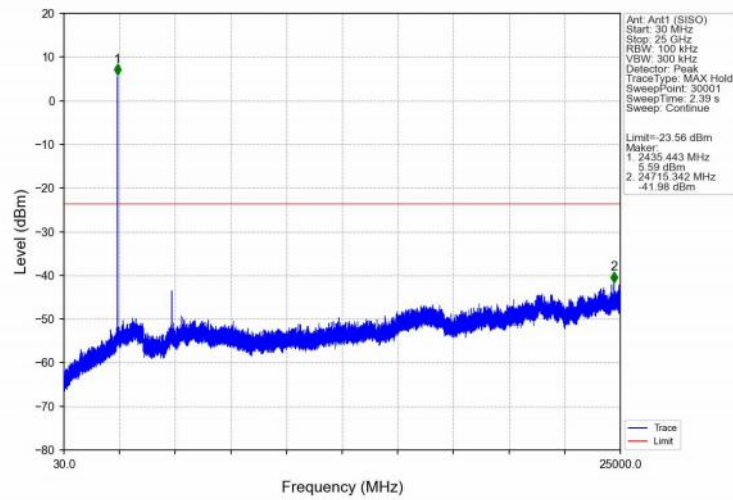
## 802.11b\_MCH\_2437MHz\_Ant1 (SISO)\_NTNV



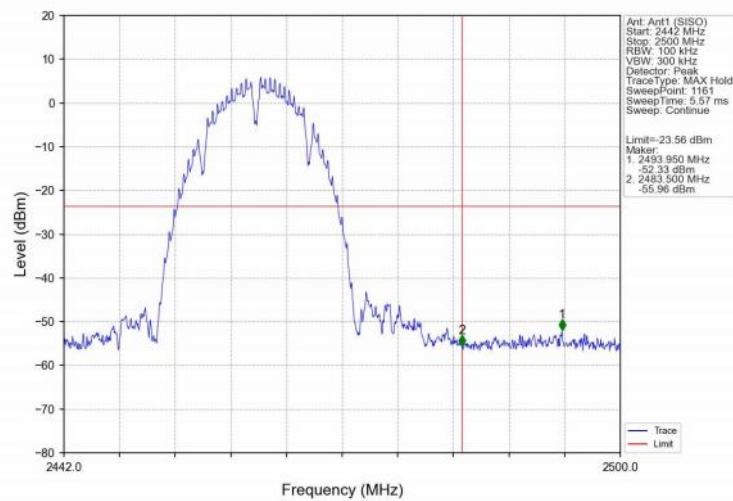
## 802.11b\_MCH\_2437MHz\_Ant1 (SISO)\_NTNV



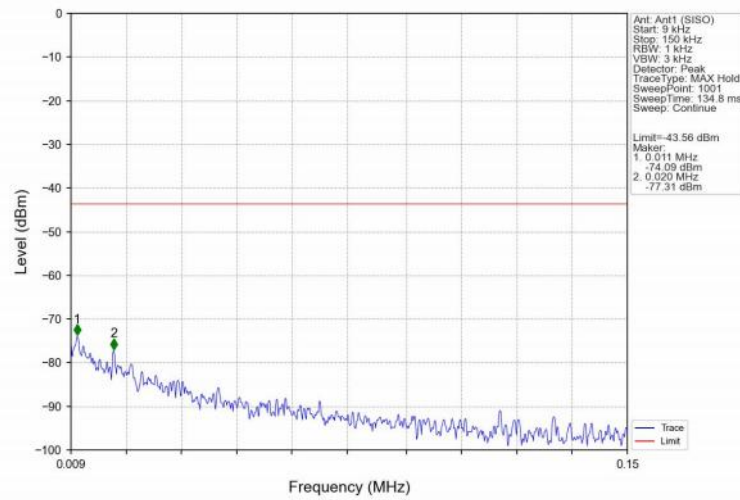
## 802.11b\_MCH\_2437MHz\_Ant1 (SISO)\_NTNV



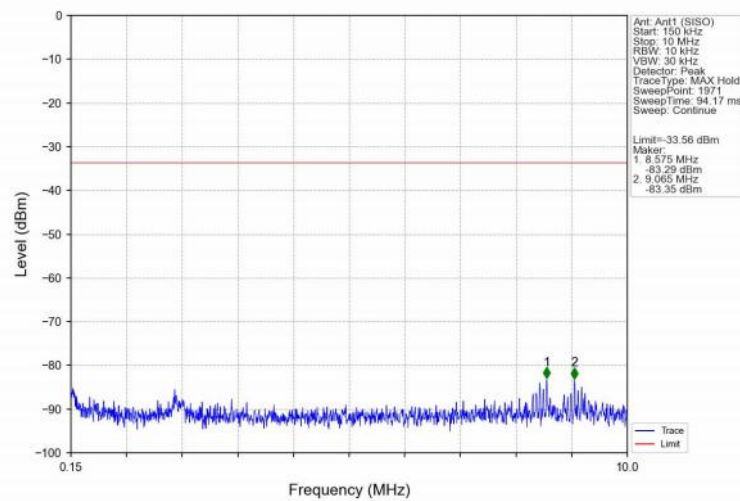
## 802.11b\_HCH\_2462MHz\_Ant1 (SISO)\_NTNV



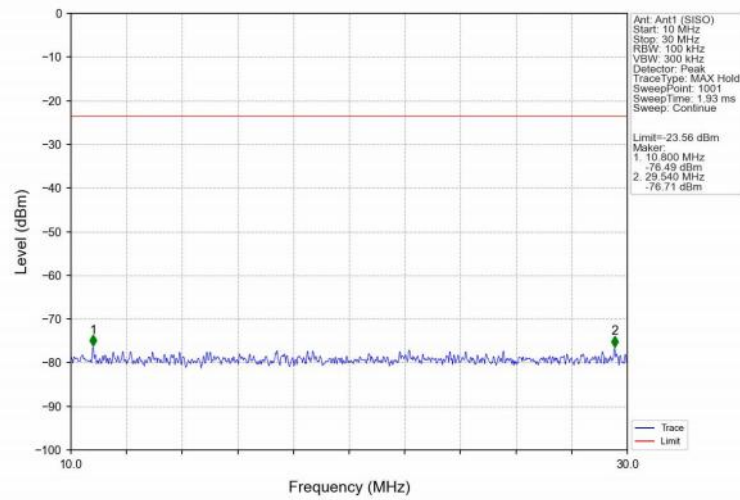
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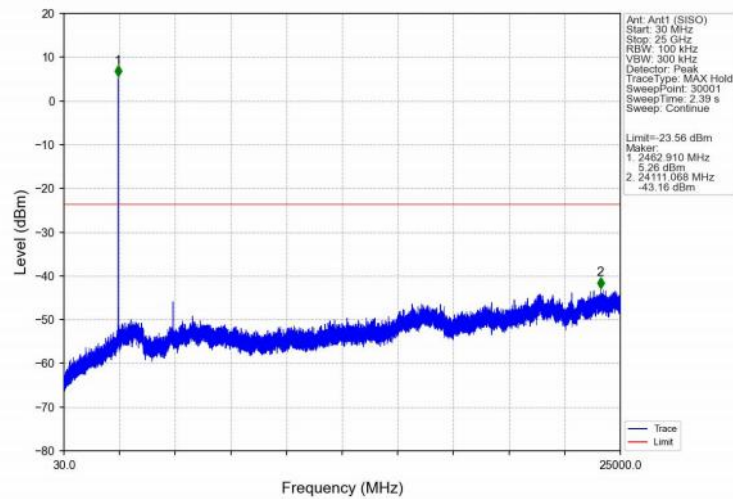
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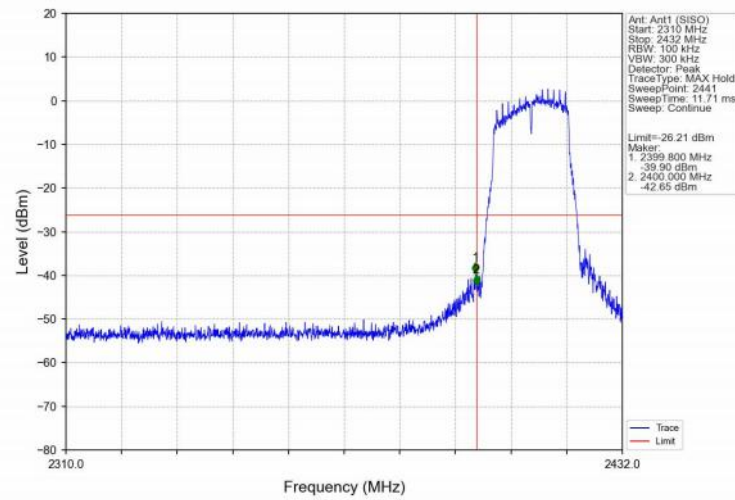
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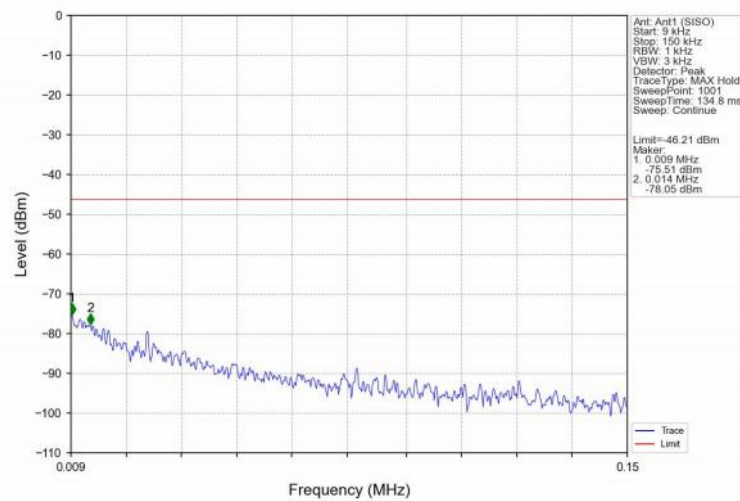
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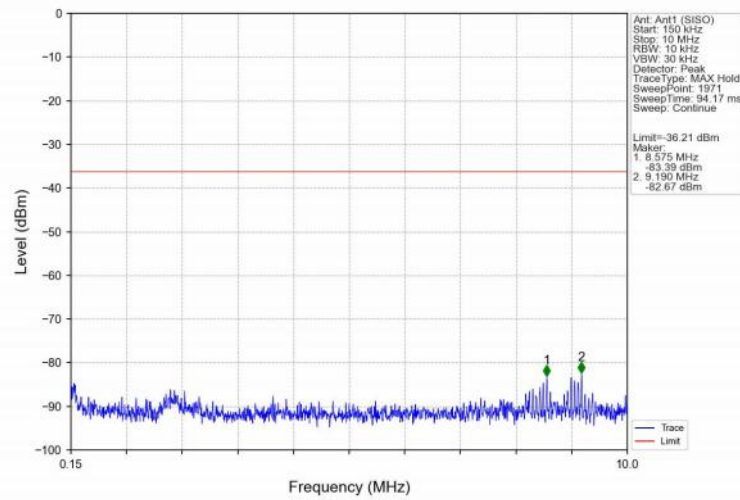
## 802.11g\_LCH\_2412MHz\_Ant1 (SISO)\_NTNV



