



RF Test Report

For

Project No.:	ZKT-240925L12265E-1
Client:	Shenzhen Companion Technology Co., Ltd.
Manufacturer:	Shenzhen Companion Technology Co., Ltd.
Product Description:	Smart locator
Model No.	Love Tag
Test Engineer:	Jim Liu
Test Date:	2024-09-27

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
Frequency Error	Pass
Form731	Pass



1. Duty Cycle

1.1 Test Result

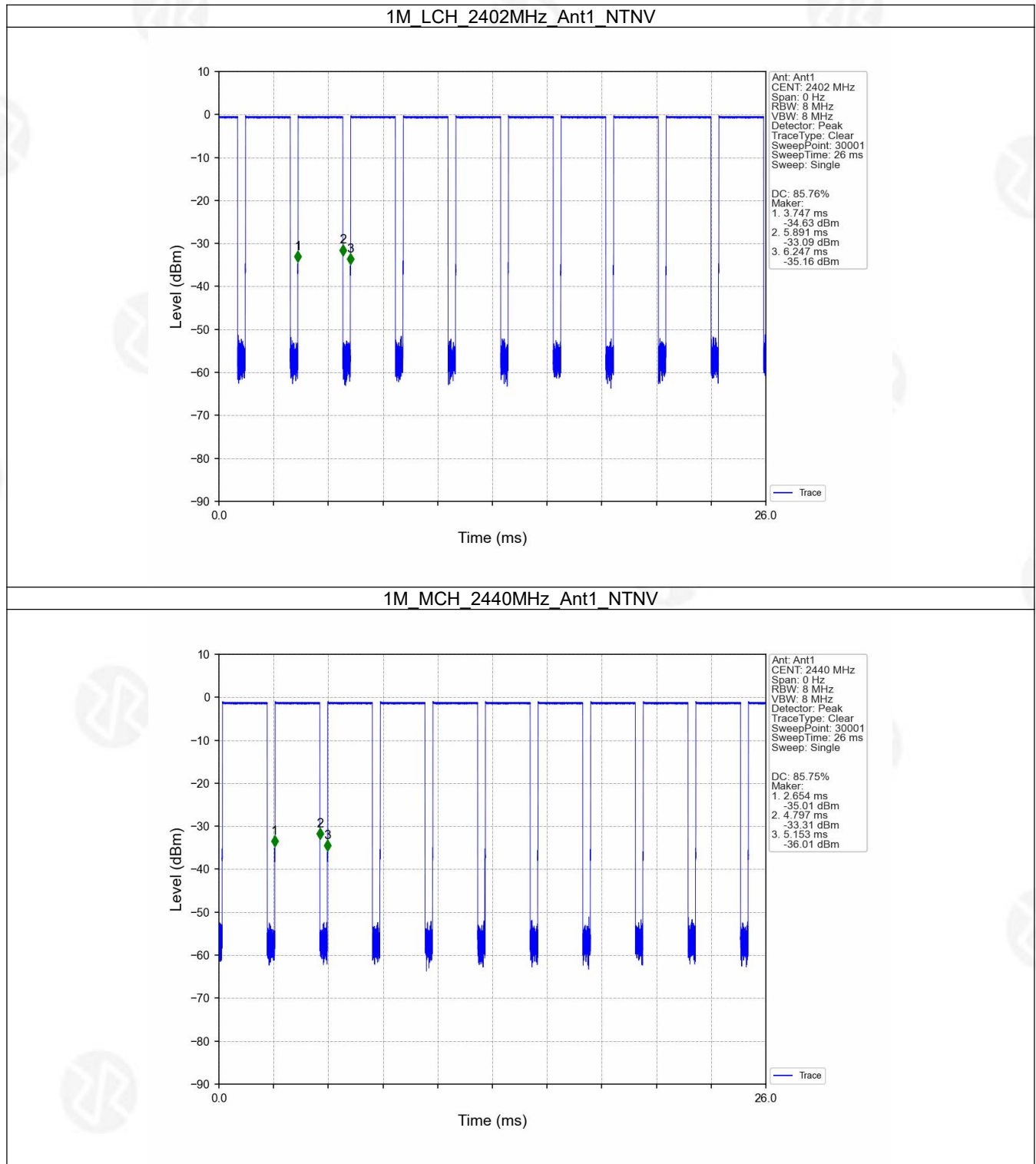
1.1.1 Ant1

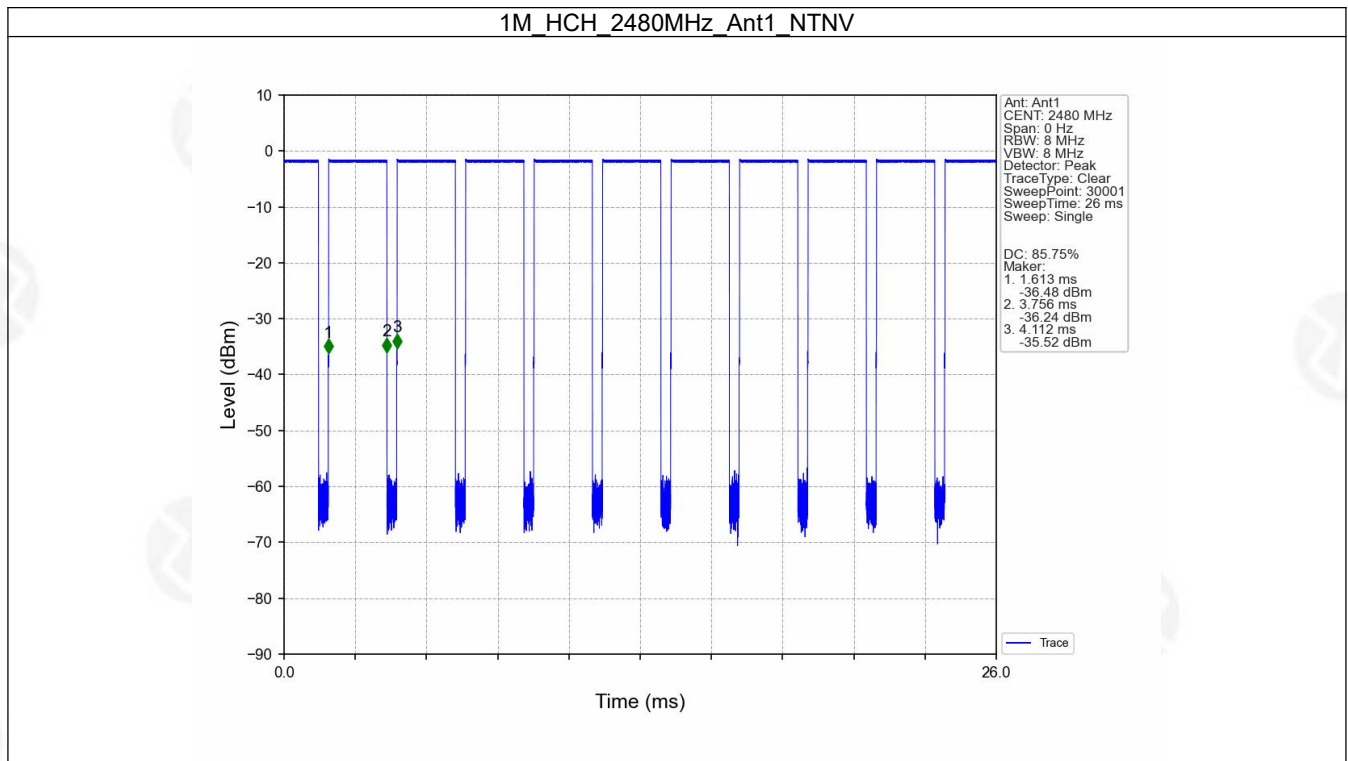
Ant1							
Mode	Tx Type	Frequency (MHz)	T_on (ms)	Period (ms)	Duty Cycle (%)	Duty Cycle Correction Factor (dB)	Max. DC Variation (%)
1M	SISO	2402	2.144	2.500	85.76	0.67	0.03
		2440	2.143	2.499	85.75	0.67	0.00
		2480	2.143	2.499	85.75	0.67	0.03



