



Shenzhen CTL Testing Technology Co., Ltd.

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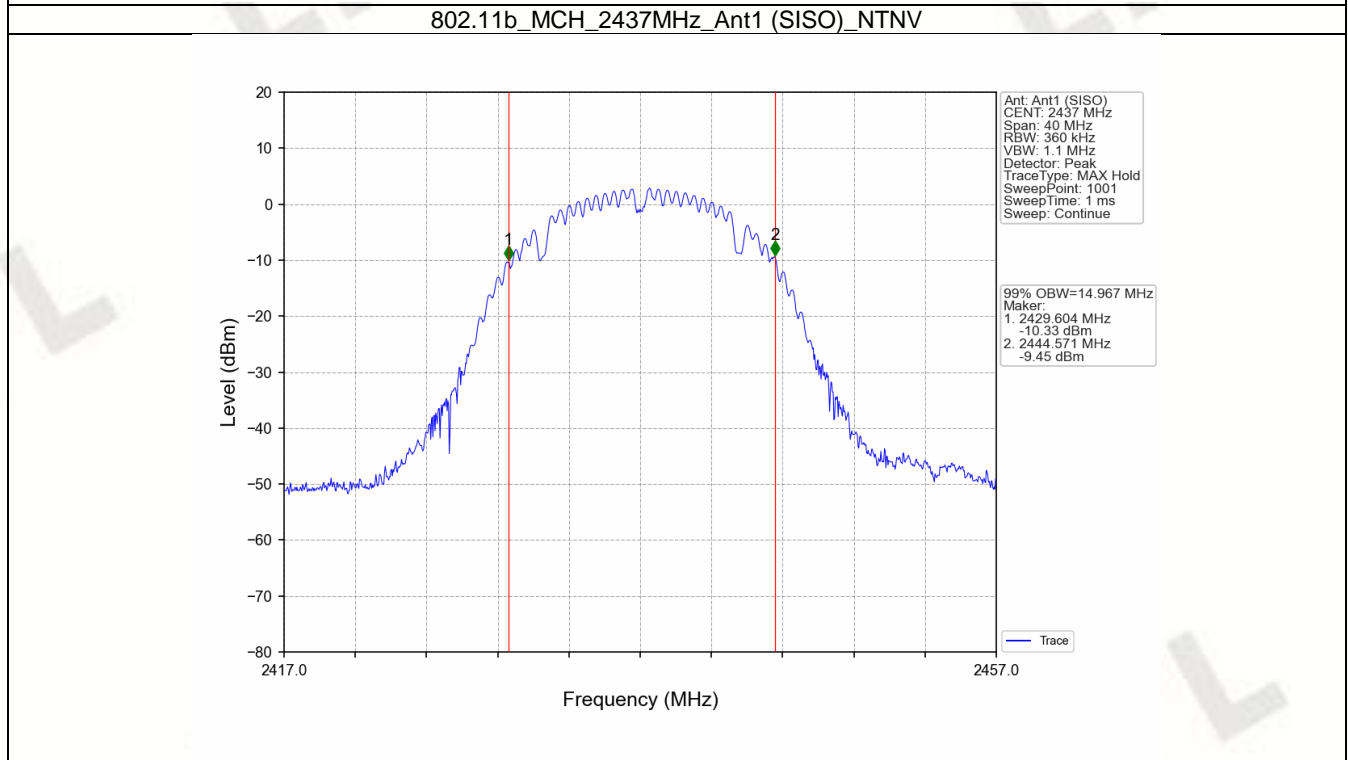
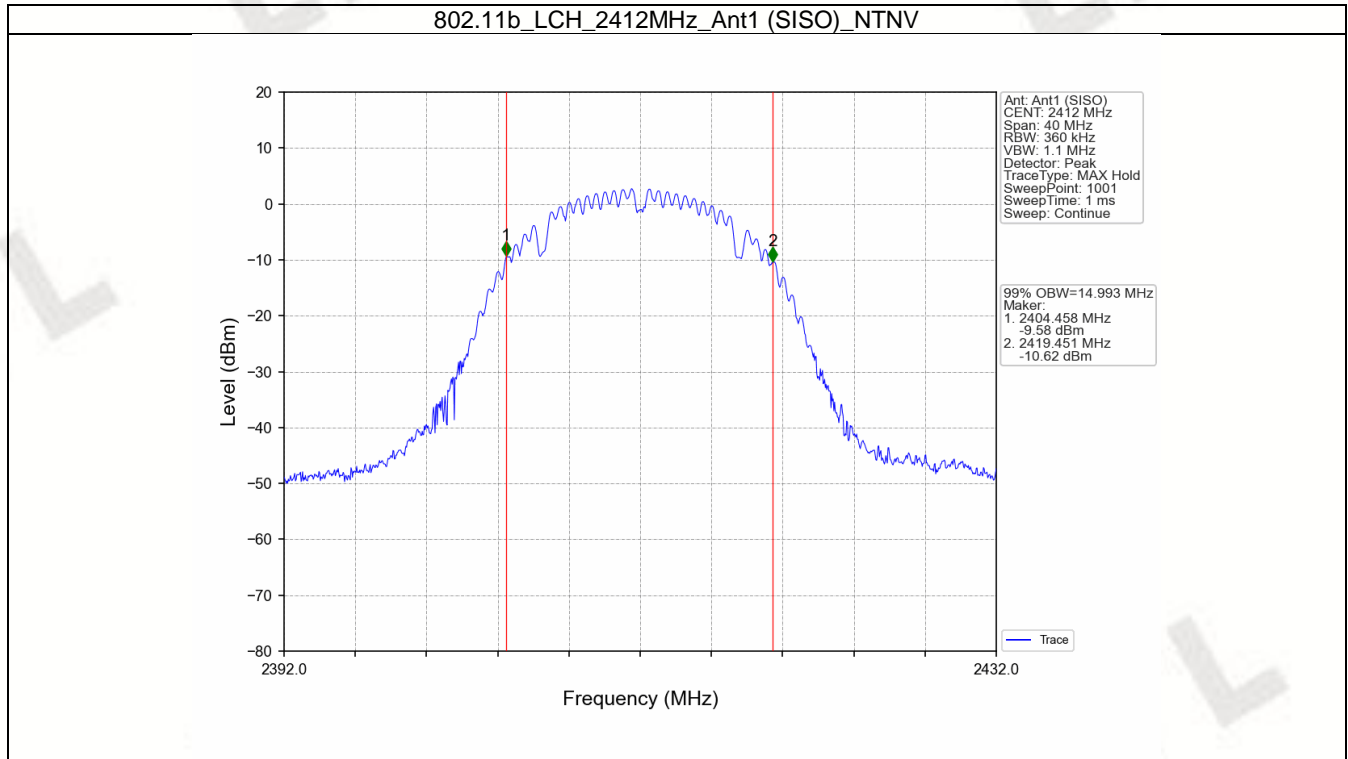
1. Bandwidth

1.1 OBW

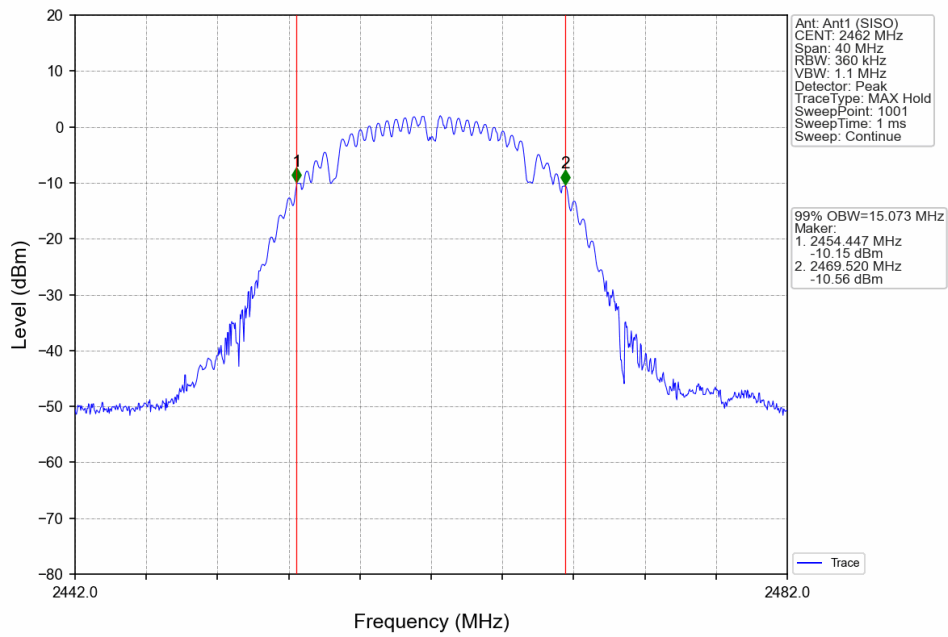
1.1.1 Test Result

Mode	TX Type	Frequency (MHz)	ANT	99% Occupied Bandwidth (MHz)		Verdict
				Result	Limit	
802.11b	SISO	2412	1	14.993	/	Pass
		2437	1	14.967	/	Pass
		2462	1	15.073	/	Pass
802.11g	SISO	2412	1	17.425	/	Pass
		2437	1	17.598	/	Pass
		2462	1	17.739	/	Pass
802.11n (HT20)	SISO	2412	1	18.442	/	Pass
		2437	1	18.386	/	Pass
		2462	1	18.399	/	Pass
802.11n (HT40)	SISO	2422	1	36.881	/	Pass
		2437	1	36.769	/	Pass
		2452	1	36.765	/	Pass

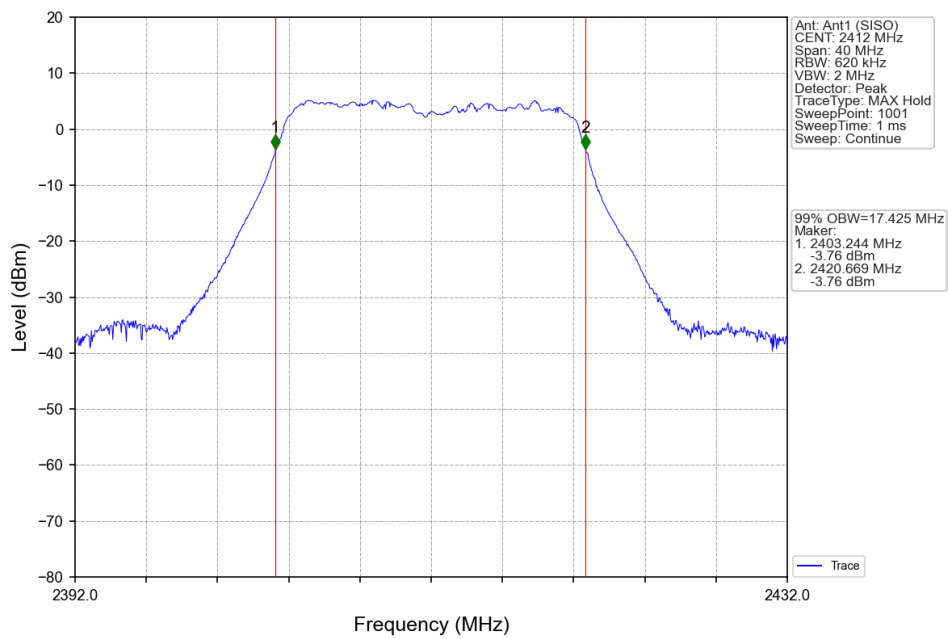
1.1.2 Test Graph

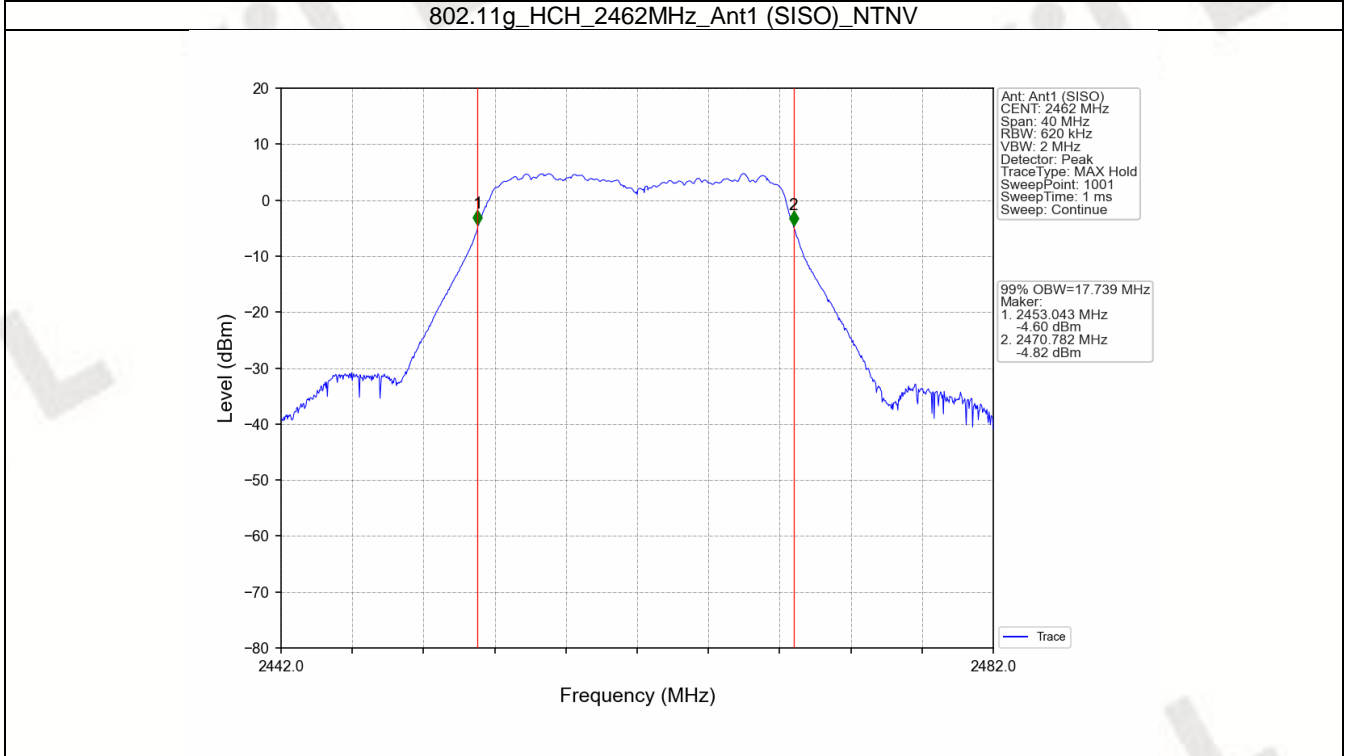
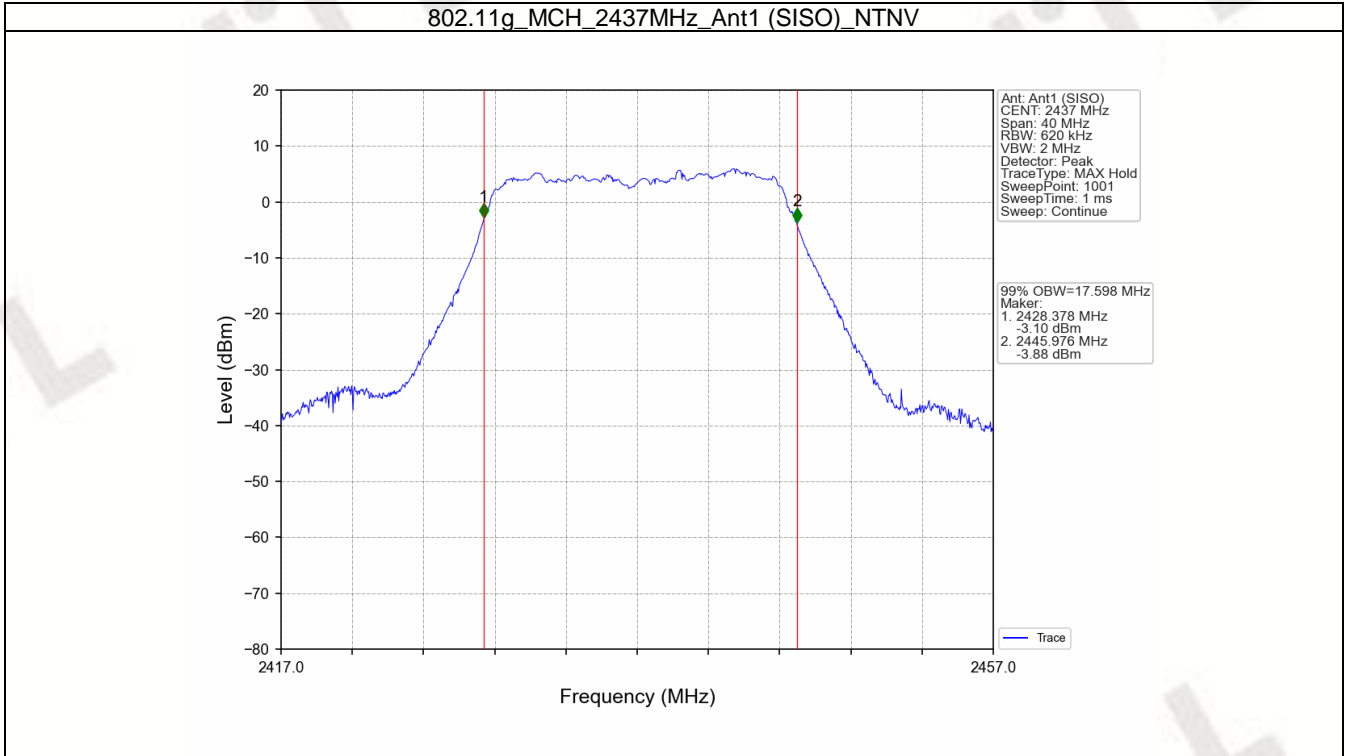


802.11b_HCH_2462MHz_Ant1 (SISO)_NTNV

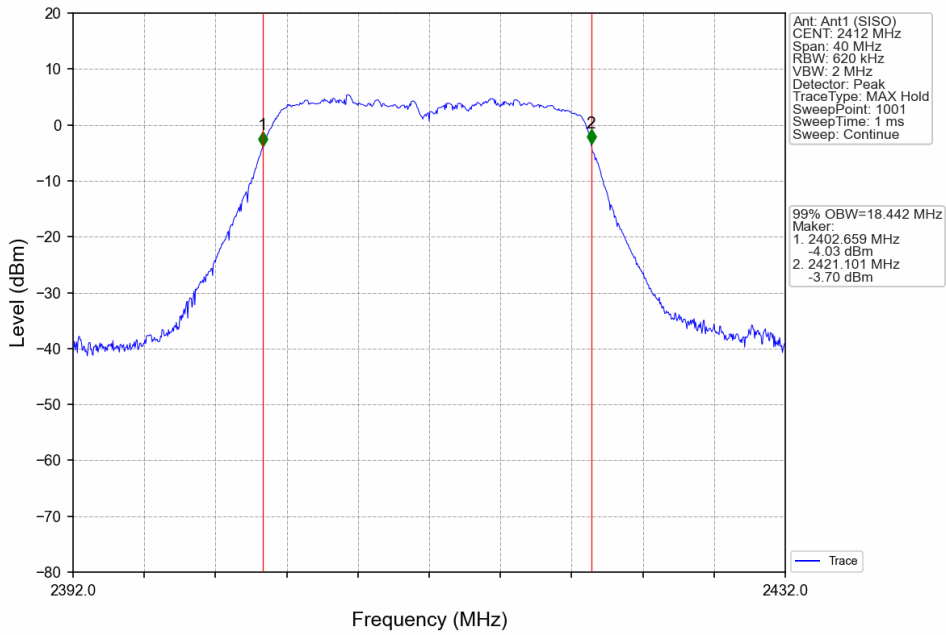


802.11g_LCH_2412MHz_Ant1 (SISO)_NTNV

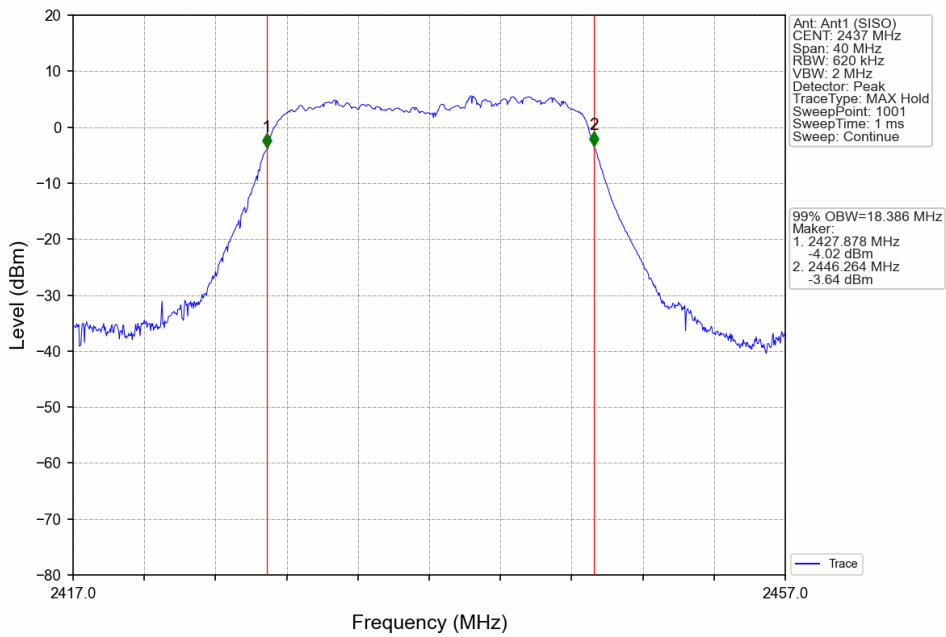




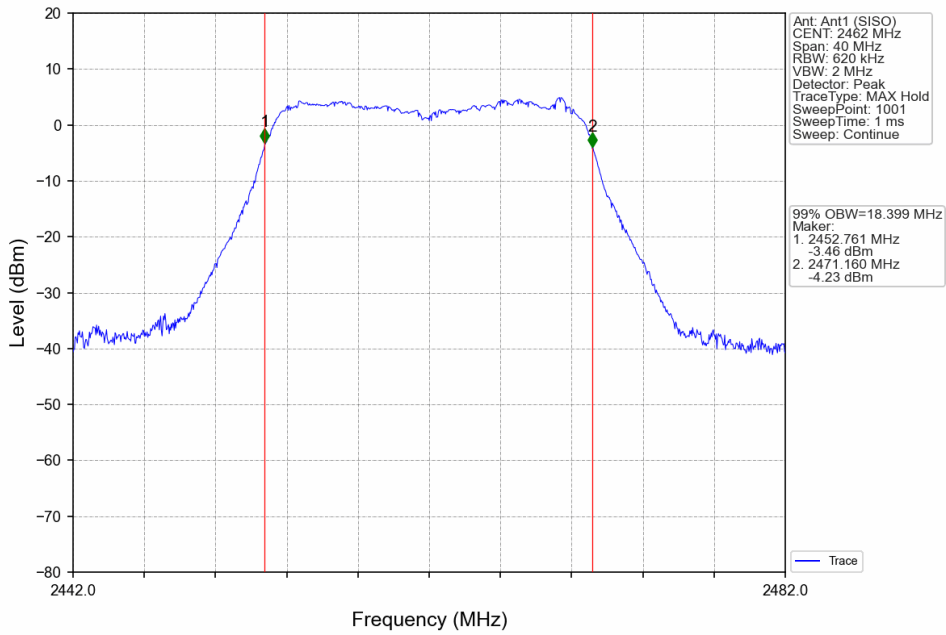
802.11n(HT20)_LCH_2412MHz_Ant1 (SISO)_NTNV



