



Shenzhen CTL Testing Technology Co., Ltd.

Unit 01A&B&C&D-1, Building A3, Guangming Sci-Tech Park, Guan Guang Road,
Fenghuang Subdistrict, Guangming District, Shenzhen, Guangdong, China
Tel: +86-755-89486194 E-mail: ctl@ctl-lab.com

Annex for Bluetooth Low Energy

Test Report No.: CTL2604134031-WF02

TABLE OF CONTENTS

1. Bandwidth.....	2
2. Maximum Conducted Output Power.....	9
3. Maximum Power Spectral Density.....	13
4. Unwanted Emissions In Non-restricted Frequency Bands.....	17

FCC ID: 2BR98-R10

1. Bandwidth

1.1 Test Result

1.1.1 OBW

Mode	TX Type	Frequency (MHz)	ANT	99% Occupied Bandwidth (MHz)		Verdict
				Result	Limit	
1M	SISO	2402	1	1.032	/	Pass
		2440	1	1.032	/	Pass
		2480	1	1.030	/	Pass
2M	SISO	2402	1	2.055	/	Pass
		2440	1	2.062	/	Pass
		2480	1	2.064	/	Pass

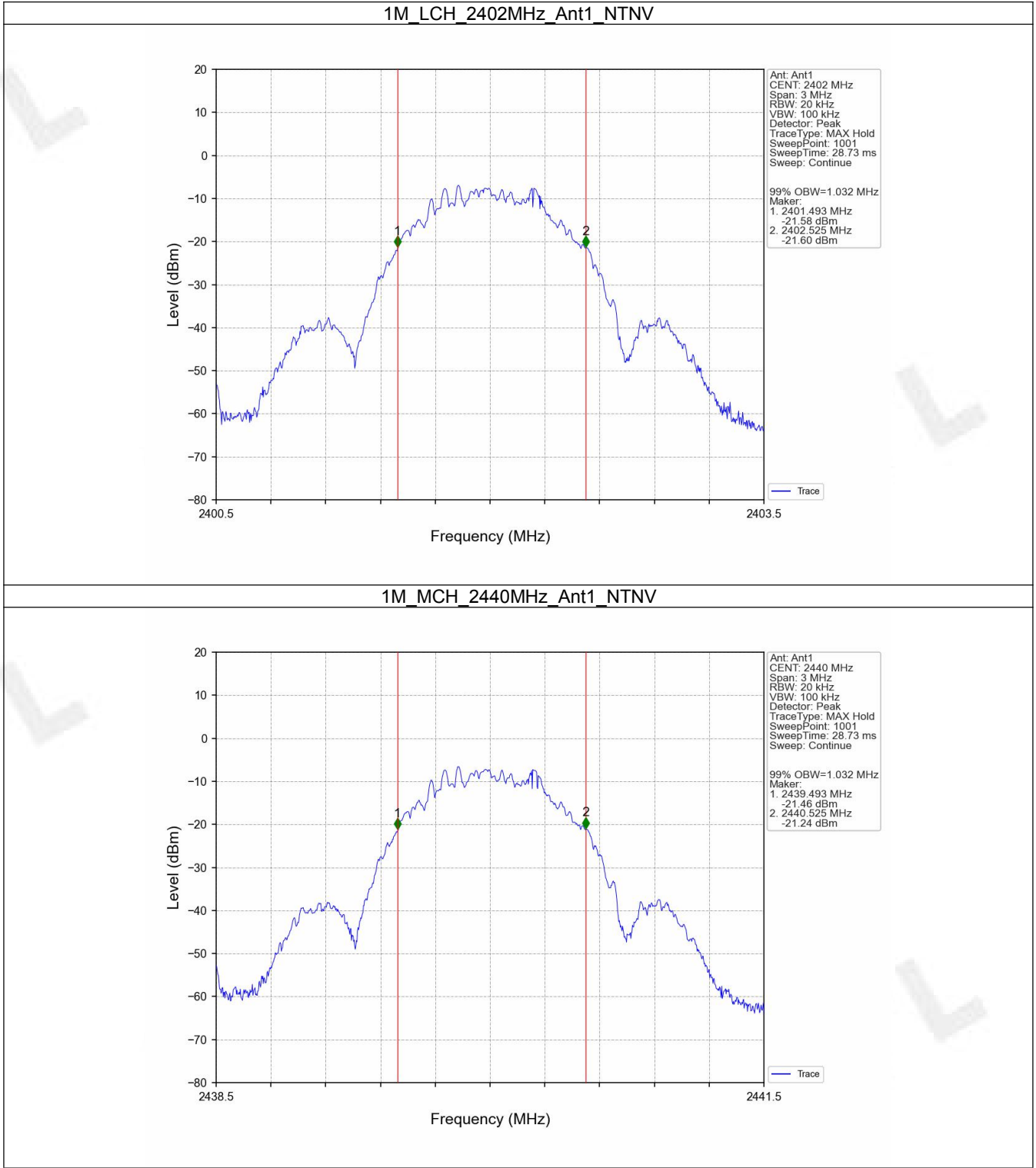
1.1.2 6dB BW

Mode	TX Type	Frequency (MHz)	ANT	6dB Bandwidth (MHz)		Verdict
				Result	Limit	
1M	SISO	2402	1	0.664	≥ 0.5	Pass
		2440	1	0.663	≥ 0.5	Pass
		2480	1	0.662	≥ 0.5	Pass
2M	SISO	2402	1	1.191	≥ 0.5	Pass
		2440	1	1.188	≥ 0.5	Pass
		2480	1	1.190	≥ 0.5	Pass

