

1. Duty Cycle

1.1 Test Result

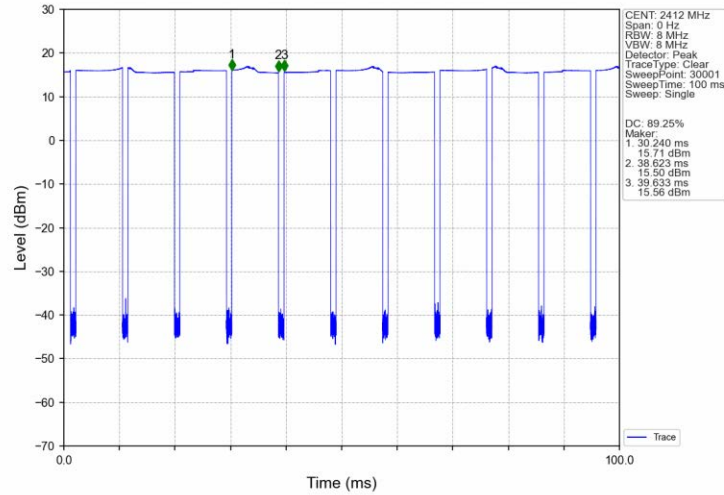
1.1.1 Ant1

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	8.383	9.393	89.25	0.49	0.39
		2437	8.383	9.400	89.18	0.50	0.45
		2462	8.383	9.393	89.25	0.49	0.86
802.11g	SISO	2412	1.393	2.398	58.09	2.36	0.87
		2437	1.392	2.372	58.68	2.31	0.25
		2462	1.392	2.372	58.68	2.31	0.72
802.11n (HT20)	MIMO	2412	1.288	2.268	56.79	2.46	0.29
		2437	1.288	2.304	55.90	2.53	1.14
		2462	1.288	2.304	55.90	2.53	1.14
802.11n (HT40)	MIMO	2422	0.633	1.613	39.24	4.06	0.22
		2437	0.632	1.729	36.55	4.37	2.89
		2452	0.632	1.612	39.21	4.07	0.01

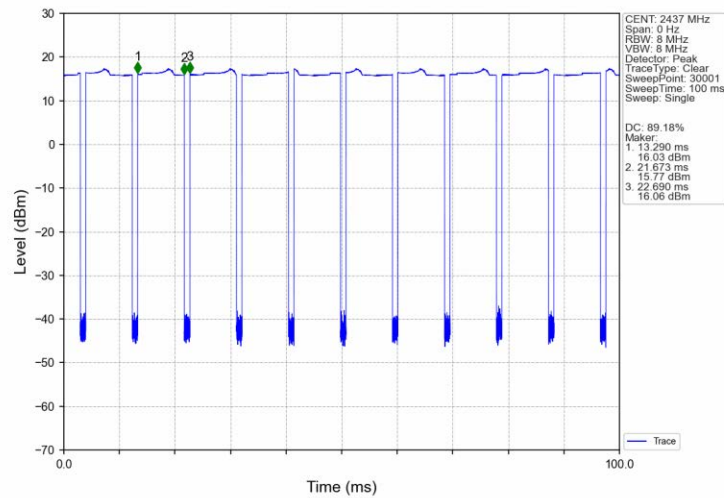
1.2 Test Graph

1.2.1 Ant1

802.11b LCH 2412MHz Ant1 (SISO) NTN

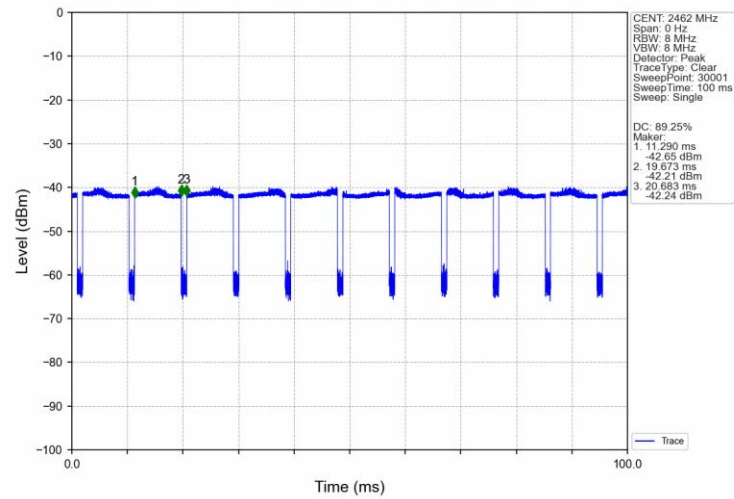


802.11b MCH 2437MHz Ant1 (SISO) NTN

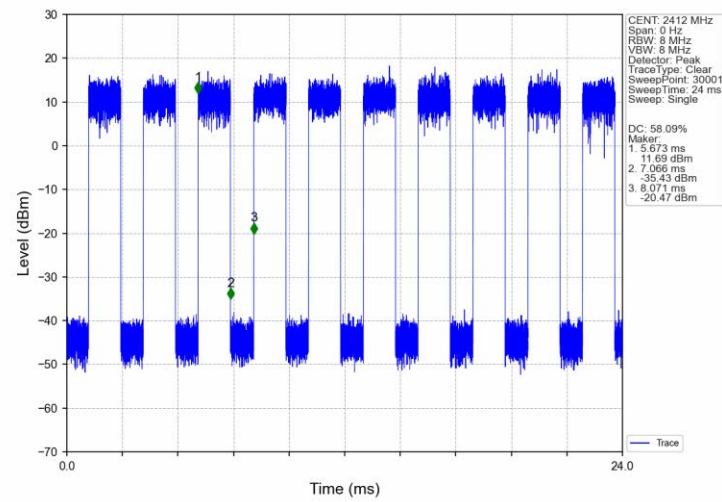




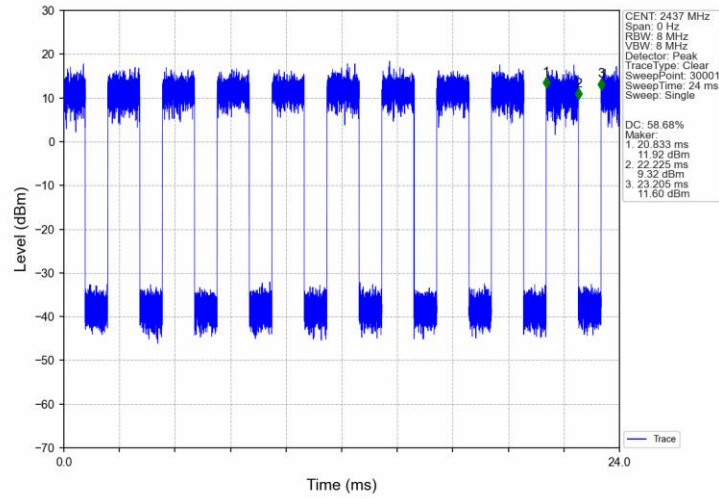
802.11b_HCH_2462MHz_Ant1 (SISO)_NTNV



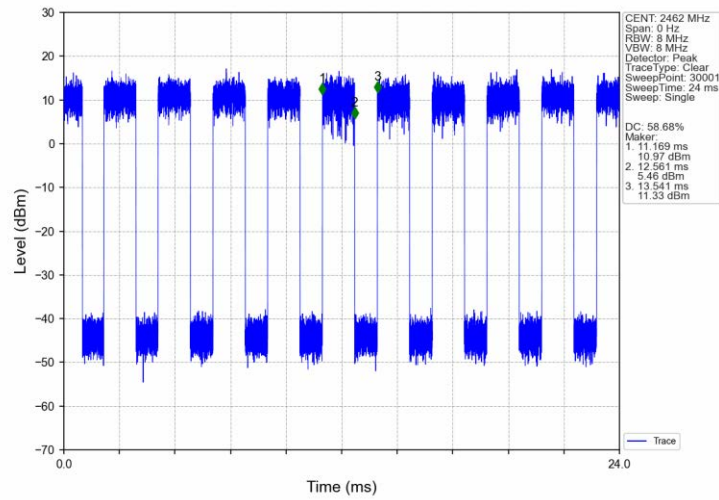
802.11g_LCH_2412MHz_Ant1 (SISO)_NTNV



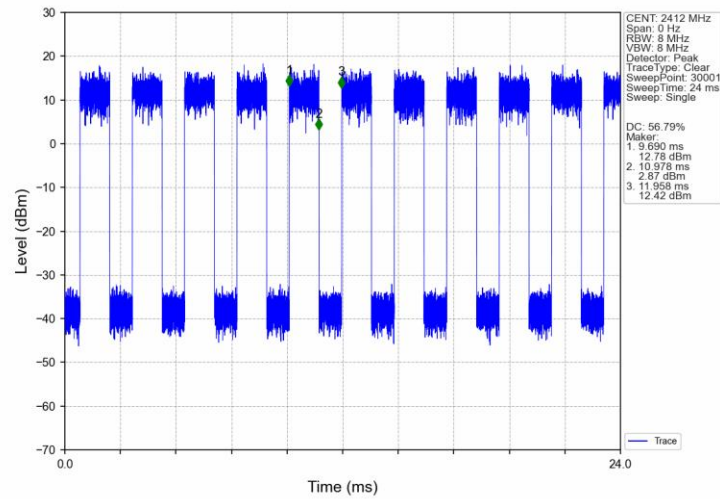
802.11g_MCH_2437MHz_Ant1 (SISO)_NTNV



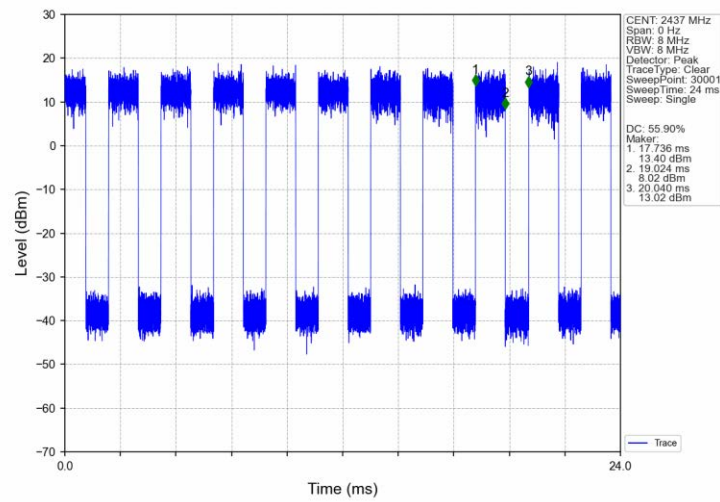
802.11g_HCH_2462MHz_Ant1 (SISO)_NTNV



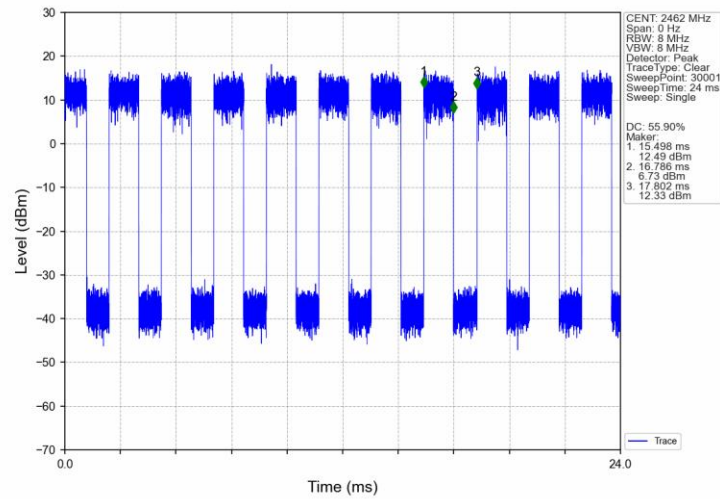
802.11n(HT20)_LCH_2412MHz_Ant1 (MIMO)_NTNV



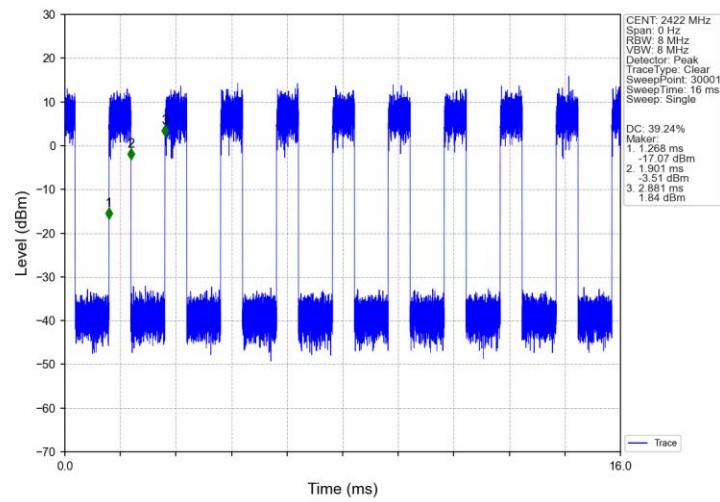
802.11n(HT20)_MCH_2437MHz_Ant1 (MIMO)_NTNV



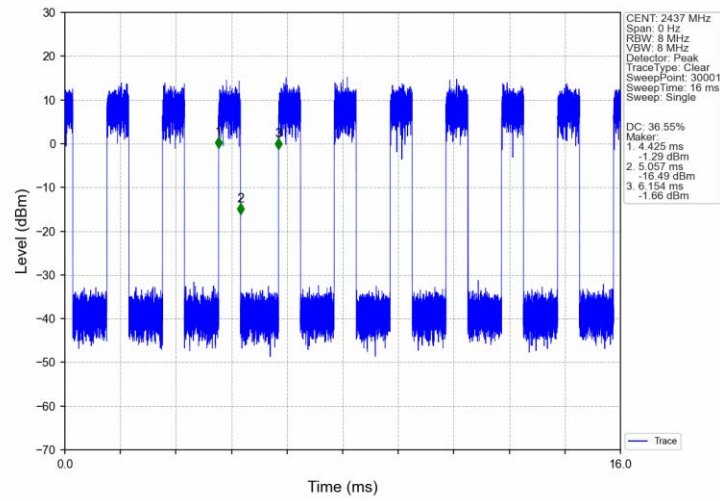
802.11n(HT20)_HCH_2462MHz_Ant1 (MIMO)_NTNV



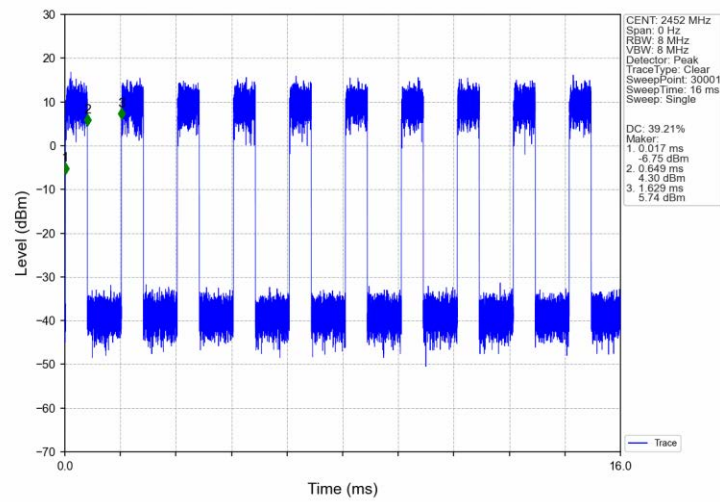
802.11n(HT40)_LCH_2422MHz_Ant1 (MIMO)_NTNV



802.11n(HT40)_MCH_2437MHz_Ant1 (MIMO)_NTNV



802.11n(HT40)_HCH_2452MHz_Ant1 (MIMO)_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	12.671	/	Pass
			2	12.988	/	Pass
		2437	1	12.748	/	Pass
			2	12.779	/	Pass
		2462	1	13.162	/	Pass
			2	12.583	/	Pass
802.11g	SISO	2412	1	17.317	/	Pass
			2	17.328	/	Pass
		2437	1	17.287	/	Pass
			2	17.246	/	Pass
		2462	1	17.512	/	Pass
			2	17.155	/	Pass
802.11n (HT20)	MIMO	2412	1	18.074	/	Pass
			2	17.855	/	Pass
		2437	1	18.163	/	Pass
			2	17.795	/	Pass
		2462	1	18.326	/	Pass
			2	17.745	/	Pass
802.11n (HT40)	MIMO	2422	1	36.563	/	Pass
			2	36.373	/	Pass
		2437	1	35.813	/	Pass
			2	36.176	/	Pass
		2452	1	36.235	/	Pass
			2	36.410	/	Pass

