

Appendix for 15.247

Product Name: Industrial Microcomputer

Test Model: FRD-WS-HD

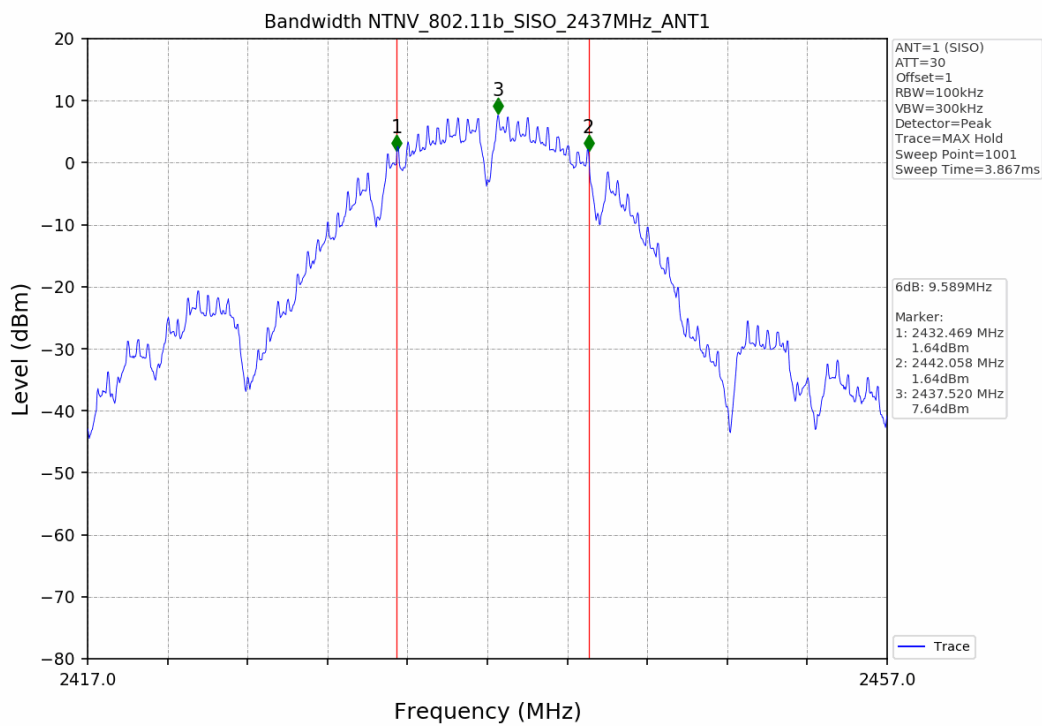
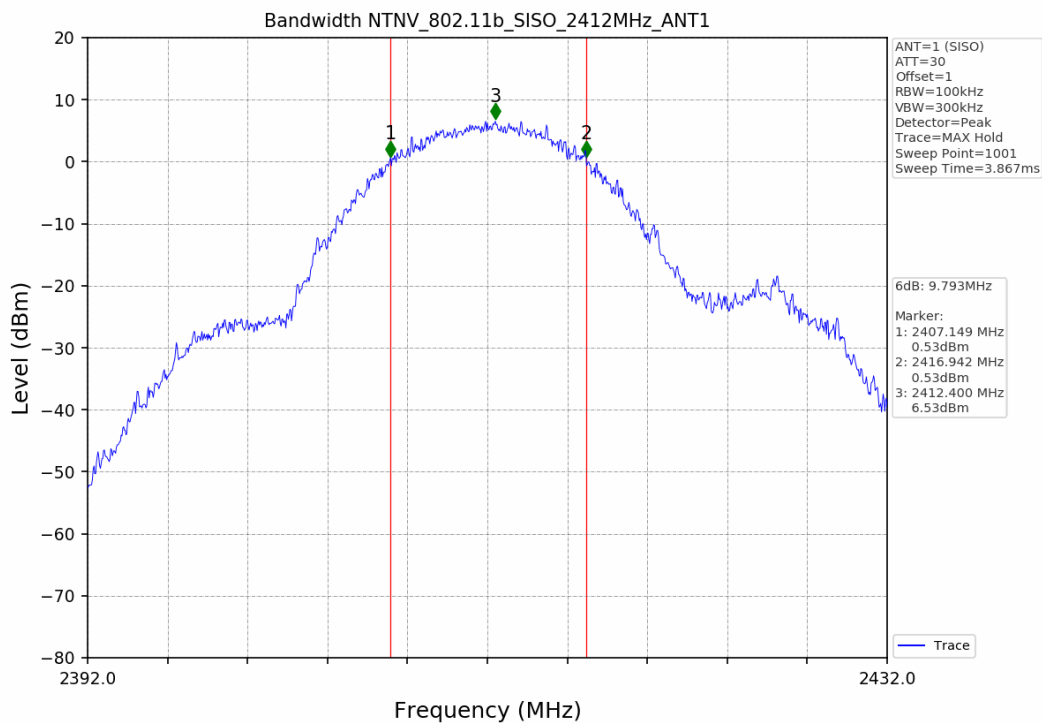
1. Bandwidth

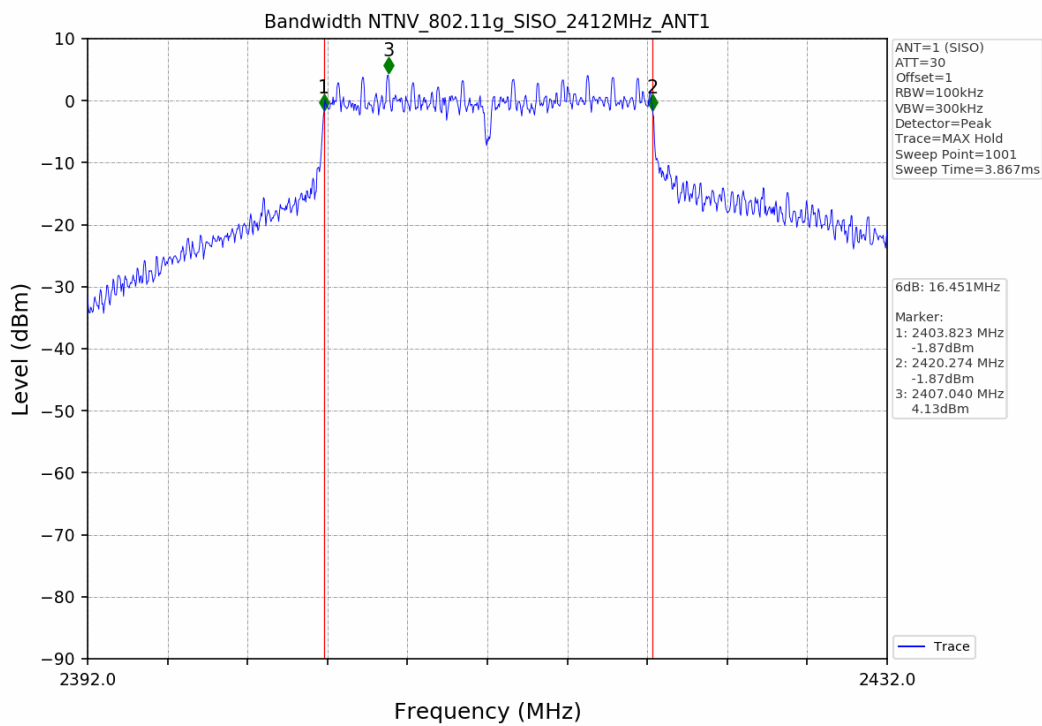
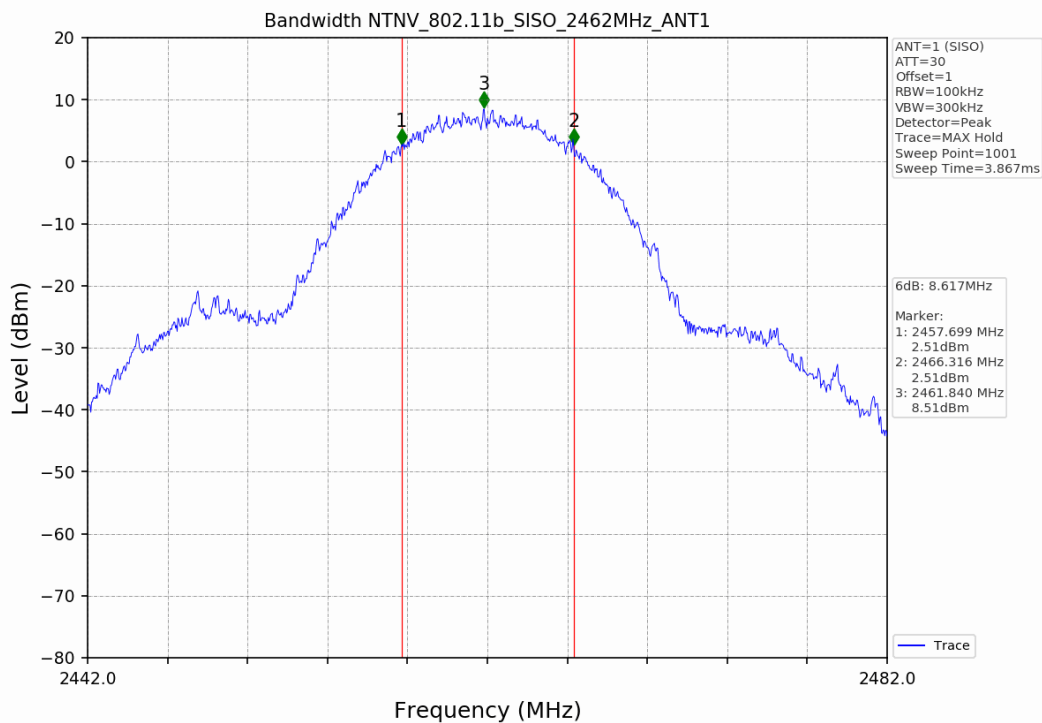
1.1 Test Result

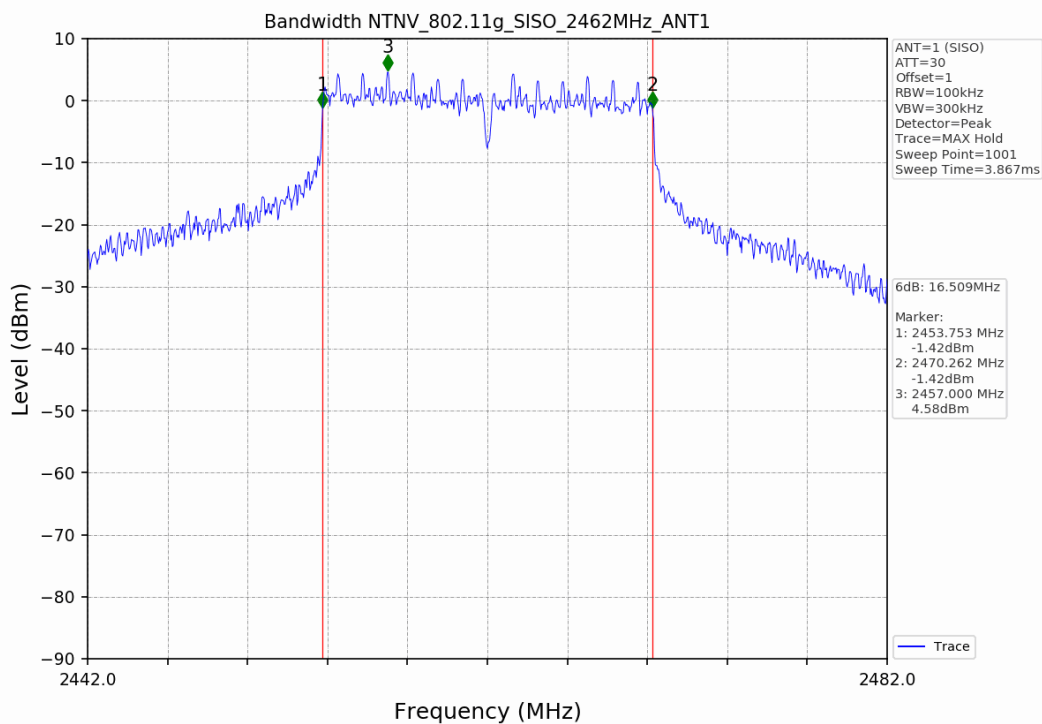
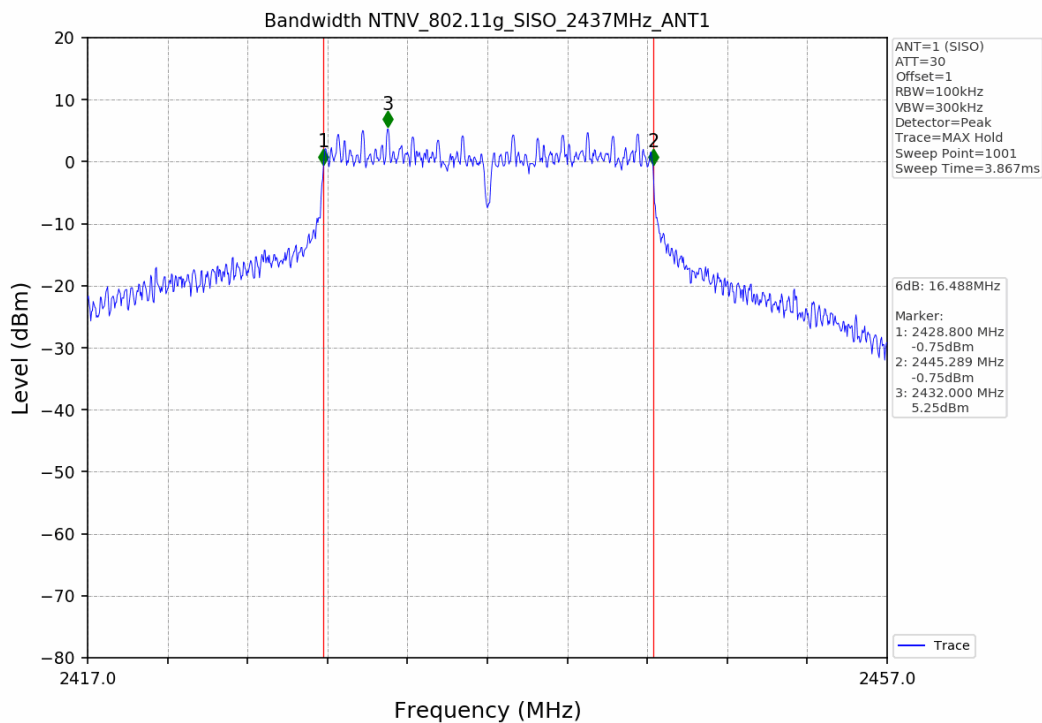
Test Mode	Frequency (MHz)	TX Type	ANT No.	6dB Bandwidth		Verdict
				Test Result (MHz)	Limits (MHz)	
802.11b	2412	SISO	1	9.793	≥0.5	PASS
	2437	SISO	1	9.589	≥0.5	PASS
	2462	SISO	1	8.617	≥0.5	PASS
802.11g	2412	SISO	1	16.451	≥0.5	PASS
	2437	SISO	1	16.488	≥0.5	PASS
	2462	SISO	1	16.509	≥0.5	PASS
802.11n(HT20)	2412	SISO	1	17.676	≥0.5	PASS
	2437	SISO	1	17.753	≥0.5	PASS
	2462	SISO	1	17.641	≥0.5	PASS
802.11n(HT40)	2422	SISO	1	35.236	≥0.5	PASS
	2437	SISO	1	35.575	≥0.5	PASS
	2452	SISO	1	35.370	≥0.5	PASS

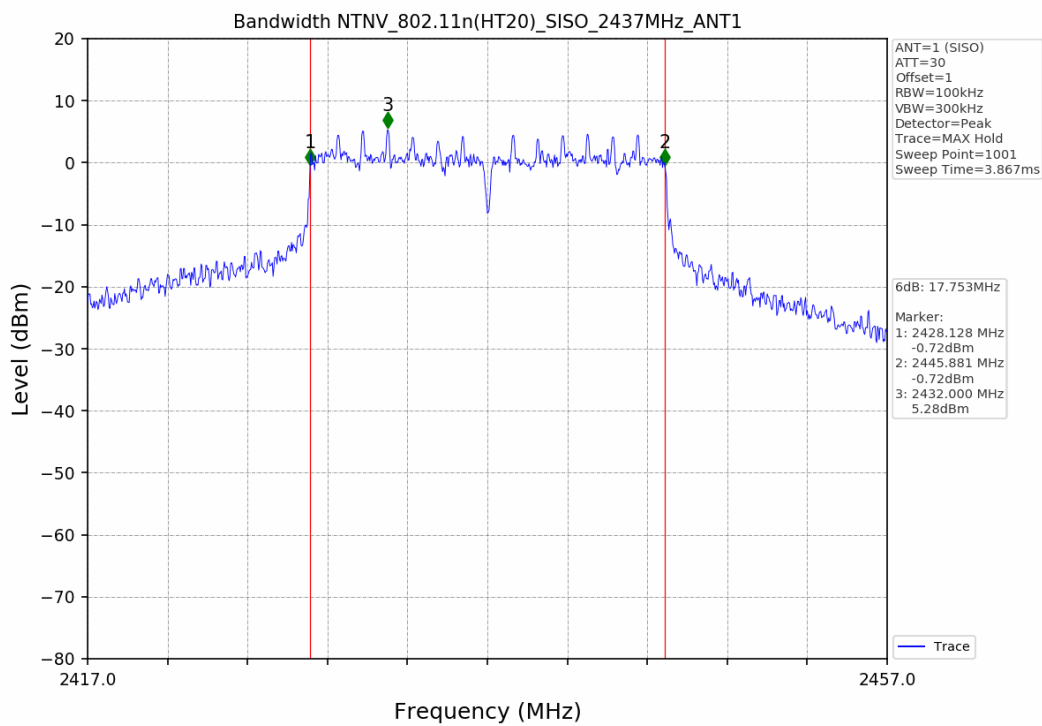
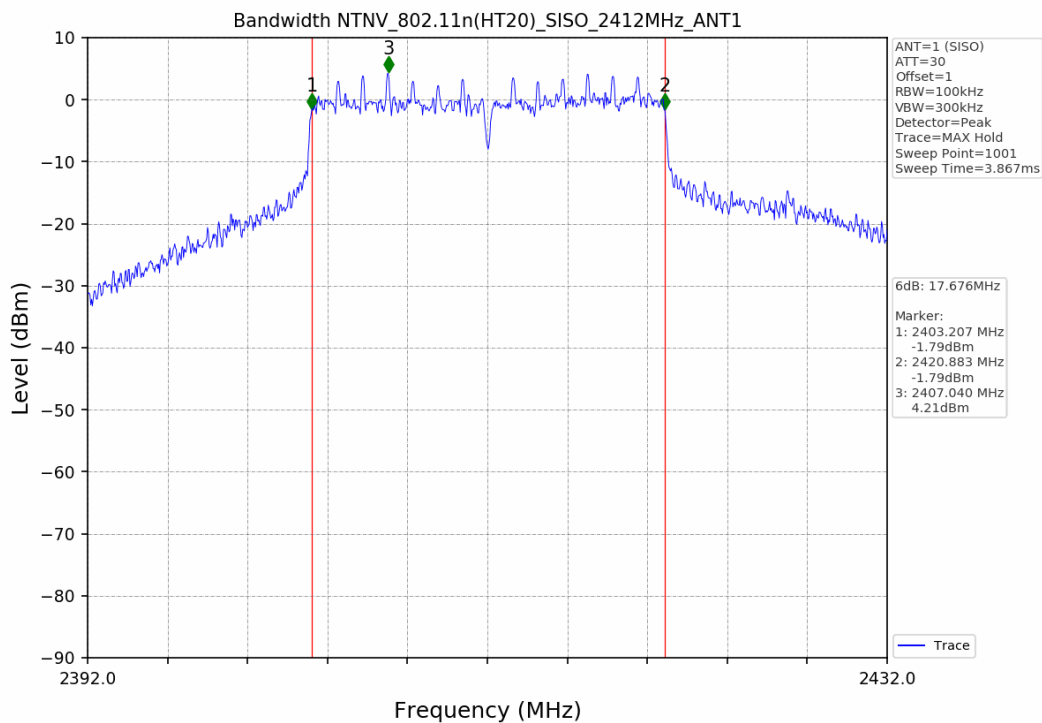
Test Mode	Frequency (MHz)	TX Type	ANT No.	99% Occupied Bandwidth	
				Test Result (MHz)	
802.11b	2412	SISO	1	14.873	Only for Report Use
	2437	SISO	1	14.669	Only for Report Use
	2462	SISO	1	13.877	Only for Report Use
802.11g	2412	SISO	1	23.159	Only for Report Use
	2437	SISO	1	21.254	Only for Report Use
	2462	SISO	1	20.396	Only for Report Use
802.11n(HT20)	2412	SISO	1	23.673	Only for Report Use
	2437	SISO	1	22.199	Only for Report Use
	2462	SISO	1	21.843	Only for Report Use
802.11n(HT40)	2422	SISO	1	43.232	Only for Report Use
	2437	SISO	1	50.369	Only for Report Use
	2452	SISO	1	36.793	Only for Report Use

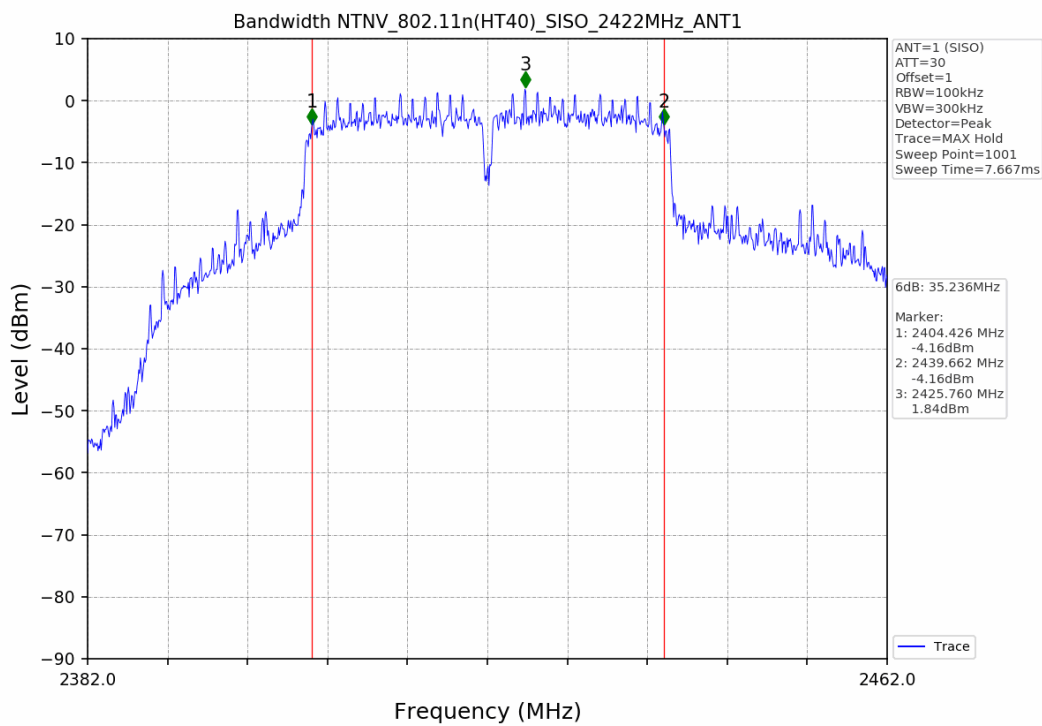
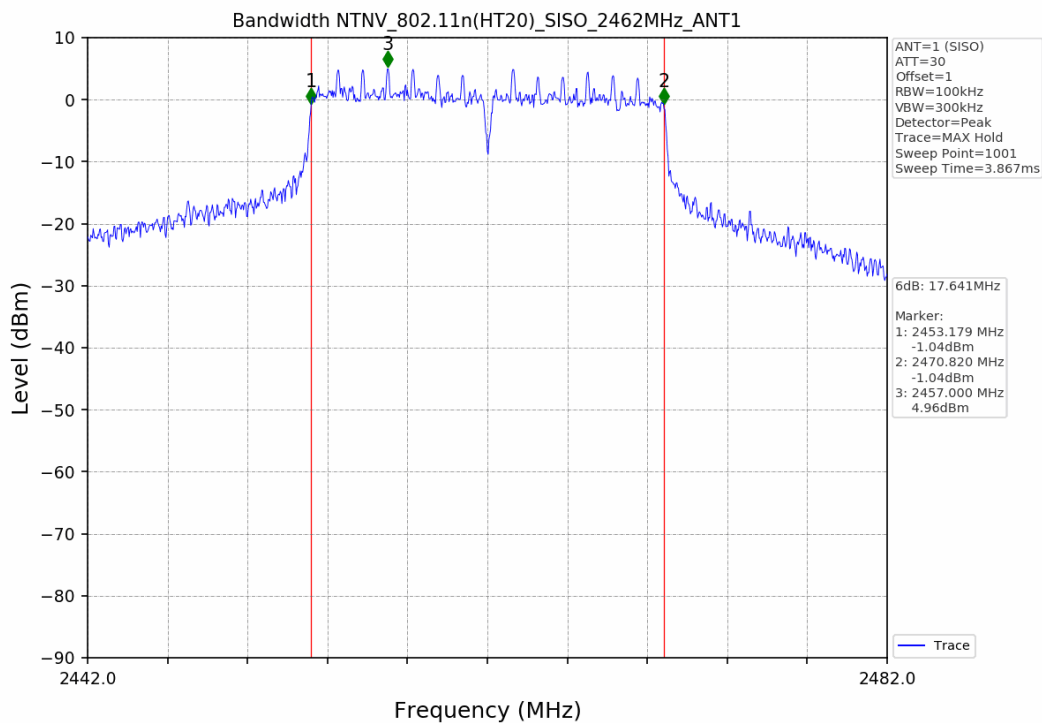
1.2 Test Graph - 6dB Bandwidth

