

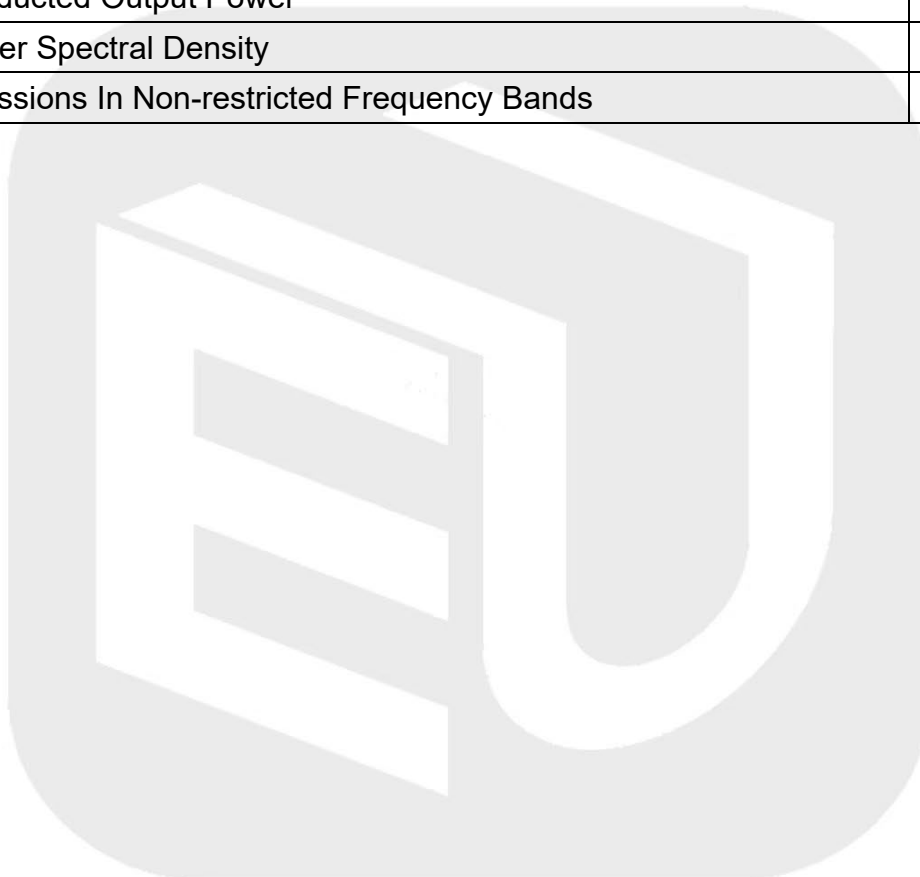
ANNEX D TEST DATA

For

Project No.:	8133EU011901W
Client:	Autel Intelligent Technology Corp., Ltd.
Product Description:	MaxiFlash VCMI
Model No.:	MaxiFlash VCMI
FCC ID:	WQ8VCMI2121
Technology:	2.4G WLAN
Test Engineer:	<i>Mikoy zhu</i>
Test Date:	2023-10-26

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



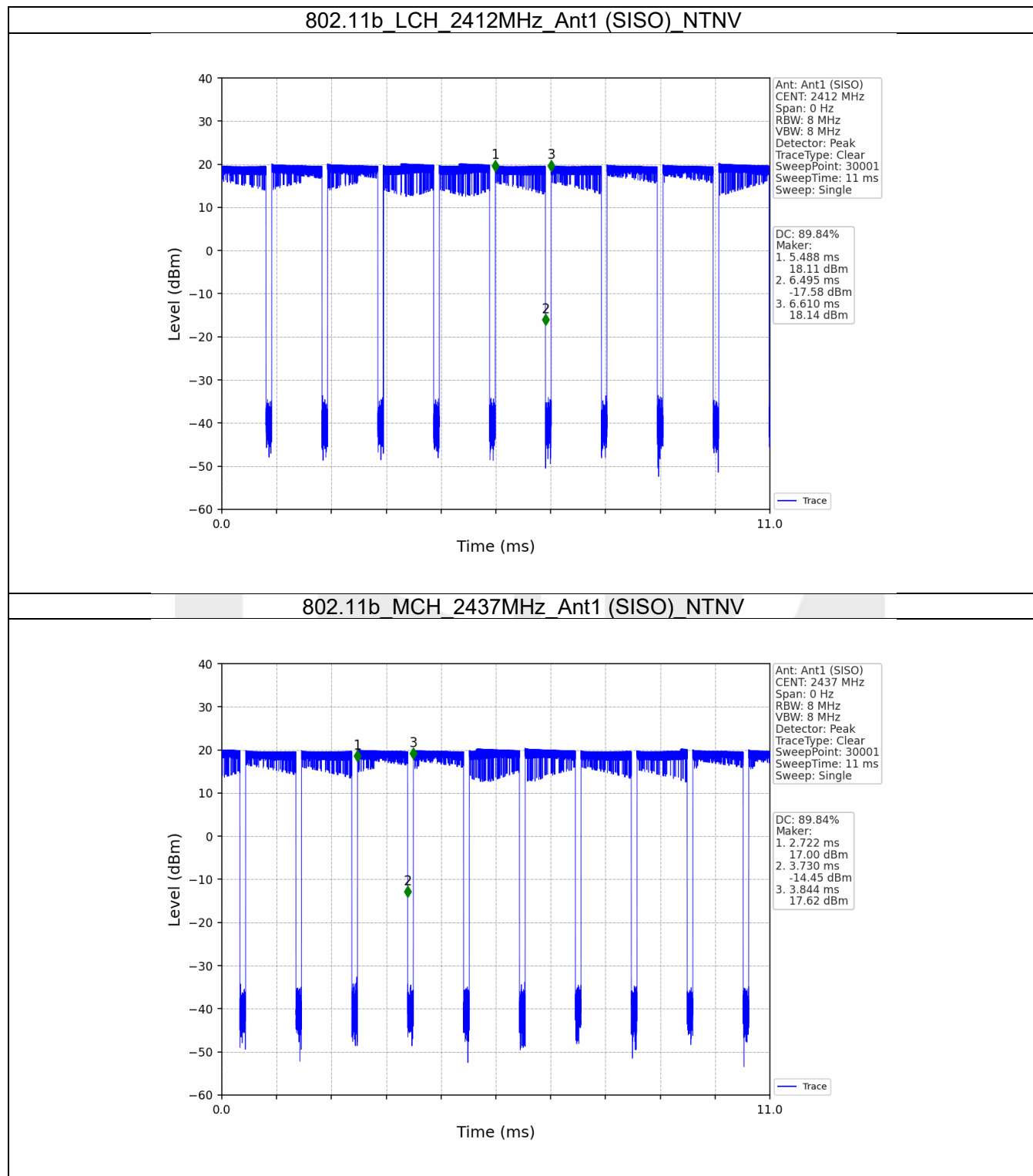
1. Duty Cycle

1.1 Ant1

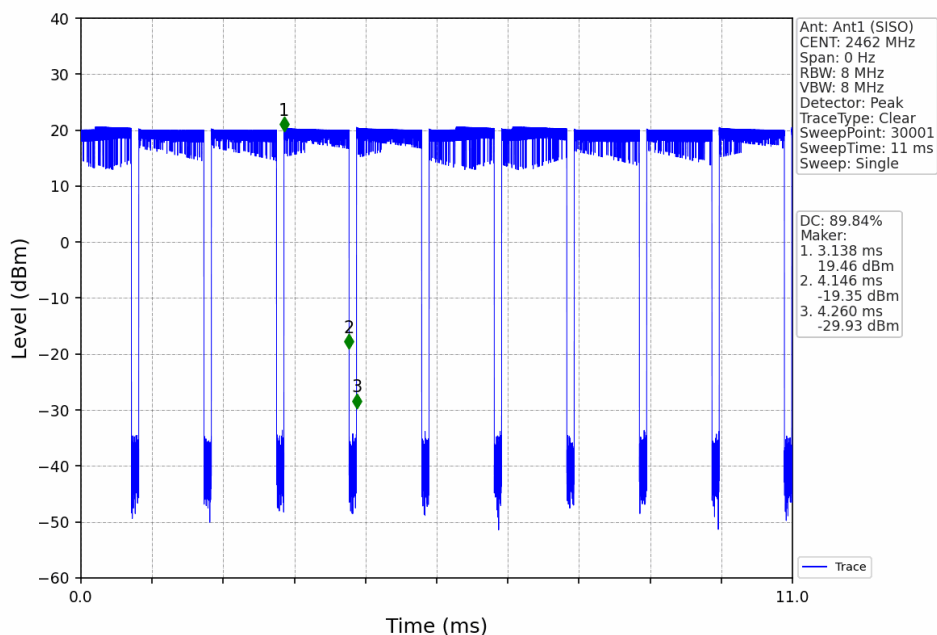
1.1.1 Test Result

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	1.008	1.122	89.84	0.47	0.12
		2437	1.008	1.122	89.84	0.47	0.12
		2462	1.008	1.122	89.84	0.47	0.09
802.11g	SISO	2412	0.616	0.686	89.80	0.47	0.16
		2437	0.617	0.686	89.94	0.46	0.16
		2462	0.617	0.686	89.94	0.46	0.12
802.11n (HT20)	SISO	2412	0.613	0.683	89.75	0.47	0.16
		2437	0.612	0.683	89.60	0.48	0.16
		2462	0.612	0.683	89.60	0.48	0.16

