



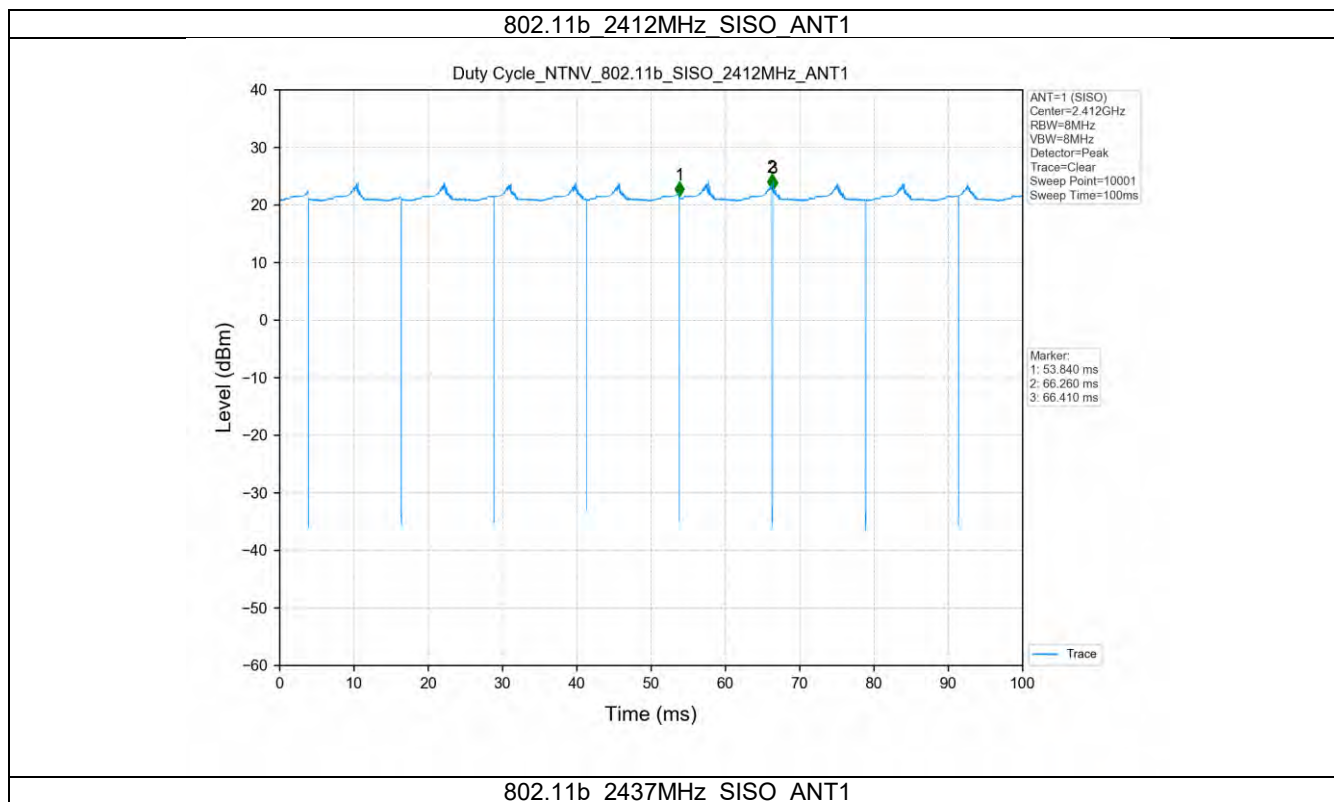
Appendix A for SHEM20010045801

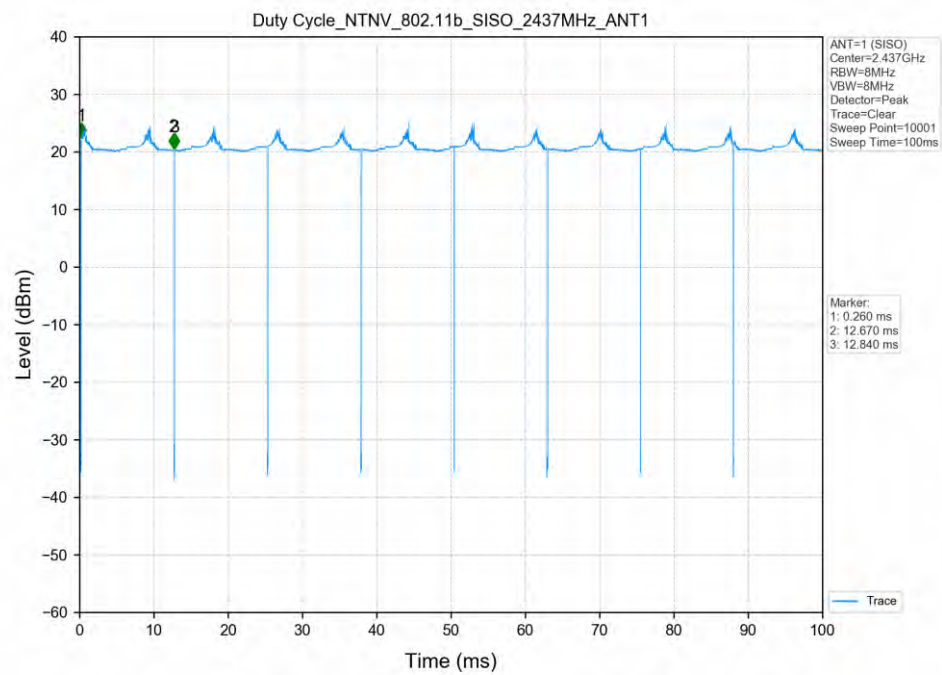
1. Duty Cycle

1.1 Test Result

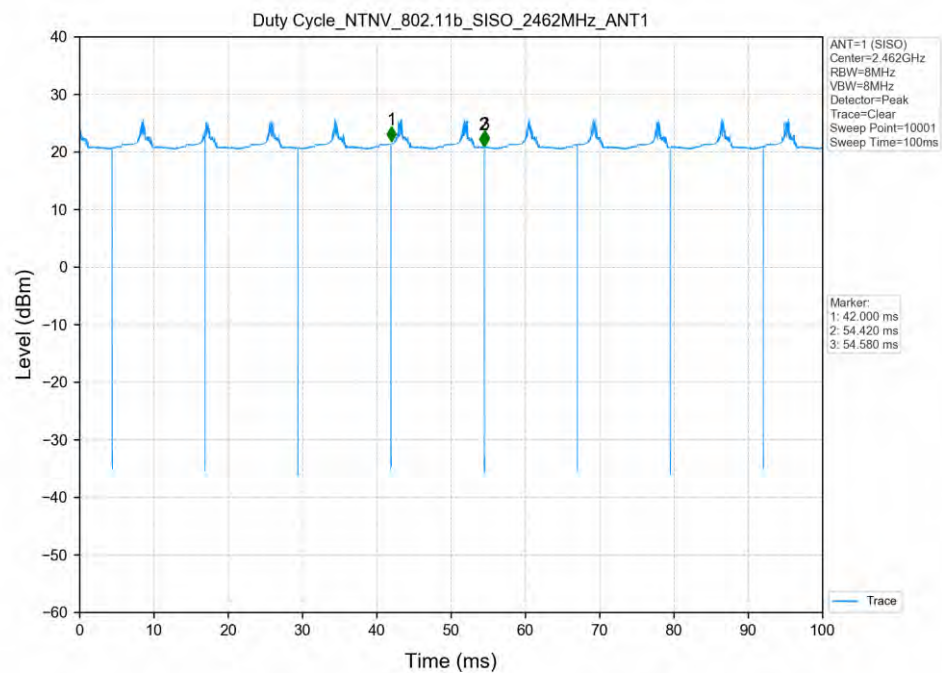
Test Mode	Channel Frequency(MHz)	TX Type	ANT No.	T_on (ms)	Period (ms)	Duty Cycle (%)	Duty Cycle Correction Factor (dB)
802.11b	2412	SISO	1	12.420	12.570	98.81	0.05
	2437	SISO	1	12.410	12.580	98.65	0.06
	2462	SISO	1	12.420	12.580	98.73	0.06
802.11g	2412	SISO	1	2.064	2.218	93.06	0.31
	2437	SISO	1	2.063	2.233	92.39	0.34
	2462	SISO	1	2.064	2.226	92.72	0.33
802.11n(HT20)	2412	SISO	1	1.920	2.092	91.78	0.37
	2437	SISO	1	1.890	2.039	92.69	0.33
	2462	SISO	1	1.890	2.057	91.88	0.37
802.11n(HT40)	2422	SISO	1	0.917	1.048	87.50	0.58
	2437	SISO	1	0.917	1.082	84.75	0.72
	2452	SISO	1	0.917	1.083	84.67	0.72

