

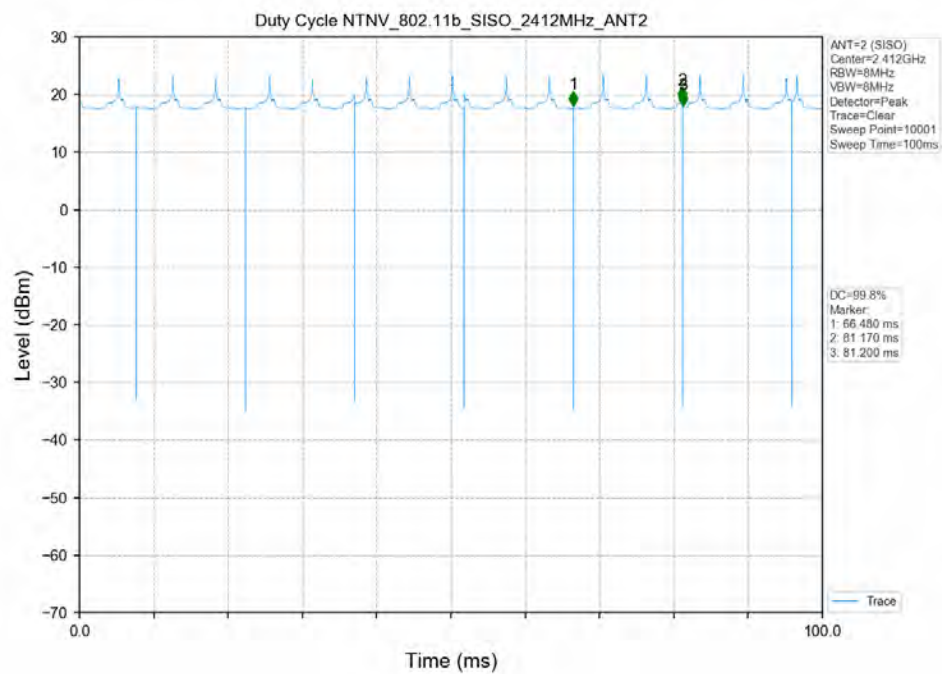
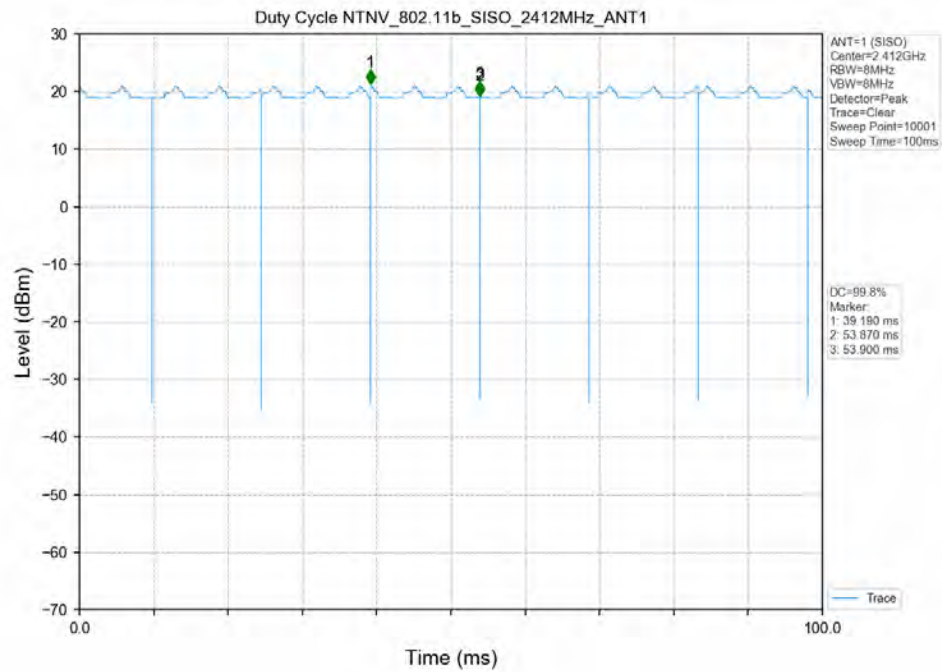
## Appendix I for KSEM200900114501

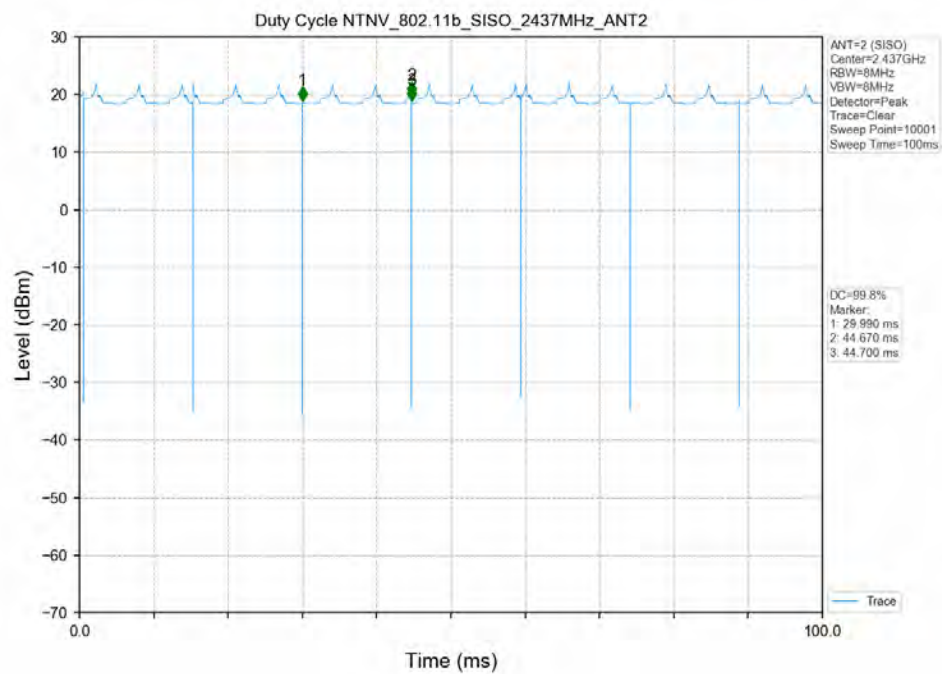
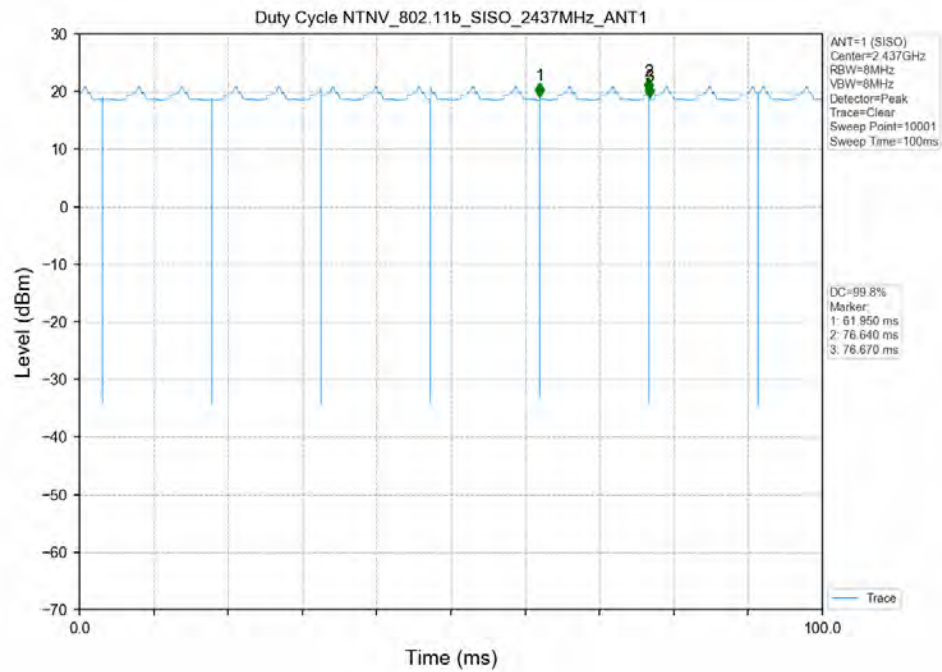
### 1. Duty Cycle

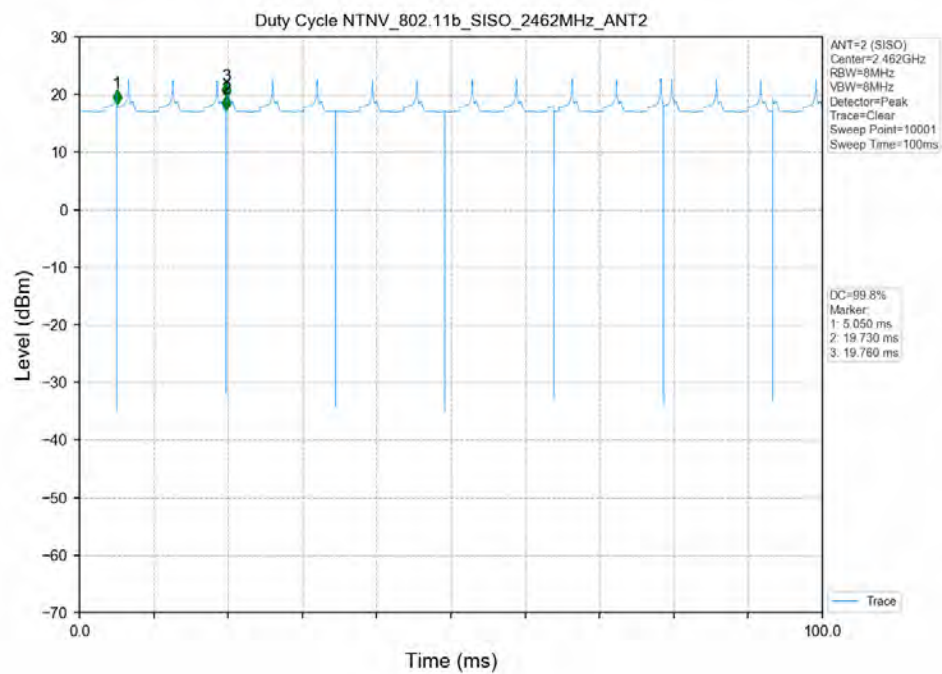
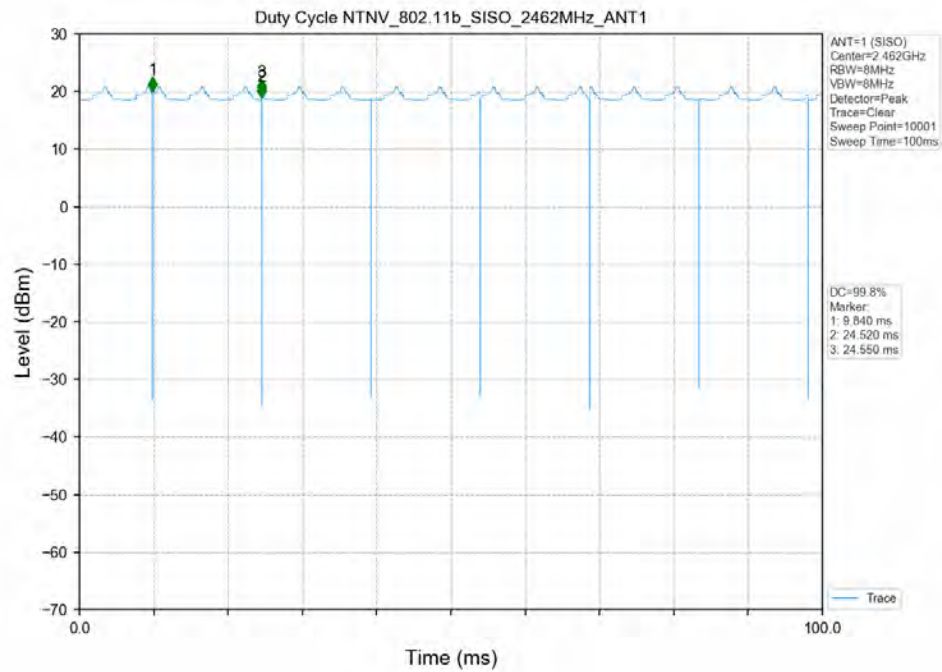
#### 1.1 Test Result

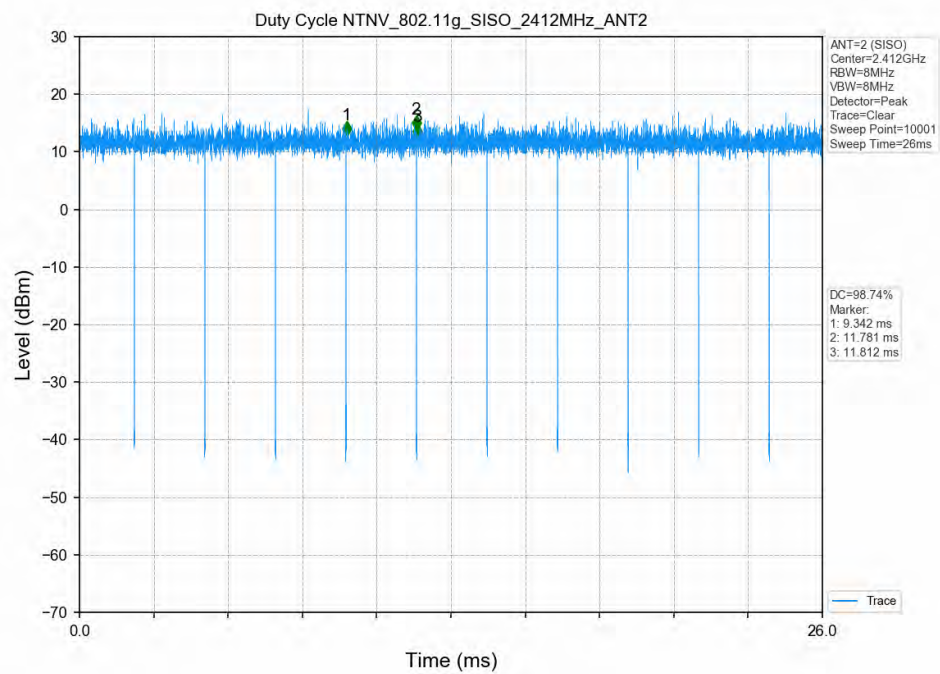
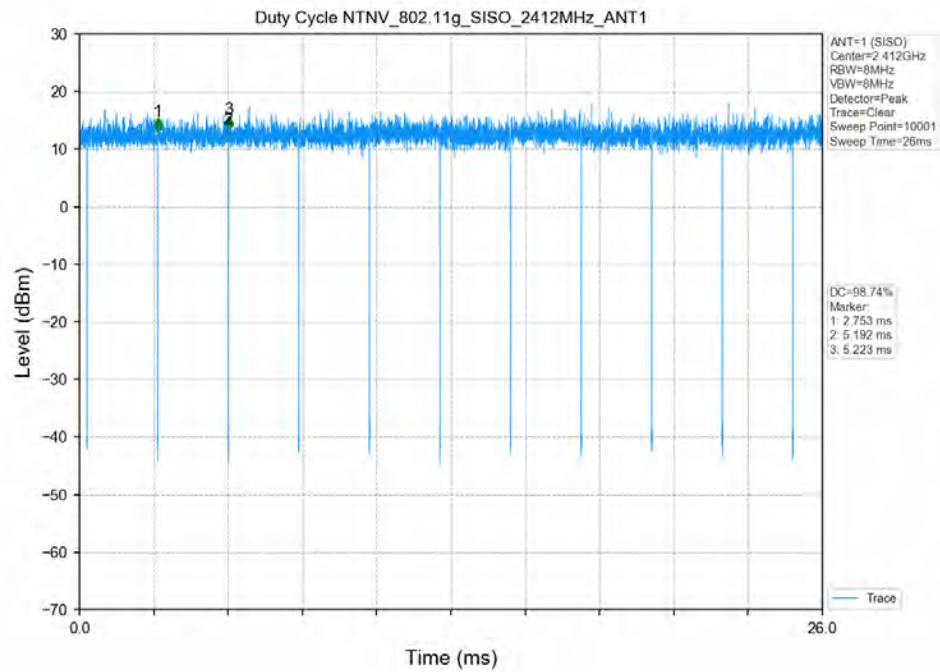
| Test Mode     | Channel Frequency(MHz) | TX Type | ANT No. | T_on (ms) | Period (ms) | Duty Cycle (%) | Duty Cycle Correction Factor (dB) |
|---------------|------------------------|---------|---------|-----------|-------------|----------------|-----------------------------------|
| 802.11b       | 2412                   | SISO    | 1       | 14.680    | 14.710      | 99.80          | 0.01                              |
|               |                        |         | 2       | 14.690    | 14.720      | 99.80          | 0.01                              |
|               | 2437                   | SISO    | 1       | 14.690    | 14.720      | 99.80          | 0.01                              |
|               |                        |         | 2       | 14.680    | 14.710      | 99.80          | 0.01                              |
|               | 2462                   | SISO    | 1       | 14.680    | 14.710      | 99.80          | 0.01                              |
|               |                        |         | 2       | 14.680    | 14.710      | 99.80          | 0.01                              |
| 802.11g       | 2412                   | SISO    | 1       | 2.439     | 2.470       | 98.74          | 0.06                              |
|               |                        |         | 2       | 2.439     | 2.470       | 98.74          | 0.06                              |
|               | 2437                   | SISO    | 1       | 2.439     | 2.470       | 98.74          | 0.06                              |
|               |                        |         | 2       | 2.438     | 2.470       | 98.70          | 0.06                              |
|               | 2462                   | SISO    | 1       | 2.439     | 2.470       | 98.74          | 0.06                              |
|               |                        |         | 2       | 2.439     | 2.470       | 98.74          | 0.06                              |
| 802.11n(HT20) | 2412                   | MIMO    | 1       | 0.259     | 0.289       | 89.62          | 0.48                              |
|               |                        |         | 2       | 0.259     | 0.289       | 89.62          | 0.48                              |
|               | 2437                   | MIMO    | 1       | 0.259     | 0.289       | 89.62          | 0.48                              |
|               |                        |         | 2       | 0.260     | 0.289       | 89.97          | 0.46                              |
|               | 2462                   | MIMO    | 1       | 0.260     | 0.290       | 89.66          | 0.47                              |
|               |                        |         | 2       | 0.260     | 0.289       | 89.97          | 0.46                              |

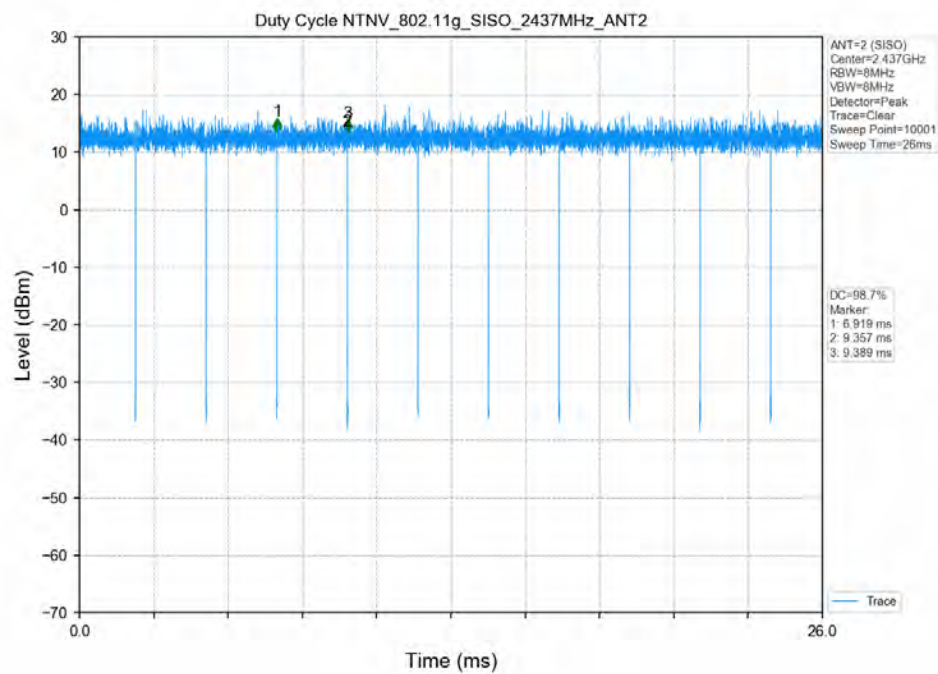
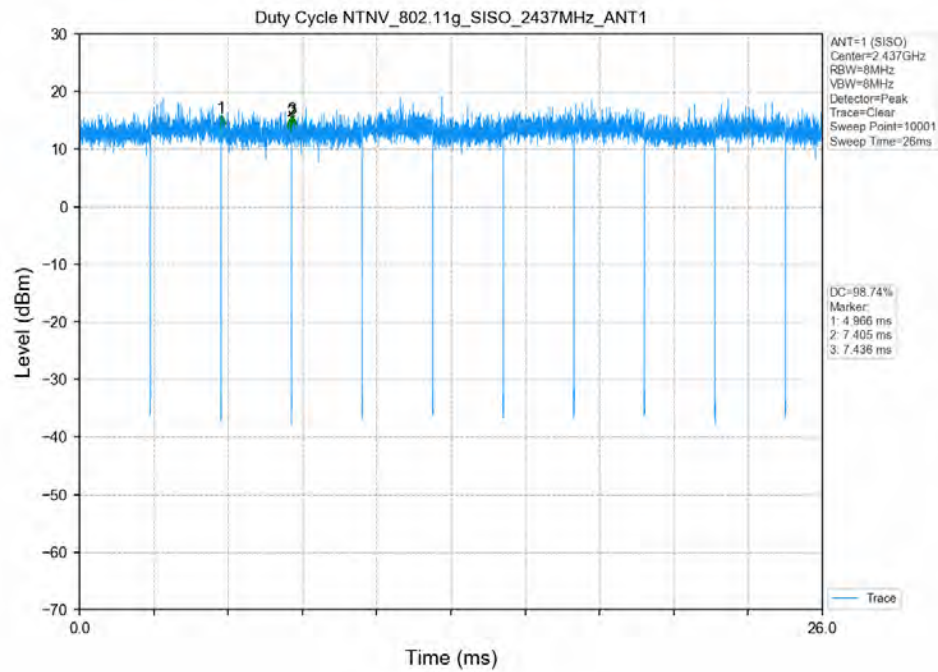
#### 1.2 Test Graph

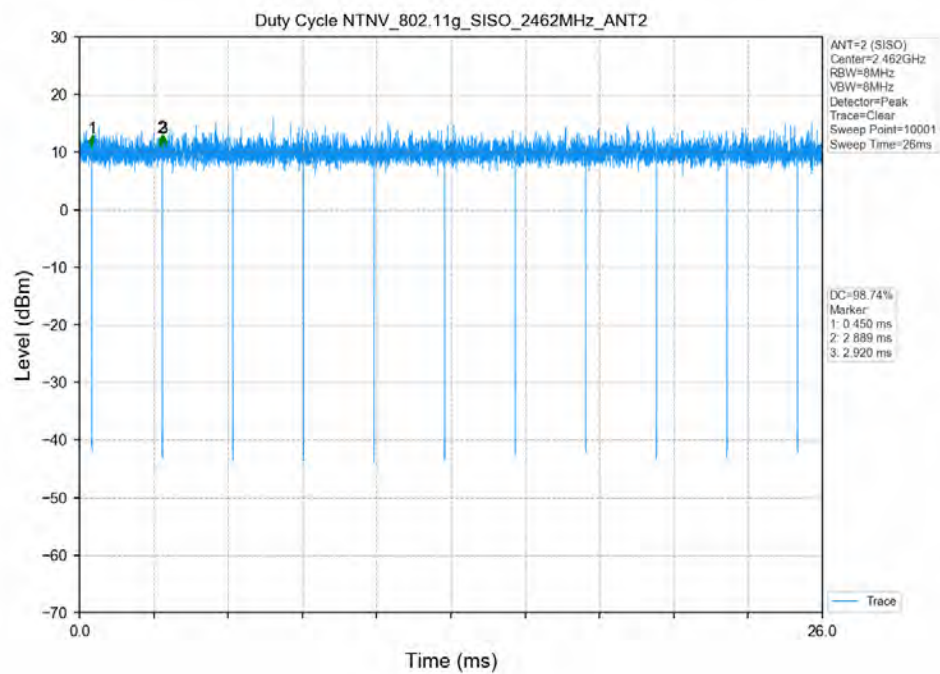
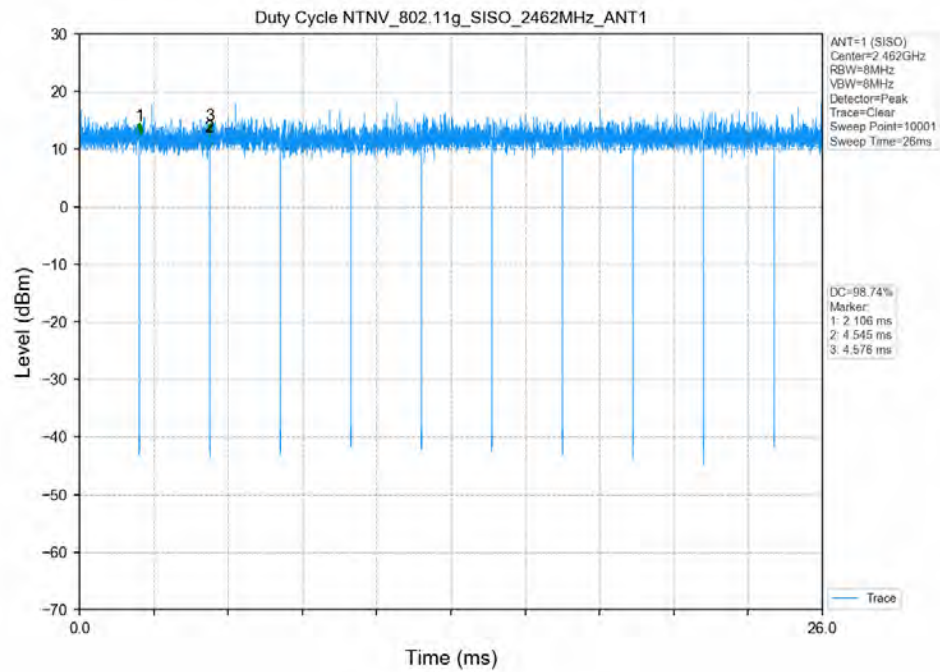


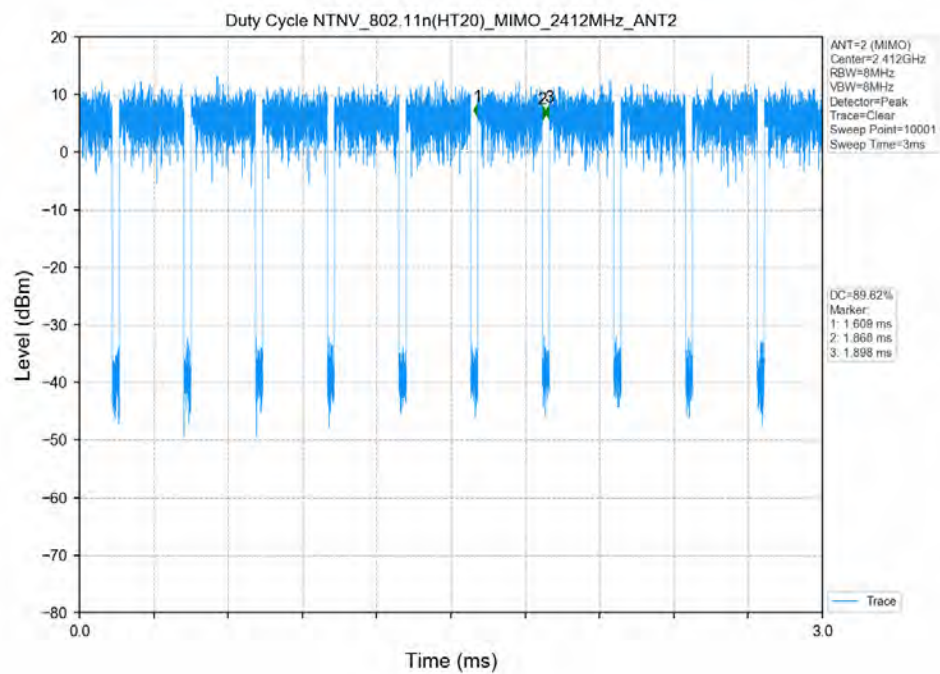
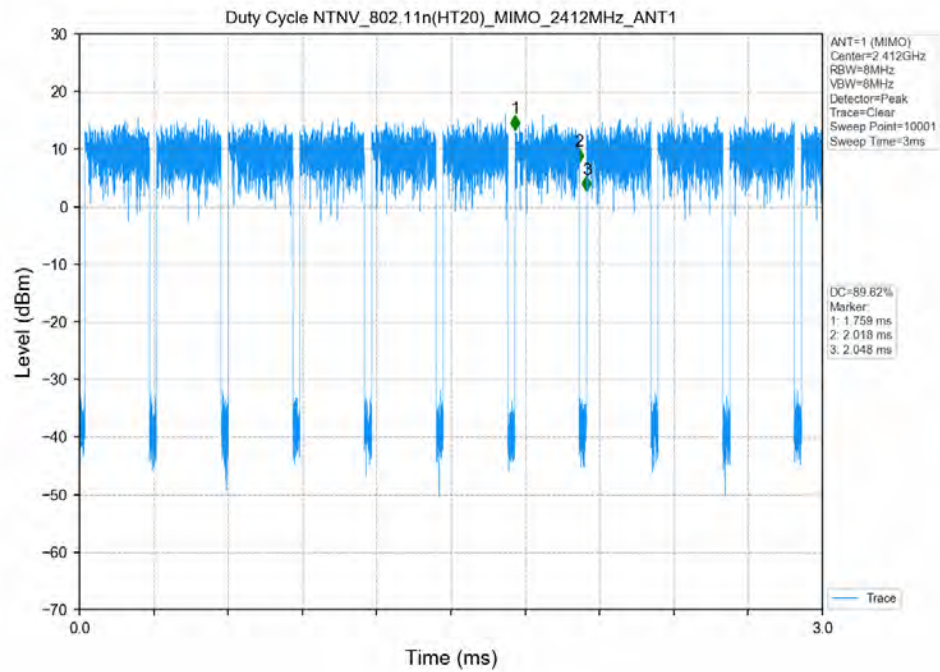


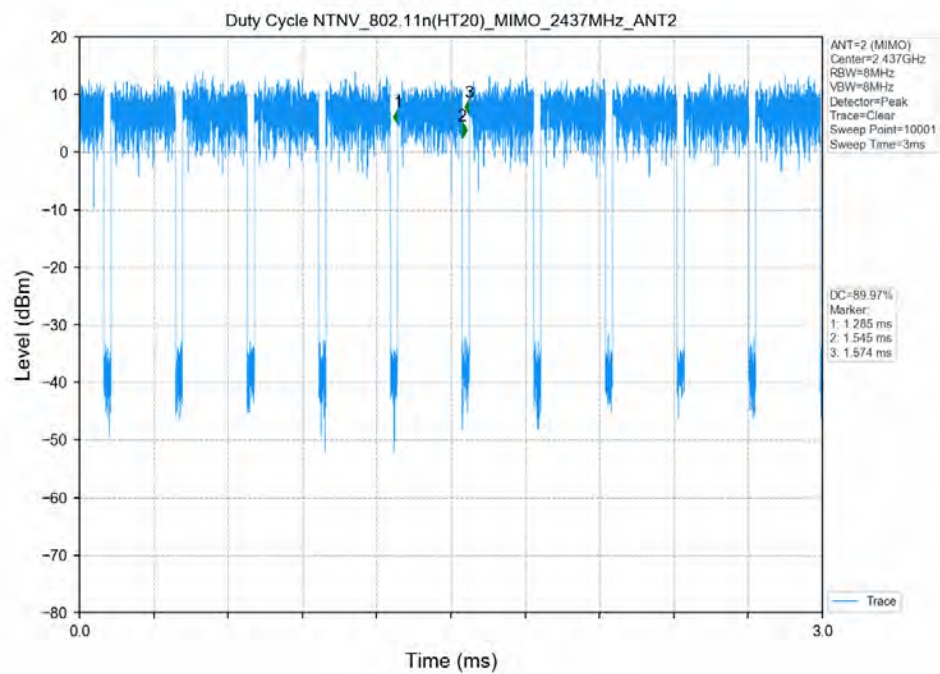
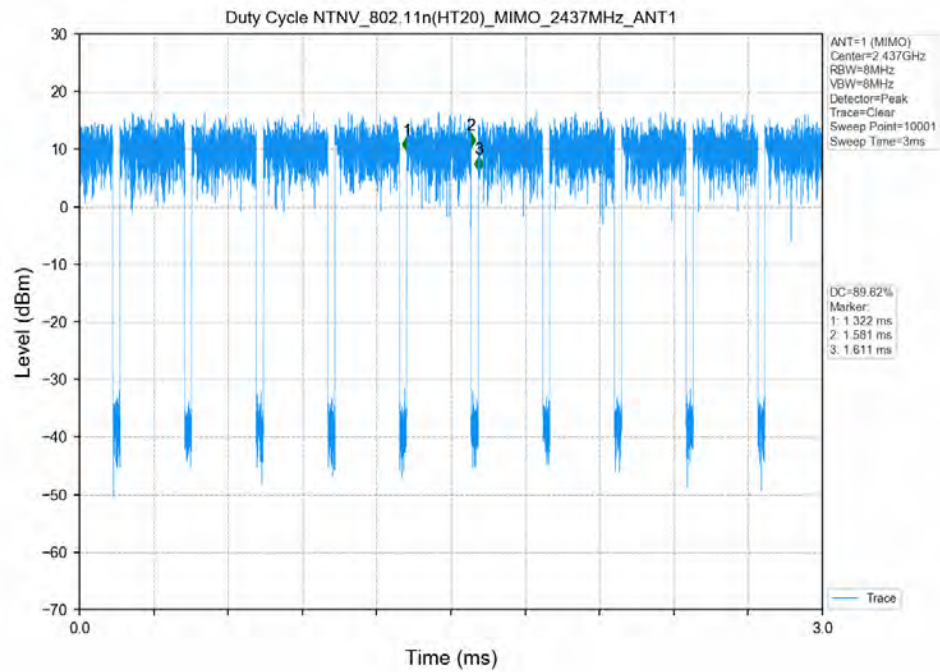


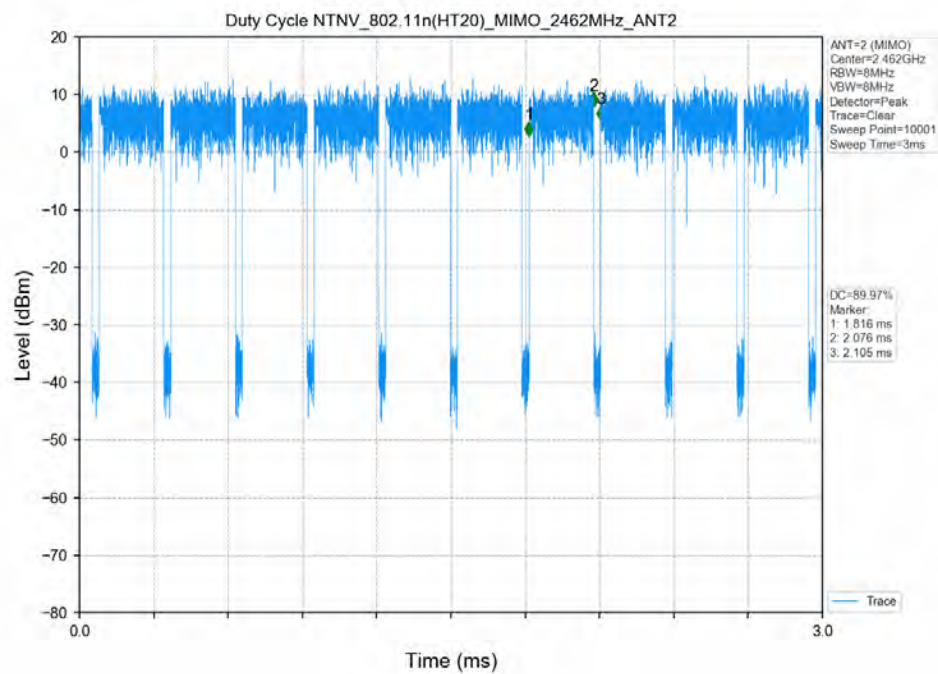
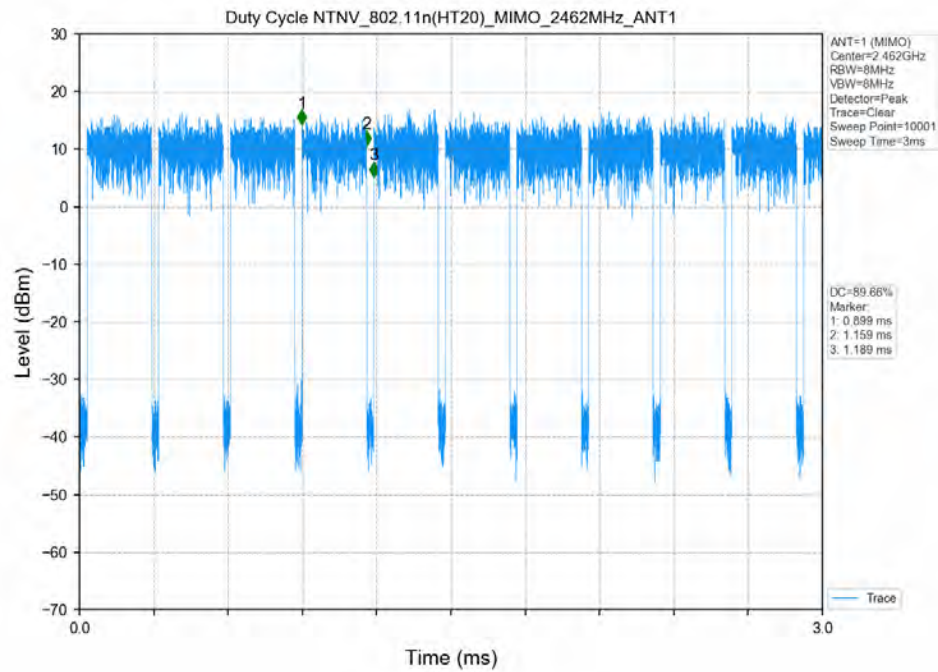