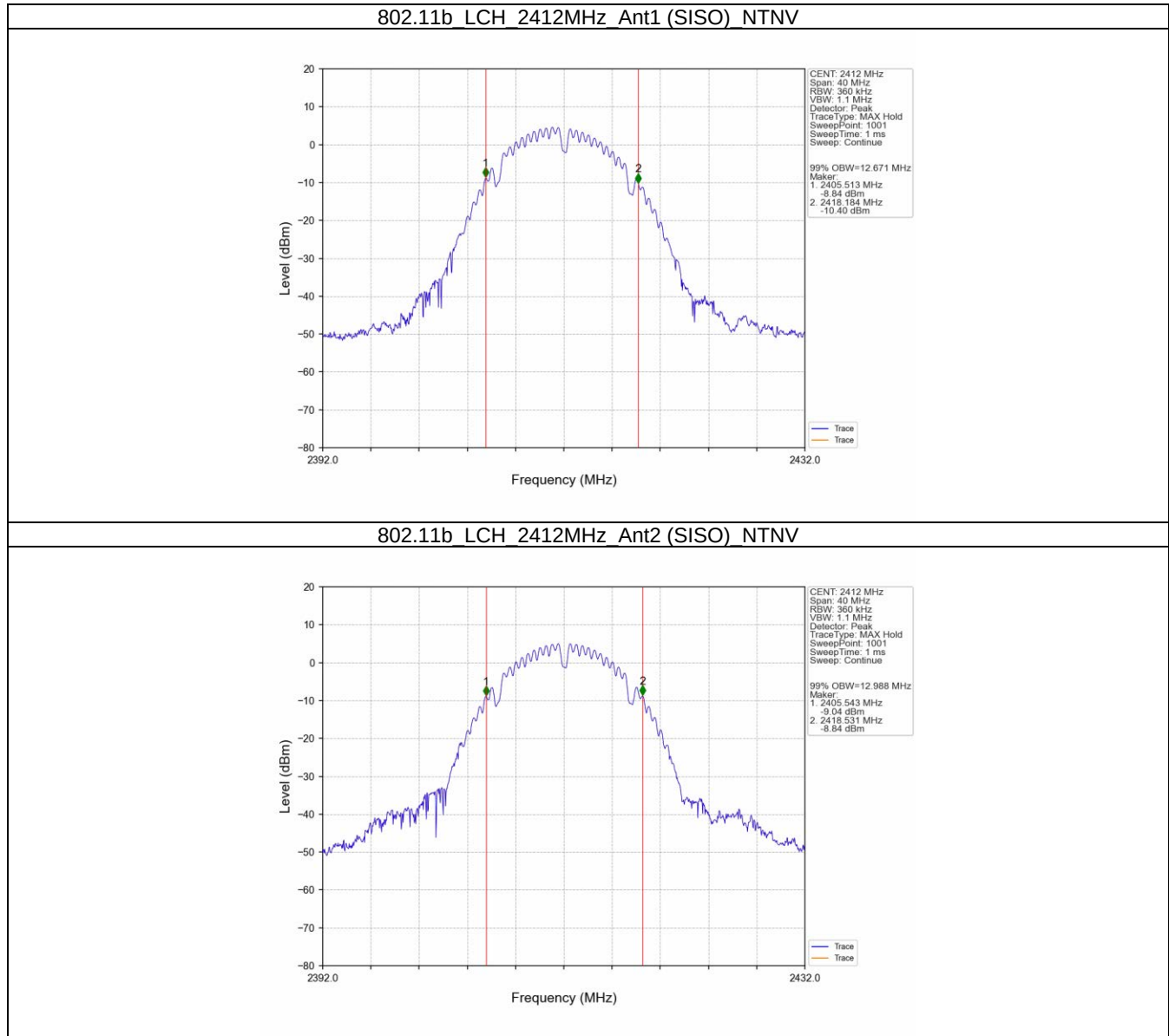
2.1.2 6dB BW

Mode	TX Type	Frequency (MHz)	ANT	6dB Bandwidth (MHz)		Verdict
				Result	Limit	
802.11b	SISO	2412	1	8.091	≥ 0.5	Pass
			2	8.105	≥ 0.5	Pass
		2437	1	8.568	≥ 0.5	Pass
			2	8.053	≥ 0.5	Pass
		2462	1	8.585	≥ 0.5	Pass
			2	8.098	≥ 0.5	Pass
802.11g	SISO	2412	1	15.167	≥ 0.5	Pass
			2	15.153	≥ 0.5	Pass
		2437	1	15.165	≥ 0.5	Pass
			2	15.134	≥ 0.5	Pass
		2462	1	15.152	≥ 0.5	Pass
			2	15.130	≥ 0.5	Pass
802.11n (HT20)	MIMO	2412	1	15.163	≥ 0.5	Pass
			2	15.693	≥ 0.5	Pass
		2437	1	15.171	≥ 0.5	Pass
			2	15.145	≥ 0.5	Pass
		2462	1	15.158	≥ 0.5	Pass
			2	15.158	≥ 0.5	Pass

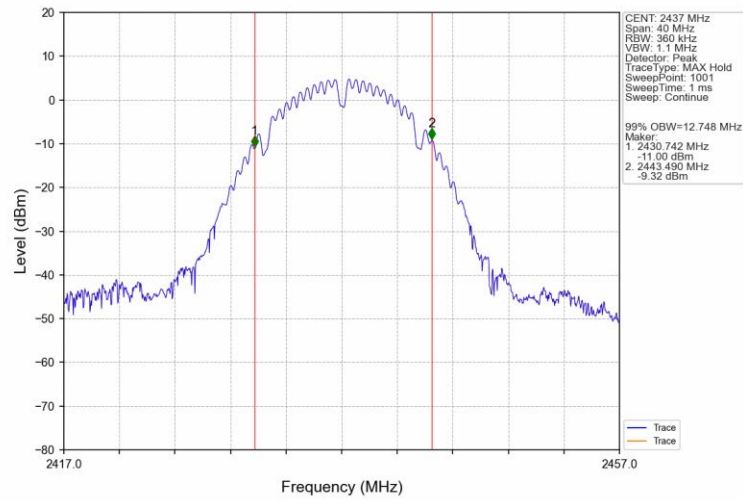
			2	15.138	≥ 0.5	Pass
802.11n (HT40)	MIMO	2422	1	35.466	≥ 0.5	Pass
			2	35.109	≥ 0.5	Pass
		2437	1	25.069	≥ 0.5	Pass
			2	35.128	≥ 0.5	Pass
		2452	1	33.790	≥ 0.5	Pass
			2	35.160	≥ 0.5	Pass