1.2 Test Graph

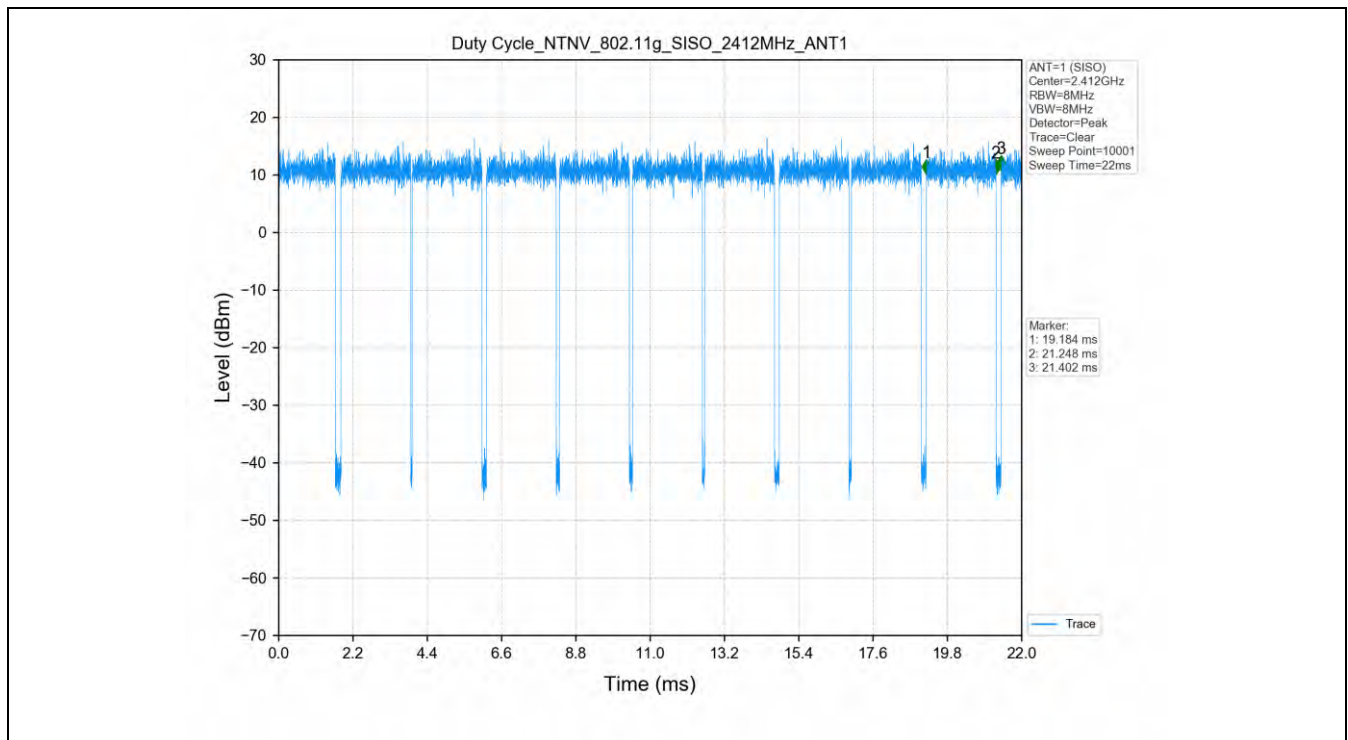




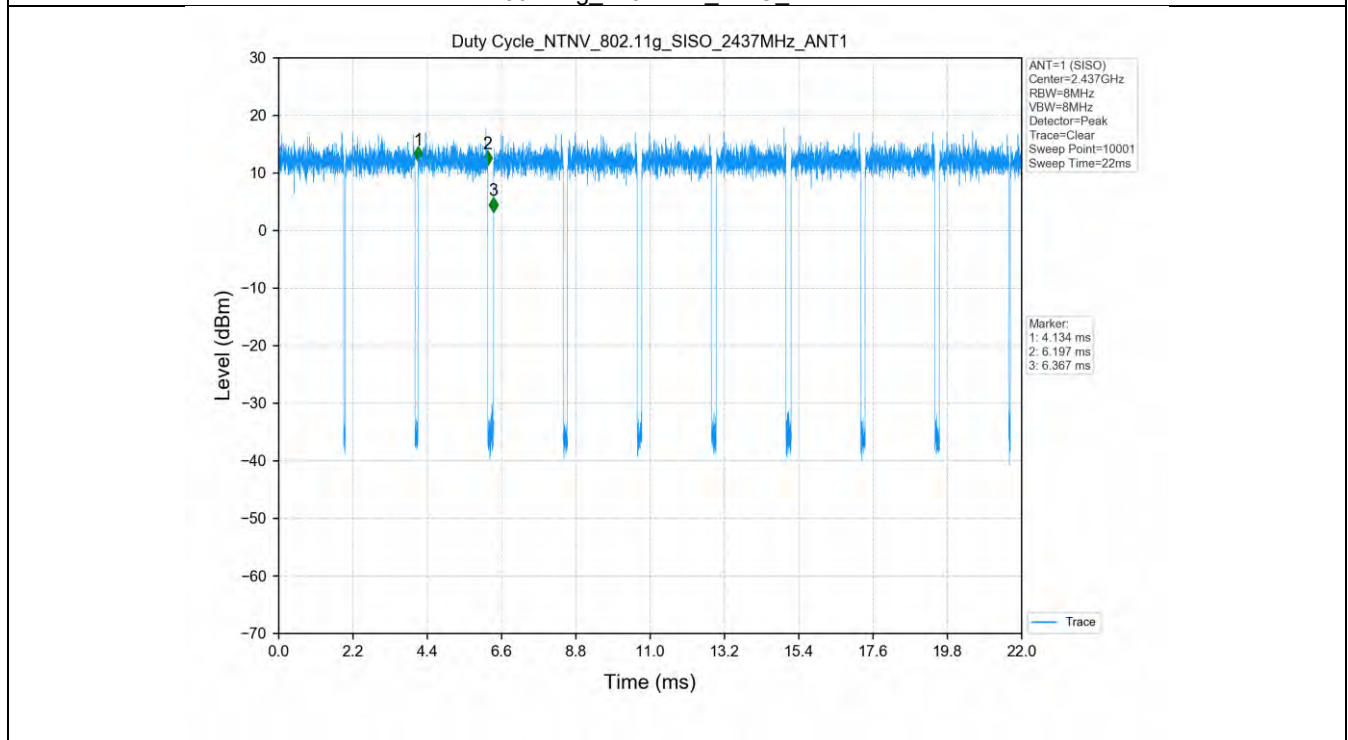
802.11b_2462MHz_SISO_ANT1



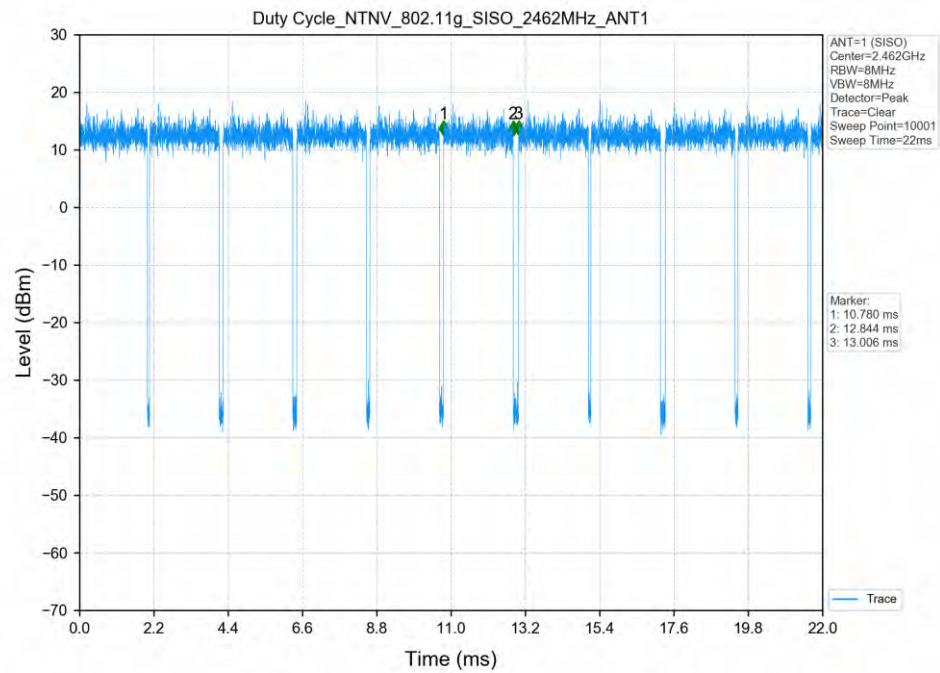
802.11g_2412MHz_SISO_ANT1



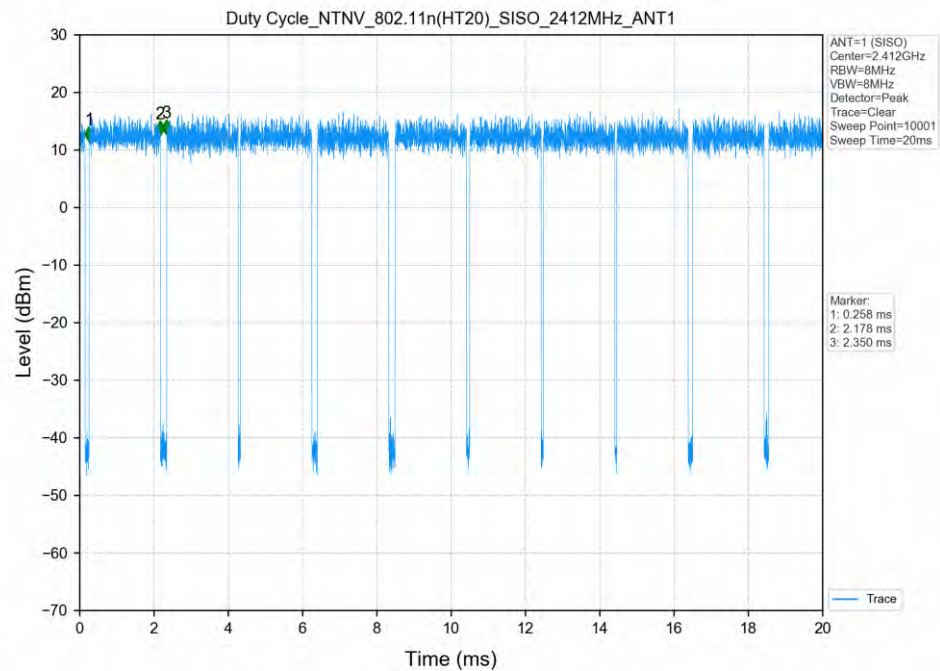
802.11g_2437MHz_SISO_ANT1



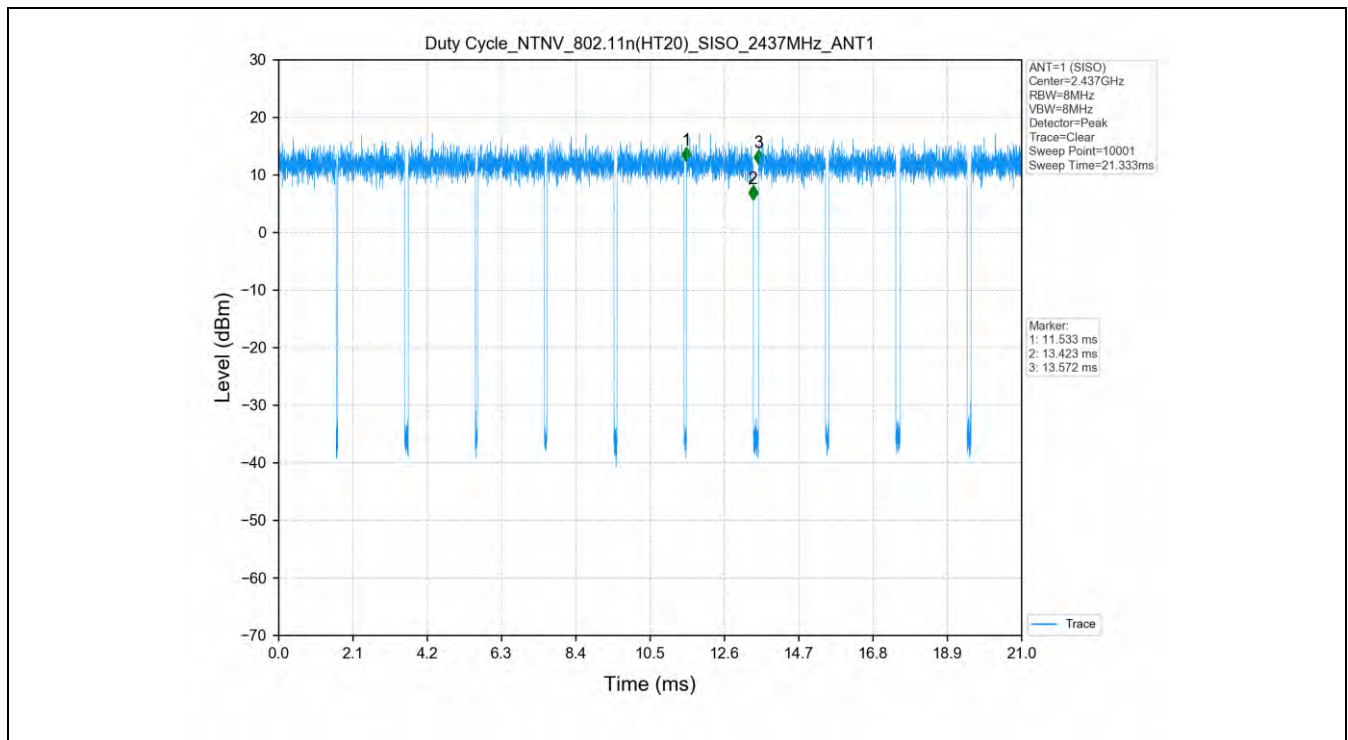
802.11g_2462MHz_SISO_ANT1



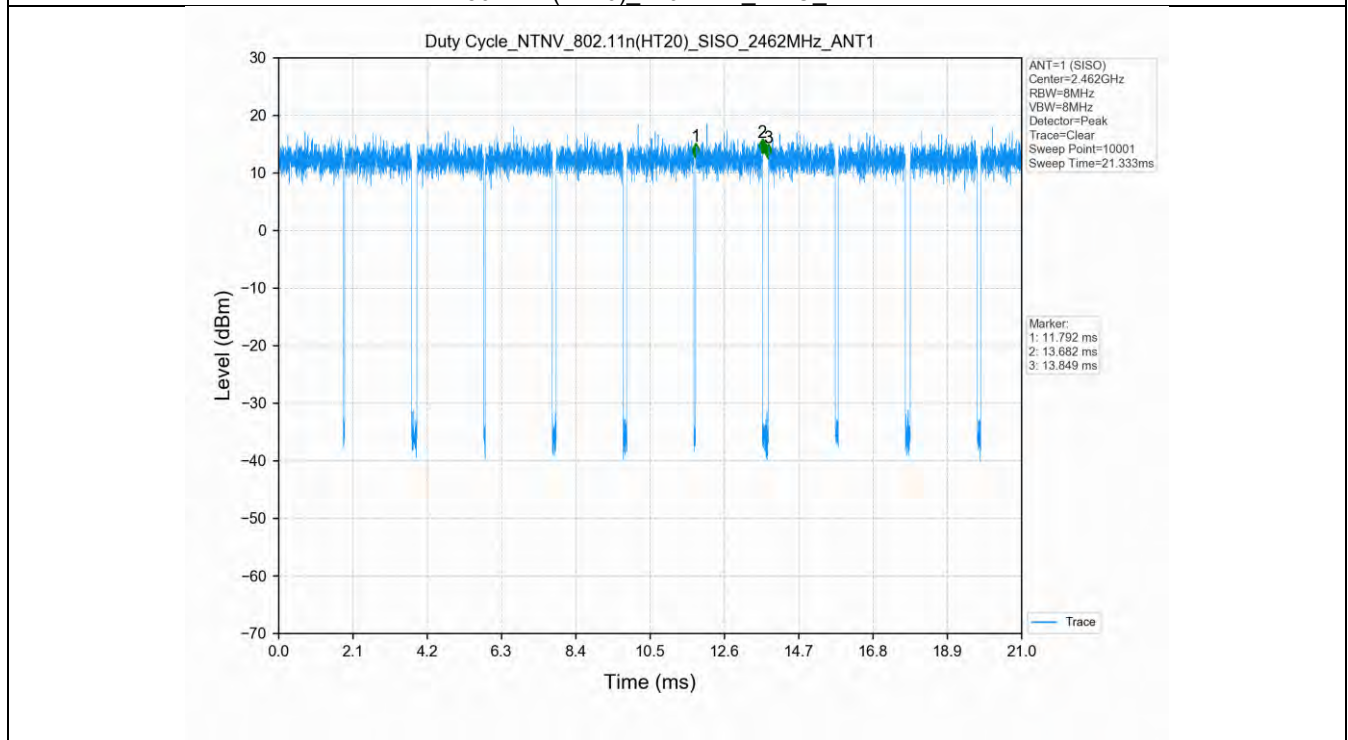
802.11n(HT20)_2412MHz_SISO_ANT1



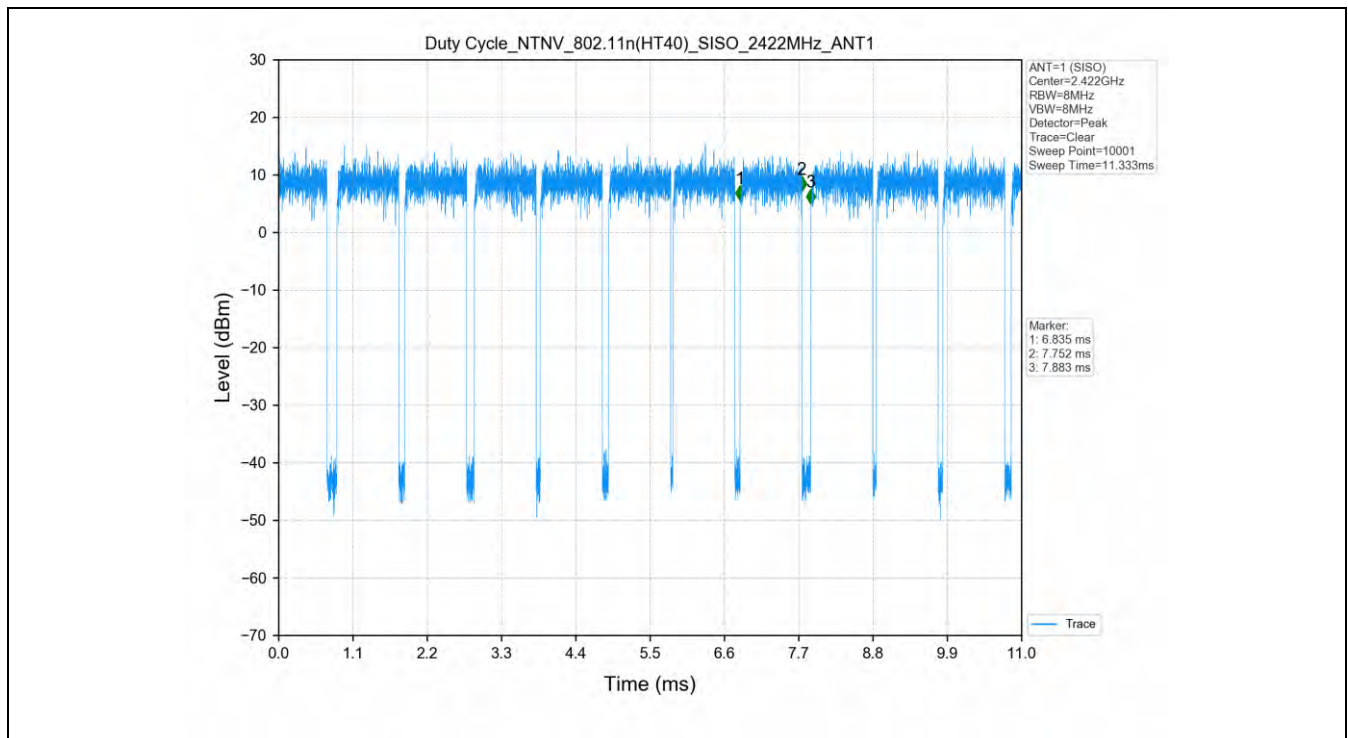
802.11n(HT20)_2437MHz_SISO_ANT1



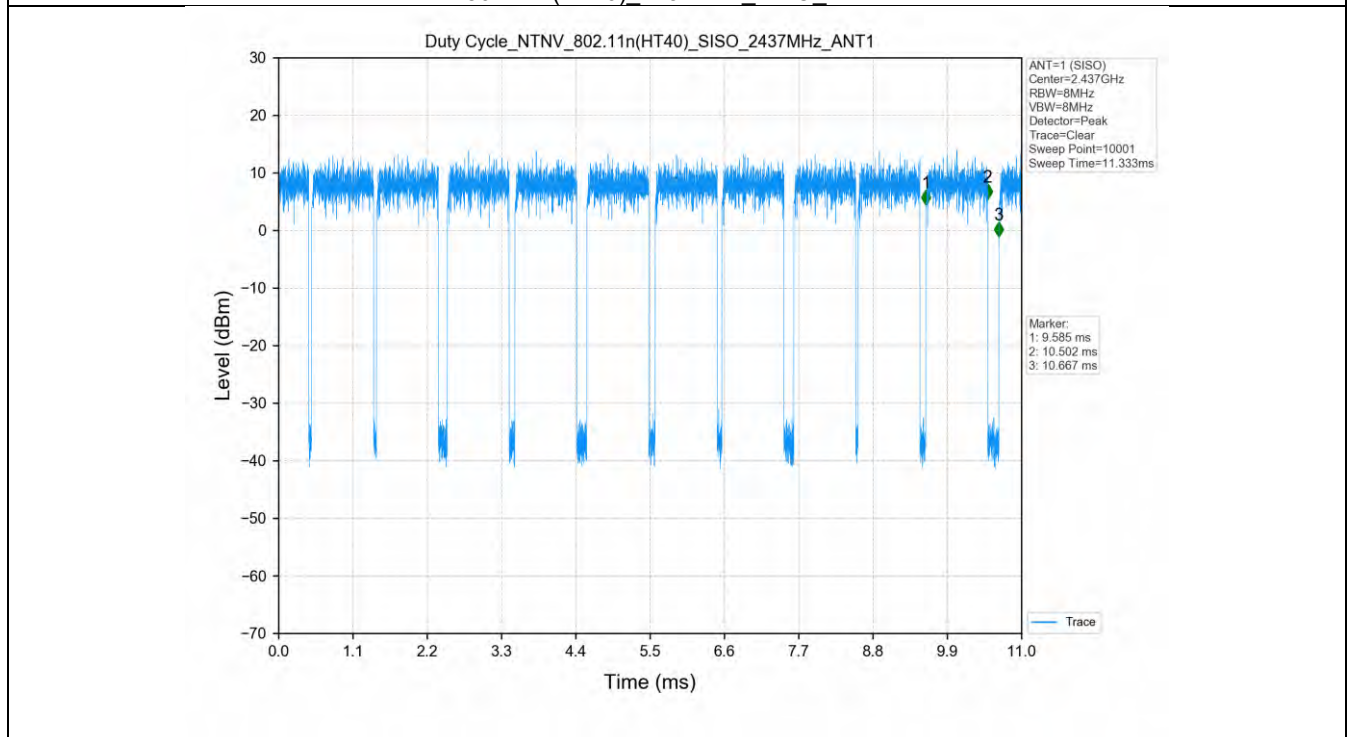
802.11n(HT20)_2462MHz_SISO_ANT1



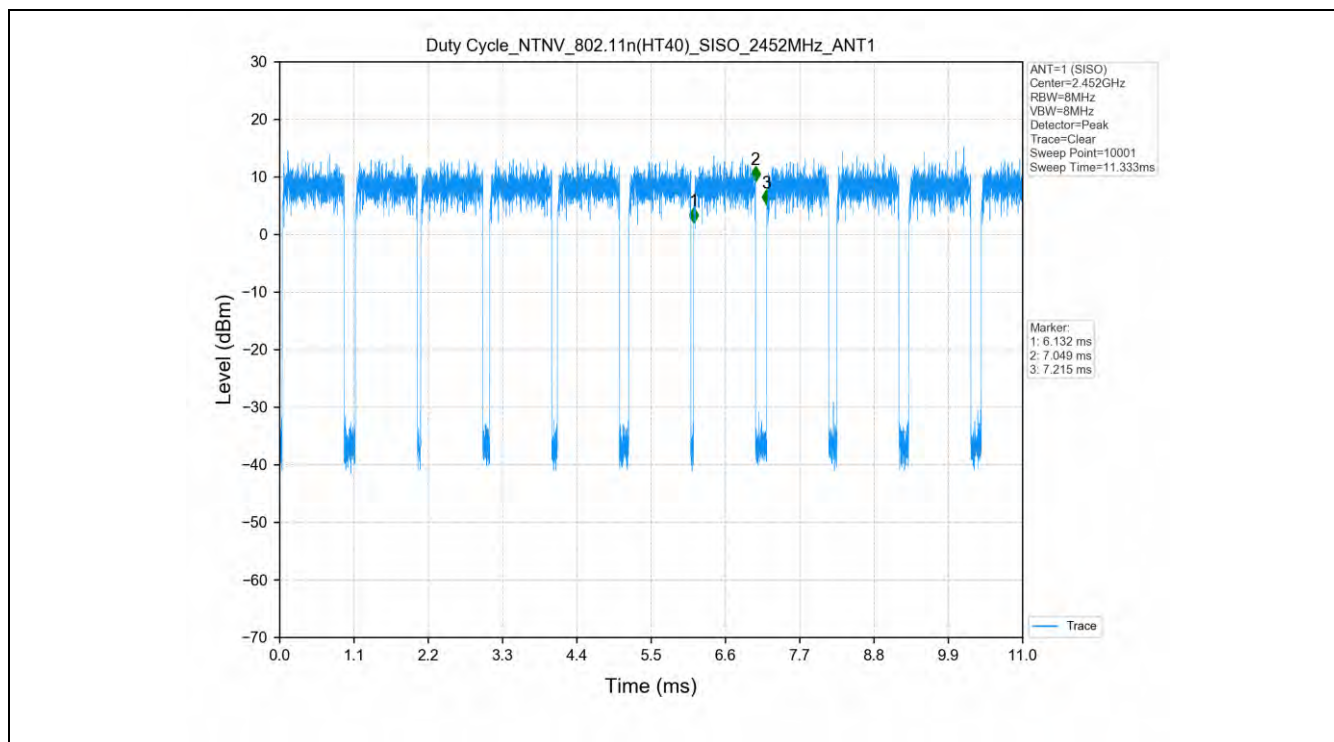
802.11n(HT40)_2422MHz_SISO_ANT1



802.11n(HT40)_2437MHz_SISO_ANT1



802.11n(HT40)_2452MHz_SISO_ANT1



2. Bandwidth

2.1 Test Result

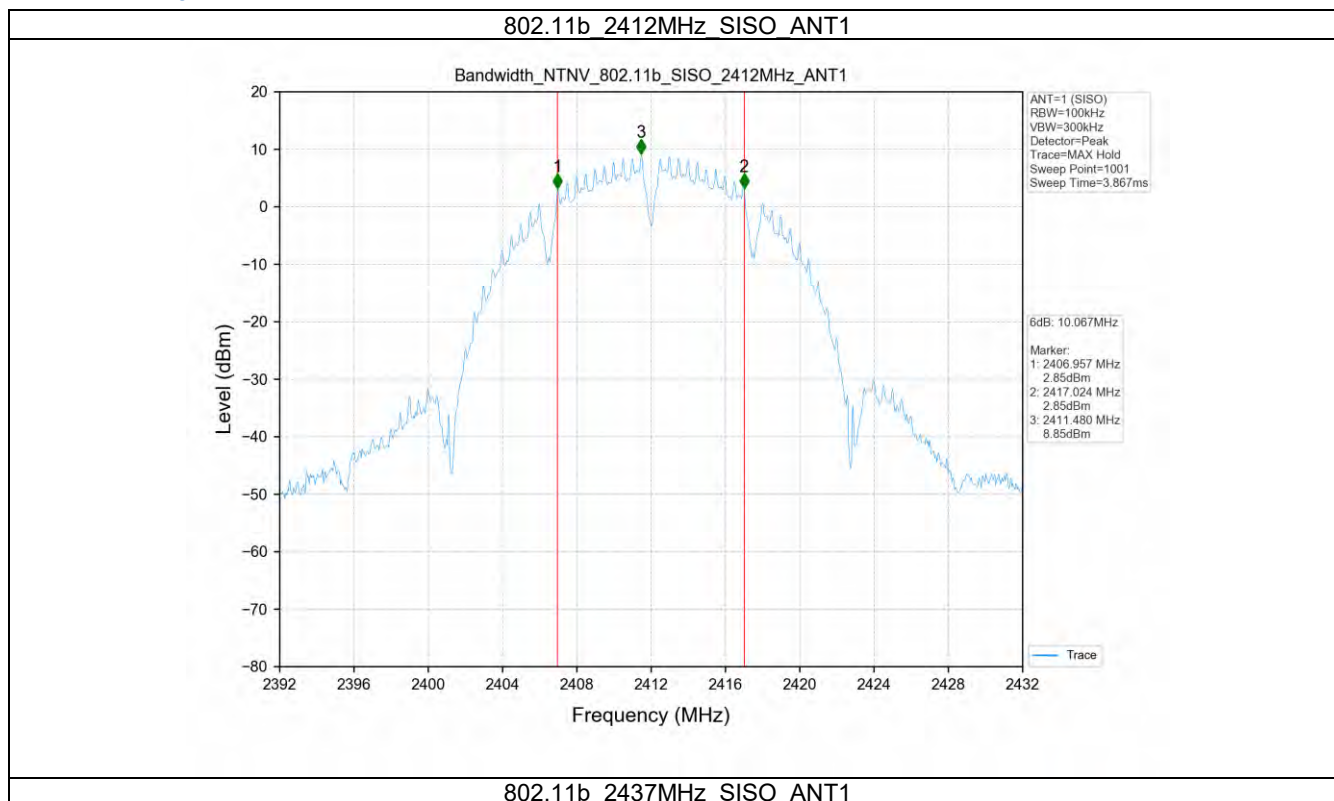
Test Mode	Frequency (MHz)	TX Type	ANT No.	6dB Bandwidth		Verdict
				Test Result (MHz)	Limits (MHz)	
802.11b	2412	SISO	1	10.067	≥ 0.5	PASS
	2437	SISO	1	10.064	≥ 0.5	PASS
	2462	SISO	1	10.087	≥ 0.5	PASS
802.11g	2412	SISO	1	16.361	≥ 0.5	PASS
	2437	SISO	1	16.393	≥ 0.5	PASS
	2462	SISO	1	16.401	≥ 0.5	PASS
802.11n(HT20)	2412	SISO	1	17.339	≥ 0.5	PASS
	2437	SISO	1	17.596	≥ 0.5	PASS
	2462	SISO	1	17.603	≥ 0.5	PASS
802.11n(HT40)	2422	SISO	1	35.244	≥ 0.5	PASS
	2437	SISO	1	35.152	≥ 0.5	PASS
	2452	SISO	1	35.234	≥ 0.5	PASS

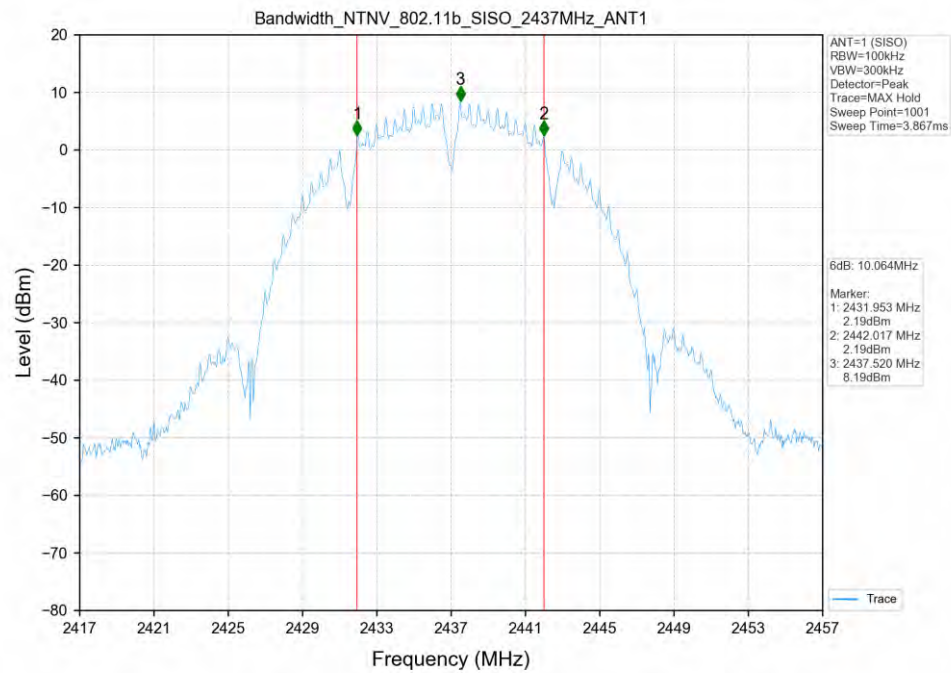
Test Mode	Frequency (MHz)	TX Type	ANT No.	99% Occupied Bandwidth	
				Test Result (MHz)	
802.11b	2412	SISO	1	15.013	Only for Report Use
	2437	SISO	1	15.018	Only for Report Use
	2462	SISO	1	15.020	Only for Report Use
802.11g	2412	SISO	1	16.833	Only for Report Use
	2437	SISO	1	16.882	Only for Report Use



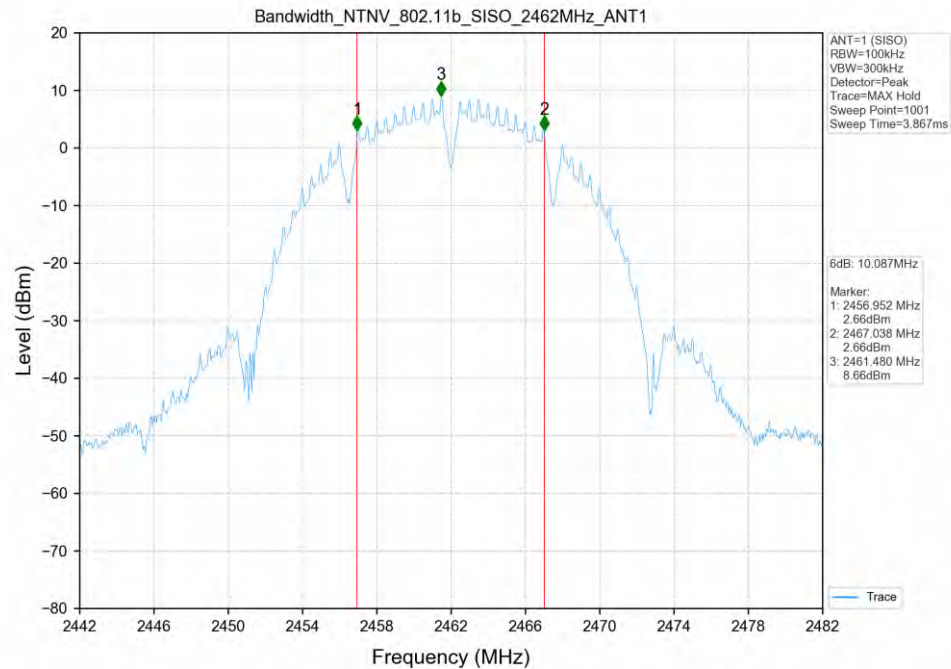
	2462	SISO	1	16.900	Only for Report Use
802.11n(HT20)	2412	SISO	1	17.980	Only for Report Use
	2437	SISO	1	17.858	Only for Report Use
	2462	SISO	1	17.888	Only for Report Use
	2422	SISO	1	36.258	Only for Report Use
802.11n(HT40)	2437	SISO	1	36.199	Only for Report Use
	2452	SISO	1	36.174	Only for Report Use

