



Shenzhen CTL Testing Technology Co., Ltd.

Floor 1-A, Baisha Technology Park, No.3011, Shahexi Road, Nanshan District, Shenzhen, China 518055

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

Annex for BLE

Test Report No.:CTL2503262194-WF02

TABLE OF CONTENTS

1. Bandwidth	3
1.1 Test Result	3
1.1.1 OBW	3
1.1.2 6dB BW	3
1.2 Test Graph	4
1.2.1 OBW	4
1.2.2 6dB BW	7
2. Maximum Conducted Output Power	10
2.1 Test Result	10
2.1.1 Power	10
2.2 Test Graph	11
2.2.1 Power	11
3. Maximum Power Spectral Density	14
3.1 Test Result	14
3.1.1 PSD	14
3.2 Test Graph	15
3.2.1 PSD	15
4. Unwanted Emissions In Non-restricted Frequency Bands	18
4.1 Test Result	18

FCCID: 2ASC7FX6X00

4.1.1 Ref.....	18
4.1.2 CSE.....	18
4.2 Test Graph.....	19
4.2.1 Ref.....	19
4.2.2 CSE.....	22

FCCID: 2ASC7FX6X00

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	1.021	/	Pass
		2440	1	1.020	/	Pass
		2480	1	1.023	/	Pass
2M	SISO	2402	1	2.047	/	Pass
		2440	1	2.047	/	Pass
		2480	1	2.039	/	Pass

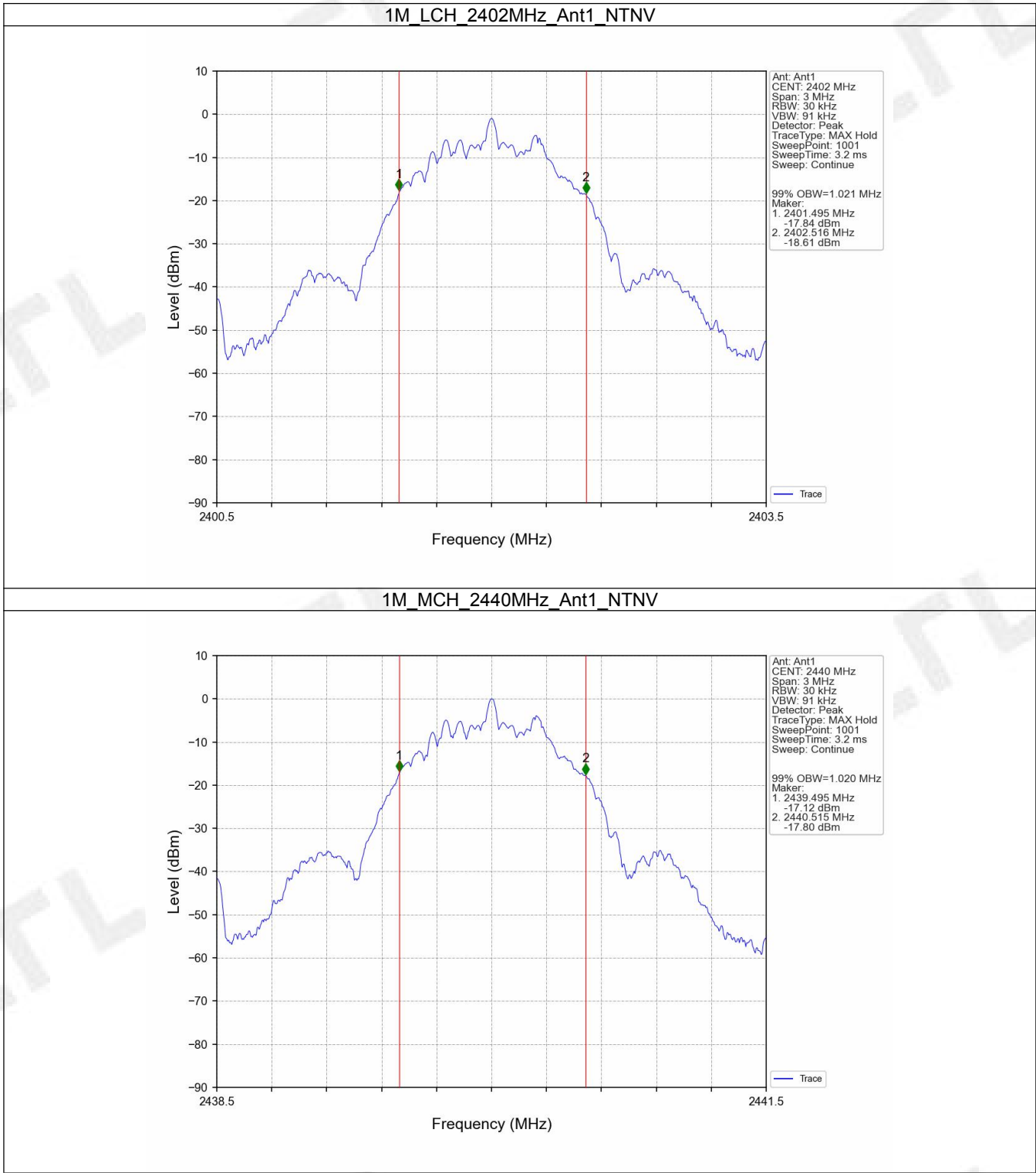
1.1.2 6dB BW

Mode	TX Type	Frequency (MHz)	ANT	6dB Bandwidth (MHz)		Verdict
				Result	Limit	
1M	SISO	2402	1	0.672	≥ 0.5	Pass
		2440	1	0.668	≥ 0.5	Pass
		2480	1	0.660	≥ 0.5	Pass
2M	SISO	2402	1	1.156	≥ 0.5	Pass
		2440	1	1.152	≥ 0.5	Pass
		2480	1	1.144	≥ 0.5	Pass

