

Appendix RF test data for WIFI2.4G

1. Duty Cycle

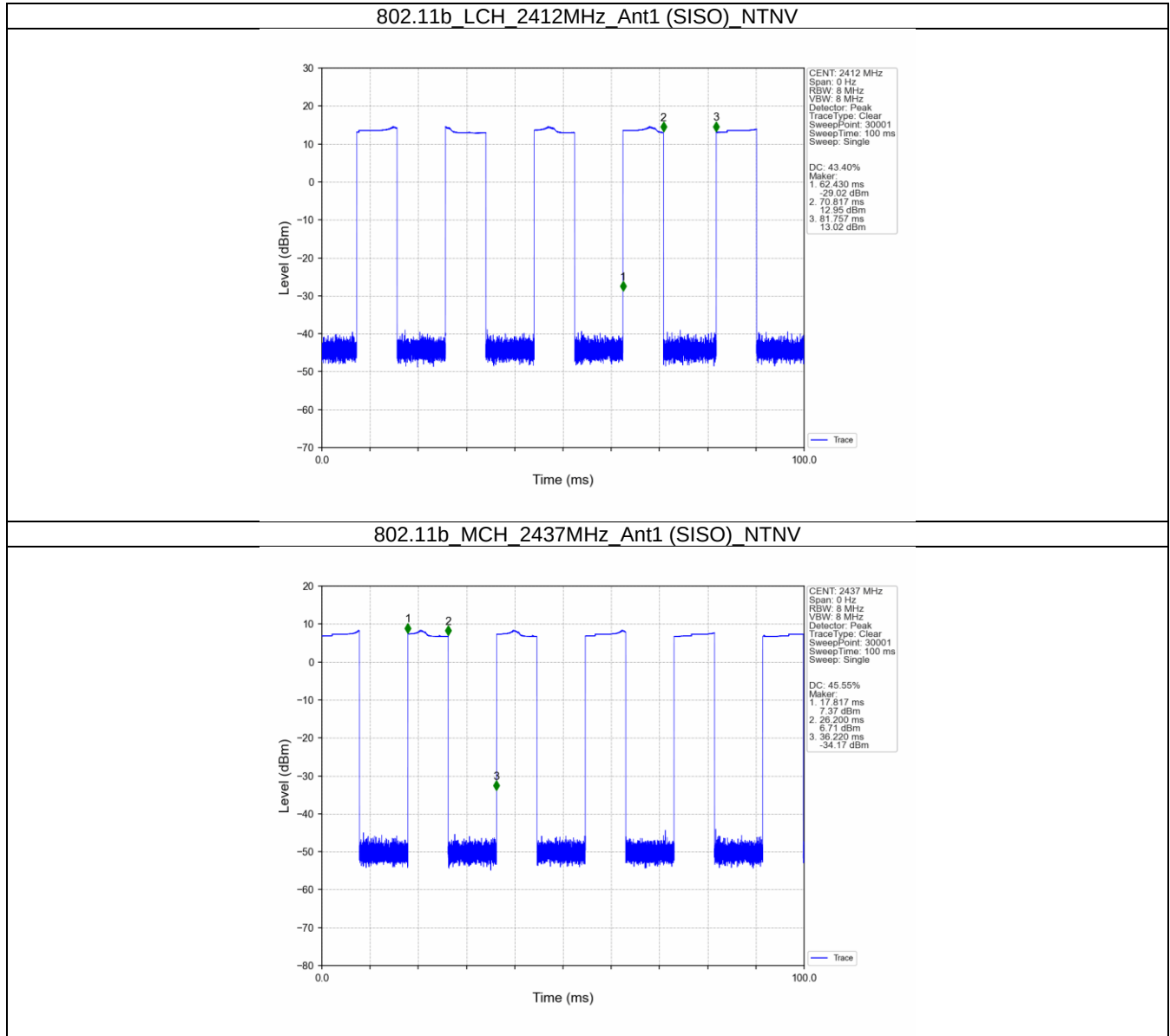
1.1 Test Result

1.1.1 Ant1

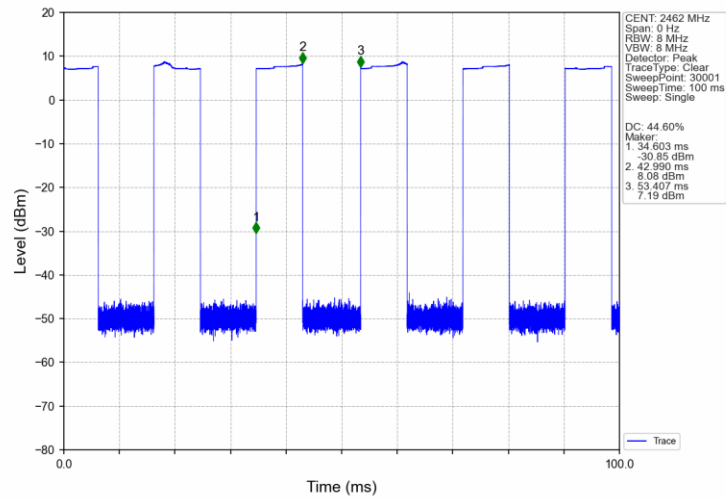
Ant1							
Mode	TX Type	Frequency (MHz)	T_on (ms)	Period (ms)	Duty Cycle (%)	Duty Cycle Correction Factor (dB)	Max. DC Variation (%)
802.11b	SISO	2412	8.387	19.327	43.40	3.63	2.18
		2437	8.383	18.403	45.55	3.41	0.03
		2462	8.387	18.804	44.60	3.51	0.96
802.11g	SISO	2412	0.706	12.953	5.45	12.64	1.17
		2437	0.707	10.733	6.59	11.81	0.04
		2462	0.710	17.557	4.04	13.93	2.59
802.11n (HT20)	SISO	2412	5.084	15.304	33.22	4.79	0.44
		2437	5.080	15.103	33.64	4.73	0.00
		2462	5.080	16.973	29.93	5.24	3.73
802.11n (HT40)	SISO	2422	4.894	14.917	32.81	4.84	0.01
		2437	4.890	14.913	32.79	4.84	0.02
		2452	4.890	16.437	29.75	5.27	3.06