1.2 Test Graph

1.2.1 Ant1







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	1.062	/	Pass
		2440	1	1.062	/	Pass
		2480	1	1.063	/	Pass

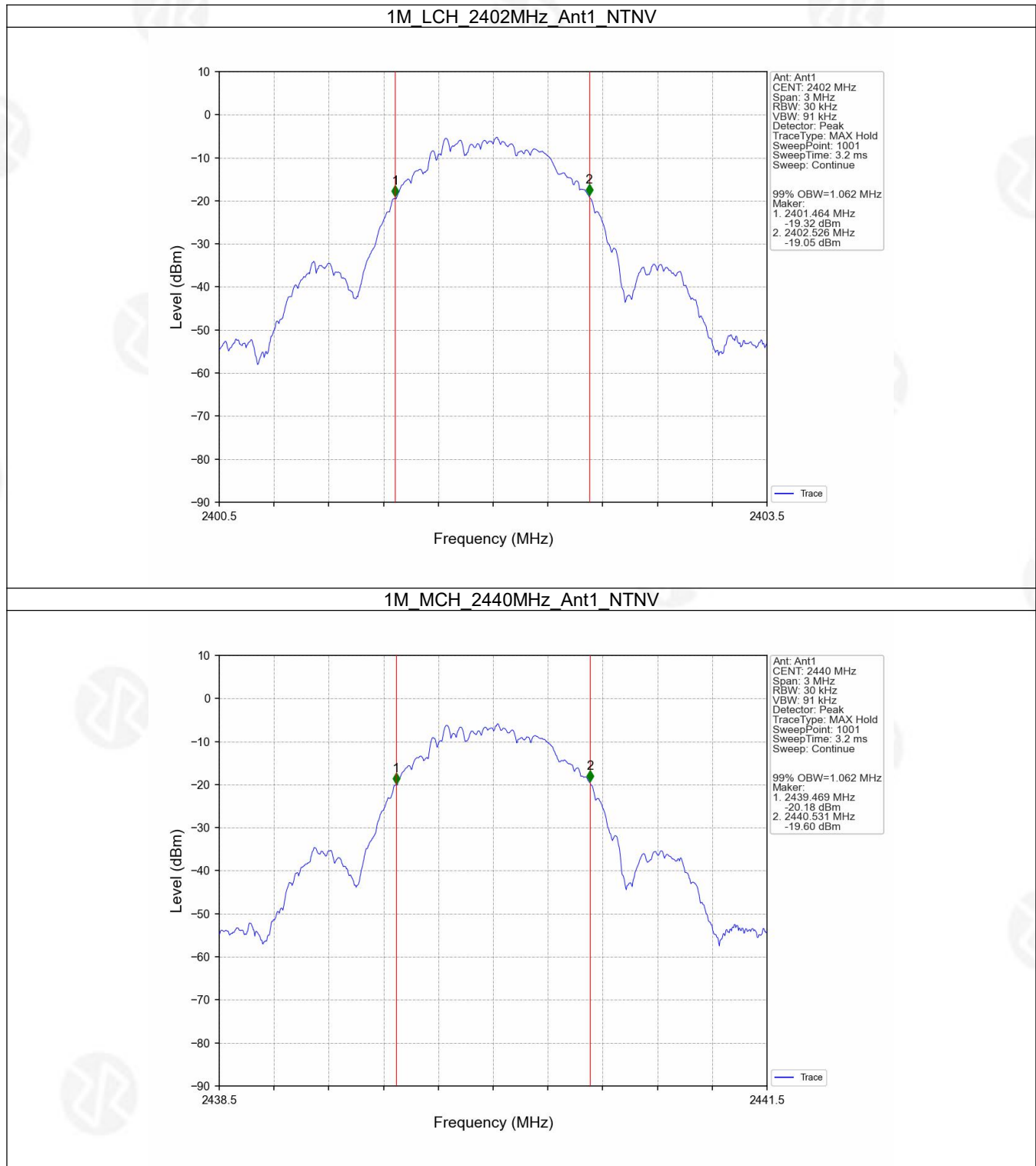
2.1.2 6dB BW

