# Appendix for 15.247

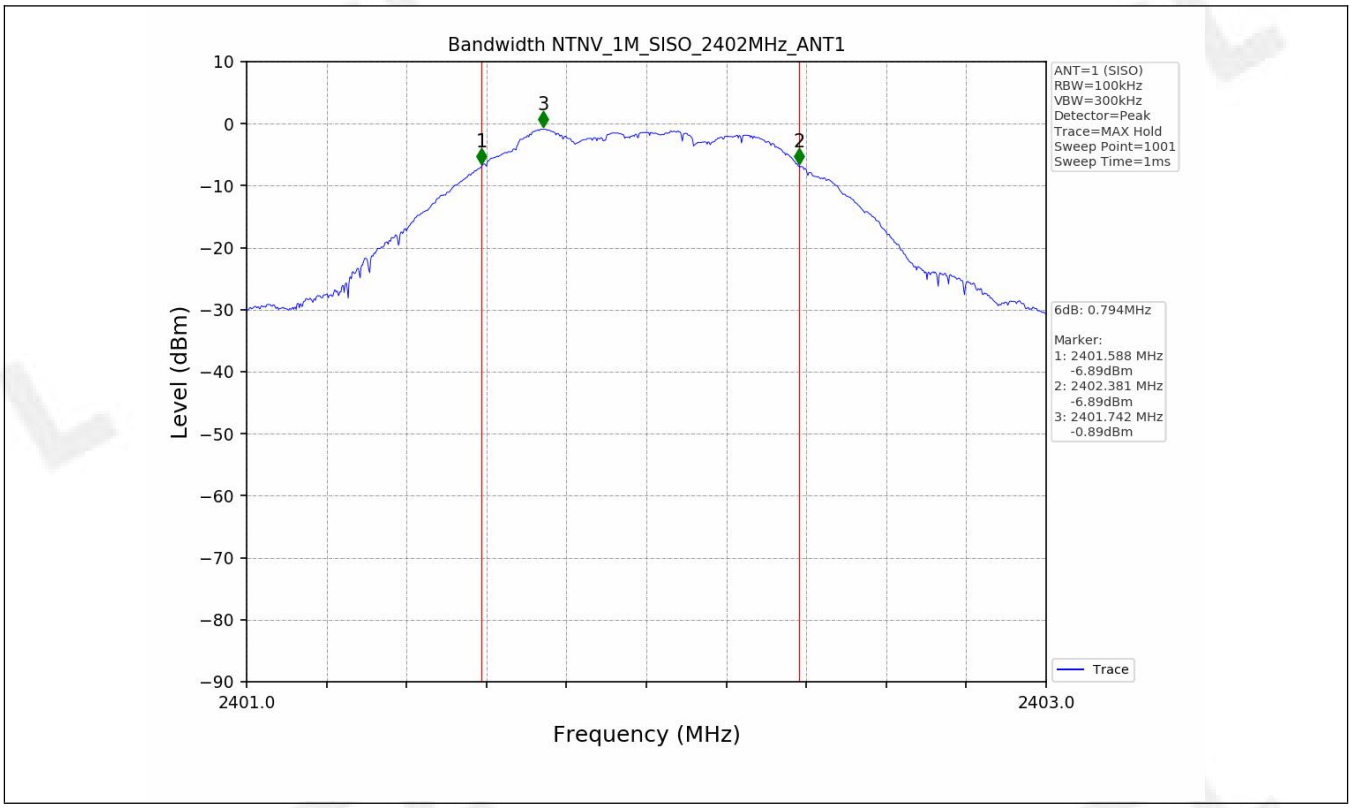
## 1. Bandwidth

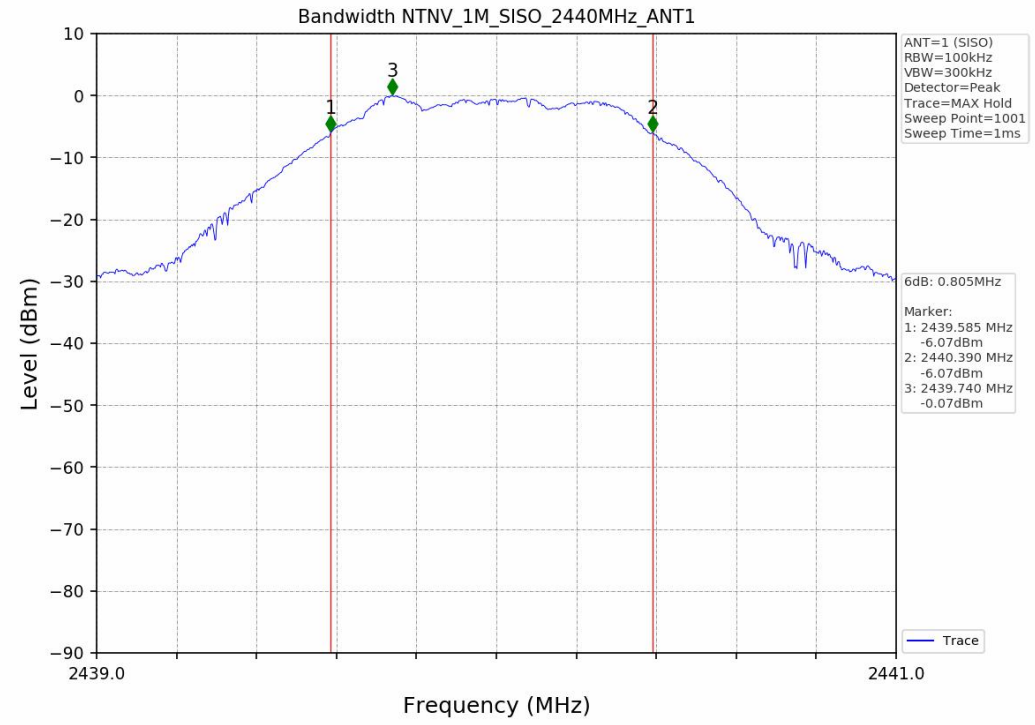
### 1.1 Test Result

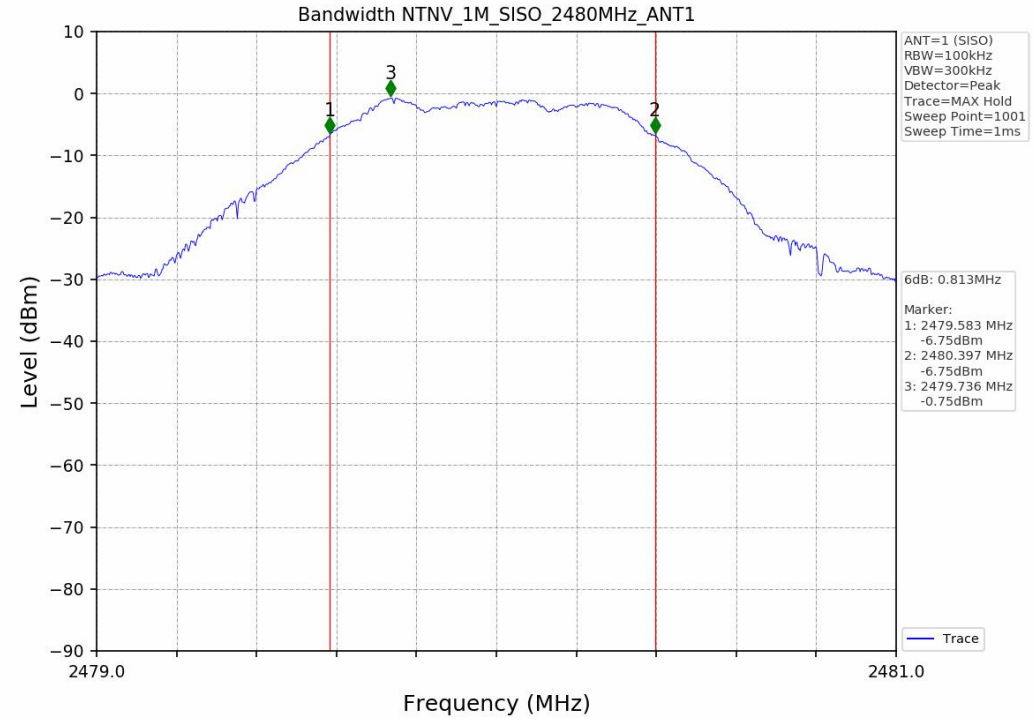
| Test Mode | Frequency (MHz) | TX Type | ANT No. | 6dB Bandwidth | | Verdict |
|---|---|---|---|---|---|---|
| | | | | Test Result (MHz) | Limits (MHz) | |
| 1M | 2402 | SISO | 1 | 0.794 | ≥0.5 | PASS |
| | 2440 | SISO | 1 | 0.805 | ≥0.5 | PASS |
| | 2480 | SISO | 1 | 0.813 | ≥0.5 | PASS |

| Test Mode | Frequency (MHz) | TX Type | ANT No. | 99% Occupied Bandwidth | |
|---|---|---|---|---|---|
| | | | | Test Result (MHz) | |
| 1M | 2402 | SISO | 1 | 1.090 | Only for Report Use |
| | 2440 | SISO | 1 | 1.096 | Only for Report Use |
| | 2480 | SISO | 1 | 1.097 | Only for Report Use |

