Appendix for 15.247

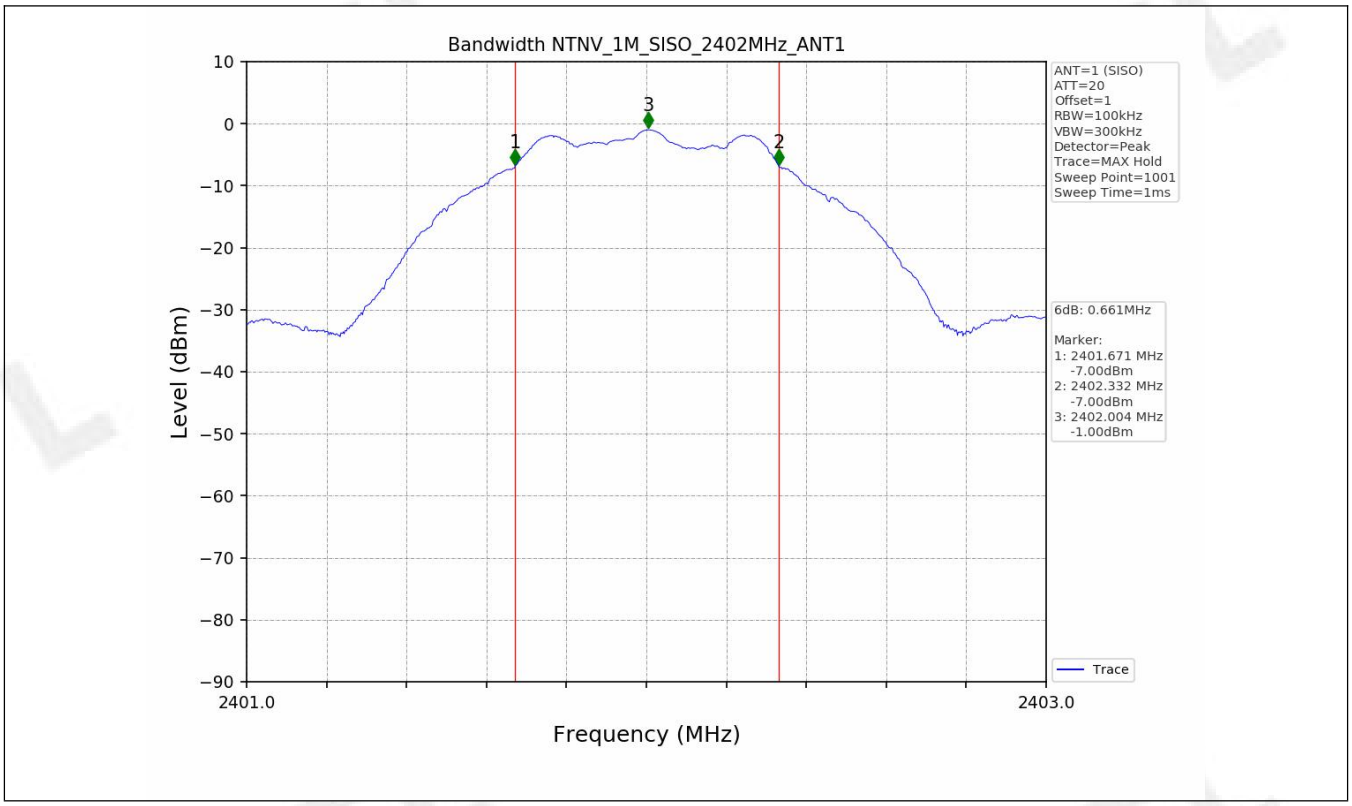
1. Bandwidth

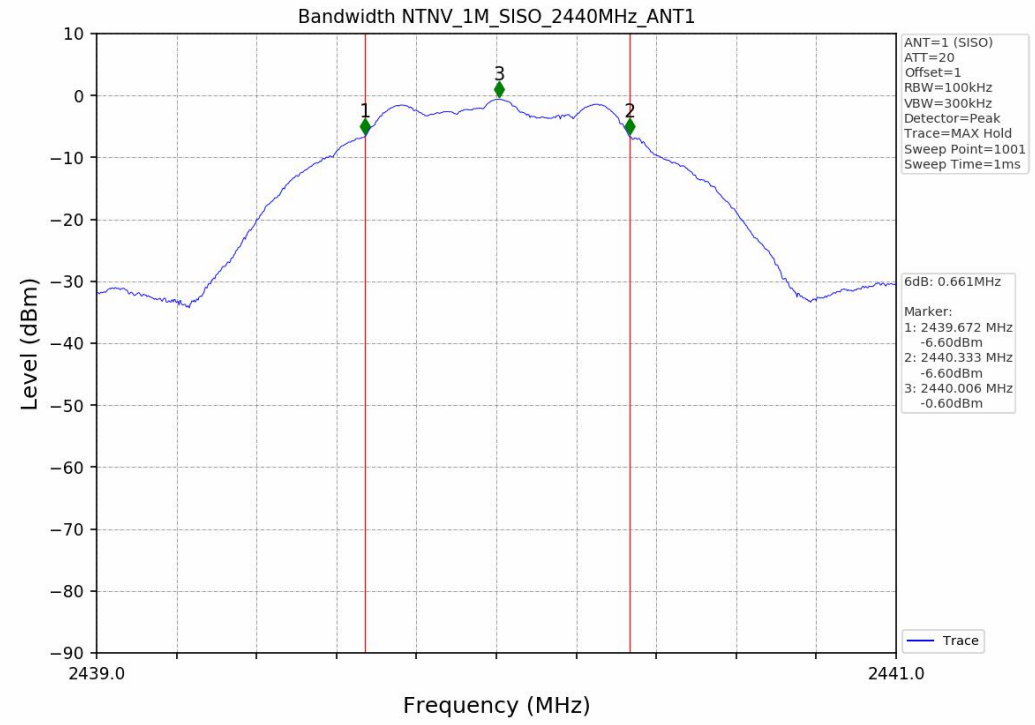
1.1 Test Result

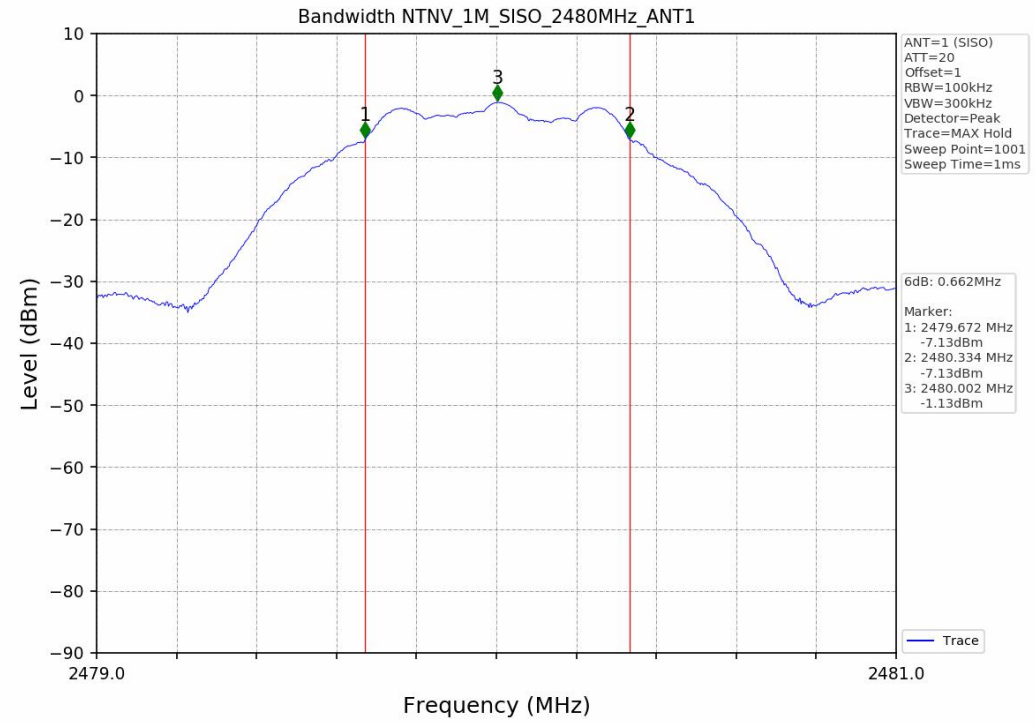
Test Mode	Frequency (MHz)	TX Type	ANT No.	6dB Bandwidth		Verdict
				Test Result (MHz)	Limits (MHz)	
1M	2402	SISO	1	0.661	≥0.5	PASS
	2440	SISO	1	0.661	≥0.5	PASS
	2480	SISO	1	0.662	≥0.5	PASS

Test Mode	Frequency (MHz)	TX Type	ANT No.	99% Occupied Bandwidth	
				Test Result (MHz)	
1M	2402	SISO	1	1.043	Only for Report Use
	2440	SISO	1	1.044	Only for Report Use
	2480	SISO	1	1.045	Only for Report Use

