



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 Bluetooth Low Energy

Test Report No.: CTL2605144051-WF

TABLE OF CONTENTS

1. Duty Cycle	3
1.1 Test Result	3
1.1.1 Ant1	3
1.2 Test Graph.....	4
1.2.1 Ant1	4
2. Bandwidth.....	7
2.1 Test Result	7
2.1.1 OBW	7
2.1.2 6dB BW	7
2.2 Test Graph.....	8
2.2.1 OBW	8
2.2.2 6dB BW	11
3. Maximum Conducted Output Power	14
3.1 Test Result	14
3.1.1 Power	14
4. Maximum Power Spectral Density	15
4.1 Test Result	15
4.1.1 PSD	15
4.2 Test Graph.....	16



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

4.2.1 PSD	16
5. Unwanted Emissions In Non-restricted Frequency Bands.....	19
5.1 Test Result	19
5.1.1 Ref.....	19
5.1.2 CSE	19
5.2 Test Graph.....	20
5.2.1 Ref.....	20
5.2.2 CSE	23

FCC ID: 2BSEJ-Y28C

1. Duty Cycle

1.1 Test Result

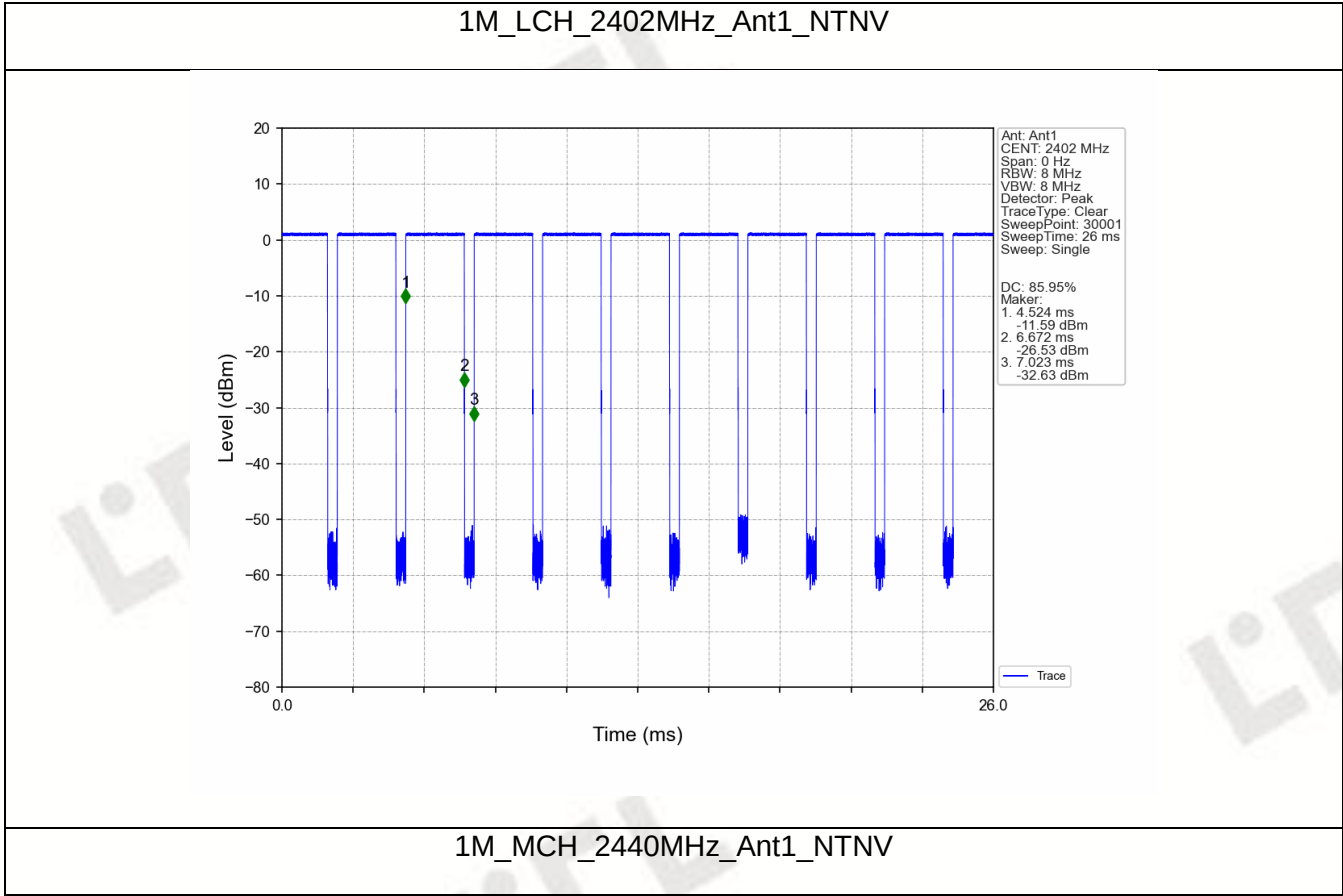
1.1.1 Ant1

Ant1							
Mode	TX Type	Frequency (MHz)	T_on (ms)	Period (ms)	Duty Cycle (%)	Duty Cycle Correction Factor (dB)	Max. DC Variation (%)
1M	SISO	2402	2.148	2.499	85.95	0.66	0.00
		2440	2.148	2.500	85.92	0.66	0.03
		2480	2.148	2.500	85.92	0.66	0.00

