

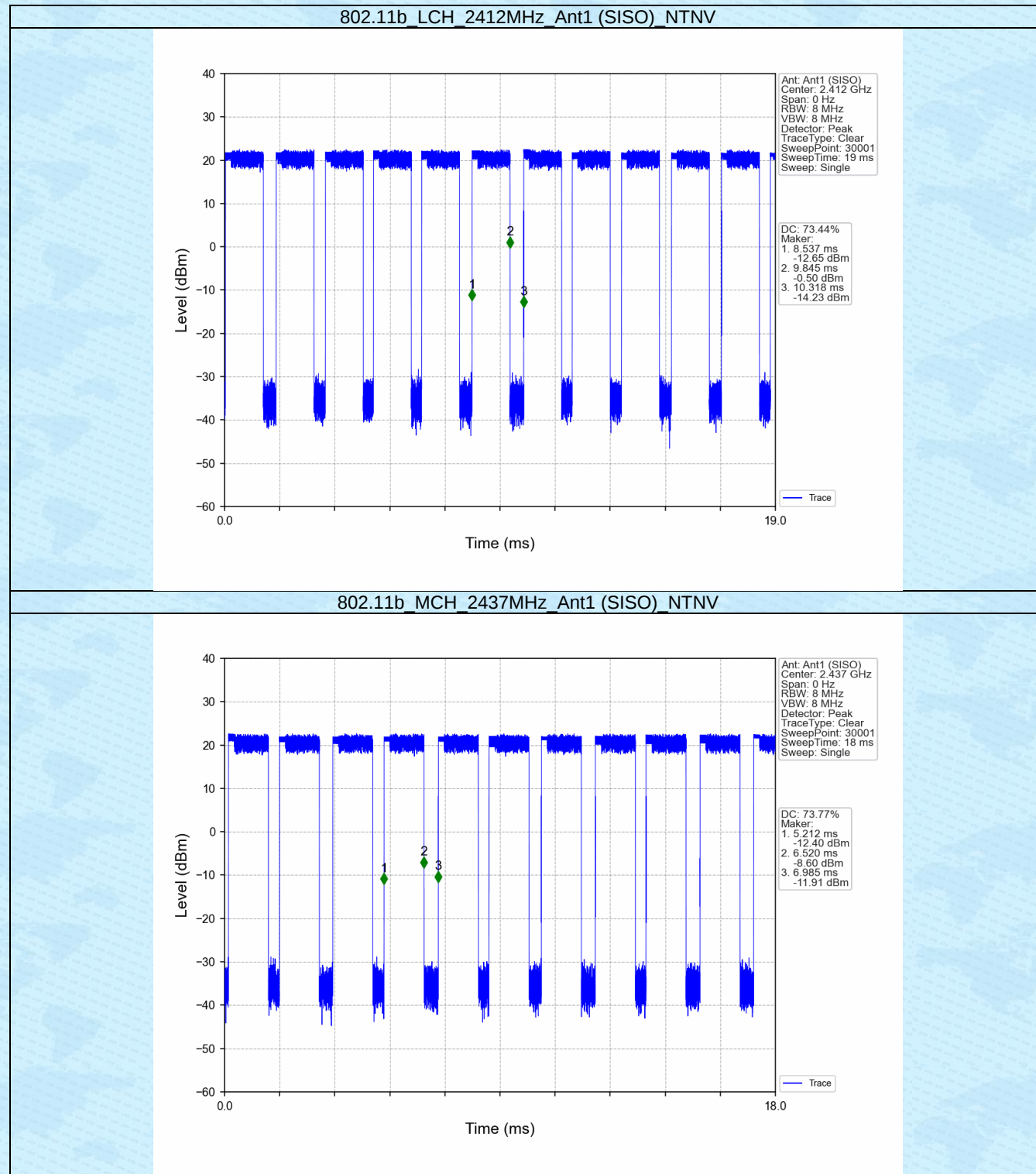
## 1. Duty Cycle

### 1.1 Ant1

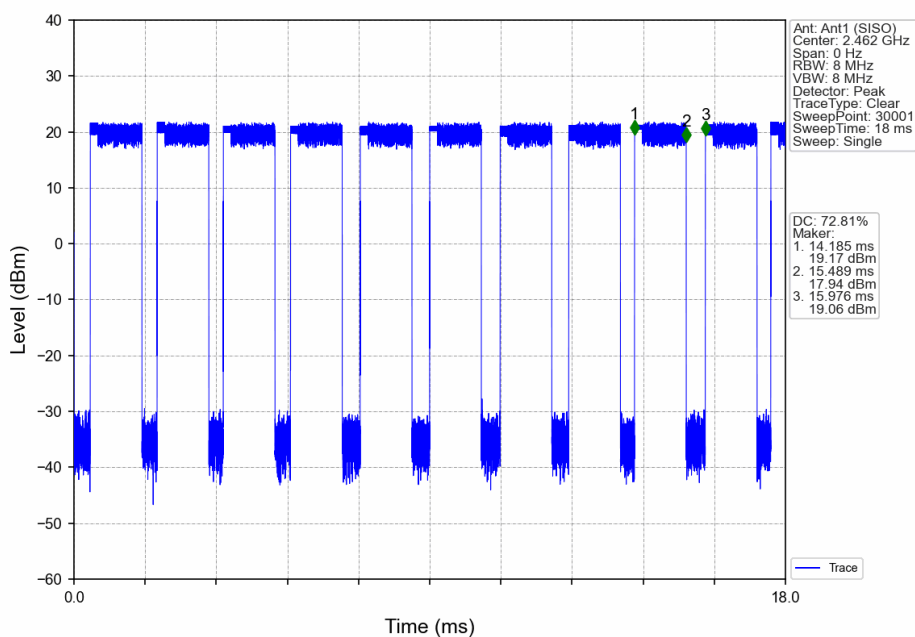
#### 1.1.1 Test Result

| 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            | 1.308     | 1.781       | 73.44          | 1.34                              | 5.56                  |
|                |         | 2437            | 1.308     | 1.773       | 73.77          | 1.32                              | 5.21                  |
|                |         | 2462            | 1.304     | 1.791       | 72.81          | 1.38                              | 5.94                  |
| 802.11g        | SISO    | 2412            | 1.308     | 1.782       | 73.40          | 1.34                              | 5.59                  |
|                |         | 2437            | 1.309     | 1.791       | 73.09          | 1.36                              | 5.92                  |
|                |         | 2462            | 1.308     | 1.791       | 73.03          | 1.36                              | 5.52                  |
| 802.11n (HT20) | SISO    | 2412            | 1.308     | 1.964       | 66.60          | 1.77                              | 12.39                 |
|                |         | 2437            | 0.229     | 0.450       | 50.89          | 2.93                              | 19.87                 |
|                |         | 2462            | 0.230     | 0.441       | 52.15          | 2.83                              | 16.88                 |
| 802.11n (HT40) | SISO    | 2422            | 0.129     | 0.359       | 35.93          | 4.45                              | 19.57                 |
|                |         | 2437            | 0.130     | 0.350       | 37.14          | 4.30                              | 16.56                 |
|                |         | 2452            | 0.130     | 0.350       | 37.14          | 4.30                              | 20.97                 |
| 802.11n (HT20) | MIMO    | 2412            | 0.230     | 0.459       | 50.11          | 3.00                              | 20.89                 |
|                |         | 2437            | 0.229     | 0.441       | 51.93          | 2.85                              | 18.83                 |
|                |         | 2462            | 0.230     | 0.460       | 50.00          | 3.01                              | 18.97                 |
| 802.11n (HT40) | MIMO    | 2422            | 0.130     | 0.359       | 36.21          | 4.41                              | 17.57                 |
|                |         | 2437            | 0.130     | 0.359       | 36.21          | 4.41                              | 17.58                 |
|                |         | 2452            | 0.129     | 0.359       | 35.93          | 4.45                              | 19.57                 |

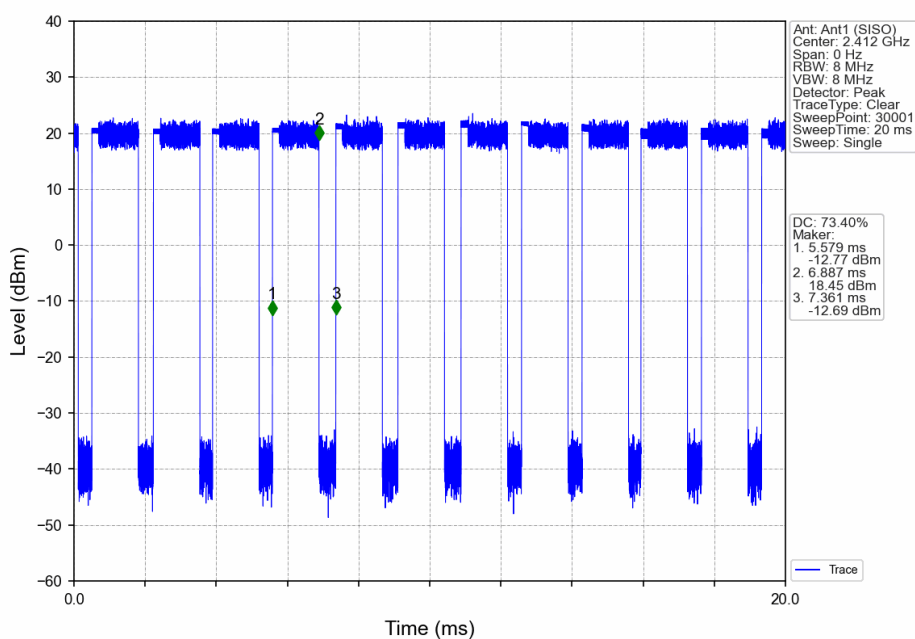
## 1.1.2 Test Graph



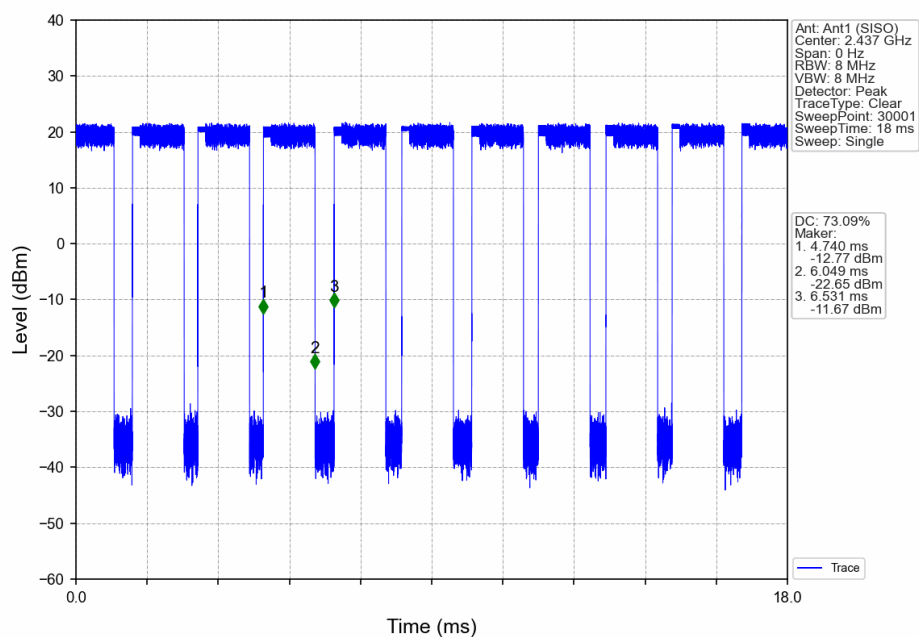
## 802.11b\_HCH\_2462MHz\_Ant1 (SISO)\_NTNV



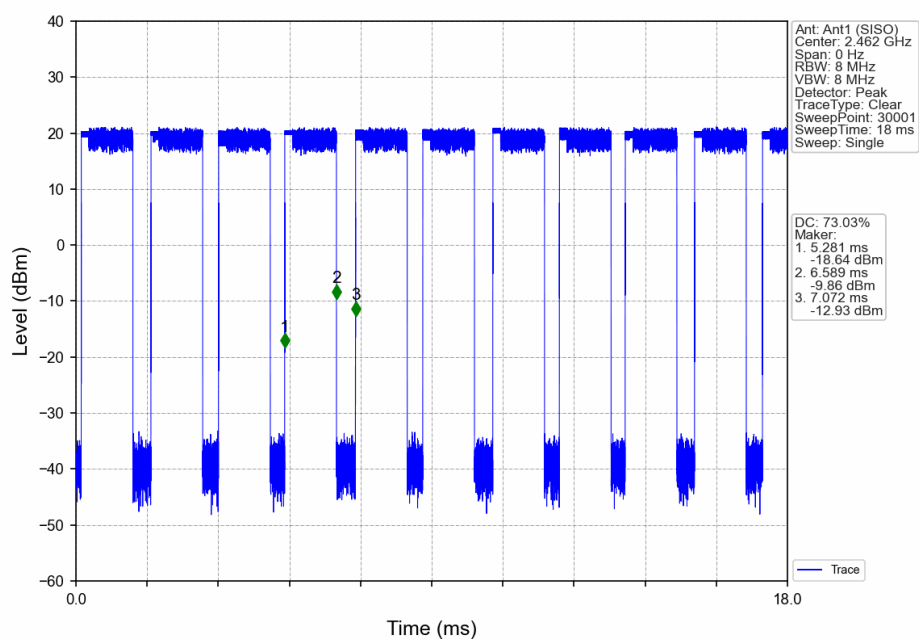
## 802.11g\_LCH\_2412MHz\_Ant1 (SISO)\_NTNV



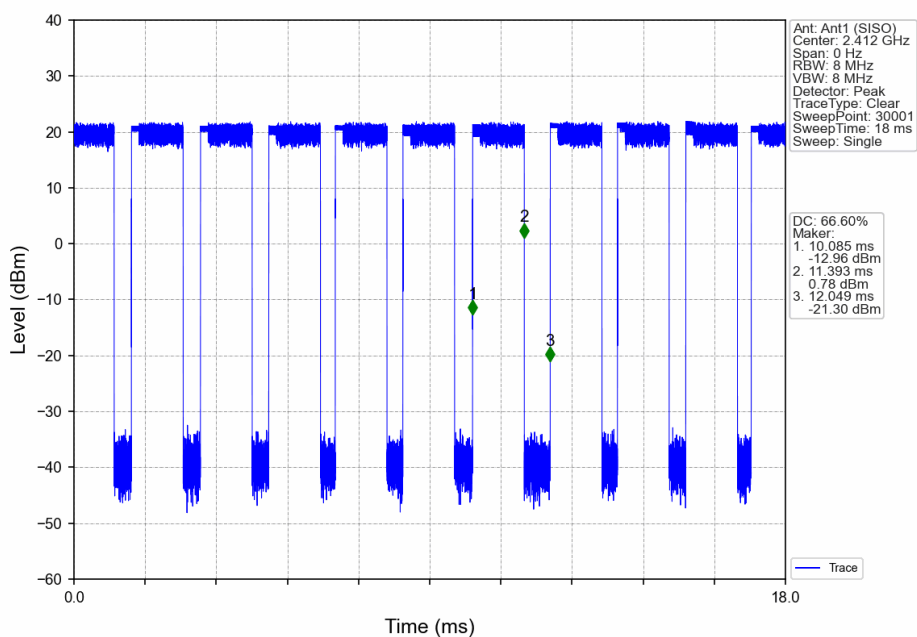
## 802.11g\_MCH\_2437MHz\_Ant1 (SISO)\_NTNV



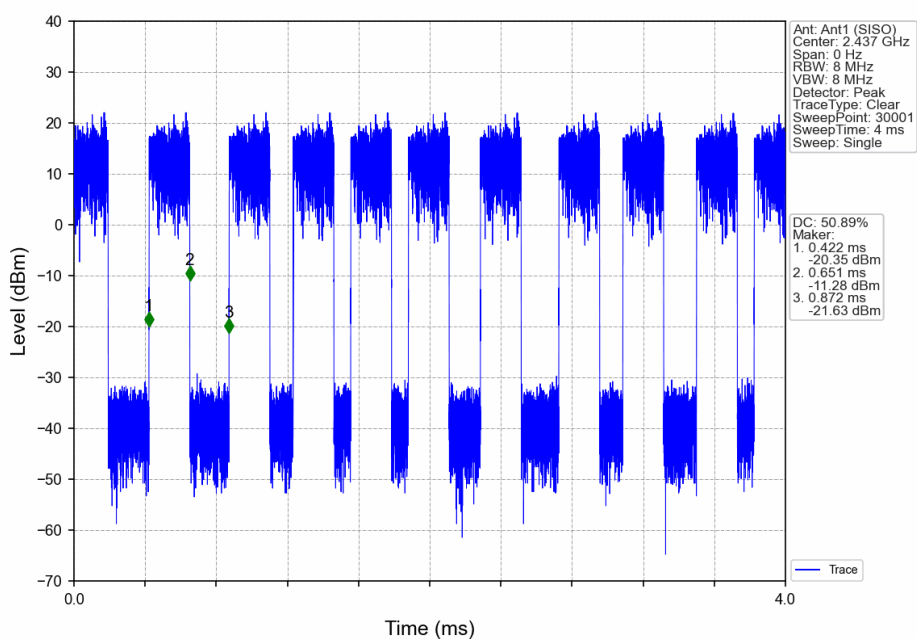
## 802.11g\_HCH\_2462MHz\_Ant1 (SISO)\_NTNV



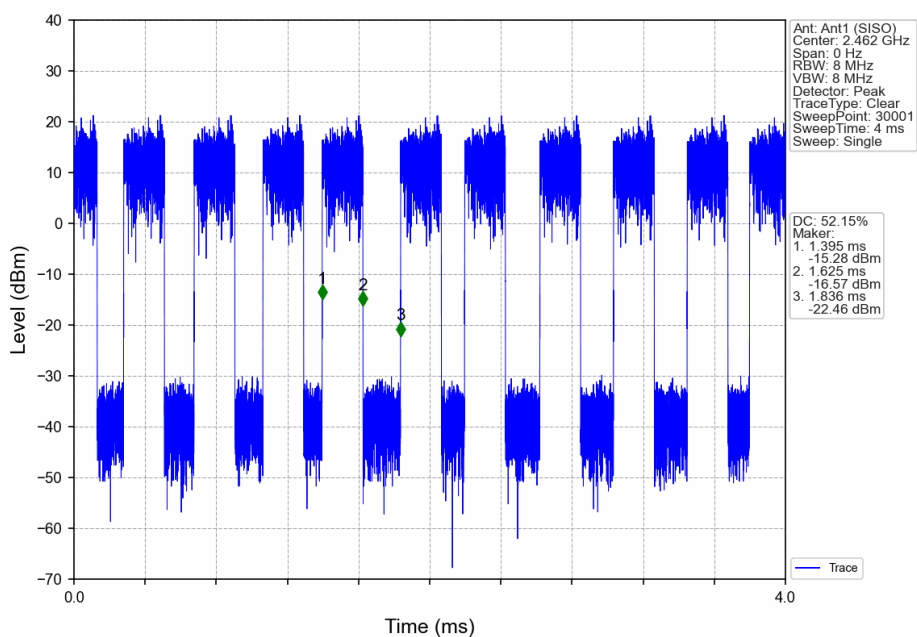
## 802.11n(HT20)\_LCH\_2412MHz\_Ant1 (SISO)\_NTNV



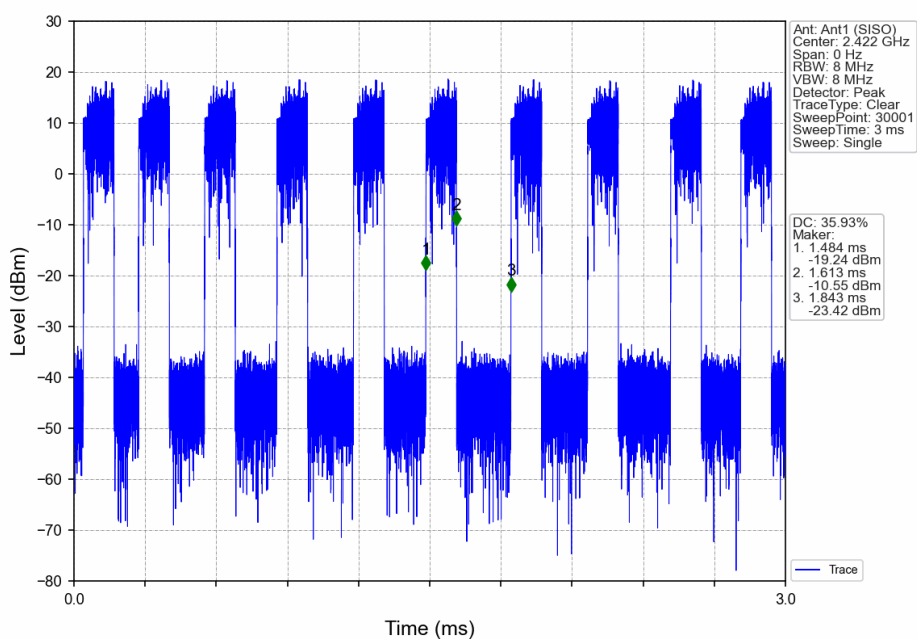
## 802.11n(HT20)\_MCH\_2437MHz\_Ant1 (SISO)\_NTNV



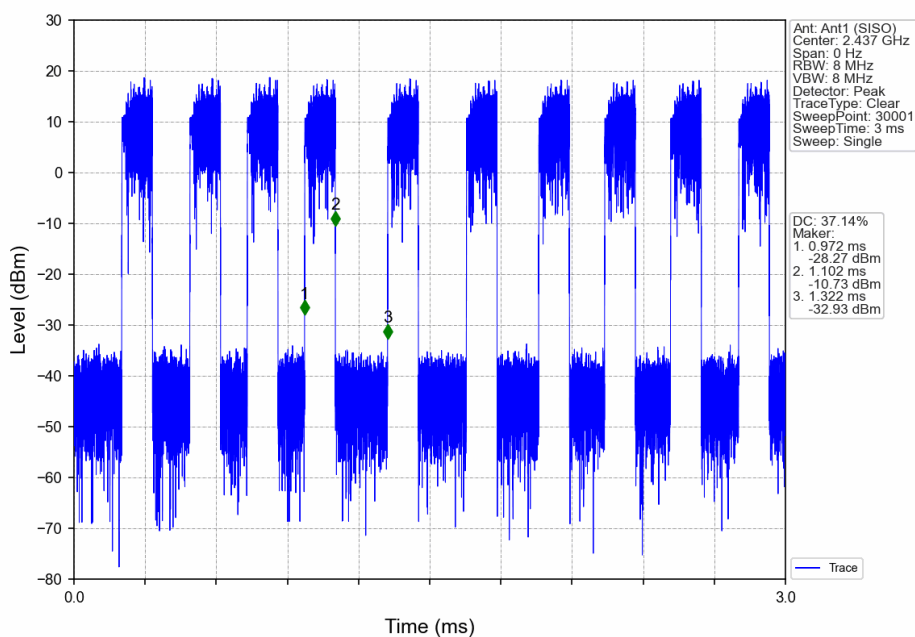
## 802.11n(HT20)\_HCH\_2462MHz\_Ant1 (SISO)\_NTNV



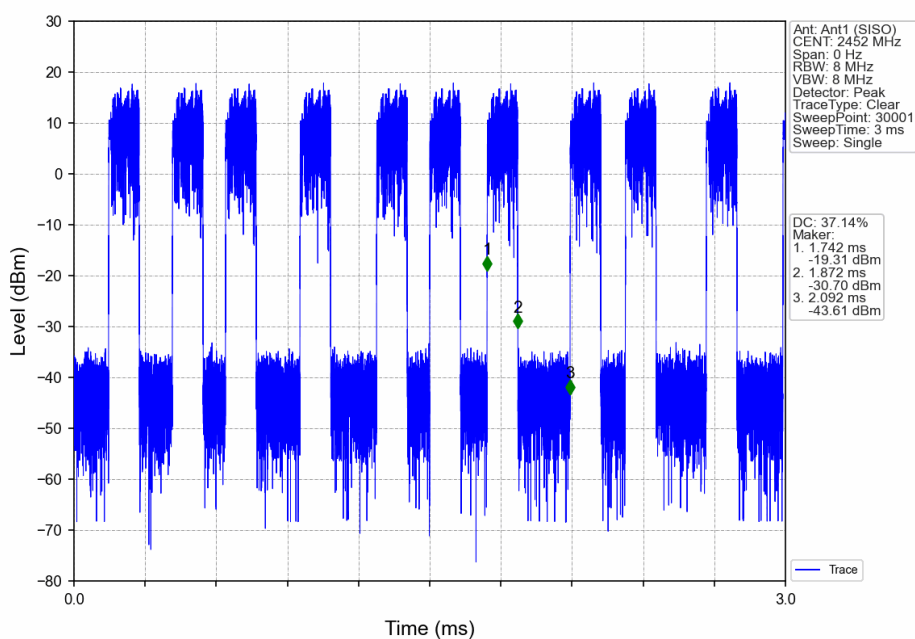
## 802.11n(HT40)\_LCH\_2422MHz\_Ant1 (SISO)\_NTNV