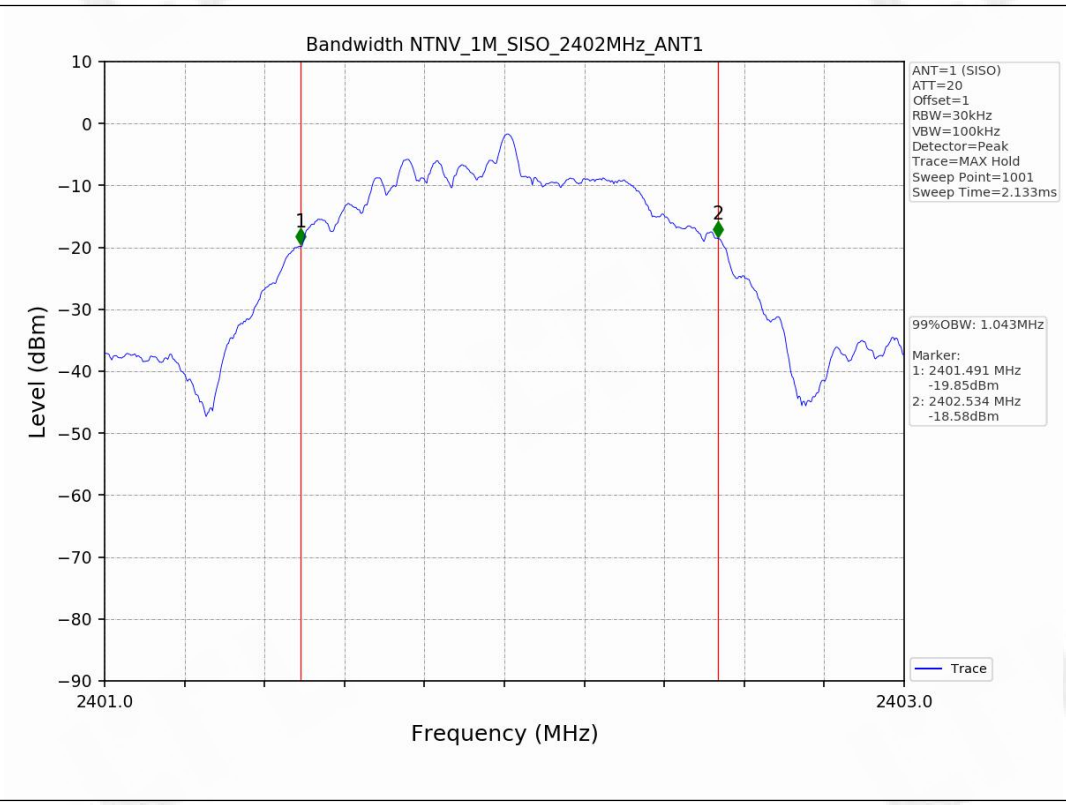
1.2 Test Graph - 6dB Bandwidth

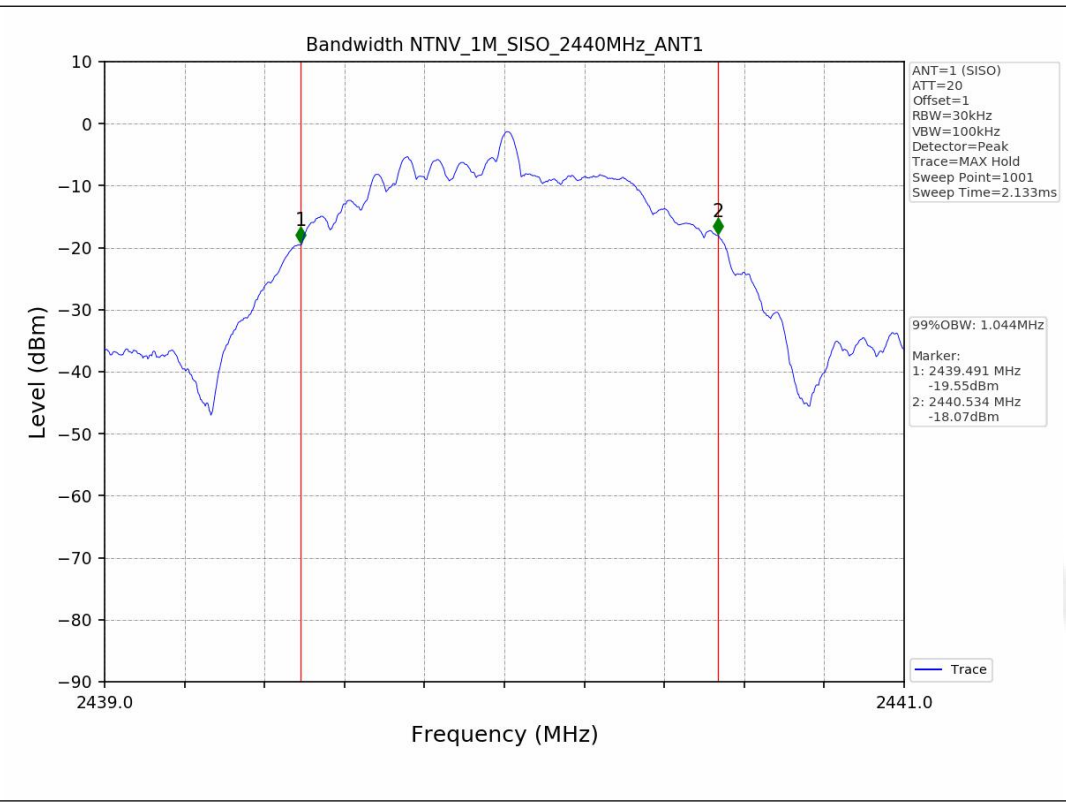


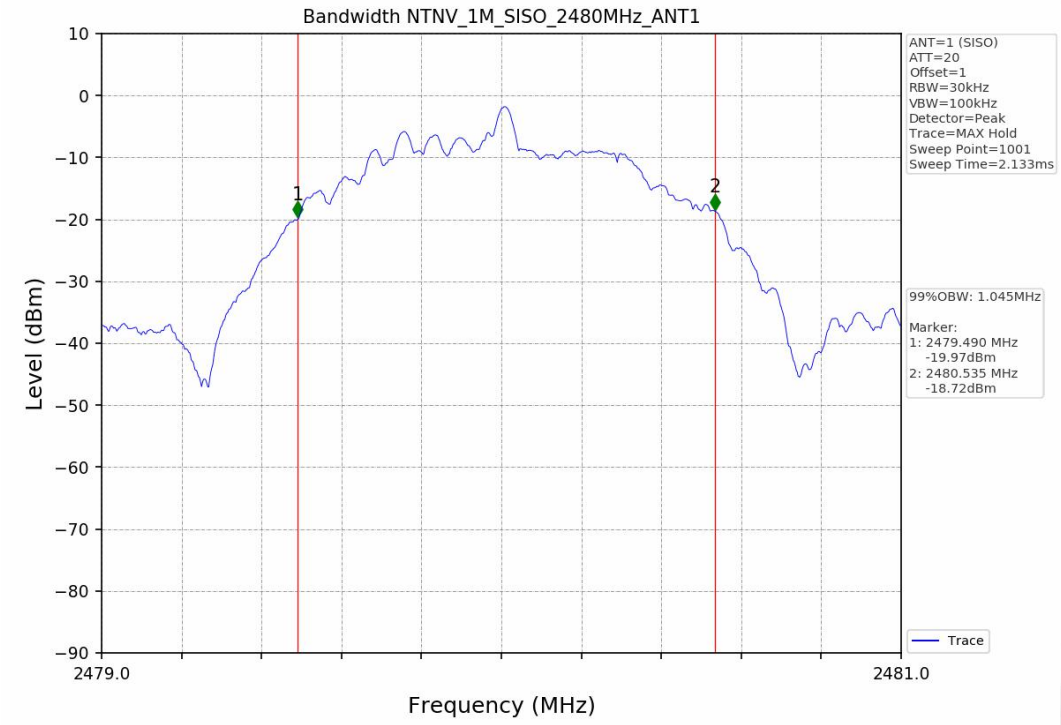

Bandwidth NTNV_1M_SISO_2440MHz_ANT1
ANT=1 (SISO)
ATT=20
Offset=1
RBW=100kHz
VBW=300kHz
Detector=Peak
Trace=MAX Hold
Sweep Point=1001
Sweep Time=1ms
6dB: 0.661MHz
Marker:
1: 2439.672 MHz
-6.60dBm
2: 2440.333 MHz
-6.60dBm
3: 2440.006 MHz
-0.60dBm
Trace
Level (dBm)
Frequency (MHz)
2439.0
2441.0


Bandwidth NTNV_1M_SISO_2480MHz_ANT1
ANT=1 (SISO)
ATT=20
Offset=1
RBW=100kHz
VBW=300kHz
Detector=Peak
Trace=MAX Hold
Sweep Point=1001
Sweep Time=1ms
6dB: 0.662MHz
Marker:
1: 2479.672 MHz
-7.13dBm
2: 2480.334 MHz
-7.13dBm
3: 2480.002 MHz
-1.13dBm
Trace
Level (dBm)
Frequency (MHz)
2479.0
2481.0

