



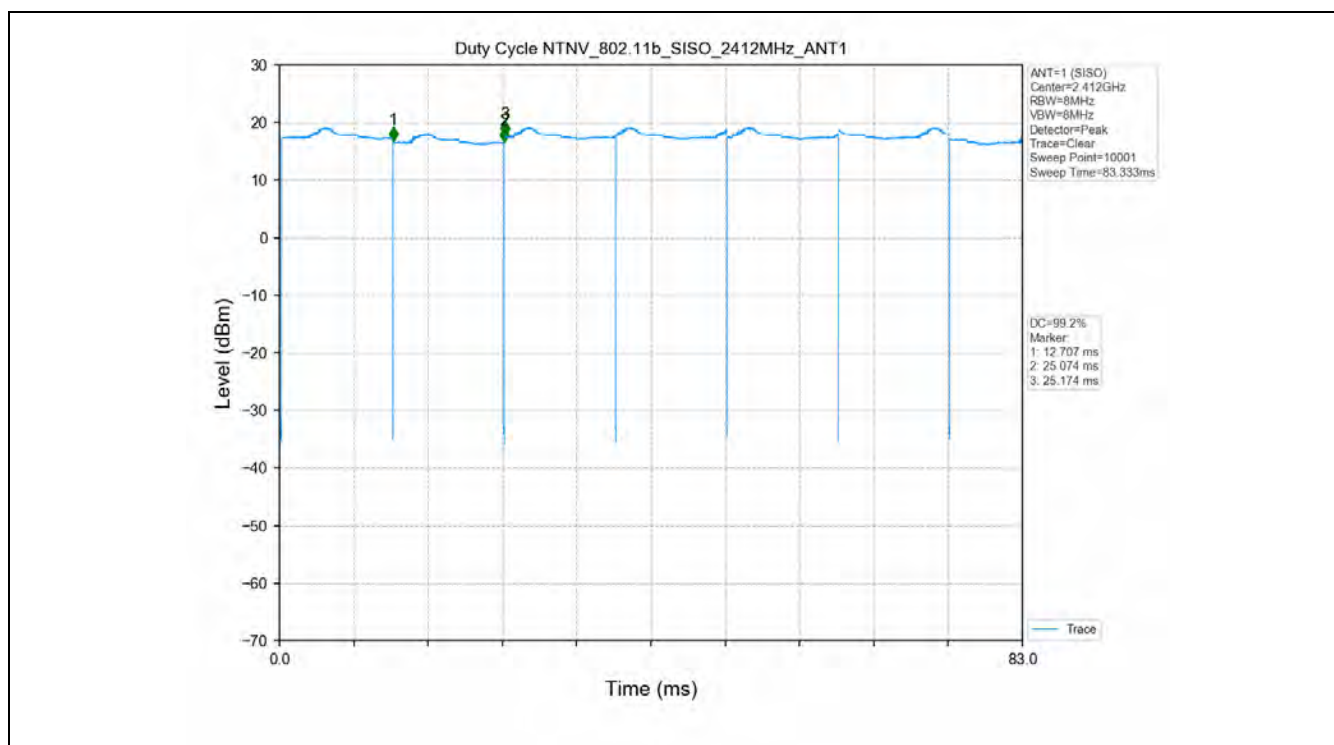
## Appendix A for SHEM200700586501

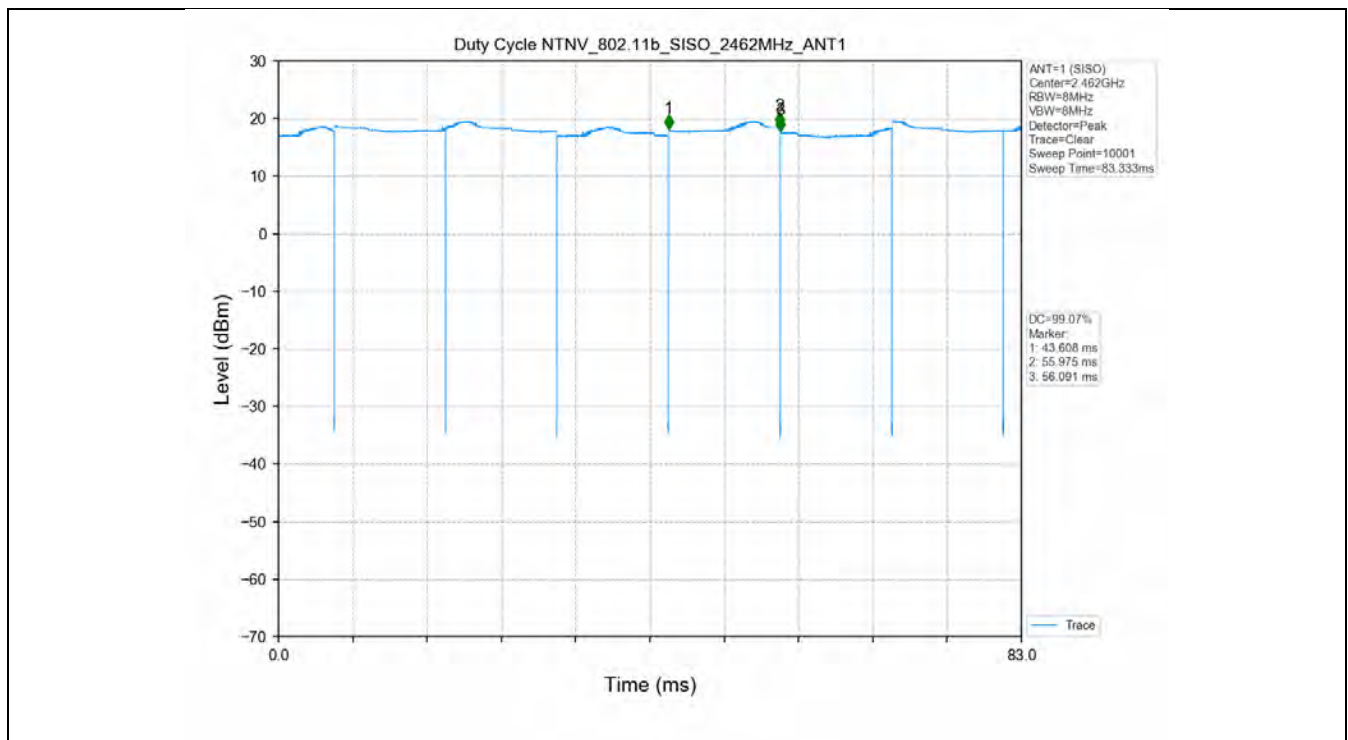
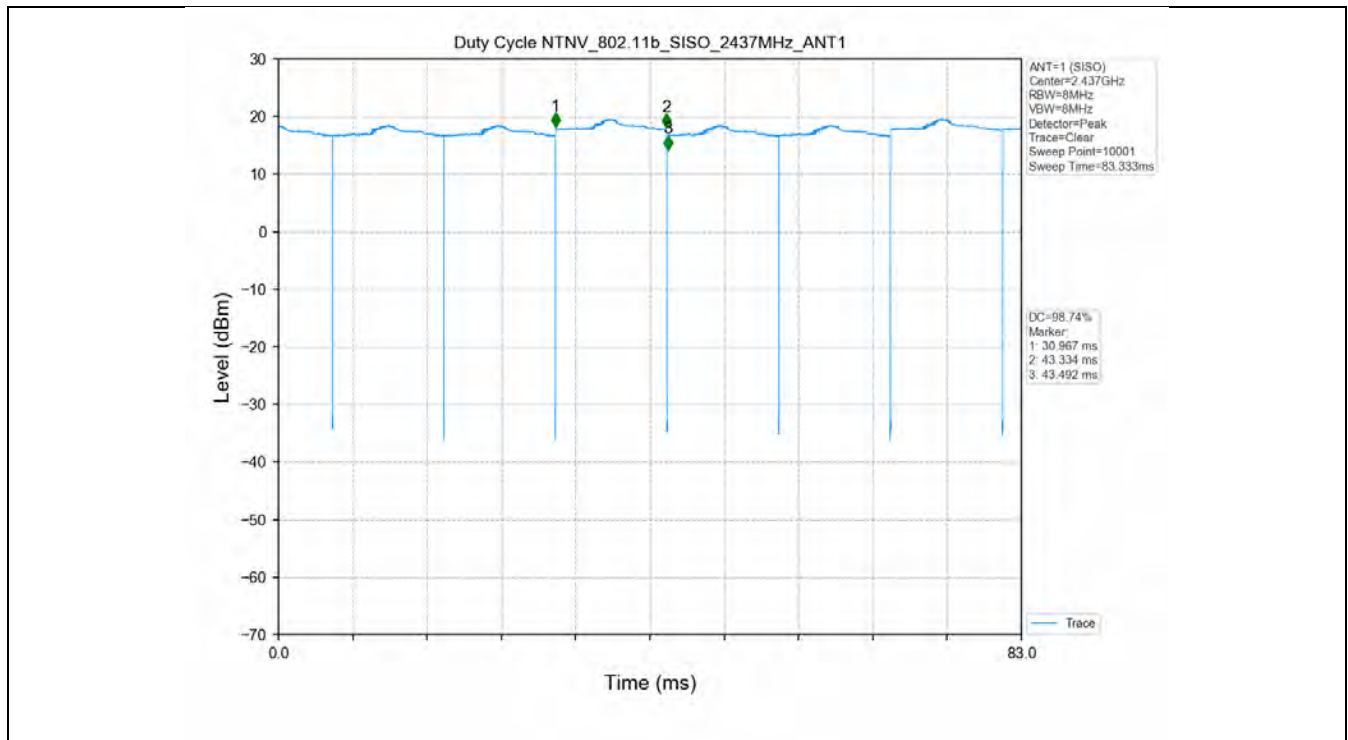
### 1. Duty Cycle

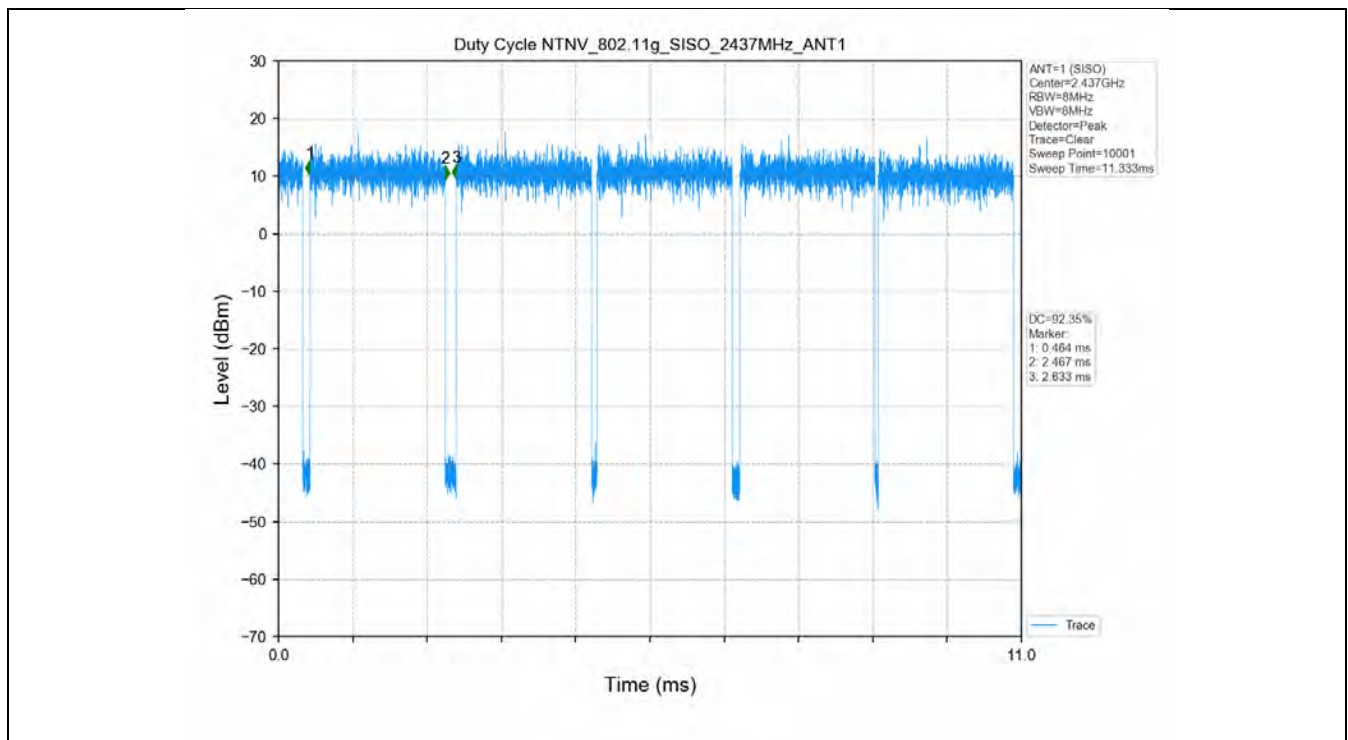
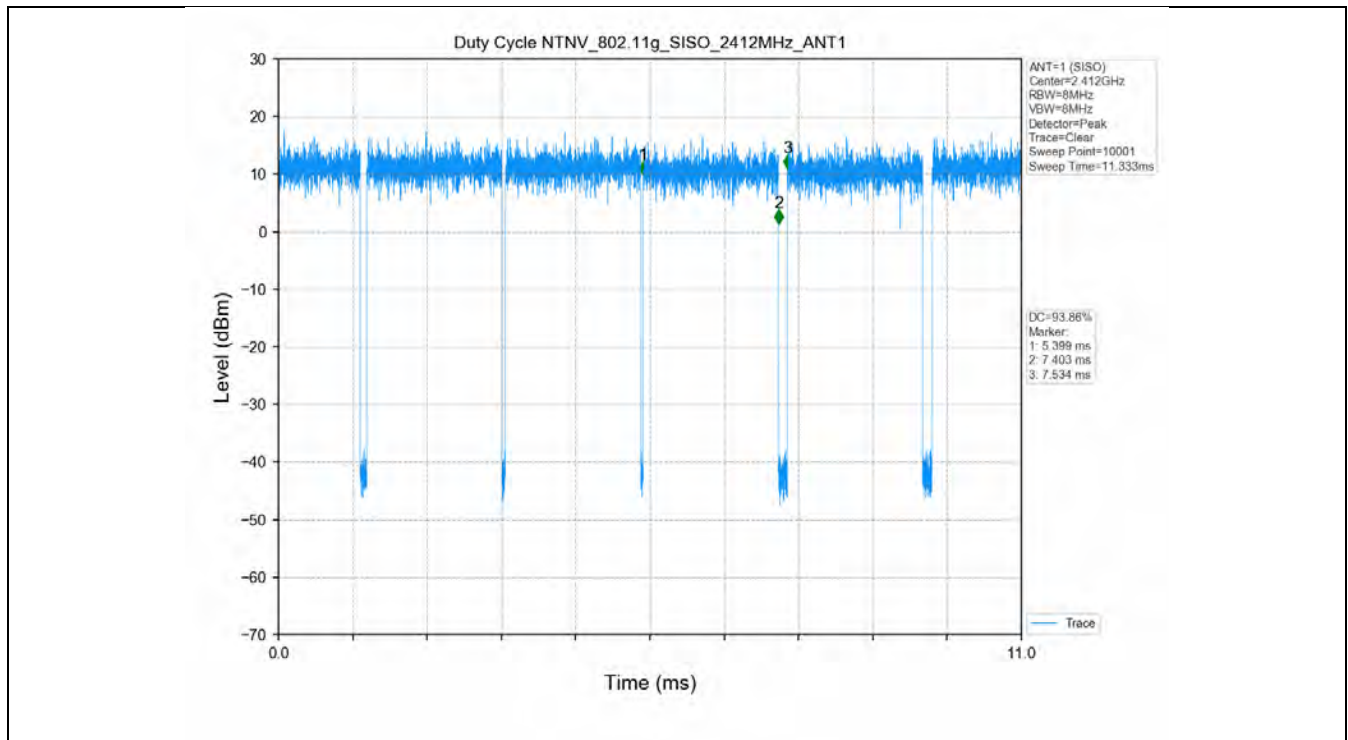
#### 1.1 Test Result

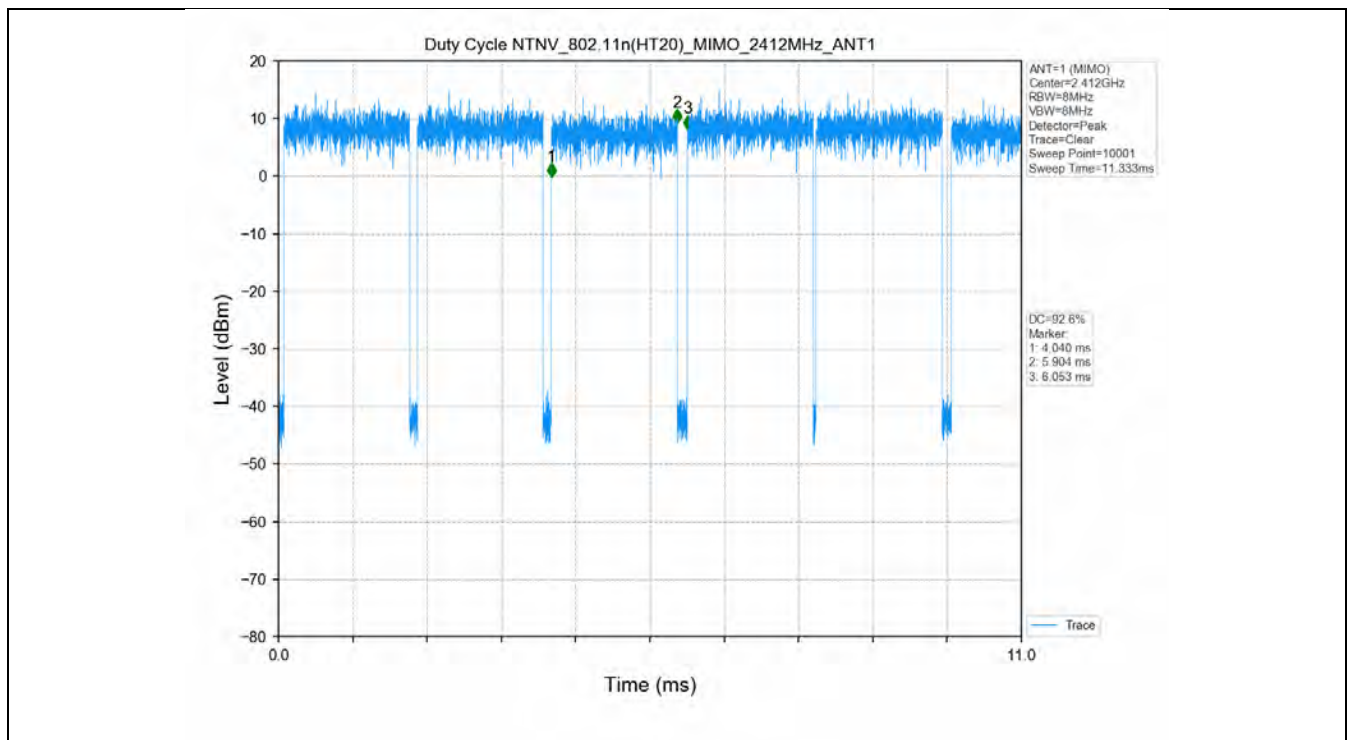
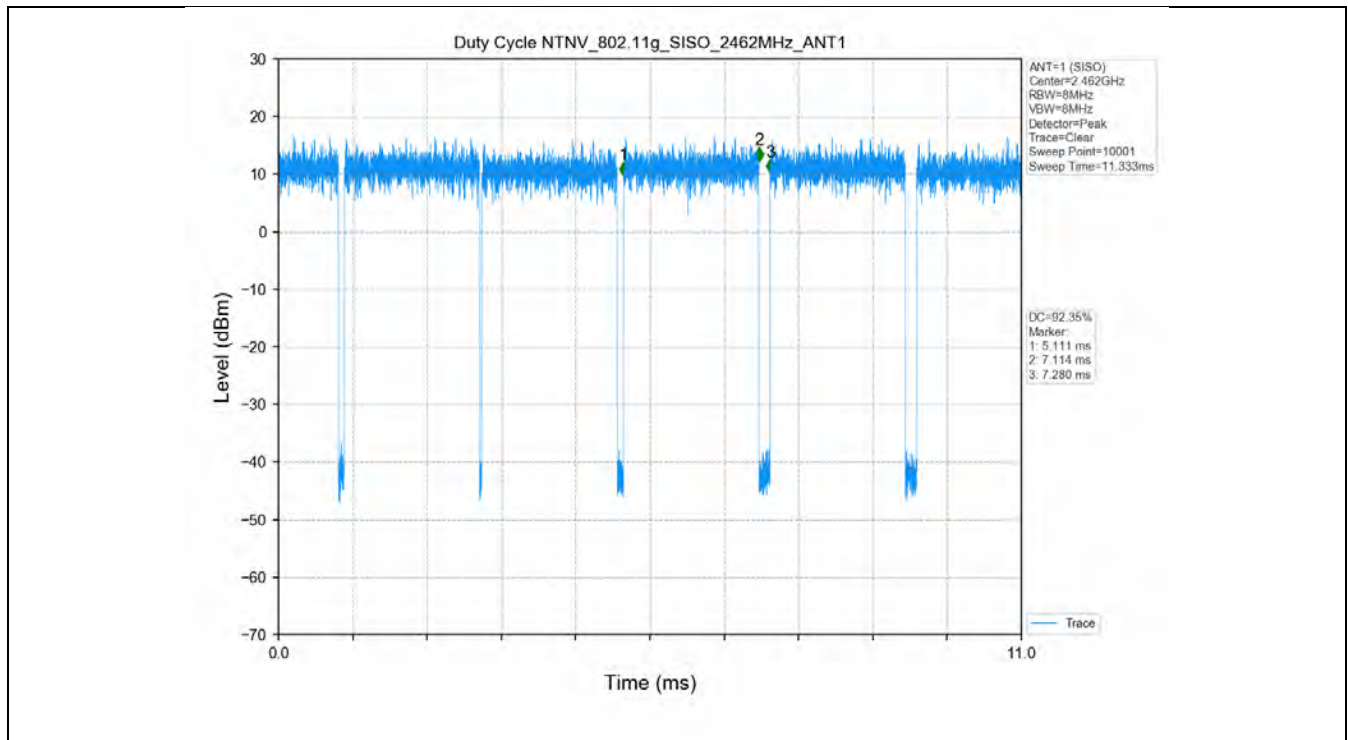
| Test Mode     | Channel Frequency(M Hz) | TX Type | ANT No. | T_on (ms) | Period (ms) | Duty Cycle (%) | Duty Cycle Correction Factor (dB) |
|---------------|-------------------------|---------|---------|-----------|-------------|----------------|-----------------------------------|
| 802.11b       | 2412                    | SISO    | 1       | 12.367    | 12.467      | 99.20          | 0.03                              |
|               | 2437                    | SISO    | 1       | 12.367    | 12.525      | 98.74          | 0.06                              |
|               | 2462                    | SISO    | 1       | 12.367    | 12.483      | 99.07          | 0.04                              |
| 802.11g       | 2412                    | SISO    | 1       | 2.004     | 2.135       | 93.86          | 0.28                              |
|               | 2437                    | SISO    | 1       | 2.003     | 2.169       | 92.35          | 0.35                              |
|               | 2462                    | SISO    | 1       | 2.003     | 2.169       | 92.35          | 0.35                              |
| 802.11n(HT20) | 2412                    | MIMO    | 1       | 1.864     | 2.013       | 92.60          | 0.33                              |
|               | 2437                    | MIMO    | 1       | 1.864     | 2.030       | 91.82          | 0.37                              |
|               | 2462                    | MIMO    | 1       | 1.920     | 2.091       | 91.82          | 0.37                              |

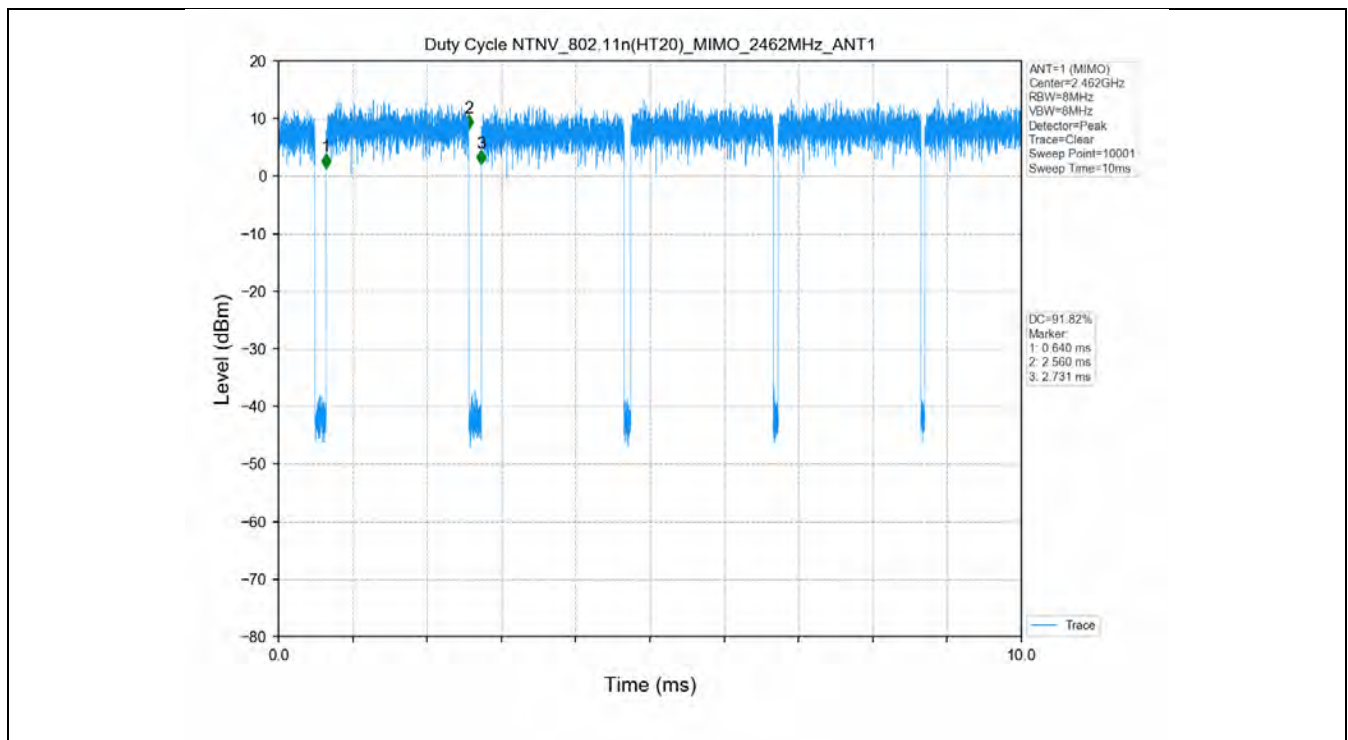
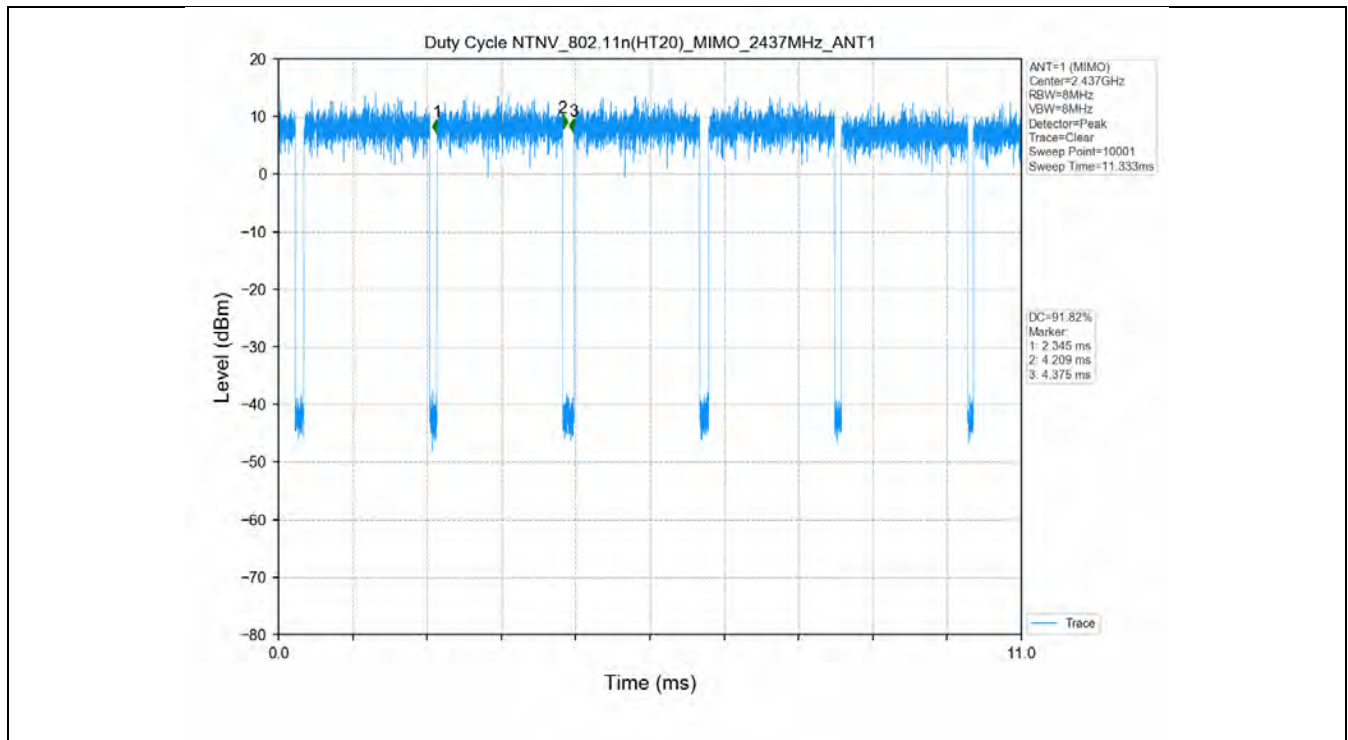
#### 1.2 Test Graph













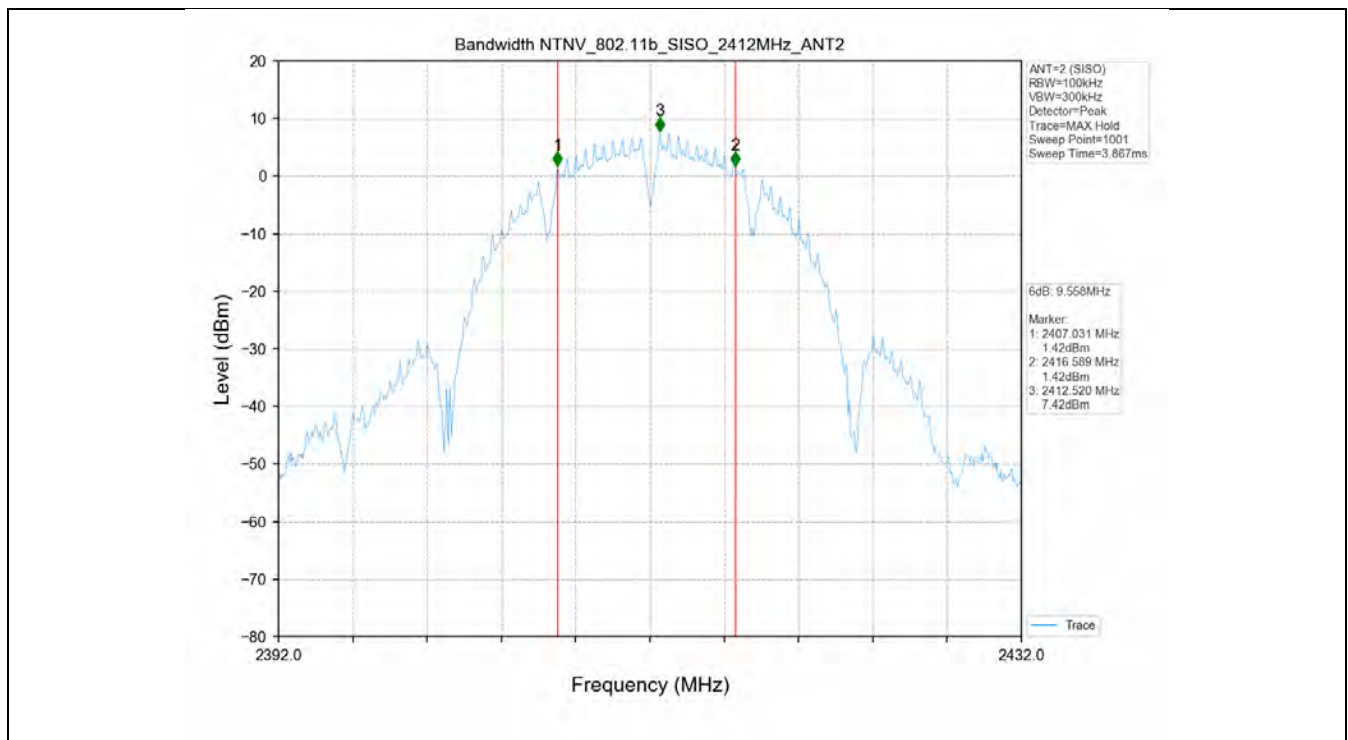
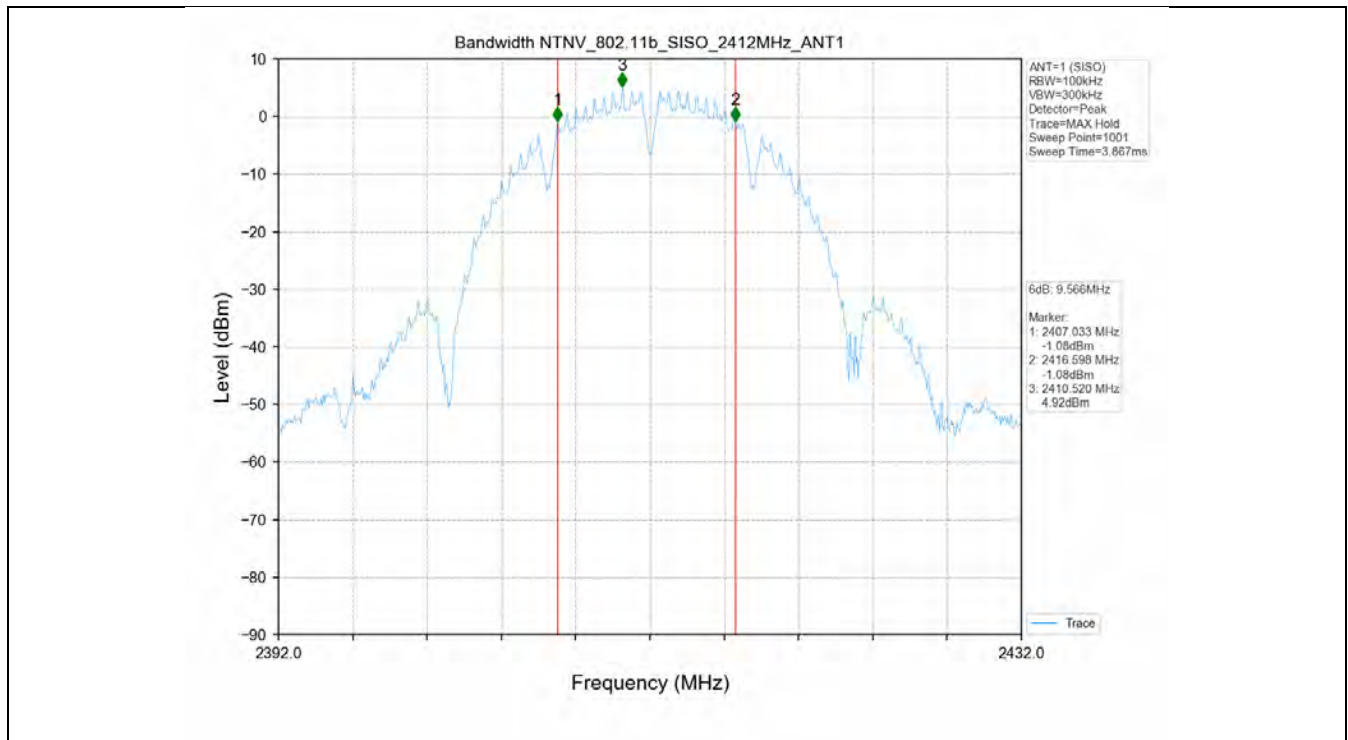
## 2. Bandwidth