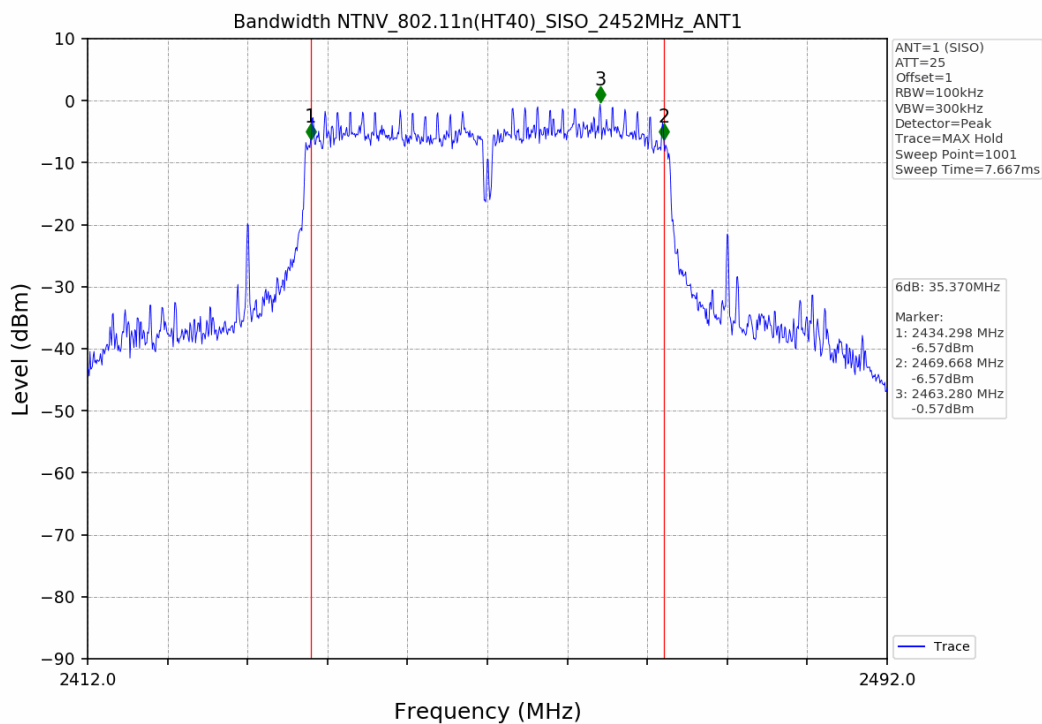
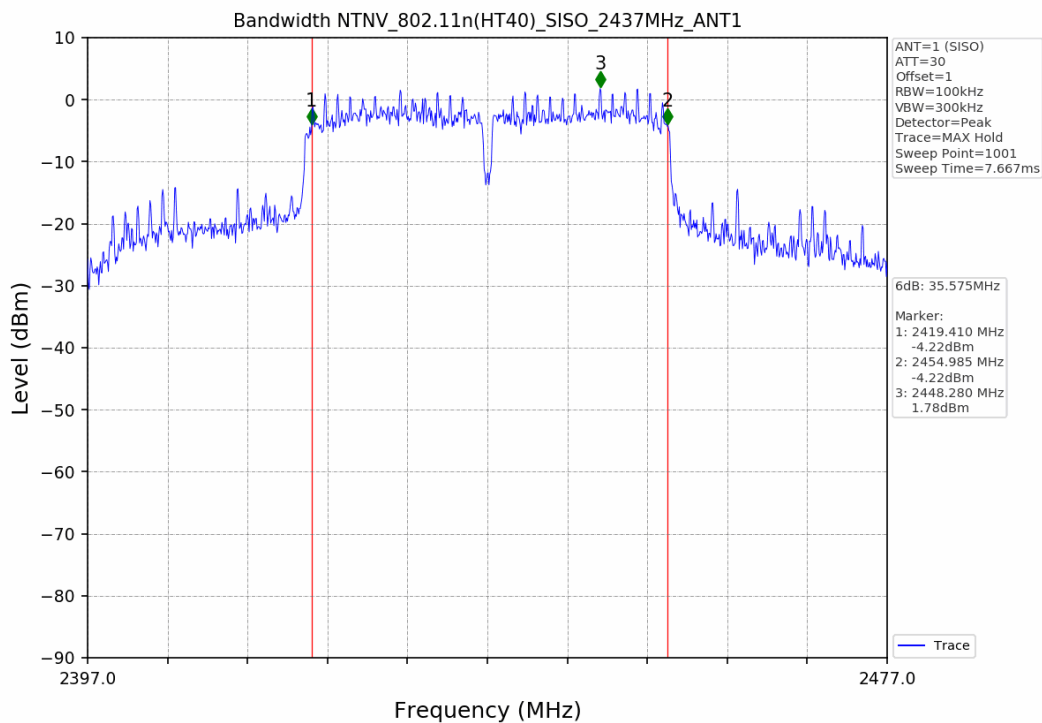




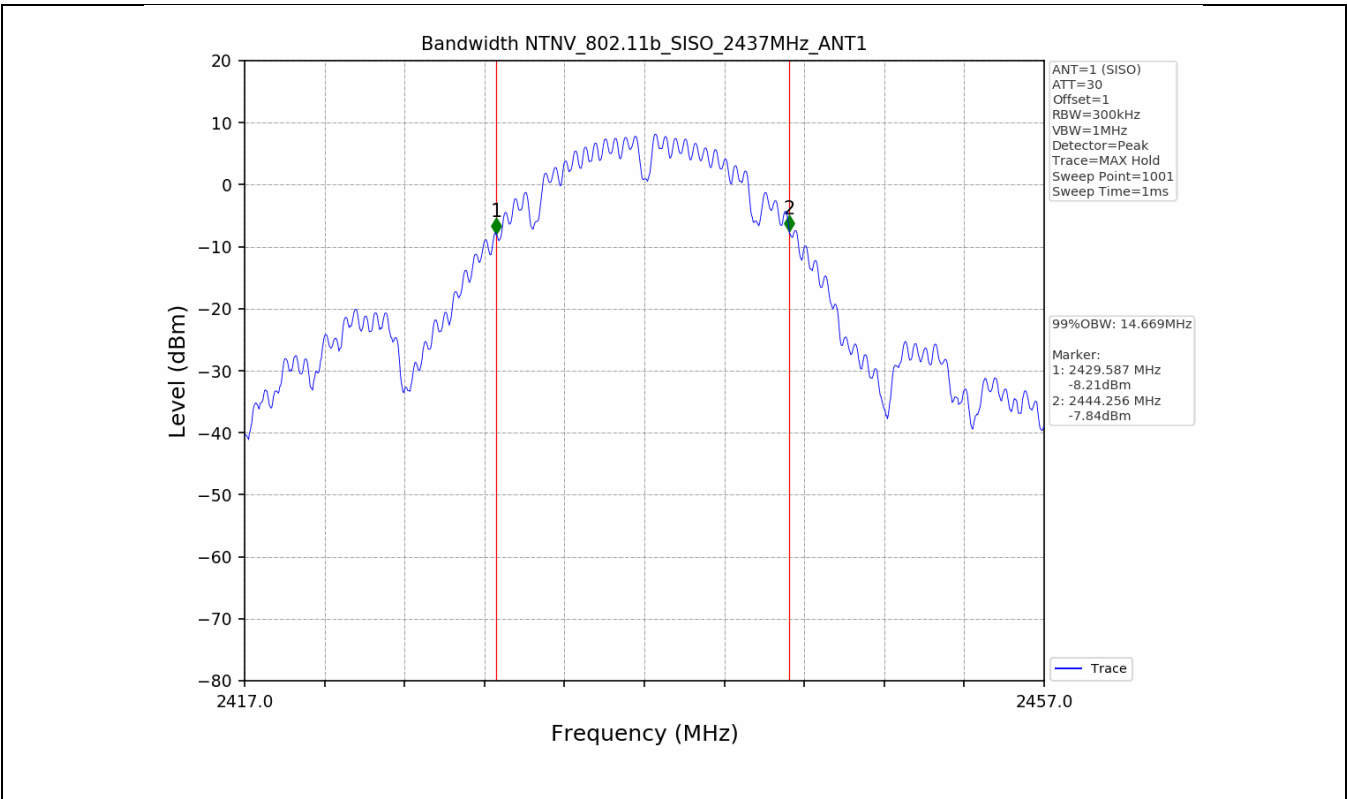
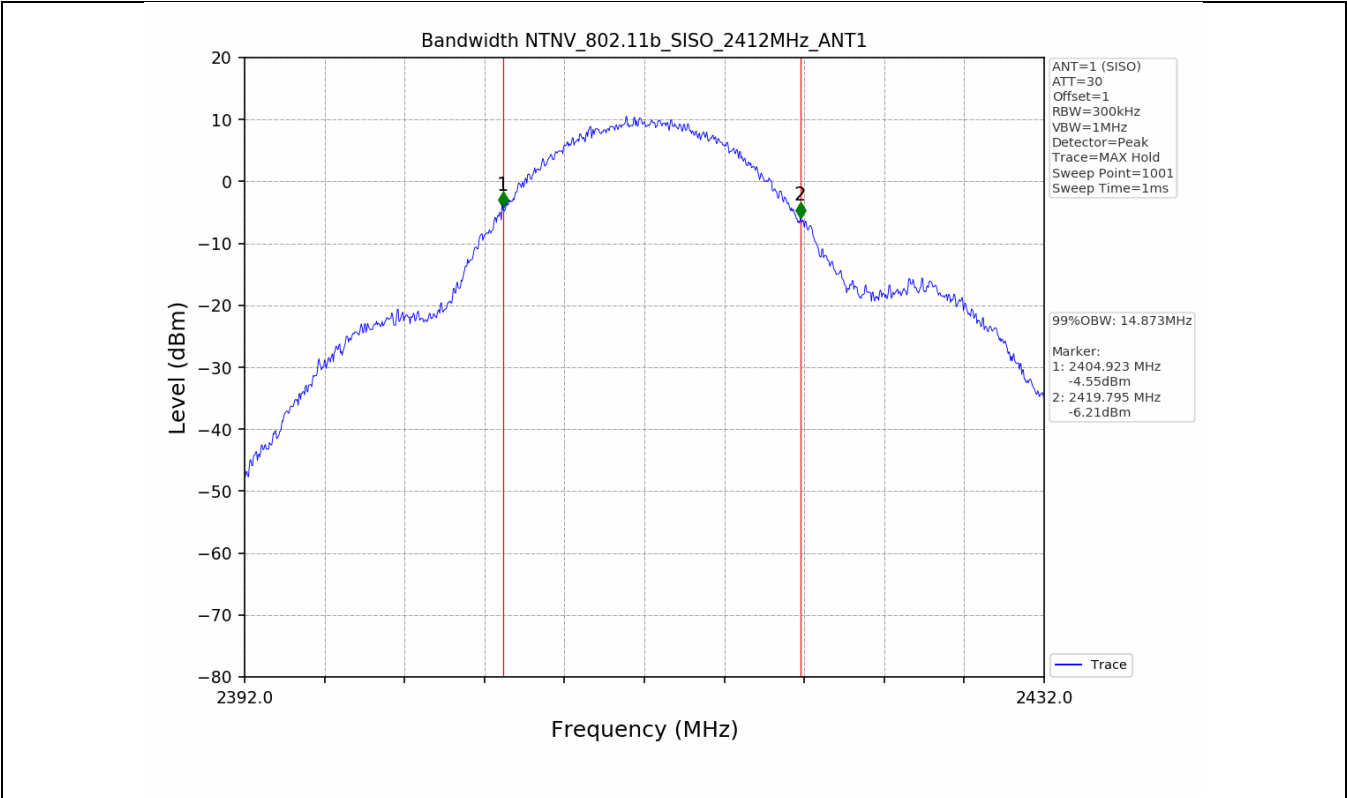


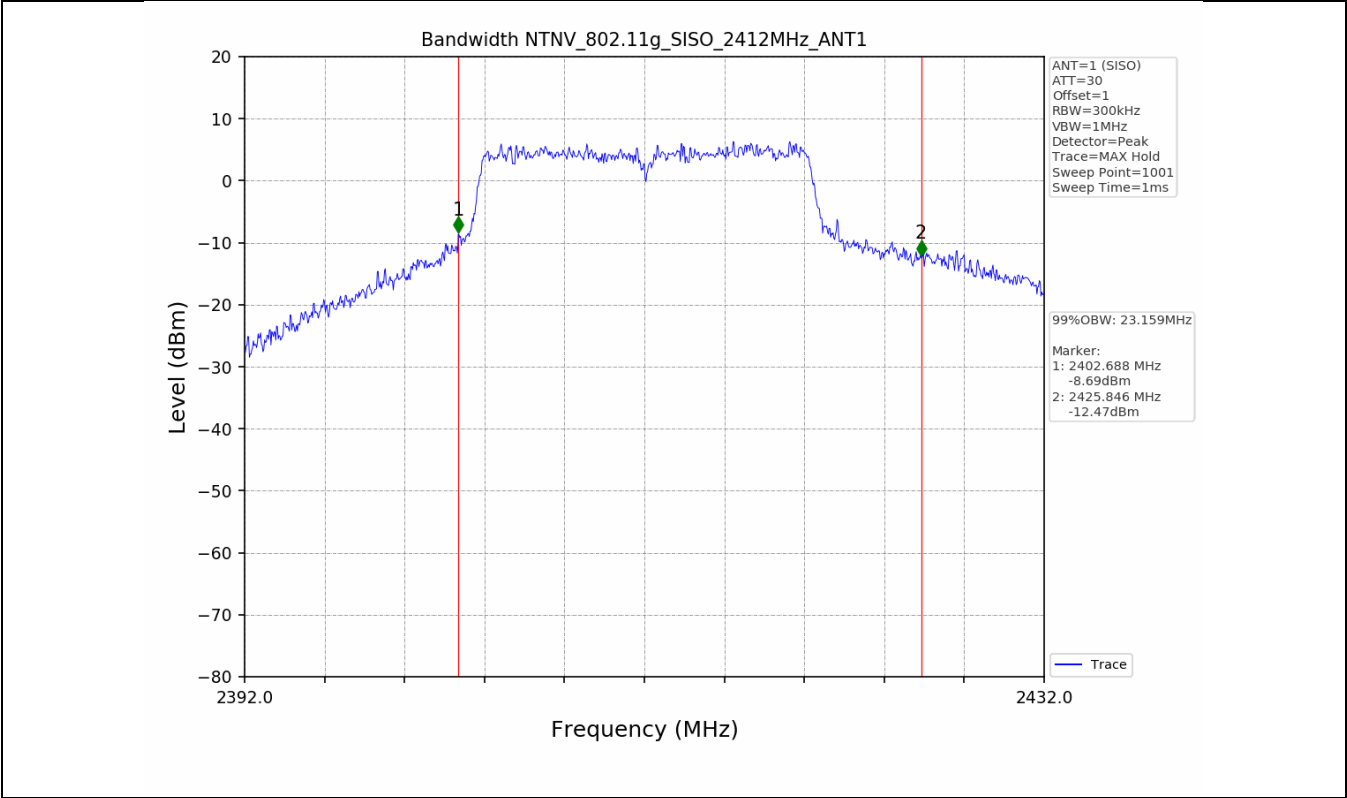
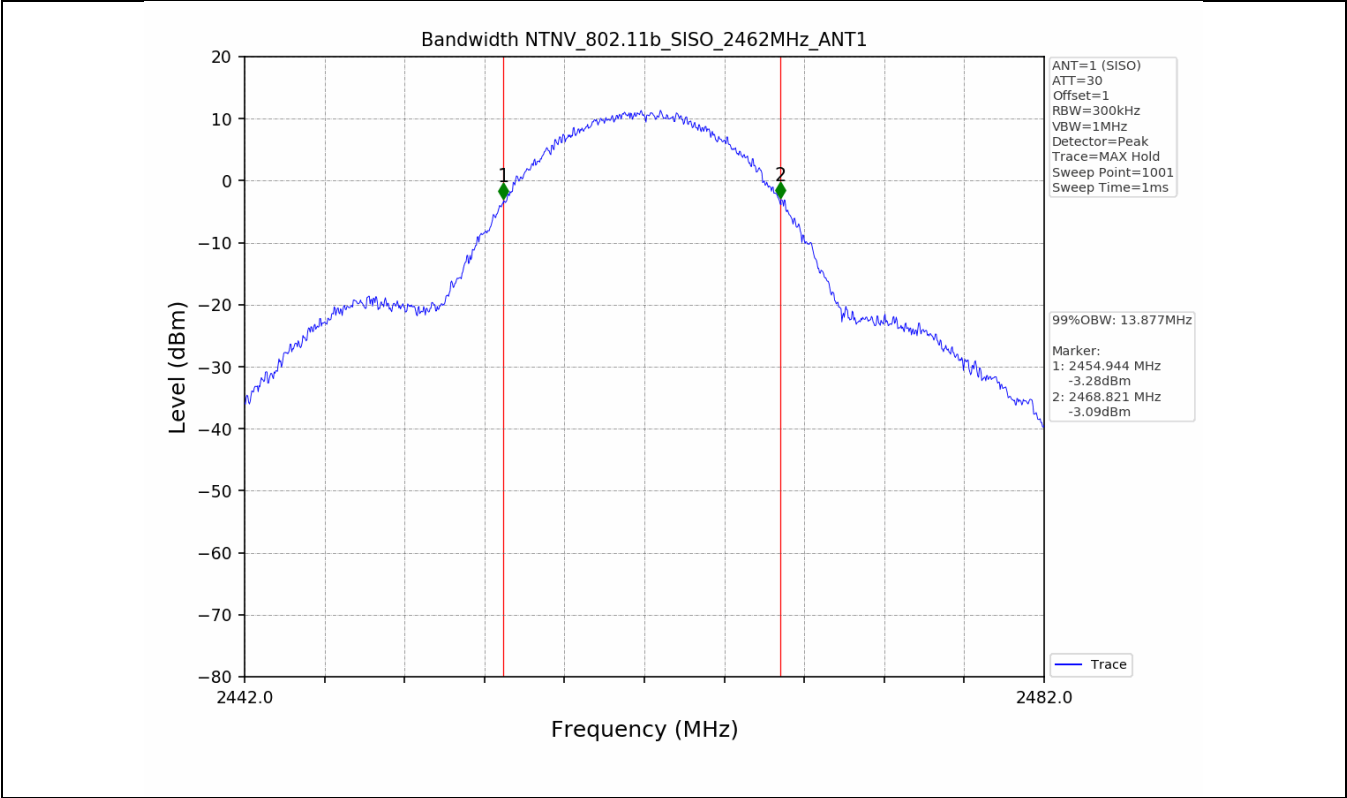


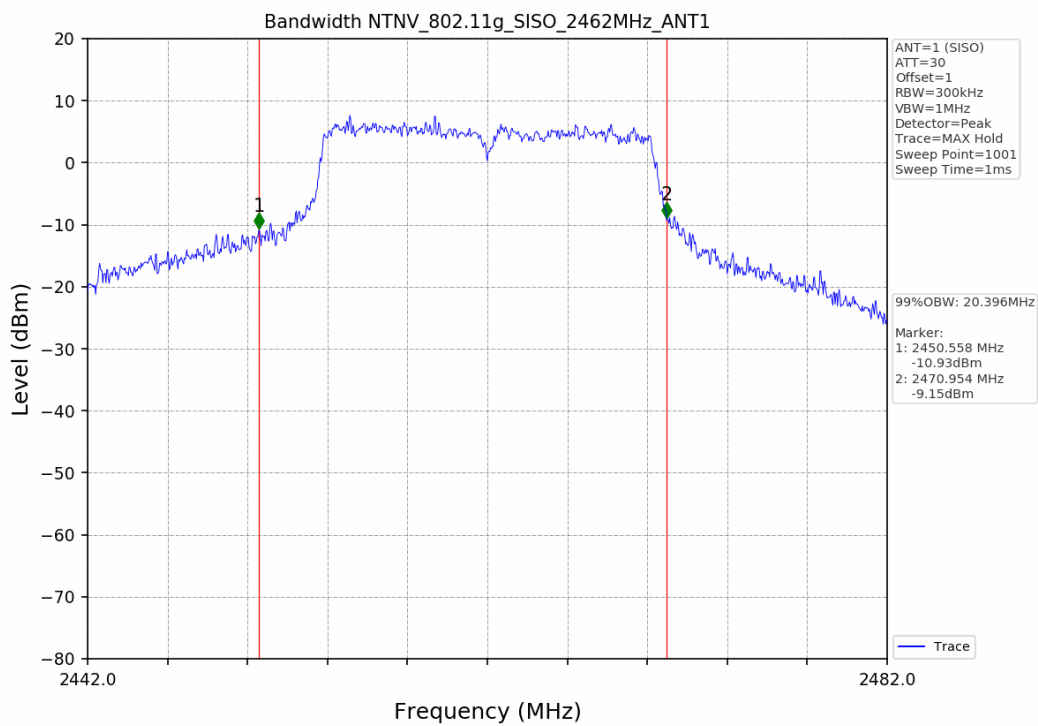
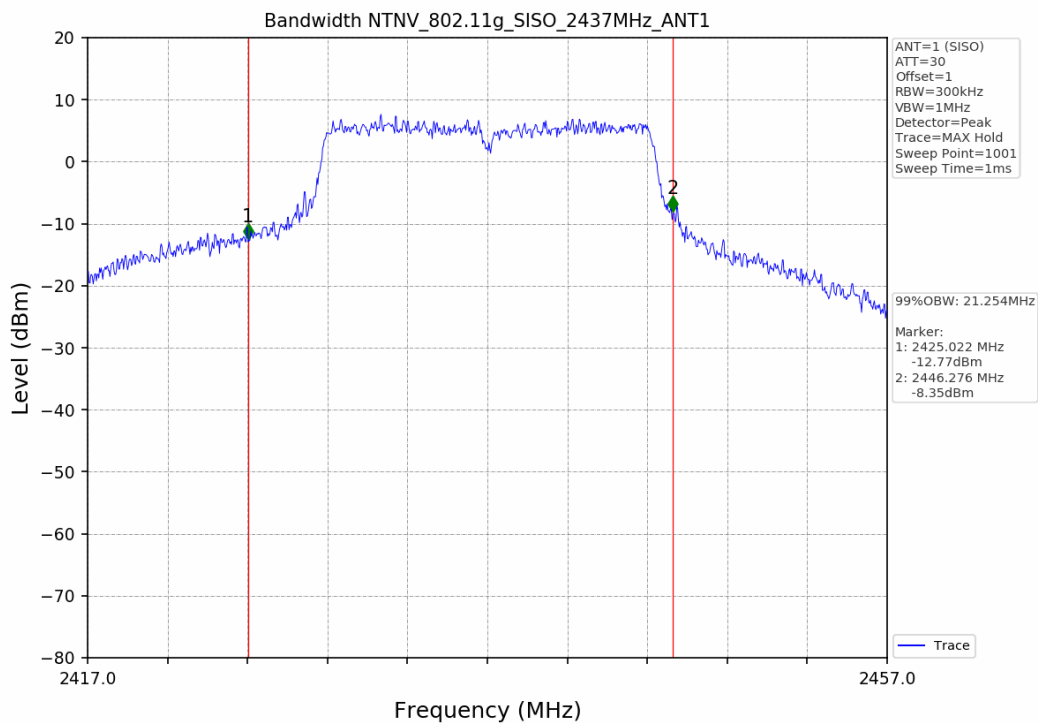