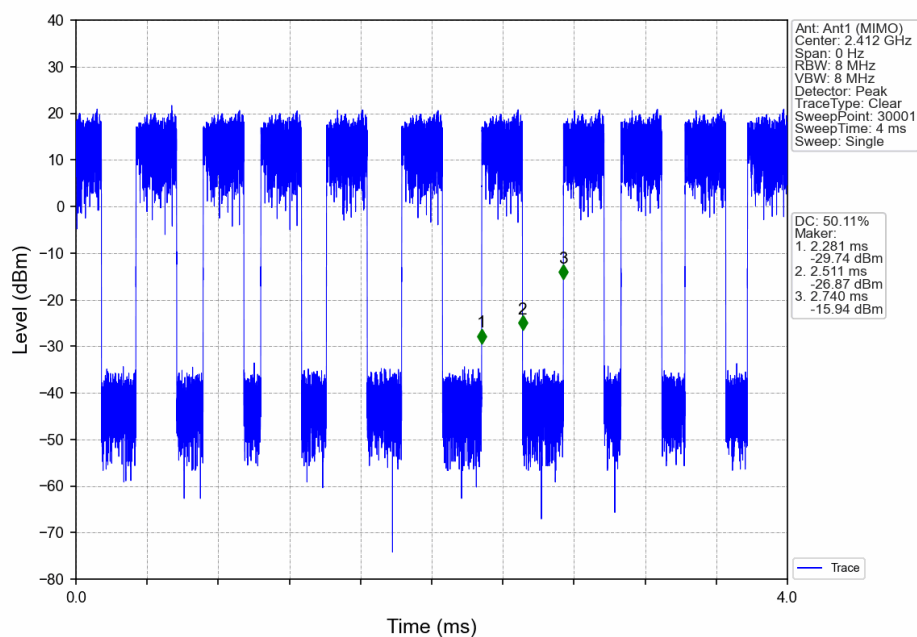
## 802.11n(HT40)\_MCH\_2437MHz\_Ant1 (SISO)\_NTNV



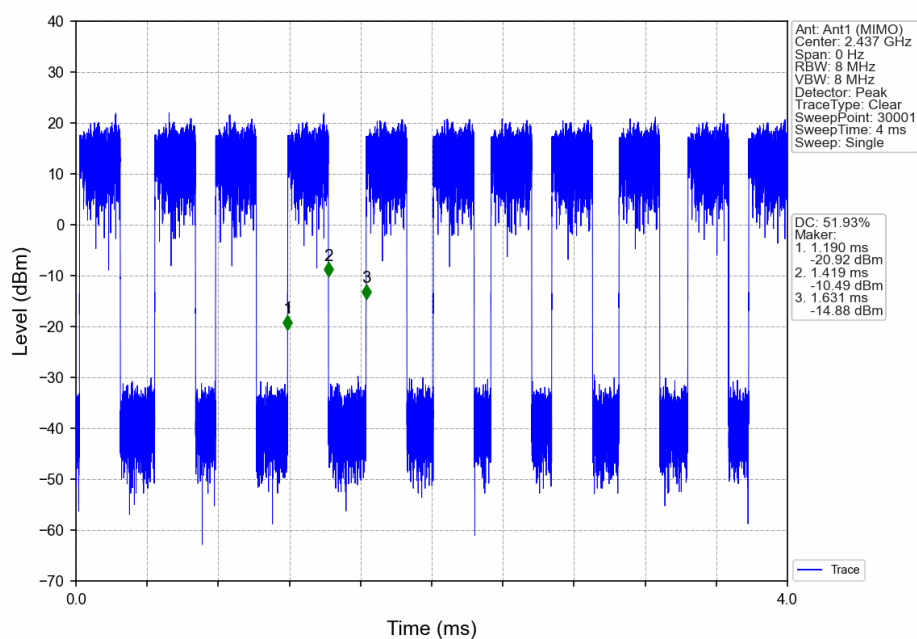
## 802.11n(HT40)\_HCH\_2452MHz\_Ant1 (SISO)\_NTNV



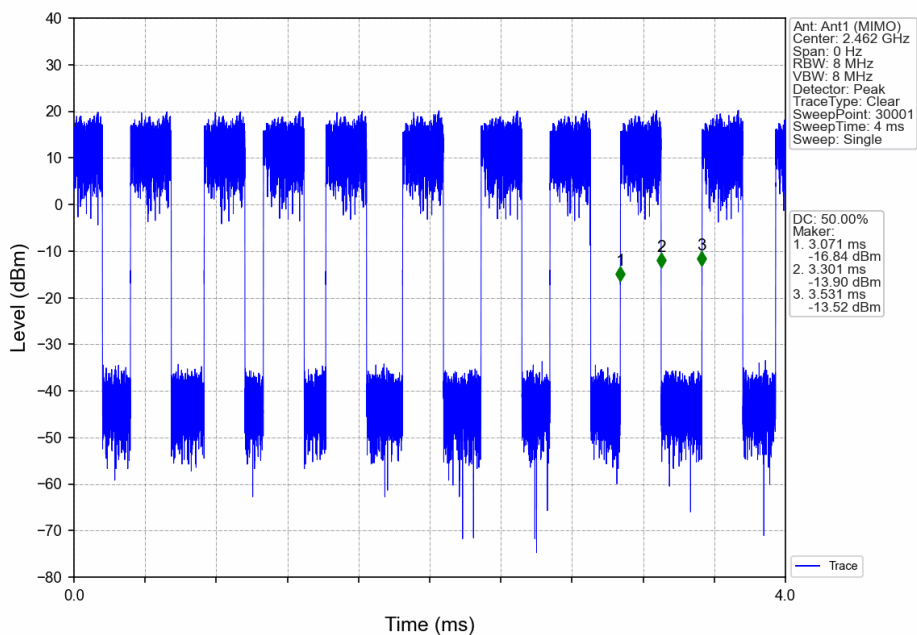
## 802.11n(HT20) LCH 2412MHz\_Ant1 (MIMO)\_NTNV



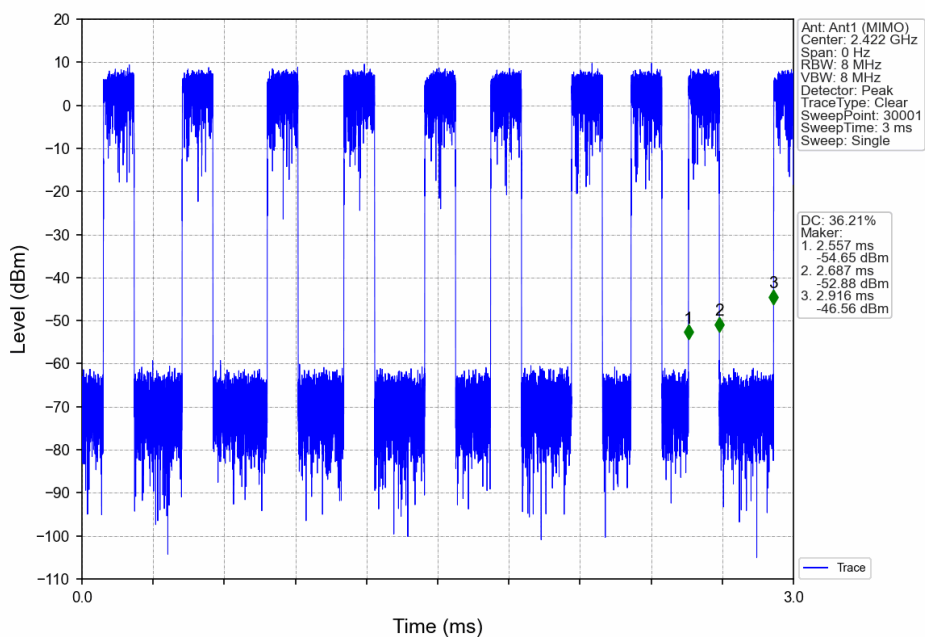
## 802.11n(HT20) MCH 2437MHz\_Ant1 (MIMO)\_NTNV



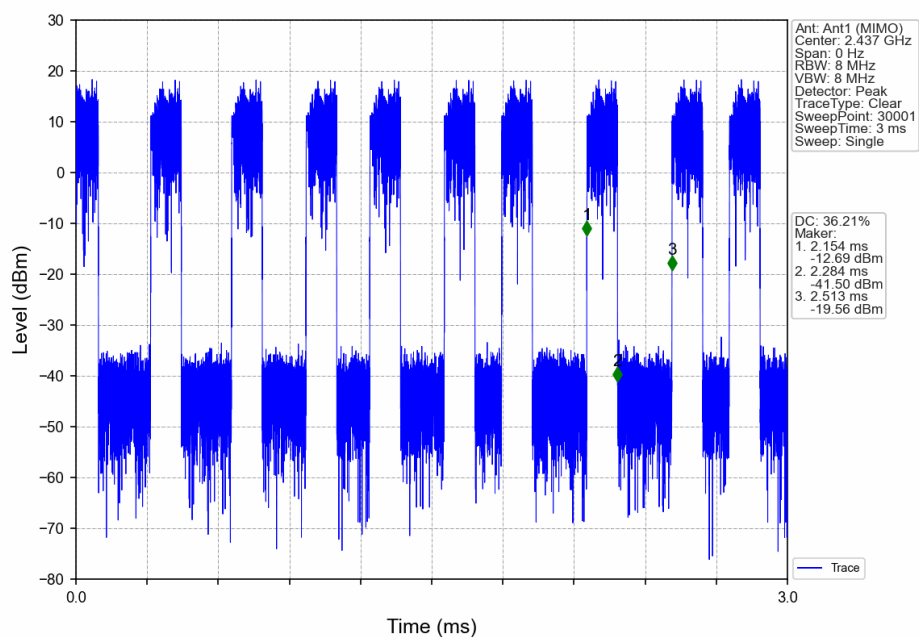
## 802.11n(HT20) HCH 2462MHz\_Ant1 (MIMO) NTNV



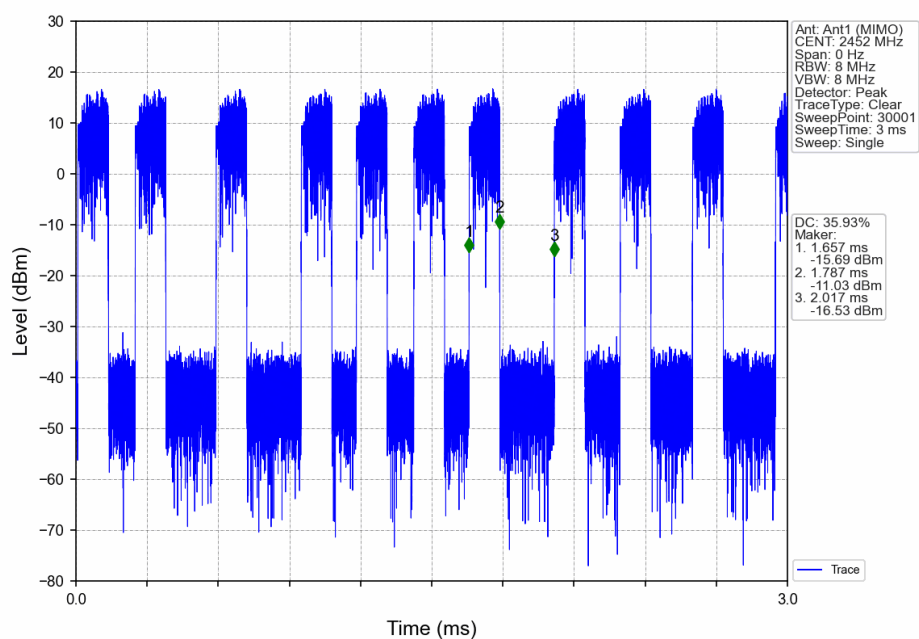
## 802.11n(HT40) LCH 2422MHz\_Ant1 (MIMO) NTNV



## 802.11n(HT40) MCH 2437MHz\_Ant1 (MIMO) NTN



## 802.11n(HT40) HCH 2452MHz\_Ant1 (MIMO) NTN



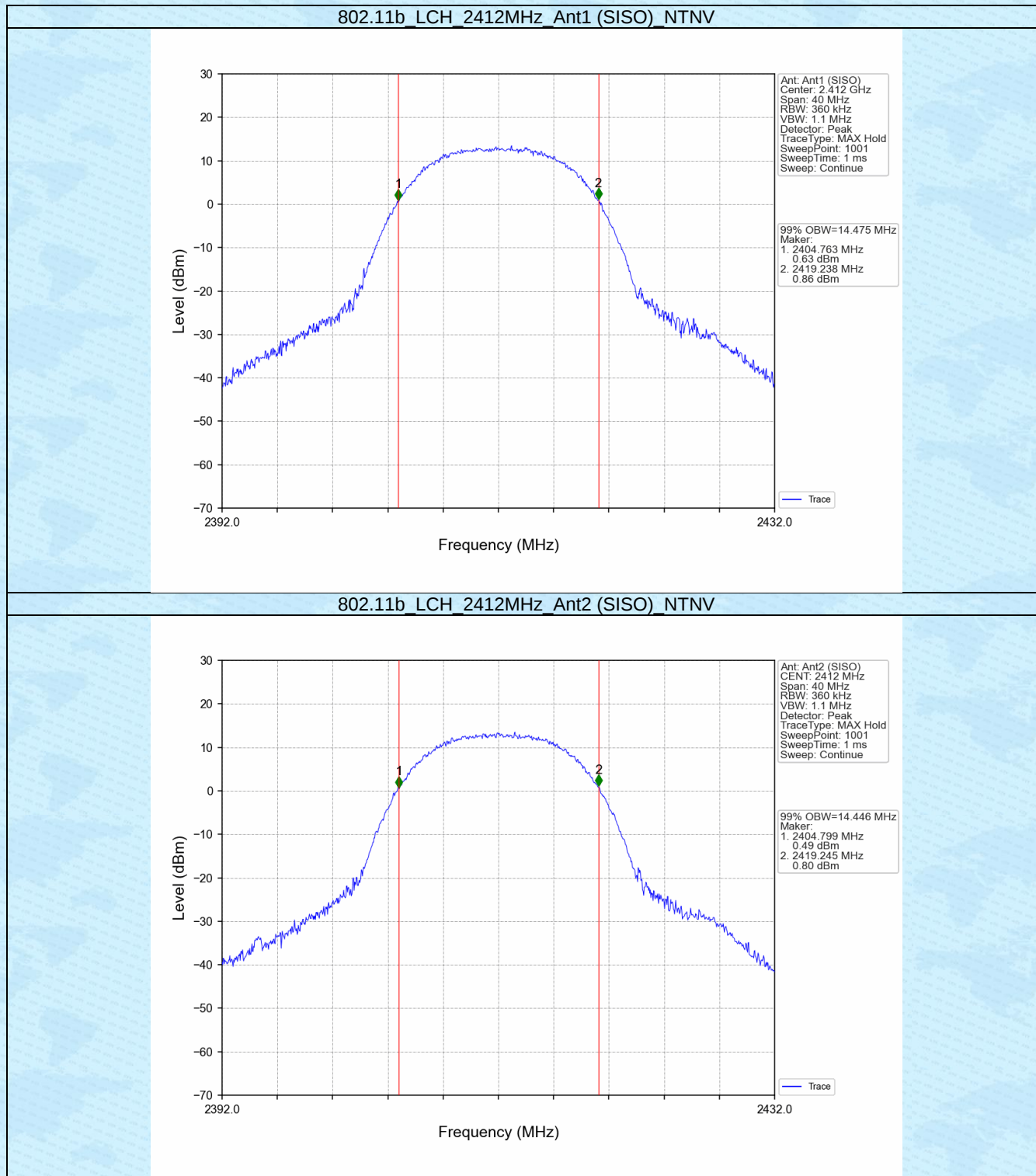
## 2. Bandwidth

### 2.1 OBW

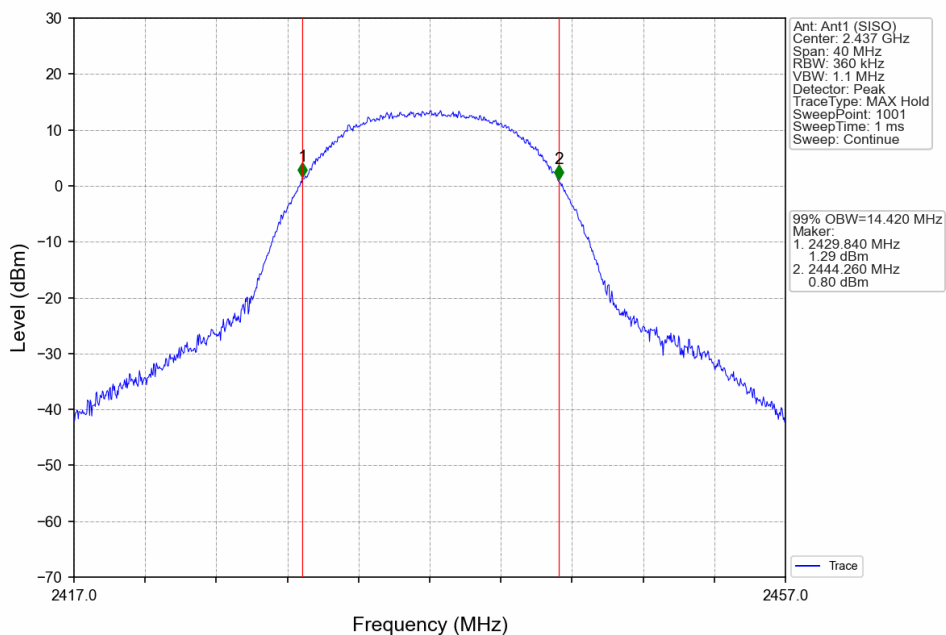
#### 2.1.1 Test Result

| Mode           | TX Type | Frequency (MHz) | ANT | 99% Occupied Bandwidth (MHz) | Verdict |
|----------------|---------|-----------------|-----|------------------------------|---------|
|                |         |                 |     | Result                       |         |
| 802.11b        | SISO    | 2412            | 1   | 14.475                       | Pass    |
|                |         |                 | 2   | 14.446                       | Pass    |
|                |         | 2437            | 1   | 14.420                       | Pass    |
|                |         |                 | 2   | 14.487                       | Pass    |
|                |         | 2462            | 1   | 14.481                       | Pass    |
|                |         |                 | 2   | 14.504                       | Pass    |
| 802.11g        | SISO    | 2412            | 1   | 16.756                       | Pass    |
|                |         |                 | 2   | 16.918                       | Pass    |
|                |         | 2437            | 1   | 17.084                       | Pass    |
|                |         |                 | 2   | 16.996                       | Pass    |
|                |         | 2462            | 1   | 16.937                       | Pass    |
|                |         |                 | 2   | 16.758                       | Pass    |
| 802.11n (HT20) | SISO    | 2412            | 1   | 18.594                       | Pass    |
|                |         |                 | 2   | 18.697                       | Pass    |
|                |         | 2437            | 1   | 17.941                       | Pass    |
|                |         |                 | 2   | 17.979                       | Pass    |
|                |         | 2462            | 1   | 17.907                       | Pass    |
|                |         |                 | 2   | 18.023                       | Pass    |
| 802.11n (HT40) | SISO    | 2422            | 1   | 36.285                       | Pass    |
|                |         |                 | 2   | 36.541                       | Pass    |
|                |         | 2437            | 1   | 36.418                       | Pass    |
|                |         |                 | 2   | 36.274                       | Pass    |
|                |         | 2452            | 1   | 36.413                       | Pass    |
|                |         |                 | 2   | 36.253                       | Pass    |

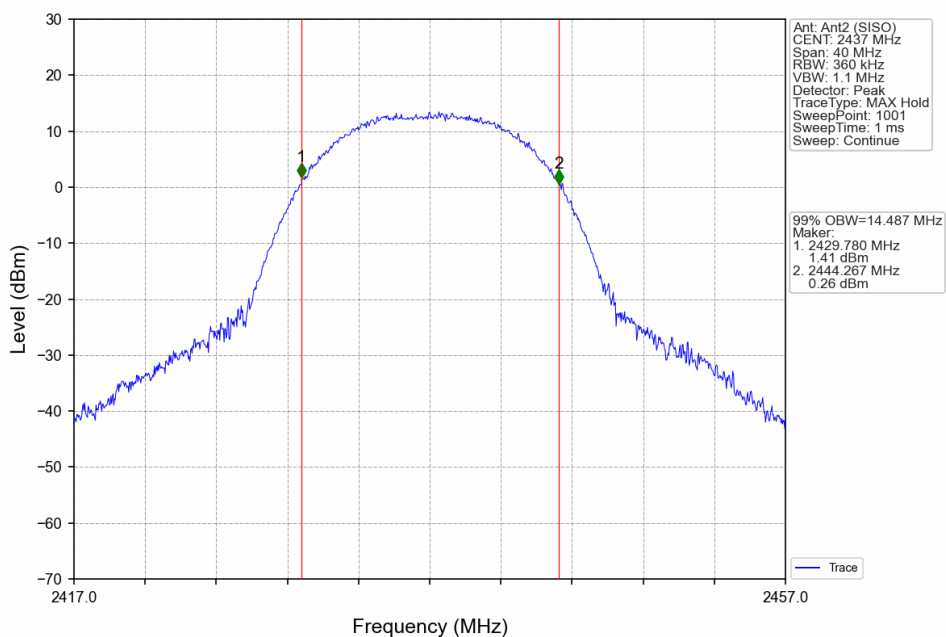
## 2.1.2 Test Graph



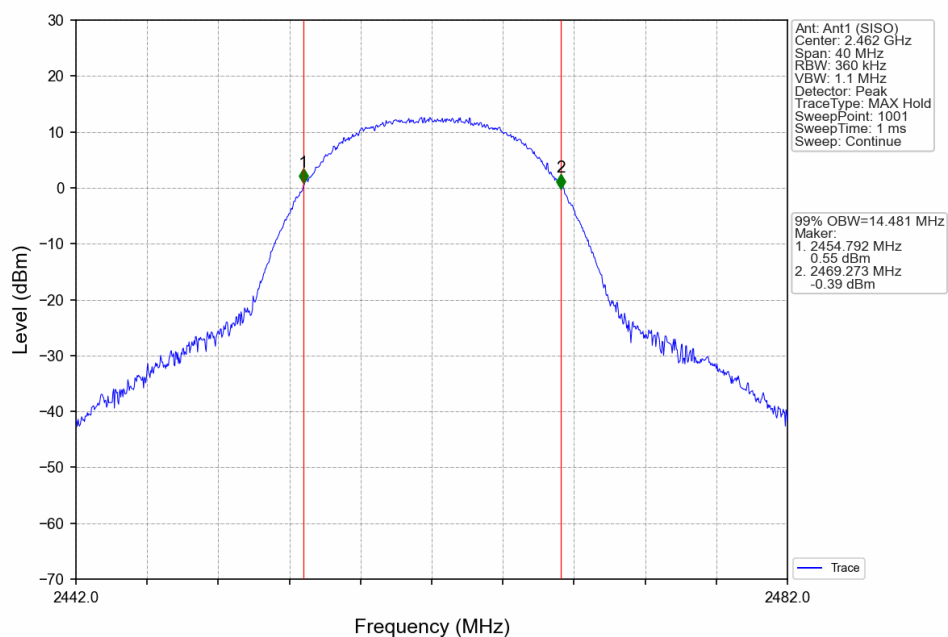
## 802.11b MCH\_2437MHz\_Ant1 (SISO)\_NTNV



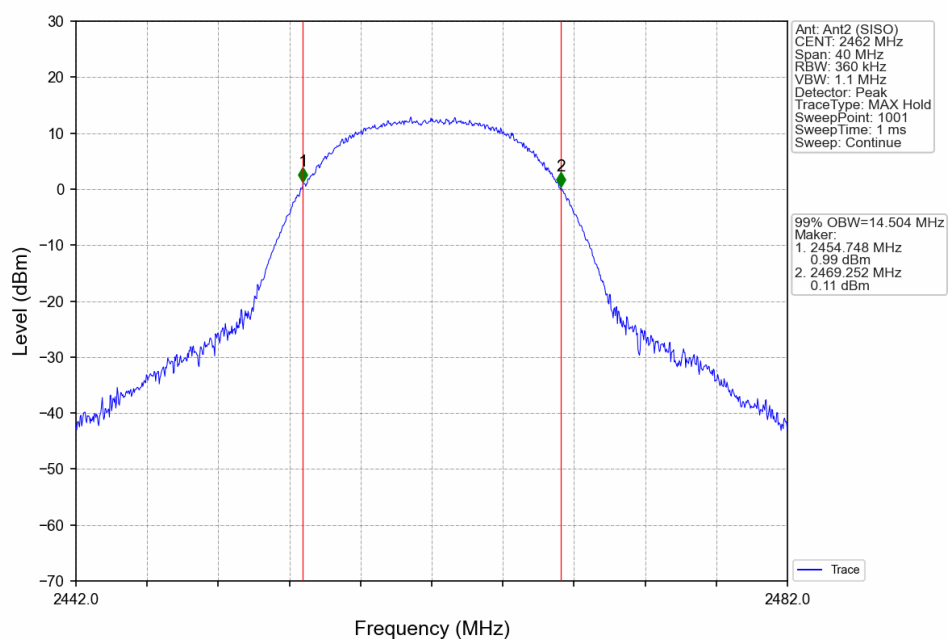
## 802.11b MCH\_2437MHz\_Ant2 (SISO)\_NTNV



