

Appendix RF test data for WIFI2.4G

1. Duty Cycle

1.1 Test Result

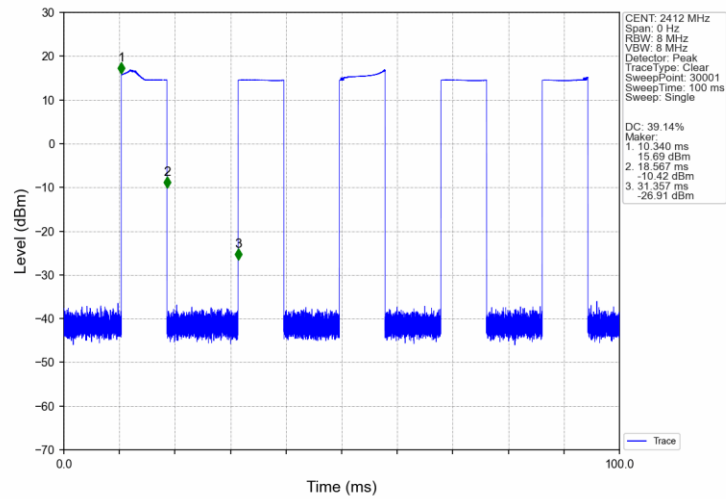
1.1.1 Ant1

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	8.227	21.017	39.14	4.07	5.95
		2437	8.227	18.250	45.08	3.46	0.01
		2462	8.227	18.247	45.09	3.46	0.01
802.11g	SISO	2412	1.367	17.937	7.62	11.18	4.39
		2437	1.363	14.320	9.52	10.21	2.48
		2462	1.367	11.897	11.49	9.40	0.51
802.11n (HT20)	SISO	2412	1.364	13.407	10.17	9.93	1.84
		2437	1.367	12.490	10.94	9.61	1.06
		2462	1.364	11.394	11.97	9.22	0.04
802.11n (HT40)	SISO	2422	0.636	10.683	5.95	12.25	0.04
		2437	0.637	10.667	5.97	12.24	0.03
		2452	0.636	10.666	5.96	12.25	0.03