FCC ID: 2BR98-R10

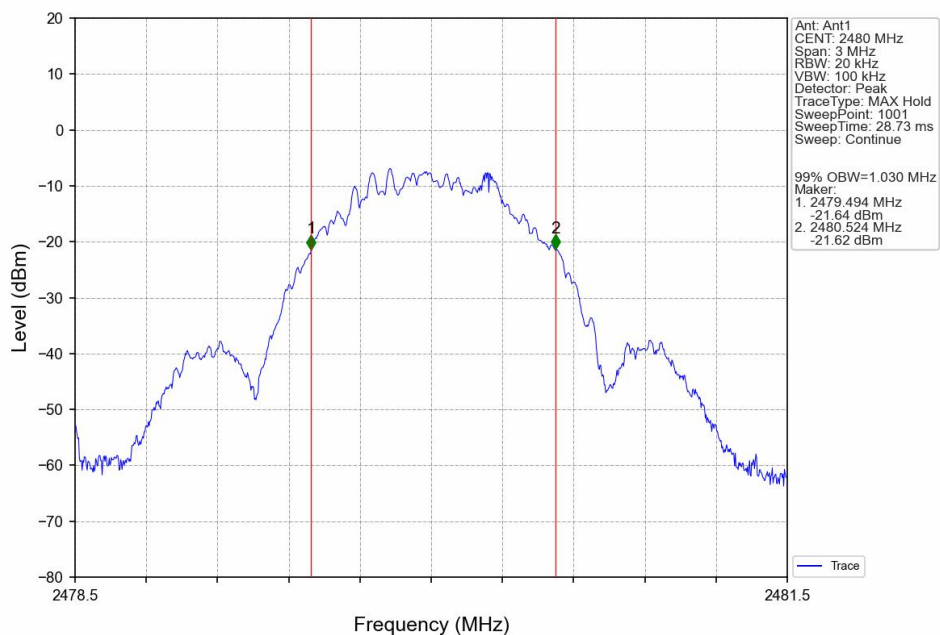
1.2 Test Graph

1.2.1 OBW

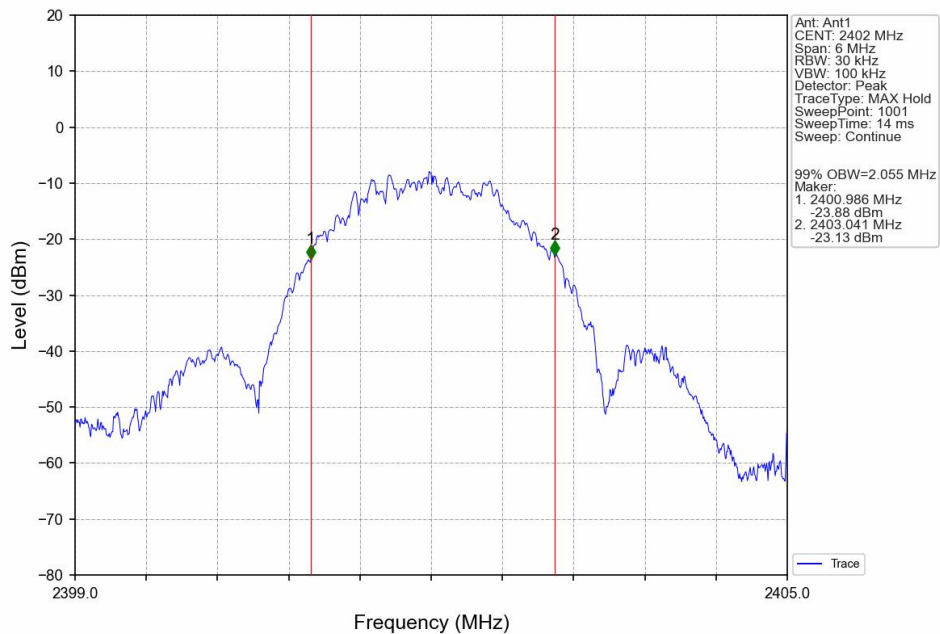


FCC ID: 2BR98-R10

1M_HCH_2480MHz_Ant1_NTNV

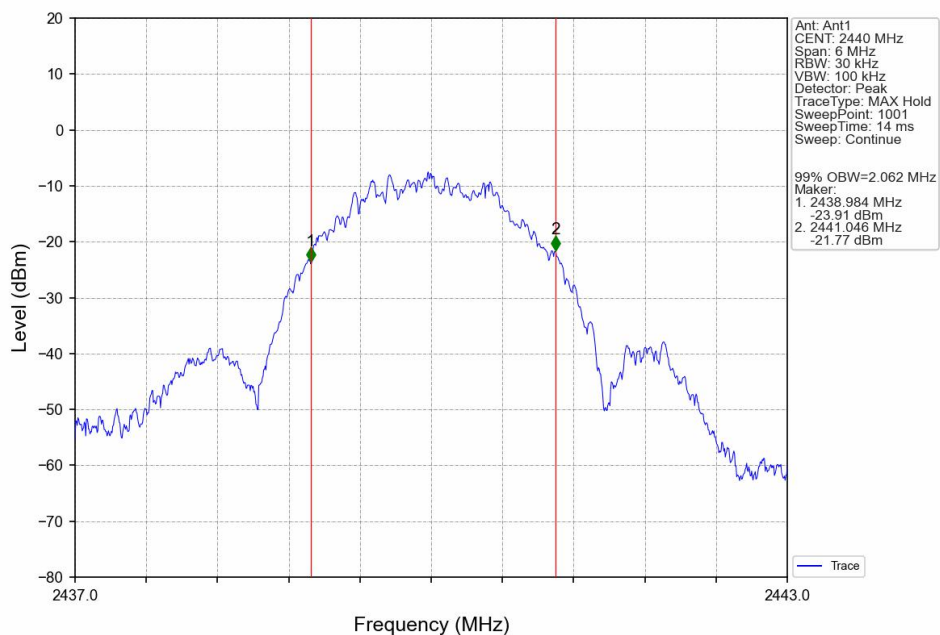


2M_LCH_2402MHz_Ant1_NTNV

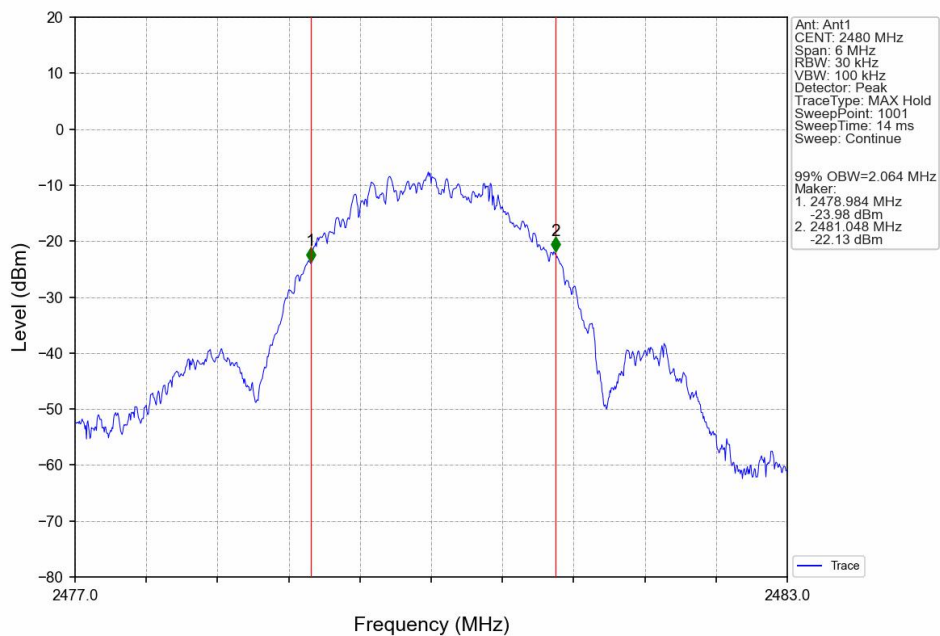


FCC ID: 2BR98-R10

2M_MCH_2440MHz_Ant1_NTNV

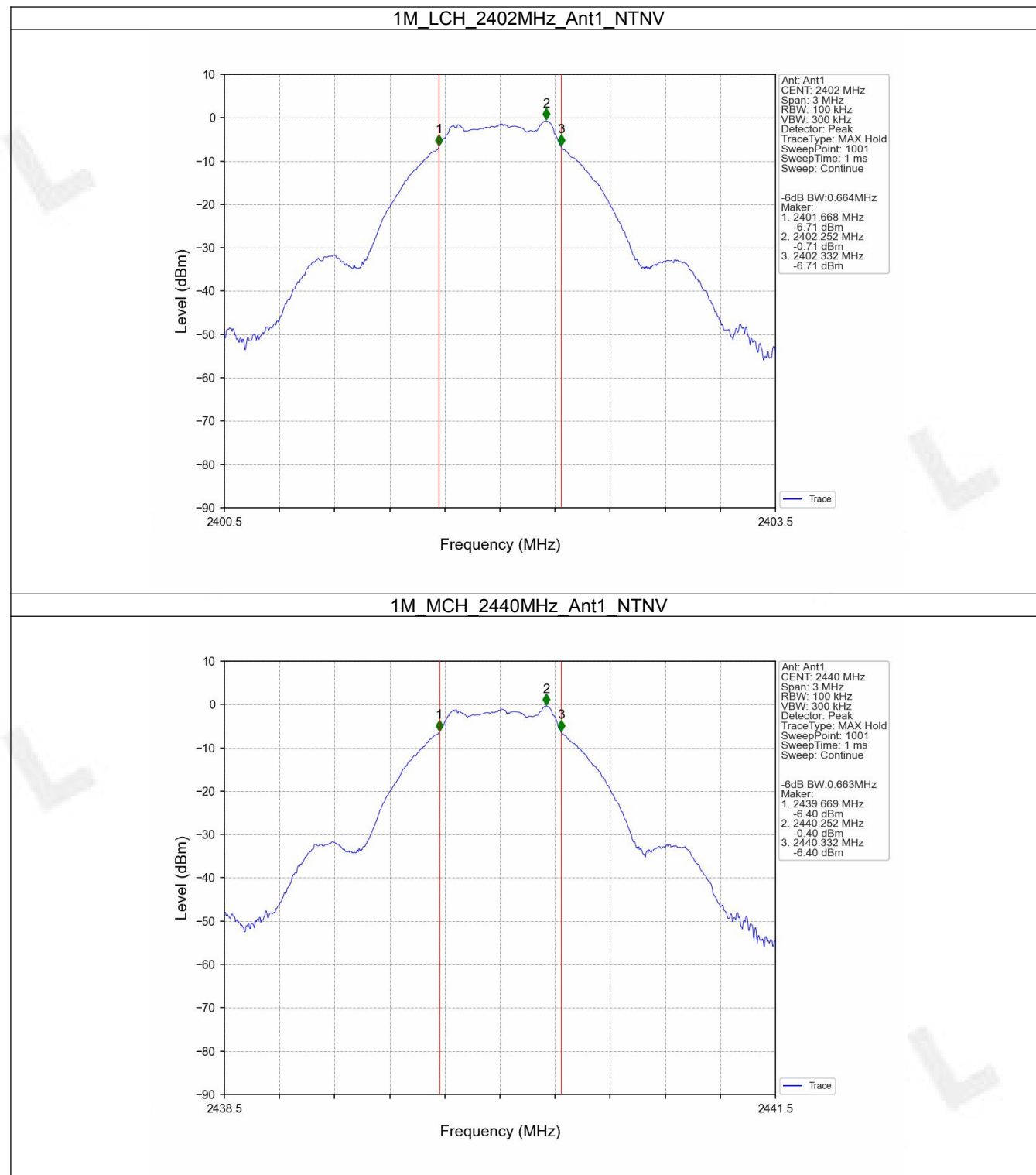


2M_HCH_2480MHz_Ant1_NTNV

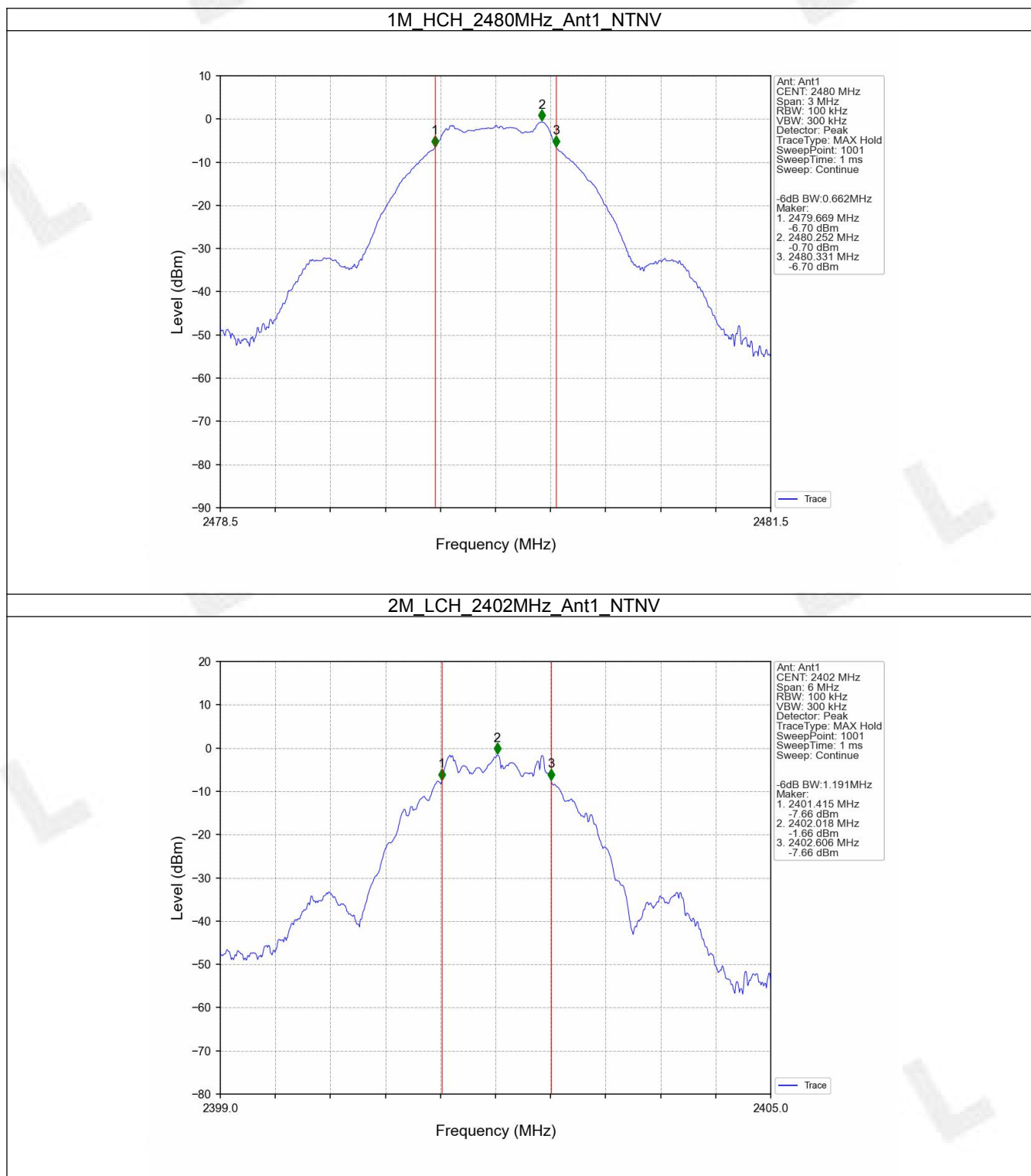


FCC ID: 2BR98-R10

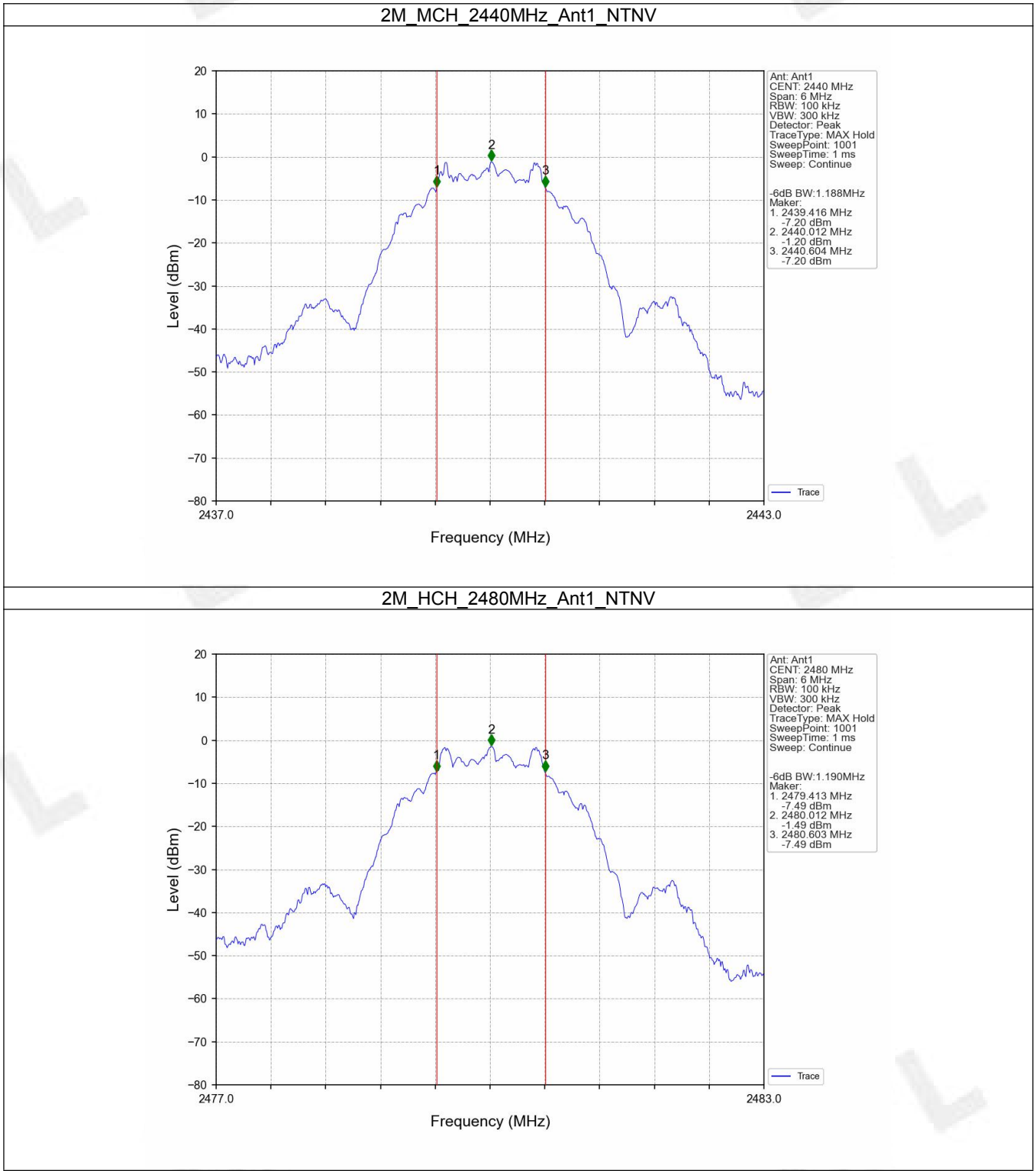