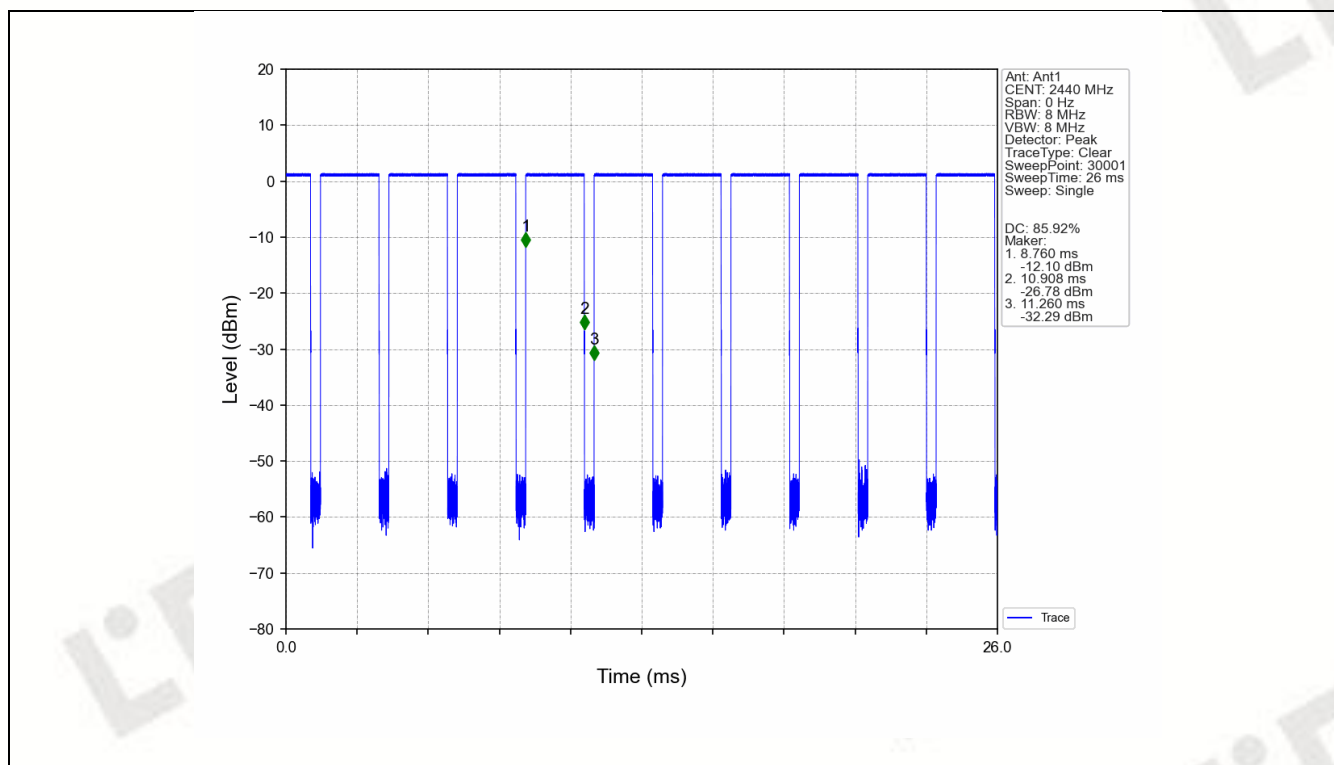
FCC ID: 2BSEJ-Y28C

1.2 Test Graph

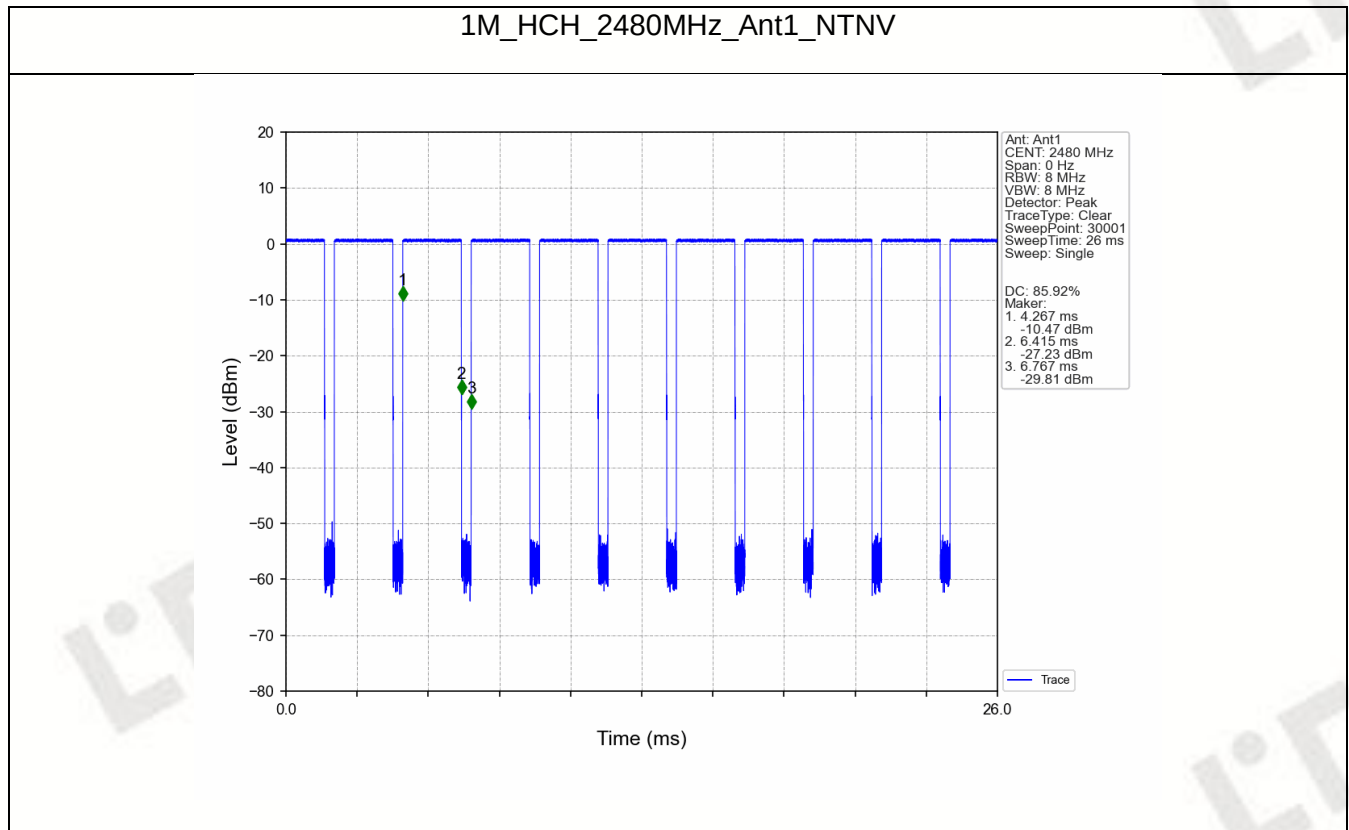
1.2.1 Ant1



FCC ID: 2BSEJ-Y28C



FCC ID: 2BSEJ-Y28C



2. Bandwidth

2.1 Test Result

2.1.1 OBW

Mode	TX Type	Frequency (MHz)	ANT	99% Occupied Bandwidth (MHz)		Verdict
				Result	Limit	
1M	SISO	2402	1	1.024	/	Pass
		2440	1	1.027	/	Pass
		2480	1	1.029	/	Pass

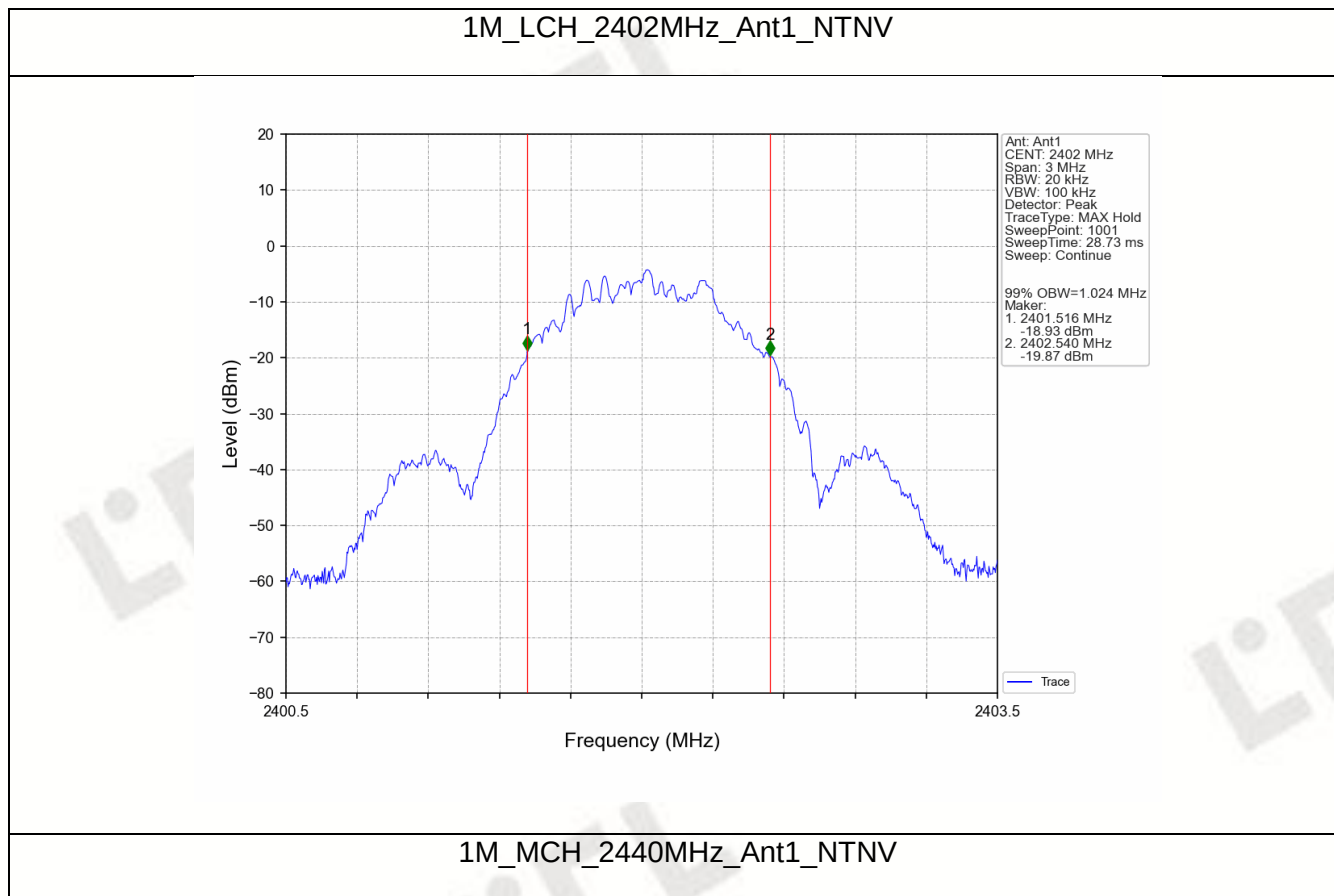
2.1.2 6dB BW

Mode	TX Type	Frequency (MHz)	ANT	6dB Bandwidth (MHz)		Verdict
				Result	Limit	
1M	SISO	2402	1	0.664	≥ 0.5	Pass
		2440	1	0.667	≥ 0.5	Pass
		2480	1	0.666	≥ 0.5	Pass