1.2 Test Graph

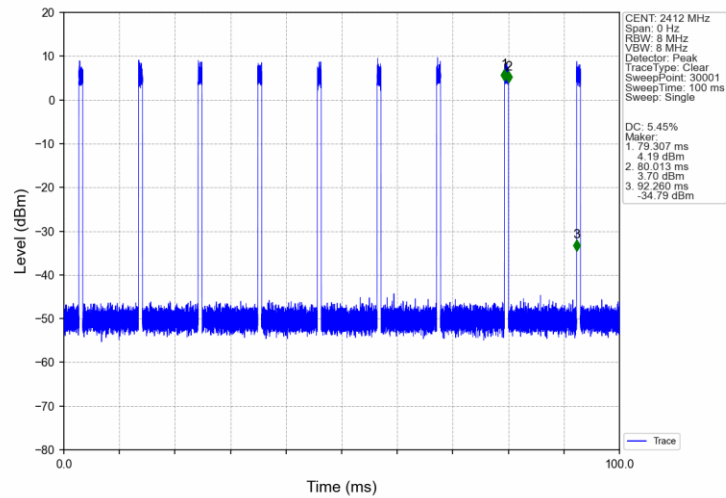
1.2.1 Ant1



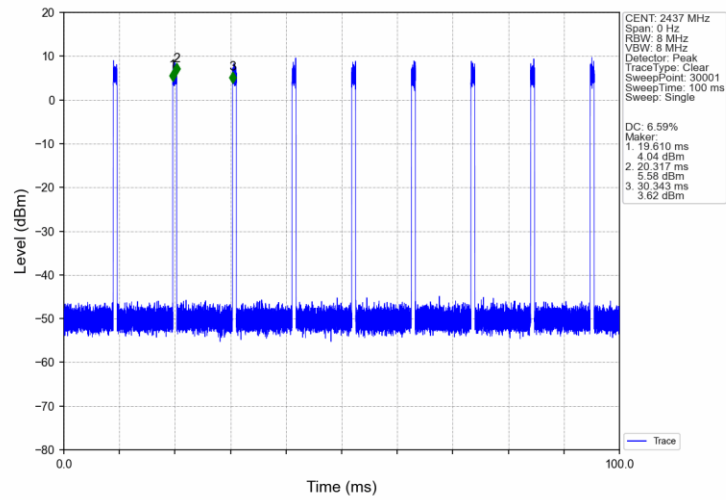
802.11b_HCH_2462MHz_Ant1 (SISO)_NTNV



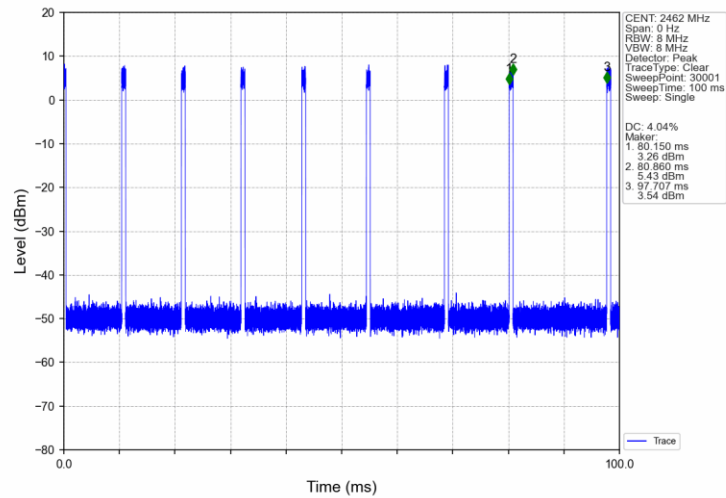
802.11g_LCH_2412MHz_Ant1 (SISO)_NTNV



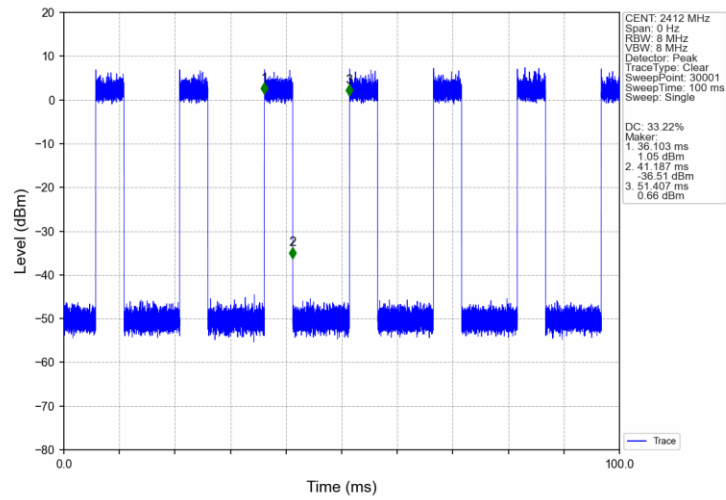
802.11g_MCH_2437MHz_Ant1 (SISO)_NTNV



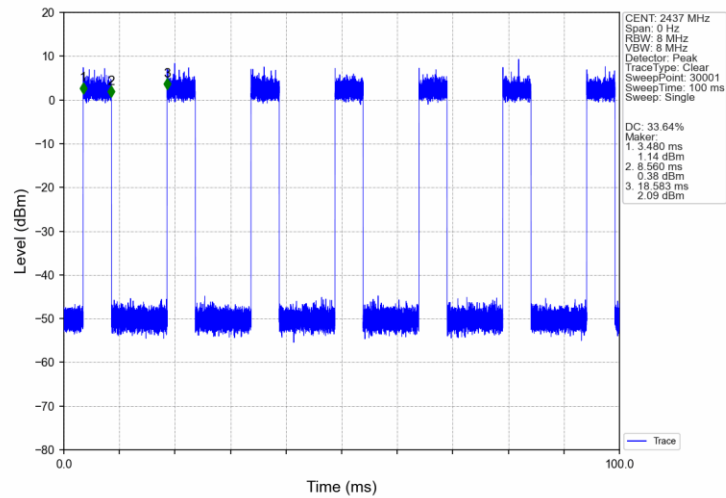
802.11g_HCH_2462MHz_Ant1 (SISO)_NTNV



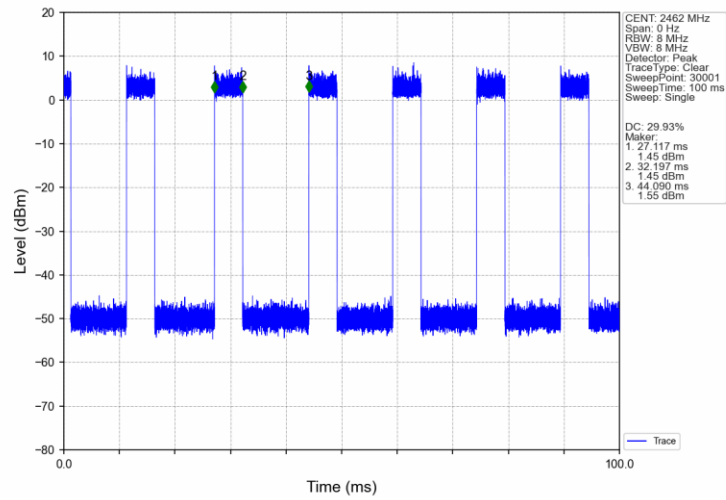
802.11n(HT20)_LCH_2412MHz_Ant1 (SISO)_NTNV



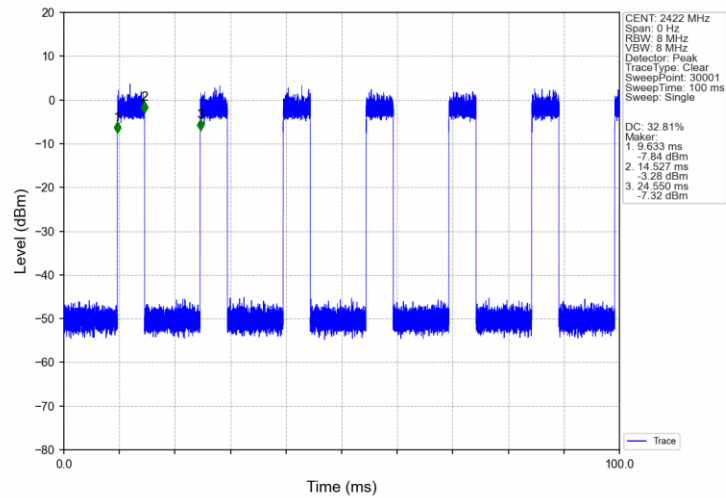
802.11n(HT20)_MCH_2437MHz_Ant1 (SISO)_NTNV



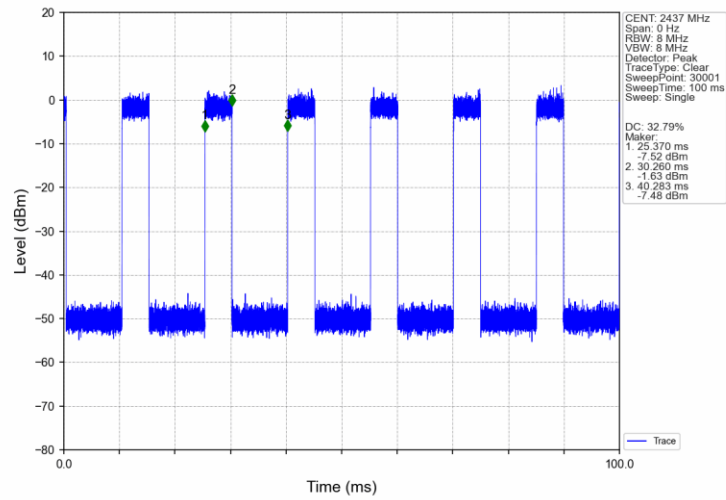
802.11n(HT20)_HCH_2462MHz_Ant1 (SISO)_NTNV



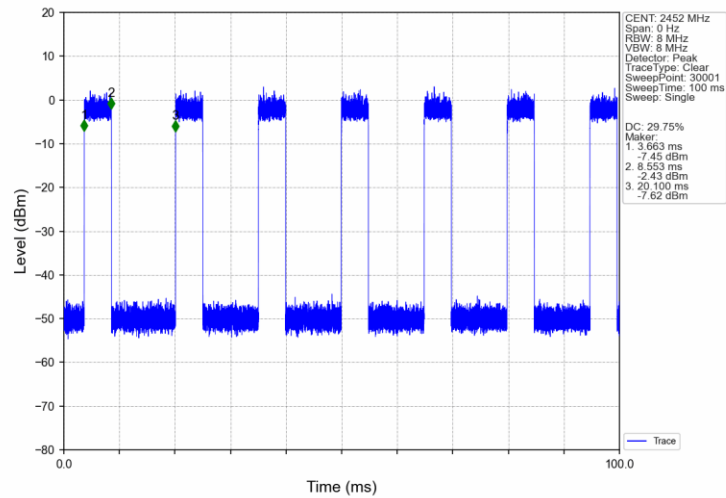
802.11n(HT40)_LCH_2422MHz_Ant1 (SISO)_NTNV



802.11n(HT40)_MCH_2437MHz_Ant1 (SISO)_NTNV



802.11n(HT40)_HCH_2452MHz_Ant1 (SISO)_NTNV



2. Bandwidth

2.1 Test Result

2.1.1 OBW

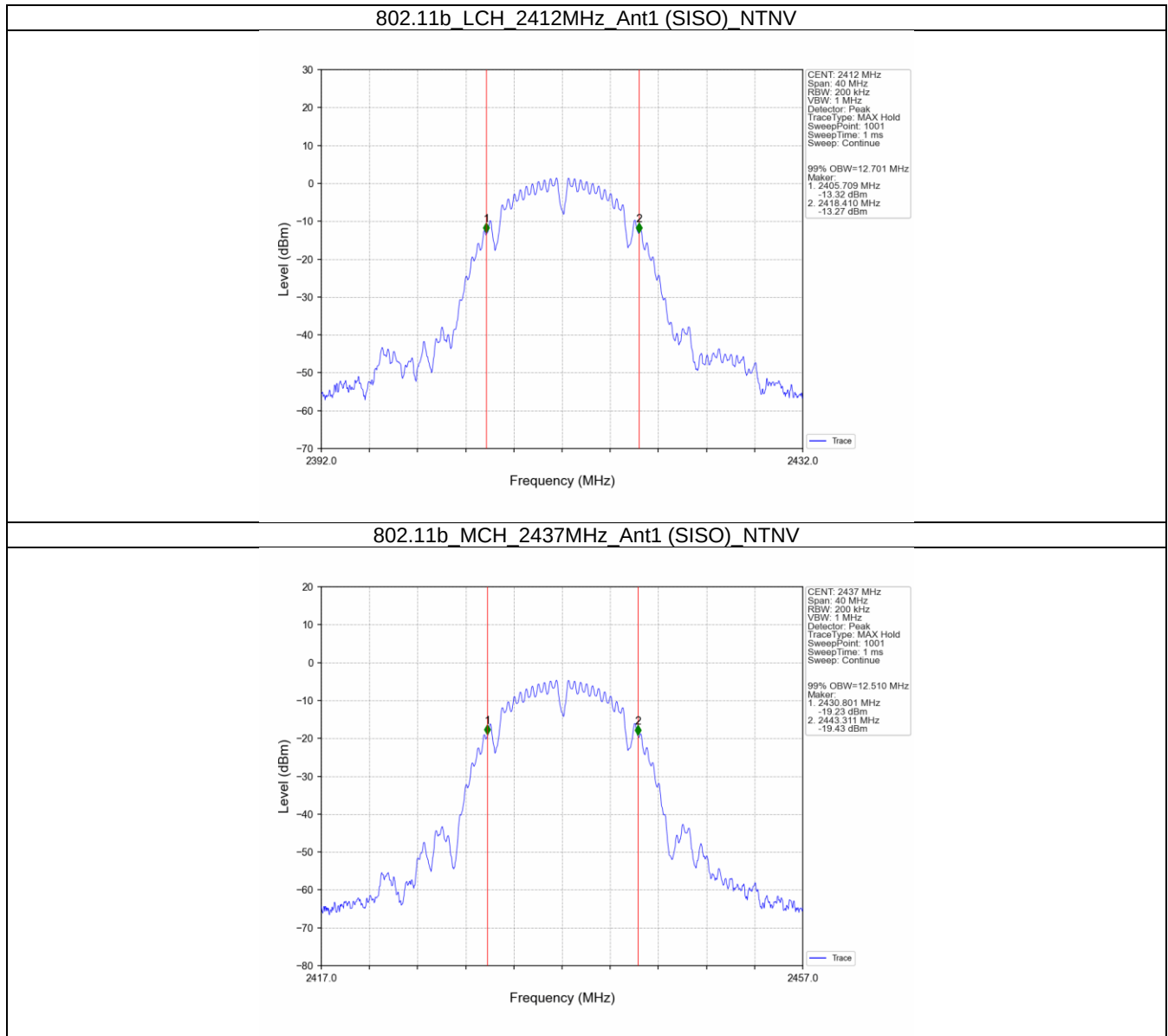
Mode	TX Type	Frequency (MHz)	ANT	99% Occupied Bandwidth (MHz)		Verdict
				Result	Limit	
802.11b	SISO	2412	1	12.701	/	Pass
		2437	1	12.510	/	Pass
		2462	1	12.494	/	Pass
802.11g	SISO	2412	1	16.437	/	Pass
		2437	1	16.417	/	Pass
		2462	1	16.392	/	Pass
802.11n (HT20)	SISO	2412	1	17.596	/	Pass
		2437	1	17.579	/	Pass
		2462	1	17.592	/	Pass
802.11n (HT40)	SISO	2422	1	36.417	/	Pass
		2437	1	36.384	/	Pass
		2452	1	36.337	/	Pass

