

Appendix A for KSEM210700110201

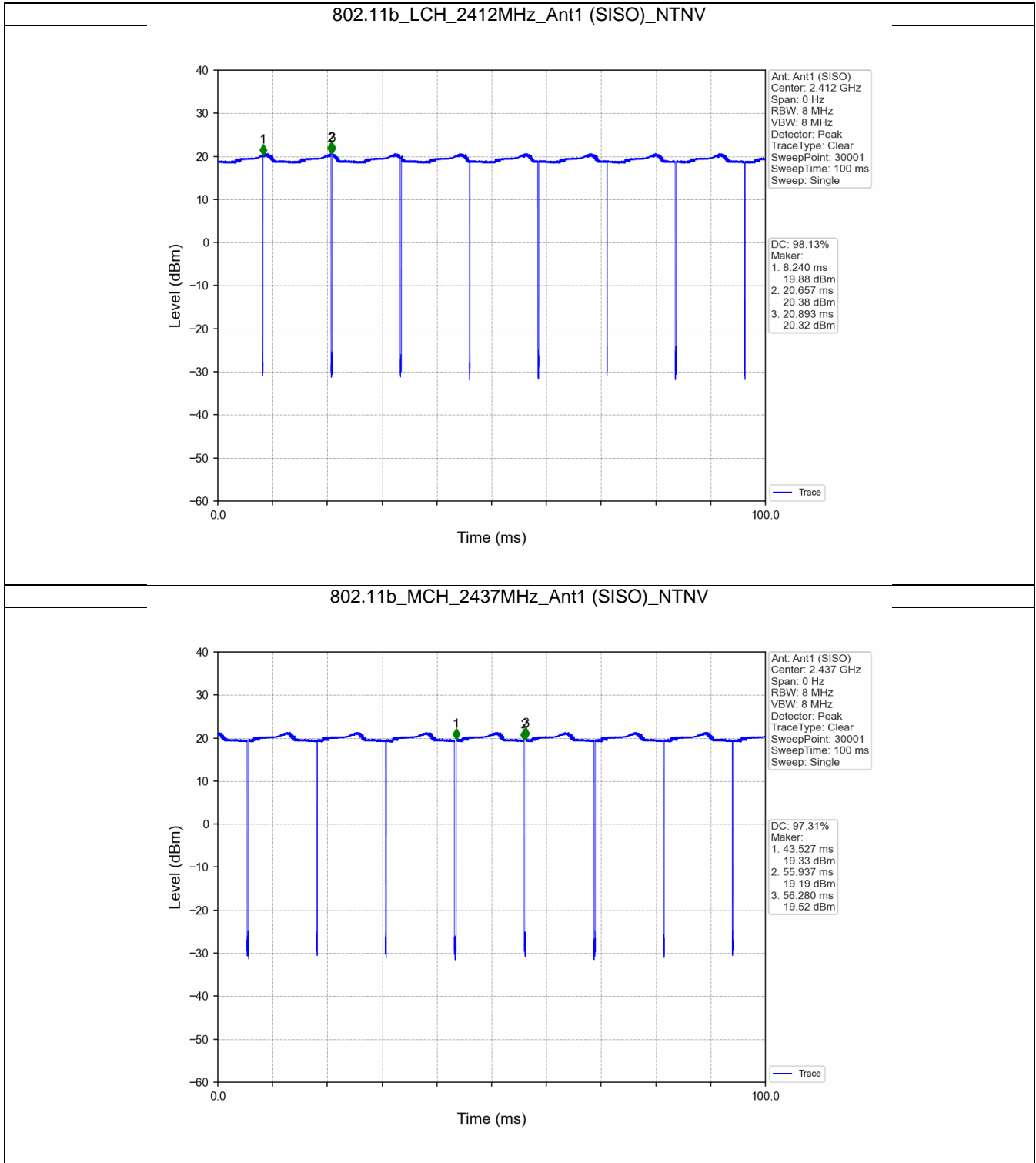
1. Duty Cycle

1.1 Ant1

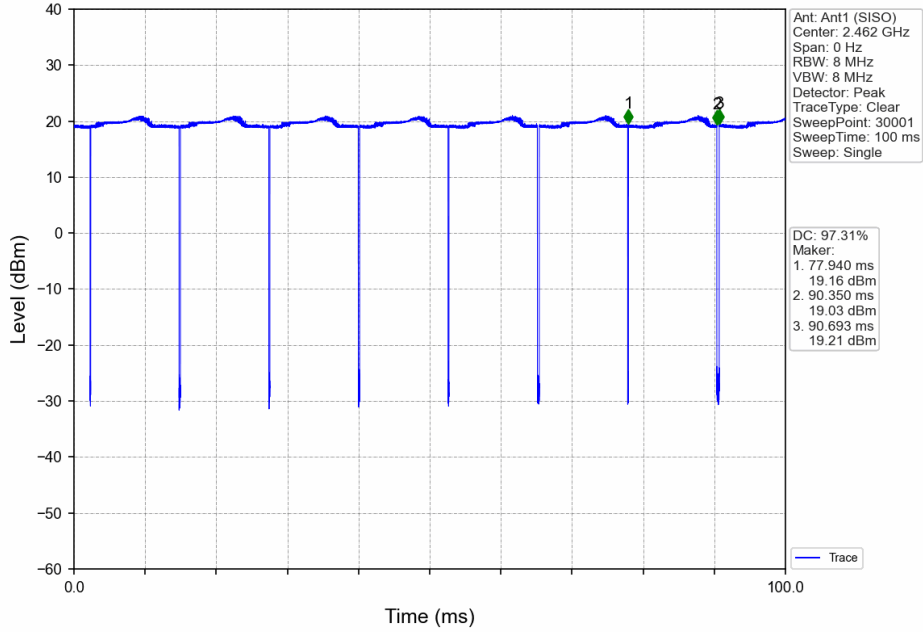
1.1.1 Test Result

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	12.417	12.653	98.13	0.08	1.26
		2437	12.410	12.753	97.31	0.12	1.42
		2462	12.410	12.753	97.31	0.12	1.71
802.11g	SISO	2412	2.060	2.380	86.55	0.63	9.67
		2437	2.061	2.340	88.08	0.55	9.14
		2462	2.061	2.380	86.60	0.62	10.62
802.11n (HT20)	SISO	2412	1.917	2.036	94.16	0.26	1.87
		2437	1.918	2.255	85.06	0.70	13.05
		2462	1.919	2.236	85.82	0.66	12.29
802.11n (HT40)	SISO	2422	0.940	1.280	73.44	1.34	18.75
		2437	0.942	1.220	77.21	1.12	18.91
		2452	0.943	1.260	74.84	1.26	21.42

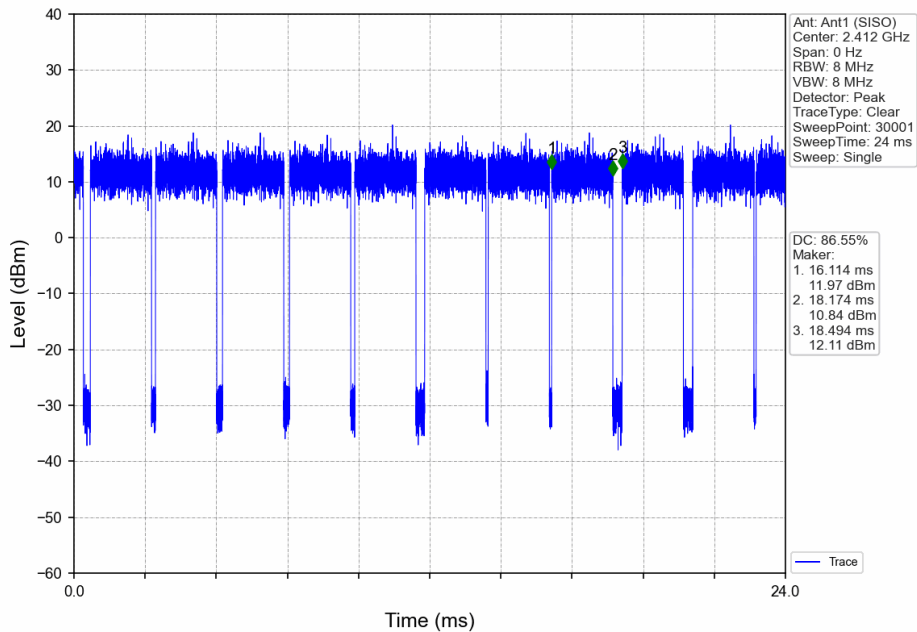
1.1.2 Test Graph



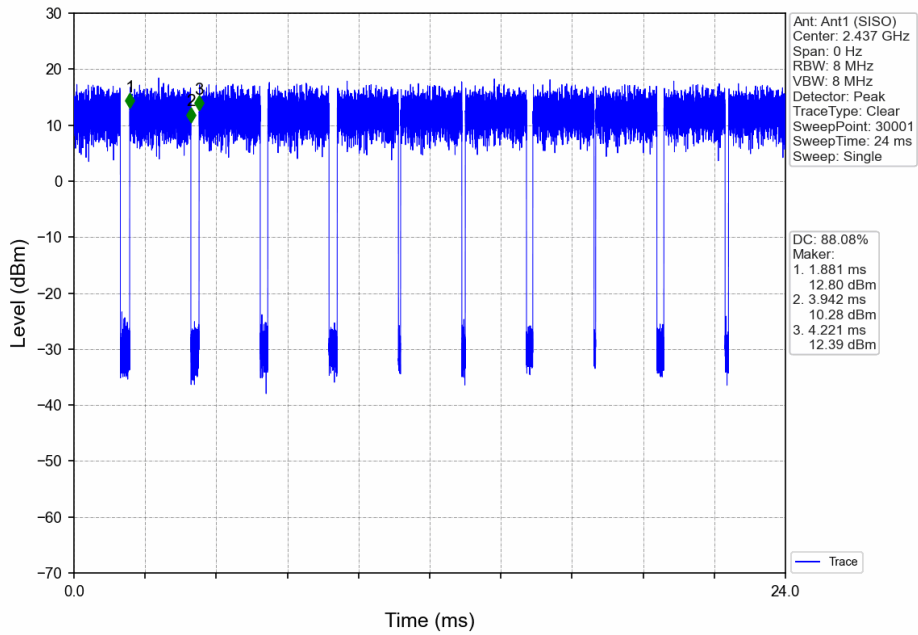
802.11b_HCH_2462MHz_Ant1 (SISO)_NTNV



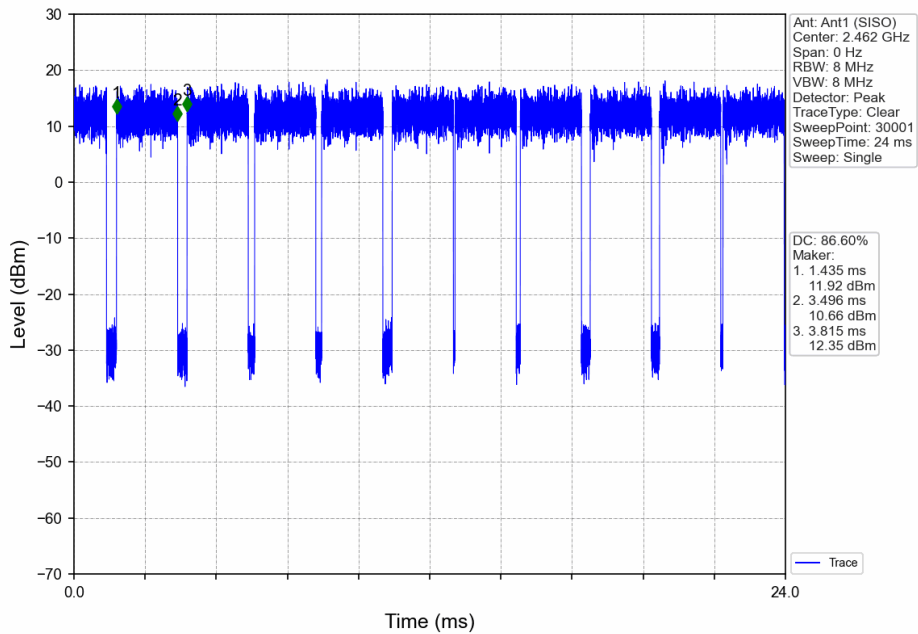
802.11g_LCH_2412MHz_Ant1 (SISO)_NTNV



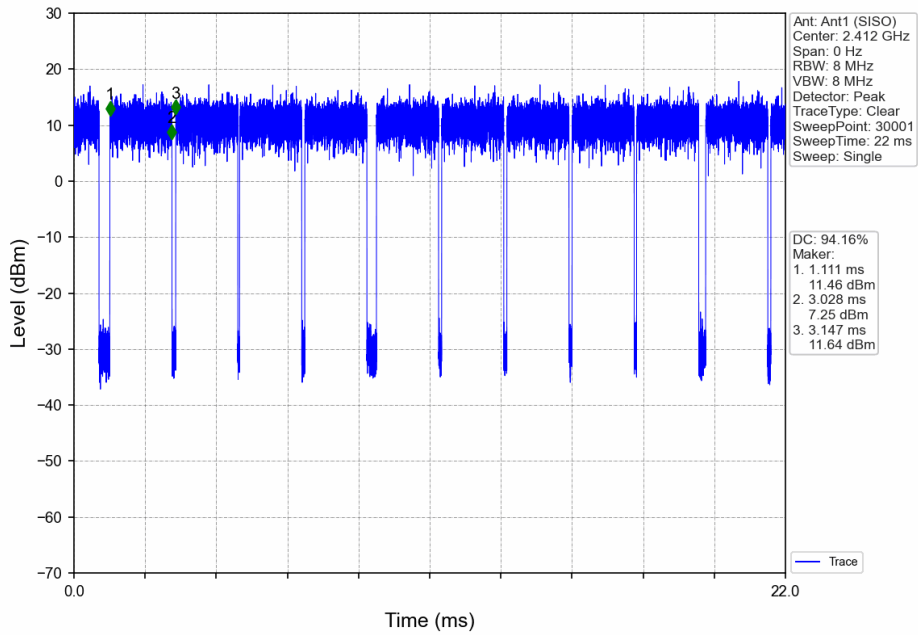
802.11g_MCH_2437MHz_Ant1 (SISO)_NTNV



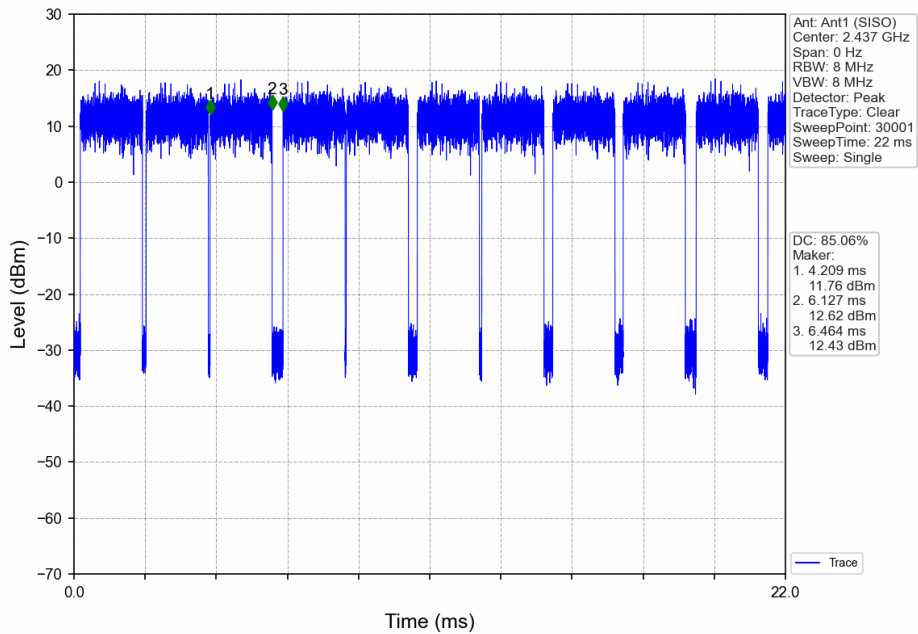
802.11g_HCH_2462MHz_Ant1 (SISO)_NTNV



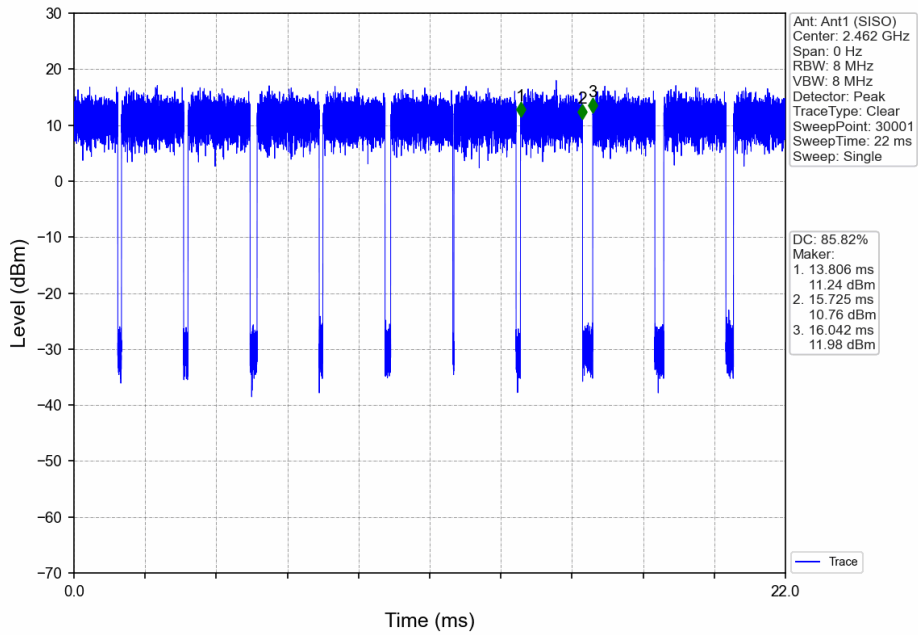
802.11n(HT20)_LCH_2412MHz_Ant1 (SISO)_NTNV



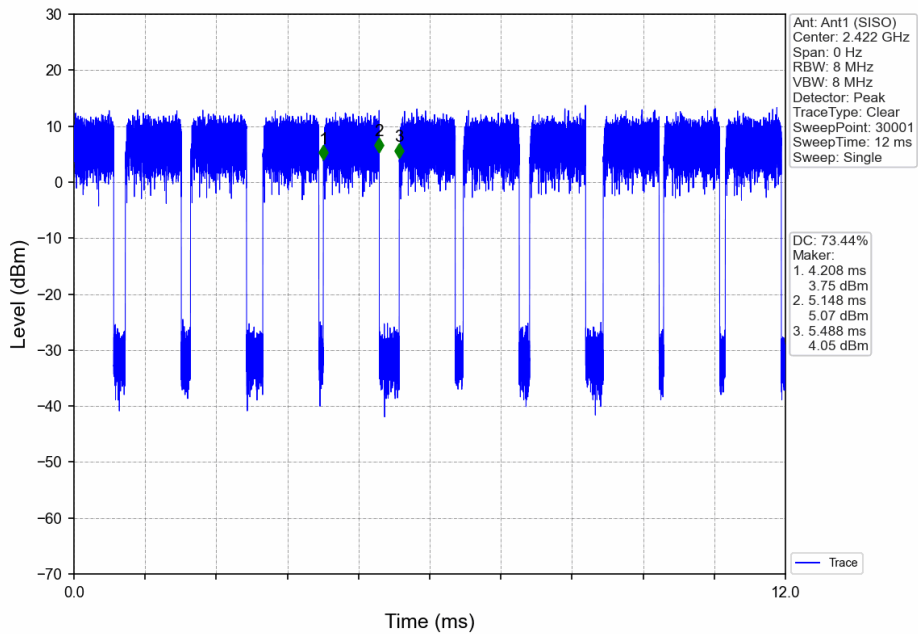
802.11n(HT20)_MCH_2437MHz_Ant1 (SISO)_NTNV



