

# ANNEX TEST DATA WIFI2.4G

## FCC ID: 2BPL4-VFEEDERMAX

Applicant: Foshan Jiuzhou Supply Chain Co., Ltd.

Address: Room 902, Block 3, Yiyun Land Center, No. 26Guilan North Road, Nanhai District, Foshan City

Manufacturer: Dongguan Zhiyihong Hardware & Plastic Co., Ltd.

Address: No. 110, Xinfeng Road, Shapu, Huaide, Humen Town, Dongguan City, Guangdong Province

Product Name: SMART PET FEEDER

Trade Mark: Vacqueen

Model Number: vFeeder Max, PFF012, PFF011

Date of Receipt: Jul. 31, 2026

Test Date: Jul. 31, 2026 - Aug. 10, 2026

Date of Report: Aug. 10, 2026

Prepared By: Shenzhen DL Testing Technology Co., Ltd.

Address: 101-201, Comprehensive Building, Tongzhou Electronics Longgang Factory Area, No.1 Baolong Fifth Road, Baolong Community, Baolong Street, Longgang District, Shenzhen, China

Applicable Standards: FCC PART 15 C 15.247  
ANSI C63.10-2020 + Cor. 1-2023+C63.10a-2024 + Errata to C63.10a-2024

Test Result: Pass

Report Number: DLE-260731016R

## 1. Duty Cycle

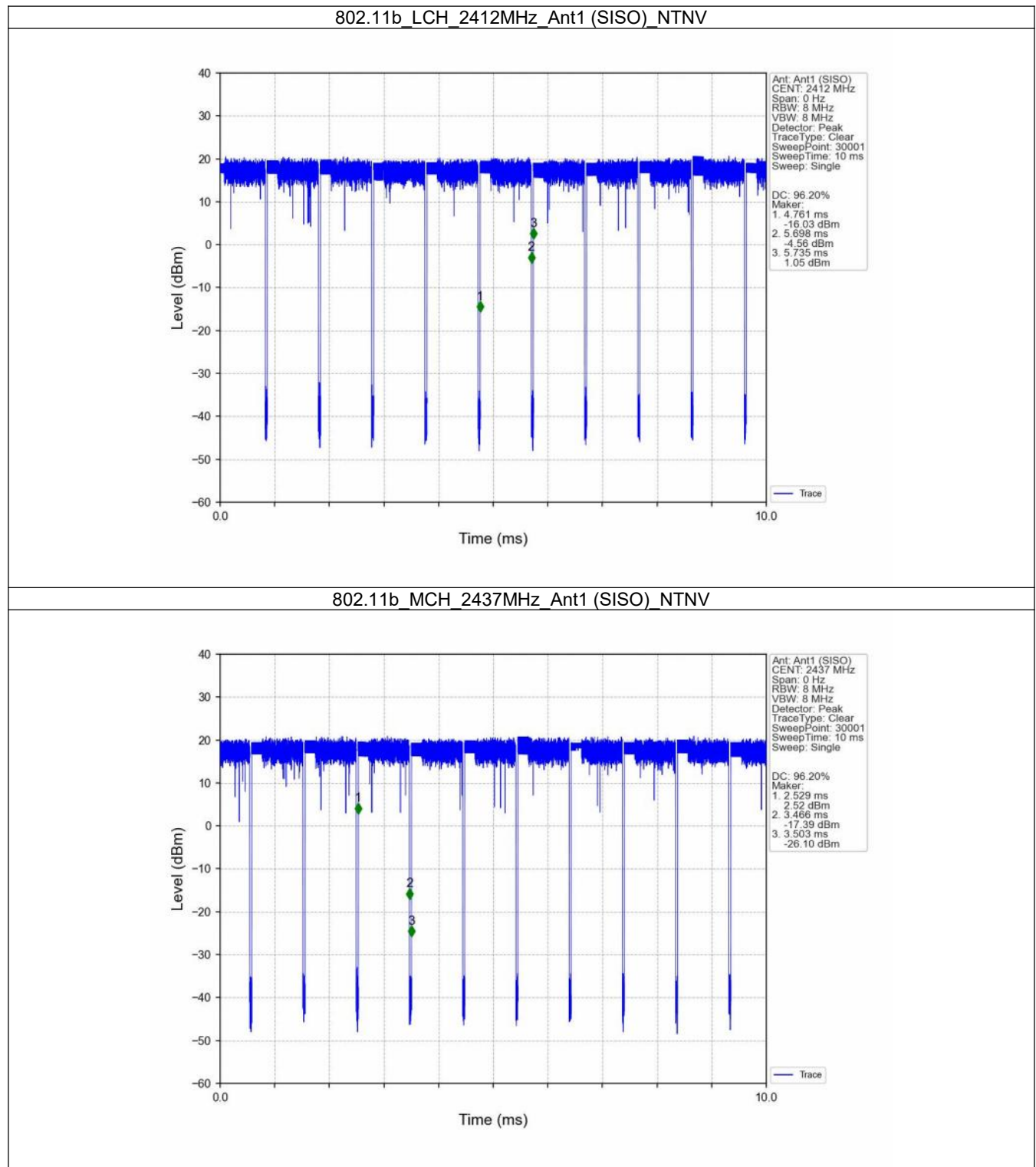
### 1.1 Test Result

#### 1.1.1 Ant1

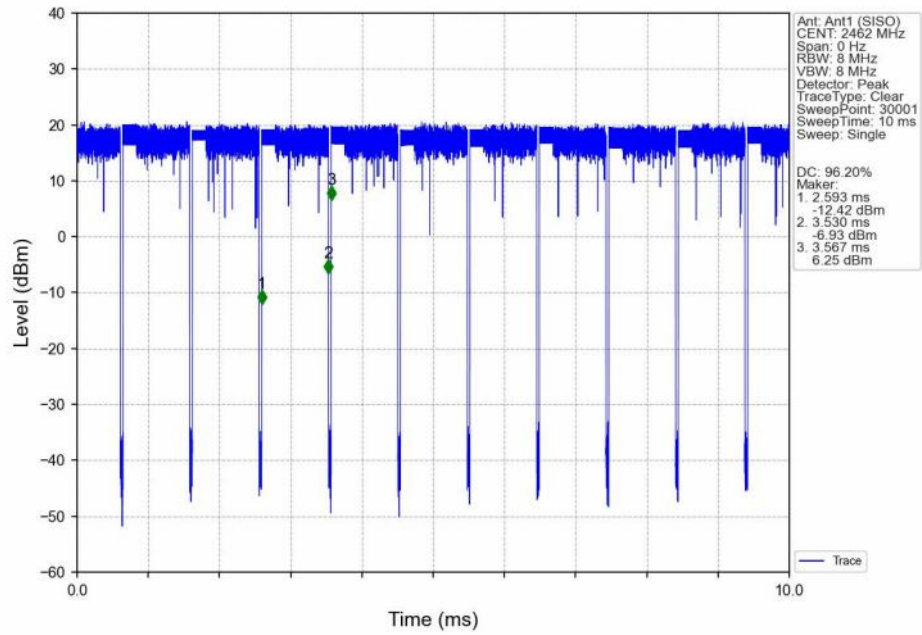
| Ant1           |         |                 |           |             |                |                                   |                       |
|----------------|---------|-----------------|-----------|-------------|----------------|-----------------------------------|-----------------------|
| Mode           | TX Type | Frequency (MHz) | T_on (ms) | Period (ms) | Duty Cycle (%) | Duty Cycle Correction Factor (dB) | Max. DC Variation (%) |
| 802.11b        | SISO    | 2412            | 0.937     | 0.974       | 96.20          | 0.17                              | 0.03                  |
|                |         | 2437            | 0.937     | 0.974       | 96.20          | 0.17                              | 0.00                  |
|                |         | 2462            | 0.937     | 0.974       | 96.20          | 0.17                              | 0.03                  |
| 802.11g        | SISO    | 2412            | 0.177     | 0.221       | 80.09          | 0.96                              | 0.11                  |
|                |         | 2437            | 0.176     | 0.220       | 80.00          | 0.97                              | 0.11                  |
|                |         | 2462            | 0.179     | 0.221       | 81.00          | 0.92                              | 0.07                  |
| 802.11n (HT20) | SISO    | 2412            | 0.165     | 0.209       | 78.95          | 1.03                              | 0.12                  |
|                |         | 2437            | 0.164     | 0.208       | 78.85          | 1.03                              | 0.09                  |
|                |         | 2462            | 0.164     | 0.208       | 78.85          | 1.03                              | 0.10                  |
| 802.11n (HT40) | SISO    | 2422            | 0.102     | 0.144       | 70.83          | 1.50                              | 0.20                  |
|                |         | 2437            | 0.100     | 0.144       | 69.44          | 1.58                              | 0.10                  |
|                |         | 2452            | 0.101     | 0.144       | 70.14          | 1.54                              | 0.10                  |

## 1.2 Test Graph

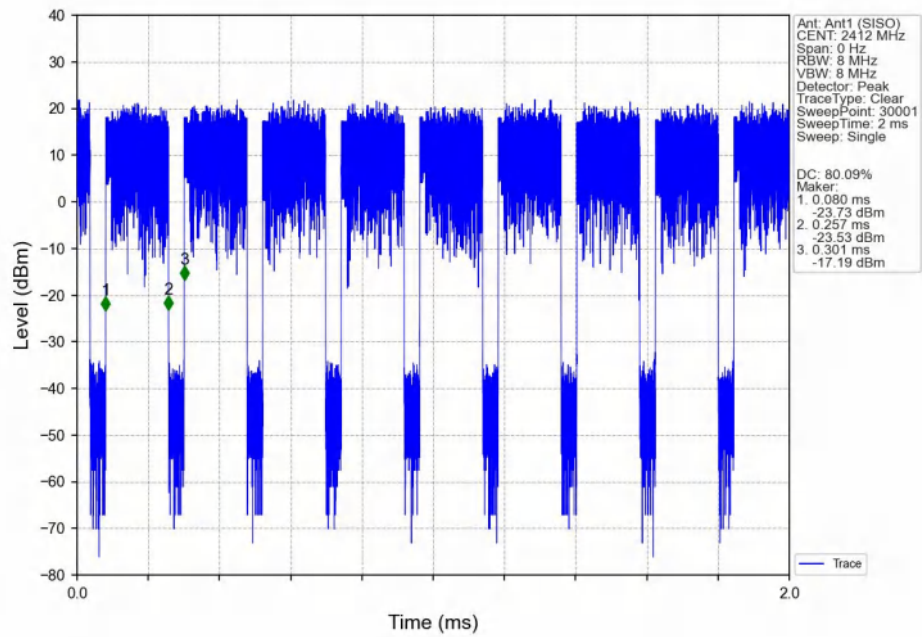
### 1.2.1 Ant1



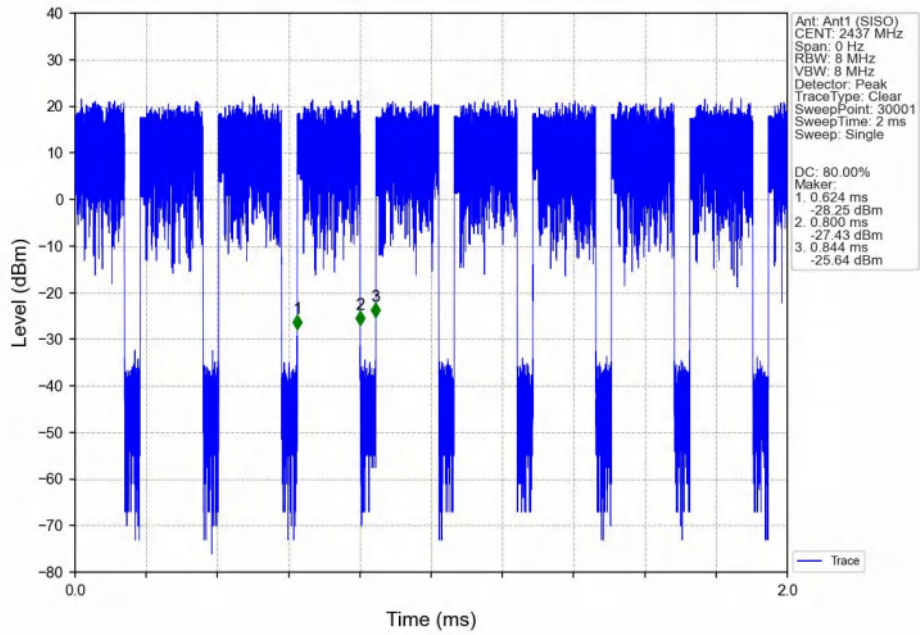
# 802.11b\_HCH\_2462MHz\_Ant1 (SISO)\_NTNV



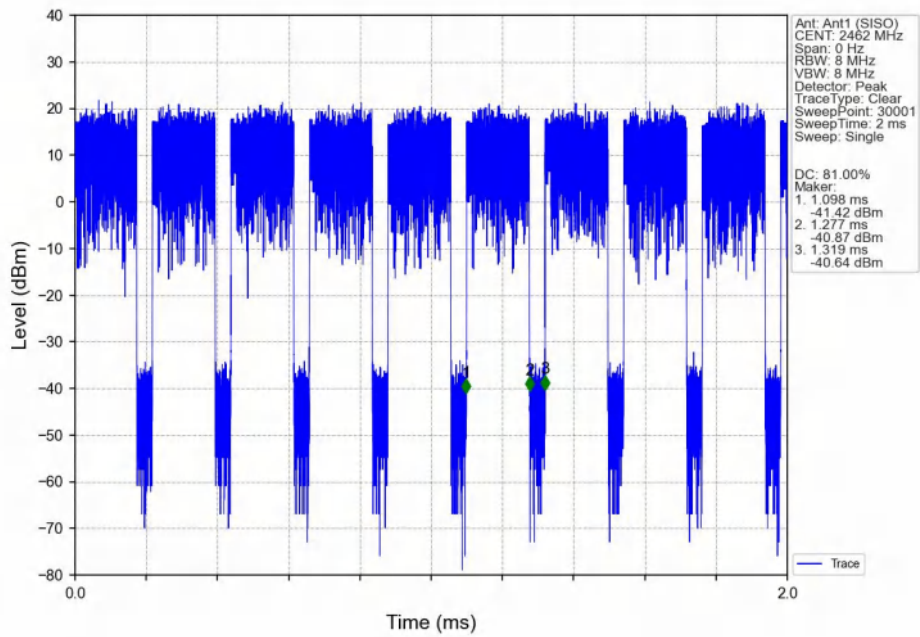
# 802.11g\_LCH\_2412MHz\_Ant1 (SISO)\_NTNV



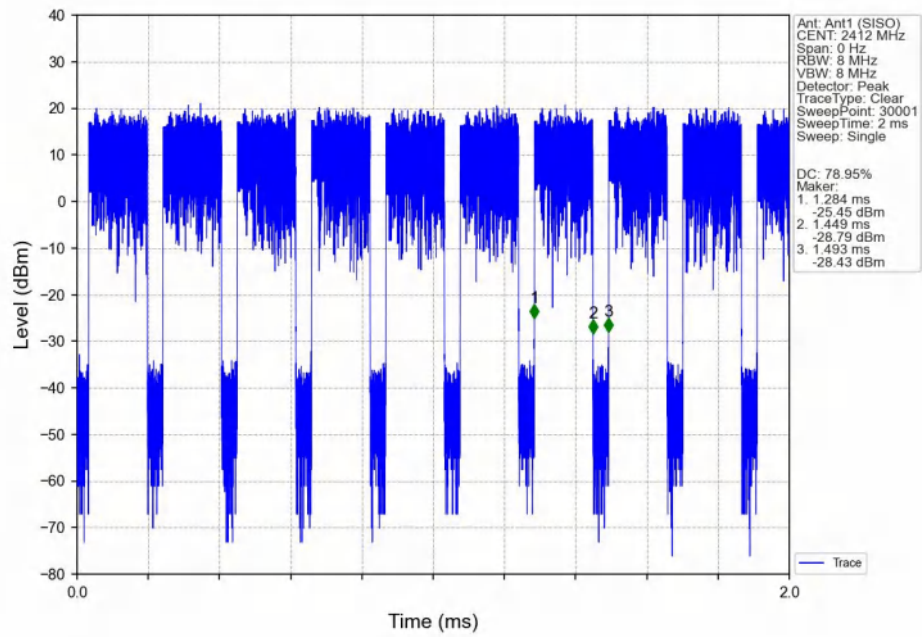
# 802.11g\_MCH\_2437MHz\_Ant1 (SISO)\_NTNV



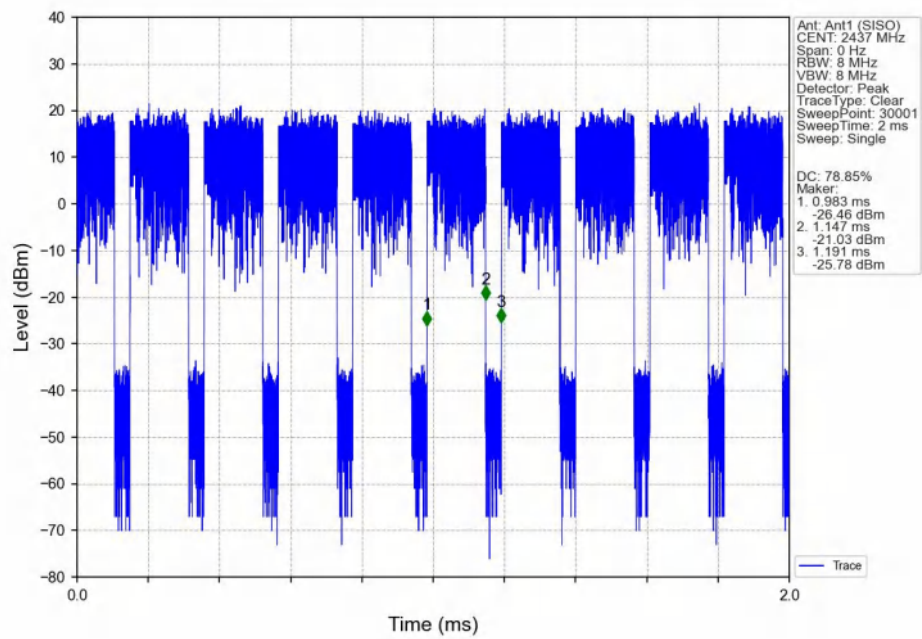
# 802.11g\_HCH\_2462MHz\_Ant1 (SISO)\_NTNV



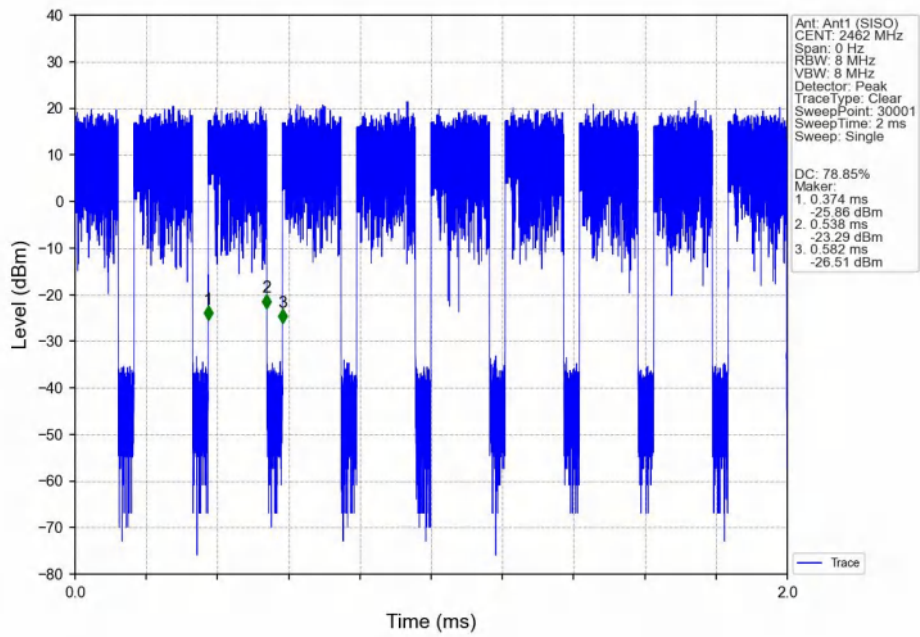
802.11n(HT20)\_LCH\_2412MHz\_Ant1 (SISO)\_NTNV



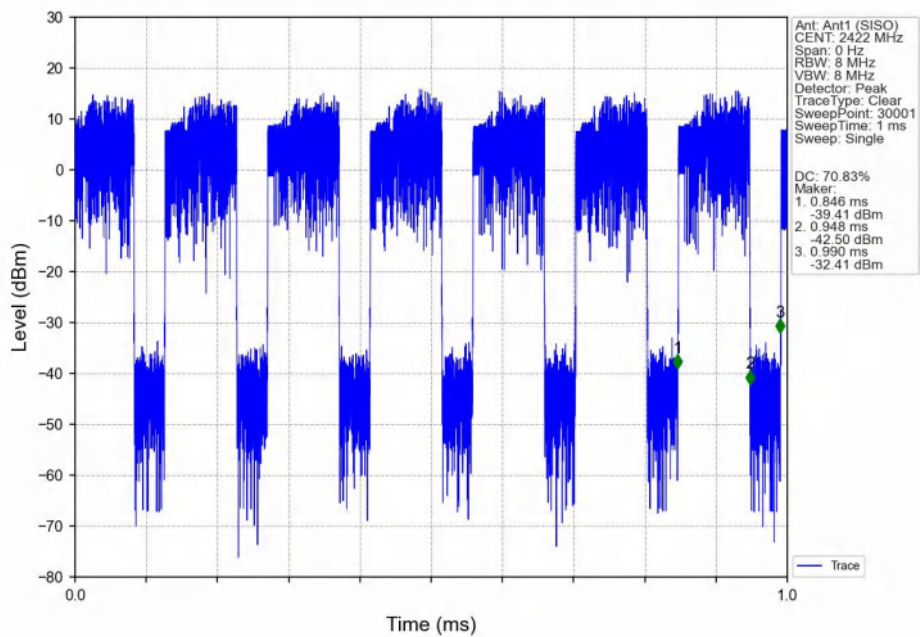
802.11n(HT20)\_MCH\_2437MHz\_Ant1 (SISO)\_NTNV



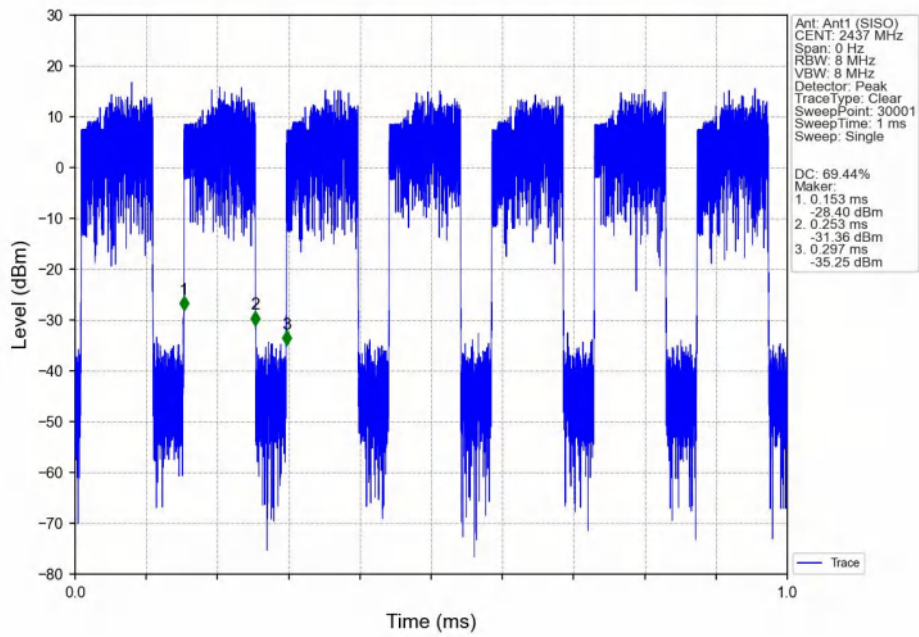
802.11n(HT20)\_HCH\_2462MHz\_Ant1 (SISO)\_NTNV



