# Appendix for 15.247

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|---|---|
| Product Name: | Android TV Box |
| Model No.: | MW809 |

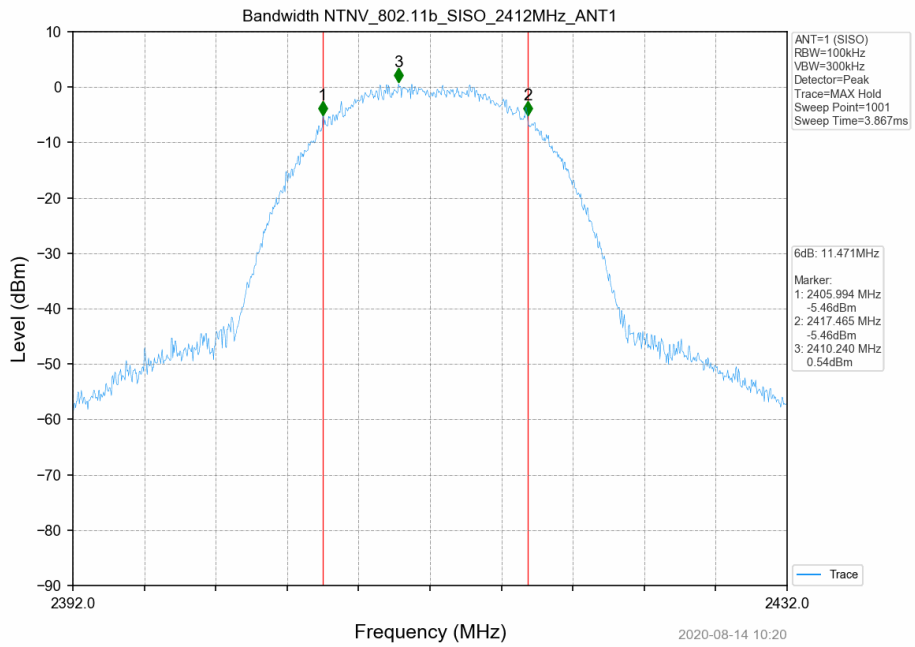
## 1. Bandwidth

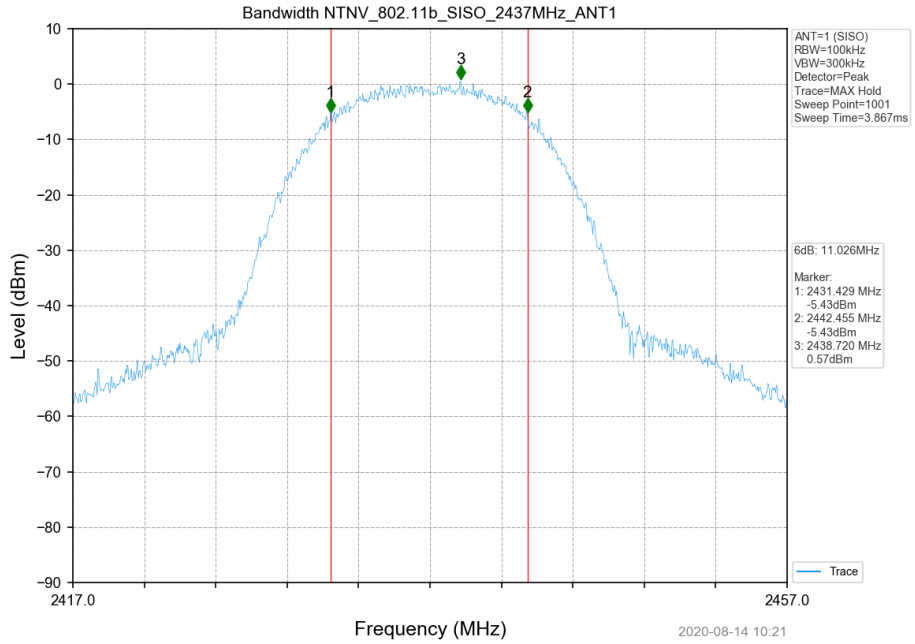
### 1.1 Test Result

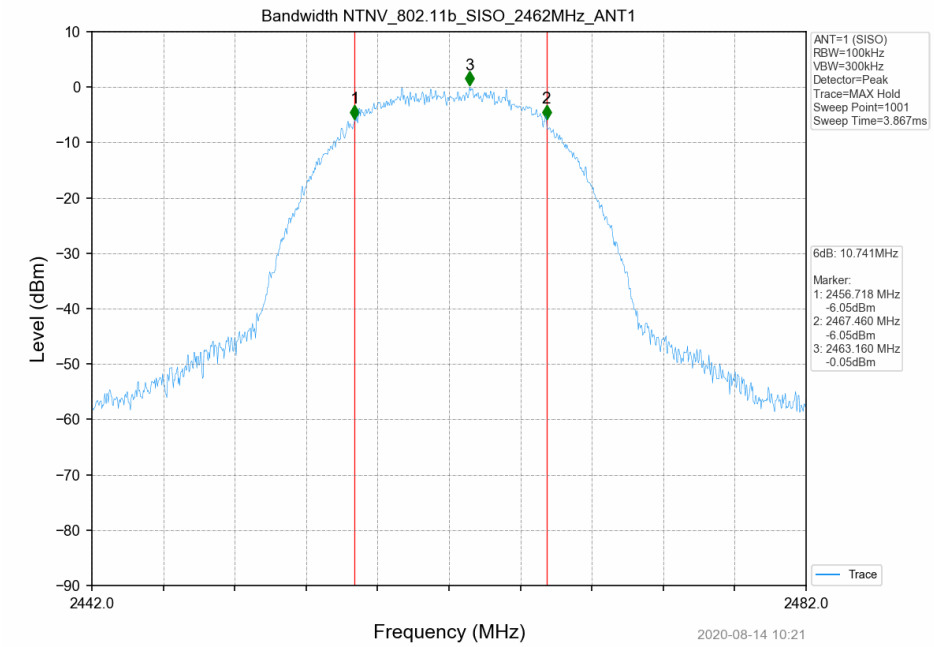
| Test Mode | Frequency (MHz) | TX Type | ANT No. | 6dB Bandwidth | | Verdict |
|---|---|---|---|---|---|---|
| | | | | Test Result (MHz) | Limits (MHz) | |
| 802.11b | 2412 | SISO | 1 | 11.471 | ≥0.5 | PASS |
| | 2437 | SISO | 1 | 11.026 | ≥0.5 | PASS |
| | 2462 | SISO | 1 | 10.741 | ≥0.5 | PASS |
| 802.11g | 2412 | SISO | 1 | 15.961 | ≥0.5 | PASS |
| | 2437 | SISO | 1 | 15.959 | ≥0.5 | PASS |
| | 2462 | SISO | 1 | 16.010 | ≥0.5 | PASS |
| 802.11n(HT20) | 2412 | SISO | 1 | 17.024 | ≥0.5 | PASS |
| | 2437 | SISO | 1 | 16.444 | ≥0.5 | PASS |
| | 2462 | SISO | 1 | 17.311 | ≥0.5 | PASS |
| 802.11n(HT40) | 2422 | SISO | 1 | 35.230 | ≥0.5 | PASS |
| | 2437 | SISO | 1 | 35.277 | ≥0.5 | PASS |
| | 2452 | SISO | 1 | 35.261 | ≥0.5 | PASS |

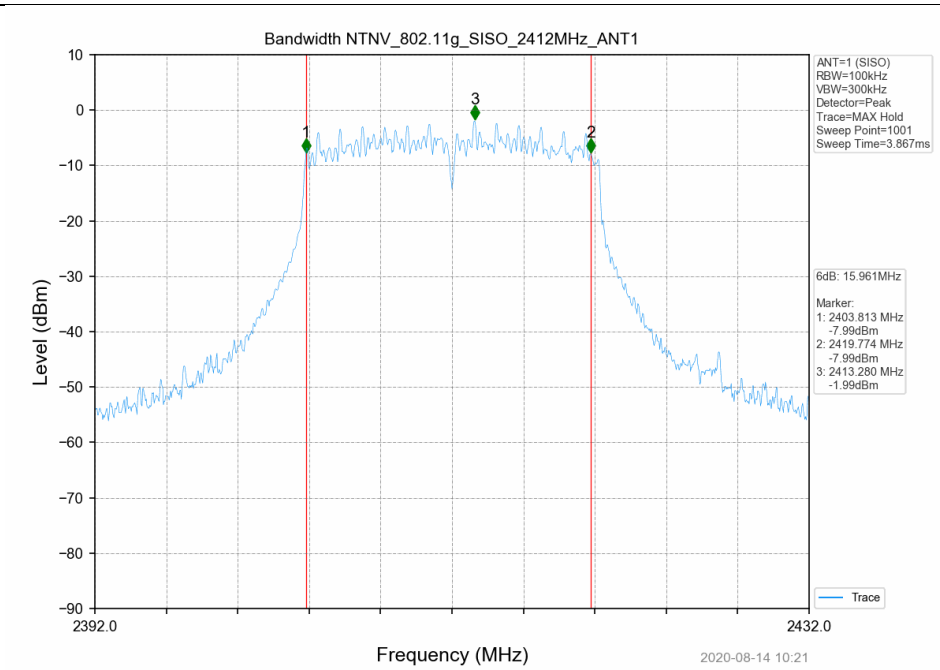
| Test Mode | Frequency (MHz) | TX Type | ANT No. | 99% Occupied Bandwidth | |
|---|---|---|---|---|---|
| | | | | Test Result (MHz) | |
| 802.11b | 2412 | SISO | 1 | 14.529 | Only for Report Use |
| | 2437 | SISO | 1 | 14.480 | Only for Report Use |
| | 2462 | SISO | 1 | 14.418 | Only for Report Use |
| 802.11g | 2412 | SISO | 1 | 16.578 | Only for Report Use |
| | 2437 | SISO | 1 | 16.580 | Only for Report Use |
| | 2462 | SISO | 1 | 16.487 | Only for Report Use |
| 802.11n(HT20) | 2412 | SISO | 1 | 17.660 | Only for Report Use |
| | 2437 | SISO | 1 | 17.662 | Only for Report Use |
| | 2462 | SISO | 1 | 17.670 | Only for Report Use |
| 802.11n(HT40) | 2422 | SISO | 1 | 36.427 | Only for Report Use |
| | 2437 | SISO | 1 | 36.457 | Only for Report Use |
| | 2452 | SISO | 1 | 36.452 | Only for Report Use |

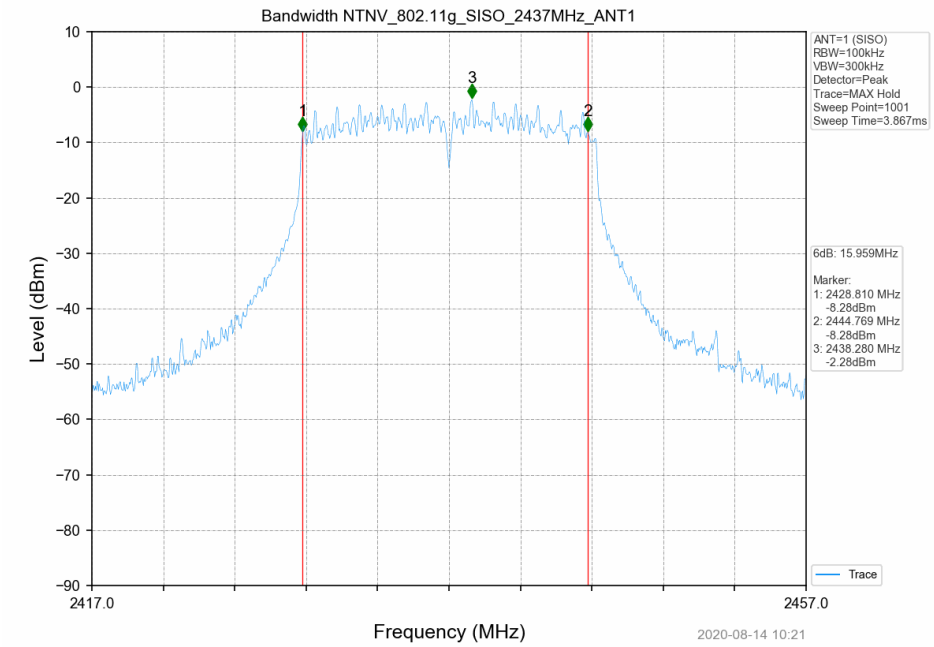
### 1.2 Test Graph - 6dB Bandwidth

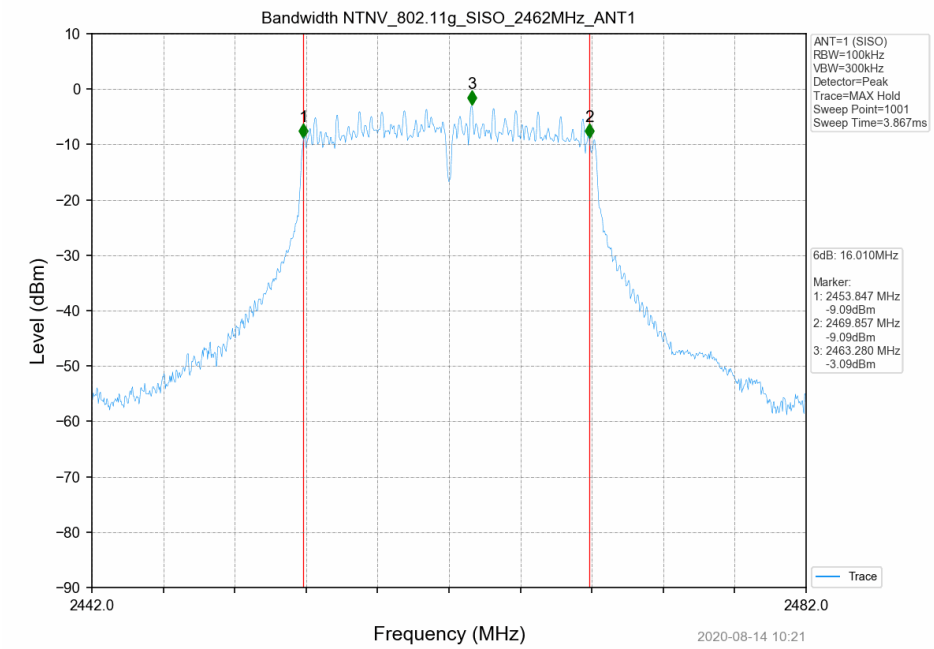

Bandwidth NTNV_802.11b_SISO_2412MHz_ANT1
ANT=1 (SISO)
RBW=100kHz
VBW=300kHz
Detector=Peak
Trace=MAX Hold
Sweep Point=1001
Sweep Time=3.867ms
6dB: 11.471MHz
Marker:
1: 2405.994 MHz
-5.46dBm
2: 2417.465 MHz
-5.46dBm
3: 2410.240 MHz
0.54dBm
Trace
Level (dBm)
Frequency (MHz)
2392.0
2432.0
2020-08-14 10:20

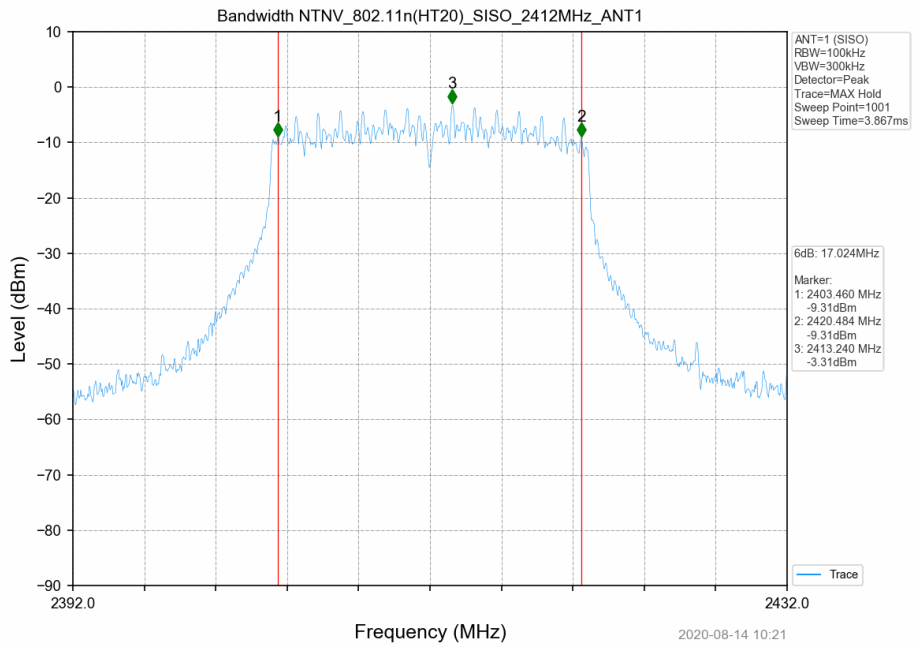

Bandwidth NTNV_802.11b_SISO_2437MHz_ANT1
ANT=1 (SISO)
RBW=100kHz
VBW=300kHz
Detector=Peak
Trace=MAX Hold
Sweep Point=1001
Sweep Time=3.867ms
6dB: 11.026MHz
Marker:
1: 2431.429 MHz
-5.43dBm
2: 2442.455 MHz
-5.43dBm
3: 2438.720 MHz
0.57dBm
Trace
Level (dBm)
Frequency (MHz)
2417.0
2457.0
2020-08-14 10:21

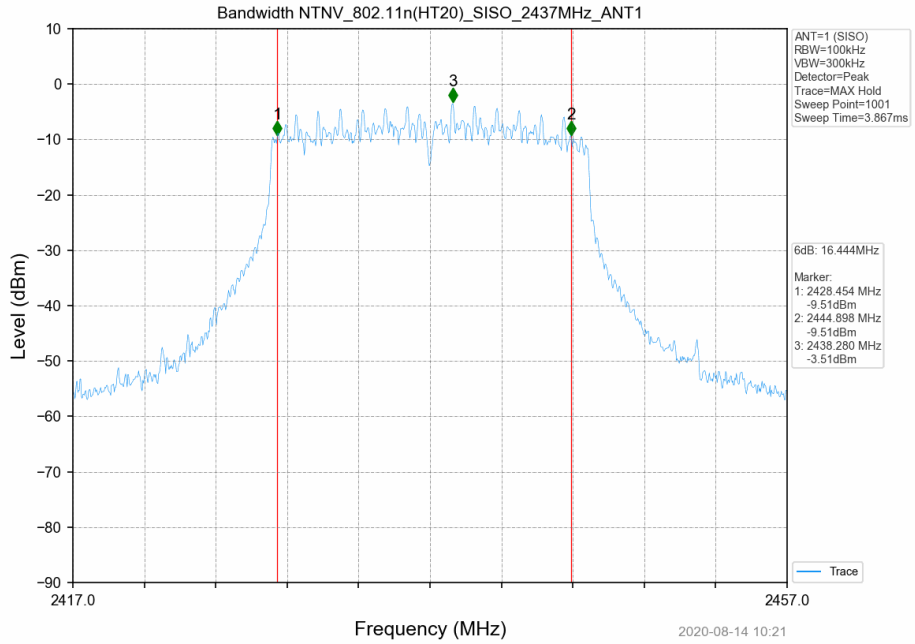

Bandwidth NTNV_802.11b_SISO_2462MHz_ANT1
ANT=1 (SISO)
RBW=100kHz
VBW=300kHz
Detector=Peak
Trace=MAX Hold
Sweep Point=1001
Sweep Time=3.867ms
6dB: 10.741MHz
Marker:
1: 2456.718 MHz
-6.05dBm
2: 2467.460 MHz
-6.05dBm
3: 2463.160 MHz
-0.05dBm
Trace
Level (dBm)
Frequency (MHz)
2442.0
2482.0
2020-08-14 10:21

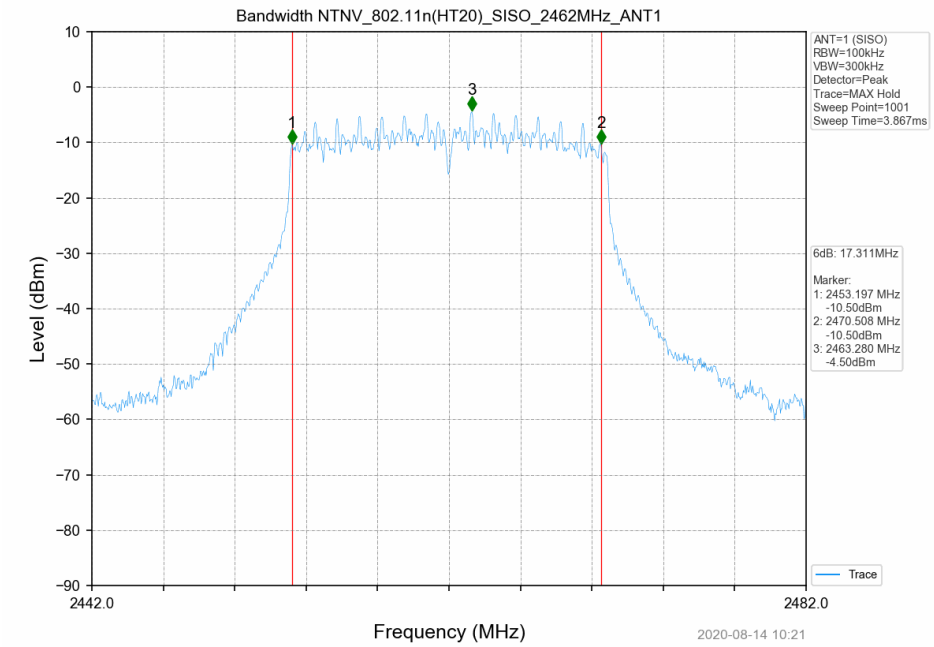

Bandwidth NTNV_802.11g_SISO_2412MHz_ANT1
ANT=1 (SISO)
RBW=100kHz
VBW=300kHz
Detector=Peak
Trace=MAX Hold
Sweep Point=1001
Sweep Time=3.867ms
6dB: 15.961MHz
Marker:
1: 2403.813 MHz
-7.99dBm
2: 2419.774 MHz
-7.99dBm
3: 2413.280 MHz
-1.99dBm
Trace
Level (dBm)
Frequency (MHz)
2392.0
2432.0
2020-08-14 10:21

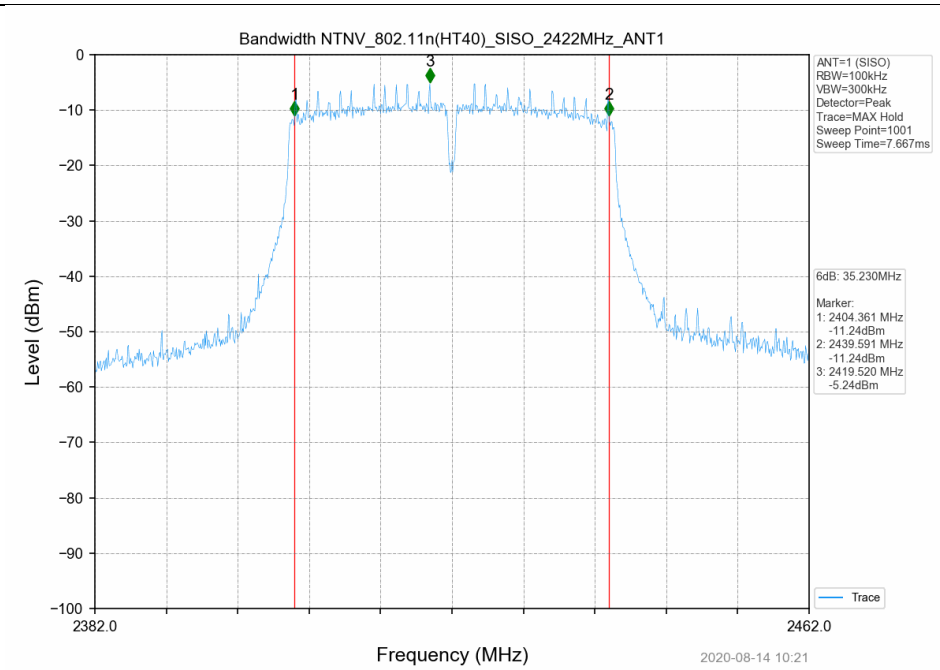

Bandwidth NTNV_802.11g_SISO_2437MHz_ANT1
ANT=1 (SISO)
RBW=100kHz
VBW=300kHz
Detector=Peak
Trace=MAX Hold
Sweep Point=1001
Sweep Time=3.867ms
6dB: 15.959MHz
Marker:
1: 2428.810 MHz
-8.28dBm
2: 2444.769 MHz
-8.28dBm
3: 2438.280 MHz
-2.28dBm
Trace
Level (dBm)
Frequency (MHz)
2417.0
2457.0
2020-08-14 10:21

