

Test Data for 2.4G-WIFI

Product Name: RZBoard V2L

Test Model(HVIN): AES-RZB-V2L-SK-G

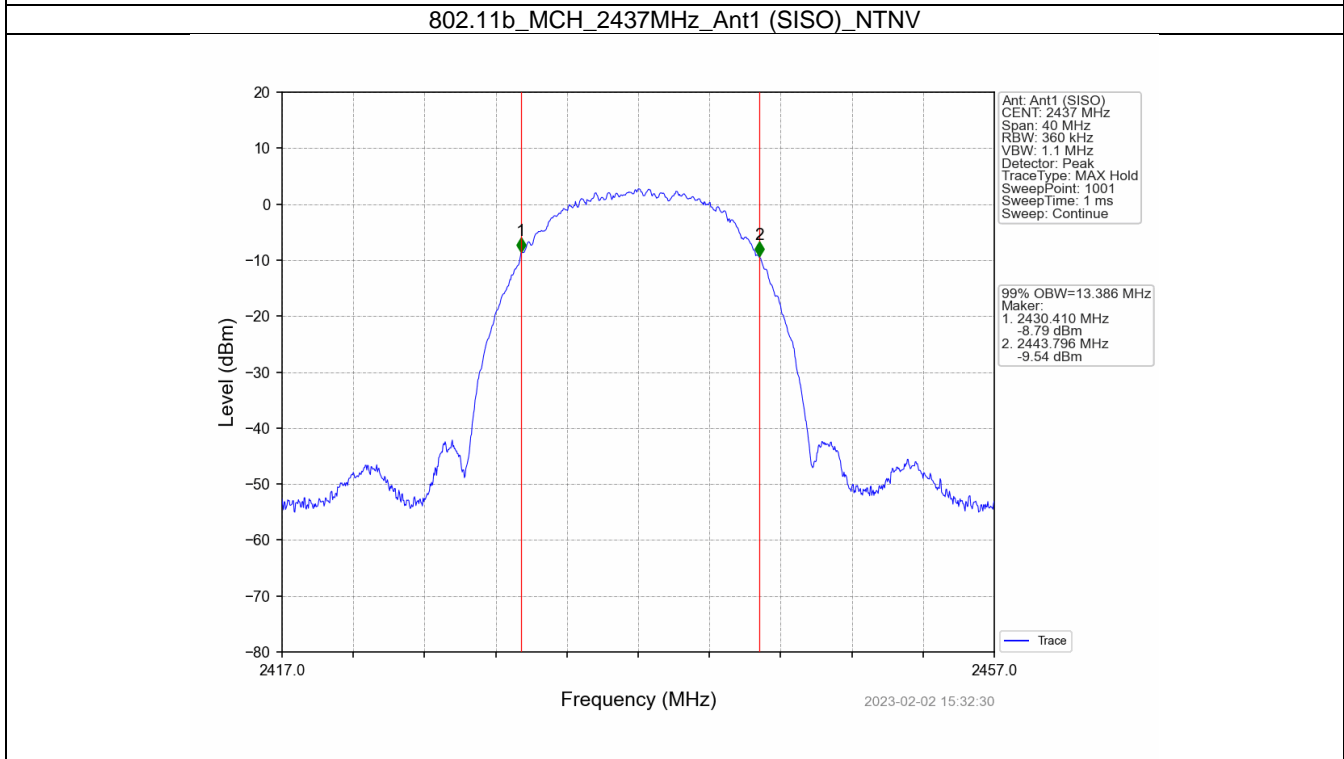
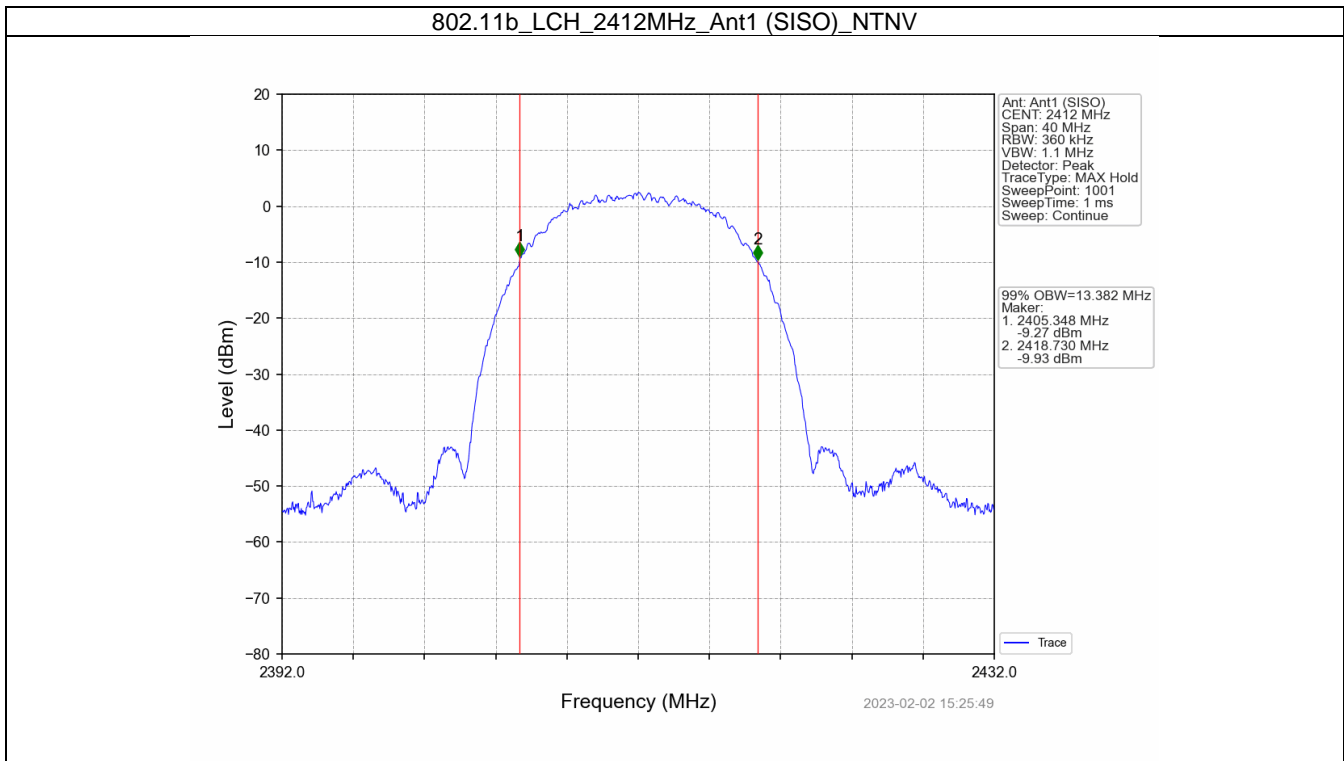
1. Bandwidth

1.1 OBW

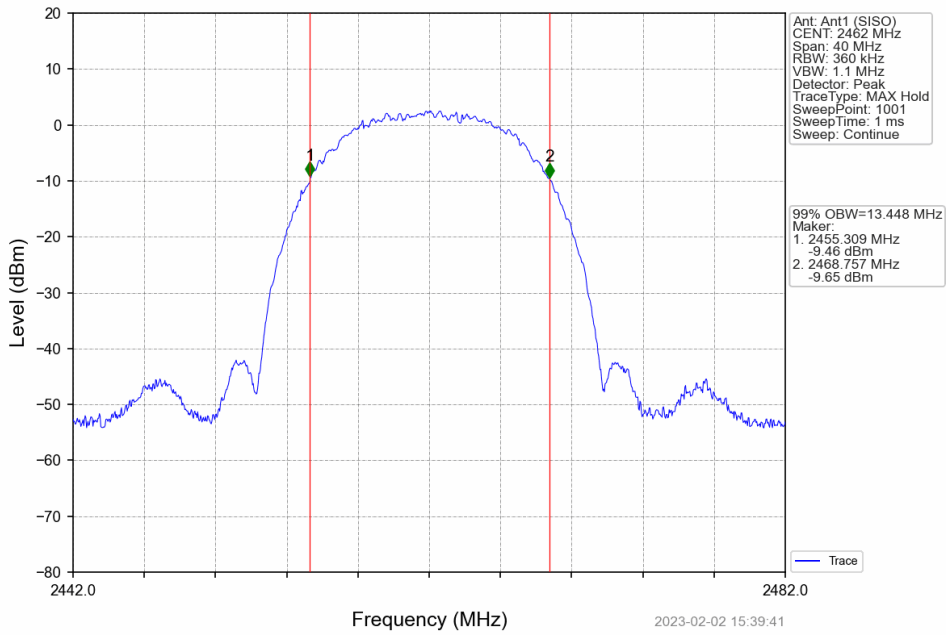
1.1.1 Test Result

Mode	TX Type	Frequency (MHz)	ANT	99% Occupied Bandwidth (MHz)	Verdict
				Result	
802.11b	SISO	2412	1	13.382	Pass
		2437	1	13.386	Pass
		2462	1	13.448	Pass
802.11g	SISO	2412	1	17.460	Pass
		2437	1	17.481	Pass
		2462	1	17.498	Pass
802.11n (HT20)	SISO	2412	1	18.218	Pass
		2437	1	18.227	Pass
		2462	1	18.246	Pass
802.11n (HT40)	SISO	2422	1	36.853	Pass
		2437	1	36.734	Pass
		2452	1	36.752	Pass

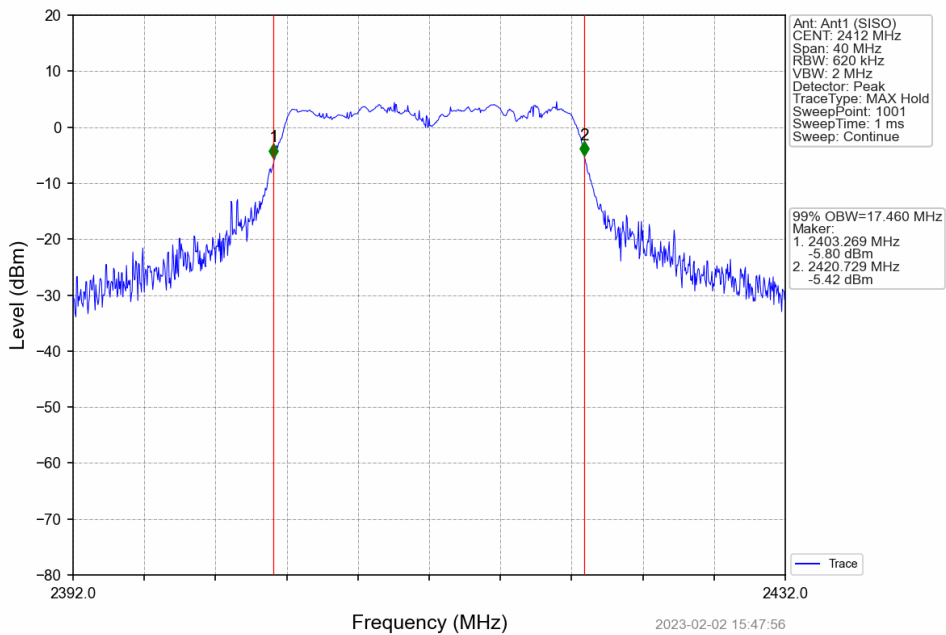
1.1.2 Test Graph



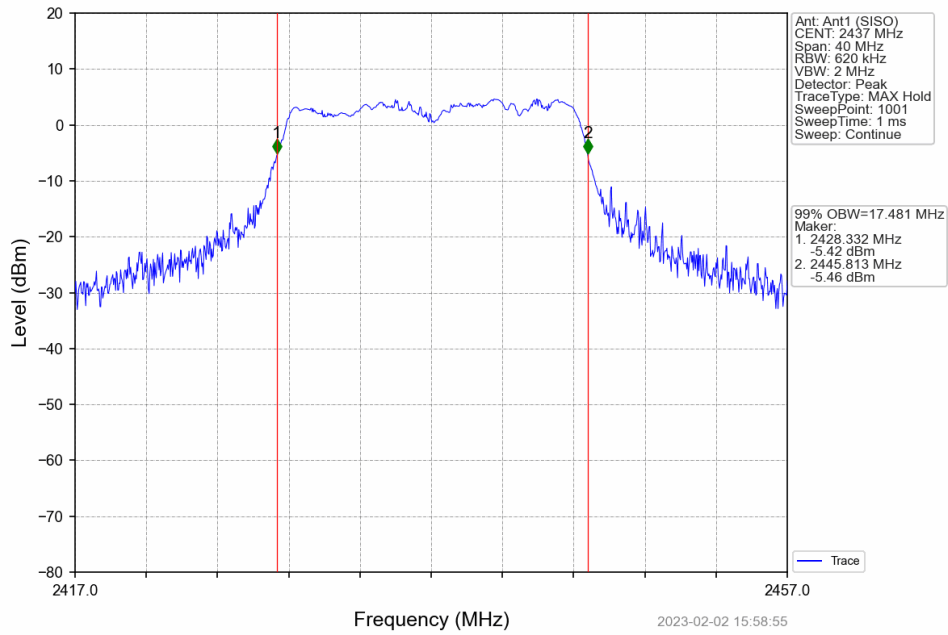
802.11b_HCH_2462MHz_Ant1 (SISO)_NTNV



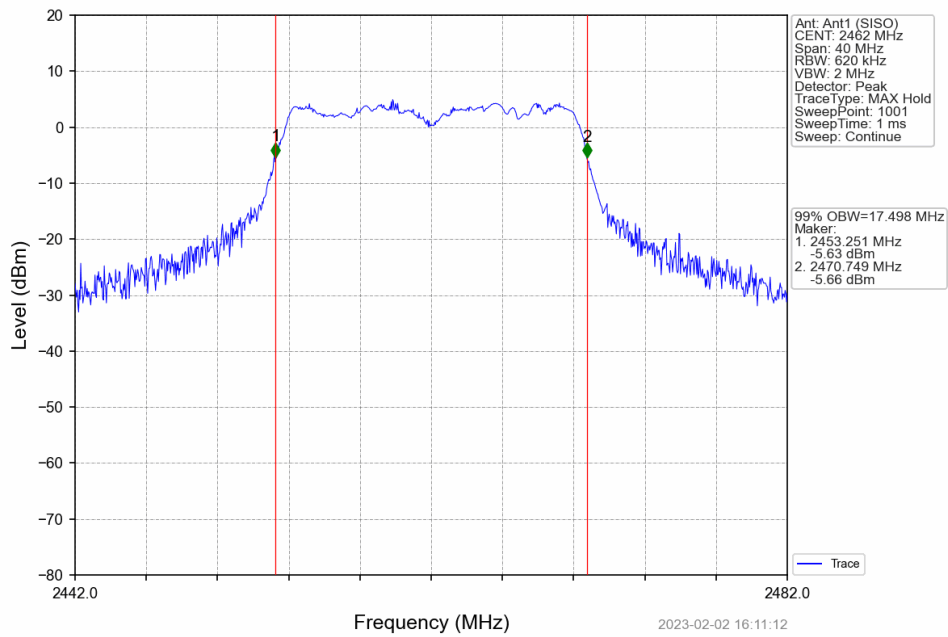
802.11g_LCH_2412MHz_Ant1 (SISO)_NTNV



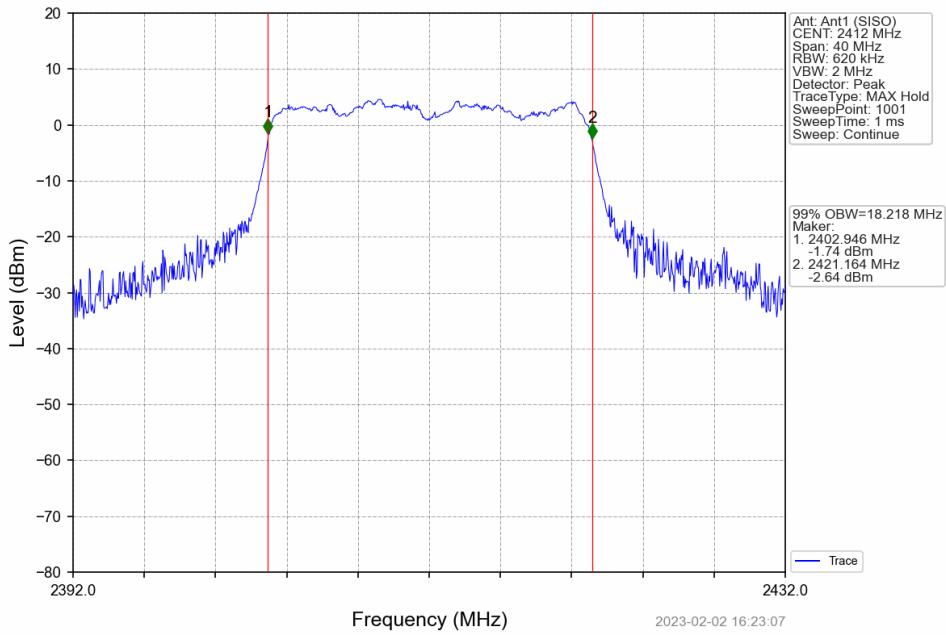
802.11g_MCH_2437MHz_Ant1 (SISO)_NTNV



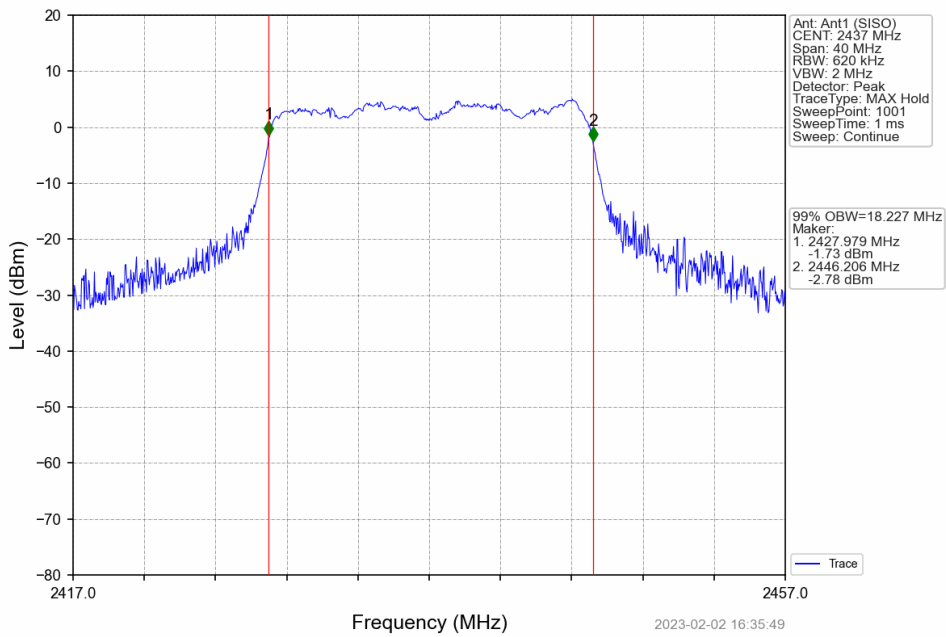
802.11g_HCH_2462MHz_Ant1 (SISO)_NTNV



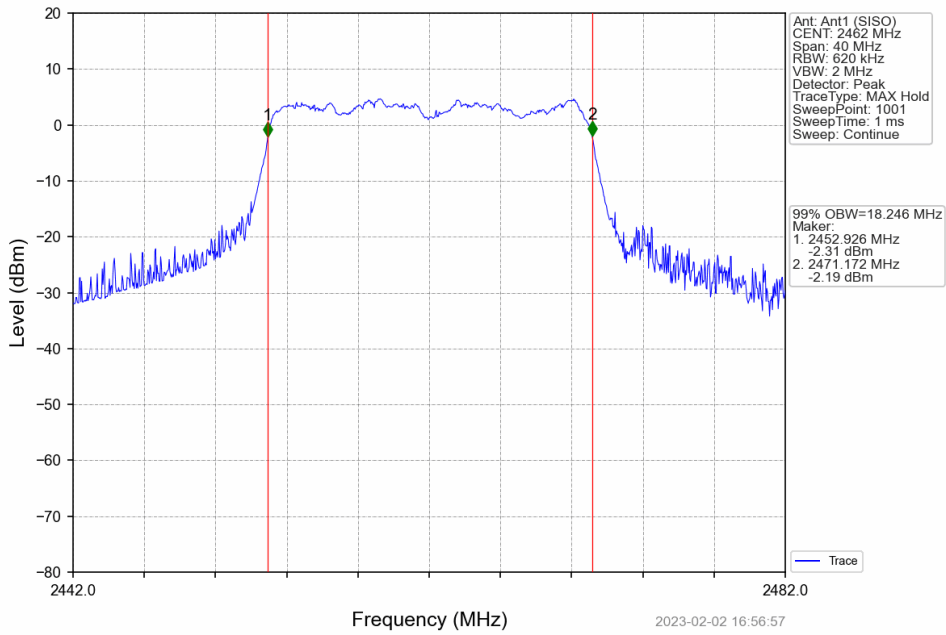
802.11n(HT20)_LCH_2412MHz_Ant1 (SISO)_NTNV



