

Appendix RF test data for WIFI2.4G

1. Duty Cycle

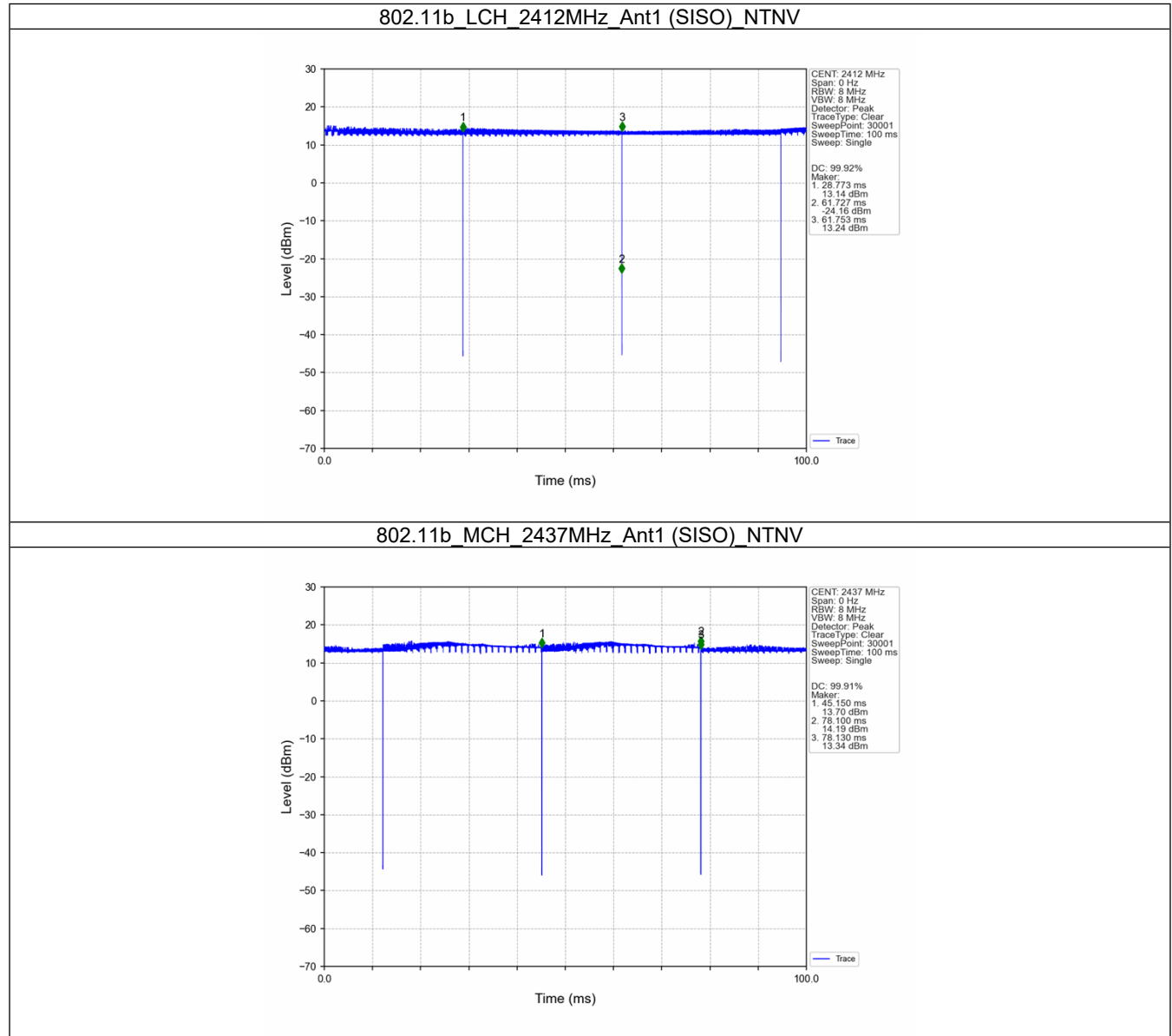
1.1 Test Result

1.1.1 Ant1

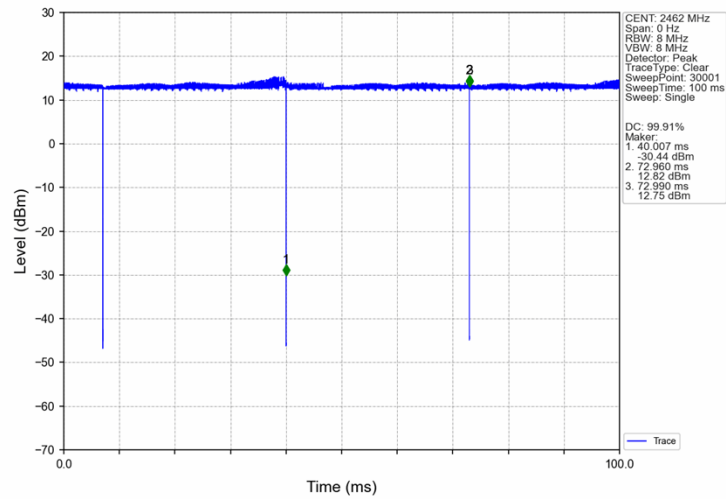
Ant1							
Mode	TX Type	Frequency (MHz)	T_on (ms)	Period (ms)	Duty Cycle (%)	Duty Cycle Correction Factor (dB)	Max. DC Variation (%)
802.11b	SISO	2412	32.954	32.980	99.92	0.00	0.00
		2437	32.950	32.980	99.91	0.00	0.00
		2462	32.953	32.983	99.91	0.00	0.01
802.11g	SISO	2412	5.484	5.510	99.53	0.02	0.04
		2437	5.484	5.510	99.53	0.02	0.00
		2462	5.484	5.510	99.53	0.02	0.00
802.11n (HT20)	SISO	2412	5.079	5.105	99.49	0.02	0.04
		2437	5.079	5.105	99.49	0.02	0.00
		2462	5.079	5.105	99.49	0.02	0.04
802.11n (HT40)	SISO	2422	2.468	2.493	99.00	0.04	0.00
		2437	2.469	2.741	90.08	0.45	8.93
		2452	2.468	2.493	99.00	0.04	0.00