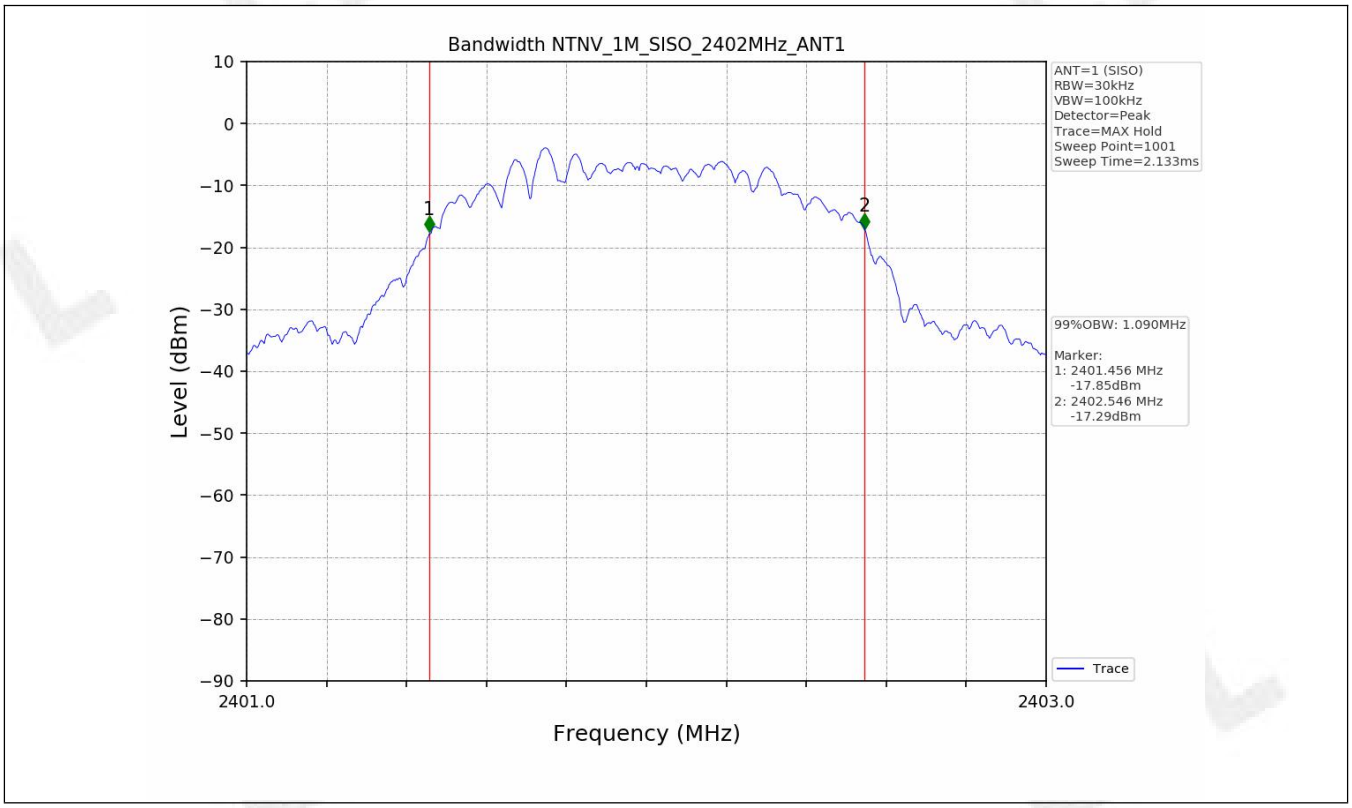
### 1.2 Test Graph - 6dB Bandwidth

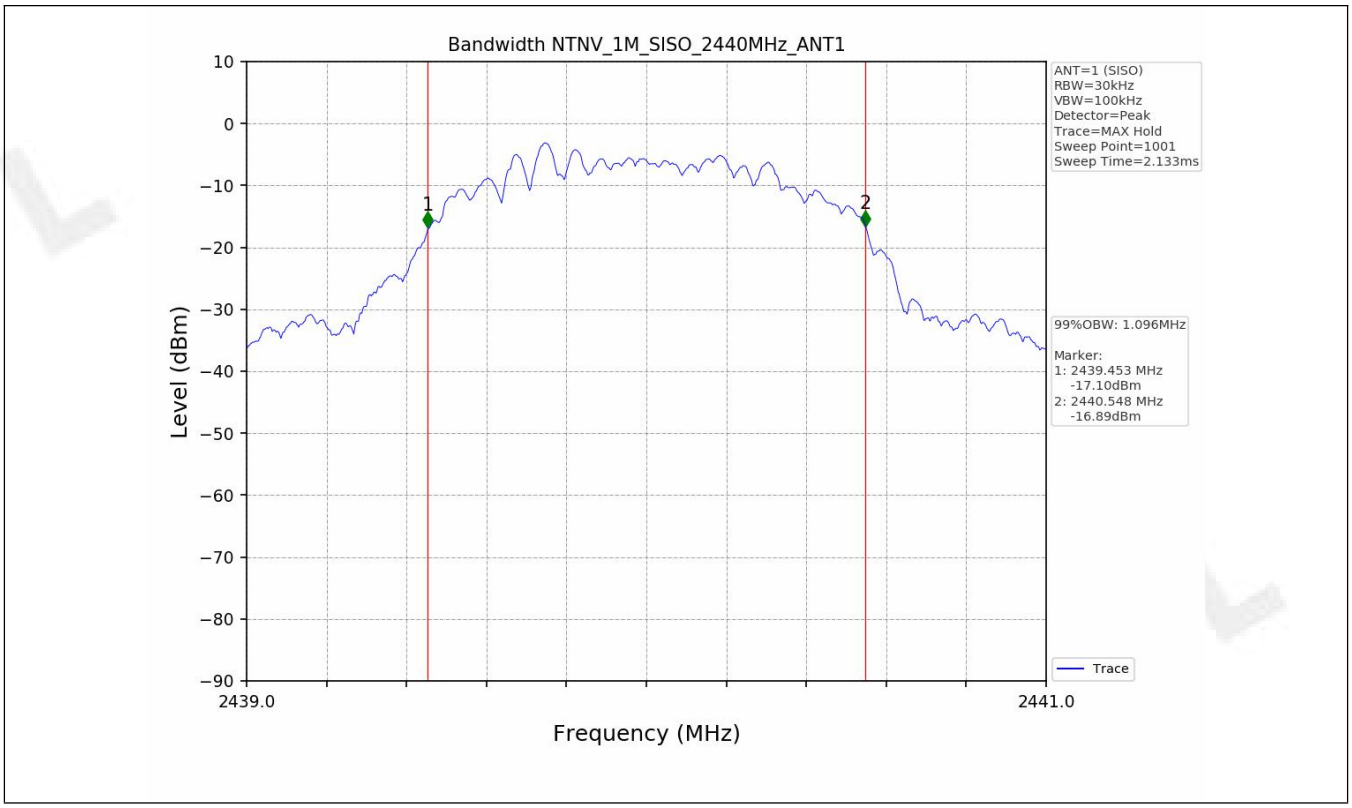


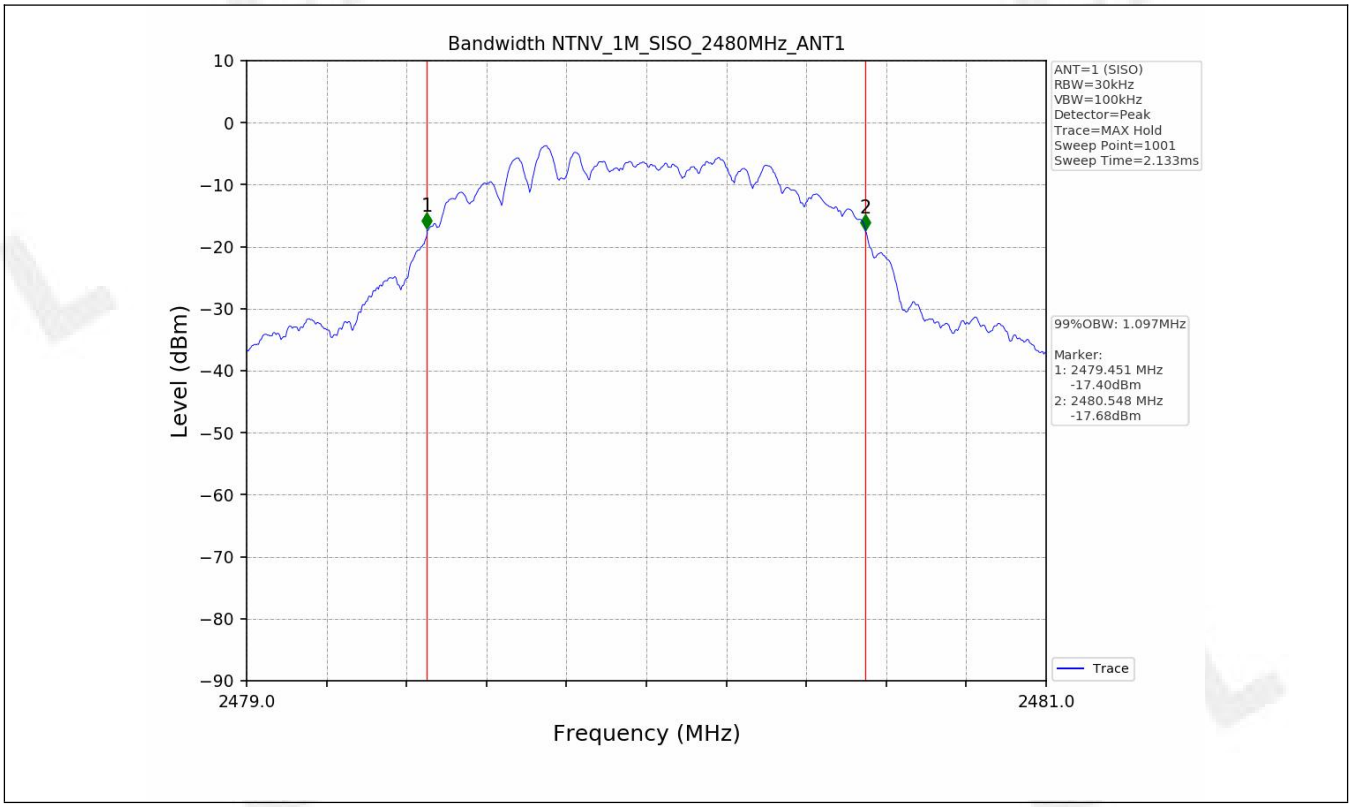

Bandwidth NTNV_1M_SISO_2440MHz_ANT1
ANT=1 (SISO)
RBW=100kHz
VBW=300kHz
Detector=Peak
Trace=MAX Hold
Sweep Point=1001
Sweep Time=1ms
6dB: 0.805MHz
Marker:
1: 2439.585 MHz
-6.07dBm
2: 2440.390 MHz
-6.07dBm
3: 2439.740 MHz
-0.07dBm
Trace
Level (dBm)
Frequency (MHz)
2439.0
2441.0


Bandwidth NTNV_1M_SISO_2480MHz_ANT1
ANT=1 (SISO)
RBW=100kHz
VBW=300kHz
Detector=Peak
Trace=MAX Hold
Sweep Point=1001
Sweep Time=1ms
6dB: 0.813MHz
Marker:
1: 2479.583 MHz
-6.75dBm
2: 2480.397 MHz
-6.75dBm
3: 2479.736 MHz
-0.75dBm
Trace
Level (dBm)
Frequency (MHz)
2479.0
2481.0