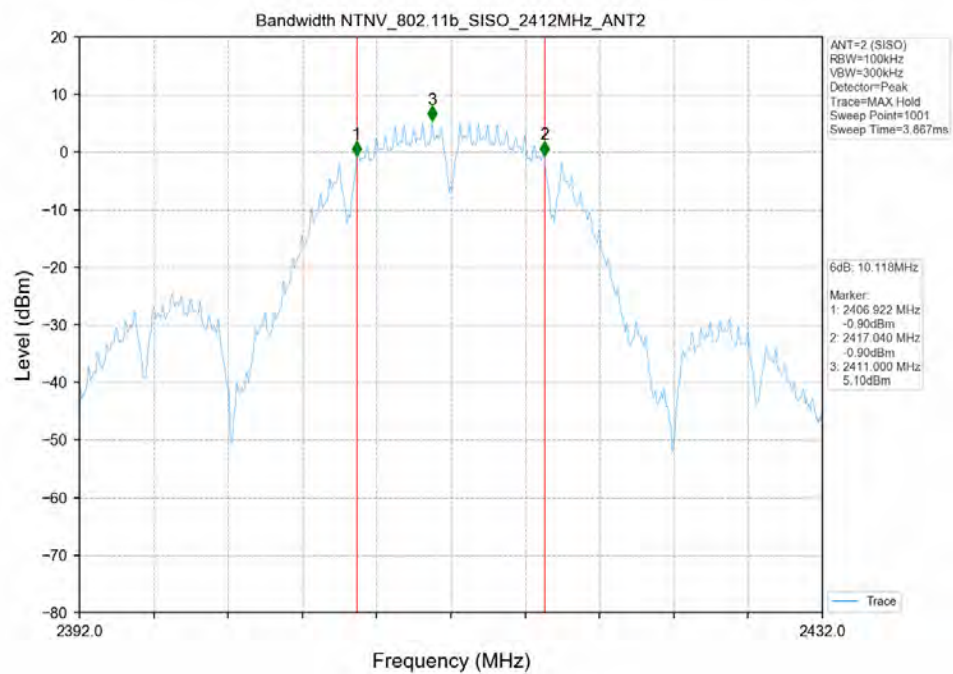
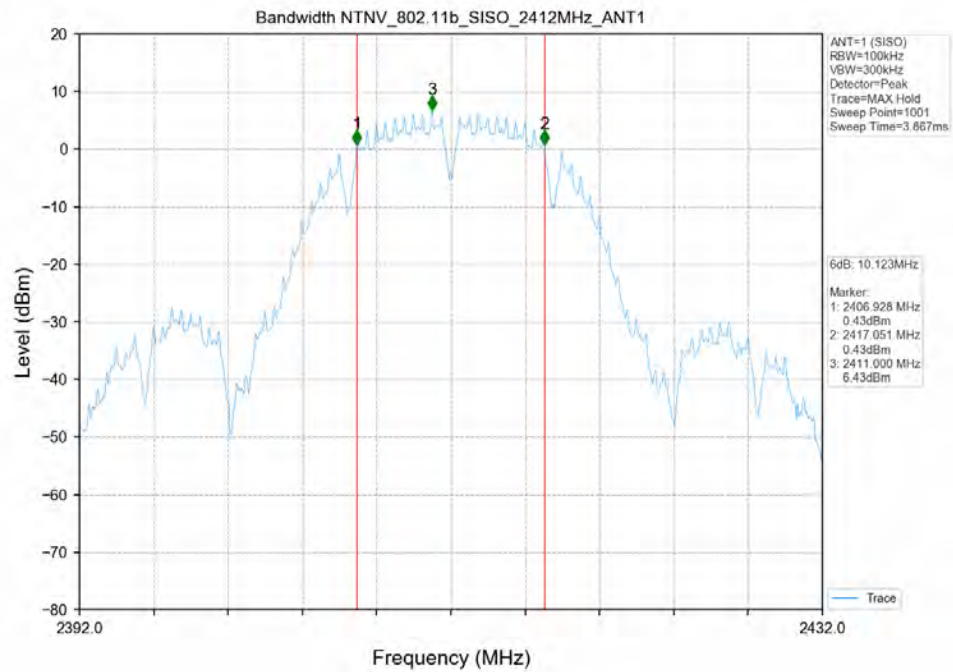
## 2. Bandwidth

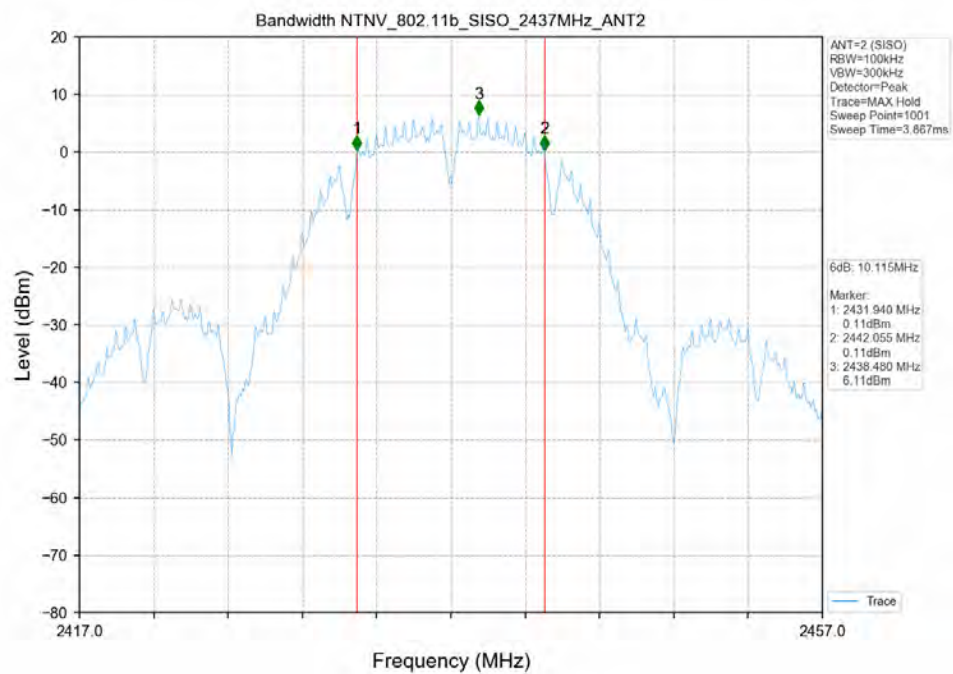
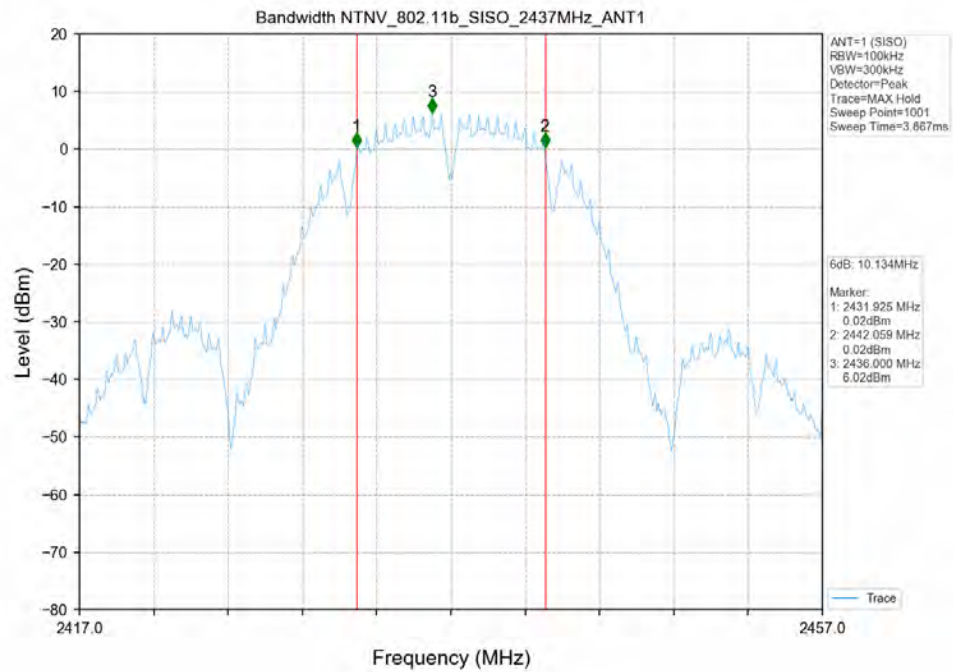
### 2.1 Test Result

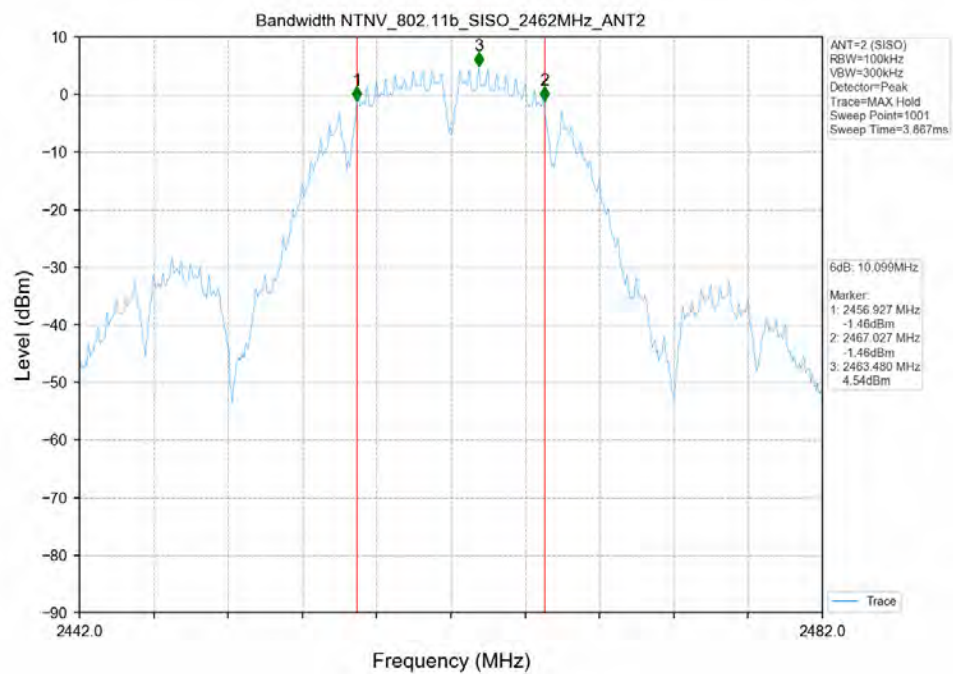
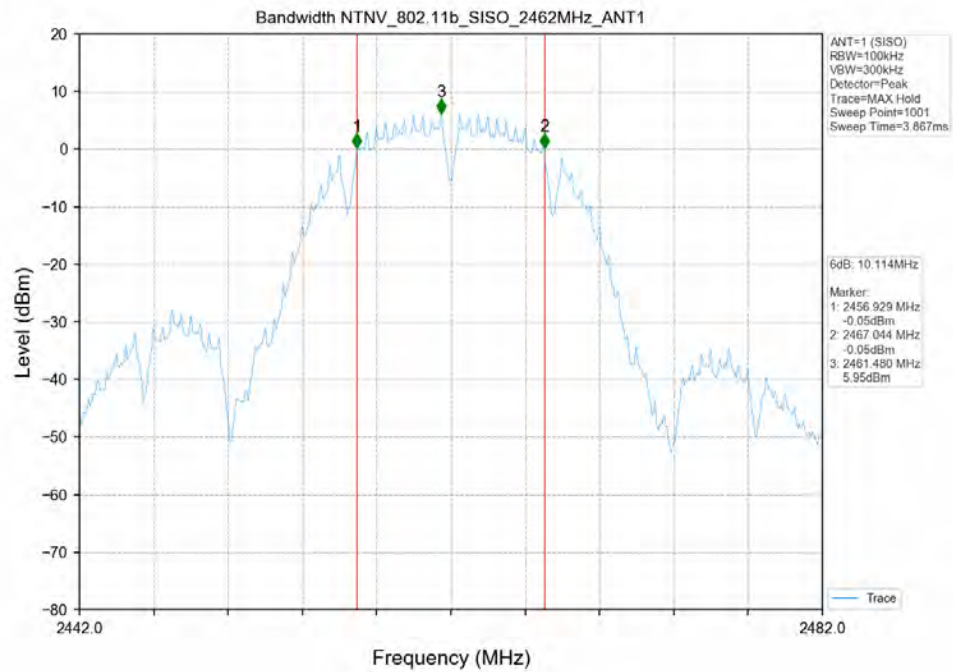
| Test Mode     | Frequency (MHz) | TX Type | ANT No. | 6dB Bandwidth     |              | Verdict |
|---------------|-----------------|---------|---------|-------------------|--------------|---------|
|               |                 |         |         | Test Result (MHz) | Limits (MHz) |         |
| 802.11b       | 2412            | SISO    | 1       | 10.123            | ≥0.5         | PASS    |
|               |                 |         | 2       | 10.118            | ≥0.5         | PASS    |
|               | 2437            | SISO    | 1       | 10.134            | ≥0.5         | PASS    |
|               |                 |         | 2       | 10.115            | ≥0.5         | PASS    |
|               | 2462            | SISO    | 1       | 10.114            | ≥0.5         | PASS    |
|               |                 |         | 2       | 10.099            | ≥0.5         | PASS    |
| 802.11g       | 2412            | SISO    | 1       | 16.364            | ≥0.5         | PASS    |
|               |                 |         | 2       | 16.401            | ≥0.5         | PASS    |
|               | 2437            | SISO    | 1       | 16.409            | ≥0.5         | PASS    |
|               |                 |         | 2       | 16.390            | ≥0.5         | PASS    |
|               | 2462            | SISO    | 1       | 16.391            | ≥0.5         | PASS    |
|               |                 |         | 2       | 16.376            | ≥0.5         | PASS    |
| 802.11n(HT20) | 2412            | MIMO    | 1       | 17.704            | ≥0.5         | PASS    |
|               |                 |         | 2       | 17.734            | ≥0.5         | PASS    |
|               | 2437            | MIMO    | 1       | 17.741            | ≥0.5         | PASS    |
|               |                 |         | 2       | 17.712            | ≥0.5         | PASS    |
|               | 2462            | MIMO    | 1       | 17.702            | ≥0.5         | PASS    |
|               |                 |         | 2       | 17.735            | ≥0.5         | PASS    |

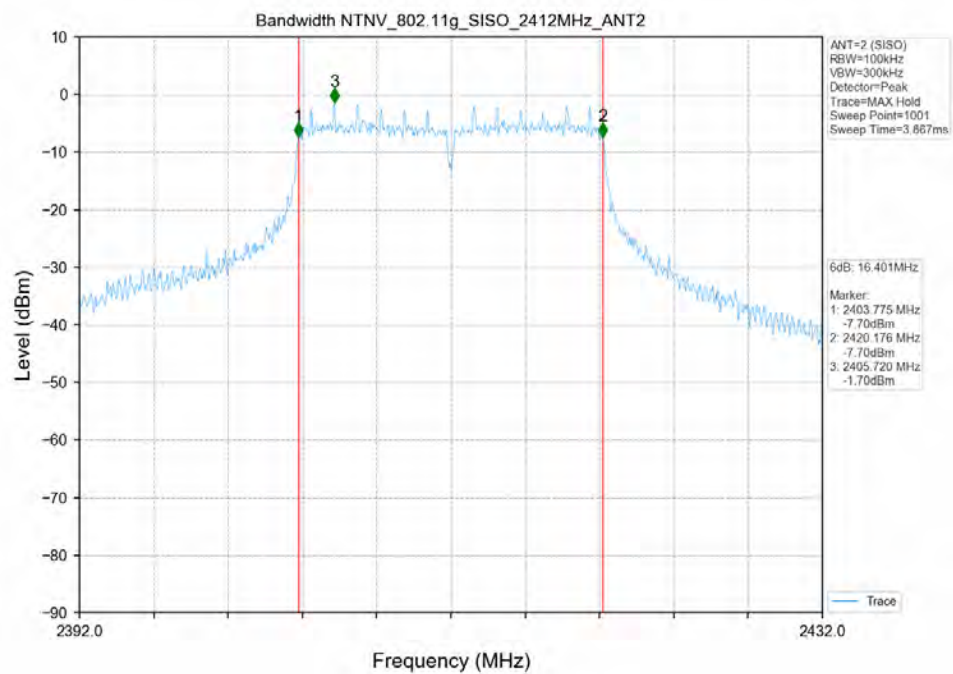
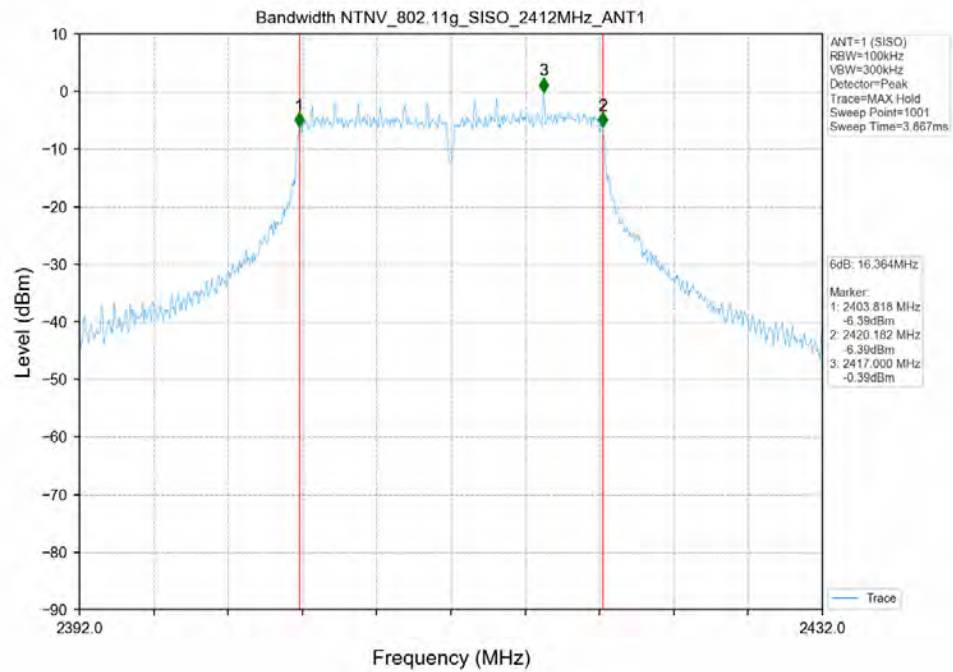
| Test Mode     | Frequency (MHz) | TX Type | ANT No. | 99% Occupied Bandwidth |                     |
|---------------|-----------------|---------|---------|------------------------|---------------------|
|               |                 |         |         | Test Result (MHz)      |                     |
| 802.11b       | 2412            | SISO    | 1       | 14.111                 | Only for Report Use |
|               |                 |         | 2       | 14.132                 | Only for Report Use |
|               | 2437            | SISO    | 1       | 14.019                 | Only for Report Use |
|               |                 |         | 2       | 14.037                 | Only for Report Use |
|               | 2462            | SISO    | 1       | 13.999                 | Only for Report Use |
|               |                 |         | 2       | 13.996                 | Only for Report Use |
| 802.11g       | 2412            | SISO    | 1       | 17.085                 | Only for Report Use |
|               |                 |         | 2       | 17.380                 | Only for Report Use |
|               | 2437            | SISO    | 1       | 17.087                 | Only for Report Use |
|               |                 |         | 2       | 17.258                 | Only for Report Use |
|               | 2462            | SISO    | 1       | 17.085                 | Only for Report Use |
|               |                 |         | 2       | 16.998                 | Only for Report Use |
| 802.11n(HT20) | 2412            | MIMO    | 1       | 17.948                 | Only for Report Use |
|               |                 |         | 2       | 18.006                 | Only for Report Use |
|               | 2437            | MIMO    | 1       | 18.008                 | Only for Report Use |
|               |                 |         | 2       | 17.993                 | Only for Report Use |
|               | 2462            | MIMO    | 1       | 18.006                 | Only for Report Use |
|               |                 |         | 2       | 17.971                 | Only for Report Use |

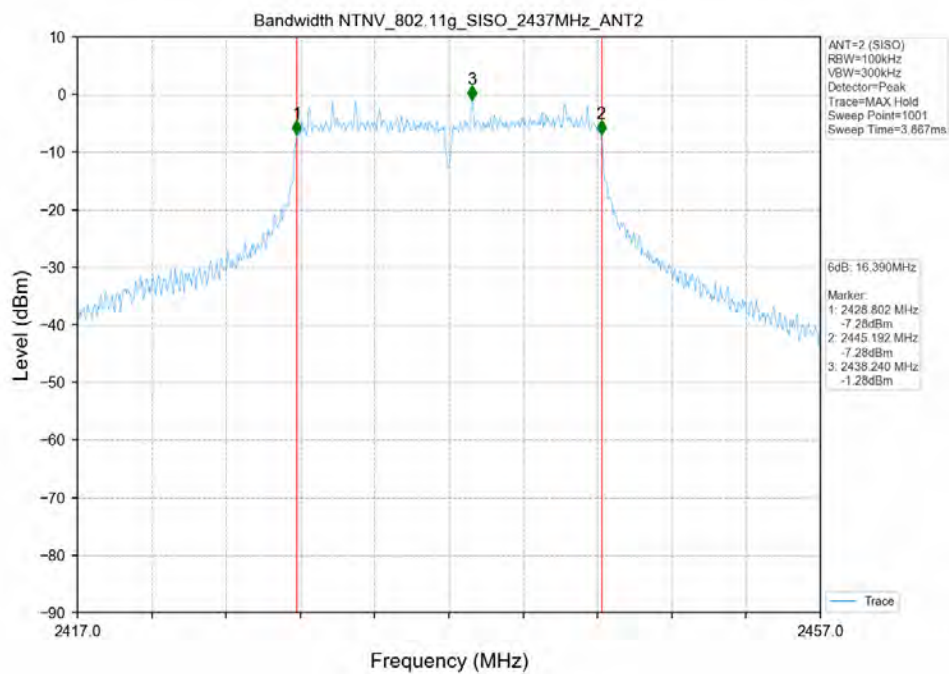
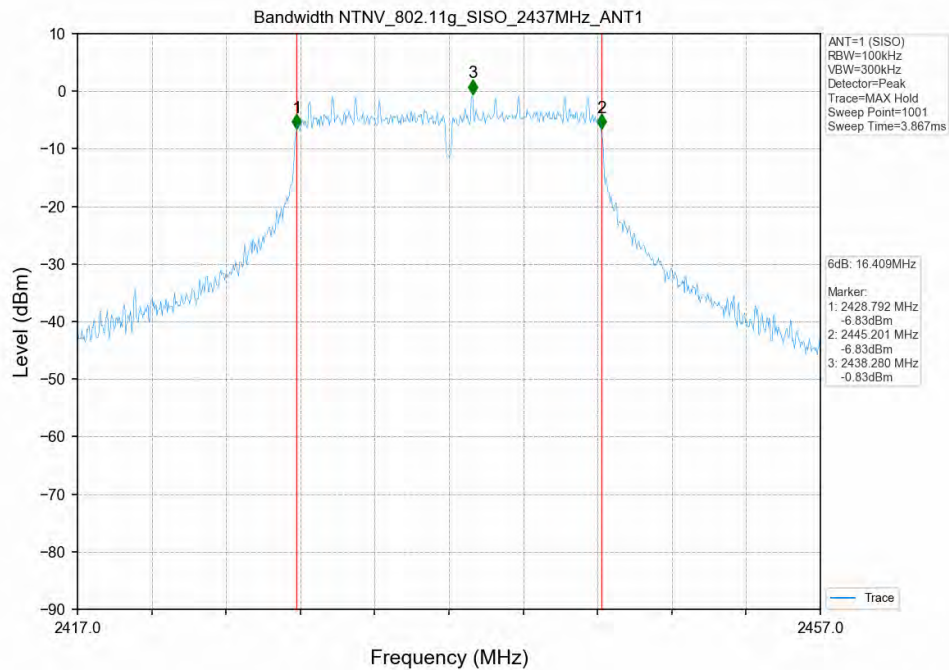
### 2.2 Test Graph - 6dB Bandwidth

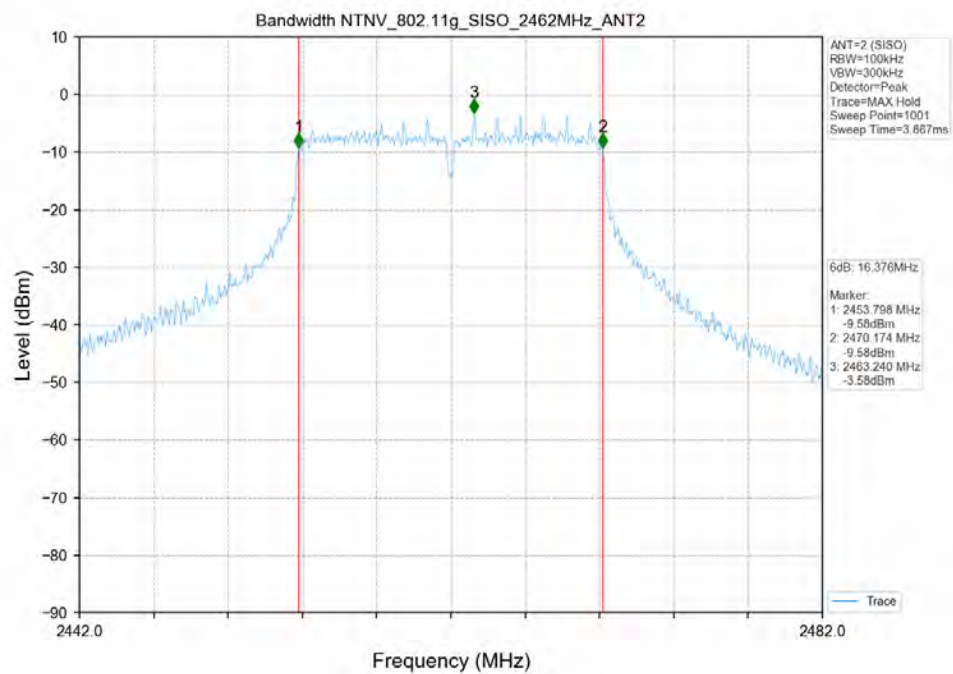
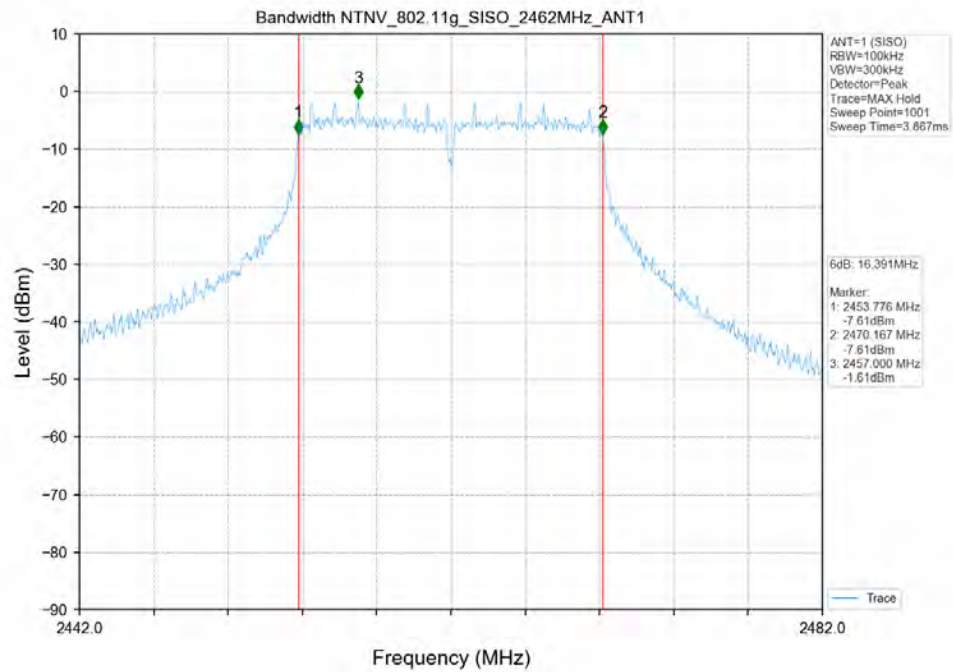


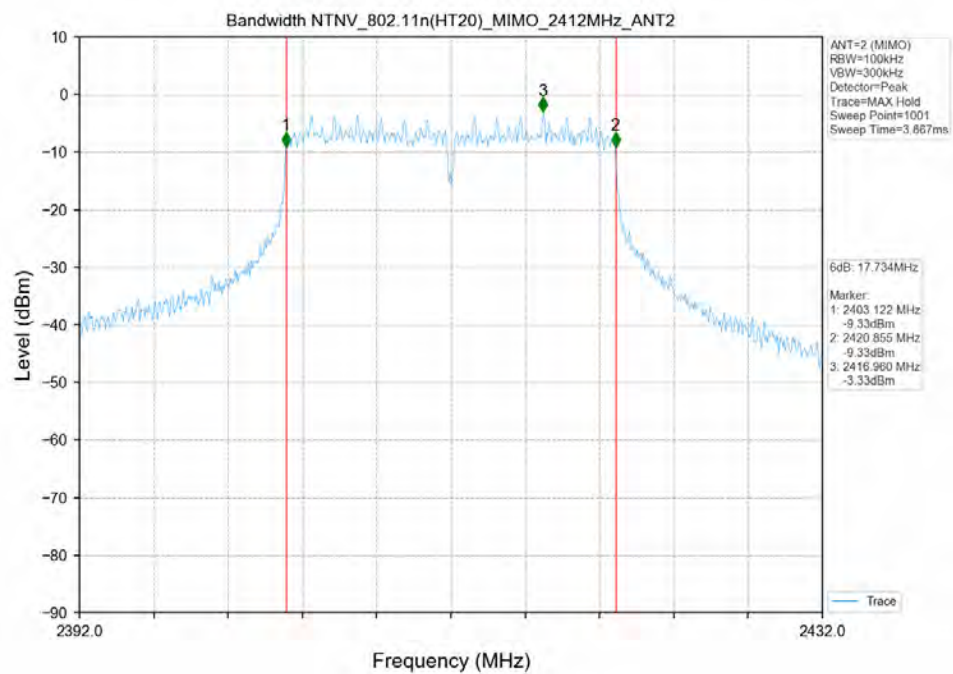
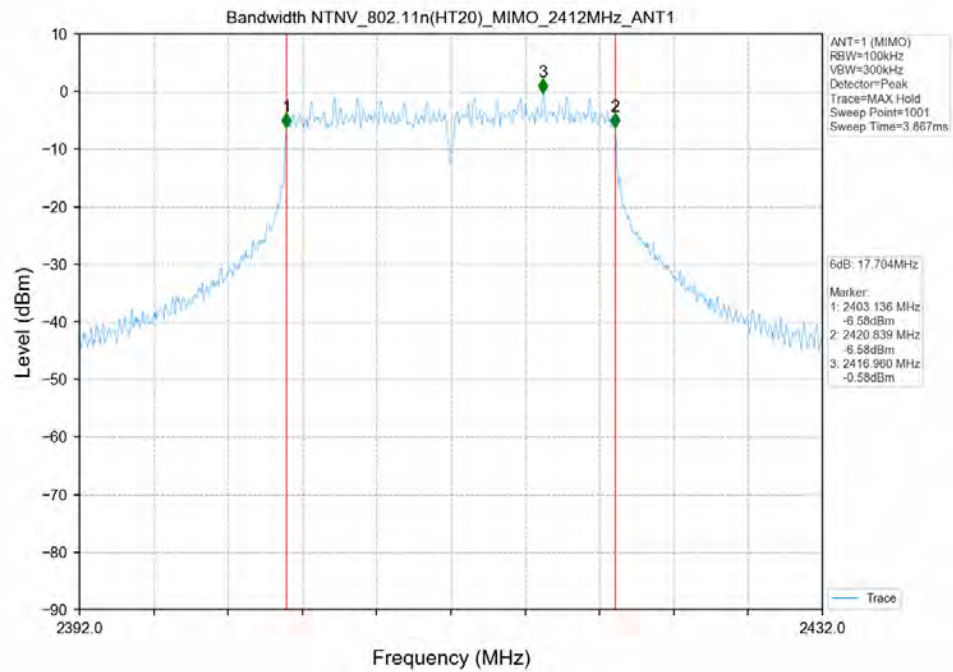


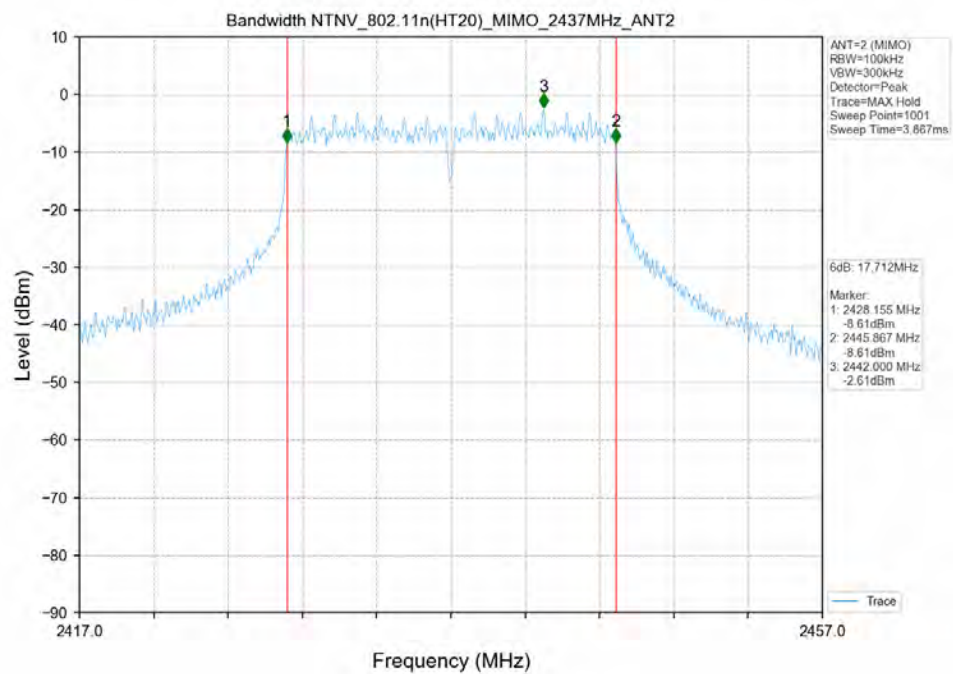
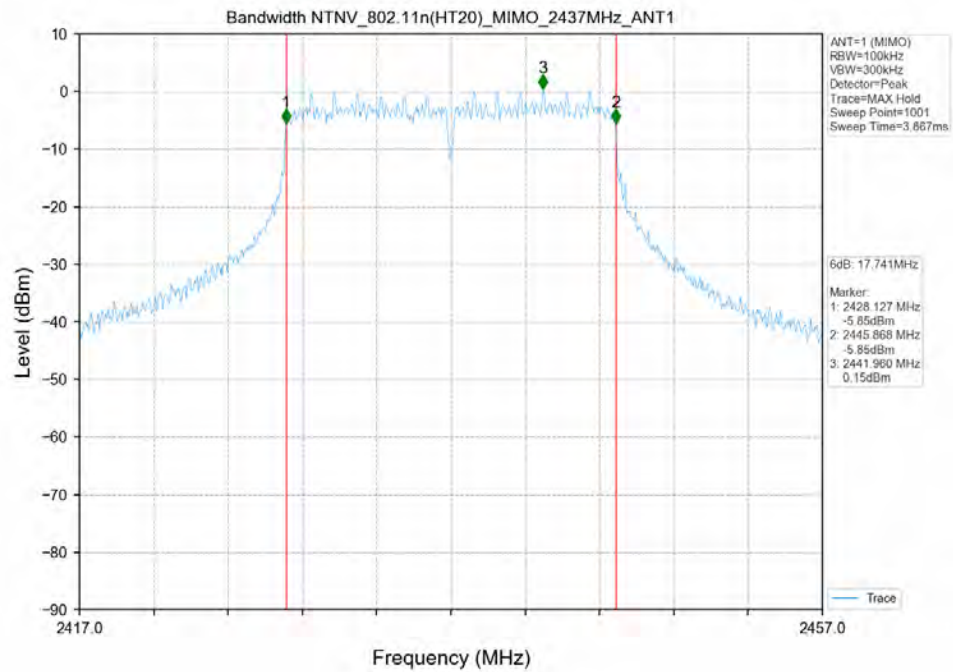