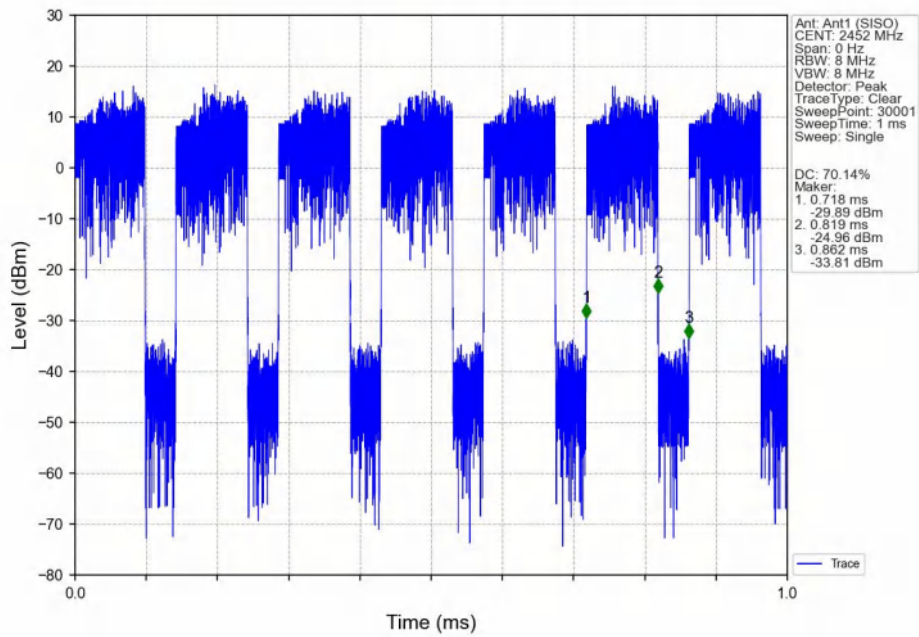
802.11n(HT40)\_LCH\_2422MHz\_Ant1 (SISO)\_NTNV



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

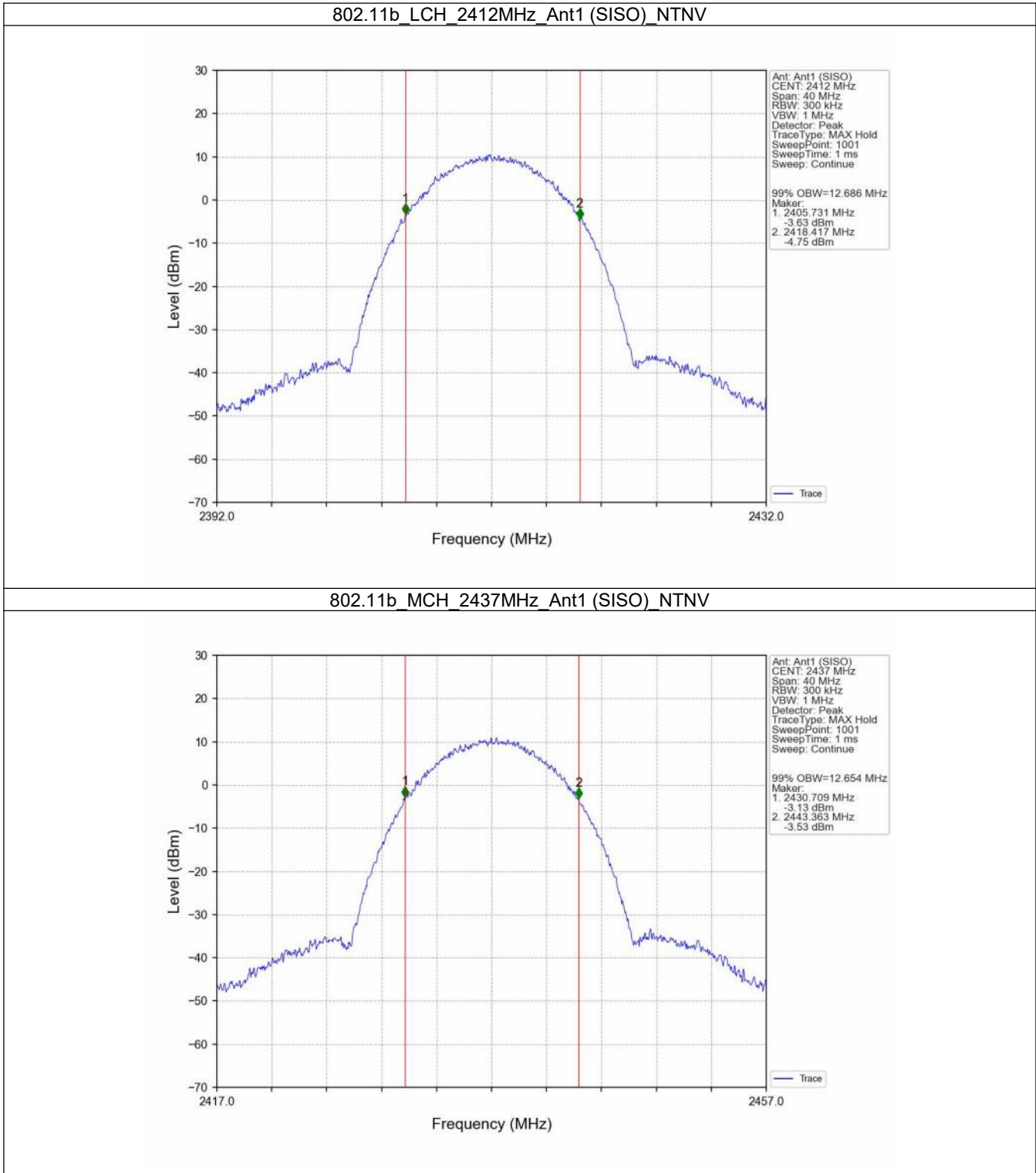
| Mode           | TX Type | Frequency (MHz) | ANT | 99% Occupied Bandwidth (MHz) |       | Verdict |
|----------------|---------|-----------------|-----|------------------------------|-------|---------|
|                |         |                 |     | Result                       | Limit |         |
| 802.11b        | SISO    | 2412            | 1   | 12.686                       | /     | Pass    |
|                |         | 2437            | 1   | 12.654                       | /     | Pass    |
|                |         | 2462            | 1   | 12.627                       | /     | Pass    |
| 802.11g        | SISO    | 2412            | 1   | 16.556                       | /     | Pass    |
|                |         | 2437            | 1   | 16.610                       | /     | Pass    |
|                |         | 2462            | 1   | 16.565                       | /     | Pass    |
| 802.11n (HT20) | SISO    | 2412            | 1   | 17.706                       | /     | Pass    |
|                |         | 2437            | 1   | 17.688                       | /     | Pass    |
|                |         | 2462            | 1   | 17.663                       | /     | Pass    |
| 802.11n (HT40) | SISO    | 2422            | 1   | 36.249                       | /     | Pass    |
|                |         | 2437            | 1   | 36.453                       | /     | Pass    |
|                |         | 2452            | 1   | 36.357                       | /     | Pass    |

#### 2.1.2 6dB BW

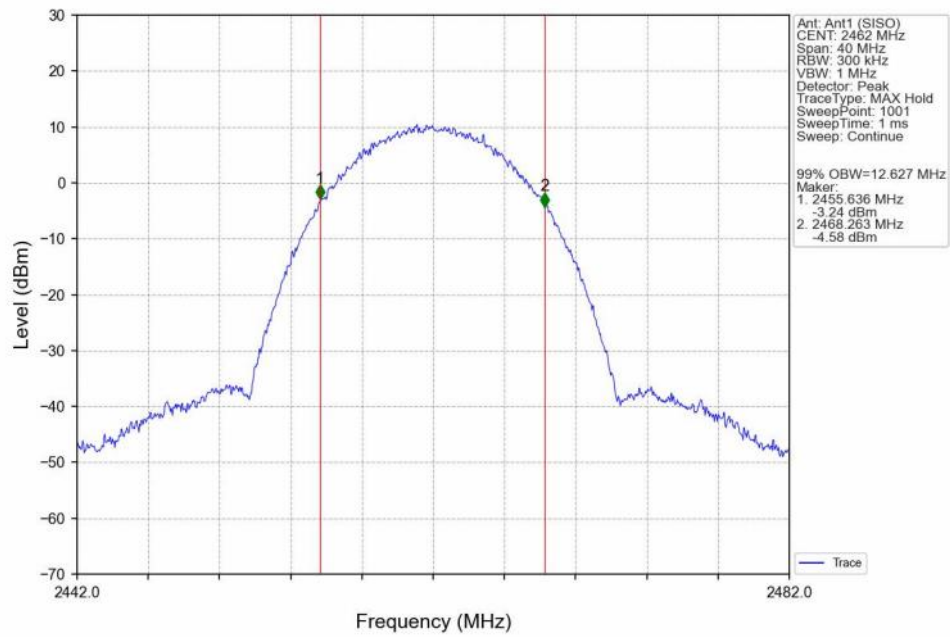
| Mode           | TX Type | Frequency (MHz) | ANT | 6dB Bandwidth (MHz) |            | Verdict |
|----------------|---------|-----------------|-----|---------------------|------------|---------|
|                |         |                 |     | Result              | Limit      |         |
| 802.11b        | SISO    | 2412            | 1   | 7.857               | $\geq 0.5$ | Pass    |
|                |         | 2437            | 1   | 8.406               | $\geq 0.5$ | Pass    |
|                |         | 2462            | 1   | 7.793               | $\geq 0.5$ | Pass    |
| 802.11g        | SISO    | 2412            | 1   | 15.706              | $\geq 0.5$ | Pass    |
|                |         | 2437            | 1   | 15.951              | $\geq 0.5$ | Pass    |
|                |         | 2462            | 1   | 16.042              | $\geq 0.5$ | Pass    |
| 802.11n (HT20) | SISO    | 2412            | 1   | 17.488              | $\geq 0.5$ | Pass    |
|                |         | 2437            | 1   | 17.267              | $\geq 0.5$ | Pass    |
|                |         | 2462            | 1   | 17.312              | $\geq 0.5$ | Pass    |
| 802.11n (HT40) | SISO    | 2422            | 1   | 35.229              | $\geq 0.5$ | Pass    |
|                |         | 2437            | 1   | 35.817              | $\geq 0.5$ | Pass    |
|                |         | 2452            | 1   | 35.061              | $\geq 0.5$ | Pass    |

2.2 Test Graph

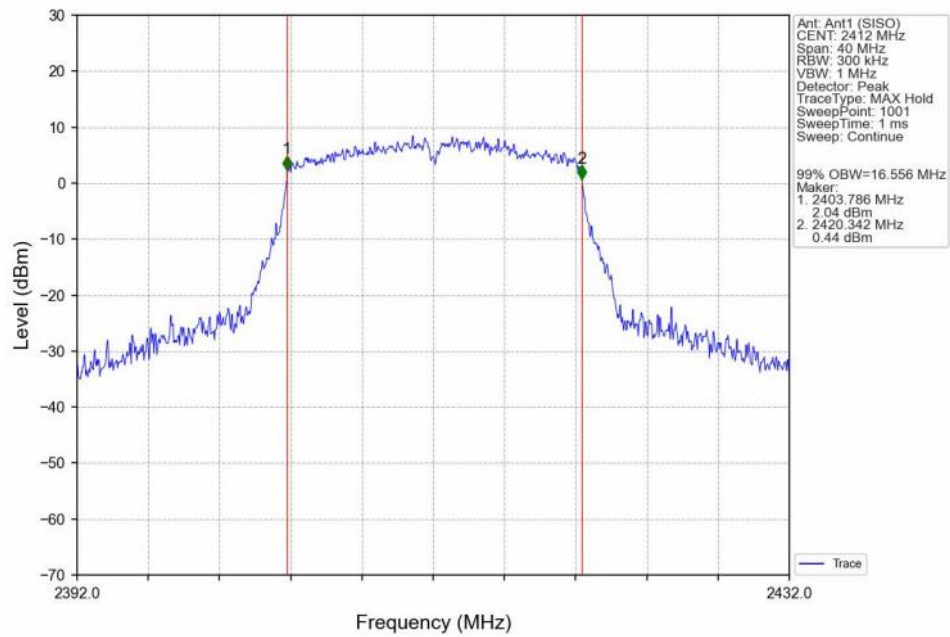
2.2.1 OBW



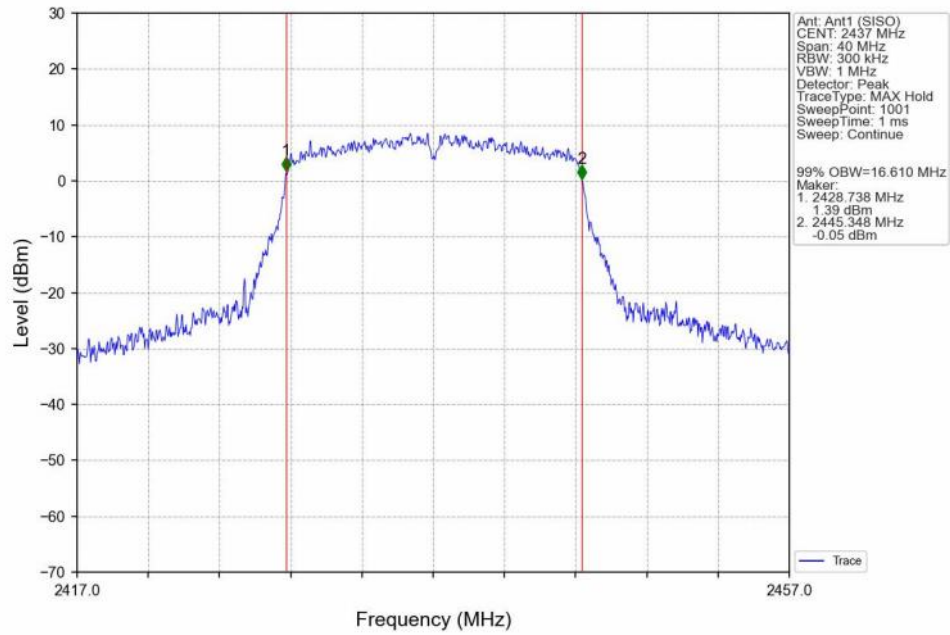
# 802.11b\_HCH\_2462MHz\_Ant1 (SISO)\_NTNV



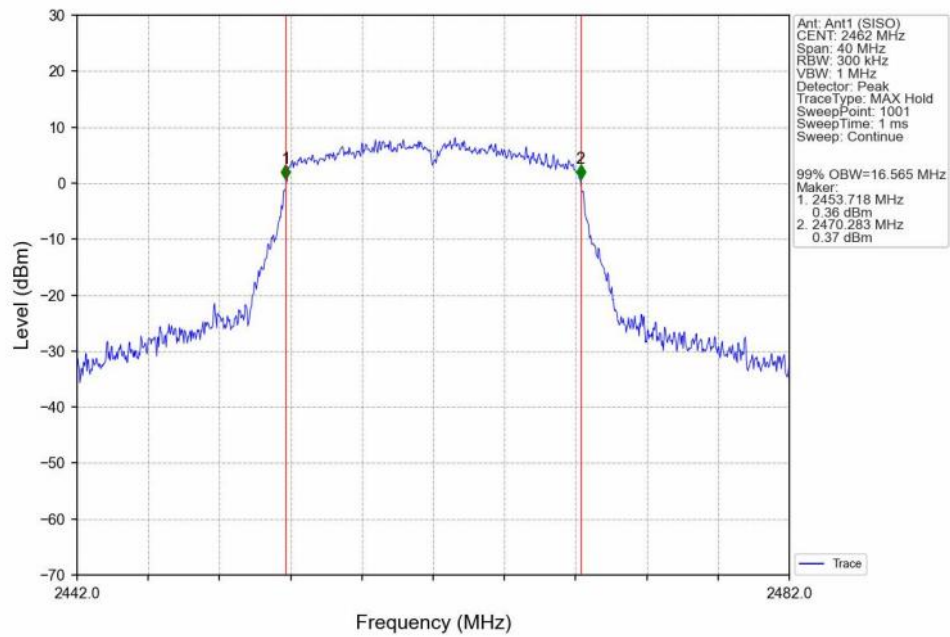
# 802.11g\_LCH\_2412MHz\_Ant1 (SISO)\_NTNV



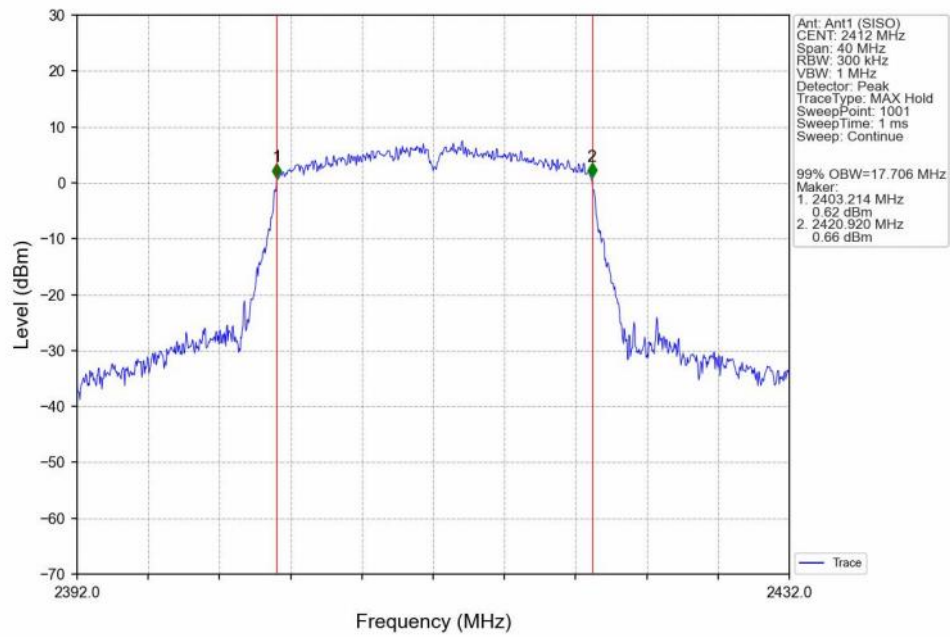
# 802.11g\_MCH\_2437MHz\_Ant1 (SISO)\_NTNV



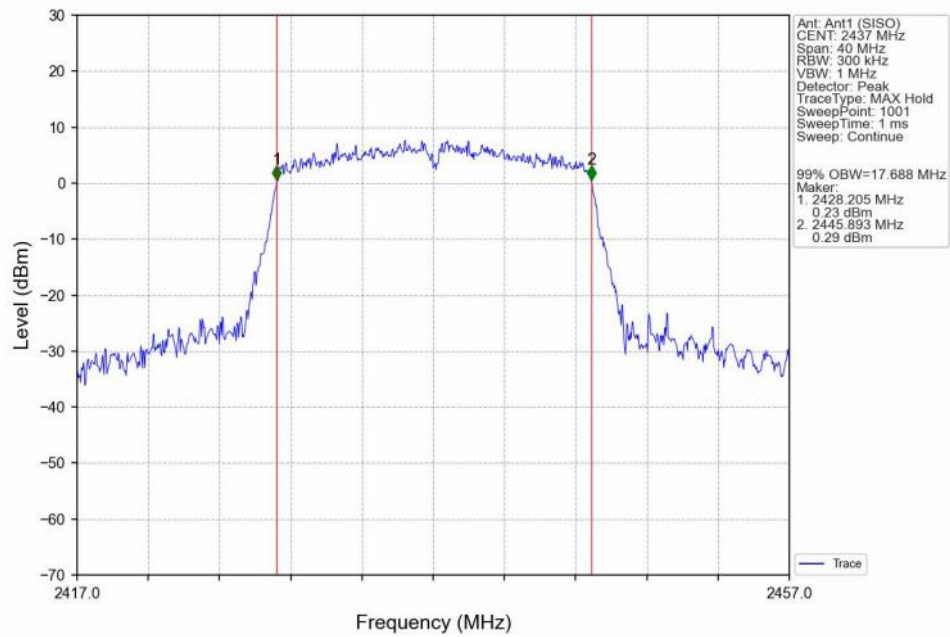
# 802.11g\_HCH\_2462MHz\_Ant1 (SISO)\_NTNV



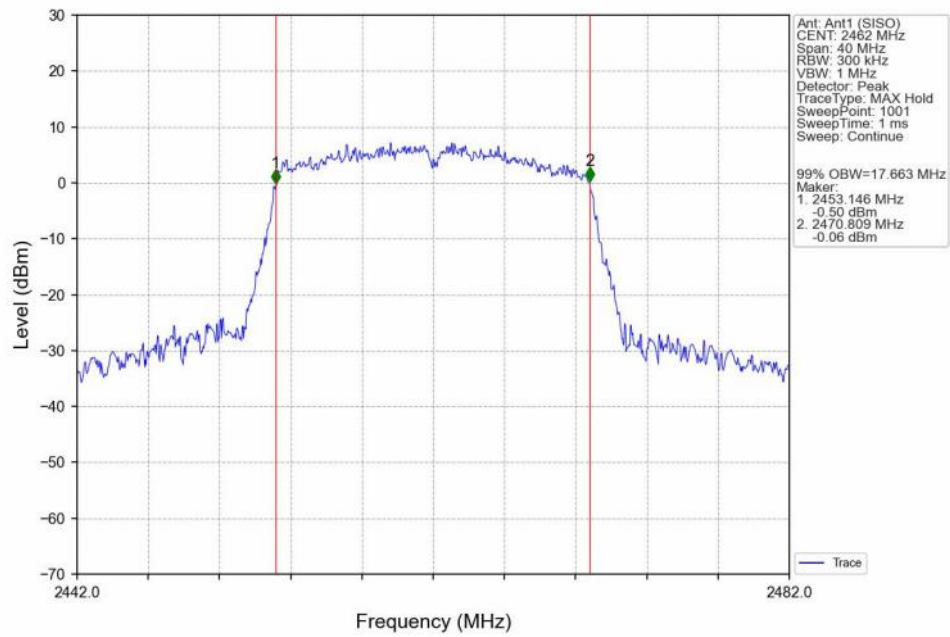
# 802.11n(HT20)\_LCH\_2412MHz\_Ant1 (SISO)\_NTNV



