



Shenzhen CTL Testing Technology Co., Ltd.

Fl.A1, Bldg.A3, No.2533 GuanGuang Road, Fenghuang Community

Fenghuang Street, Guangming District, Shenzhen, Guangdong, P.R.C

Tel: +86-755-89486194 E-mail: ctl@ctl-lab.com

Annex for 2.4G Wi-Fi

Test Report No.: CTL2512298017-WF02

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1. Bandwidth

1.1 Test Result

1.1.1 OBW

Mode	TX Type	Frequency (MHz)	ANT	99% Occupied Bandwidth (MHz)		Verdict
				Result	Limit	
802.11b	SISO	2412	1	13.065	/	Pass
		2437	1	13.067	/	Pass
		2462	1	13.064	/	Pass
802.11g	SISO	2412	1	16.719	/	Pass
		2437	1	16.722	/	Pass
		2462	1	16.733	/	Pass
802.11n (HT20)	SISO	2412	1	17.876	/	Pass
		2437	1	17.880	/	Pass
		2462	1	17.864	/	Pass
802.11n (HT40)	SISO	2422	1	37.254	/	Pass
		2437	1	37.174	/	Pass
		2452	1	37.238	/	Pass

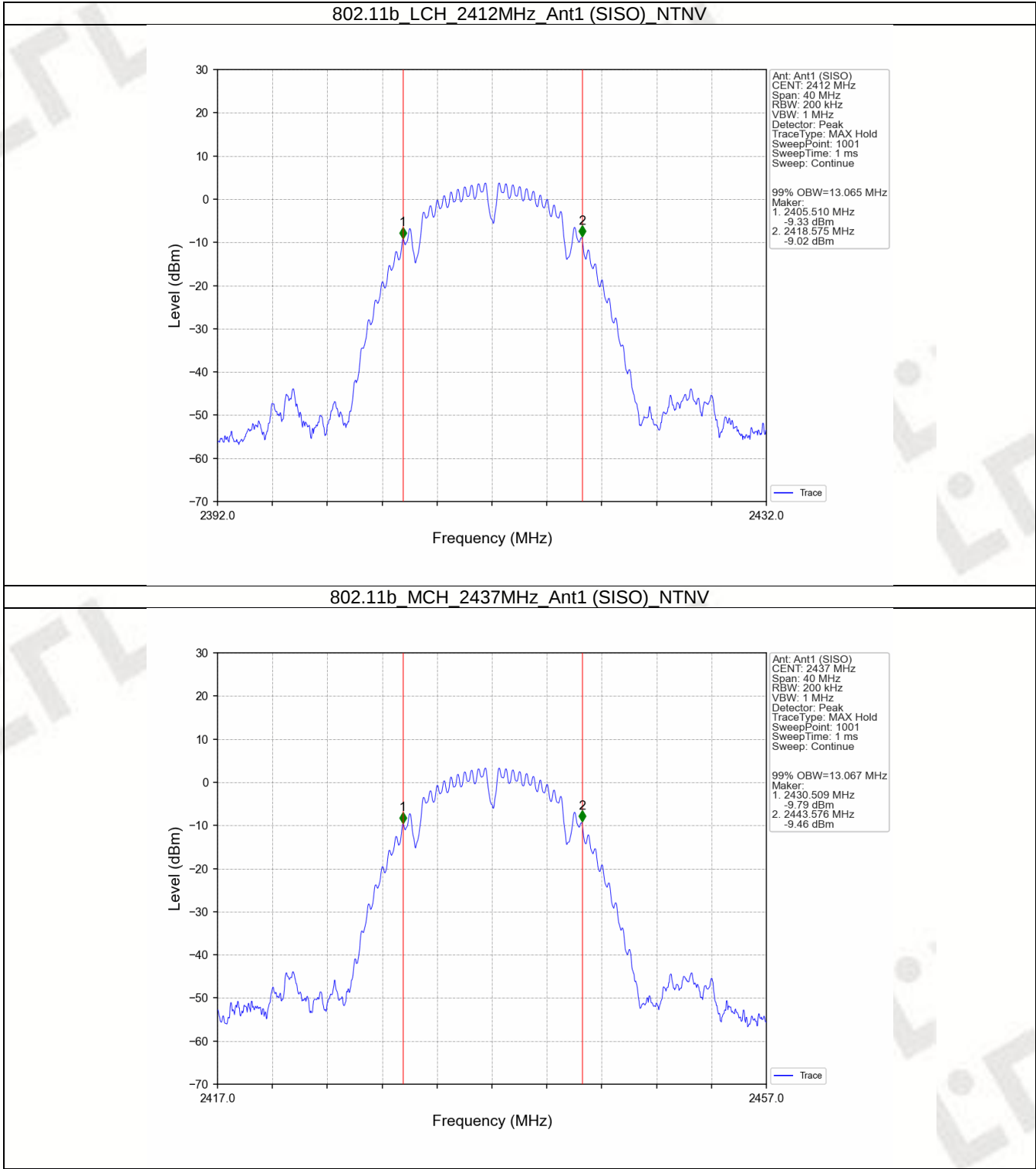
1.1.2 6dB BW

Mode	TX Type	Frequency (MHz)	ANT	6dB Bandwidth (MHz)		Verdict
				Result	Limit	
802.11b	SISO	2412	1	9.534	≥ 0.5	Pass
		2437	1	9.529	≥ 0.5	Pass
		2462	1	9.534	≥ 0.5	Pass
802.11g	SISO	2412	1	16.536	≥ 0.5	Pass
		2437	1	16.846	≥ 0.5	Pass
		2462	1	16.744	≥ 0.5	Pass
802.11n (HT20)	SISO	2412	1	17.767	≥ 0.5	Pass
		2437	1	18.189	≥ 0.5	Pass
		2462	1	17.863	≥ 0.5	Pass
802.11n (HT40)	SISO	2422	1	35.760	≥ 0.5	Pass
		2437	1	35.828	≥ 0.5	Pass
		2452	1	36.302	≥ 0.5	Pass

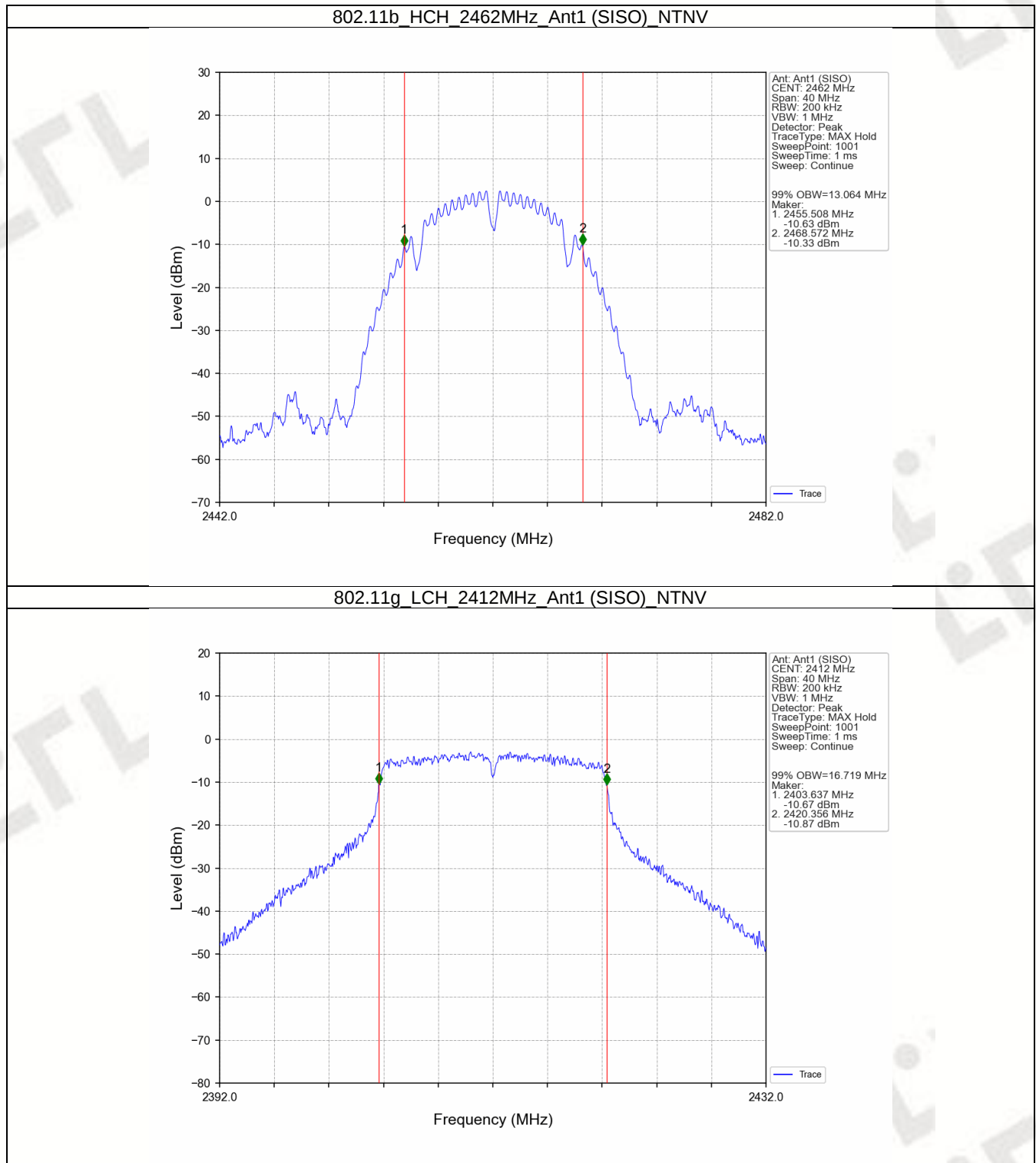
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1.2 Test Graph