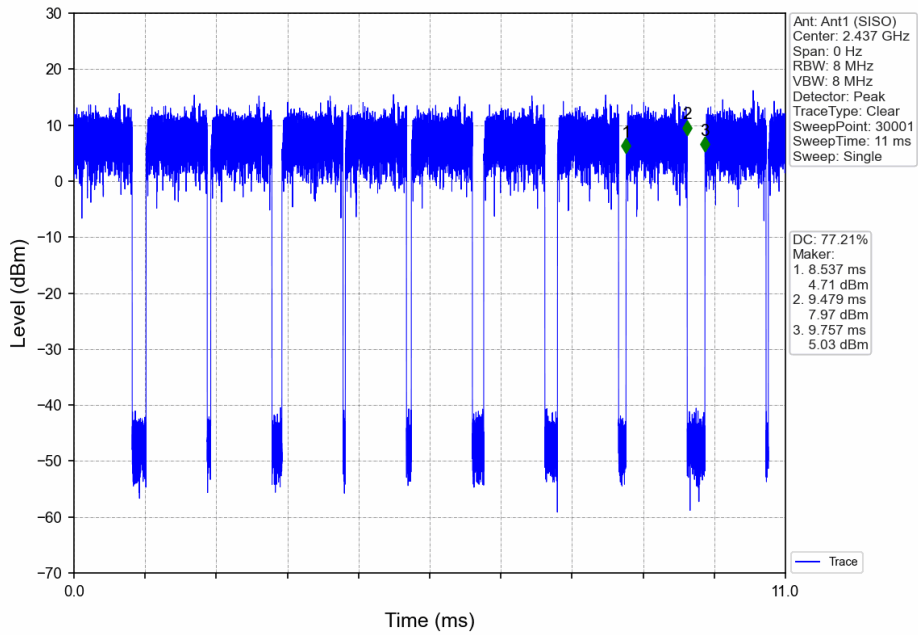
802.11n(HT20)_HCH_2462MHz_Ant1 (SISO)_NTNV



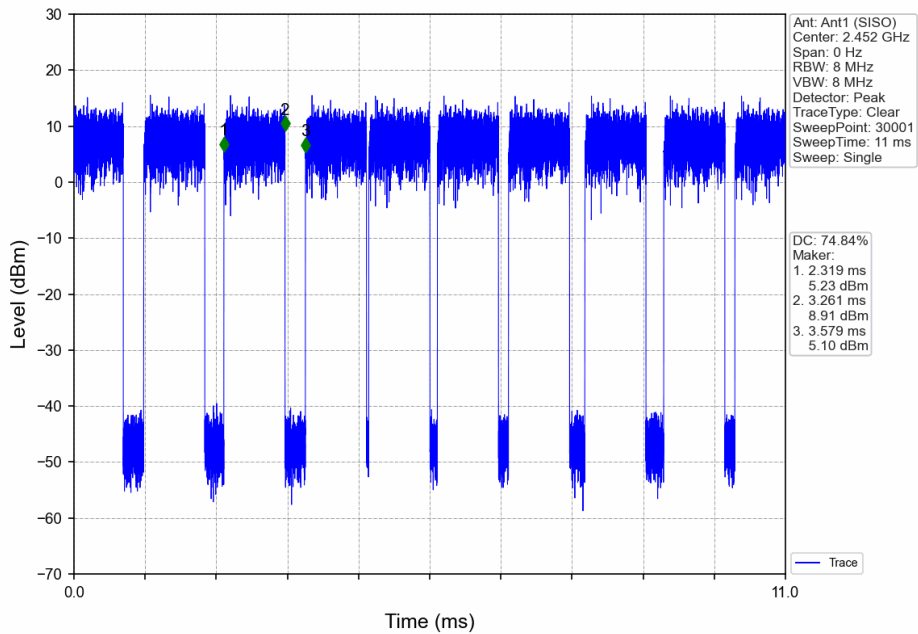
802.11n(HT40)_LCH_2422MHz_Ant1 (SISO)_NTNV



802.11n(HT40)_MCH_2437MHz_Ant1 (SISO)_NTNV



802.11n(HT40)_HCH_2452MHz_Ant1 (SISO)_NTNV



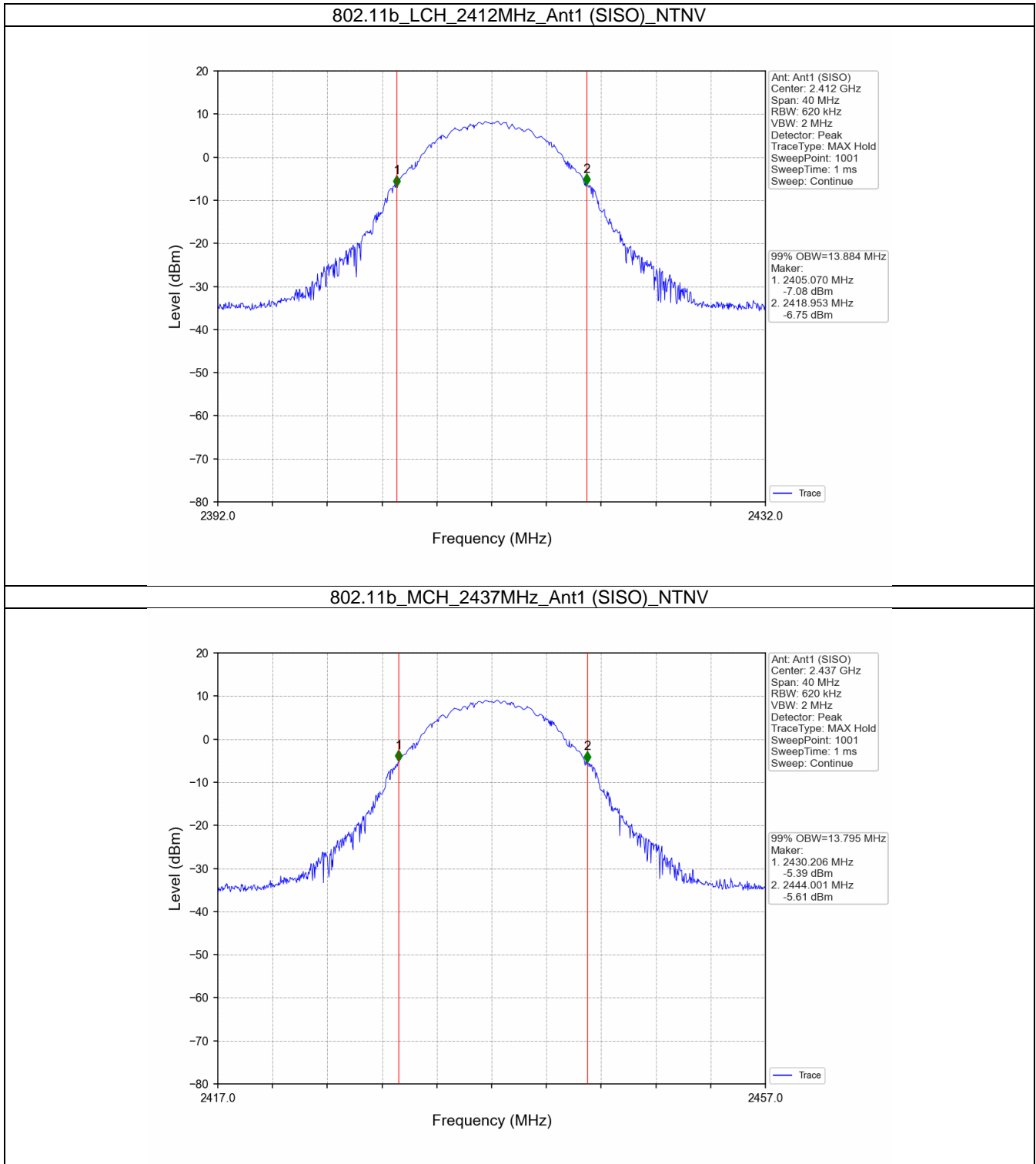
2. Bandwidth

2.1 OBW

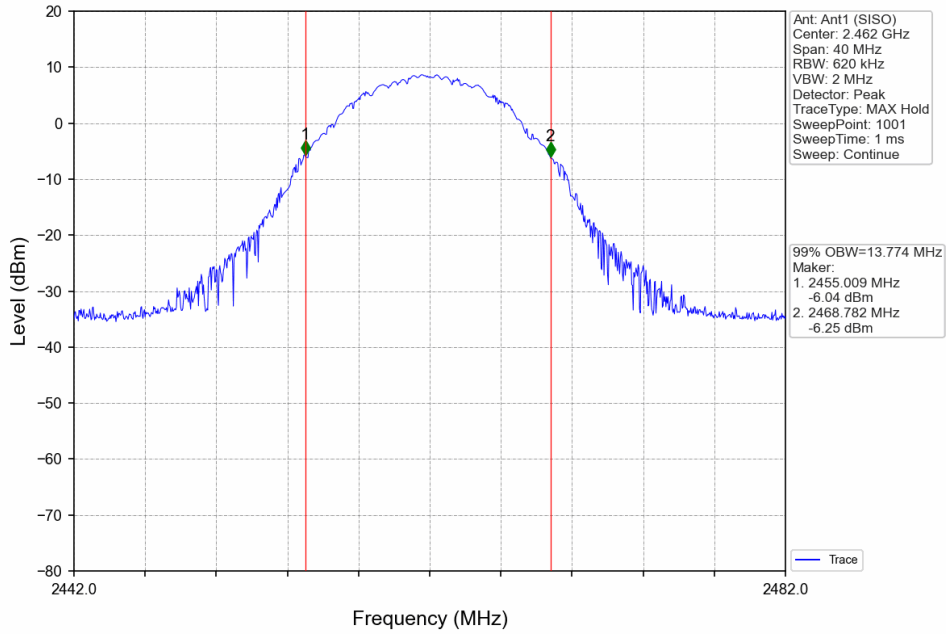
2.1.1 Test Result

Mode	TX Type	Frequency (MHz)	Ant	99% Occupied Bandwidth (MHz)	Limit (MHz)	Verdict
802.11b	SISO	2412	1	13.884	/	Pass
		2437	1	13.795	/	Pass
		2462	1	13.774	/	Pass
802.11g	SISO	2412	1	17.947	/	Pass
		2437	1	17.596	/	Pass
		2462	1	17.639	/	Pass
802.11n (HT20)	SISO	2412	1	18.433	/	Pass
		2437	1	18.621	/	Pass
		2462	1	18.629	/	Pass
802.11n (HT40)	SISO	2422	1	37.196	/	Pass
		2437	1	36.920	/	Pass
		2452	1	36.735	/	Pass

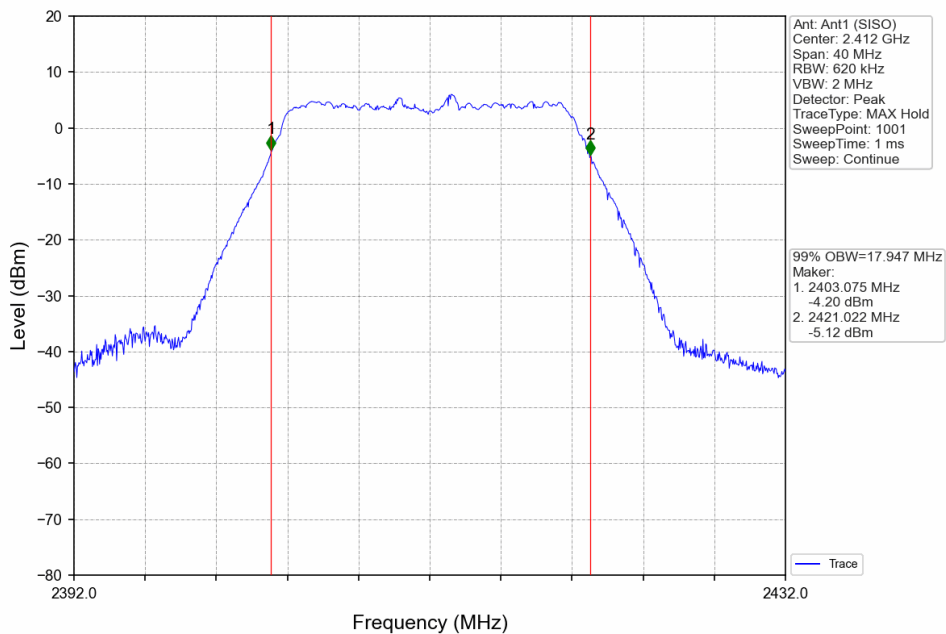
2.1.2 Test Graph



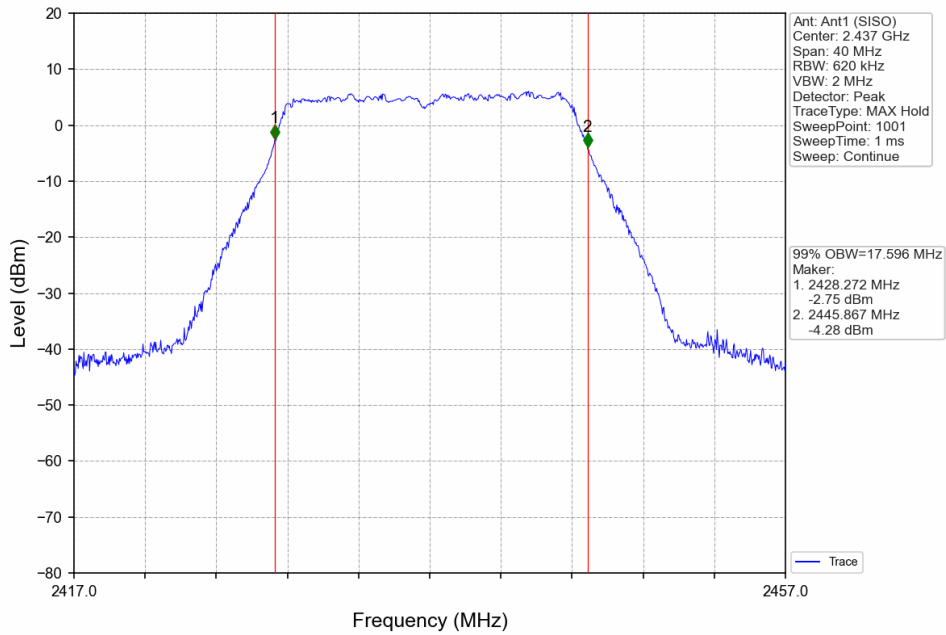
802.11b_HCH_2462MHz_Ant1 (SISO)_NTNV



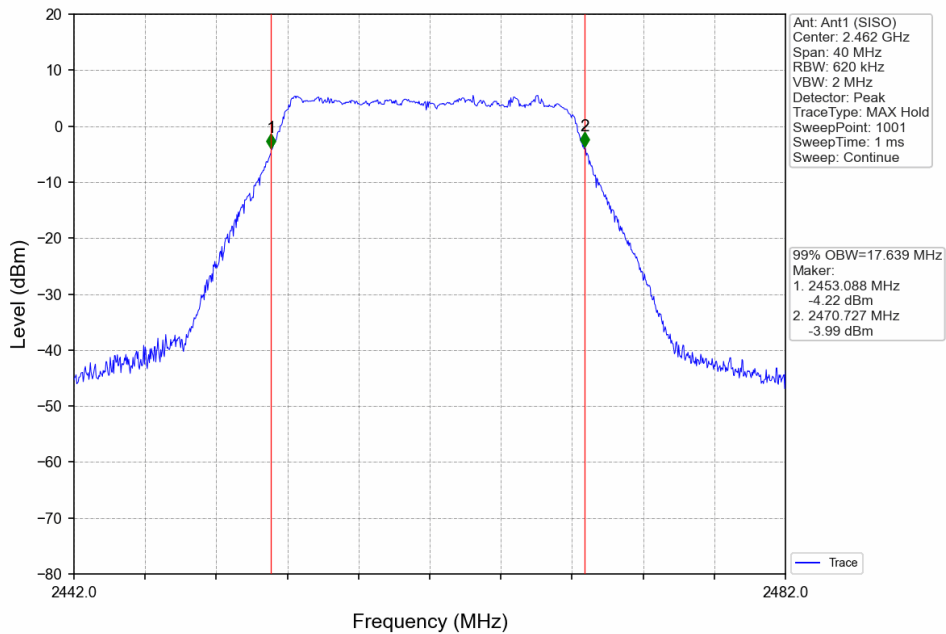
802.11g_LCH_2412MHz_Ant1 (SISO)_NTNV



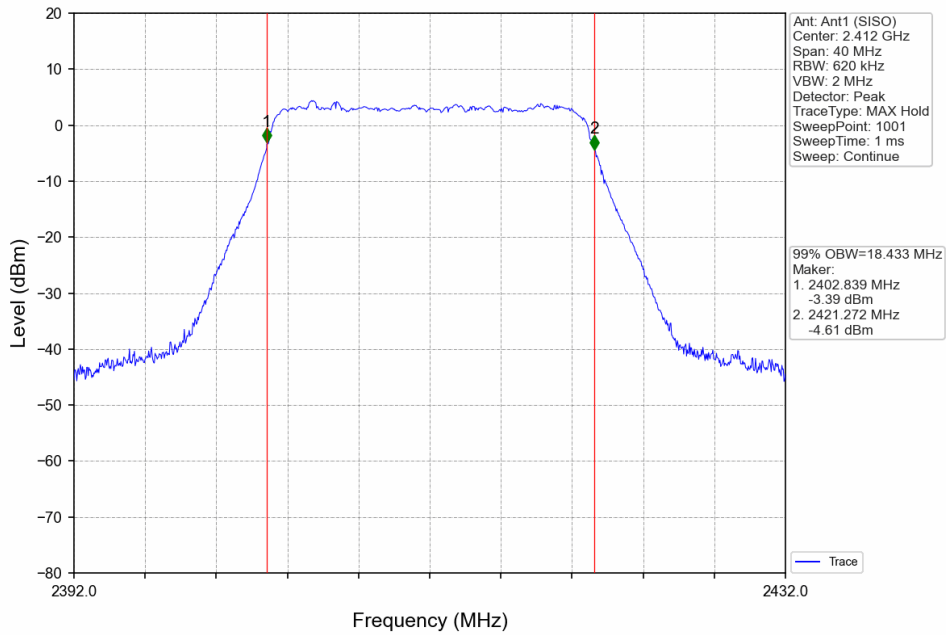
802.11g_MCH_2437MHz_Ant1 (SISO)_NTNV



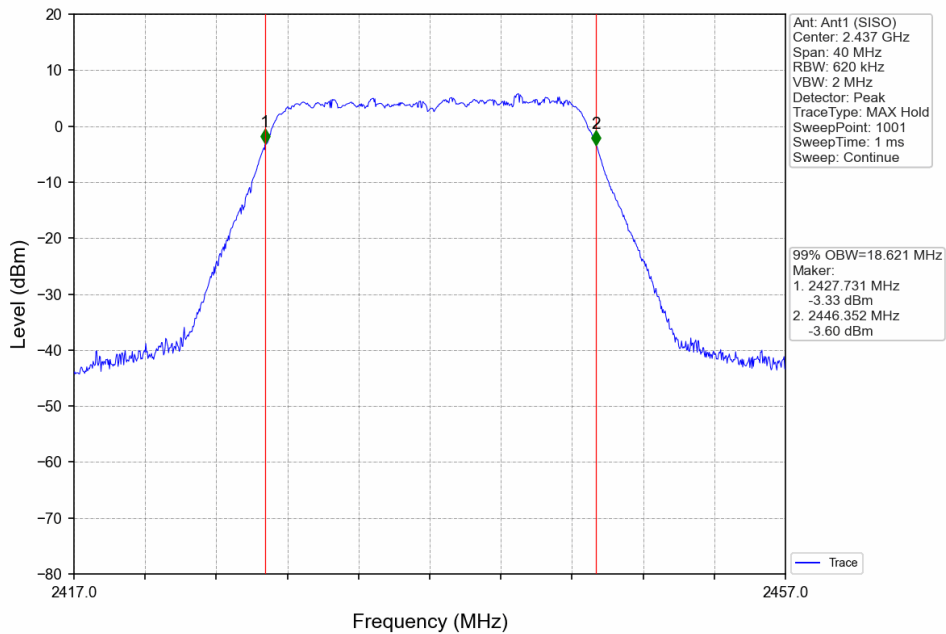
802.11g_HCH_2462MHz_Ant1 (SISO)_NTNV



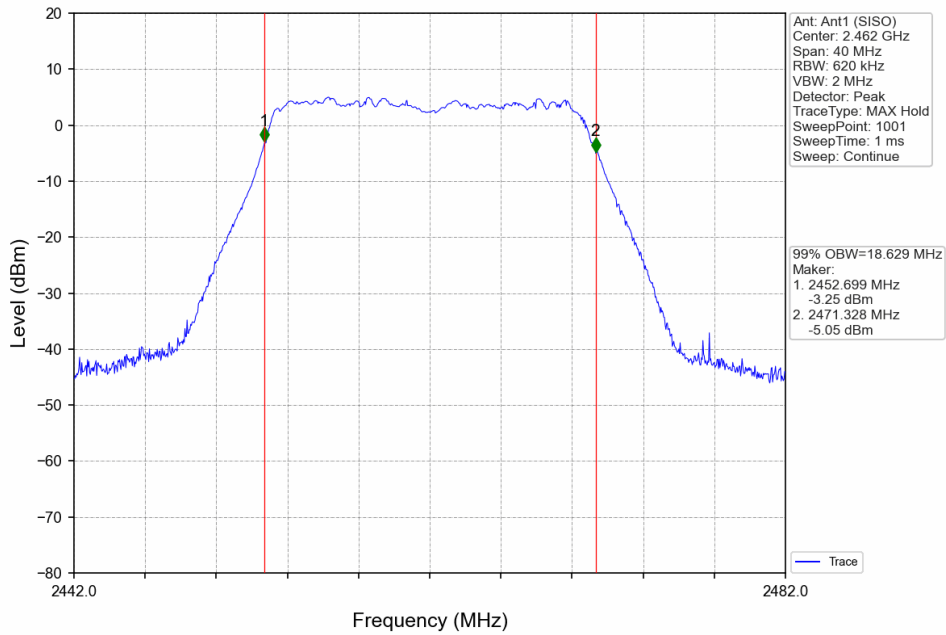
802.11n(HT20)_LCH_2412MHz_Ant1 (SISO)_NTNV