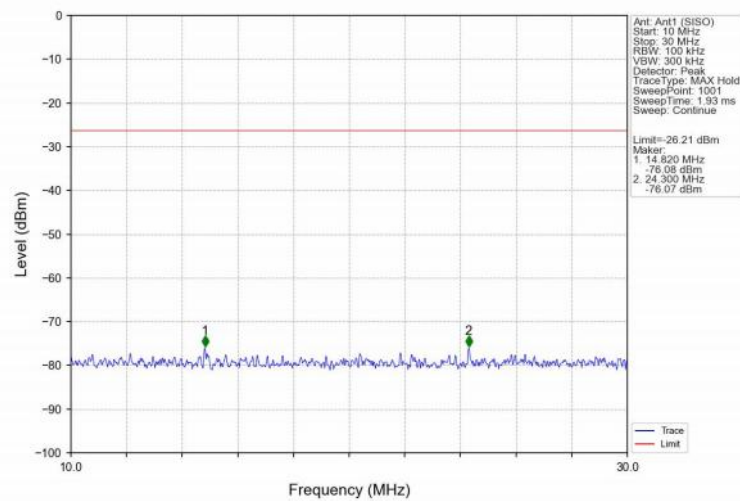
## 802.11g\_LCH\_2412MHz\_Ant1 (SISO)\_NTNV



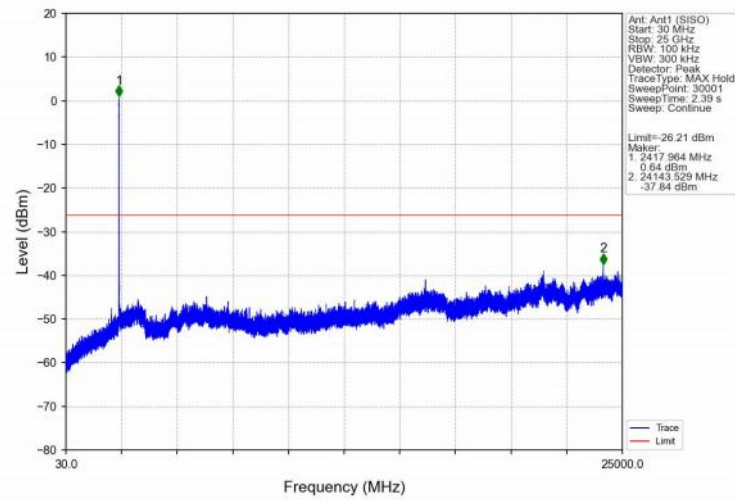
## 802.11g\_LCH\_2412MHz\_Ant1 (SISO)\_NTNV



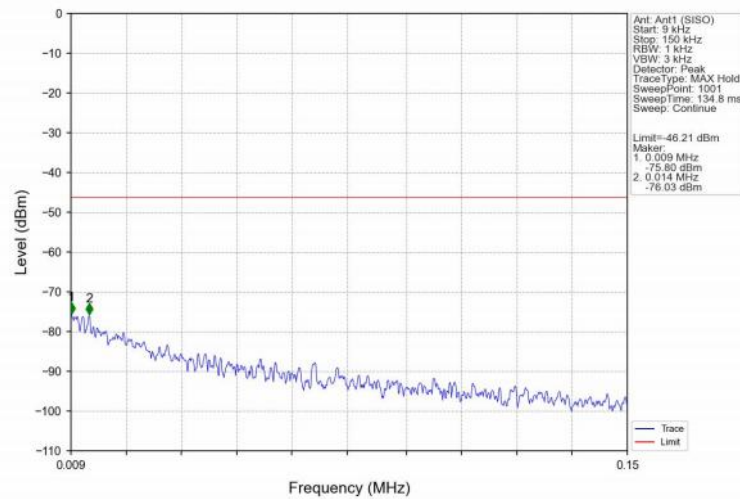
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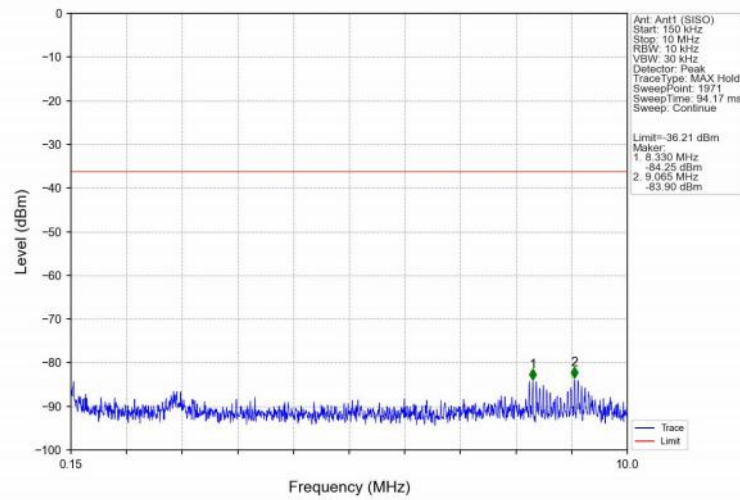
## 802.11g\_LCH\_2412MHz\_Ant1 (SISO)\_NTNV



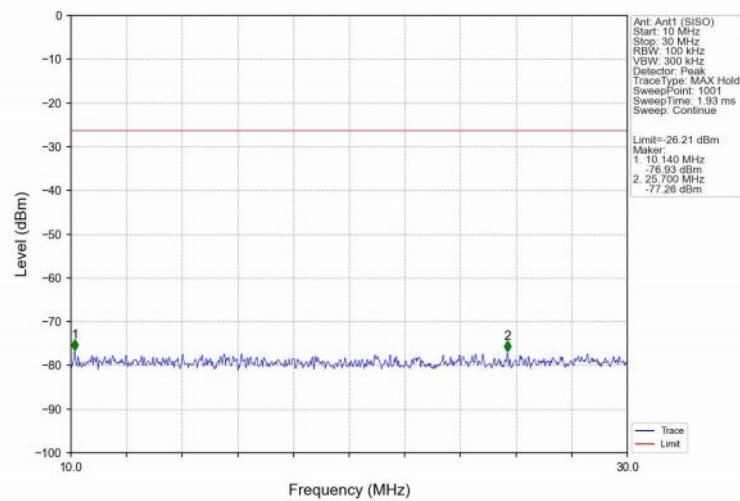
## 802.11g\_MCH\_2437MHz\_Ant1 (SISO)\_NTNV



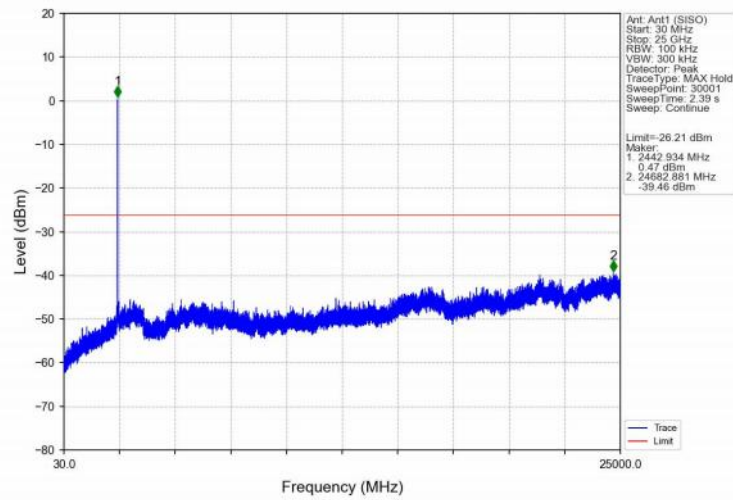
802.11g\_MCH\_2437MHz\_Ant1 (SISO)\_NTNV



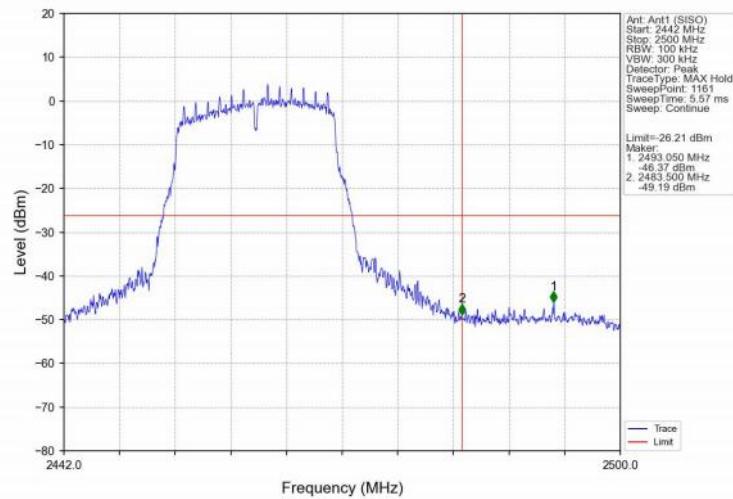
802.11g\_MCH\_2437MHz\_Ant1 (SISO)\_NTNV