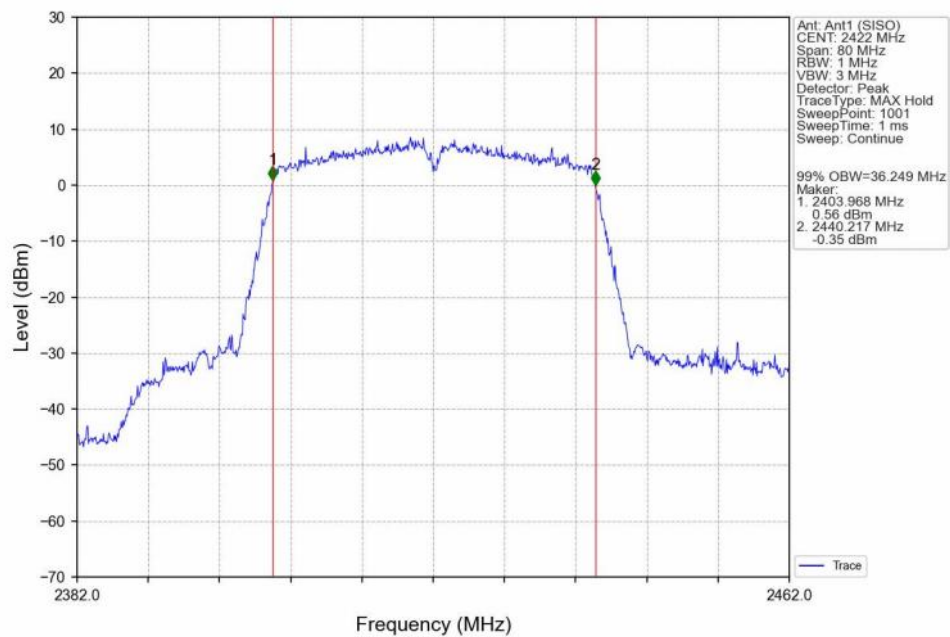
# 802.11n(HT20)\_MCH\_2437MHz\_Ant1 (SISO)\_NTNV



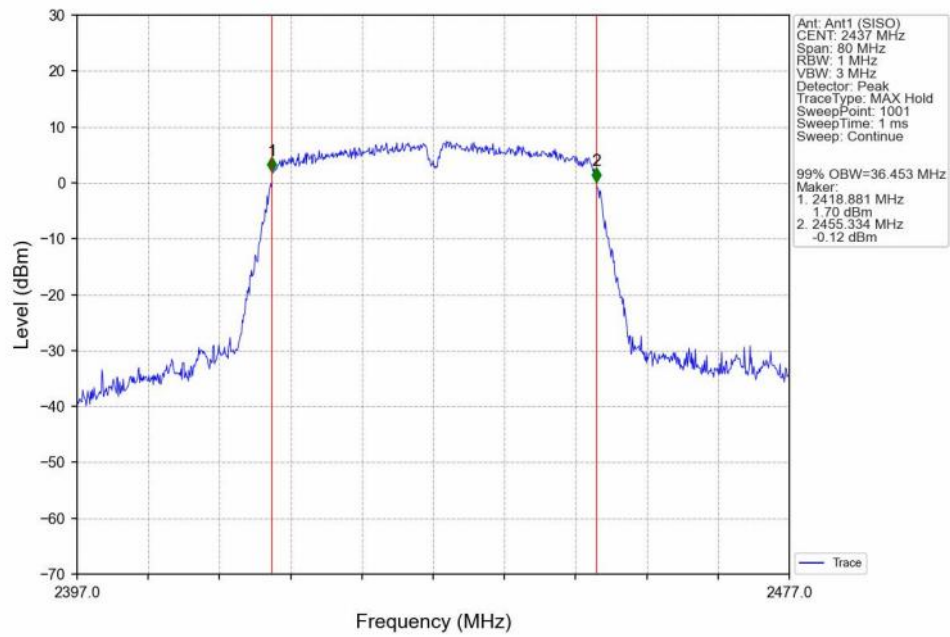
802.11n(HT20)\_HCH\_2462MHz\_Ant1 (SISO)\_NTNV



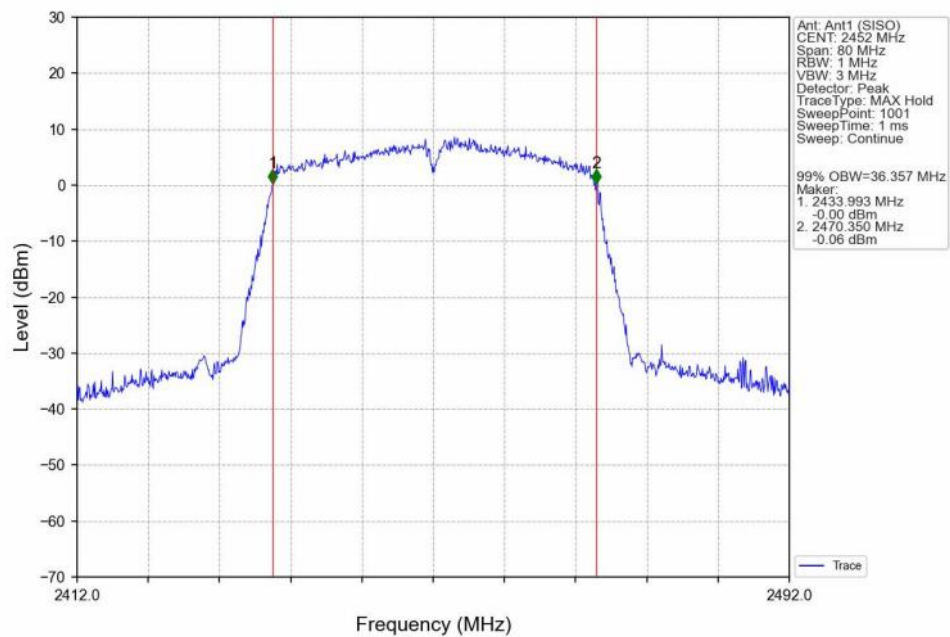
802.11n(HT40)\_LCH\_2422MHz\_Ant1 (SISO)\_NTNV



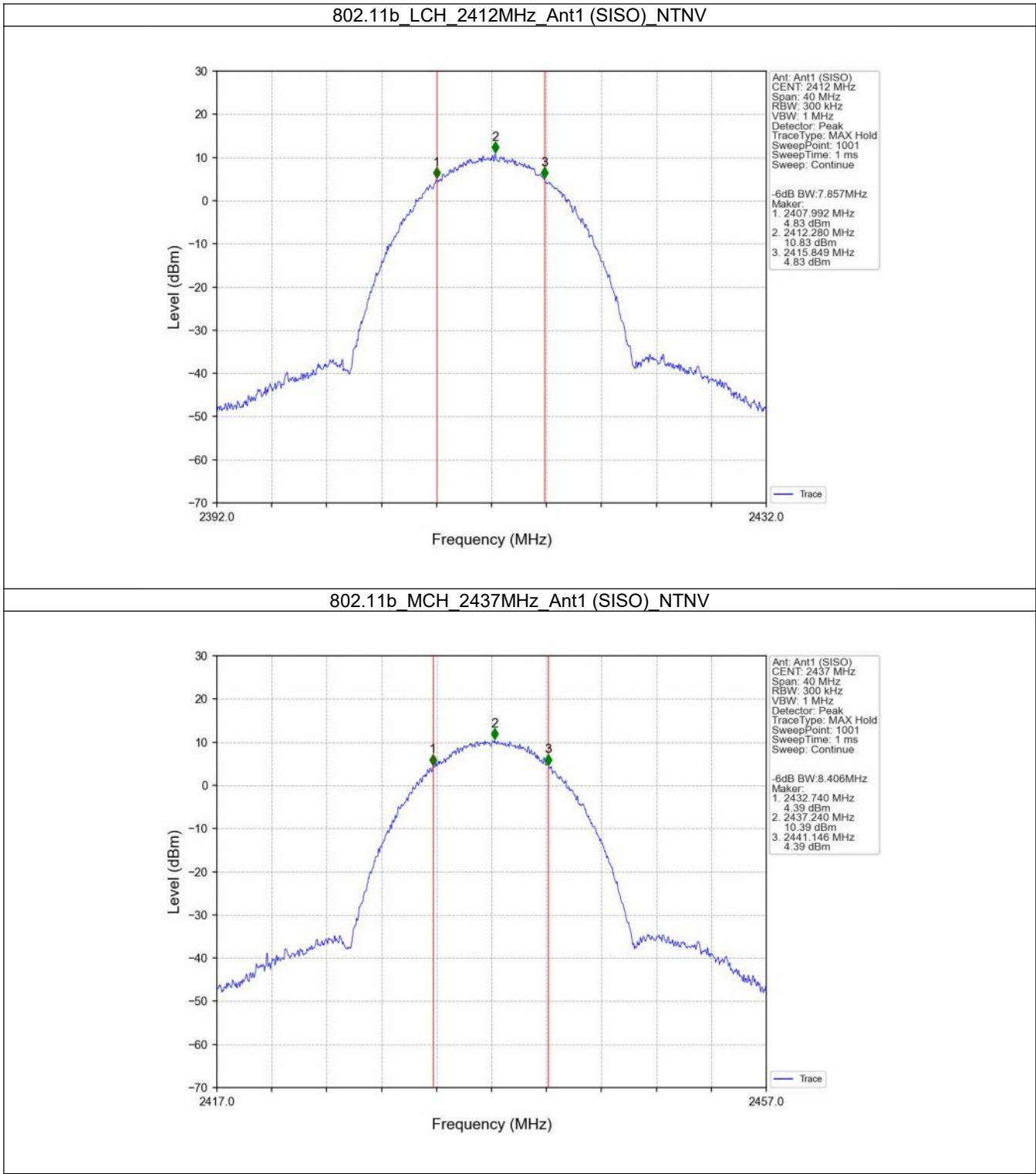
802.11n(HT40)\_MCH\_2437MHz\_Ant1 (SISO)\_NTNV



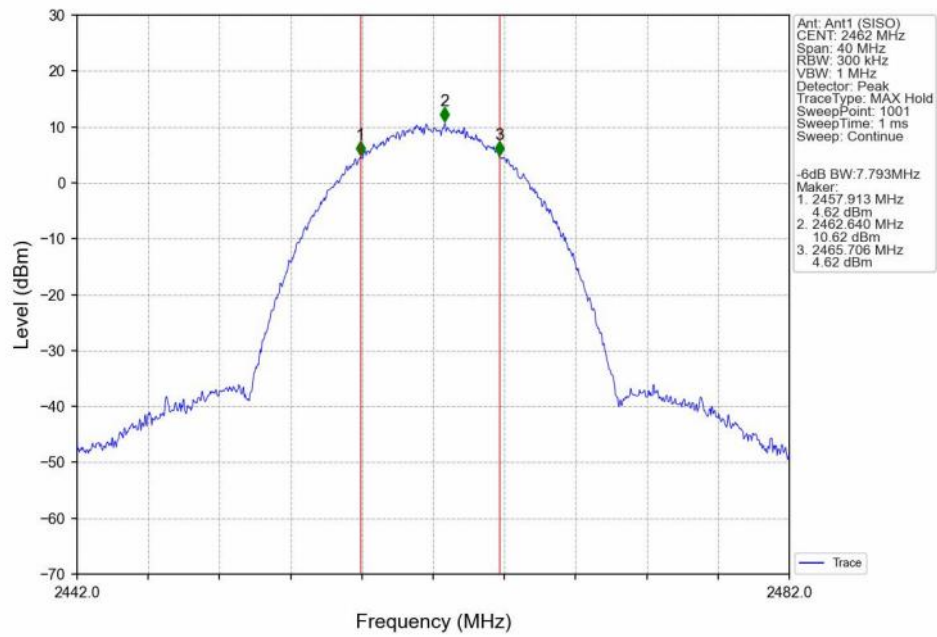
802.11n(HT40)\_HCH\_2452MHz\_Ant1 (SISO)\_NTNV



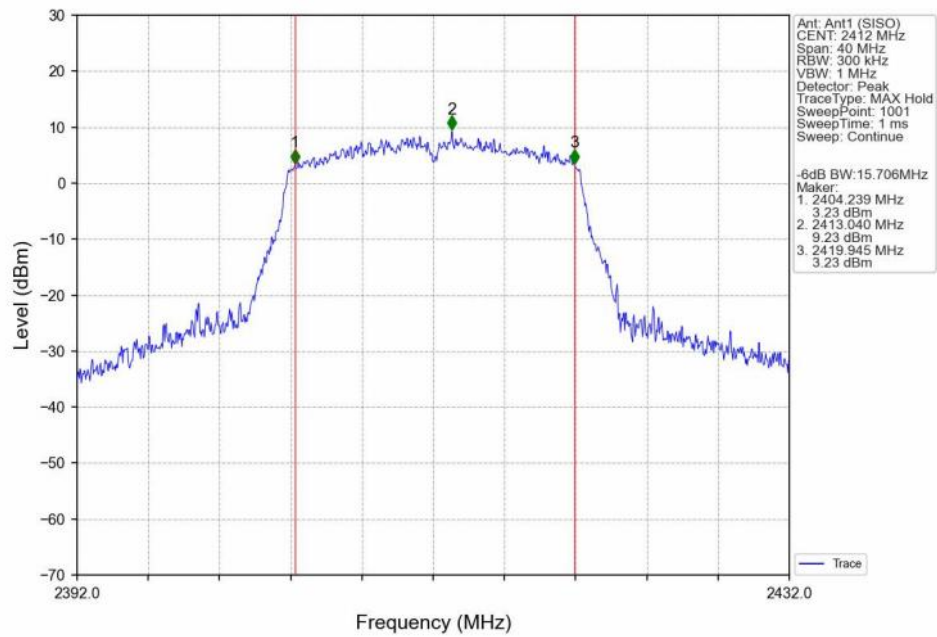
2.2.2 6dB BW



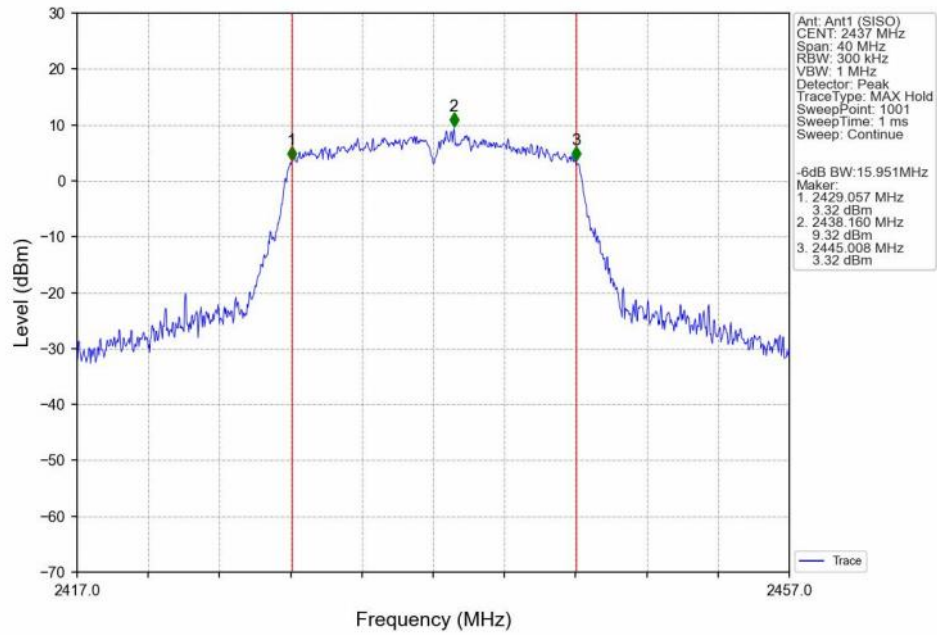
# 802.11b\_HCH\_2462MHz\_Ant1 (SISO)\_NTNV



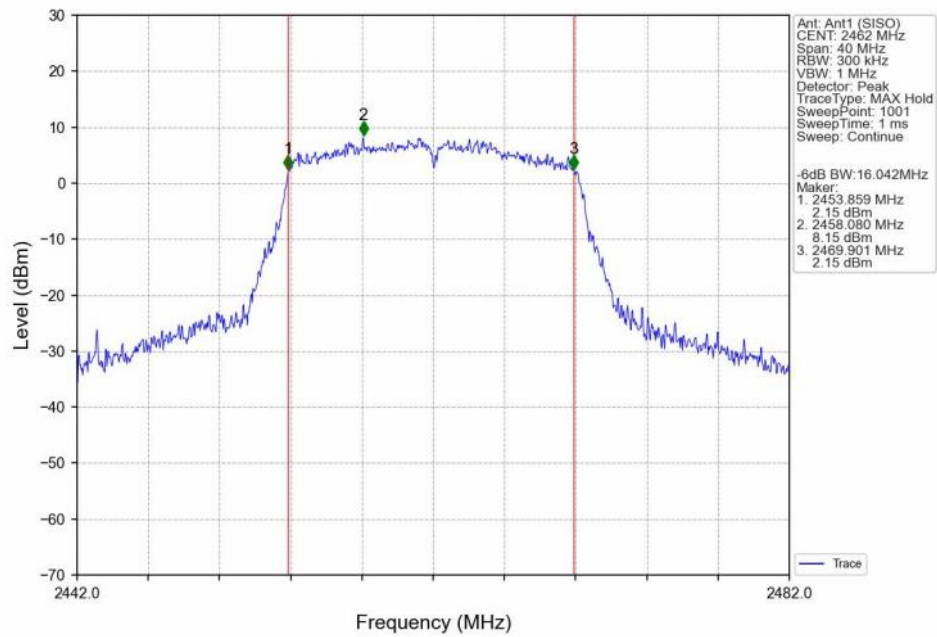
# 802.11g\_LCH\_2412MHz\_Ant1 (SISO)\_NTNV



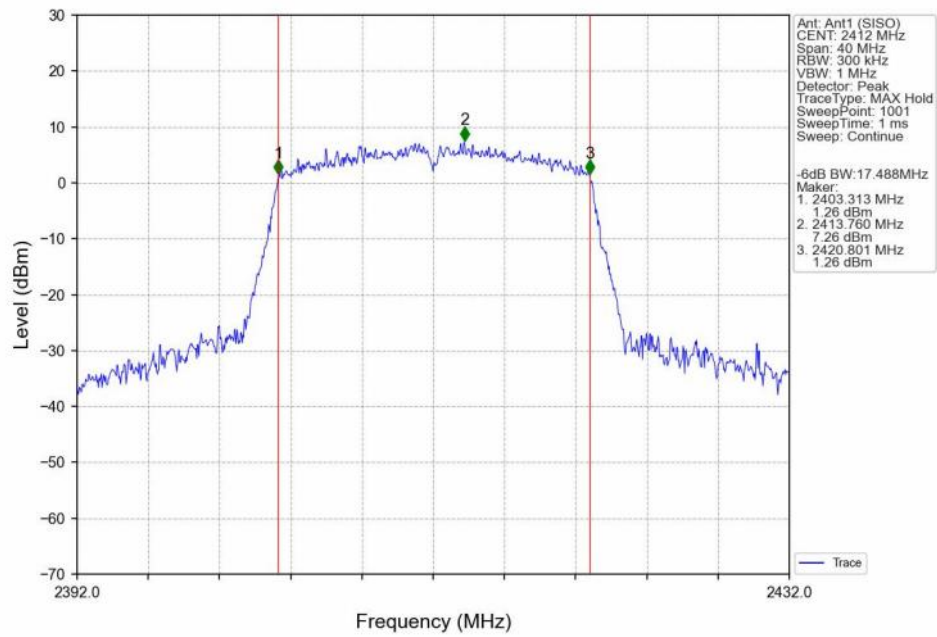
# 802.11g\_MCH\_2437MHz\_Ant1 (SISO)\_NTNV



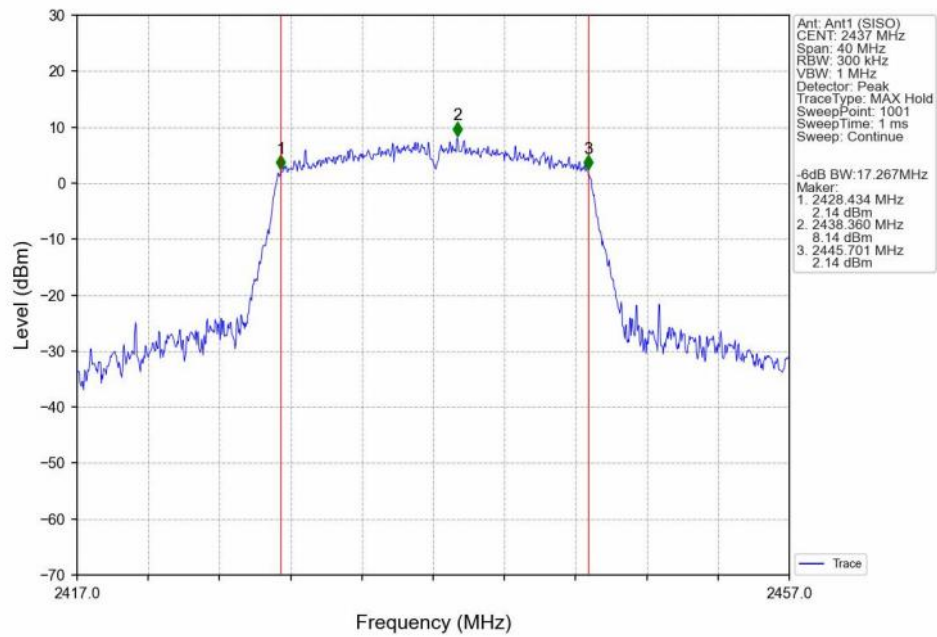
# 802.11g\_HCH\_2462MHz\_Ant1 (SISO)\_NTNV



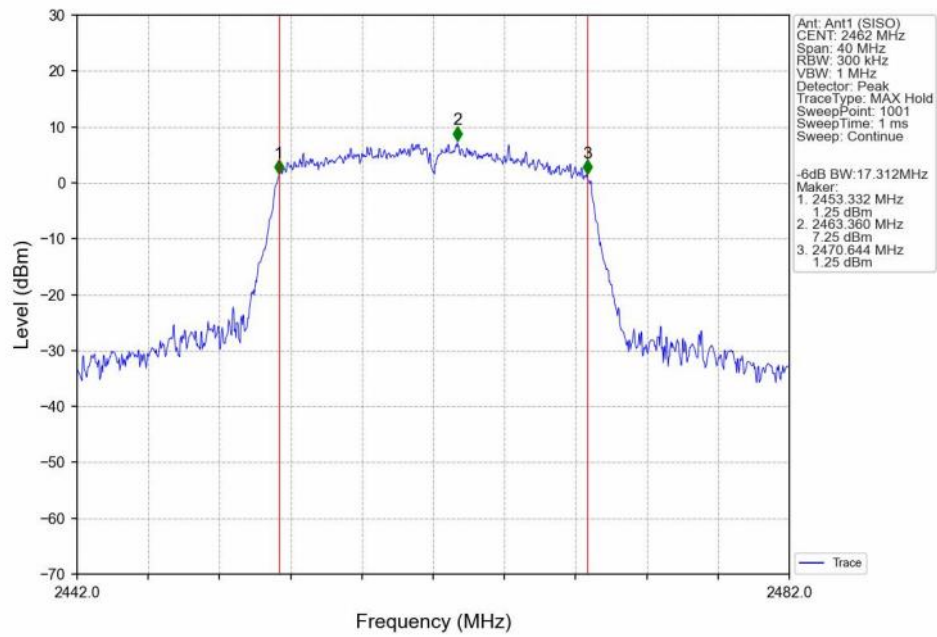
802.11n(HT20)\_LCH\_2412MHz\_Ant1 (SISO)\_NTNV