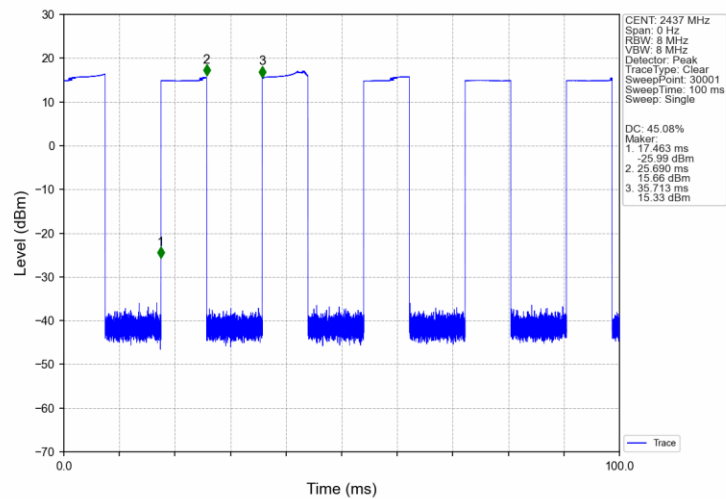
1.2 Test Graph

1.2.1 Ant1

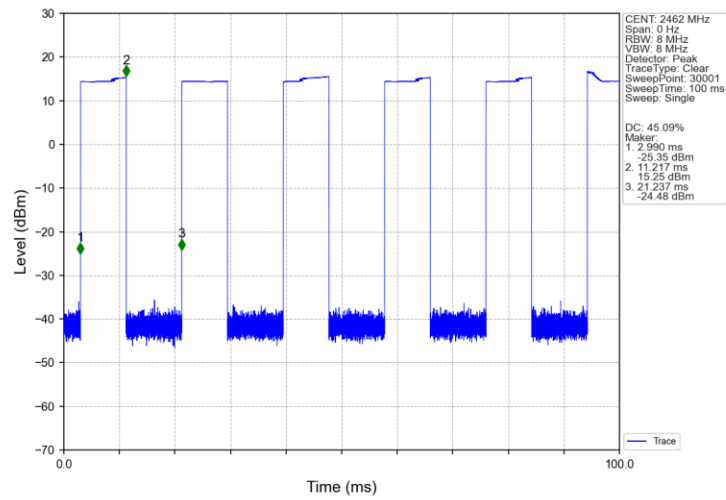
802.11b_LCH_2412MHz_Ant1 (SISO)_NTNV



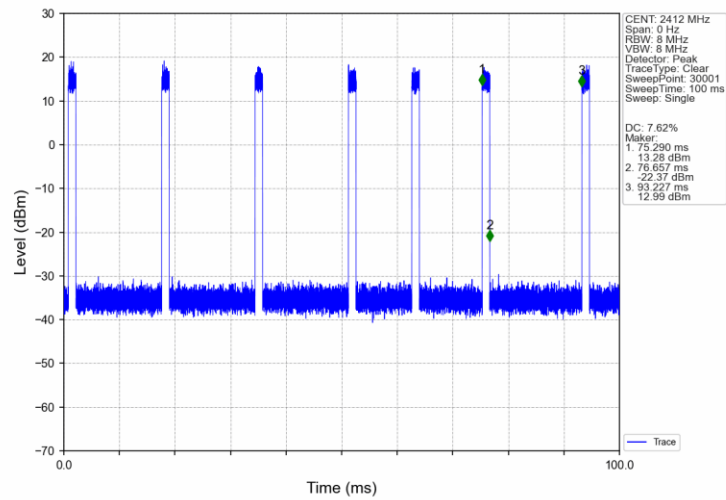
802.11b_MCH_2437MHz_Ant1 (SISO)_NTNV



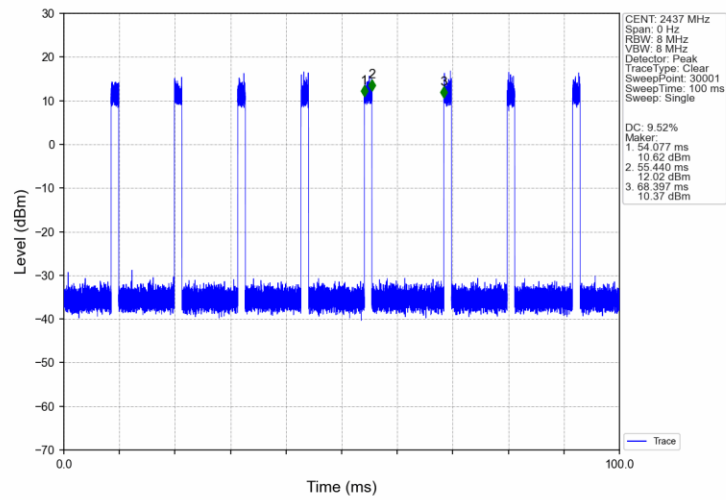
802.11b_HCH_2462MHz_Ant1 (SISO)_NTNV



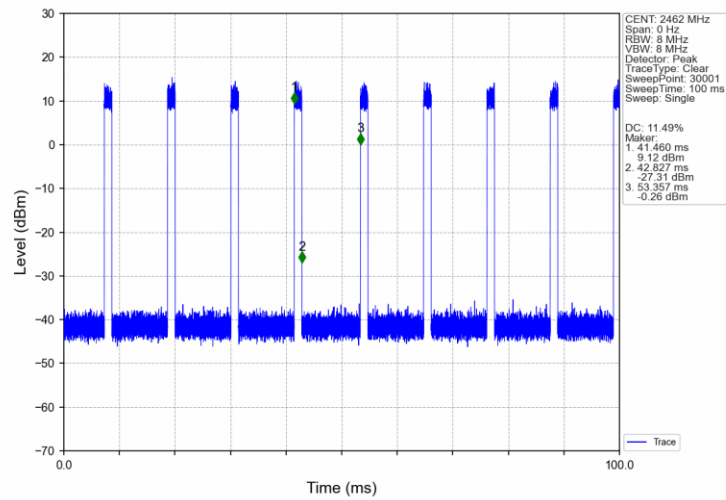
802.11g_LCH_2412MHz_Ant1 (SISO)_NTNV



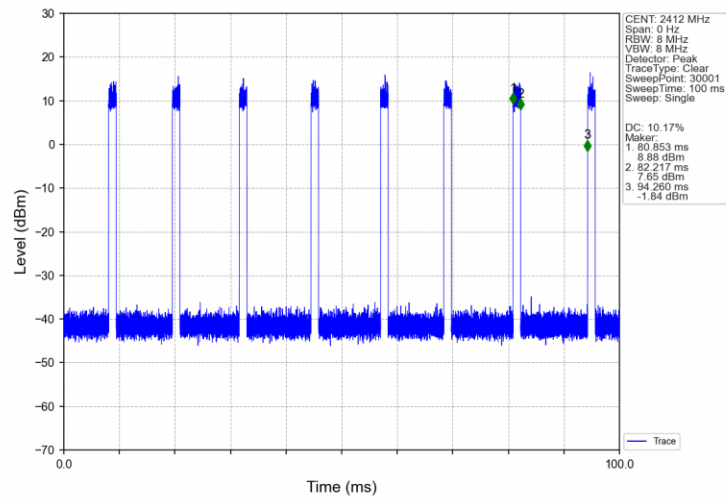
802.11g_MCH_2437MHz_Ant1 (SISO)_NTNV



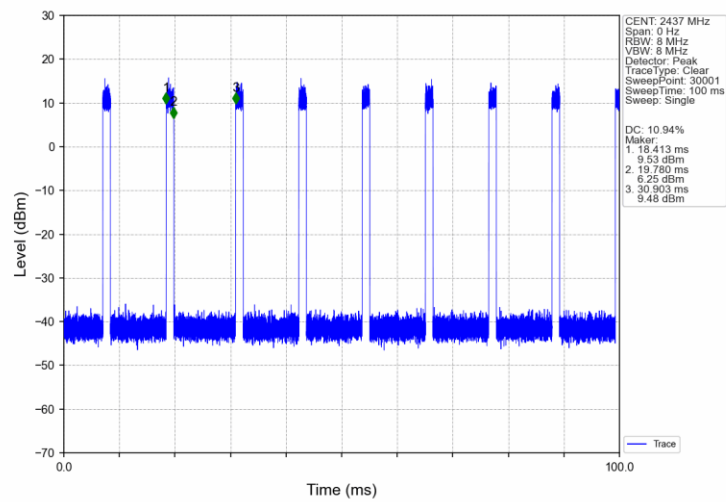
802.11g_HCH_2462MHz_Ant1 (SISO)_NTNV



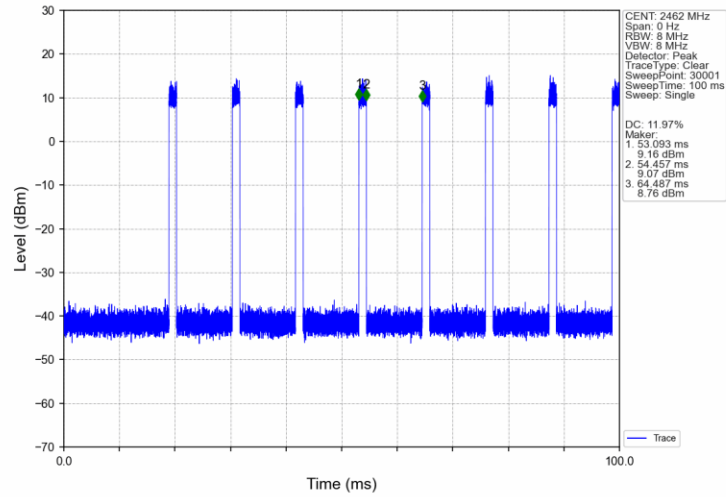
802.11n(HT20)_LCH_2412MHz_Ant1 (SISO)_NTNV



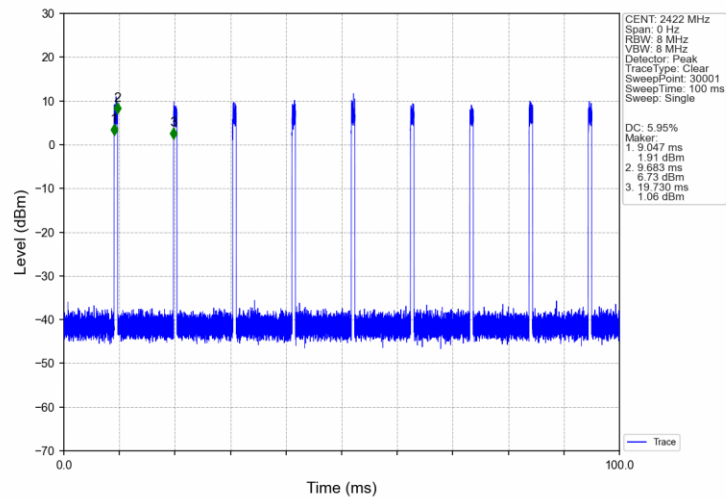
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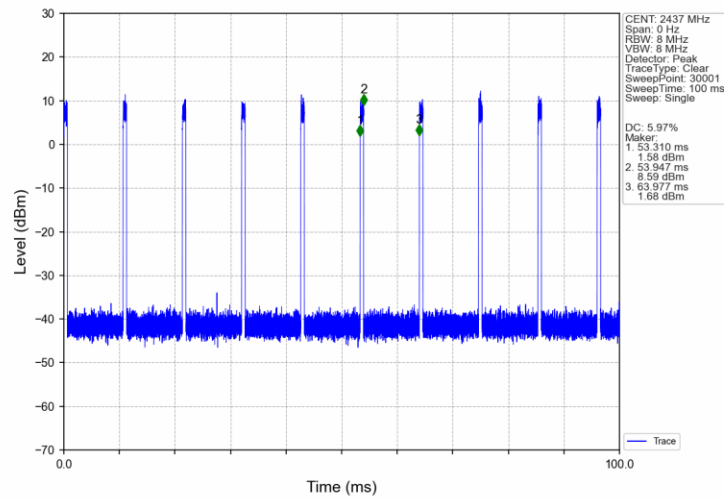
802.11n(HT20)_HCH_2462MHz_Ant1 (SISO)_NTNV



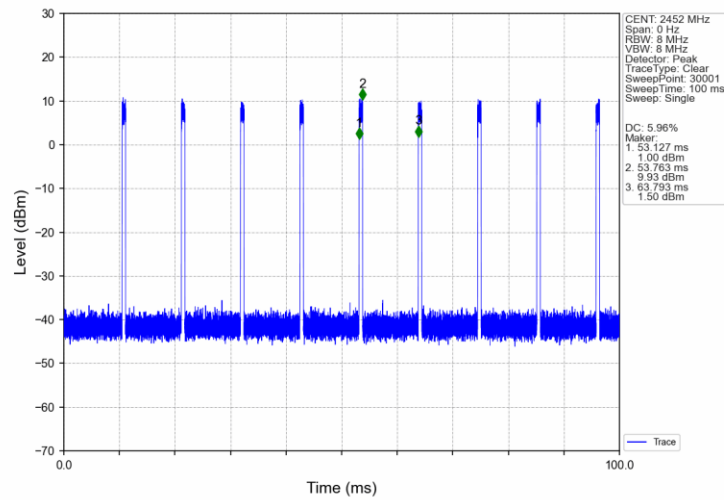
802.11n(HT40)_LCH_2422MHz_Ant1 (SISO)_NTNV



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	13.101	/	Pass
		2437	1	13.114	/	Pass
		2462	1	13.086	/	Pass
802.11g	SISO	2412	1	16.649	/	Pass
		2437	1	16.623	/	Pass
		2462	1	16.642	/	Pass
802.11n (HT20)	SISO	2412	1	16.601	/	Pass
		2437	1	16.637	/	Pass
		2462	1	16.657	/	Pass
802.11n (HT40)	SISO	2422	1	36.605	/	Pass
		2437	1	36.742	/	Pass
		2452	1	36.779	/	Pass

2.1.2 6dB BW

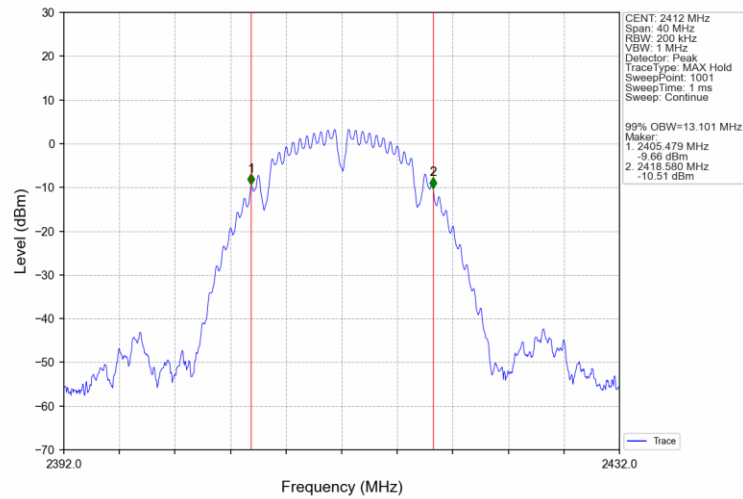
Mode	TX Type	Frequency (MHz)	ANT	6dB Bandwidth (MHz)		Verdict
				Result	Limit	
802.11b	SISO	2412	1	9.172	≥ 0.5	Pass
		2437	1	9.179	≥ 0.5	Pass
		2462	1	9.174	≥ 0.5	Pass

802.11g	SISO	2412	1	16.373	≥ 0.5	Pass
		2437	1	16.328	≥ 0.5	Pass
		2462	1	16.382	≥ 0.5	Pass
802.11n (HT20)	SISO	2412	1	16.352	≥ 0.5	Pass
		2437	1	16.331	≥ 0.5	Pass
		2462	1	16.321	≥ 0.5	Pass
802.11n (HT40)	SISO	2422	1	36.053	≥ 0.5	Pass
		2437	1	36.159	≥ 0.5	Pass
		2452	1	35.986	≥ 0.5	Pass