1.2.2 6dB BW



FCC ID: 2BR98-R10



FCC ID: 2BR98-R10



FCC ID: 2BR98-R10

2. Maximum Conducted Output Power

2.1 Test Result

2.1.1 Power

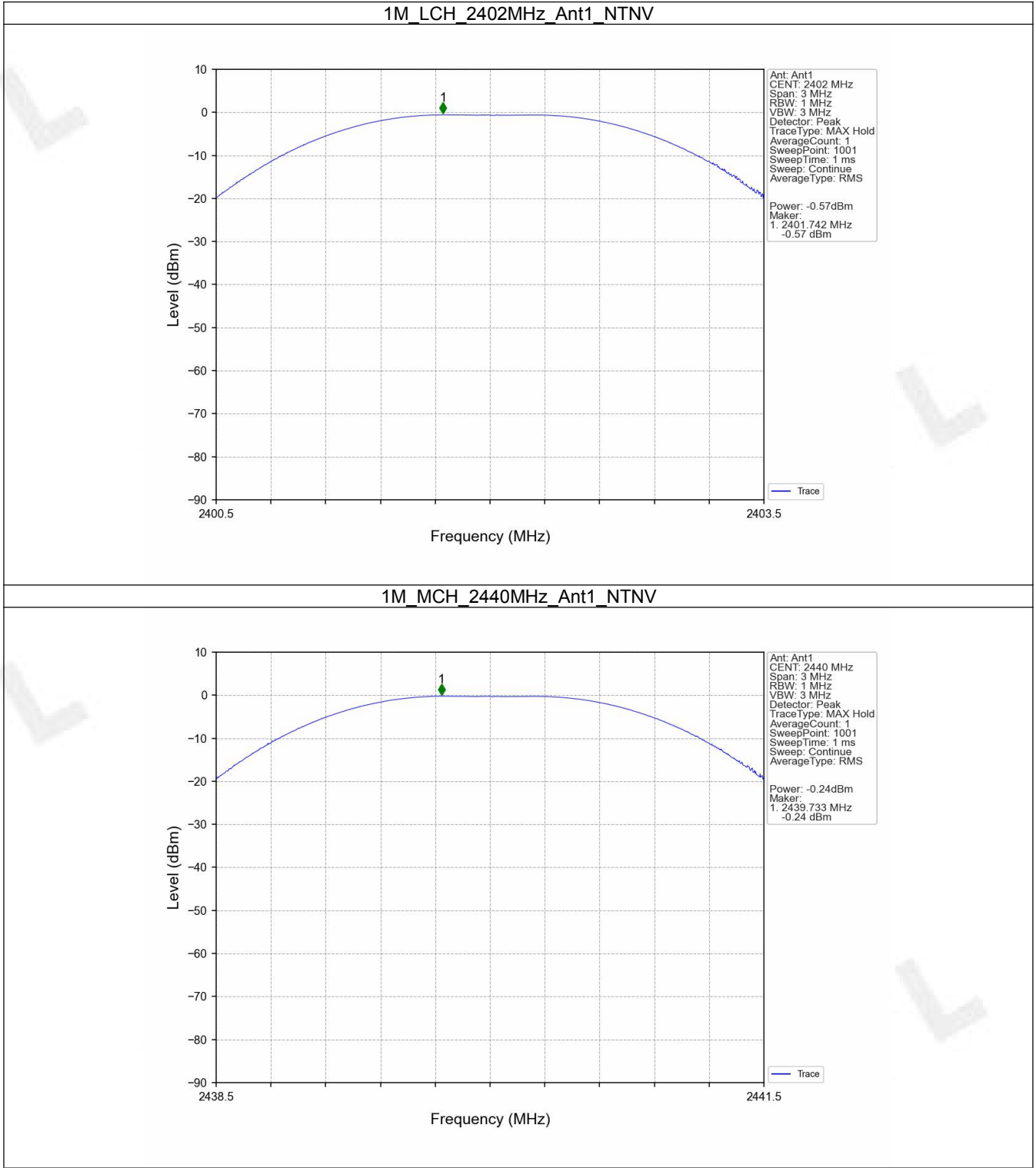
Mode	TX Type	Frequency (MHz)	Maximum Peak Conducted Output Power (dBm)		Verdict
			ANT1	Limit	
1M	SISO	2402	-0.57	<=30	Pass
		2440	-0.24	<=30	Pass
		2480	-0.57	<=30	Pass
2M	SISO	2402	-0.45	<=30	Pass
		2440	-0.08	<=30	Pass
		2480	-0.44	<=30	Pass

Note1: Antenna Gain: Ant1: -0.58dBi;