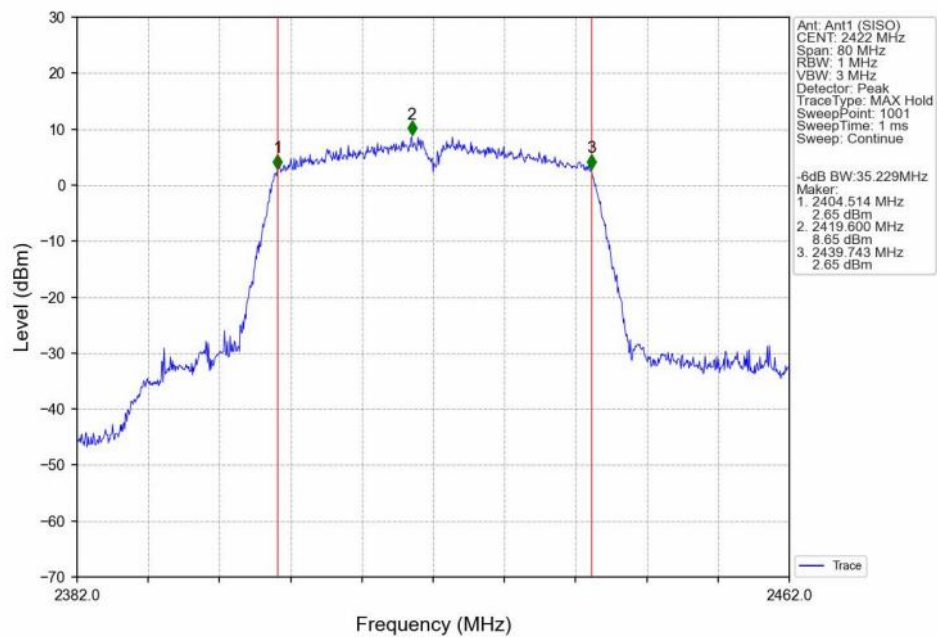
802.11n(HT20)\_MCH\_2437MHz\_Ant1 (SISO)\_NTNV



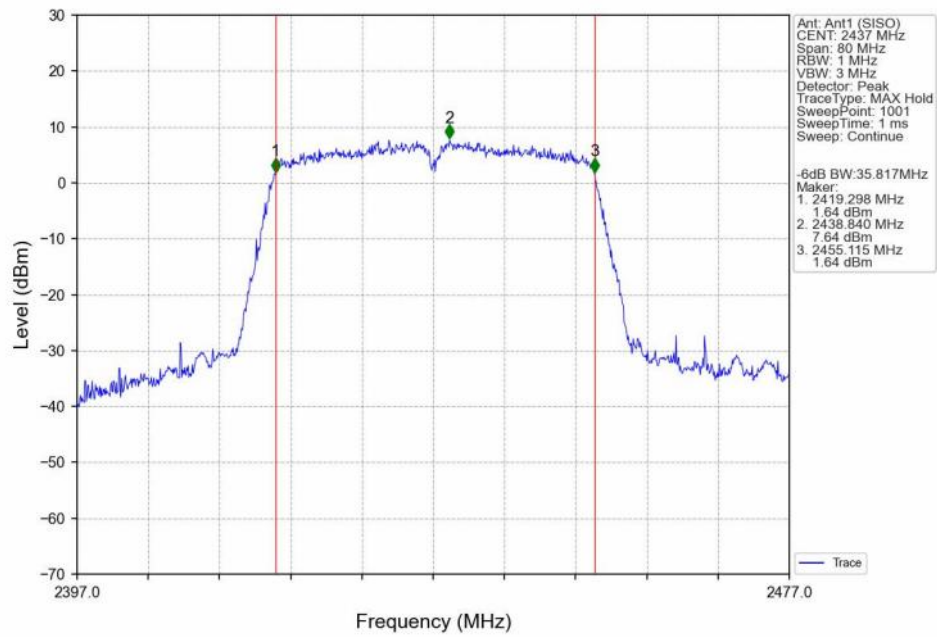
802.11n(HT20)\_HCH\_2462MHz\_Ant1 (SISO)\_NTNV



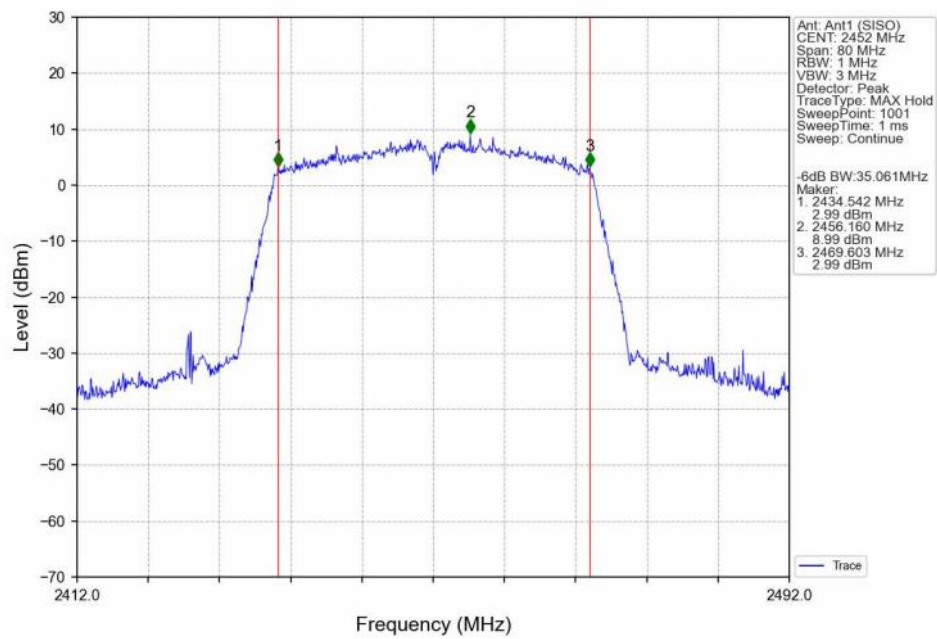
802.11n(HT40)\_LCH\_2422MHz\_Ant1 (SISO)\_NTNV



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



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



### 3. Maximum Conducted Output Power

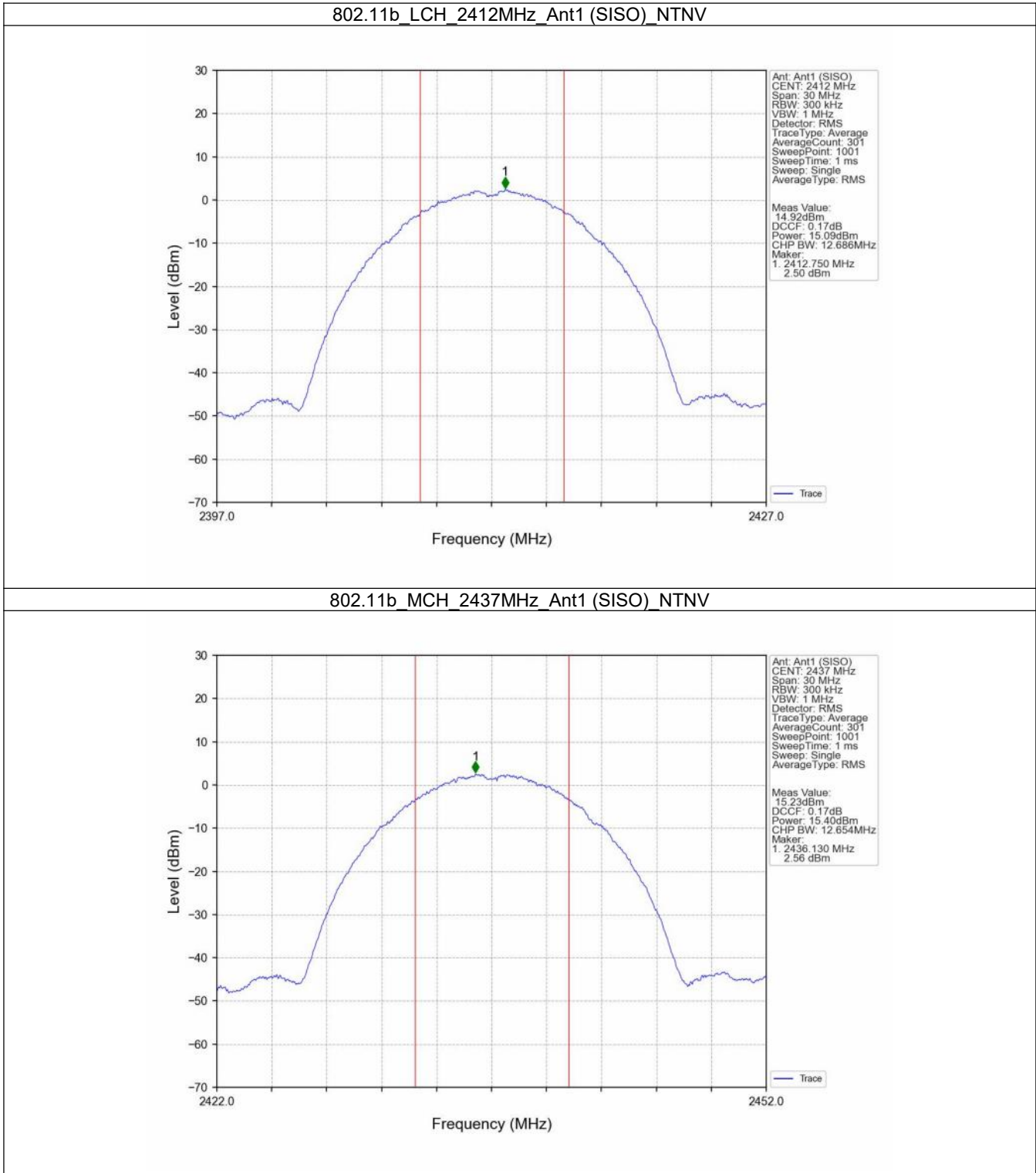
#### 3.1 Test Result

##### 3.1.1 Power

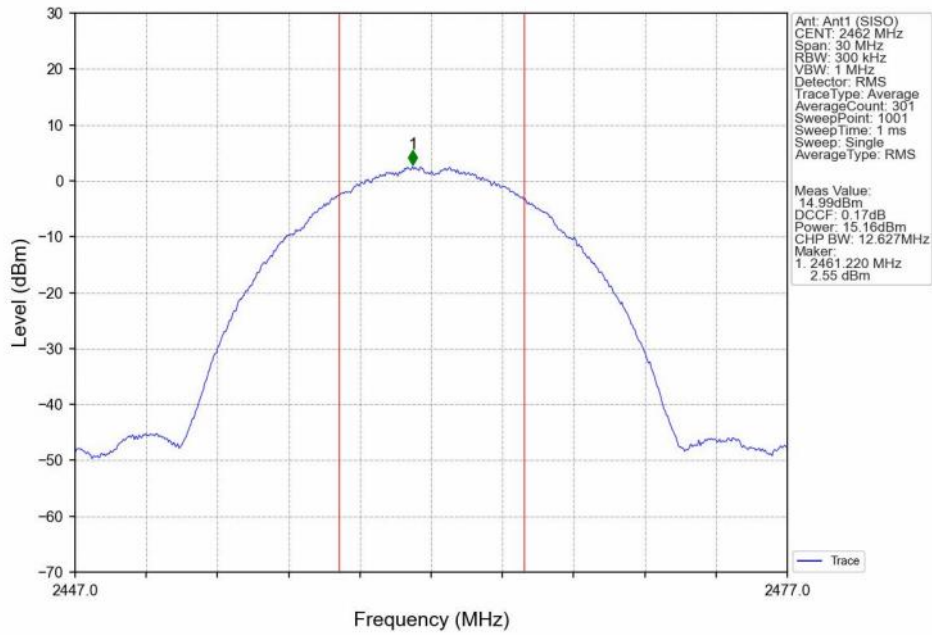
| Mode           | TX Type | Frequency (MHz) | Maximum Average Conducted Output Power (dBm) |       | Verdict |
|----------------|---------|-----------------|----------------------------------------------|-------|---------|
|                |         |                 | ANT1                                         | Limit |         |
| 802.11b        | SISO    | 2412            | 15.09                                        | <=30  | Pass    |
|                |         | 2437            | 15.40                                        | <=30  | Pass    |
|                |         | 2462            | 15.16                                        | <=30  | Pass    |
| 802.11g        | SISO    | 2412            | 15.20                                        | <=30  | Pass    |
|                |         | 2437            | 15.50                                        | <=30  | Pass    |
|                |         | 2462            | 15.02                                        | <=30  | Pass    |
| 802.11n (HT20) | SISO    | 2412            | 14.33                                        | <=30  | Pass    |
|                |         | 2437            | 14.77                                        | <=30  | Pass    |
|                |         | 2462            | 14.31                                        | <=30  | Pass    |
| 802.11n (HT40) | SISO    | 2422            | 12.25                                        | <=30  | Pass    |
|                |         | 2437            | 12.34                                        | <=30  | Pass    |
|                |         | 2452            | 12.17                                        | <=30  | Pass    |

### 3.2 Test Graph

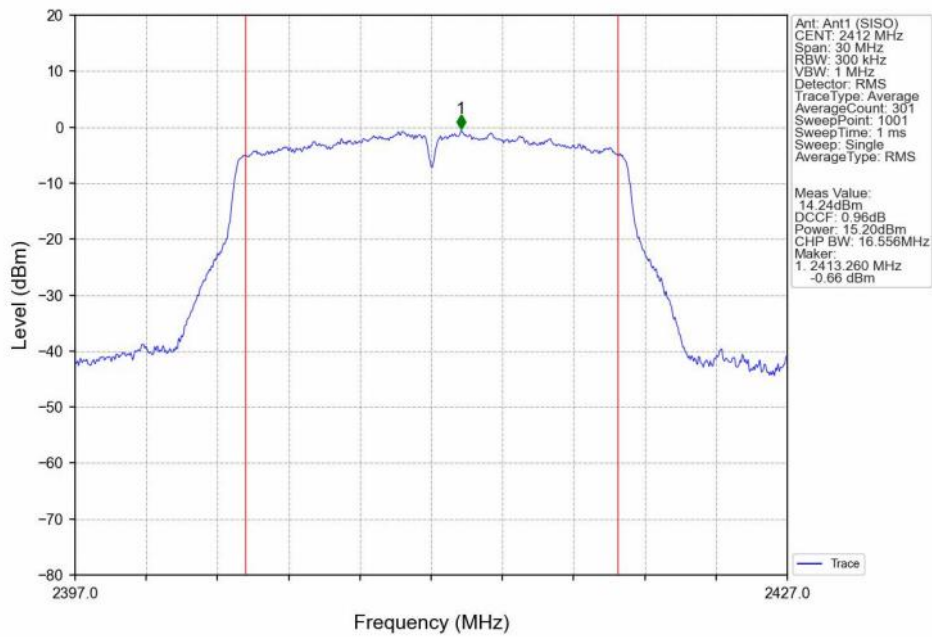
#### 3.2.1 Power



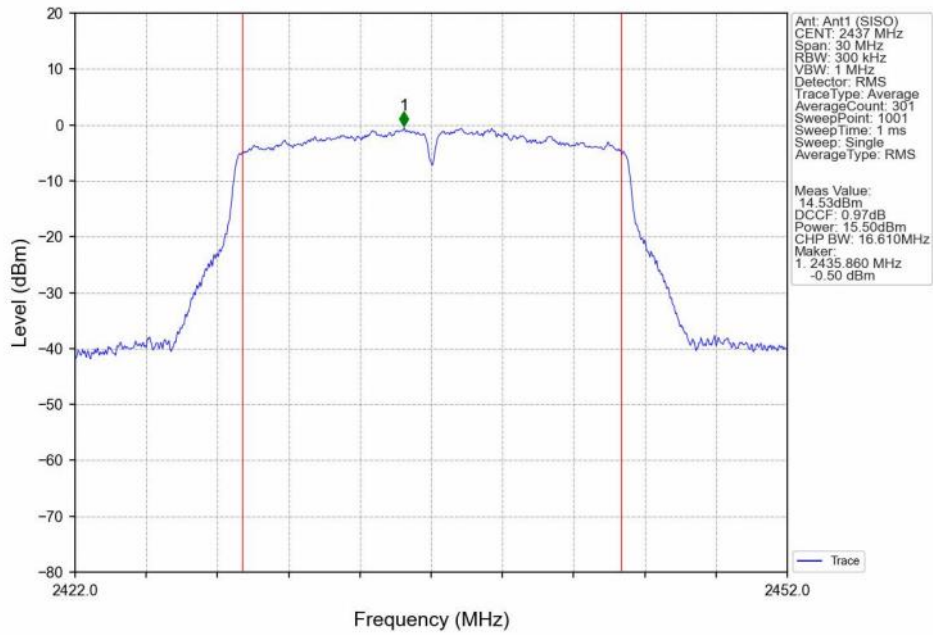
# 802.11b\_HCH\_2462MHz\_Ant1 (SISO)\_NTNV



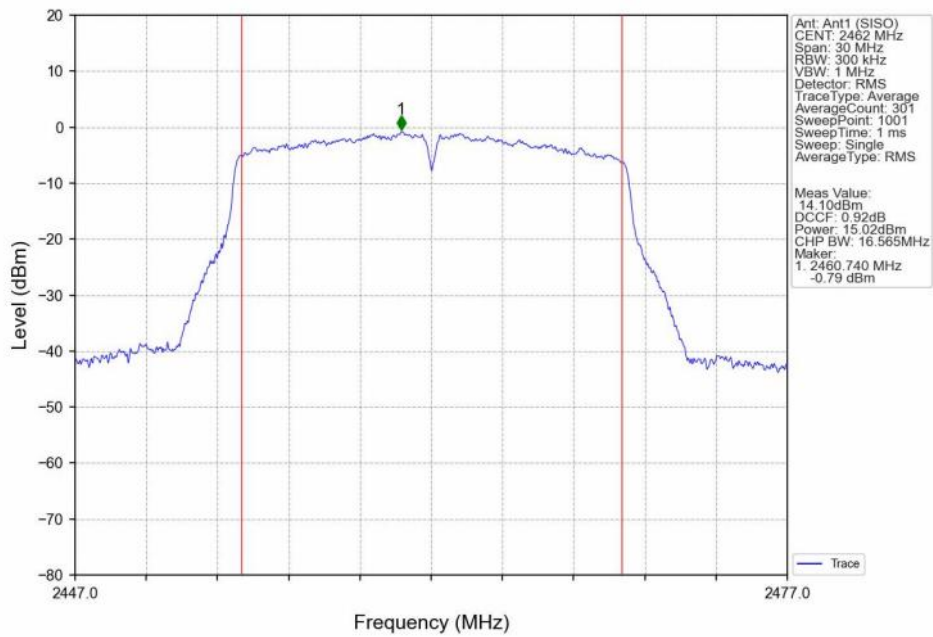
# 802.11g\_LCH\_2412MHz\_Ant1 (SISO)\_NTNV



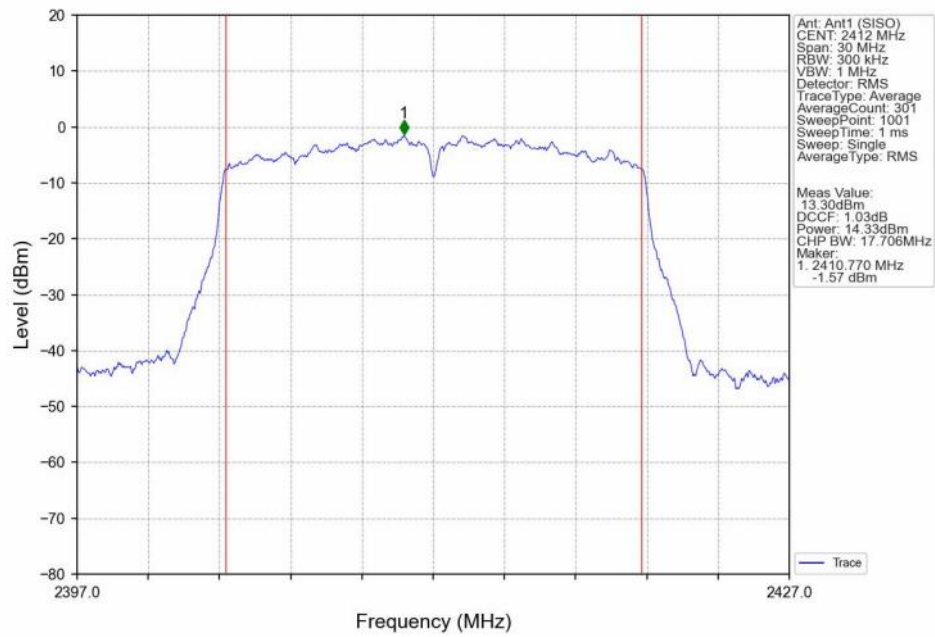
# 802.11g\_MCH\_2437MHz\_Ant1 (SISO)\_NTNV



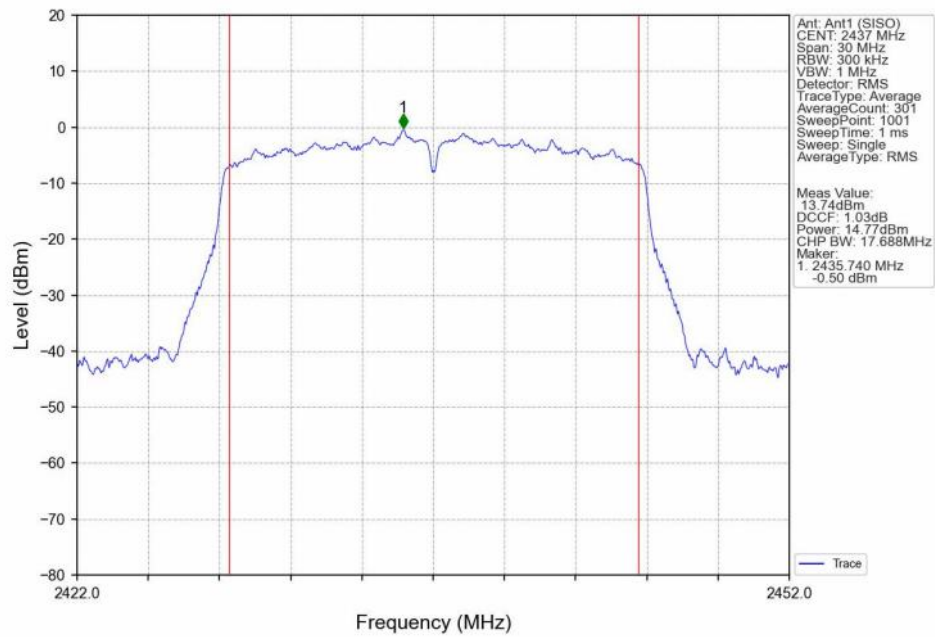
# 802.11g\_HCH\_2462MHz\_Ant1 (SISO)\_NTNV



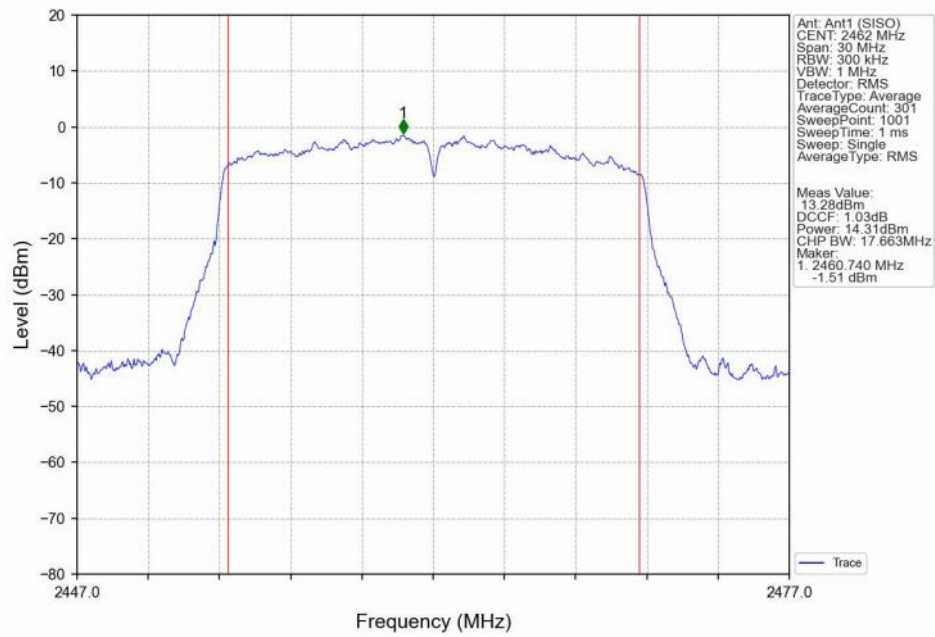
802.11n(HT20)\_LCH\_2412MHz\_Ant1 (SISO)\_NTNV



