ANNEX E TEST DATA

For

Project No.:	8229EU010701W
Client:	Guangzhou Changjia Electronic co., ltd
Product Description:	Moveable smart screen
Model No.:	JM-32-01
FCC ID:	2BGL8-JM-32-01
Technology:	WiFi 2.4G
Test Engineer:	Mikey zhu
Test Date:	2024-05-14

Test Summary

Item	Result
Duty Cycle	Pass
Bandwidth	Pass
Maximum Conducted Output Power	Pass
Maximum Power Spectral Density	Pass
Unwanted Emissions In Non-restricted Frequency Bands	Pass

1. Duty Cycle

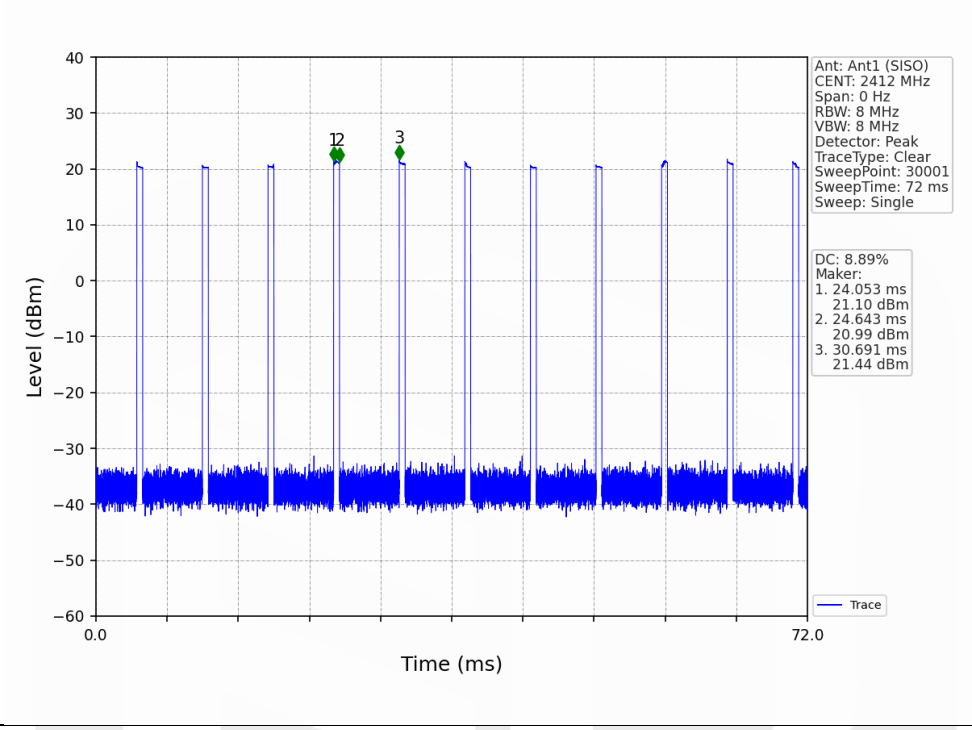
1.1 Ant1

1.1.1 Test Result

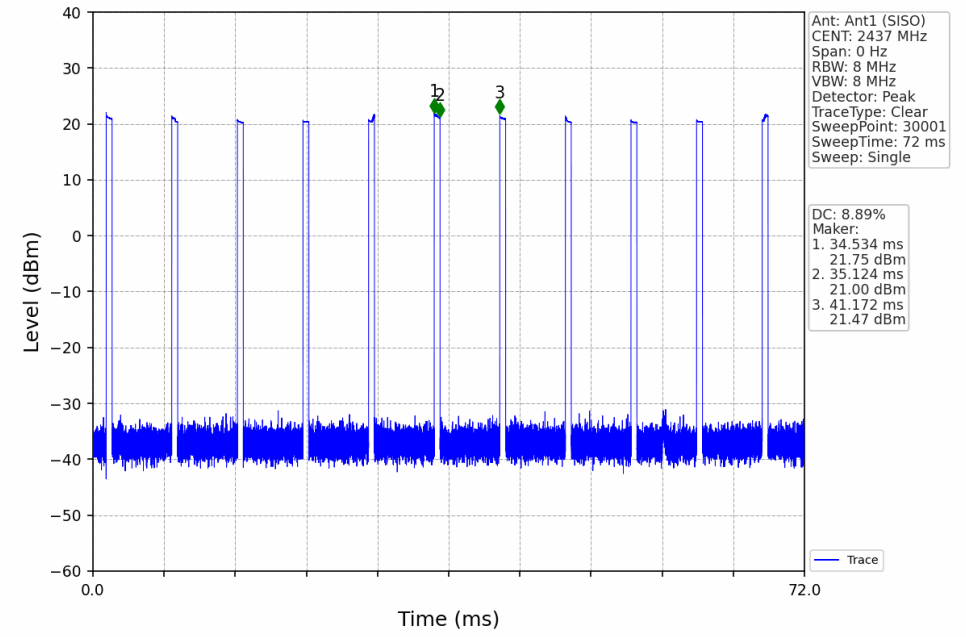
Ant1							
Mode	TX Type	Frequency (MHz)	T_on (ms)	Period (ms)	Duty Cycle (%)	Duty Cycle Correction Factor (dB)	Max. DC Variation (%)
802.11b	SISO	2412	0.590	6.638	8.89	10.51	0.04
		2437	0.590	6.638	8.89	10.51	0.04
		2462	0.591	6.639	8.90	10.51	0.04
802.11g	SISO	2412	0.583	6.631	8.79	10.56	0.04
		2437	0.583	6.631	8.79	10.56	0.04
		2462	0.583	6.631	8.79	10.56	0.04
802.11n (HT20)	SISO	2412	0.559	6.607	8.46	10.73	0.03
		2437	0.559	6.607	8.46	10.73	0.03
		2462	0.559	6.607	8.46	10.73	0.04
802.11n (HT40)	SISO	2422	0.581	6.628	8.77	10.57	0.00
		2437	0.581	6.629	8.76	10.57	0.00
		2452	0.581	6.629	8.76	10.57	0.00

1.1.2 Test Graph

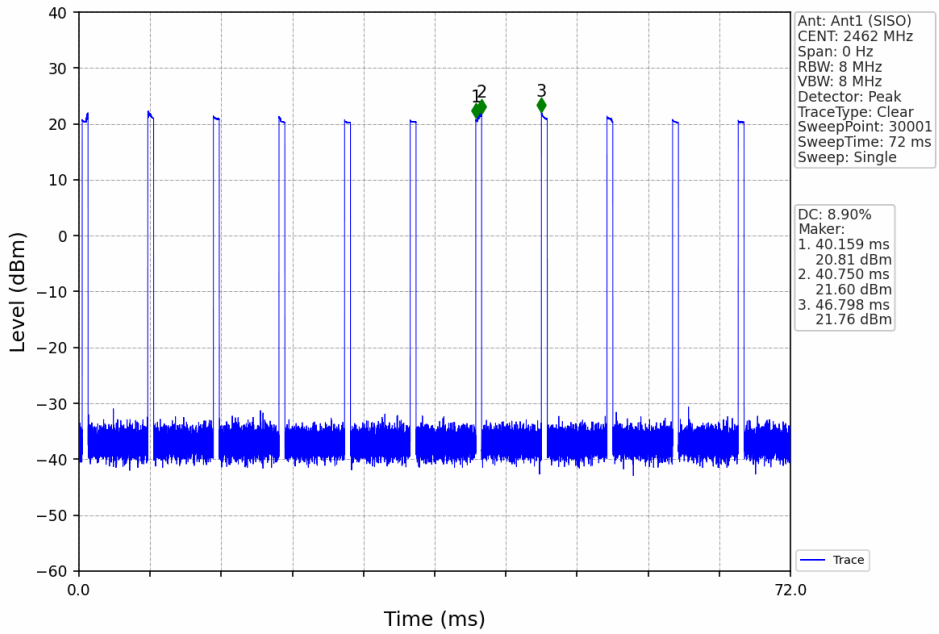
802.11b_LCH_2412MHz_Ant1 (SISO)_NTNV



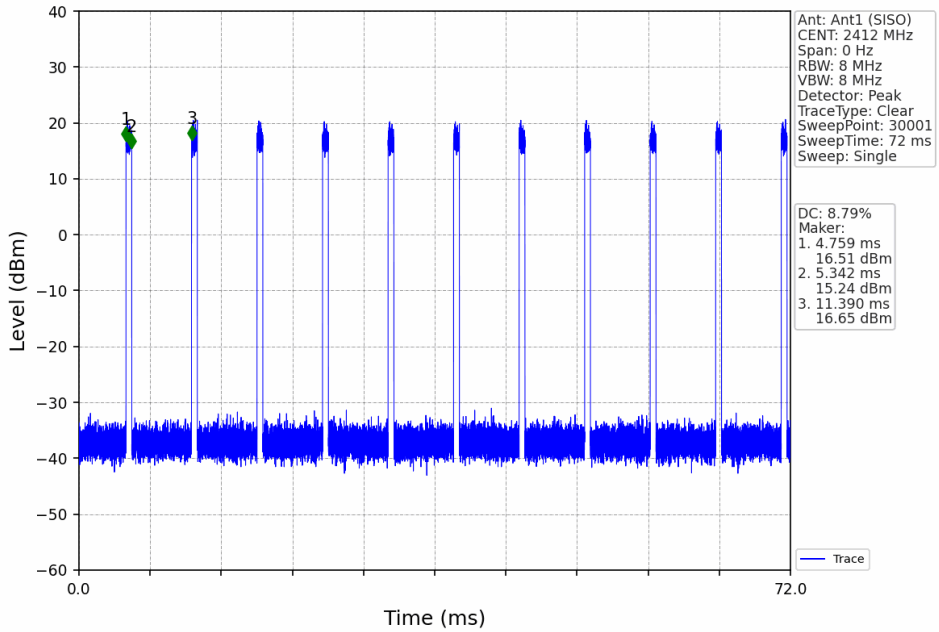
802.11b_MCH_2437MHz_Ant1 (SISO)_NTNV



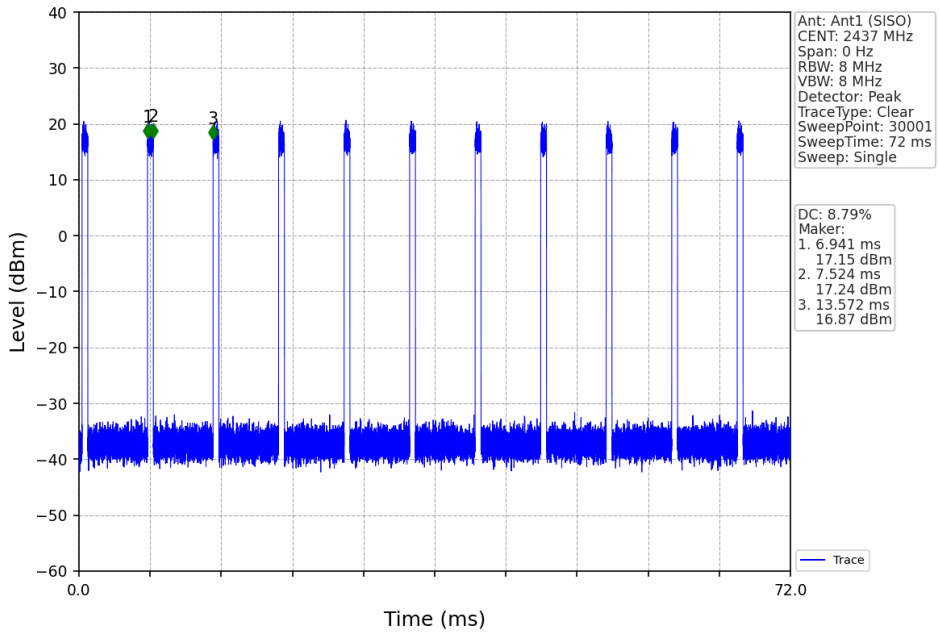
802.11b_HCH_2462MHz_Ant1 (SISO)_NTNV



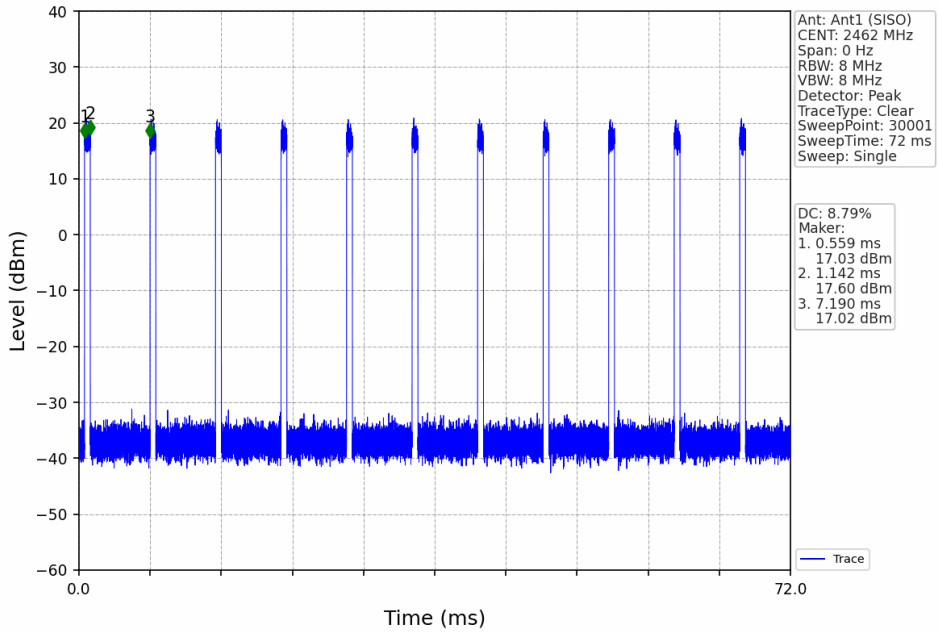
802.11g_LCH_2412MHz_Ant1 (SISO)_NTNV



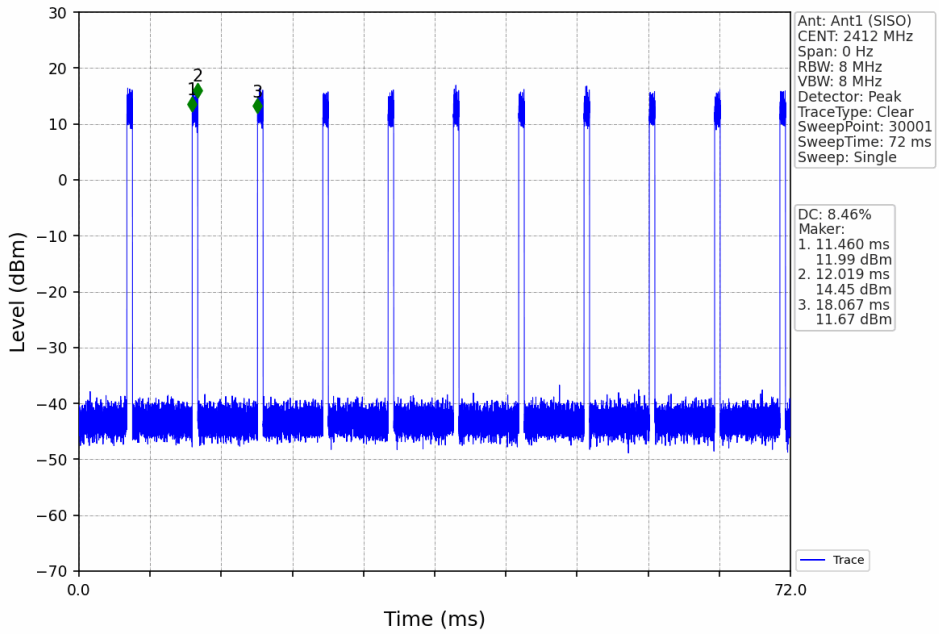
802.11g_MCH_2437MHz_Ant1 (SISO)_NTNV



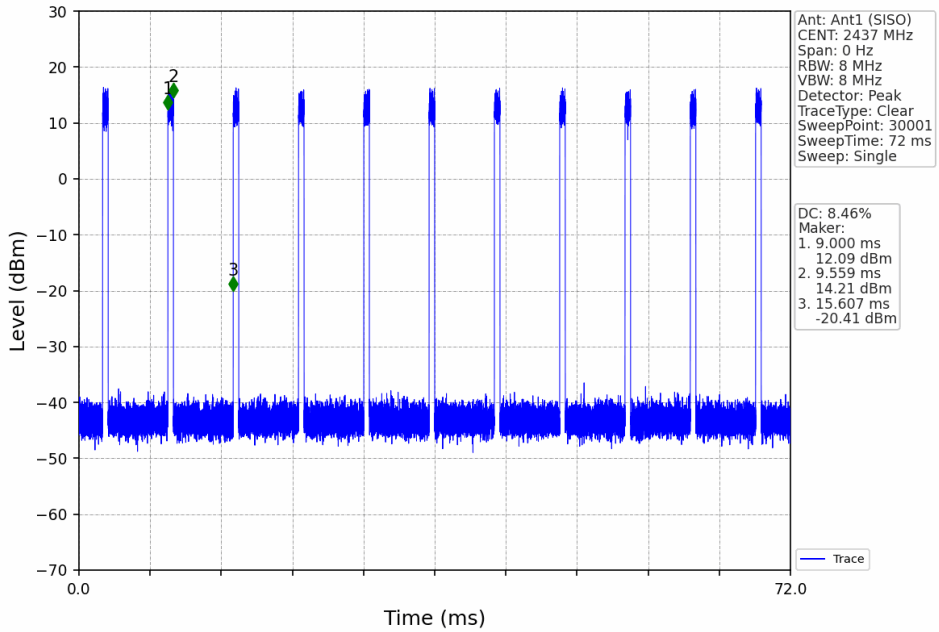
802.11g_HCH_2462MHz_Ant1 (SISO)_NTNV



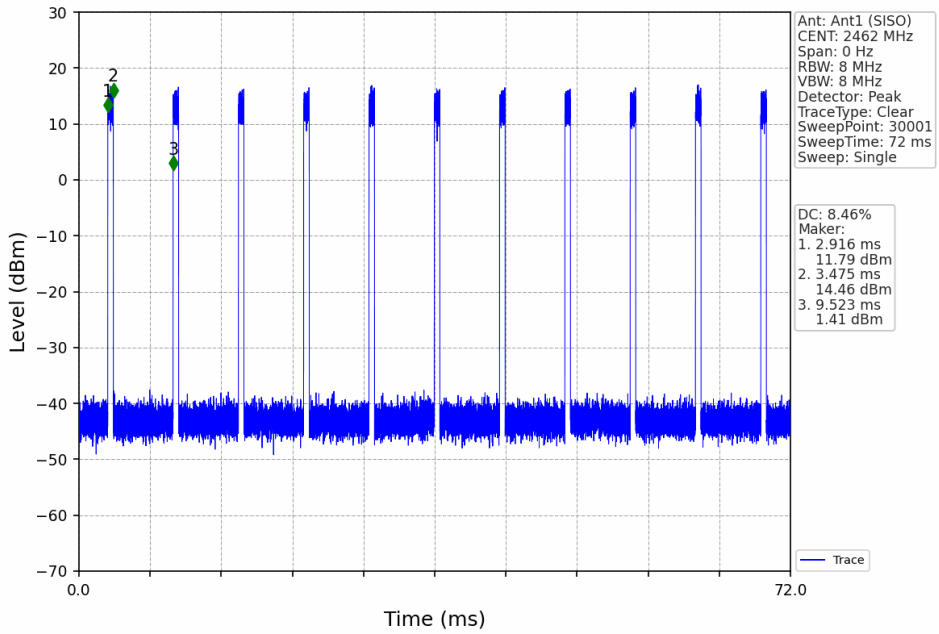
802.11n(HT20)_LCH_2412MHz_Ant1 (SISO)_NTNV



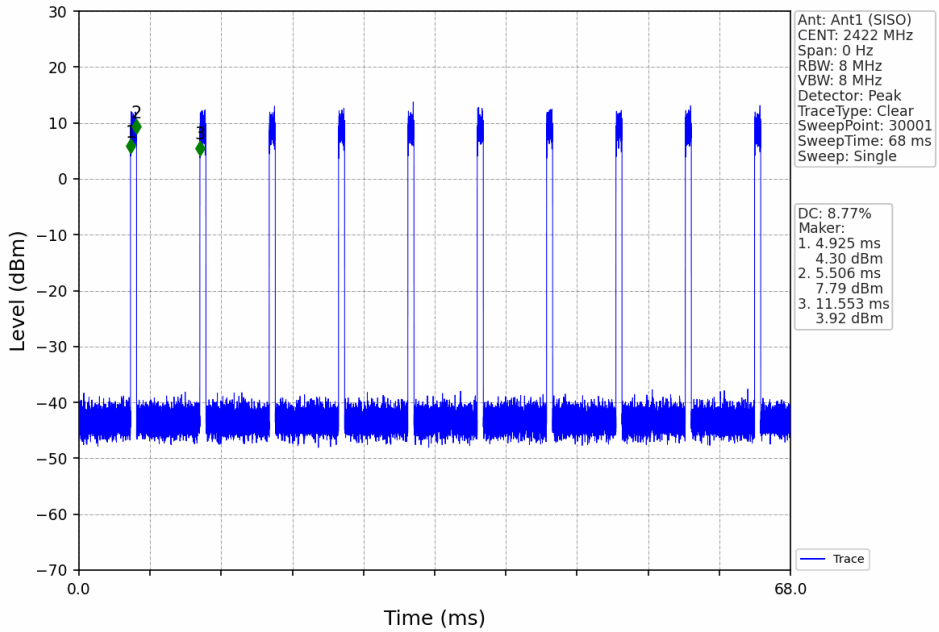
802.11n(HT20)_MCH_2437MHz_Ant1 (SISO)_NTNV



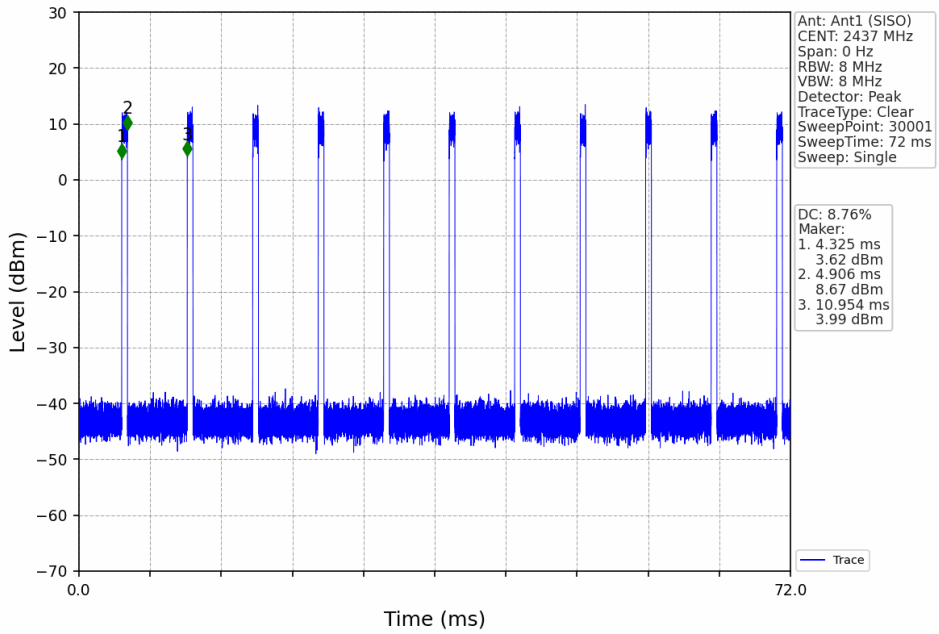
802.11n(HT20)_HCH_2462MHz_Ant1 (SISO)_NTNV