2.2 Test Graph - 6dB Bandwidth

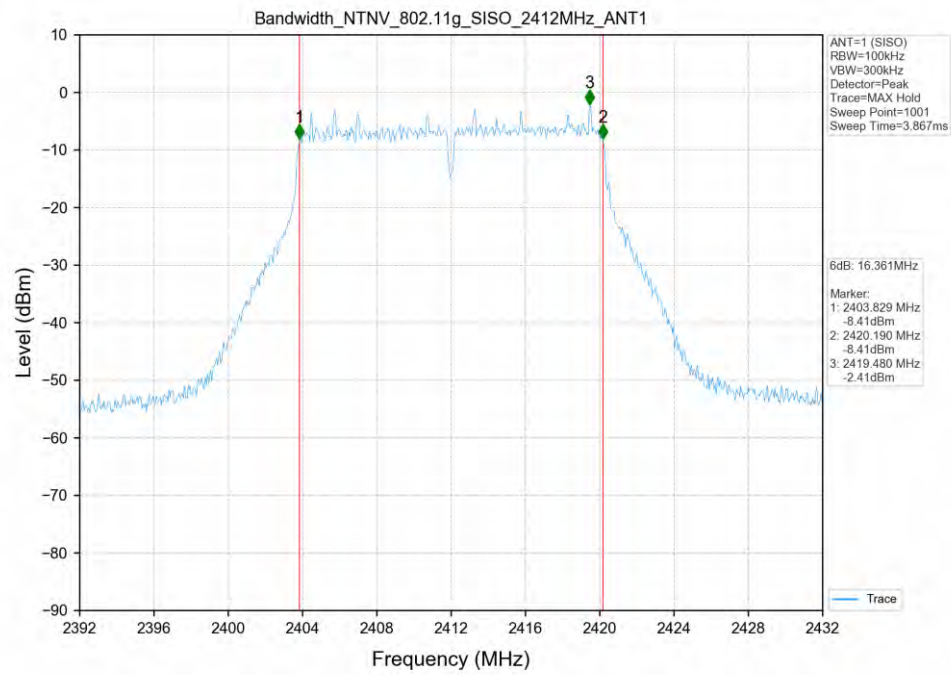




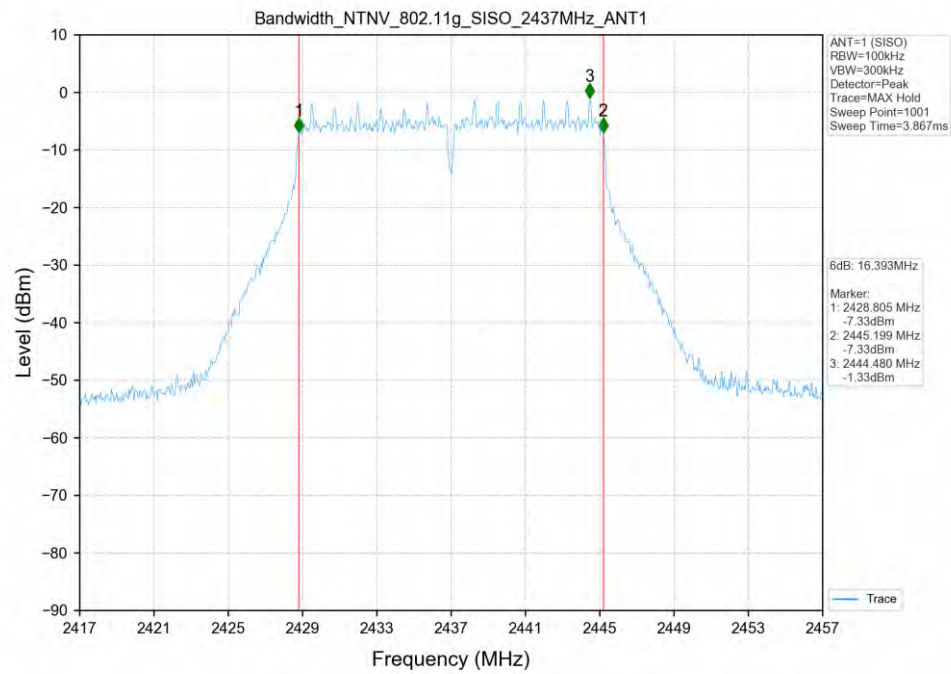
802.11b_2462MHz_SISO_ANT1



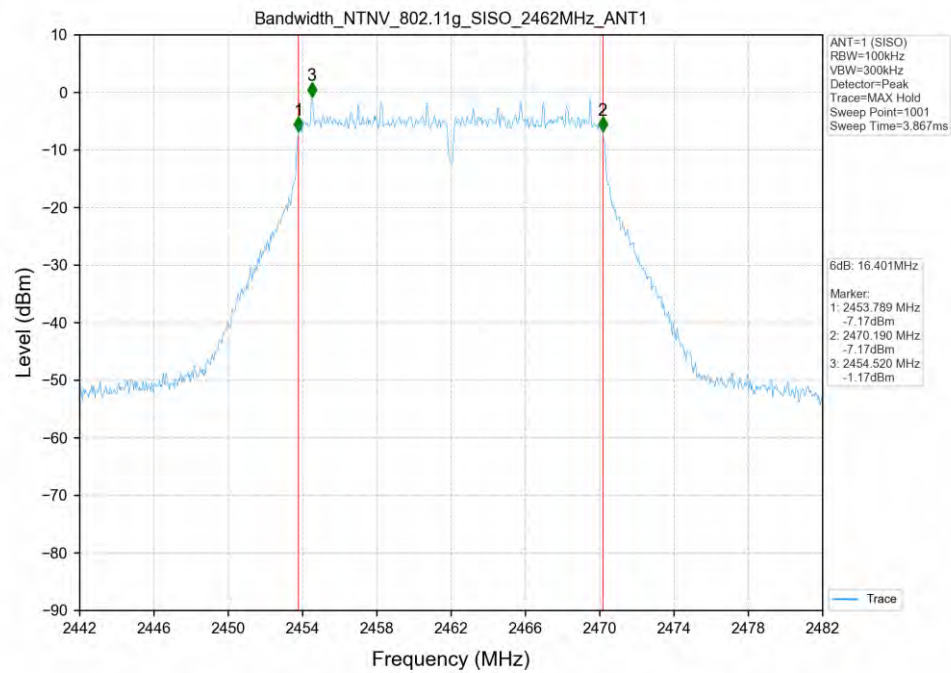
802.11g_2412MHz_SISO_ANT1



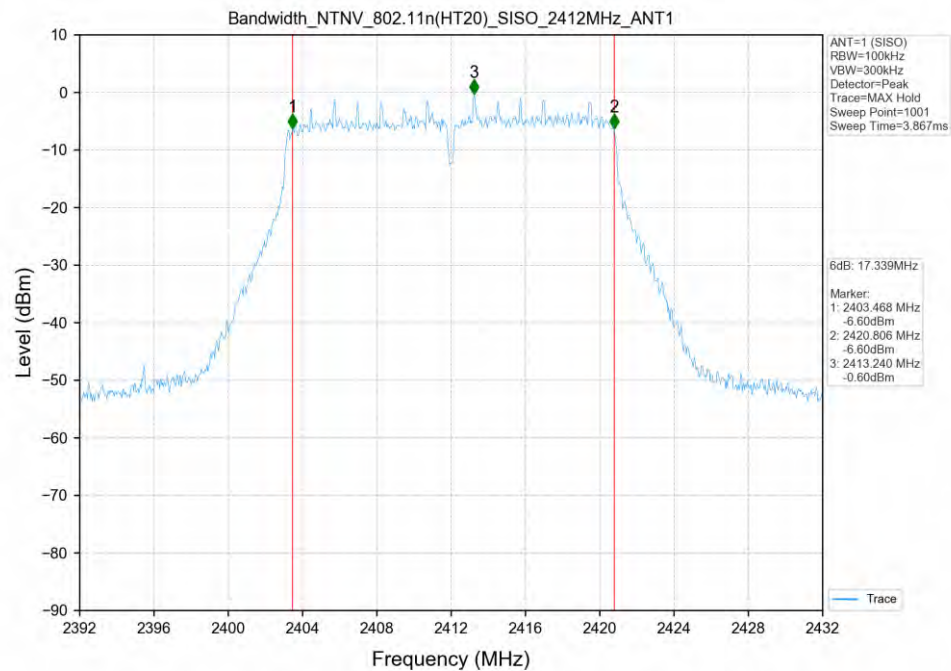
802.11g_2437MHz_SISO_ANT1



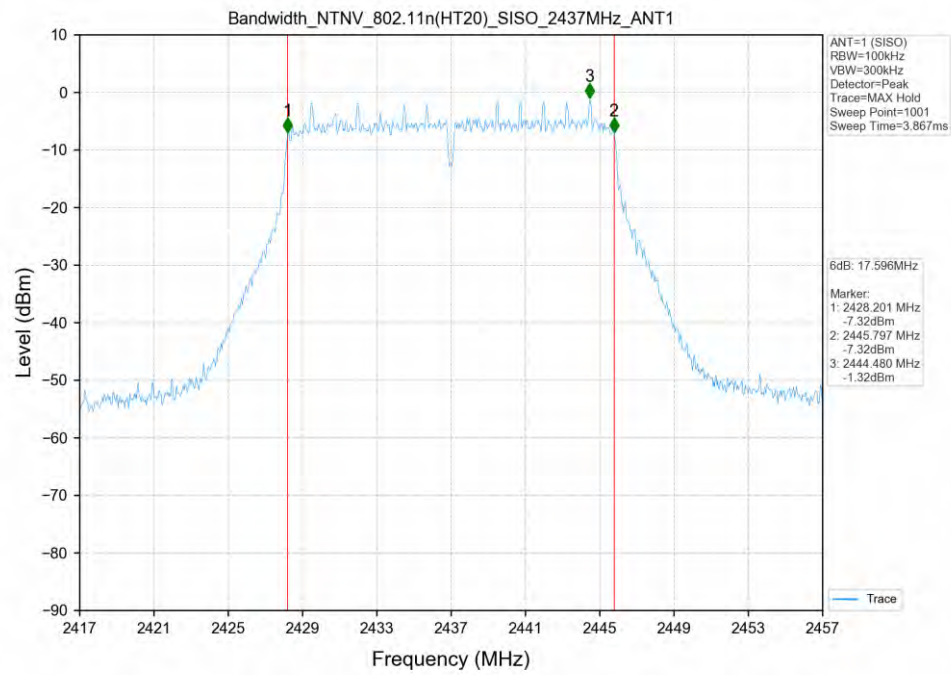
802.11g_2462MHz_SISO_ANT1



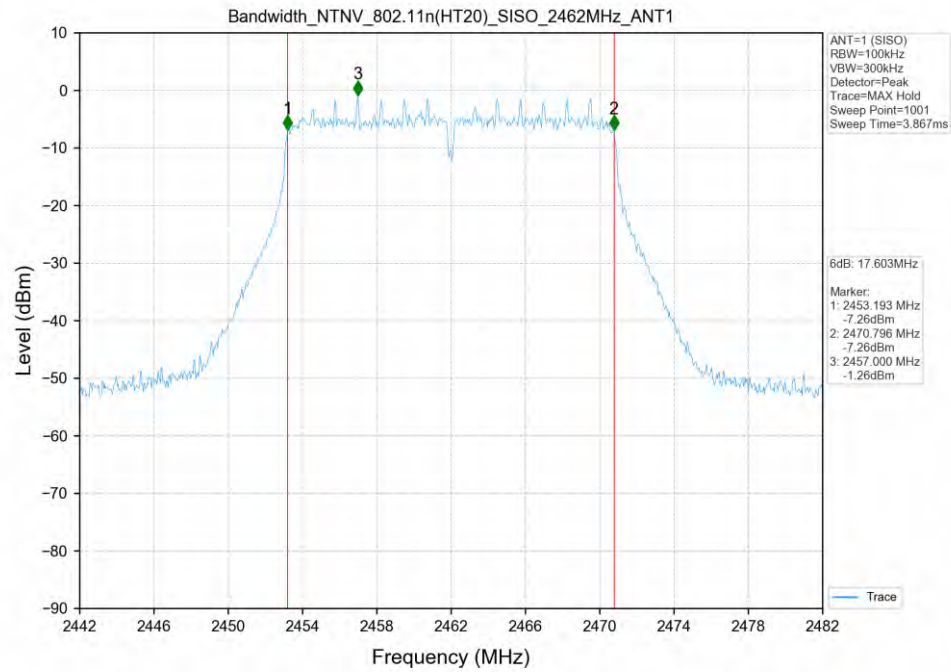
802.11n(HT20)_2412MHz_SISO_ANT1



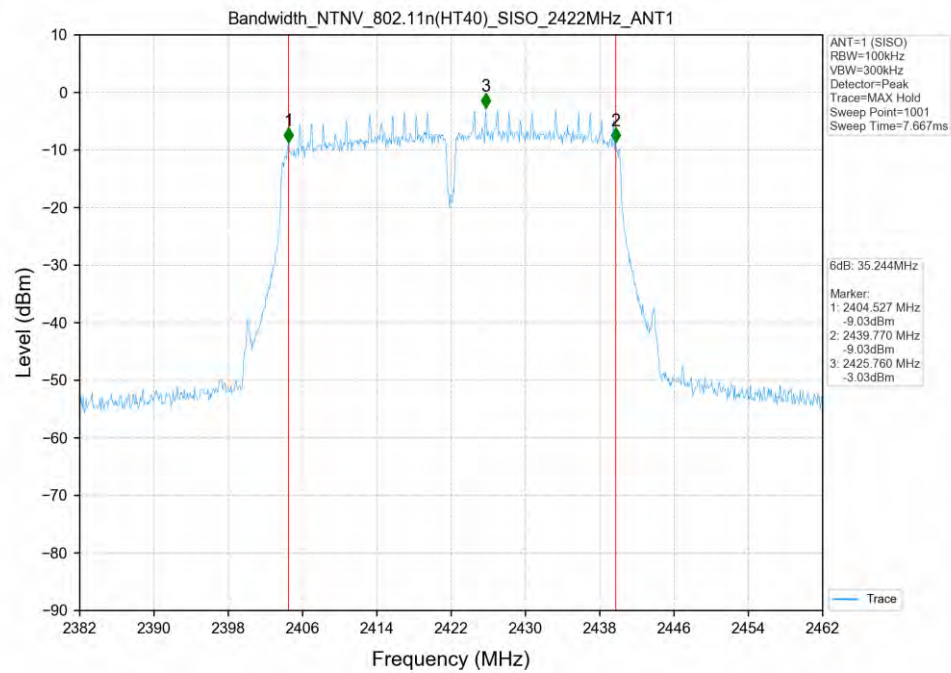
802.11n(HT20)_2437MHz_SISO_ANT1



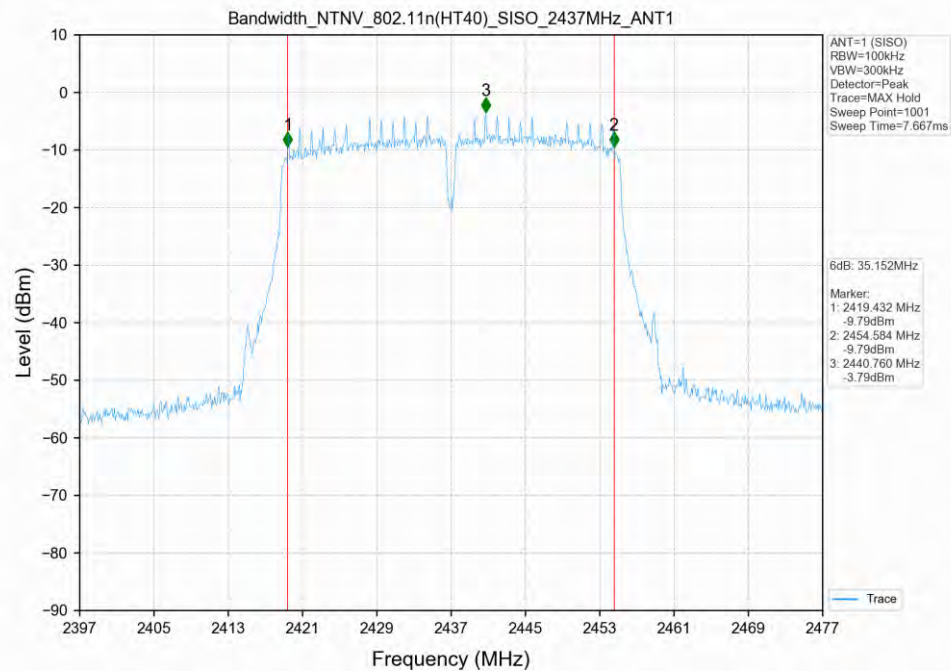
802.11n(HT20)_2462MHz_SISO_ANT1



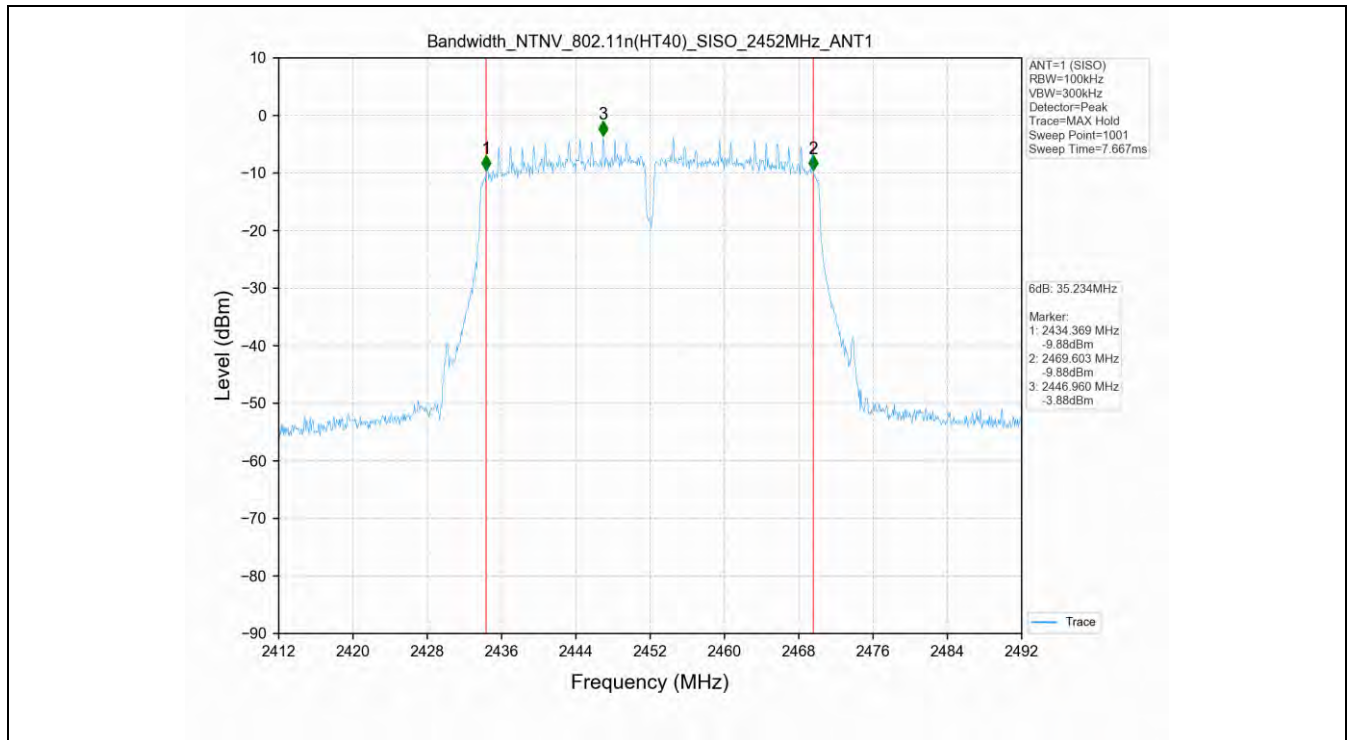
802.11n(HT40)_2422MHz_SISO_ANT1



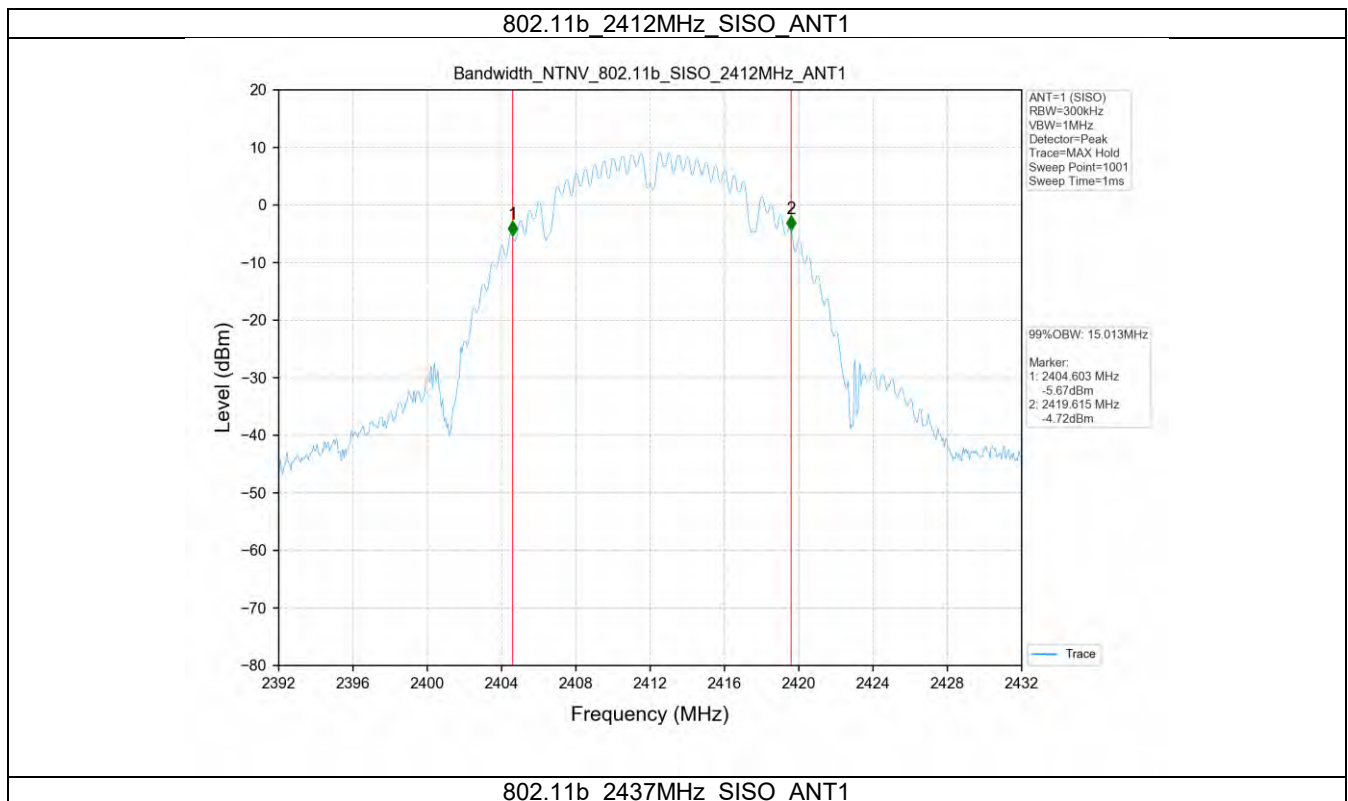
802.11n(HT40)_2437MHz_SISO_ANT1

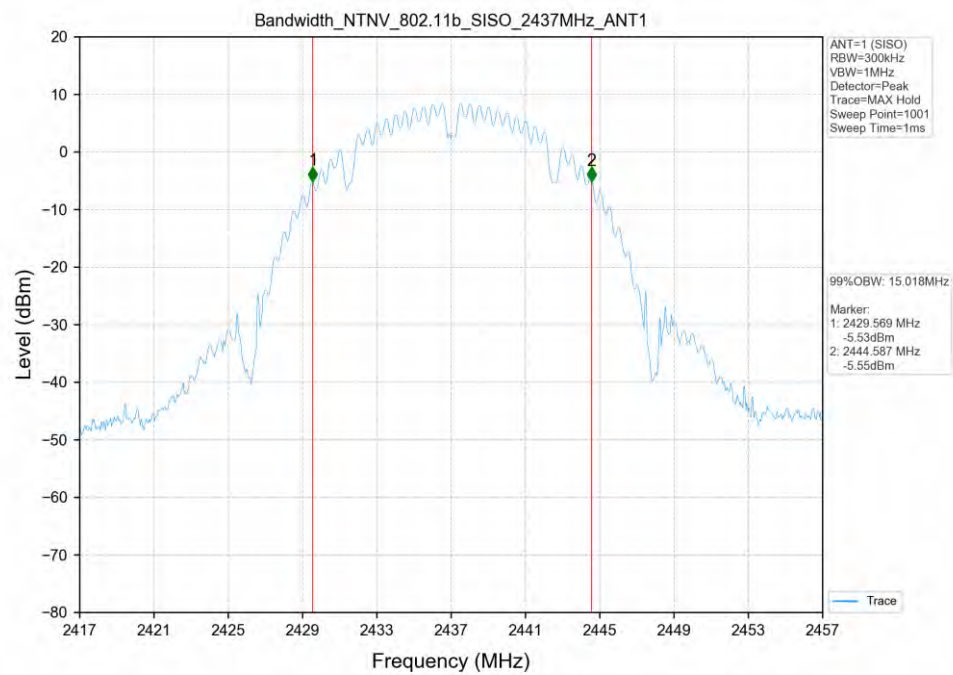


802.11n(HT40)_2452MHz_SISO_ANT1

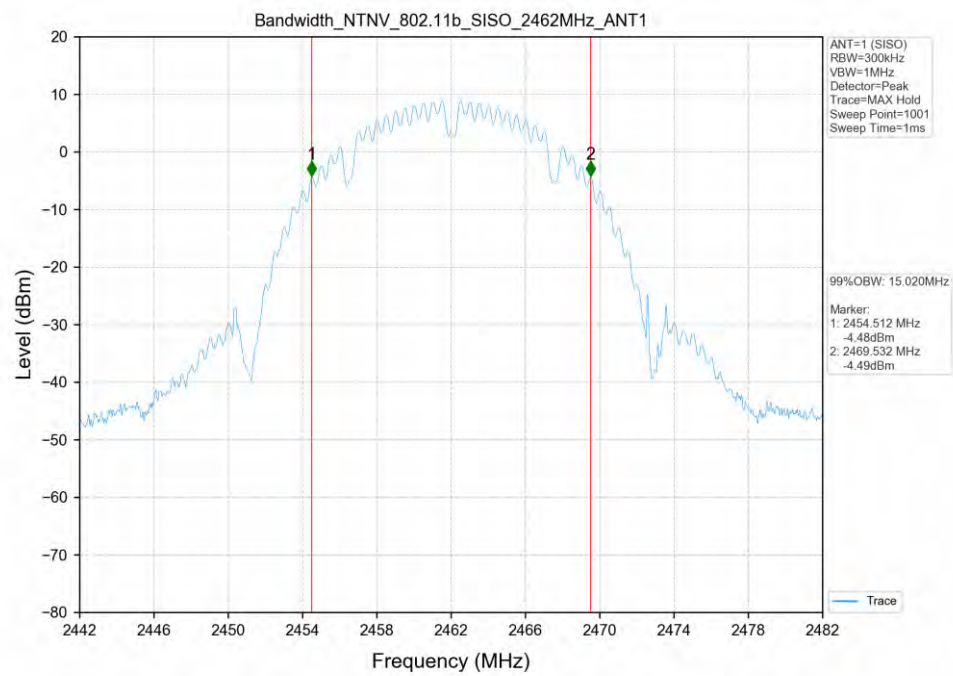


2.3 Test Graph - 99% Occupied Bandwidth

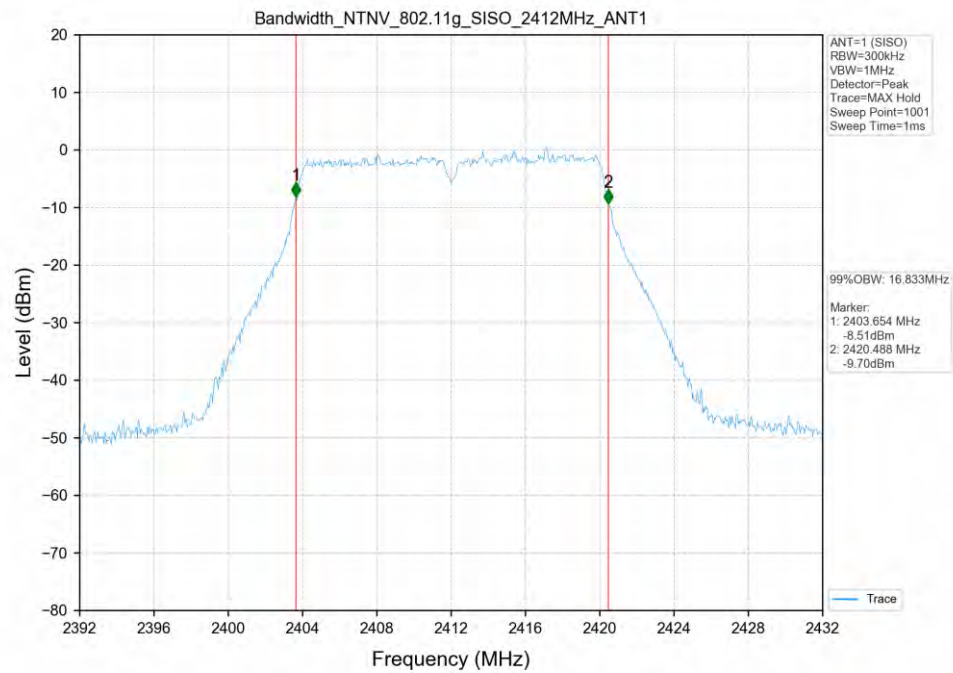




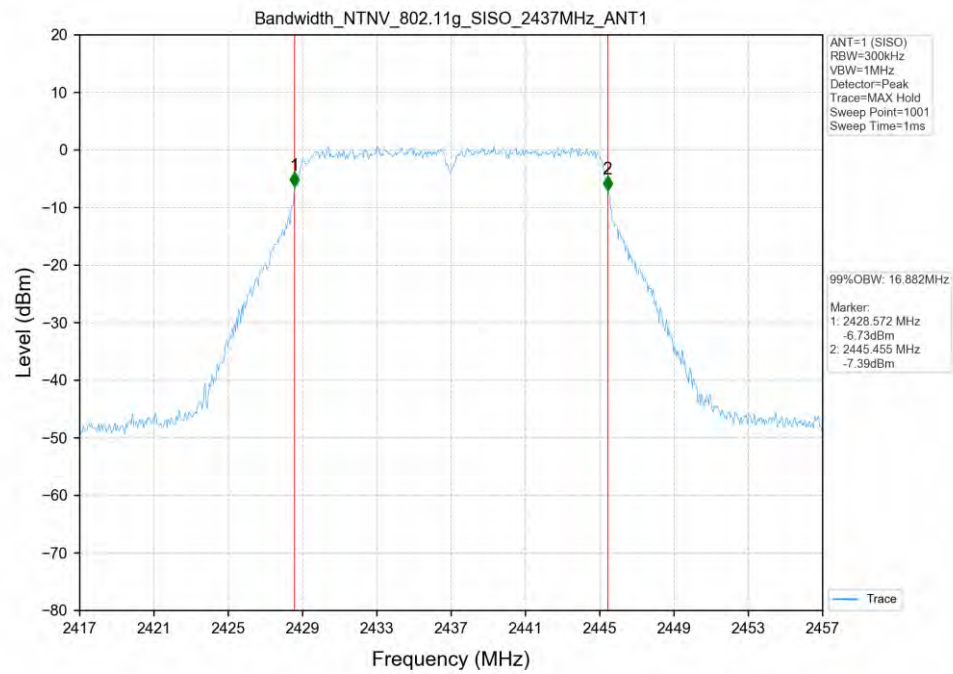
802.11b_2462MHz_SISO_ANT1



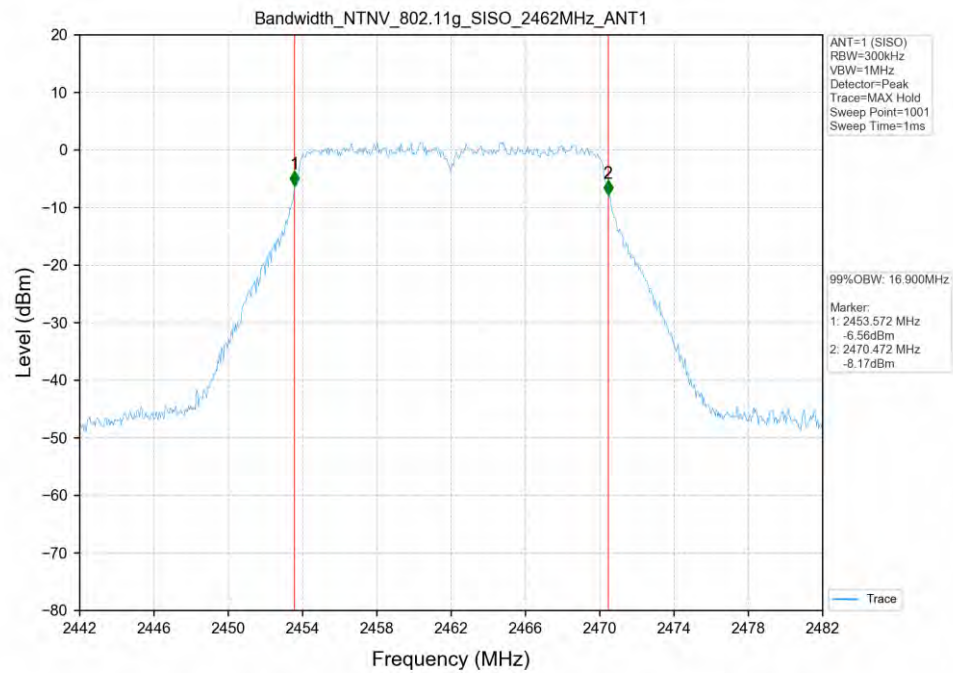
802.11g_2412MHz_SISO_ANT1