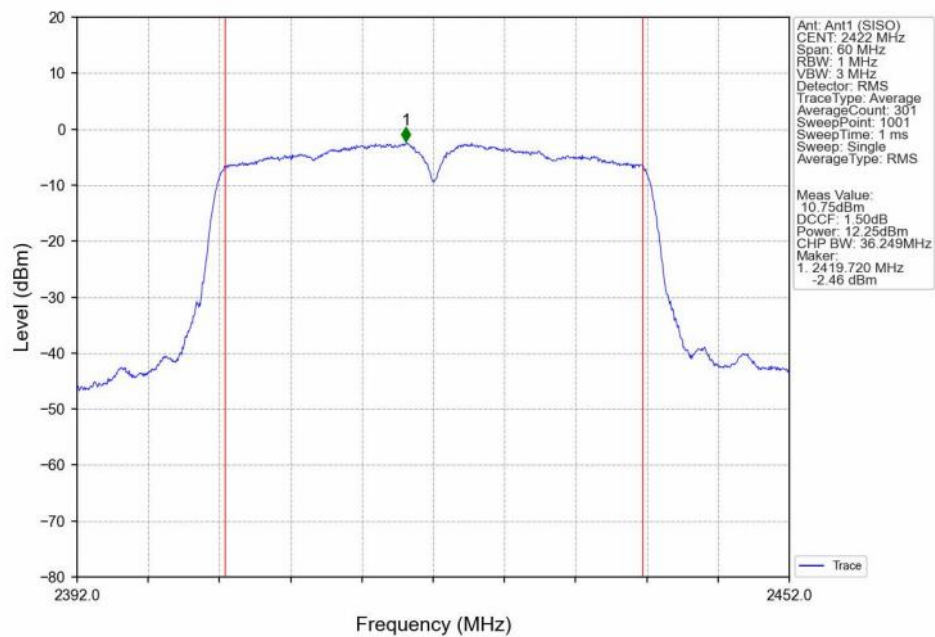
802.11n(HT20)\_MCH\_2437MHz\_Ant1 (SISO)\_NTNV



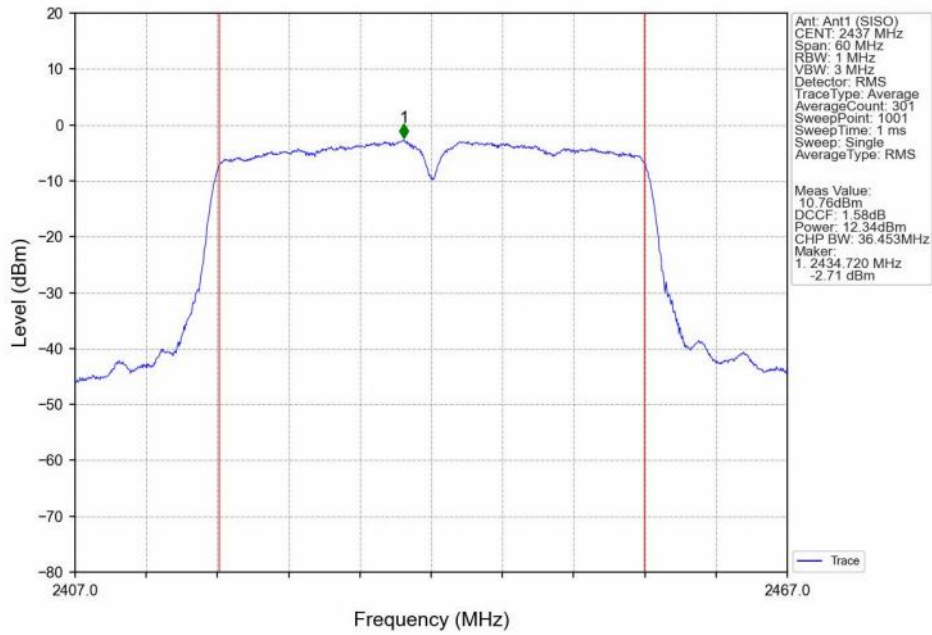
# 802.11n(HT20)\_HCH\_2462MHz\_Ant1 (SISO)\_NTNV



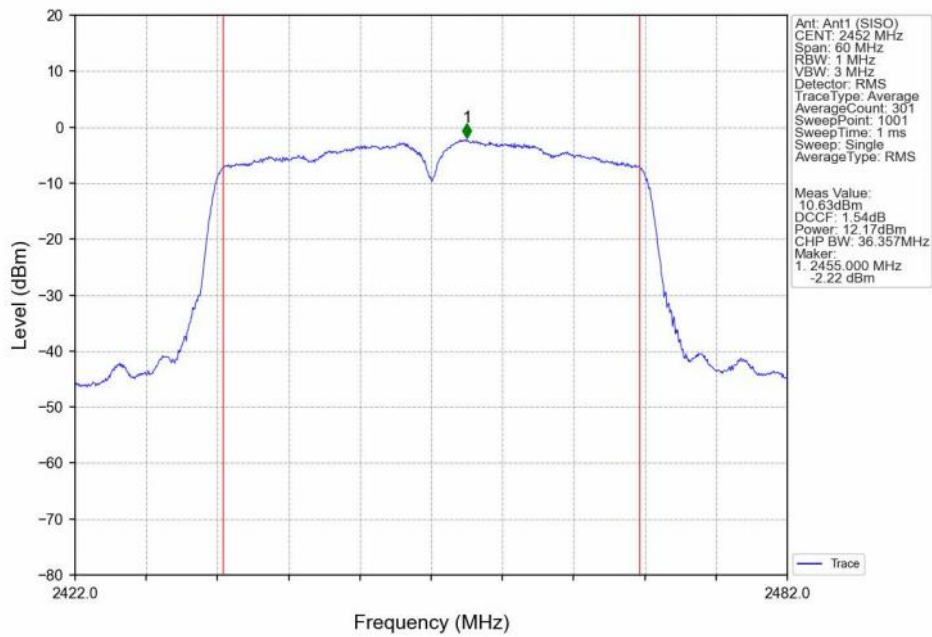
# 802.11n(HT40)\_LCH\_2422MHz\_Ant1 (SISO)\_NTNV



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



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



## 4. Maximum Power Spectral Density

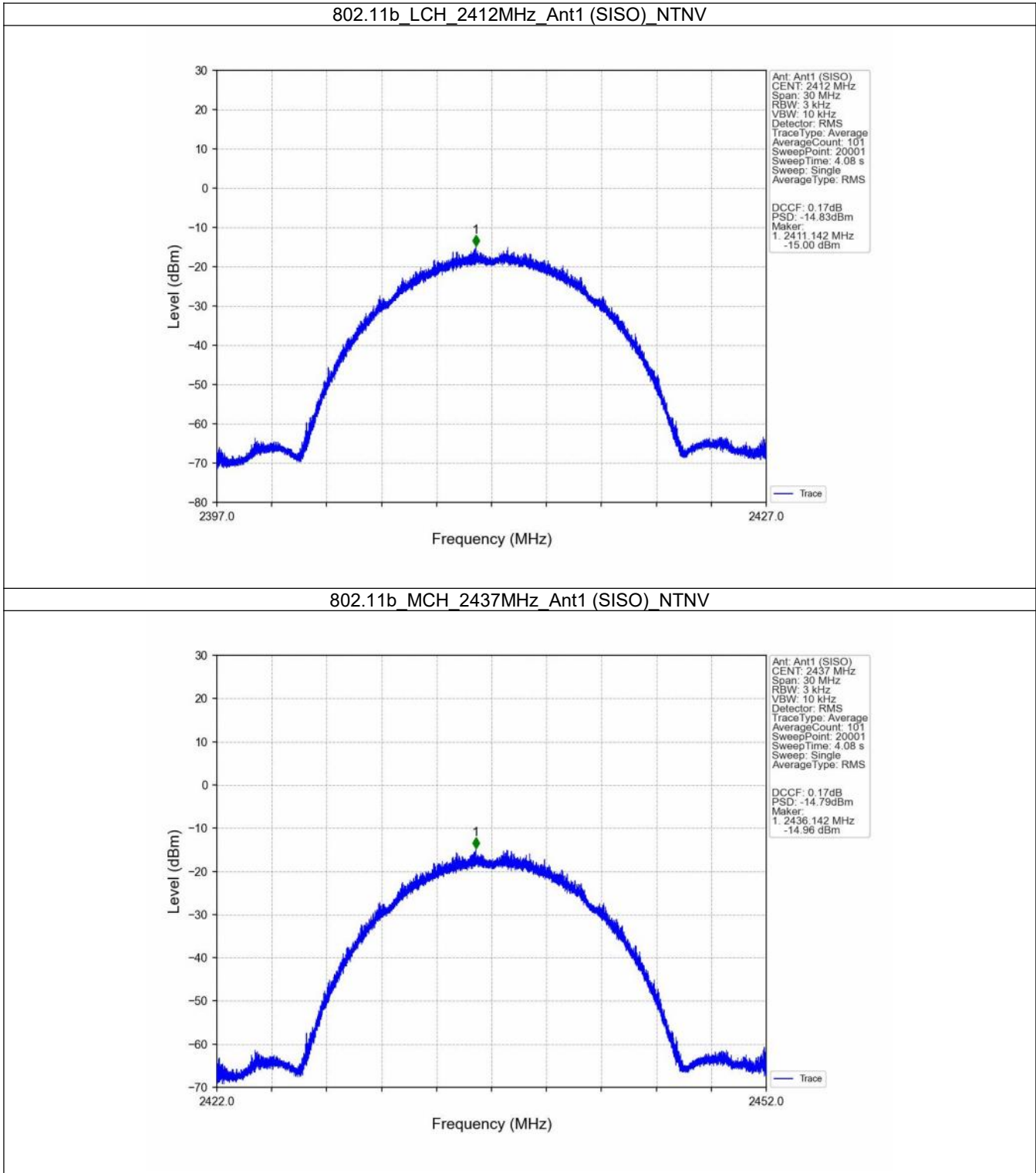
### 4.1 Test Result

#### 4.1.1 PSD

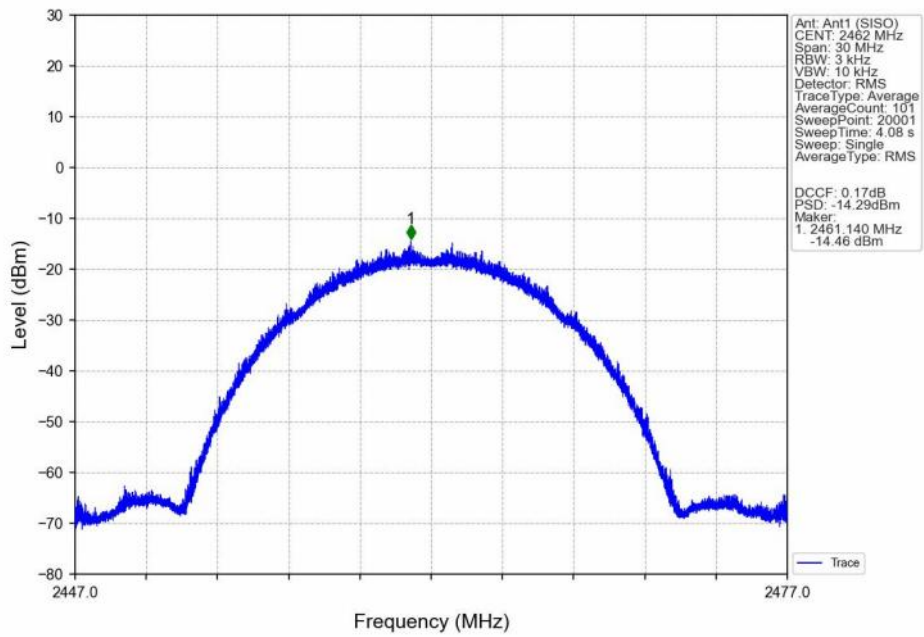
| Mode           | TX Type | Frequency (MHz) | Maximum PSD (dBm) |                 | Verdict |
|----------------|---------|-----------------|-------------------|-----------------|---------|
|                |         |                 | ANT1              | Limit(dBm/3kHz) |         |
| 802.11b        | SISO    | 2412            | -14.83dBm/3kHz    | <=8             | Pass    |
|                |         | 2437            | -14.79dBm/3kHz    | <=8             | Pass    |
|                |         | 2462            | -14.29dBm/3kHz    | <=8             | Pass    |
| 802.11g        | SISO    | 2412            | -14.55dBm/3kHz    | <=8             | Pass    |
|                |         | 2437            | -14.35dBm/3kHz    | <=8             | Pass    |
|                |         | 2462            | -14.70dBm/3kHz    | <=8             | Pass    |
| 802.11n (HT20) | SISO    | 2412            | -13.92dBm/3kHz    | <=8             | Pass    |
|                |         | 2437            | -13.65dBm/3kHz    | <=8             | Pass    |
|                |         | 2462            | -13.70dBm/3kHz    | <=8             | Pass    |
| 802.11n (HT40) | SISO    | 2422            | -16.72dBm/3kHz    | <=8             | Pass    |
|                |         | 2437            | -17.64dBm/3kHz    | <=8             | Pass    |
|                |         | 2452            | -17.10dBm/3kHz    | <=8             | Pass    |

4.2 Test Graph

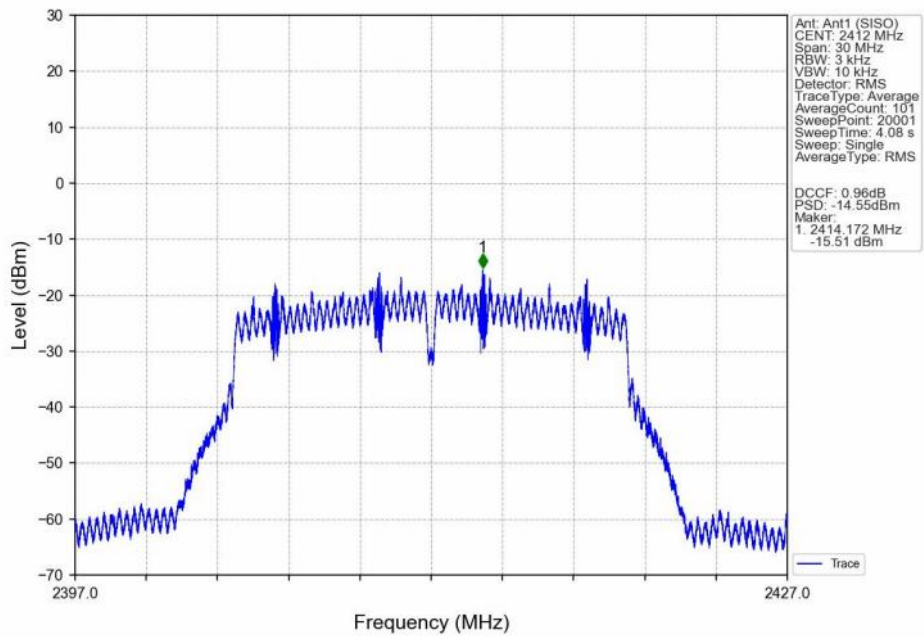
4.2.1 PSD



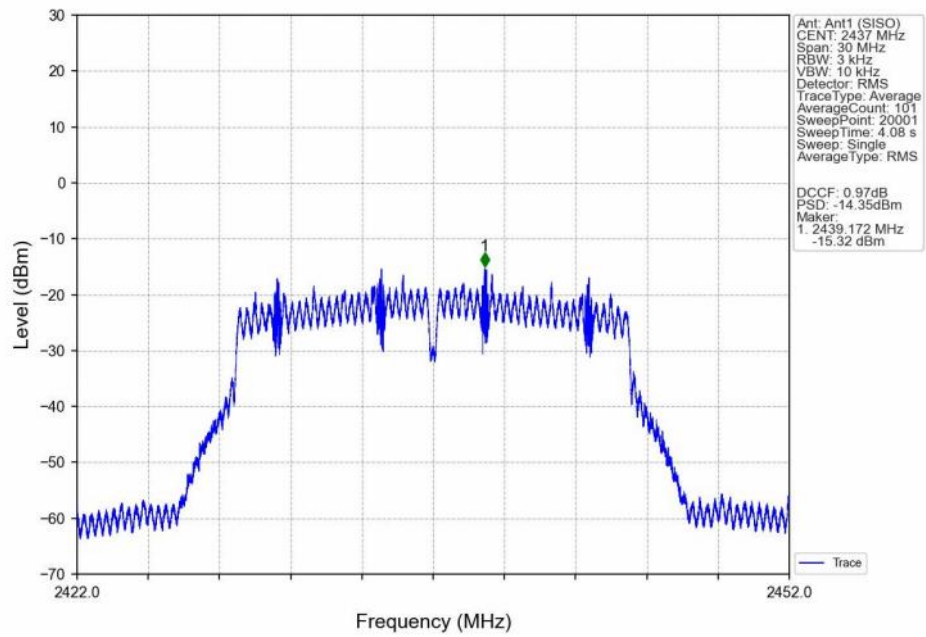
# 802.11b\_HCH\_2462MHz\_Ant1 (SISO)\_NTNV



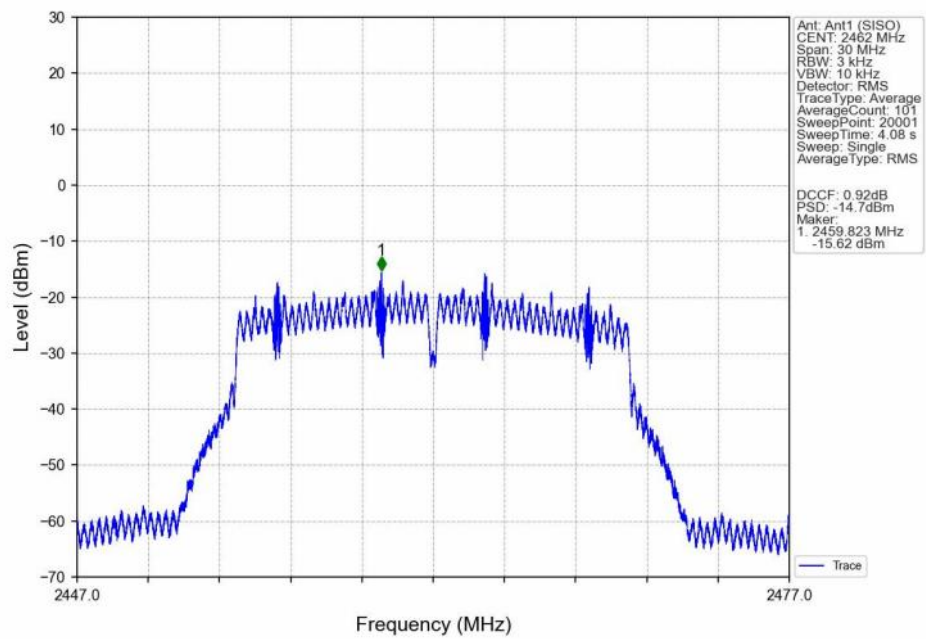
# 802.11g\_LCH\_2412MHz\_Ant1 (SISO)\_NTNV



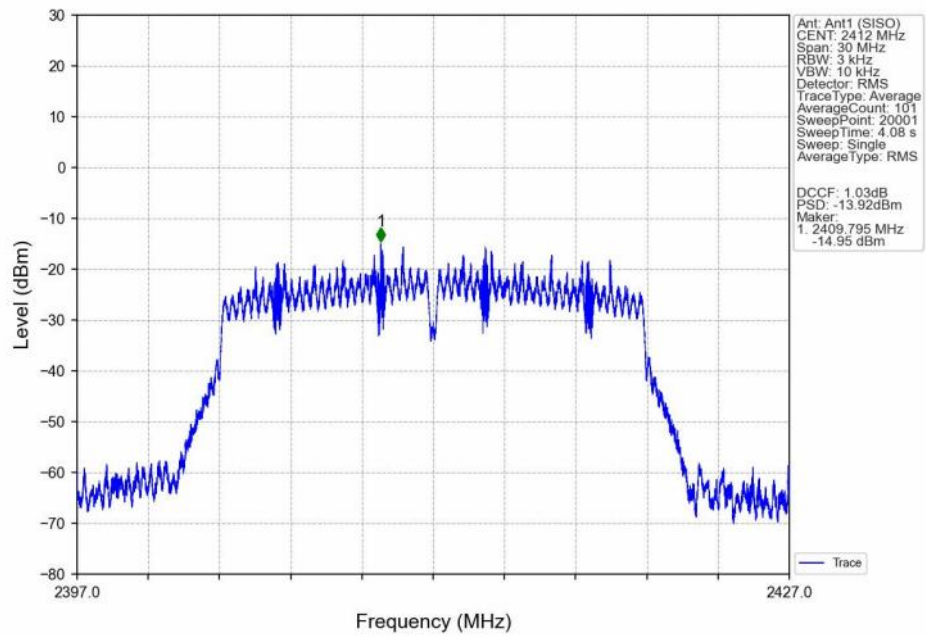
# 802.11g\_MCH\_2437MHz\_Ant1 (SISO)\_NTNV



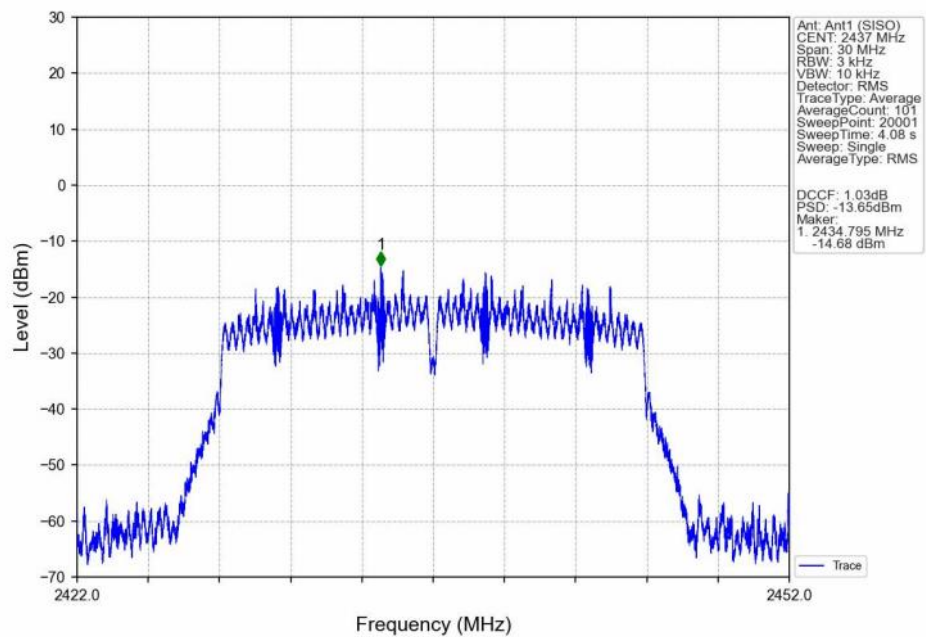
# 802.11g\_HCH\_2462MHz\_Ant1 (SISO)\_NTNV