### 1.3 Test Graph - 99% Occupied Bandwidth



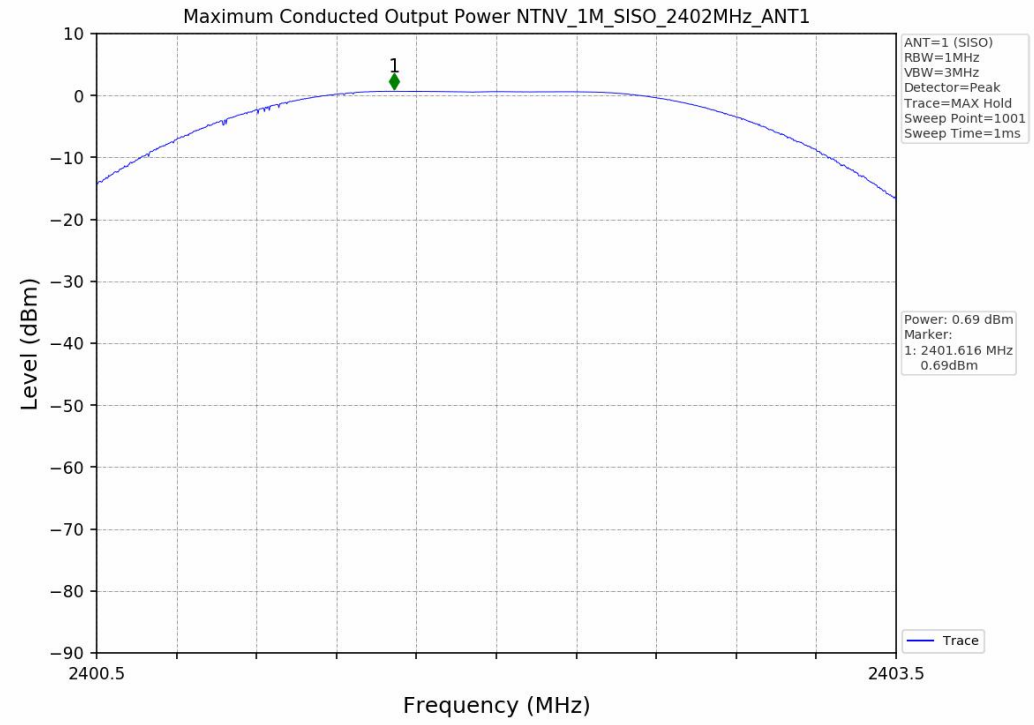


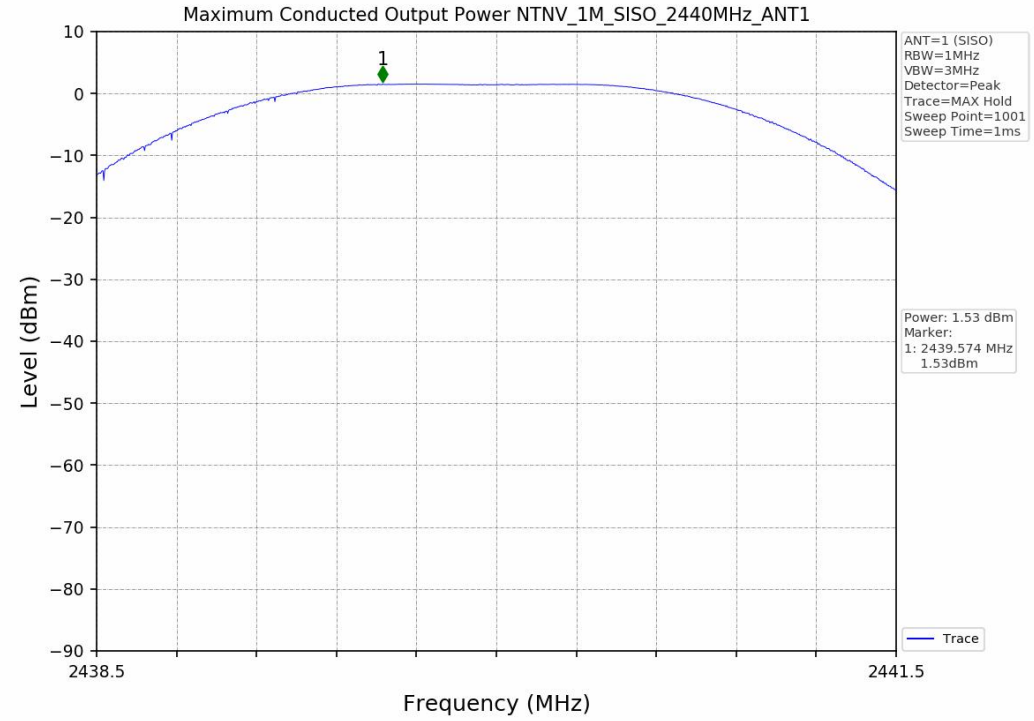

## 2. Maximum Conducted Output Power

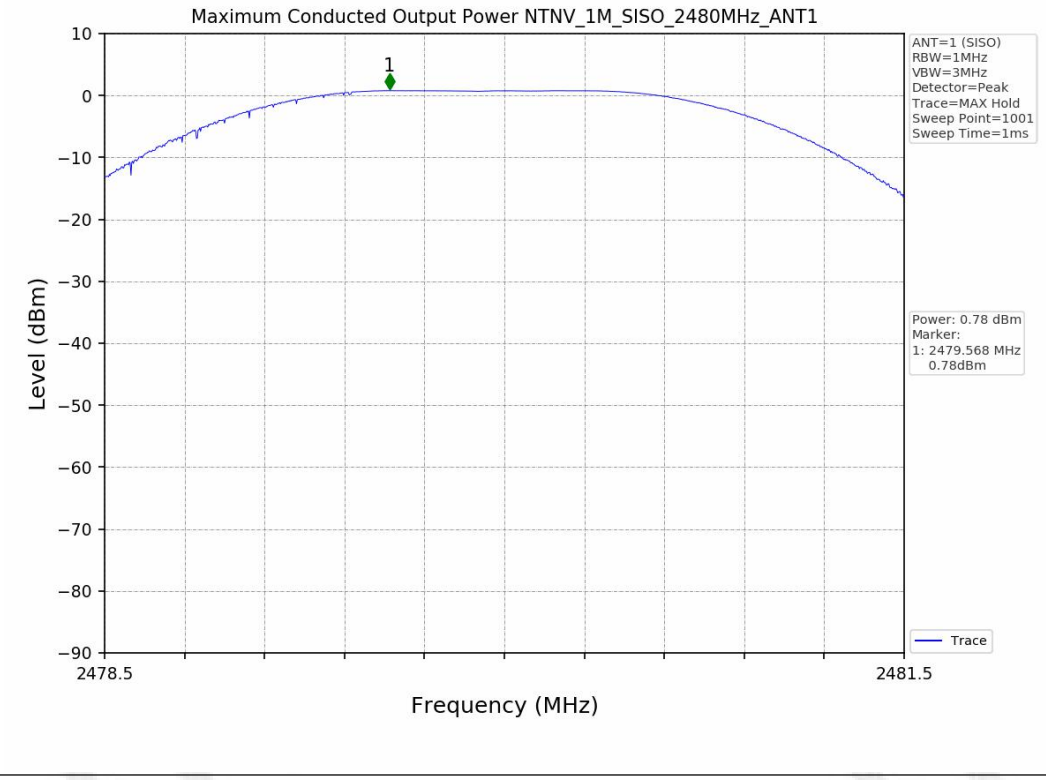
### 2.1 Test Result

| Test Mode | Frequency (MHz) | Tx Type | Measured Peak Output Power (dBm) | Limits (dBm) | Verdict |
|---|---|---|---|---|---|
| | | | Ant 1 | | |
| 1M | 2402 | SISO | 0.69 | 30 | PASS |
| | 2440 | SISO | 1.53 | 30 | PASS |
| | 2480 | SISO | 0.78 | 30 | PASS |