2.2 Test Graph

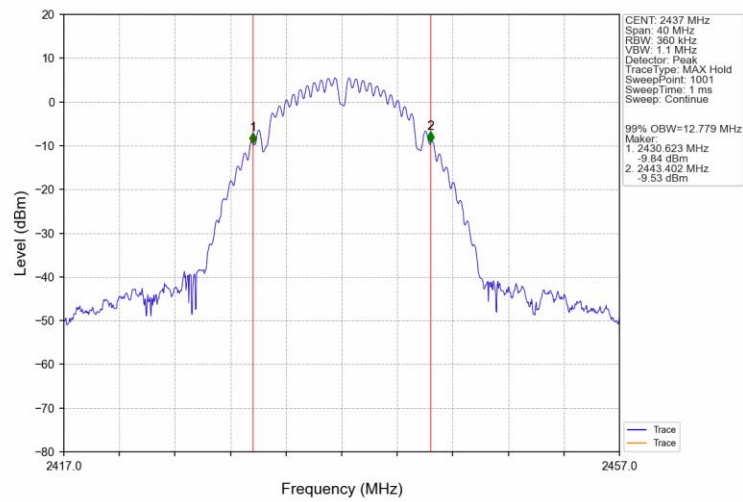
2.2.1 OBW



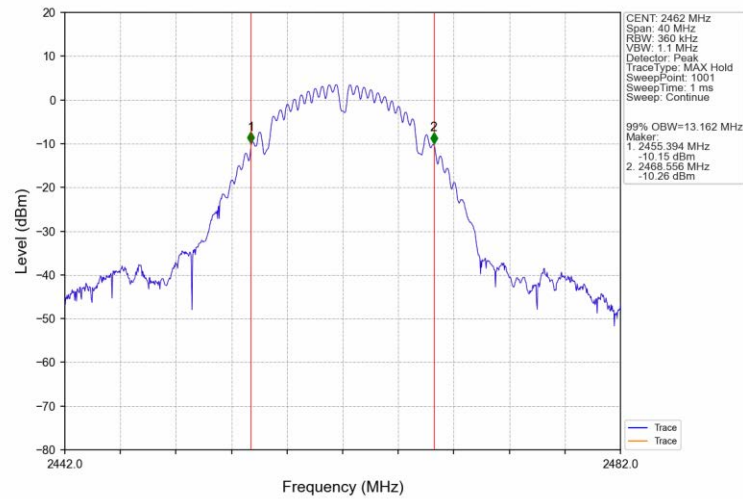
802.11b_MCH_2437MHz_Ant1 (SISO)_NTNV



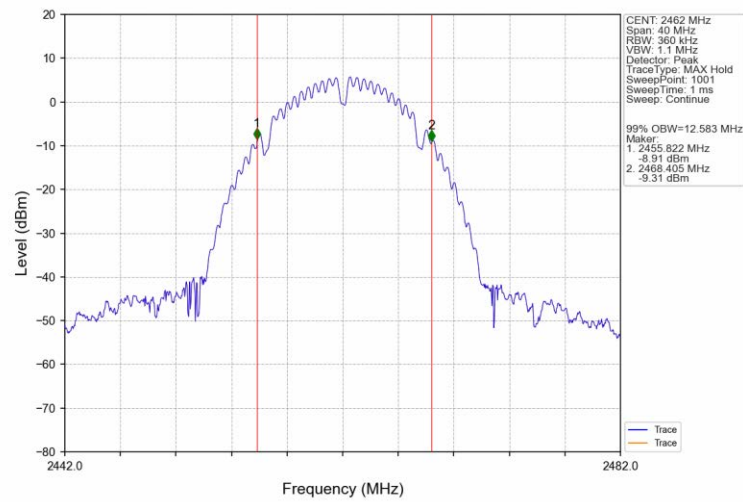
802.11b_MCH_2437MHz_Ant2 (SISO)_NTNV



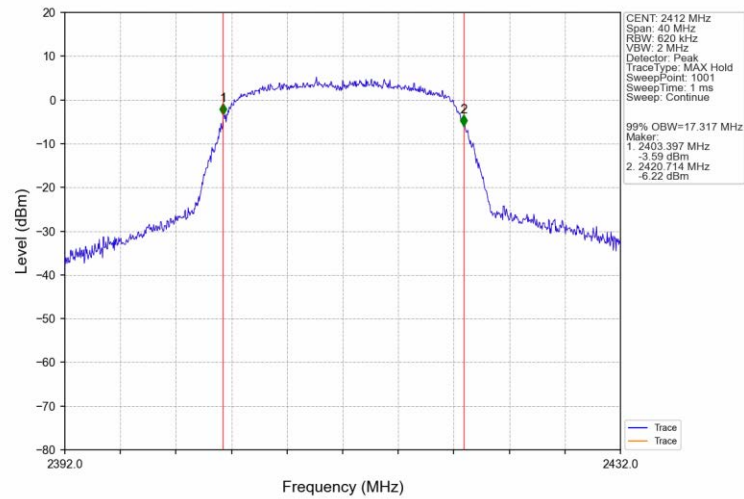
802.11b_HCH_2462MHz_Ant1 (SISO)_NTNV



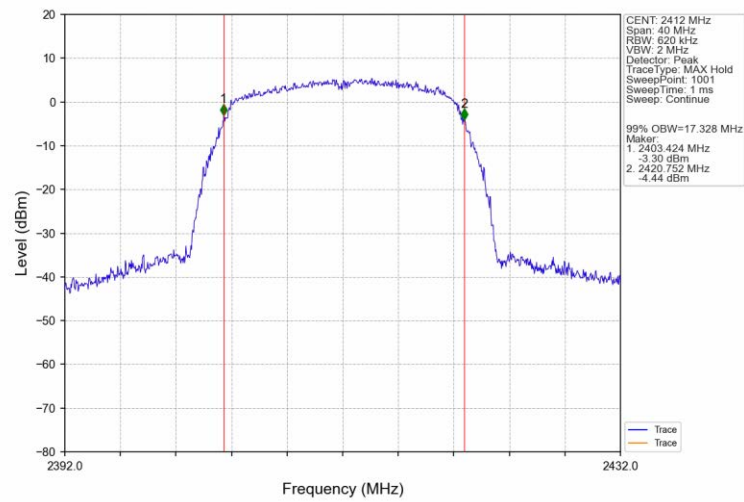
802.11b_HCH_2462MHz_Ant2 (SISO)_NTNV



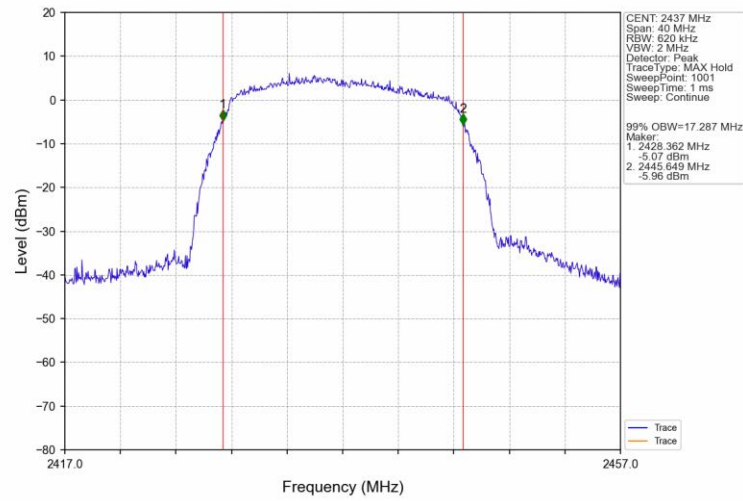
802.11g_LCH_2412MHz_Ant1 (SISO)_NTNV



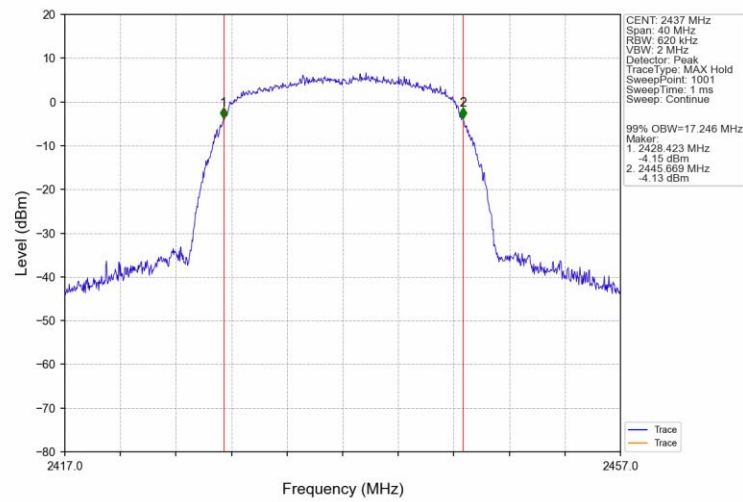
802.11g_LCH_2412MHz_Ant2 (SISO)_NTNV



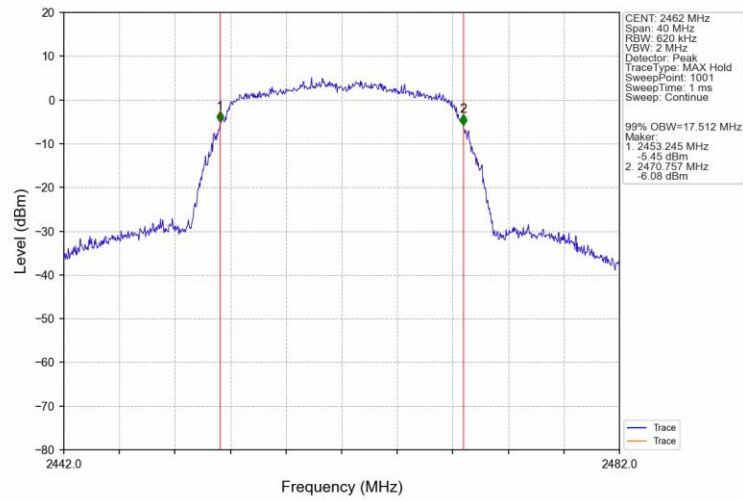
802.11g_MCH_2437MHz_Ant1 (SISO)_NTNV



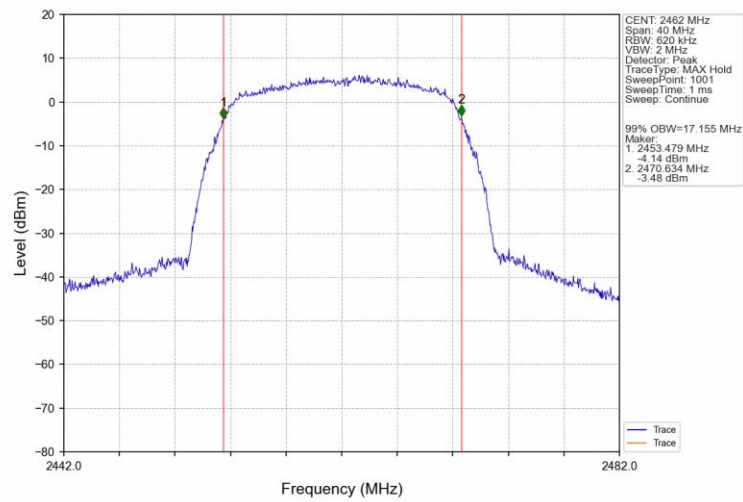
802.11g_MCH_2437MHz_Ant2 (SISO)_NTNV



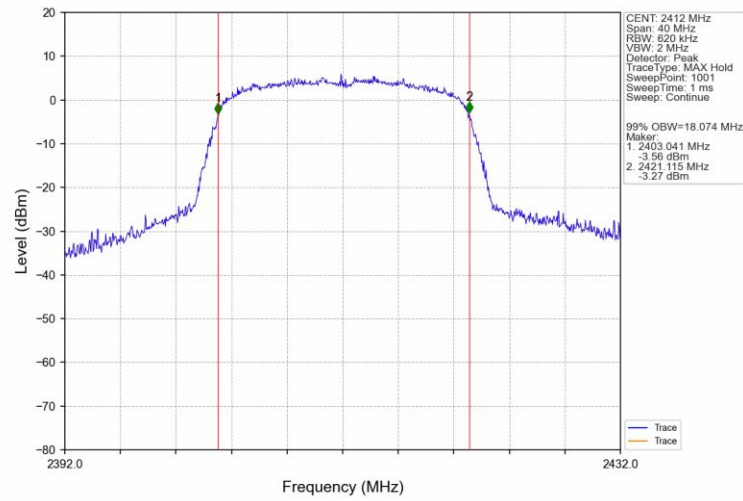
802.11g_HCH_2462MHz_Ant1 (SISO)_NTNV



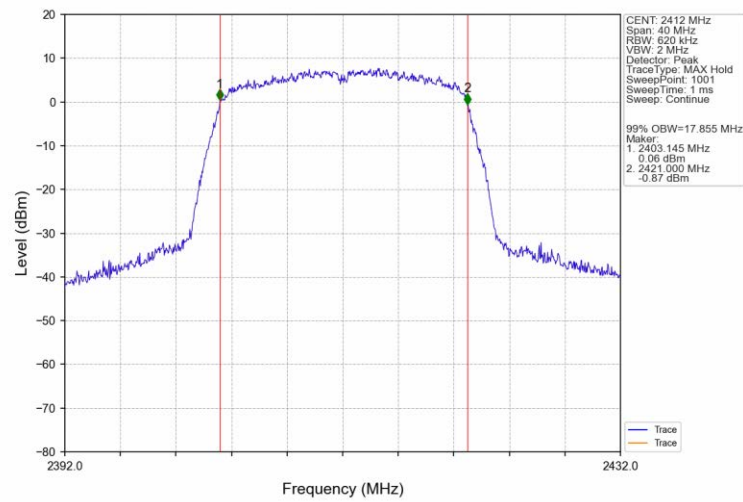
802.11g_HCH_2462MHz_Ant2 (SISO)_NTNV



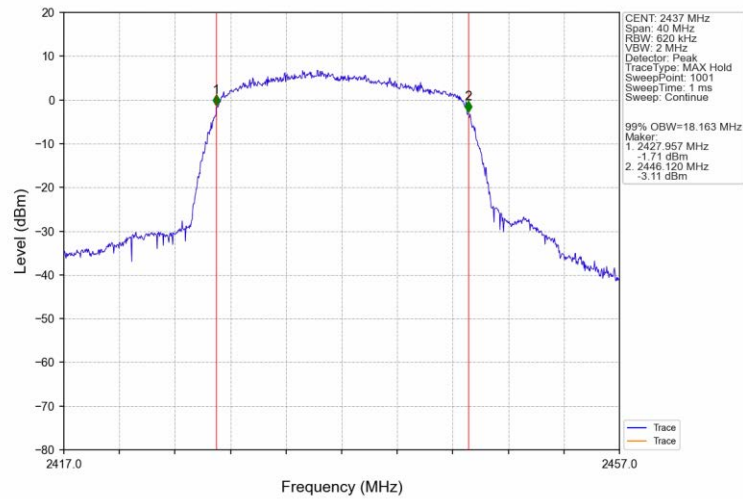
802.11n(HT20)_LCH_2412MHz_Ant1 (MIMO)_NTNV



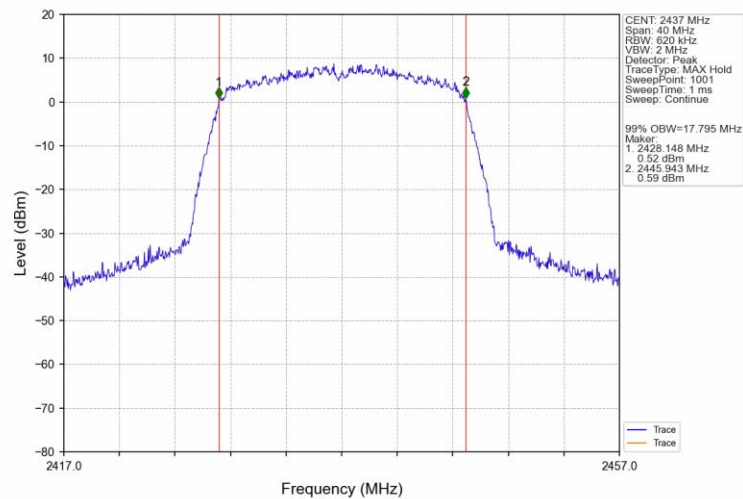
802.11n(HT20)_LCH_2412MHz_Ant2 (MIMO)_NTNV



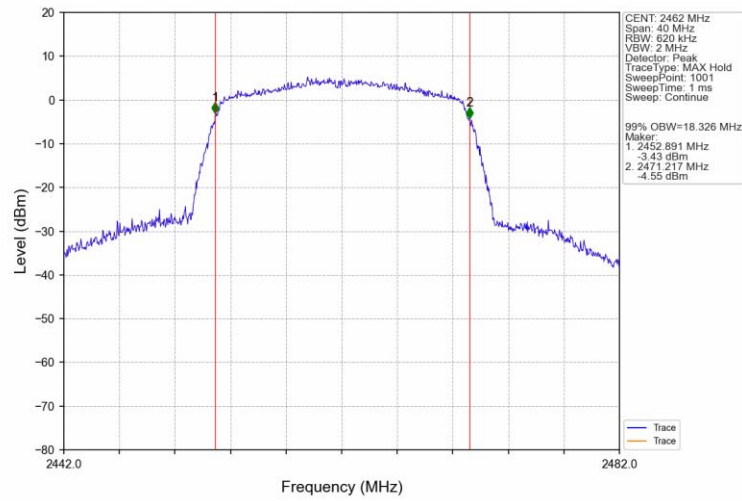
802.11n(HT20)_MCH_2437MHz_Ant1 (MIMO)_NTNV



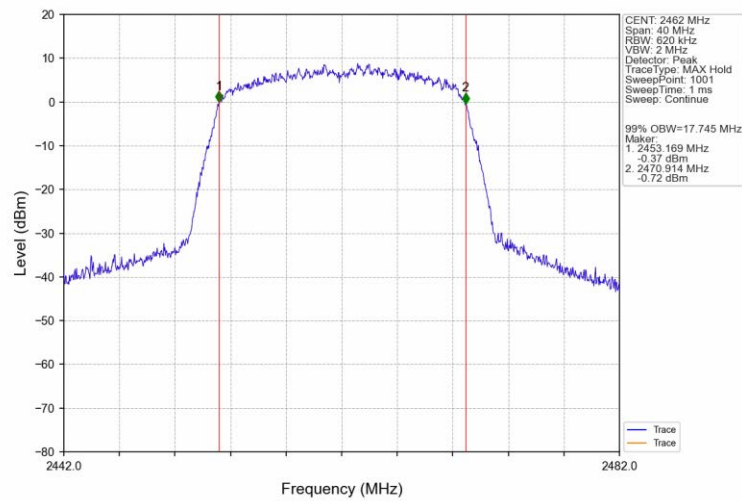
802.11n(HT20)_MCH_2437MHz_Ant2 (MIMO)_NTNV



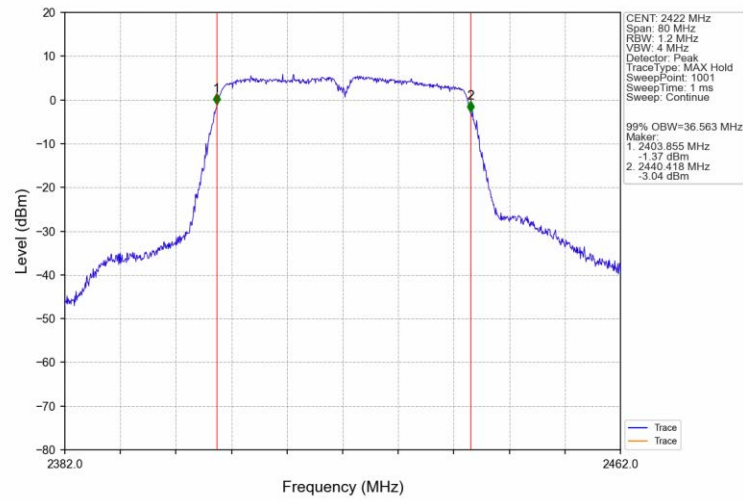
802.11n(HT20)_HCH_2462MHz_Ant1 (MIMO)_NTNV



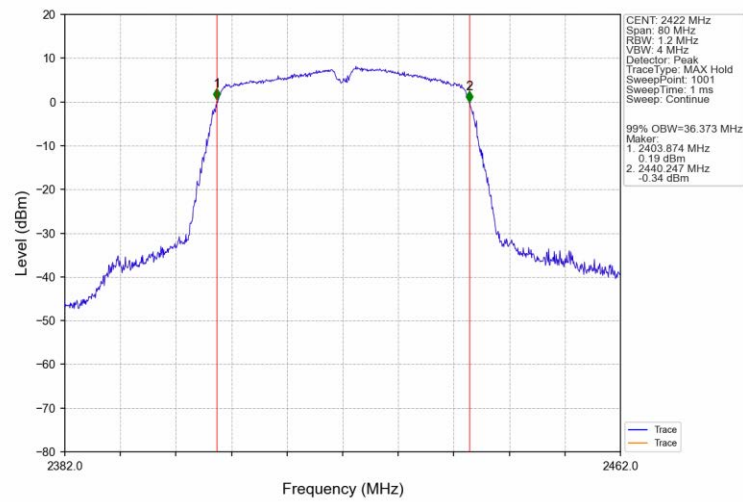
802.11n(HT20)_HCH_2462MHz_Ant2 (MIMO)_NTNV



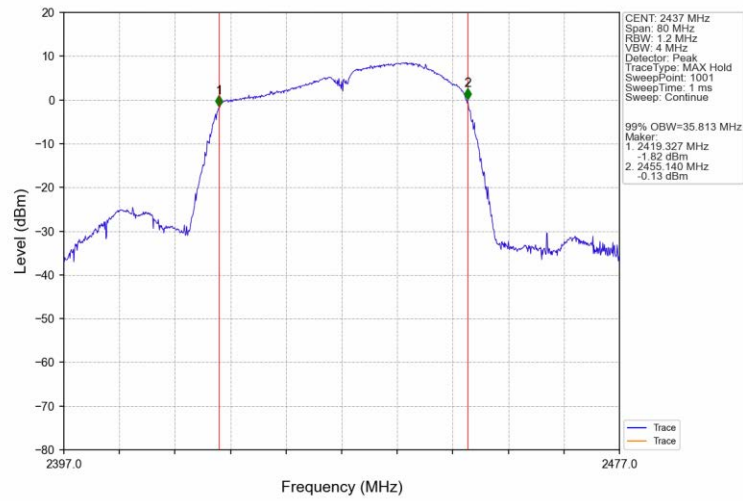
802.11n(HT40)_LCH_2422MHz_Ant1 (MIMO)_NTNV



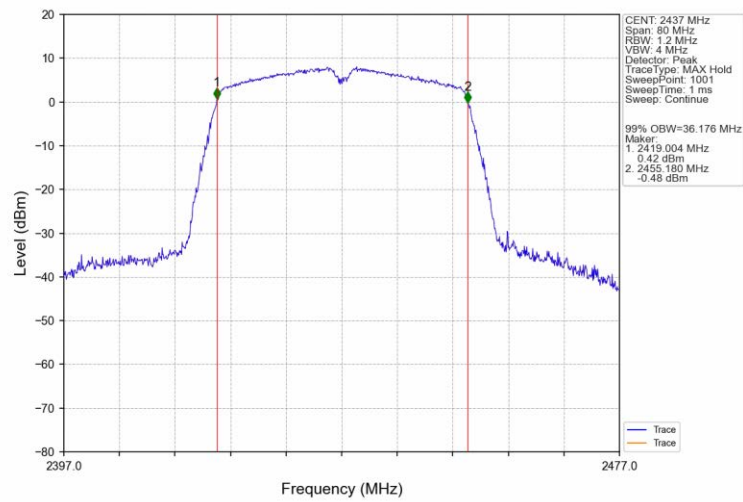
802.11n(HT40)_LCH_2422MHz_Ant2 (MIMO)_NTNV



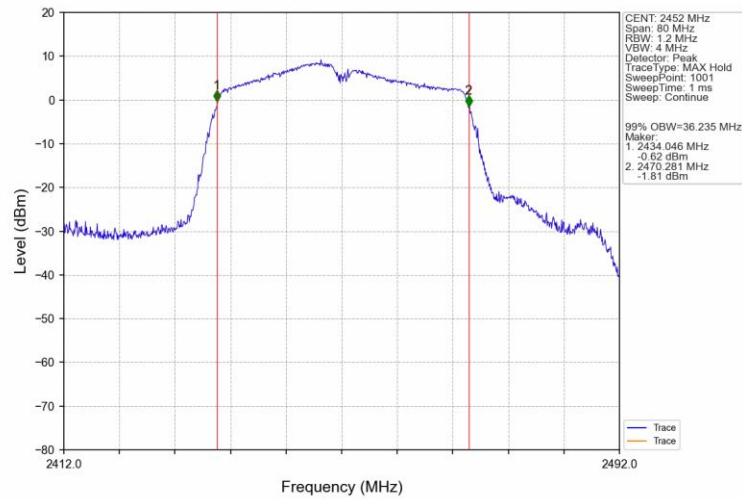
802.11n(HT40)_MCH_2437MHz_Ant1 (MIMO)_NTNV



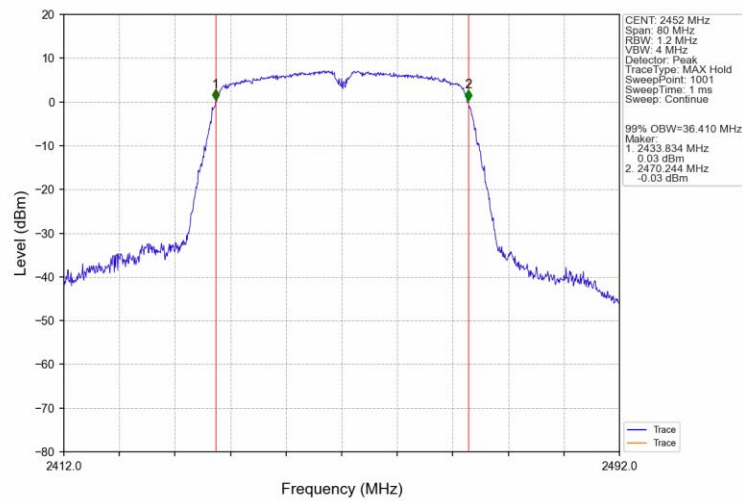
802.11n(HT40)_MCH_2437MHz_Ant2 (MIMO)_NTNV