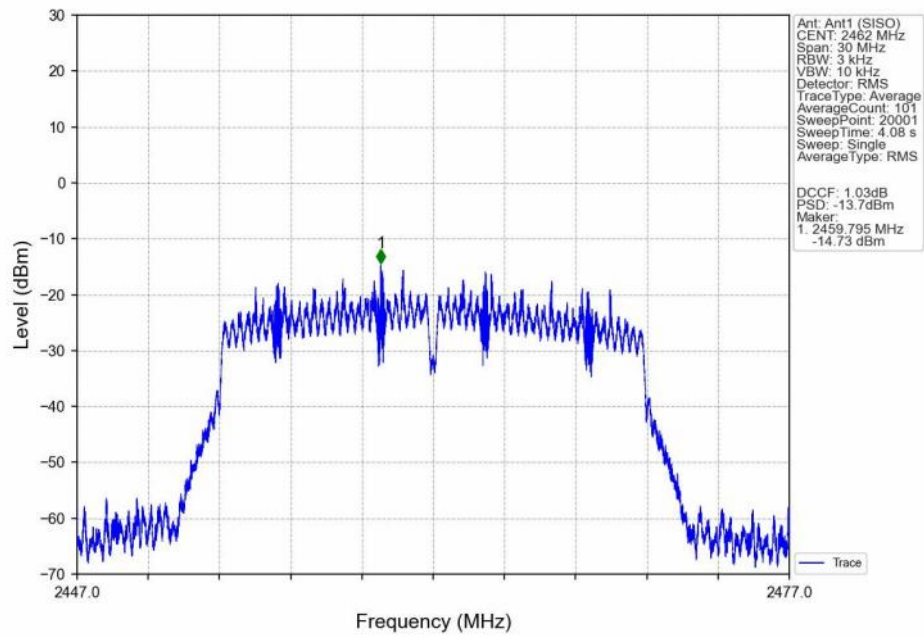
802.11n(HT20)\_LCH\_2412MHz\_Ant1 (SISO)\_NTNV



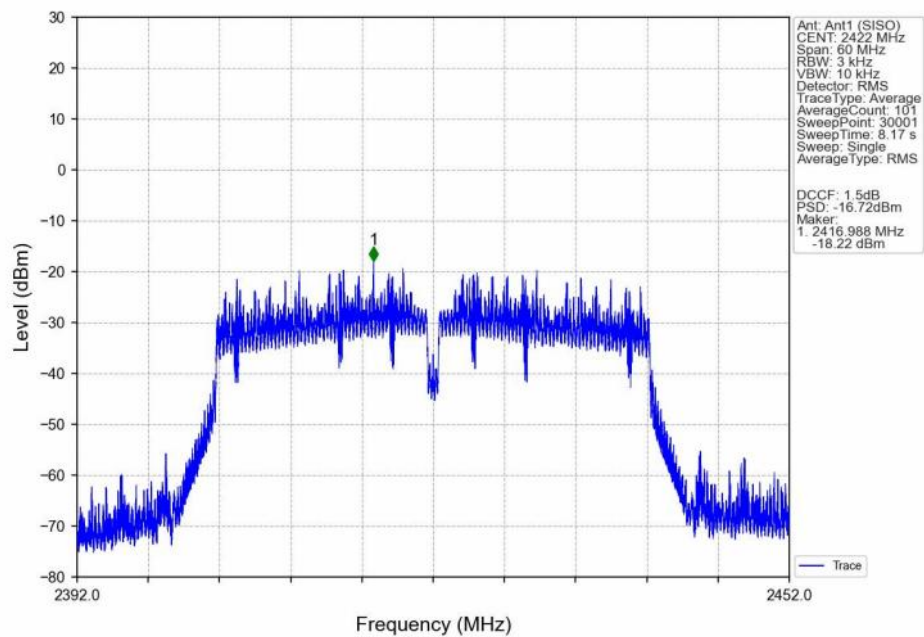
802.11n(HT20)\_MCH\_2437MHz\_Ant1 (SISO)\_NTNV



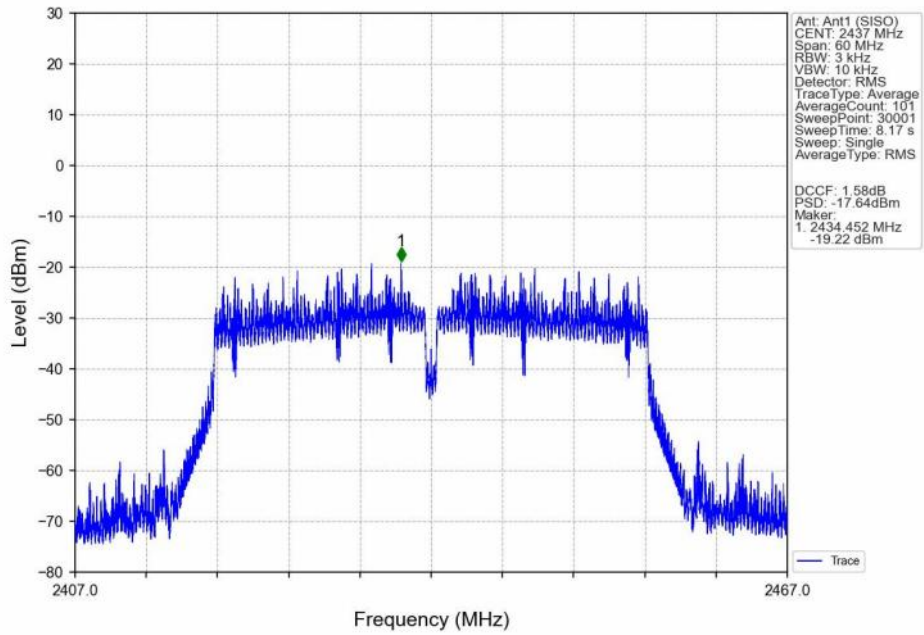
802.11n(HT20)\_HCH\_2462MHz\_Ant1 (SISO)\_NTNV



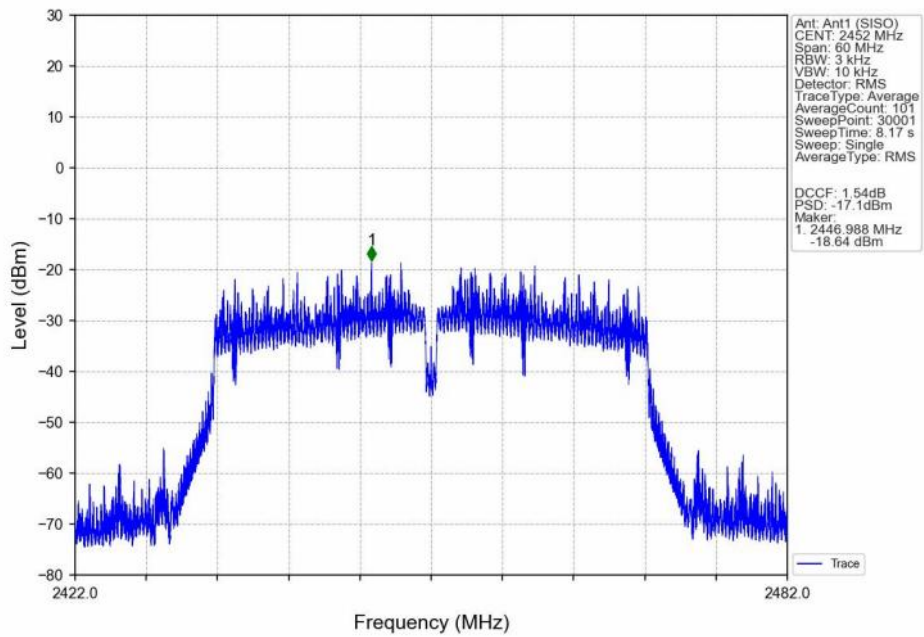
802.11n(HT40)\_LCH\_2422MHz\_Ant1 (SISO)\_NTNV



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

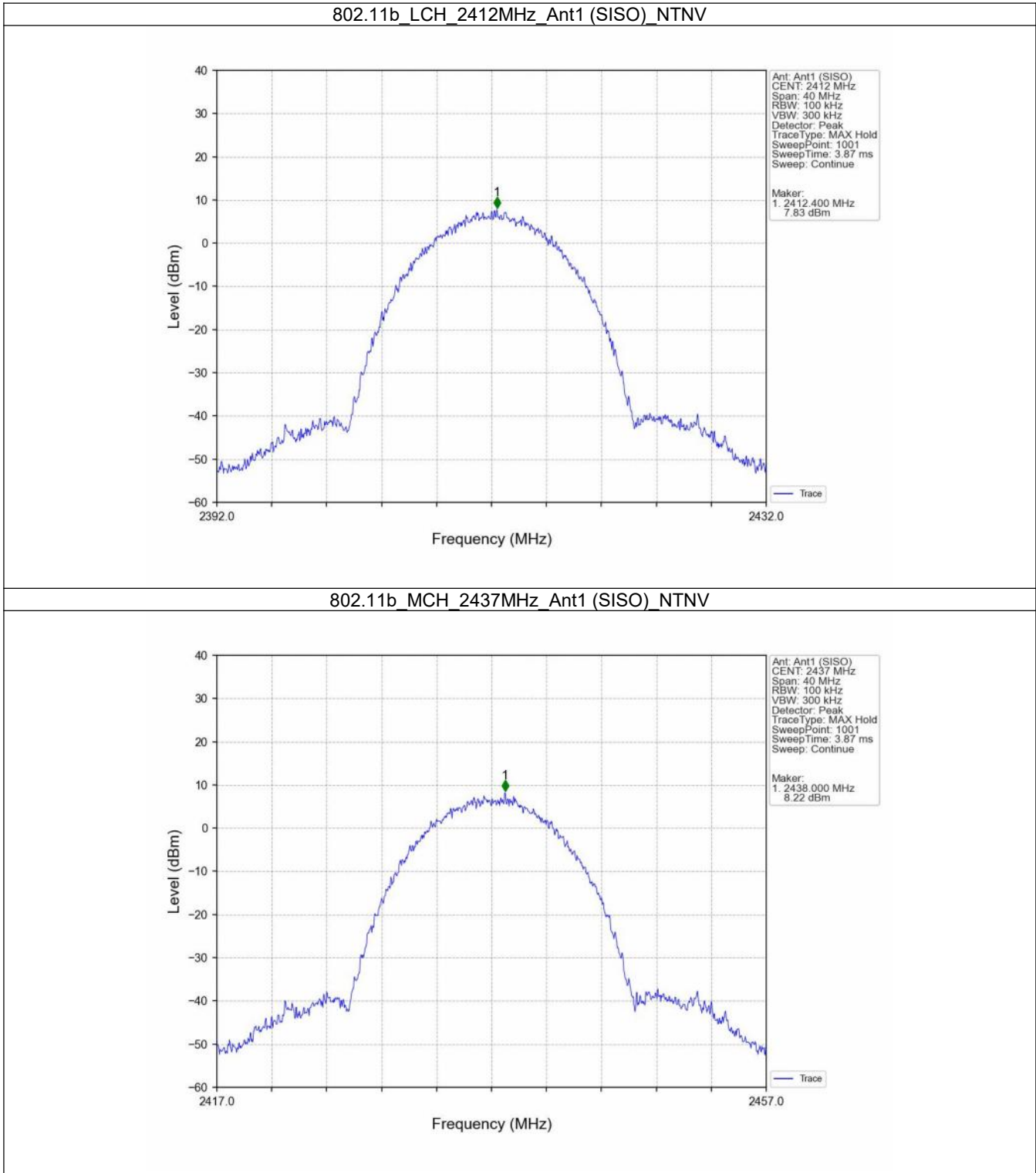
| Mode           | TX Type | Frequency (MHz) | ANT | Level of Reference (dBm) |
|----------------|---------|-----------------|-----|--------------------------|
| 802.11b        | SISO    | 2412            | 1   | 7.83                     |
|                |         | 2437            | 1   | 8.22                     |
|                |         | 2462            | 1   | 7.18                     |
| 802.11g        | SISO    | 2412            | 1   | 5.26                     |
|                |         | 2437            | 1   | 5.53                     |
|                |         | 2462            | 1   | 5.16                     |
| 802.11n (HT20) | SISO    | 2412            | 1   | 4.56                     |
|                |         | 2437            | 1   | 4.96                     |
|                |         | 2462            | 1   | 4.48                     |
| 802.11n (HT40) | SISO    | 2422            | 1   | -0.40                    |
|                |         | 2437            | 1   | -0.63                    |
|                |         | 2452            | 1   | -0.14                    |

#### 5.1.2 CSE

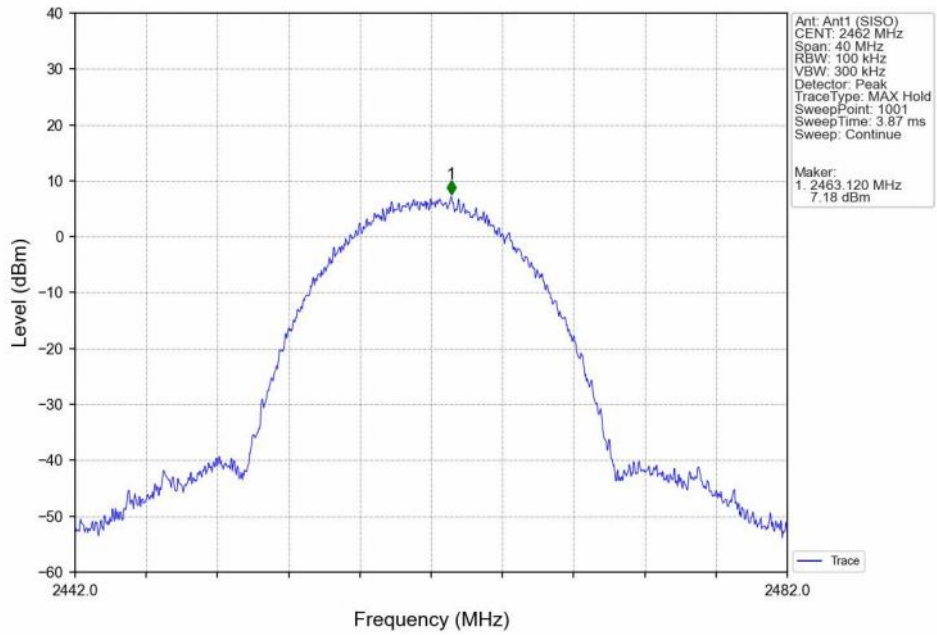
| Mode           | TX Type | Frequency (MHz) | ANT | Level of Reference (dBm) | Limit (dBm) | Verdict |
|----------------|---------|-----------------|-----|--------------------------|-------------|---------|
| 802.11b        | SISO    | 2412            | 1   | 7.83                     | -22.17      | Pass    |
|                |         | 2437            | 1   | 8.22                     | -21.78      | Pass    |
|                |         | 2462            | 1   | 7.18                     | -22.82      | Pass    |
| 802.11g        | SISO    | 2412            | 1   | 5.26                     | -24.74      | Pass    |
|                |         | 2437            | 1   | 5.53                     | -24.47      | Pass    |
|                |         | 2462            | 1   | 5.16                     | -24.84      | Pass    |
| 802.11n (HT20) | SISO    | 2412            | 1   | 4.56                     | -25.44      | Pass    |
|                |         | 2437            | 1   | 4.96                     | -25.04      | Pass    |
|                |         | 2462            | 1   | 4.48                     | -25.52      | Pass    |
| 802.11n (HT40) | SISO    | 2422            | 1   | -0.40                    | -30.40      | Pass    |
|                |         | 2437            | 1   | -0.63                    | -30.63      | Pass    |
|                |         | 2452            | 1   | -0.14                    | -30.14      | Pass    |

5.2 Test Graph

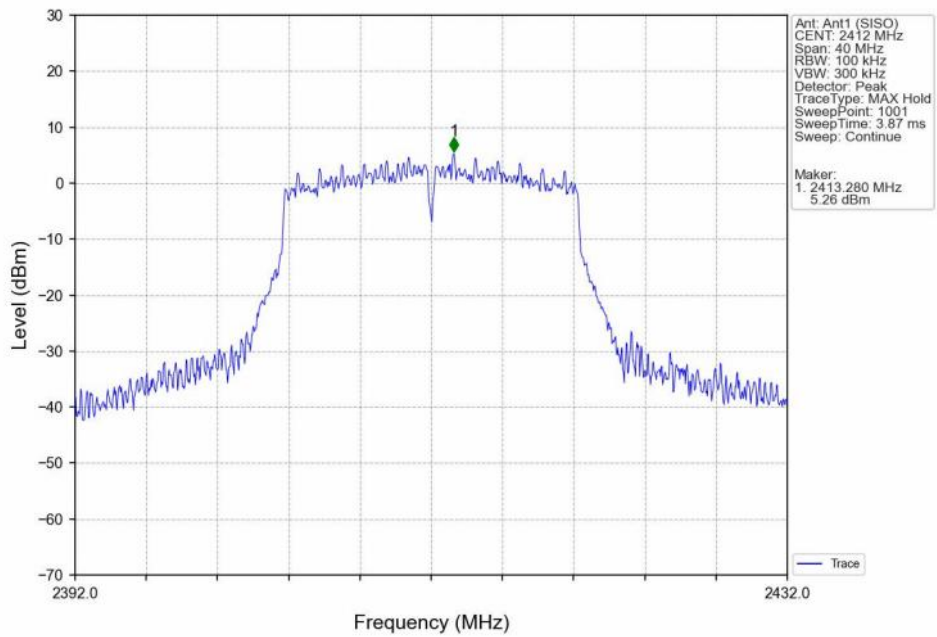
5.2.1 Ref



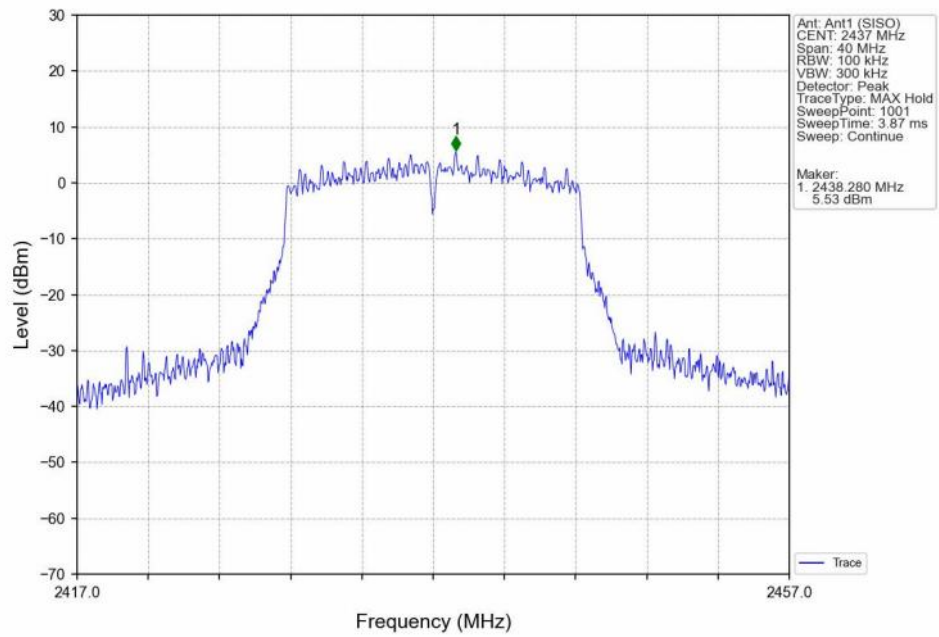
# 802.11b\_HCH\_2462MHz\_Ant1 (SISO)\_NTNV



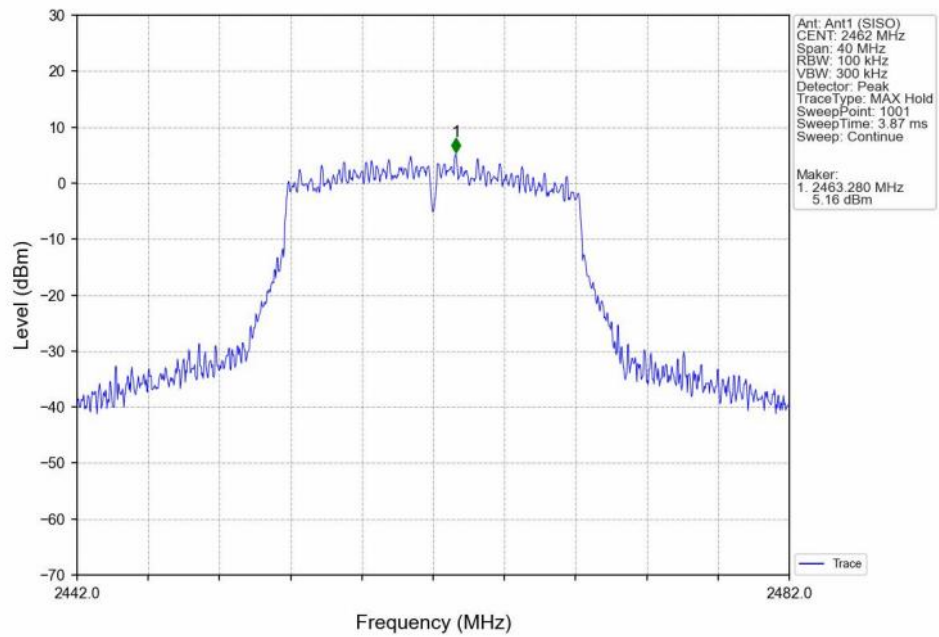
# 802.11g\_LCH\_2412MHz\_Ant1 (SISO)\_NTNV



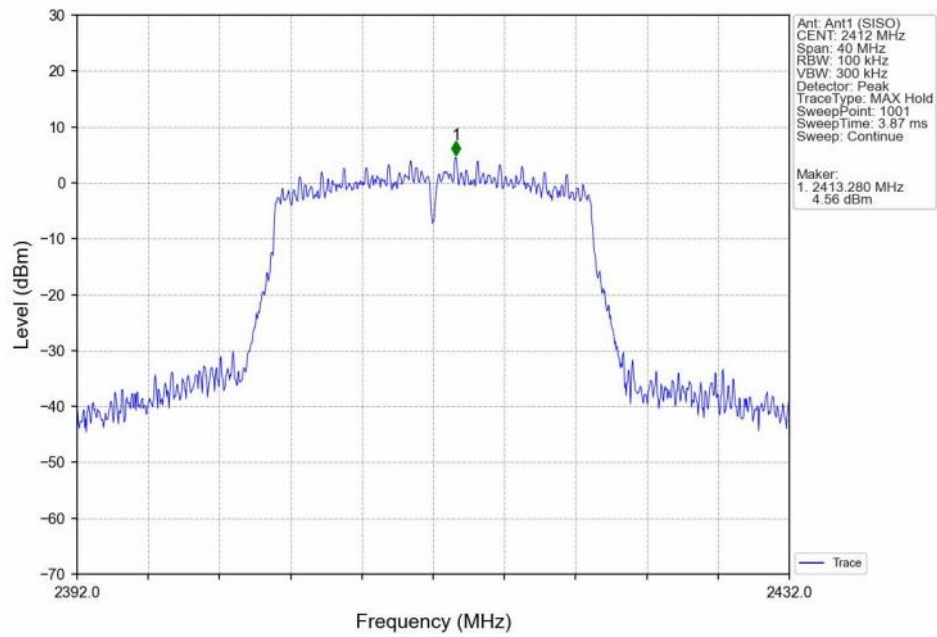
# 802.11g\_MCH\_2437MHz\_Ant1 (SISO)\_NTNV