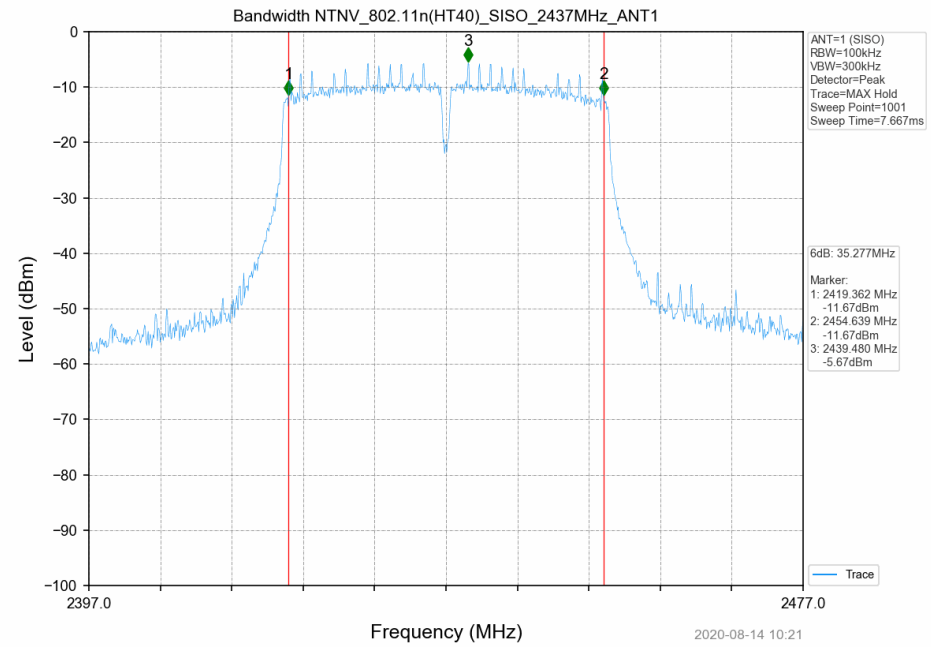

Bandwidth NTNV_802.11g_SISO_2462MHz_ANT1
ANT=1 (SISO)
RBW=100kHz
VBW=300kHz
Detector=Peak
Trace=MAX Hold
Sweep Point=1001
Sweep Time=3.867ms
6dB: 16.010MHz
Marker:
1: 2453.847 MHz
-9.09dBm
2: 2469.857 MHz
-9.09dBm
3: 2463.280 MHz
-3.09dBm
Trace
Level (dBm)
Frequency (MHz)
2442.0
2482.0
2020-08-14 10:21

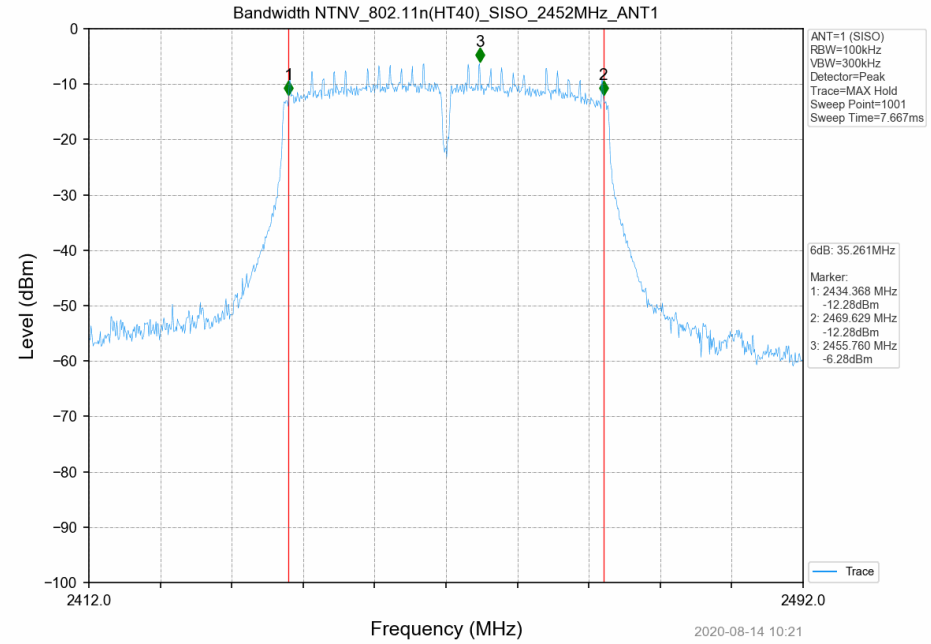

Bandwidth NTNV_802.11n(HT20)_SISO_2412MHz_ANT1
ANT=1 (SISO)
RBW=100kHz
VBW=300kHz
Detector=Peak
Trace=MAX Hold
Sweep Point=1001
Sweep Time=3.867ms
6dB: 17.024MHz
Marker:
1: 2403.460 MHz
-9.31dBm
2: 2420.484 MHz
-9.31dBm
3: 2413.240 MHz
-3.31dBm
Trace
Level (dBm)
Frequency (MHz)
2392.0
2432.0
2020-08-14 10:21


Bandwidth NTNV_802.11n(HT20)_SISO_2437MHz_ANT1
ANT=1 (SISO)
RBW=100kHz
VBW=300kHz
Detector=Peak
Trace=MAX Hold
Sweep Point=1001
Sweep Time=3.867ms
6dB: 16.444MHz
Marker:
1: 2428.454 MHz
-9.51dBm
2: 2444.898 MHz
-9.51dBm
3: 2438.280 MHz
-3.51dBm
Trace
Level (dBm)
Frequency (MHz)
2417.0
2457.0
2020-08-14 10:21

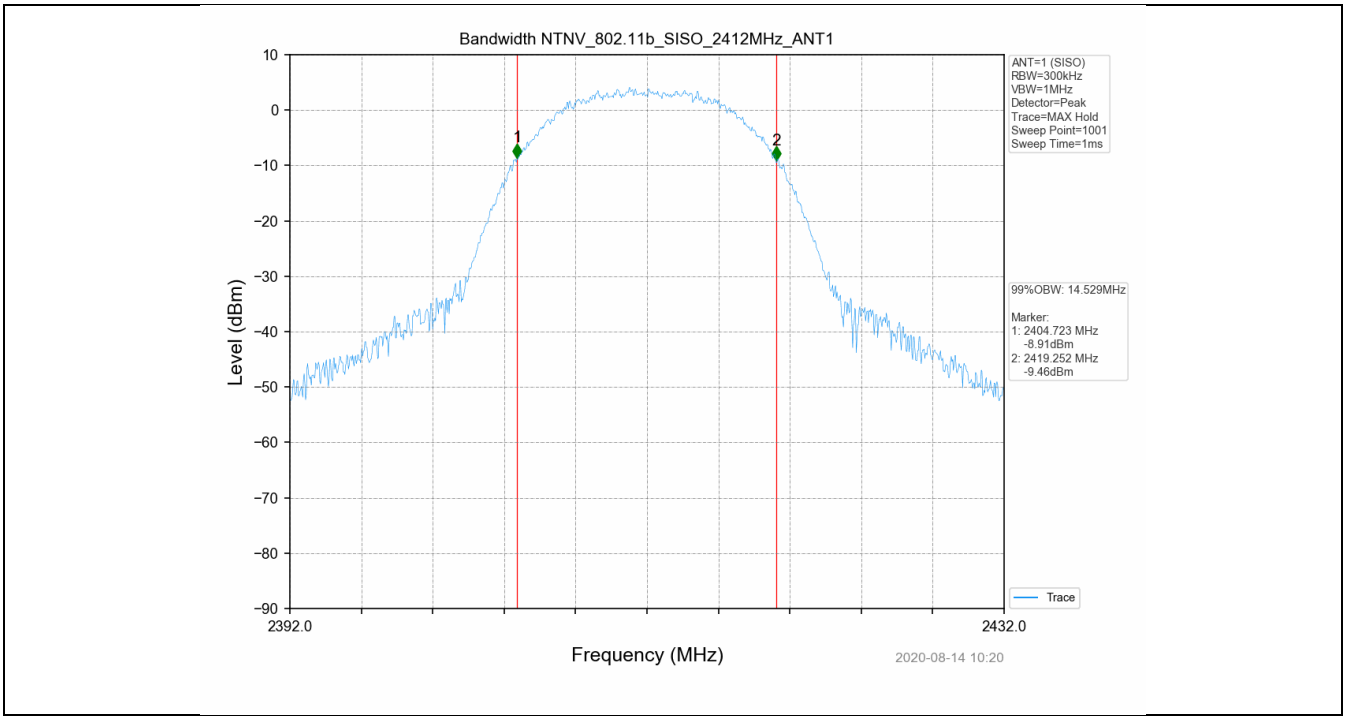

Bandwidth NTNV_802.11n(HT20)_SISO_2462MHz_ANT1
ANT=1 (SISO)
RBW=100kHz
VBW=300kHz
Detector=Peak
Trace=MAX Hold
Sweep Point=1001
Sweep Time=3.867ms
6dB: 17.311MHz
Marker:
1: 2453.197 MHz
-10.50dBm
2: 2470.508 MHz
-10.50dBm
3: 2463.280 MHz
-4.50dBm
Trace
Level (dBm)
Frequency (MHz)
2442.0
2482.0
2020-08-14 10:21

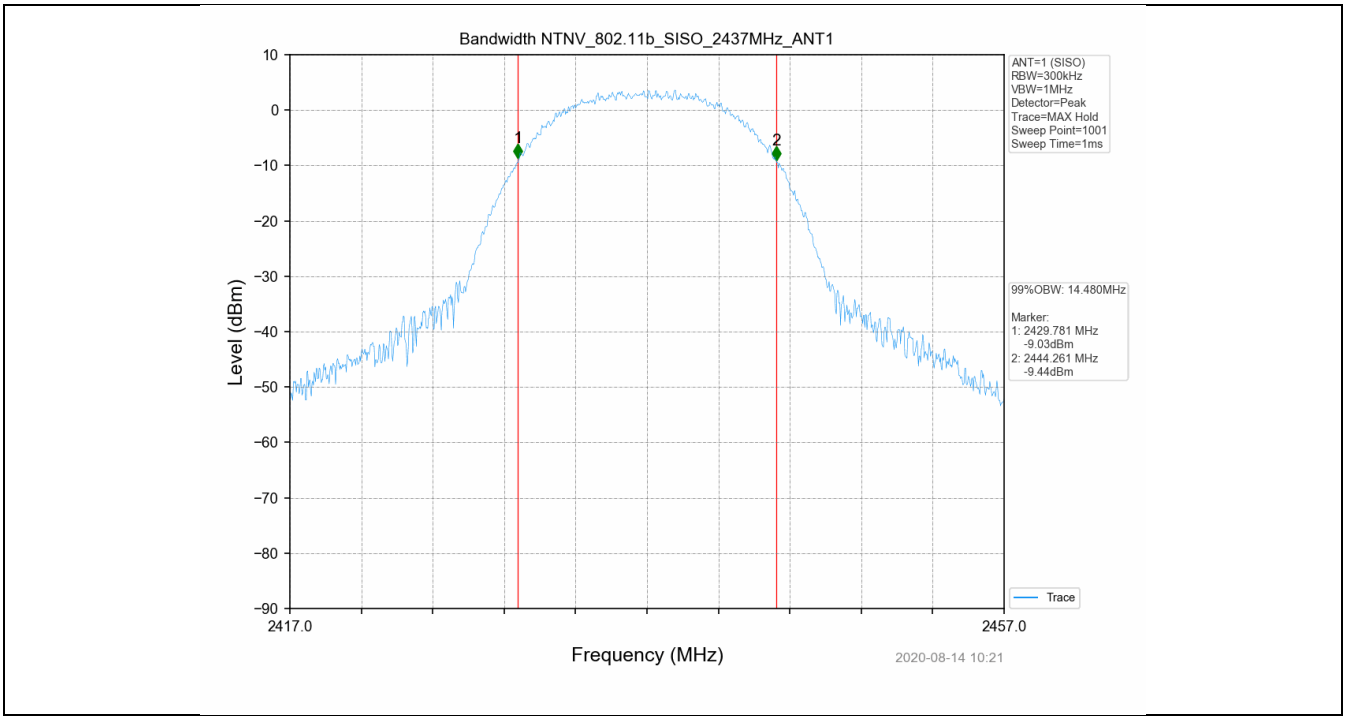

Bandwidth NTNV_802.11n(HT40)_SISO_2422MHz_ANT1
ANT=1 (SISO)
RBW=100kHz
VBW=300kHz
Detector=Peak
Trace=MAX Hold
Sweep Point=1001
Sweep Time=7.667ms
6dB: 35.230MHz
Marker:
1: 2404.361 MHz
-11.24dBm
2: 2439.591 MHz
-11.24dBm
3: 2419.520 MHz
-5.24dBm
Trace
Level (dBm)
Frequency (MHz)
2382.0
2462.0
2020-08-14 10:21

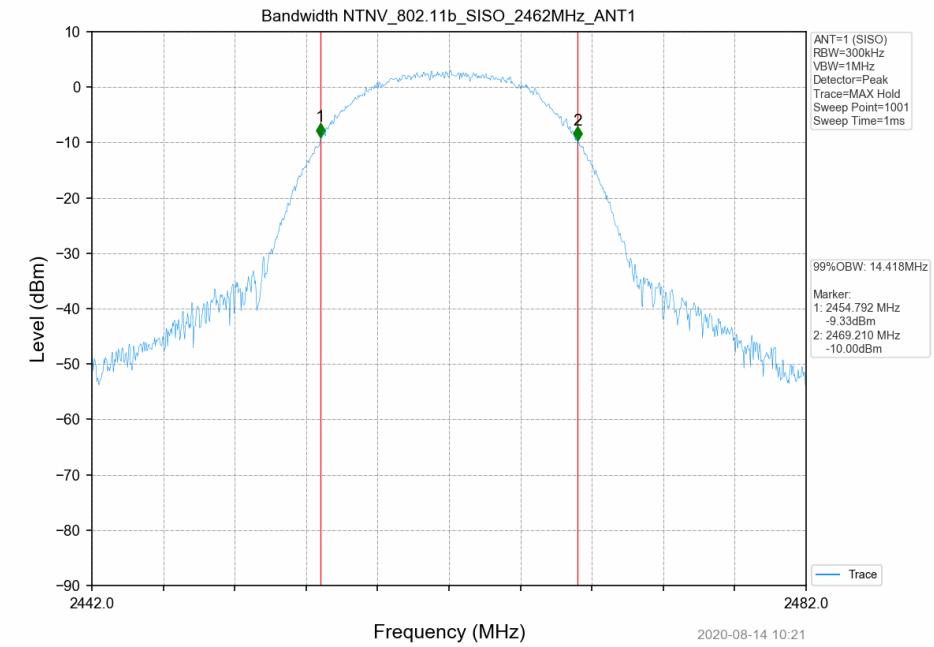

Bandwidth NTNV_802.11n(HT40)_SISO_2437MHz_ANT1
ANT=1 (SISO)
RBW=100kHz
VBW=300kHz
Detector=Peak
Trace=MAX Hold
Sweep Point=1001
Sweep Time=7.667ms
6dB: 35.277MHz
Marker:
1: 2419.362 MHz
-11.67dBm
2: 2454.639 MHz
-11.67dBm
3: 2439.480 MHz
-5.67dBm
Trace
Level (dBm)
Frequency (MHz)
2397.0
2477.0
2020-08-14 10:21

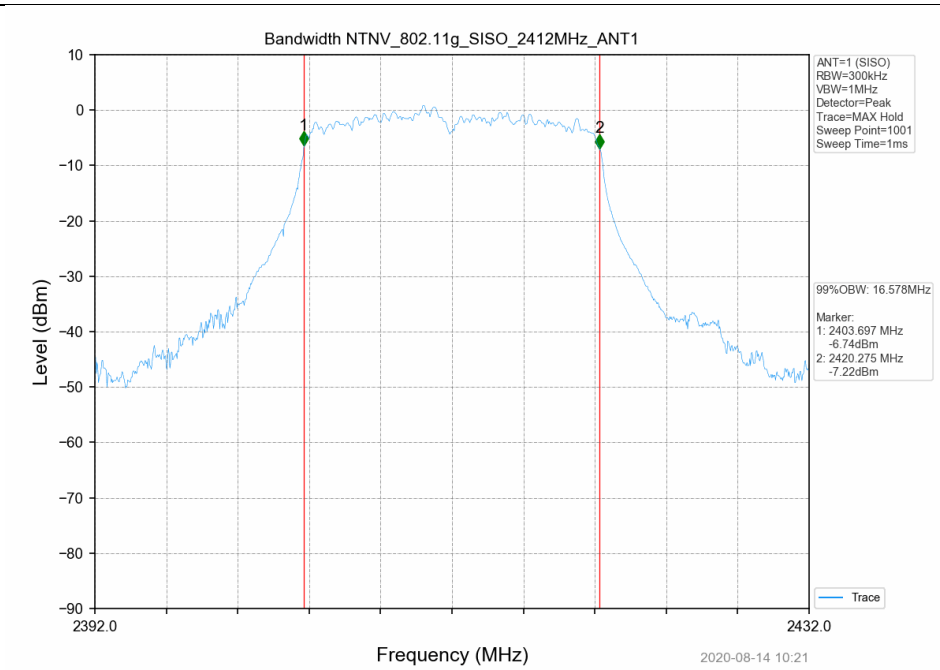

Bandwidth NTNV_802.11n(HT40)_SISO_2452MHz_ANT1
ANT=1 (SISO)
RBW=100kHz
VBW=300kHz
Detector=Peak
Trace=MAX Hold
Sweep Point=1001
Sweep Time=7.667ms
6dB: 35.261MHz
Marker:
1: 2434.368 MHz
-12.28dBm
2: 2469.629 MHz
-12.28dBm
3: 2455.760 MHz
-6.28dBm
Trace
Level (dBm)
Frequency (MHz)
2412.0
2492.0
2020-08-14 10:21

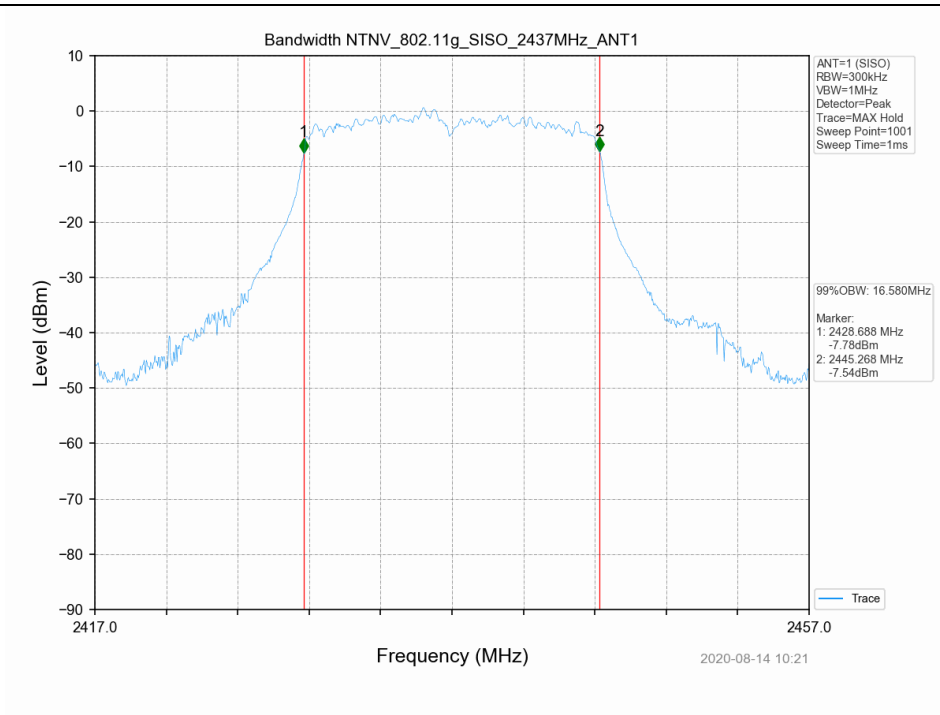
### 1.3 Test Graph - 99% Occupied Bandwidth