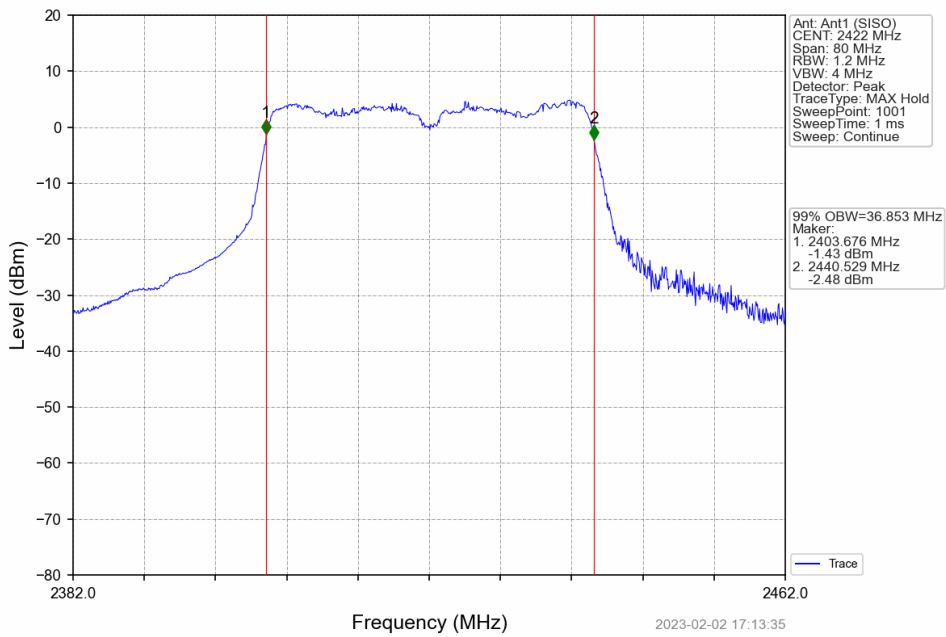
802.11n(HT20)_MCH_2437MHz_Ant1 (SISO)_NTNV



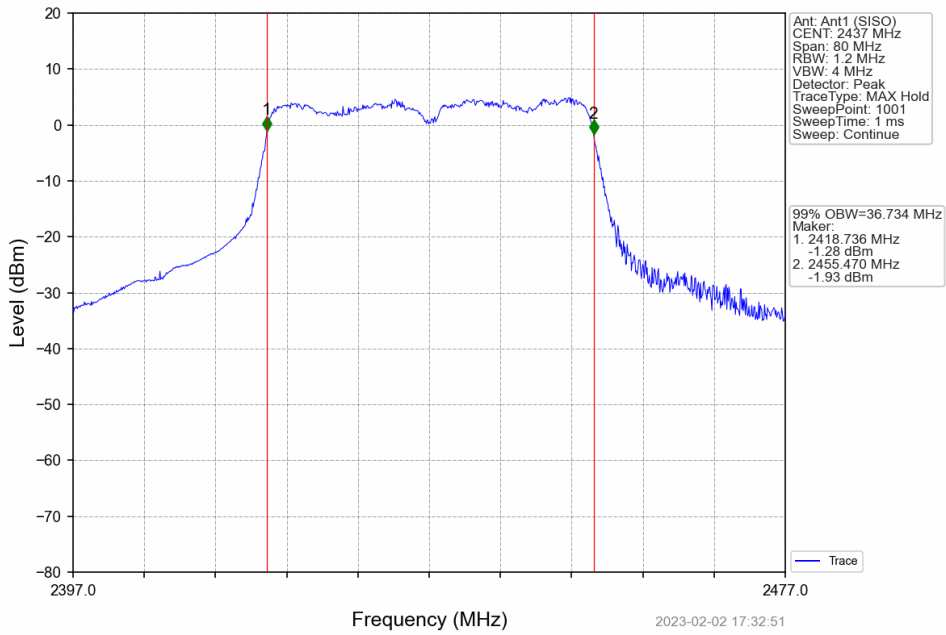
802.11n(HT20)_HCH_2462MHz_Ant1 (SISO)_NTNV



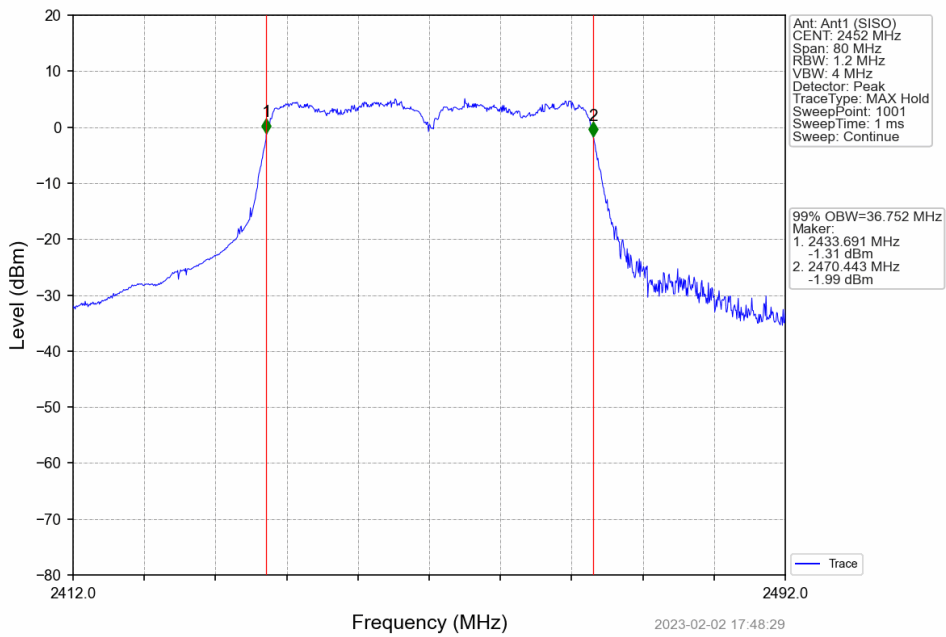
802.11n(HT40)_LCH_2422MHz_Ant1 (SISO)_NTNV



802.11n(HT40)_MCH_2437MHz_Ant1 (SISO)_NTNV



802.11n(HT40)_HCH_2452MHz_Ant1 (SISO)_NTNV

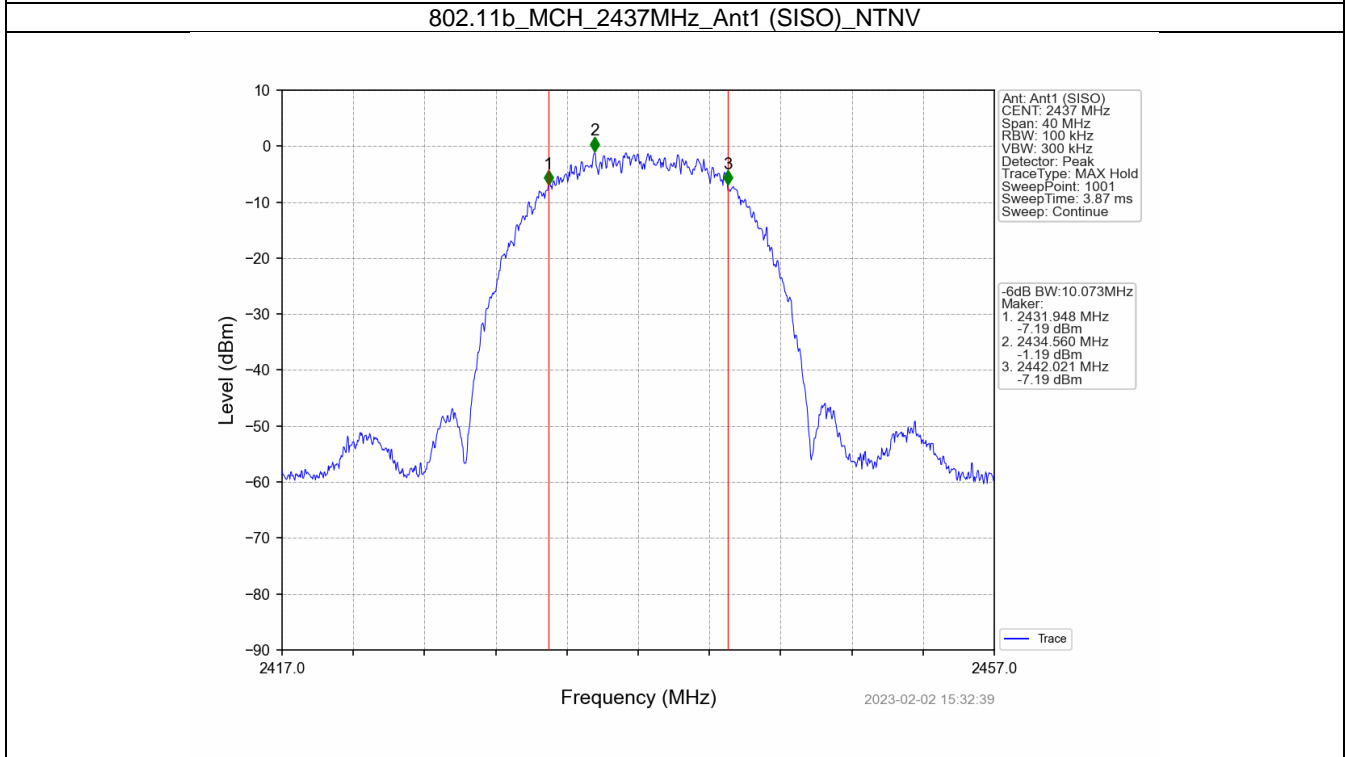
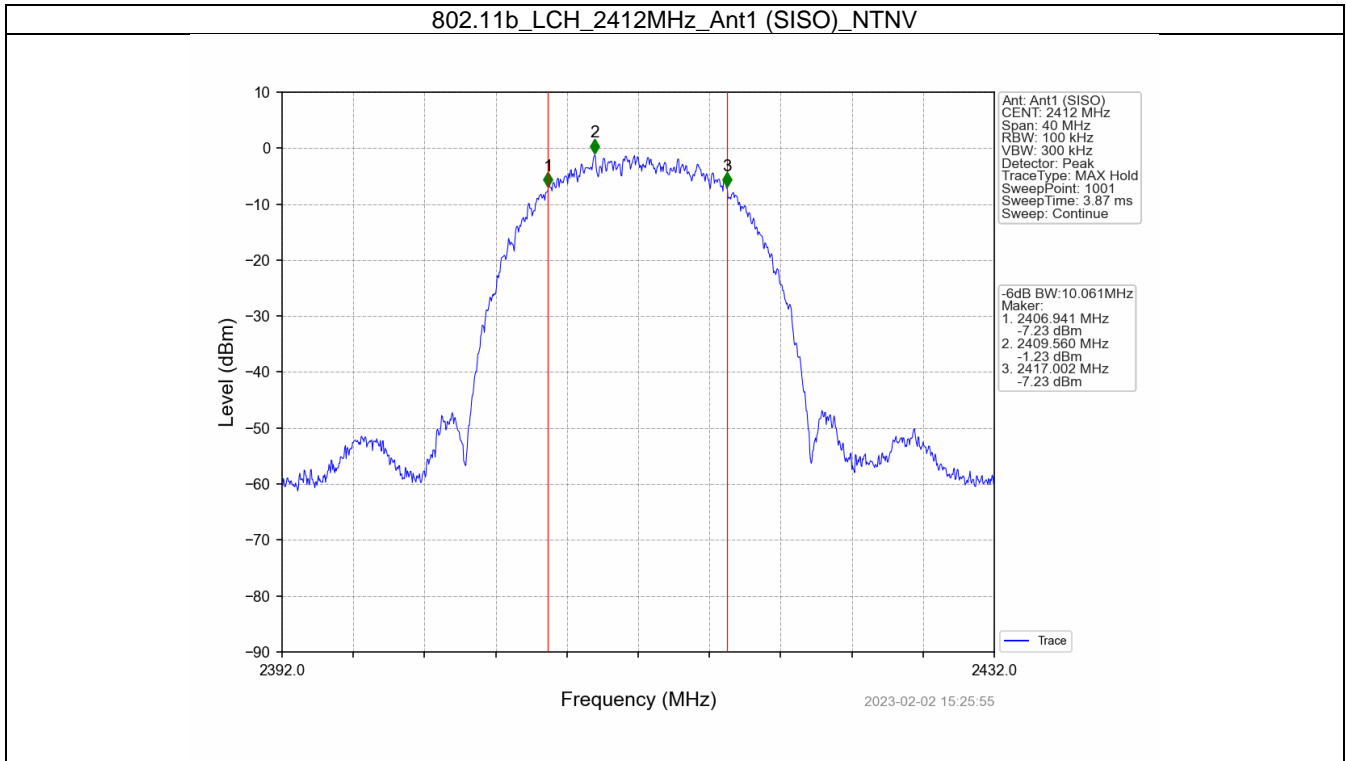


1.2 6dB BW

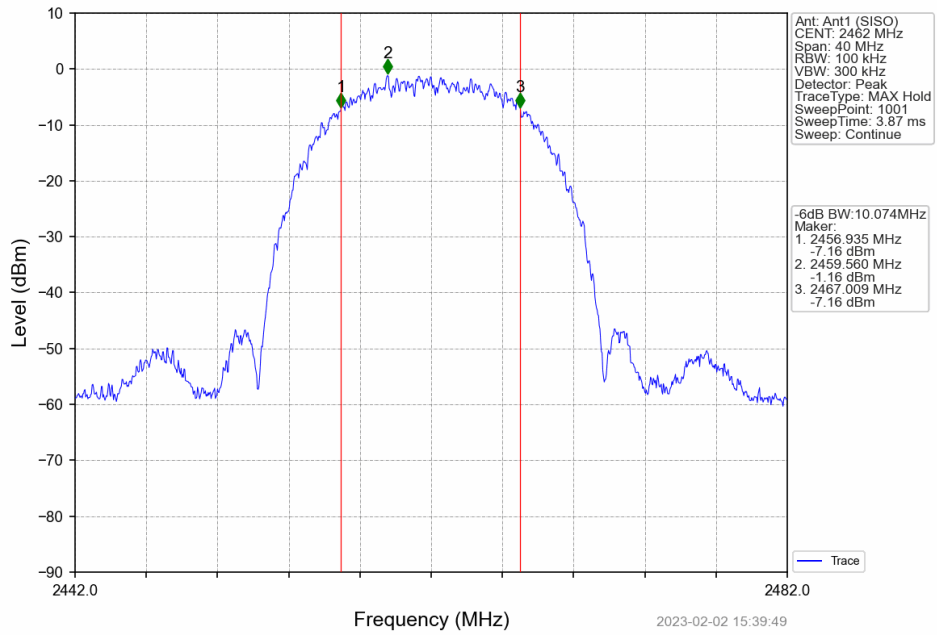
1.2.1 Test Result

Mode	TX Type	Frequency (MHz)	ANT	6dB Bandwidth (MHz)		Verdict
				Result	Limit	
802.11b	SISO	2412	1	10.061	≥ 0.5	Pass
		2437	1	10.073	≥ 0.5	Pass
		2462	1	10.074	≥ 0.5	Pass
802.11g	SISO	2412	1	16.545	≥ 0.5	Pass
		2437	1	16.530	≥ 0.5	Pass
		2462	1	16.546	≥ 0.5	Pass
802.11n (HT20)	SISO	2412	1	17.754	≥ 0.5	Pass
		2437	1	17.744	≥ 0.5	Pass
		2462	1	17.759	≥ 0.5	Pass
802.11n (HT40)	SISO	2422	1	36.438	≥ 0.5	Pass
		2437	1	36.436	≥ 0.5	Pass
		2452	1	36.439	≥ 0.5	Pass