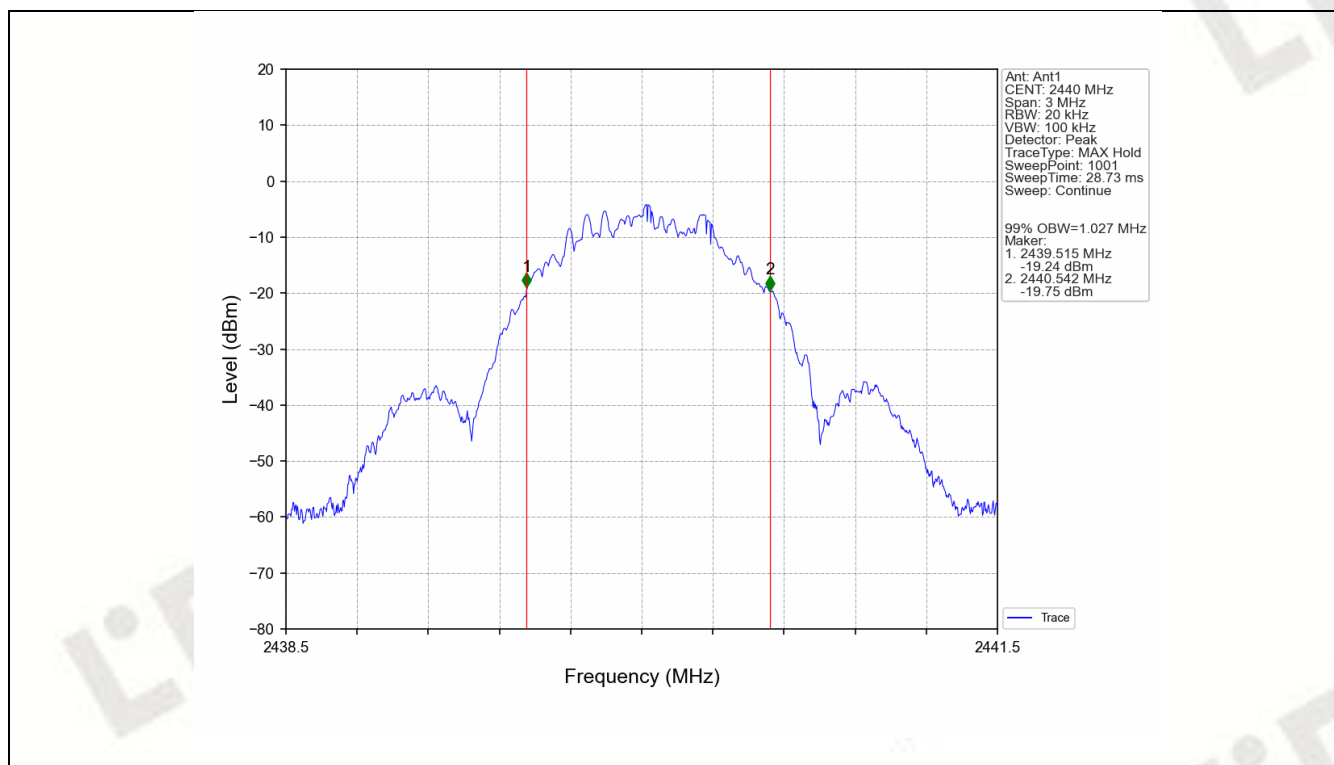
FCC ID: 2BSEJ-Y28C

2.2 Test Graph

2.2.1 OBW

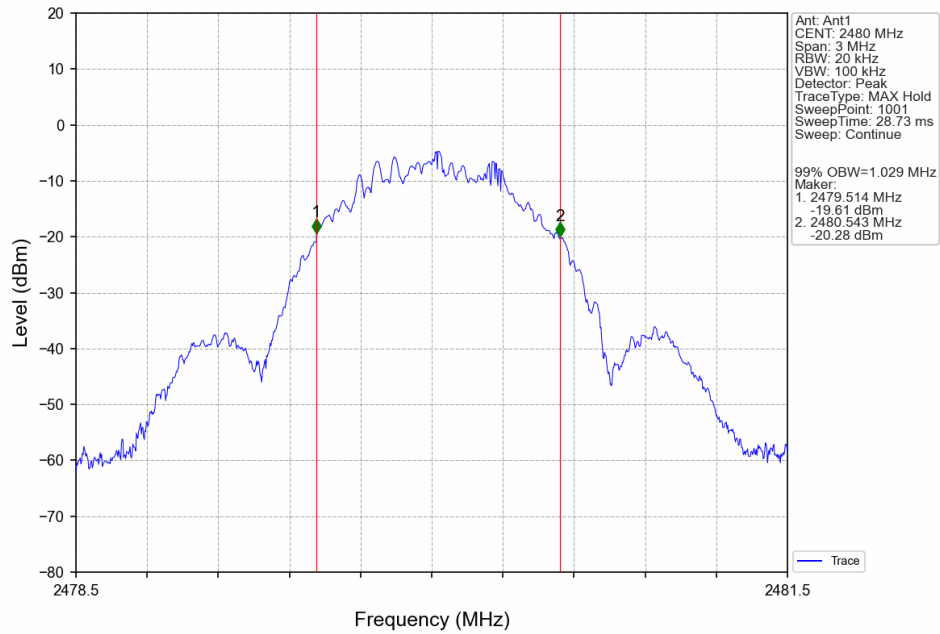


FCC ID: 2BSEJ-Y28C

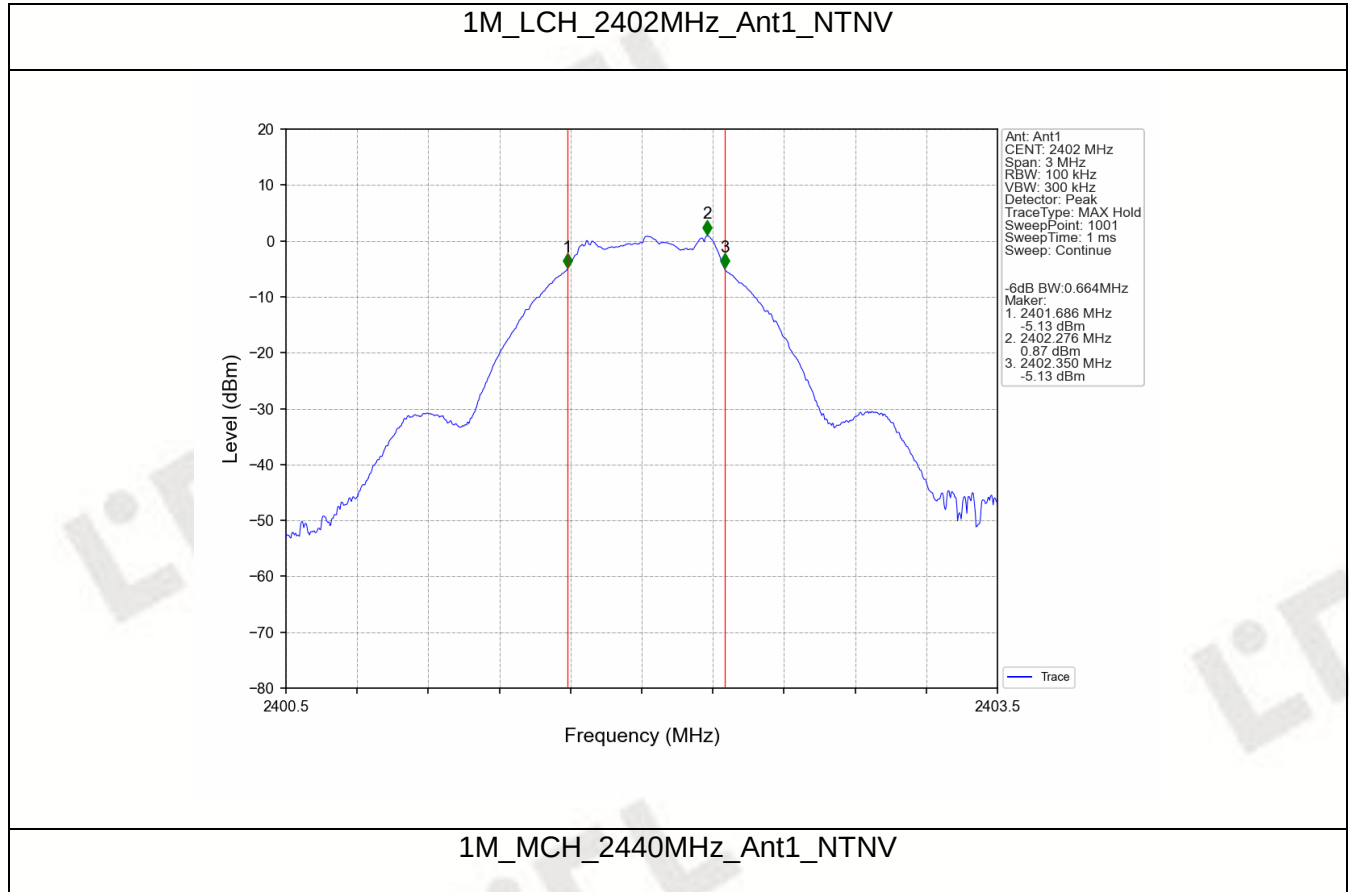


FCC ID: 2BSEJ-Y28C

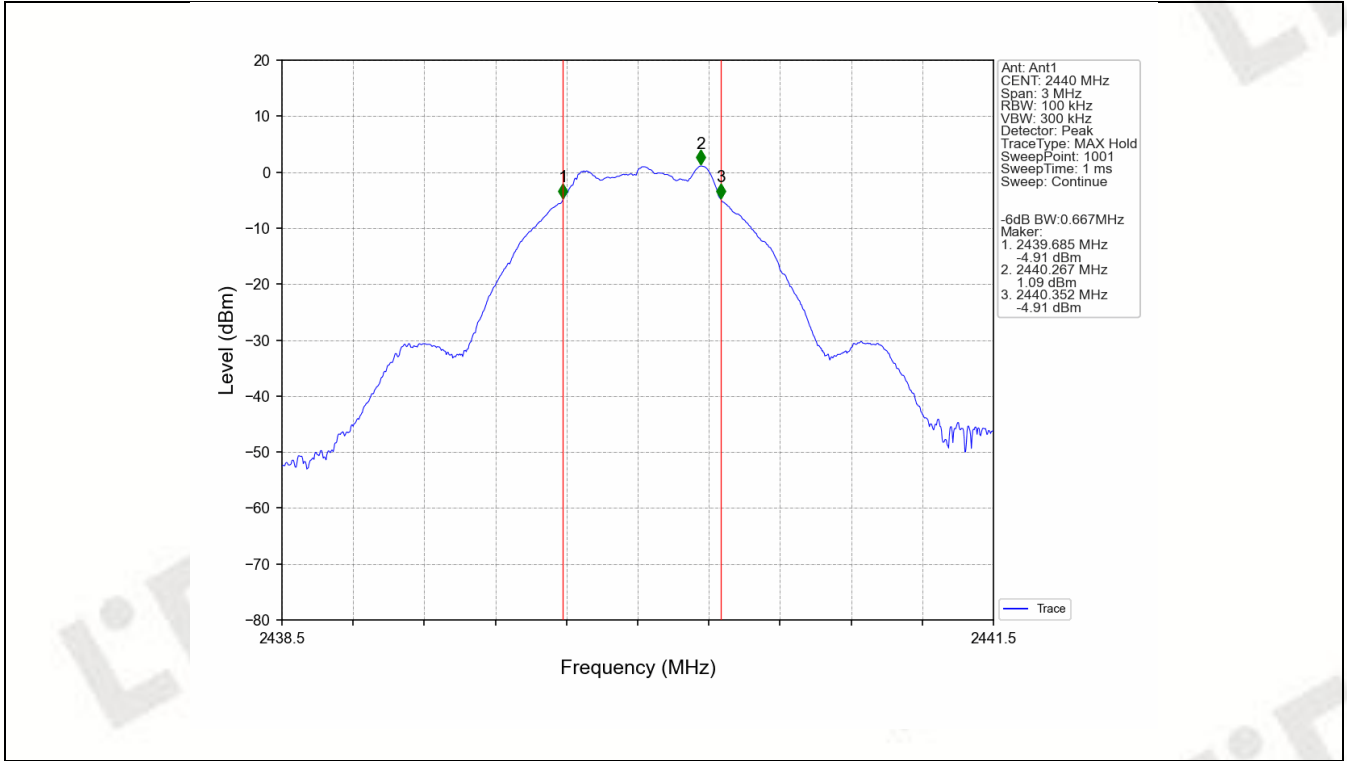
1M_HCH_2480MHz_Ant1_NTNV



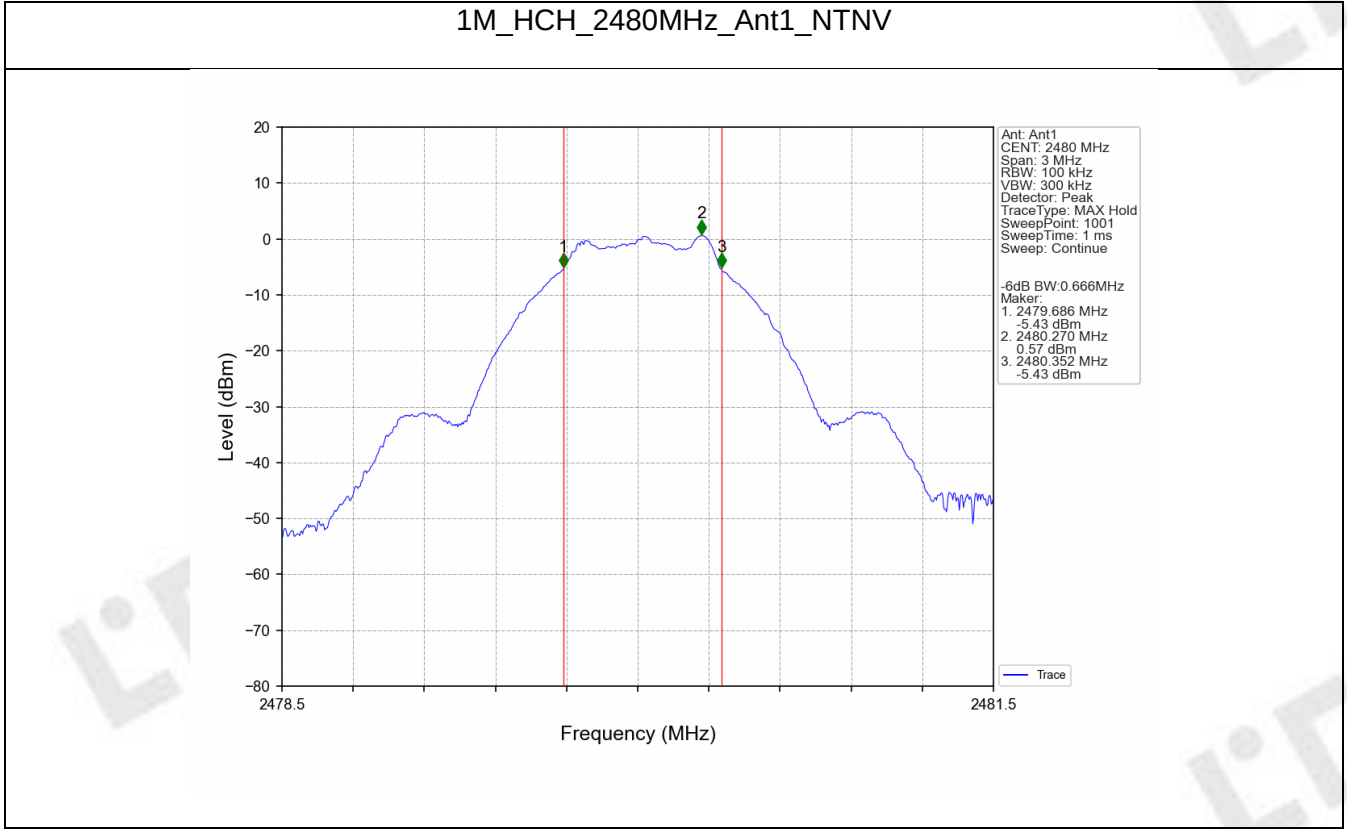
FCC ID: 2BSEJ-Y28C

2.2.2 6dB BW

FCC ID: 2BSEJ-Y28C



FCC ID: 2BSEJ-Y28C



3. Maximum Conducted Output Power

3.1 Test Result

3.1.1 Power

Mode	TX Type	Frequency (MHz)	Maximum Peak Conducted Output Power (dBm)		Verdict
			ANT1	Limit	
1M	SISO	2402	1.14	<=30	Pass
		2440	1.29	<=30	Pass
		2480	0.75	<=30	Pass
Note1: Antenna Gain: Ant1: 0.28dBi;					