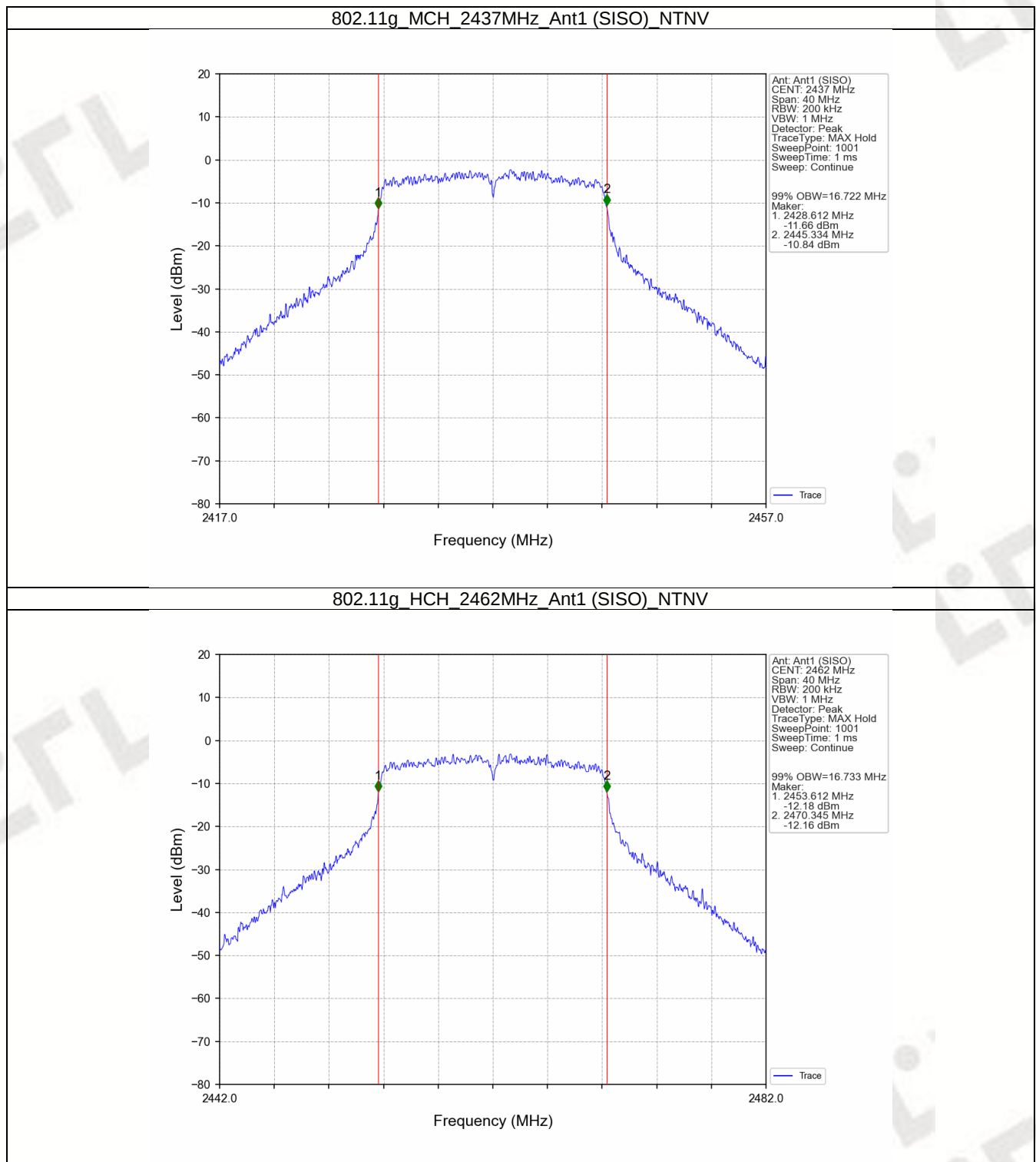
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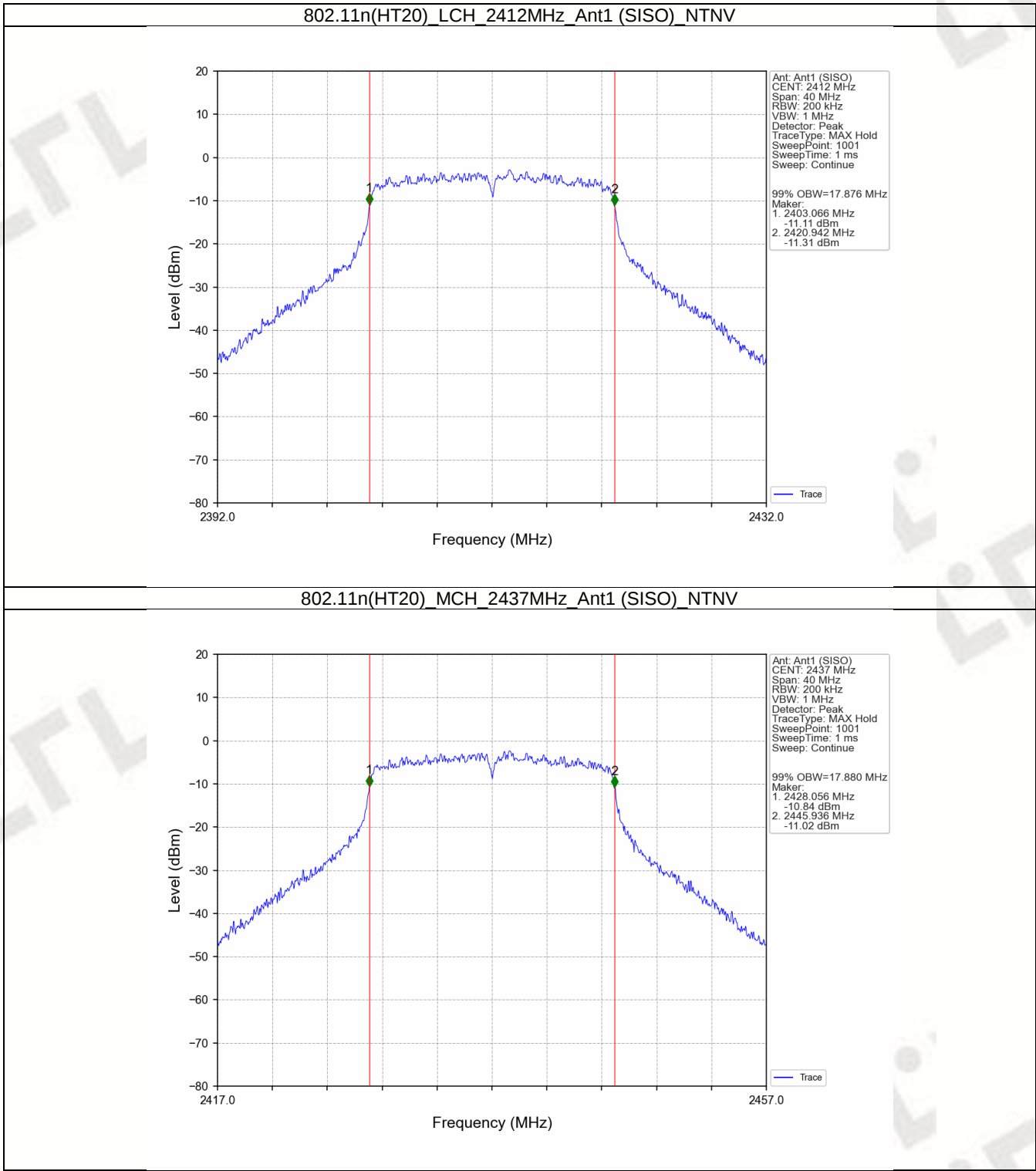
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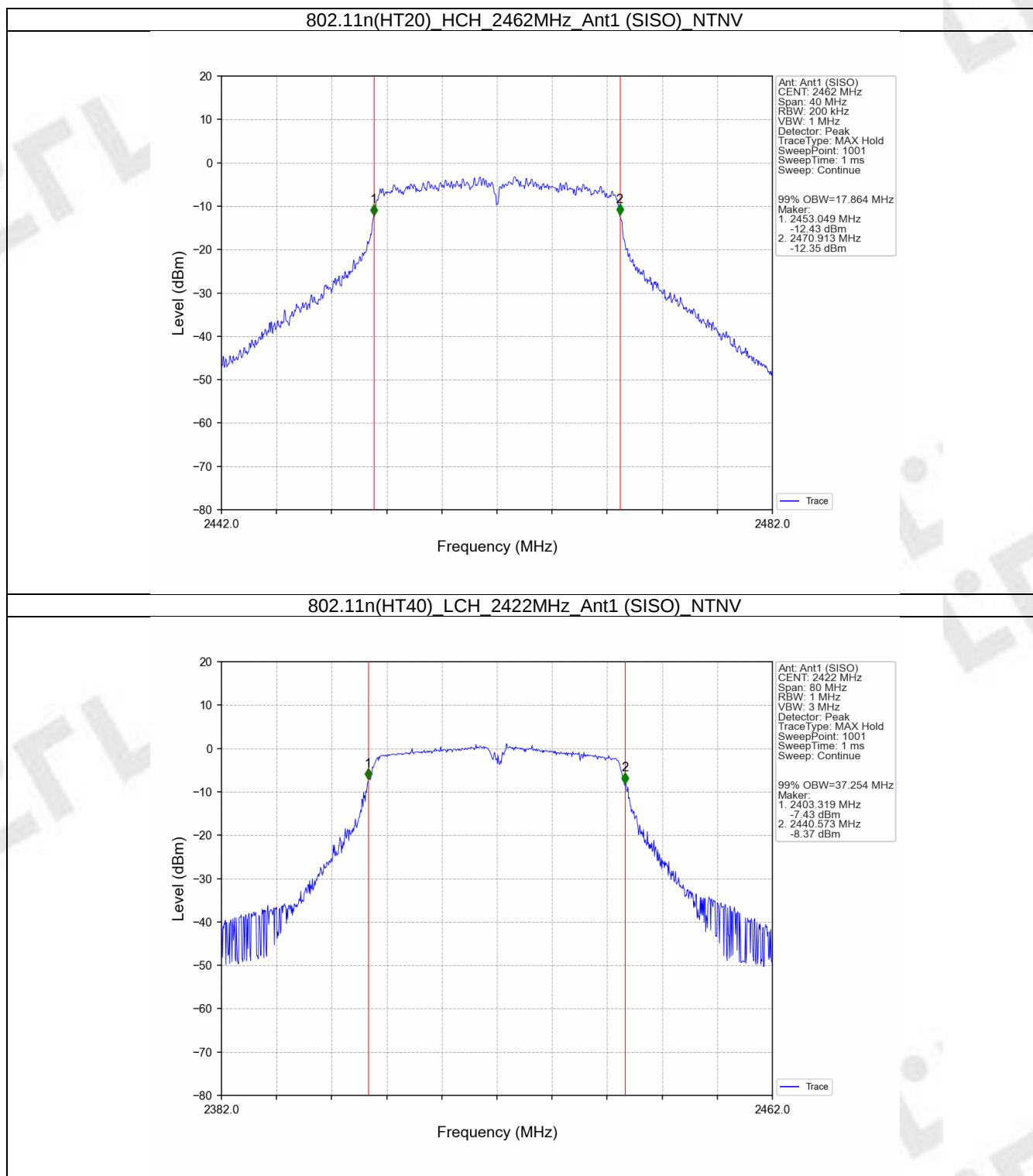
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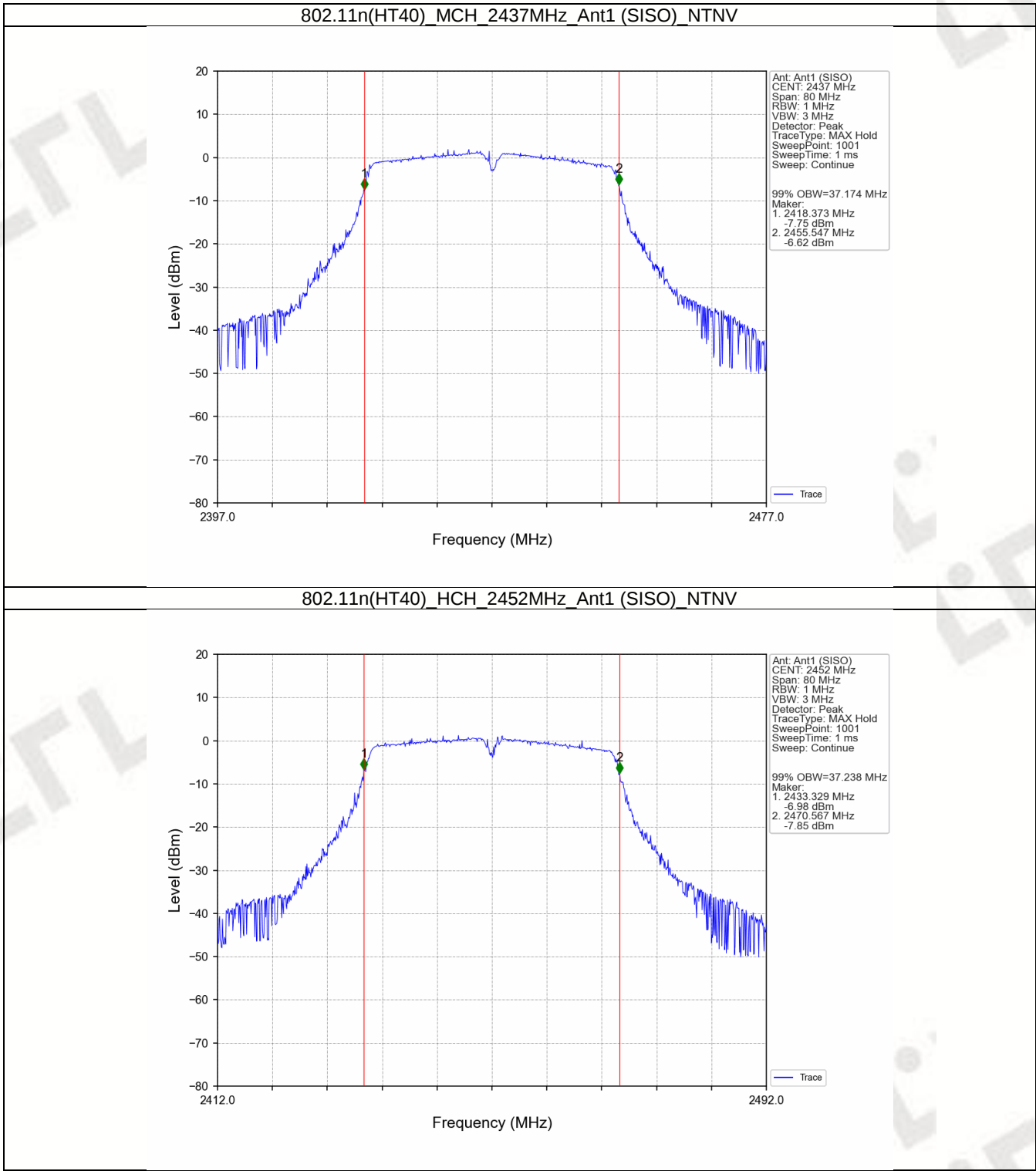
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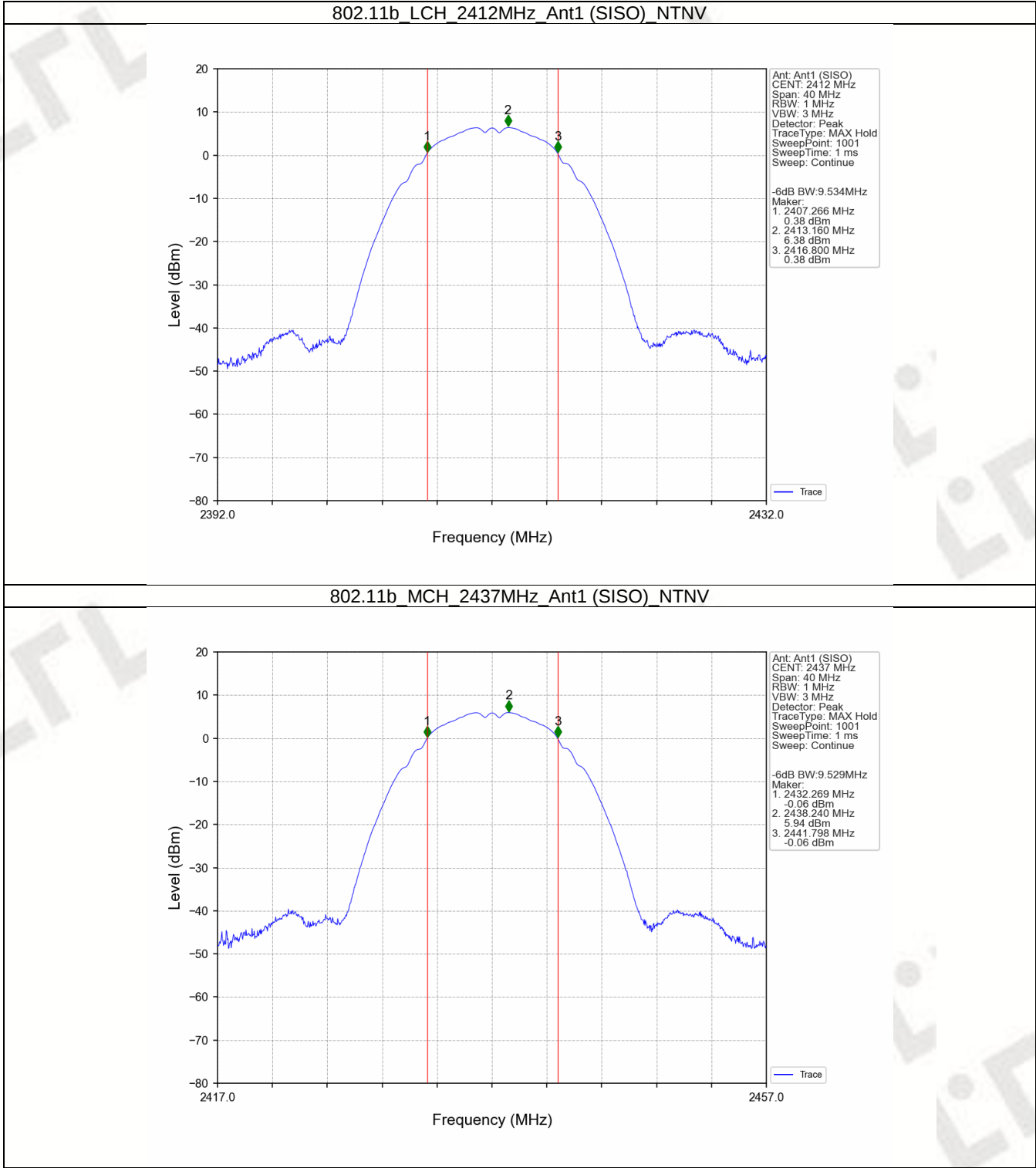


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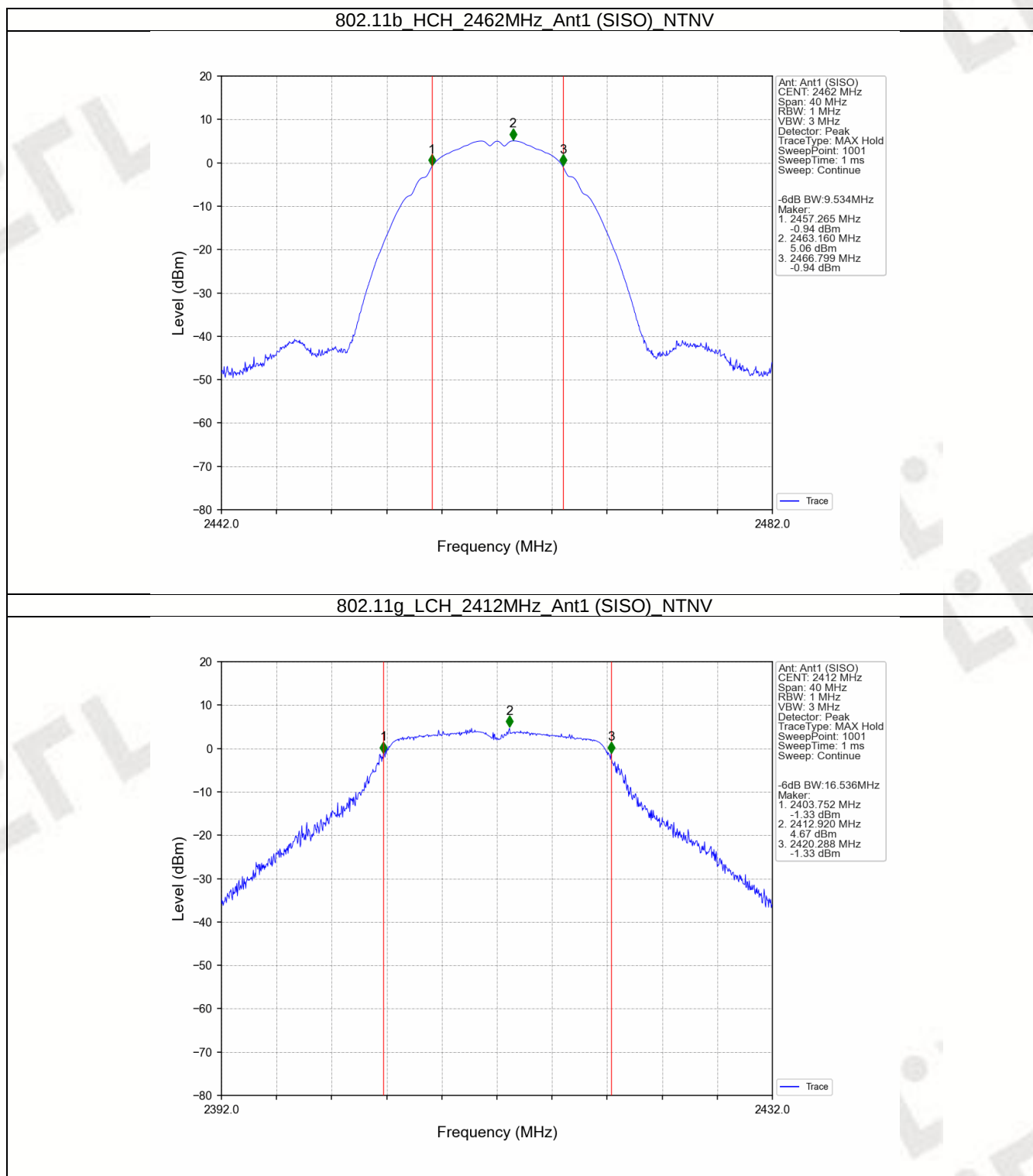


