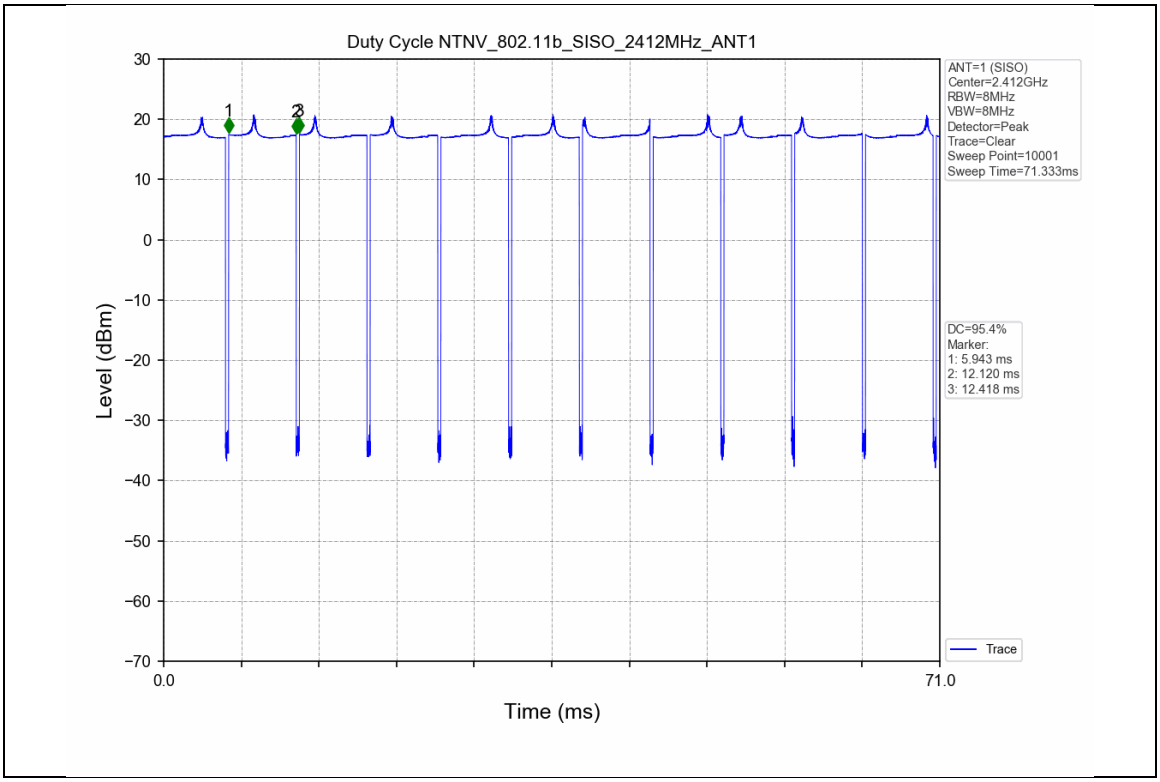
Appendix A for KSEM210400063001

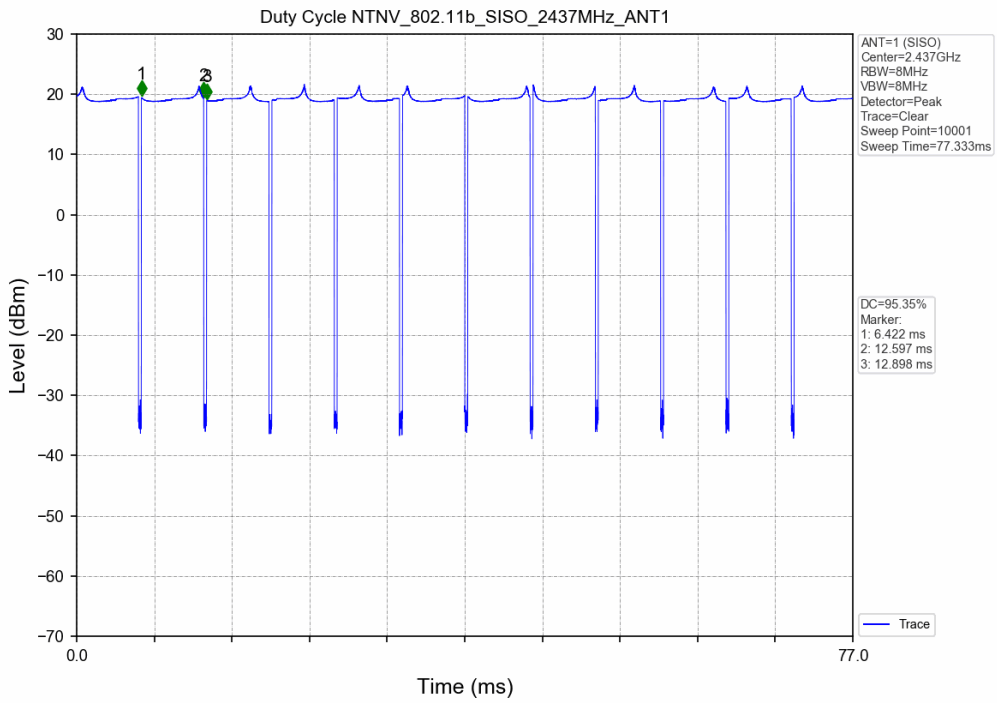
1. Duty Cycle

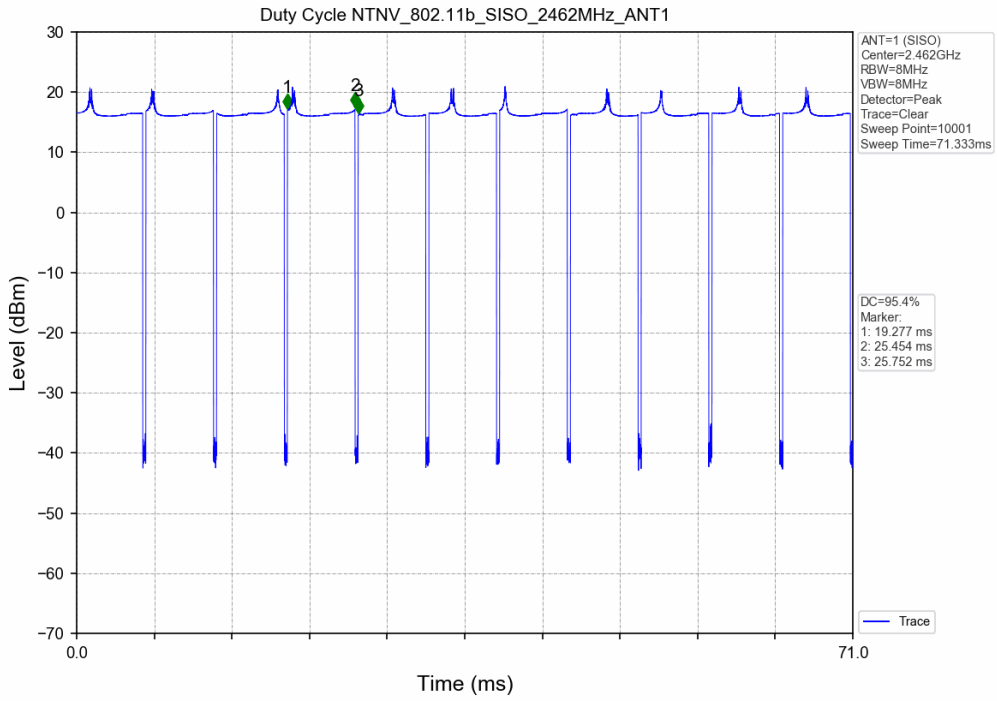
1.1 Test Result

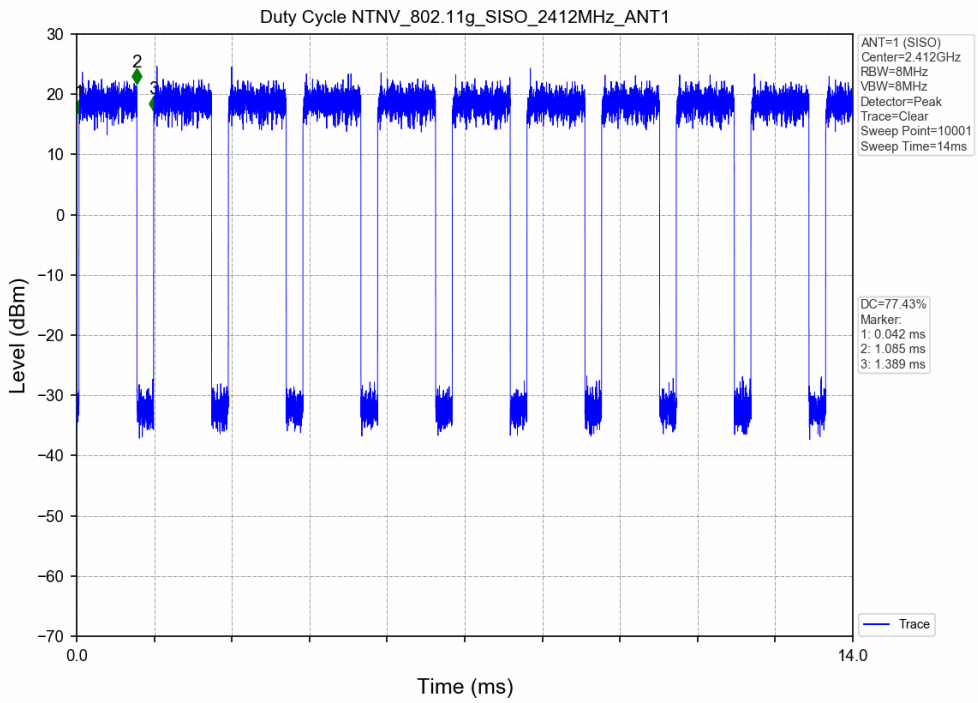
Test Mode	Channel Frequency(MHz)	TX Type	ANT No.	T_on (ms)	Period (ms)	Duty Cycle (%)	Duty Cycle Correction Factor (dB)
802.11b	2412	SISO	1	6.177	6.475	95.40	0.20
	2437	SISO	1	6.175	6.476	95.35	0.21
	2462	SISO	1	6.177	6.475	95.40	0.20
802.11g	2412	SISO	1	1.043	1.347	77.43	1.11
	2437	SISO	1	1.043	1.347	77.43	1.11
	2462	SISO	1	1.043	1.347	77.43	1.11
802.11n(HT20)	2412	SISO	1	1.043	1.347	77.43	1.11
	2437	SISO	1	1.043	1.347	77.43	1.11
	2462	SISO	1	1.043	1.347	77.43	1.11
802.11n(HT40)	2422	SISO	1	0.664	0.767	86.57	0.63
	2437	SISO	1	0.665	0.766	86.81	0.61
	2452	SISO	1	0.663	0.766	86.55	0.63

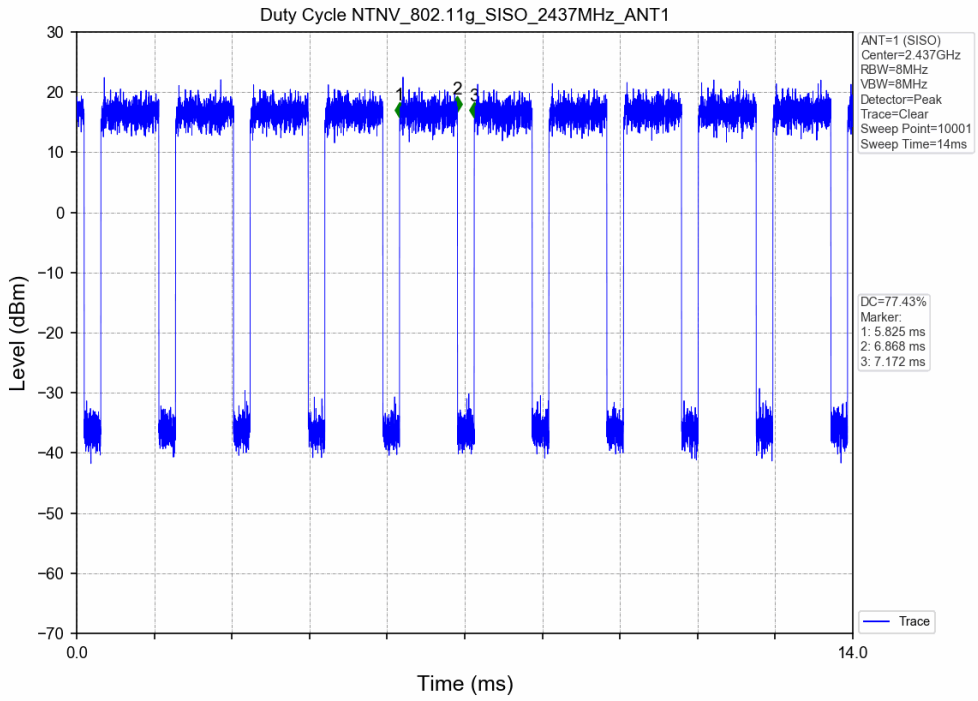
1.2 Test Graph

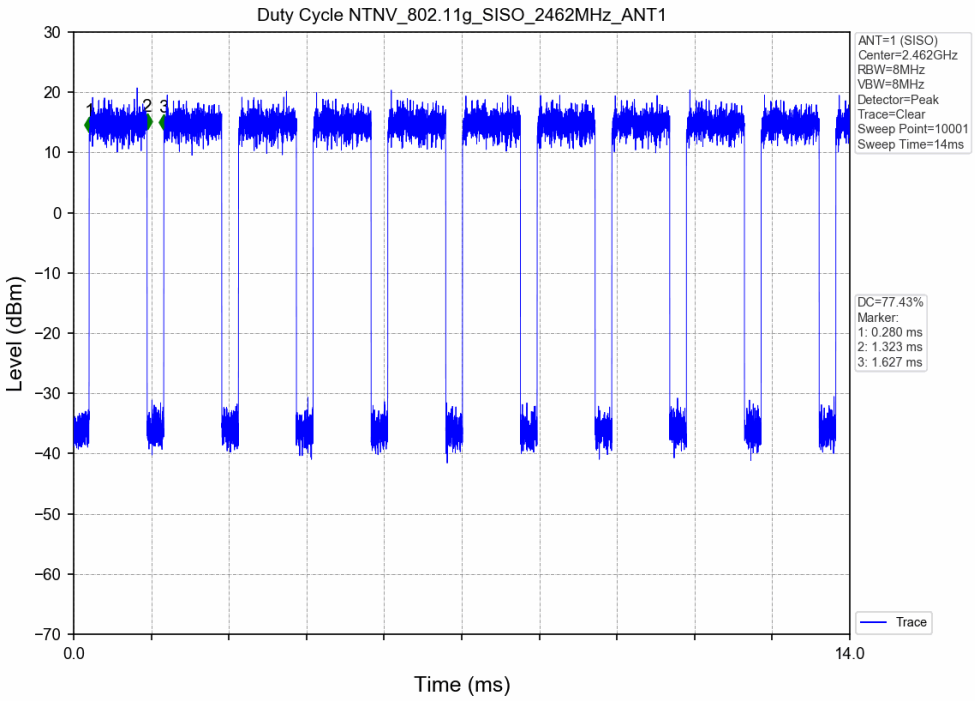


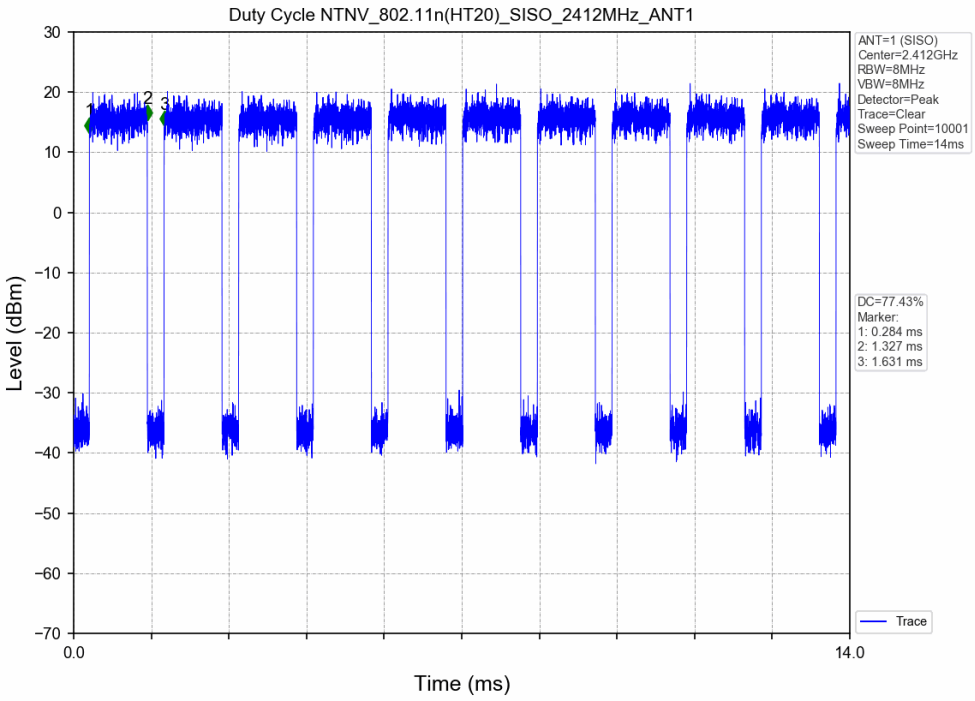

Duty Cycle NTNV_802.11b_SISO_2437MHz_ANT1
ANT=1 (SISO)
Center=2.437GHz
RBW=8MHz
VBW=8MHz
Detector=Peak
Trace=Clear
Sweep Point=10001
Sweep Time=77.333ms
DC=95.35%
Marker:
1: 6.422 ms
2: 12.597 ms
3: 12.898 ms
Trace
Level (dBm)
Time (ms)
0.0
77.0

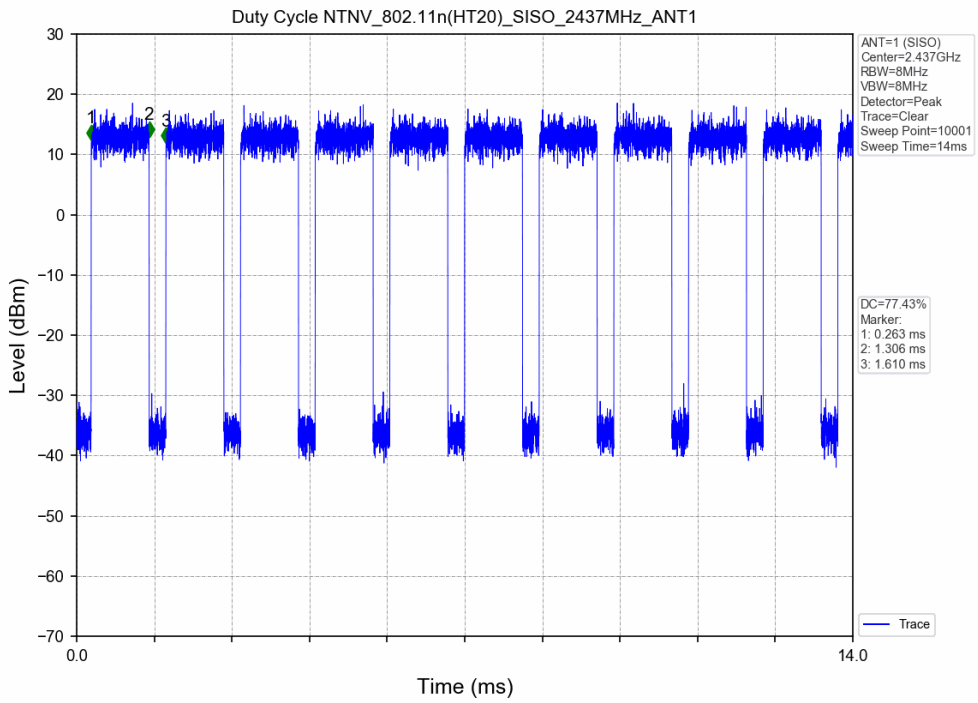

Duty Cycle NTNV_802.11b_SISO_2462MHz_ANT1
ANT=1 (SISO)
Center=2.462GHz
RBW=8MHz
VBW=8MHz
Detector=Peak
Trace=Clear
Sweep Point=10001
Sweep Time=71.333ms
DC=95.4%
Marker:
1: 19.277 ms
2: 25.454 ms
3: 25.752 ms
Trace
Level (dBm)
Time (ms)
0.0
71.0

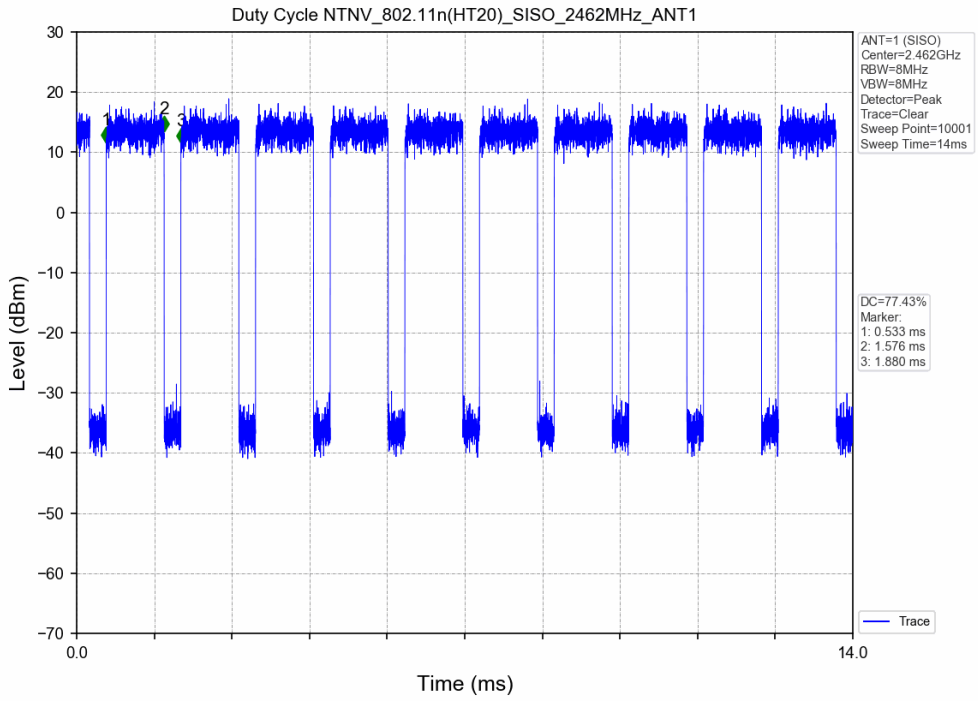

Duty Cycle NTNV_802.11g_SISO_2412MHz_ANT1
ANT=1 (SISO)
Center=2.412GHz
RBW=8MHz
VBW=8MHz
Detector=Peak
Trace=Clear
Sweep Point=10001
Sweep Time=14ms
DC=77.43%
Marker:
1: 0.042 ms
2: 1.085 ms
3: 1.389 ms
Trace
Level (dBm)
Time (ms)
0.0
14.0

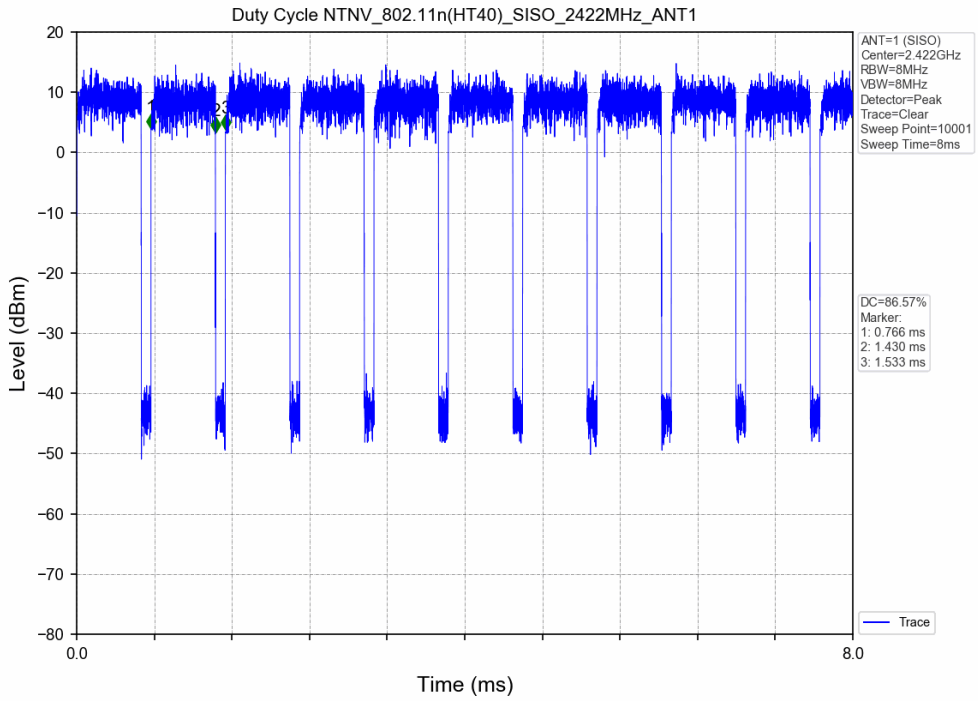

Duty Cycle NTNV_802.11g_SISO_2437MHz_ANT1
ANT=1 (SISO)
Center=2.437GHz
RBW=8MHz
VBW=8MHz
Detector=Peak
Trace=Clear
Sweep Point=10001
Sweep Time=14ms
DC=77.43%
Marker:
1: 5.825 ms
2: 6.868 ms
3: 7.172 ms
Trace
Level (dBm)
Time (ms)
0.0
14.0

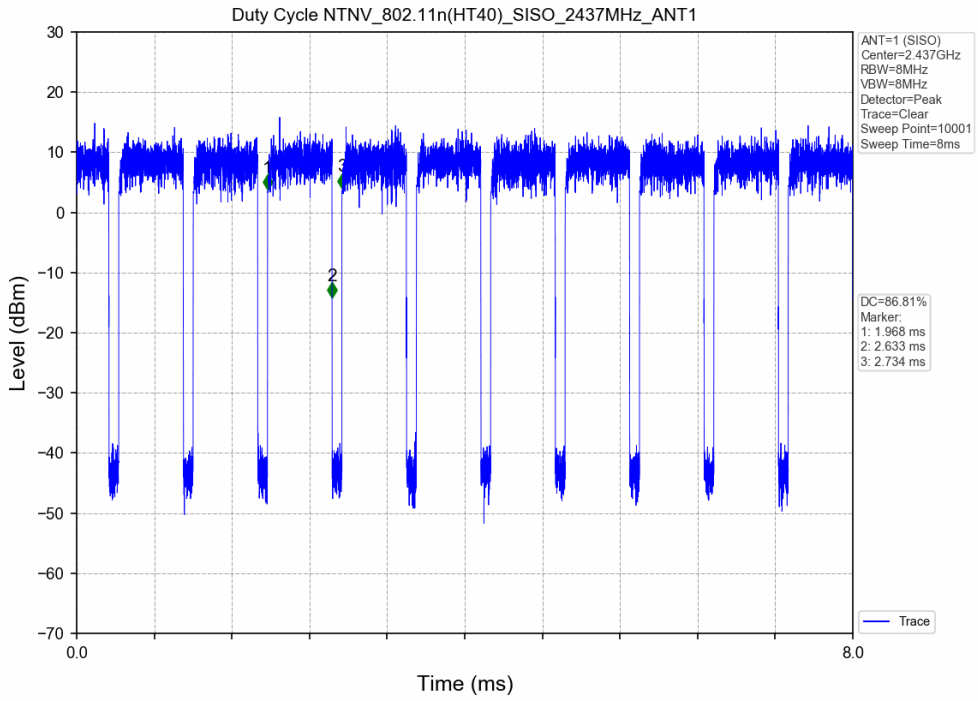

Duty Cycle NTNV_802.11g_SISO_2462MHz_ANT1
ANT=1 (SISO)
Center=2.462GHz
RBW=8MHz
VBW=8MHz
Detector=Peak
Trace=Clear
Sweep Point=10001
Sweep Time=14ms
DC=77.43%
Marker:
1: 0.280 ms
2: 1.323 ms
3: 1.627 ms
Trace
Level (dBm)
Time (ms)
0.0
14.0