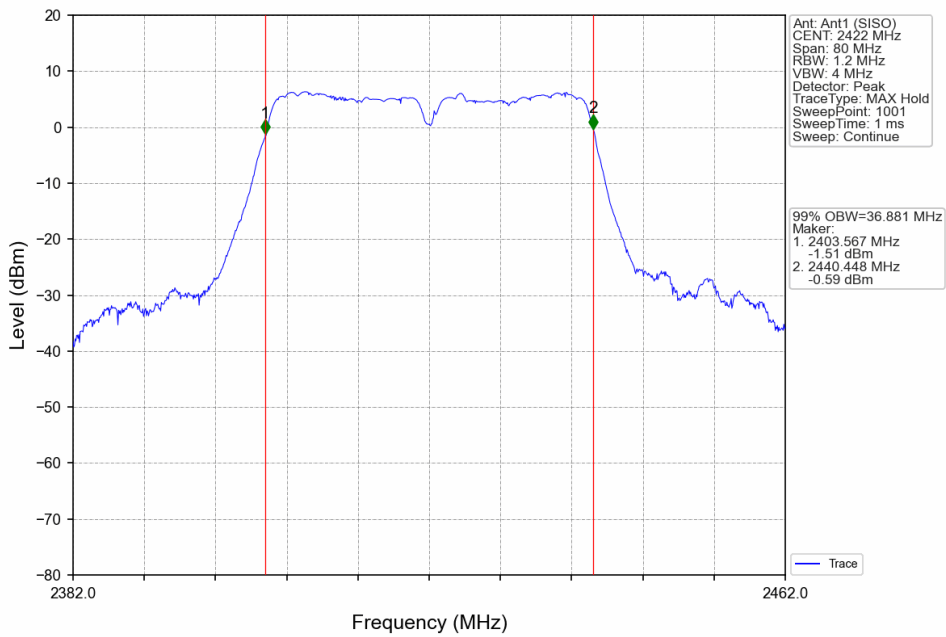
802.11n(HT20)_MCH_2437MHz_Ant1 (SISO)_NTNV



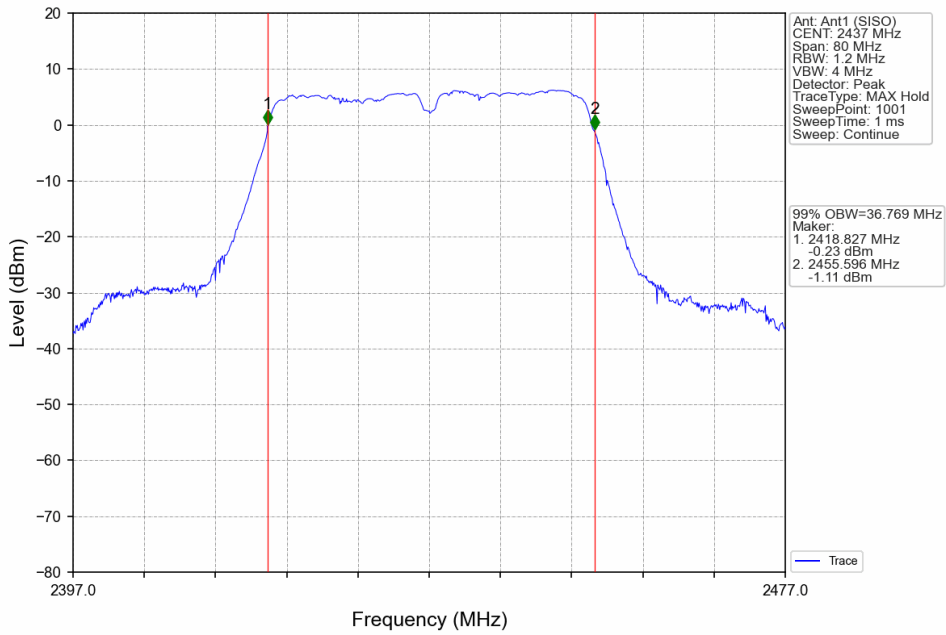
802.11n(HT20)_HCH_2462MHz_Ant1 (SISO)_NTNV



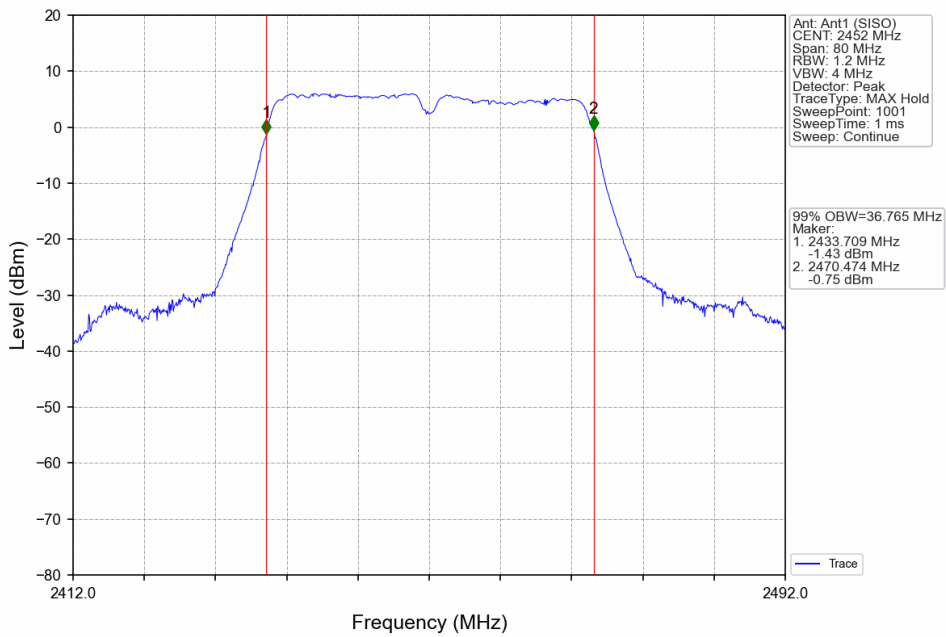
802.11n(HT40)_LCH_2422MHz_Ant1 (SISO)_NTNV



802.11n(HT40)_MCH_2437MHz_Ant1 (SISO)_NTNV



802.11n(HT40)_HCH_2452MHz_Ant1 (SISO)_NTNV

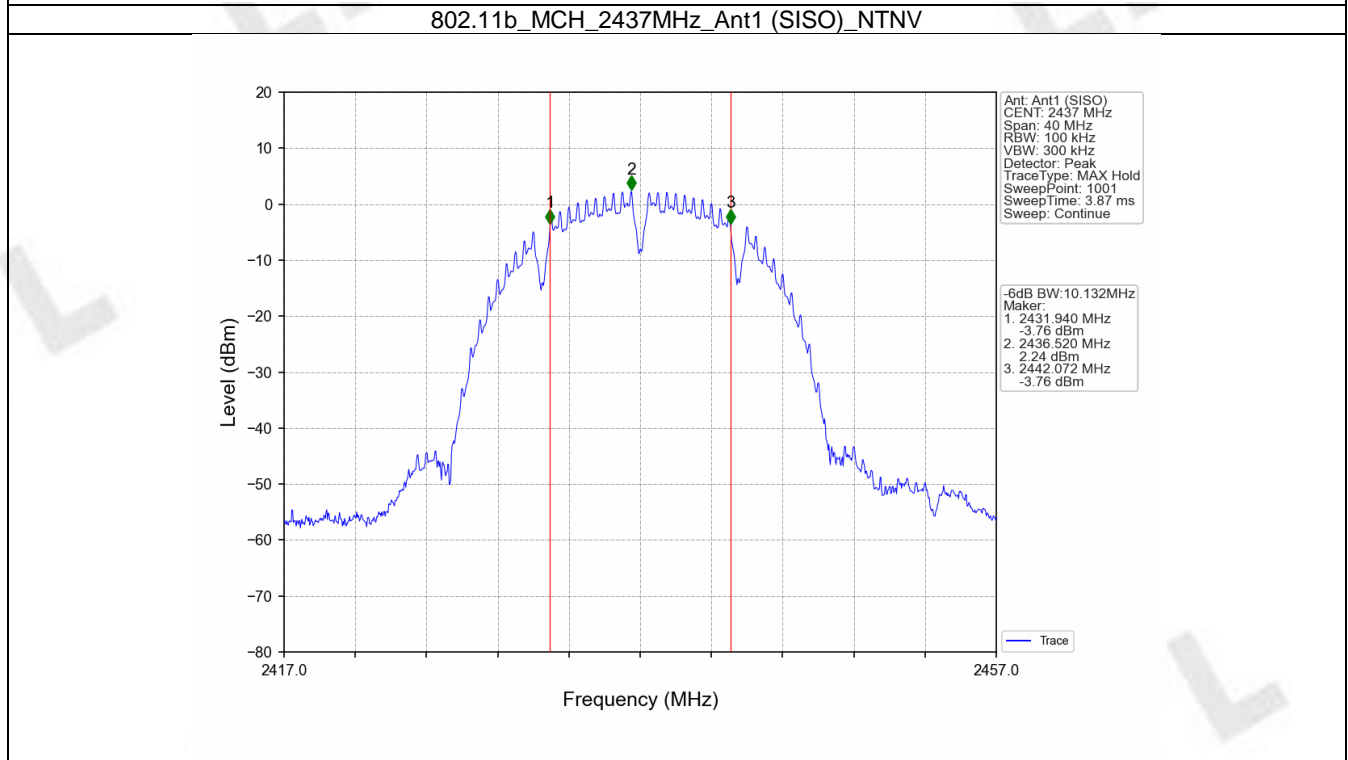
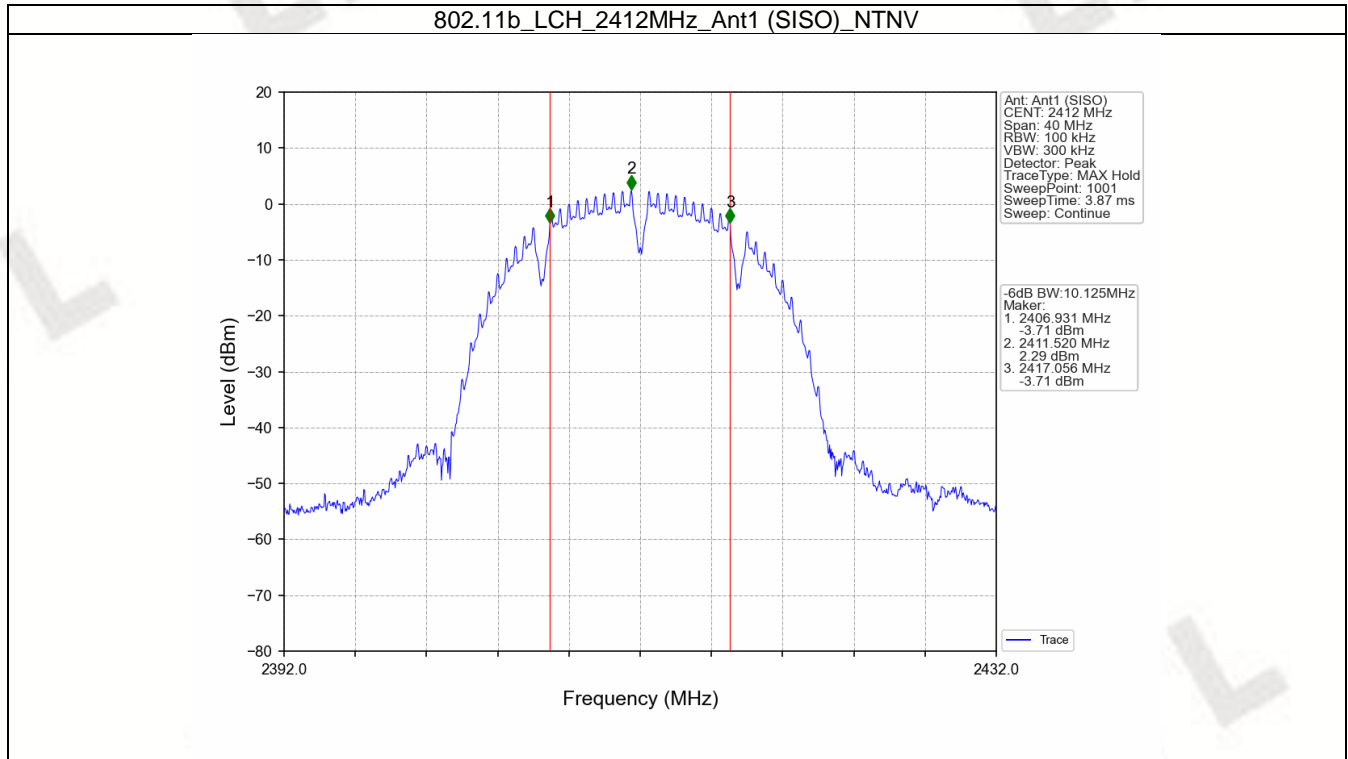


1.2 6dB BW

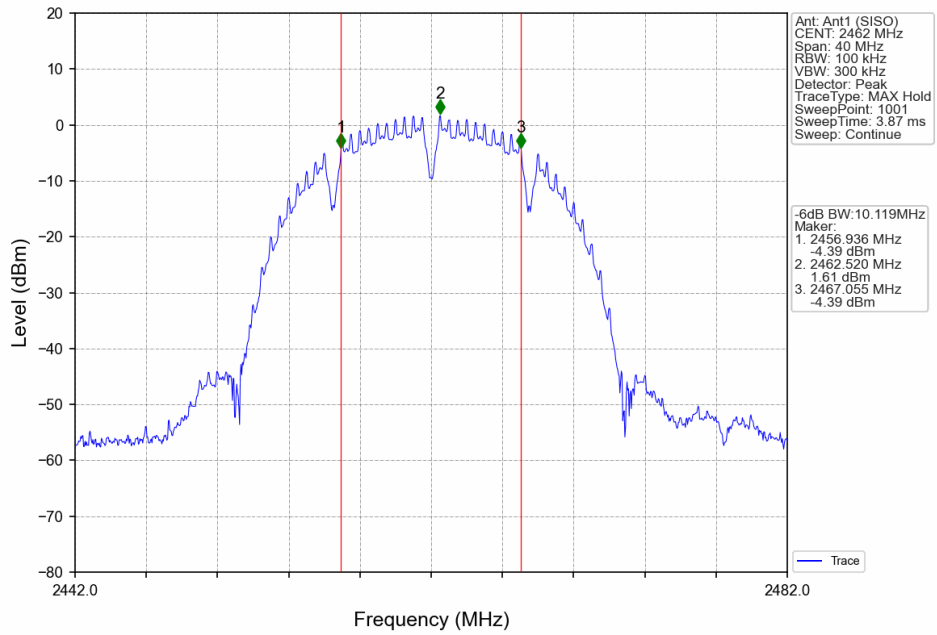
1.2.1 Test Result

Mode	TX Type	Frequency (MHz)	ANT	6dB Bandwidth (MHz)		Verdict
				Result	Limit	
802.11b	SISO	2412	1	10.125	>=0.5	Pass
		2437	1	10.132	>=0.5	Pass
		2462	1	10.119	>=0.5	Pass
802.11g	SISO	2412	1	16.324	>=0.5	Pass
		2437	1	16.337	>=0.5	Pass
		2462	1	16.356	>=0.5	Pass
802.11n (HT20)	SISO	2412	1	17.164	>=0.5	Pass
		2437	1	17.192	>=0.5	Pass
		2462	1	17.094	>=0.5	Pass
802.11n (HT40)	SISO	2422	1	36.070	>=0.5	Pass
		2437	1	35.365	>=0.5	Pass
		2452	1	35.523	>=0.5	Pass