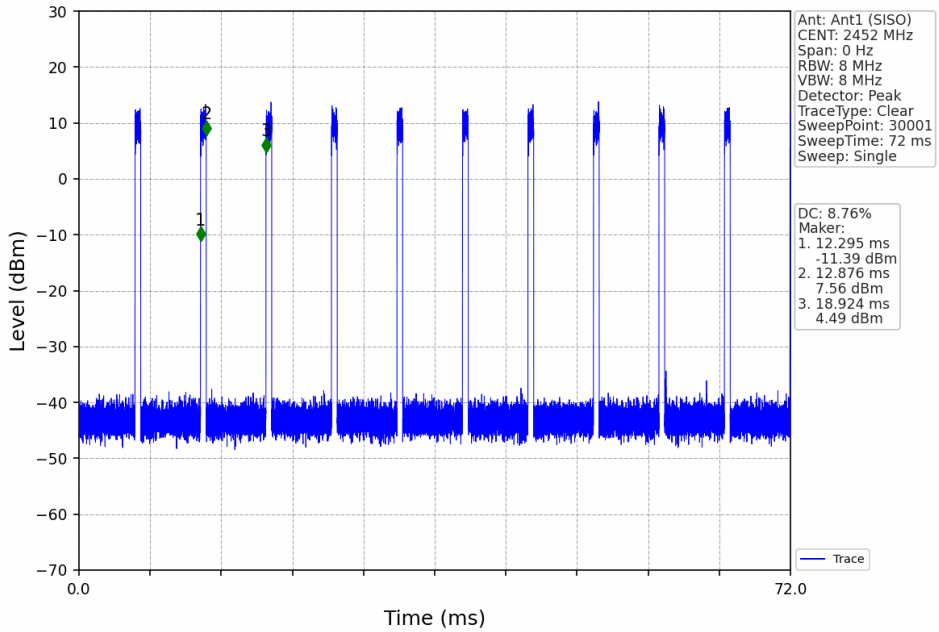
802.11n(HT40)_LCH_2422MHz_Ant1 (SISO)_NTNV



802.11n(HT40)_MCH_2437MHz_Ant1 (SISO)_NTNV



802.11n(HT40)_HCH_2452MHz_Ant1 (SISO)_NTNV



2. Bandwidth

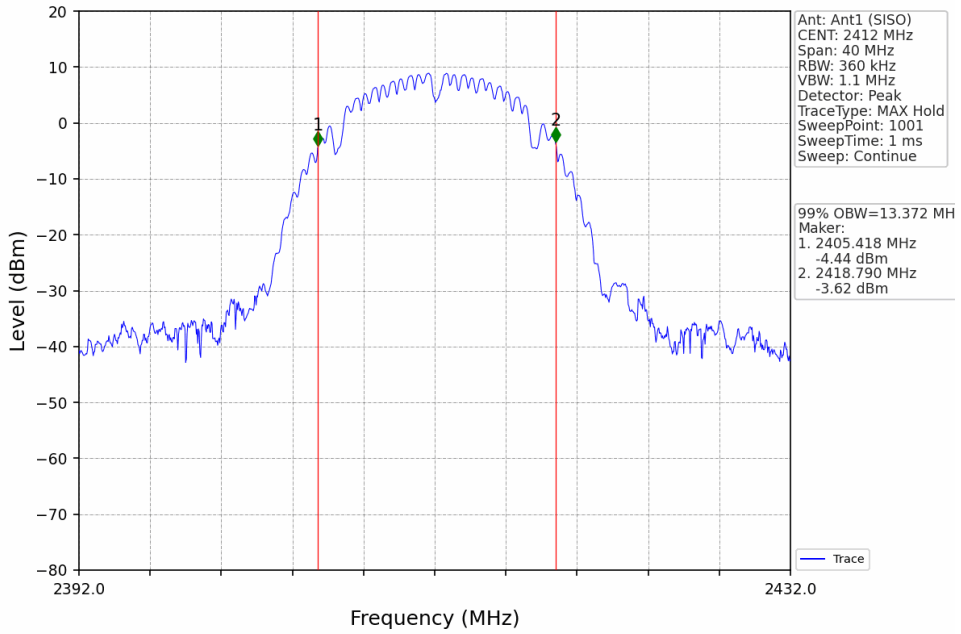
2.1 OBW

2.1.1 Test Result

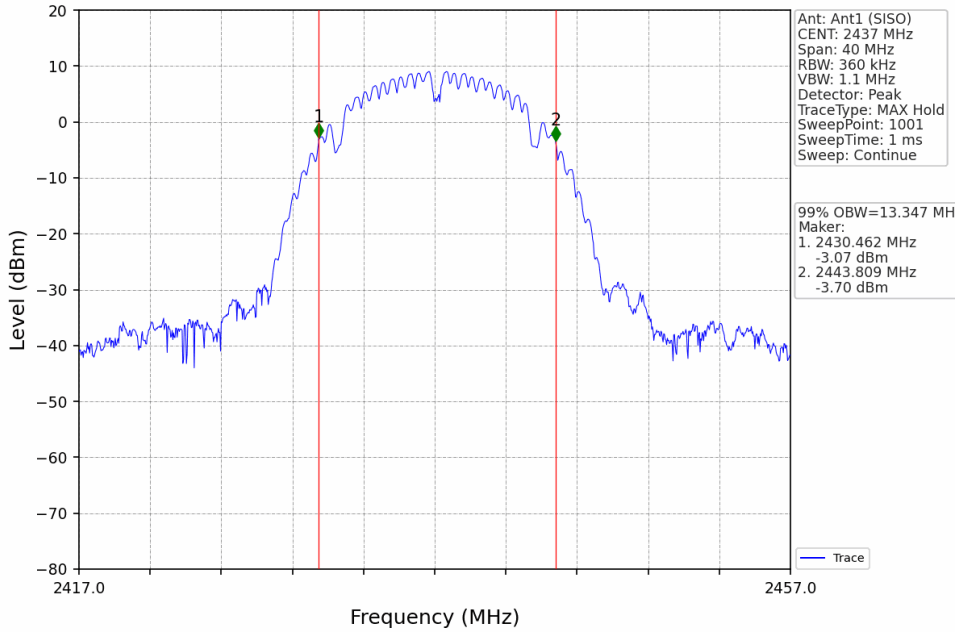
Mode	TX Type	Frequency (MHz)	ANT	99% Occupied Bandwidth (MHz)		Verdict
				Result	Limit	
802.11b	SISO	2412	1	13.372	/	Pass
		2437	1	13.347	/	Pass
		2462	1	13.315	/	Pass
802.11g	SISO	2412	1	18.688	/	Pass
		2437	1	18.633	/	Pass
		2462	1	18.616	/	Pass
802.11n (HT20)	SISO	2412	1	19.107	/	Pass
		2437	1	19.098	/	Pass
		2462	1	19.111	/	Pass
802.11n (HT40)	SISO	2422	1	38.694	/	Pass
		2437	1	38.532	/	Pass
		2452	1	38.458	/	Pass

2.1.2 Test Graph

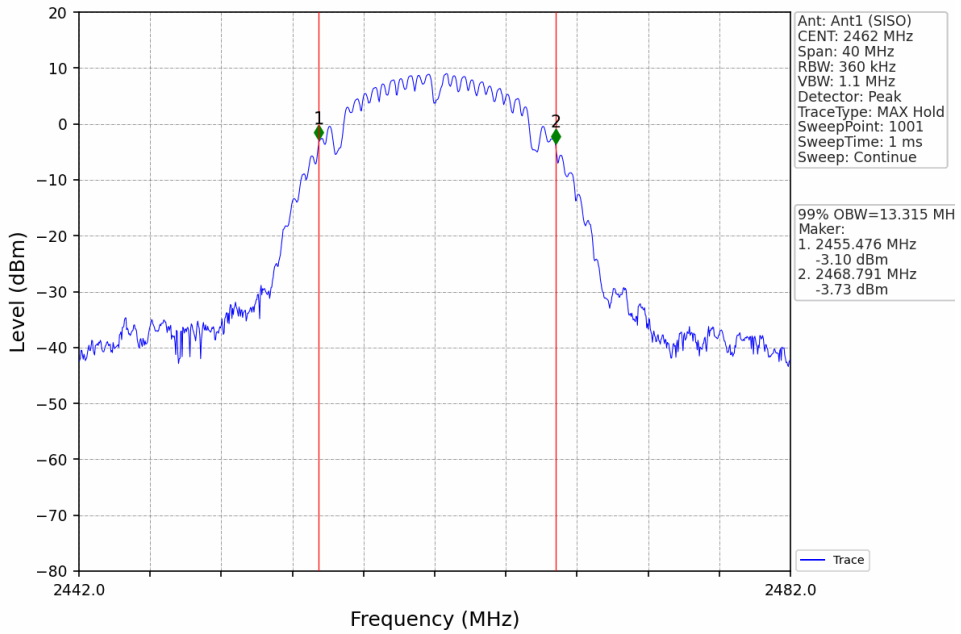
802.11b_LCH_2412MHz_Ant1 (SISO)_NTNV



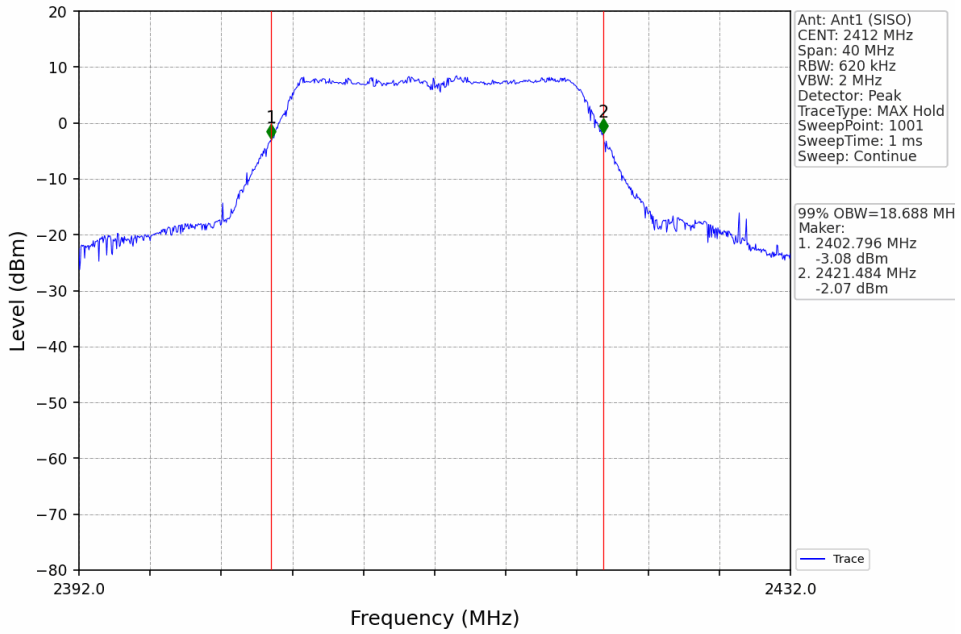
802.11b_MCH_2437MHz_Ant1 (SISO)_NTNV



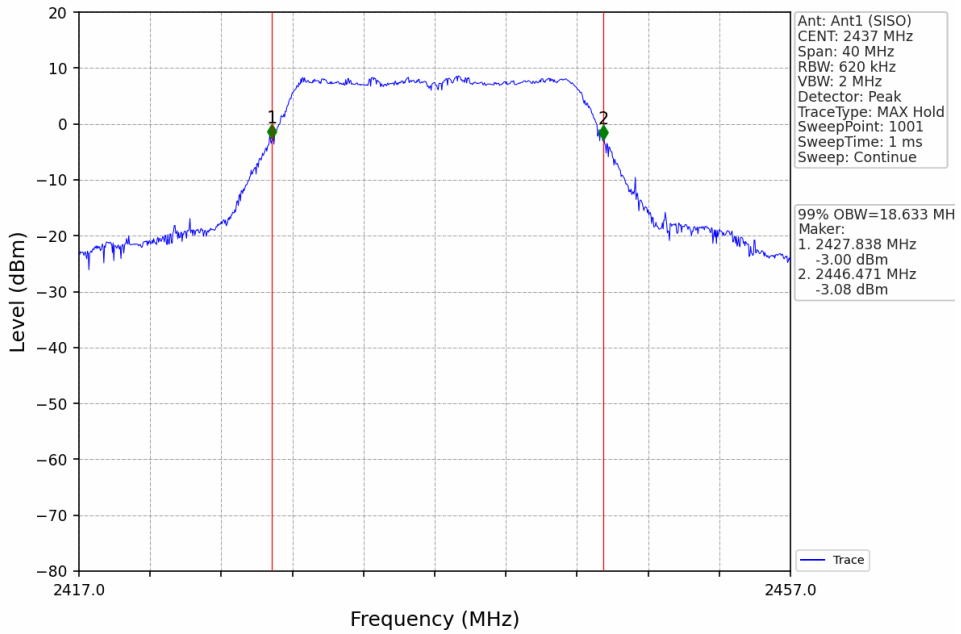
802.11b_HCH_2462MHz_Ant1 (SISO)_NTNV



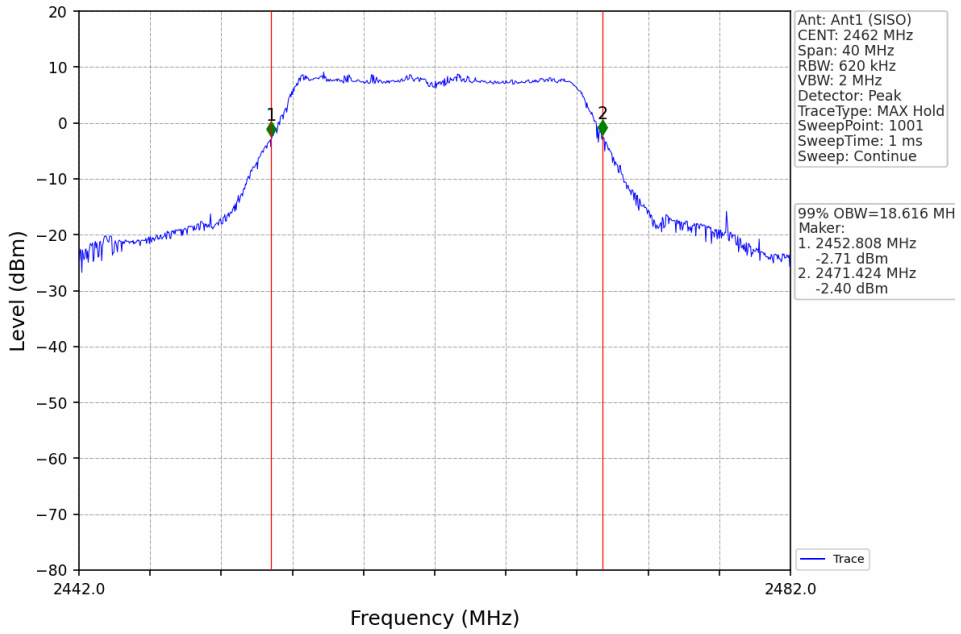
802.11g_LCH_2412MHz_Ant1 (SISO)_NTNV



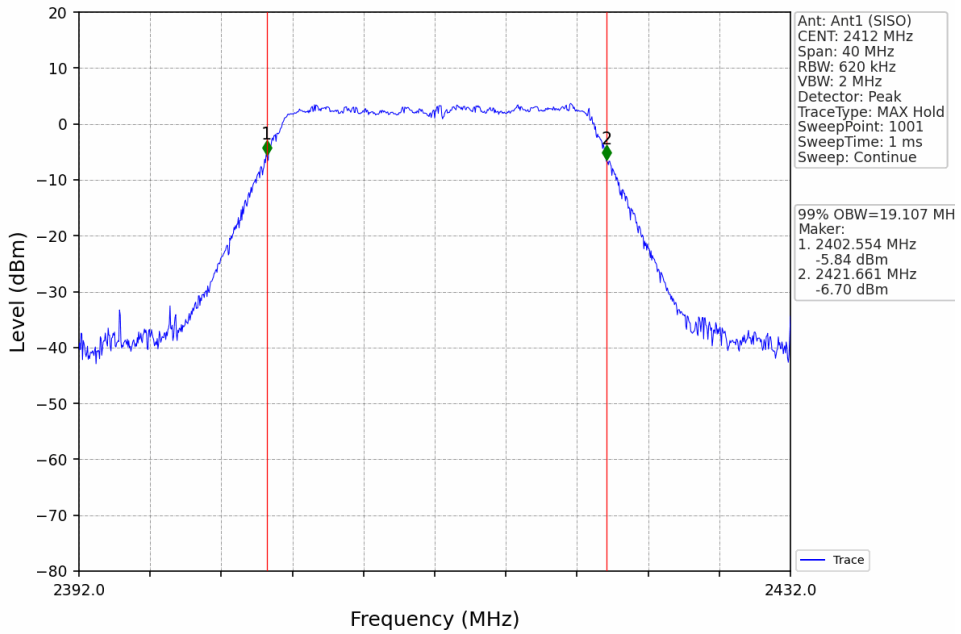
802.11g_MCH_2437MHz_Ant1 (SISO)_NTNV



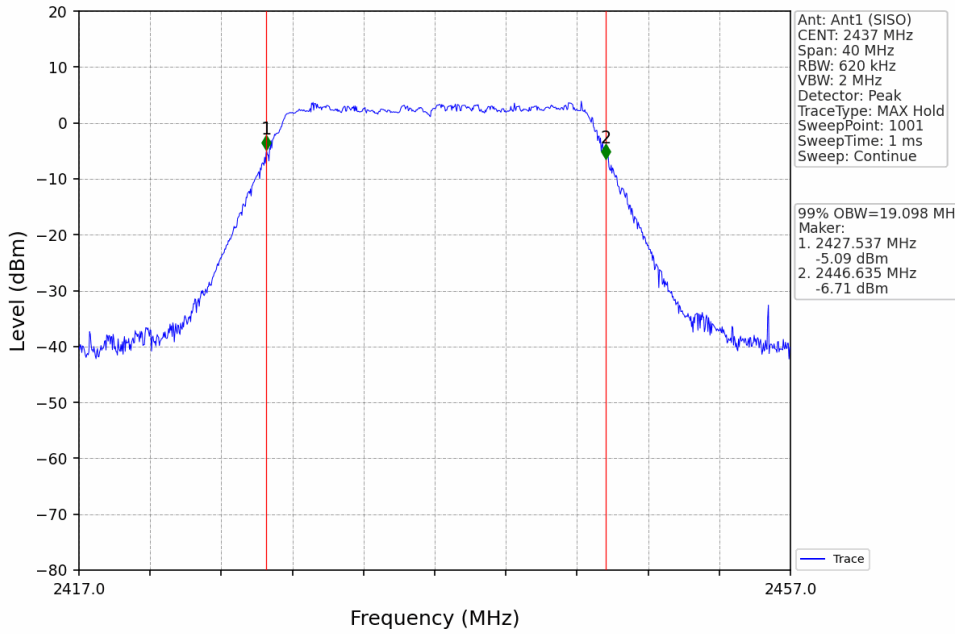
802.11g_HCH_2462MHz_Ant1 (SISO)_NTNV



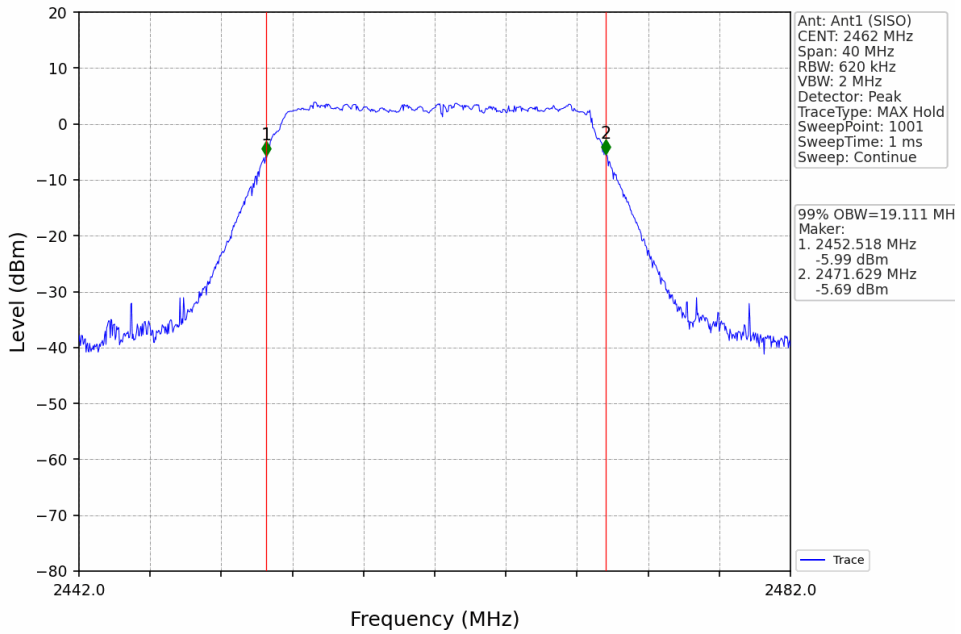
802.11n(HT20)_LCH_2412MHz_Ant1 (SISO)_NTNV



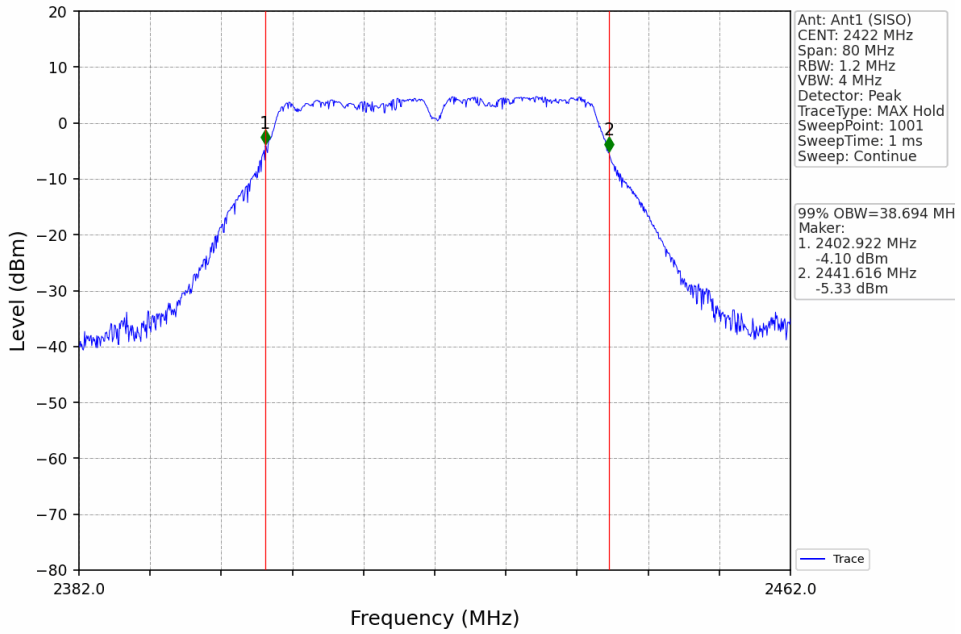
802.11n(HT20)_MCH_2437MHz_Ant1 (SISO)_NTNV



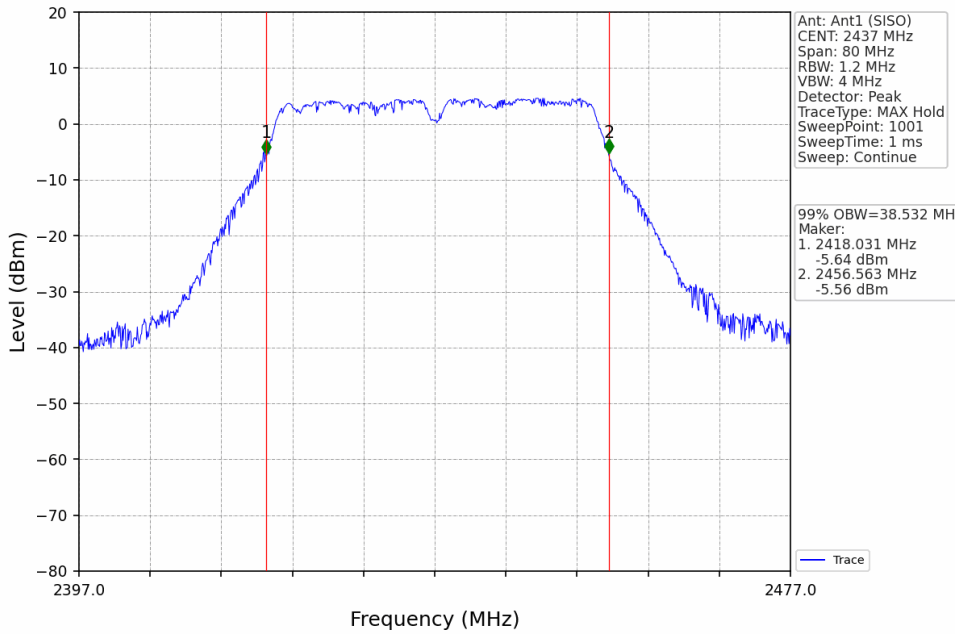
802.11n(HT20)_HCH_2462MHz_Ant1 (SISO)_NTNV