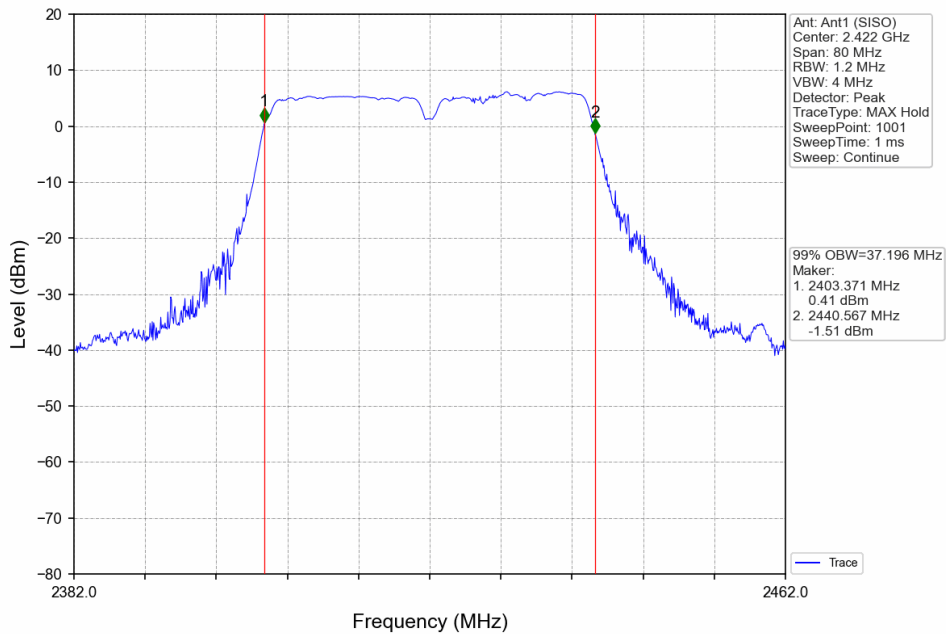
802.11n(HT20)_MCH_2437MHz_Ant1 (SISO)_NTNV



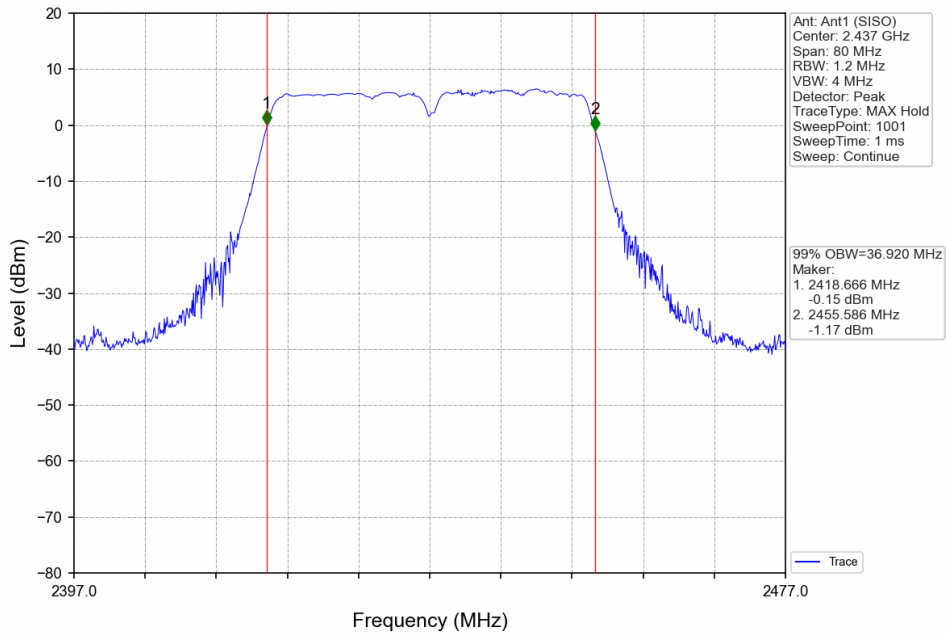
802.11n(HT20)_HCH_2462MHz_Ant1 (SISO)_NTNV



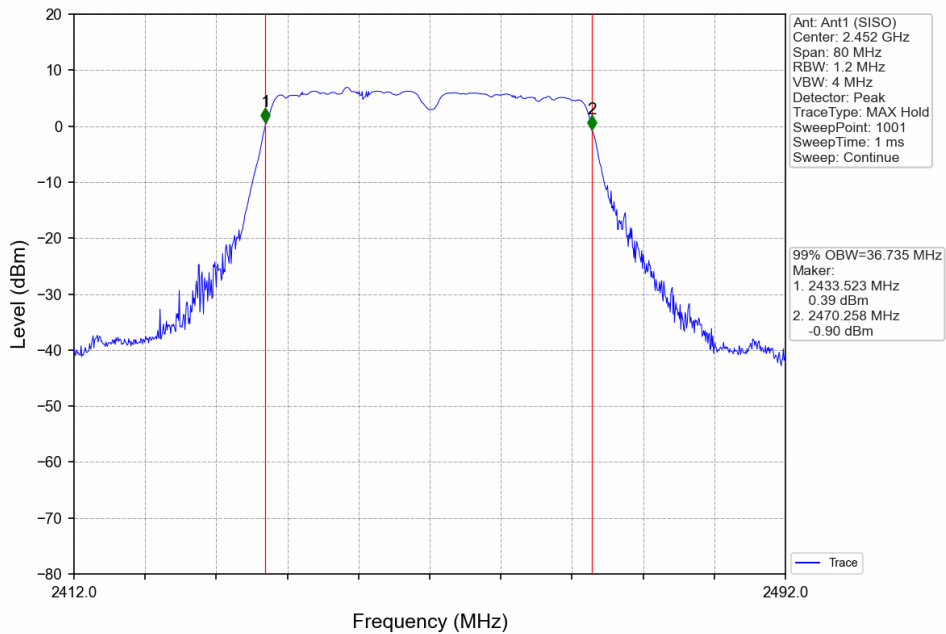
802.11n(HT40)_LCH_2422MHz_Ant1 (SISO)_NTNV



802.11n(HT40)_MCH_2437MHz_Ant1 (SISO)_NTNV



802.11n(HT40)_HCH_2452MHz_Ant1 (SISO)_NTNV

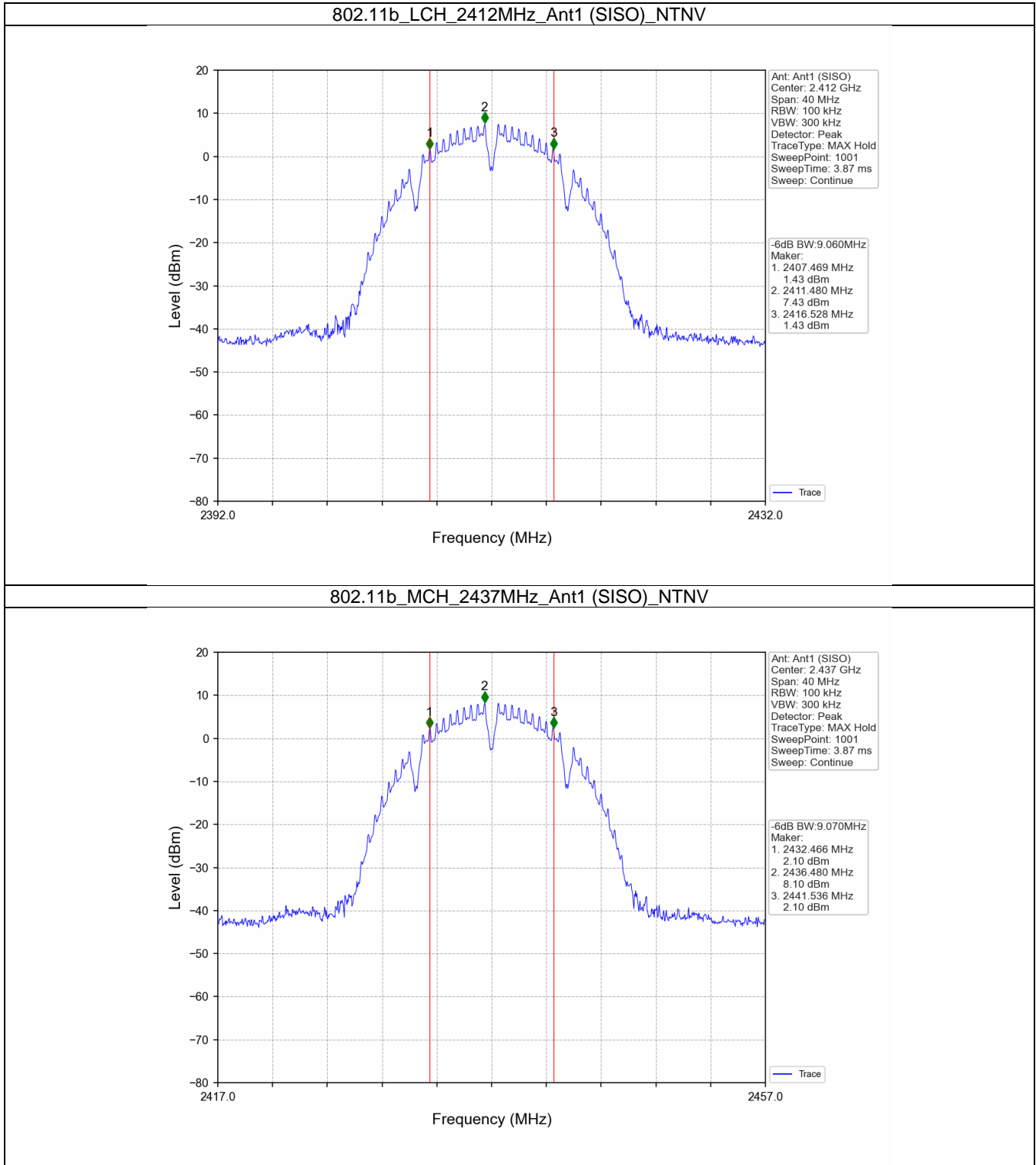


2.2 6dB BW

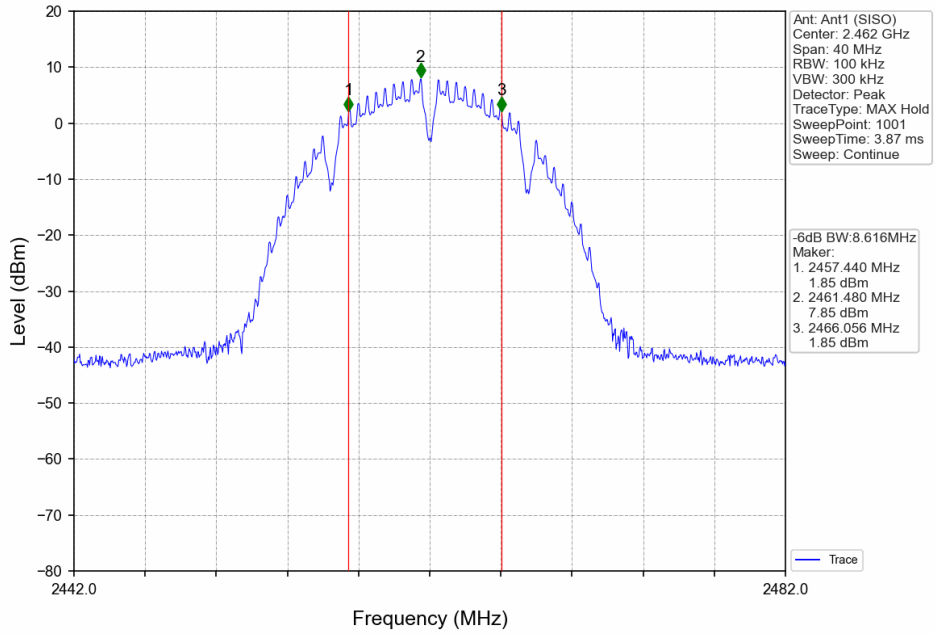
2.2.1 Test Result

Mode	TX Type	Frequency (MHz)	Ant	6dB Bandwidth (MHz)	Limit (MHz)	Verdict
802.11b	SISO	2412	1	9.060	≥ 0.5	Pass
		2437	1	9.070	≥ 0.5	Pass
		2462	1	8.616	≥ 0.5	Pass
802.11g	SISO	2412	1	16.399	≥ 0.5	Pass
		2437	1	16.399	≥ 0.5	Pass
		2462	1	16.364	≥ 0.5	Pass
802.11n (HT20)	SISO	2412	1	17.576	≥ 0.5	Pass
		2437	1	17.575	≥ 0.5	Pass
		2462	1	17.225	≥ 0.5	Pass
802.11n (HT40)	SISO	2422	1	36.329	≥ 0.5	Pass
		2437	1	35.777	≥ 0.5	Pass
		2452	1	35.528	≥ 0.5	Pass