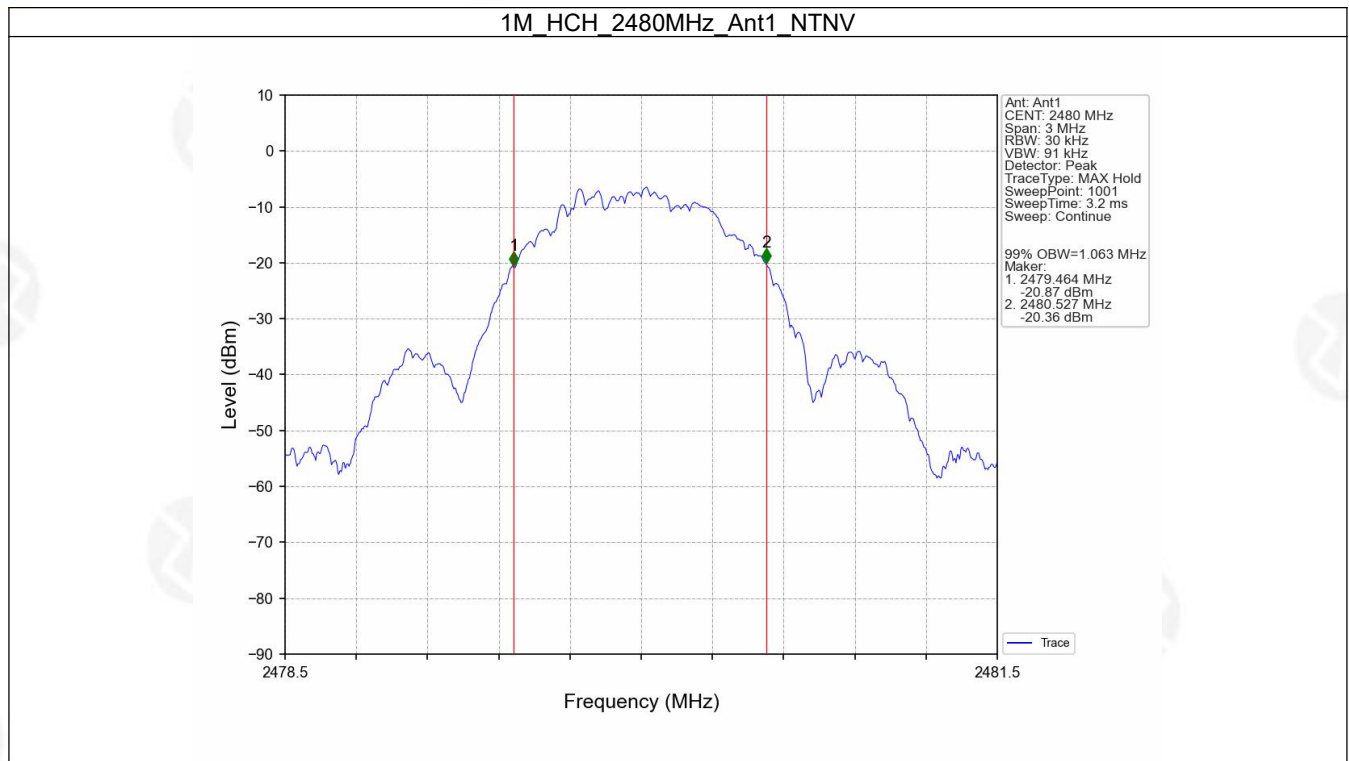
Mode	TX Type	Frequency (MHz)	ANT	6dB Bandwidth (MHz)		Verdict
				Result	Limit	
1M	SISO	2402	1	0.718	≥ 0.5	Pass
		2440	1	0.713	≥ 0.5	Pass
		2480	1	0.715	≥ 0.5	Pass