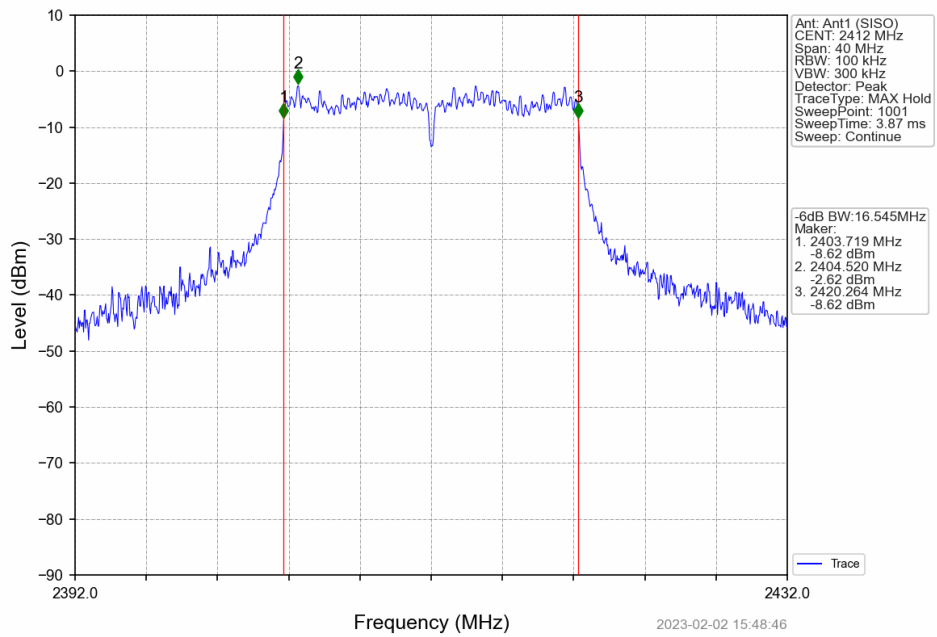
1.2.2 Test Graph



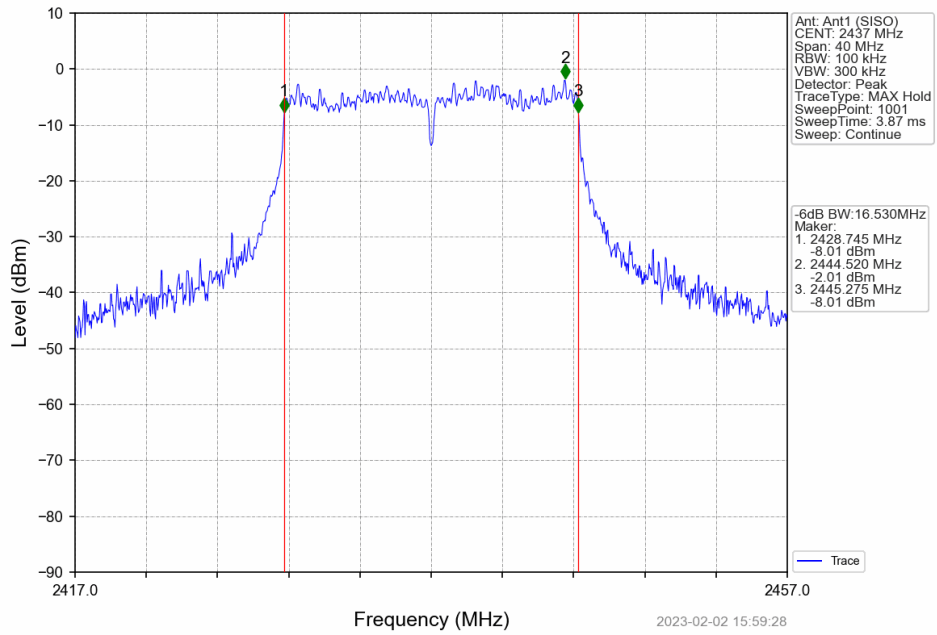
802.11b_HCH_2462MHz_Ant1 (SISO)_NTNV



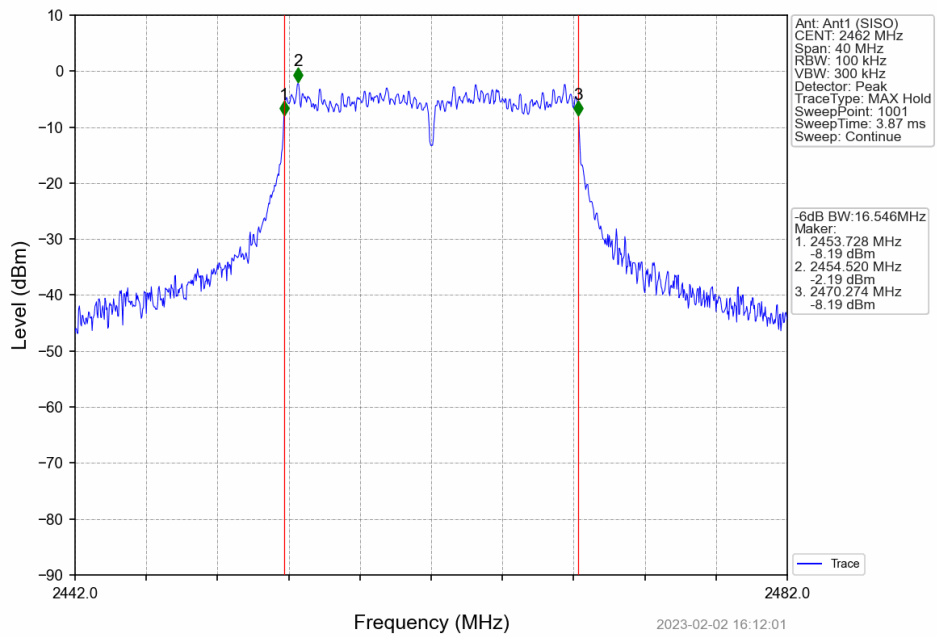
802.11g_LCH_2412MHz_Ant1 (SISO)_NTNV



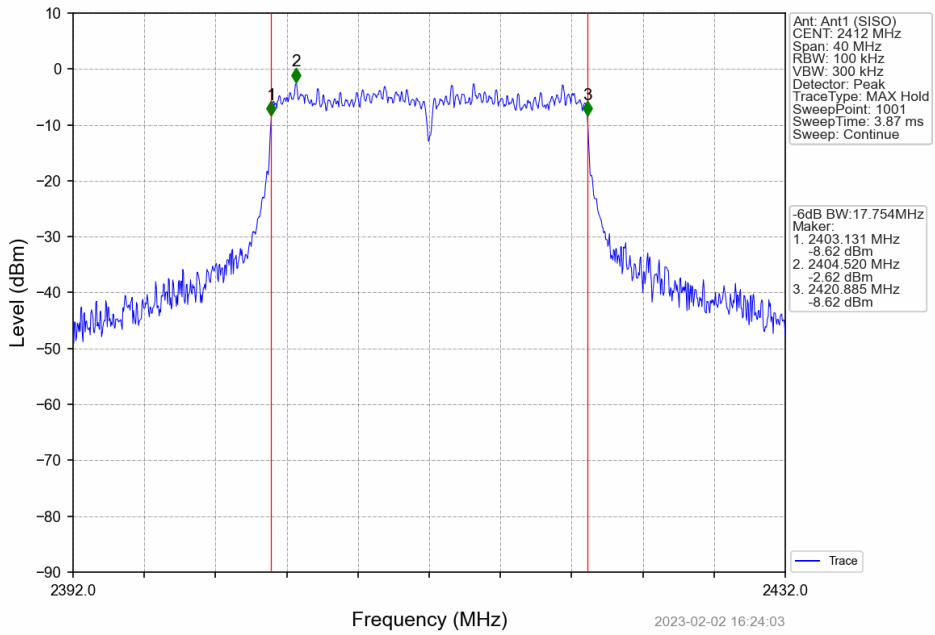
802.11g_MCH_2437MHz_Ant1 (SISO)_NTNV



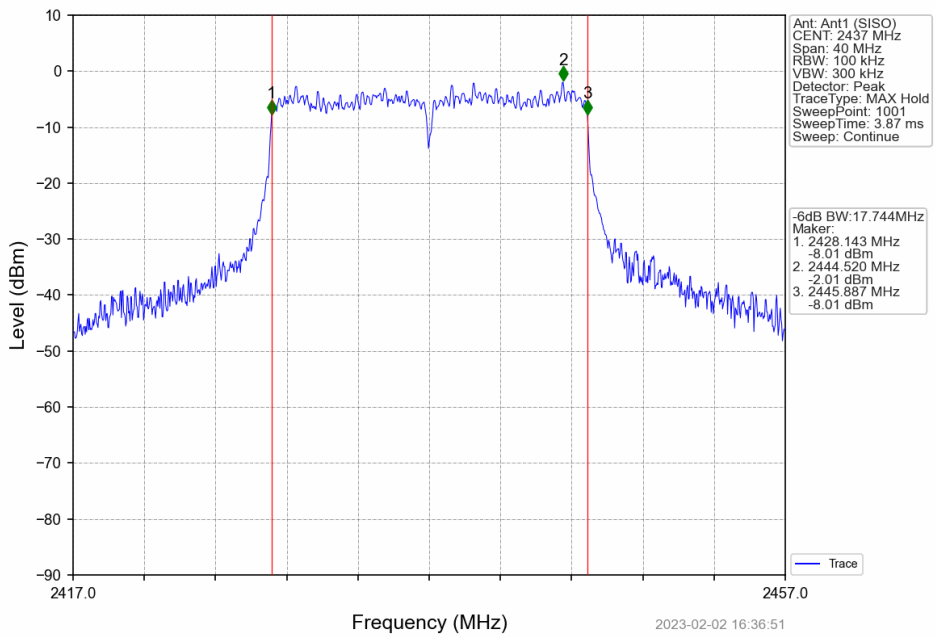
802.11g_HCH_2462MHz_Ant1 (SISO)_NTNV



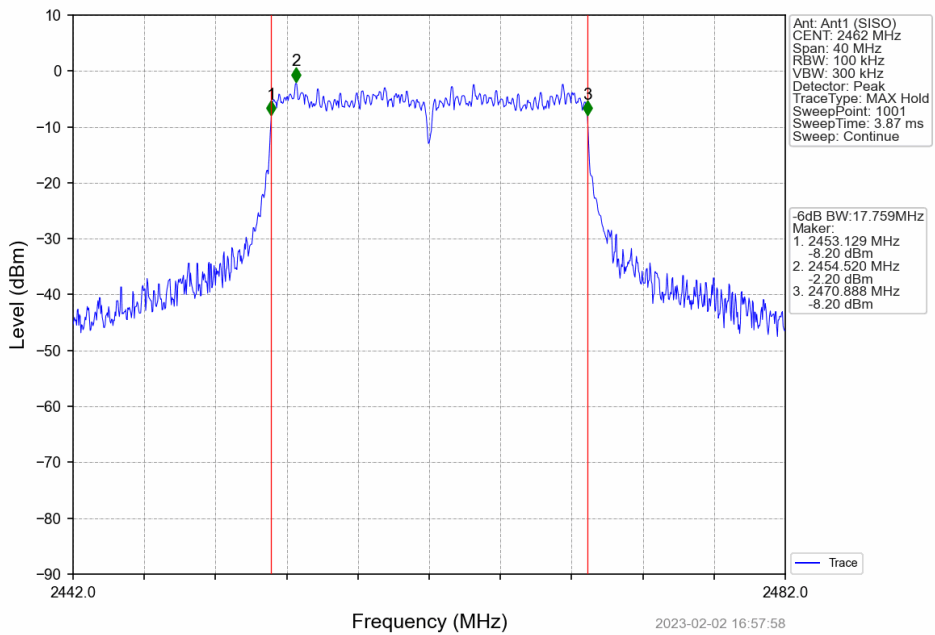
802.11n(HT20)_LCH_2412MHz_Ant1 (SISO)_NTNV



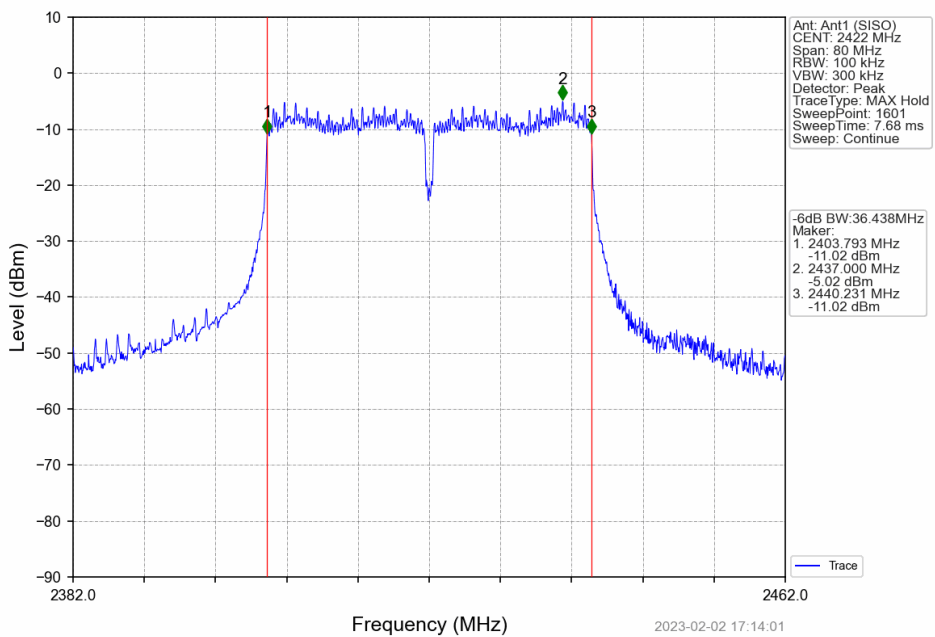
802.11n(HT20)_MCH_2437MHz_Ant1 (SISO)_NTNV



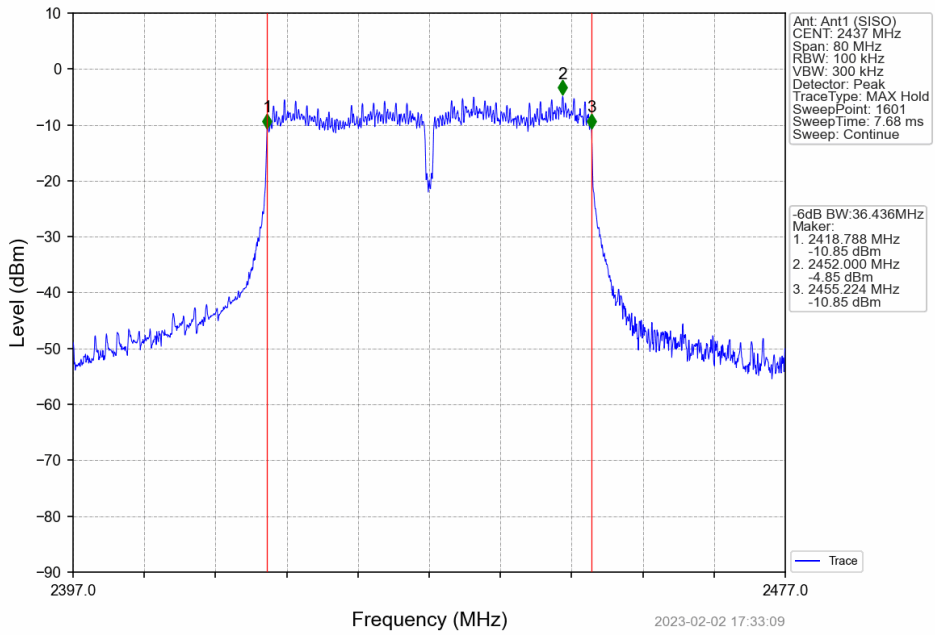
802.11n(HT20)_HCH_2462MHz_Ant1 (SISO)_NTNV



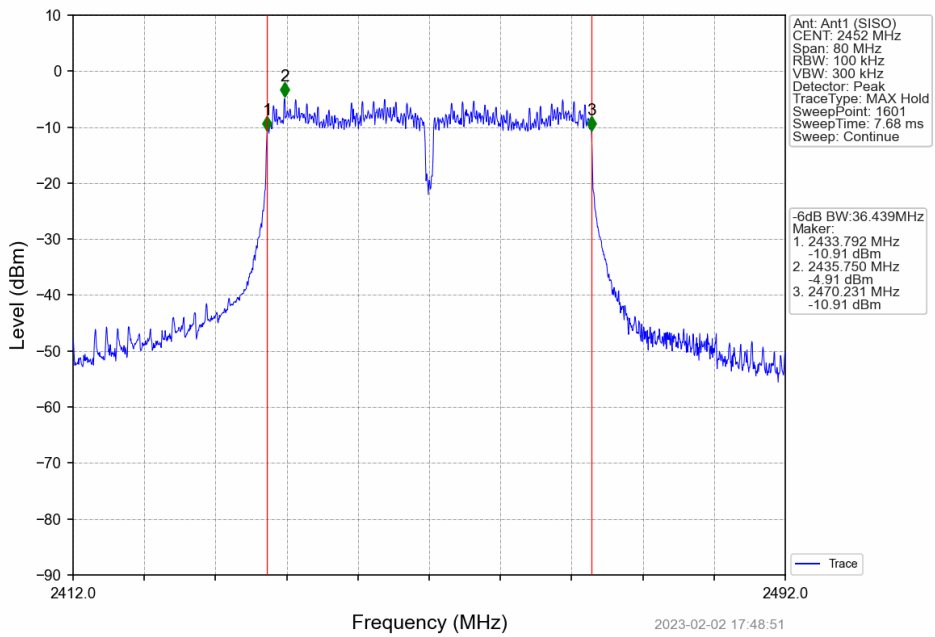
802.11n(HT40)_LCH_2422MHz_Ant1 (SISO)_NTNV



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	EIRP	Limit	
802.11b	SISO	2412	8.22	<=30	11.42	<=36	Pass
		2437	8.48	<=30	11.68	<=36	Pass
		2462	8.36	<=30	11.56	<=36	Pass
802.11g	SISO	2412	8.13	<=30	11.33	<=36	Pass
		2437	8.49	<=30	11.69	<=36	Pass
		2462	8.49	<=30	11.69	<=36	Pass
802.11n (HT20)	SISO	2412	8.28	<=30	11.48	<=36	Pass
		2437	9.27	<=30	12.47	<=36	Pass
		2462	8.58	<=30	11.78	<=36	Pass
802.11n (HT40)	SISO	2422	8.30	<=30	11.50	<=36	Pass
		2437	8.56	<=30	11.76	<=36	Pass
		2452	8.71	<=30	11.91	<=36	Pass

Note1: Antenna Gain: Ant1: 3.20dBi;

Note2: The Duty Cycle Factor and RBW Factor is compensated in the result;