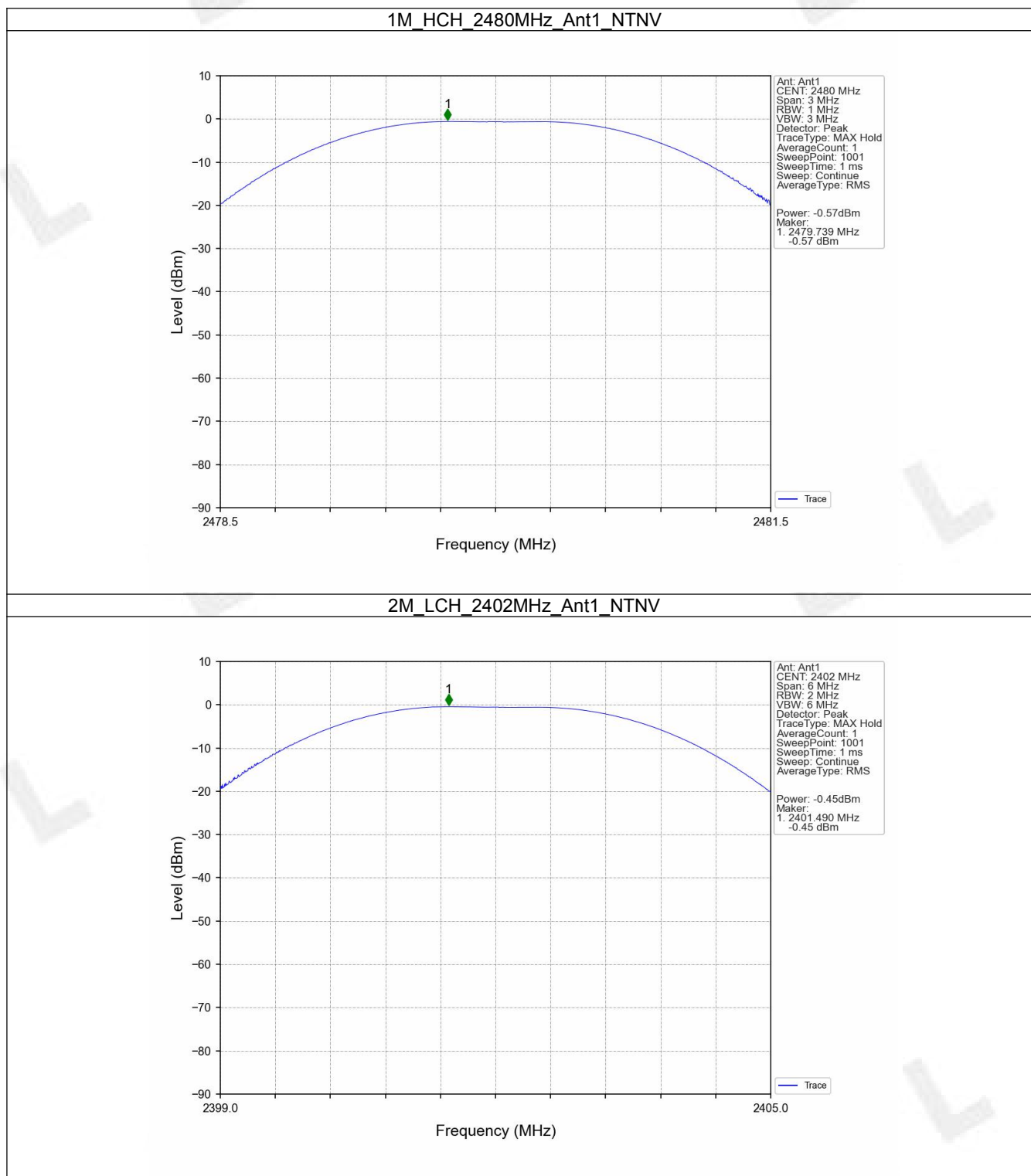
FCC ID: 2BR98-R10

2.2 Test Graph

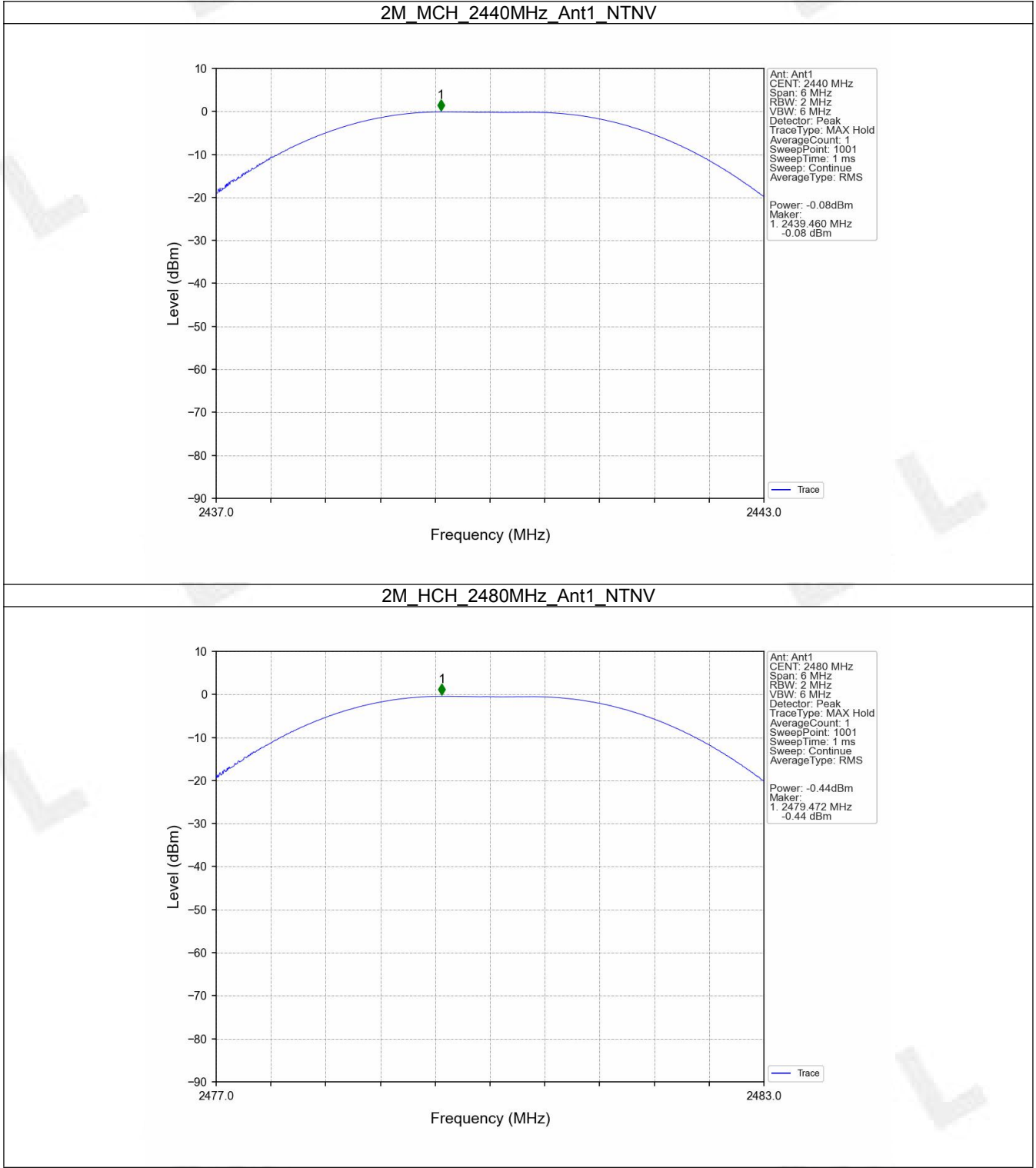
2.2.1 Power



FCC ID: 2BR98-R10



FCC ID: 2BR98-R10



FCC ID: 2BR98-R10

3. Maximum Power Spectral Density

3.1 Test Result

3.1.1 PSD

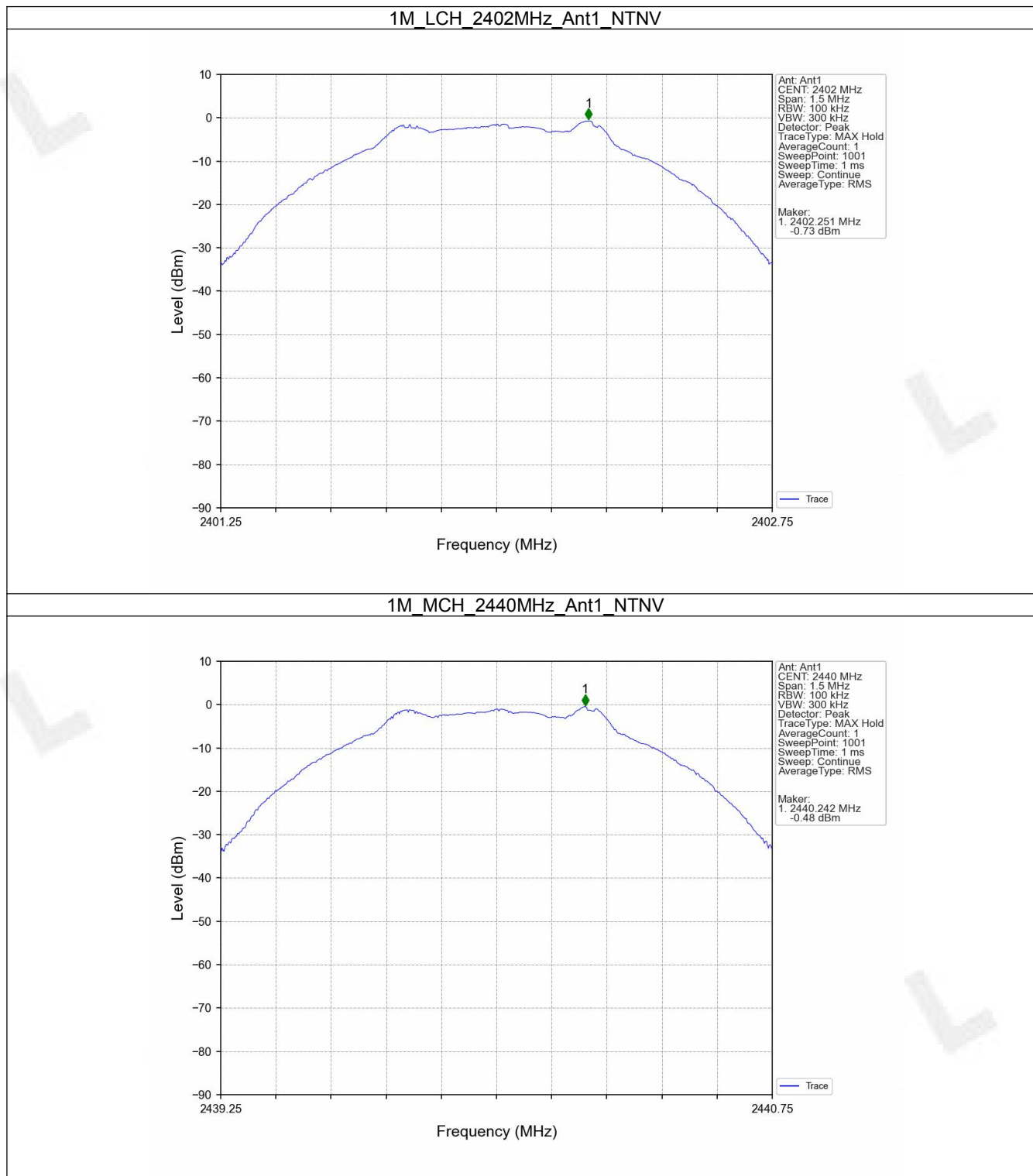
Mode	TX Type	Frequency (MHz)	Maximum PSD (dBm)		Verdict
			ANT1	Limit(dBm/3kHz)	
1M	SISO	2402	-0.73	<=8	Pass
		2440	-0.48	<=8	Pass
		2480	-0.72	<=8	Pass
2M	SISO	2402	-1.54	<=8	Pass
		2440	-1.15	<=8	Pass
		2480	-1.47	<=8	Pass