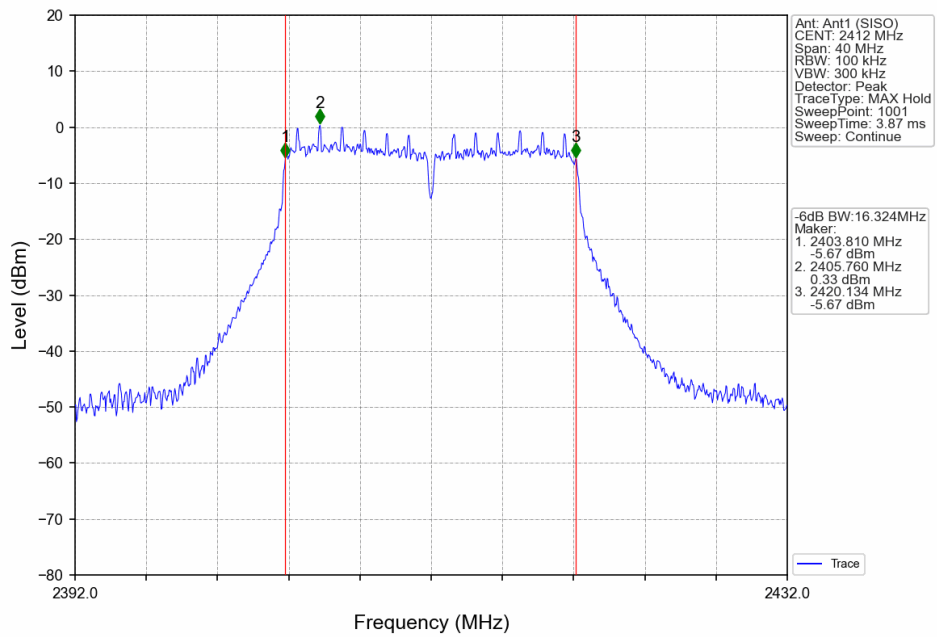
1.2.2 Test Graph



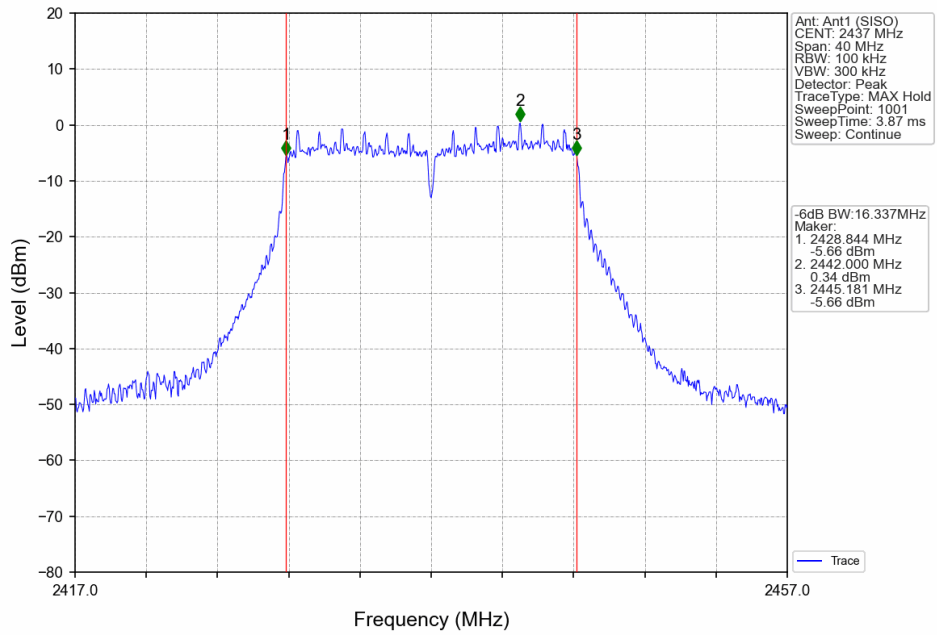
802.11b_HCH_2462MHz_Ant1 (SISO)_NTNV



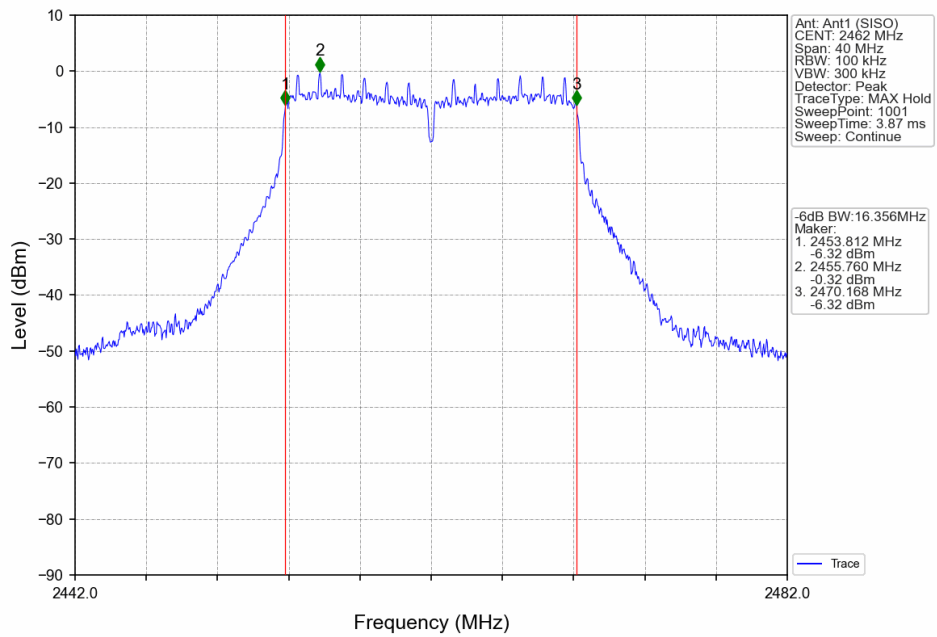
802.11g_LCH_2412MHz_Ant1 (SISO)_NTNV



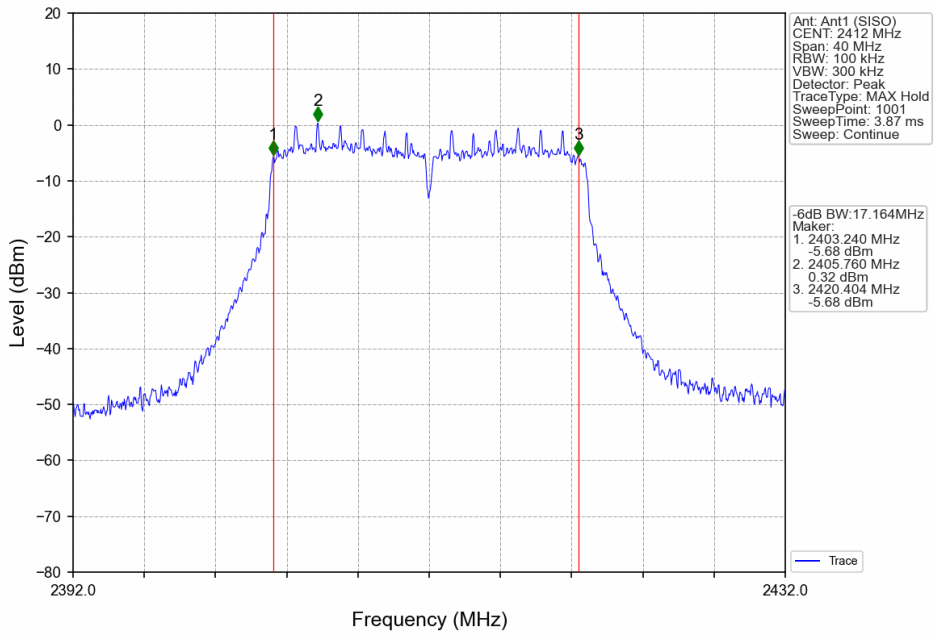
802.11g_MCH_2437MHz_Ant1 (SISO)_NTNV



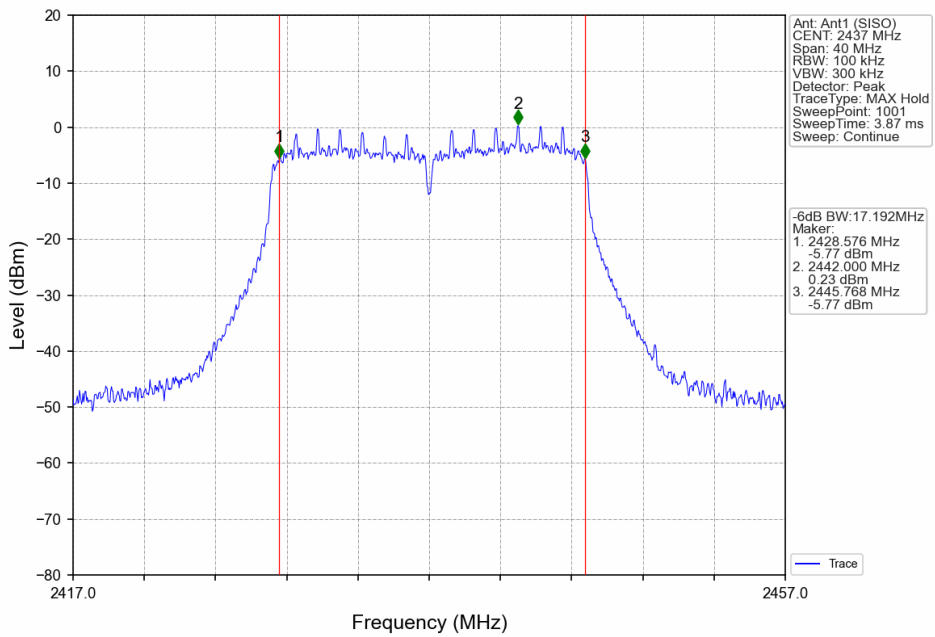
802.11g_HCH_2462MHz_Ant1 (SISO)_NTNV



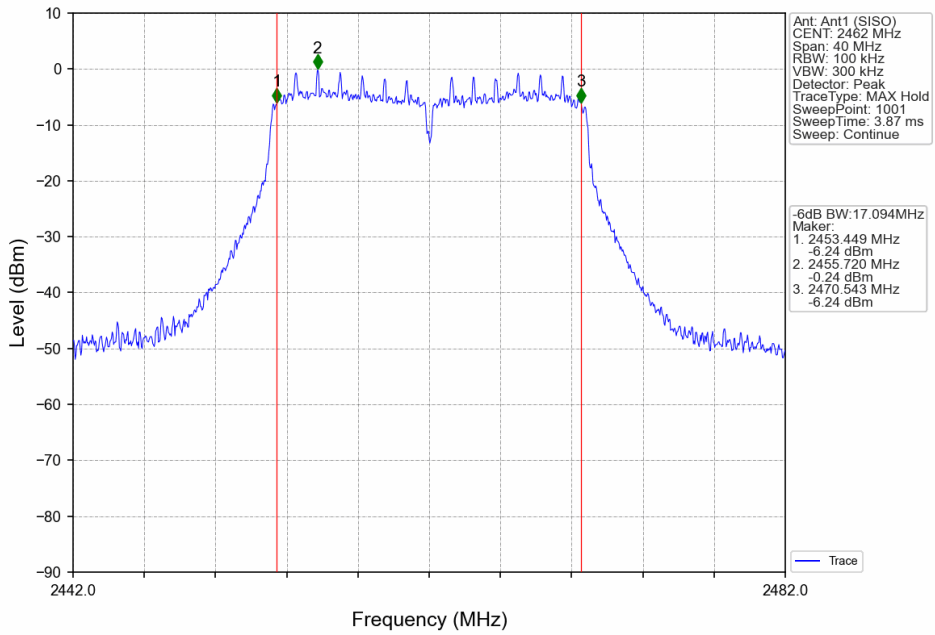
802.11n(HT20)_LCH_2412MHz_Ant1 (SISO)_NTNV



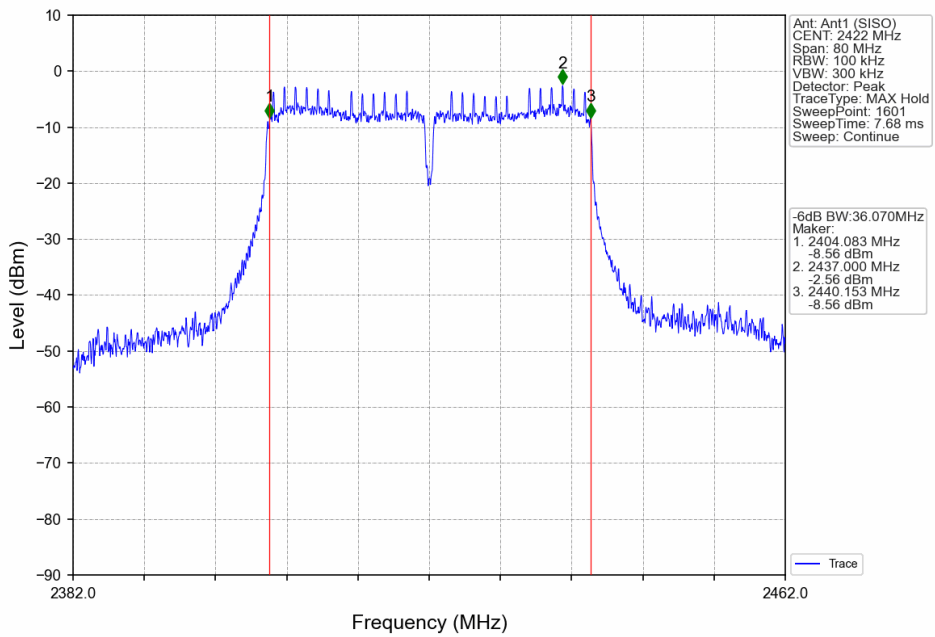
802.11n(HT20)_MCH_2437MHz_Ant1 (SISO)_NTNV



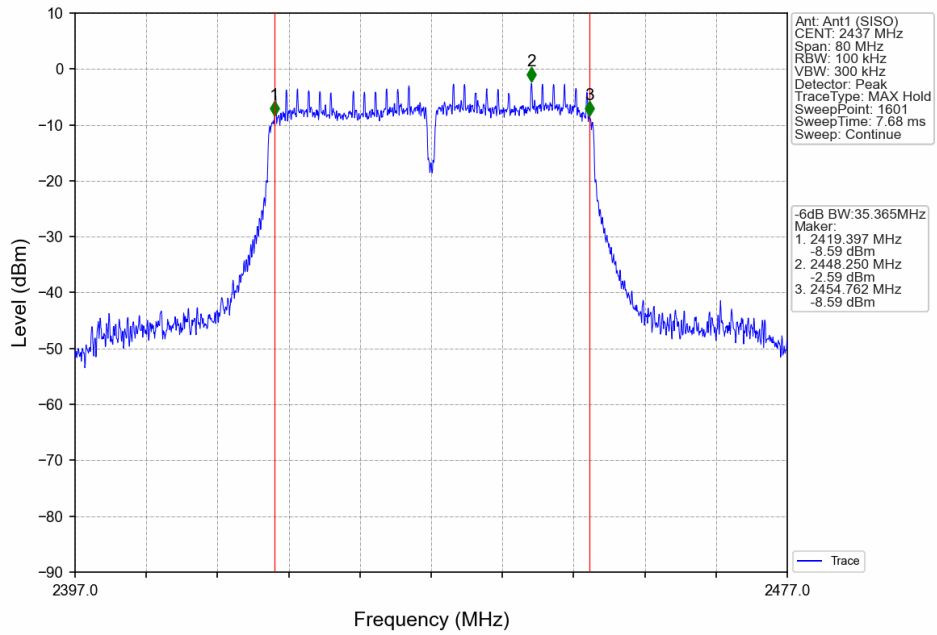
802.11n(HT20)_HCH_2462MHz_Ant1 (SISO)_NTNV



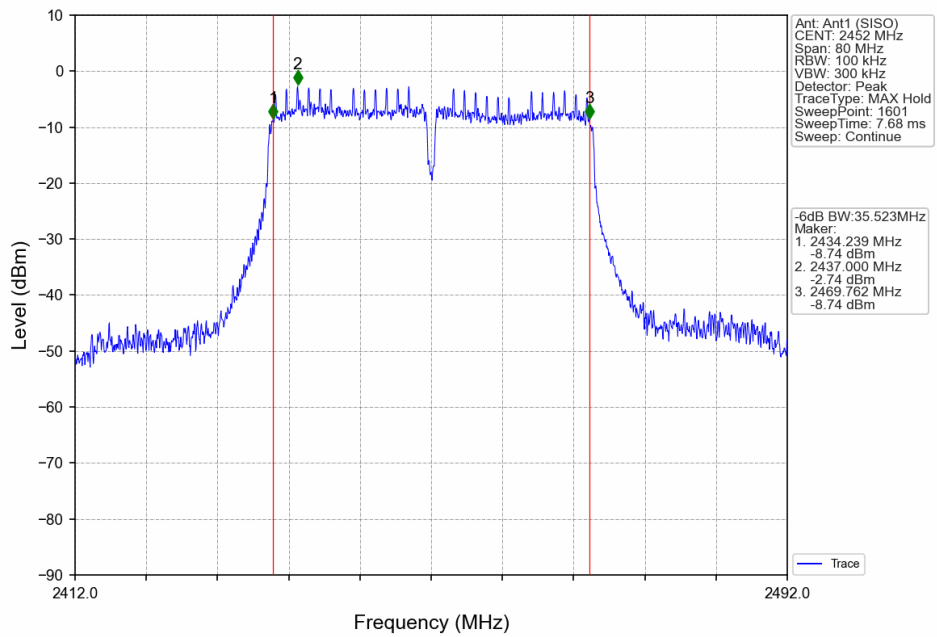
802.11n(HT40)_LCH_2422MHz_Ant1 (SISO)_NTNV



802.11n(HT40)_MCH_2437MHz_Ant1 (SISO)_NTNV



802.11n(HT40)_HCH_2452MHz_Ant1 (SISO)_NTNV



2. Maximum Conducted Output Power

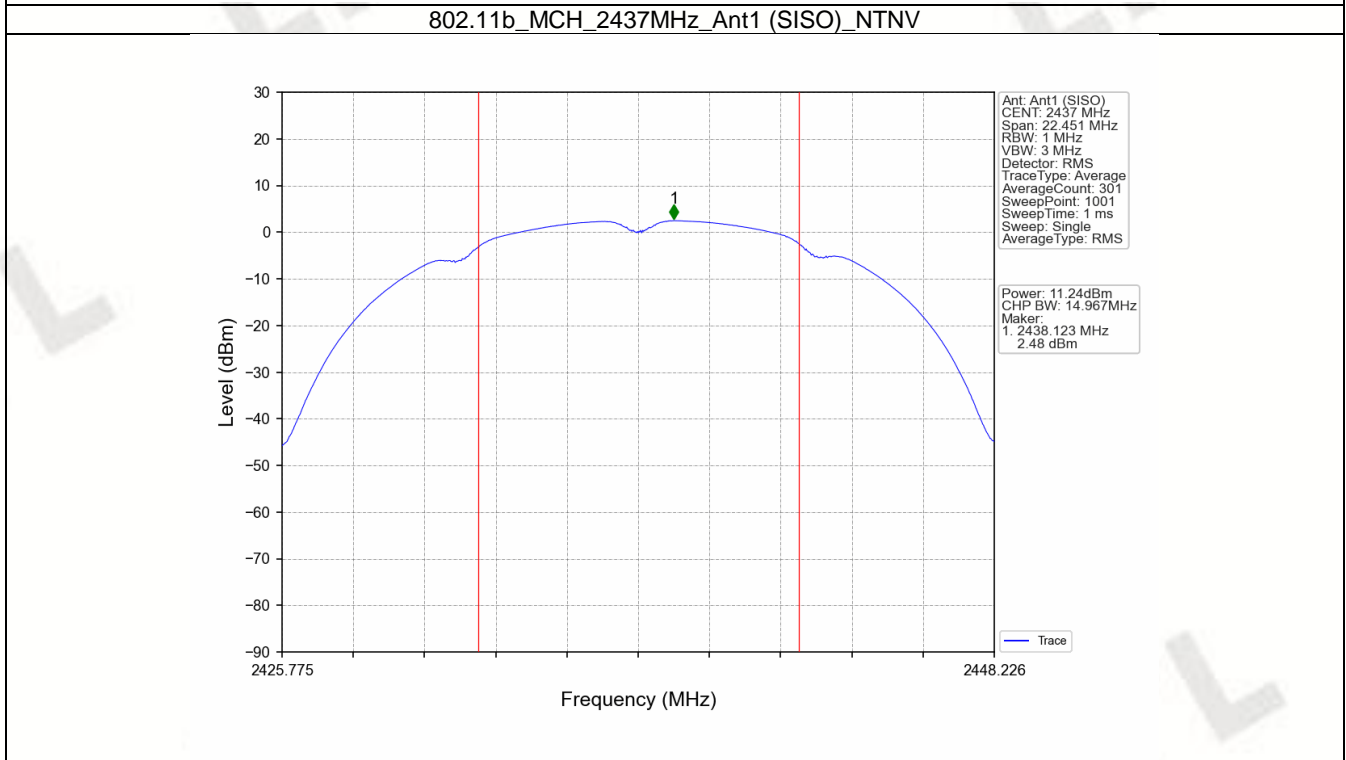
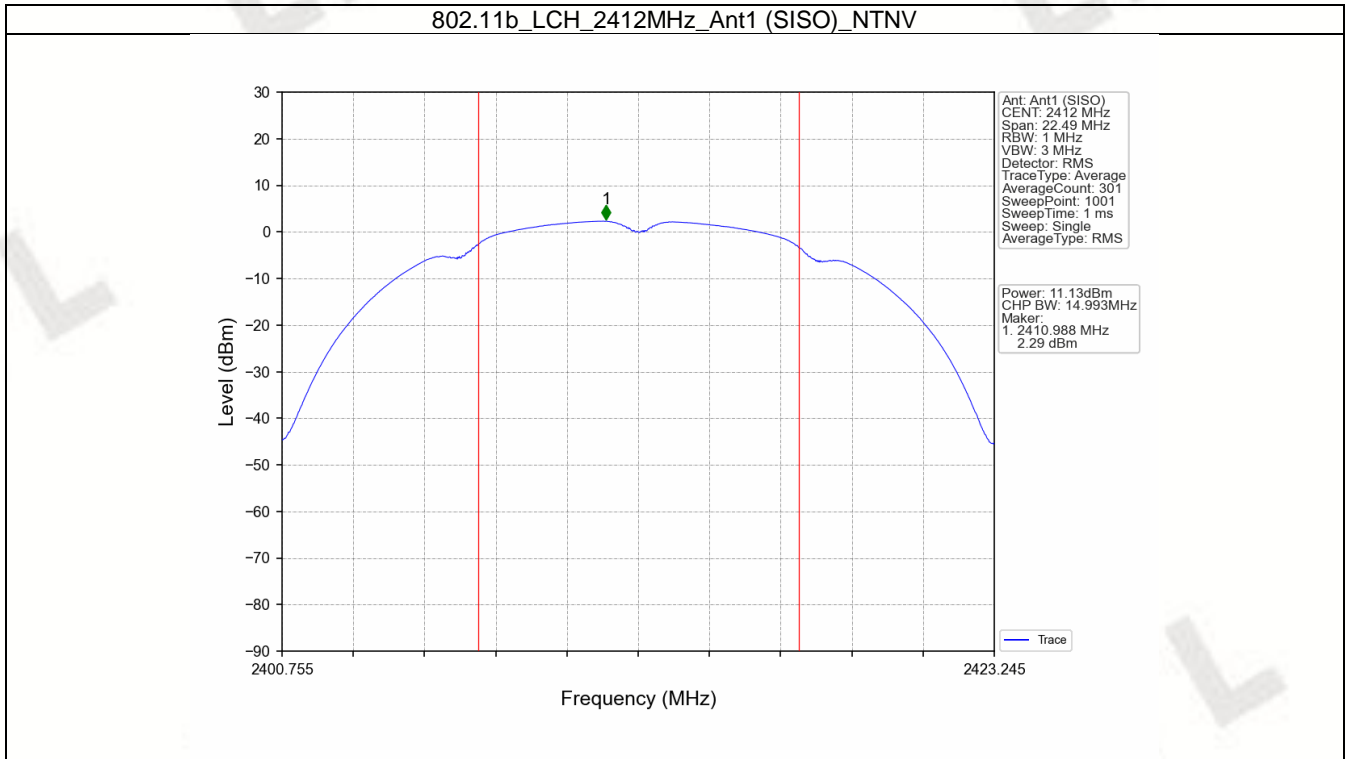
2.1 Power

2.1.1 Test Result

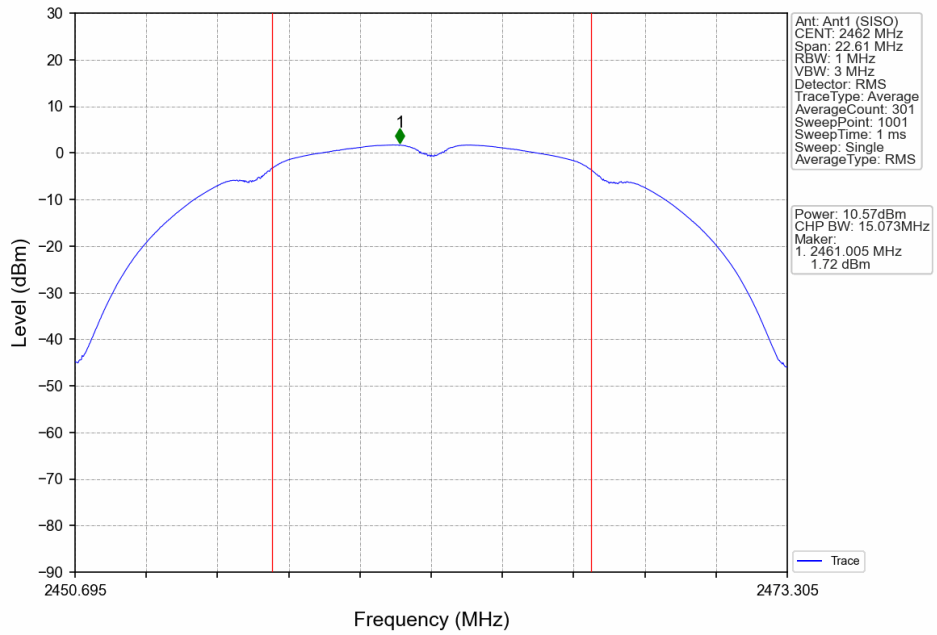
Mode	TX Type	Frequency (MHz)	Maximum Average Conducted Output Power (dBm)		Verdict
			ANT1	Limit	
802.11b	SISO	2412	11.13	<=30	Pass
		2437	11.24	<=30	Pass
		2462	10.57	<=30	Pass
802.11g	SISO	2412	10.70	<=30	Pass
		2437	10.86	<=30	Pass
		2462	10.28	<=30	Pass
802.11n (HT20)	SISO	2412	10.68	<=30	Pass
		2437	10.85	<=30	Pass
		2462	10.24	<=30	Pass
802.11n (HT40)	SISO	2422	10.97	<=30	Pass
		2437	11.09	<=30	Pass
		2452	10.99	<=30	Pass

Note1: Antenna Gain: Ant1: 1.50dBi;