2.1.2 6dB BW

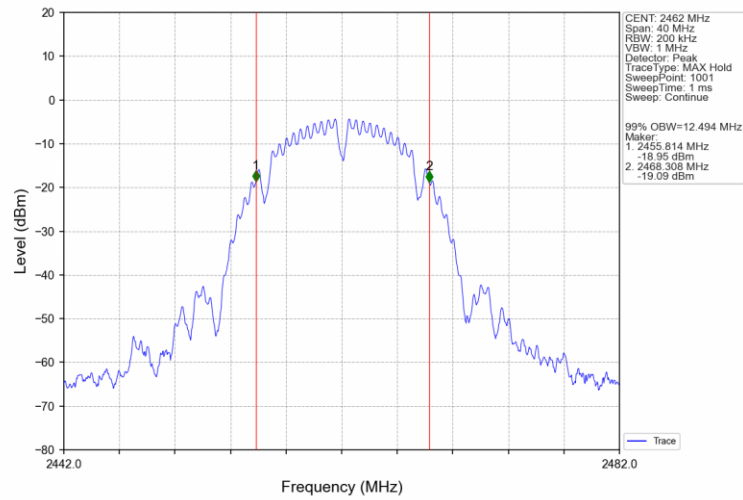
Mode	TX Type	Frequency (MHz)	ANT	6dB Bandwidth (MHz)		Verdict
				Result	Limit	
802.11b	SISO	2412	1	9.134	≥ 0.5	Pass
		2437	1	9.122	≥ 0.5	Pass
		2462	1	9.125	≥ 0.5	Pass
802.11g	SISO	2412	1	15.930	≥ 0.5	Pass
		2437	1	15.752	≥ 0.5	Pass
		2462	1	15.968	≥ 0.5	Pass
802.11n (HT20)	SISO	2412	1	17.259	≥ 0.5	Pass
		2437	1	17.239	≥ 0.5	Pass
		2462	1	17.144	≥ 0.5	Pass
802.11n (HT40)	SISO	2422	1	35.025	≥ 0.5	Pass
		2437	1	35.318	≥ 0.5	Pass
		2452	1	35.445	≥ 0.5	Pass

2.2 Test Graph

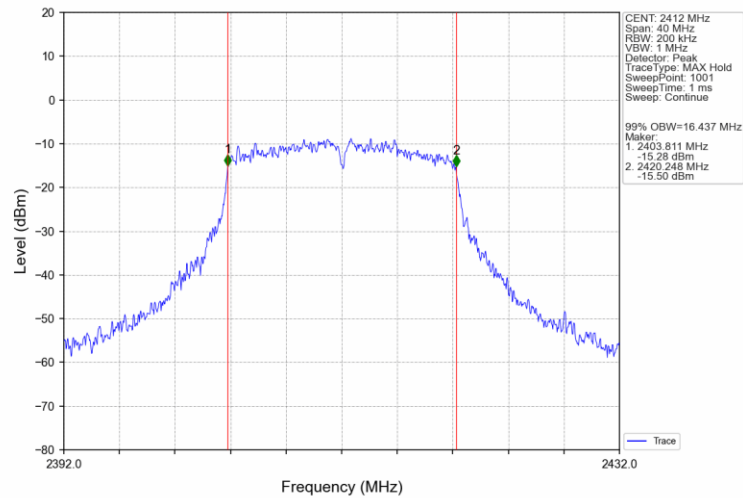
2.2.1 OBW



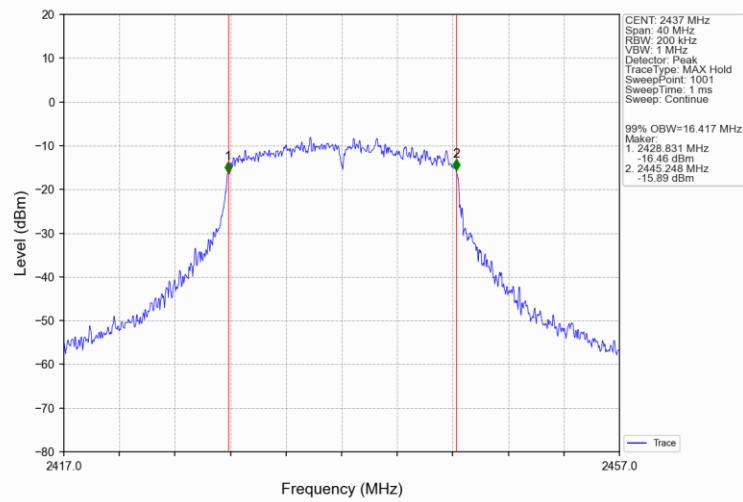
802.11b_HCH_2462MHz_Ant1 (SISO)_NTNV



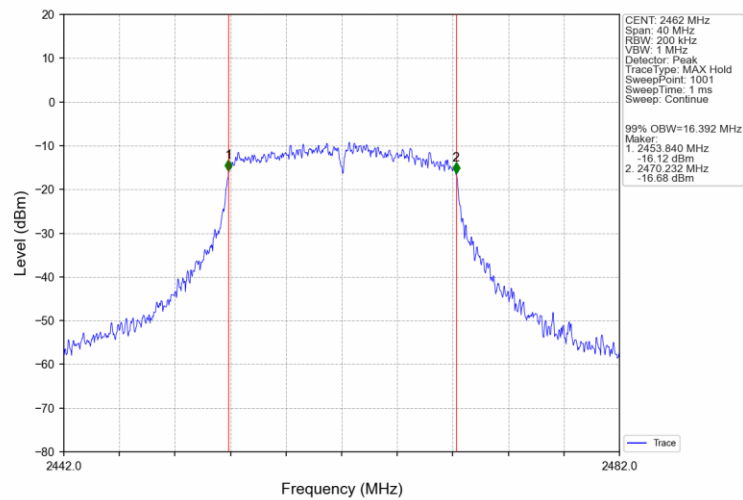
802.11g_LCH_2412MHz_Ant1 (SISO)_NTNV



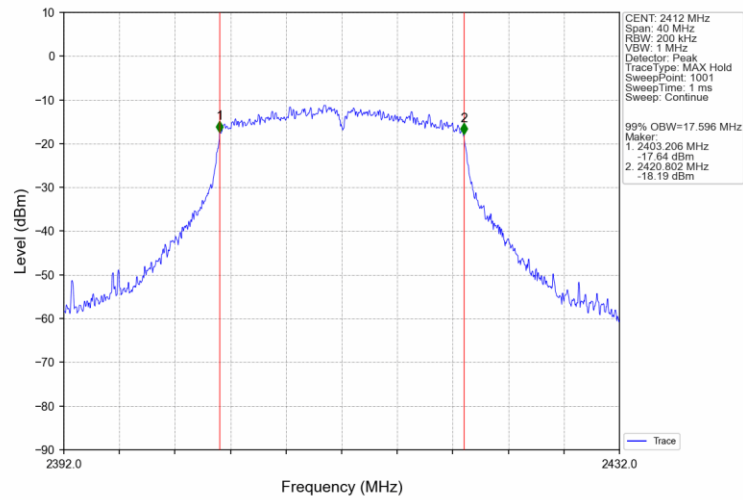
802.11g_MCH_2437MHz_Ant1 (SISO)_NTNV



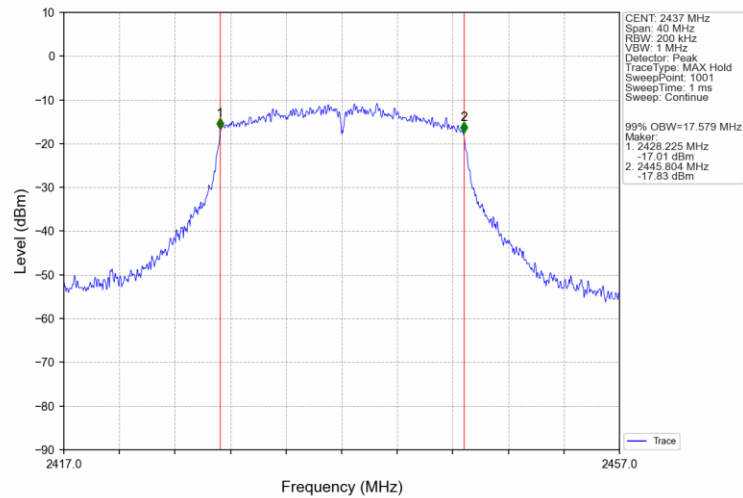
802.11g_HCH_2462MHz_Ant1 (SISO)_NTNV



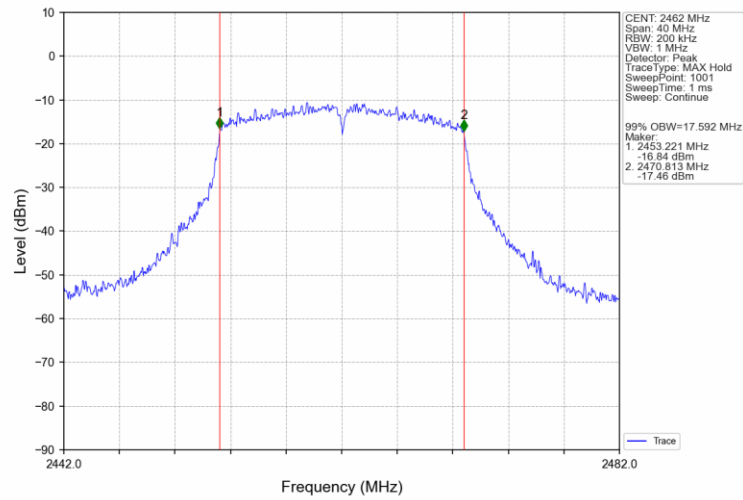
802.11n(HT20)_LCH_2412MHz_Ant1 (SISO)_NTNV



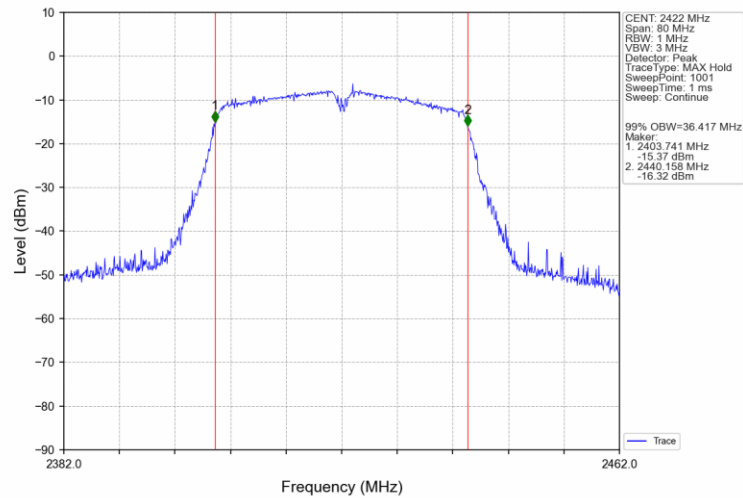
802.11n(HT20)_MCH_2437MHz_Ant1 (SISO)_NTNV



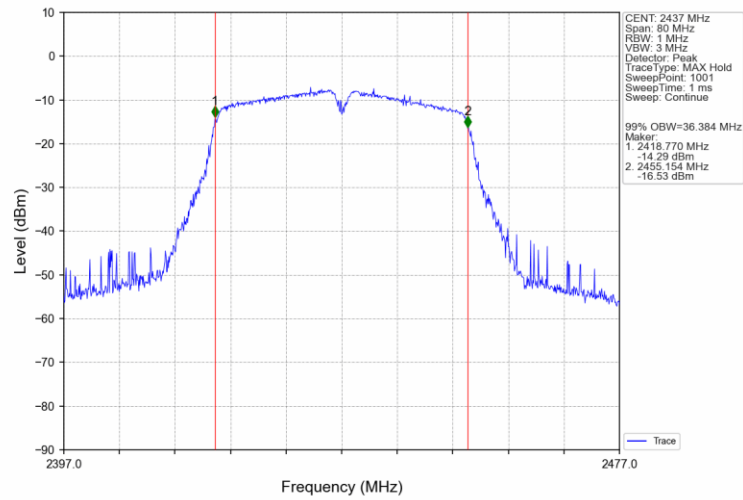
802.11n(HT20)_HCH_2462MHz_Ant1 (SISO)_NTNV