3. Maximum Power Spectral Density

3.1 PSD

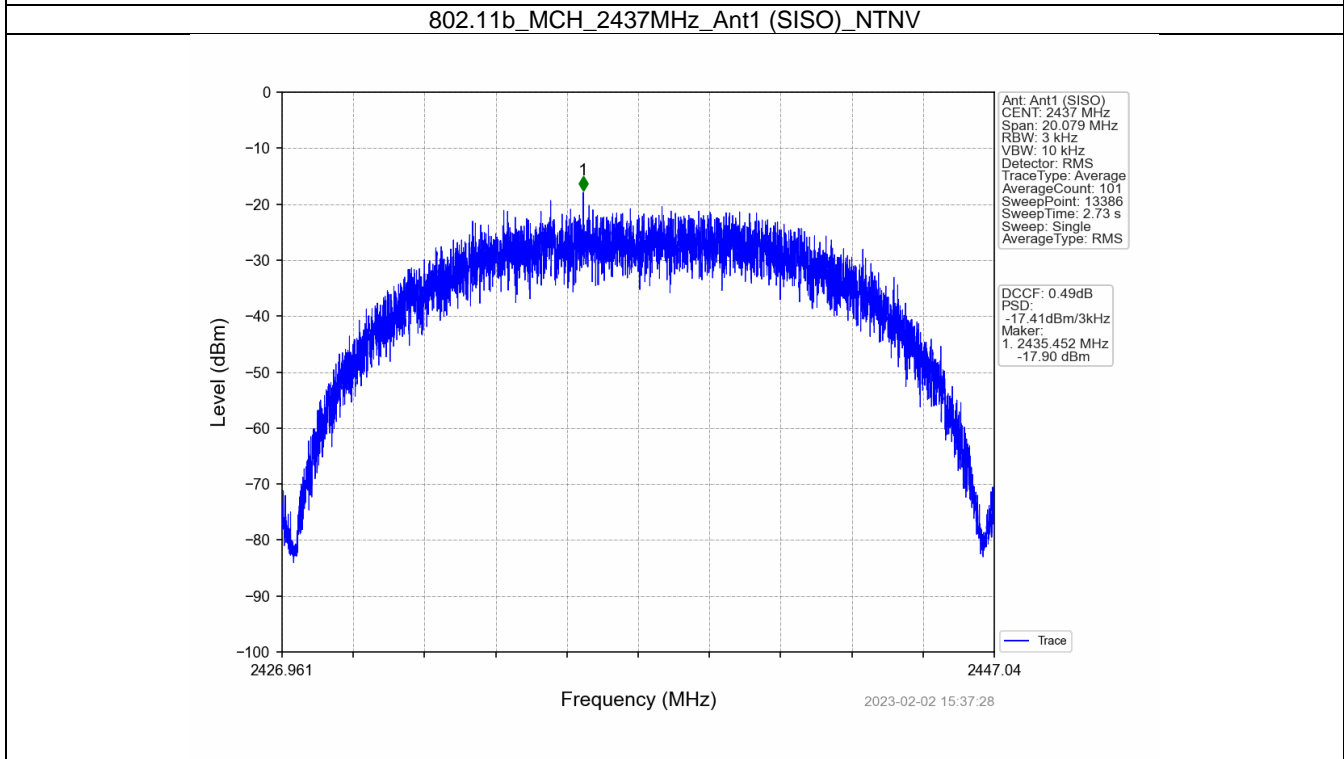
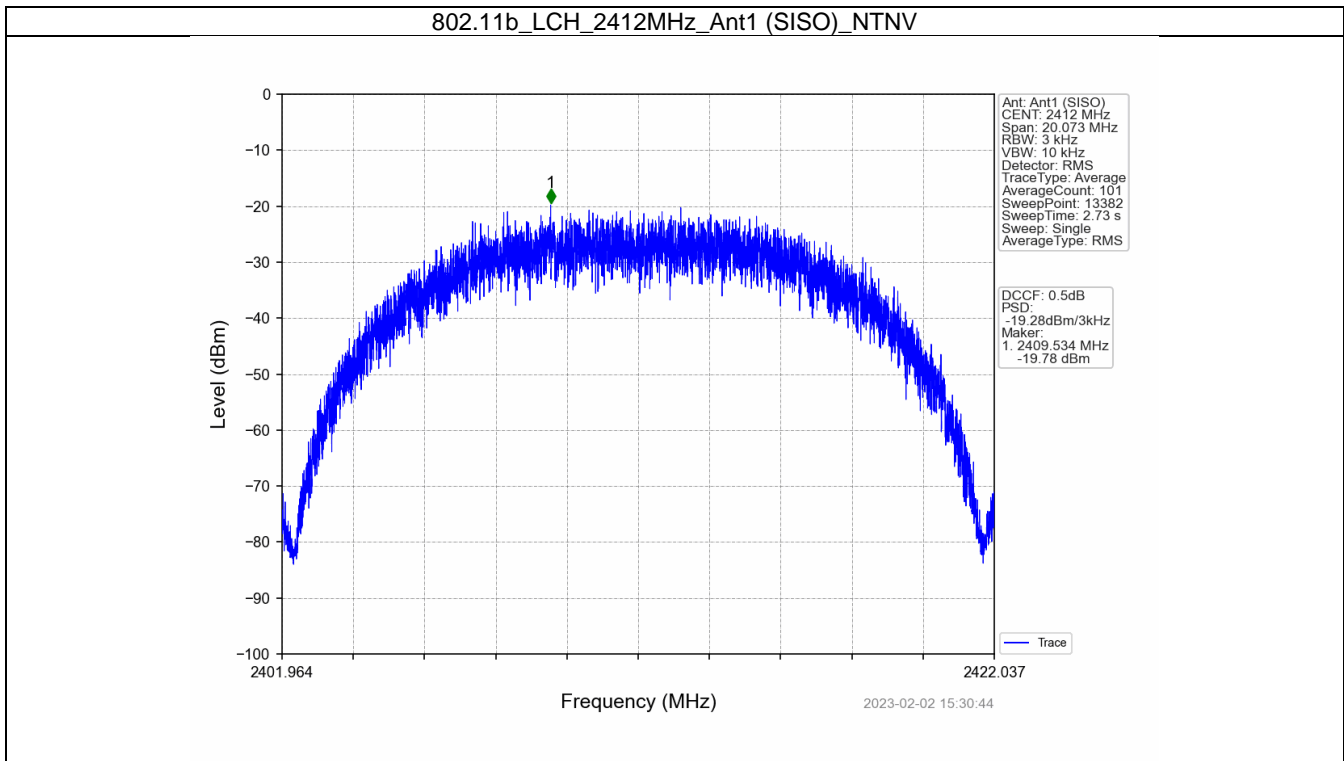
3.1.1 Test Result

Mode	TX Type	Frequency (MHz)	Maximum PSD (dBm/3kHz)		Verdict
			ANT1	Limit	
802.11b	SISO	2412	-19.28	<=8	Pass
		2437	-17.41	<=8	Pass
		2462	-18.60	<=8	Pass
802.11g	SISO	2412	-23.59	<=8	Pass
		2437	-23.58	<=8	Pass
		2462	-23.58	<=8	Pass
802.11n (HT20)	SISO	2412	-23.47	<=8	Pass
		2437	-22.65	<=8	Pass
		2462	-23.40	<=8	Pass
802.11n (HT40)	SISO	2422	-24.82	<=8	Pass
		2437	-24.96	<=8	Pass
		2452	-24.75	<=8	Pass

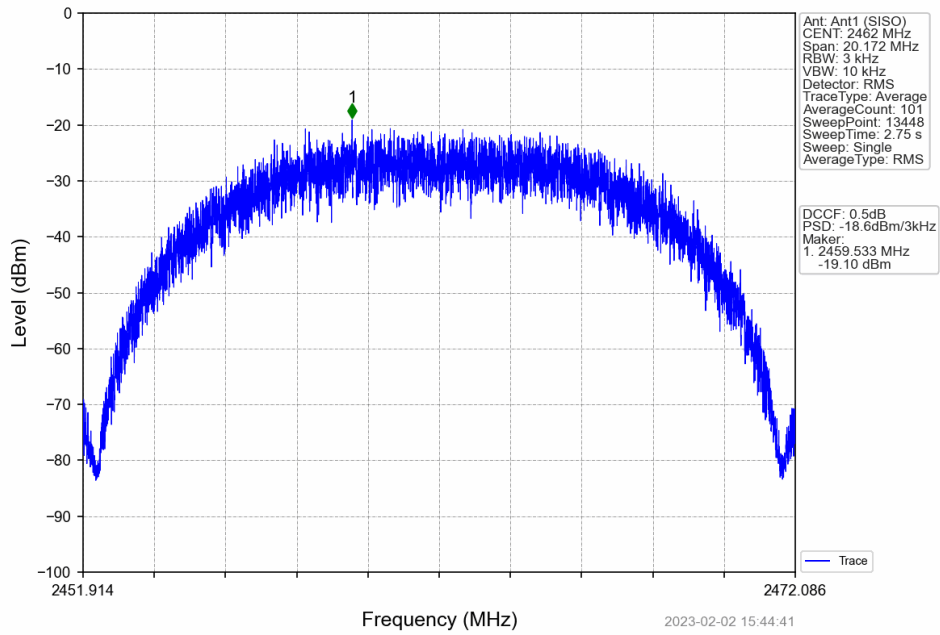
Note1: Antenna Gain: Ant1: 3.20dBi;

Note2: The Duty Cycle Factor and RBW Factor is compensated in the graph;

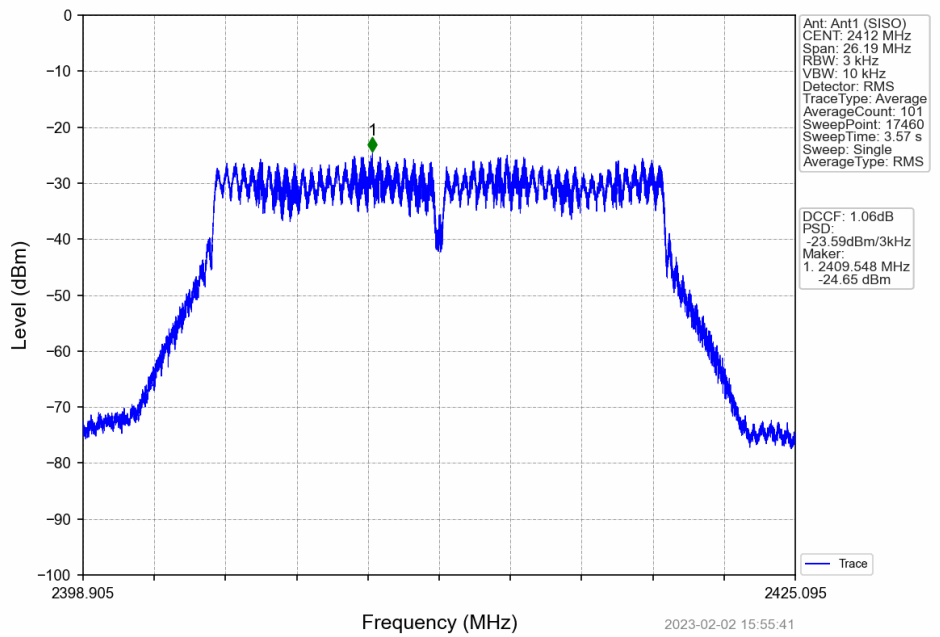
3.1.2 Test Graph



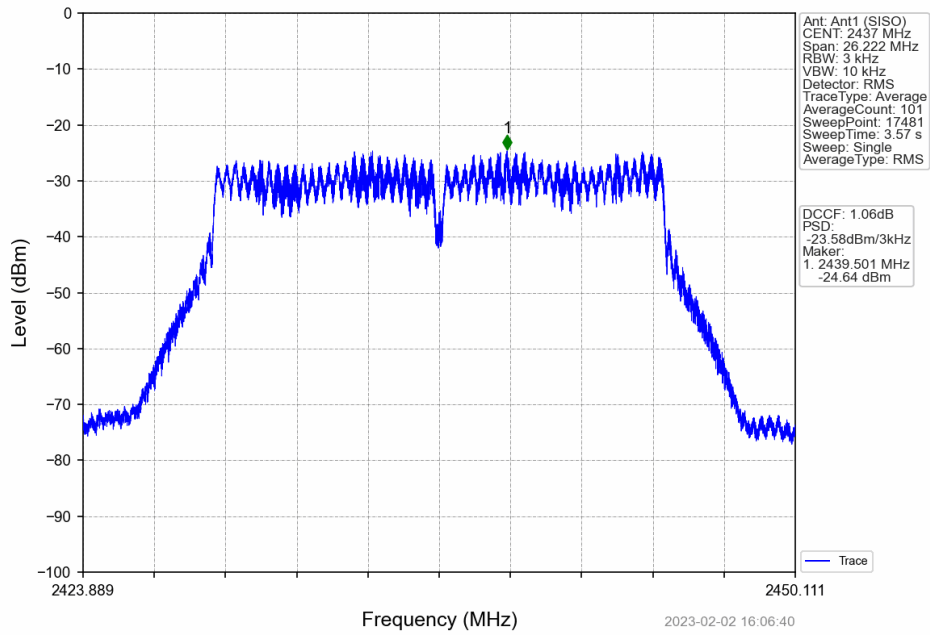
802.11b_HCH_2462MHz_Ant1 (SISO)_NTNV



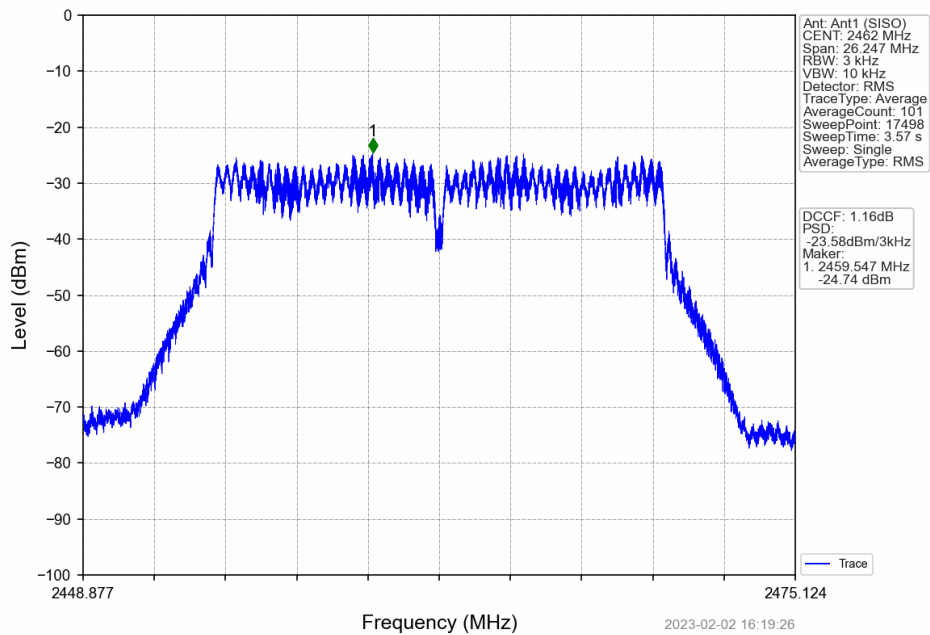
802.11g_LCH_2412MHz_Ant1 (SISO)_NTNV



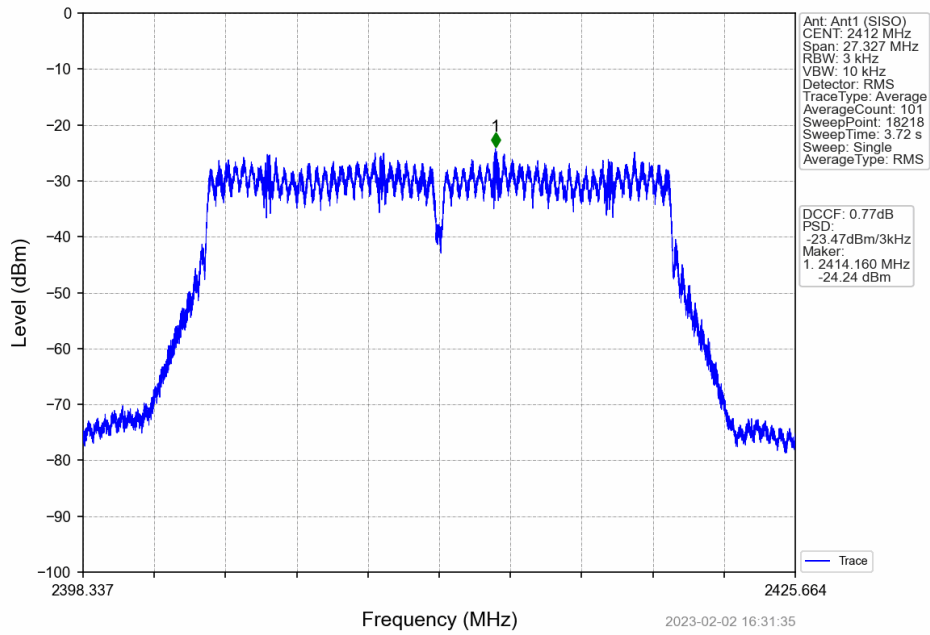
802.11g_MCH_2437MHz_Ant1 (SISO)_NTNV



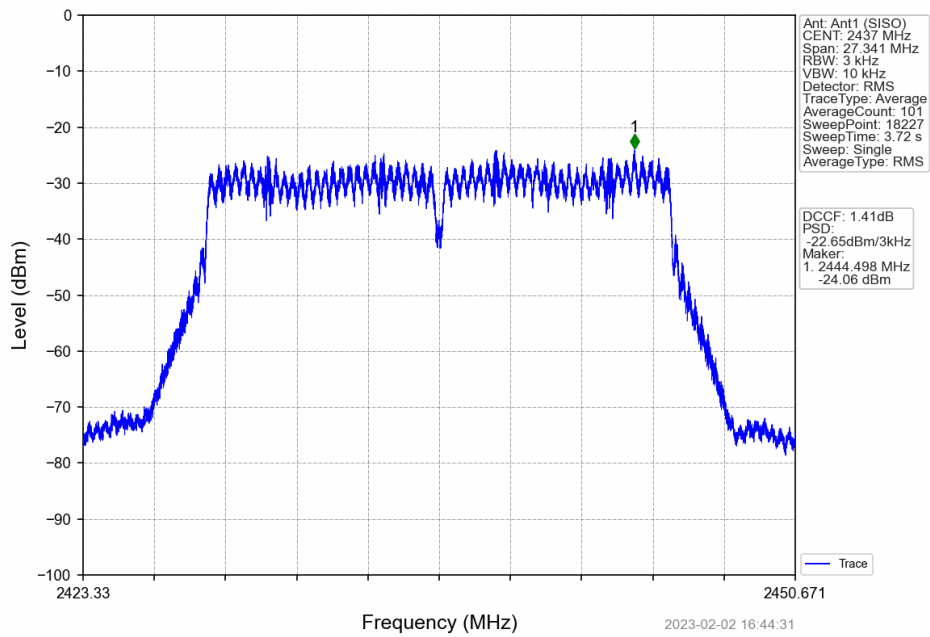
802.11g_HCH_2462MHz_Ant1 (SISO)_NTNV



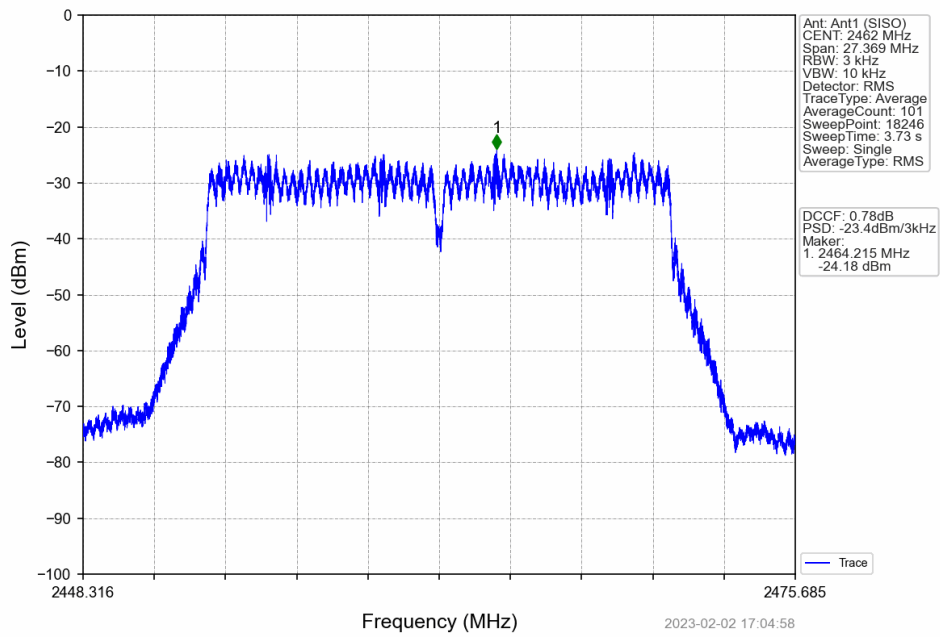
802.11n(HT20)_LCH_2412MHz_Ant1 (SISO)_NTNV