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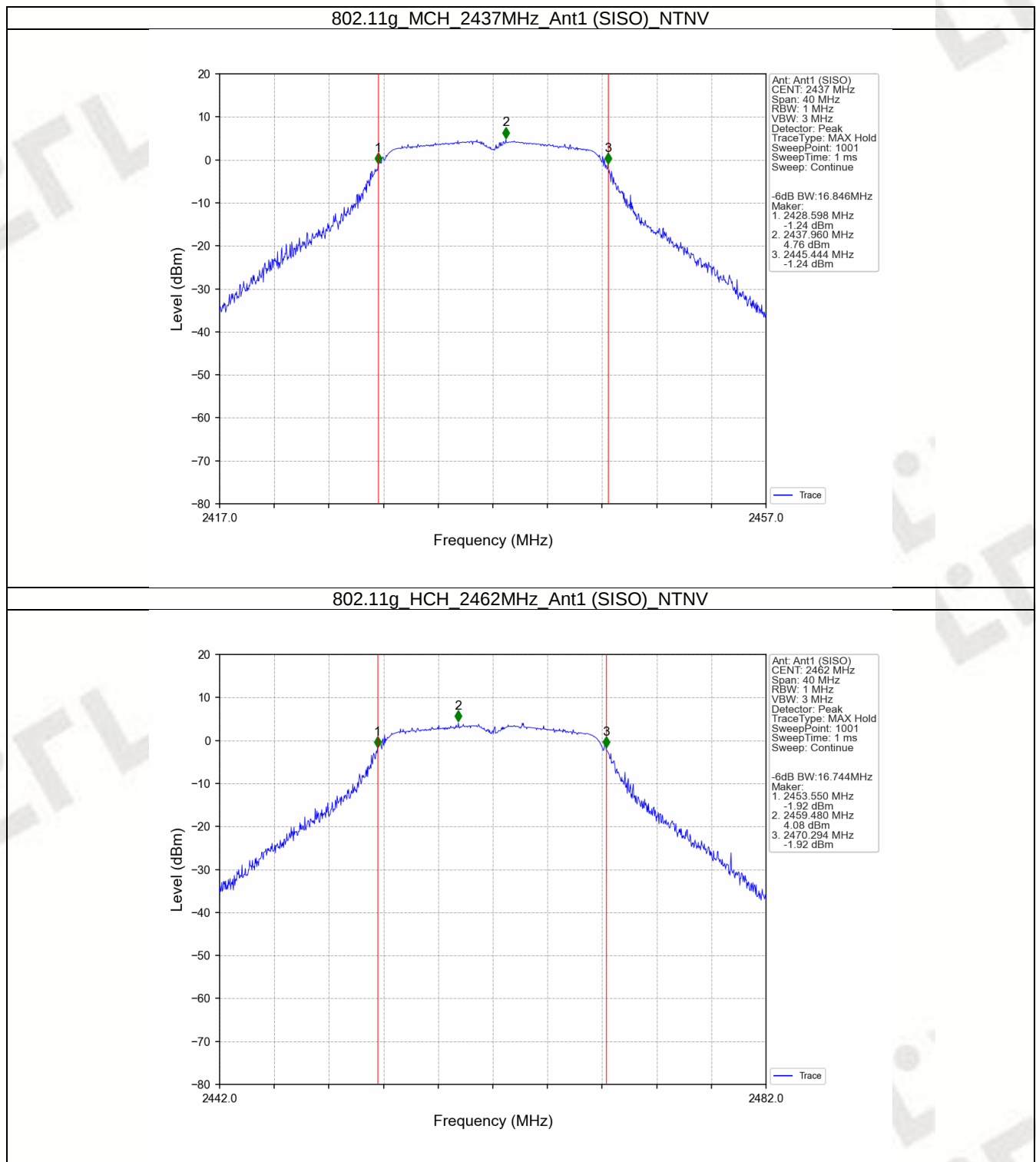
1.2.2 6dB BW



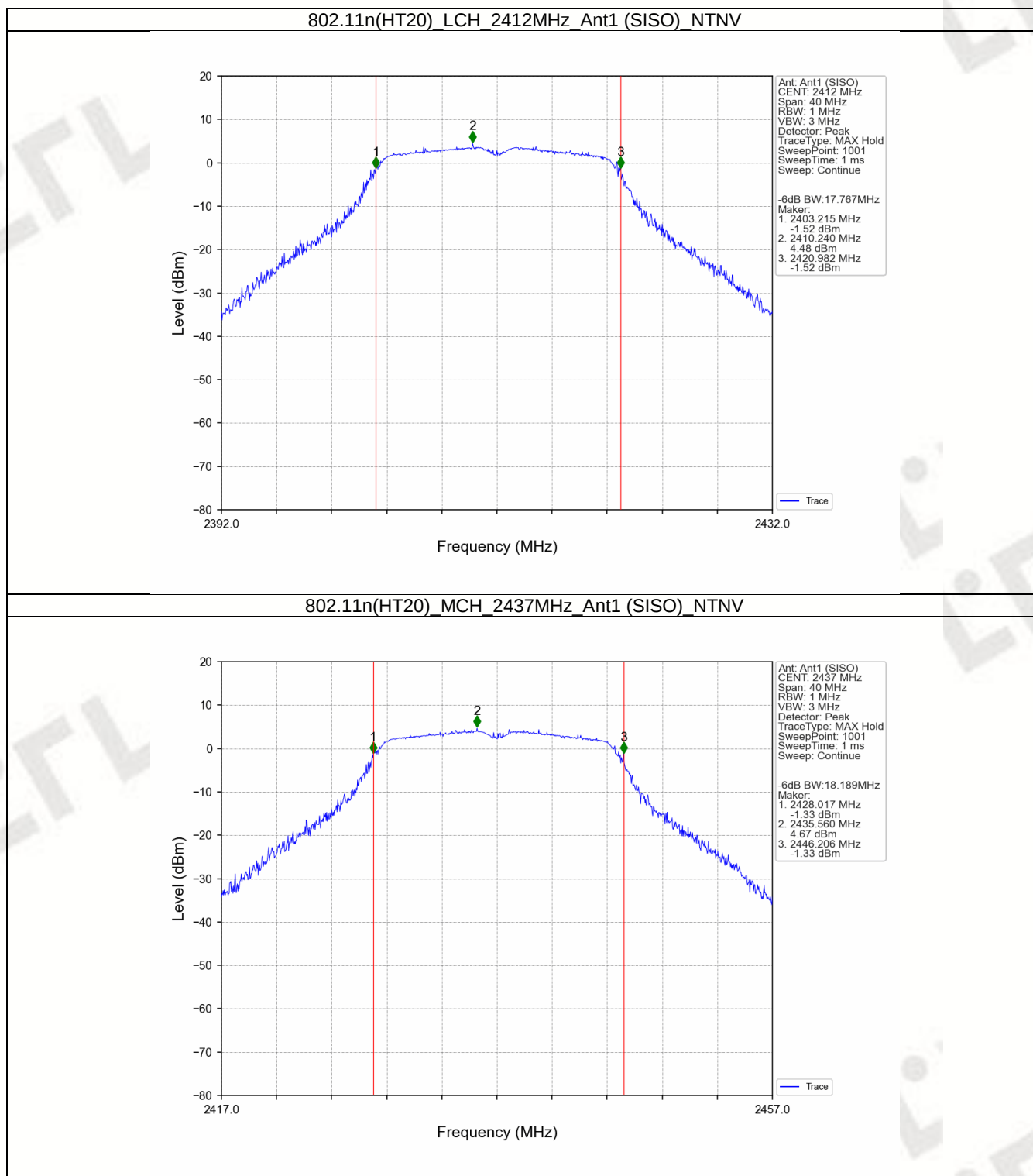
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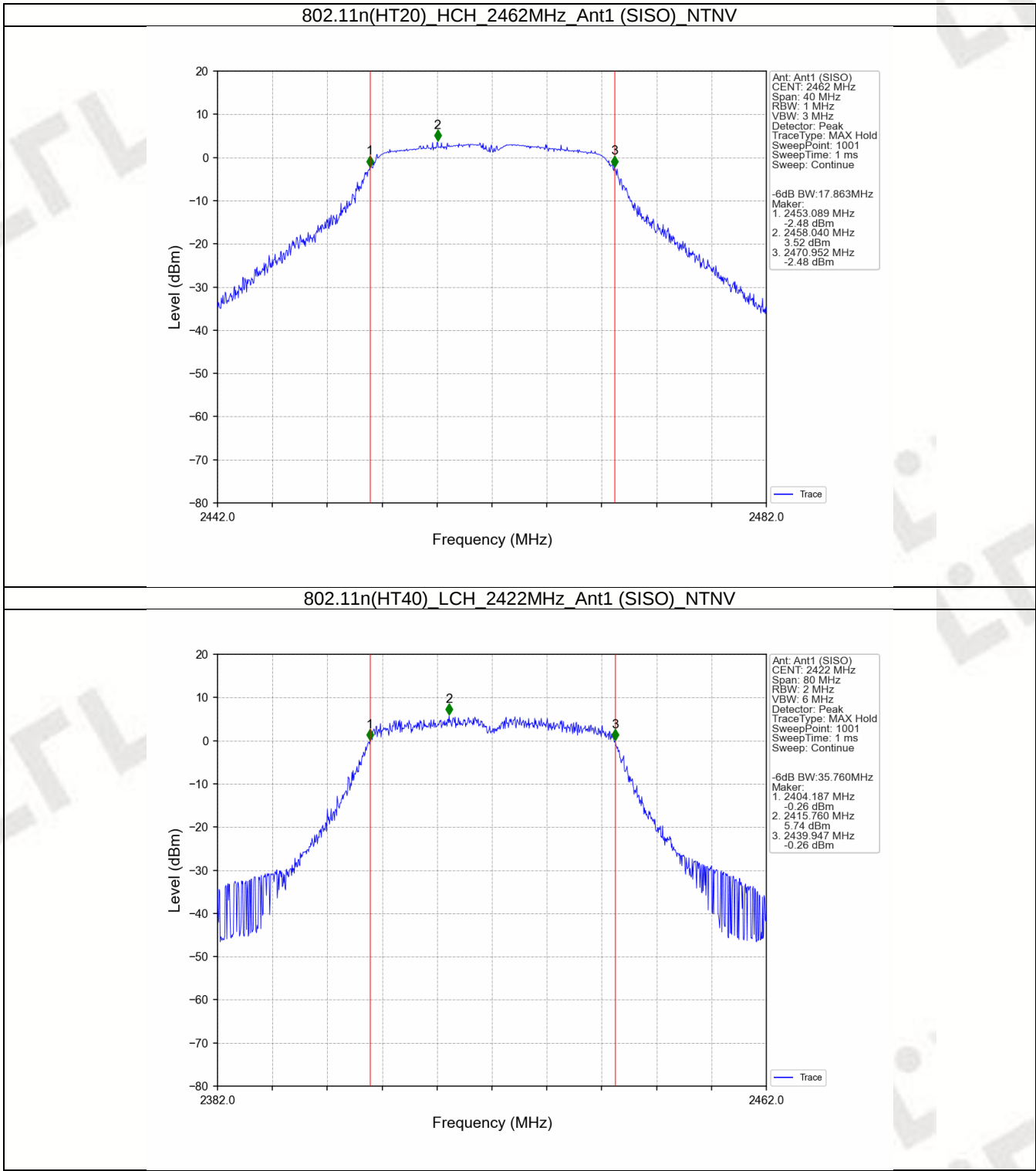
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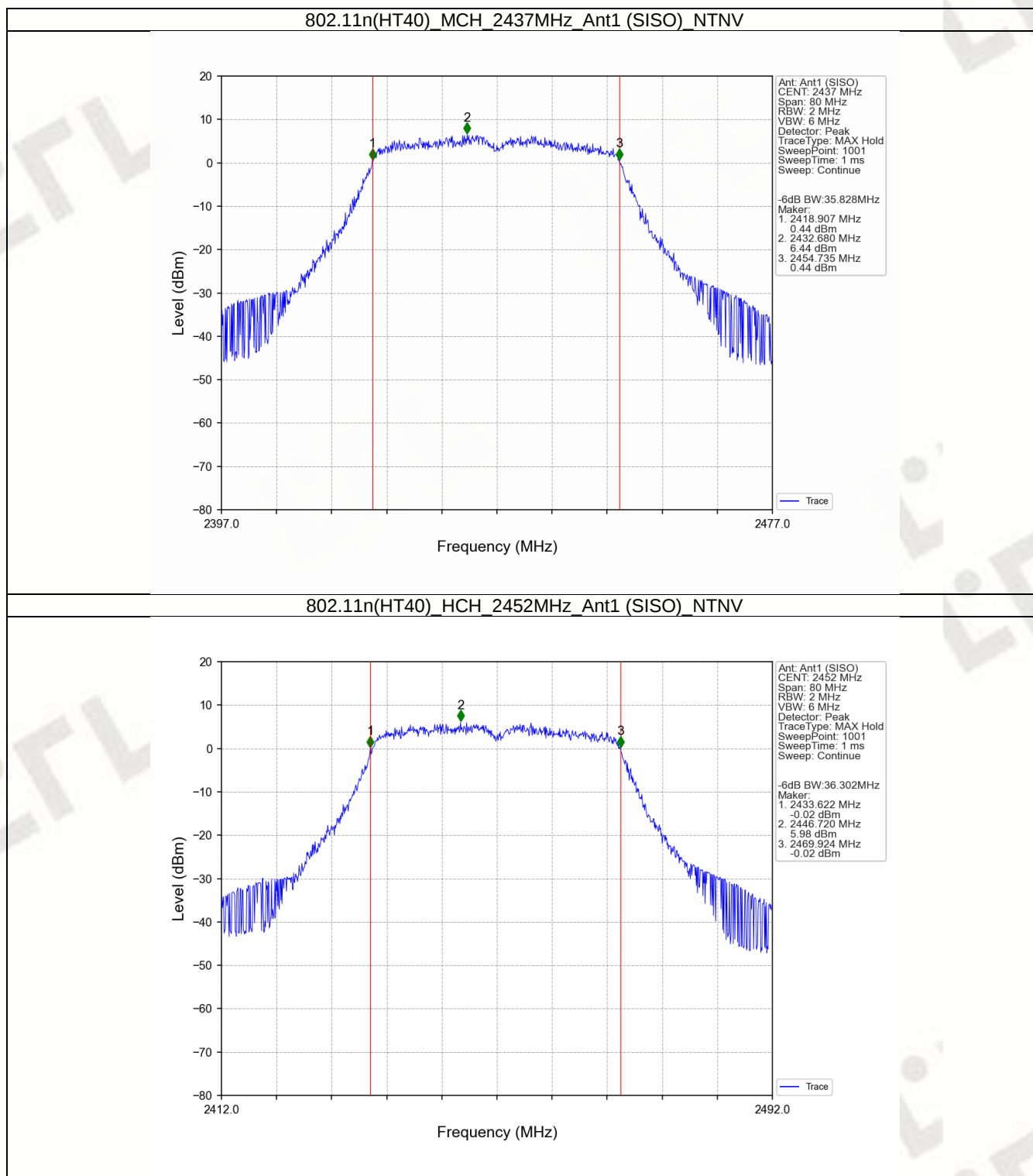
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FCC ID: 2A5DZ-CT-CMWYN



FCC ID: 2A5DZ-CT-CMWYN



2. Maximum Conducted Output Power

2.1 Test Result

2.1.1 Power

Mode	TX Type	Frequency (MHz)	Maximum Peak Conducted Output Power		Verdict
			ANT1(dBm/100kHz)	Limit(dBm/3kHz)	
802.11b	SISO	2412	14.34	<=30	Pass
		2437	13.90	<=30	Pass
		2462	13.02	<=30	Pass
802.11g	SISO	2412	14.68	<=30	Pass
		2437	15.14	<=30	Pass
		2462	14.28	<=30	Pass
802.11n (HT20)	SISO	2412	14.59	<=30	Pass
		2437	15.10	<=30	Pass
		2462	14.10	<=30	Pass
802.11n (HT40)	SISO	2422	14.38	<=30	Pass
		2437	14.98	<=30	Pass
		2452	14.63	<=30	Pass
Note1: Antenna Gain: Ant1: 4.98dBi; Note2: The test results include RE Cable loss.					