Note1: Antenna Gain: Ant1: -0.58dBi;

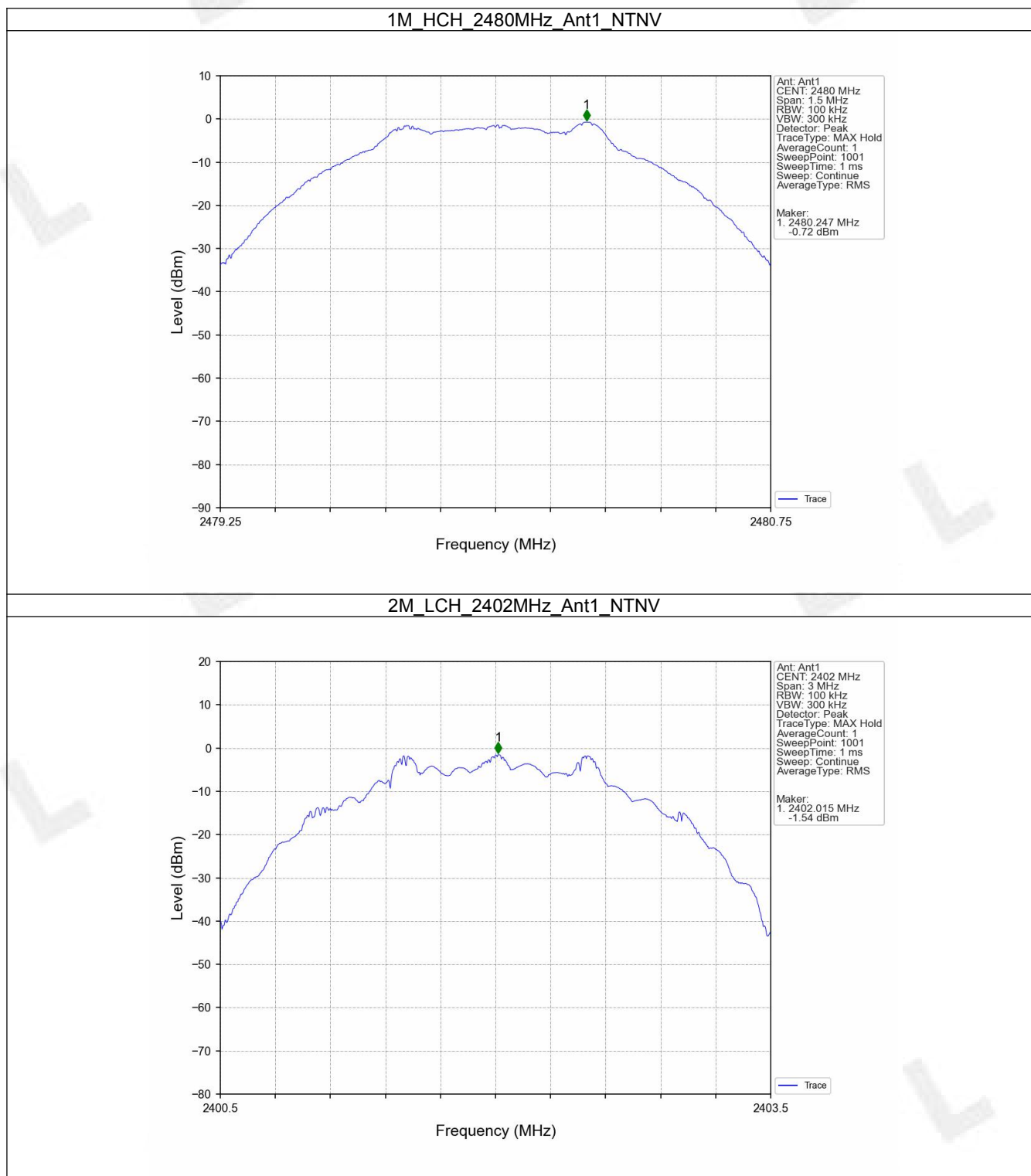
FCC ID: 2BR98-R10

3.2 Test Graph

3.2.1 PSD

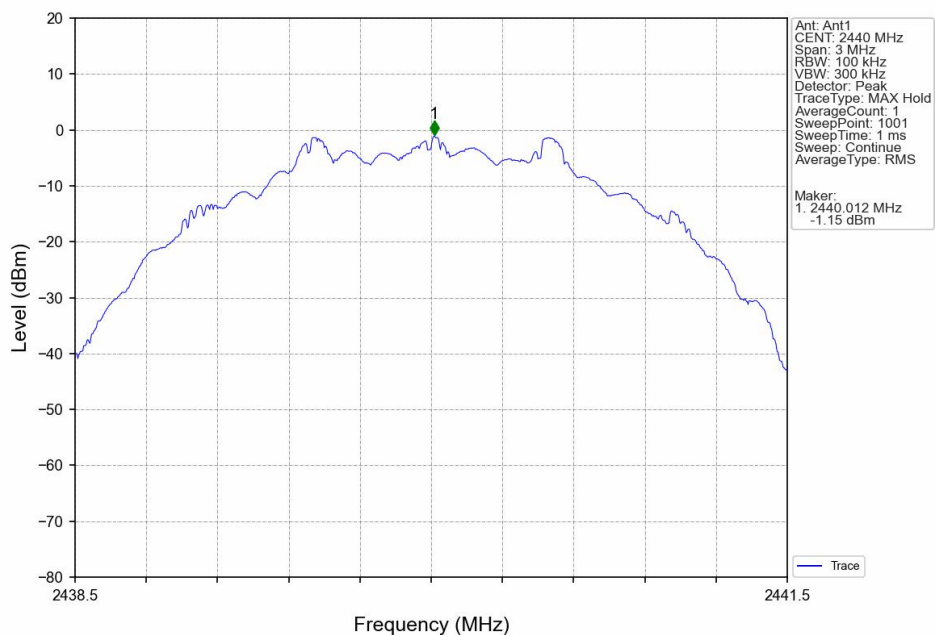


FCC ID: 2BR98-R10

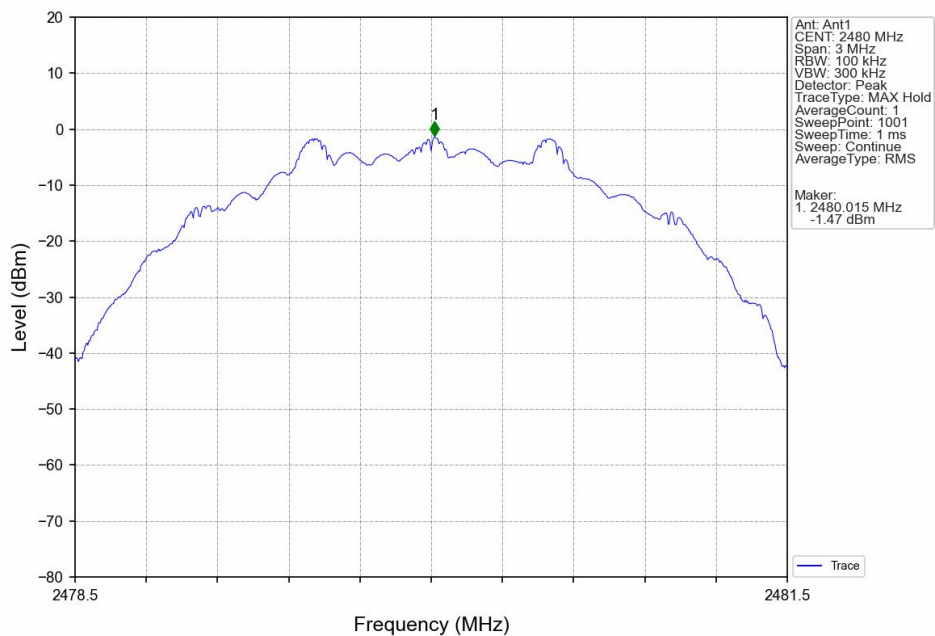


FCC ID: 2BR98-R10

2M_MCH_2440MHz_Ant1_NTNV



2M_HCH_2480MHz_Ant1_NTNV



FCC ID: 2BR98-R10

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)
1M	SISO	2402	1	-0.72
		2440	1	-0.38
		2480	1	-0.71
2M	SISO	2402	1	-1.51
		2440	1	-1.11
		2480	1	-1.46