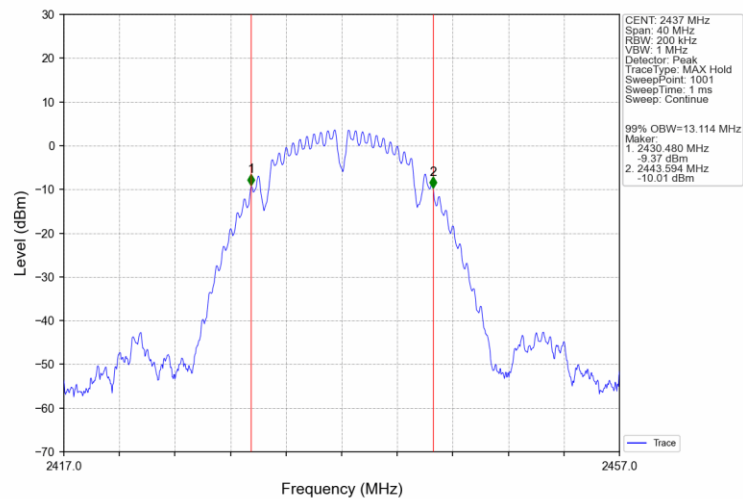
2.2 Test Graph

2.2.1 OBW

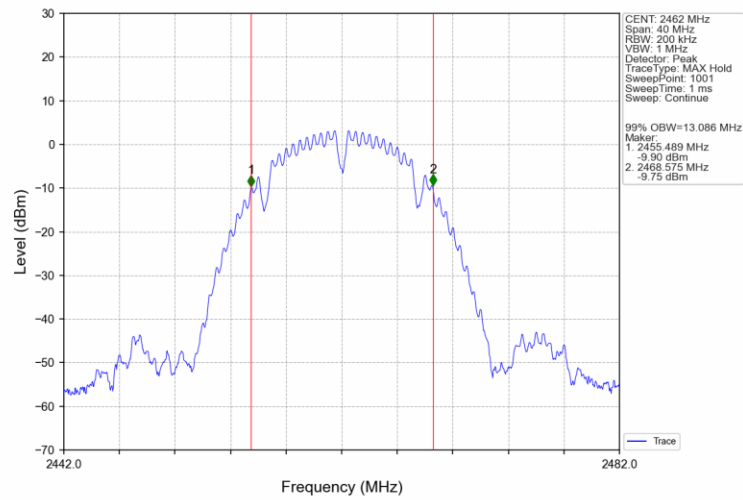
802.11b_LCH_2412MHz_Ant1 (SISO)_NTNV



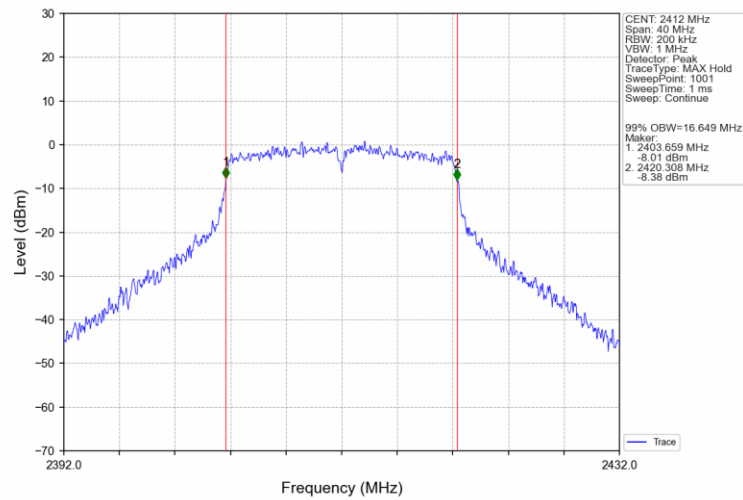
802.11b_MCH_2437MHz_Ant1 (SISO)_NTNV



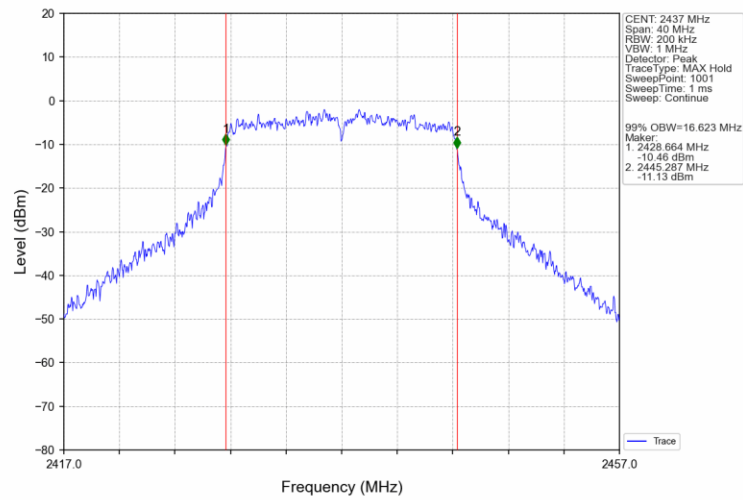
802.11b_HCH_2462MHz_Ant1 (SISO)_NTNV



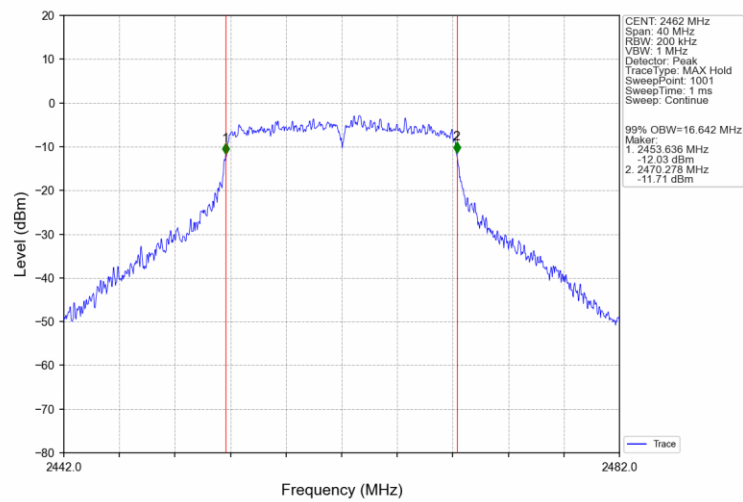
802.11g_LCH_2412MHz_Ant1 (SISO)_NTNV



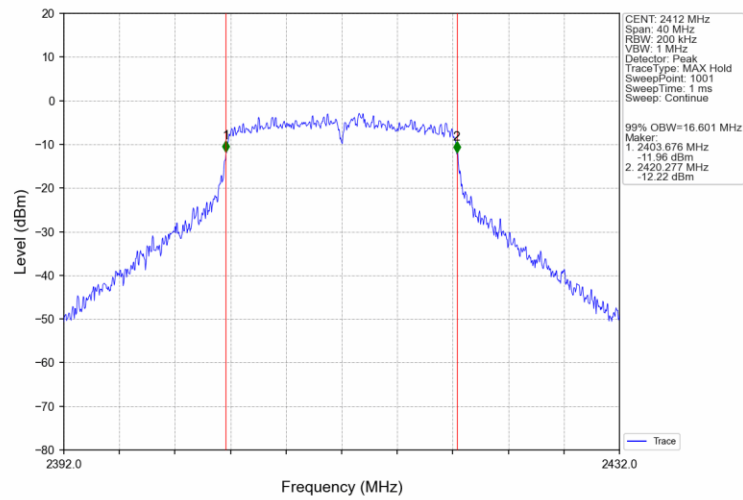
802.11g_MCH_2437MHz_Ant1 (SISO)_NTNV



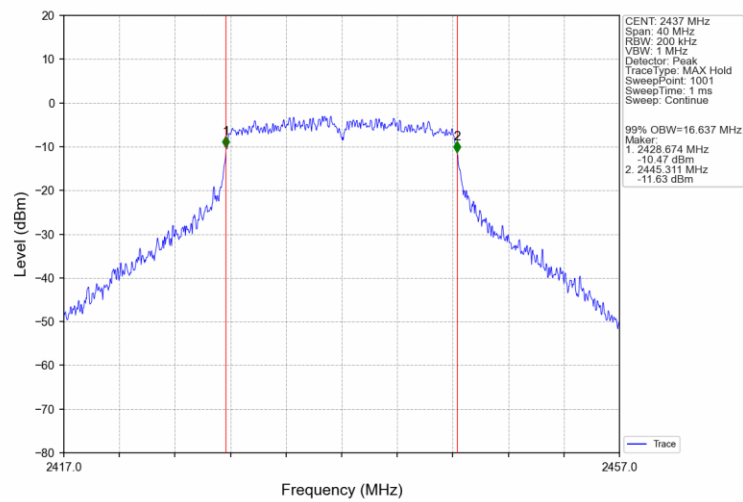
802.11g_HCH_2462MHz_Ant1 (SISO)_NTNV



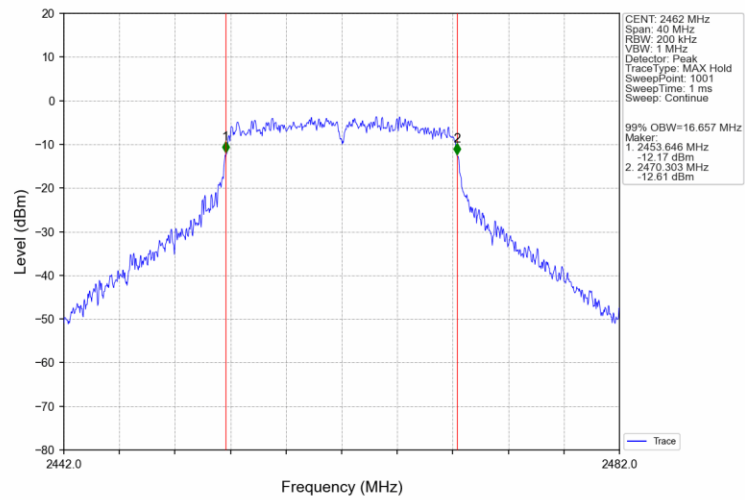
802.11n(HT20)_LCH_2412MHz_Ant1 (SISO)_NTNV



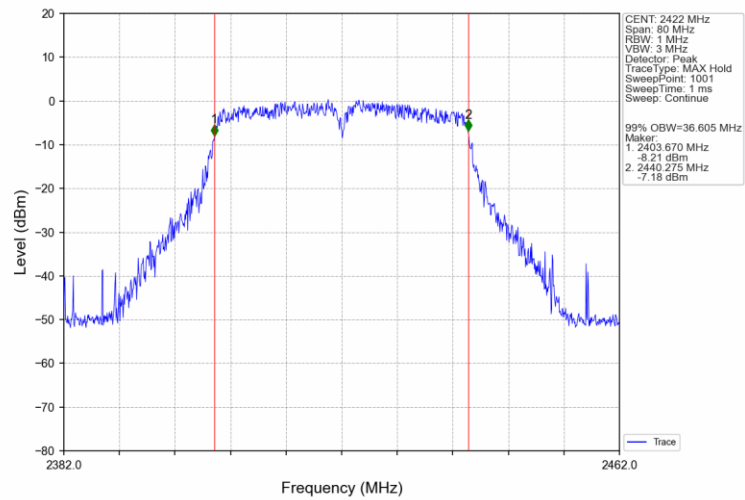
802.11n(HT20)_MCH_2437MHz_Ant1 (SISO)_NTNV