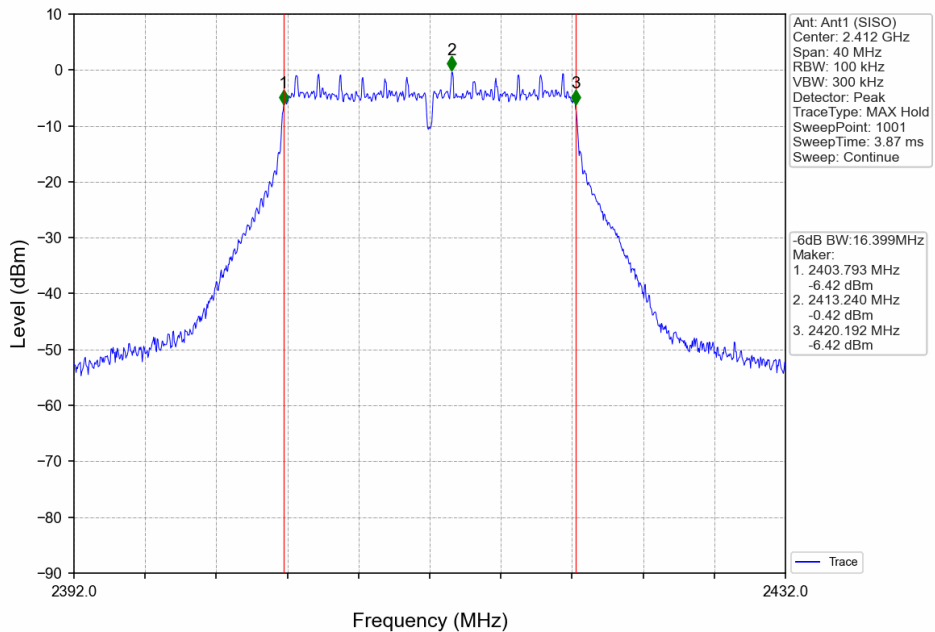
2.2.2 Test Graph



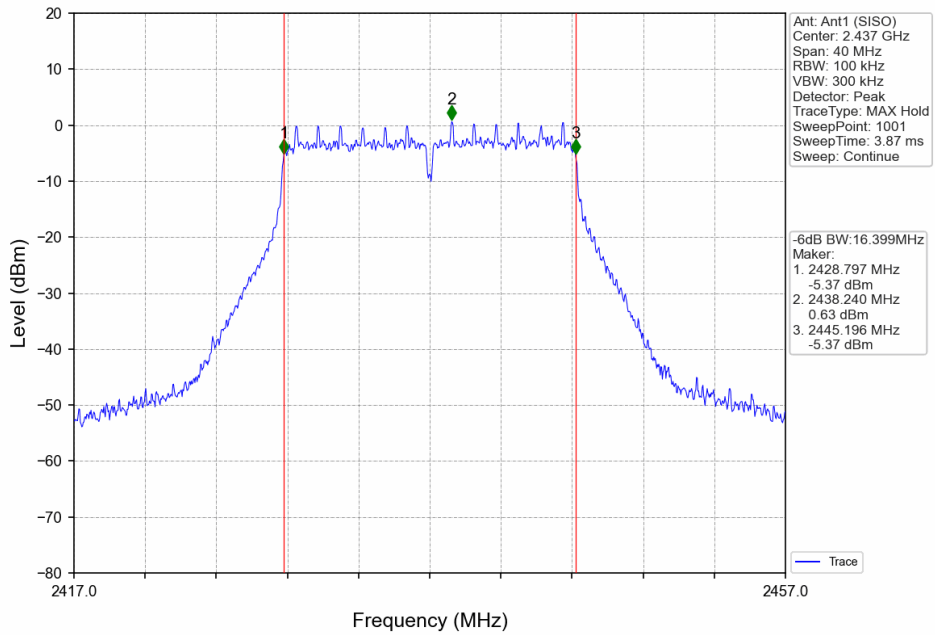
802.11b_HCH_2462MHz_Ant1 (SISO)_NTNV



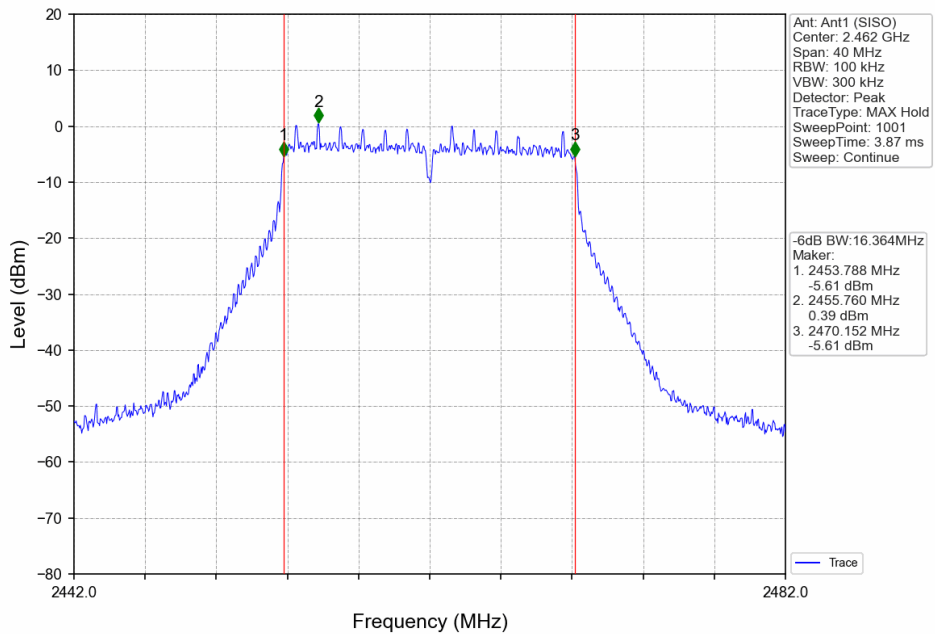
802.11g_LCH_2412MHz_Ant1 (SISO)_NTNV



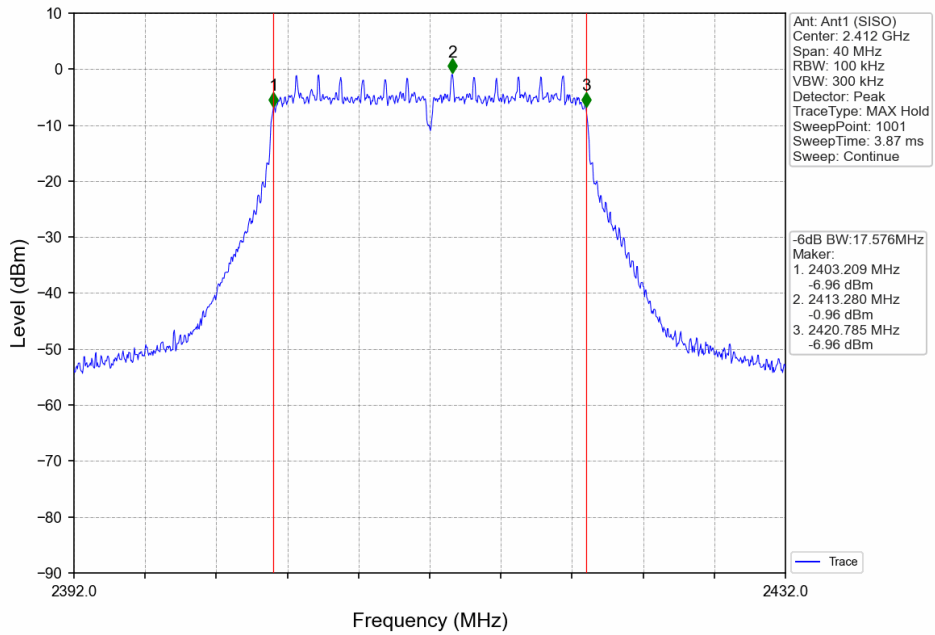
802.11g_MCH_2437MHz_Ant1 (SISO)_NTNV



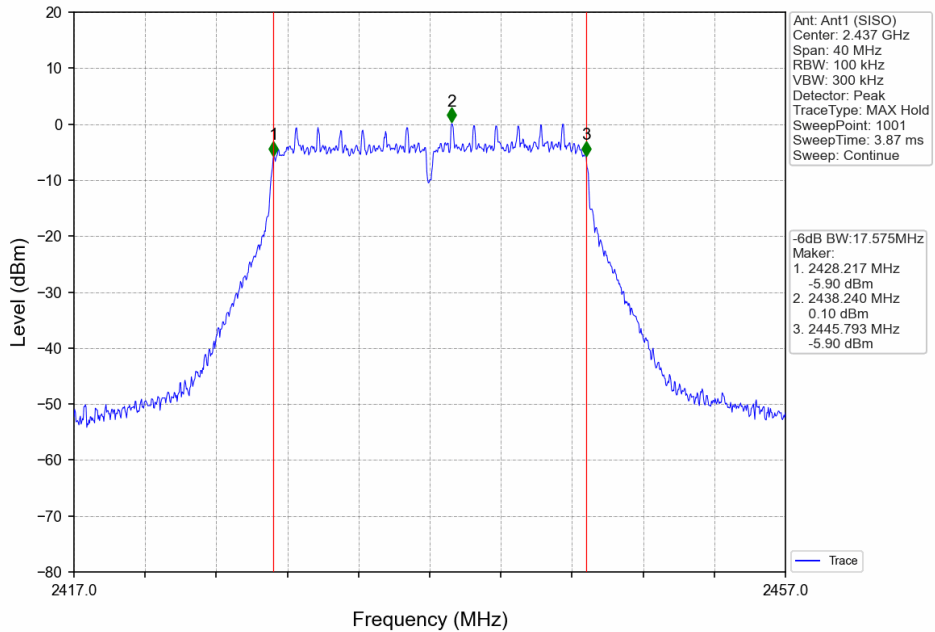
802.11g_HCH_2462MHz_Ant1 (SISO)_NTNV



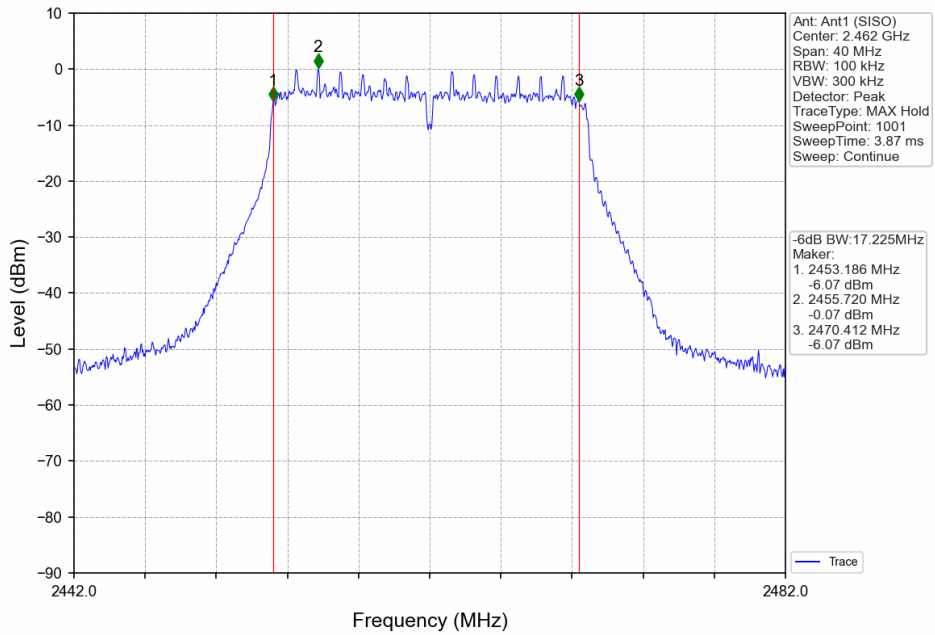
802.11n(HT20)_LCH_2412MHz_Ant1 (SISO)_NTNV



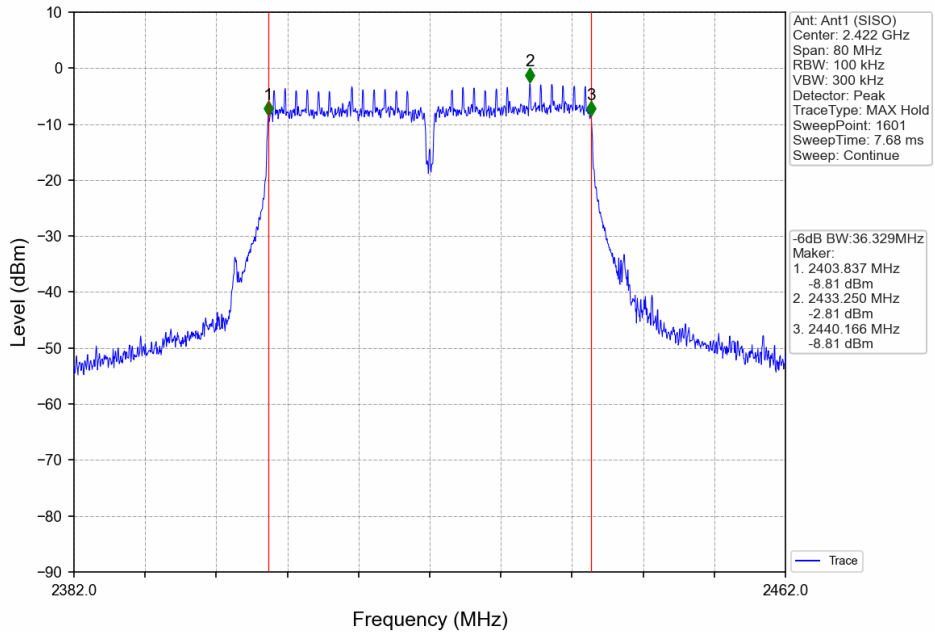
802.11n(HT20)_MCH_2437MHz_Ant1 (SISO)_NTNV



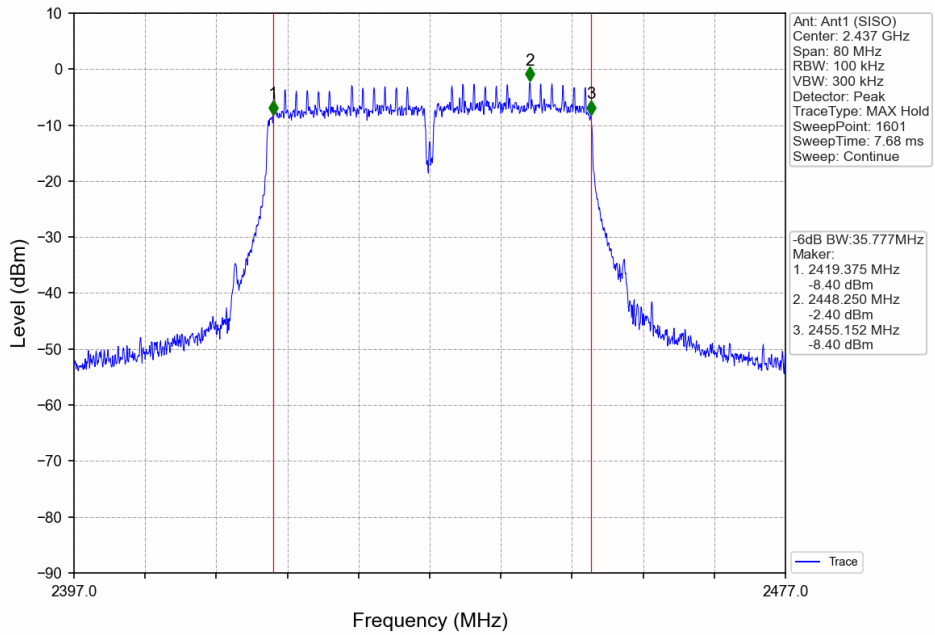
802.11n(HT20)_HCH_2462MHz_Ant1 (SISO)_NTNV



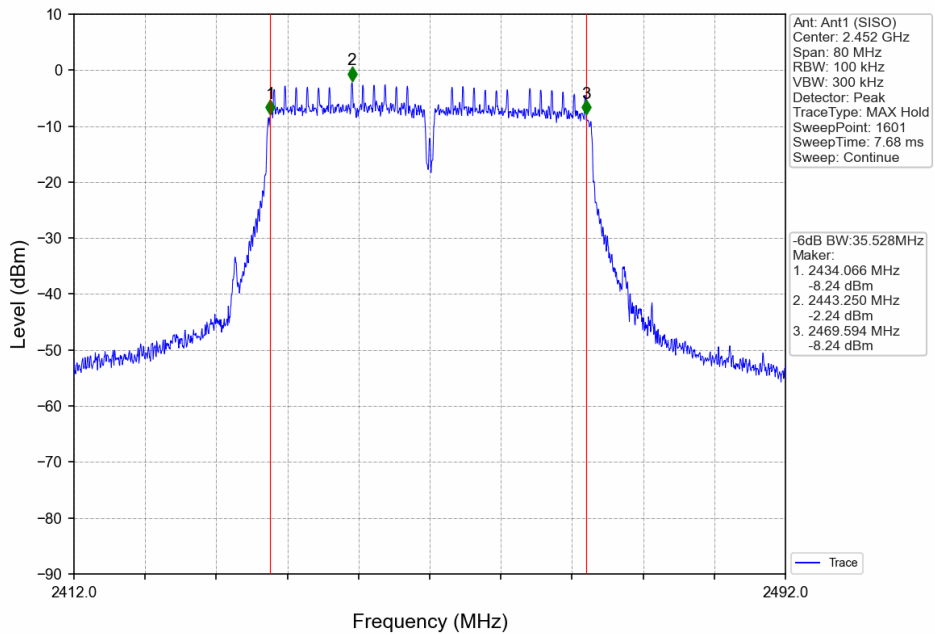
802.11n(HT40)_LCH_2422MHz_Ant1 (SISO)_NTNV



802.11n(HT40)_MCH_2437MHz_Ant1 (SISO)_NTNV



802.11n(HT40)_HCH_2452MHz_Ant1 (SISO)_NTNV



3. Maximum Conducted Output Power

3.1 Power

3.1.1 Test Result

Mode	TX Type	Frequency (MHz)	Measured Peak Output Power (dBm)		Verdict
			Ant1	Limit	
802.11b	SISO	2412	18.33	<=30	Pass
		2437	19.08	<=30	Pass
		2462	18.61	<=30	Pass
802.11g	SISO	2412	18.52	<=30	Pass
		2437	19.45	<=30	Pass
		2462	18.96	<=30	Pass
802.11n (HT20)	SISO	2412	17.93	<=30	Pass
		2437	18.96	<=30	Pass
		2462	18.50	<=30	Pass
802.11n (HT40)	SISO	2422	18.93	<=30	Pass
		2437	19.33	<=30	Pass
		2452	19.35	<=30	Pass

Note1: Antenna Gain: Ant1: 5.50dBi;

4. Maximum Power Spectral Density

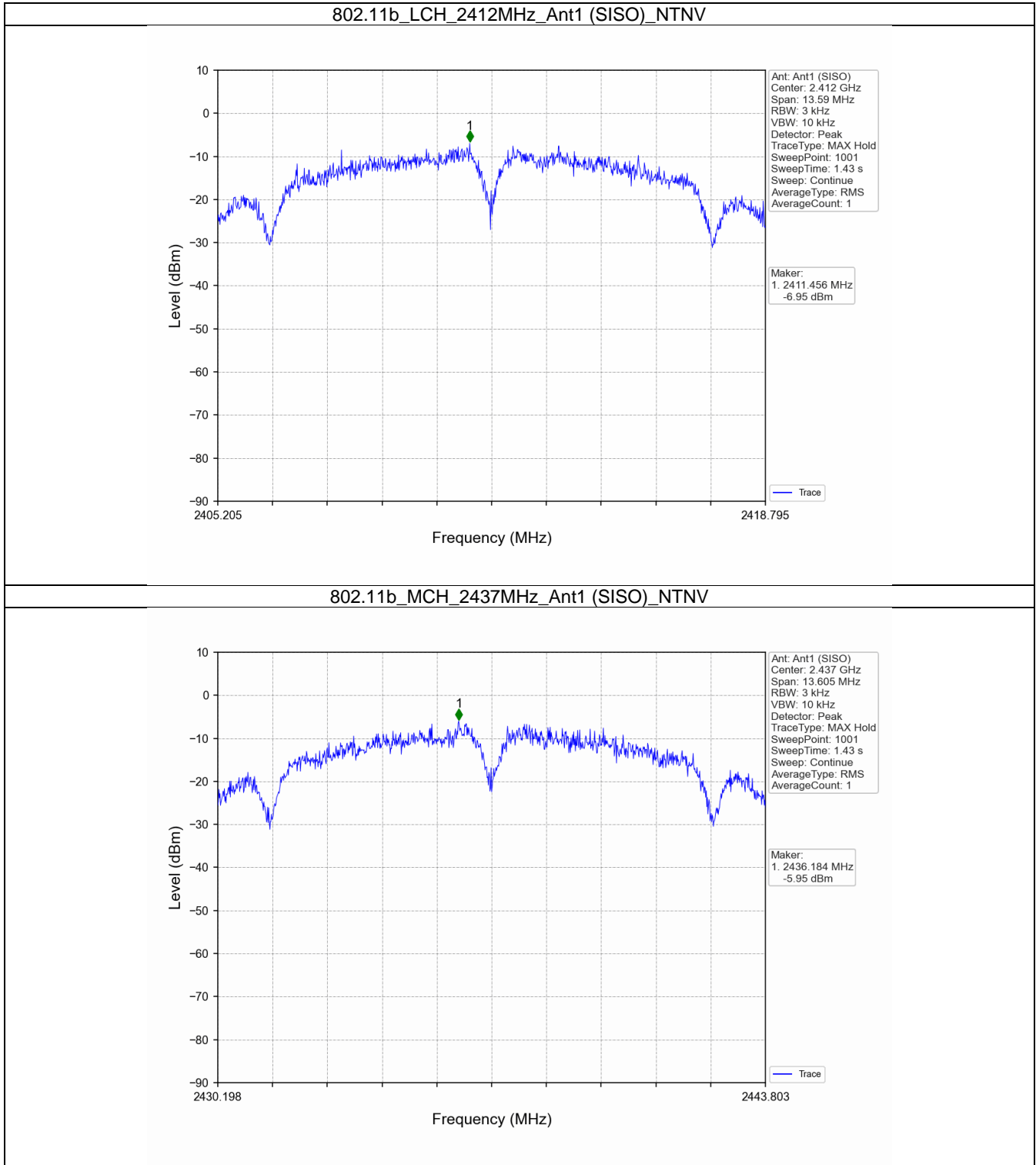
4.1 PSD

4.1.1 Test Result

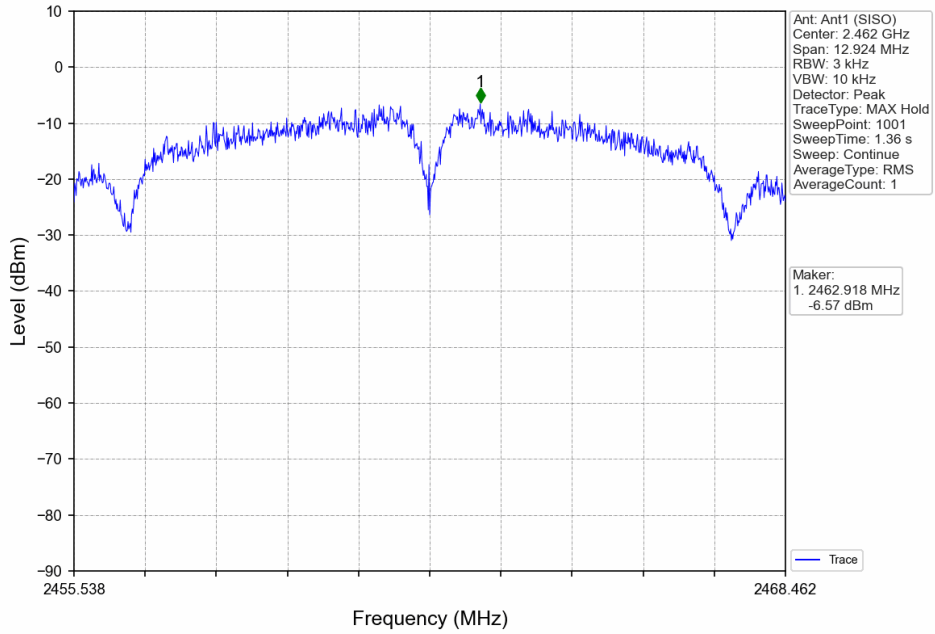
Mode	TX Type	Frequency (MHz)	Maximum PSD (dBm/3kHz)		Verdict
			Ant1	Limit	
802.11b	SISO	2412	-6.95	<=8	Pass
		2437	-5.95	<=8	Pass
		2462	-6.57	<=8	Pass
802.11g	SISO	2412	-14.25	<=8	Pass
		2437	-13.14	<=8	Pass
		2462	-14.35	<=8	Pass
802.11n (HT20)	SISO	2412	-13.77	<=8	Pass
		2437	-14.06	<=8	Pass
		2462	-14.17	<=8	Pass
802.11n (HT40)	SISO	2422	-16.15	<=8	Pass
		2437	-17.04	<=8	Pass
		2452	-17.06	<=8	Pass

Note1: Antenna Gain: Ant1: 5.50dBi;