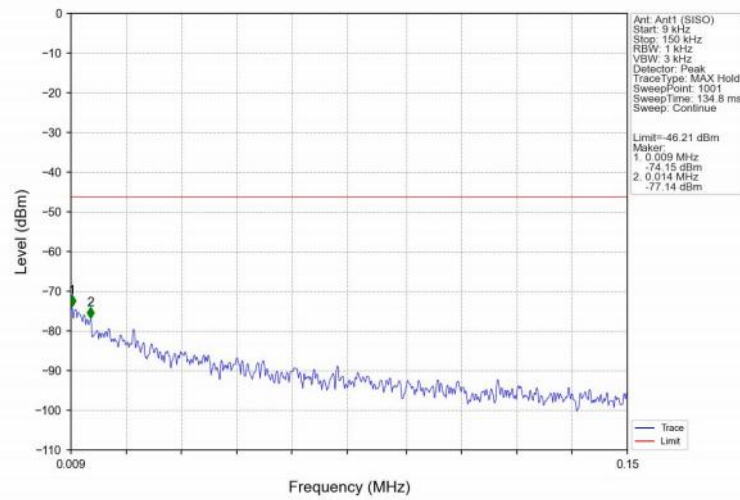
## 802.11g\_MCH\_2437MHz\_Ant1 (SISO)\_NTNV



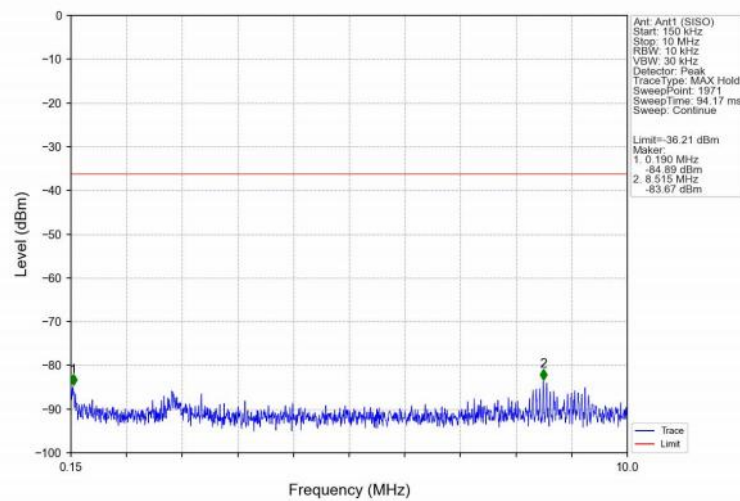
## 802.11g\_HCH\_2462MHz\_Ant1 (SISO)\_NTNV



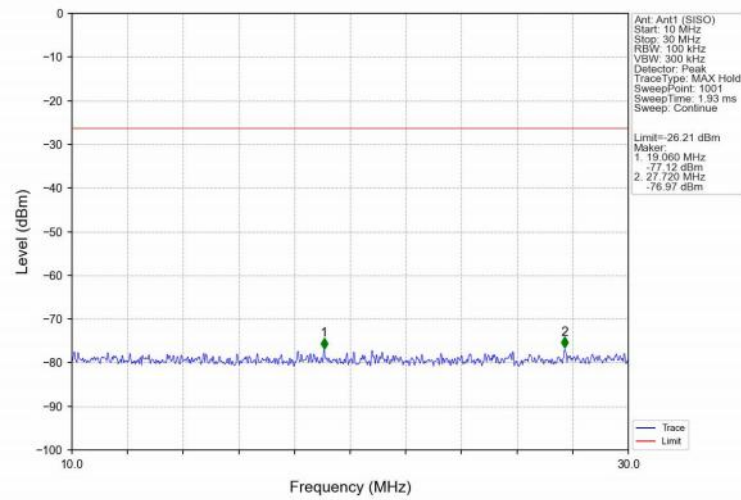
## 802.11g\_HCH\_2462MHz\_Ant1 (SISO)\_NTNV



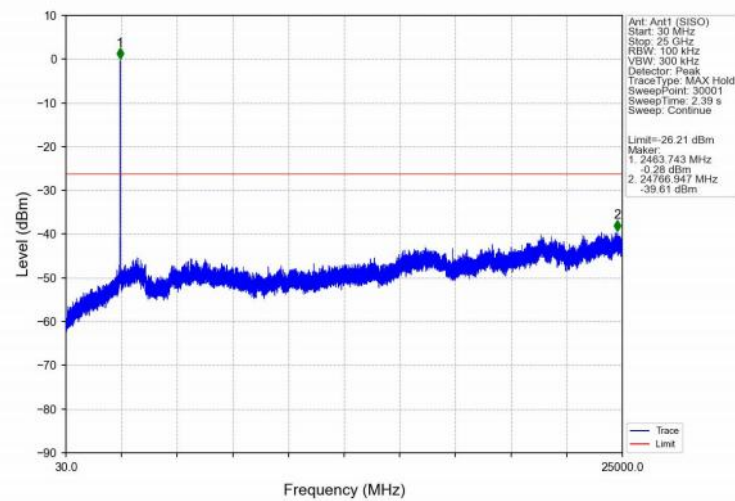
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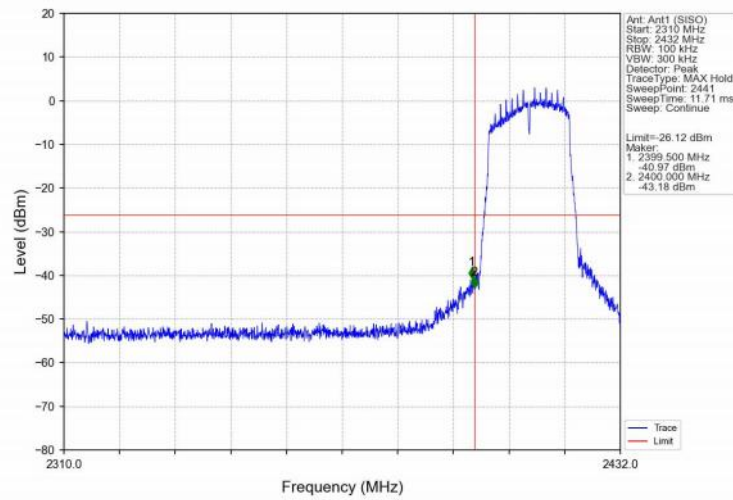
802.11g\_HCH\_2462MHz\_Ant1 (SISO)\_NTNV



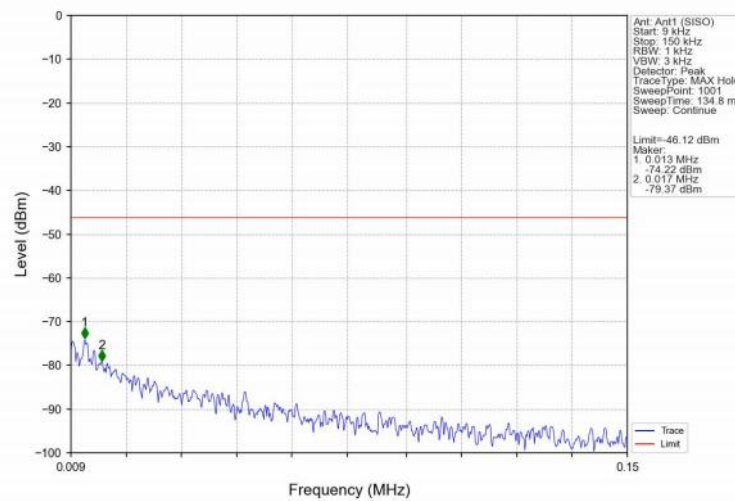
802.11g\_HCH\_2462MHz\_Ant1 (SISO)\_NTNV



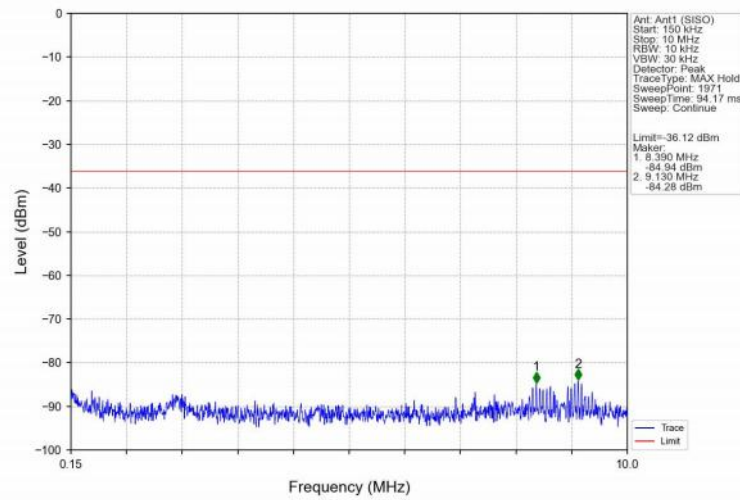
802.11n(HT20)\_LCH\_2412MHz\_Ant1 (SISO)\_NTNV