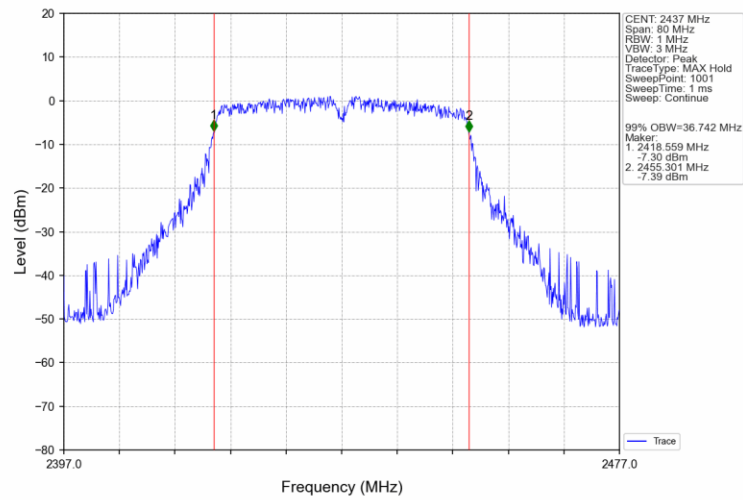
802.11n(HT20)_HCH_2462MHz_Ant1 (SISO)_NTNV



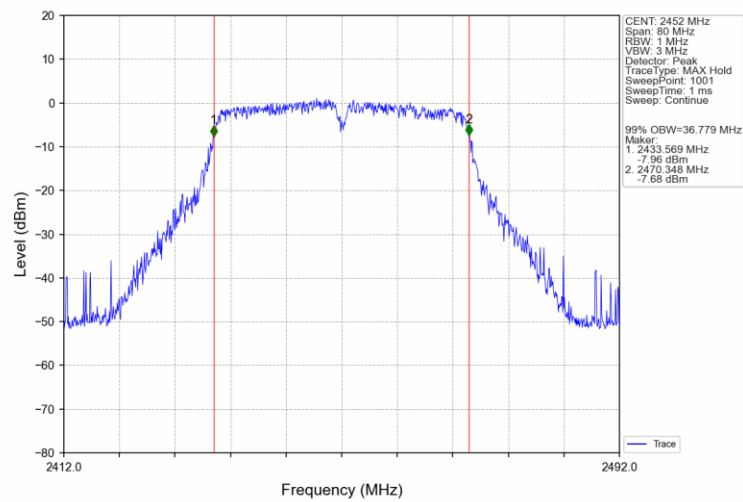
802.11n(HT40)_LCH_2422MHz_Ant1 (SISO)_NTNV



802.11n(HT40)_MCH_2437MHz_Ant1 (SISO)_NTNV

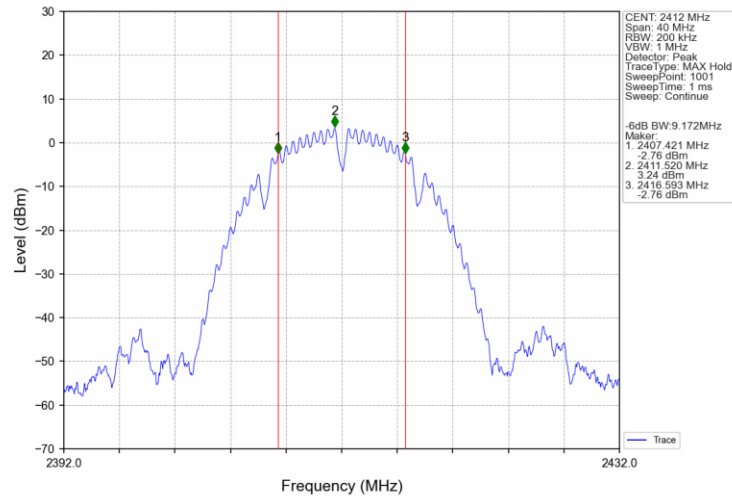


802.11n(HT40)_HCH_2452MHz_Ant1 (SISO)_NTNV

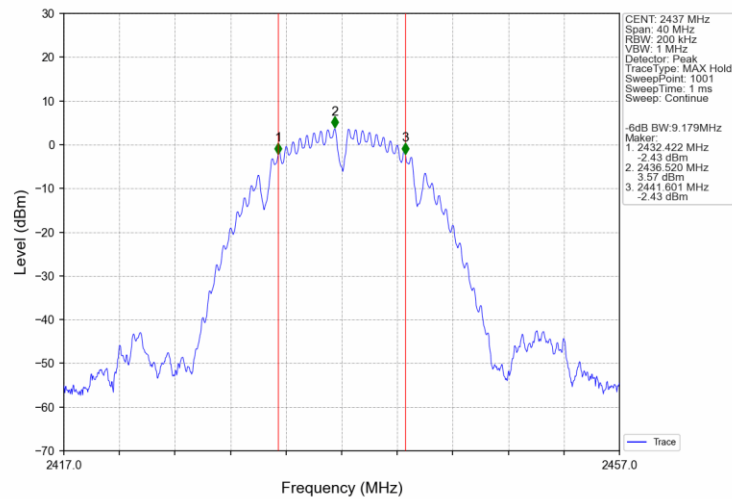


2.2.2 6dB BW

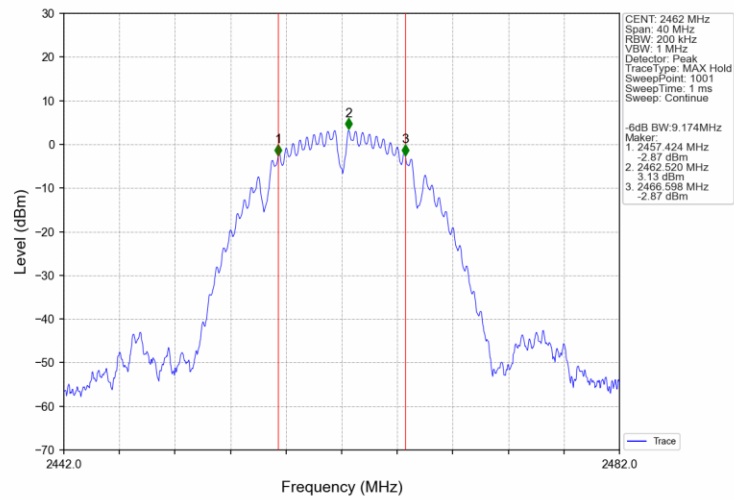
802.11b_LCH_2412MHz_Ant1 (SISO)_NTNV



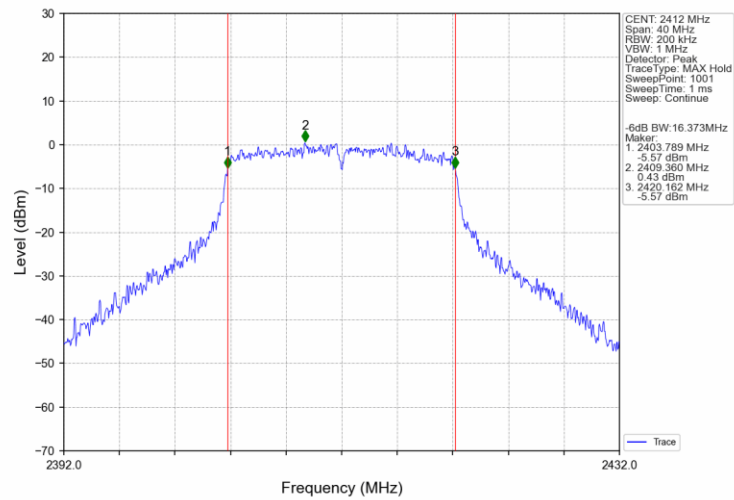
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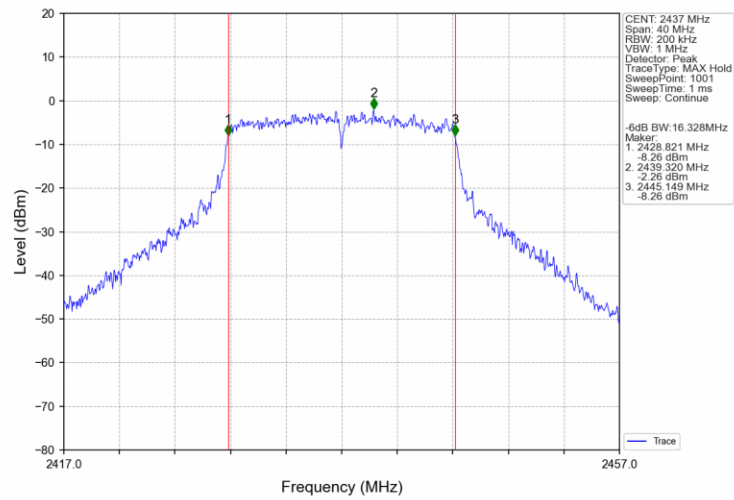
802.11b_HCH_2462MHz_Ant1 (SISO)_NTNV