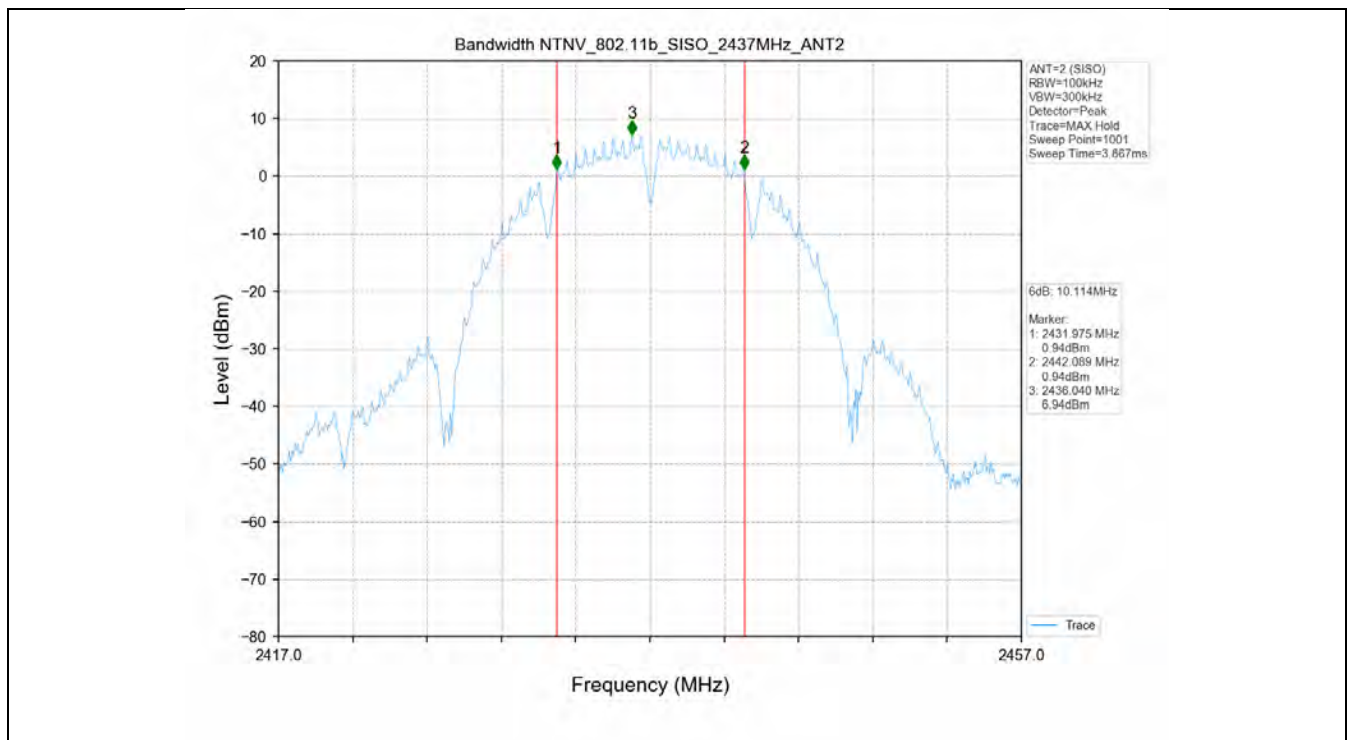
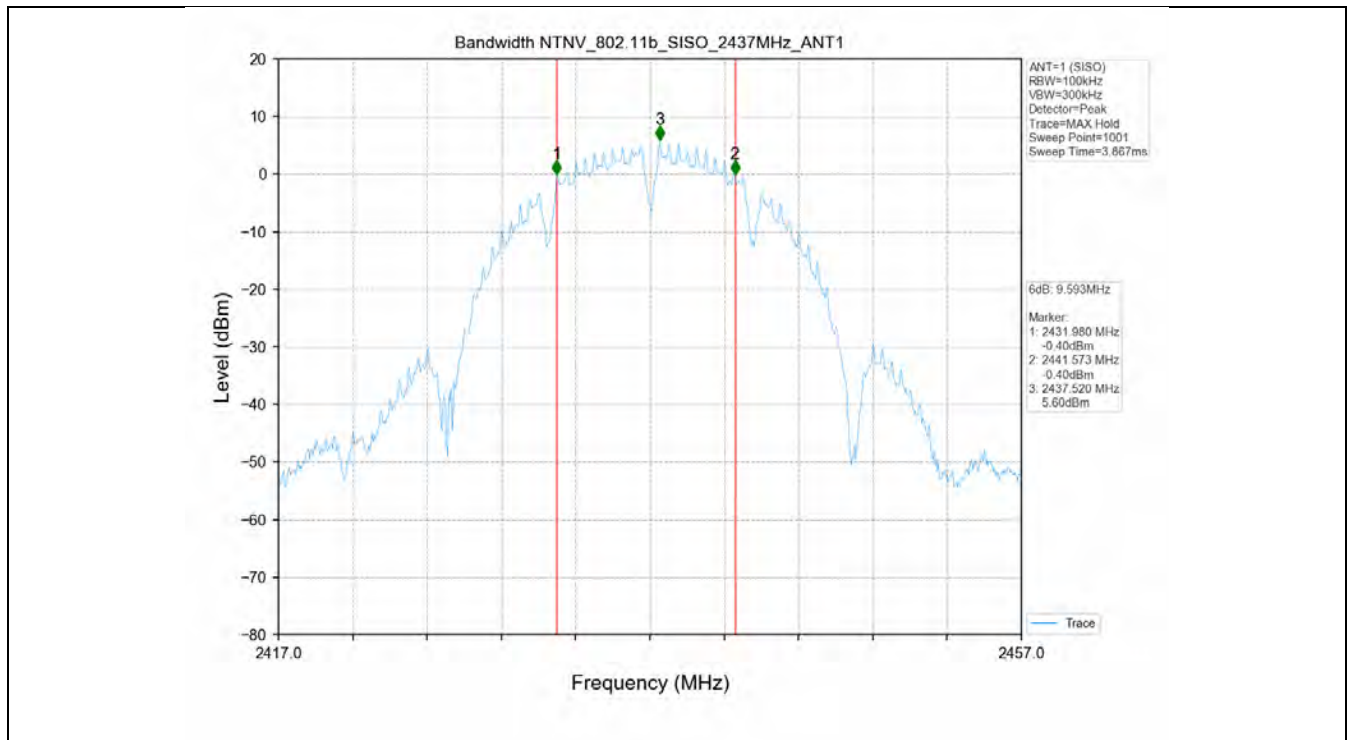
### 2.1 Test Result

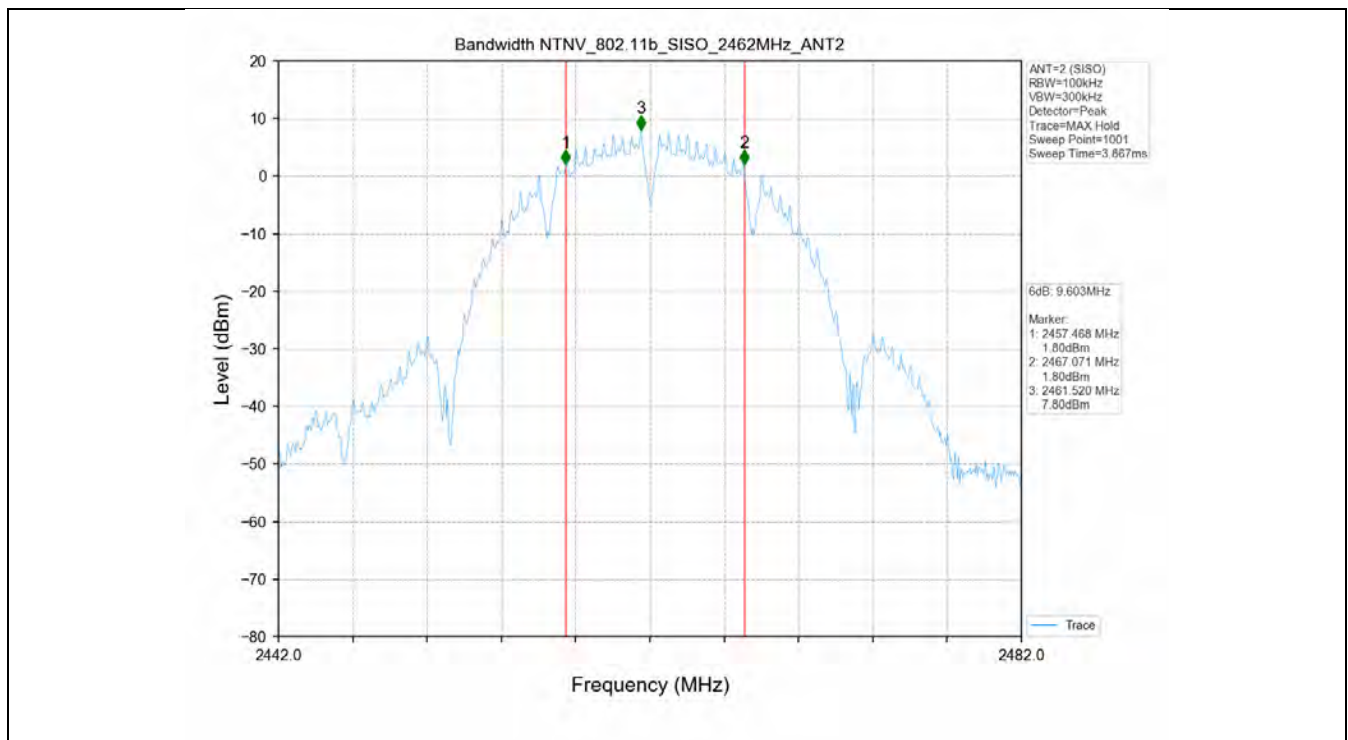
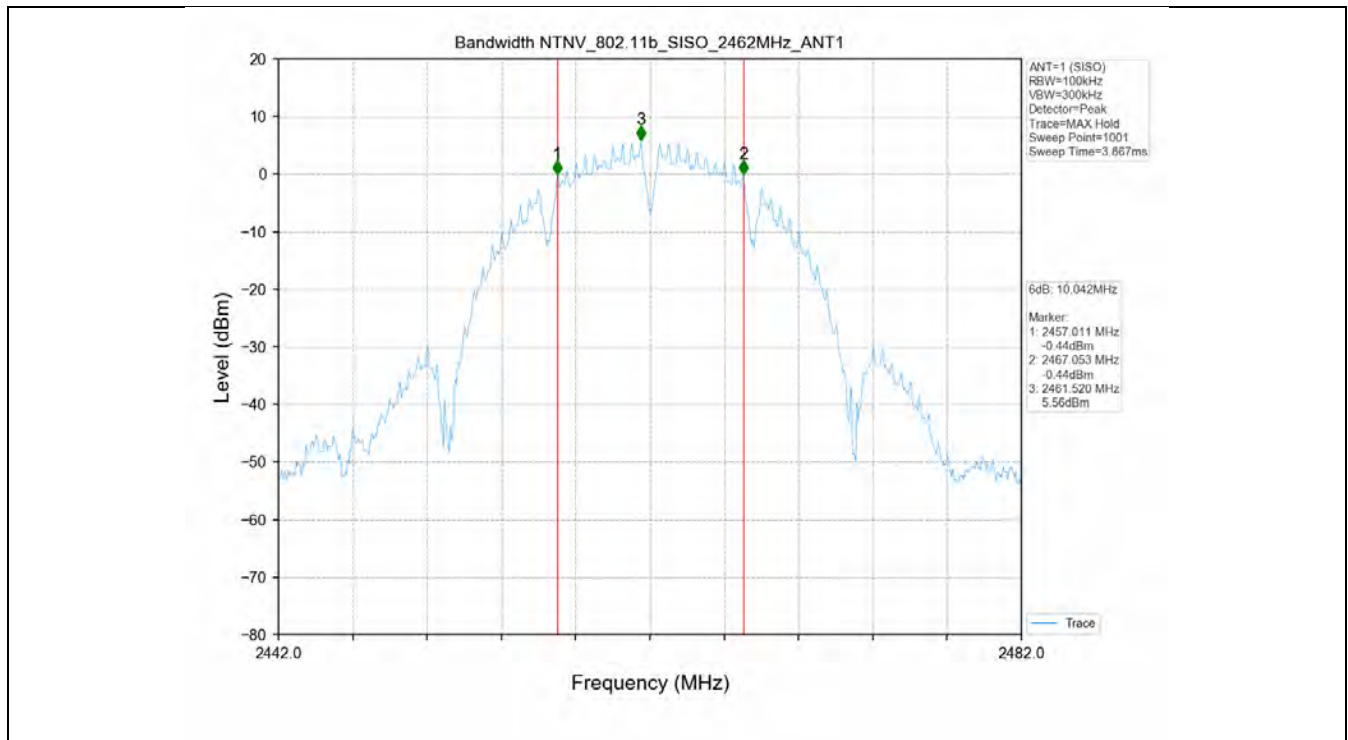
| Test Mode     | Frequency (MHz) | TX Type | ANT No. | 6dB Bandwidth     |              |              |                             |                               | Verdict |
|---------------|-----------------|---------|---------|-------------------|--------------|--------------|-----------------------------|-------------------------------|---------|
|               |                 |         |         | Test Result (MHz) | Limits (MHz) | 1.5*BW (MHz) | Span using in the PSD (MHz) | Span using in the Power (MHz) |         |
| 802.11b       | 2412            | SISO    | 1       | 9.566             | ≥0.5         | 14.349       | 14.349                      | 14.349                        | PASS    |
|               |                 |         | 2       | 9.558             | ≥0.5         | 14.337       | 14.337                      | 14.337                        | PASS    |
|               | 2437            | SISO    | 1       | 9.593             | ≥0.5         | 14.390       | 14.390                      | 14.390                        | PASS    |
|               |                 |         | 2       | 10.114            | ≥0.5         | 15.171       | 15.171                      | 15.171                        | PASS    |
|               | 2462            | SISO    | 1       | 10.042            | ≥0.5         | 15.063       | 15.063                      | 15.063                        | PASS    |
|               |                 |         | 2       | 9.603             | ≥0.5         | 14.405       | 14.405                      | 14.405                        | PASS    |
| 802.11g       | 2412            | SISO    | 1       | 16.417            | ≥0.5         | 24.626       | 24.626                      | 24.626                        | PASS    |
|               |                 |         | 2       | 16.399            | ≥0.5         | 24.599       | 24.599                      | 24.599                        | PASS    |
|               | 2437            | SISO    | 1       | 16.443            | ≥0.5         | 24.665       | 24.665                      | 24.665                        | PASS    |
|               |                 |         | 2       | 16.417            | ≥0.5         | 24.626       | 24.626                      | 24.626                        | PASS    |
|               | 2462            | SISO    | 1       | 16.435            | ≥0.5         | 24.653       | 24.653                      | 24.653                        | PASS    |
|               |                 |         | 2       | 16.423            | ≥0.5         | 24.635       | 24.635                      | 24.635                        | PASS    |
| 802.11n(HT20) | 2412            | MIMO    | 1       | 17.619            | ≥0.5         | 26.429       | 26.429                      | 26.429                        | PASS    |
|               |                 |         | 2       | 17.617            | ≥0.5         | 26.426       | 26.426                      | 26.426                        | PASS    |
|               | 2437            | MIMO    | 1       | 17.608            | ≥0.5         | 26.412       | 26.412                      | 26.412                        | PASS    |
|               |                 |         | 2       | 17.664            | ≥0.5         | 26.496       | 26.496                      | 26.496                        | PASS    |
|               | 2462            | MIMO    | 1       | 17.611            | ≥0.5         | 26.417       | 26.417                      | 26.417                        | PASS    |
|               |                 |         | 2       | 17.612            | ≥0.5         | 26.418       | 26.418                      | 26.418                        | PASS    |

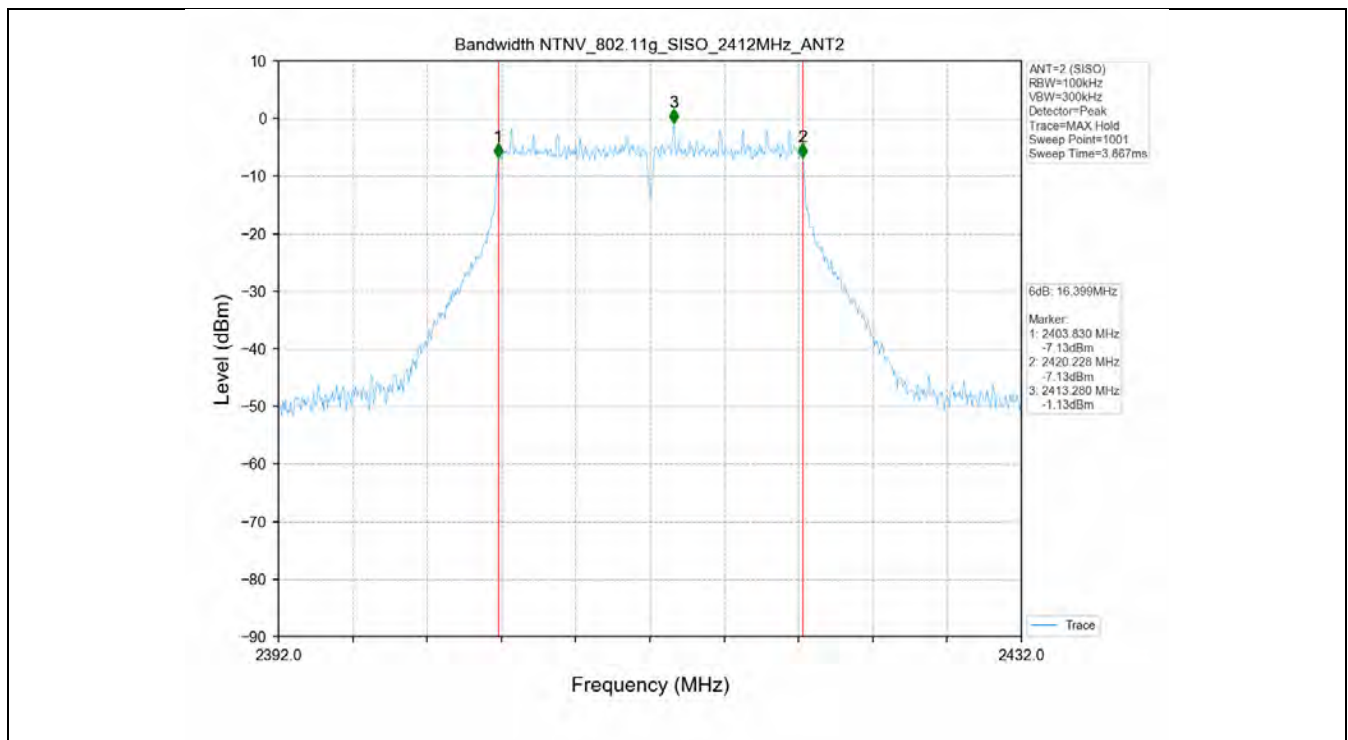
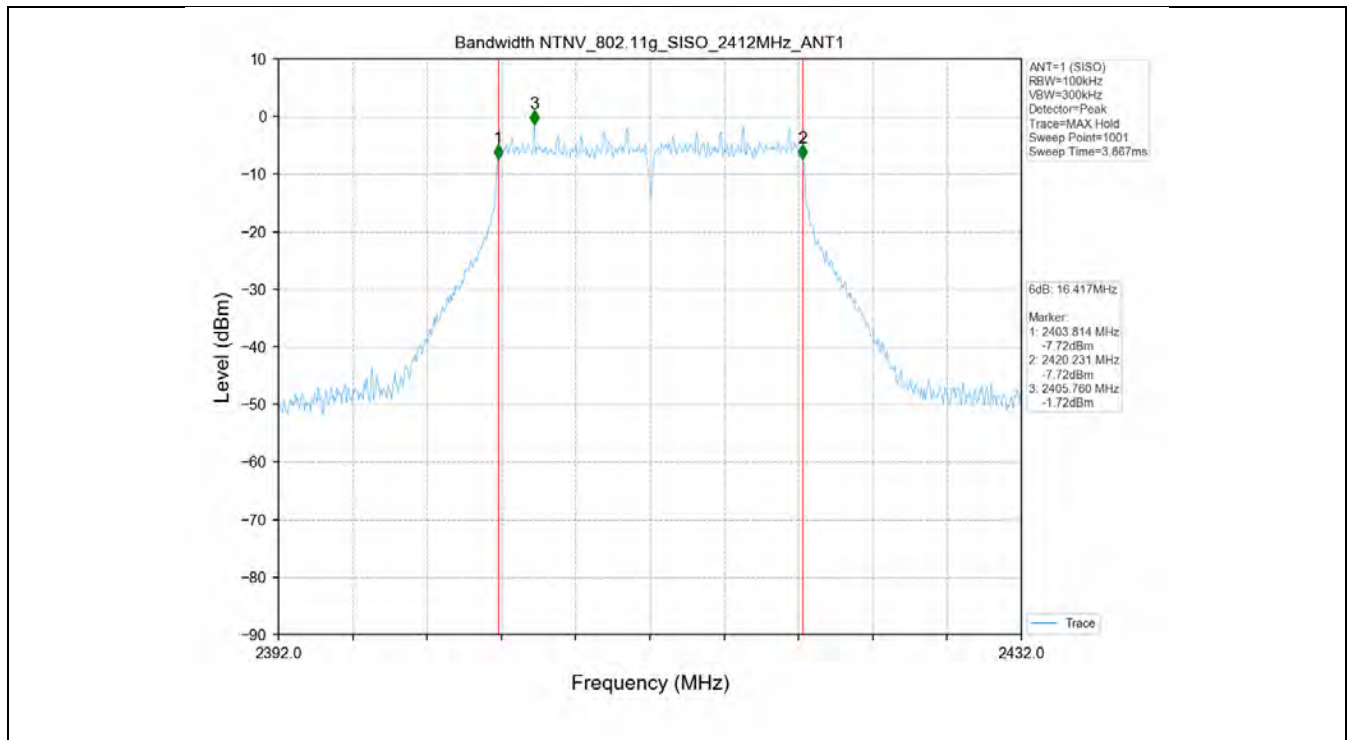
| Test Mode     | Frequency (MHz) | TX Type | ANT No. | 99% Occupied Bandwidth |                     |
|---------------|-----------------|---------|---------|------------------------|---------------------|
|               |                 |         |         | Test Result (MHz)      |                     |
| 802.11b       | 2412            | SISO    | 1       | 15.082                 | Only for Report Use |
|               |                 |         | 2       | 15.169                 | Only for Report Use |
|               | 2437            | SISO    | 1       | 15.083                 | Only for Report Use |
|               |                 |         | 2       | 15.165                 | Only for Report Use |
|               | 2462            | SISO    | 1       | 15.091                 | Only for Report Use |
|               |                 |         | 2       | 15.167                 | Only for Report Use |
| 802.11g       | 2412            | SISO    | 1       | 17.008                 | Only for Report Use |
|               |                 |         | 2       | 16.959                 | Only for Report Use |
|               | 2437            | SISO    | 1       | 16.949                 | Only for Report Use |
|               |                 |         | 2       | 16.988                 | Only for Report Use |
|               | 2462            | SISO    | 1       | 16.934                 | Only for Report Use |
|               |                 |         | 2       | 16.935                 | Only for Report Use |
| 802.11n(HT20) | 2412            | MIMO    | 1       | 18.086                 | Only for Report Use |
|               |                 |         | 2       | 18.077                 | Only for Report Use |
|               | 2437            | MIMO    | 1       | 18.141                 | Only for Report Use |
|               |                 |         | 2       | 18.156                 | Only for Report Use |
|               | 2462            | MIMO    | 1       | 17.989                 | Only for Report Use |
|               |                 |         | 2       | 17.956                 | Only for Report Use |

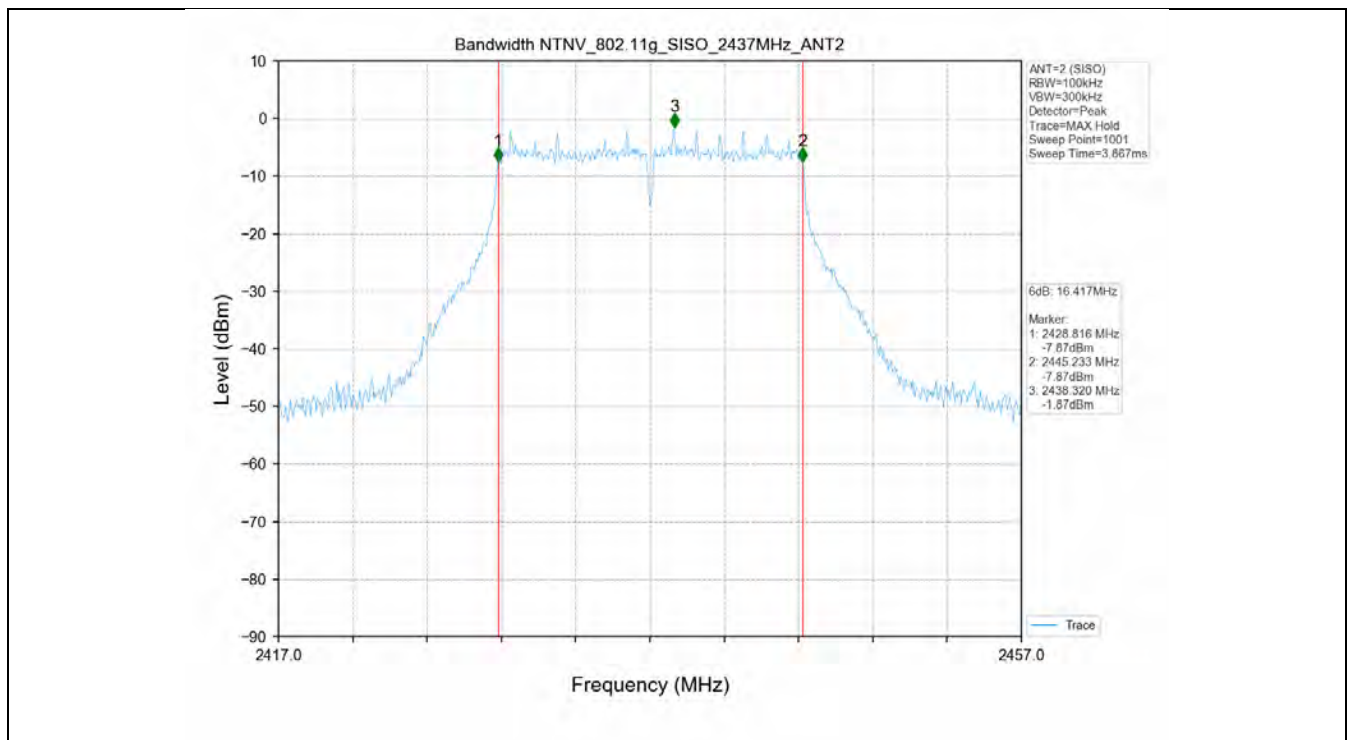
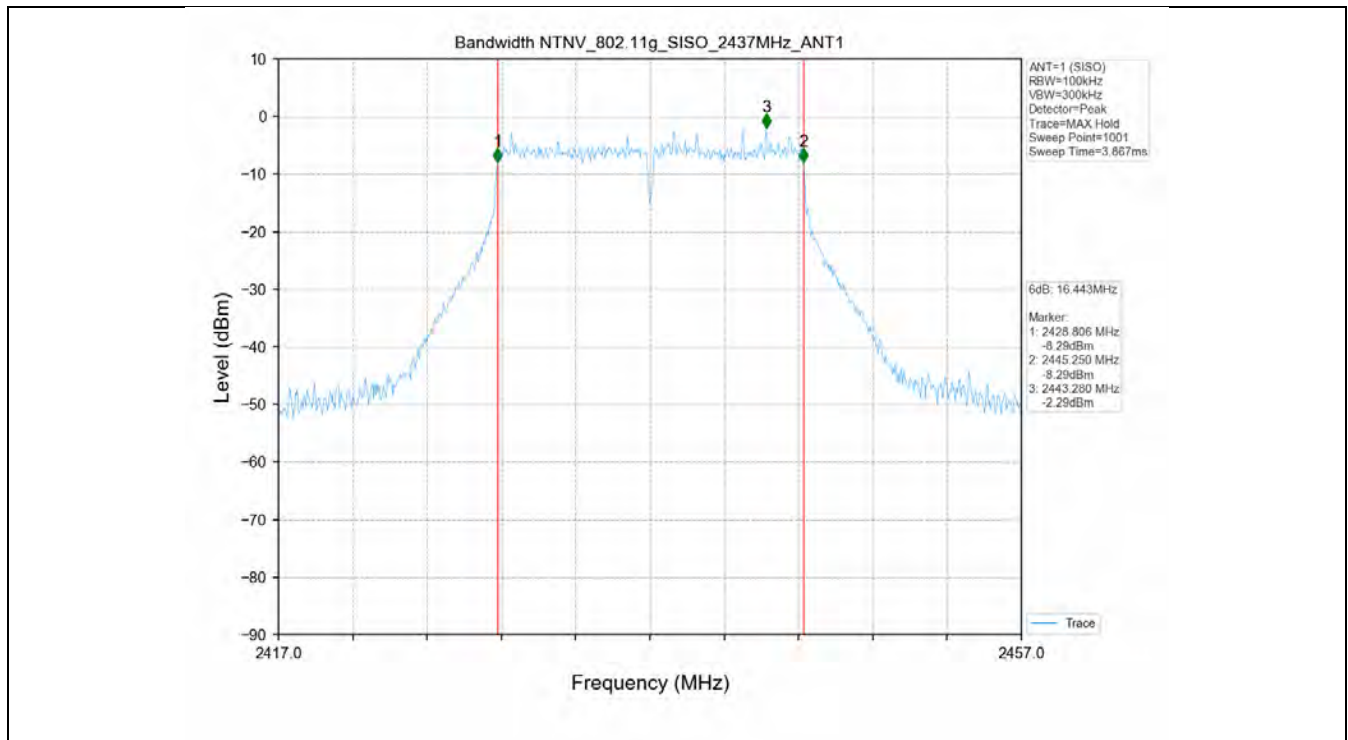
### 2.2 Test Graph - 6dB Bandwidth