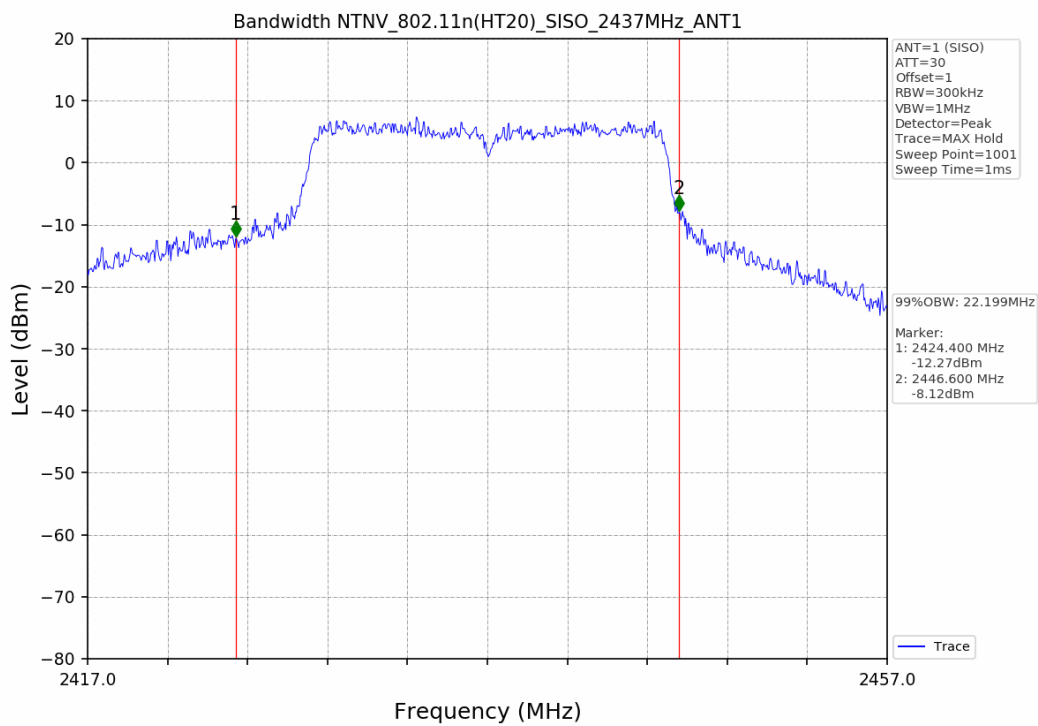
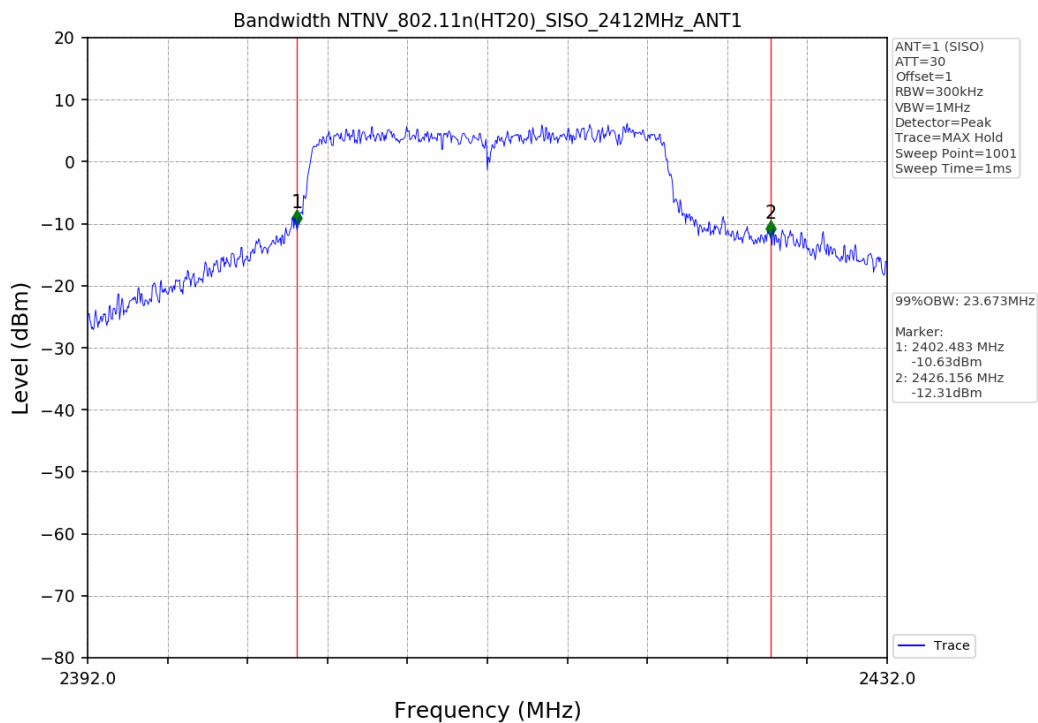


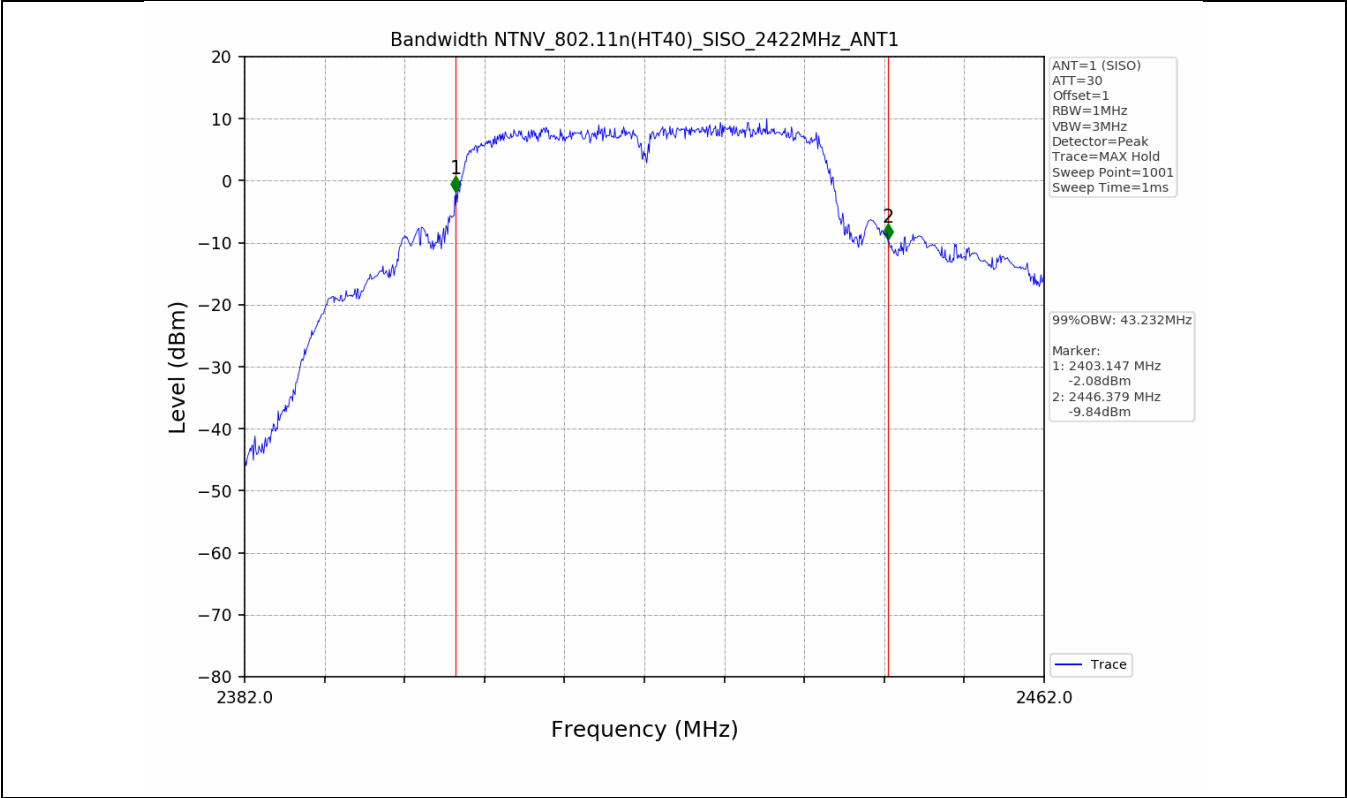
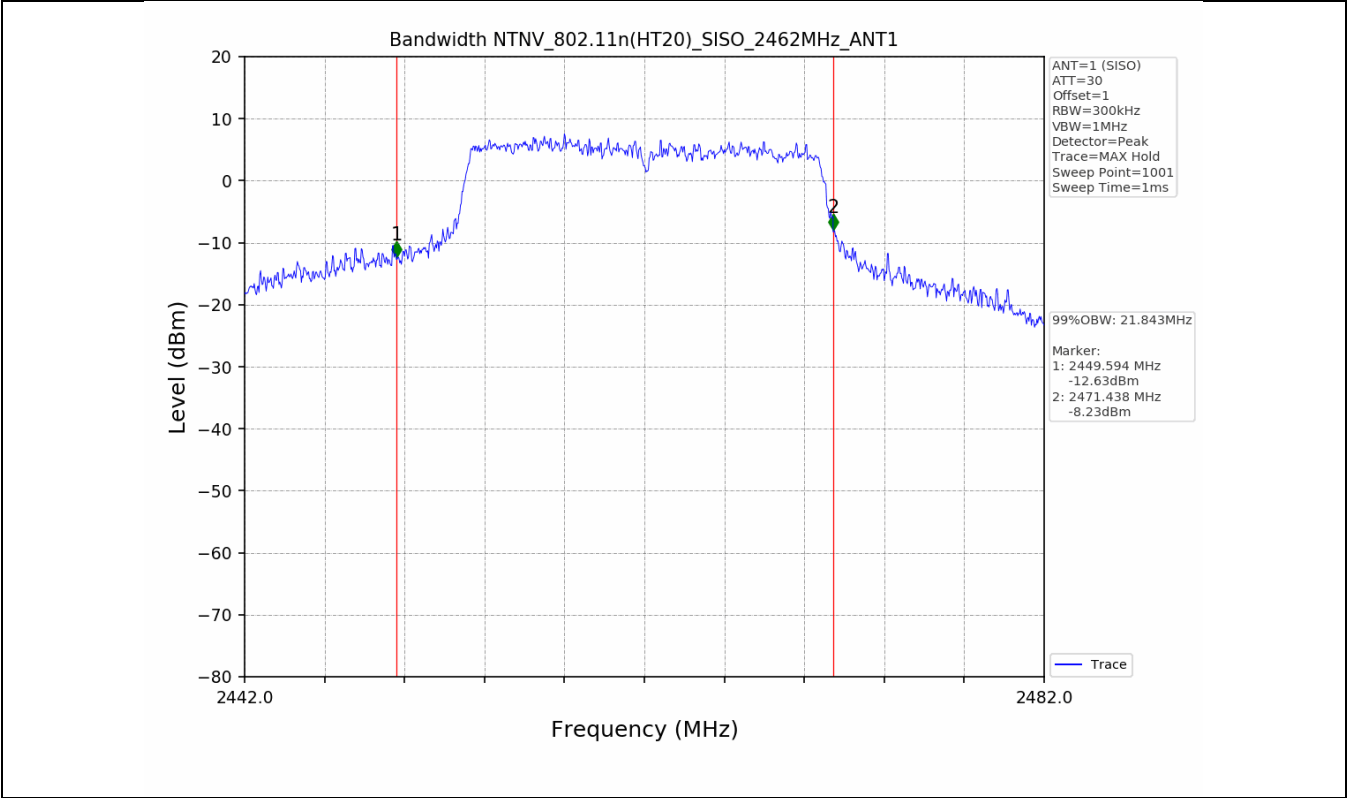
1.3 Test Graph - 99% Occupied Bandwidth

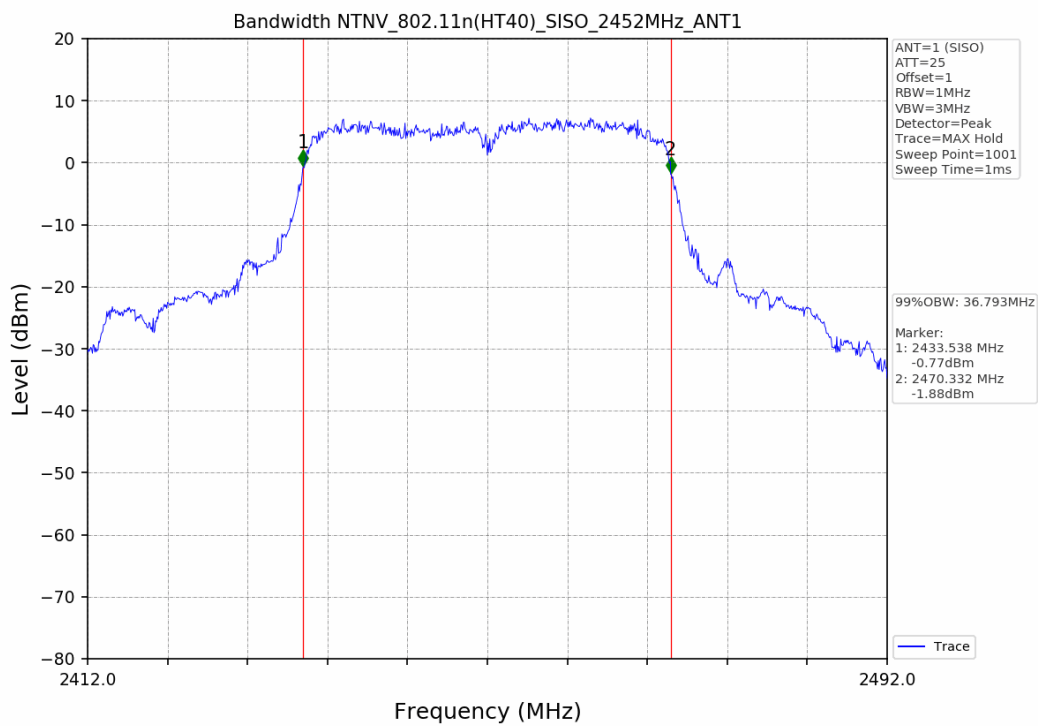
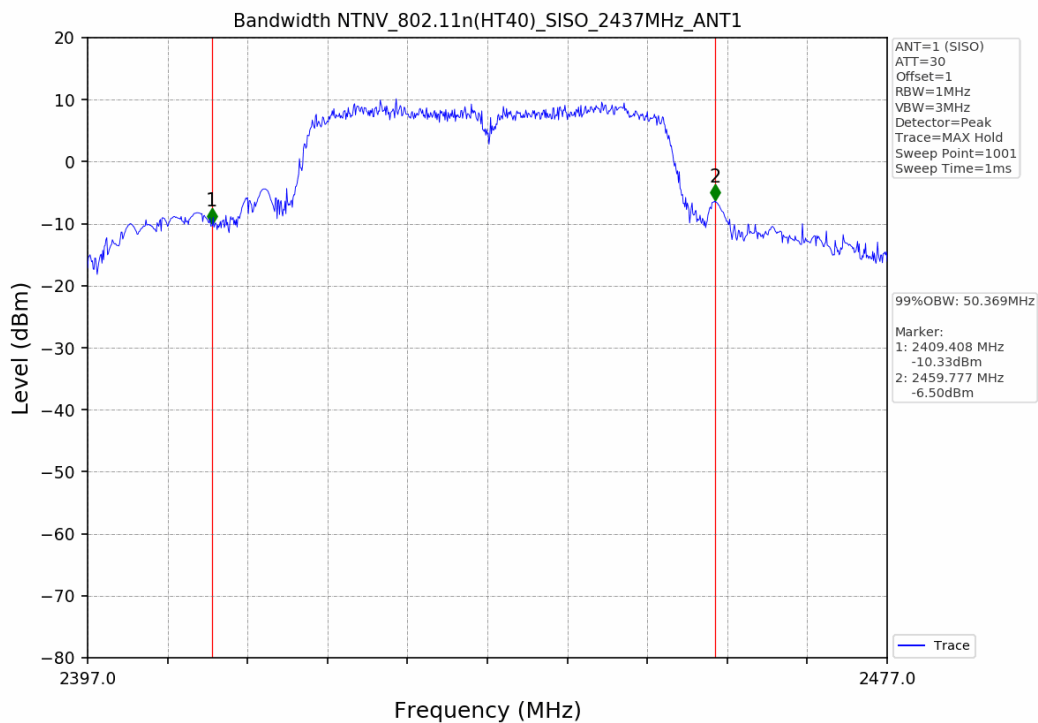










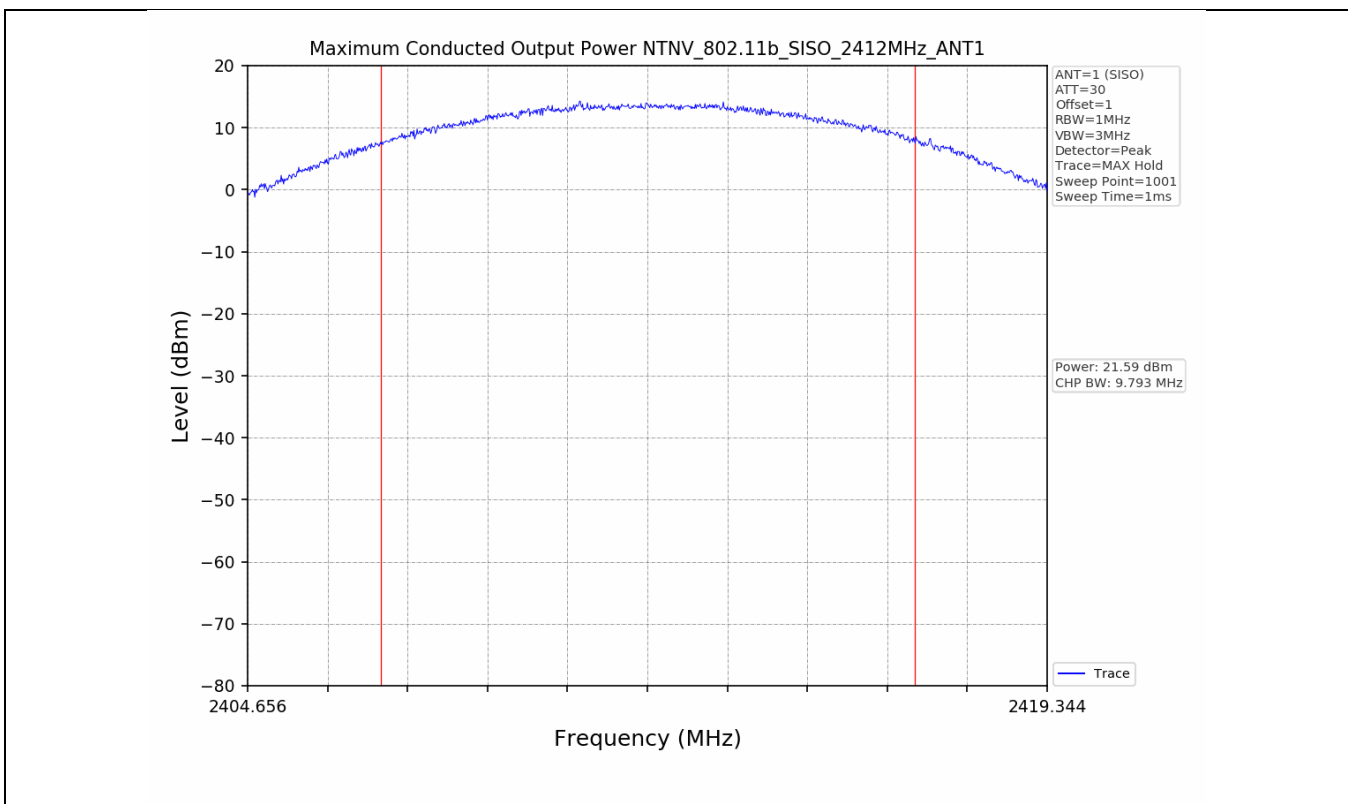


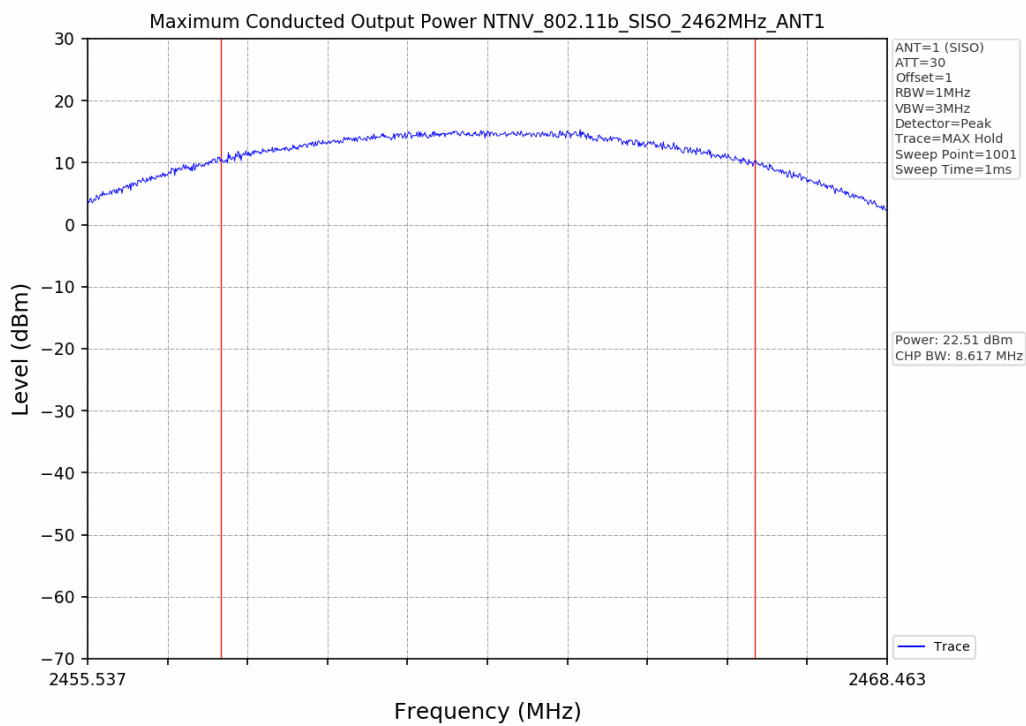
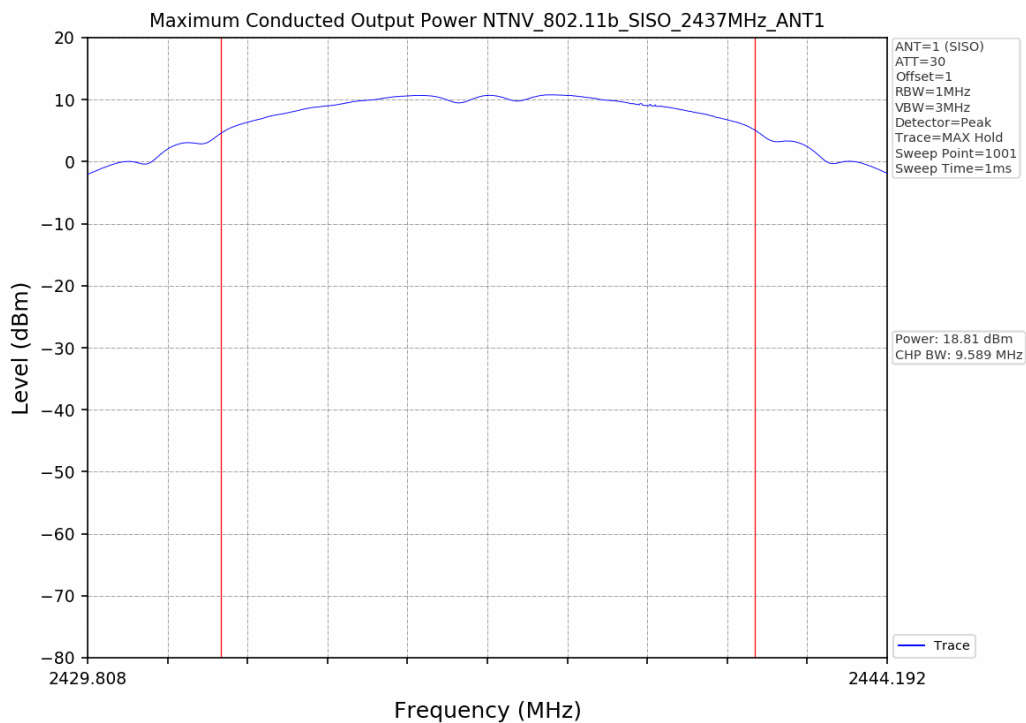
2. Maximum Conducted Output Power