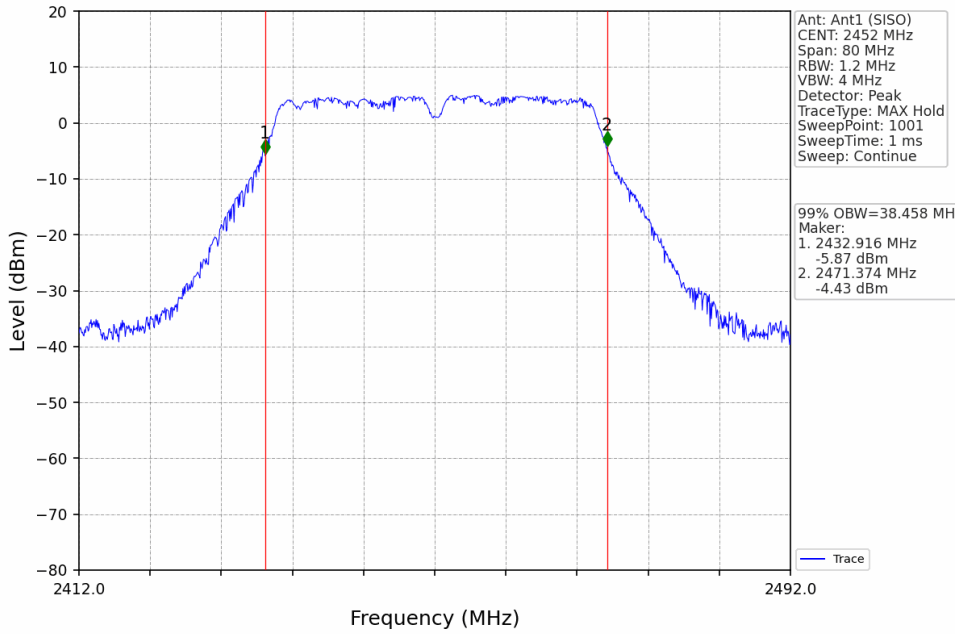
802.11n(HT40)_LCH_2422MHz_Ant1 (SISO)_NTNV



802.11n(HT40)_MCH_2437MHz_Ant1 (SISO)_NTNV



802.11n(HT40)_HCH_2452MHz_Ant1 (SISO)_NTNV



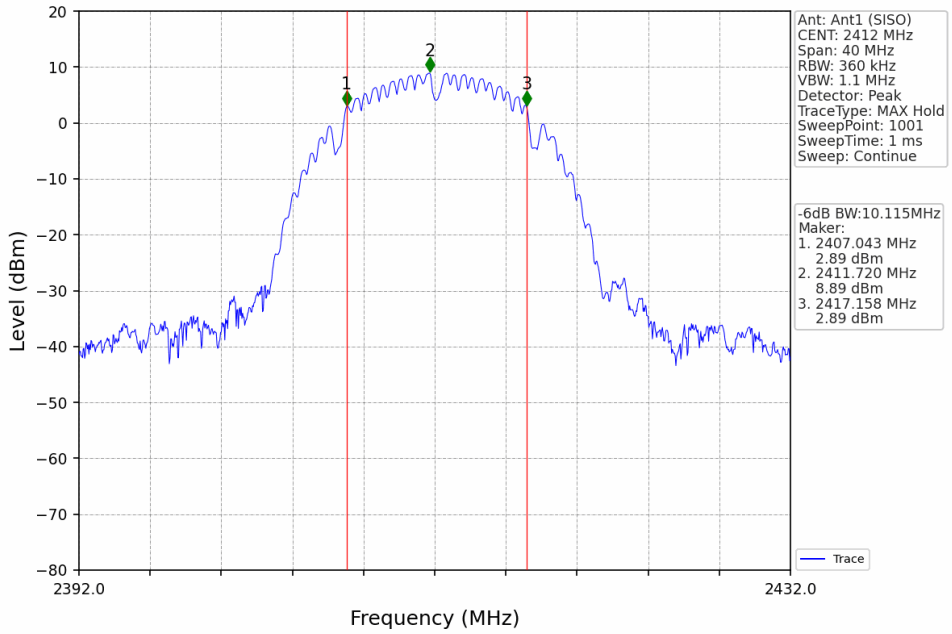
2.2 6dB BW

2.2.1 Test Result

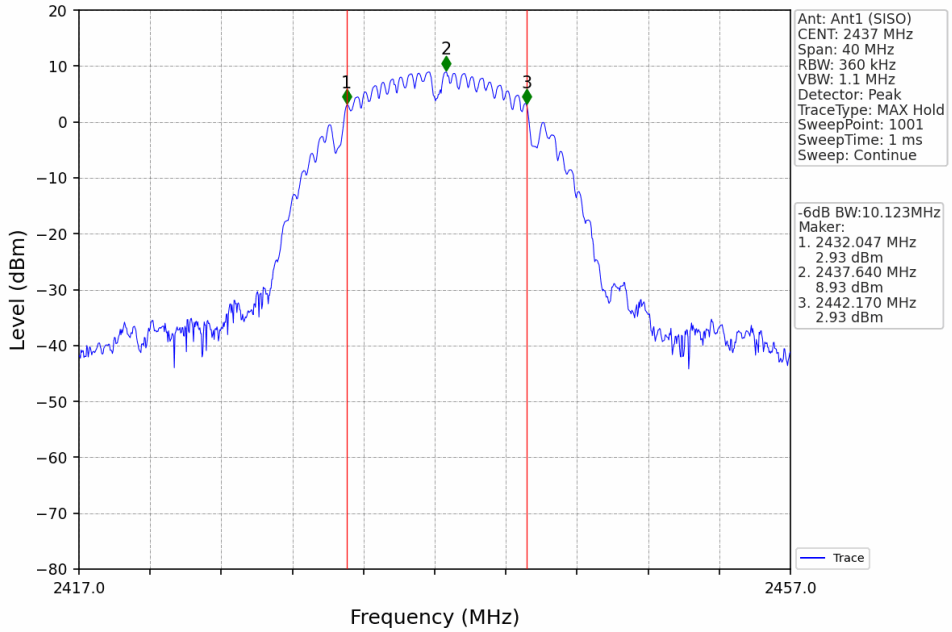
Mode	TX Type	Frequency (MHz)	ANT	6dB Bandwidth (MHz)		Verdict
				Result	Limit	
802.11b	SISO	2412	1	10.115	>=0.5	Pass
		2437	1	10.123	>=0.5	Pass
		2462	1	9.716	>=0.5	Pass
802.11g	SISO	2412	1	17.129	>=0.5	Pass
		2437	1	17.104	>=0.5	Pass
		2462	1	16.780	>=0.5	Pass
802.11n (HT20)	SISO	2412	1	18.288	>=0.5	Pass
		2437	1	18.263	>=0.5	Pass
		2462	1	18.232	>=0.5	Pass
802.11n (HT40)	SISO	2422	1	36.809	>=0.5	Pass
		2437	1	36.859	>=0.5	Pass
		2452	1	36.829	>=0.5	Pass

2.2.2 Test Graph

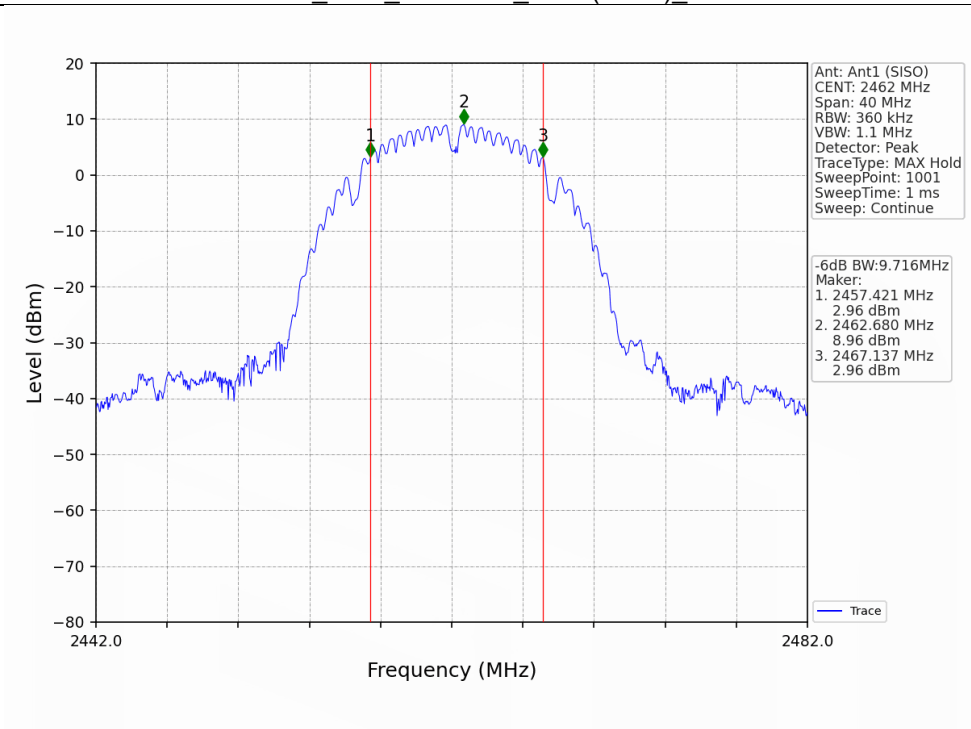
802.11b_LCH_2412MHz_Ant1 (SISO)_NTNV



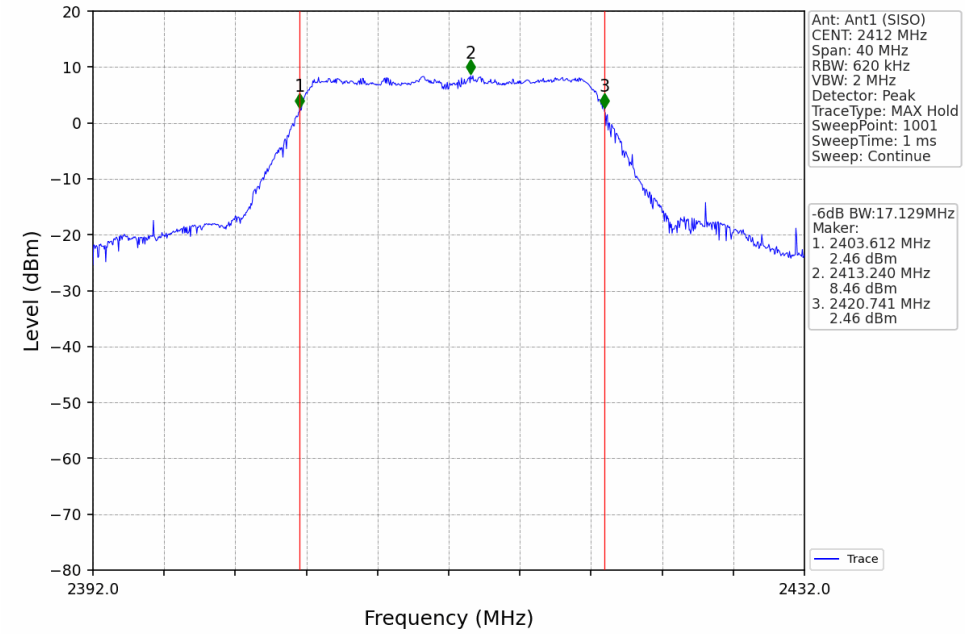
802.11b_MCH_2437MHz_Ant1 (SISO)_NTNV



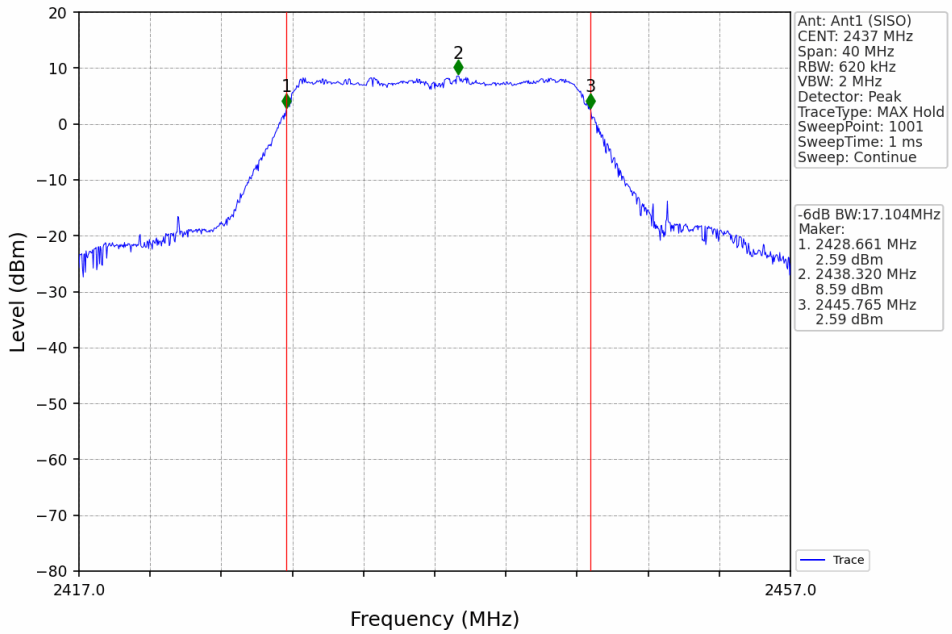
802.11b_HCH_2462MHz_Ant1 (SISO)_NTNV



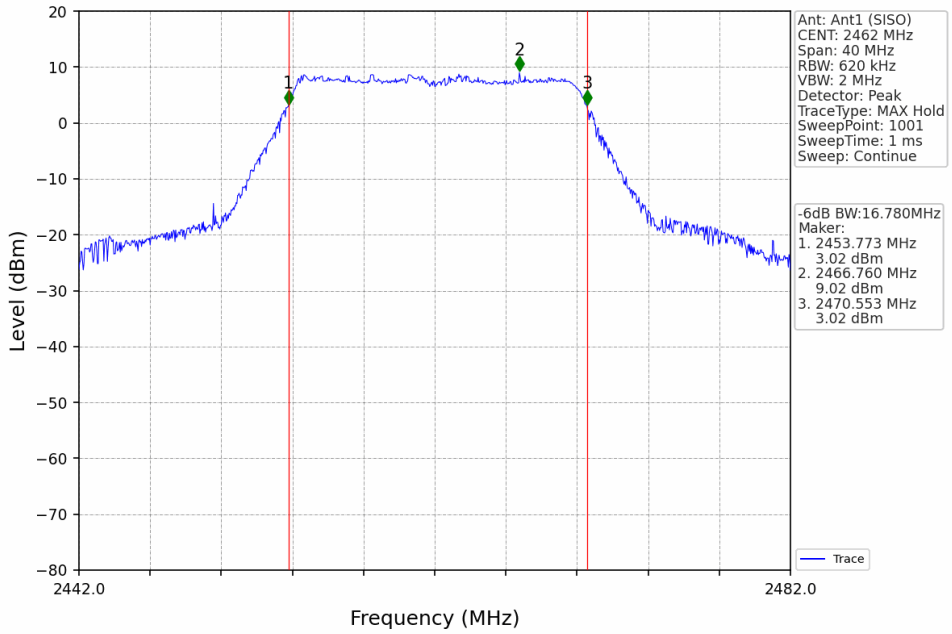
802.11g_LCH_2412MHz_Ant1 (SISO)_NTNV



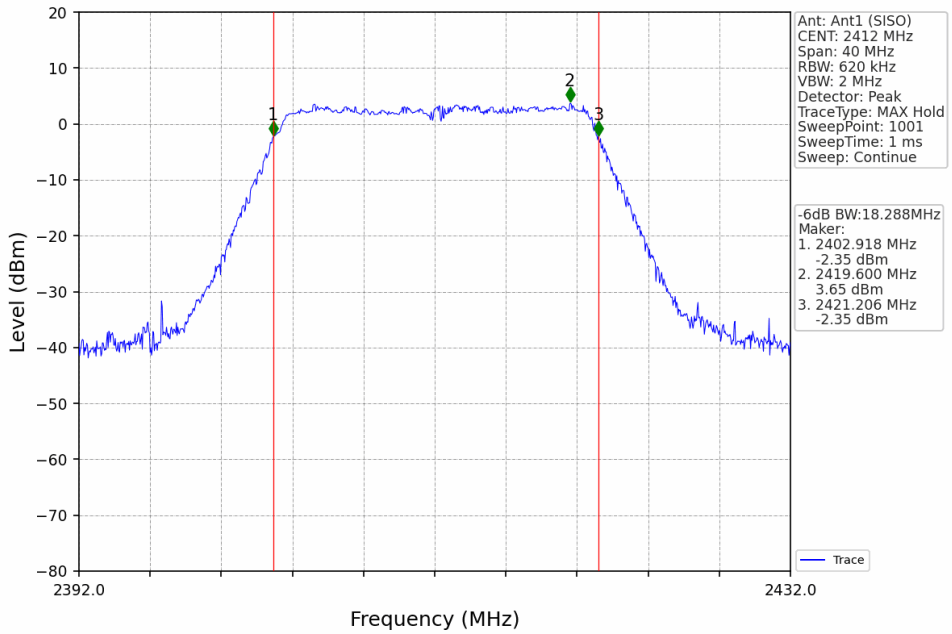
802.11g_MCH_2437MHz_Ant1 (SISO)_NTNV



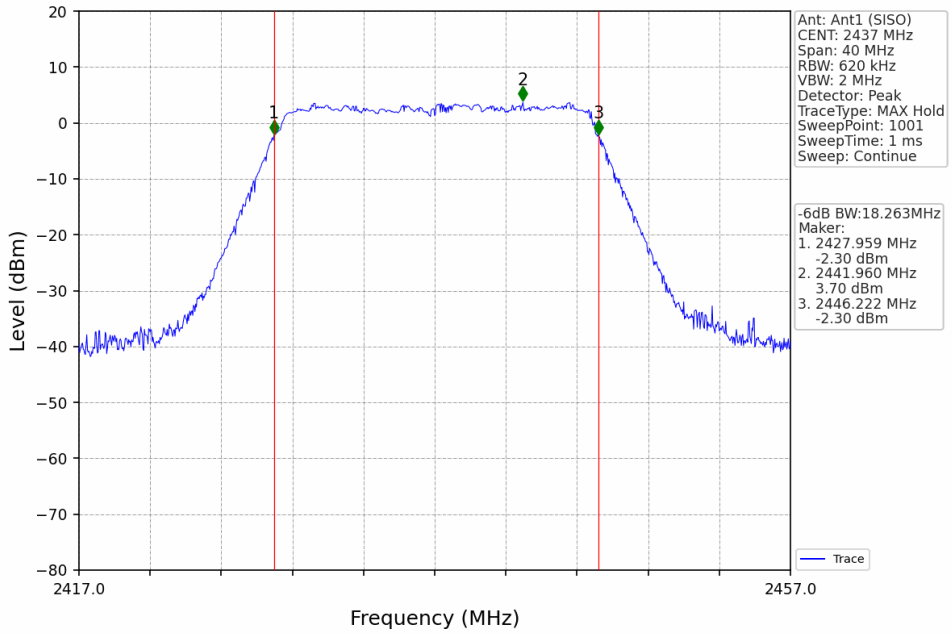
802.11g_HCH_2462MHz_Ant1 (SISO)_NTNV



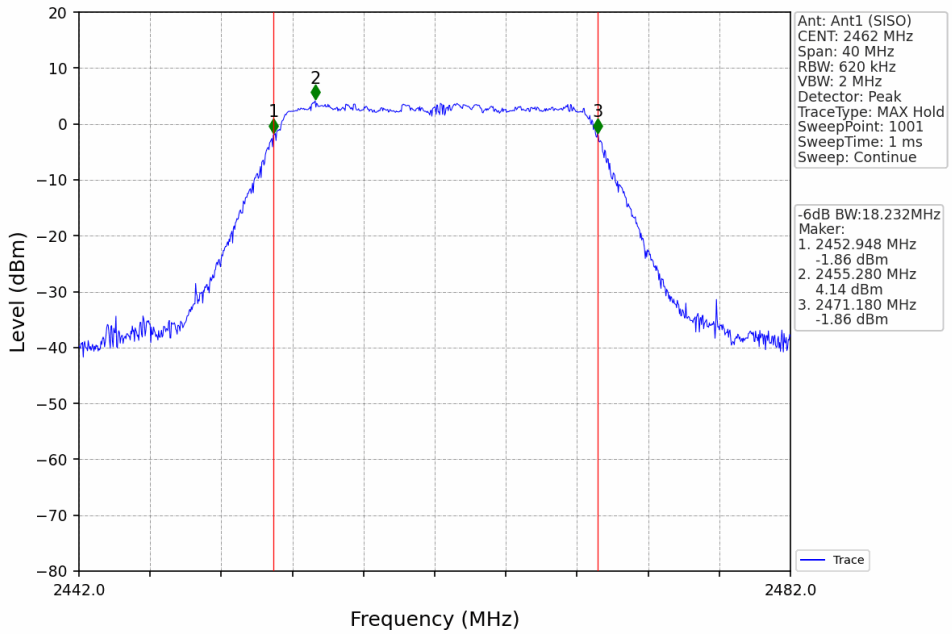
802.11n(HT20)_LCH_2412MHz_Ant1 (SISO)_NTNV



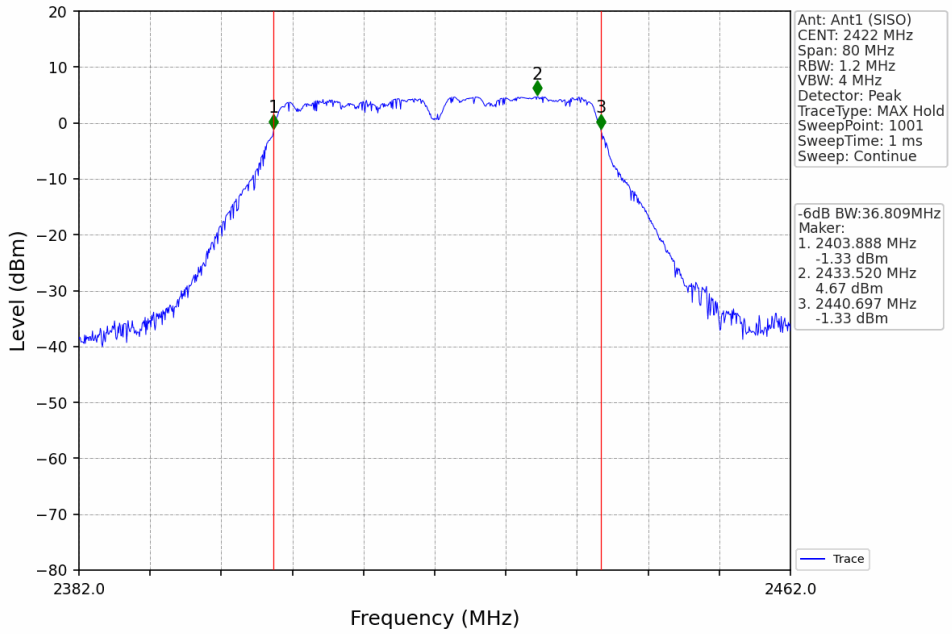
802.11n(HT20)_MCH_2437MHz_Ant1 (SISO)_NTNV