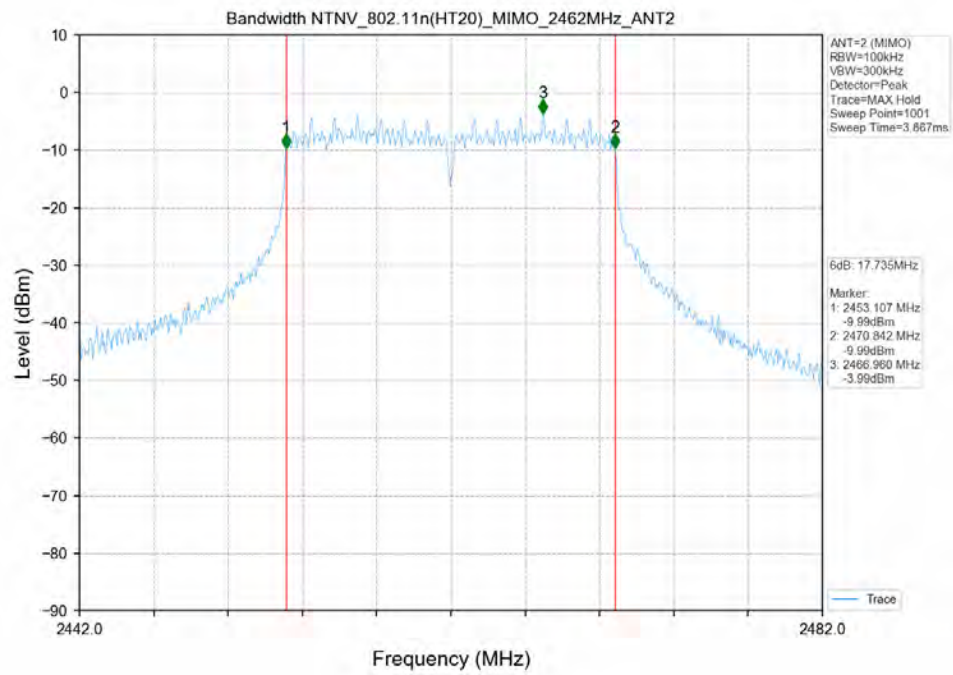
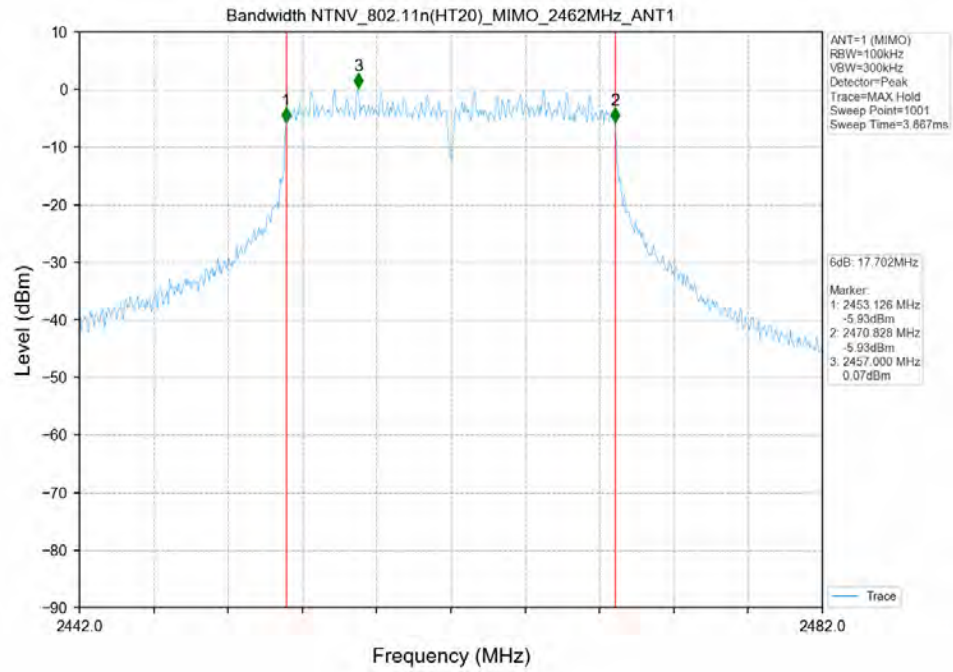




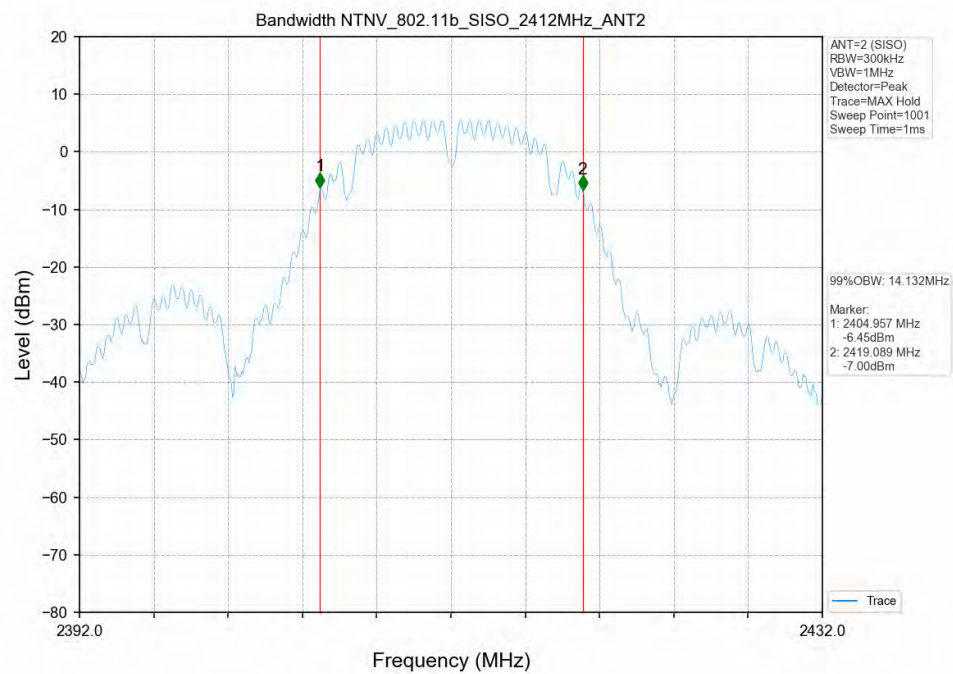
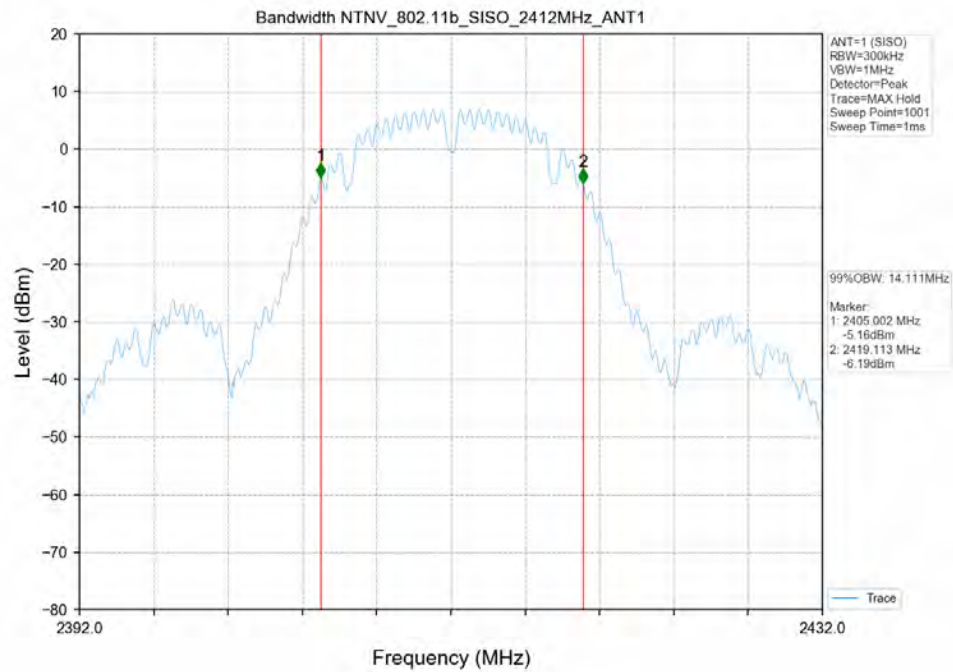


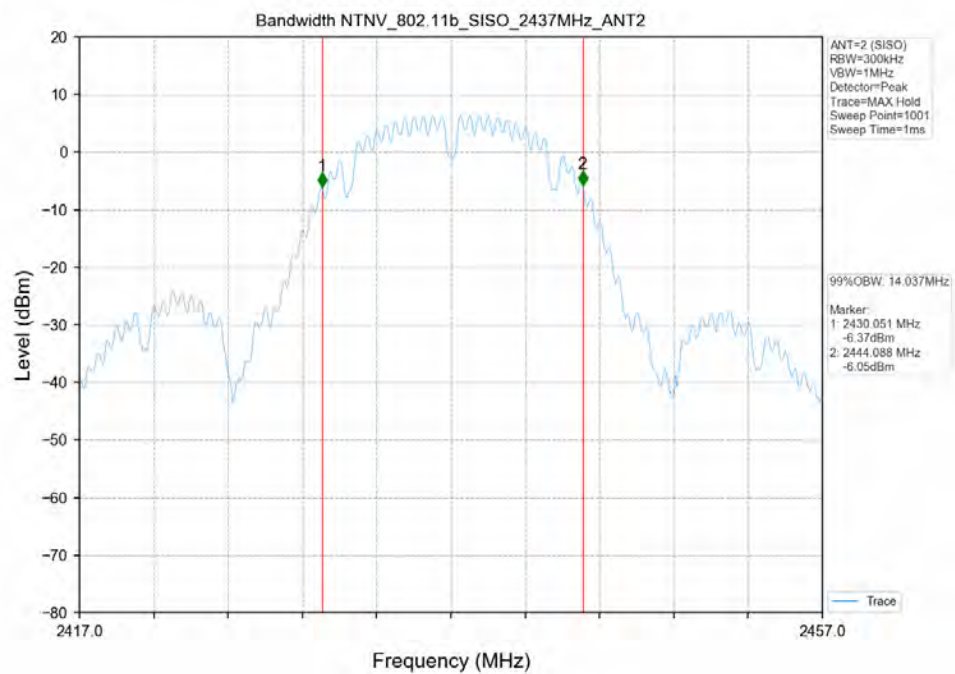
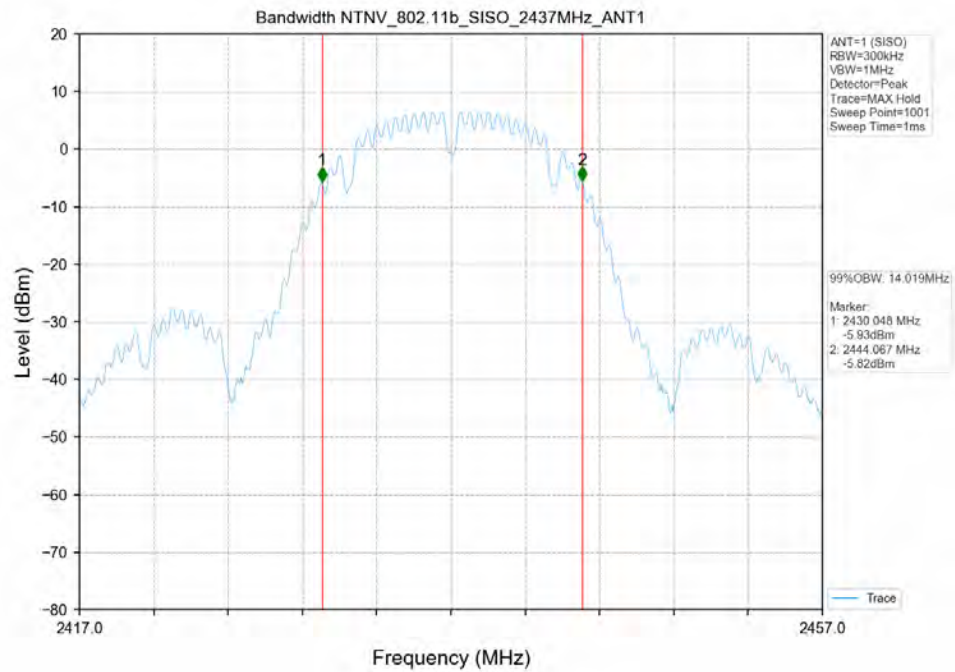


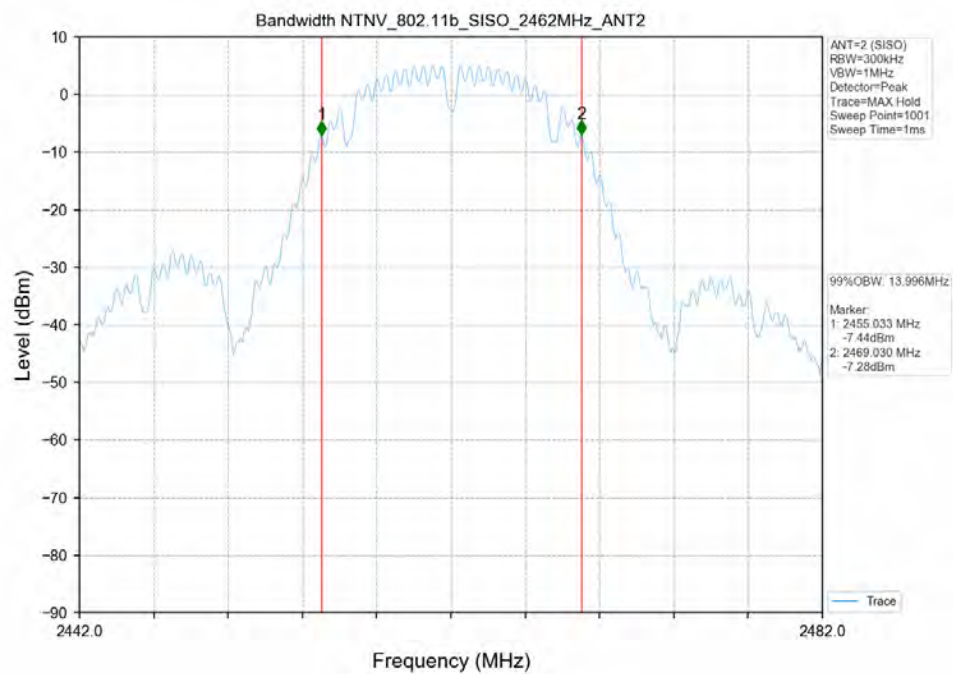
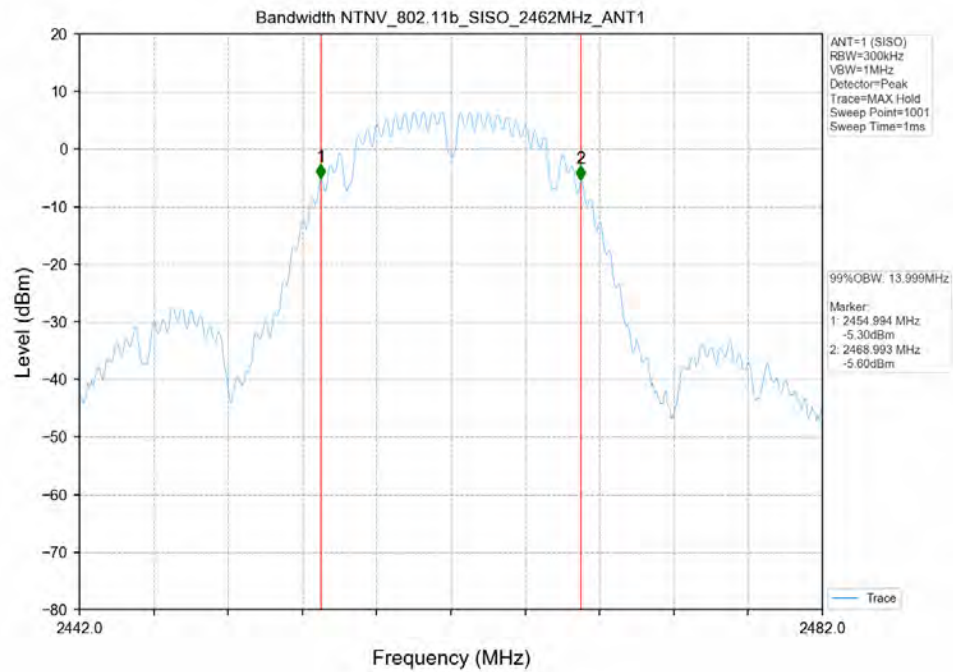


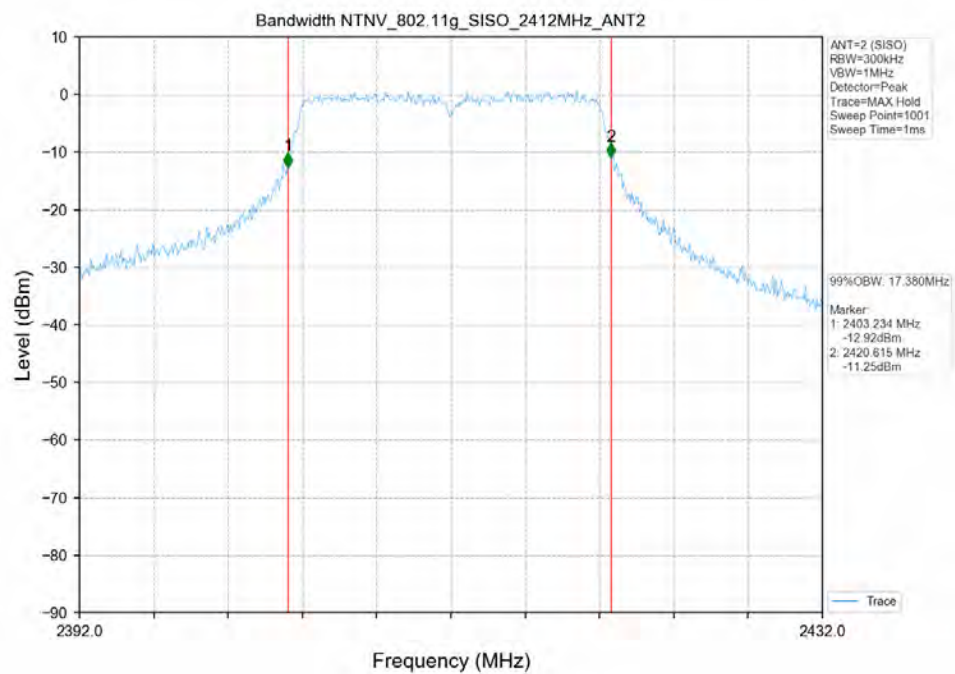
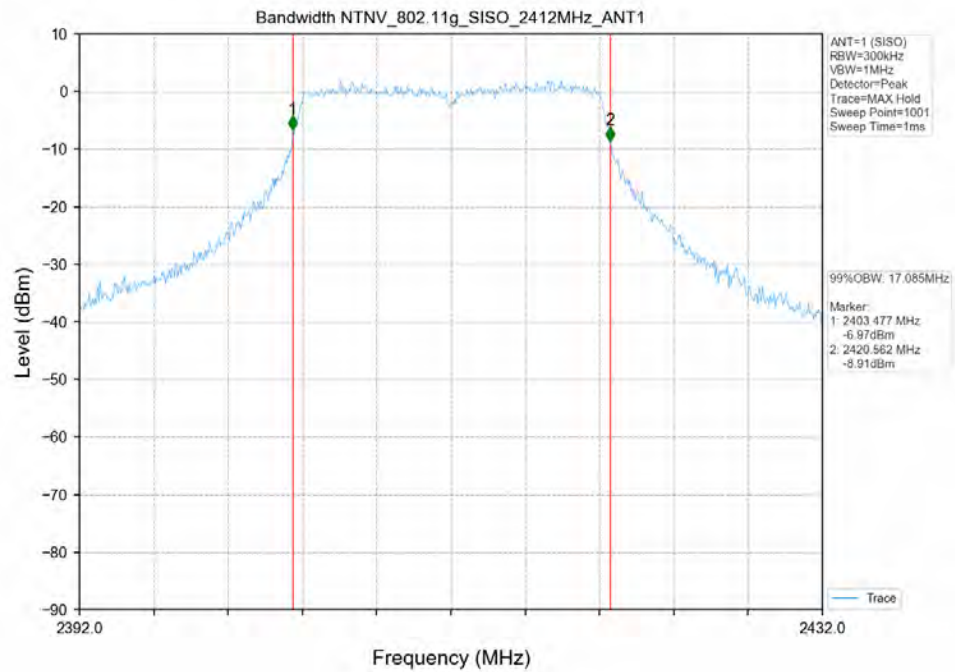


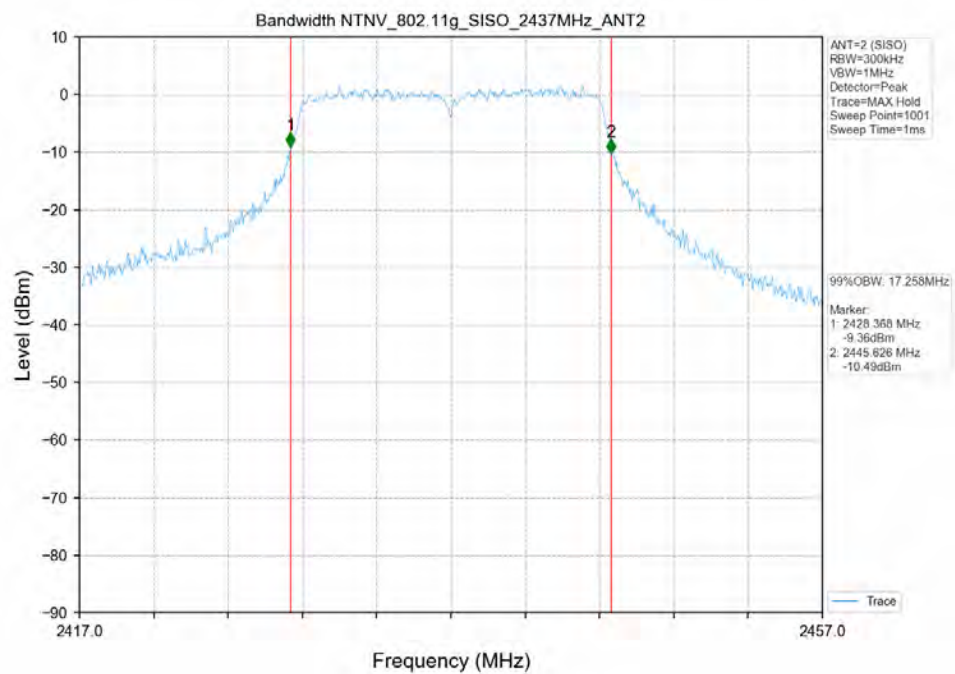
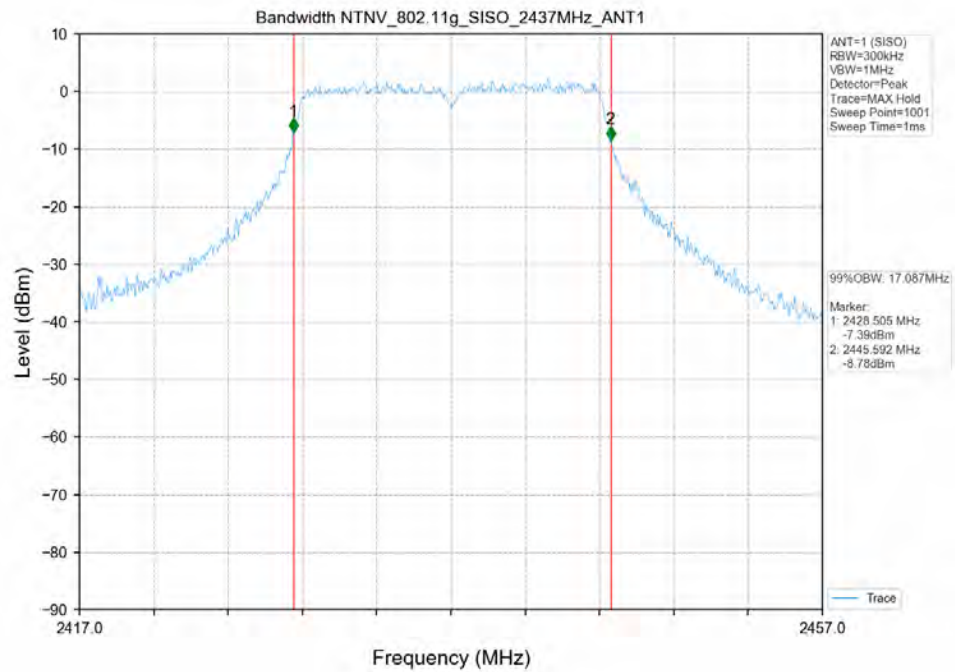
### 2.3 Test Graph - 99% Occupied Bandwidth

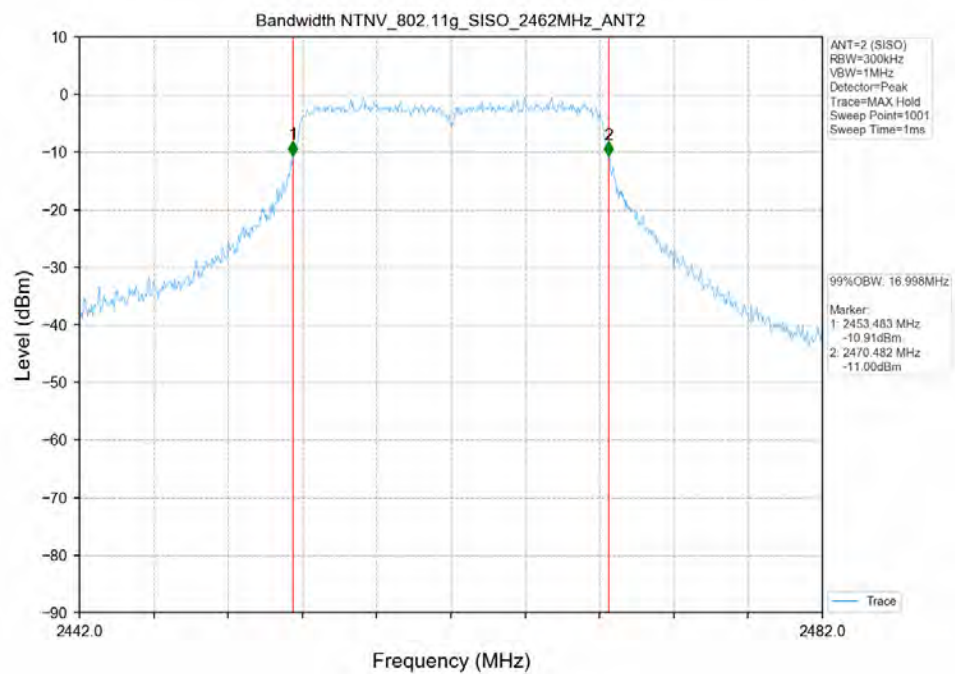
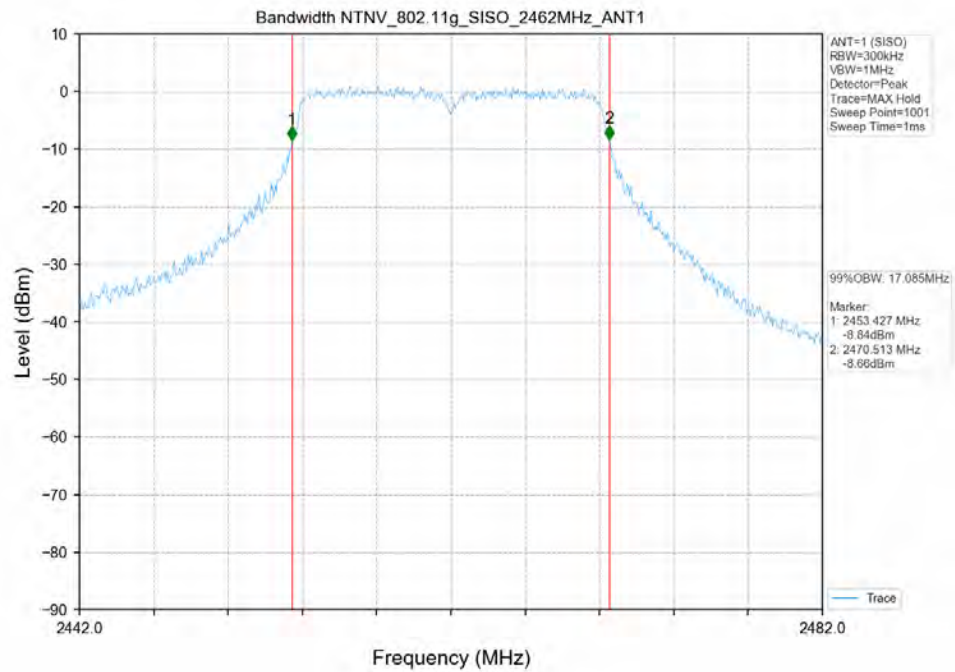


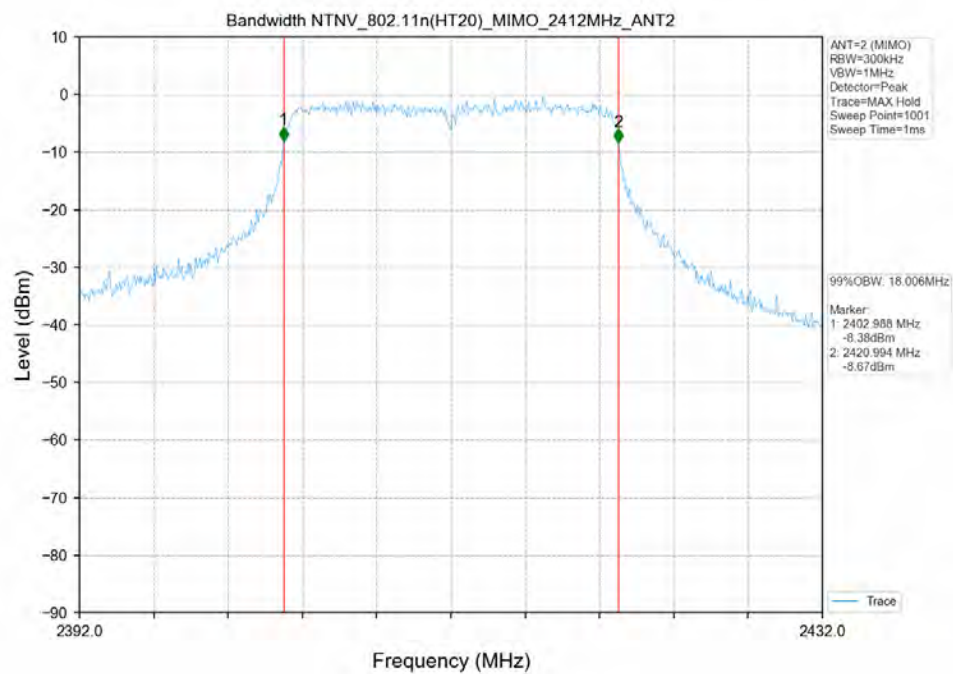
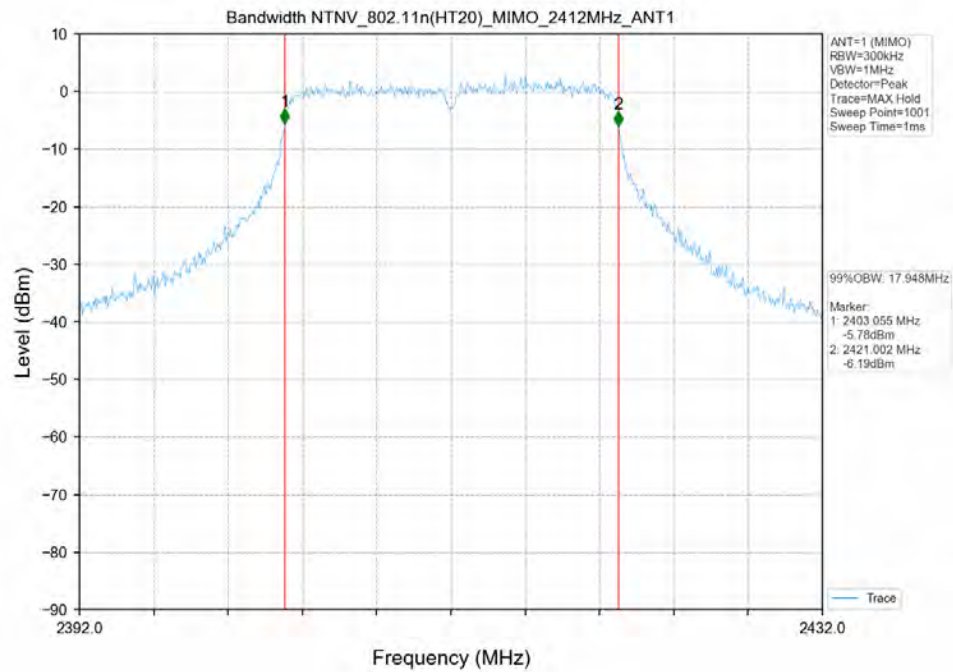