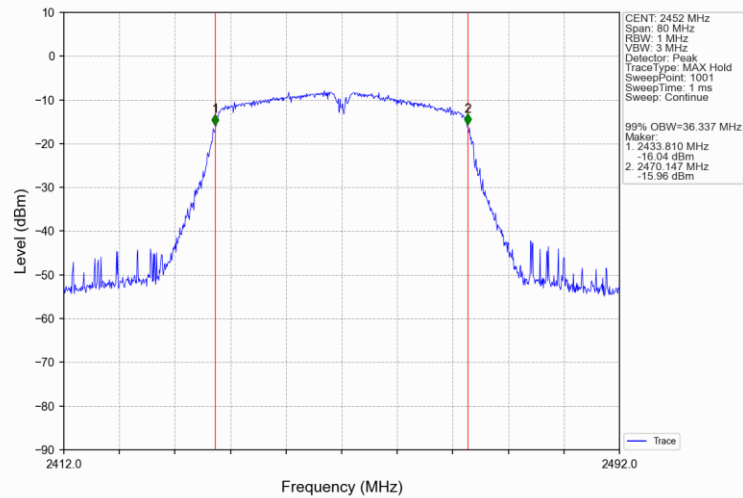
802.11n(HT40)_LCH_2422MHz_Ant1 (SISO)_NTNV



802.11n(HT40)_MCH_2437MHz_Ant1 (SISO)_NTNV

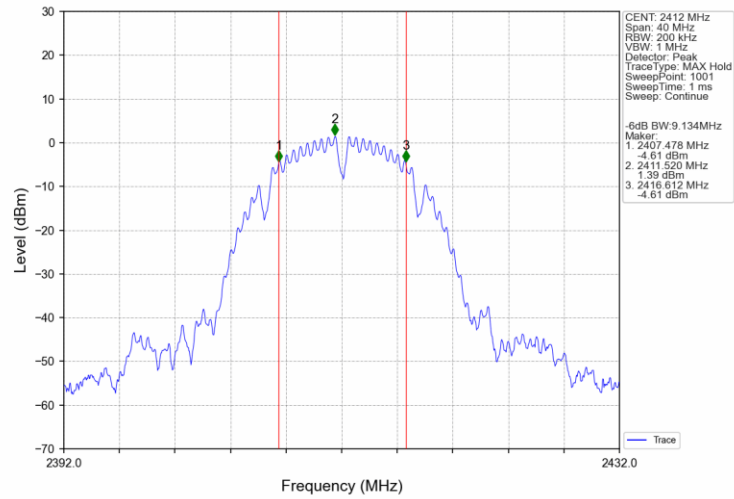


802.11n(HT40)_HCH_2452MHz_Ant1 (SISO)_NTNV

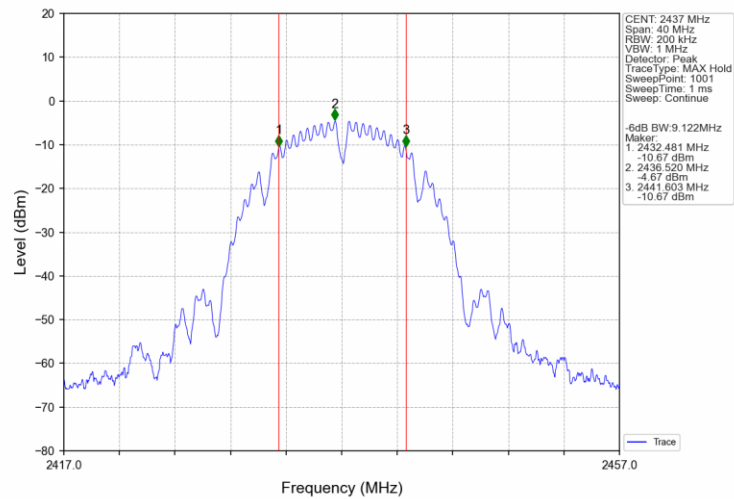


2.2.2 6dB BW

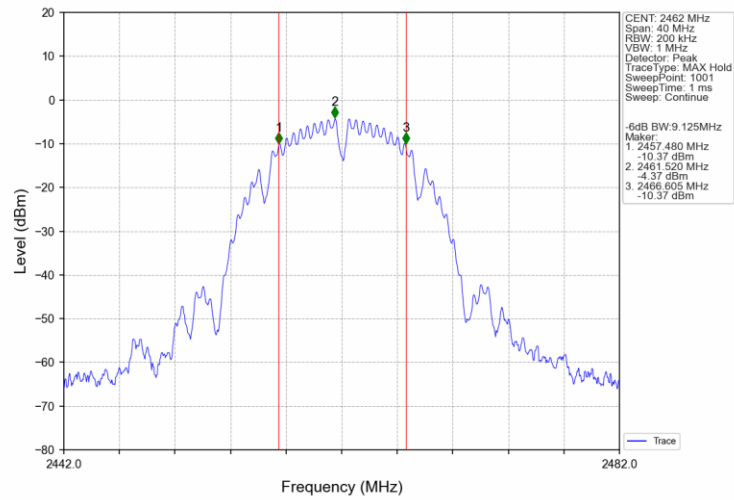
802.11b_LCH_2412MHz_Ant1 (SISO)_NTNV



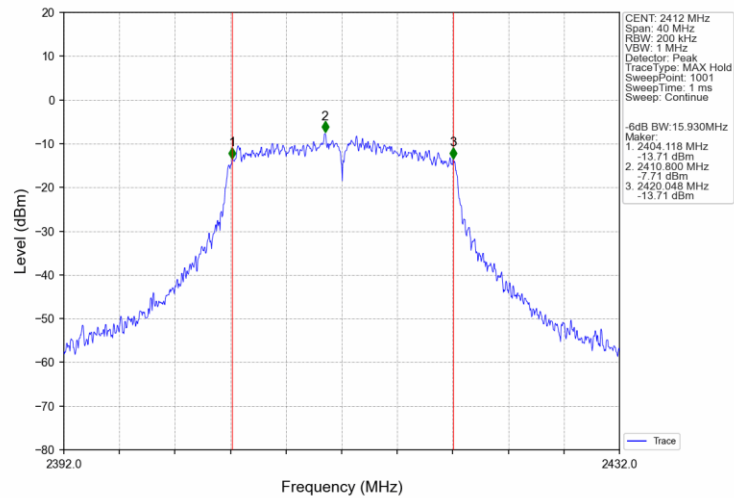
802.11b_MCH_2437MHz_Ant1 (SISO)_NTNV



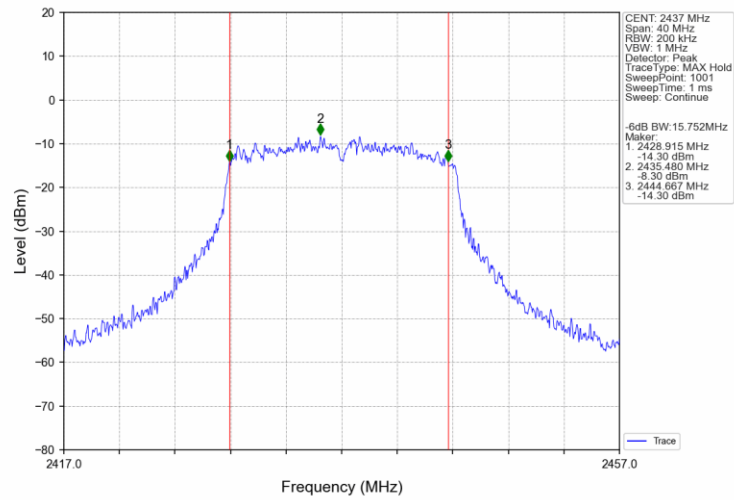
802.11b_HCH_2462MHz_Ant1 (SISO)_NTNV



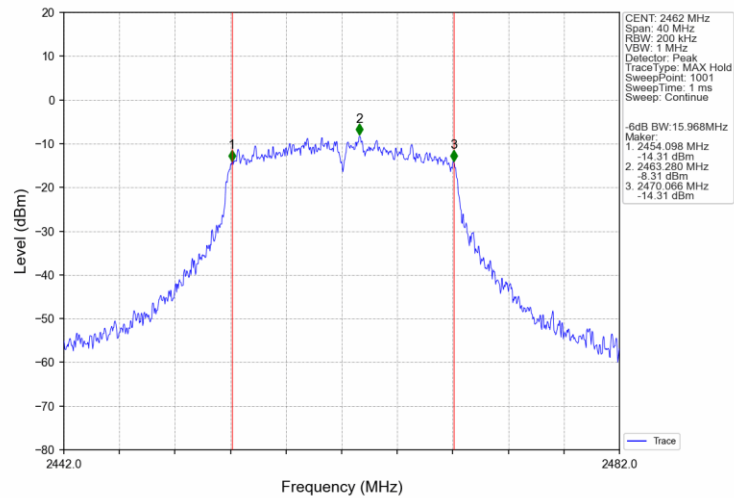
802.11g_LCH_2412MHz_Ant1 (SISO)_NTNV



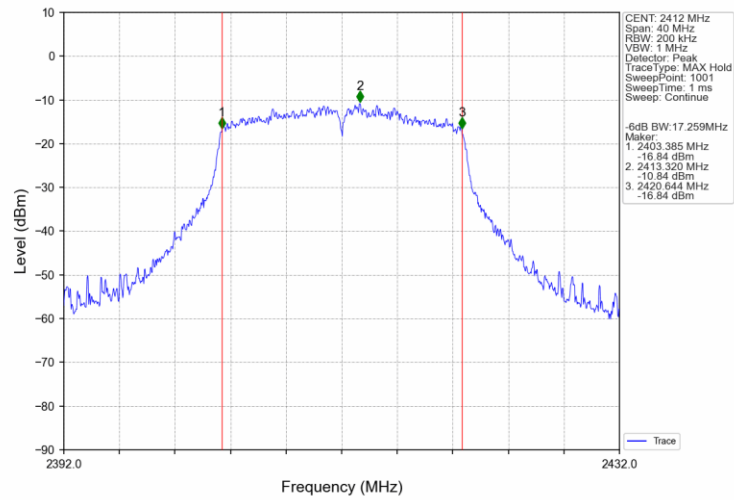
802.11g_MCH_2437MHz_Ant1 (SISO)_NTNV



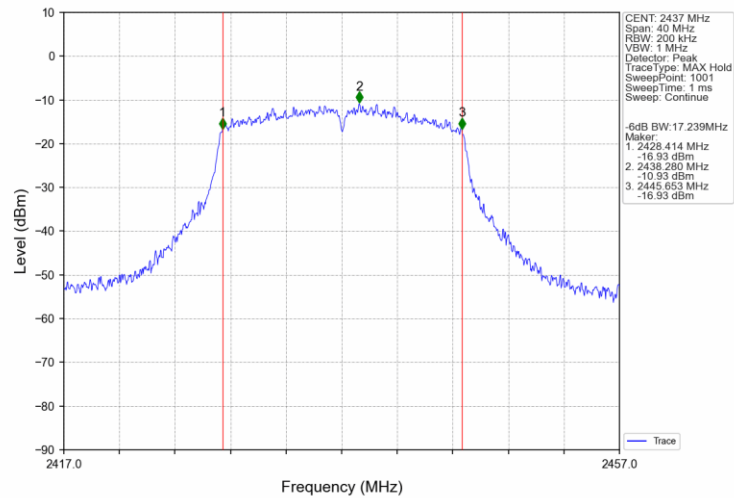
802.11g_HCH_2462MHz_Ant1 (SISO)_NTNV



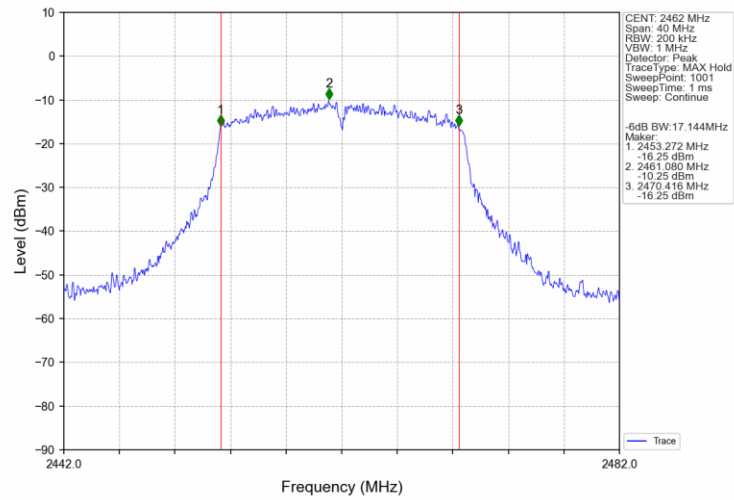
802.11n(HT20)_LCH_2412MHz_Ant1 (SISO)_NTNV