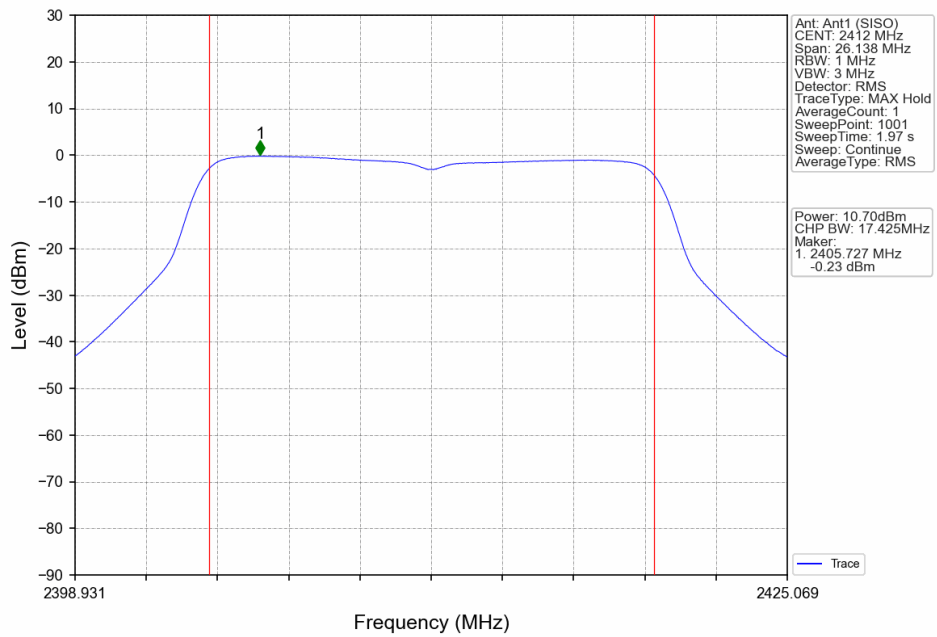
2.1.2 Test Graph



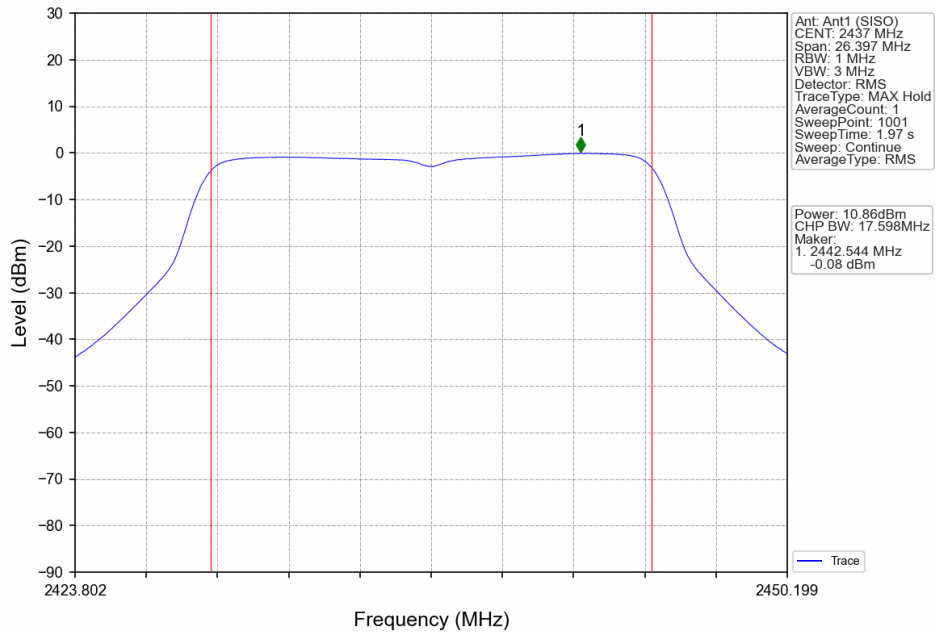
802.11b_HCH_2462MHz_Ant1 (SISO)_NTNV



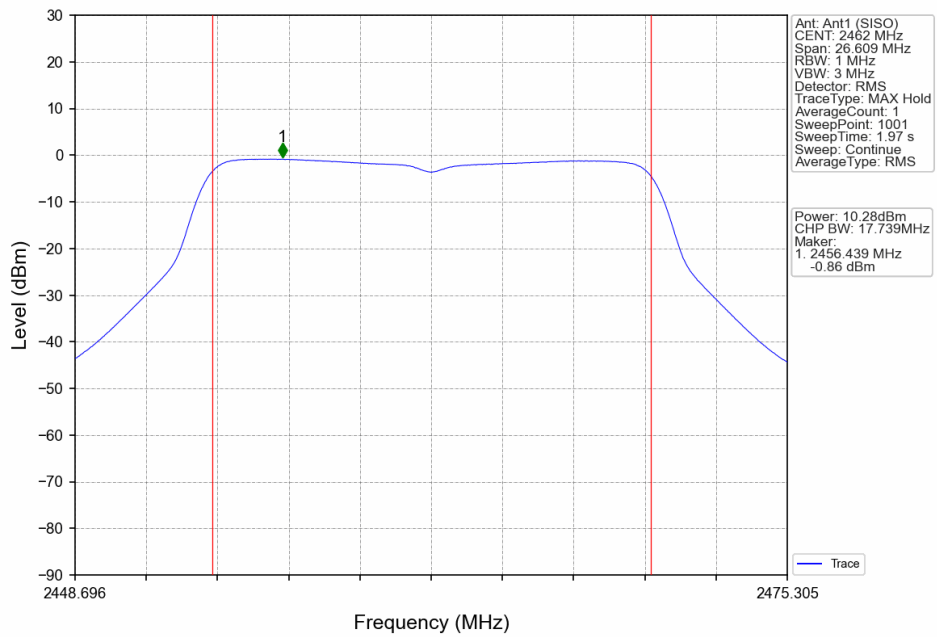
802.11g_LCH_2412MHz_Ant1 (SISO)_NTNV



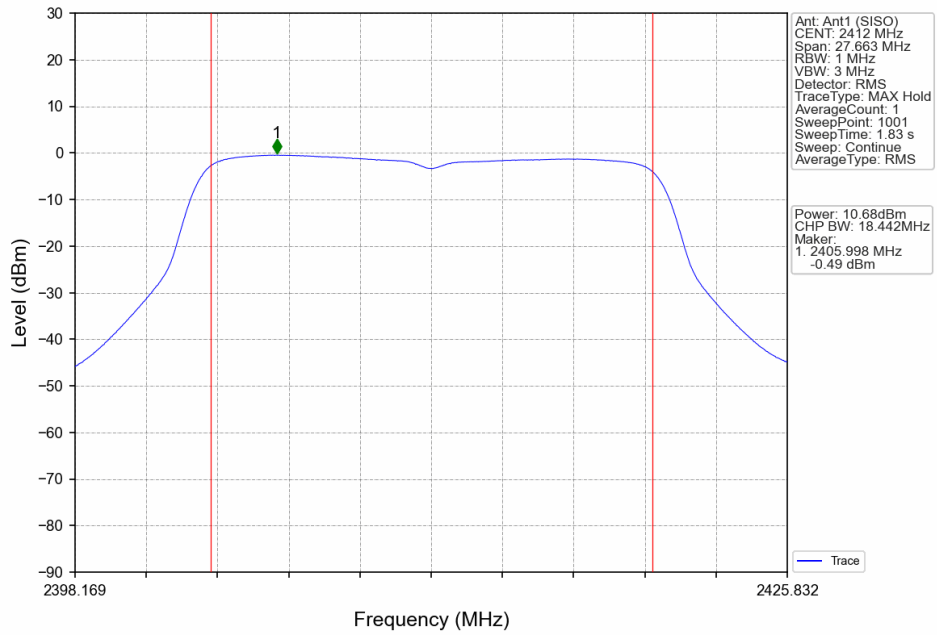
802.11g_MCH_2437MHz_Ant1 (SISO)_NTNV



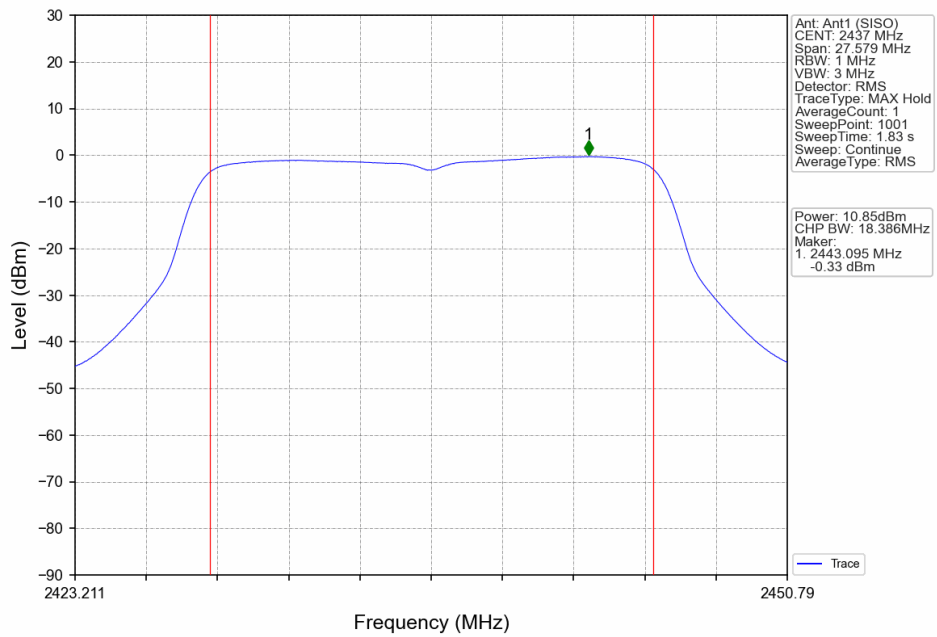
802.11g_HCH_2462MHz_Ant1 (SISO)_NTNV



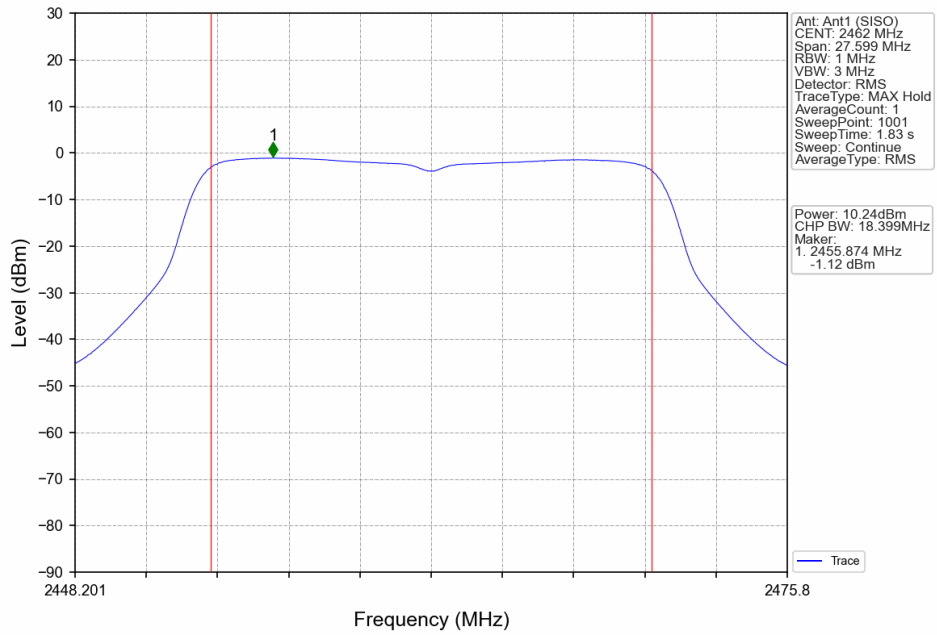
802.11n(HT20)_LCH_2412MHz_Ant1 (SISO)_NTNV



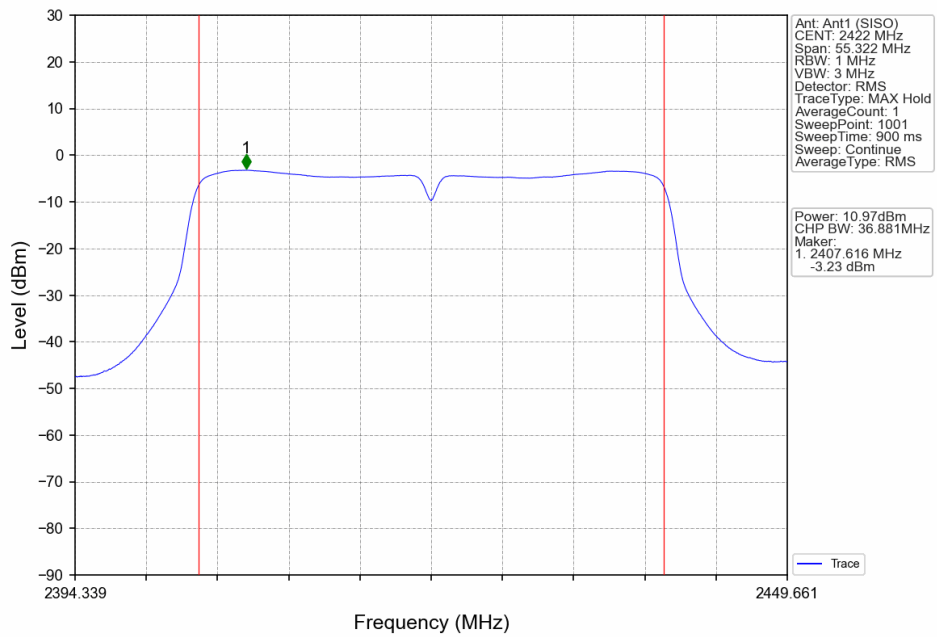
802.11n(HT20)_MCH_2437MHz_Ant1 (SISO)_NTNV



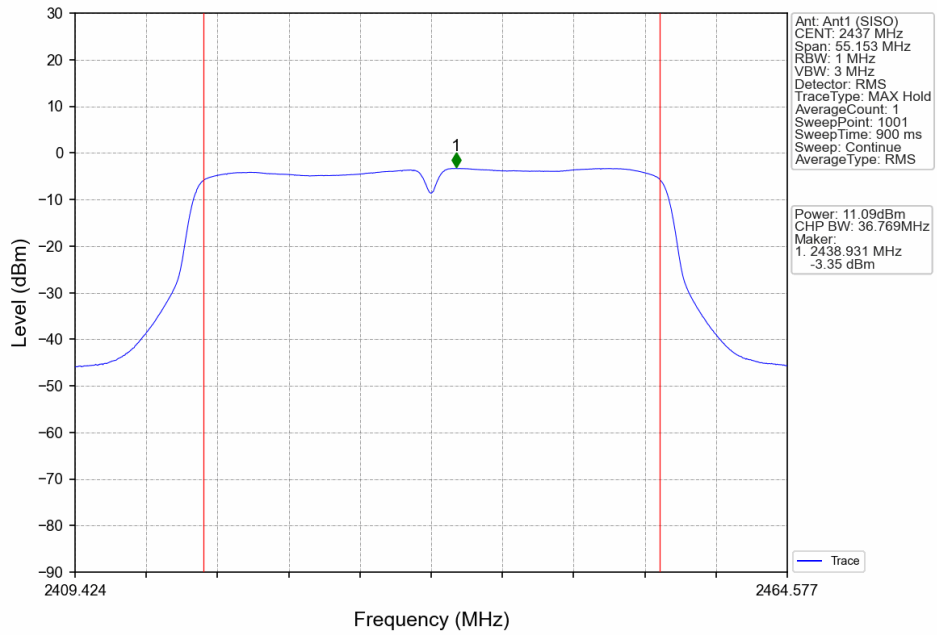
802.11n(HT20)_HCH_2462MHz_Ant1 (SISO)_NTNV



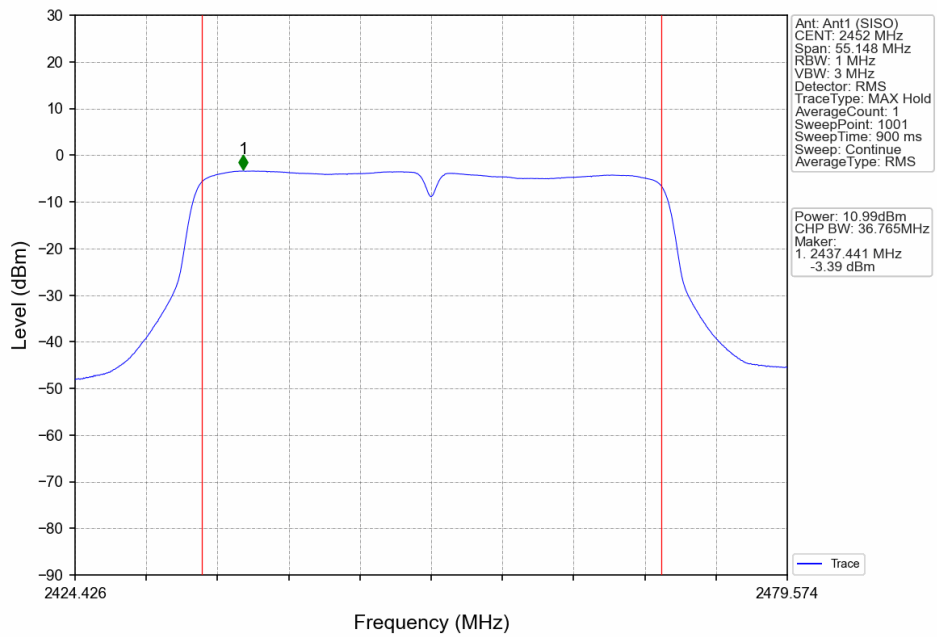
802.11n(HT40)_LCH_2422MHz_Ant1 (SISO)_NTNV



802.11n(HT40)_MCH_2437MHz_Ant1 (SISO)_NTNV



802.11n(HT40)_HCH_2452MHz_Ant1 (SISO)_NTNV



3. Maximum Power Spectral Density

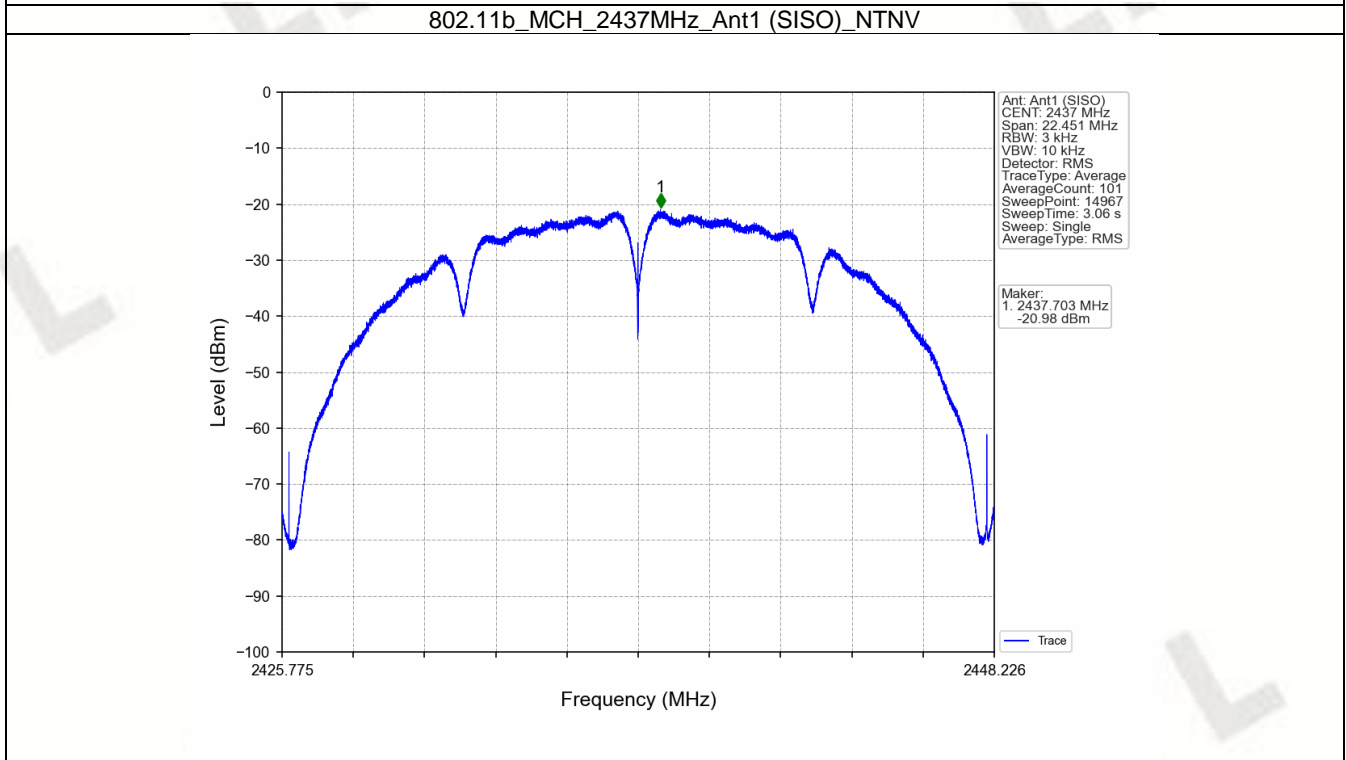
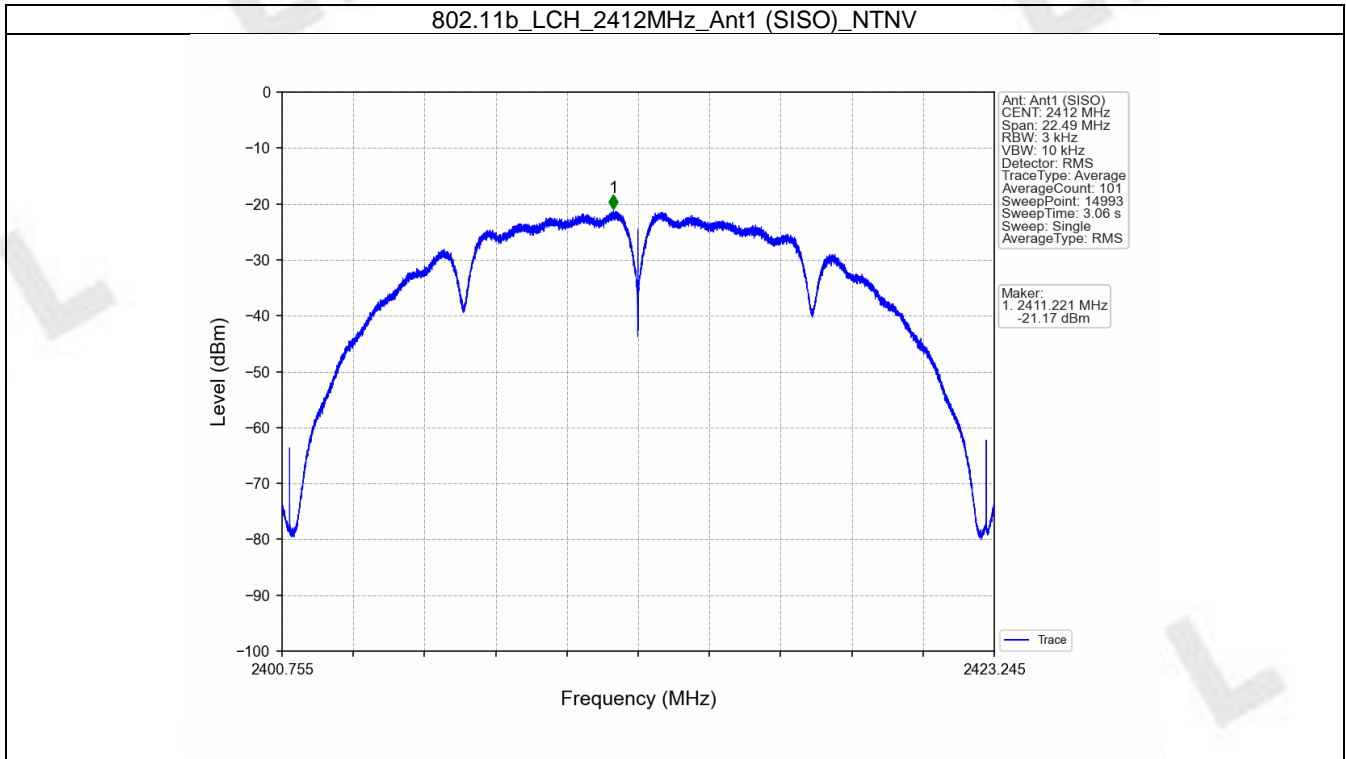
3.1 PSD