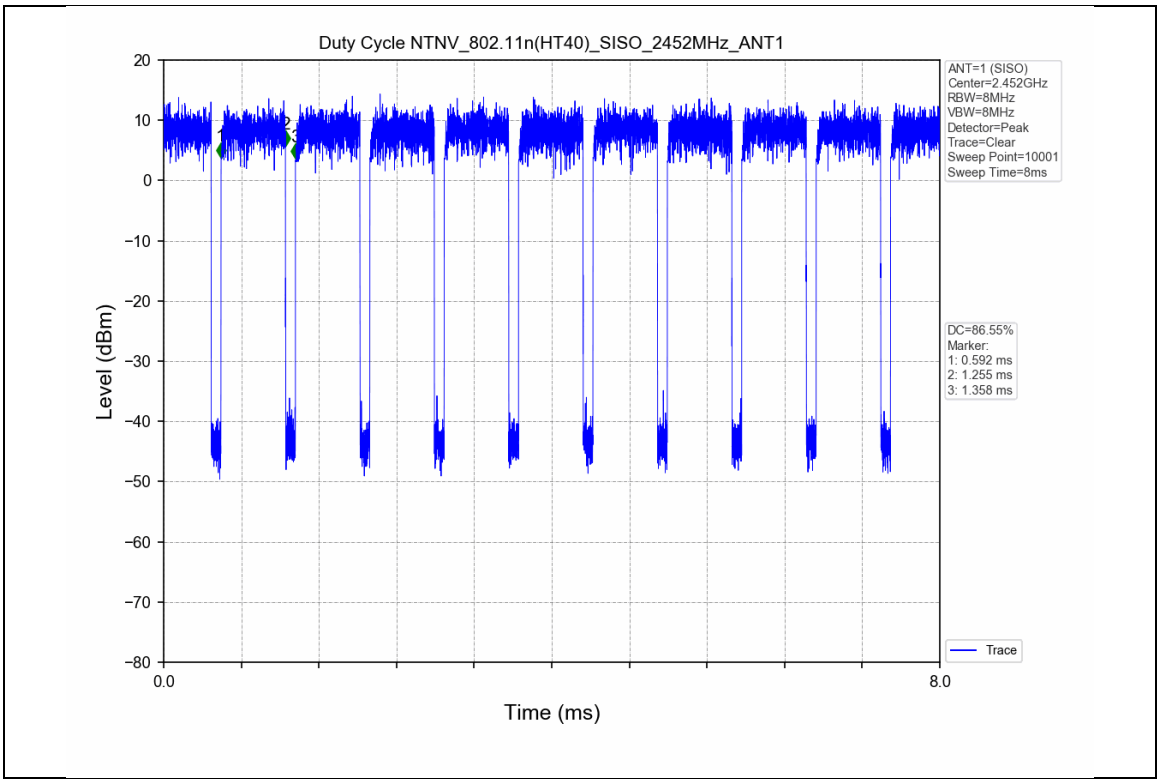

Duty Cycle NTNV_802.11n(HT20)_SISO_2412MHz_ANT1
ANT=1 (SISO)
Center=2.412GHz
RBW=8MHz
VBW=8MHz
Detector=Peak
Trace=Clear
Sweep Point=10001
Sweep Time=14ms
DC=77.43%
Marker:
1: 0.284 ms
2: 1.327 ms
3: 1.631 ms
Trace
Level (dBm)
Time (ms)
0.0
14.0


Duty Cycle NTNV_802.11n(HT20)_SISO_2437MHz_ANT1
ANT=1 (SISO)
Center=2.437GHz
RBW=8MHz
VBW=8MHz
Detector=Peak
Trace=Clear
Sweep Point=10001
Sweep Time=14ms
DC=77.43%
Marker:
1: 0.263 ms
2: 1.306 ms
3: 1.610 ms
Trace
Level (dBm)
Time (ms)
0.0
14.0


Duty Cycle NTNV_802.11n(HT20)_SISO_2462MHz_ANT1
ANT=1 (SISO)
Center=2.462GHz
RBW=8MHz
VBW=8MHz
Detector=Peak
Trace=Clear
Sweep Point=10001
Sweep Time=14ms
DC=77.43%
Marker:
1: 0.533 ms
2: 1.576 ms
3: 1.880 ms
Trace
Level (dBm)
Time (ms)
0.0
14.0


Duty Cycle NTNV_802.11n(HT40)_SISO_2422MHz_ANT1
ANT=1 (SISO)
Center=2.422GHz
RBW=8MHz
VBW=8MHz
Detector=Peak
Trace=Clear
Sweep Point=10001
Sweep Time=8ms
DC=86.57%
Marker:
1: 0.766 ms
2: 1.430 ms
3: 1.533 ms
Trace
Level (dBm)
Time (ms)
20
10
0
−10
−20
−30
−40
−50
−60
−70
−80
0.0
8.0


Duty Cycle NTNV_802.11n(HT40)_SISO_2437MHz_ANT1
ANT=1 (SISO)
Center=2.437GHz
RBW=8MHz
VBW=8MHz
Detector=Peak
Trace=Clear
Sweep Point=10001
Sweep Time=8ms
DC=86.81%
Marker:
1: 1.968 ms
2: 2.633 ms
3: 2.734 ms
Trace
Level (dBm)
Time (ms)
30
20
10
0
−10
−20
−30
−40
−50
−60
−70
0.0
8.0



2. Bandwidth

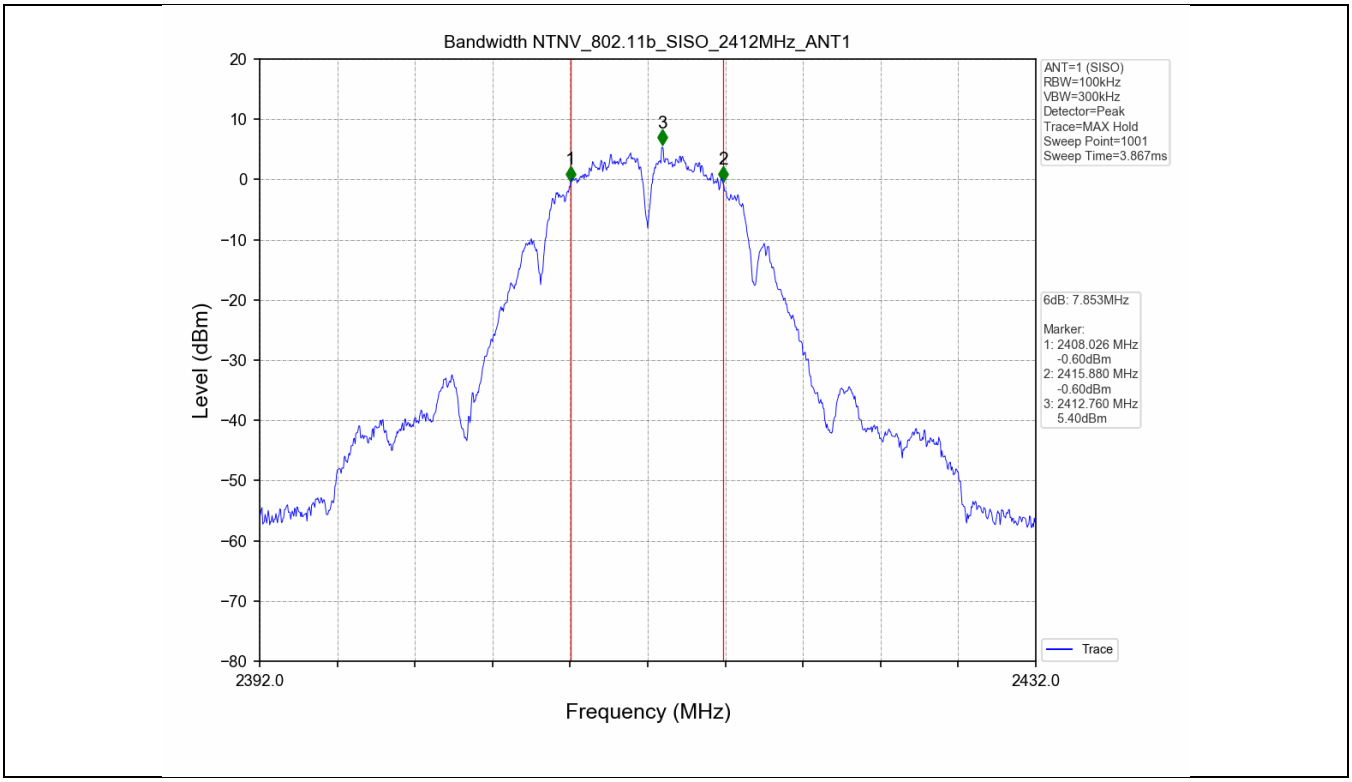
2.1 Test Result

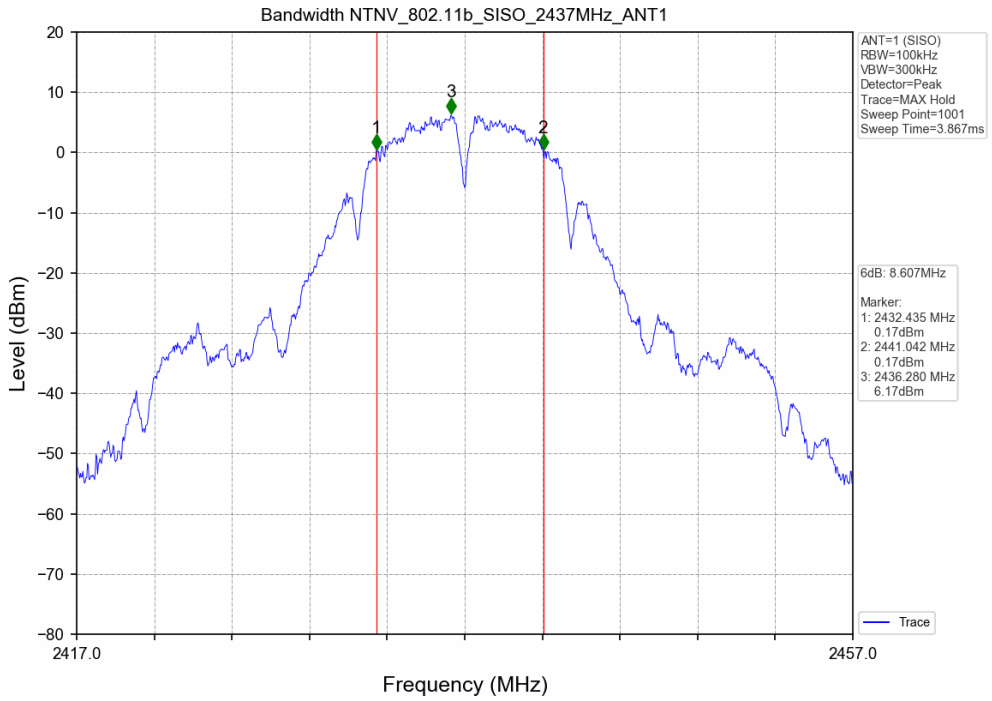
Test Mode	Frequency (MHz)	TX Type	ANT No.	6dB Bandwidth		Verdict
				Test Result (MHz)	Limits (MHz)	
802.11b	2412	SISO	1	7.853	≥0.5	PASS
	2437	SISO	1	8.607	≥0.5	PASS
	2462	SISO	1	8.338	≥0.5	PASS
802.11g	2412	SISO	1	15.222	≥0.5	PASS
	2437	SISO	1	16.088	≥0.5	PASS
	2462	SISO	1	15.212	≥0.5	PASS
802.11n(HT20)	2412	SISO	1	15.203	≥0.5	PASS
	2437	SISO	1	16.338	≥0.5	PASS
	2462	SISO	1	15.217	≥0.5	PASS
802.11n(HT40)	2422	SISO	1	35.580	≥0.5	PASS
	2437	SISO	1	36.035	≥0.5	PASS
	2452	SISO	1	35.607	≥0.5	PASS

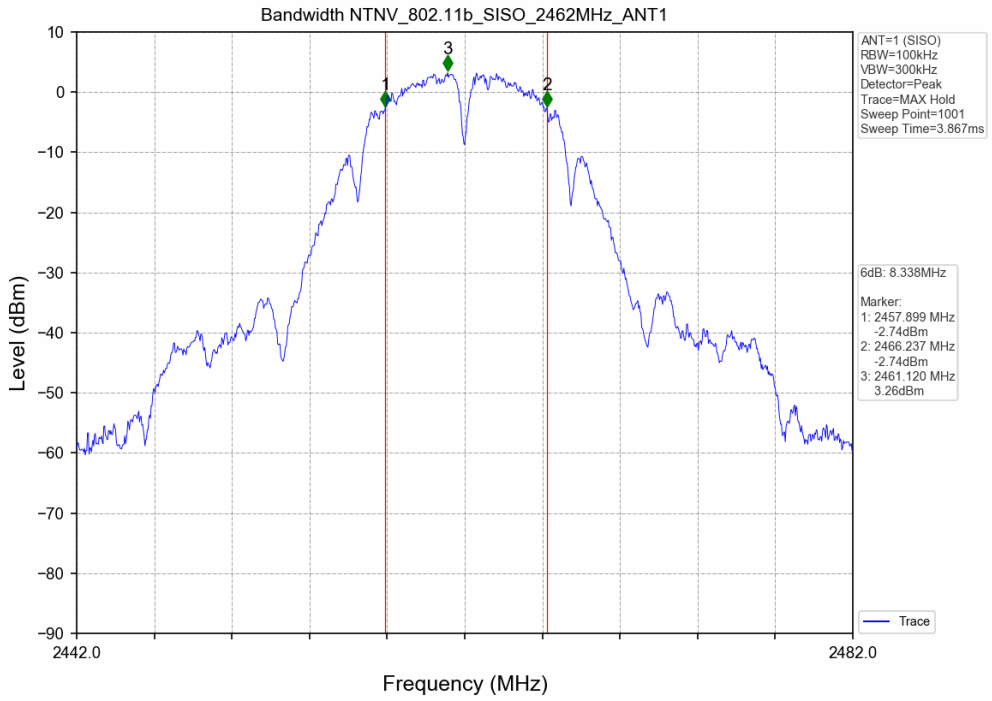
Test Mode	Frequency (MHz)	TX Type	ANT No.	99% Occupied Bandwidth	
				Test Result (MHz)	
802.11b	2412	SISO	1	11.613	Only for Report Use
	2437	SISO	1	12.087	Only for Report Use
	2462	SISO	1	11.804	Only for Report Use
802.11g	2412	SISO	1	16.593	Only for Report Use
	2437	SISO	1	16.814	Only for Report Use
	2462	SISO	1	16.563	Only for Report Use
802.11n(HT20)	2412	SISO	1	16.569	Only for Report Use

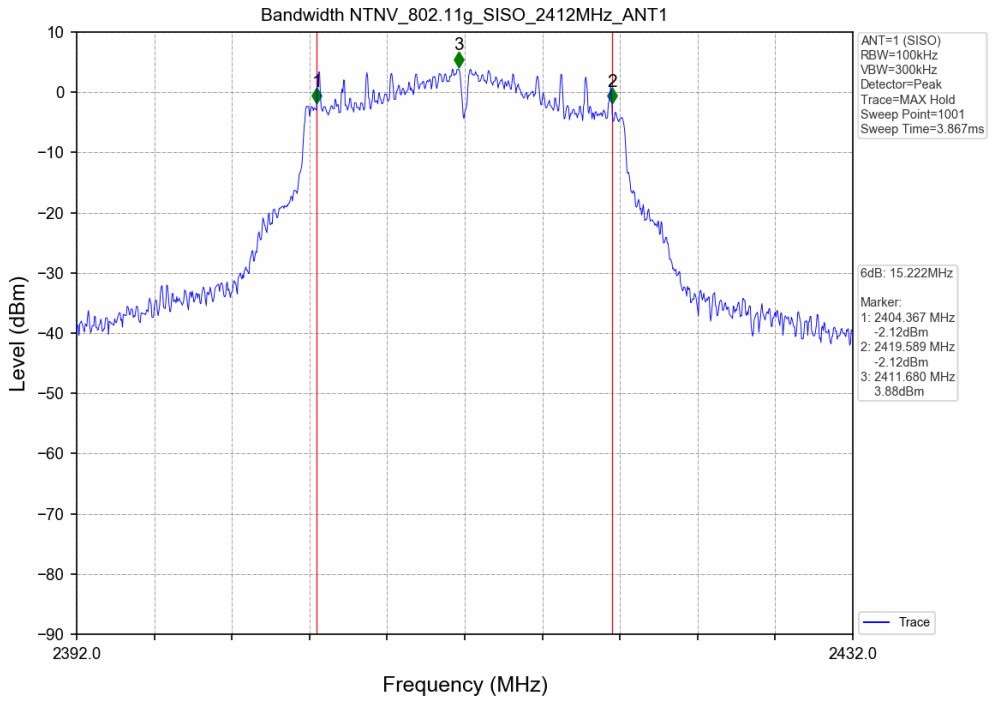
	2437	SISO	1	16.778	Only for Report Use
	2462	SISO	1	16.568	Only for Report Use
802.11n(HT40)	2422	SISO	1	36.614	Only for Report Use
	2437	SISO	1	36.680	Only for Report Use
	2452	SISO	1	36.637	Only for Report Use

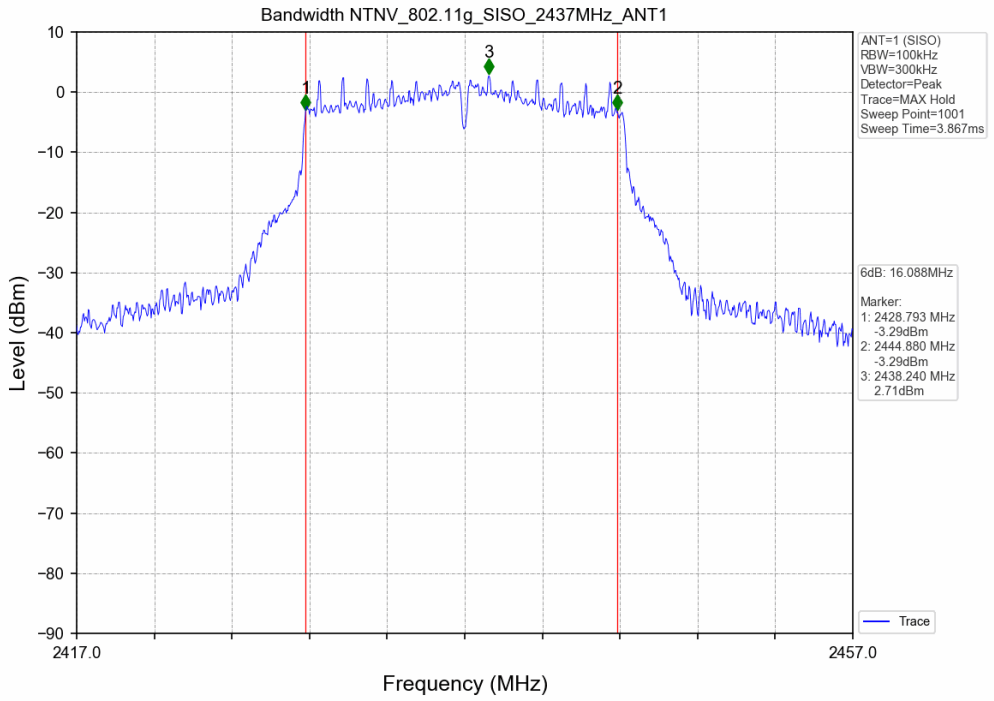
2.2 Test Graph - 6dB Bandwidth

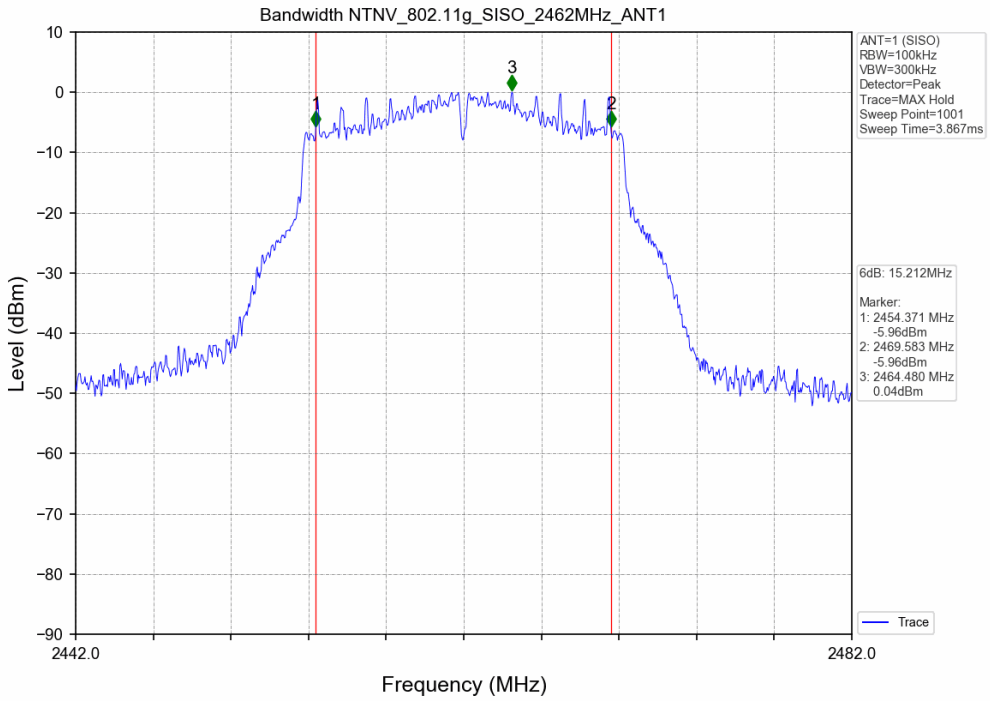


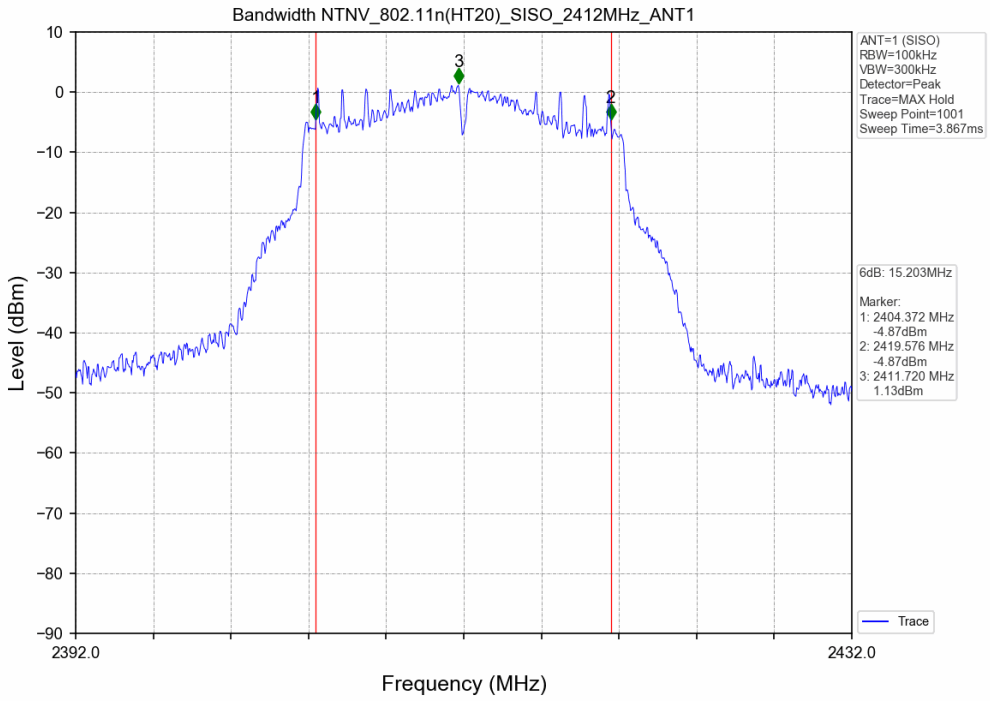

Bandwidth NTNV_802.11b_SISO_2437MHz_ANT1
ANT=1 (SISO)
RBW=100kHz
VBW=300kHz
Detector=Peak
Trace=MAX Hold
Sweep Point=1001
Sweep Time=3.867ms
6dB: 8.607MHz
Marker:
1: 2432.435 MHz
0.17dBm
2: 2441.042 MHz
0.17dBm
3: 2436.280 MHz
6.17dBm
Trace
Level (dBm)
Frequency (MHz)
2417.0
2457.0

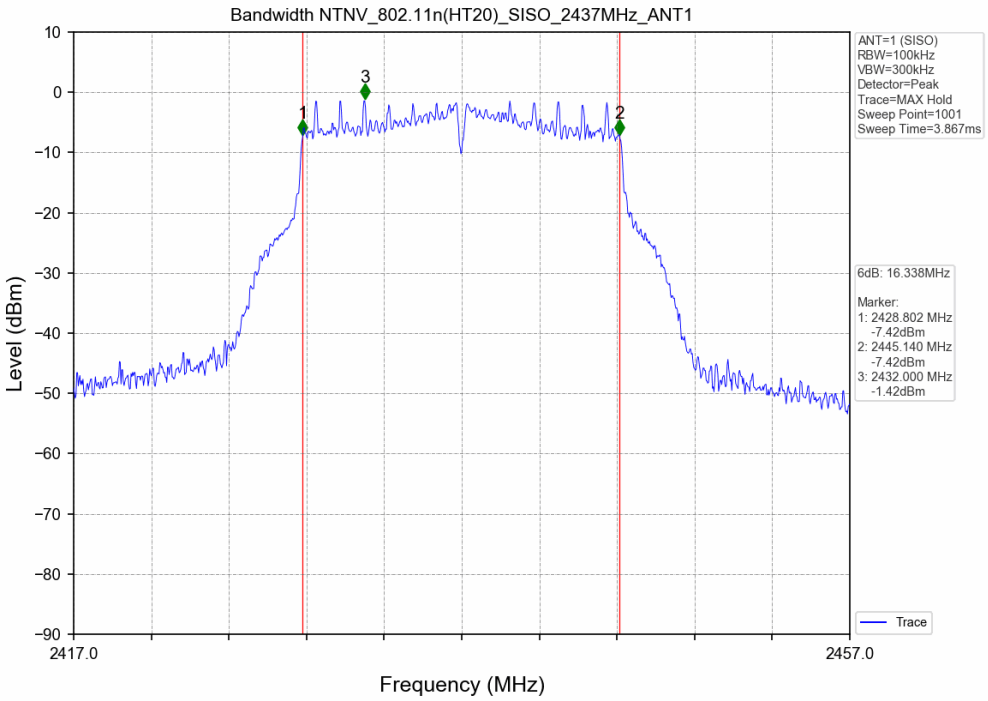

Bandwidth NTNV_802.11b_SISO_2462MHz_ANT1
ANT=1 (SISO)
RBW=100kHz
VBW=300kHz
Detector=Peak
Trace=MAX Hold
Sweep Point=1001
Sweep Time=3.867ms
6dB: 8.338MHz
Marker:
1: 2457.899 MHz
-2.74dBm
2: 2466.237 MHz
-2.74dBm
3: 2461.120 MHz
3.26dBm
Trace
Level (dBm)
Frequency (MHz)
2442.0
2482.0

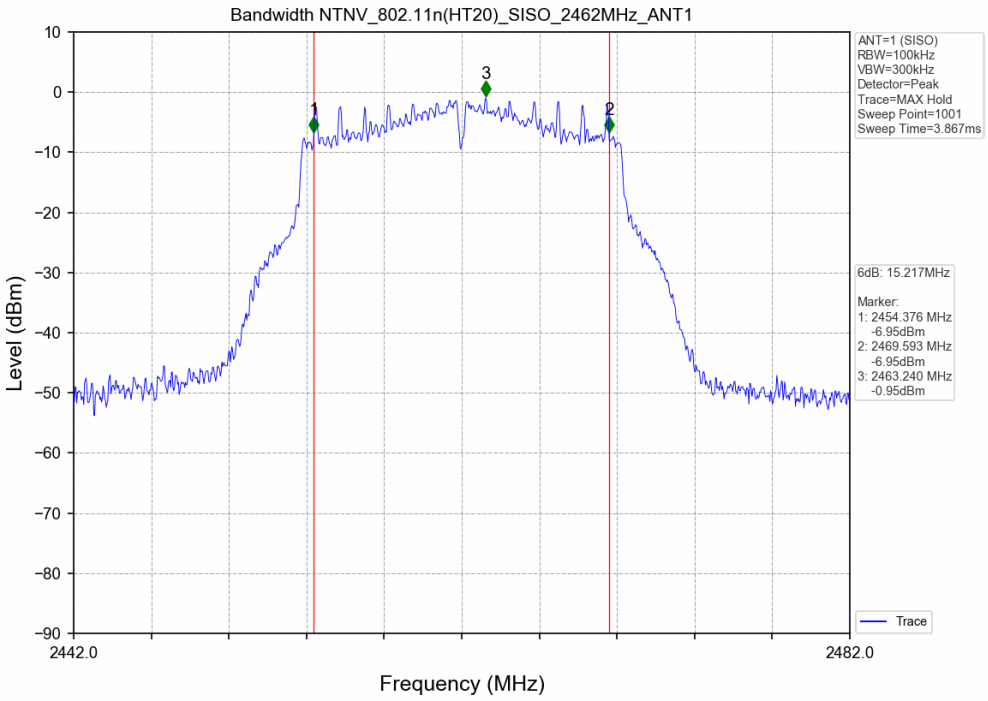

Bandwidth NTNV_802.11g_SISO_2412MHz_ANT1
ANT=1 (SISO)
RBW=100kHz
VBW=300kHz
Detector=Peak
Trace=MAX Hold
Sweep Point=1001
Sweep Time=3.867ms
6dB: 15.222MHz
Marker:
1: 2404.367 MHz
-2.12dBm
2: 2419.589 MHz
-2.12dBm
3: 2411.680 MHz
3.88dBm
Trace
Level (dBm)
Frequency (MHz)
2392.0
2432.0