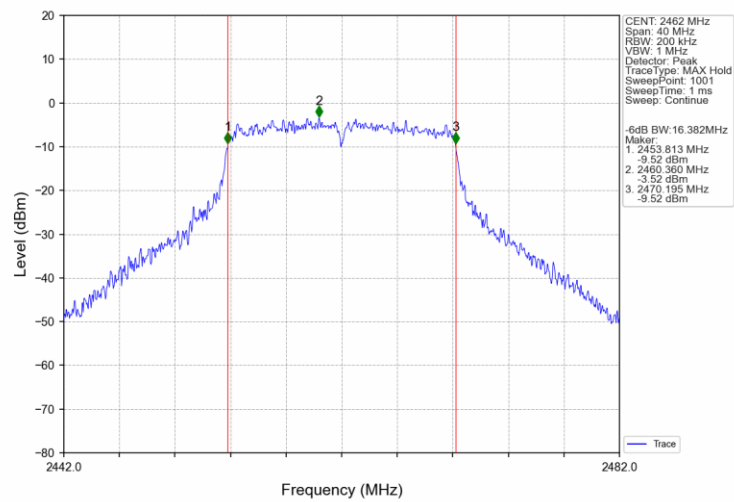
802.11g_LCH_2412MHz_Ant1 (SISO)_NTNV



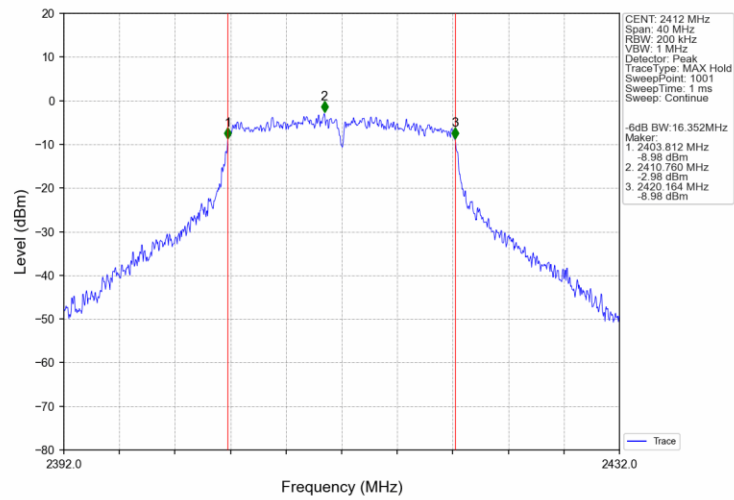
802.11g_MCH_2437MHz_Ant1 (SISO)_NTNV



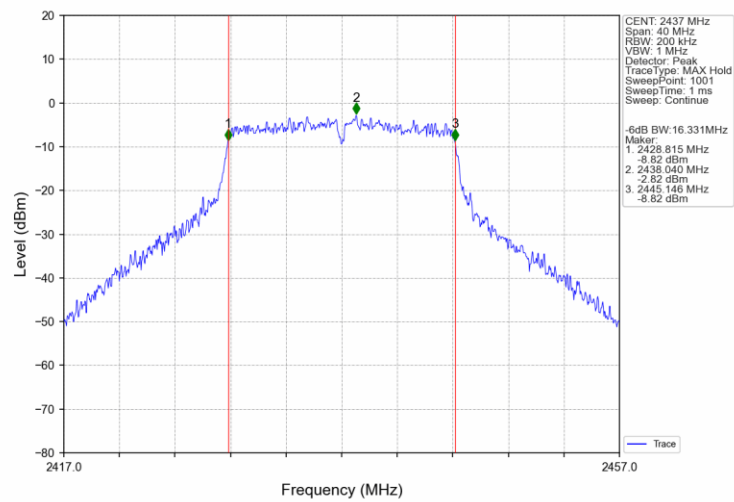
802.11g_HCH_2462MHz_Ant1 (SISO)_NTNV



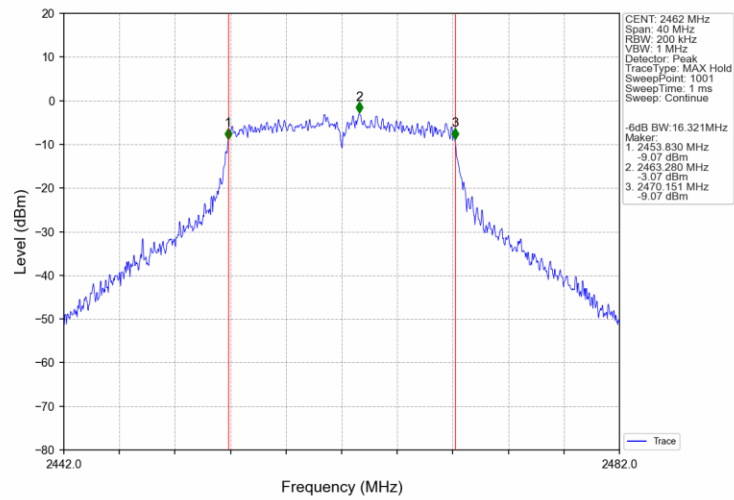
802.11n(HT20)_LCH_2412MHz_Ant1 (SISO)_NTNV



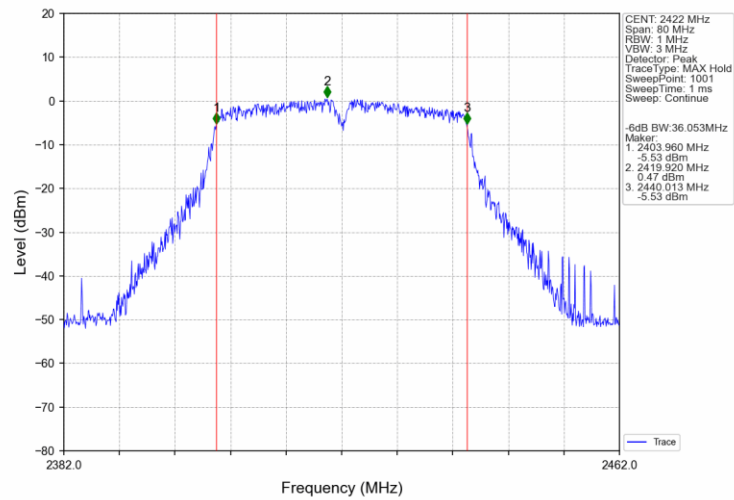
802.11n(HT20)_MCH_2437MHz_Ant1 (SISO)_NTNV



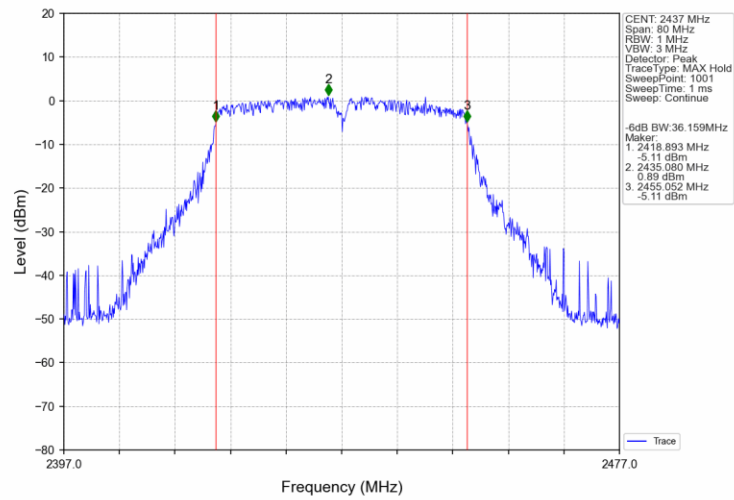
802.11n(HT20)_HCH_2462MHz_Ant1 (SISO)_NTNV



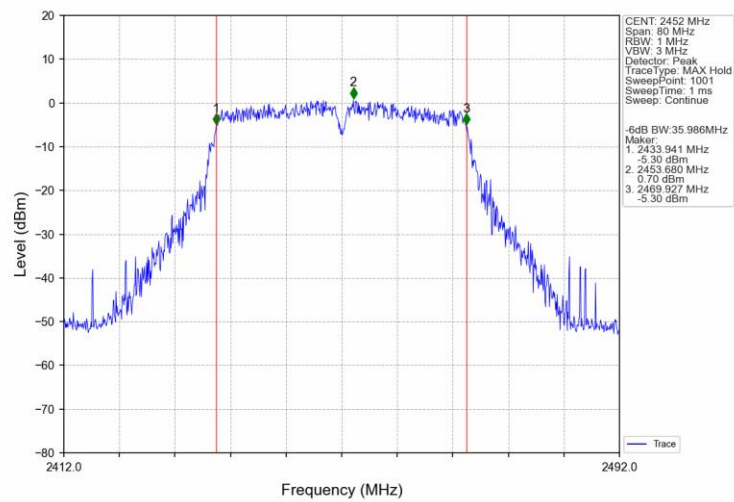
802.11n(HT40)_LCH_2422MHz_Ant1 (SISO)_NTNV



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	13.92	<=30	Pass
		2437	14.27	<=30	Pass
		2462	13.81	<=30	Pass
802.11g	SISO	2412	14.18	<=30	Pass
		2437	14.98	<=30	Pass
		2462	14.08	<=30	Pass
802.11n (HT20)	SISO	2412	14.13	<=30	Pass
		2437	14.39	<=30	Pass
		2462	13.91	<=30	Pass
802.11n (HT40)	SISO	2422	13.20	<=30	Pass
		2437	14.08	<=30	Pass
		2452	13.80	<=30	Pass
Note1: Antenna Gain: Ant1: 0.00dBi;					

4. Maximum Power Spectral Density

4.1 Test Result

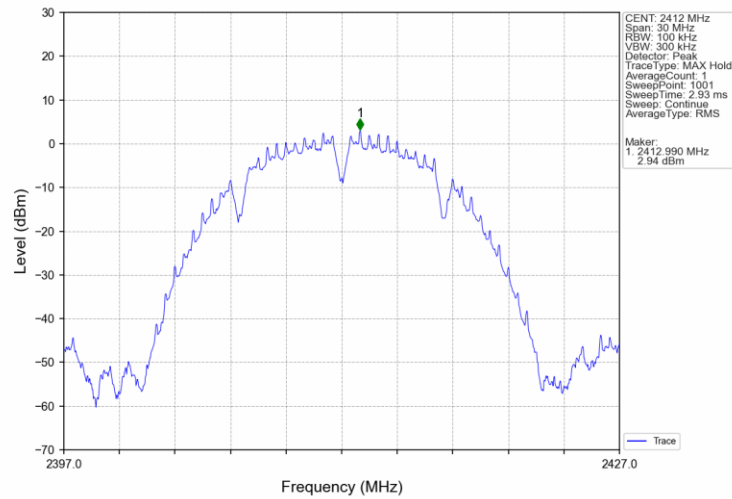
4.1.1 PSD

Mode	TX Type	Frequency (MHz)	Maximum PSD (dBm)		Verdict
			ANT1	Limit(dBm/3kHz)	
802.11b	SISO	2412	2.94dBm/100kHz	<=8	Pass
		2437	3.33dBm/100kHz	<=8	Pass
		2462	2.96dBm/100kHz	<=8	Pass
802.11g	SISO	2412	-5.08dBm/100kHz	<=8	Pass
		2437	-3.32dBm/100kHz	<=8	Pass
		2462	-4.74dBm/100kHz	<=8	Pass
802.11n (HT20)	SISO	2412	-5.07dBm/100kHz	<=8	Pass
		2437	-4.73dBm/100kHz	<=8	Pass
		2462	-4.63dBm/100kHz	<=8	Pass
802.11n (HT40)	SISO	2422	-8.07dBm/100kHz	<=8	Pass
		2437	-7.18dBm/100kHz	<=8	Pass
		2452	-7.18dBm/100kHz	<=8	Pass
Note1: Antenna Gain: Ant1: 0.00dBi;					