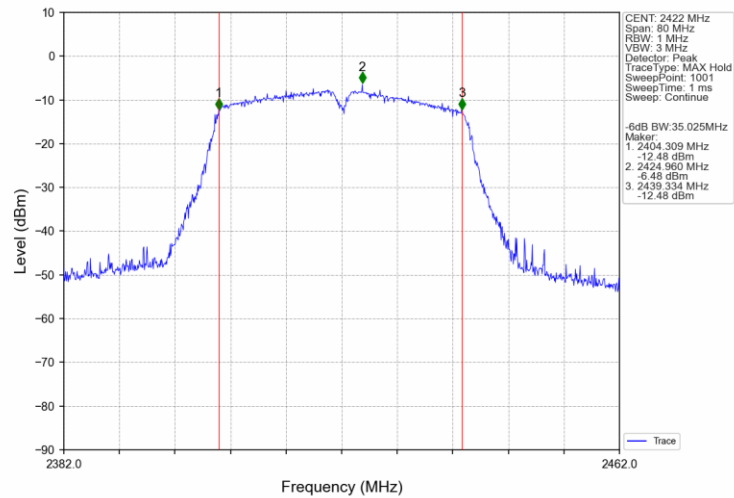
802.11n(HT20)_MCH_2437MHz_Ant1 (SISO)_NTNV



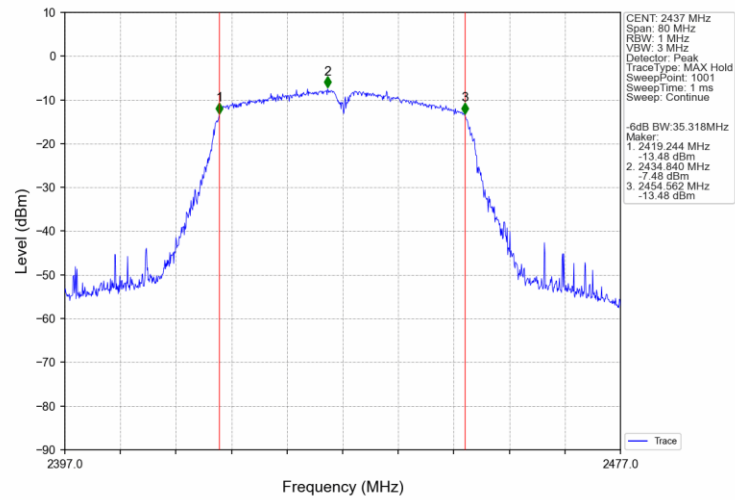
802.11n(HT20)_HCH_2462MHz_Ant1 (SISO)_NTNV



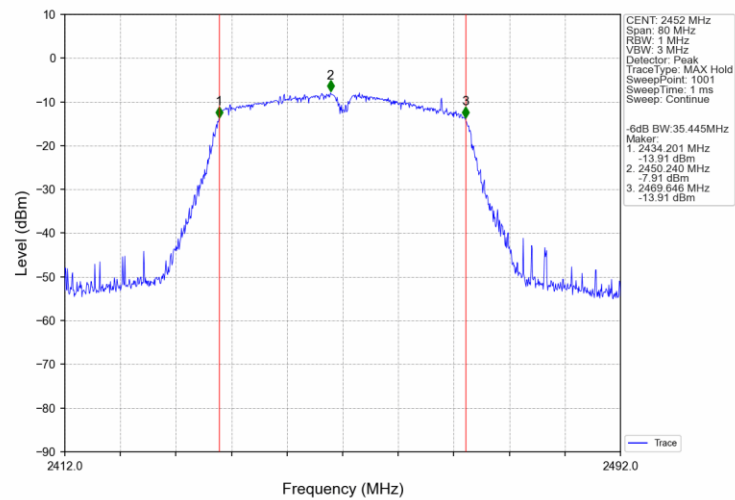
802.11n(HT40)_LCH_2422MHz_Ant1 (SISO)_NTNV



802.11n(HT40)_MCH_2437MHz_Ant1 (SISO)_NTNV



802.11n(HT40)_HCH_2452MHz_Ant1 (SISO)_NTNV



3. Maximum Conducted Output Power

3.1 Test Result

3.1.1 Power

Mode	TX Type	Frequency (MHz)	Maximum Peak Conducted Output Power (dBm)		Verdict
			ANT1	Limit	
802.11b	SISO	2412	6.30	<=30	Pass
		2437	5.97	<=30	Pass
		2462	6.29	<=30	Pass
802.11g	SISO	2412	8.31	<=30	Pass
		2437	8.34	<=30	Pass
		2462	7.65	<=30	Pass
802.11n (HT20)	SISO	2412	6.38	<=30	Pass
		2437	6.56	<=30	Pass
		2462	7.08	<=30	Pass
802.11n (HT40)	SISO	2422	5.31	<=30	Pass
		2437	5.32	<=30	Pass
		2452	4.99	<=30	Pass

Note1: Antenna Gain: Ant1: 2.82dBi;

4. Maximum Power Spectral Density

4.1 Test Result

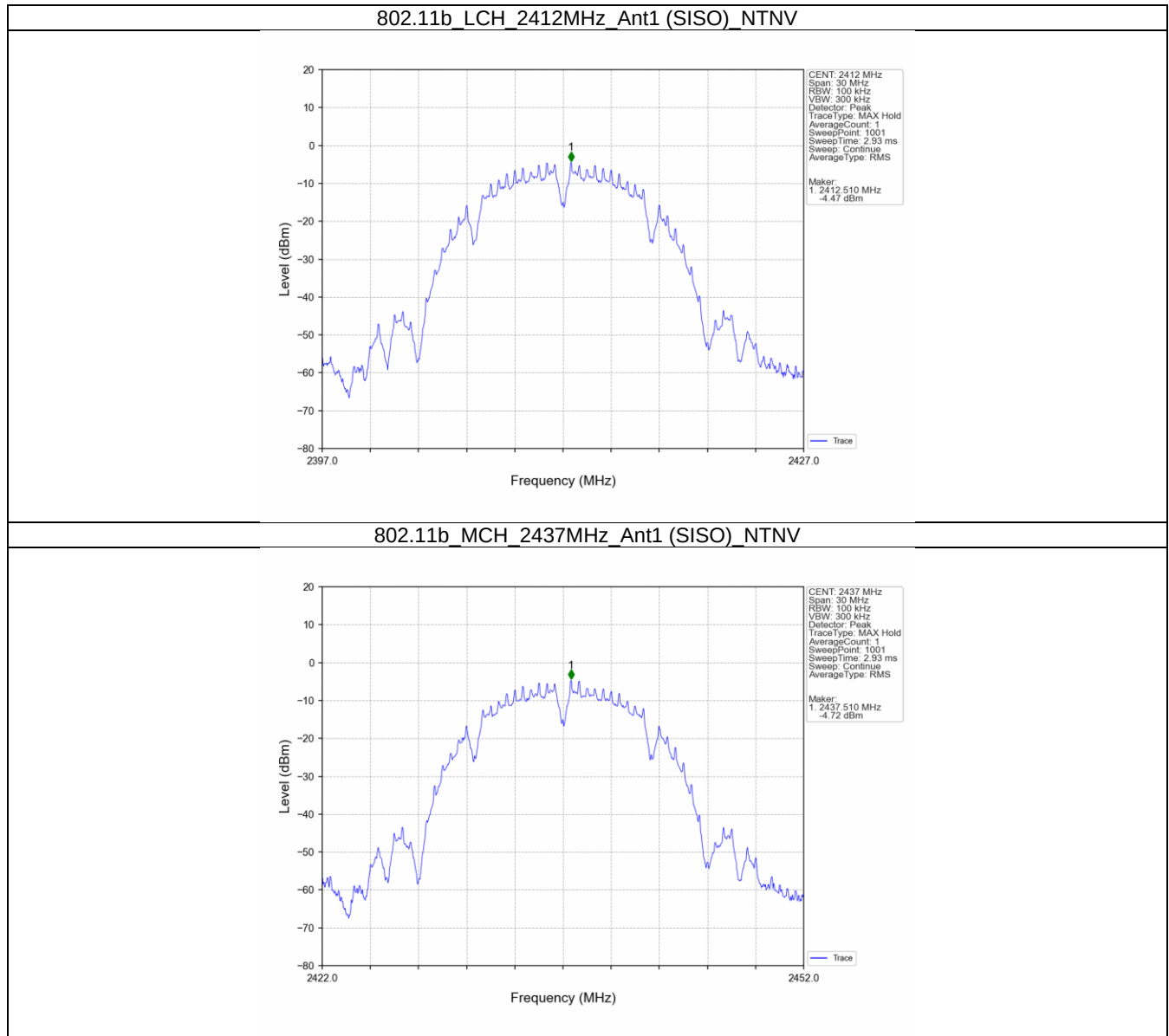
4.1.1 PSD

Mode	TX Type	Frequency (MHz)	Maximum PSD (dBm)		Verdict
			ANT1	Limit	
802.11b	SISO	2412	-4.47	<=8	Pass
		2437	-4.72	<=8	Pass
		2462	-4.99	<=8	Pass
802.11g	SISO	2412	-9.92	<=8	Pass
		2437	-8.43	<=8	Pass
		2462	-9.38	<=8	Pass
802.11n (HT20)	SISO	2412	-12.08	<=8	Pass
		2437	-11.46	<=8	Pass
		2462	-11.27	<=8	Pass
802.11n (HT40)	SISO	2422	-16.70	<=8	Pass
		2437	-15.65	<=8	Pass
		2452	-16.78	<=8	Pass

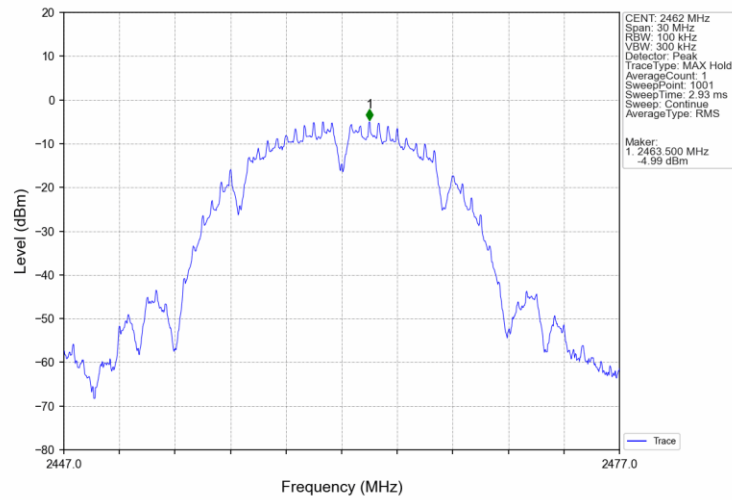
Note1: Antenna Gain: Ant1: 2.82dBi;