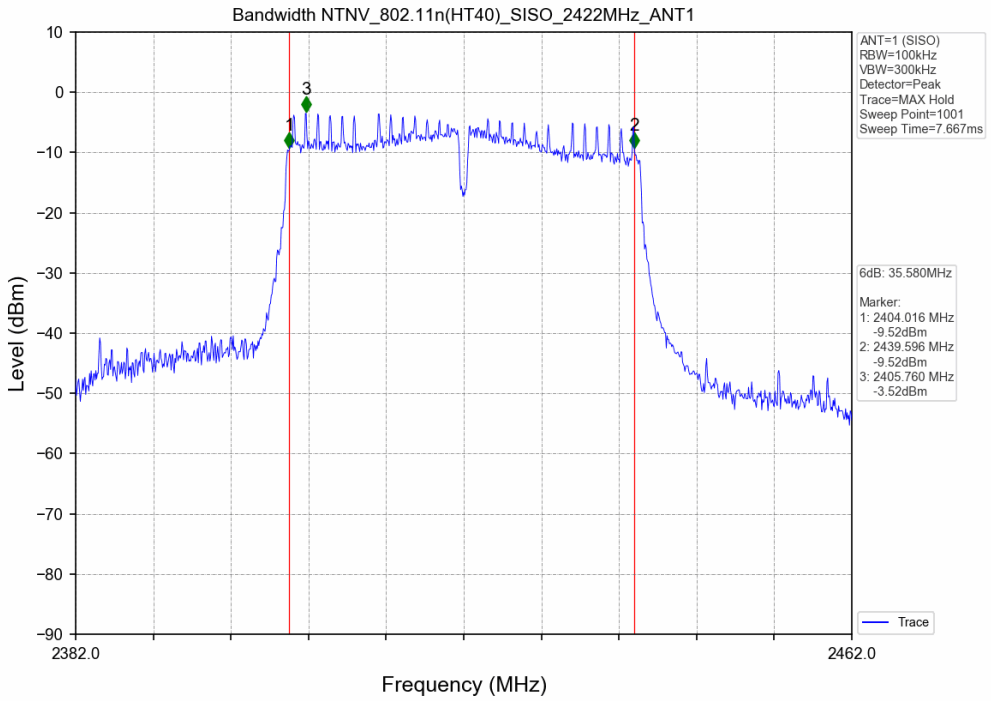

Bandwidth NTNV_802.11g_SISO_2437MHz_ANT1
ANT=1 (SISO)
RBW=100kHz
VBW=300kHz
Detector=Peak
Trace=MAX Hold
Sweep Point=1001
Sweep Time=3.867ms
6dB: 16.088MHz
Marker:
1: 2428.793 MHz
-3.29dBm
2: 2444.880 MHz
-3.29dBm
3: 2438.240 MHz
2.71dBm
Trace
Level (dBm)
Frequency (MHz)
2417.0
2457.0

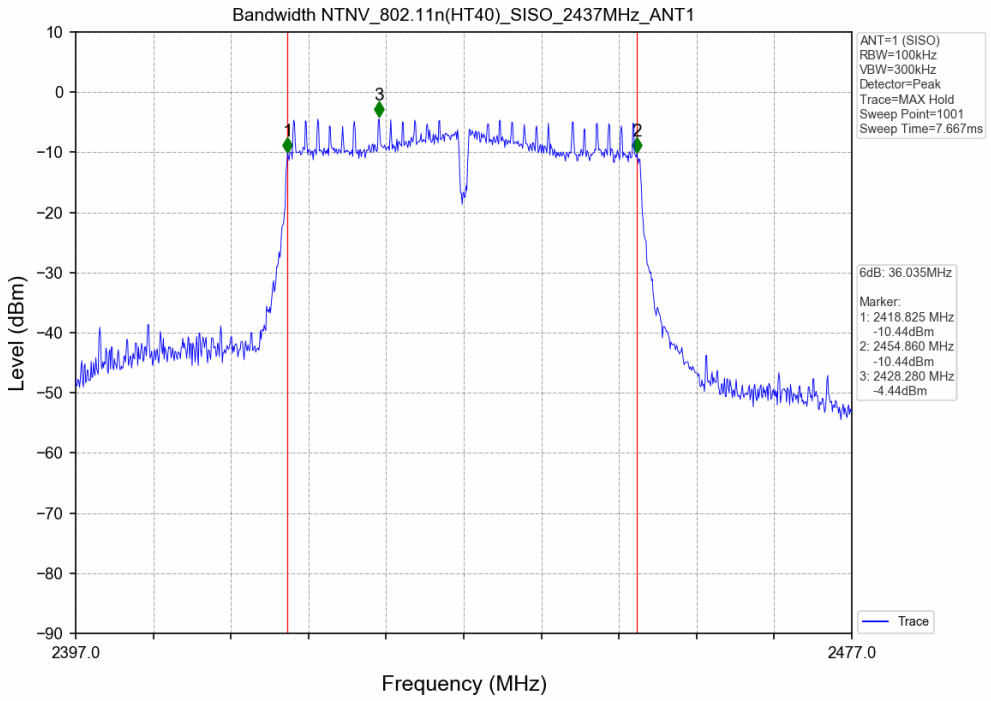

Bandwidth NTNV_802.11g_SISO_2462MHz_ANT1
ANT=1 (SISO)
RBW=100kHz
VBW=300kHz
Detector=Peak
Trace=MAX Hold
Sweep Point=1001
Sweep Time=3.867ms
6dB: 15.212MHz
Marker:
1: 2454.371 MHz
-5.96dBm
2: 2469.583 MHz
-5.96dBm
3: 2464.480 MHz
0.04dBm
Trace
Level (dBm)
Frequency (MHz)
2442.0
2482.0

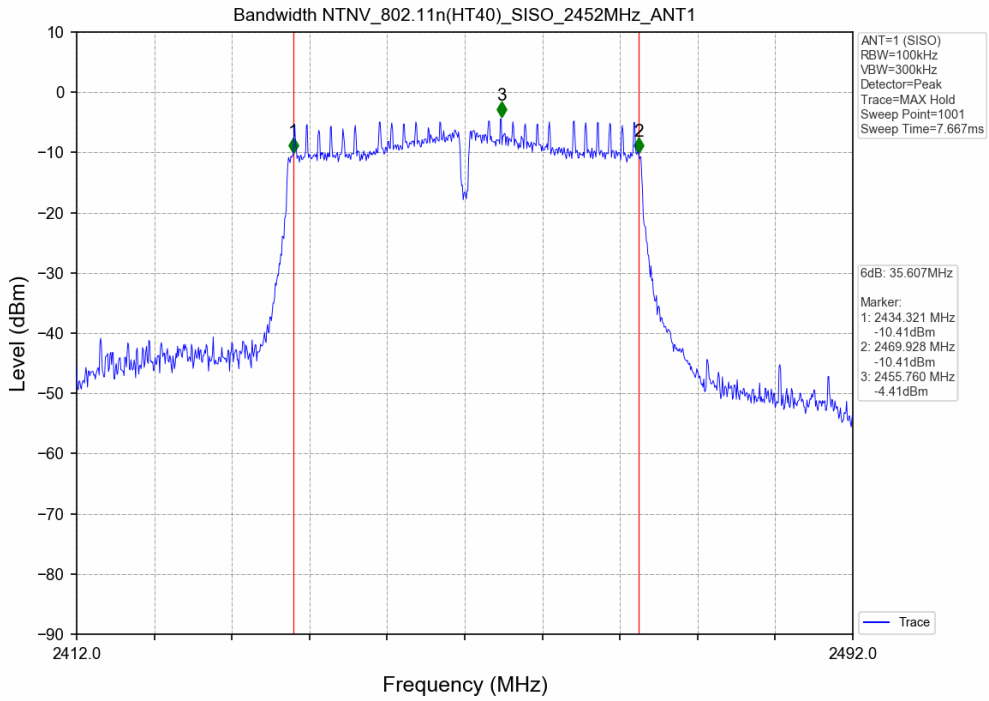

Bandwidth NTNV_802.11n(HT20)_SISO_2412MHz_ANT1
ANT=1 (SISO)
RBW=100kHz
VBW=300kHz
Detector=Peak
Trace=MAX Hold
Sweep Point=1001
Sweep Time=3.867ms
6dB: 15.203MHz
Marker:
1: 2404.372 MHz
-4.87dBm
2: 2419.576 MHz
-4.87dBm
3: 2411.720 MHz
1.13dBm
Trace
Level (dBm)
Frequency (MHz)
2392.0
2432.0


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: 16.338MHz
Marker:
1: 2428.802 MHz
-7.42dBm
2: 2445.140 MHz
-7.42dBm
3: 2432.000 MHz
-1.42dBm
Trace
Level (dBm)
Frequency (MHz)
2417.0
2457.0

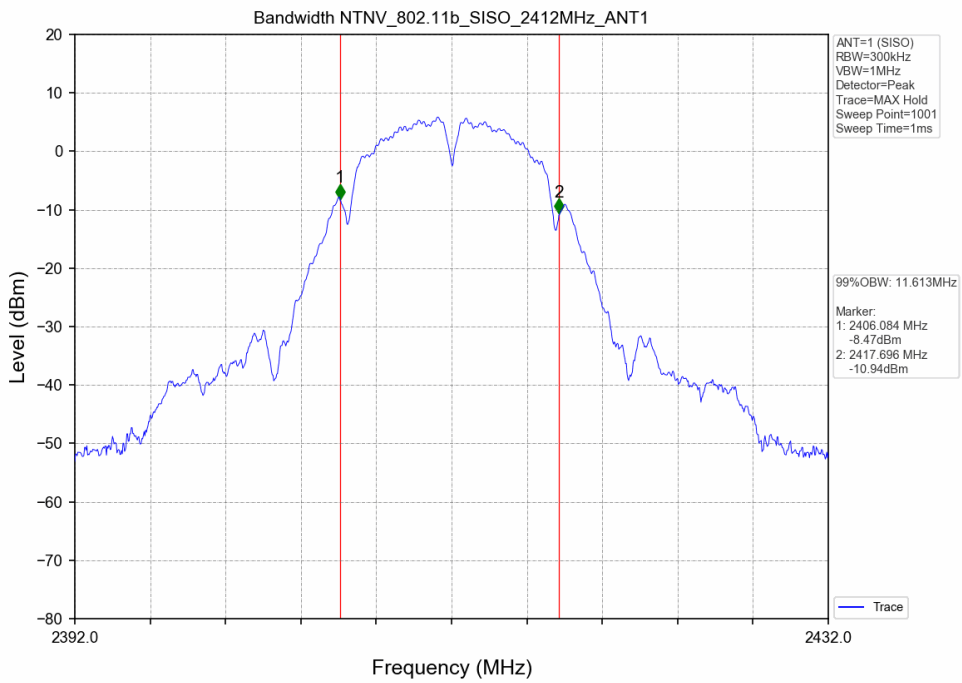

Bandwidth NTNV_802.11n(HT20)_SISO_2462MHz_ANT1
ANT=1 (SISO)
RBW=100kHz
VBW=300kHz
Detector=Peak
Trace=MAX Hold
Sweep Point=1001
Sweep Time=3.867ms
6dB: 15.217MHz
Marker:
1: 2454.376 MHz
-6.95dBm
2: 2469.593 MHz
-6.95dBm
3: 2463.240 MHz
-0.95dBm
Trace
Level (dBm)
Frequency (MHz)
2442.0
2482.0

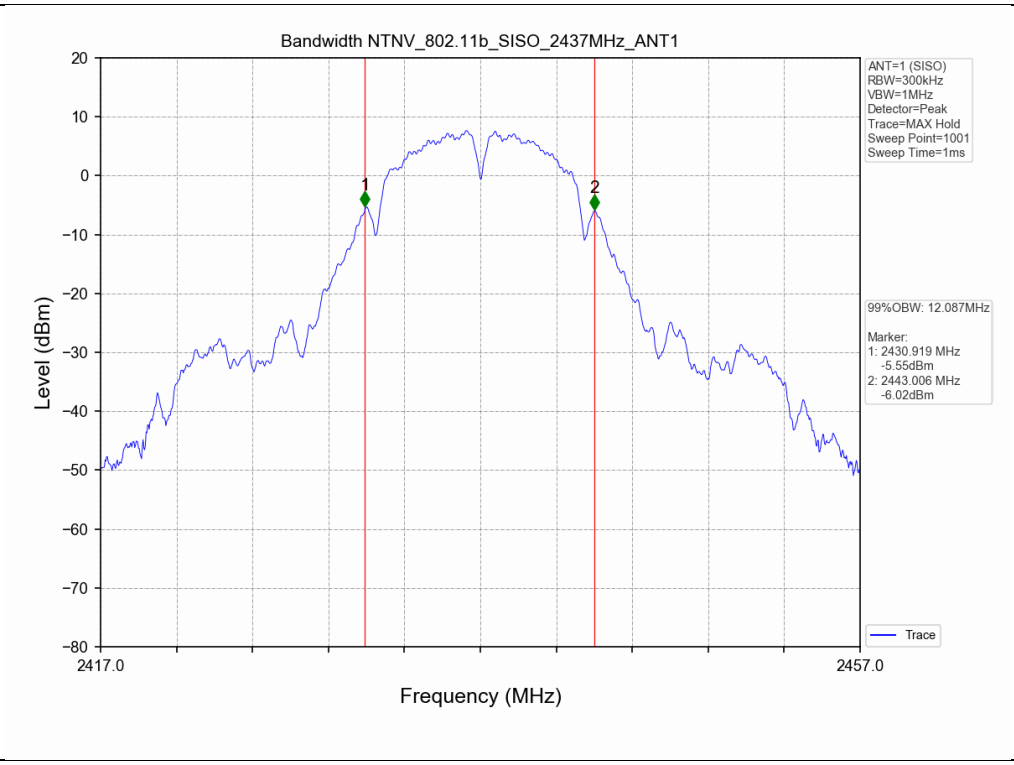

Bandwidth NTNV_802.11n(HT40)_SISO_2422MHz_ANT1
ANT=1 (SISO)
RBW=100kHz
VBW=300kHz
Detector=Peak
Trace=MAX Hold
Sweep Point=1001
Sweep Time=7.667ms
6dB: 35.580MHz
Marker:
1: 2404.016 MHz
-9.52dBm
2: 2439.596 MHz
-9.52dBm
3: 2405.760 MHz
-3.52dBm
Trace
Level (dBm)
Frequency (MHz)
2382.0
2462.0

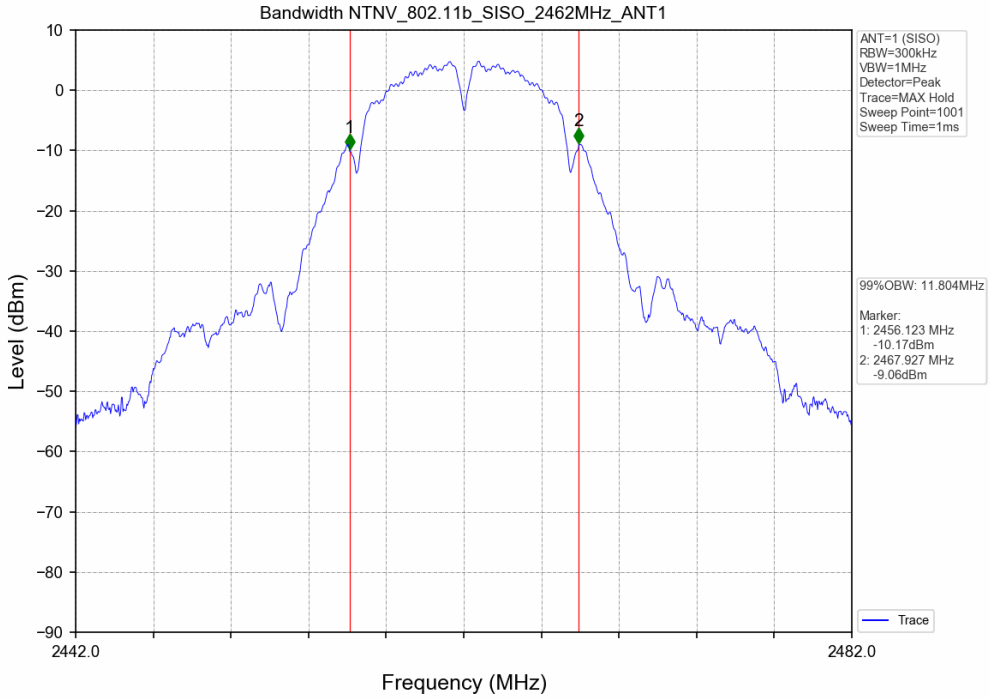

Bandwidth NTNV_802.11n(HT40)_SISO_2437MHz_ANT1
ANT=1 (SISO)
RBW=100kHz
VBW=300kHz
Detector=Peak
Trace=MAX Hold
Sweep Point=1001
Sweep Time=7.667ms
6dB: 36.035MHz
Marker:
1: 2418.825 MHz
-10.44dBm
2: 2454.860 MHz
-10.44dBm
3: 2428.280 MHz
-4.44dBm
Trace
Level (dBm)
Frequency (MHz)
2397.0
2477.0

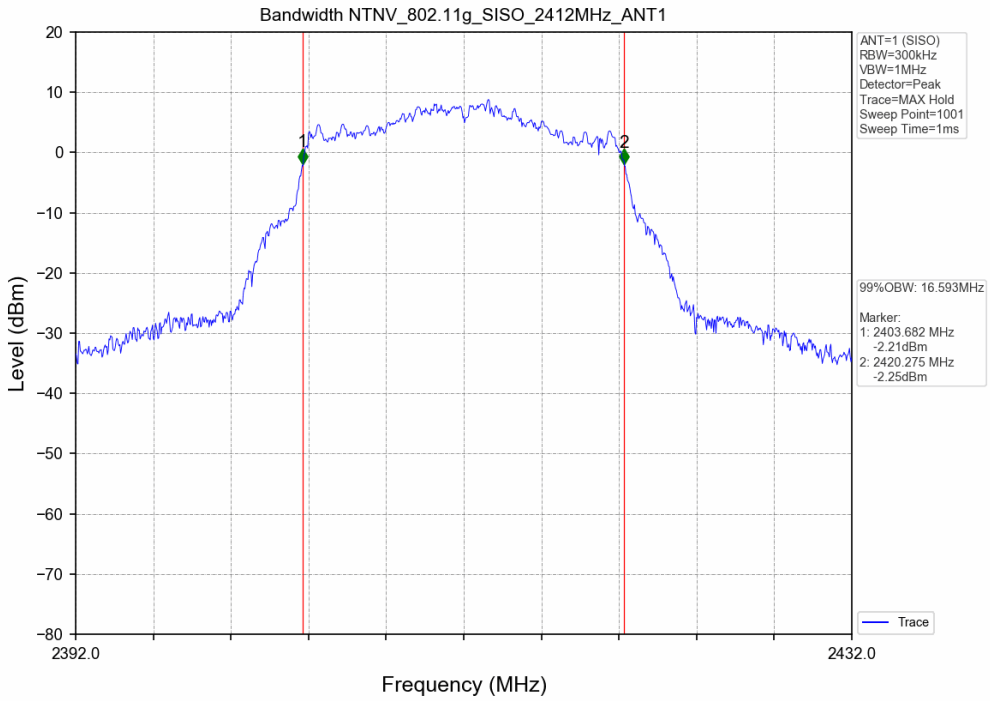


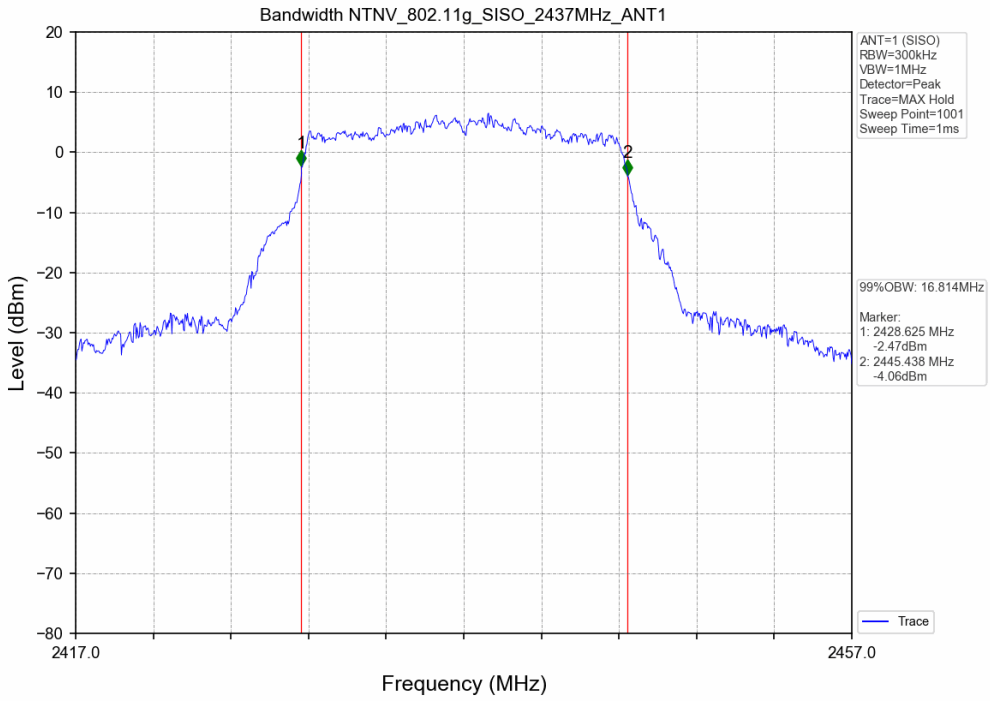
2.3 Test Graph - 99% Occupied Bandwidth

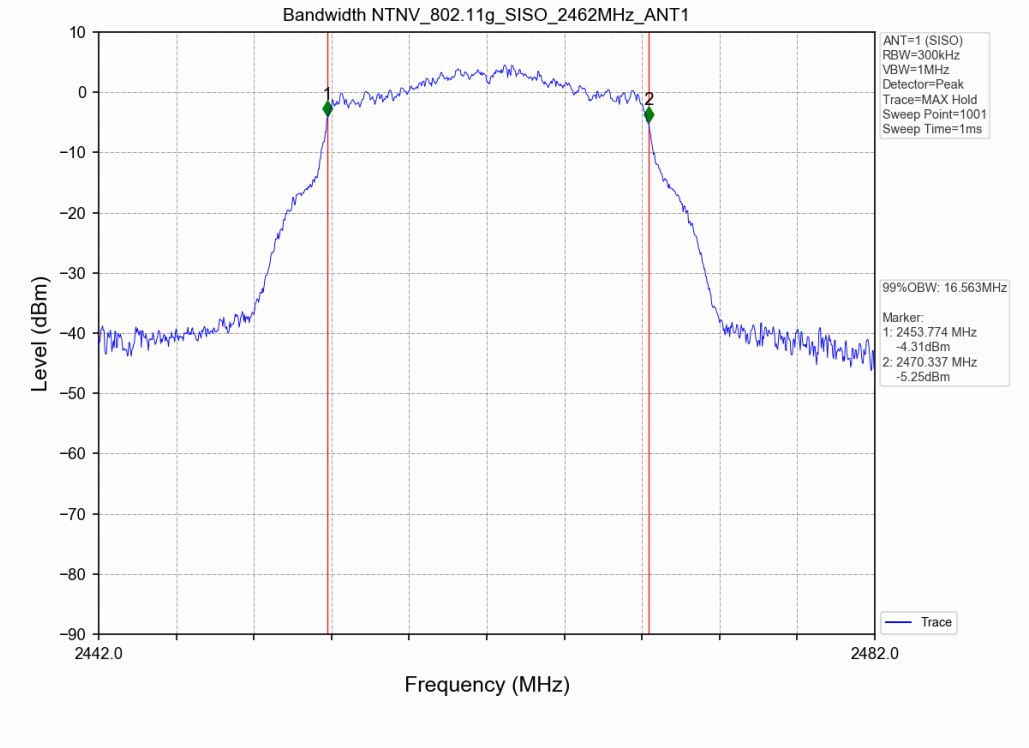


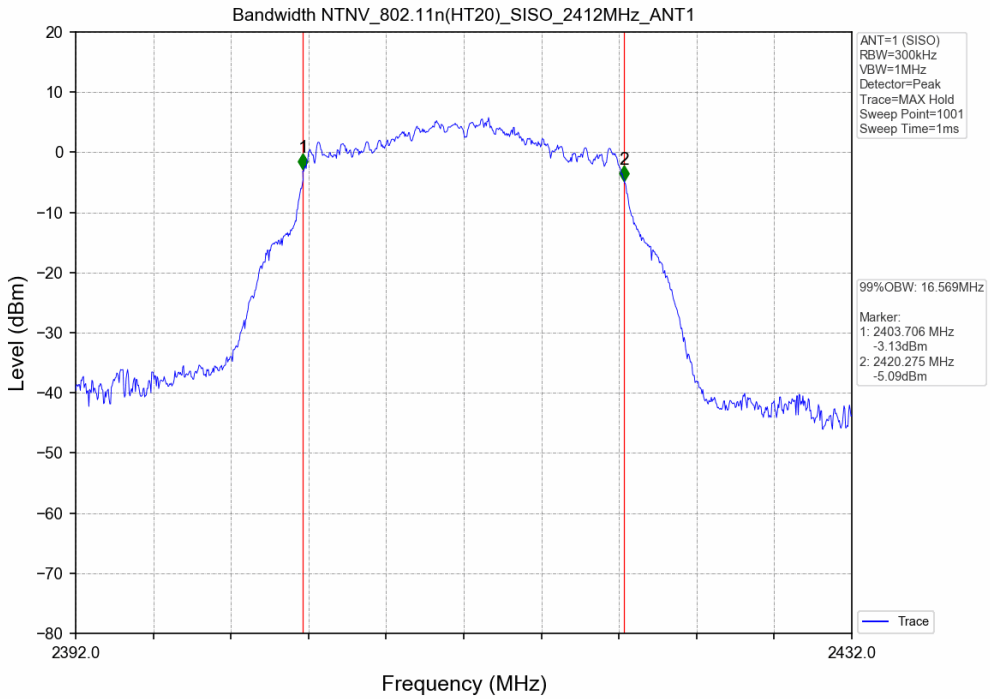

Bandwidth NTNV_802.11b_SISO_2437MHz_ANT1
ANT=1 (SISO)
RBW=300kHz
VBW=1MHz
Detector=Peak
Trace=MAX Hold
Sweep Point=1001
Sweep Time=1ms
99%OBW: 12.087MHz
Marker:
1: 2430.919 MHz
-5.55dBm
2: 2443.006 MHz
-6.02dBm
Trace
Level (dBm)
Frequency (MHz)
2417.0
2457.0