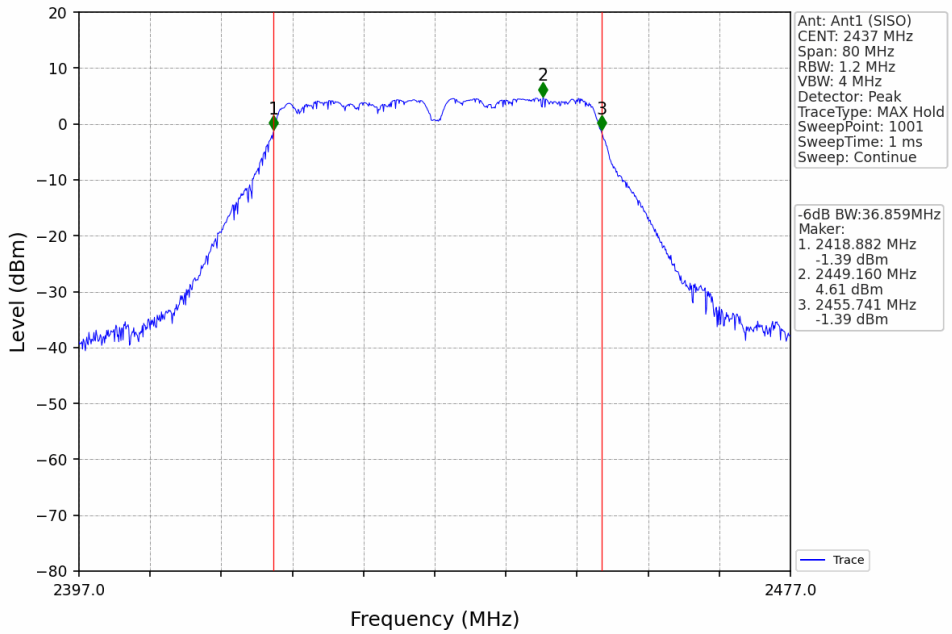
802.11n(HT20)_HCH_2462MHz_Ant1 (SISO)_NTNV



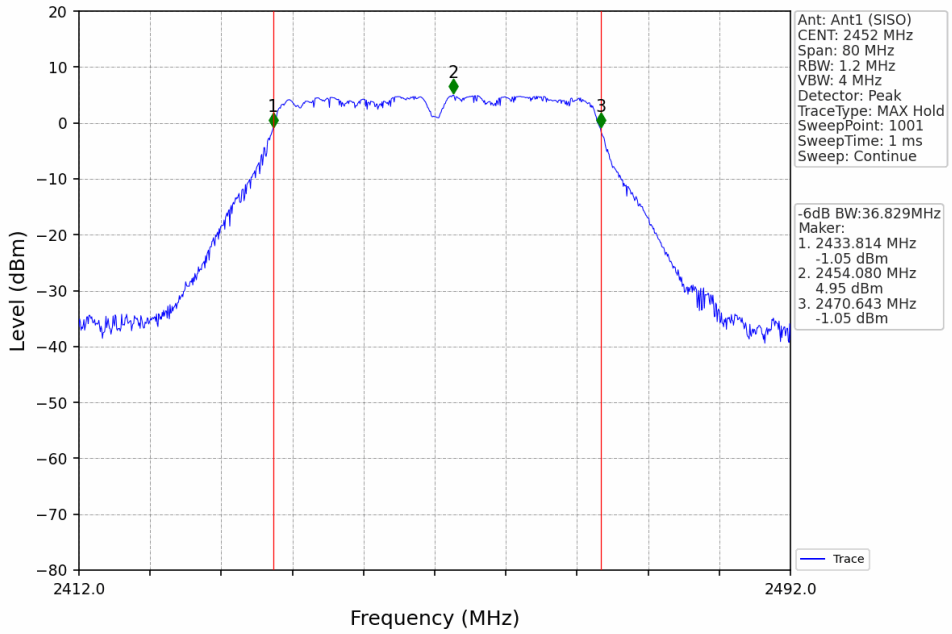
802.11n(HT40)_LCH_2422MHz_Ant1 (SISO)_NTNV



802.11n(HT40)_MCH_2437MHz_Ant1 (SISO)_NTNV



802.11n(HT40)_HCH_2452MHz_Ant1 (SISO)_NTNV



3. Maximum Conducted Output Power

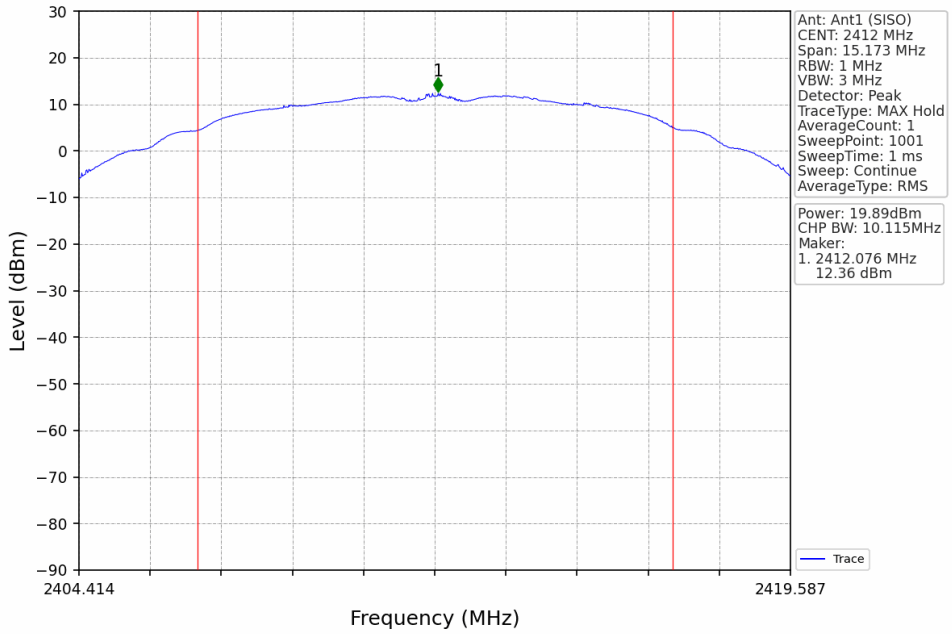
3.1 Power

3.1.1 Test Result

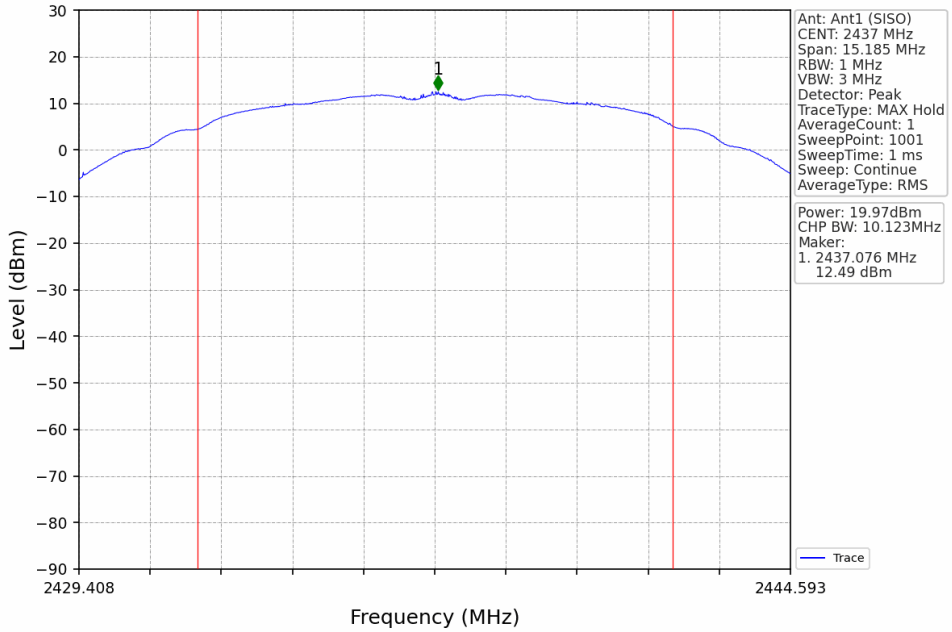
Mode	TX Type	Frequency (MHz)	Maximum Peak Conducted Output Power (dBm)		Verdict
			ANT1	Limit	
802.11b	SISO	2412	19.89	<=30	Pass
		2437	19.97	<=30	Pass
		2462	19.85	<=30	Pass
802.11g	SISO	2412	22.14	<=30	Pass
		2437	22.22	<=30	Pass
		2462	22.44	<=30	Pass
802.11n (HT20)	SISO	2412	17.57	<=30	Pass
		2437	17.61	<=30	Pass
		2462	17.76	<=30	Pass
802.11n (HT40)	SISO	2422	17.36	<=30	Pass
		2437	17.25	<=30	Pass
		2452	17.63	<=30	Pass

3.1.2 Test Graph

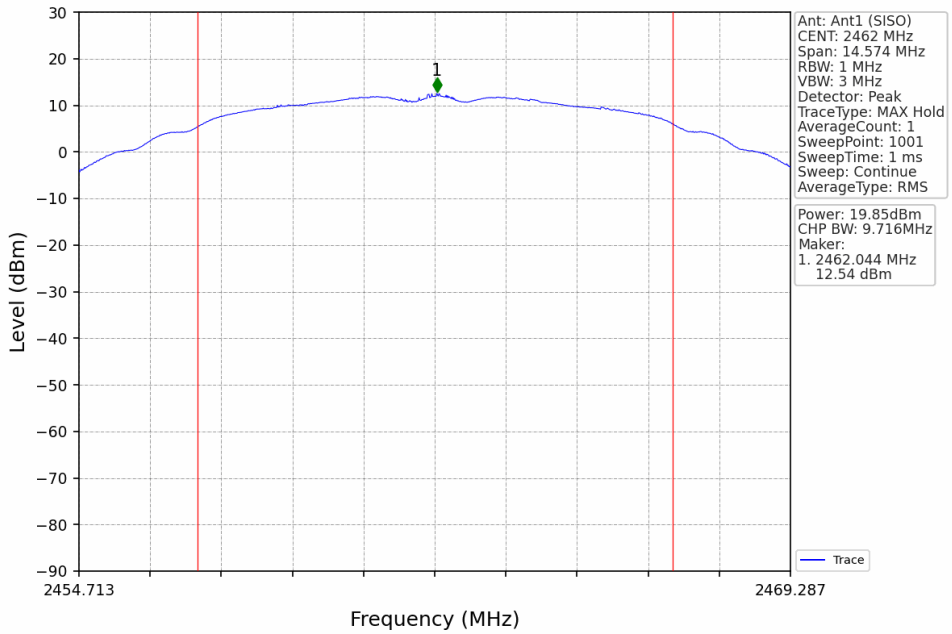
802.11b_LCH_2412MHz_Ant1 (SISO)_NTNV



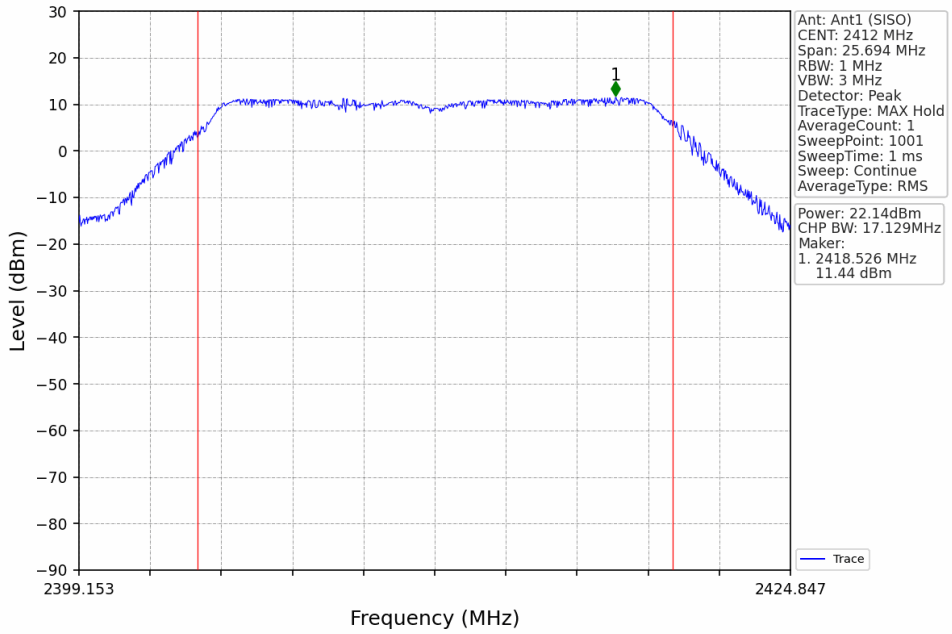
802.11b_MCH_2437MHz_Ant1 (SISO)_NTNV



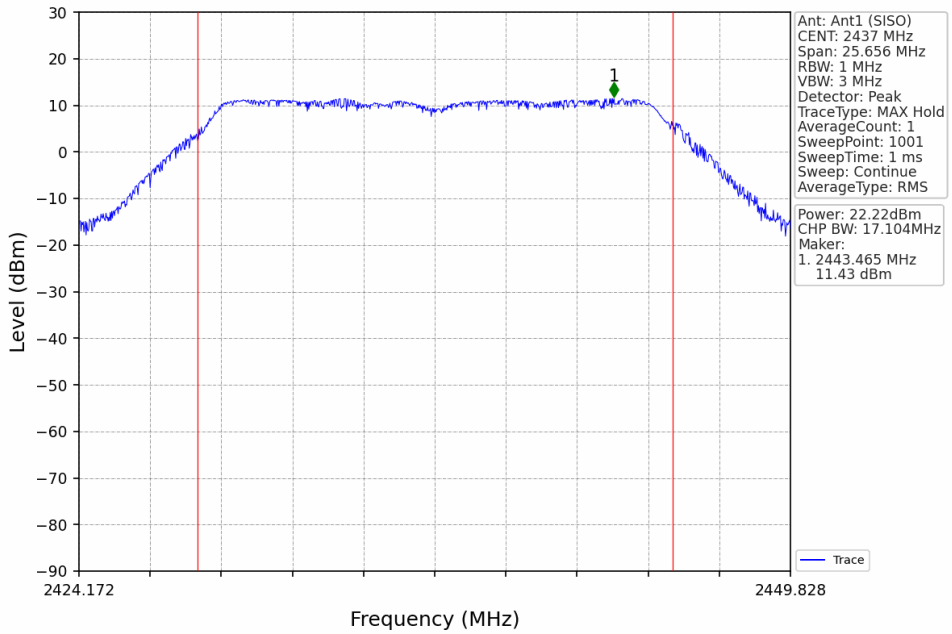
802.11b_HCH_2462MHz_Ant1 (SISO)_NTNV



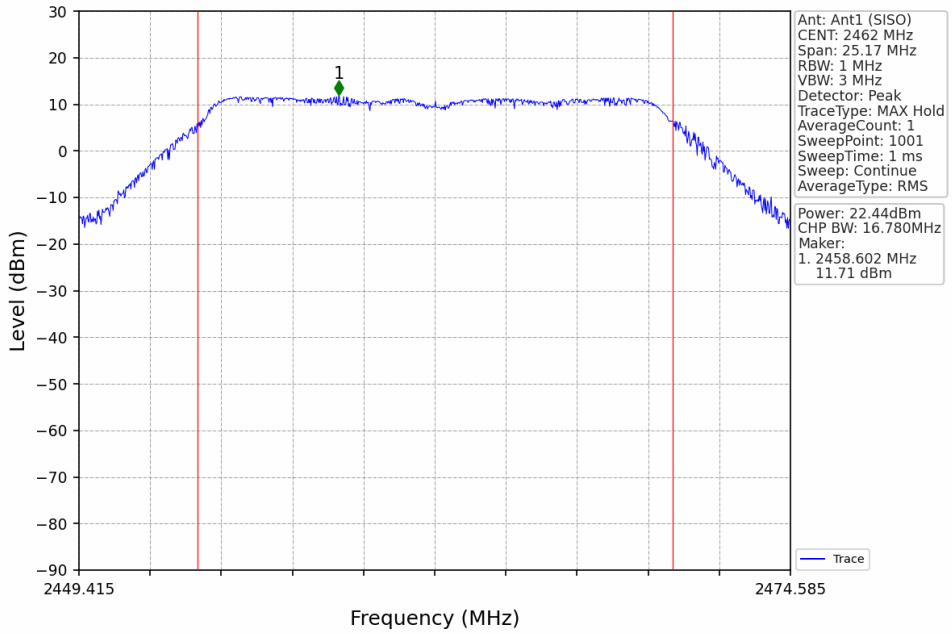
802.11g_LCH_2412MHz_Ant1 (SISO)_NTNV



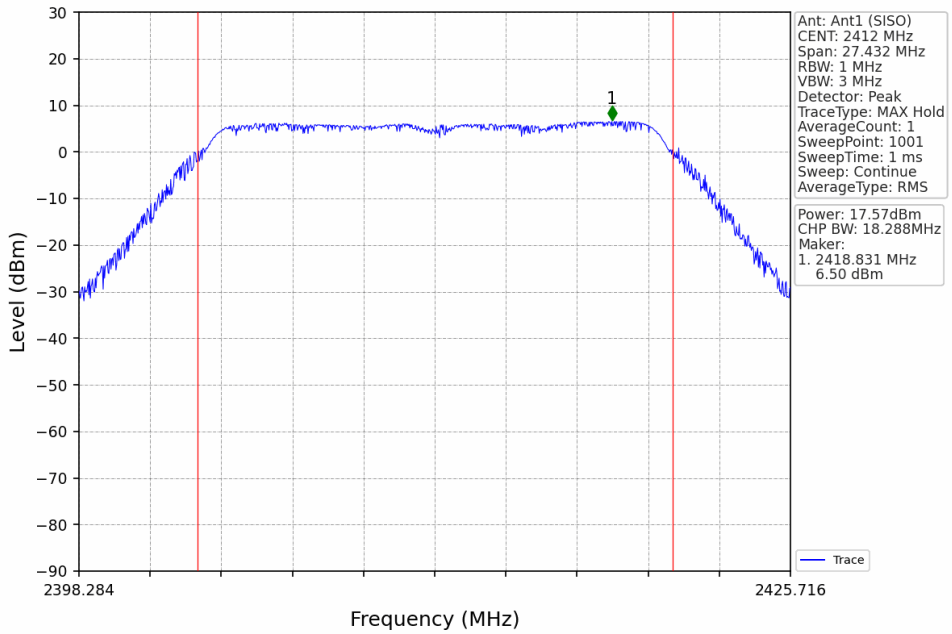
802.11g_MCH_2437MHz_Ant1 (SISO)_NTNV



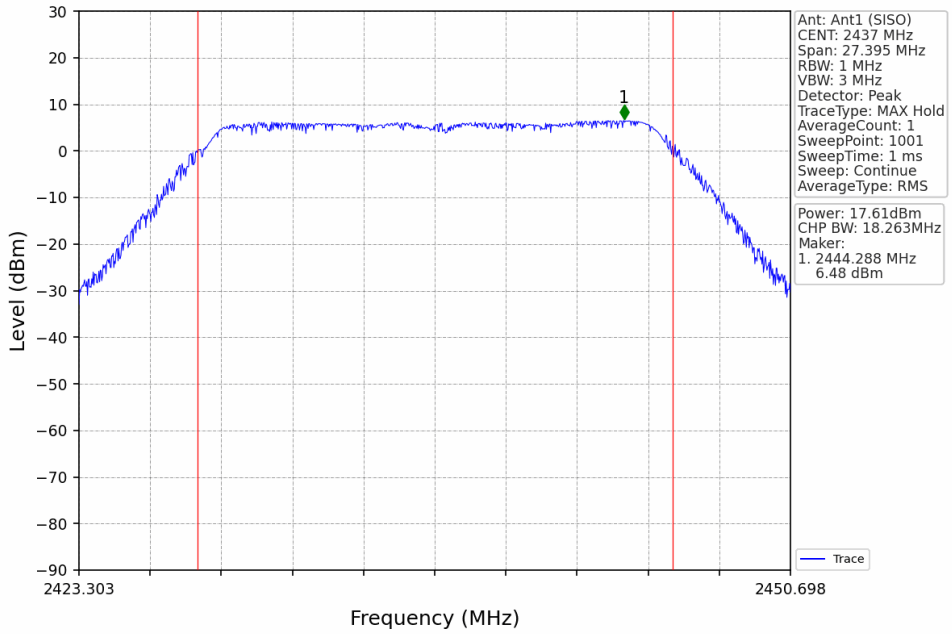
802.11g_HCH_2462MHz_Ant1 (SISO)_NTNV



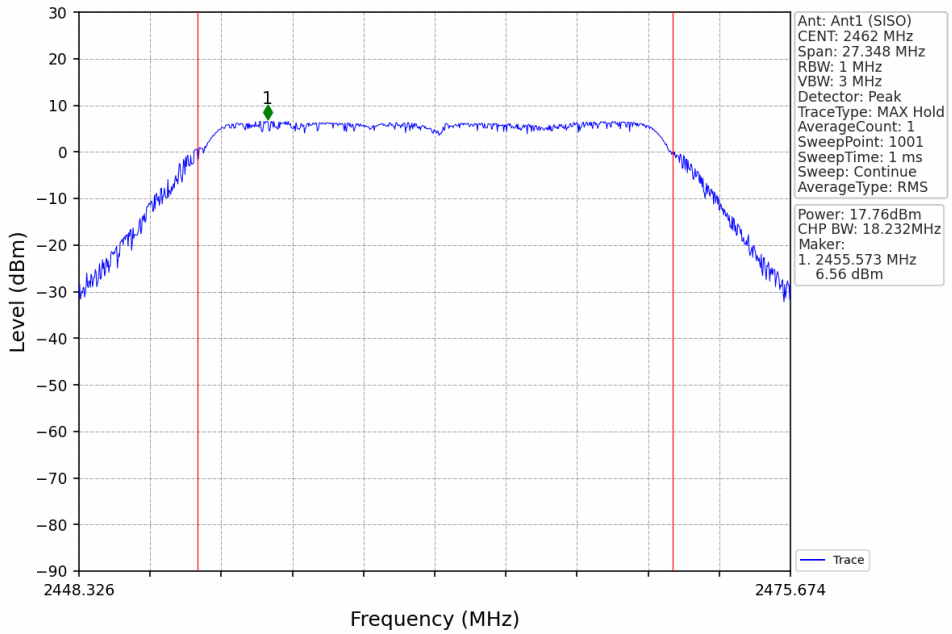
802.11n(HT20)_LCH_2412MHz_Ant1 (SISO)_NTNV



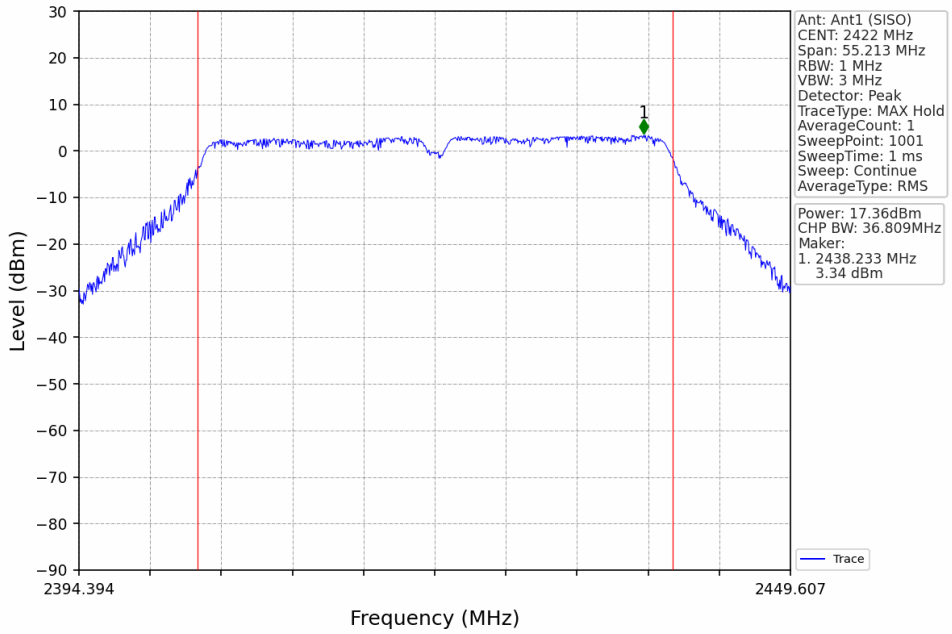
802.11n(HT20)_MCH_2437MHz_Ant1 (SISO)_NTNV