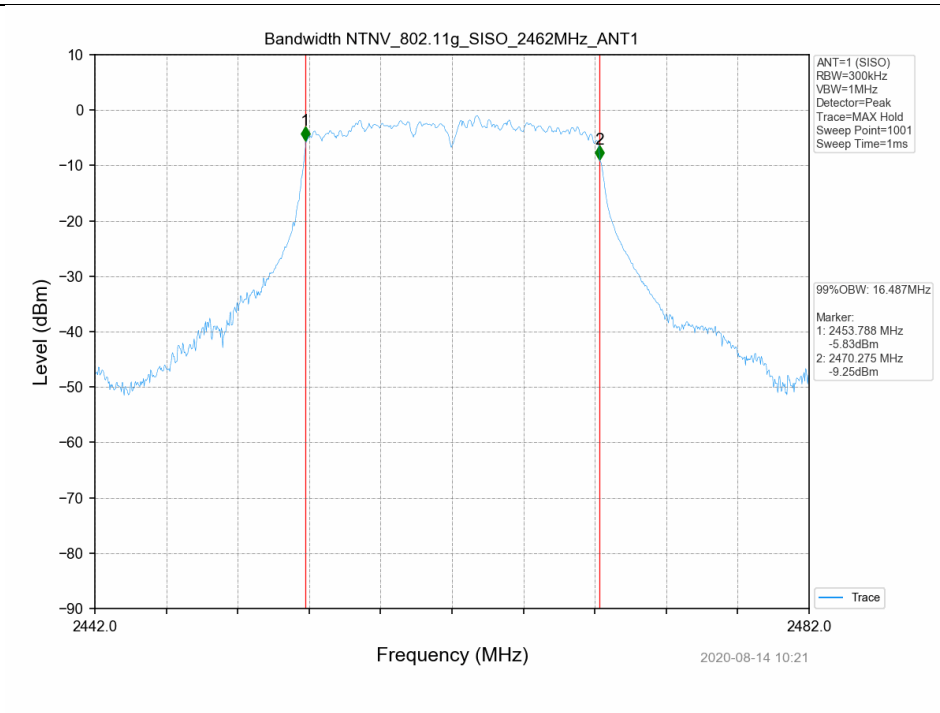


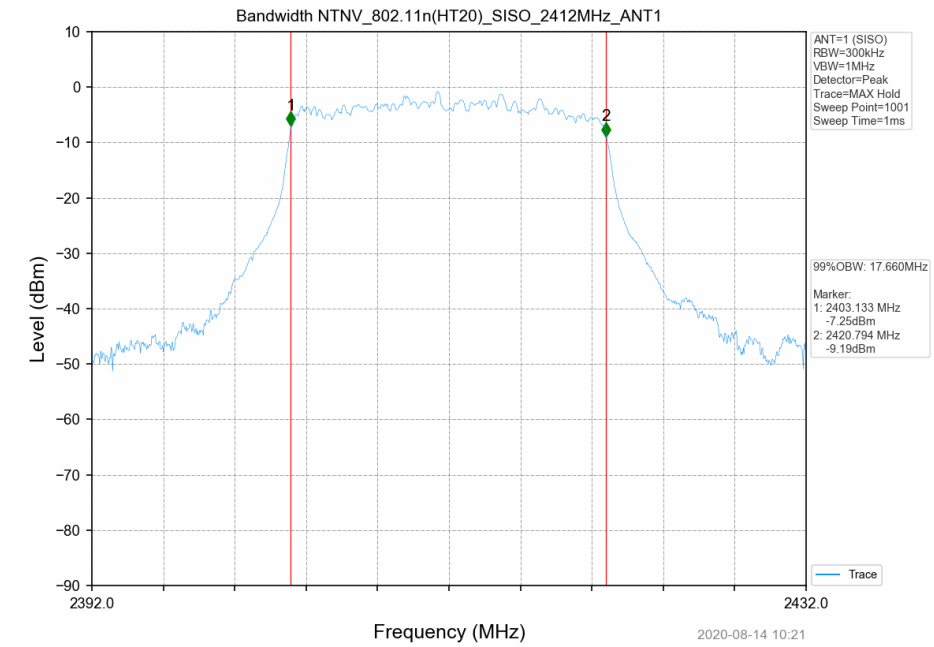



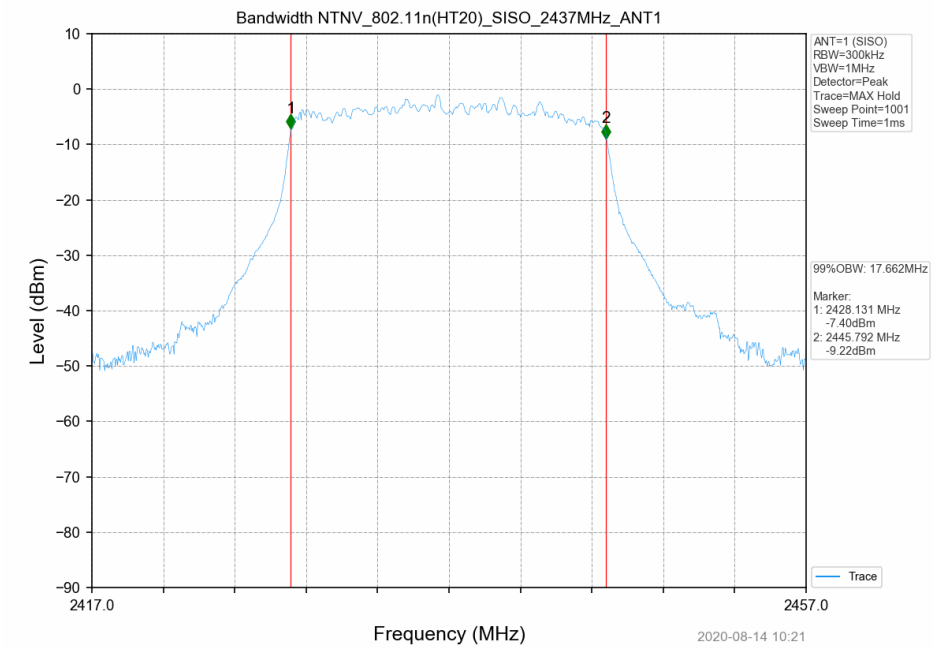

Bandwidth NTNV_802.11b_SISO_2462MHz_ANT1
ANT=1 (SISO)
RBW=300kHz
VBW=1MHz
Detector=Peak
Trace=MAX Hold
Sweep Point=1001
Sweep Time=1ms
99%OBW: 14.418MHz
Marker:
1: 2454.792 MHz
-9.33dBm
2: 2469.210 MHz
-10.00dBm
Level (dBm)
Frequency (MHz)
2442.0
2482.0
Trace
2020-08-14 10:21

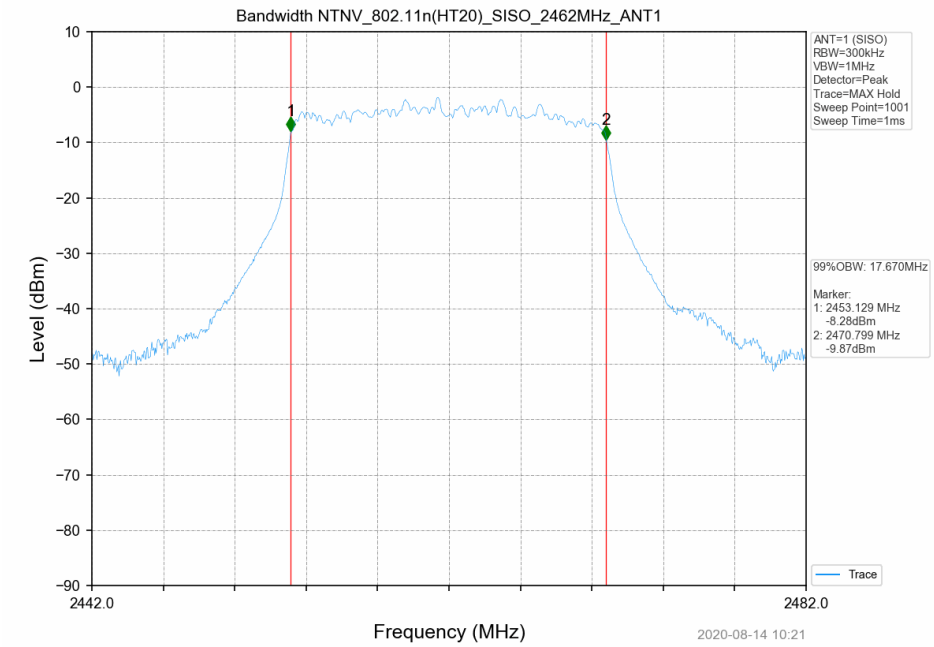

Bandwidth NTNV_802.11g_SISO_2412MHz_ANT1
ANT=1 (SISO)
RBW=300kHz
VBW=1MHz
Detector=Peak
Trace=MAX Hold
Sweep Point=1001
Sweep Time=1ms
99%OBW: 16.578MHz
Marker:
1: 2403.697 MHz
-6.74dBm
2: 2420.275 MHz
-7.22dBm
Level (dBm)
Frequency (MHz)
2392.0
2432.0
Trace
2020-08-14 10:21

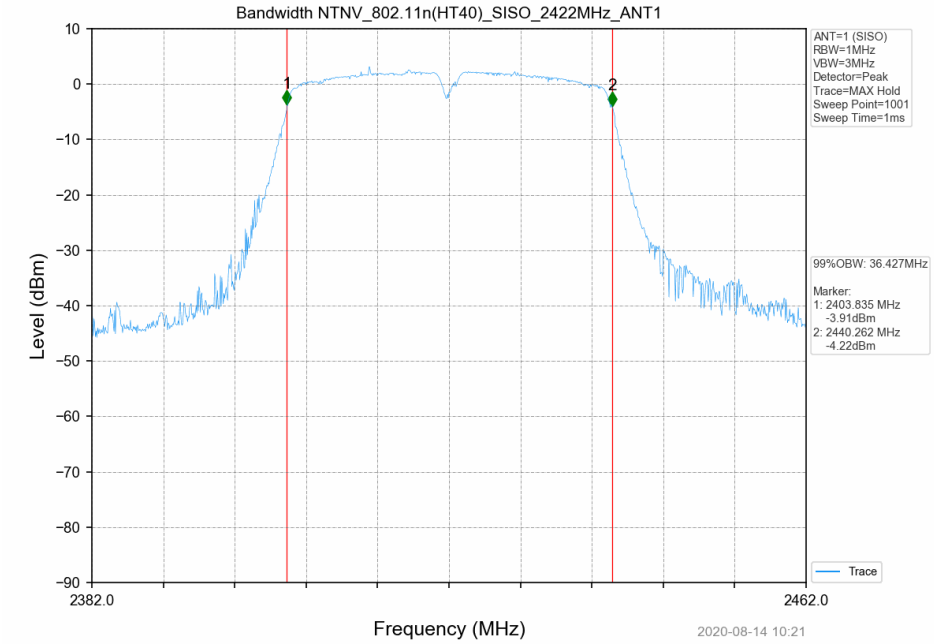

Bandwidth NTNV_802.11g_SISO_2437MHz_ANT1
ANT=1 (SISO)
RBW=300kHz
VBW=1MHz
Detector=Peak
Trace=MAX Hold
Sweep Point=1001
Sweep Time=1ms
99%OBW: 16.580MHz
Marker:
1: 2428.688 MHz
-7.78dBm
2: 2445.268 MHz
-7.54dBm
Trace
Level (dBm)
Frequency (MHz)
2417.0
2457.0
2020-08-14 10:21

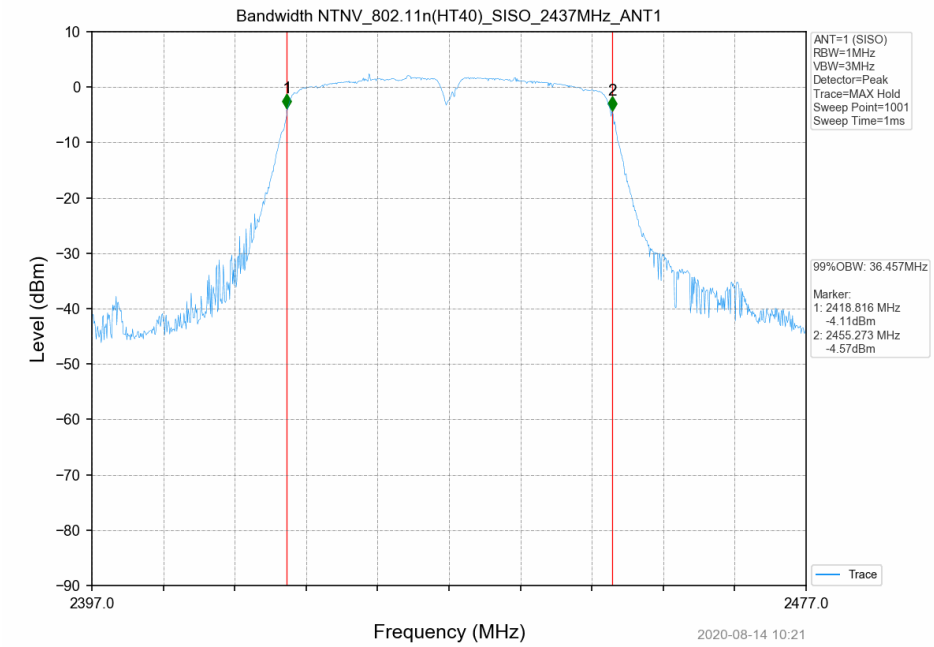

Bandwidth NTNV_802.11g_SISO_2462MHz_ANT1
ANT=1 (SISO)
RBW=300kHz
VBW=1MHz
Detector=Peak
Trace=MAX Hold
Sweep Point=1001
Sweep Time=1ms
99%OBW: 16.487MHz
Marker:
1: 2453.788 MHz
-5.83dBm
2: 2470.275 MHz
-9.25dBm
Trace
Level (dBm)
Frequency (MHz)
2442.0
2482.0
2020-08-14 10:21

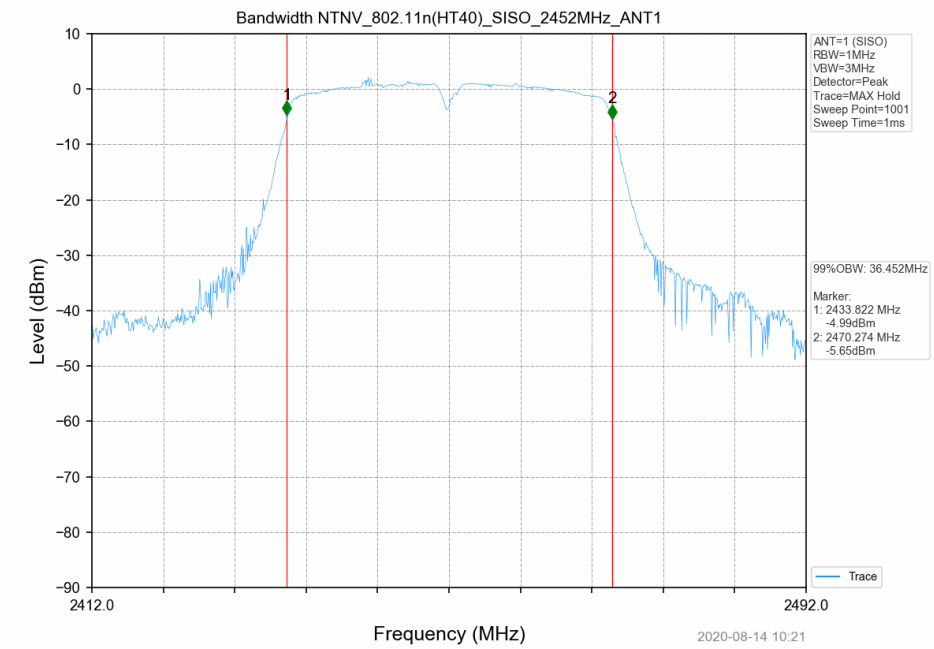

Bandwidth NTNV_802.11n(HT20)_SISO_2412MHz_ANT1
ANT=1 (SISO)
RBW=300kHz
VBW=1MHz
Detector=Peak
Trace=MAX Hold
Sweep Point=1001
Sweep Time=1ms
99%OBW: 17.660MHz
Marker:
1: 2403.133 MHz
-7.25dBm
2: 2420.794 MHz
-9.19dBm
Trace
Level (dBm)
Frequency (MHz)
2392.0
2432.0
2020-08-14 10:21


Bandwidth NTNV_802.11n(HT20)_SISO_2437MHz_ANT1
ANT=1 (SISO)
RBW=300kHz
VBW=1MHz
Detector=Peak
Trace=MAX Hold
Sweep Point=1001
Sweep Time=1ms
99%OBW: 17.662MHz
Marker:
1: 2428.131 MHz
-7.40dBm
2: 2445.792 MHz
-9.22dBm
Trace
Level (dBm)
Frequency (MHz)
2417.0
2457.0
2020-08-14 10:21


Bandwidth NTNV_802.11n(HT20)_SISO_2462MHz_ANT1
ANT=1 (SISO)
RBW=300kHz
VBW=1MHz
Detector=Peak
Trace=MAX Hold
Sweep Point=1001
Sweep Time=1ms
99%OBW: 17.670MHz
Marker:
1: 2453.129 MHz
-8.28dBm
2: 2470.799 MHz
-9.87dBm
Trace
Level (dBm)
Frequency (MHz)
2442.0
2482.0
2020-08-14 10:21


Bandwidth NTNV_802.11n(HT40)_SISO_2422MHz_ANT1
ANT=1 (SISO)
RBW=1MHz
VBW=3MHz
Detector=Peak
Trace=MAX Hold
Sweep Point=1001
Sweep Time=1ms
99%OBW: 36.427MHz
Marker:
1: 2403.835 MHz
-3.91dBm
2: 2440.262 MHz
-4.22dBm
Trace
Level (dBm)
Frequency (MHz)
2382.0
2462.0
2020-08-14 10:21


Bandwidth NTNV_802.11n(HT40)_SISO_2437MHz_ANT1
ANT=1 (SISO)
RBW=1MHz
VBW=3MHz
Detector=Peak
Trace=MAX Hold
Sweep Point=1001
Sweep Time=1ms
99%OBW: 36.457MHz
Marker:
1: 2418.816 MHz
-4.11dBm
2: 2455.273 MHz
-4.57dBm
Trace
Level (dBm)
Frequency (MHz)
2397.0
2477.0
2020-08-14 10:21

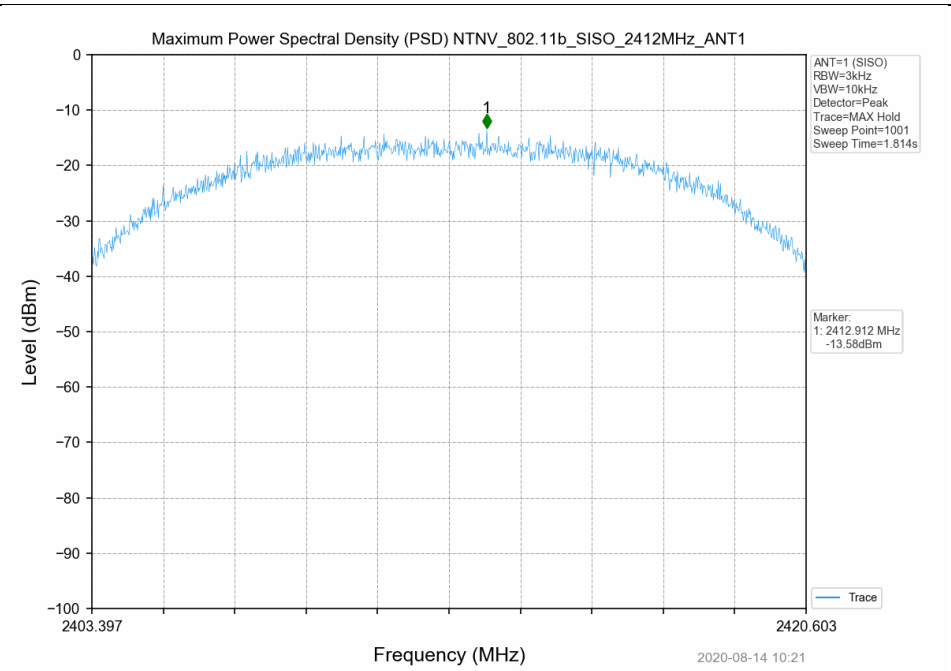

Bandwidth NTNV_802.11n(HT40)_SISO_2452MHz_ANT1
ANT=1 (SISO)
RBW=1MHz
VBW=3MHz
Detector=Peak
Trace=MAX Hold
Sweep Point=1001
Sweep Time=1ms
99%OBW: 36.452MHz
Marker:
1: 2433.822 MHz
-4.99dBm
2: 2470.274 MHz
-5.65dBm
Trace
Level (dBm)
Frequency (MHz)
2412.0
2492.0
2020-08-14 10:21

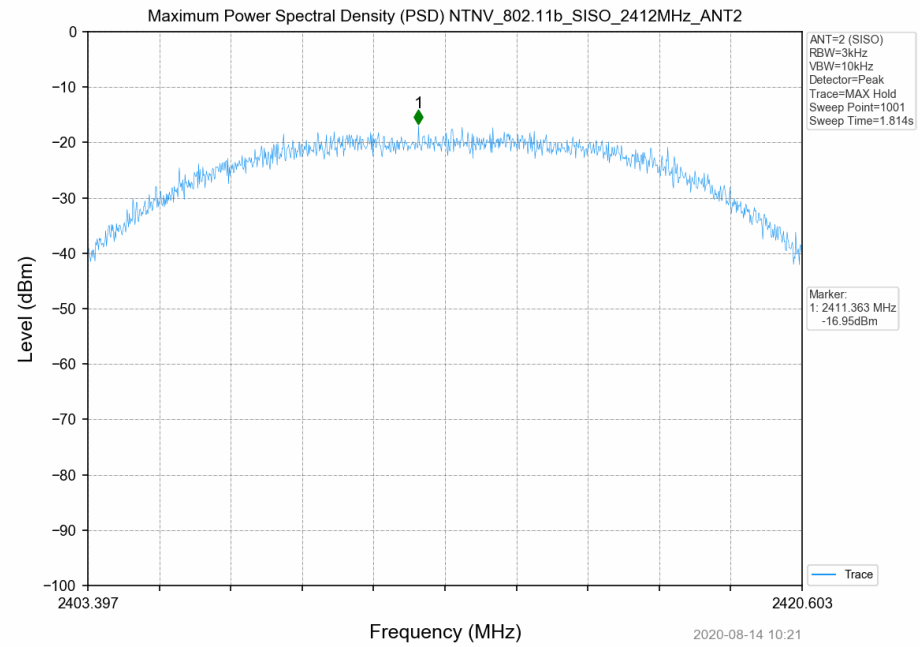
## 2. Maximum Power Spectral Density (PSD)

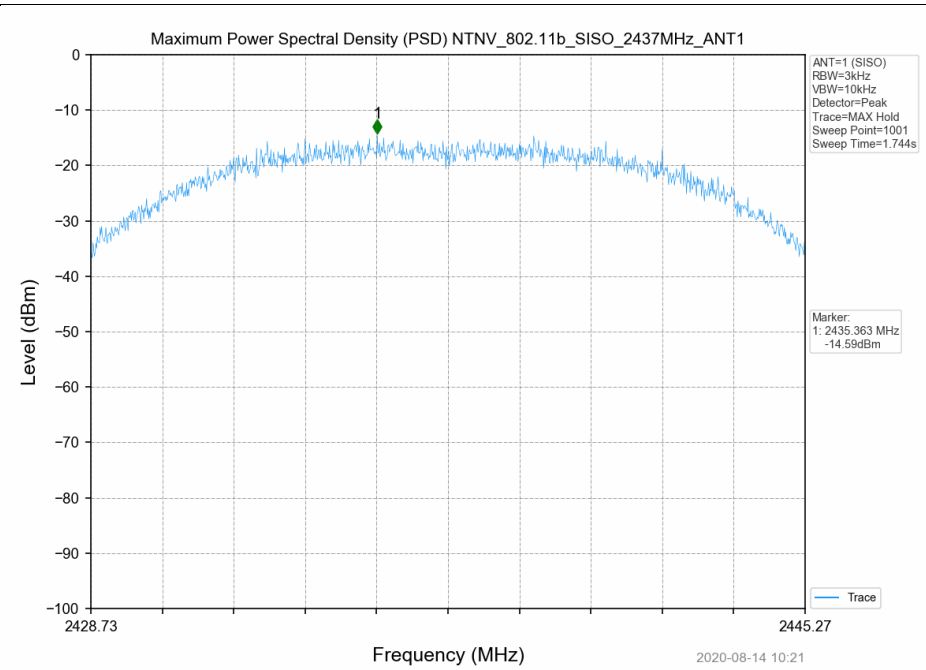
### 2.1 Test Result

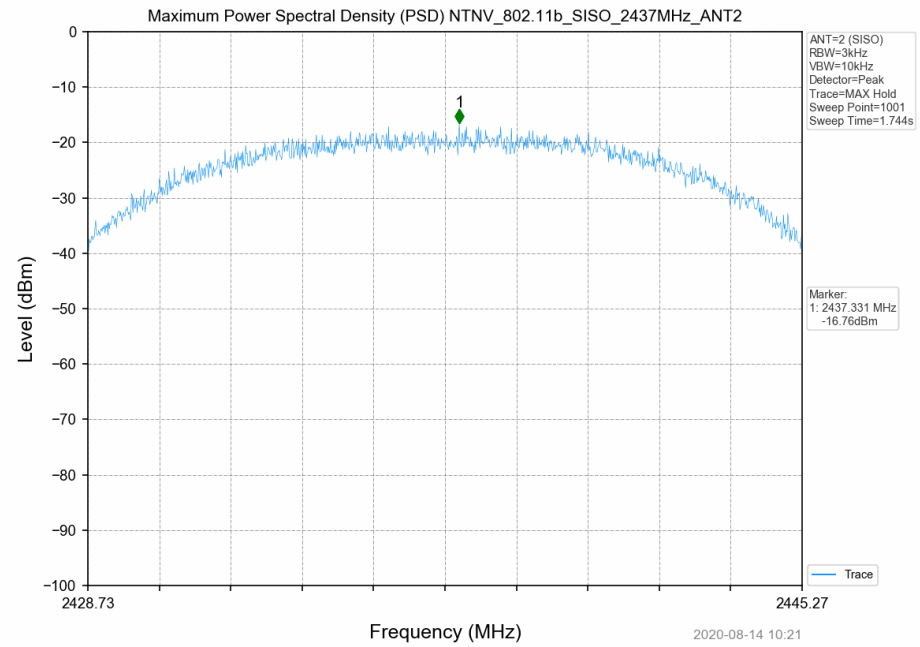
| Test Mode | Frequency (MHz) | Tx Type | Maximum Power Spectral Density (dBm/3KHz) | | Limits (dBm/3kHz) | Verdict |
|---|---|---|---|---|---|---|
| | | | Ant 1 | Ant 2 | | |
| 802.11b | 2412 | SISO | -13.58 | -16.95 | ≤8 | PASS |
| | 2437 | SISO | -14.59 | -16.76 | ≤8 | PASS |
| | 2462 | SISO | -14.92 | -16.42 | ≤8 | PASS |
| 802.11g | 2412 | SISO | -17.79 | -19.92 | ≤8 | PASS |
| | 2437 | SISO | -18.04 | -19.86 | ≤8 | PASS |
| | 2462 | SISO | -20.04 | -20.31 | ≤8 | PASS |
| 802.11n(HT20) | 2412 | SISO | -18.10 | -21.12 | ≤8 | PASS |
| | 2437 | SISO | -18.36 | -21.20 | ≤8 | PASS |
| | 2462 | SISO | -19.28 | -21.40 | ≤8 | PASS |
| 802.11n(HT40) | 2422 | SISO | -19.56 | -21.36 | ≤8 | PASS |
| | 2437 | SISO | -19.87 | -21.99 | ≤8 | PASS |
| | 2452 | SISO | -20.55 | -22.13 | ≤8 | PASS |