1.2 Test Graph

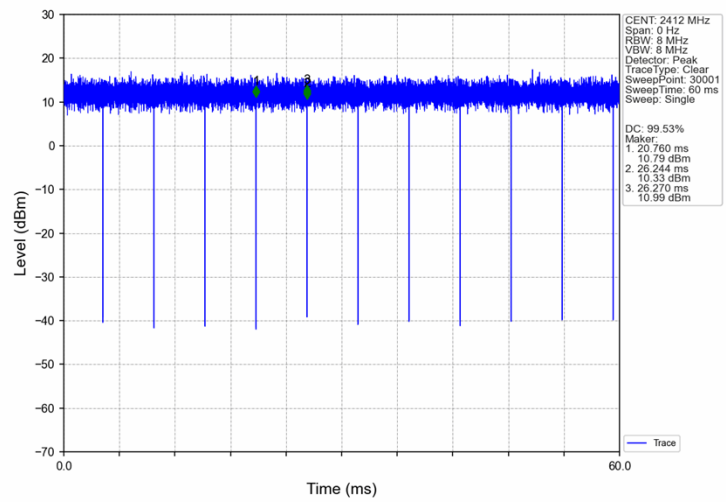
1.2.1 Ant1



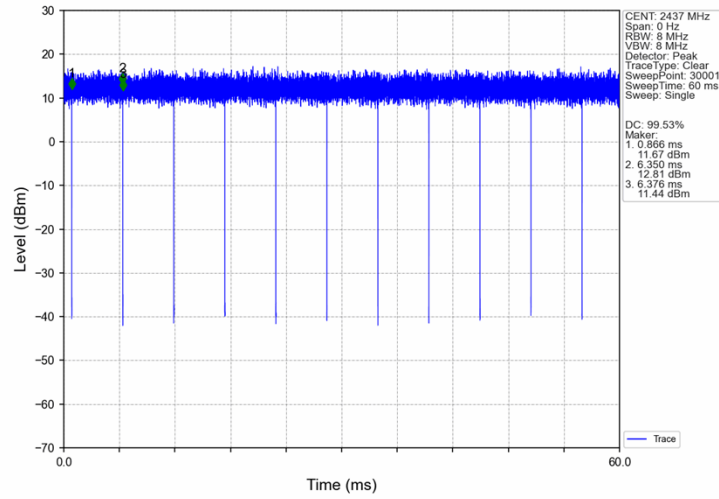
802.11b_HCH_2462MHz_Ant1 (SISO)_NTNV



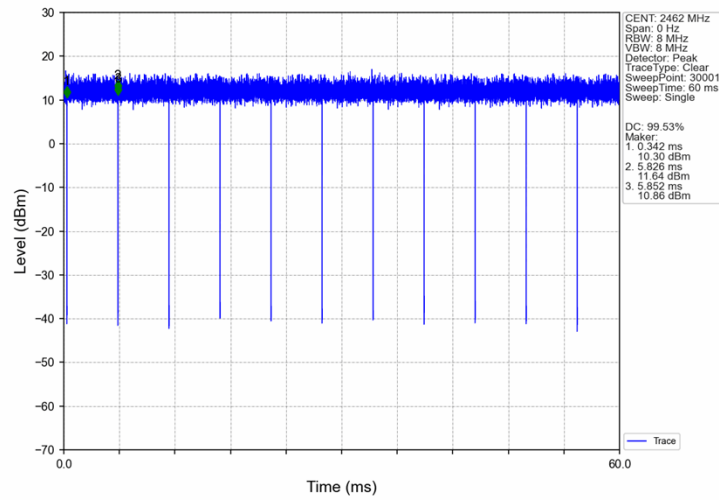
802.11g_LCH_2412MHz_Ant1 (SISO)_NTNV



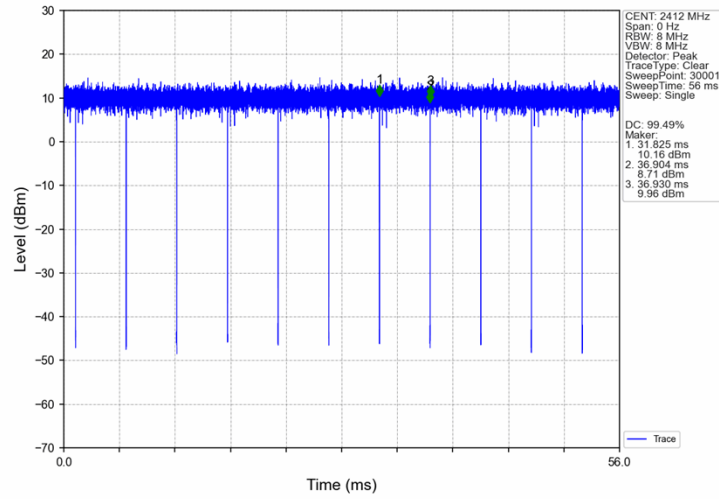
802.11g_MCH_2437MHz_Ant1 (SISO)_NTNV



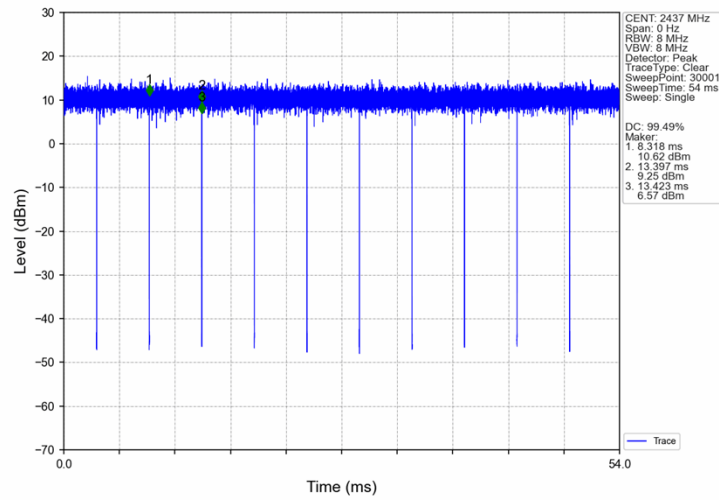
802.11g_HCH_2462MHz_Ant1 (SISO)_NTNV



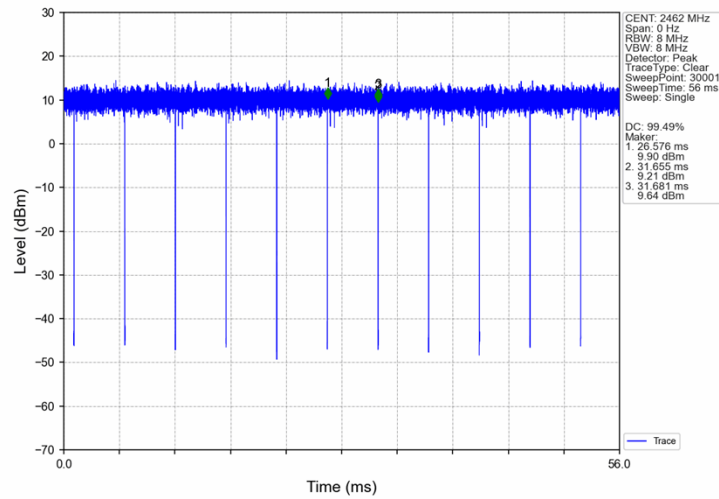
802.11n(HT20)_LCH_2412MHz_Ant1 (SISO)_NTNV



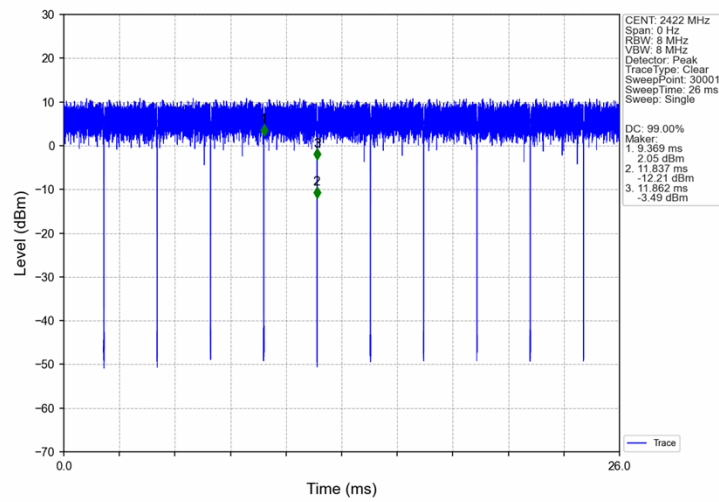
802.11n(HT20)_MCH_2437MHz_Ant1 (SISO)_NTNV



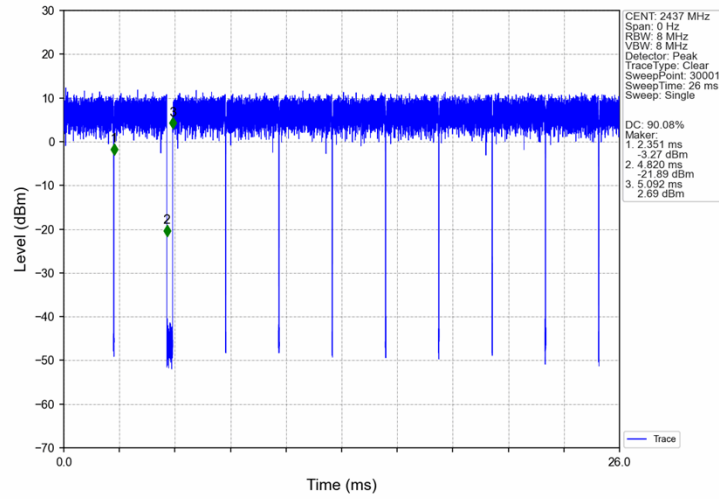
802.11n(HT20)_HCH_2462MHz_Ant1 (SISO)_NTNV



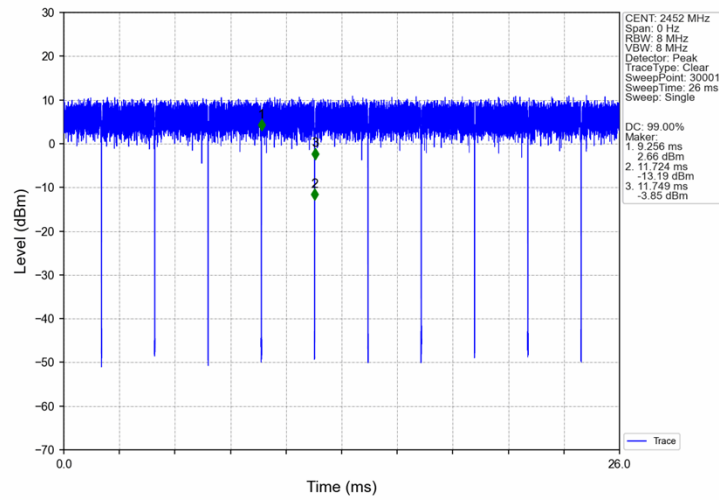
802.11n(HT40)_LCH_2422MHz_Ant1 (SISO)_NTNV



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	12.824	/	Pass
		2437	1	12.710	/	Pass
		2462	1	12.821	/	Pass
802.11g	SISO	2412	1	16.344	/	Pass
		2437	1	16.352	/	Pass
		2462	1	16.363	/	Pass
802.11n (HT20)	SISO	2412	1	17.240	/	Pass
		2437	1	17.218	/	Pass
		2462	1	17.217	/	Pass
802.11n (HT40)	SISO	2422	1	36.081	/	Pass
		2437	1	35.794	/	Pass
		2452	1	35.999	/	Pass

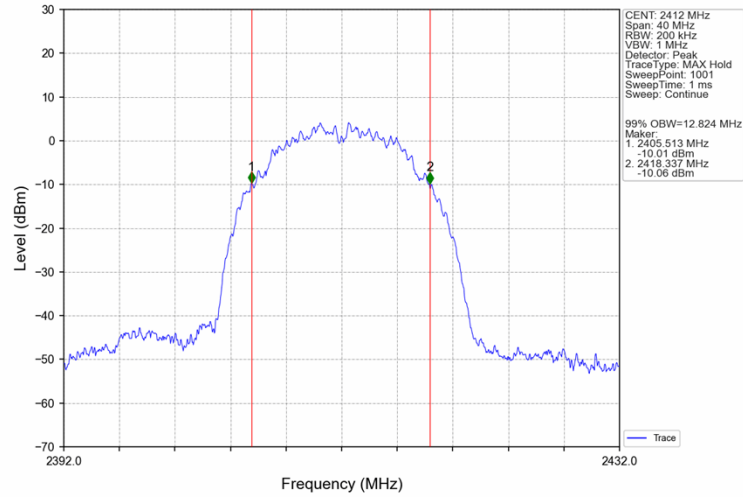
2.1.2 6dB BW

Mode	TX Type	Frequency (MHz)	ANT	6dB Bandwidth (MHz)		Verdict
				Result	Limit	
802.11b	SISO	2412	1	8.837	≥ 0.5	Pass
		2437	1	9.017	≥ 0.5	Pass
		2462	1	9.218	≥ 0.5	Pass
802.11g	SISO	2412	1	16.367	≥ 0.5	Pass
		2437	1	16.351	≥ 0.5	Pass
		2462	1	16.403	≥ 0.5	Pass
802.11n (HT20)	SISO	2412	1	17.123	≥ 0.5	Pass
		2437	1	16.963	≥ 0.5	Pass
		2462	1	17.208	≥ 0.5	Pass
802.11n (HT40)	SISO	2422	1	35.757	≥ 0.5	Pass
		2437	1	35.213	≥ 0.5	Pass
		2452	1	35.779	≥ 0.5	Pass