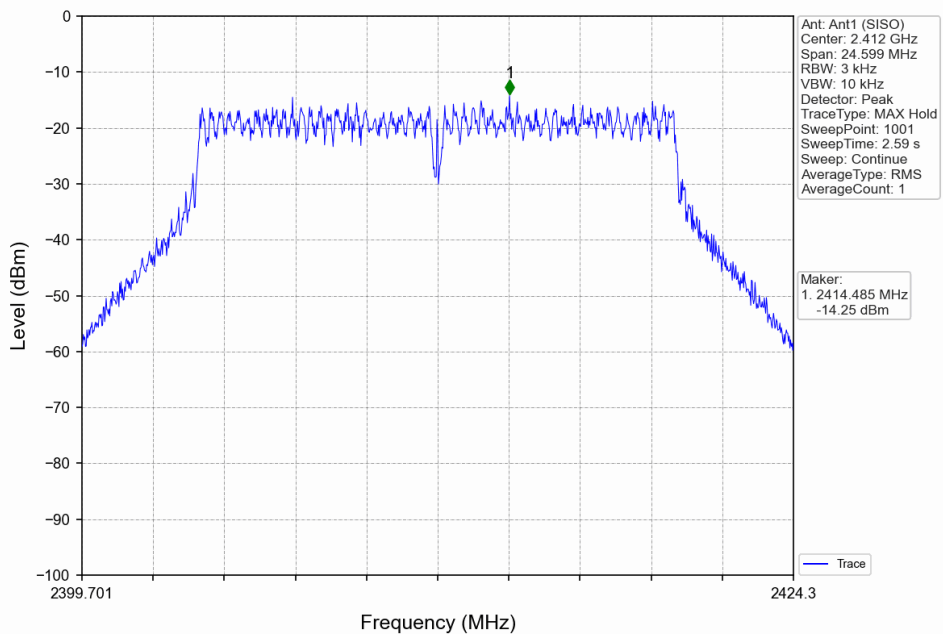
4.1.2 Test Graph



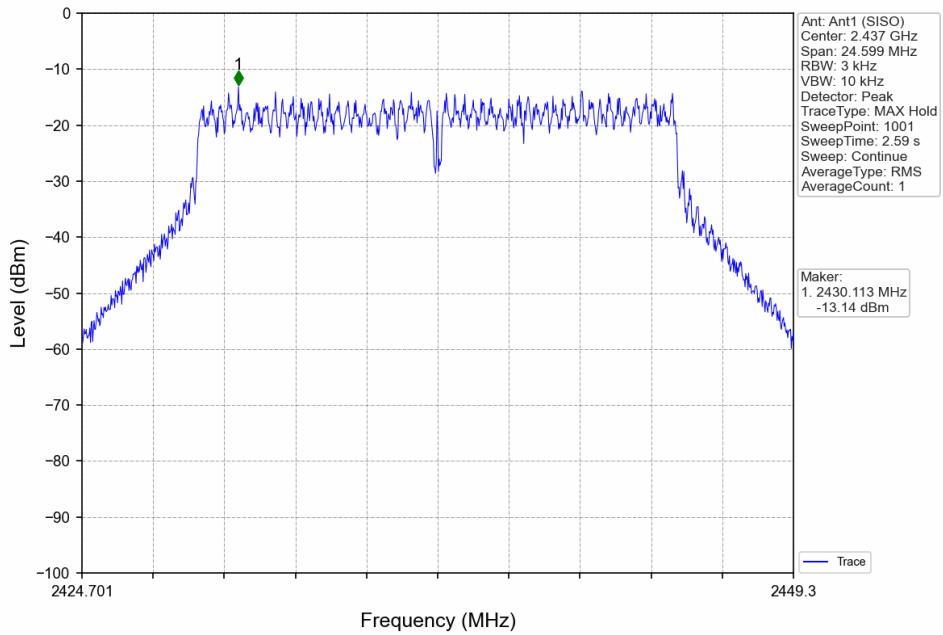
802.11b_HCH_2462MHz_Ant1 (SISO)_NTNV



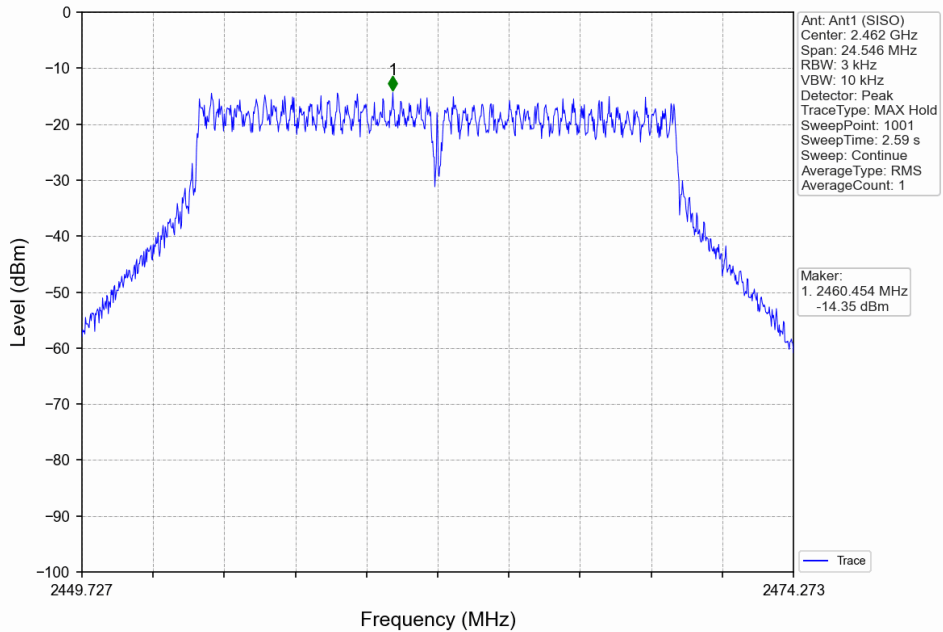
802.11g_LCH_2412MHz_Ant1 (SISO)_NTNV



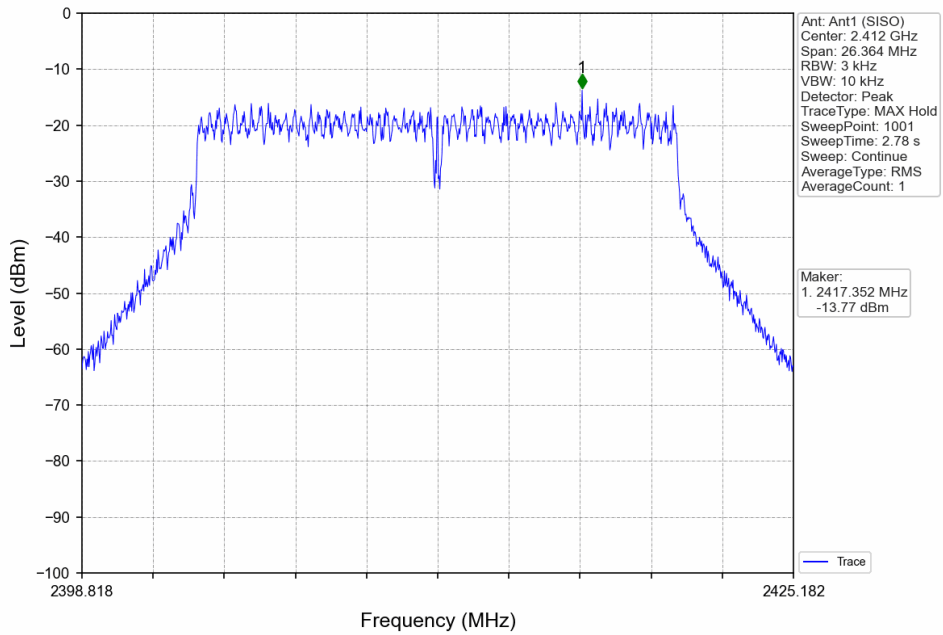
802.11g_MCH_2437MHz_Ant1 (SISO)_NTNV



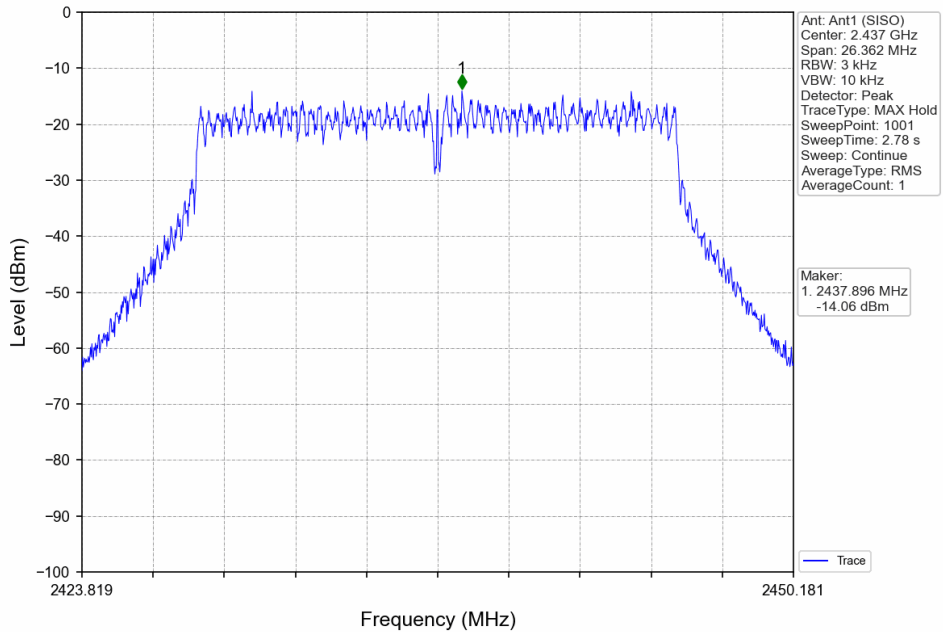
802.11g_HCH_2462MHz_Ant1 (SISO)_NTNV



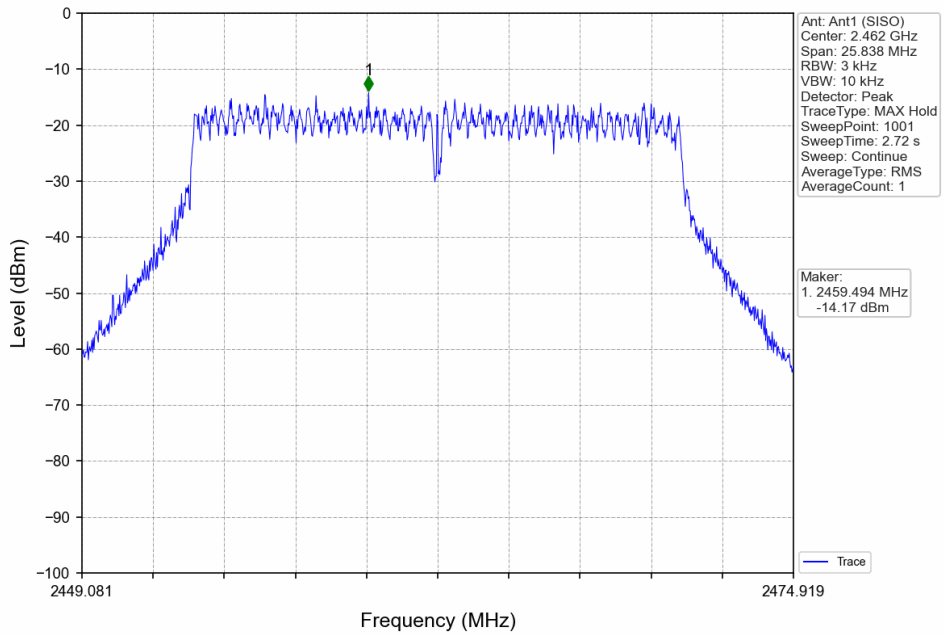
802.11n(HT20)_LCH_2412MHz_Ant1 (SISO)_NTNV



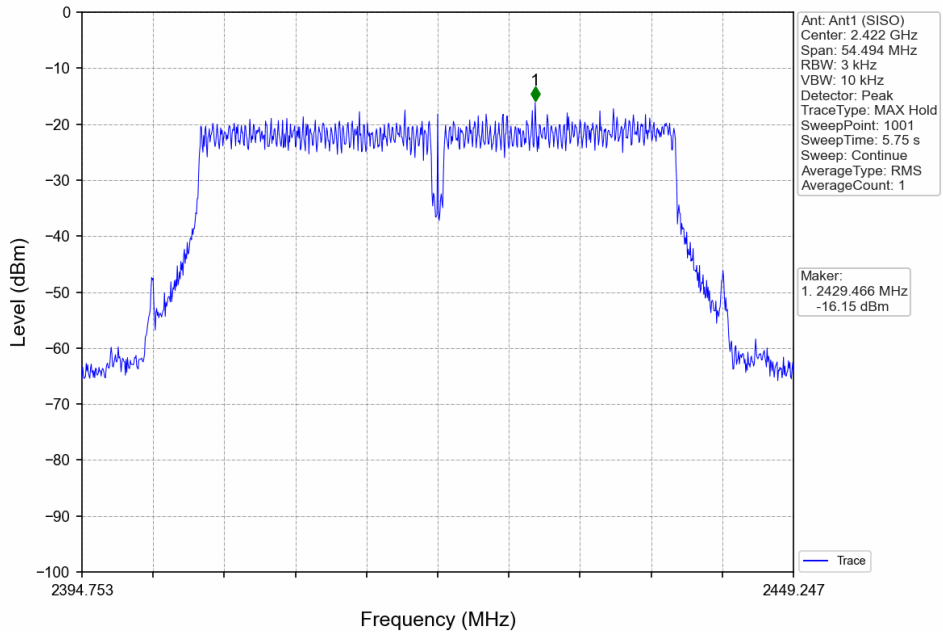
802.11n(HT20)_MCH_2437MHz_Ant1 (SISO)_NTNV



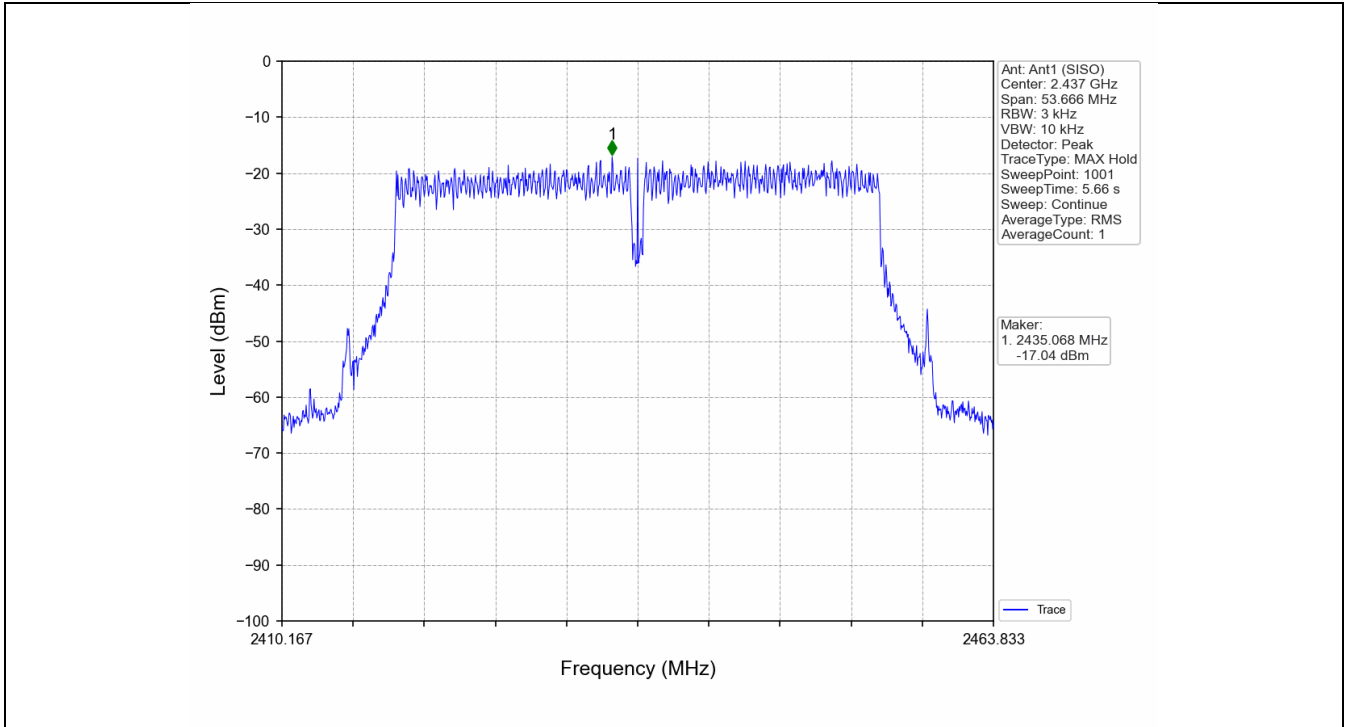
802.11n(HT20)_HCH_2462MHz_Ant1 (SISO)_NTNV



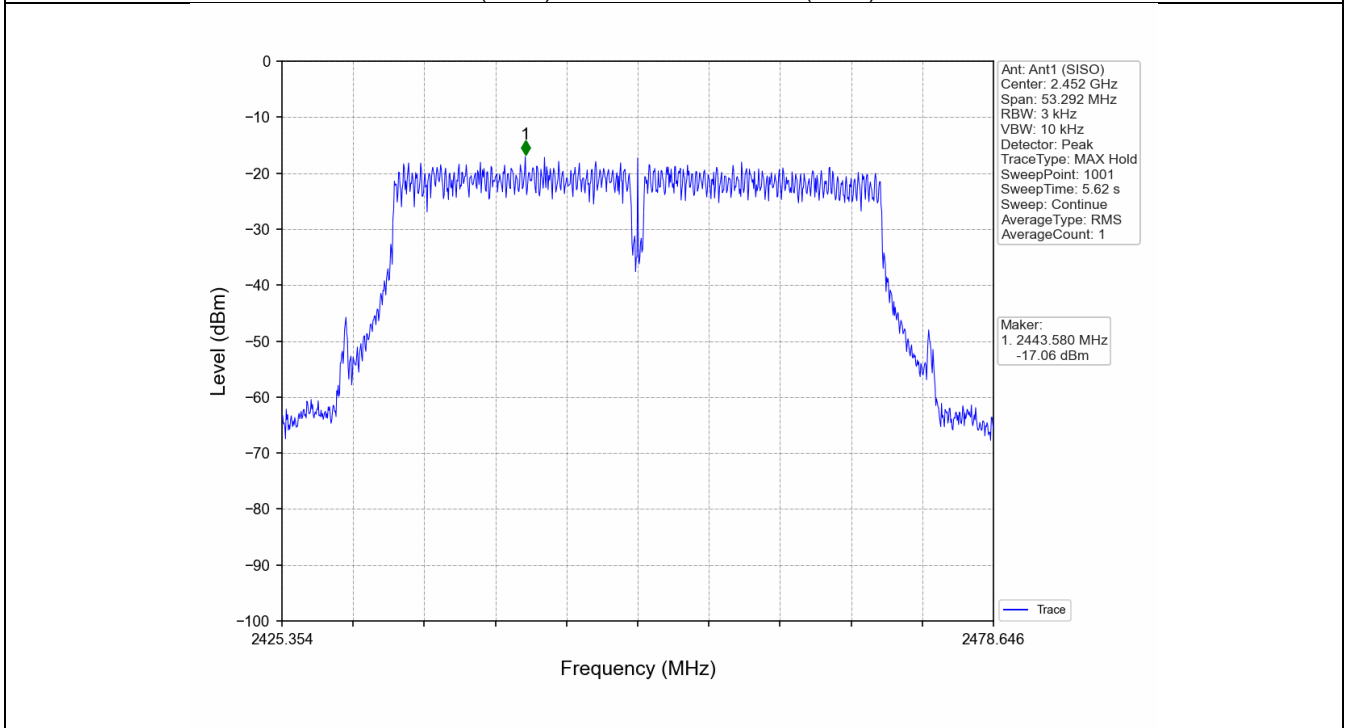
802.11n(HT40)_LCH_2422MHz_Ant1 (SISO)_NTNV