FCC ID: 2A5DZ-CT-CMWYN

3. Maximum Power Spectral Density

3.1 Test Result

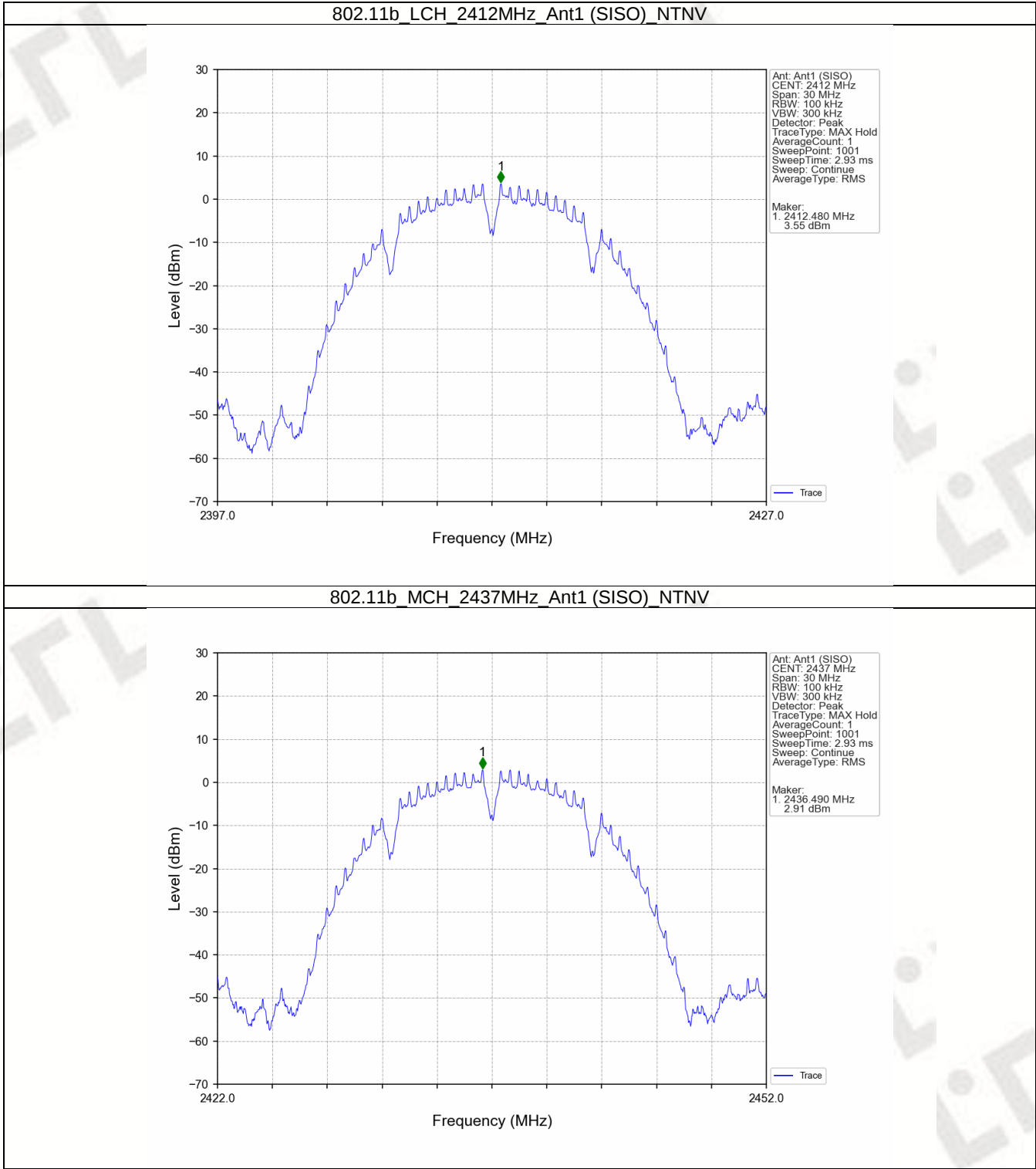
3.1.1 PSD

Mode	TX Type	Frequency (MHz)	Maximum PSD (dBm)		Verdict
			ANT1	Limit	
802.11b	SISO	2412	3.55	<=8	Pass
		2437	2.91	<=8	Pass
		2462	2.23	<=8	Pass
802.11g	SISO	2412	-3.99	<=8	Pass
		2437	-3.76	<=8	Pass
		2462	-4.64	<=8	Pass
802.11n (HT20)	SISO	2412	-4.15	<=8	Pass
		2437	-3.71	<=8	Pass
		2462	-4.34	<=8	Pass
802.11n (HT40)	SISO	2422	-7.16	<=8	Pass
		2437	-6.42	<=8	Pass
		2452	-6.85	<=8	Pass
Note1: Antenna Gain: Ant1: 4.98dBi; Note2: The test results include RF Cable loss.					

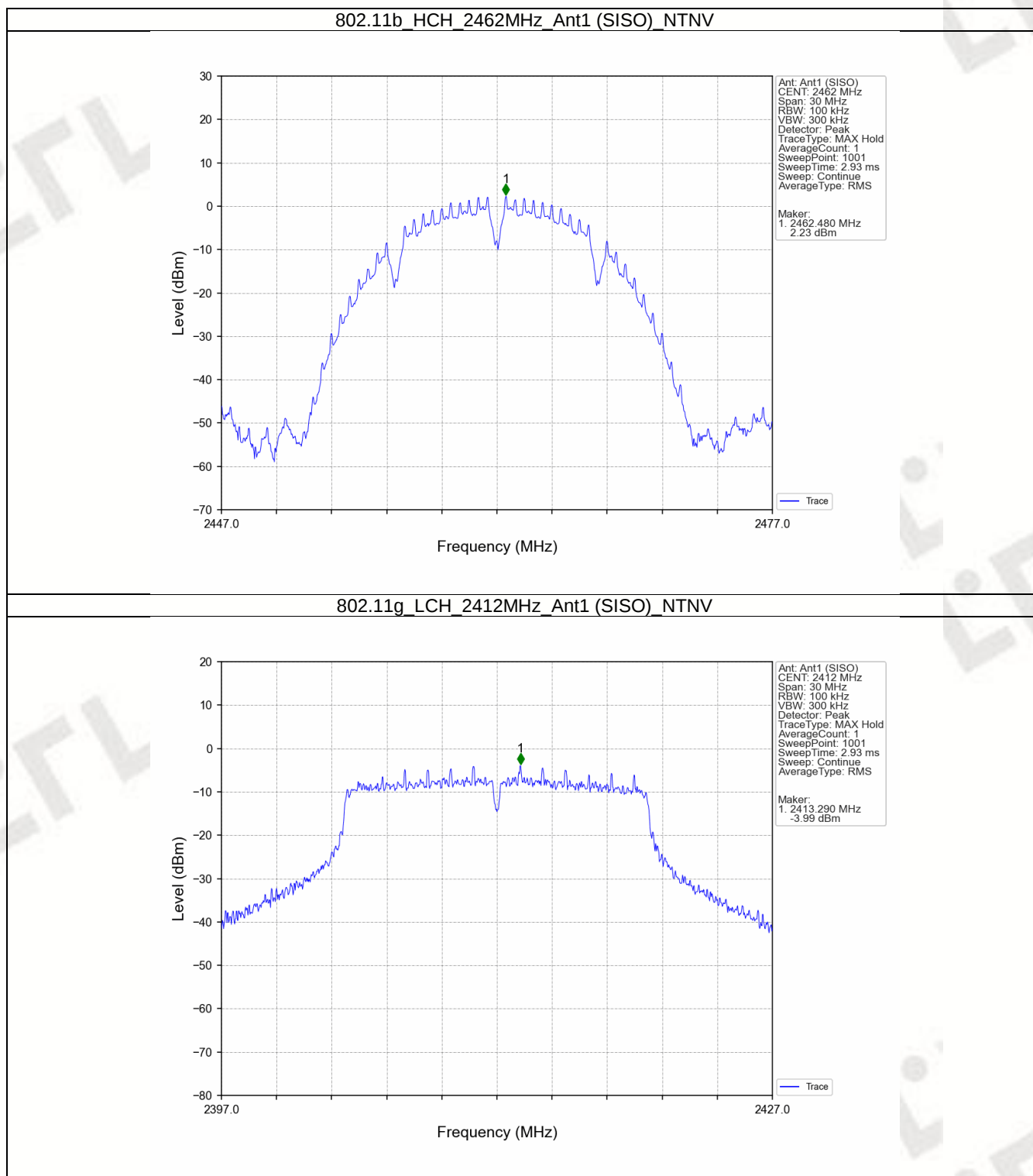
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3.2 Test Graph

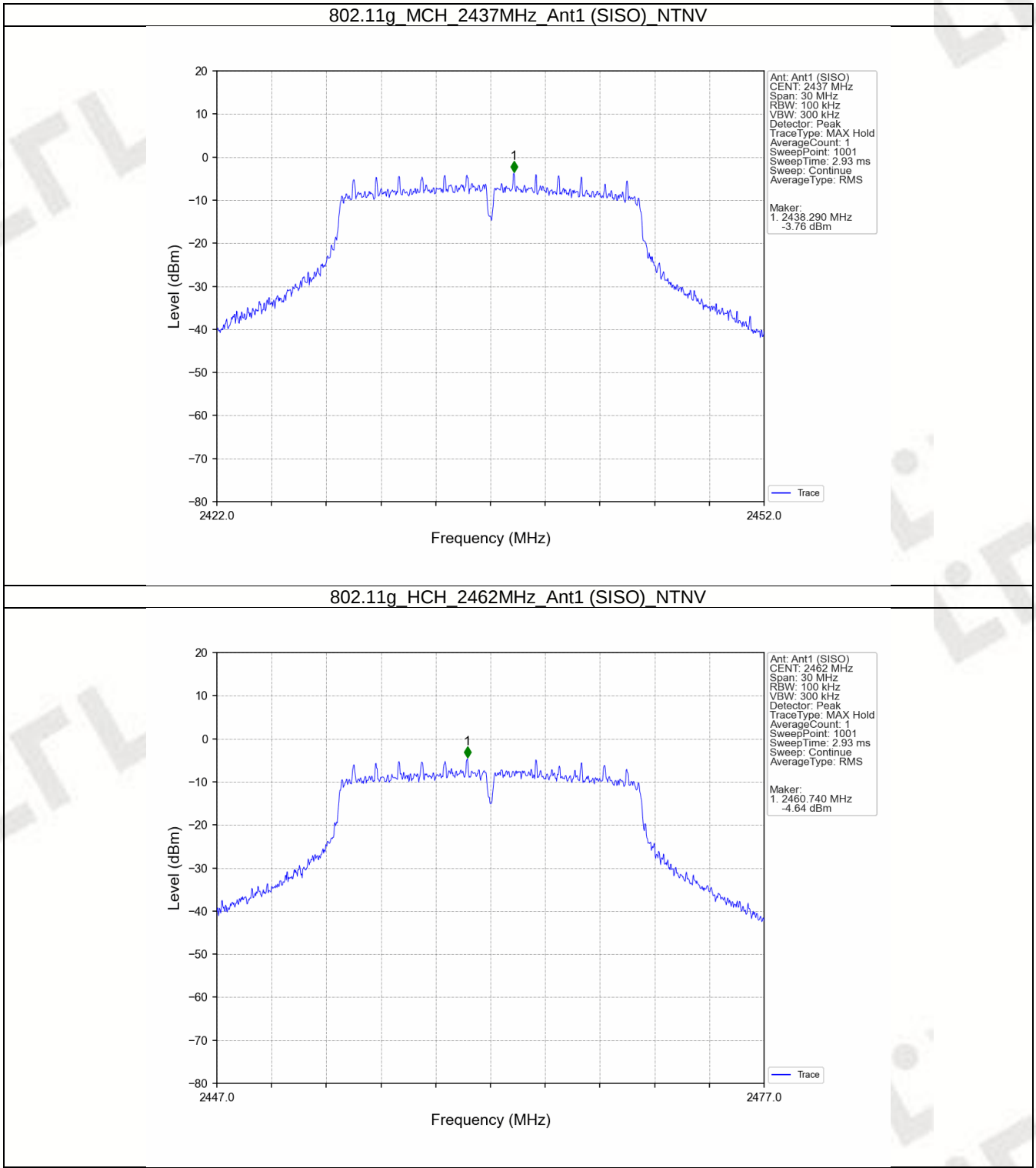
3.2.1 PSD



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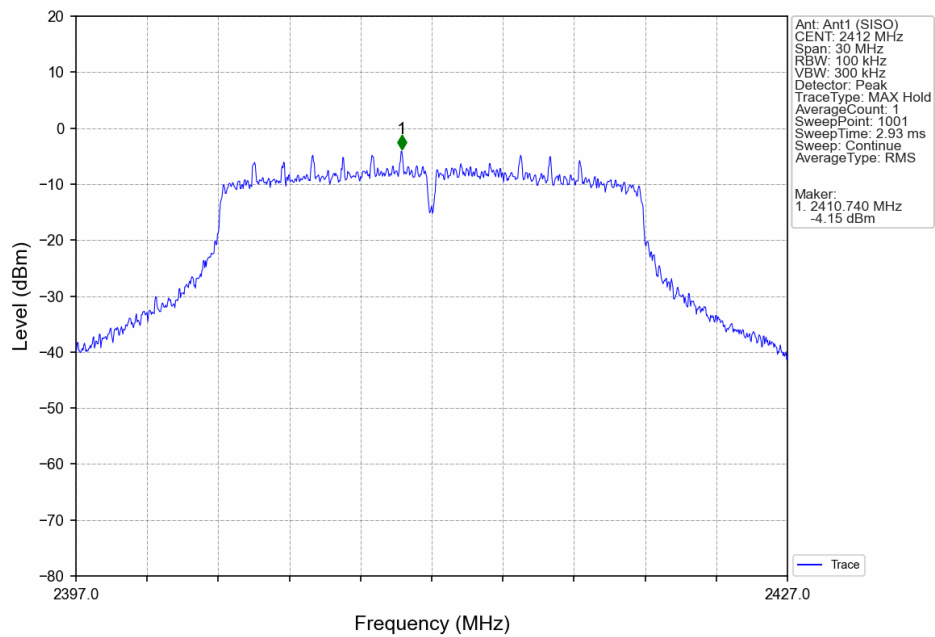


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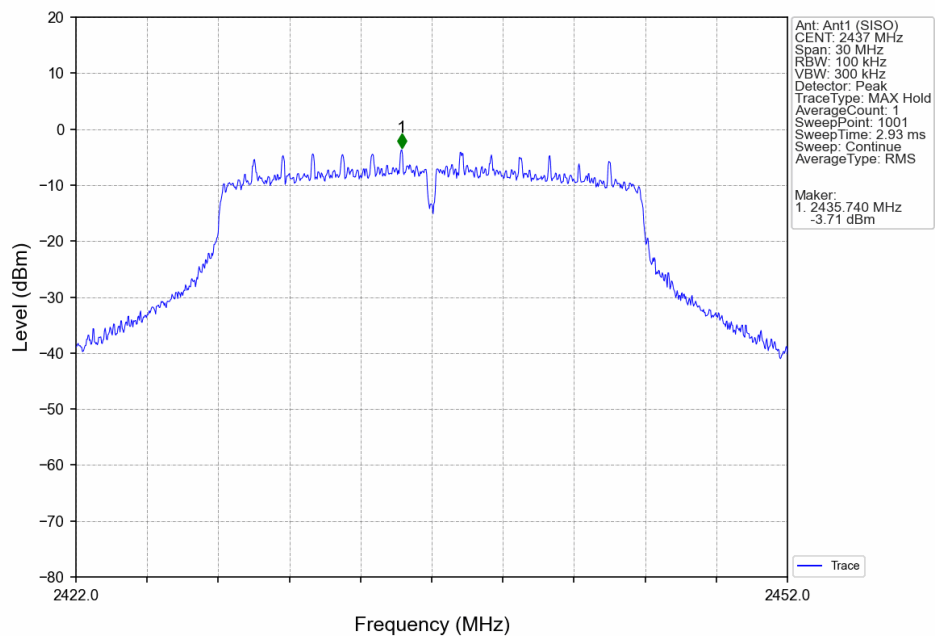


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802.11n(HT20)_LCH_2412MHz_Ant1 (SISO)_NTNV