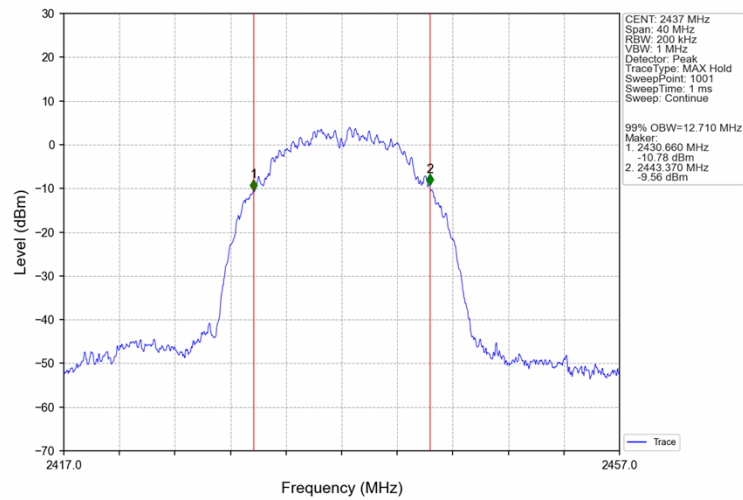
2.2 Test Graph

2.2.1 OBW

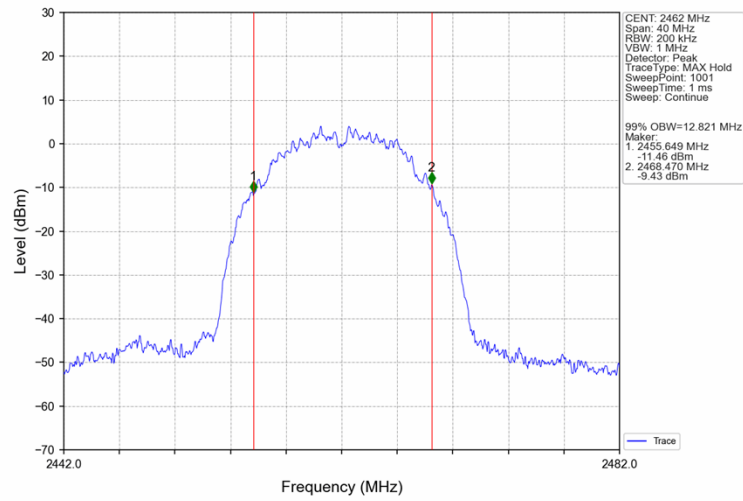
802.11b_LCH_2412MHz_Ant1 (SISO)_NTNV



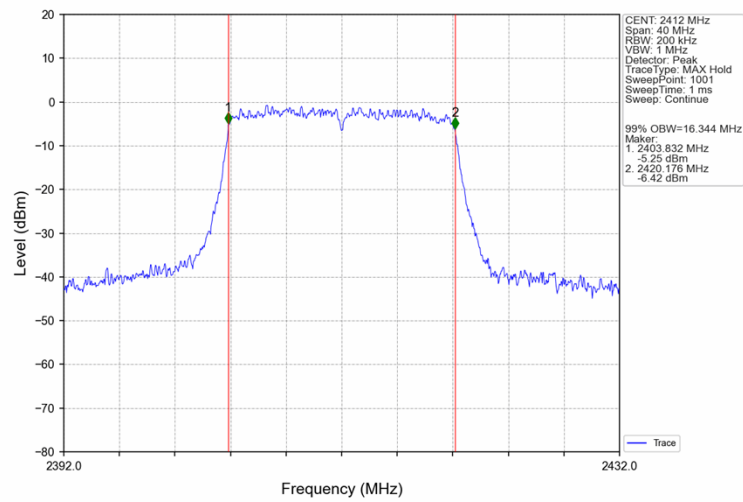
802.11b_MCH_2437MHz_Ant1 (SISO)_NTNV



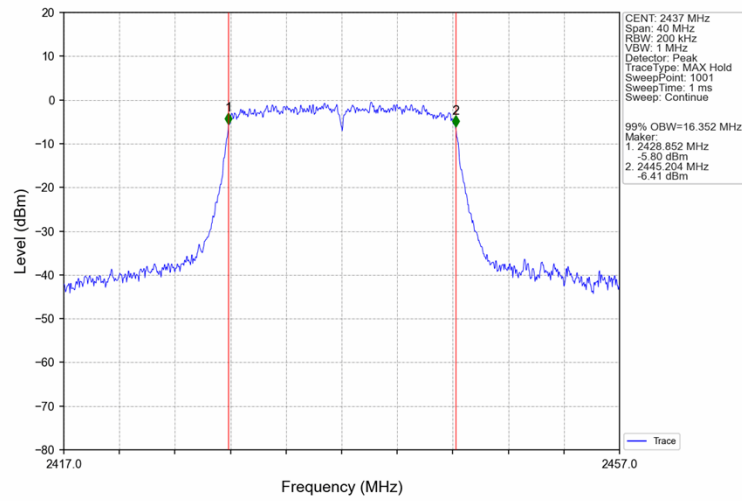
802.11b_HCH_2462MHz_Ant1 (SISO)_NTNV



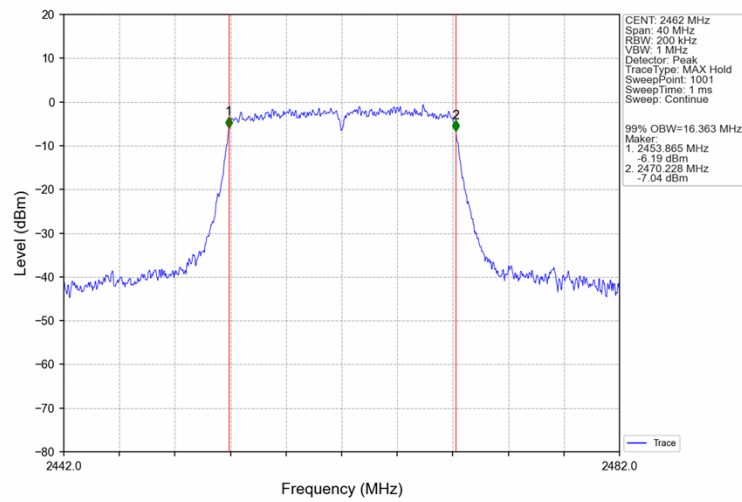
802.11g_LCH_2412MHz_Ant1 (SISO)_NTNV



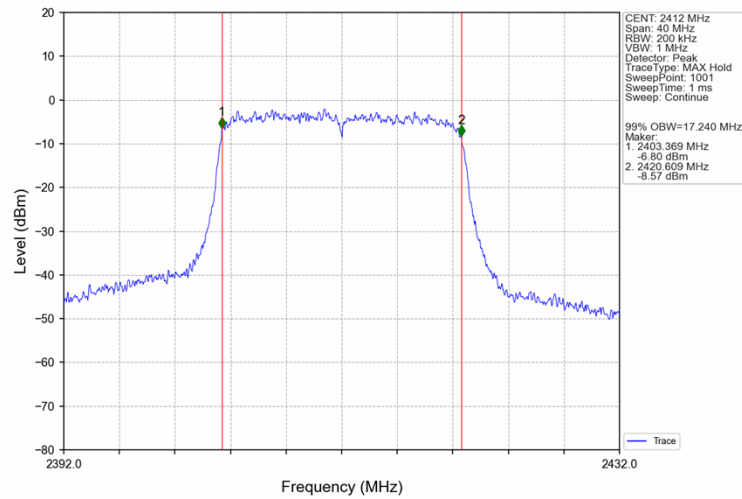
802.11g_MCH_2437MHz_Ant1 (SISO)_NTNV



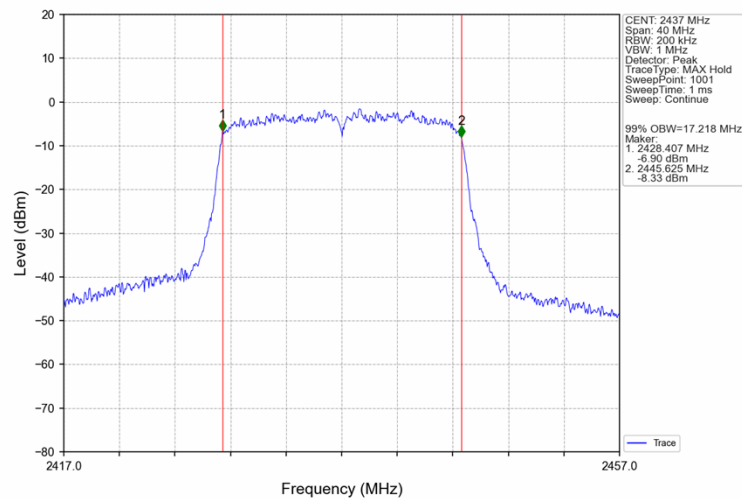
802.11g_HCH_2462MHz_Ant1 (SISO)_NTNV



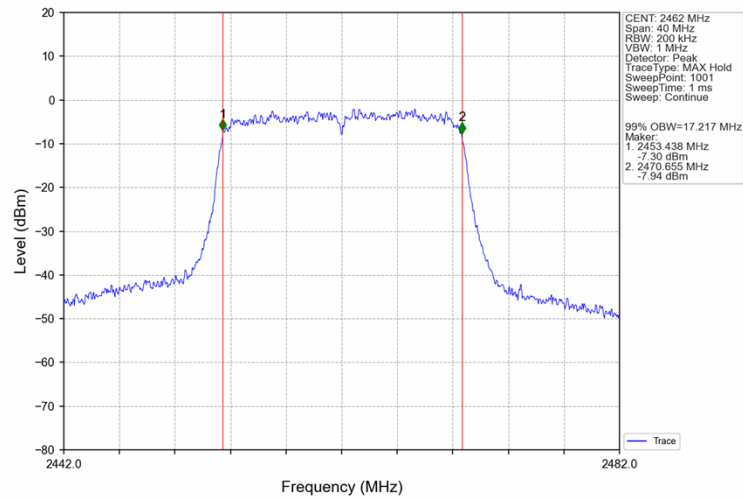
802.11n(HT20)_LCH_2412MHz_Ant1 (SISO)_NTNV