802.11n(HT40) HCH_2452MHz_Ant1 (MIMO)_NTNV

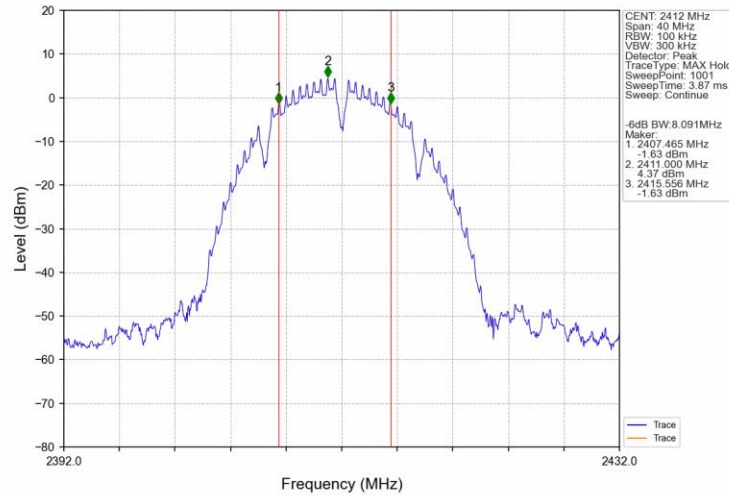


802.11n(HT40) HCH_2452MHz_Ant2 (MIMO)_NTNV

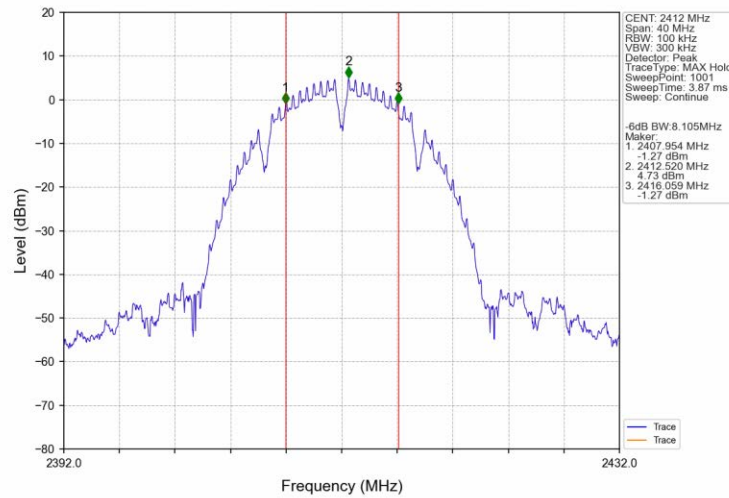


2.2.2 6dB BW

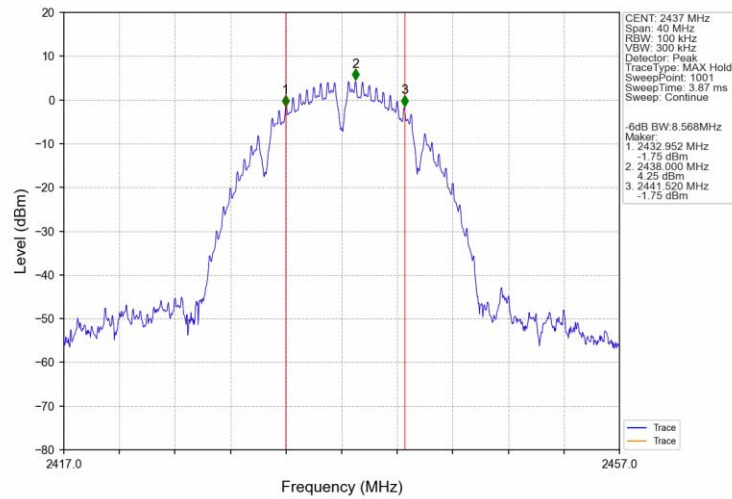
802.11b LCH 2412MHz Ant1 (SISO) NTN



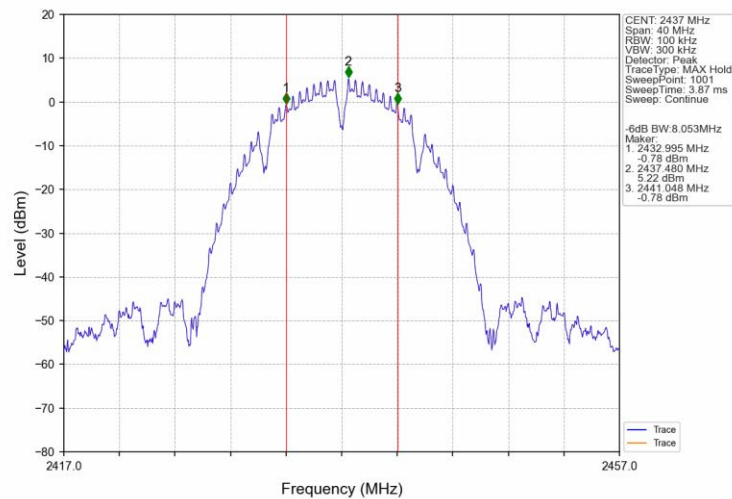
802.11b LCH 2412MHz Ant2 (SISO) NTN



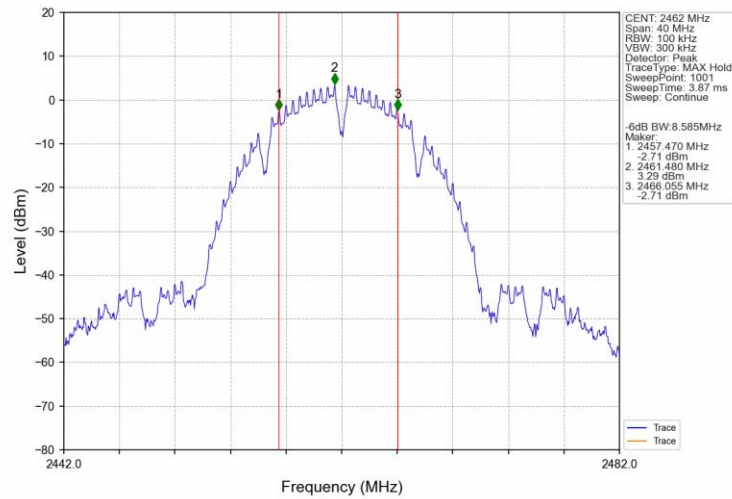
802.11b_MCH_2437MHz_Ant1 (SISO)_NTNV



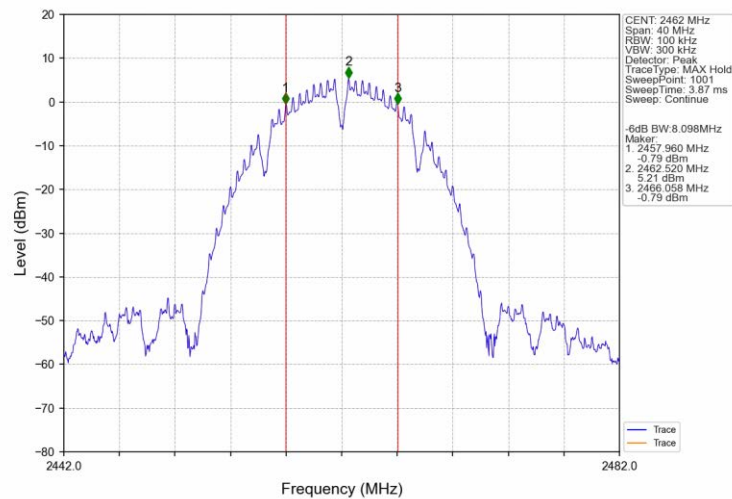
802.11b_MCH_2437MHz_Ant2 (SISO)_NTNV



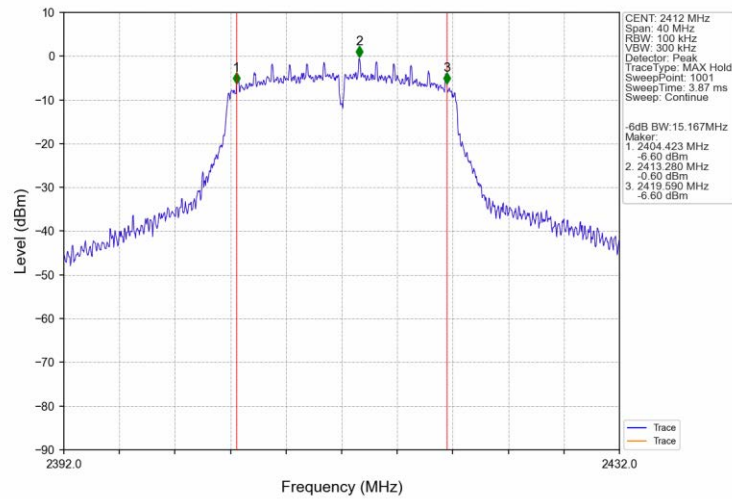
802.11b_HCH_2462MHz_Ant1 (SISO)_NTNV



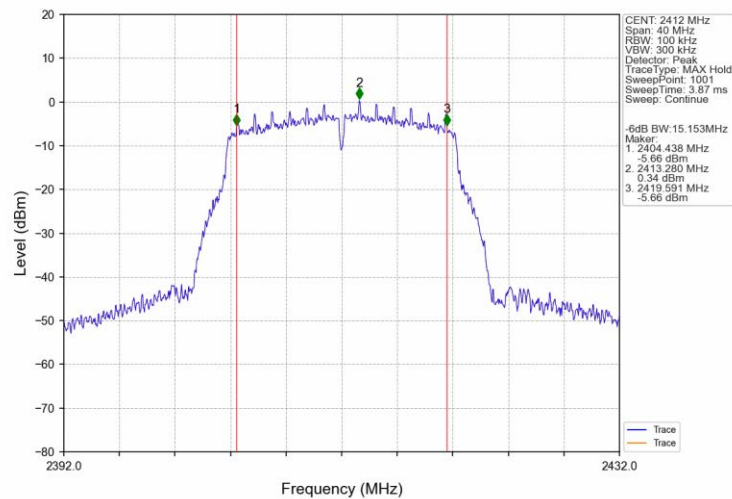
802.11b_HCH_2462MHz_Ant2 (SISO)_NTNV



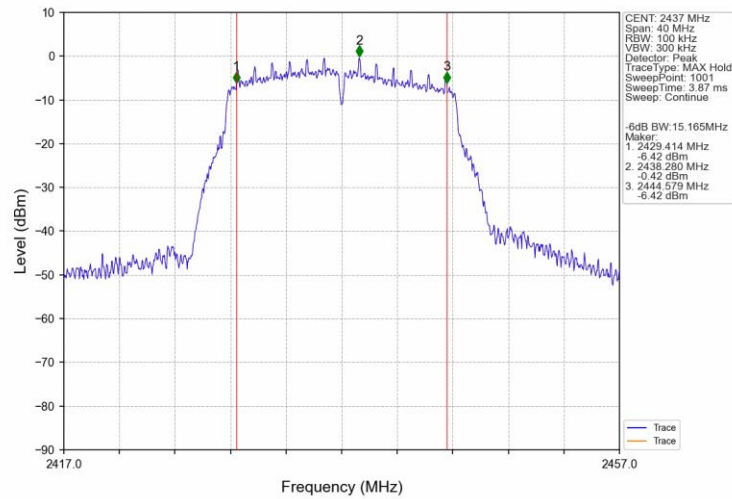
802.11g_LCH_2412MHz_Ant1 (SISO)_NTNV



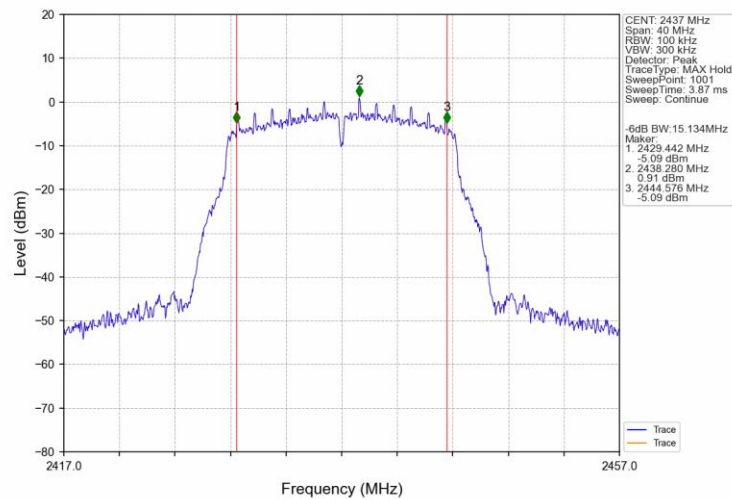
802.11g_LCH_2412MHz_Ant2 (SISO)_NTNV



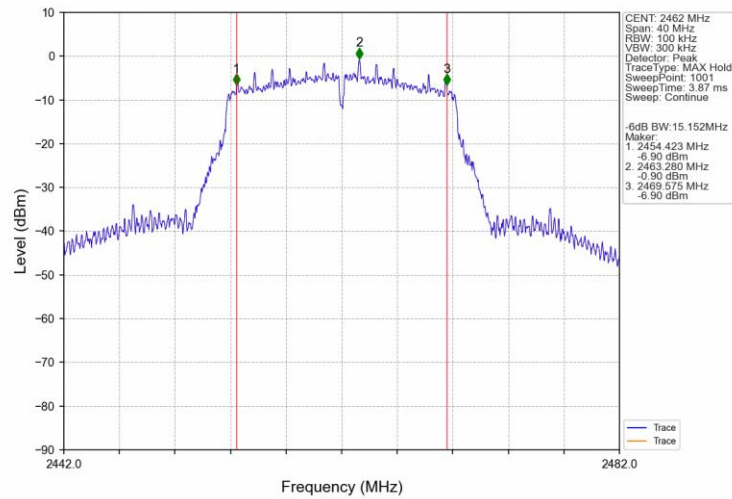
802.11g_MCH_2437MHz_Ant1 (SISO)_NTNV



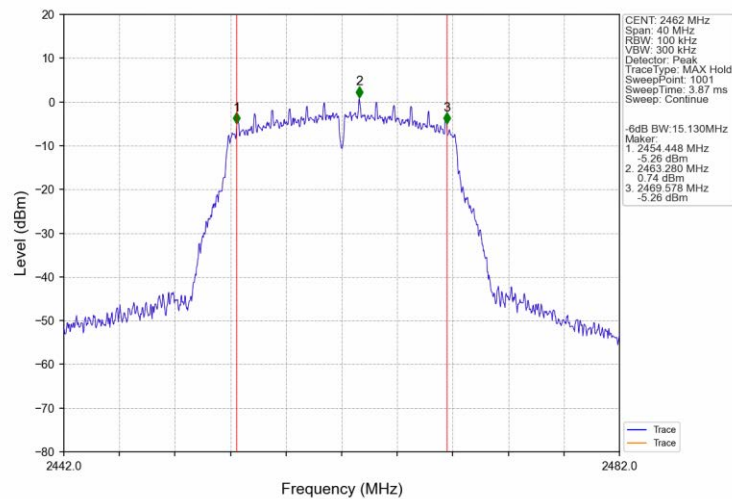
802.11g_MCH_2437MHz_Ant2 (SISO)_NTNV



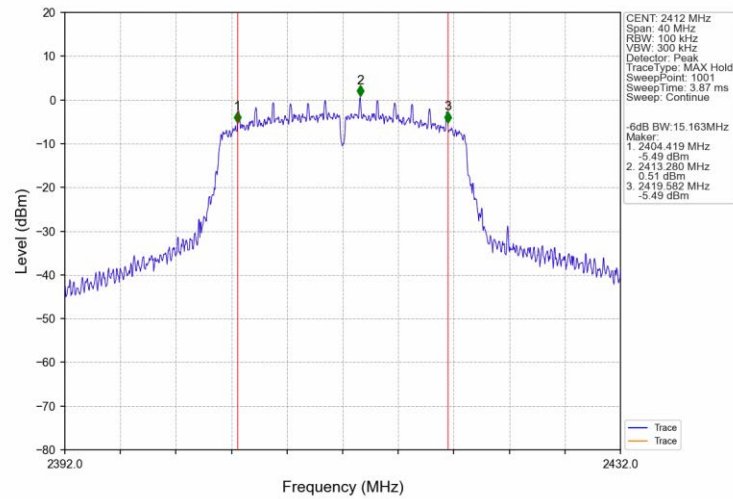
802.11g_HCH_2462MHz_Ant1 (SISO)_NTNV



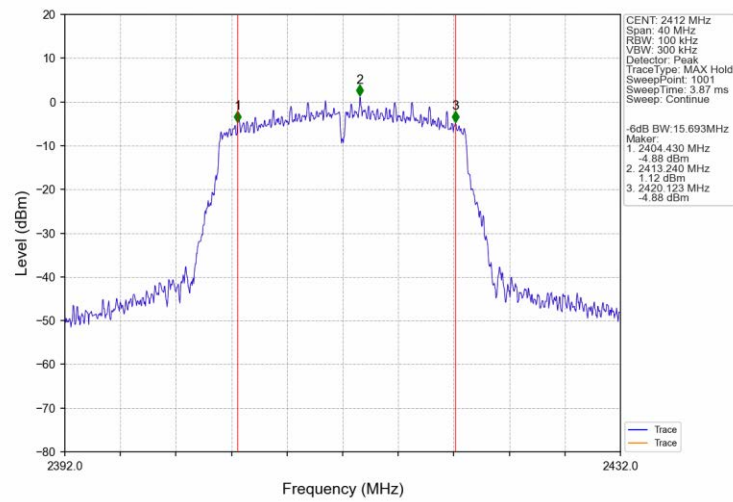
802.11g_HCH_2462MHz_Ant2 (SISO)_NTNV



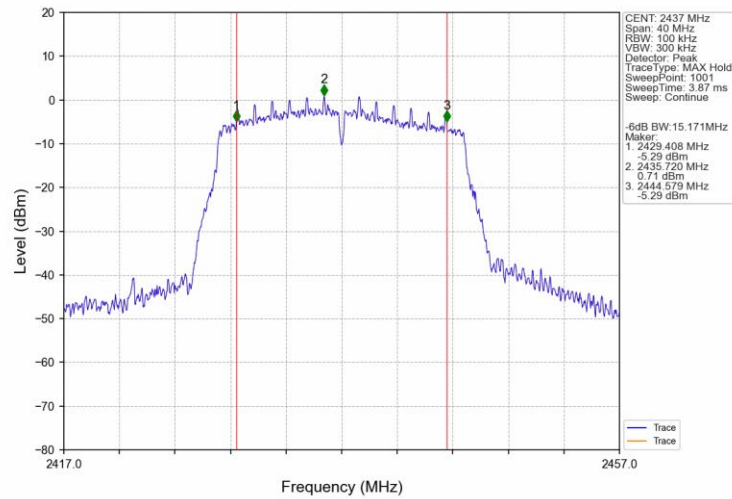
802.11n(HT20)_LCH_2412MHz_Ant1 (MIMO)_NTNV



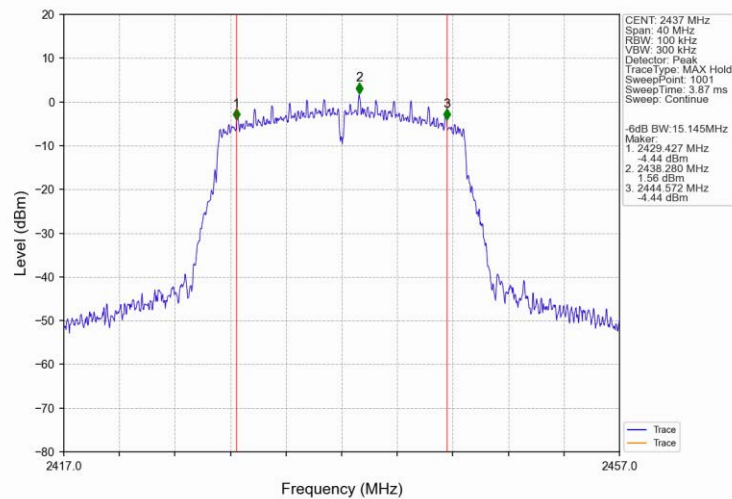
802.11n(HT20)_LCH_2412MHz_Ant2 (MIMO)_NTNV