3.1.1 Test Result

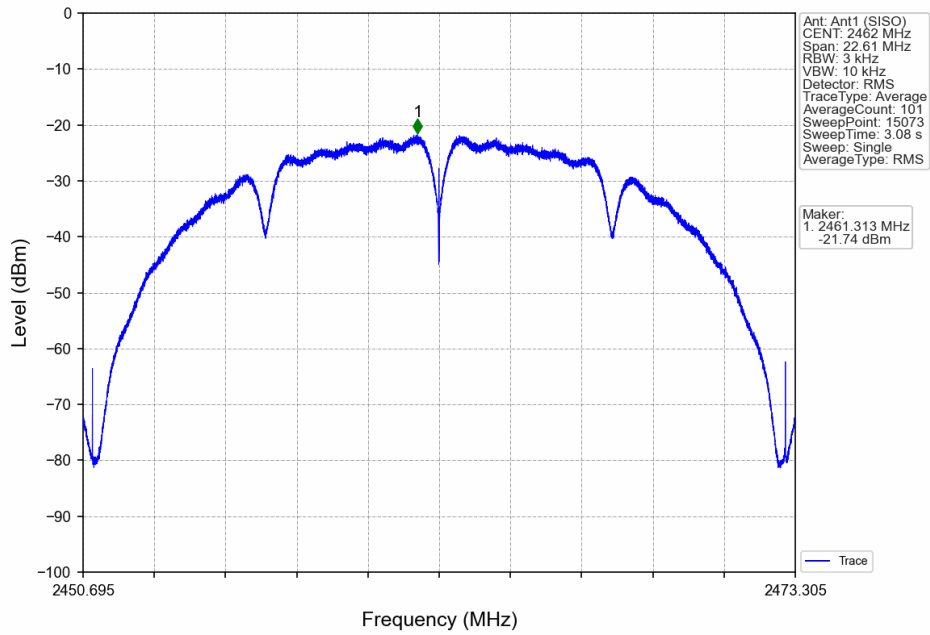
Mode	TX Type	Frequency (MHz)	Maximum PSD (dBm/3kHz)		Verdict
			ANT1	Limit	
802.11b	SISO	2412	-21.17	<=8	Pass
		2437	-20.98	<=8	Pass
		2462	-21.74	<=8	Pass
802.11g	SISO	2412	-20.84	<=8	Pass
		2437	-19.98	<=8	Pass
		2462	-21.17	<=8	Pass
802.11n (HT20)	SISO	2412	-19.87	<=8	Pass
		2437	-18.72	<=8	Pass
		2462	-21.70	<=8	Pass
802.11n (HT40)	SISO	2422	-22.05	<=8	Pass
		2437	-22.66	<=8	Pass
		2452	-22.79	<=8	Pass

Note1: Antenna Gain: Ant1: 1.50dBi;

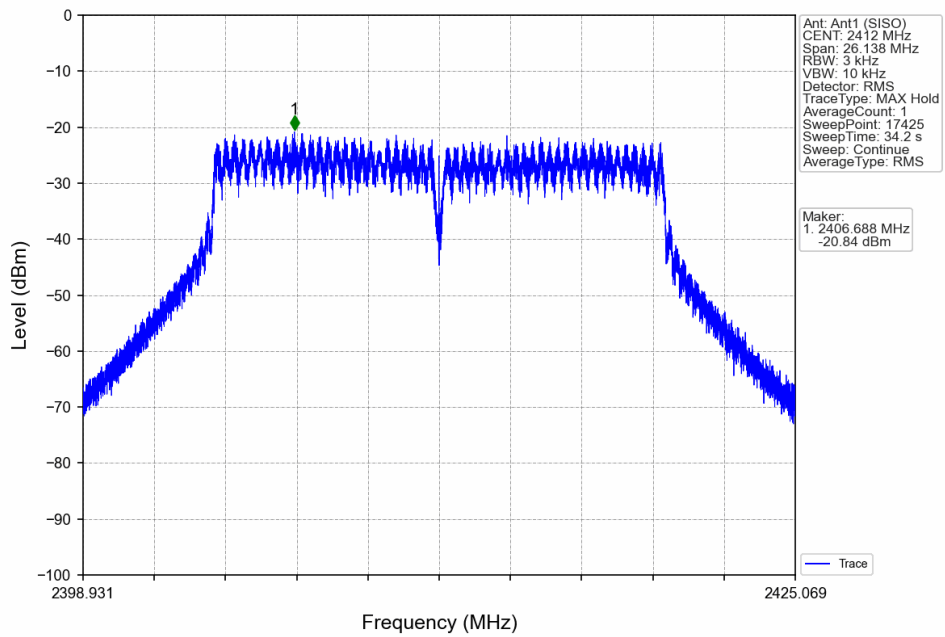
3.1.2 Test Graph



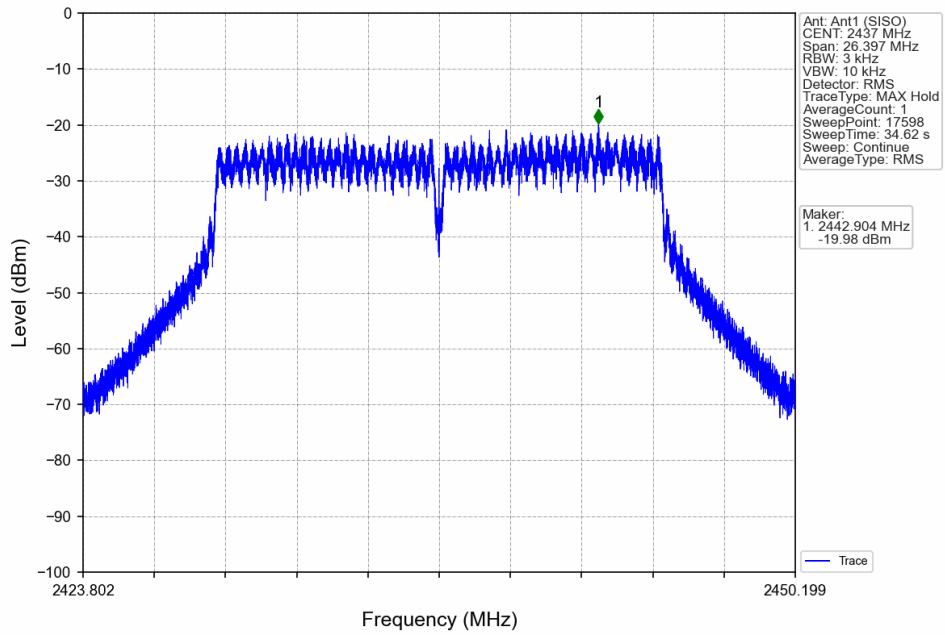
802.11b_HCH_2462MHz_Ant1 (SISO)_NTNV



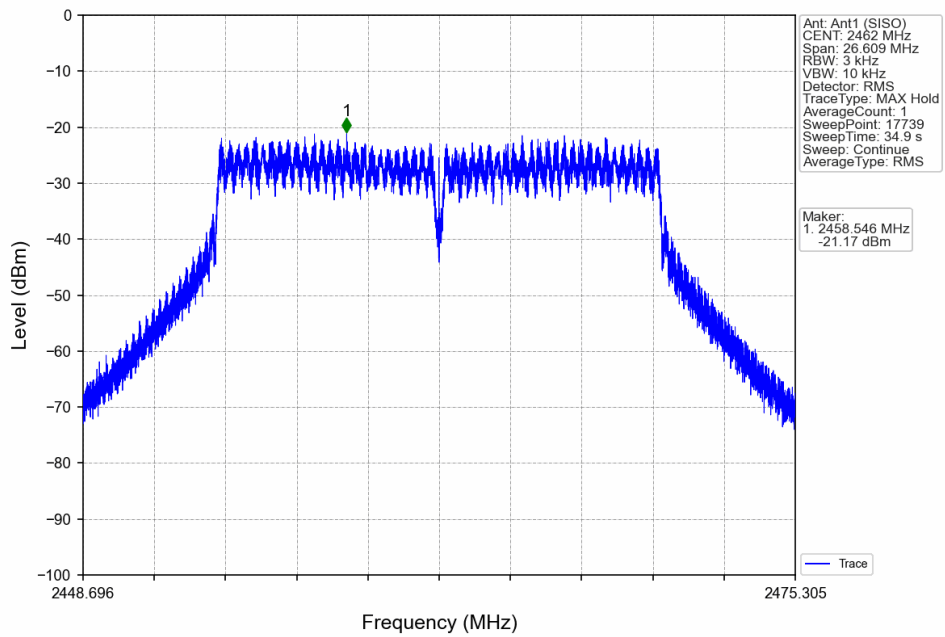
802.11g_LCH_2412MHz_Ant1 (SISO)_NTNV



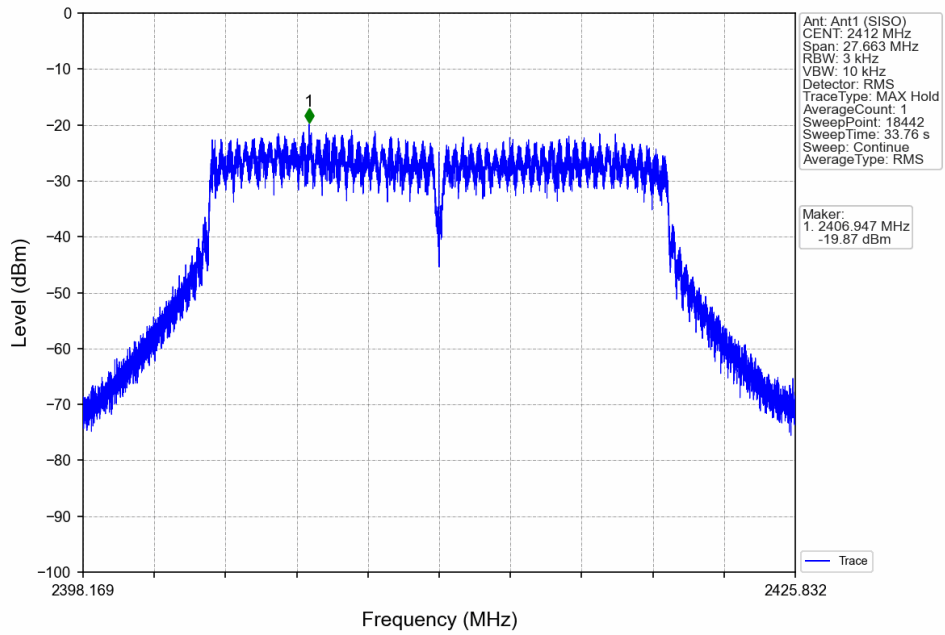
802.11g_MCH_2437MHz_Ant1 (SISO)_NTNV



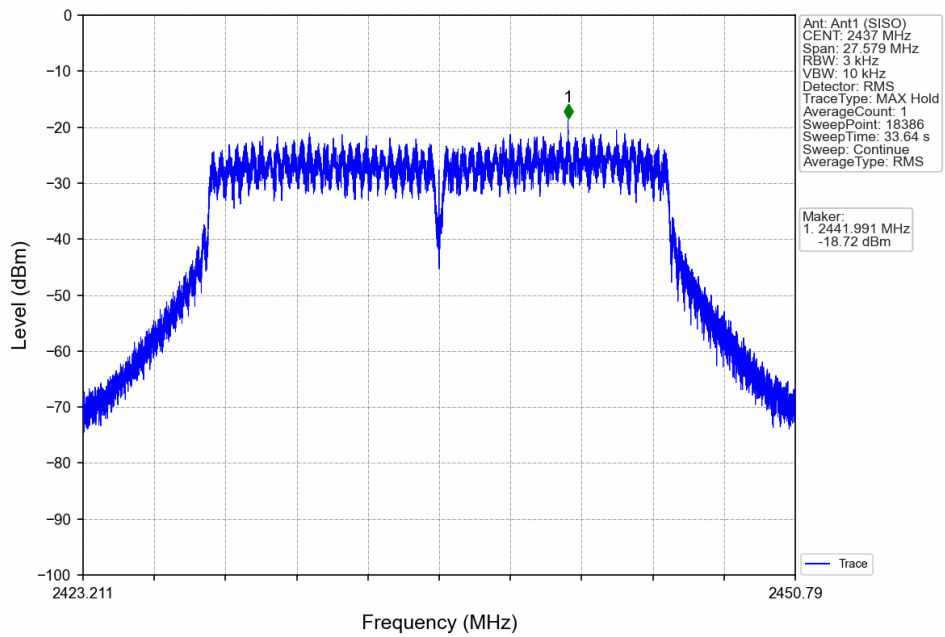
802.11g_HCH_2462MHz_Ant1 (SISO)_NTNV



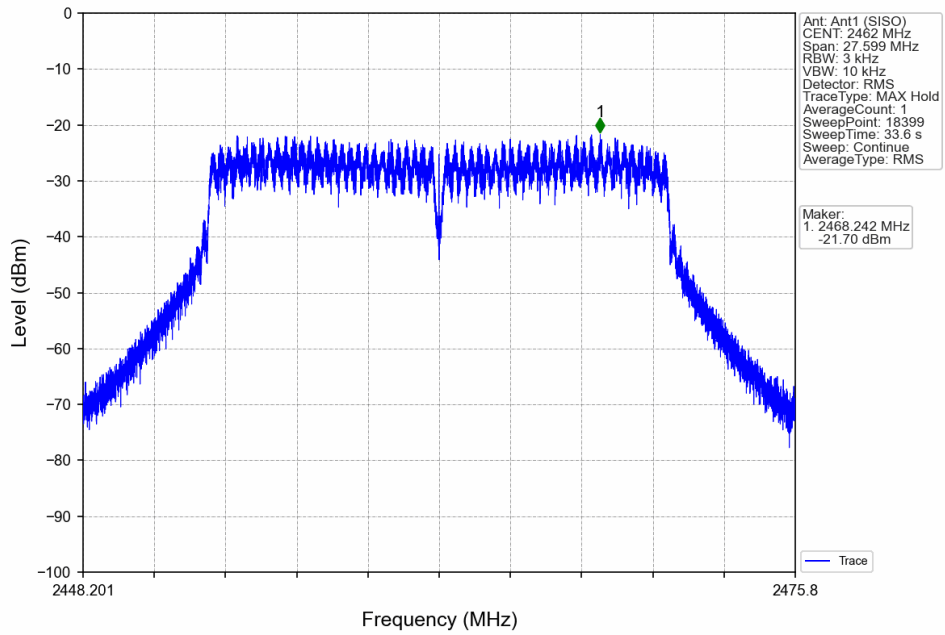
802.11n(HT20)_LCH_2412MHz_Ant1 (SISO)_NTNV



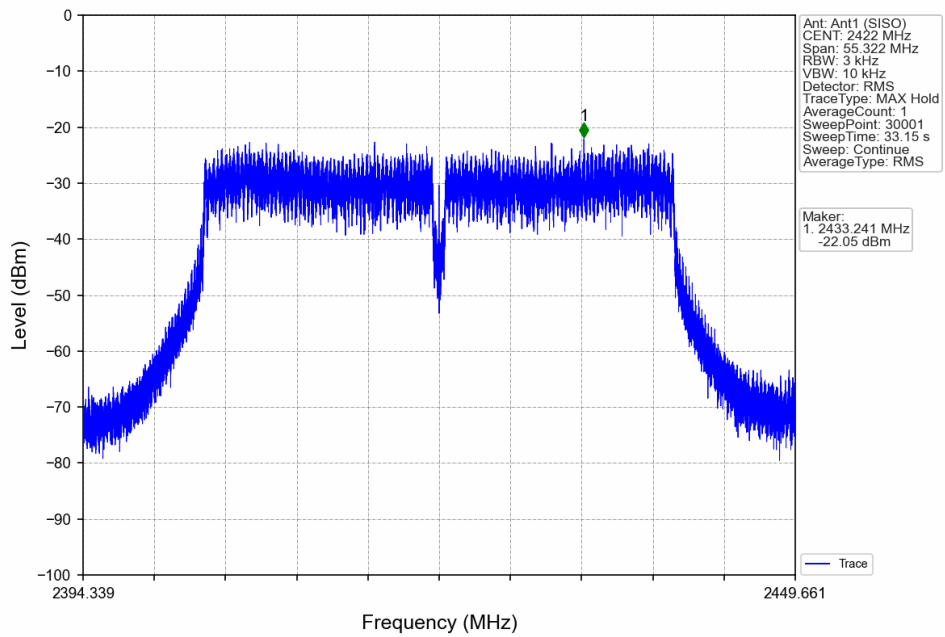
802.11n(HT20)_MCH_2437MHz_Ant1 (SISO)_NTNV



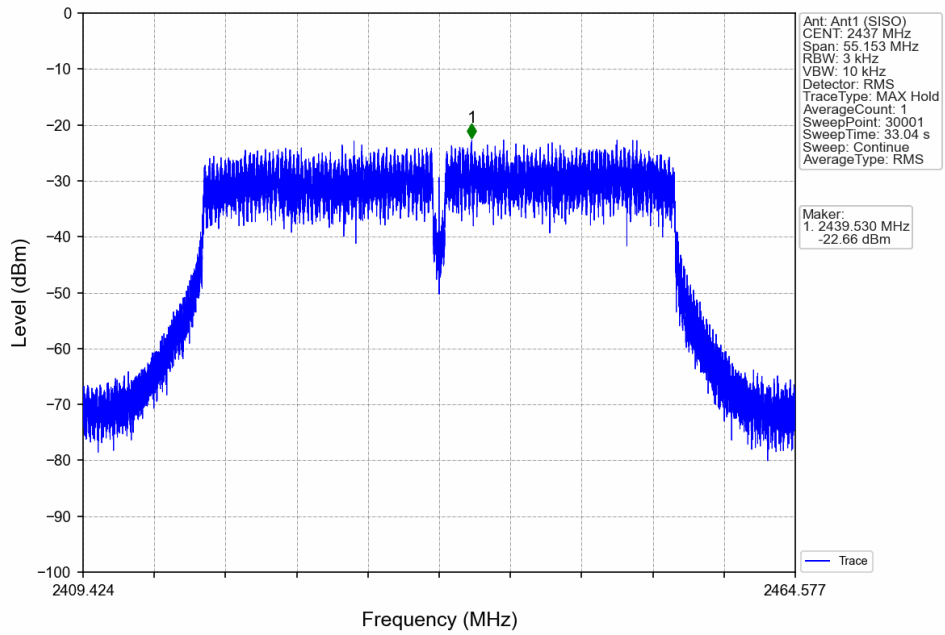
802.11n(HT20)_HCH_2462MHz_Ant1 (SISO)_NTNV



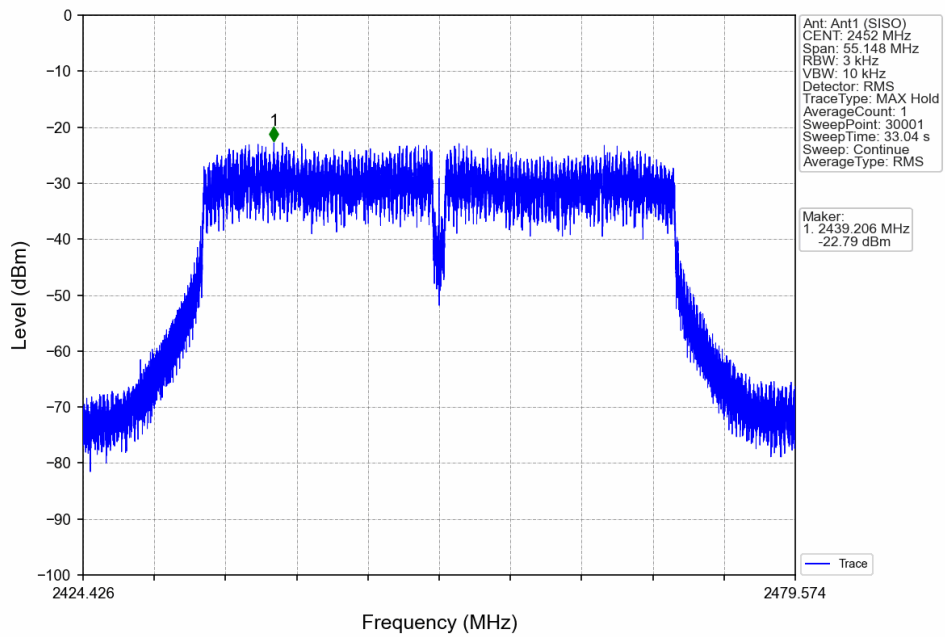
802.11n(HT40)_LCH_2422MHz_Ant1 (SISO)_NTNV