FCC ID: 2BSEJ-Y28C

4. Maximum Power Spectral Density

4.1 Test Result

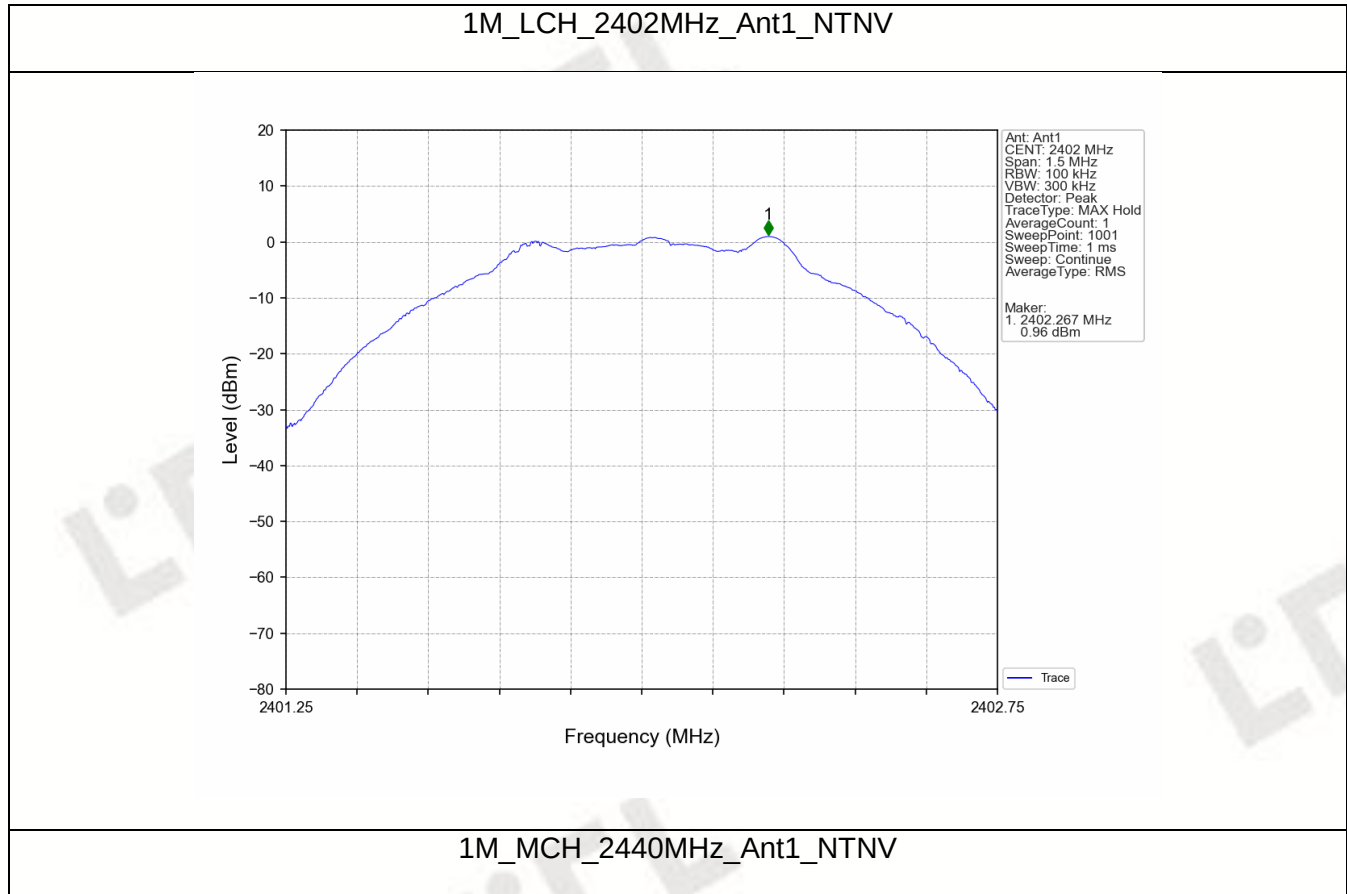
4.1.1 PSD

Mode	TX Type	Frequency (MHz)	Maximum PSD (dBm)		Verdict
			ANT1	Limit(dBm/3kHz)	
1M	SISO	2402	0.96dBm/100kHz	<=8	Pass
		2440	1.04dBm/100kHz	<=8	Pass
		2480	0.57dBm/100kHz	<=8	Pass
Note1: Antenna Gain: Ant1: 0.28dBi;					