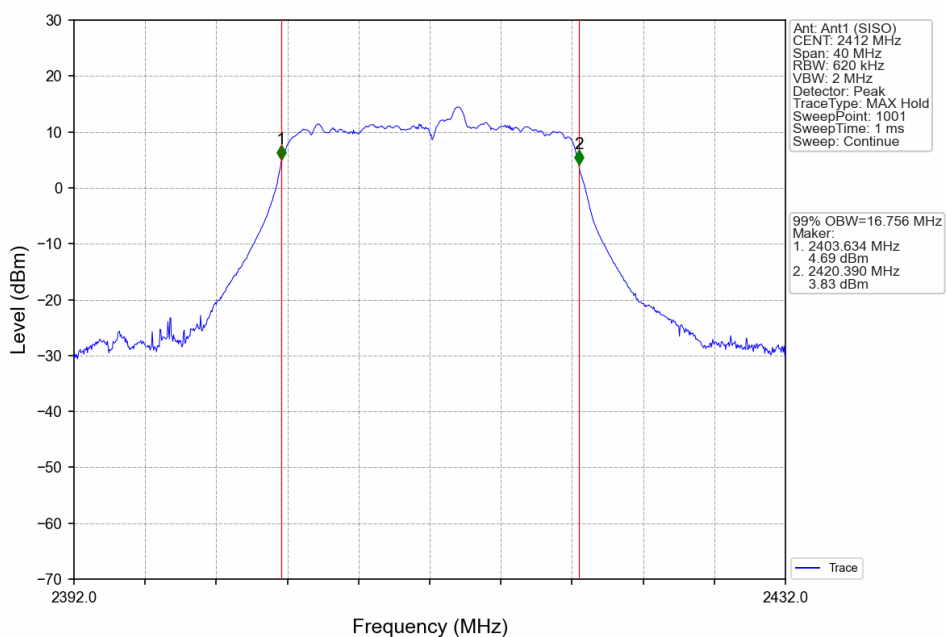
## 802.11b HCH 2462MHz\_Ant1 (SISO) NTN



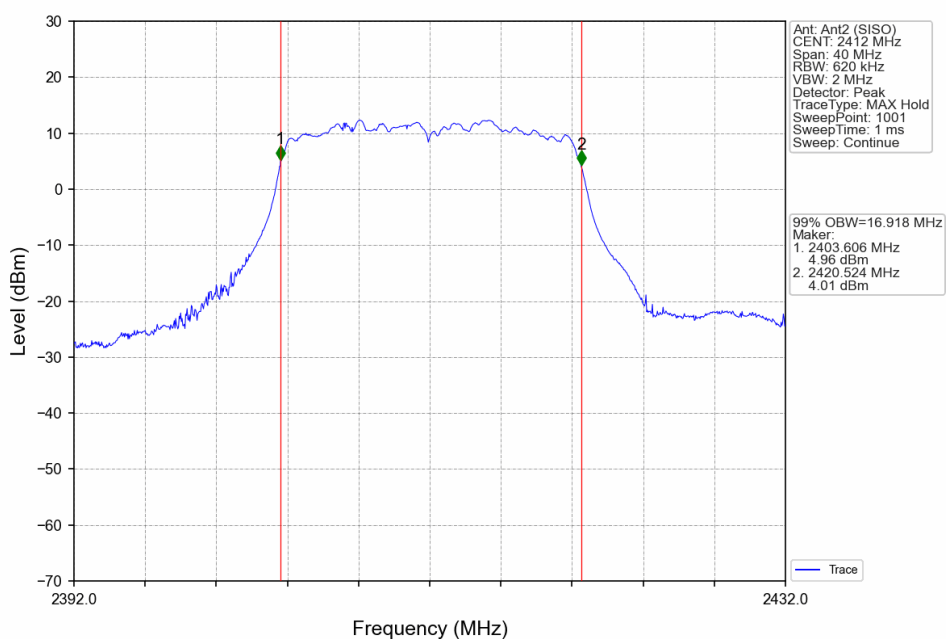
## 802.11b HCH 2462MHz\_Ant2 (SISO) NTN



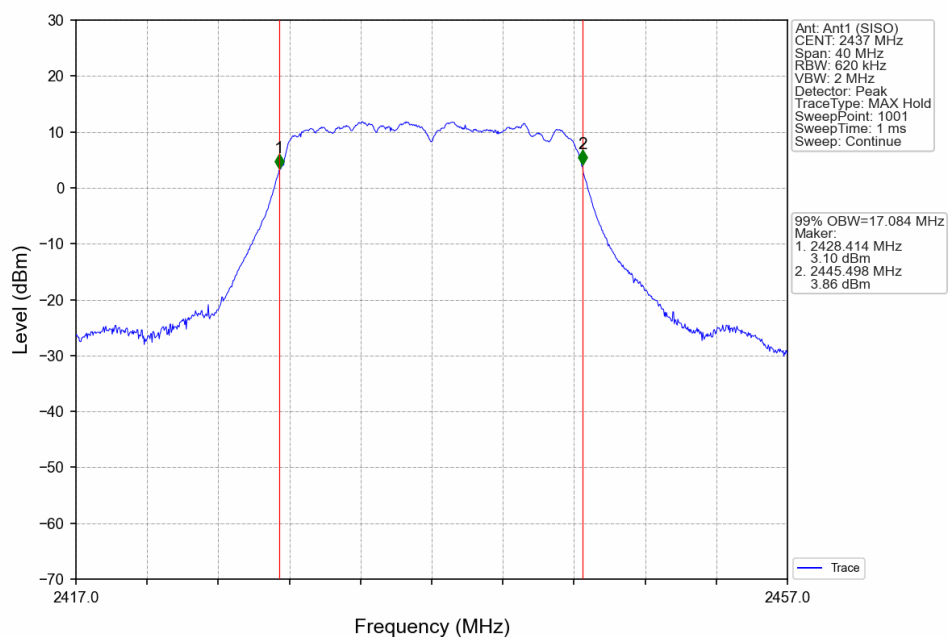
802.11g\_LCH\_2412MHz\_Ant1 (SISO)\_NTNV



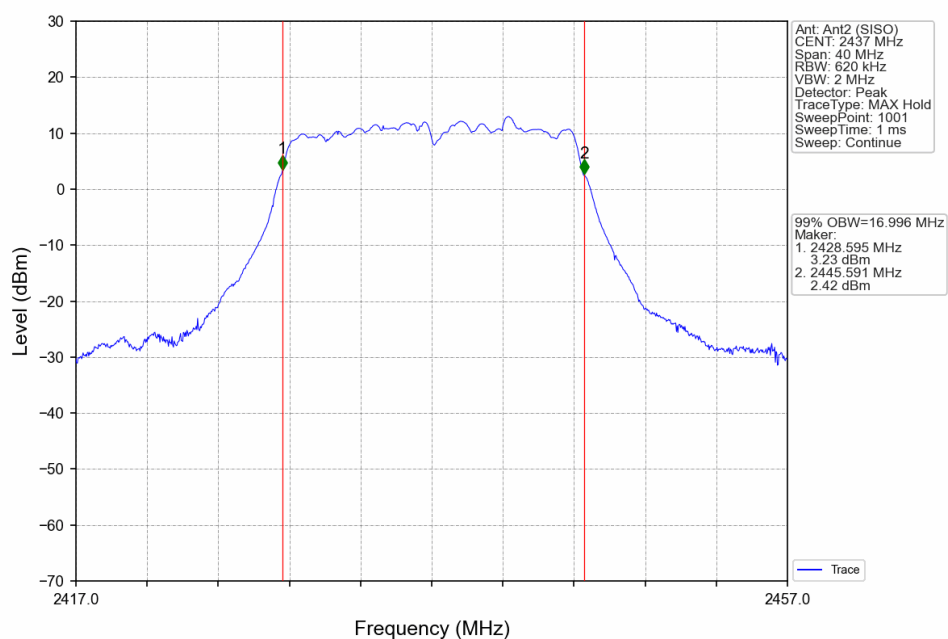
802.11g\_LCH\_2412MHz\_Ant2 (SISO)\_NTNV



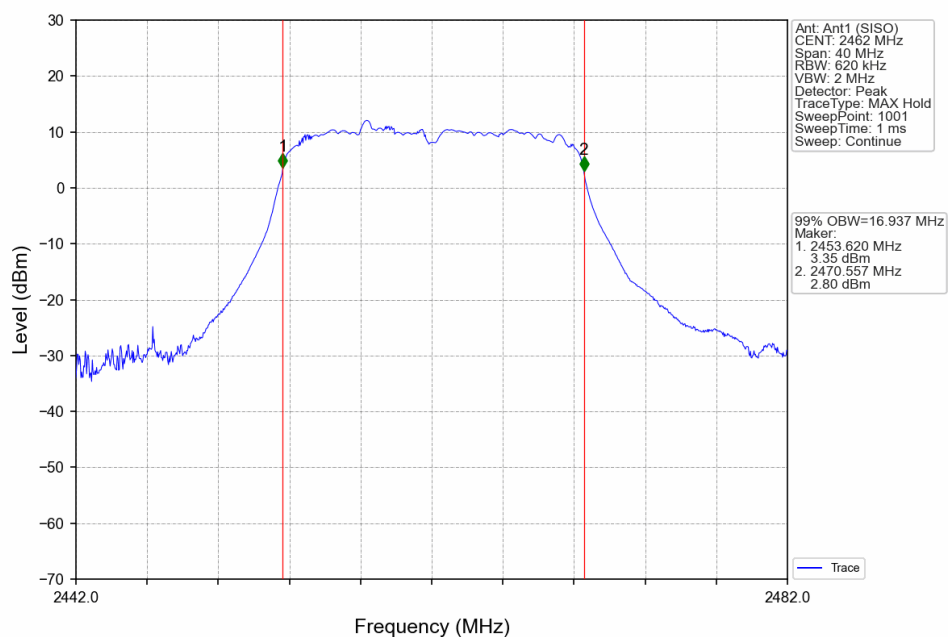
## 802.11g\_MCH\_2437MHz\_Ant1 (SISO)\_NTNV



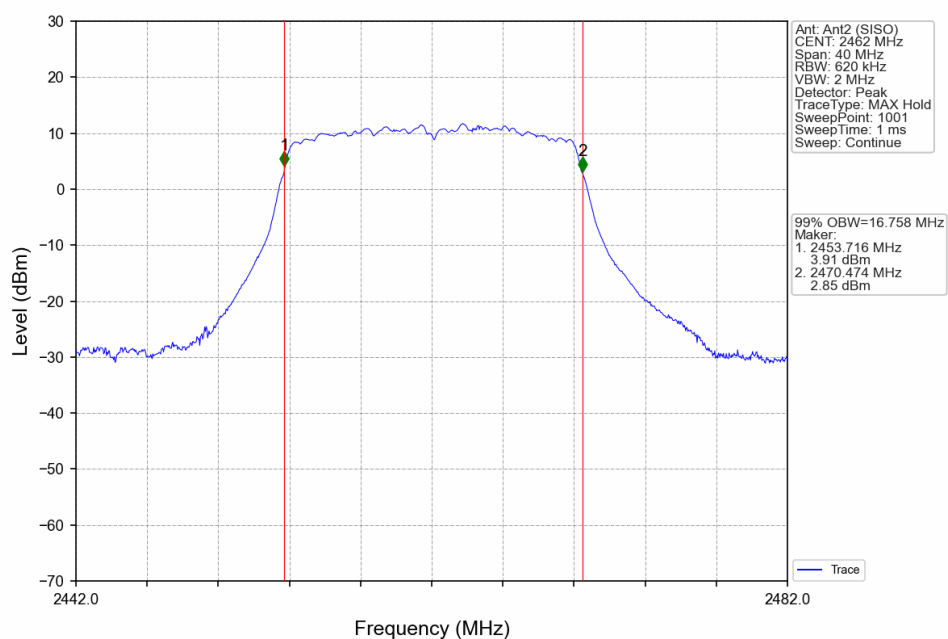
## 802.11g\_MCH\_2437MHz\_Ant2 (SISO)\_NTNV



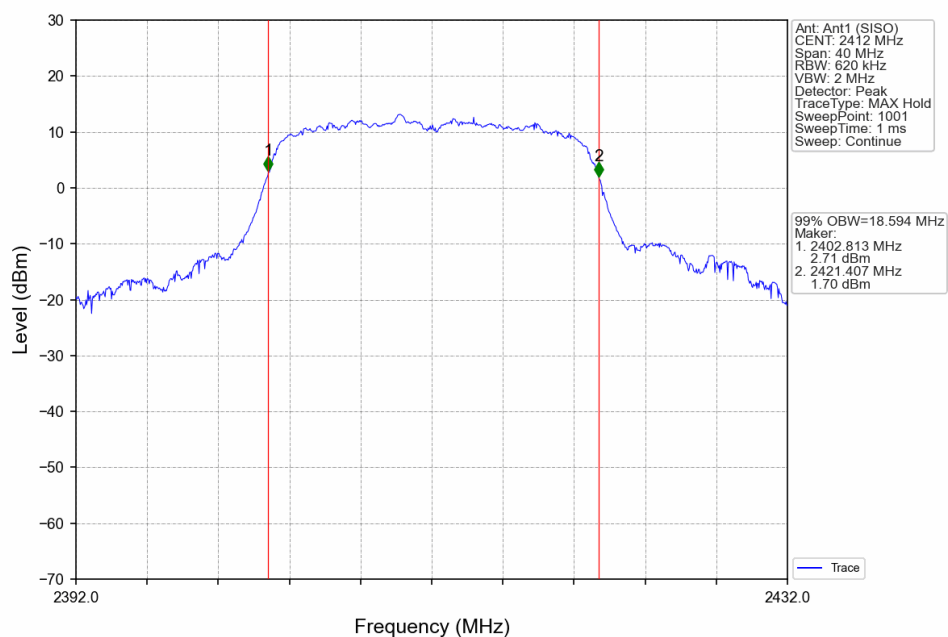
## 802.11g\_HCH\_2462MHz\_Ant1 (SISO)\_NTNV



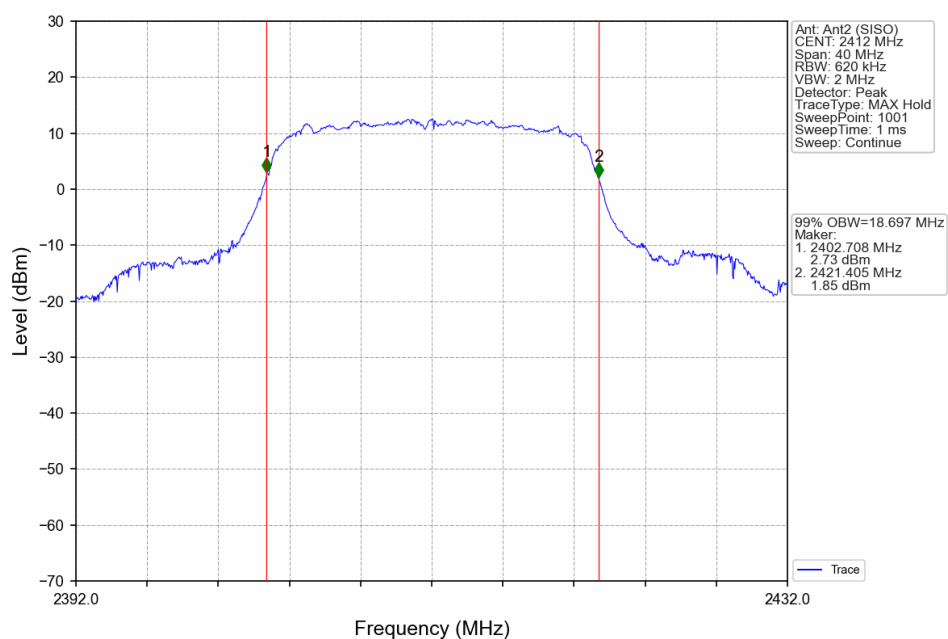
## 802.11g\_HCH\_2462MHz\_Ant2 (SISO)\_NTNV



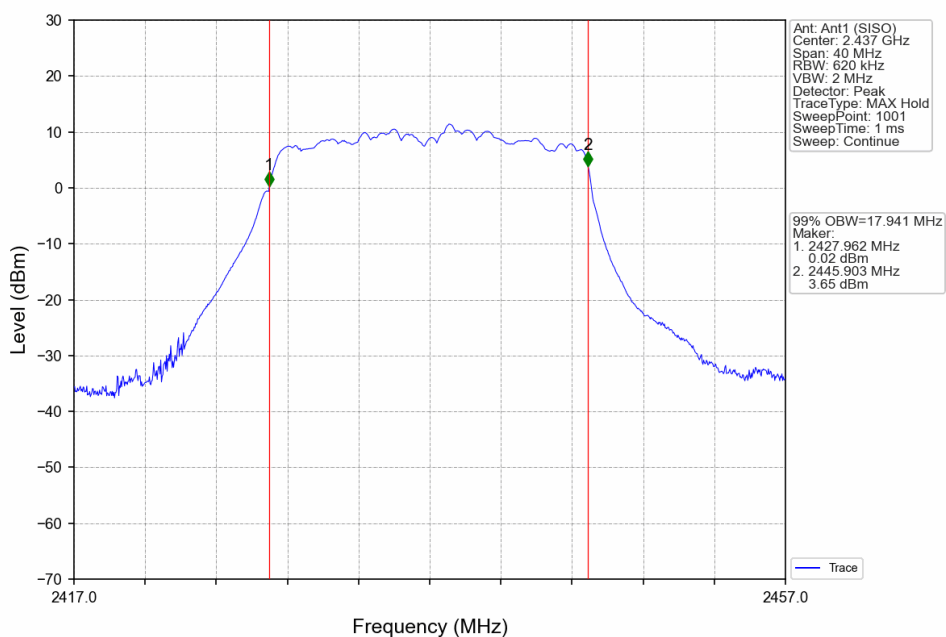
## 802.11n(HT20)\_LCH\_2412MHz\_Ant1 (SISO)\_NTNV



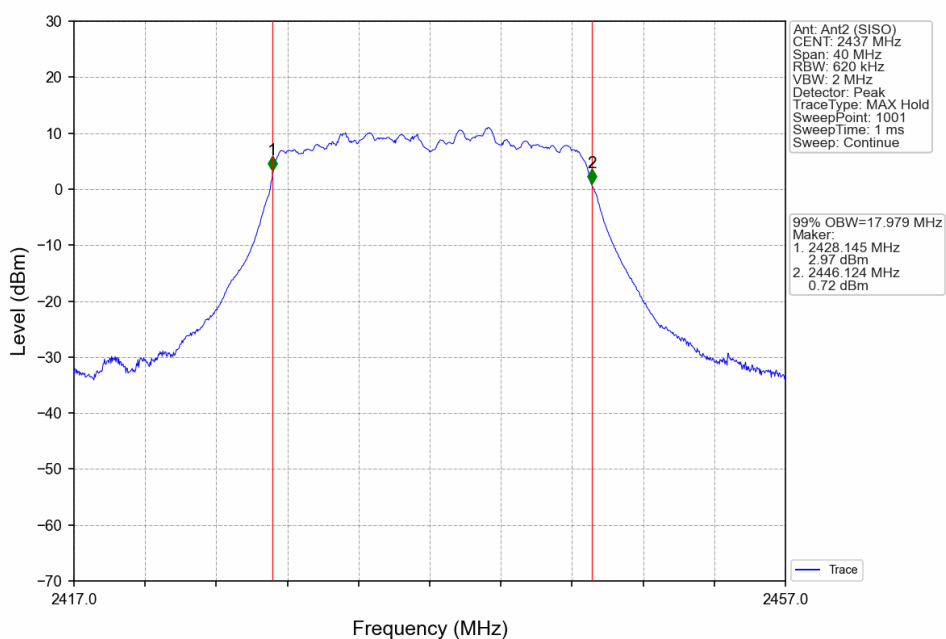
## 802.11n(HT20)\_LCH\_2412MHz\_Ant2 (SISO)\_NTNV



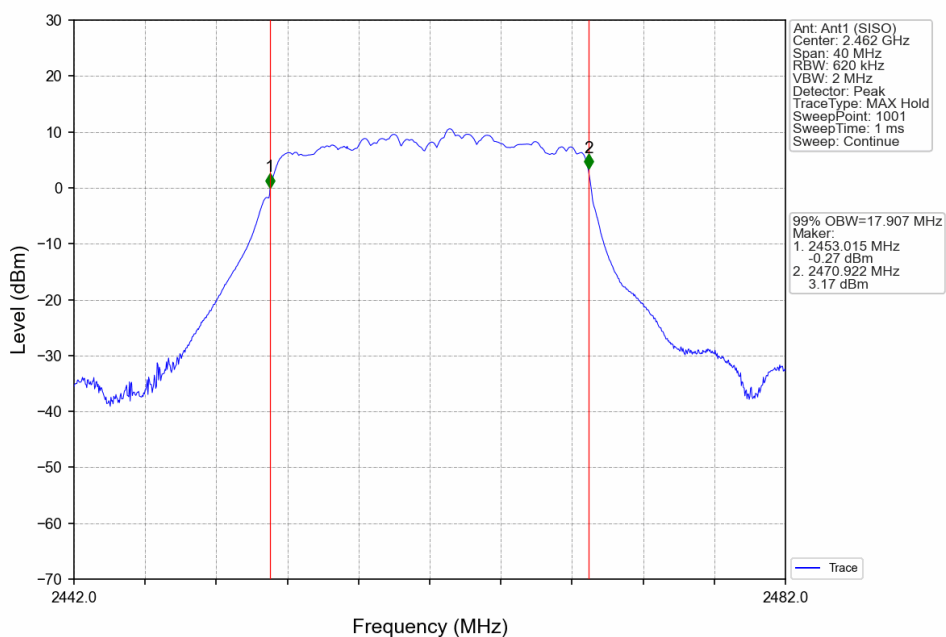
## 802.11n(HT20)\_MCH\_2437MHz\_Ant1 (SISO)\_NTNV



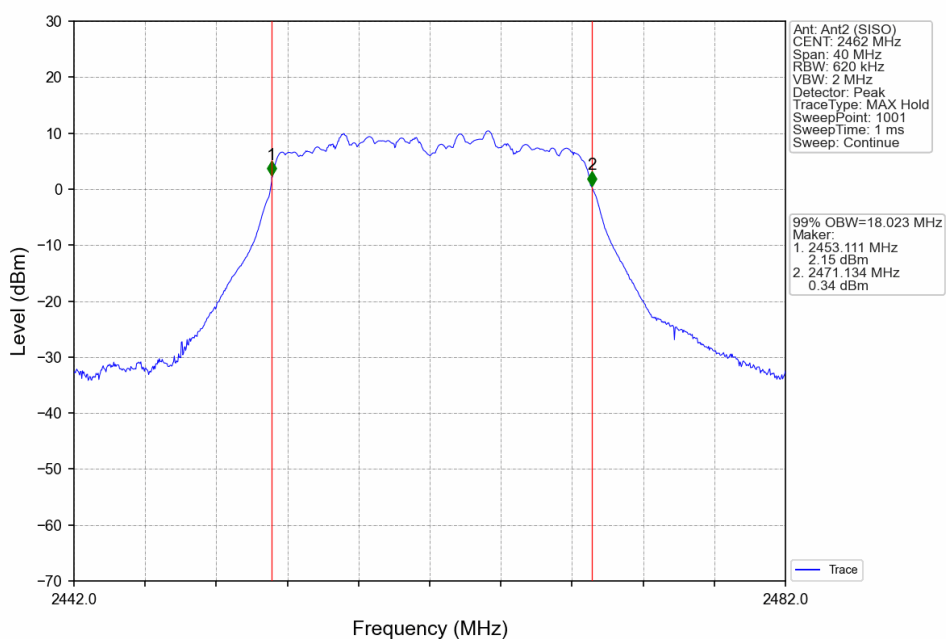
## 802.11n(HT20)\_MCH\_2437MHz\_Ant2 (SISO)\_NTNV



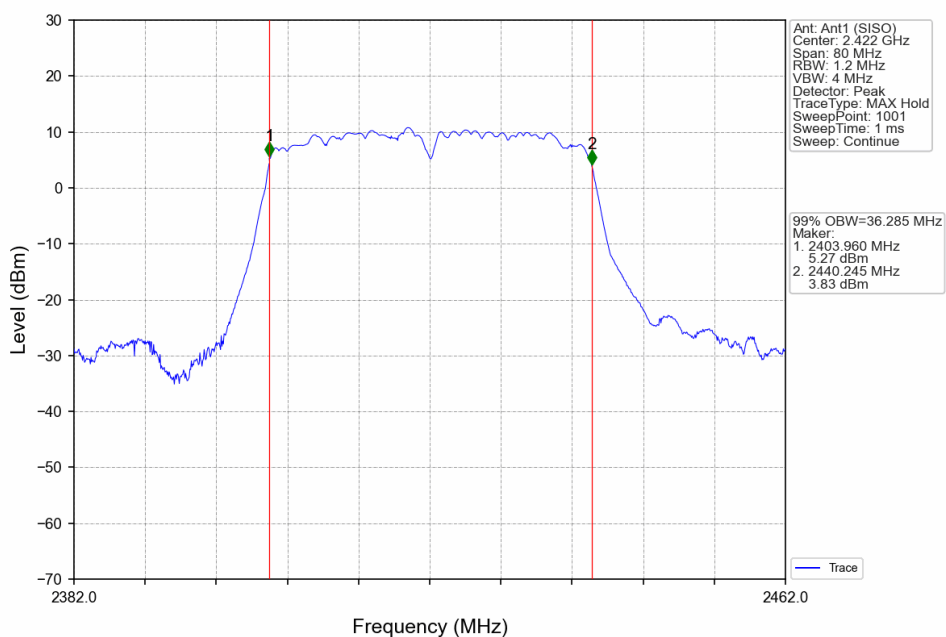
## 802.11n(HT20)\_HCH\_2462MHz\_Ant1 (SISO)\_NTNV