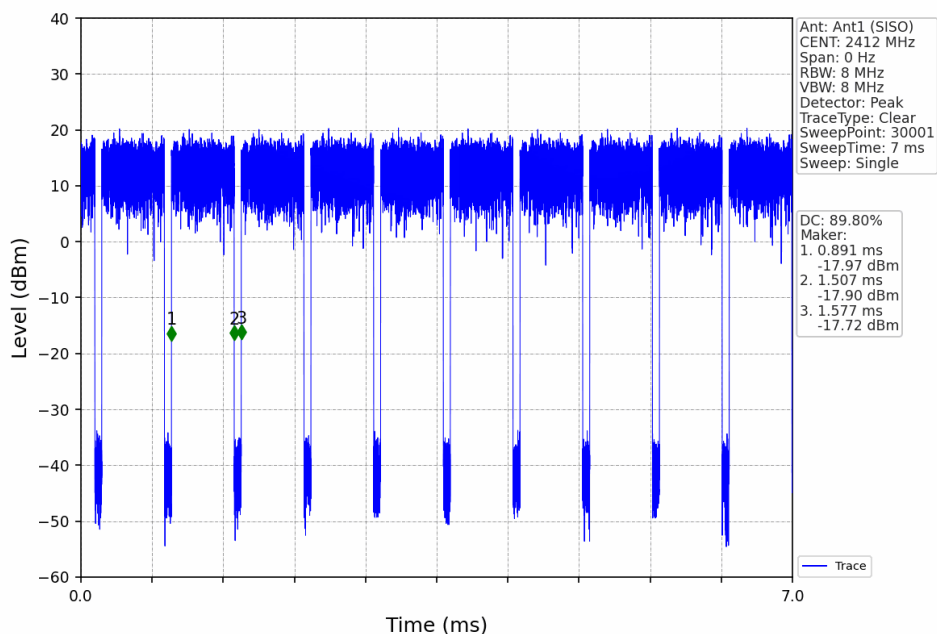
1.1.2 Test Graph



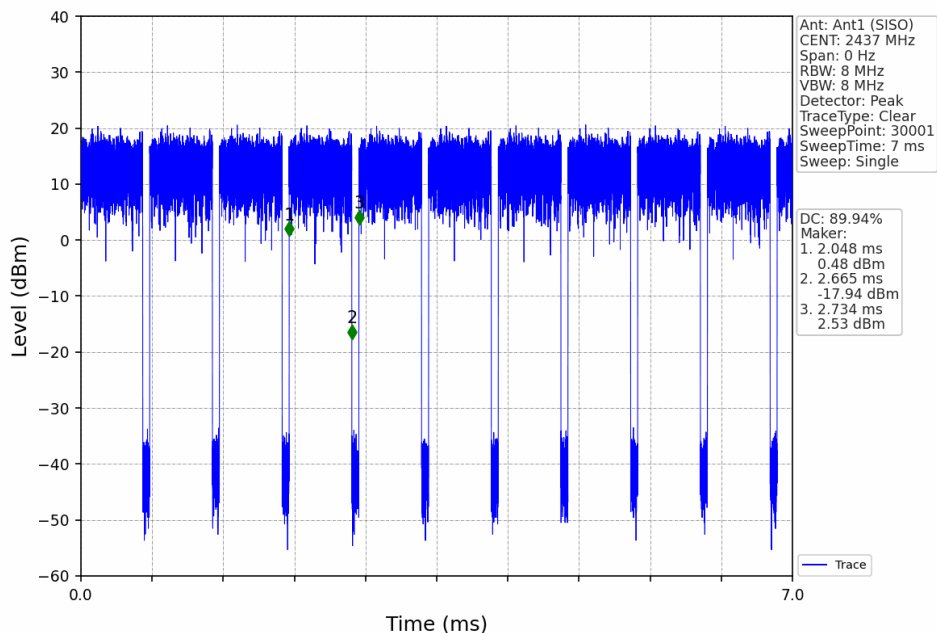
802.11b_HCH_2462MHz_Ant1 (SISO)_NTNV



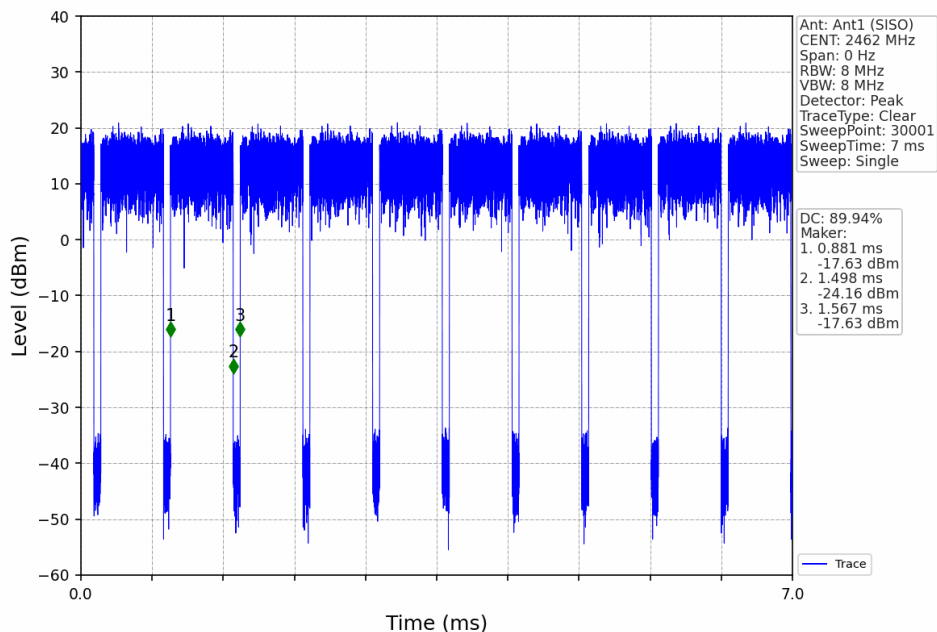
802.11g_LCH_2412MHz_Ant1 (SISO)_NTNV

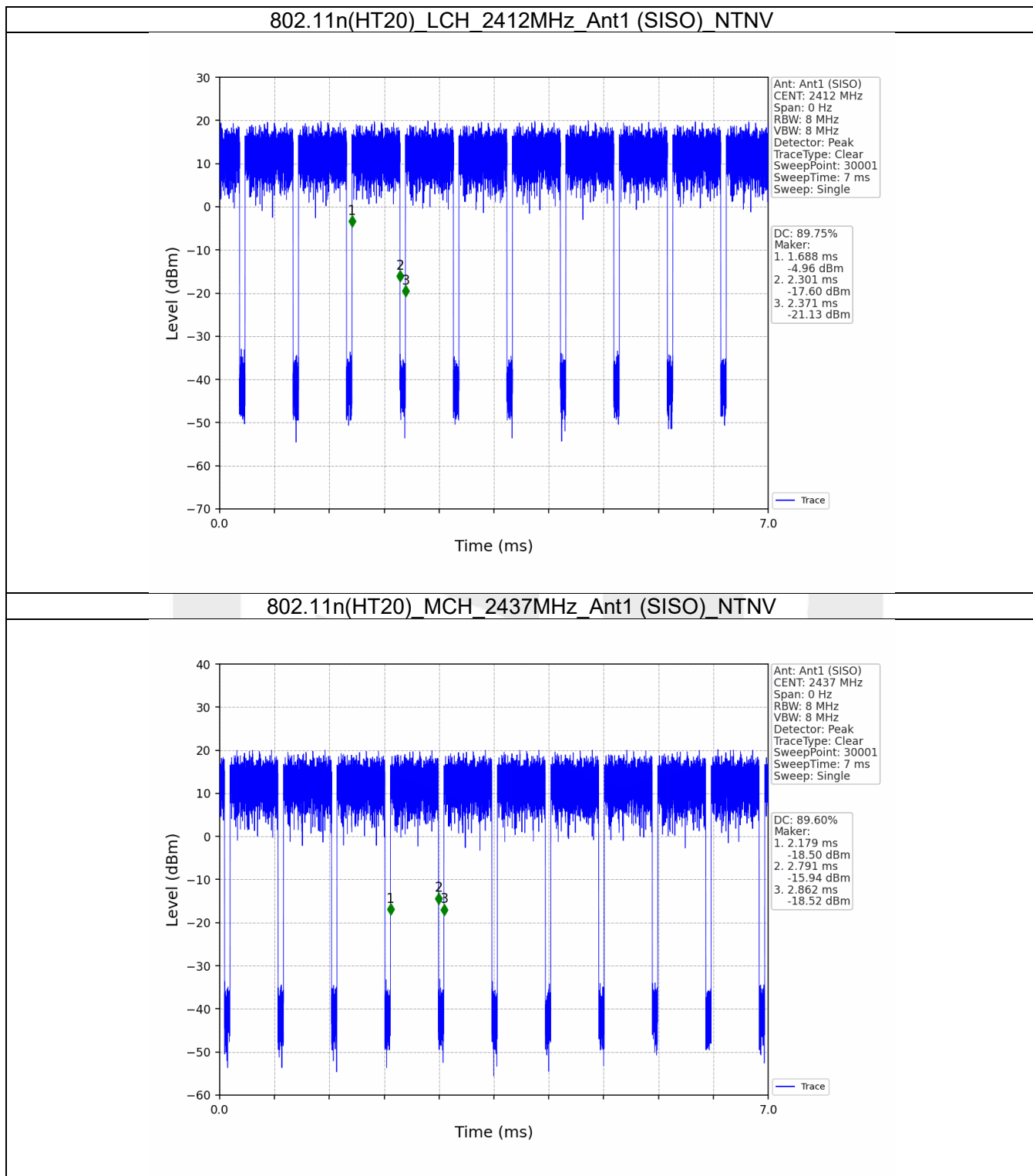


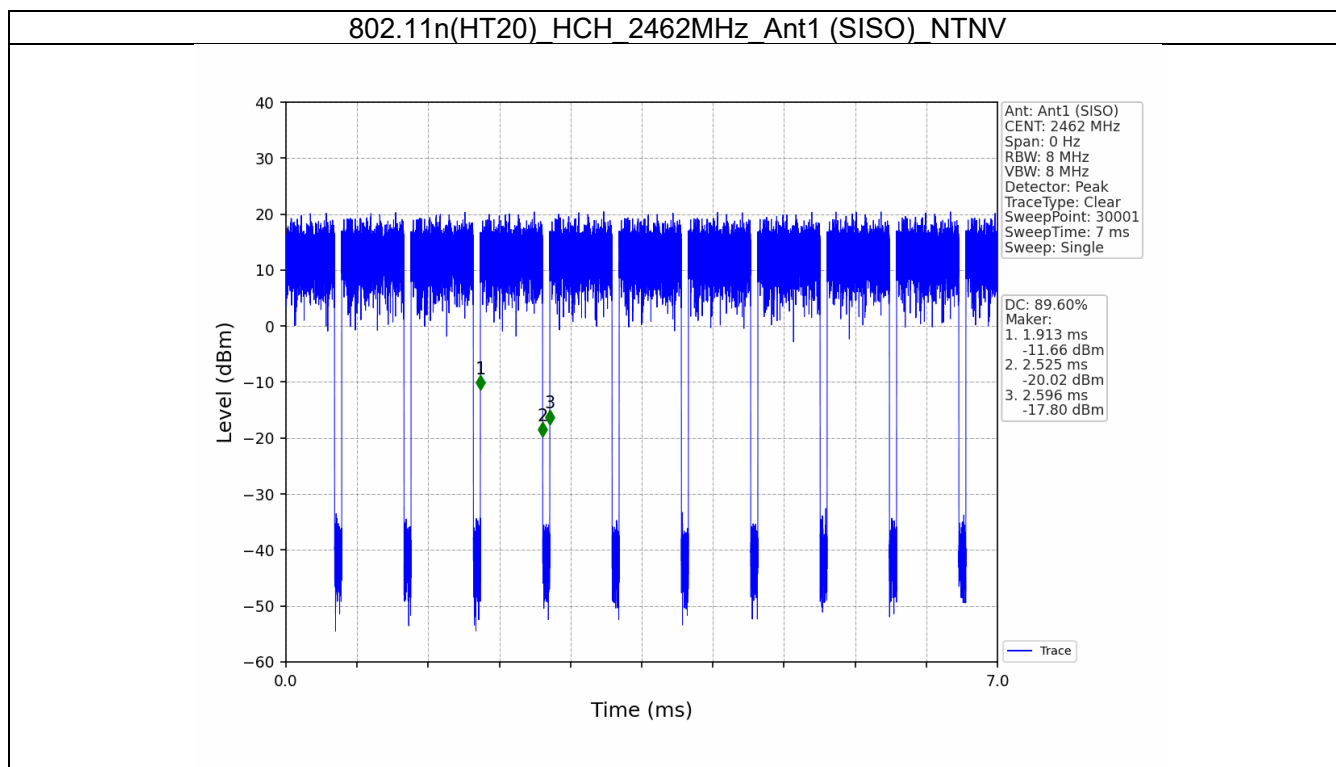
802.11g_MCH_2437MHz_Ant1 (SISO)_NTNV



802.11g_HCH_2462MHz_Ant1 (SISO)_NTNV







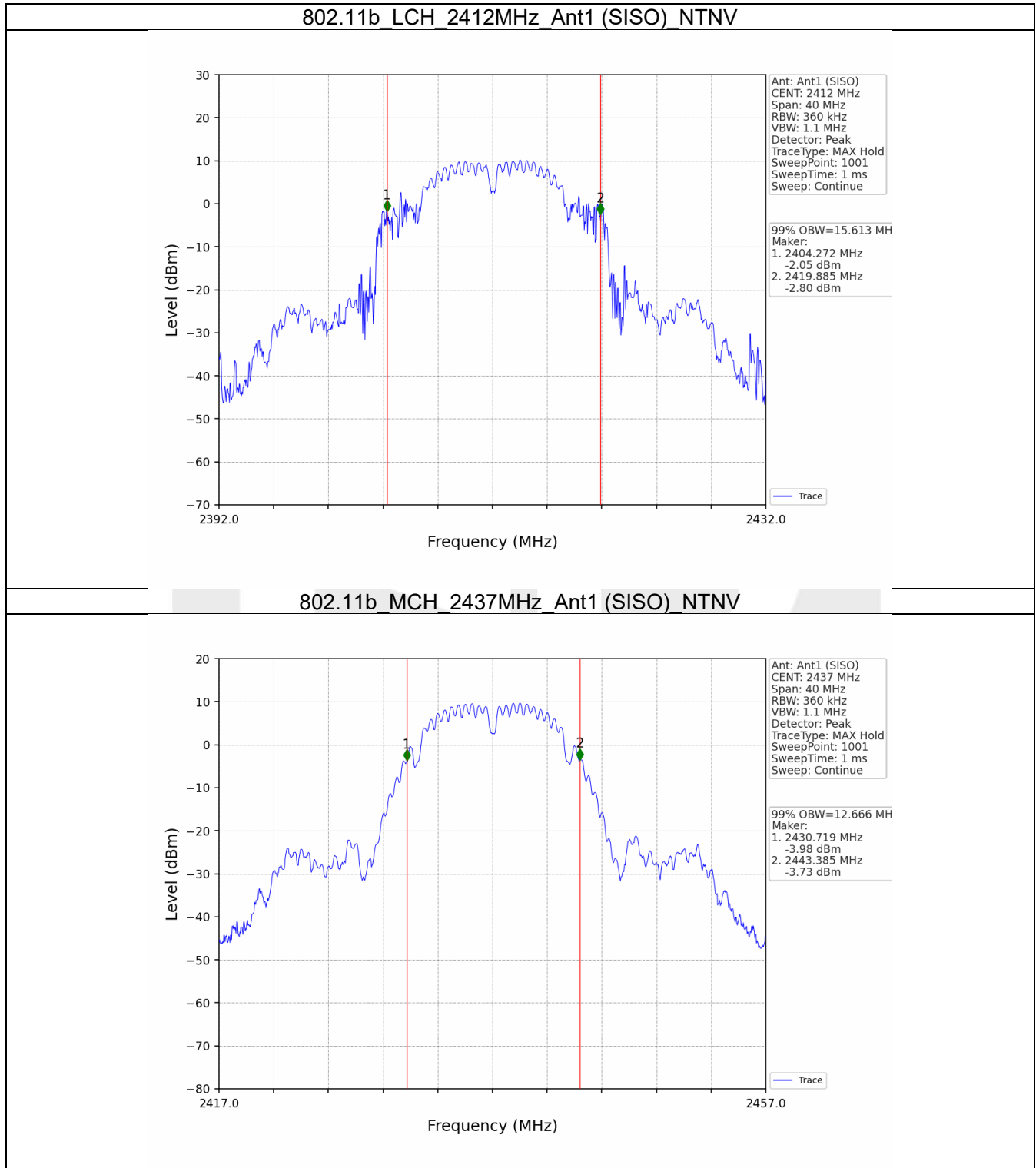
2. Bandwidth

2.1 OBW

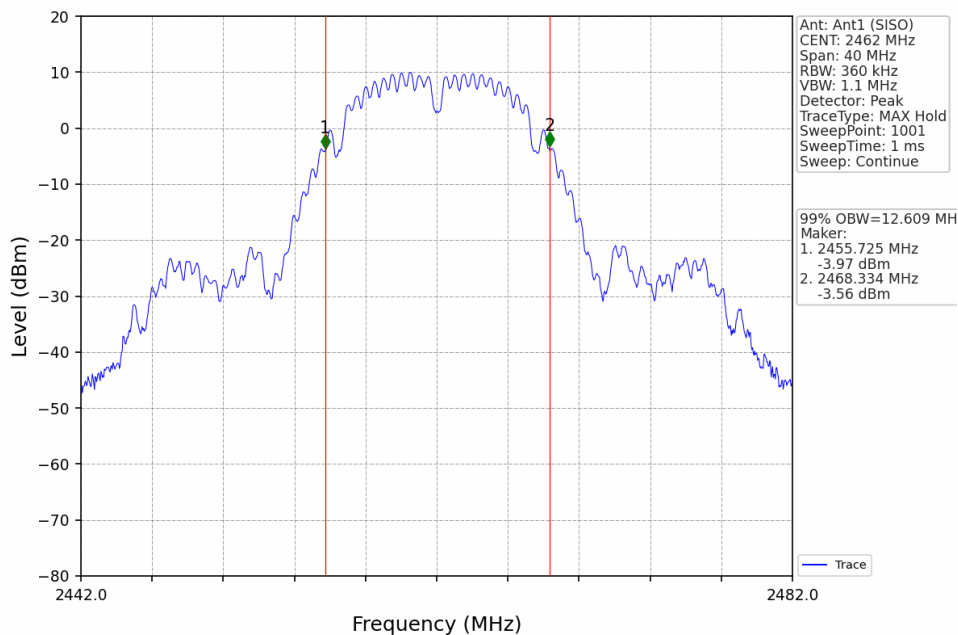
2.1.1 Test Result

Mode	TX Type	Frequency (MHz)	ANT	99% Occupied Bandwidth (MHz)	Verdict
				Result	
802.11b	SISO	2412	1	15.613	Pass
		2437	1	12.666	Pass
		2462	1	12.609	Pass
802.11g	SISO	2412	1	12.656	Pass
		2437	1	12.726	Pass
		2462	1	12.668	Pass
802.11n (HT20)	SISO	2412	1	12.670	Pass
		2437	1	12.713	Pass
		2462	1	12.665	Pass