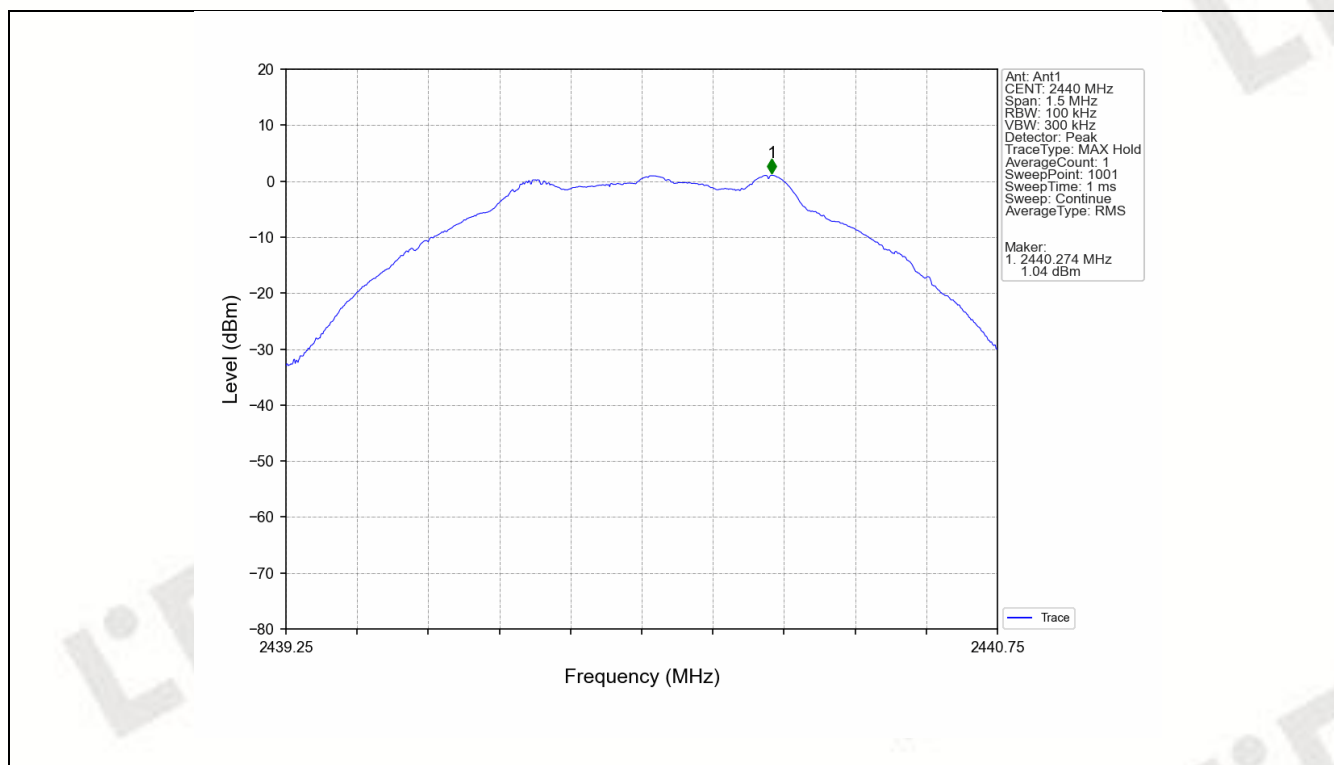
FCC ID: 2BSEJ-Y28C

4.2 Test Graph

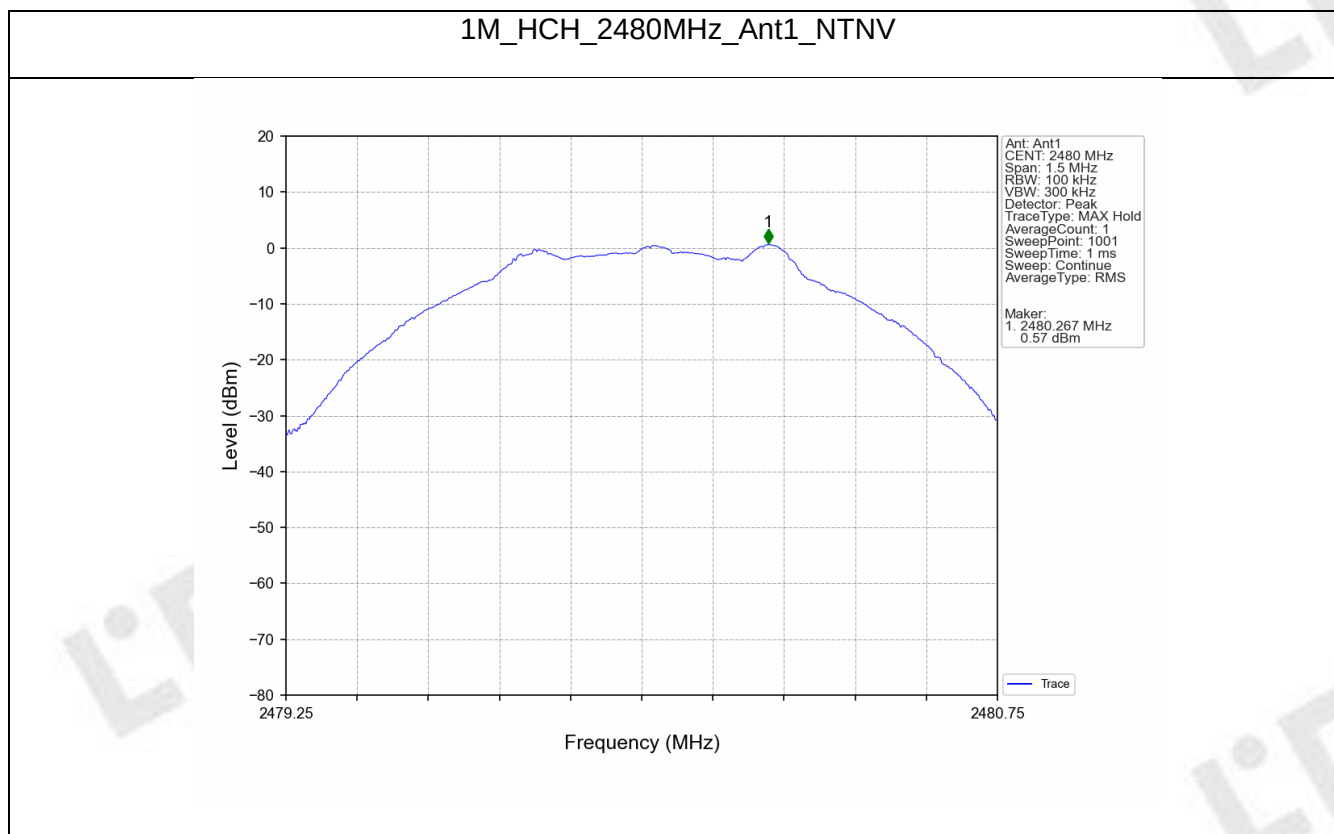
4.2.1 PSD



FCC ID: 2BSEJ-Y28C



FCC ID: 2BSEJ-Y28C



5. Unwanted Emissions In Non-restricted Frequency Bands

5.1 Test Result

5.1.1 Ref

Mode	TX Type	Frequency (MHz)	ANT	Level of Reference (dBm)
1M	SISO	2402	1	0.95
		2440	1	1.08
		2480	1	0.58

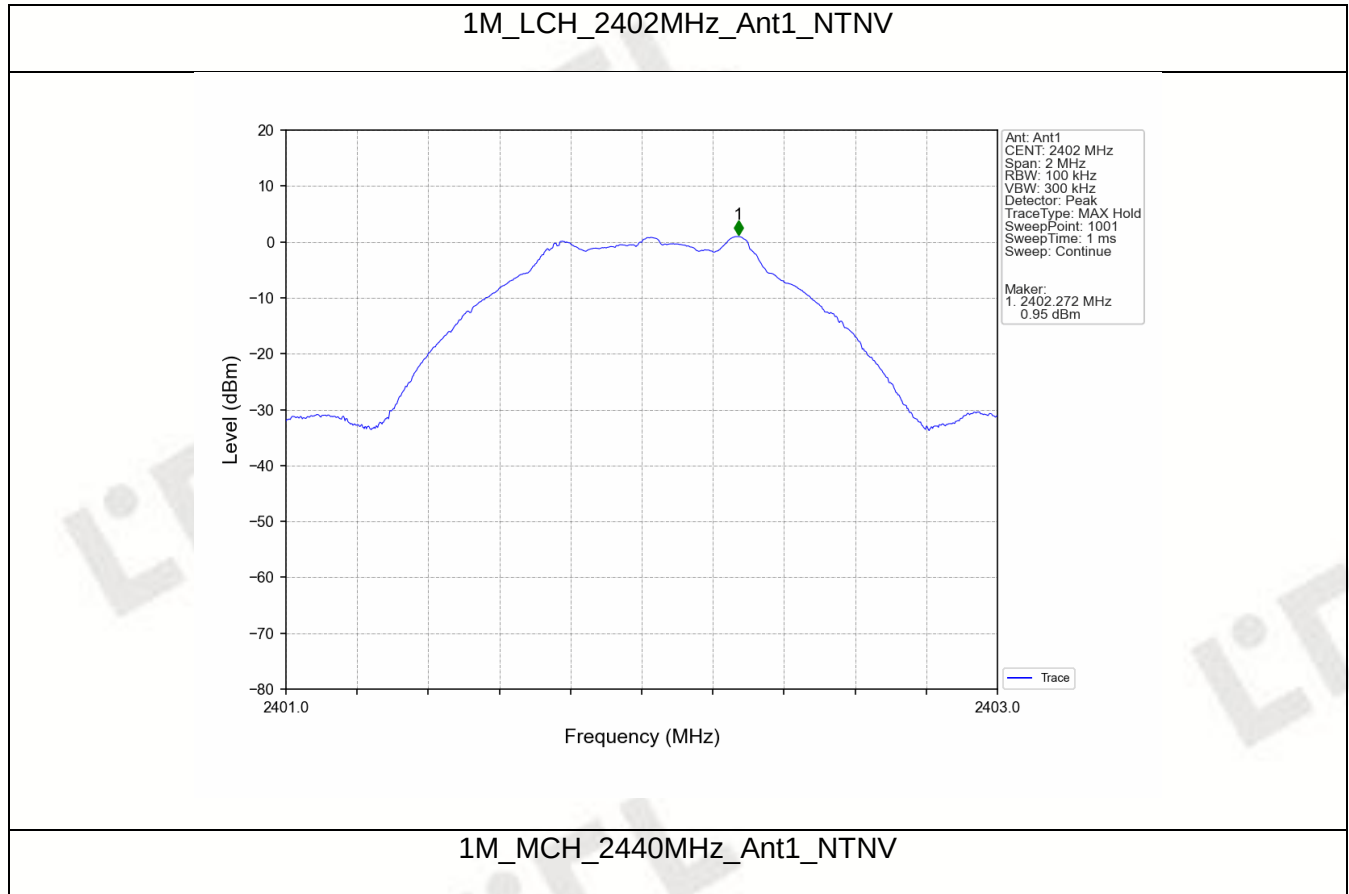
5.1.2 CSE

Mode	TX Type	Frequency (MHz)	ANT	Level of Reference (dBm)	Limit (dBm)	Verdict
1M	SISO	2402	1	0.95	-19.05	Pass
		2440	1	1.08	-18.92	Pass
		2480	1	0.58	-19.42	Pass