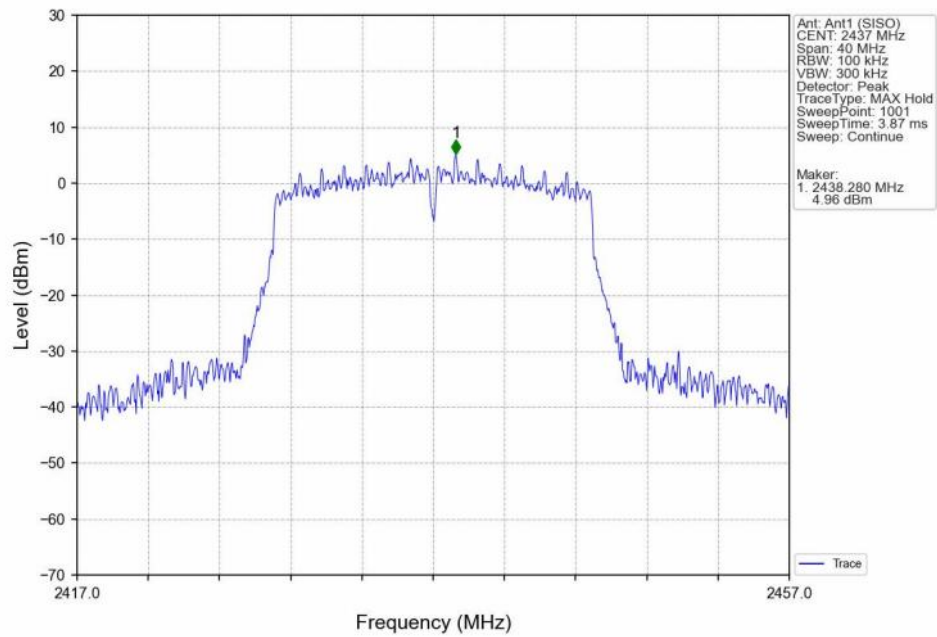
# 802.11g\_HCH\_2462MHz\_Ant1 (SISO)\_NTNV



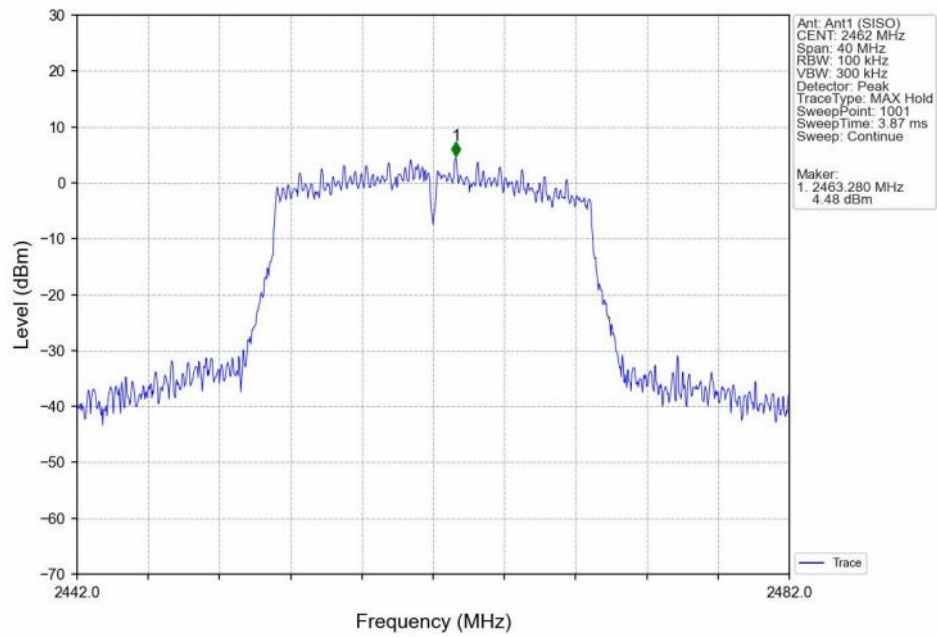
802.11n(HT20)\_LCH\_2412MHz\_Ant1 (SISO)\_NTNV



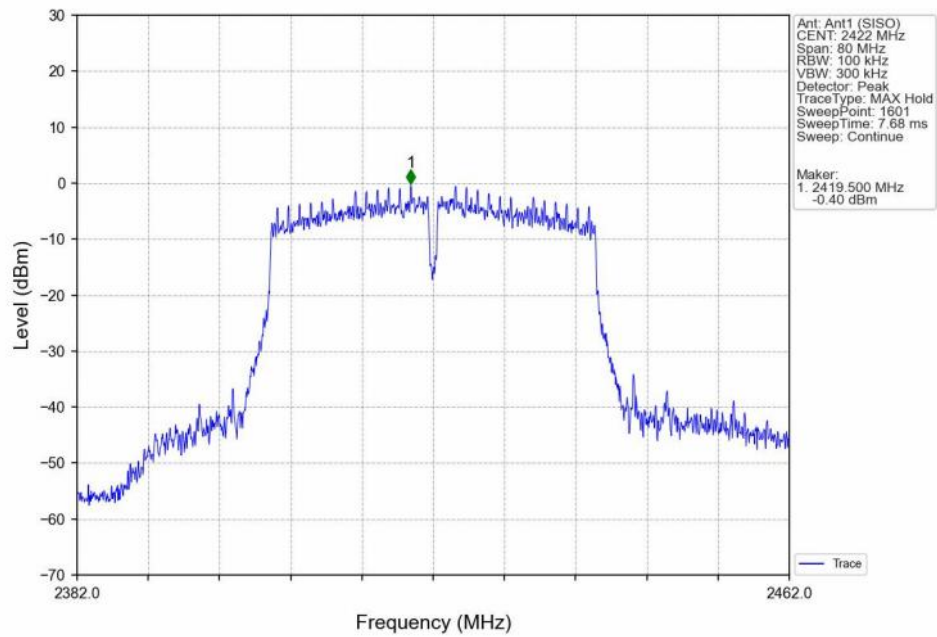
802.11n(HT20)\_MCH\_2437MHz\_Ant1 (SISO)\_NTNV



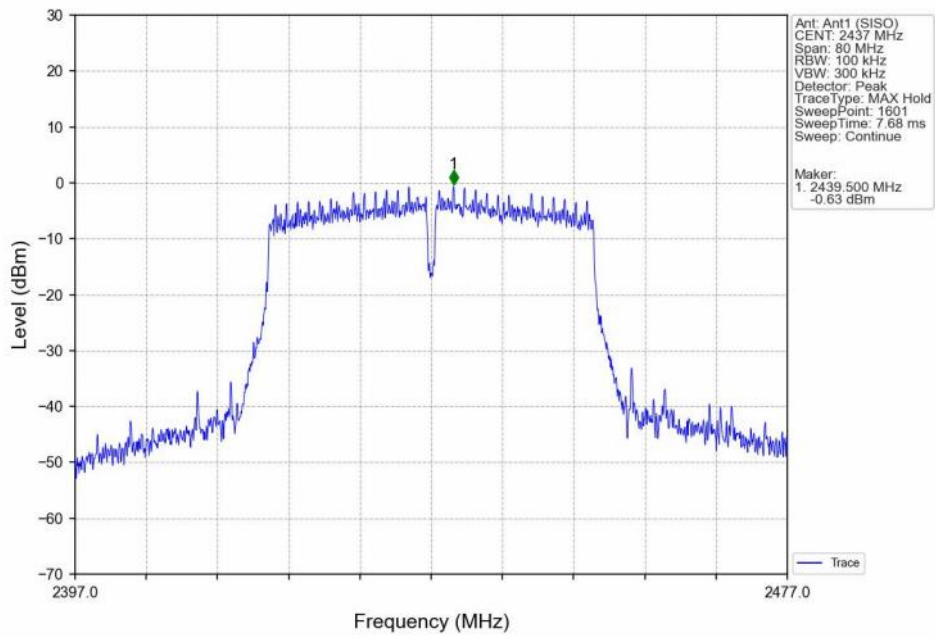
# 802.11n(HT20)\_HCH\_2462MHz\_Ant1 (SISO)\_NTNV



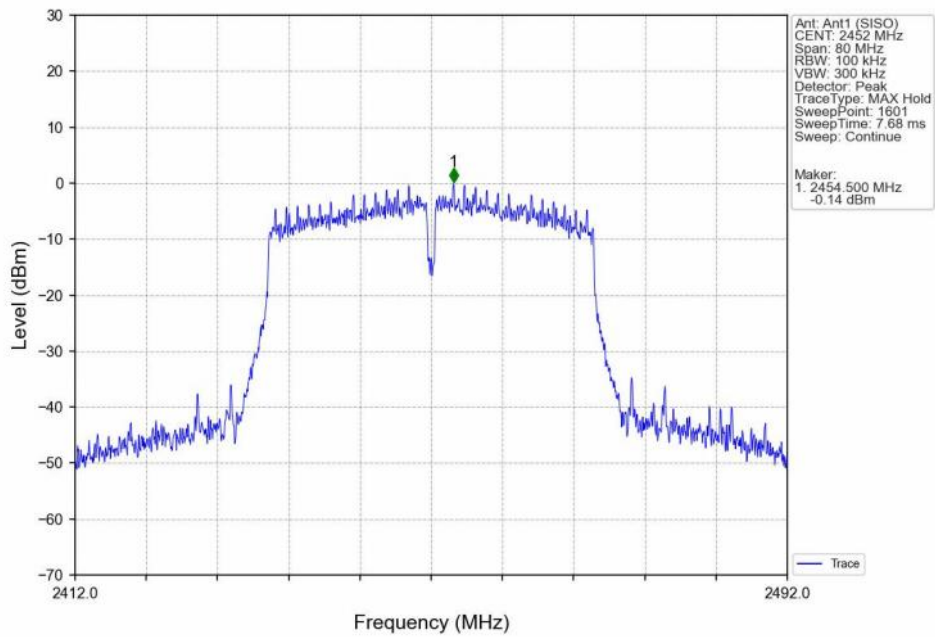
# 802.11n(HT40)\_LCH\_2422MHz\_Ant1 (SISO)\_NTNV



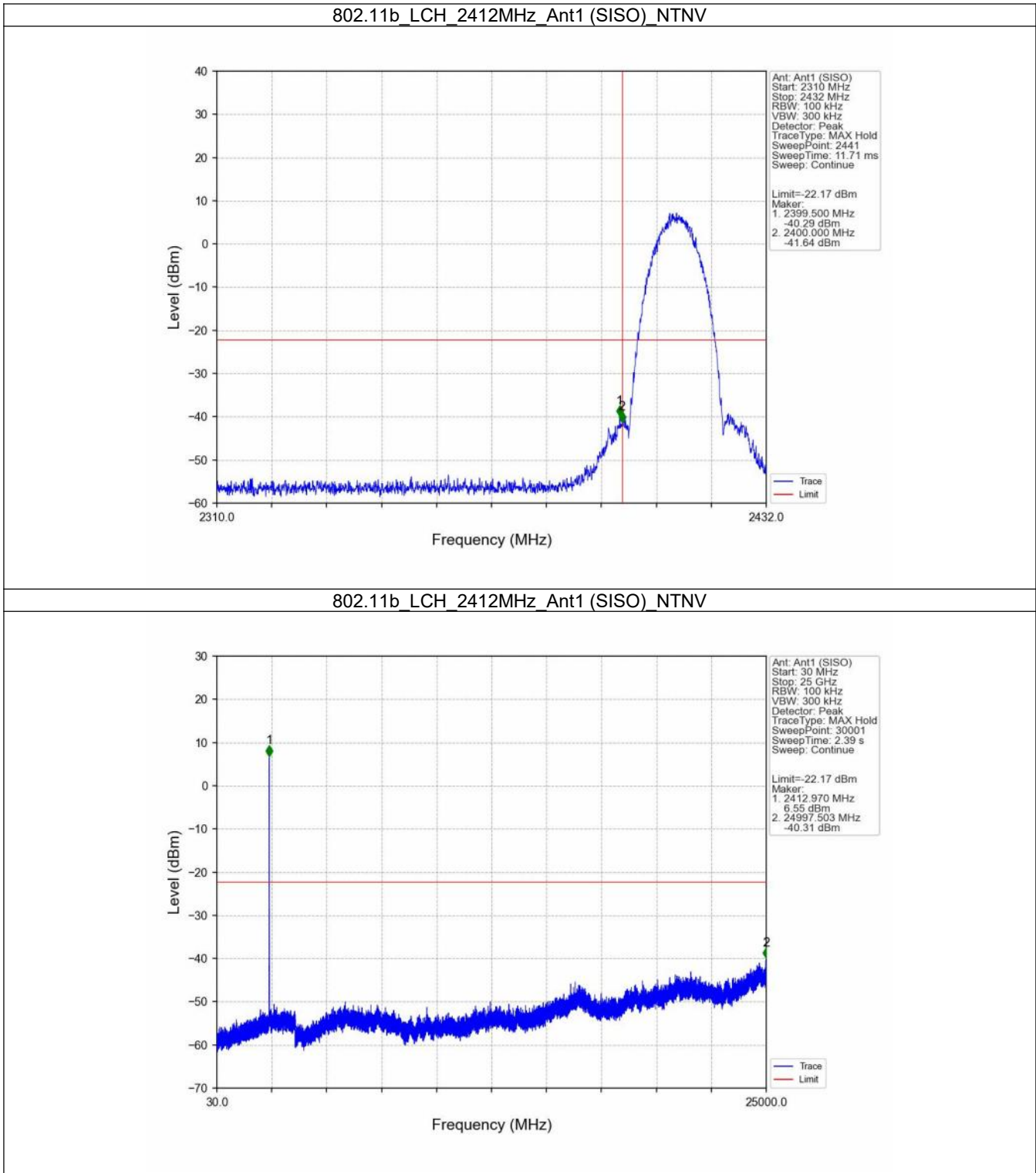
802.11n(HT40)\_MCH\_2437MHz\_Ant1 (SISO)\_NTNV



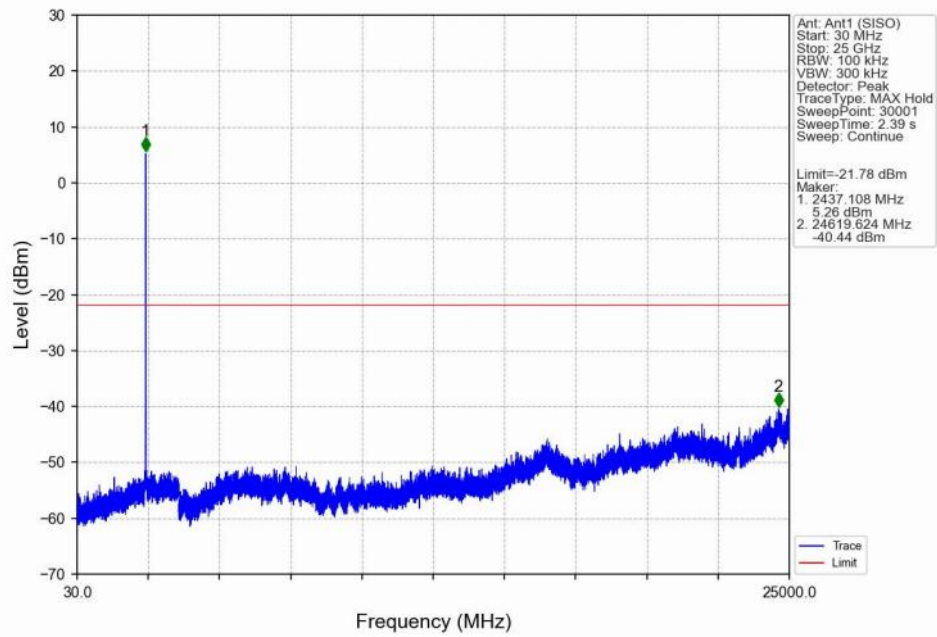
802.11n(HT40)\_HCH\_2452MHz\_Ant1 (SISO)\_NTNV



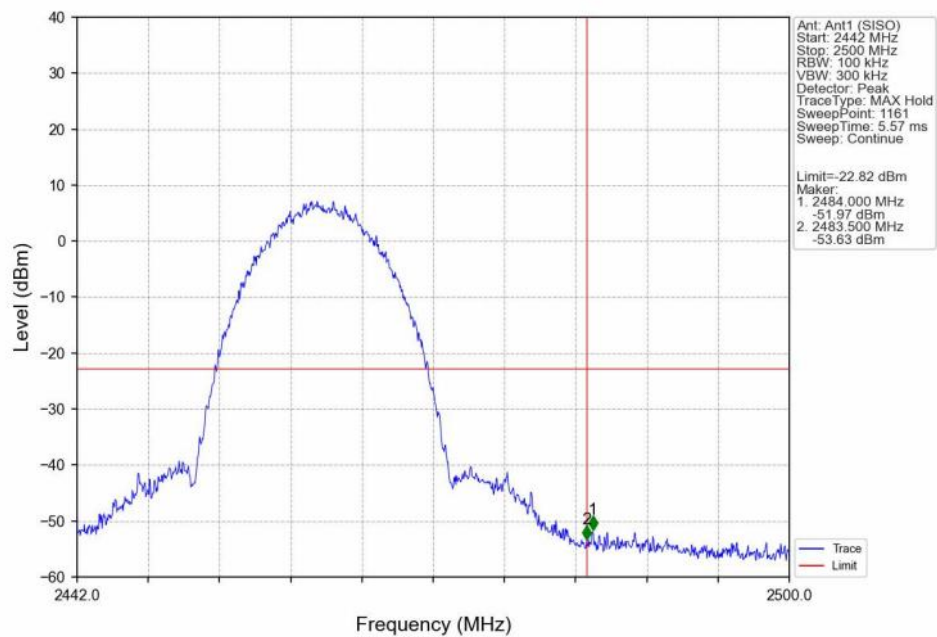
5.2.2 CSE



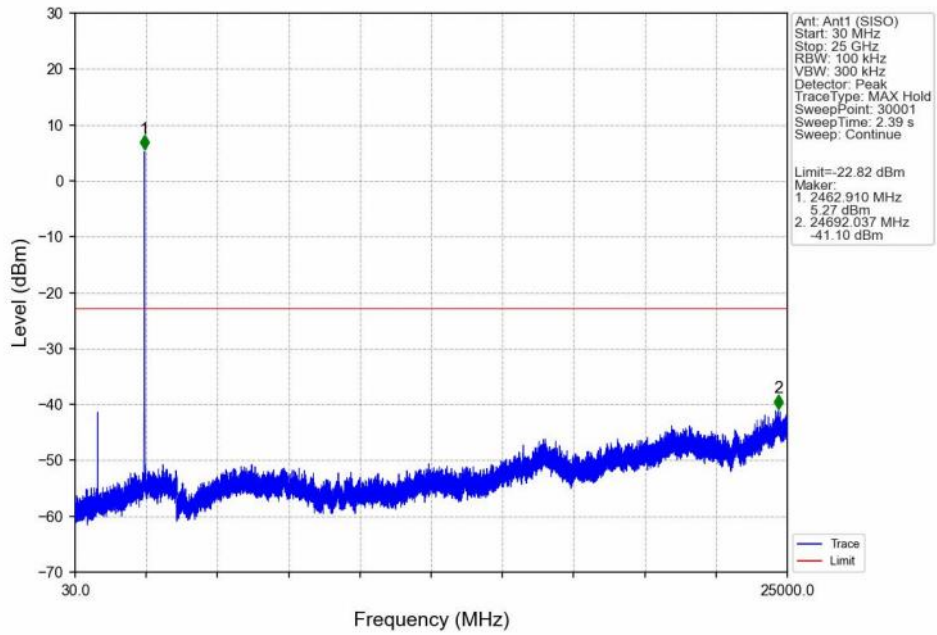
# 802.11b\_MCH\_2437MHz\_Ant1 (SISO)\_NTNV



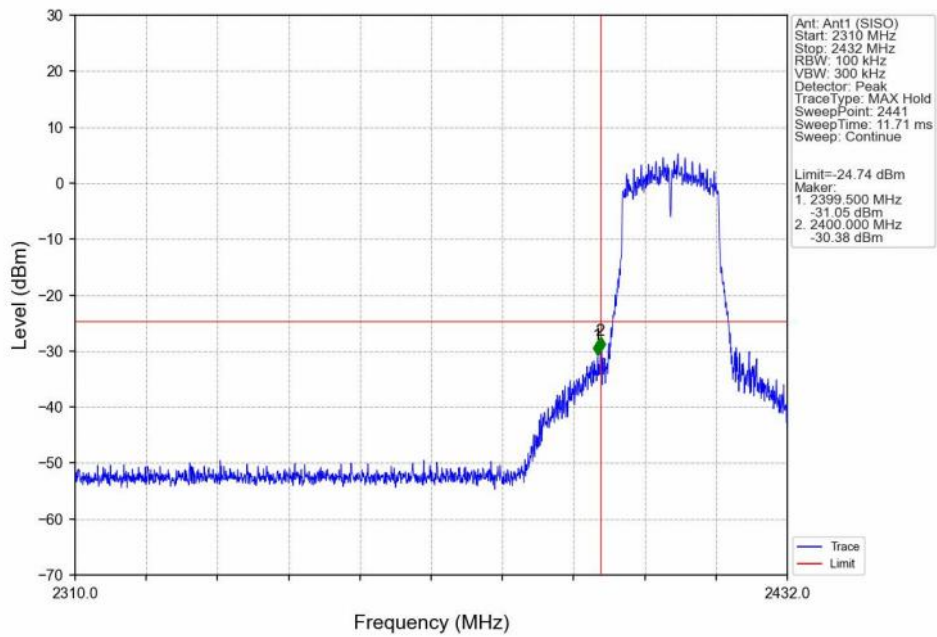
# 802.11b\_HCH\_2462MHz\_Ant1 (SISO)\_NTNV



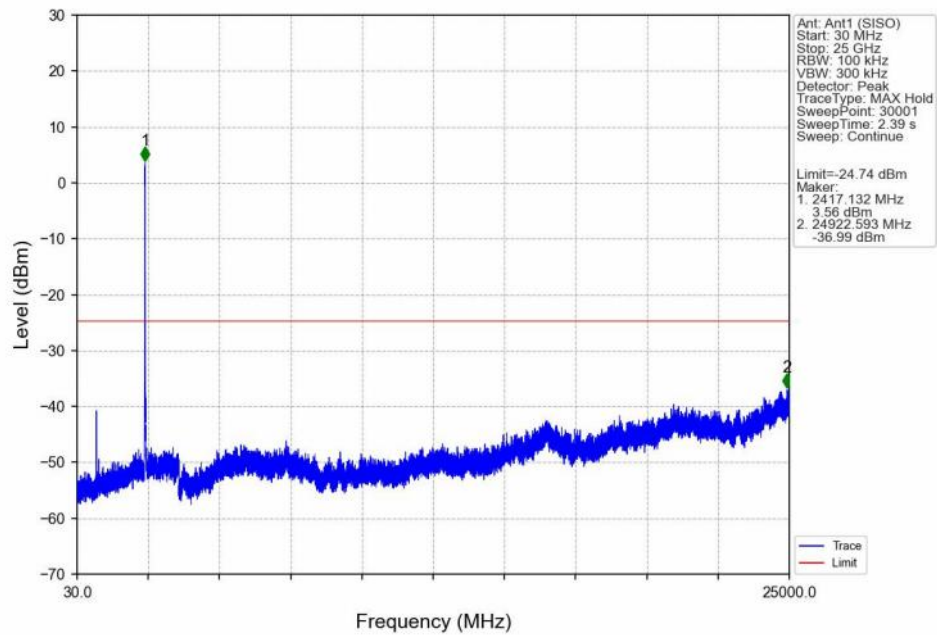
# 802.11b\_HCH\_2462MHz\_Ant1 (SISO)\_NTNV