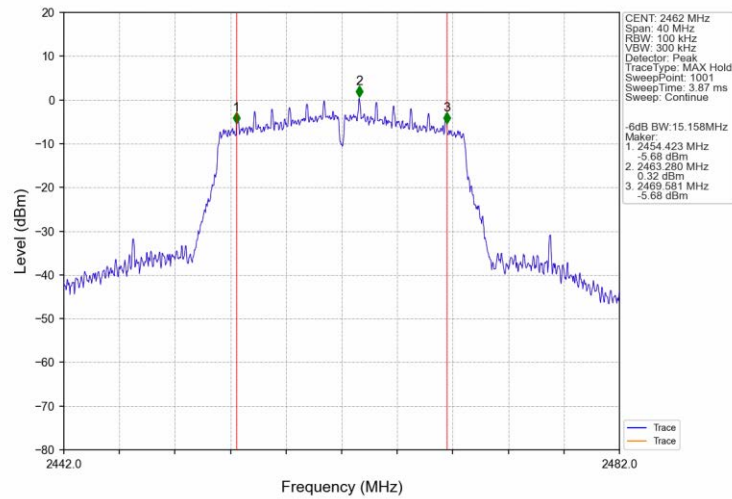
802.11n(HT20)_MCH_2437MHz_Ant1 (MIMO)_NTNV



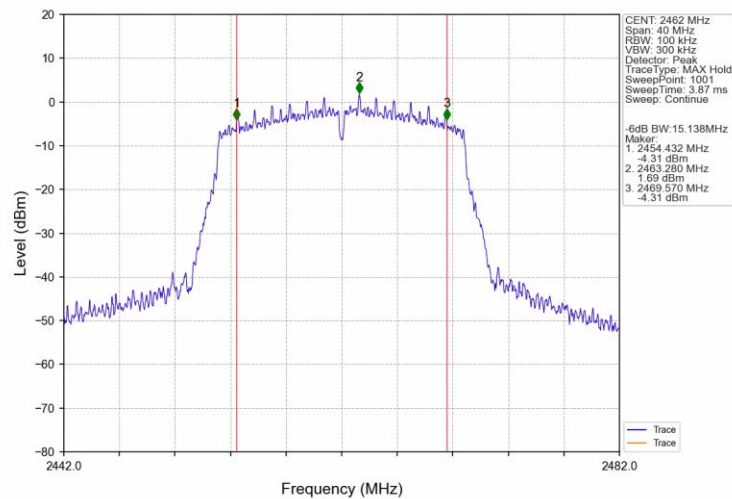
802.11n(HT20)_MCH_2437MHz_Ant2 (MIMO)_NTNV



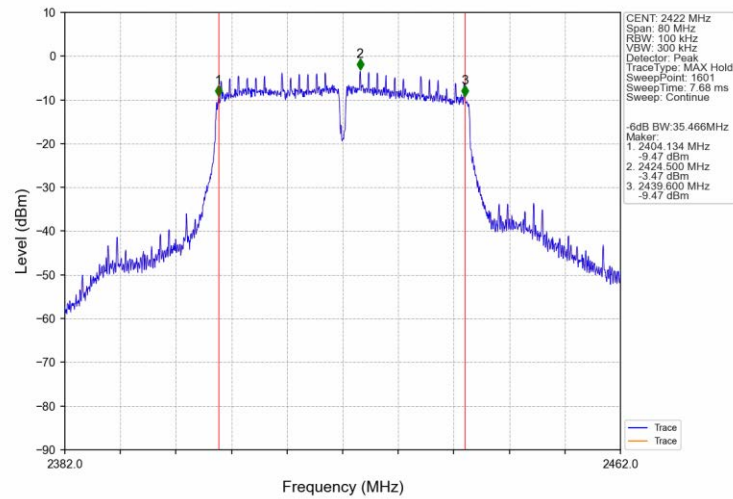
802.11n(HT20)_HCH_2462MHz_Ant1 (MIMO)_NTNV



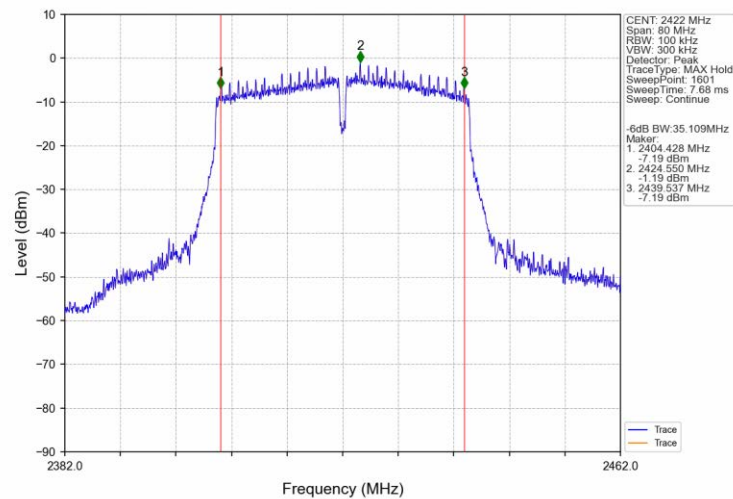
802.11n(HT20)_HCH_2462MHz_Ant2 (MIMO)_NTNV



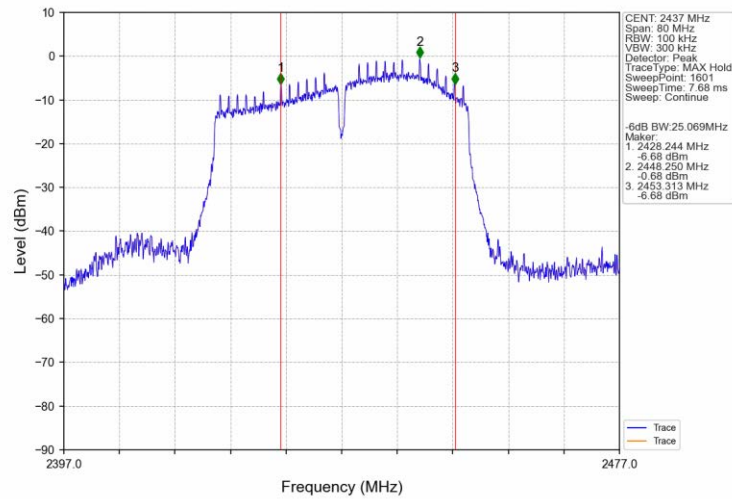
802.11n(HT40)_LCH_2422MHz_Ant1 (MIMO)_NTNV



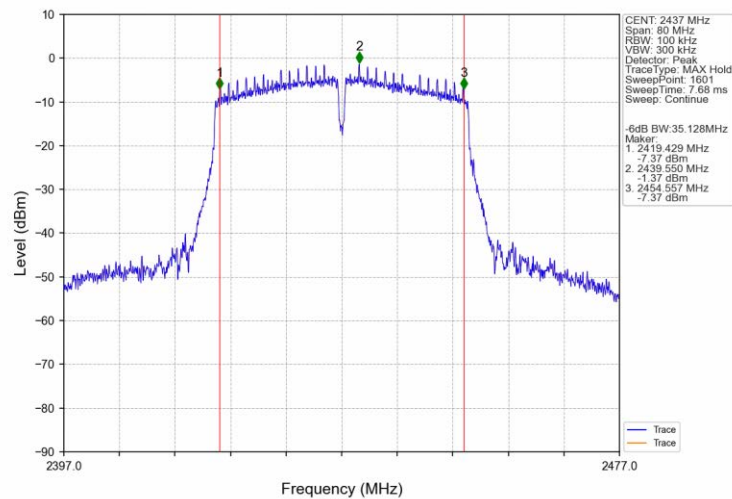
802.11n(HT40)_LCH_2422MHz_Ant2 (MIMO)_NTNV



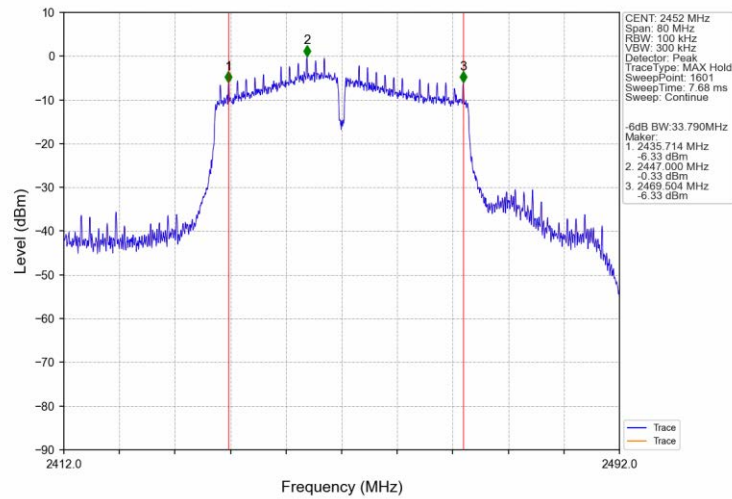
802.11n(HT40)_MCH_2437MHz_Ant1 (MIMO)_NTNV



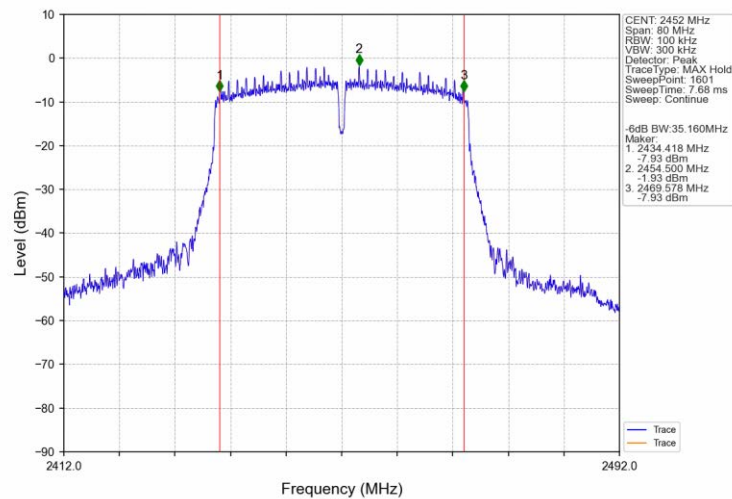
802.11n(HT40)_MCH_2437MHz_Ant2 (MIMO)_NTNV



802.11n(HT40) HCH_2452MHz_Ant1 (MIMO)_NTNV



802.11n(HT40) HCH_2452MHz_Ant2 (MIMO)_NTNV



Note1: Antenna Gain: Ant1: 1.82dBi; Ant 2: 1.82dBi;
Note2: Directional Gain: correlated(Directional Gain = 4.83dBi)

4. Maximum Power Spectral Density

4.1 Test Result

4.1.1 PSD

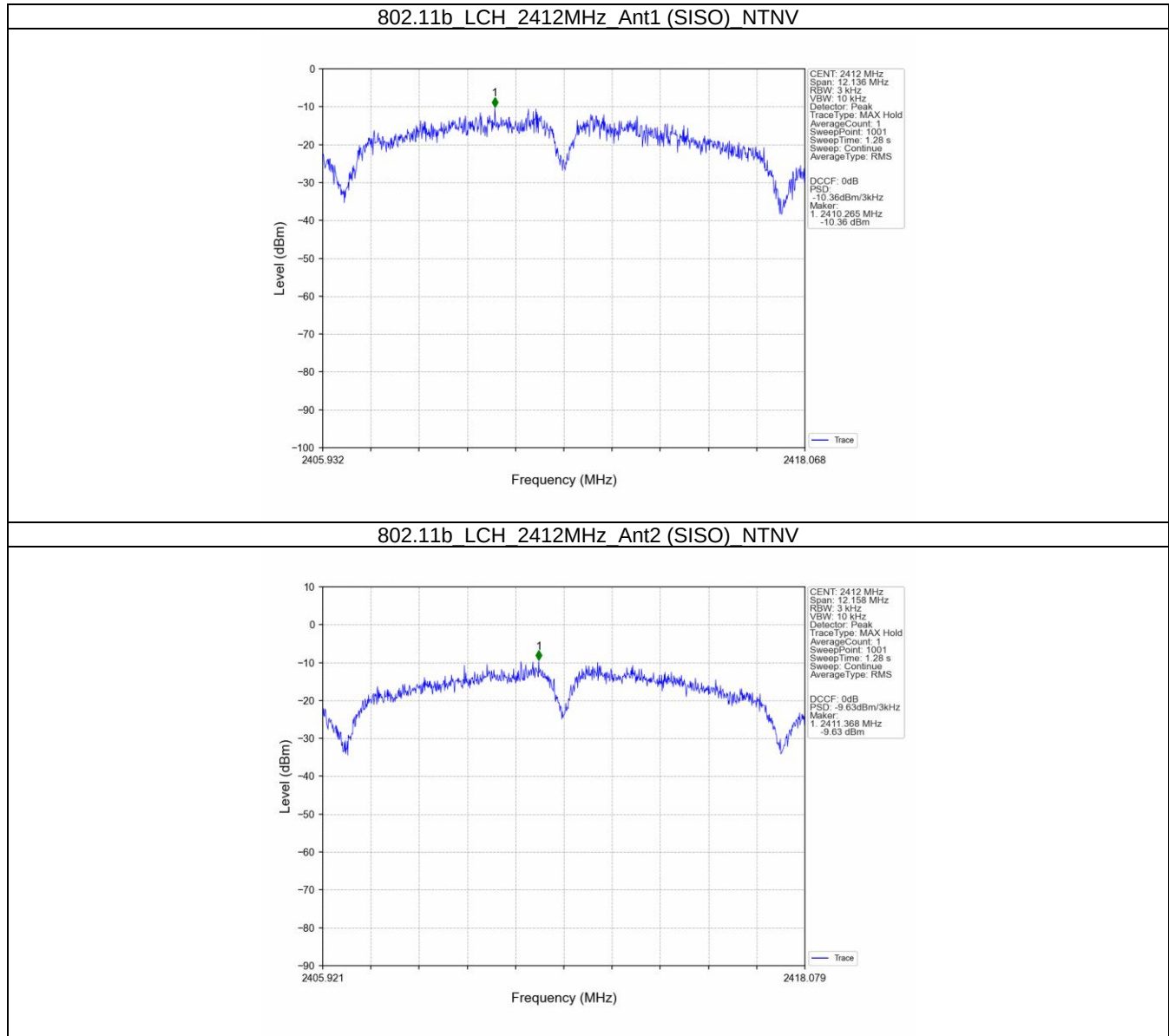
Mode	TX Type	Frequency (MHz)	Maximum PSD (dBm/3kHz)				Verdict
			ANT1	ANT2	MIMO	Limit	
802.11b	SISO	2412	-10.36	-9.63	/	<=8	Pass
		2437	-10.47	-9.68	/	<=8	Pass
		2462	-11.01	-9.18	/	<=8	Pass
802.11g	SISO	2412	-14.48	-13.86	/	<=8	Pass
		2437	-14.93	-15.11	/	<=8	Pass
		2462	-14.46	-15.26	/	<=8	Pass
802.11n (HT20)	MIMO	2412	-13.39	-14.76	-11.84	<=8	Pass
		2437	-14.31	-13.13	-11.91	<=8	Pass
		2462	-14.54	-13.11	-11.96	<=8	Pass
802.11n (HT40)	MIMO	2422	-18.57	-17.54	-15.79	<=8	Pass
		2437	-15.53	-17.25	-15.12	<=8	Pass
		2452	-16.19	-16.95	-14.43	<=8	Pass

Note1: Antenna Gain: Ant1: 1.82dBi; Ant 2: 1.82dBi;

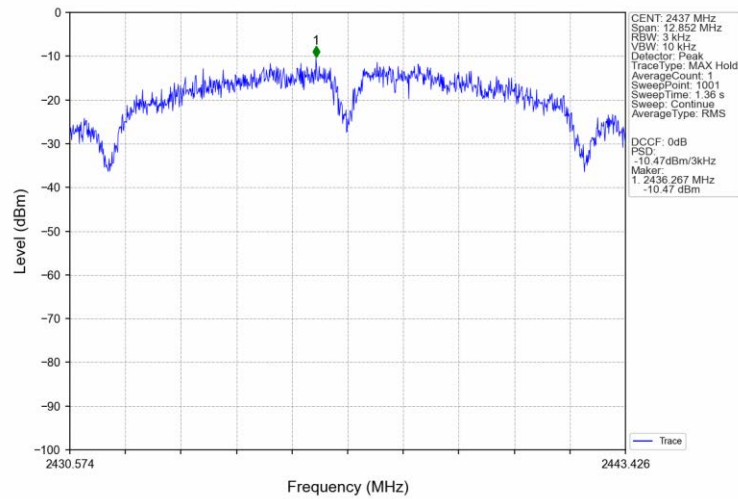
Note2: Directional Gain: correlated(Directional Gain = 4.83dBi)