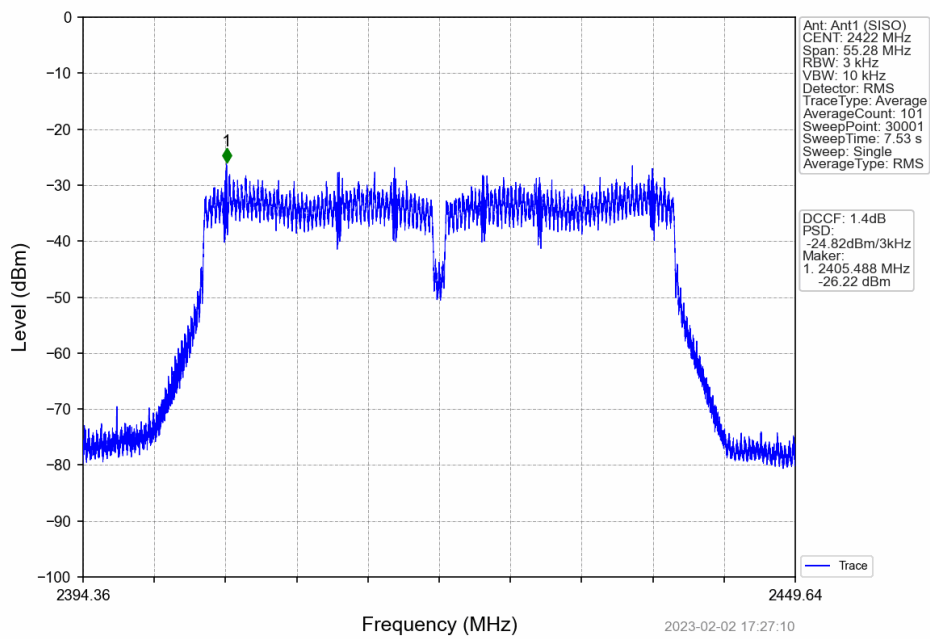
802.11n(HT20)_MCH_2437MHz_Ant1 (SISO)_NTNV



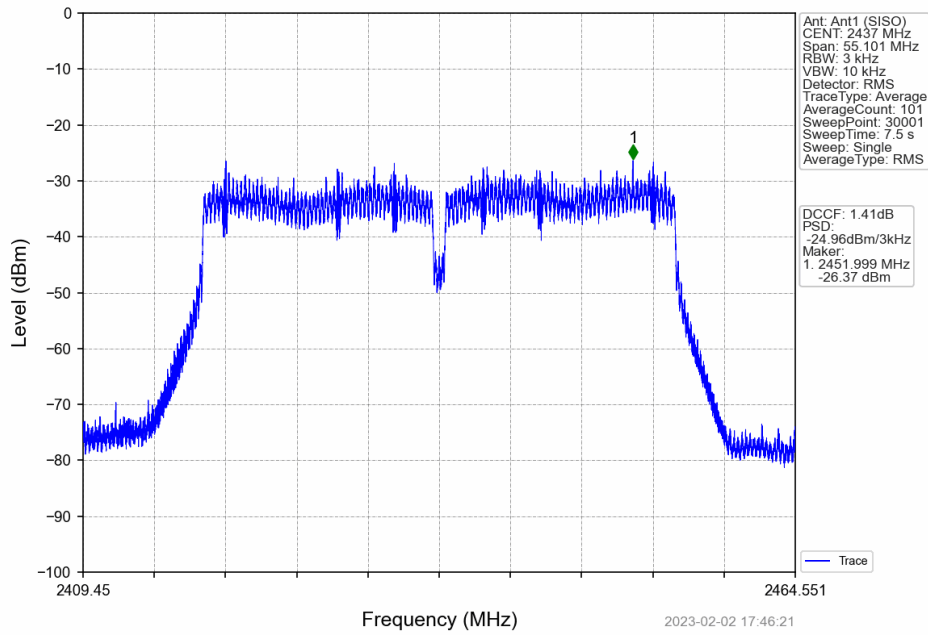
802.11n(HT20)_HCH_2462MHz_Ant1 (SISO)_NTNV



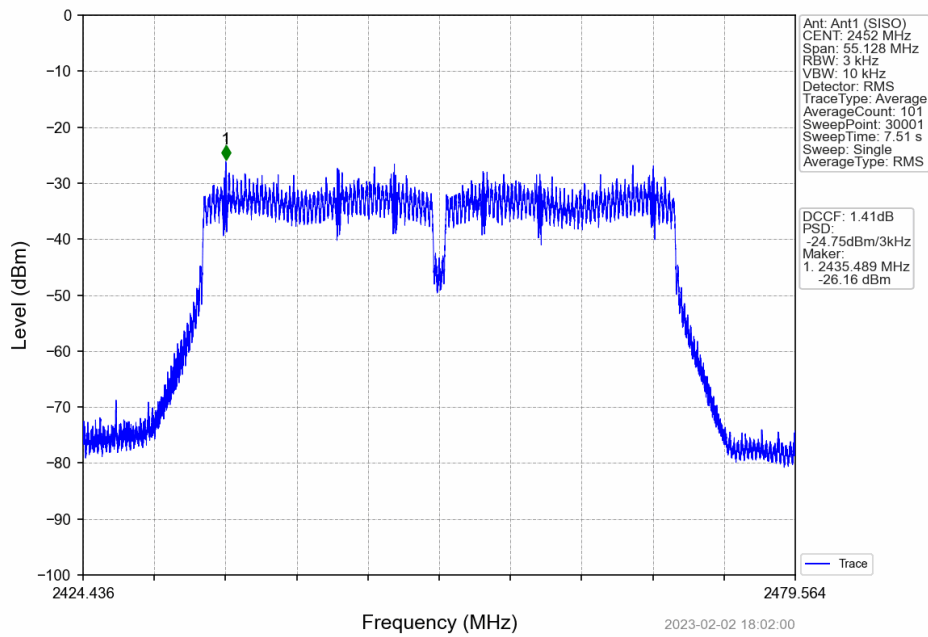
802.11n(HT40)_LCH_2422MHz_Ant1 (SISO)_NTNV



802.11n(HT40)_MCH_2437MHz_Ant1 (SISO)_NTNV



802.11n(HT40)_HCH_2452MHz_Ant1 (SISO)_NTNV



4. Unwanted Emissions In Non-restricted Frequency Bands

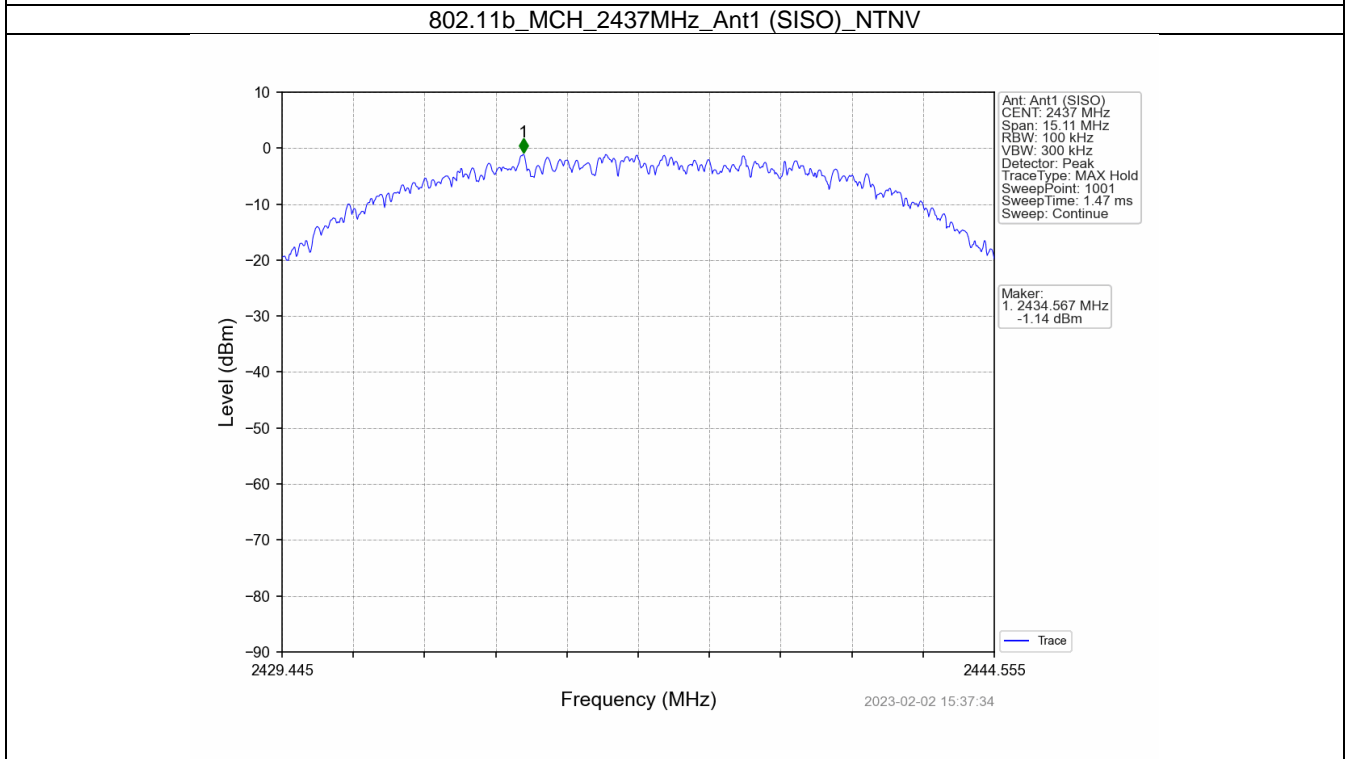
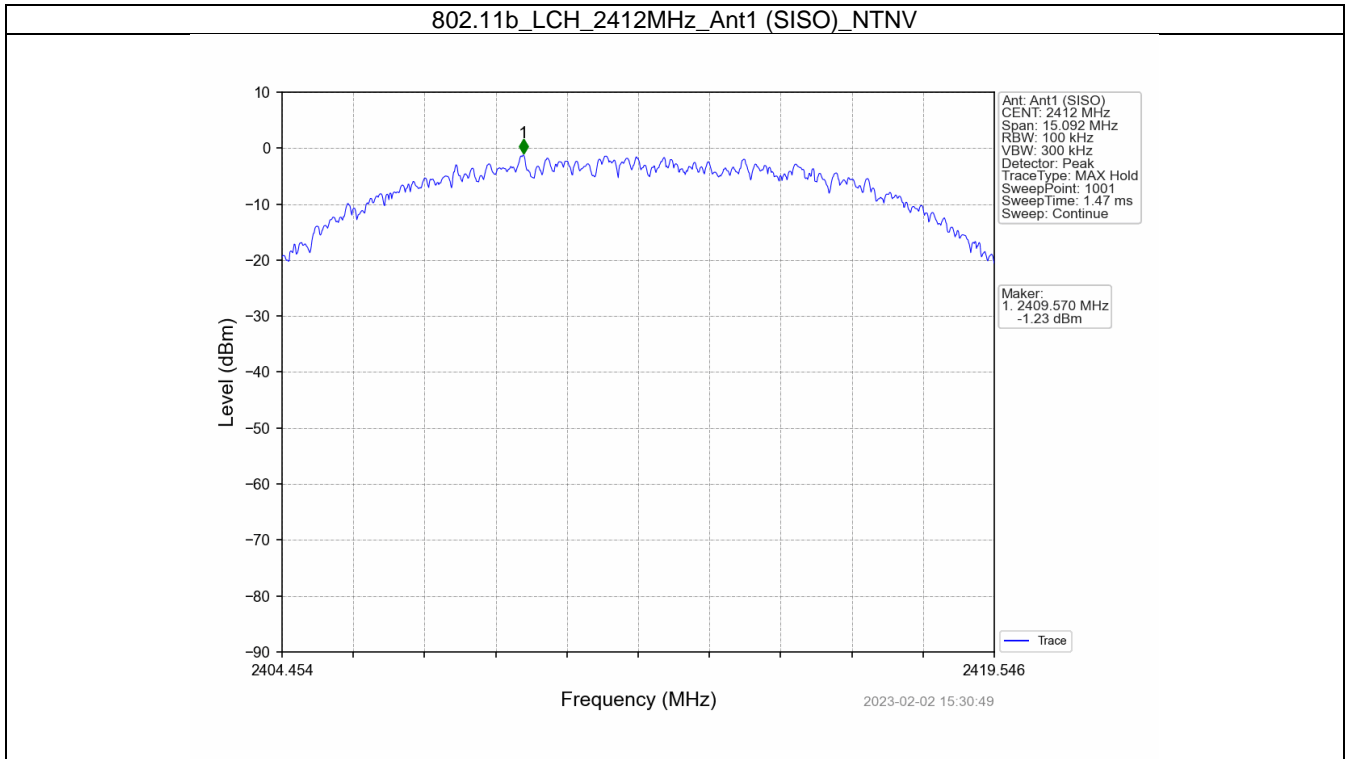
4.1 Ref

4.1.1 Test Result

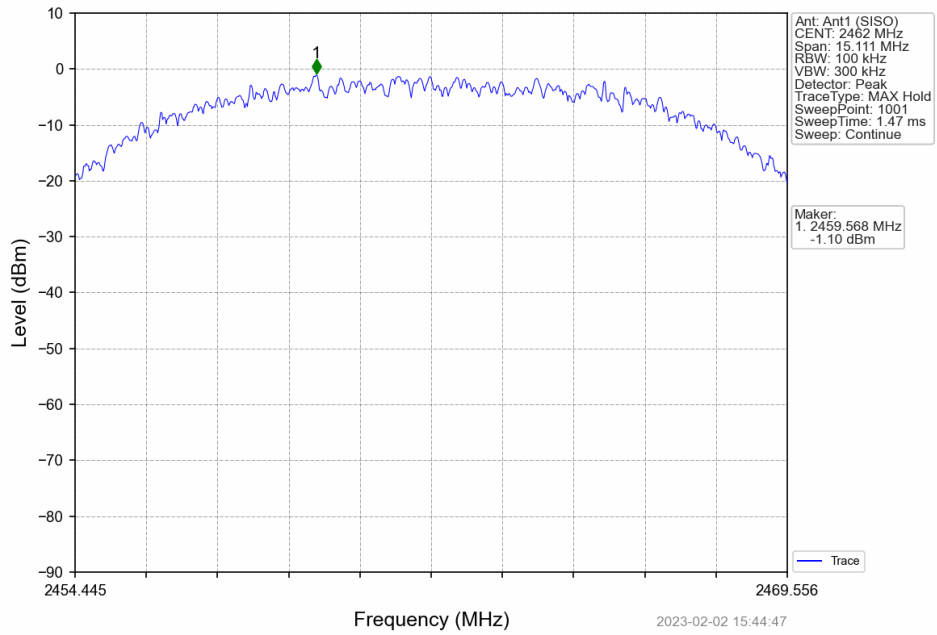
Mode	TX Type	Frequency (MHz)	ANT	Level of Reference (dBm)
802.11b	SISO	2412	1	-1.23
		2437	1	-1.14
		2462	1	-1.10
802.11g	SISO	2412	1	-2.65
		2437	1	-2.05
		2462	1	-2.22
802.11n (HT20)	SISO	2412	1	-2.69
		2437	1	-2.00
		2462	1	-2.24
802.11n (HT40)	SISO	2422	1	-4.96
		2437	1	-4.83
		2452	1	-4.93

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.