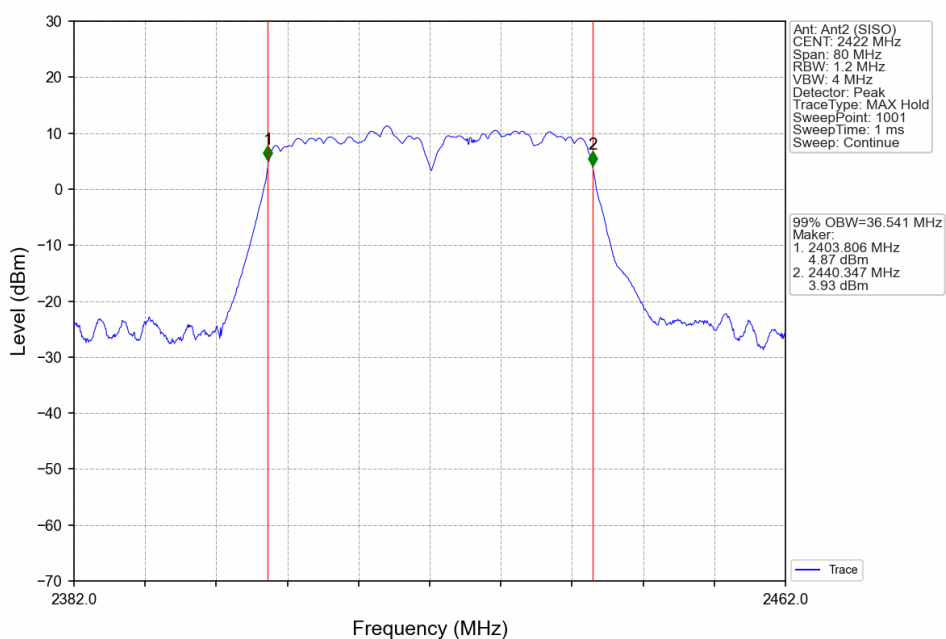
## 802.11n(HT20)\_HCH\_2462MHz\_Ant2 (SISO)\_NTNV



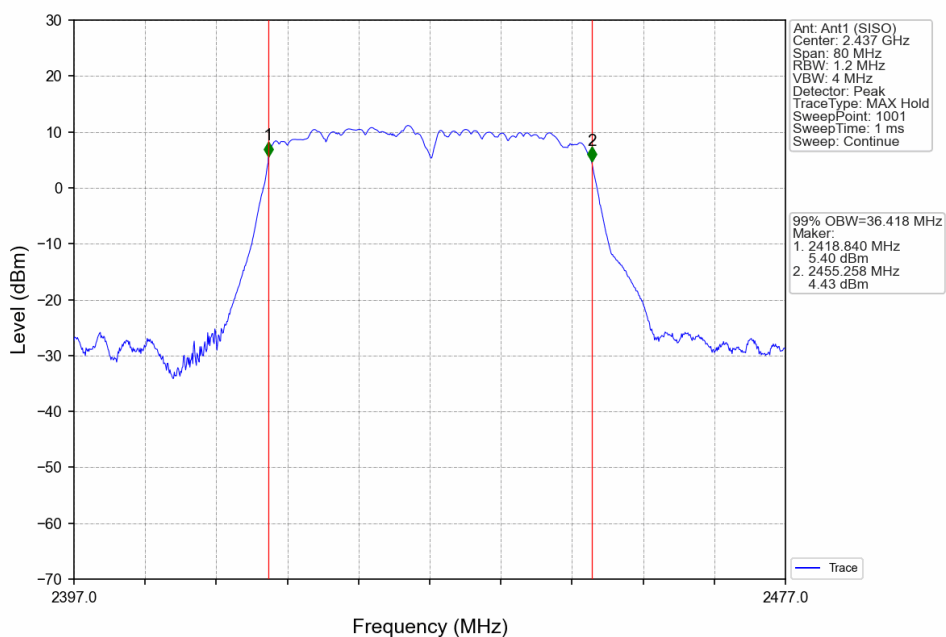
## 802.11n(HT40)\_LCH\_2422MHz\_Ant1 (SISO)\_NTNV



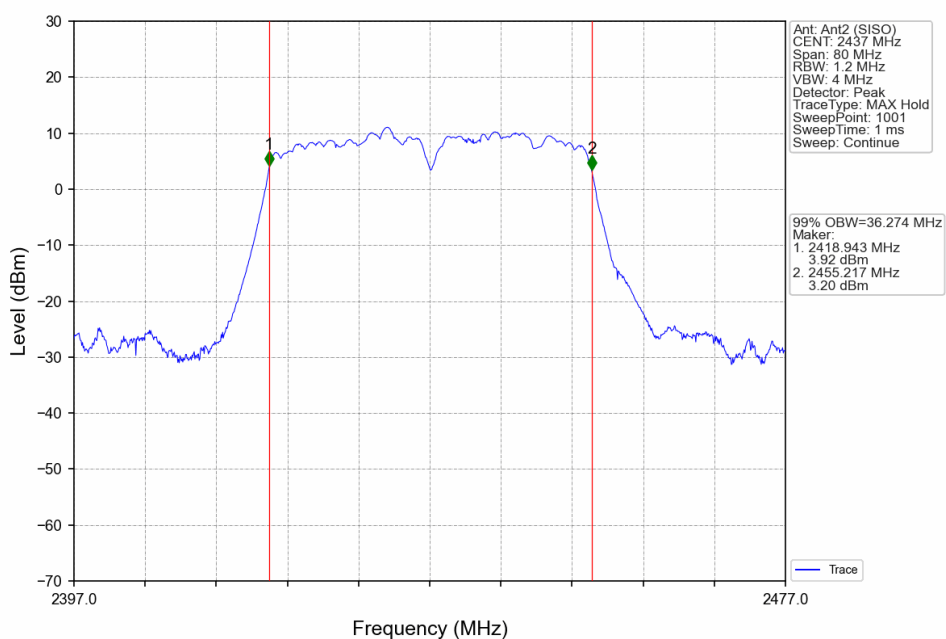
## 802.11n(HT40)\_LCH\_2422MHz\_Ant2 (SISO)\_NTNV



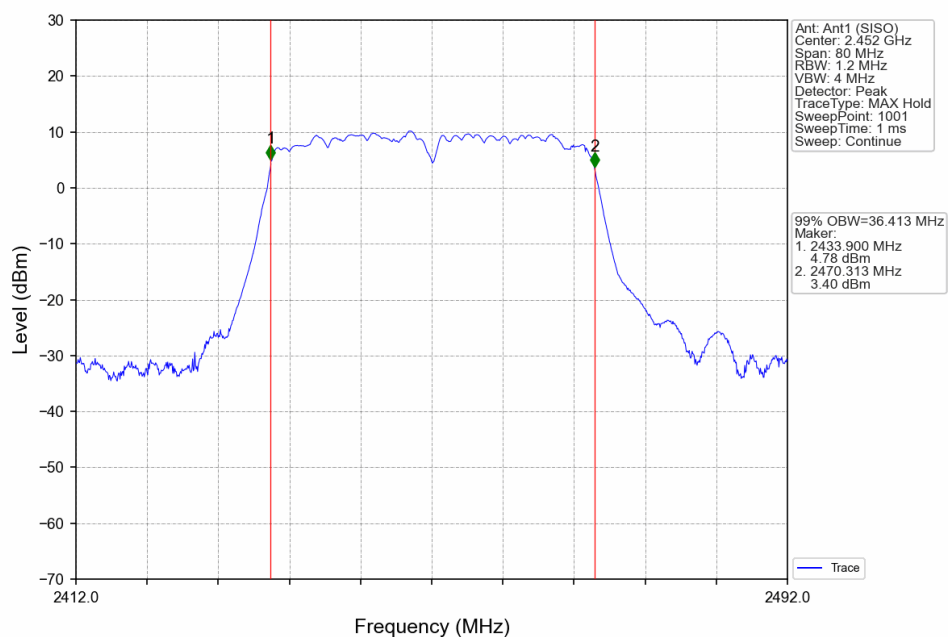
## 802.11n(HT40)\_MCH\_2437MHz\_Ant1 (SISO)\_NTNV



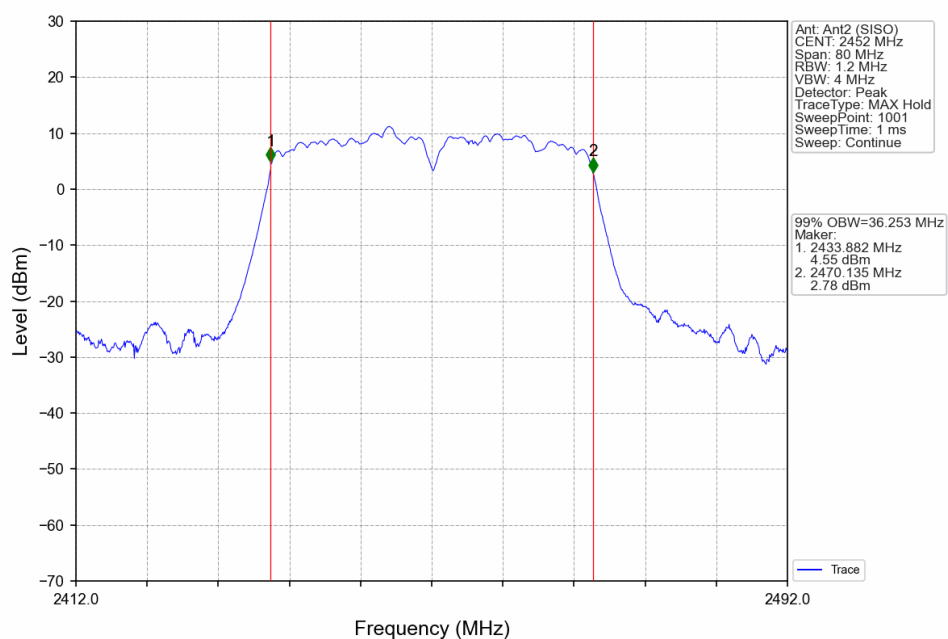
## 802.11n(HT40)\_MCH\_2437MHz\_Ant2 (SISO)\_NTNV



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



## 802.11n(HT40)\_HCH\_2452MHz\_Ant2 (SISO)\_NTNV

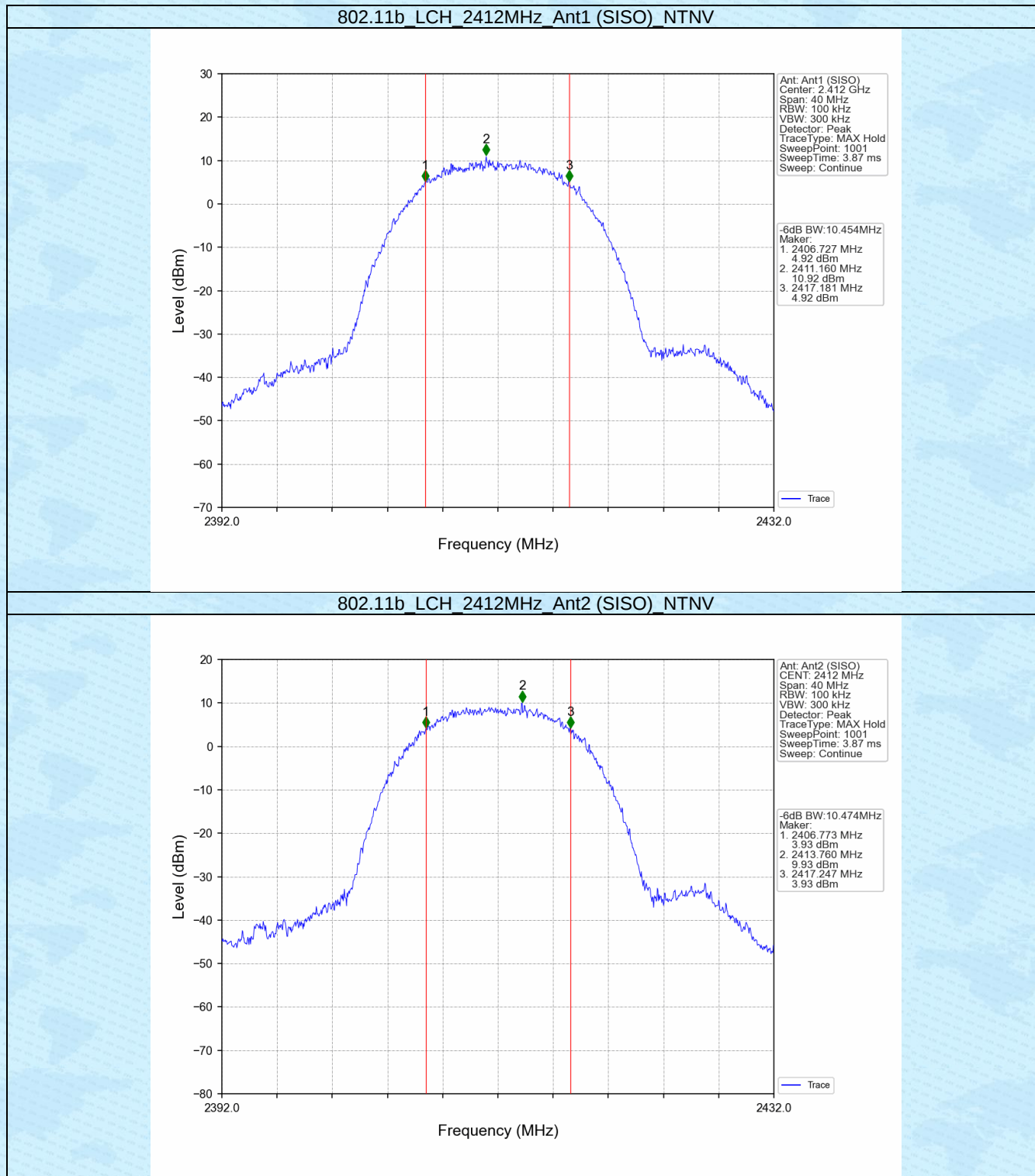


## 2.2 6dB BW

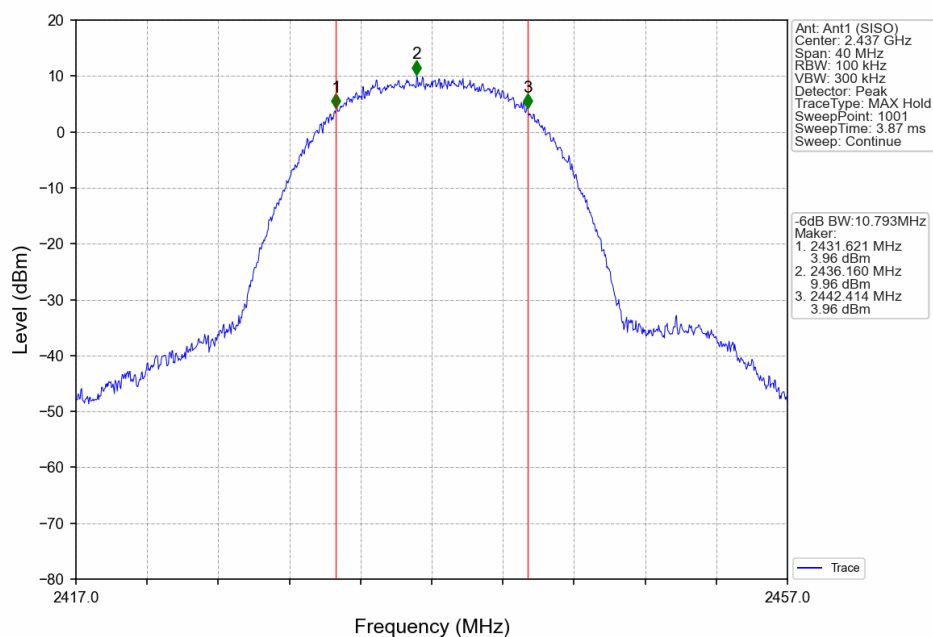
### 2.2.1 Test Result

| Mode           | TX Type | Frequency (MHz) | ANT | 6dB Bandwidth (MHz) |            | Verdict |
|----------------|---------|-----------------|-----|---------------------|------------|---------|
|                |         |                 |     | Result              | Limit      |         |
| 802.11b        | SISO    | 2412            | 1   | 10.454              | $\geq 0.5$ | Pass    |
|                |         |                 | 2   | 10.474              | $\geq 0.5$ | Pass    |
|                |         | 2437            | 1   | 10.793              | $\geq 0.5$ | Pass    |
|                |         |                 | 2   | 10.812              | $\geq 0.5$ | Pass    |
|                |         | 2462            | 1   | 11.241              | $\geq 0.5$ | Pass    |
|                |         |                 | 2   | 10.509              | $\geq 0.5$ | Pass    |
| 802.11g        | SISO    | 2412            | 1   | 16.345              | $\geq 0.5$ | Pass    |
|                |         |                 | 2   | 16.348              | $\geq 0.5$ | Pass    |
|                |         | 2437            | 1   | 16.385              | $\geq 0.5$ | Pass    |
|                |         |                 | 2   | 16.133              | $\geq 0.5$ | Pass    |
|                |         | 2462            | 1   | 16.074              | $\geq 0.5$ | Pass    |
|                |         |                 | 2   | 16.054              | $\geq 0.5$ | Pass    |
| 802.11n (HT20) | SISO    | 2412            | 1   | 16.022              | $\geq 0.5$ | Pass    |
|                |         |                 | 2   | 15.186              | $\geq 0.5$ | Pass    |
|                |         | 2437            | 1   | 16.876              | $\geq 0.5$ | Pass    |
|                |         |                 | 2   | 16.316              | $\geq 0.5$ | Pass    |
|                |         | 2462            | 1   | 16.524              | $\geq 0.5$ | Pass    |
|                |         |                 | 2   | 17.306              | $\geq 0.5$ | Pass    |
| 802.11n (HT40) | SISO    | 2422            | 1   | 35.257              | $\geq 0.5$ | Pass    |
|                |         |                 | 2   | 36.101              | $\geq 0.5$ | Pass    |
|                |         | 2437            | 1   | 35.295              | $\geq 0.5$ | Pass    |
|                |         |                 | 2   | 35.456              | $\geq 0.5$ | Pass    |
|                |         | 2452            | 1   | 35.317              | $\geq 0.5$ | Pass    |
|                |         |                 | 2   | 35.186              | $\geq 0.5$ | Pass    |

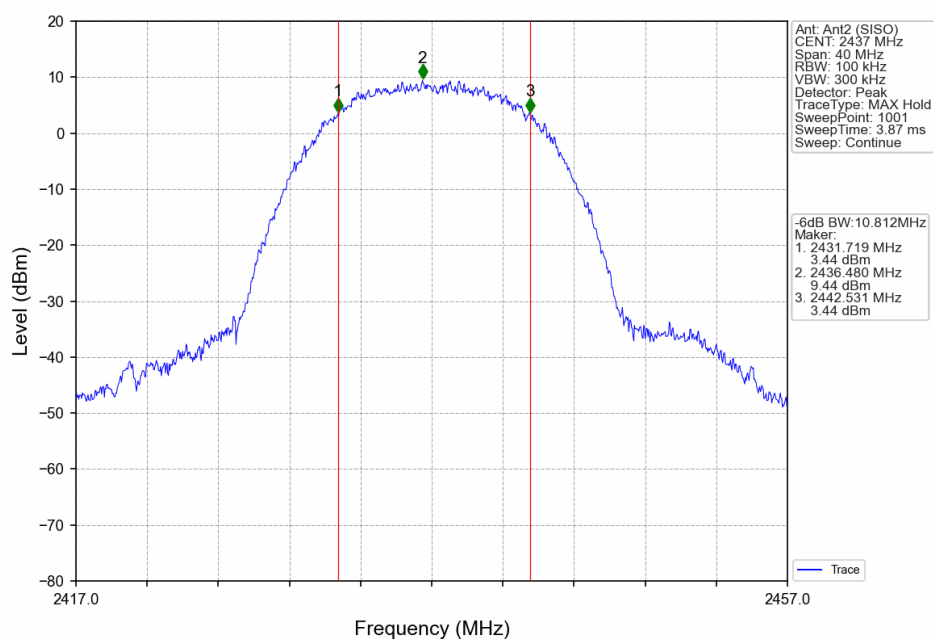
## 2.2.2 Test Graph



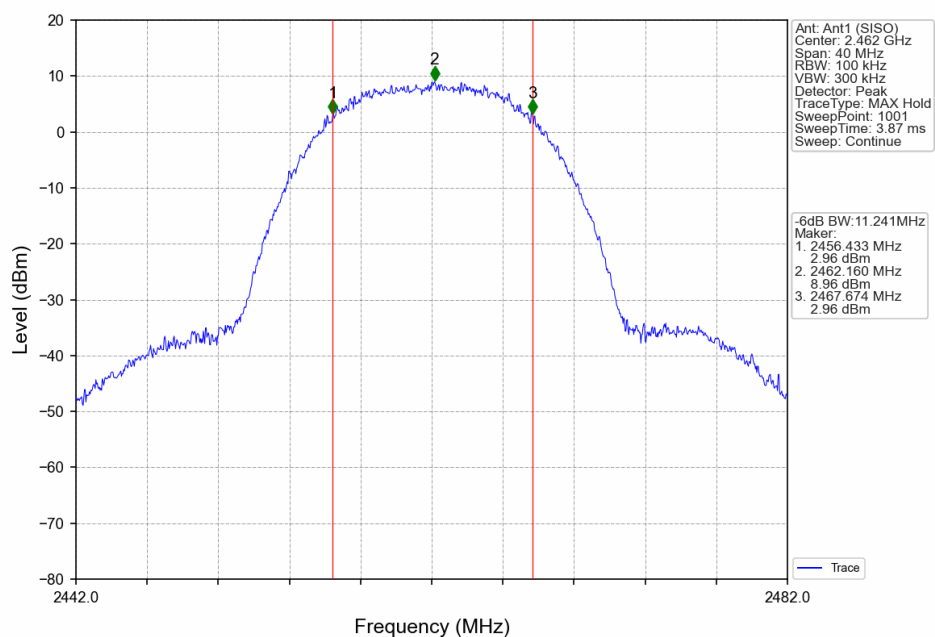
## 802.11b MCH\_2437MHz\_Ant1 (SISO)\_NTNV



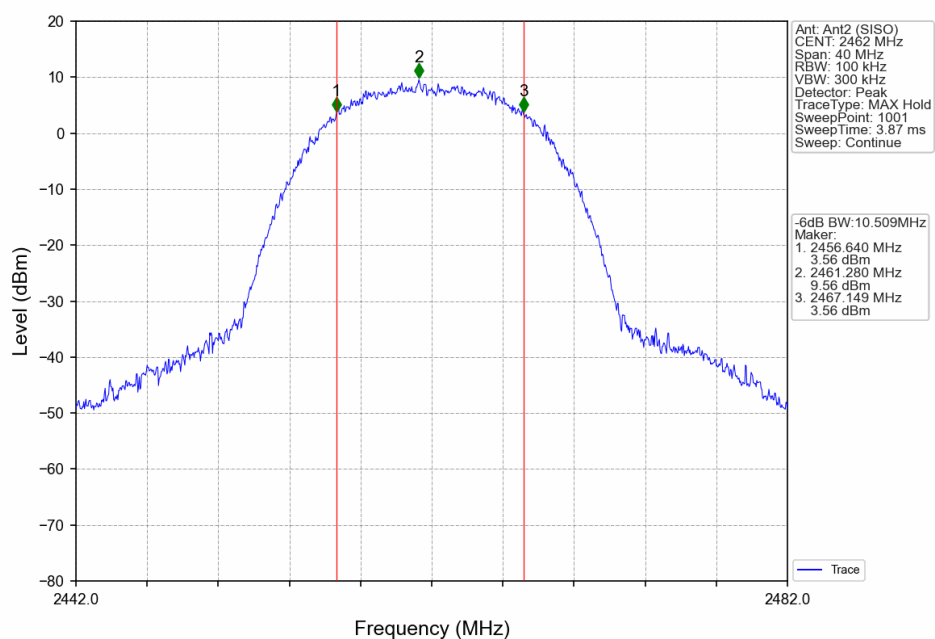
## 802.11b MCH\_2437MHz\_Ant2 (SISO)\_NTNV