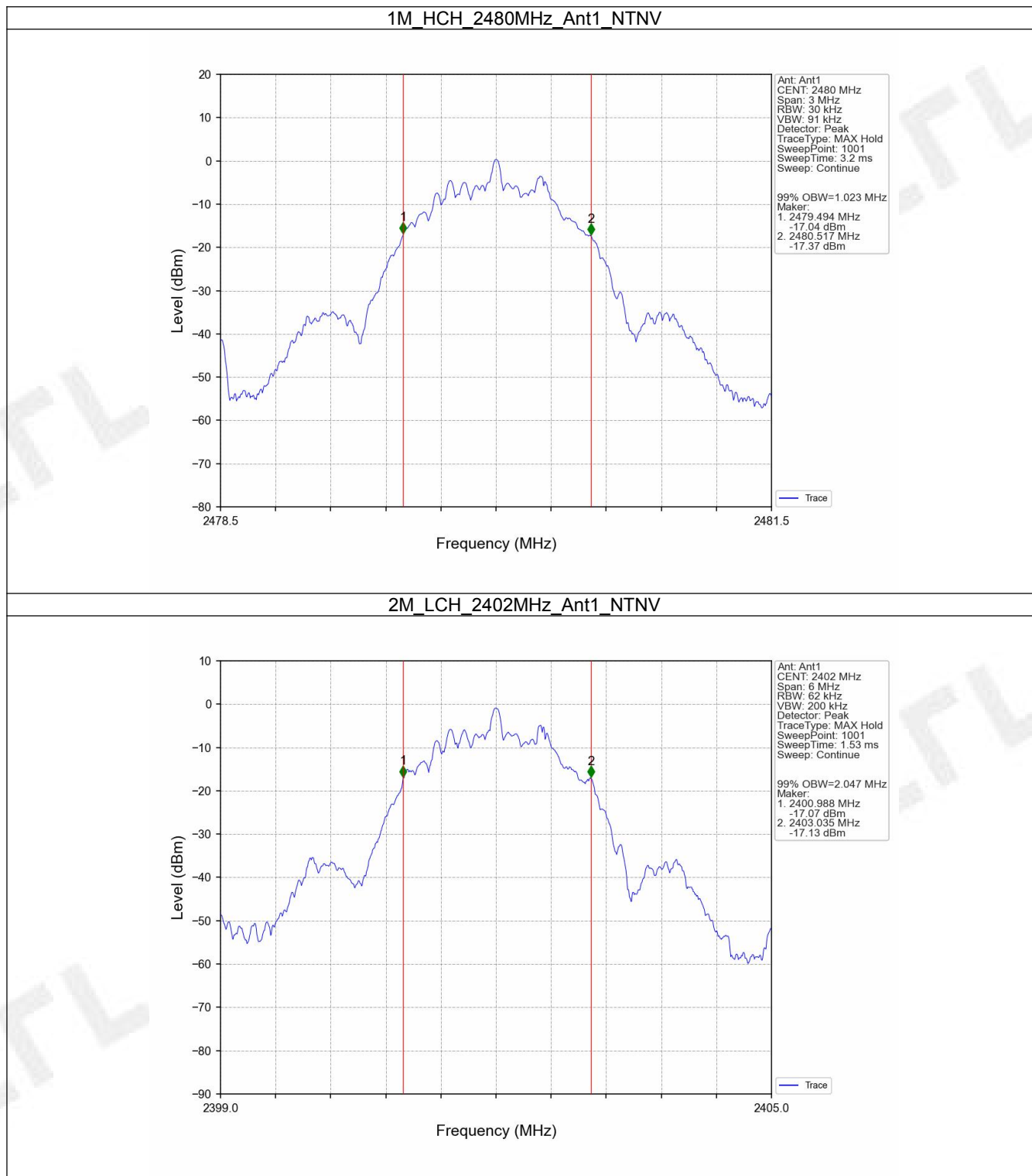
FCCID: 2ASC7FX6X00

1.2 Test Graph

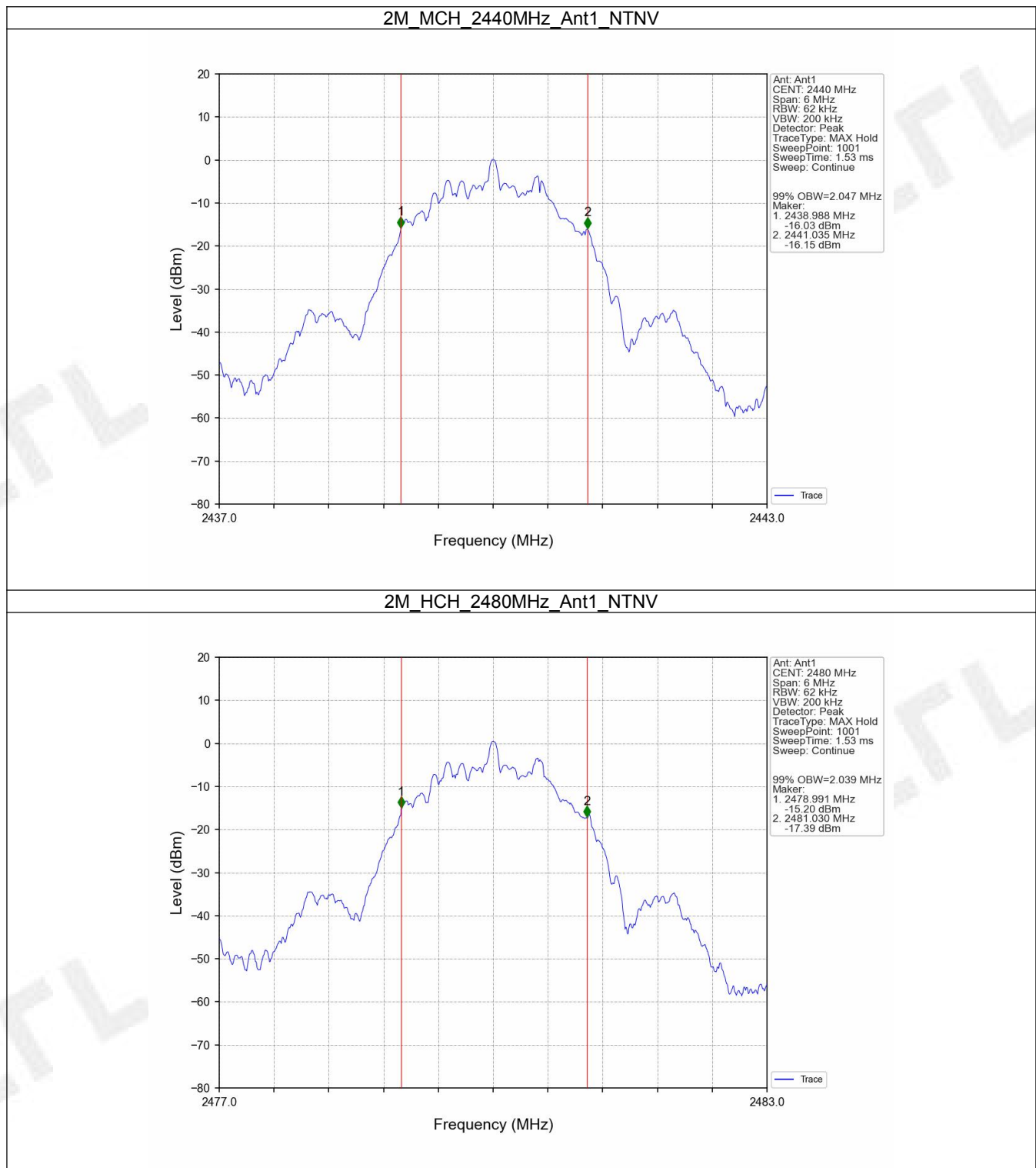
1.2.1 OBW



FCCID: 2ASC7FX6X00

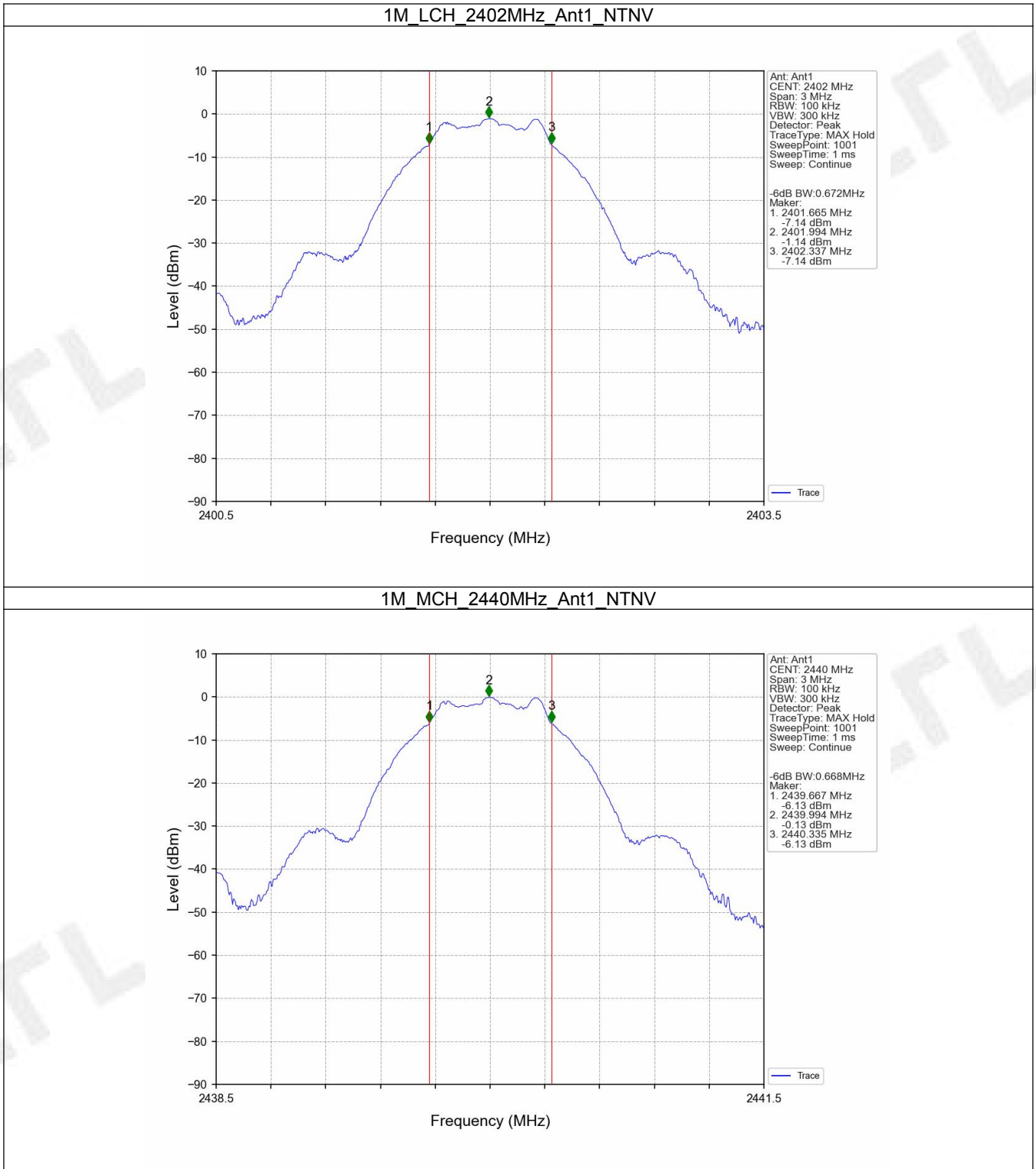


FCCID: 2ASC7FX6X00

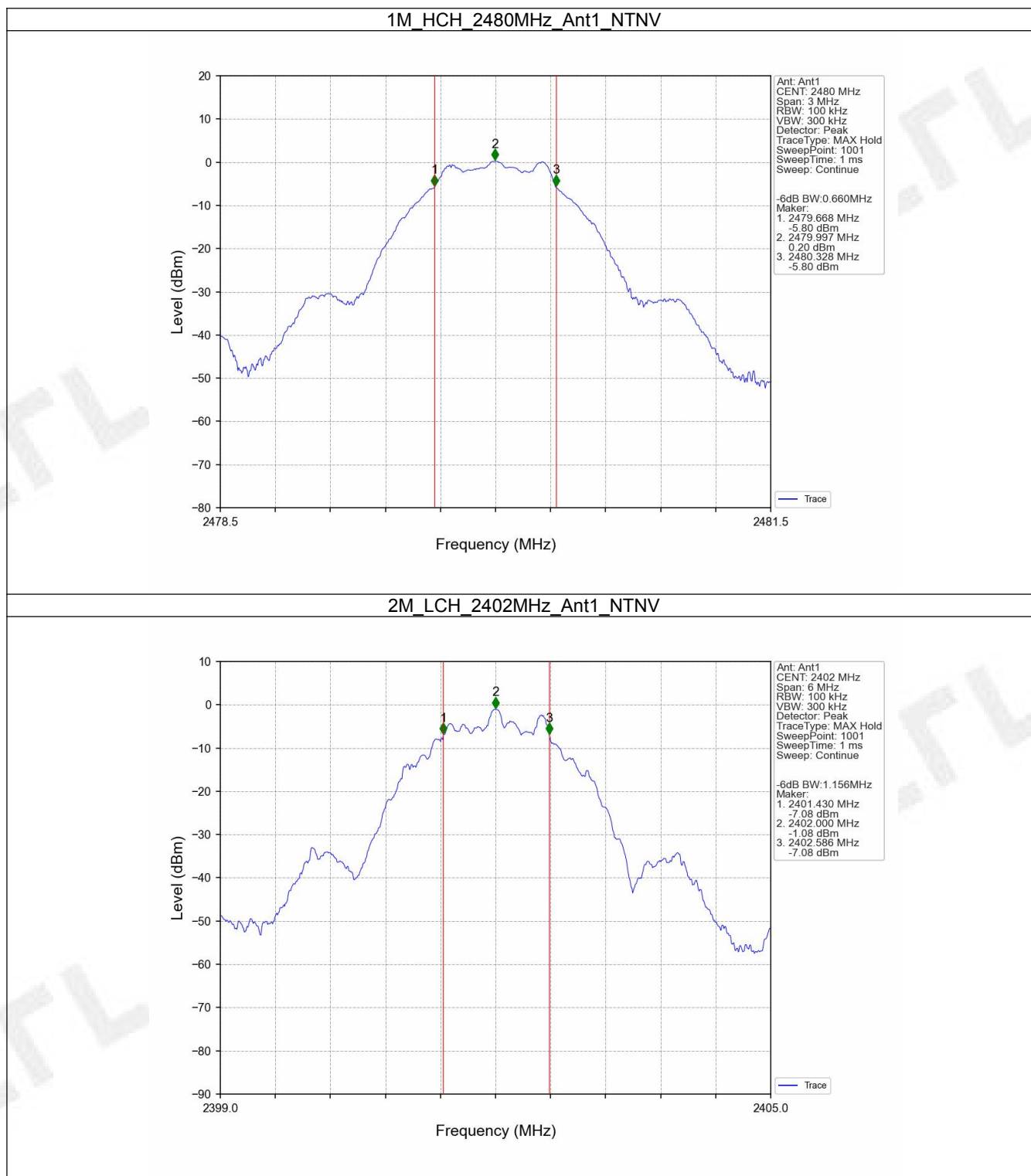


FCCID: 2ASC7FX6X00

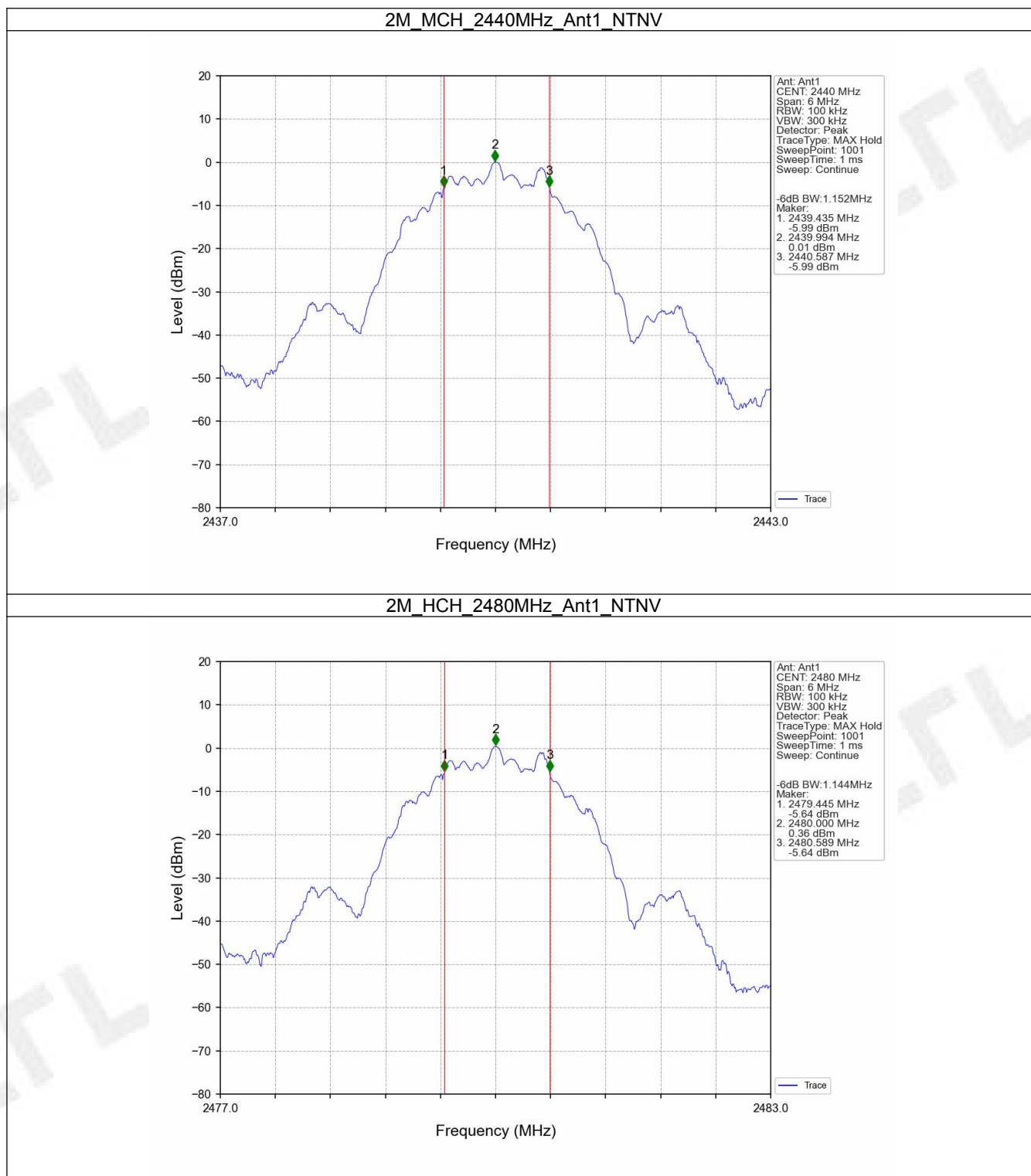
1.2.2 6dB BW



FCCID: 2ASC7FX6X00



FCCID: 2ASC7FX6X00