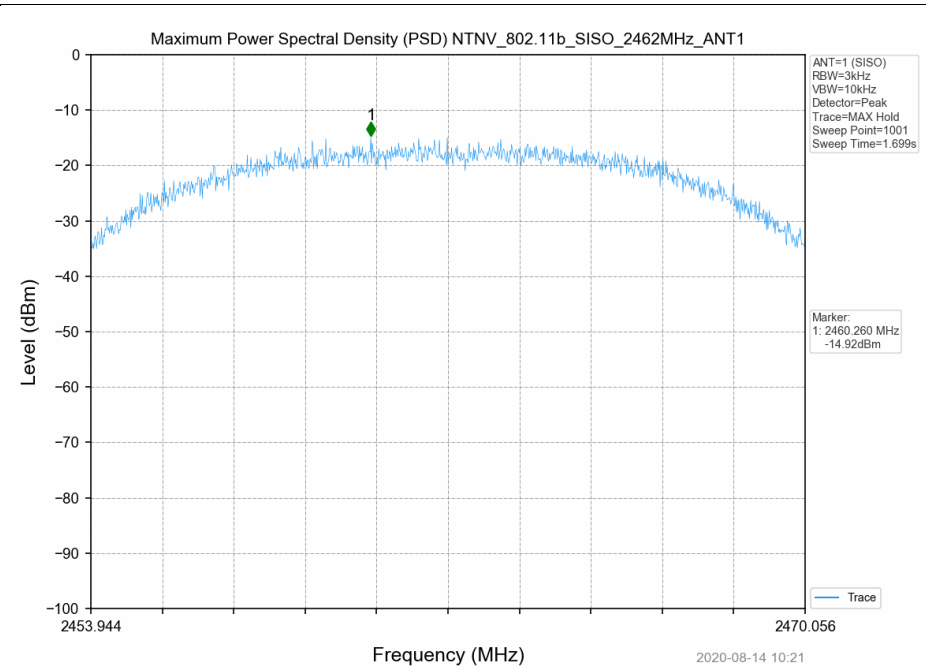
### 2.2 Test Graph

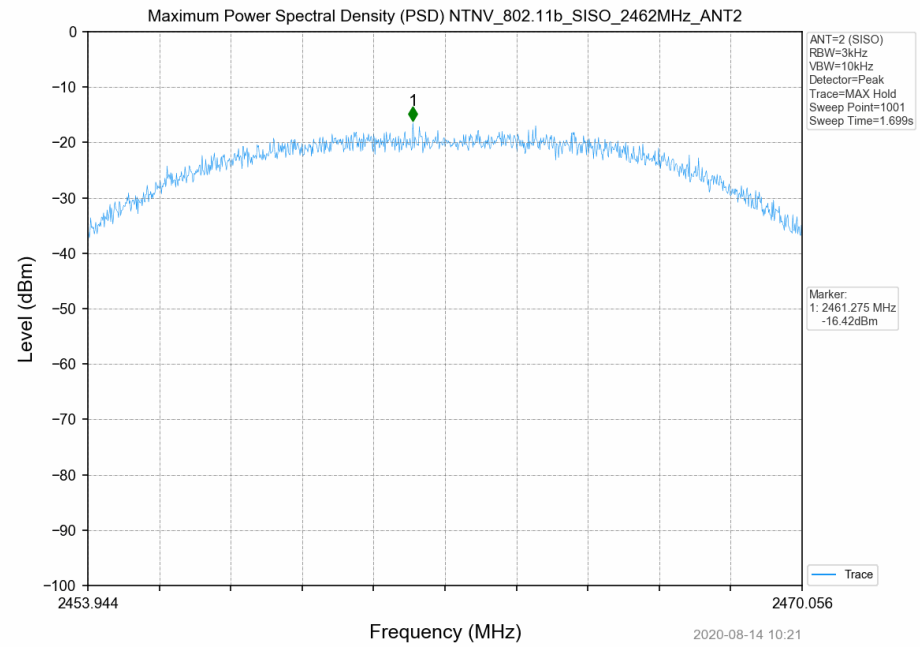


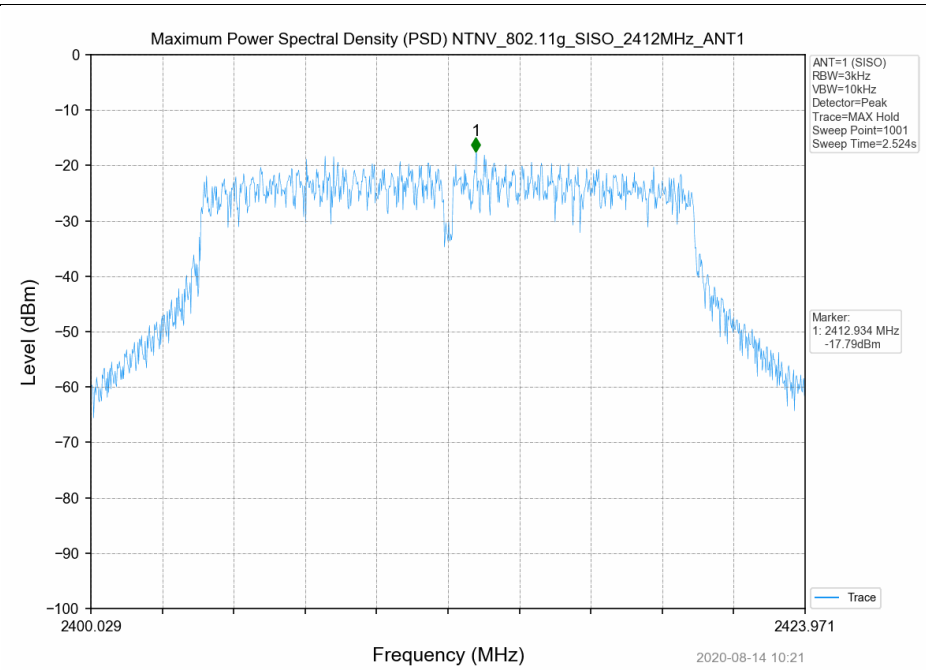

Maximum Power Spectral Density (PSD) NTNV_802.11b_SISO_2412MHz_ANT2
ANT=2 (SISO)
RBW=3kHz
VBW=10kHz
Detector=Peak
Trace=MAX Hold
Sweep Point=1001
Sweep Time=1.814s
Marker:
1: 2411.363 MHz
-16.95dBm
Trace
Level (dBm)
0
−10
−20
−30
−40
−50
−60
−70
−80
−90
−100
2403.397
2420.603
Frequency (MHz)
2020-08-14 10:21

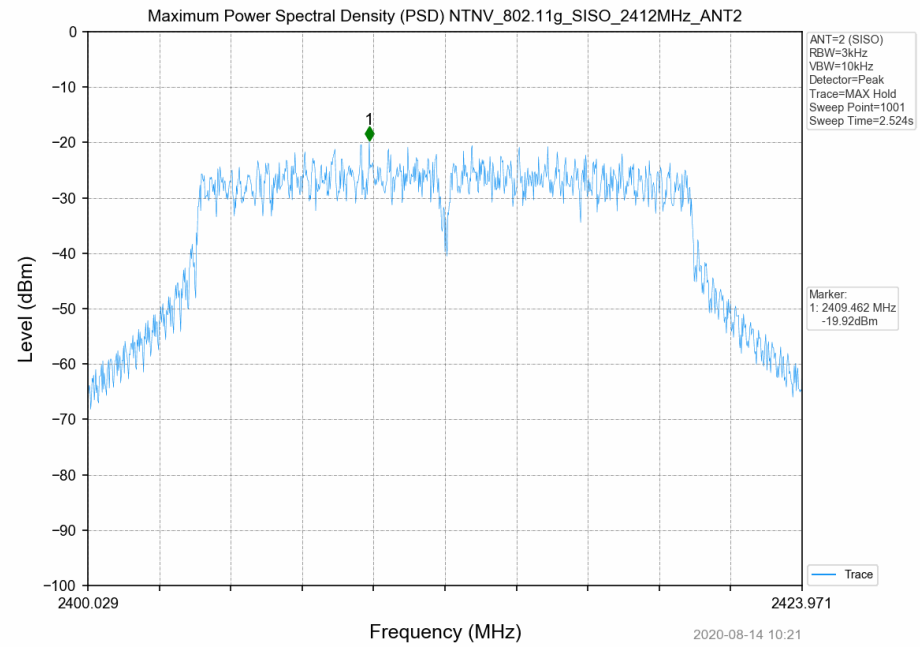

Maximum Power Spectral Density (PSD) NTNV_802.11b_SISO_2437MHz_ANT1
ANT=1 (SISO)
RBW=3kHz
VBW=10kHz
Detector=Peak
Trace=MAX Hold
Sweep Point=1001
Sweep Time=1.744s
Marker:
1: 2435.363 MHz
-14.59dBm
Trace
Level (dBm)
0
−10
−20
−30
−40
−50
−60
−70
−80
−90
−100
2428.73
2445.27
Frequency (MHz)
2020-08-14 10:21

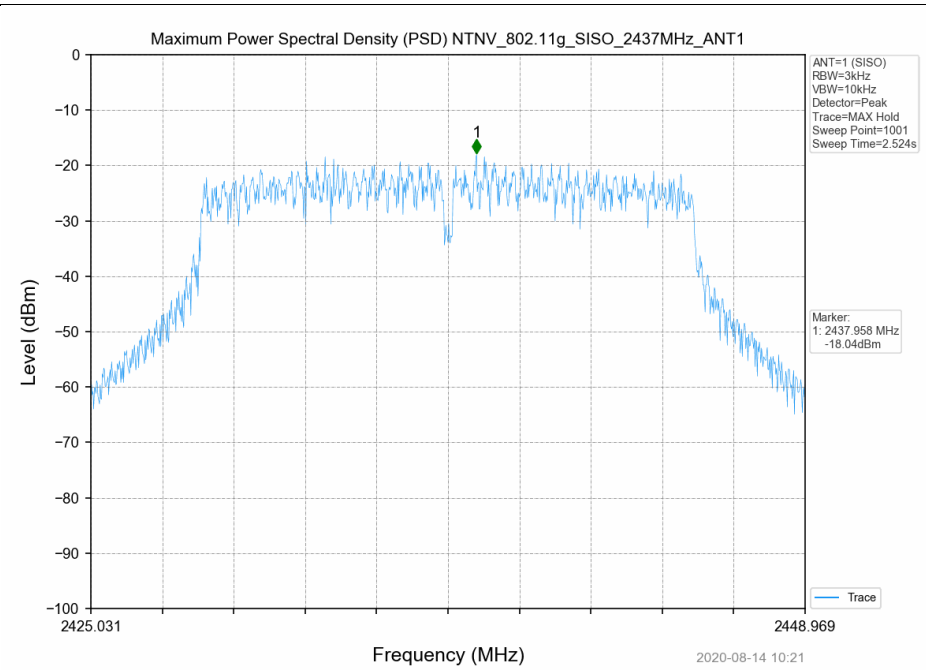

Maximum Power Spectral Density (PSD) NTNV_802.11b_SISO_2437MHz_ANT2
ANT=2 (SISO)
RBW=3kHz
VBW=10kHz
Detector=Peak
Trace=MAX Hold
Sweep Point=1001
Sweep Time=1.744s
Marker:
1: 2437.331 MHz
-16.76dBm
Trace
Level (dBm)
0
−10
−20
−30
−40
−50
−60
−70
−80
−90
−100
2428.73
2445.27
Frequency (MHz)
2020-08-14 10:21

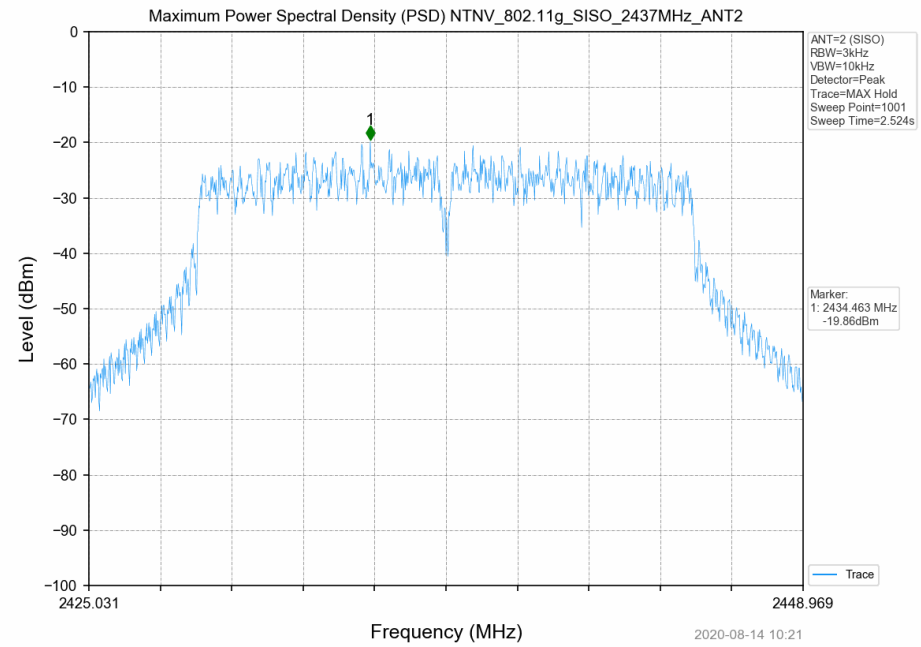

Maximum Power Spectral Density (PSD) NTNV_802.11b_SISO_2462MHz_ANT1
ANT=1 (SISO)
RBW=3kHz
VBW=10kHz
Detector=Peak
Trace=MAX Hold
Sweep Point=1001
Sweep Time=1.699s
Marker:
1: 2460.260 MHz
-14.92dBm
Trace
Level (dBm)
0
−10
−20
−30
−40
−50
−60
−70
−80
−90
−100
2453.944
2470.056
Frequency (MHz)
2020-08-14 10:21

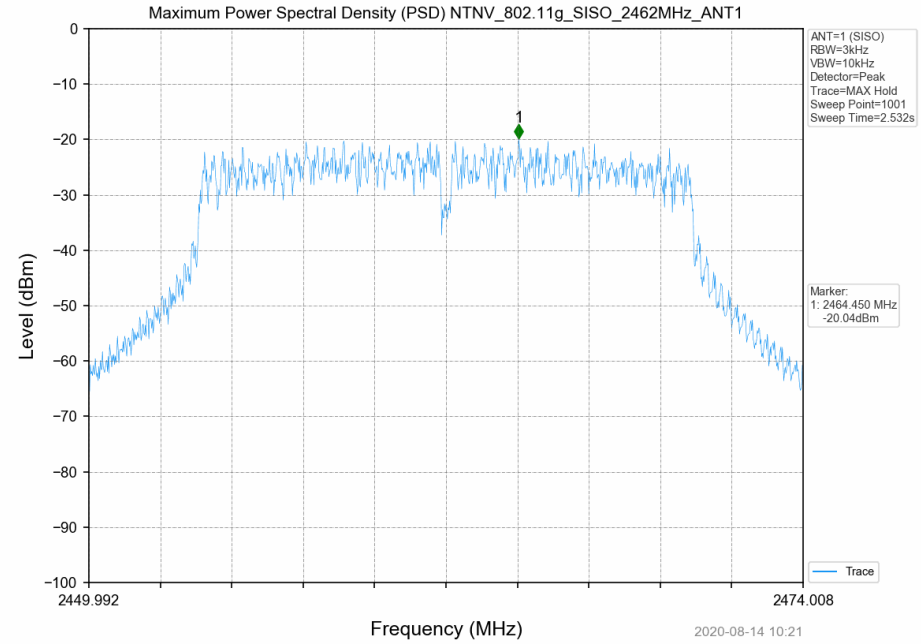

Maximum Power Spectral Density (PSD) NTNV_802.11b_SISO_2462MHz_ANT2
ANT=2 (SISO)
RBW=3kHz
VBW=10kHz
Detector=Peak
Trace=MAX Hold
Sweep Point=1001
Sweep Time=1.699s
Marker:
1: 2461.275 MHz
-16.42dBm
Trace
Level (dBm)
0
−10
−20
−30
−40
−50
−60
−70
−80
−90
−100
2453.944
2470.056
Frequency (MHz)
2020-08-14 10:21

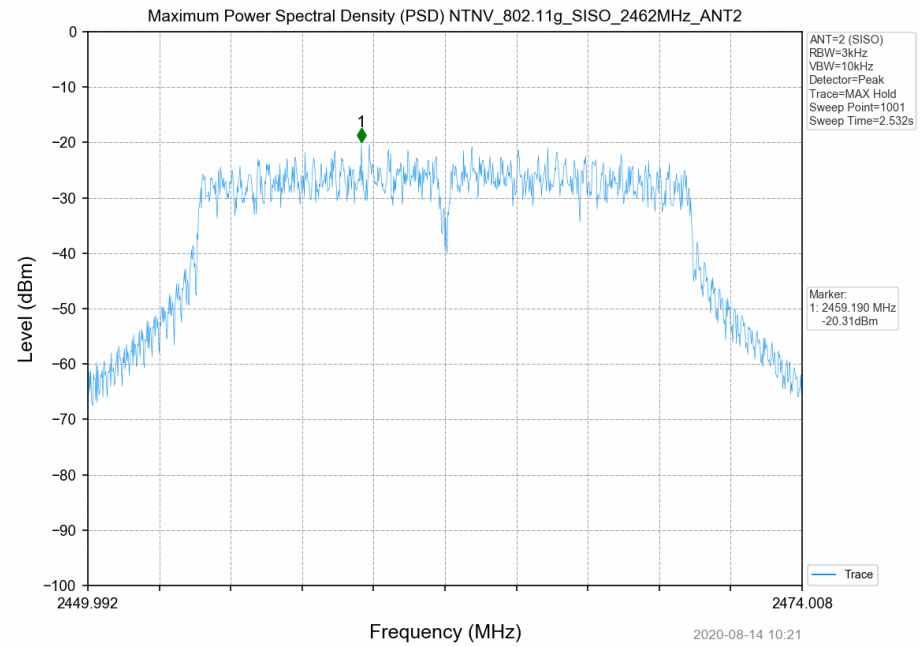

Maximum Power Spectral Density (PSD) NTNV_802.11g_SISO_2412MHz_ANT1
ANT=1 (SISO)
RBW=3kHz
VBW=10kHz
Detector=Peak
Trace=MAX Hold
Sweep Point=1001
Sweep Time=2.524s
Marker:
1: 2412.934 MHz
-17.79dBm
Trace
Level (dBm)
0
−10
−20
−30
−40
−50
−60
−70
−80
−90
−100
2400.029
2423.971
Frequency (MHz)
2020-08-14 10:21

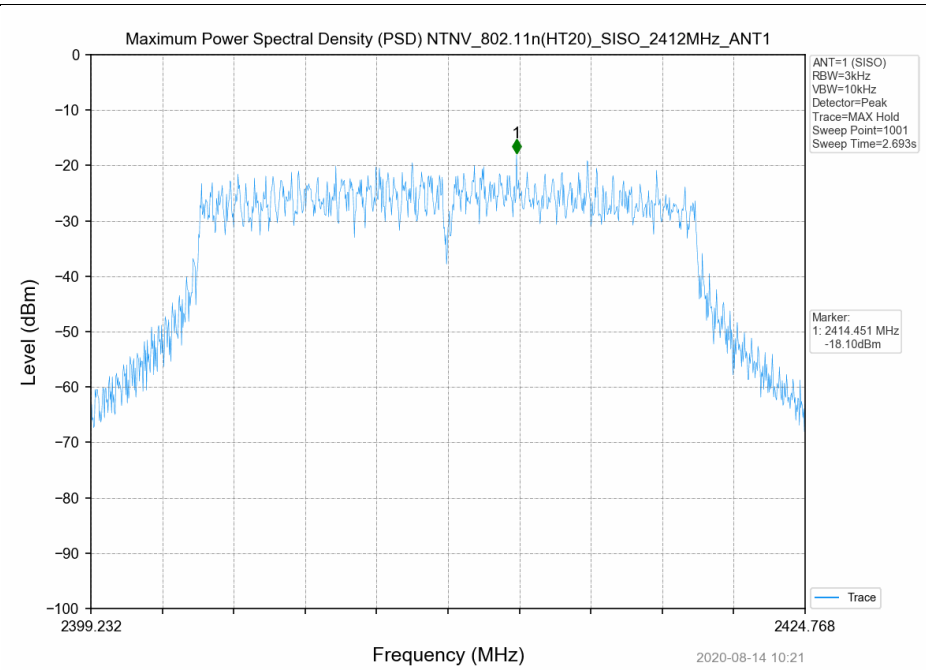

Maximum Power Spectral Density (PSD) NTNV_802.11g_SISO_2412MHz_ANT2
ANT=2 (SISO)
RBW=3kHz
VBW=10kHz
Detector=Peak
Trace=MAX Hold
Sweep Point=1001
Sweep Time=2.524s
Marker:
1: 2409.462 MHz
-19.92dBm
Trace
Level (dBm)
0
−10
−20
−30
−40
−50
−60
−70
−80
−90
−100
2400.029
2423.971
Frequency (MHz)
2020-08-14 10:21