1.3 Test Graph - 99% Occupied Bandwidth





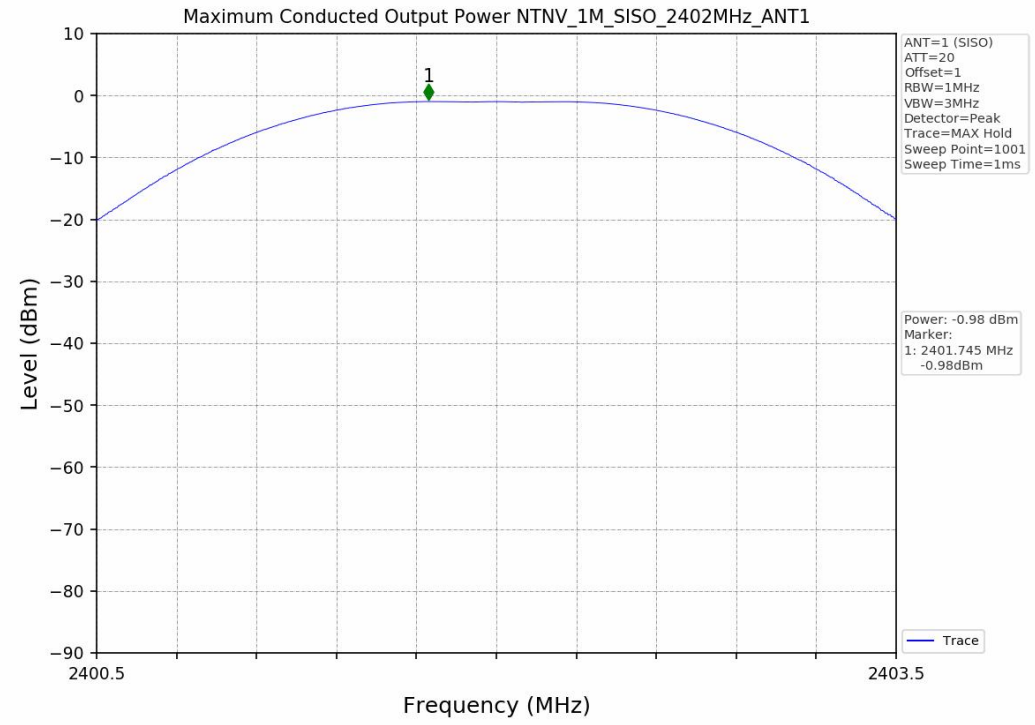


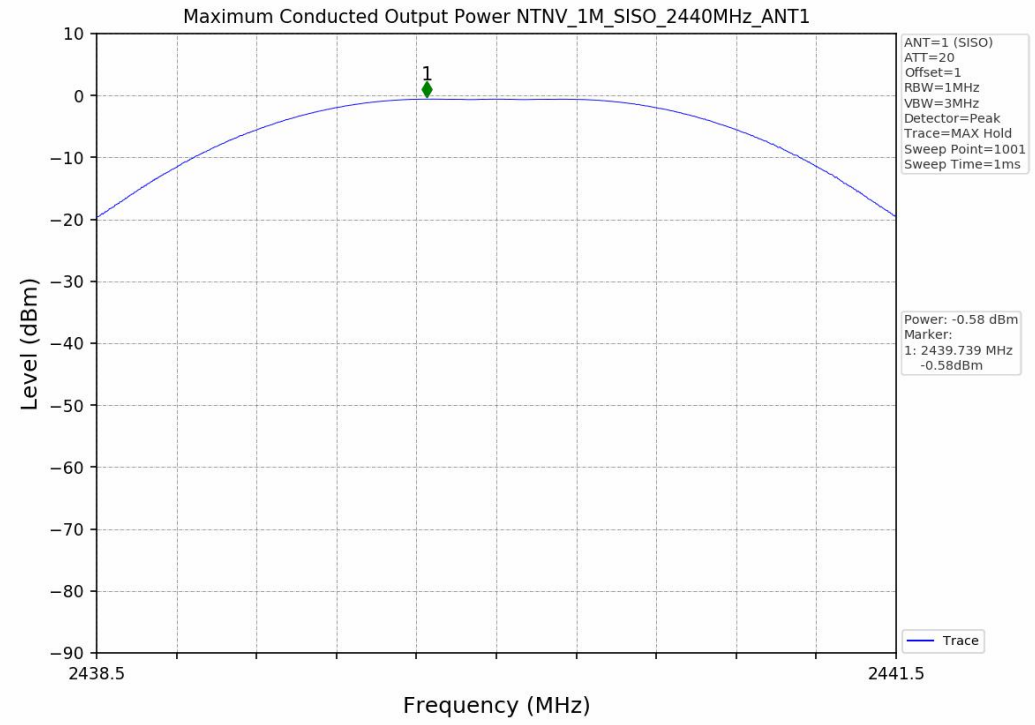
2. Maximum Conducted Output Power

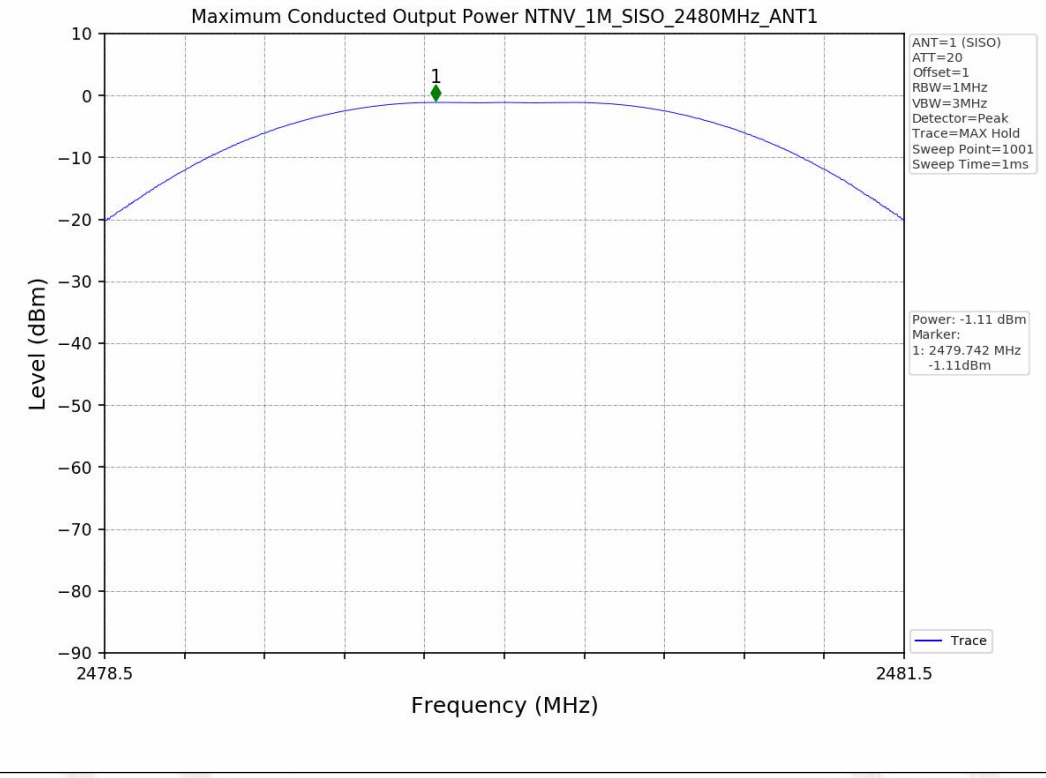
2.1 Test Result

Test Mode	Frequency (MHz)	Tx Type	Measured Peak Output Power (dBm)	Limits (dBm)	Verdict
			Ant 1		
1M	2402	SISO	-0.98	30	PASS
	2440	SISO	-0.58	30	PASS
	2480	SISO	-1.11	30	PASS

2.2 Test Graph


Maximum Conducted Output Power NTNV_1M_SISO_2402MHz_ANT1
ANT=1 (SISO)
ATT=20
Offset=1
RBW=1MHz
VBW=3MHz
Detector=Peak
Trace=MAX Hold
Sweep Point=1001
Sweep Time=1ms
Power: -0.98 dBm
Marker:
1: 2401.745 MHz
-0.98dBm
Trace
Level (dBm)
Frequency (MHz)
2400.5
2403.5


Maximum Conducted Output Power NTNV_1M_SISO_2440MHz_ANT1
ANT=1 (SISO)
ATT=20
Offset=1
RBW=1MHz
VBW=3MHz
Detector=Peak
Trace=MAX Hold
Sweep Point=1001
Sweep Time=1ms
Power: -0.58 dBm
Marker:
1: 2439.739 MHz
-0.58dBm
Trace
Level (dBm)
Frequency (MHz)
2438.5
2441.5