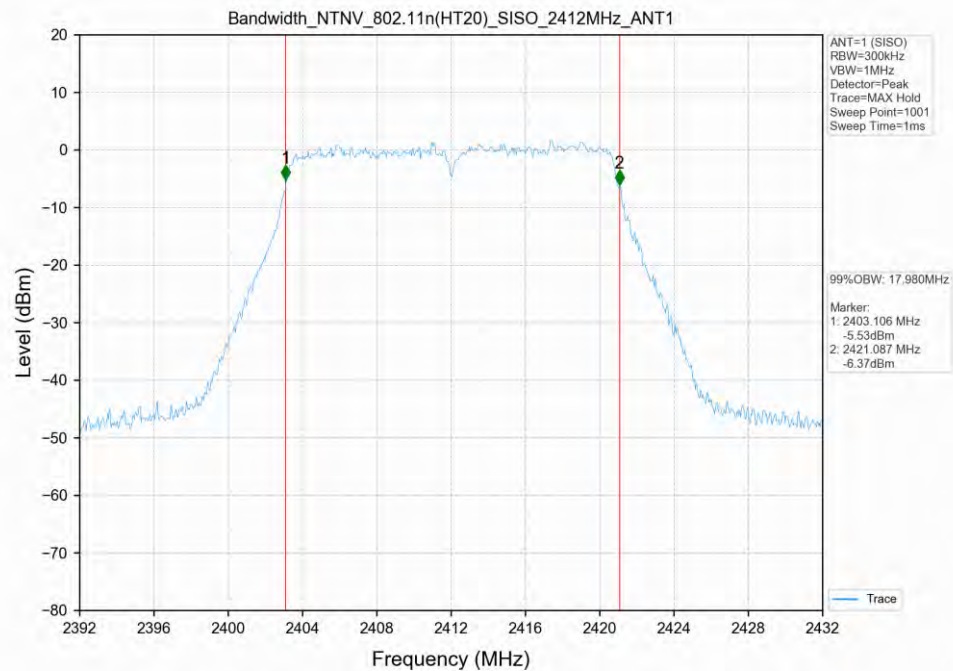
802.11g_2437MHz_SISO_ANT1



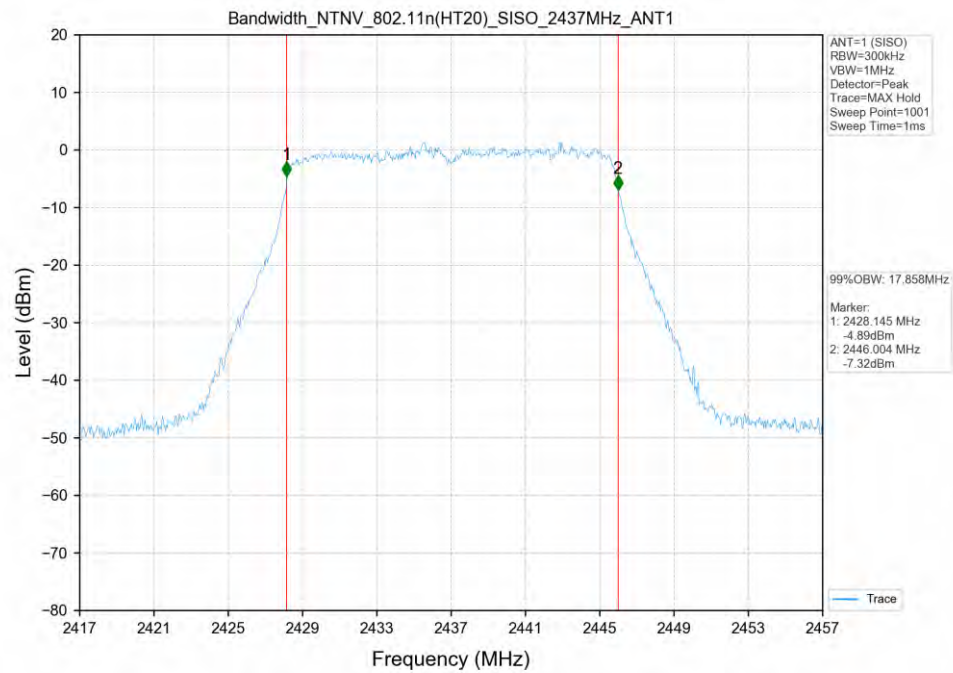
802.11g_2462MHz_SISO_ANT1



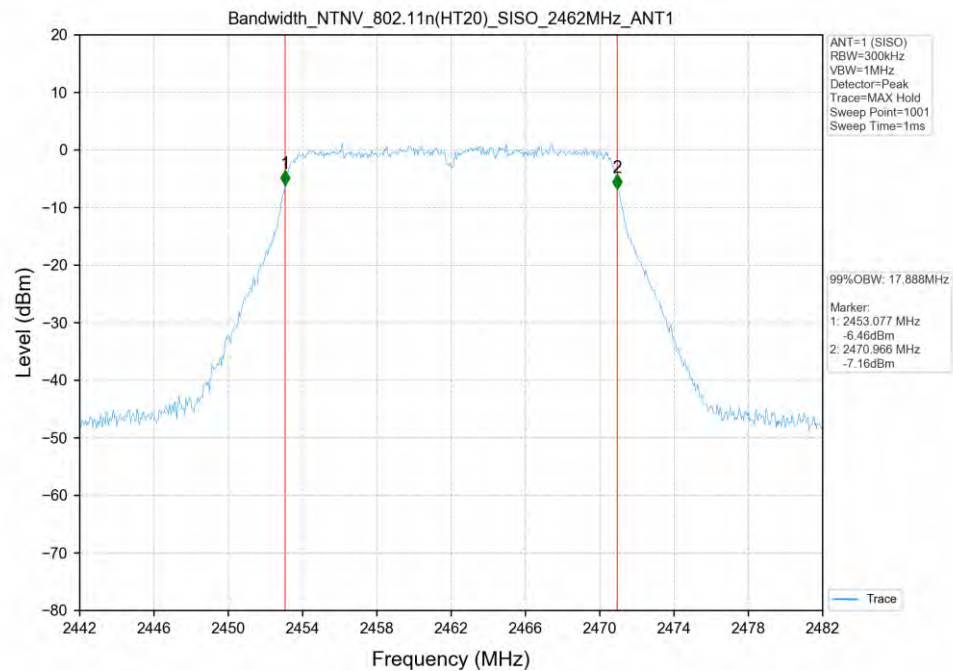
802.11n(HT20)_2412MHz_SISO_ANT1



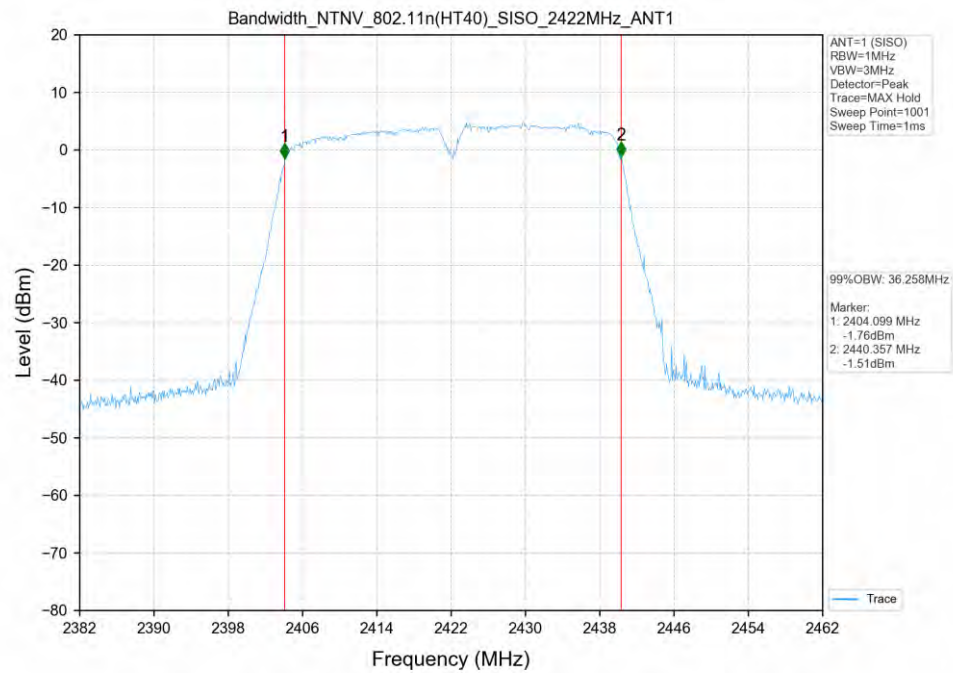
802.11n(HT20)_2437MHz_SISO_ANT1



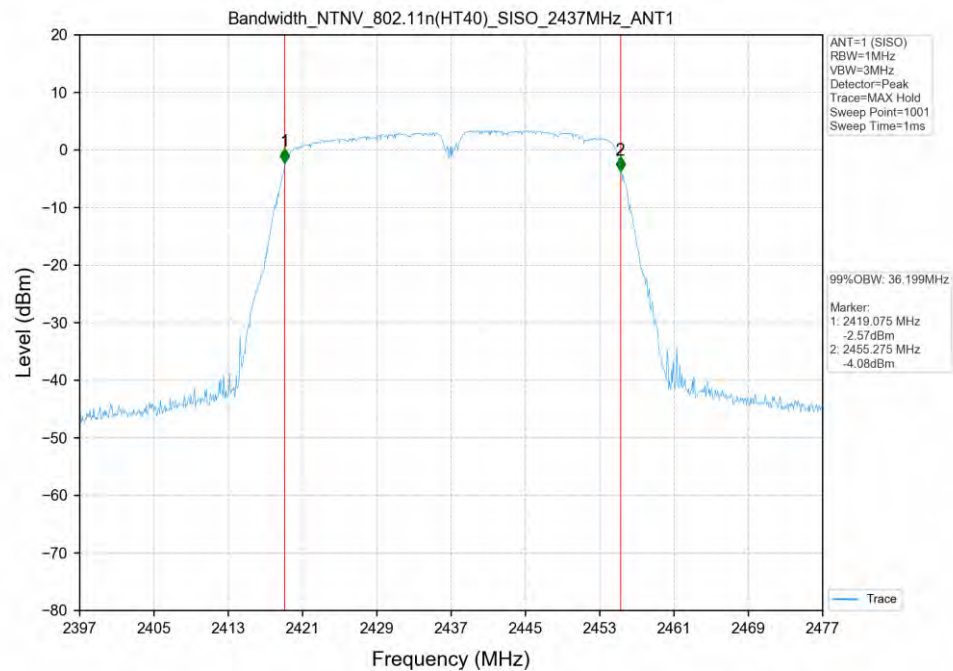
802.11n(HT20)_2462MHz_SISO_ANT1



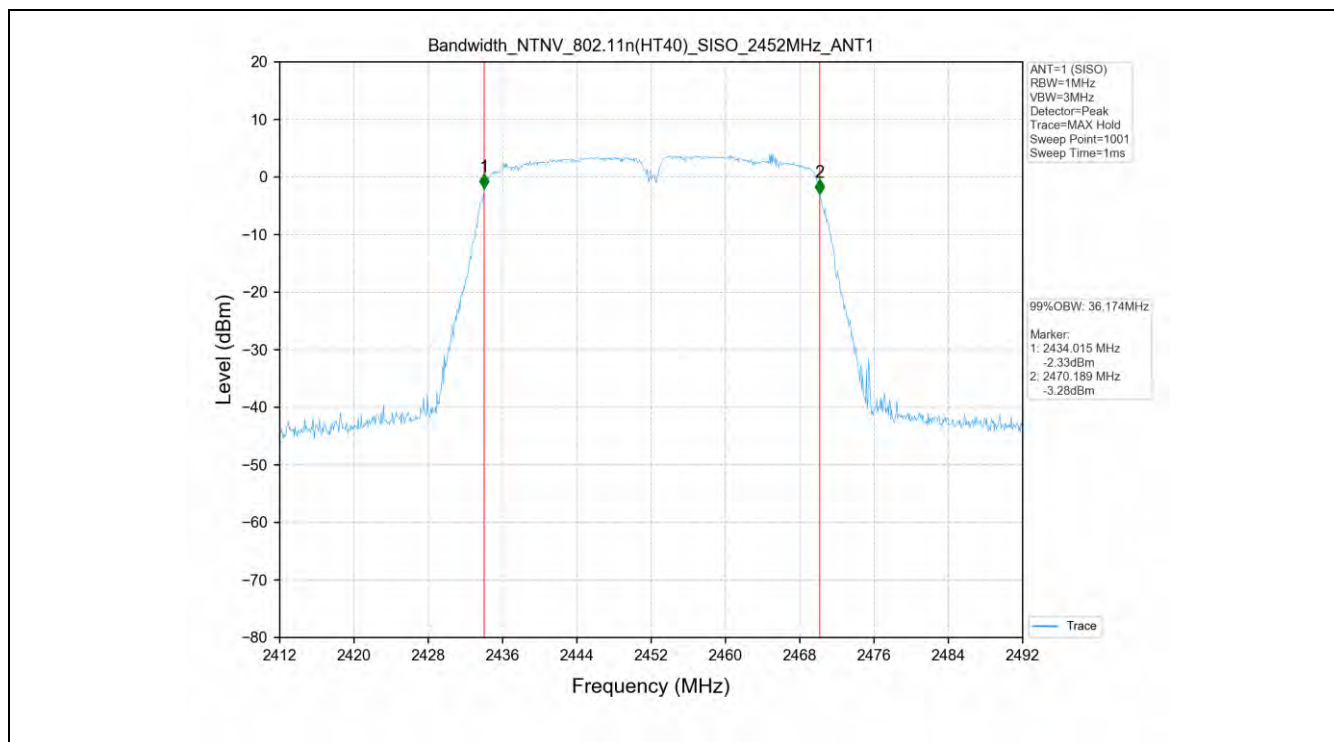
802.11n(HT40)_2422MHz_SISO_ANT1



802.11n(HT40)_2437MHz_SISO_ANT1



802.11n(HT40)_2452MHz_SISO_ANT1



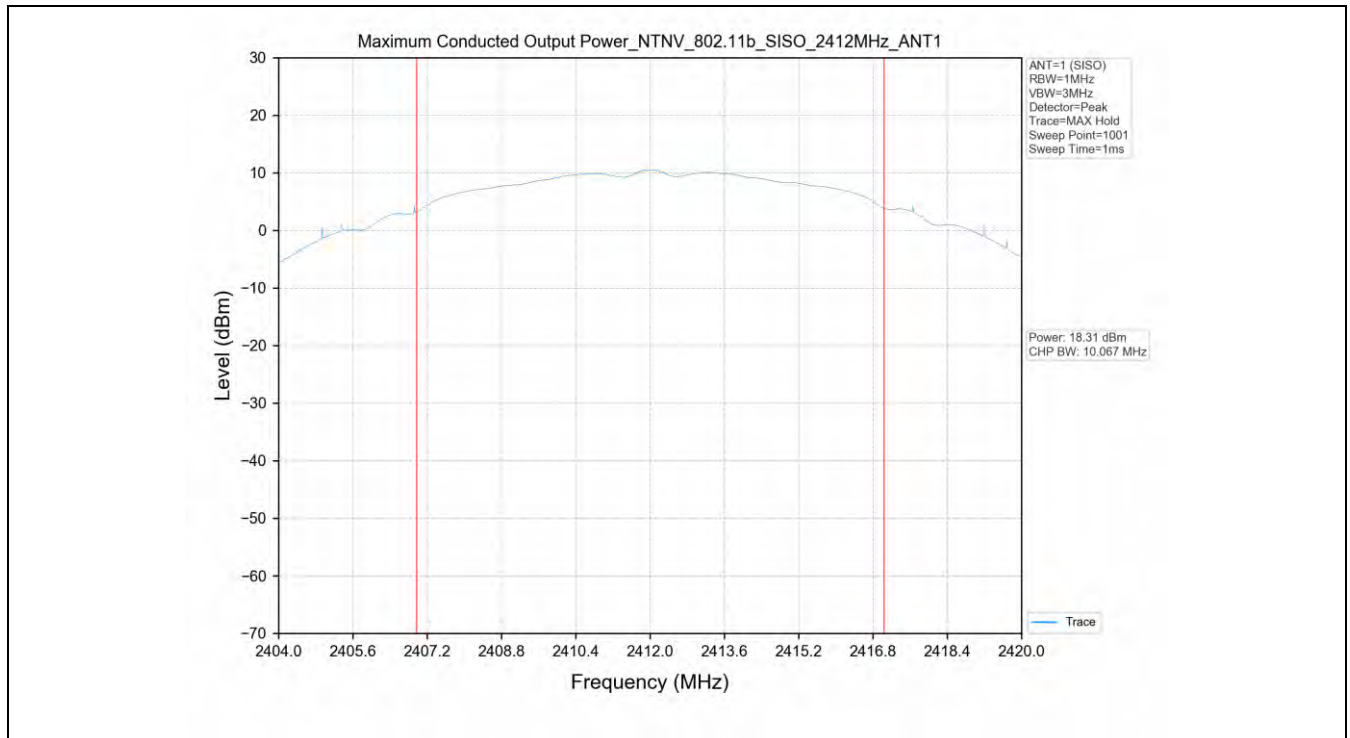
3. Maximum Conducted Output Power

3.1 Test Result

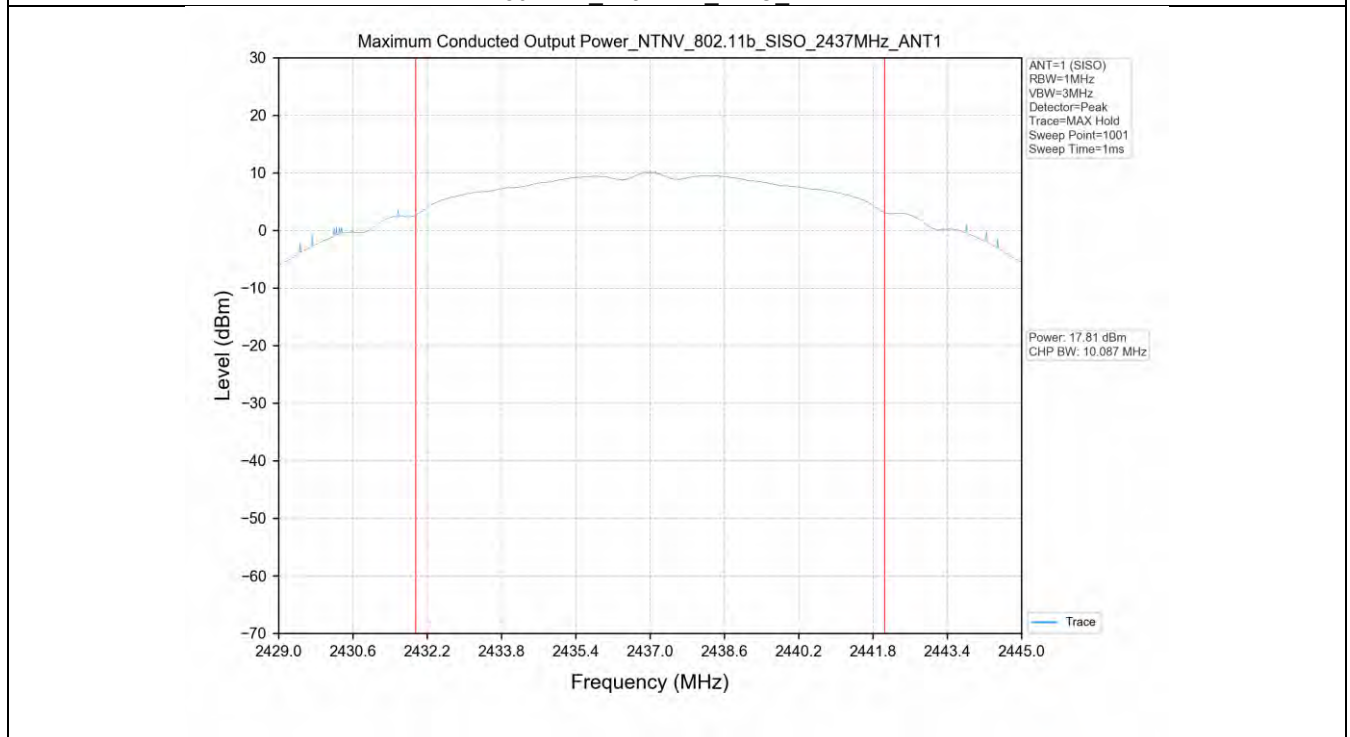
Test Mode	Frequency (MHz)	Tx Type	Measured Peak Output Power (dBm)	Limits (dBm)	Verdict
			Ant 1		
802.11b	2412	SISO	18.31	30	PASS
	2437	SISO	17.81	30	PASS
	2462	SISO	18.18	30	PASS
802.11g	2412	SISO	17.99	30	PASS
	2437	SISO	17.44	30	PASS
	2462	SISO	17.92	30	PASS
802.11n(HT20)	2412	SISO	17.98	30	PASS
	2437	SISO	17.52	30	PASS
	2462	SISO	17.85	30	PASS
802.11n(HT40)	2422	SISO	18.25	30	PASS
	2437	SISO	17.35	30	PASS
	2452	SISO	17.74	30	PASS