4.2 Test Graph

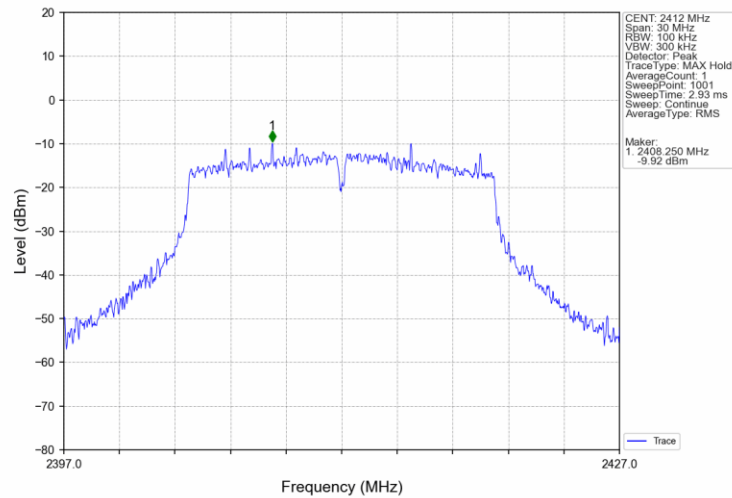
4.2.1 PSD



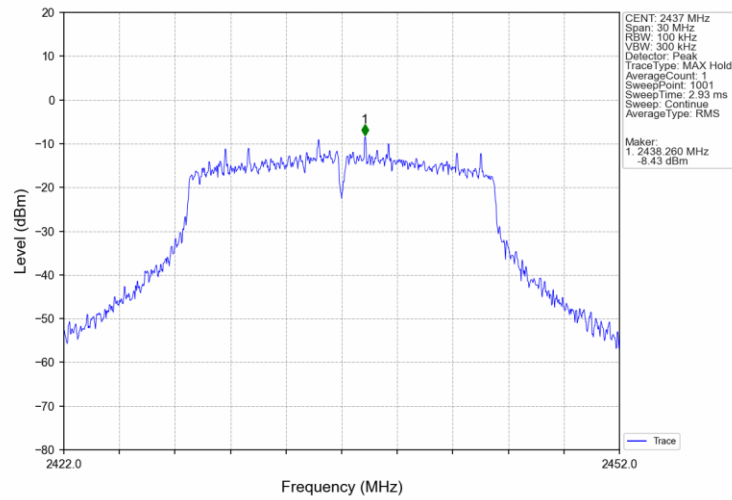
802.11b_HCH_2462MHz_Ant1 (SISO)_NTNV



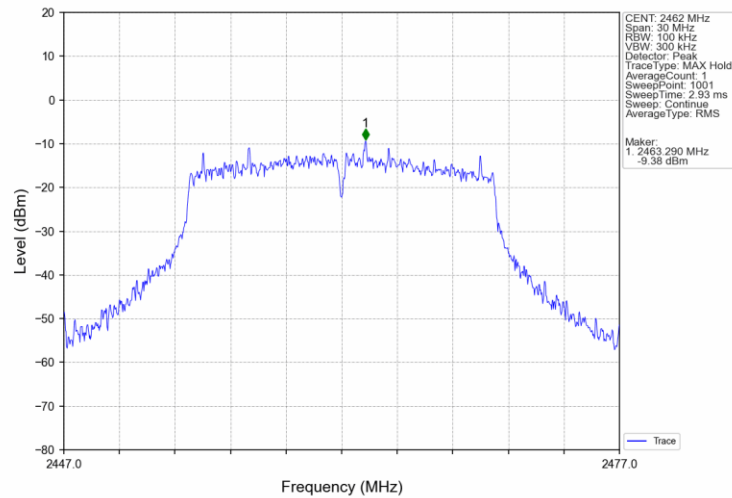
802.11g_LCH_2412MHz_Ant1 (SISO)_NTNV



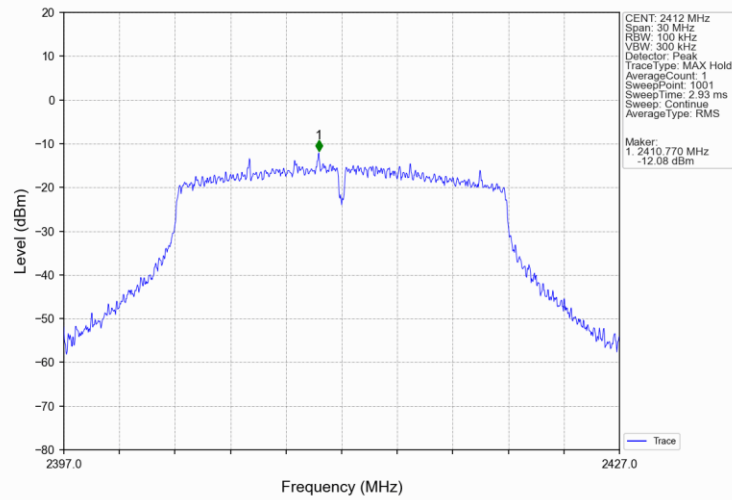
802.11g_MCH_2437MHz_Ant1 (SISO)_NTNV



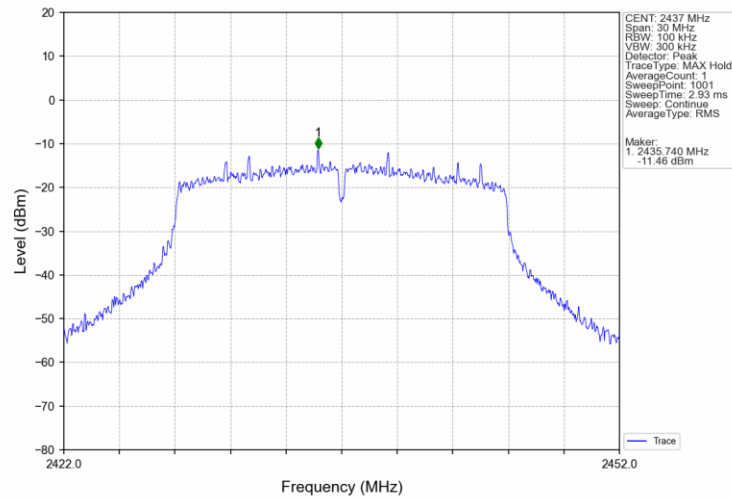
802.11g_HCH_2462MHz_Ant1 (SISO)_NTNV



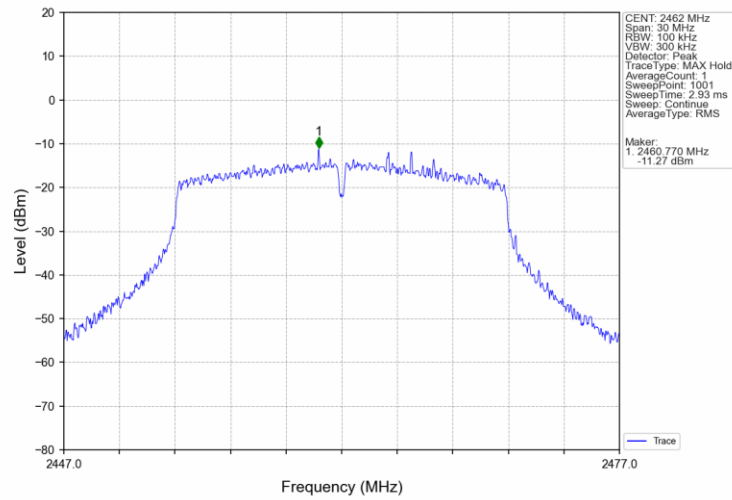
802.11n(HT20)_LCH_2412MHz_Ant1 (SISO)_NTNV



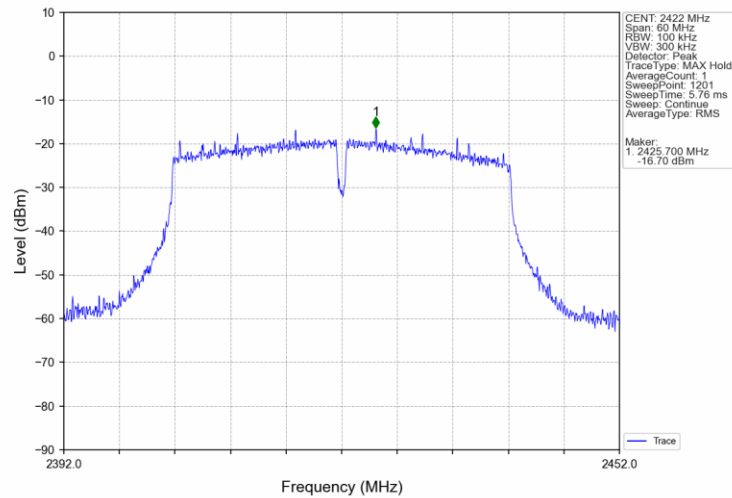
802.11n(HT20)_MCH_2437MHz_Ant1 (SISO)_NTNV



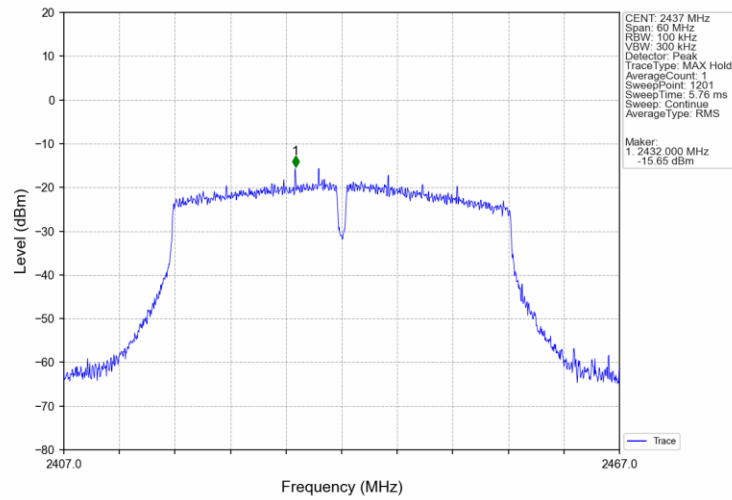
802.11n(HT20)_HCH_2462MHz_Ant1 (SISO)_NTNV