### 2.2 Test Graph


Maximum Conducted Output Power NTNV_1M_SISO_2402MHz_ANT1
ANT=1 (SISO)
RBW=1MHz
VBW=3MHz
Detector=Peak
Trace=MAX Hold
Sweep Point=1001
Sweep Time=1ms
Power: 0.69 dBm
Marker:
1: 2401.616 MHz
0.69dBm
Trace
Level (dBm)
Frequency (MHz)
2400.5
2403.5


Maximum Conducted Output Power NTNV_1M_SISO_2440MHz_ANT1
ANT=1 (SISO)
RBW=1MHz
VBW=3MHz
Detector=Peak
Trace=MAX Hold
Sweep Point=1001
Sweep Time=1ms
Power: 1.53 dBm
Marker:
1: 2439.574 MHz
1.53dBm
Trace
Level (dBm)
Frequency (MHz)
2438.5
2441.5

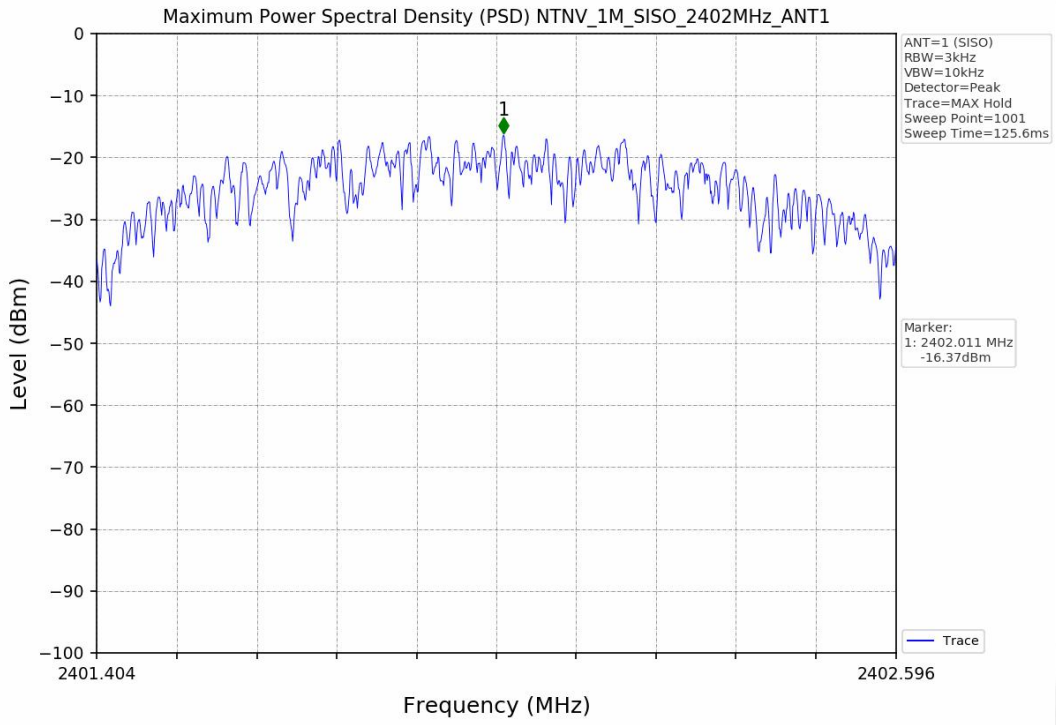


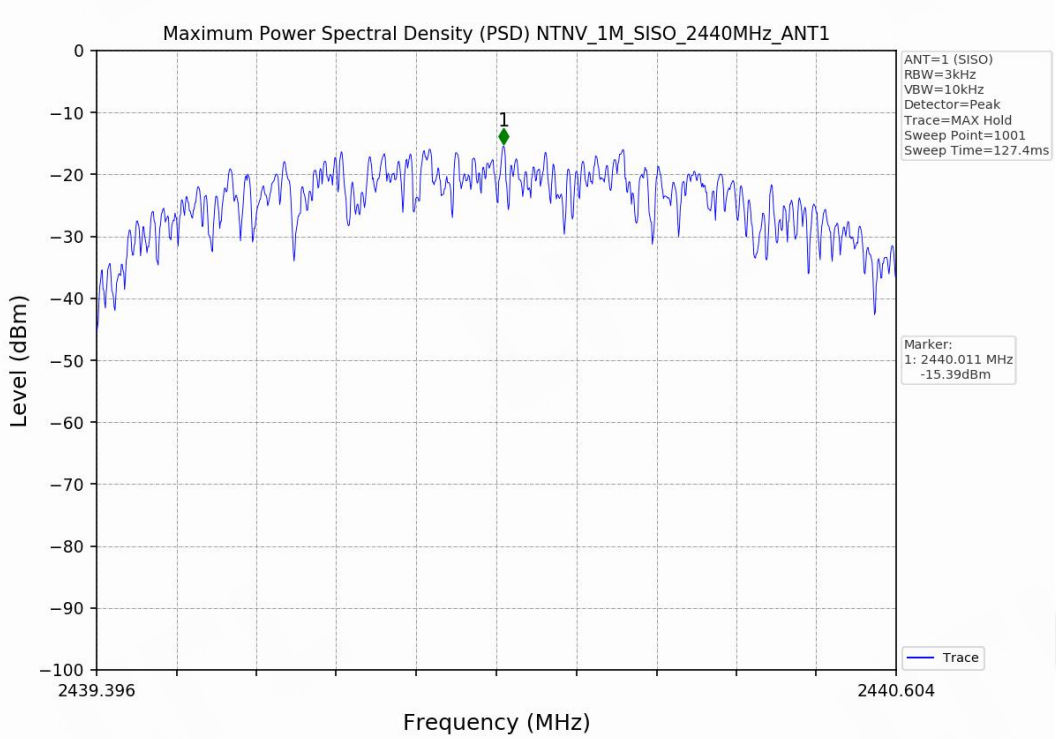

## 3. Maximum Power Spectral Density (PSD)

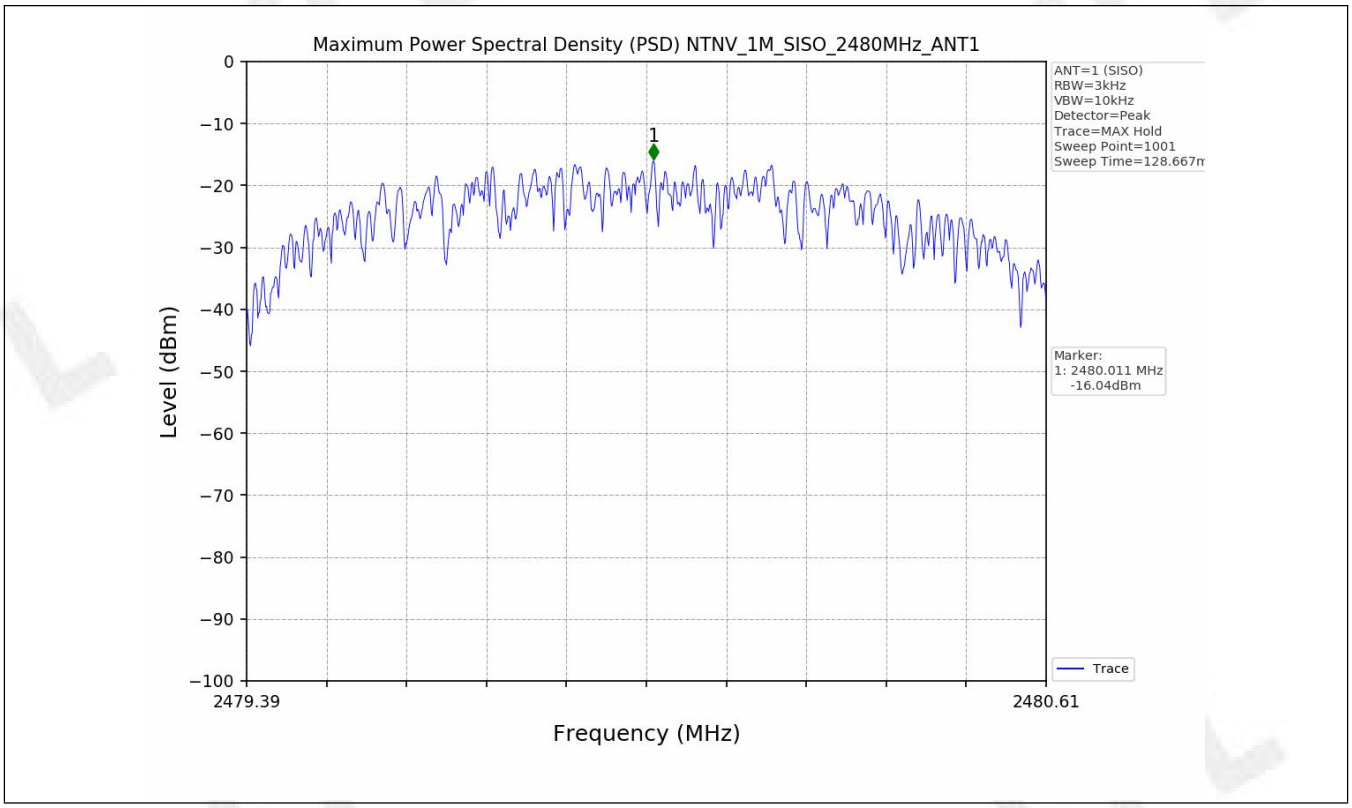