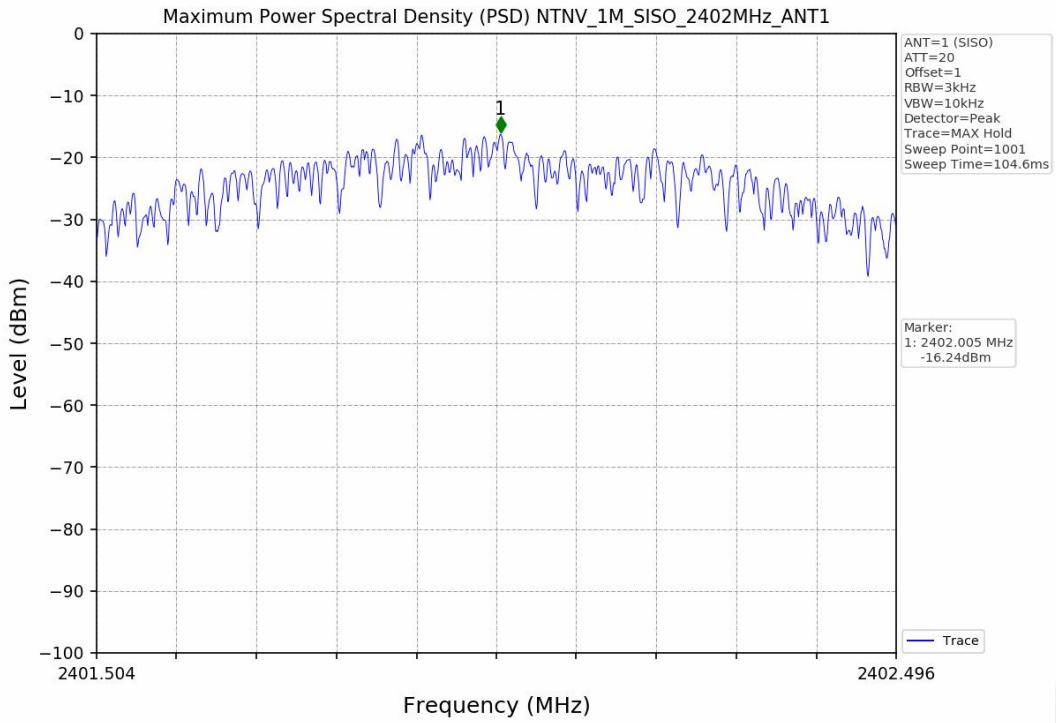


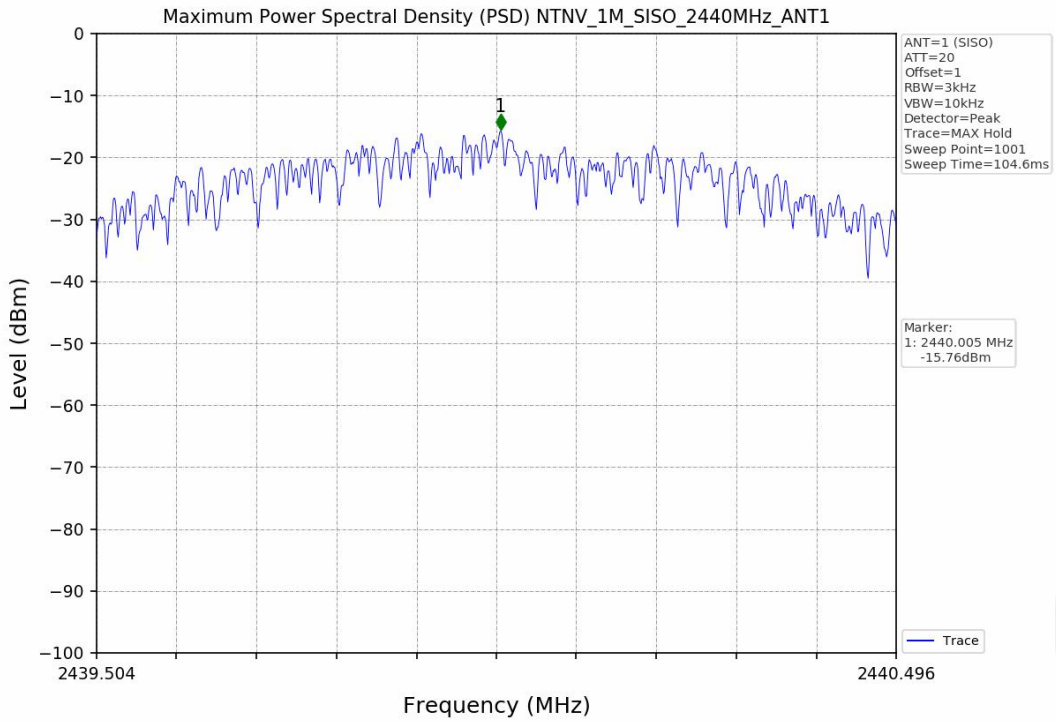
3. Maximum Power Spectral Density (PSD)