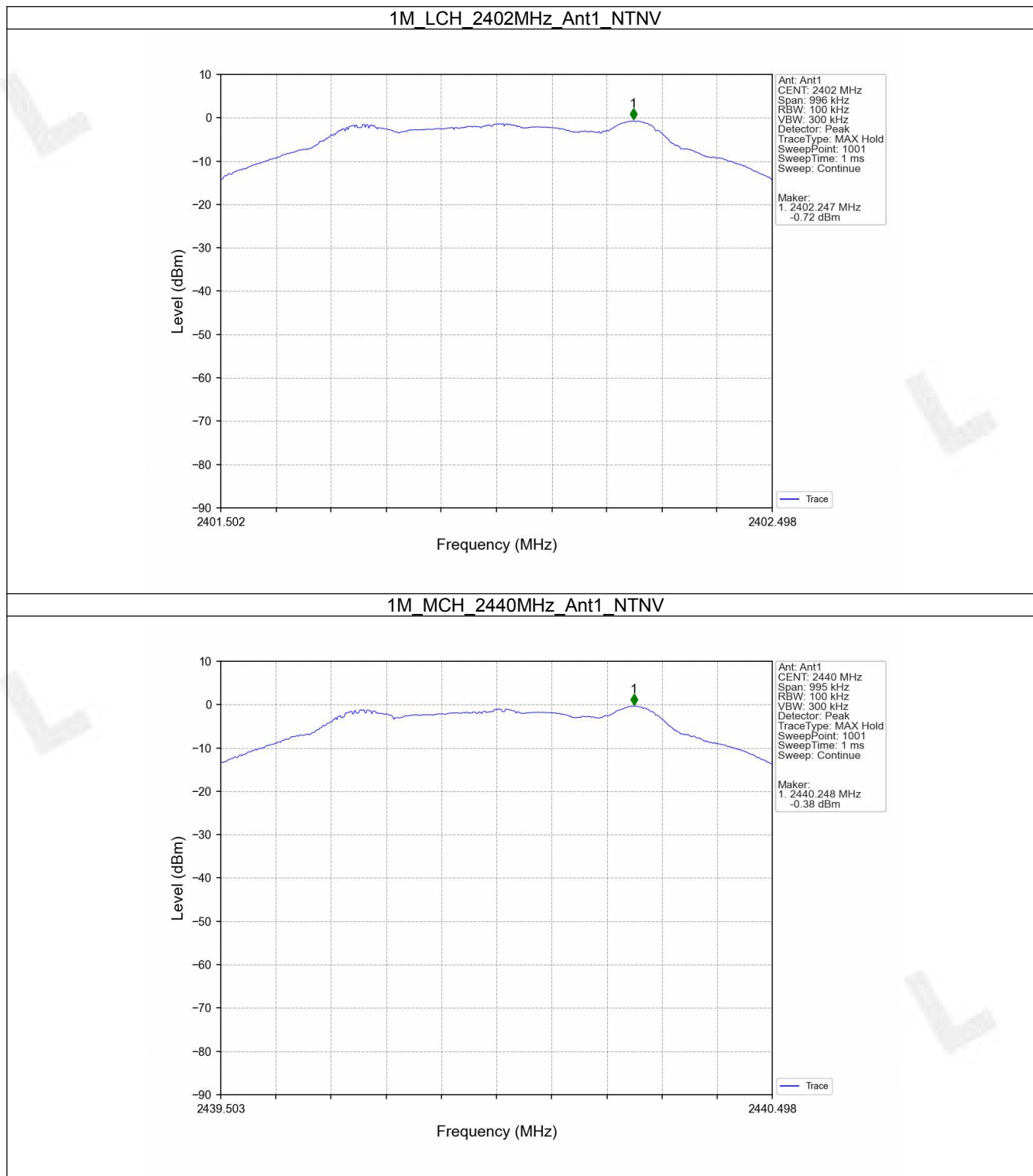
4.1.2 CSE

Mode	TX Type	Frequency (MHz)	ANT	Level of Reference (dBm)	Limit (dBm)	Verdict
1M	SISO	2402	1	-0.38	-20.38	Pass
		2440	1	-0.38	-20.38	Pass
		2480	1	-0.38	-20.38	Pass
2M	SISO	2402	1	-1.11	-21.11	Pass
		2440	1	-1.11	-21.11	Pass
		2480	1	-1.11	-21.11	Pass