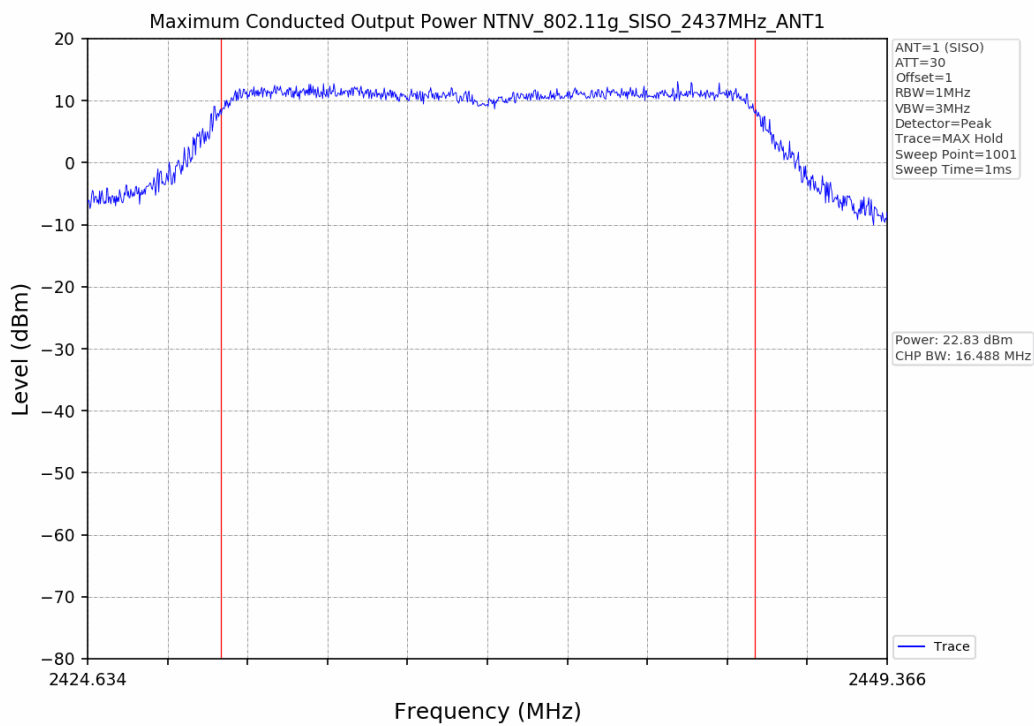
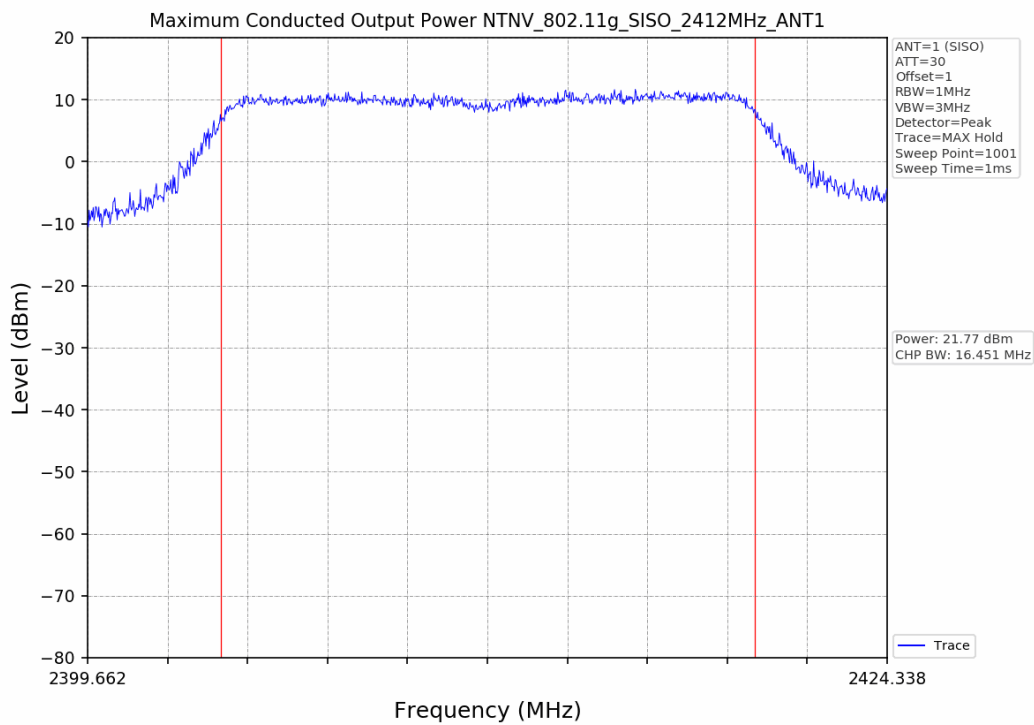
2.1 Test Result

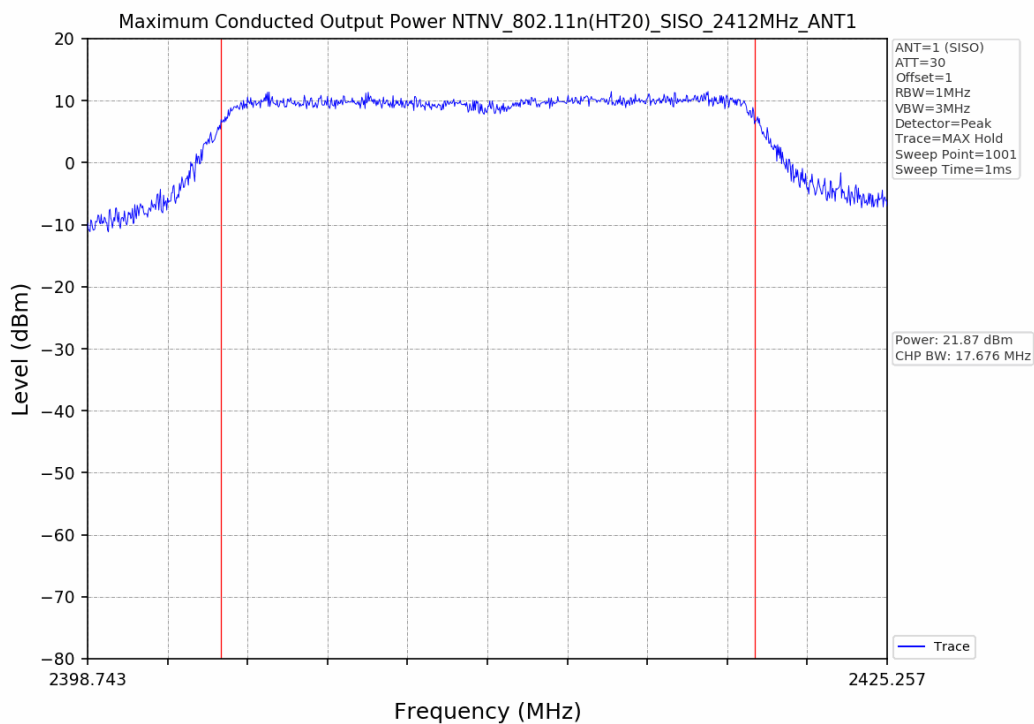
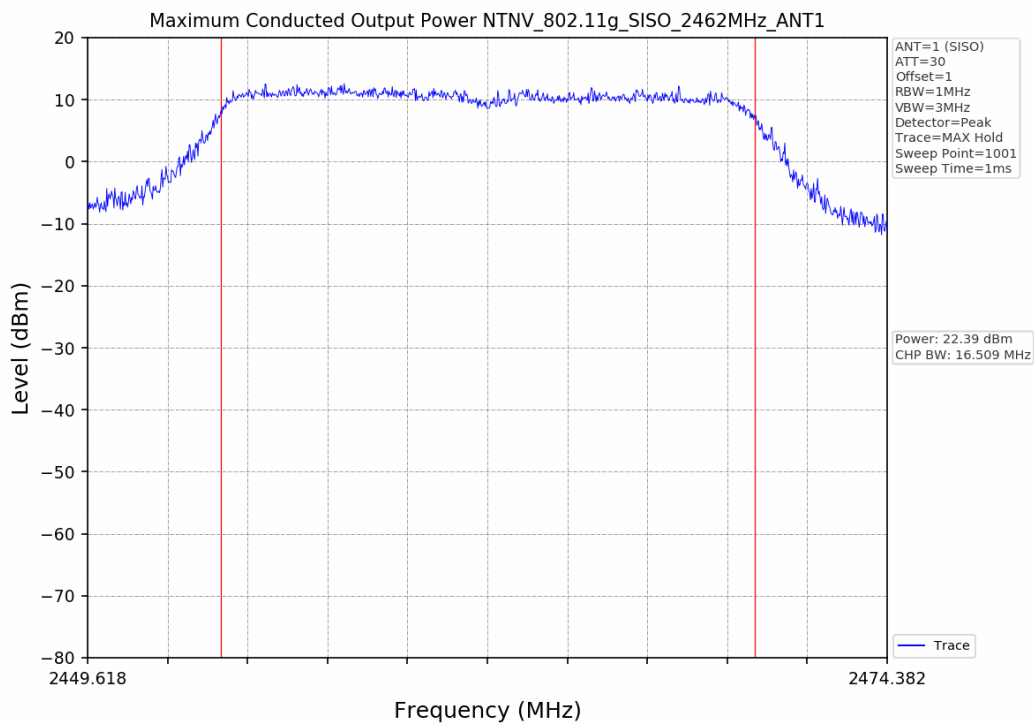
Test Mode	Frequency (MHz)	Tx Type	Measured Peak Output Power (dBm)	Limits (dBm)	Verdict
			Ant 1		
802.11b	2412	SISO	21.59	30	PASS
	2437	SISO	18.81	30	PASS
	2462	SISO	22.51	30	PASS
802.11g	2412	SISO	21.77	30	PASS
	2437	SISO	22.83	30	PASS
	2462	SISO	22.39	30	PASS
802.11n(HT20)	2412	SISO	21.87	30	PASS
	2437	SISO	22.88	30	PASS
	2462	SISO	22.79	30	PASS
802.11n(HT40)	2422	SISO	22.34	30	PASS
	2437	SISO	22.65	30	PASS
	2452	SISO	20.19	30	PASS

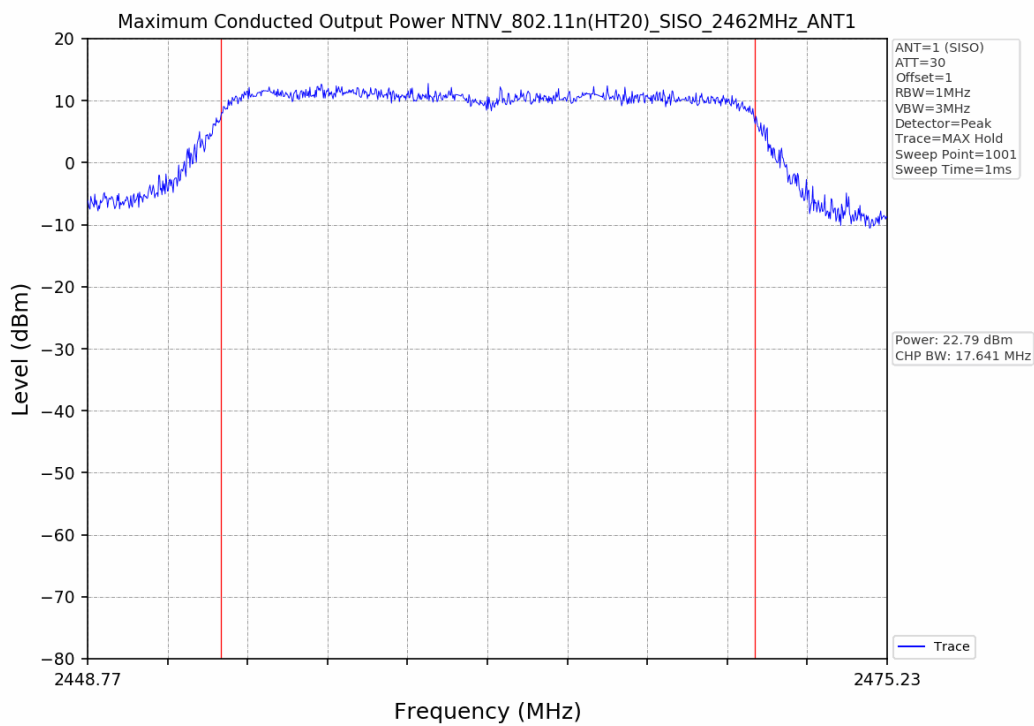
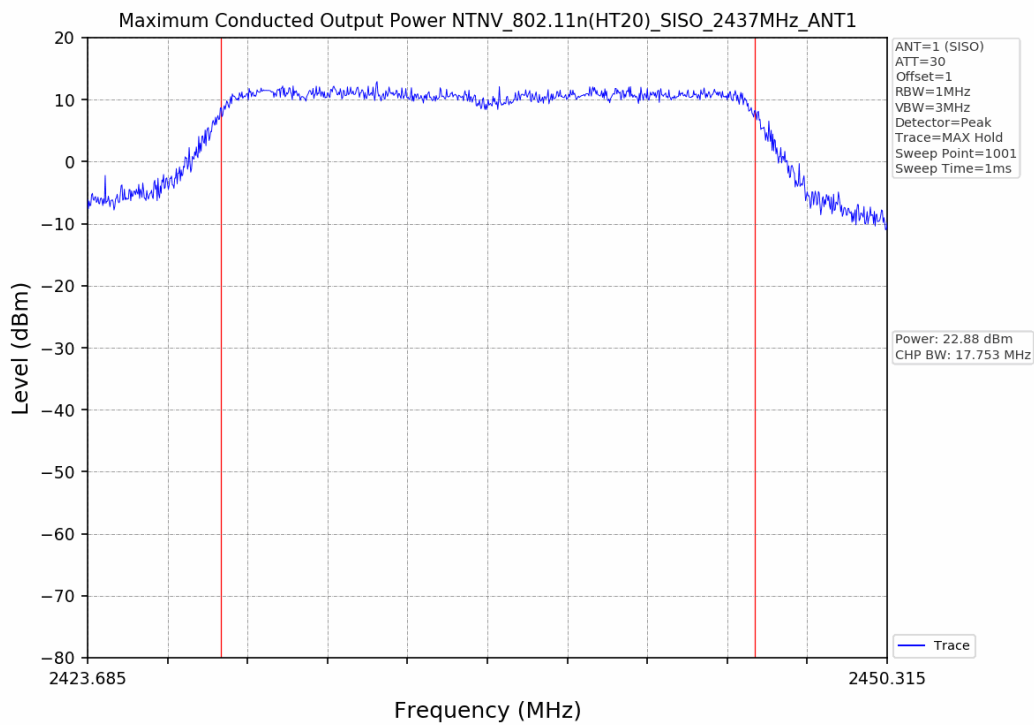
2.2 Test Graph

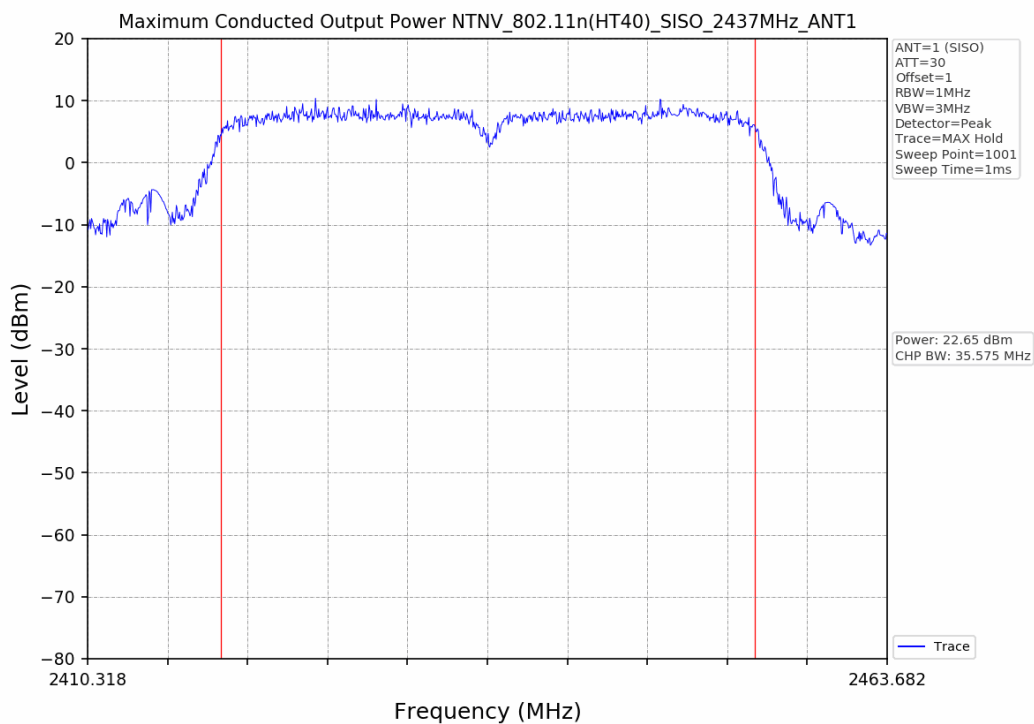
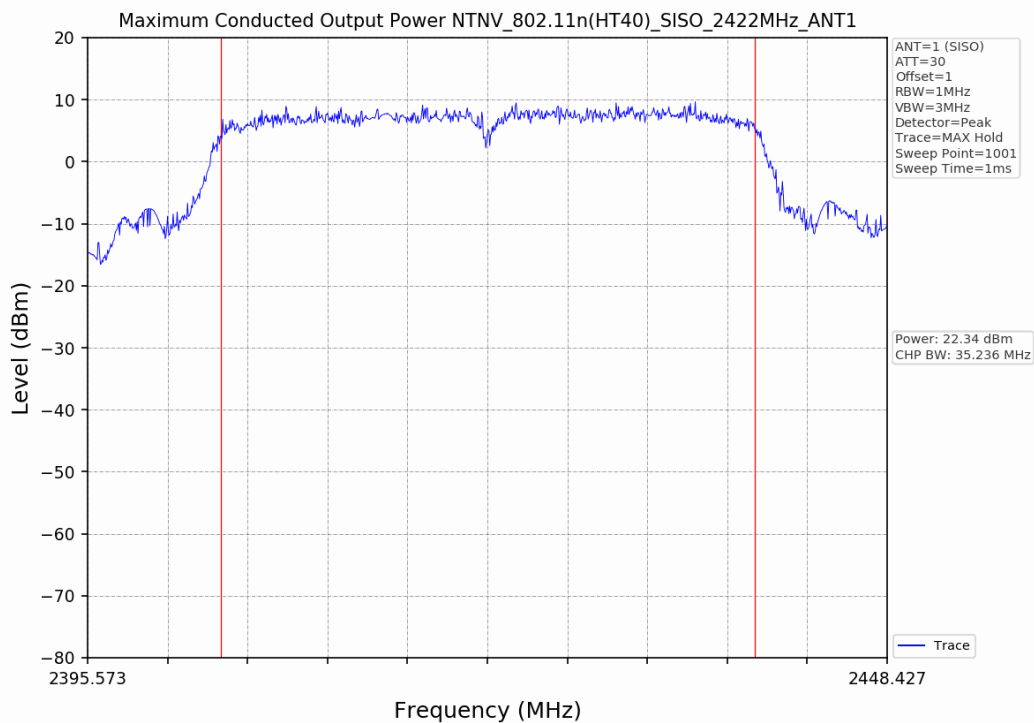