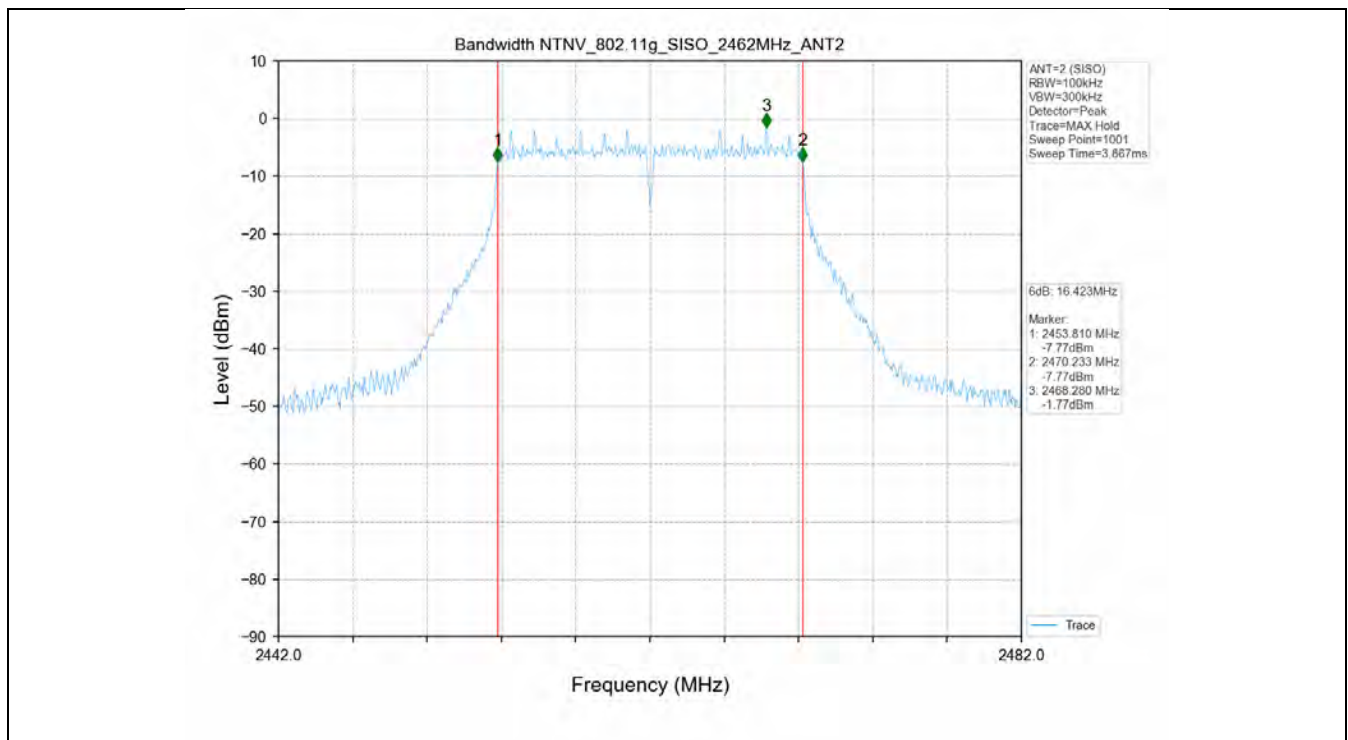
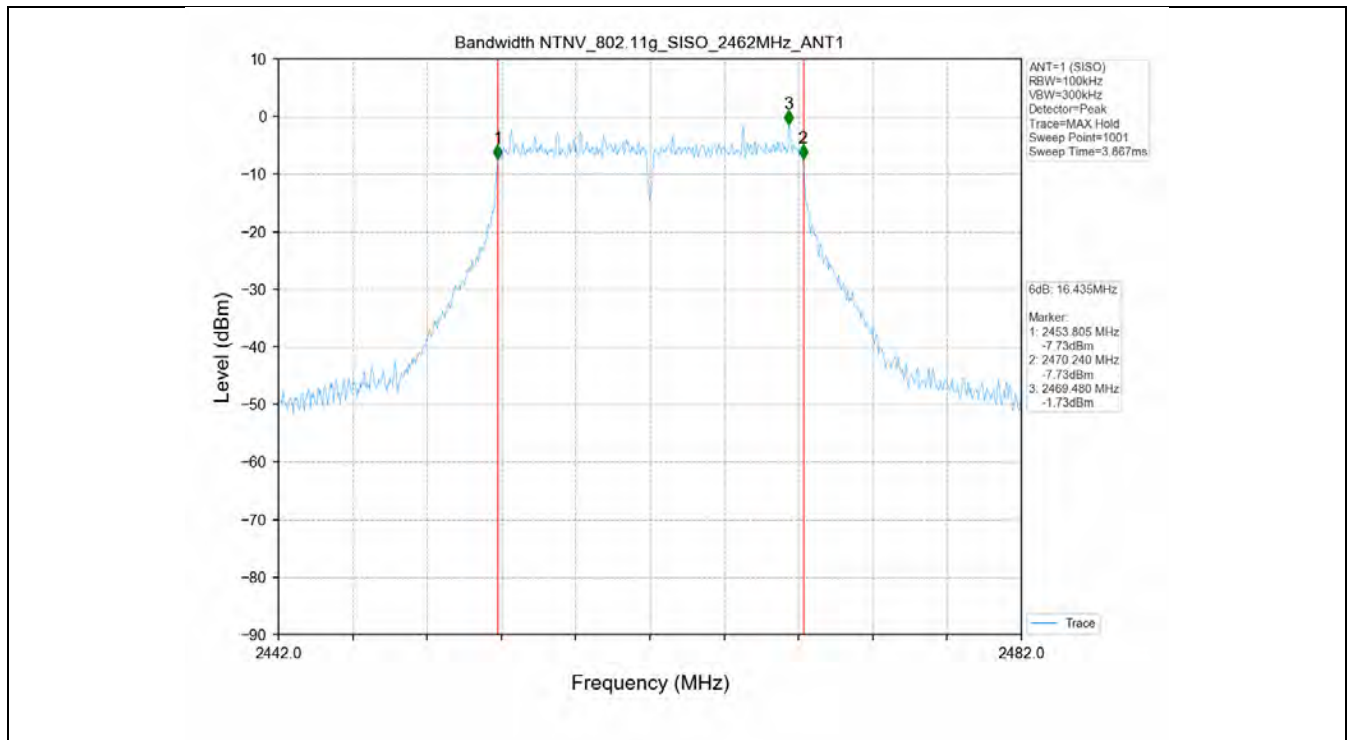


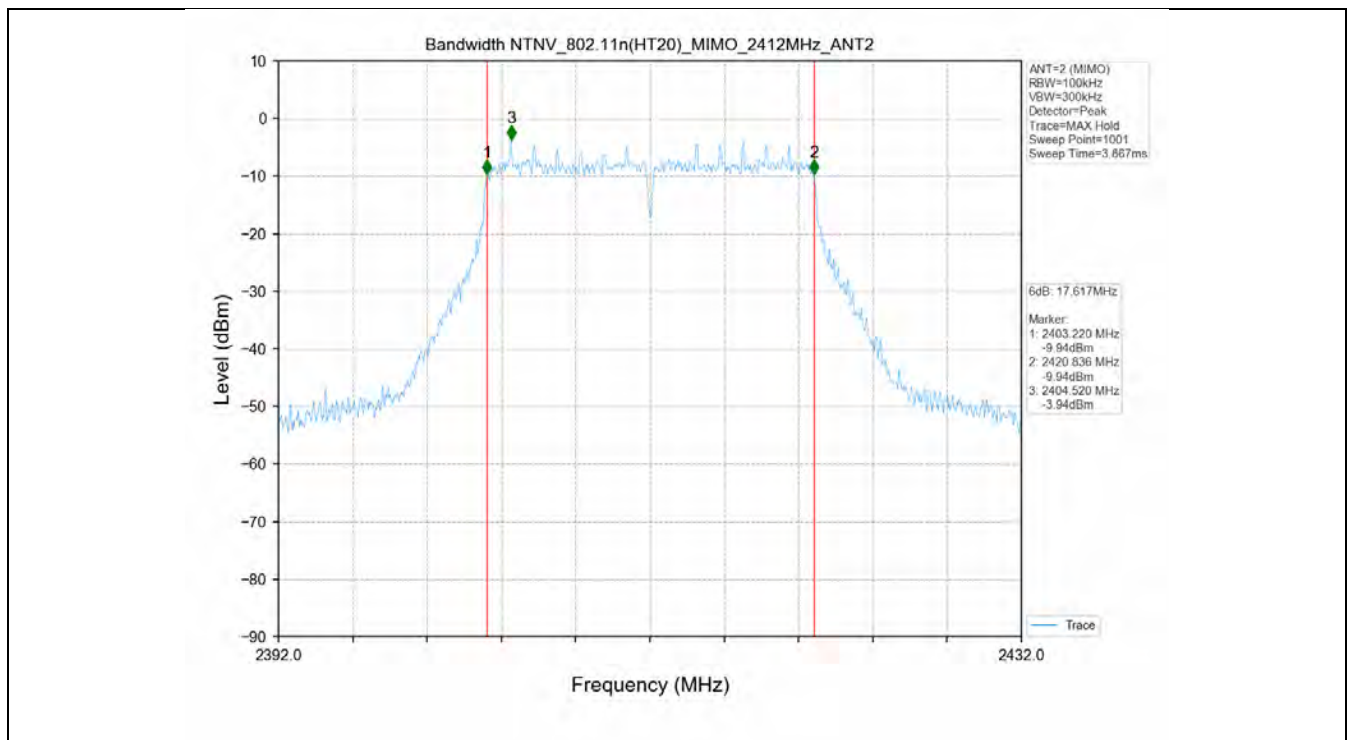
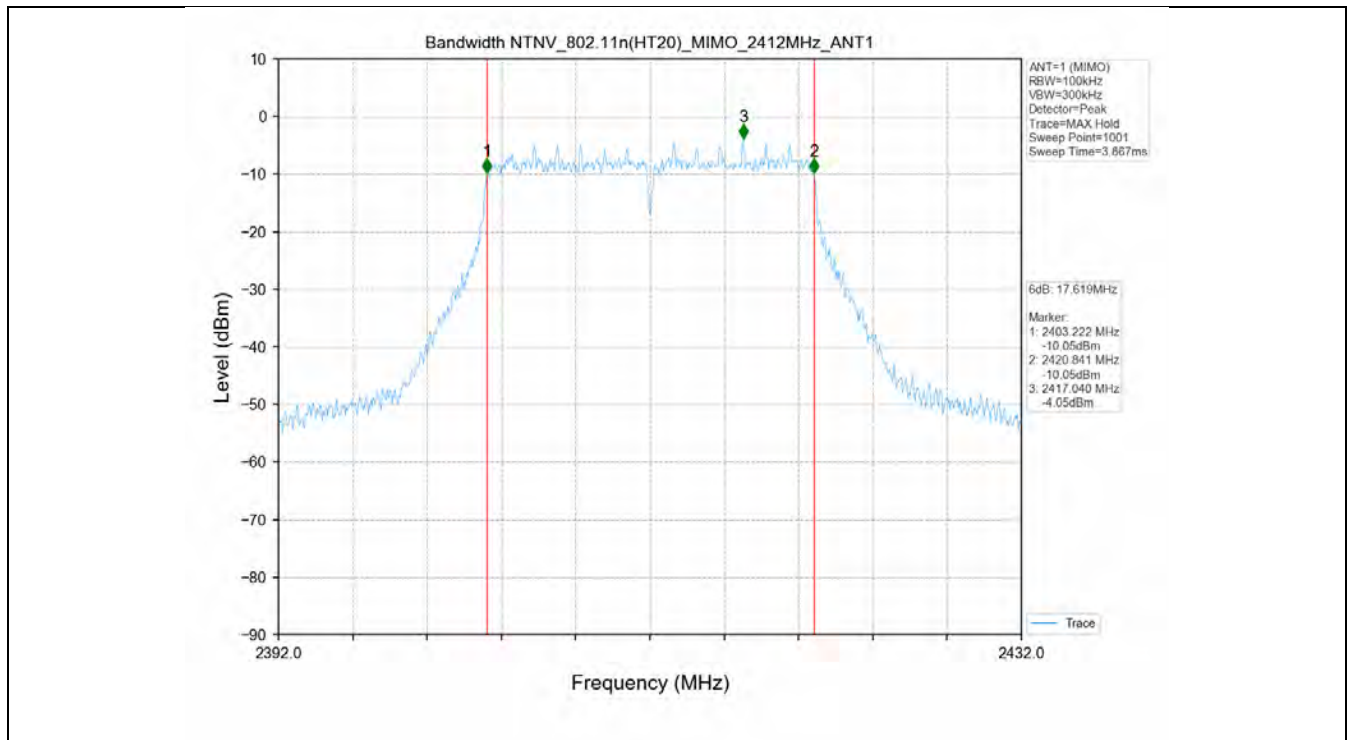


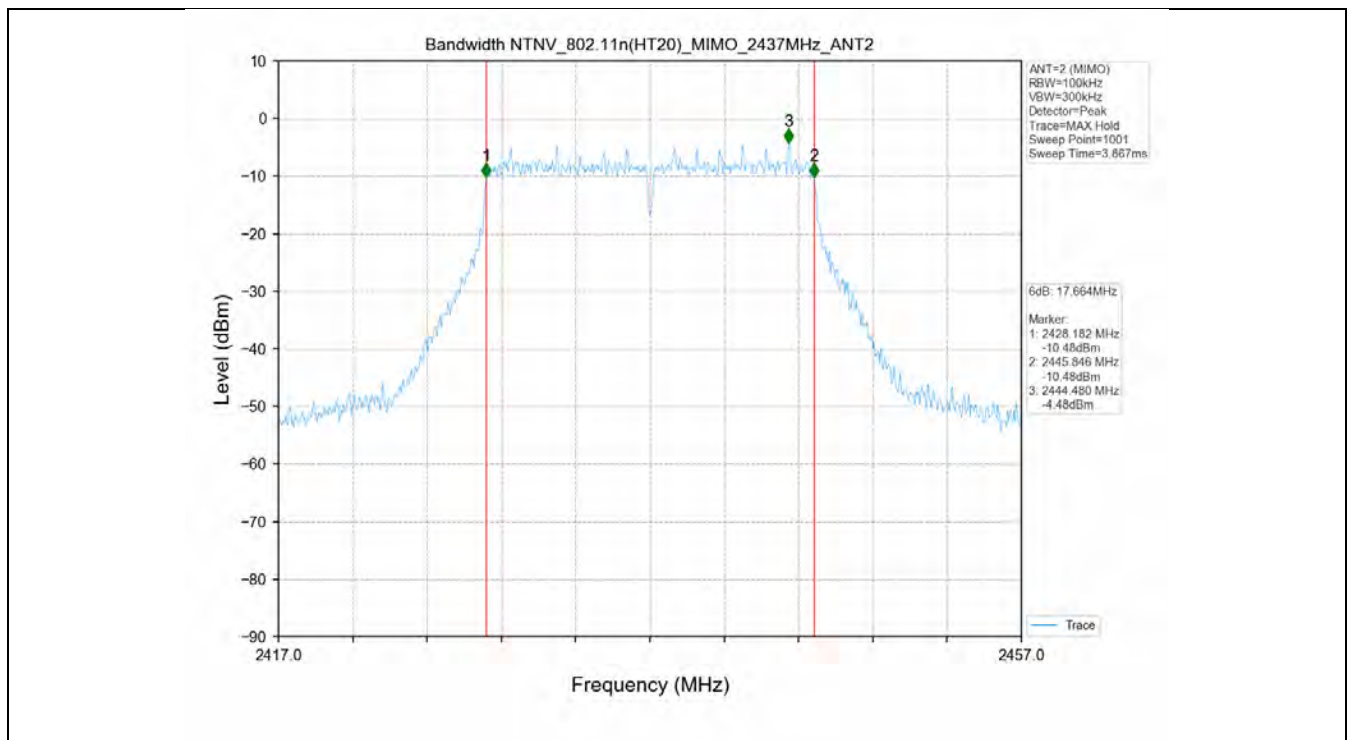
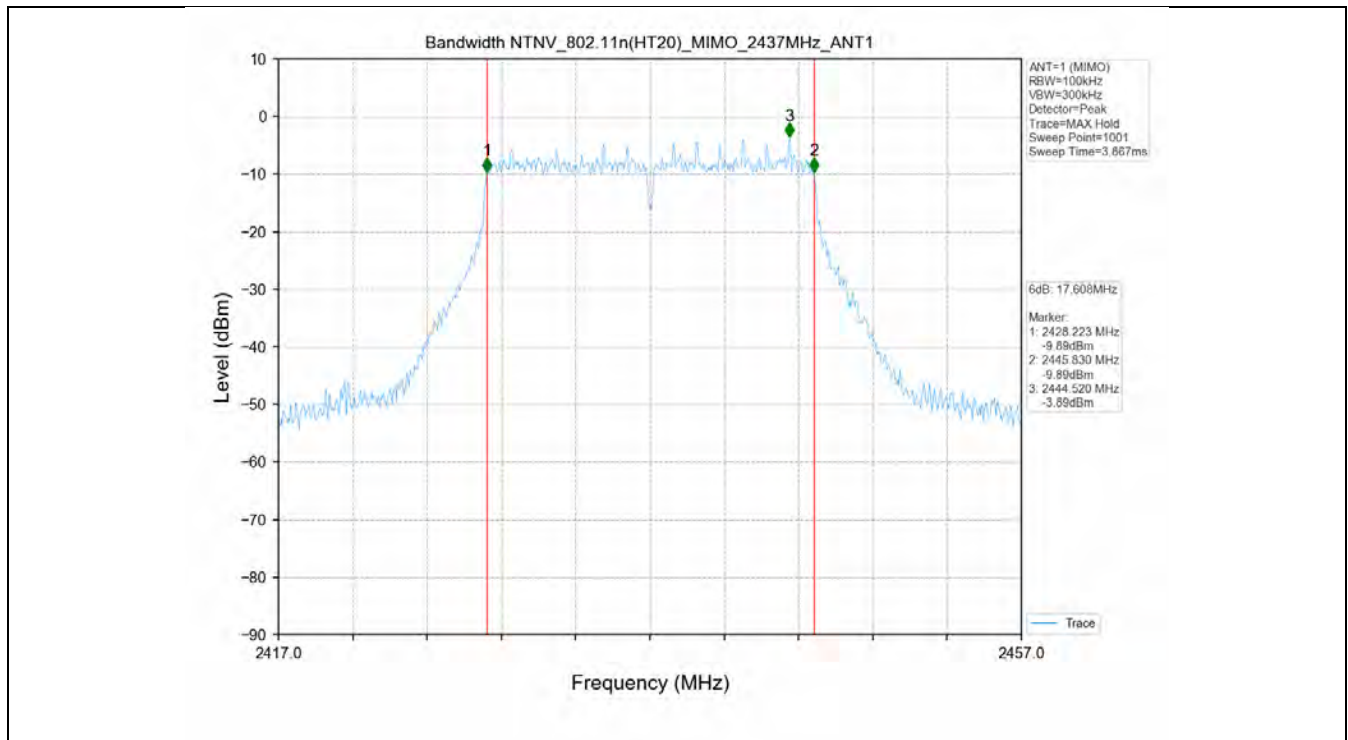


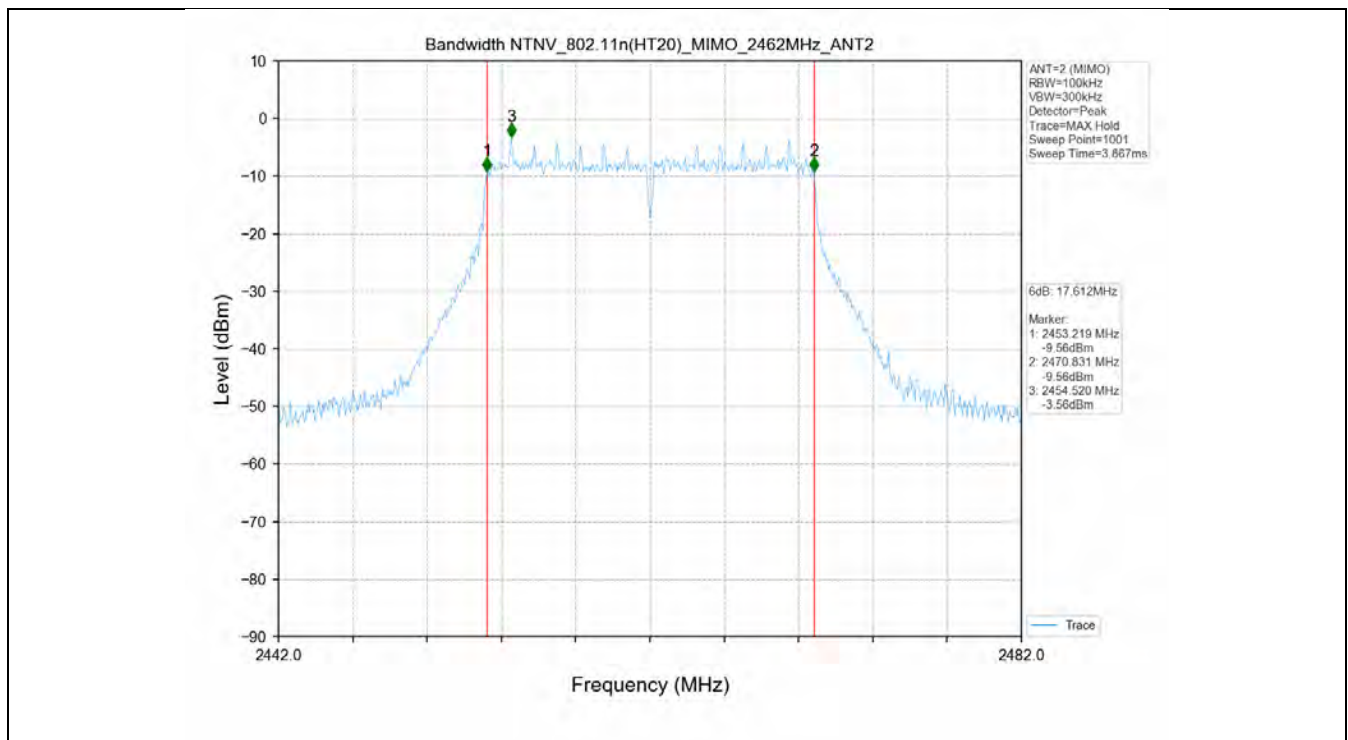
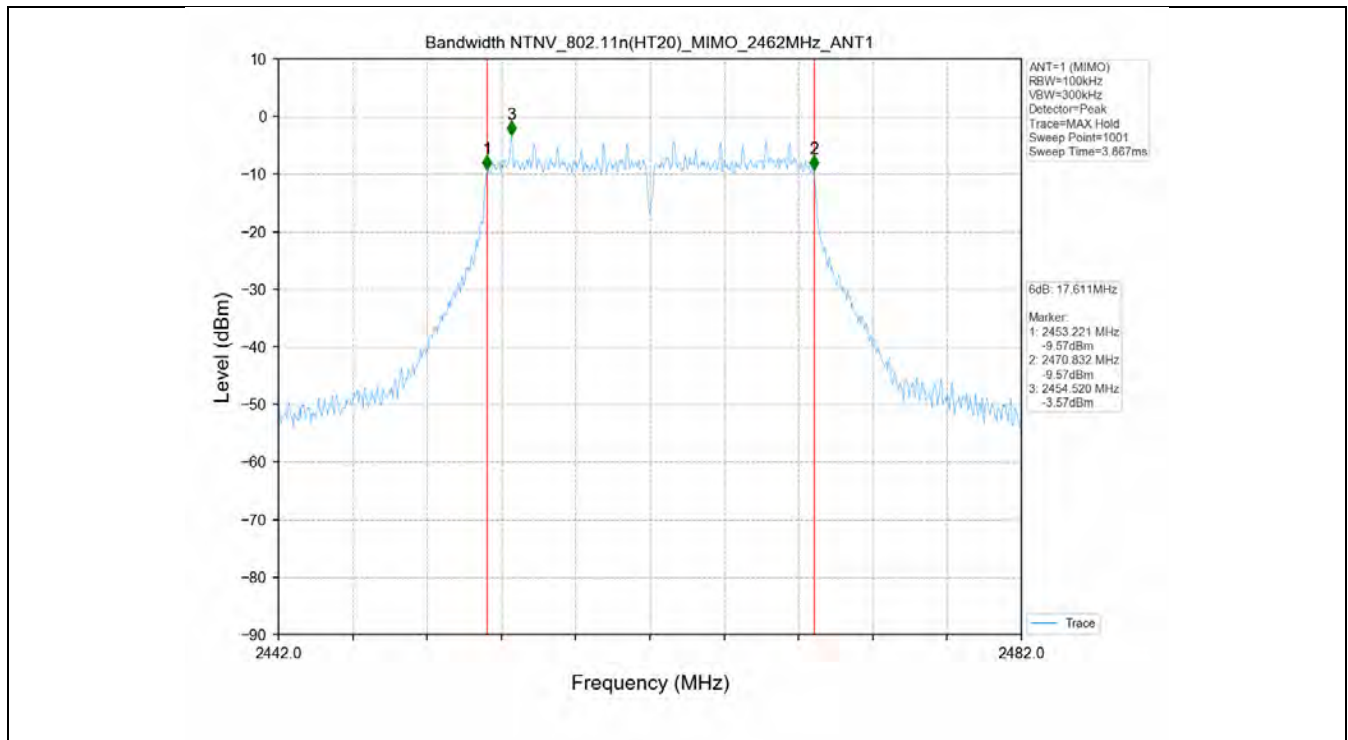






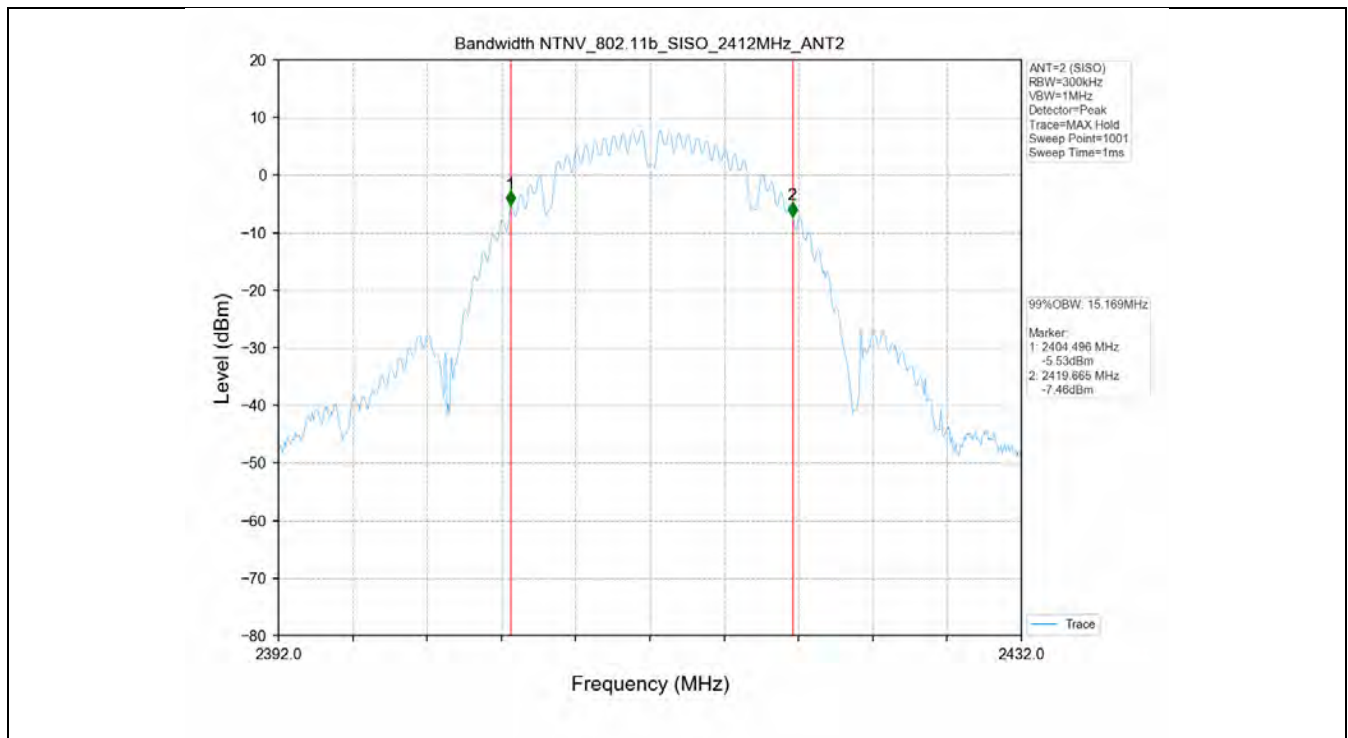
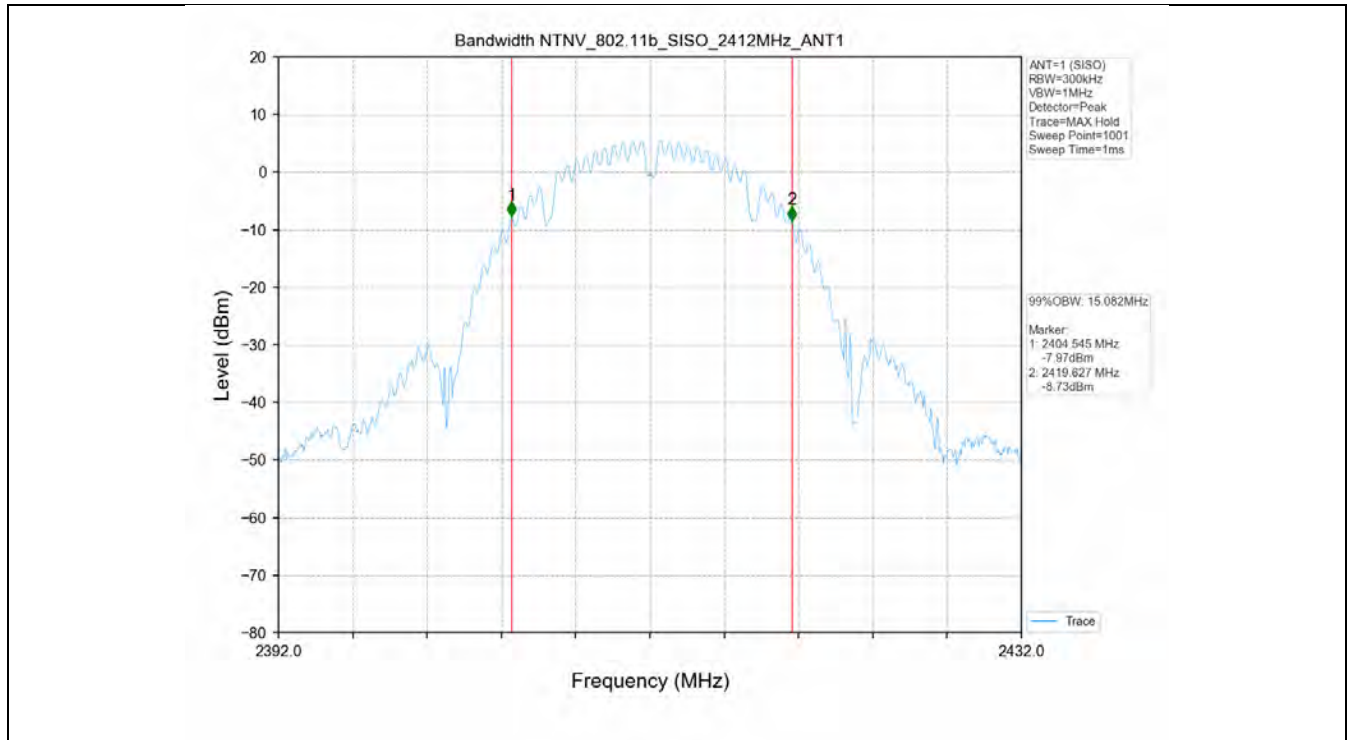


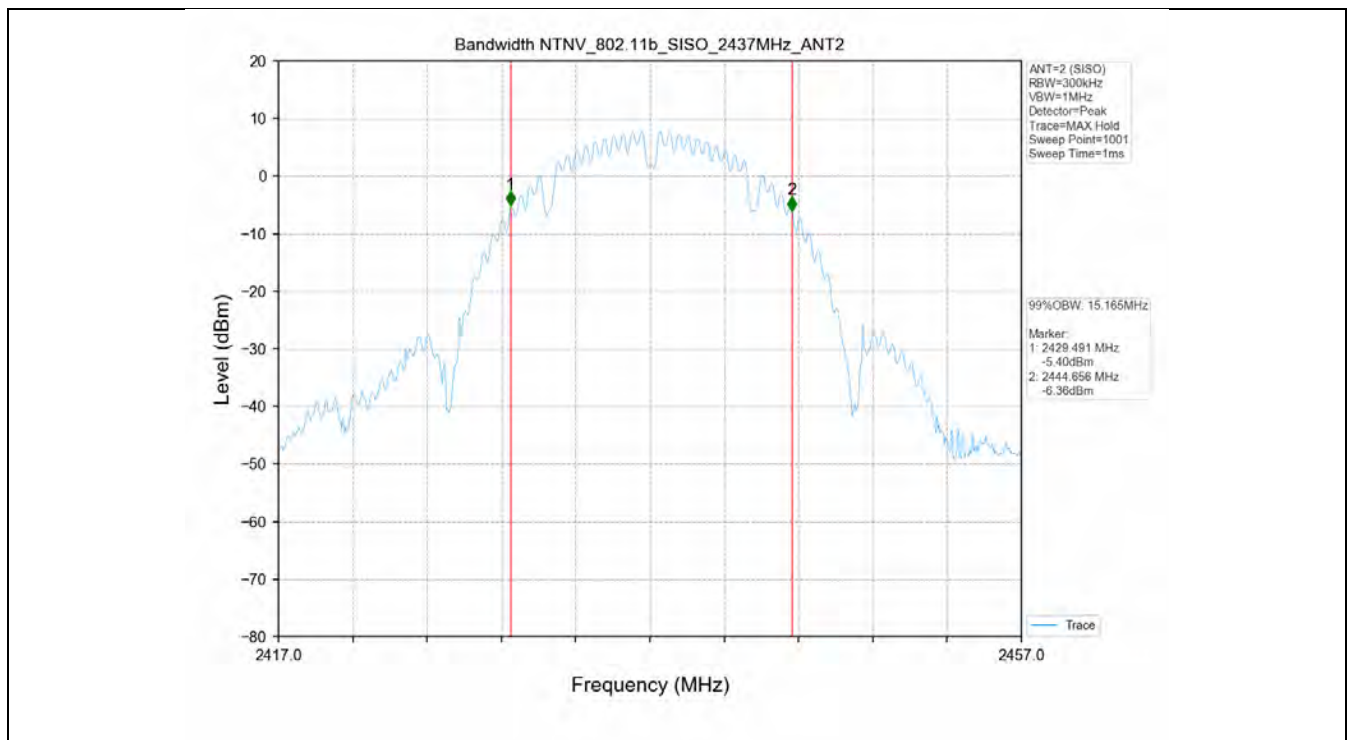
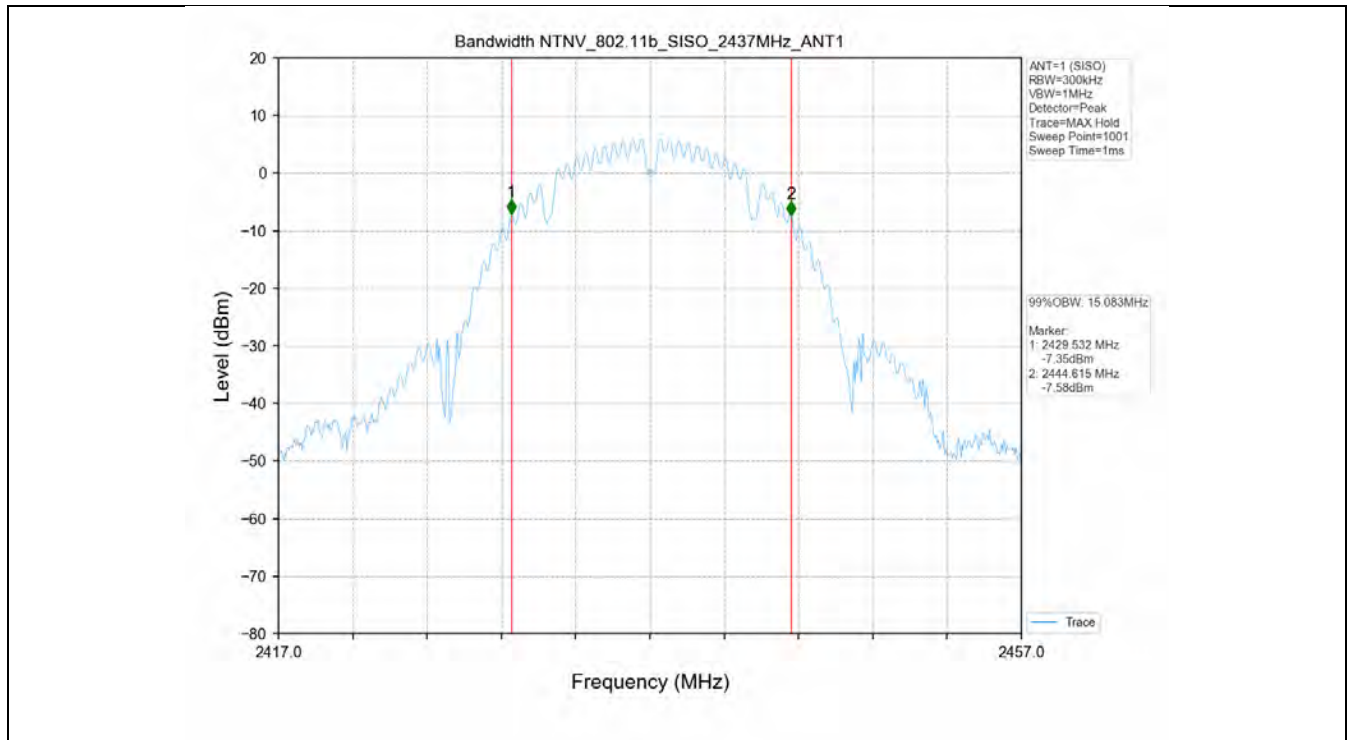