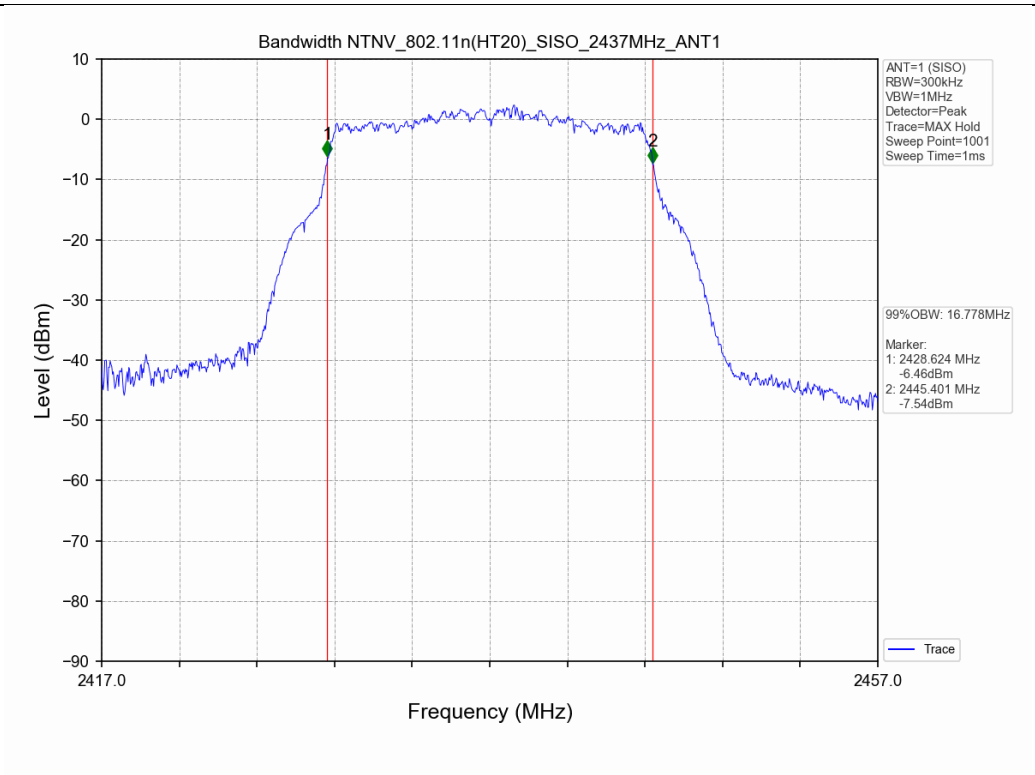

Bandwidth NTNV_802.11b_SISO_2462MHz_ANT1
ANT=1 (SISO)
RBW=300kHz
VBW=1MHz
Detector=Peak
Trace=MAX Hold
Sweep Point=1001
Sweep Time=1ms
99%OBW: 11.804MHz
Marker:
1: 2456.123 MHz
-10.17dBm
2: 2467.927 MHz
-9.06dBm
Trace
Level (dBm)
Frequency (MHz)
2442.0
2482.0

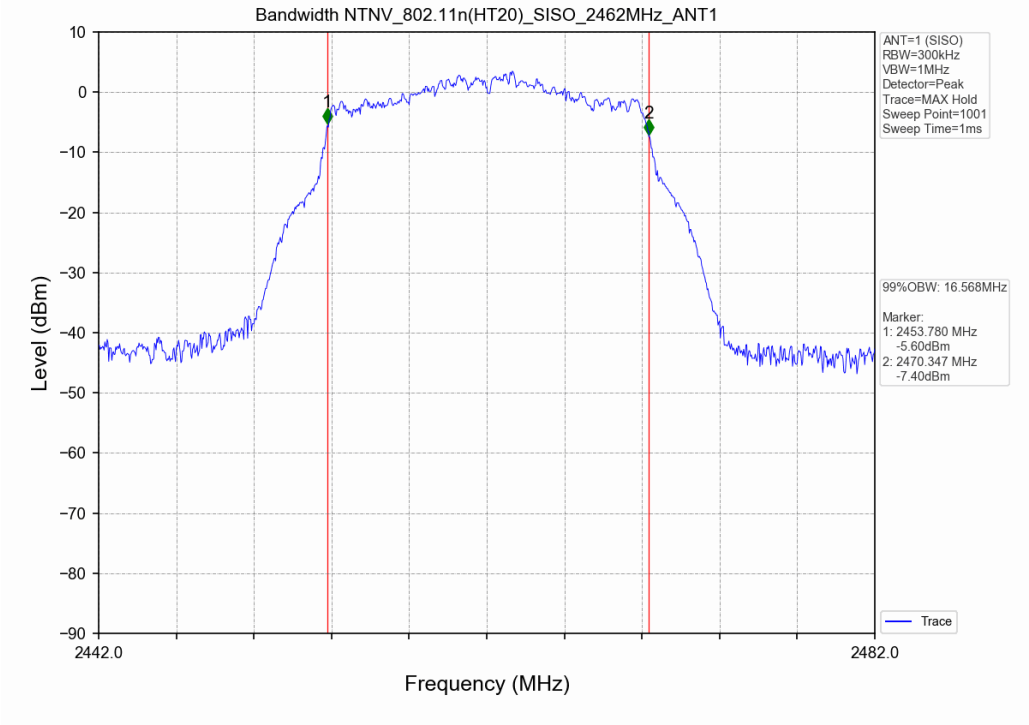

Bandwidth NTNV_802.11g_SISO_2412MHz_ANT1
ANT=1 (SISO)
RBW=300kHz
VBW=1MHz
Detector=Peak
Trace=MAX Hold
Sweep Point=1001
Sweep Time=1ms
99%OBW: 16.593MHz
Marker:
1: 2403.682 MHz
-2.21dBm
2: 2420.275 MHz
-2.25dBm
Trace
Level (dBm)
Frequency (MHz)
2392.0
2432.0

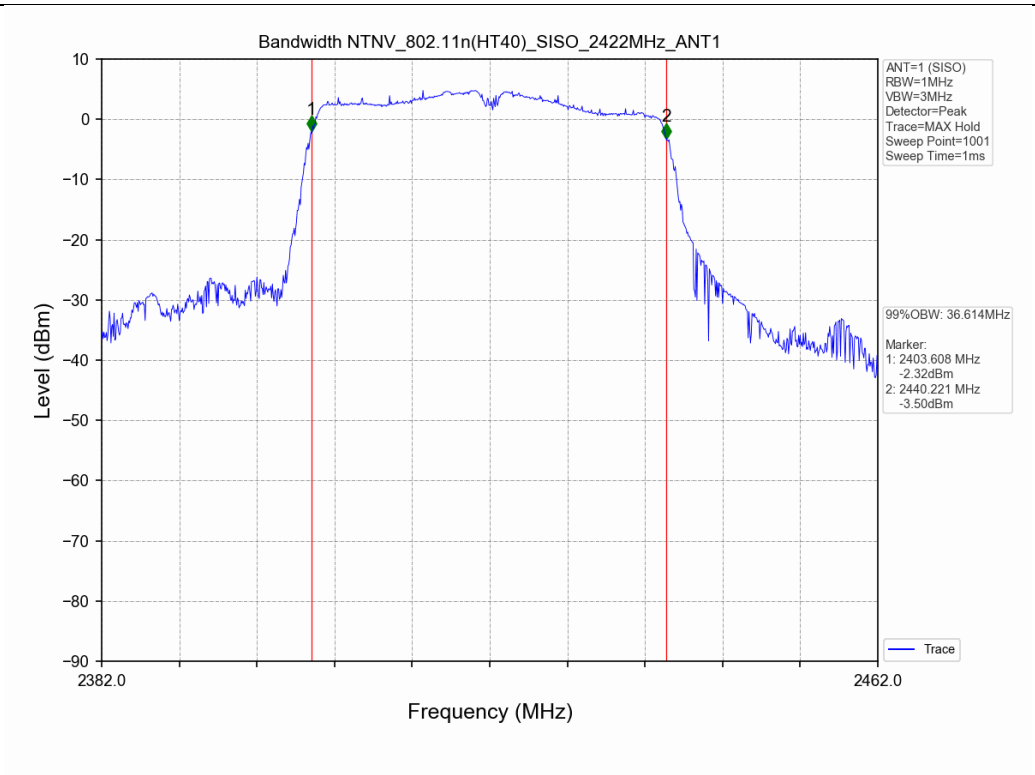

Bandwidth NTNV_802.11g_SISO_2437MHz_ANT1
ANT=1 (SISO)
RBW=300kHz
VBW=1MHz
Detector=Peak
Trace=MAX Hold
Sweep Point=1001
Sweep Time=1ms
99%OBW: 16.814MHz
Marker:
1: 2428.625 MHz
-2.47dBm
2: 2445.438 MHz
-4.06dBm
Trace
Level (dBm)
Frequency (MHz)
2417.0
2457.0

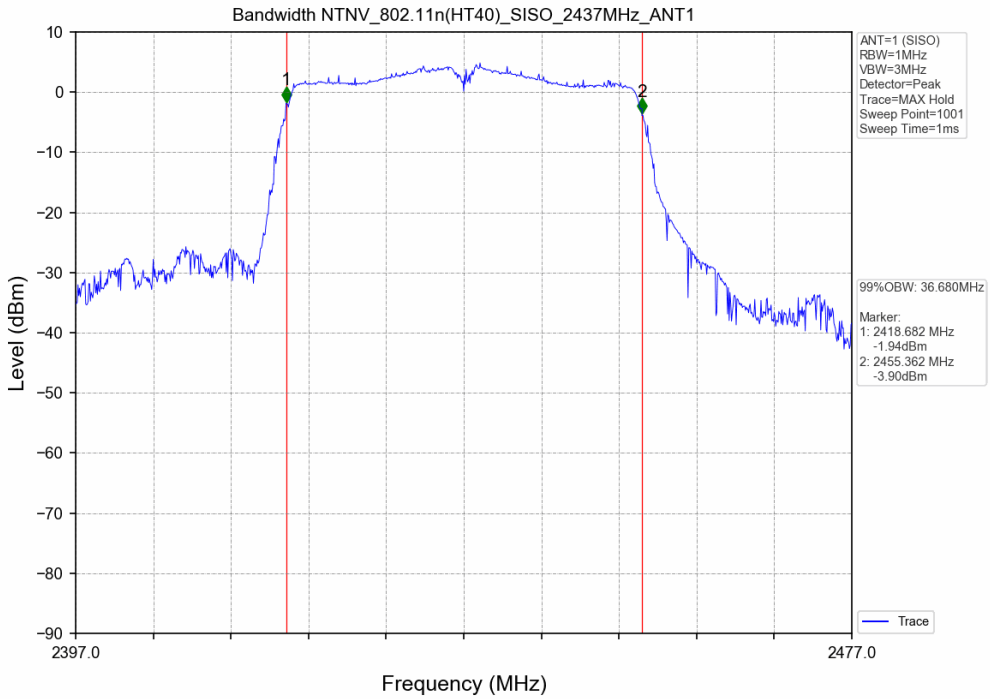

Bandwidth NTNV_802.11g_SISO_2462MHz_ANT1
ANT=1 (SISO)
RBW=300kHz
VBW=1MHz
Detector=Peak
Trace=MAX Hold
Sweep Point=1001
Sweep Time=1ms
99%OBW: 16.563MHz
Marker:
1: 2453.774 MHz
-4.31dBm
2: 2470.337 MHz
-5.25dBm
Trace
Level (dBm)
Frequency (MHz)
2442.0
2482.0

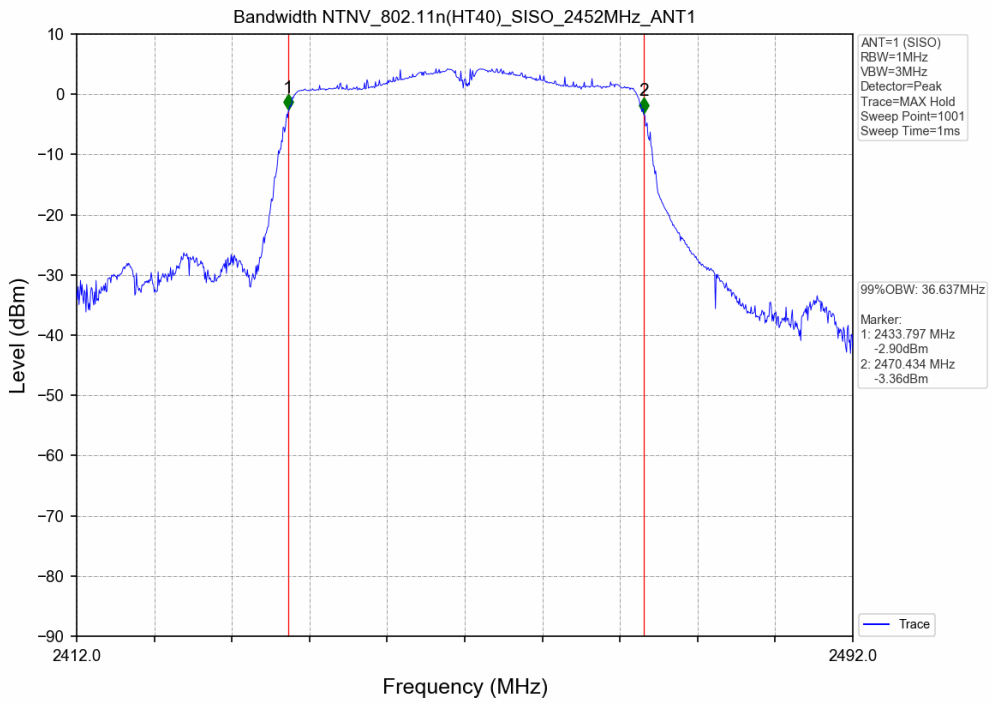

Bandwidth NTNV_802.11n(HT20)_SISO_2412MHz_ANT1
ANT=1 (SISO)
RBW=300kHz
VBW=1MHz
Detector=Peak
Trace=MAX Hold
Sweep Point=1001
Sweep Time=1ms
99%OBW: 16.569MHz
Marker:
1: 2403.706 MHz
-3.13dBm
2: 2420.275 MHz
-5.09dBm
Trace
Level (dBm)
Frequency (MHz)
2392.0
2432.0


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: 16.778MHz
Marker:
1: 2428.624 MHz
-6.46dBm
2: 2445.401 MHz
-7.54dBm
Trace
Level (dBm)
Frequency (MHz)
2417.0
2457.0


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: 16.568MHz
Marker:
1: 2453.780 MHz
-5.60dBm
2: 2470.347 MHz
-7.40dBm
Trace
Level (dBm)
Frequency (MHz)
2442.0
2482.0


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: 36.614MHz
Marker:
1: 2403.608 MHz
-2.32dBm
2: 2440.221 MHz
-3.50dBm
Trace
Level (dBm)
Frequency (MHz)
2382.0
2462.0


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: 36.680MHz
Marker:
1: 2418.682 MHz
-1.94dBm
2: 2455.362 MHz
-3.90dBm
Trace
Level (dBm)
Frequency (MHz)
2397.0
2477.0

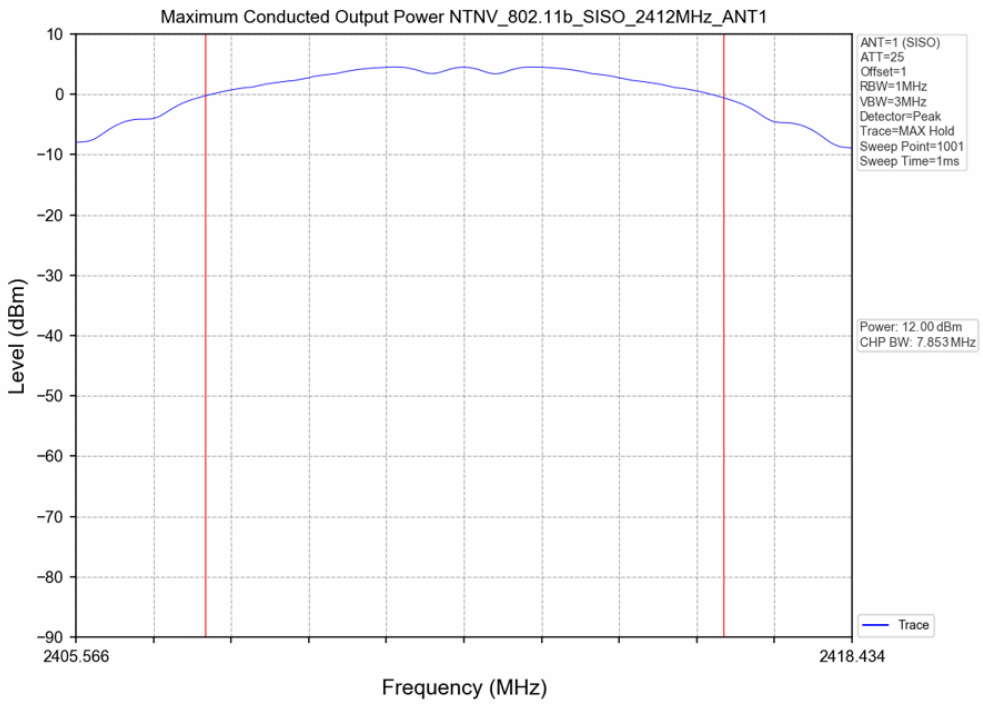


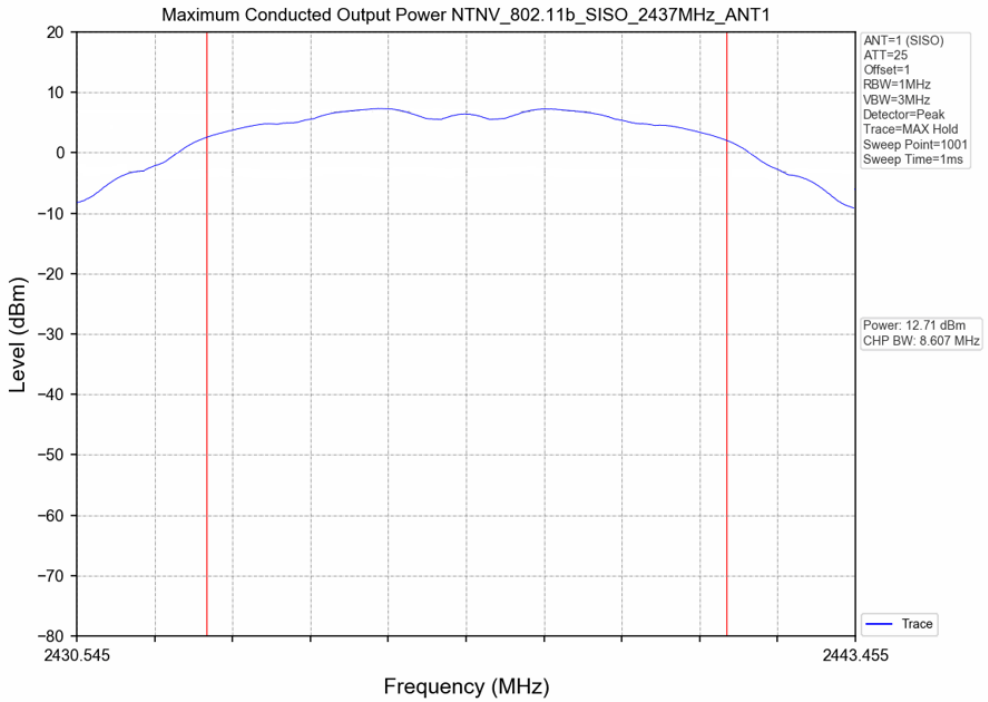
3. Maximum Conducted Output Power

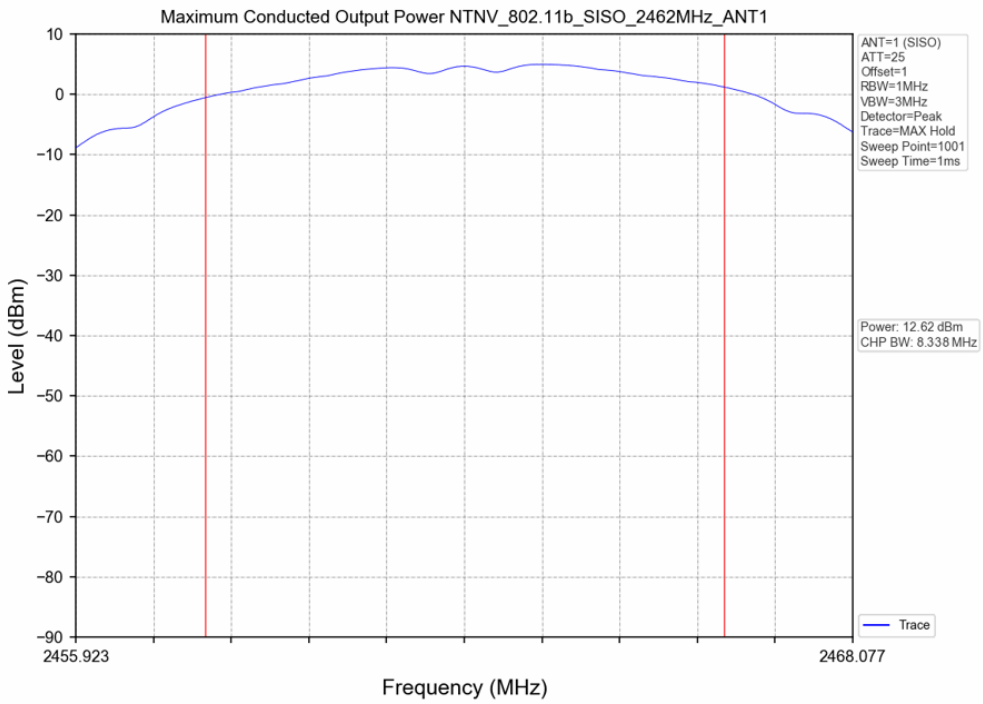
3.1 Test Result

Test Mode	Frequency (MHz)	Tx Type	Measured Peak Output Power (dBm)	Limits (dBm)	Verdict
			Ant 1		
802.11b	2412	SISO	12.00	30	PASS
	2437	SISO	12.71	30	PASS
	2462	SISO	12.62	30	PASS
802.11g	2412	SISO	12.02	30	PASS
	2437	SISO	12.02	30	PASS
	2462	SISO	12.20	30	PASS
802.11n(HT20)	2412	SISO	11.66	30	PASS
	2437	SISO	12.33	30	PASS
	2462	SISO	12.12	30	PASS
802.11n(HT40)	2422	SISO	12.60	30	PASS
	2437	SISO	12.16	30	PASS
	2452	SISO	12.03	30	PASS

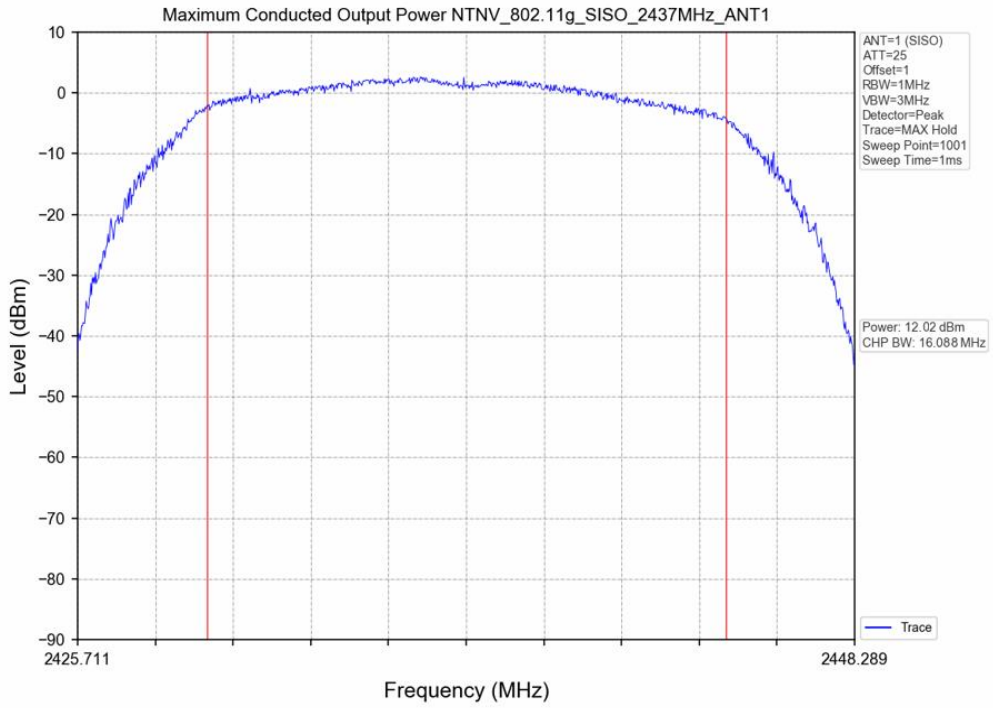
Test Graph

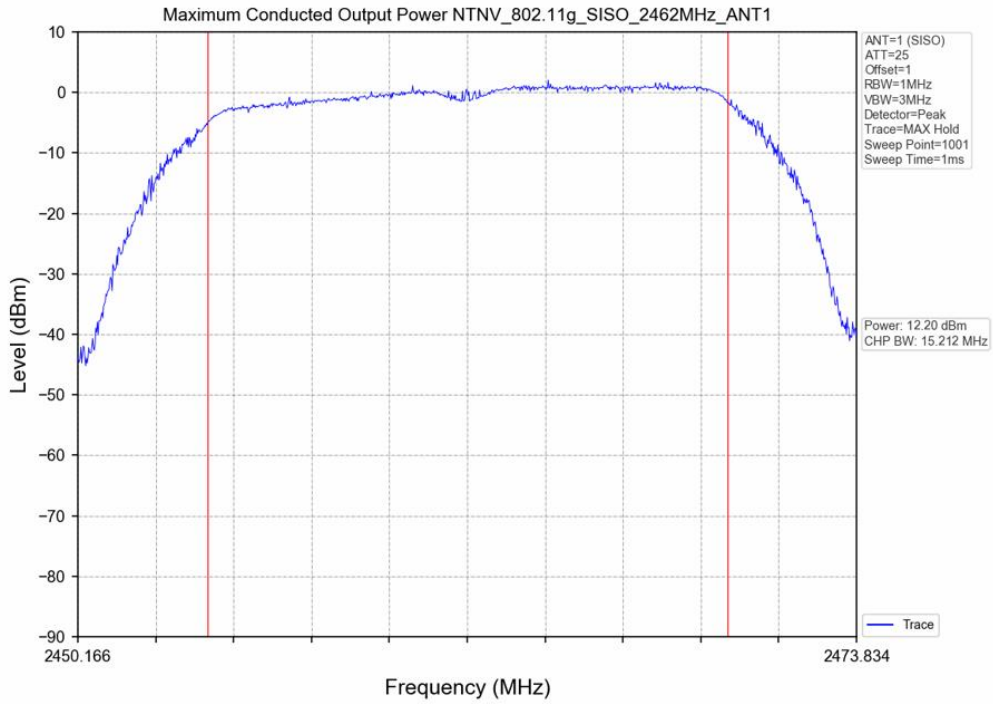

Maximum Conducted Output Power NTNV_802.11b_SISO_2412MHz_ANT1
ANT=1 (SISO)
ATT=25
Offset=1
RBW=1MHz
VBW=3MHz
Detector=Peak
Trace=MAX Hold
Sweep Point=1001
Sweep Time=1ms
Power: 12.00 dBm
CHP BW: 7.853 MHz
Trace
Level (dBm)
10
0
−10
−20
−30
−40
−50
−60
−70
−80
−90
2405.566
2418.434
Frequency (MHz)

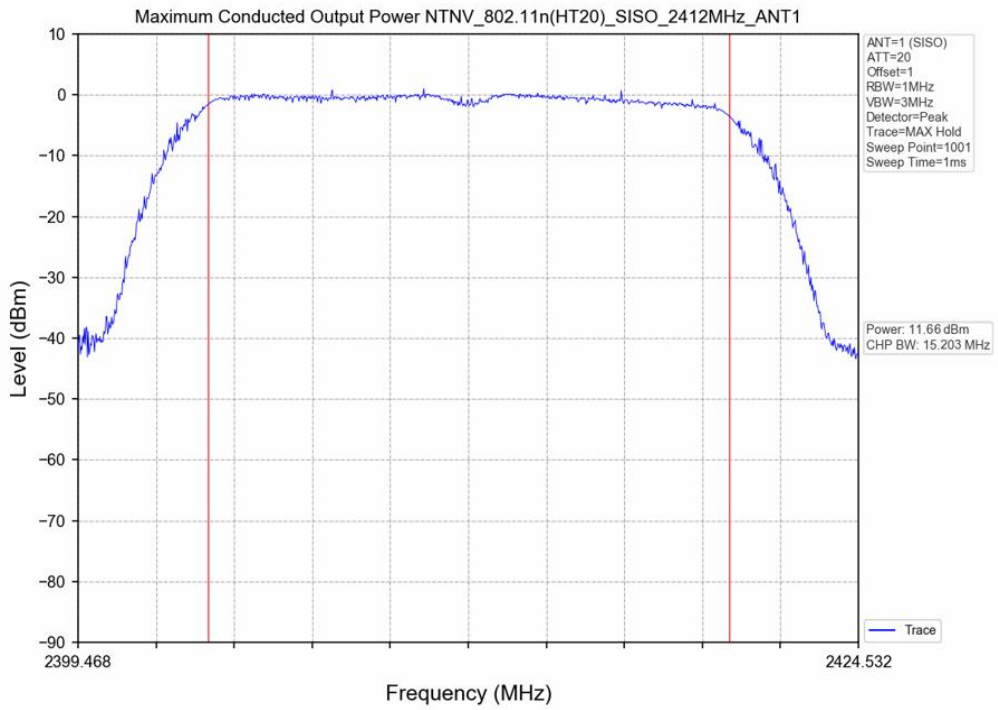

Maximum Conducted Output Power NTNV_802.11b_SISO_2437MHz_ANT1
ANT=1 (SISO)
ATT=25
Offset=1
RBW=1MHz
VBW=3MHz
Detector=Peak
Trace=MAX Hold
Sweep Point=1001
Sweep Time=1ms
Power: 12.71 dBm
CHP BW: 8.607 MHz
Trace
Level (dBm)
20
10
0
−10
−20
−30
−40
−50
−60
−70
−80
2430.545
2443.455
Frequency (MHz)