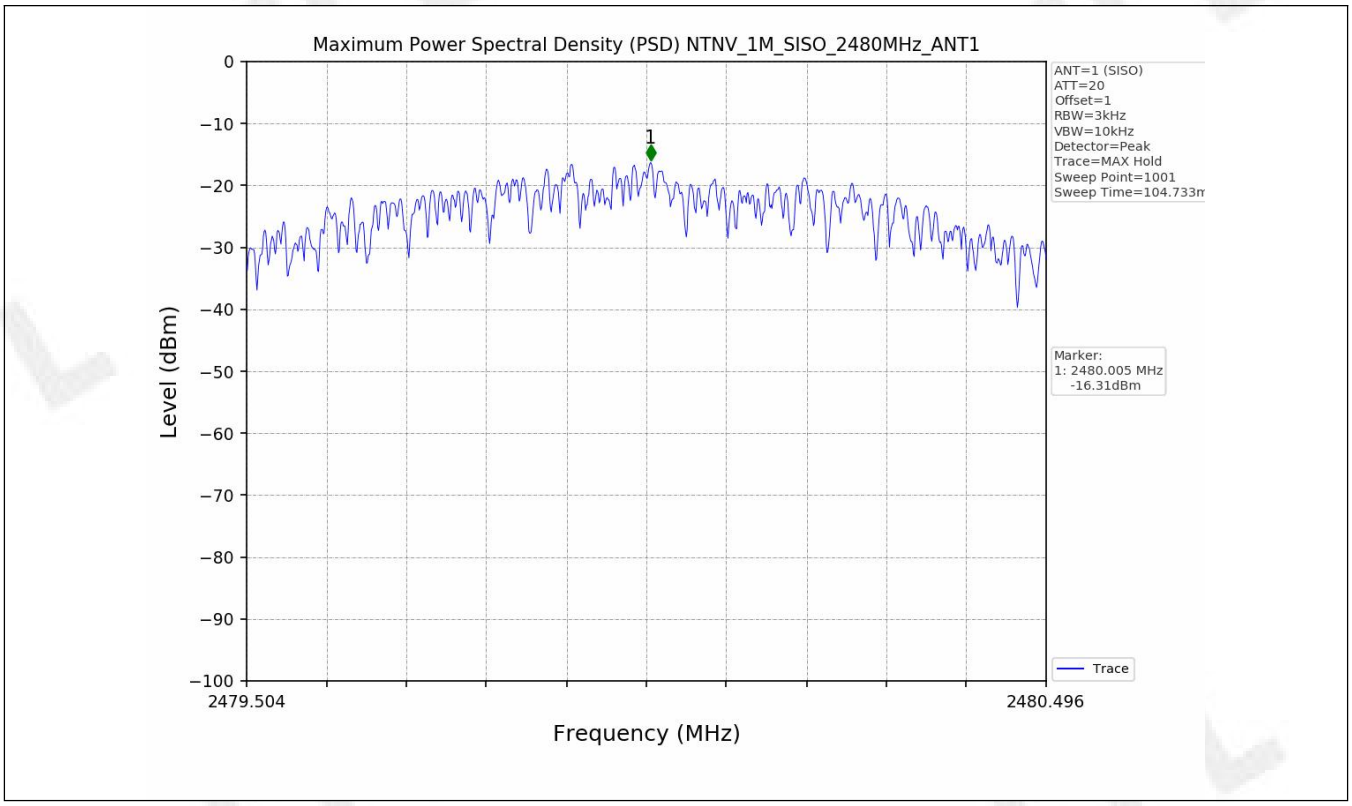
3.1 Test Result

Test Mode	Frequency (MHz)	Tx Type	Maximum Power Spectral Density (dBm/3KHz)	Limits (dBm/3kHz)	Verdict
			Ant 1		
1M	2402	SISO	-16.24	≤8	PASS
	2440	SISO	-15.76	≤8	PASS
	2480	SISO	-16.31	≤8	PASS

3.2 Test Graph


Maximum Power Spectral Density (PSD) NTNV_1M_SISO_2402MHz_ANT1
ANT=1 (SISO)
ATT=20
Offset=1
RBW=3kHz
VBW=10kHz
Detector=Peak
Trace=MAX Hold
Sweep Point=1001
Sweep Time=104.6ms
Marker:
1: 2402.005 MHz