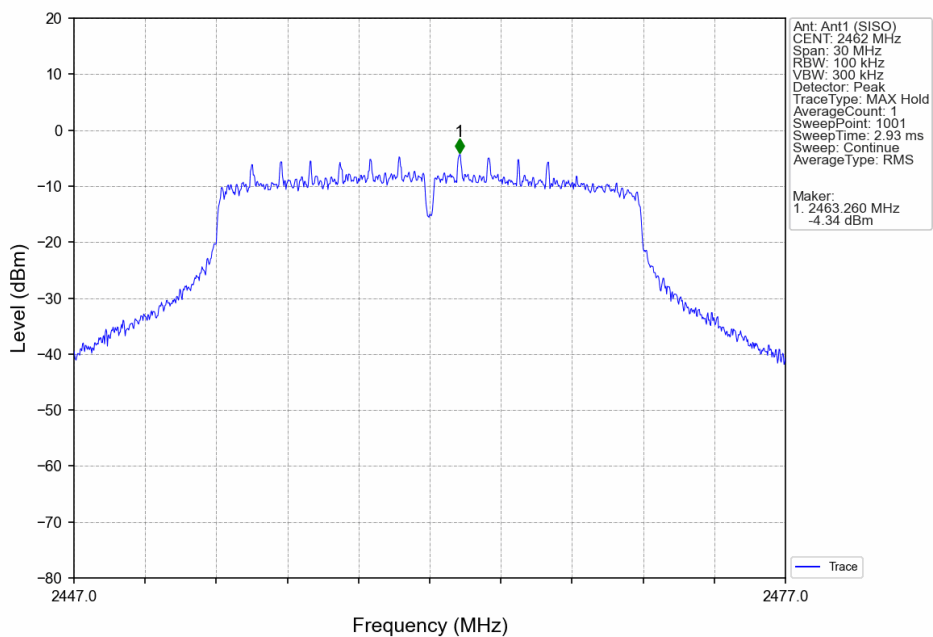


802.11n(HT20)_MCH_2437MHz_Ant1 (SISO)_NTNV

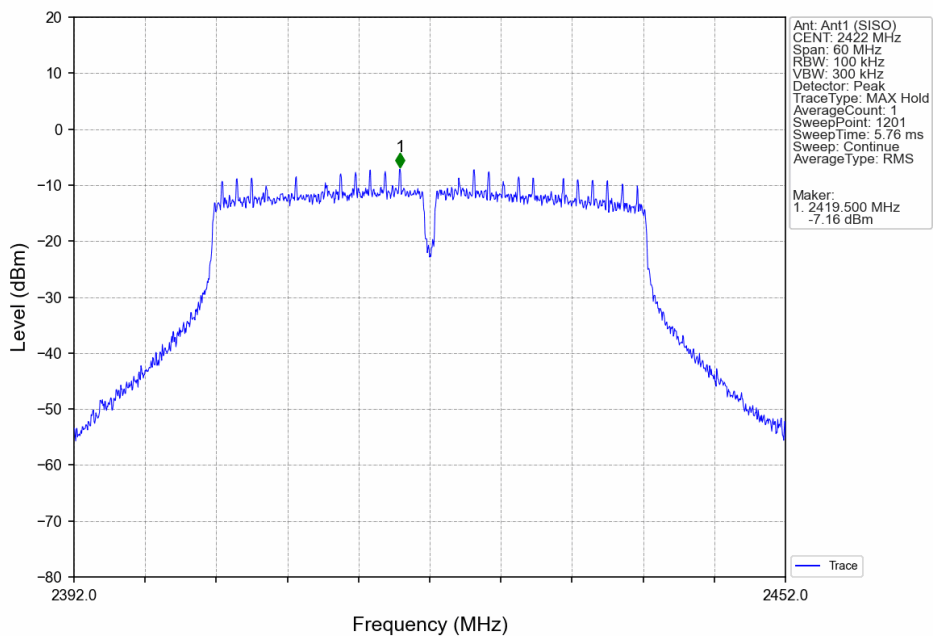


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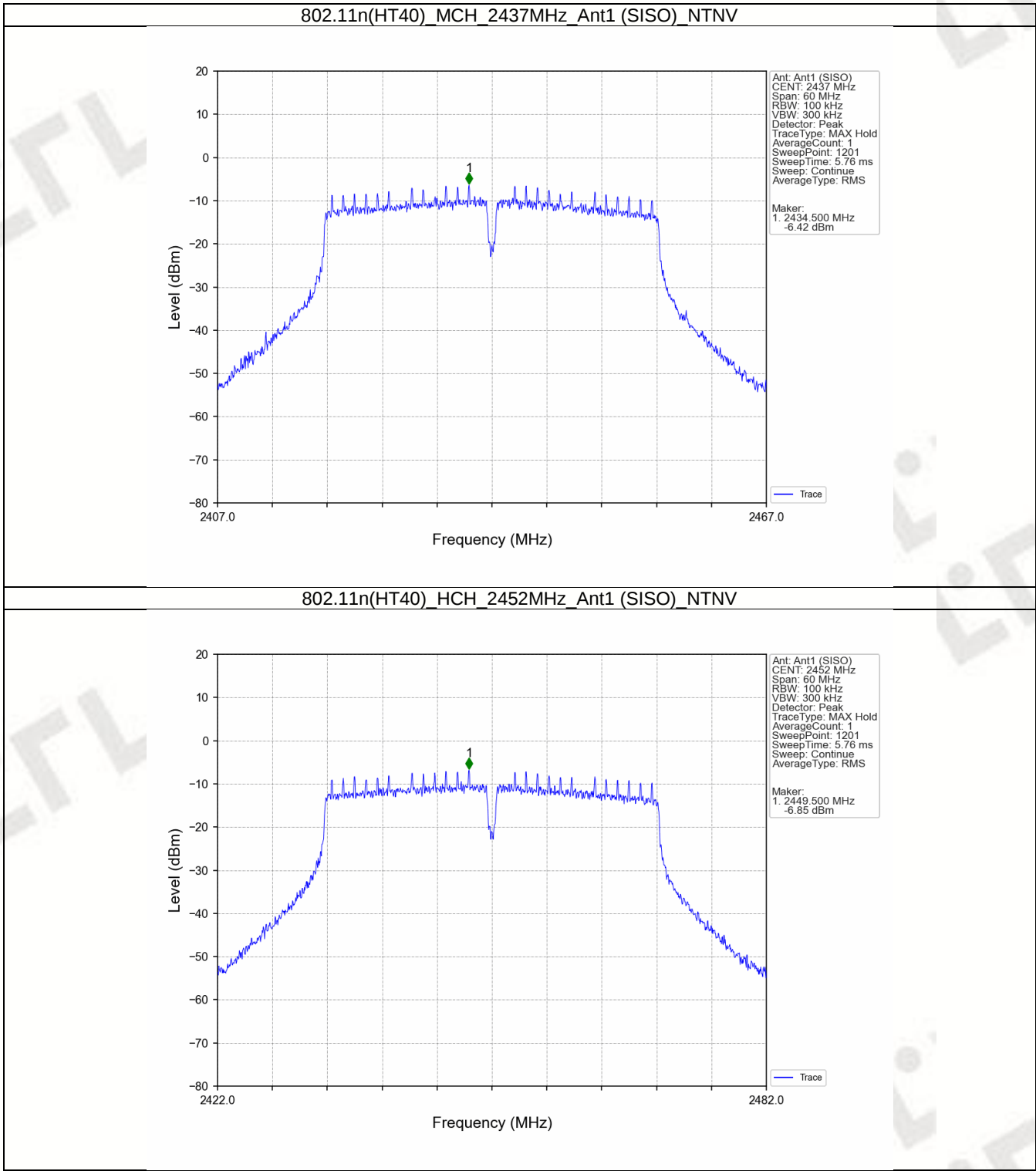
802.11n(HT20)_HCH_2462MHz_Ant1 (SISO)_NTNV



802.11n(HT40)_LCH_2422MHz_Ant1 (SISO)_NTNV



FCC ID: 2A5DZ-CT-CMWYN



4. Unwanted Emissions In Non-restricted Frequency Bands

4.1 Test Result

4.1.1 Ref

Mode	TX Type	Frequency (MHz)	ANT	Level of Reference (dBm)
802.11b	SISO	2412	1	3.50
		2437	1	3.12
		2462	1	2.19
802.11g	SISO	2412	1	-4.12
		2437	1	-3.29
		2462	1	-4.66
802.11n (HT20)	SISO	2412	1	-3.68
		2437	1	-3.30
		2462	1	-4.58
802.11n (HT40)	SISO	2422	1	-7.11
		2437	1	-6.34
		2452	1	-6.95

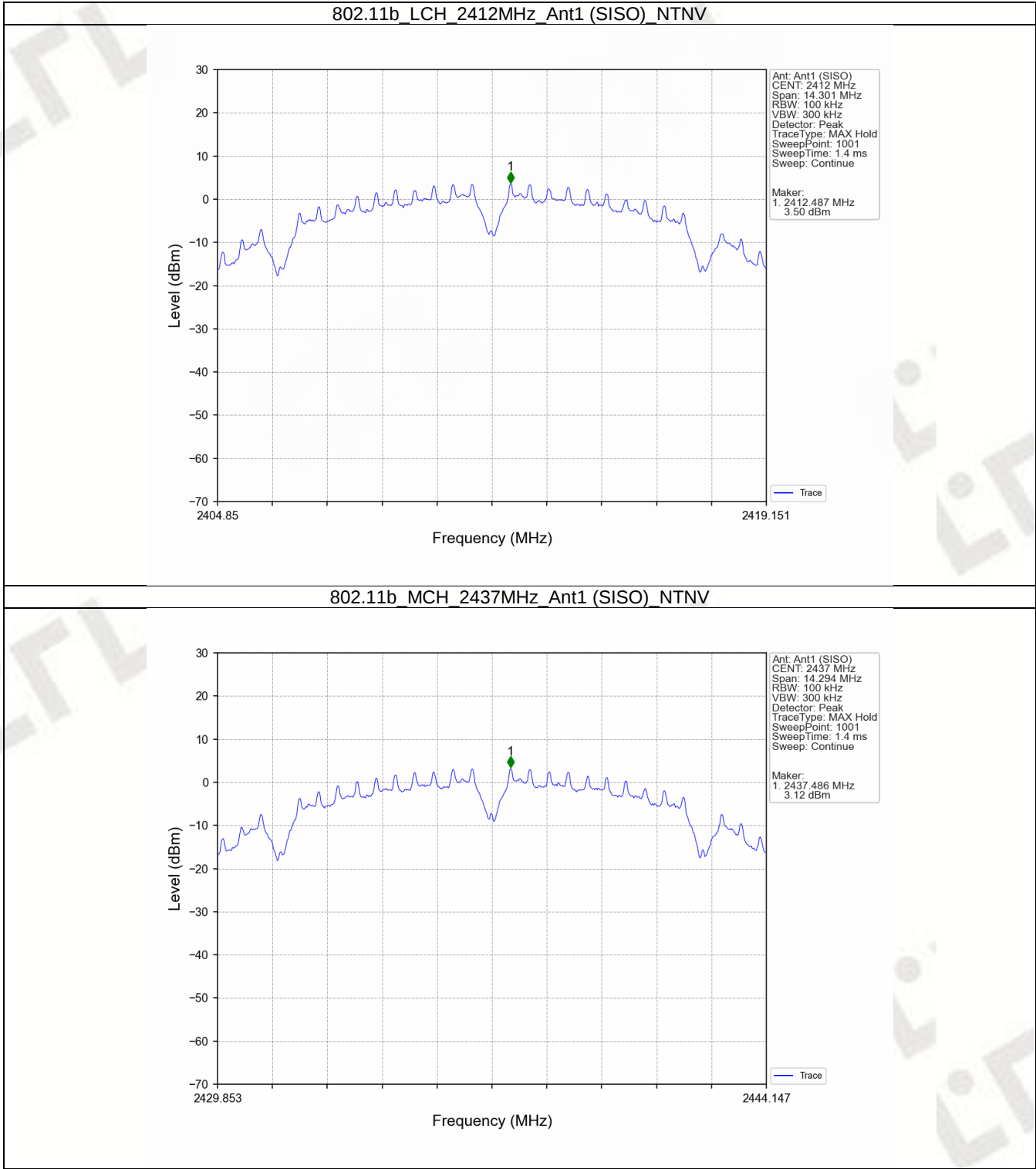
4.1.2 CSE

Mode	TX Type	Frequency (MHz)	ANT	Level of Reference (dBm)	Limit (dBm)	Verdict
802.11b	SISO	2412	1	3.50	-16.50	Pass
		2437	1	3.50	-16.50	Pass
		2462	1	3.50	-16.50	Pass
802.11g	SISO	2412	1	-3.29	-23.29	Pass
		2437	1	-3.29	-23.29	Pass
		2462	1	-3.29	-23.29	Pass
802.11n (HT20)	SISO	2412	1	-3.30	-23.30	Pass
		2437	1	-3.30	-23.30	Pass
		2462	1	-3.30	-23.30	Pass
802.11n (HT40)	SISO	2422	1	-6.34	-26.34	Pass
		2437	1	-6.34	-26.34	Pass
		2452	1	-6.34	-26.34	Pass

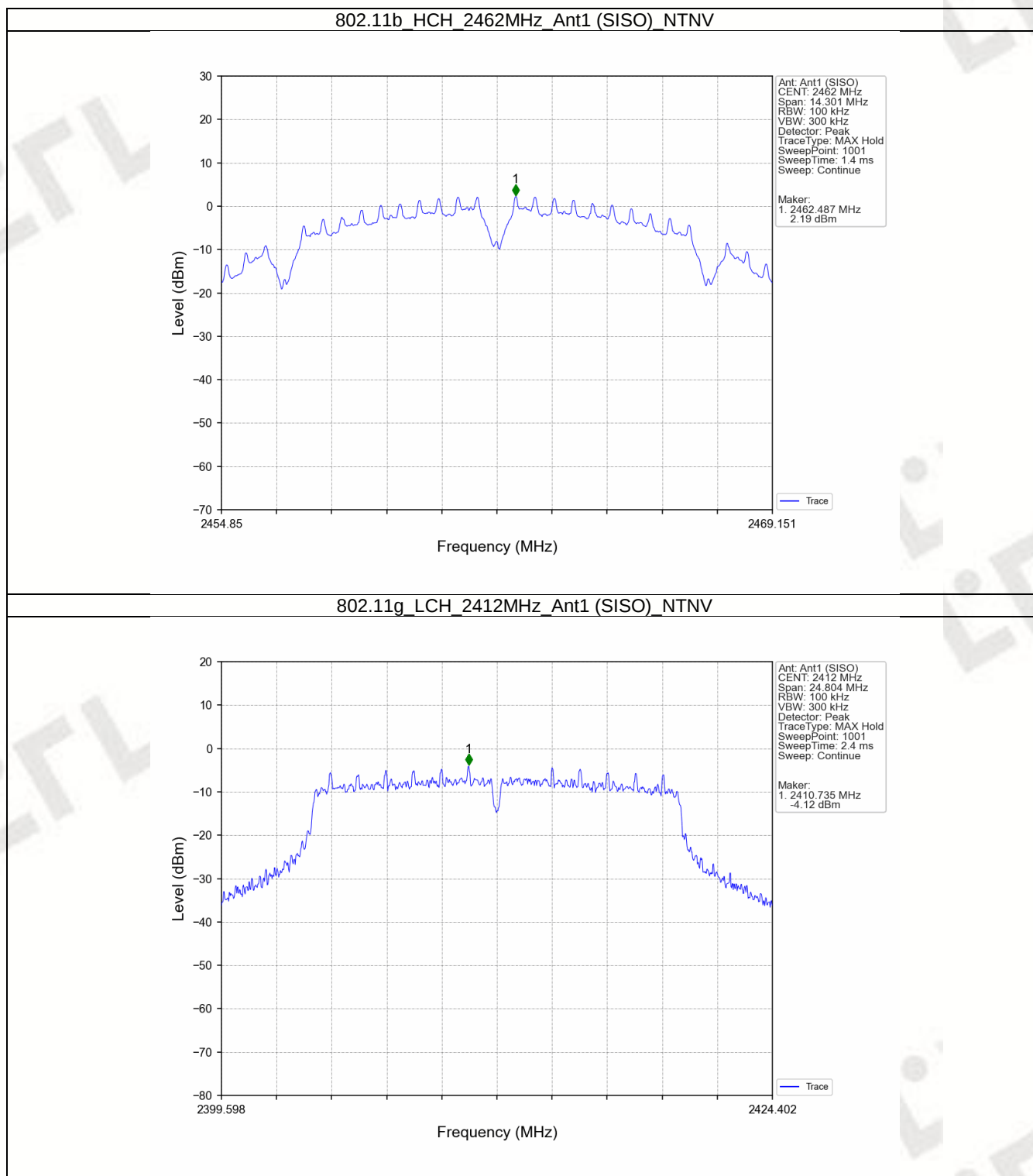
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4.2 Test Graph