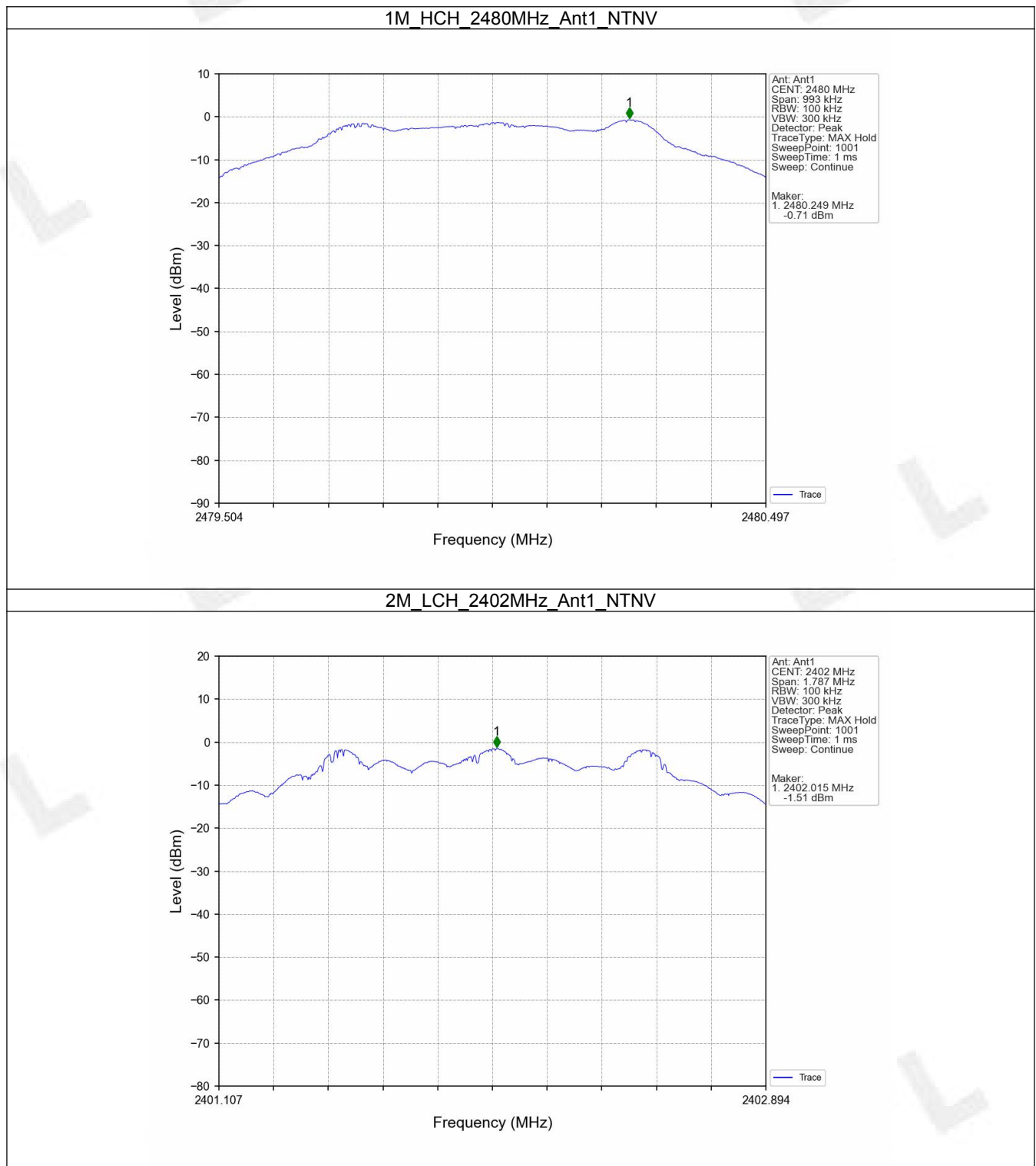
FCC ID: 2BR98-R10

4.2 Test Graph

4.2.1 Ref

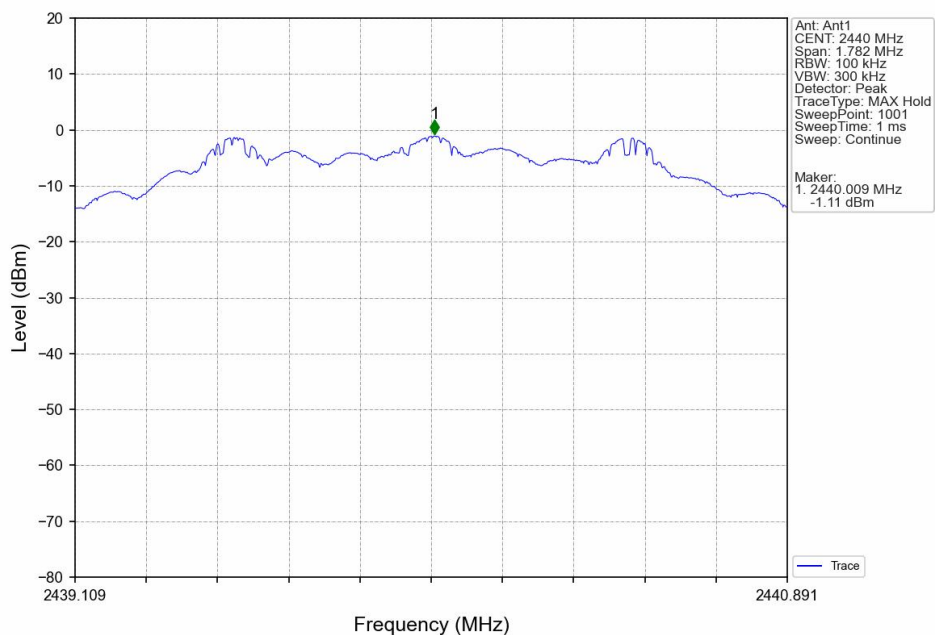


FCC ID: 2BR98-R10

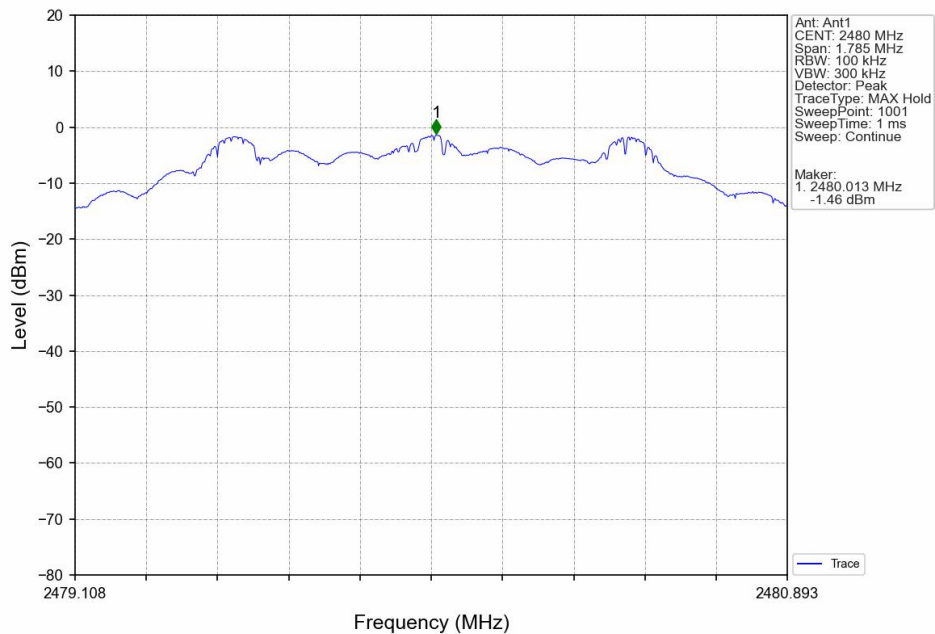


FCC ID: 2BR98-R10

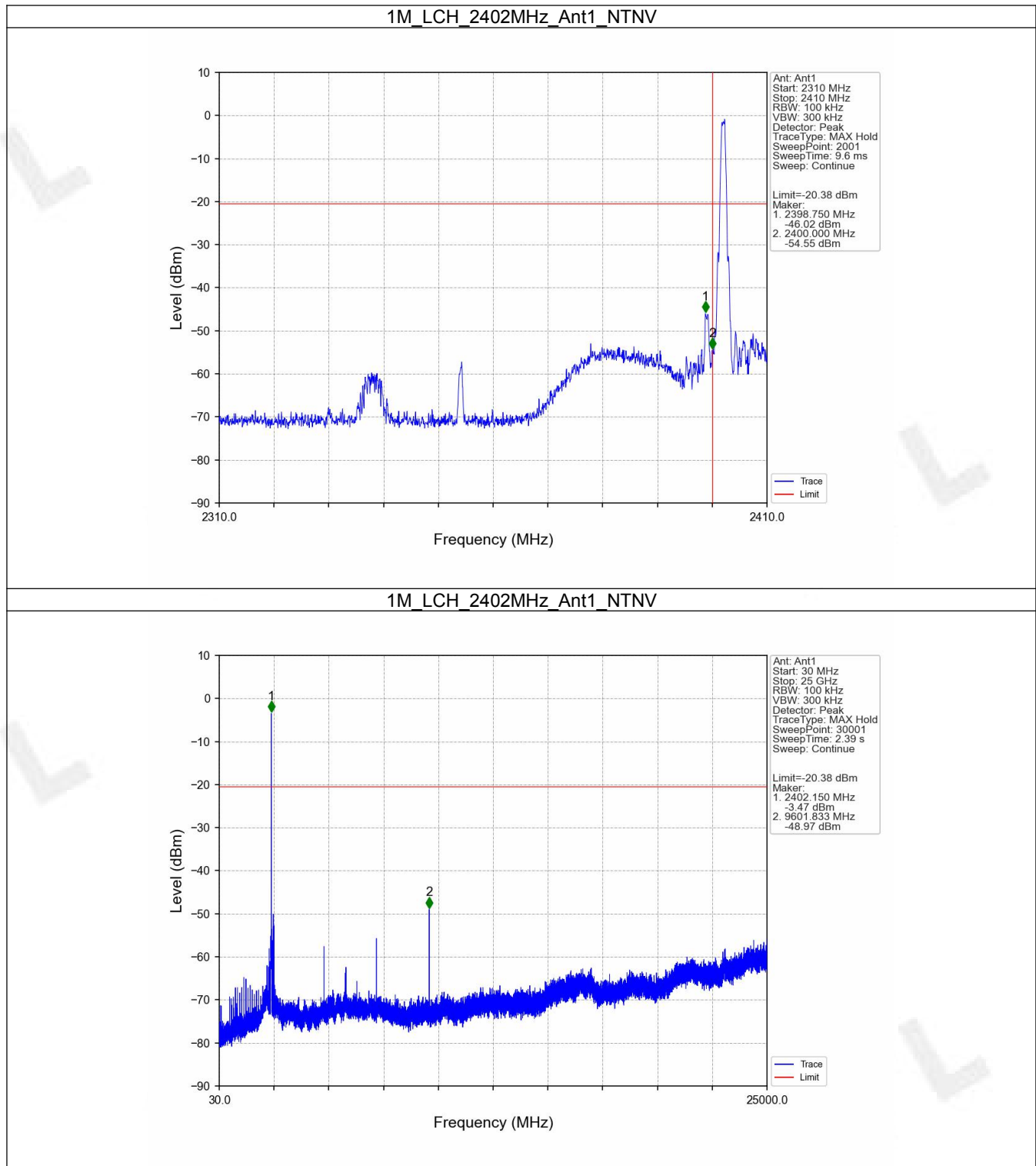
2M_MCH_2440MHz_Ant1_NTNV



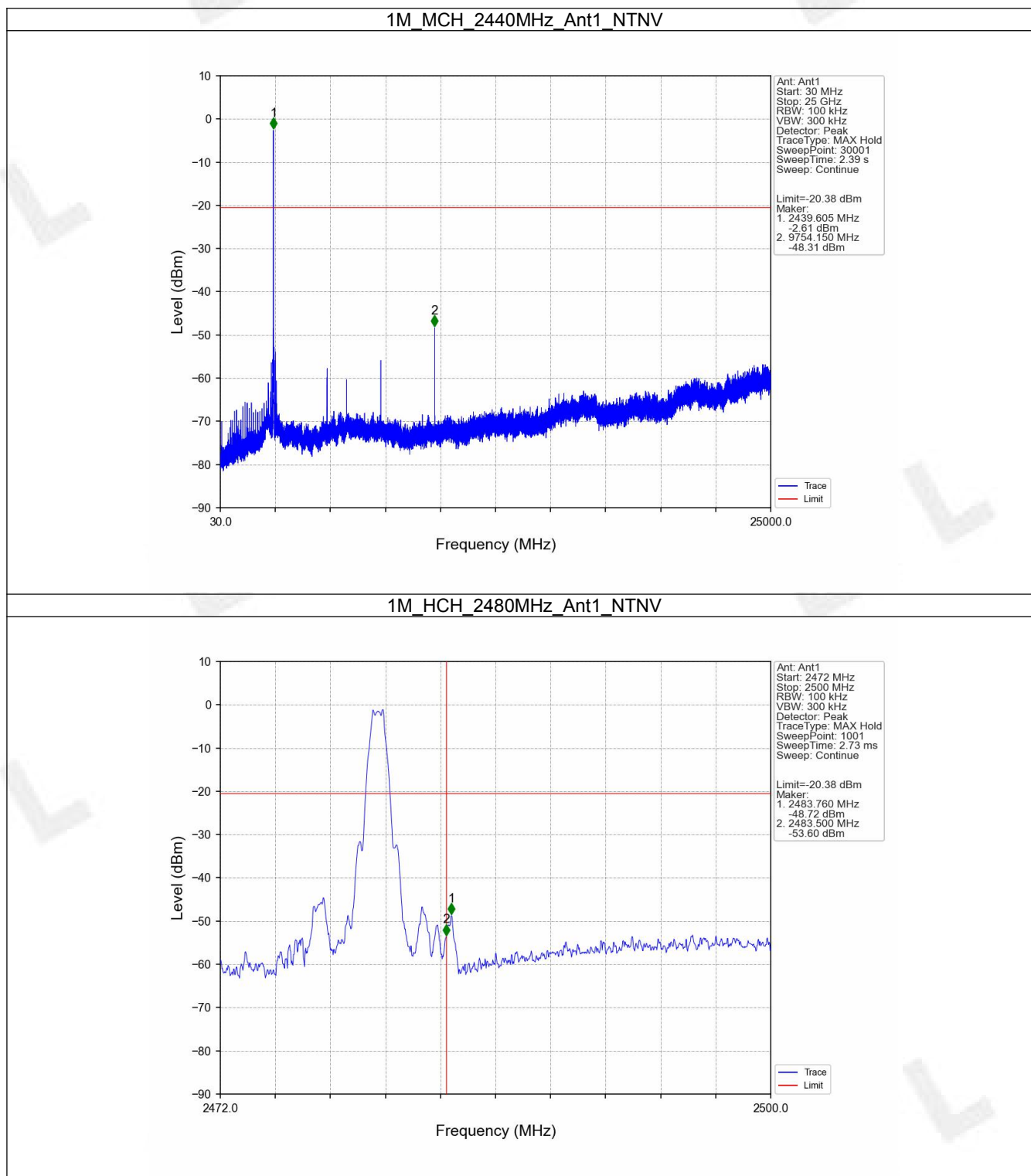
2M_HCH_2480MHz_Ant1_NTNV