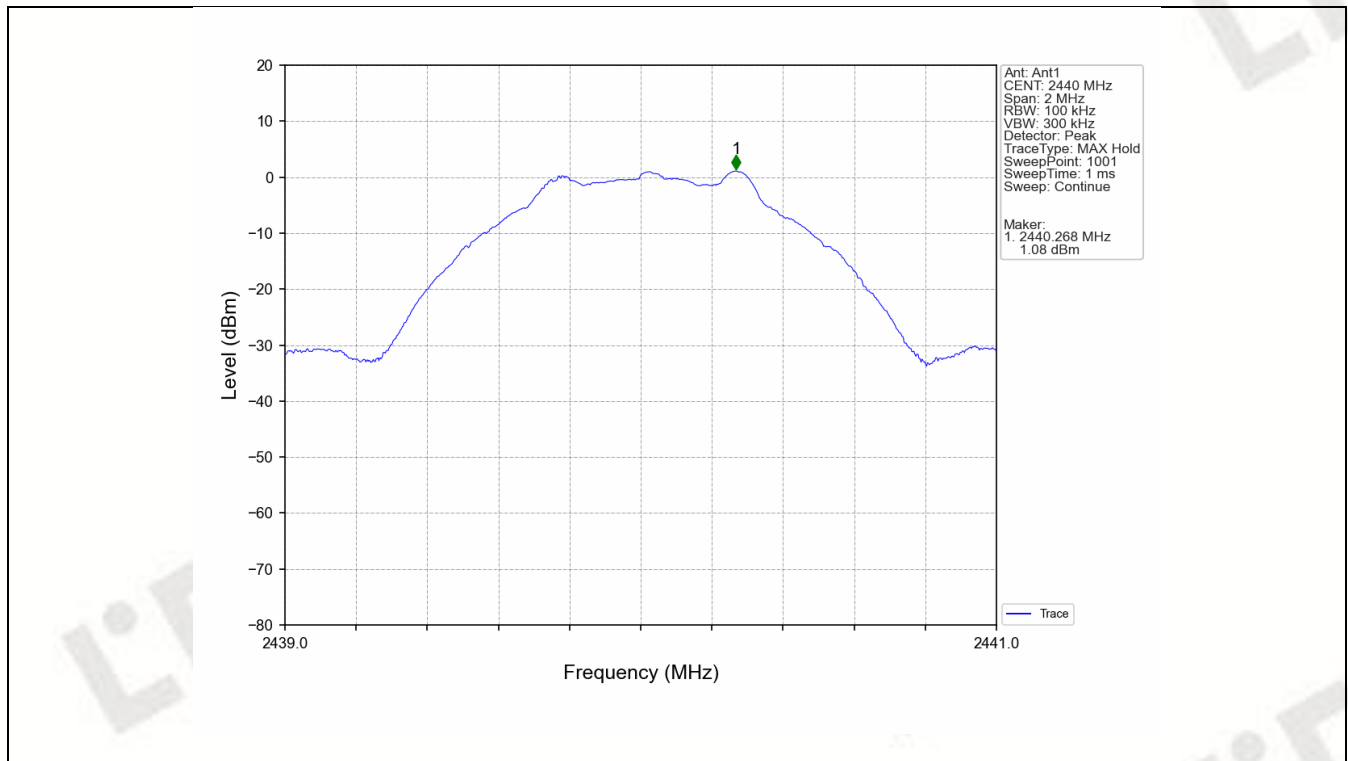
FCC ID: 2BSEJ-Y28C

5.2 Test Graph

5.2.1 Ref

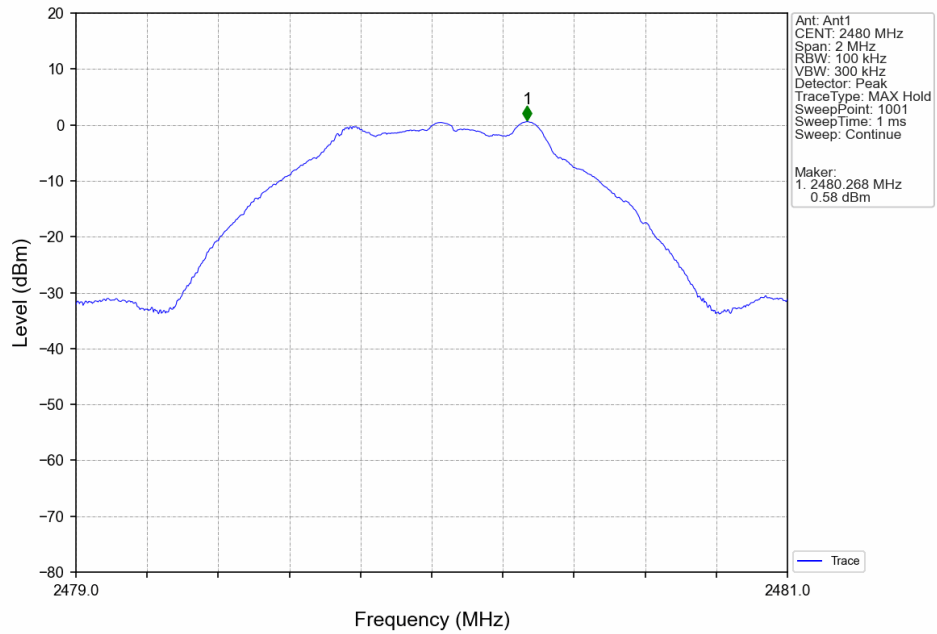


FCC ID: 2BSEJ-Y28C



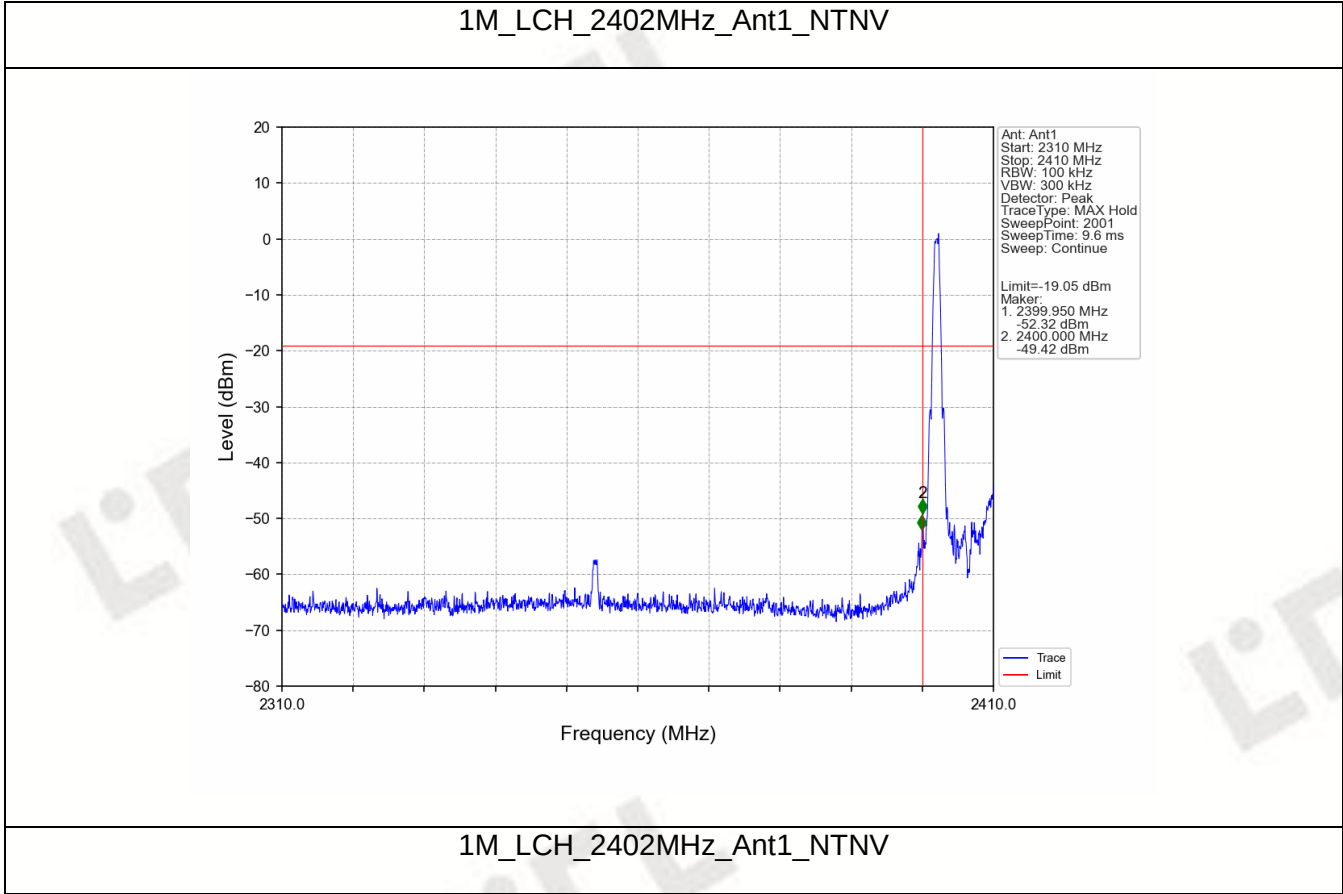
FCC ID: 2BSEJ-Y28C