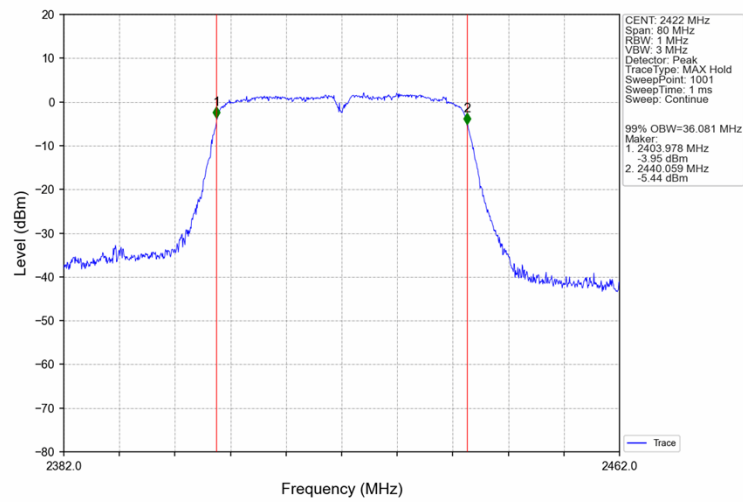
802.11n(HT20)_MCH_2437MHz_Ant1 (SISO)_NTNV



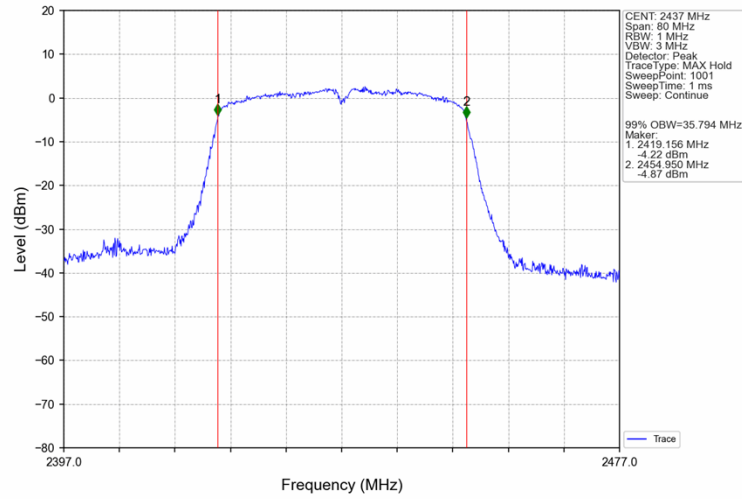
802.11n(HT20)_HCH_2462MHz_Ant1 (SISO)_NTNV



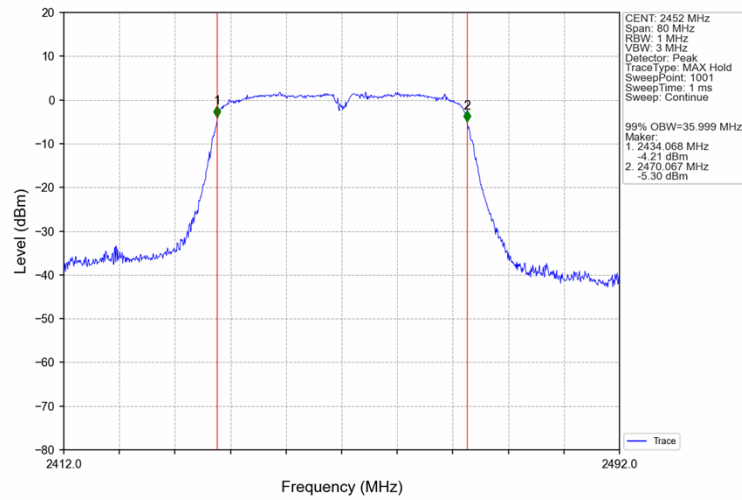
802.11n(HT40)_LCH_2422MHz_Ant1 (SISO)_NTNV