802.11n(HT40)_MCH_2437MHz_Ant1 (SISO)_NTNV



802.11n(HT40)_HCH_2452MHz_Ant1 (SISO)_NTNV



5. Unwanted Emissions In Non-restricted Frequency Bands

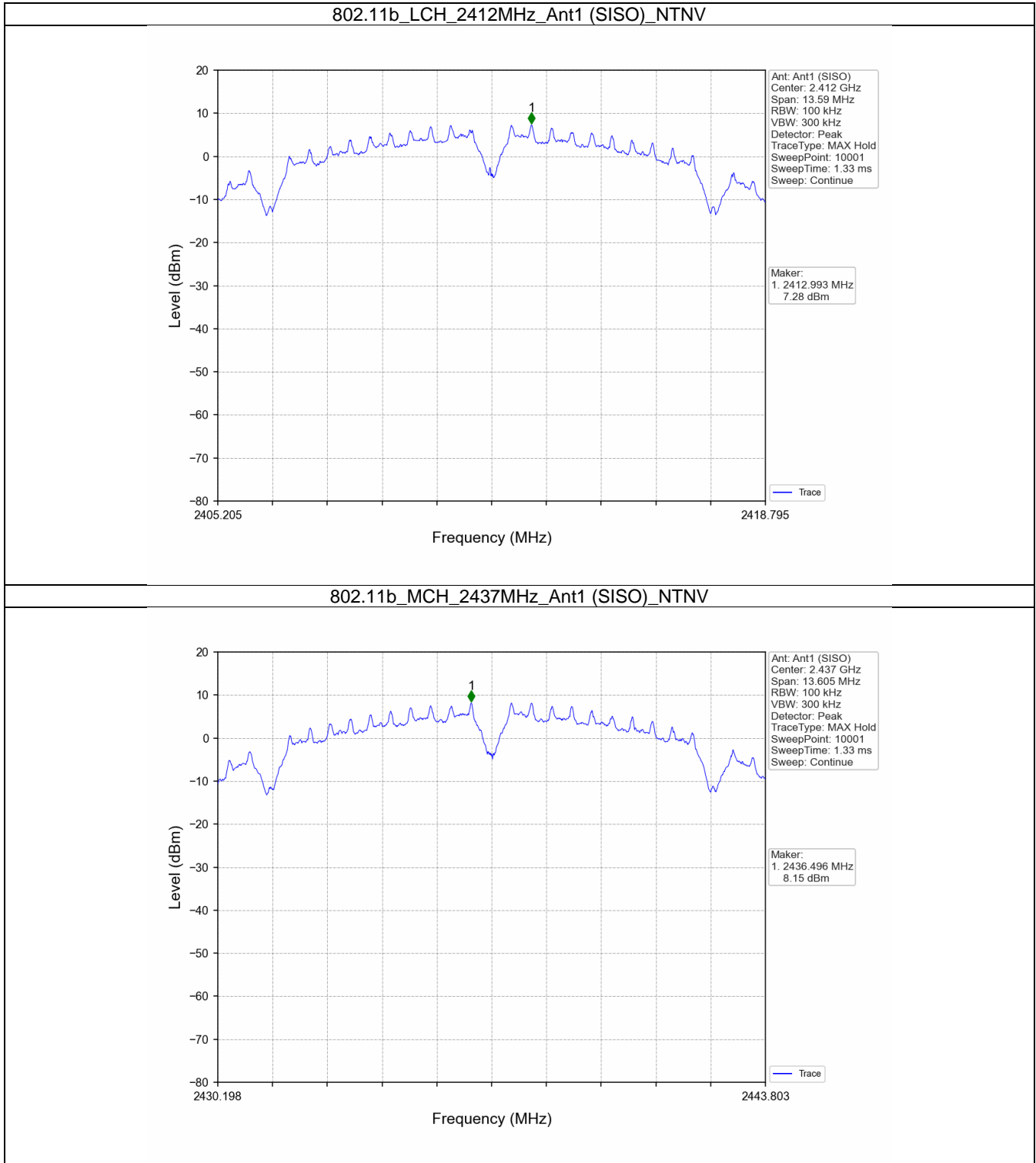
5.1 Ref

5.1.1 Test Result

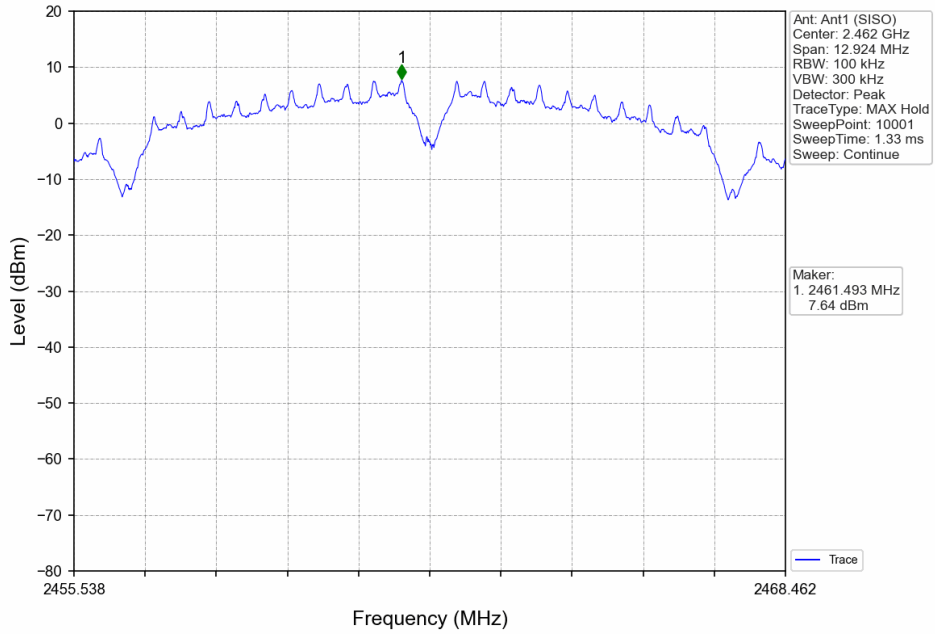
Mode	TX Type	Frequency (MHz)	Ant	Level of Reference (dBm)
802.11b	SISO	2412	1	7.28
		2437	1	8.15
		2462	1	7.64
802.11g	SISO	2412	1	-0.70
		2437	1	0.39
		2462	1	-0.01
802.11n (HT20)	SISO	2412	1	-0.97
		2437	1	-0.01
		2462	1	-0.18
802.11n (HT40)	SISO	2422	1	-2.96
		2437	1	-2.54
		2452	1	-2.29

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.

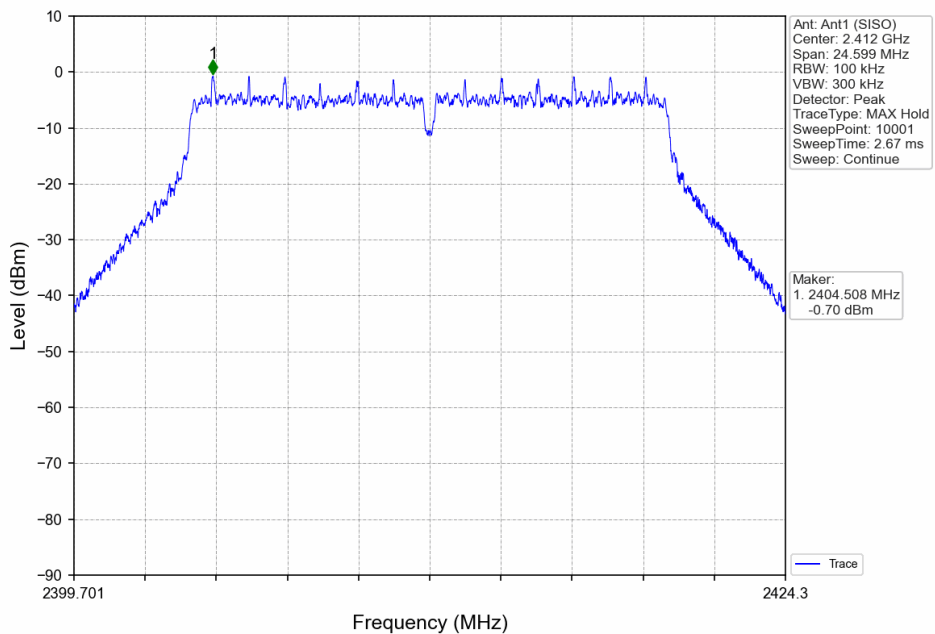
5.1.2 Test Graph



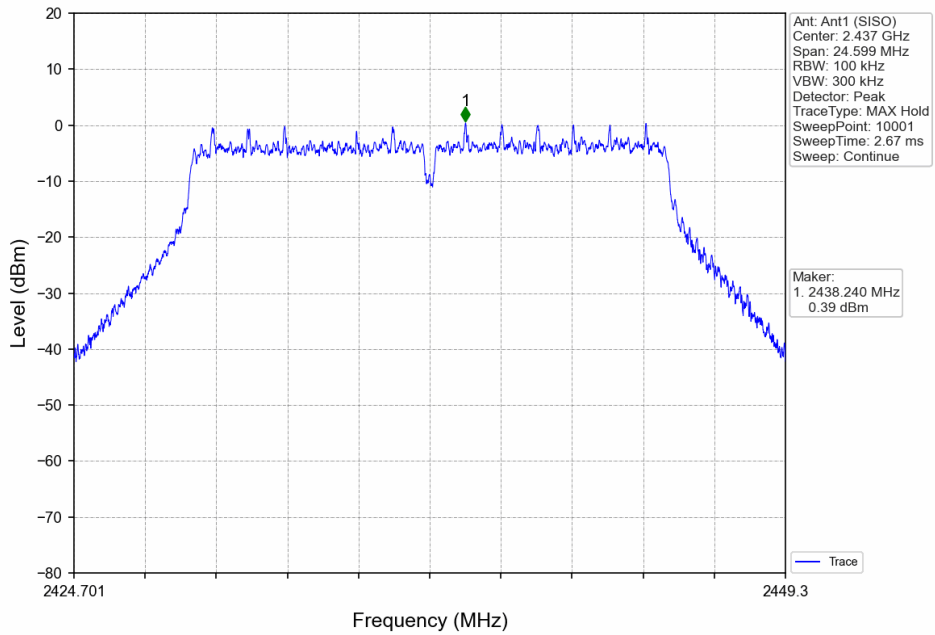
802.11b_HCH_2462MHz_Ant1 (SISO)_NTNV



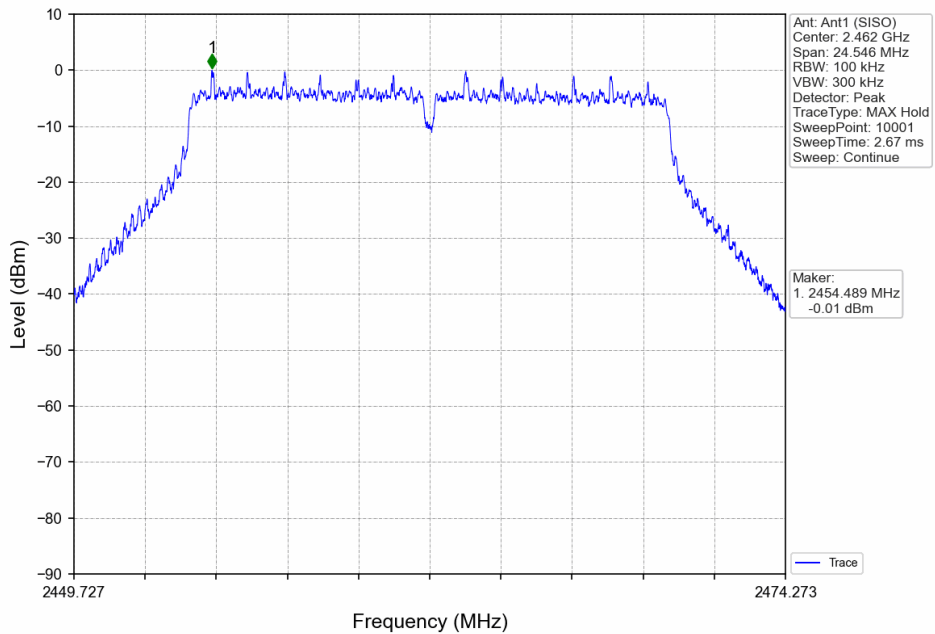
802.11g_LCH_2412MHz_Ant1 (SISO)_NTNV



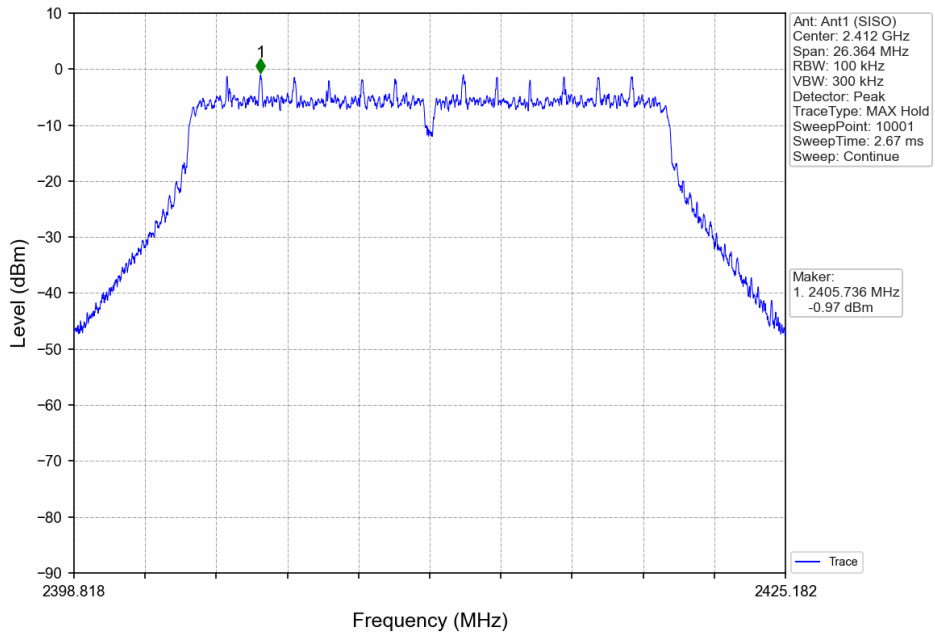
802.11g_MCH_2437MHz_Ant1 (SISO)_NTNV



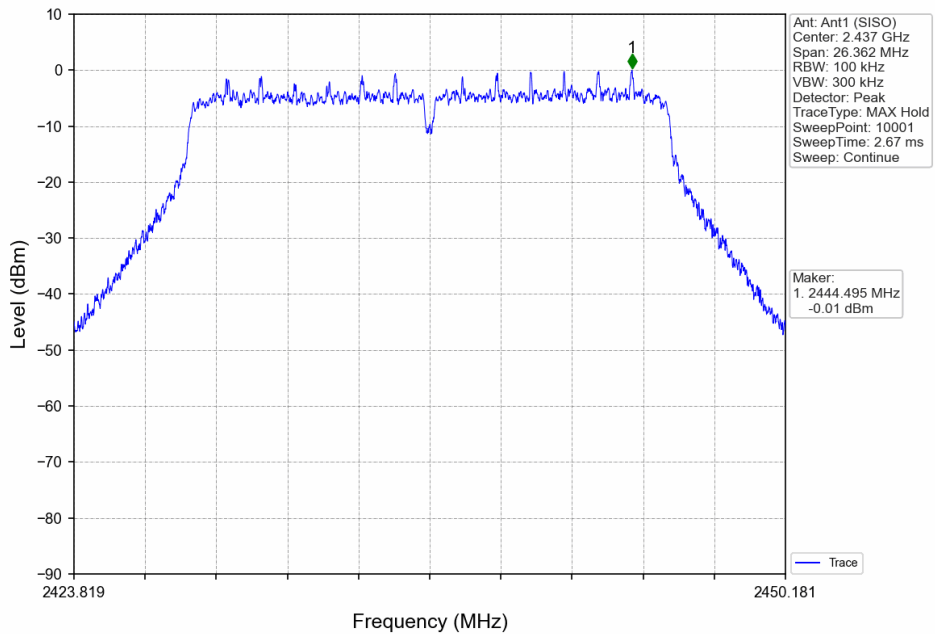
802.11g_HCH_2462MHz_Ant1 (SISO)_NTNV



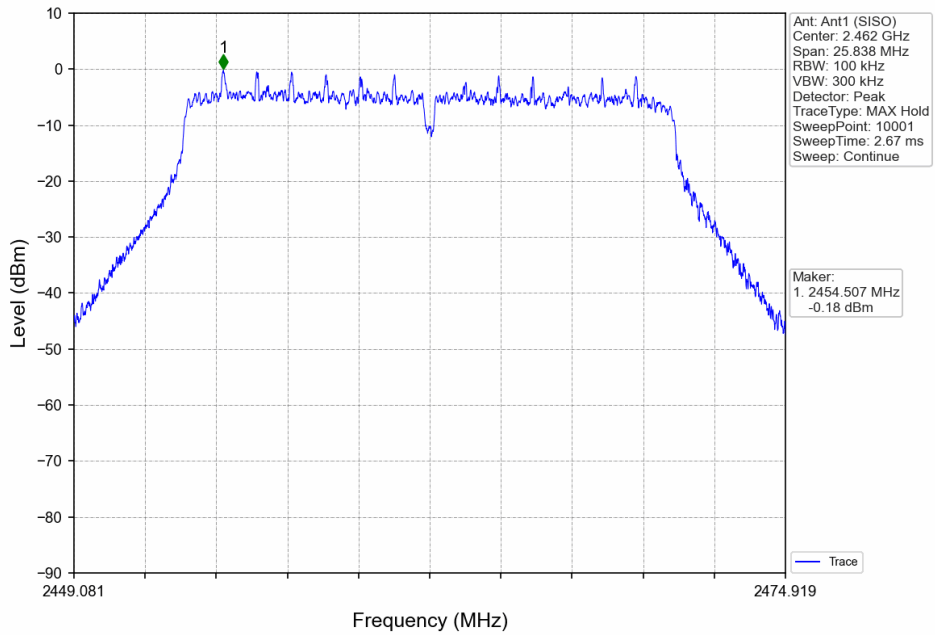
802.11n(HT20)_LCH_2412MHz_Ant1 (SISO)_NTNV



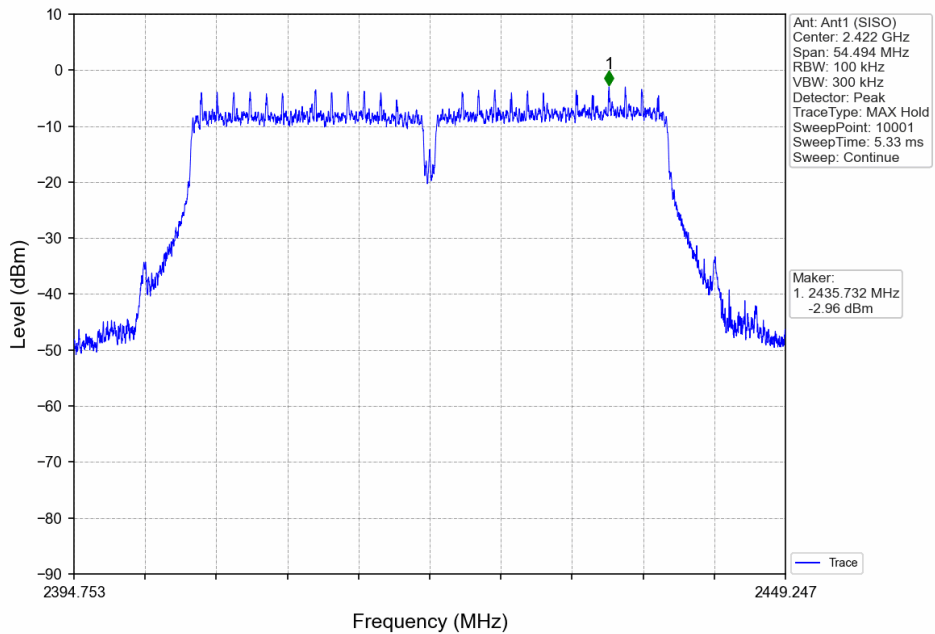
802.11n(HT20)_MCH_2437MHz_Ant1 (SISO)_NTNV



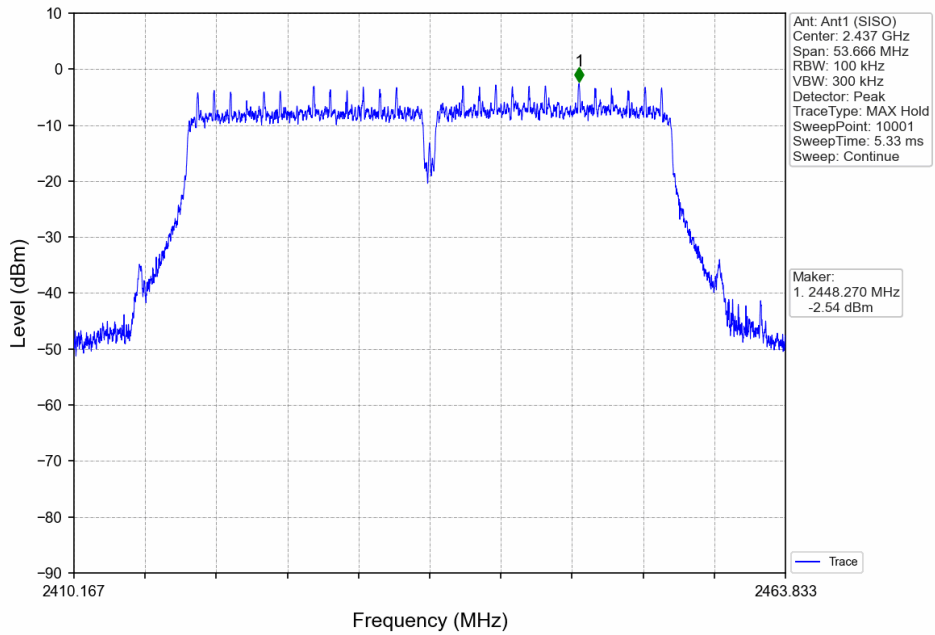
802.11n(HT20)_HCH_2462MHz_Ant1 (SISO)_NTNV