FCCID: 2ASC7FX6X00

2. Maximum Conducted Output Power

2.1 Test Result

2.1.1 Power

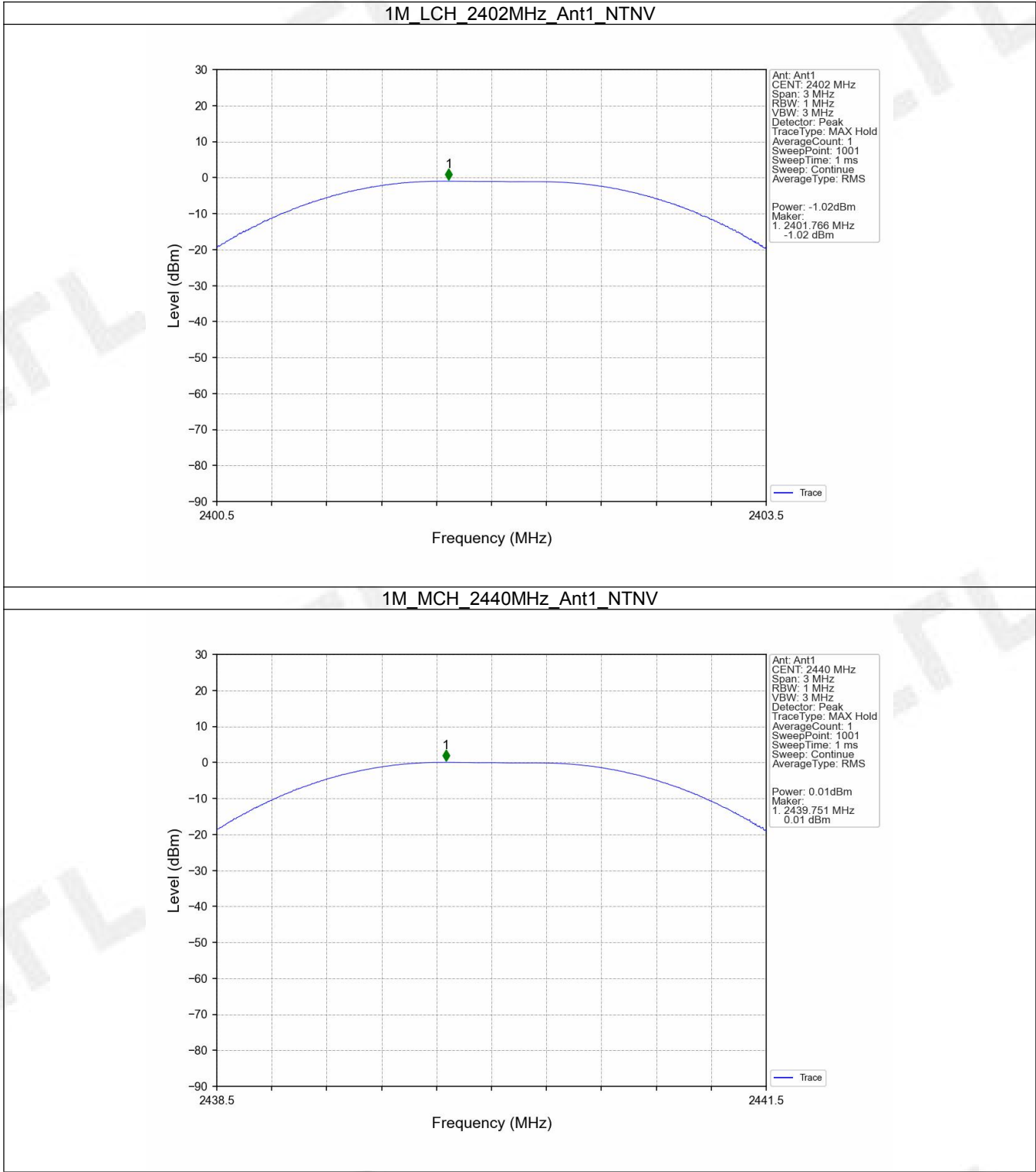
Mode	TX Type	Frequency (MHz)	Maximum Peak Conducted Output Power (dBm)		Verdict
			ANT1	Limit	
1M	SISO	2402	-1.02	<=30	Pass
		2440	0.01	<=30	Pass
		2480	0.34	<=30	Pass
2M	SISO	2402	-0.91	<=30	Pass
		2440	0.18	<=30	Pass
		2480	0.54	<=30	Pass