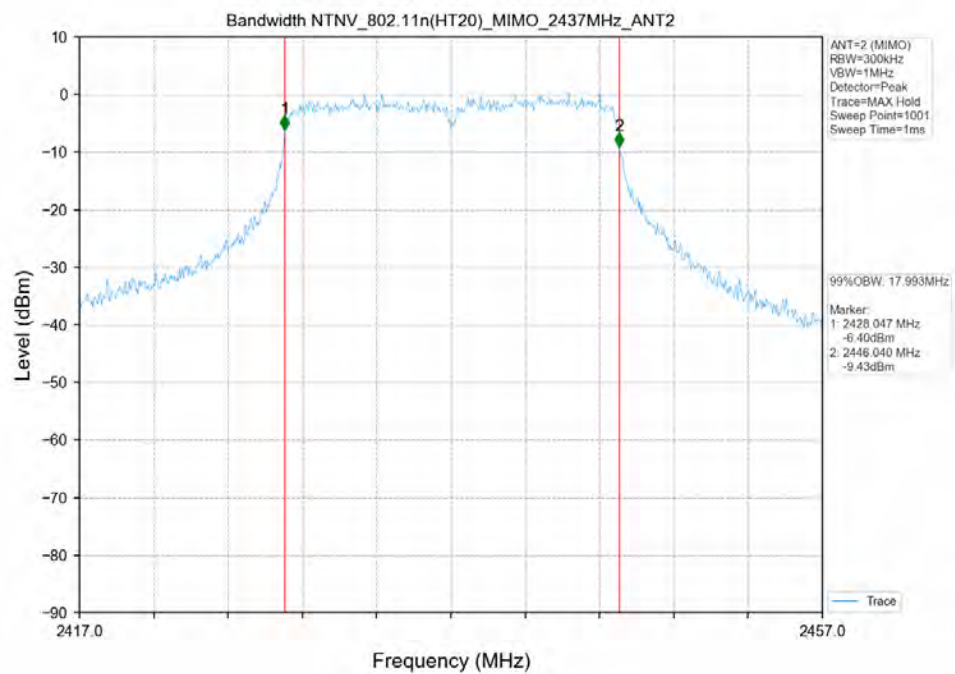
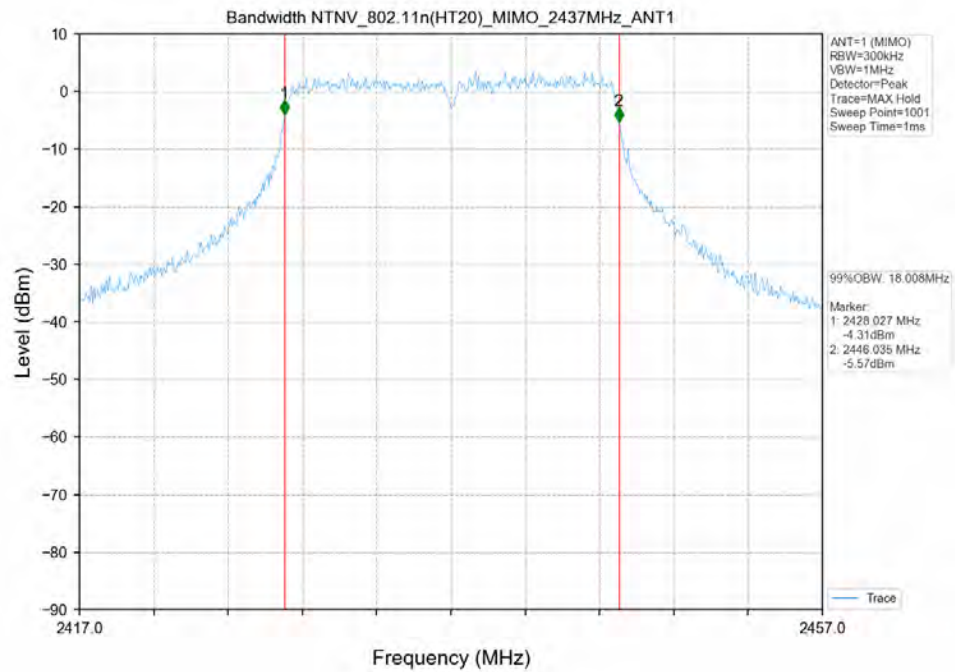


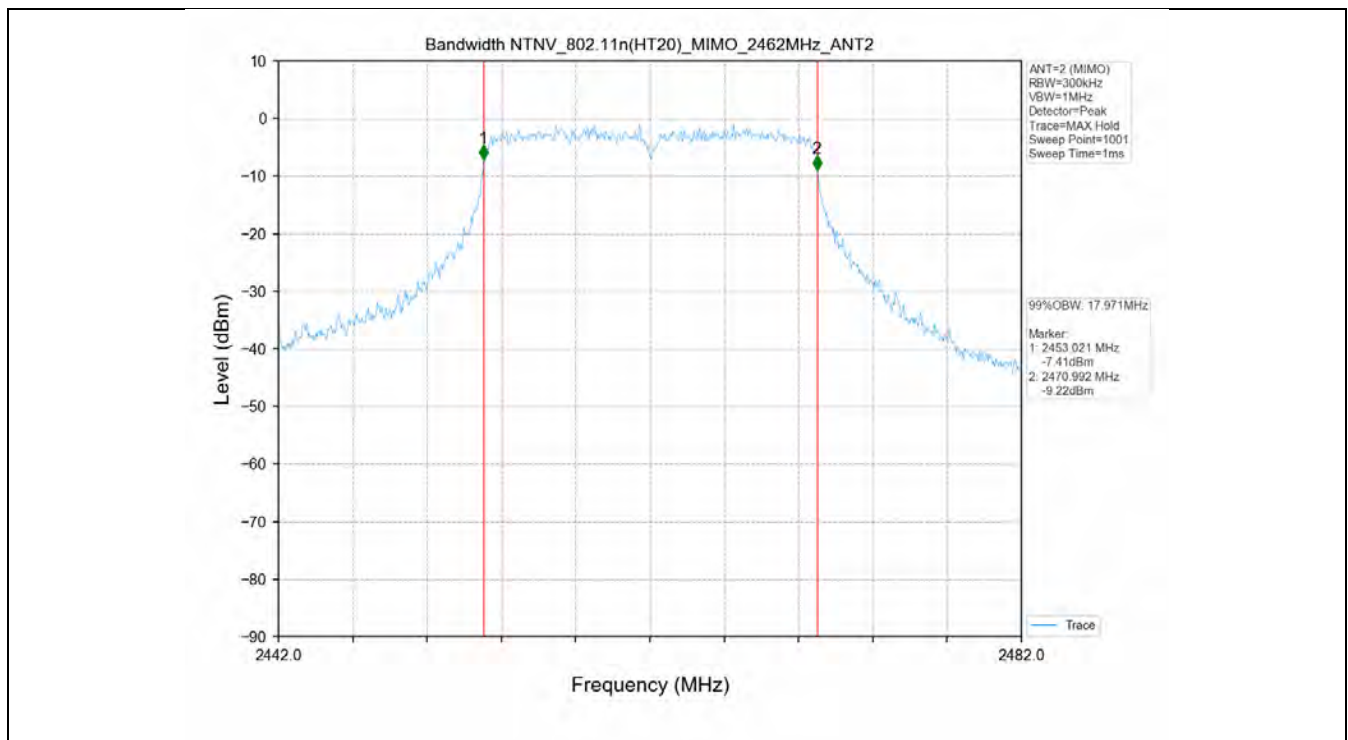
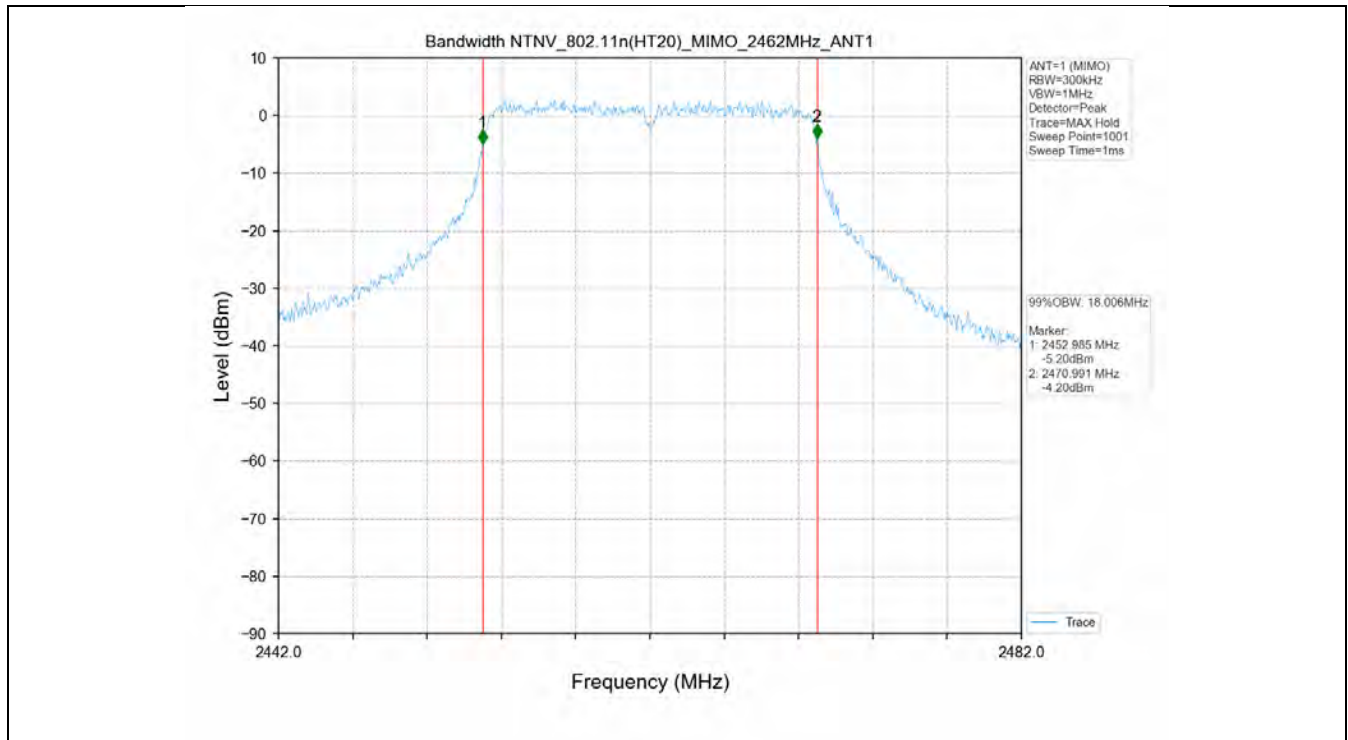










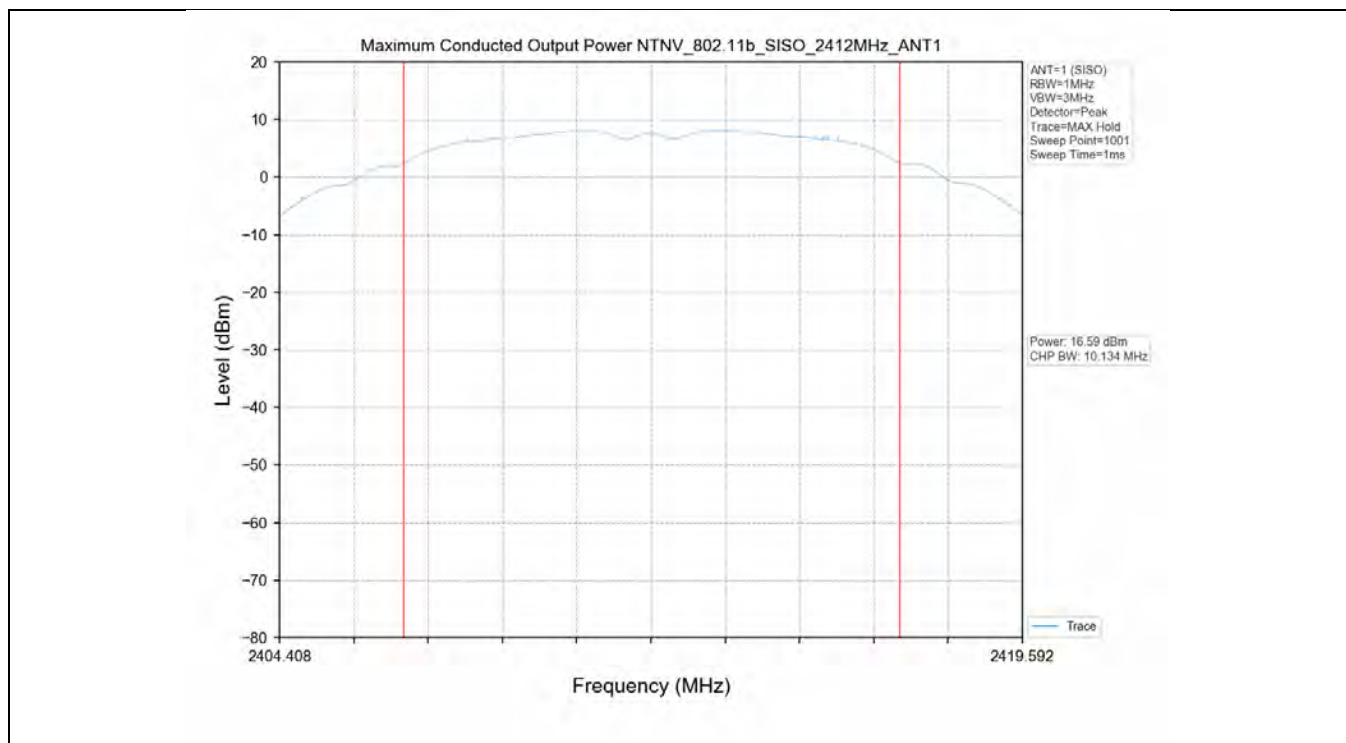


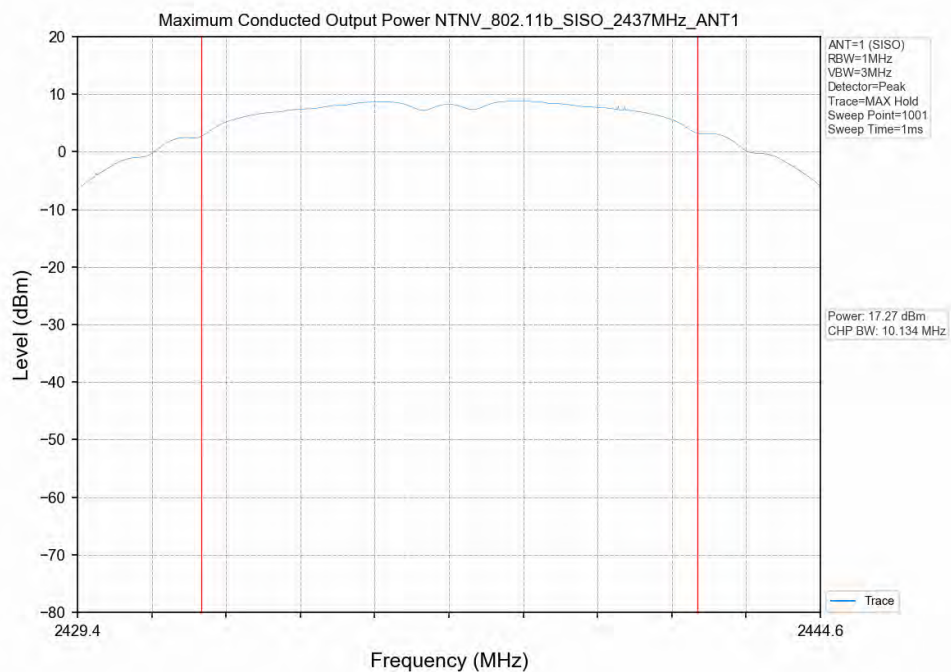
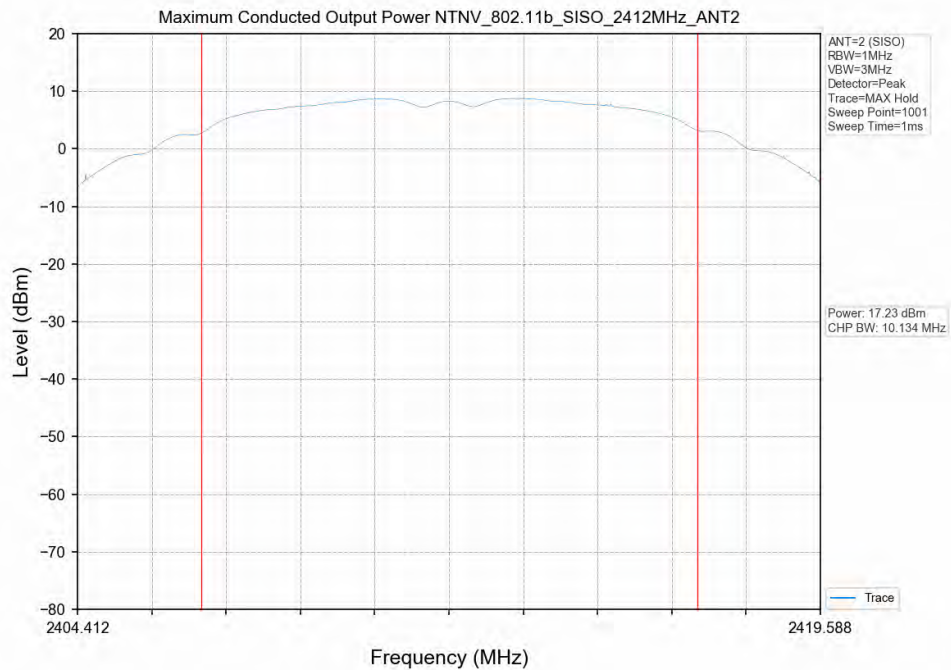
### 3. Maximum Conducted Output Power

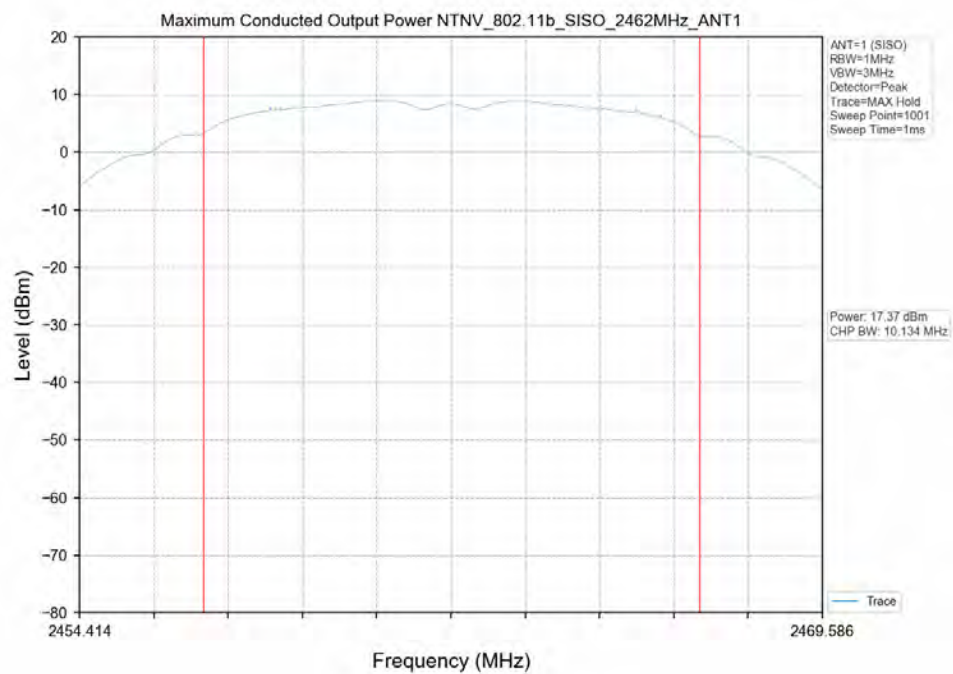
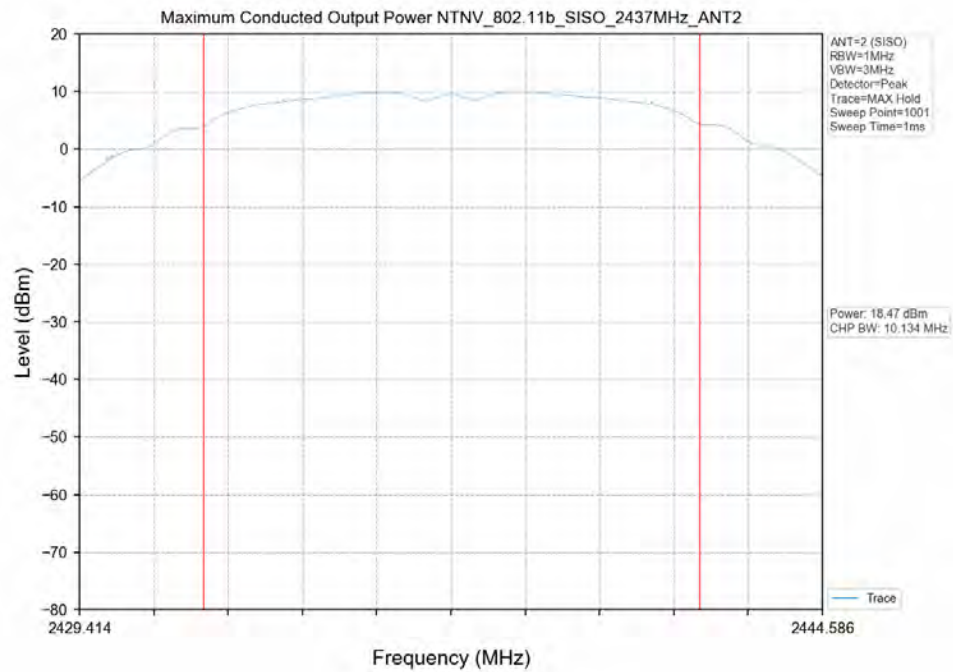
#### 3.1 Test Result

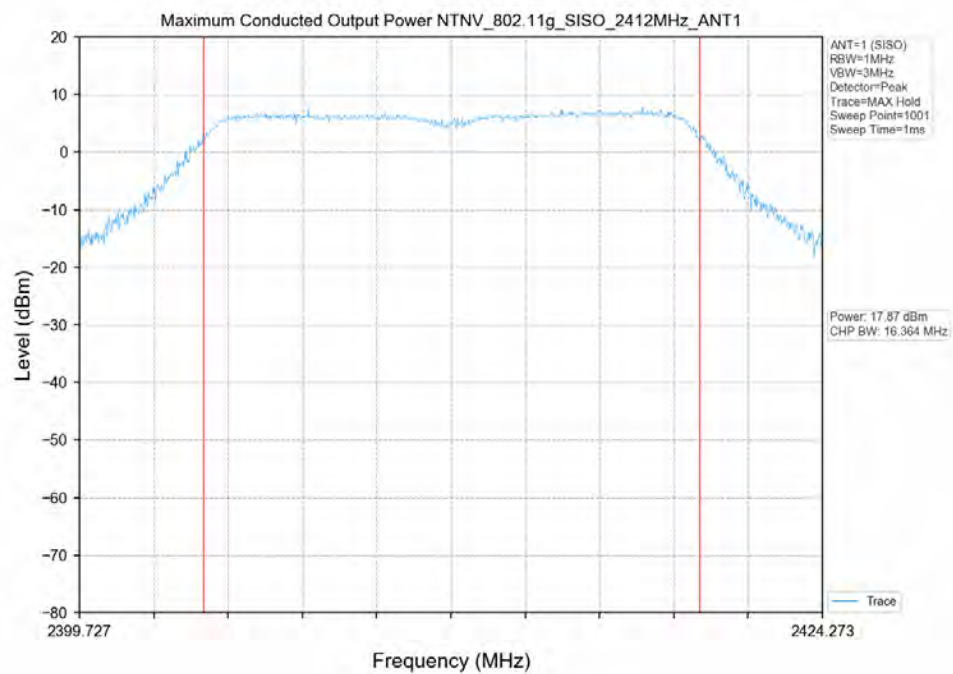
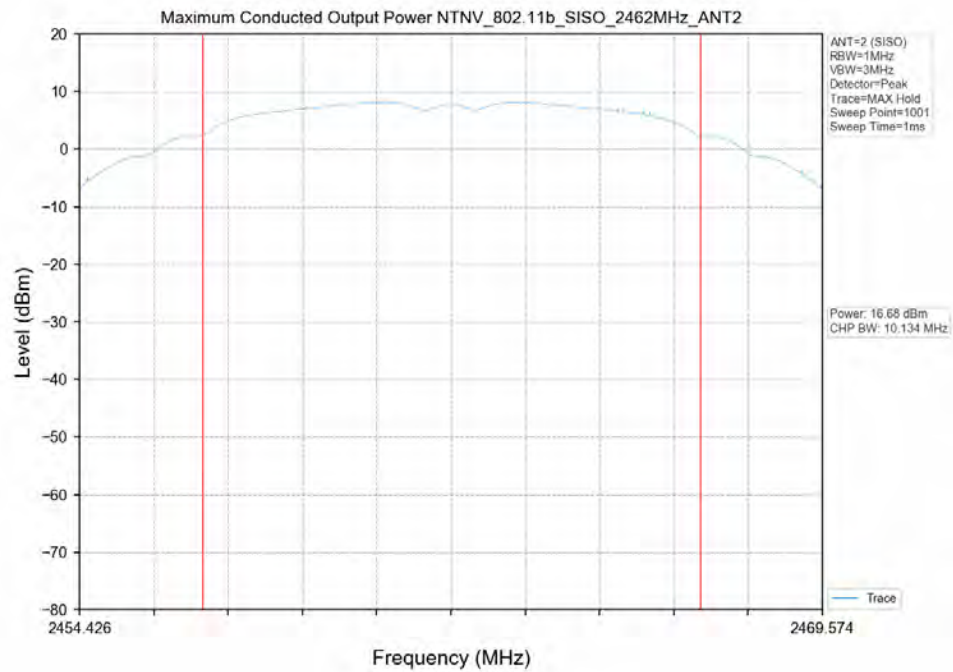
| Test Mode     | Frequency (MHz) | Tx Type | Measured Peak Output Power (dBm) |       |       | Limits (dBm) | Verdict |
|---------------|-----------------|---------|----------------------------------|-------|-------|--------------|---------|
|               |                 |         | Ant 1                            | Ant 2 | Total |              |         |
| 802.11b       | 2412            | SISO    | 16.59                            | 17.23 | /     | 30           | PASS    |
|               | 2437            | SISO    | 17.27                            | 18.47 | /     | 30           | PASS    |
|               | 2462            | SISO    | 17.37                            | 16.68 | /     | 30           | PASS    |
| 802.11g       | 2412            | SISO    | 17.87                            | 17.08 | /     | 30           | PASS    |
|               | 2437            | SISO    | 18.21                            | 17.80 | /     | 30           | PASS    |
|               | 2462            | SISO    | 17.35                            | 17.18 | /     | 30           | PASS    |
| 802.11n(HT20) | 2412            | MIMO    | 14.87                            | 14.25 | 17.58 | 30           | PASS    |
|               | 2437            | MIMO    | 15.53                            | 15.35 | 18.45 | 30           | PASS    |
|               | 2462            | MIMO    | 16.75                            | 14.83 | 18.91 | 30           | PASS    |

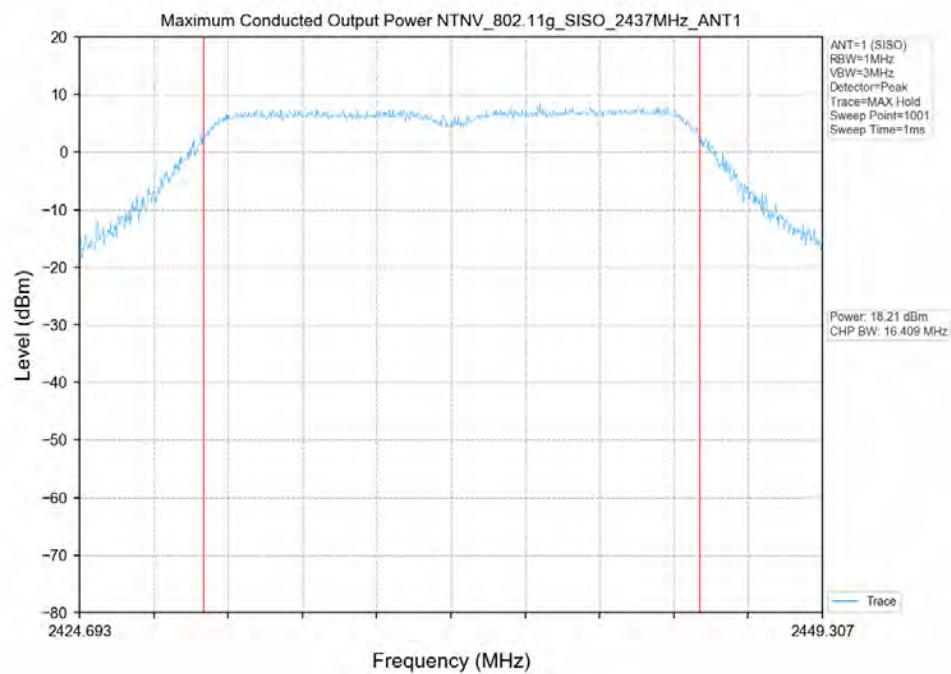
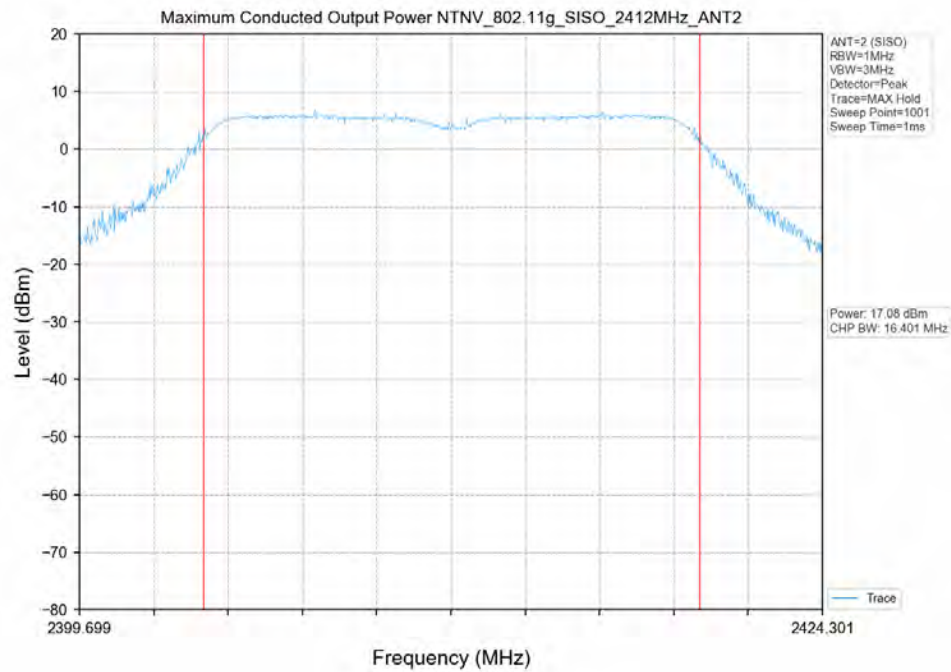
### 3.2 Test Graph

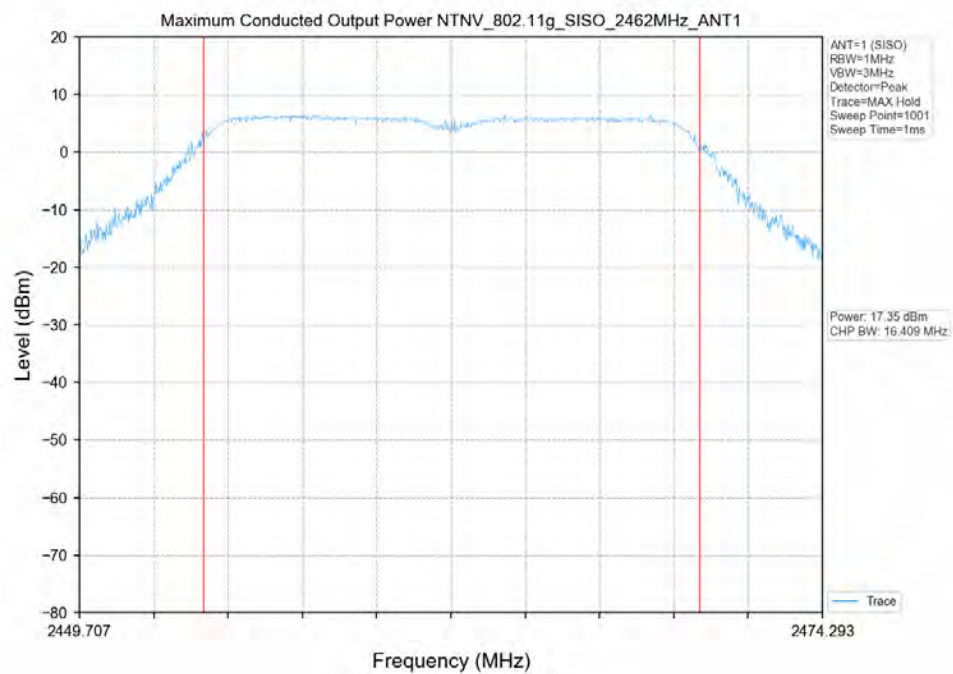
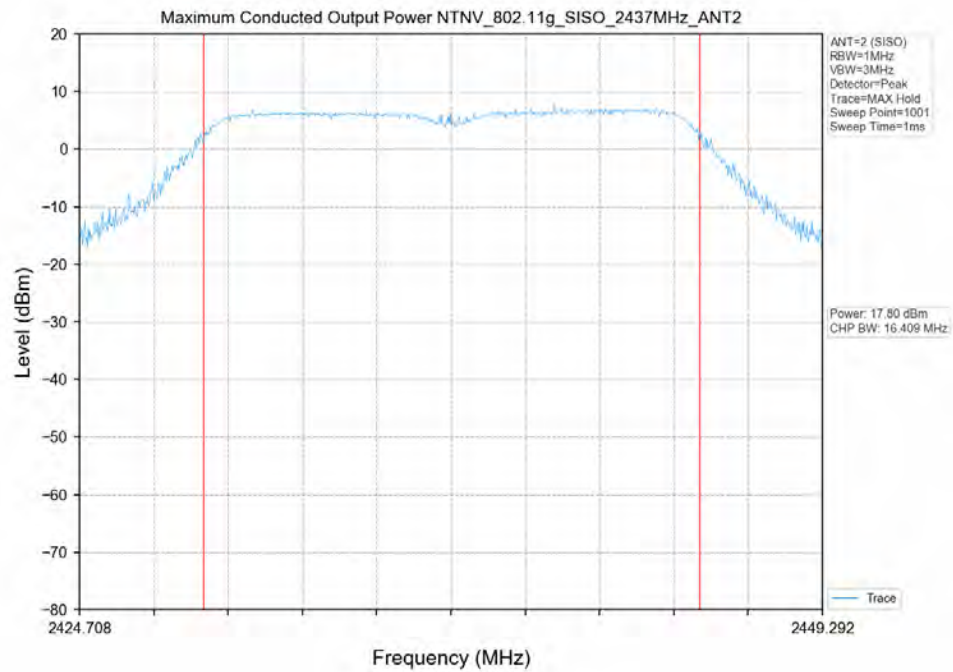


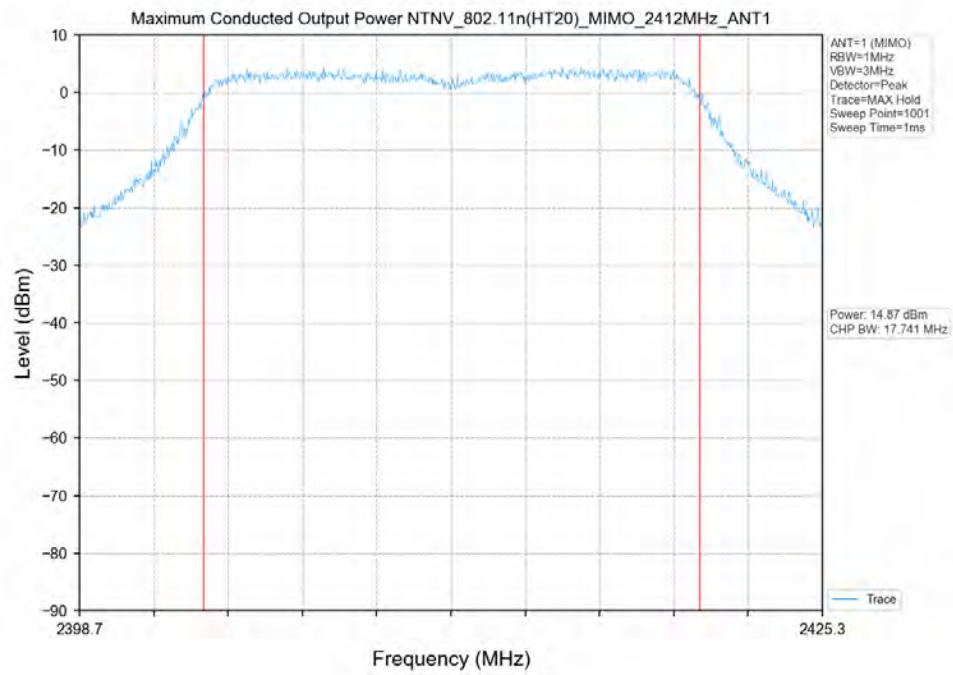
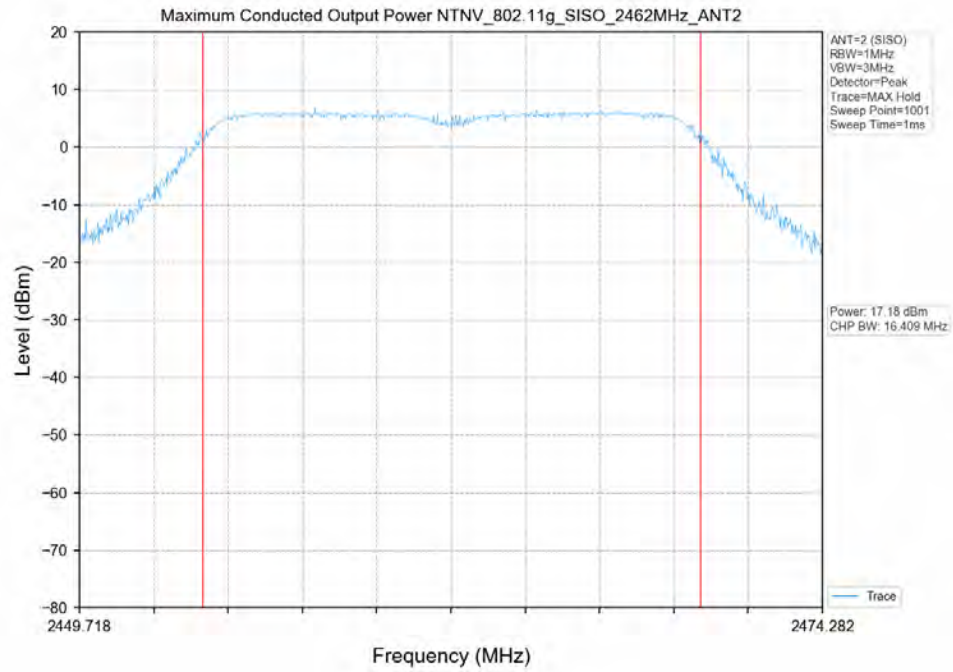