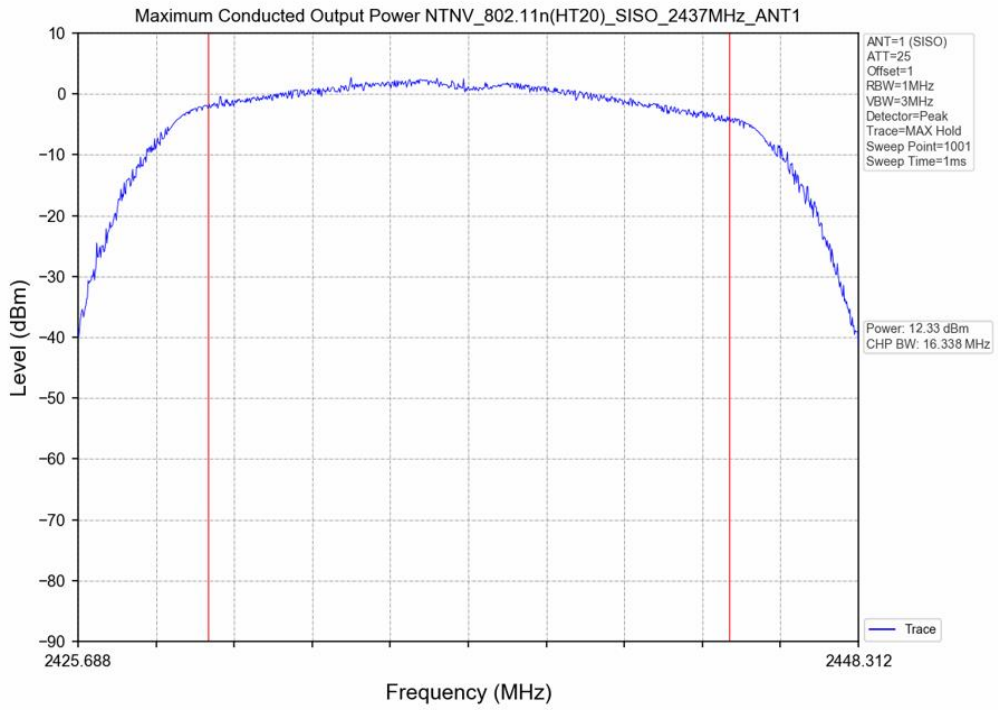

Maximum Conducted Output Power NTNV_802.11b_SISO_2462MHz_ANT1
ANT=1 (SISO)
ATT=25
Offset=1
RBW=1MHz
VBW=3MHz
Detector=Peak
Trace=MAX Hold
Sweep Point=1001
Sweep Time=1ms
Power: 12.62 dBm
CHP BW: 8.338 MHz
Trace
Level (dBm)
10
0
−10
−20
−30
−40
−50
−60
−70
−80
−90
2455.923
2468.077
Frequency (MHz)

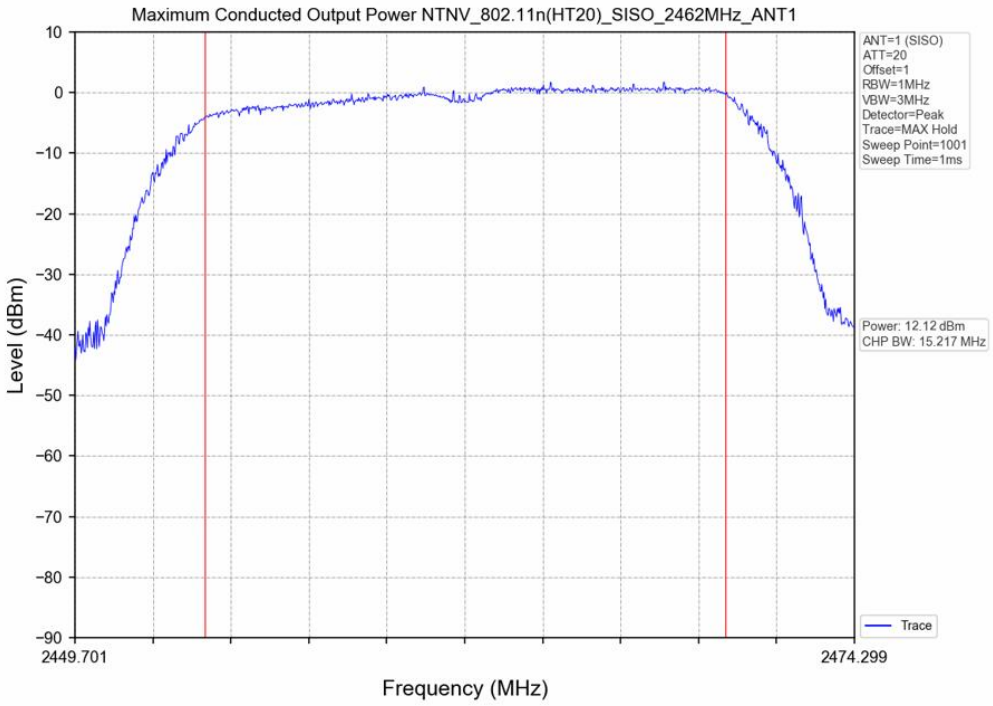
Maximum Conducted Output Power NTNV_802.11g_SISO_2412MHz_ANT1
ANT=1 (SISO)
ATT=25
Offset=1
RBW=1MHz
VBW=3MHz
Detector=Peak
Trace=MAX Hold
Sweep Point=1001
Sweep Time=1ms
Power: 12.02 dBm
CHP BW: 15.222 MHz
Trace
Level (dBm)
10
0
−10
−20
−30
−40
−50
−60
−70
−80
−90
2399.72
2424.28
Frequency (MHz)

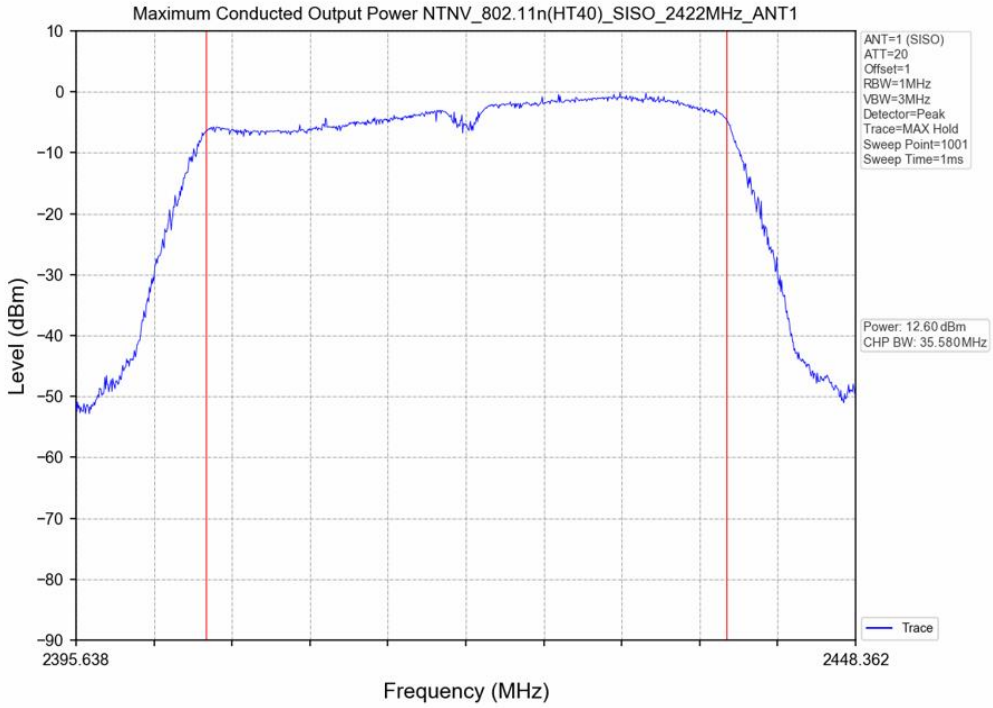

Maximum Conducted Output Power NTNV_802.11g_SISO_2437MHz_ANT1
ANT=1 (SISO)
ATT=25
Offset=1
RBW=1MHz
VBW=3MHz
Detector=Peak
Trace=MAX Hold
Sweep Point=1001
Sweep Time=1ms
Power: 12.02 dBm
CHP BW: 16.088 MHz
Trace
Level (dBm)
10
0
−10
−20
−30
−40
−50
−60
−70
−80
−90
2425.711
2448.289
Frequency (MHz)

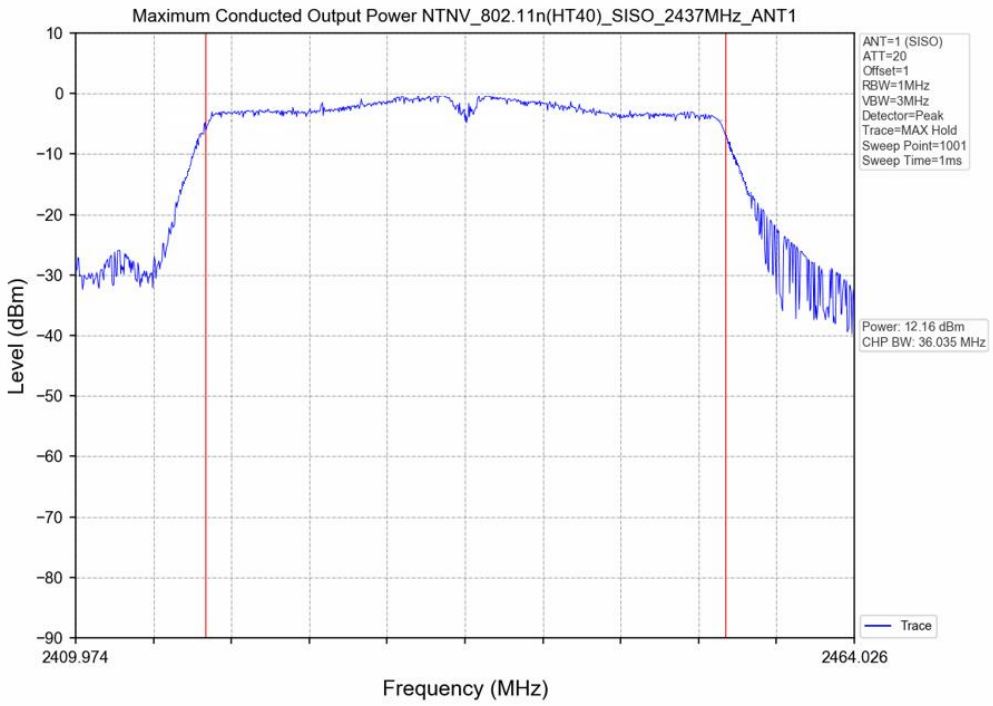

Maximum Conducted Output Power NTNV_802.11g_SISO_2462MHz_ANT1
ANT=1 (SISO)
ATT=25
Offset=1
RBW=1MHz
VBW=3MHz
Detector=Peak
Trace=MAX Hold
Sweep Point=1001
Sweep Time=1ms
Power: 12.20 dBm
CHP BW: 15.212 MHz
Trace
Level (dBm)
10
0
−10
−20
−30
−40
−50
−60
−70
−80
−90
2450.166
2473.834
Frequency (MHz)

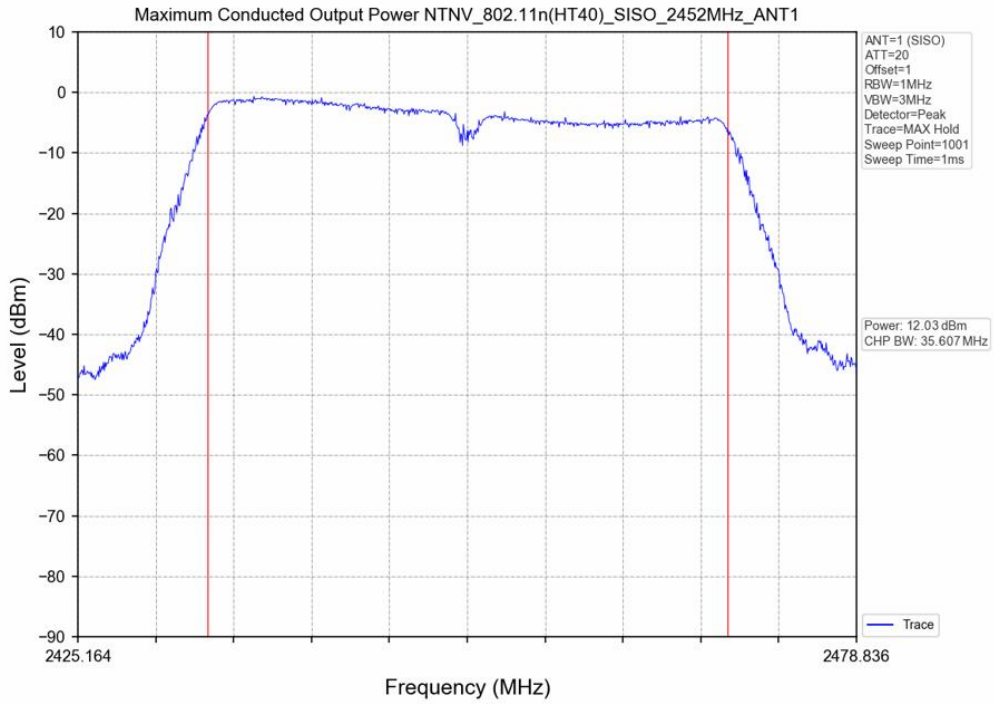

Maximum Conducted Output Power NTNV_802.11n(HT20)_SISO_2412MHz_ANT1
ANT=1 (SISO)
ATT=20
Offset=1
RBW=1MHz
VBW=3MHz
Detector=Peak
Trace=MAX Hold
Sweep Point=1001
Sweep Time=1ms
Power: 11.66 dBm
CHP BW: 15.203 MHz
Trace
Level (dBm)
10
0
−10
−20
−30
−40
−50
−60
−70
−80
−90
2399.468
2424.532
Frequency (MHz)


Maximum Conducted Output Power NTNV_802.11n(HT20)_SISO_2437MHz_ANT1
ANT=1 (SISO)
ATT=25
Offset=1
RBW=1MHz
VBW=3MHz
Detector=Peak
Trace=MAX Hold
Sweep Point=1001
Sweep Time=1ms
Power: 12.33 dBm
CHP BW: 16.338 MHz
Trace
Level (dBm)
10
0
−10
−20
−30
−40
−50
−60
−70
−80
−90
2425.688
2448.312
Frequency (MHz)


Maximum Conducted Output Power NTNV_802.11n(HT20)_SISO_2462MHz_ANT1
ANT=1 (SISO)
ATT=20
Offset=1
RBW=1MHz
VBW=3MHz
Detector=Peak
Trace=MAX Hold
Sweep Point=1001
Sweep Time=1ms
Power: 12.12 dBm
CHP BW: 15.217 MHz
Trace
Level (dBm)
10
0
−10
−20
−30
−40
−50
−60
−70
−80
−90
2449.701
2474.299
Frequency (MHz)


Maximum Conducted Output Power NTNV_802.11n(HT40)_SISO_2422MHz_ANT1
ANT=1 (SISO)
ATT=20
Offset=1
RBW=1MHz
VBW=3MHz
Detector=Peak
Trace=MAX Hold
Sweep Point=1001
Sweep Time=1ms
Power: 12.60 dBm
CHP BW: 35.580MHz
Trace
Level (dBm)
10
0
−10
−20
−30
−40
−50
−60
−70
−80
−90
2395.638
2448.362
Frequency (MHz)


Maximum Conducted Output Power NTNV_802.11n(HT40)_SISO_2437MHz_ANT1
ANT=1 (SISO)
ATT=20
Offset=1
RBW=1MHz
VBW=3MHz
Detector=Peak
Trace=MAX Hold
Sweep Point=1001
Sweep Time=1ms
Power: 12.16 dBm
CHP BW: 36.035 MHz
Trace
Level (dBm)
10
0
−10
−20
−30
−40
−50
−60
−70
−80
−90
2409.974
2464.026
Frequency (MHz)

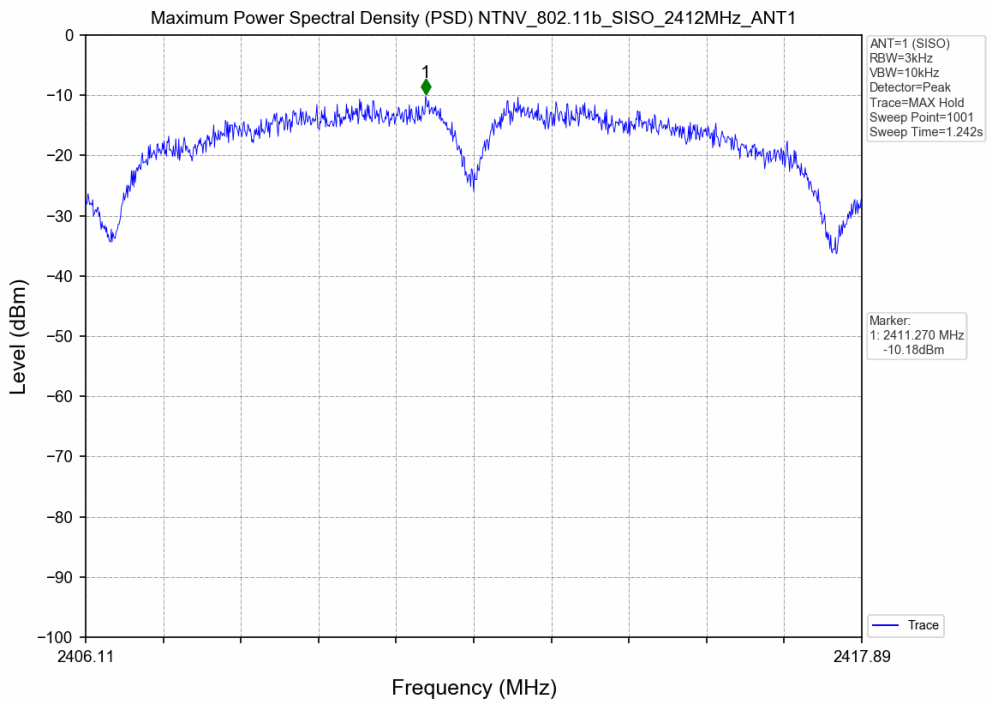

Maximum Conducted Output Power NTNV_802.11n(HT40)_SISO_2452MHz_ANT1
ANT=1 (SISO)
ATT=20
Offset=1
RBW=1MHz
VBW=3MHz
Detector=Peak
Trace=MAX Hold
Sweep Point=1001
Sweep Time=1ms
Power: 12.03 dBm
CHP BW: 35.607 MHz
Trace
Level (dBm)
10
0
−10
−20
−30
−40
−50
−60
−70
−80
−90
2425.164
2478.836
Frequency (MHz)

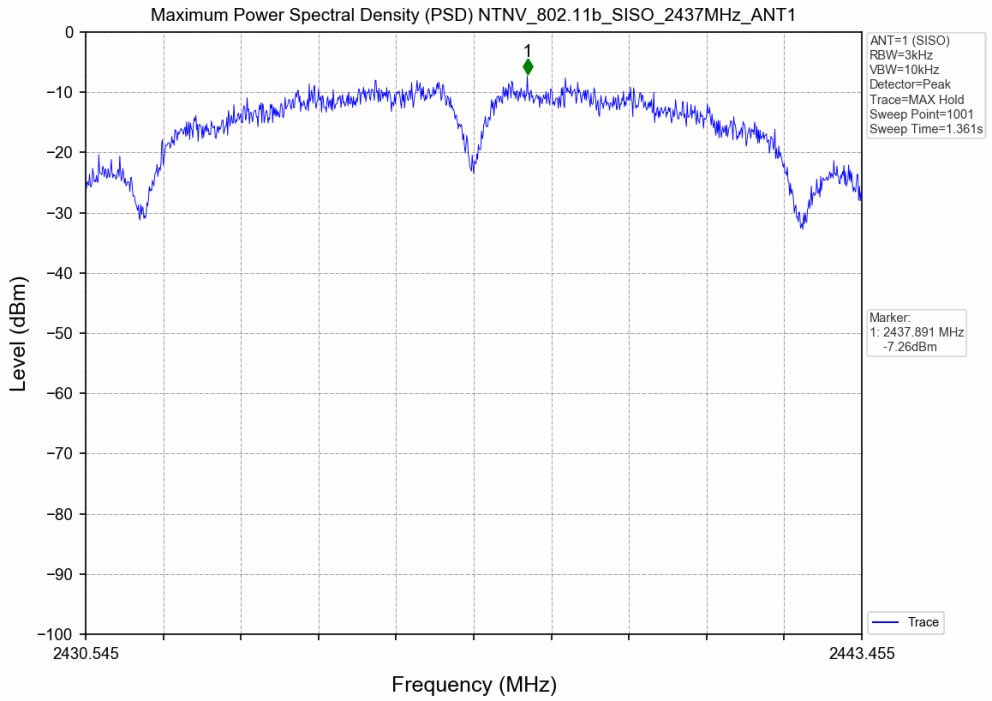
4. Maximum Power Spectral Density (PSD)

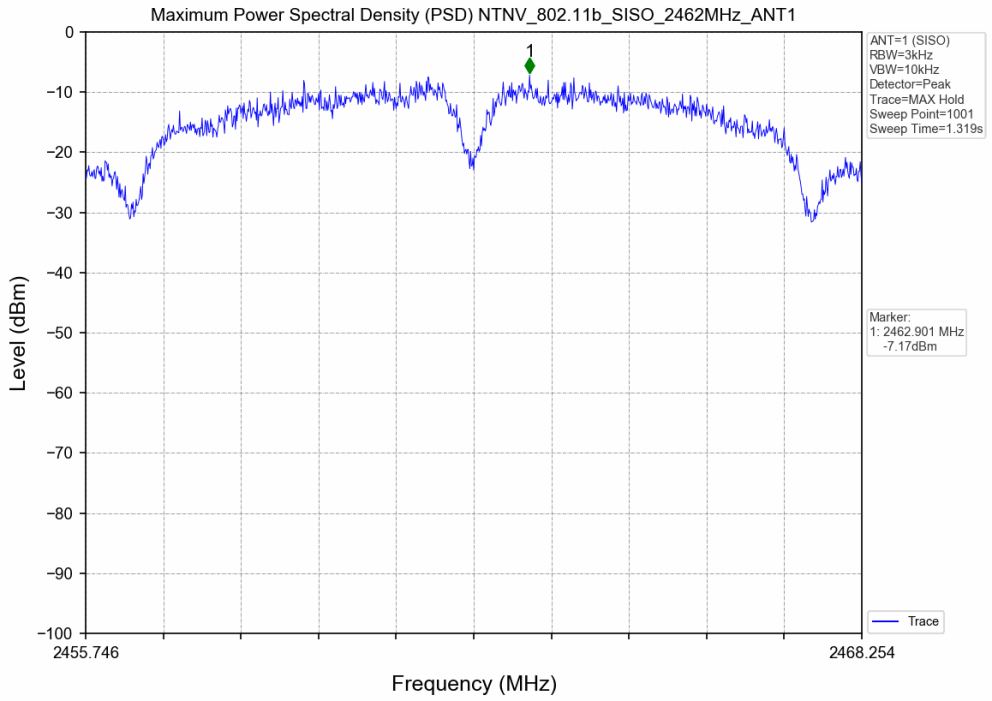
4.1 Test Result

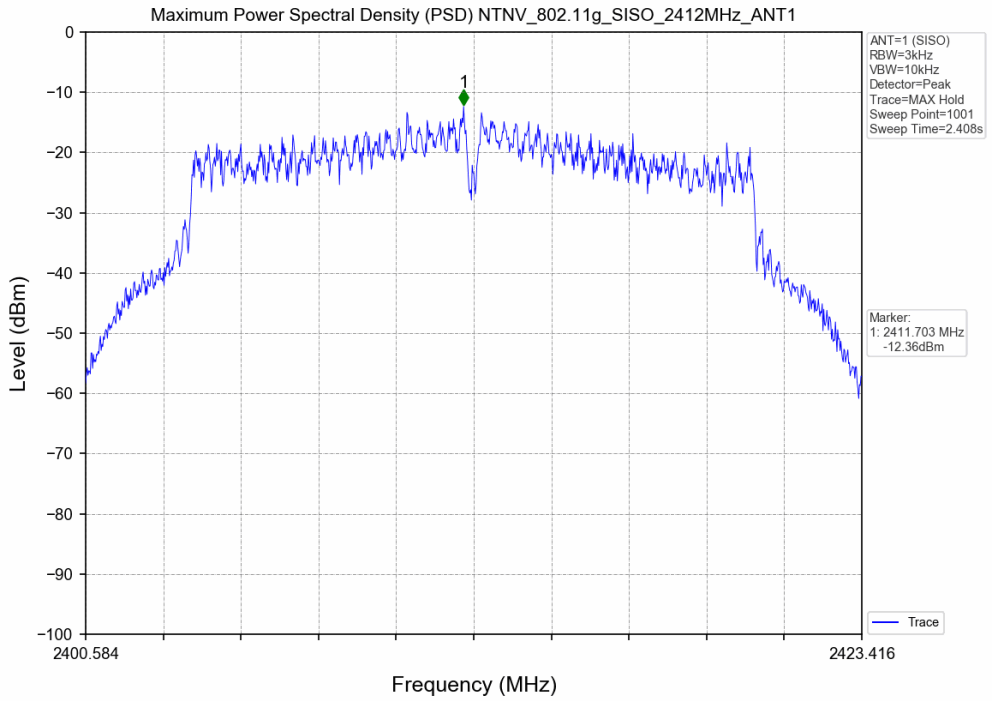
Test Mode	Frequency (MHz)	Tx Type	Maximum Power Spectral Density (dBm/3KHz)	Limits (dBm/3kHz)	Verdict
			Ant 1		
802.11b	2412	SISO	-10.18	≤8	PASS
	2437	SISO	-7.26	≤8	PASS
	2462	SISO	-7.17	≤8	PASS
802.11g	2412	SISO	-12.36	≤8	PASS
	2437	SISO	-13.37	≤8	PASS
	2462	SISO	-12.63	≤8	PASS
802.11n(HT20)	2412	SISO	-13.00	≤8	PASS
	2437	SISO	-13.06	≤8	PASS
	2462	SISO	-12.99	≤8	PASS
802.11n(HT40)	2422	SISO	-16.77	≤8	PASS
	2437	SISO	-17.74	≤8	PASS
	2452	SISO	-17.04	≤8	PASS