Note1: Antenna Gain: Ant1: 2.75dBi;

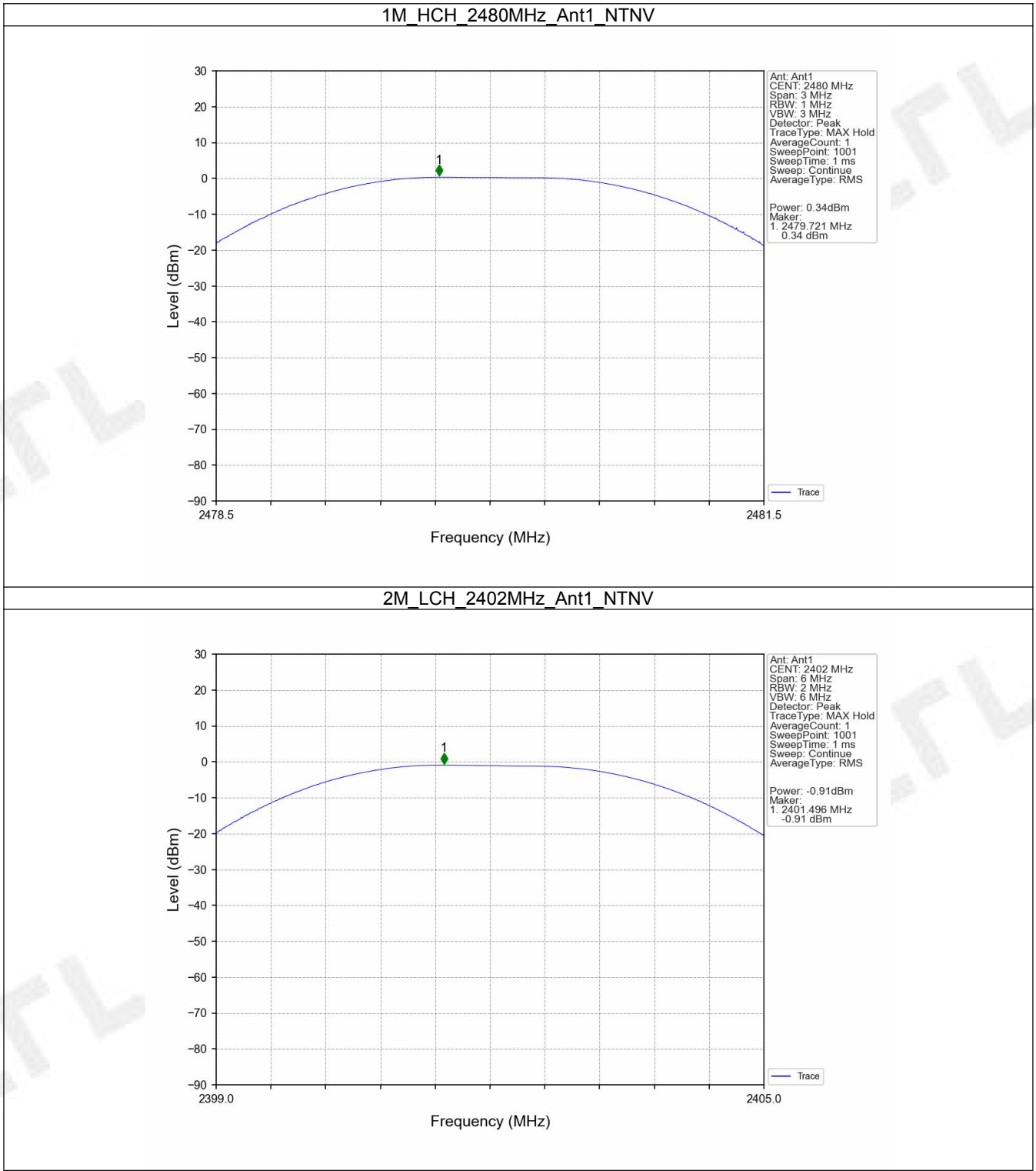
FCCID: 2ASC7FX6X00

2.2 Test Graph

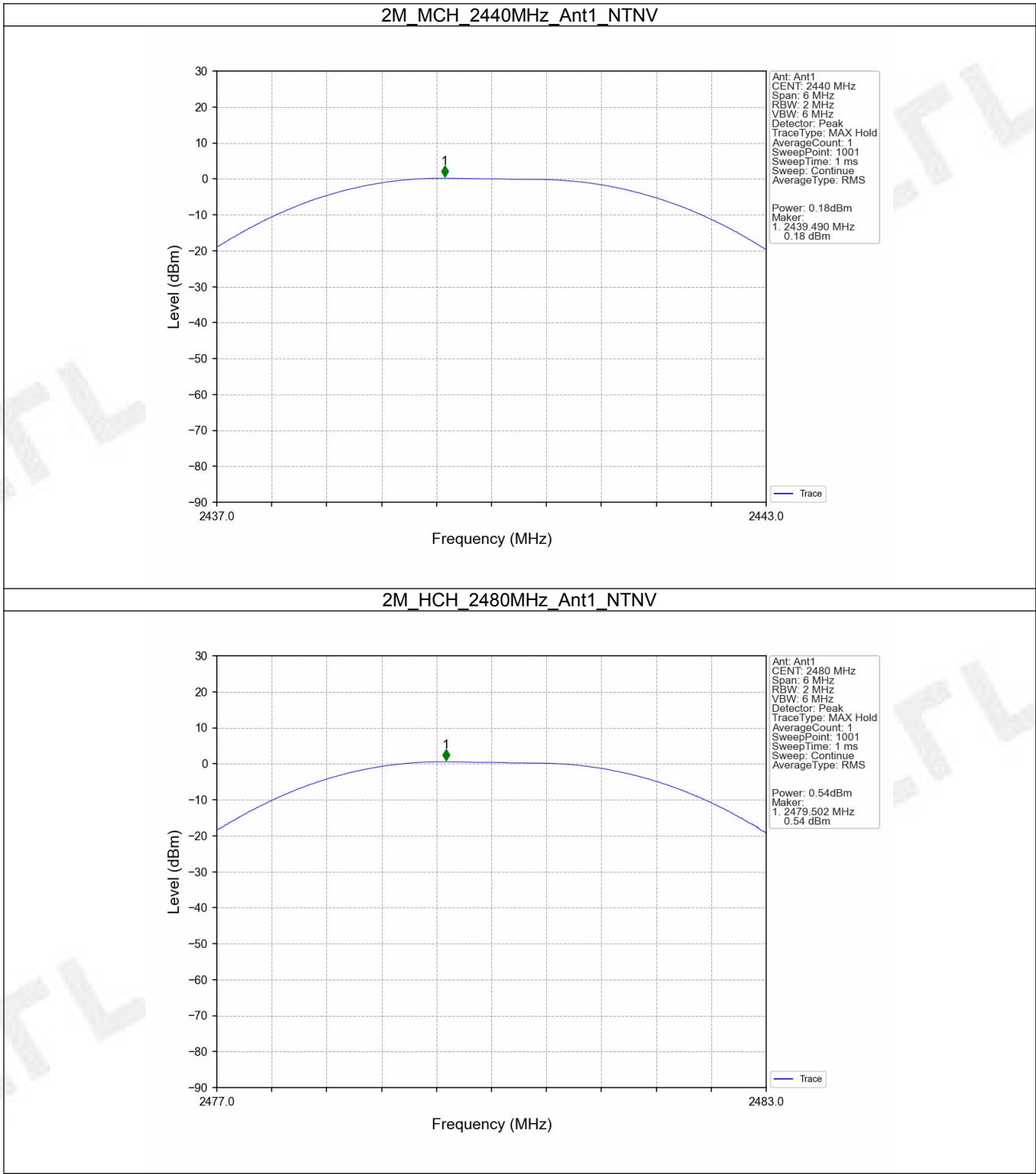
2.2.1 Power



FCCID: 2ASC7FX6X00



FCCID: 2ASC7FX6X00



FCCID: 2ASC7FX6X00

3. Maximum Power Spectral Density

3.1 Test Result

3.1.1 PSD

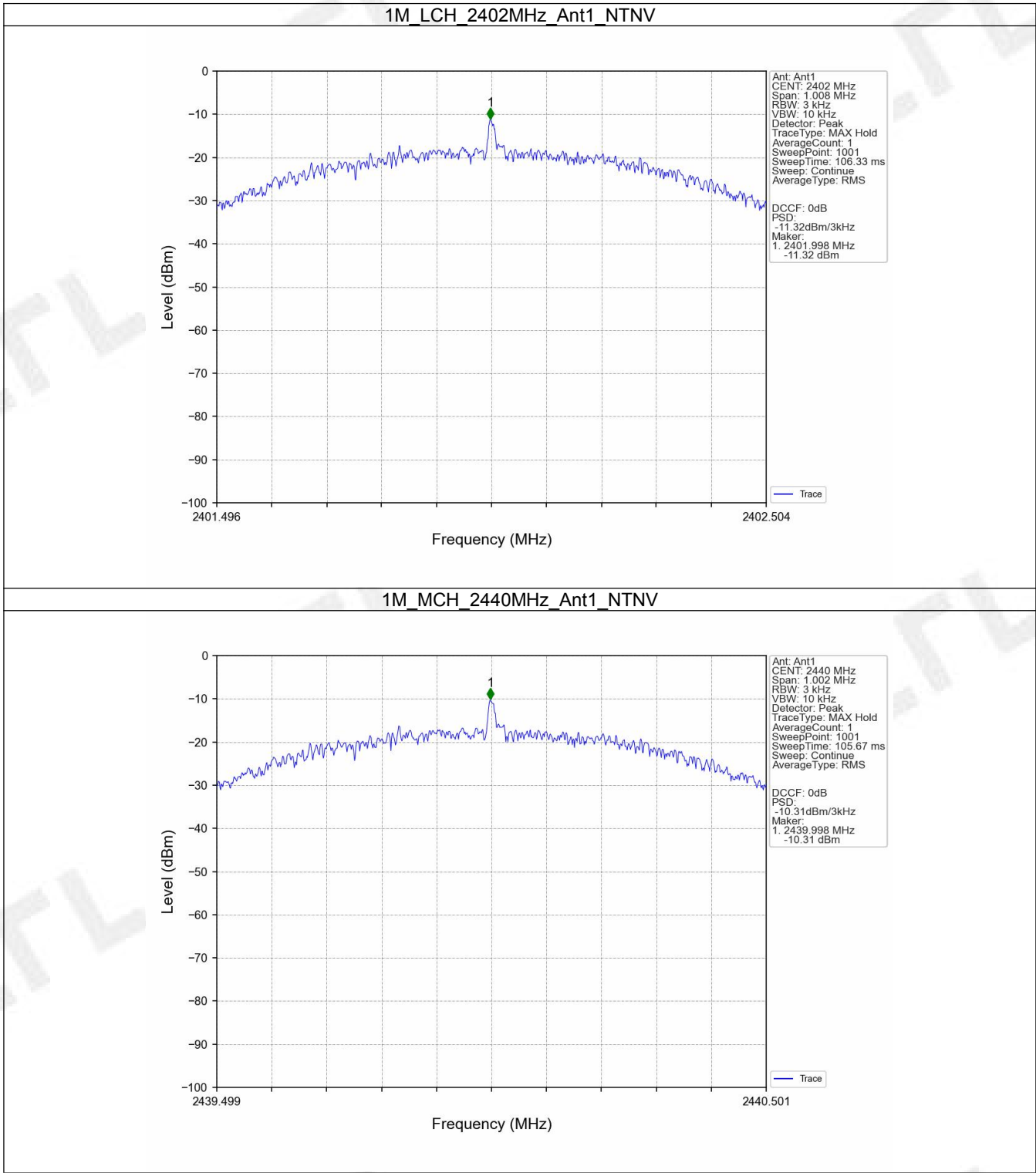
Mode	TX Type	Frequency (MHz)	Maximum PSD (dBm/3kHz)		Verdict
			ANT1	Limit	
1M	SISO	2402	-11.32	<=8	Pass
		2440	-10.31	<=8	Pass