802.11n(HT40)_MCH_2437MHz_Ant1 (SISO)_NTNV

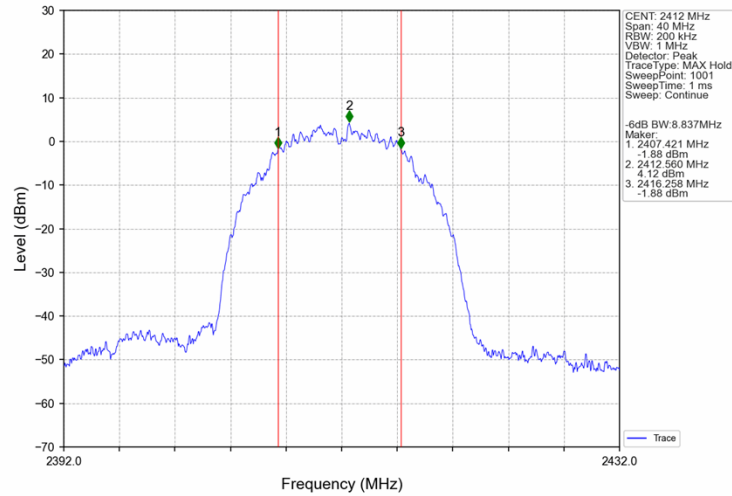


802.11n(HT40)_HCH_2452MHz_Ant1 (SISO)_NTNV

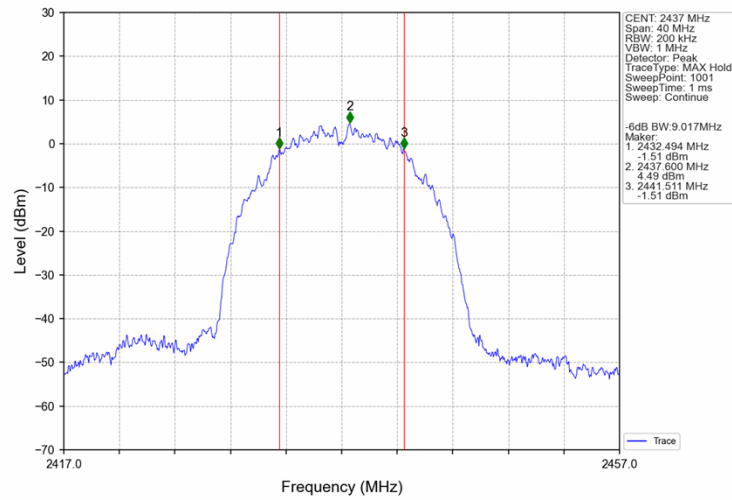


2.2.2 6dB BW

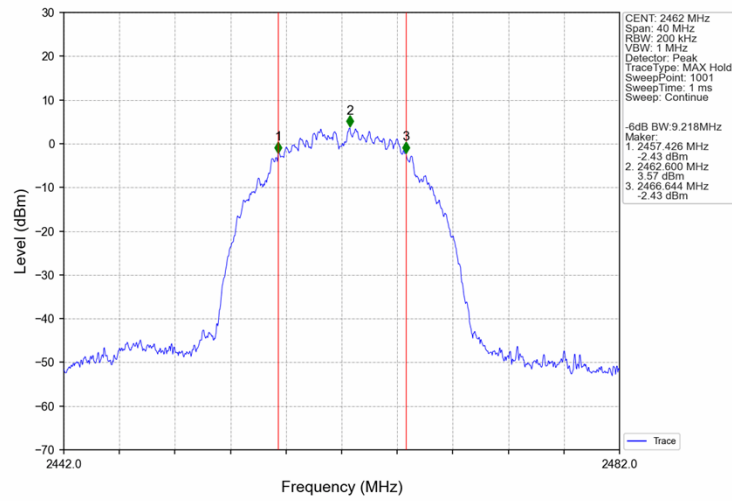
802.11b_LCH_2412MHz_Ant1 (SISO)_NTNV



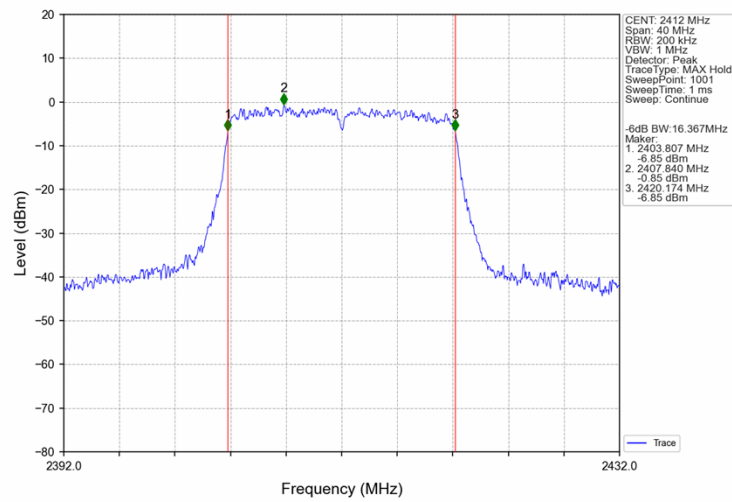
802.11b_MCH_2437MHz_Ant1 (SISO)_NTNV



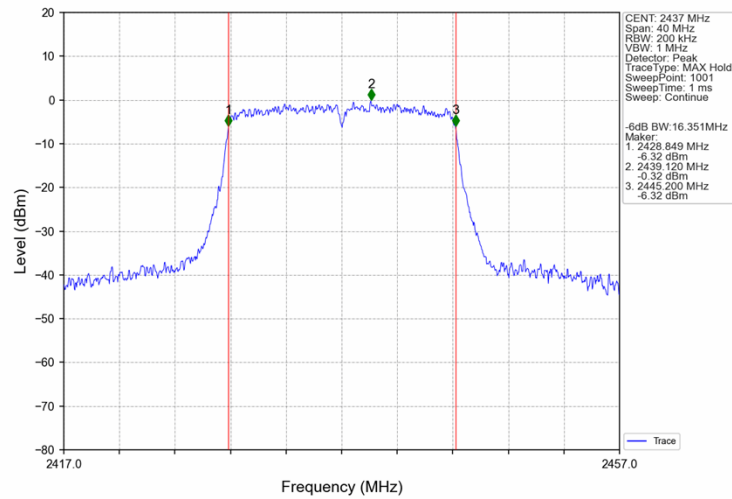
802.11b_HCH_2462MHz_Ant1 (SISO)_NTNV



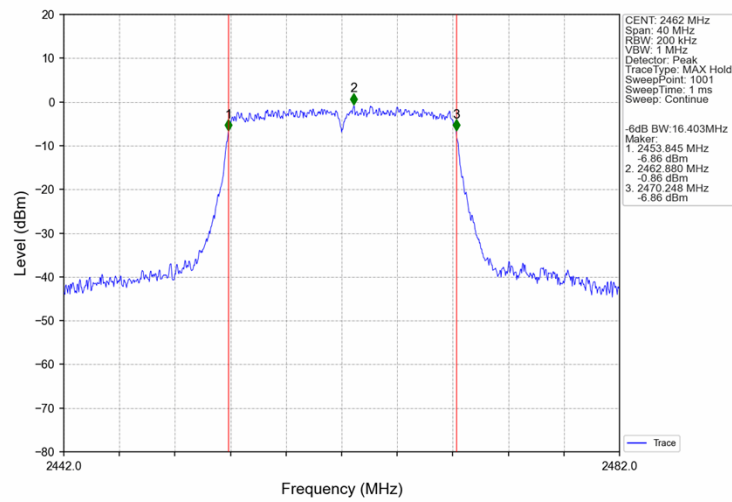
802.11g_LCH_2412MHz_Ant1 (SISO)_NTNV



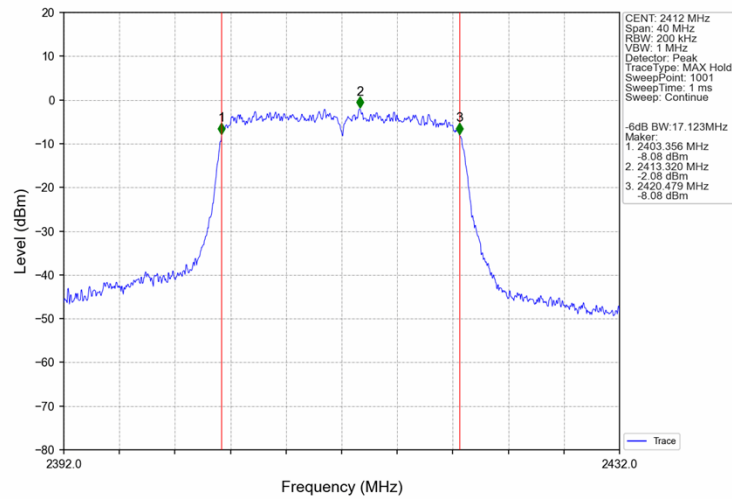
802.11g_MCH_2437MHz_Ant1 (SISO)_NTNV



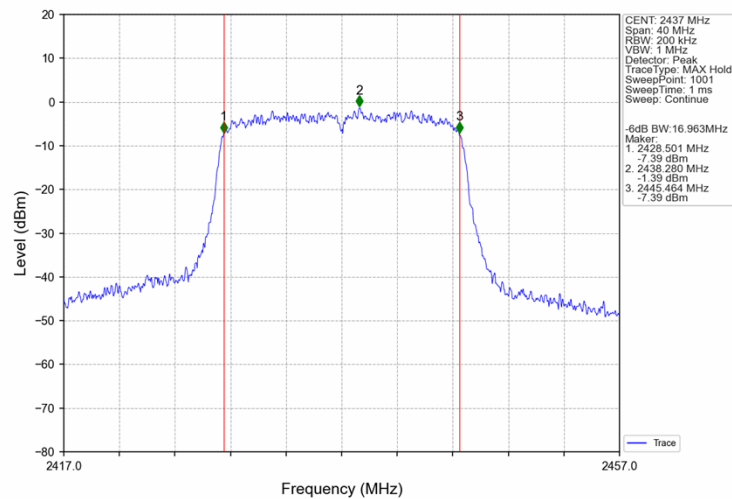
802.11g_HCH_2462MHz_Ant1 (SISO)_NTNV



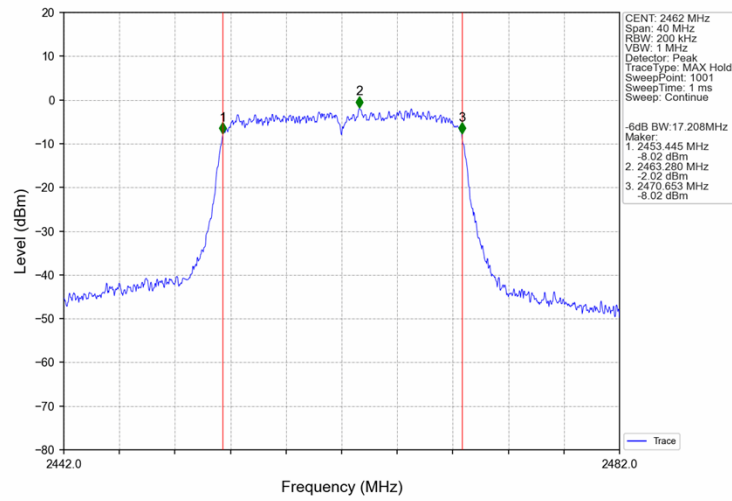
802.11n(HT20)_LCH_2412MHz_Ant1 (SISO)_NTNV



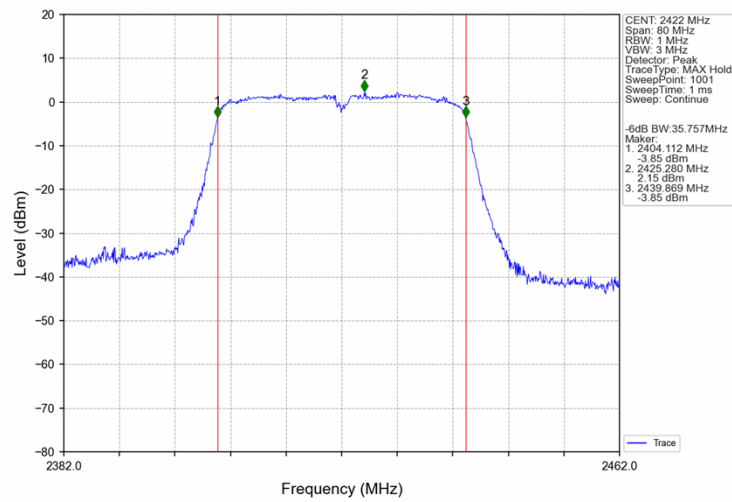
802.11n(HT20)_MCH_2437MHz_Ant1 (SISO)_NTNV



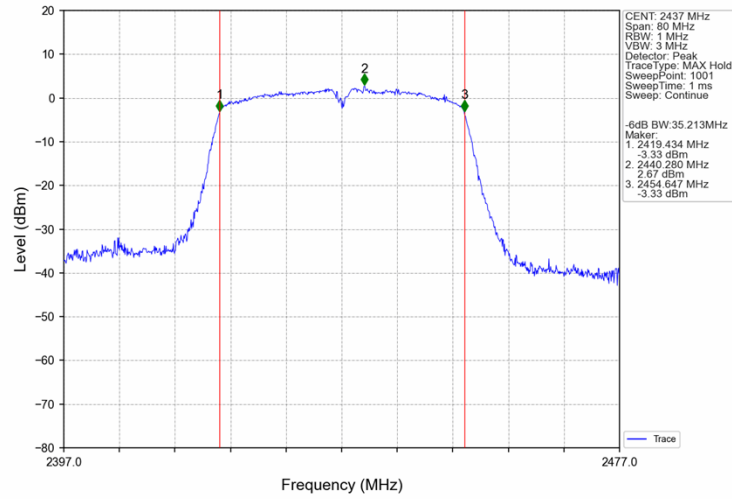
802.11n(HT20)_HCH_2462MHz_Ant1 (SISO)_NTNV



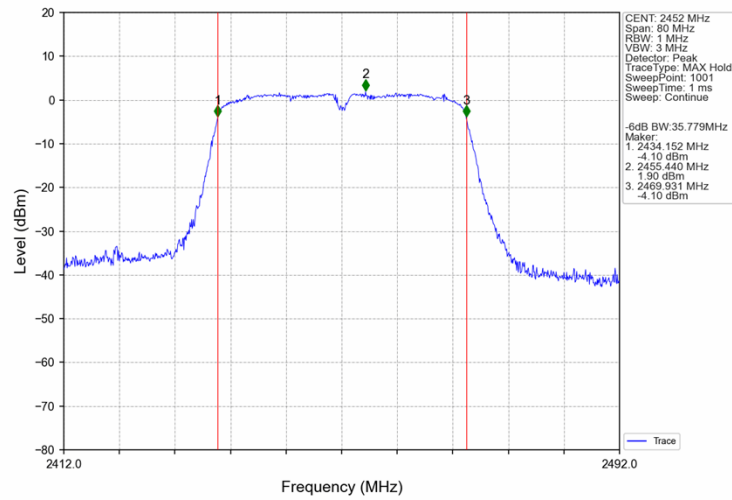
802.11n(HT40)_LCH_2422MHz_Ant1 (SISO)_NTNV