3.2 Test Graph

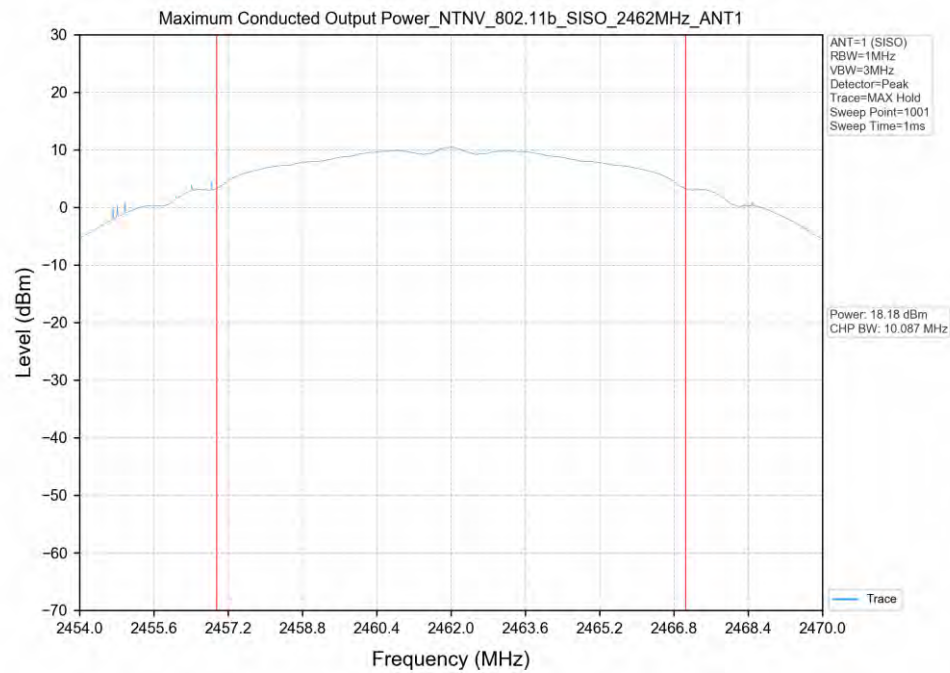
802.11b_2412MHz_SISO_ANT1



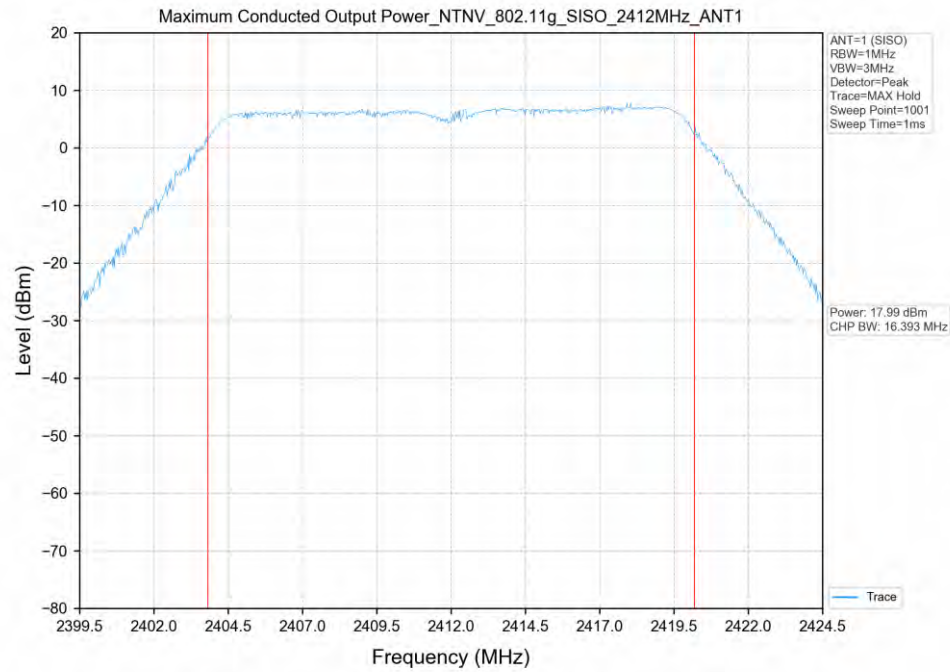
802.11b_2437MHz_SISO_ANT1



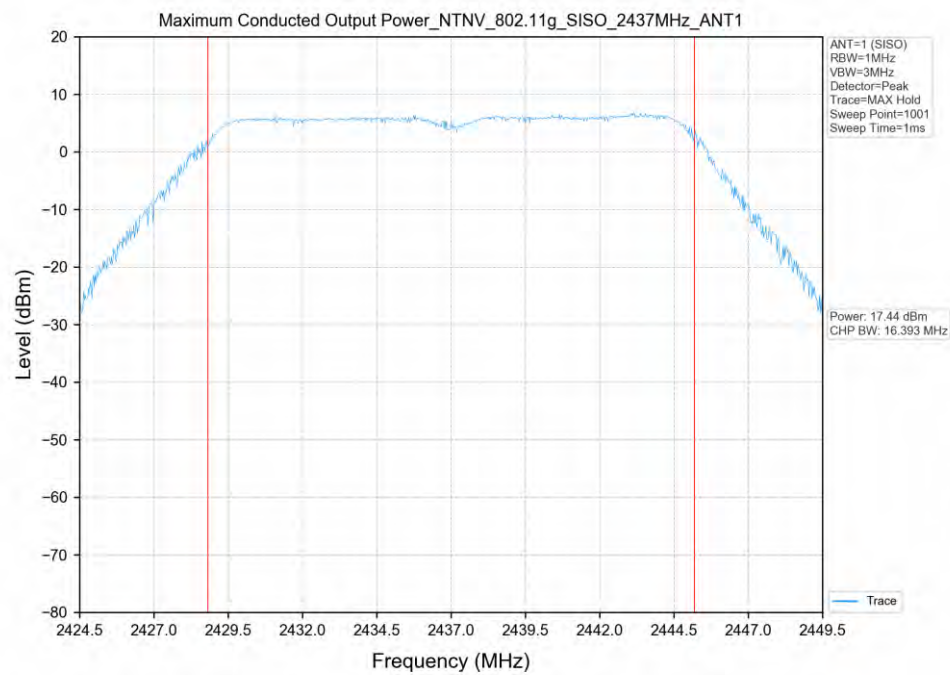
802.11b_2462MHz_SISO_ANT1



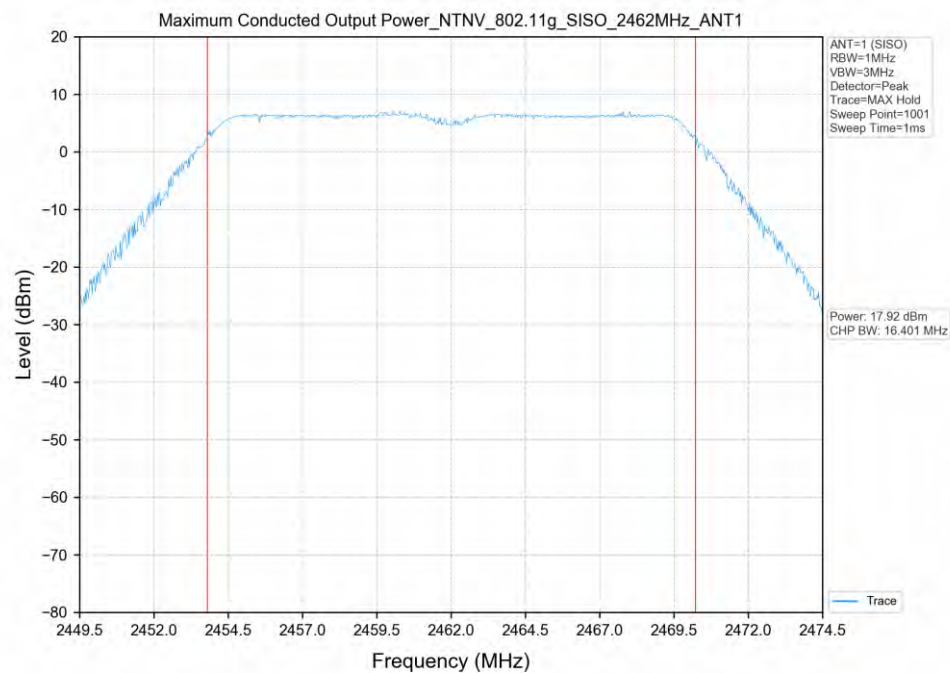
802.11g_2412MHz_SISO_ANT1



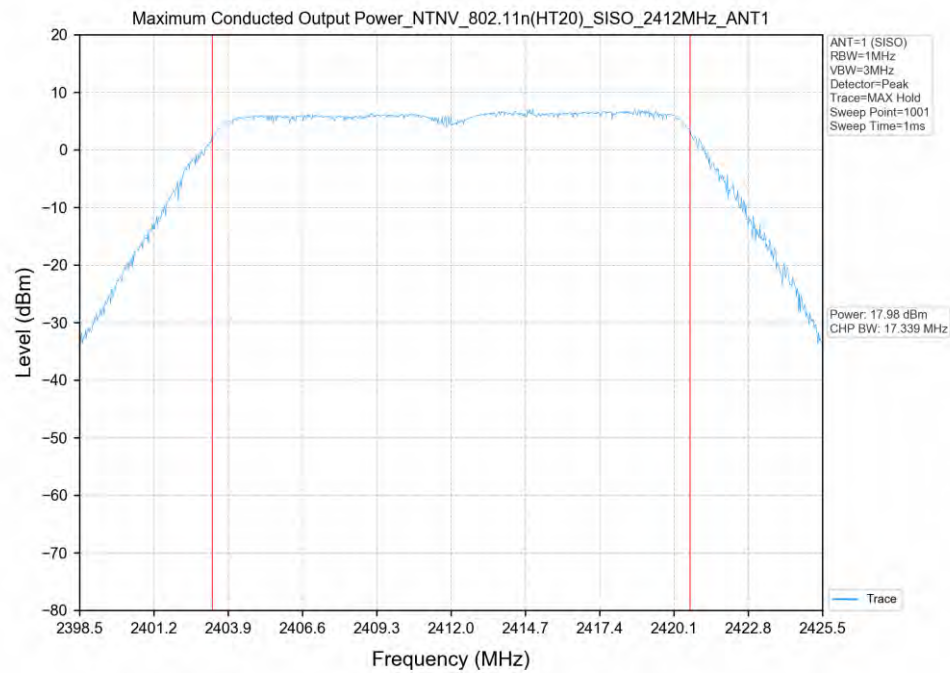
802.11g_2437MHz_SISO_ANT1



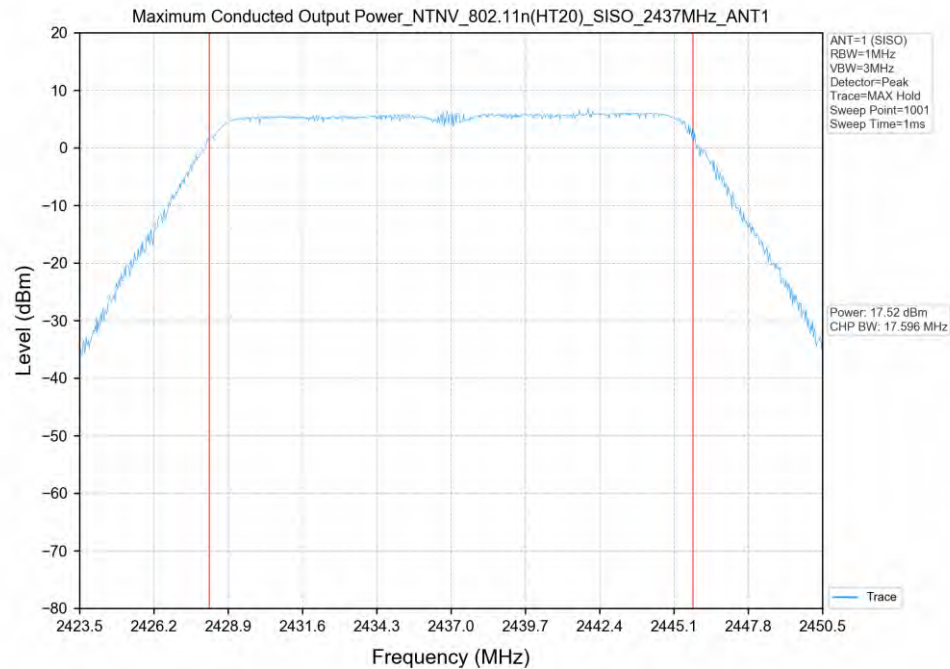
802.11g_2462MHz_SISO_ANT1



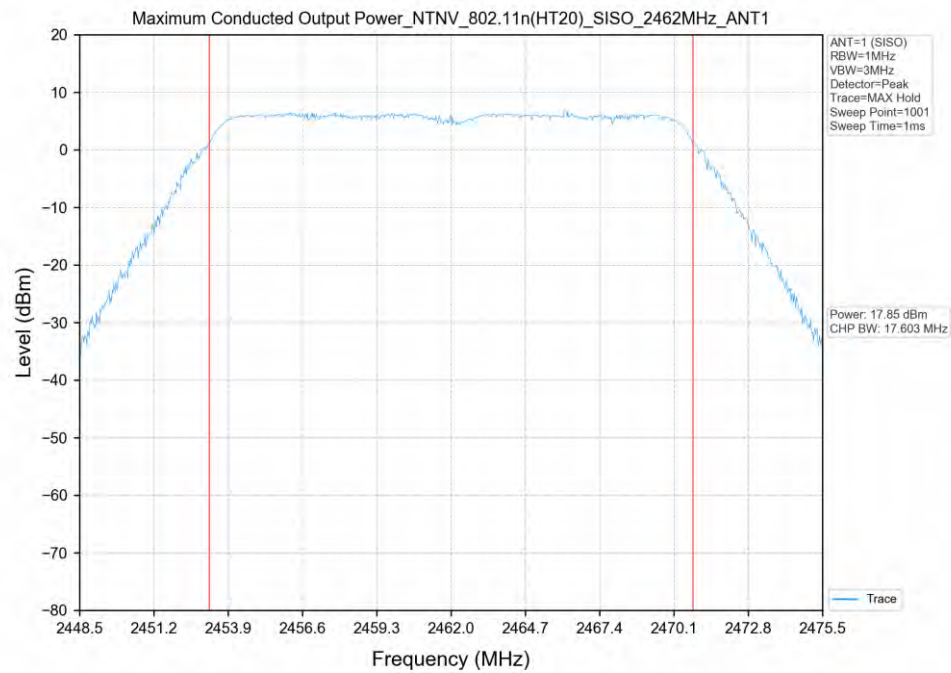
802.11n(HT20)_2412MHz_SISO_ANT1



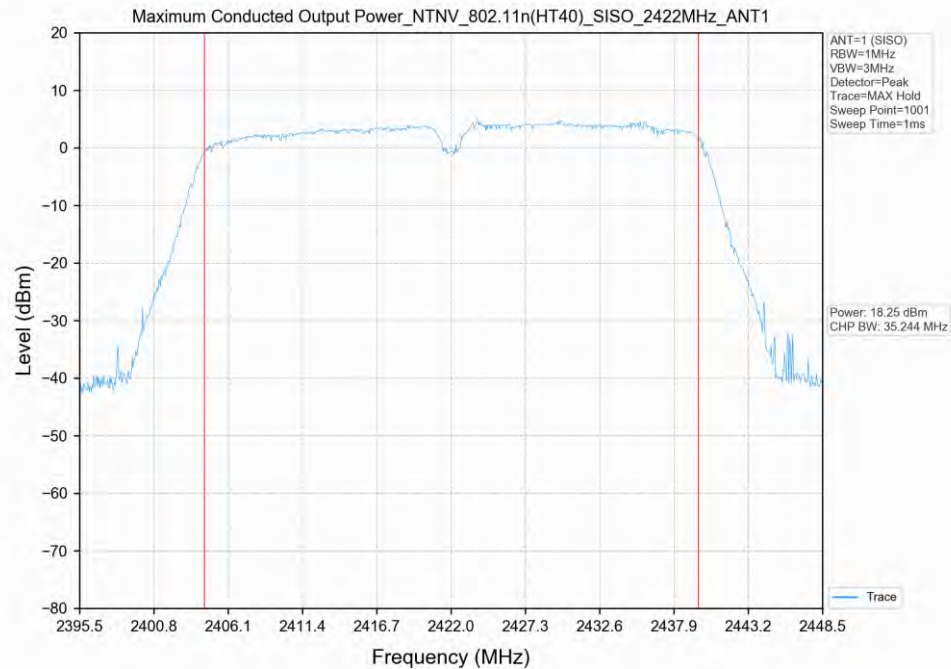
802.11n(HT20)_2437MHz_SISO_ANT1



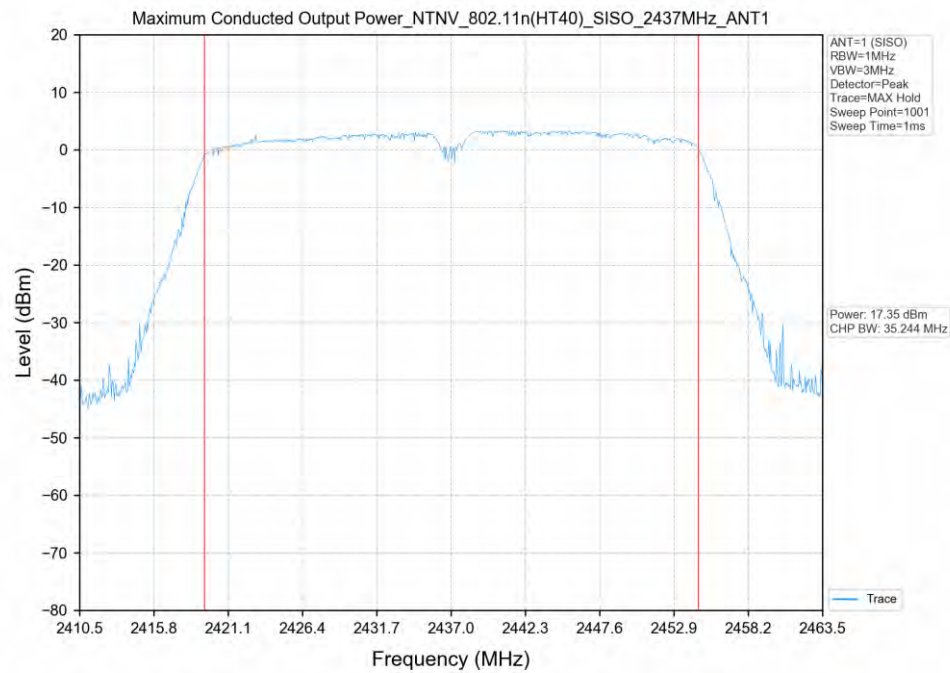
802.11n(HT20)_2462MHz_SISO_ANT1



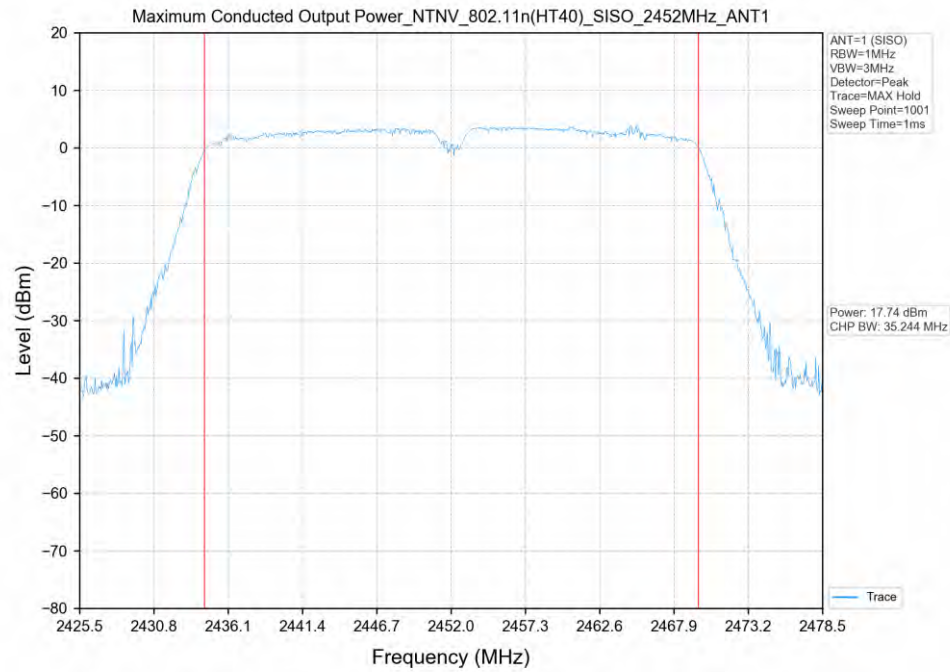
802.11n(HT40)_2422MHz_SISO_ANT1



802.11n(HT40)_2437MHz_SISO_ANT1



802.11n(HT40)_2452MHz_SISO_ANT1



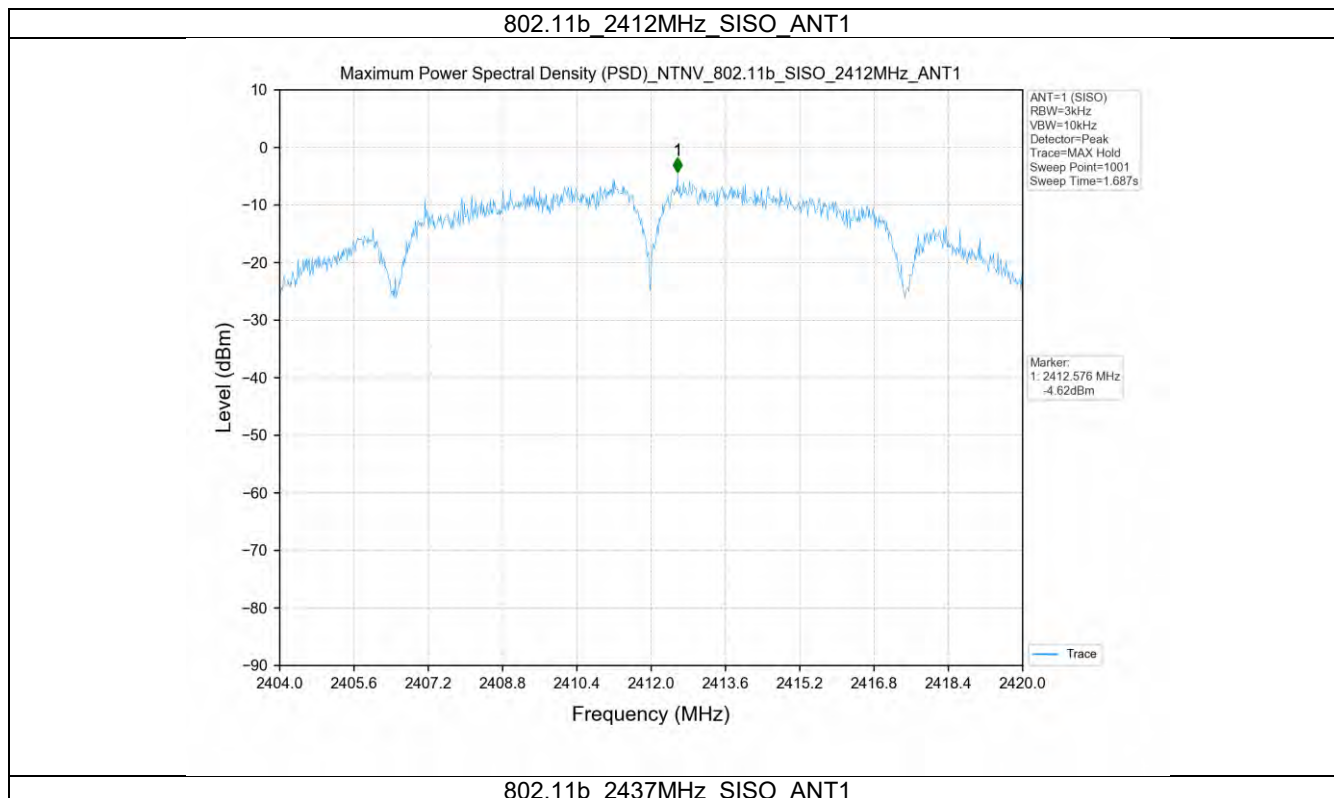


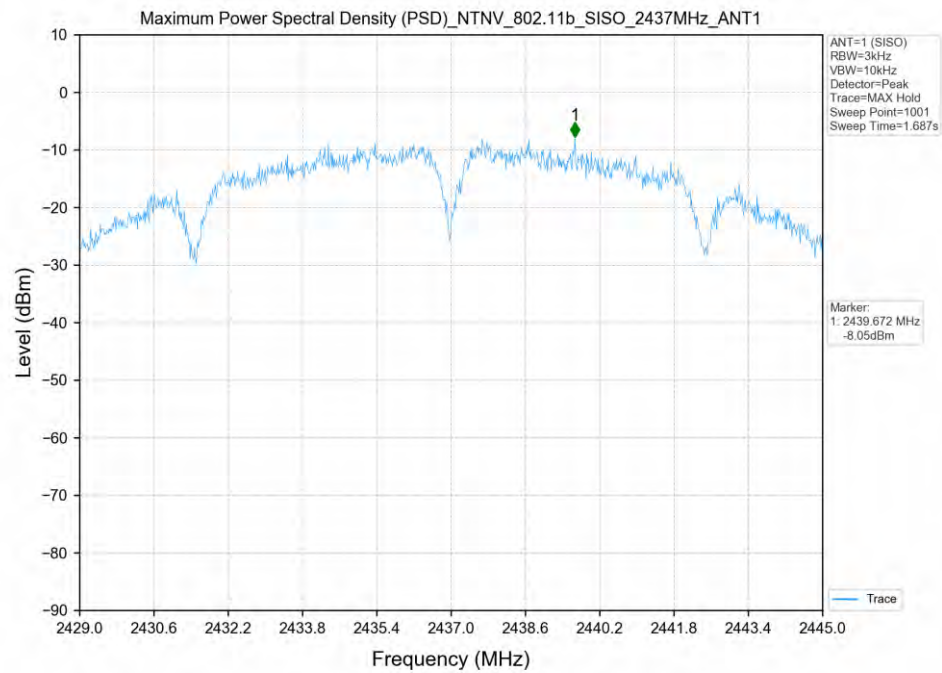
4. Maximum Power Spectral Density (PSD)