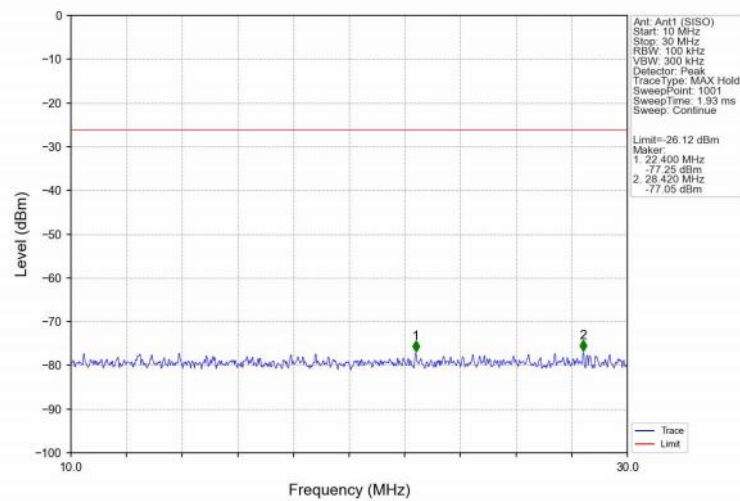
802.11n(HT20)\_LCH\_2412MHz\_Ant1 (SISO)\_NTNV



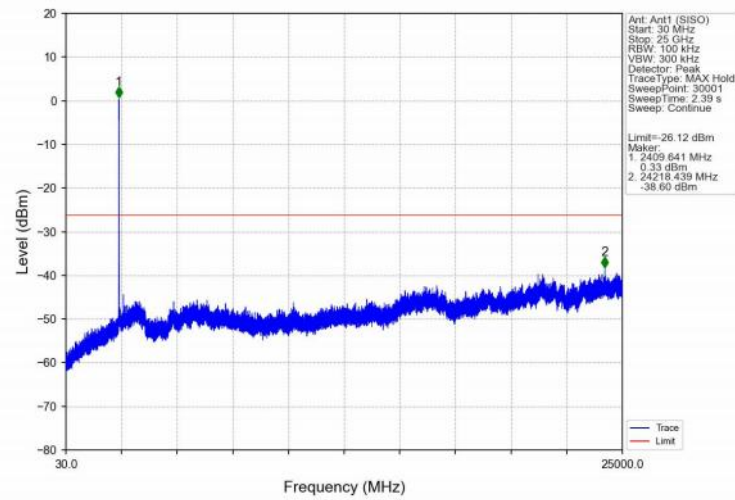
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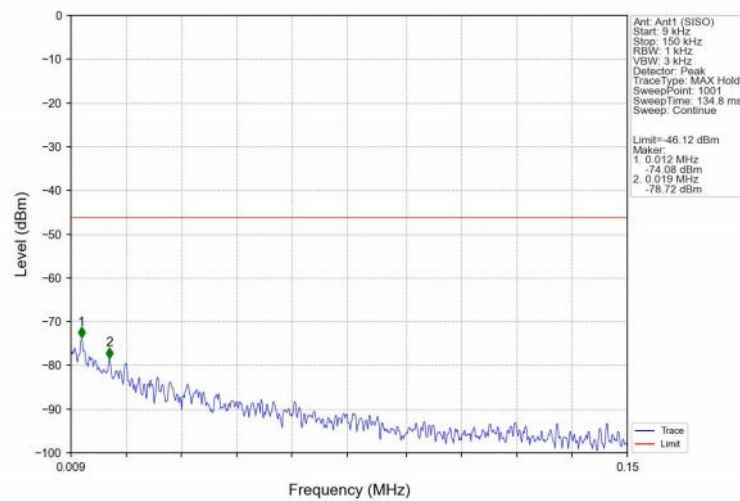
802.11n(HT20)\_LCH\_2412MHz\_Ant1 (SISO)\_NTNV



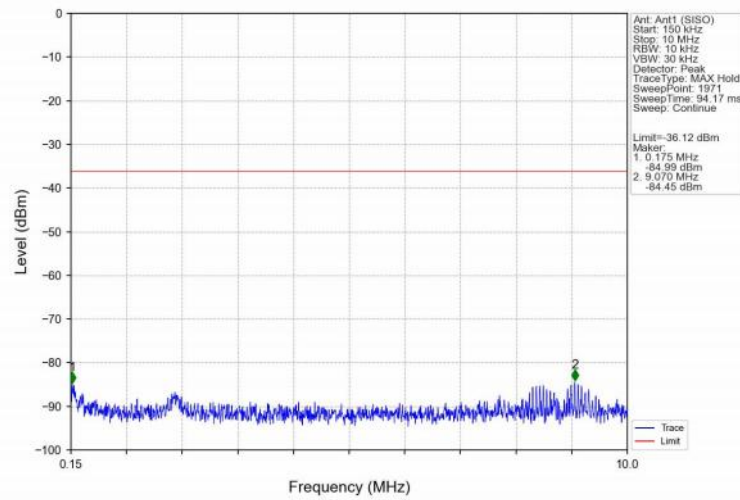
802.11n(HT20)\_LCH\_2412MHz\_Ant1 (SISO)\_NTNV



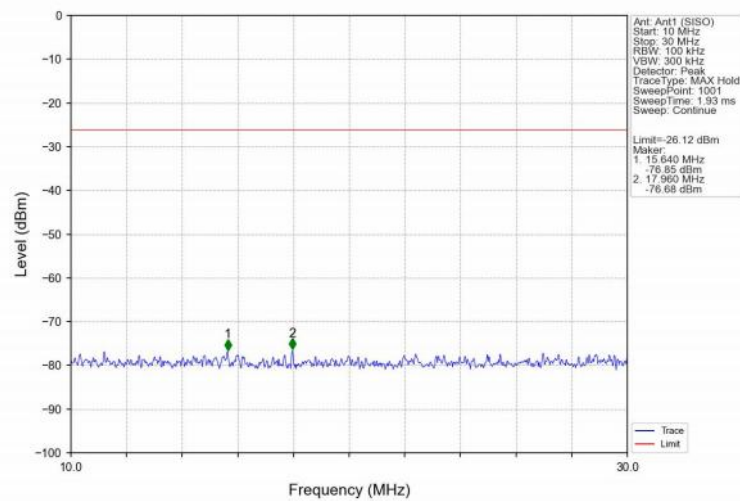
802.11n(HT20)\_MCH\_2437MHz\_Ant1 (SISO)\_NTNV



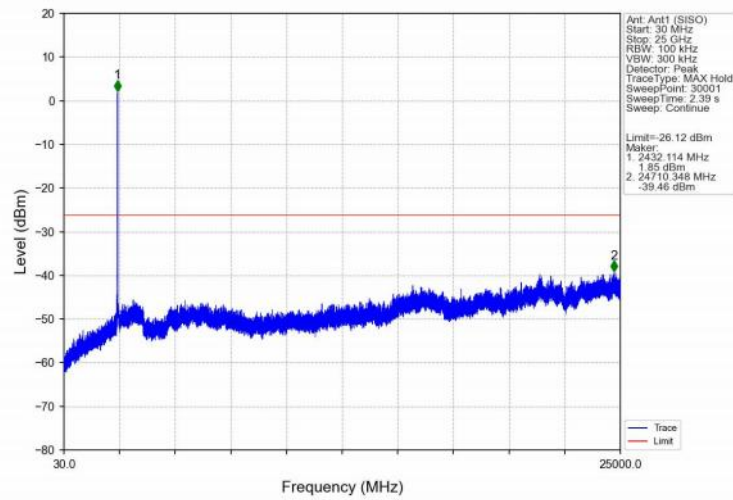
802.11n(HT20)\_MCH\_2437MHz\_Ant1 (SISO)\_NTNV



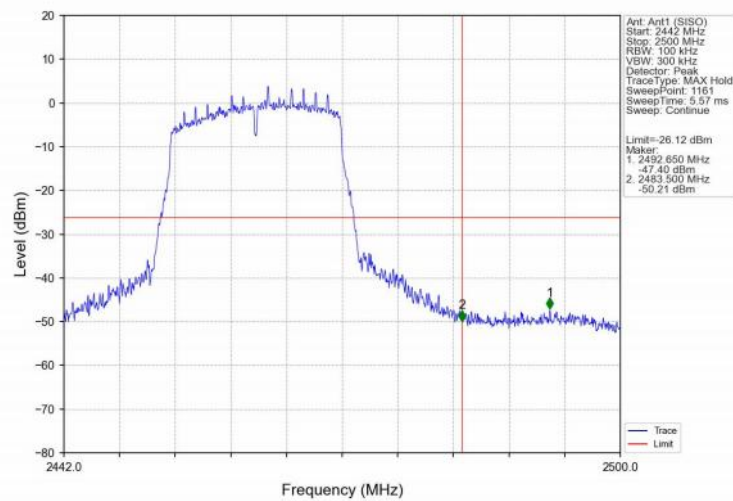
802.11n(HT20)\_MCH\_2437MHz\_Ant1 (SISO)\_NTNV



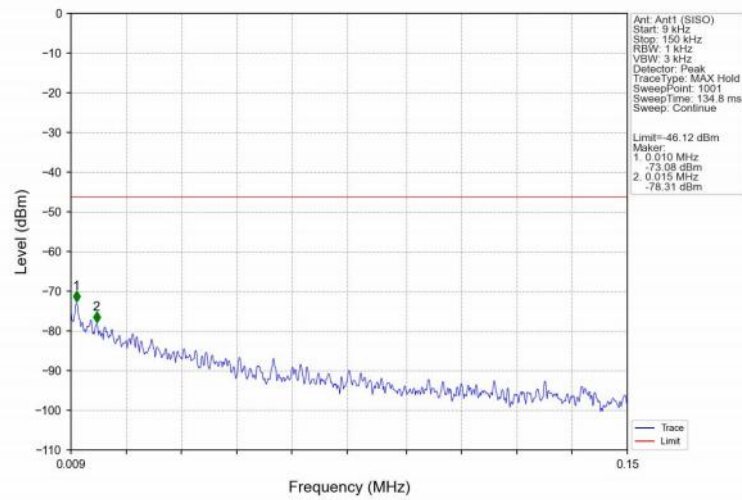
## 802.11n(HT20)\_MCH\_2437MHz\_Ant1 (SISO)\_NTNV