4.2 Test Graph

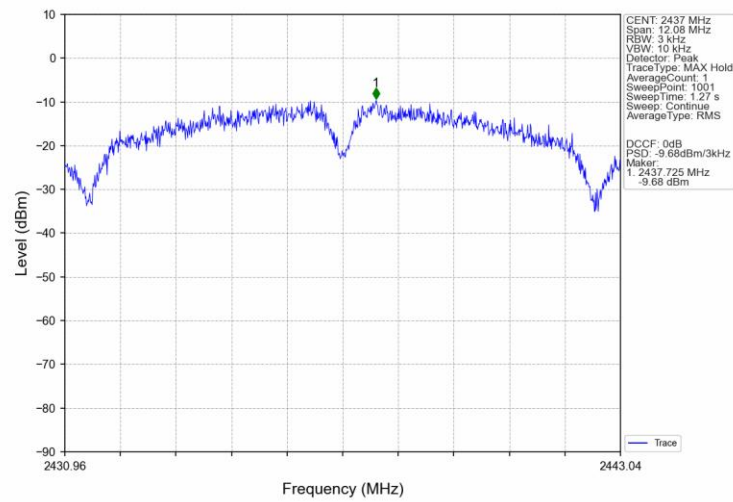
4.2.1 PSD



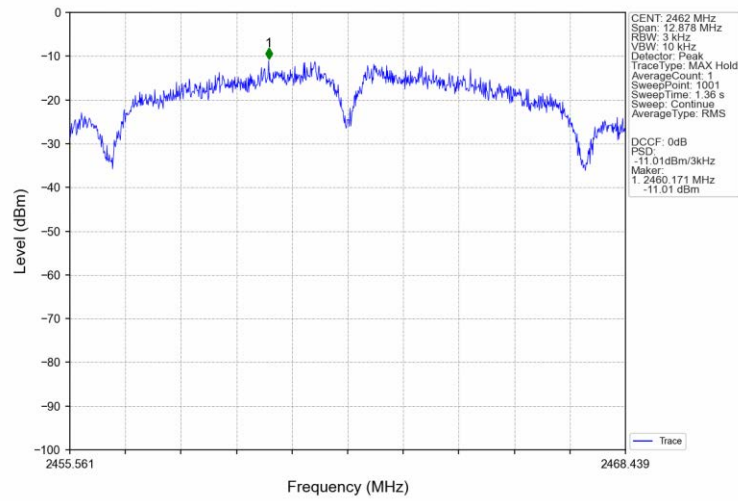
802.11b_MCH_2437MHz_Ant1 (SISO)_NTNV



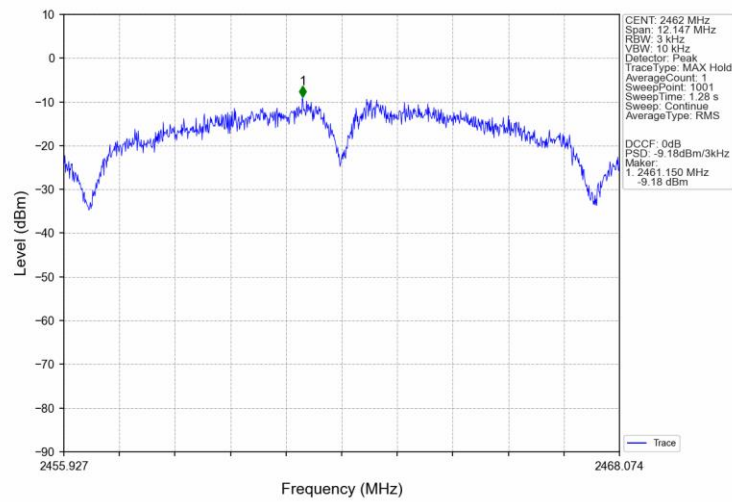
802.11b_MCH_2437MHz_Ant2 (SISO)_NTNV



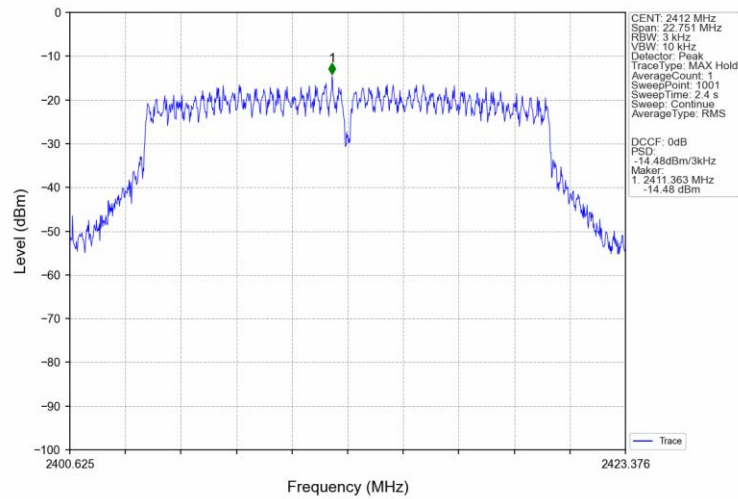
802.11b_HCH_2462MHz_Ant1 (SISO)_NTNV



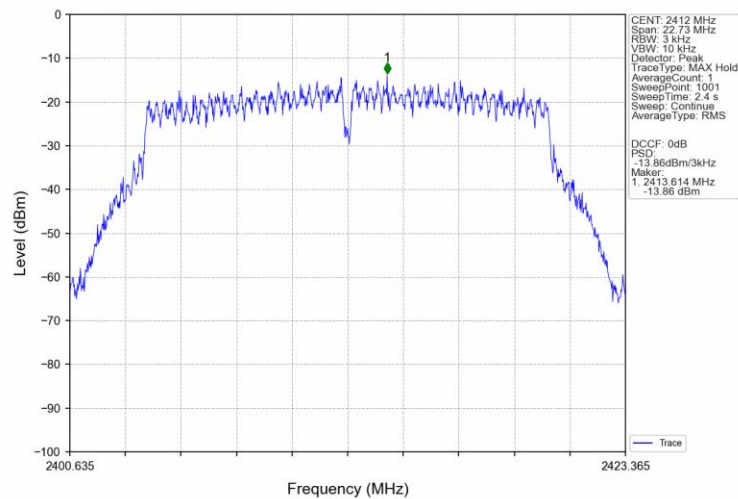
802.11b_HCH_2462MHz_Ant2 (SISO)_NTNV



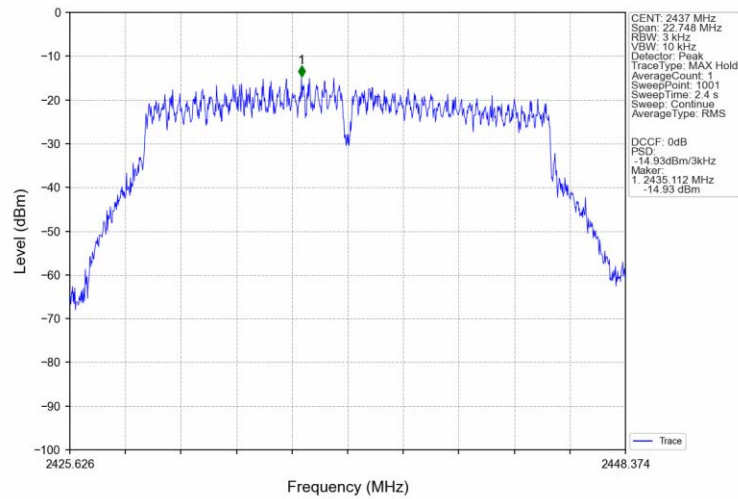
802.11g_LCH_2412MHz_Ant1 (SISO)_NTNV



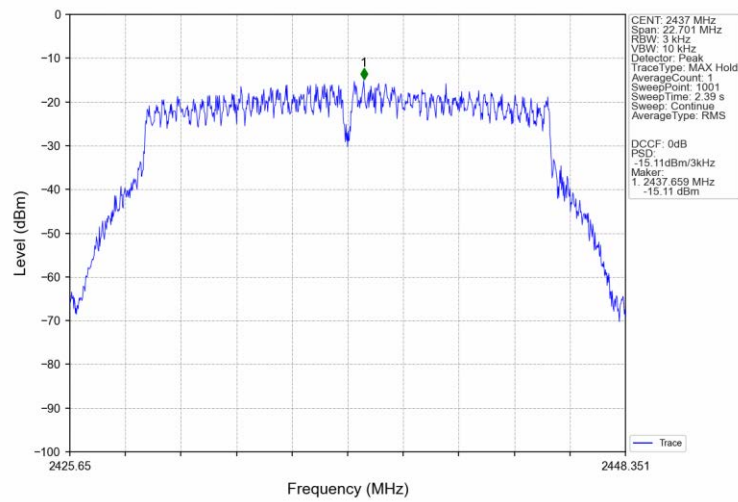
802.11g_LCH_2412MHz_Ant2 (SISO)_NTNV



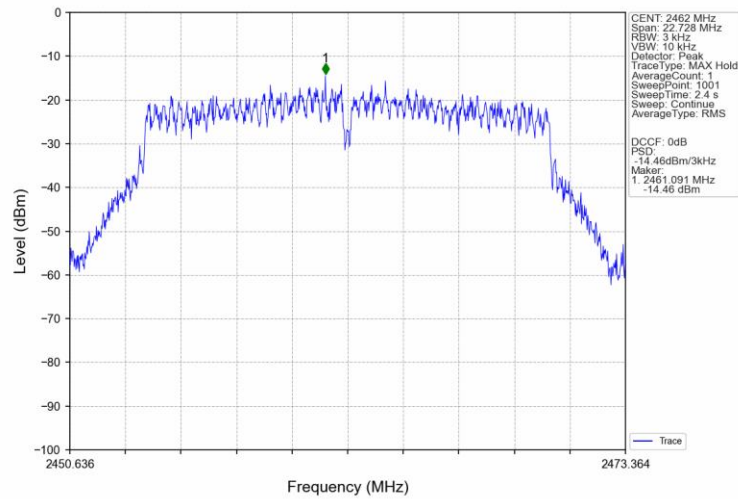
802.11g_MCH_2437MHz_Ant1 (SISO)_NTNV



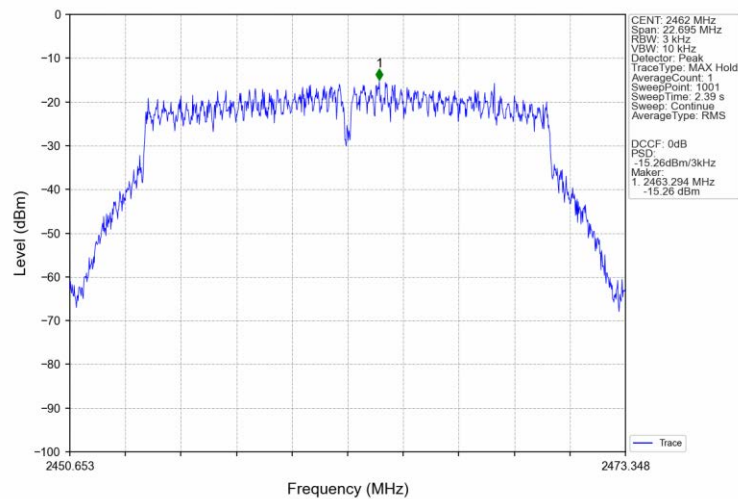
802.11g_MCH_2437MHz_Ant2 (SISO)_NTNV



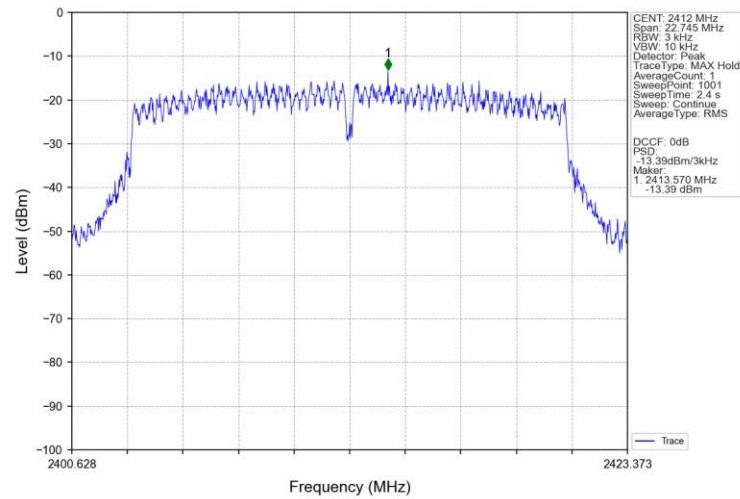
802.11g_HCH_2462MHz_Ant1 (SISO)_NTNV



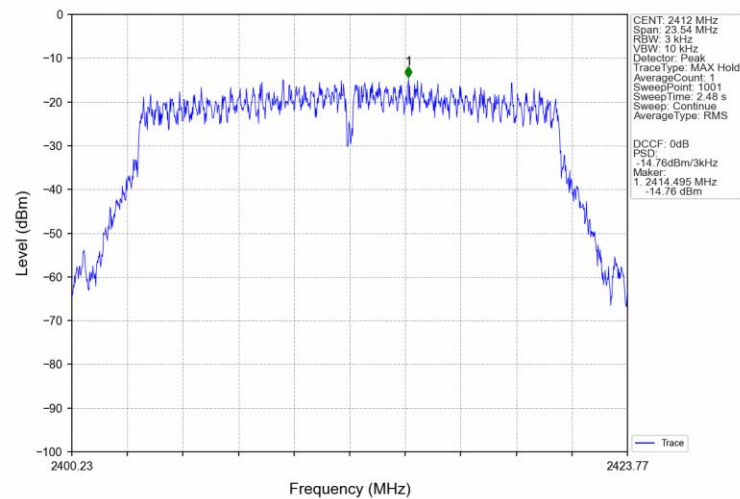
802.11g_HCH_2462MHz_Ant2 (SISO)_NTNV



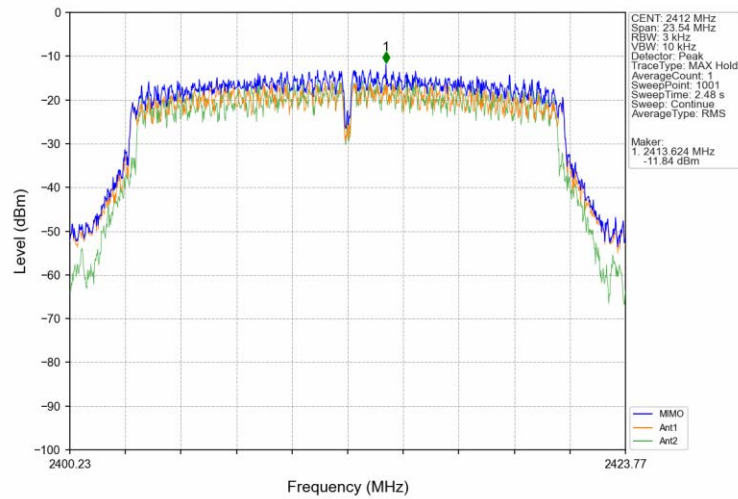
802.11n(HT20)_LCH_2412MHz_Ant1 (MIMO)_NTNV



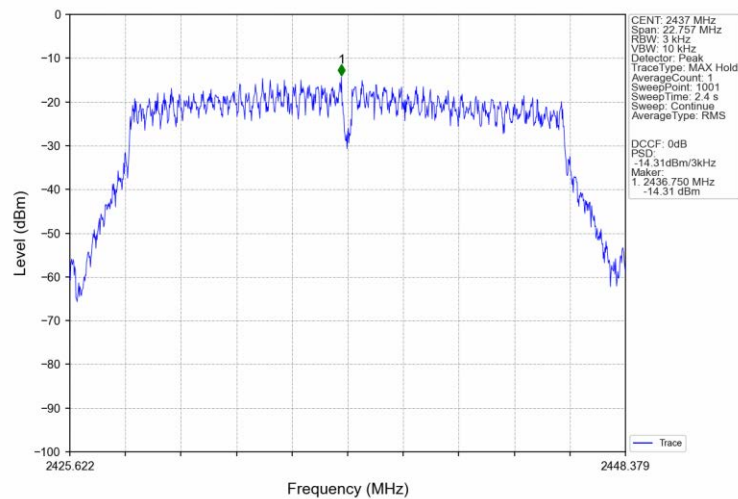
802.11n(HT20)_LCH_2412MHz_Ant2 (MIMO)_NTNV



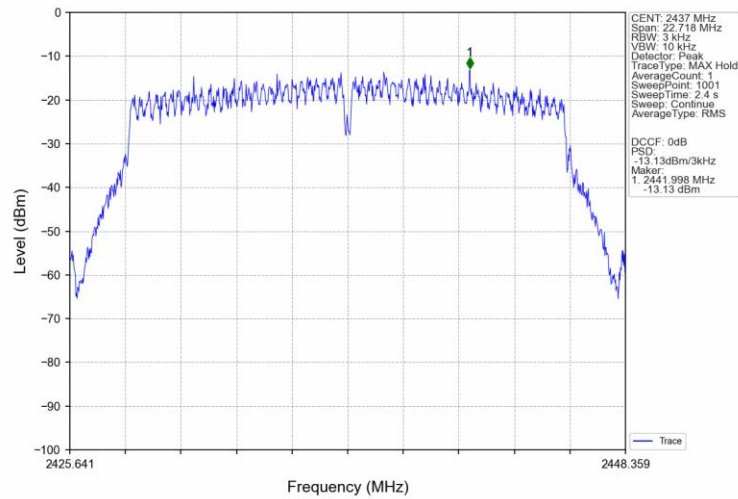
802.11n(HT20)_LCH_2412MHz_MIMO_NTNV



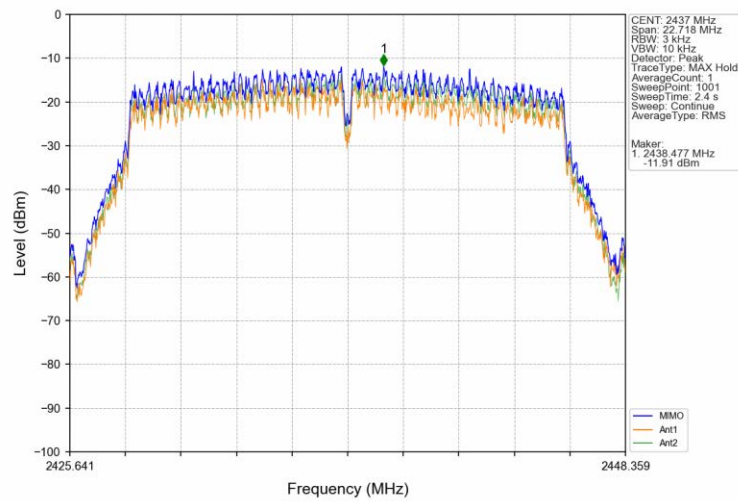
802.11n(HT20)_MCH_2437MHz_Ant1 (MIMO)_NTNV