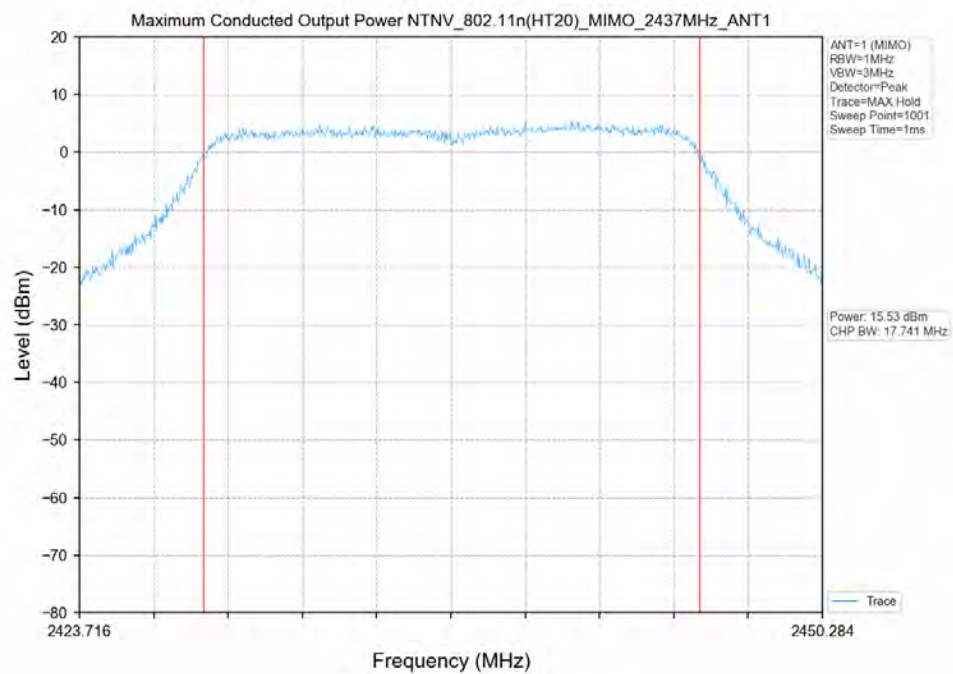
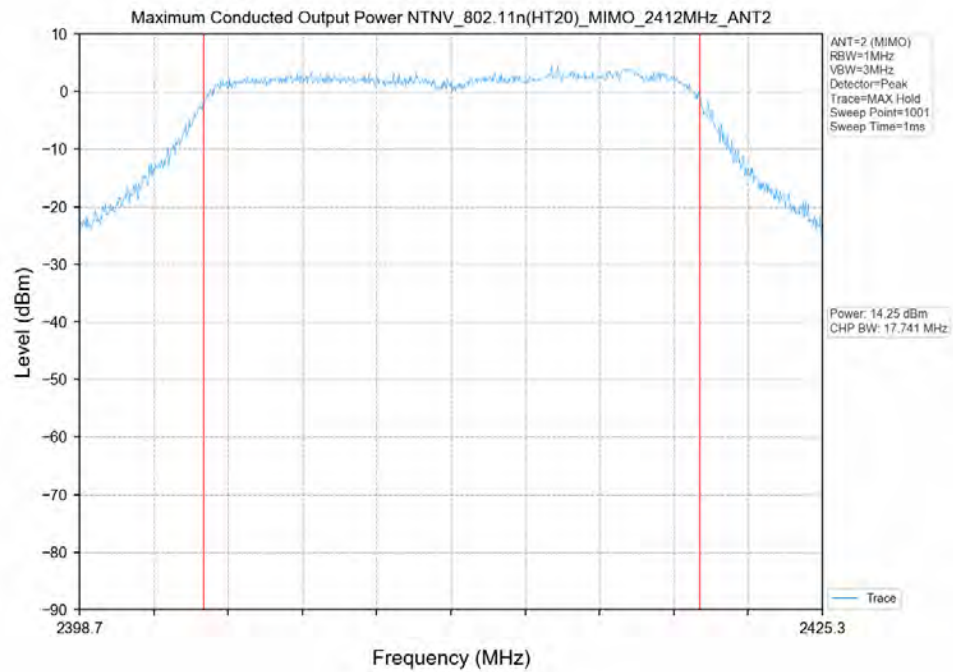


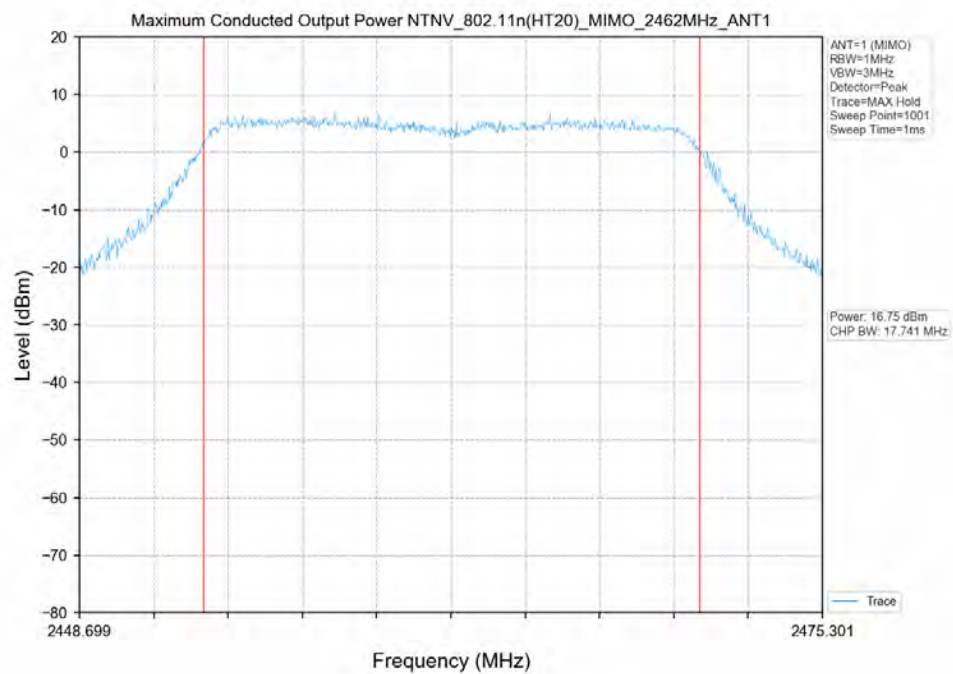
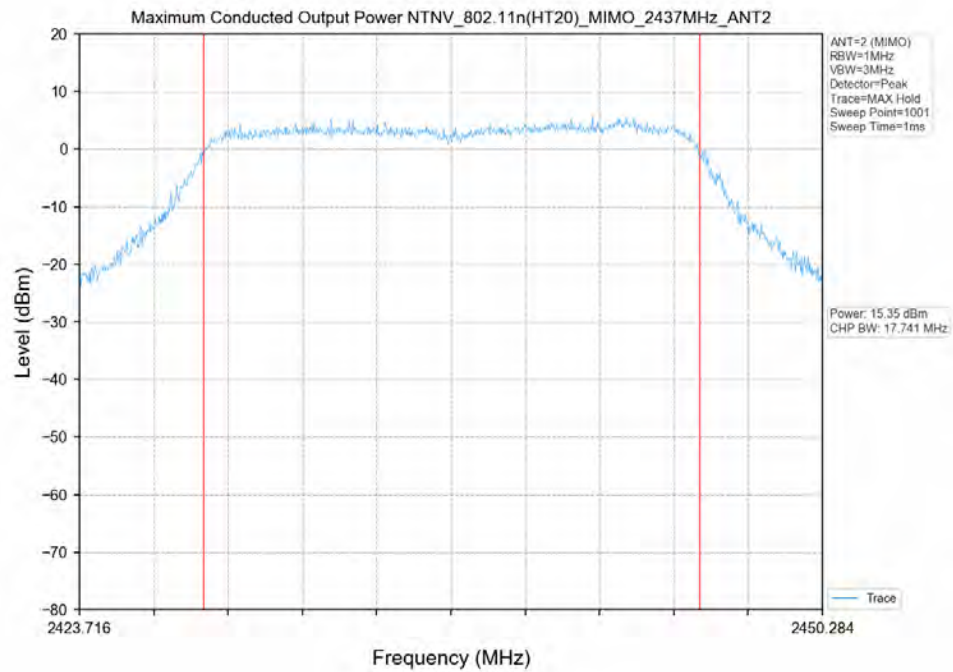


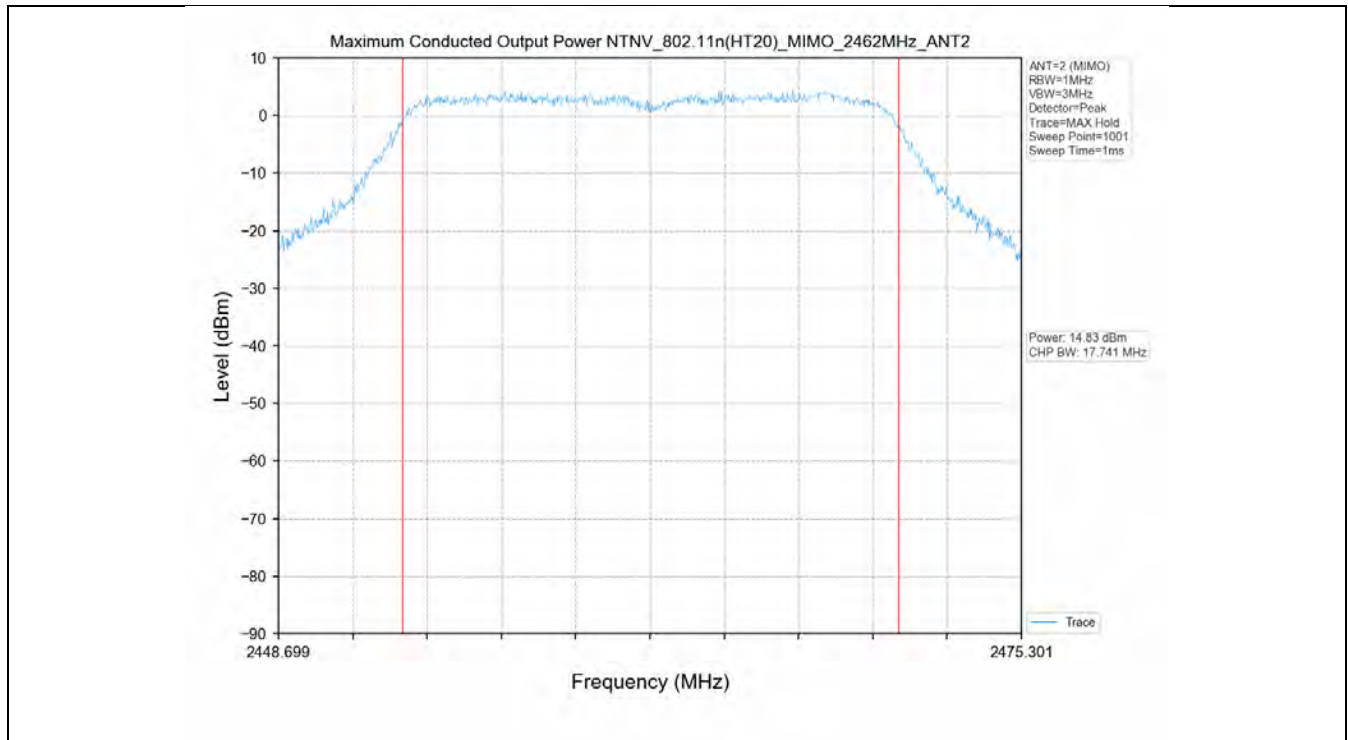










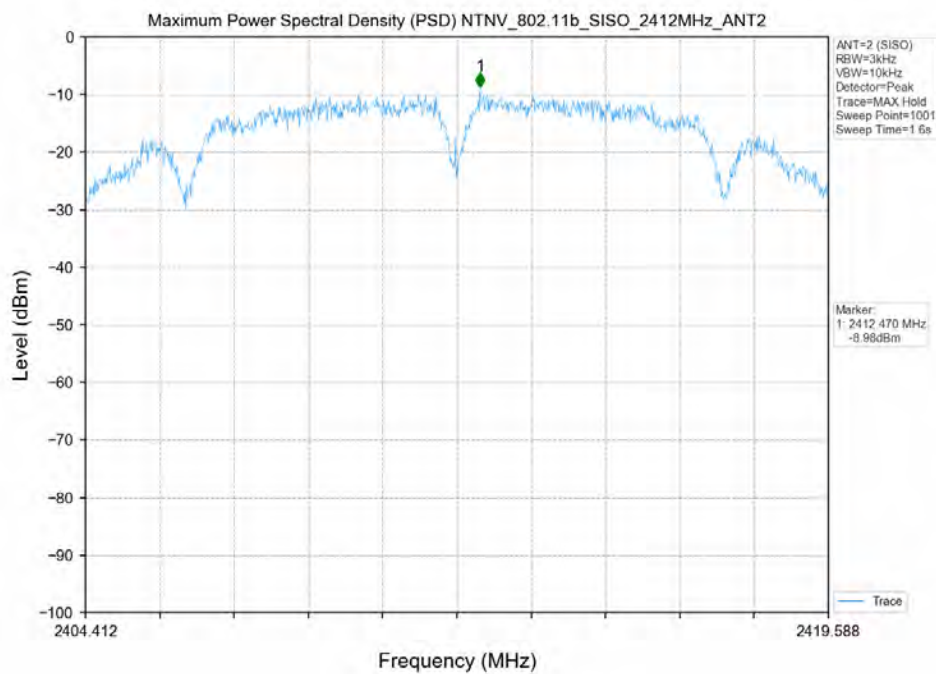
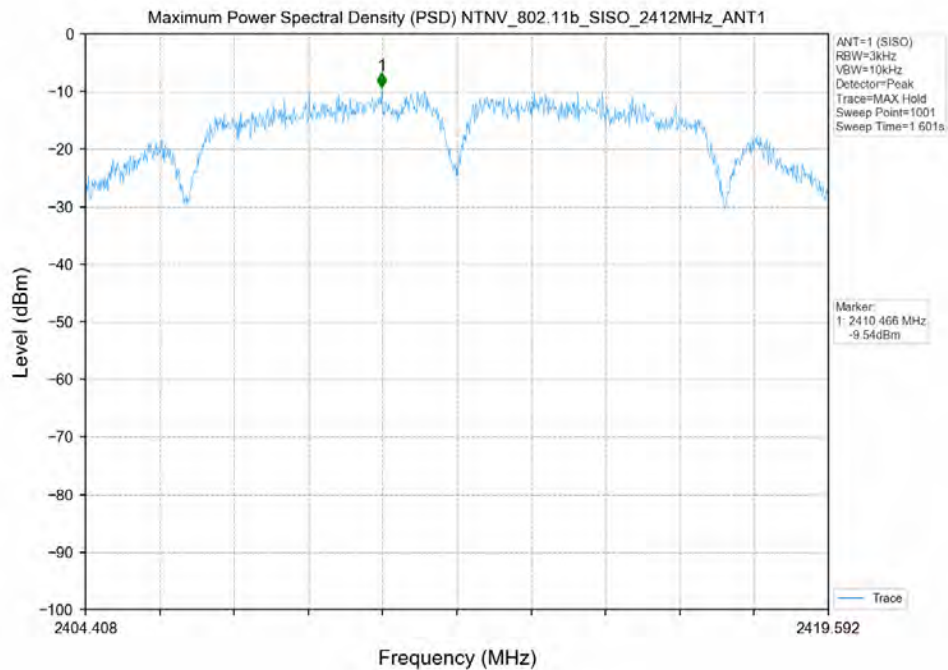


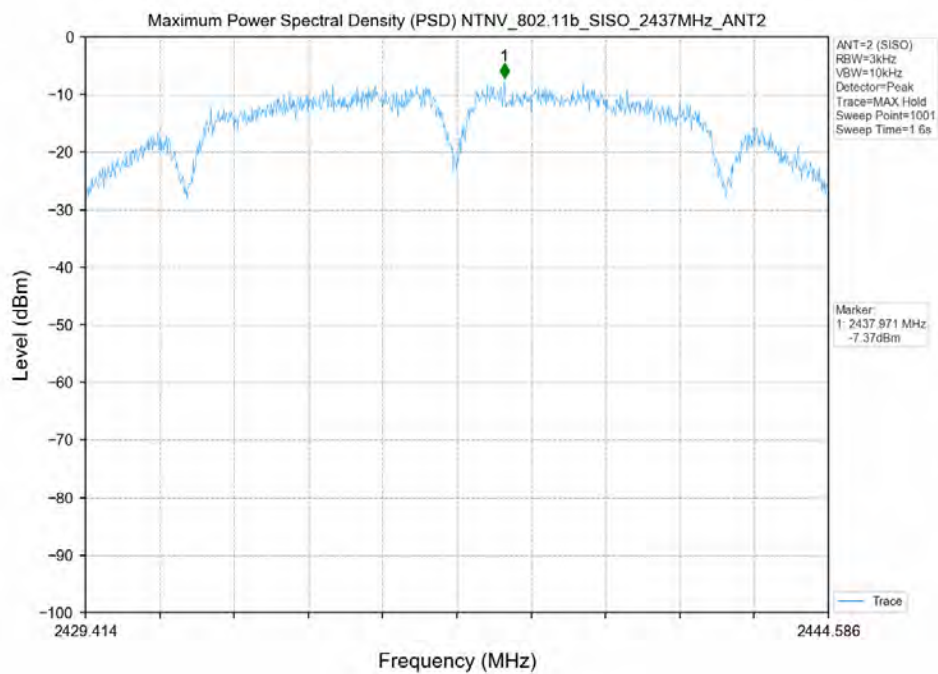
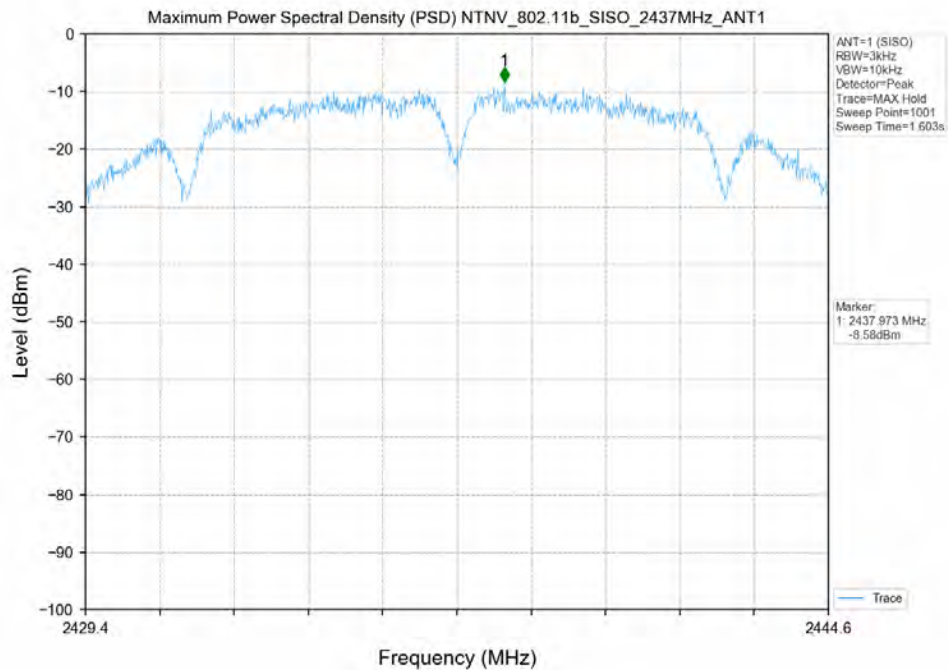
## 4. Maximum Power Spectral Density (PSD)

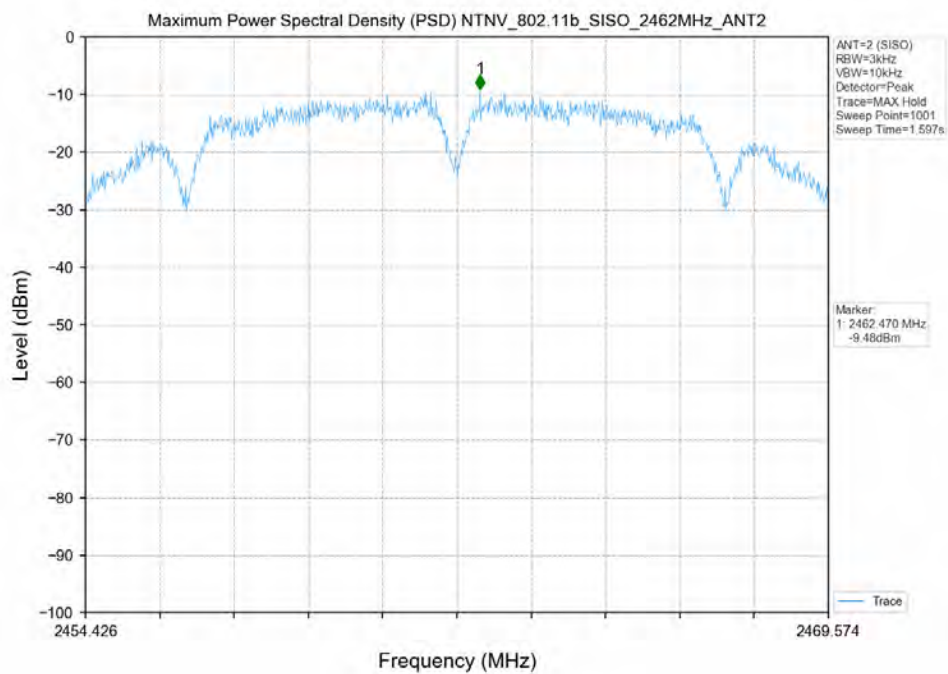
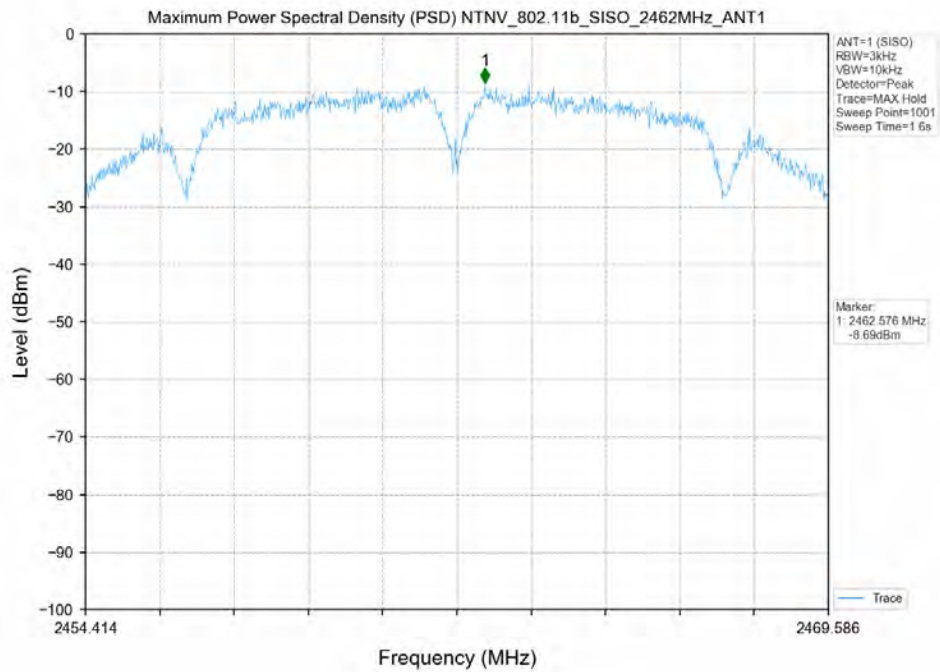
### 4.1 Test Result

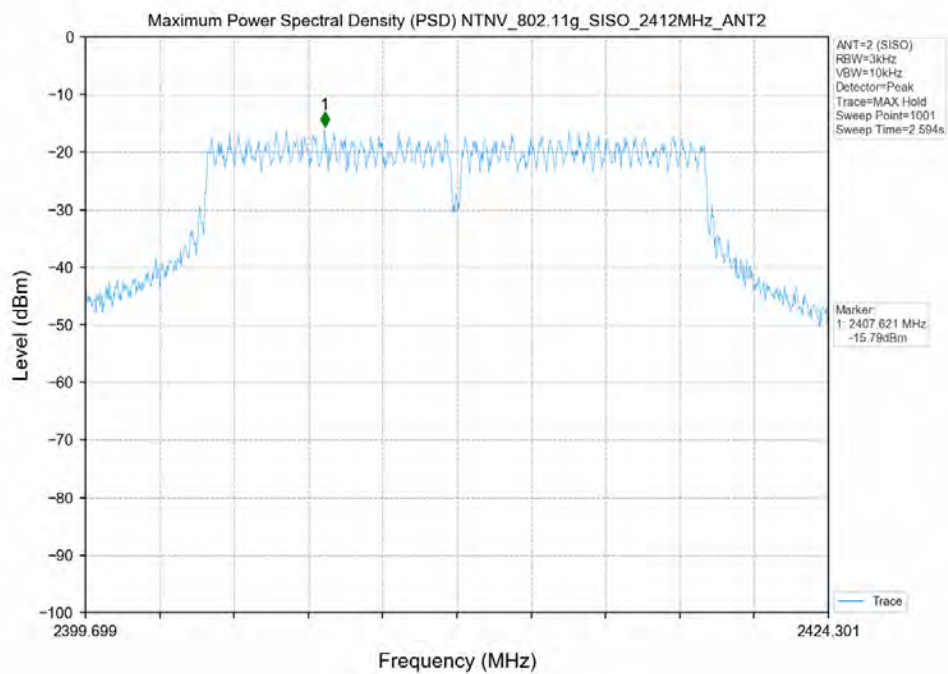
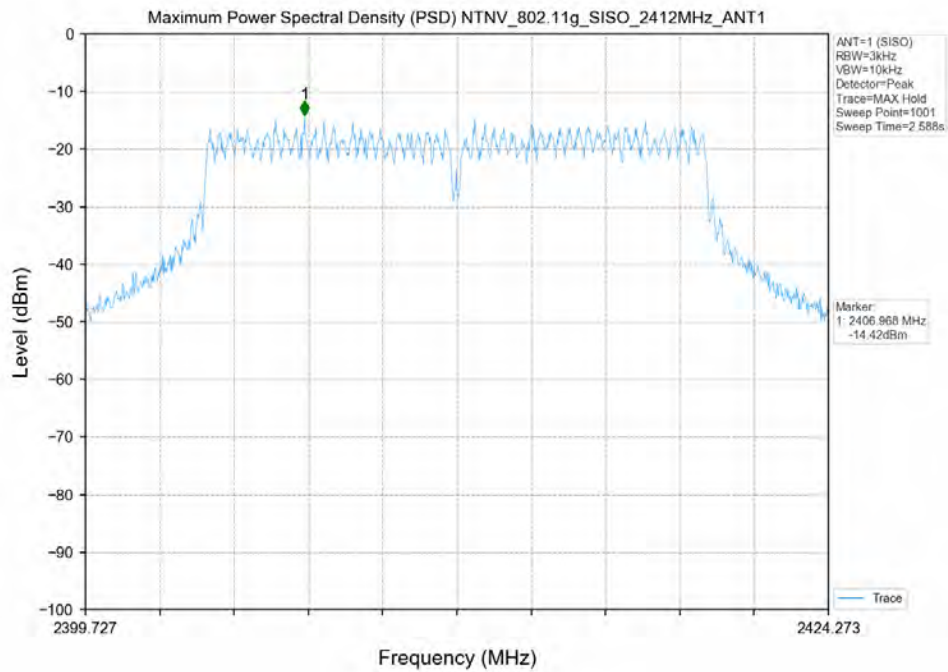
| Test Mode     | Frequency (MHz) | Tx Type | Maximum Power Spectral Density (dBm/3KHz) |        |        | Limits (dBm/3kHz) | Verdict |
|---------------|-----------------|---------|-------------------------------------------|--------|--------|-------------------|---------|
|               |                 |         | Ant 1                                     | Ant 2  | Total  |                   |         |
| 802.11b       | 2412            | SISO    | -9.54                                     | -8.98  | /      | ≤8                | PASS    |
|               | 2437            | SISO    | -8.58                                     | -7.37  | /      | ≤8                | PASS    |
|               | 2462            | SISO    | -8.69                                     | -9.48  | /      | ≤8                | PASS    |
| 802.11g       | 2412            | SISO    | -14.42                                    | -15.79 | /      | ≤8                | PASS    |
|               | 2437            | SISO    | -14.41                                    | -14.52 | /      | ≤8                | PASS    |
|               | 2462            | SISO    | -15.62                                    | -17.02 | /      | ≤8                | PASS    |
| 802.11n(HT20) | 2412            | MIMO    | -18.21                                    | -18.94 | -15.85 | ≤8                | PASS    |
|               | 2437            | MIMO    | -17.81                                    | -17.68 | -15.05 | ≤8                | PASS    |
|               | 2462            | MIMO    | -16.17                                    | -17.84 | -14.46 | ≤8                | PASS    |

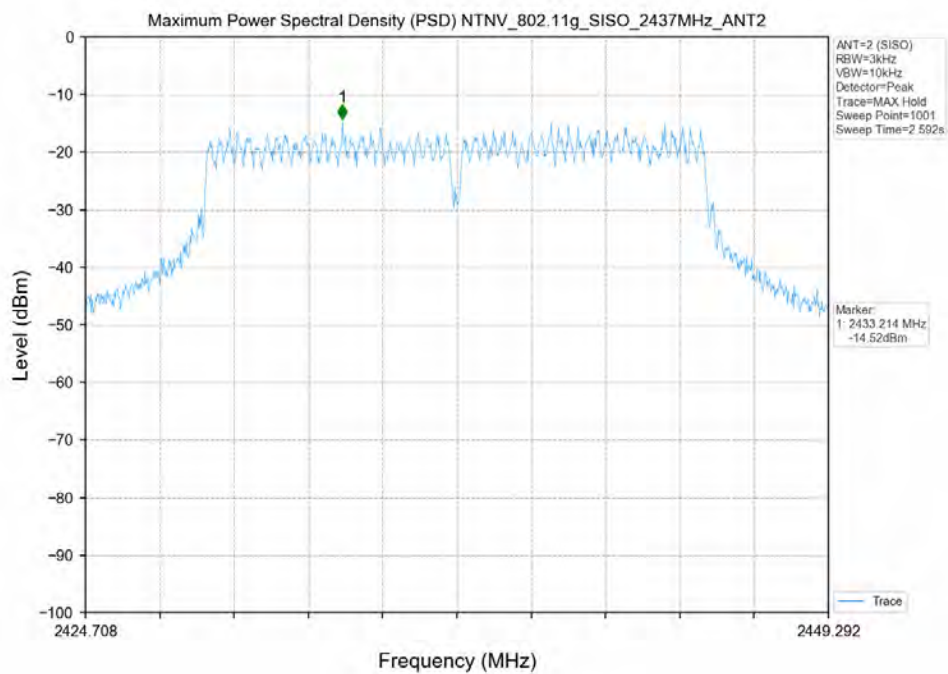
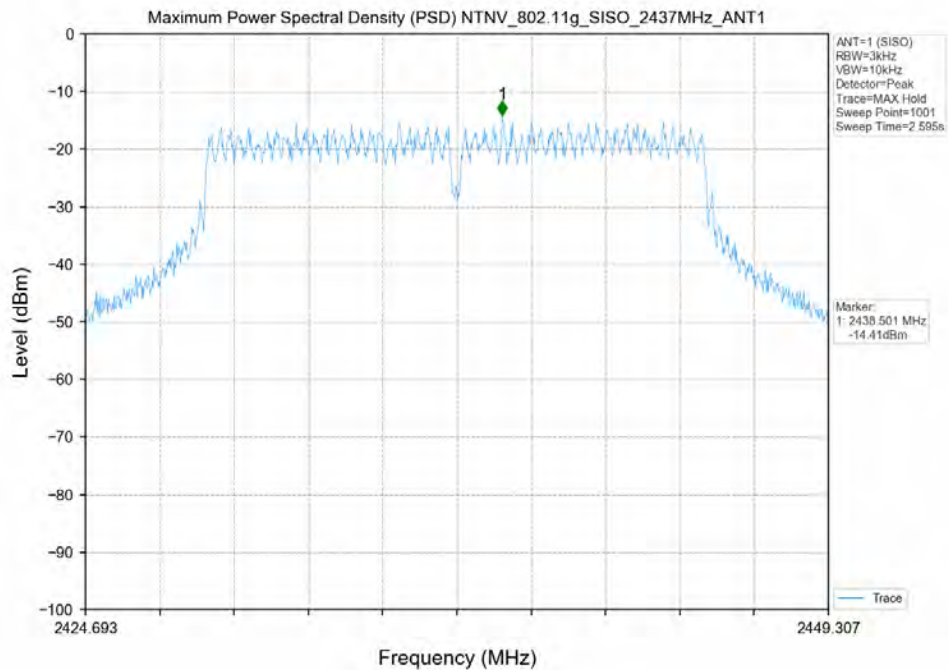
### 4.2 Test Graph