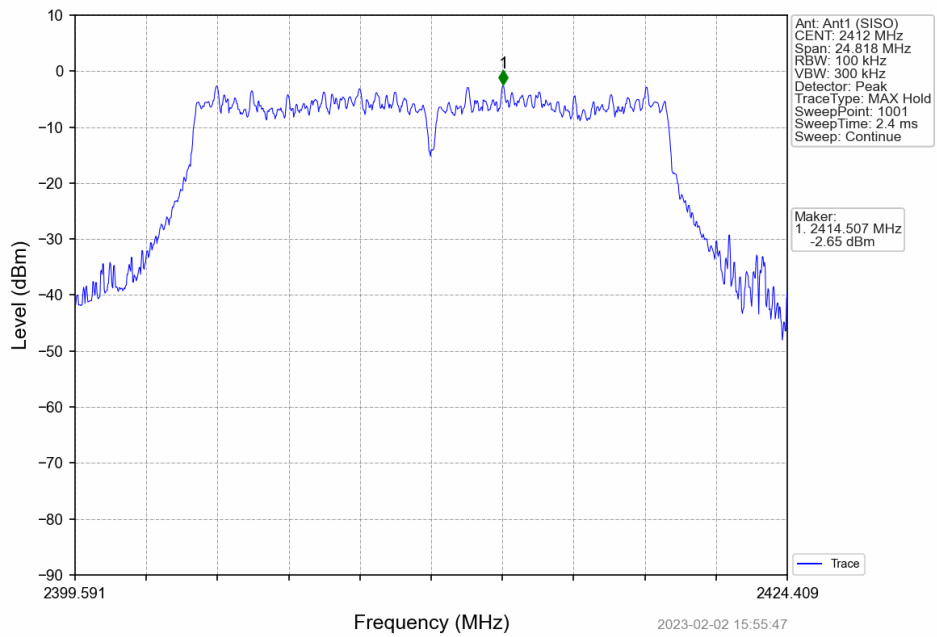
4.1.2 Test Graph



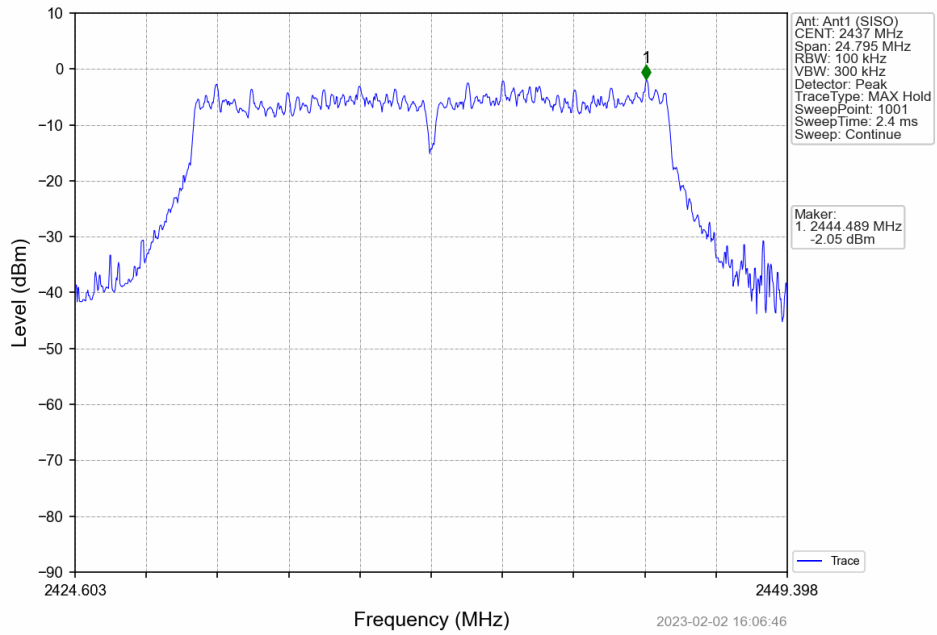
802.11b_HCH_2462MHz_Ant1 (SISO)_NTNV



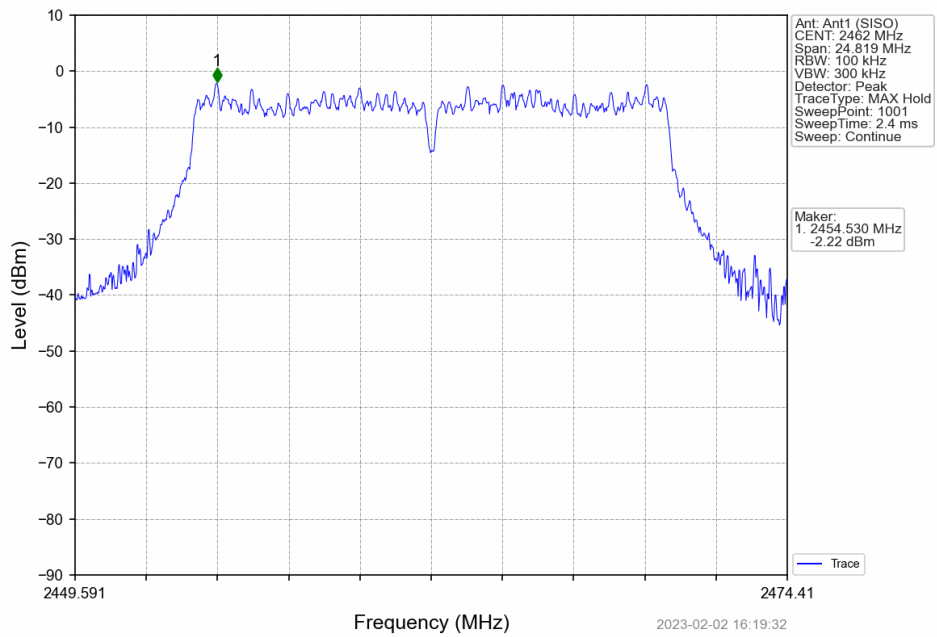
802.11g_LCH_2412MHz_Ant1 (SISO)_NTNV



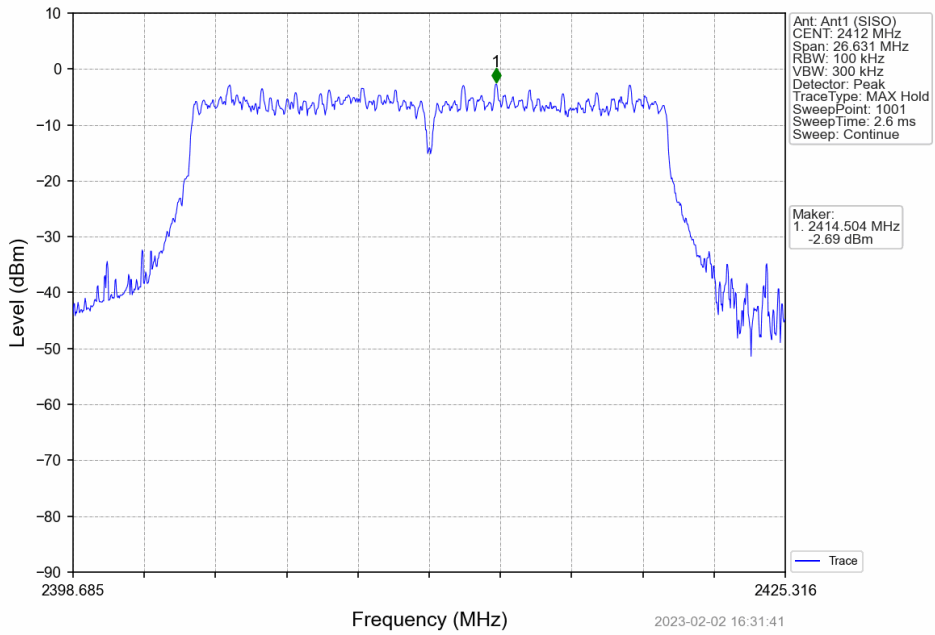
802.11g_MCH_2437MHz_Ant1 (SISO)_NTNV



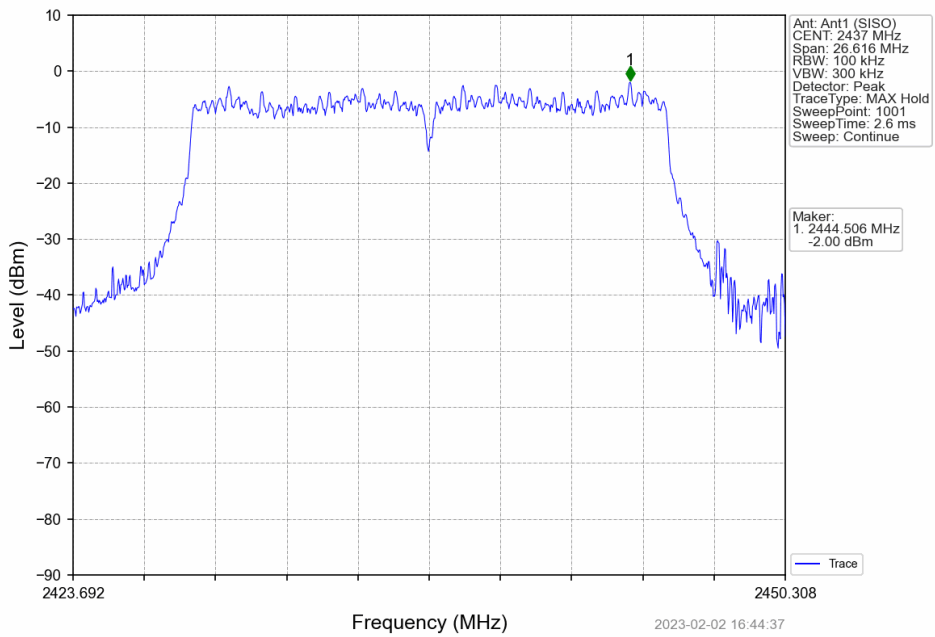
802.11g_HCH_2462MHz_Ant1 (SISO)_NTNV



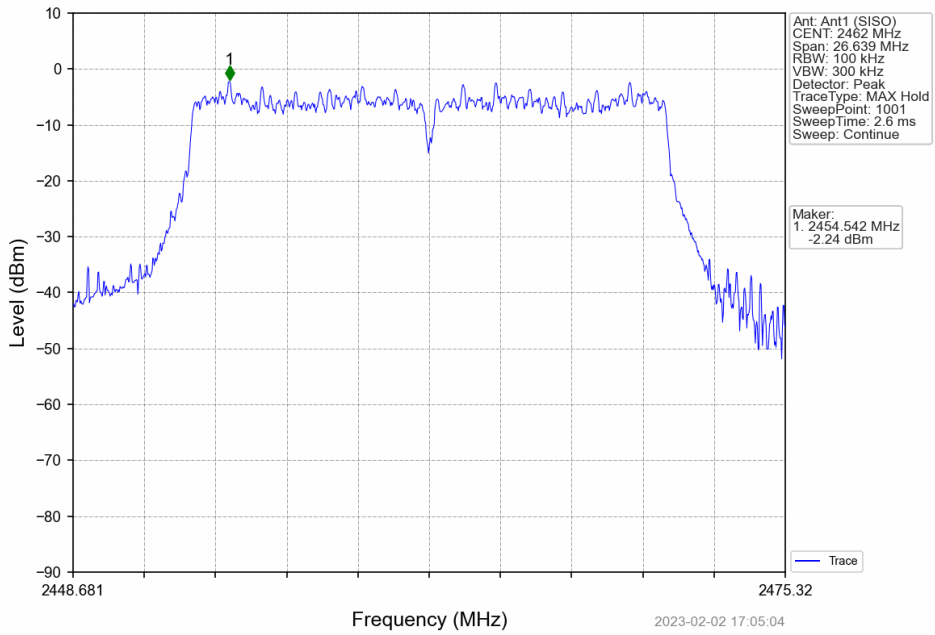
802.11n(HT20)_LCH_2412MHz_Ant1 (SISO)_NTNV



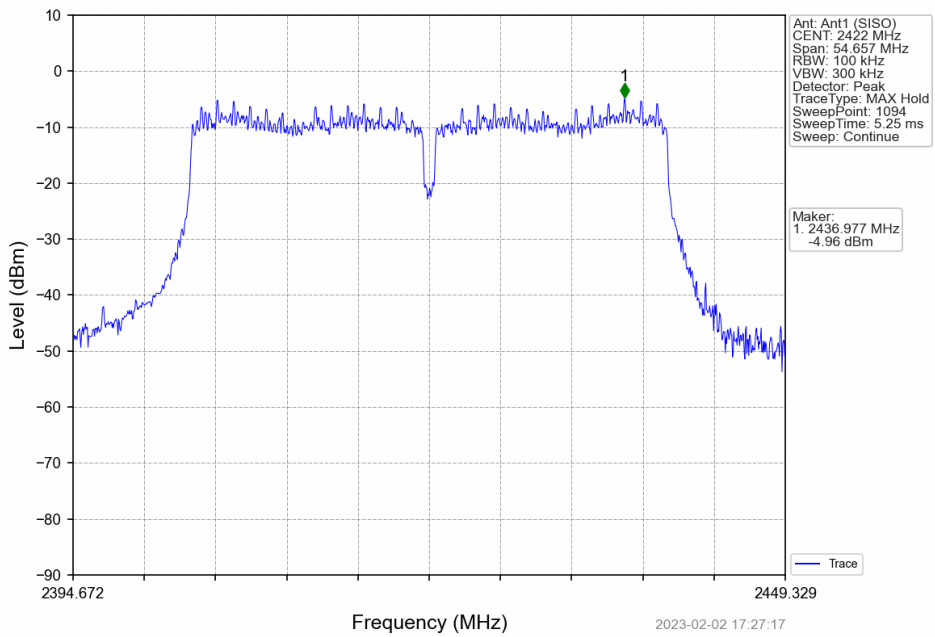
802.11n(HT20)_MCH_2437MHz_Ant1 (SISO)_NTNV



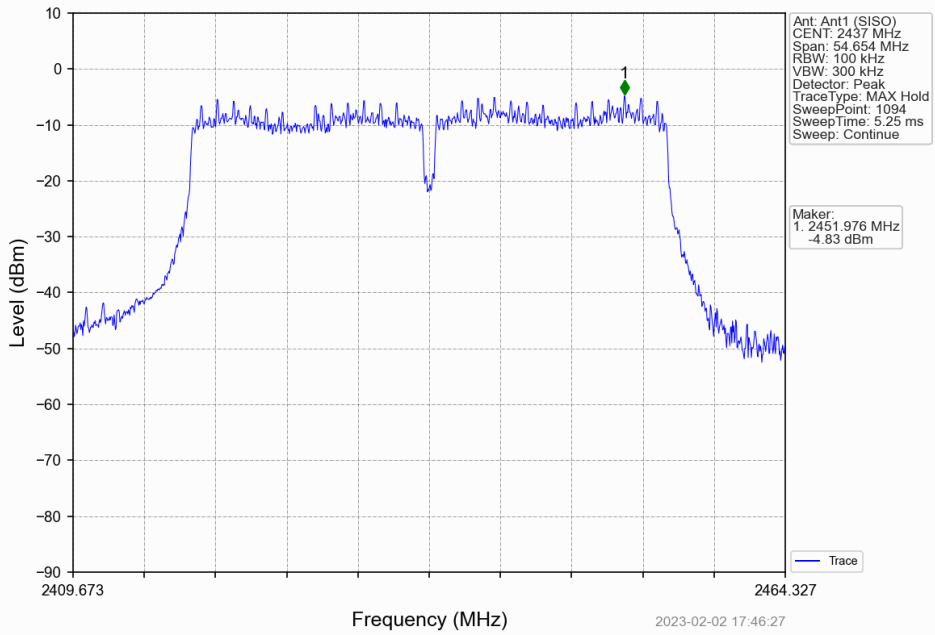
802.11n(HT20)_HCH_2462MHz_Ant1 (SISO)_NTNV



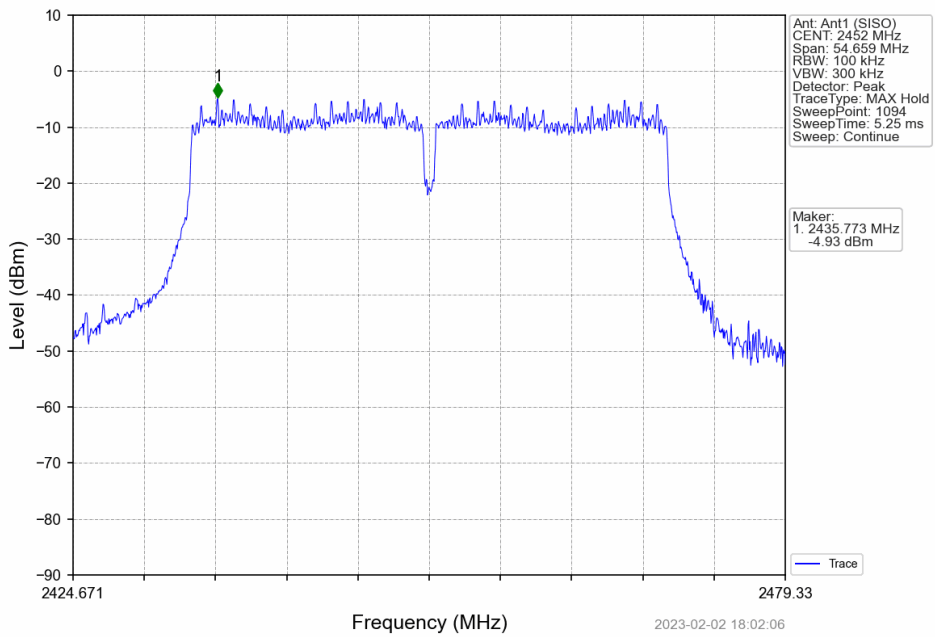
802.11n(HT40)_LCH_2422MHz_Ant1 (SISO)_NTNV



802.11n(HT40)_MCH_2437MHz_Ant1 (SISO)_NTNV



802.11n(HT40)_HCH_2452MHz_Ant1 (SISO)_NTNV



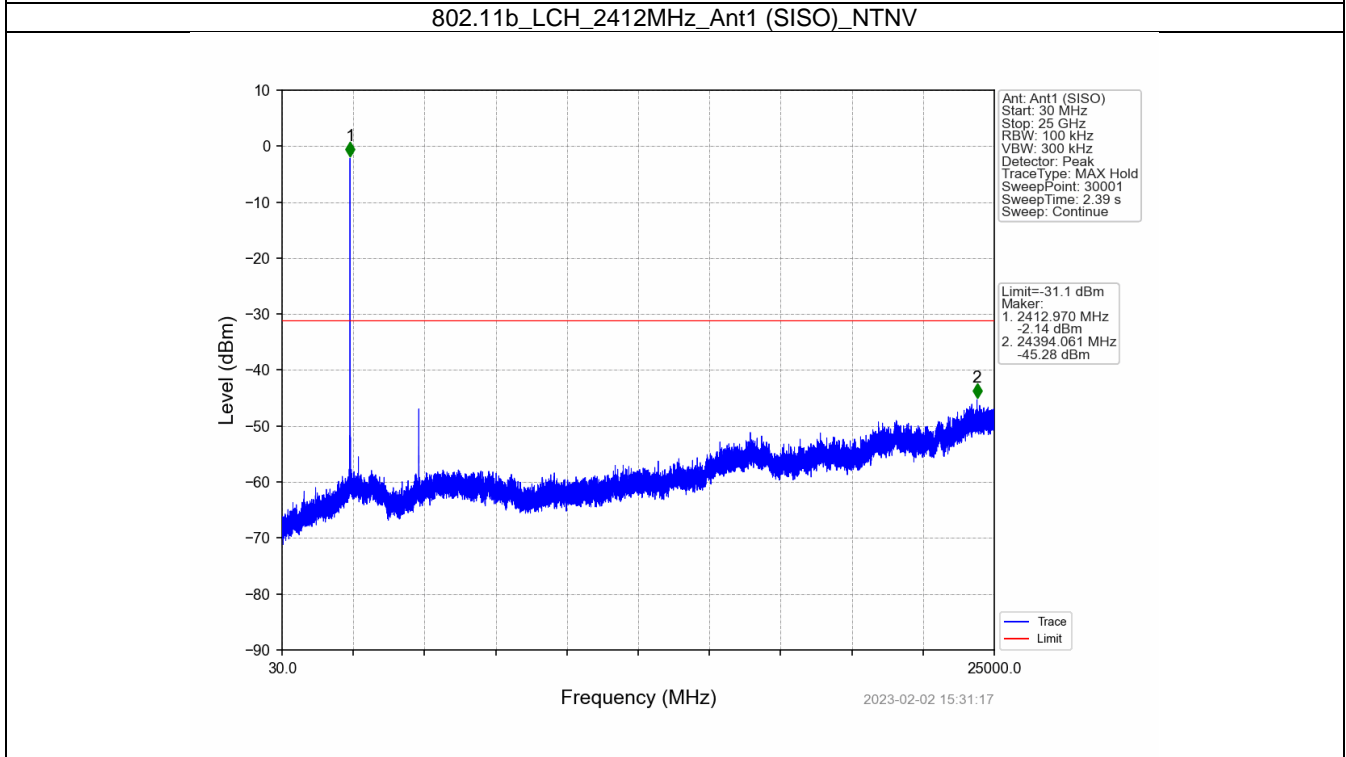
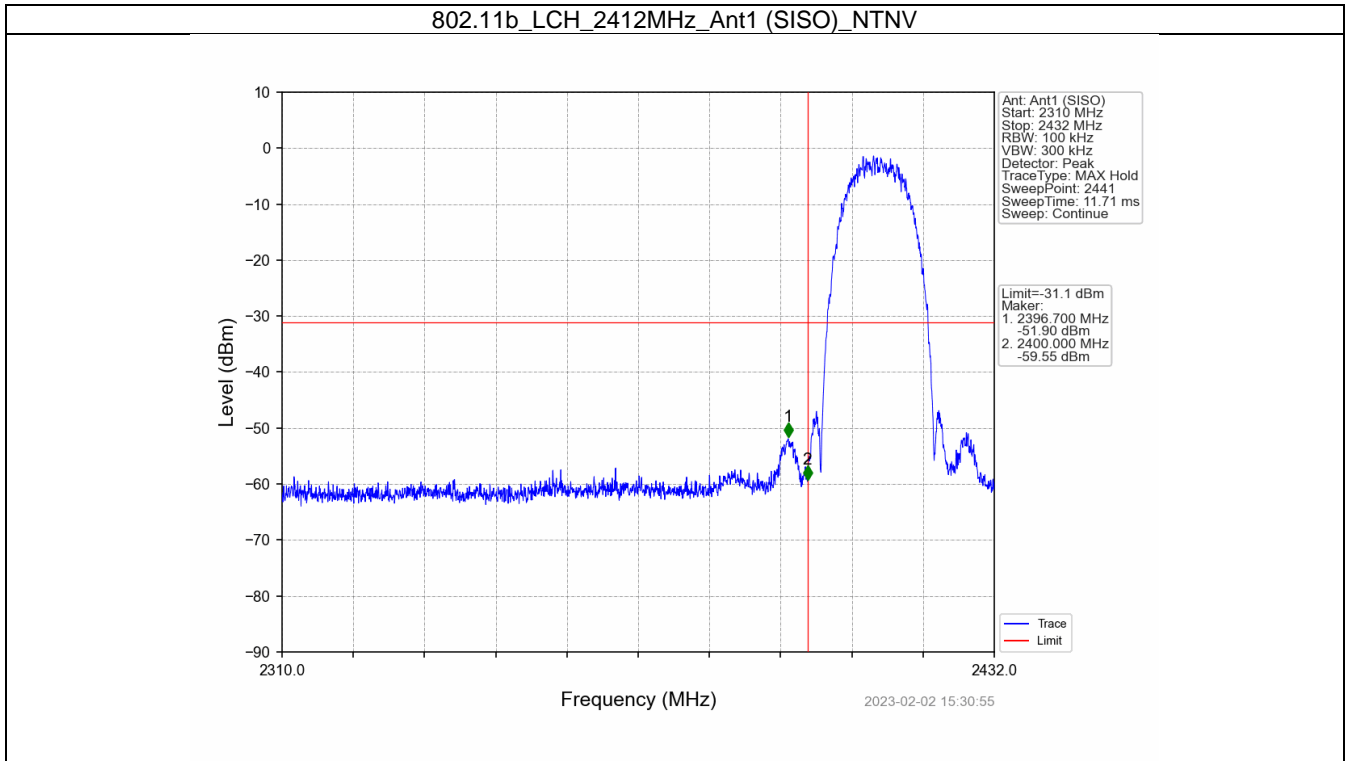
4.2 CSE