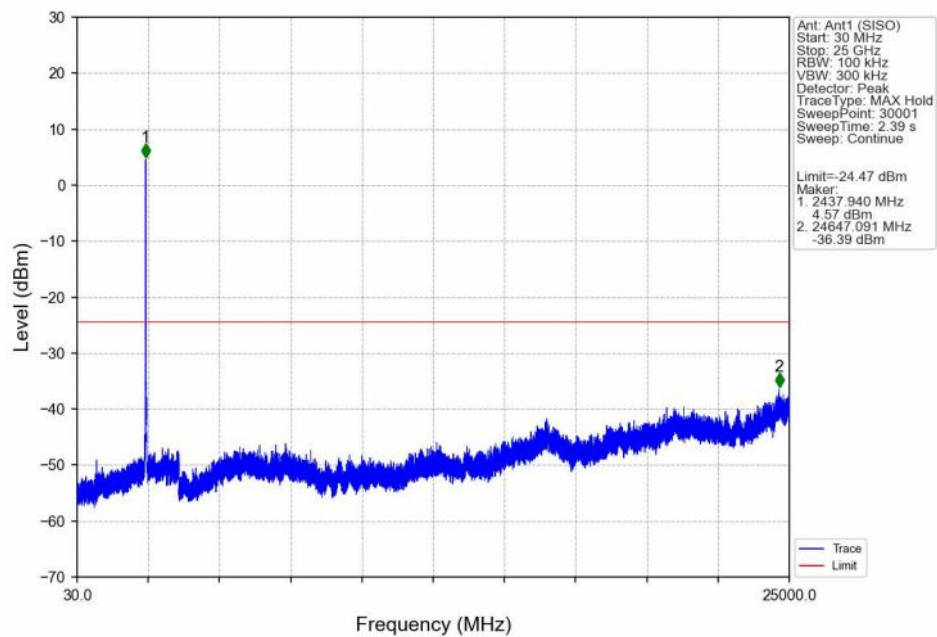
# 802.11g\_LCH\_2412MHz\_Ant1 (SISO)\_NTNV



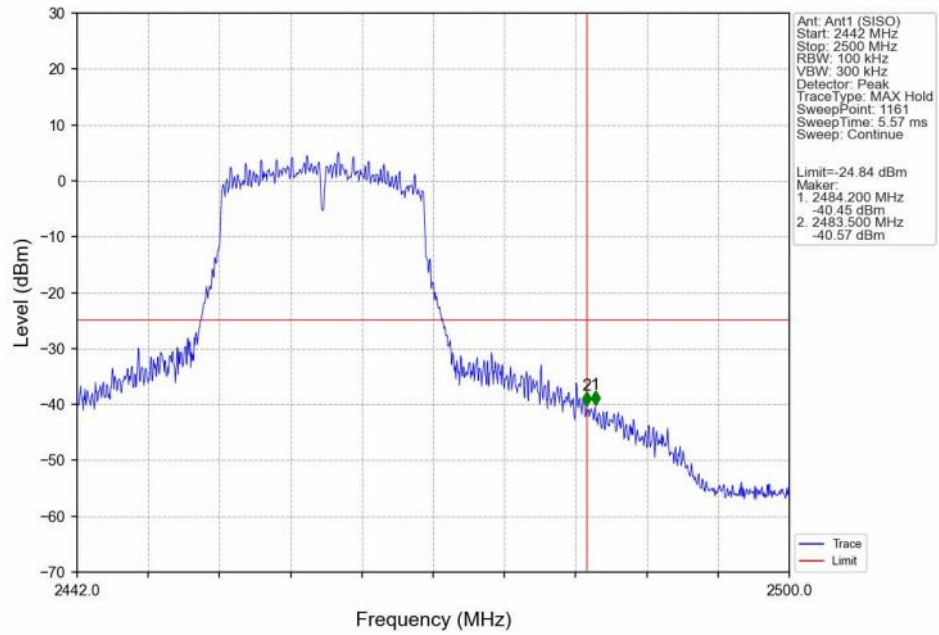
# 802.11g\_LCH\_2412MHz\_Ant1 (SISO)\_NTNV



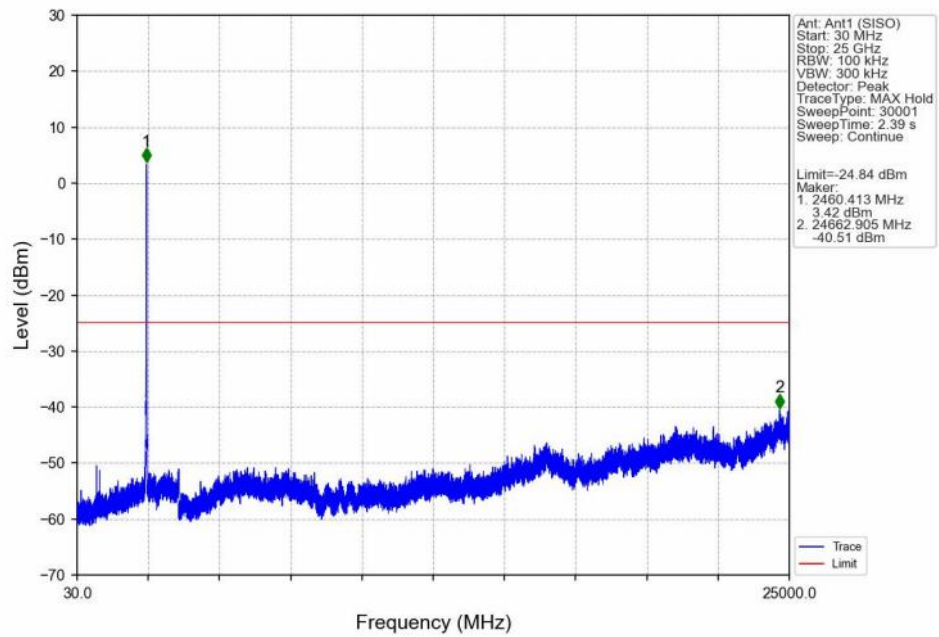
# 802.11g\_MCH\_2437MHz\_Ant1 (SISO)\_NTNV



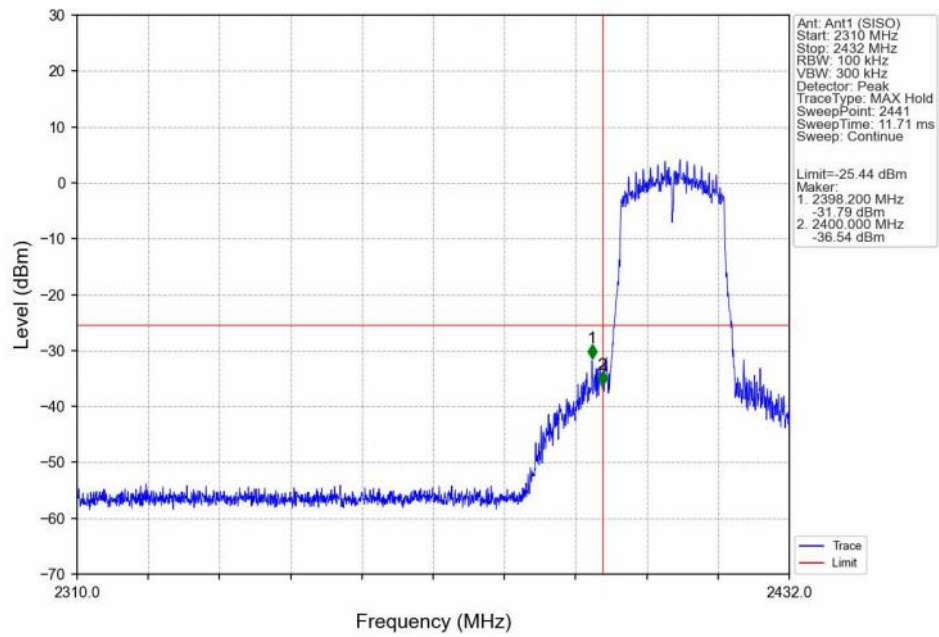
# 802.11g\_HCH\_2462MHz\_Ant1 (SISO)\_NTNV



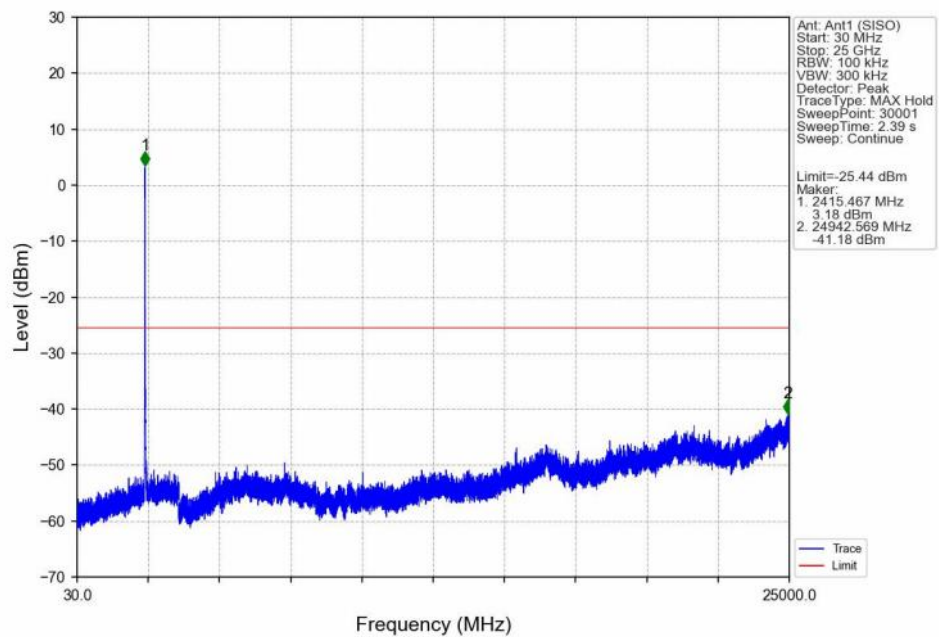
# 802.11g\_HCH\_2462MHz\_Ant1 (SISO)\_NTNV



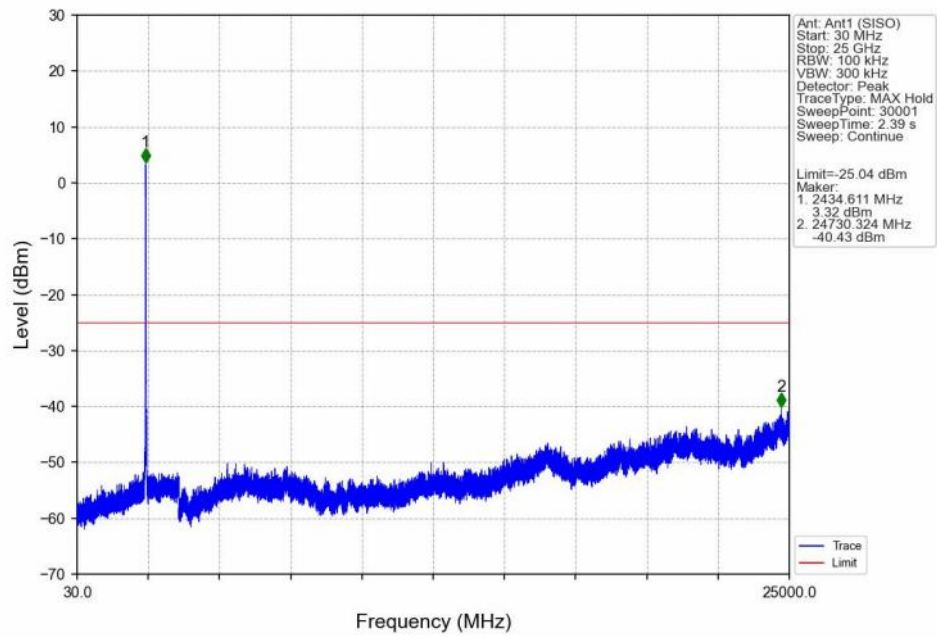
# 802.11n(HT20)\_LCH\_2412MHz\_Ant1 (SISO)\_NTNV



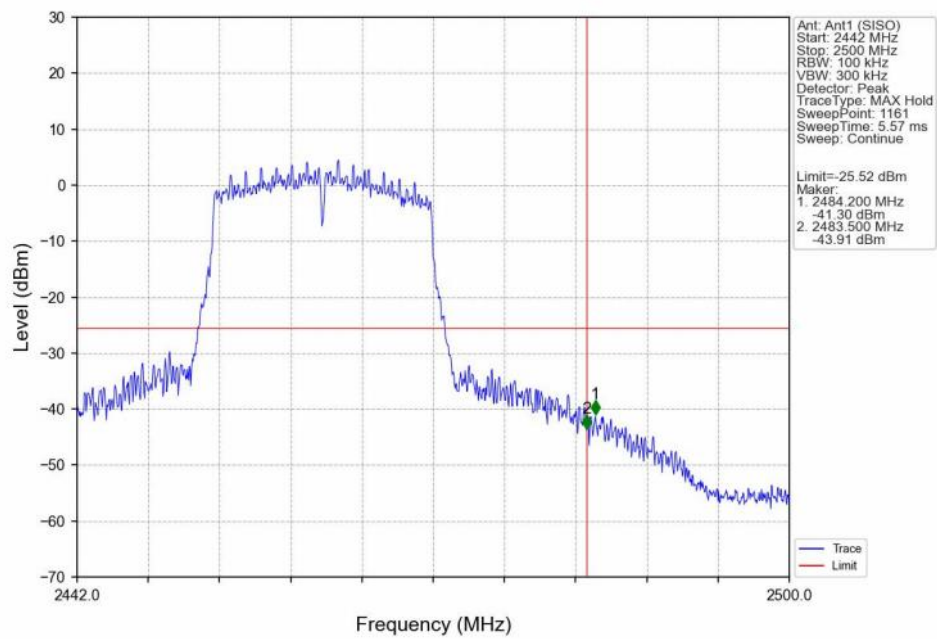
# 802.11n(HT20)\_LCH\_2412MHz\_Ant1 (SISO)\_NTNV



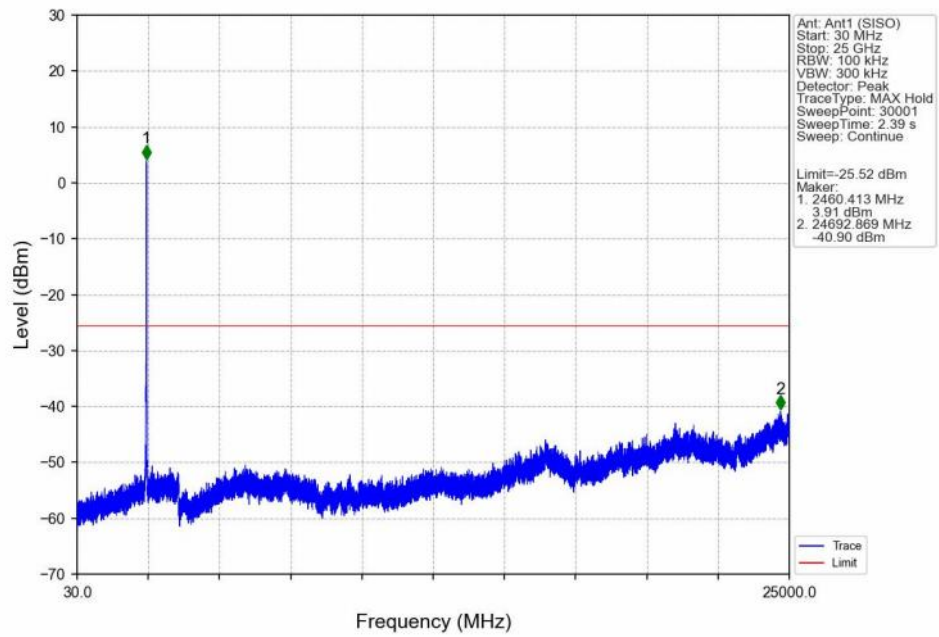
# 802.11n(HT20)\_MCH\_2437MHz\_Ant1 (SISO)\_NTNV



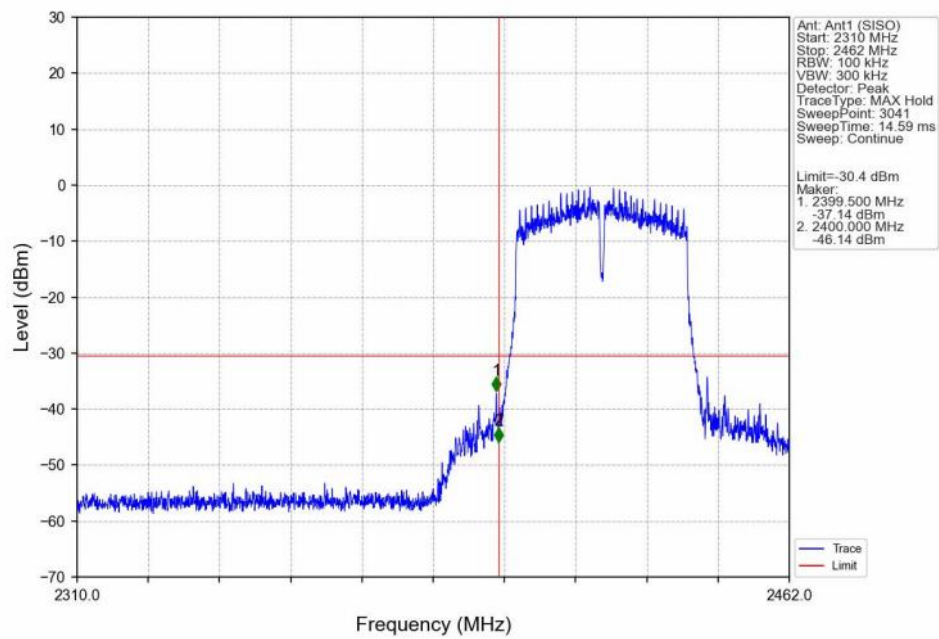
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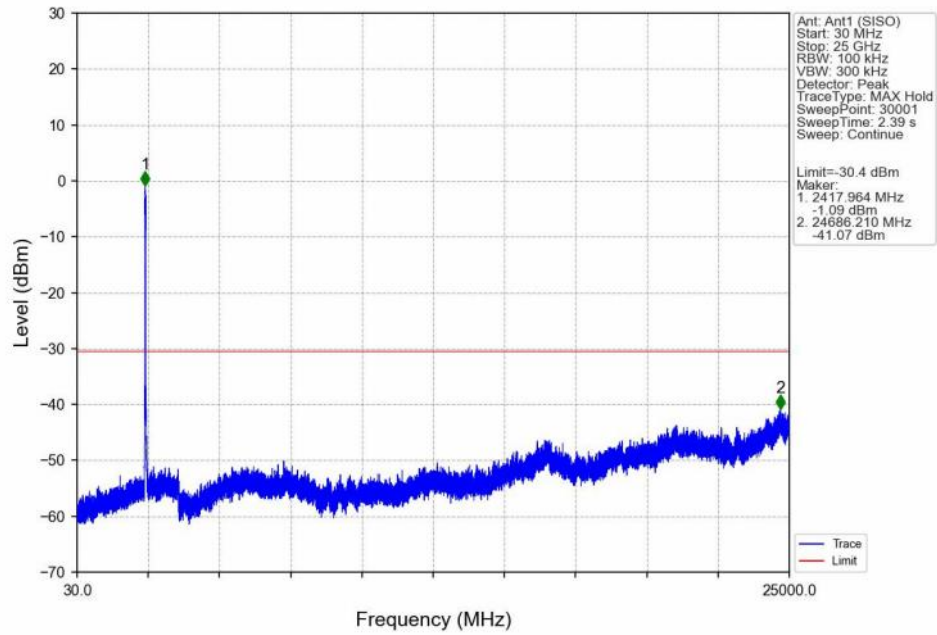
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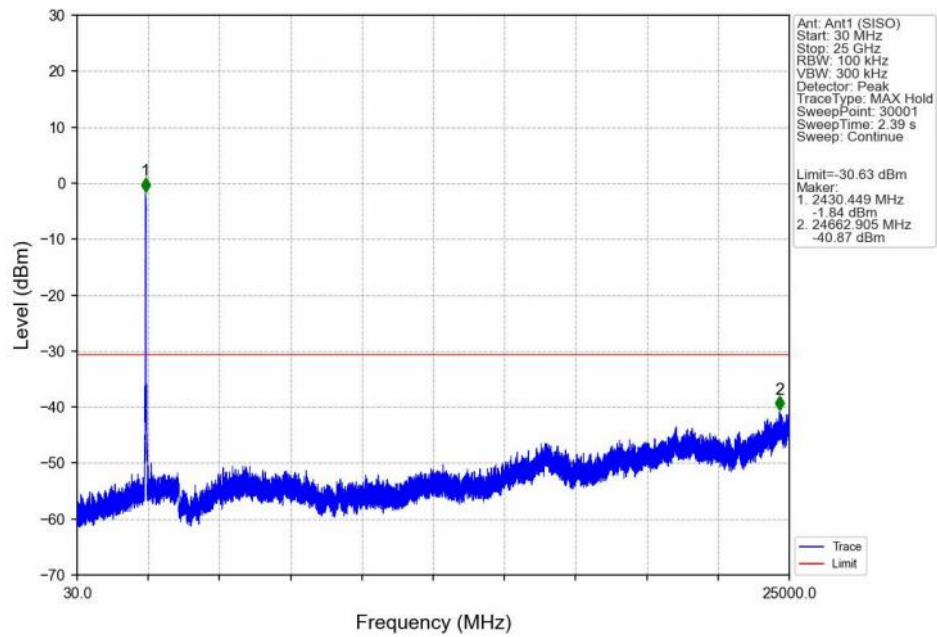
# 802.11n(HT40)\_LCH\_2422MHz\_Ant1 (SISO)\_NTNV



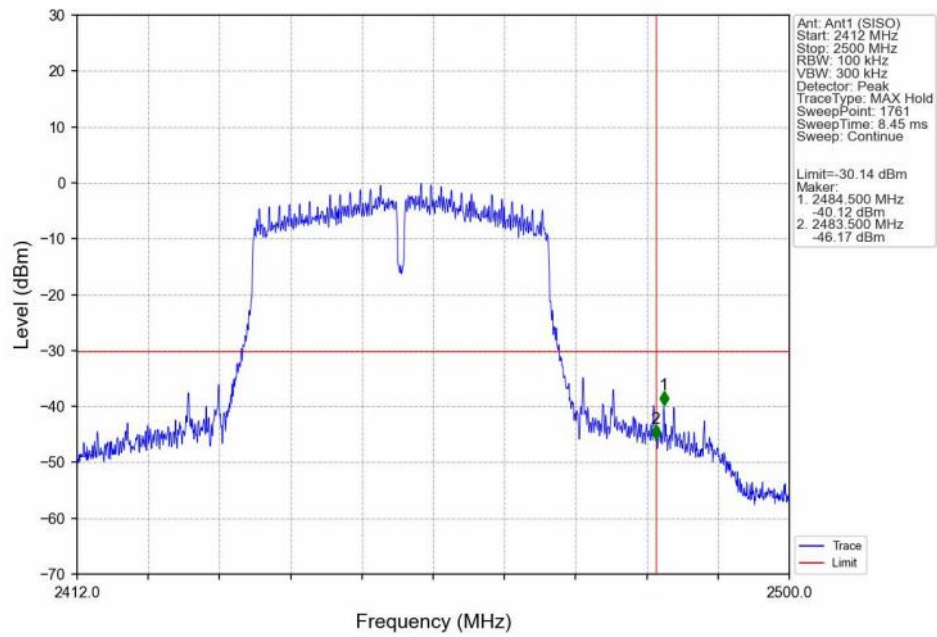
# 802.11n(HT40)\_LCH\_2422MHz\_Ant1 (SISO)\_NTNV



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



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



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