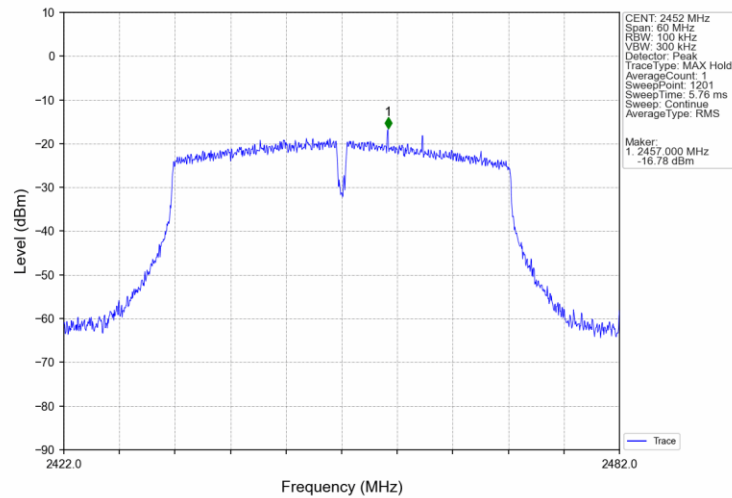
802.11n(HT40)_LCH_2422MHz_Ant1 (SISO)_NTNV



802.11n(HT40)_MCH_2437MHz_Ant1 (SISO)_NTNV



802.11n(HT40)_HCH_2452MHz_Ant1 (SISO)_NTNV



5. Unwanted Emissions In Non-restricted Frequency Bands

5.1 Test Result

5.1.1 Ref

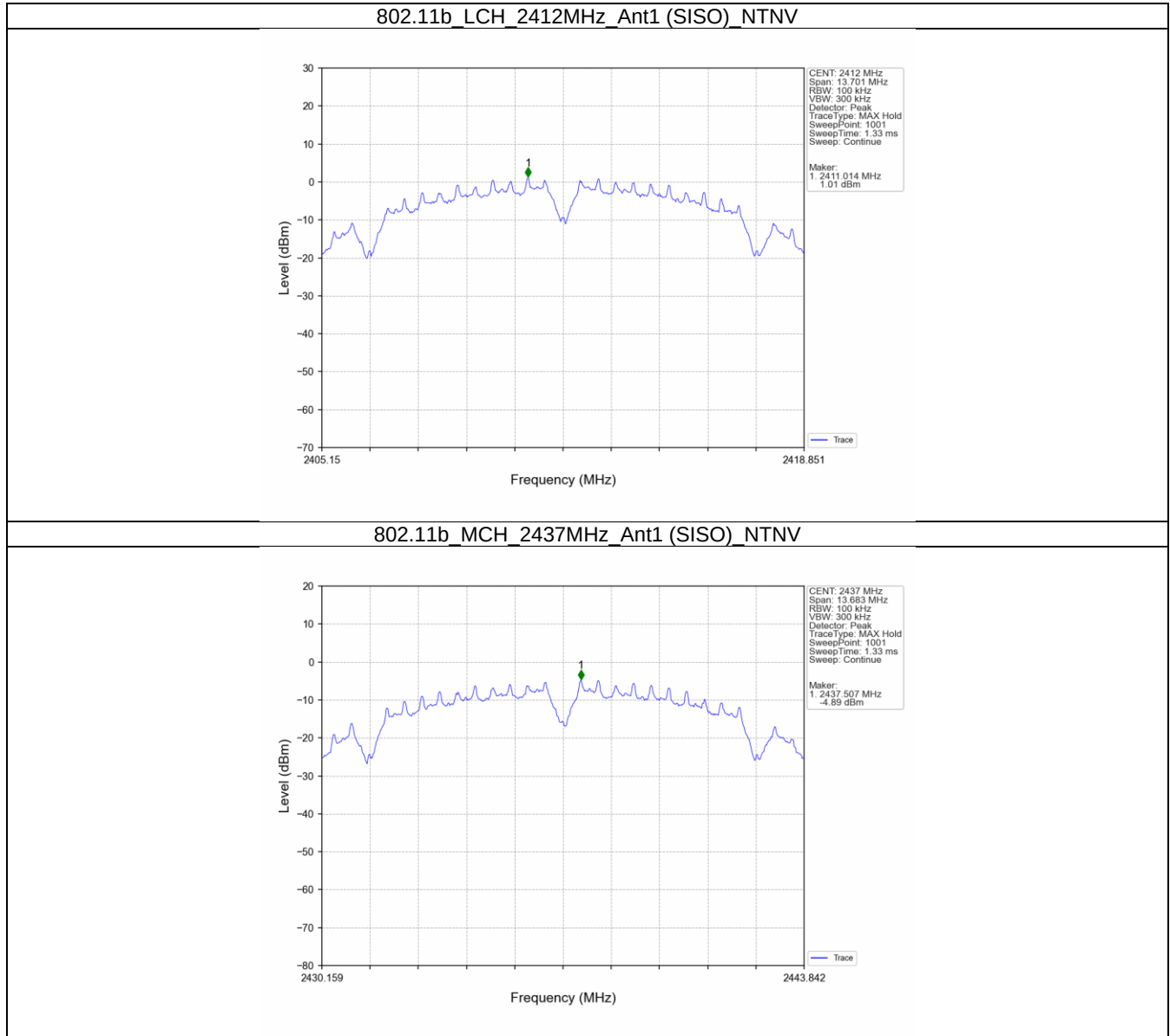
Mode	TX Type	Frequency (MHz)	ANT	Level of Reference (dBm)
802.11b	SISO	2412	1	1.01
		2437	1	-4.89
		2462	1	-4.59
802.11g	SISO	2412	1	-9.21
		2437	1	-8.43
		2462	1	-10.85
802.11n (HT20)	SISO	2412	1	-12.90
		2437	1	-12.53
		2462	1	-10.98
802.11n (HT40)	SISO	2422	1	-18.17
		2437	1	-15.50
		2452	1	-15.72

5.1.2 CSE

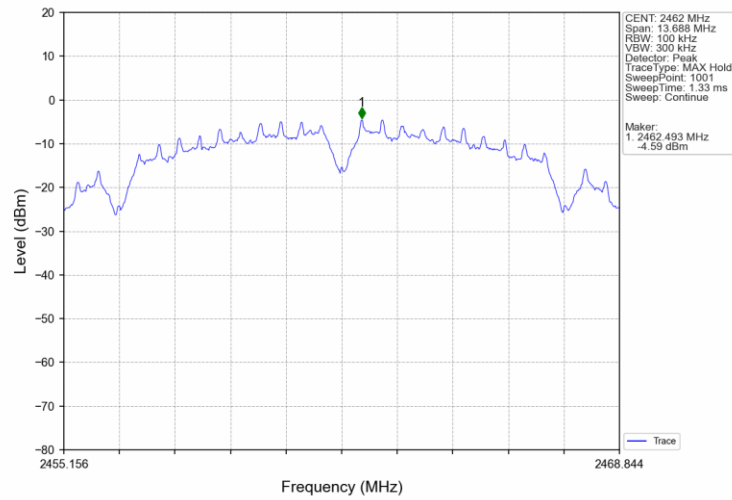
Mode	TX Type	Frequency (MHz)	ANT	Level of Reference (dBm)	Limit (dBm)	Verdict
802.11b	SISO	2412	1	1.01	-18.99	Pass
		2437	1	-4.89	-24.89	Pass
		2462	1	-4.59	-24.59	Pass
802.11g	SISO	2412	1	-9.21	-29.21	Pass
		2437	1	-8.43	-28.43	Pass
		2462	1	-10.85	-30.85	Pass
802.11n (HT20)	SISO	2412	1	-12.90	-32.90	Pass
		2437	1	-12.53	-32.53	Pass
		2462	1	-10.98	-30.98	Pass
802.11n (HT40)	SISO	2422	1	-18.17	-38.17	Pass
		2437	1	-15.50	-35.50	Pass
		2452	1	-15.72	-35.72	Pass