-16.24dBm
Trace
Level (dBm)
Frequency (MHz)
2401.504
2402.496


Maximum Power Spectral Density (PSD) NTNV_1M_SISO_2440MHz_ANT1
ANT=1 (SISO)
ATT=20
Offset=1
RBW=3kHz
VBW=10kHz
Detector=Peak
Trace=MAX Hold
Sweep Point=1001
Sweep Time=104.6ms
Marker:
1: 2440.005 MHz
-15.76dBm
Trace
Level (dBm)
Frequency (MHz)
2439.504
2440.496

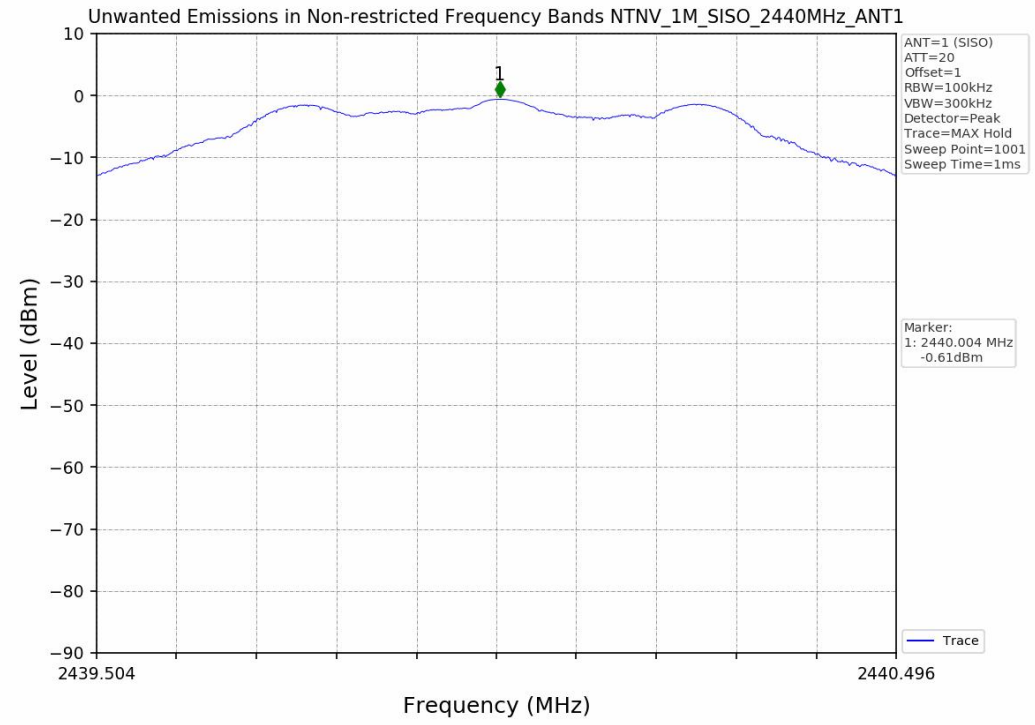


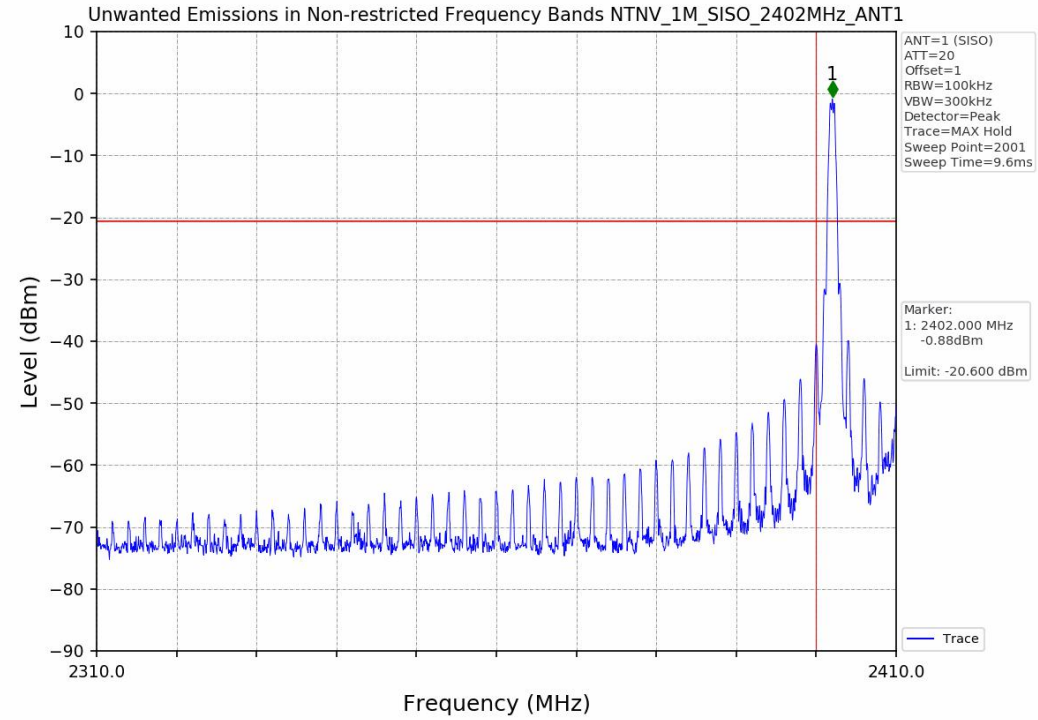
4. Unwanted Emissions in Non-restricted Frequency Bands