802.11n(HT40)_MCH_2437MHz_Ant1 (SISO)_NTNV



802.11n(HT40)_HCH_2452MHz_Ant1 (SISO)_NTNV



4. Unwanted Emissions In Non-restricted Frequency Bands

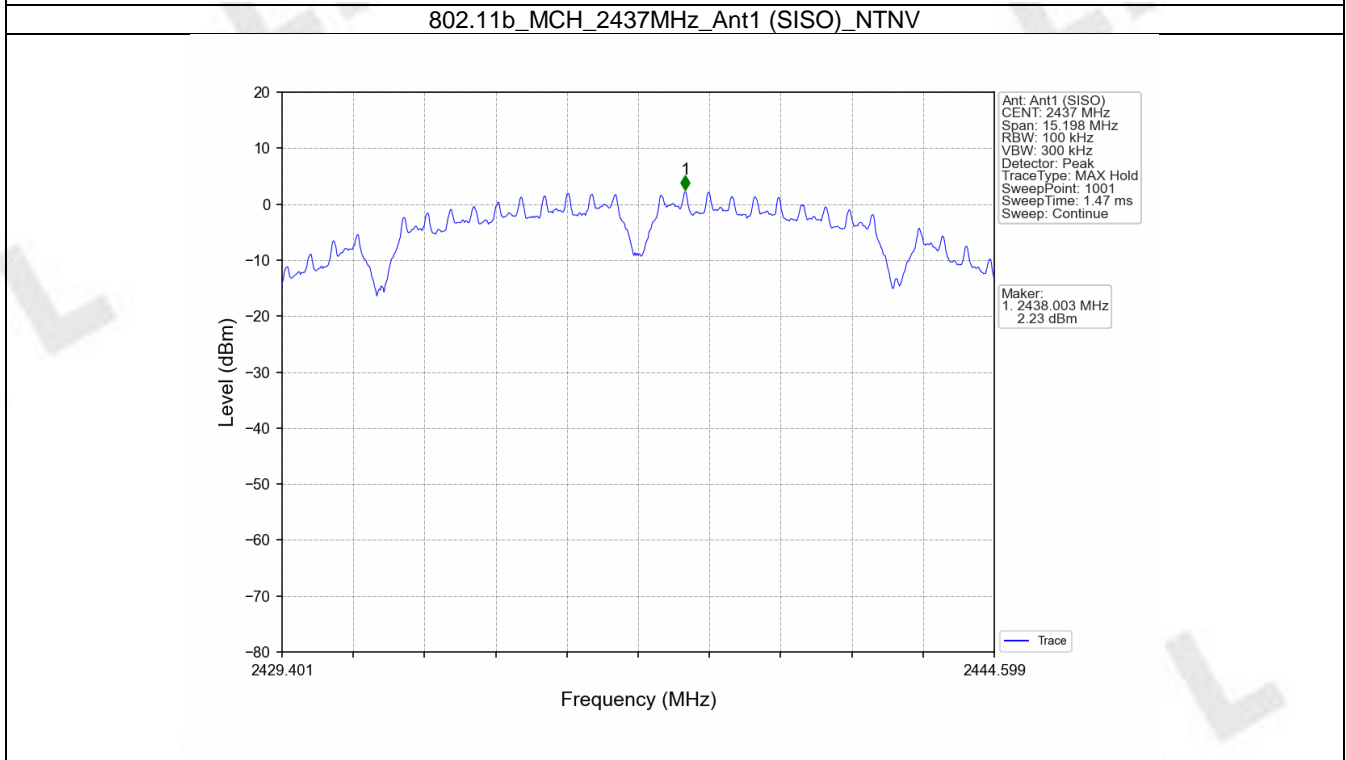
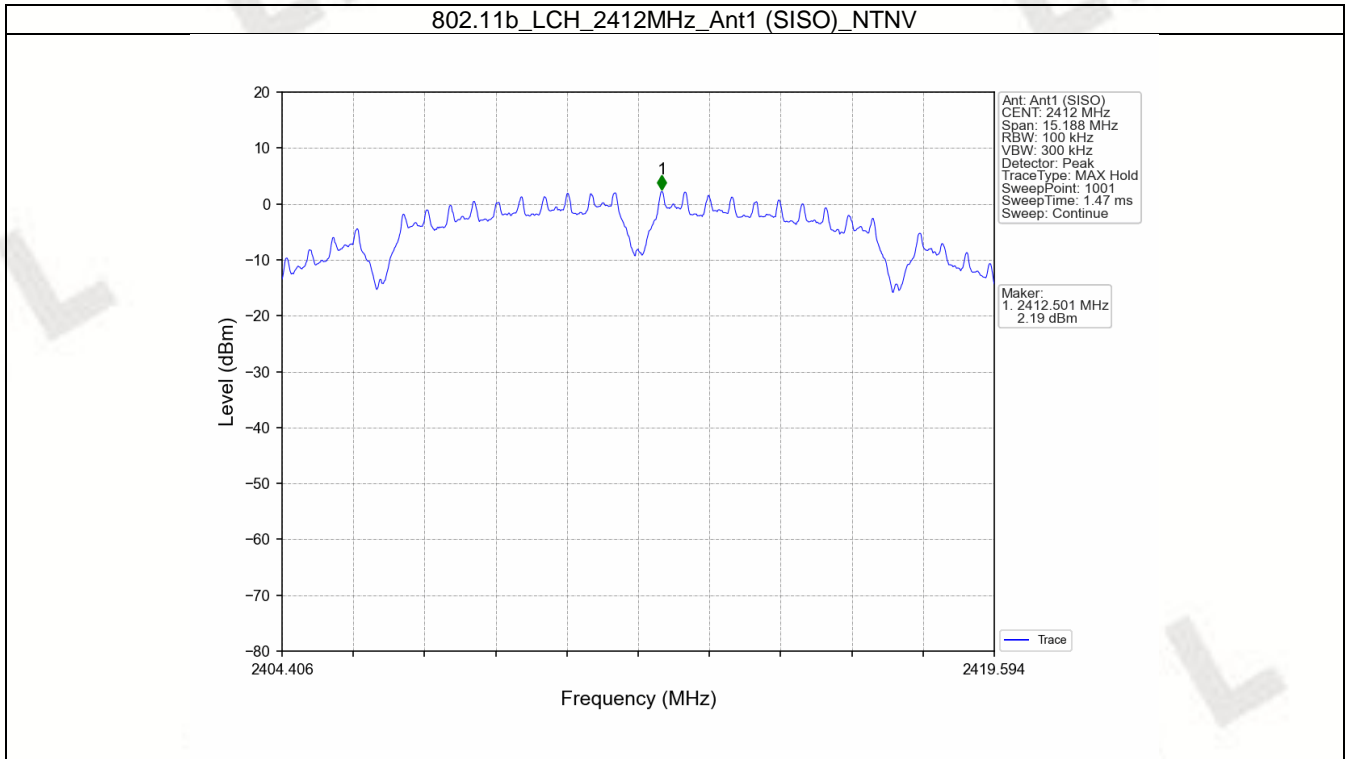
4.1 Ref

4.1.1 Test Result

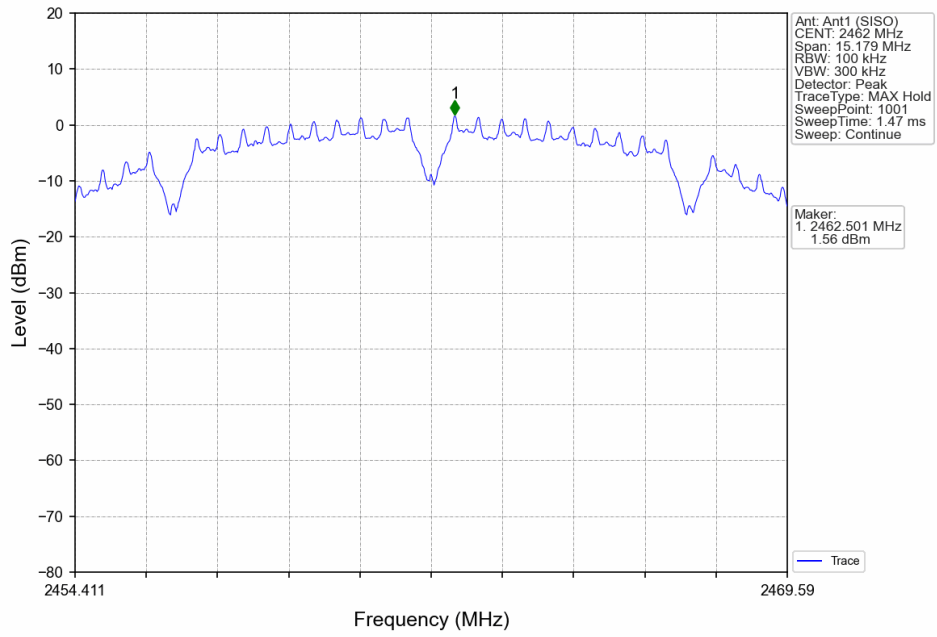
Mode	TX Type	Frequency (MHz)	ANT	Level of Reference (dBm)
802.11b	SISO	2412	1	2.19
		2437	1	2.23
		2462	1	1.56
802.11g	SISO	2412	1	0.17
		2437	1	0.11
		2462	1	-0.62
802.11n (HT20)	SISO	2412	1	0.08
		2437	1	0.22
		2462	1	-0.36
802.11n (HT40)	SISO	2422	1	-2.58
		2437	1	-2.67
		2452	1	-2.77

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.

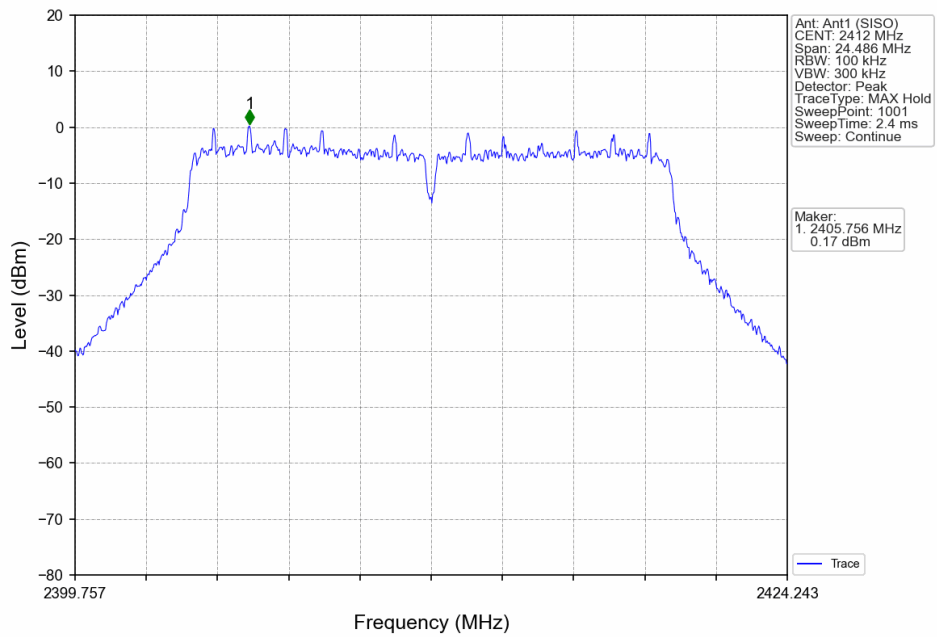
4.1.2 Test Graph



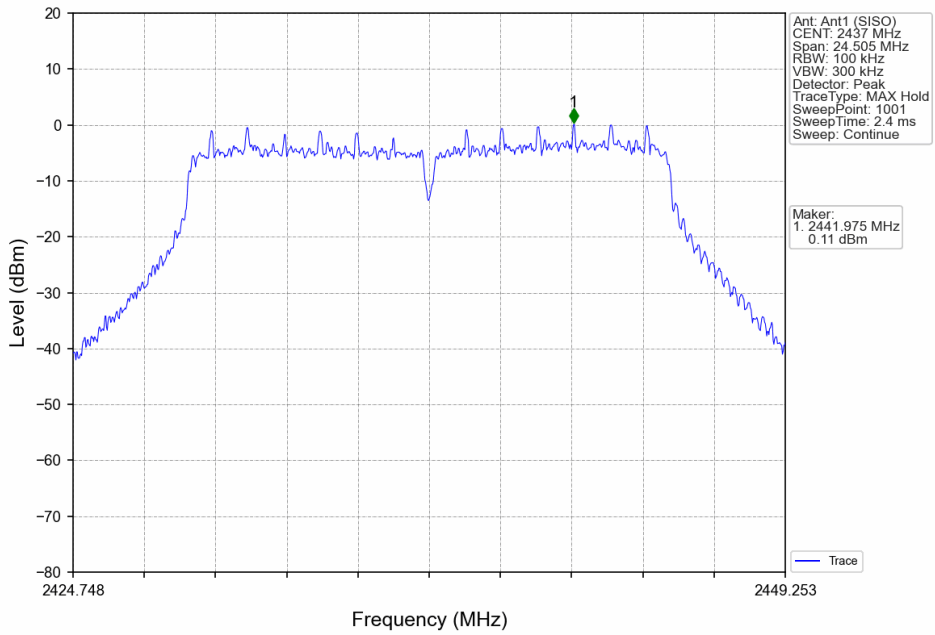
802.11b_HCH_2462MHz_Ant1 (SISO)_NTNV



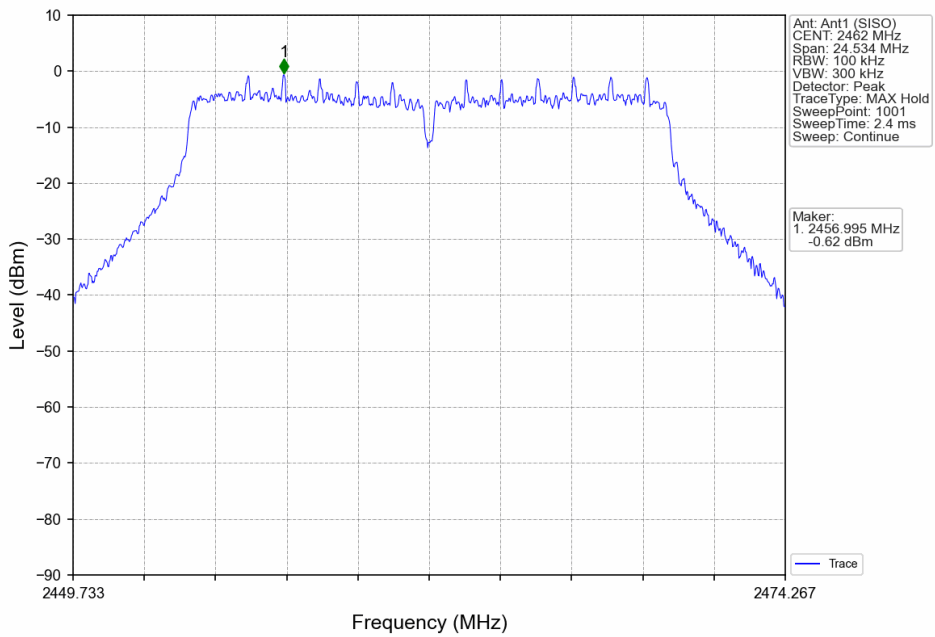
802.11g_LCH_2412MHz_Ant1 (SISO)_NTNV



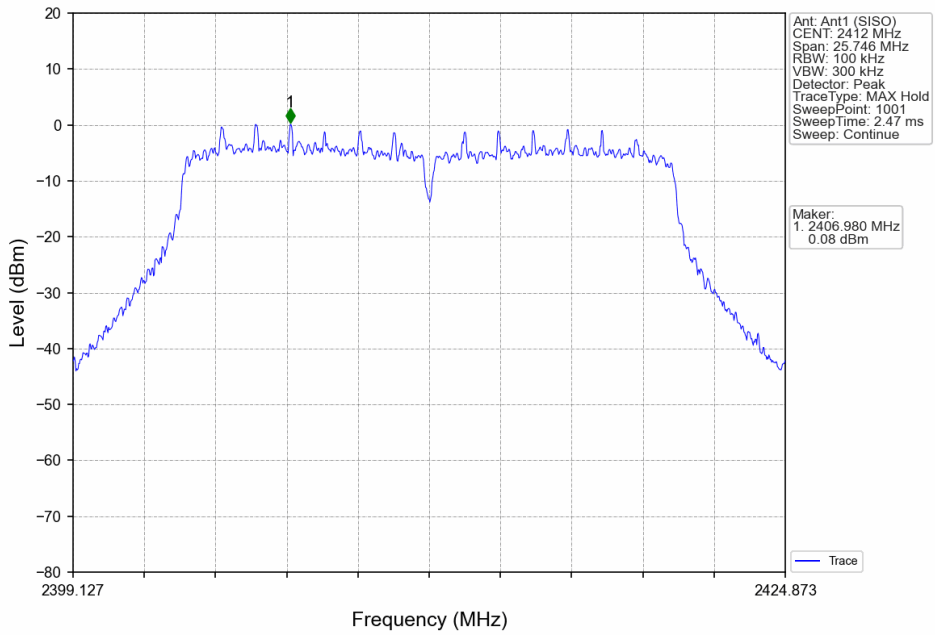
802.11g_MCH_2437MHz_Ant1 (SISO)_NTNV



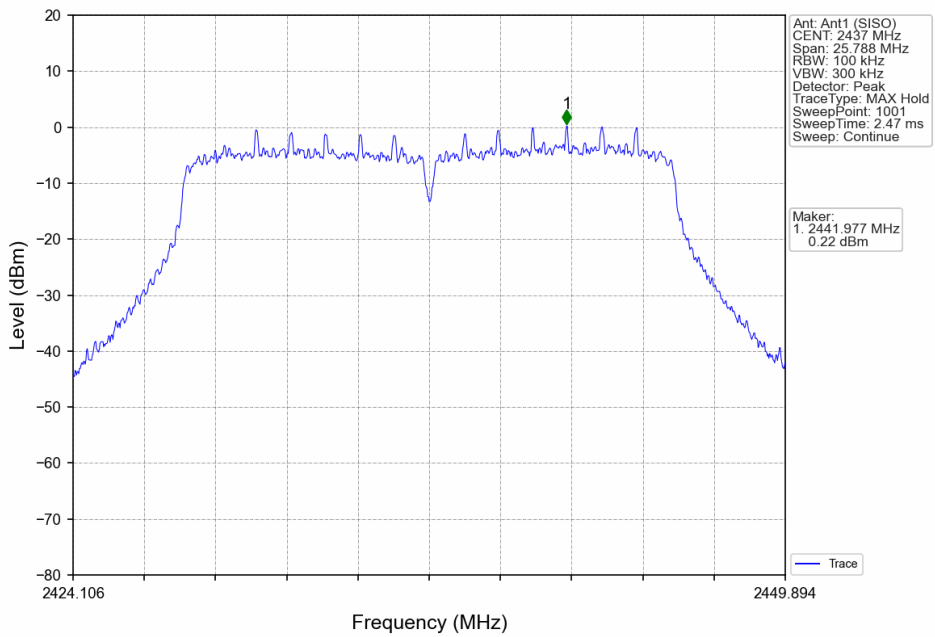
802.11g_HCH_2462MHz_Ant1 (SISO)_NTNV



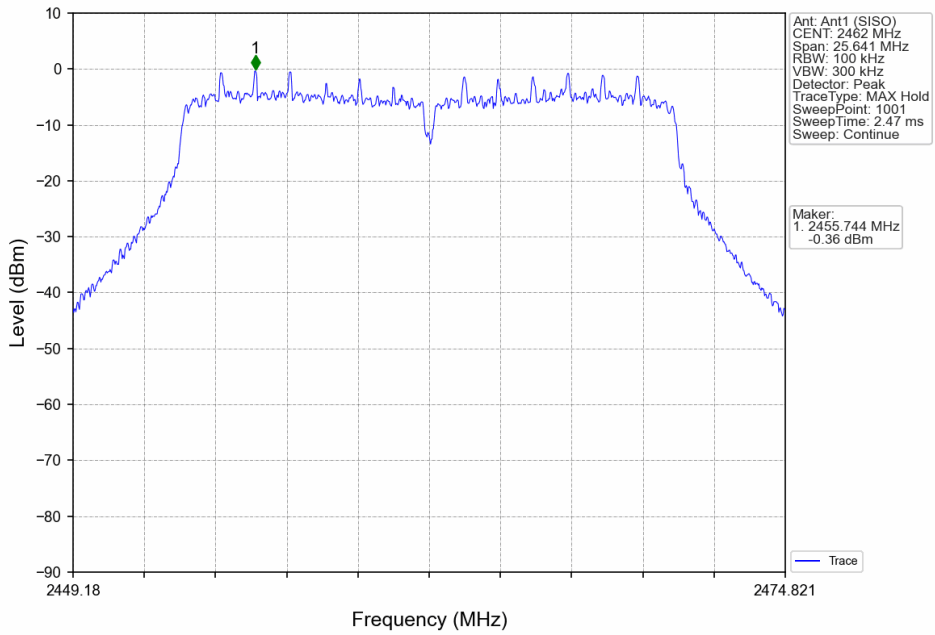
802.11n(HT20)_LCH_2412MHz_Ant1 (SISO)_NTNV



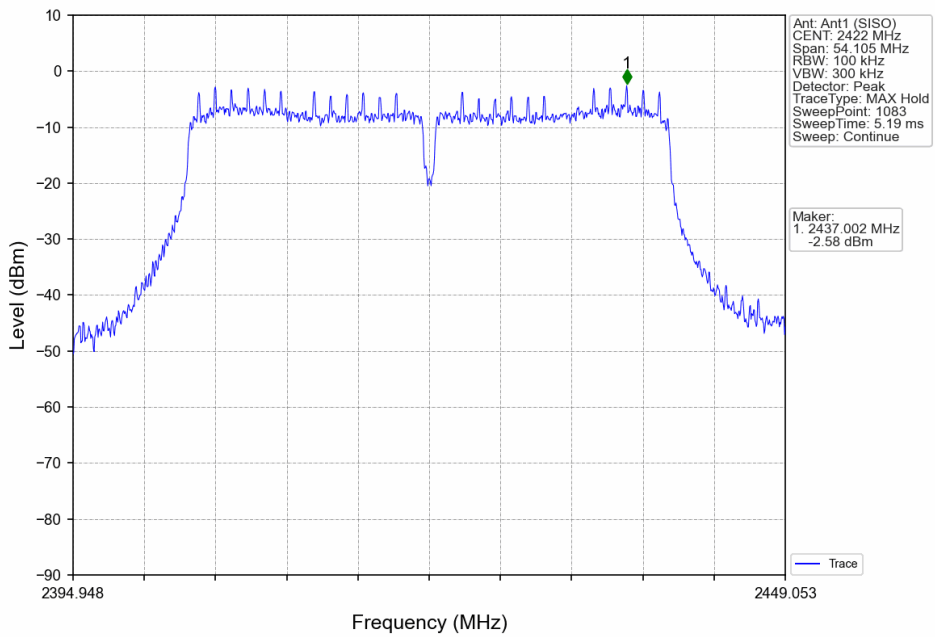
802.11n(HT20)_MCH_2437MHz_Ant1 (SISO)_NTNV