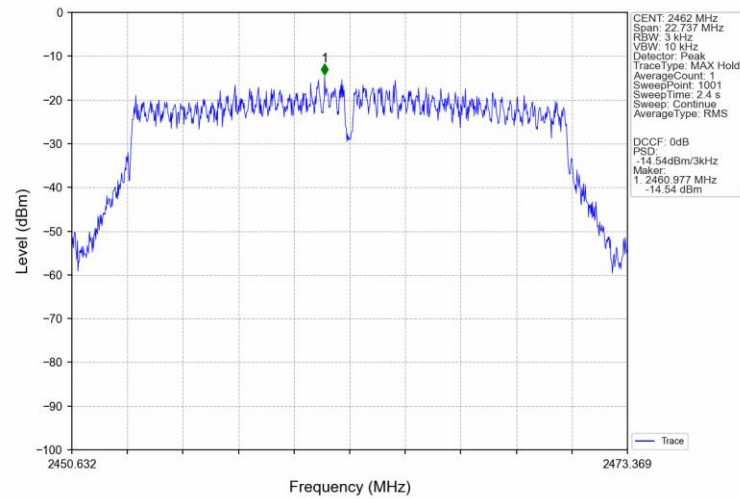
802.11n(HT20)_MCH_2437MHz_Ant2 (MIMO)_NTNV



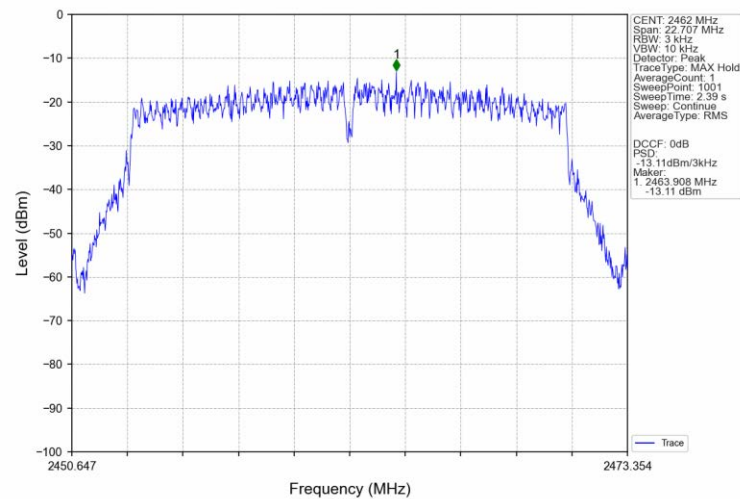
802.11n(HT20)_MCH_2437MHz_MIMO_NTNV



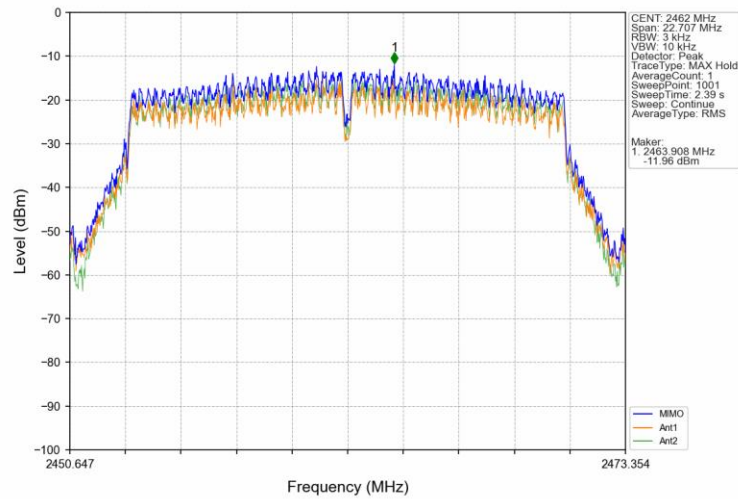
802.11n(HT20)_HCH_2462MHz_Ant1 (MIMO)_NTNV



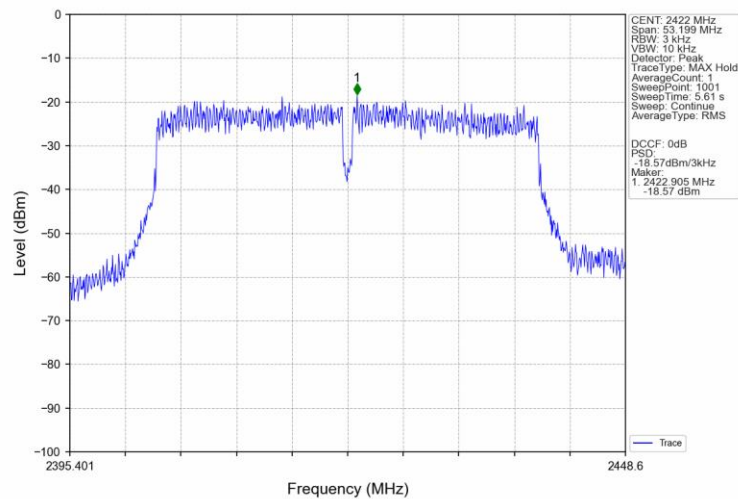
802.11n(HT20)_HCH_2462MHz_Ant2 (MIMO)_NTNV



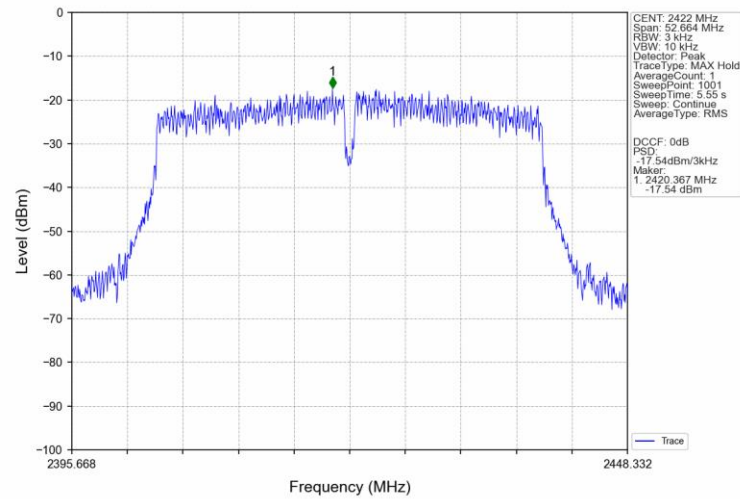
802.11n(HT20)_HCH_2462MHz_MIMO_NTNV



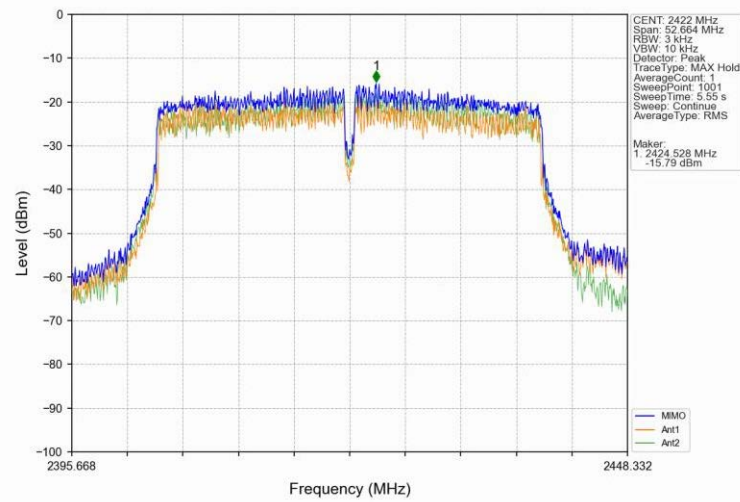
802.11n(HT40)_LCH_2422MHz_Ant1 (MIMO)_NTNV



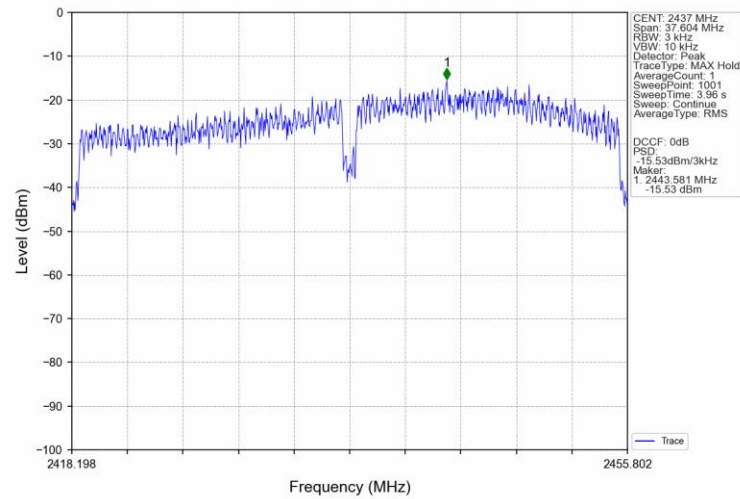
802.11n(HT40)_LCH_2422MHz_Ant2 (MIMO)_NTNV



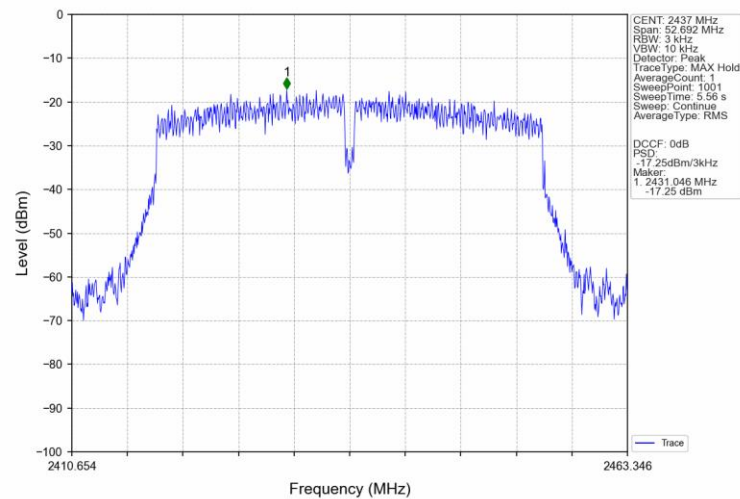
802.11n(HT40)_LCH_2422MHz_MIMO_NTNV



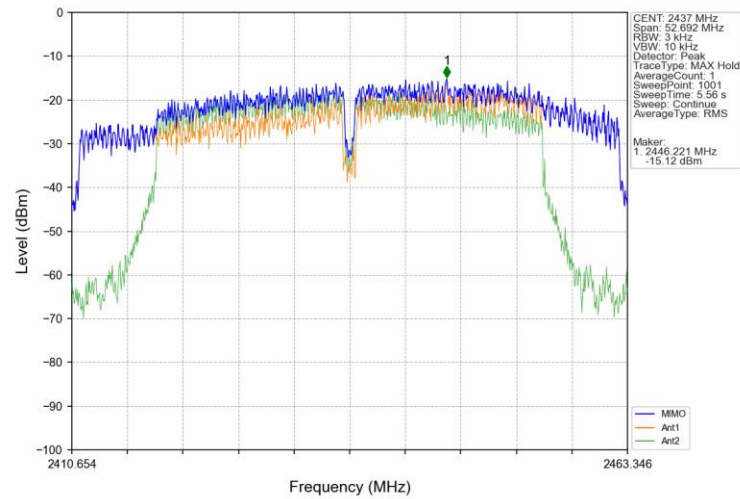
802.11n(HT40)_MCH_2437MHz_Ant1 (MIMO)_NTNV



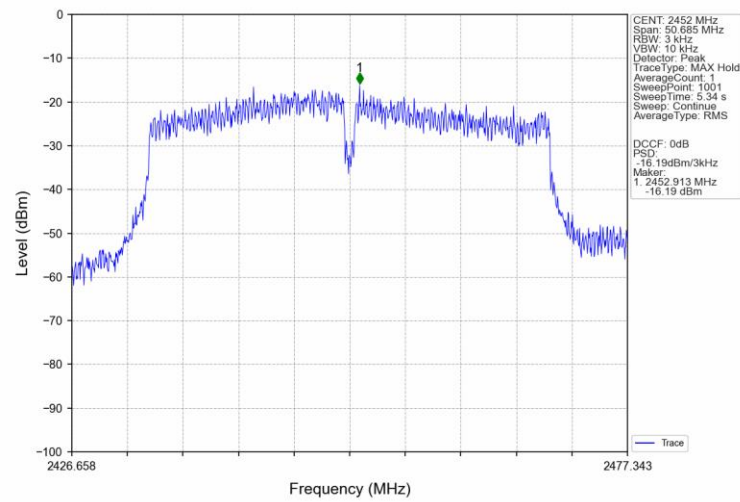
802.11n(HT40)_MCH_2437MHz_Ant2 (MIMO)_NTNV



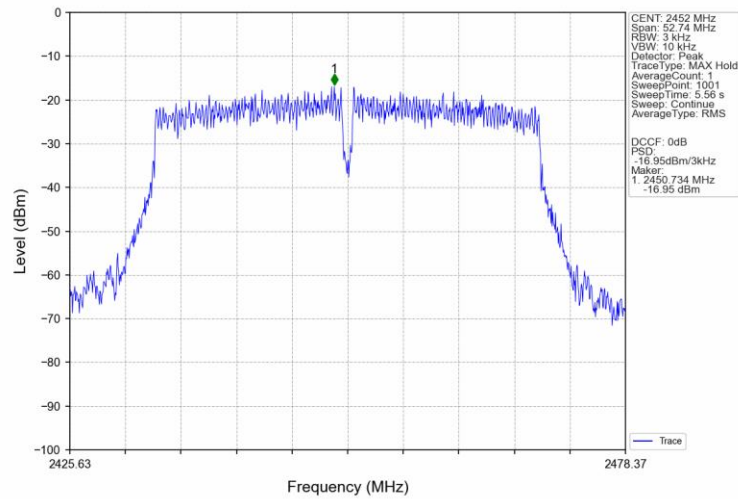
802.11n(HT40)_MCH_2437MHz_MIMO_NTNV



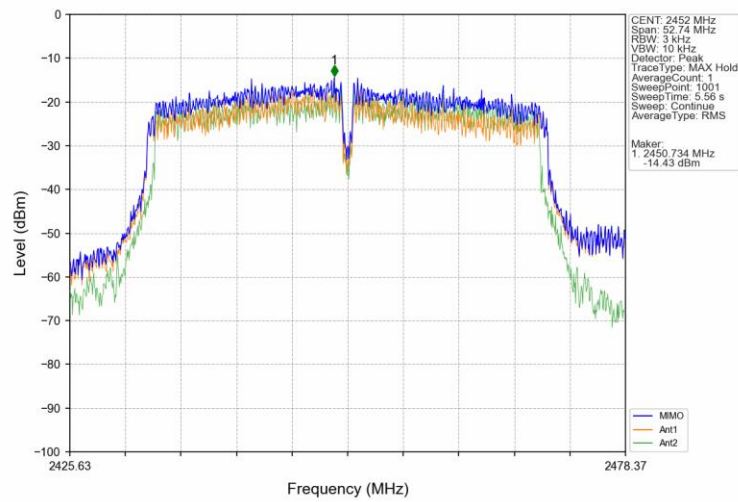
802.11n(HT40)_HCH_2452MHz_Ant1 (MIMO)_NTNV



802.11n(HT40)_HCH_2452MHz_Ant2 (MIMO)_NTNV



802.11n(HT40)_HCH_2452MHz_MIMO_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	4.35
			2	4.37
		2437	1	4.32
			2	5.16
		2462	1	2.97
			2	5.20
802.11g	SISO	2412	1	-0.53
			2	0.43
		2437	1	-0.42
			2	0.49
		2462	1	-1.35
			2	0.42
802.11n (HT20)	MIMO	2412	1	0.18
			2	1.20
		2437	1	0.76
			2	1.54
		2462	1	0.11
			2	1.58
802.11n (HT40)	MIMO	2422	1	-3.55
			2	-1.42
		2437	1	-0.98
			2	-1.50
		2452	1	-0.73
			2	-1.96

Note1: Refer to FCC Part 15.247 (d) and ANSI C63.10-2013, the channel contains the maximum PSD level was used to establish the reference level.