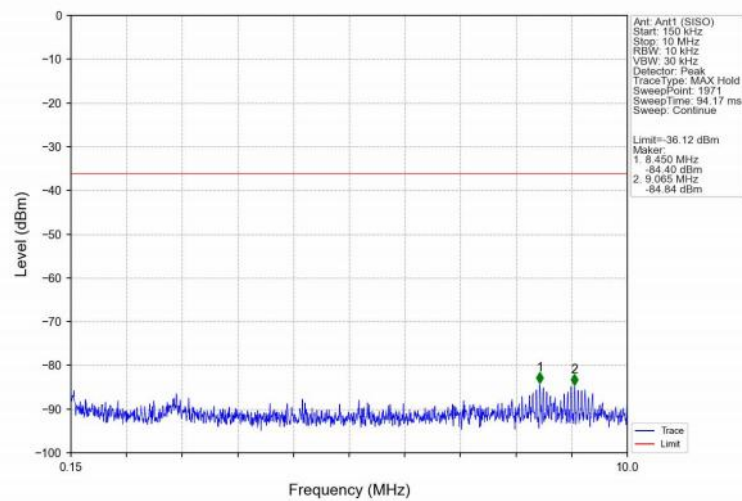
## 802.11n(HT20)\_HCH\_2462MHz\_Ant1 (SISO)\_NTNV



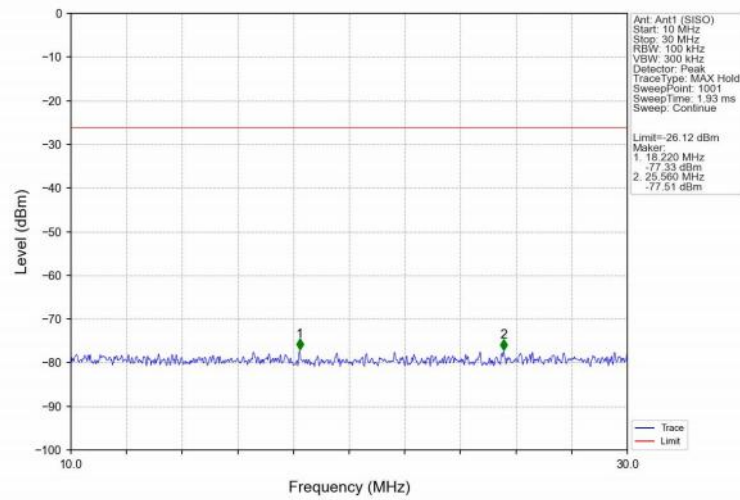
802.11n(HT20)\_HCH\_2462MHz\_Ant1 (SISO)\_NTNV



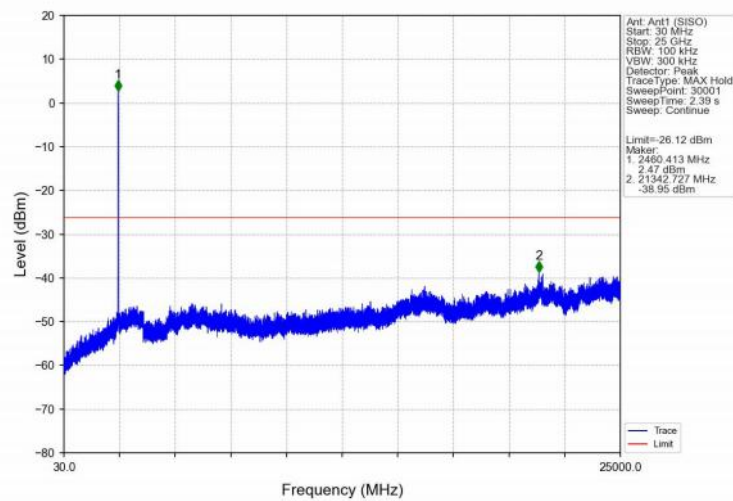
802.11n(HT20)\_HCH\_2462MHz\_Ant1 (SISO)\_NTNV



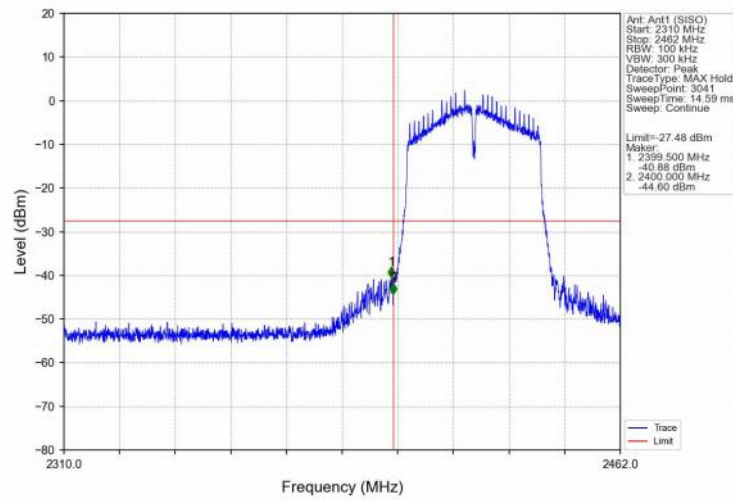
802.11n(HT20)\_HCH\_2462MHz\_Ant1 (SISO)\_NTNV



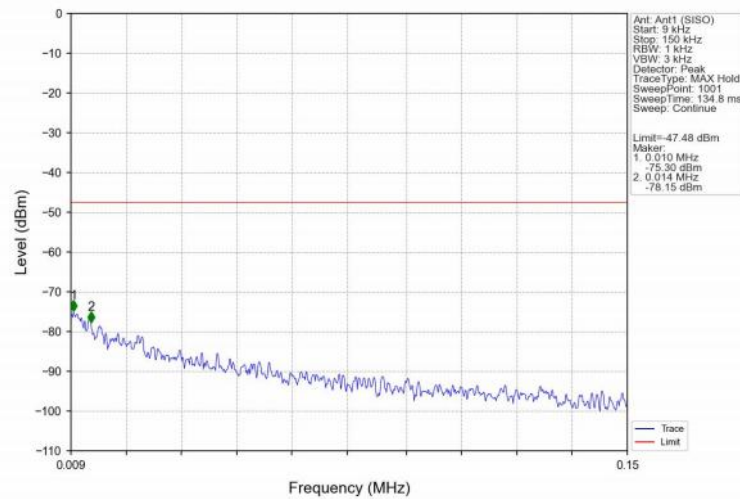
802.11n(HT20)\_HCH\_2462MHz\_Ant1 (SISO)\_NTNV



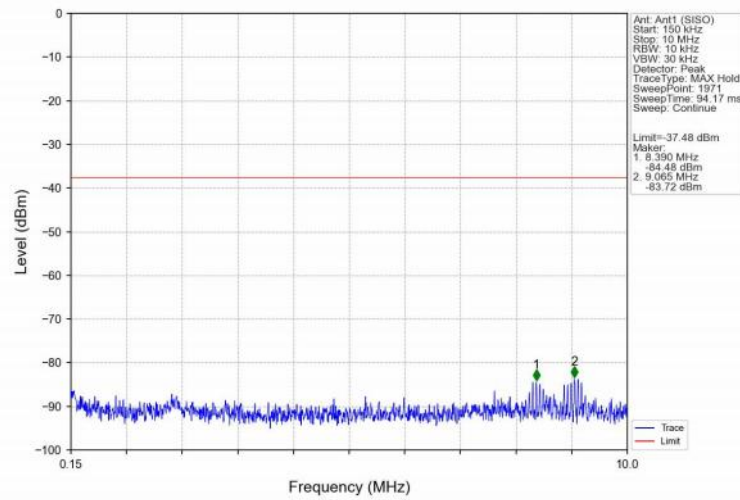
802.11n(HT40)\_LCH\_2422MHz\_Ant1 (SISO)\_NTNV



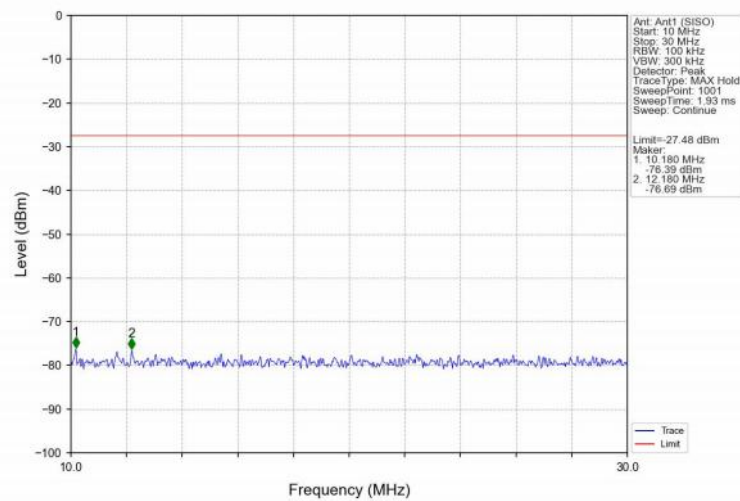
802.11n(HT40)\_LCH\_2422MHz\_Ant1 (SISO)\_NTNV