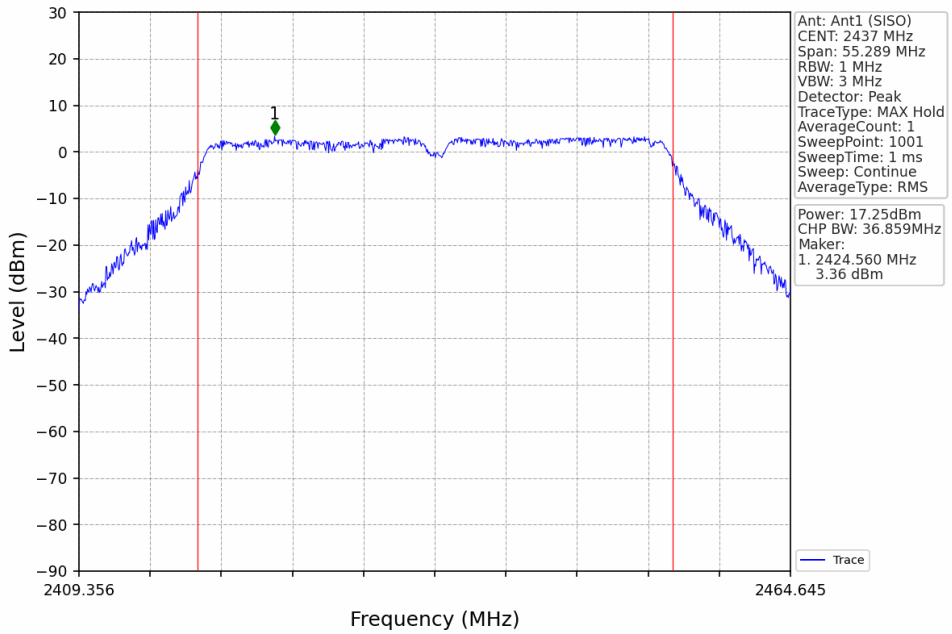
802.11n(HT20)_HCH_2462MHz_Ant1 (SISO)_NTNV



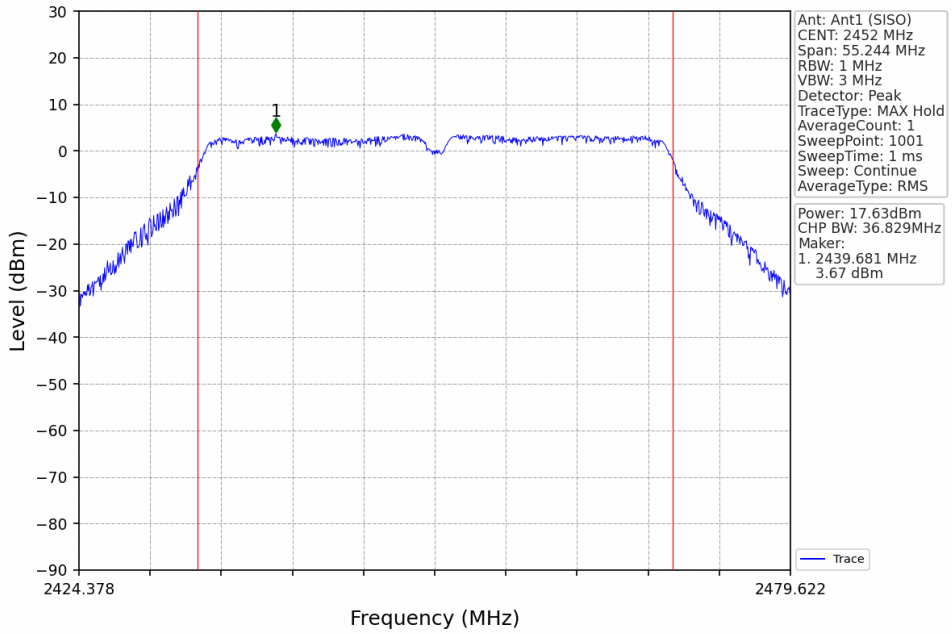
802.11n(HT40)_LCH_2422MHz_Ant1 (SISO)_NTNV



802.11n(HT40)_MCH_2437MHz_Ant1 (SISO)_NTNV



802.11n(HT40)_HCH_2452MHz_Ant1 (SISO)_NTNV



4. Maximum Power Spectral Density

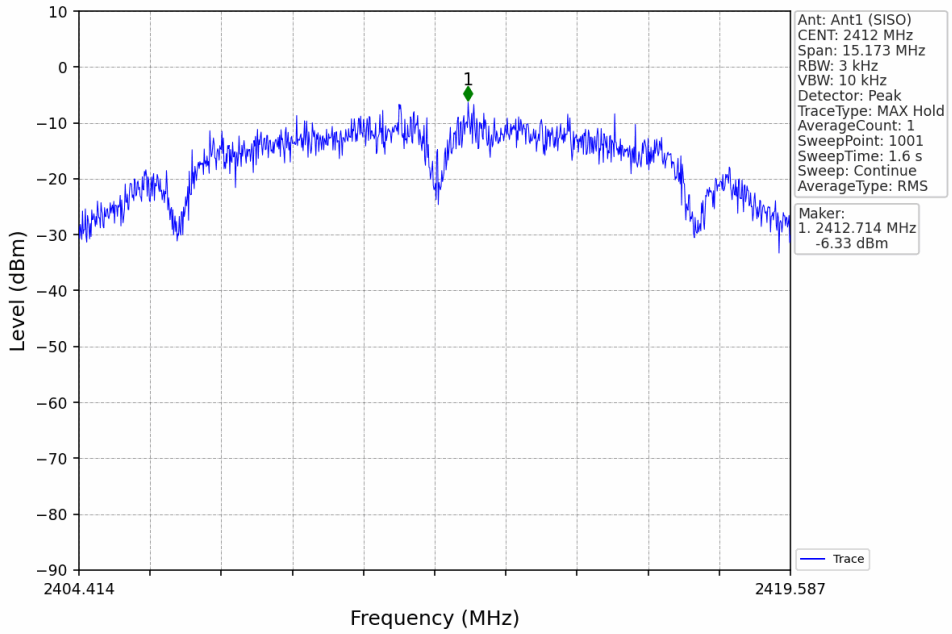
4.1 PSD

4.1.1 Test Result

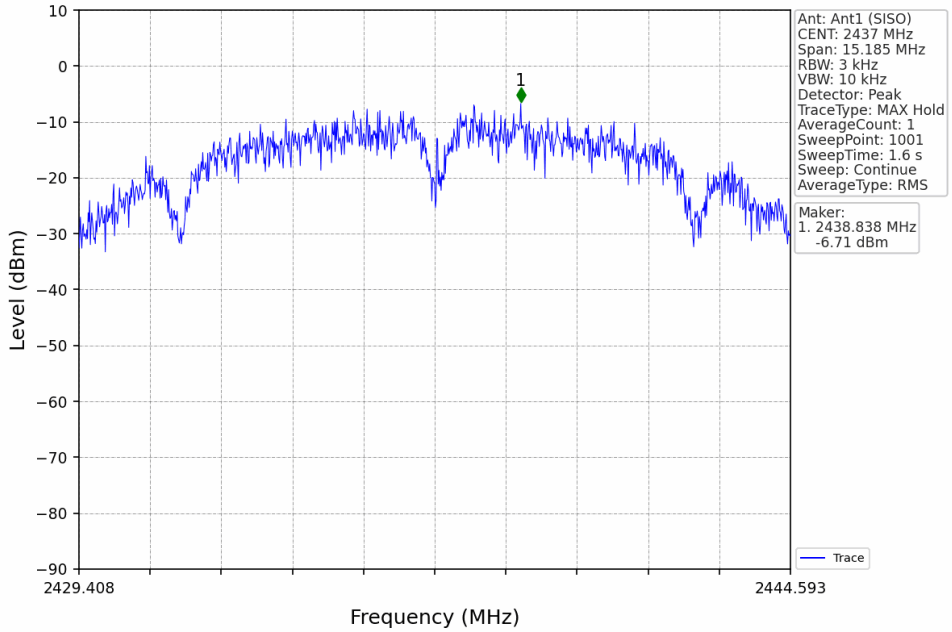
Mode	TX Type	Frequency (MHz)	Maximum PSD (dBm/3kHz)		Verdict
			ANT1	Limit	
802.11b	SISO	2412	-6.33	<=8	Pass
		2437	-6.71	<=8	Pass
		2462	-6.42	<=8	Pass
802.11g	SISO	2412	-11.14	<=8	Pass
		2437	-11.77	<=8	Pass
		2462	-10.46	<=8	Pass
802.11n (HT20)	SISO	2412	-15.19	<=8	Pass
		2437	-14.71	<=8	Pass
		2462	-14.76	<=8	Pass
802.11n (HT40)	SISO	2422	-15.51	<=8	Pass
		2437	-18.63	<=8	Pass
		2452	-18.86	<=8	Pass

4.1.2 Test Graph

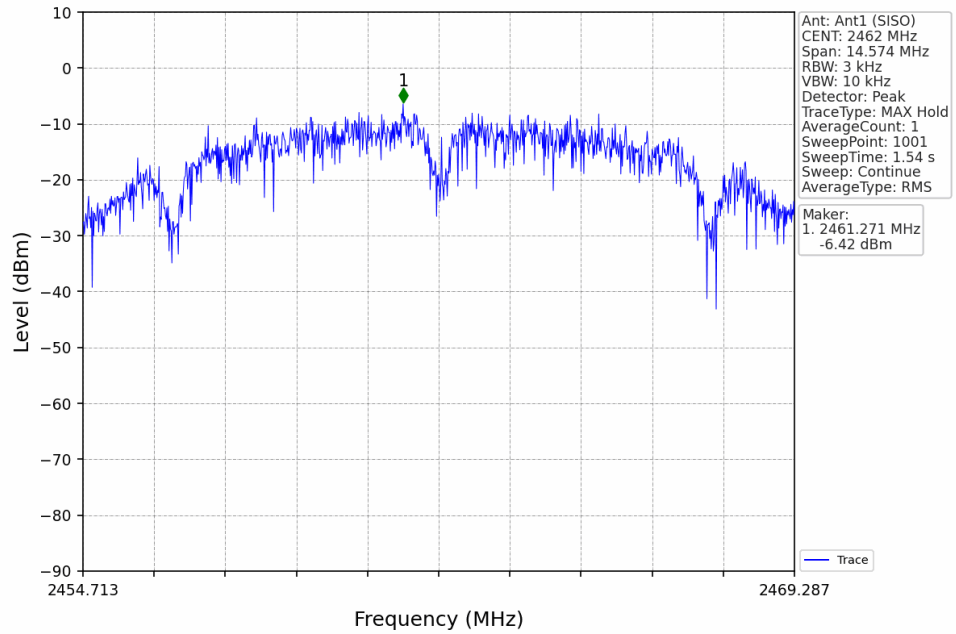
802.11b_LCH_2412MHz_Ant1 (SISO)_NTNV



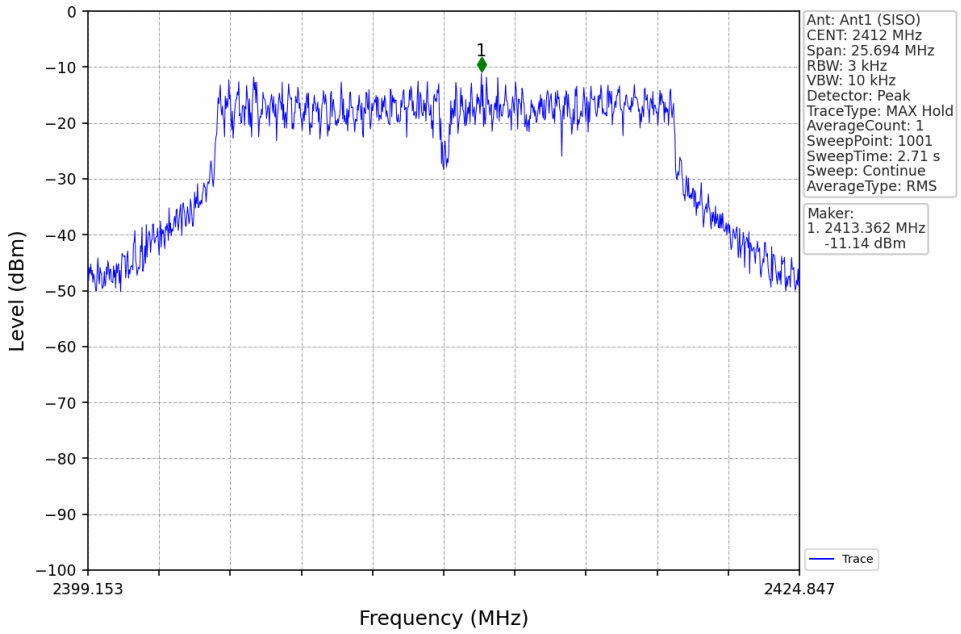
802.11b_MCH_2437MHz_Ant1 (SISO)_NTNV



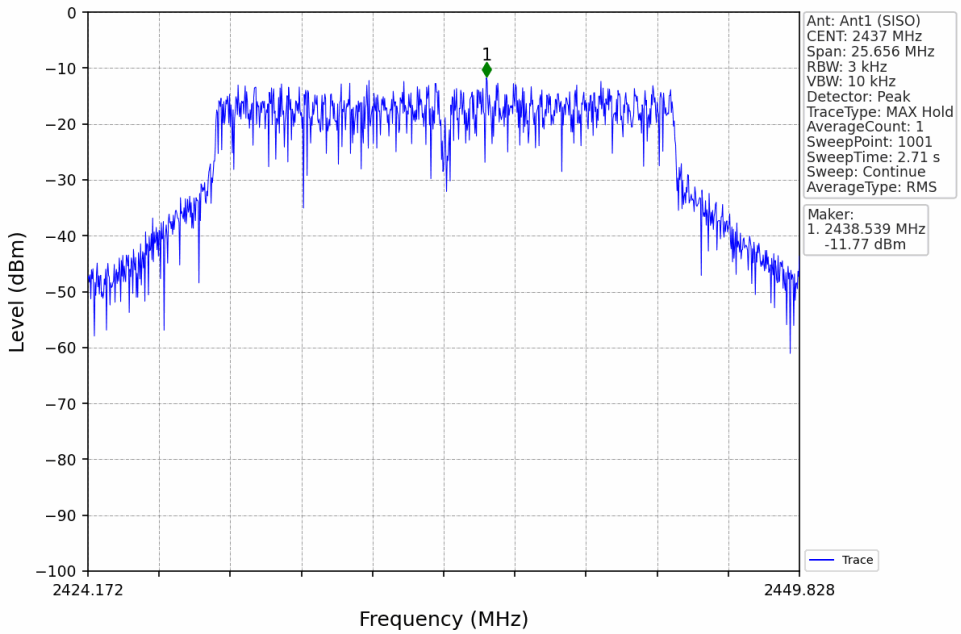
802.11b_HCH_2462MHz_Ant1 (SISO)_NTNV



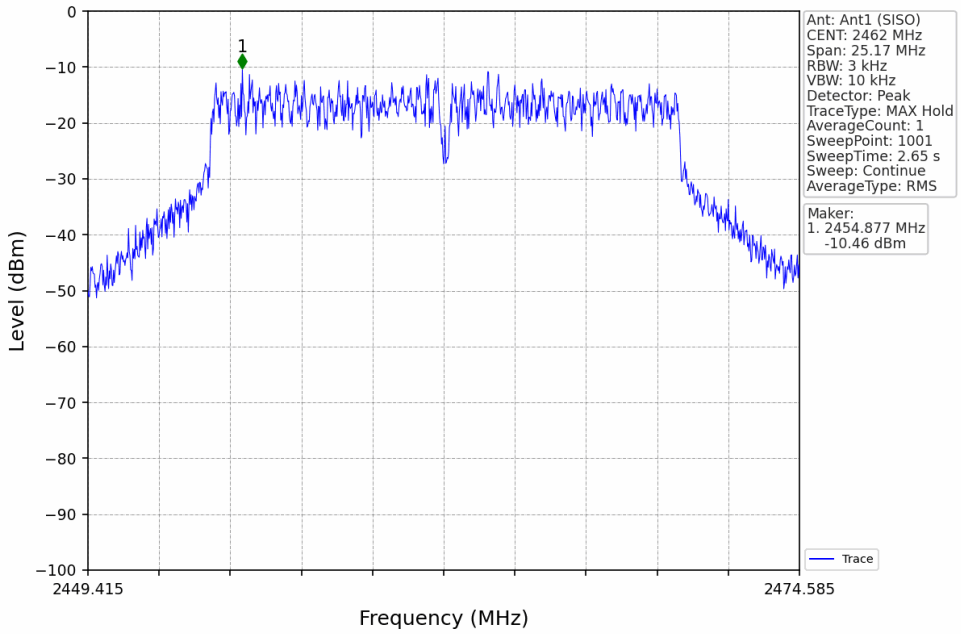
802.11g_LCH_2412MHz_Ant1 (SISO)_NTNV



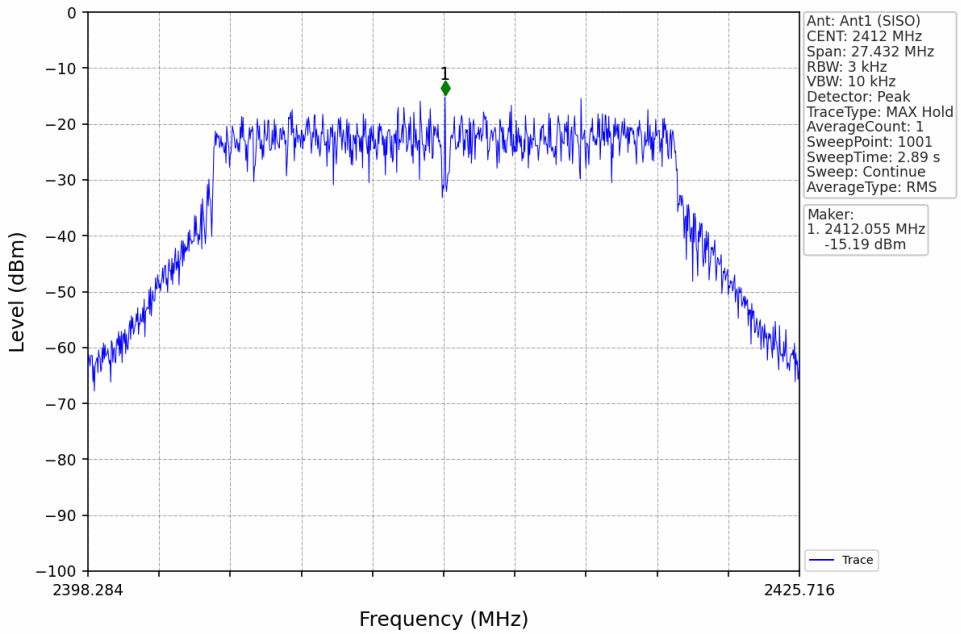
802.11g_MCH_2437MHz_Ant1 (SISO)_NTNV



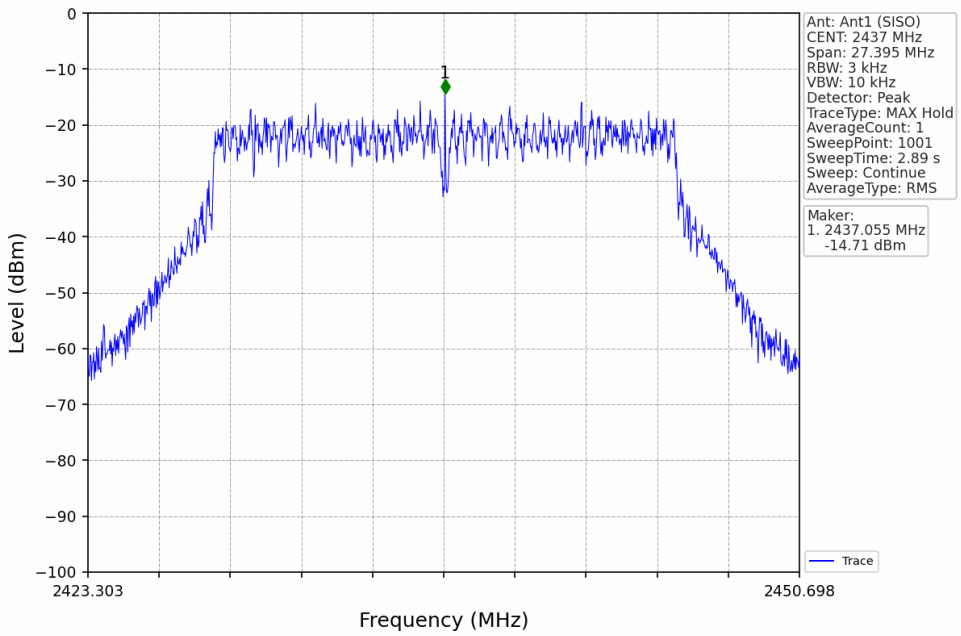
802.11g_HCH_2462MHz_Ant1 (SISO)_NTNV



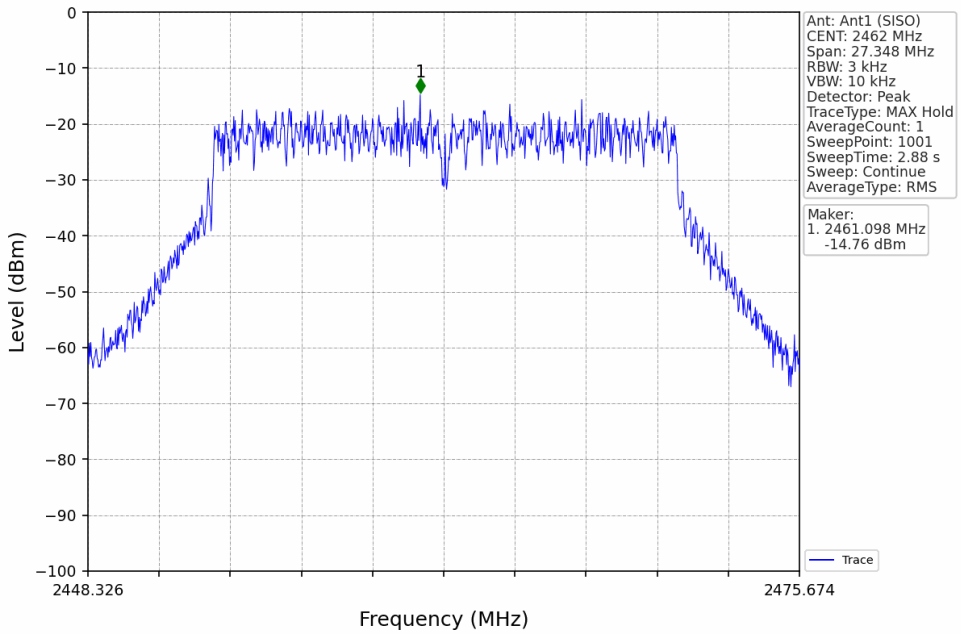
802.11n(HT20)_LCH_2412MHz_Ant1 (SISO)_NTNV