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	15.83	<=30	Pass
		2437	16.31	<=30	Pass
		2462	15.74	<=30	Pass
802.11g	SISO	2412	16.80	<=30	Pass
		2437	17.25	<=30	Pass
		2462	16.89	<=30	Pass
802.11n (HT20)	SISO	2412	15.47	<=30	Pass
		2437	15.75	<=30	Pass
		2462	15.58	<=30	Pass
802.11n (HT40)	SISO	2422	15.89	<=30	Pass
		2437	15.78	<=30	Pass
		2452	15.73	<=30	Pass

Note1: Antenna Gain: Ant1: 3.08dBi;

4. Maximum Power Spectral Density

4.1 Test Result

4.1.1 PSD

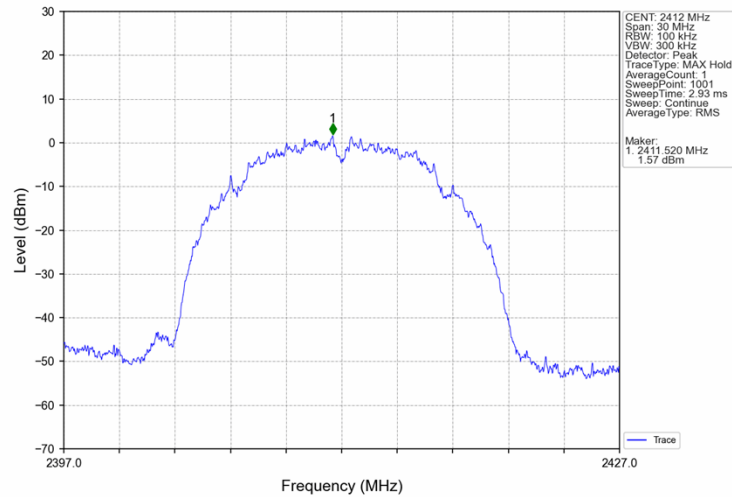
Mode	TX Type	Frequency (MHz)	Maximum PSD (dBm)		Verdict
			ANT1	Limit(dBm/3kHz)	
802.11b	SISO	2412	1.57dBm/100kHz	<=8	Pass
		2437	2.36dBm/100kHz	<=8	Pass
		2462	1.72dBm/100kHz	<=8	Pass
802.11g	SISO	2412	-2.04dBm/100kHz	<=8	Pass
		2437	-2.90dBm/100kHz	<=8	Pass
		2462	-2.39dBm/100kHz	<=8	Pass
802.11n (HT20)	SISO	2412	-3.03dBm/100kHz	<=8	Pass
		2437	-2.83dBm/100kHz	<=8	Pass
		2462	-3.55dBm/100kHz	<=8	Pass
802.11n (HT40)	SISO	2422	-5.69dBm/100kHz	<=8	Pass
		2437	-5.82dBm/100kHz	<=8	Pass
		2452	-6.27dBm/100kHz	<=8	Pass

Note1: Antenna Gain: Ant1: 3.08dBi;