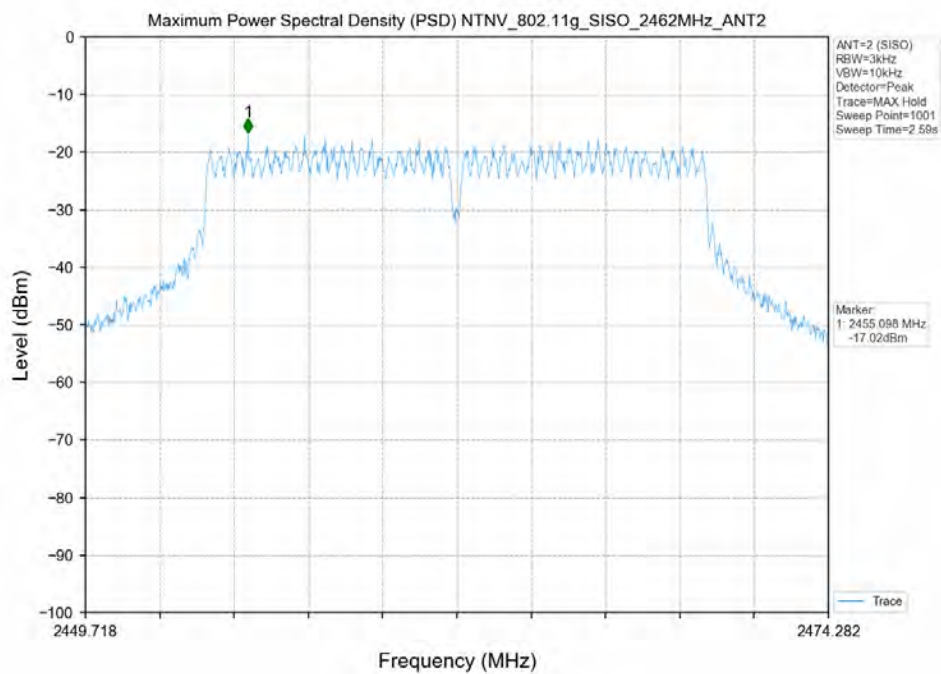
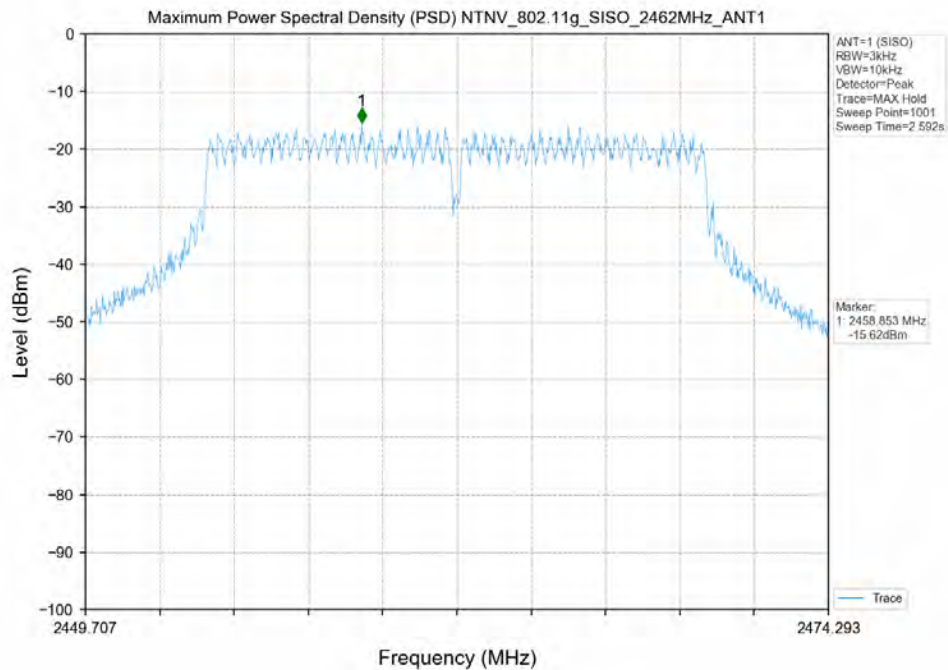


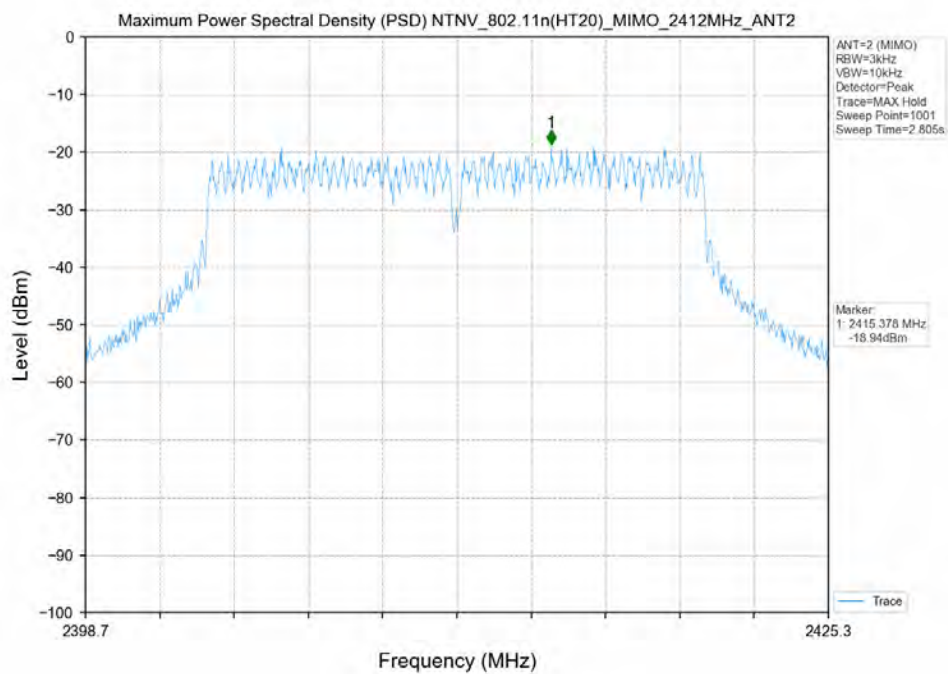
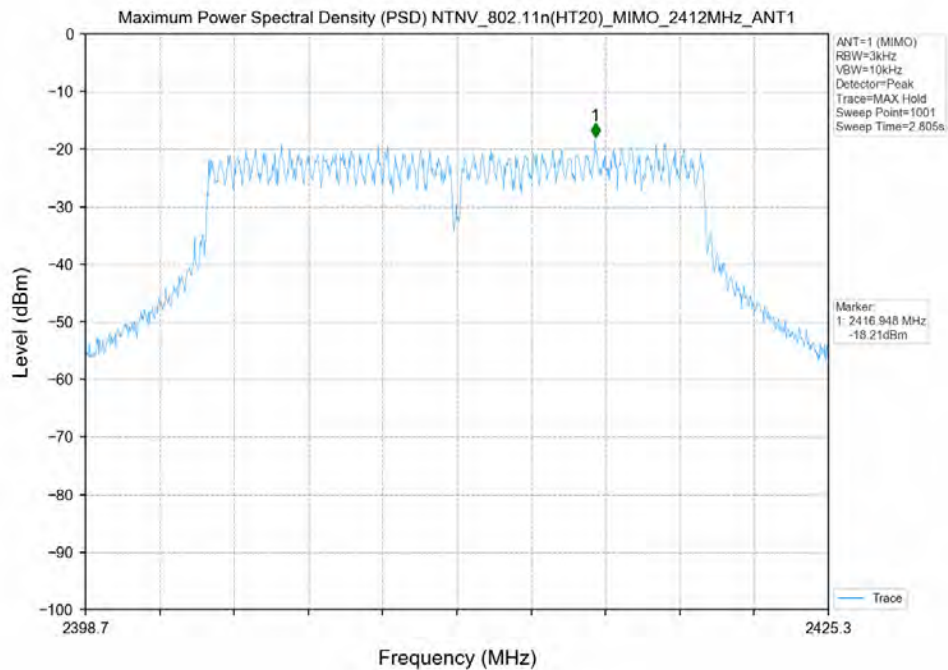


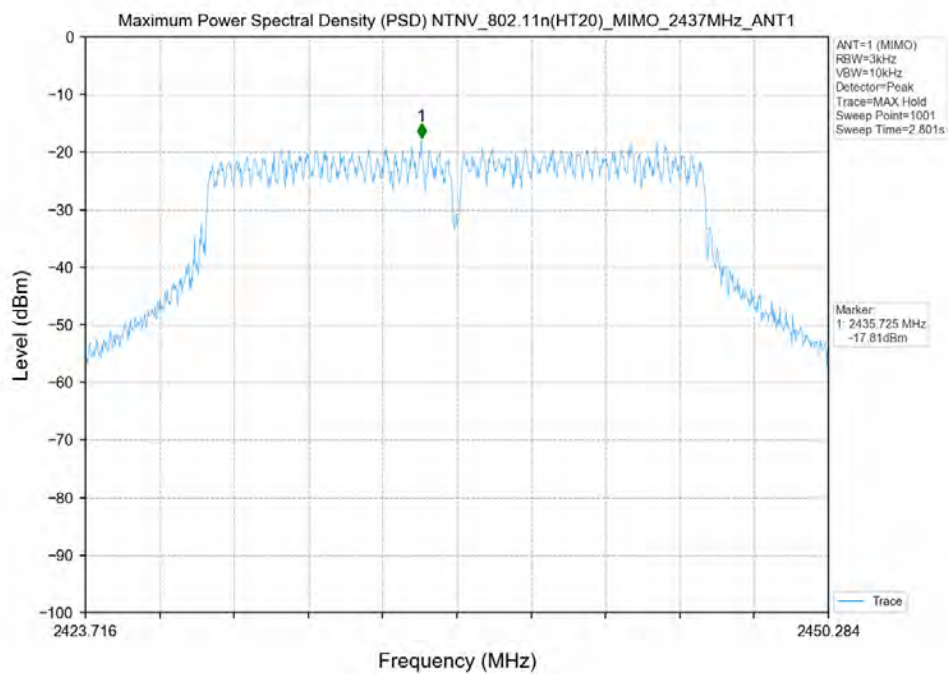
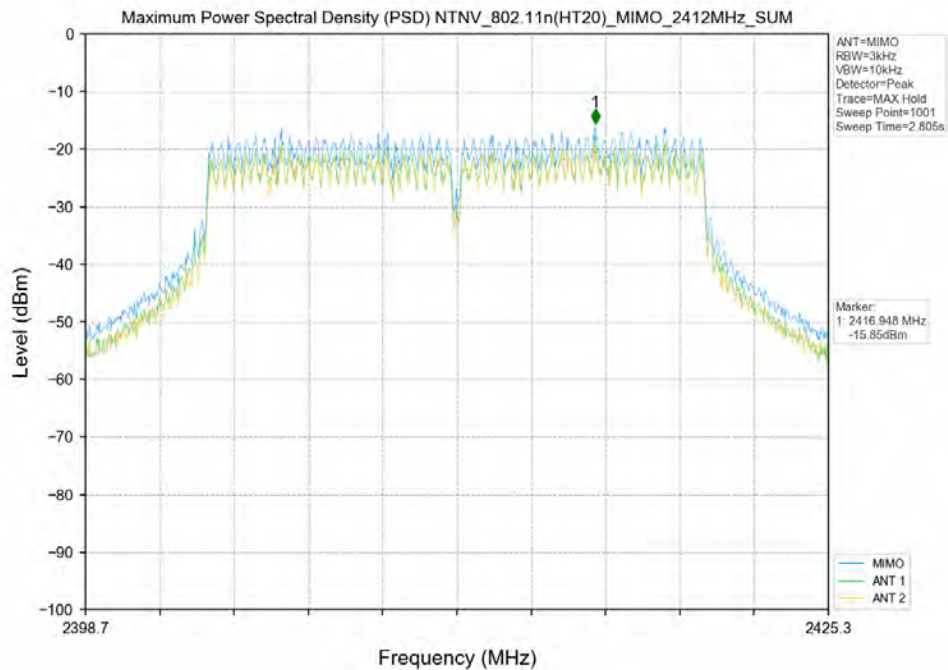


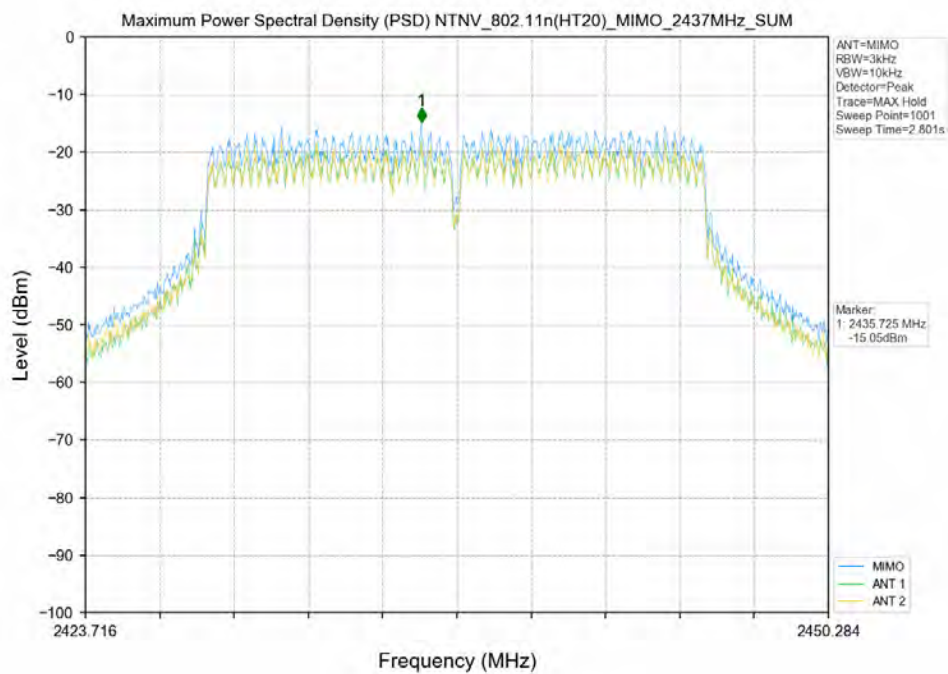
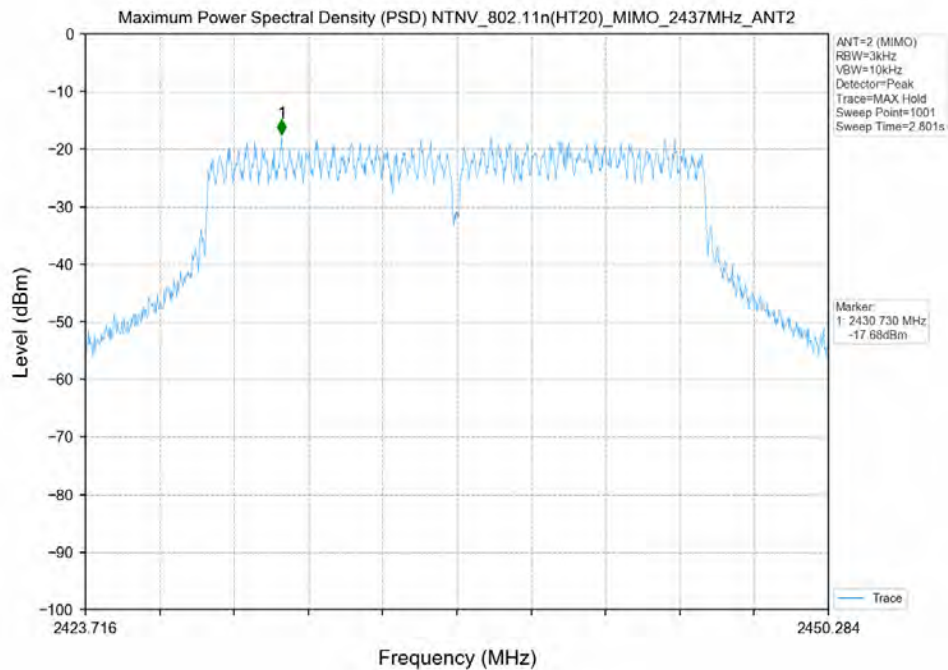


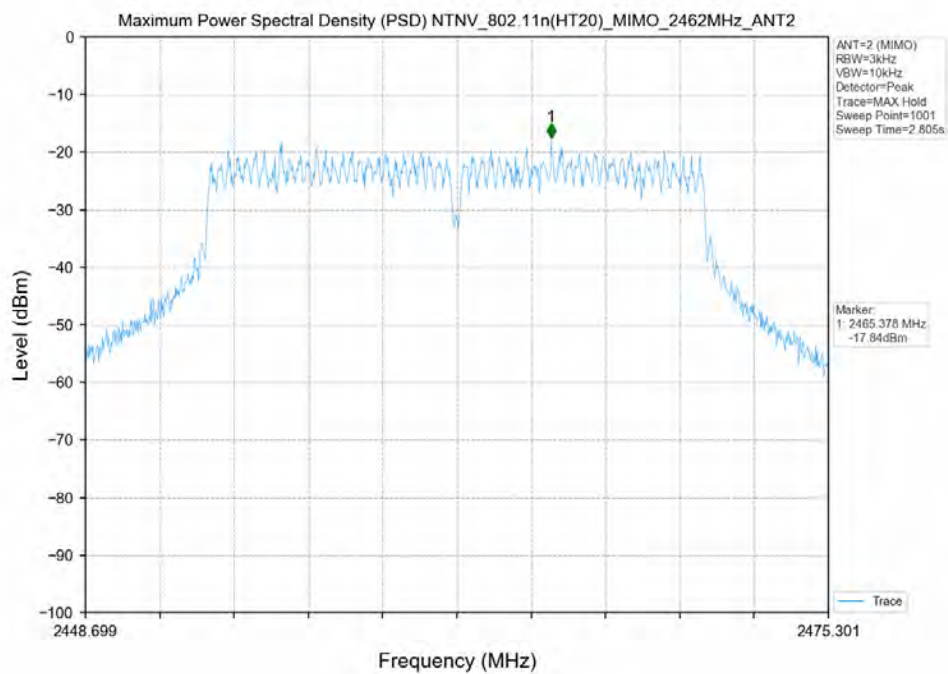
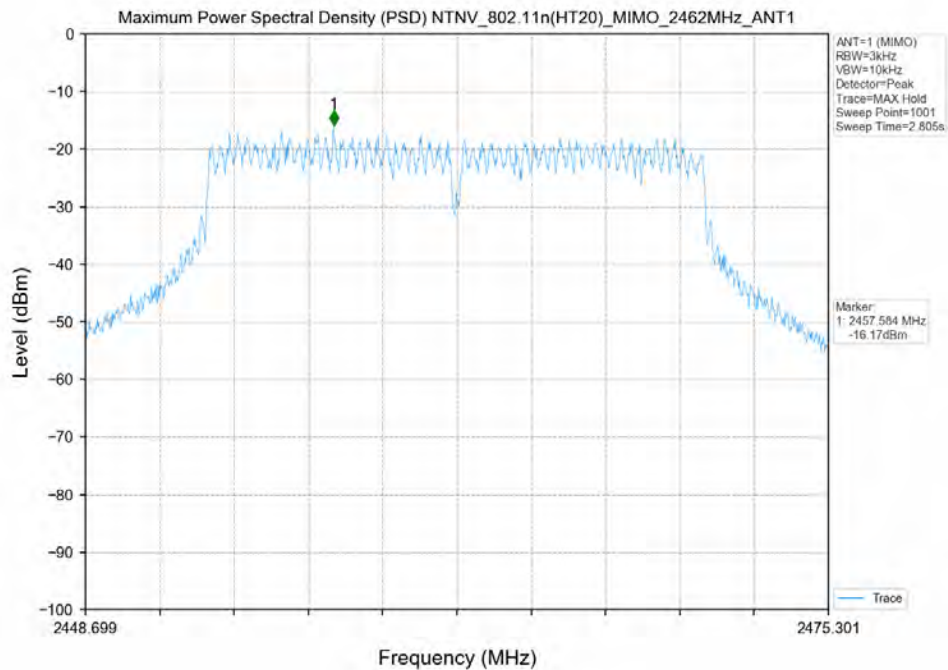


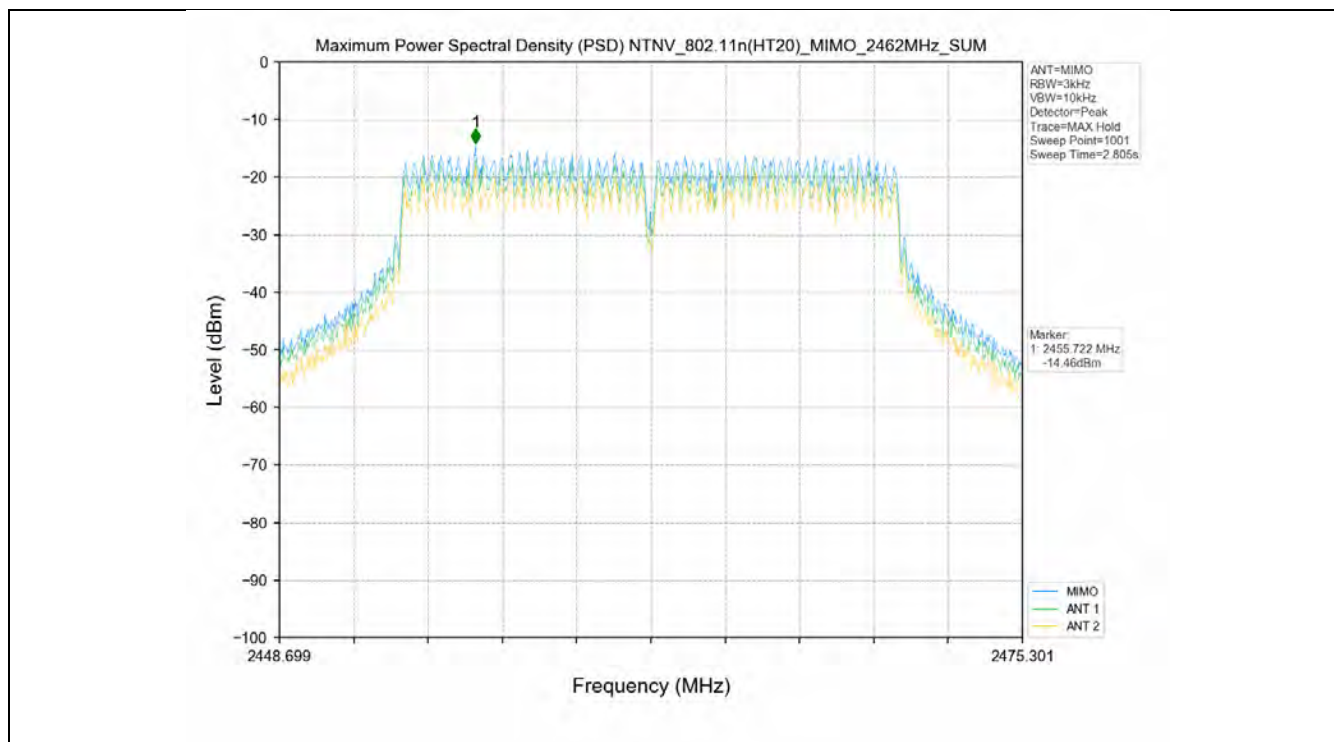










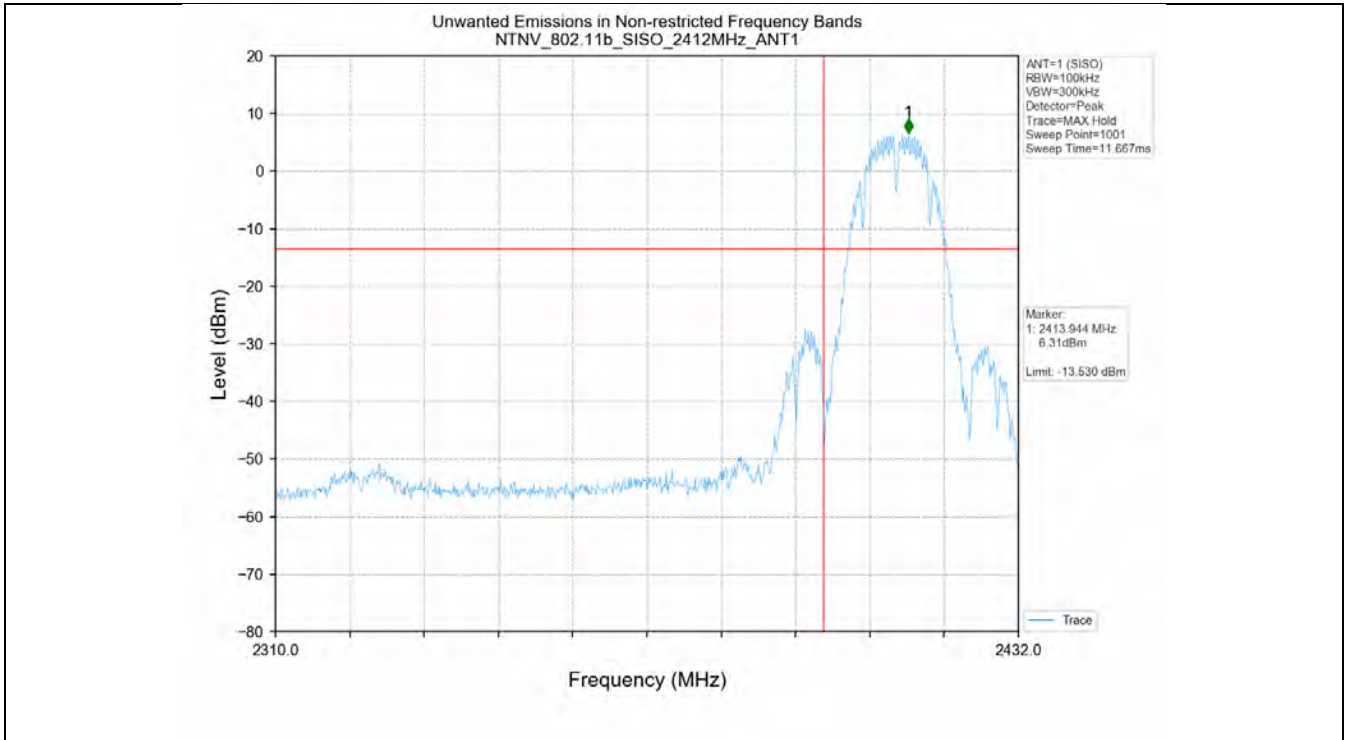
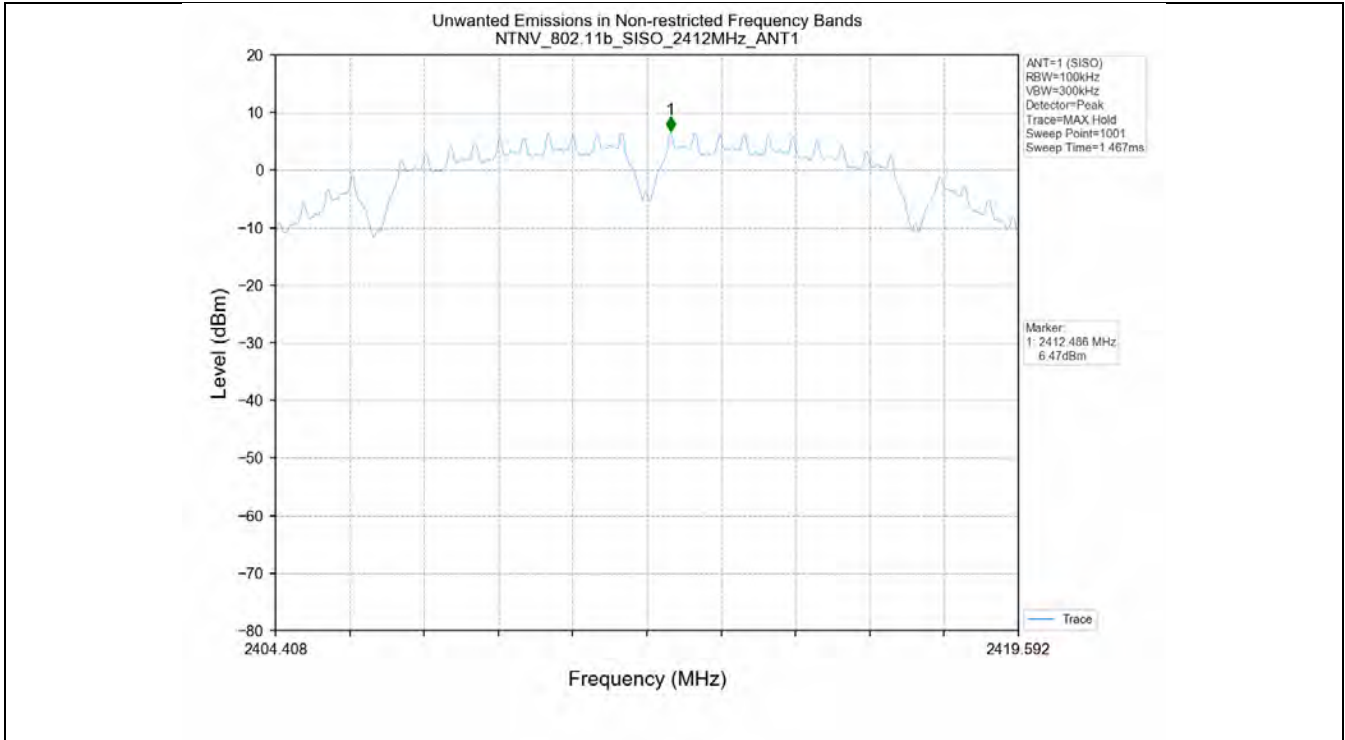


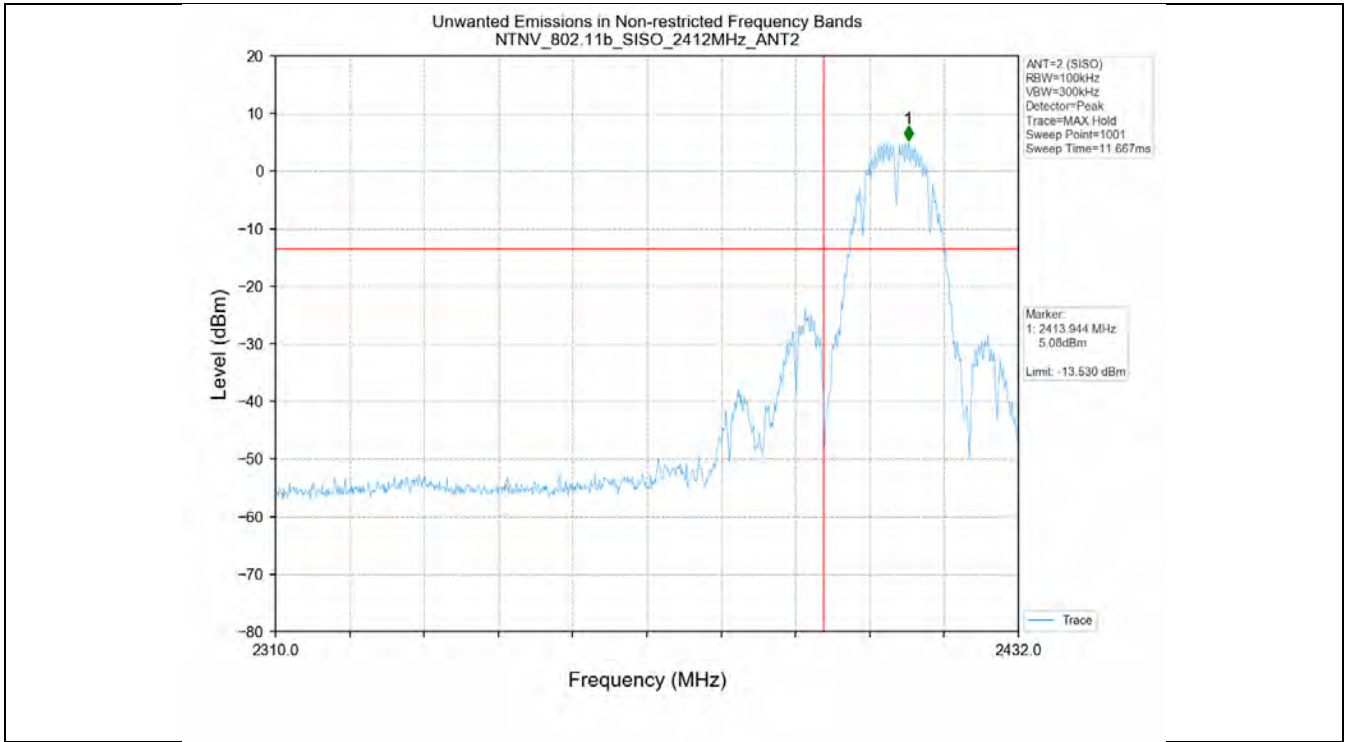
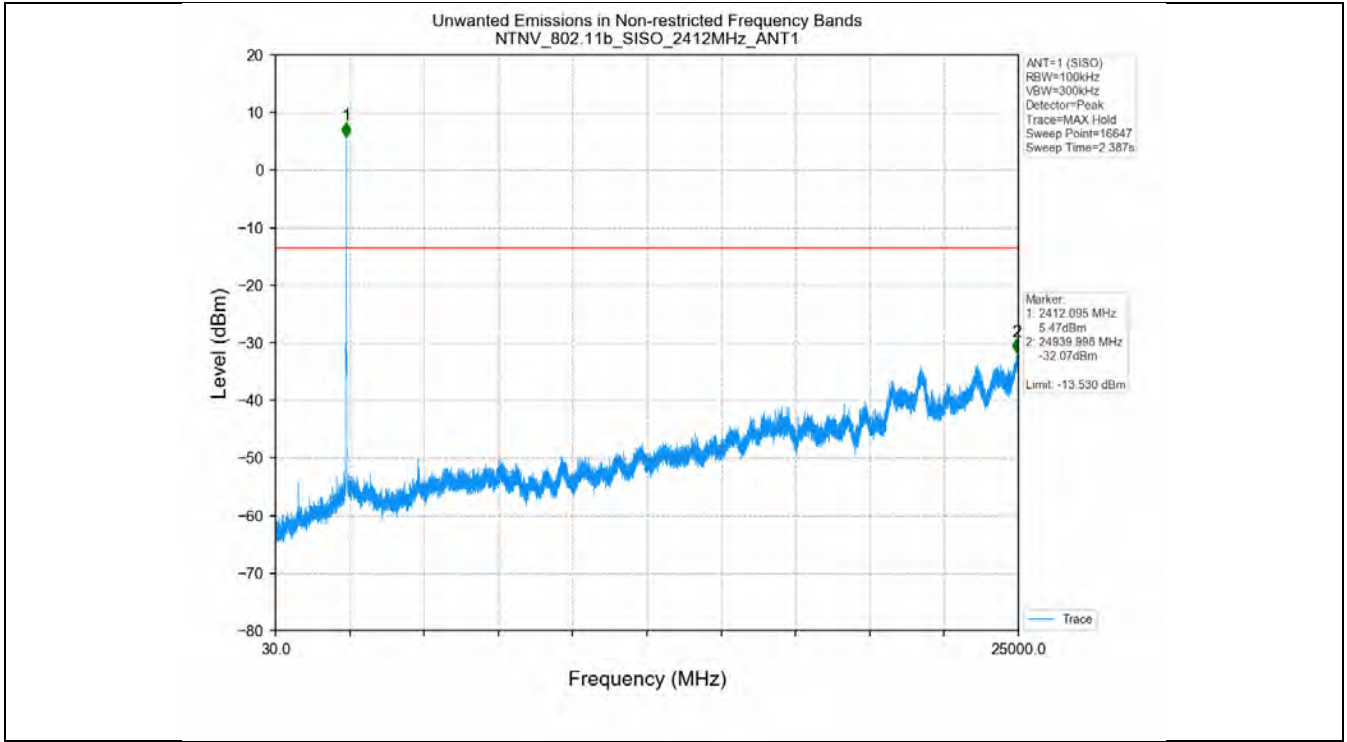
## 5. Unwanted Emissions in Non-restricted Frequency Bands