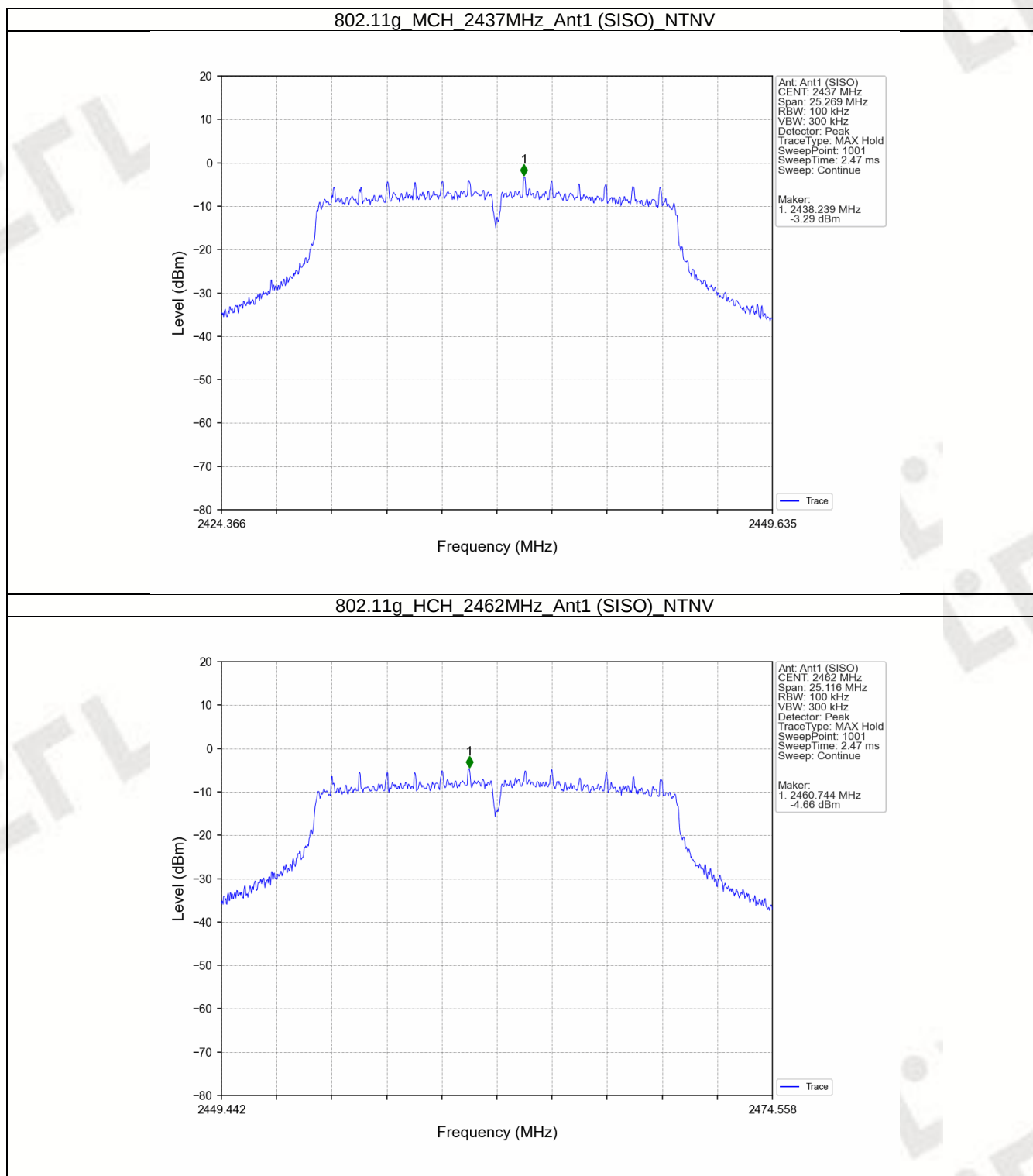
4.2.1 Ref



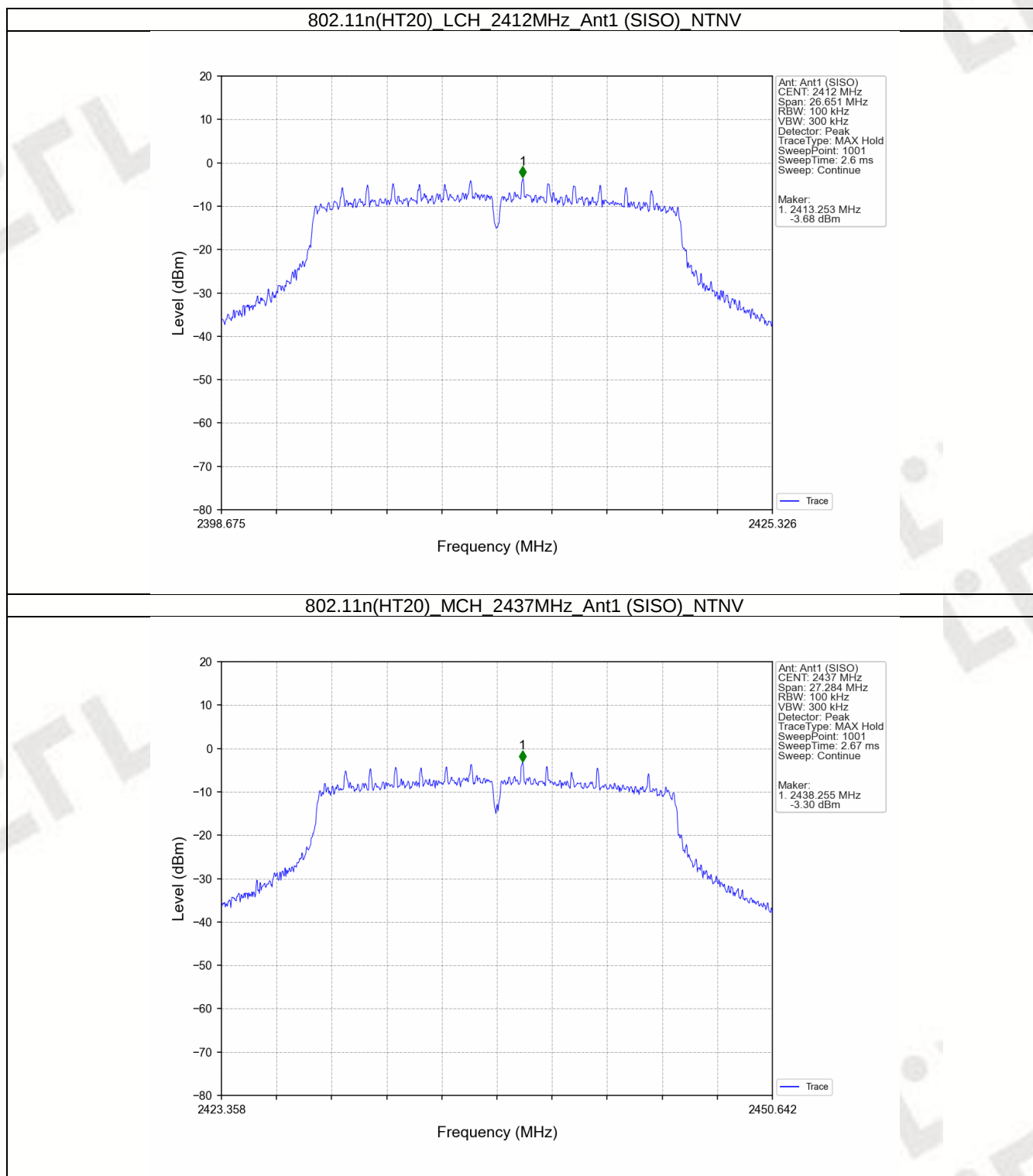
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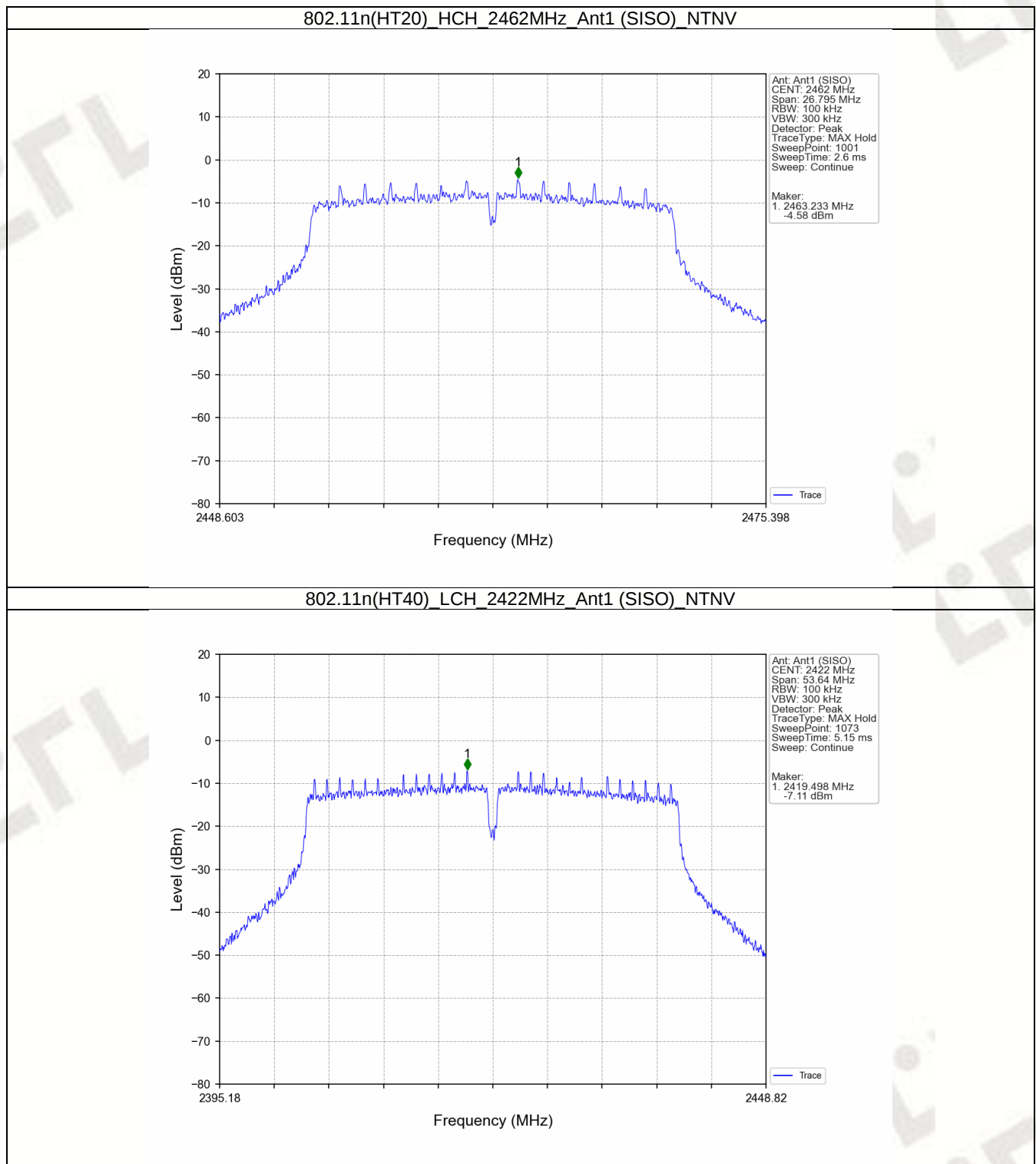
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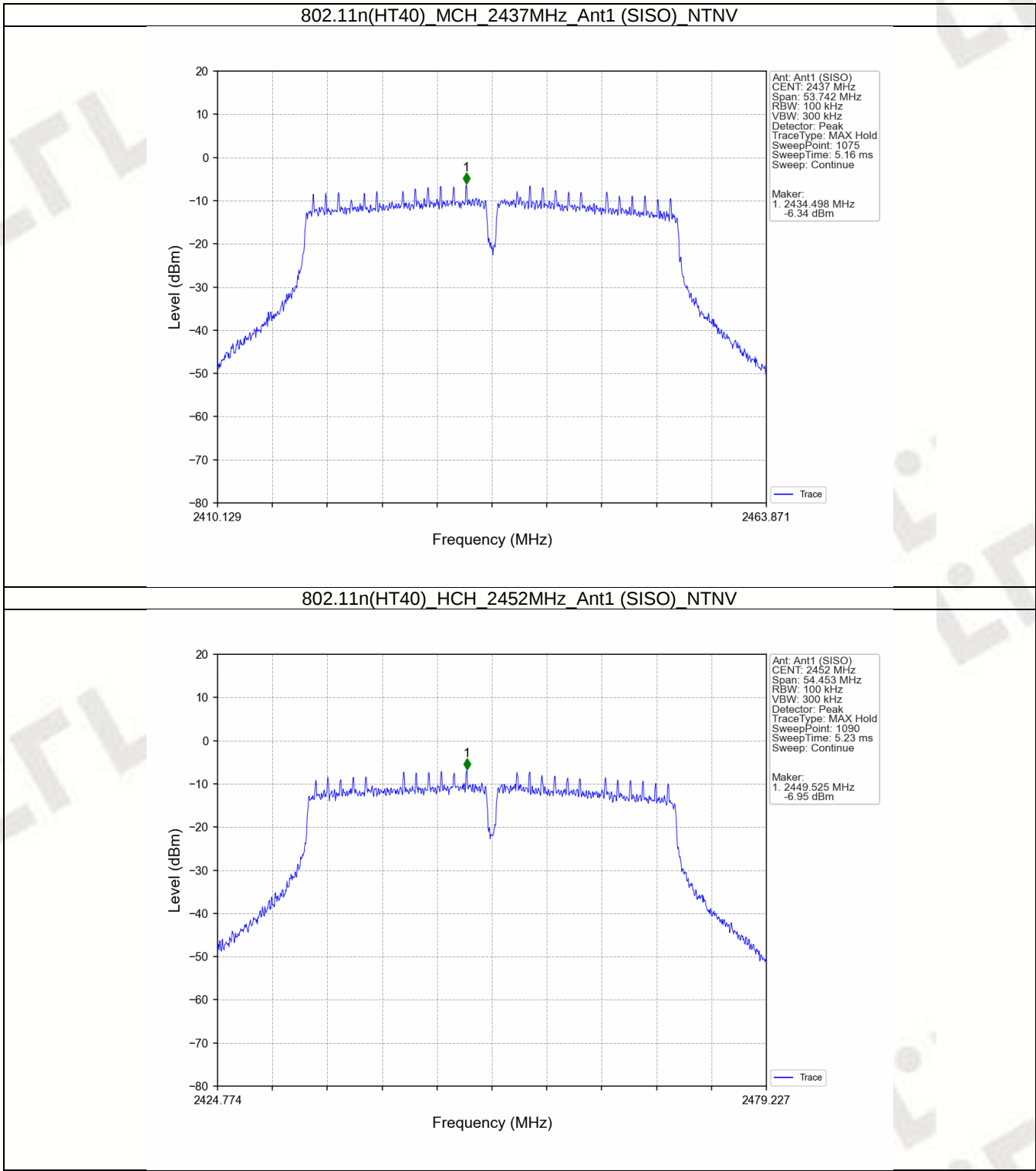
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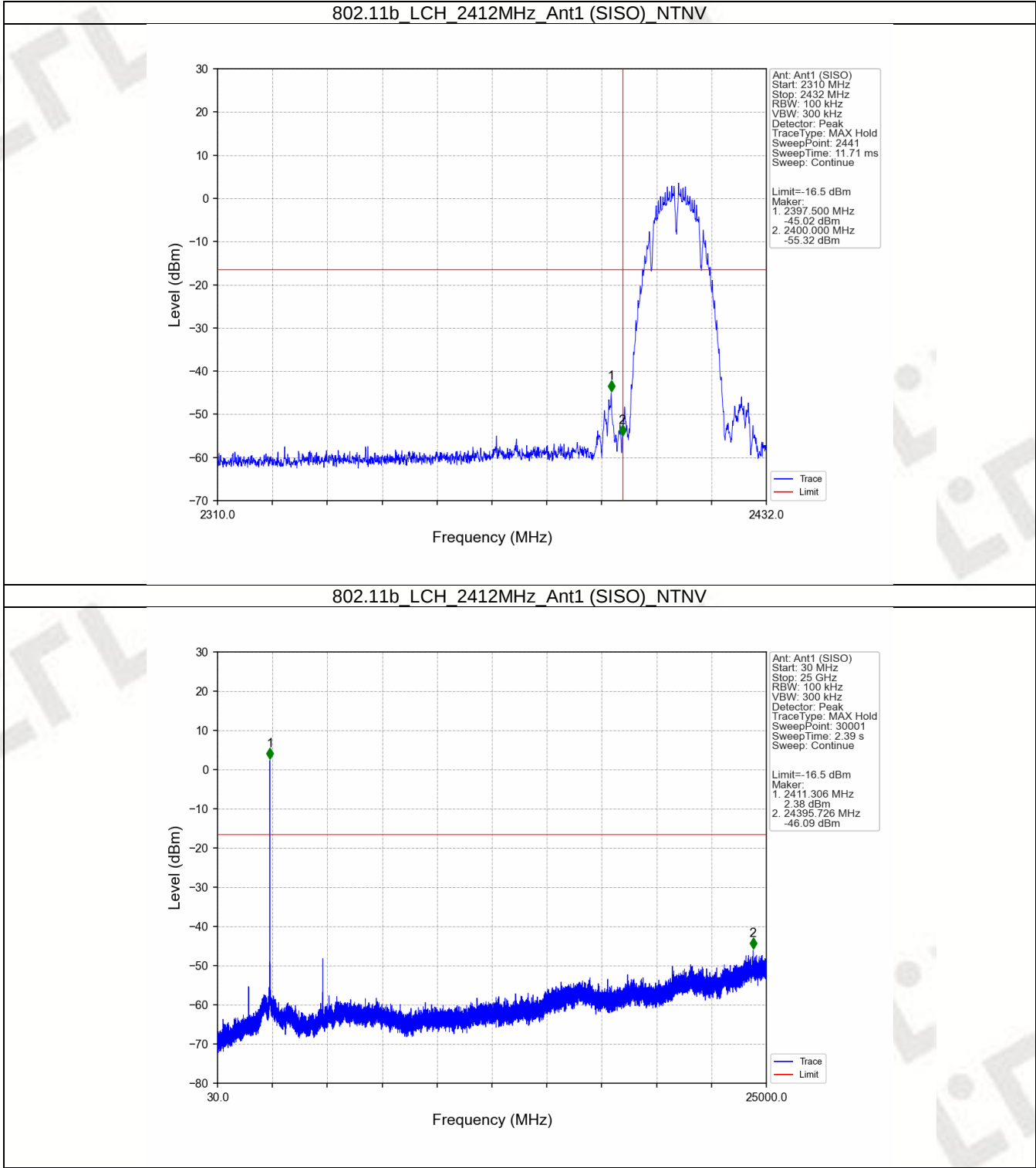