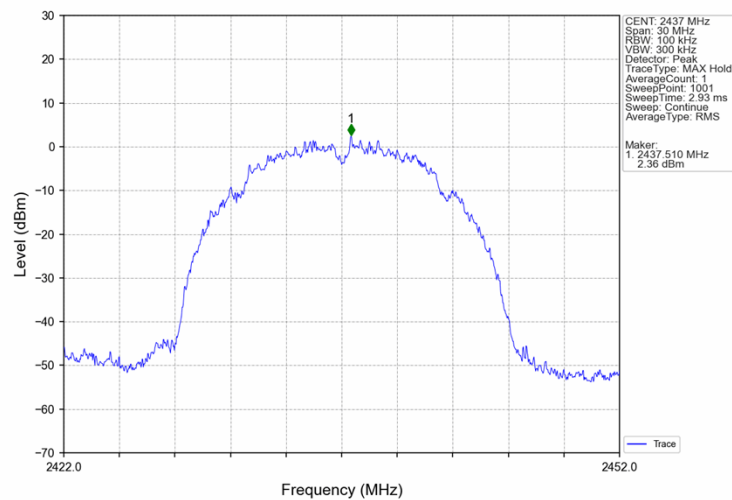
4.2 Test Graph

4.2.1 PSD

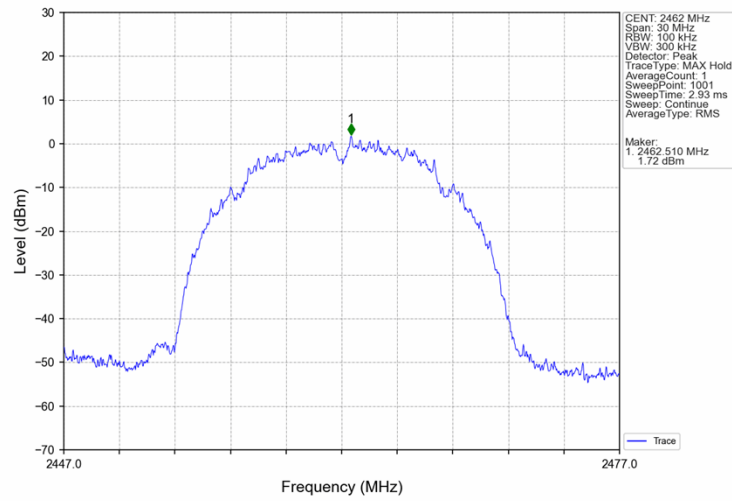
802.11b_LCH_2412MHz_Ant1 (SISO)_NTNV



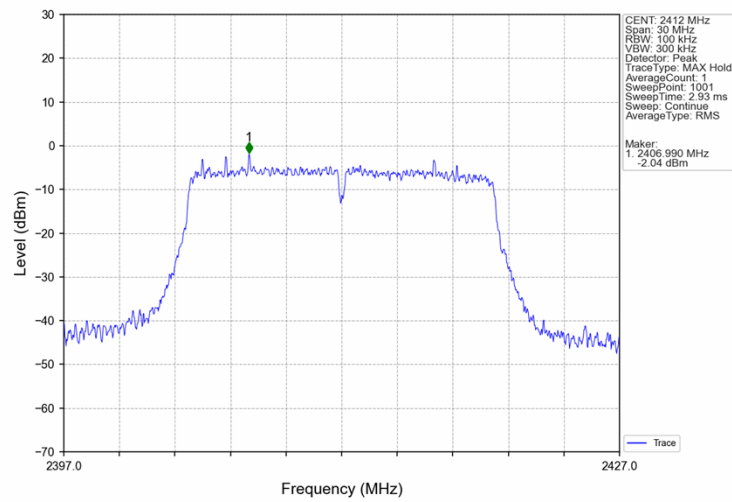
802.11b_MCH_2437MHz_Ant1 (SISO)_NTNV



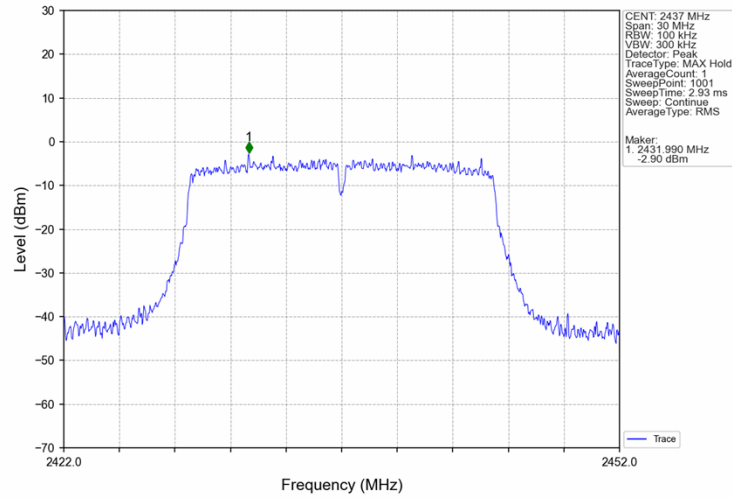
802.11b_HCH_2462MHz_Ant1 (SISO)_NTNV



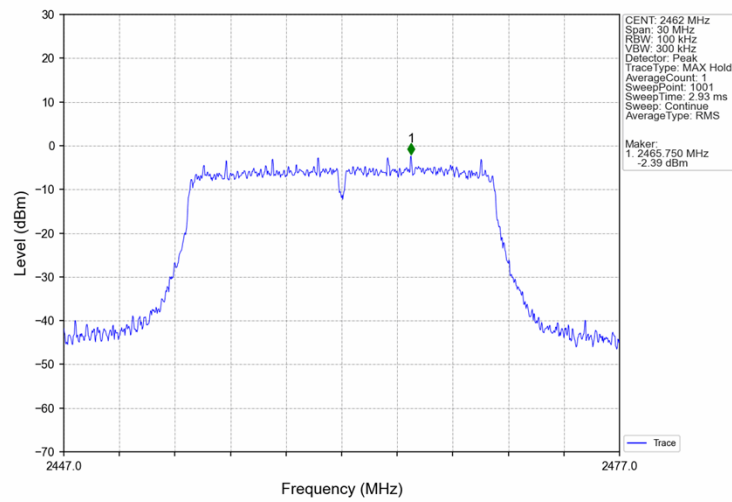
802.11g_LCH_2412MHz_Ant1 (SISO)_NTNV



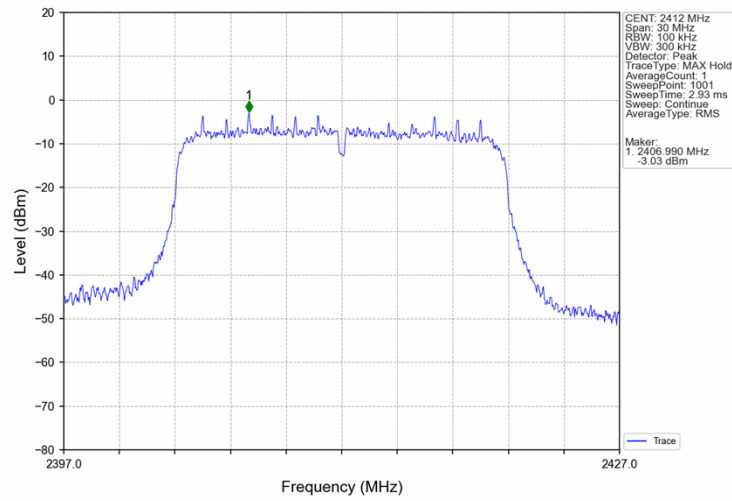
802.11g_MCH_2437MHz_Ant1 (SISO)_NTNV



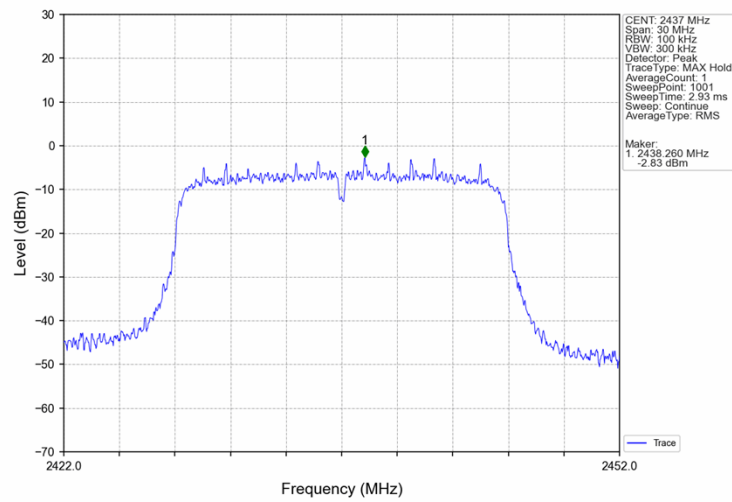
802.11g_HCH_2462MHz_Ant1 (SISO)_NTNV



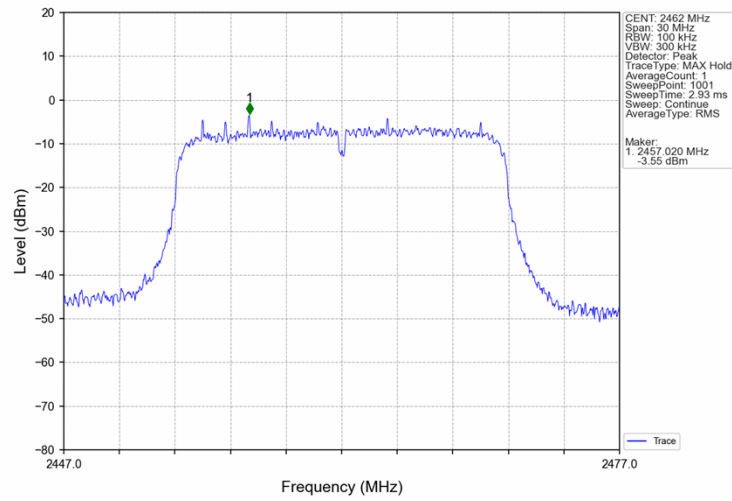
802.11n(HT20)_LCH_2412MHz_Ant1 (SISO)_NTNV



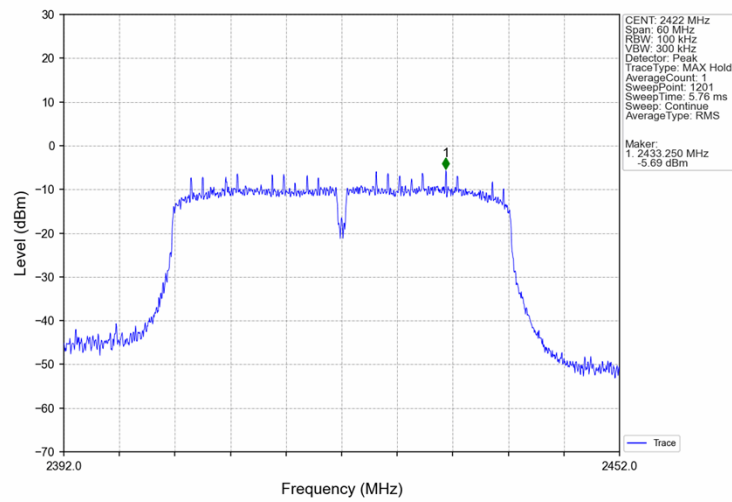
802.11n(HT20)_MCH_2437MHz_Ant1 (SISO)_NTNV



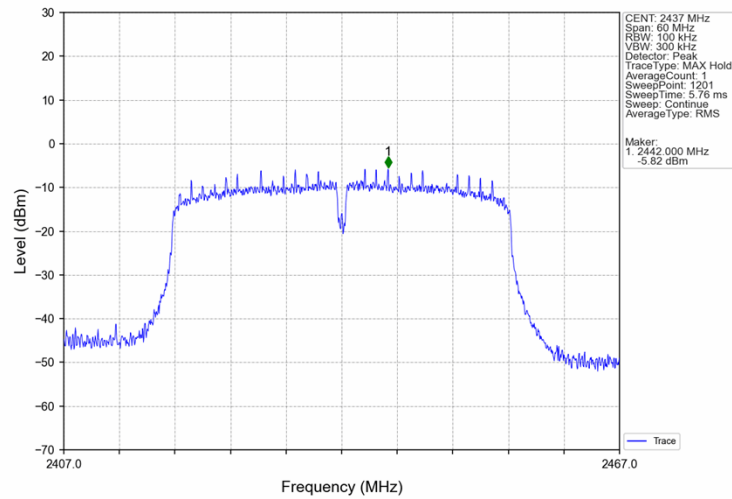
802.11n(HT20)_HCH_2462MHz_Ant1 (SISO)_NTNV



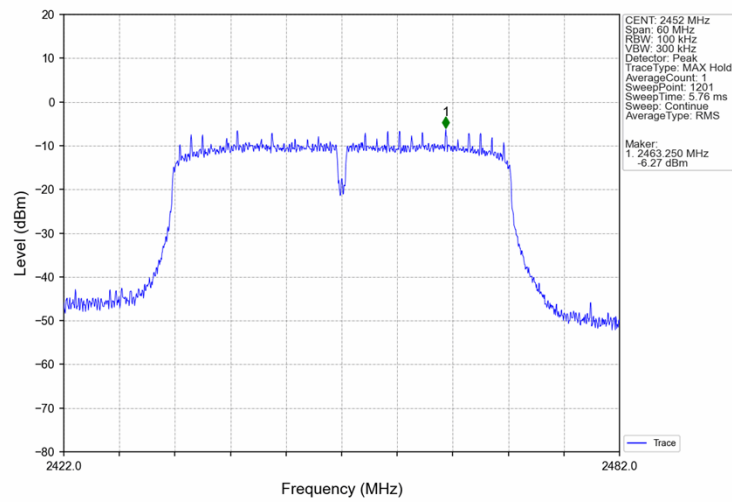
802.11n(HT40)_LCH_2422MHz_Ant1 (SISO)_NTNV



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	1.76
		2437	1	1.72
		2462	1	1.00
802.11g	SISO	2412	1	-2.56
		2437	1	-2.08
		2462	1	-2.14
802.11n (HT20)	SISO	2412	1	-2.90
		2437	1	-3.05
		2462	1	-2.87
802.11n (HT40)	SISO	2422	1	-5.83
		2437	1	-5.36
		2452	1	-5.77

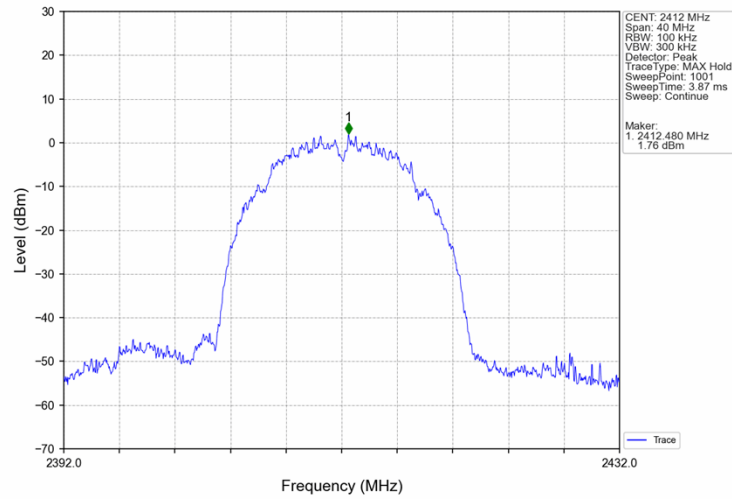
5.1.2 CSE

Mode	TX Type	Frequency (MHz)	ANT	Level of Reference (dBm)	Limit (dBm)	Verdict
802.11b	SISO	2412	1	1.76	-18.24	Pass
		2437	1	1.72	-18.28	Pass
		2462	1	1.00	-19.00	Pass
802.11g	SISO	2412	1	-2.56	-22.56	Pass
		2437	1	-2.08	-22.08	Pass
		2462	1	-2.14	-22.14	Pass
802.11n (HT20)	SISO	2412	1	-2.90	-22.90	Pass
		2437	1	-3.05	-23.05	Pass
		2462	1	-2.87	-22.87	Pass
802.11n (HT40)	SISO	2422	1	-5.83	-25.83	Pass
		2437	1	-5.36	-25.36	Pass
		2452	1	-5.77	-25.77	Pass