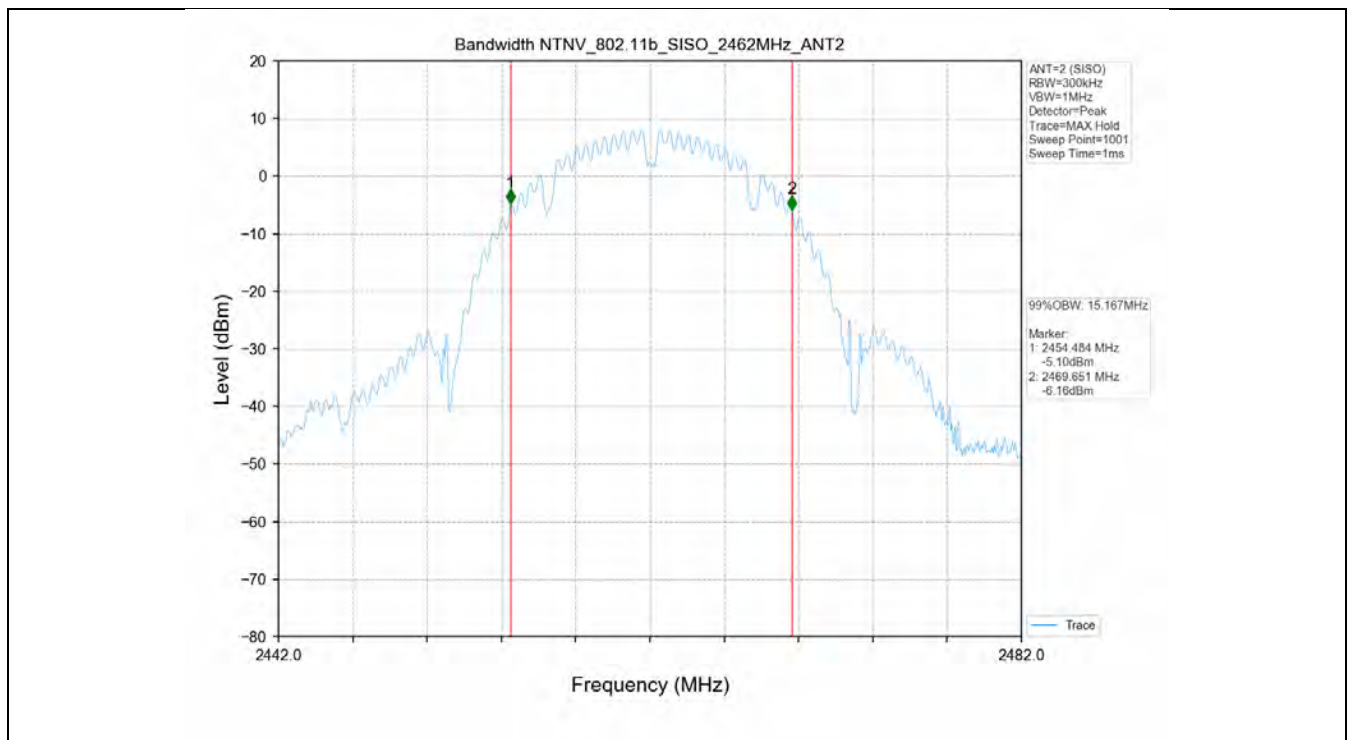
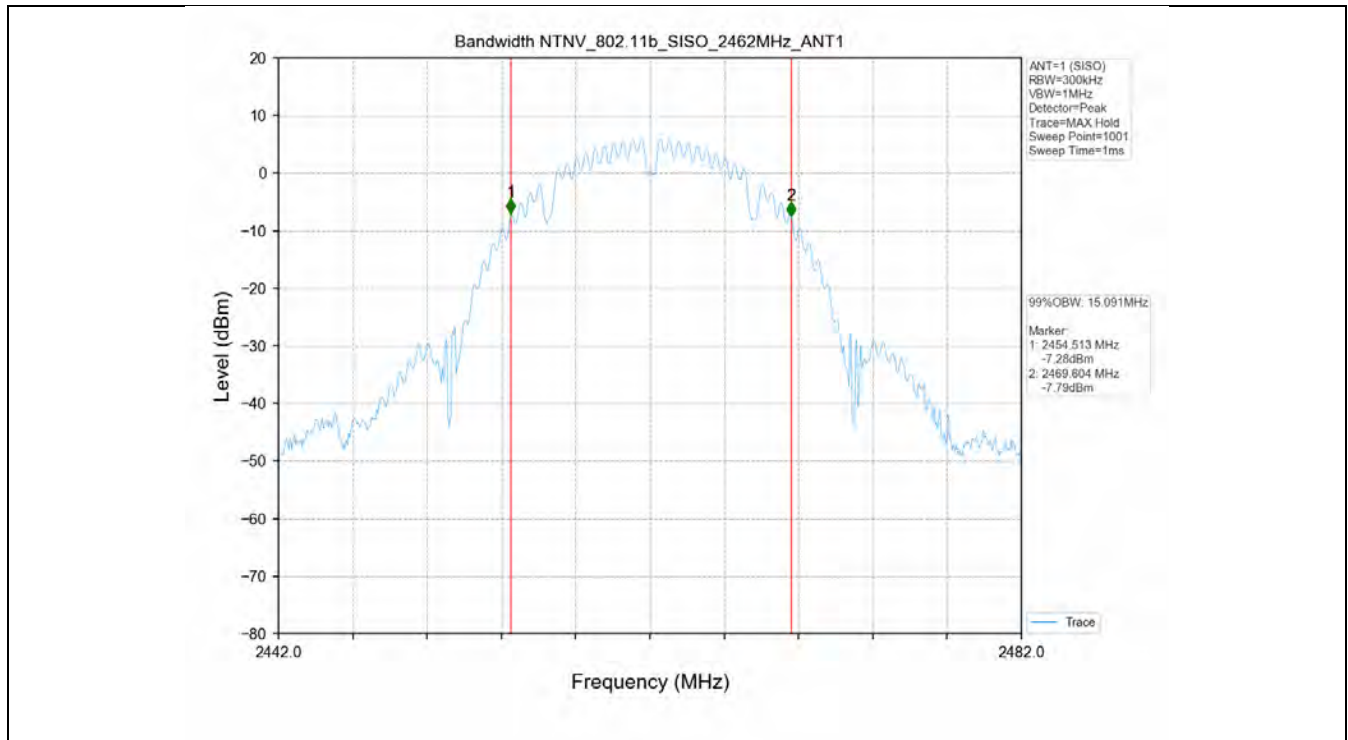


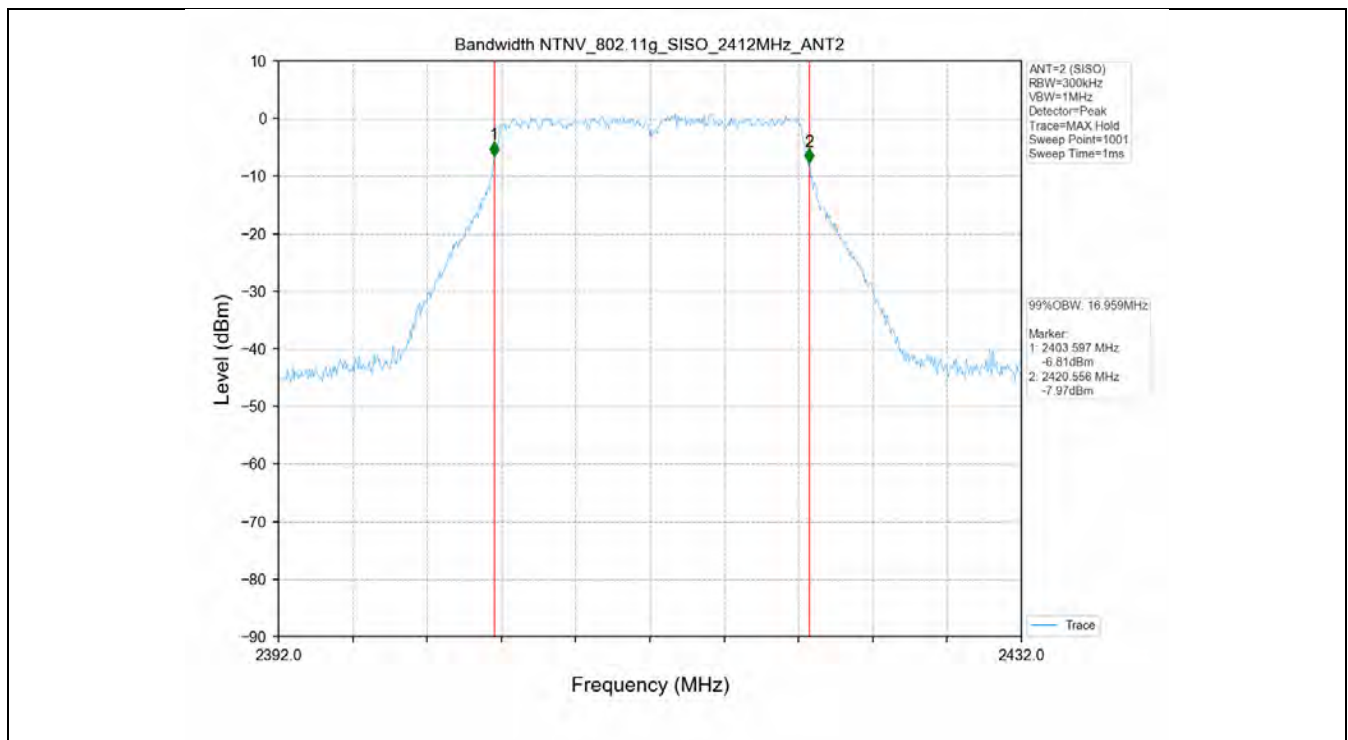
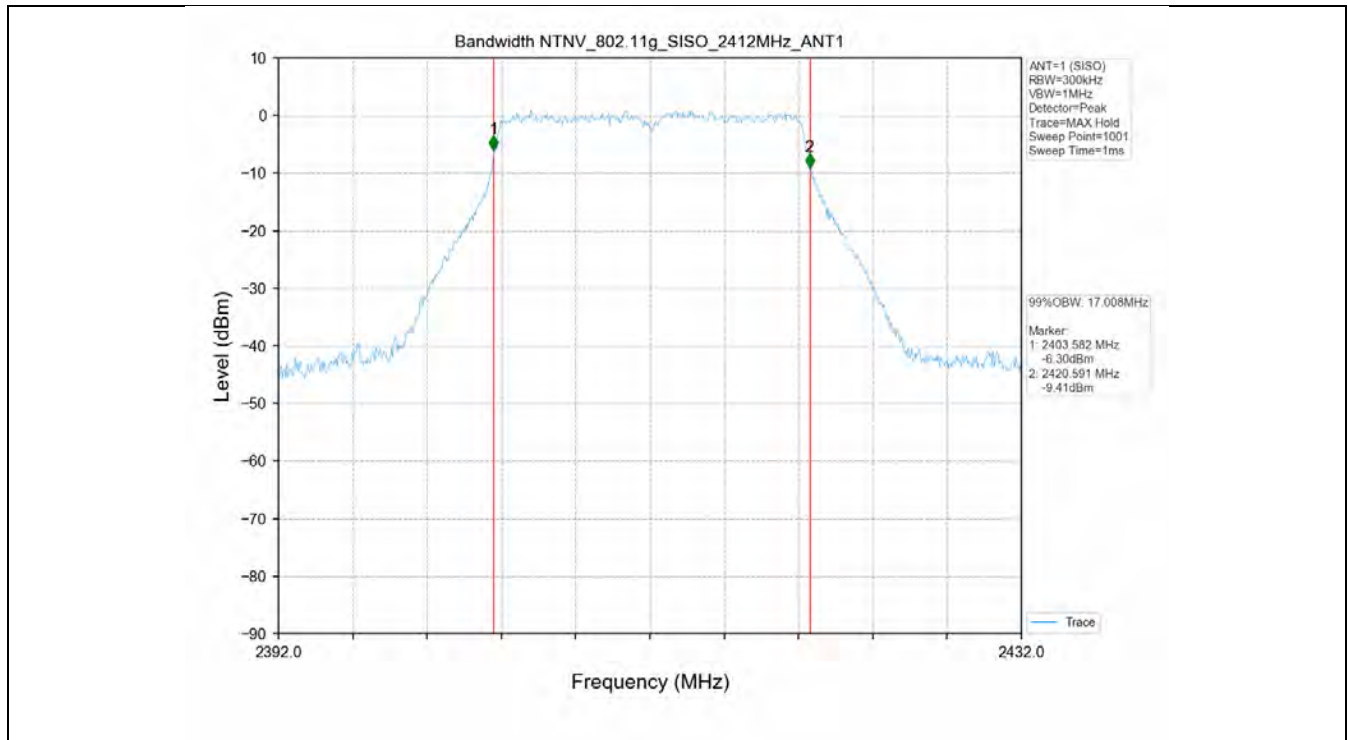


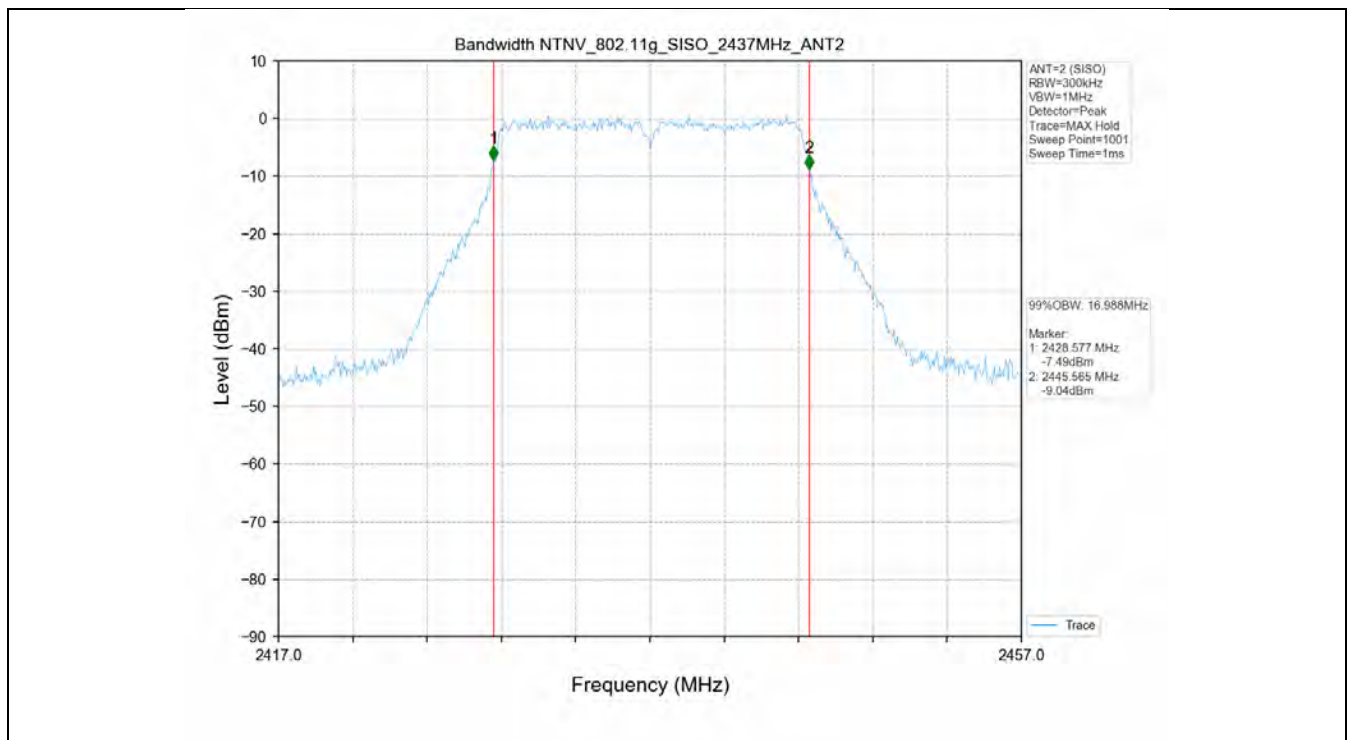
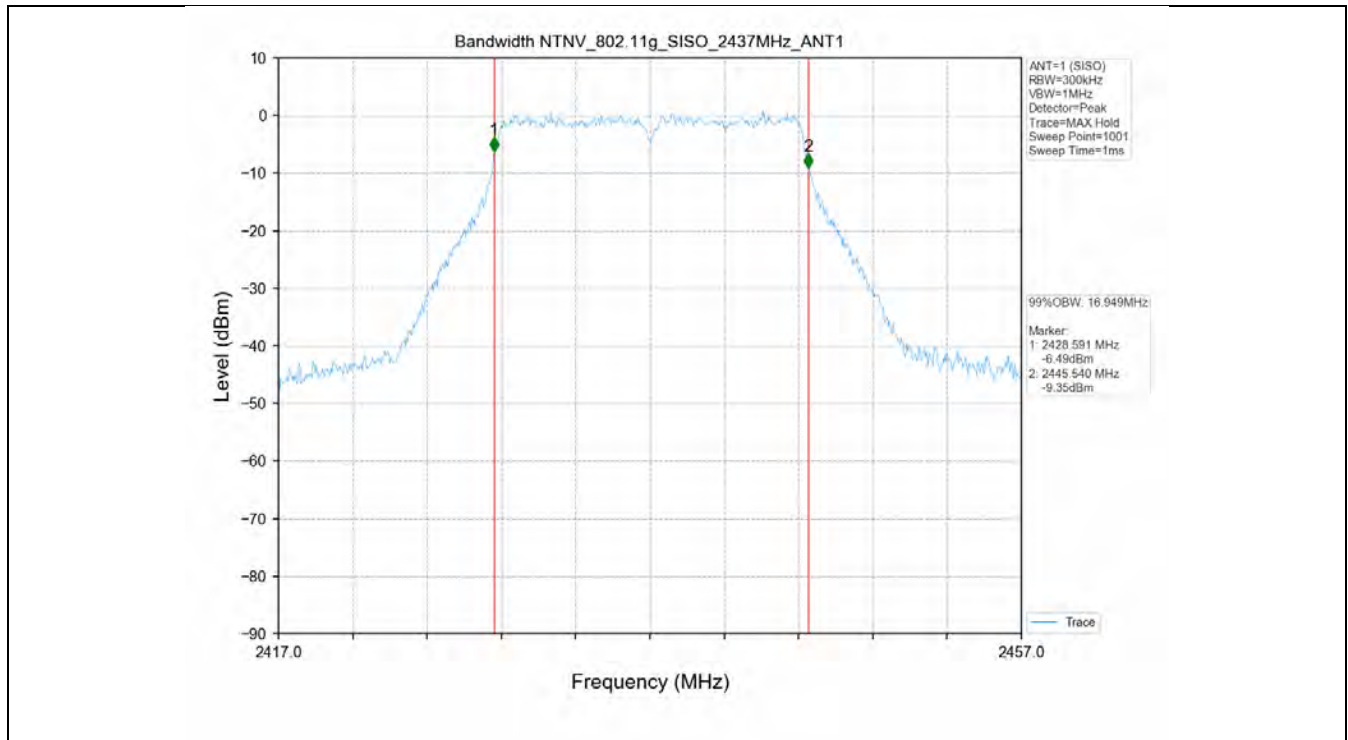
### 2.3 Test Graph - 99% Occupied Bandwidth

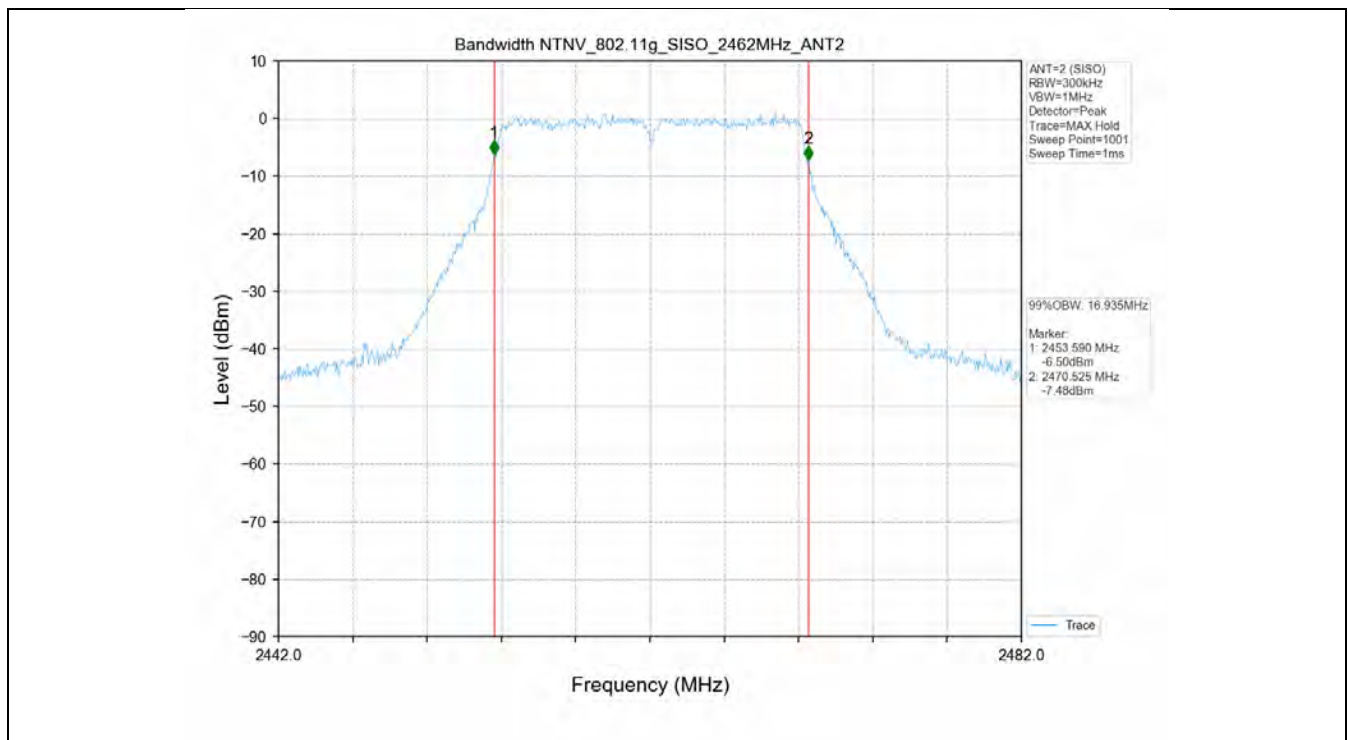
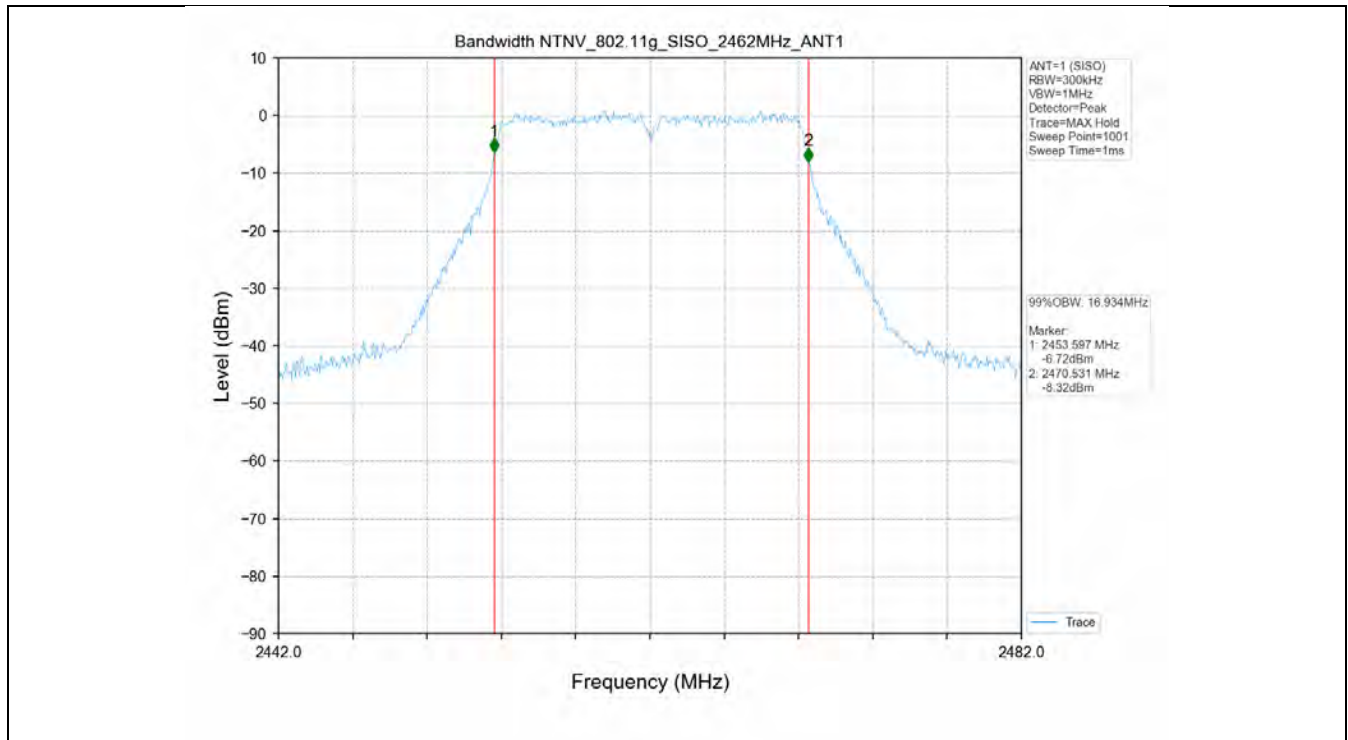


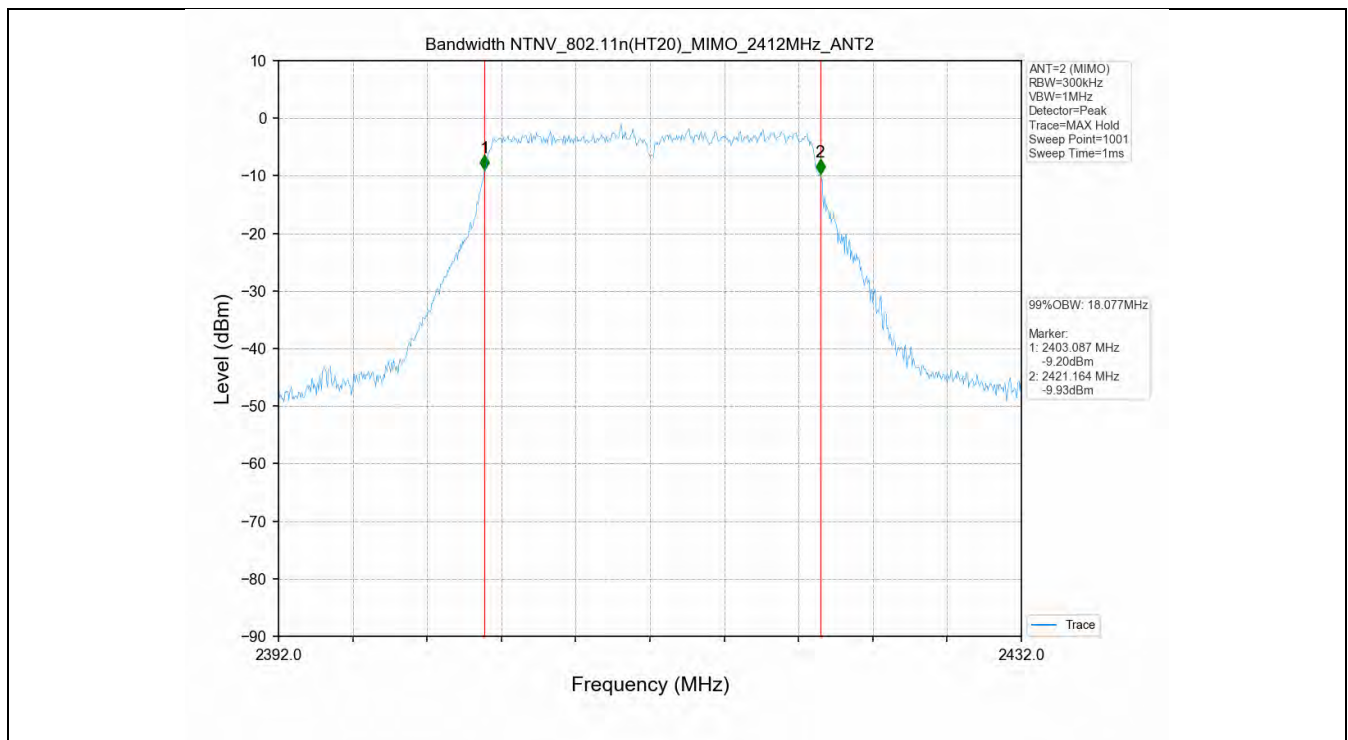
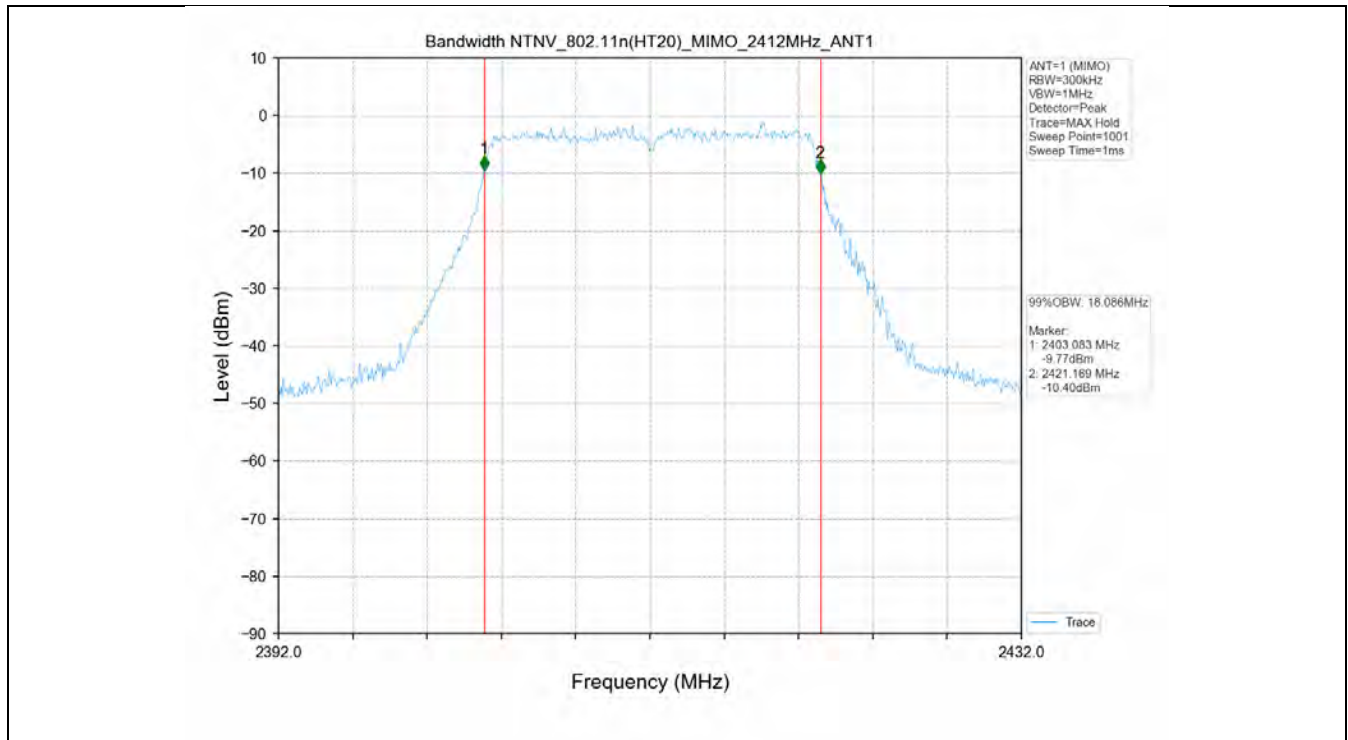