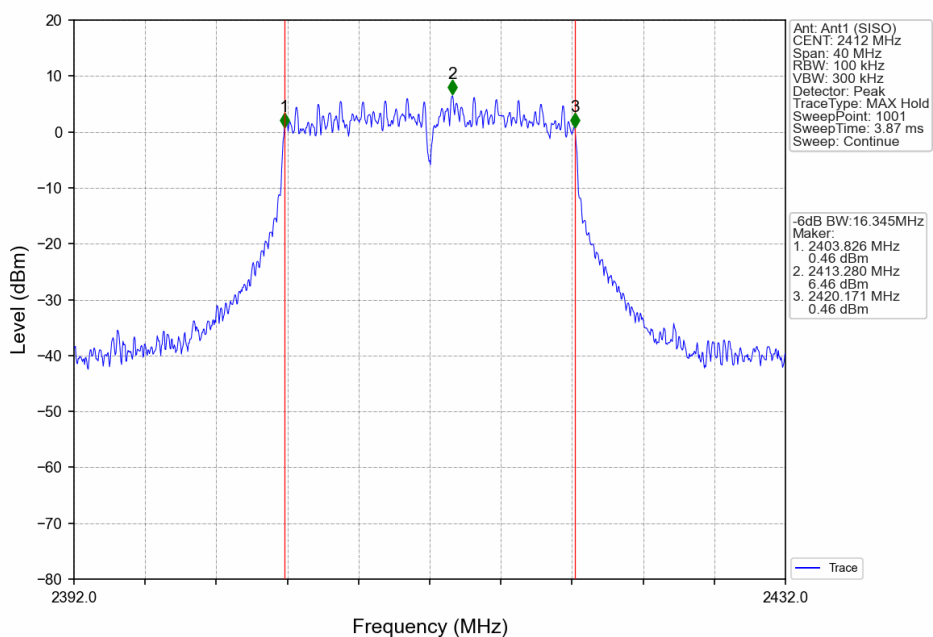
## 802.11b HCH 2462MHz\_Ant1 (SISO) NTN



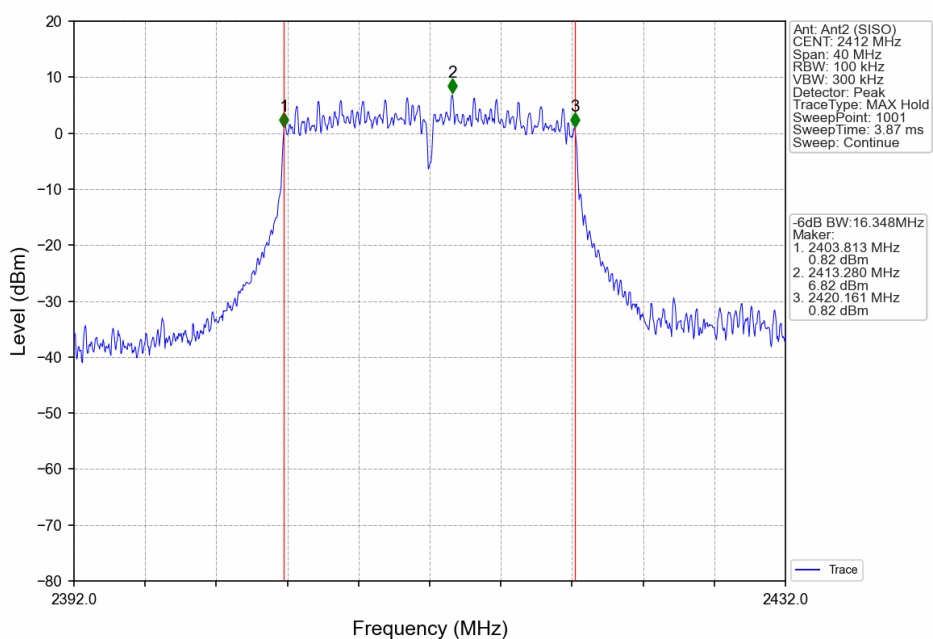
## 802.11b HCH 2462MHz\_Ant2 (SISO) NTN



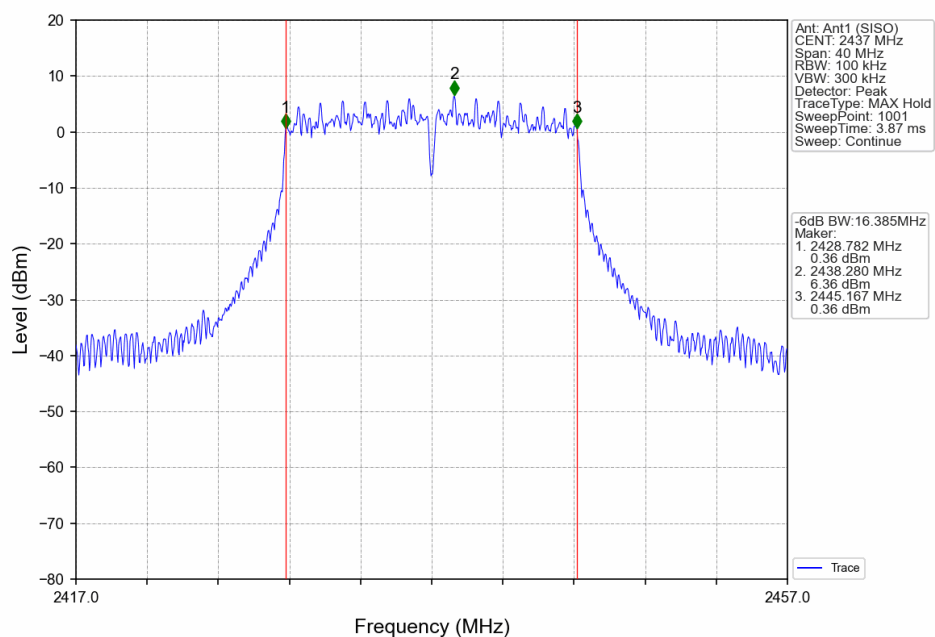
## 802.11g\_LCH\_2412MHz\_Ant1 (SISO)\_NTNV



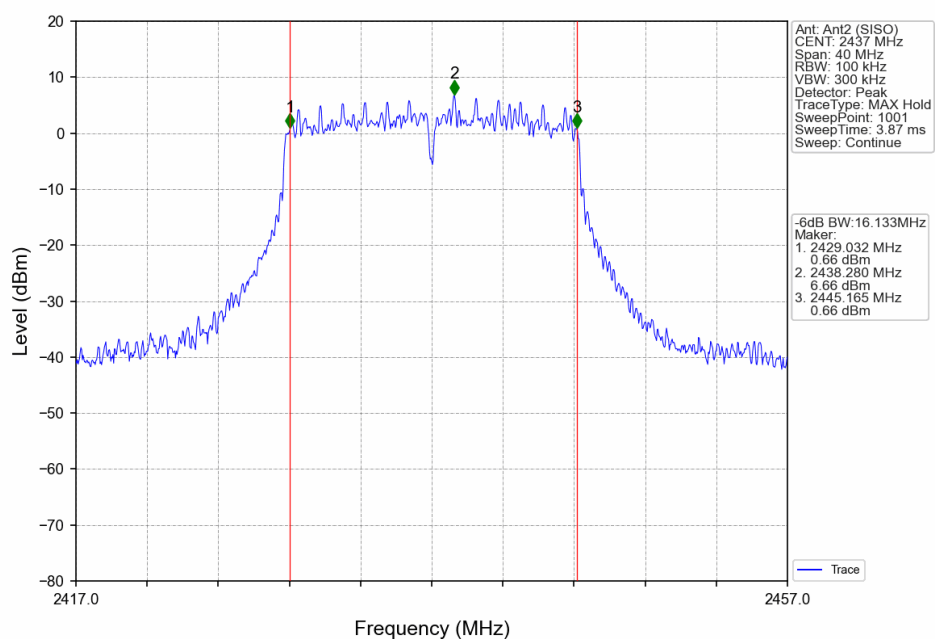
## 802.11g\_LCH\_2412MHz\_Ant2 (SISO)\_NTNV



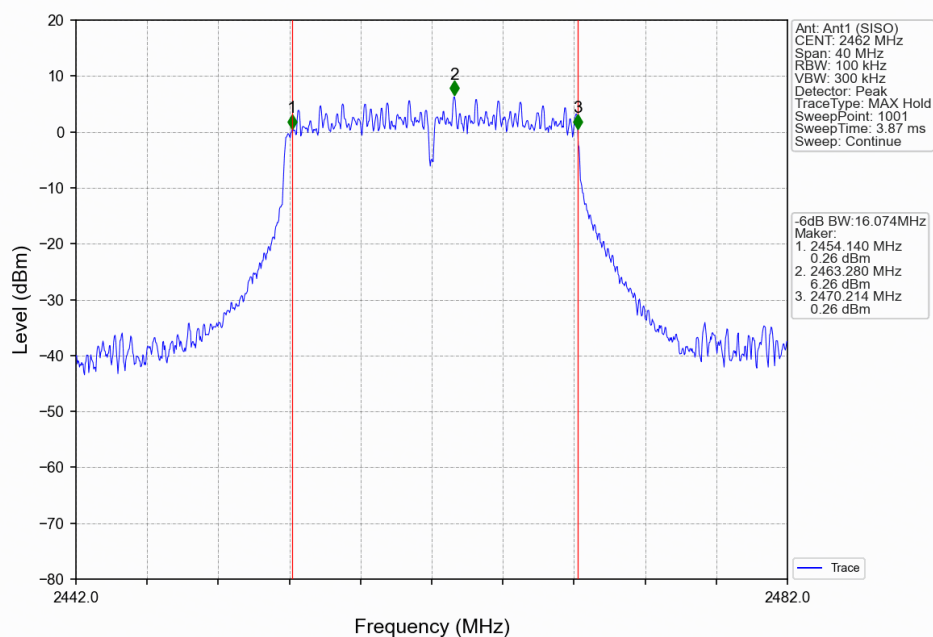
## 802.11g\_MCH\_2437MHz\_Ant1 (SISO)\_NTNV



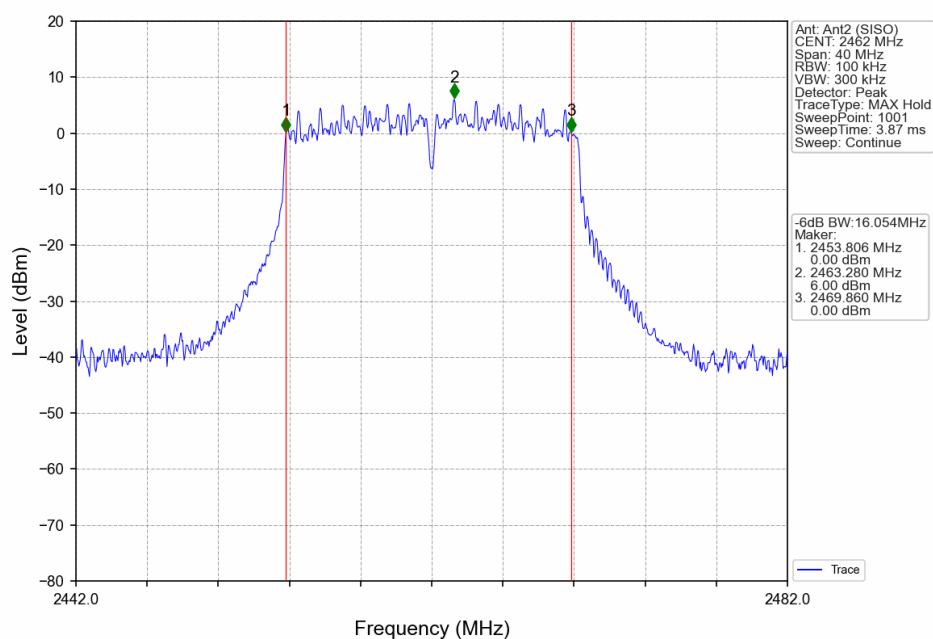
## 802.11g\_MCH\_2437MHz\_Ant2 (SISO)\_NTNV



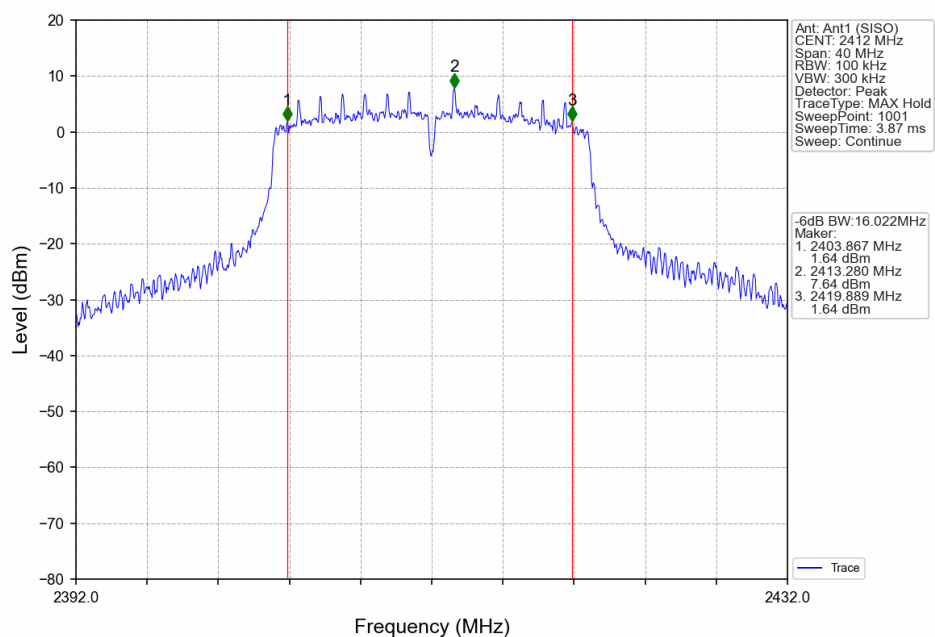
## 802.11g\_HCH\_2462MHz\_Ant1 (SISO)\_NTNV



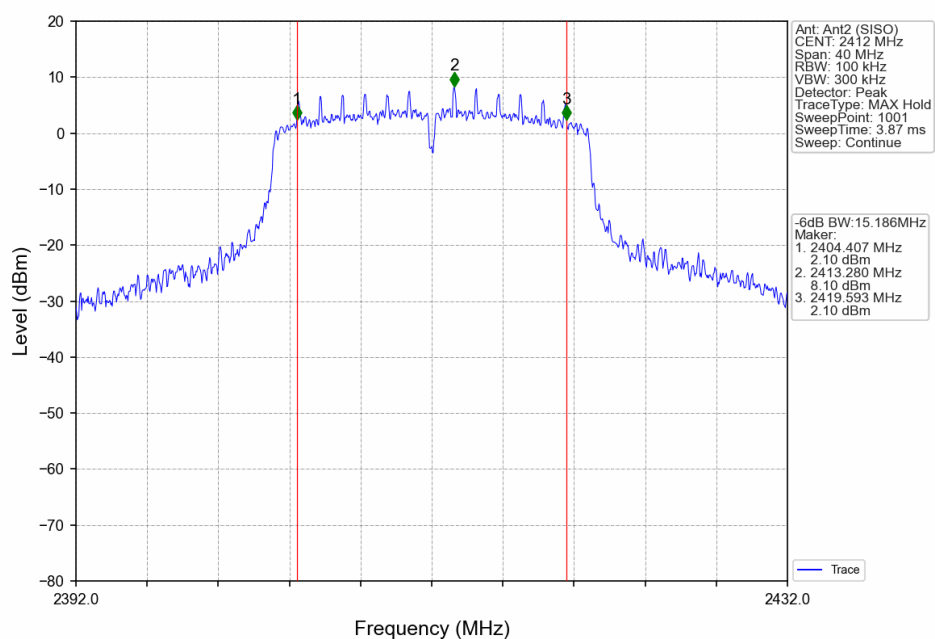
## 802.11g\_HCH\_2462MHz\_Ant2 (SISO)\_NTNV



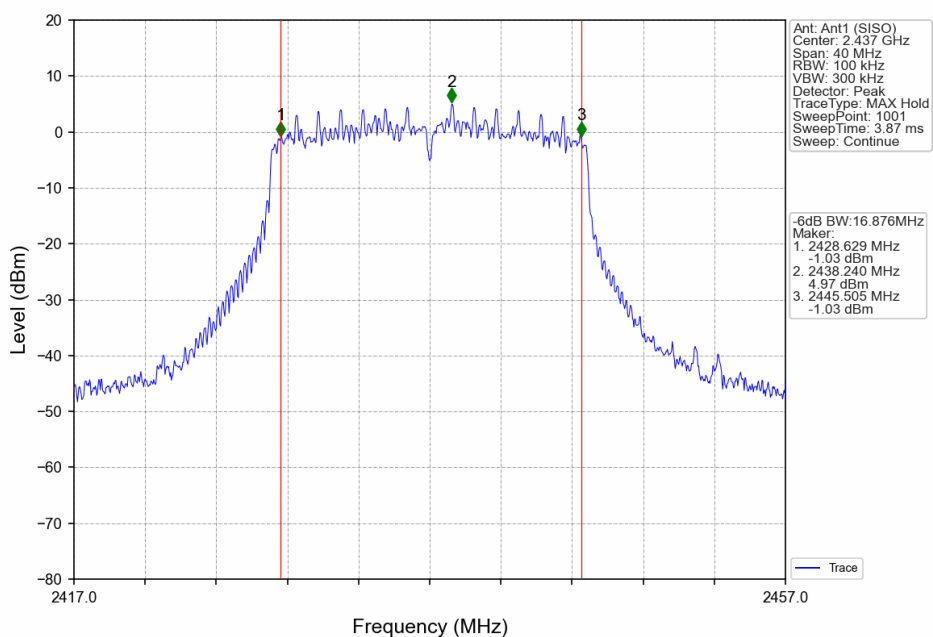
## 802.11n(HT20)\_LCH\_2412MHz\_Ant1 (SISO)\_NTNV



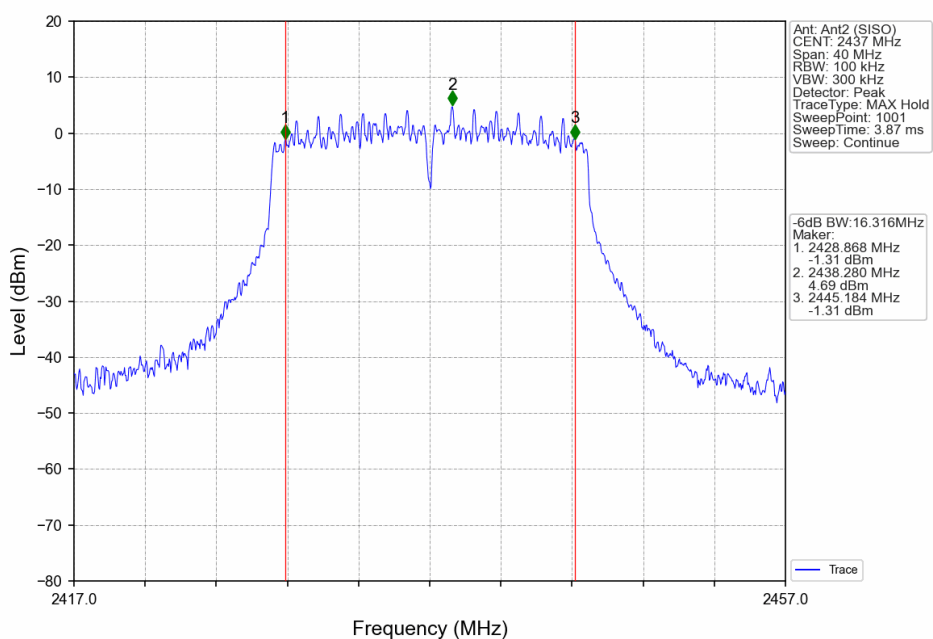
## 802.11n(HT20)\_LCH\_2412MHz\_Ant2 (SISO)\_NTNV



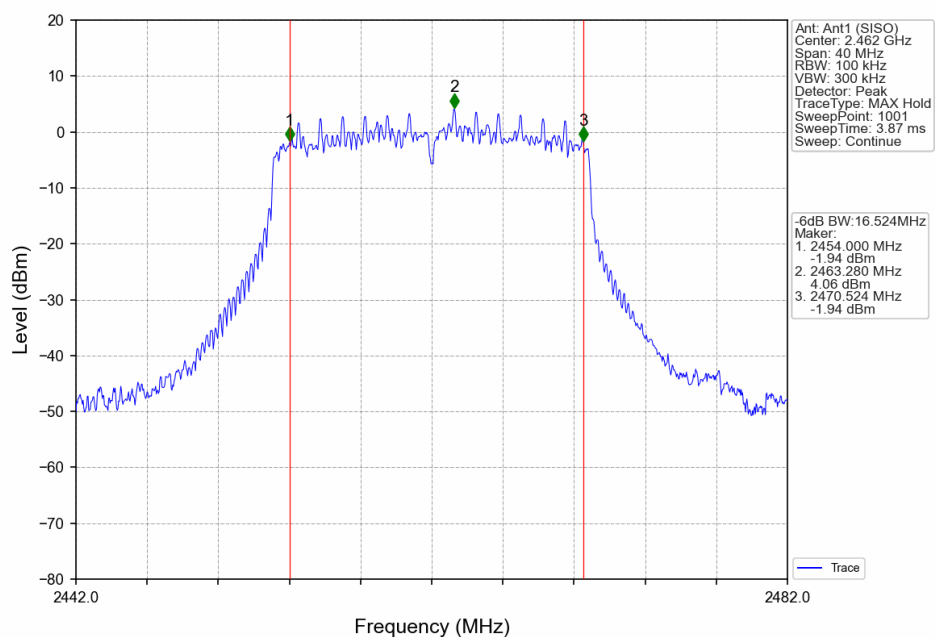
## 802.11n(HT20)\_MCH\_2437MHz\_Ant1 (SISO)\_NTNV



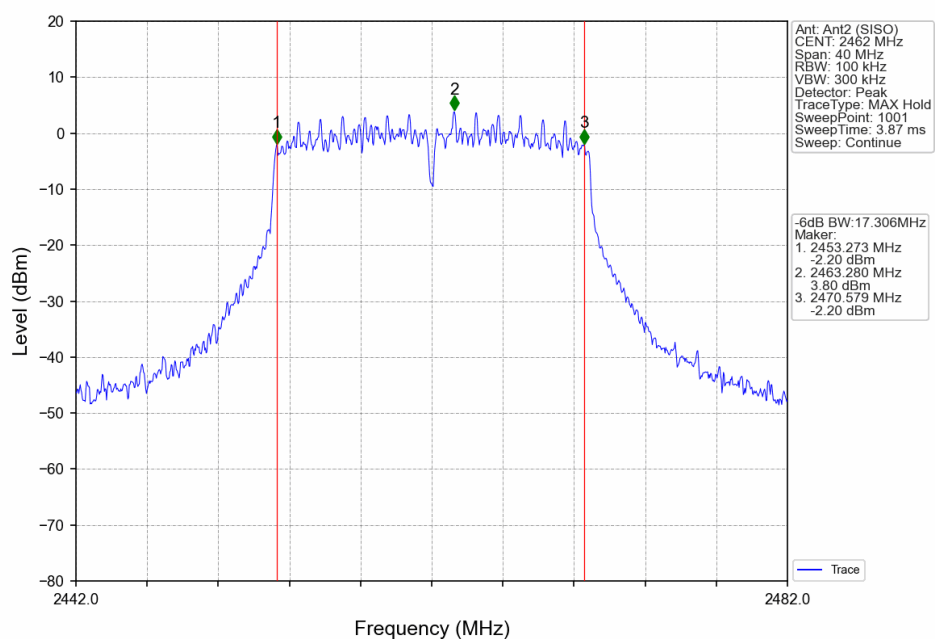
## 802.11n(HT20)\_MCH\_2437MHz\_Ant2 (SISO)\_NTNV



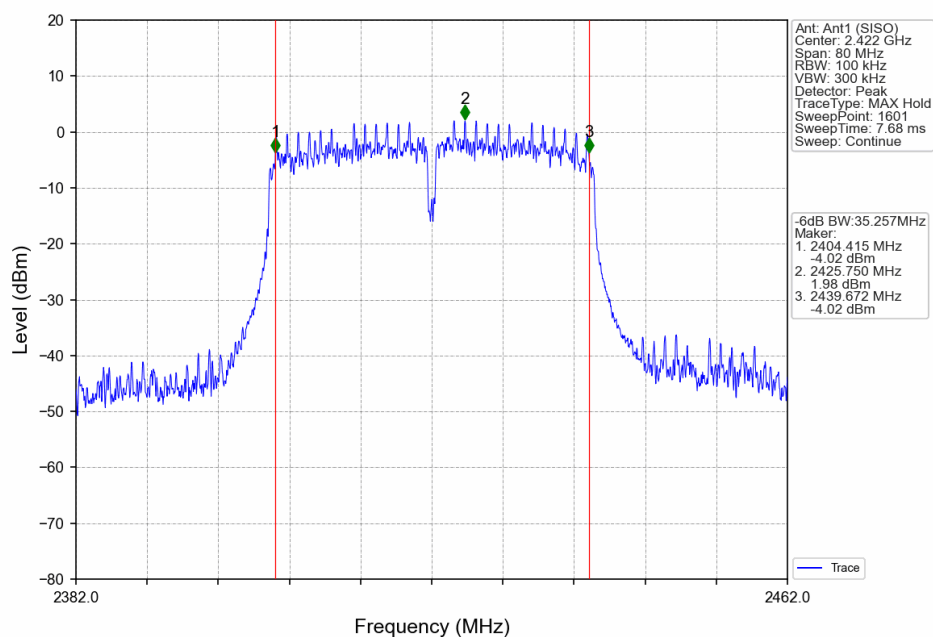
## 802.11n(HT20)\_HCH\_2462MHz\_Ant1 (SISO)\_NTNV