4.1 Test Result

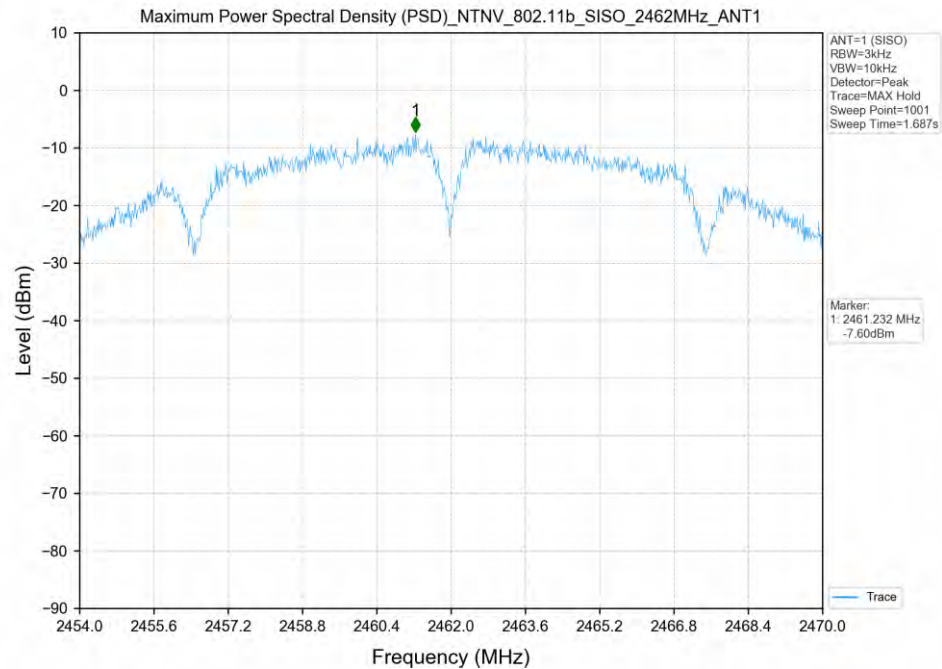
Test Mode	Frequency (MHz)	Tx Type	Maximum Power Spectral Density (dBm/3KHz)	Limits (dBm/3KHz)	Verdict
			Ant 1		
802.11b	2412	SISO	-4.62	≤8	PASS
	2437	SISO	-8.05	≤8	PASS
	2462	SISO	-7.60	≤8	PASS
802.11g	2412	SISO	-13.72	≤8	PASS
	2437	SISO	-15.67	≤8	PASS
	2462	SISO	-15.61	≤8	PASS
802.11n(HT20)	2412	SISO	-15.13	≤8	PASS
	2437	SISO	-14.82	≤8	PASS
	2462	SISO	-15.76	≤8	PASS
802.11n(HT40)	2422	SISO	-17.65	≤8	PASS
	2437	SISO	-19.26	≤8	PASS
	2452	SISO	-18.03	≤8	PASS

4.2 Test Graph

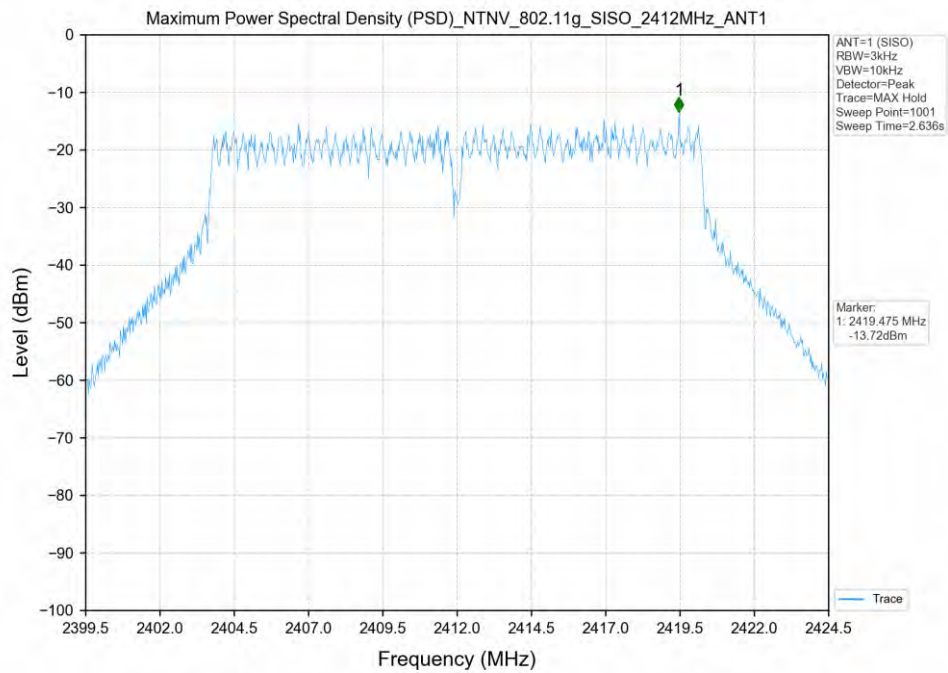




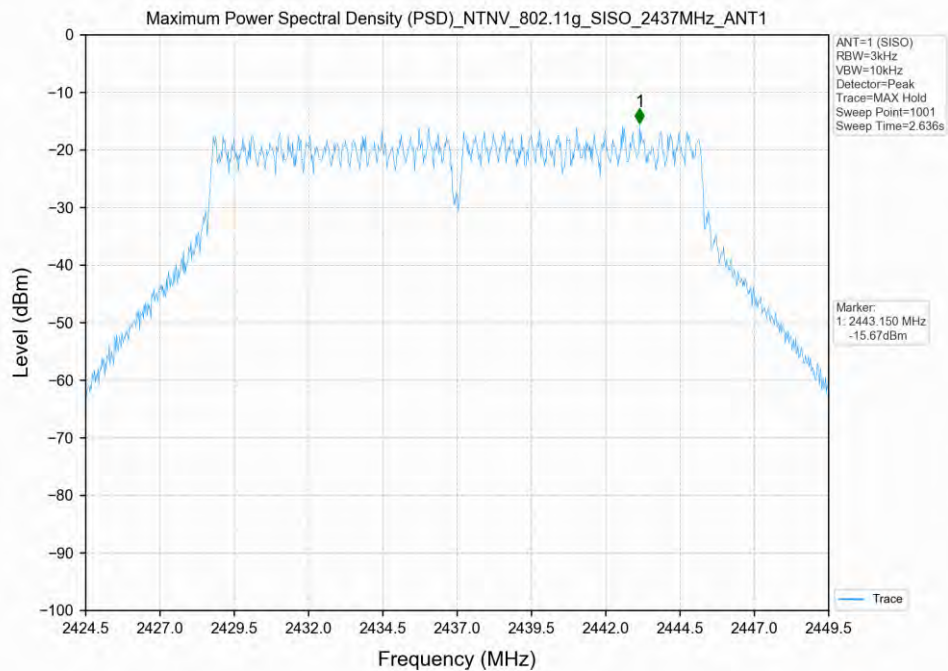
802.11b_2462MHz_SISO_ANT1



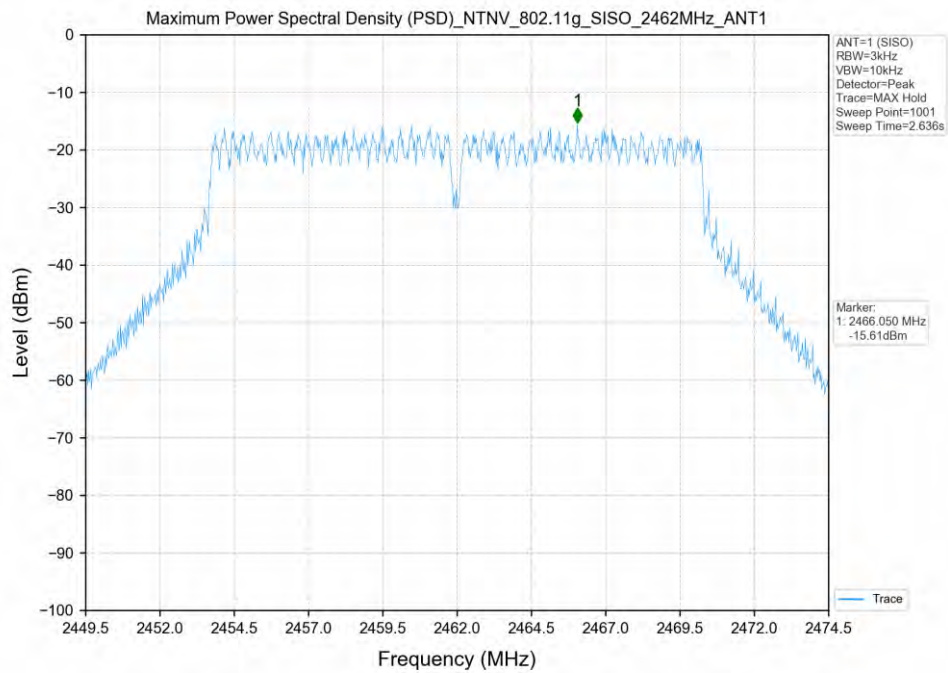
802.11g_2412MHz_SISO_ANT1



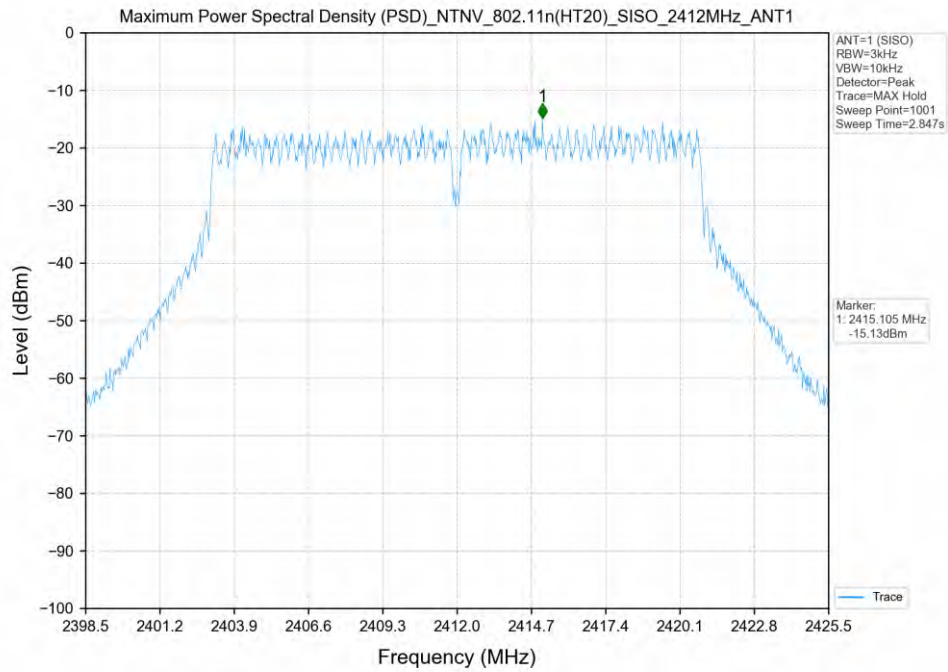
802.11g_2437MHz_SISO_ANT1



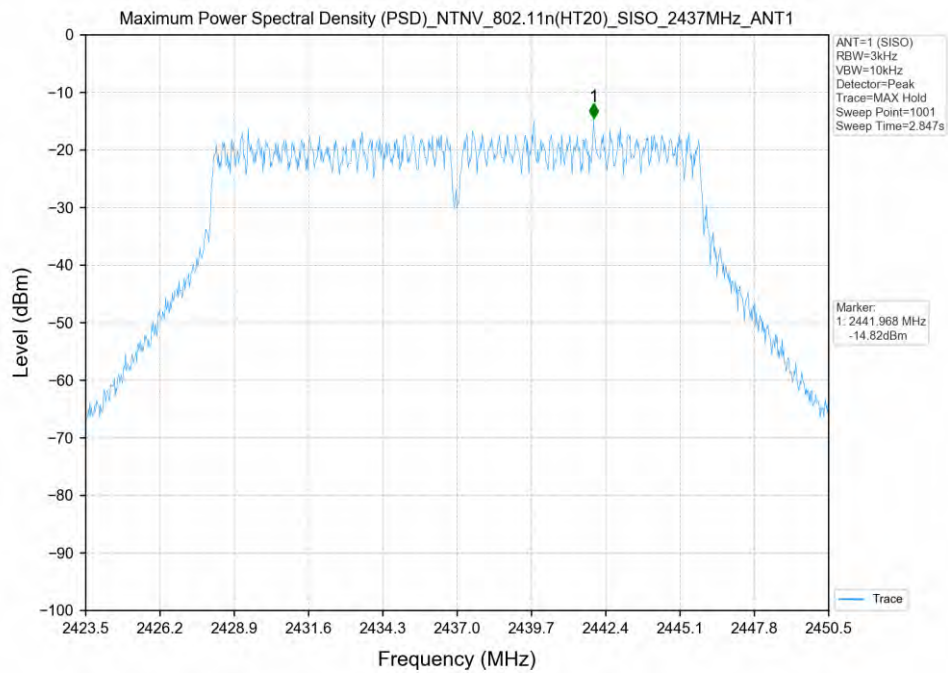
802.11g_2462MHz_SISO_ANT1



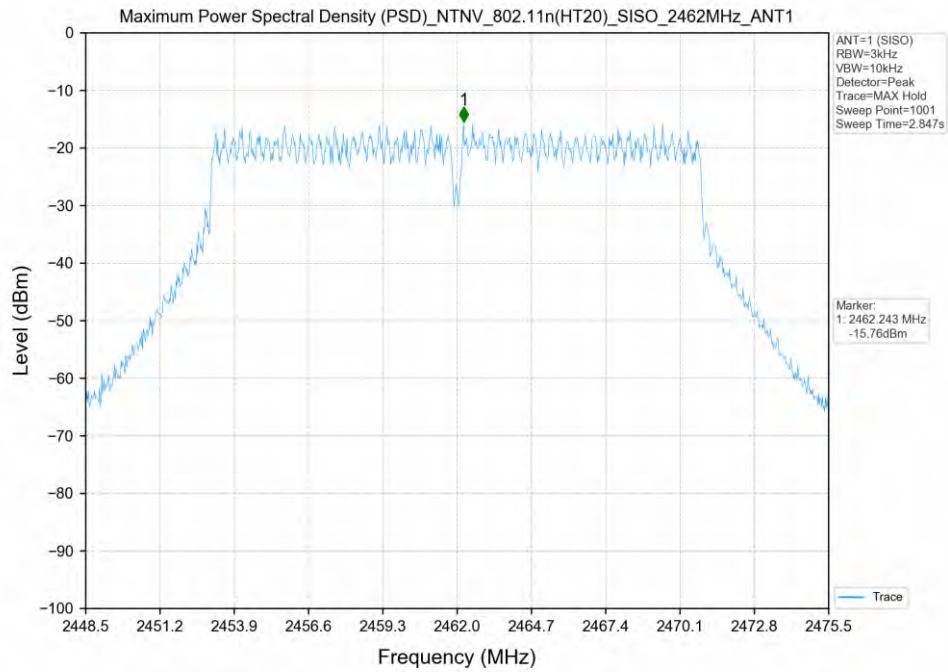
802.11n(HT20)_2412MHz_SISO_ANT1



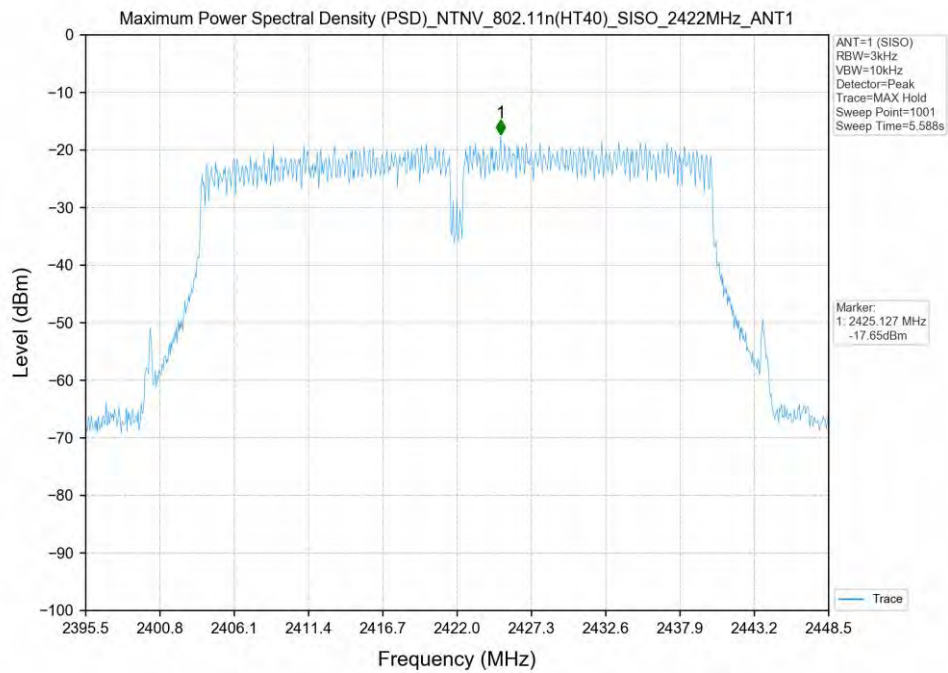
802.11n(HT20)_2437MHz_SISO_ANT1



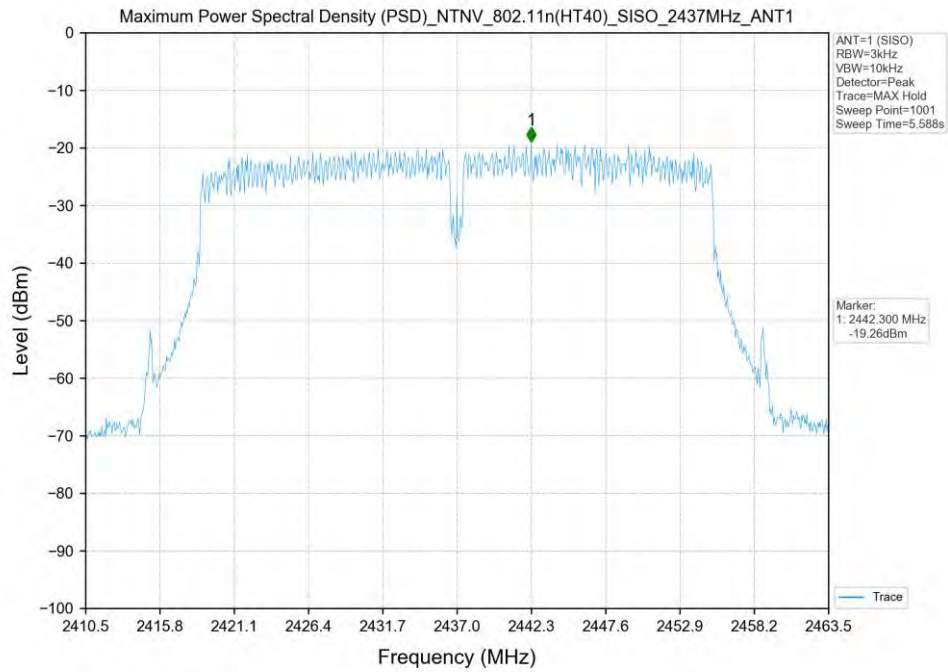
802.11n(HT20)_2462MHz_SISO_ANT1



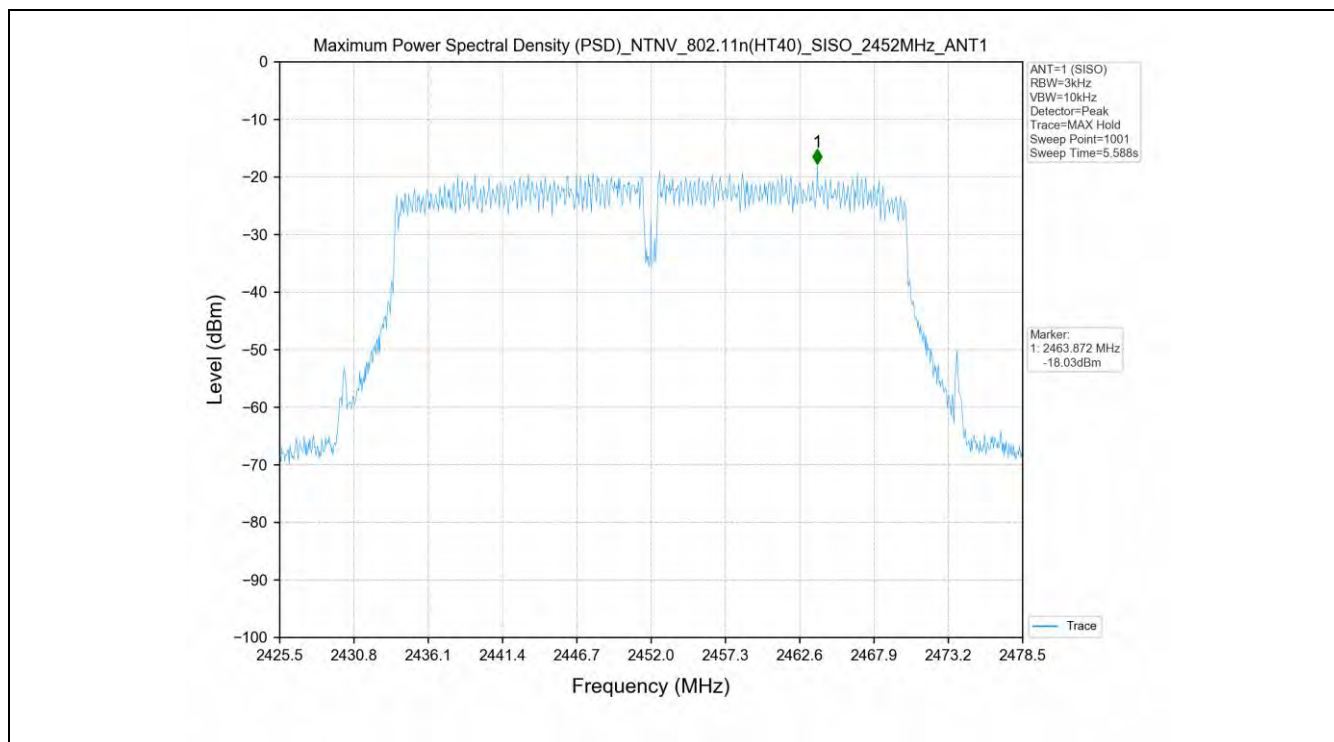
802.11n(HT40)_2422MHz_SISO_ANT1



802.11n(HT40)_2437MHz_SISO_ANT1



802.11n(HT40)_2452MHz_SISO_ANT1



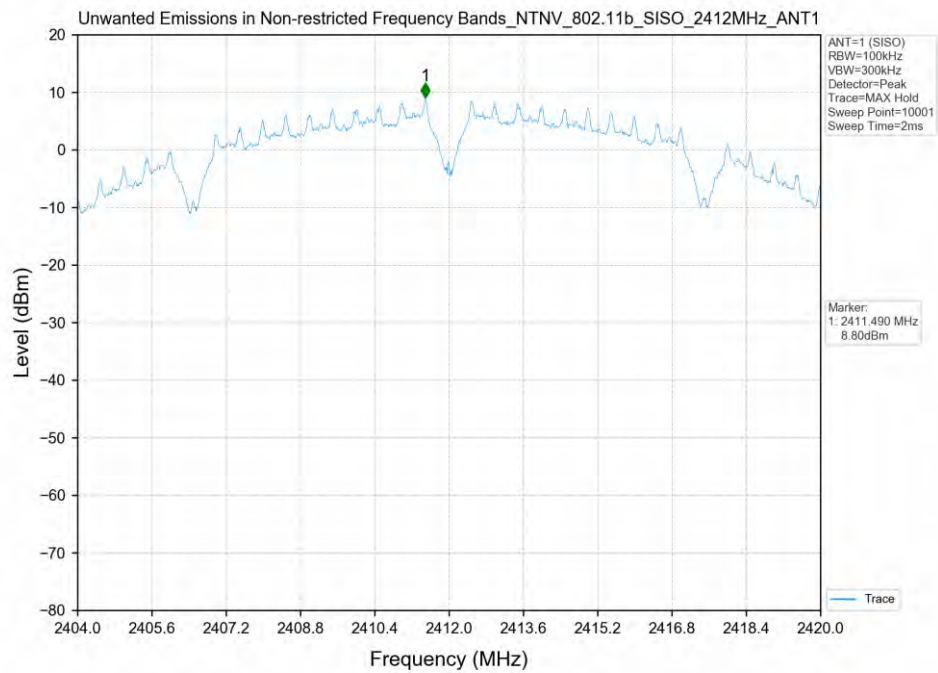
5. Unwanted Emissions in Non-restricted Frequency Bands