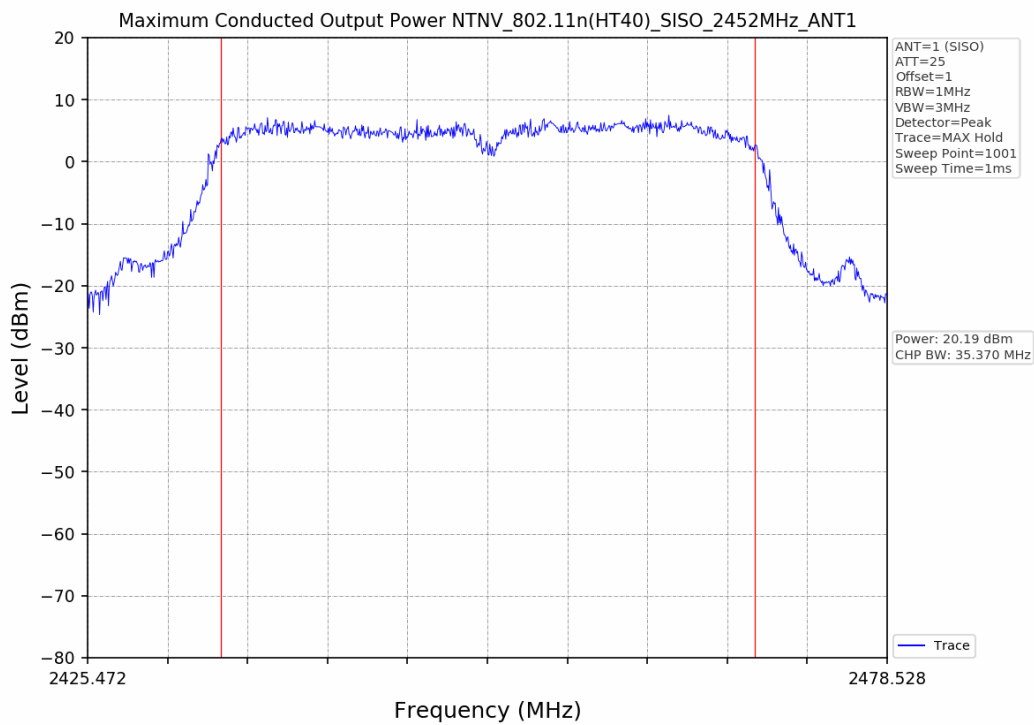










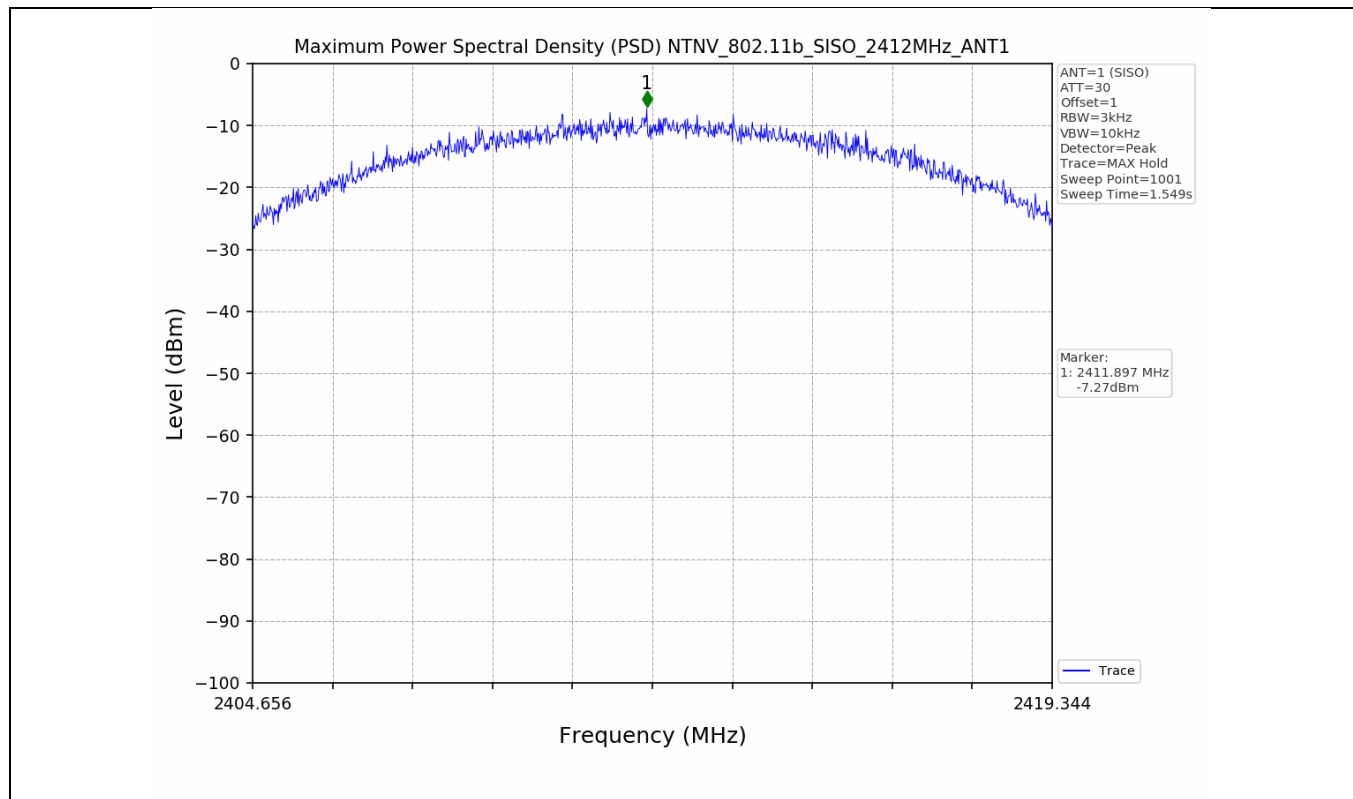


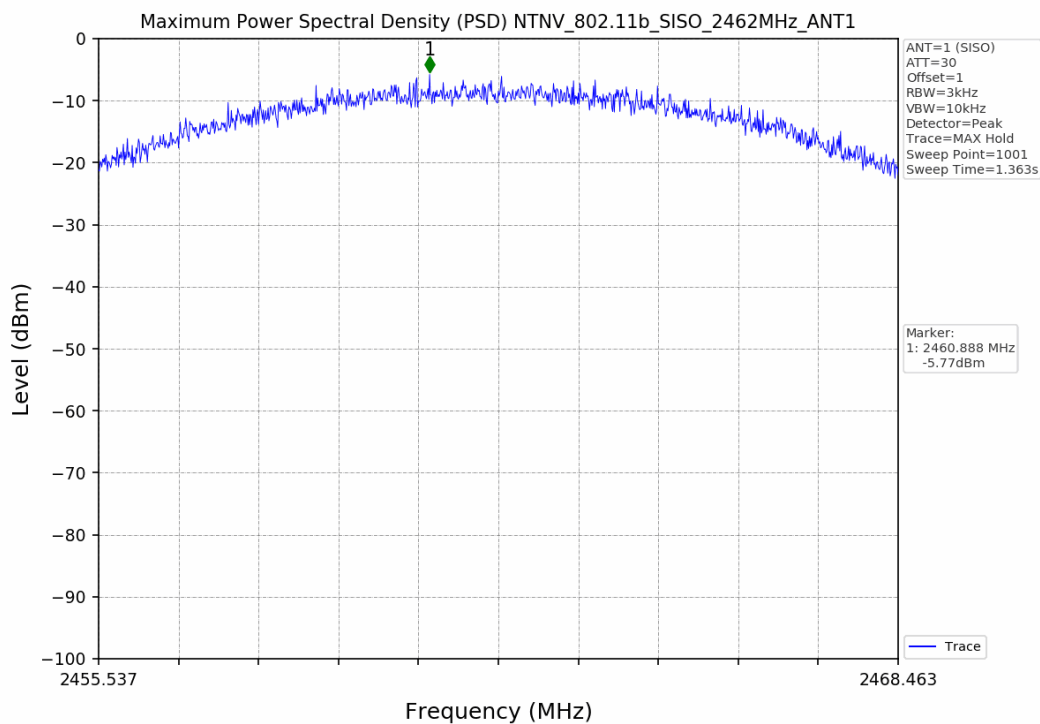
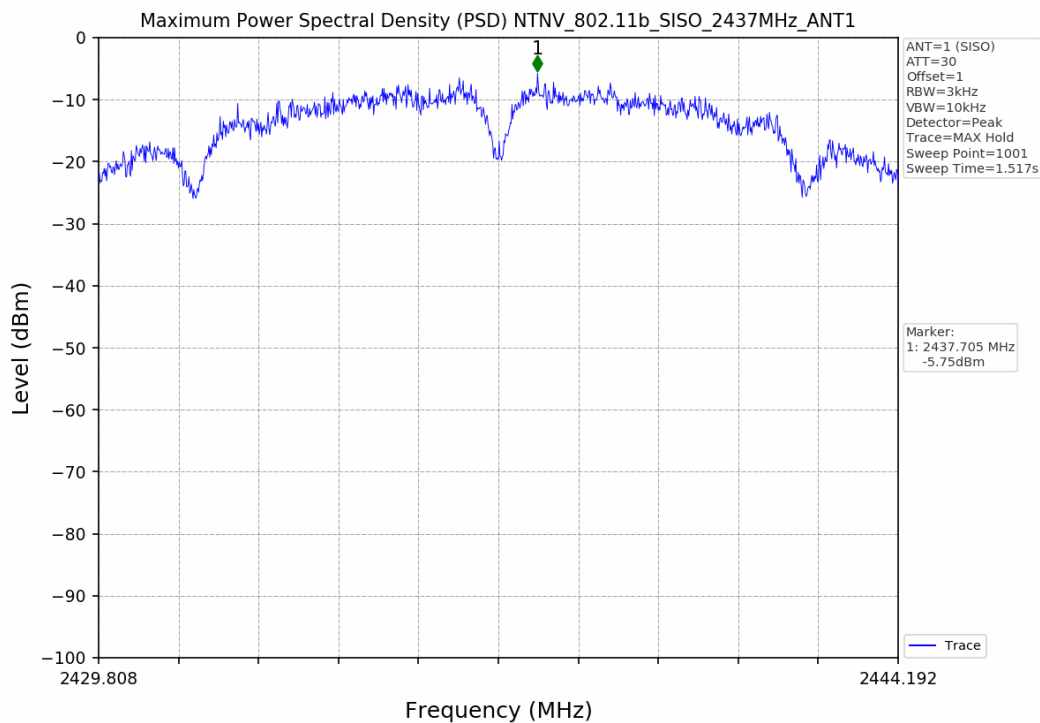
3. Maximum Power Spectral Density (PSD)

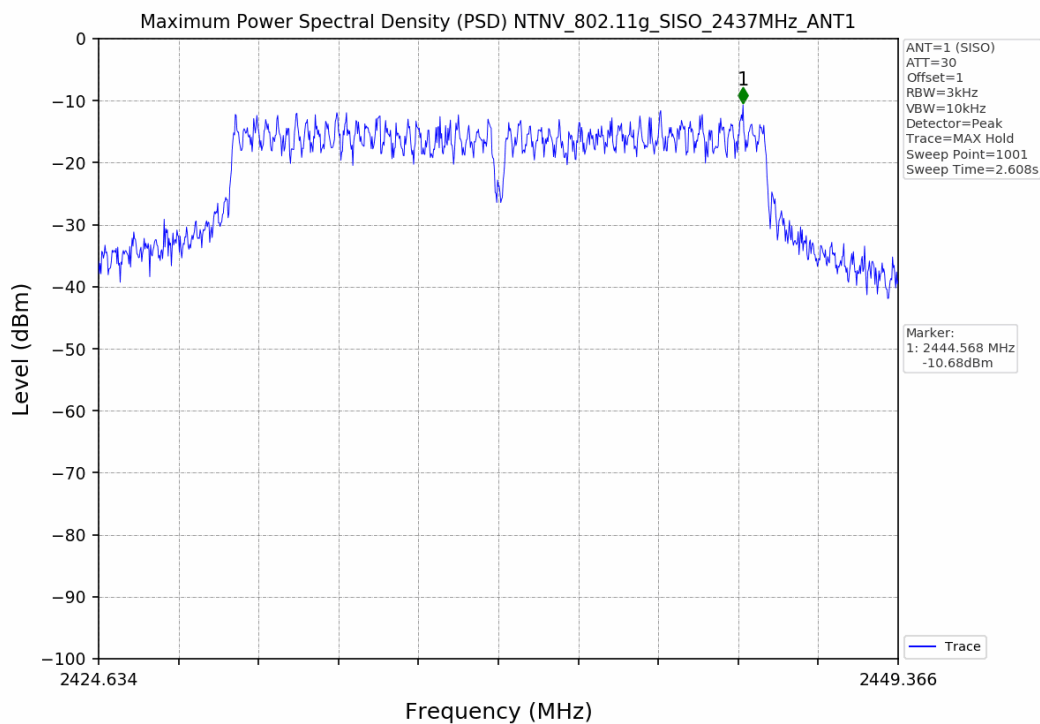
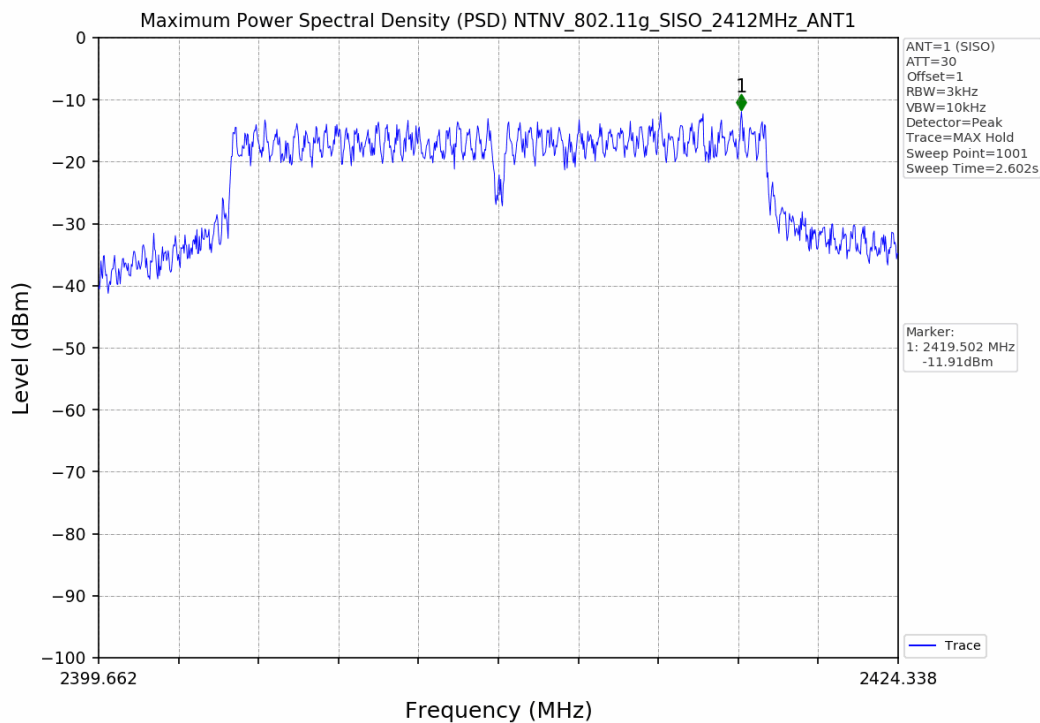
3.1 Test Result

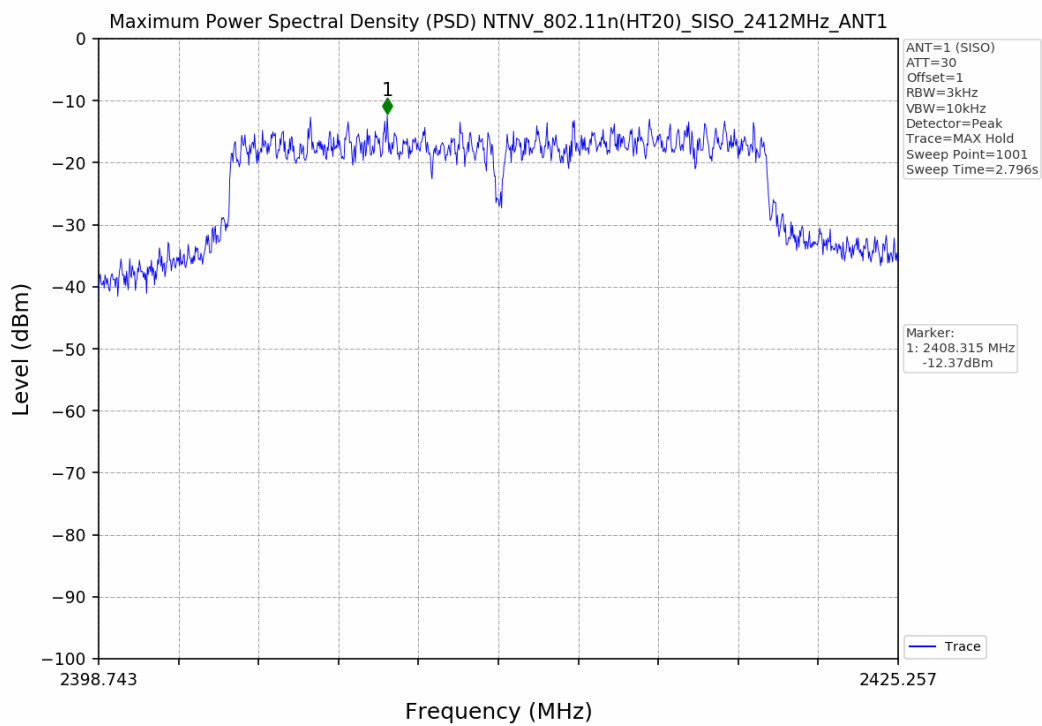
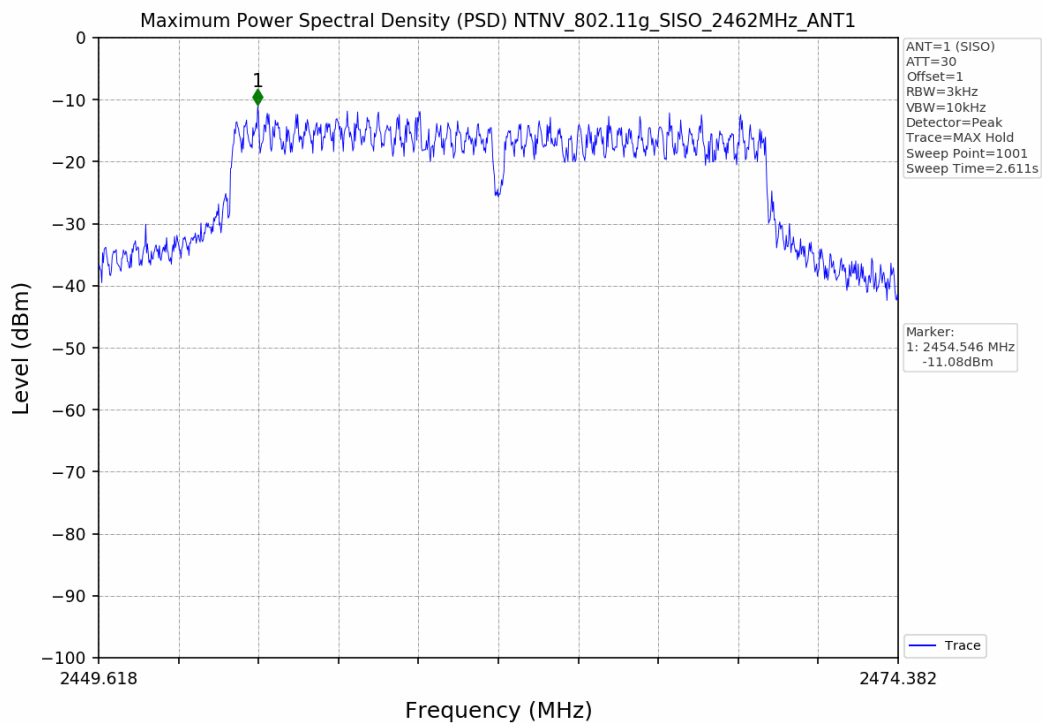
Test Mode	Frequency (MHz)	Tx Type	Maximum Power Spectral Density (dBm/3KHz)	Limits (dBm/3kHz)	Verdict
			Ant 1		
802.11b	2412	SISO	-7.27	≤8	PASS
	2437	SISO	-5.75	≤8	PASS
	2462	SISO	-5.77	≤8	PASS
802.11g	2412	SISO	-11.91	≤8	PASS
	2437	SISO	-10.68	≤8	PASS
	2462	SISO	-11.08	≤8	PASS
802.11n(HT20)	2412	SISO	-12.37	≤8	PASS
	2437	SISO	-11.30	≤8	PASS
	2462	SISO	-11.92	≤8	PASS
802.11n(HT40)	2422	SISO	-15.73	≤8	PASS
	2437	SISO	-15.39	≤8	PASS
	2452	SISO	-18.14	≤8	PASS

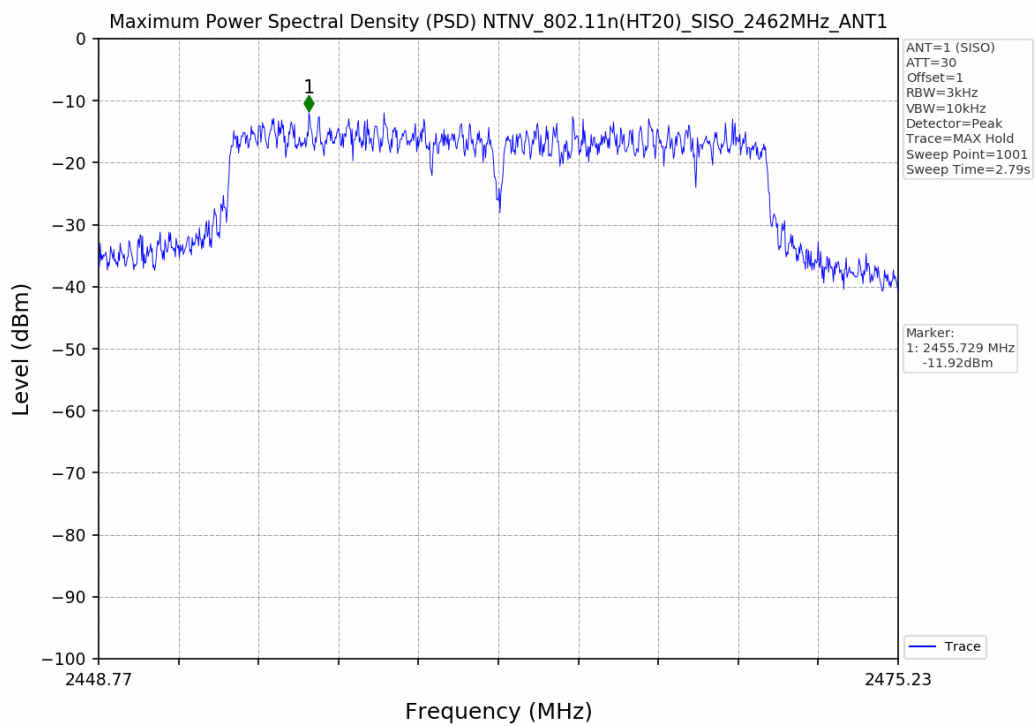
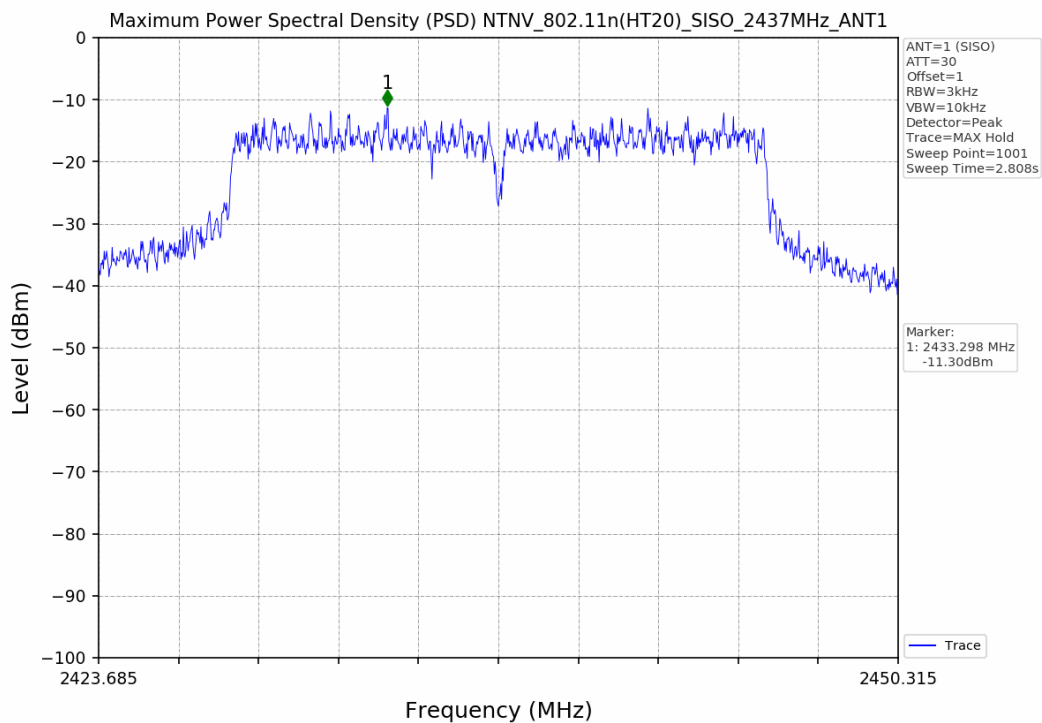
3.2 Test Graph

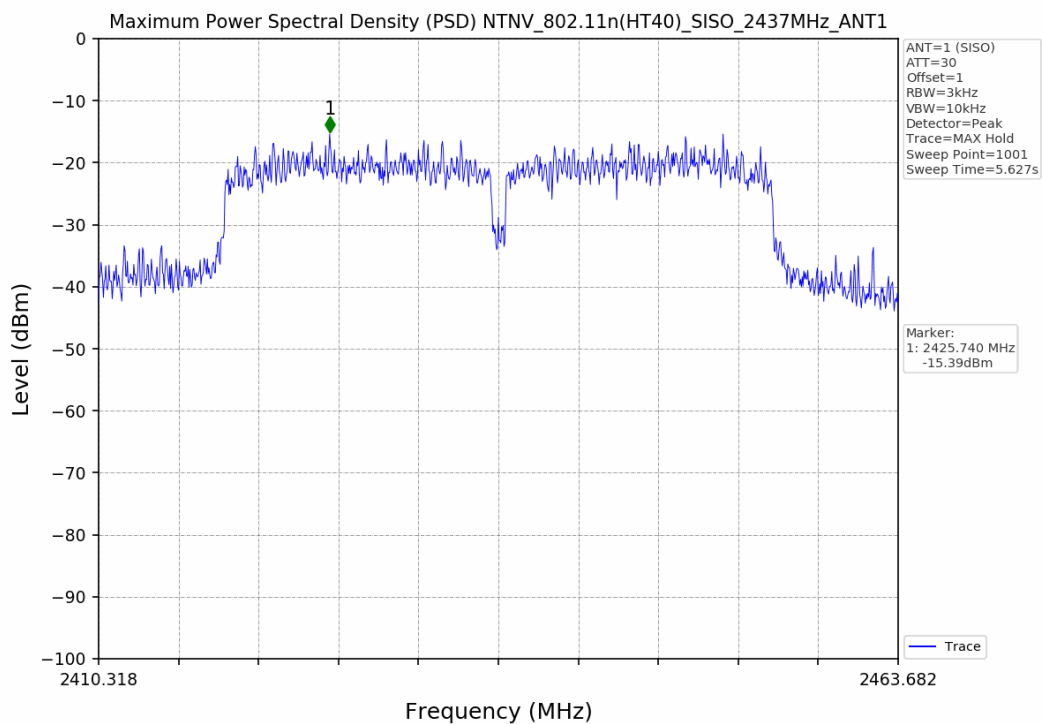
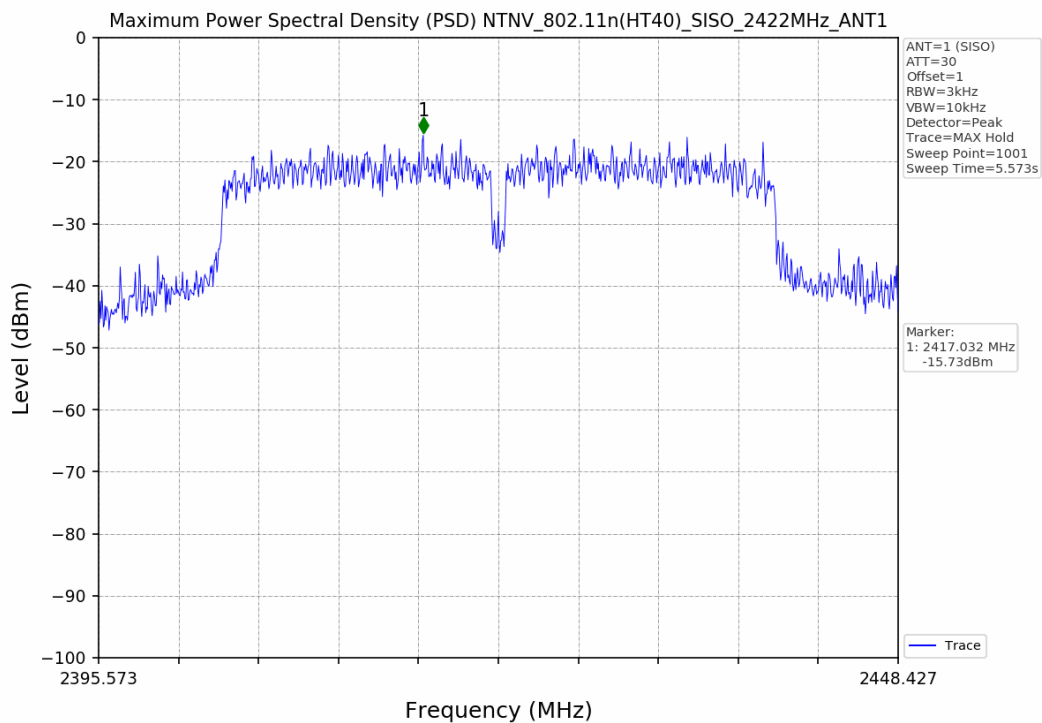