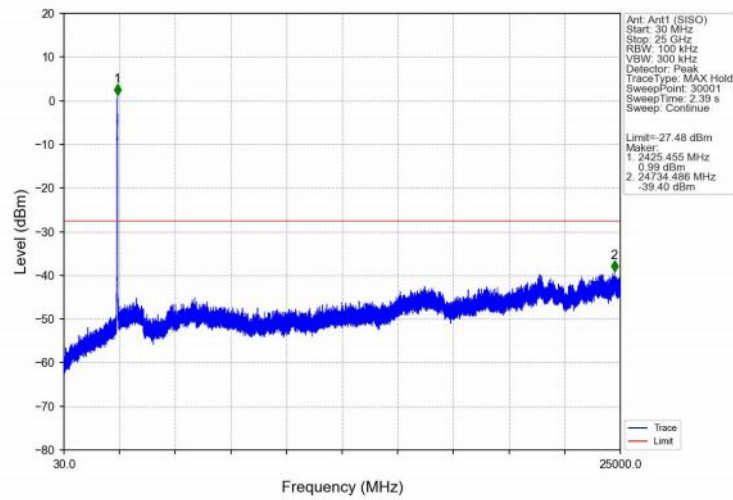
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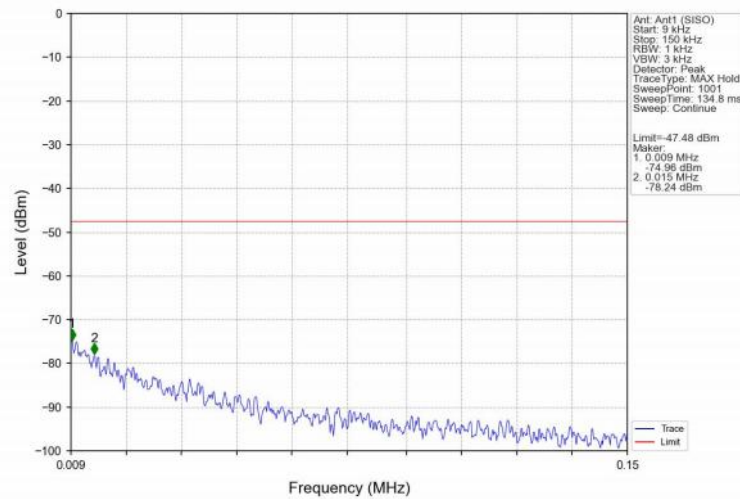
## 802.11n(HT40)\_LCH\_2422MHz\_Ant1 (SISO)\_NTNV



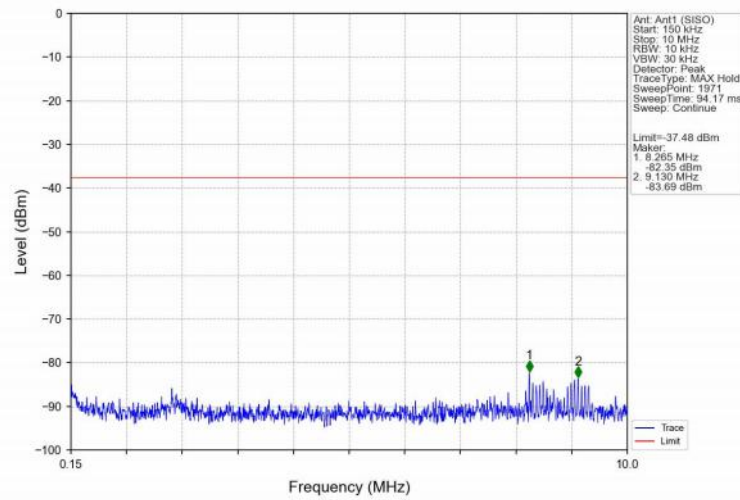
## 802.11n(HT40)\_LCH\_2422MHz\_Ant1 (SISO)\_NTNV



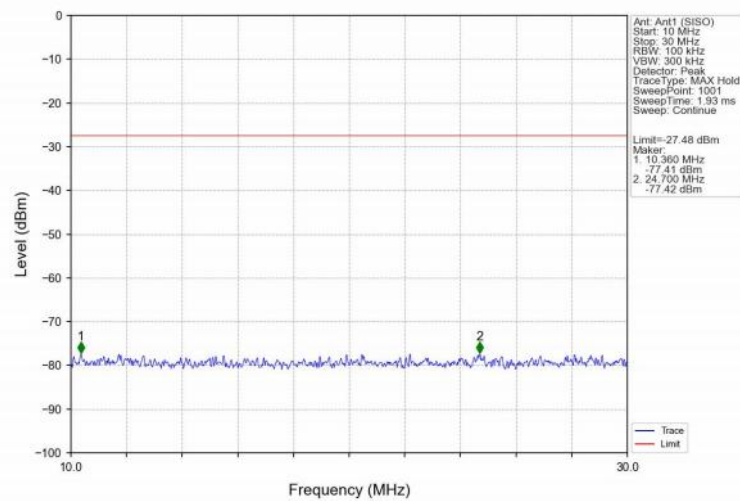
## 802.11n(HT40)\_MCH\_2437MHz\_Ant1 (SISO)\_NTNV



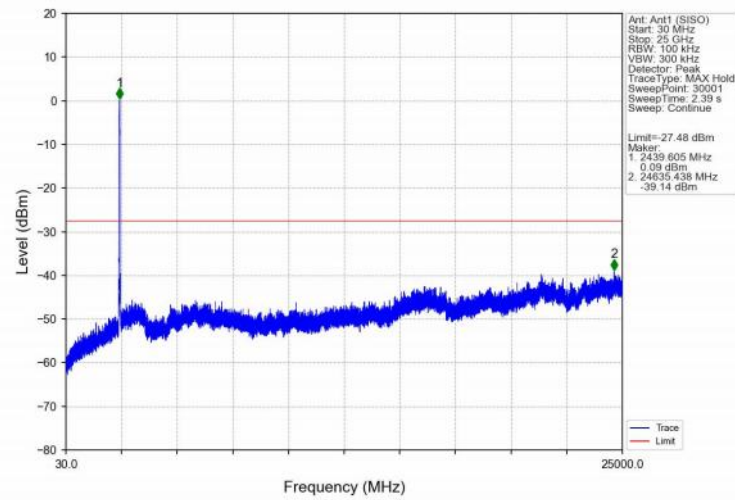
## 802.11n(HT40)\_MCH\_2437MHz\_Ant1 (SISO)\_NTNV



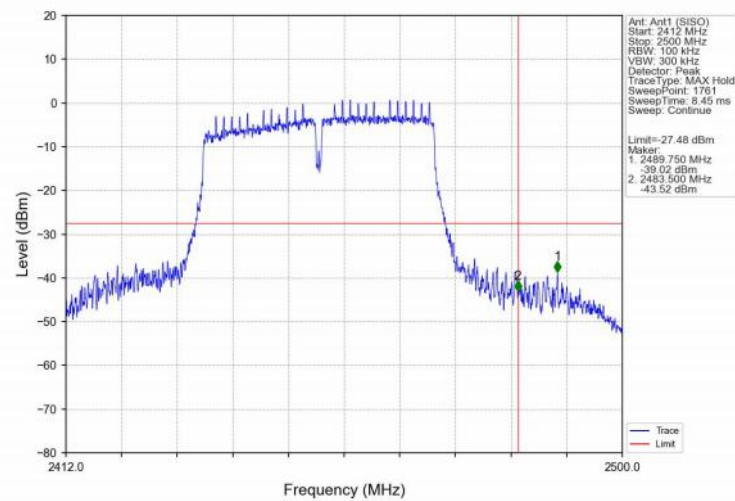
## 802.11n(HT40)\_MCH\_2437MHz\_Ant1 (SISO)\_NTNV



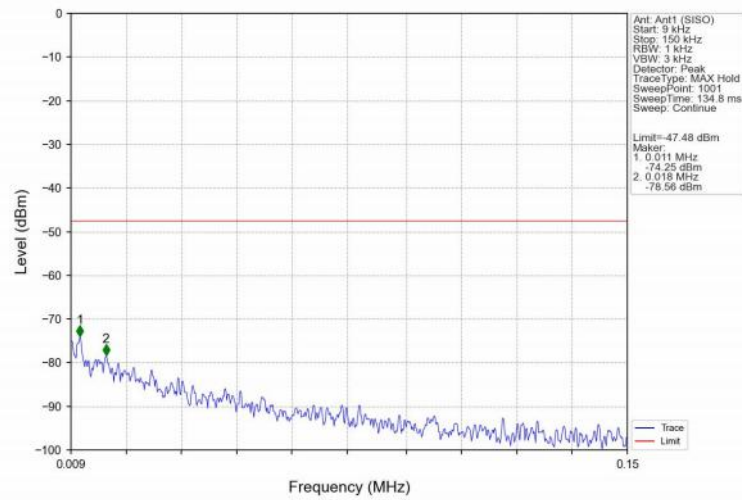
## 802.11n(HT40)\_MCH\_2437MHz\_Ant1 (SISO)\_NTNV



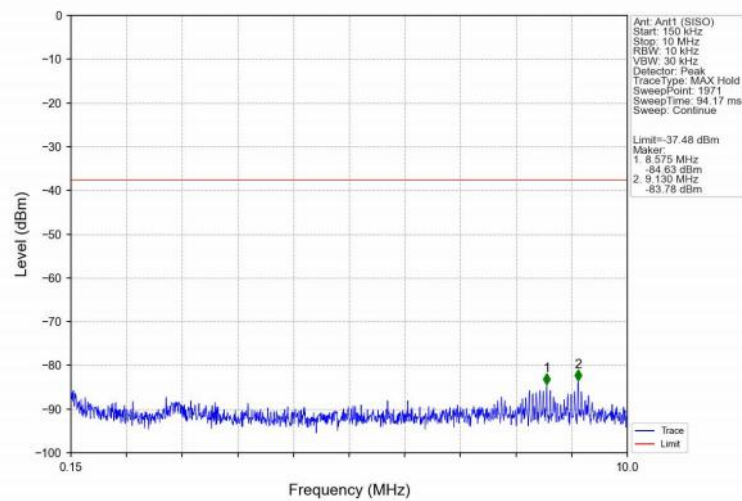
## 802.11n(HT40)\_HCH\_2452MHz\_Ant1 (SISO)\_NTNV