		2480	-10.01	<=8	Pass
2M	SISO	2402	-12.06	<=8	Pass
		2440	-10.96	<=8	Pass
		2480	-10.56	<=8	Pass

Note1: Antenna Gain: Ant1: 2.75dBi;

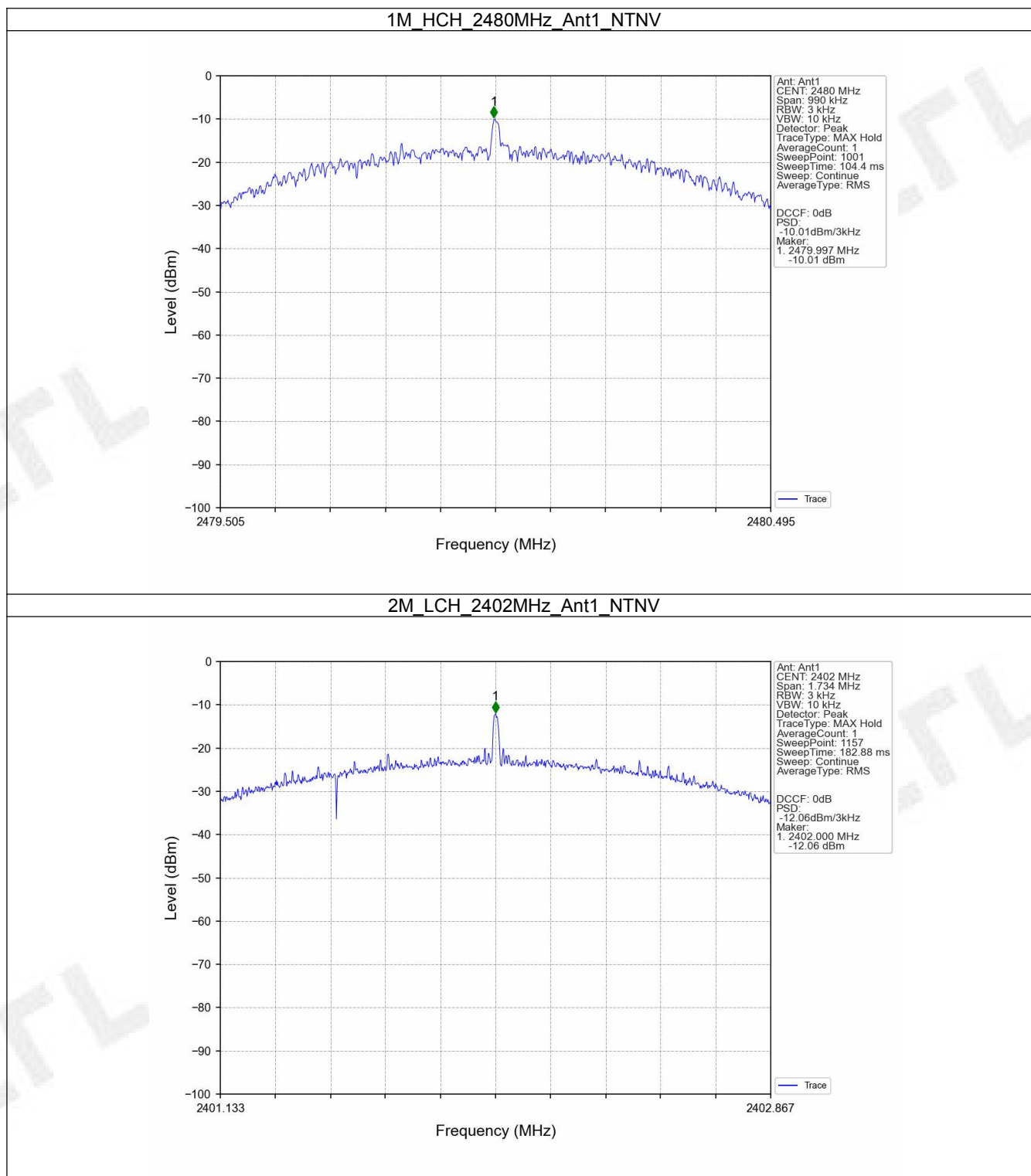
FCCID: 2ASC7FX6X00

3.2 Test Graph

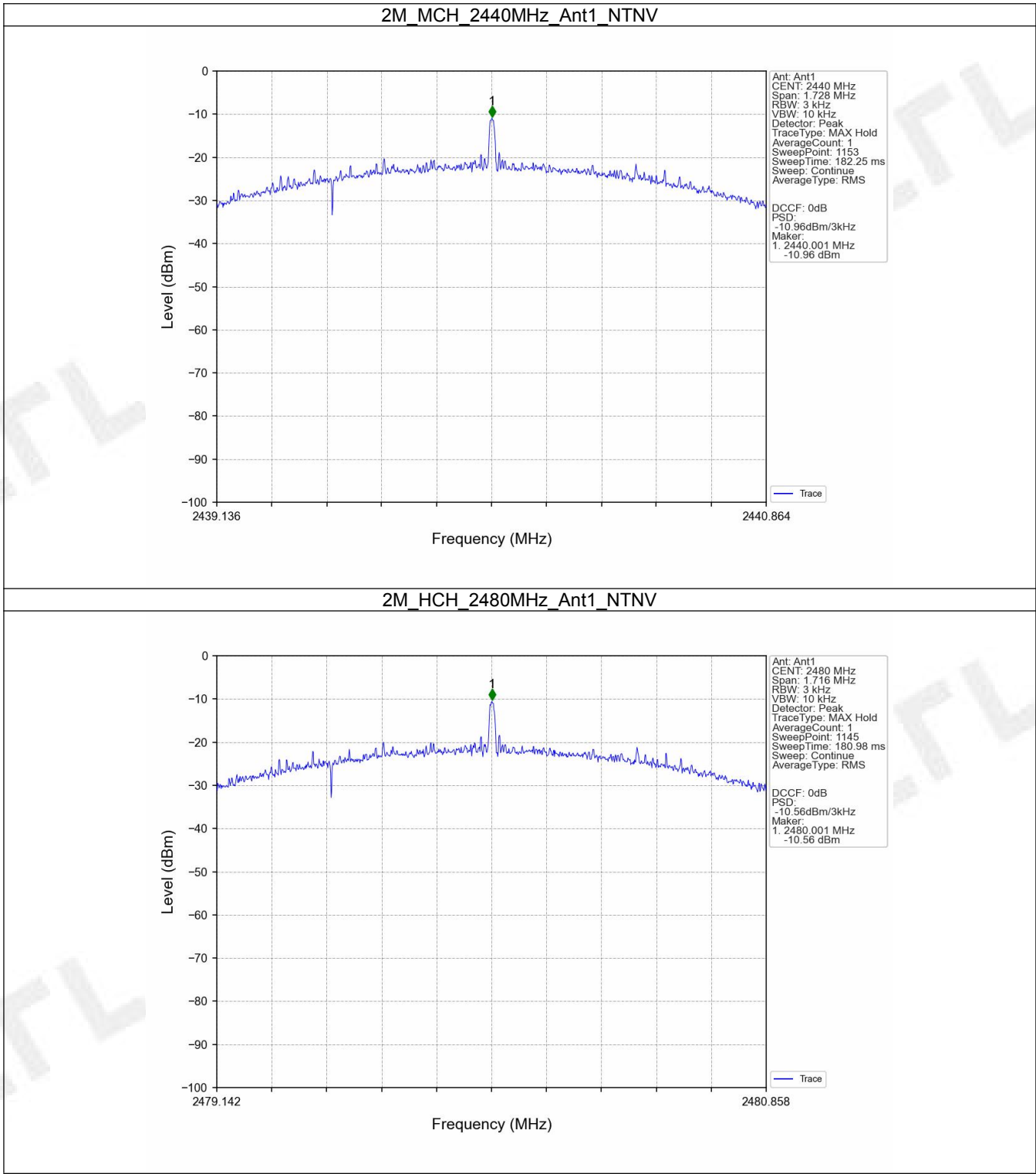
3.2.1 PSD



FCCID: 2ASC7FX6X00



FCCID: 2ASC7FX6X00



FCCID: 2ASC7FX6X00

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	-1.18
		2440	1	-0.16
		2480	1	0.17
2M	SISO	2402	1	-1.14
		2440	1	-0.07
		2480	1	0.28