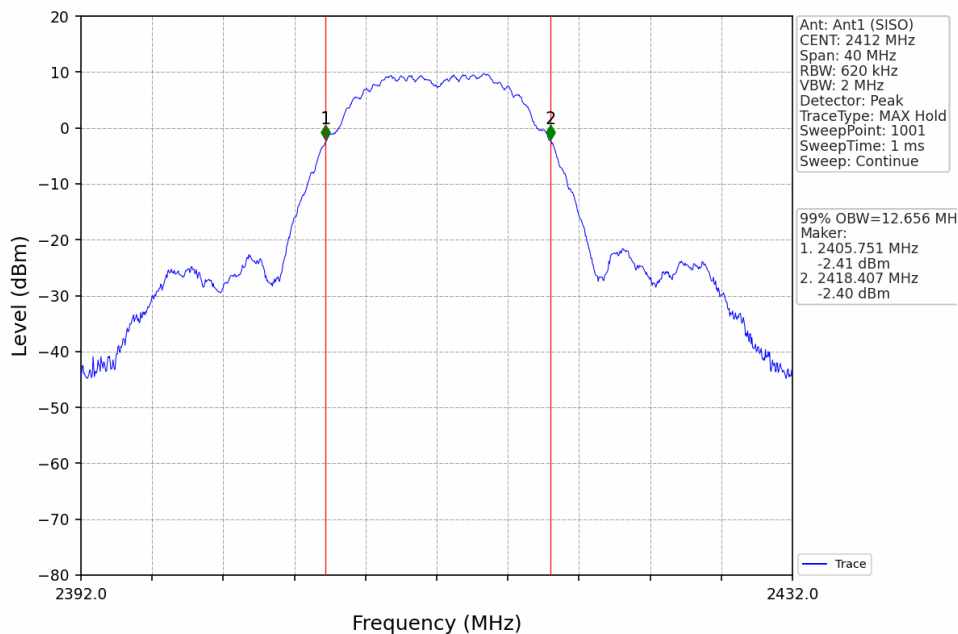
2.1.2 Test Graph

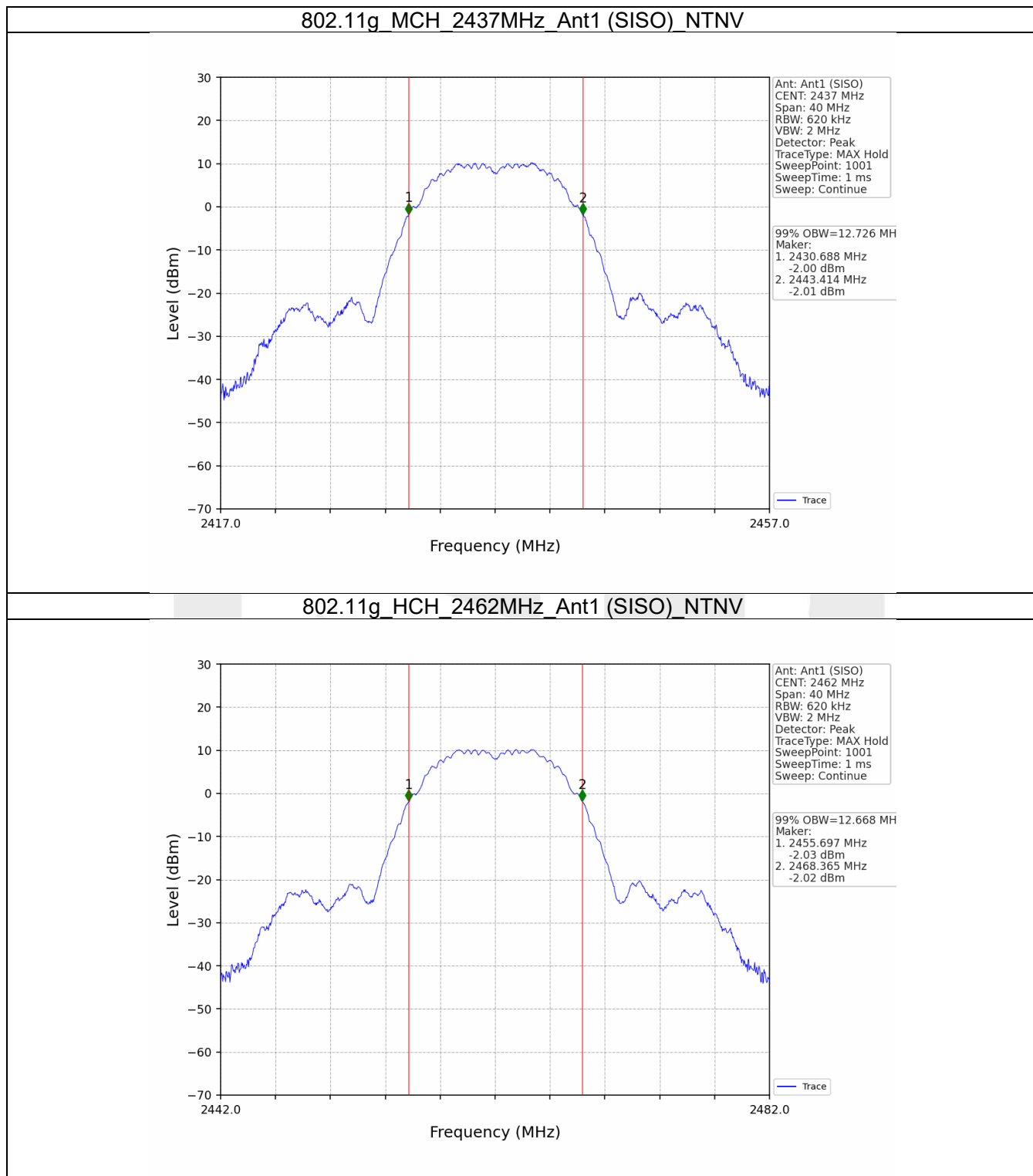


802.11b_HCH_2462MHz_Ant1 (SISO)_NTNV

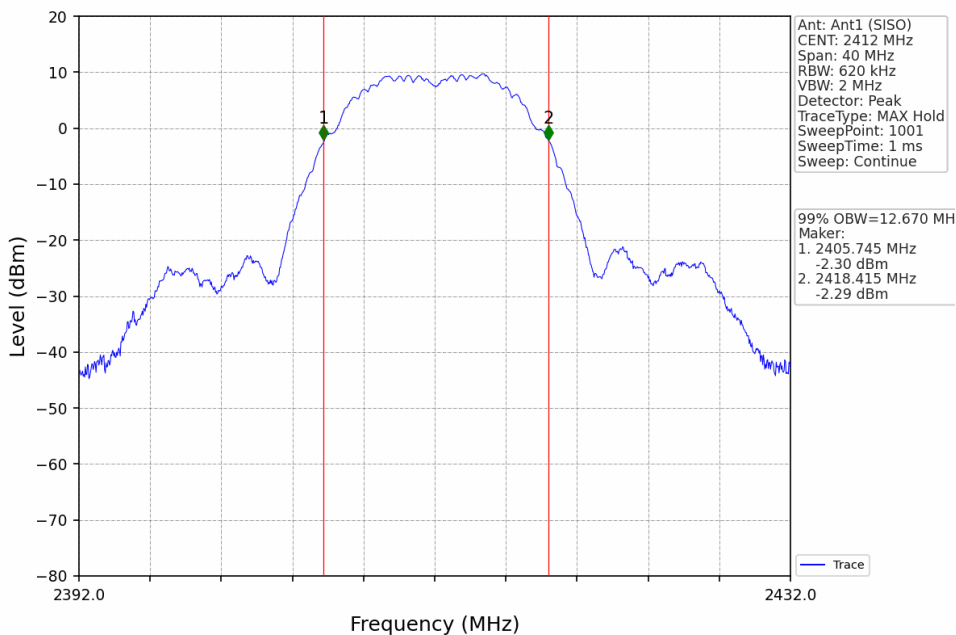


802.11g_LCH_2412MHz_Ant1 (SISO)_NTNV

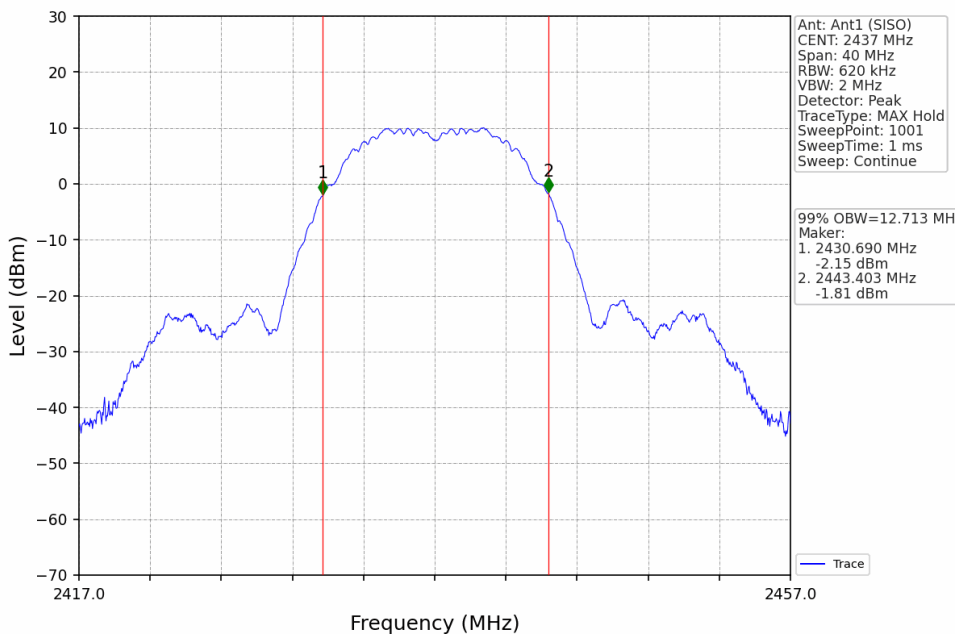


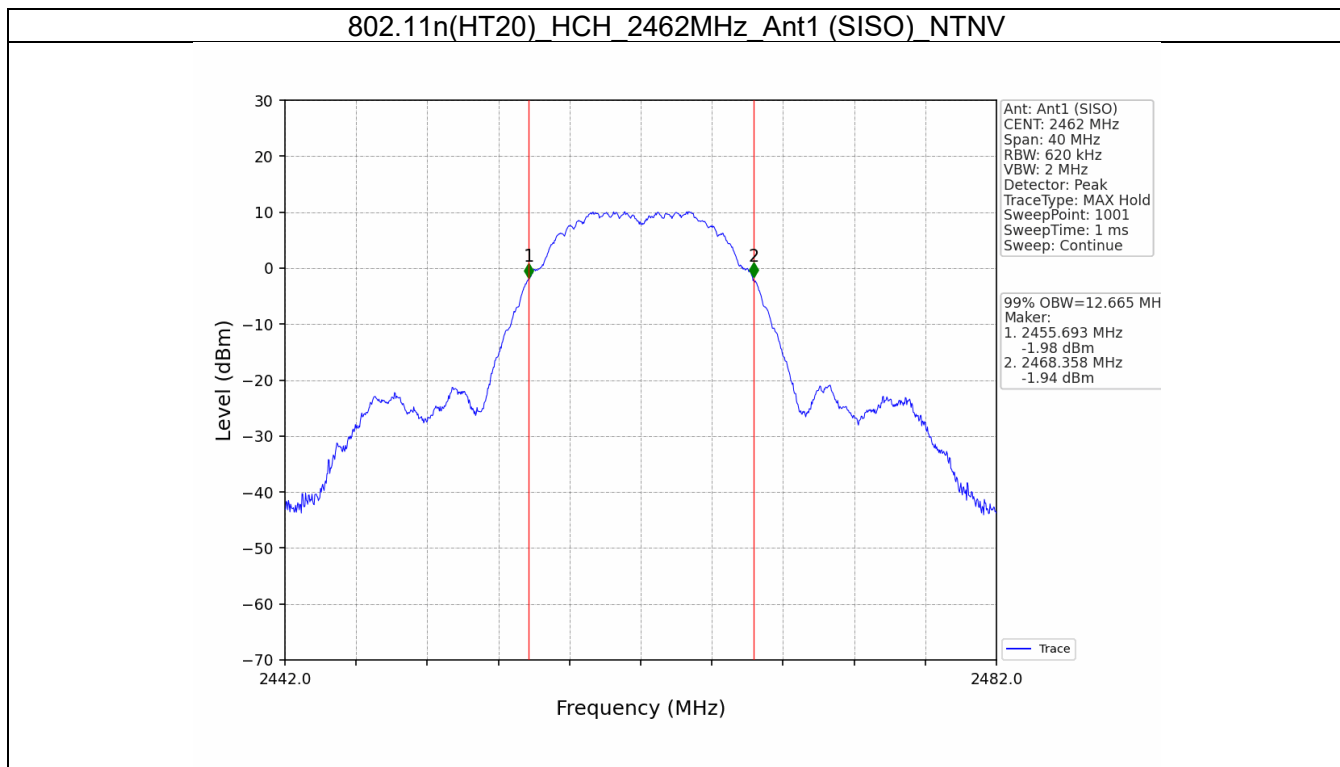


802.11n(HT20)_LCH_2412MHz_Ant1 (SISO)_NTNV



802.11n(HT20)_MCH_2437MHz_Ant1 (SISO)_NTNV



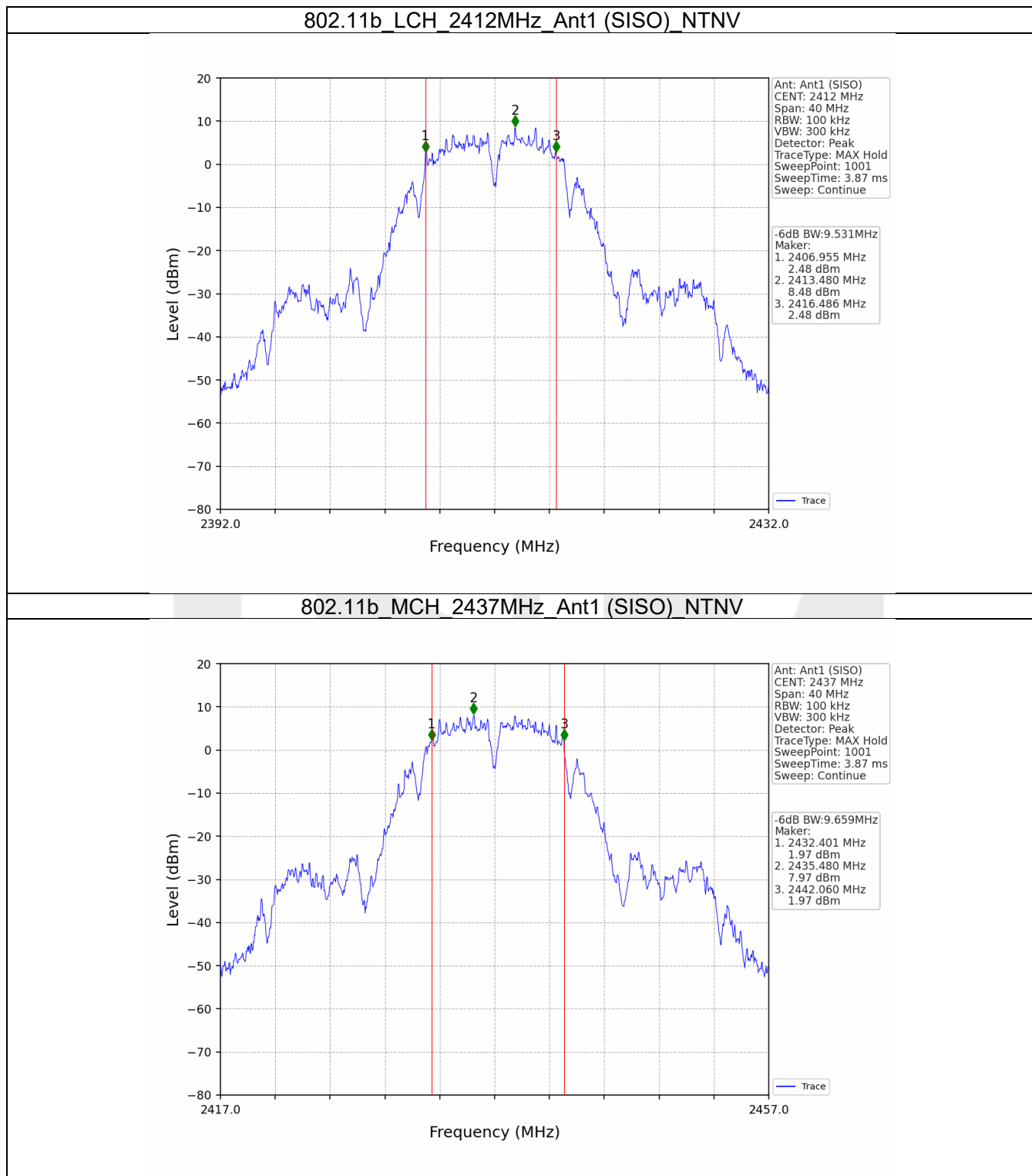


2.2 6dB BW

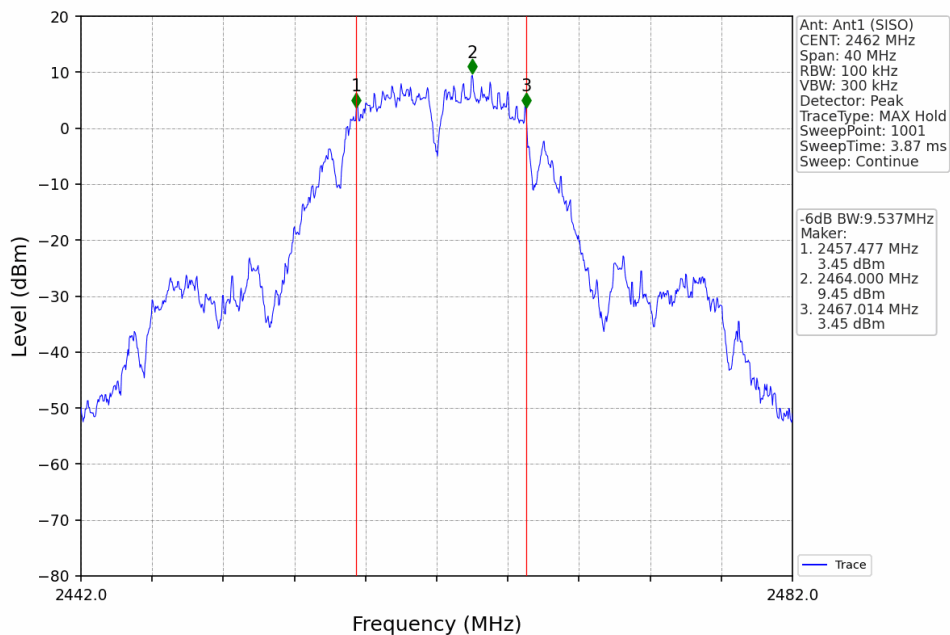
2.2.1 Test Result

Mode	TX Type	Frequency (MHz)	ANT	6dB Bandwidth (MHz)		Verdict
				Result	Limit	
802.11b	SISO	2412	1	9.531	≥ 0.5	Pass
		2437	1	9.659	≥ 0.5	Pass
		2462	1	9.537	≥ 0.5	Pass
802.11g	SISO	2412	1	9.101	≥ 0.5	Pass
		2437	1	9.115	≥ 0.5	Pass
		2462	1	9.655	≥ 0.5	Pass
802.11n (HT20)	SISO	2412	1	9.137	≥ 0.5	Pass
		2437	1	8.631	≥ 0.5	Pass
		2462	1	9.611	≥ 0.5	Pass