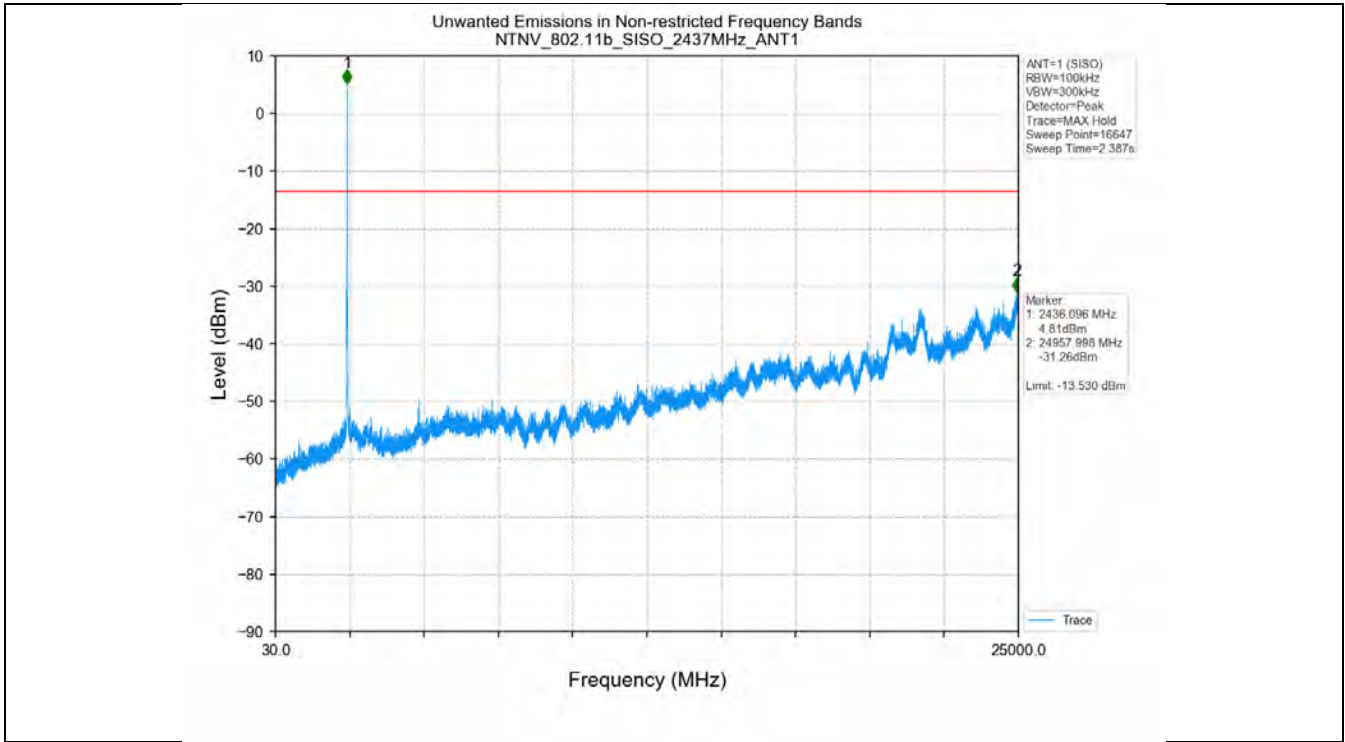
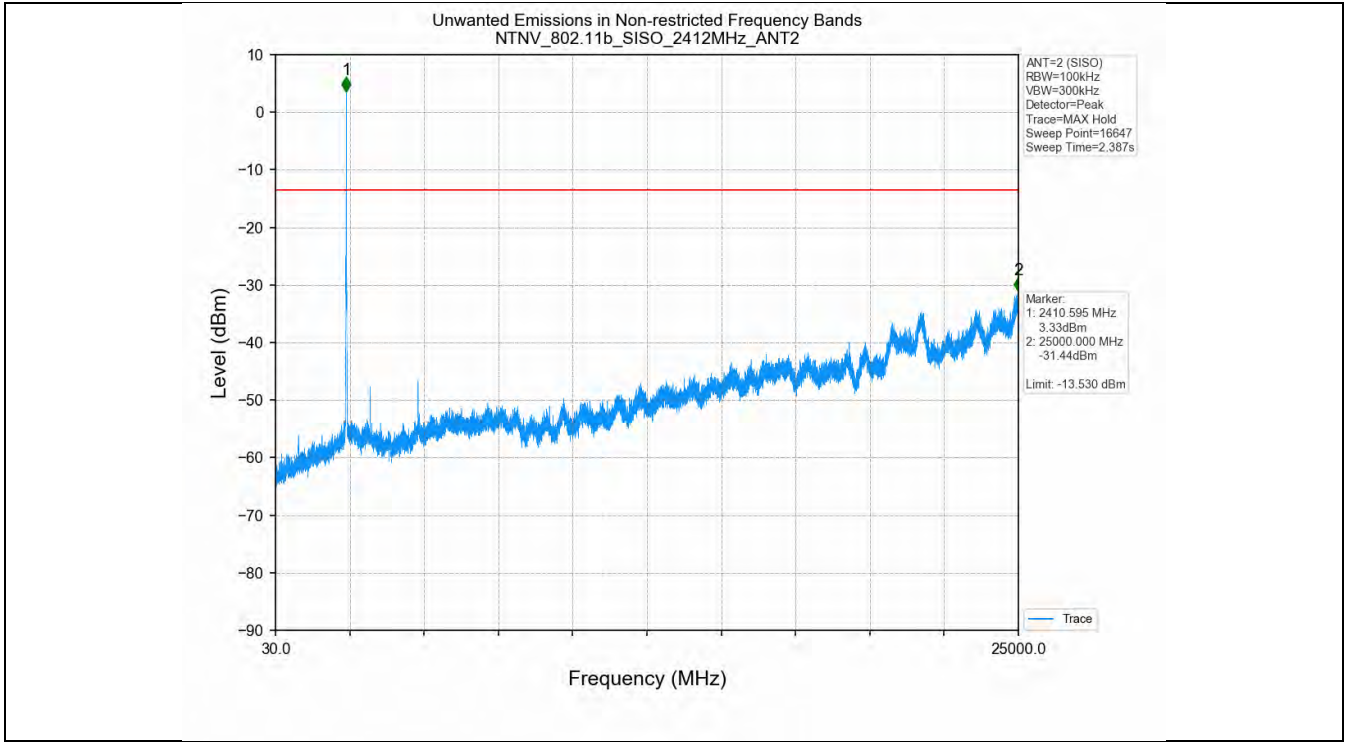
### 5.1 Test Result

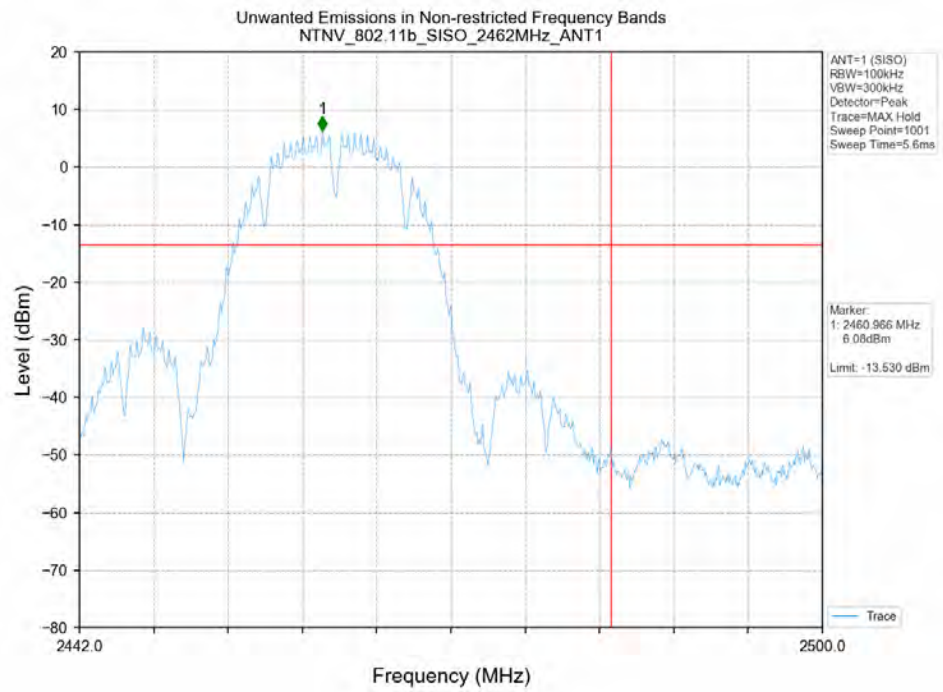
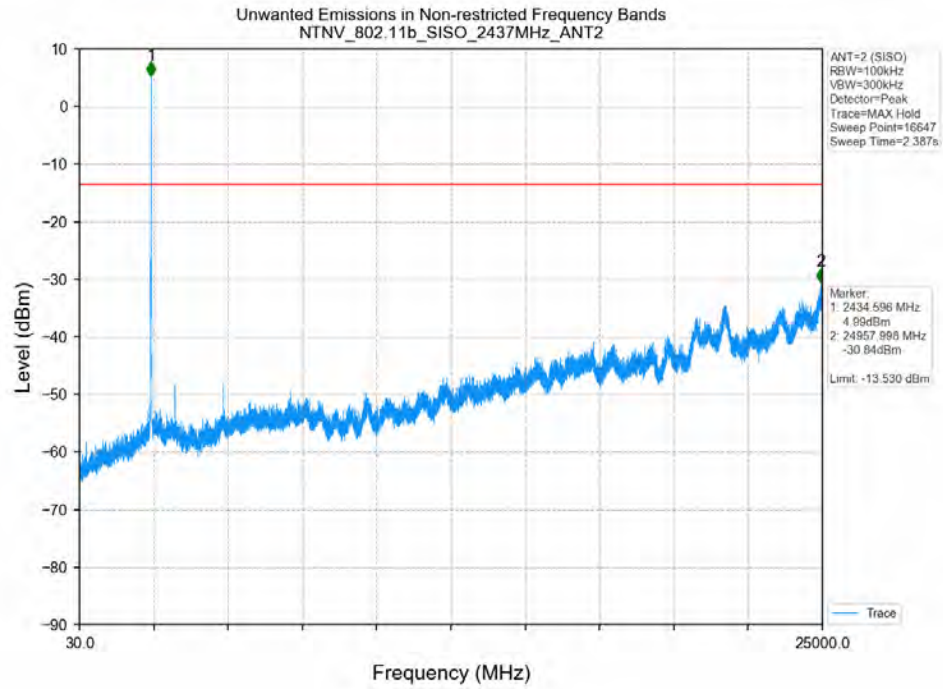
| Test Mode     | Frequency (MHz) | TX Type | ANT No. | Spurious Conducted Emission (dBm) | Limits (dBm) | Verdict |
|---------------|-----------------|---------|---------|-----------------------------------|--------------|---------|
| 802.11b       | 2412            | SISO    | 1       | Refer to test graph               | -13.53       | PASS    |
|               |                 |         | 2       | Refer to test graph               | -13.53       | PASS    |
|               | 2437            | SISO    | 1       | Refer to test graph               | -13.53       | PASS    |
|               |                 |         | 2       | Refer to test graph               | -13.53       | PASS    |
|               | 2462            | SISO    | 1       | Refer to test graph               | -13.53       | PASS    |
|               |                 |         | 2       | Refer to test graph               | -13.53       | PASS    |
| 802.11g       | 2412            | SISO    | 1       | Refer to test graph               | -19.70       | PASS    |
|               |                 |         | 2       | Refer to test graph               | -19.70       | PASS    |
|               | 2437            | SISO    | 1       | Refer to test graph               | -19.70       | PASS    |
|               |                 |         | 2       | Refer to test graph               | -19.70       | PASS    |
|               | 2462            | SISO    | 1       | Refer to test graph               | -19.70       | PASS    |
|               |                 |         | 2       | Refer to test graph               | -19.70       | PASS    |
| 802.11n(HT20) | 2412            | MIMO    | 1       | Refer to test graph               | -22.60       | PASS    |
|               |                 |         | 2       | Refer to test graph               | -22.60       | PASS    |
|               | 2437            | MIMO    | 1       | Refer to test graph               | -22.60       | PASS    |
|               |                 |         | 2       | Refer to test graph               | -22.60       | PASS    |
|               | 2462            | MIMO    | 1       | Refer to test graph               | -22.60       | PASS    |
|               |                 |         | 2       | Refer to test graph               | -22.60       | PASS    |

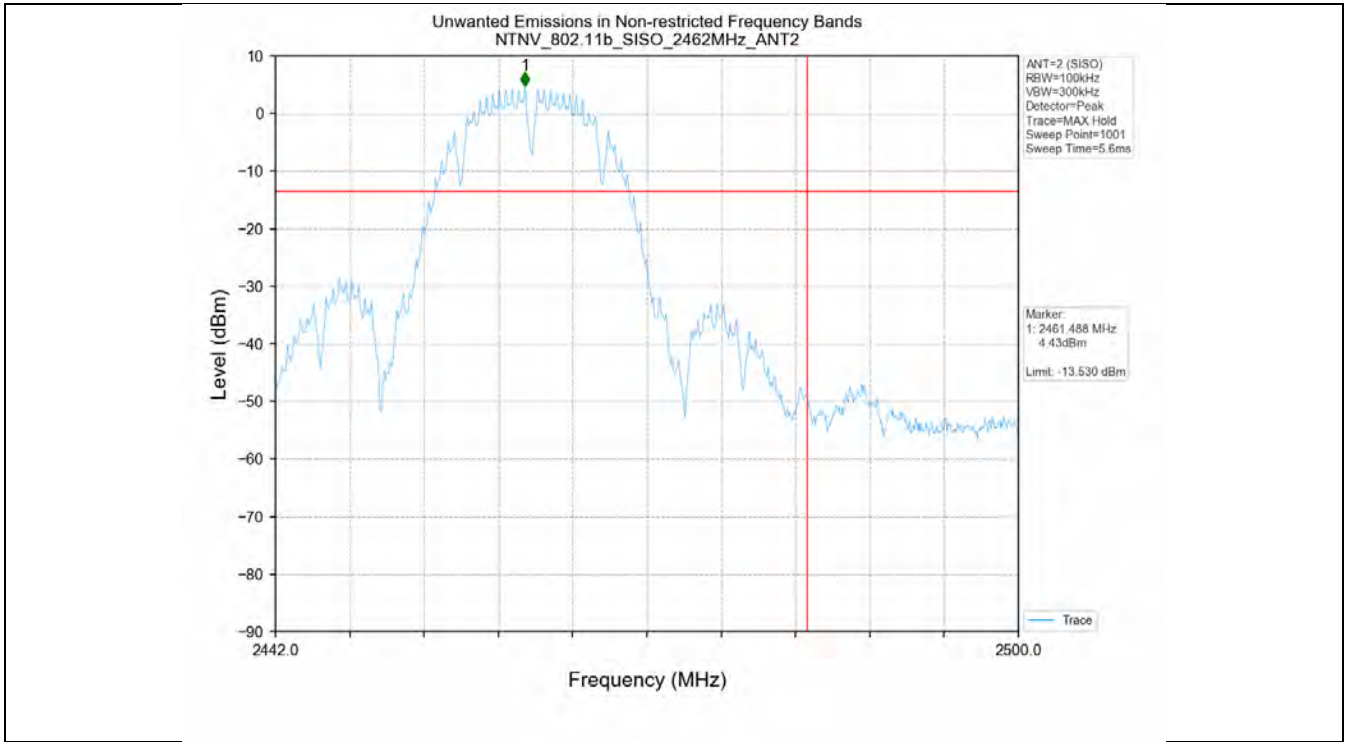
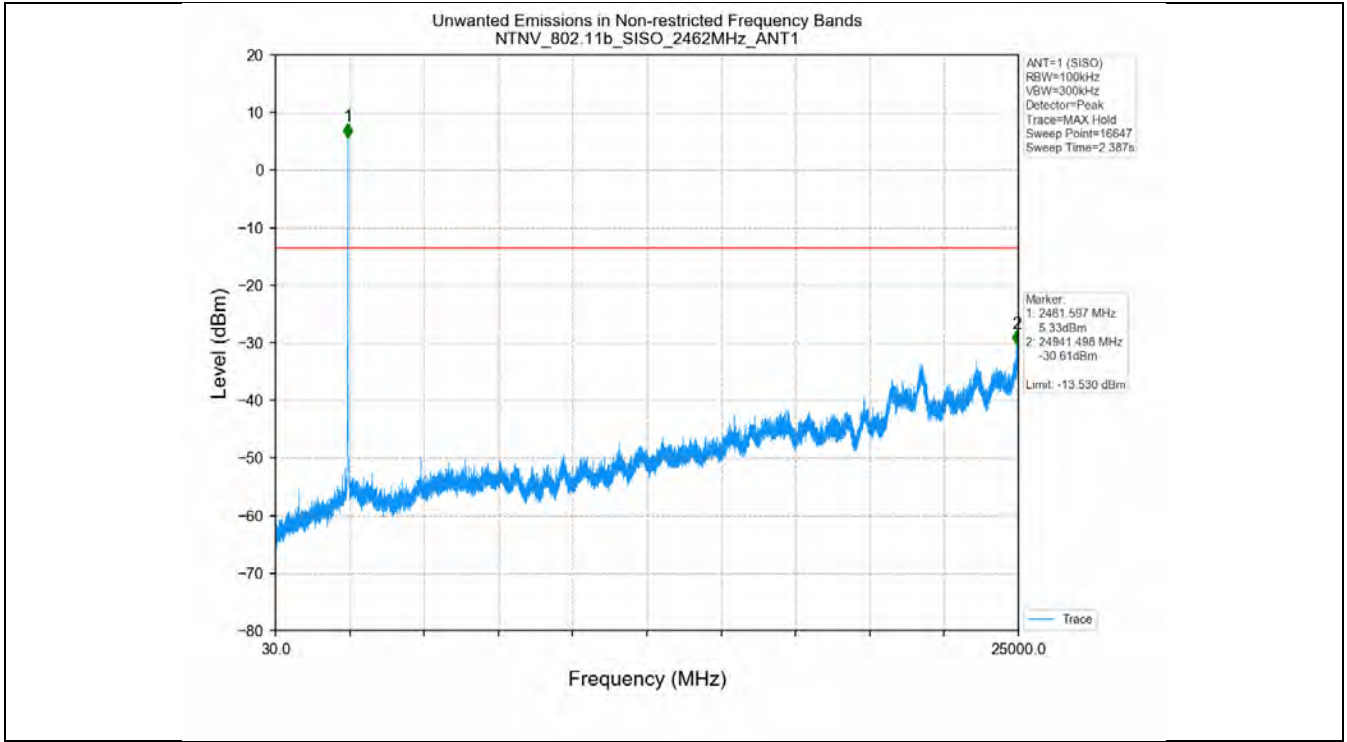
### 5.2 Test Graph

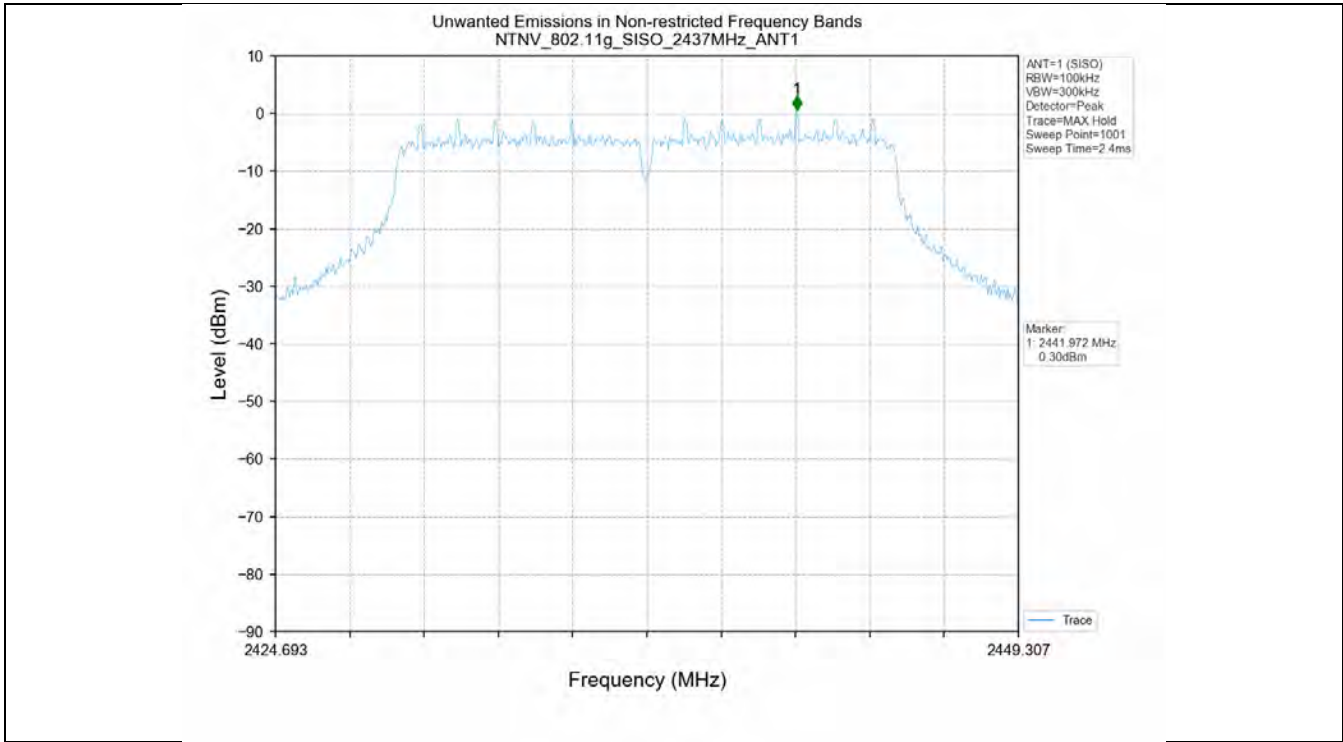
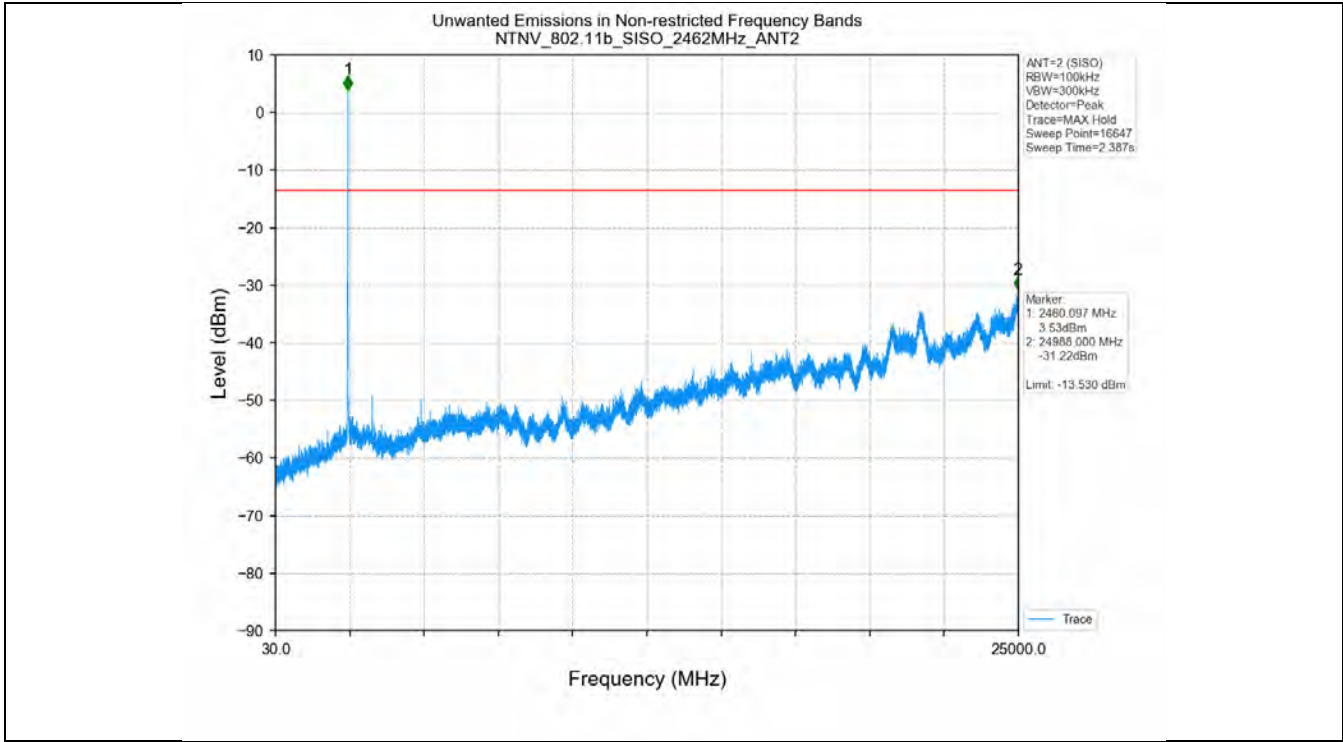


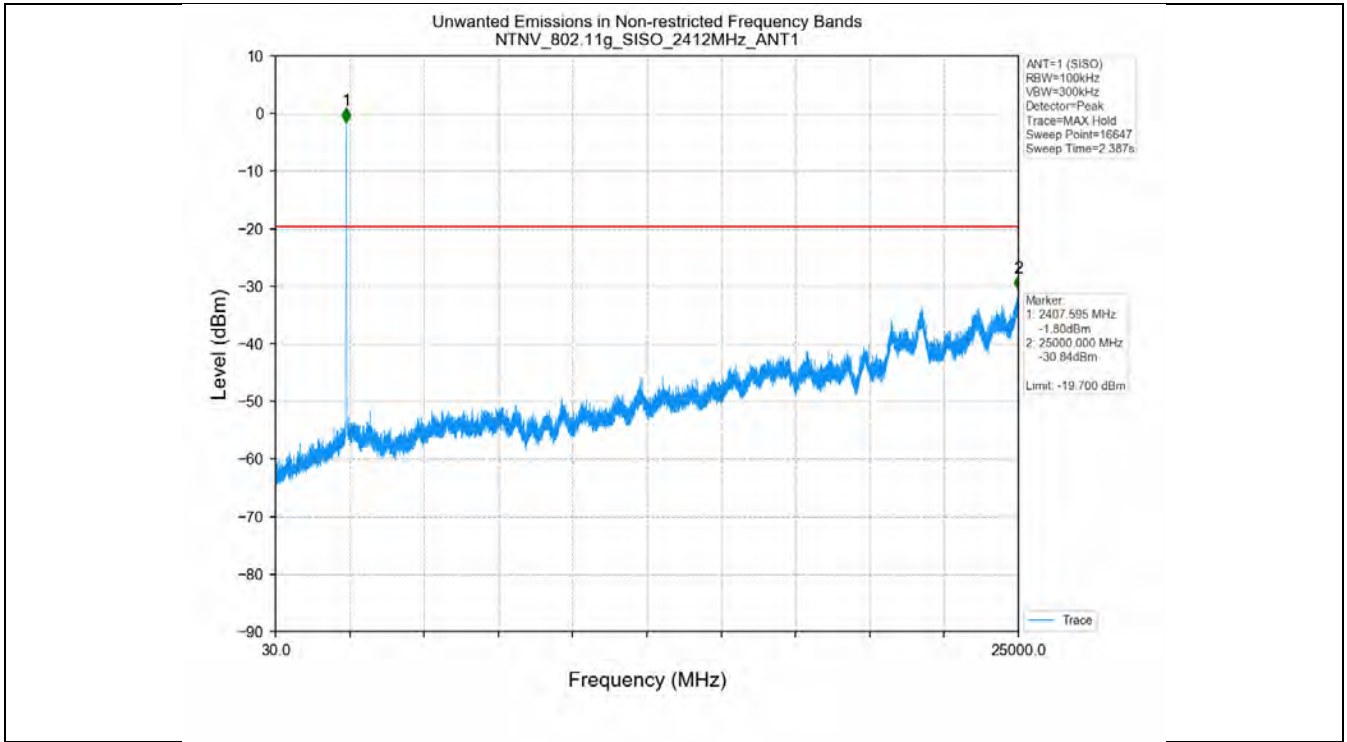
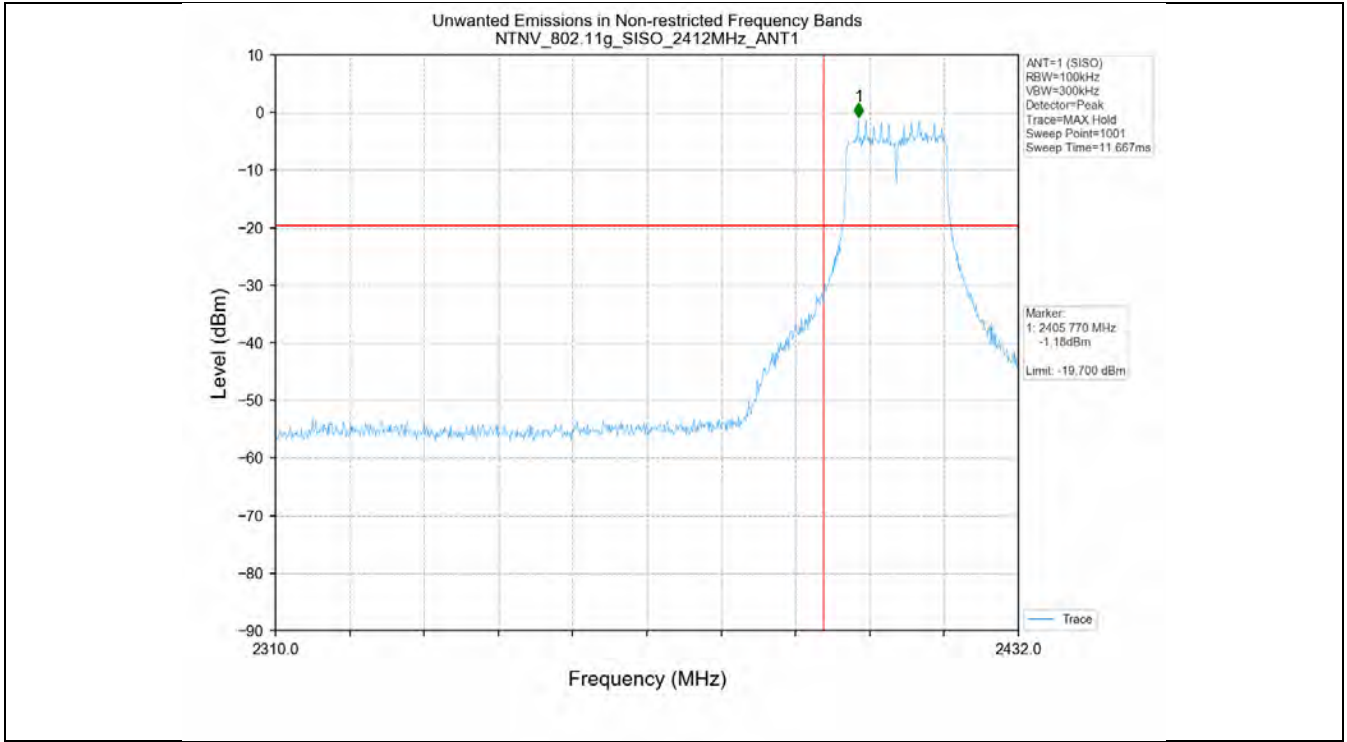


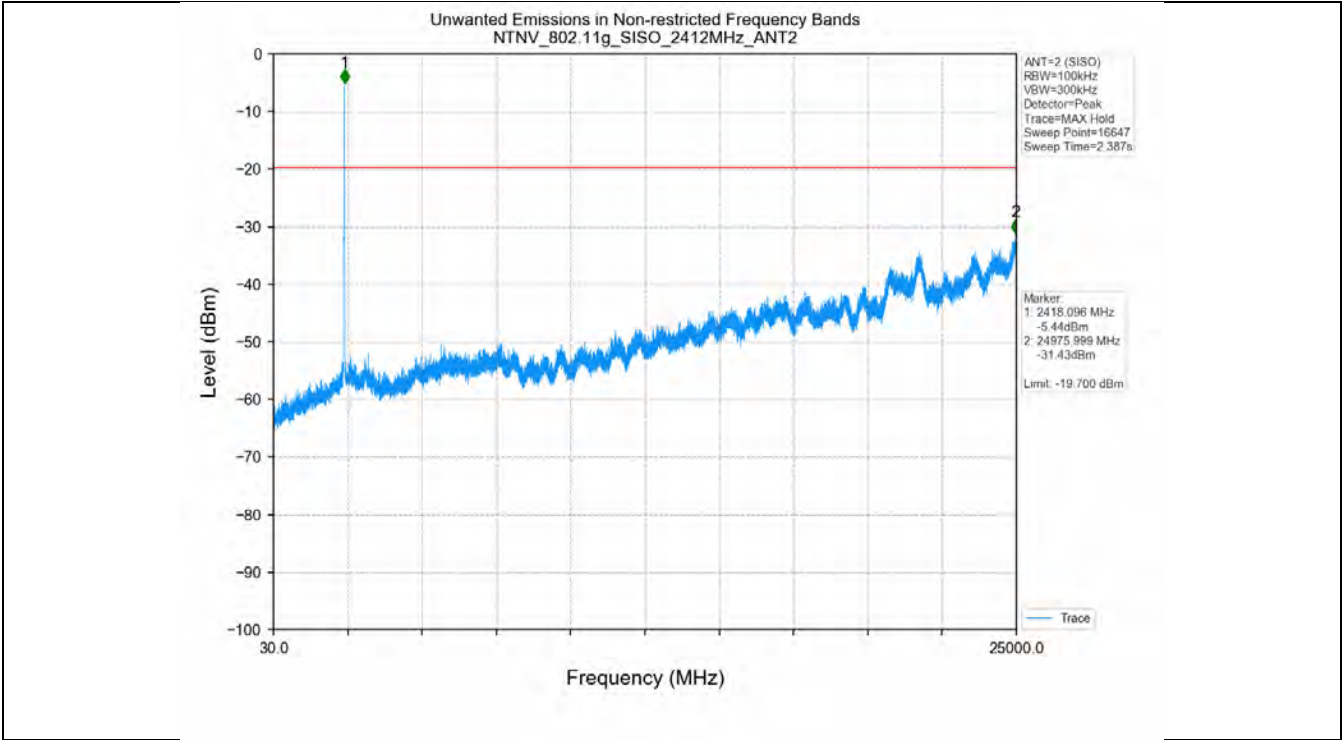
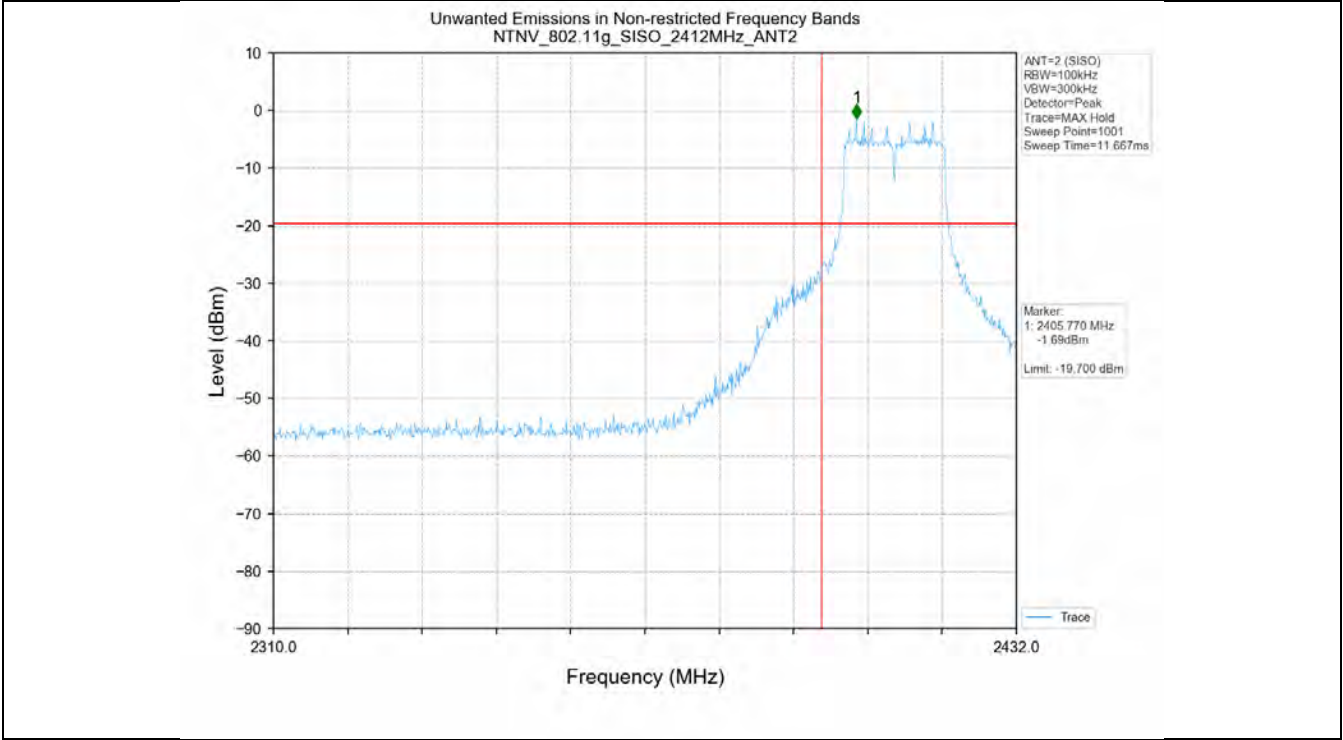