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 CSE

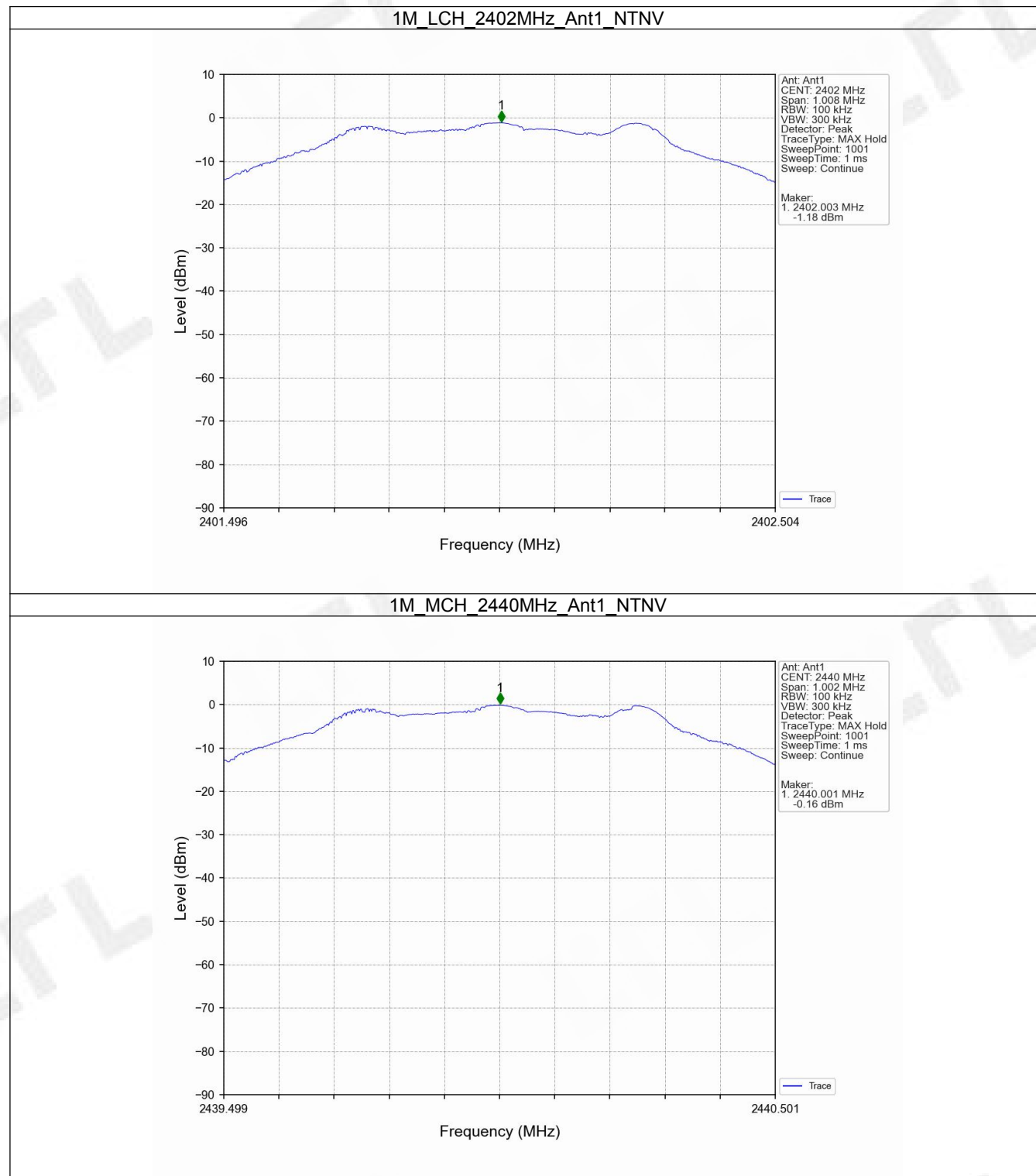
Mode	TX Type	Frequency (MHz)	ANT	Level of Reference (dBm)	Limit (dBm)	Verdict
1M	SISO	2402	1	0.17	-19.83	Pass
		2440	1	0.17	-19.83	Pass
		2480	1	0.17	-19.83	Pass
2M	SISO	2402	1	0.28	-19.72	Pass
		2440	1	0.28	-19.72	Pass
		2480	1	0.28	-19.72	Pass

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.