4.2.1 Test Result

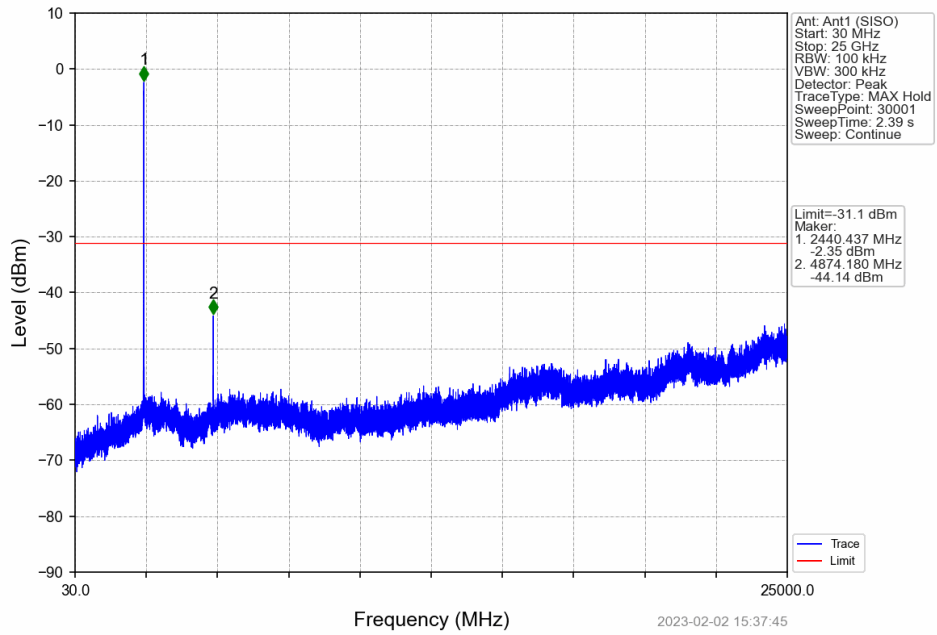
Mode	TX Type	Frequency (MHz)	ANT	Level of Reference (dBm)	Limit (dBm)	Verdict
802.11b	SISO	2412	1	-1.10	-31.10	Pass
		2437	1	-1.10	-31.10	Pass
		2462	1	-1.10	-31.10	Pass
802.11g	SISO	2412	1	-2.05	-32.05	Pass
		2437	1	-2.05	-32.05	Pass
		2462	1	-2.05	-32.05	Pass
802.11n (HT20)	SISO	2412	1	-2.00	-32.00	Pass
		2437	1	-2.00	-32.00	Pass
		2462	1	-2.00	-32.00	Pass
802.11n (HT40)	SISO	2422	1	-4.83	-34.83	Pass
		2437	1	-4.83	-34.83	Pass
		2452	1	-4.83	-34.83	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.