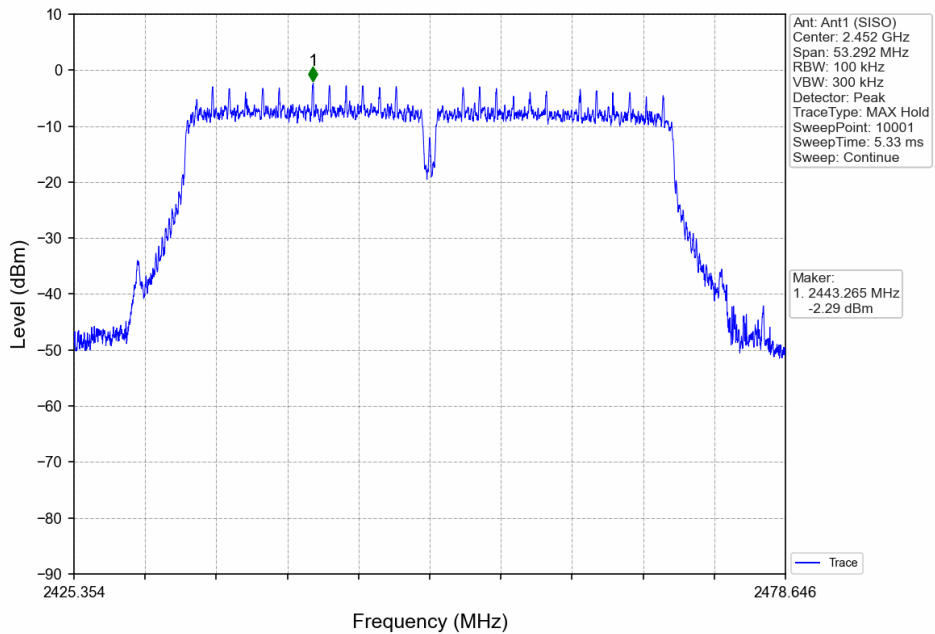
802.11n(HT40)_LCH_2422MHz_Ant1 (SISO)_NTNV



802.11n(HT40)_MCH_2437MHz_Ant1 (SISO)_NTNV



802.11n(HT40)_HCH_2452MHz_Ant1 (SISO)_NTNV



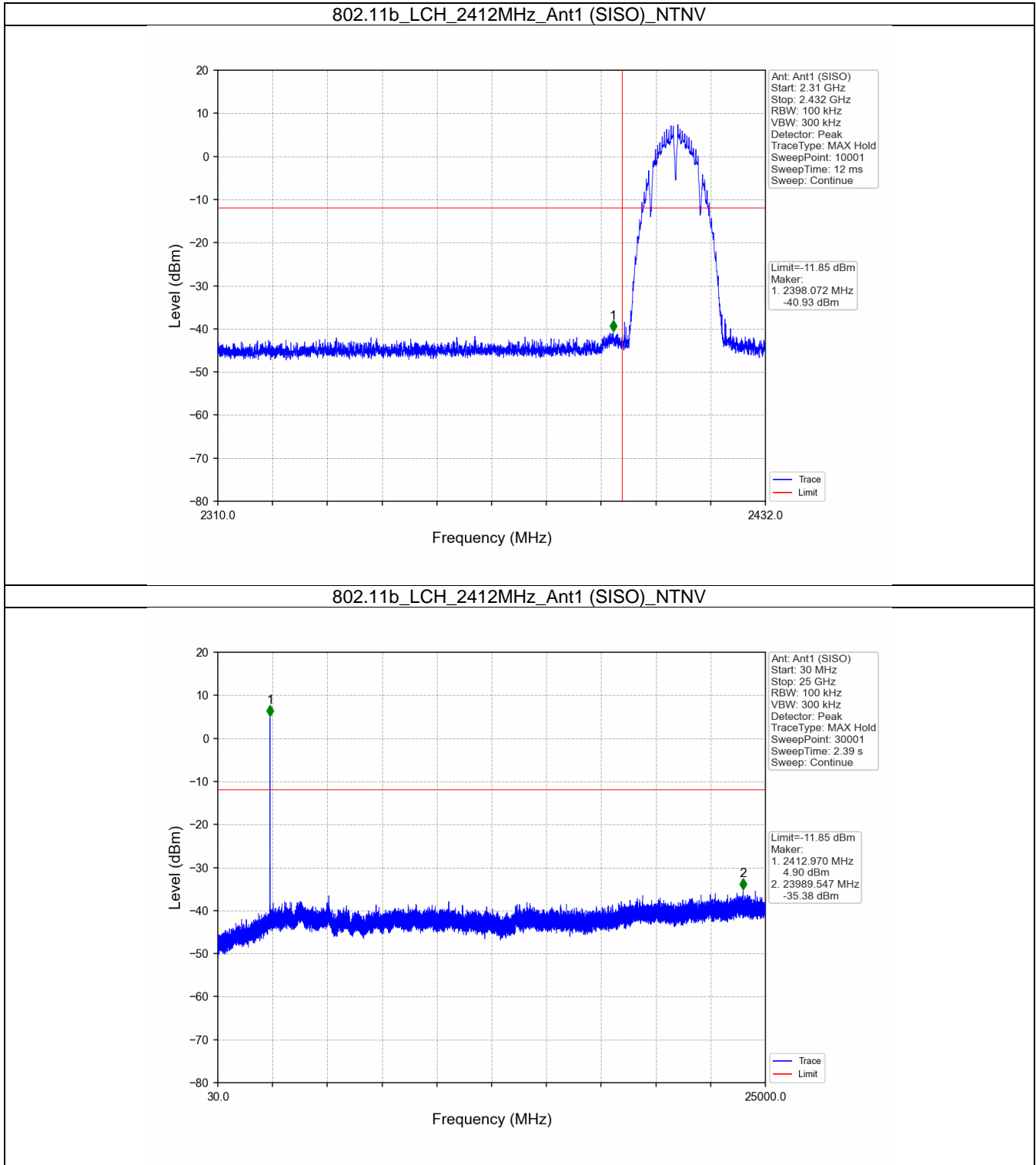
5.2 CSE

5.2.1 Test Result

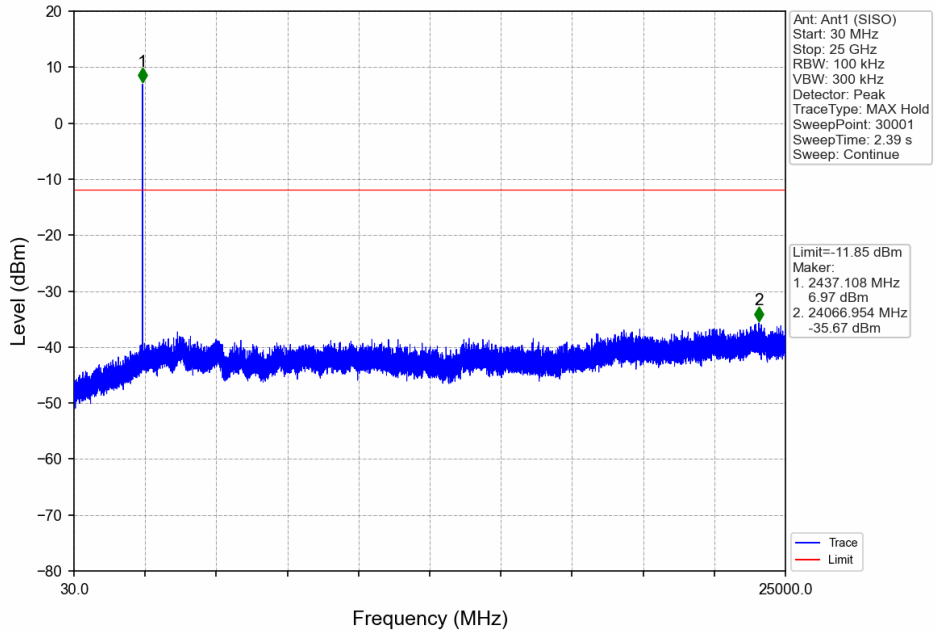
Mode	TX Type	Frequency (MHz)	Ant	Level of Reference (dBm)	Limit (dBm)	Verdict
802.11b	SISO	2412	1	8.15	-11.85	Pass
		2437	1	8.15	-11.85	Pass
		2462	1	8.15	-11.85	Pass
802.11g	SISO	2412	1	0.39	-19.61	Pass
		2437	1	0.39	-19.61	Pass
		2462	1	0.39	-19.61	Pass
802.11n (HT20)	SISO	2412	1	-0.01	-20.01	Pass
		2437	1	-0.01	-20.01	Pass
		2462	1	-0.01	-20.01	Pass
802.11n (HT40)	SISO	2422	1	-2.29	-22.29	Pass
		2437	1	-2.29	-22.29	Pass
		2452	1	-2.29	-22.29	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.