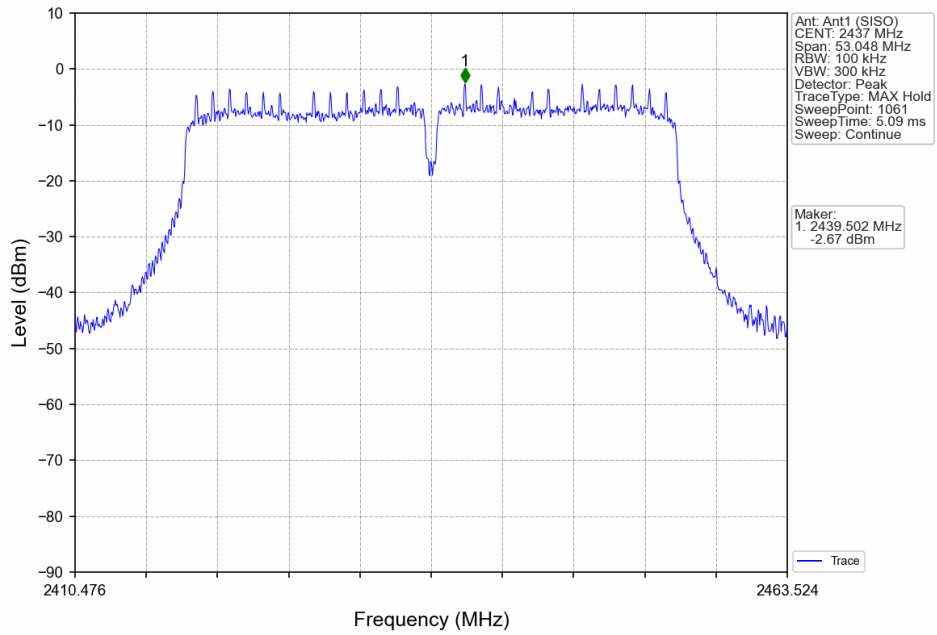
802.11n(HT20)_HCH_2462MHz_Ant1 (SISO)_NTNV



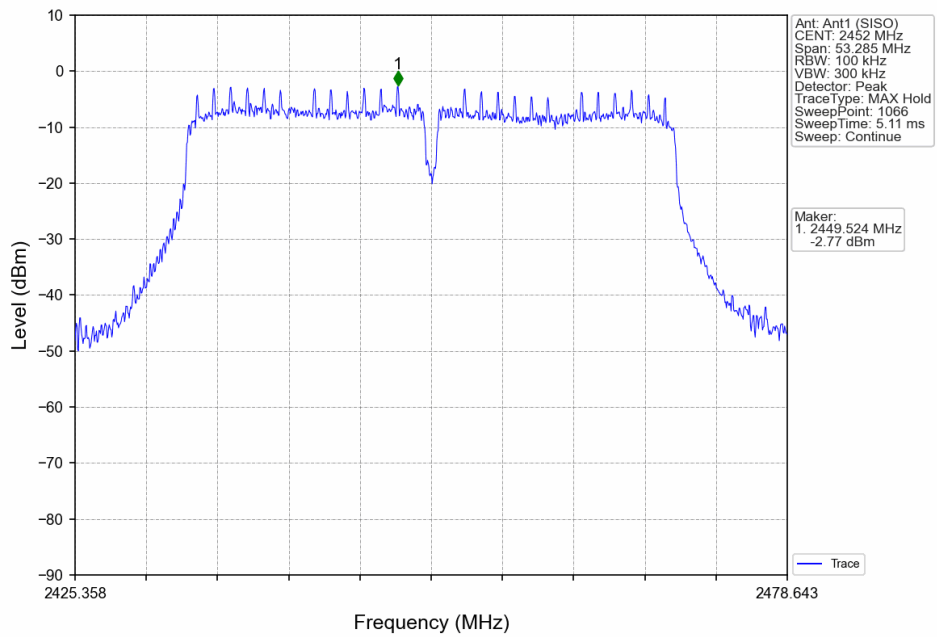
802.11n(HT40)_LCH_2422MHz_Ant1 (SISO)_NTNV



802.11n(HT40)_MCH_2437MHz_Ant1 (SISO)_NTNV



802.11n(HT40)_HCH_2452MHz_Ant1 (SISO)_NTNV



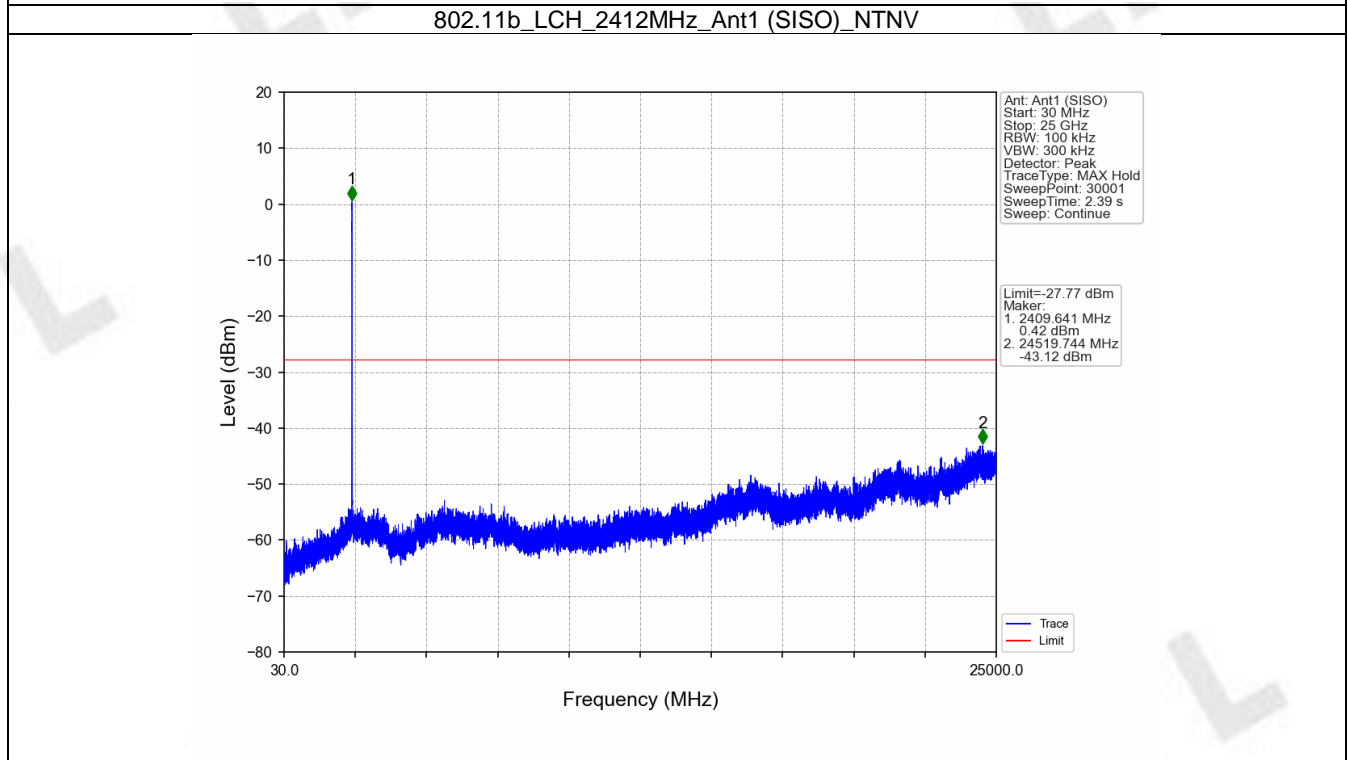
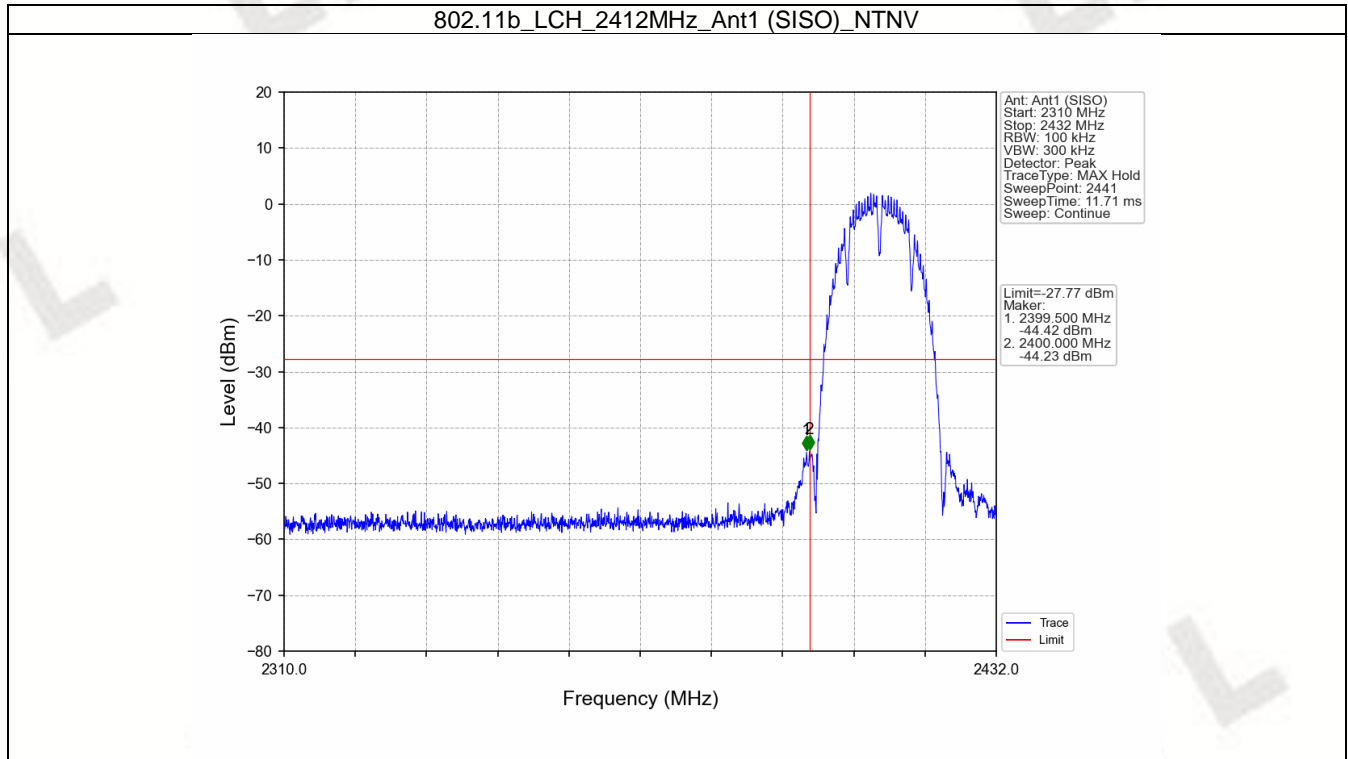
4.2 CSE

4.2.1 Test Result

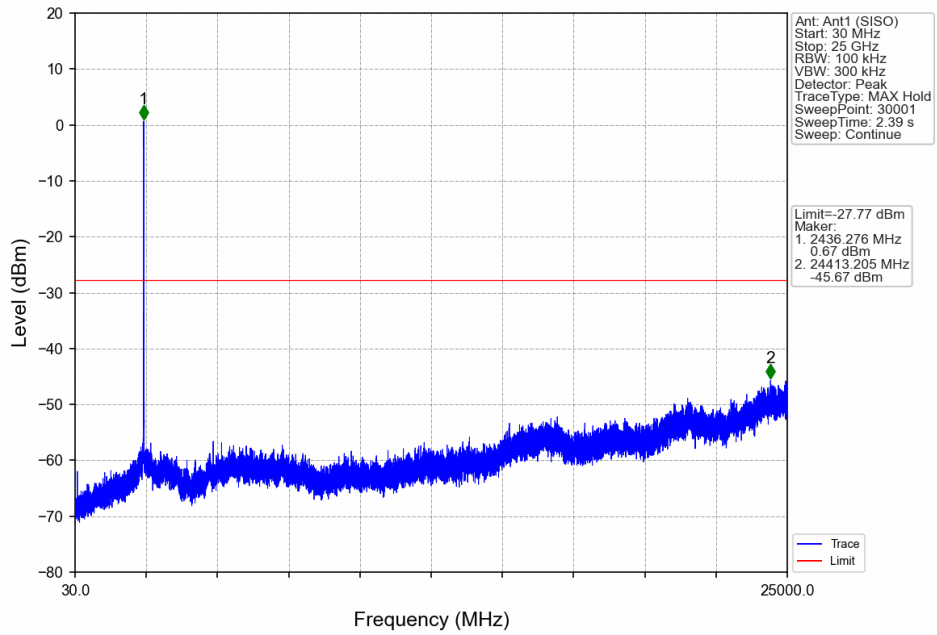
Mode	TX Type	Frequency (MHz)	ANT	Level of Reference (dBm)	Limit (dBm)	Verdict
802.11b	SISO	2412	1	2.23	-27.77	Pass
		2437	1	2.23	-27.77	Pass
		2462	1	2.23	-27.77	Pass
802.11g	SISO	2412	1	0.17	-29.83	Pass
		2437	1	0.17	-29.83	Pass
		2462	1	0.17	-29.83	Pass
802.11n (HT20)	SISO	2412	1	0.22	-29.78	Pass
		2437	1	0.22	-29.78	Pass
		2462	1	0.22	-29.78	Pass
802.11n (HT40)	SISO	2422	1	-2.58	-32.58	Pass
		2437	1	-2.58	-32.58	Pass
		2452	1	-2.58	-32.58	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.