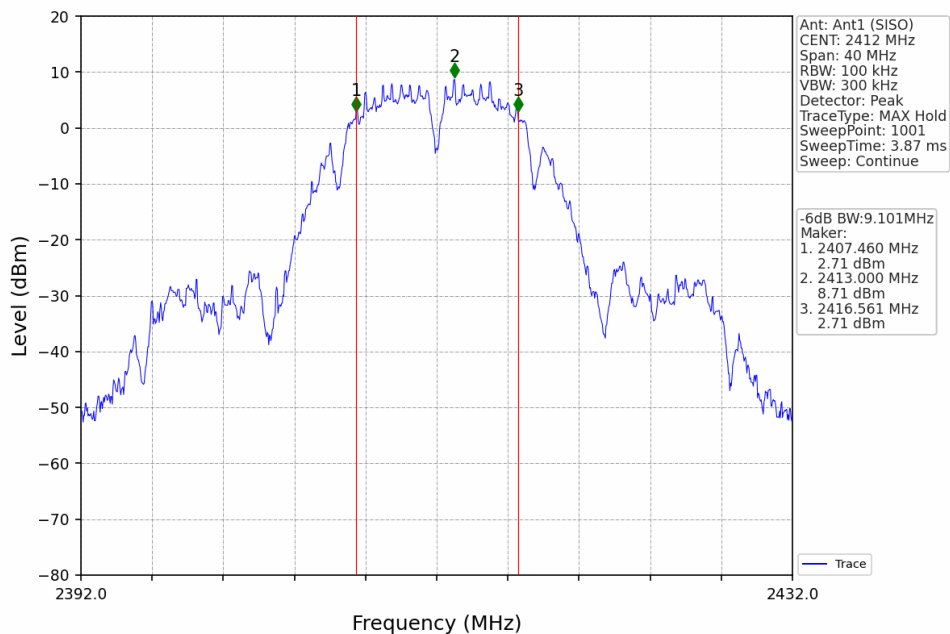
2.2.2 Test Graph



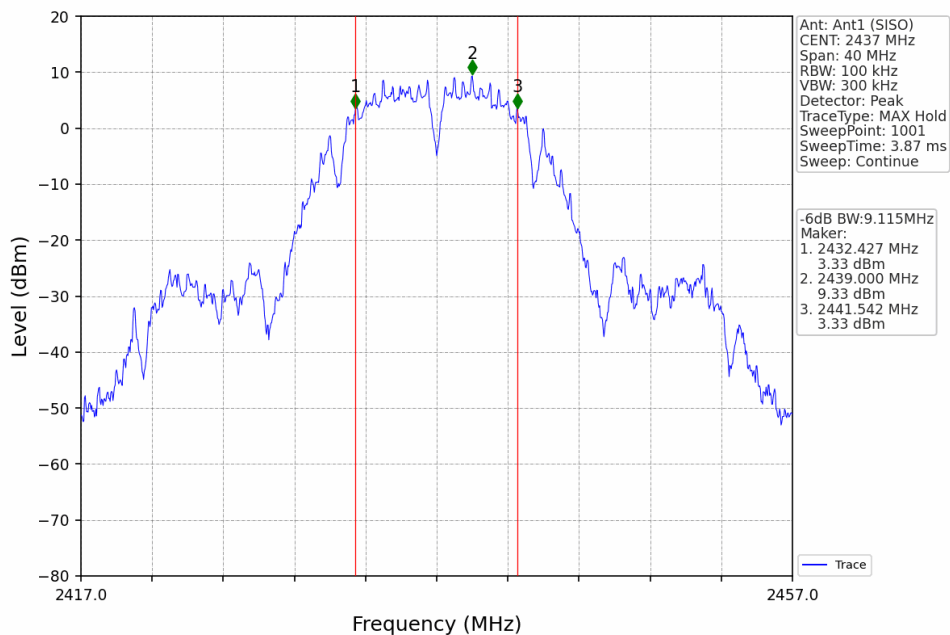
802.11b_HCH_2462MHz_Ant1 (SISO)_NTNV



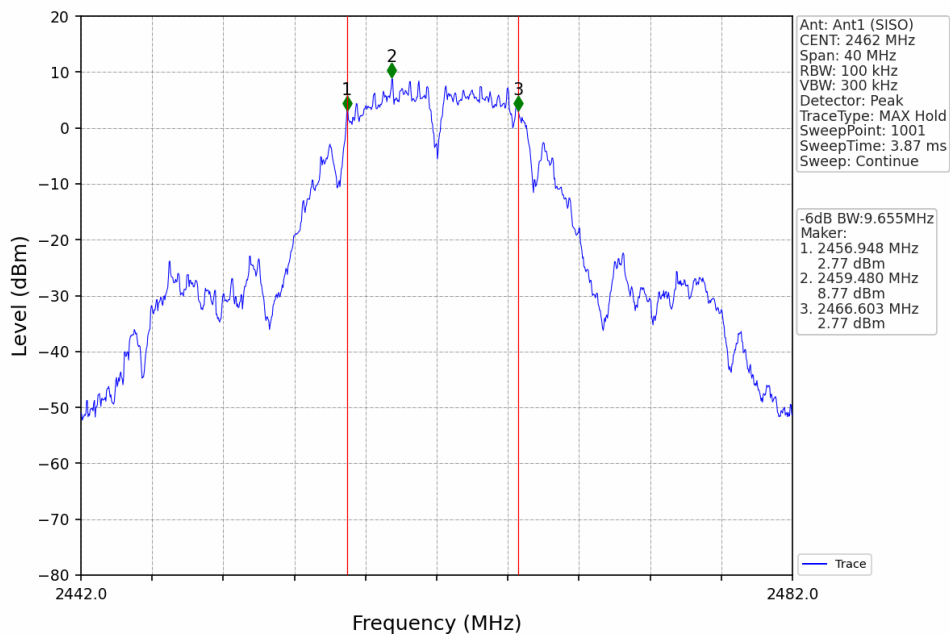
802.11g_LCH_2412MHz_Ant1 (SISO)_NTNV



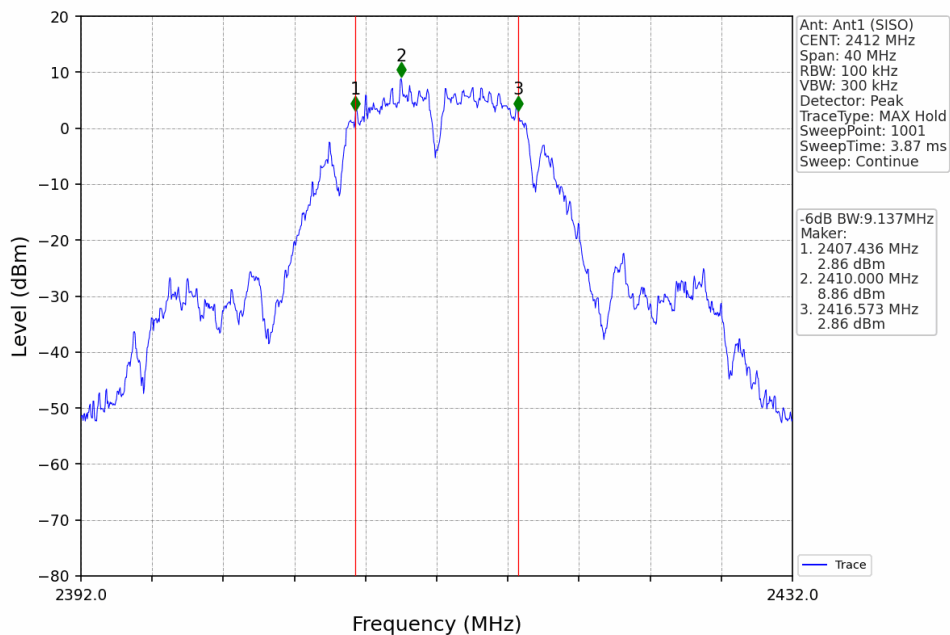
802.11g_MCH_2437MHz_Ant1 (SISO)_NTNV



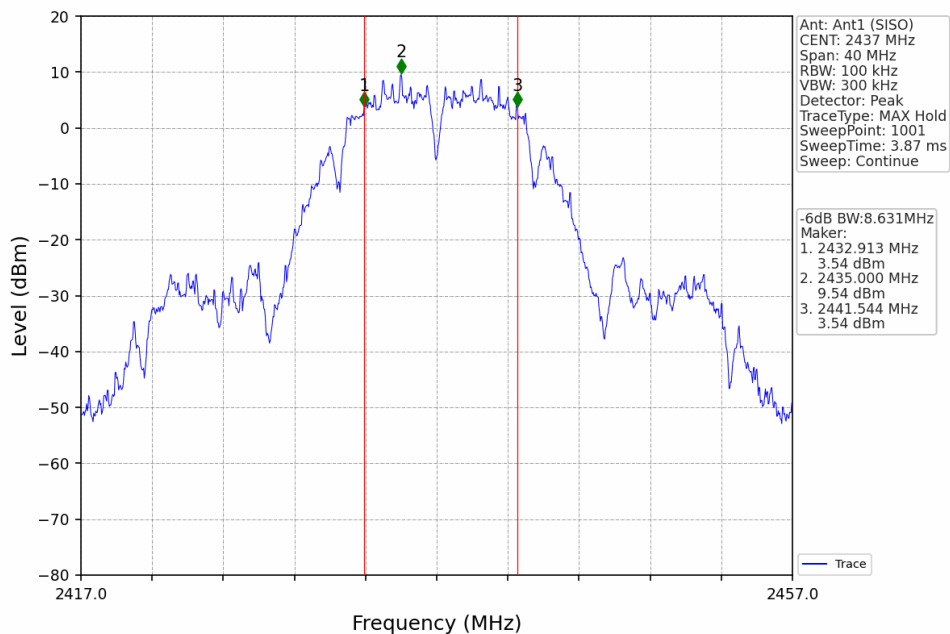
802.11g_HCH_2462MHz_Ant1 (SISO)_NTNV

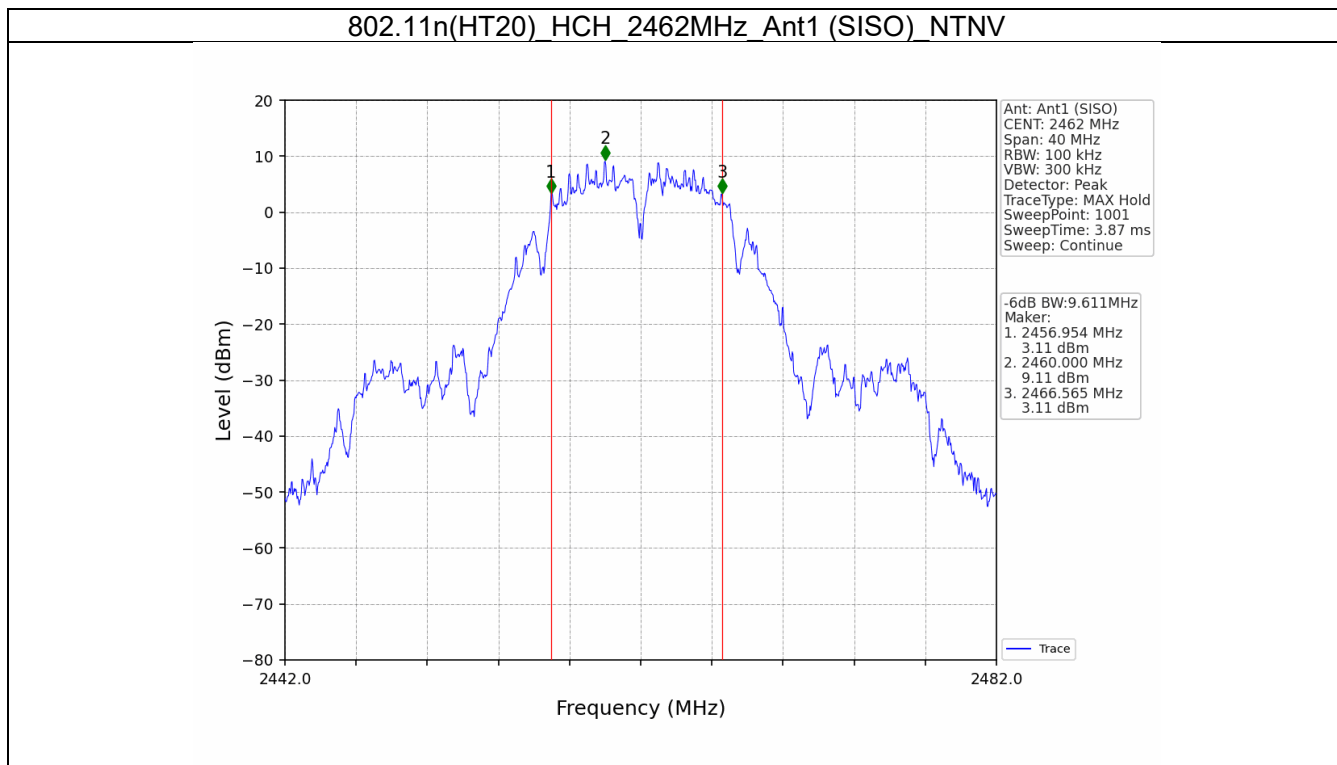


802.11n(HT20)_LCH_2412MHz_Ant1 (SISO)_NTNV



802.11n(HT20)_MCH_2437MHz_Ant1 (SISO)_NTNV





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	20.79	<=30	Pass
		2437	20.85	<=30	Pass
		2462	20.75	<=30	Pass
802.11g	SISO	2412	20.77	<=30	Pass
		2437	21.19	<=30	Pass
		2462	20.75	<=30	Pass
802.11n (HT20)	SISO	2412	21.13	<=30	Pass
		2437	20.75	<=30	Pass
		2462	21.11	<=30	Pass
Note1: Antenna Gain: Ant1: 2.40dBi;					