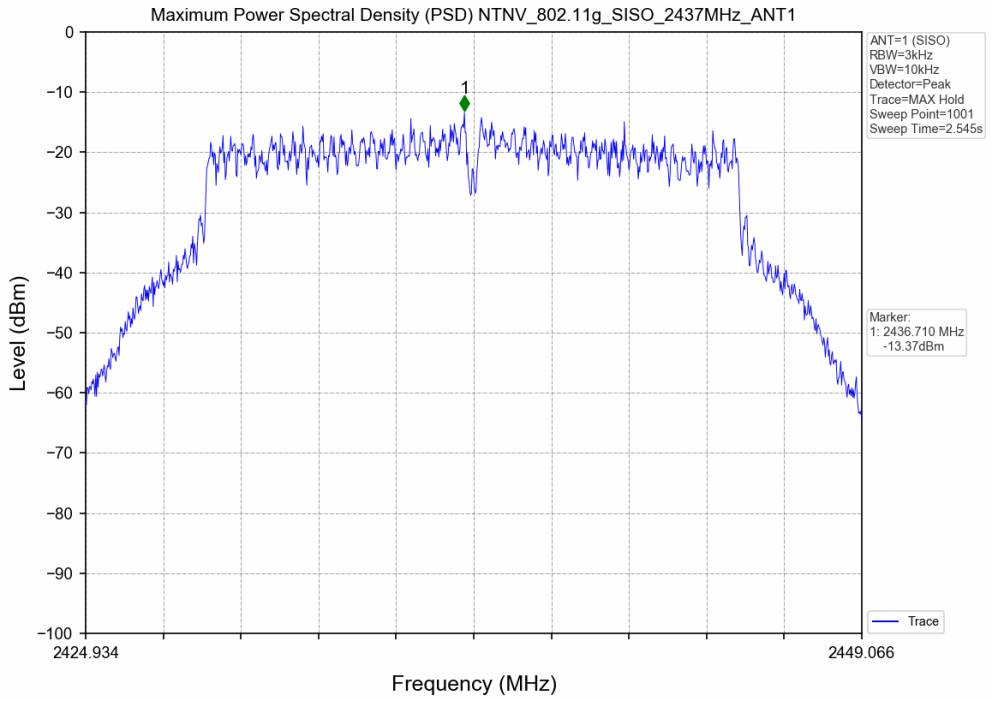
4.2 Test Graph

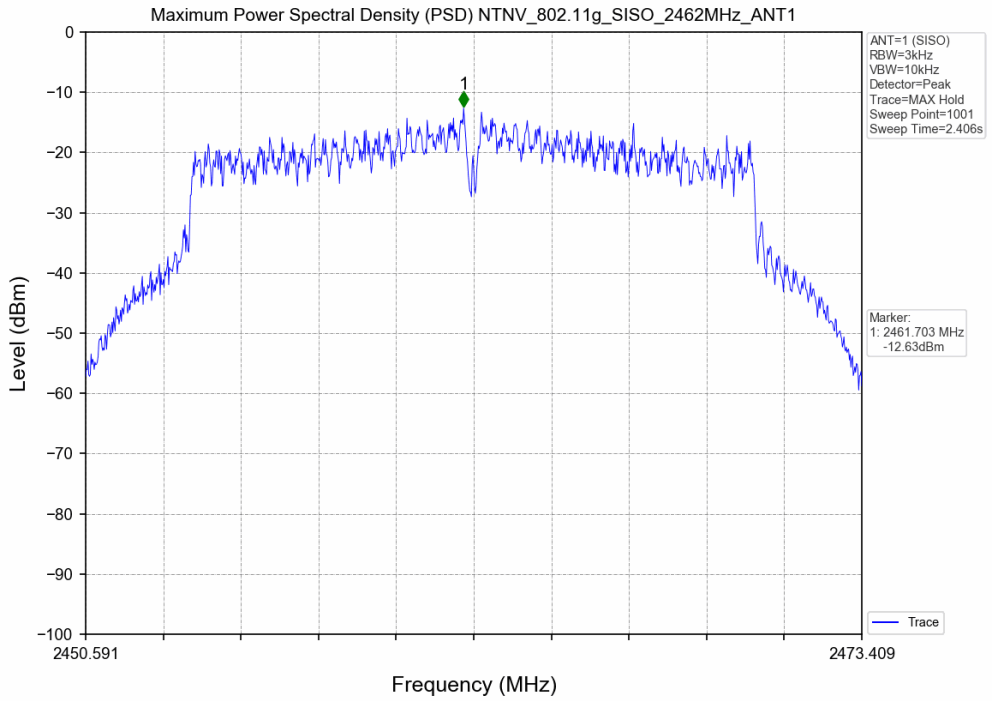


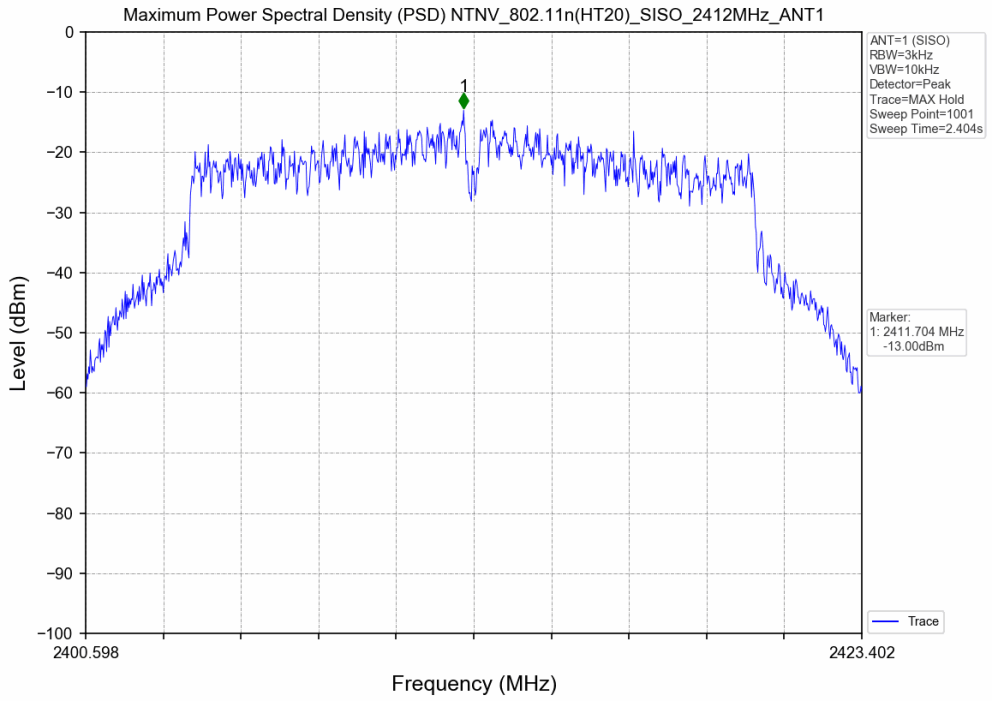

Maximum Power Spectral Density (PSD) NTNV_802.11b_SISO_2437MHz_ANT1
ANT=1 (SISO)
RBW=3kHz
VBW=10kHz
Detector=Peak
Trace=MAX Hold
Sweep Point=1001
Sweep Time=1.361s
Marker:
1: 2437.891 MHz
-7.26dBm
Trace
Level (dBm)
Frequency (MHz)
2430.545
2443.455

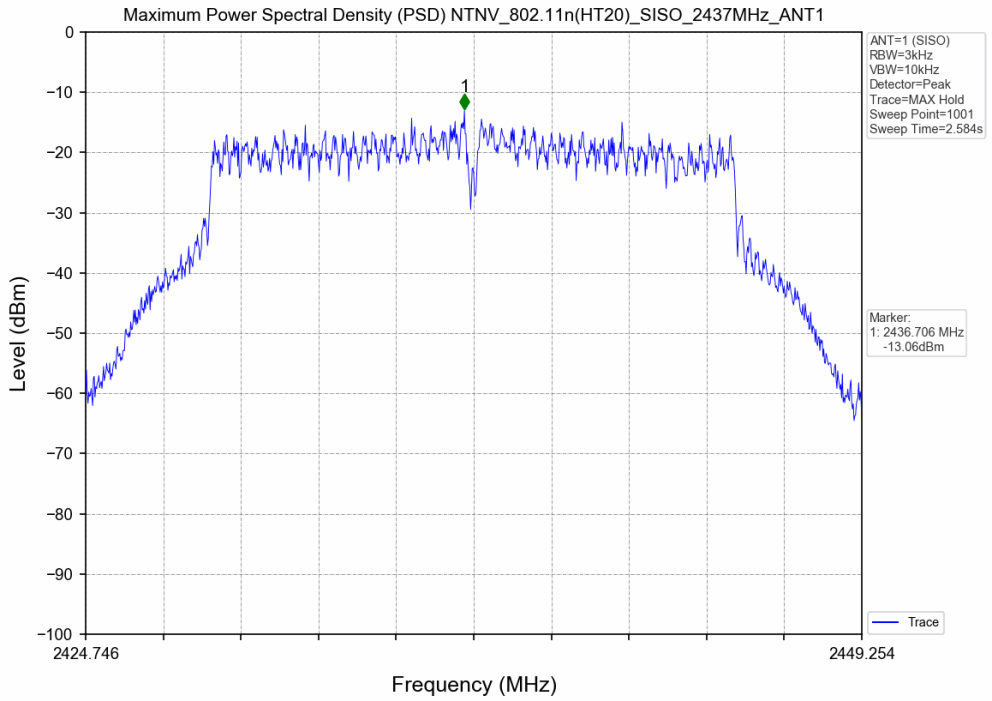

Maximum Power Spectral Density (PSD) NTNV_802.11b_SISO_2462MHz_ANT1
ANT=1 (SISO)
RBW=3kHz
VBW=10kHz
Detector=Peak
Trace=MAX Hold
Sweep Point=1001
Sweep Time=1.319s
Marker:
1: 2462.901 MHz
-7.17dBm
Trace
Level (dBm)
Frequency (MHz)
2455.746
2468.254

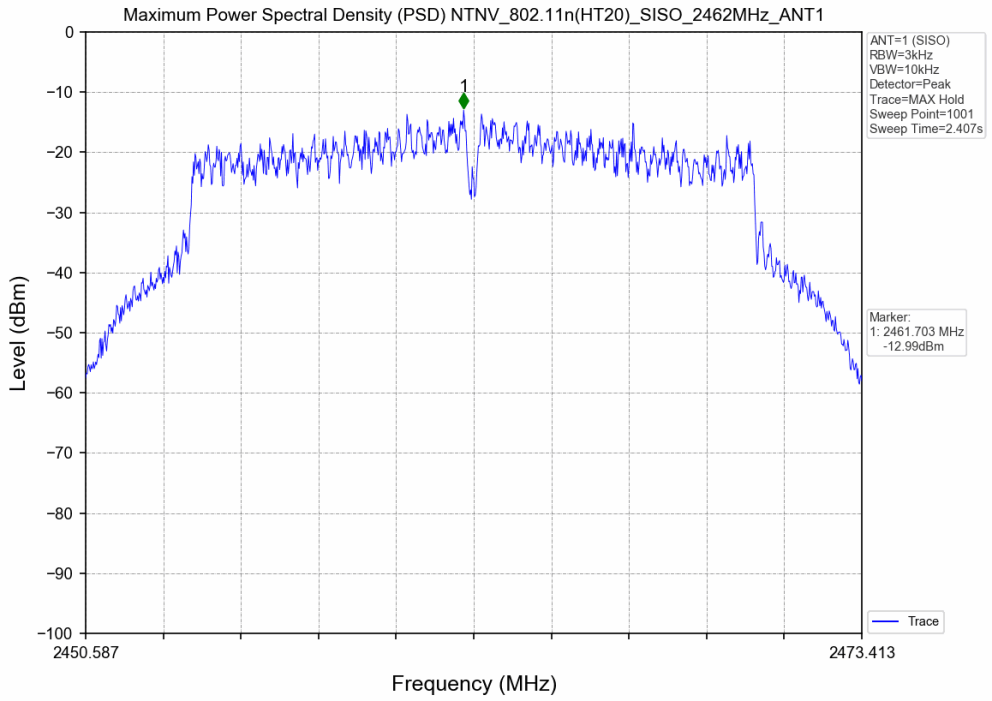

Maximum Power Spectral Density (PSD) NTNV_802.11g_SISO_2412MHz_ANT1
ANT=1 (SISO)
RBW=3kHz
VBW=10kHz
Detector=Peak
Trace=MAX Hold
Sweep Point=1001
Sweep Time=2.408s
Marker:
1: 2411.703 MHz
-12.36dBm
Trace
Level (dBm)
0
-10
-20
-30
-40
-50
-60
-70
-80
-90
-100
2400.584
2423.416
Frequency (MHz)

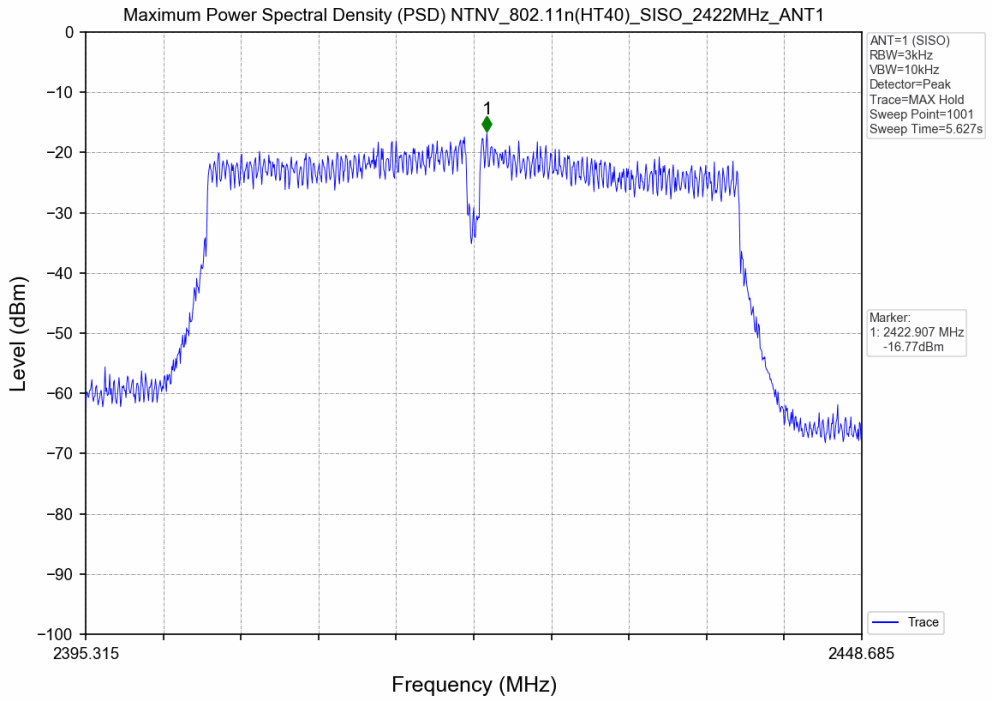

Maximum Power Spectral Density (PSD) NTNV_802.11g_SISO_2437MHz_ANT1
ANT=1 (SISO)
RBW=3kHz
VBW=10kHz
Detector=Peak
Trace=MAX Hold
Sweep Point=1001
Sweep Time=2.545s
Marker:
1: 2436.710 MHz
-13.37dBm
Trace
Level (dBm)
0
-10
-20
-30
-40
-50
-60
-70
-80
-90
-100
2424.934
2449.066
Frequency (MHz)

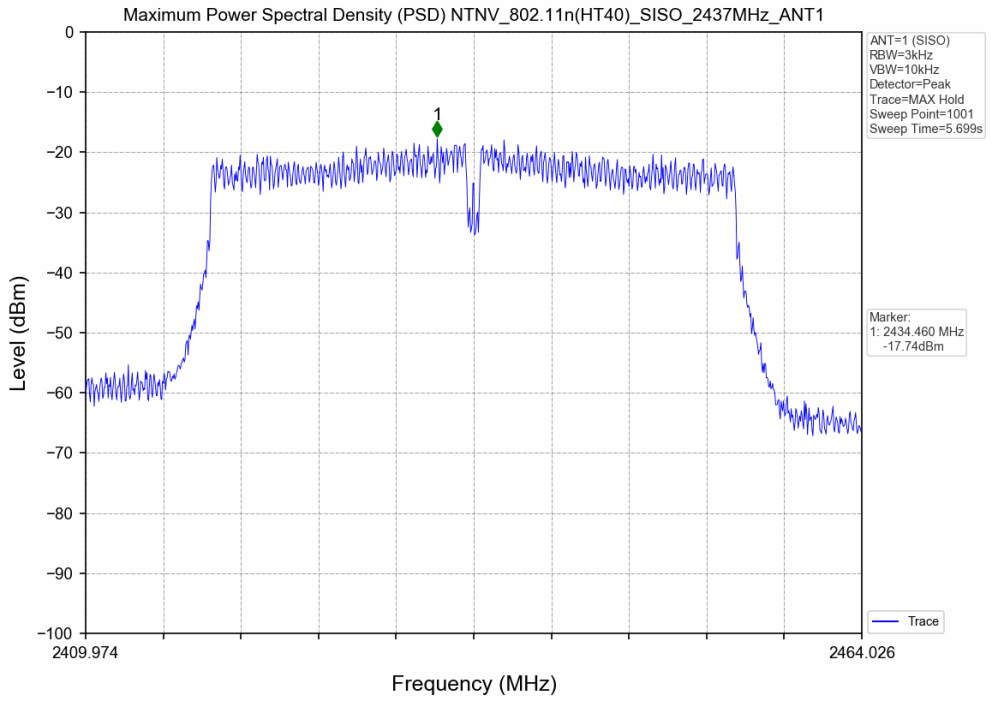

Maximum Power Spectral Density (PSD) NTNV_802.11g_SISO_2462MHz_ANT1
ANT=1 (SISO)
RBW=3kHz
VBW=10kHz
Detector=Peak
Trace=MAX Hold
Sweep Point=1001
Sweep Time=2.406s
Marker:
1: 2461.703 MHz
-12.63dBm
Trace
Level (dBm)
Frequency (MHz)
2450.591
2473.409

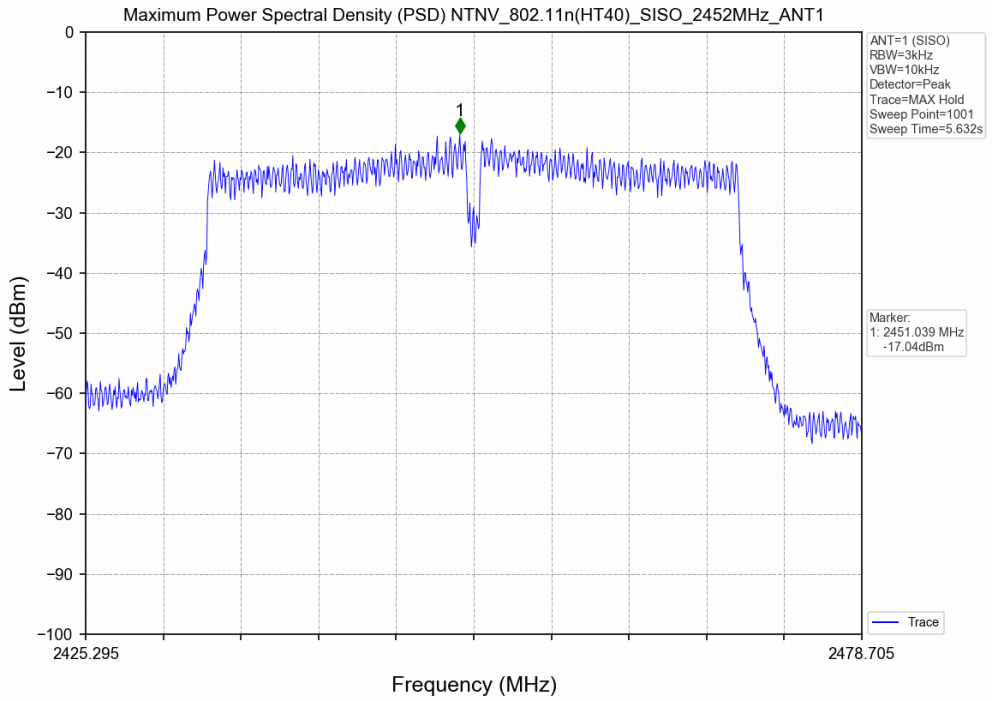

Maximum Power Spectral Density (PSD) NTNV_802.11n(HT20)_SISO_2412MHz_ANT1
ANT=1 (SISO)
RBW=3kHz
VBW=10kHz
Detector=Peak
Trace=MAX Hold
Sweep Point=1001
Sweep Time=2.404s
Marker:
1: 2411.704 MHz
-13.00dBm
Trace
Level (dBm)
Frequency (MHz)
2400.598
2423.402


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=2.584s
Marker:
1: 2436.706 MHz
-13.06dBm
Trace
Level (dBm)
0
-10
-20
-30
-40
-50
-60
-70
-80
-90
-100
2424.746
2449.254
Frequency (MHz)


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=2.407s
Marker:
1: 2461.703 MHz
-12.99dBm
Trace
Level (dBm)
0
-10
-20
-30
-40
-50
-60
-70
-80
-90
-100
2450.587
2473.413
Frequency (MHz)


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=5.627s
Marker:
1: 2422.907 MHz
-16.77dBm
Trace
Level (dBm)
Frequency (MHz)
2395.315
2448.685


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=5.699s
Marker:
1: 2434.460 MHz
-17.74dBm
Trace
Level (dBm)
Frequency (MHz)
2409.974
2464.026

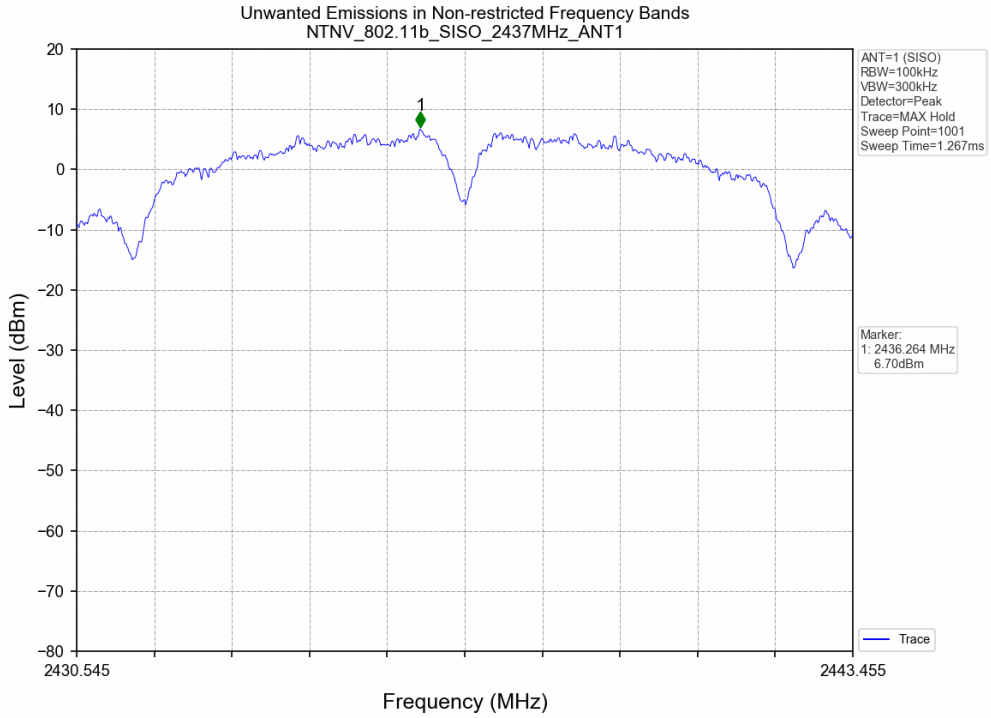


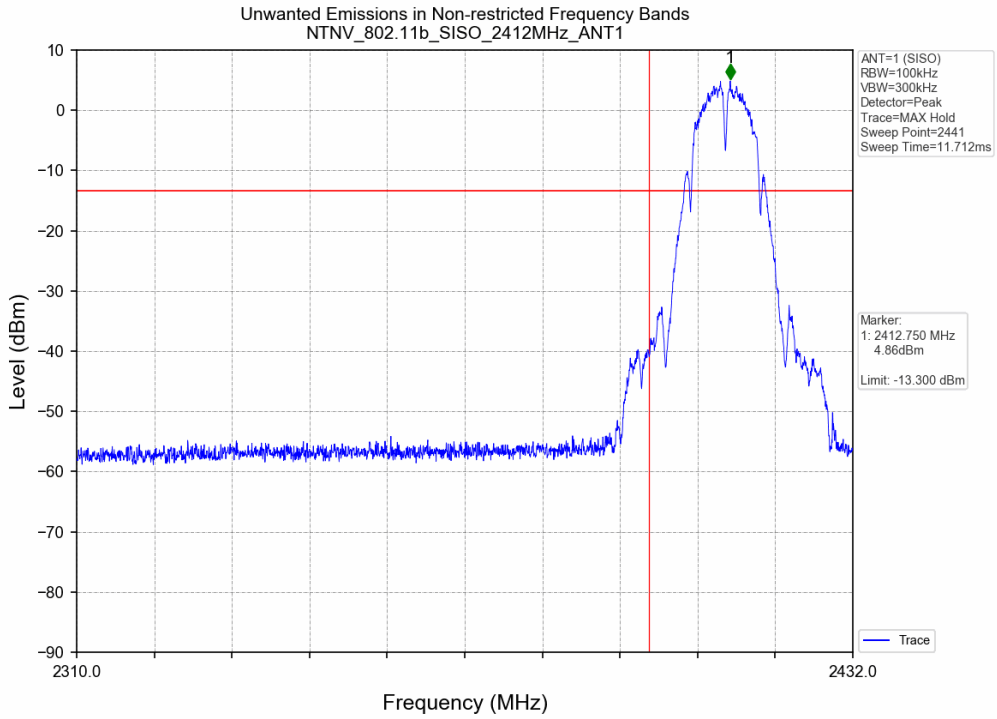
5. Unwanted Emissions in Non-restricted Frequency Bands

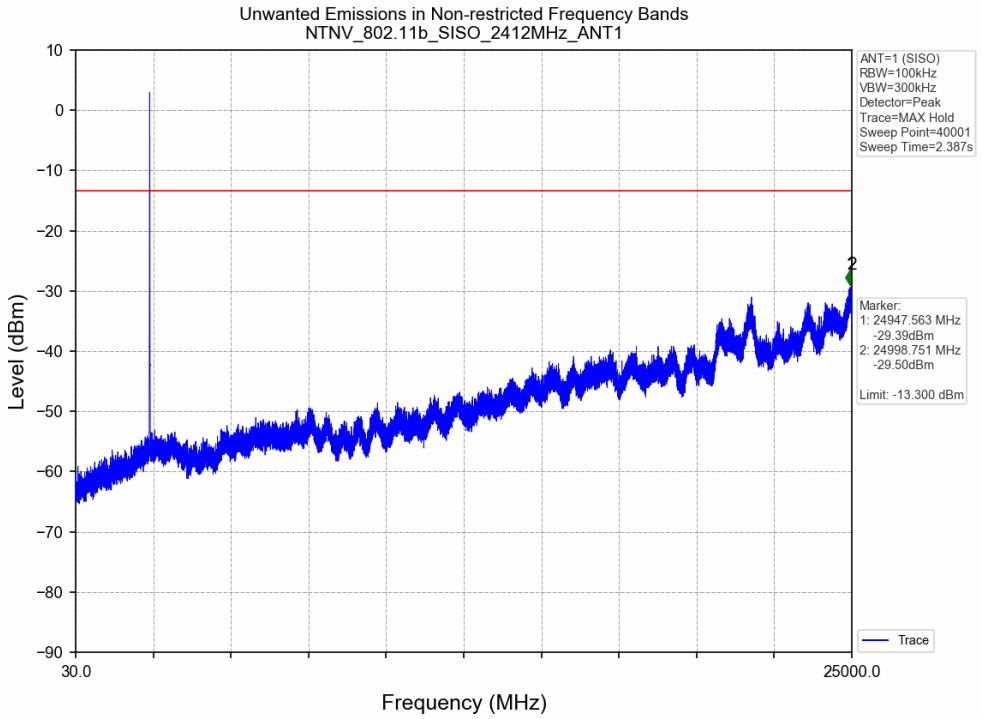
5.1 Test Result

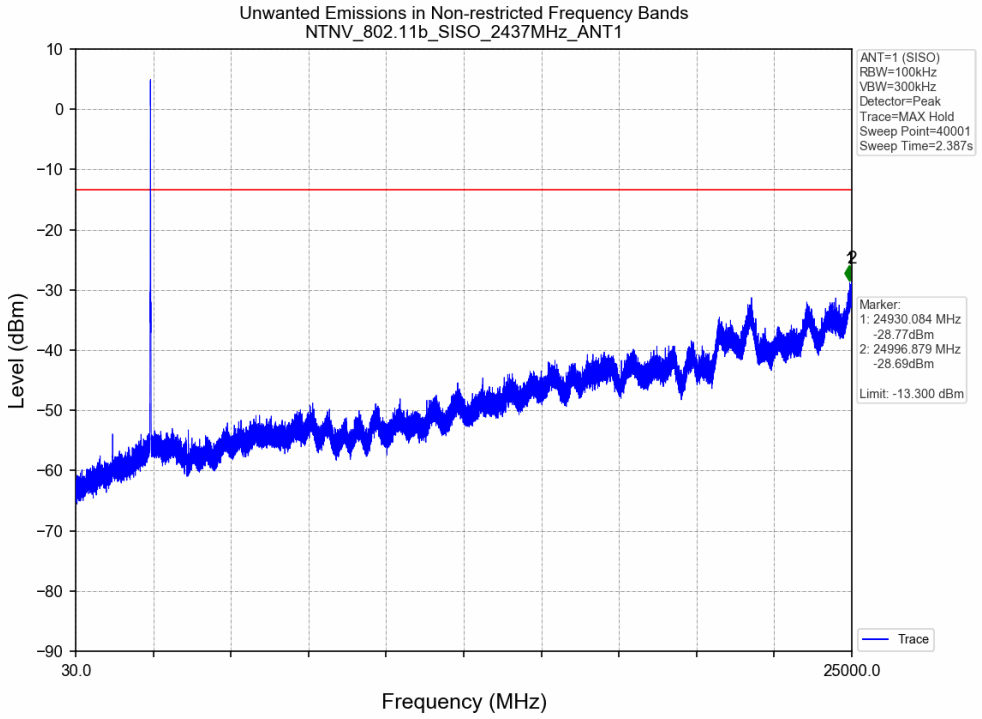
Test Mode	Frequency (MHz)	TX Type	ANT No.	Spurious Conducted Emission (dBm)	Limits (dBm)	Verdict
802.11b	2412	SISO	1	Refer to test graph	-13.30	PASS
	2437	SISO	1	Refer to test graph	-13.30	PASS
	2462	SISO	1	Refer to test graph	-13.30	PASS
802.11g	2412	SISO	1	Refer to test graph	-15.88	PASS
	2437	SISO	1	Refer to test graph	-15.88	PASS
	2462	SISO	1	Refer to test graph	-15.88	PASS
802.11n(HT20)	2412	SISO	1	Refer to test graph	-18.96	PASS
	2437	SISO	1	Refer to test graph	-18.96	PASS
	2462	SISO	1	Refer to test graph	-18.96	PASS
802.11n(HT40)	2422	SISO	1	Refer to test graph	-23.51	PASS
	2437	SISO	1	Refer to test graph	-23.51	PASS
	2452	SISO	1	Refer to test graph	-23.51	PASS