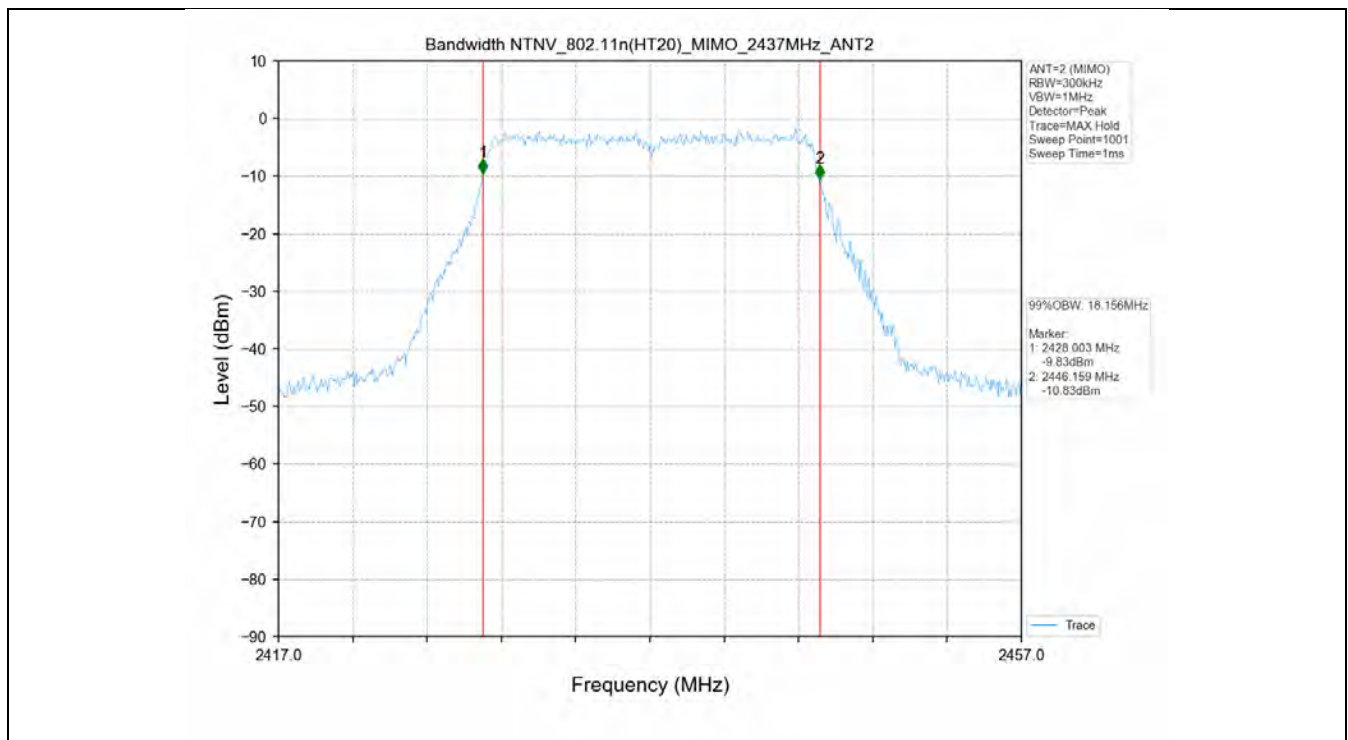
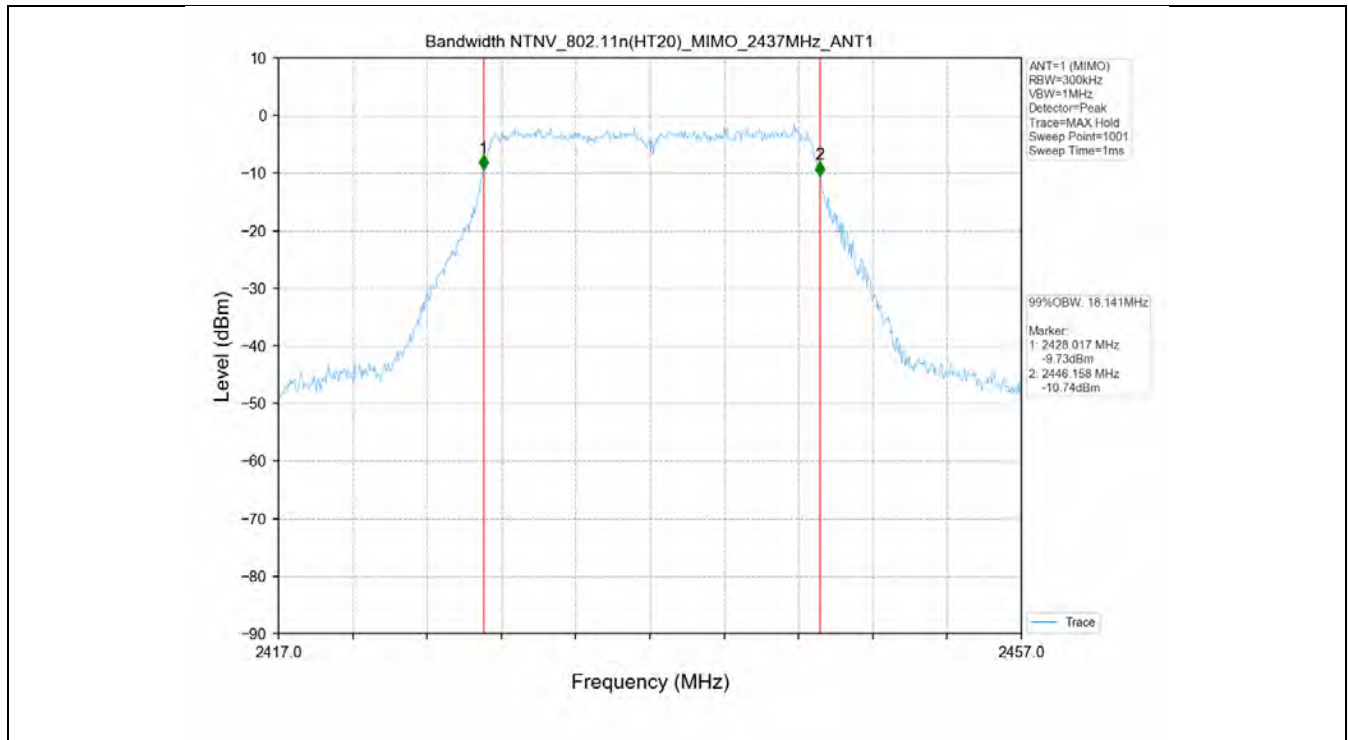


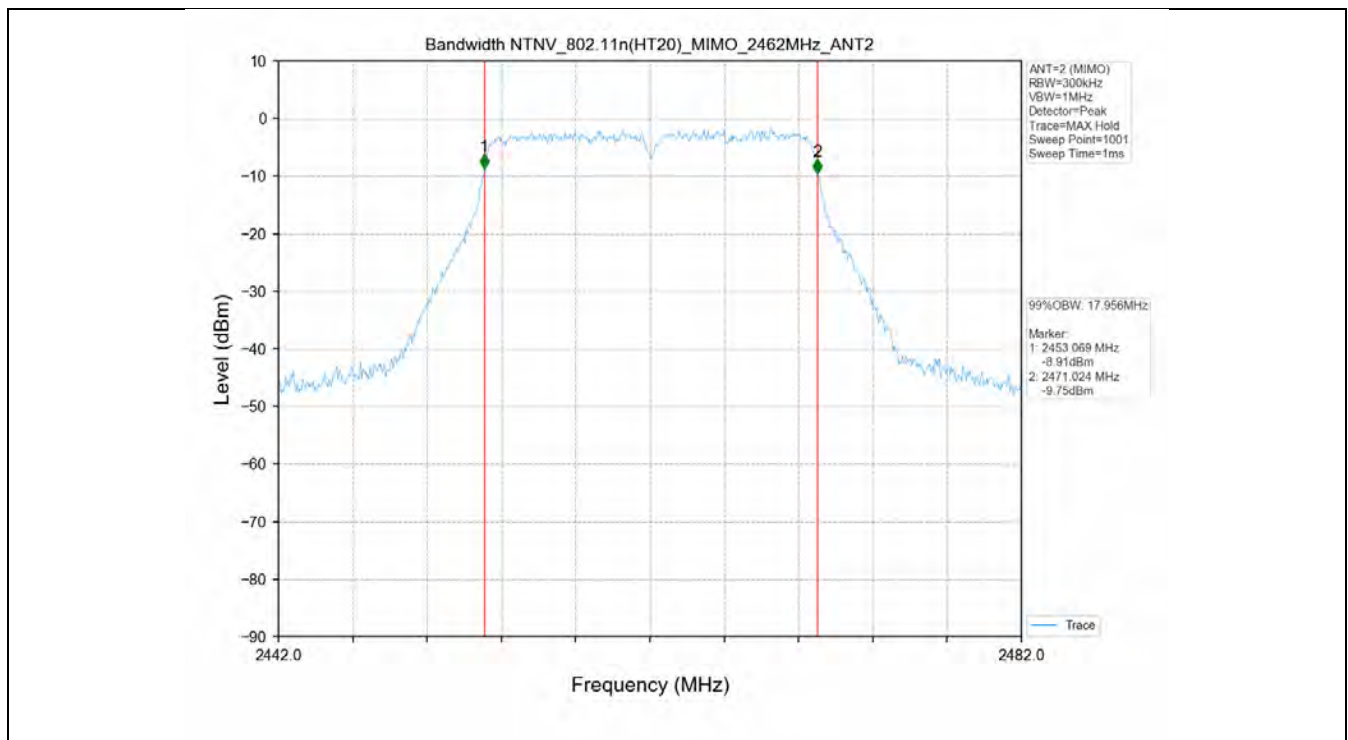
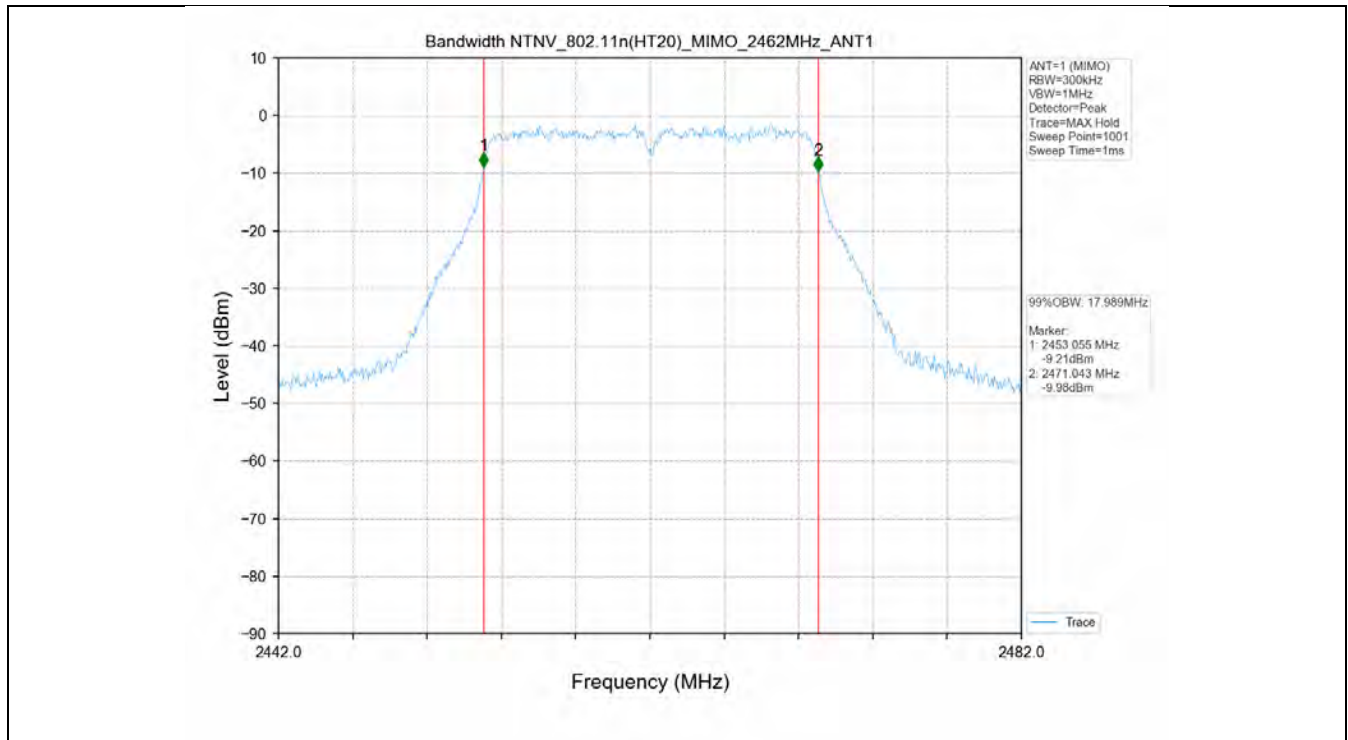












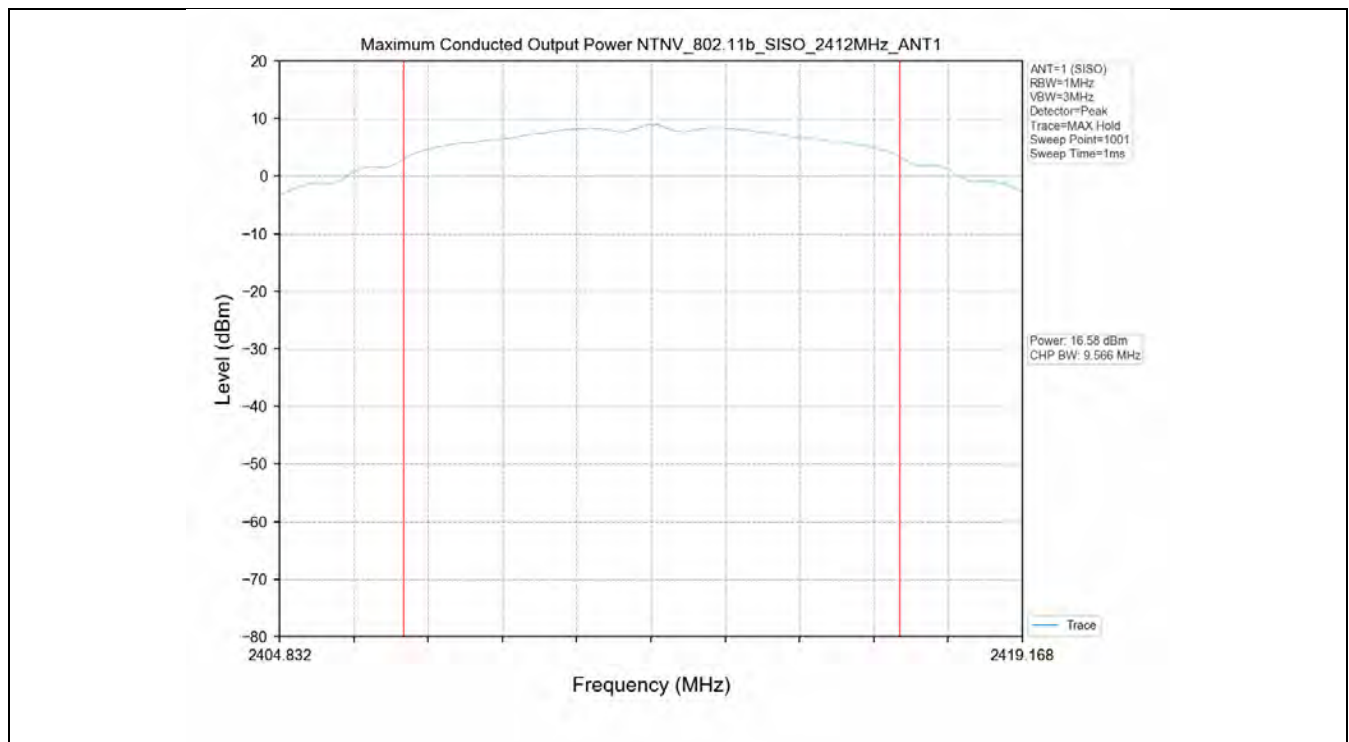


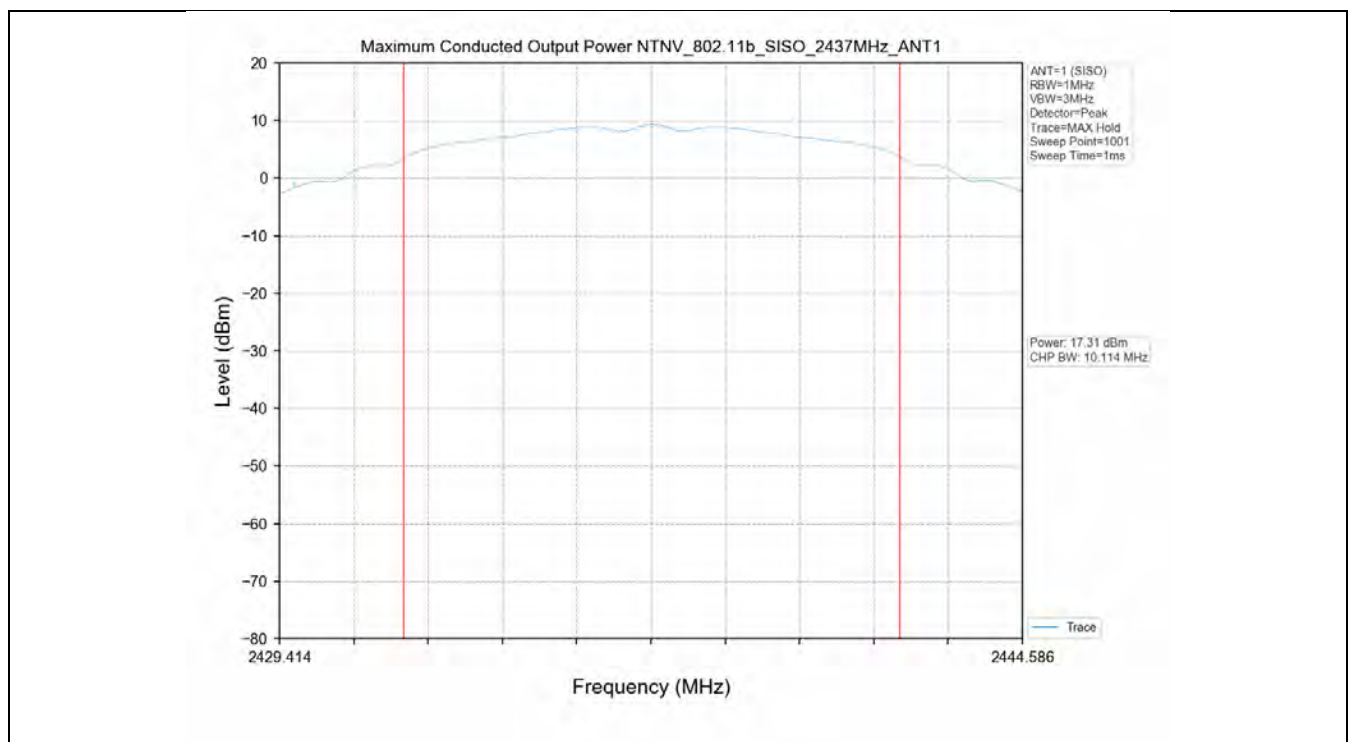
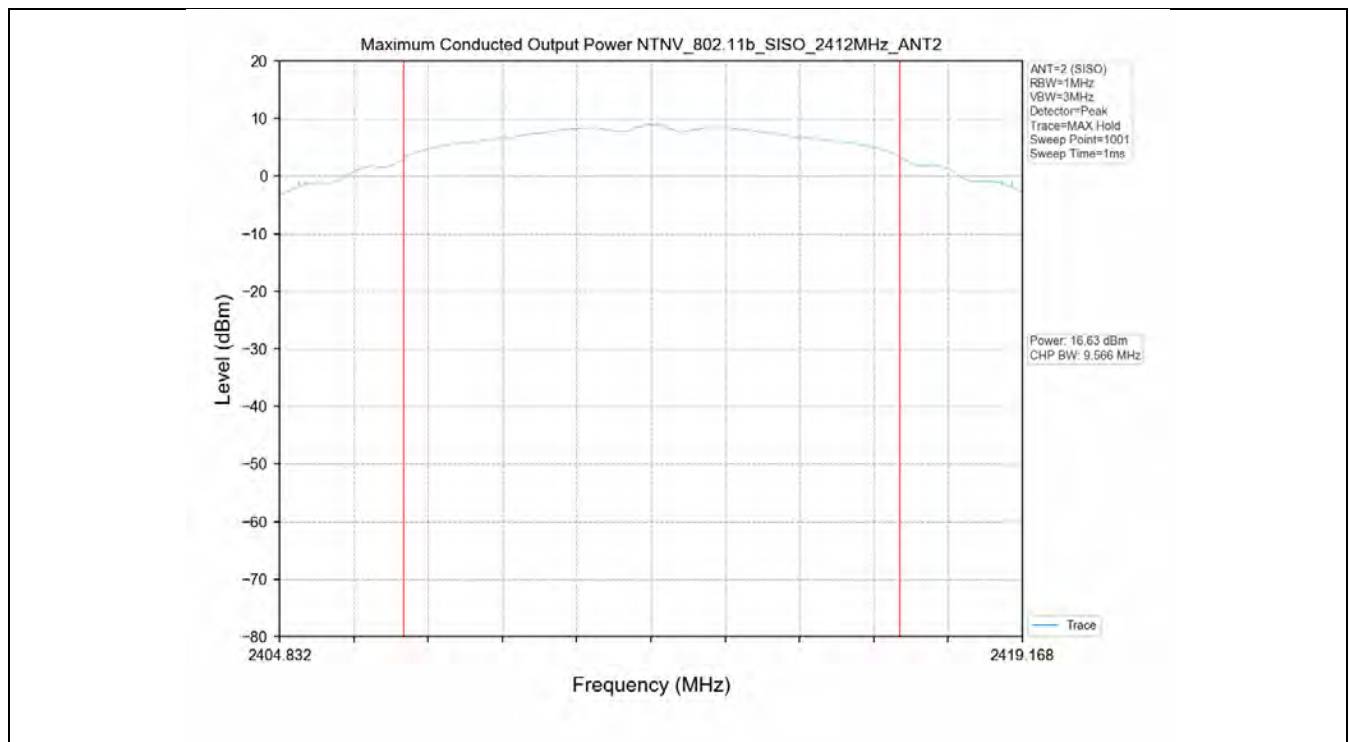
### 3. Maximum Conducted Output Power

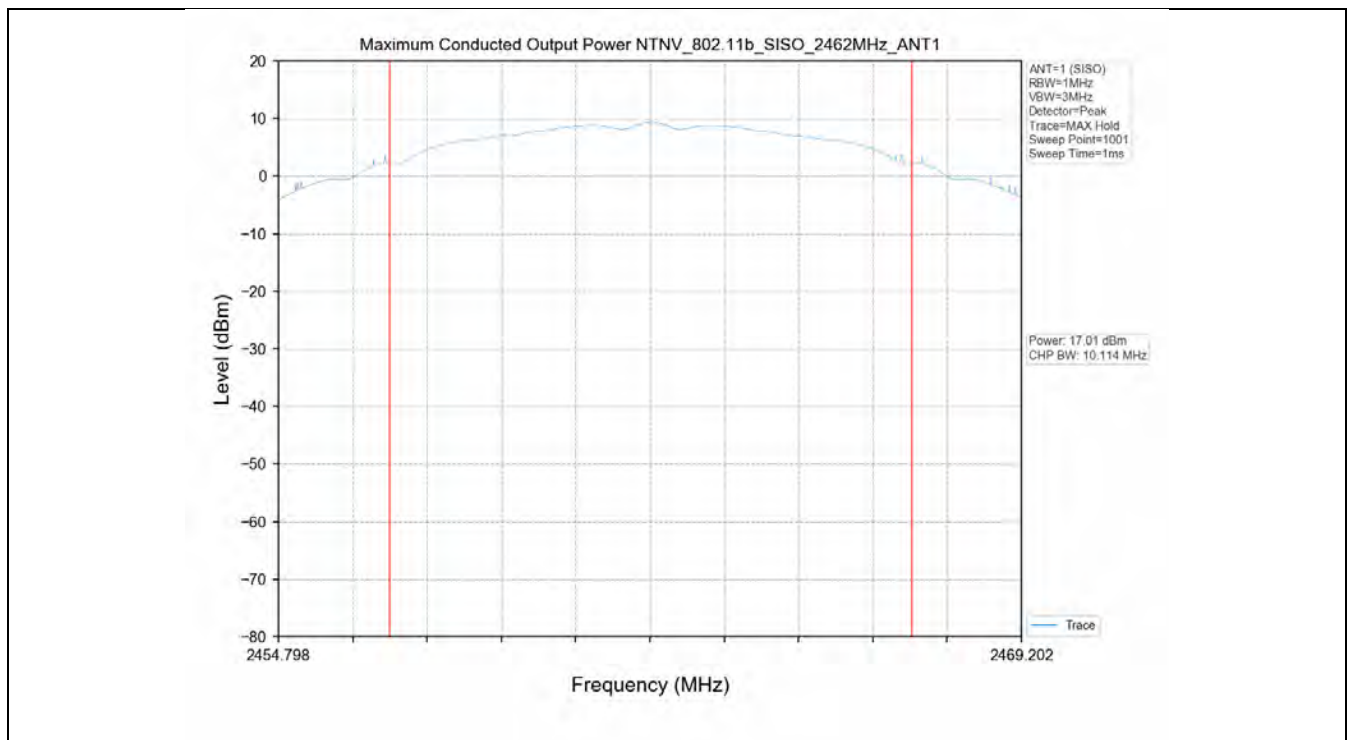
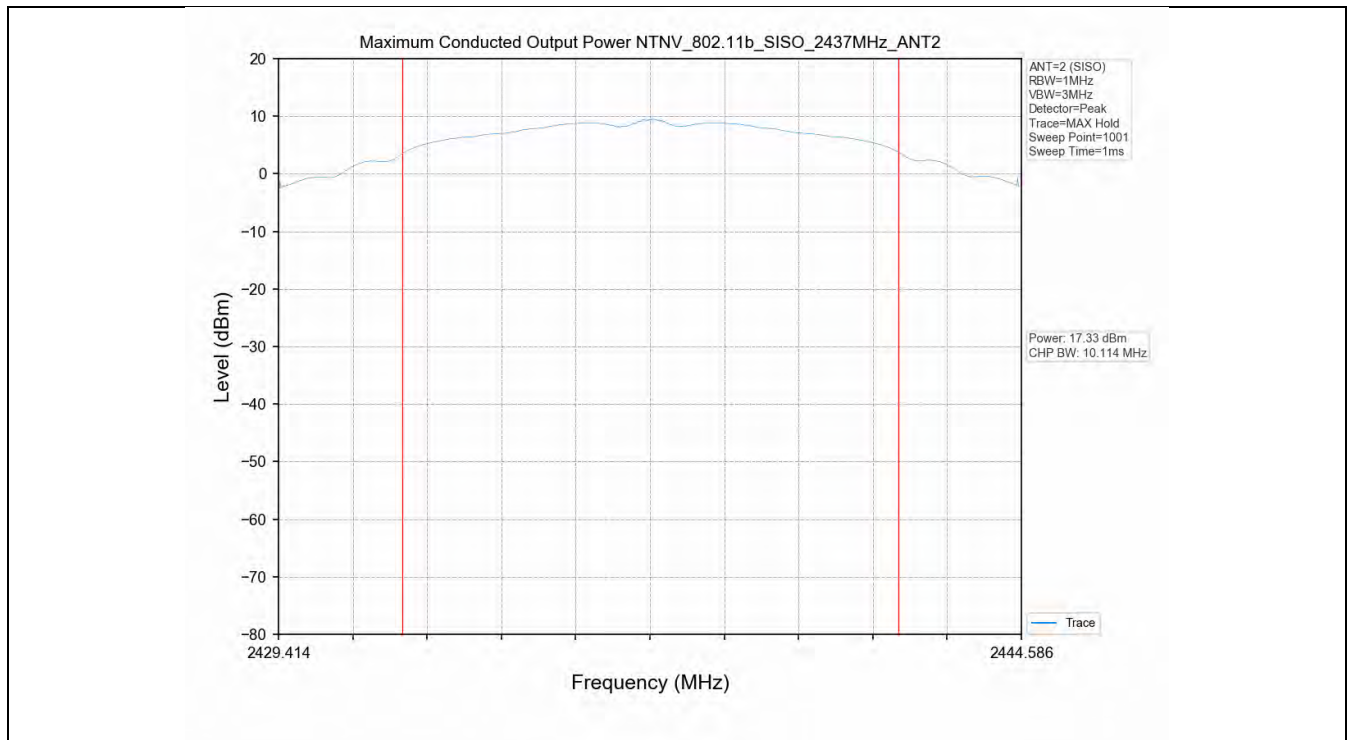
#### 3.1 Test Result

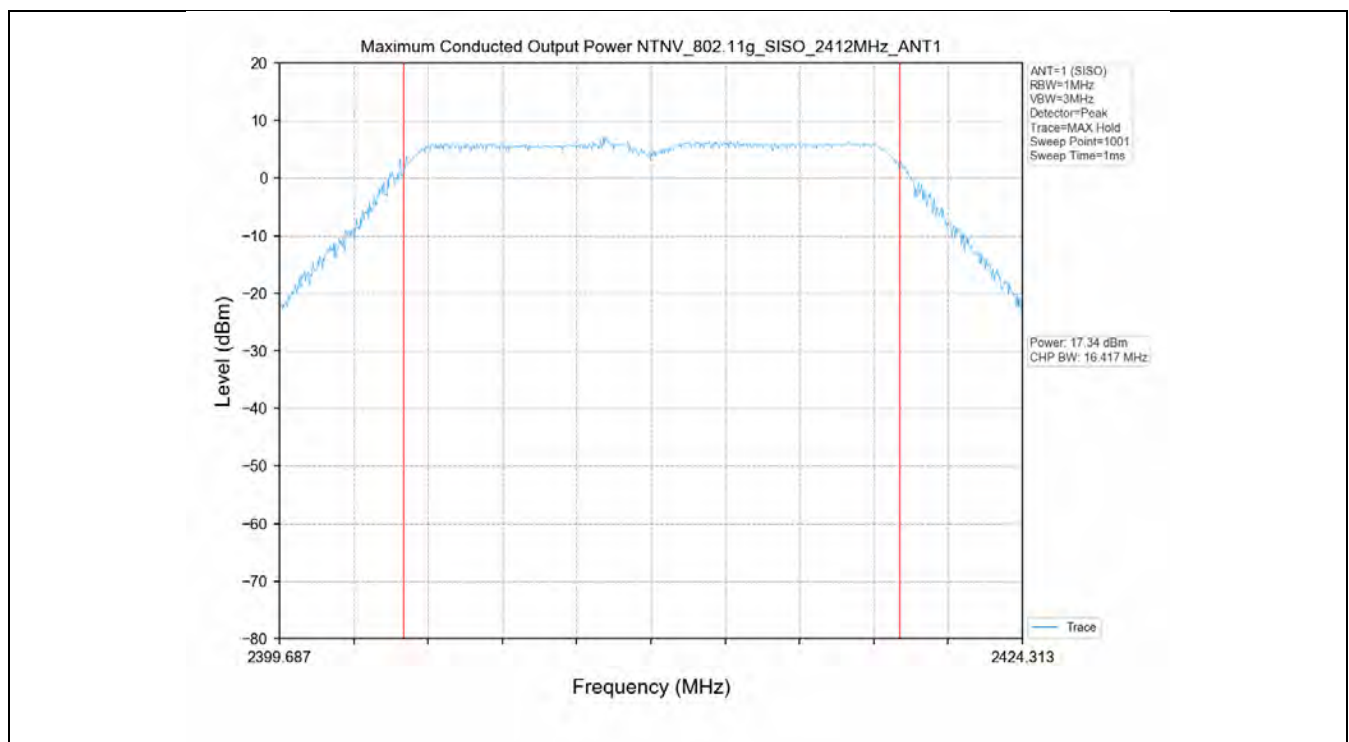
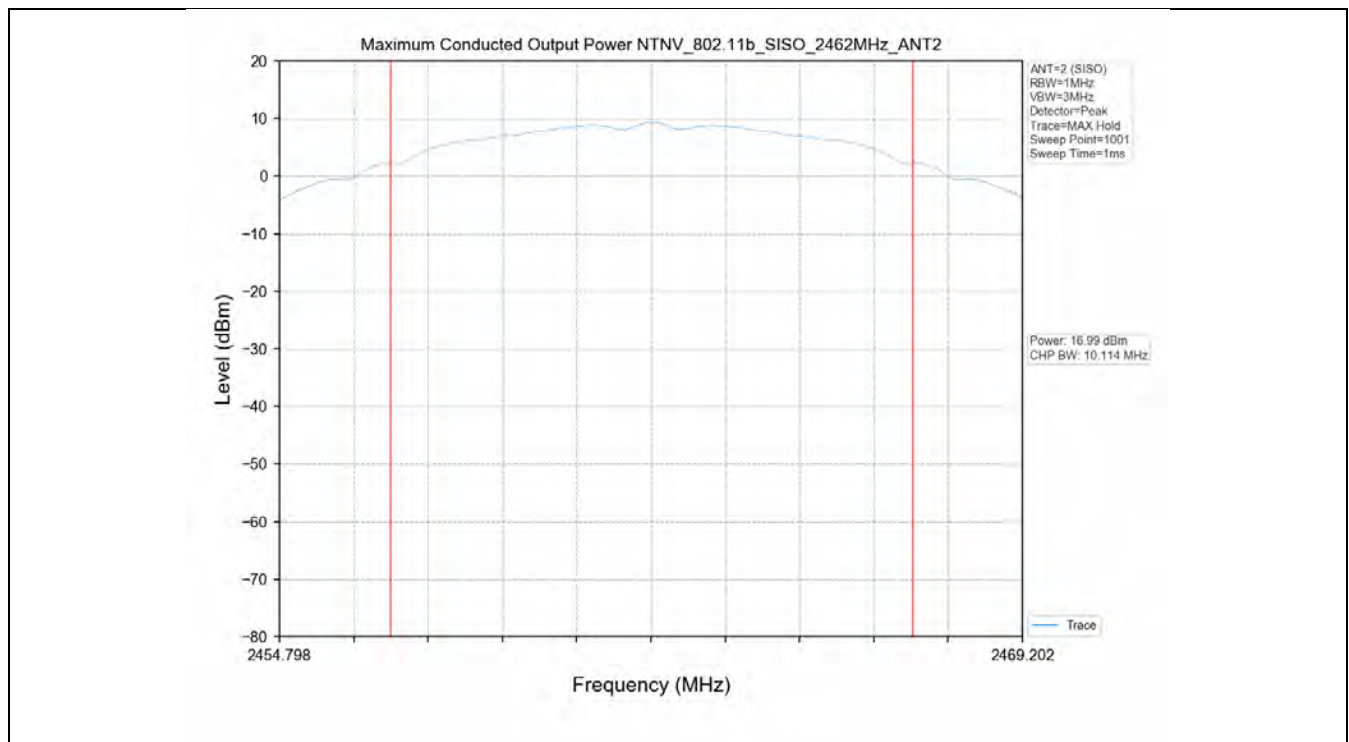
| Test Mode     | Frequency (MHz) | Tx Type | Measured Peak Output Power (dBm) |       |       | Limits (dBm) | Verdict |
|---------------|-----------------|---------|----------------------------------|-------|-------|--------------|---------|
|               |                 |         | Ant 1                            | Ant 2 | Total |              |         |
| 802.11b       | 2412            | SISO    | 16.58                            | 16.63 | /     | 30           | PASS    |
|               | 2437            | SISO    | 17.31                            | 17.33 | /     | 30           | PASS    |
|               | 2462            | SISO    | 17.01                            | 16.99 | /     | 30           | PASS    |
| 802.11g       | 2412            | SISO    | 17.34                            | 17.35 | /     | 30           | PASS    |
|               | 2437            | SISO    | 16.95                            | 16.95 | /     | 30           | PASS    |
|               | 2462            | SISO    | 17.30                            | 17.30 | /     | 30           | PASS    |
| 802.11n(HT20) | 2412            | MIMO    | 14.91                            | 14.88 | 17.91 | 30           | PASS    |
|               | 2437            | MIMO    | 14.76                            | 14.73 | 17.76 | 30           | PASS    |
|               | 2462            | MIMO    | 14.12                            | 14.16 | 17.15 | 30           | PASS    |