5.1 Test Result

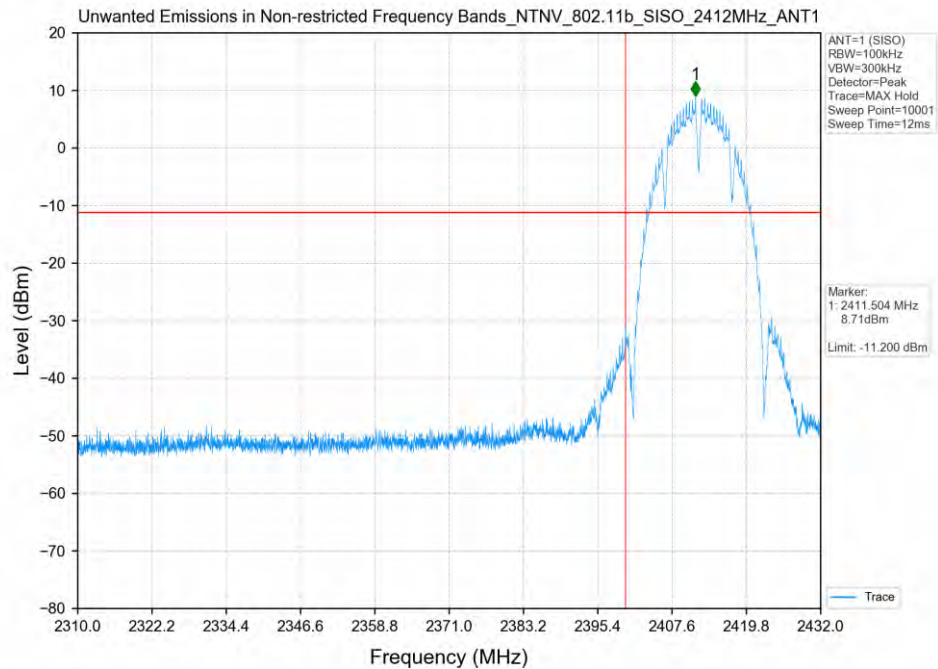
Test Mode	Frequency (MHz)	TX Type	ANT No.	Spurious Conducted Emission (dBm)	Limits (dBc)	Verdict
802.11b	2412	SISO	1	Refer to test graph	≤ -20	PASS
	2437	SISO	1	Refer to test graph	≤ -20	PASS
	2462	SISO	1	Refer to test graph	≤ -20	PASS
802.11g	2412	SISO	1	Refer to test graph	≤ -20	PASS
	2437	SISO	1	Refer to test graph	≤ -20	PASS
	2462	SISO	1	Refer to test graph	≤ -20	PASS
802.11n(HT20)	2412	SISO	1	Refer to test graph	≤ -20	PASS
	2437	SISO	1	Refer to test graph	≤ -20	PASS
	2462	SISO	1	Refer to test graph	≤ -20	PASS
802.11n(HT40)	2422	SISO	1	Refer to test graph	≤ -20	PASS
	2437	SISO	1	Refer to test graph	≤ -20	PASS
	2452	SISO	1	Refer to test graph	≤ -20	PASS