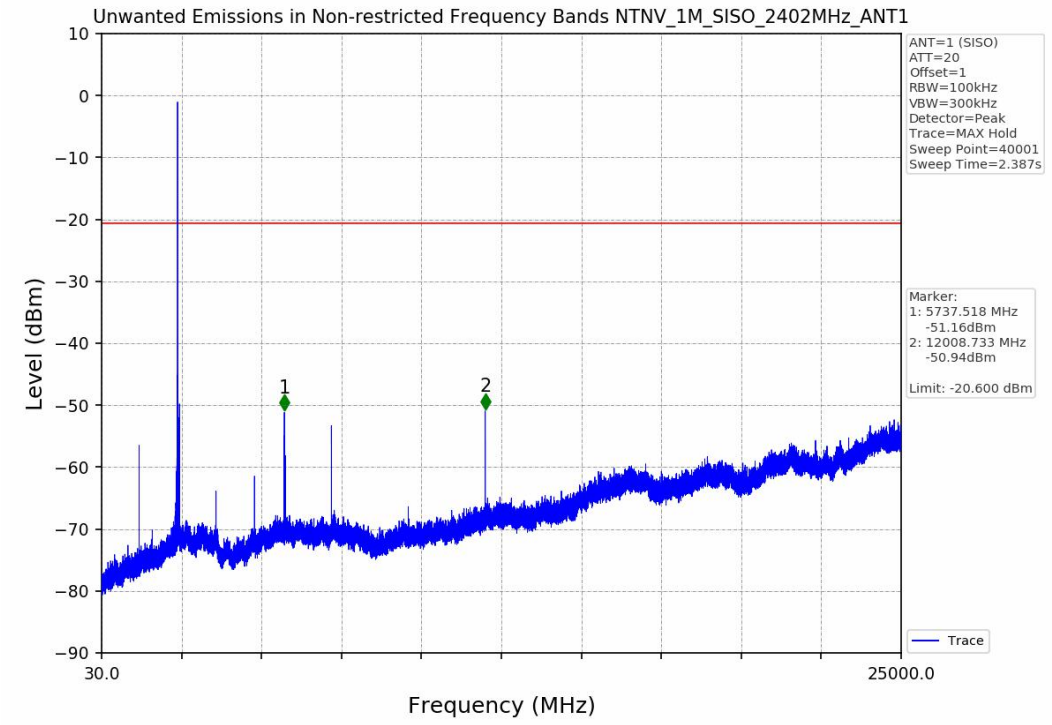
4.1 Test Result

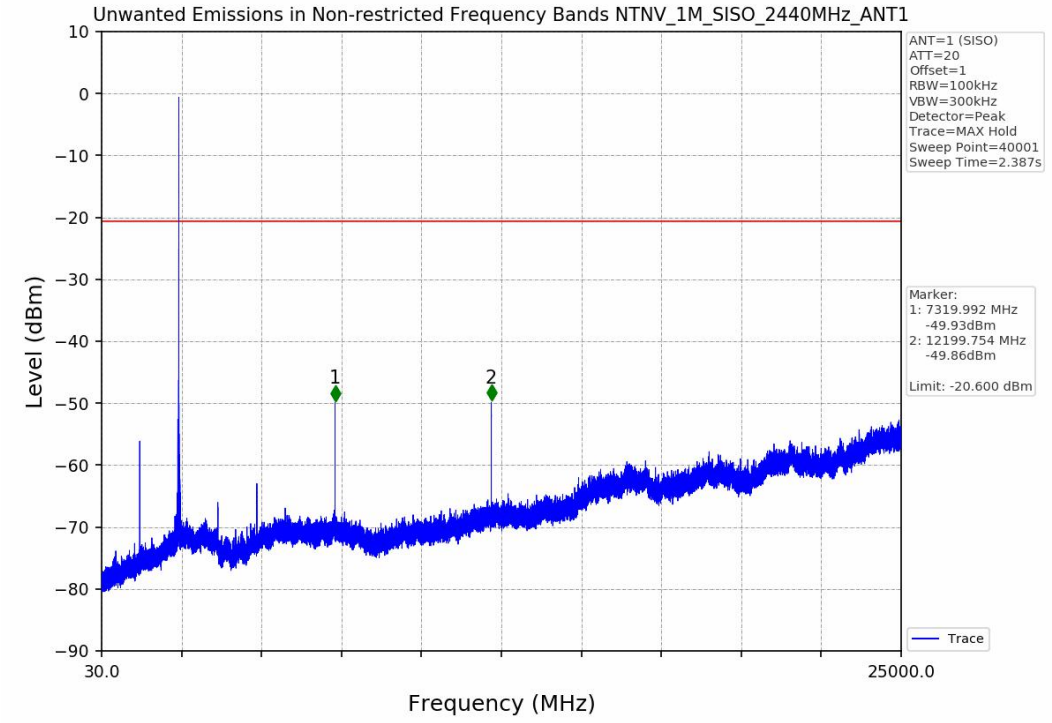
Test Mode	Frequency (MHz)	TX Type	ANT No.	Spurious Conducted Emission (dBm)	Limits (dBm)	Verdict
1M	2402	SISO	1	Refer to test graph	-20.60	PASS
	2440	SISO	1	Refer to test graph	-20.60	PASS
	2480	SISO	1	Refer to test graph	-20.60	PASS