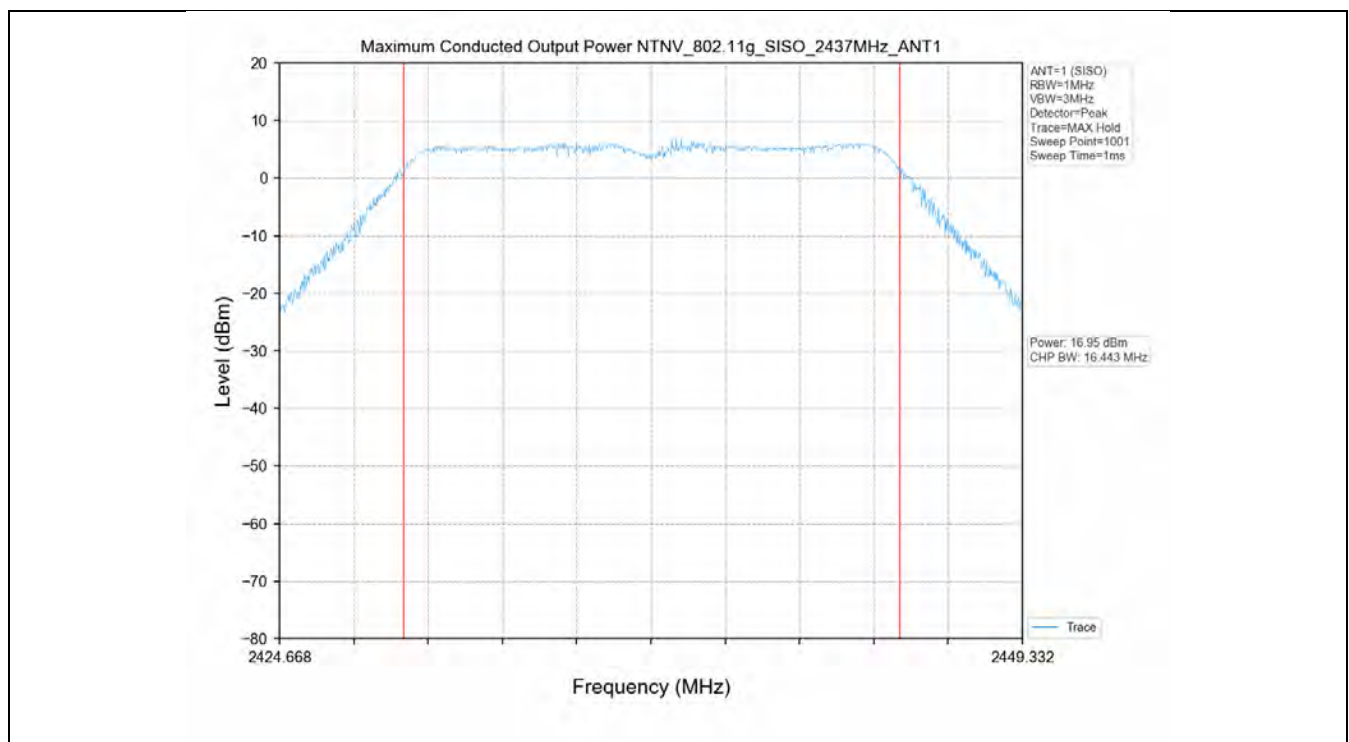
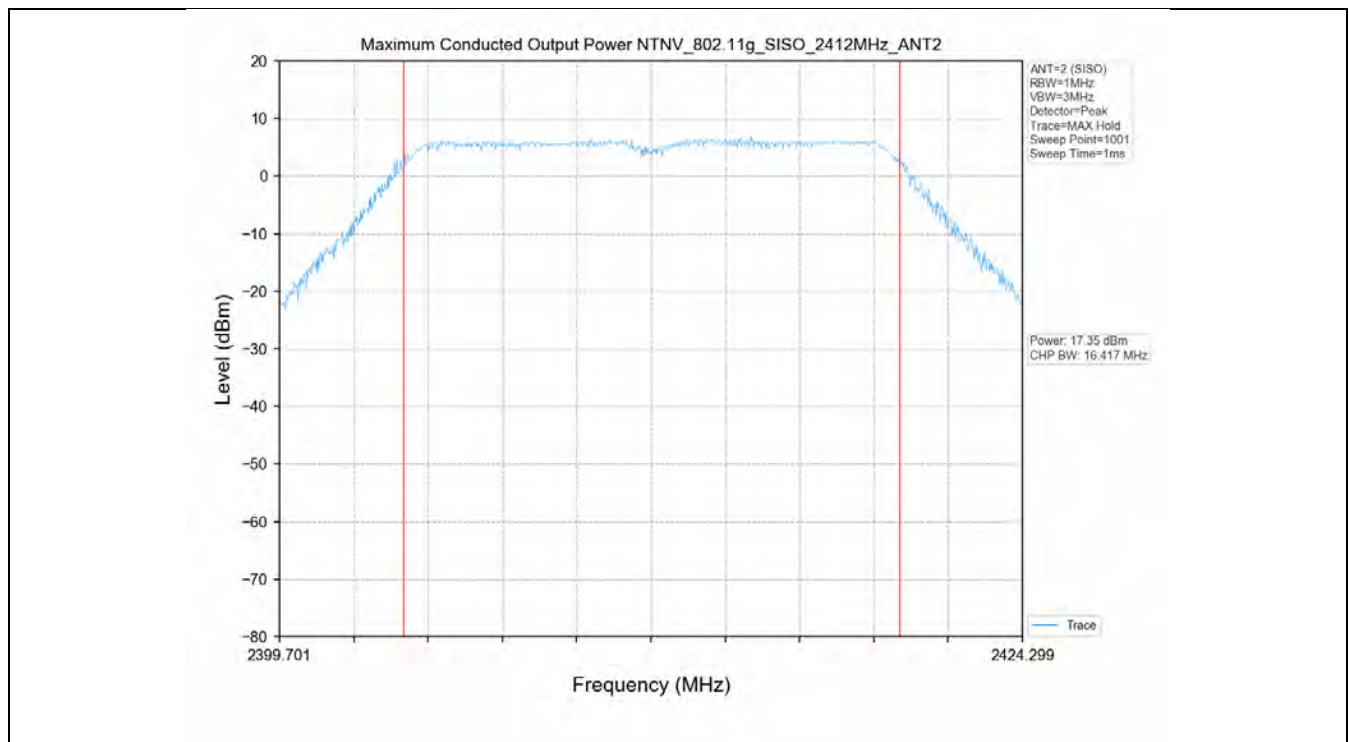
#### 3.2 Test Graph

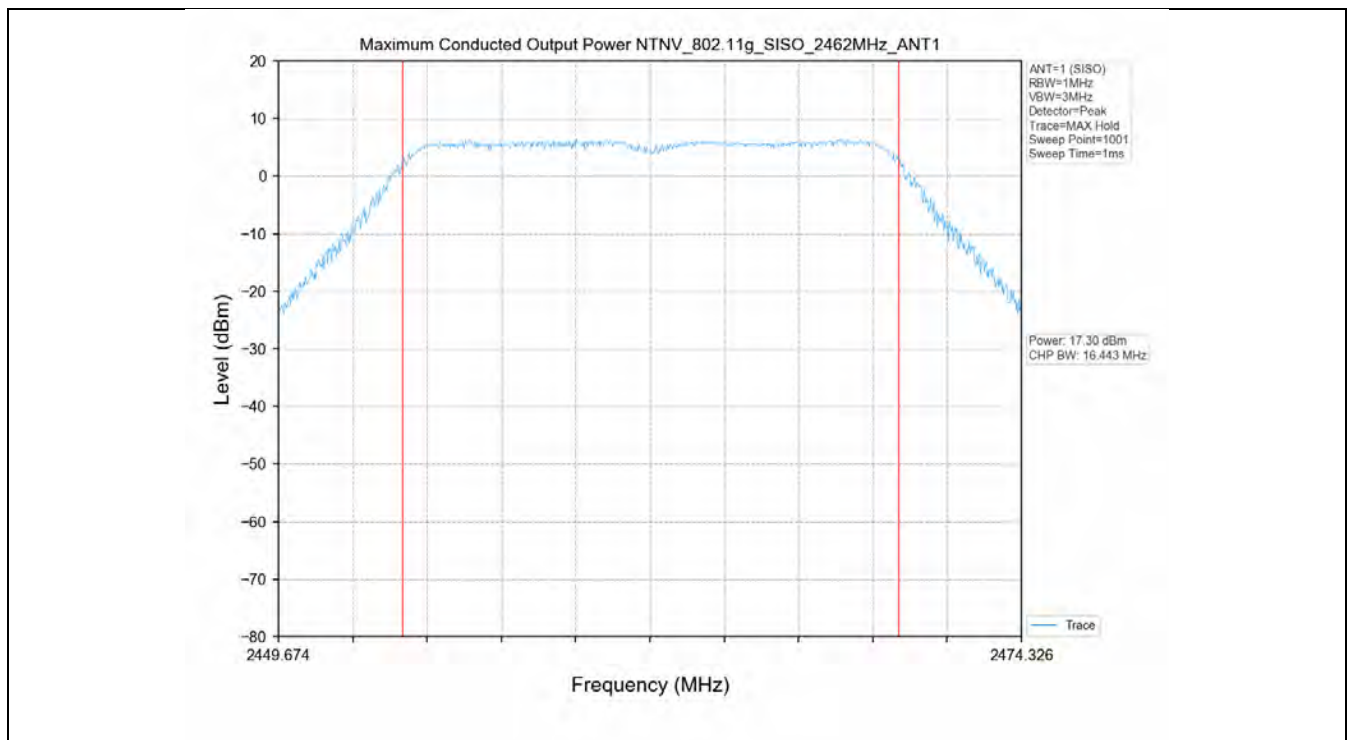
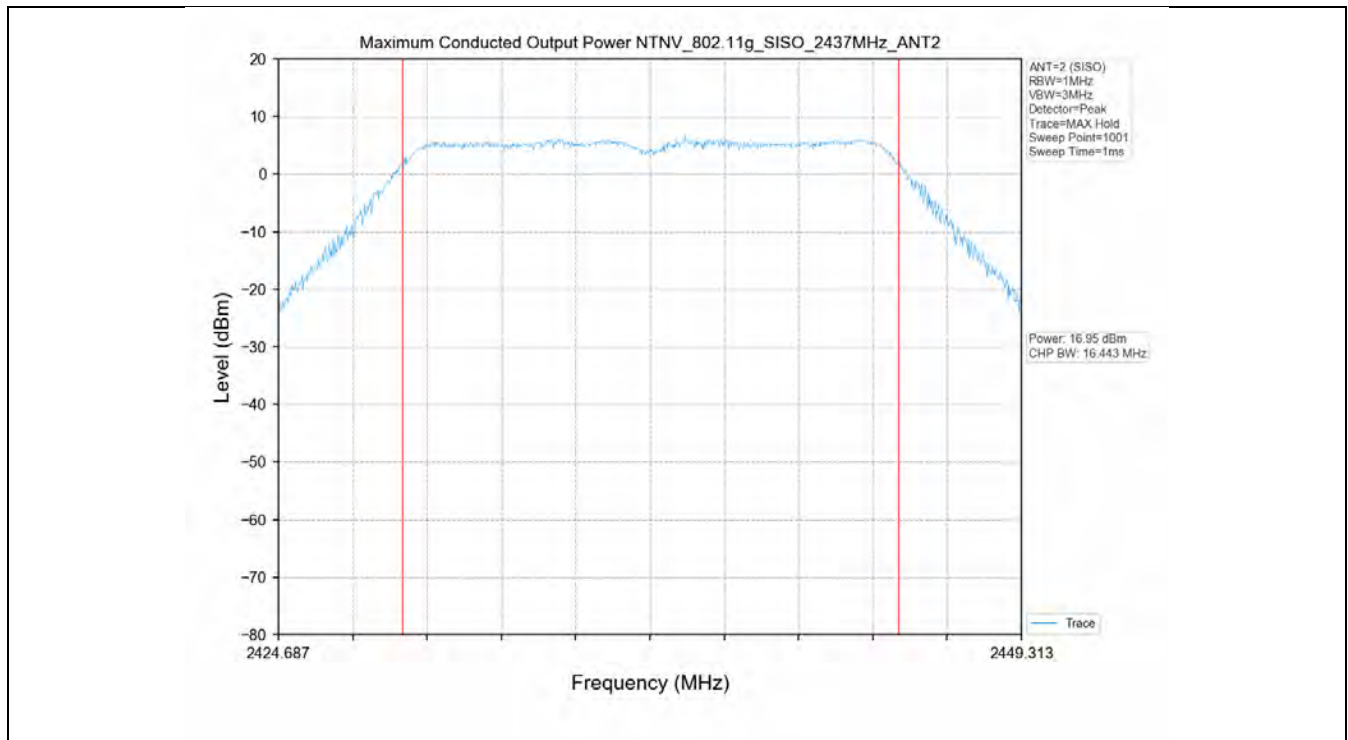


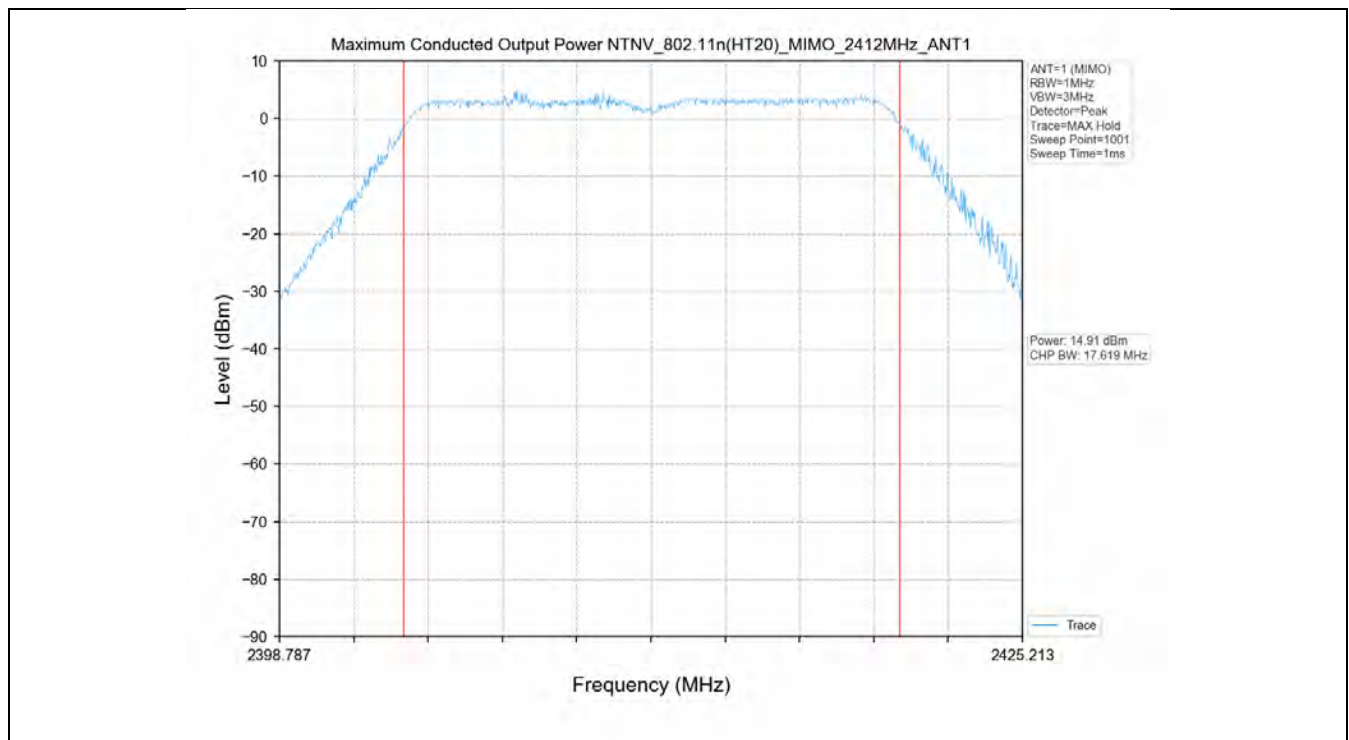
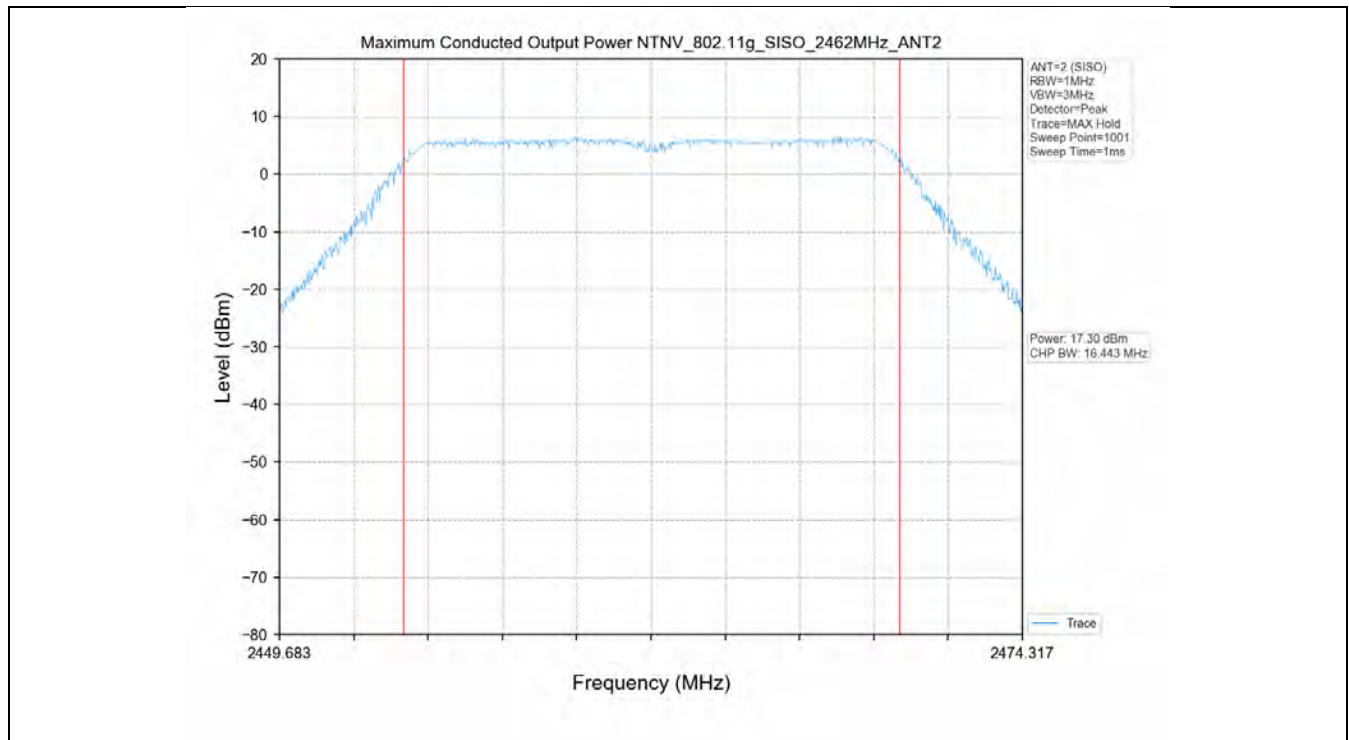


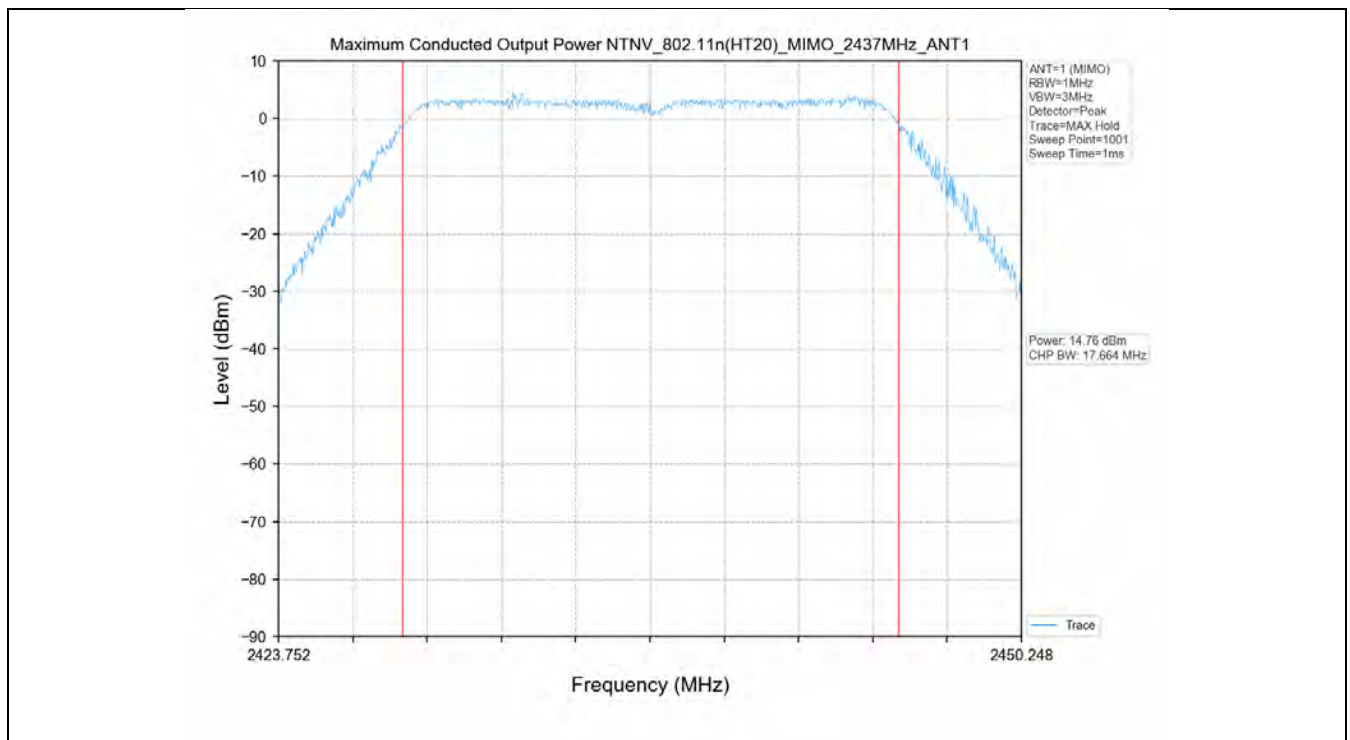
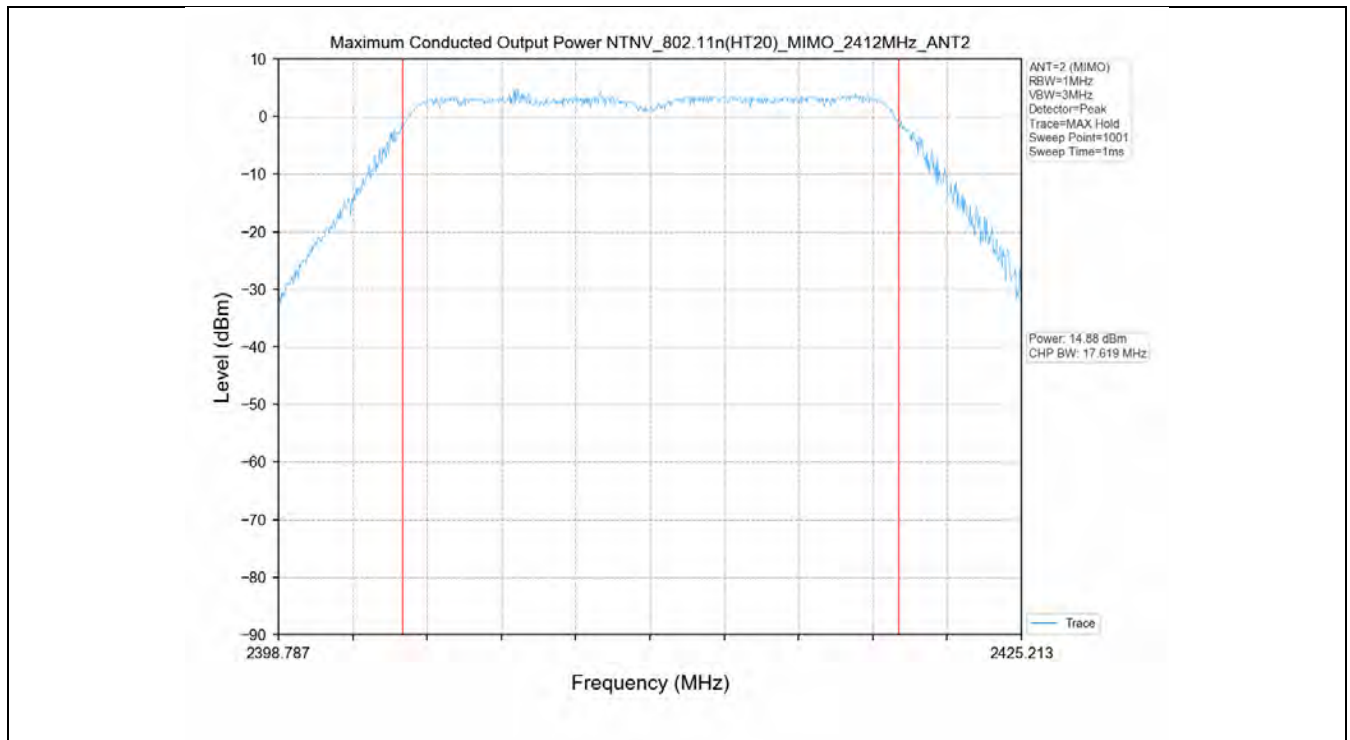


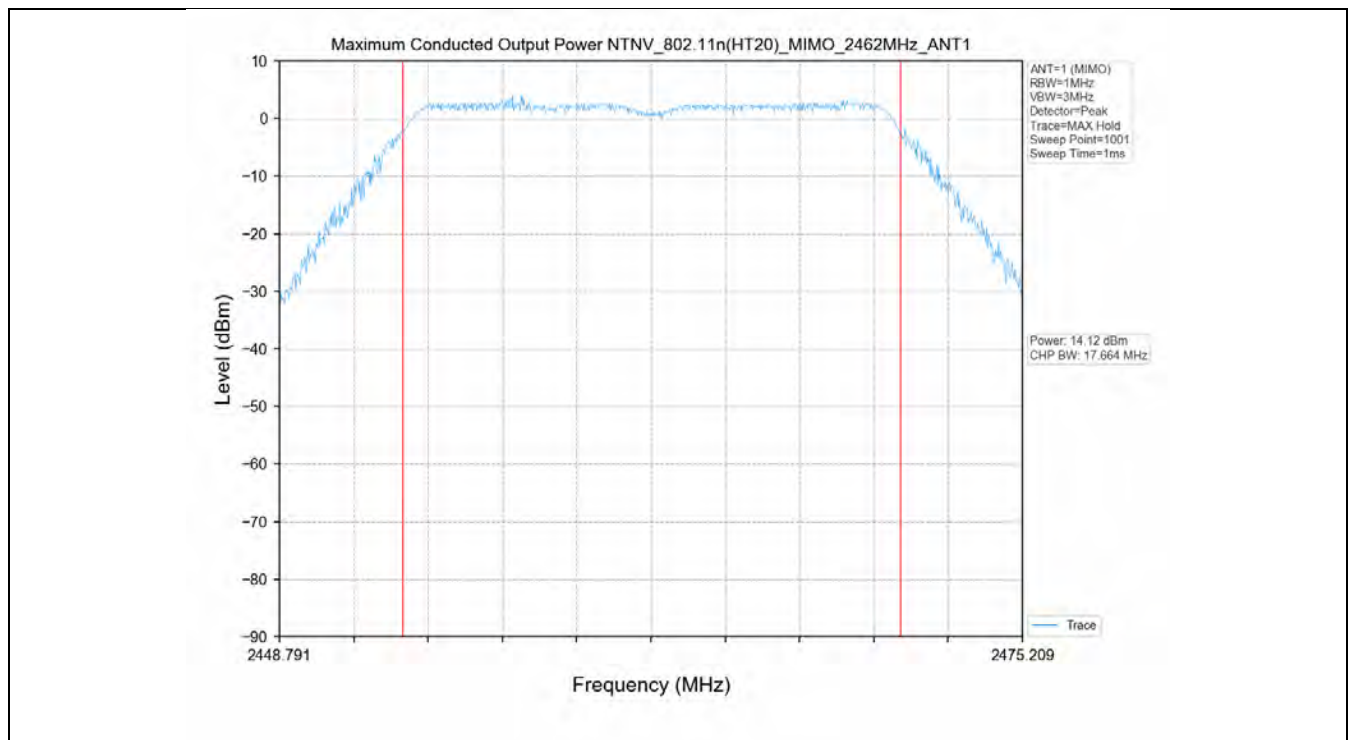
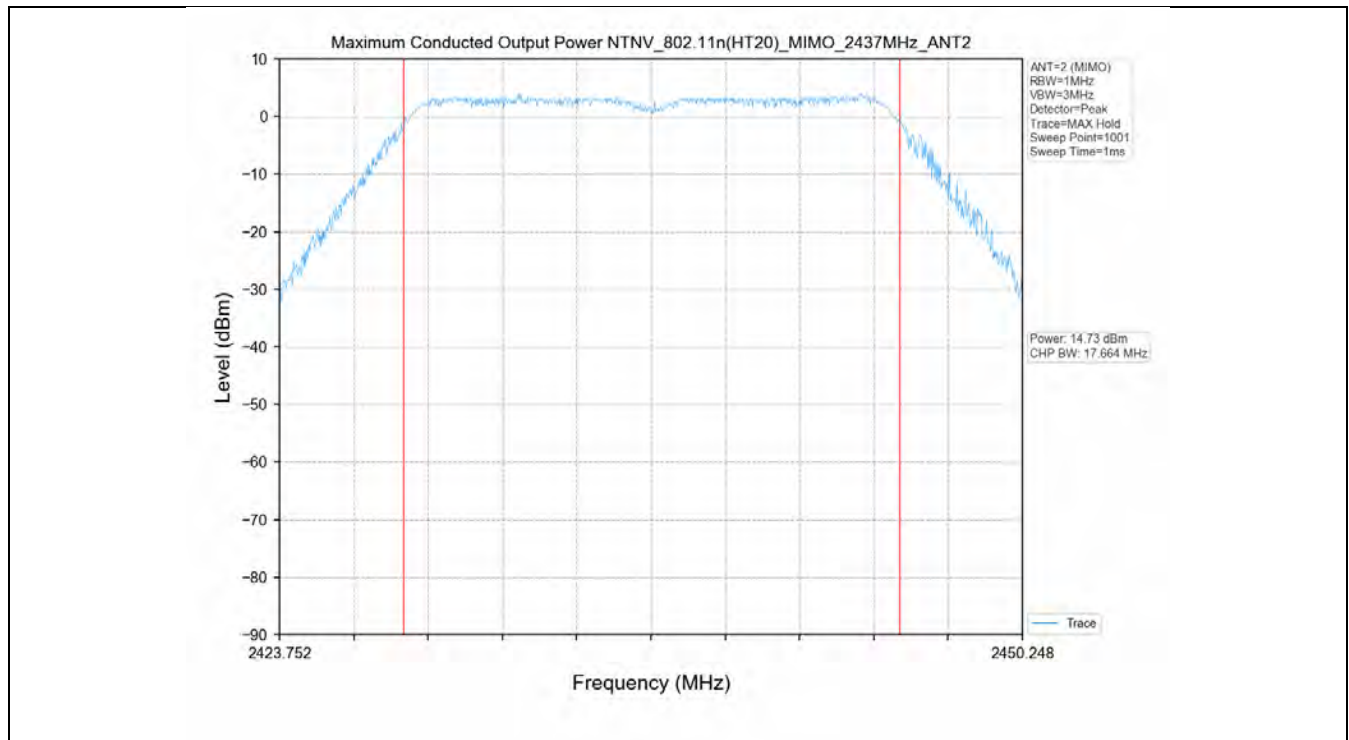