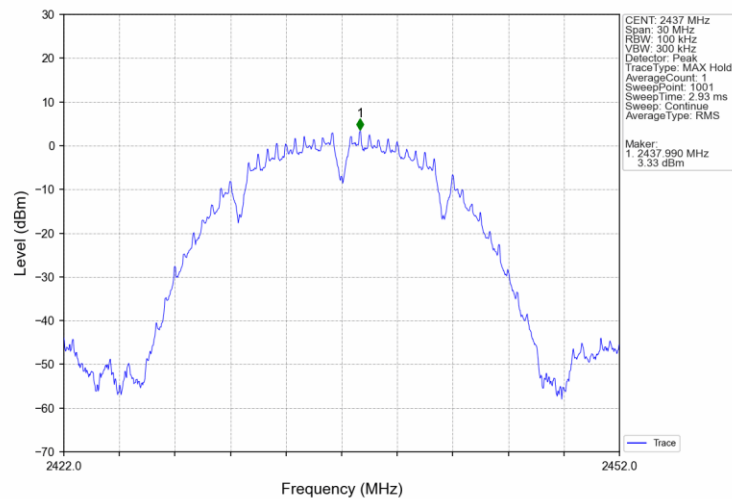
4.2 Test Graph

4.2.1 PSD

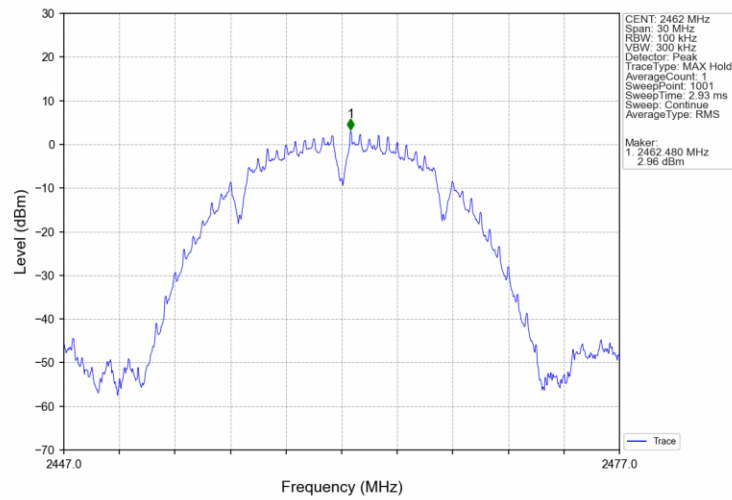
802.11b_LCH_2412MHz_Ant1 (SISO)_NTNV



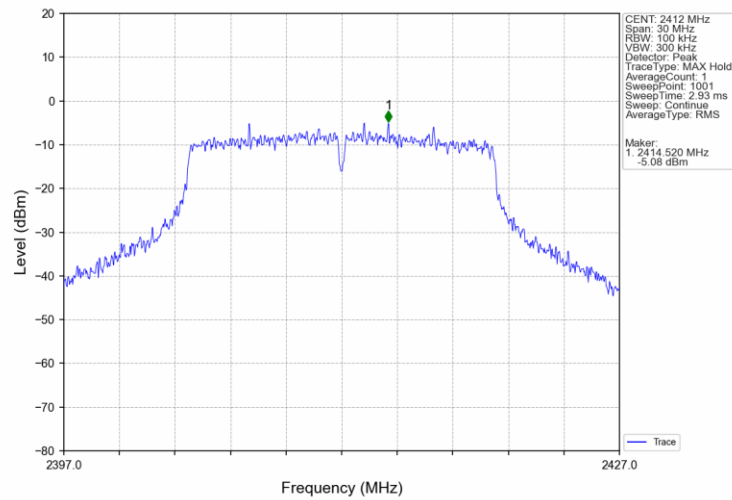
802.11b_MCH_2437MHz_Ant1 (SISO)_NTNV



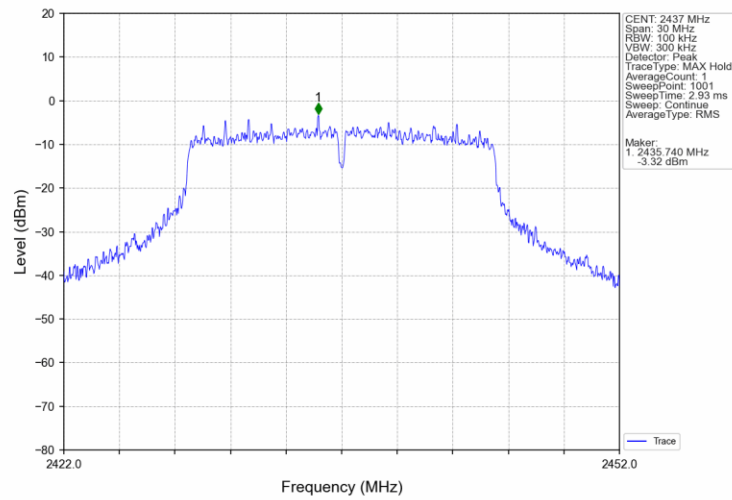
802.11b_HCH_2462MHz_Ant1 (SISO)_NTNV



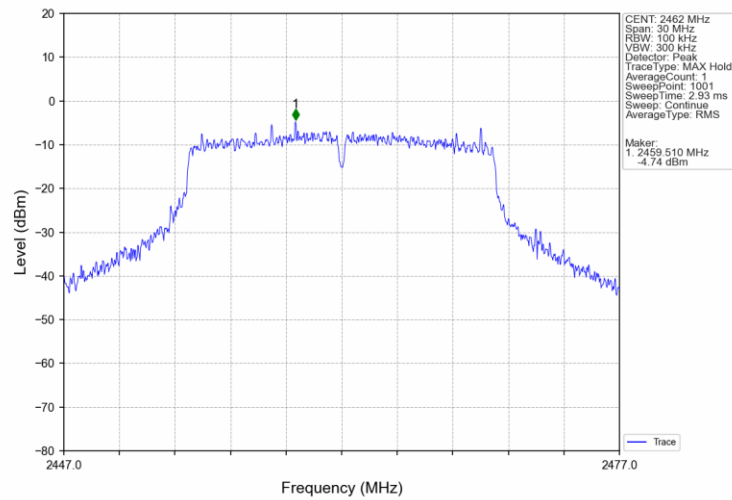
802.11g_LCH_2412MHz_Ant1 (SISO)_NTNV



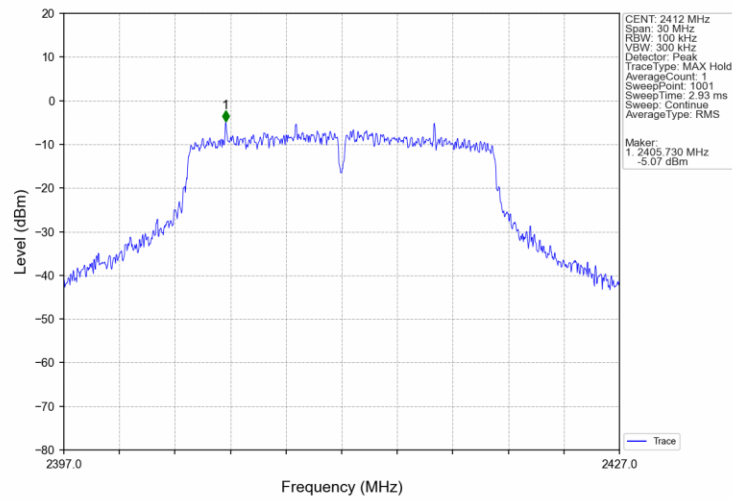
802.11g_MCH_2437MHz_Ant1 (SISO)_NTNV



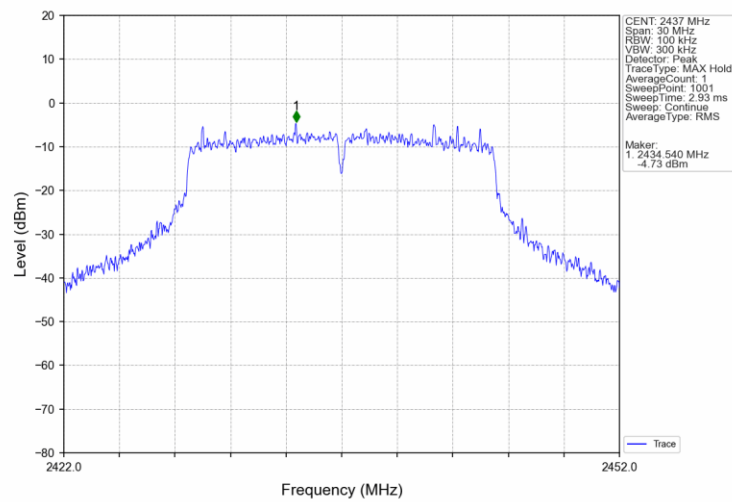
802.11g_HCH_2462MHz_Ant1 (SISO)_NTNV



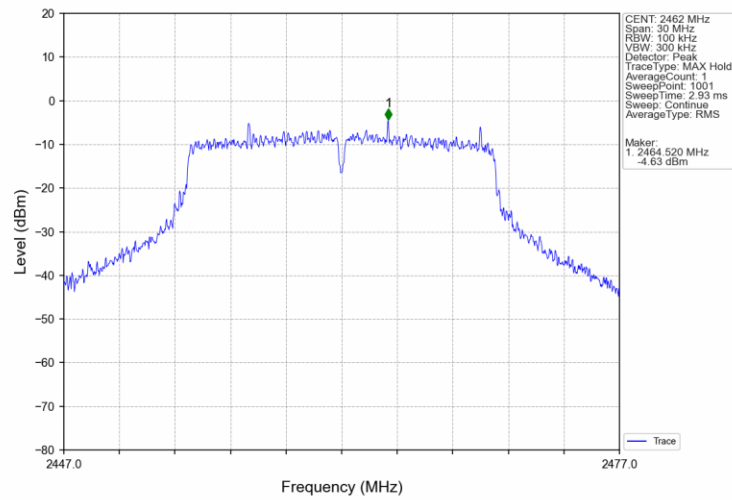
802.11n(HT20)_LCH_2412MHz_Ant1 (SISO)_NTNV