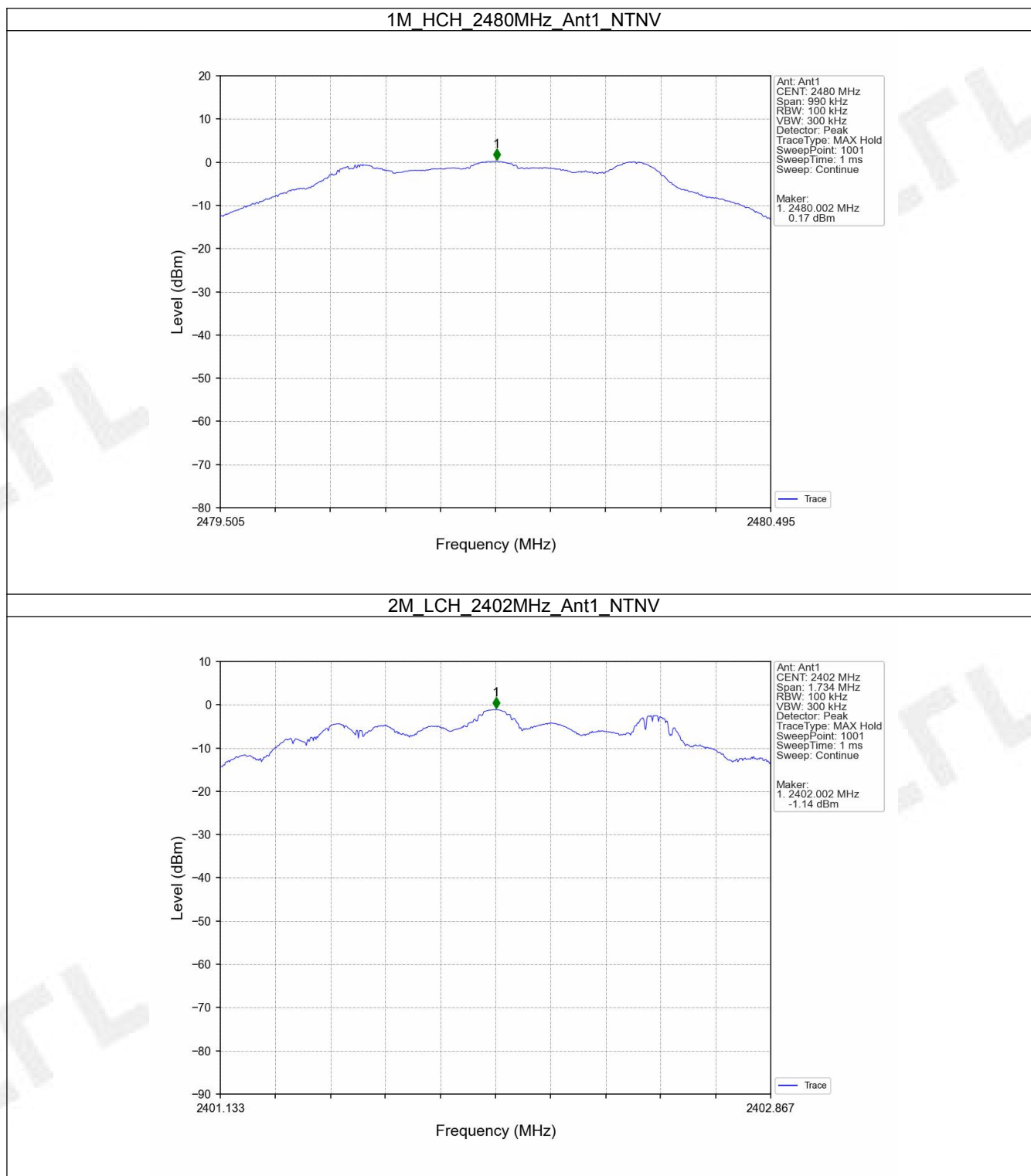
FCCID: 2ASC7FX6X00

4.2 Test Graph

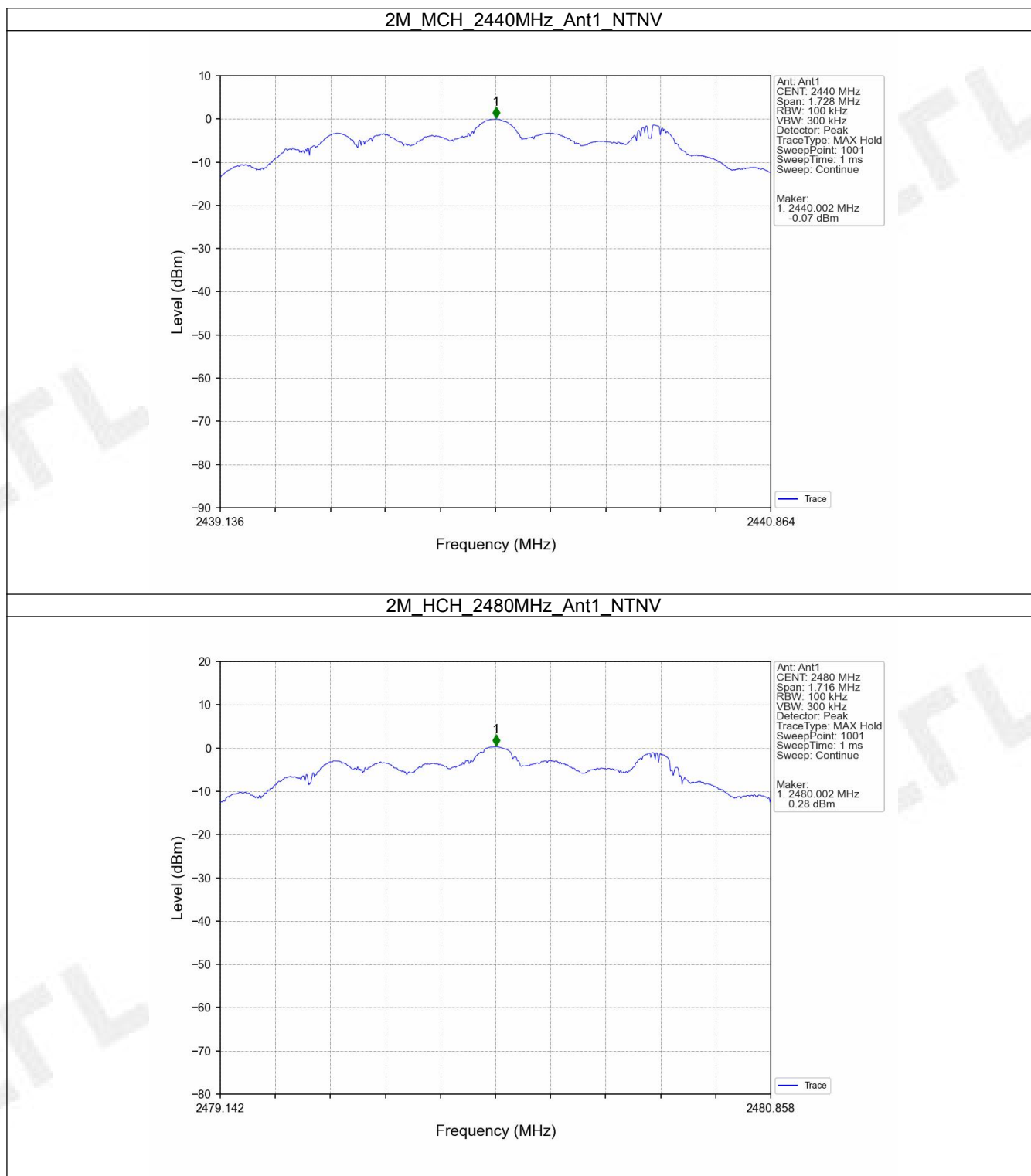
4.2.1 Ref



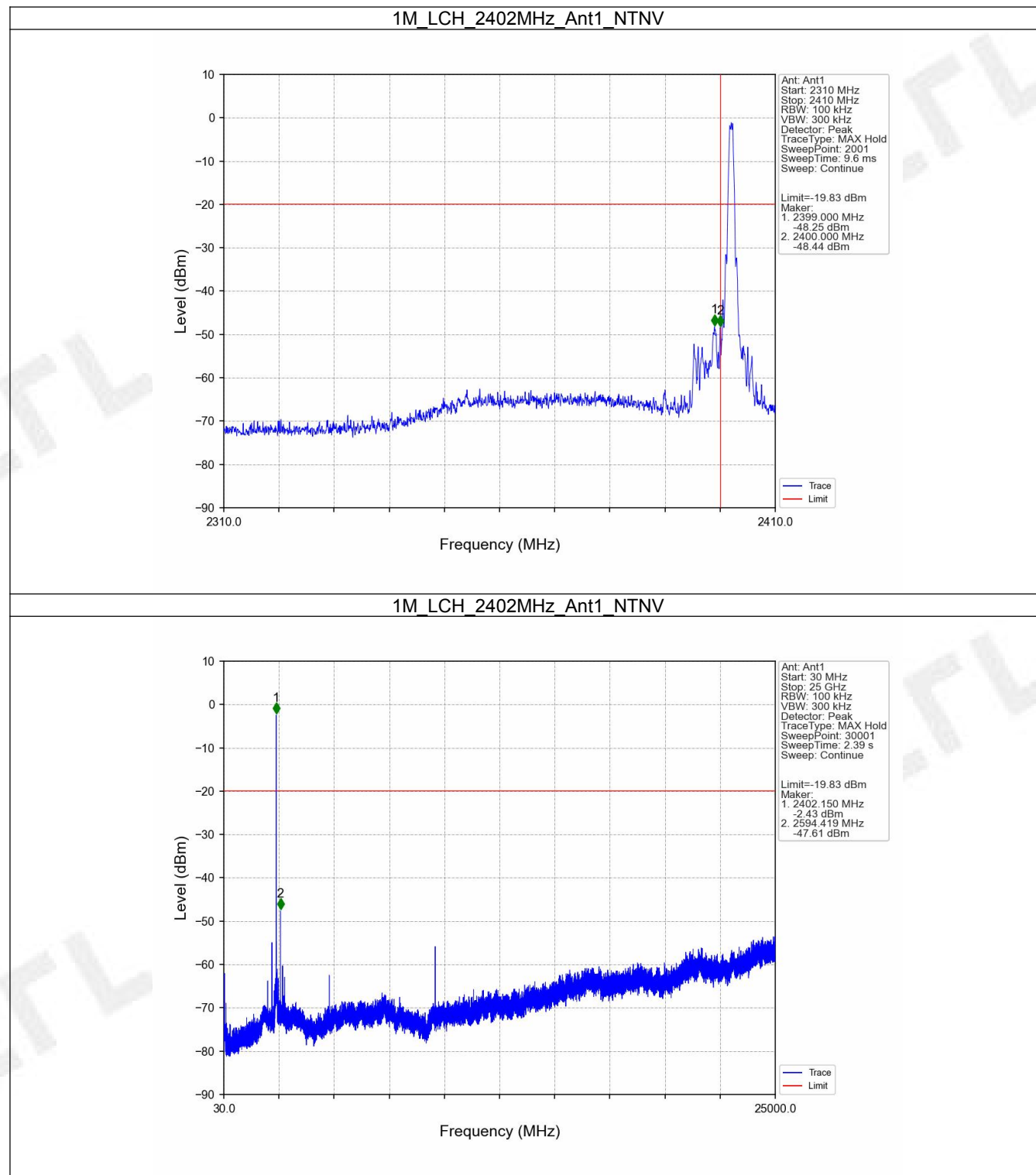
FCCID: 2ASC7FX6X00



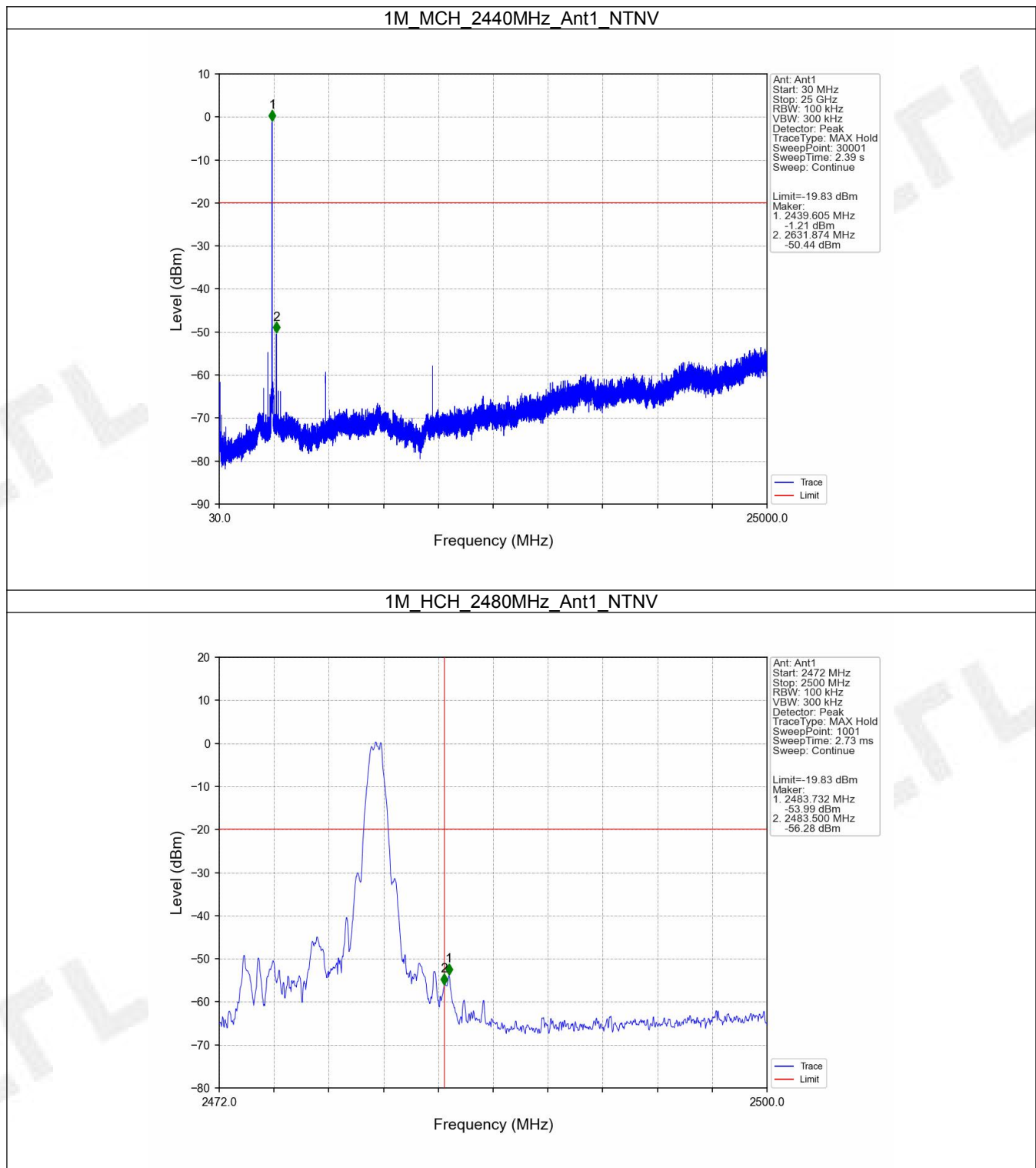