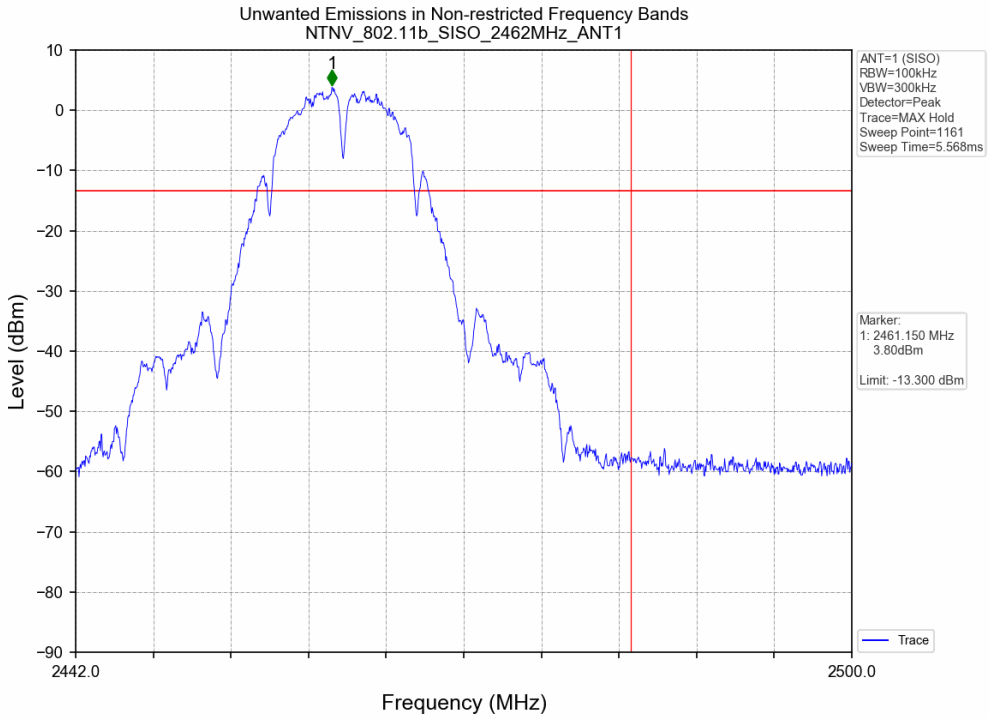
5.2 Test Graph

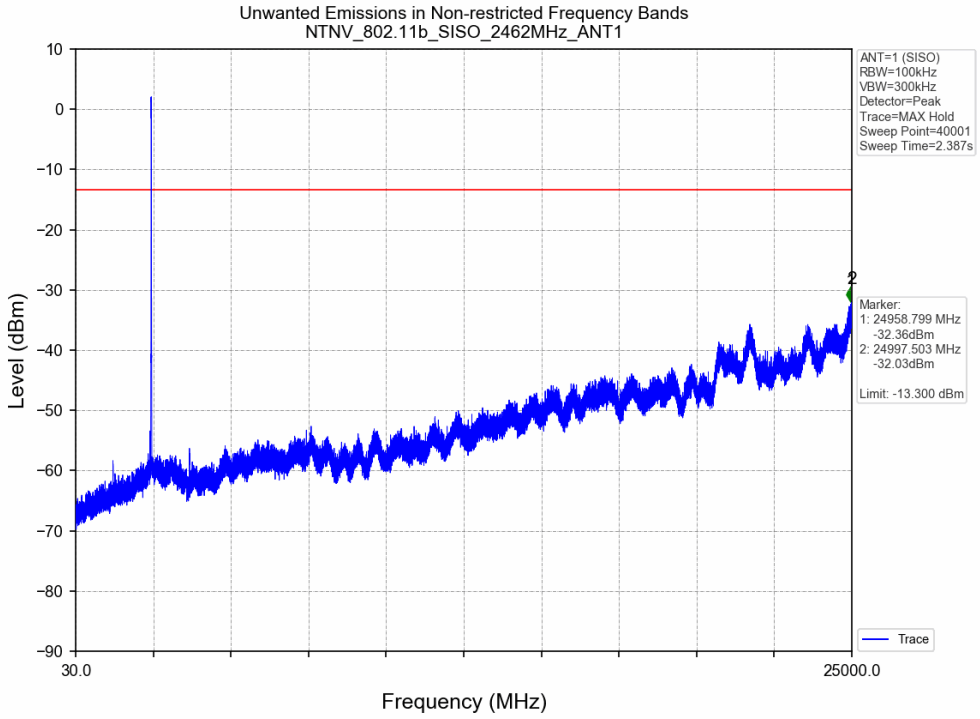

Unwanted Emissions in Non-restricted Frequency Bands
NTNV_802.11b_SISO_2437MHz_ANT1
ANT=1 (SISO)
RBW=100kHz
VBW=300kHz
Detector=Peak
Trace=MAX Hold
Sweep Point=1001
Sweep Time=1.267ms
Marker:
1: 2436.264 MHz
6.70dBm
Trace
Level (dBm)
Frequency (MHz)
2430.545
2443.455

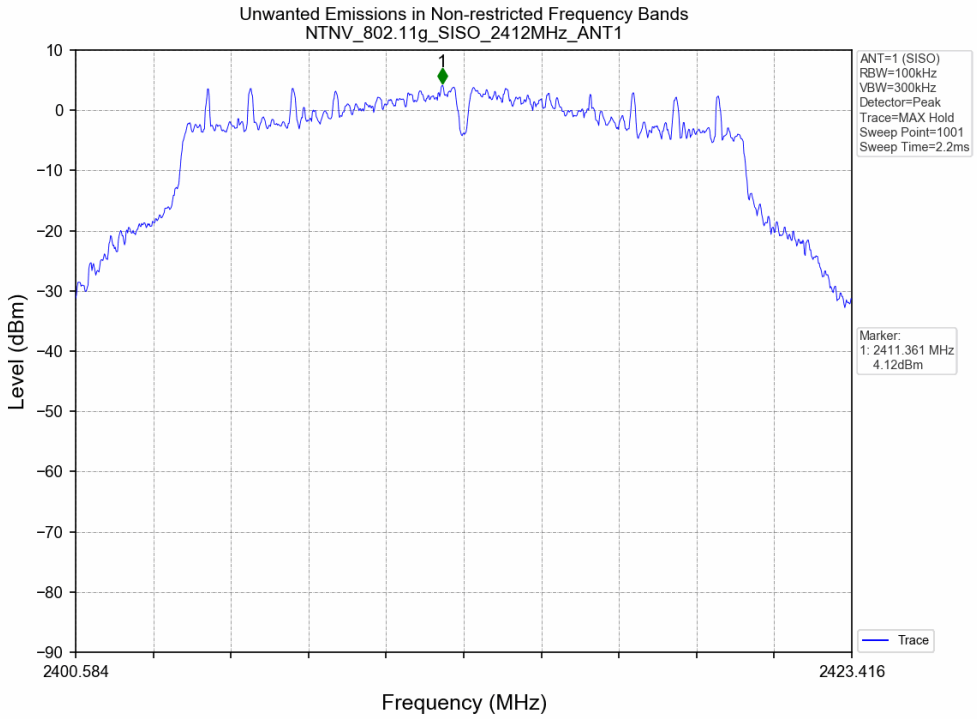

Unwanted Emissions in Non-restricted Frequency Bands
NTNV_802.11b_SISO_2412MHz_ANT1
ANT=1 (SISO)
RBW=100kHz
VBW=300kHz
Detector=Peak
Trace=MAX Hold
Sweep Point=2441
Sweep Time=11.712ms
Marker:
1: 2412.750 MHz
4.86dBm
Limit: -13.300 dBm
Trace
Level (dBm)
Frequency (MHz)
2310.0
2432.0

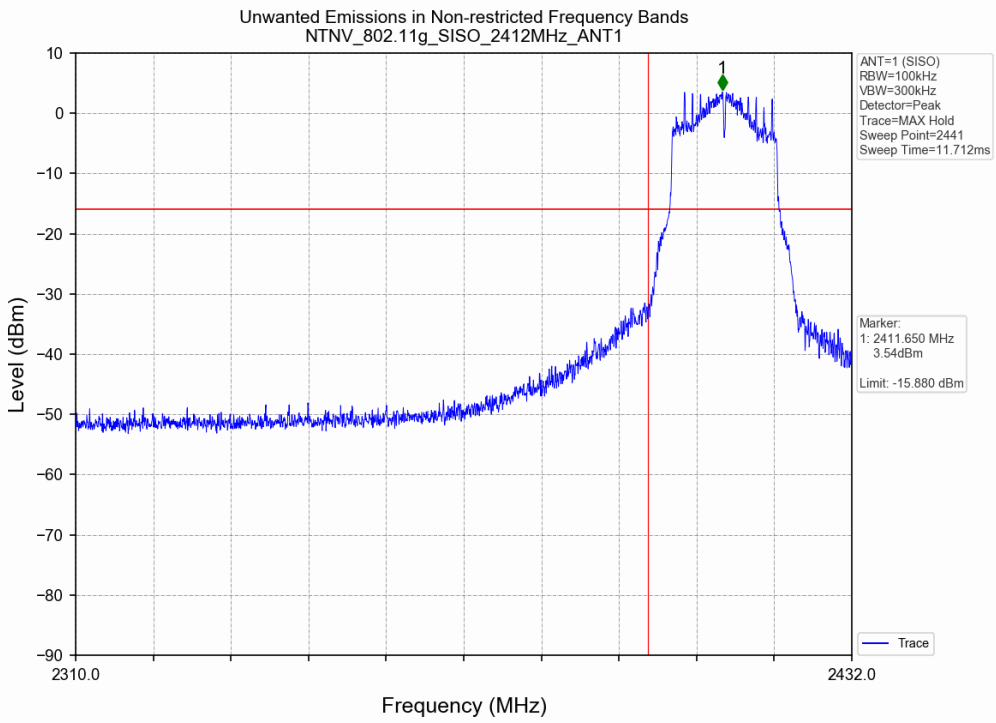

Unwanted Emissions in Non-restricted Frequency Bands
NTNV_802.11b_SISO_2412MHz_ANT1
ANT=1 (SISO)
RBW=100kHz
VBW=300kHz
Detector=Peak
Trace=MAX Hold
Sweep Point=40001
Sweep Time=2.387s
Marker:
1: 24947.563 MHz
-29.39dBm
2: 24998.751 MHz
-29.50dBm
Limit: -13.300 dBm
Trace
Level (dBm)
Frequency (MHz)
30.0
25000.0

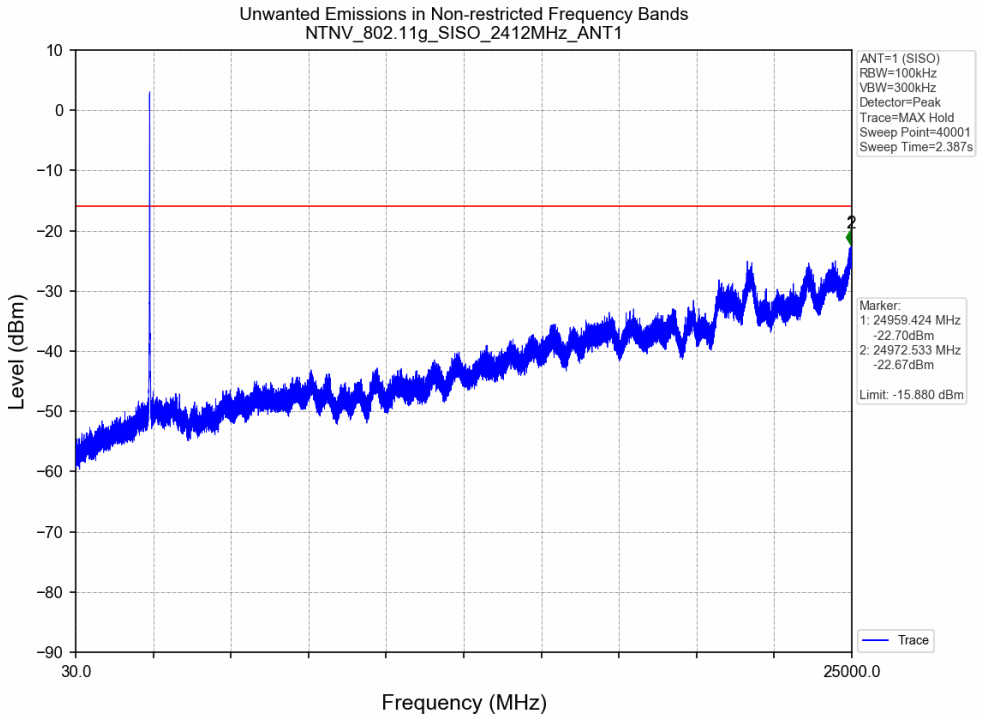

Unwanted Emissions in Non-restricted Frequency Bands
NTNV_802.11b_SISO_2437MHz_ANT1
ANT=1 (SISO)
RBW=100kHz
VBW=300kHz
Detector=Peak
Trace=MAX Hold
Sweep Point=40001
Sweep Time=2.387s
Marker:
1: 24930.084 MHz
-28.77dBm
2: 24996.879 MHz
-28.69dBm
Limit: -13.300 dBm
Trace
Level (dBm)
Frequency (MHz)
30.0
25000.0

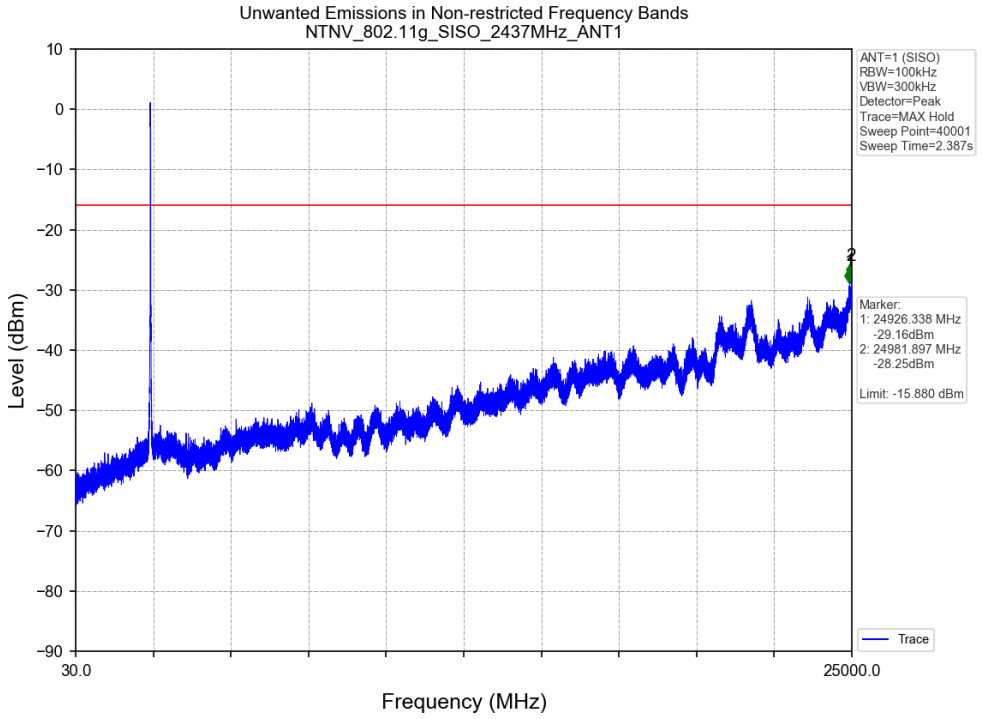

Unwanted Emissions in Non-restricted Frequency Bands
NTNV_802.11b_SISO_2462MHz_ANT1
ANT=1 (SISO)
RBW=100kHz
VBW=300kHz
Detector=Peak
Trace=MAX Hold
Sweep Point=1161
Sweep Time=5.568ms
Marker:
1: 2461.150 MHz
3.80dBm
Limit: -13.300 dBm
Trace
Level (dBm)
Frequency (MHz)
2442.0
2500.0

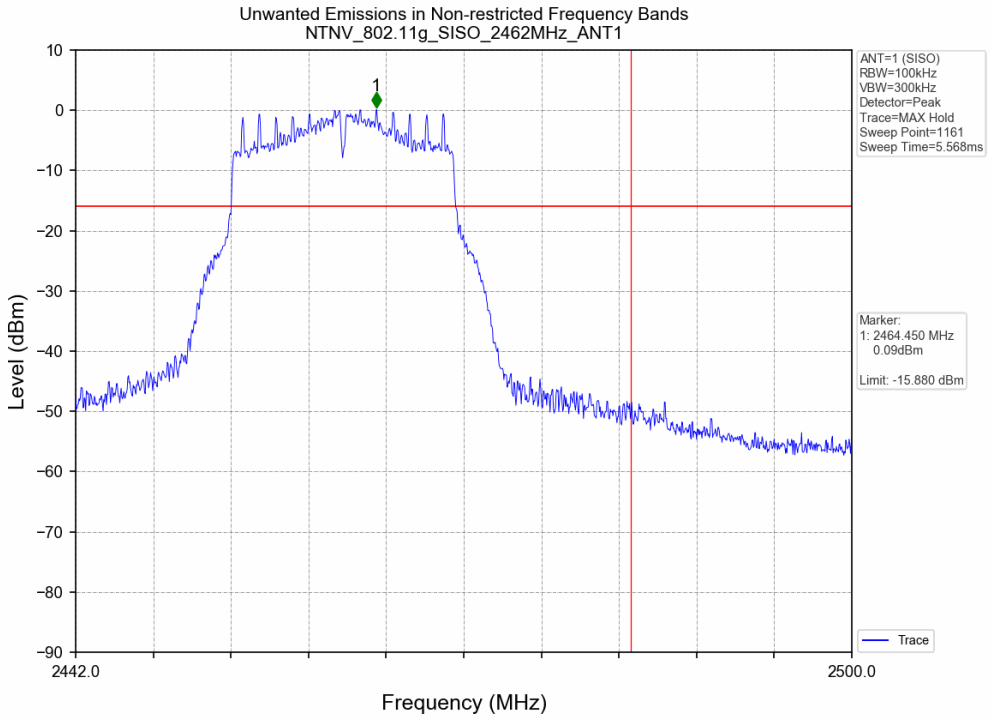

Unwanted Emissions in Non-restricted Frequency Bands
NTNV_802.11b_SISO_2462MHz_ANT1
ANT=1 (SISO)
RBW=100kHz
VBW=300kHz
Detector=Peak
Trace=MAX Hold
Sweep Point=40001
Sweep Time=2.387s
Marker:
1: 24958.799 MHz
-32.36dBm
2: 24997.503 MHz
-32.03dBm
Limit: -13.300 dBm
Trace
Level (dBm)
Frequency (MHz)
30.0
25000.0

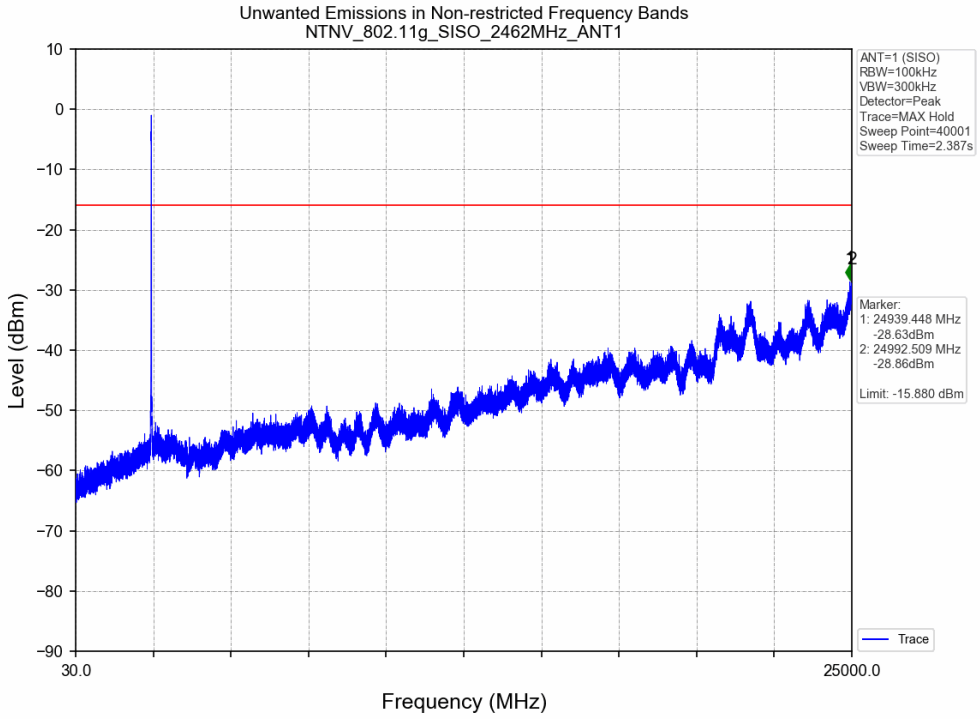

Unwanted Emissions in Non-restricted Frequency Bands
NTNV_802.11g_SISO_2412MHz_ANT1
ANT=1 (SISO)
RBW=100kHz
VBW=300kHz
Detector=Peak
Trace=MAX Hold
Sweep Point=1001
Sweep Time=2.2ms
Marker:
1: 2411.361 MHz
4.12dBm
Trace
Level (dBm)
Frequency (MHz)
2400.584
2423.416

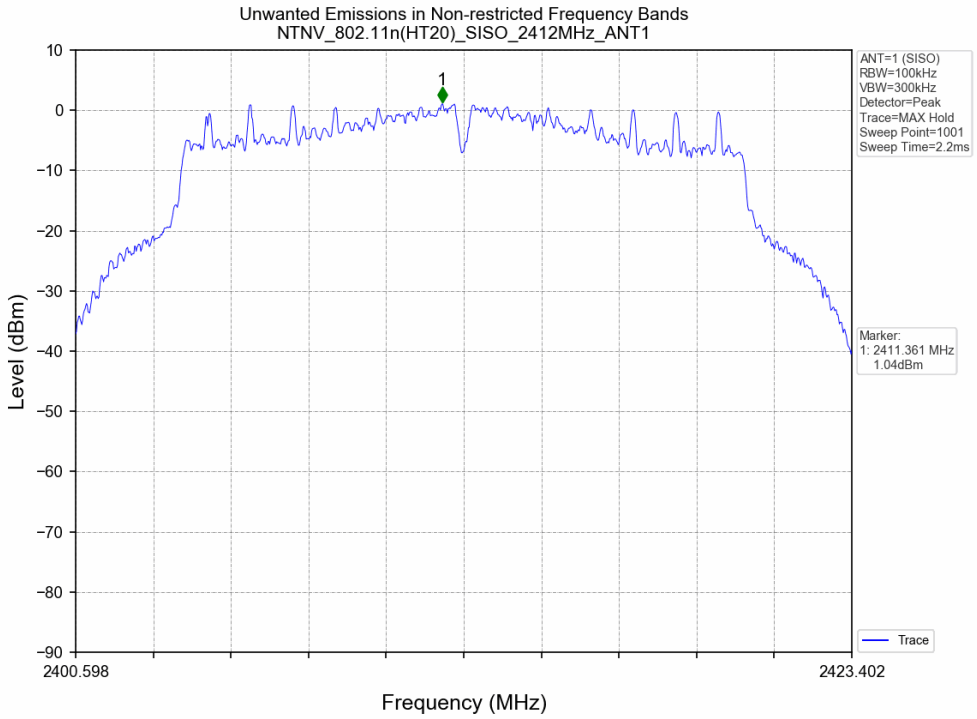

Unwanted Emissions in Non-restricted Frequency Bands
NTNV_802.11g_SISO_2412MHz_ANT1
ANT=1 (SISO)
RBW=100kHz
VBW=300kHz
Detector=Peak
Trace=MAX Hold
Sweep Point=2441
Sweep Time=11.712ms
Marker:
1: 2411.650 MHz
3.54dBm
Limit: -15.880 dBm
Trace
Level (dBm)
Frequency (MHz)
2310.0
2432.0

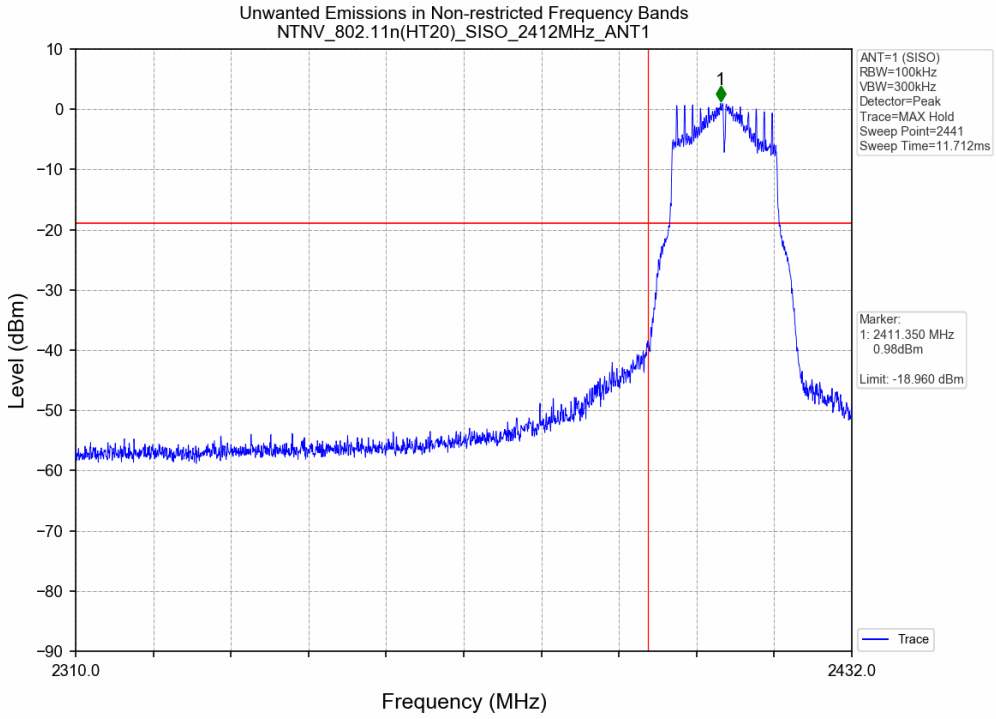

Unwanted Emissions in Non-restricted Frequency Bands
NTNV_802.11g_SISO_2412MHz_ANT1
ANT=1 (SISO)
RBW=100kHz
VBW=300kHz
Detector=Peak
Trace=MAX Hold
Sweep Point=40001
Sweep Time=2.387s
Marker:
1: 24959.424 MHz
-22.70dBm
2: 24972.533 MHz
-22.67dBm
Limit: -15.880 dBm
Trace
Level (dBm)
Frequency (MHz)
30.0
25000.0