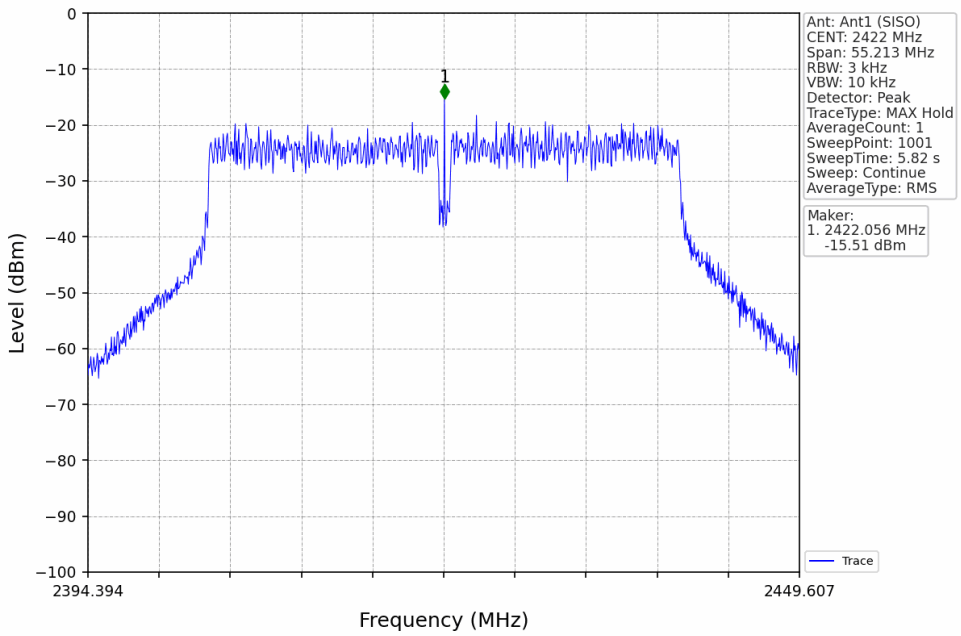
802.11n(HT20)_MCH_2437MHz_Ant1 (SISO)_NTNV



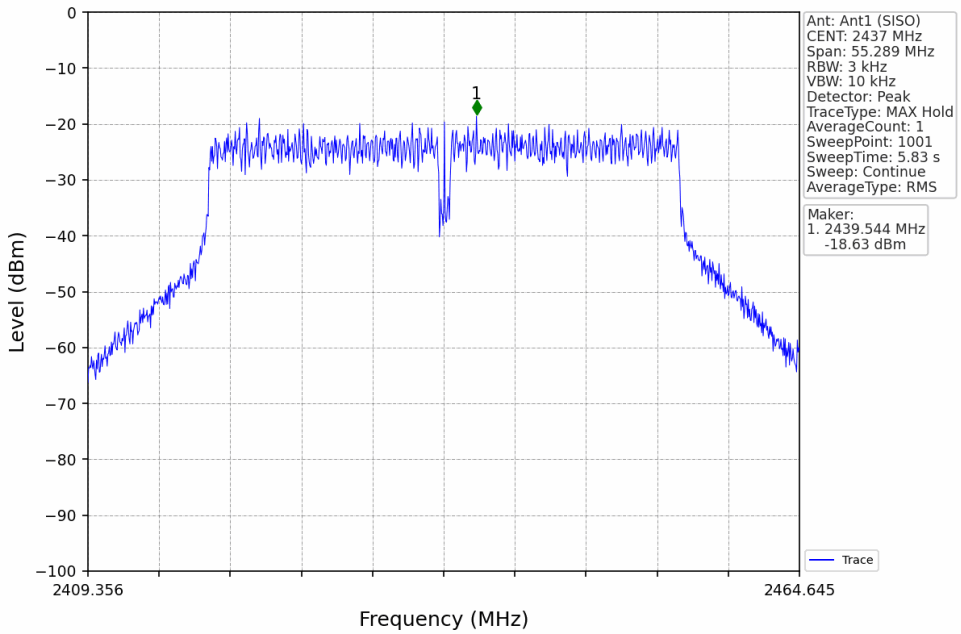
802.11n(HT20)_HCH_2462MHz_Ant1 (SISO)_NTNV



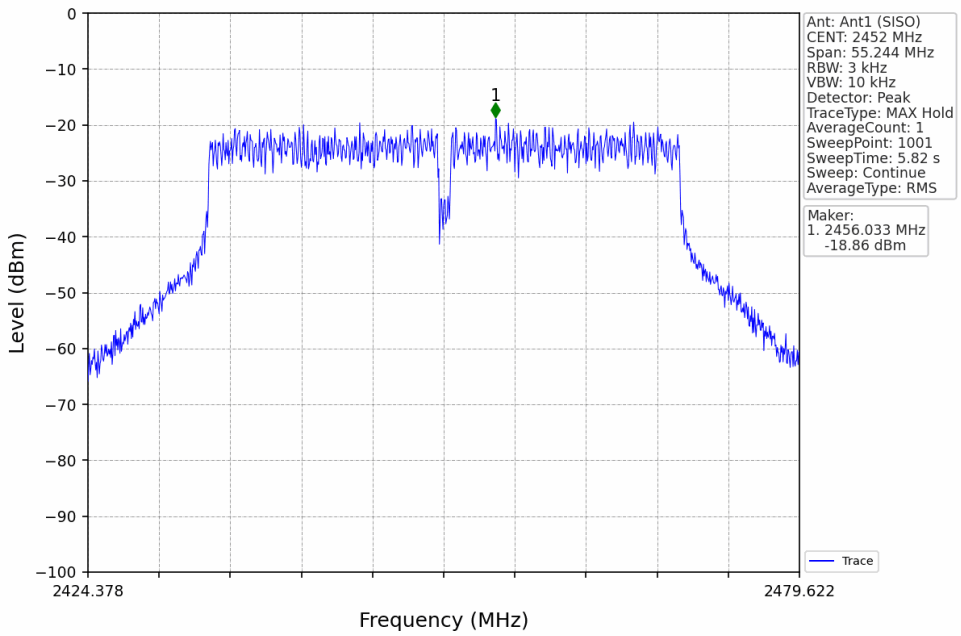
802.11n(HT40)_LCH_2422MHz_Ant1 (SISO)_NTNV



802.11n(HT40)_MCH_2437MHz_Ant1 (SISO)_NTNV



802.11n(HT40)_HCH_2452MHz_Ant1 (SISO)_NTNV



5. Unwanted Emissions In Non-restricted Frequency Bands

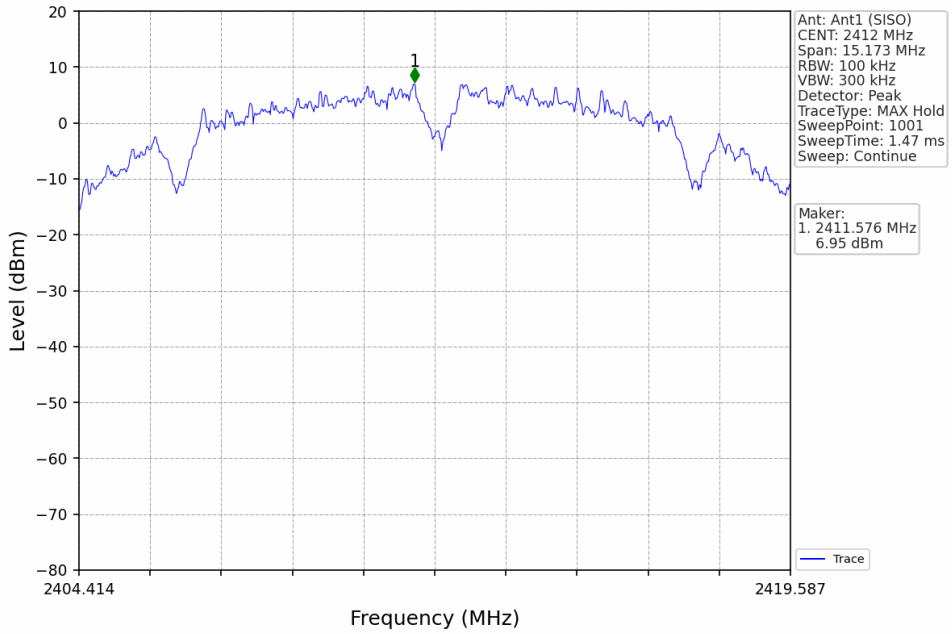
5.1 Ref

5.1.1 Test Result

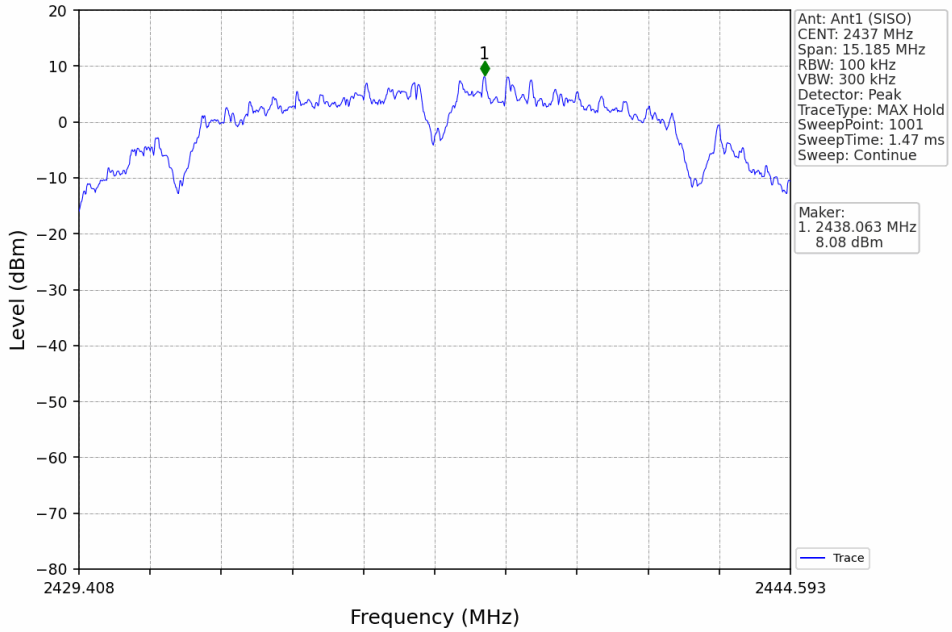
Mode	TX Type	Frequency (MHz)	ANT	Level of Reference (dBm)
802.11b	SISO	2412	1	6.95
		2437	1	8.08
		2462	1	7.43
802.11g	SISO	2412	1	3.26
		2437	1	3.90
		2462	1	2.96
802.11n (HT20)	SISO	2412	1	-1.54
		2437	1	-0.87
		2462	1	-1.12
802.11n (HT40)	SISO	2422	1	-3.89
		2437	1	-4.48
		2452	1	-4.27
Note1: Refer to FCC Part 15.247 (d) and ANSI C63.10-2020, the channel contains the maximum PSD level was used to establish the reference level.				

5.1.2 Test Graph

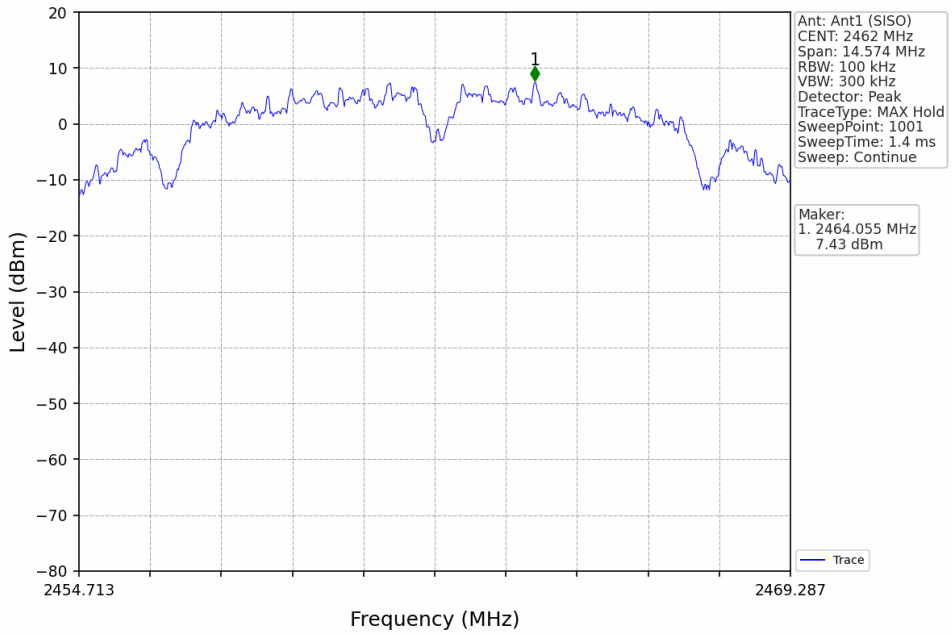
802.11b_LCH_2412MHz_Ant1 (SISO)_NTNV



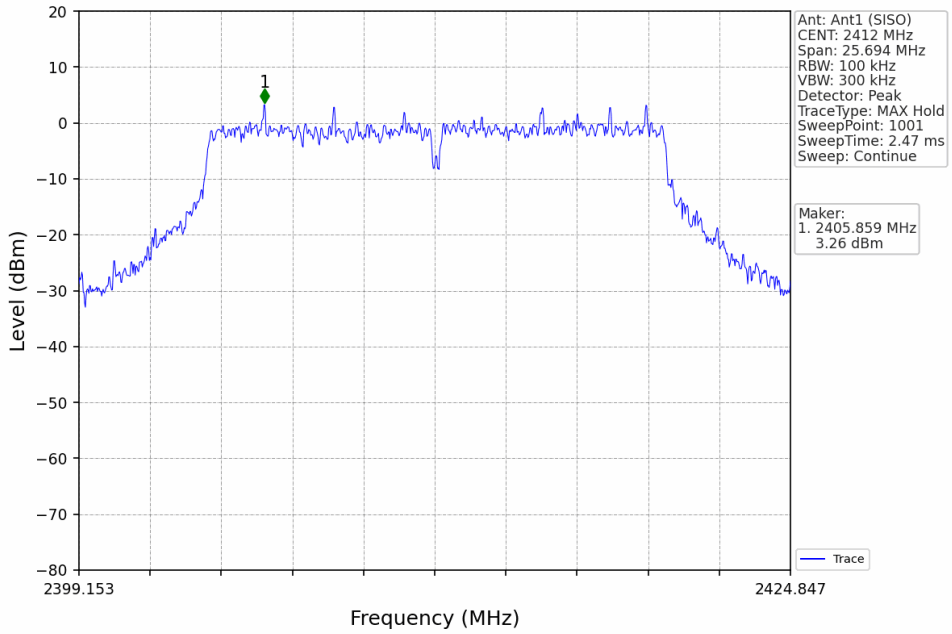
802.11b_MCH_2437MHz_Ant1 (SISO)_NTNV



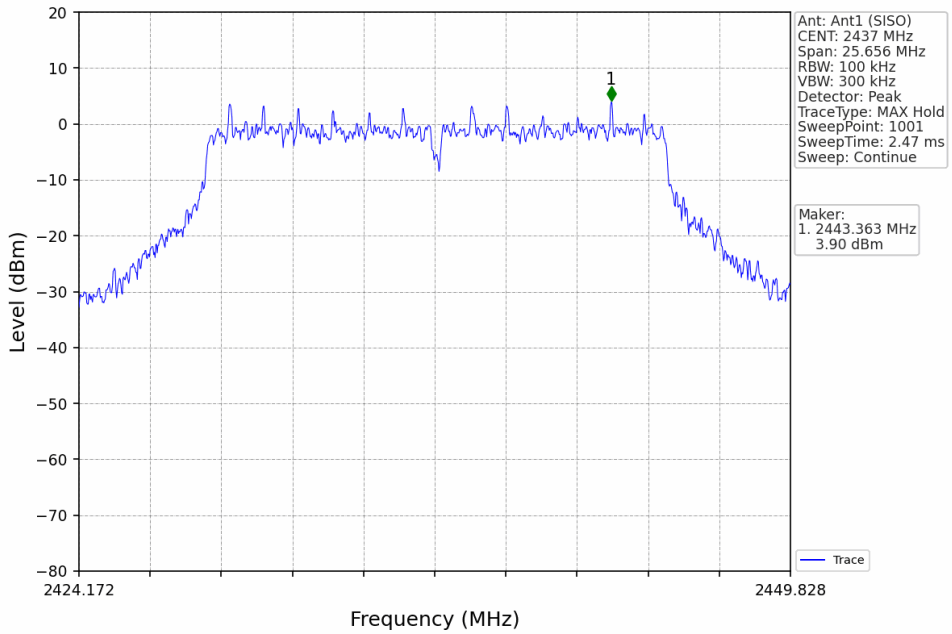
802.11b_HCH_2462MHz_Ant1 (SISO)_NTNV



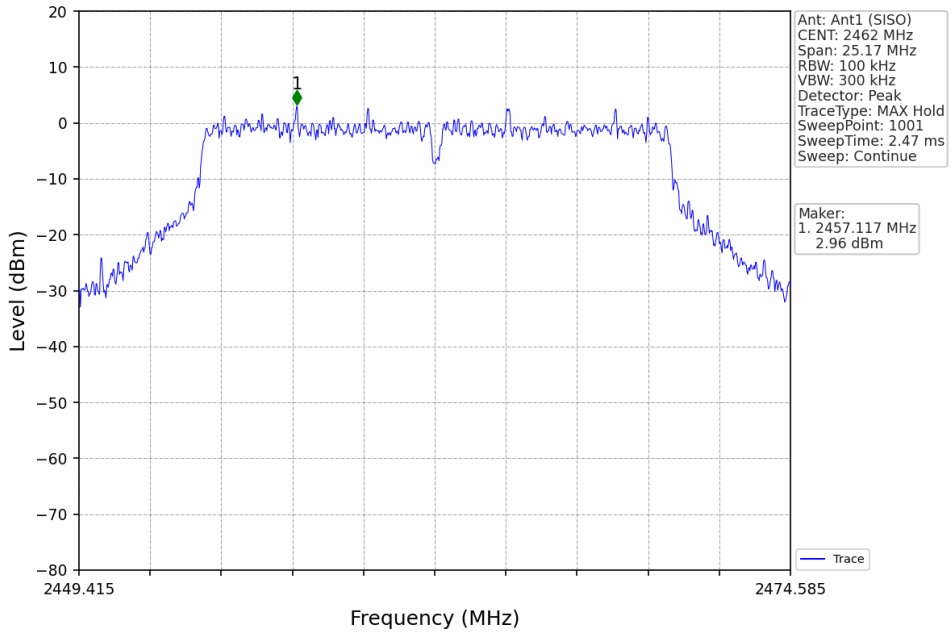
802.11g_LCH_2412MHz_Ant1 (SISO)_NTNV



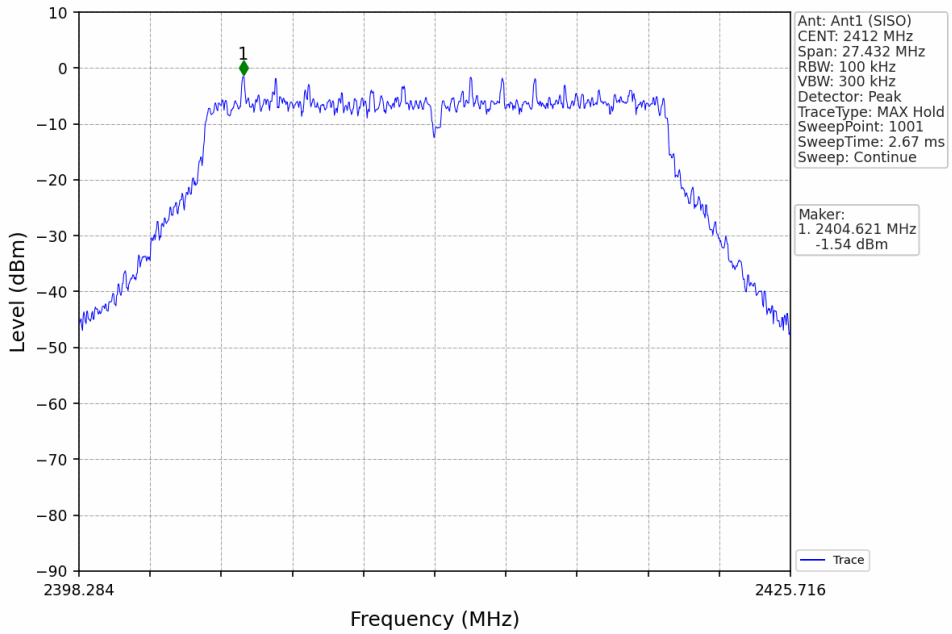
802.11g_MCH_2437MHz_Ant1 (SISO)_NTNV



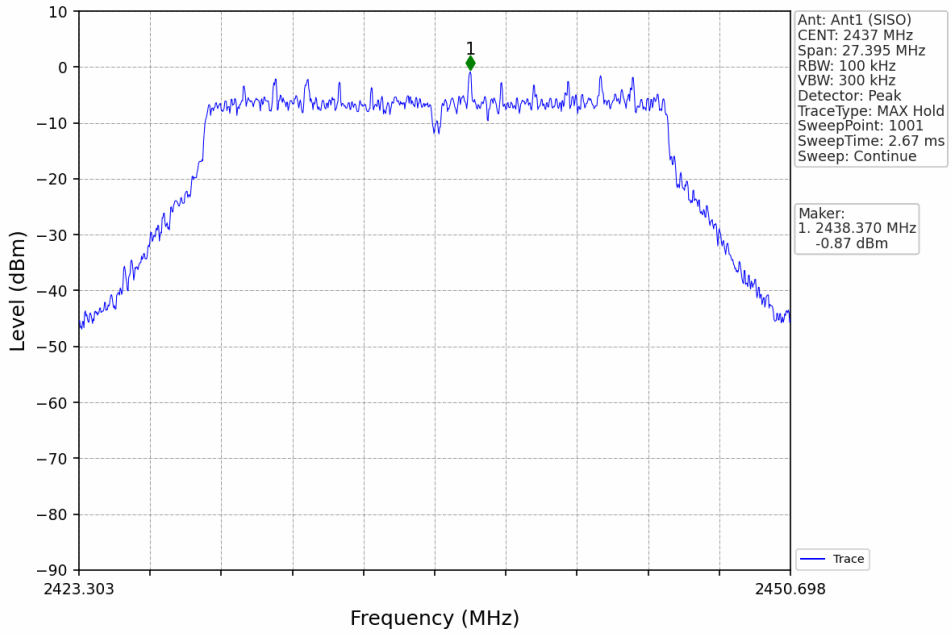
802.11g_HCH_2462MHz_Ant1 (SISO)_NTNV



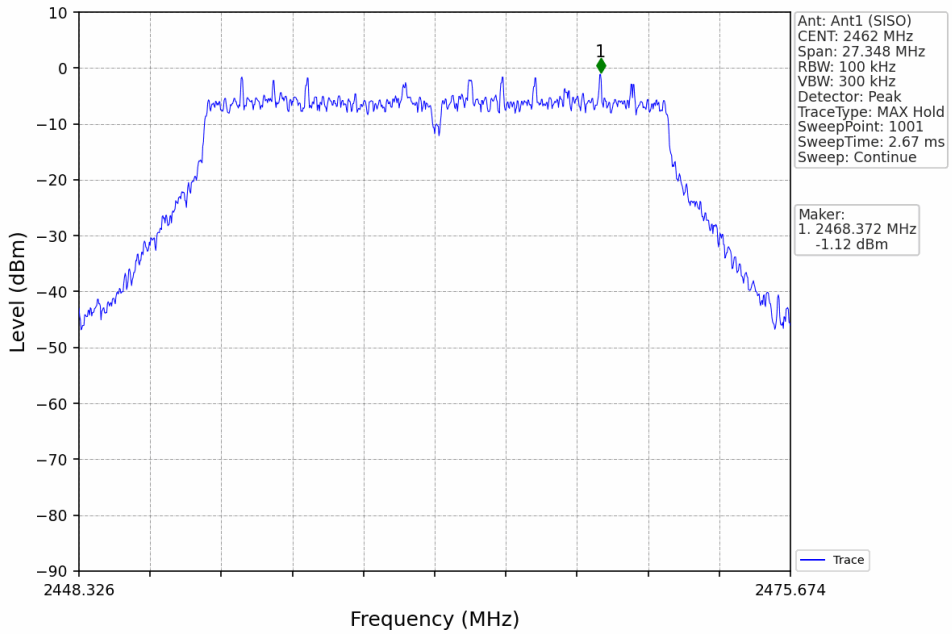
802.11n(HT20)_LCH_2412MHz_Ant1 (SISO)_NTNV