1M_HCH_2480MHz_Ant1_NTNV

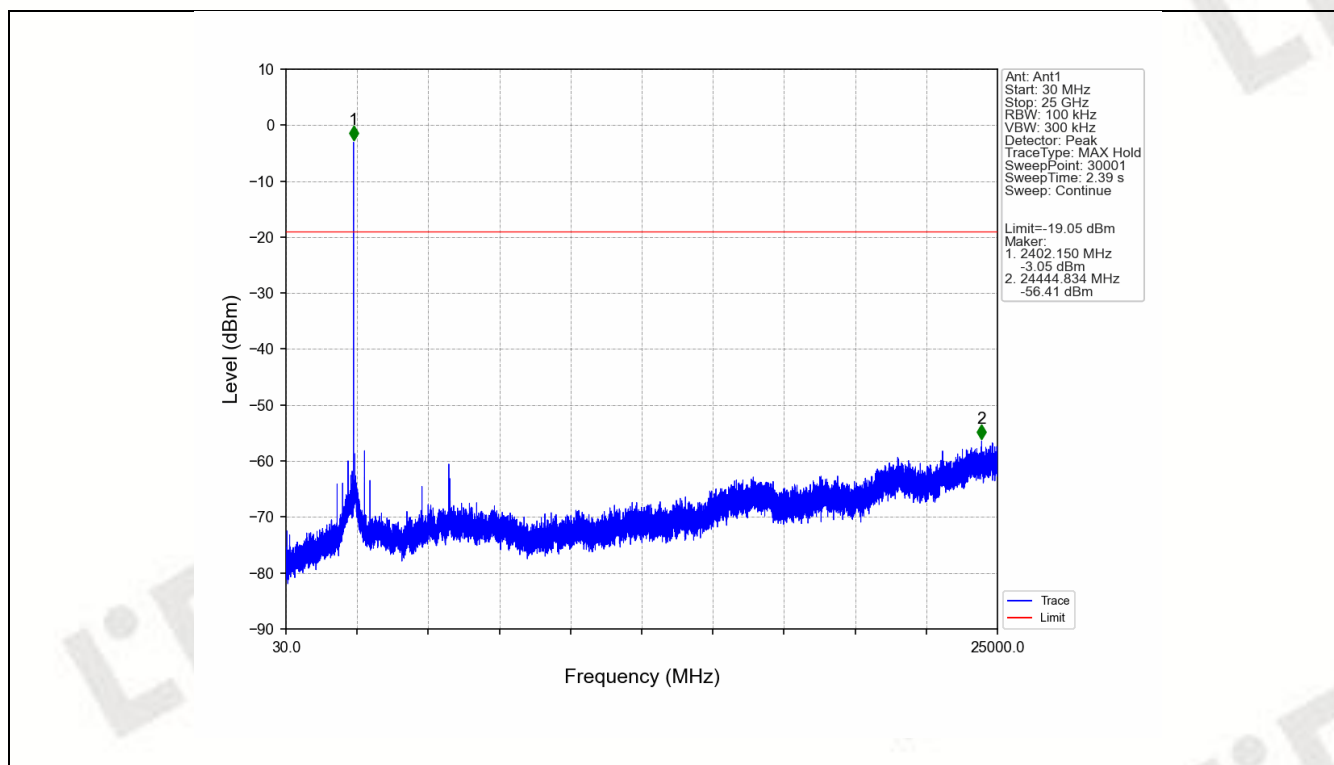


FCC ID: 2BSEJ-Y28C

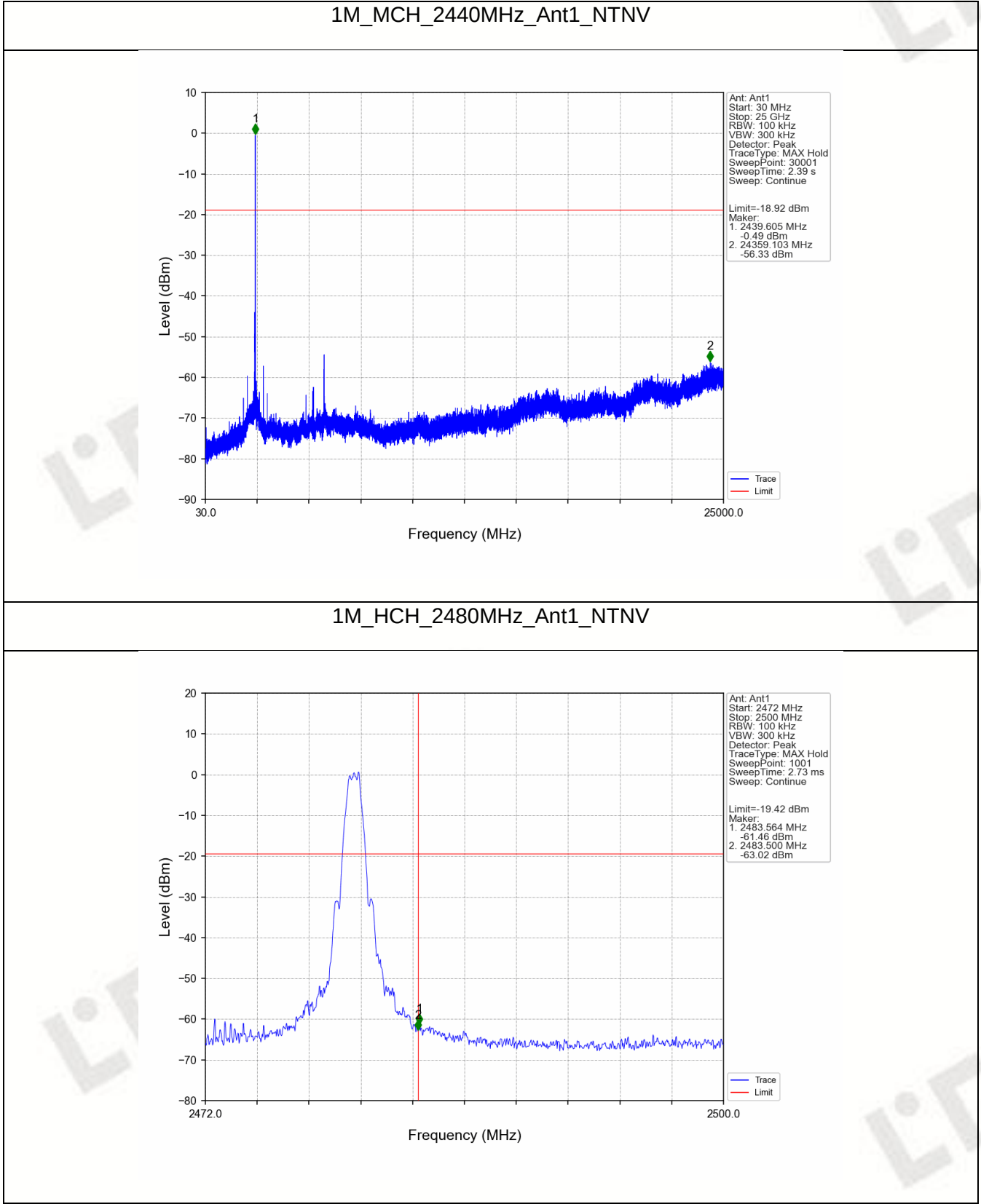
5.2.2 CSE



FCC ID: 2BSEJ-Y28C



FCC ID: 2BSEJ-Y28C



FCC ID: 2BSEJ-Y28C

1M_HCH_2480MHz_Ant1_NTNV