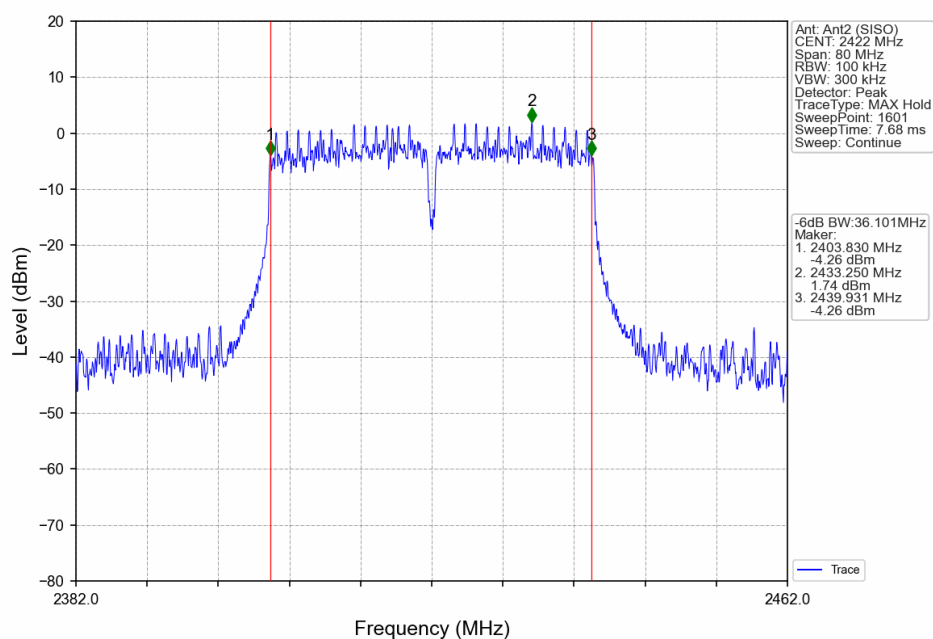
## 802.11n(HT20)\_HCH\_2462MHz\_Ant2 (SISO)\_NTNV



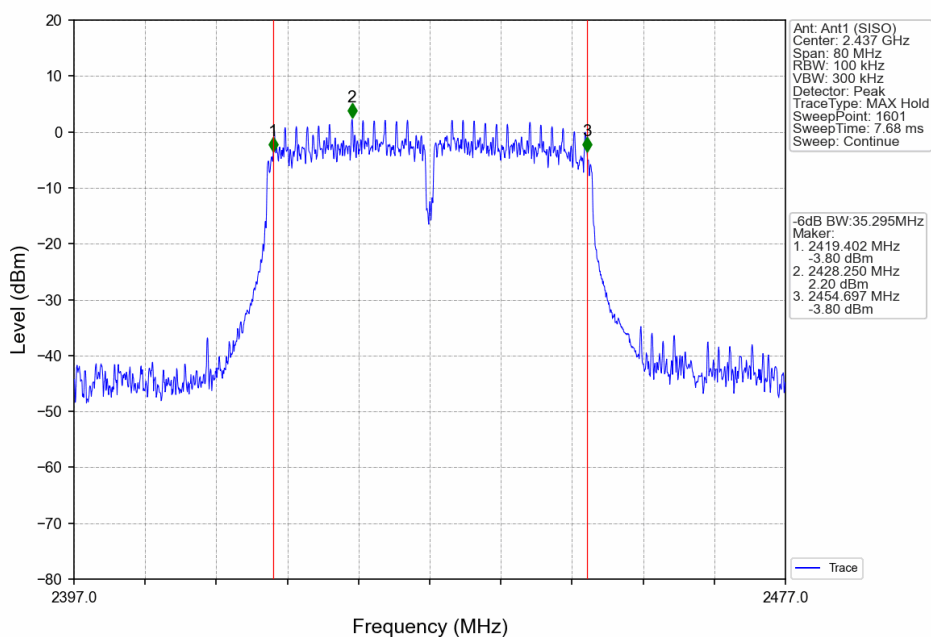
## 802.11n(HT40)\_LCH\_2422MHz\_Ant1 (SISO)\_NTNV



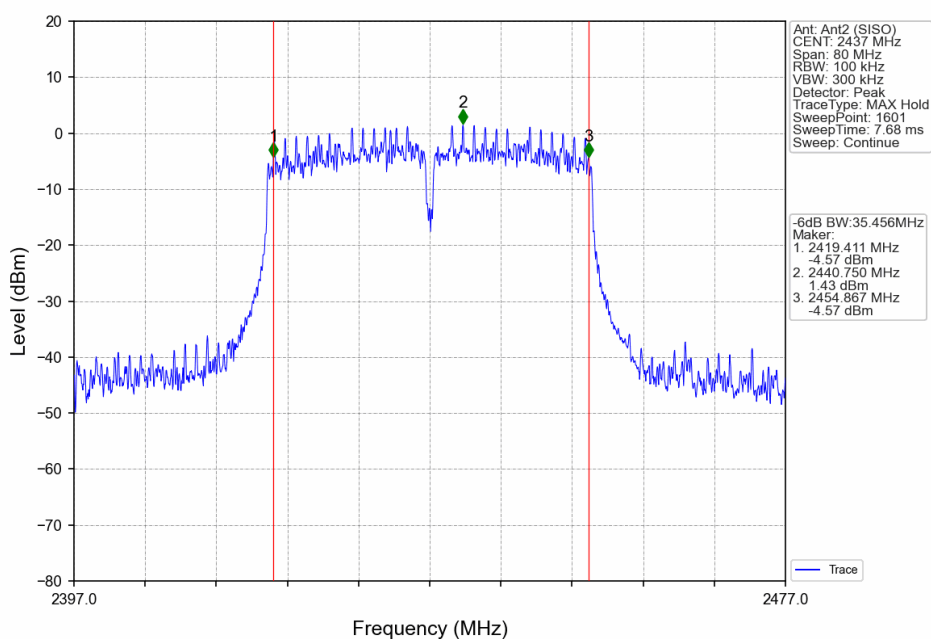
## 802.11n(HT40)\_LCH\_2422MHz\_Ant2 (SISO)\_NTNV



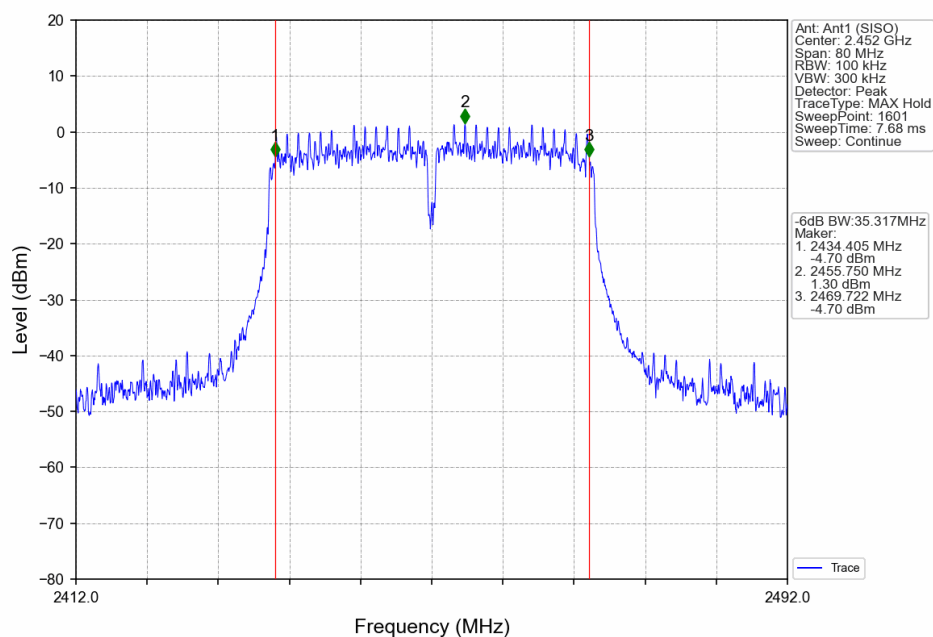
## 802.11n(HT40)\_MCH\_2437MHz\_Ant1 (SISO)\_NTNV



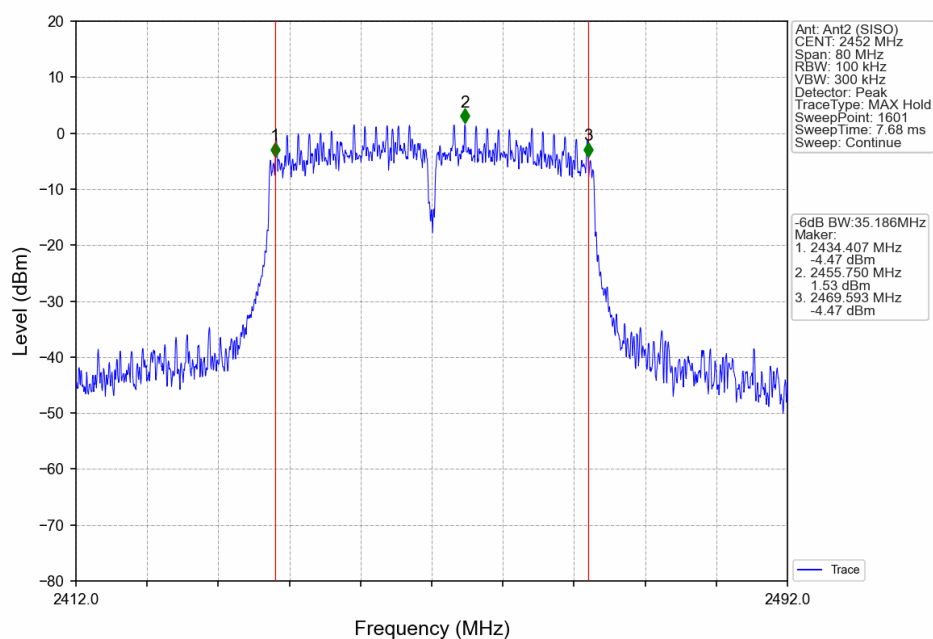
## 802.11n(HT40)\_MCH\_2437MHz\_Ant2 (SISO)\_NTNV



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



## 802.11n(HT40)\_HCH\_2452MHz\_Ant2 (SISO)\_NTNV



## 3. Maximum Conducted Output Power

### 3.1 Power

#### 3.1.1 Test Result

| Mode                                              | TX Type | Frequency (MHz) | Maximum Peak Conducted Output Power (dBm) |       |       |       | Verdict |
|---------------------------------------------------|---------|-----------------|-------------------------------------------|-------|-------|-------|---------|
|                                                   |         |                 | ANT1                                      | ANT2  | MIMO  | Limit |         |
| 802.11b                                           | SISO    | 2412            | 24.69                                     | 23.69 | /     | <=30  | Pass    |
|                                                   |         | 2437            | 24.96                                     | 23.86 | /     | <=30  | Pass    |
|                                                   |         | 2462            | 24.24                                     | 23.38 | /     | <=30  | Pass    |
| 802.11g                                           | SISO    | 2412            | 23.96                                     | 22.55 | /     | <=30  | Pass    |
|                                                   |         | 2437            | 24.16                                     | 22.34 | /     | <=30  | Pass    |
|                                                   |         | 2462            | 23.36                                     | 21.85 | /     | <=30  | Pass    |
| 802.11n (HT20)                                    | SISO    | 2412            | 24.30                                     | 20.62 | /     | <=30  | Pass    |
|                                                   |         | 2437            | 23.28                                     | 22.31 | /     | <=30  | Pass    |
|                                                   |         | 2462            | 22.21                                     | 21.80 | /     | <=30  | Pass    |
| 802.11n (HT40)                                    | SISO    | 2422            | 23.15                                     | 22.03 | /     | <=30  | Pass    |
|                                                   |         | 2437            | 23.51                                     | 22.17 | /     | <=30  | Pass    |
|                                                   |         | 2452            | 22.72                                     | 21.46 | /     | <=30  | Pass    |
| 802.11n (HT20)                                    | MIMO    | 2412            | 23.07                                     | 22.27 | 25.69 | <=30  | Pass    |
|                                                   |         | 2437            | 23.19                                     | 22.14 | 25.70 | <=30  | Pass    |
|                                                   |         | 2462            | 22.17                                     | 21.30 | 24.76 | <=30  | Pass    |
| 802.11n (HT40)                                    | MIMO    | 2422            | 23.02                                     | 22.25 | 25.66 | <=30  | Pass    |
|                                                   |         | 2437            | 23.56                                     | 22.27 | 25.97 | <=30  | Pass    |
|                                                   |         | 2452            | 22.91                                     | 21.76 | 25.38 | <=30  | Pass    |
| Note1: Antenna Gain: Ant1: 1.91dBi; Ant2: 1.71dBi |         |                 |                                           |       |       |       |         |

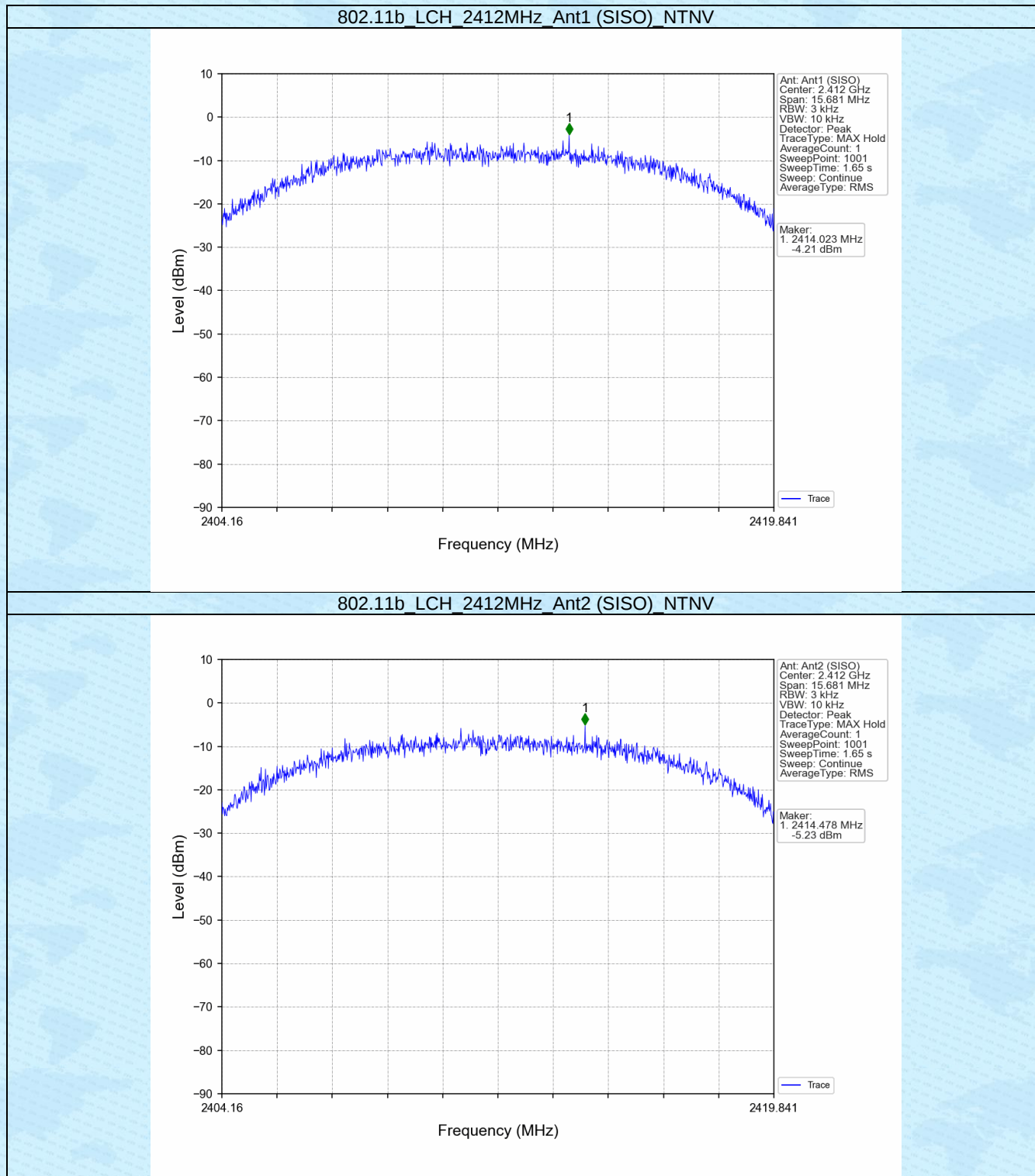
## 4. Maximum Power Spectral Density

### 4.1 PSD

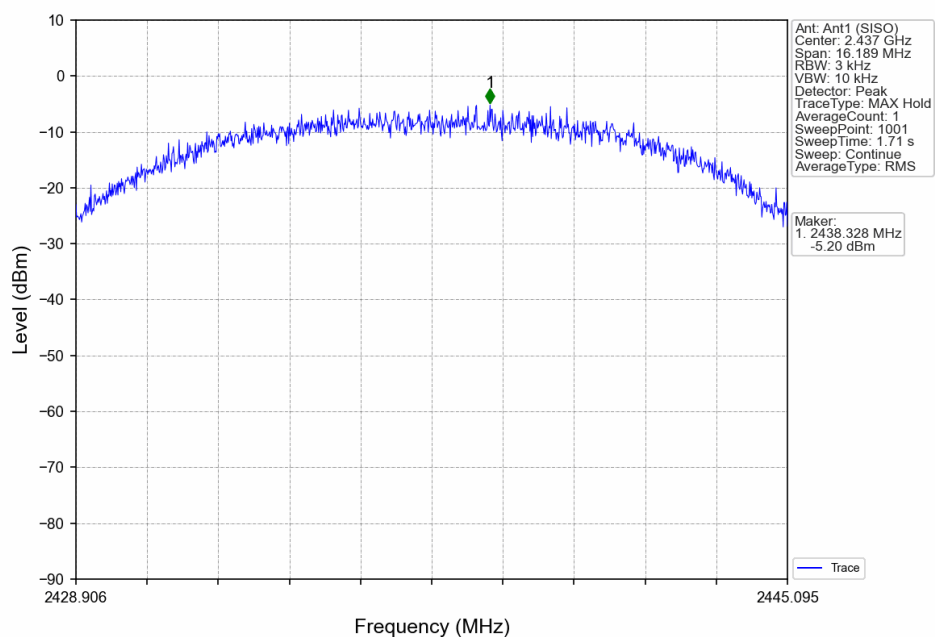
#### 4.1.1 Test Result

| Mode                                                                                                                                                                 | TX Type | Frequency (MHz) | Maximum PSD (dBm/3kHz) |        |        |       | Verdict |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------|-----------------|------------------------|--------|--------|-------|---------|
|                                                                                                                                                                      |         |                 | ANT1                   | ANT2   | MIMO   | Limit |         |
| 802.11b                                                                                                                                                              | SISO    | 2412            | -4.21                  | -5.23  | /      | <=8   | Pass    |
|                                                                                                                                                                      |         | 2437            | -5.20                  | -6.64  | /      | <=8   | Pass    |
|                                                                                                                                                                      |         | 2462            | -5.93                  | -7.09  | /      | <=8   | Pass    |
| 802.11g                                                                                                                                                              | SISO    | 2412            | -5.32                  | -6.86  | /      | <=8   | Pass    |
|                                                                                                                                                                      |         | 2437            | -6.00                  | -8.14  | /      | <=8   | Pass    |
|                                                                                                                                                                      |         | 2462            | -7.55                  | -7.82  | /      | <=8   | Pass    |
| 802.11n (HT20)                                                                                                                                                       | SISO    | 2412            | -4.71                  | -11.24 | /      | <=8   | Pass    |
|                                                                                                                                                                      |         | 2437            | -10.66                 | -11.52 | /      | <=8   | Pass    |
|                                                                                                                                                                      |         | 2462            | -12.52                 | -12.08 | /      | <=8   | Pass    |
| 802.11n (HT40)                                                                                                                                                       | SISO    | 2422            | -14.97                 | -16.19 | /      | <=8   | Pass    |
|                                                                                                                                                                      |         | 2437            | -14.86                 | -16.00 | /      | <=8   | Pass    |
|                                                                                                                                                                      |         | 2452            | -15.76                 | -16.64 | /      | <=8   | Pass    |
| 802.11n (HT20)                                                                                                                                                       | MIMO    | 2412            | -11.41                 | -12.29 | -8.81  | <=8   | Pass    |
|                                                                                                                                                                      |         | 2437            | -11.65                 | -12.09 | -8.94  | <=8   | Pass    |
|                                                                                                                                                                      |         | 2462            | -12.27                 | -12.12 | -9.19  | <=8   | Pass    |
| 802.11n (HT40)                                                                                                                                                       | MIMO    | 2422            | -14.30                 | -15.41 | -11.80 | <=8   | Pass    |
|                                                                                                                                                                      |         | 2437            | -14.61                 | -15.67 | -12.27 | <=8   | Pass    |
|                                                                                                                                                                      |         | 2452            | -15.03                 | -15.95 | -12.65 | <=8   | Pass    |
| Note1: Antenna Gain: Ant1: 1.91dBi; Ant2: 1.71dBi;<br>Note2: transmit signals are completely correlated,<br>Directional gain=10 x log[(1.91/20+ 1.71/20)2/2]=4.82dBi |         |                 |                        |        |        |       |         |