5.2 Test Graph

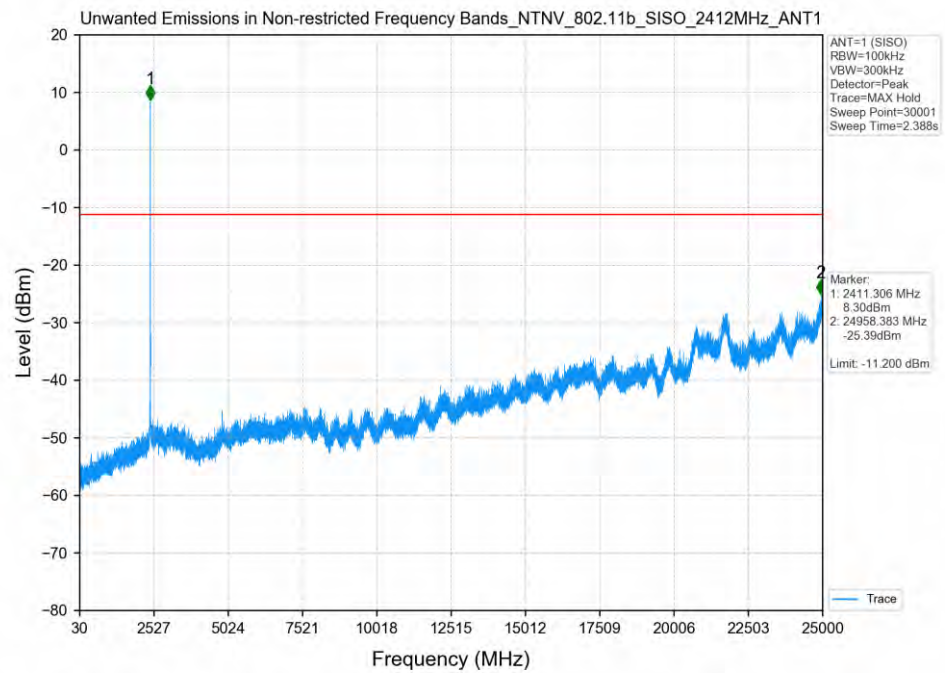
802.11b_SISO_ANT1_REF



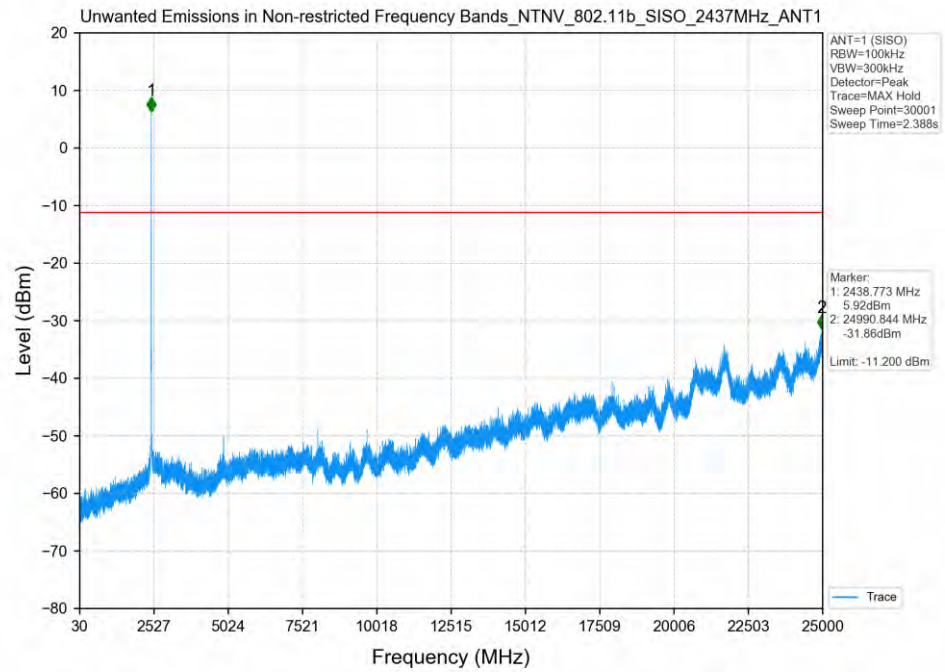
802.11b_2412MHz_SISO_ANT1



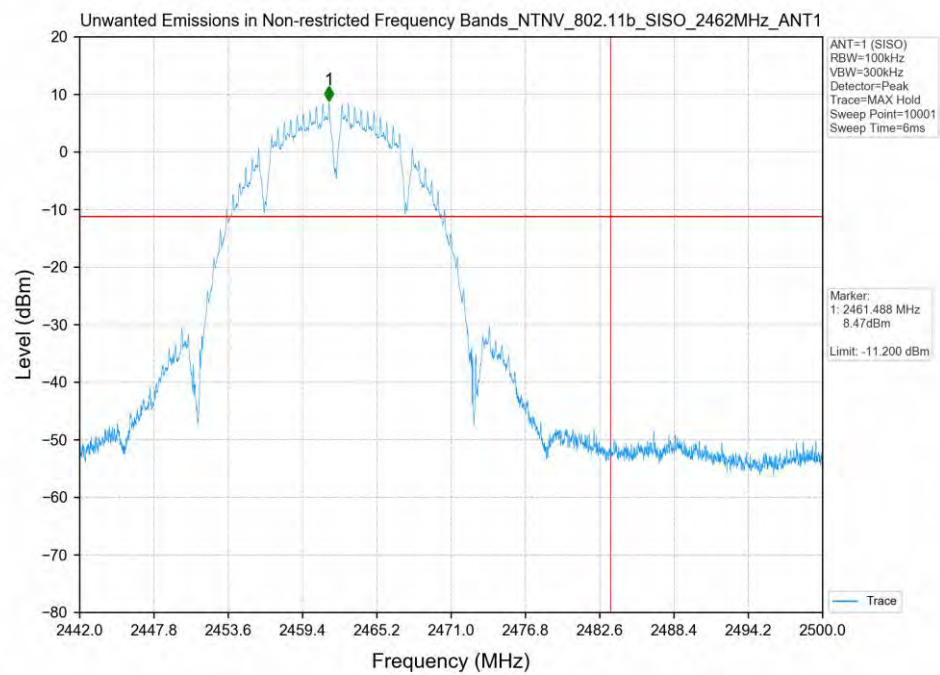
802.11b_2412MHz_SISO_ANT1



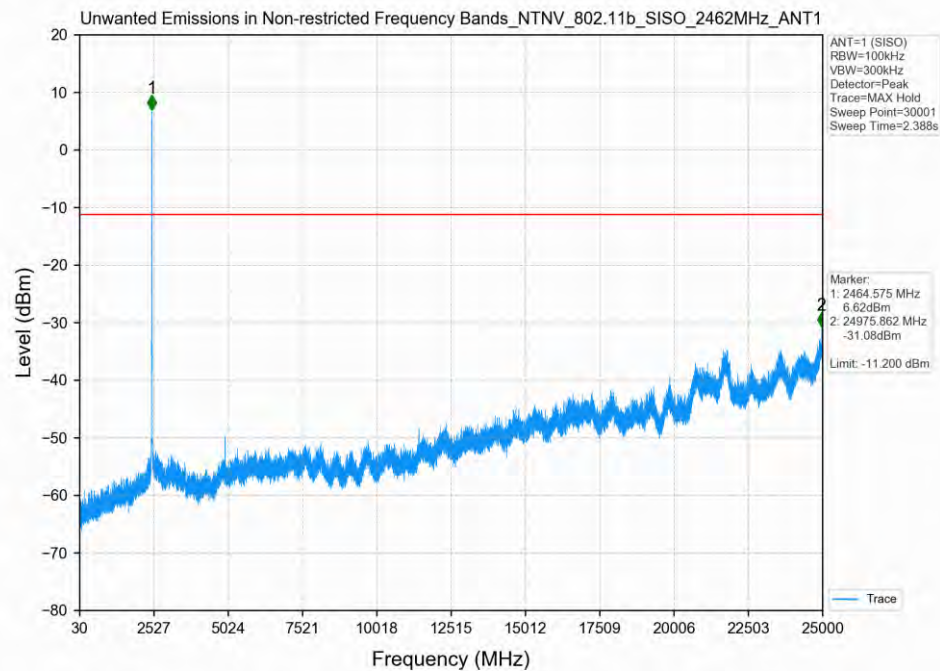
802.11b_2437MHz_SISO_ANT1



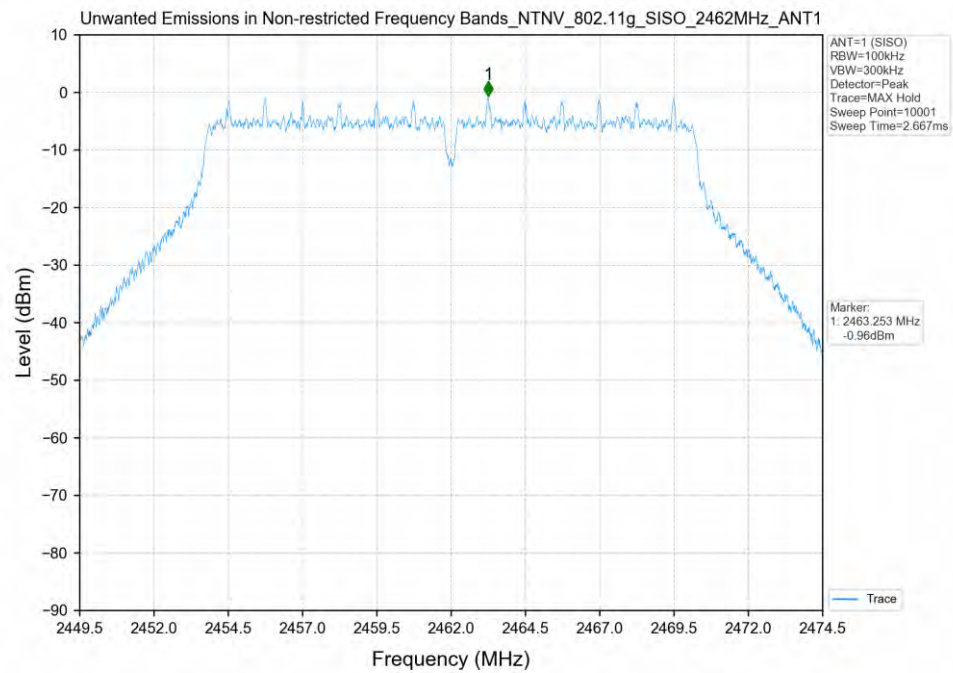
802.11b_2462MHz_SISO_ANT1



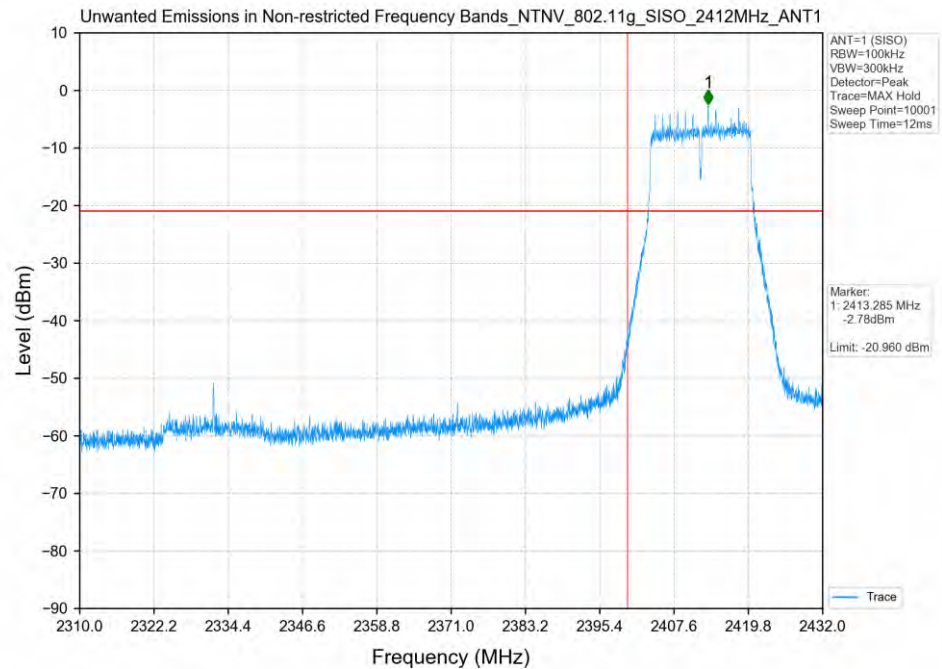
802.11b_2462MHz_SISO_ANT1



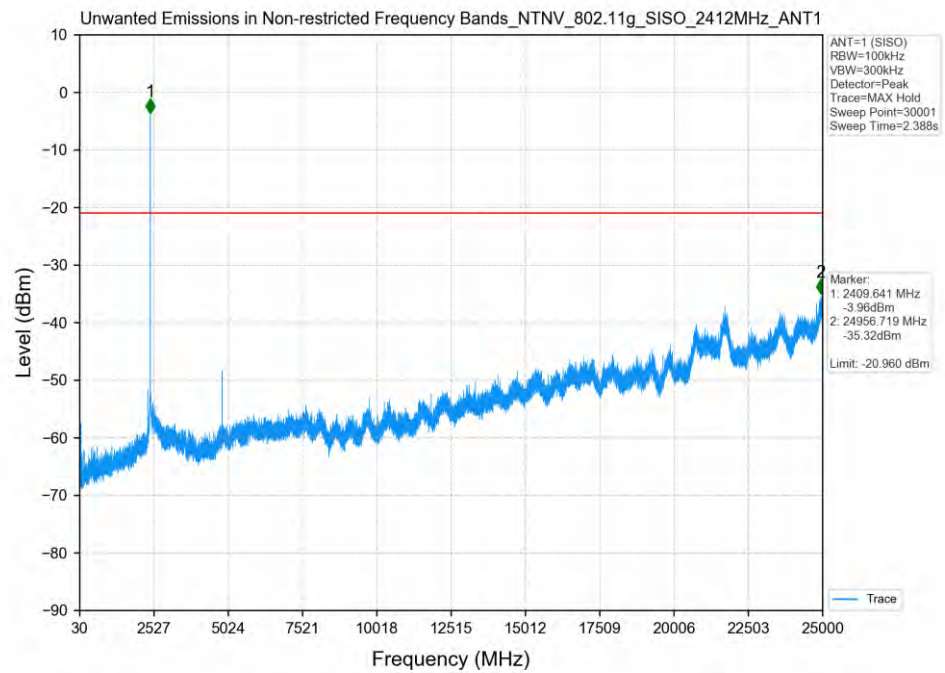
802.11g_SISO_ANT1_REF



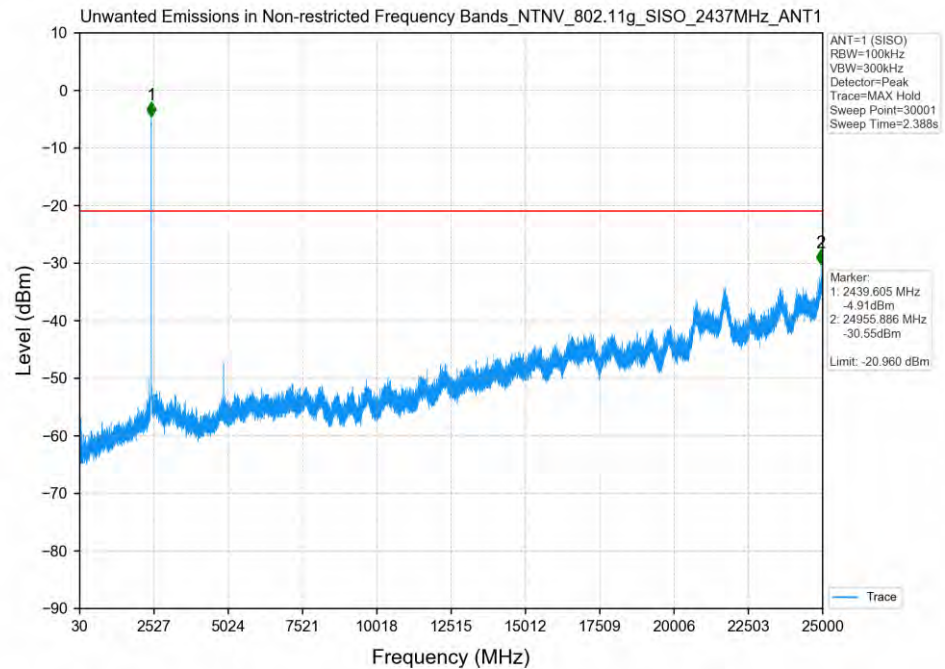
802.11g_2412MHz_SISO_ANT1



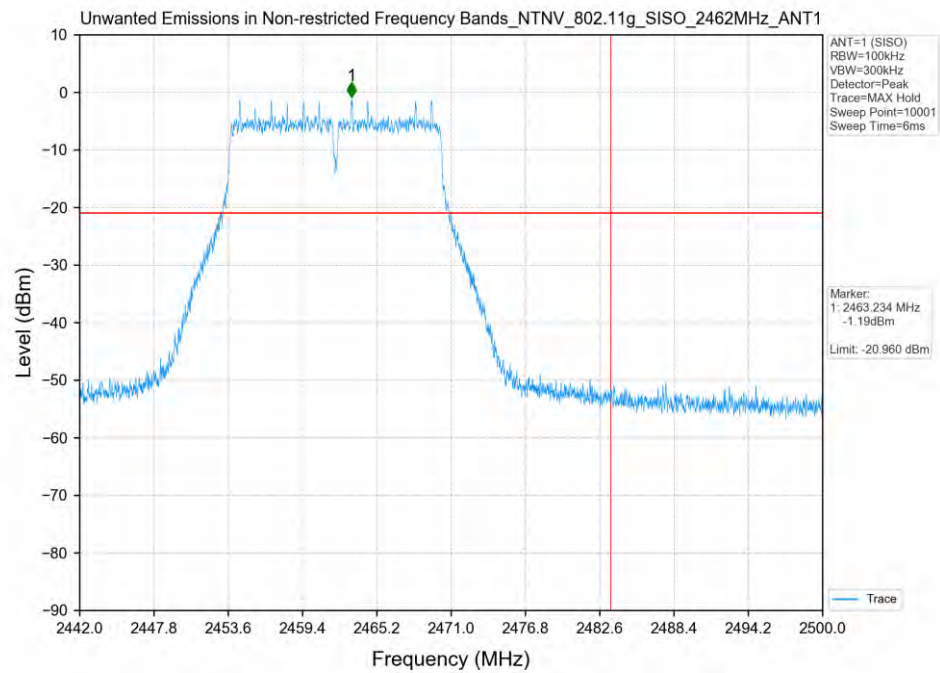
802.11g_2412MHz_SISO_ANT1



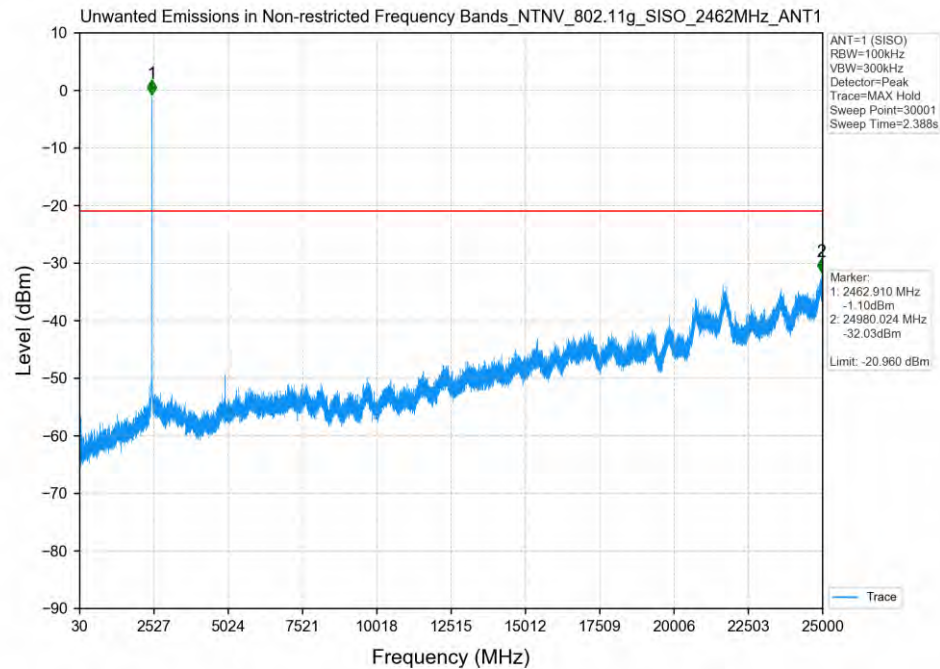
802.11g_2437MHz_SISO_ANT1



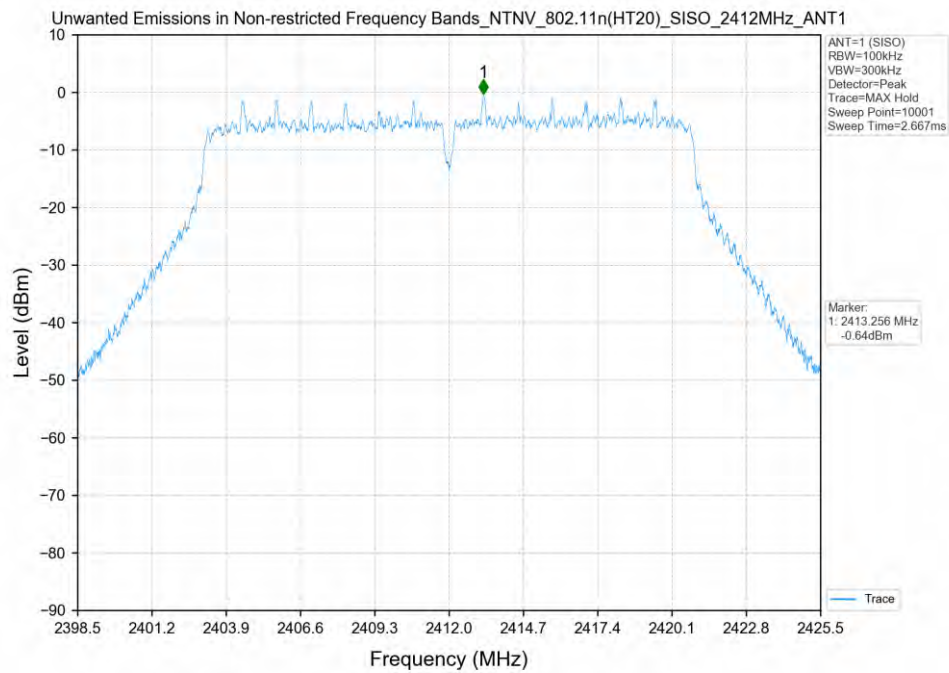
802.11g_2462MHz_SISO_ANT1



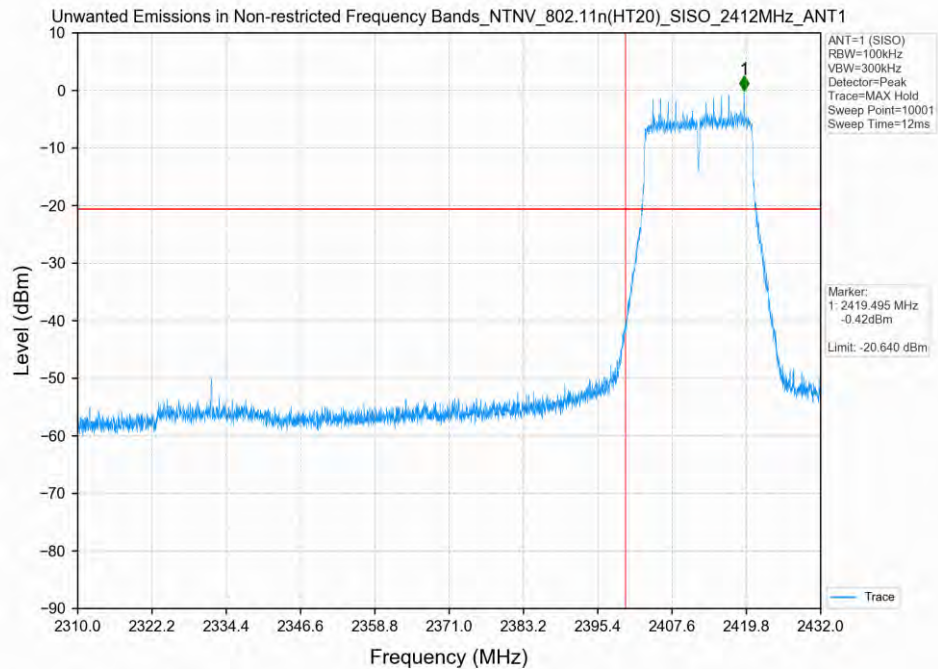
802.11g_2462MHz_SISO_ANT1



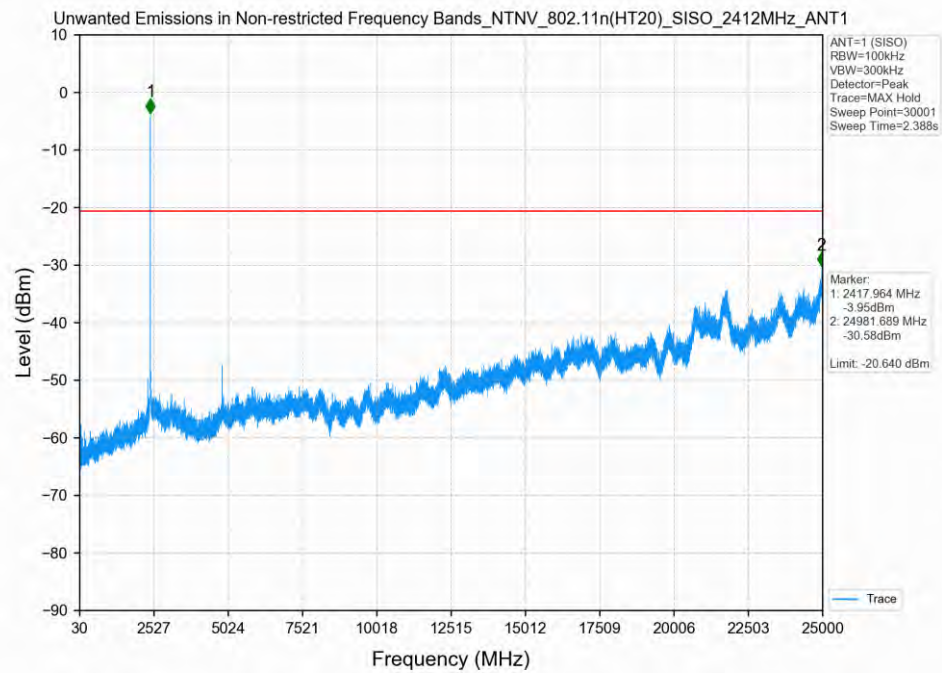
802.11n(HT20)_SISO_ANT1_REF



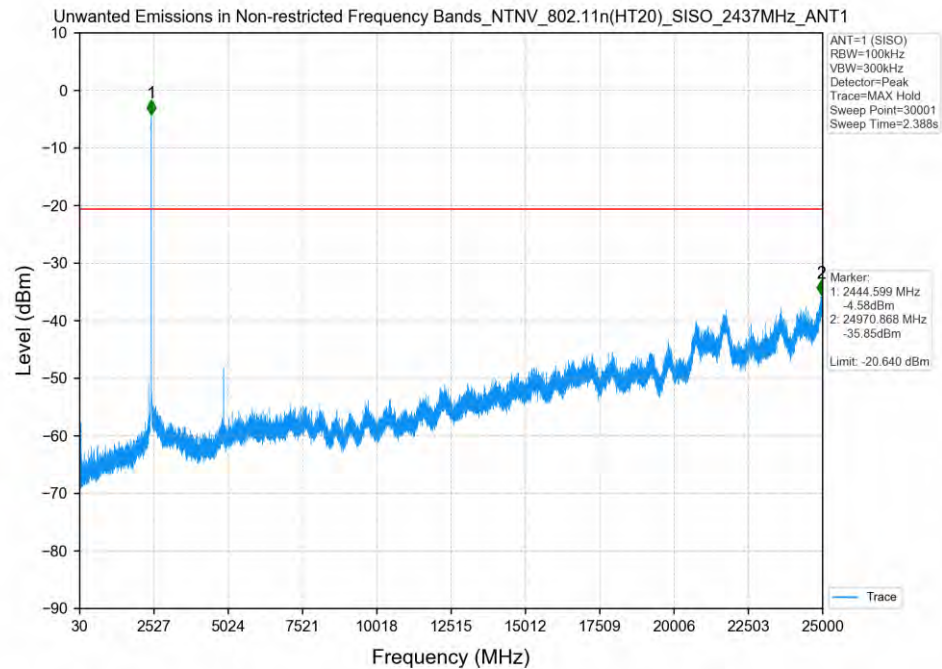
802.11n(HT20)_2412MHz_SISO_ANT1



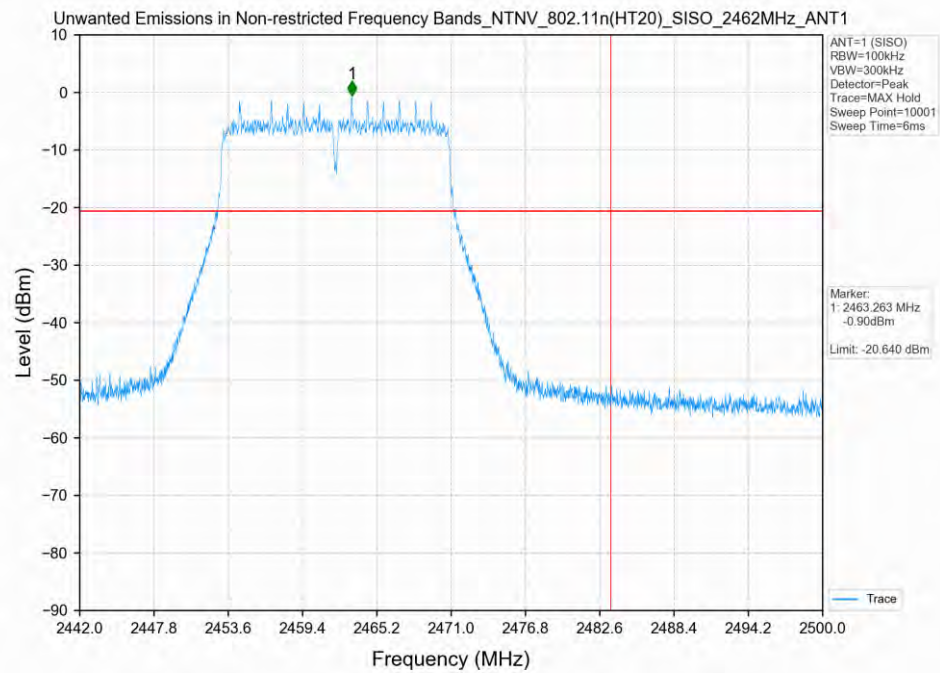
802.11n(HT20)_2412MHz_SISO_ANT1



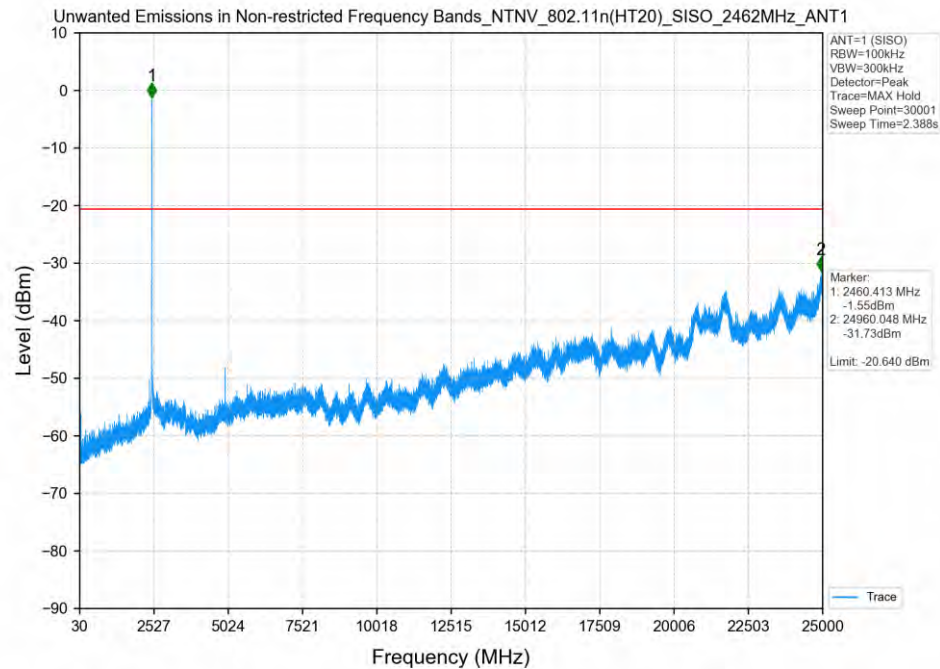
802.11n(HT20)_2437MHz_SISO_ANT1



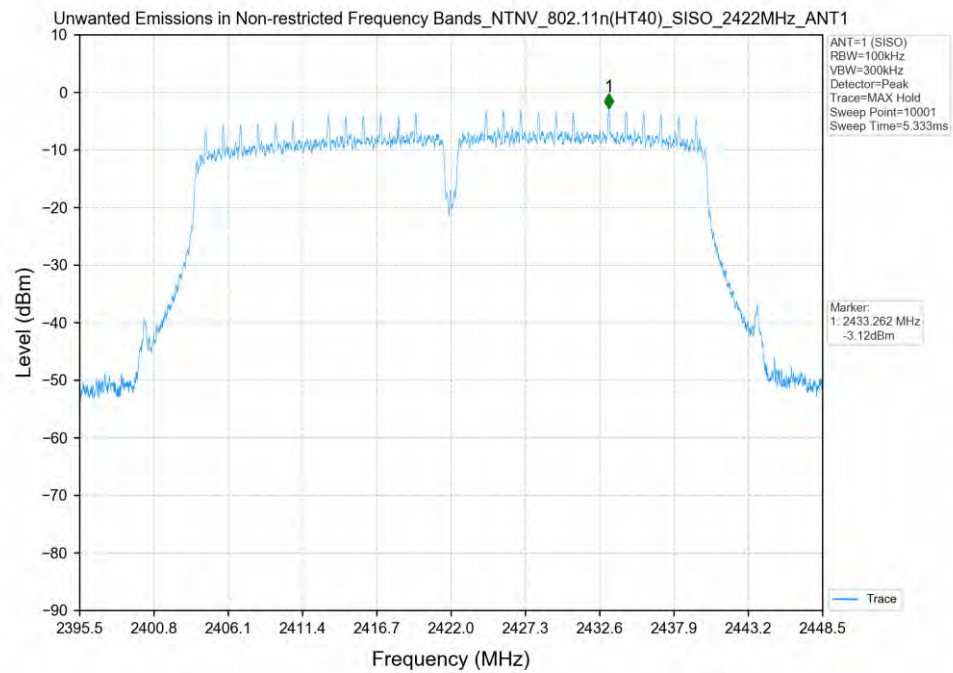
802.11n(HT20)_2462MHz_SISO_ANT1



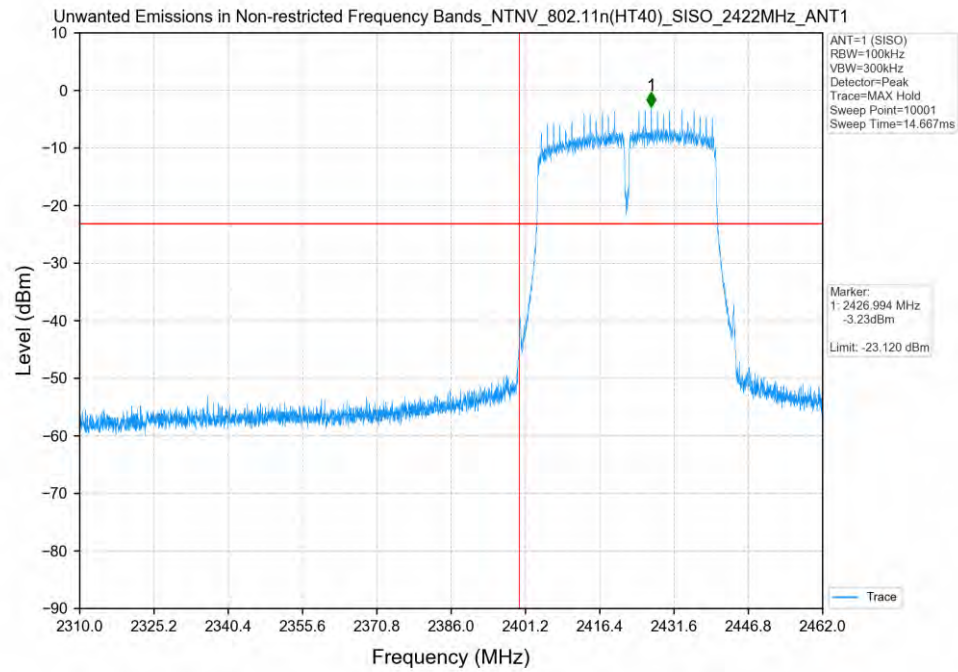
802.11n(HT20)_2462MHz_SISO_ANT1



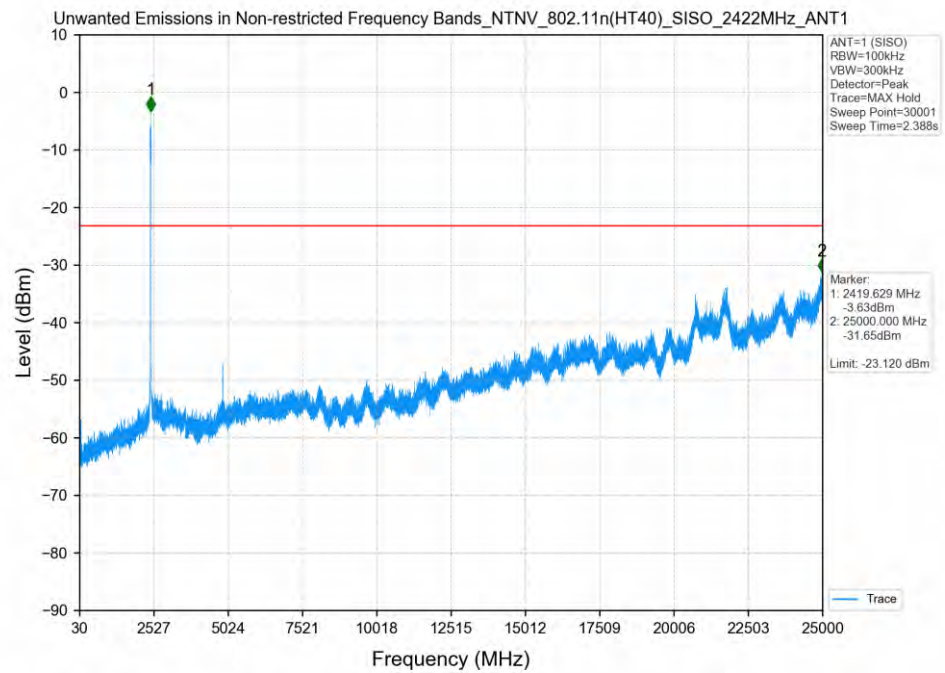
802.11n(HT40)_SISO_ANT1_REF



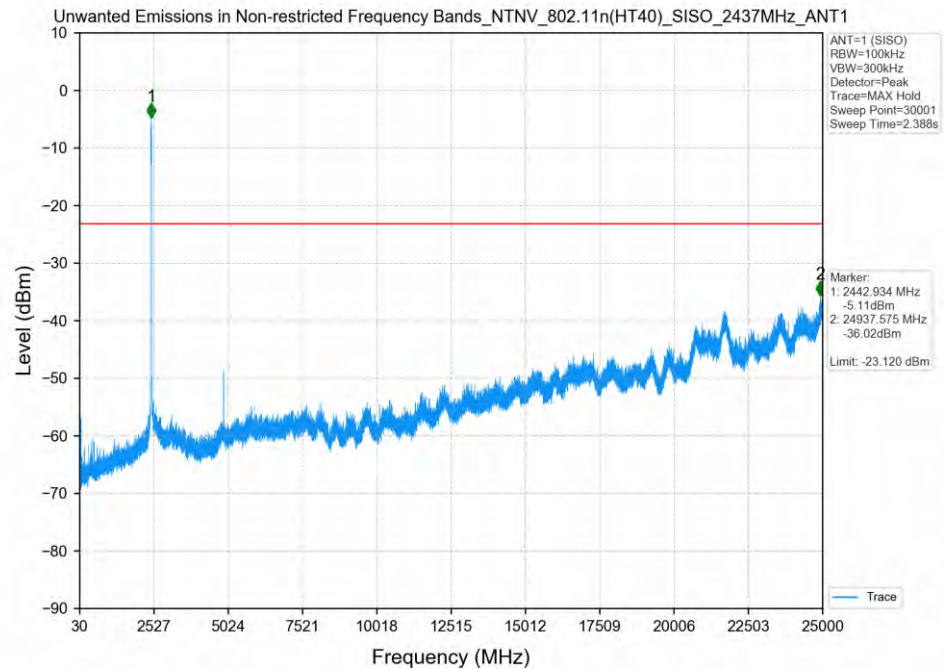
802.11n(HT40)_2422MHz_SISO_ANT1



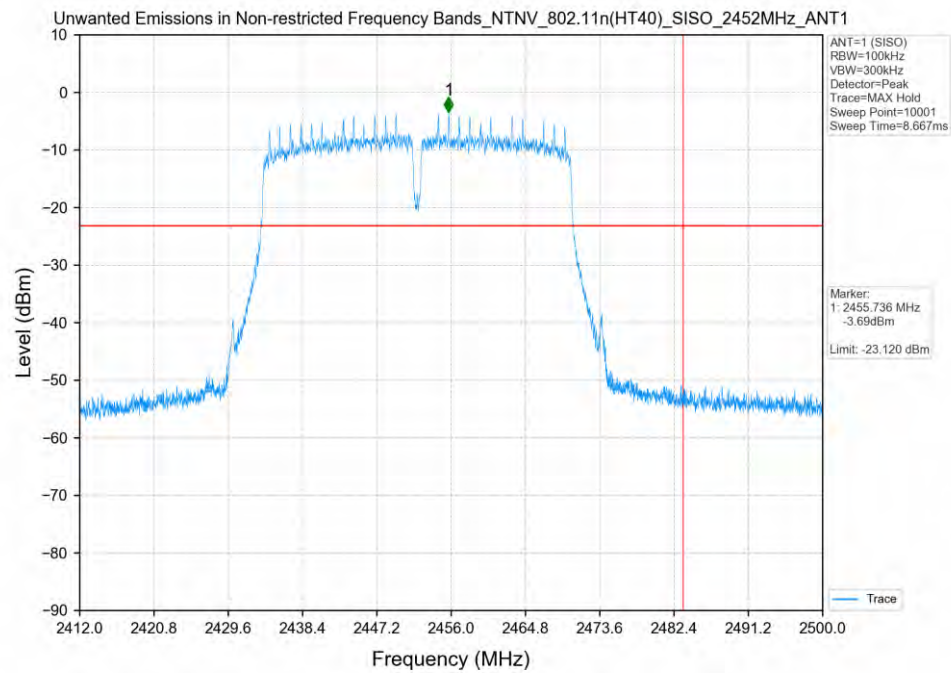
802.11n(HT40)_2422MHz_SISO_ANT1



802.11n(HT40)_2437MHz_SISO_ANT1



802.11n(HT40)_2452MHz_SISO_ANT1



802.11n(HT40)_2452MHz_SISO_ANT1