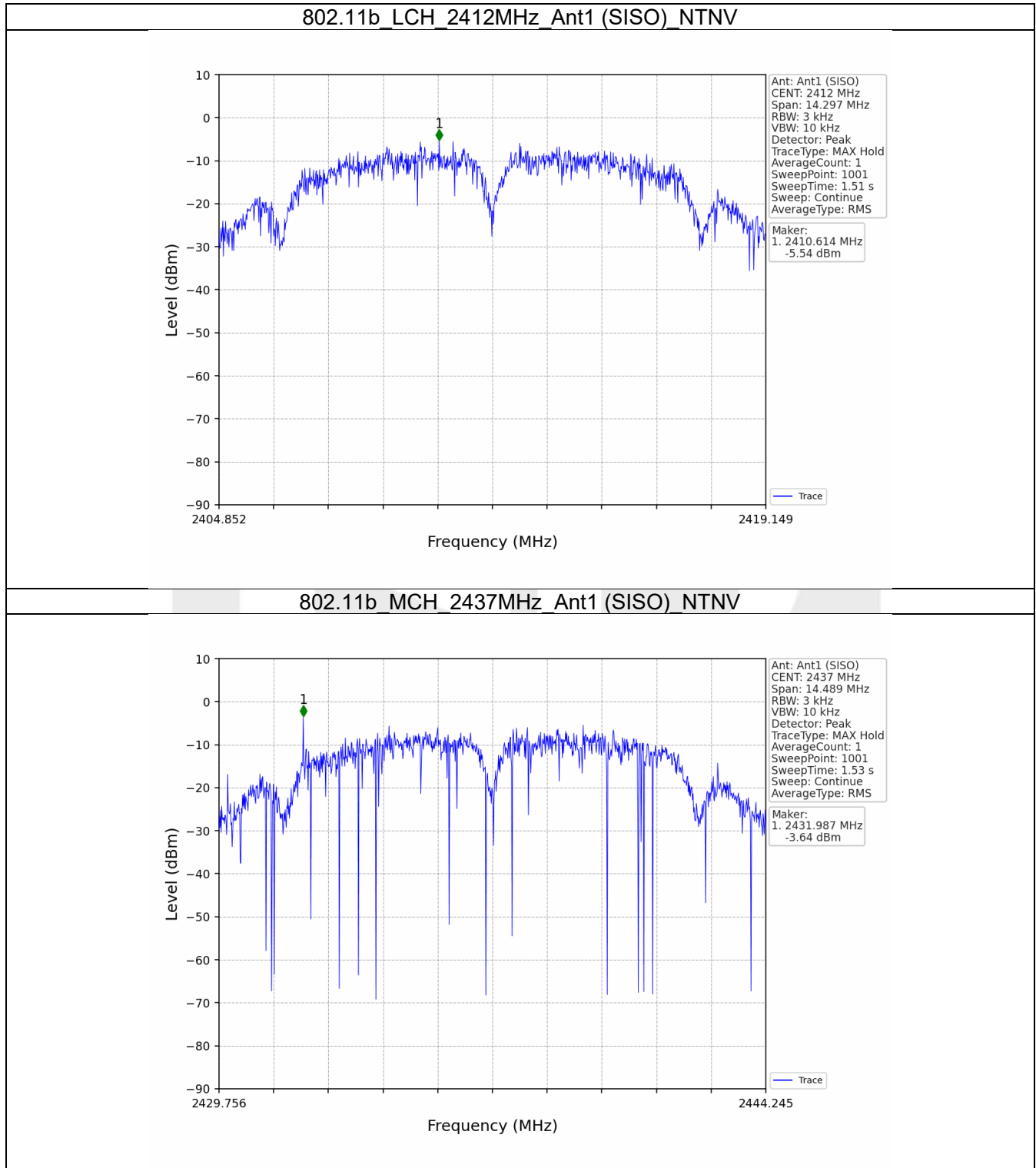
4. Maximum Power Spectral Density

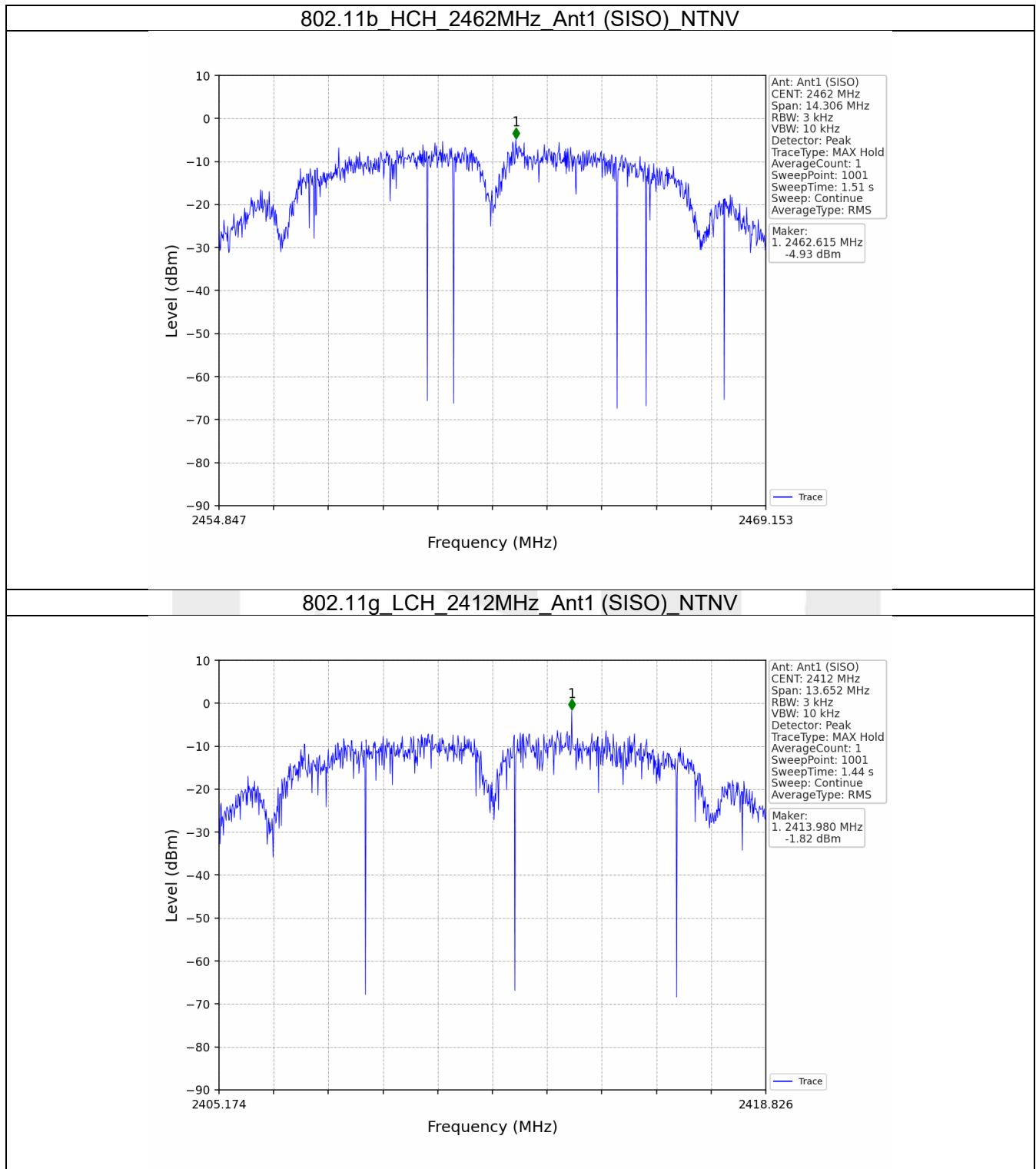
4.1 PSD

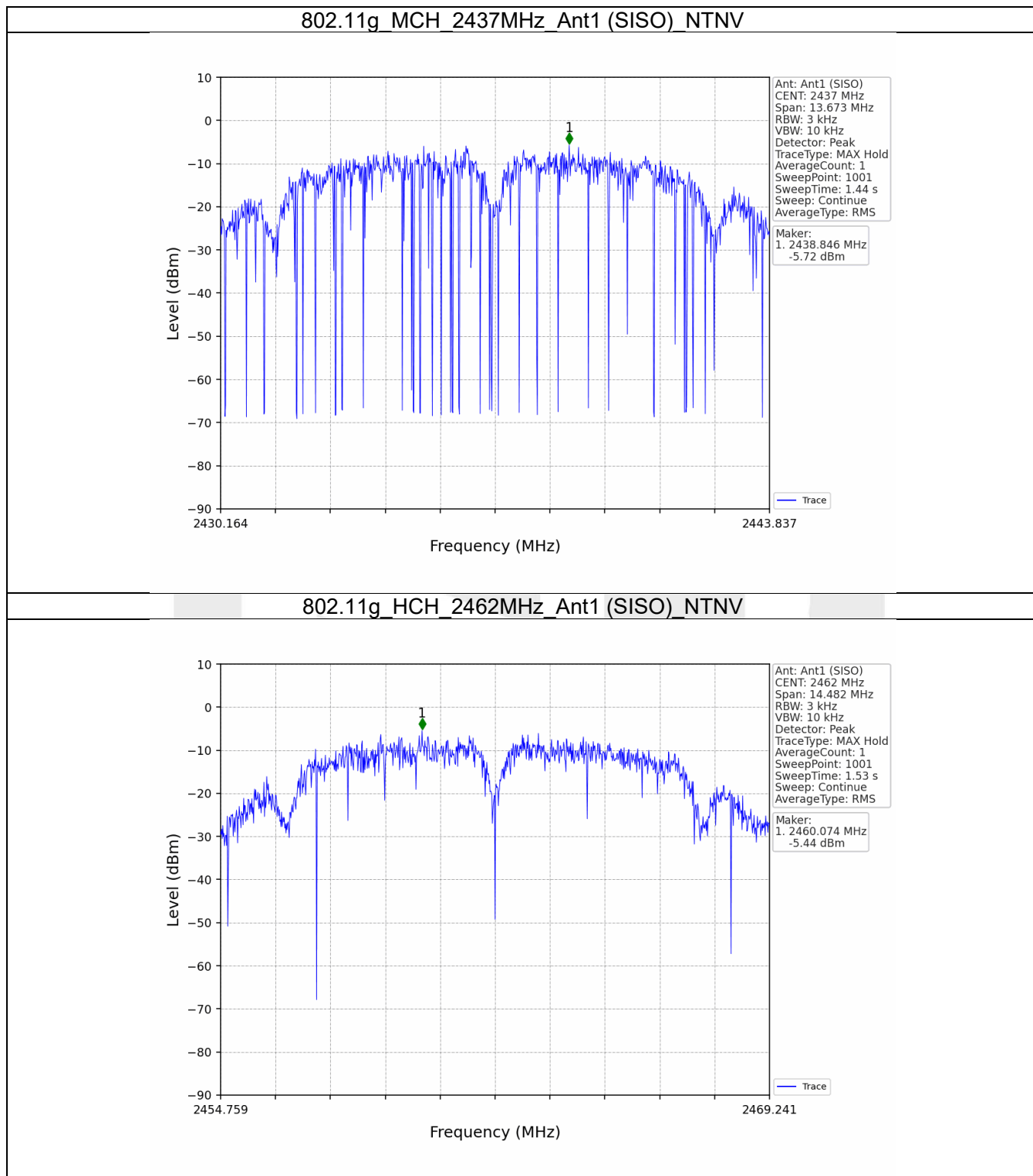
4.1.1 Test Result

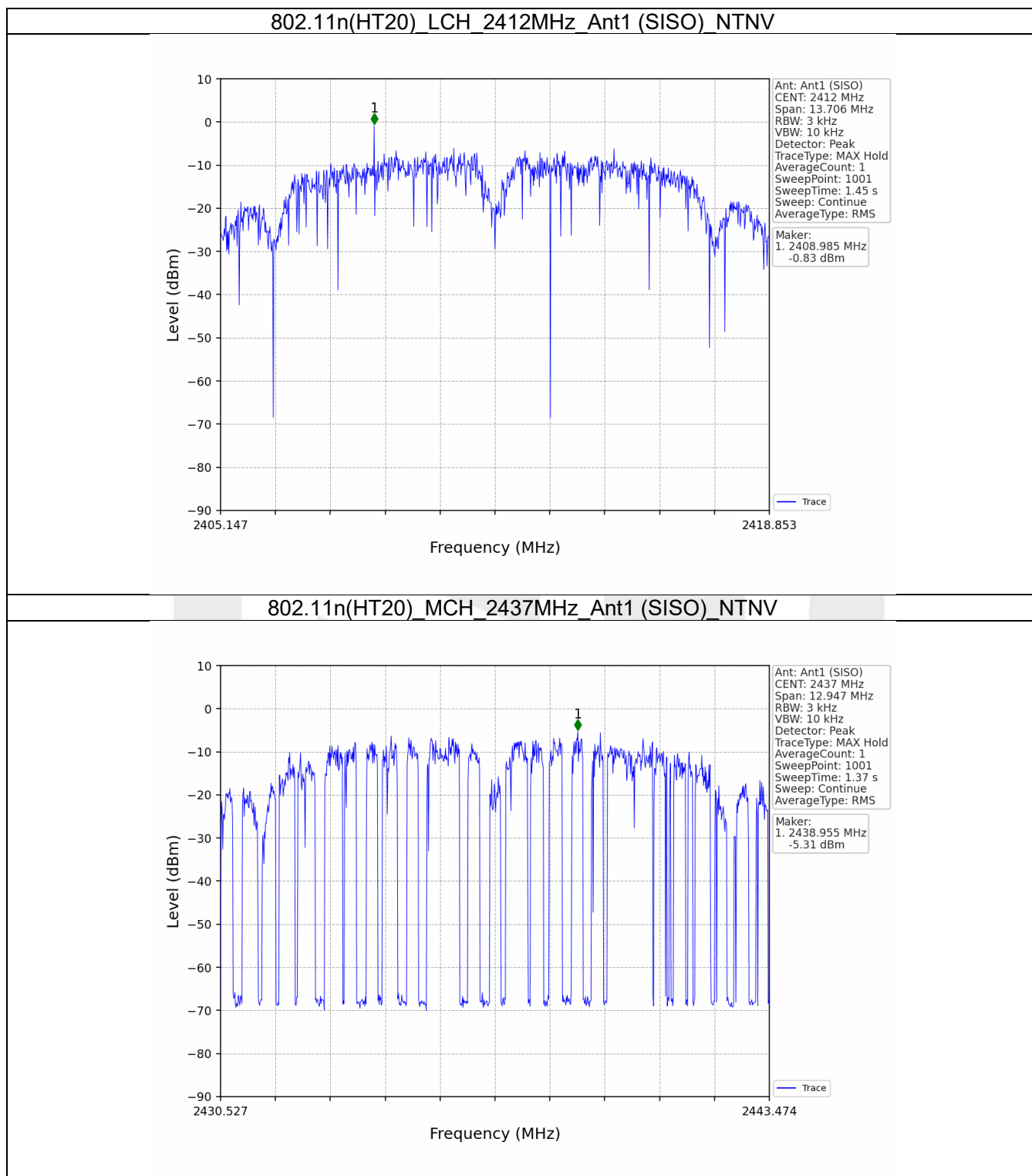
Mode	TX Type	Frequency (MHz)	Maximum PSD (dBm/3kHz)		Verdict
			ANT1	Limit	
802.11b	SISO	2412	-5.54	<=8	Pass
		2437	-3.64	<=8	Pass
		2462	-4.93	<=8	Pass
802.11g	SISO	2412	-1.82	<=8	Pass
		2437	-5.72	<=8	Pass
		2462	-5.44	<=8	Pass
802.11n (HT20)	SISO	2412	-0.83	<=8	Pass
		2437	-5.31	<=8	Pass
		2462	0.50	<=8	Pass
Note1: Antenna Gain: Ant1: 2.40dBi;					