5.2 Test Graph

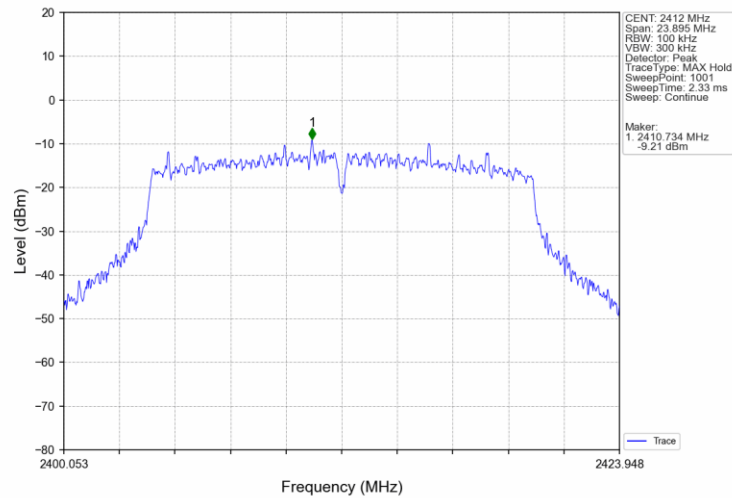
5.2.1 Ref



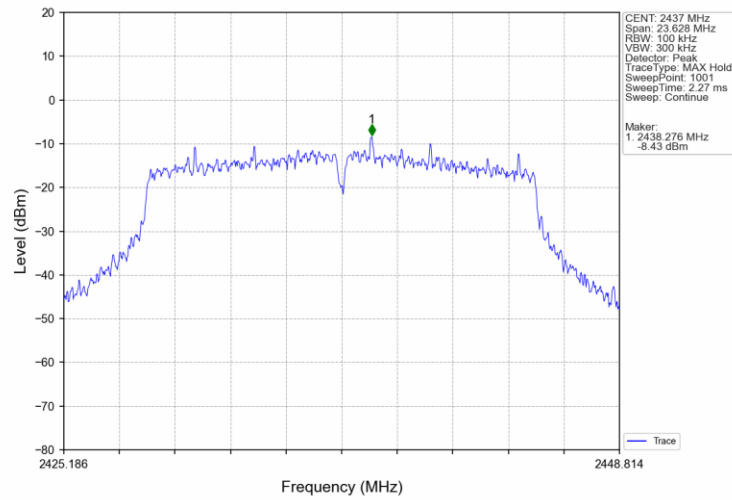
802.11b_HCH_2462MHz_Ant1 (SISO)_NTNV



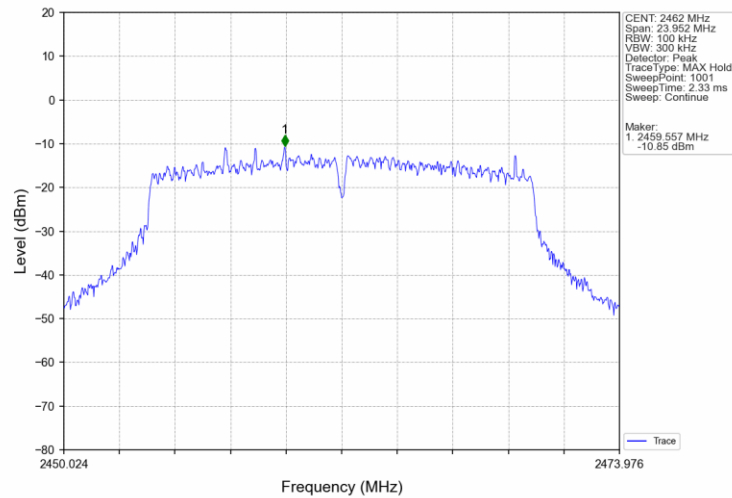
802.11g_LCH_2412MHz_Ant1 (SISO)_NTNV



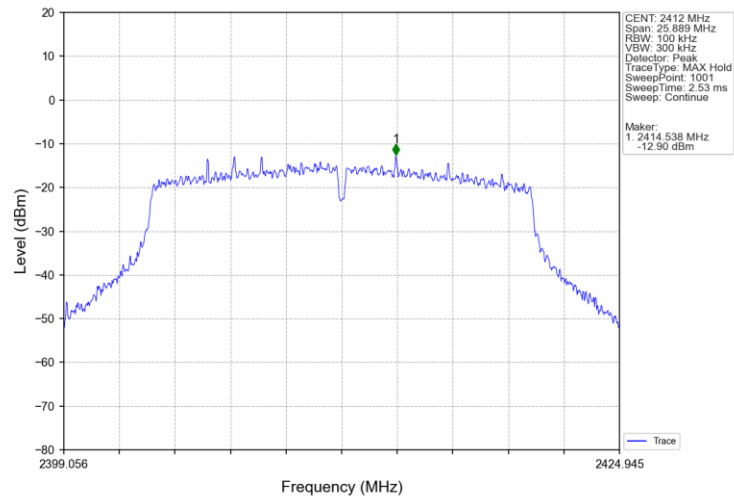
802.11g_MCH_2437MHz_Ant1 (SISO)_NTNV



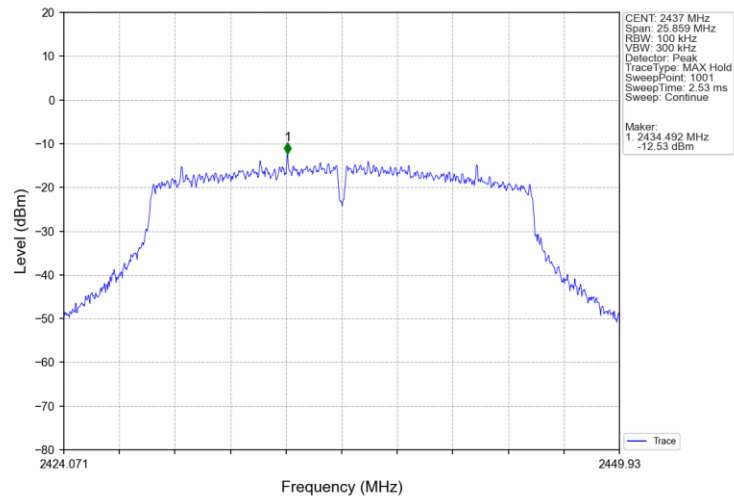
802.11g_HCH_2462MHz_Ant1 (SISO)_NTNV



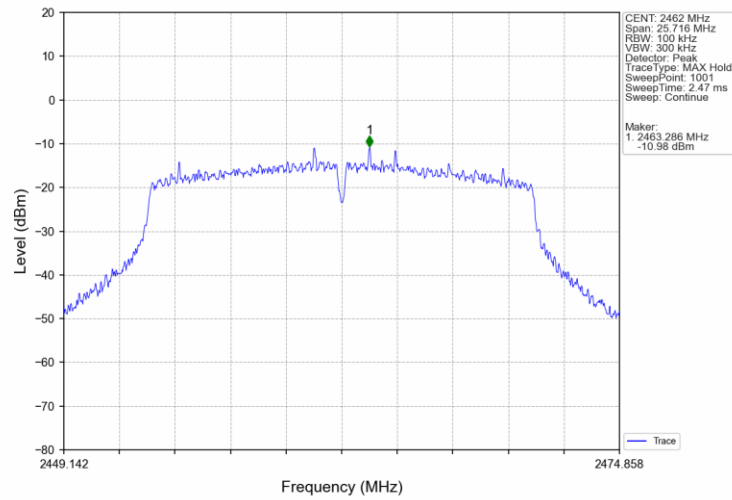
802.11n(HT20)_LCH_2412MHz_Ant1 (SISO)_NTNV



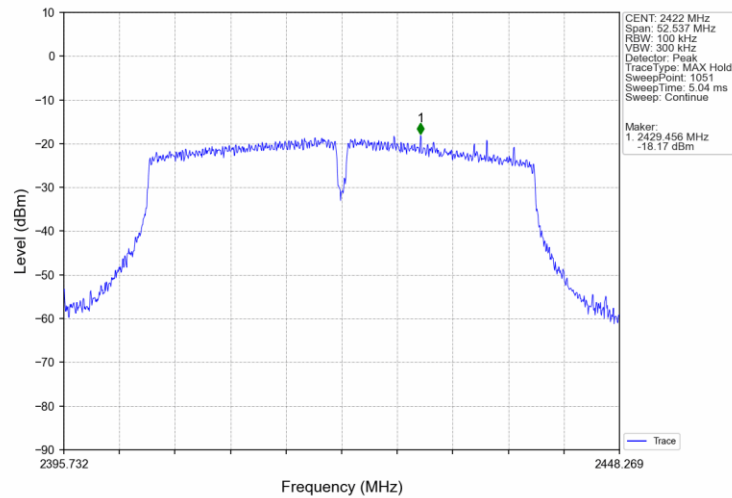
802.11n(HT20)_MCH_2437MHz_Ant1 (SISO)_NTNV



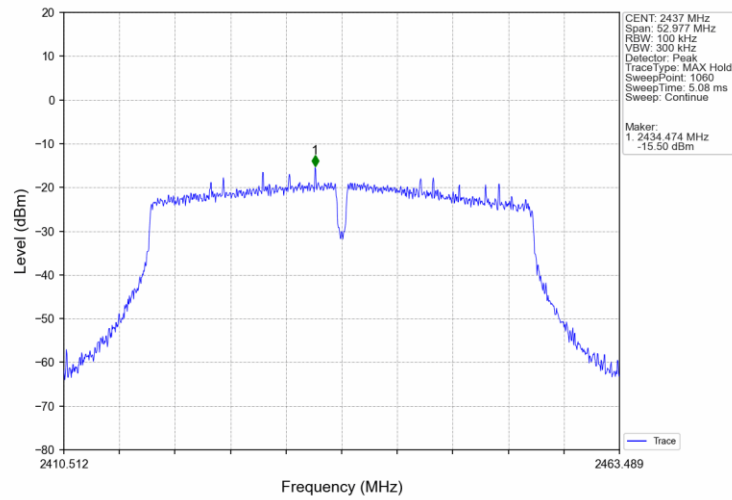
802.11n(HT20)_HCH_2462MHz_Ant1 (SISO)_NTNV



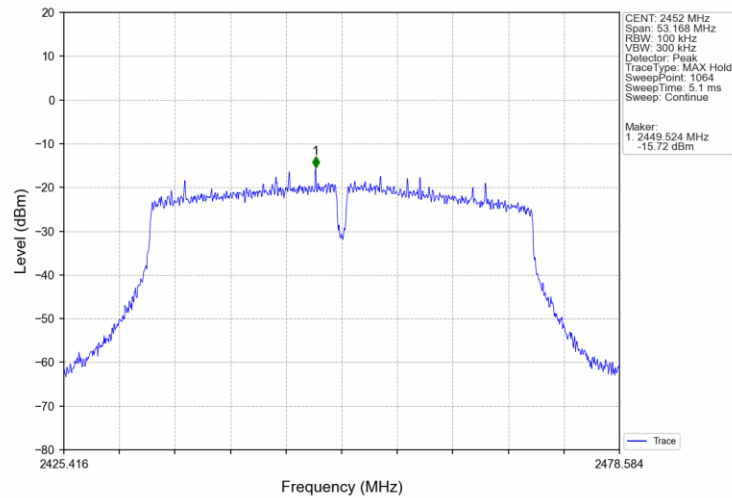
802.11n(HT40)_LCH_2422MHz_Ant1 (SISO)_NTNV



802.11n(HT40)_MCH_2437MHz_Ant1 (SISO)_NTNV

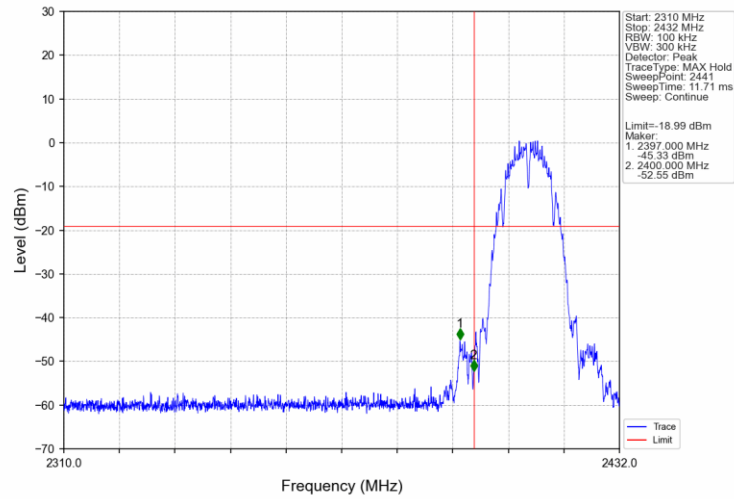


802.11n(HT40)_HCH_2452MHz_Ant1 (SISO)_NTNV

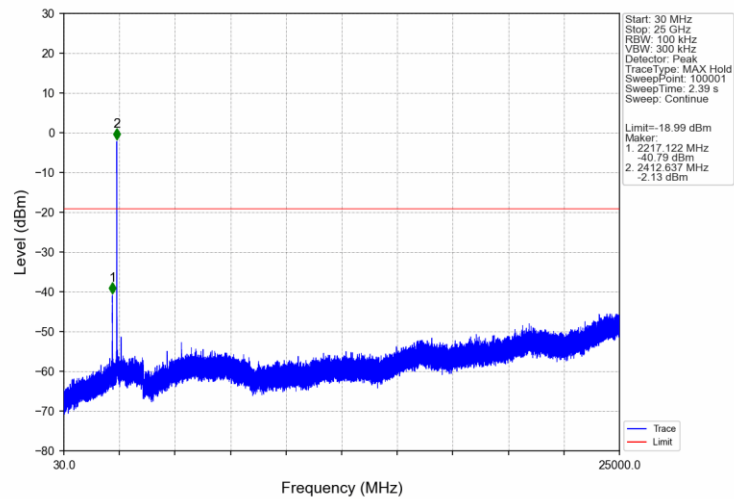


5.2.2 CSE

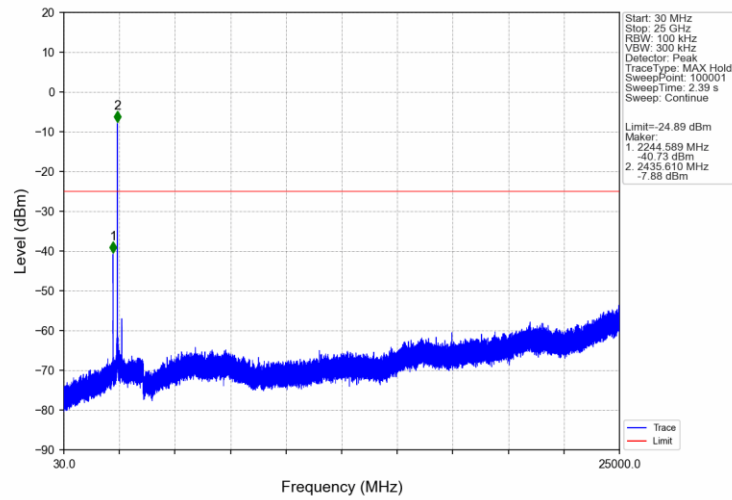
802.11b_LCH_2412MHz_Ant1 (SISO)_NTNV



802.11b_LCH_2412MHz_Ant1 (SISO)_NTNV



802.11b_MCH_2437MHz_Ant1 (SISO)_NTNV



802.11b_HCH_2462MHz_Ant1 (SISO)_NTNV