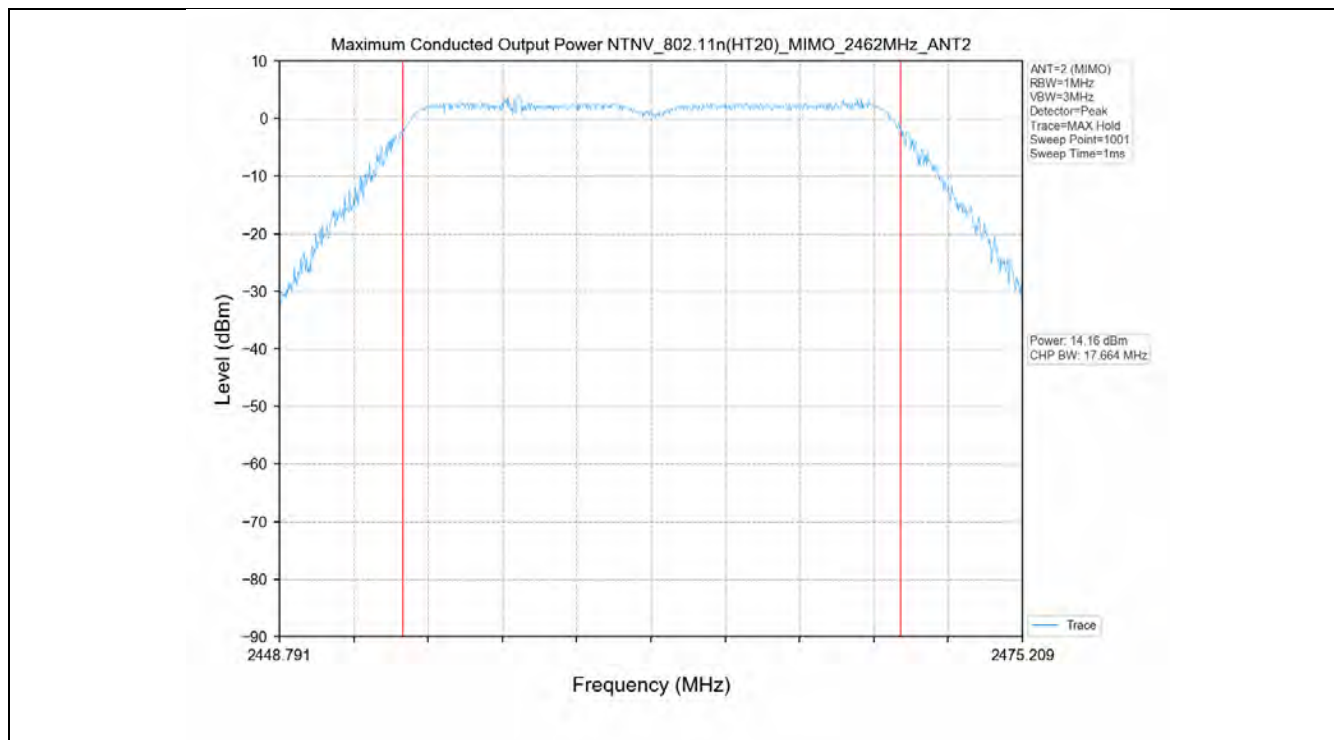










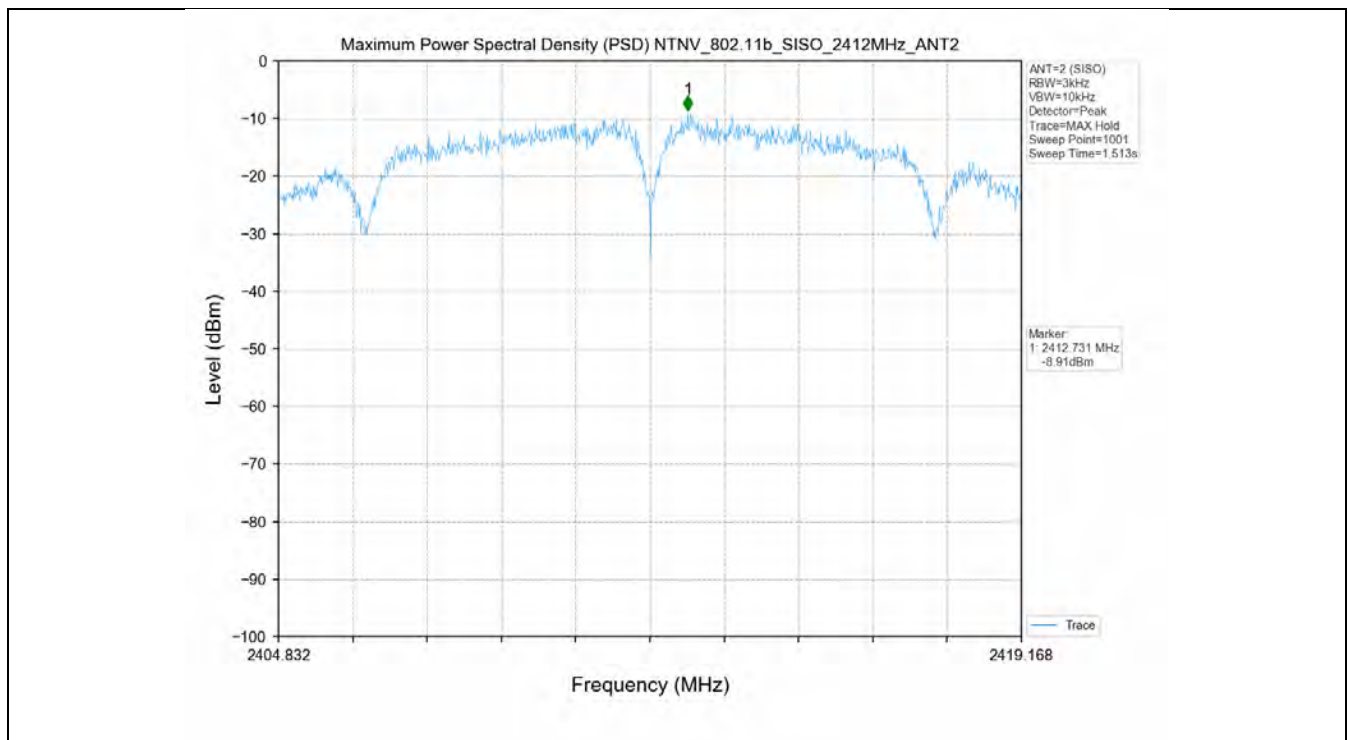
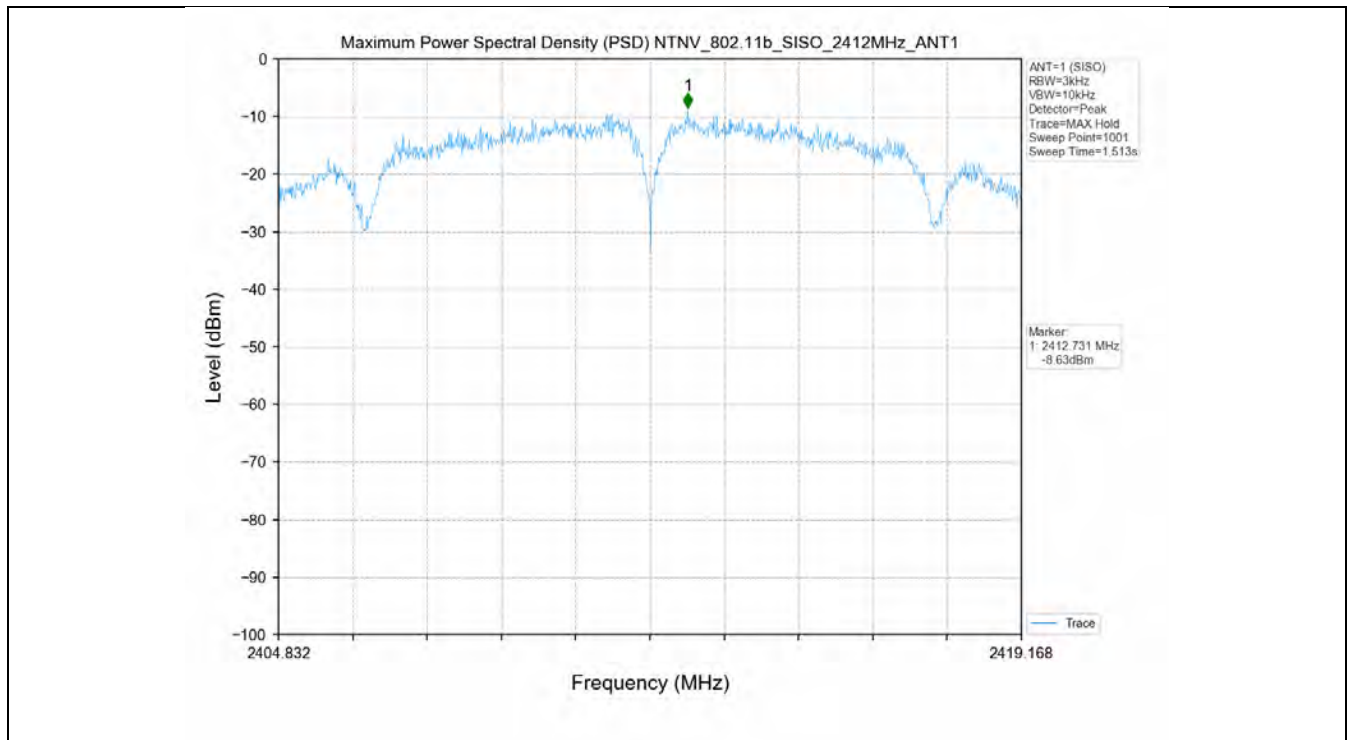


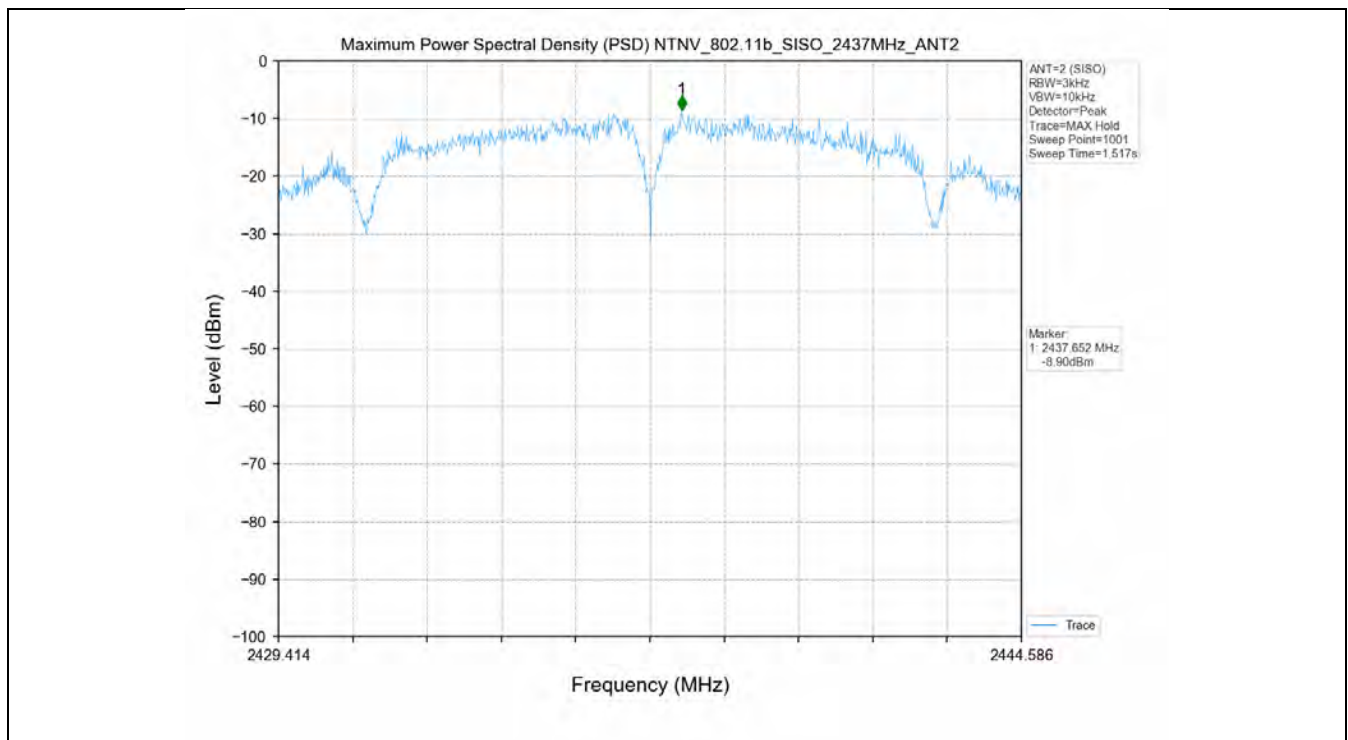
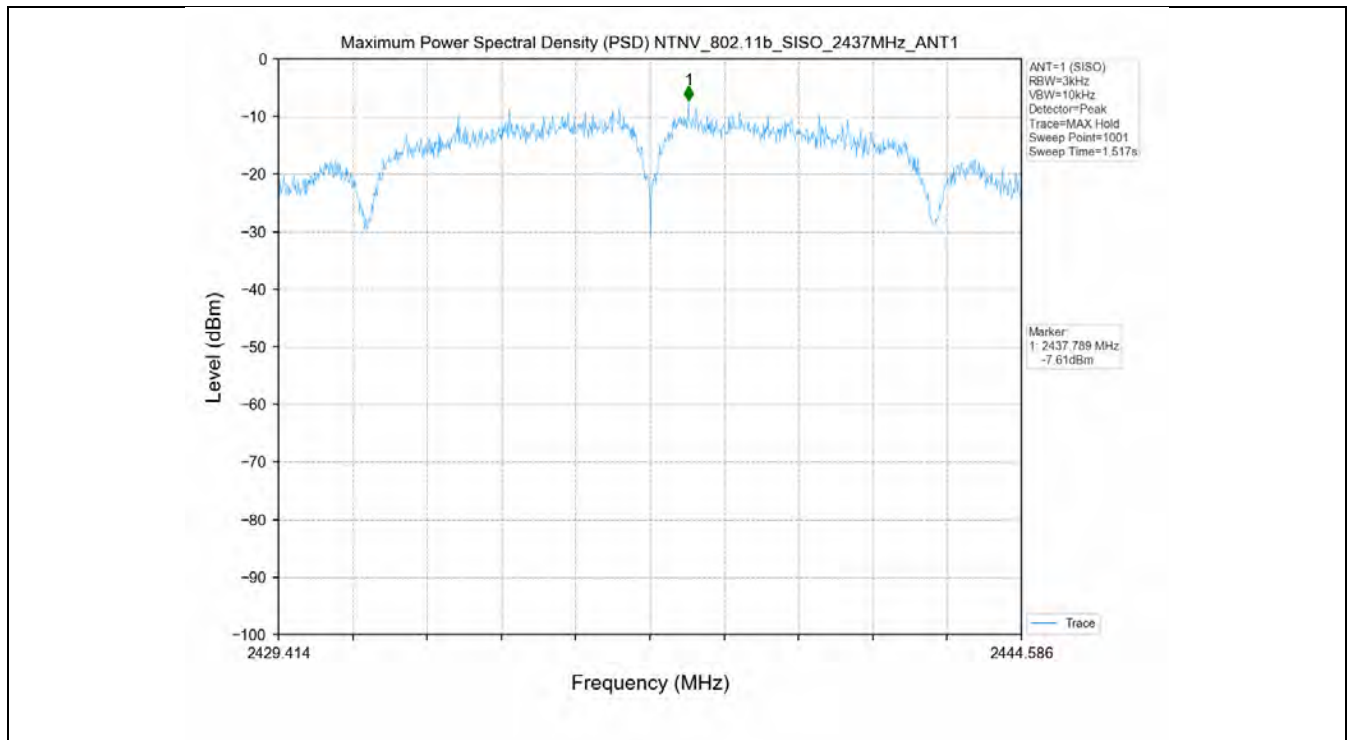
## 4. Maximum Power Spectral Density (PSD)

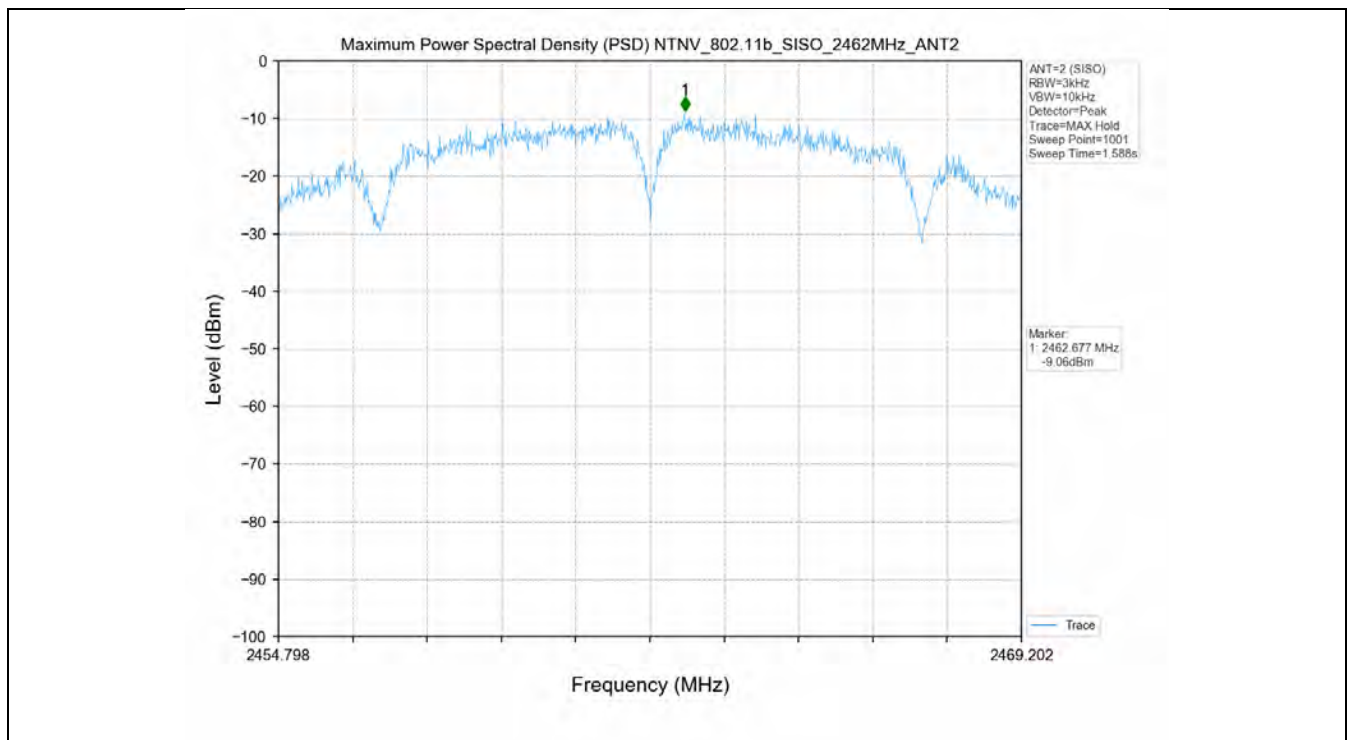
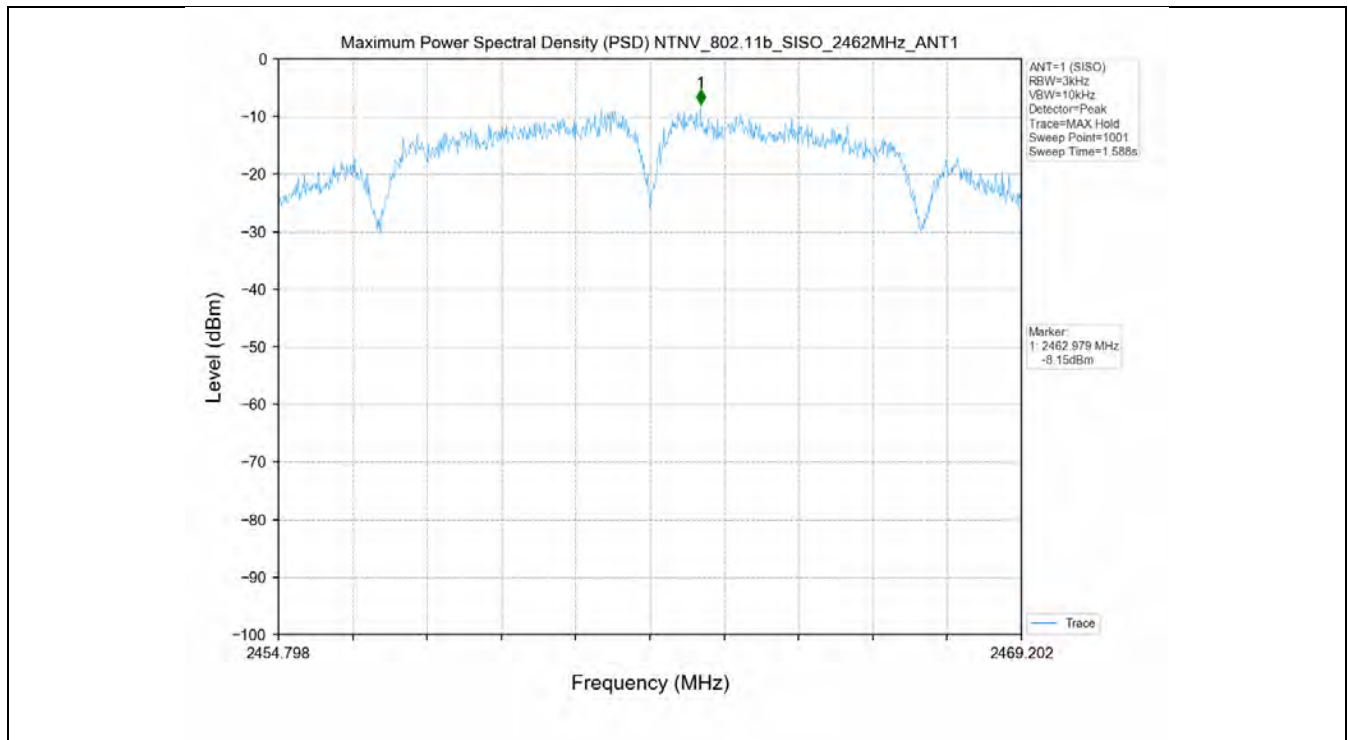
### 4.1 Test Result

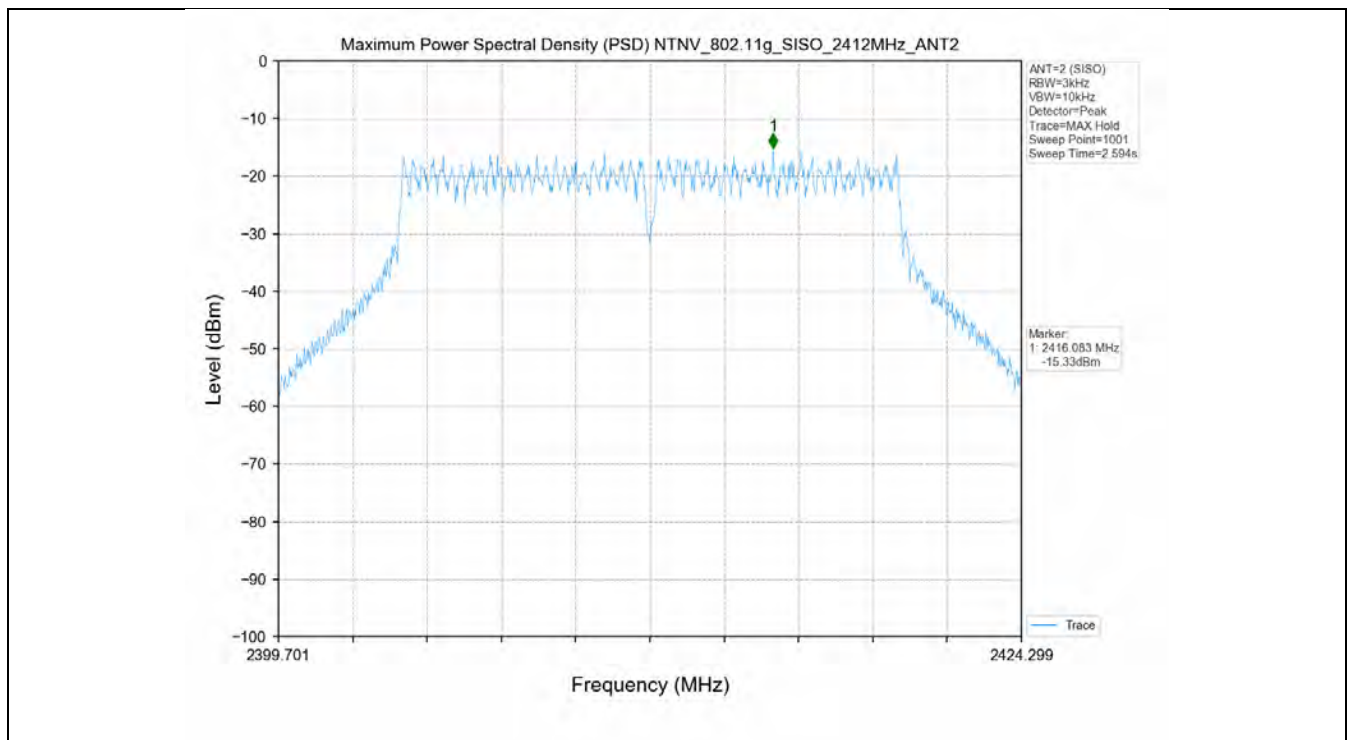
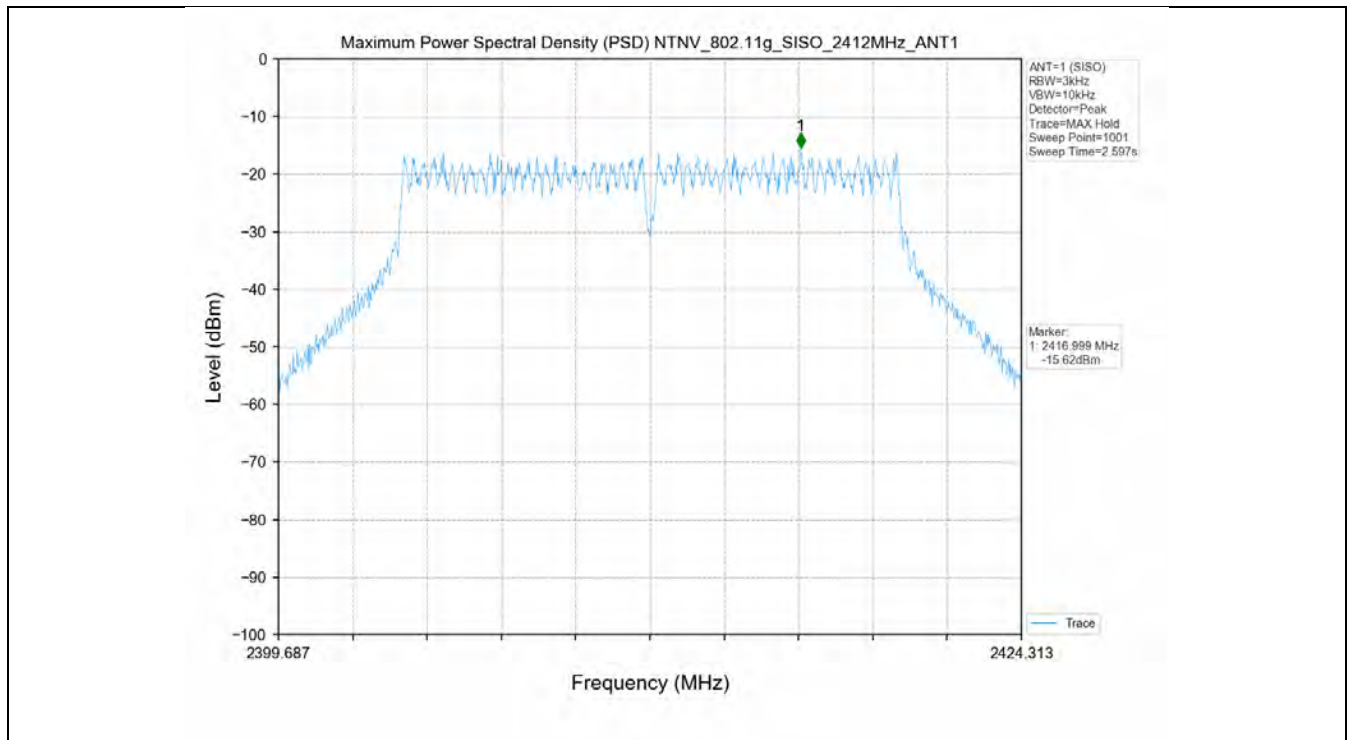
| Test Mode     | Frequency (MHz) | Tx Type | Maximum Power Spectral Density (dBm/3KHz) |        |        | Limits (dBm/3kHz) | Verdict |
|---------------|-----------------|---------|-------------------------------------------|--------|--------|-------------------|---------|
|               |                 |         | Ant 1                                     | Ant 2  | Total  |                   |         |
| 802.11b       | 2412            | SISO    | -8.63                                     | -8.91  | /      | ≤8                | PASS    |
|               | 2437            | SISO    | -7.61                                     | -8.90  | /      | ≤8                | PASS    |
|               | 2462            | SISO    | -8.15                                     | -9.06  | /      | ≤8                | PASS    |
| 802.11g       | 2412            | SISO    | -15.62                                    | -15.33 | /      | ≤8                | PASS    |
|               | 2437            | SISO    | -16.44                                    | -15.70 | /      | ≤8                | PASS    |
|               | 2462            | SISO    | -15.36                                    | -14.53 | /      | ≤8                | PASS    |
| 802.11n(HT20) | 2412            | MIMO    | -18.51                                    | -18.53 | -15.51 | ≤8                | PASS    |
|               | 2437            | MIMO    | -18.39                                    | -18.45 | -15.54 | ≤8                | PASS    |
|               | 2462            | MIMO    | -18.13                                    | -17.40 | -15.49 | ≤8                | PASS    |

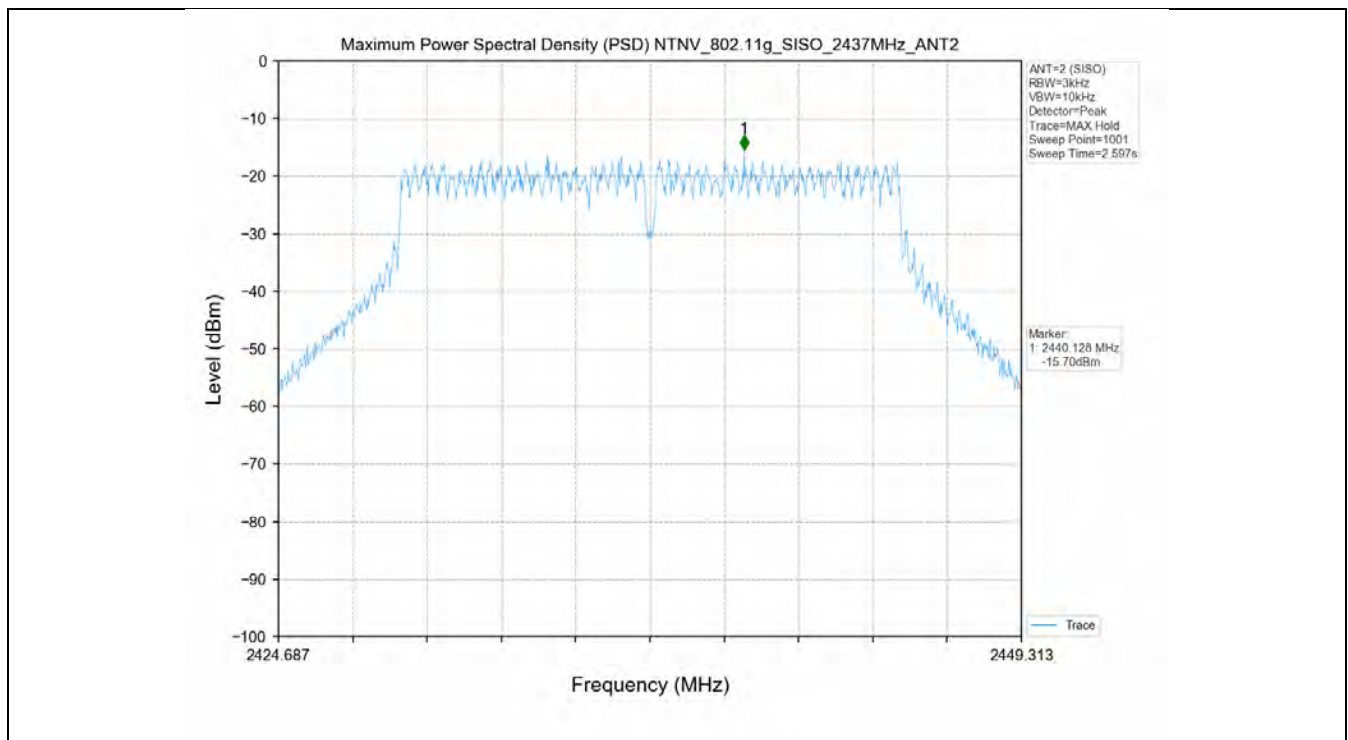
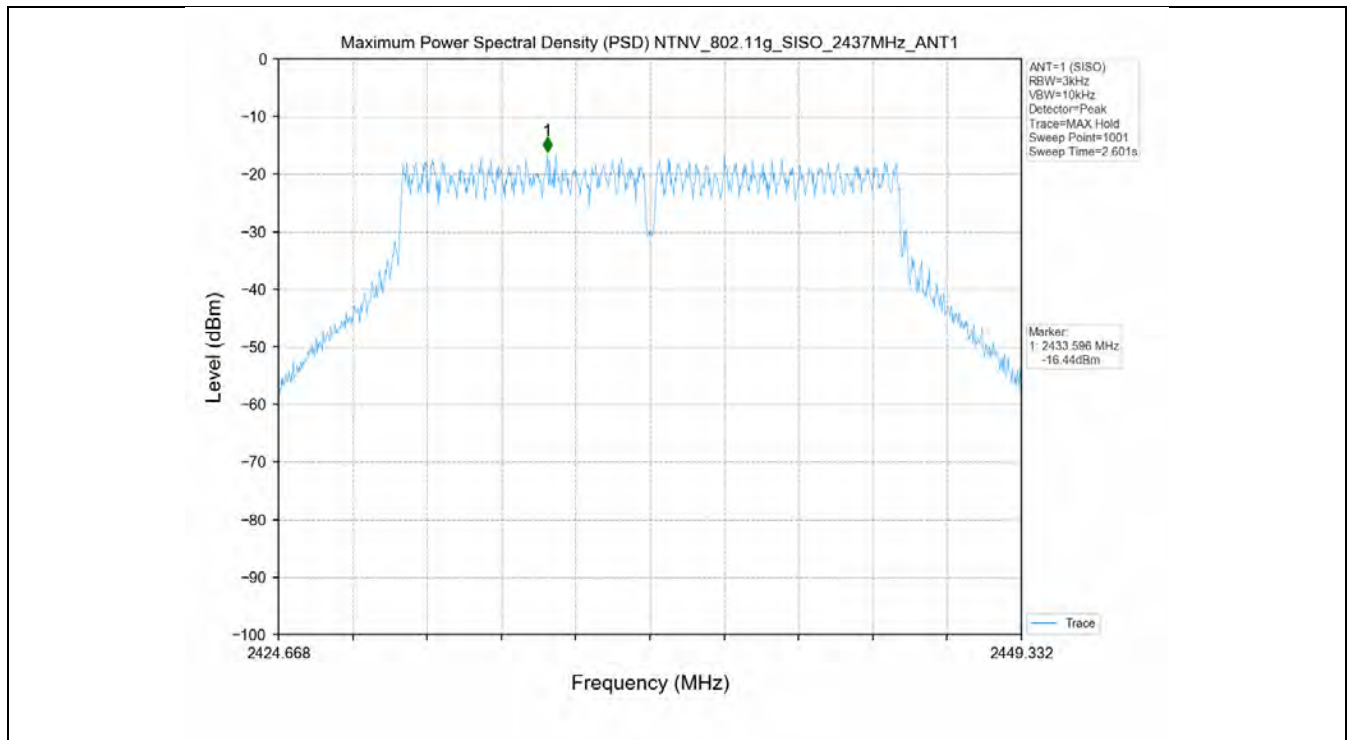
### 4.2 Test Graph