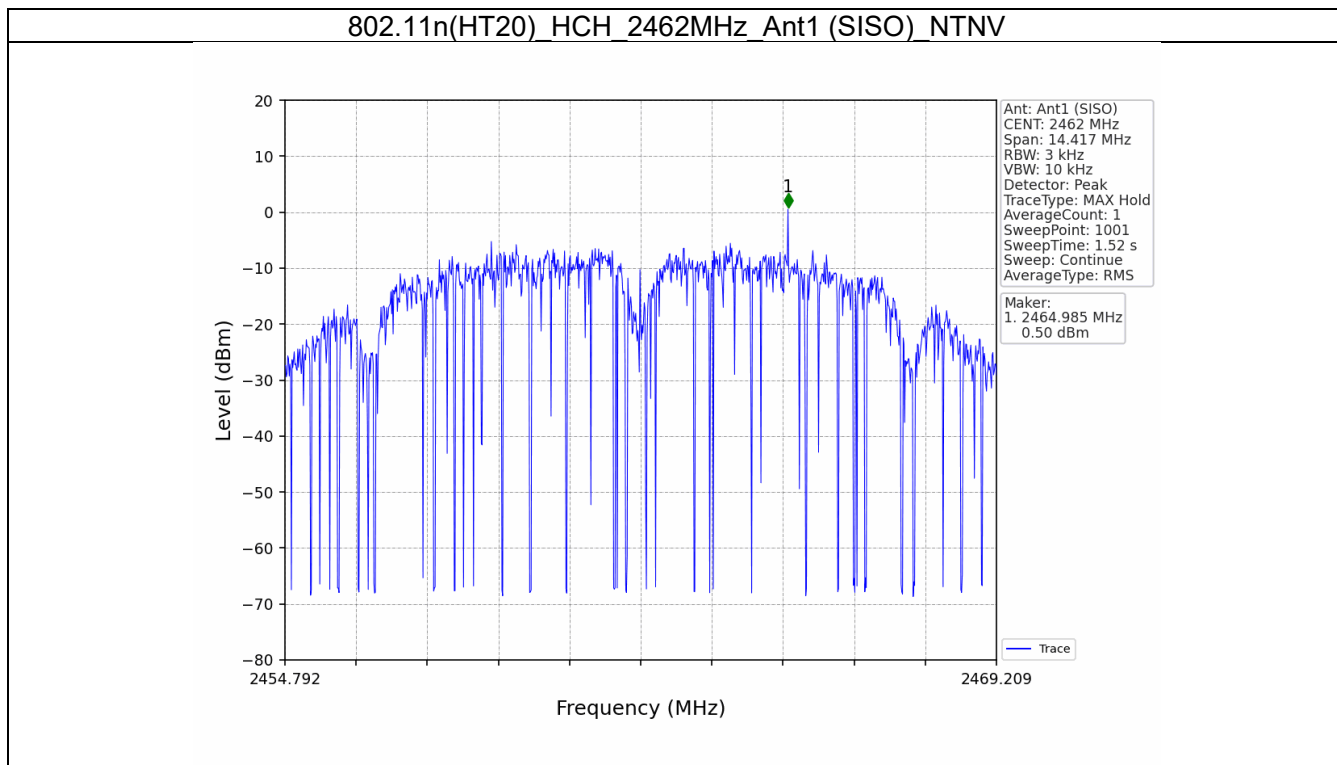
4.1.2 Test Graph











5. Unwanted Emissions In Non-restricted Frequency Bands

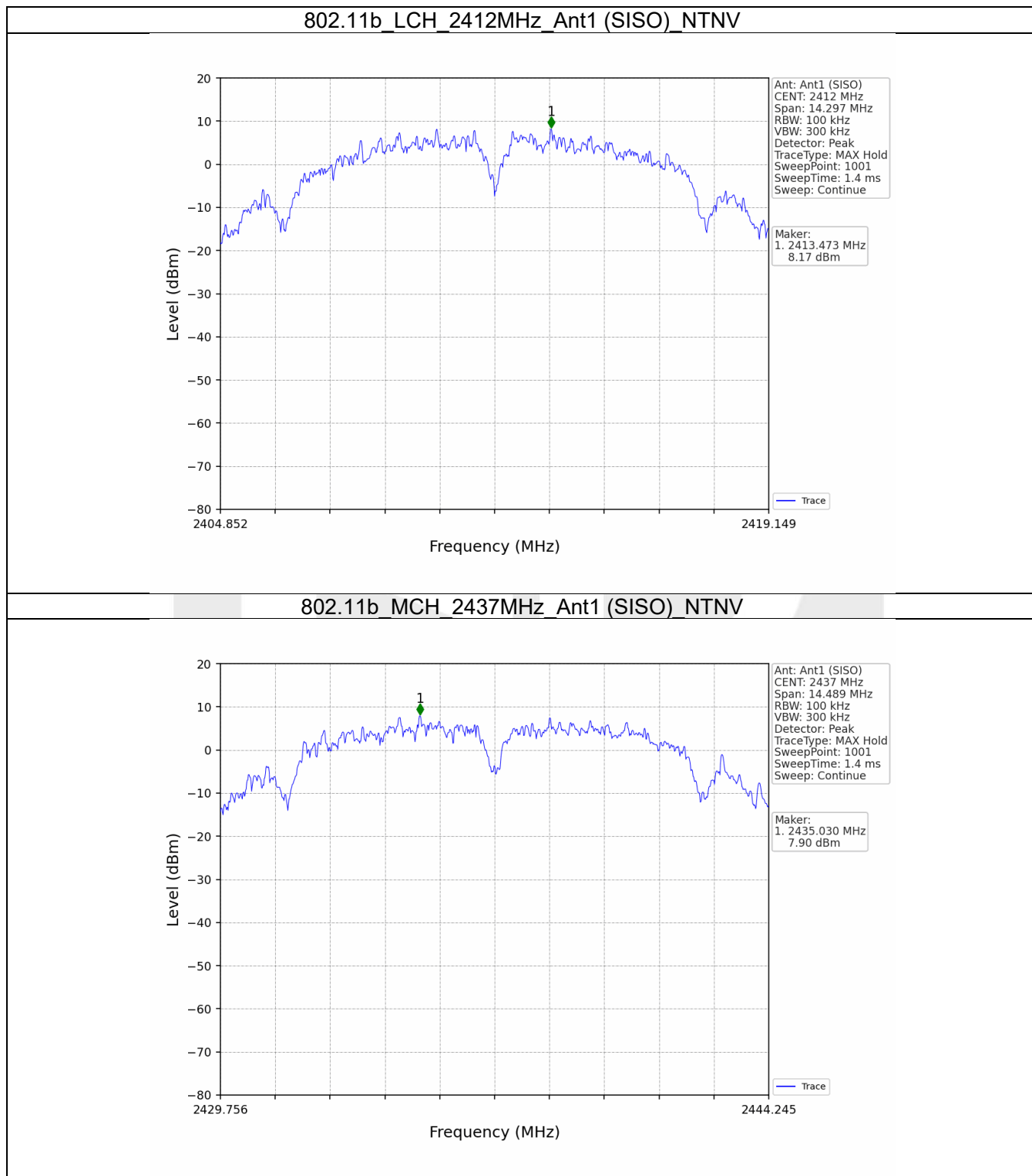
5.1 Ref

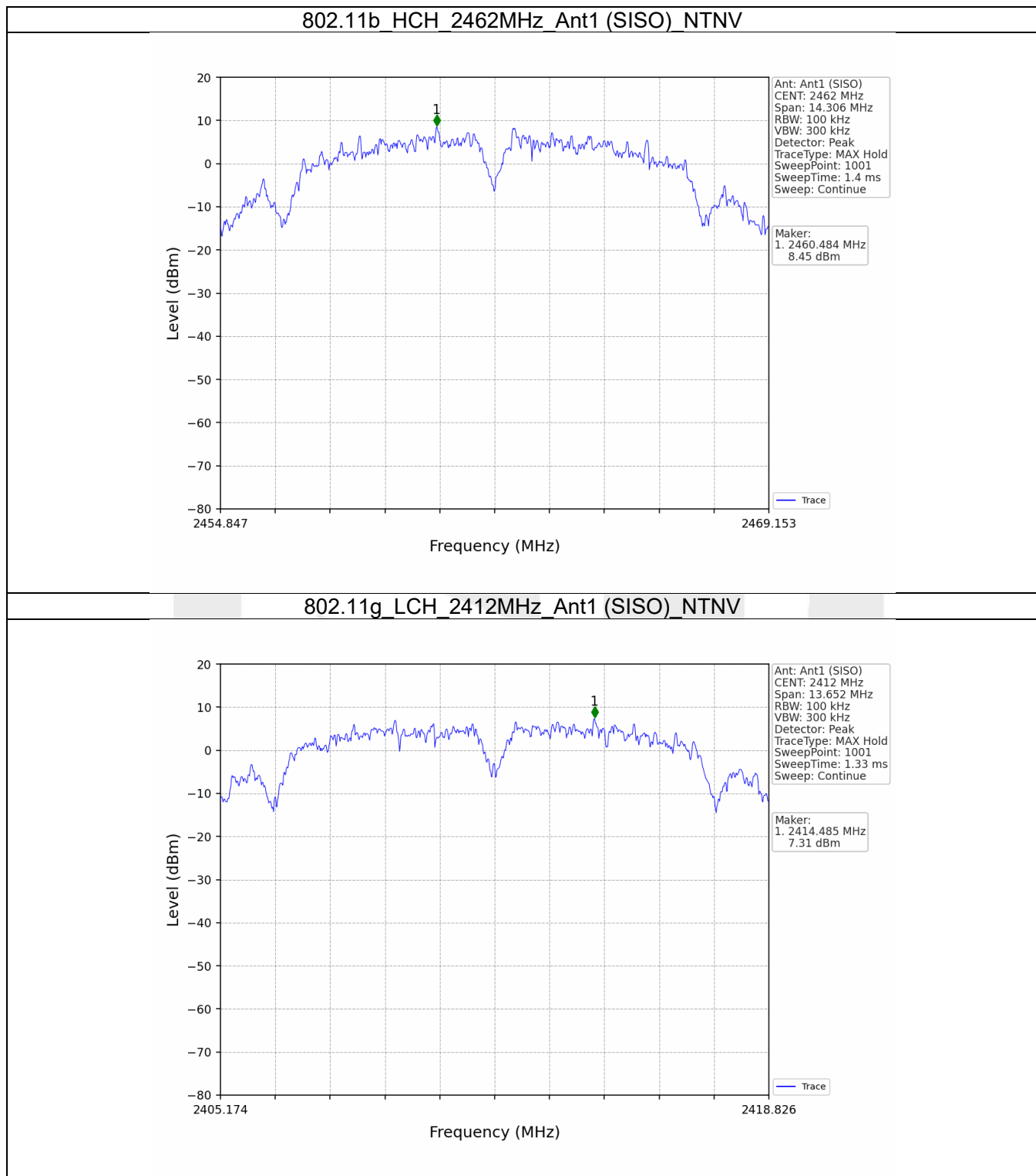
5.1.1 Test Result

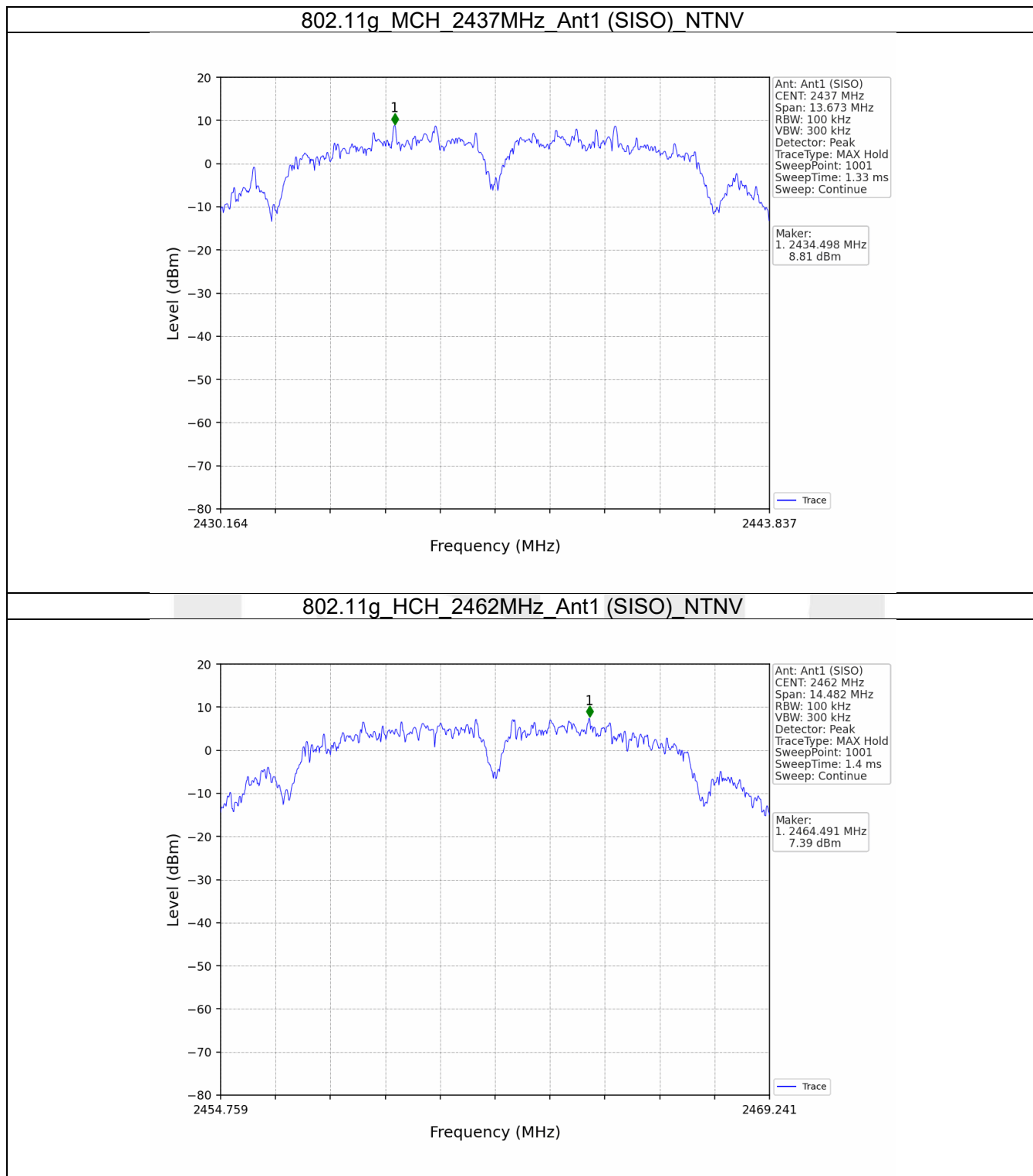
Mode	TX Type	Frequency (MHz)	ANT	Level of Reference (dBm)
802.11b	SISO	2412	1	8.17
		2437	1	7.90
		2462	1	8.45
802.11g	SISO	2412	1	7.31
		2437	1	8.81
		2462	1	7.39
802.11n (HT20)	SISO	2412	1	7.09
		2437	1	8.35
		2462	1	9.11

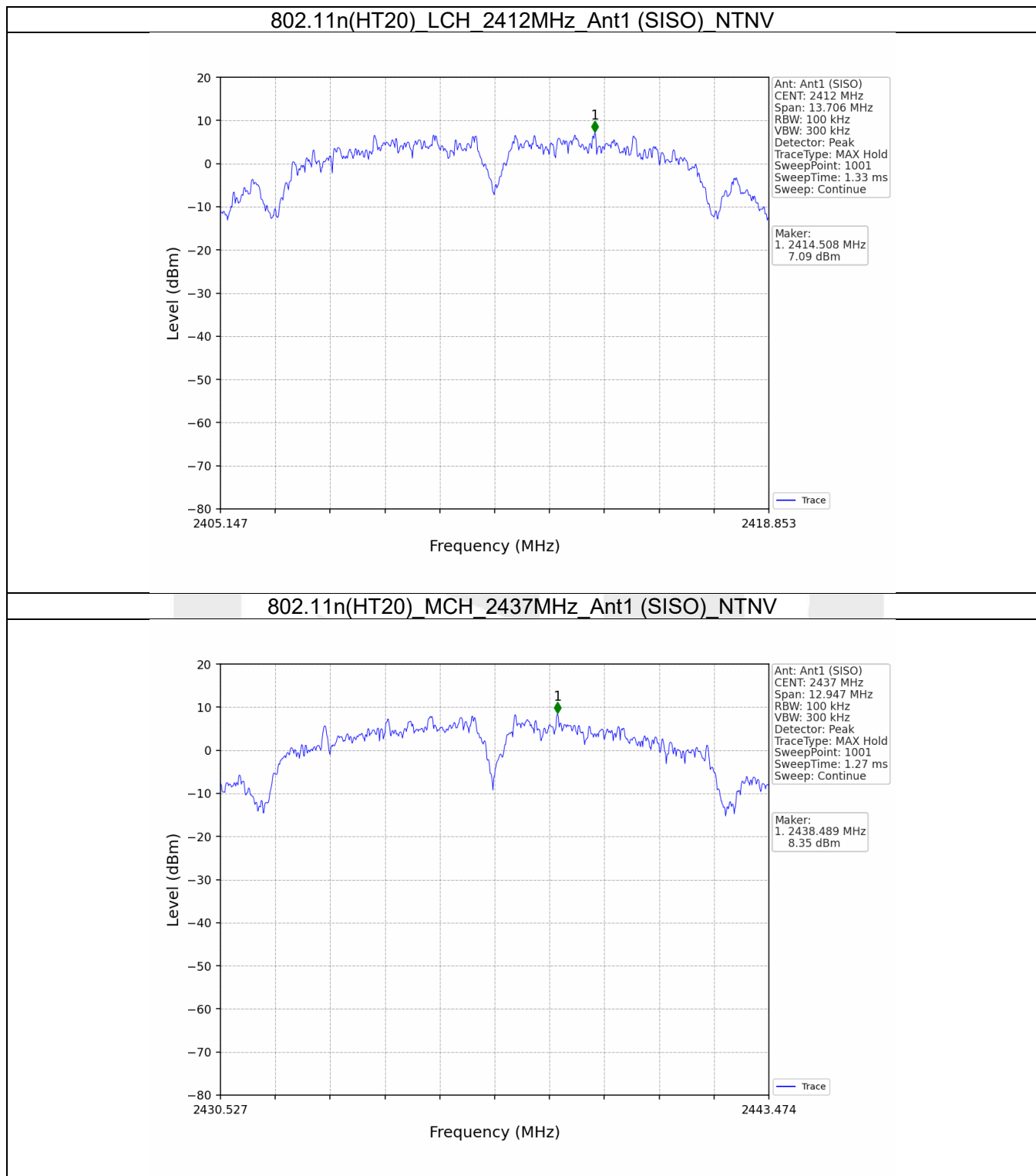
Note1: Refer to FCC Part 15.247 (d) and ANSI C63.10-2020, the channel contains the maximum PSD level was used to establish the reference level.