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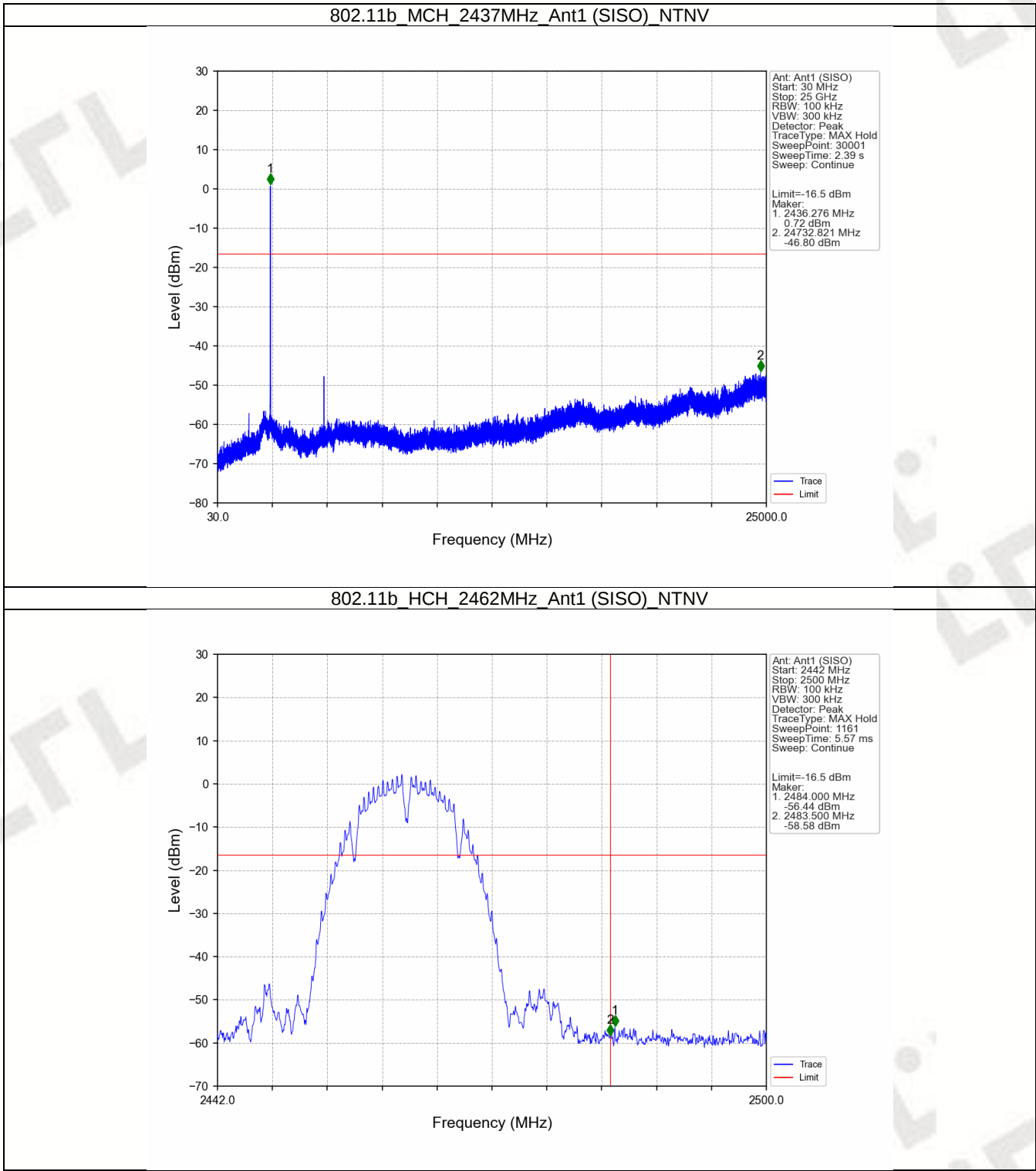


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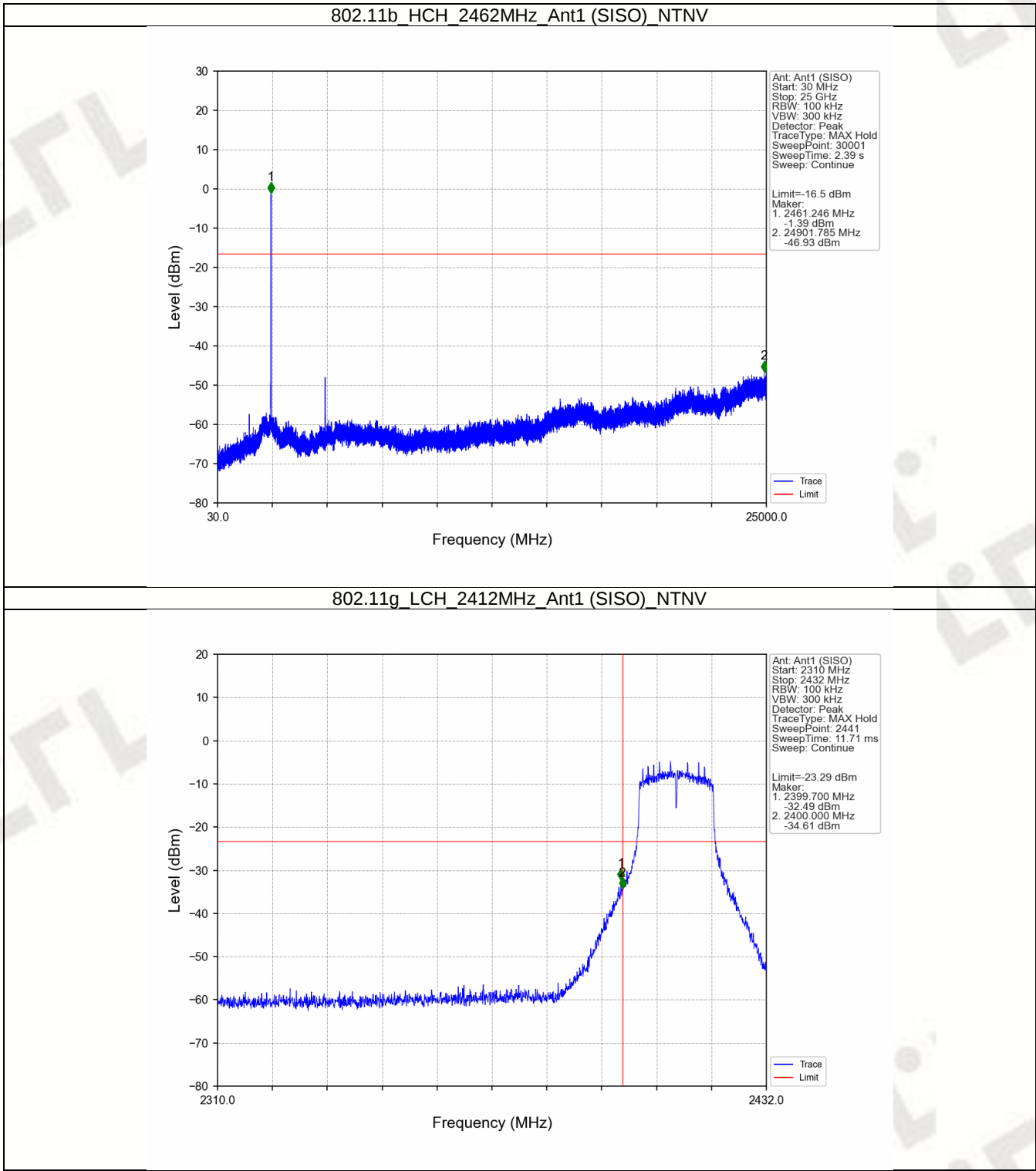
4.2.2 CSE