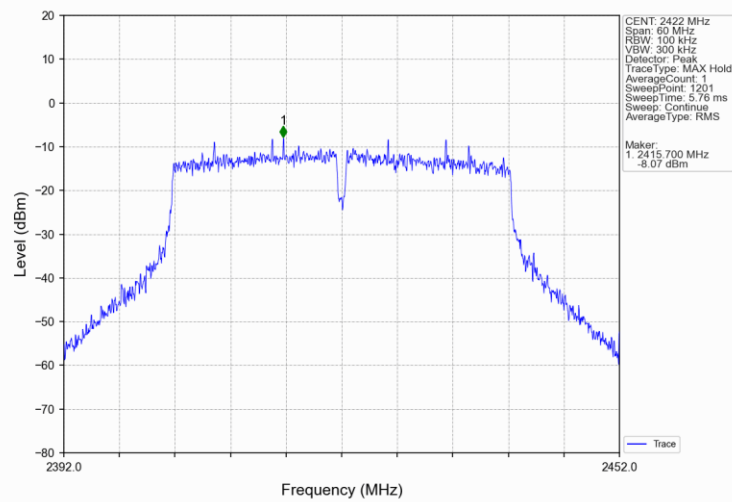
802.11n(HT20)_MCH_2437MHz_Ant1 (SISO)_NTNV



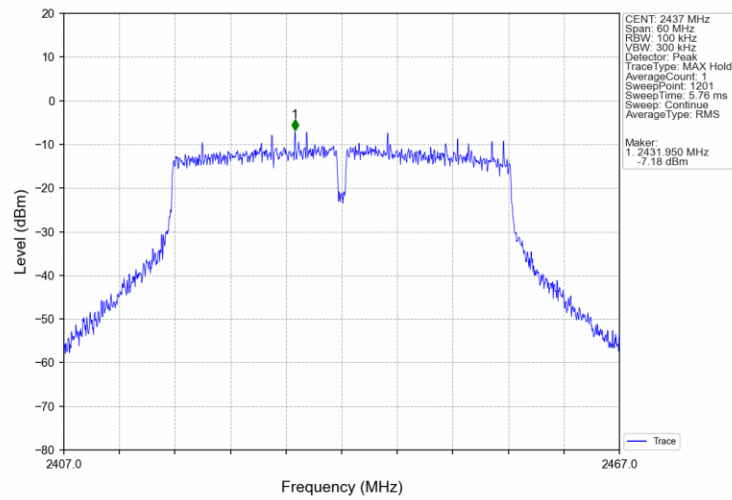
802.11n(HT20)_HCH_2462MHz_Ant1 (SISO)_NTNV



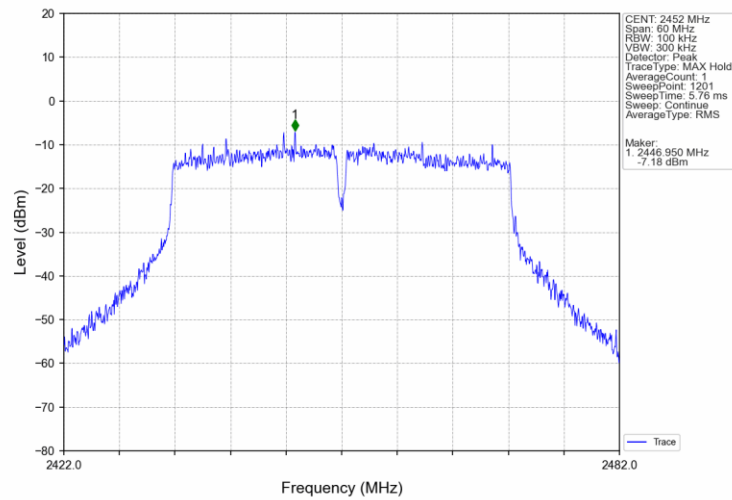
802.11n(HT40)_LCH_2422MHz_Ant1 (SISO)_NTNV



802.11n(HT40)_MCH_2437MHz_Ant1 (SISO)_NTNV



802.11n(HT40)_HCH_2452MHz_Ant1 (SISO)_NTNV



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	2.90
		2437	1	3.34
		2462	1	3.02
802.11g	SISO	2412	1	-0.45
		2437	1	-3.64
		2462	1	-4.88
802.11n (HT20)	SISO	2412	1	-5.64
		2437	1	-5.20
		2462	1	-4.44
802.11n (HT40)	SISO	2422	1	-7.01
		2437	1	-6.47
		2452	1	-7.92

5.1.2 CSE

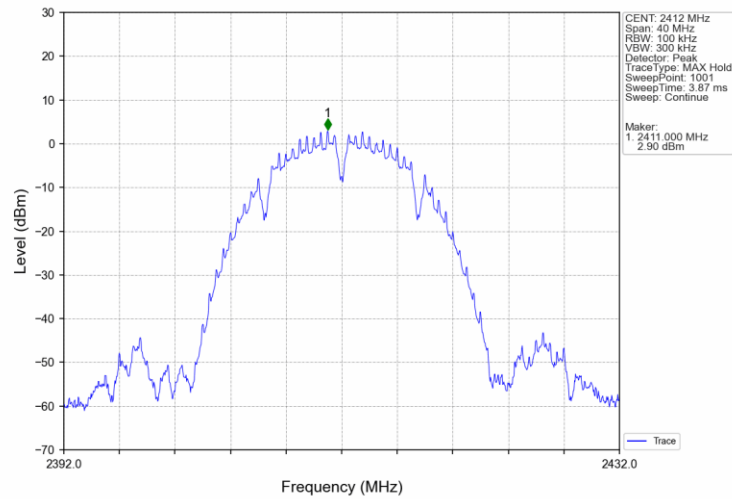
Mode	TX Type	Frequency (MHz)	ANT	Level of Reference (dBm)	Limit (dBm)	Verdict
802.11b	SISO	2412	1	2.90	-17.10	Pass
		2437	1	3.34	-16.66	Pass
		2462	1	3.02	-16.98	Pass
802.11g	SISO	2412	1	-0.45	-20.45	Pass

		2437	1	-3.64	-23.64	Pass
		2462	1	-4.88	-24.88	Pass
802.11n (HT20)	SISO	2412	1	-5.64	-25.64	Pass
		2437	1	-5.20	-25.20	Pass
		2462	1	-4.44	-24.44	Pass
802.11n (HT40)	SISO	2422	1	-7.01	-27.01	Pass
		2437	1	-6.47	-26.47	Pass
		2452	1	-7.92	-27.92	Pass