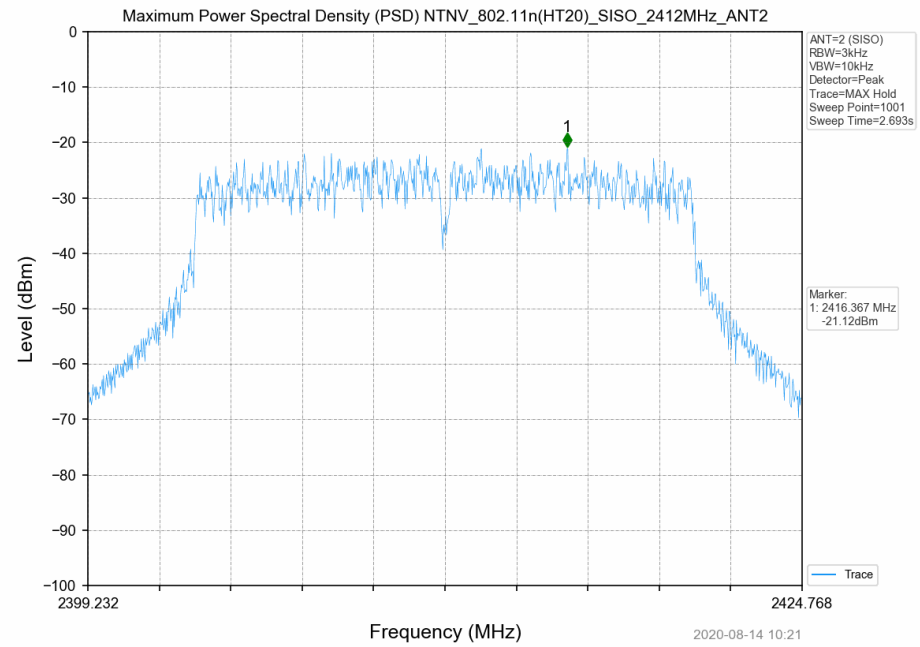

Maximum Power Spectral Density (PSD) NTNV_802.11g_SISO_2437MHz_ANT1
ANT=1 (SISO)
RBW=3kHz
VBW=10kHz
Detector=Peak
Trace=MAX Hold
Sweep Point=1001
Sweep Time=2.524s
Marker:
1: 2437.958 MHz
-18.04dBm
Trace
Level (dBm)
0
−10
−20
−30
−40
−50
−60
−70
−80
−90
−100
2425.031
2448.969
Frequency (MHz)
2020-08-14 10:21

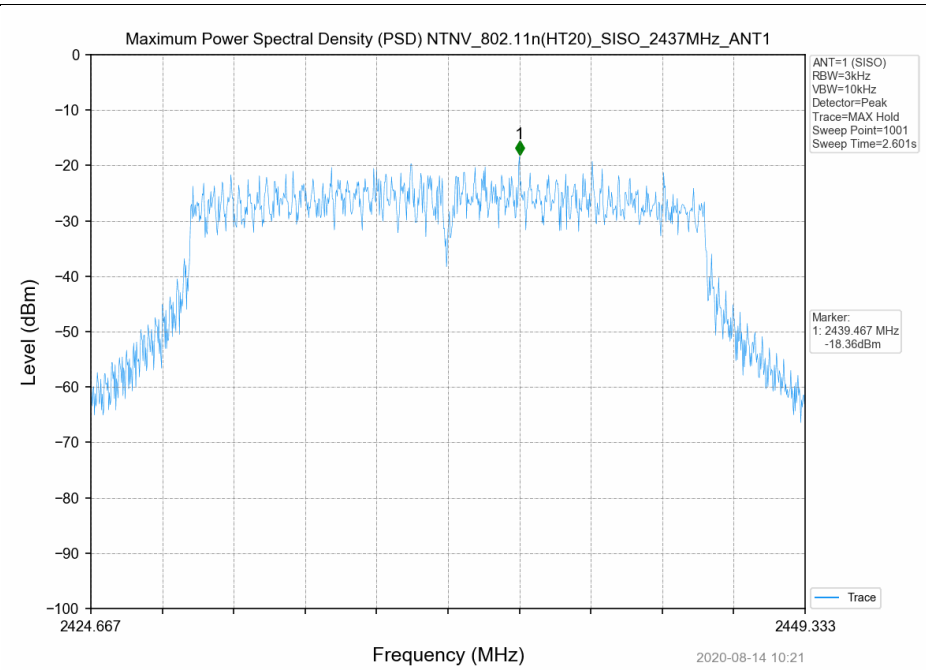

Maximum Power Spectral Density (PSD) NTNV_802.11g_SISO_2437MHz_ANT2
ANT=2 (SISO)
RBW=3kHz
VBW=10kHz
Detector=Peak
Trace=MAX Hold
Sweep Point=1001
Sweep Time=2.524s
Marker:
1: 2434.463 MHz
-19.86dBm
Trace
Level (dBm)
0
−10
−20
−30
−40
−50
−60
−70
−80
−90
−100
2425.031
2448.969
Frequency (MHz)
2020-08-14 10:21

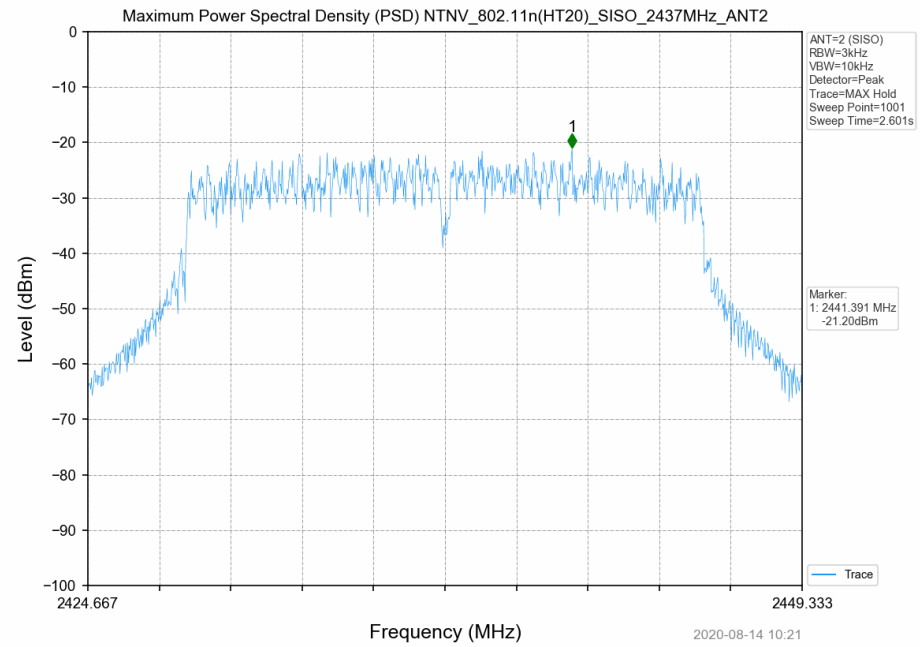

Maximum Power Spectral Density (PSD) NTNV_802.11g_SISO_2462MHz_ANT1
ANT=1 (SISO)
RBW=3kHz
VBW=10kHz
Detector=Peak
Trace=MAX Hold
Sweep Point=1001
Sweep Time=2.532s
Marker:
1: 2464.450 MHz
-20.04dBm
Trace
Level (dBm)
0
−10
−20
−30
−40
−50
−60
−70
−80
−90
−100
2449.992
2474.008
Frequency (MHz)
2020-08-14 10:21

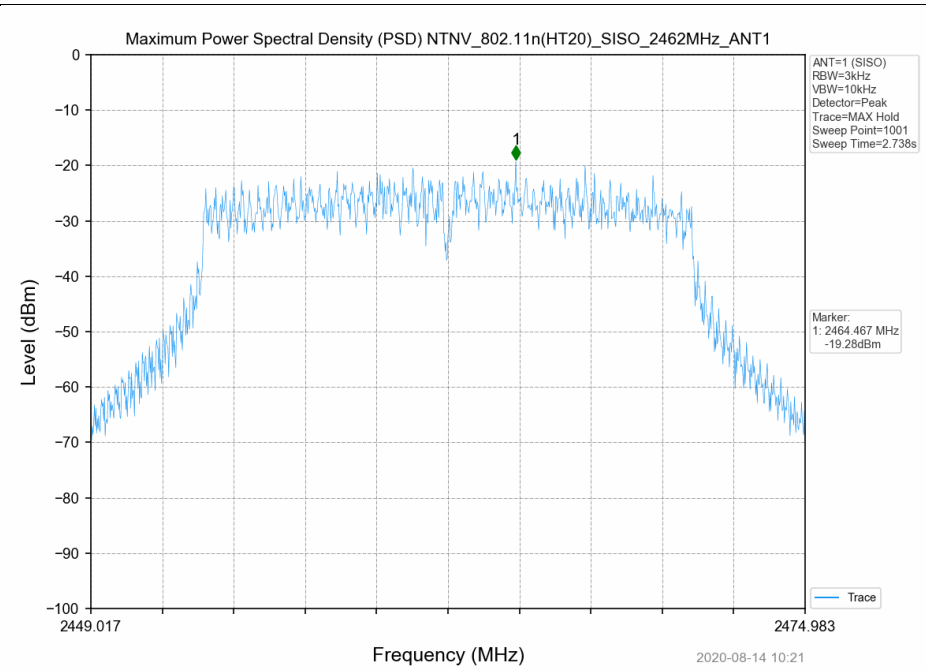

Maximum Power Spectral Density (PSD) NTNV_802.11g_SISO_2462MHz_ANT2
ANT=2 (SISO)
RBW=3kHz
VBW=10kHz
Detector=Peak
Trace=MAX Hold
Sweep Point=1001
Sweep Time=2.532s
Marker:
1: 2459.190 MHz
-20.31dBm
Trace
Level (dBm)
0
−10
−20
−30
−40
−50
−60
−70
−80
−90
−100
2449.992
2474.008
Frequency (MHz)
2020-08-14 10:21

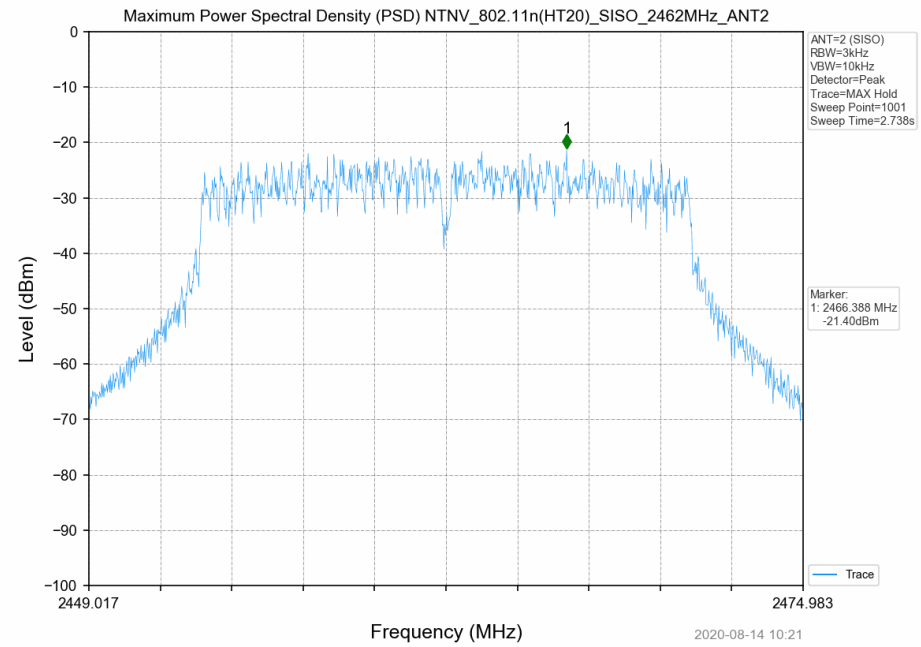

Maximum Power Spectral Density (PSD) NTNV_802.11n(HT20)_SISO_2412MHz_ANT1
ANT=1 (SISO)
RBW=3kHz
VBW=10kHz
Detector=Peak
Trace=MAX Hold
Sweep Point=1001
Sweep Time=2.693s
Marker:
1: 2414.451 MHz
-18.10dBm
Trace
Level (dBm)
0
−10
−20
−30
−40
−50
−60
−70
−80
−90
−100
2399.232
2424.768
Frequency (MHz)
2020-08-14 10:21

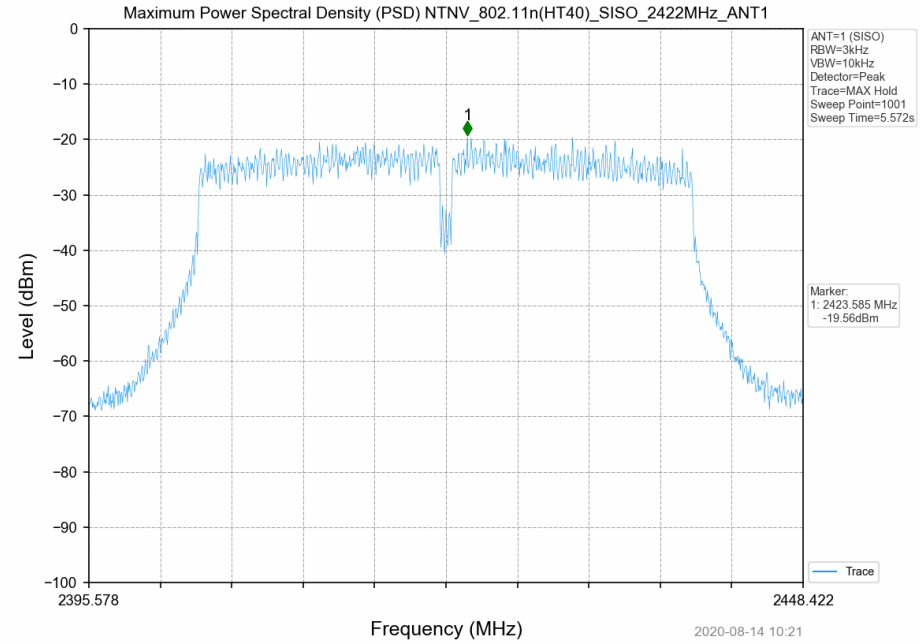

Maximum Power Spectral Density (PSD) NTNV_802.11n(HT20)_SISO_2412MHz_ANT2
ANT=2 (SISO)
RBW=3kHz
VBW=10kHz
Detector=Peak
Trace=MAX Hold
Sweep Point=1001
Sweep Time=2.693s
Marker:
1: 2416.367 MHz
-21.12dBm
Trace
Level (dBm)
0
−10
−20
−30
−40
−50
−60
−70
−80
−90
−100
2399.232
2424.768
Frequency (MHz)
2020-08-14 10:21

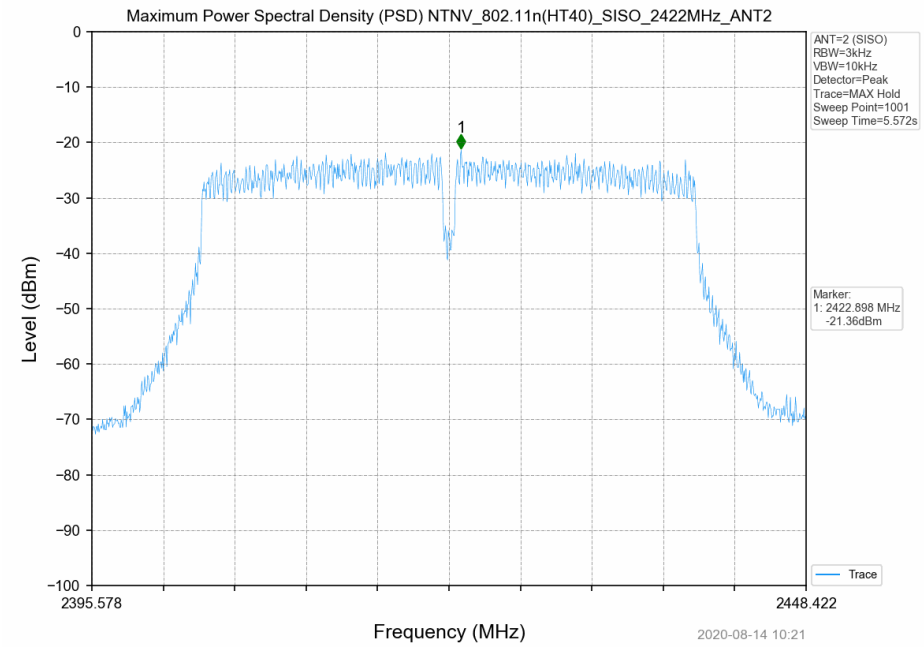

Maximum Power Spectral Density (PSD) NTNV_802.11n(HT20)_SISO_2437MHz_ANT1
ANT=1 (SISO)
RBW=3kHz
VBW=10kHz
Detector=Peak
Trace=MAX Hold
Sweep Point=1001
Sweep Time=2.601s
Marker:
1: 2439.467 MHz
-18.36dBm
Trace
Level (dBm)
0
−10
−20
−30
−40
−50
−60
−70
−80
−90
−100
2424.667
2449.333
Frequency (MHz)
2020-08-14 10:21

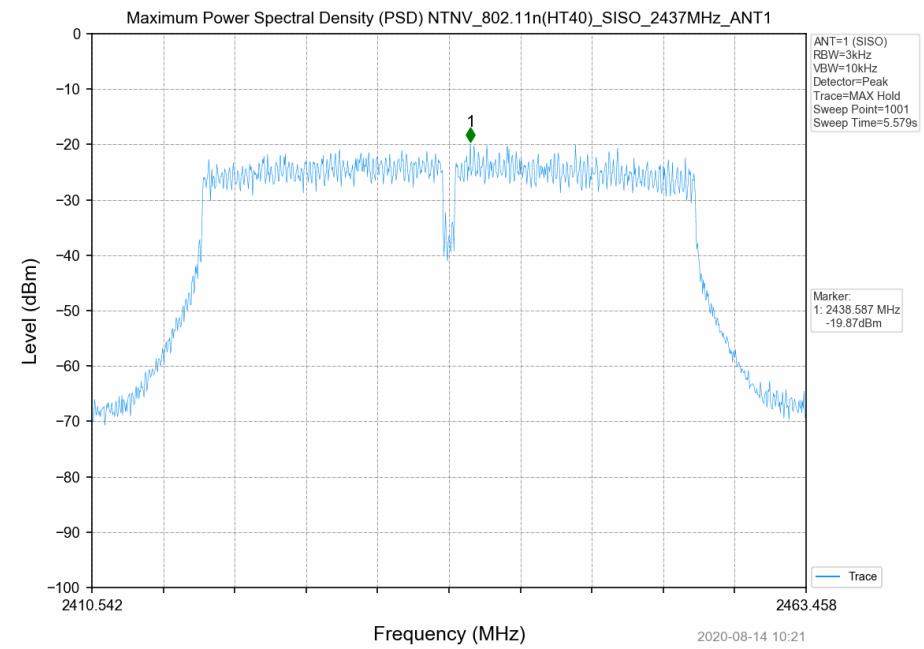

Maximum Power Spectral Density (PSD) NTNV_802.11n(HT20)_SISO_2437MHz_ANT2
ANT=2 (SISO)
RBW=3kHz
VBW=10kHz
Detector=Peak
Trace=MAX Hold
Sweep Point=1001
Sweep Time=2.601s
Marker:
1: 2441.391 MHz
-21.20dBm
Trace
Level (dBm)
0
−10
−20
−30
−40
−50
−60
−70
−80
−90
−100
2424.667
2449.333
Frequency (MHz)
2020-08-14 10:21

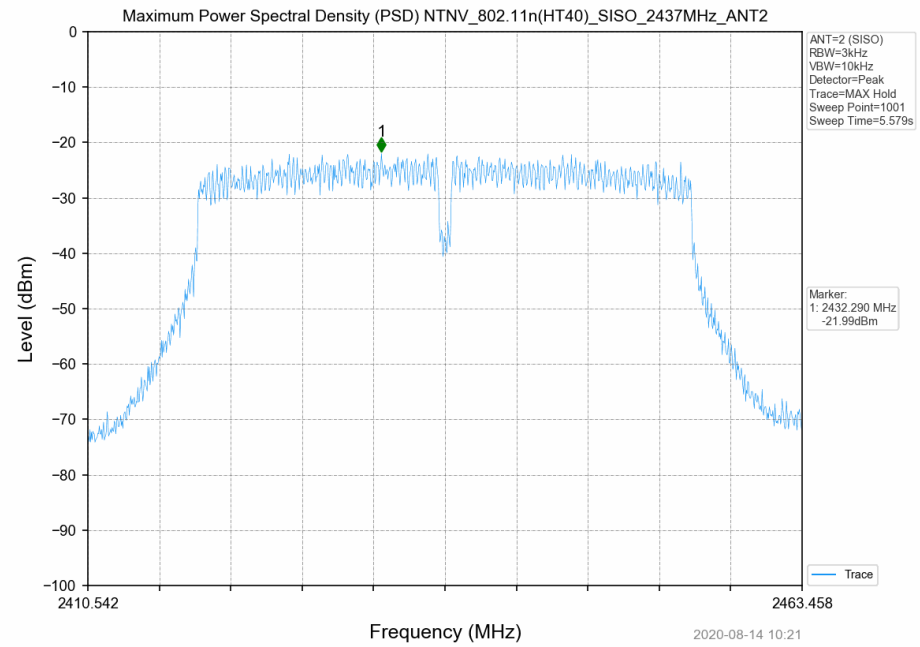

Maximum Power Spectral Density (PSD) NTNV_802.11n(HT20)_SISO_2462MHz_ANT1
ANT=1 (SISO)
RBW=3kHz
VBW=10kHz
Detector=Peak
Trace=MAX Hold
Sweep Point=1001
Sweep Time=2.738s
Marker:
1: 2464.467 MHz
-19.28dBm
Trace
Level (dBm)
0
−10
−20
−30
−40
−50
−60
−70
−80
−90
−100
2449.017
2474.983
Frequency (MHz)
2020-08-14 10:21

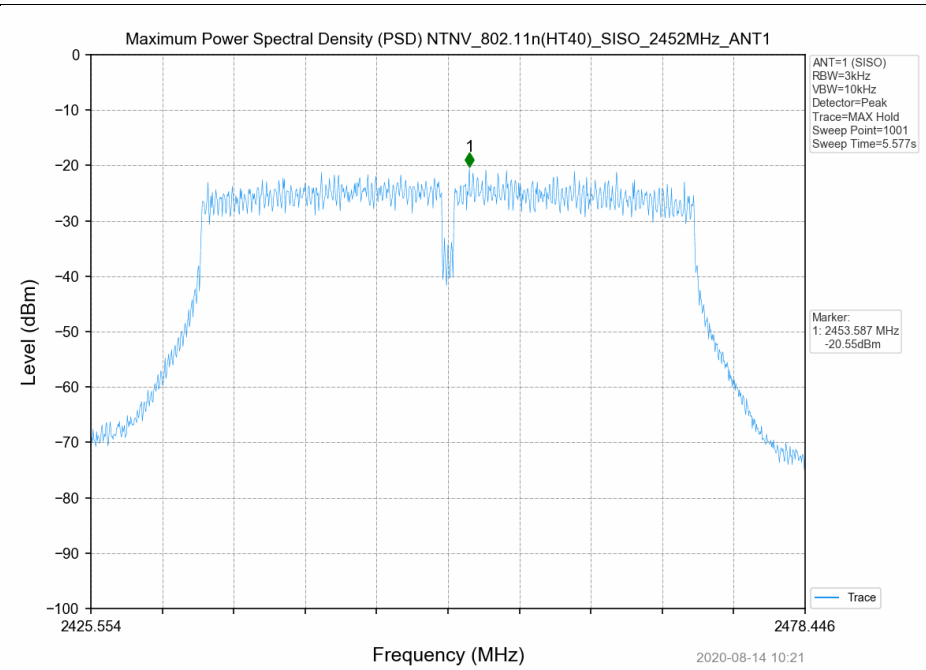

Maximum Power Spectral Density (PSD) NTNV_802.11n(HT20)_SISO_2462MHz_ANT2
ANT=2 (SISO)
RBW=3kHz
VBW=10kHz
Detector=Peak
Trace=MAX Hold
Sweep Point=1001
Sweep Time=2.738s
Marker:
1: 2466.388 MHz
-21.40dBm
Trace
Level (dBm)
0
−10
−20
−30
−40
−50
−60
−70
−80
−90
−100
2449.017
2474.983
Frequency (MHz)
2020-08-14 10:21