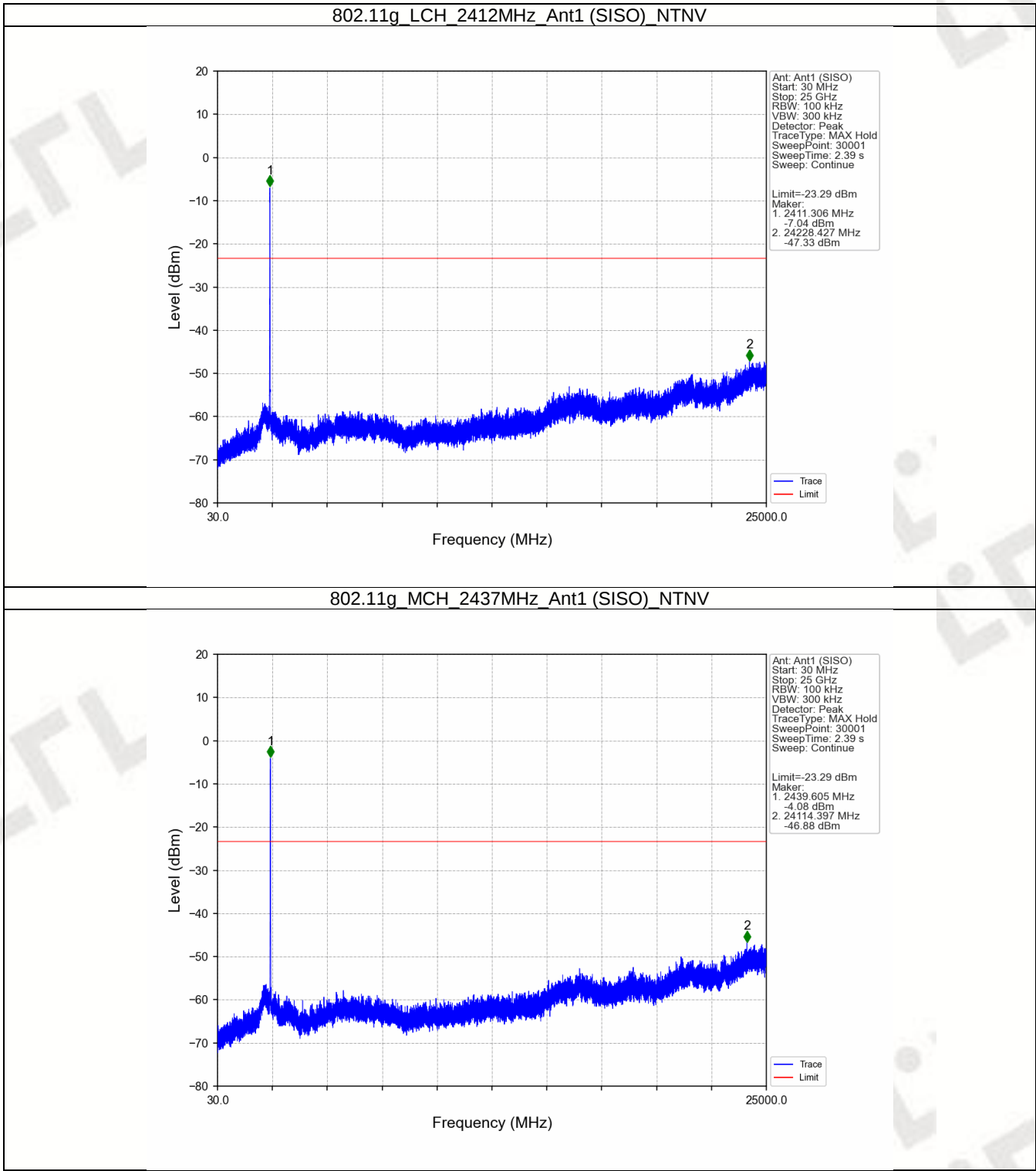
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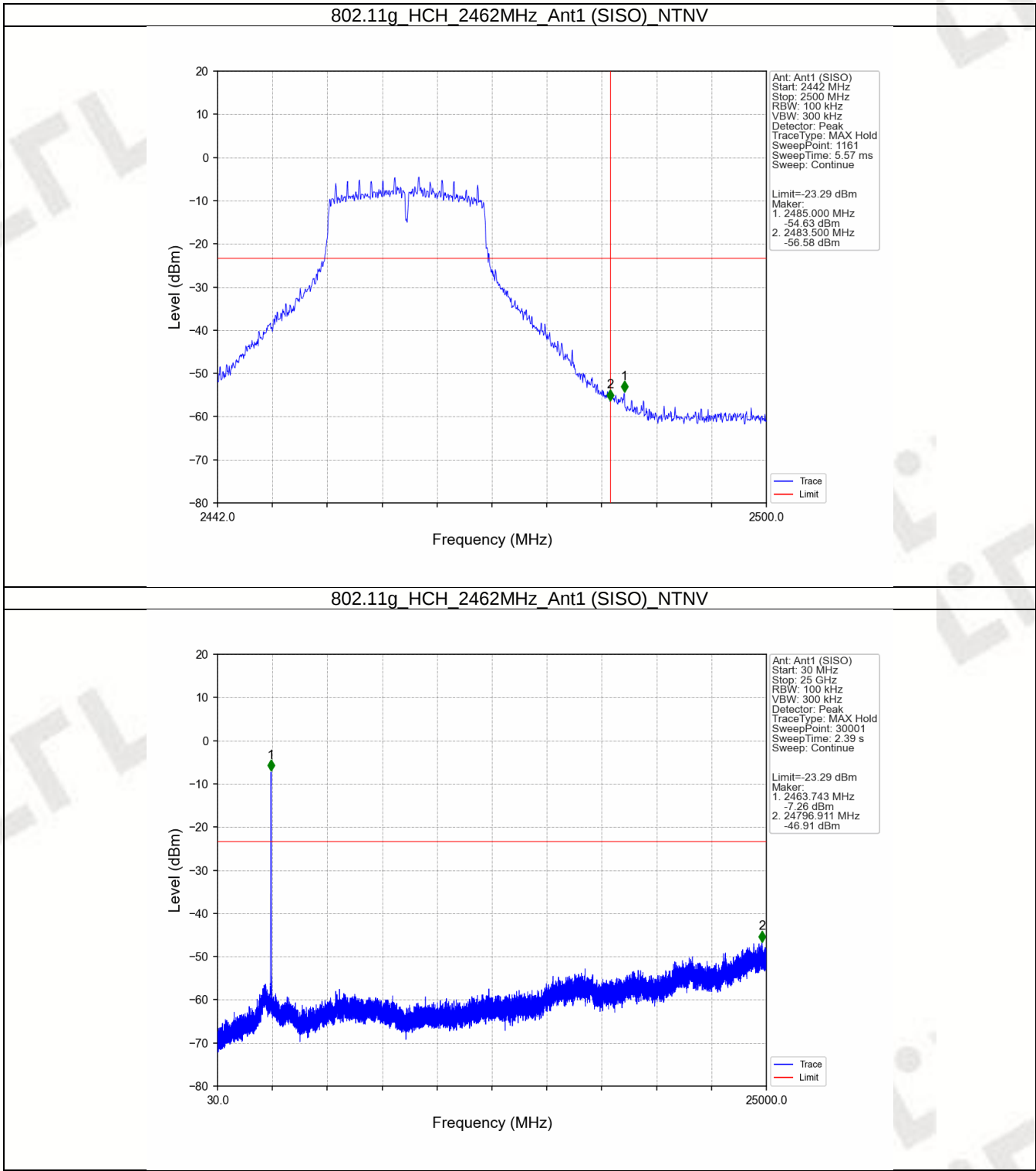
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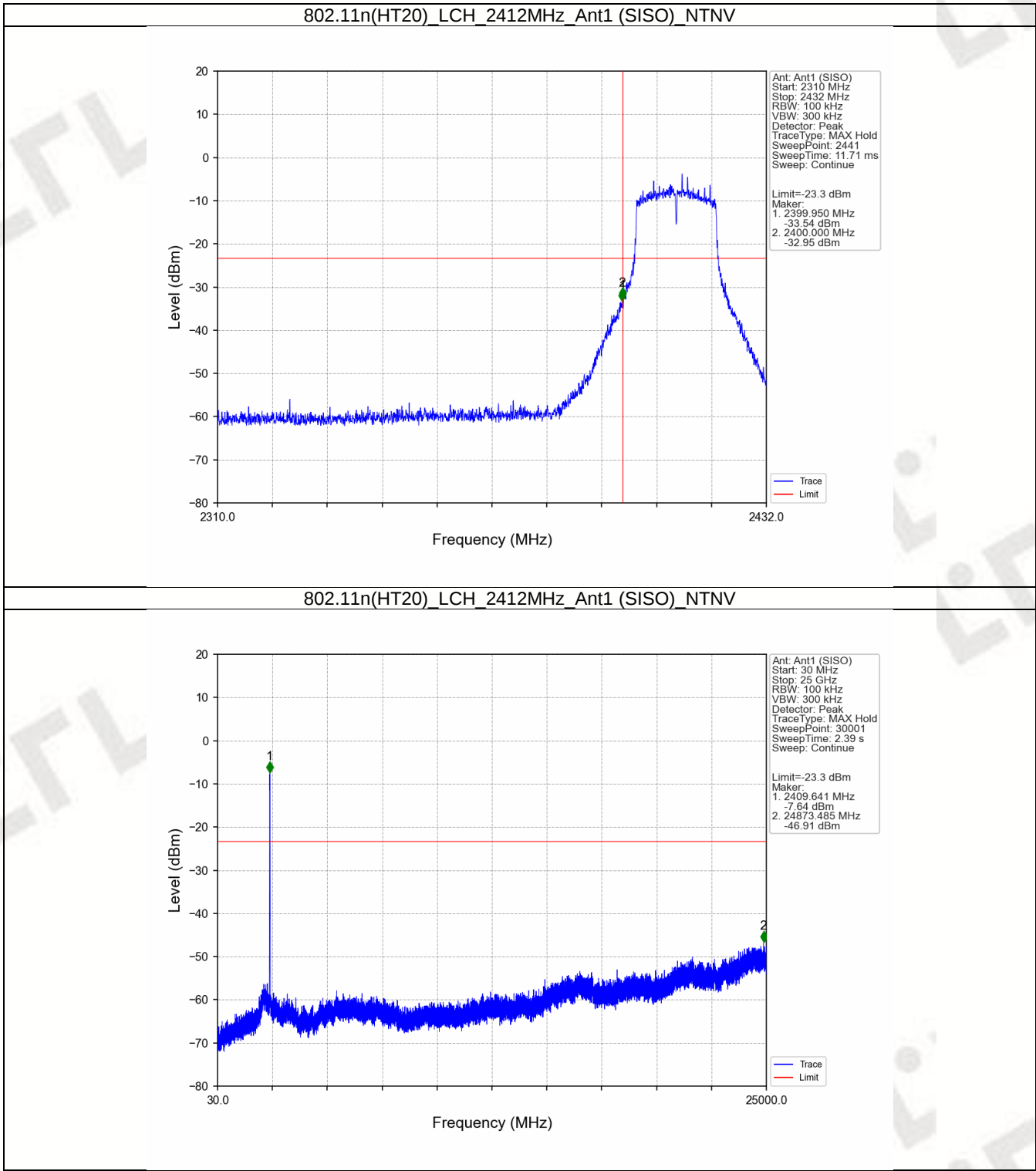
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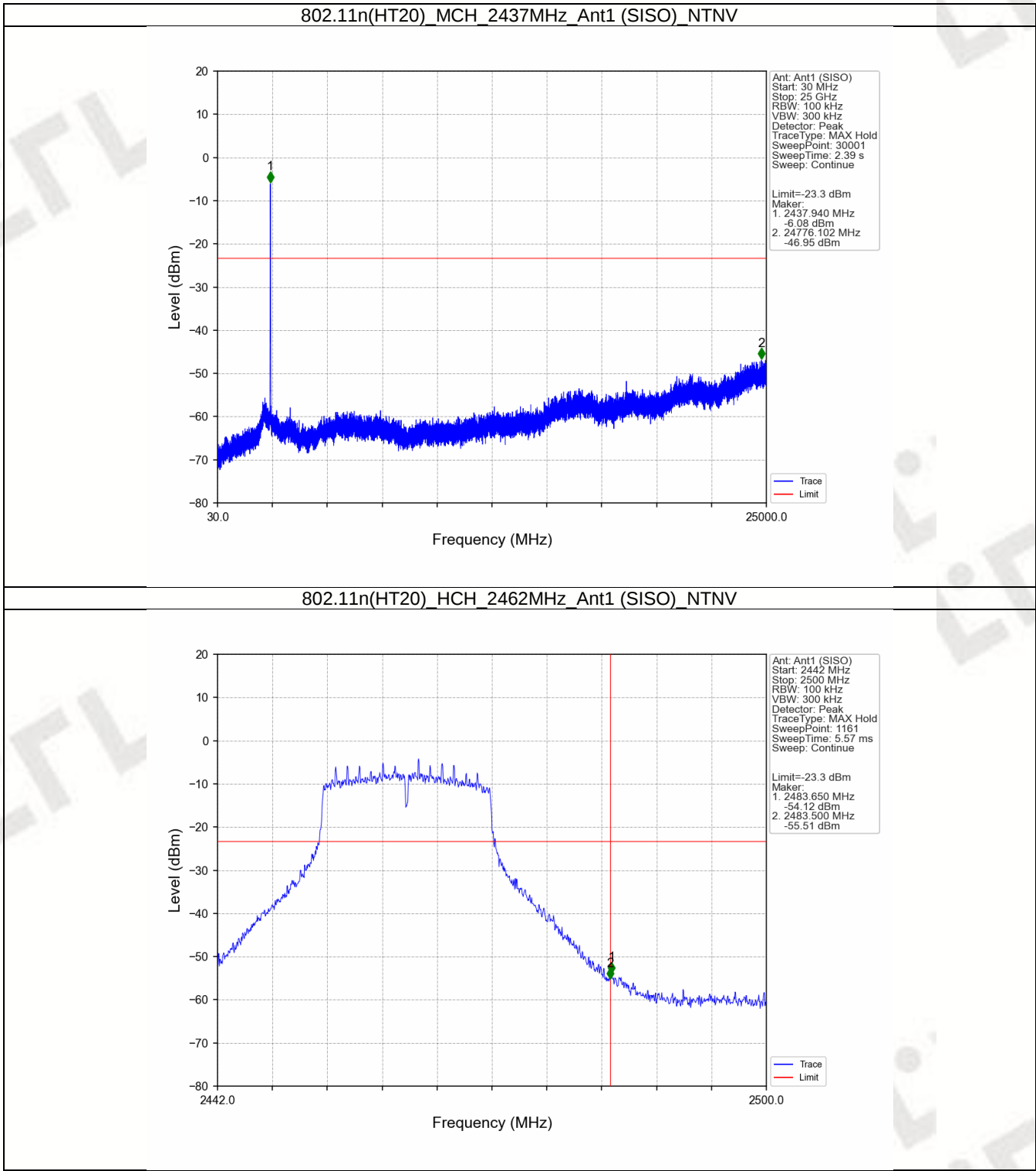
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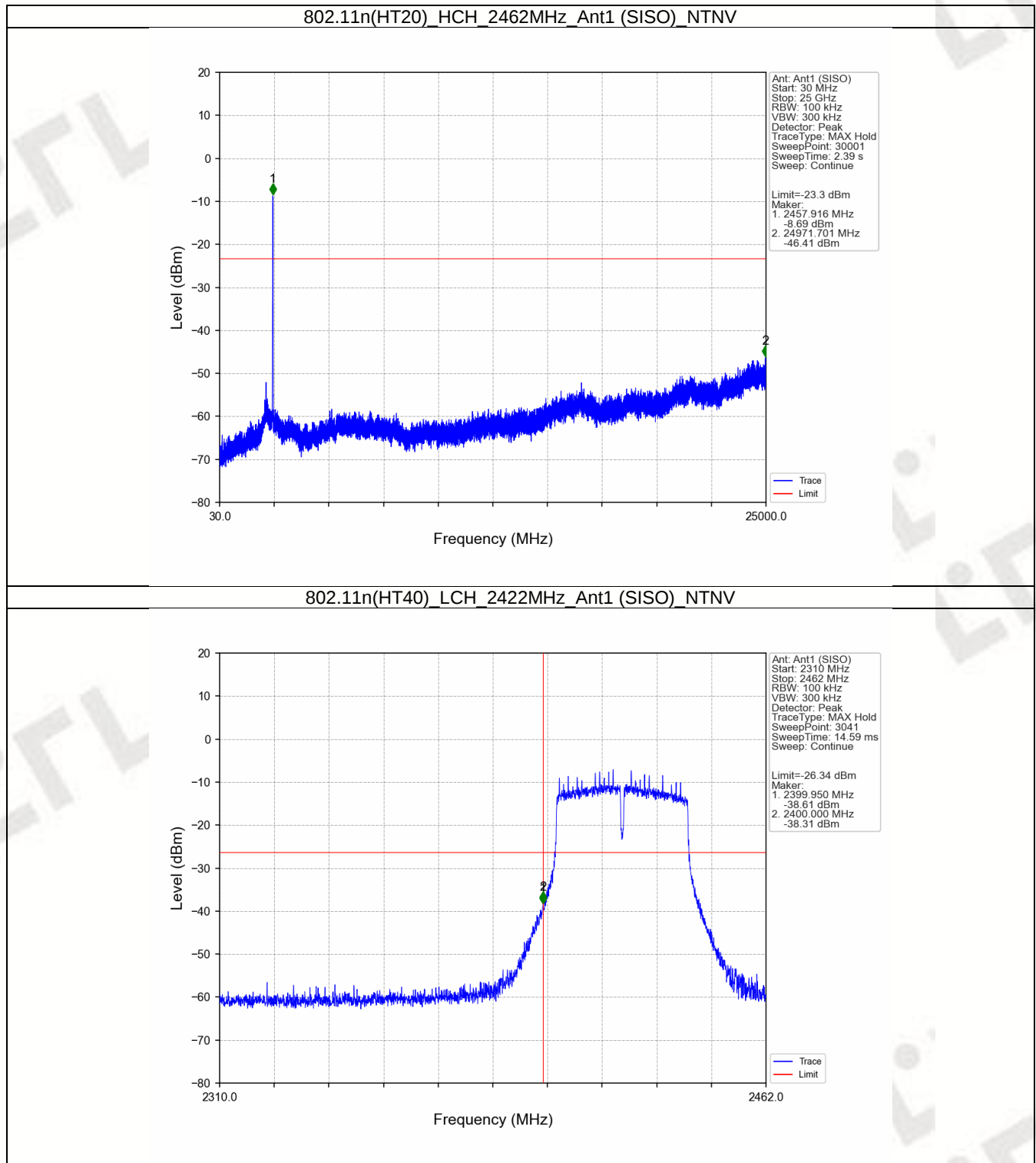
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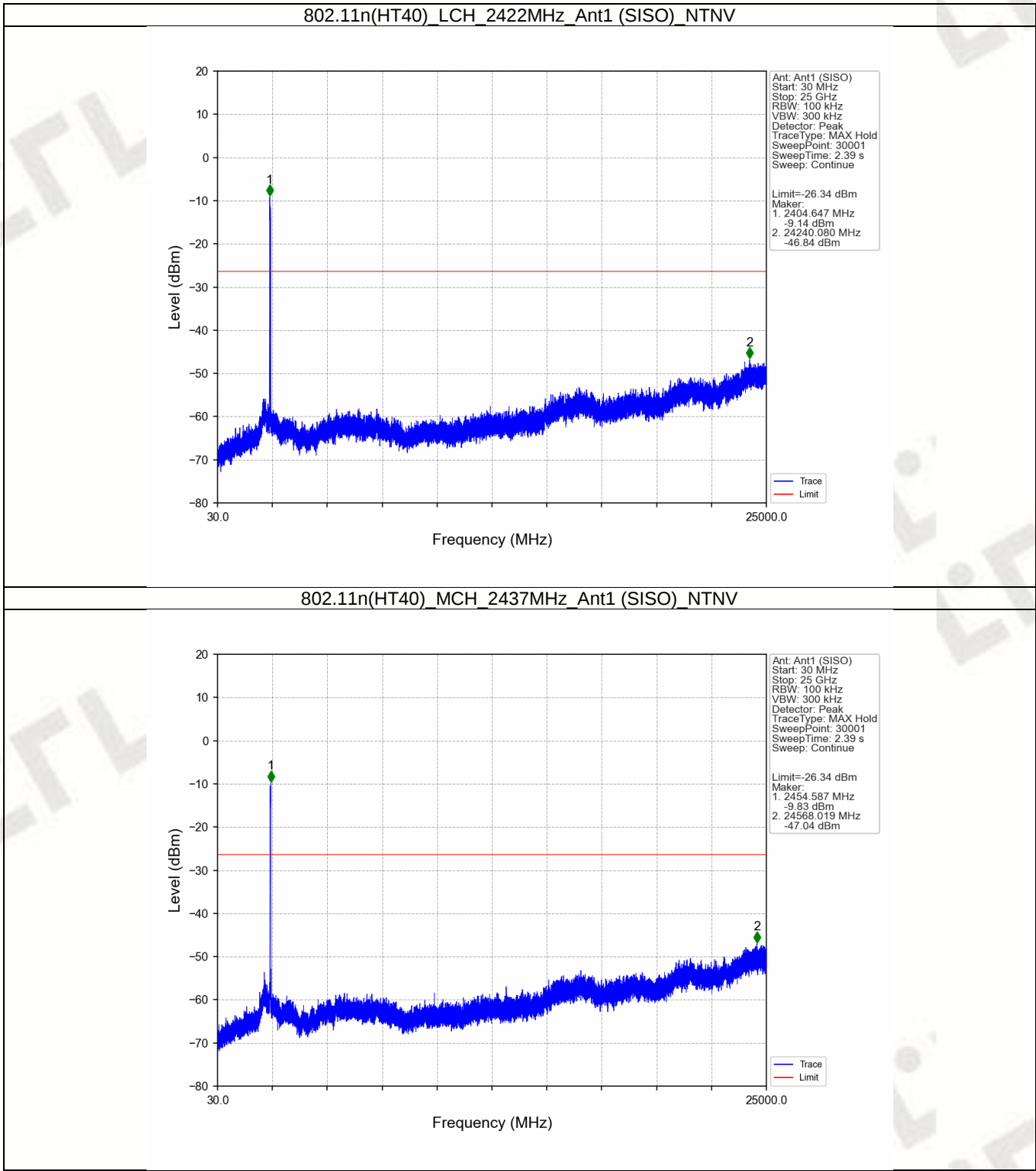
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