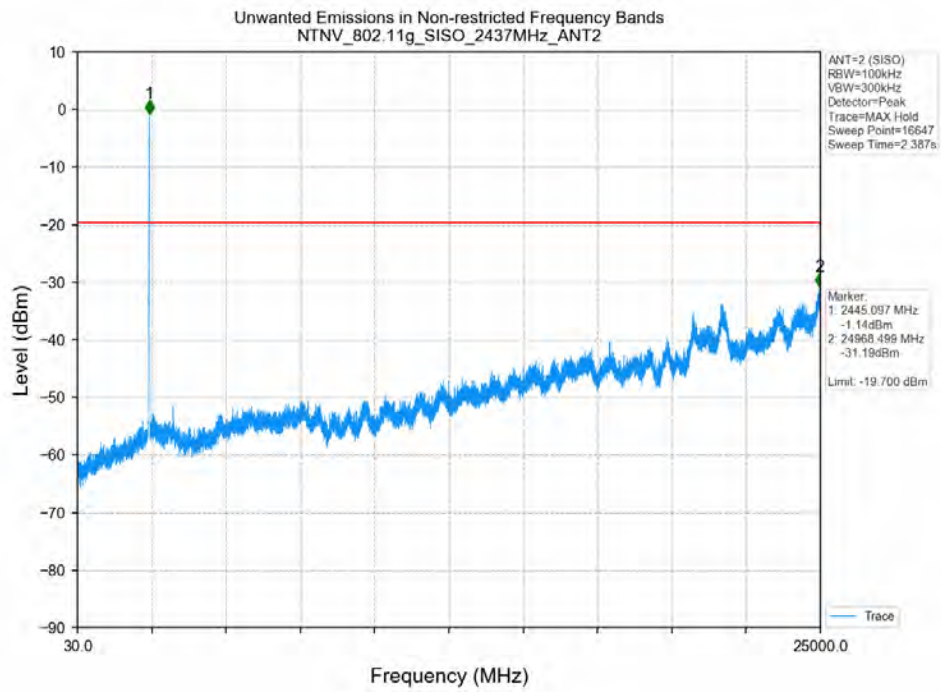
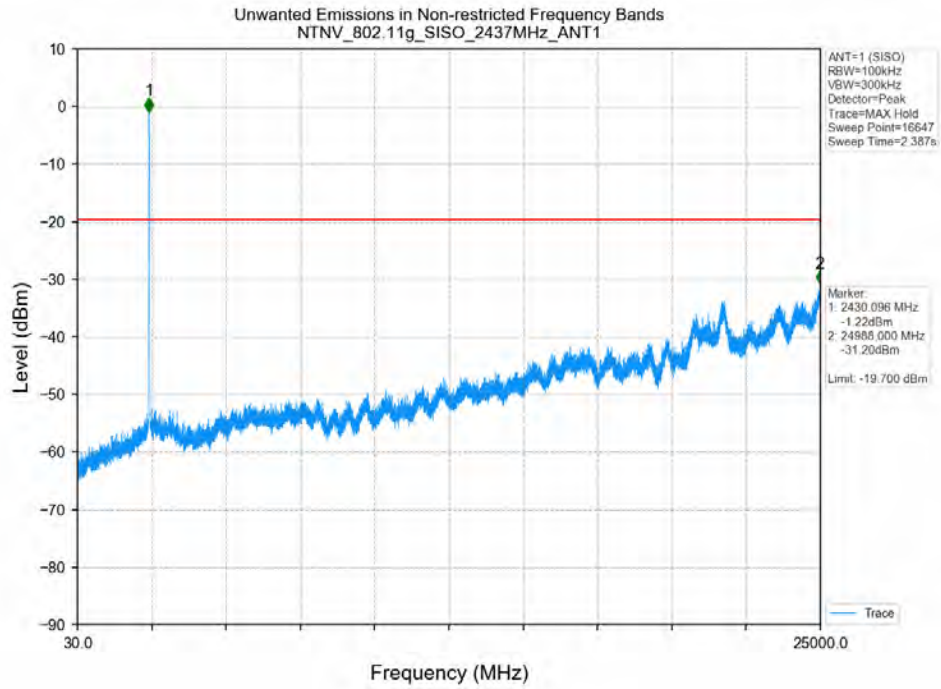


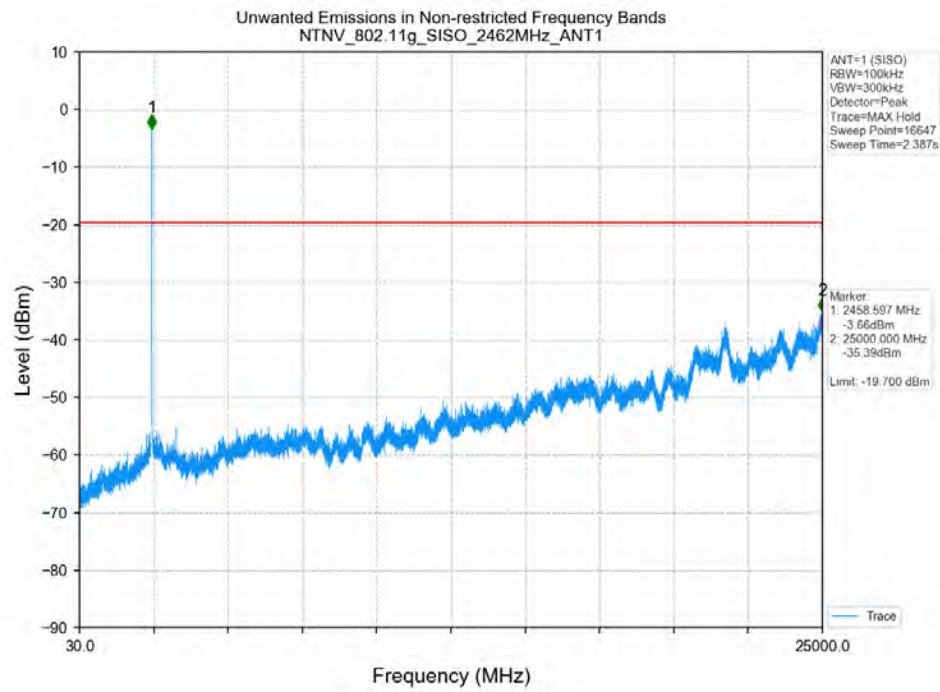
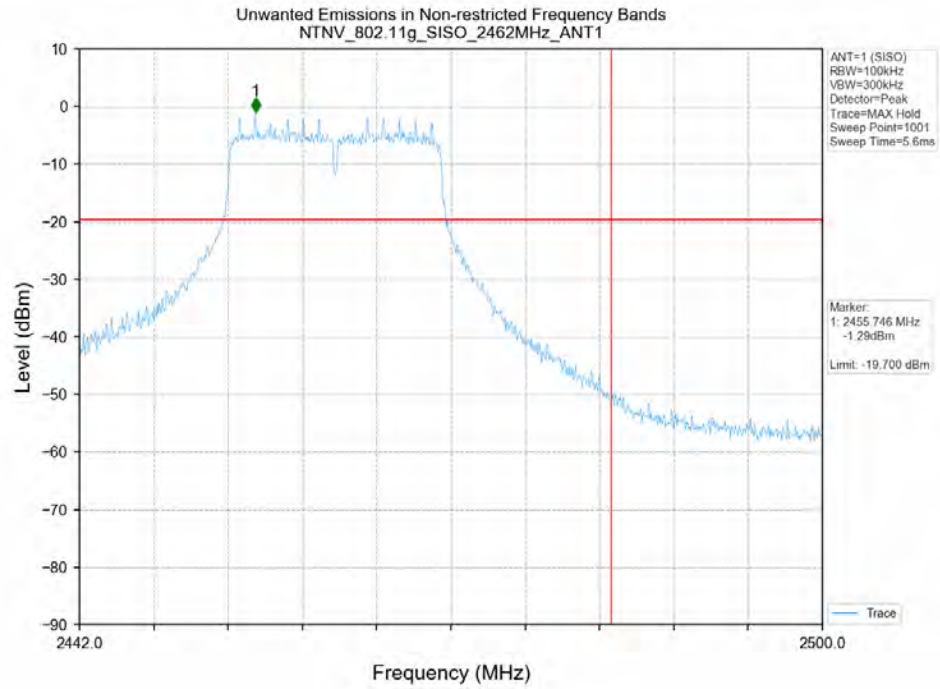


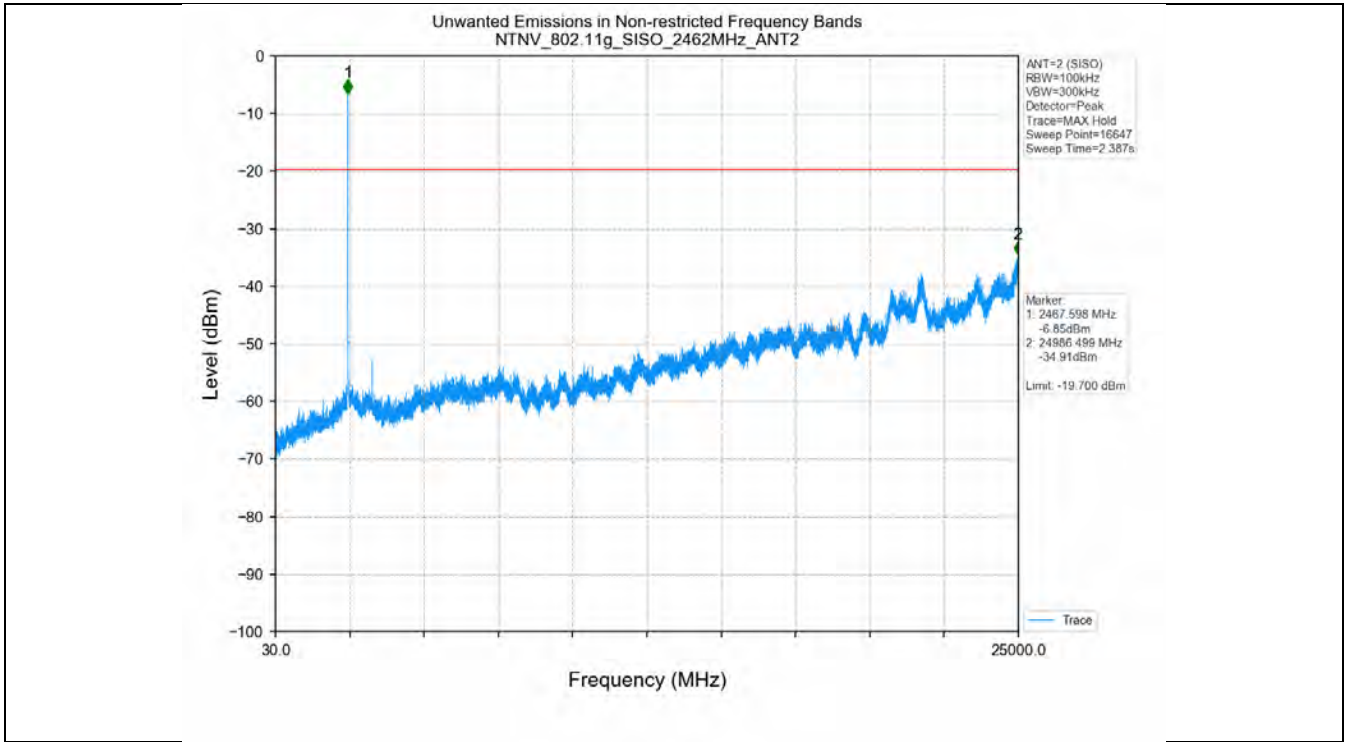
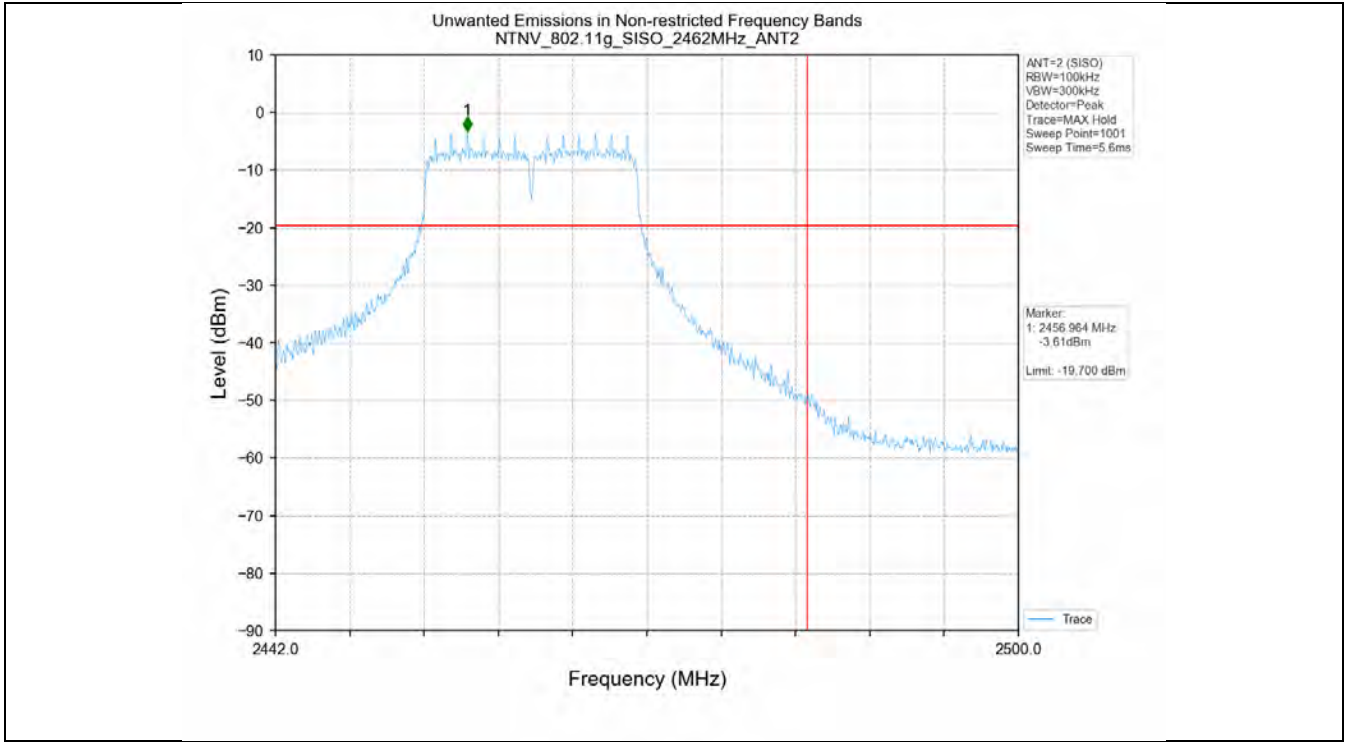


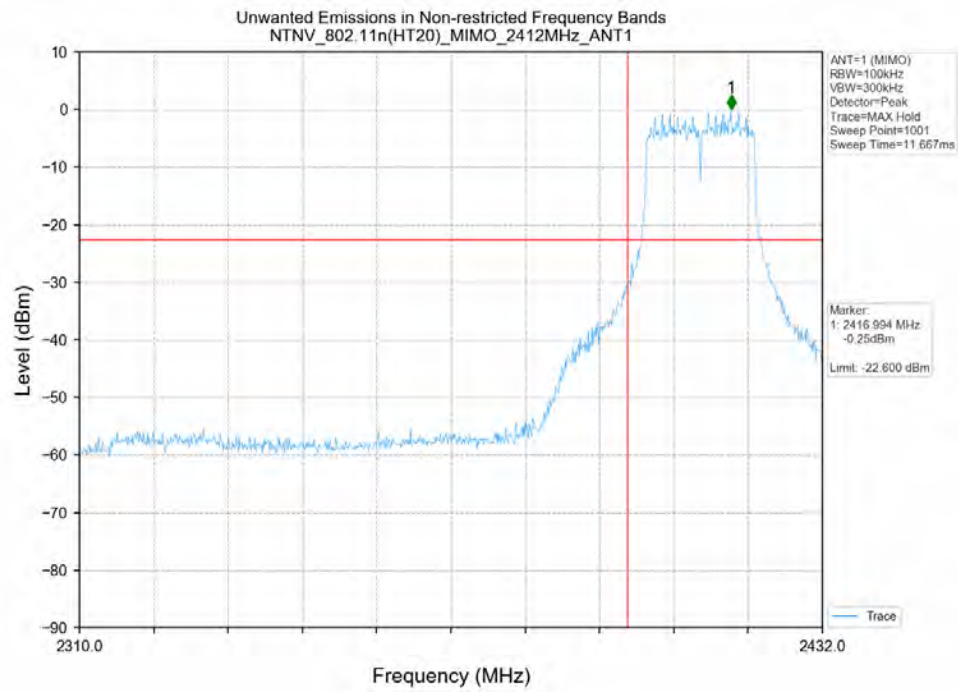
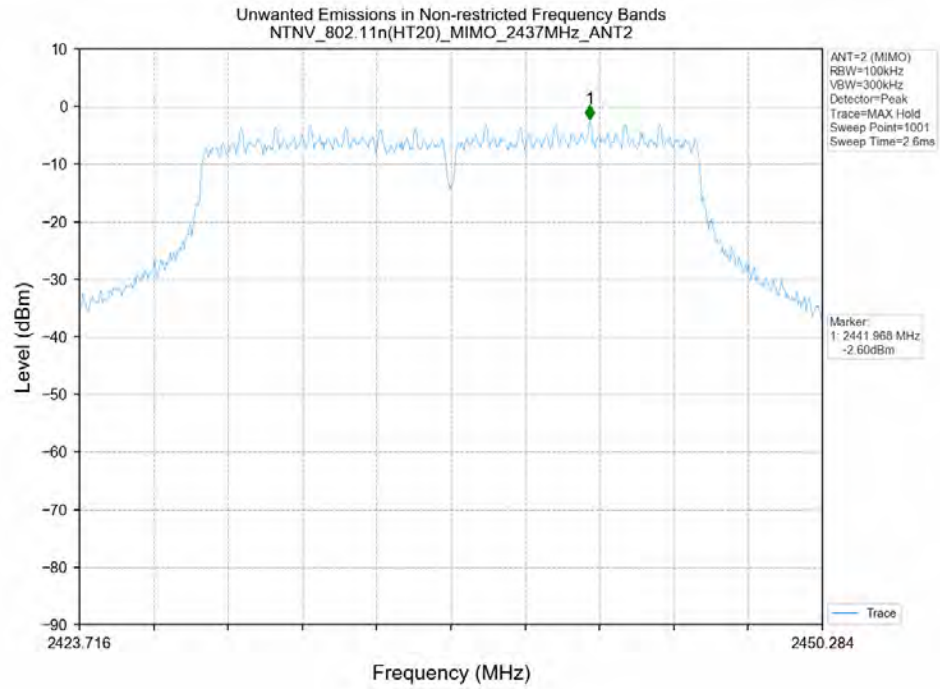




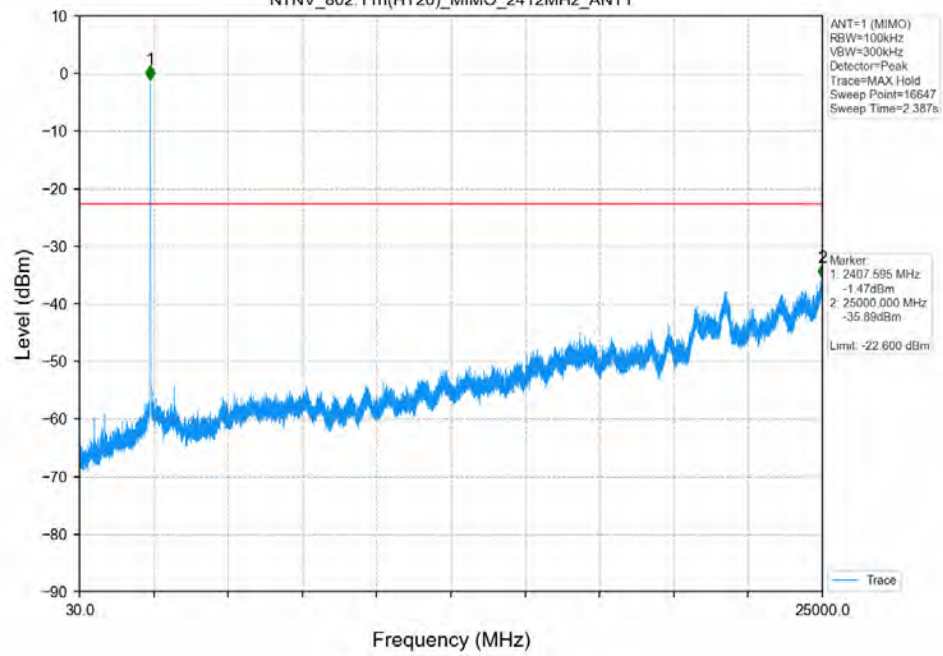




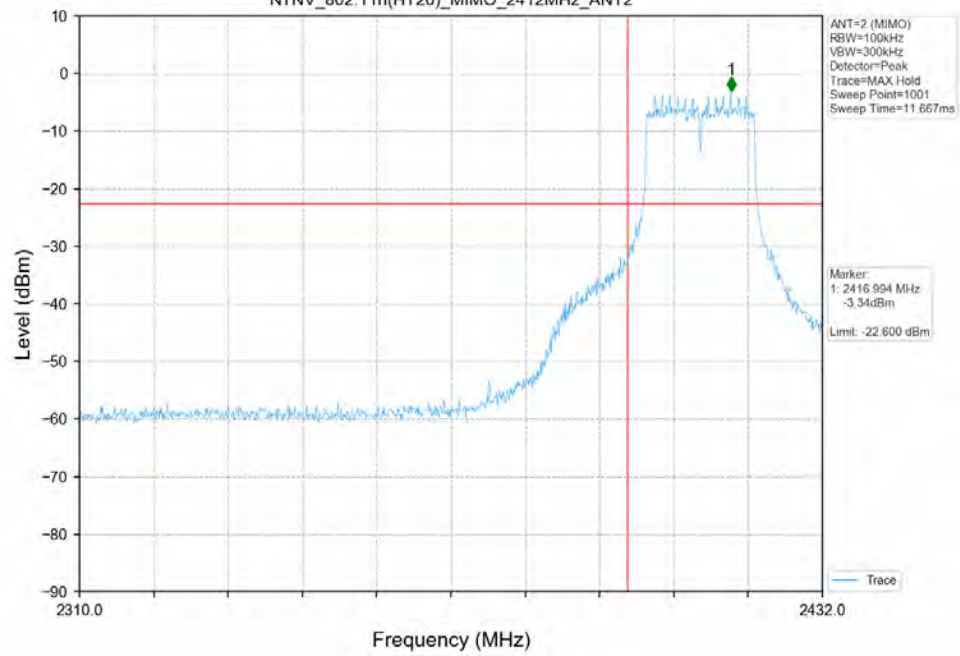


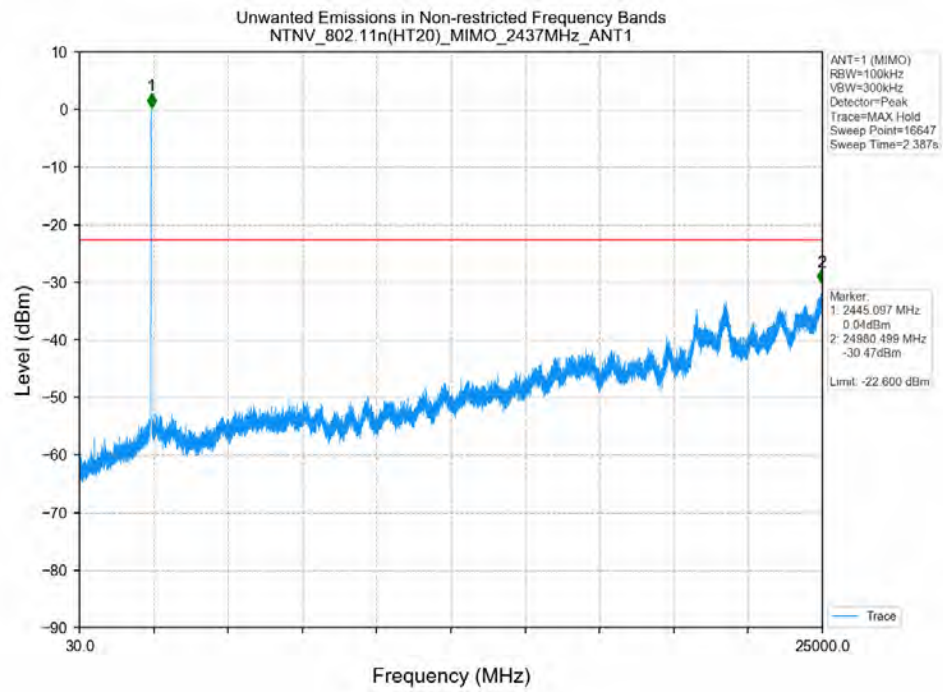
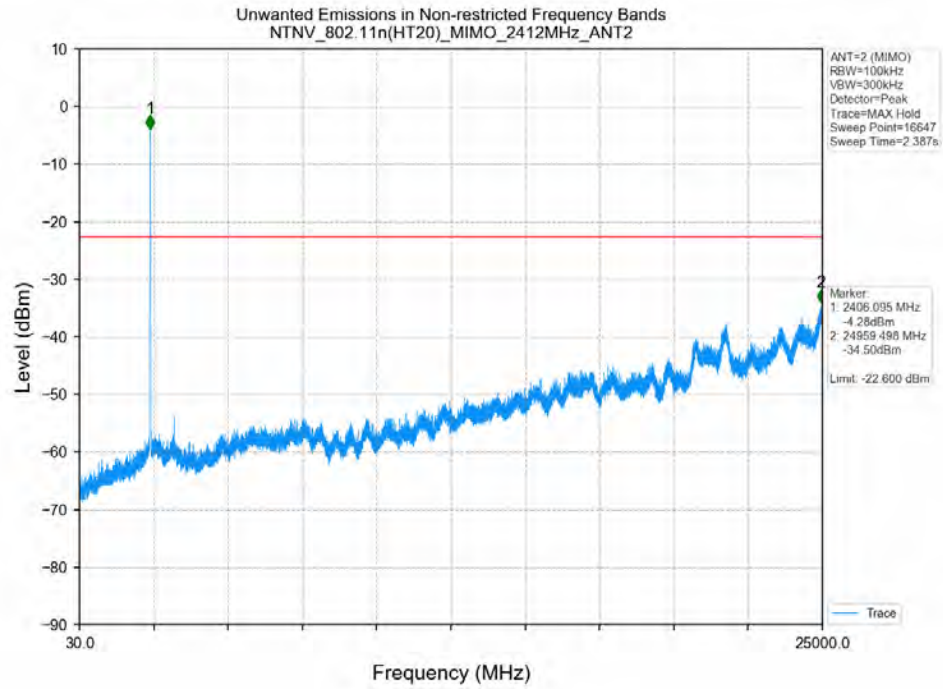


Unwanted Emissions in Non-restricted Frequency Bands  
NTNV\_802.11n(HT20)\_MIMO\_2412MHz\_ANT1

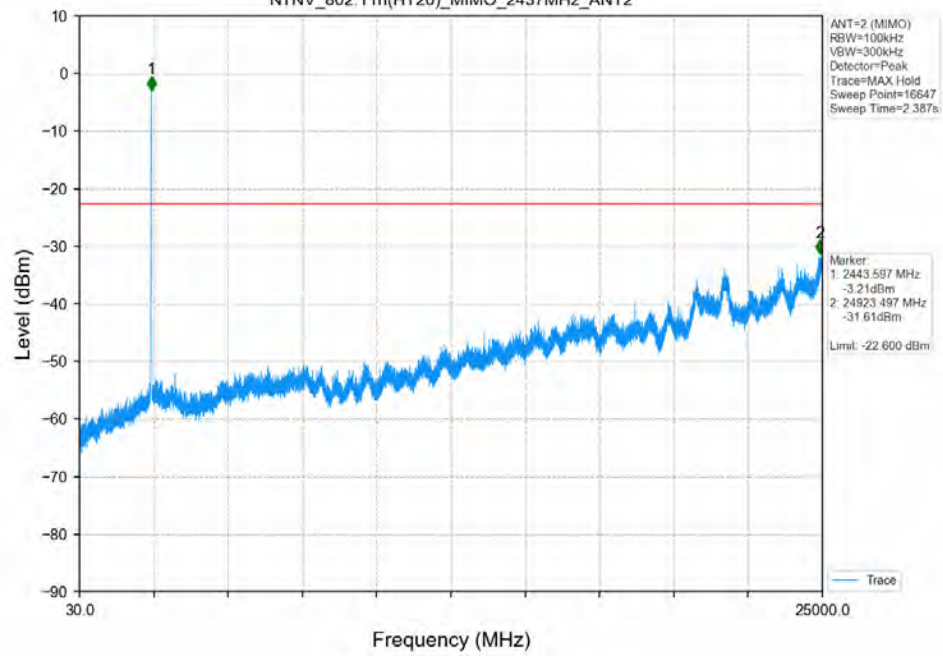


Unwanted Emissions in Non-restricted Frequency Bands  
NTNV\_802.11n(HT20)\_MIMO\_2412MHz\_ANT2

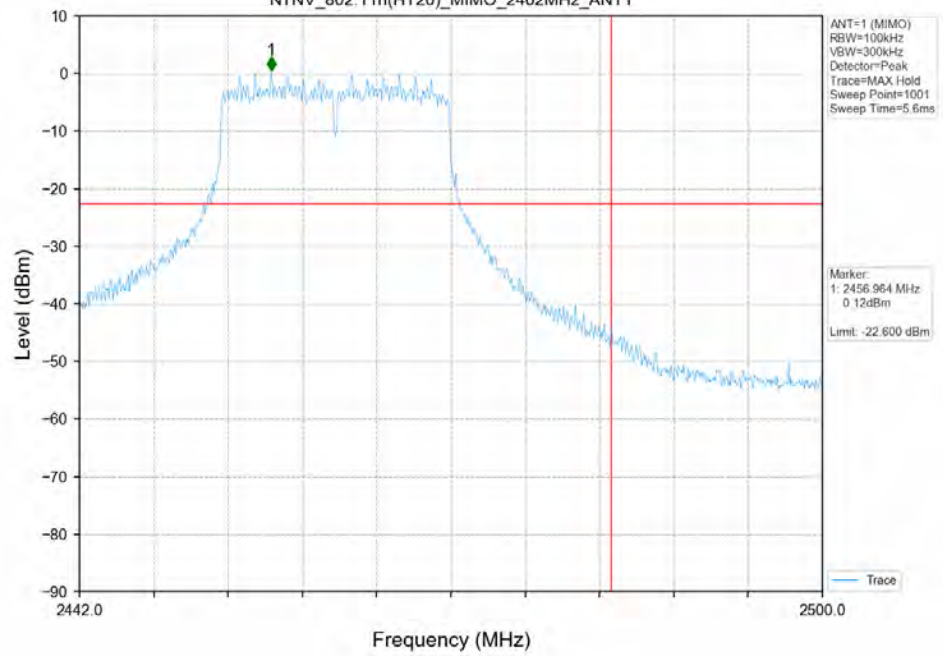


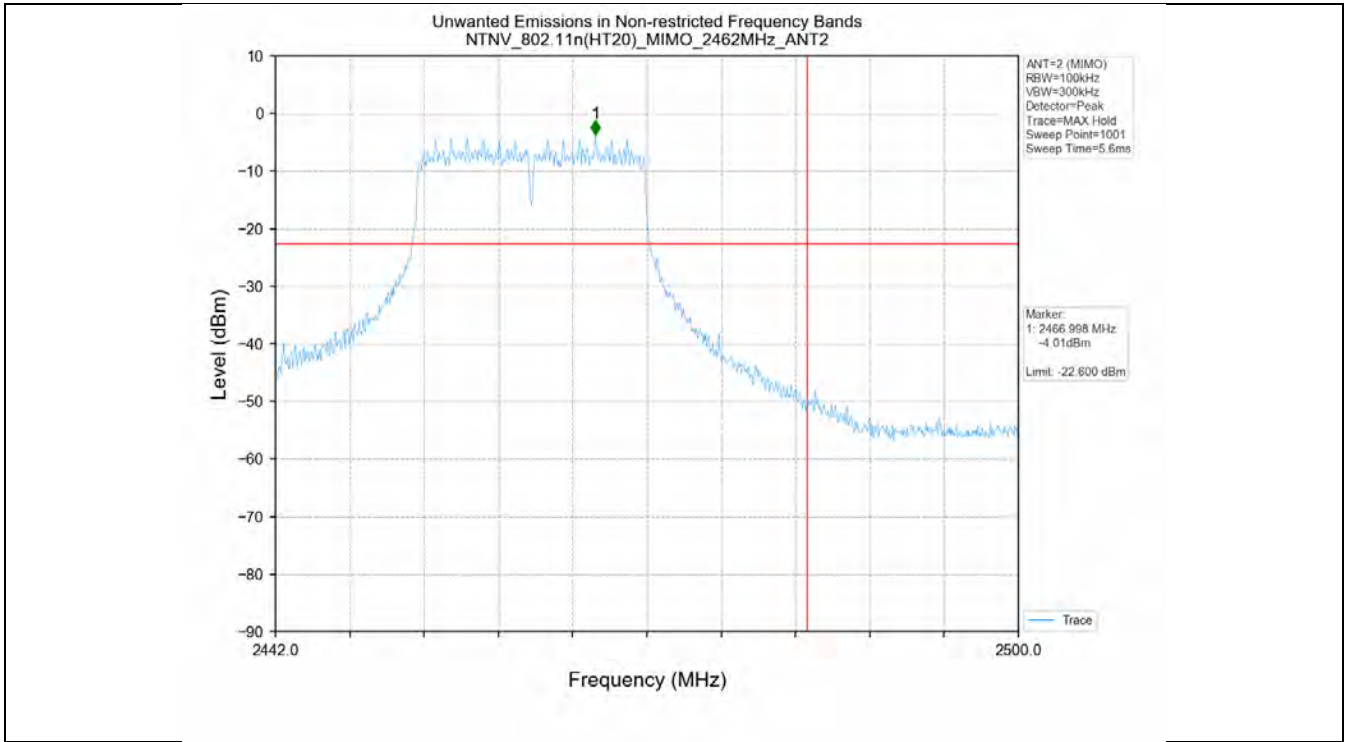
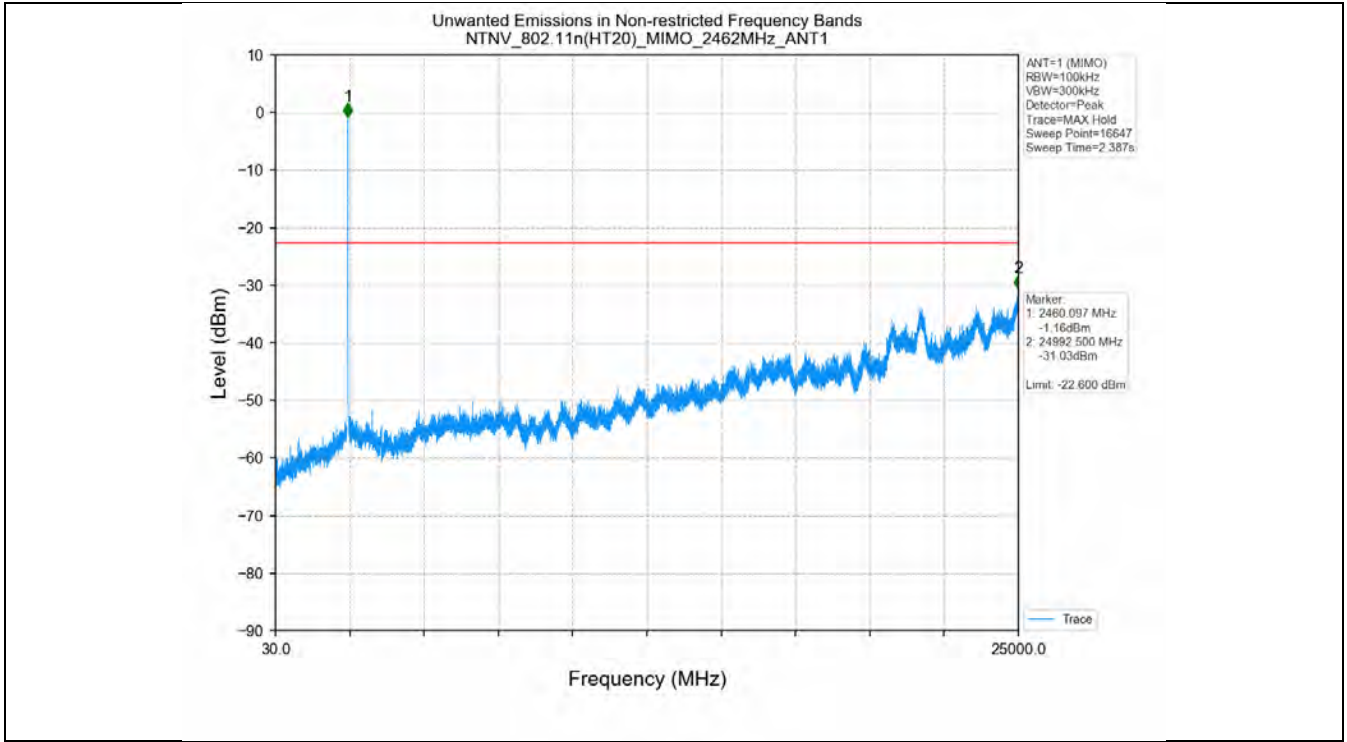


Unwanted Emissions in Non-restricted Frequency Bands  
NTNV\_802.11n(HT20)\_MIMO\_2437MHz\_ANT2



Unwanted Emissions in Non-restricted Frequency Bands  
NTNV\_802.11n(HT20)\_MIMO\_2462MHz\_ANT1





Unwanted Emissions in Non-restricted Frequency Bands  
NTNV\_802.11n(HT20)\_MIMO\_2462MHz\_ANT2