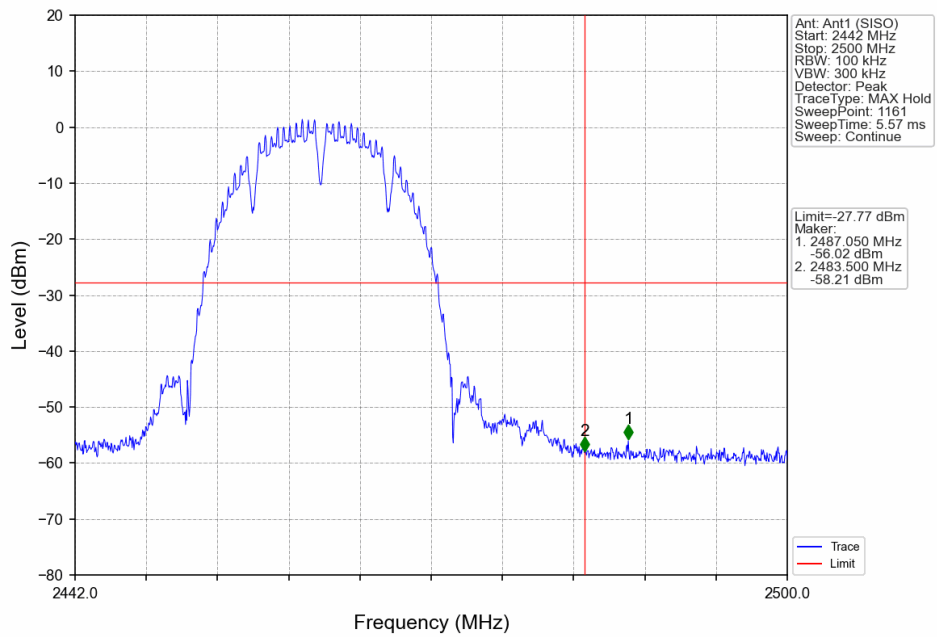
4.2.2 Test Graph



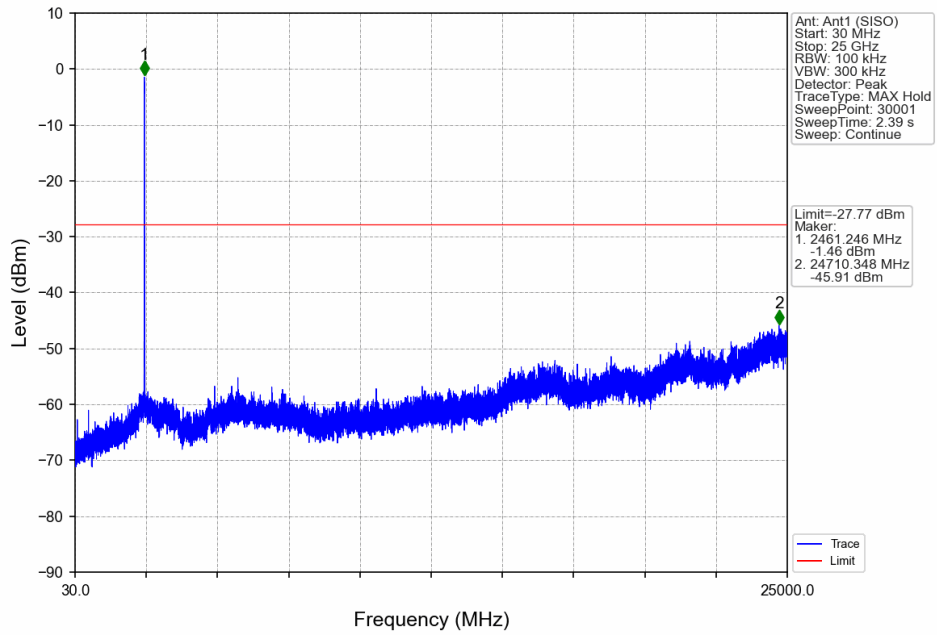
802.11b_MCH_2437MHz_Ant1 (SISO)_NTNV



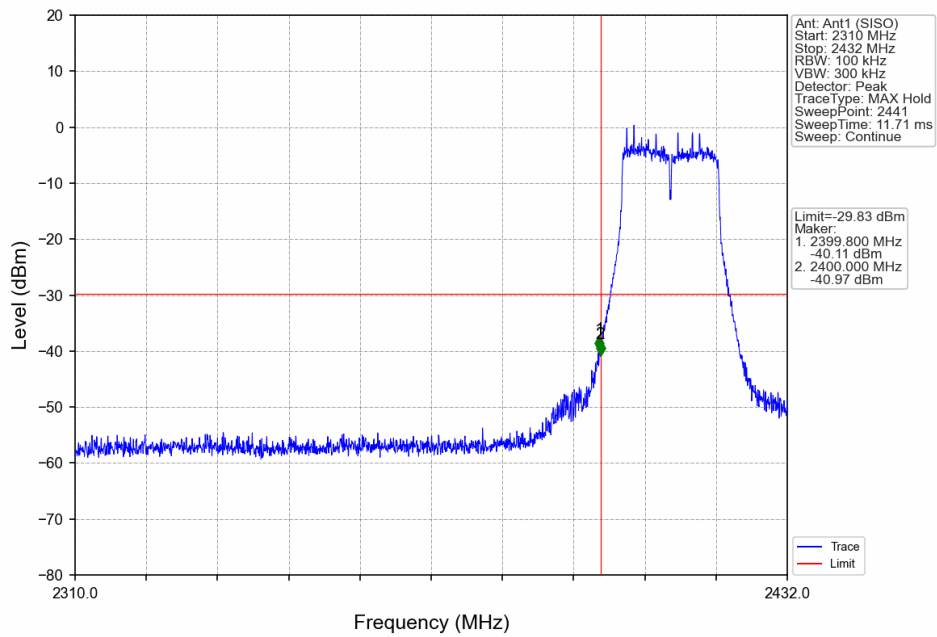
802.11b_HCH_2462MHz_Ant1 (SISO)_NTNV



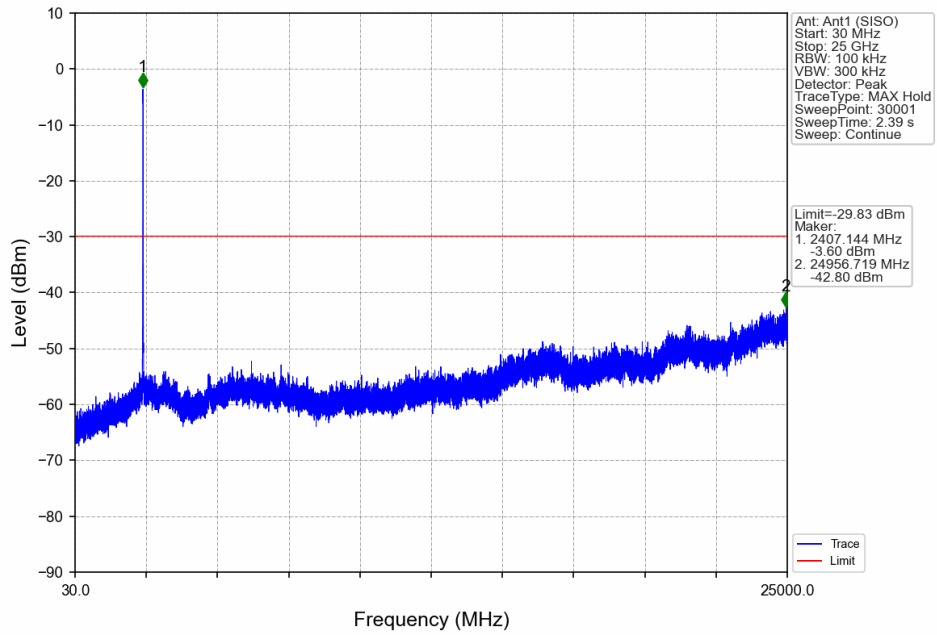
802.11b_HCH_2462MHz_Ant1 (SISO)_NTNV



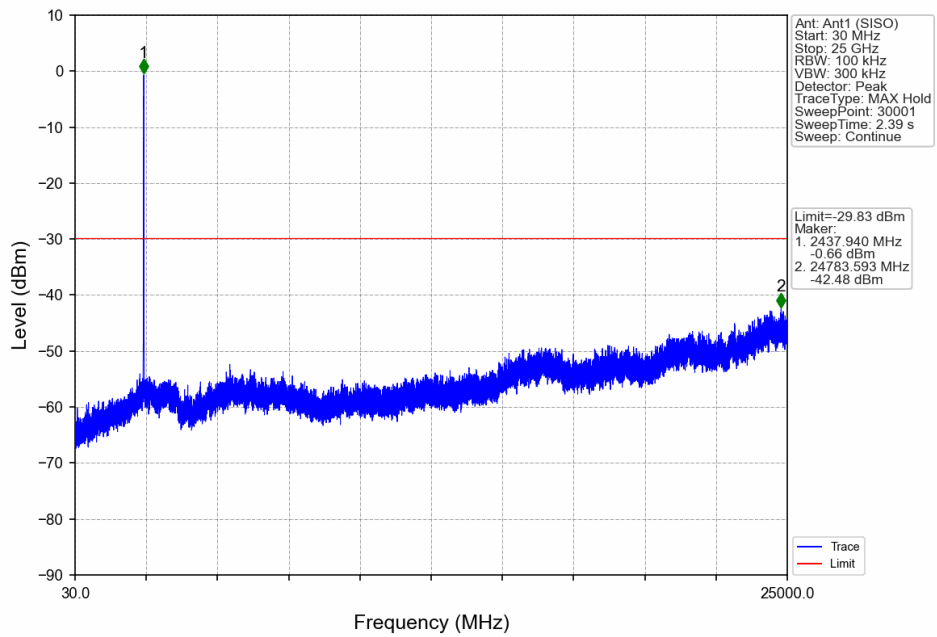
802.11g_LCH_2412MHz_Ant1 (SISO)_NTNV



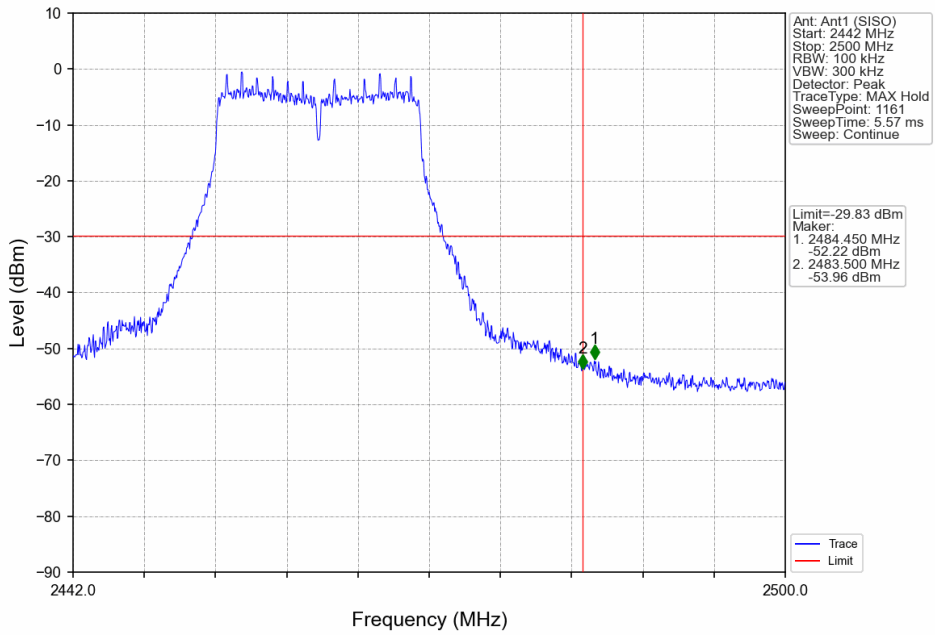
802.11g_LCH_2412MHz_Ant1 (SISO)_NTNV



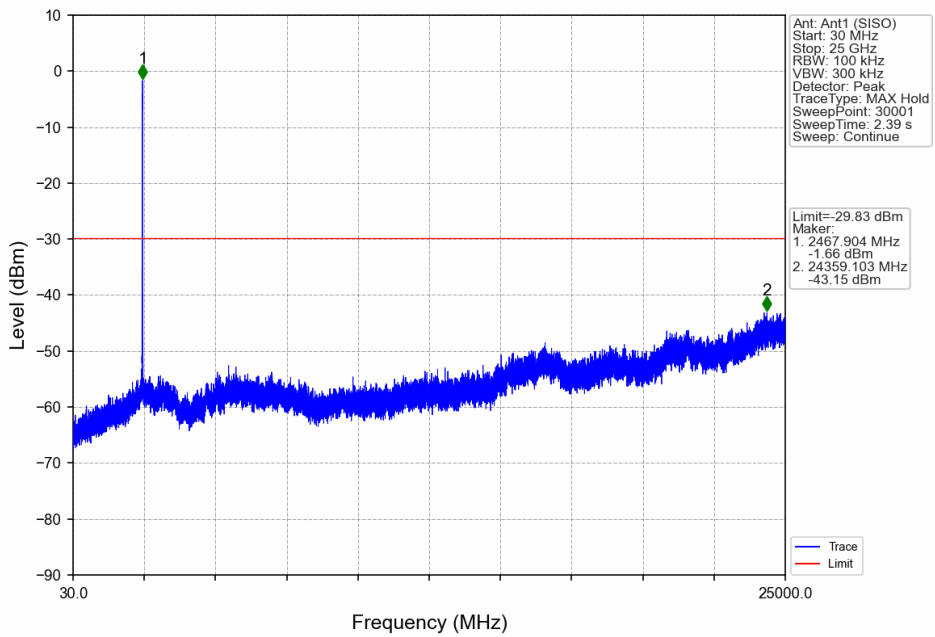
802.11g_MCH_2437MHz_Ant1 (SISO)_NTNV



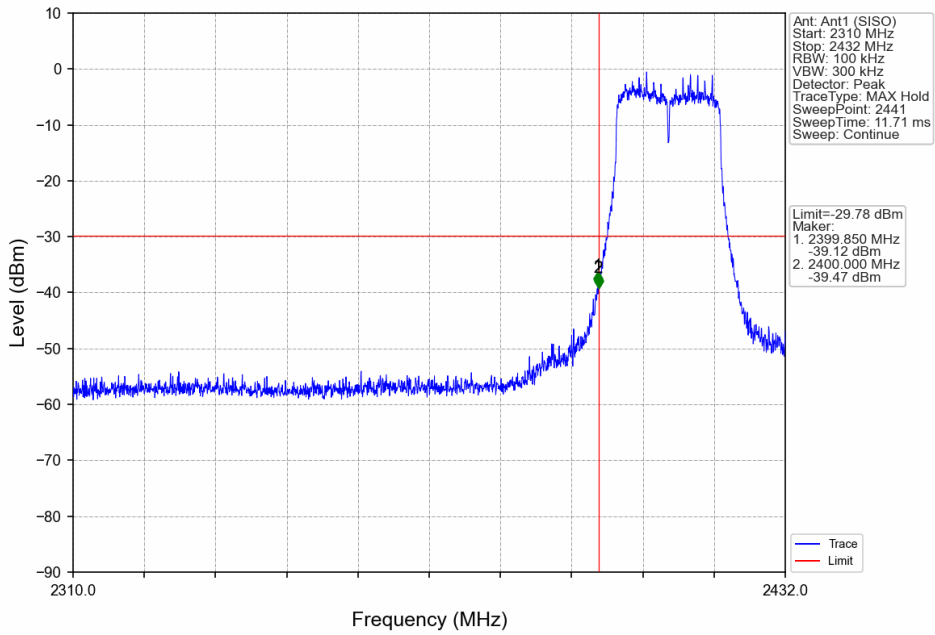
802.11g_HCH_2462MHz_Ant1 (SISO)_NTNV



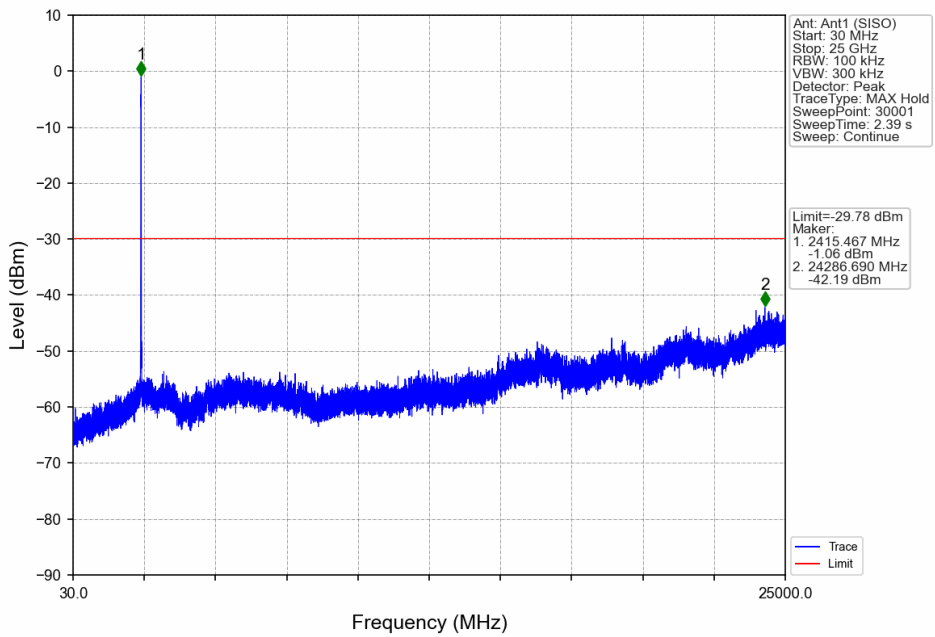
802.11g_HCH_2462MHz_Ant1 (SISO)_NTNV



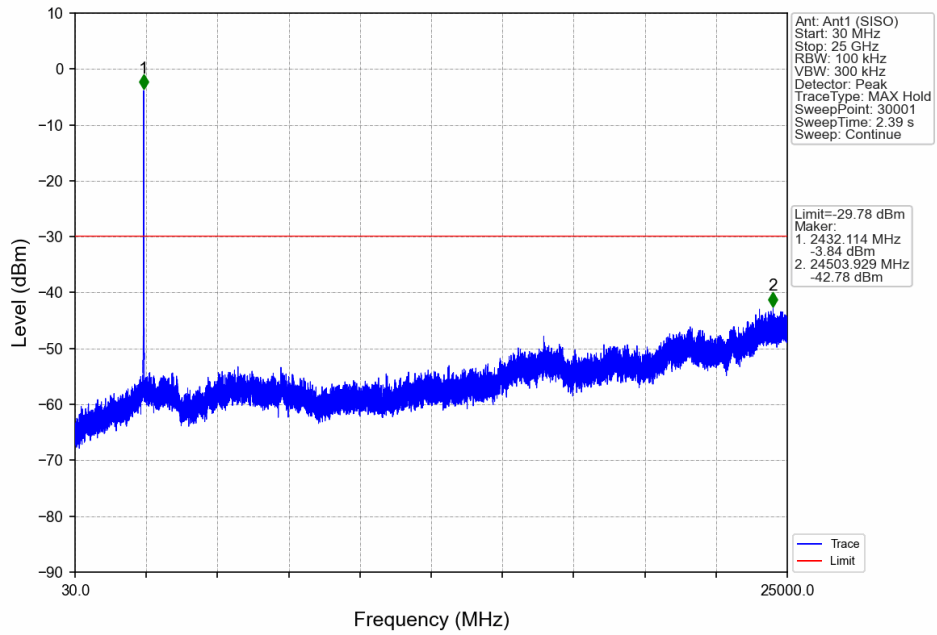
802.11n(HT20)_LCH_2412MHz_Ant1 (SISO)_NTNV



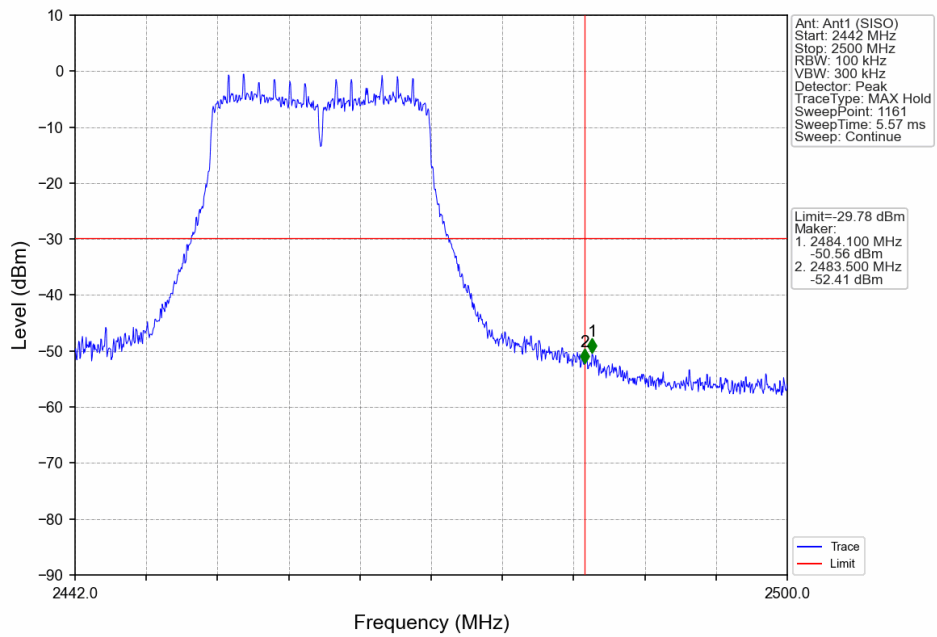
802.11n(HT20)_LCH_2412MHz_Ant1 (SISO)_NTNV



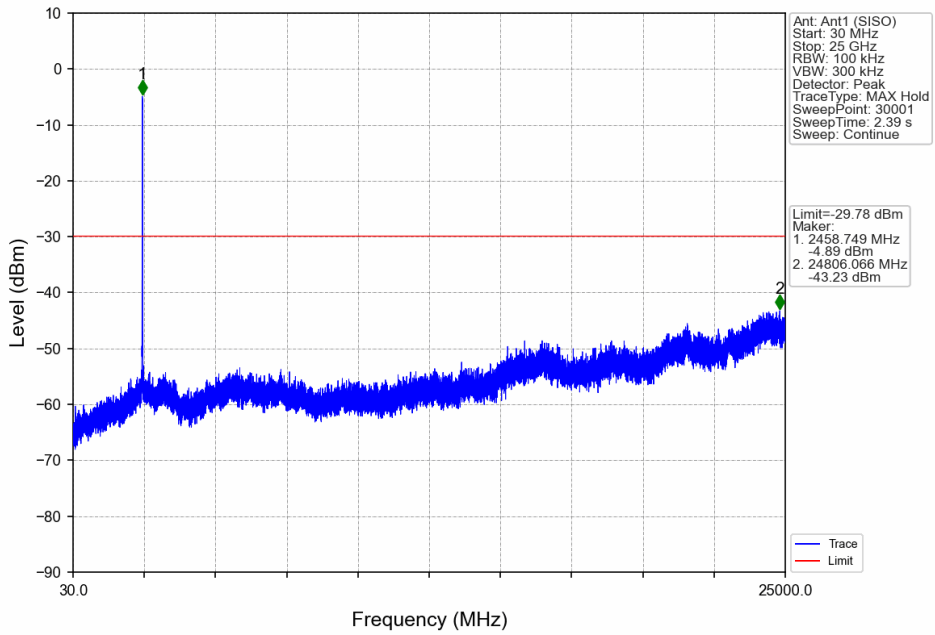
802.11n(HT20)_MCH_2437MHz_Ant1 (SISO)_NTNV



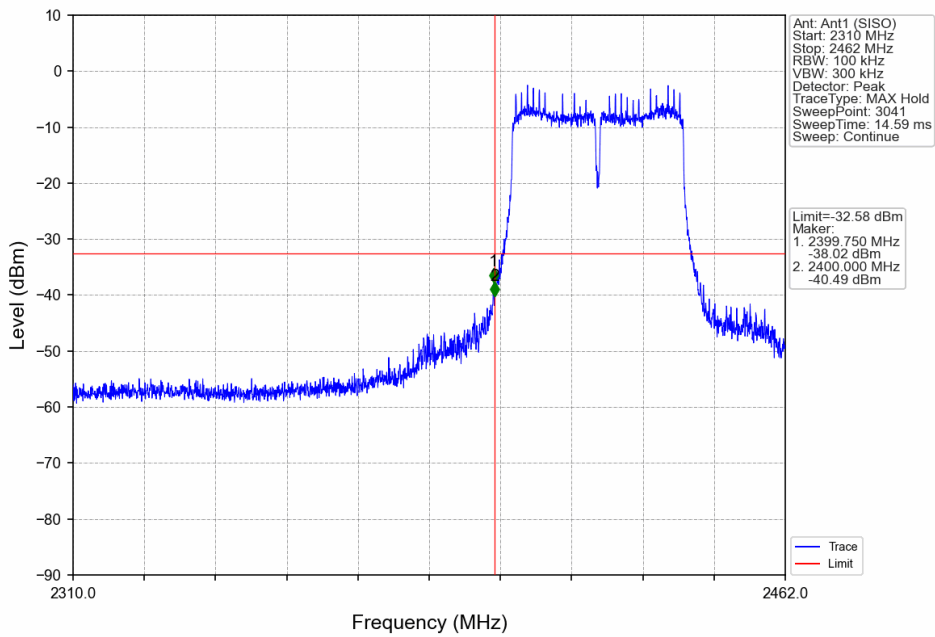
802.11n(HT20)_HCH_2462MHz_Ant1 (SISO)_NTNV



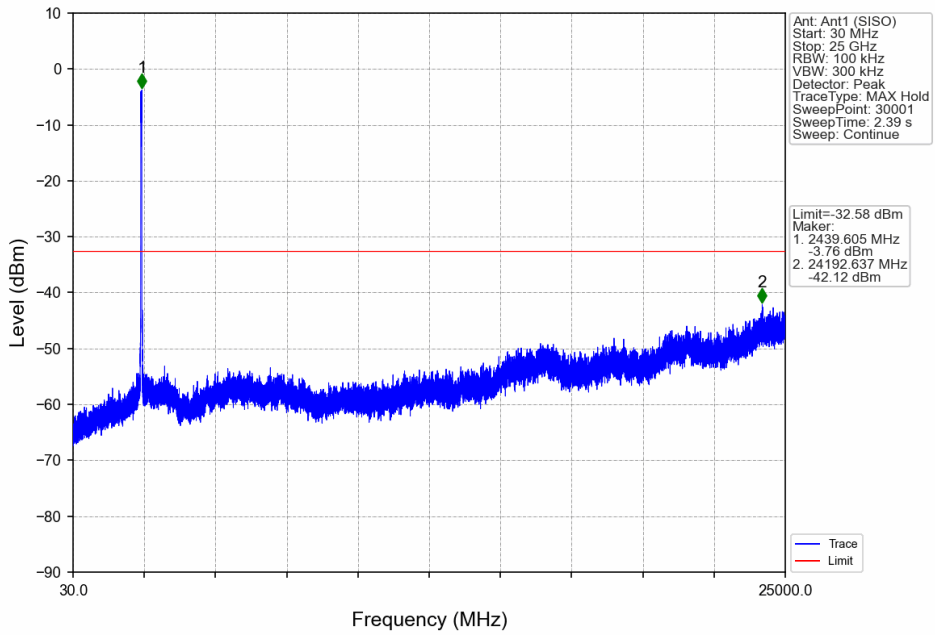
802.11n(HT20)_HCH_2462MHz_Ant1 (SISO)_NTNV



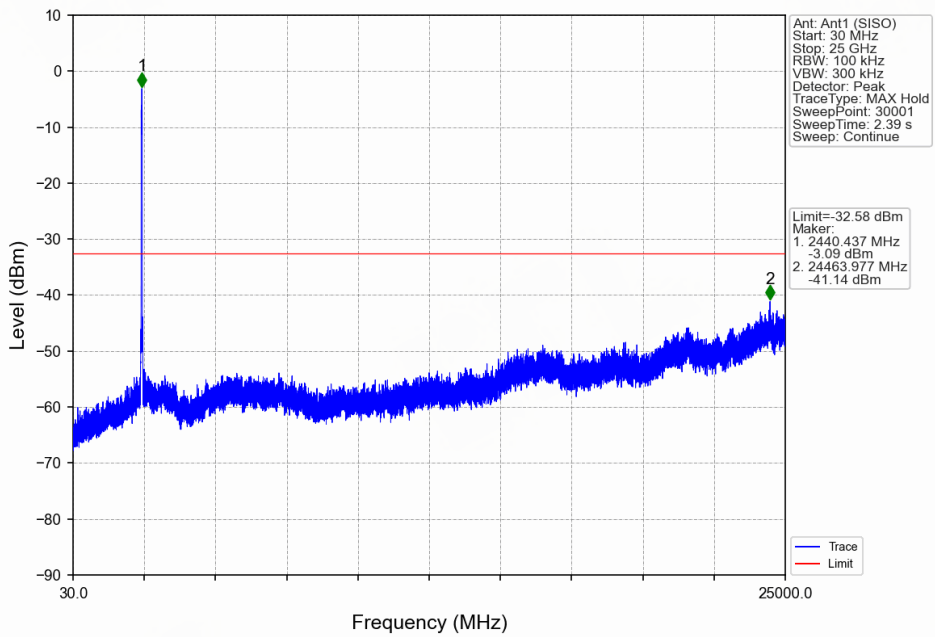
802.11n(HT40)_LCH_2422MHz_Ant1 (SISO)_NTNV



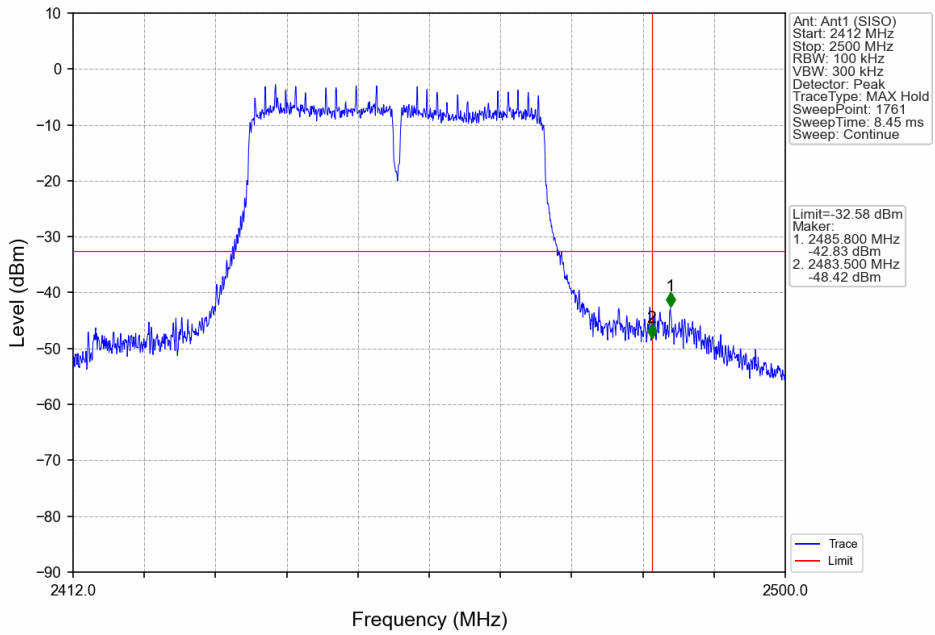
802.11n(HT40)_LCH_2422MHz_Ant1 (SISO)_NTNV



802.11n(HT40)_MCH_2437MHz_Ant1 (SISO)_NTNV



802.11n(HT40)_HCH_2452MHz_Ant1 (SISO)_NTNV



802.11n(HT40)_HCH_2452MHz_Ant1 (SISO)_NTNV