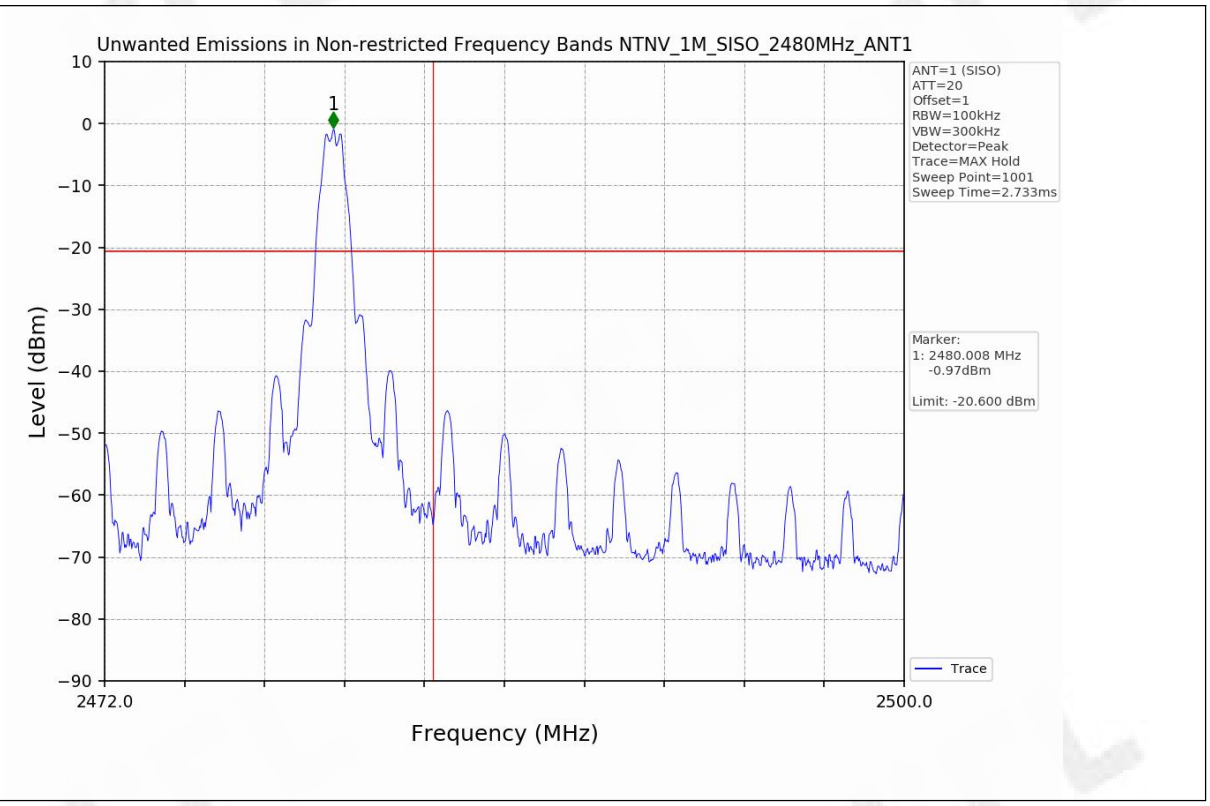
4.2 Test Graph

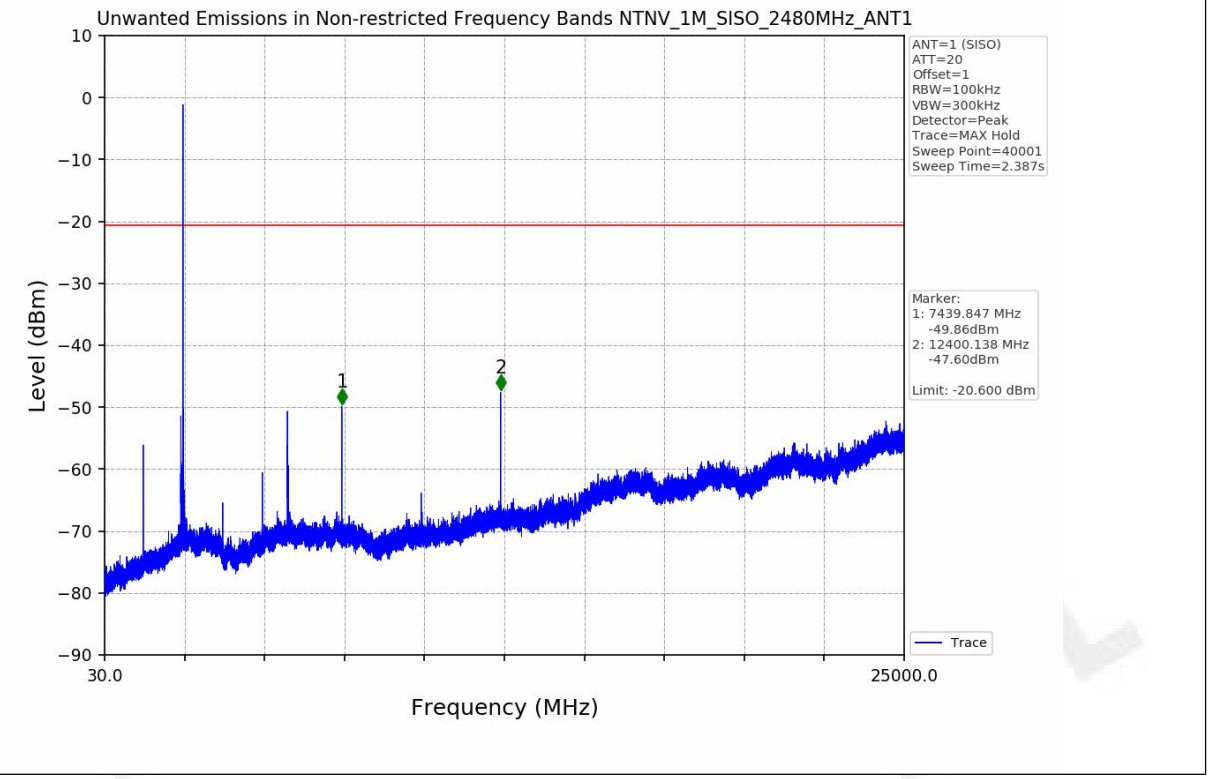

Unwanted Emissions in Non-restricted Frequency Bands NTNV_1M_SISO_2440MHz_ANT1
ANT=1 (SISO)
ATT=20
Offset=1
RBW=100kHz
VBW=300kHz
Detector=Peak
Trace=MAX Hold
Sweep Point=1001
Sweep Time=1ms
Marker:
1: 2440.004 MHz
-0.61dBm
Trace
Level (dBm)
Frequency (MHz)
2439.504
2440.496


Unwanted Emissions in Non-restricted Frequency Bands NTNV_1M_SISO_2402MHz_ANT1
ANT=1 (SISO)
ATT=20
Offset=1
RBW=100kHz
VBW=300kHz
Detector=Peak
Trace=MAX Hold
Sweep Point=2001
Sweep Time=9.6ms
Marker:
1: 2402.000 MHz
-0.88dBm
Limit: -20.600 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)
ATT=20
Offset=1
RBW=100kHz
VBW=300kHz
Detector=Peak
Trace=MAX Hold
Sweep Point=40001
Sweep Time=2.387s
Marker:
1: 5737.518 MHz
-51.16dBm
2: 12008.733 MHz
-50.94dBm
Limit: -20.600 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)
ATT=20
Offset=1
RBW=100kHz
VBW=300kHz
Detector=Peak
Trace=MAX Hold
Sweep Point=40001
Sweep Time=2.387s
Marker:
1: 7319.992 MHz
-49.93dBm
2: 12199.754 MHz
-49.86dBm
Limit: -20.600 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)
ATT=20
Offset=1
RBW=100kHz
VBW=300kHz
Detector=Peak
Trace=MAX Hold
Sweep Point=1001
Sweep Time=2.733ms
Marker:
1: 2480.008 MHz
-0.97dBm
Limit: -20.600 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)
ATT=20
Offset=1
RBW=100kHz
VBW=300kHz
Detector=Peak
Trace=MAX Hold
Sweep Point=40001
Sweep Time=2.387s
Marker:
1: 7439.847 MHz
-49.86dBm
2: 12400.138 MHz
-47.60dBm
Limit: -20.600 dBm
Trace
Level (dBm)
Frequency (MHz)
30.0
25000.0