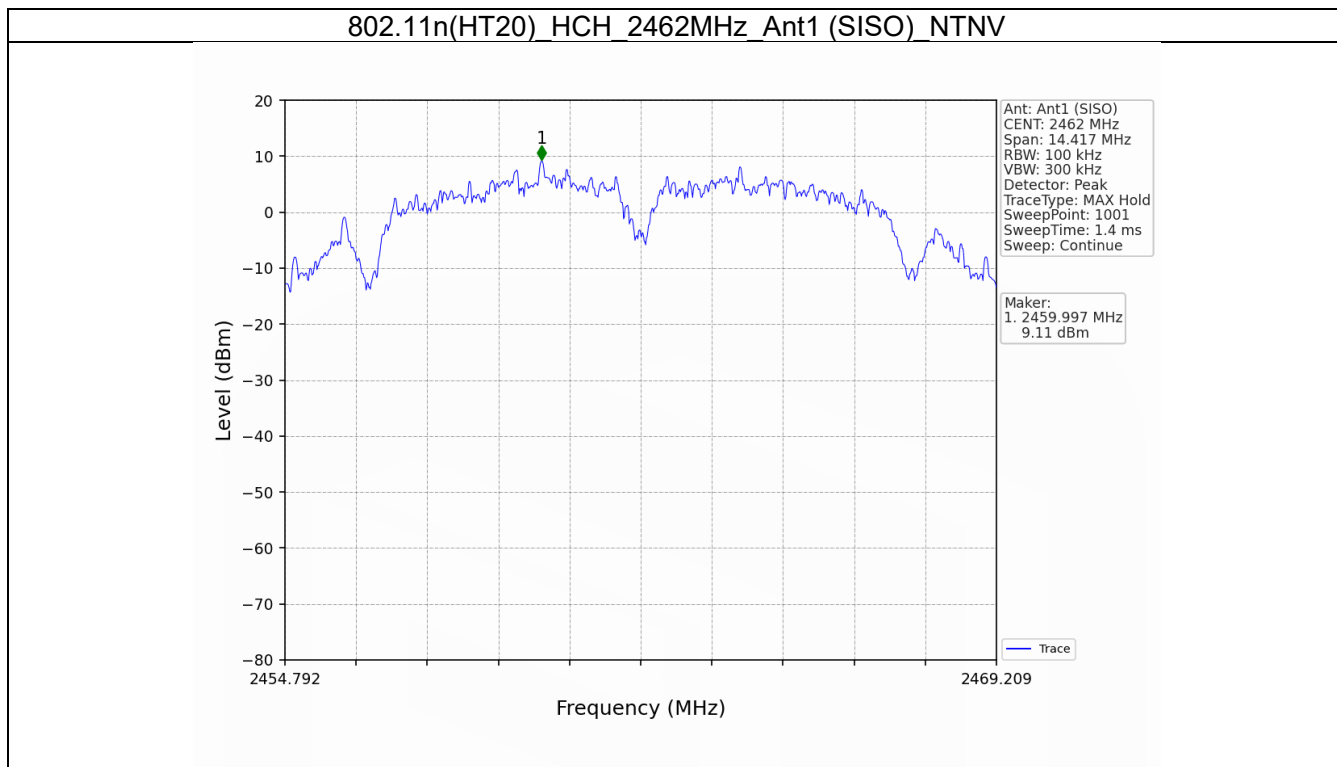
5.1.2 Test Graph











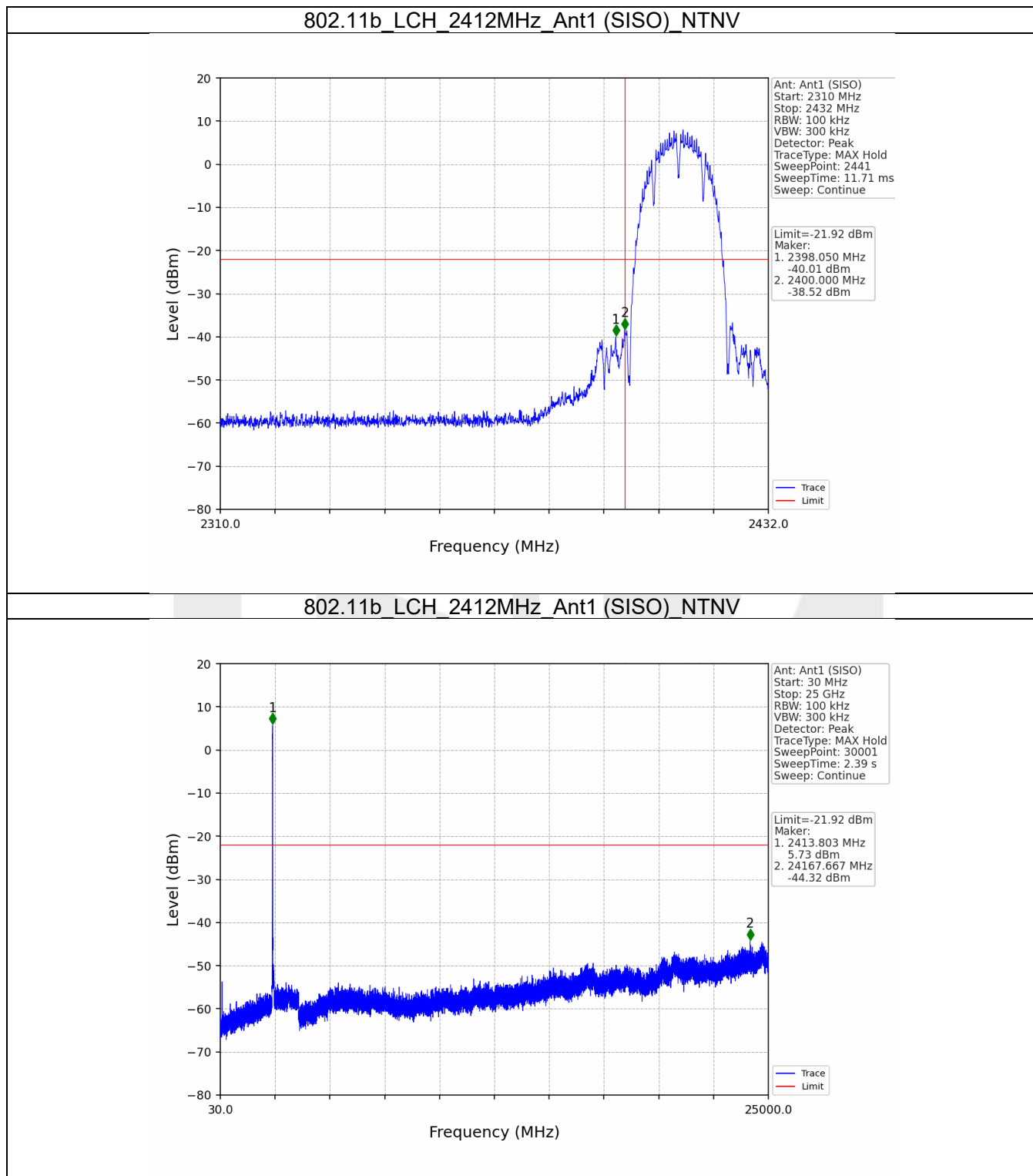
5.2 CSE

5.2.1 Test Result

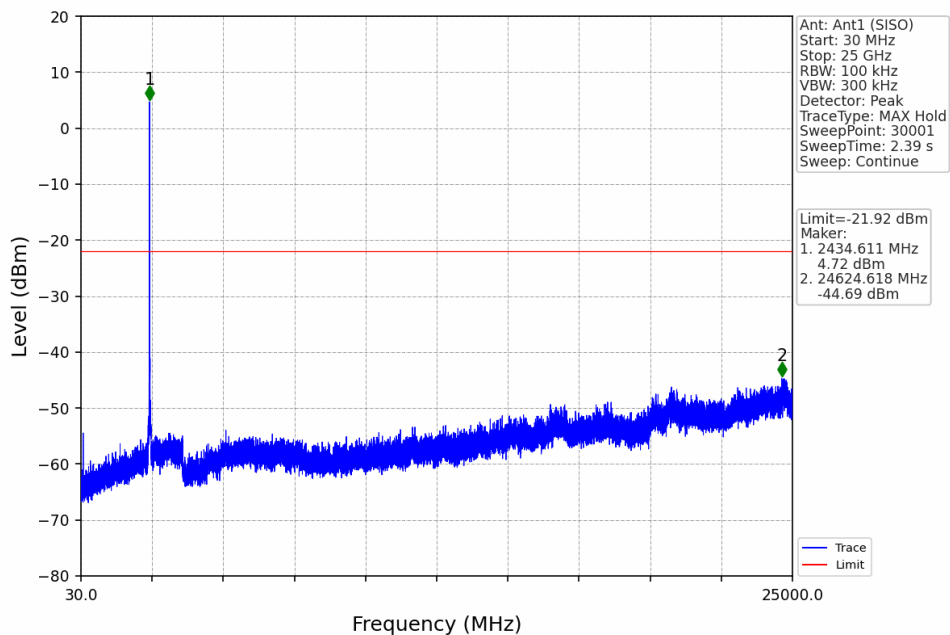
Mode	TX Type	Frequency (MHz)	ANT	Level of Reference (dBm)	Limit (dBm)	Verdict
802.11b	SISO	2412	1	8.08	-21.92	Pass
		2437	1	8.08	-21.92	Pass
		2462	1	8.08	-21.92	Pass
802.11g	SISO	2412	1	5.79	-24.21	Pass
		2437	1	5.79	-24.21	Pass
		2462	1	5.79	-24.21	Pass
802.11n (HT20)	SISO	2412	1	8.35	-21.65	Pass
		2437	1	8.35	-21.65	Pass
		2462	1	8.35	-21.65	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.