### 3.1 Test Result

| Test Mode | Frequency (MHz) | Tx Type | Maximum Power Spectral Density (dBm/3KHz) | Limits (dBm/3kHz) | Verdict |
|---|---|---|---|---|---|
| | | | Ant 1 | | |
| 1M | 2402 | SISO | -16.37 | ≤8 | PASS |
| | 2440 | SISO | -15.39 | ≤8 | PASS |
| | 2480 | SISO | -16.04 | ≤8 | PASS |

### 3.2 Test Graph


Maximum Power Spectral Density (PSD) NTNV_1M_SISO_2402MHz_ANT1
ANT=1 (SISO)
RBW=3kHz
VBW=10kHz
Detector=Peak
Trace=MAX Hold
Sweep Point=1001
Sweep Time=125.6ms
Marker:
1: 2402.011 MHz
-16.37dBm
Trace
Level (dBm)
Frequency (MHz)
2401.404
2402.596


Maximum Power Spectral Density (PSD) NTNV_1M_SISO_2440MHz_ANT1
ANT=1 (SISO)
RBW=3kHz
VBW=10kHz
Detector=Peak
Trace=MAX Hold
Sweep Point=1001
Sweep Time=127.4ms
Marker:
1: 2440.011 MHz
-15.39dBm
Trace
Level (dBm)
Frequency (MHz)
2439.396
2440.604