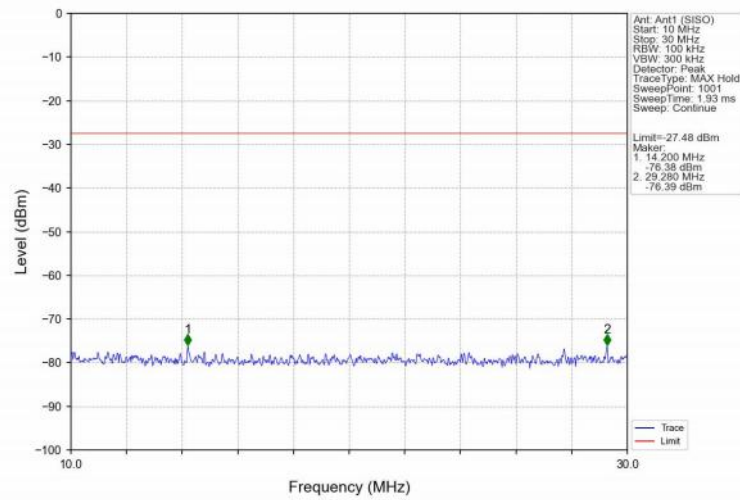
## 802.11n(HT40)\_HCH\_2452MHz\_Ant1 (SISO)\_NTNV



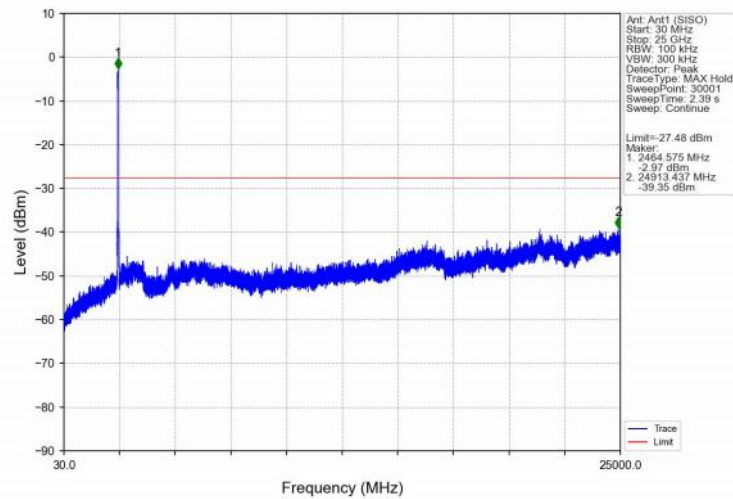
## 802.11n(HT40)\_HCH\_2452MHz\_Ant1 (SISO)\_NTNV



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



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



## 5. Form731

### 5.1 Test Result

#### 5.1.1 Form731

| Lower Freq (MHz) | High Freq (MHz) | MAX Power (W) | MAX Power (dBm) |
|------------------|-----------------|---------------|-----------------|
| 2412             | 2462            | 0.0269        | 14.30           |
| 2422             | 2452            | 0.0259        | 14.13           |

## 6. Duty Cycle

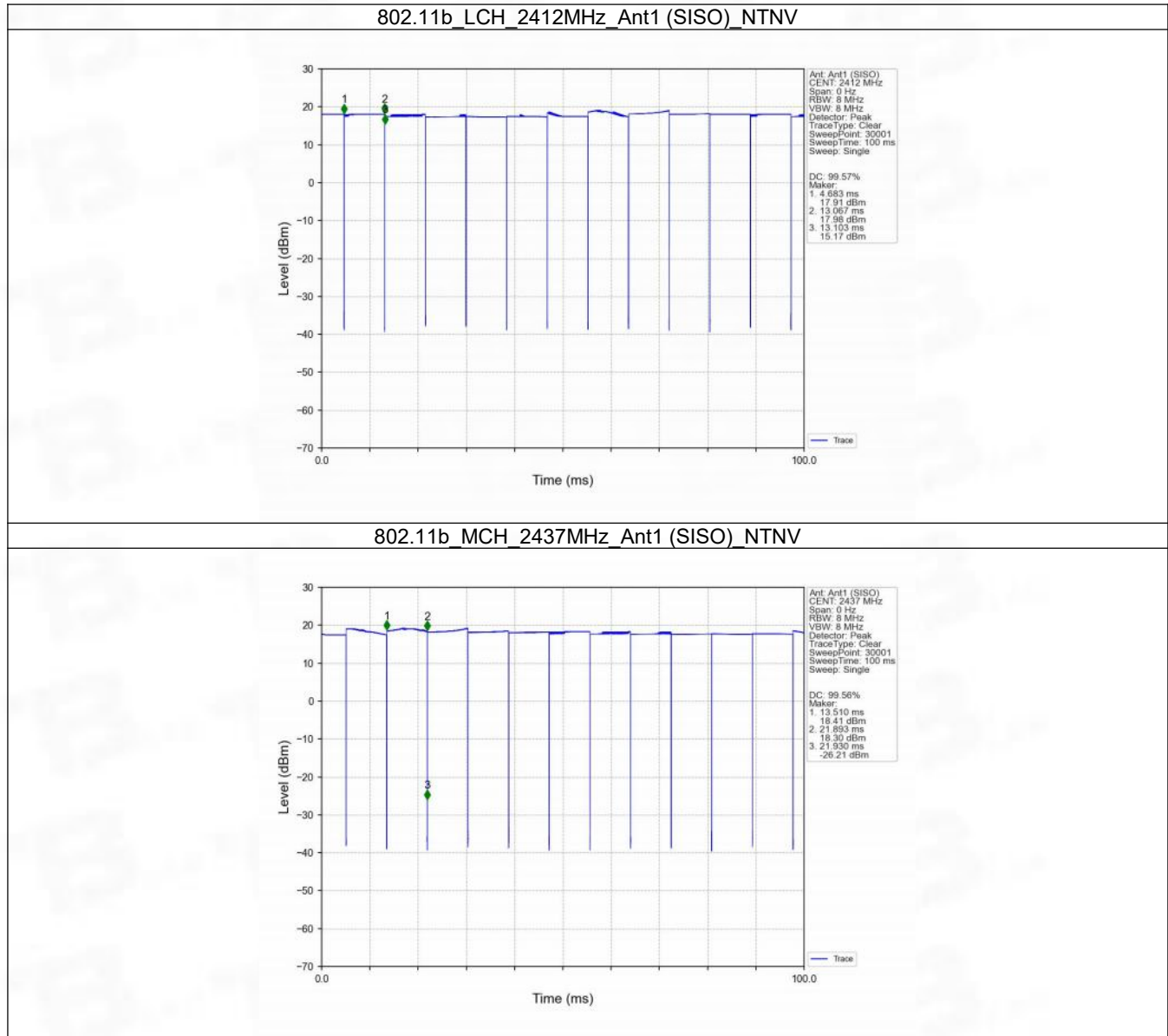
### 6.1 Test Result

#### 6.1.1 Ant1

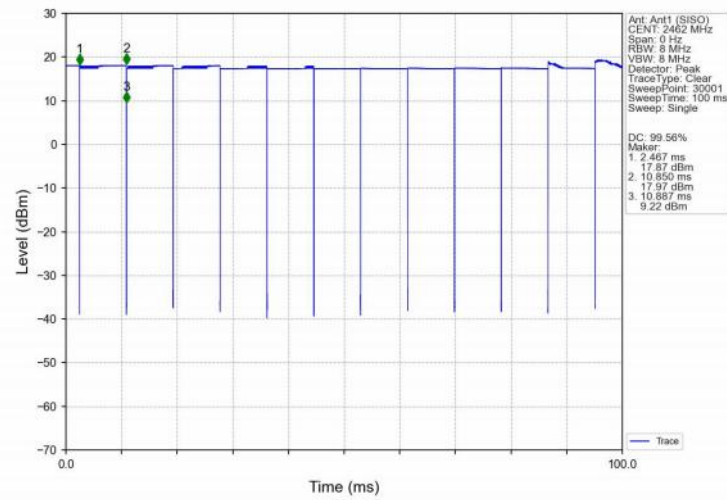
| Ant1           |         |                 |           |             |                |                                   |                       |
|----------------|---------|-----------------|-----------|-------------|----------------|-----------------------------------|-----------------------|
| Mode           | TX Type | Frequency (MHz) | T_on (ms) | Period (ms) | Duty Cycle (%) | Duty Cycle Correction Factor (dB) | Max. DC Variation (%) |
| 802.11b        | SISO    | 2412            | 8.384     | 8.420       | 99.57          | 0.02                              | 0.04                  |
|                |         | 2437            | 8.383     | 8.420       | 99.56          | 0.02                              | 0.04                  |
|                |         | 2462            | 8.383     | 8.420       | 99.56          | 0.02                              | 0.04                  |
| 802.11g        | SISO    | 2412            | 1.394     | 1.436       | 97.08          | 0.13                              | 0.03                  |
|                |         | 2437            | 1.394     | 1.436       | 97.08          | 0.13                              | 0.00                  |
|                |         | 2462            | 1.394     | 1.437       | 97.01          | 0.13                              | 0.00                  |
| 802.11n (HT20) | SISO    | 2412            | 1.302     | 1.344       | 96.88          | 0.14                              | 0.03                  |
|                |         | 2437            | 1.302     | 1.344       | 96.88          | 0.14                              | 0.03                  |
|                |         | 2462            | 1.302     | 1.345       | 96.80          | 0.14                              | 0.03                  |
| 802.11n (HT40) | SISO    | 2422            | 0.650     | 0.692       | 93.93          | 0.27                              | 0.03                  |
|                |         | 2437            | 0.649     | 0.692       | 93.79          | 0.28                              | 0.00                  |
|                |         | 2452            | 0.649     | 0.692       | 93.79          | 0.28                              | 0.03                  |