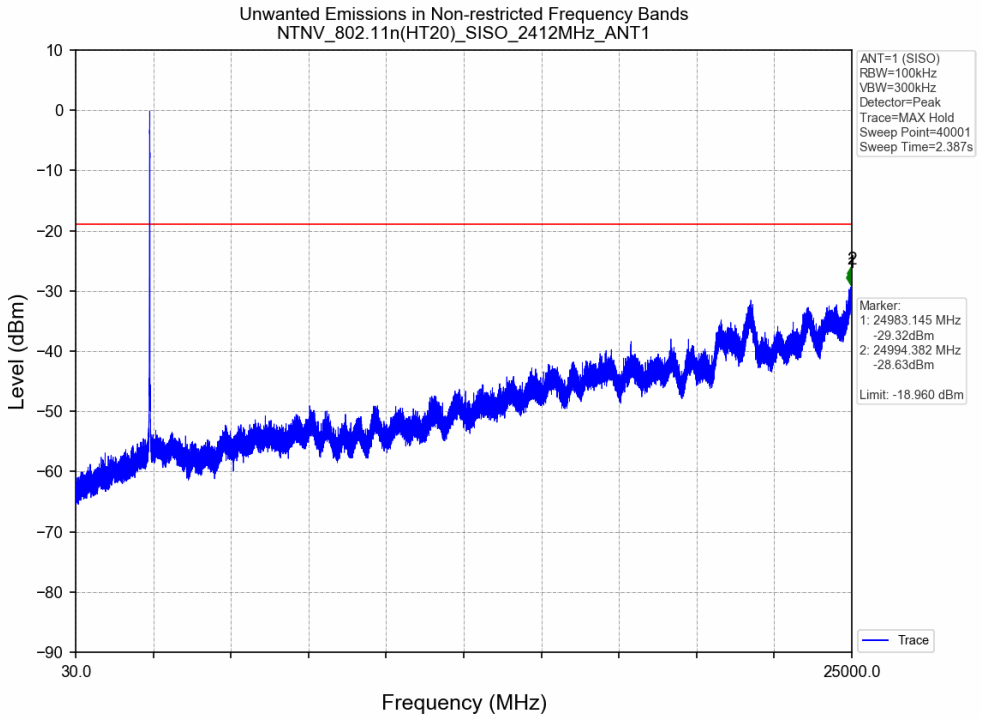

Unwanted Emissions in Non-restricted Frequency Bands
NTNV_802.11g_SISO_2437MHz_ANT1
ANT=1 (SISO)
RBW=100kHz
VBW=300kHz
Detector=Peak
Trace=MAX Hold
Sweep Point=40001
Sweep Time=2.387s
Marker:
1: 24926.338 MHz
-29.16dBm
2: 24981.897 MHz
-28.25dBm
Limit: -15.880 dBm
Trace
Level (dBm)
Frequency (MHz)
30.0
25000.0

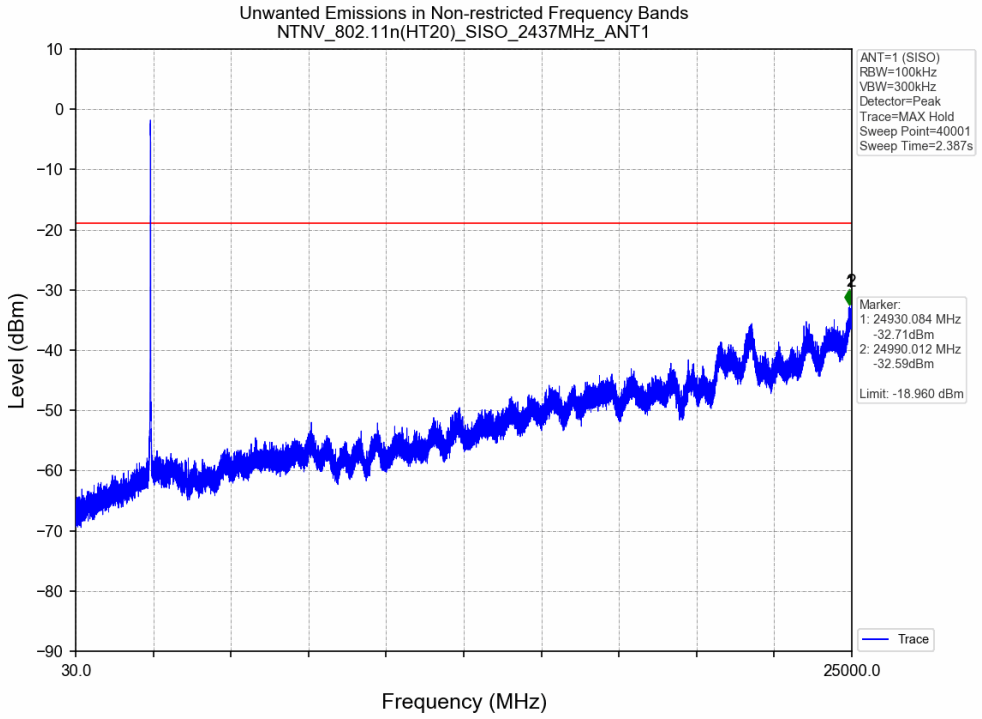

Unwanted Emissions in Non-restricted Frequency Bands
NTNV_802.11g_SISO_2462MHz_ANT1
ANT=1 (SISO)
RBW=100kHz
VBW=300kHz
Detector=Peak
Trace=MAX Hold
Sweep Point=1161
Sweep Time=5.568ms
Marker:
1: 2464.450 MHz
0.09dBm
Limit: -15.880 dBm
Trace
Level (dBm)
Frequency (MHz)
2442.0
2500.0

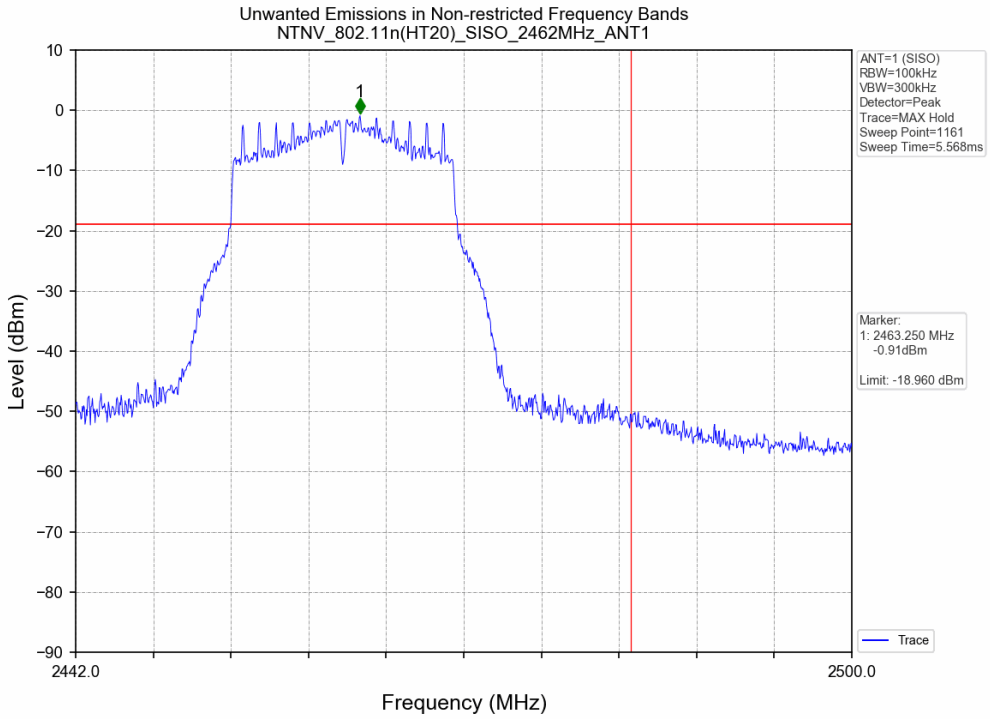

Unwanted Emissions in Non-restricted Frequency Bands
NTNV_802.11g_SISO_2462MHz_ANT1
ANT=1 (SISO)
RBW=100kHz
VBW=300kHz
Detector=Peak
Trace=MAX Hold
Sweep Point=40001
Sweep Time=2.387s
Marker:
1: 24939.448 MHz
-28.63dBm
2: 24992.509 MHz
-28.86dBm
Limit: -15.880 dBm
Trace
Level (dBm)
Frequency (MHz)
30.0
25000.0

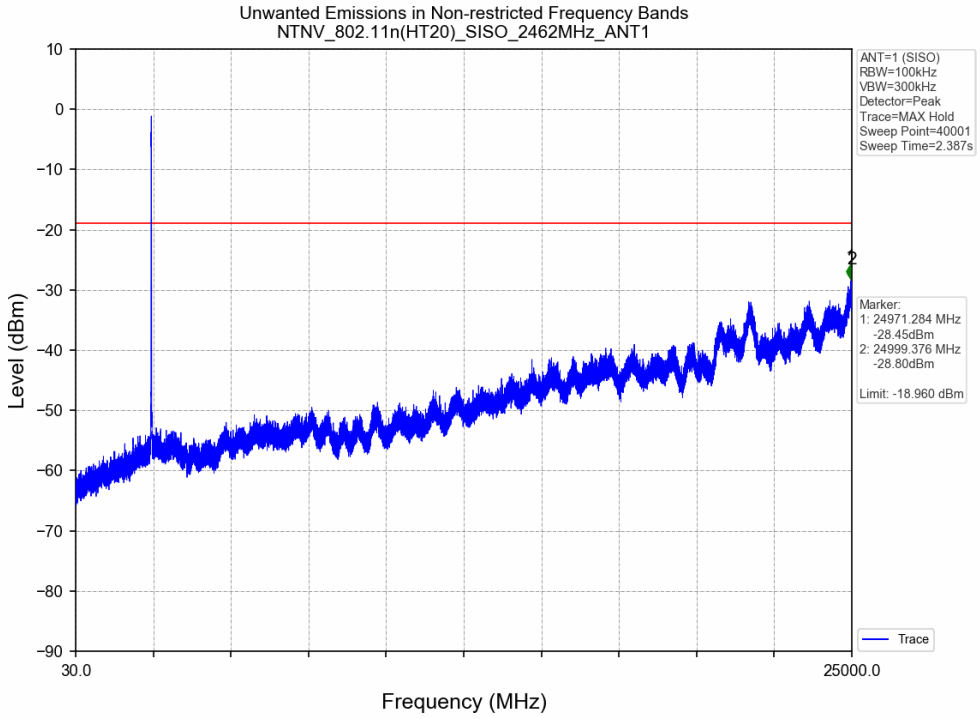

Unwanted Emissions in Non-restricted Frequency Bands
NTNV_802.11n(HT20)_SISO_2412MHz_ANT1
ANT=1 (SISO)
RBW=100kHz
VBW=300kHz
Detector=Peak
Trace=MAX Hold
Sweep Point=1001
Sweep Time=2.2ms
Marker:
1: 2411.361 MHz
1.04dBm
Trace
Level (dBm)
Frequency (MHz)
2400.598
2423.402

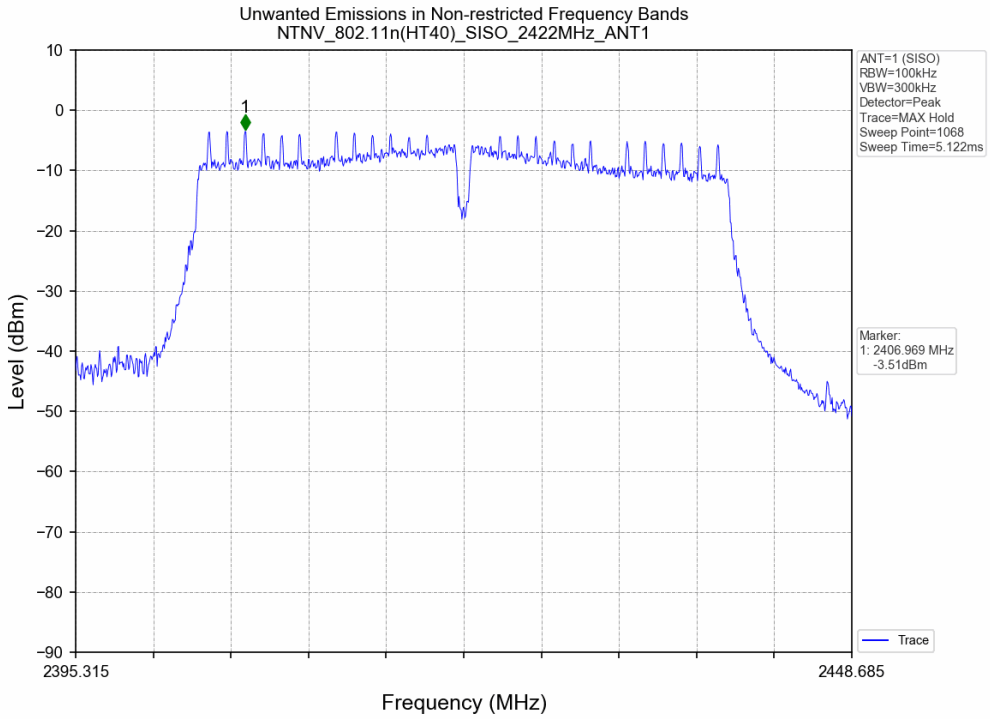

Unwanted Emissions in Non-restricted Frequency Bands
NTNV_802.11n(HT20)_SISO_2412MHz_ANT1
ANT=1 (SISO)
RBW=100kHz
VBW=300kHz
Detector=Peak
Trace=MAX Hold
Sweep Point=2441
Sweep Time=11.712ms
Marker:
1: 2411.350 MHz
0.98dBm
Limit: -18.960 dBm
Trace
Level (dBm)
Frequency (MHz)
2310.0
2432.0

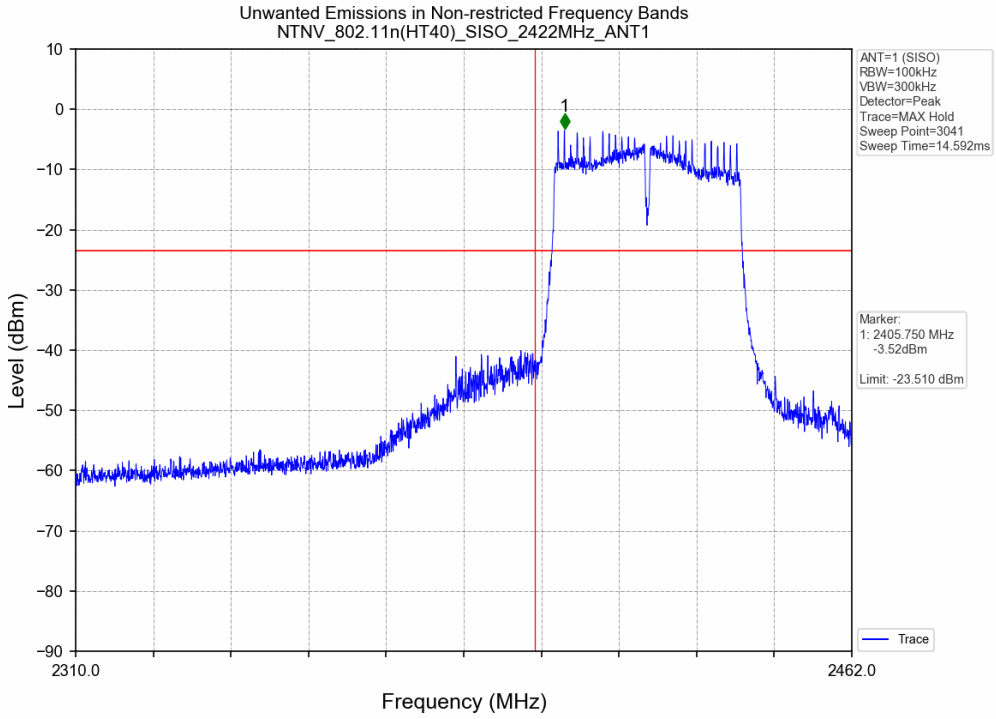

Unwanted Emissions in Non-restricted Frequency Bands
NTNV_802.11n(HT20)_SISO_2412MHz_ANT1
ANT=1 (SISO)
RBW=100kHz
VBW=300kHz
Detector=Peak
Trace=MAX Hold
Sweep Point=40001
Sweep Time=2.387s
Marker:
1: 24983.145 MHz
-29.32dBm
2: 24994.382 MHz
-28.63dBm
Limit: -18.960 dBm
Trace
Level (dBm)
Frequency (MHz)
30.0
25000.0

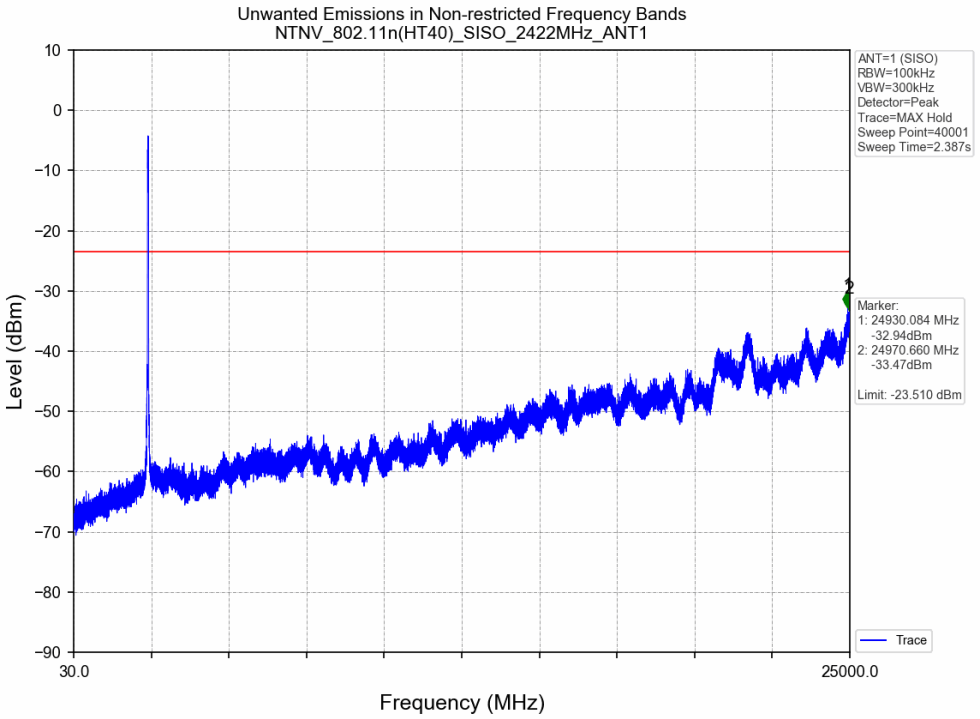

Unwanted Emissions in Non-restricted Frequency Bands
NTNV_802.11n(HT20)_SISO_2437MHz_ANT1
ANT=1 (SISO)
RBW=100kHz
VBW=300kHz
Detector=Peak
Trace=MAX Hold
Sweep Point=40001
Sweep Time=2.387s
Marker:
1: 24930.084 MHz
-32.71dBm
2: 24990.012 MHz
-32.59dBm
Limit: -18.960 dBm
Trace
Level (dBm)
Frequency (MHz)
30.0
25000.0

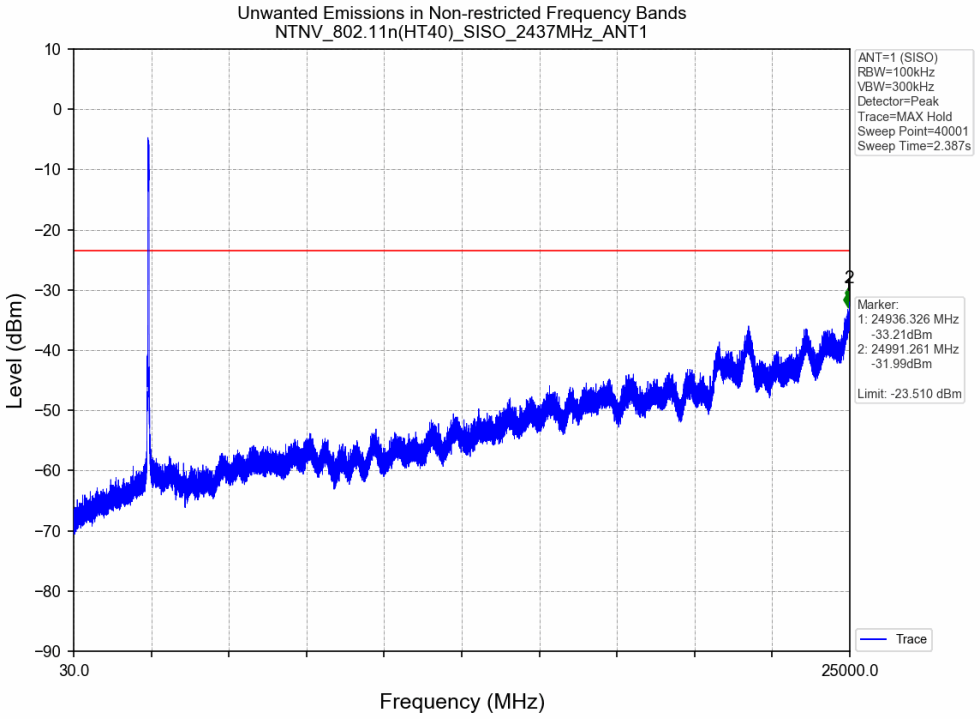

Unwanted Emissions in Non-restricted Frequency Bands
NTNV_802.11n(HT20)_SISO_2462MHz_ANT1
ANT=1 (SISO)
RBW=100kHz
VBW=300kHz
Detector=Peak
Trace=MAX Hold
Sweep Point=1161
Sweep Time=5.568ms
Marker:
1: 2463.250 MHz
-0.91dBm
Limit: -18.960 dBm
Trace
Level (dBm)
Frequency (MHz)
2442.0
2500.0

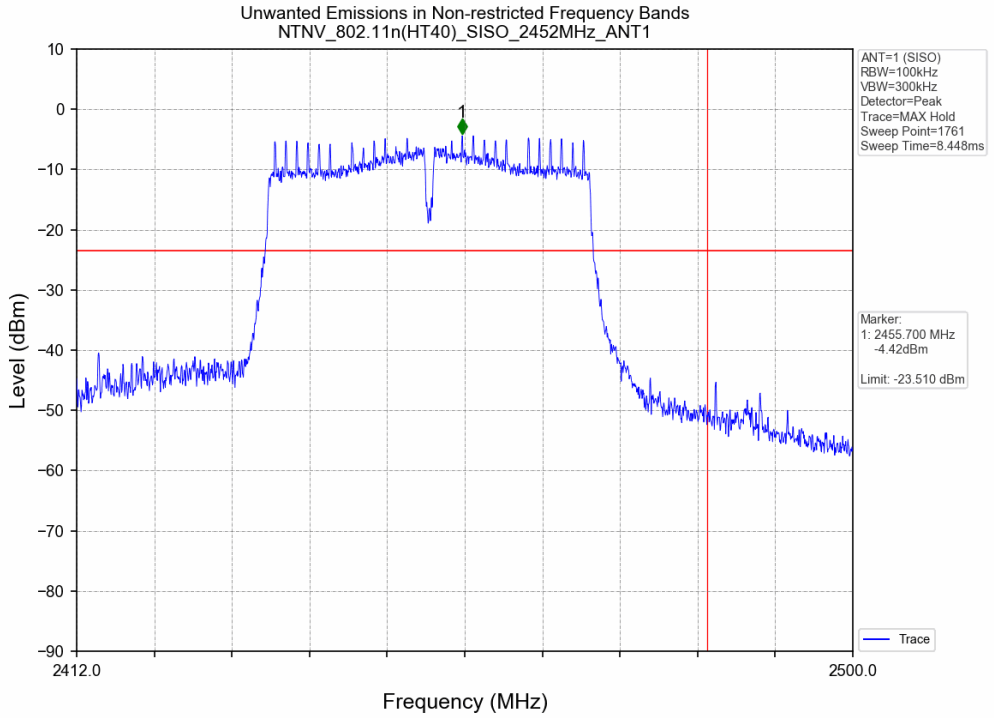

Unwanted Emissions in Non-restricted Frequency Bands
NTNV_802.11n(HT20)_SISO_2462MHz_ANT1
ANT=1 (SISO)
RBW=100kHz
VBW=300kHz
Detector=Peak
Trace=MAX Hold
Sweep Point=40001
Sweep Time=2.387s
Marker:
1: 24971.284 MHz
-28.45dBm
2: 24999.376 MHz
-28.80dBm
Limit: -18.960 dBm
Trace
Level (dBm)
Frequency (MHz)
30.0
25000.0

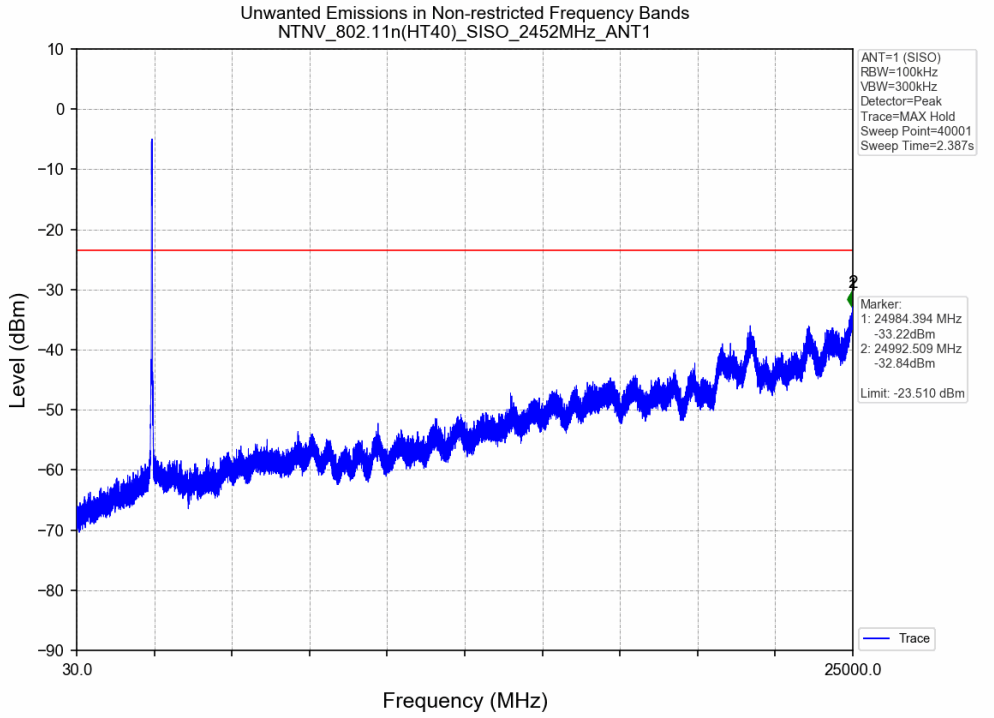

Unwanted Emissions in Non-restricted Frequency Bands
NTNV_802.11n(HT40)_SISO_2422MHz_ANT1
ANT=1 (SISO)
RBW=100kHz
VBW=300kHz
Detector=Peak
Trace=MAX Hold
Sweep Point=1068
Sweep Time=5.122ms
Marker:
1: 2406.969 MHz
-3.51dBm
Trace
Level (dBm)
Frequency (MHz)
2395.315
2448.685


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=3041
Sweep Time=14.592ms
Marker:
1: 2405.750 MHz
-3.52dBm
Limit: -23.510 dBm
Trace
Level (dBm)
Frequency (MHz)
2310.0
2462.0


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=40001
Sweep Time=2.387s
Marker:
1: 24930.084 MHz
-32.94dBm
2: 24970.660 MHz
-33.47dBm
Limit: -23.510 dBm
Trace
Level (dBm)
Frequency (MHz)
30.0
25000.0


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=40001
Sweep Time=2.387s
Marker:
1: 24936.326 MHz
-33.21dBm
2: 24991.261 MHz
-31.99dBm
Limit: -23.510 dBm
Trace
Level (dBm)
Frequency (MHz)
30.0
25000.0


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=1761
Sweep Time=8.448ms
Marker:
1: 2455.700 MHz
-4.42dBm
Limit: -23.510 dBm
Trace
Level (dBm)
Frequency (MHz)
2412.0
2500.0


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=40001
Sweep Time=2.387s
Marker:
1: 24984.394 MHz
-33.22dBm
2: 24992.509 MHz
-32.84dBm
Limit: -23.510 dBm
Trace
Level (dBm)
Frequency (MHz)
30.0
25000.0