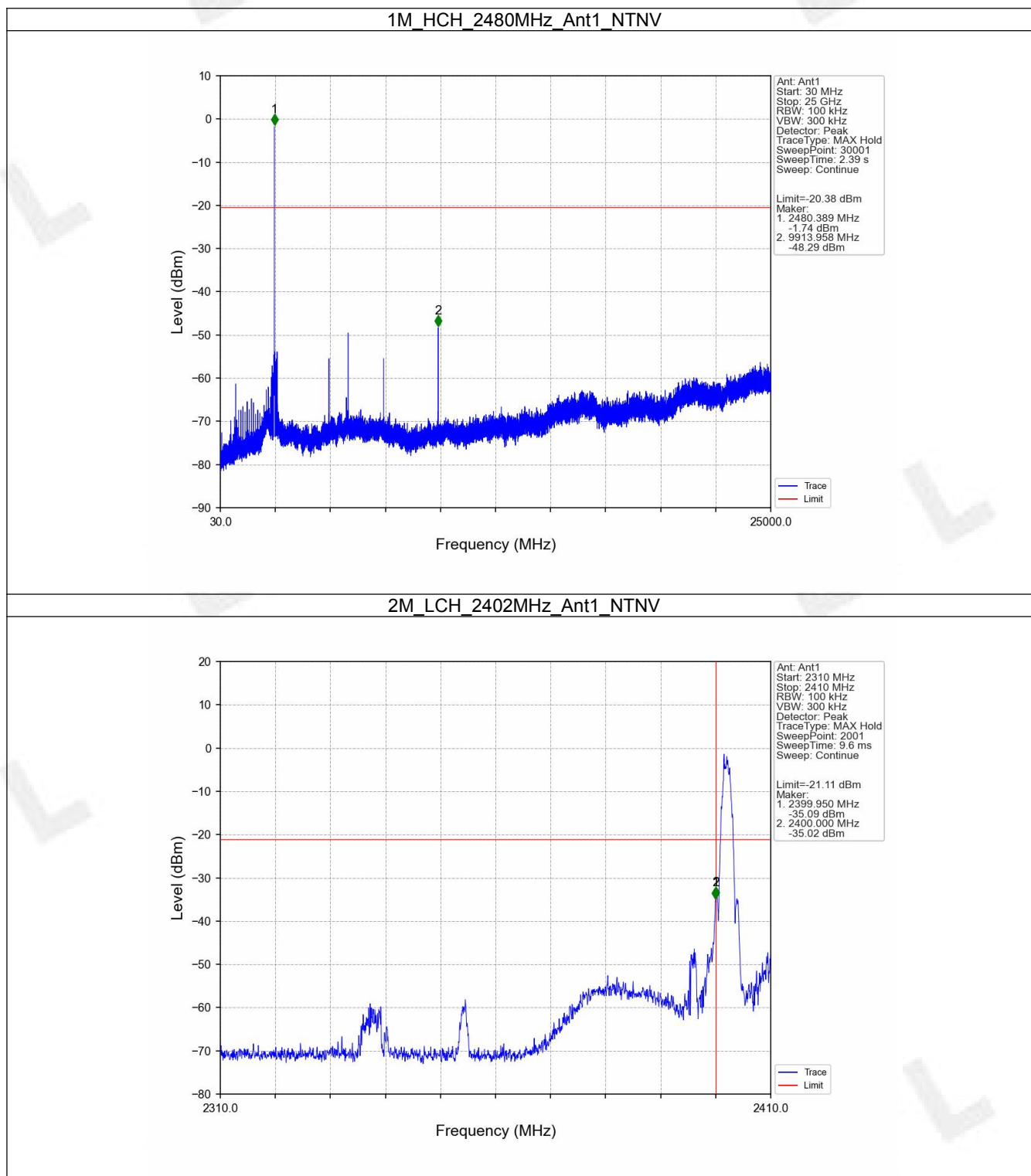
FCC ID: 2BR98-R10

4.2.2 CSE

FCC ID: 2BR98-R10

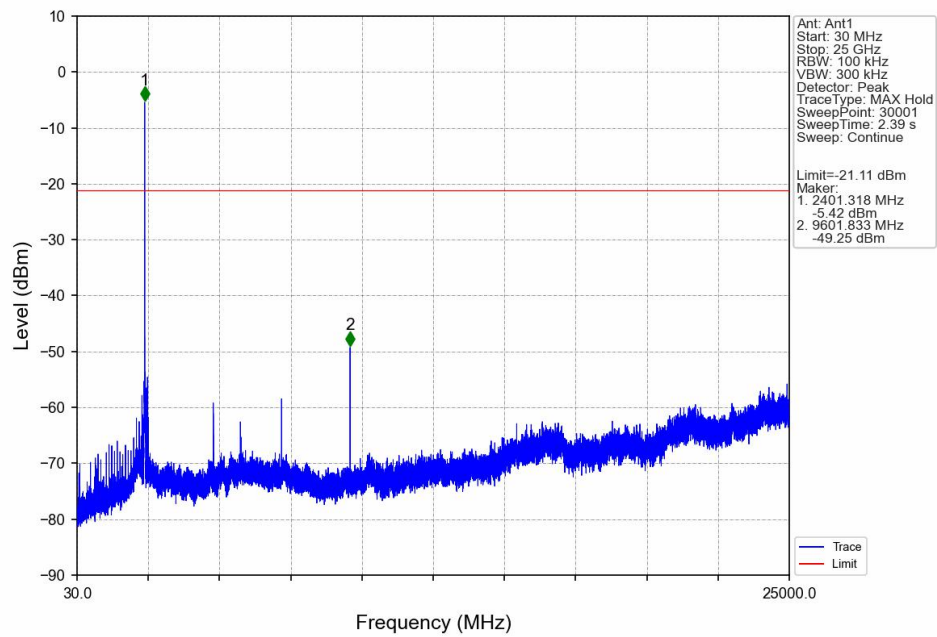


FCC ID: 2BR98-R10

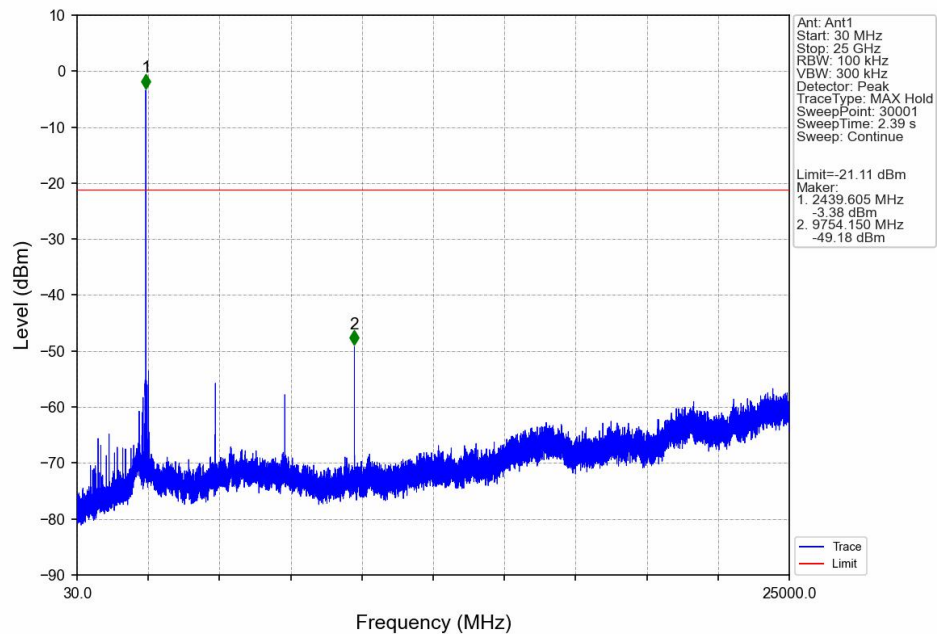


FCC ID: 2BR98-R10

2M_LCH_2402MHz_Ant1_NTNV

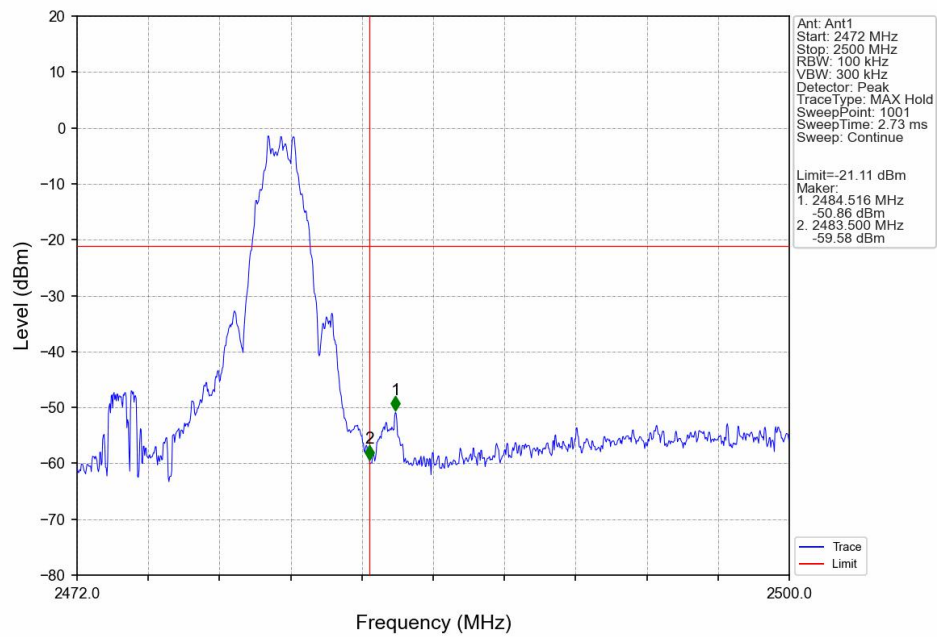


2M_MCH_2440MHz_Ant1_NTNV



FCC ID: 2BR98-R10

2M_HCH_2480MHz_Ant1_NTNV



2M_HCH_2480MHz_Ant1_NTNV