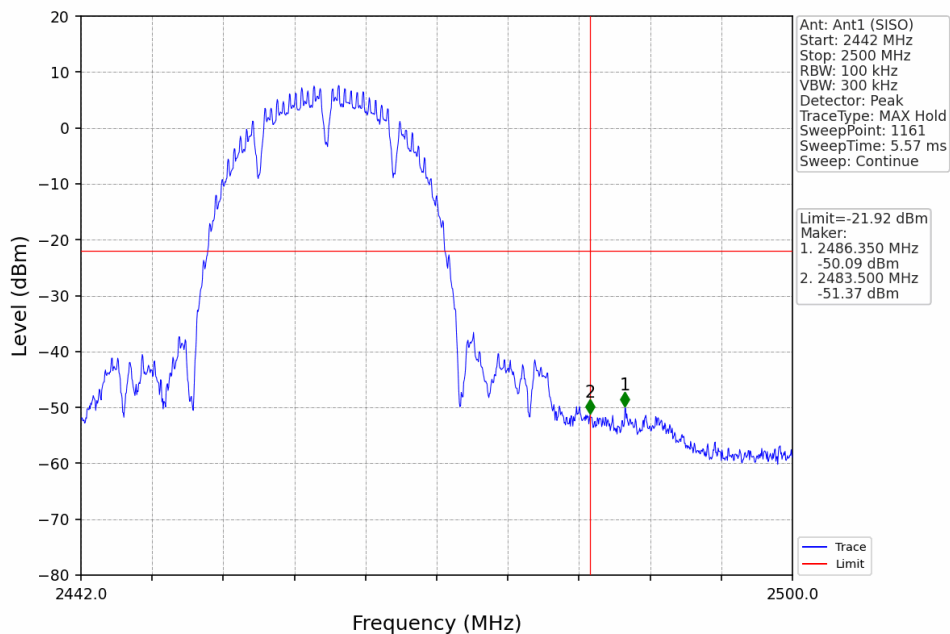
5.2.2 Test Graph



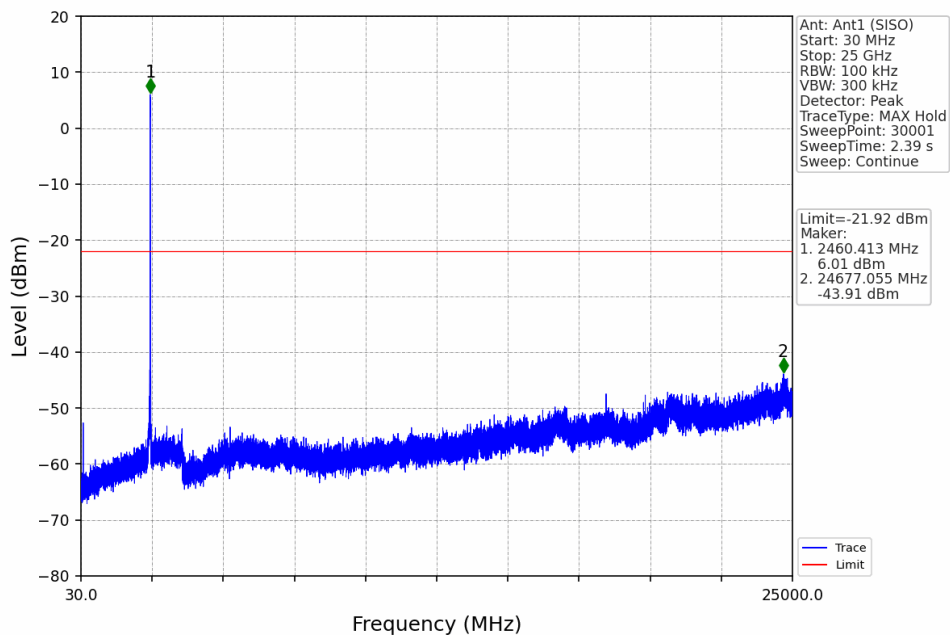
802.11b_MCH_2437MHz_Ant1 (SISO)_NTNV



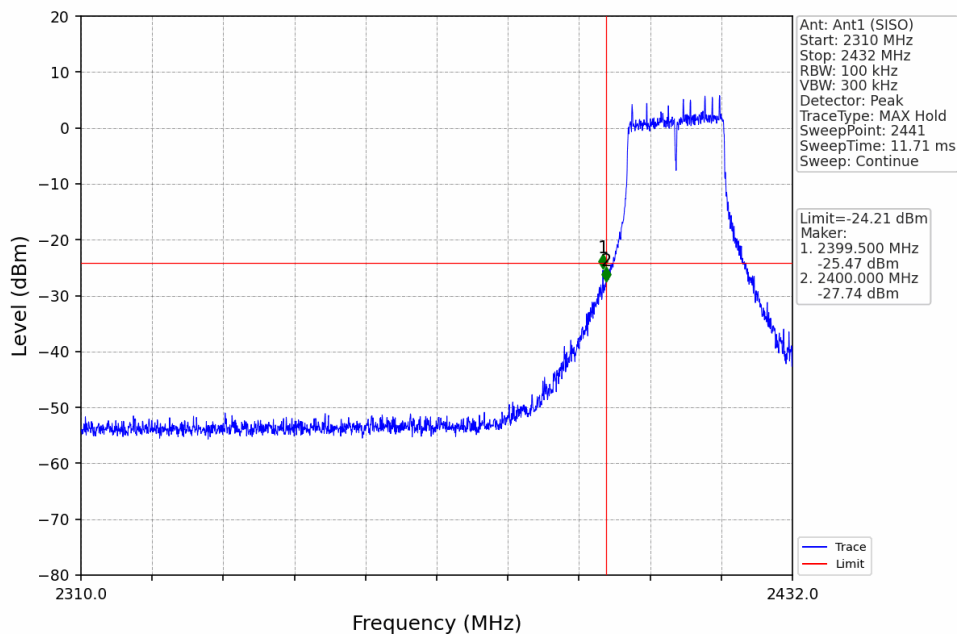
802.11b_HCH_2462MHz_Ant1 (SISO)_NTNV



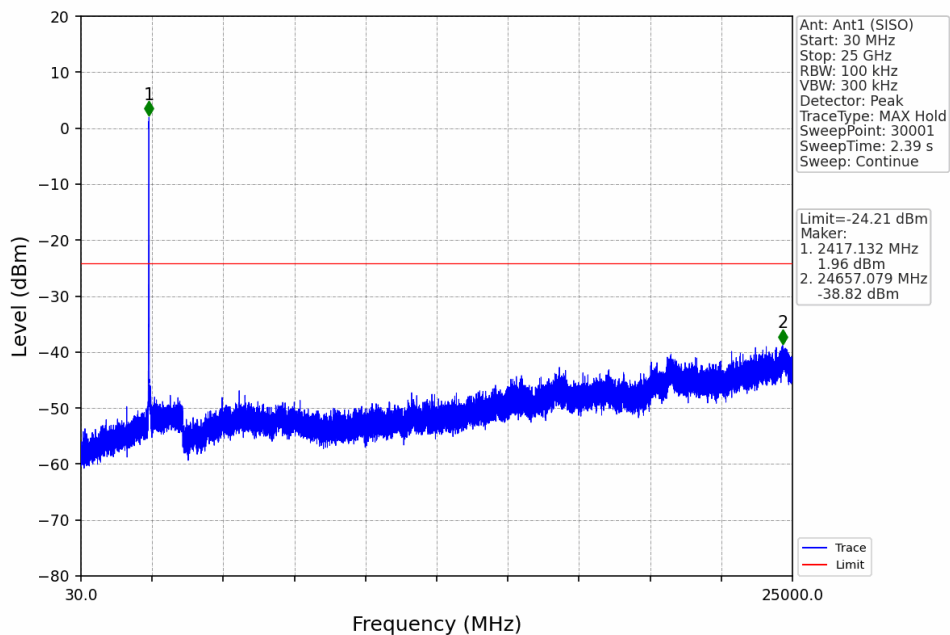
802.11b_HCH_2462MHz_Ant1 (SISO)_NTNV



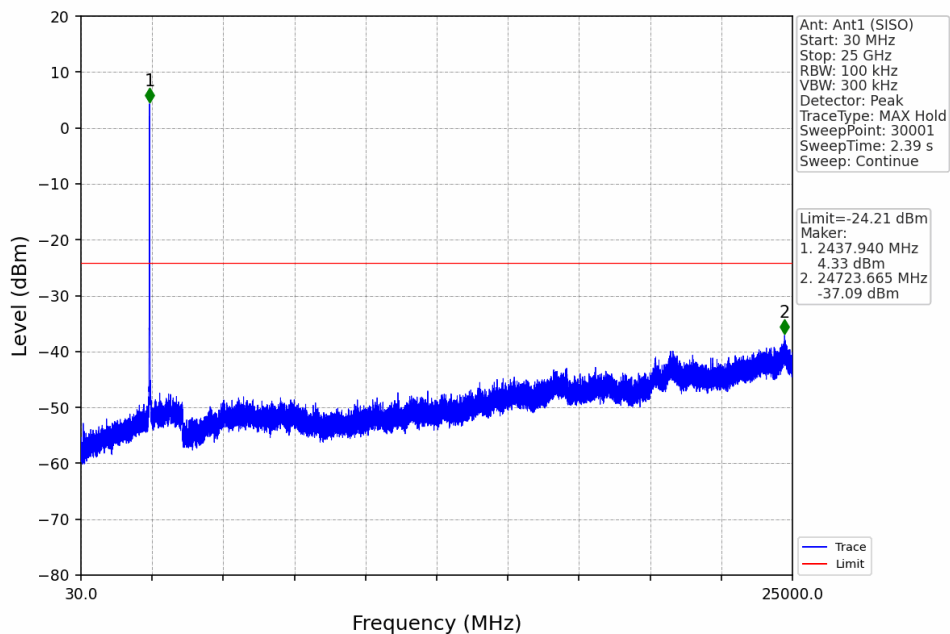
802.11g_LCH_2412MHz_Ant1 (SISO)_NTNV



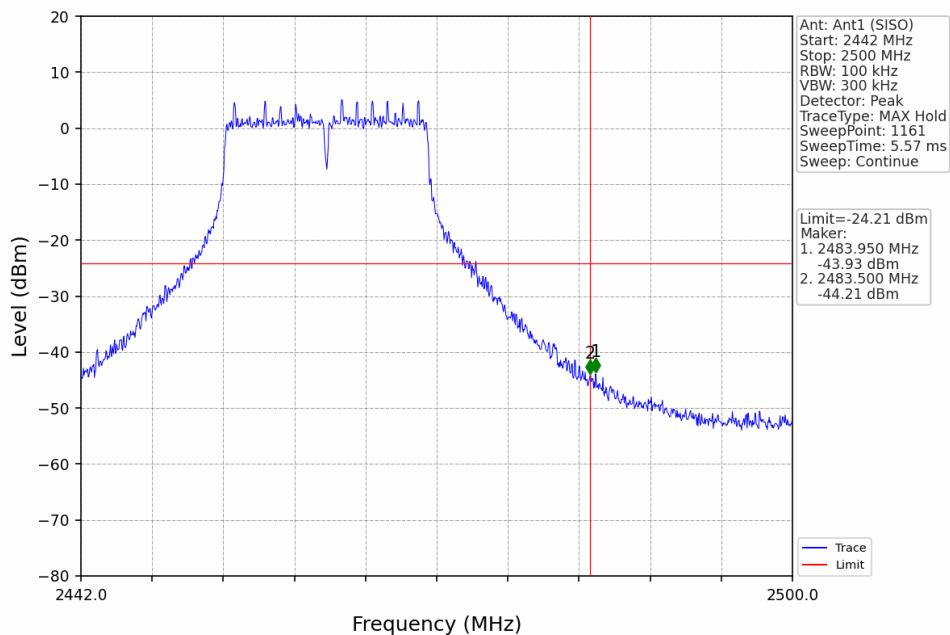
802.11g_LCH_2412MHz_Ant1 (SISO)_NTNV



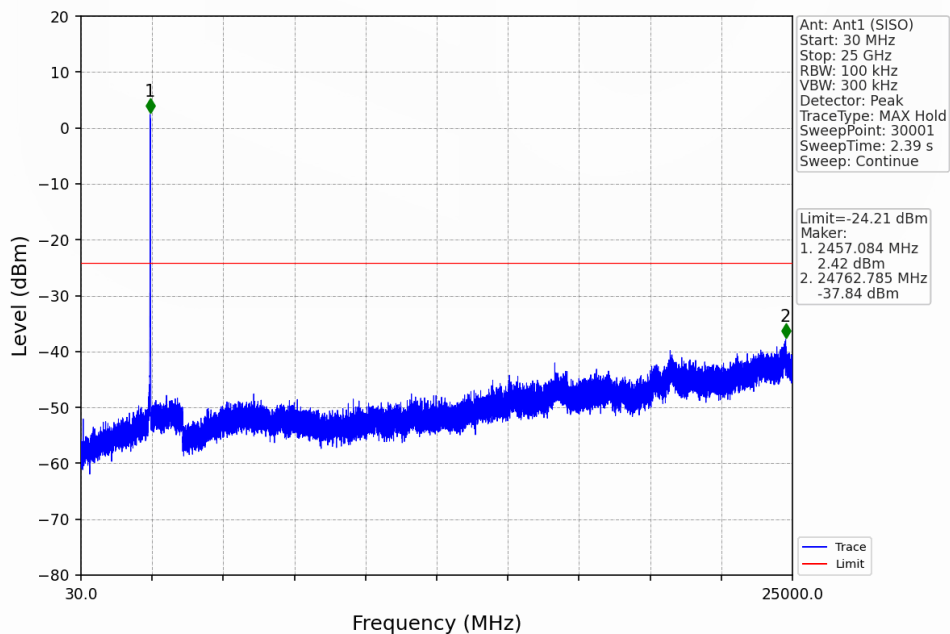
802.11g_MCH_2437MHz_Ant1 (SISO)_NTNV



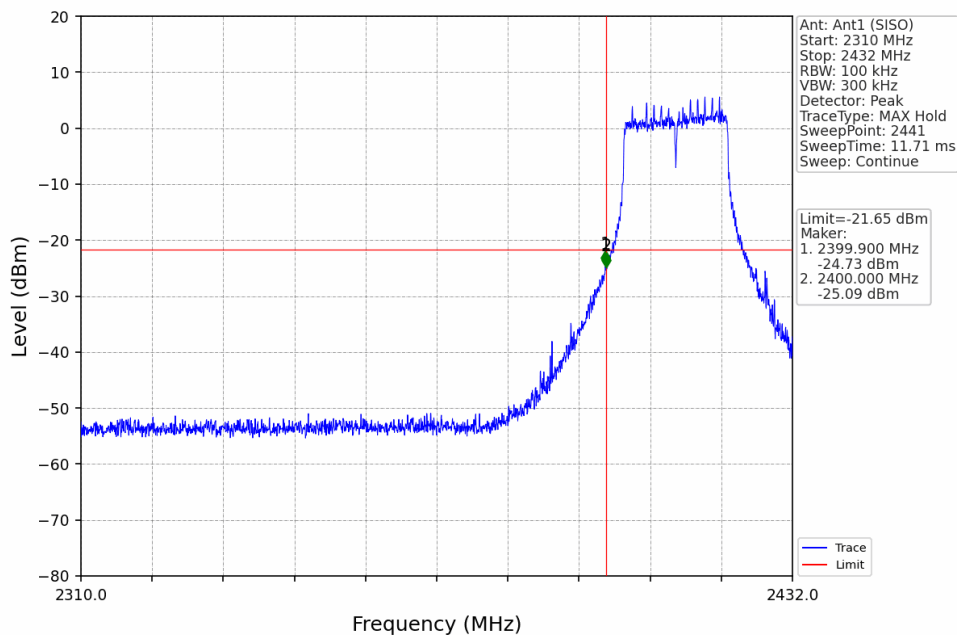
802.11g_HCH_2462MHz_Ant1 (SISO)_NTNV



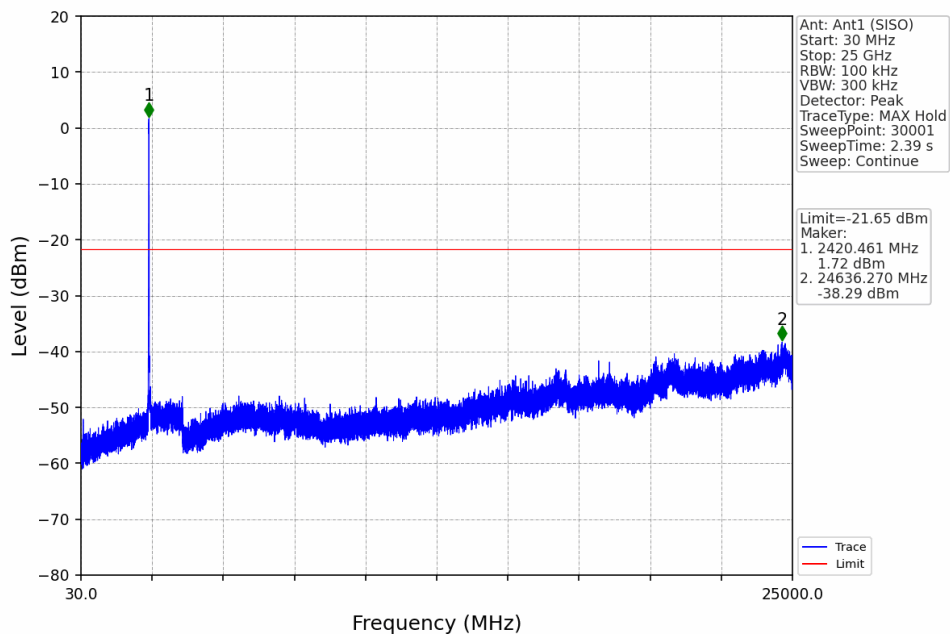
802.11g_HCH_2462MHz_Ant1 (SISO)_NTNV

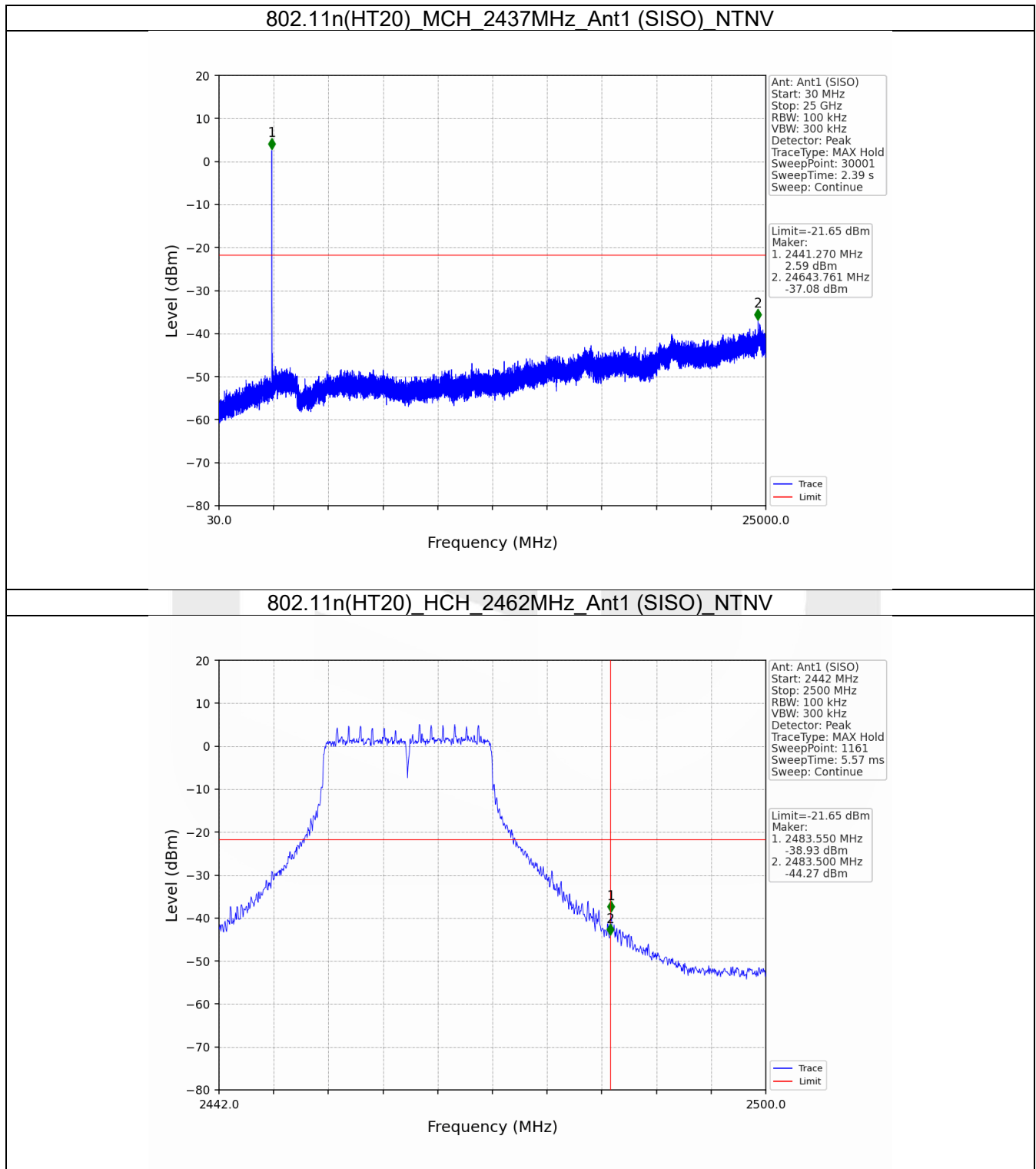


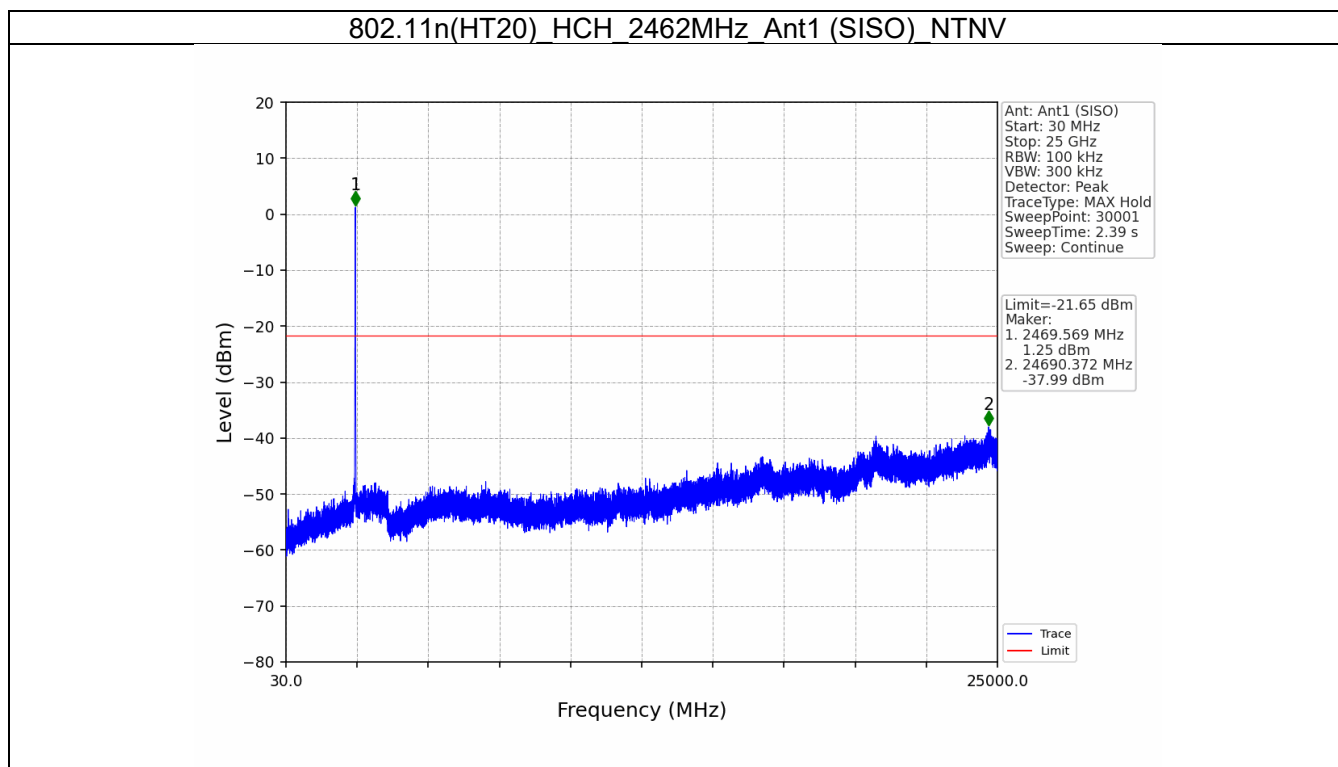
802.11n(HT20)_LCH_2412MHz_Ant1 (SISO)_NTNV



802.11n(HT20)_LCH_2412MHz_Ant1 (SISO)_NTNV







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