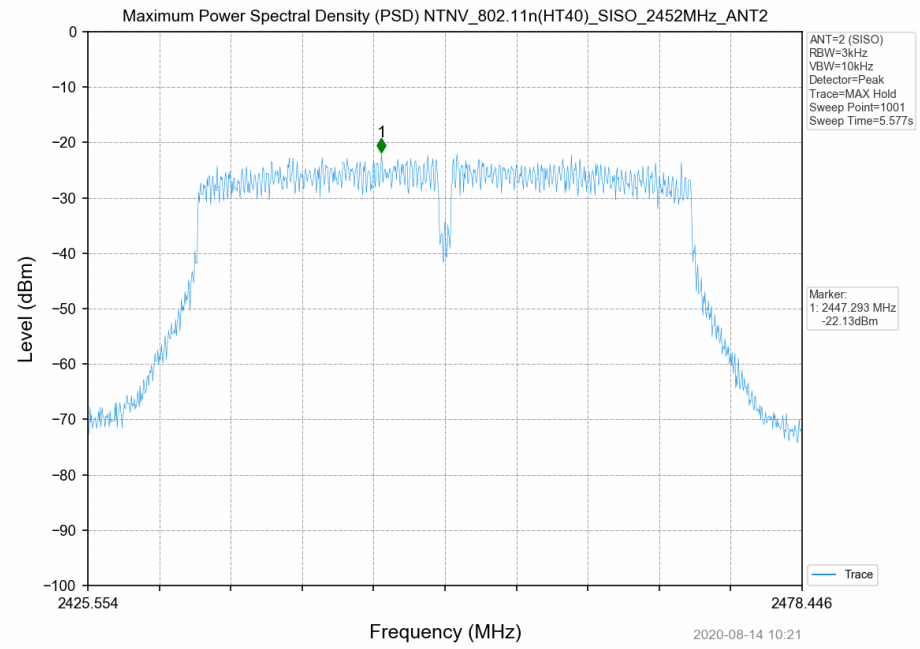

Maximum Power Spectral Density (PSD) NTNV_802.11n(HT40)_SISO_2422MHz_ANT1
ANT=1 (SISO)
RBW=3kHz
VBW=10kHz
Detector=Peak
Trace=MAX Hold
Sweep Point=1001
Sweep Time=5.572s
Marker:
1: 2423.585 MHz
-19.56dBm
Trace
Level (dBm)
0
−10
−20
−30
−40
−50
−60
−70
−80
−90
−100
2395.578
2448.422
Frequency (MHz)
2020-08-14 10:21


Maximum Power Spectral Density (PSD) NTNV_802.11n(HT40)_SISO_2422MHz_ANT2
ANT=2 (SISO)
RBW=3kHz
VBW=10kHz
Detector=Peak
Trace=MAX Hold
Sweep Point=1001
Sweep Time=5.572s
Marker:
1: 2422.898 MHz
-21.36dBm
Trace
Level (dBm)
0
−10
−20
−30
−40
−50
−60
−70
−80
−90
−100
2395.578
2448.422
Frequency (MHz)
2020-08-14 10:21


Maximum Power Spectral Density (PSD) NTNV_802.11n(HT40)_SISO_2437MHz_ANT1
ANT=1 (SISO)
RBW=3kHz
VBW=10kHz
Detector=Peak
Trace=MAX Hold
Sweep Point=1001
Sweep Time=5.579s
Marker:
1: 2438.587 MHz
-19.87dBm
Trace
Level (dBm)
0
−10
−20
−30
−40
−50
−60
−70
−80
−90
−100
2410.542
2463.458
Frequency (MHz)
2020-08-14 10:21


Maximum Power Spectral Density (PSD) NTNV_802.11n(HT40)_SISO_2437MHz_ANT2
ANT=2 (SISO)
RBW=3kHz
VBW=10kHz
Detector=Peak
Trace=MAX Hold
Sweep Point=1001
Sweep Time=5.579s
Marker:
1: 2432.290 MHz
-21.99dBm
Level (dBm)
0
−10
−20
−30
−40
−50
−60
−70
−80
−90
−100
2410.542
2463.458
Frequency (MHz)
Trace
2020-08-14 10:21


Maximum Power Spectral Density (PSD) NTNV_802.11n(HT40)_SISO_2452MHz_ANT1
ANT=1 (SISO)
RBW=3kHz
VBW=10kHz
Detector=Peak
Trace=MAX Hold
Sweep Point=1001
Sweep Time=5.577s
Marker:
1: 2453.587 MHz
-20.55dBm
Level (dBm)
0
−10
−20
−30
−40
−50
−60
−70
−80
−90
−100
2425.554
2478.446
Frequency (MHz)
Trace
2020-08-14 10:21

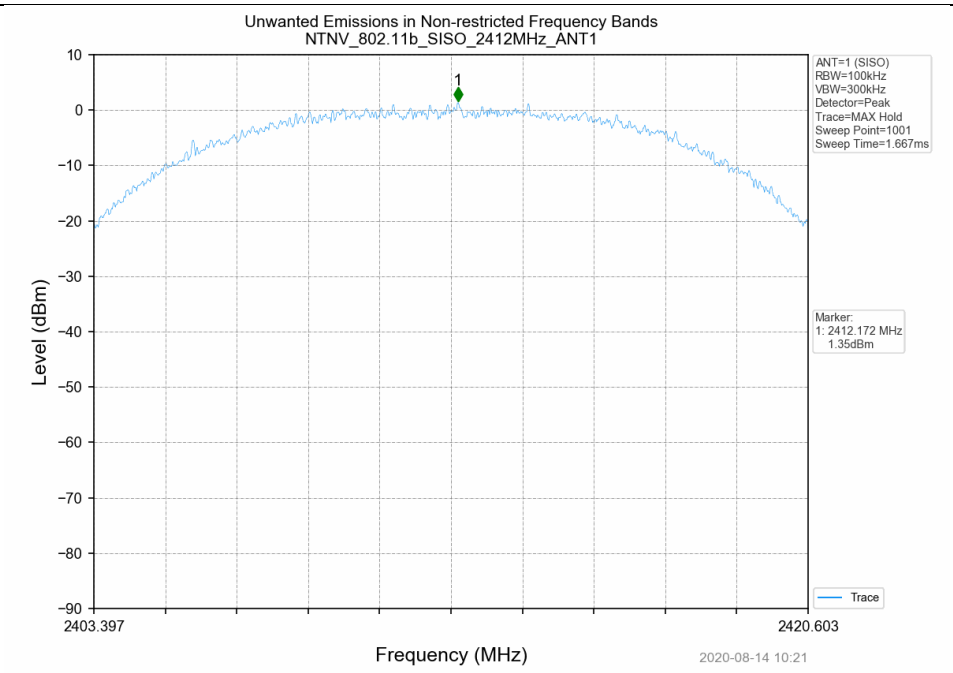

Maximum Power Spectral Density (PSD) NTNV_802.11n(HT40)_SISO_2452MHz_ANT2
ANT=2 (SISO)
RBW=3kHz
VBW=10kHz
Detector=Peak
Trace=MAX Hold
Sweep Point=1001
Sweep Time=5.577s
Marker:
1: 2447.293 MHz
-22.13dBm
Trace
Level (dBm)
0
−10
−20
−30
−40
−50
−60
−70
−80
−90
−100
2425.554
2478.446
Frequency (MHz)
2020-08-14 10:21

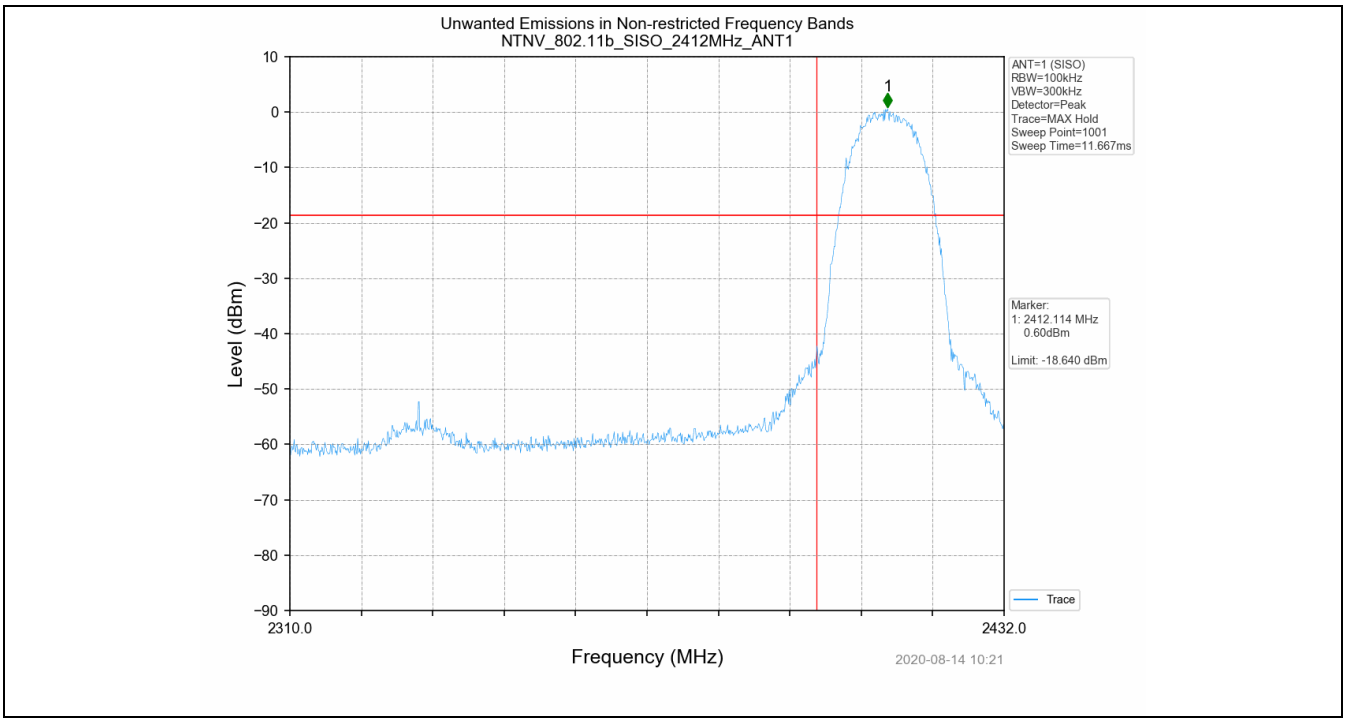
# 3. Unwanted Emissions in Non-restricted Frequency Bands

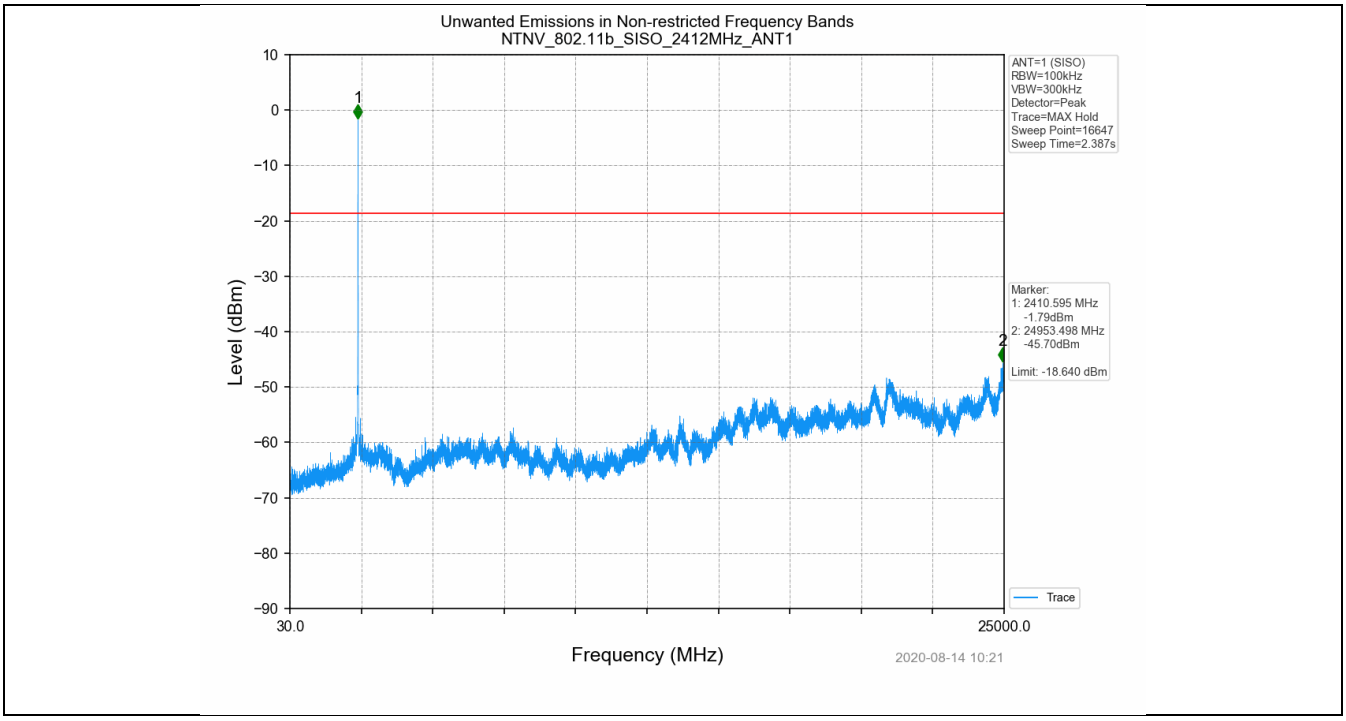
## 3.1 Test Result

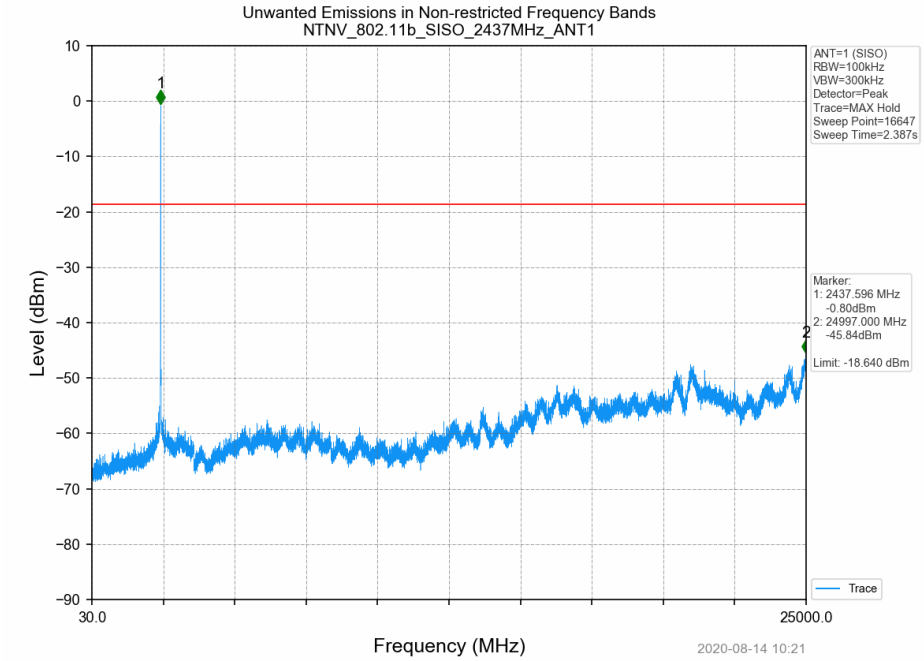
| Test Mode | Frequency (MHz) | TX Type | ANT No. | Spurious Conducted Emission (dBm) | Limits (dBm) | Verdict |
|---|---|---|---|---|---|---|
| 802.11b | 2412 | SISO | 1 | Refer to test graph | -18.64 | PASS |
| | 2437 | SISO | 1 | Refer to test graph | -18.64 | PASS |
| | 2462 | SISO | 1 | Refer to test graph | -18.64 | PASS |
| 802.11g | 2412 | SISO | 1 | Refer to test graph | -21.99 | PASS |
| | 2437 | SISO | 1 | Refer to test graph | -21.99 | PASS |
| | 2462 | SISO | 1 | Refer to test graph | -21.99 | PASS |
| 802.11n(HT20) | 2412 | SISO | 1 | Refer to test graph | -23.30 | PASS |
| | 2437 | SISO | 1 | Refer to test graph | -23.30 | PASS |
| | 2462 | SISO | 1 | Refer to test graph | -23.30 | PASS |
| 802.11n(HT40) | 2422 | SISO | 1 | Refer to test graph | -25.24 | PASS |
| | 2437 | SISO | 1 | Refer to test graph | -25.24 | PASS |
| | 2452 | SISO | 1 | Refer to test graph | -25.24 | PASS |

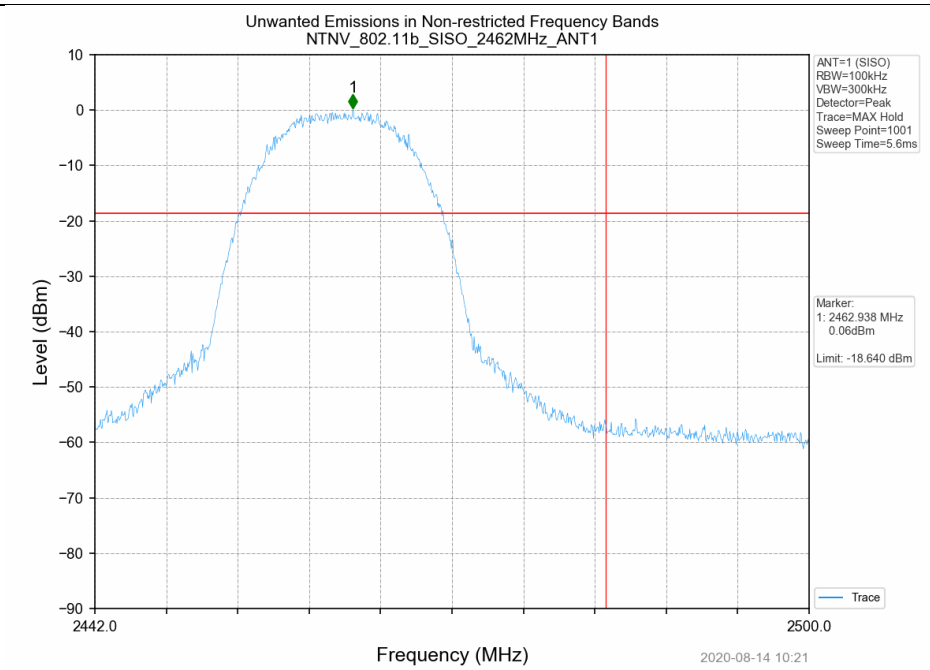
## 3.2 Test Graph

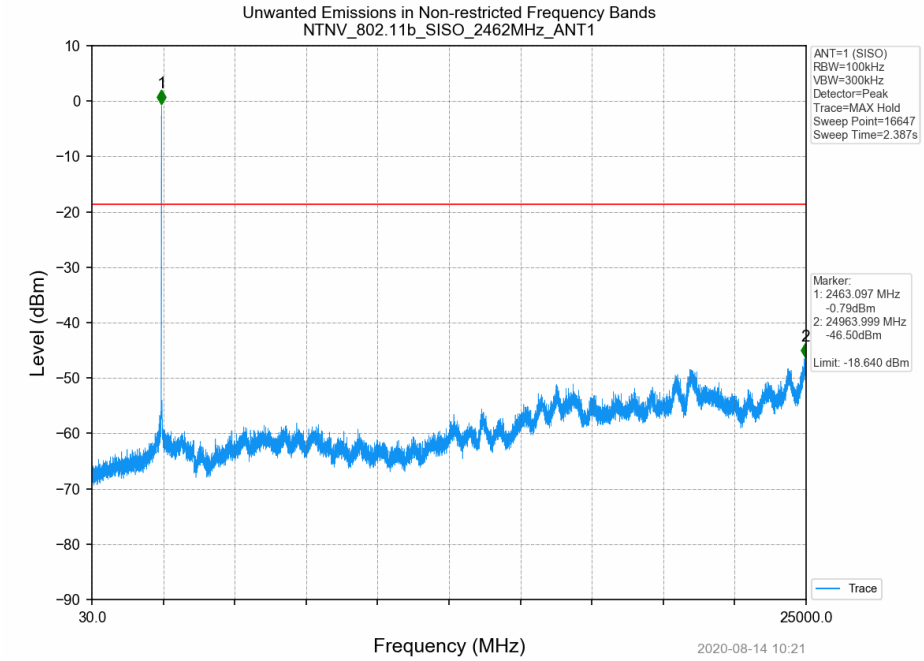


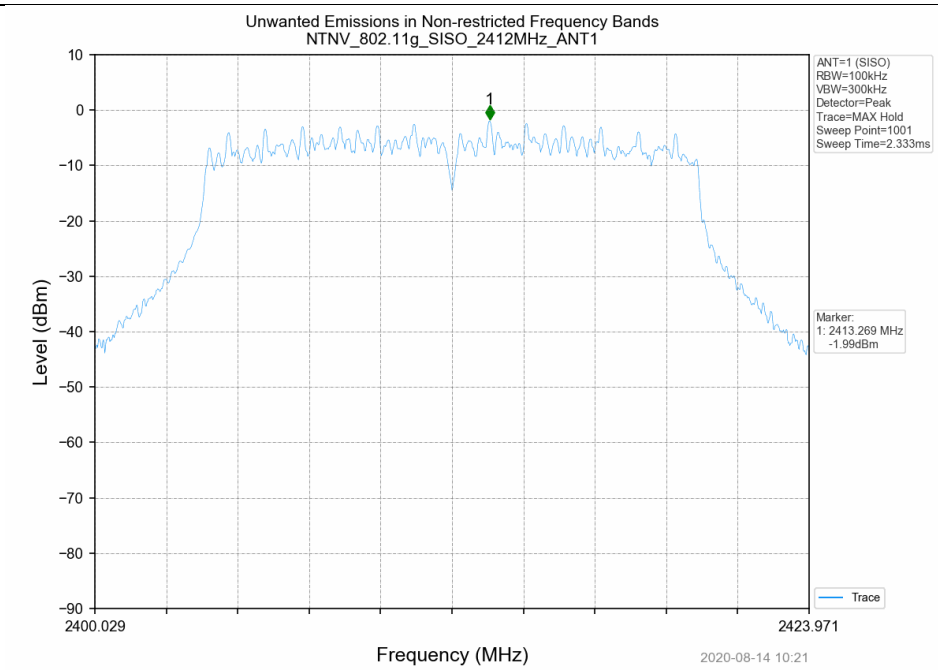

Unwanted Emissions in Non-restricted Frequency Bands
NTNV_802.11b_SISO_2412MHz_ANT1
ANT=1 (SISO)
RBW=100kHz
VBW=300kHz
Detector=Peak
Trace=MAX Hold
Sweep Point=1001
Sweep Time=11.667ms
Marker:
1: 2412.114 MHz
0.60dBm
Limit: -18.640 dBm
Trace
Level (dBm)
Frequency (MHz)
2310.0
2432.0
2020-08-14 10:21