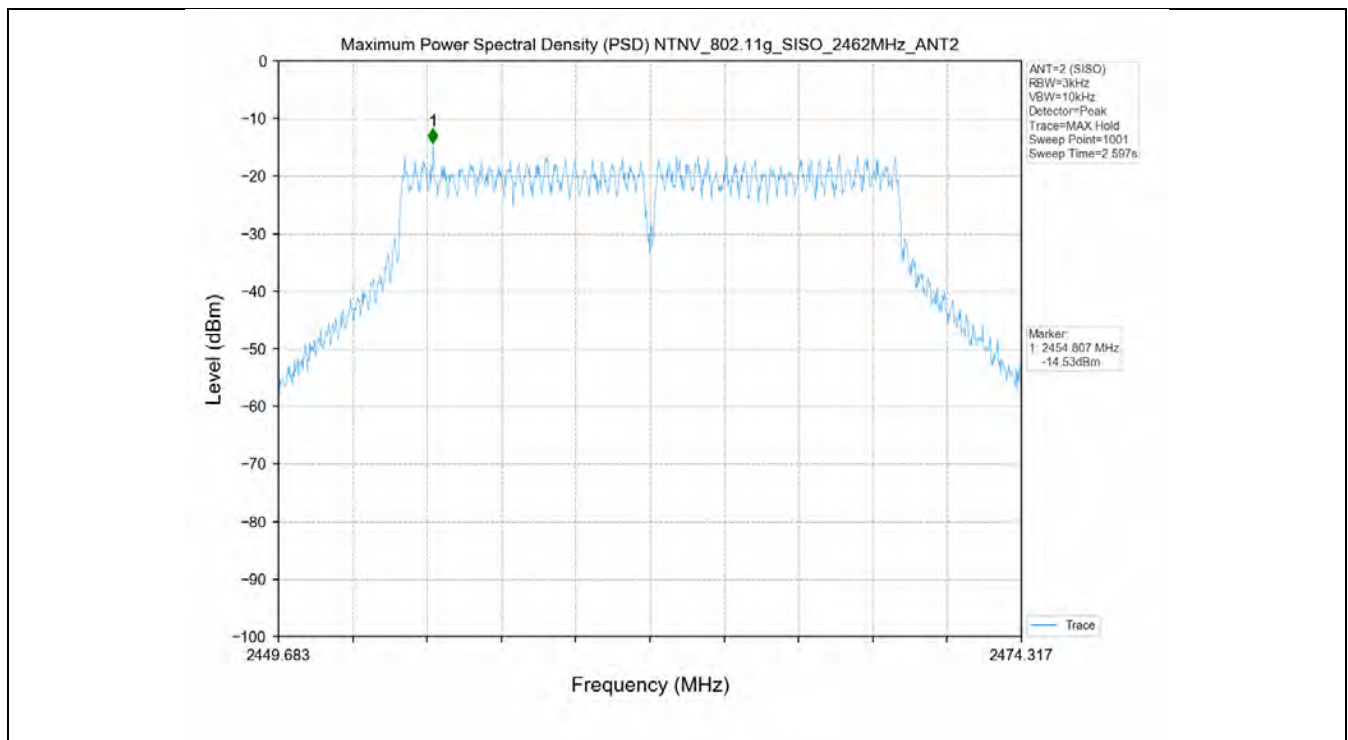
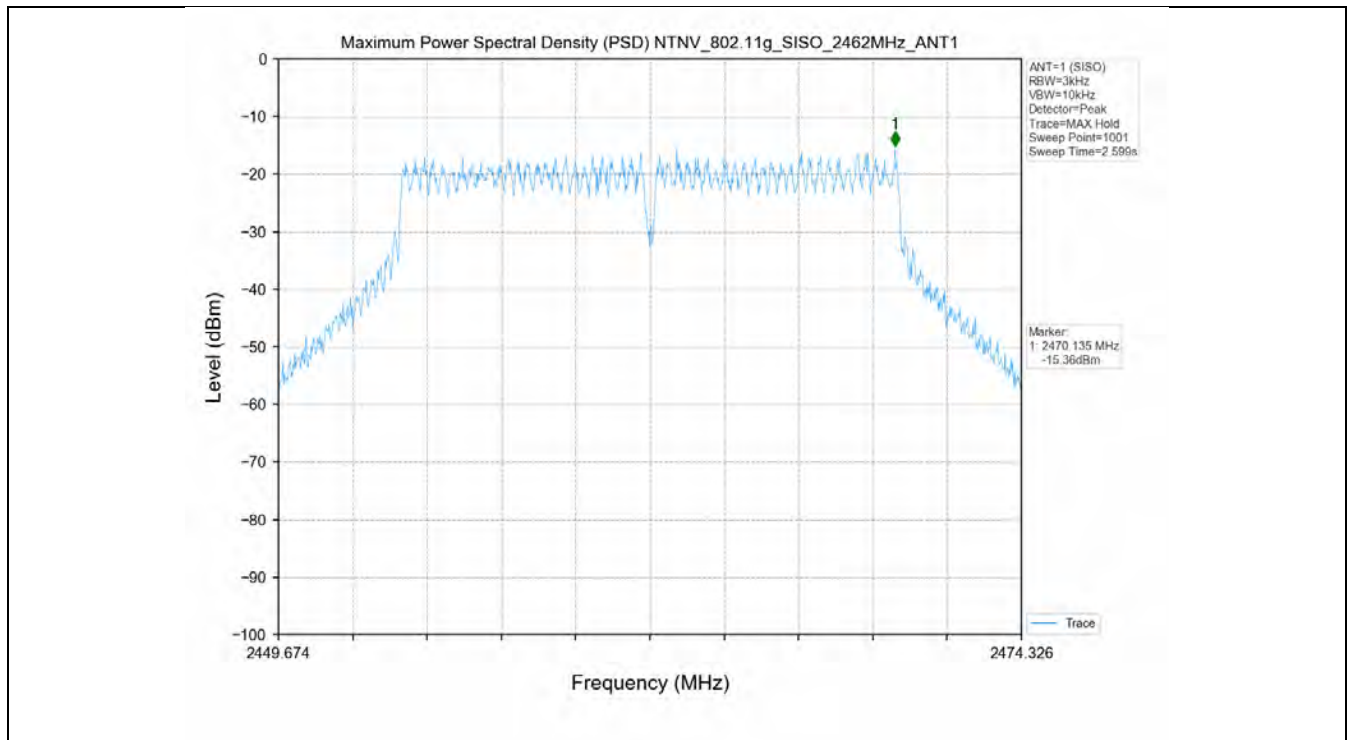


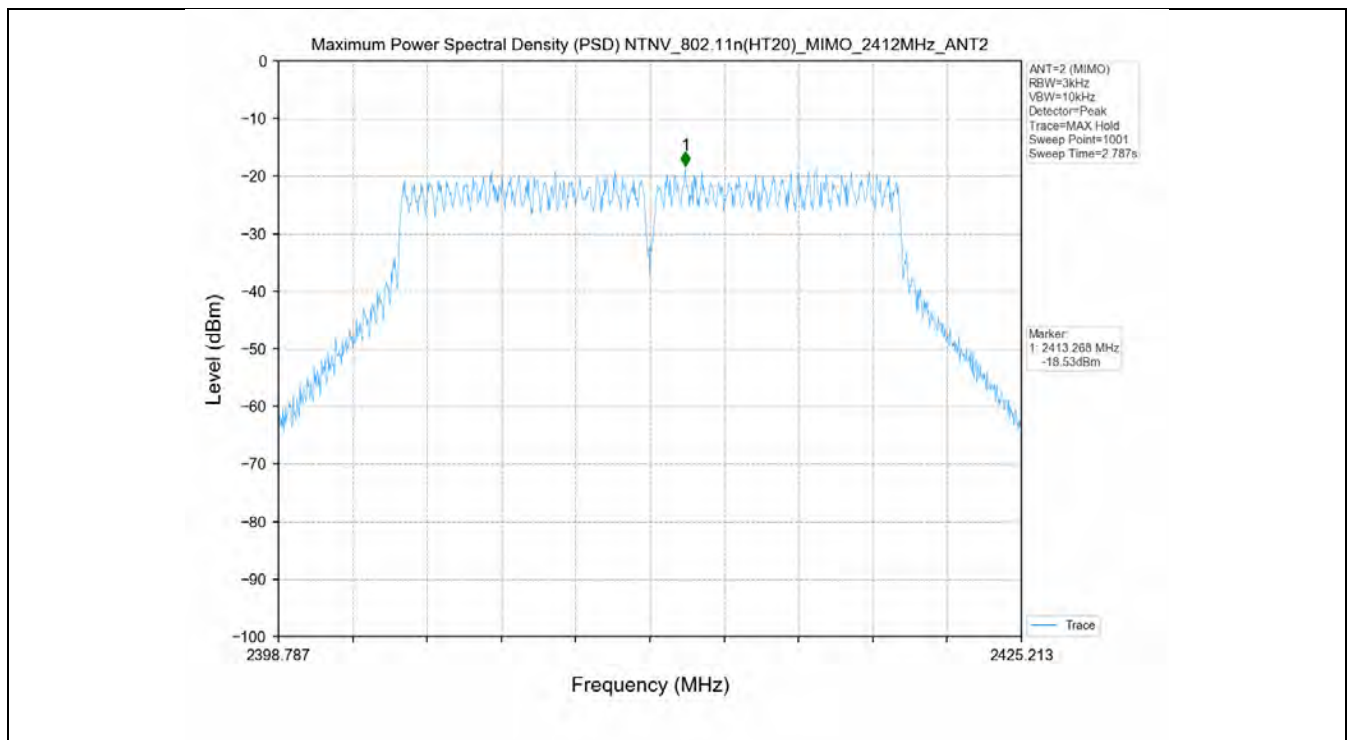
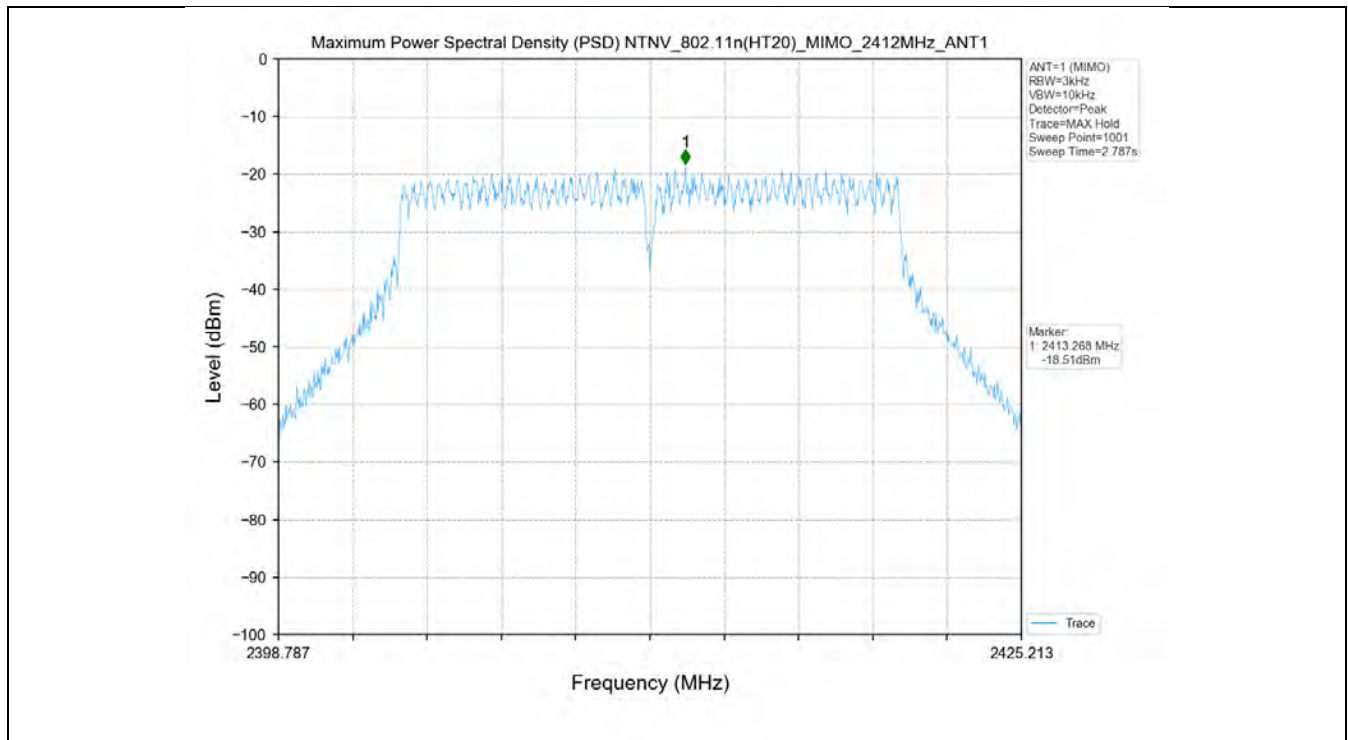


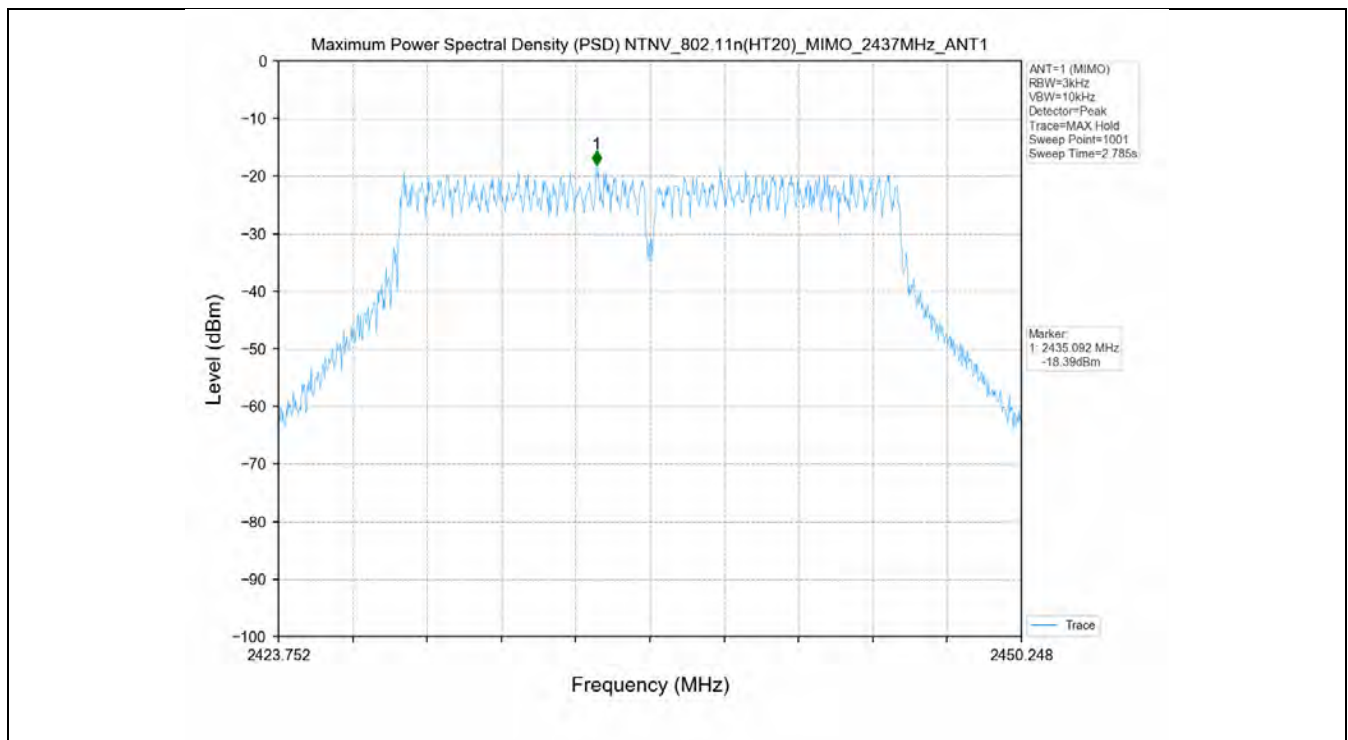
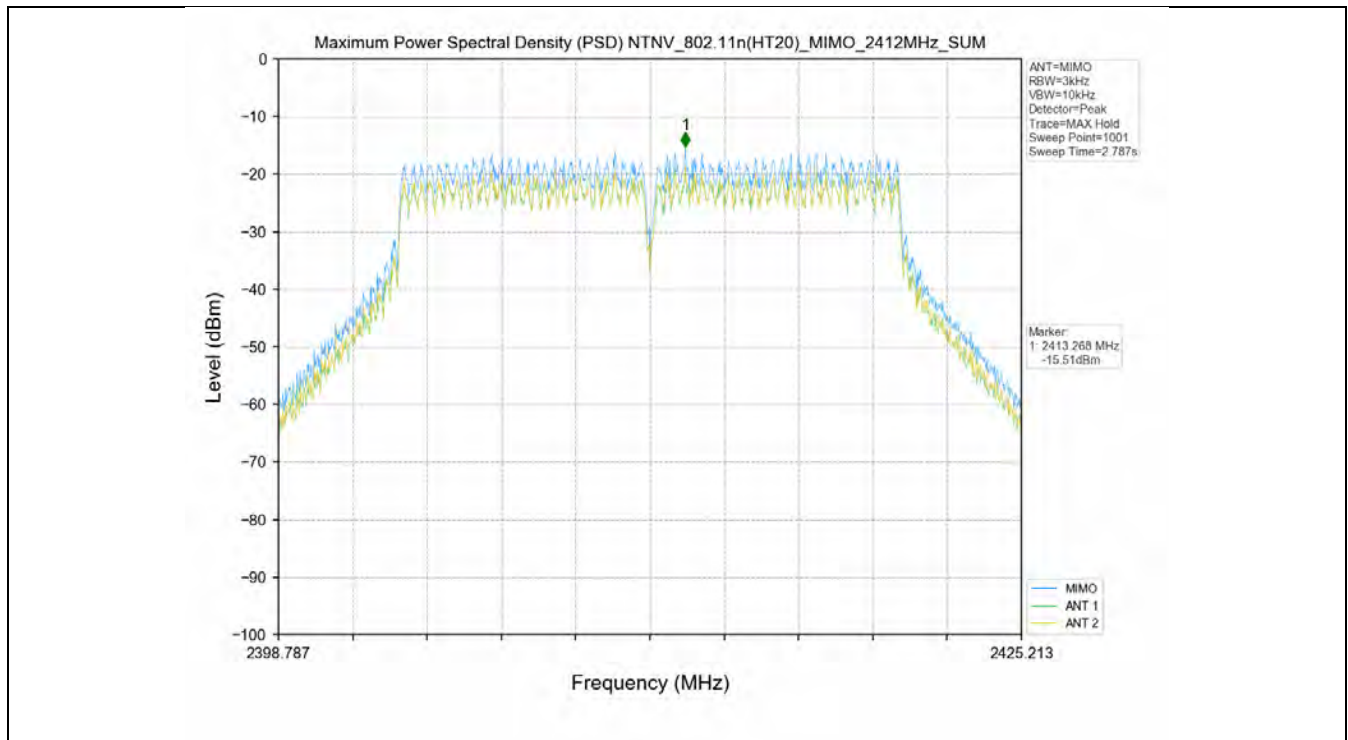


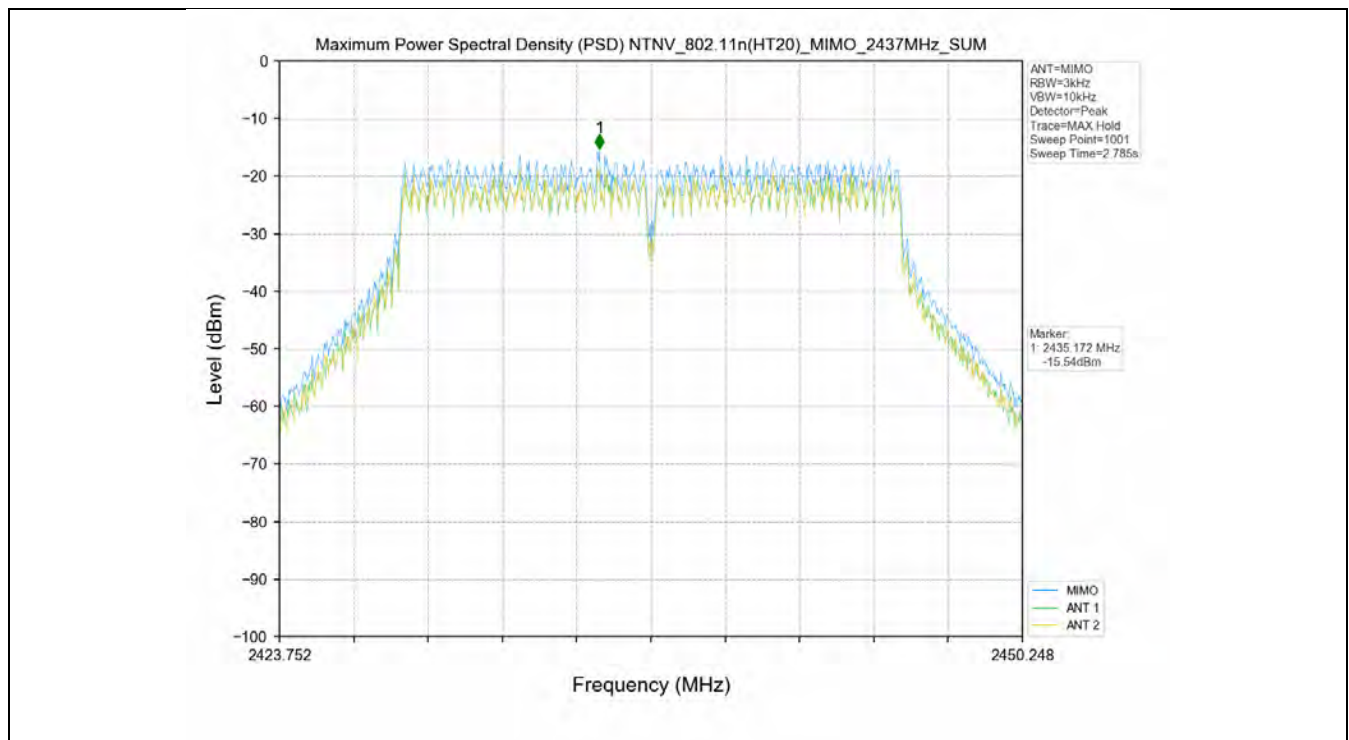
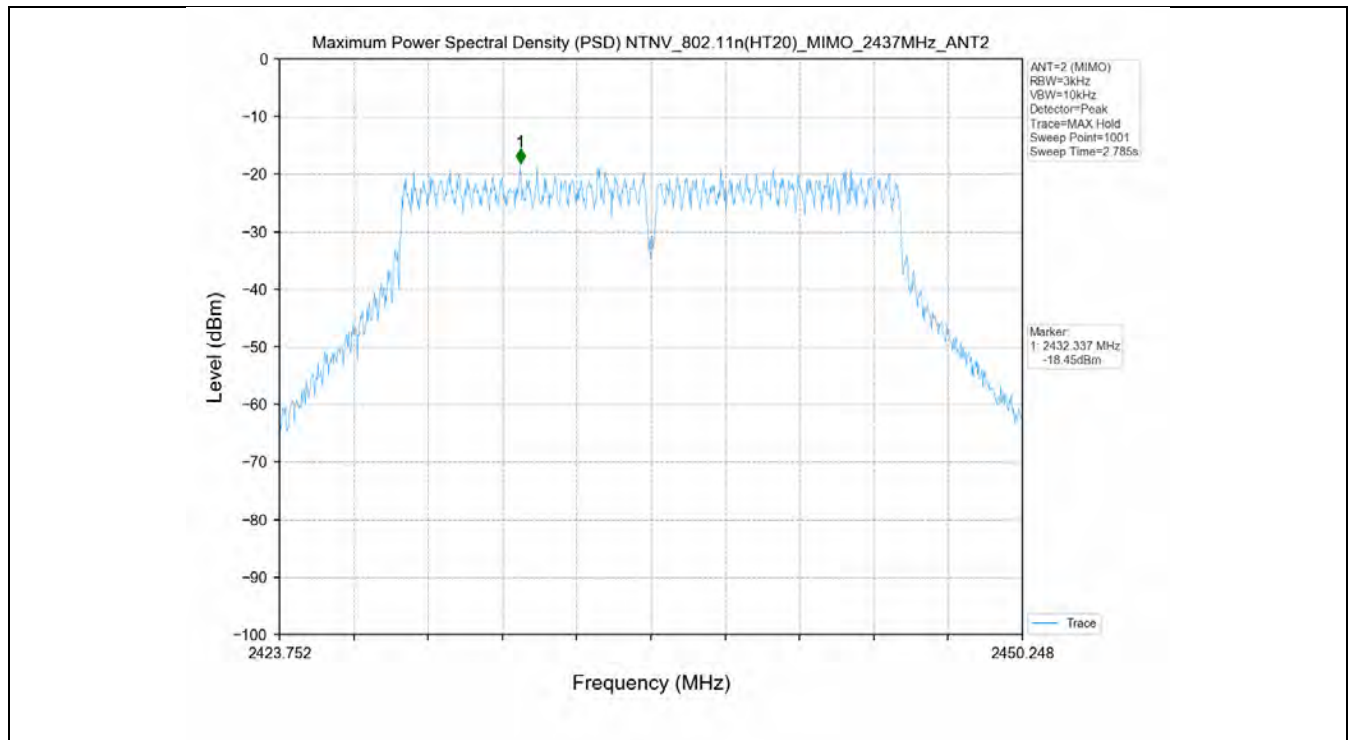


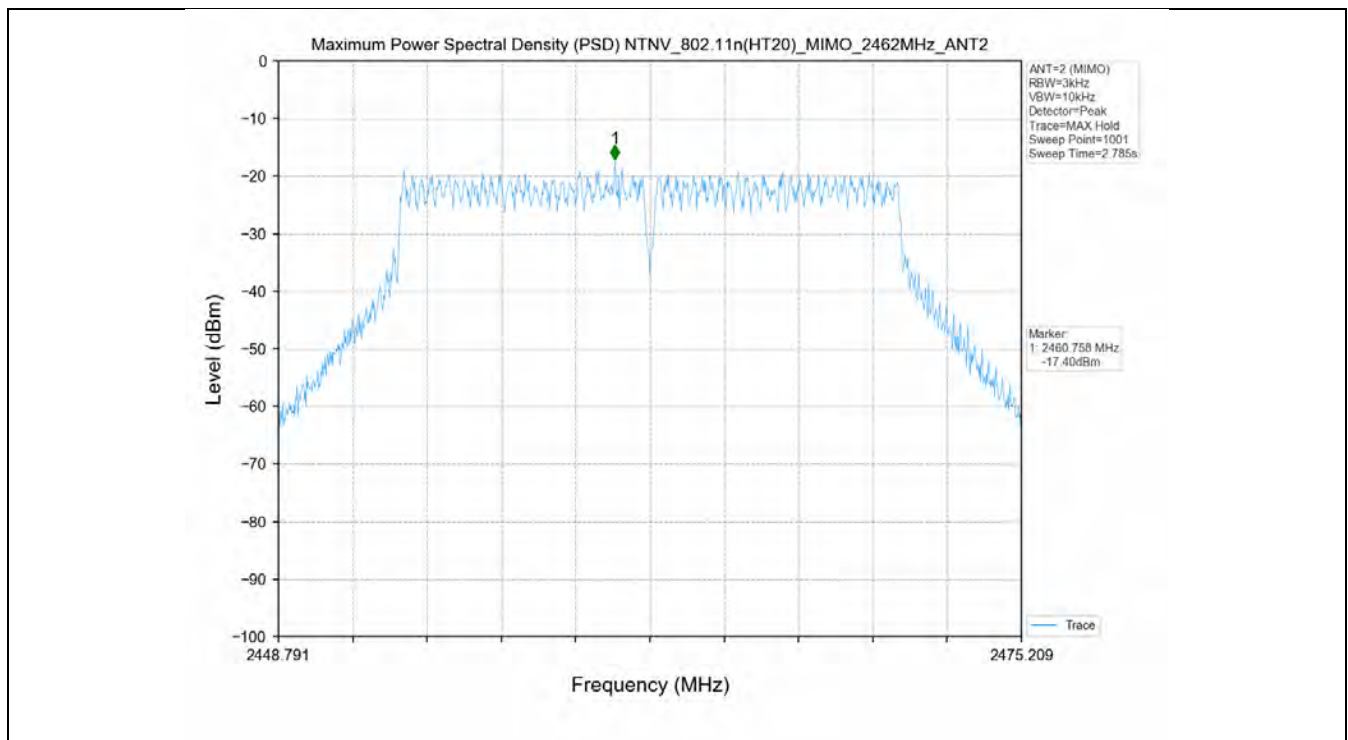
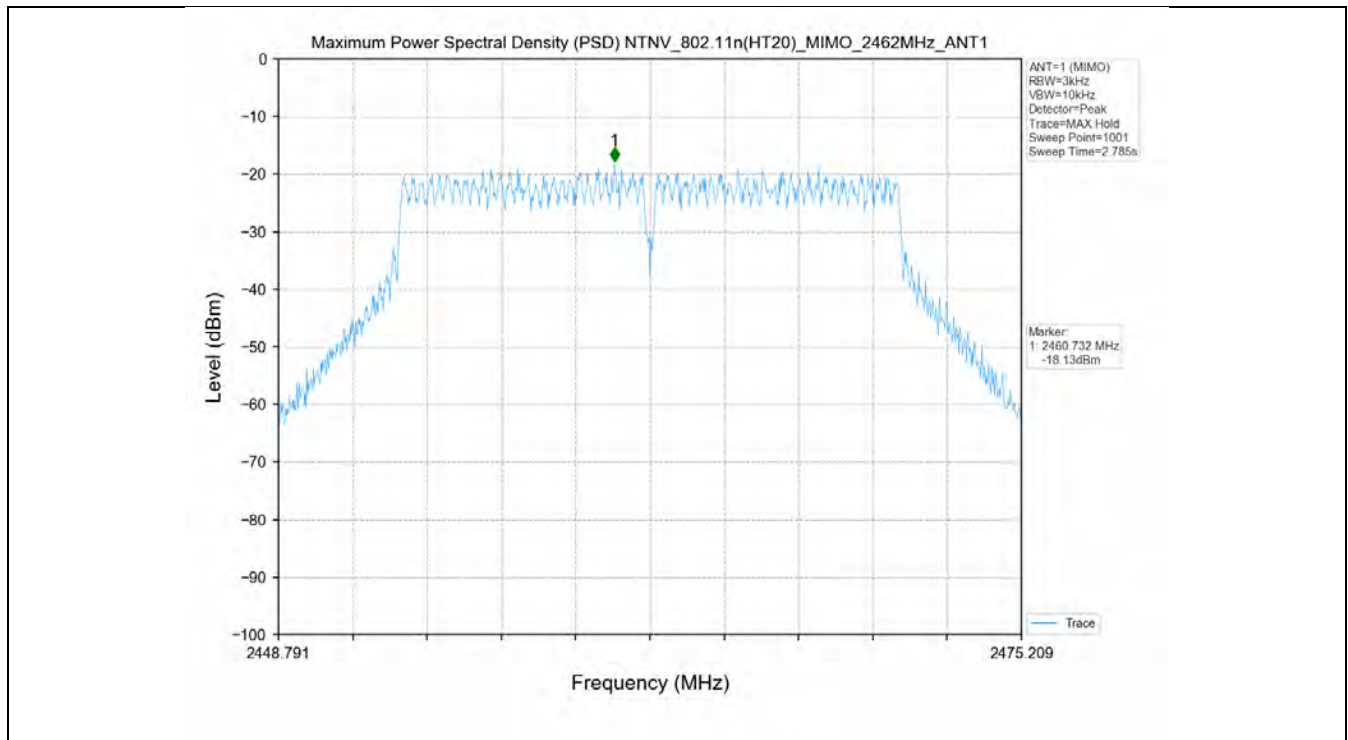


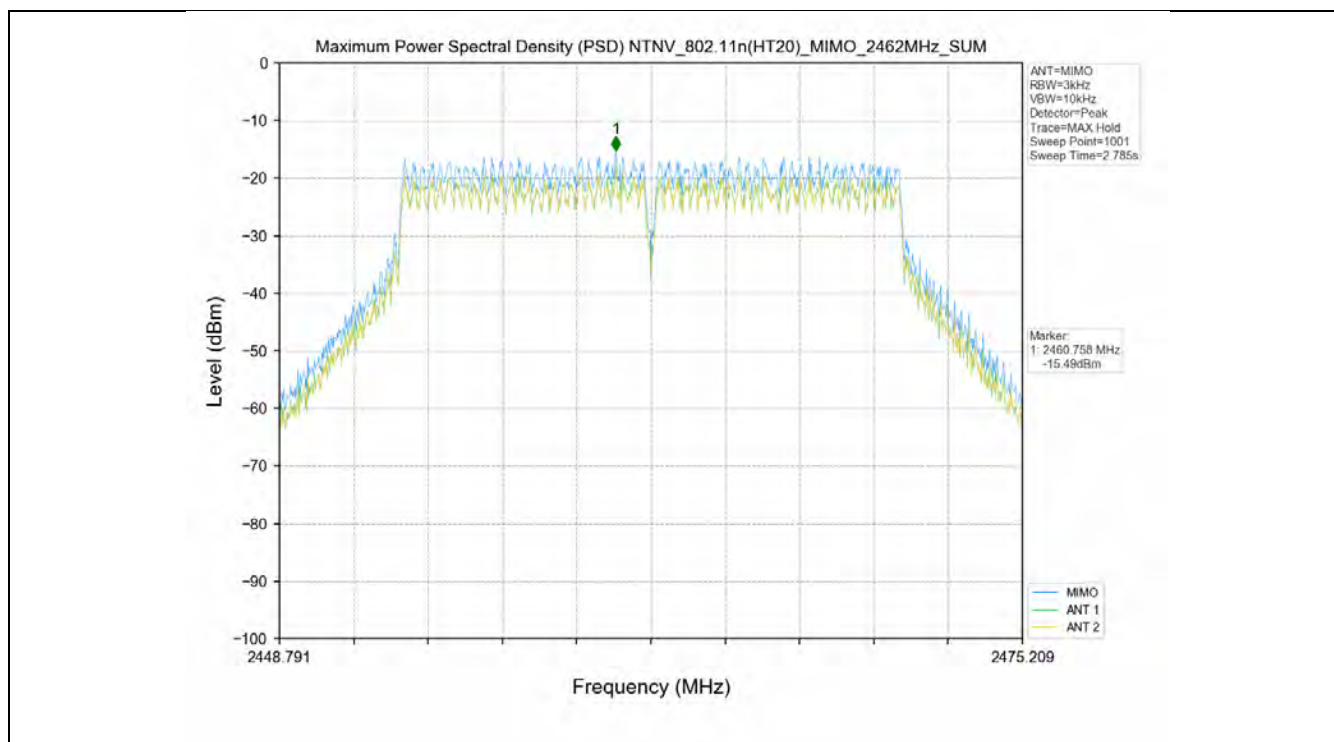












## 5. Unwanted Emissions in Non-restricted Frequency Bands

### 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               | -12.64       | PASS    |
|               |                 |         | 2       | Refer to test graph               | -12.64       | PASS    |
|               | 2437            | SISO    | 1       | Refer to test graph               | -12.64       | PASS    |
|               |                 |         | 2       | Refer to test graph               | -12.64       | PASS    |
|               | 2462            | SISO    | 1       | Refer to test graph               | -12.64       | PASS    |
|               |                 |         | 2       | Refer to test graph               | -12.64       | PASS    |
| 802.11g       | 2412            | SISO    | 1       | Refer to test graph               | -21.18       | PASS    |
|               |                 |         | 2       | Refer to test graph               | -21.18       | PASS    |
|               | 2437            | SISO    | 1       | Refer to test graph               | -21.18       | PASS    |
|               |                 |         | 2       | Refer to test graph               | -21.18       | PASS    |
|               | 2462            | SISO    | 1       | Refer to test graph               | -21.18       | PASS    |
|               |                 |         | 2       | Refer to test graph               | -21.18       | PASS    |
| 802.11n(HT20) | 2412            | MIMO    | 1       | Refer to test graph               | -23.88       | PASS    |
|               |                 |         | 2       | Refer to test graph               | -23.88       | PASS    |
|               | 2437            | MIMO    | 1       | Refer to test graph               | -23.88       | PASS    |
|               |                 |         | 2       | Refer to test graph               | -23.88       | PASS    |
|               | 2462            | MIMO    | 1       | Refer to test graph               | -23.88       | PASS    |
|               |                 |         | 2       | Refer to test graph               | -23.88       | PASS    |

### 5.2 Test Graph