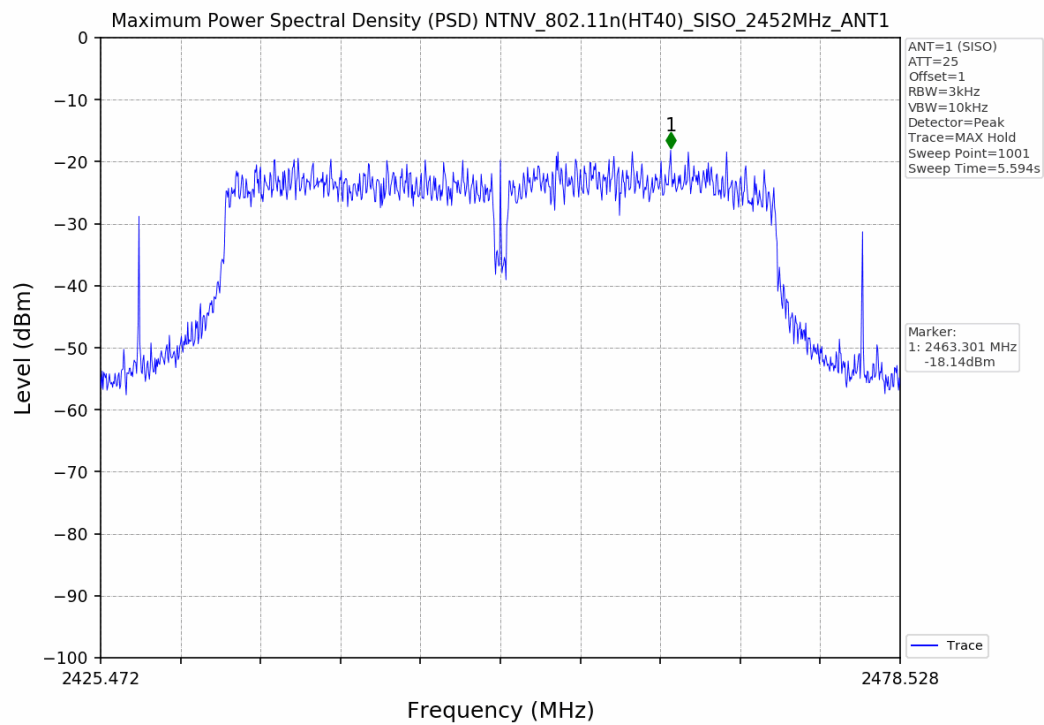










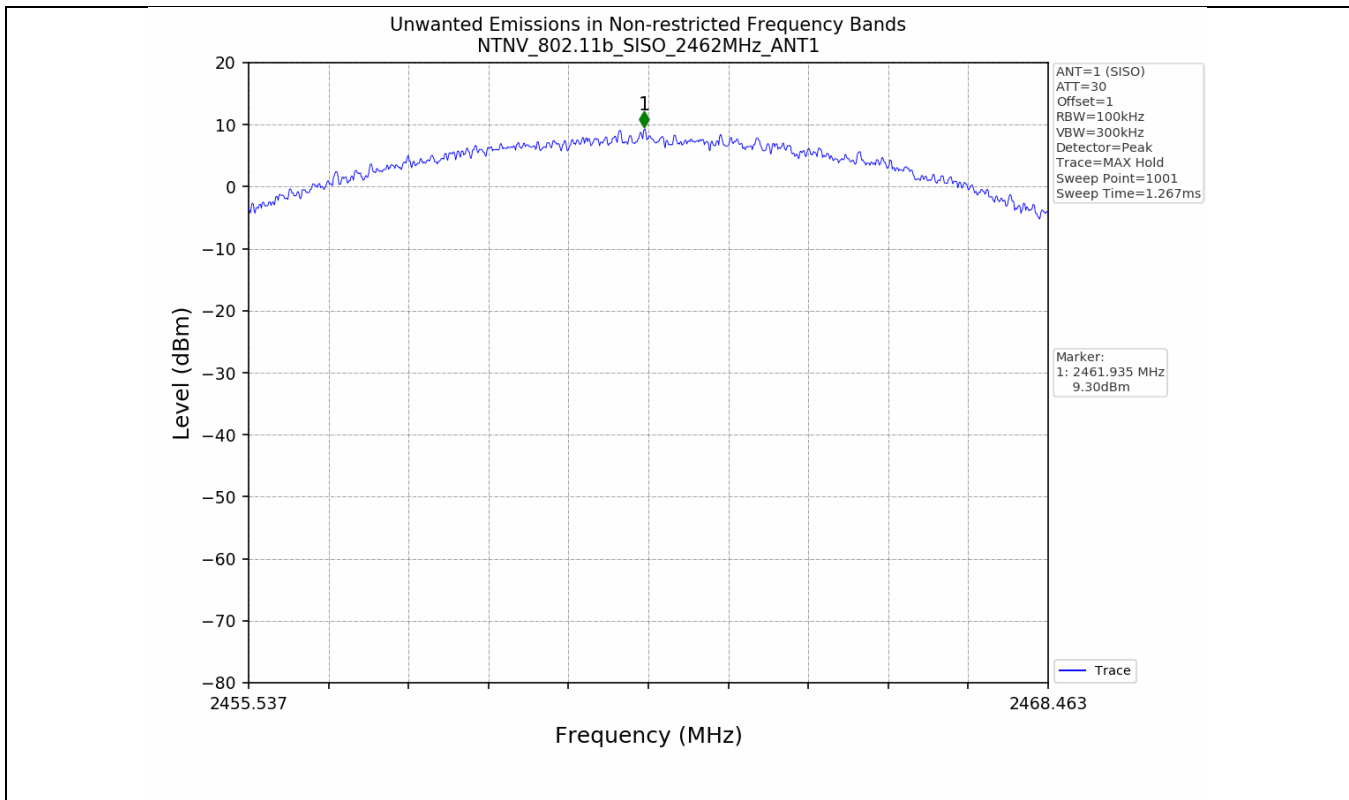


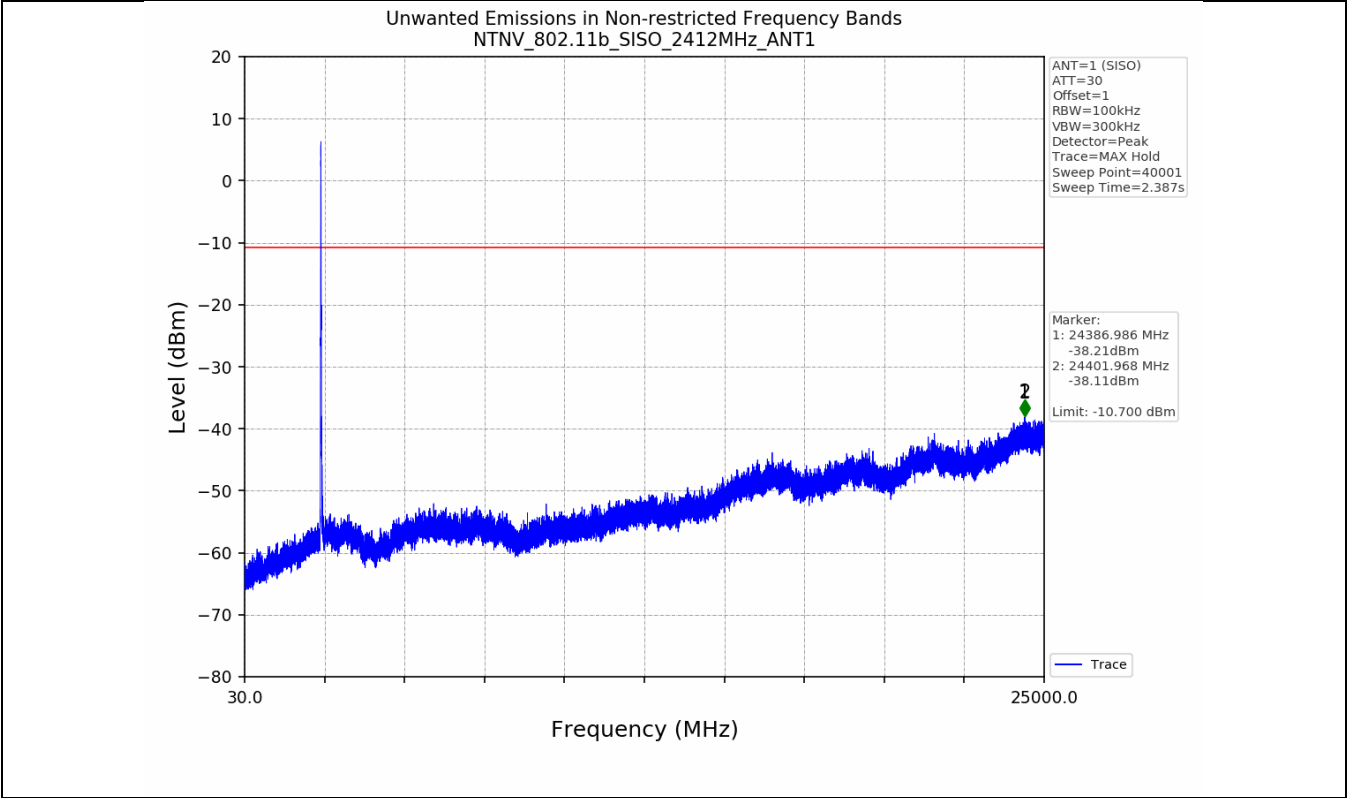
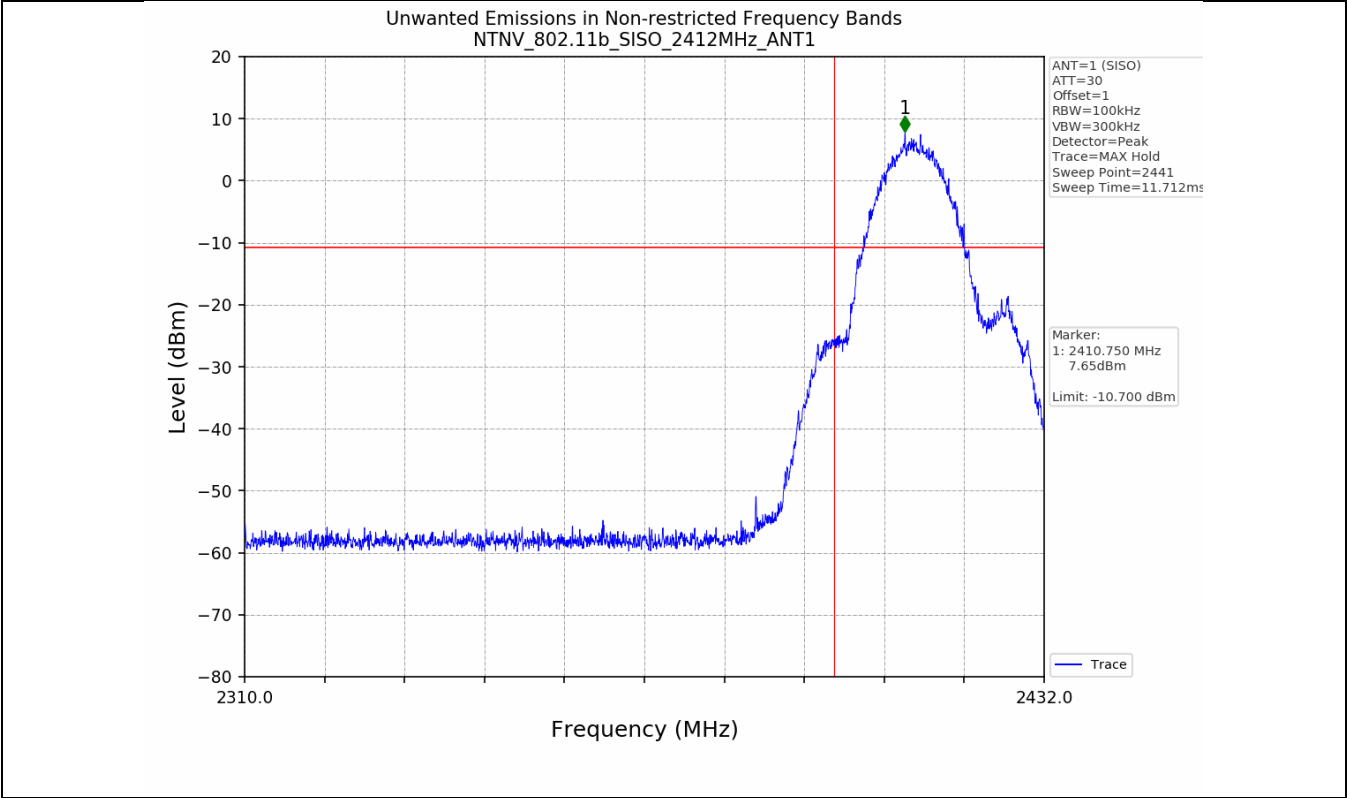
4. Unwanted Emissions in Non-restricted Frequency Bands

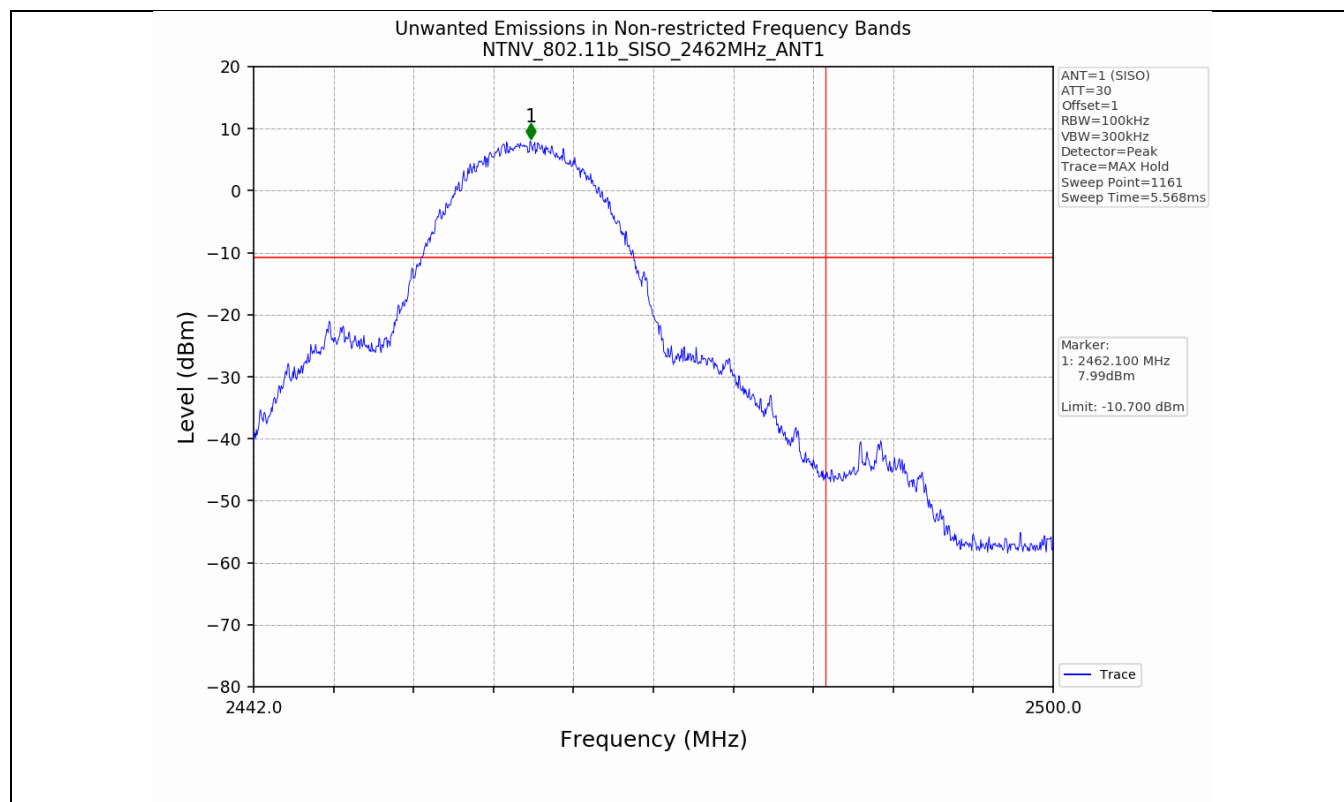
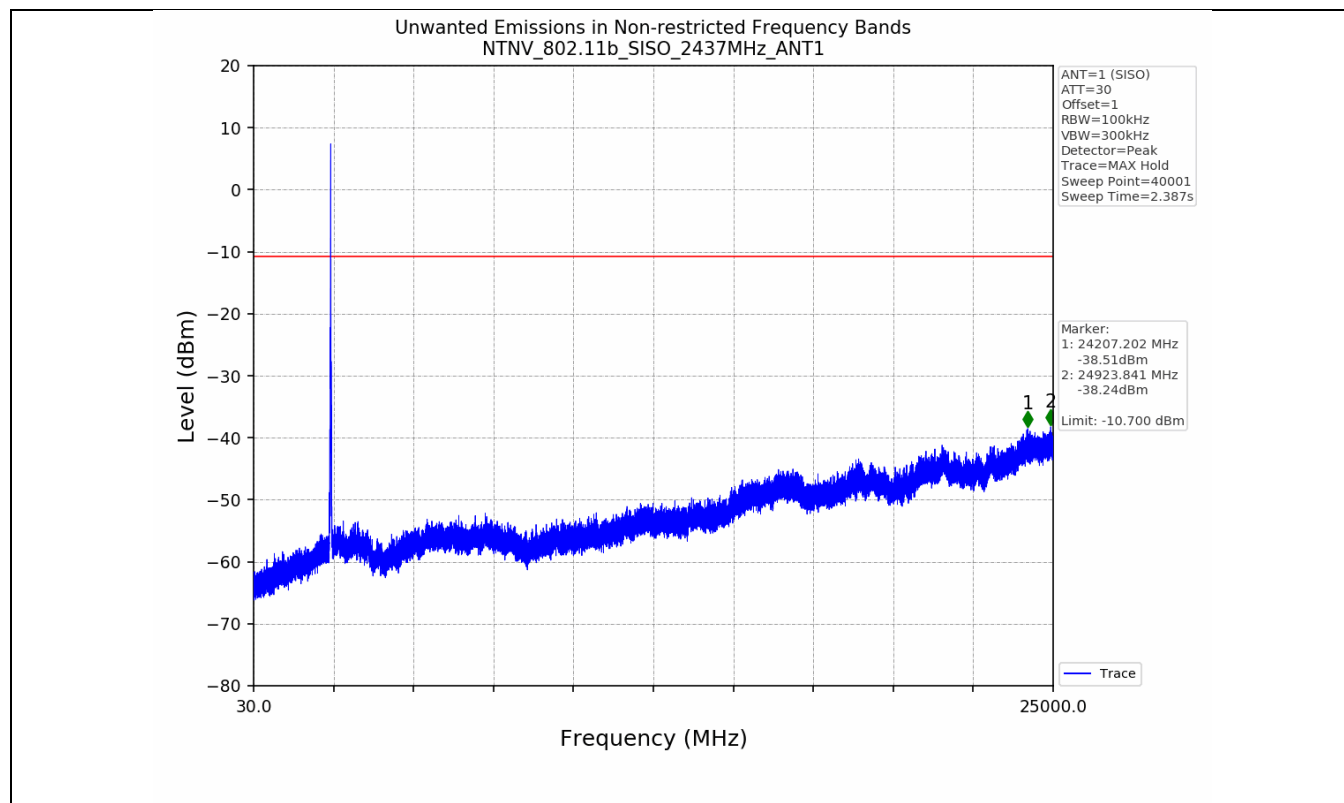
4.1 Test Result

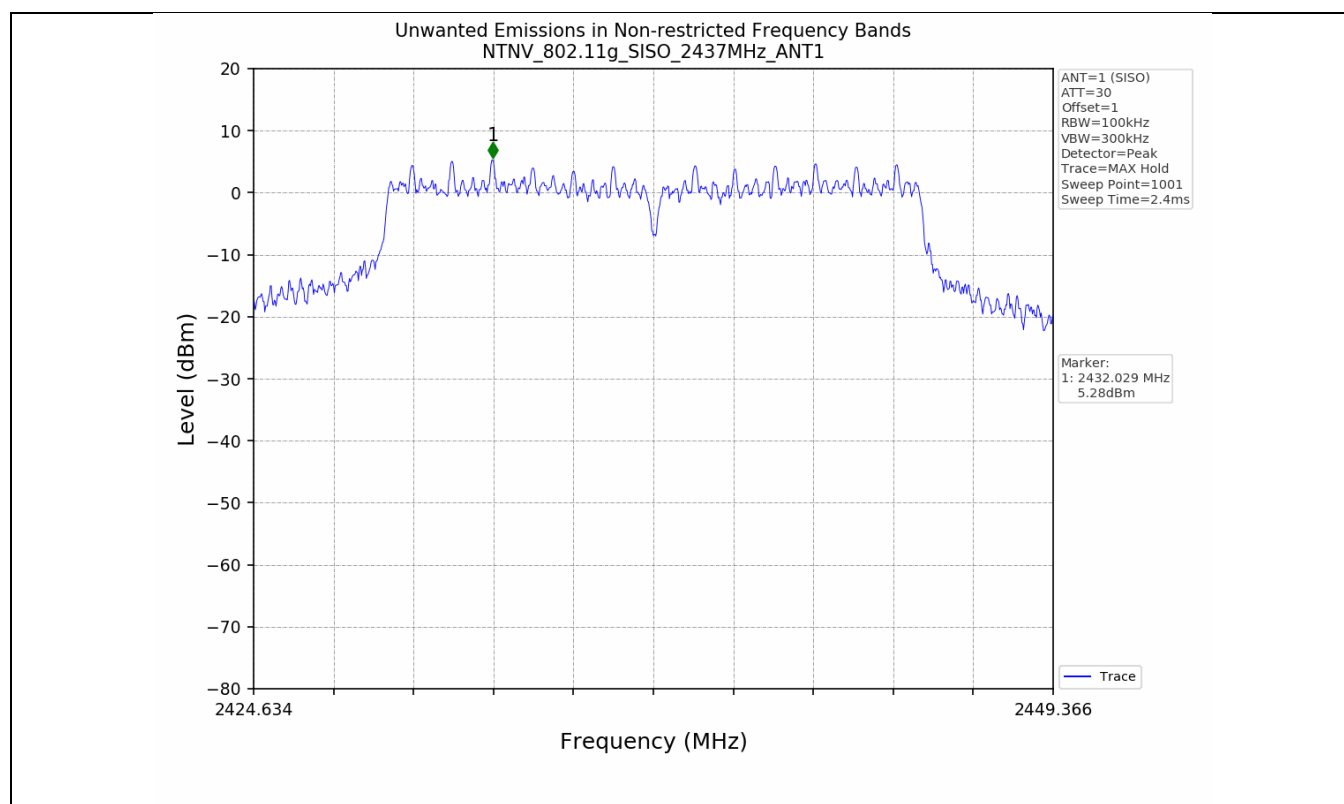
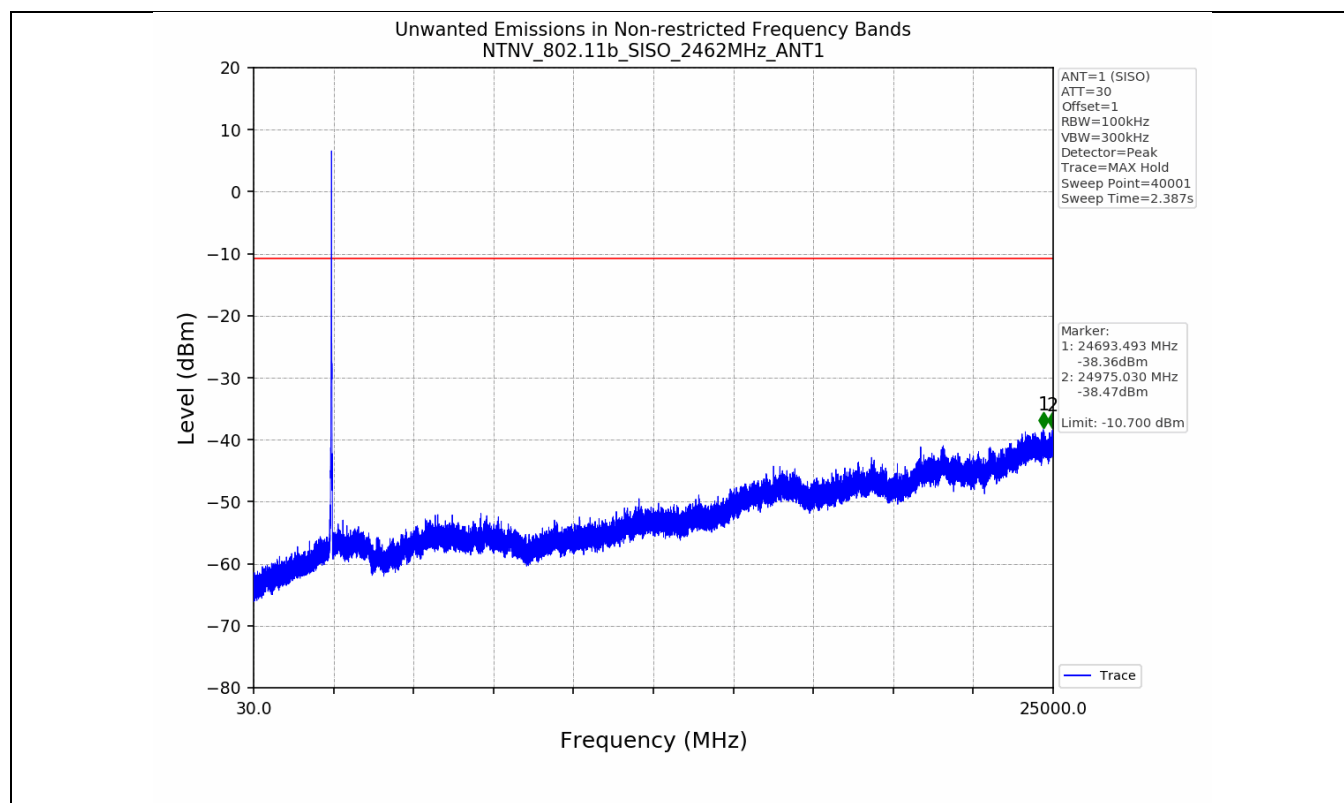
Test Mode	Frequency (MHz)	TX Type	ANT No.	Spurious Conducted Emission (dBm)	Limits (dBm)	Verdict
802.11b	2412	SISO	1	Refer to test graph	-10.70	PASS
	2437	SISO	1	Refer to test graph	-10.70	PASS
	2462	SISO	1	Refer to test graph	-10.70	PASS
802.11g	2412	SISO	1	Refer to test graph	-14.72	PASS
	2437	SISO	1	Refer to test graph	-14.72	PASS
	2462	SISO	1	Refer to test graph	-14.72	PASS
802.11n(HT20)	2412	SISO	1	Refer to test graph	-14.68	PASS
	2437	SISO	1	Refer to test graph	-14.68	PASS
	2462	SISO	1	Refer to test graph	-14.68	PASS
802.11n(HT40)	2437	SISO	1	Refer to test graph	-17.88	PASS
	2452	SISO	1	Refer to test graph	-20.36	PASS