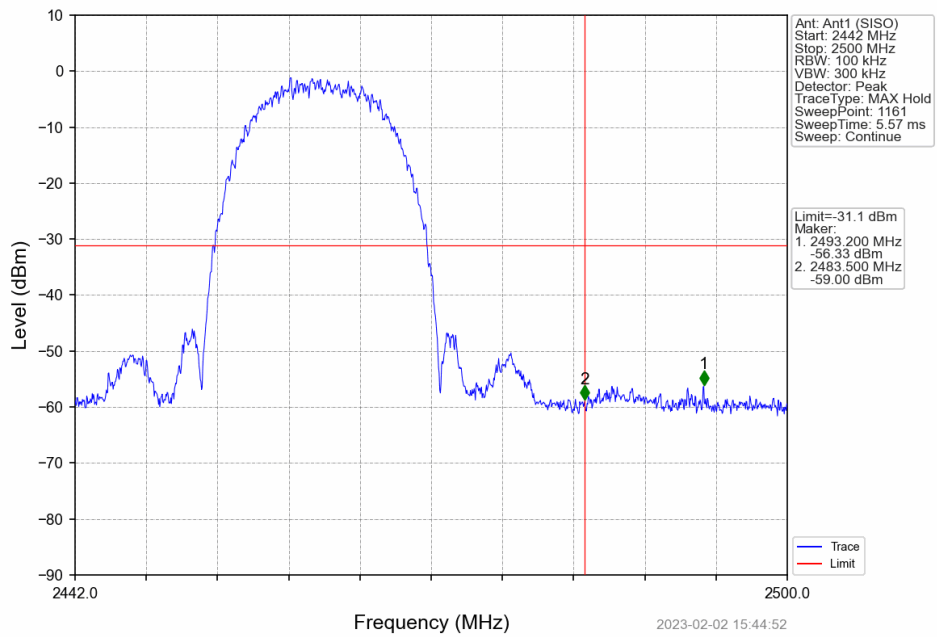
4.2.2 Test Graph



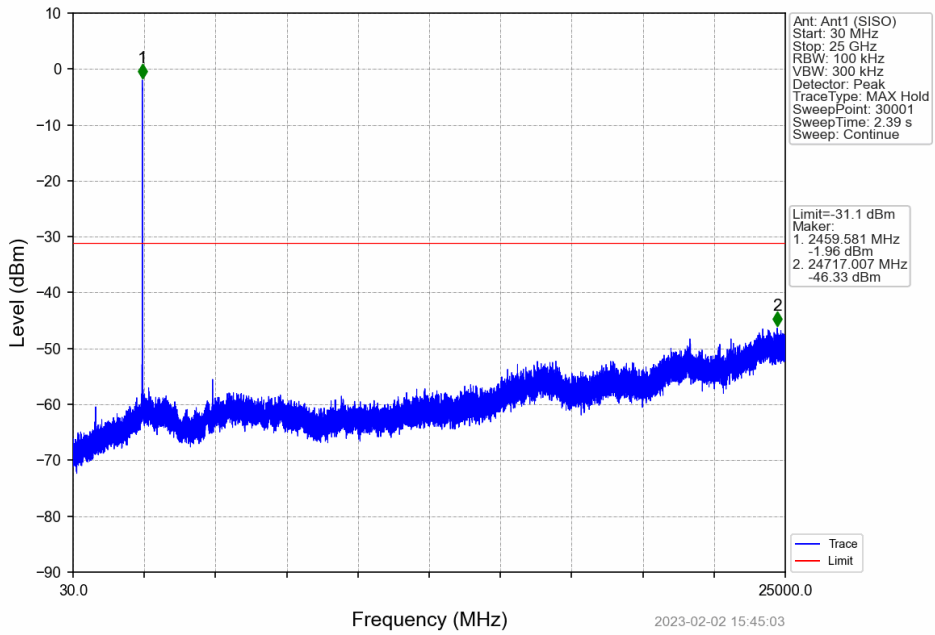
802.11b_MCH_2437MHz_Ant1 (SISO)_NTNV



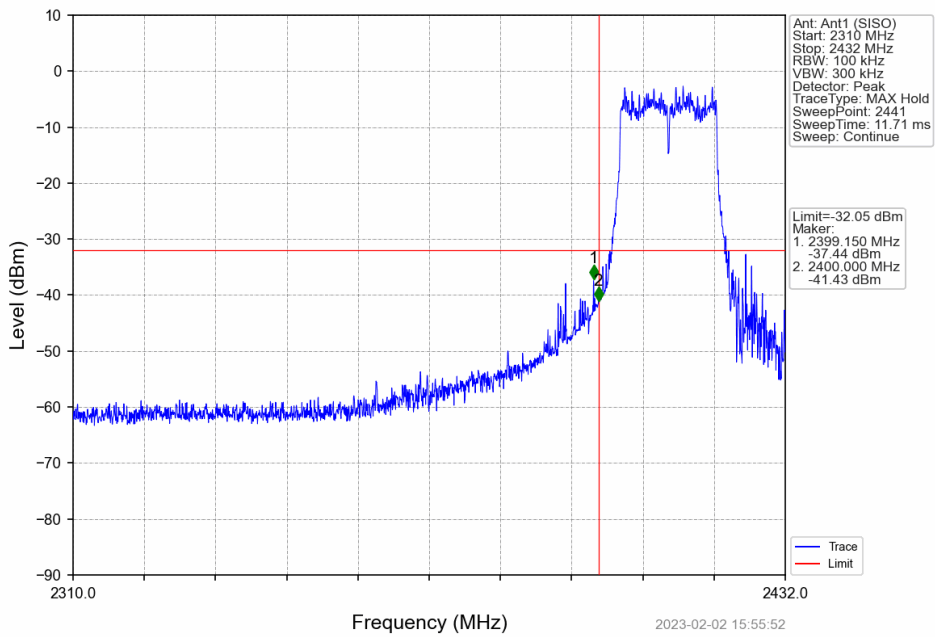
802.11b_HCH_2462MHz_Ant1 (SISO)_NTNV



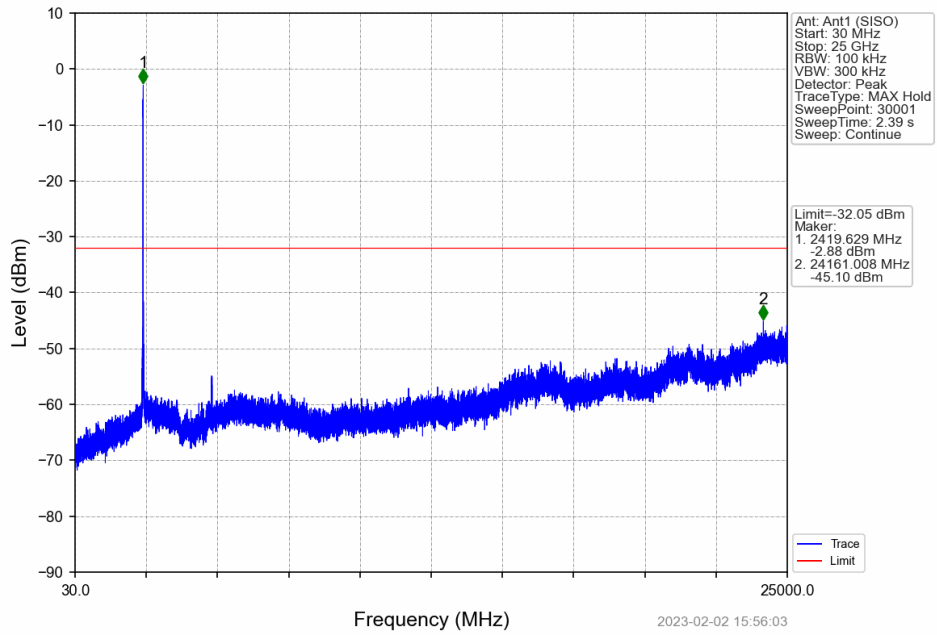
802.11b_HCH_2462MHz_Ant1 (SISO)_NTNV



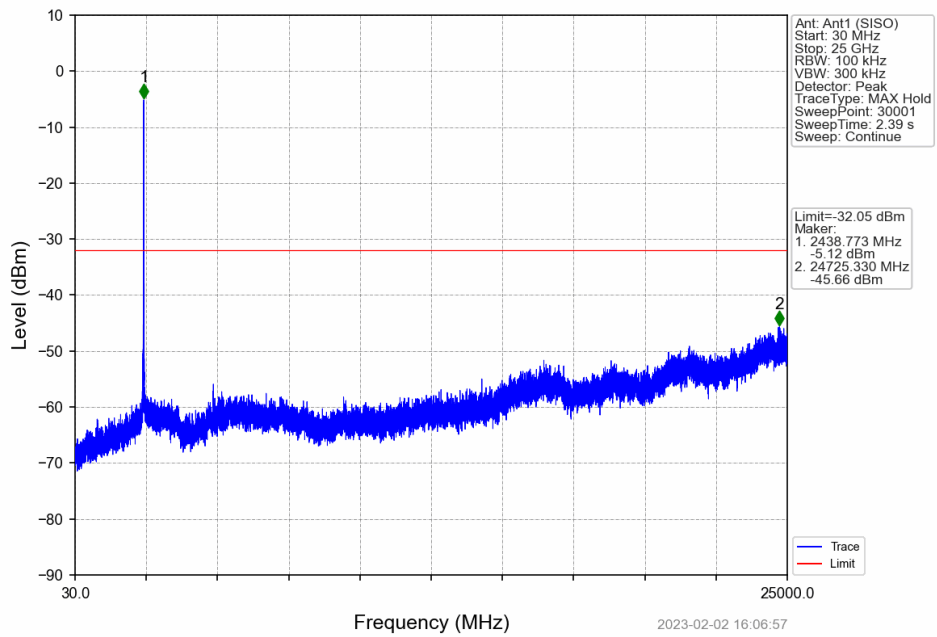
802.11g_LCH_2412MHz_Ant1 (SISO)_NTNV



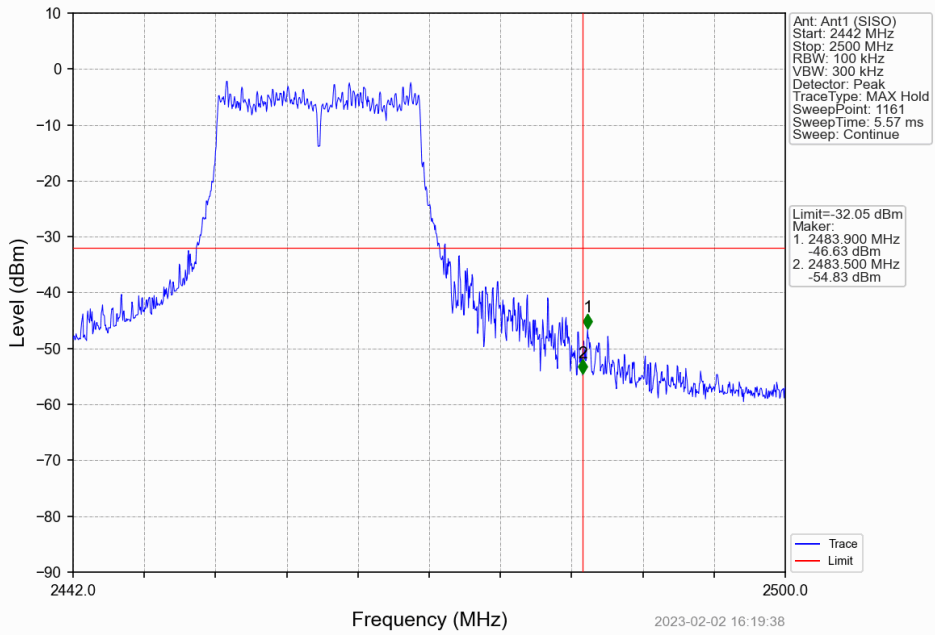
802.11g_LCH_2412MHz_Ant1 (SISO)_NTNV



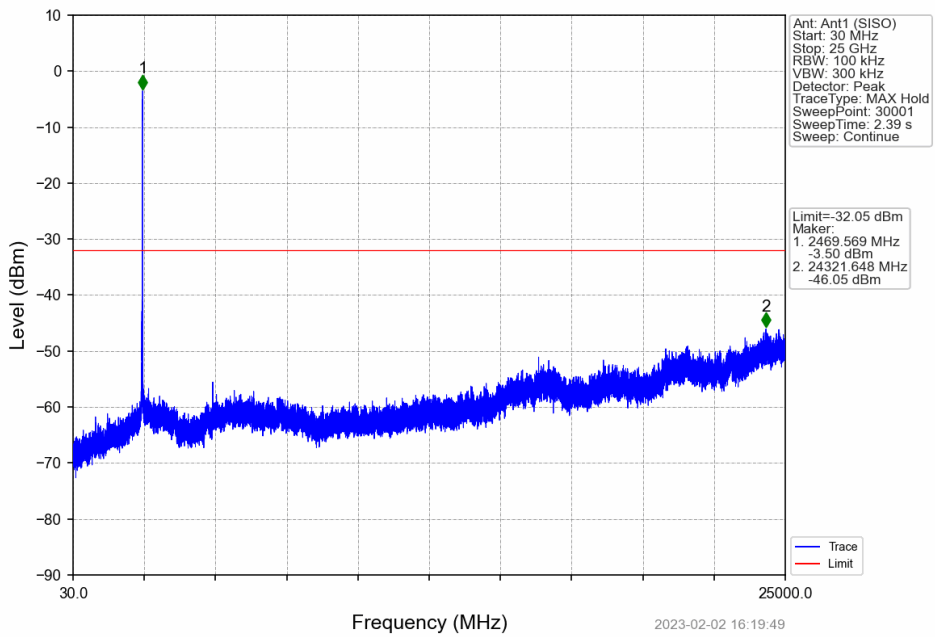
802.11g_MCH_2437MHz_Ant1 (SISO)_NTNV



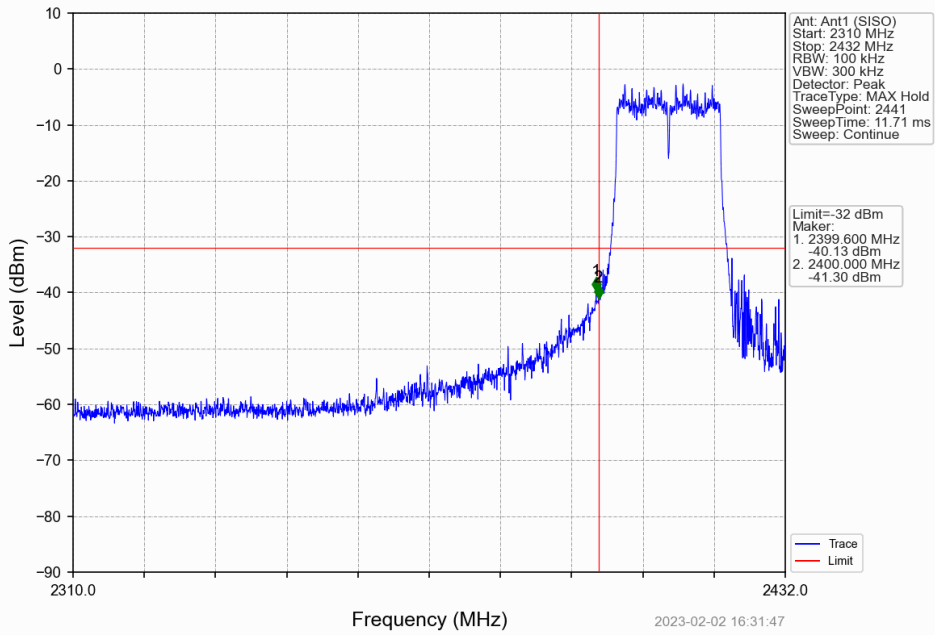
802.11g_HCH_2462MHz_Ant1 (SISO)_NTNV



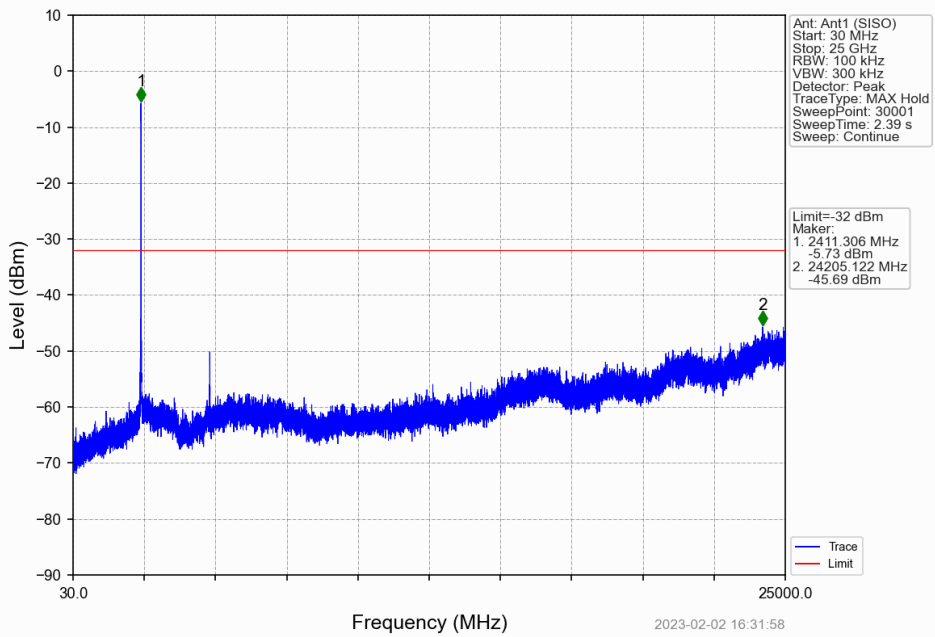
802.11g_HCH_2462MHz_Ant1 (SISO)_NTNV



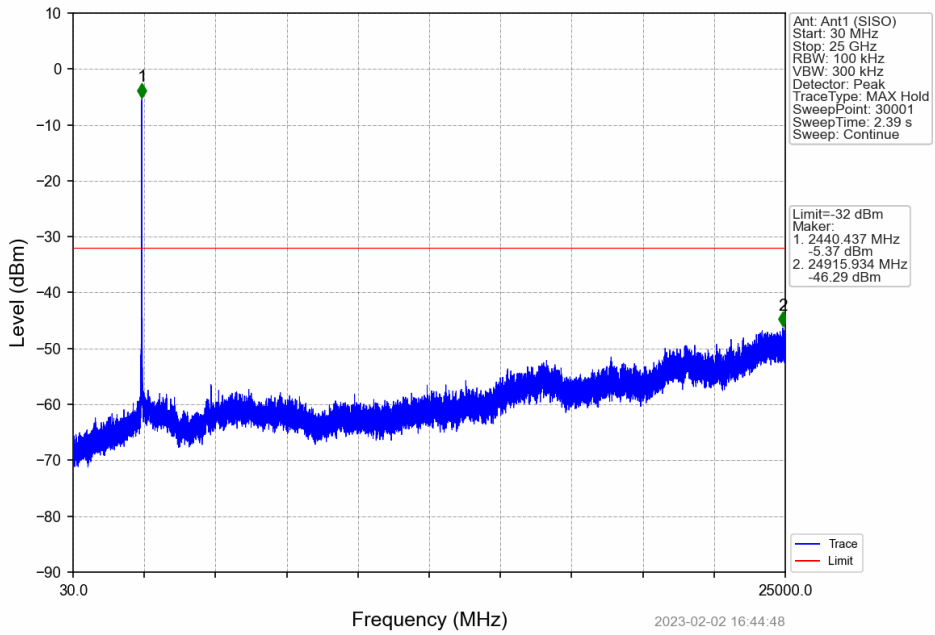
802.11n(HT20)_LCH_2412MHz_Ant1 (SISO)_NTNV



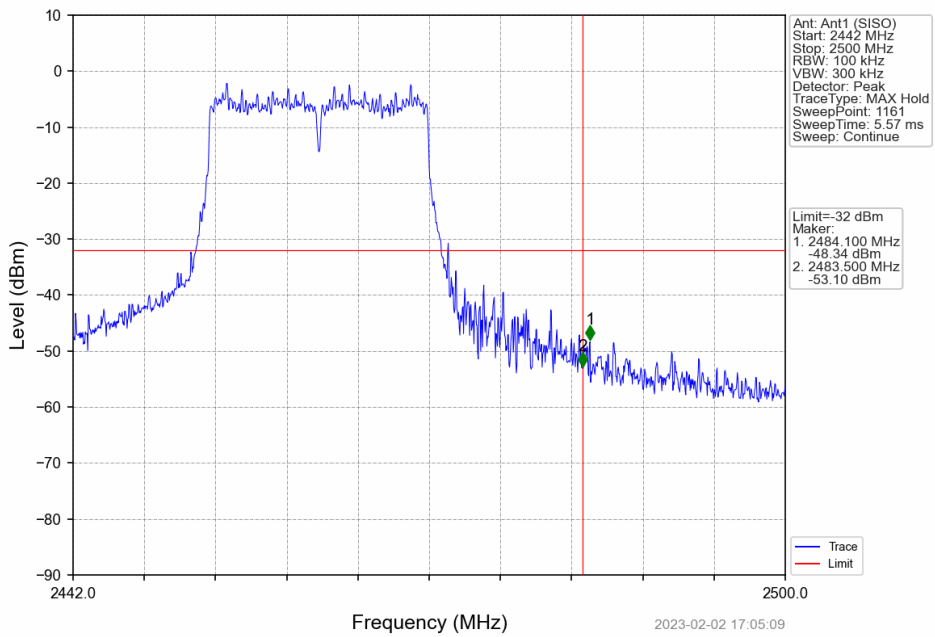
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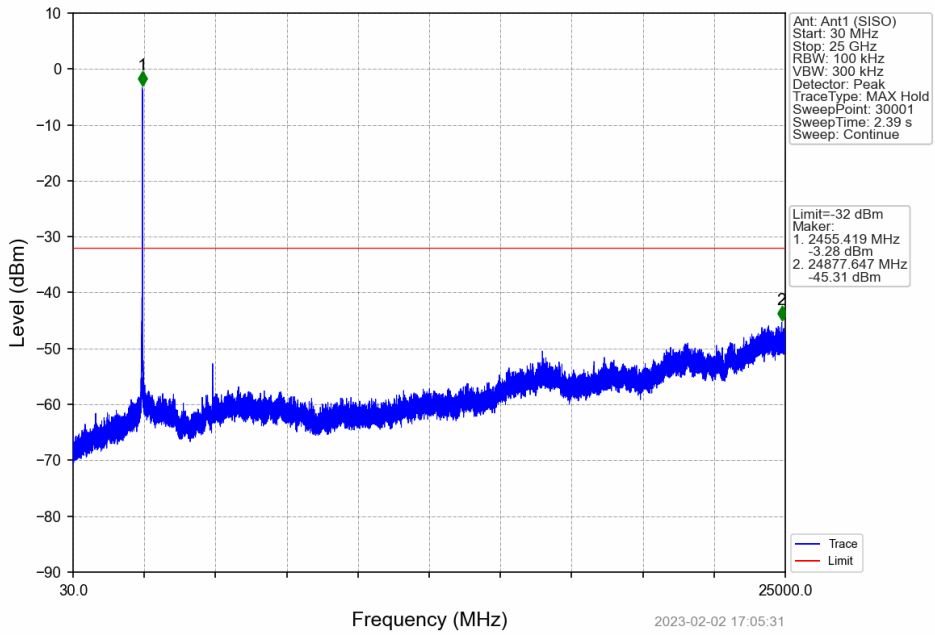
802.11n(HT20)_MCH_2437MHz_Ant1 (SISO)_NTNV



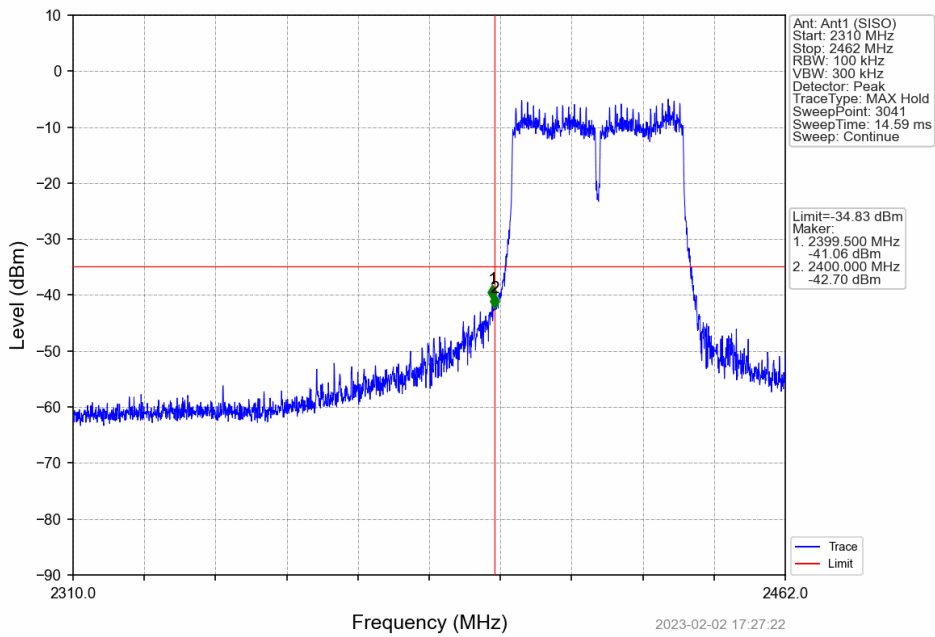
802.11n(HT20)_HCH_2462MHz_Ant1 (SISO)_NTNV



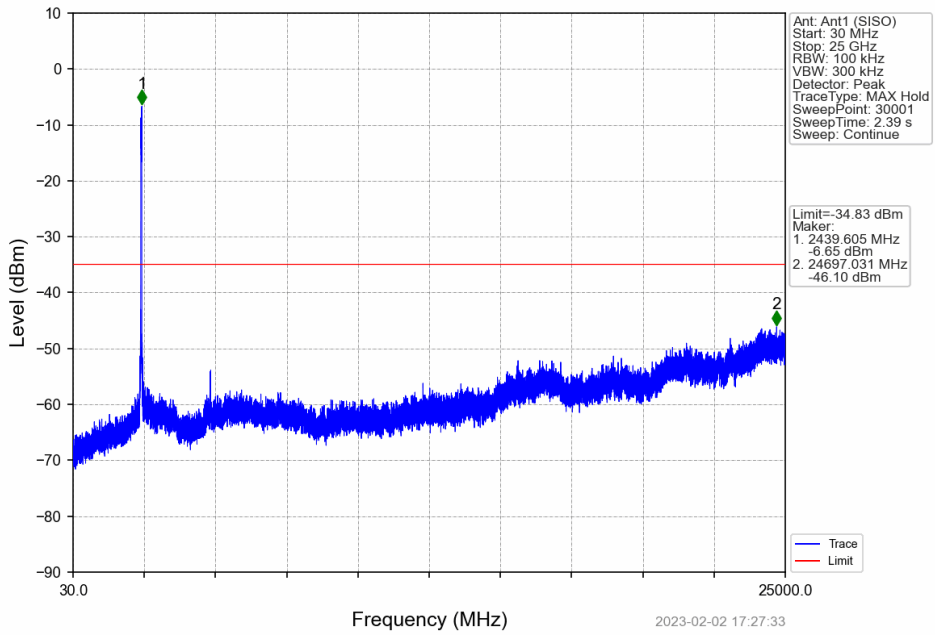
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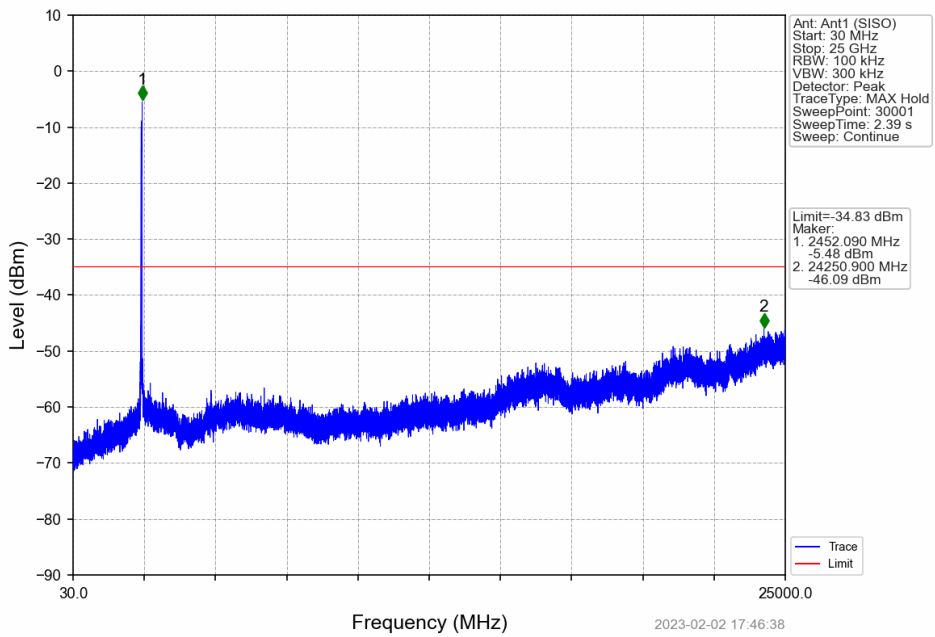
802.11n(HT40)_LCH_2422MHz_Ant1 (SISO)_NTNV



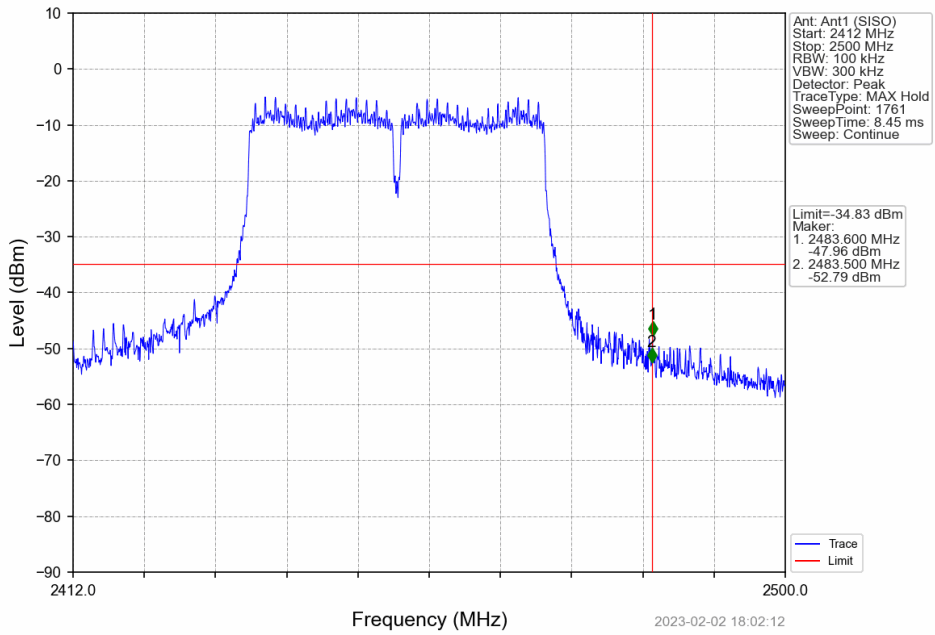
802.11n(HT40)_LCH_2422MHz_Ant1 (SISO)_NTNV



802.11n(HT40)_MCH_2437MHz_Ant1 (SISO)_NTNV



802.11n(HT40)_HCH_2452MHz_Ant1 (SISO)_NTNV



802.11n(HT40)_HCH_2452MHz_Ant1 (SISO)_NTNV