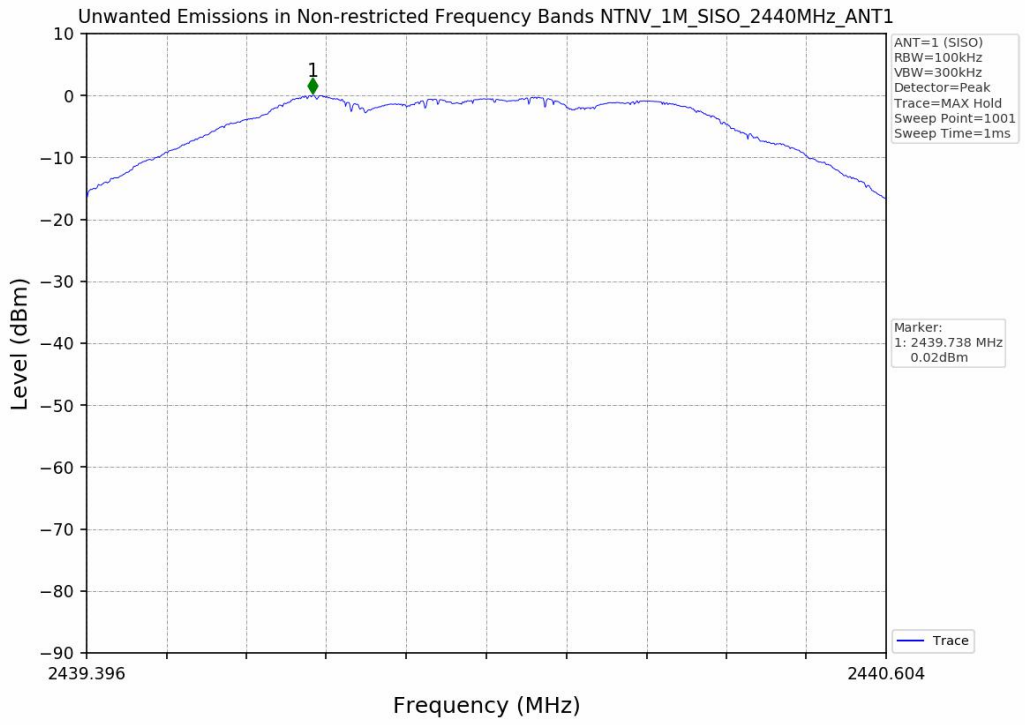


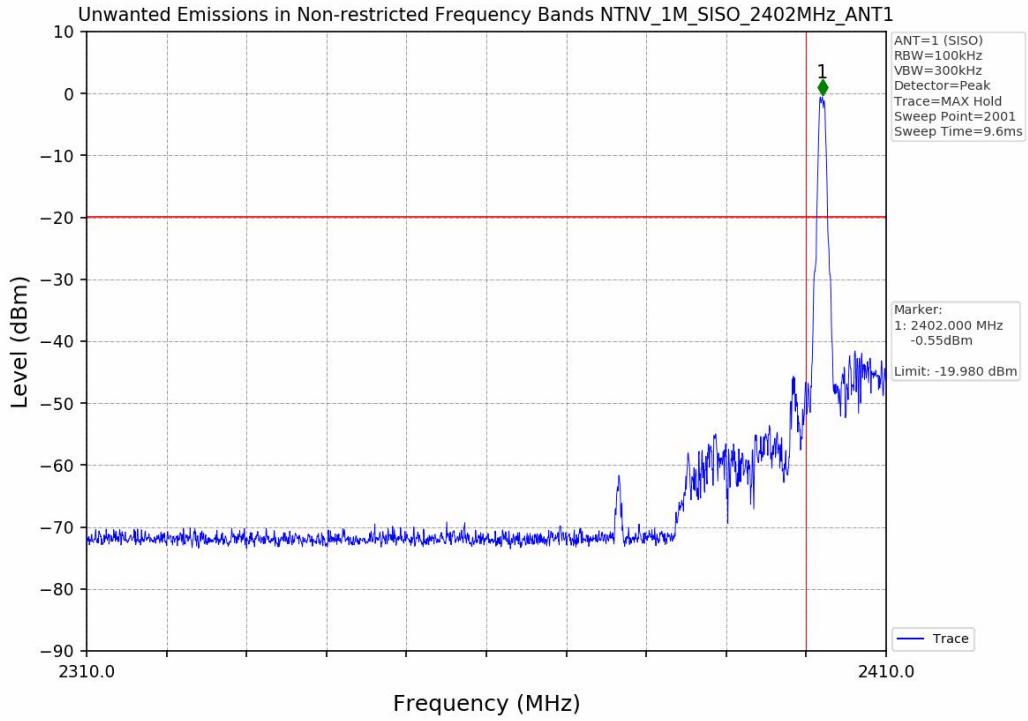

## 4. Unwanted Emissions in Non-restricted Frequency Bands

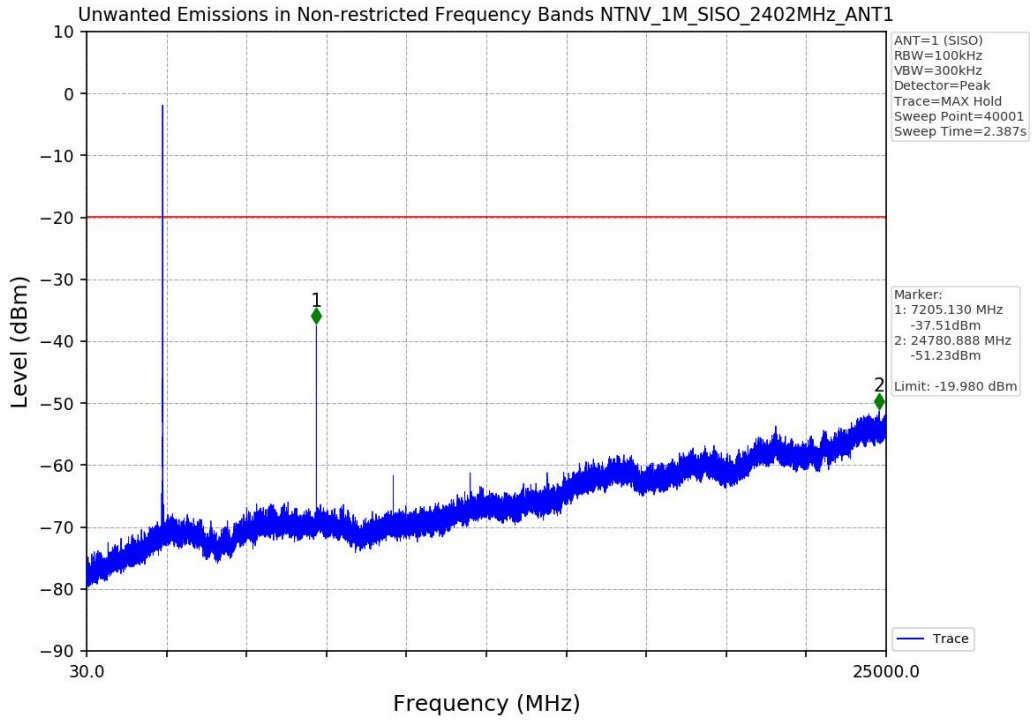
### 4.1 Test Result

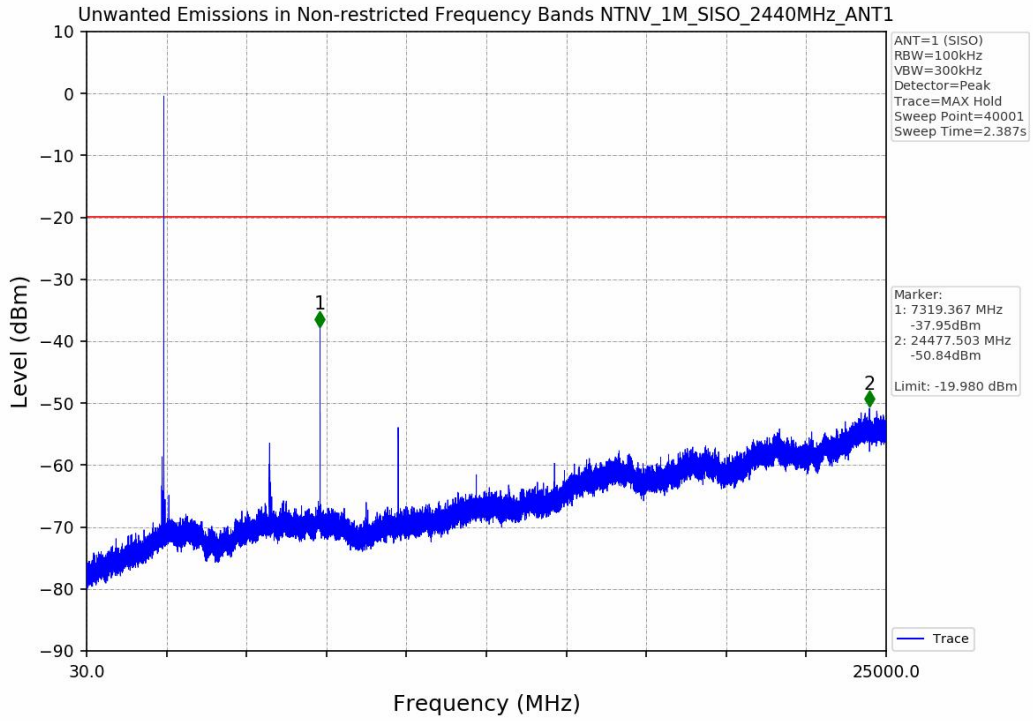
| Test Mode | Frequency (MHz) | TX Type | ANT No. | Spurious Conducted Emission (dBm) | Limits (dBm) | Verdict |
|---|---|---|---|---|---|---|
| 1M | 2402 | SISO | 1 | Refer to test graph | -19.98 | PASS |
| | 2440 | SISO | 1 | Refer to test graph | -19.98 | PASS |
| | 2480 | SISO | 1 | Refer to test graph | -19.98 | PASS |