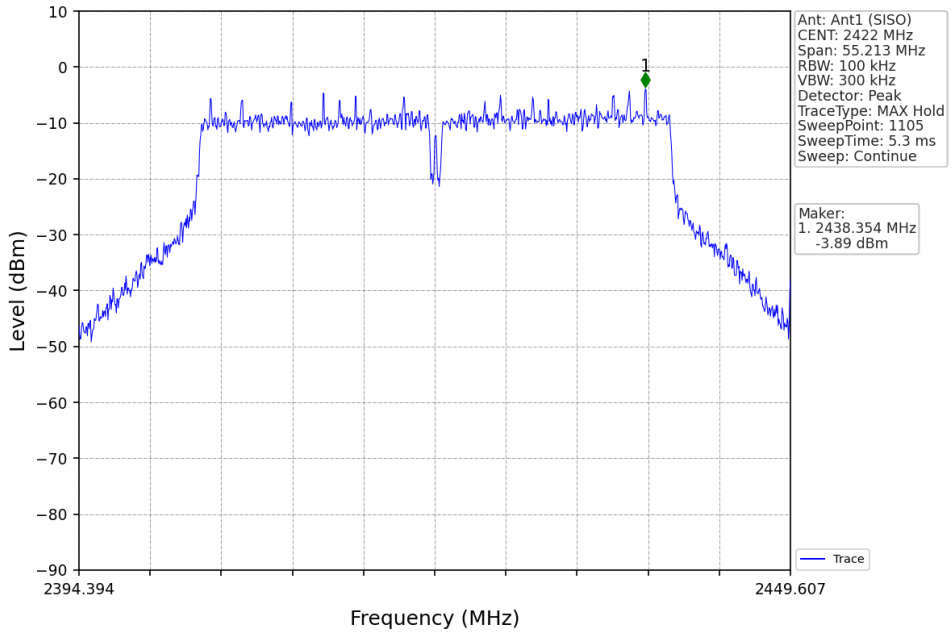
802.11n(HT20)_MCH_2437MHz_Ant1 (SISO)_NTNV



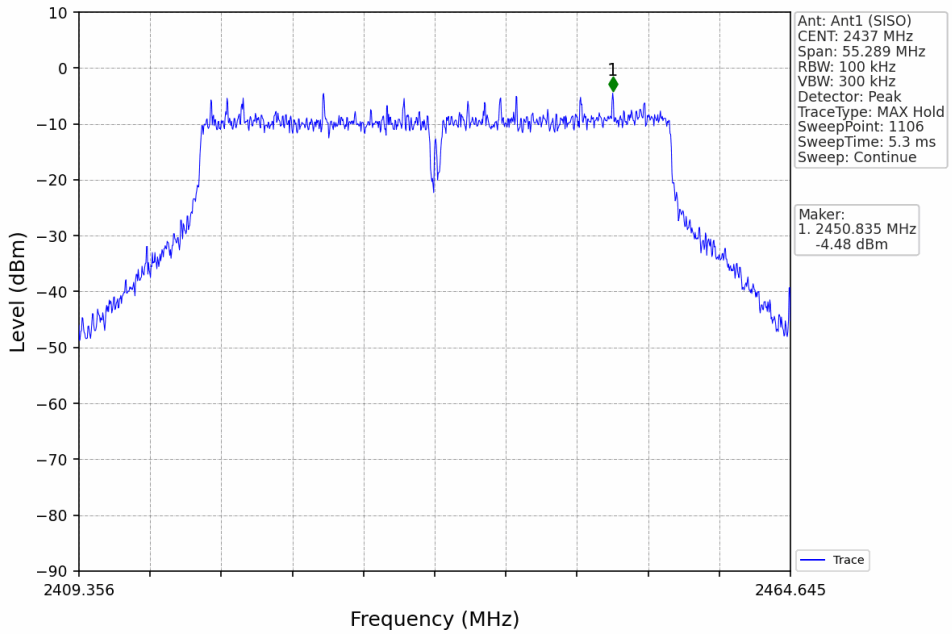
802.11n(HT20)_HCH_2462MHz_Ant1 (SISO)_NTNV



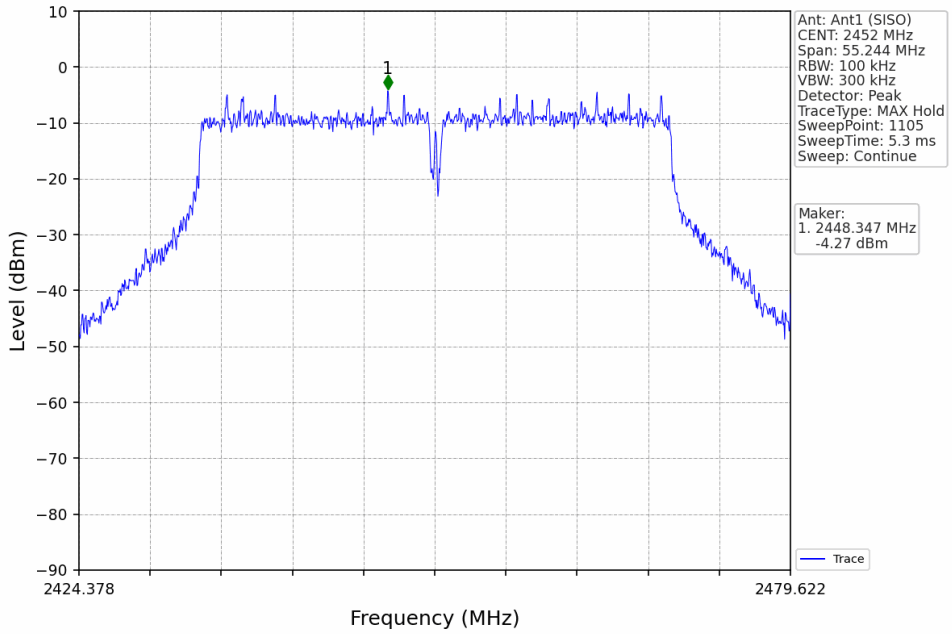
802.11n(HT40)_LCH_2422MHz_Ant1 (SISO)_NTNV



802.11n(HT40)_MCH_2437MHz_Ant1 (SISO)_NTNV



802.11n(HT40)_HCH_2452MHz_Ant1 (SISO)_NTNV



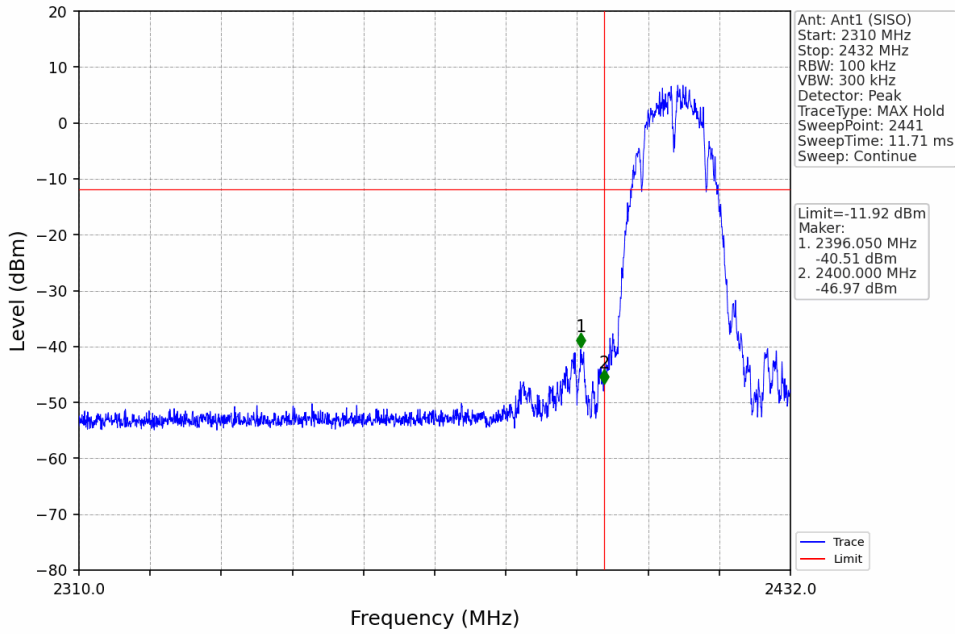
5.2 CSE

5.2.1 Test Result

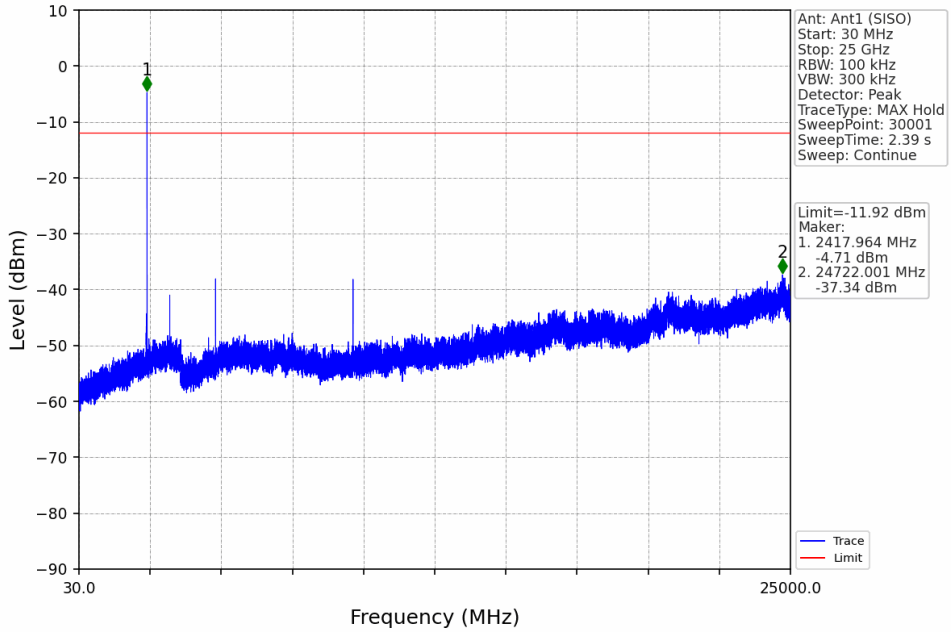
Mode	TX Type	Frequency (MHz)	ANT	Level of Reference (dBm)	Limit (dBm)	Verdict
802.11b	SISO	2412	1	8.08	-11.92	Pass
		2437	1	8.08	-11.92	Pass
		2462	1	8.08	-11.92	Pass
802.11g	SISO	2412	1	3.90	-16.10	Pass
		2437	1	3.90	-16.10	Pass
		2462	1	3.90	-16.10	Pass
802.11n (HT20)	SISO	2412	1	-0.87	-20.87	Pass
		2437	1	-0.87	-20.87	Pass
		2462	1	-0.87	-20.87	Pass
802.11n (HT40)	SISO	2422	1	-3.89	-23.89	Pass
		2437	1	-3.89	-23.89	Pass
		2452	1	-3.89	-23.89	Pass
Note1: Refer to FCC Part 15.247 (d) and ANSI C63.10-2020, the channel contains the maximum PSD level was used to establish the reference level.						