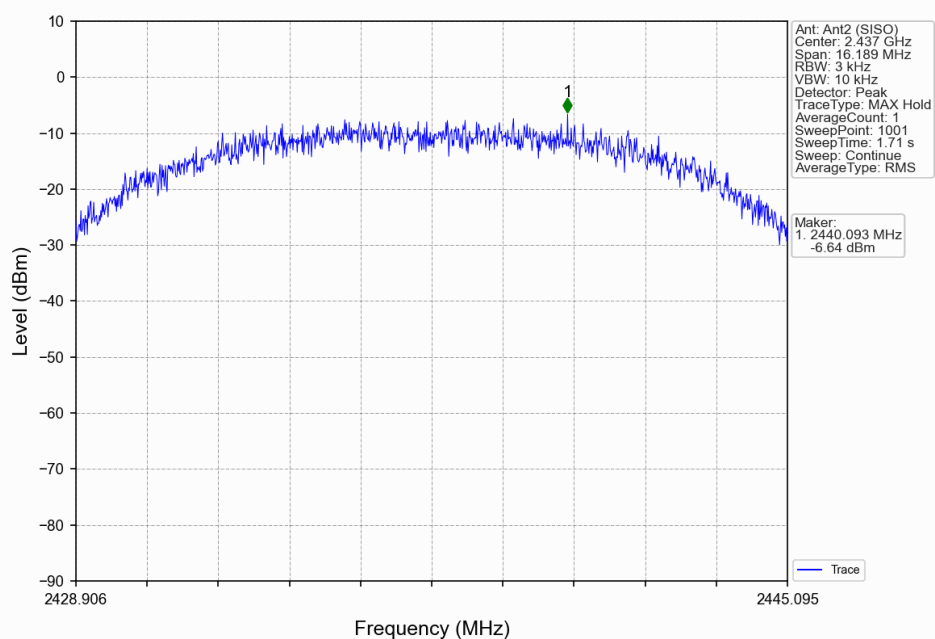
## 4.1.2 Test Graph



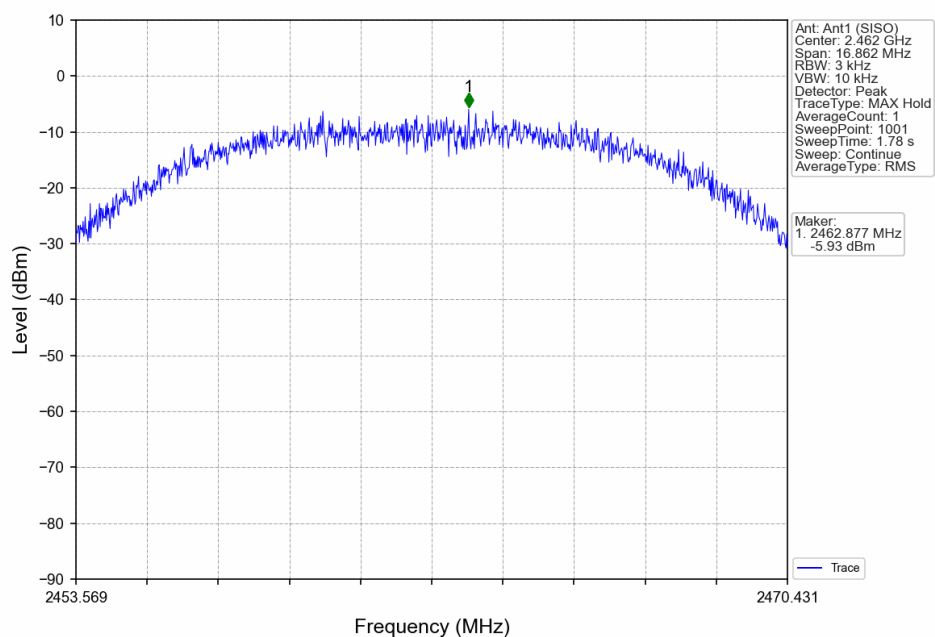
## 802.11b MCH 2437MHz Ant1 (SISO) NTN



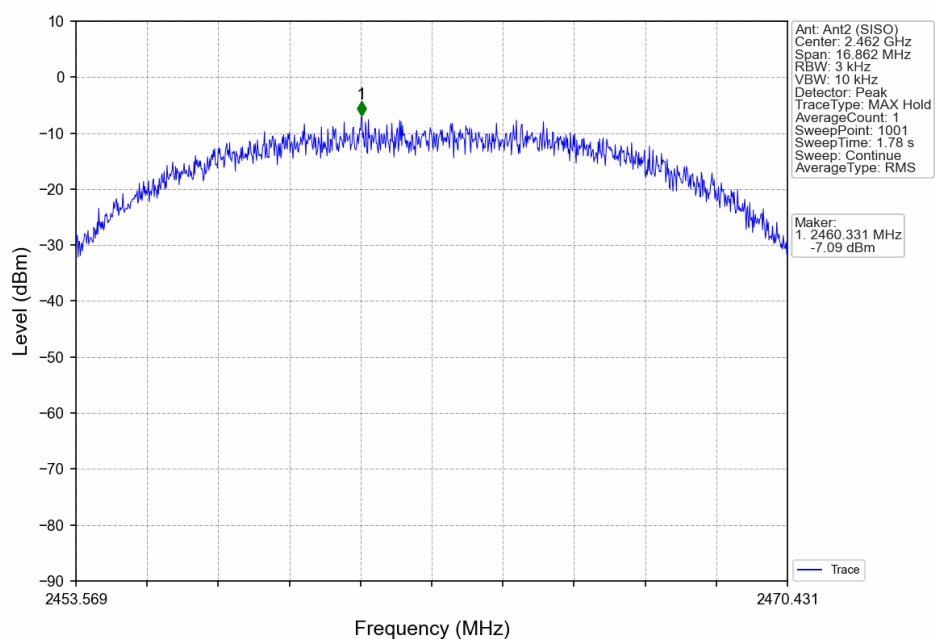
## 802.11b MCH 2437MHz Ant2 (SISO) NTN



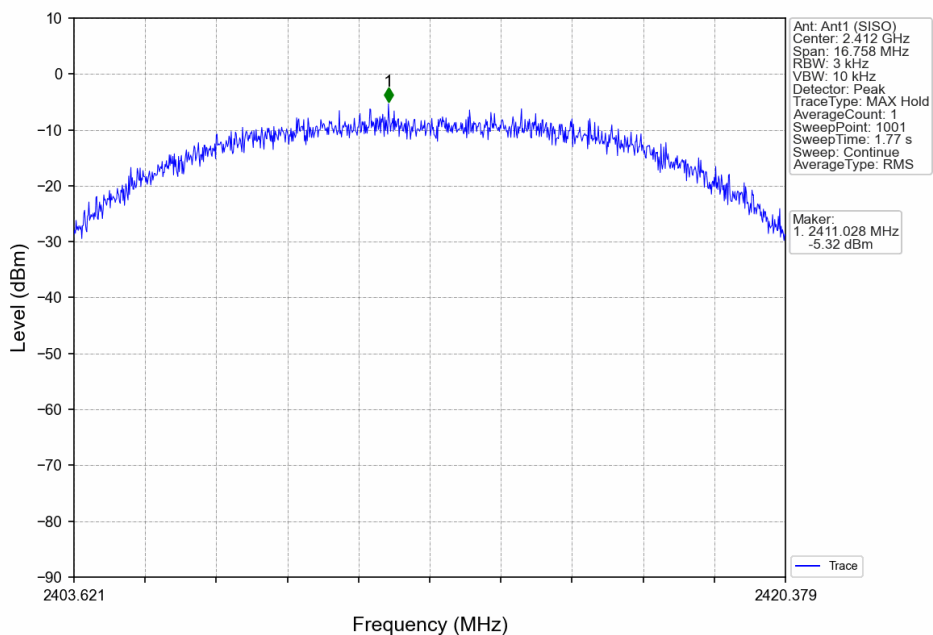
## 802.11b HCH 2462MHz\_Ant1 (SISO) NTN



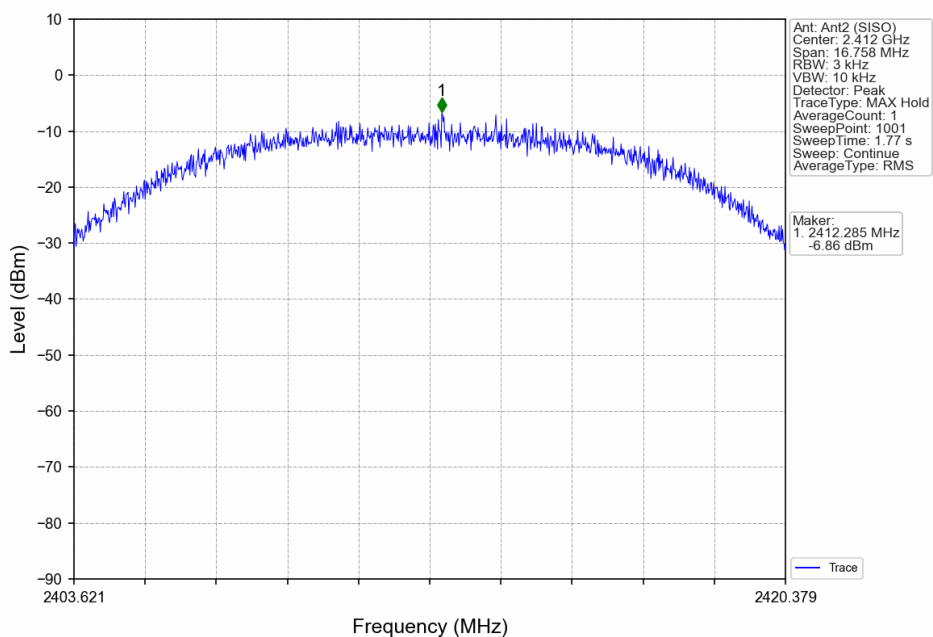
## 802.11b HCH 2462MHz\_Ant2 (SISO) NTN



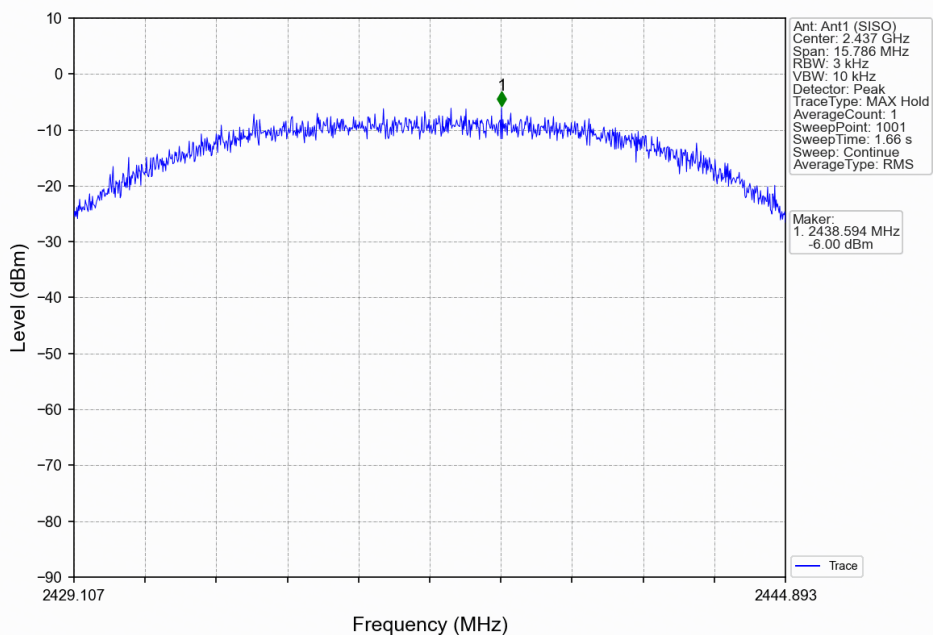
802.11g\_LCH\_2412MHz\_Ant1 (SISO)\_NTNV



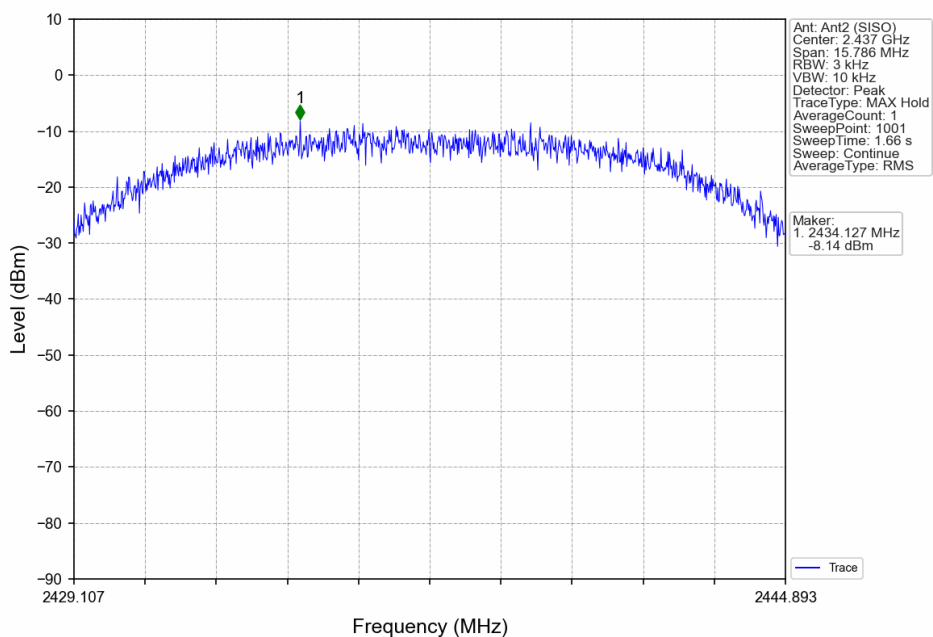
802.11g\_LCH\_2412MHz\_Ant2 (SISO)\_NTNV



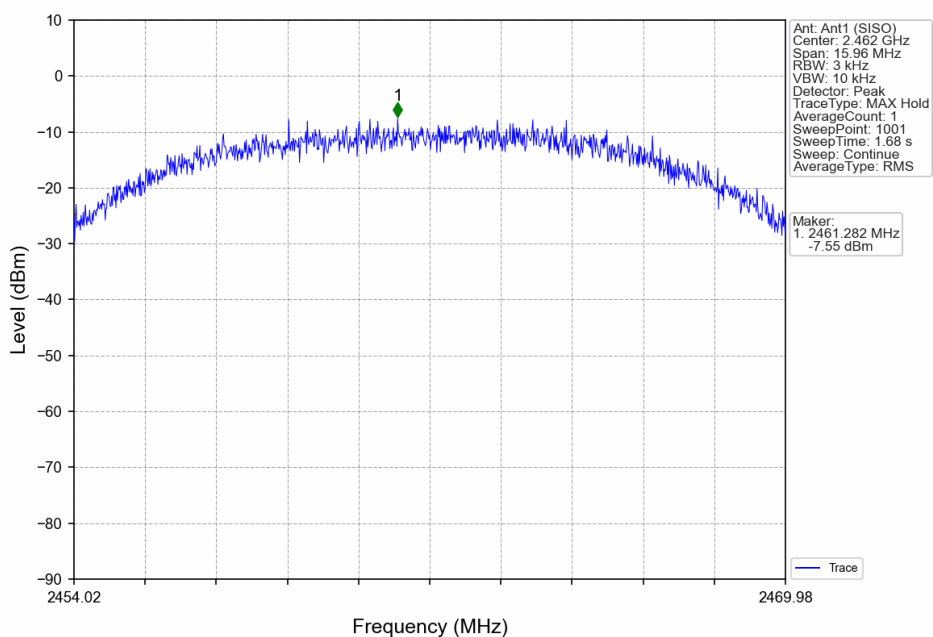
## 802.11g\_MCH\_2437MHz\_Ant1 (SISO)\_NTNV



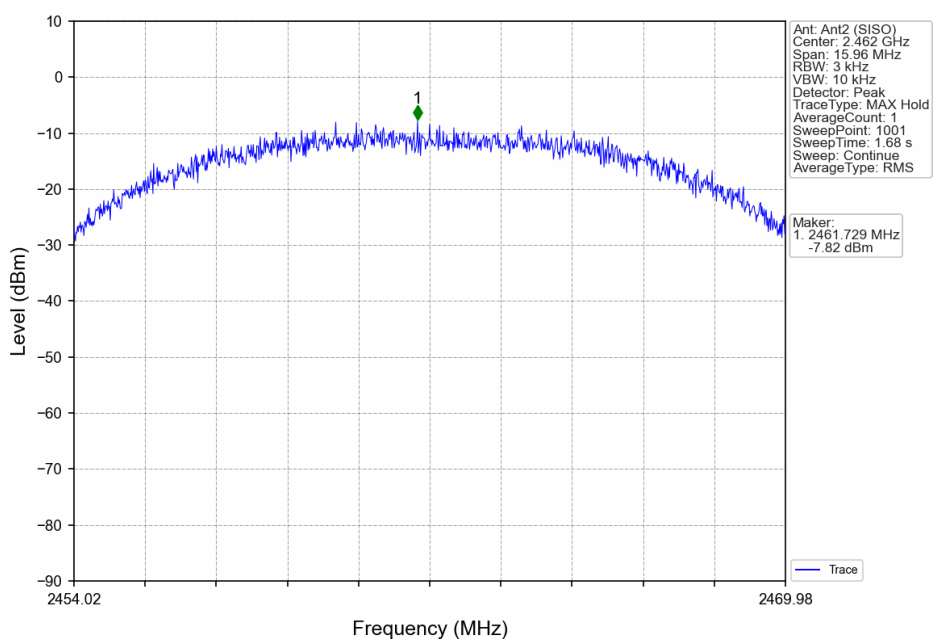
## 802.11g\_MCH\_2437MHz\_Ant2 (SISO)\_NTNV



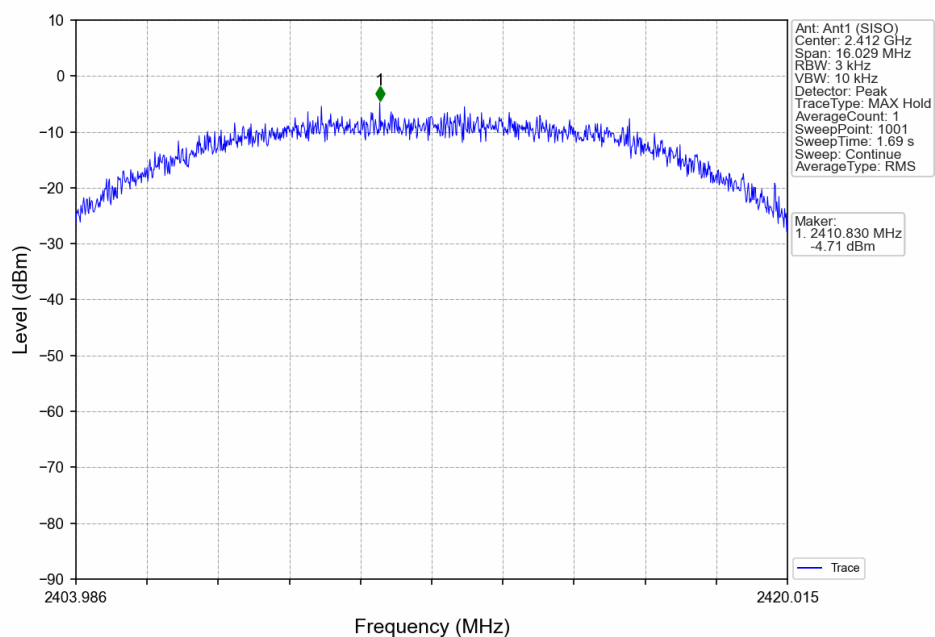
## 802.11g\_HCH\_2462MHz\_Ant1 (SISO)\_NTNV



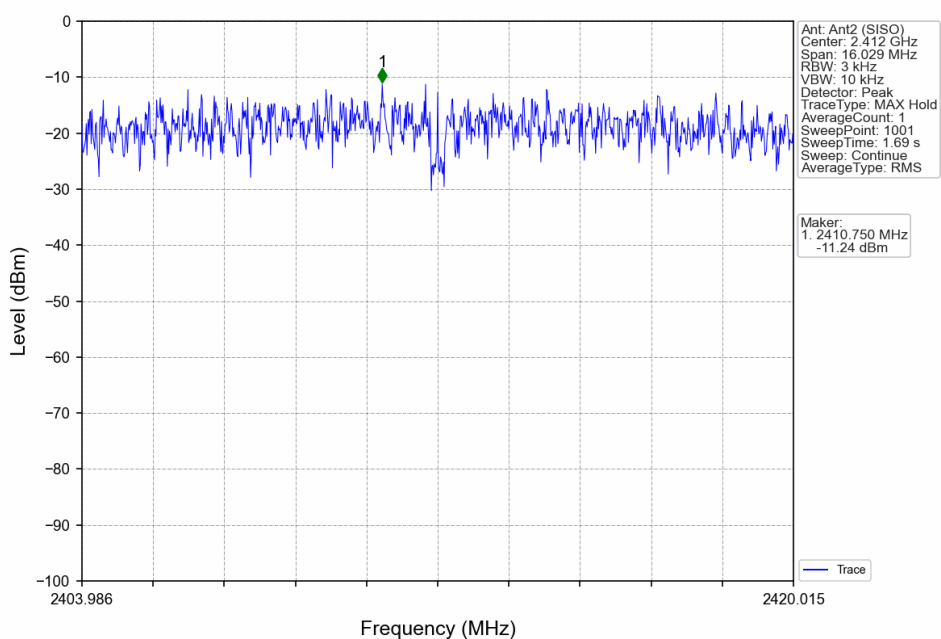
## 802.11g\_HCH\_2462MHz\_Ant2 (SISO)\_NTNV



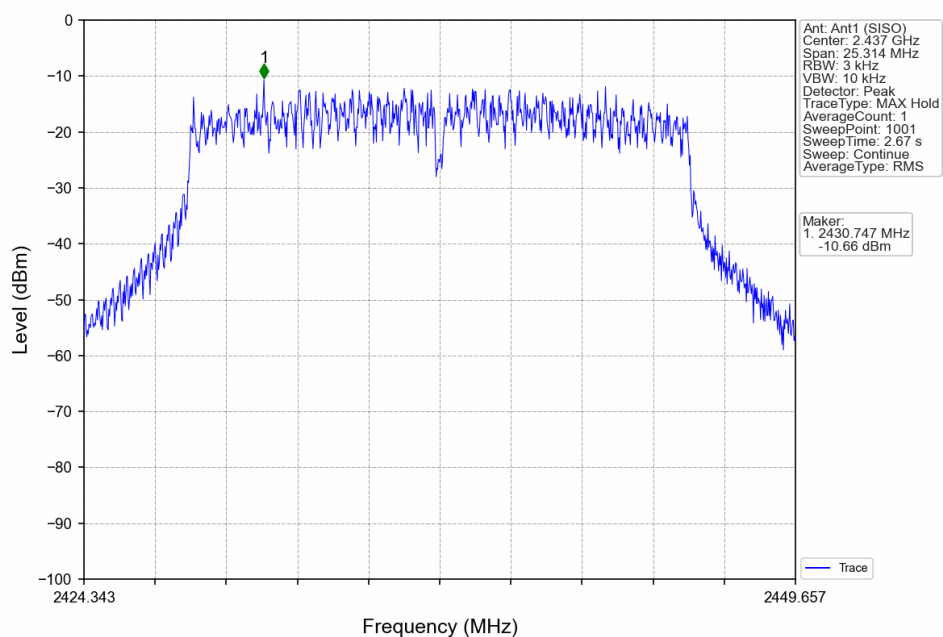
## 802.11n(HT20)\_LCH\_2412MHz\_Ant1 (SISO)\_NTNV



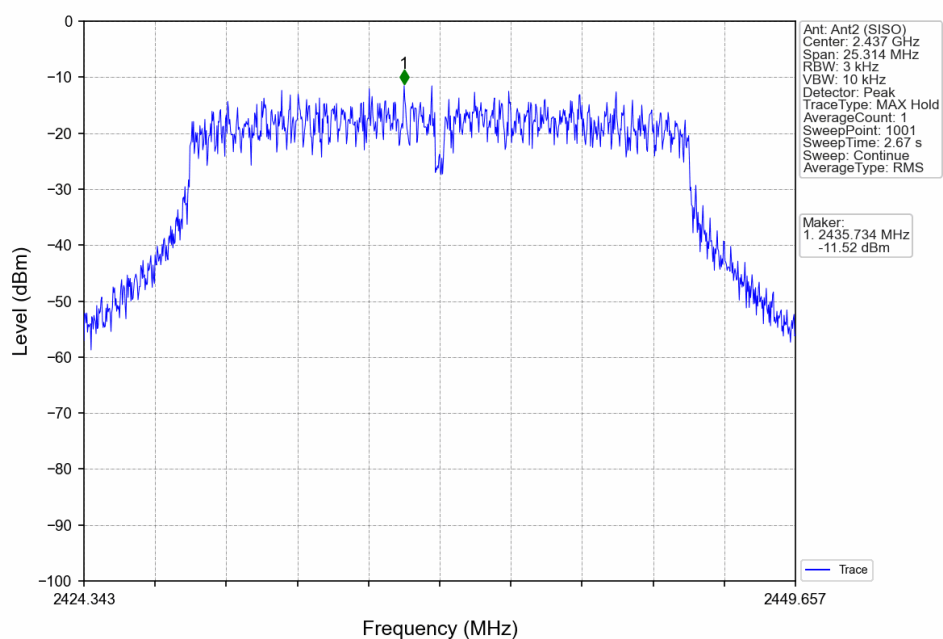
## 802.11n(HT20)\_LCH\_2412MHz\_Ant2 (SISO)\_NTNV



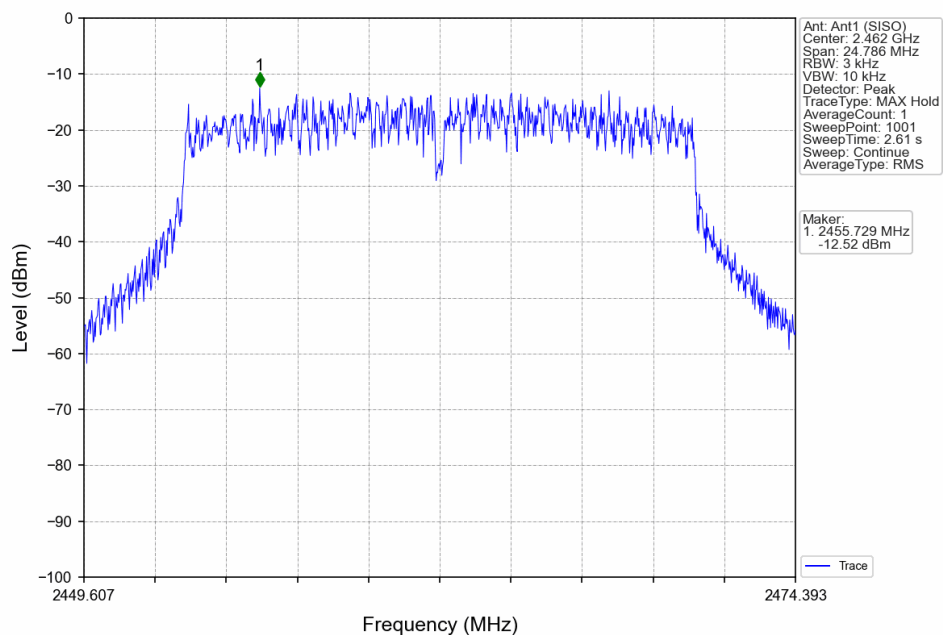
## 802.11n(HT20)\_MCH\_2437MHz\_Ant1 (SISO)\_NTNV



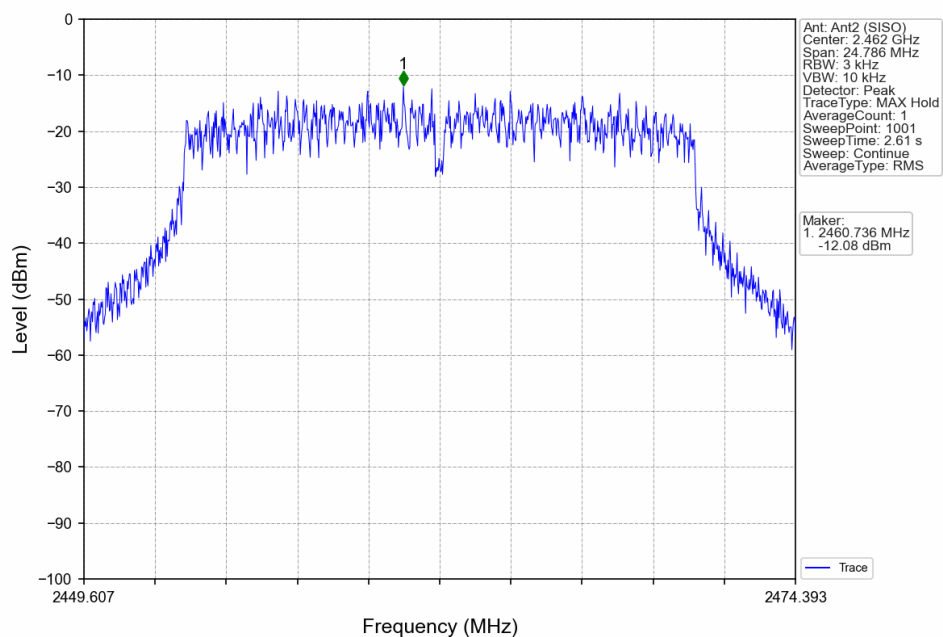
## 802.11n(HT20)\_MCH\_2437MHz\_Ant2 (SISO)\_NTNV