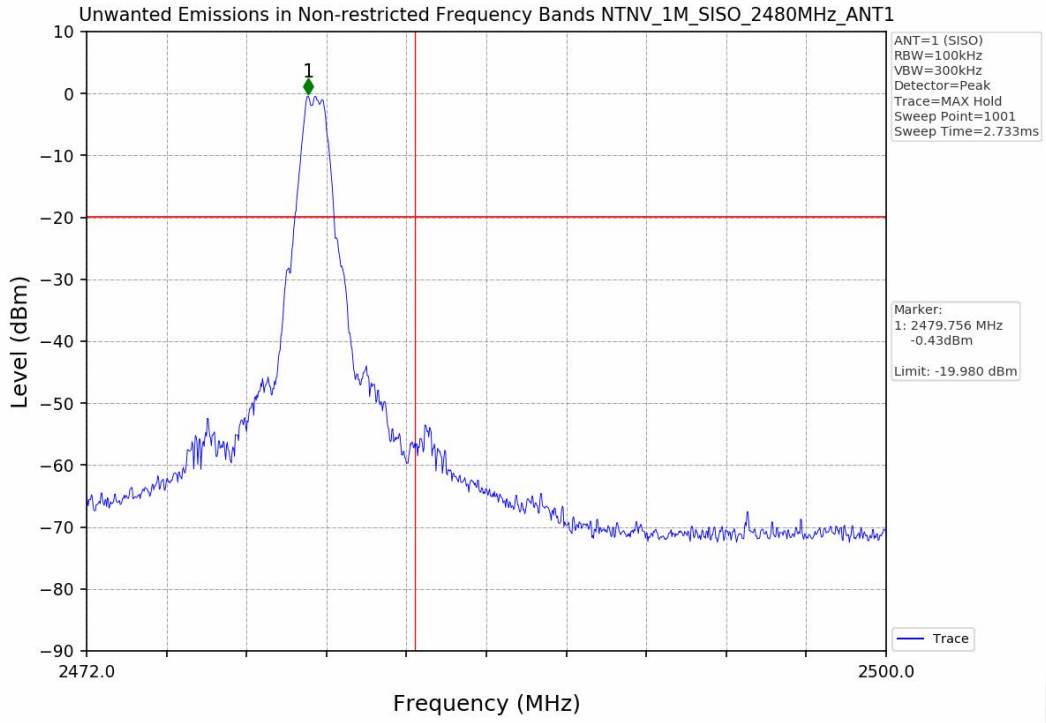
### 4.2 Test Graph

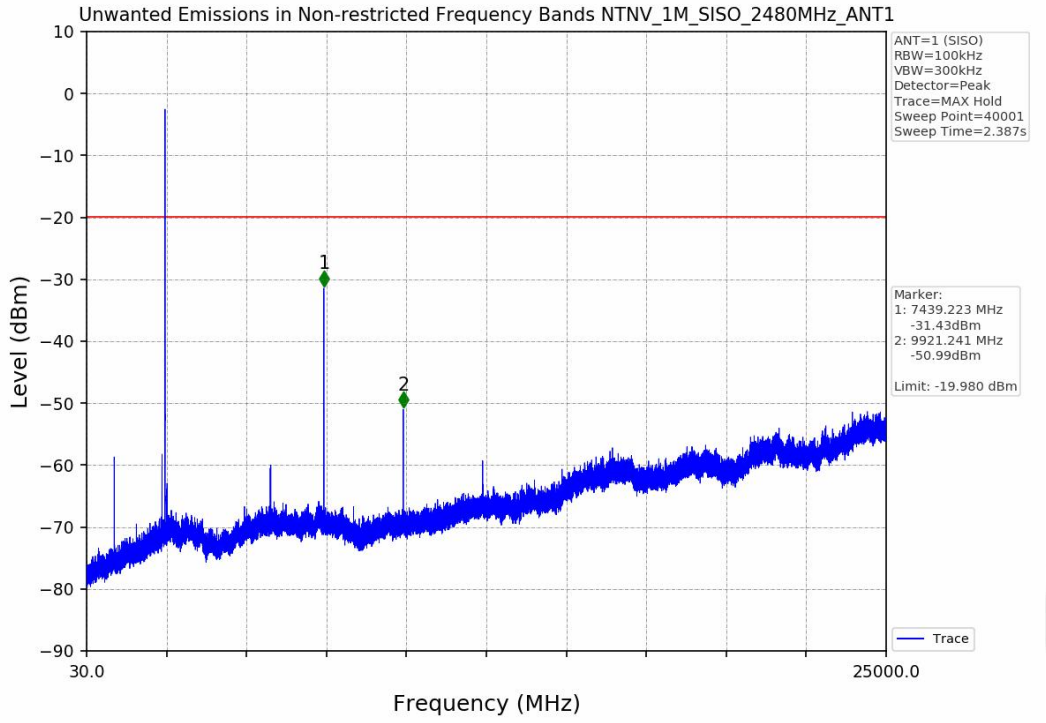

Unwanted Emissions in Non-restricted Frequency Bands NTNV_1M_SISO_2440MHz_ANT1
ANT=1 (SISO)
RBW=100kHz
VBW=300kHz
Detector=Peak
Trace=MAX Hold
Sweep Point=1001
Sweep Time=1ms
Marker:
1: 2439.738 MHz
0.02dBm
Trace
Level (dBm)
Frequency (MHz)
2439.396
2440.604


Unwanted Emissions in Non-restricted Frequency Bands NTNV_1M_SISO_2402MHz_ANT1
ANT=1 (SISO)
RBW=100kHz
VBW=300kHz
Detector=Peak
Trace=MAX Hold
Sweep Point=2001
Sweep Time=9.6ms
Marker:
1: 2402.000 MHz
-0.55dBm
Limit: -19.980 dBm
Trace
Level (dBm)
Frequency (MHz)
2310.0
2410.0


Unwanted Emissions in Non-restricted Frequency Bands NTNV_1M_SISO_2402MHz_ANT1
ANT=1 (SISO)
RBW=100kHz
VBW=300kHz
Detector=Peak
Trace=MAX Hold
Sweep Point=40001
Sweep Time=2.387s
Marker:
1: 7205.130 MHz
-37.51dBm
2: 24780.888 MHz
-51.23dBm
Limit: -19.980 dBm
Trace
Level (dBm)
Frequency (MHz)
30.0
25000.0


Unwanted Emissions in Non-restricted Frequency Bands NTNV_1M_SISO_2440MHz_ANT1
ANT=1 (SISO)
RBW=100kHz
VBW=300kHz
Detector=Peak
Trace=MAX Hold
Sweep Point=40001
Sweep Time=2.387s
Marker:
1: 7319.367 MHz
-37.95dBm
2: 24477.503 MHz
-50.84dBm
Limit: -19.980 dBm
Trace
Level (dBm)
Frequency (MHz)
30.0
25000.0


Unwanted Emissions in Non-restricted Frequency Bands NTNV_1M_SISO_2480MHz_ANT1
ANT=1 (SISO)
RBW=100kHz
VBW=300kHz
Detector=Peak
Trace=MAX Hold
Sweep Point=1001
Sweep Time=2.733ms
Marker:
1: 2479.756 MHz
-0.43dBm
Limit: -19.980 dBm
Trace
Level (dBm)
Frequency (MHz)
2472.0
2500.0


Unwanted Emissions in Non-restricted Frequency Bands NTNV_1M_SISO_2480MHz_ANT1
ANT=1 (SISO)
RBW=100kHz
VBW=300kHz
Detector=Peak
Trace=MAX Hold
Sweep Point=40001
Sweep Time=2.387s
Marker:
1: 7439.223 MHz
-31.43dBm
2: 9921.241 MHz
-50.99dBm
Limit: -19.980 dBm
Trace
Level (dBm)
Frequency (MHz)
30.0
25000.0