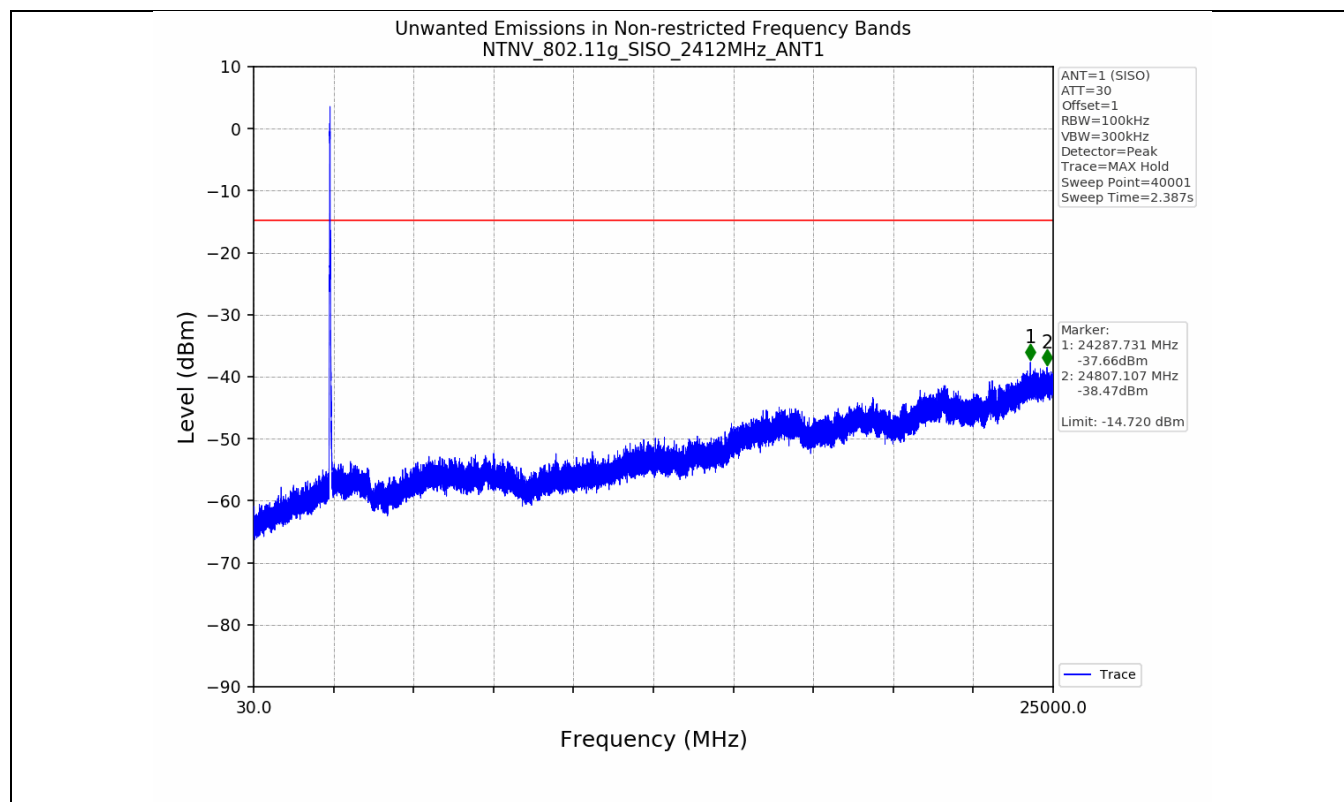
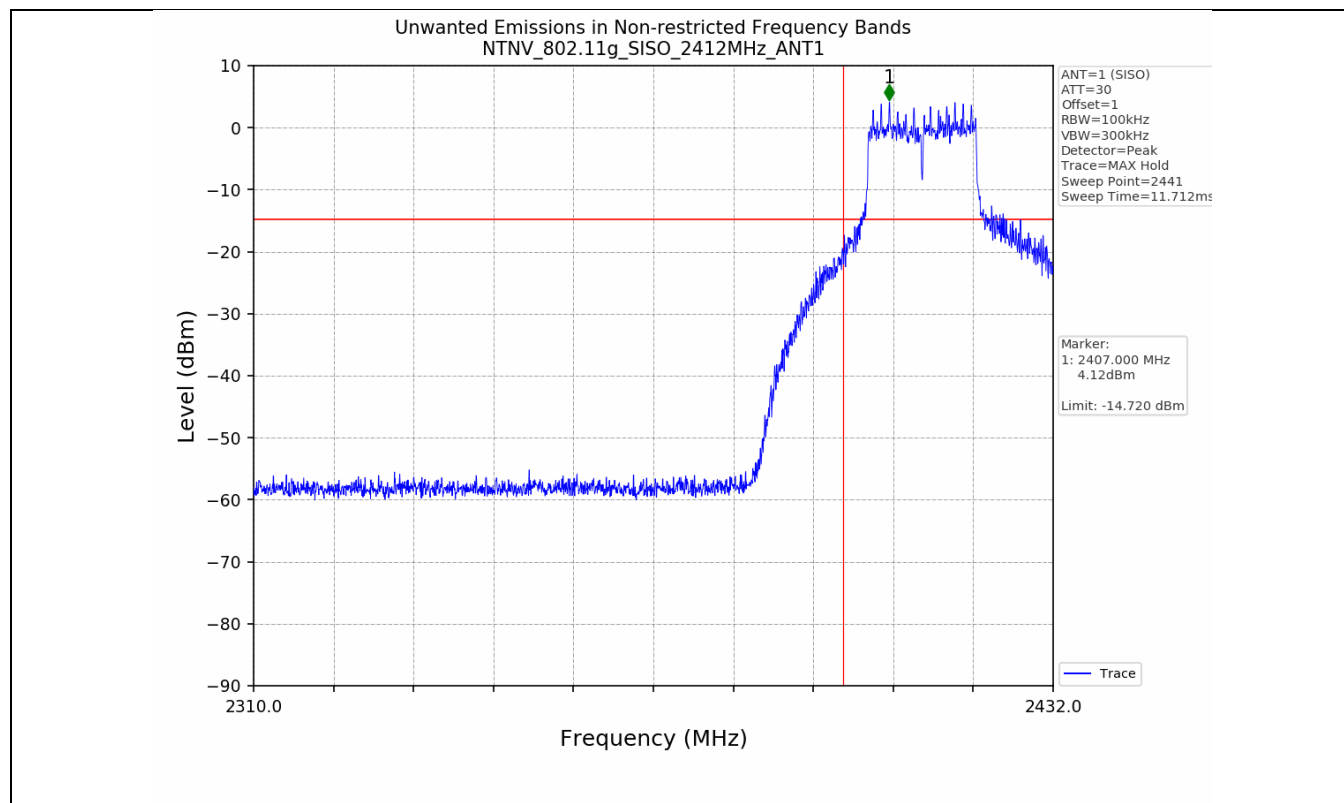
4.2 Test Graph

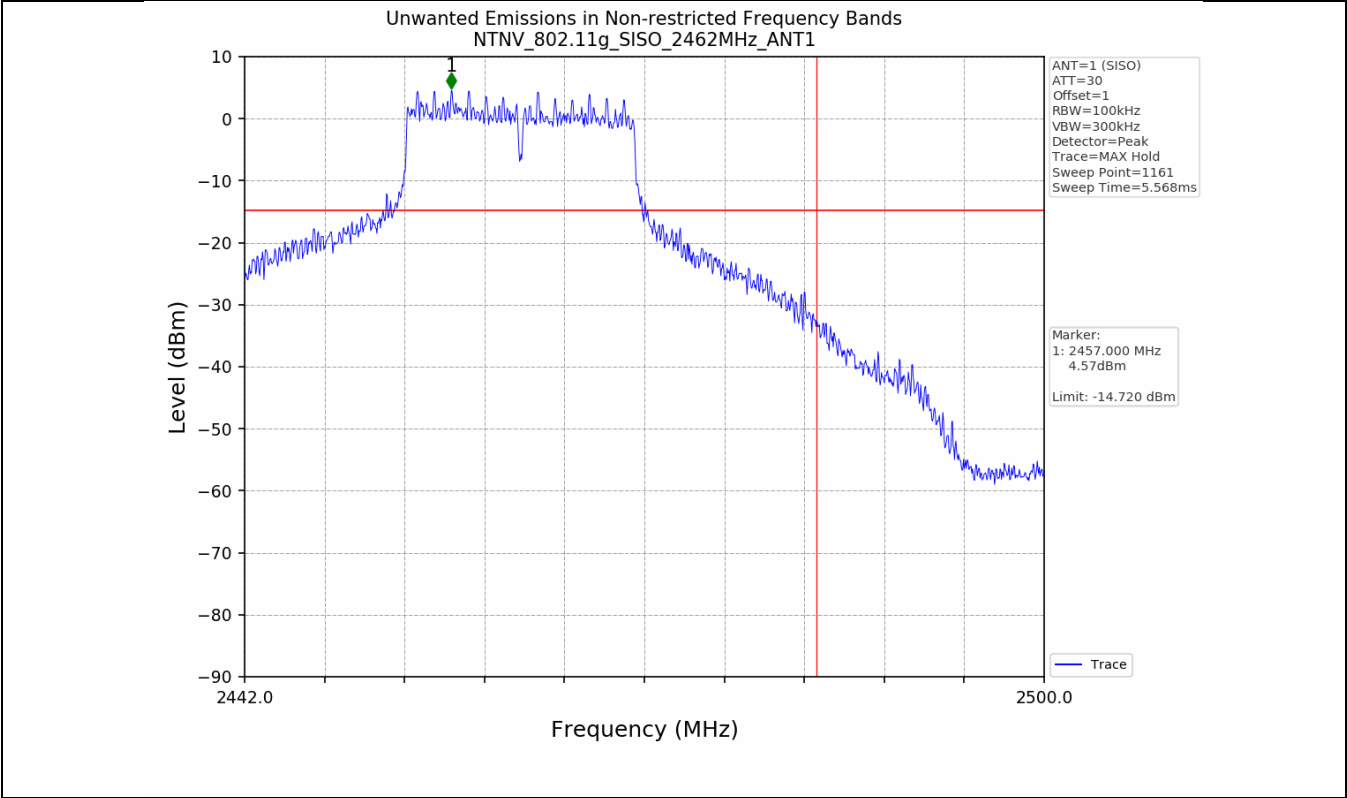
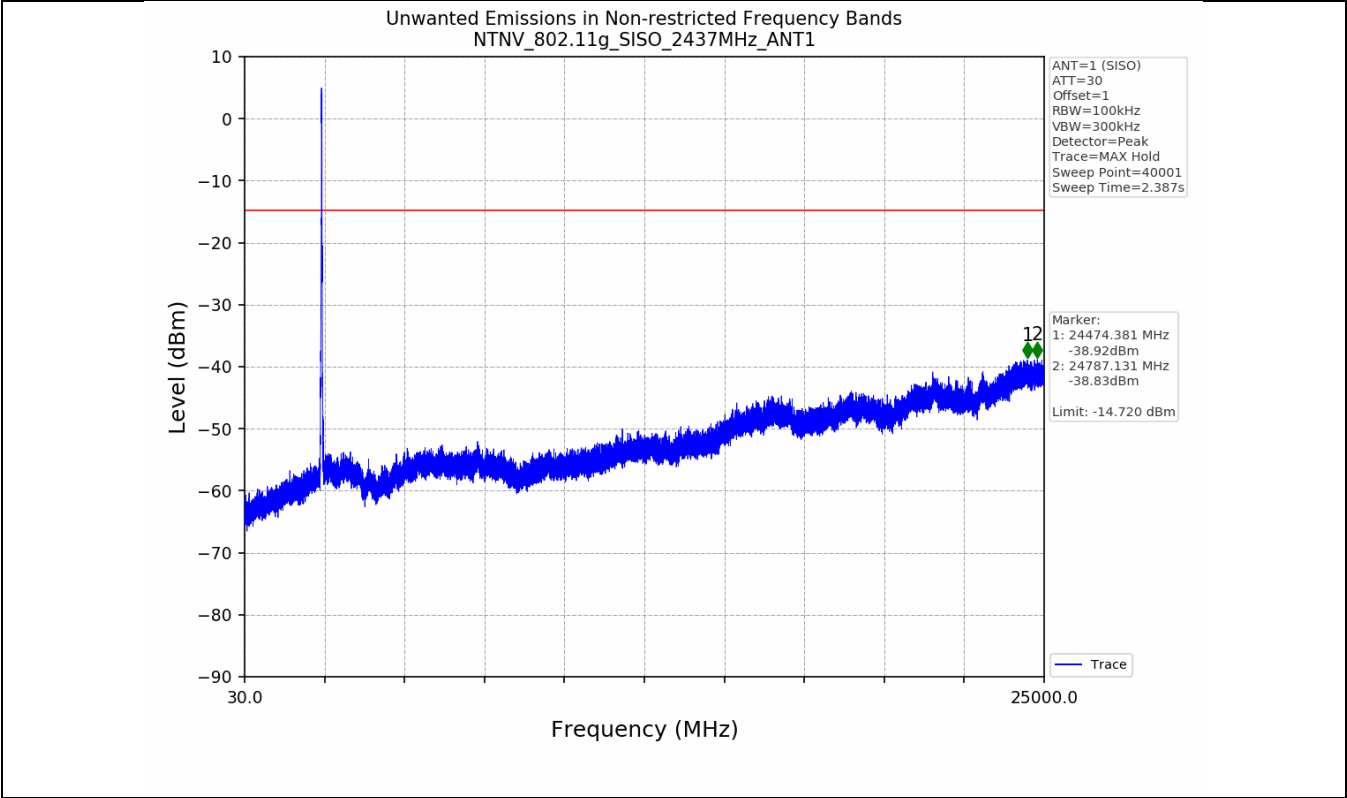


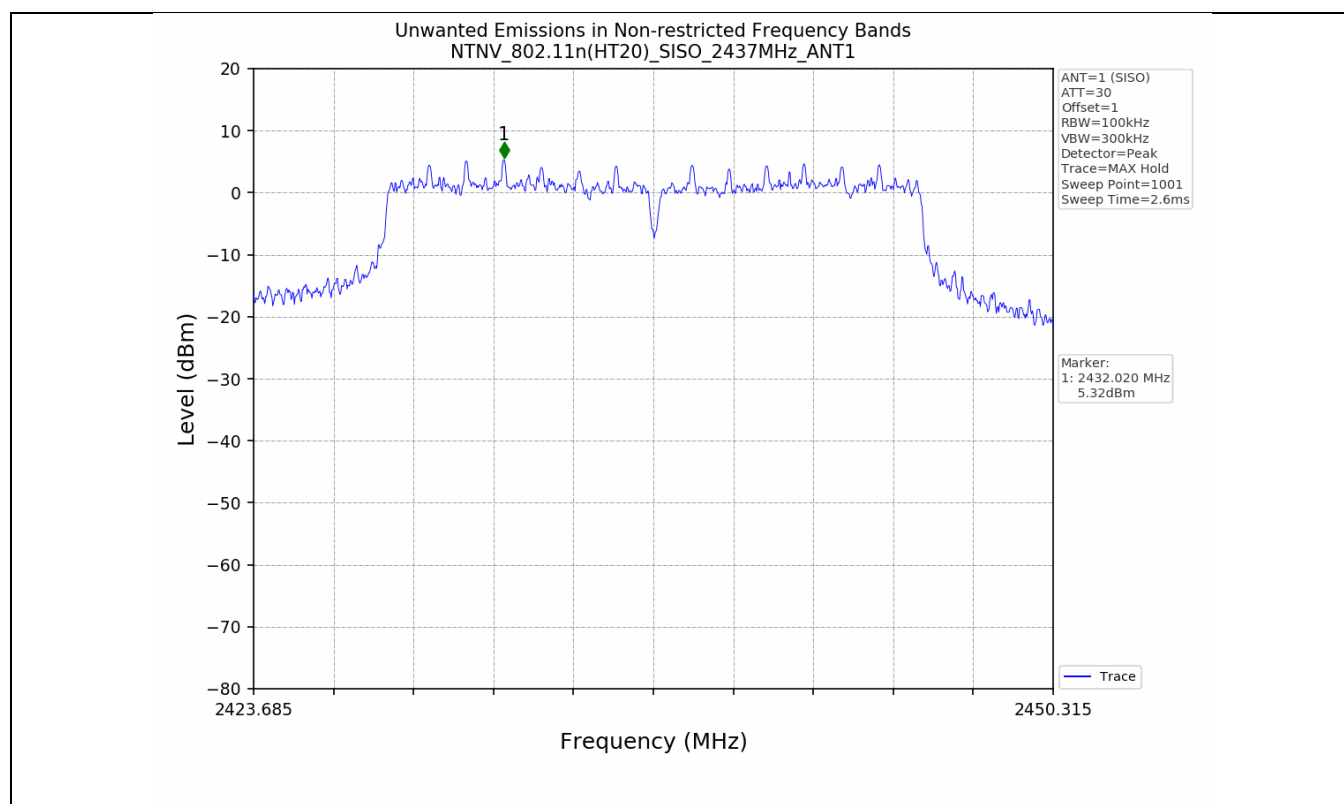
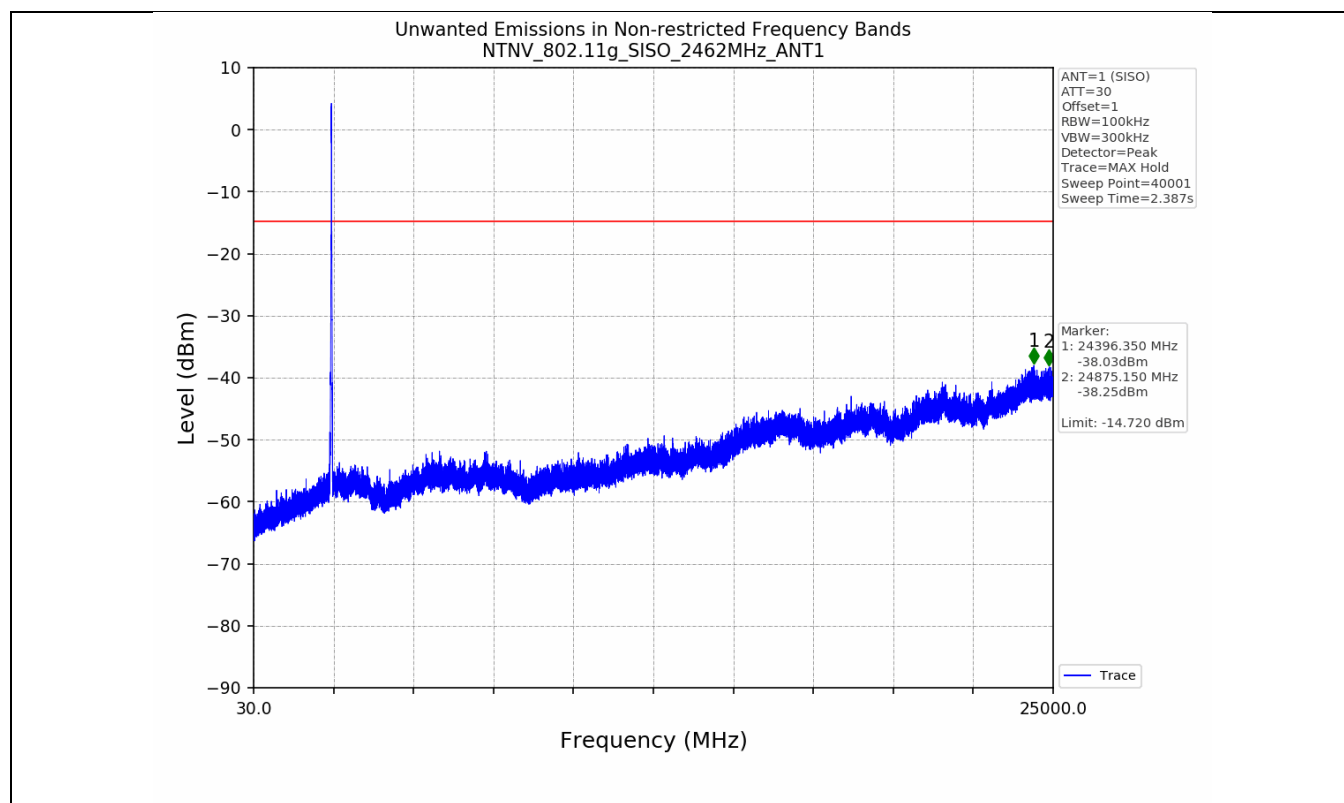