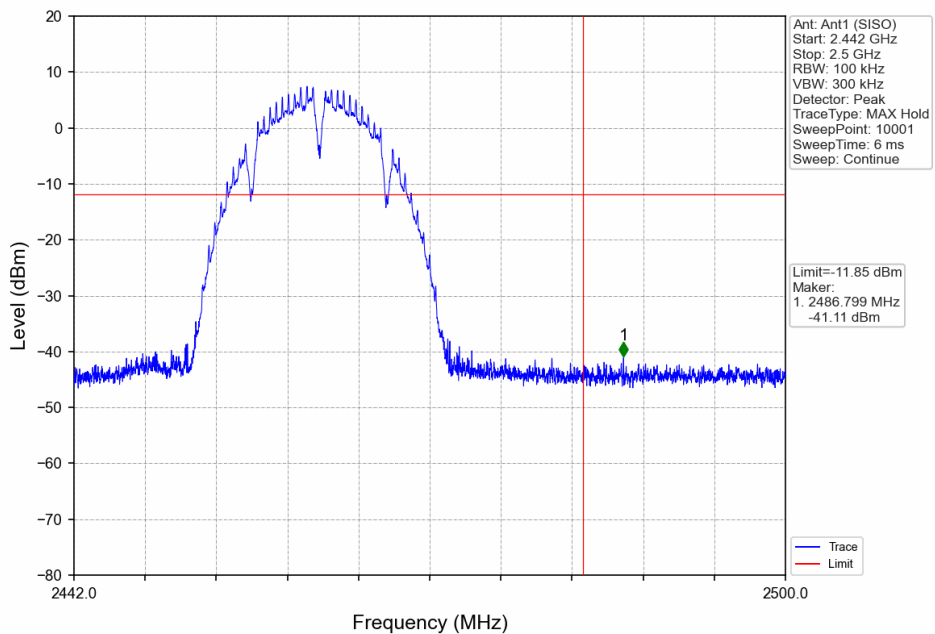
5.2.2 Test Graph



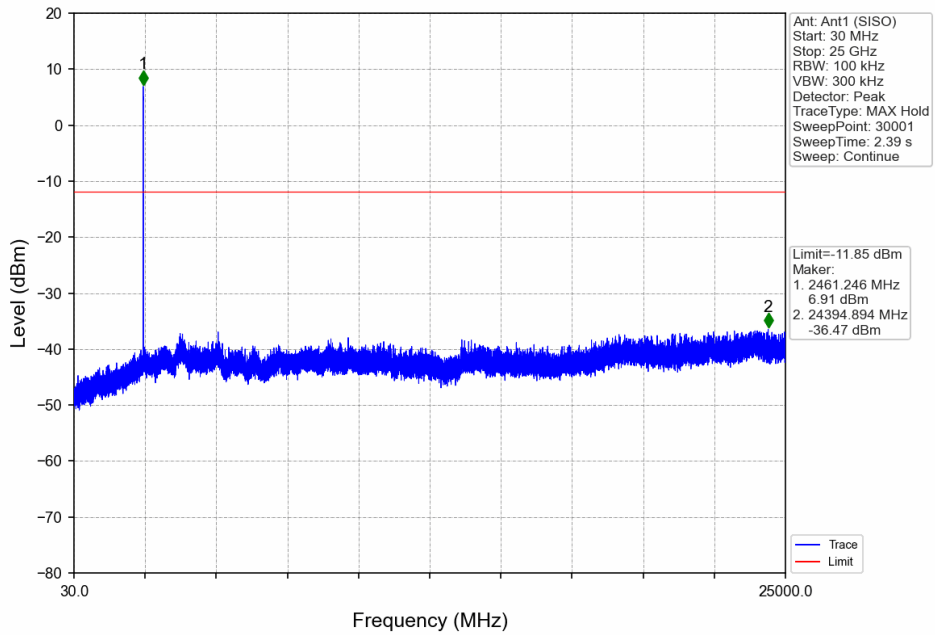
802.11b_MCH_2437MHz_Ant1 (SISO)_NTNV



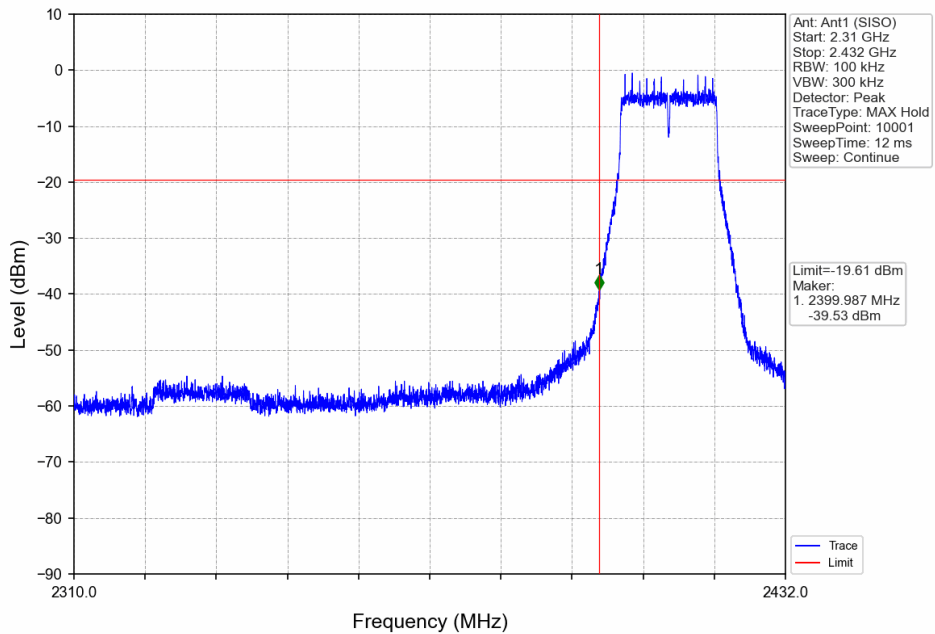
802.11b_HCH_2462MHz_Ant1 (SISO)_NTNV



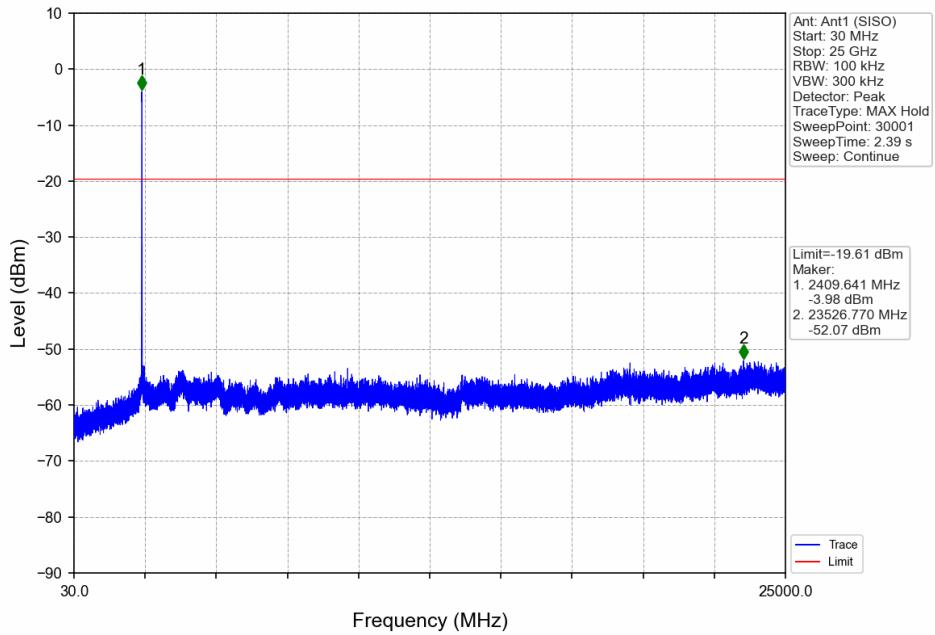
802.11b_HCH_2462MHz_Ant1 (SISO)_NTNV



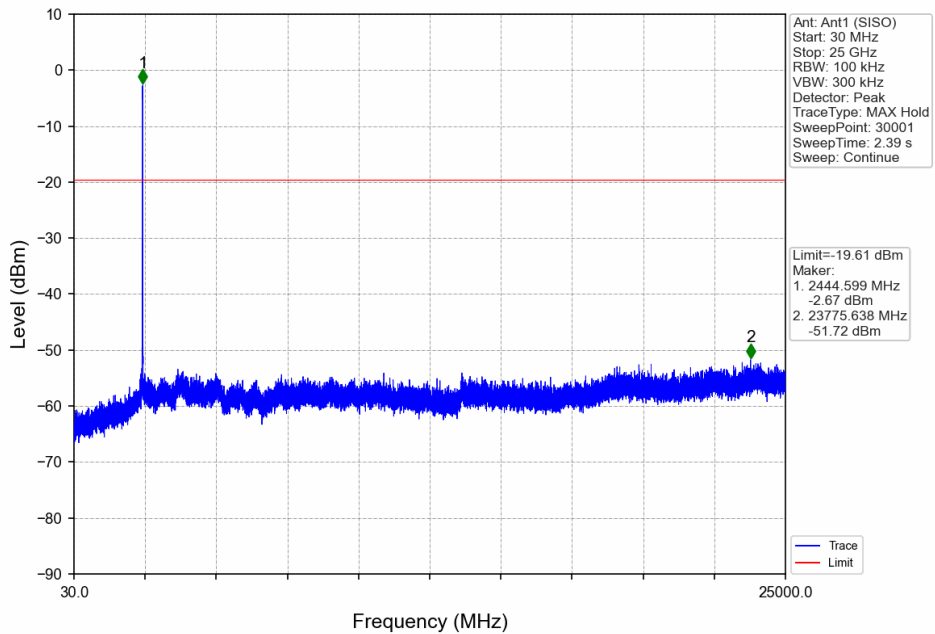
802.11g_LCH_2412MHz_Ant1 (SISO)_NTNV



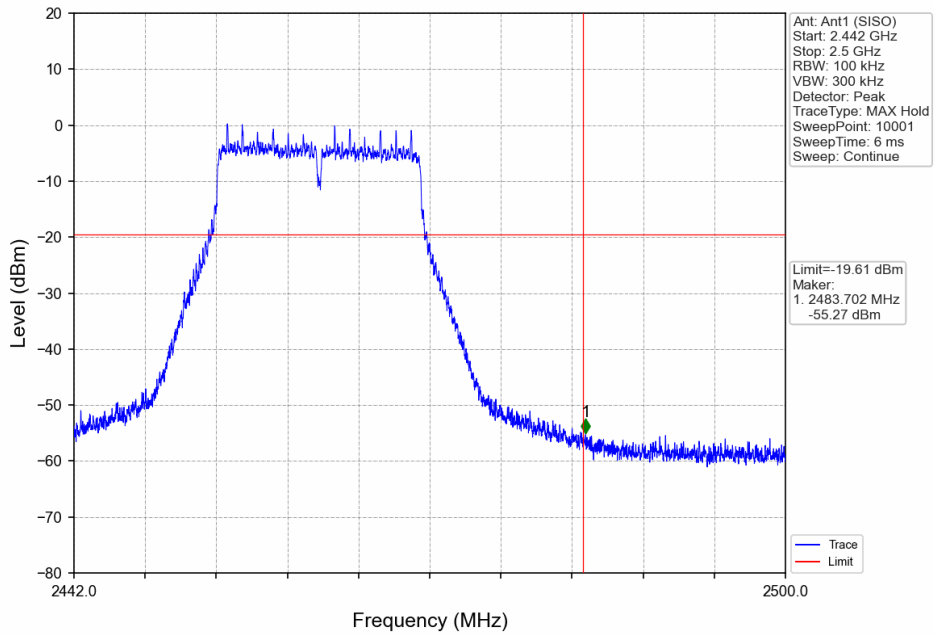
802.11g_LCH_2412MHz_Ant1 (SISO)_NTNV



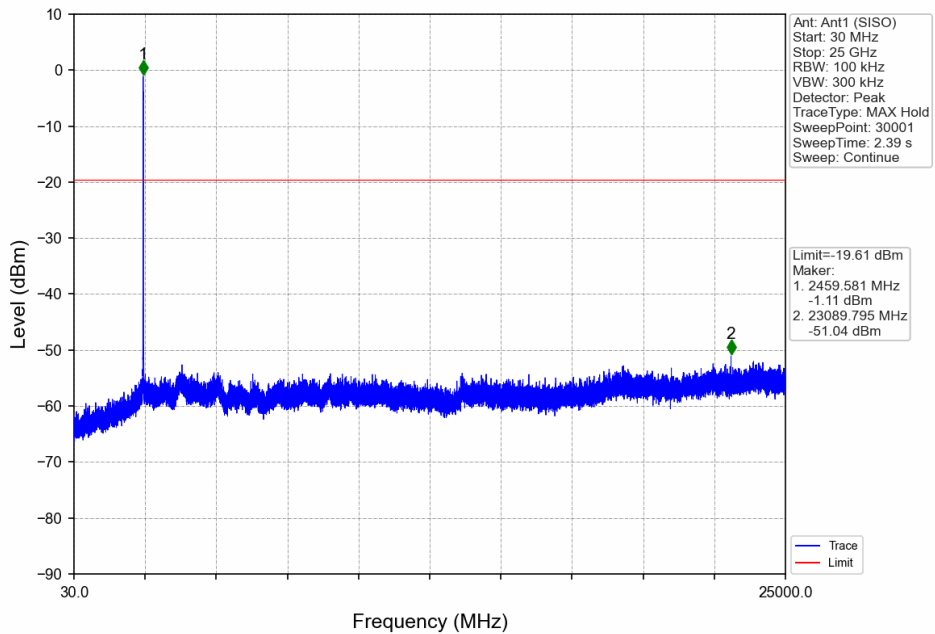
802.11g_MCH_2437MHz_Ant1 (SISO)_NTNV



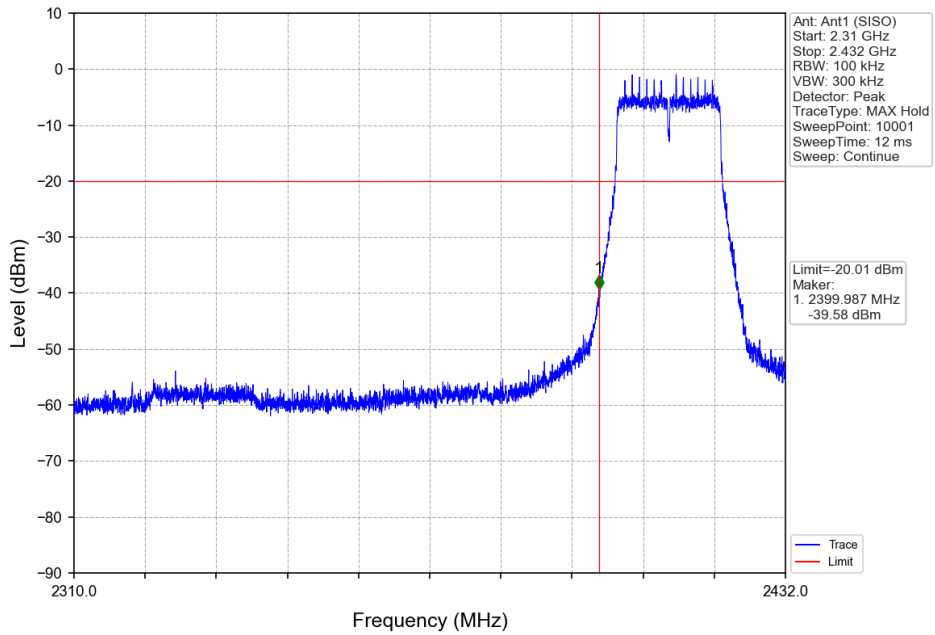
802.11g_HCH_2462MHz_Ant1 (SISO)_NTNV



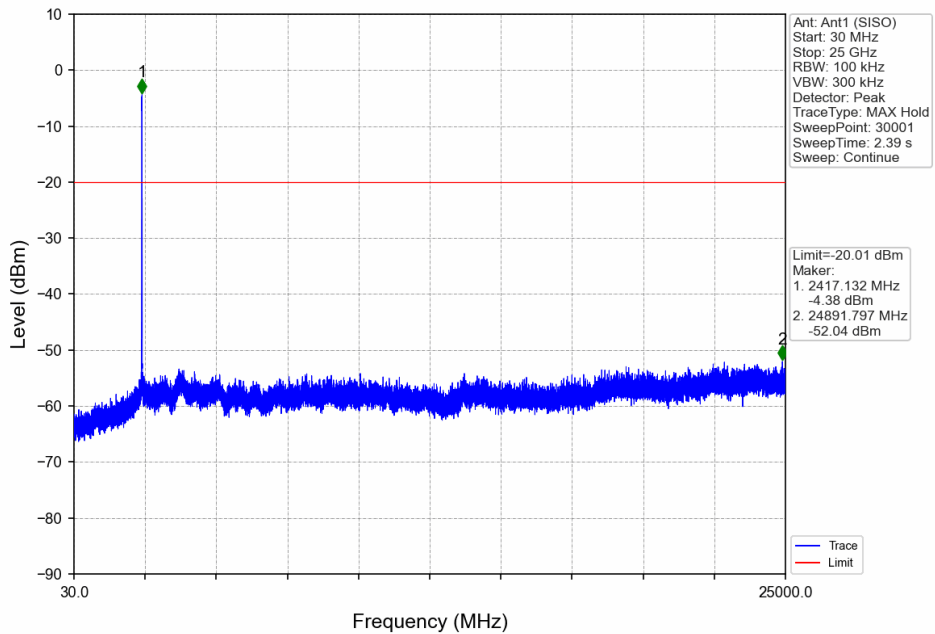
802.11g_HCH_2462MHz_Ant1 (SISO)_NTNV



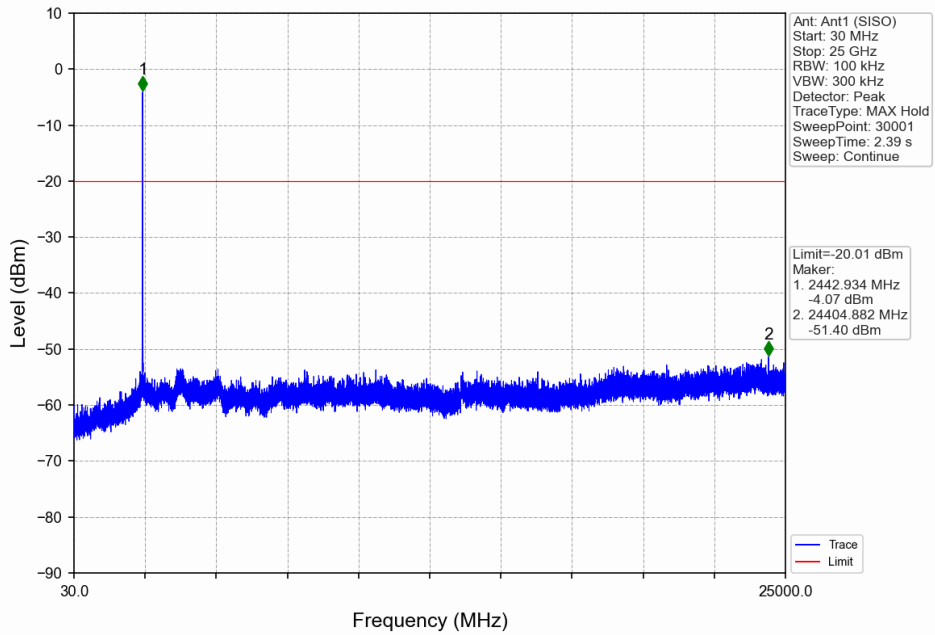
802.11n(HT20)_LCH_2412MHz_Ant1 (SISO)_NTNV



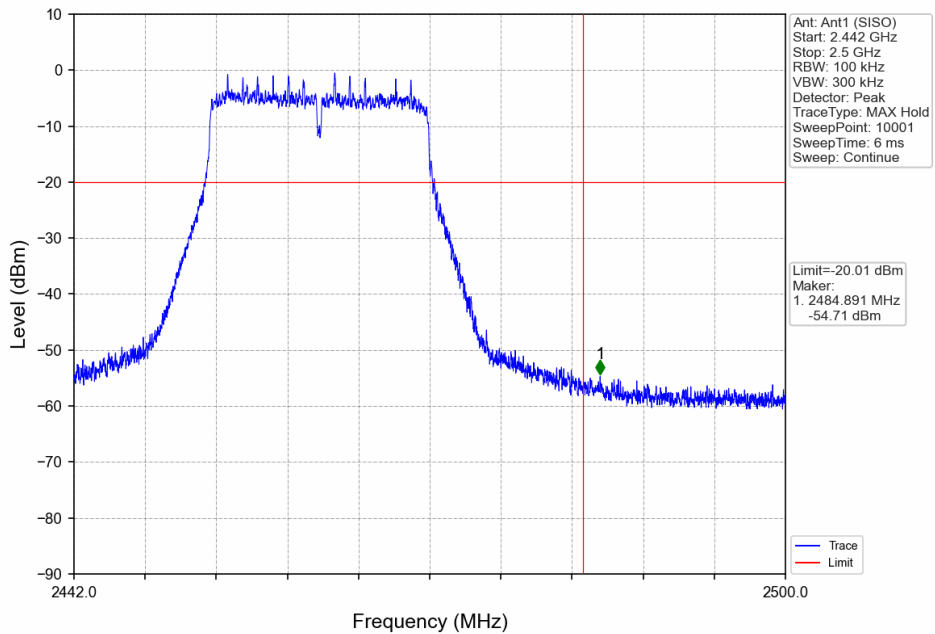
802.11n(HT20)_LCH_2412MHz_Ant1 (SISO)_NTNV



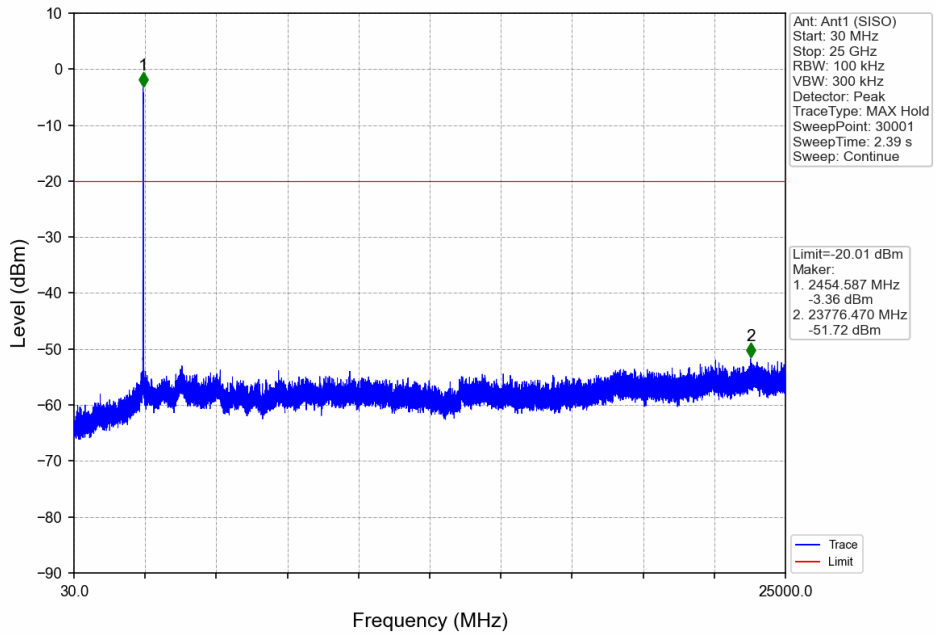
802.11n(HT20)_MCH_2437MHz_Ant1 (SISO)_NTNV



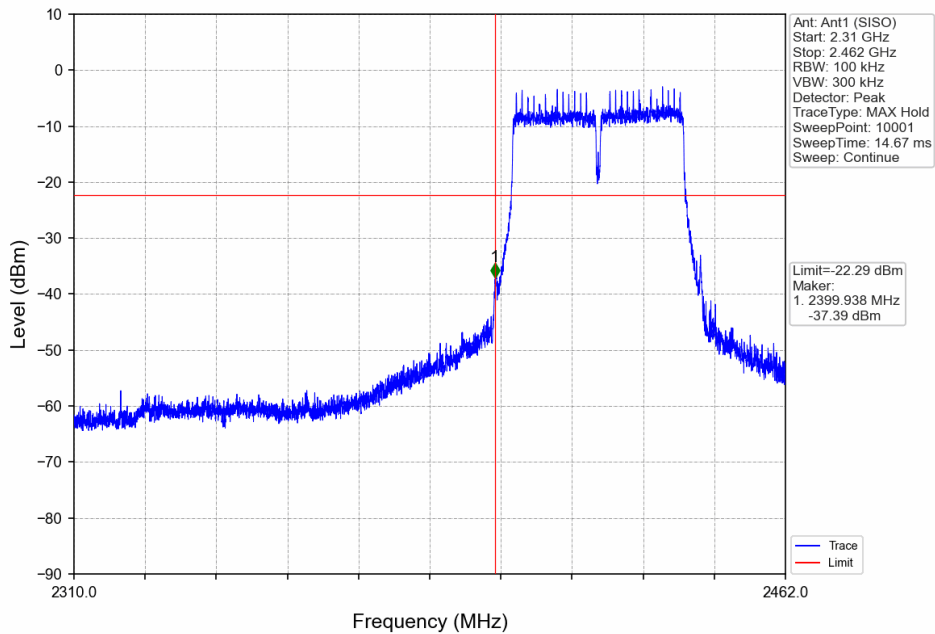
802.11n(HT20)_HCH_2462MHz_Ant1 (SISO)_NTNV



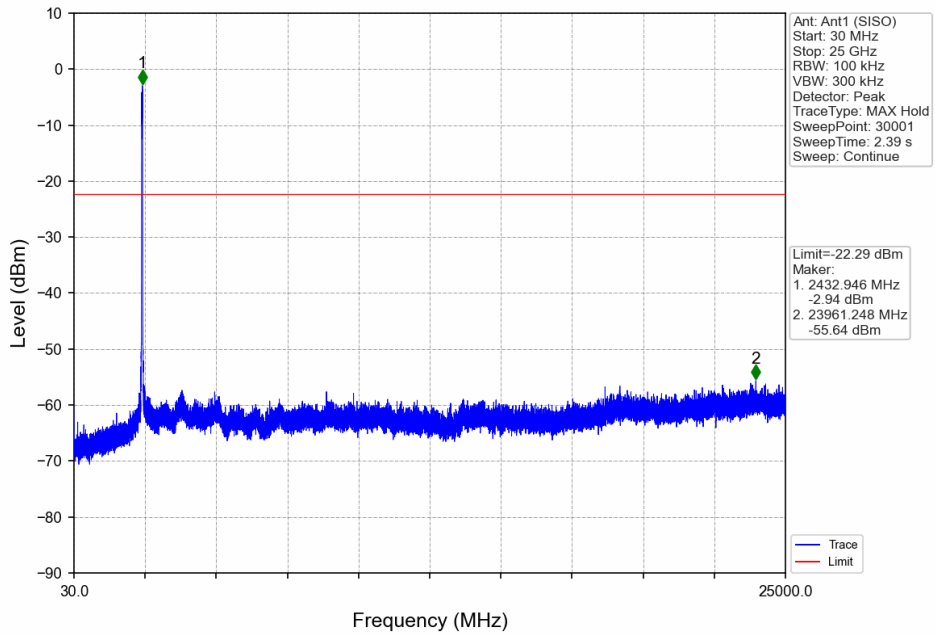
802.11n(HT20)_HCH_2462MHz_Ant1 (SISO)_NTNV



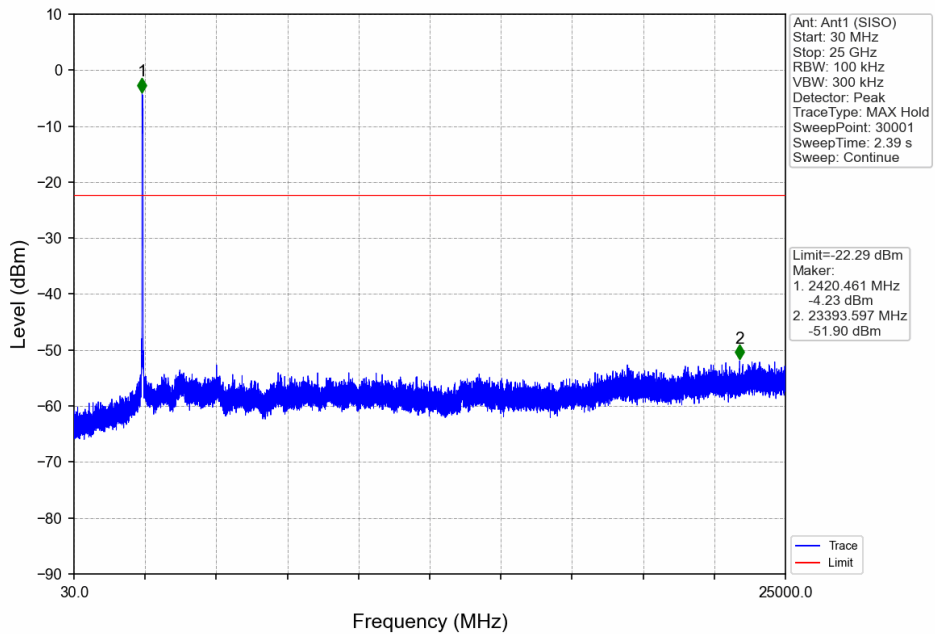
802.11n(HT40)_LCH_2422MHz_Ant1 (SISO)_NTNV



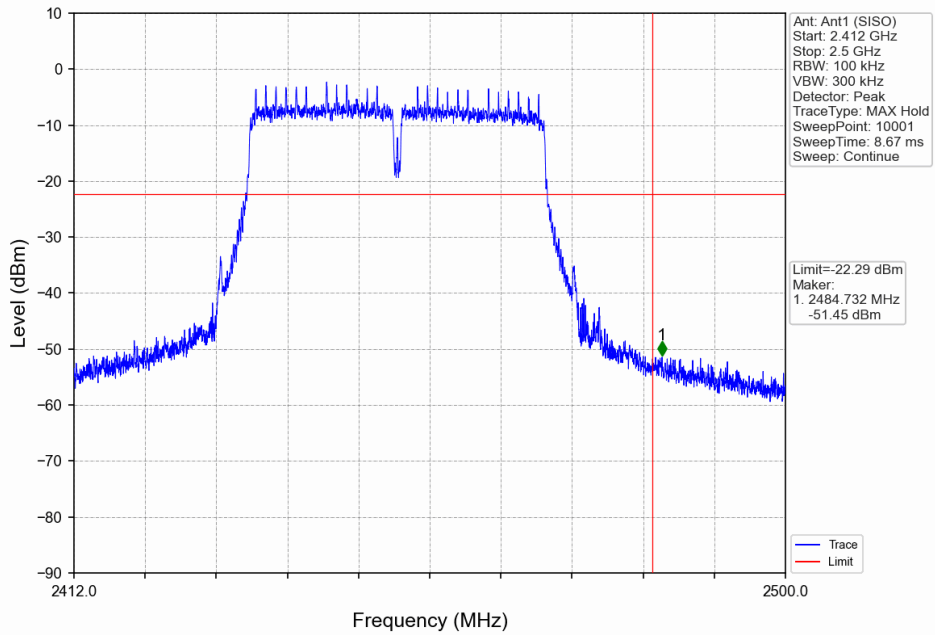
802.11n(HT40)_LCH_2422MHz_Ant1 (SISO)_NTNV



802.11n(HT40)_MCH_2437MHz_Ant1 (SISO)_NTNV



802.11n(HT40)_HCH_2452MHz_Ant1 (SISO)_NTNV



802.11n(HT40)_HCH_2452MHz_Ant1 (SISO)_NTNV