FCCID: 2ASC7FX6X00



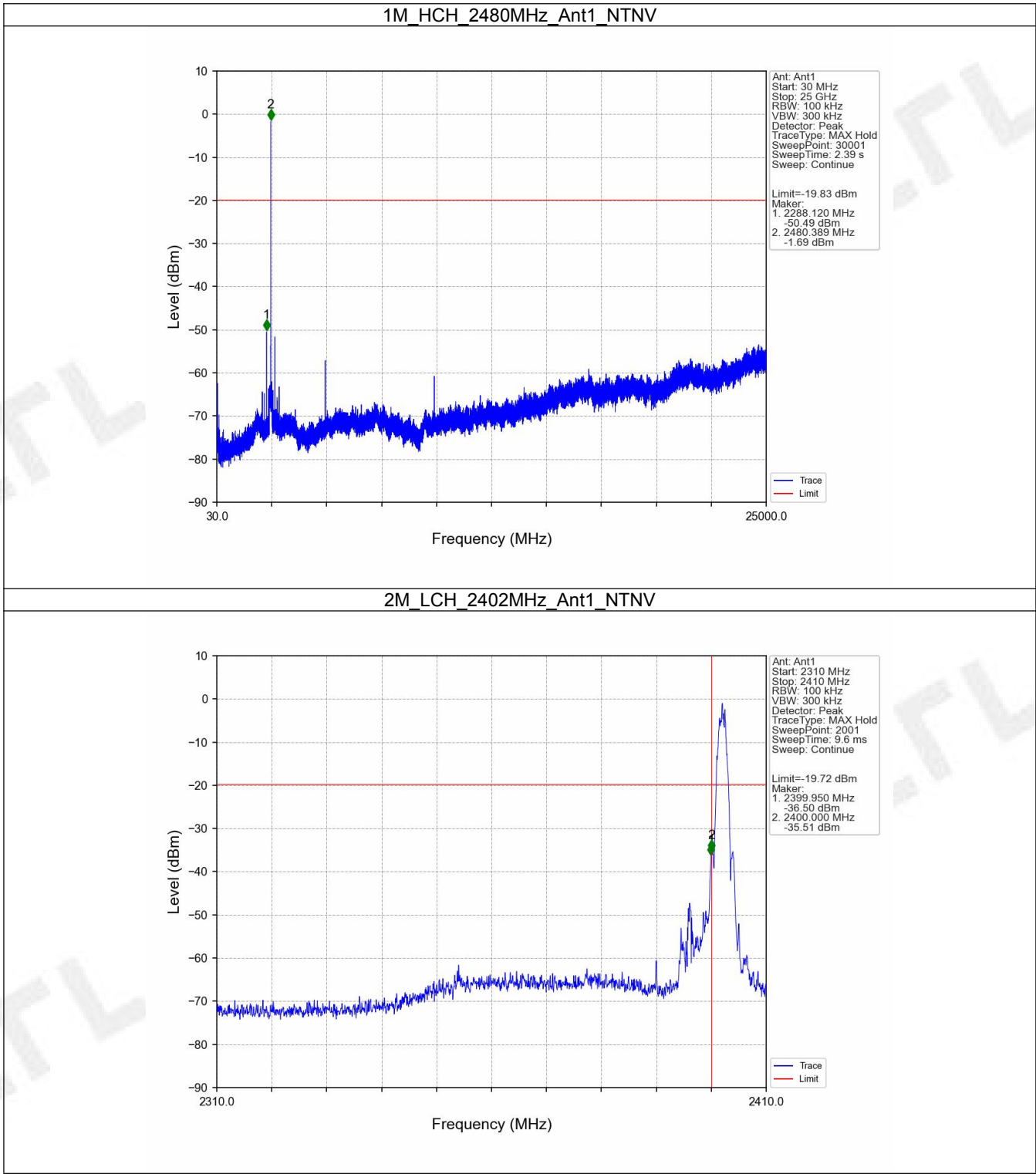
FCCID: 2ASC7FX6X00

4.2.2 CSE

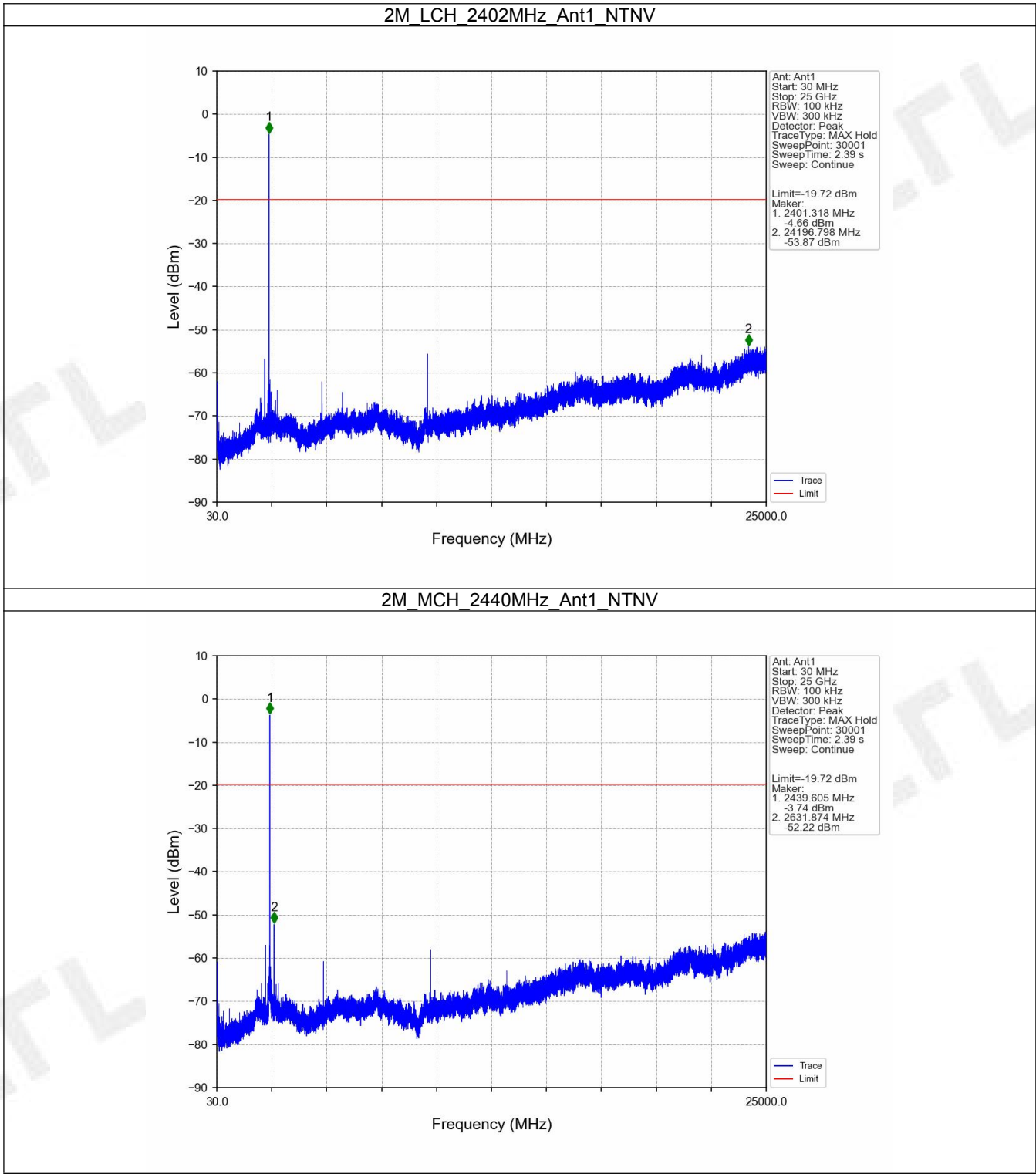
FCCID: 2ASC7FX6X00



FCCID: 2ASC7FX6X00



FCCID: 2ASC7FX6X00



FCCID: 2ASC7FX6X00