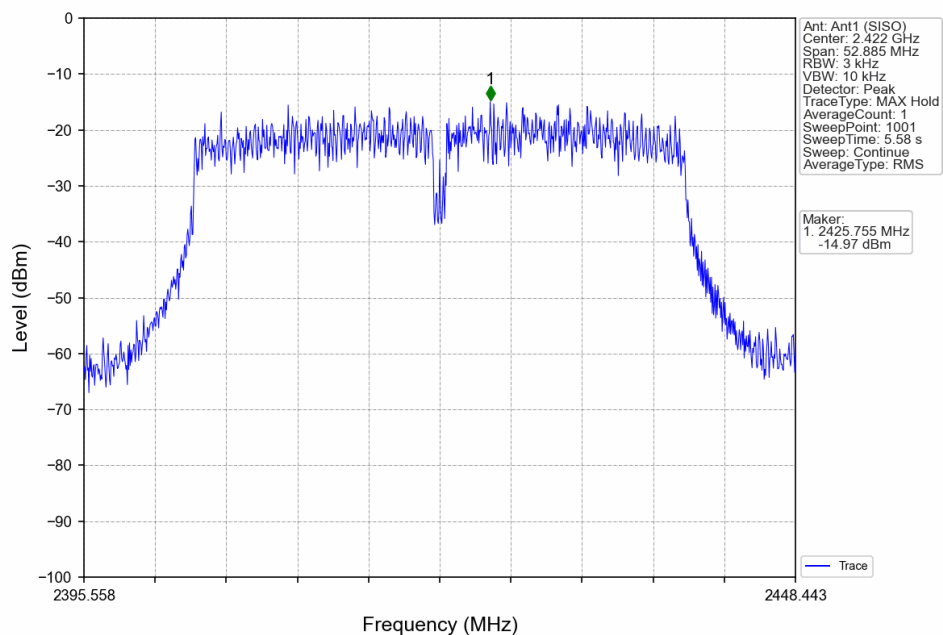
## 802.11n(HT20)\_HCH\_2462MHz\_Ant1 (SISO)\_NTNV



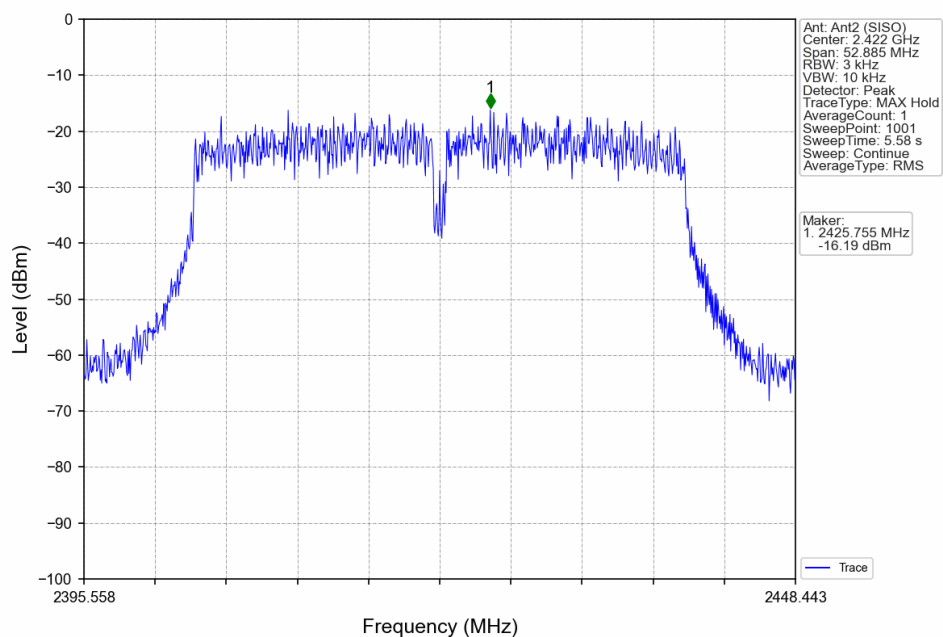
## 802.11n(HT20)\_HCH\_2462MHz\_Ant2 (SISO)\_NTNV



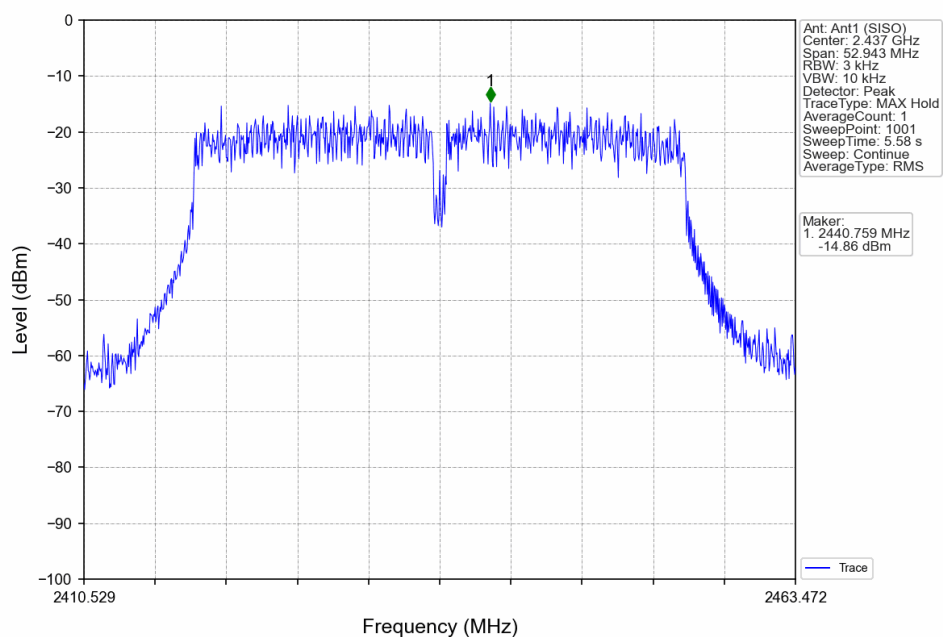
## 802.11n(HT40)\_LCH\_2422MHz\_Ant1 (SISO)\_NTNV



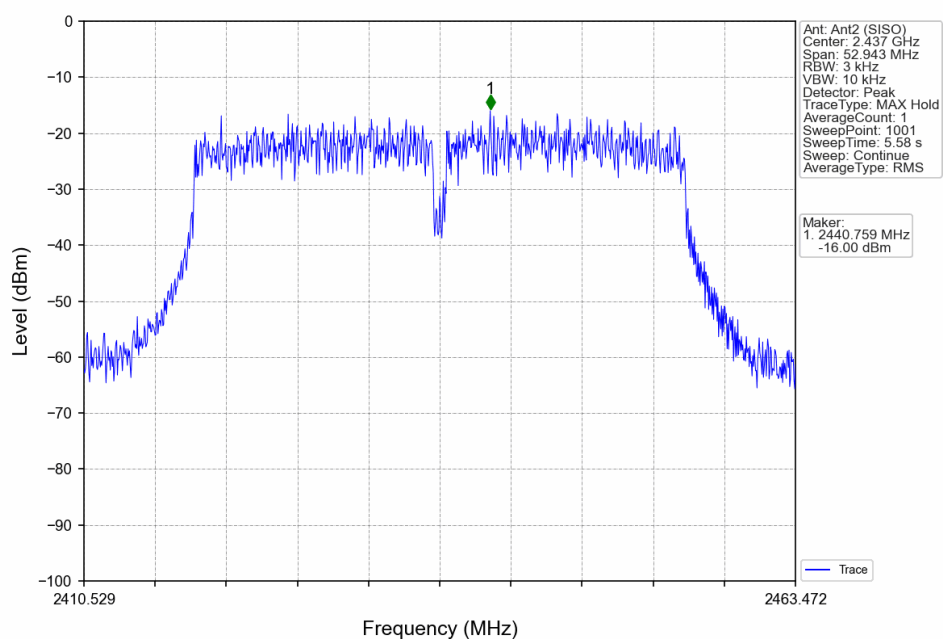
## 802.11n(HT40)\_LCH\_2422MHz\_Ant2 (SISO)\_NTNV



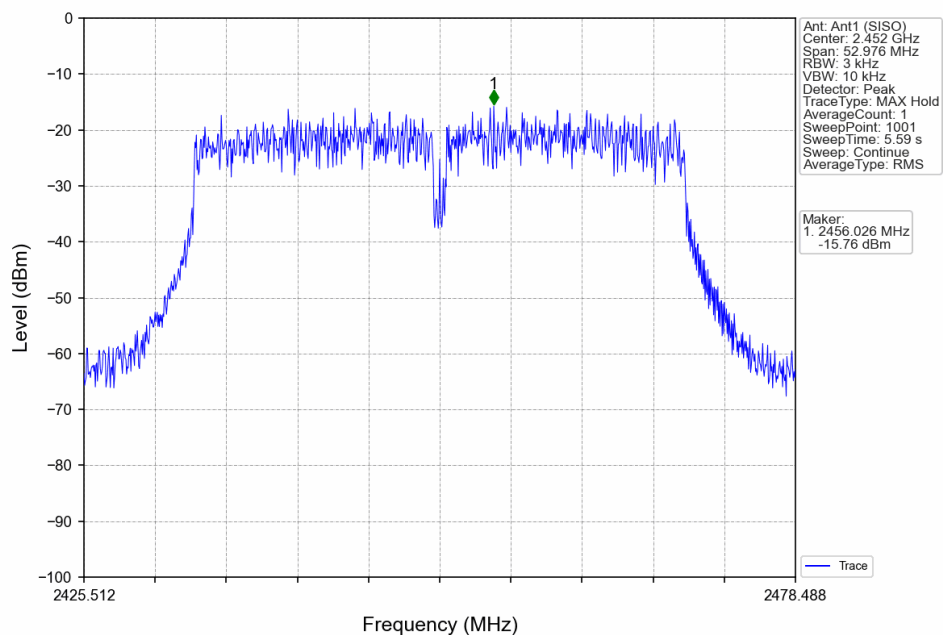
## 802.11n(HT40)\_MCH\_2437MHz\_Ant1 (SISO)\_NTNV



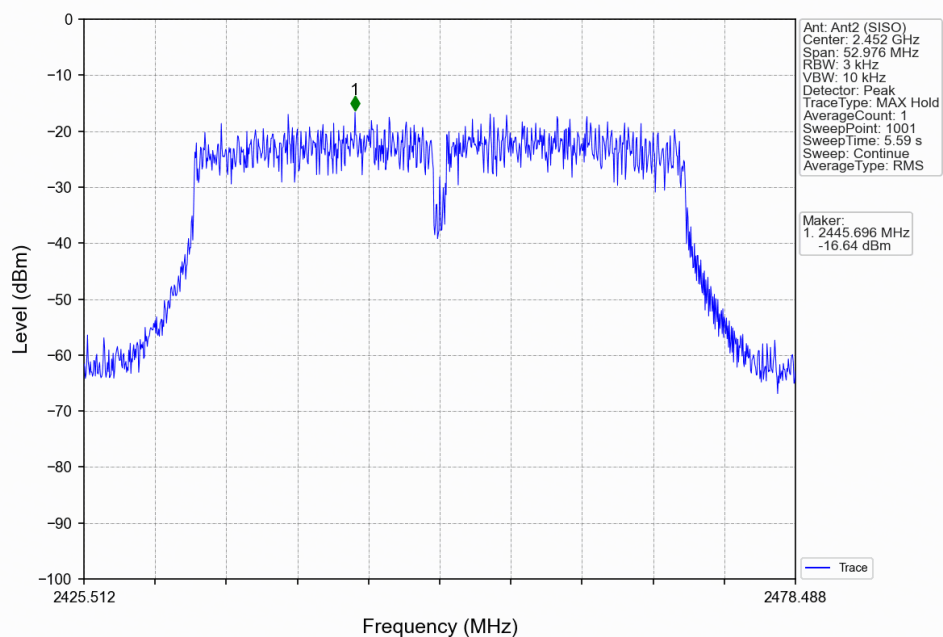
## 802.11n(HT40)\_MCH\_2437MHz\_Ant2 (SISO)\_NTNV



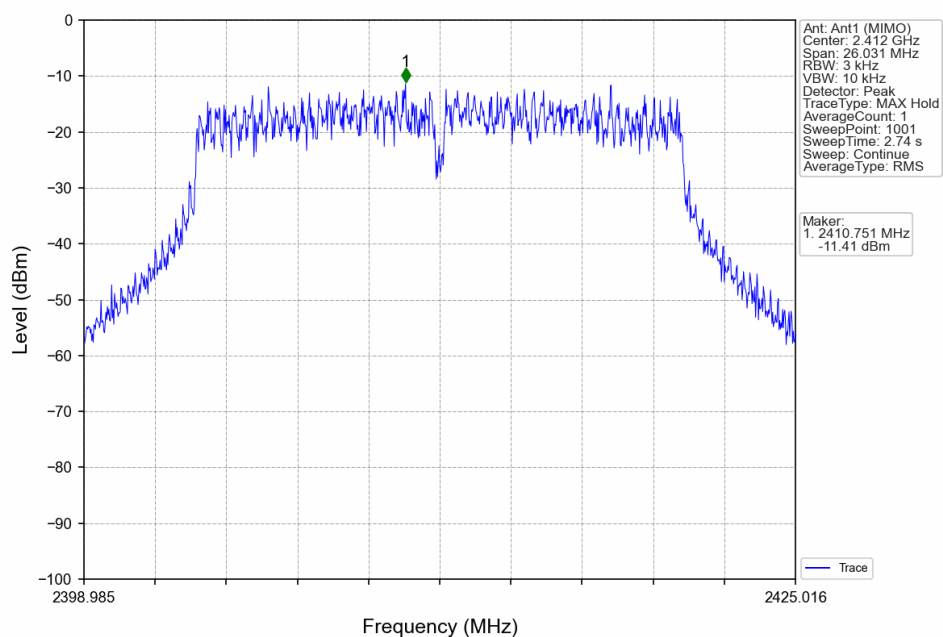
## 802.11n(HT40)\_HCH\_2452MHz\_Ant1 (SISO)\_NTNV



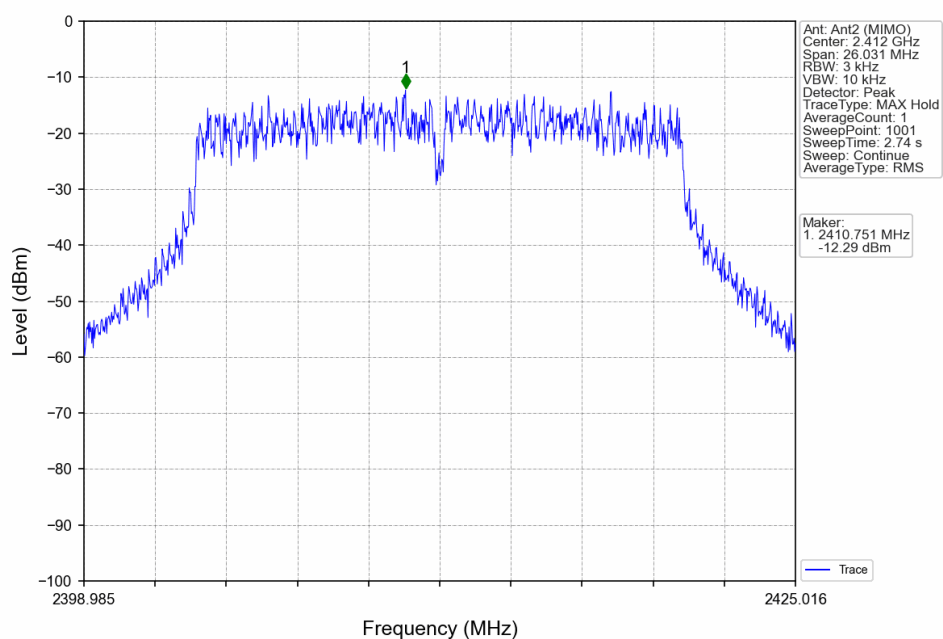
## 802.11n(HT40)\_HCH\_2452MHz\_Ant2 (SISO)\_NTNV



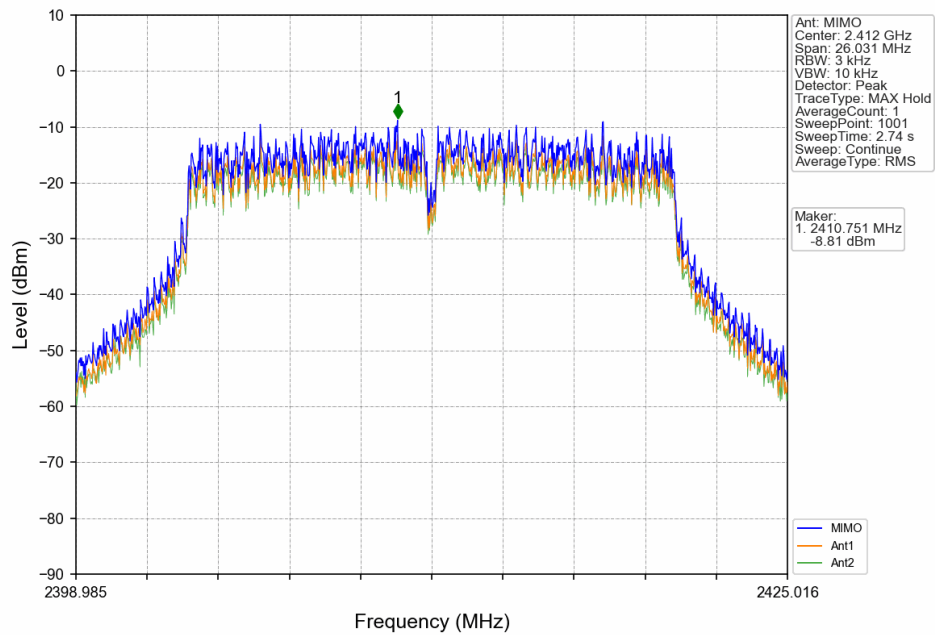
## 802.11n(HT20)\_LCH\_2412MHz\_Ant1 (MIMO)\_NTNV



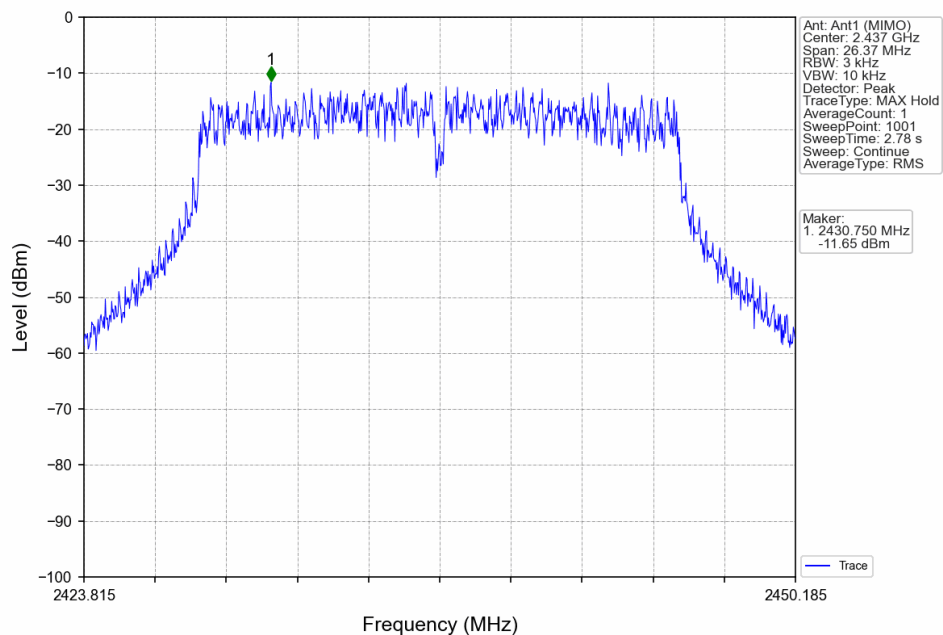
## 802.11n(HT20)\_LCH\_2412MHz\_Ant2 (MIMO)\_NTNV



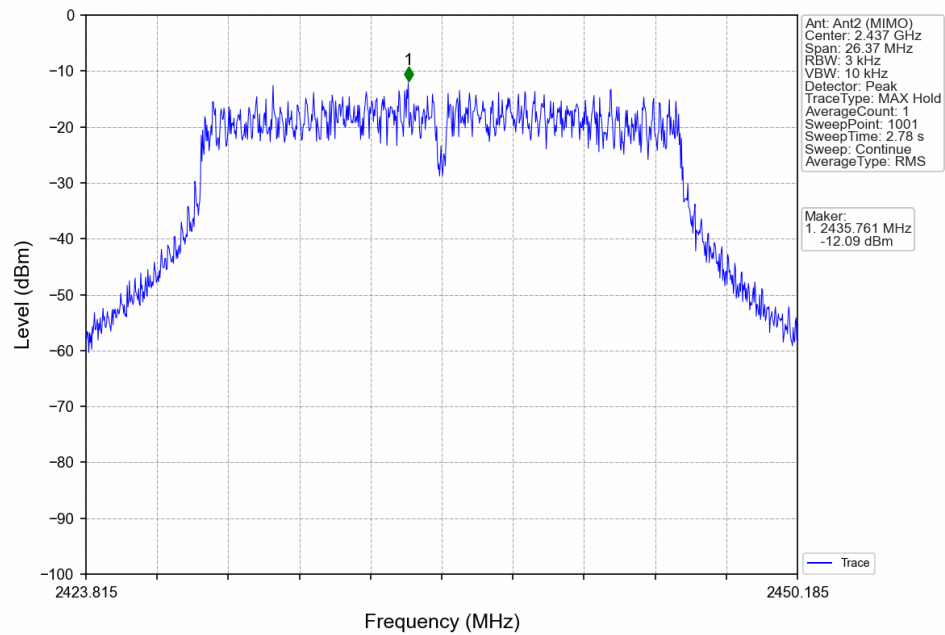
## 802.11n(HT20)\_LCH\_2412MHz\_MIMO\_NTNV



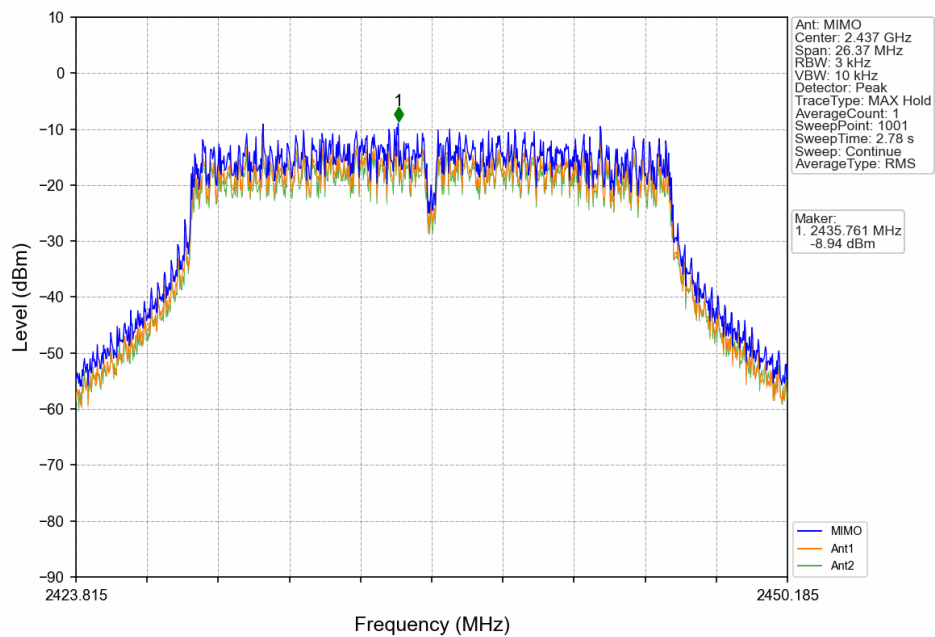
## 802.11n(HT20)\_MCH\_2437MHz\_Ant1 (MIMO)\_NTNV



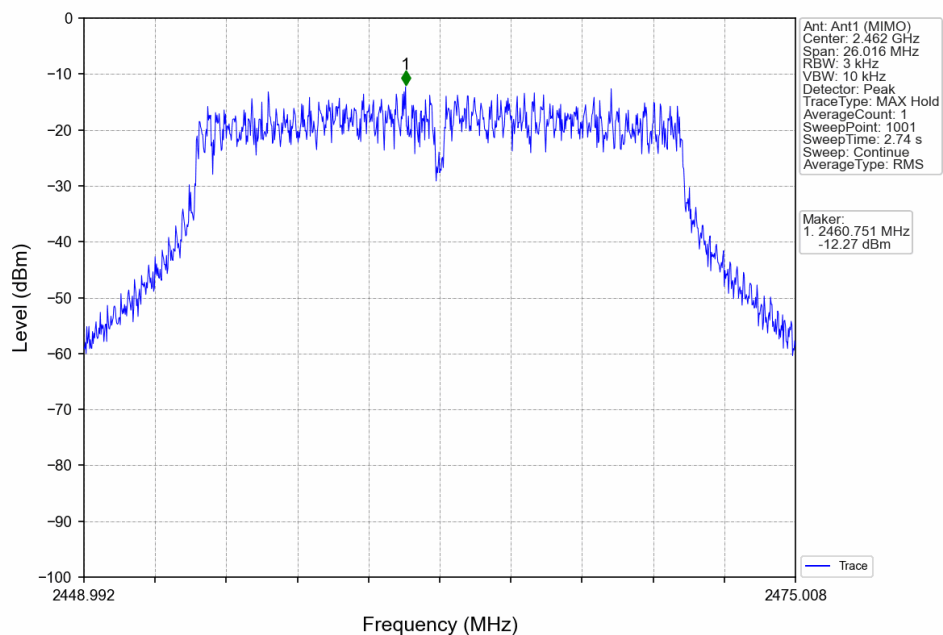
## 802.11n(HT20)\_MCH\_2437MHz\_Ant2 (MIMO)\_NTNV



## 802.11n(HT20)\_MCH\_2437MHz\_MIMO\_NTNV



## 802.11n(HT20) HCH\_2462MHz\_Ant1 (MIMO)\_NTNV



## 802.11n(HT20) HCH\_2462MHz\_Ant2 (MIMO)\_NTNV