5.2.2 Test Graph

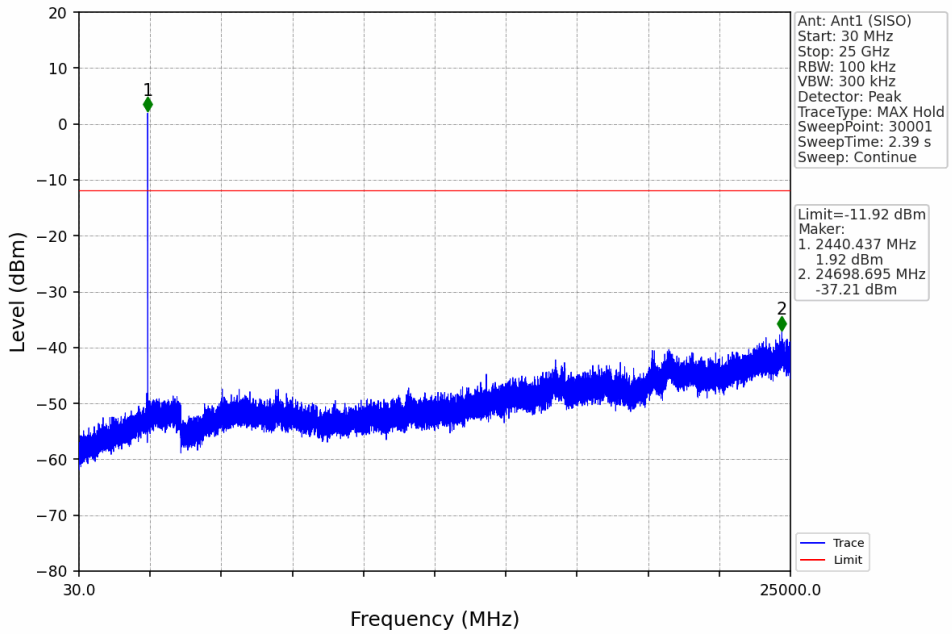
802.11b_LCH_2412MHz_Ant1 (SISO)_NTNV



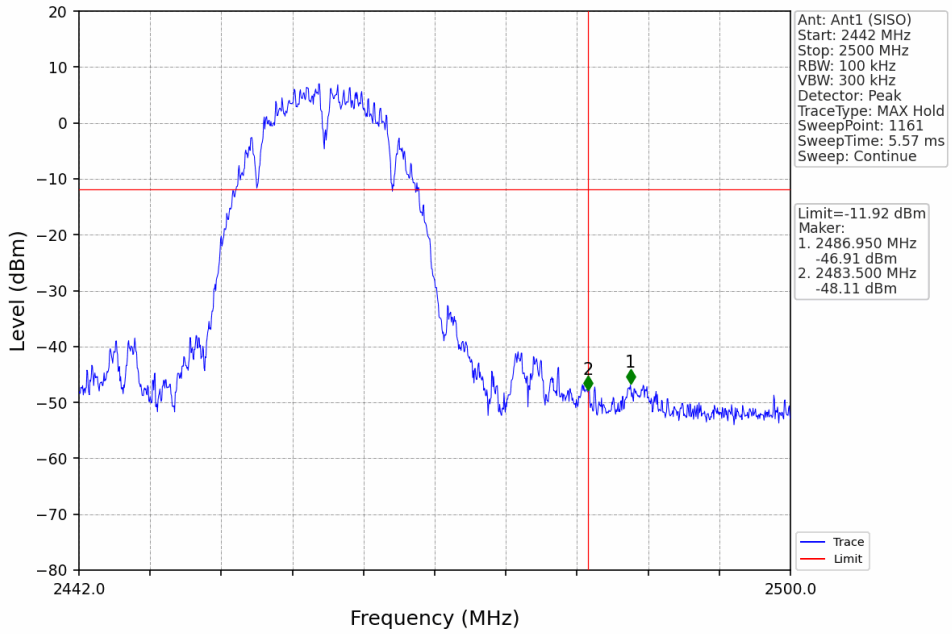
802.11b_LCH_2412MHz_Ant1 (SISO)_NTNV



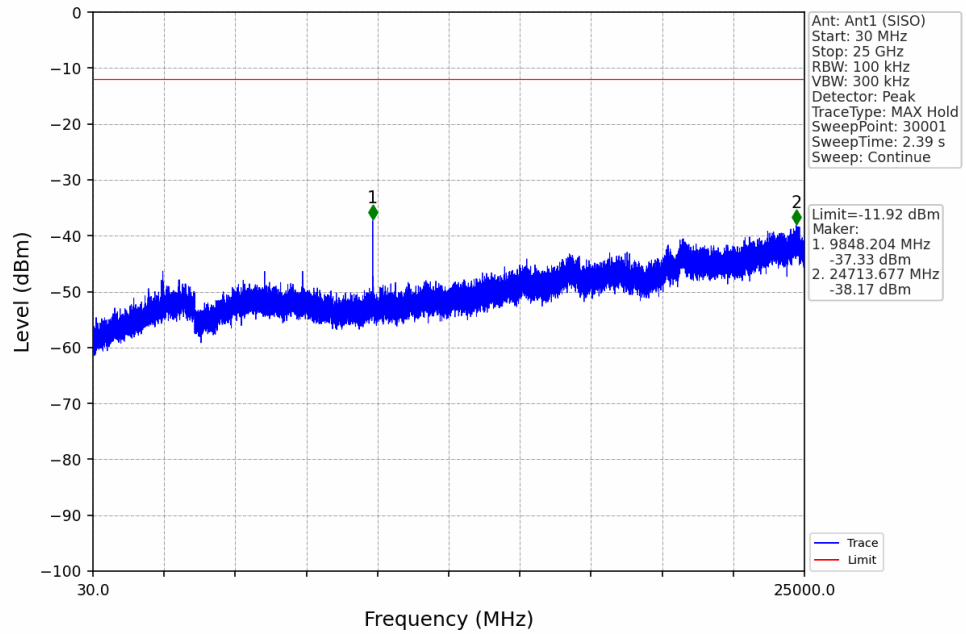
802.11b_MCH_2437MHz_Ant1 (SISO)_NTNV



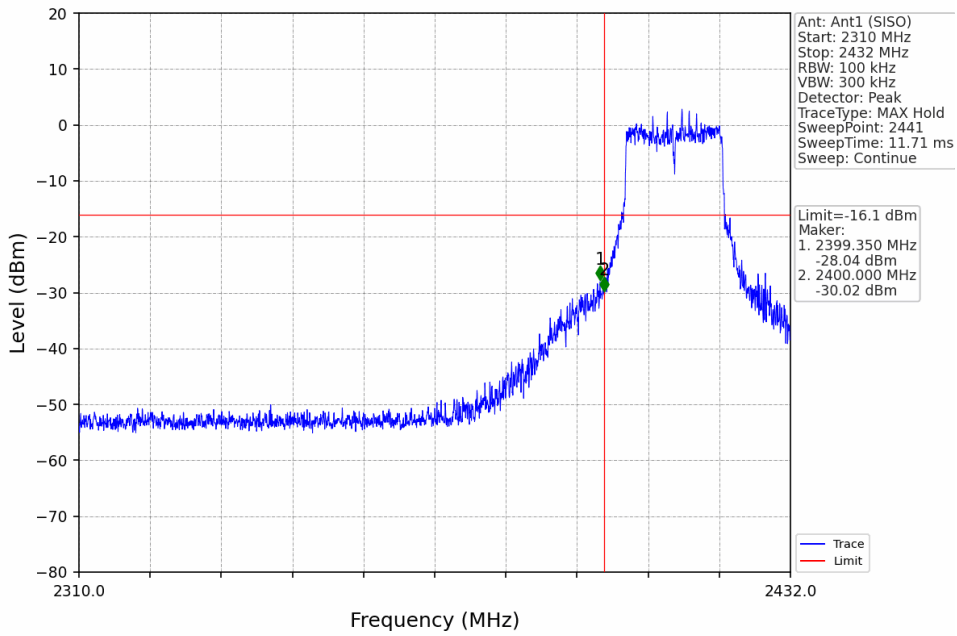
802.11b_HCH_2462MHz_Ant1 (SISO)_NTNV



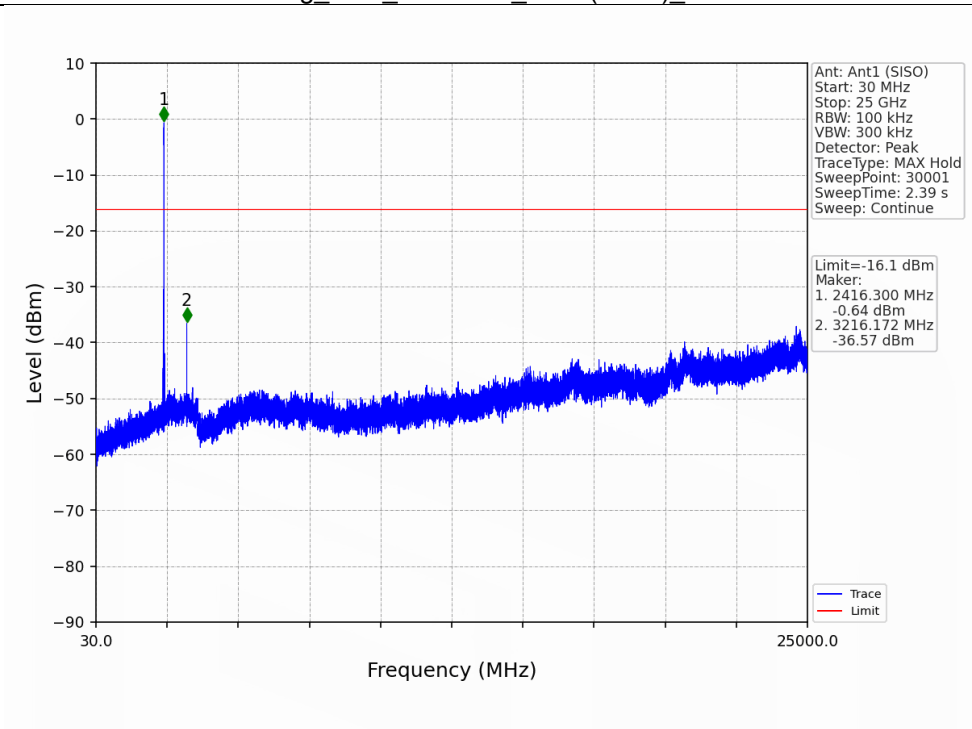
802.11b_HCH_2462MHz_Ant1 (SISO)_NTNV



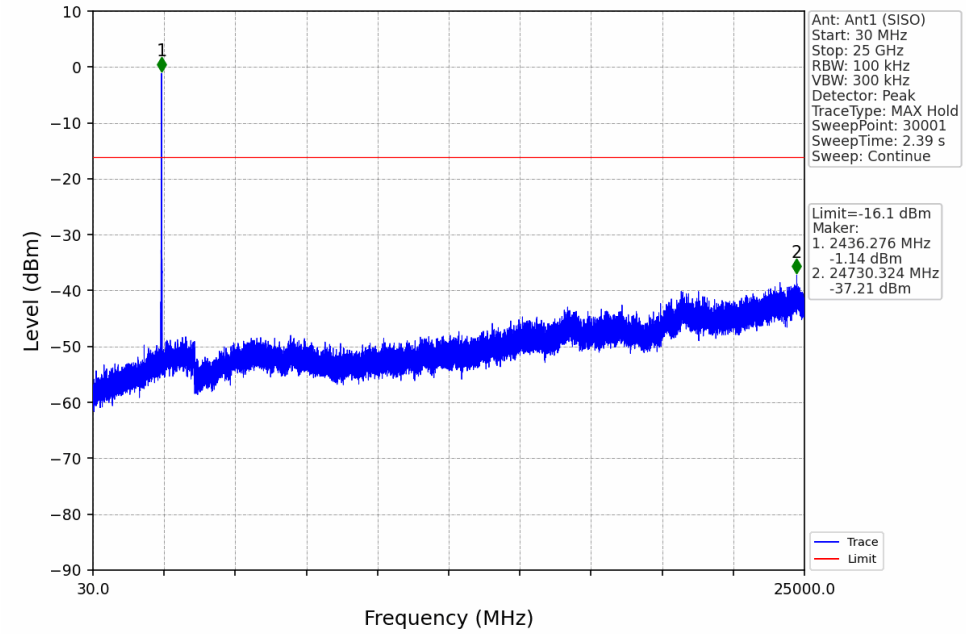
802.11g_LCH_2412MHz_Ant1 (SISO)_NTNV



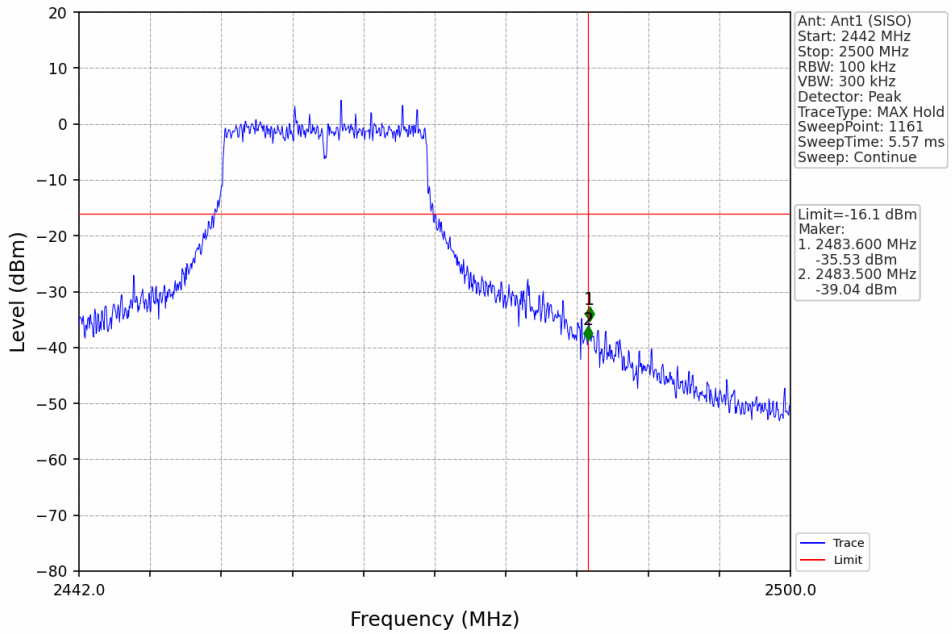
802.11g_LCH_2412MHz_Ant1 (SISO)_NTNV



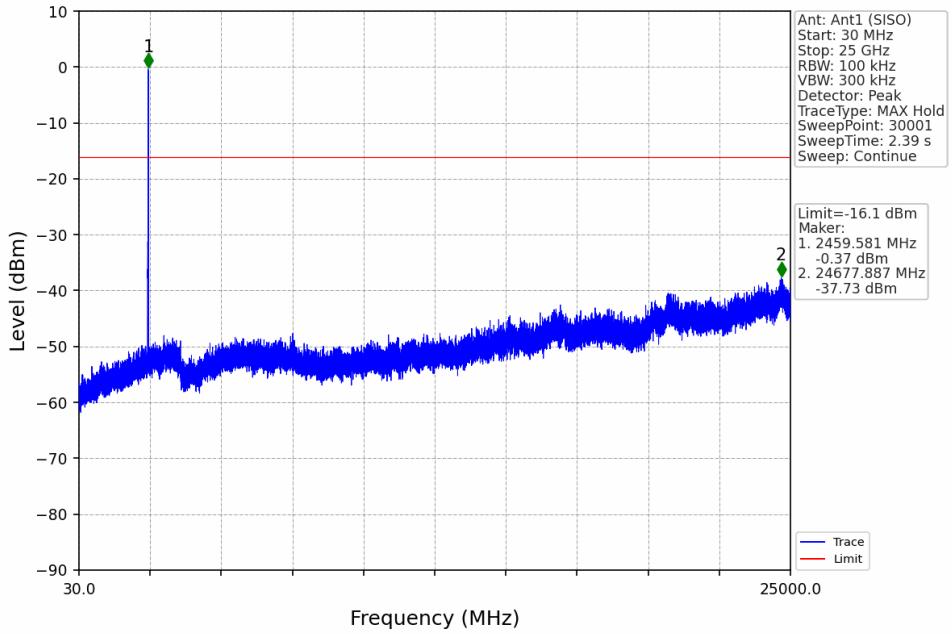
802.11g_MCH_2437MHz_Ant1 (SISO)_NTNV



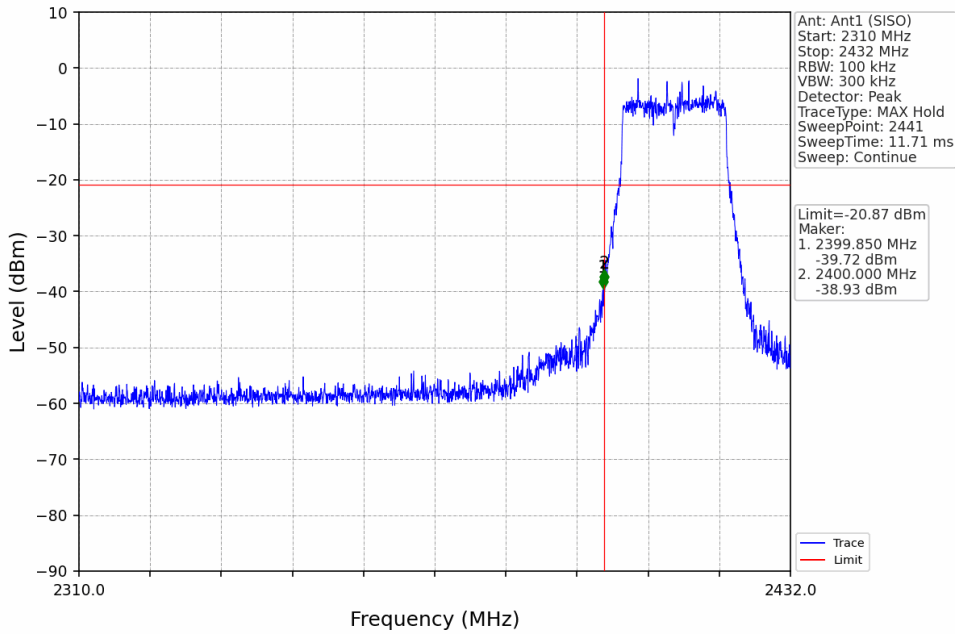
802.11g_HCH_2462MHz_Ant1 (SISO)_NTNV



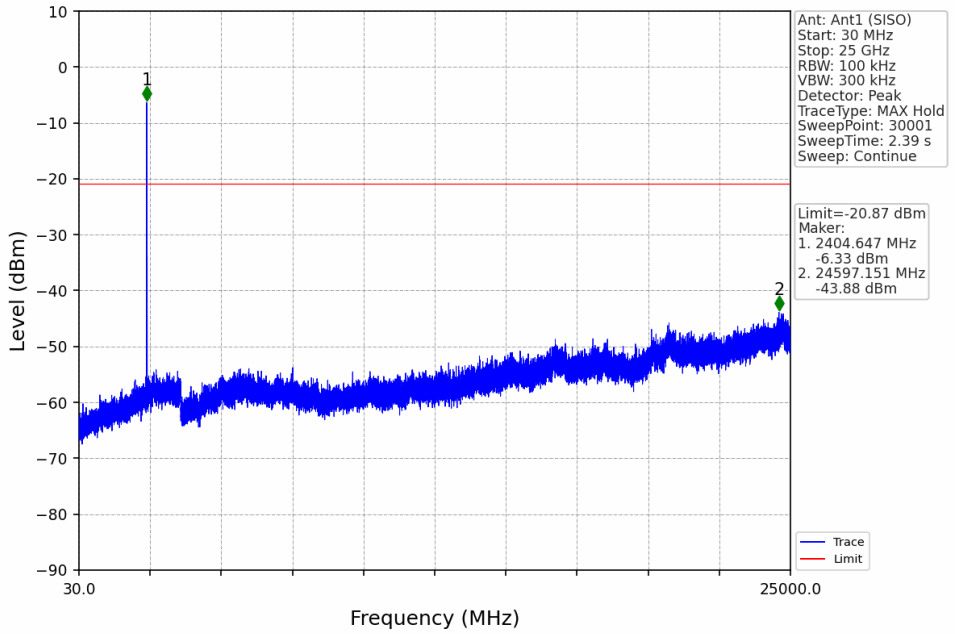
802.11g_HCH_2462MHz_Ant1 (SISO)_NTNV



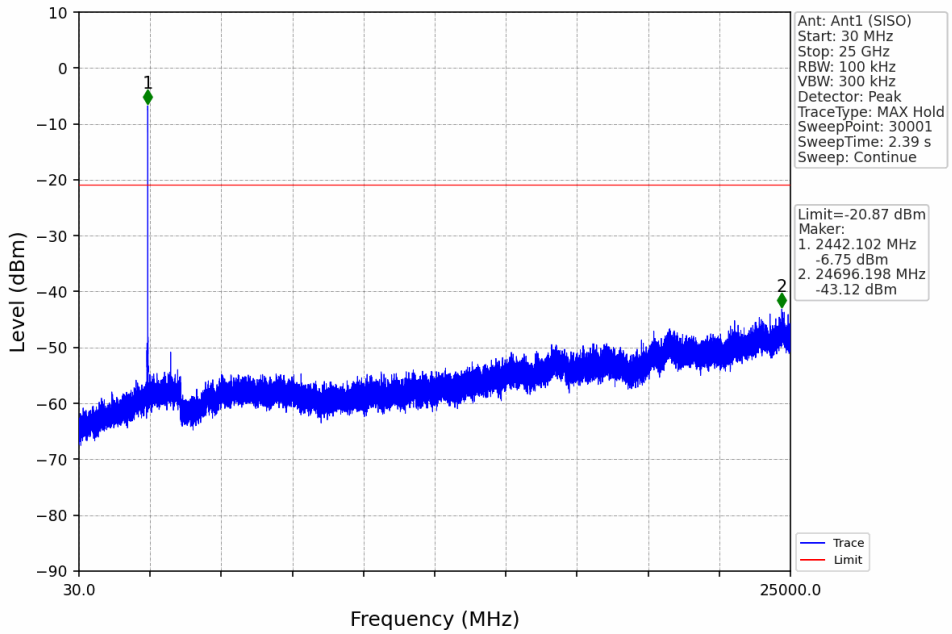
802.11n(HT20)_LCH_2412MHz_Ant1 (SISO)_NTNV



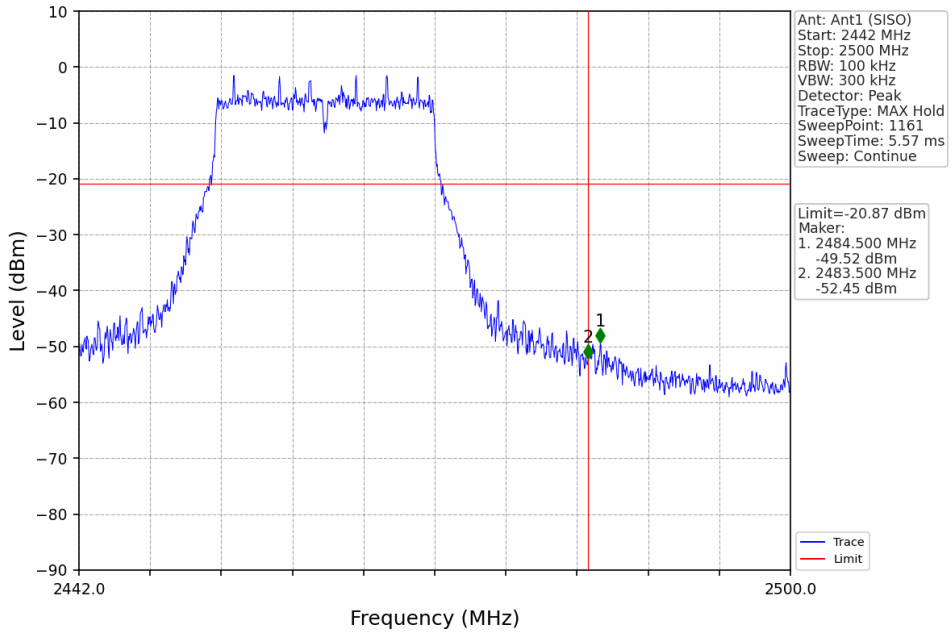
802.11n(HT20)_LCH_2412MHz_Ant1 (SISO)_NTNV



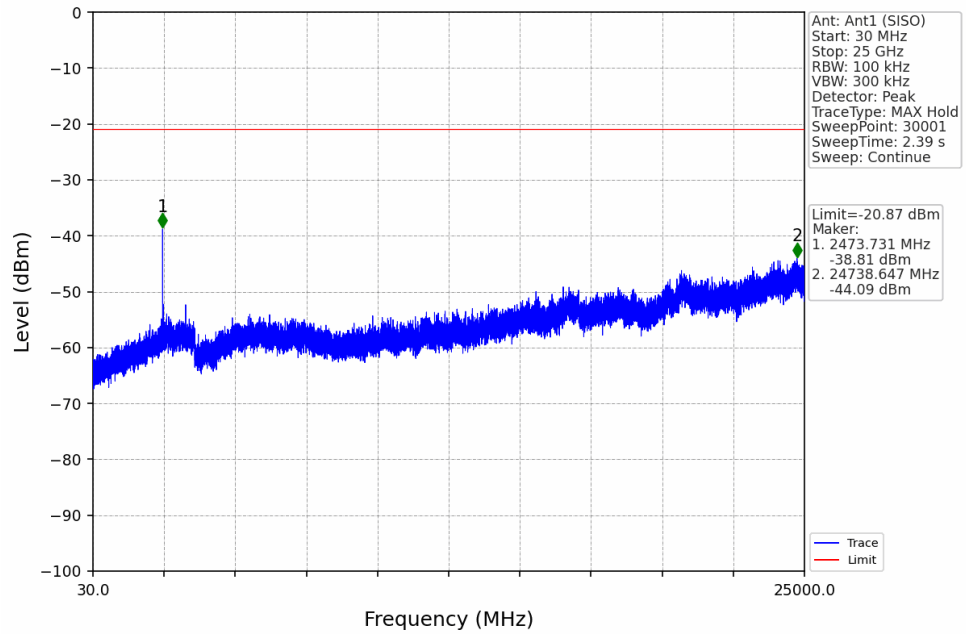
802.11n(HT20)_MCH_2437MHz_Ant1 (SISO)_NTNV



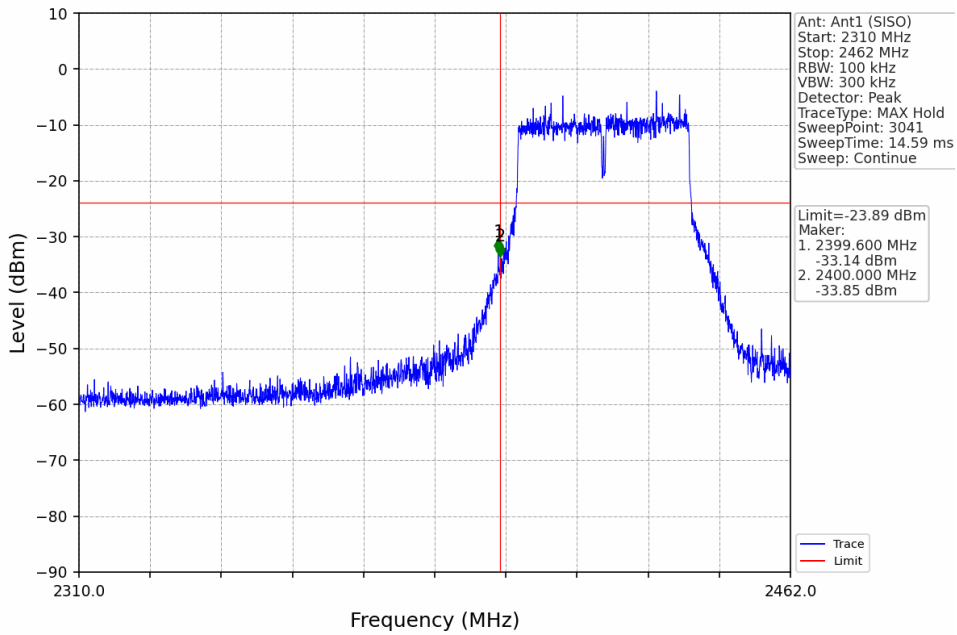
802.11n(HT20)_HCH_2462MHz_Ant1 (SISO)_NTNV



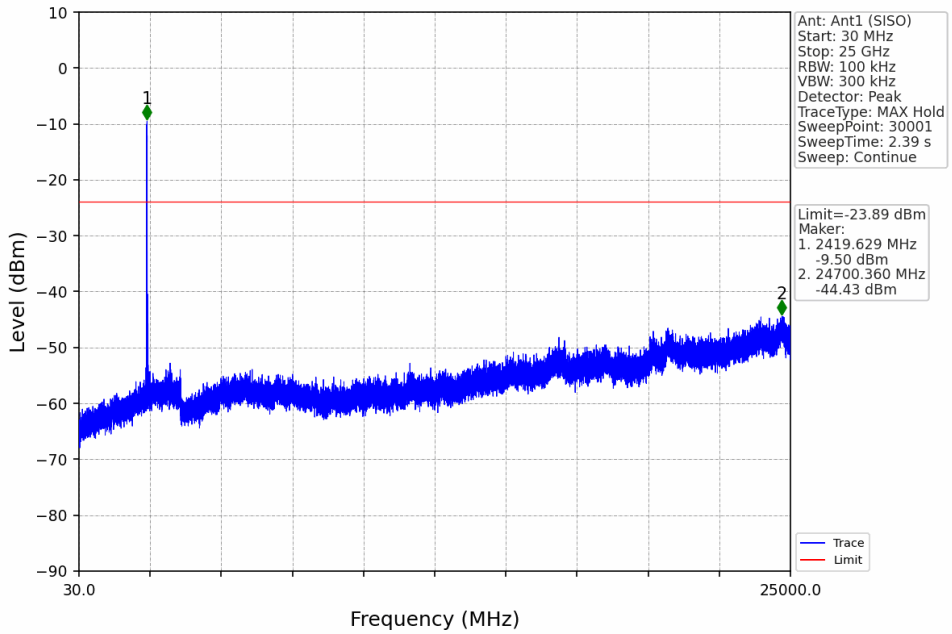
802.11n(HT20)_HCH_2462MHz_Ant1 (SISO)_NTNV



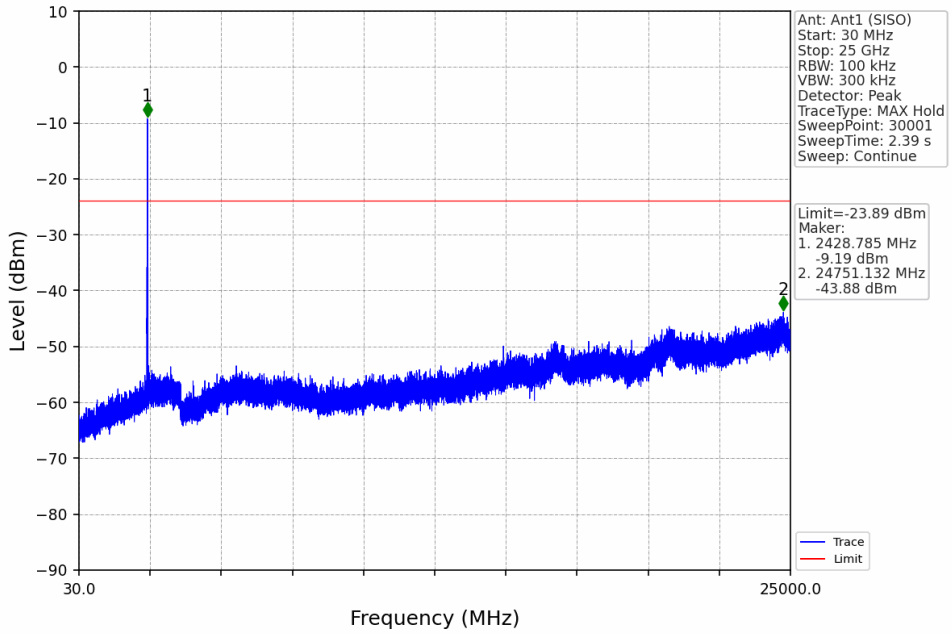
802.11n(HT40)_LCH_2422MHz_Ant1 (SISO)_NTNV



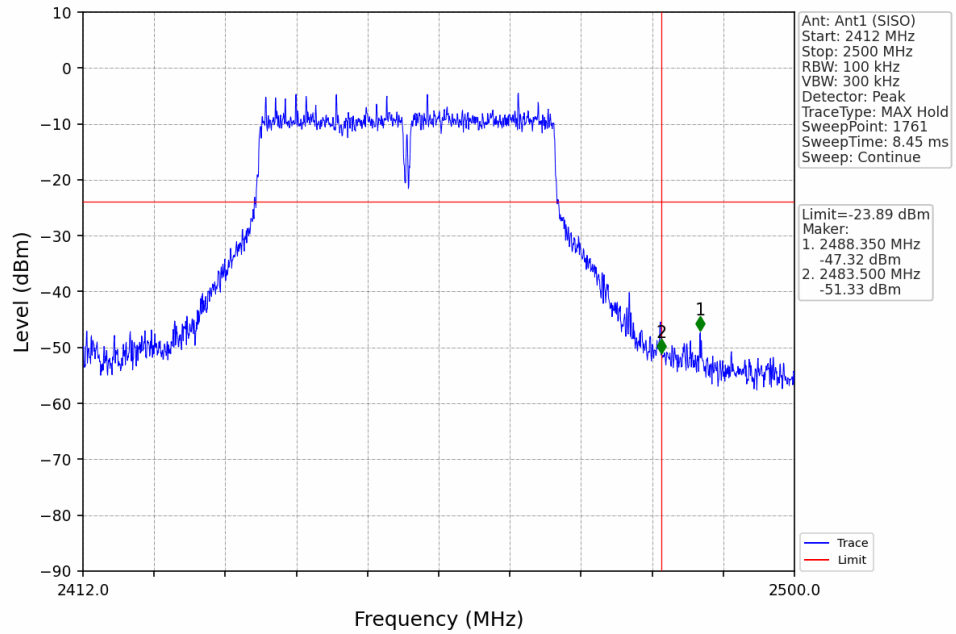
802.11n(HT40)_LCH_2422MHz_Ant1 (SISO)_NTNV



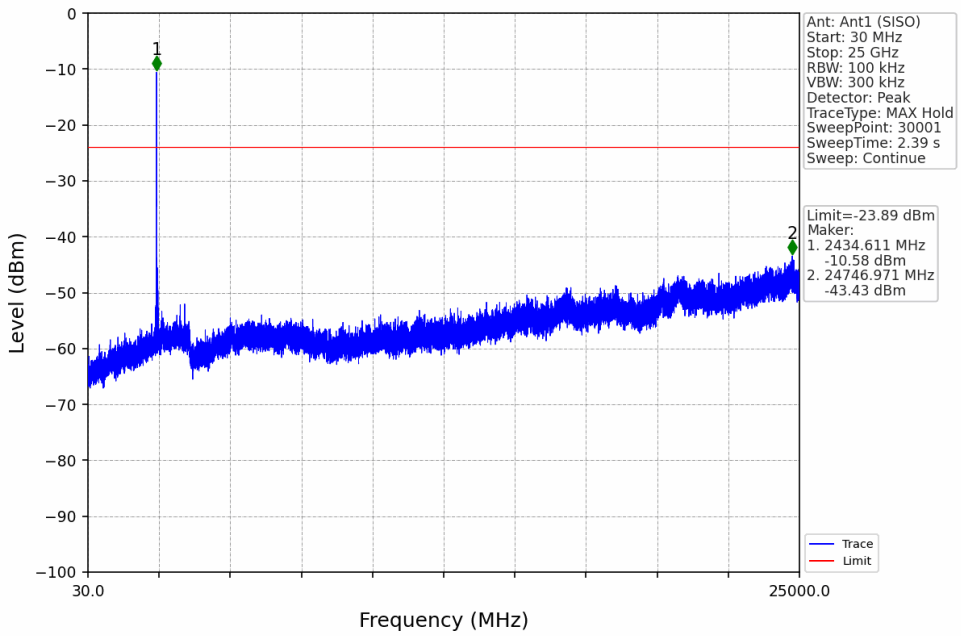
802.11n(HT40)_MCH_2437MHz_Ant1 (SISO)_NTNV



802.11n(HT40)_HCH_2452MHz_Ant1 (SISO)_NTNV



802.11n(HT40)_HCH_2452MHz_Ant1 (SISO)_NTNV



--------- End of Report -------