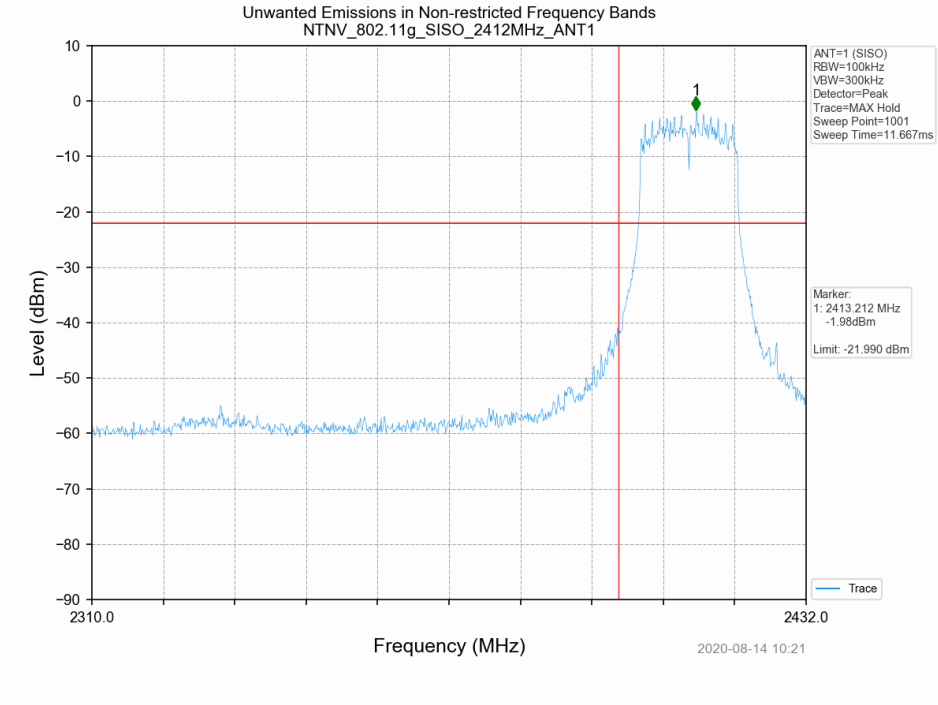

Unwanted Emissions in Non-restricted Frequency Bands
NTNV_802.11b_SISO_2412MHz_ANT1
ANT=1 (SISO)
RBW=100kHz
VBW=300kHz
Detector=Peak
Trace=MAX Hold
Sweep Point=16647
Sweep Time=2.387s
Marker:
1: 2410.595 MHz
-1.79dBm
2: 24953.498 MHz
-45.70dBm
Limit: -18.640 dBm
Trace
Level (dBm)
Frequency (MHz)
30.0
25000.0
2020-08-14 10:21

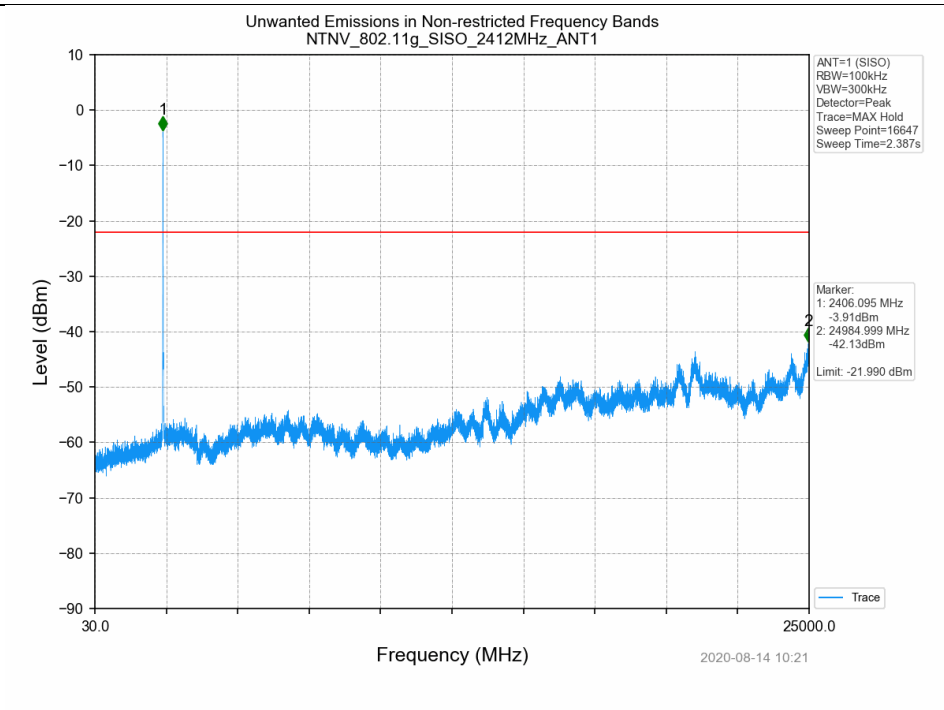

Unwanted Emissions in Non-restricted Frequency Bands
NTNV_802.11b_SISO_2437MHz_ANT1
ANT=1 (SISO)
RBW=100kHz
VBW=300kHz
Detector=Peak
Trace=MAX Hold
Sweep Point=16647
Sweep Time=2.387s
Marker:
1: 2437.596 MHz
-0.80dBm
2: 24997.000 MHz
-45.84dBm
Limit: -18.640 dBm
Trace
Level (dBm)
Frequency (MHz)
30.0
25000.0
2020-08-14 10:21

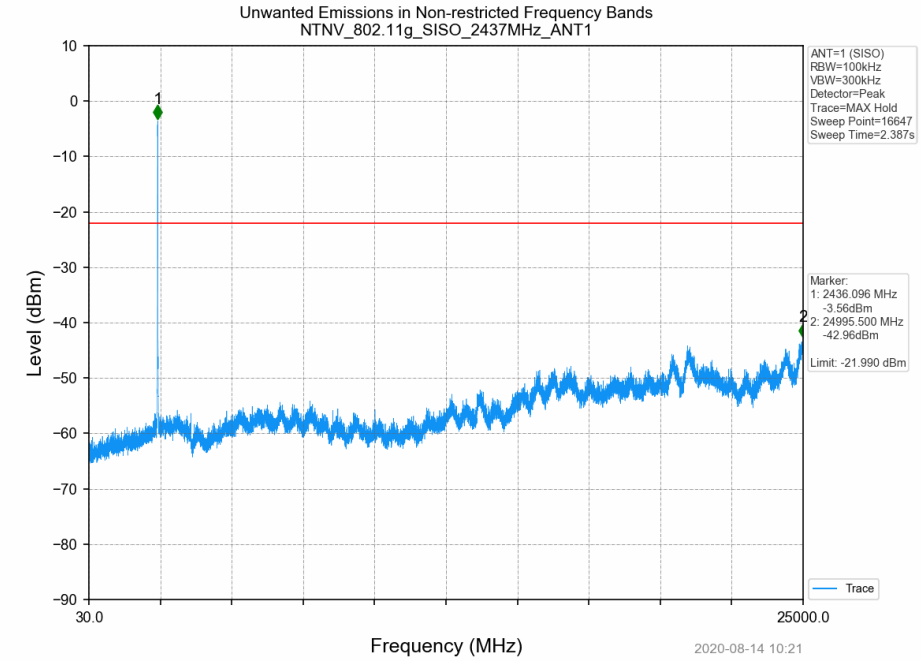

Unwanted Emissions in Non-restricted Frequency Bands
NTNV_802.11b_SISO_2462MHz_ANT1
ANT=1 (SISO)
RBW=100kHz
VBW=300kHz
Detector=Peak
Trace=MAX Hold
Sweep Point=1001
Sweep Time=5.6ms
Marker:
1: 2462.938 MHz
0.06dBm
Limit: -18.640 dBm
Trace
Level (dBm)
Frequency (MHz)
2442.0
2500.0
2020-08-14 10:21

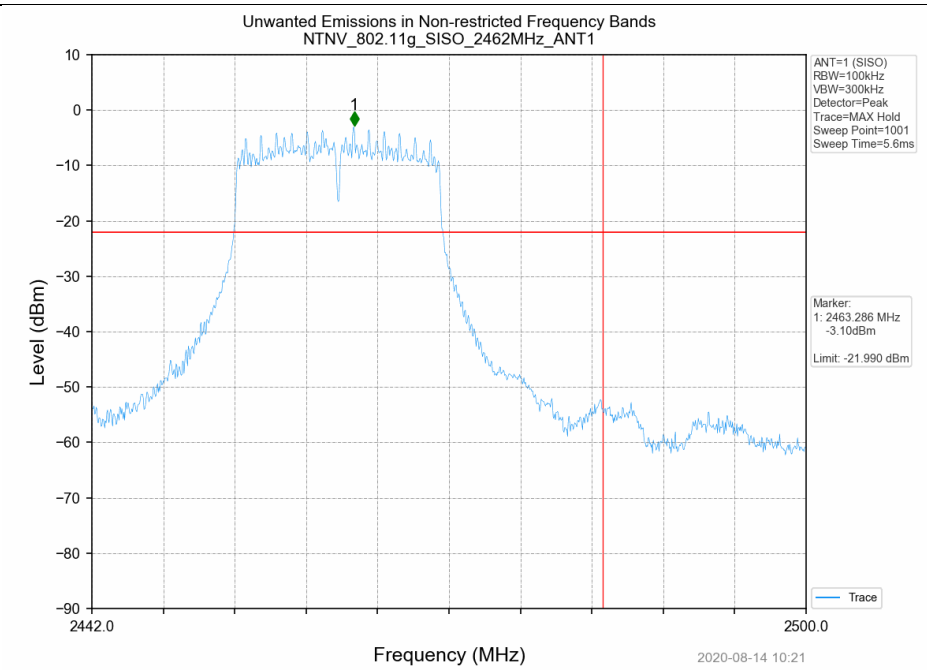

Unwanted Emissions in Non-restricted Frequency Bands
NTNV_802.11b_SISO_2462MHz_ANT1
ANT=1 (SISO)
RBW=100kHz
VBW=300kHz
Detector=Peak
Trace=MAX Hold
Sweep Point=16647
Sweep Time=2.387s
Marker:
1: 2463.097 MHz
-0.79dBm
2: 24963.999 MHz
-46.50dBm
Limit: -18.640 dBm
Trace
Level (dBm)
Frequency (MHz)
30.0
25000.0
2020-08-14 10:21

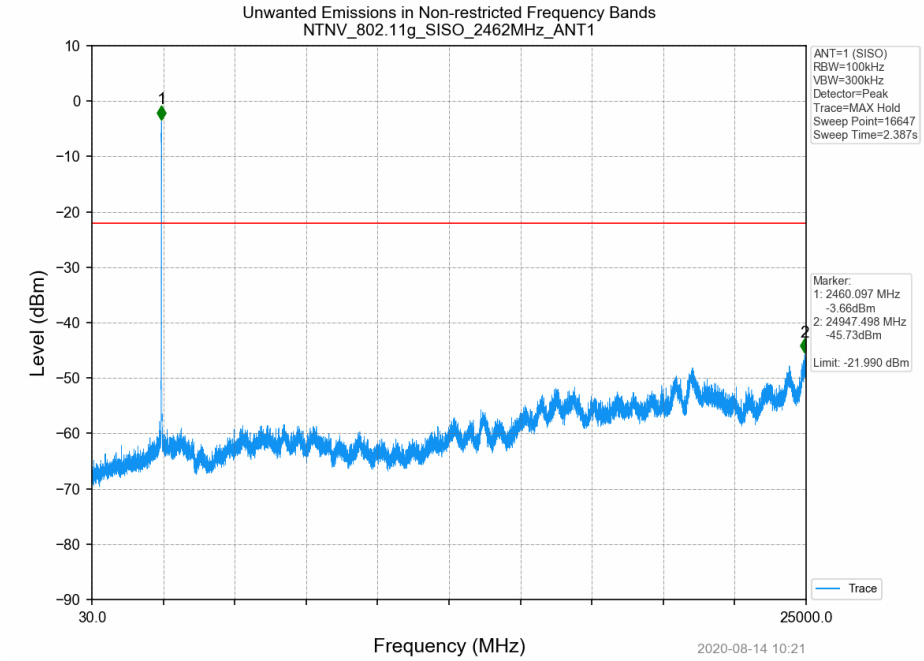

Unwanted Emissions in Non-restricted Frequency Bands
NTNV_802.11g_SISO_2412MHz_ANT1
ANT=1 (SISO)
RBW=100kHz
VBW=300kHz
Detector=Peak
Trace=MAX Hold
Sweep Point=1001
Sweep Time=2.333ms
Marker:
1: 2413.269 MHz
-1.99dBm
Trace
Level (dBm)
Frequency (MHz)
2400.029
2423.971
2020-08-14 10:21

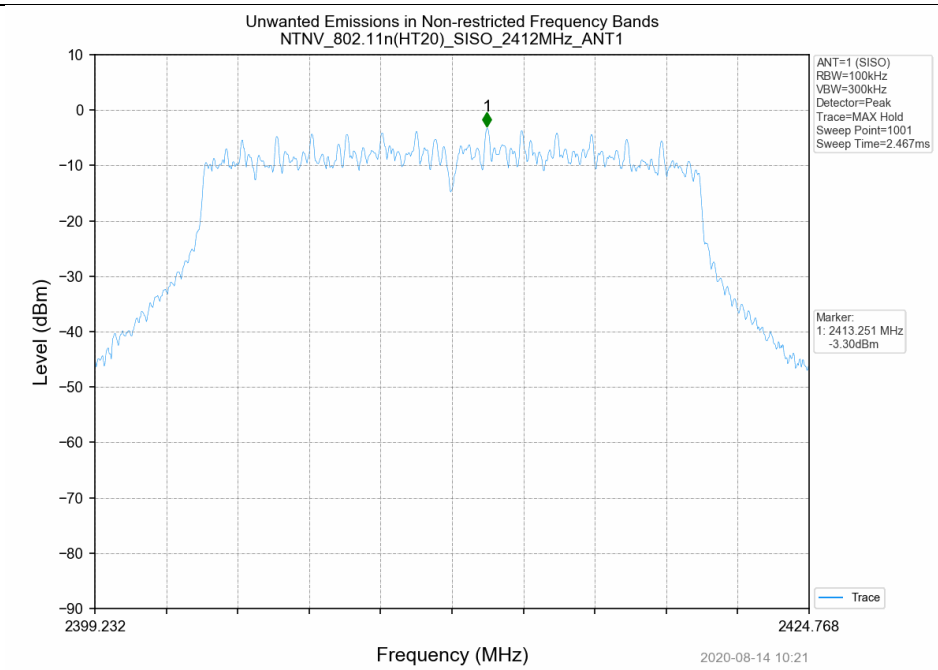

Unwanted Emissions in Non-restricted Frequency Bands
NTNV_802.11g_SISO_2412MHz_ANT1
ANT=1 (SISO)
RBW=100kHz
VBW=300kHz
Detector=Peak
Trace=MAX Hold
Sweep Point=1001
Sweep Time=11.667ms
Marker:
1: 2413.212 MHz
-1.98dBm
Limit: -21.990 dBm
Trace
Level (dBm)
Frequency (MHz)
2310.0
2432.0
2020-08-14 10:21

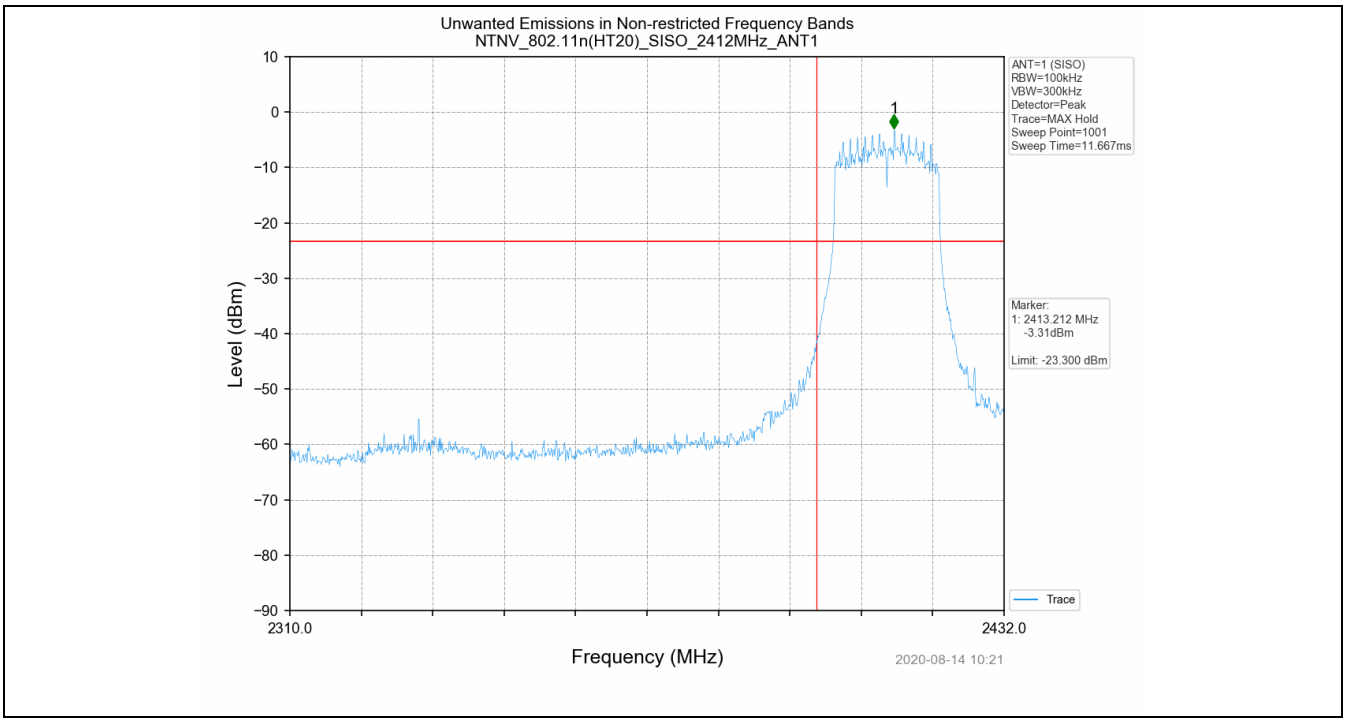

Unwanted Emissions in Non-restricted Frequency Bands
NTNV_802.11g_SISO_2412MHz_ANT1
ANT=1 (SISO)
RBW=100kHz
VBW=300kHz
Detector=Peak
Trace=MAX Hold
Sweep Point=16647
Sweep Time=2.387s
Marker:
1: 2406.095 MHz
-3.91dBm
2: 24984.999 MHz
-42.13dBm
Limit: -21.990 dBm
Trace
Level (dBm)
Frequency (MHz)
30.0
25000.0
2020-08-14 10:21

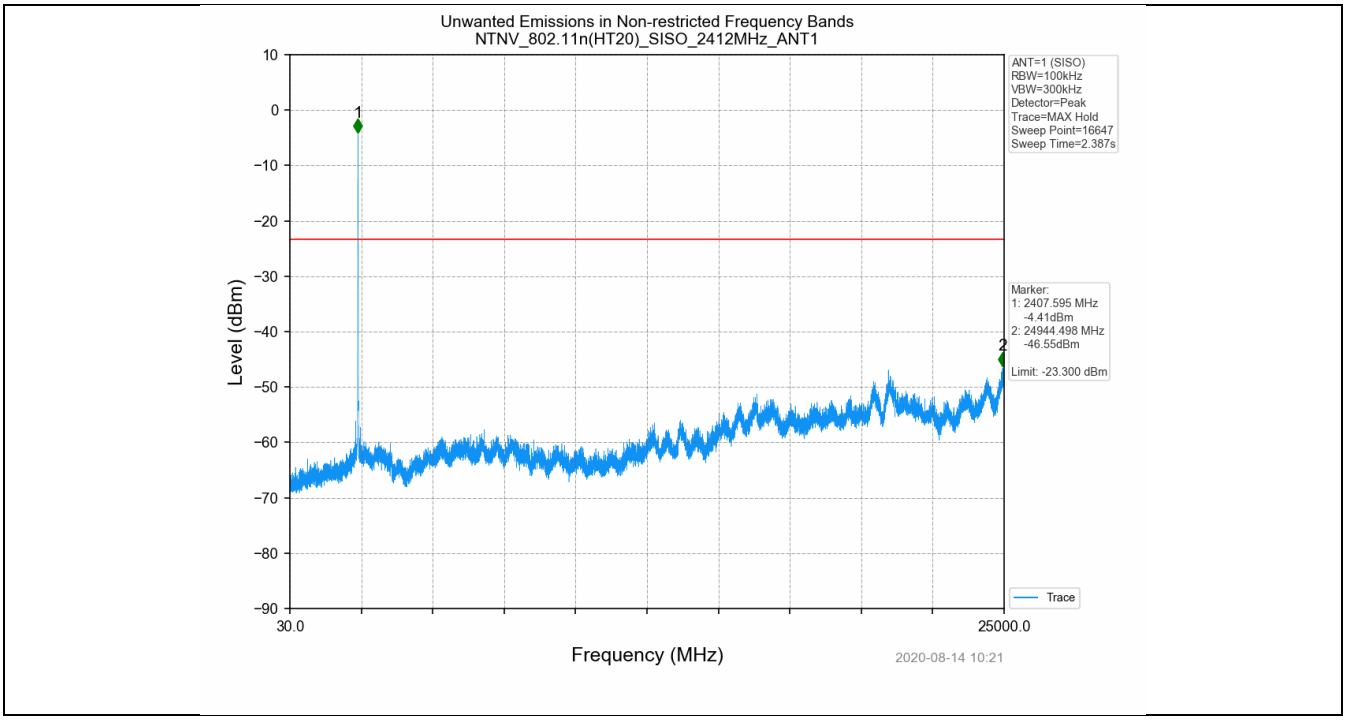

Unwanted Emissions in Non-restricted Frequency Bands
NTNV_802.11g_SISO_2437MHz_ANT1
ANT=1 (SISO)
RBW=100kHz
VBW=300kHz
Detector=Peak
Trace=MAX Hold
Sweep Point=16647
Sweep Time=2.387s
Marker:
1: 2436.096 MHz
-3.56dBm
2: 24995.500 MHz
-42.96dBm
Limit: -21.990 dBm
Trace
Level (dBm)
Frequency (MHz)
30.0
25000.0
2020-08-14 10:21

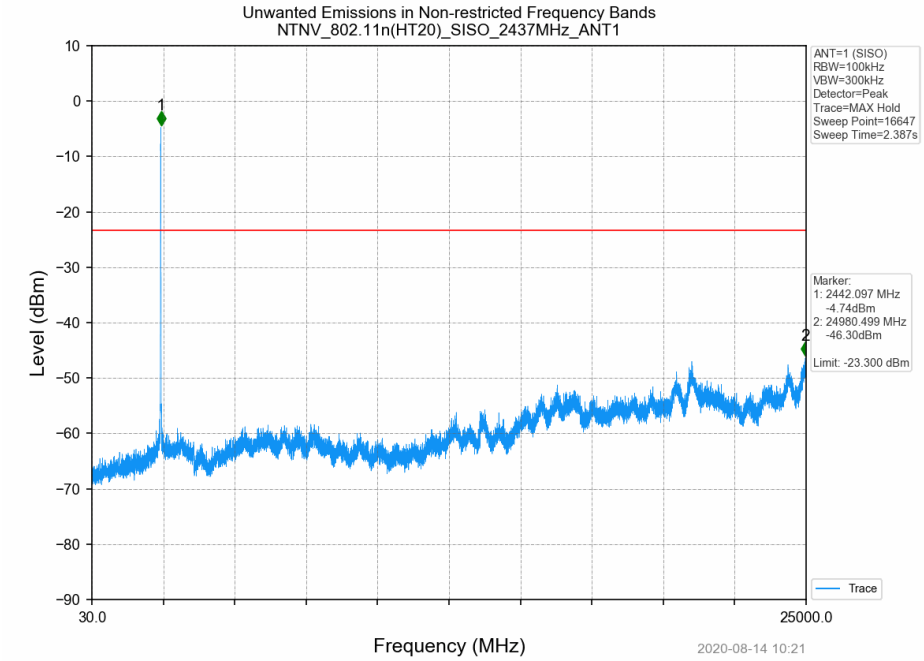

Unwanted Emissions in Non-restricted Frequency Bands
NTNV_802.11g_SISO_2462MHz_ANT1
ANT=1 (SISO)
RBW=100kHz
VBW=300kHz
Detector=Peak
Trace=MAX Hold
Sweep Point=1001
Sweep Time=5.6ms
Marker:
1: 2463.286 MHz
-3.10dBm
Limit: -21.990 dBm
Trace
Level (dBm)
Frequency (MHz)
2442.0
2500.0
2020-08-14 10:21