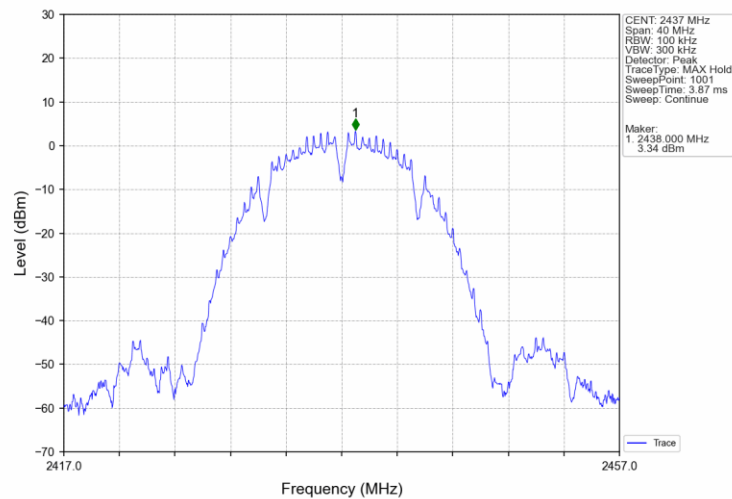
5.2 Test Graph

5.2.1 Ref

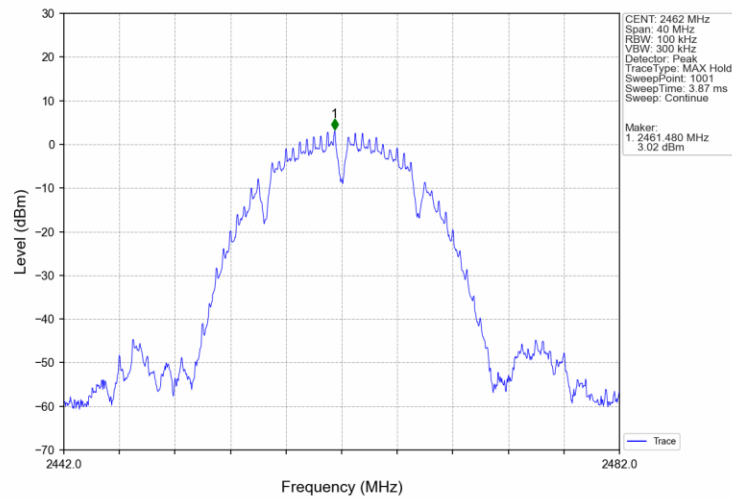
802.11b_LCH_2412MHz_Ant1 (SISO)_NTNV



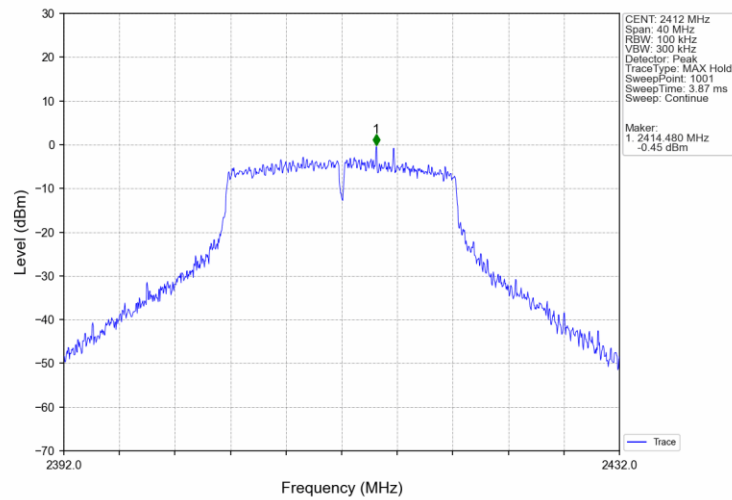
802.11b_MCH_2437MHz_Ant1 (SISO)_NTNV



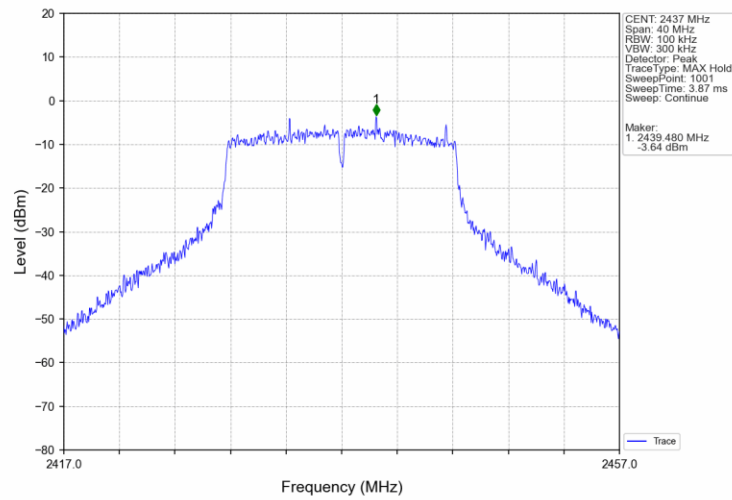
802.11b_HCH_2462MHz_Ant1 (SISO)_NTNV



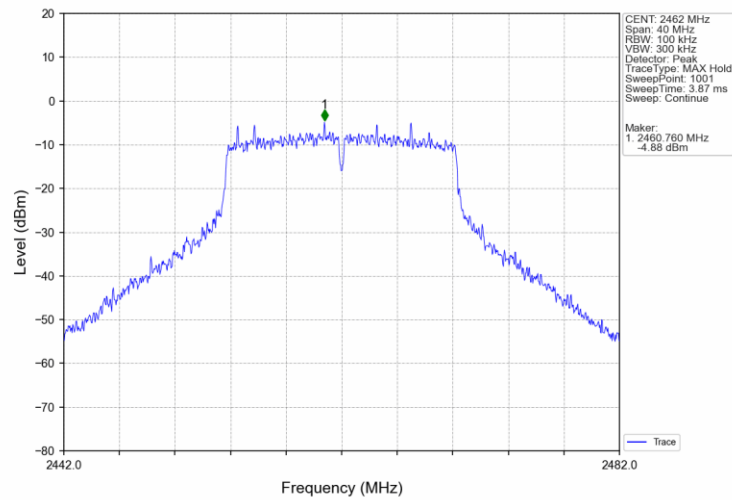
802.11g_LCH_2412MHz_Ant1 (SISO)_NTNV



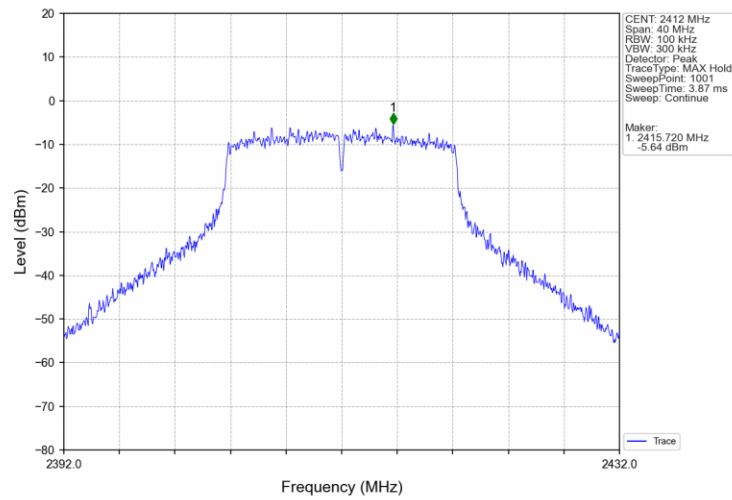
802.11g_MCH_2437MHz_Ant1 (SISO)_NTNV



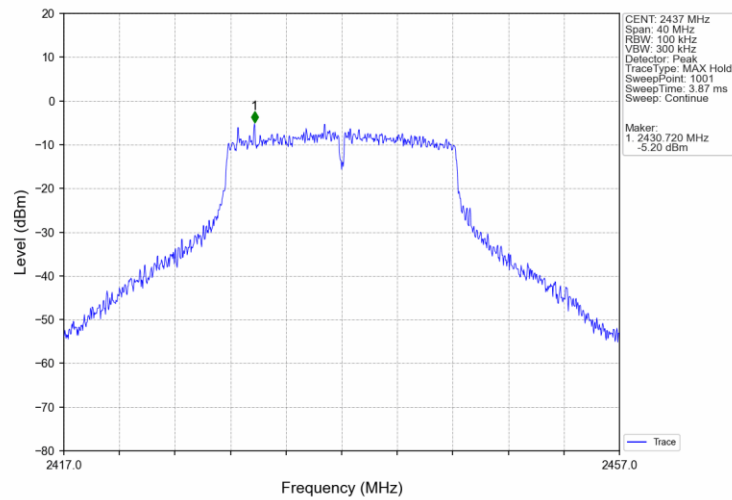
802.11g_HCH_2462MHz_Ant1 (SISO)_NTNV



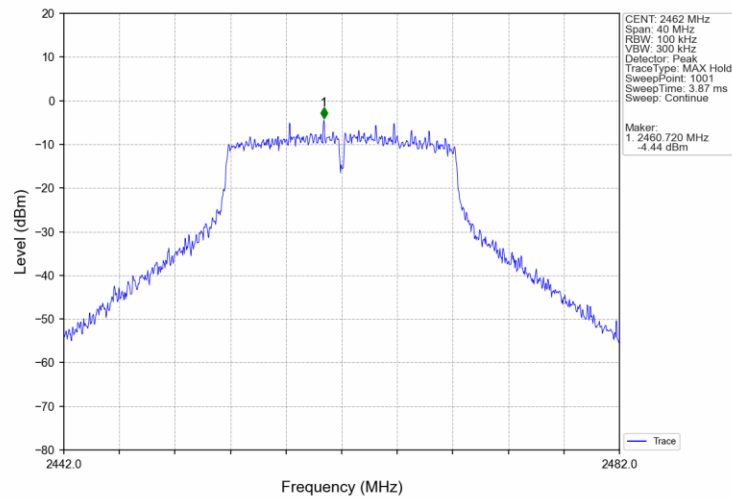
802.11n(HT20)_LCH_2412MHz_Ant1 (SISO)_NTNV



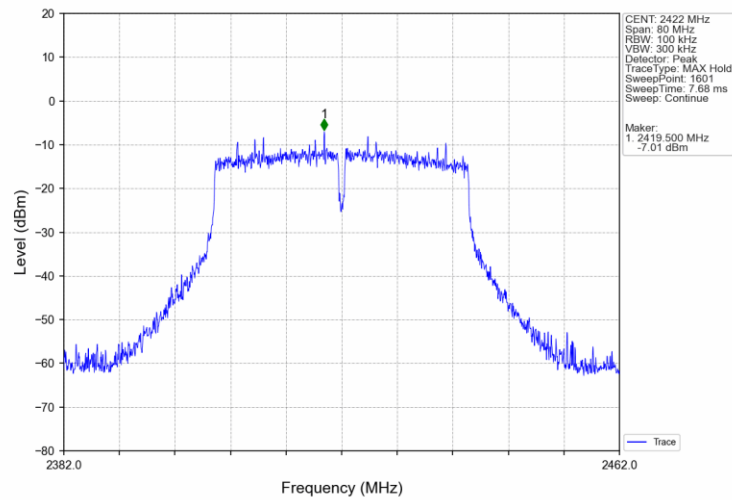
802.11n(HT20)_MCH_2437MHz_Ant1 (SISO)_NTNV



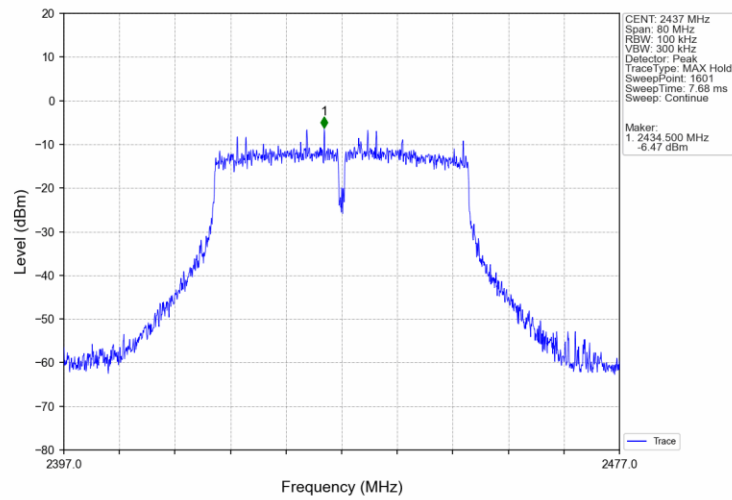
802.11n(HT20)_HCH_2462MHz_Ant1 (SISO)_NTNV



802.11n(HT40)_LCH_2422MHz_Ant1 (SISO)_NTNV



802.11n(HT40)_MCH_2437MHz_Ant1 (SISO)_NTNV



802.11n(HT40)_HCH_2452MHz_Ant1 (SISO)_NTNV