## 6.2 Test Graph

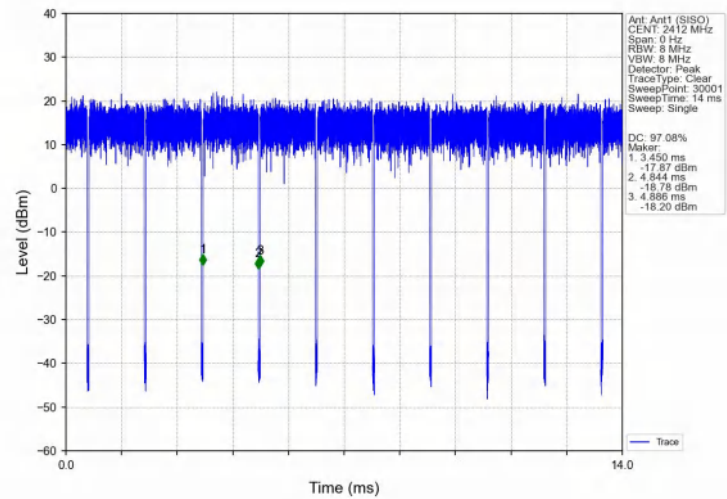
### 6.2.1 Ant1



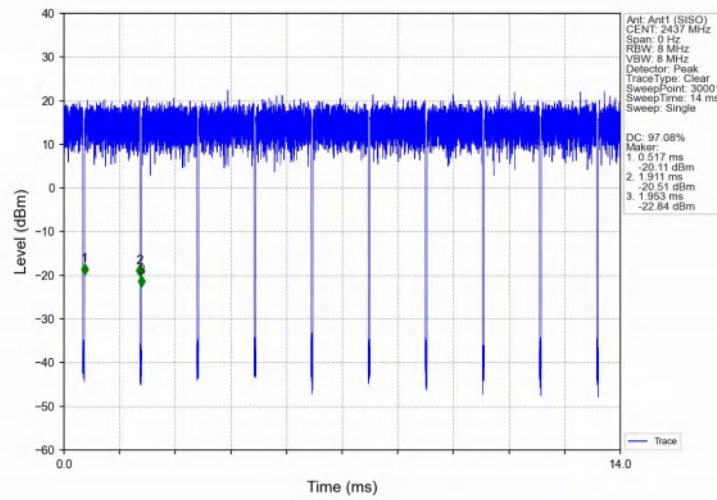
## 802.11b\_HCH\_2462MHz\_Ant1 (SISO)\_NTNV



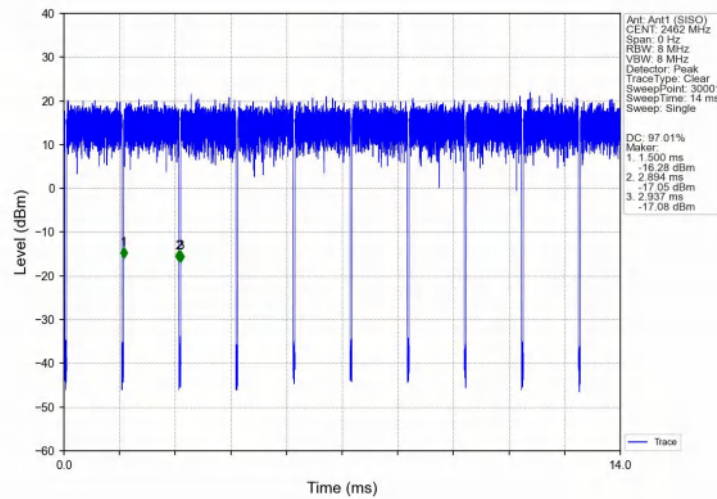
## 802.11g\_LCH\_2412MHz\_Ant1 (SISO)\_NTNV



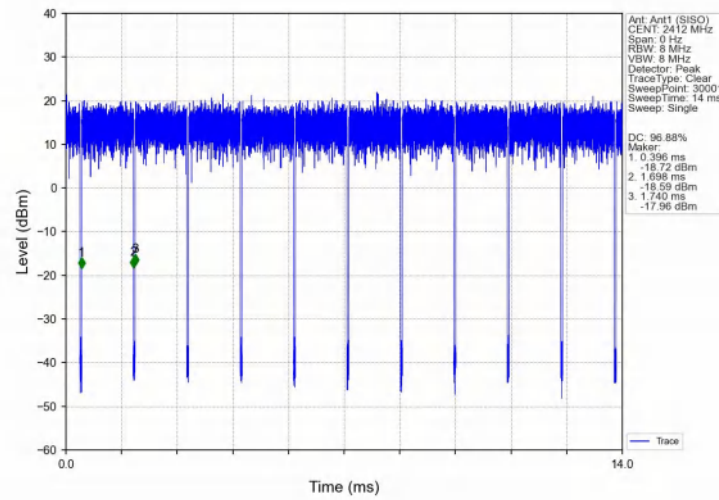
## 802.11g\_MCH\_2437MHz\_Ant1 (SISO)\_NTNV



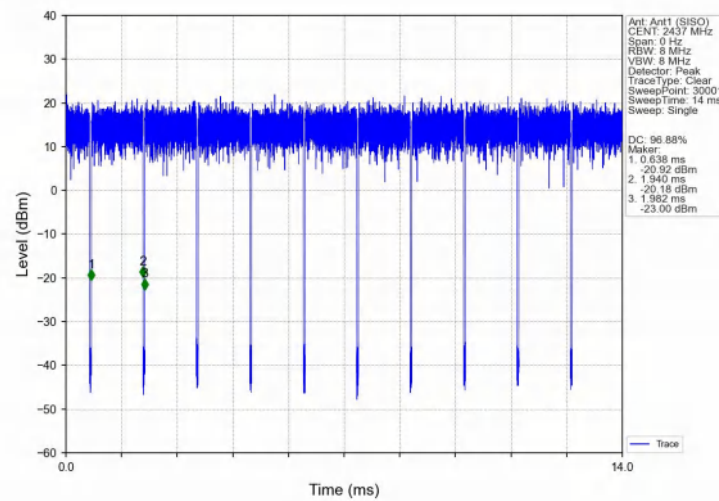
## 802.11g\_HCH\_2462MHz\_Ant1 (SISO)\_NTNV



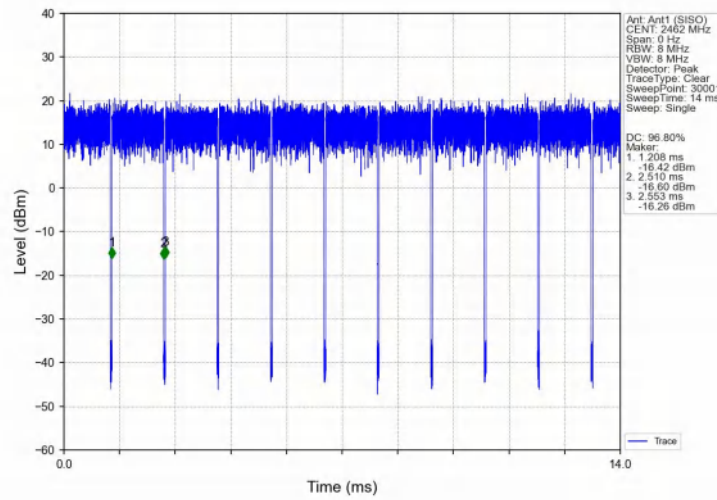
## 802.11n(HT20)\_LCH\_2412MHz\_Ant1 (SISO)\_NTNV



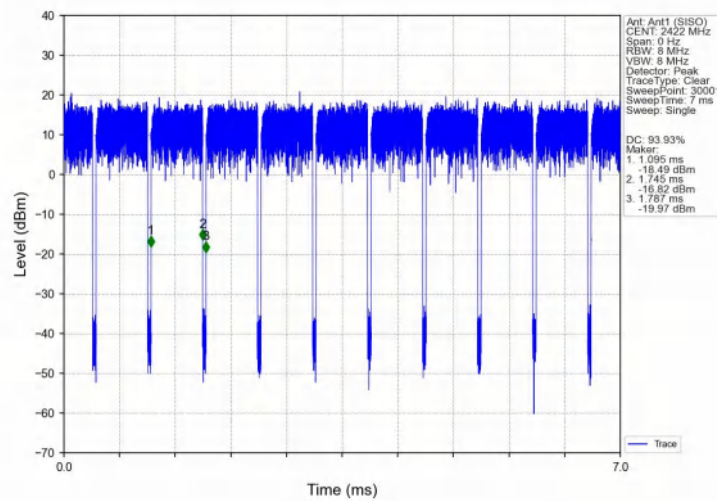
## 802.11n(HT20)\_MCH\_2437MHz\_Ant1 (SISO)\_NTNV



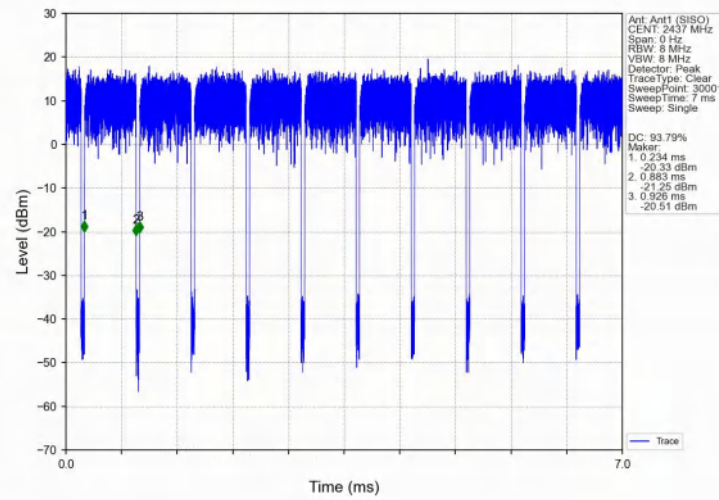
802.11n(HT20)\_HCH\_2462MHz\_Ant1 (SISO)\_NTNV



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



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



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