5.1.2 CSE

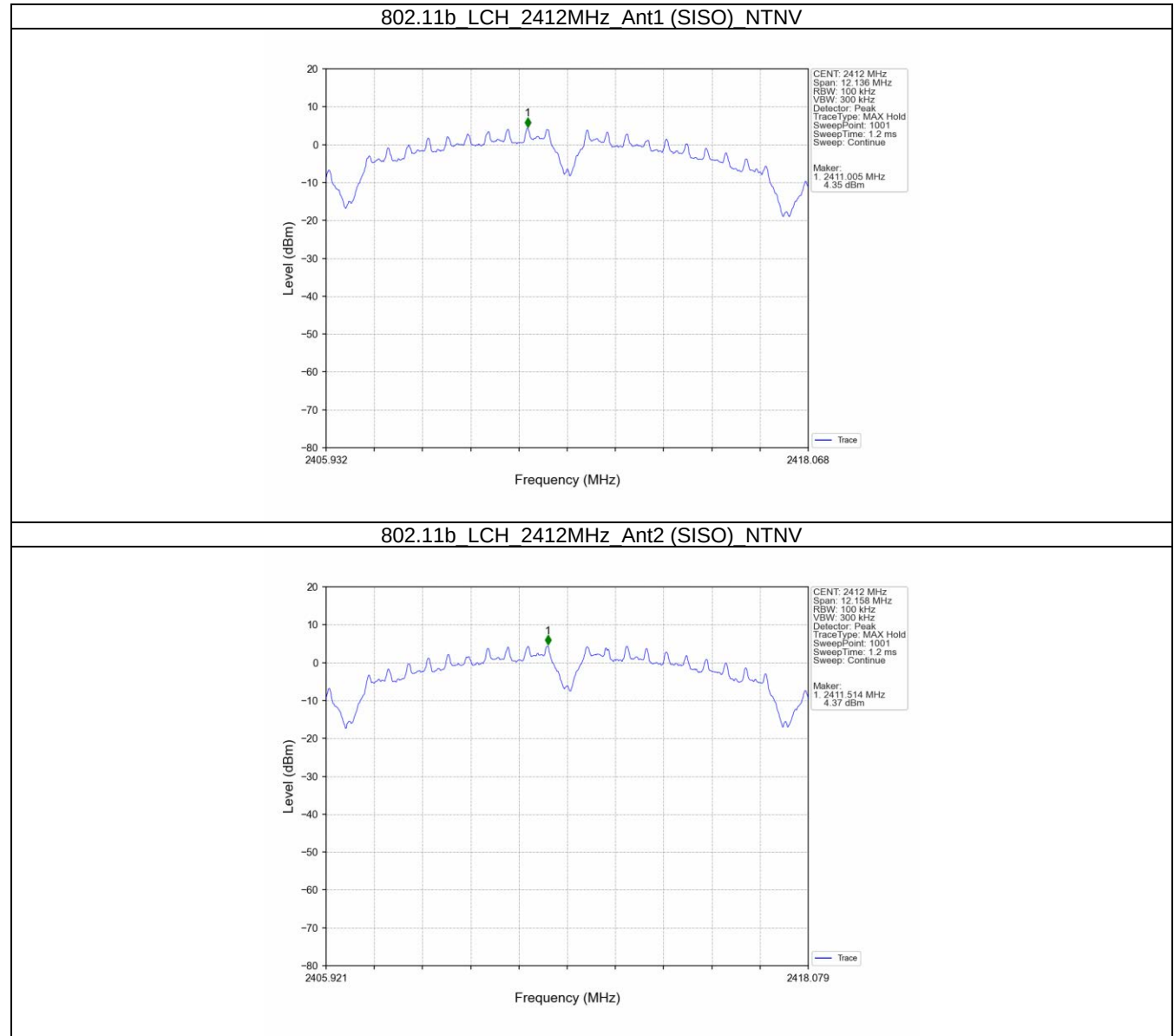
Mode	TX Type	Frequency (MHz)	ANT	Level of Reference (dBm)	Limit (dBm)	Verdict
802.11b	SISO	2412	1	4.35	-15.65	Pass
			2	4.37	-15.63	Pass
		2437	1	4.32	-15.68	Pass
			2	5.16	-14.84	Pass
		2462	1	2.97	-17.03	Pass
			2	5.20	-14.80	Pass
802.11g	SISO	2412	1	-0.53	-20.53	Pass
			2	0.43	-19.57	Pass
		2437	1	-0.42	-20.42	Pass
			2	0.49	-19.51	Pass
		2462	1	-1.35	-21.35	Pass
			2	0.42	-19.58	Pass
802.11n (HT20)	MIMO	2412	1	0.18	-19.82	Pass
			2	1.20	-18.80	Pass
		2437	1	0.76	-19.24	Pass



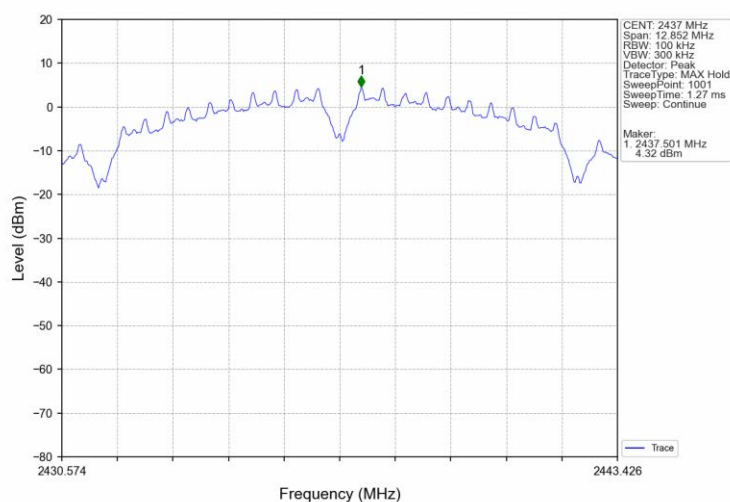
802.11n (HT40)	MIMO	2462	2	1.54	-18.46	Pass
			1	0.11	-19.89	Pass
			2	1.58	-18.42	Pass
		2422	1	-3.55	-23.55	Pass
			2	-1.42	-21.42	Pass
		2437	1	-0.98	-20.98	Pass
			2	-1.50	-21.50	Pass
		2452	1	-0.73	-20.73	Pass
			2	-1.96	-21.96	Pass
		Note1: Refer to FCC Part 15.247 (d) and ANSI C63.10-2013, the channel contains the maximum PSD level was used to establish the reference level.				

5.2 Test Graph

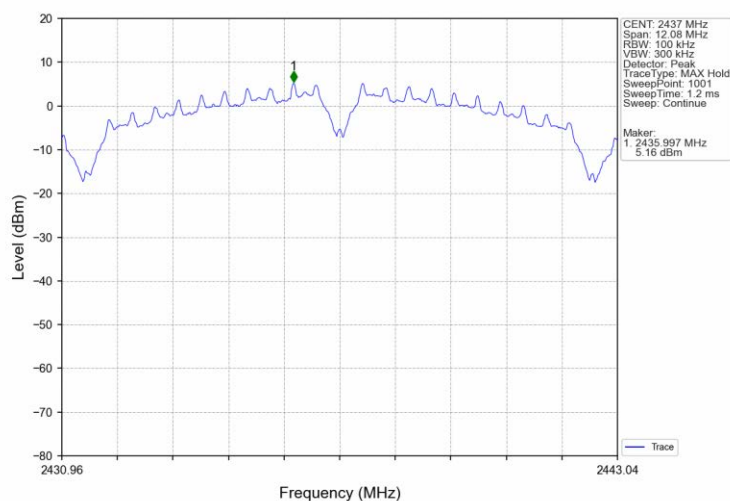
5.2.1 Ref



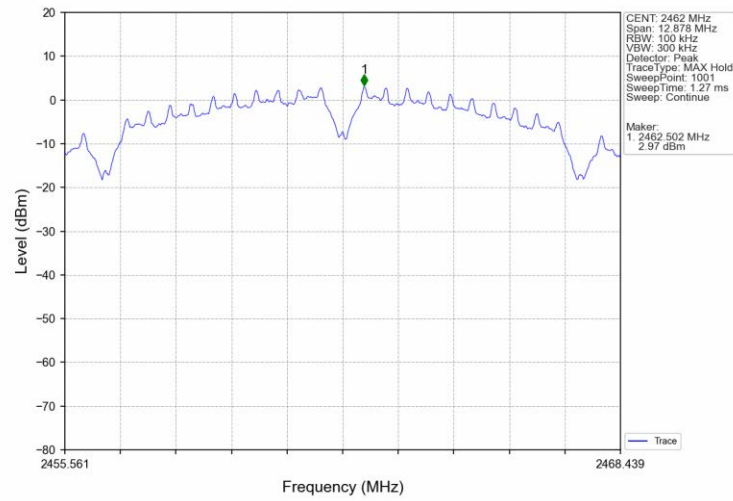
802.11b_MCH_2437MHz_Ant1 (SISO)_NTNV



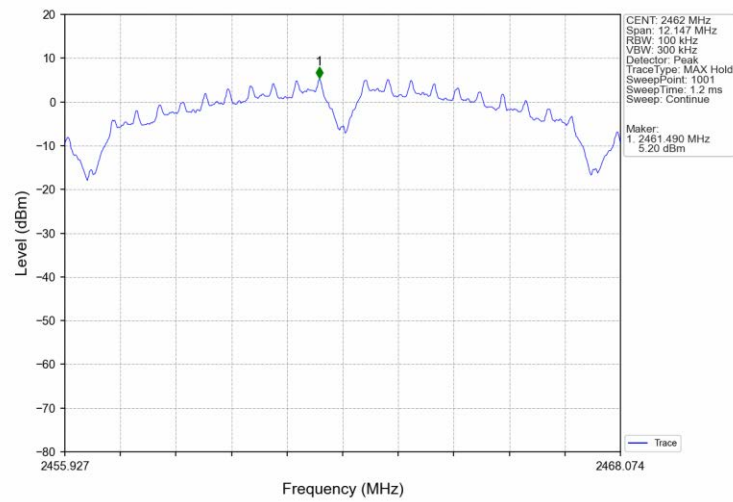
802.11b_MCH_2437MHz_Ant2 (SISO)_NTNV



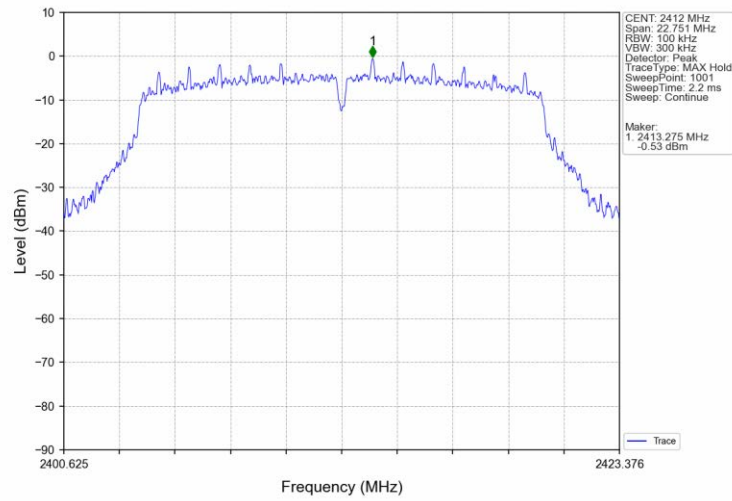
802.11b_HCH_2462MHz_Ant1 (SISO)_NTNV



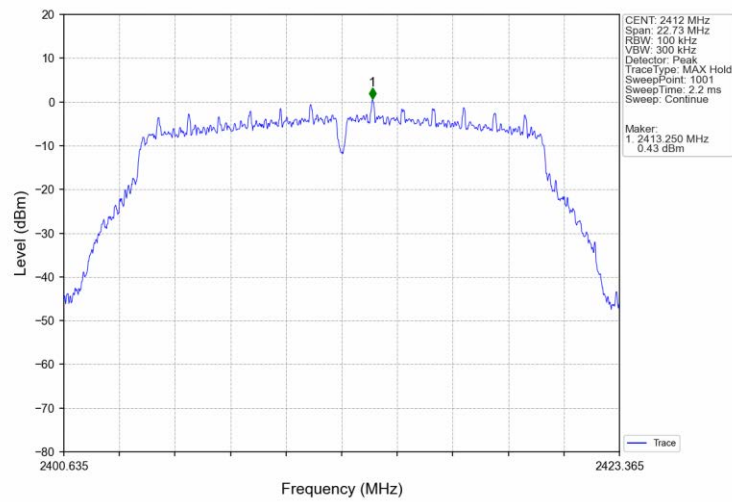
802.11b_HCH_2462MHz_Ant2 (SISO)_NTNV



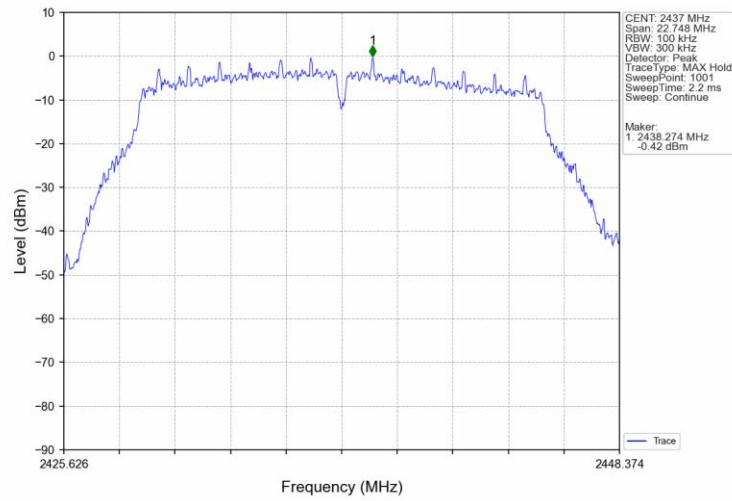
802.11g_LCH_2412MHz_Ant1 (SISO)_NTNV



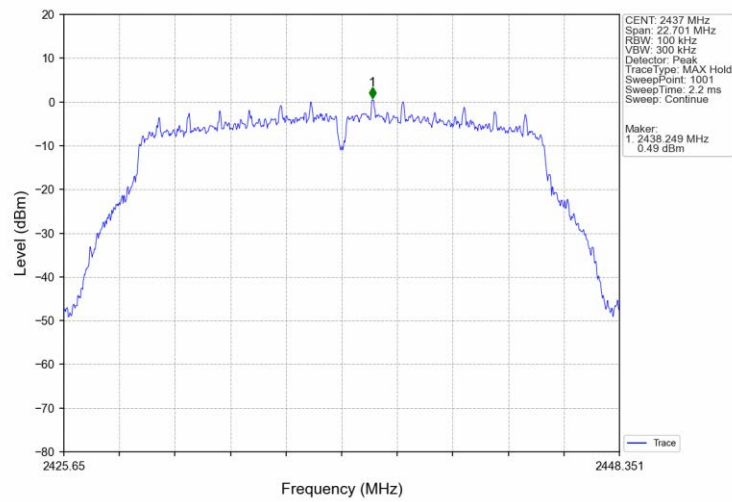
802.11g_LCH_2412MHz_Ant2 (SISO)_NTNV



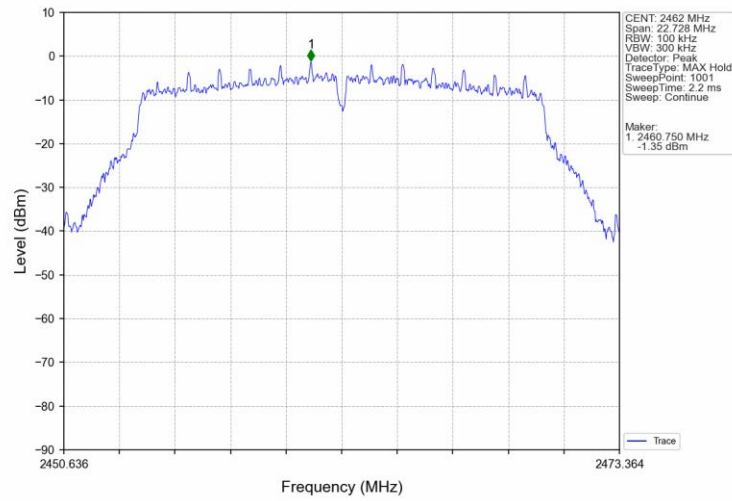
802.11g_MCH_2437MHz_Ant1 (SISO)_NTNV



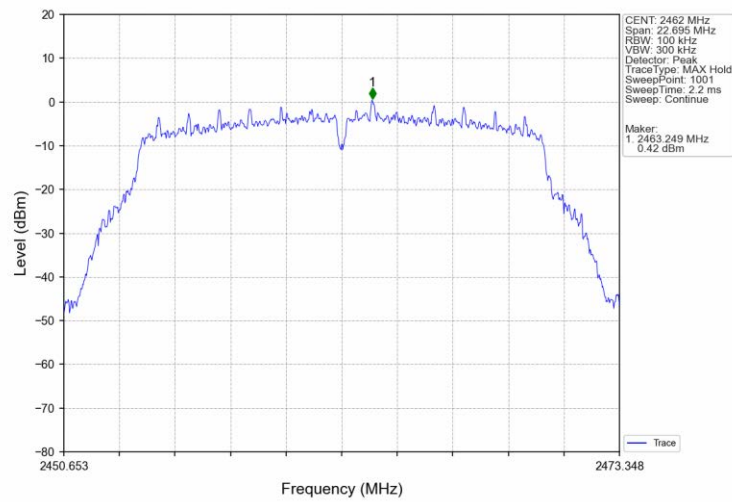
802.11g_MCH_2437MHz_Ant2 (SISO)_NTNV



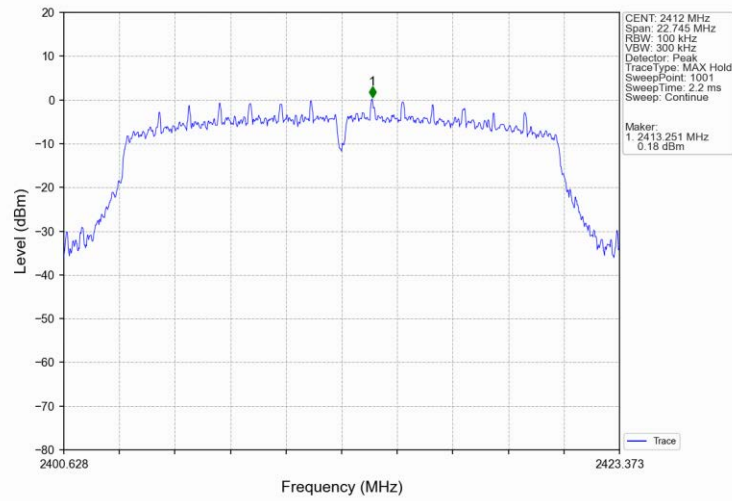
802.11g_HCH_2462MHz_Ant1 (SISO)_NTNV



802.11g_HCH_2462MHz_Ant2 (SISO)_NTNV



802.11n(HT20)_LCH_2412MHz_Ant1 (MIMO)_NTNV



802.11n(HT20)_LCH_2412MHz_Ant2 (MIMO)_NTNV