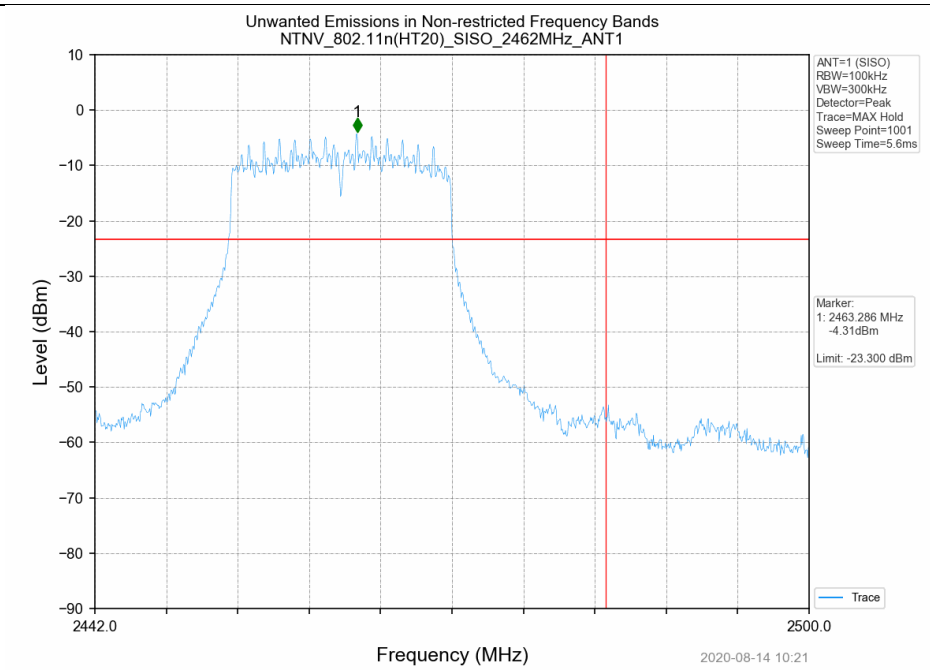

Unwanted Emissions in Non-restricted Frequency Bands
NTNV_802.11g_SISO_2462MHz_ANT1
ANT=1 (SISO)
RBW=100kHz
VBW=300kHz
Detector=Peak
Trace=MAX Hold
Sweep Point=16647
Sweep Time=2.387s
Marker:
1: 2460.097 MHz
-3.66dBm
2: 24947.498 MHz
-45.73dBm
Limit: -21.990 dBm
Trace
Level (dBm)
Frequency (MHz)
30.0
25000.0
2020-08-14 10:21

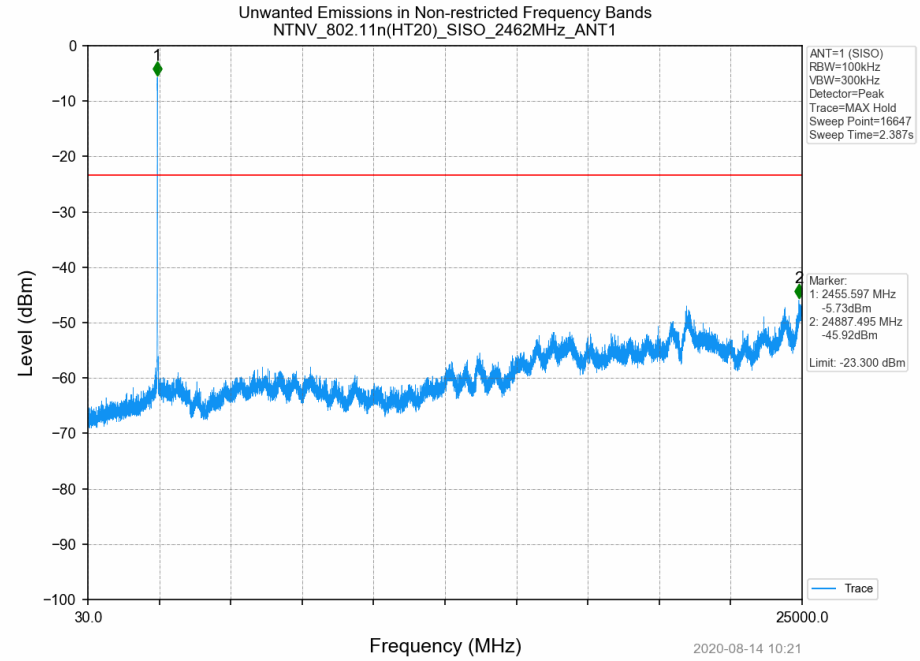

Unwanted Emissions in Non-restricted Frequency Bands
NTNV_802.11n(HT20)_SISO_2412MHz_ANT1
ANT=1 (SISO)
RBW=100kHz
VBW=300kHz
Detector=Peak
Trace=MAX Hold
Sweep Point=1001
Sweep Time=2.467ms
Marker:
1: 2413.251 MHz
-3.30dBm
Trace
Level (dBm)
Frequency (MHz)
2399.232
2424.768
2020-08-14 10:21

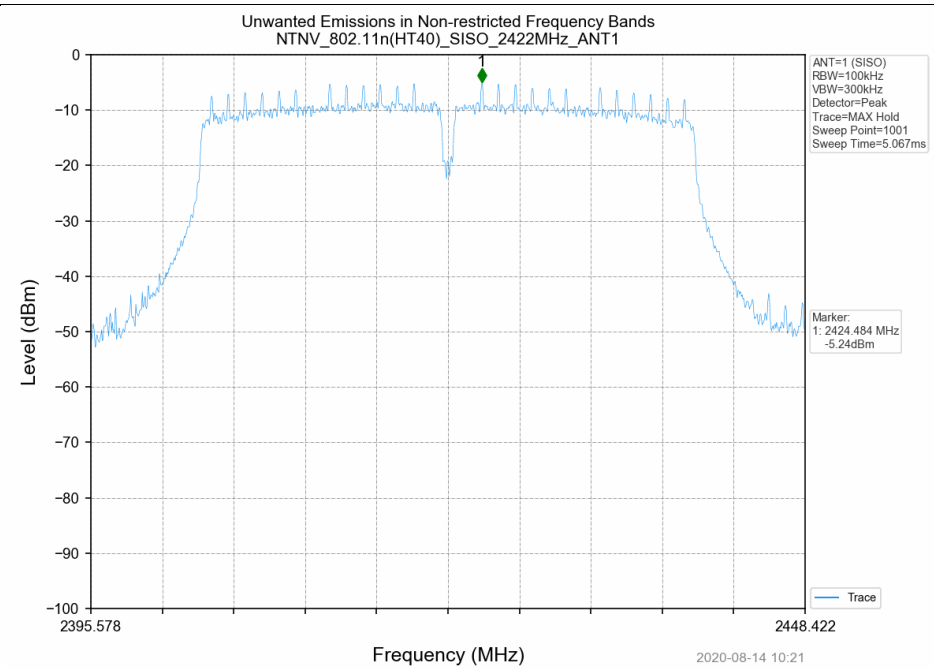

Unwanted Emissions in Non-restricted Frequency Bands
NTNV_802.11n(HT20)_SISO_2412MHz_ANT1
ANT=1 (SISO)
RBW=100kHz
VBW=300kHz
Detector=Peak
Trace=MAX Hold
Sweep Point=1001
Sweep Time=11.667ms
Marker:
1: 2413.212 MHz
-3.31dBm
Limit: -23.300 dBm
Trace
Level (dBm)
Frequency (MHz)
2310.0
2432.0
2020-08-14 10:21

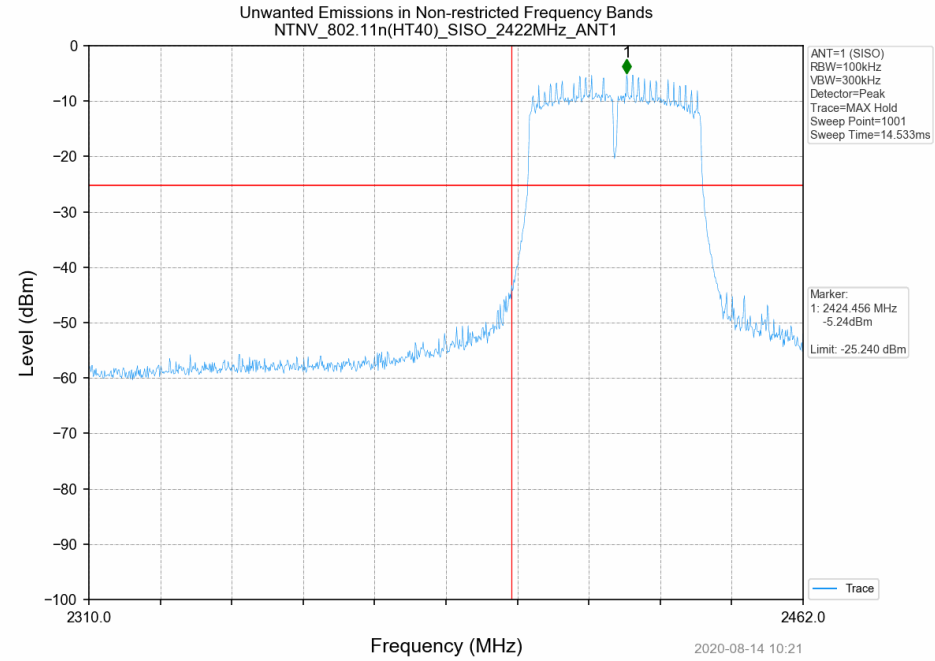

Unwanted Emissions in Non-restricted Frequency Bands
NTNV_802.11n(HT20)_SISO_2412MHz_ANT1
ANT=1 (SISO)
RBW=100kHz
VBW=300kHz
Detector=Peak
Trace=MAX Hold
Sweep Point=16647
Sweep Time=2.387s
Marker:
1: 2407.595 MHz
-4.41dBm
2: 24944.498 MHz
-46.55dBm
Limit: -23.300 dBm
Trace
Level (dBm)
Frequency (MHz)
30.0
25000.0
2020-08-14 10:21

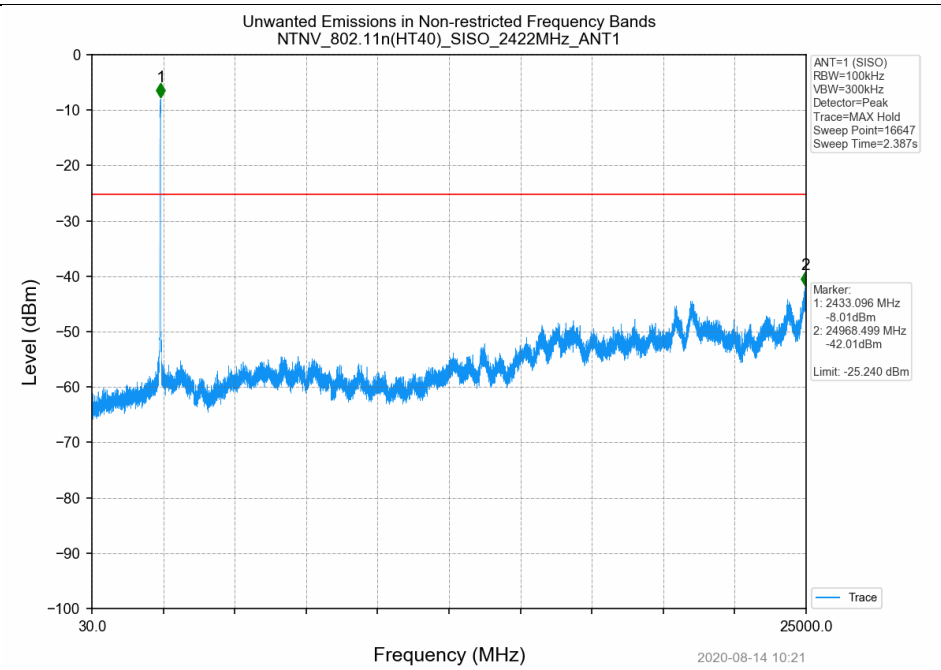

Unwanted Emissions in Non-restricted Frequency Bands
NTNV_802.11n(HT20)_SISO_2437MHz_ANT1
ANT=1 (SISO)
RBW=100kHz
VBW=300kHz
Detector=Peak
Trace=MAX Hold
Sweep Point=16647
Sweep Time=2.387s
Marker:
1: 2442.097 MHz
-4.74dBm
2: 24980.499 MHz
-46.30dBm
Limit: -23.300 dBm
Trace
Level (dBm)
Frequency (MHz)
30.0
25000.0
2020-08-14 10:21

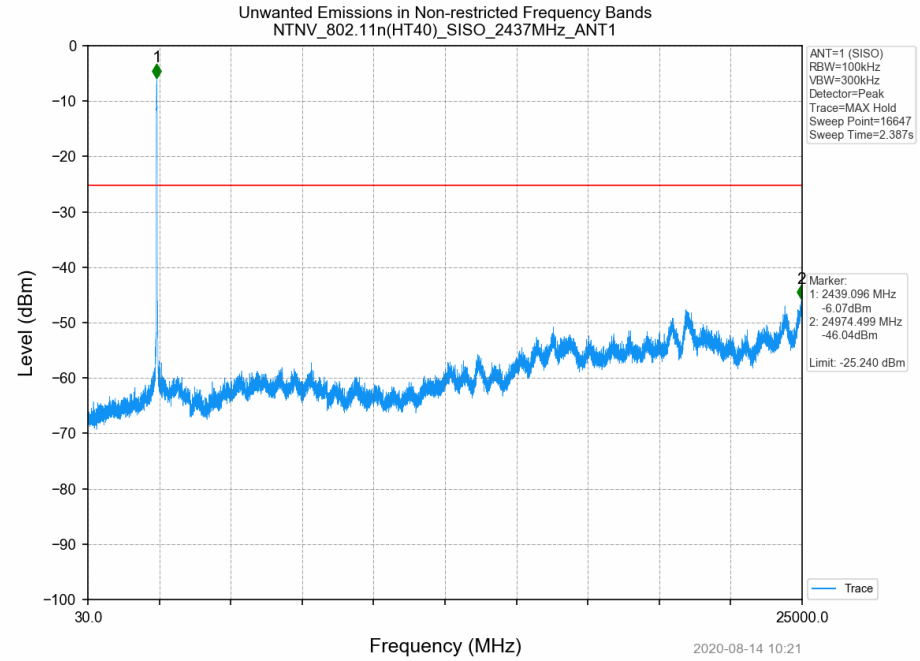

Unwanted Emissions in Non-restricted Frequency Bands
NTNV_802.11n(HT20)_SISO_2462MHz_ANT1
ANT=1 (SISO)
RBW=100kHz
VBW=300kHz
Detector=Peak
Trace=MAX Hold
Sweep Point=1001
Sweep Time=5.6ms
Marker:
1: 2463.286 MHz
-4.31dBm
Limit: -23.300 dBm
Trace
Level (dBm)
Frequency (MHz)
2442.0
2500.0
2020-08-14 10:21

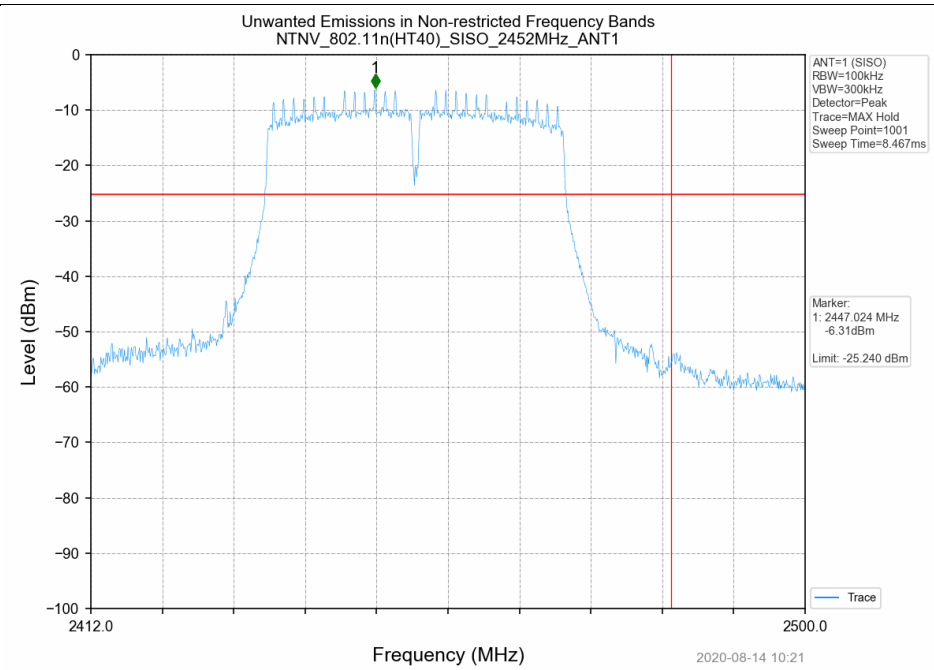

Unwanted Emissions in Non-restricted Frequency Bands
NTNV_802.11n(HT20)_SISO_2462MHz_ANT1
ANT=1 (SISO)
RBW=100kHz
VBW=300kHz
Detector=Peak
Trace=MAX Hold
Sweep Point=16647
Sweep Time=2.387s
Marker:
1: 2455.597 MHz
-5.73dBm
2: 24887.495 MHz
-45.92dBm
Limit: -23.300 dBm
Trace
Level (dBm)
Frequency (MHz)
30.0
25000.0
2020-08-14 10:21

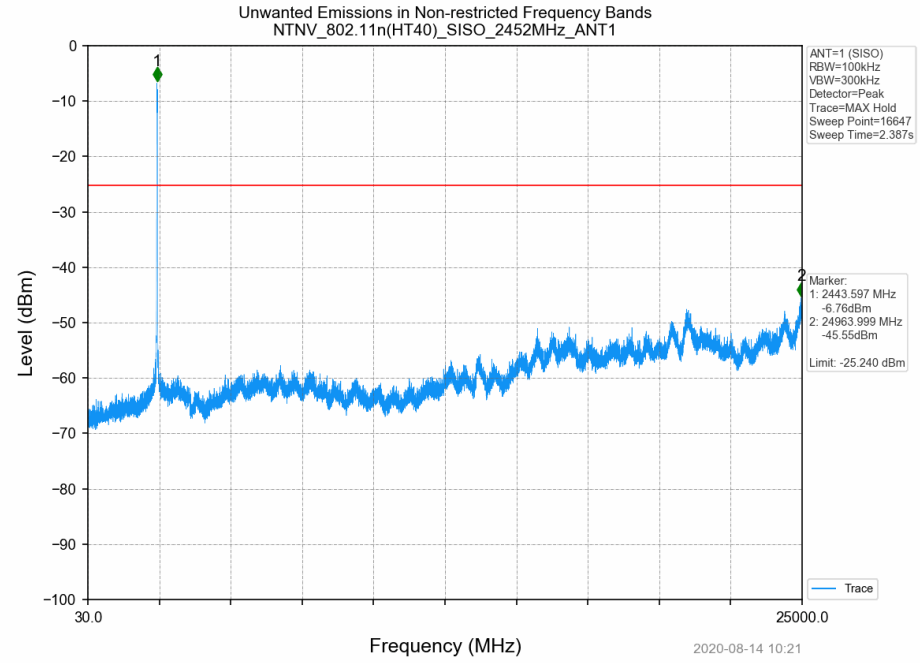

Unwanted Emissions in Non-restricted Frequency Bands
NTNV_802.11n(HT40)_SISO_2422MHz_ANT1
ANT=1 (SISO)
RBW=100kHz
VBW=300kHz
Detector=Peak
Trace=MAX Hold
Sweep Point=1001
Sweep Time=5.067ms
Marker:
1: 2424.484 MHz
-5.24dBm
Trace
Level (dBm)
Frequency (MHz)
2395.578
2448.422
2020-08-14 10:21


Unwanted Emissions in Non-restricted Frequency Bands
NTNV_802.11n(HT40)_SISO_2422MHz_ANT1
ANT=1 (SISO)
RBW=100kHz
VBW=300kHz
Detector=Peak
Trace=MAX Hold
Sweep Point=1001
Sweep Time=14.533ms
Marker:
1: 2424.456 MHz
-5.24dBm
Limit: -25.240 dBm
Trace
Level (dBm)
Frequency (MHz)
2310.0
2462.0
2020-08-14 10:21


Unwanted Emissions in Non-restricted Frequency Bands
NTNV_802.11n(HT40)_SISO_2422MHz_ANT1
ANT=1 (SISO)
RBW=100kHz
VBW=300kHz
Detector=Peak
Trace=MAX Hold
Sweep Point=16647
Sweep Time=2.387s
Marker:
1: 2433.096 MHz
-8.01dBm
2: 24968.499 MHz
-42.01dBm
Limit: -25.240 dBm
Trace
Level (dBm)
Frequency (MHz)
30.0
25000.0
2020-08-14 10:21


Unwanted Emissions in Non-restricted Frequency Bands
NTNV_802.11n(HT40)_SISO_2437MHz_ANT1
ANT=1 (SISO)
RBW=100kHz
VBW=300kHz
Detector=Peak
Trace=MAX Hold
Sweep Point=16647
Sweep Time=2.387s
Marker:
1: 2439.096 MHz
-6.07dBm
2: 24974.499 MHz
-46.04dBm
Limit: -25.240 dBm
Trace
Level (dBm)
Frequency (MHz)
30.0
25000.0
2020-08-14 10:21


Unwanted Emissions in Non-restricted Frequency Bands
NTNV_802.11n(HT40)_SISO_2452MHz_ANT1
ANT=1 (SISO)
RBW=100kHz
VBW=300kHz
Detector=Peak
Trace=MAX Hold
Sweep Point=1001
Sweep Time=8.467ms
Marker:
1: 2447.024 MHz
-6.31dBm
Limit: -25.240 dBm
Trace
Level (dBm)
Frequency (MHz)
2412.0
2500.0
2020-08-14 10:21


Unwanted Emissions in Non-restricted Frequency Bands
NTNV_802.11n(HT40)_SISO_2452MHz_ANT1
ANT=1 (SISO)
RBW=100kHz
VBW=300kHz
Detector=Peak
Trace=MAX Hold
Sweep Point=16647
Sweep Time=2.387s
Marker:
1: 2443.597 MHz
-6.76dBm
2: 24963.999 MHz
-45.55dBm
Limit: -25.240 dBm
Trace
Level (dBm)
Frequency (MHz)
30.0
25000.0
2020-08-14 10:21