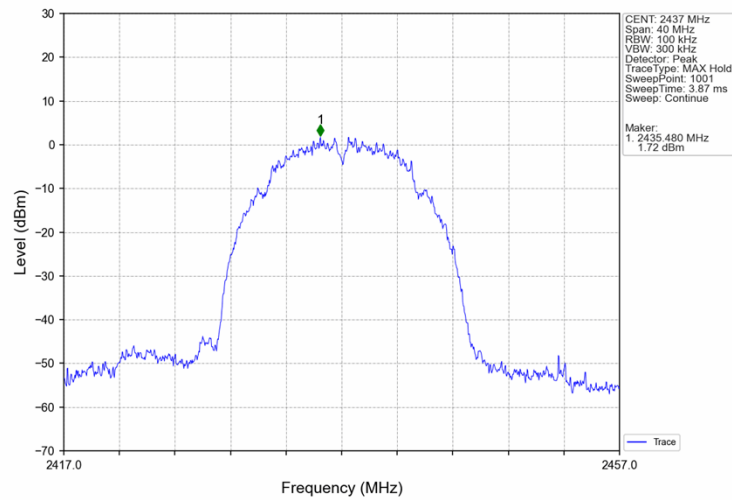
5.2 Test Graph

5.2.1 Ref

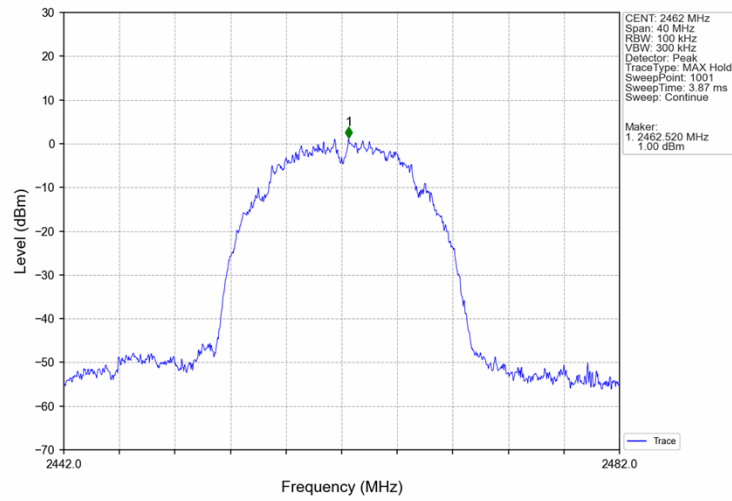
802.11b_LCH_2412MHz_Ant1 (SISO)_NTNV



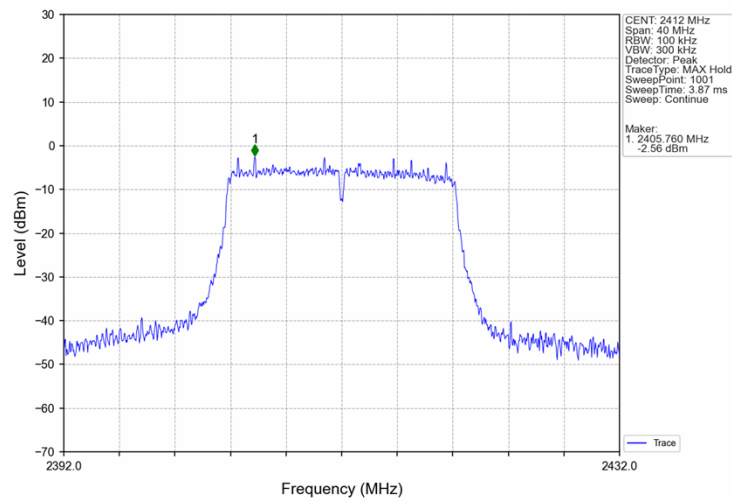
802.11b_MCH_2437MHz_Ant1 (SISO)_NTNV



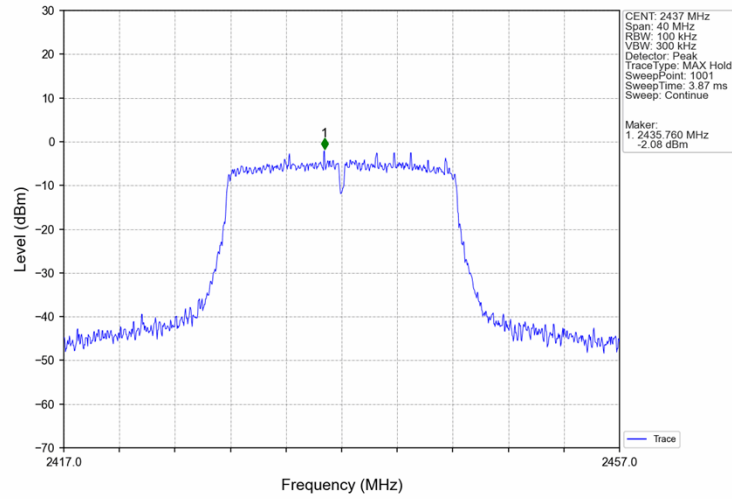
802.11b_HCH_2462MHz_Ant1 (SISO)_NTNV



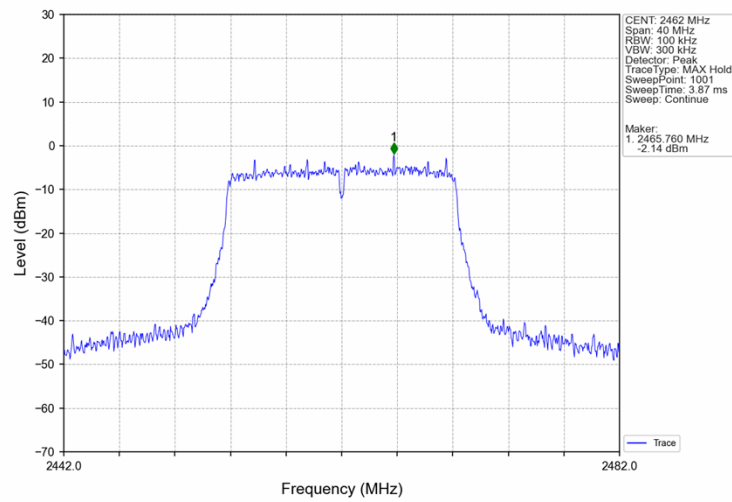
802.11g_LCH_2412MHz_Ant1 (SISO)_NTNV



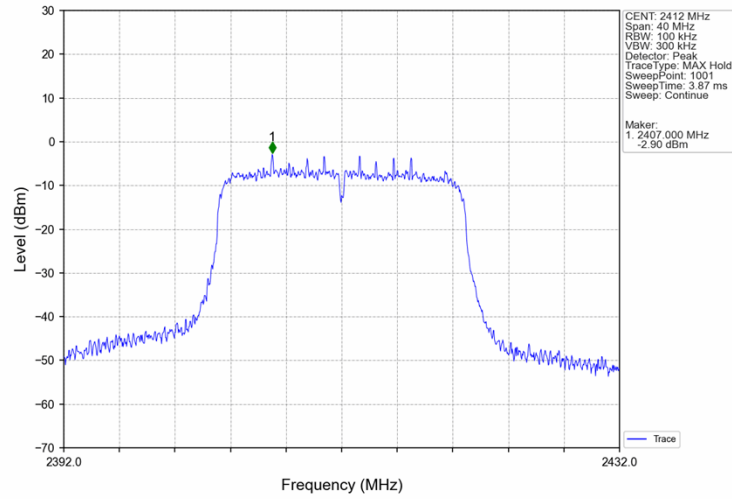
802.11g_MCH_2437MHz_Ant1 (SISO)_NTNV



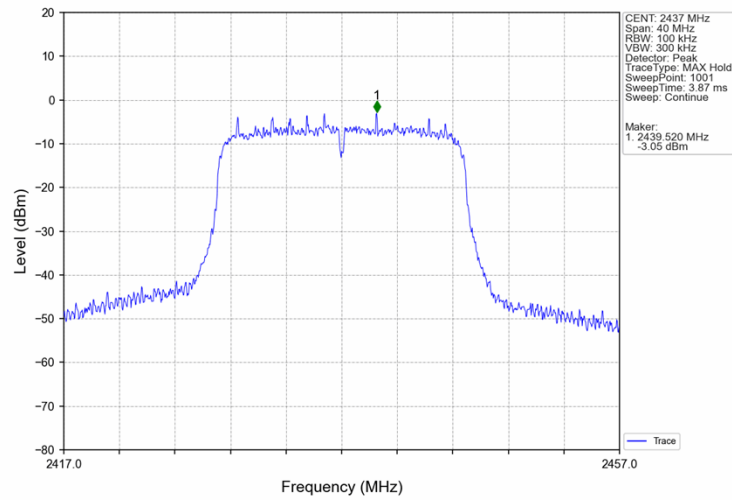
802.11g_HCH_2462MHz_Ant1 (SISO)_NTNV



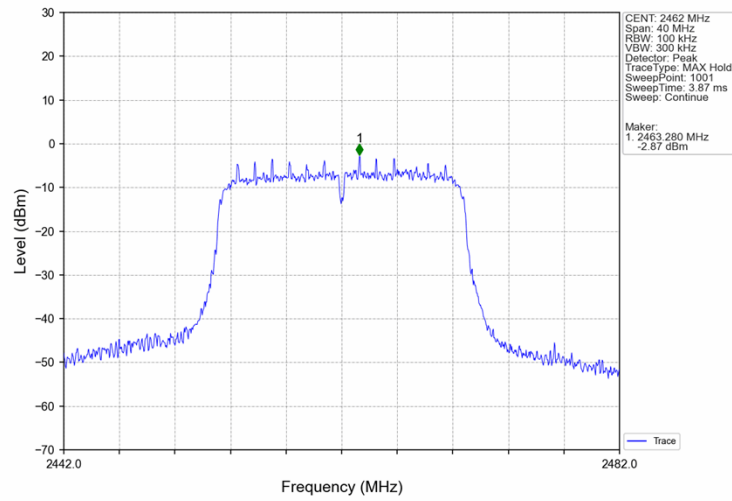
802.11n(HT20)_LCH_2412MHz_Ant1 (SISO)_NTNV



802.11n(HT20)_MCH_2437MHz_Ant1 (SISO)_NTNV



802.11n(HT20)_HCH_2462MHz_Ant1 (SISO)_NTNV



802.11n(HT40)_LCH_2422MHz_Ant1 (SISO)_NTNV