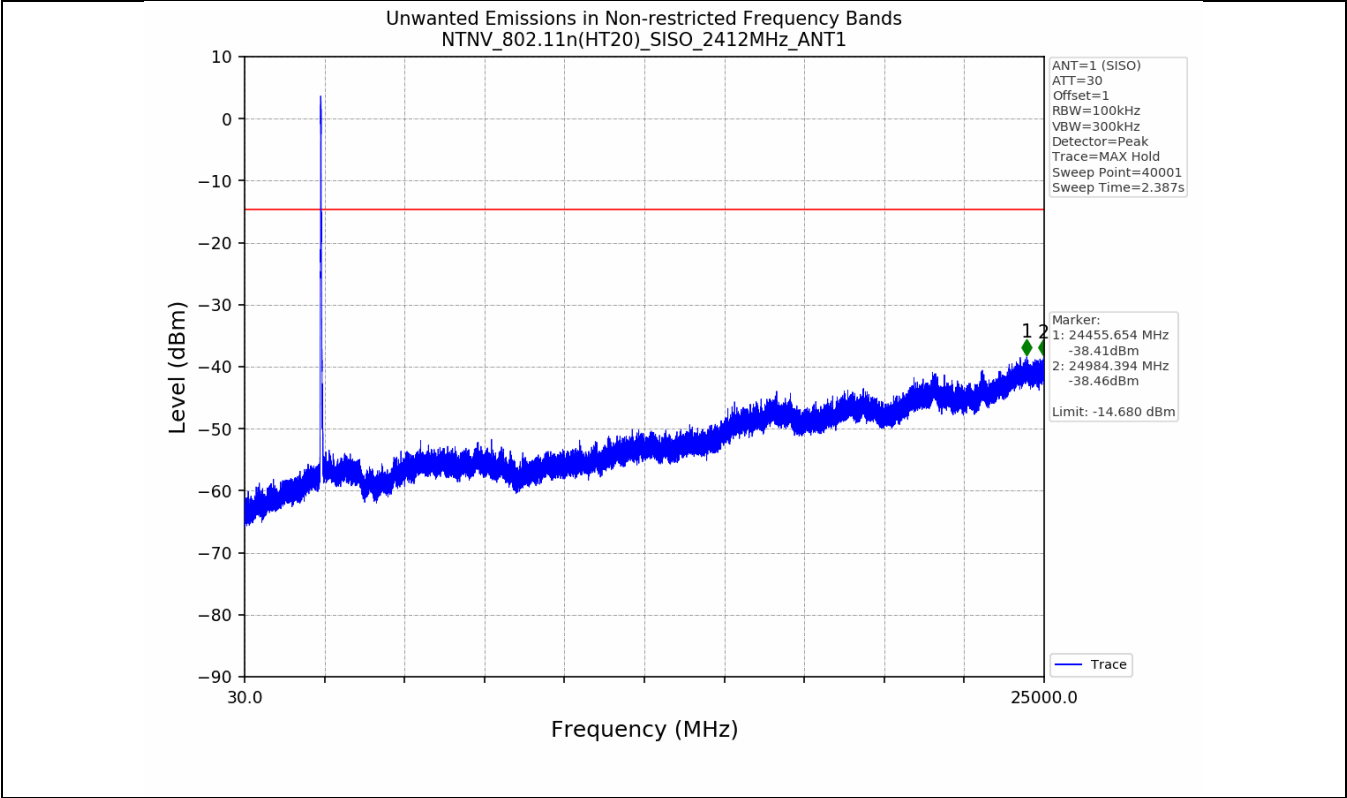
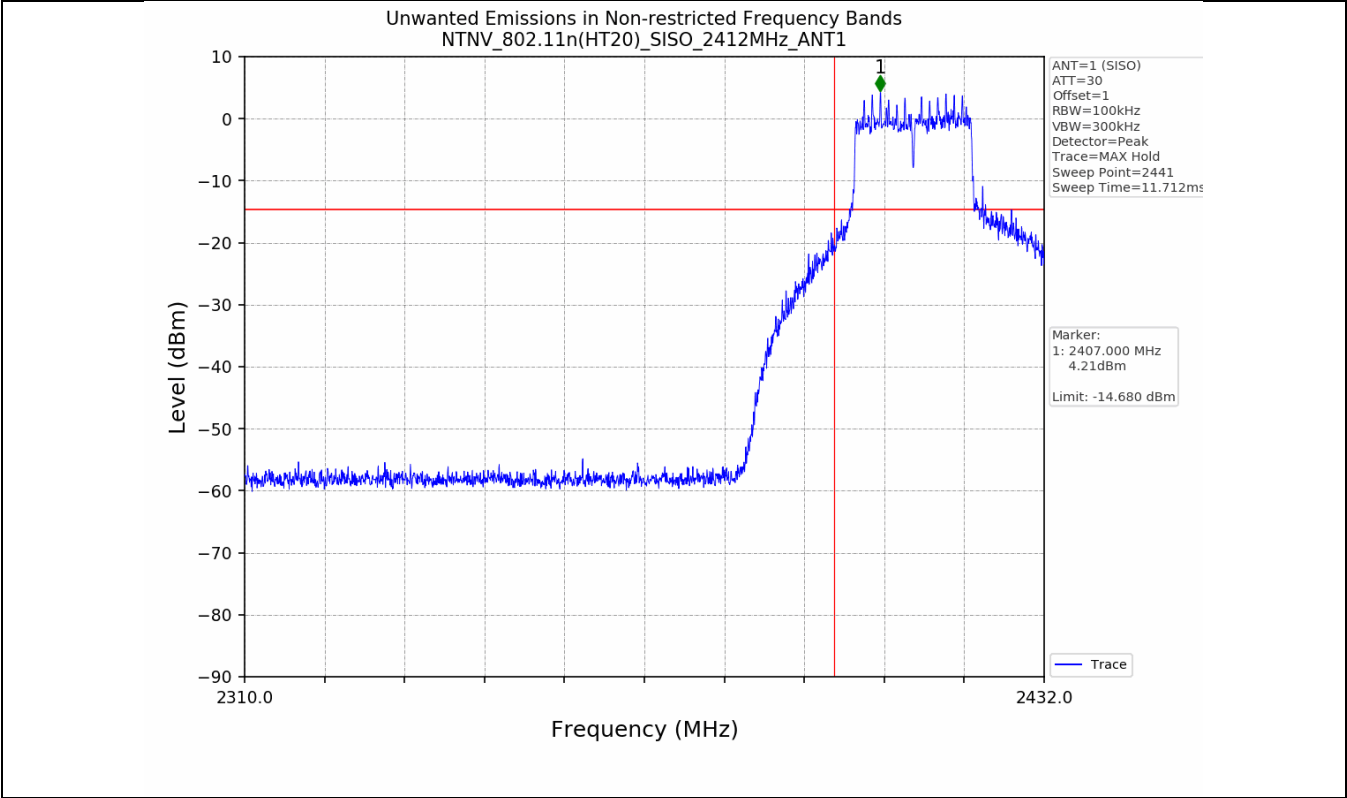


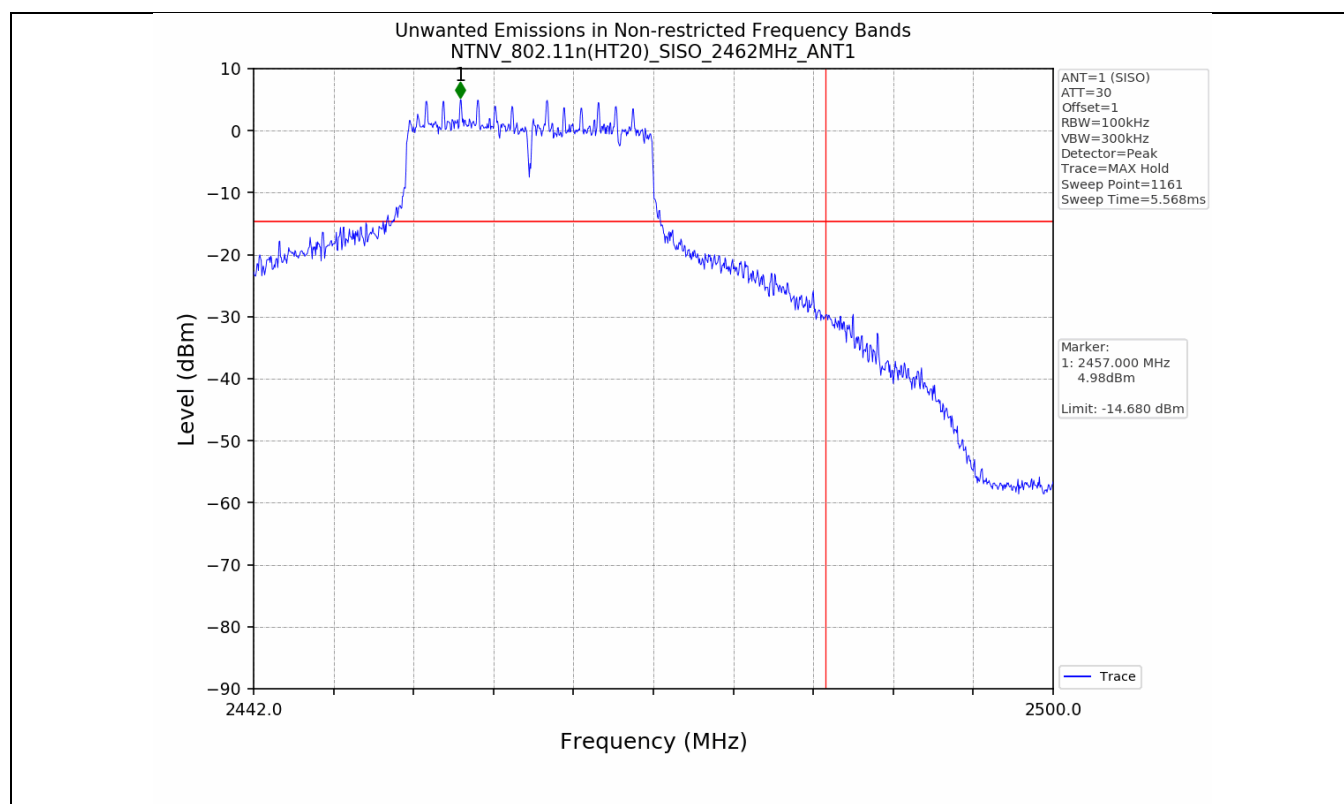
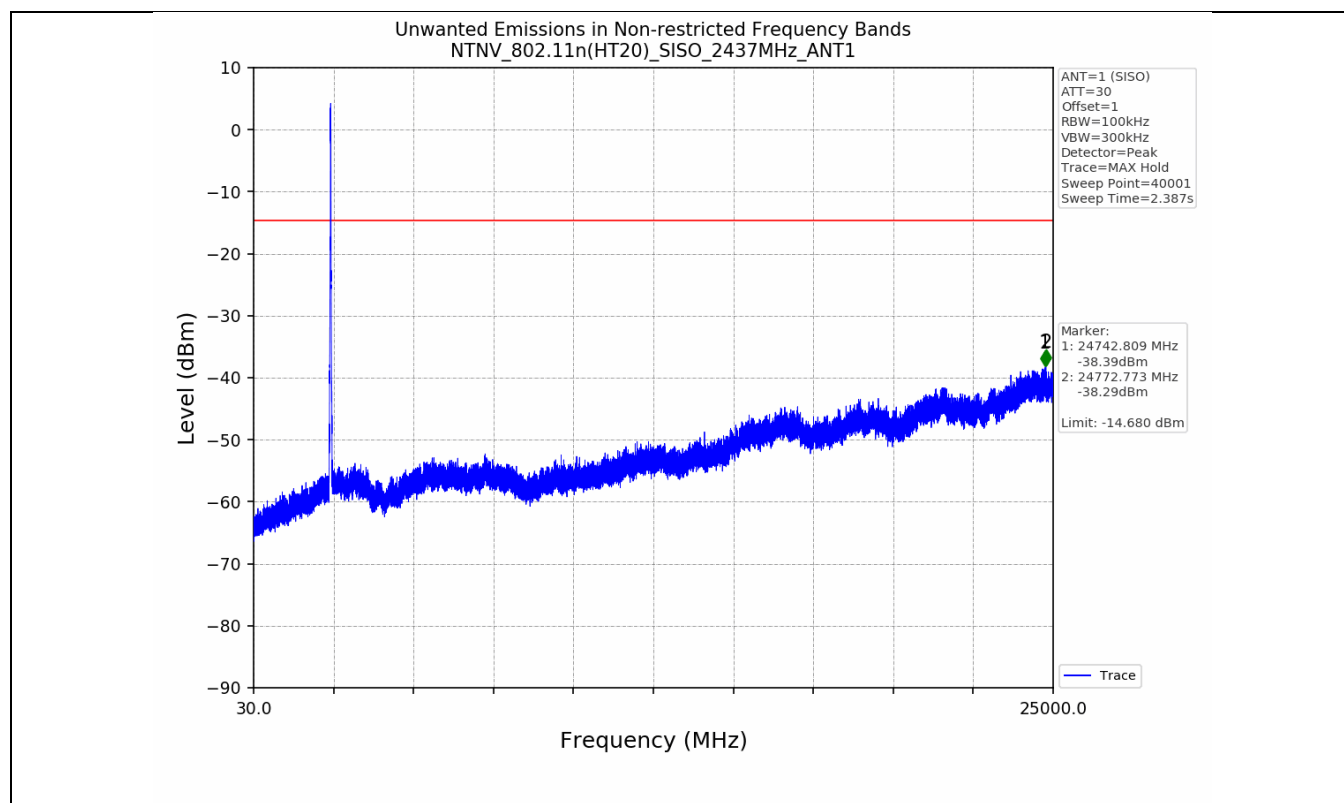


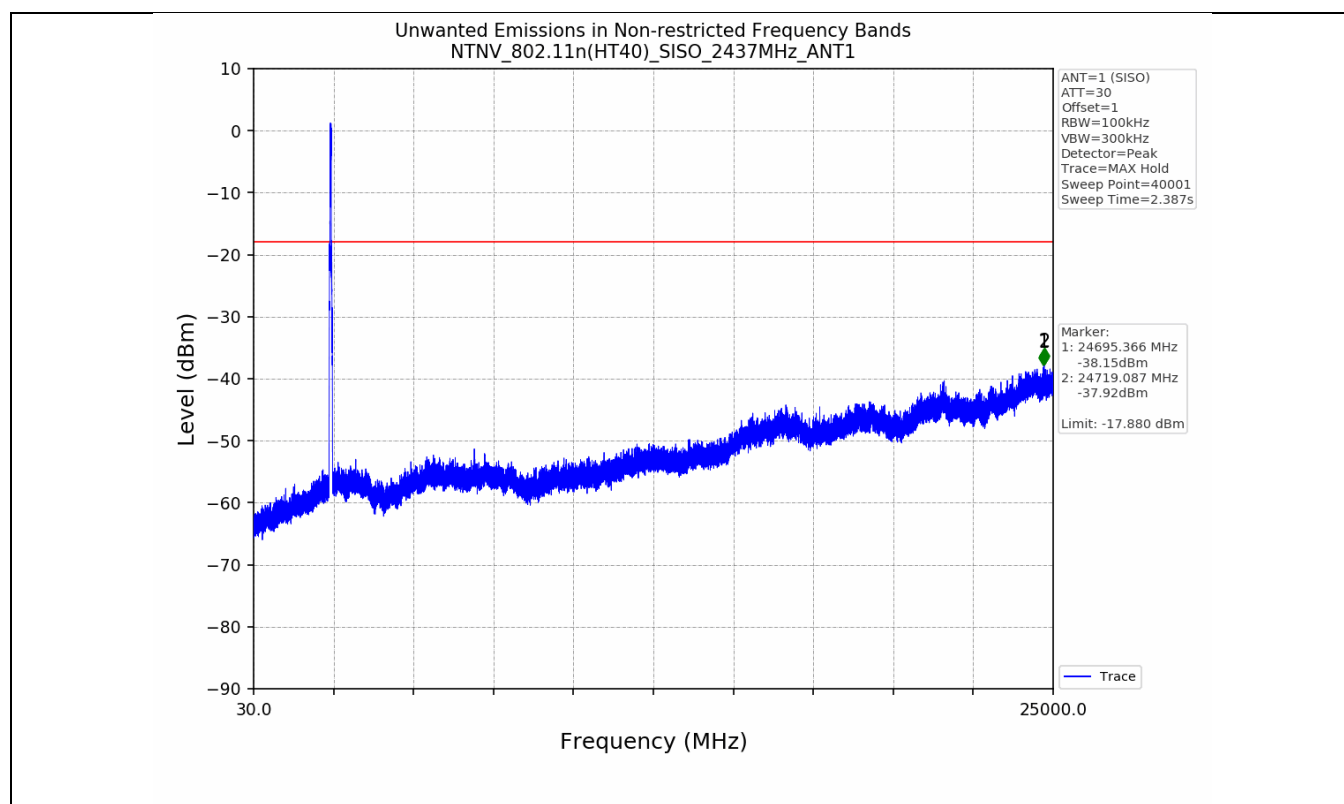
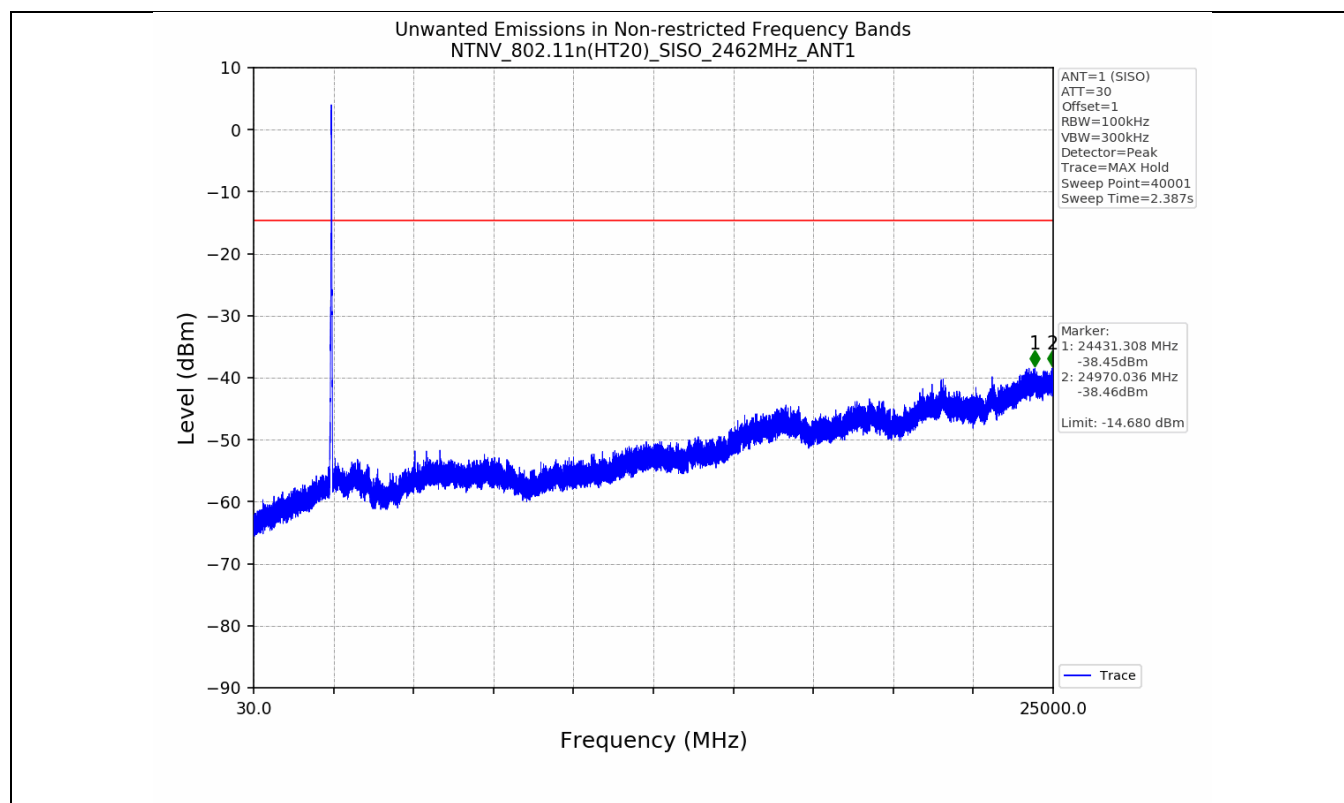


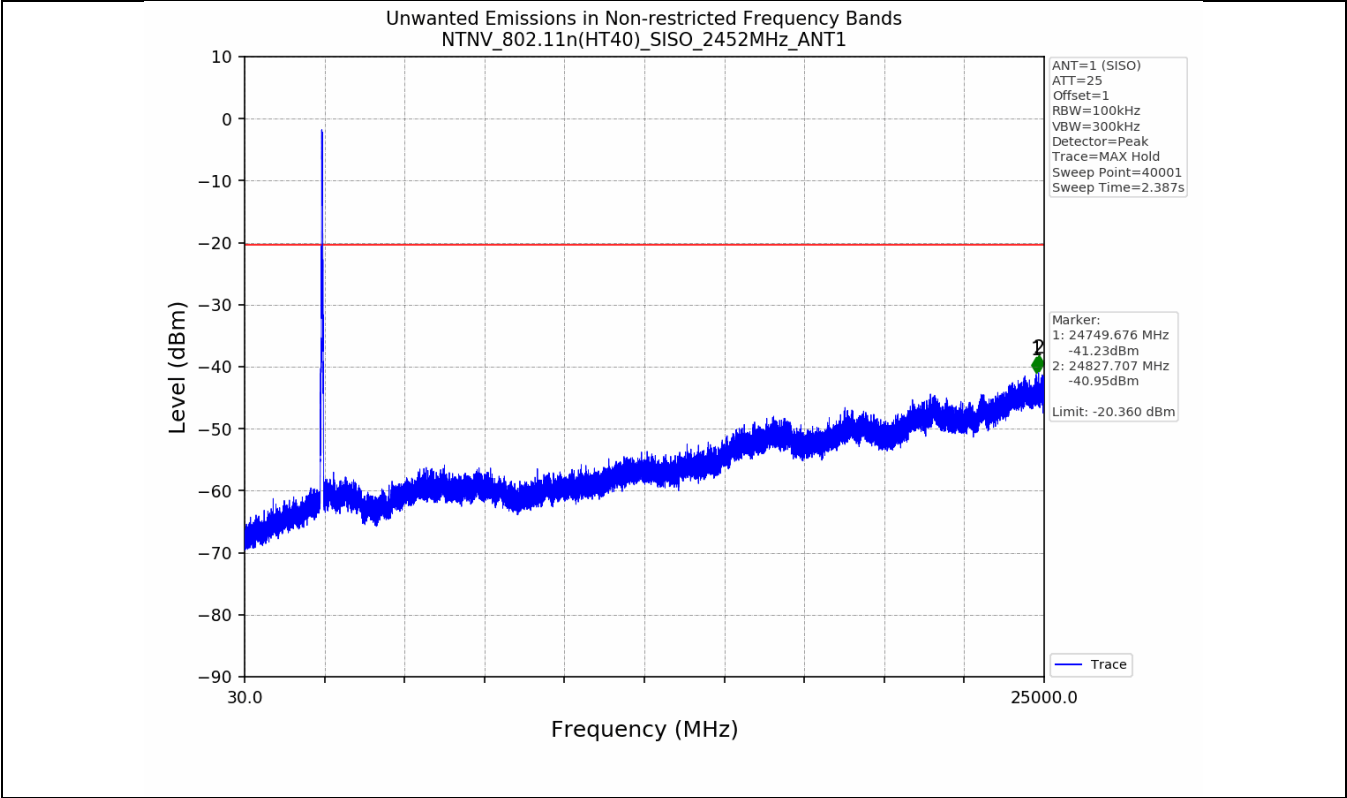
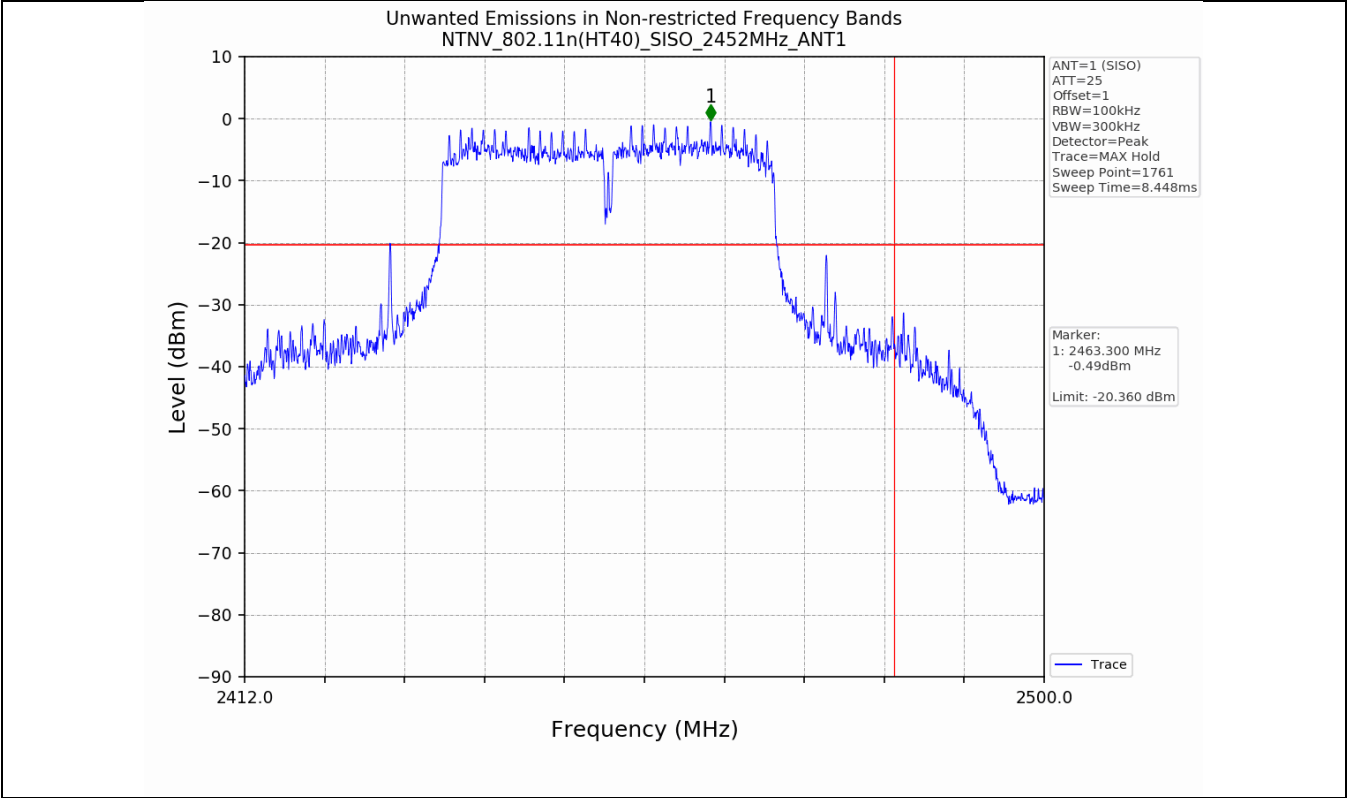












5. Frequency Error

5.1 Test Result

Test Mode	Frequency (MHz)	TX Type	ANT	Measured Frequency (MHz)		Verdict
				Test Result	Limit	
802.11b	2412	SISO	1	2412.14	2400-2483.5	PASS
	2437	SISO	1	2437.04	2400-2483.5	PASS
	2462	SISO	1	2461.80	2400-2483.5	PASS
802.11n(HT40)	2422	SISO	1	2422.08	2400-2483.5	PASS
	2437	SISO	1	2437.00	2400-2483.5	PASS
	2452	SISO	1	2452.00	2400-2483.5	PASS

5.2 Test Graph