2.2 Test Graph

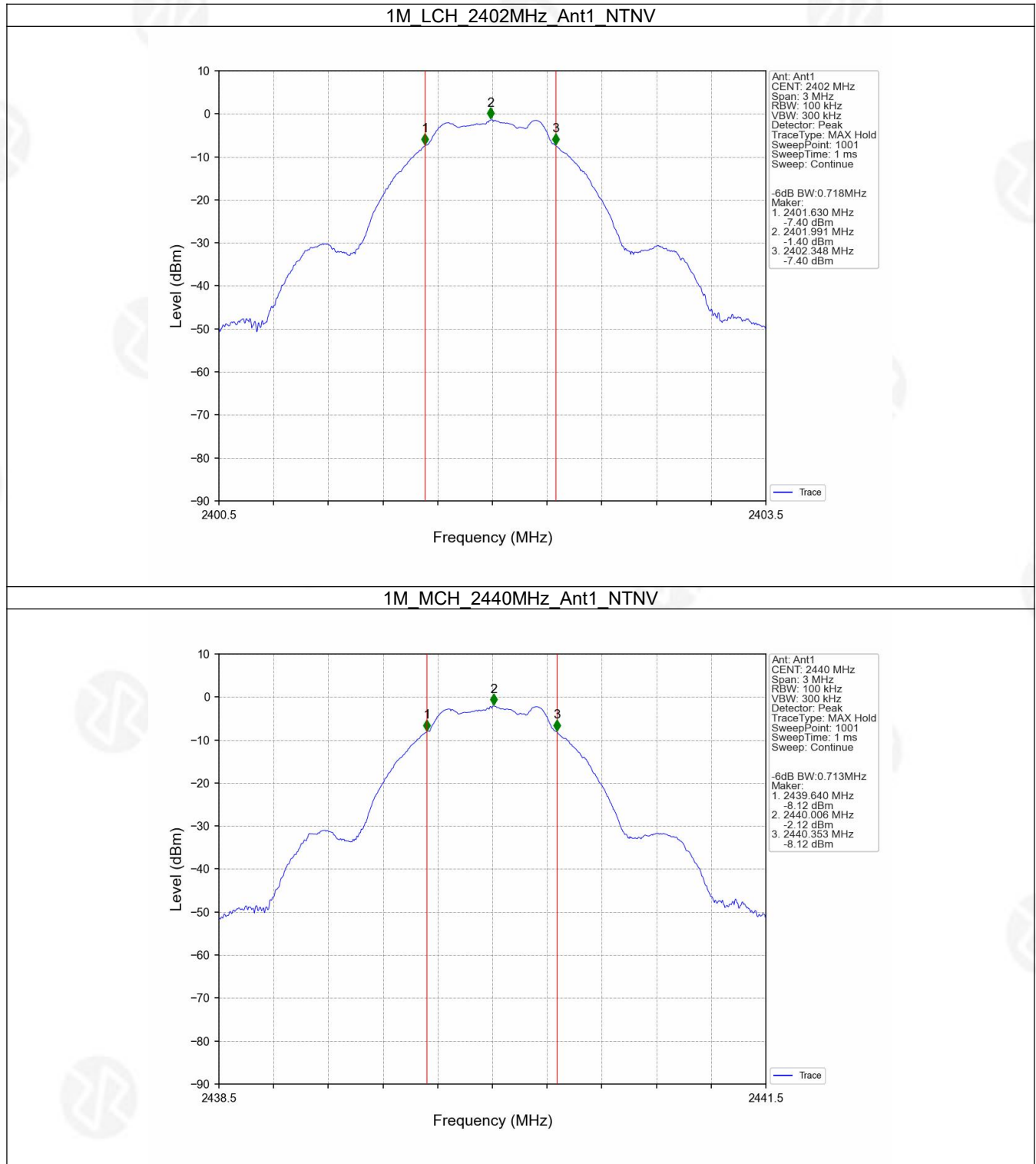
2.2.1 OBW

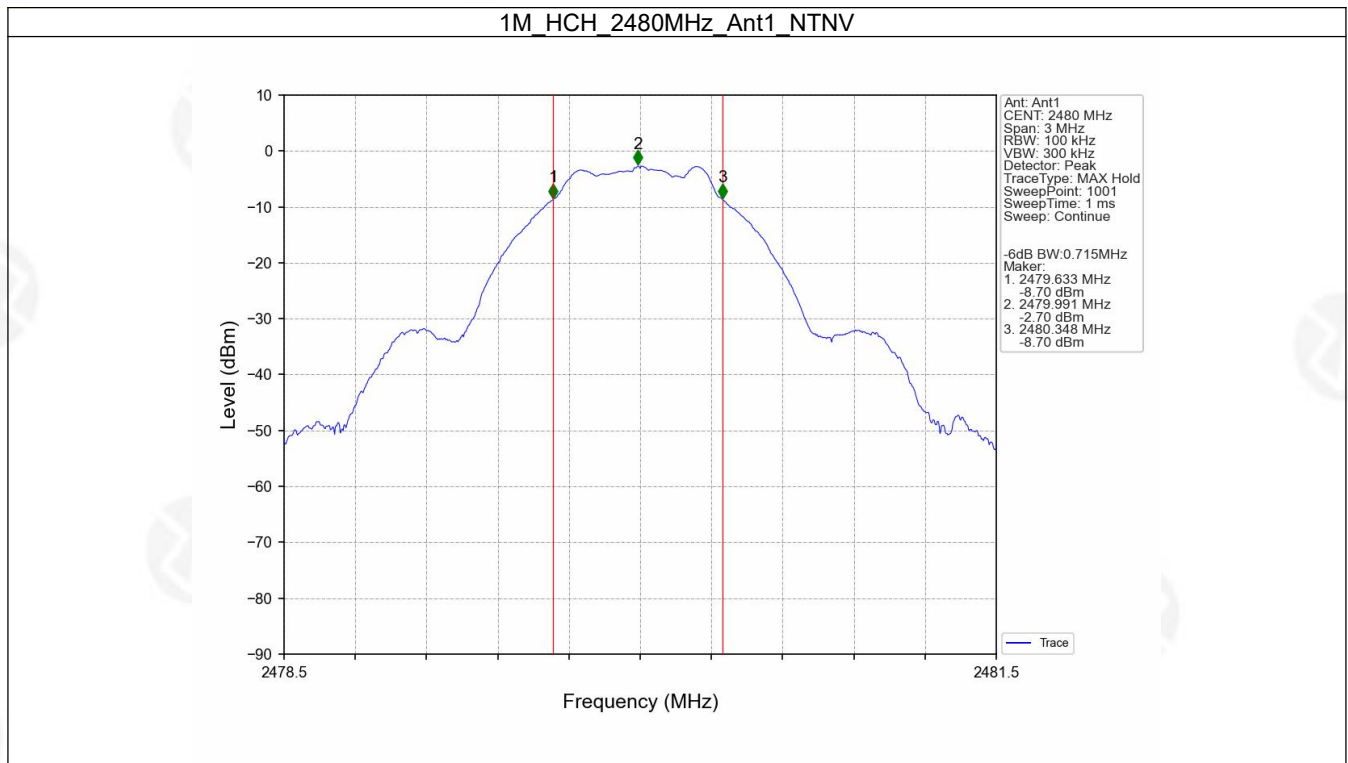






2.2.2 6dB BW







3. Maximum Conducted Output Power

3.1 Test Result

3.1.1 Power

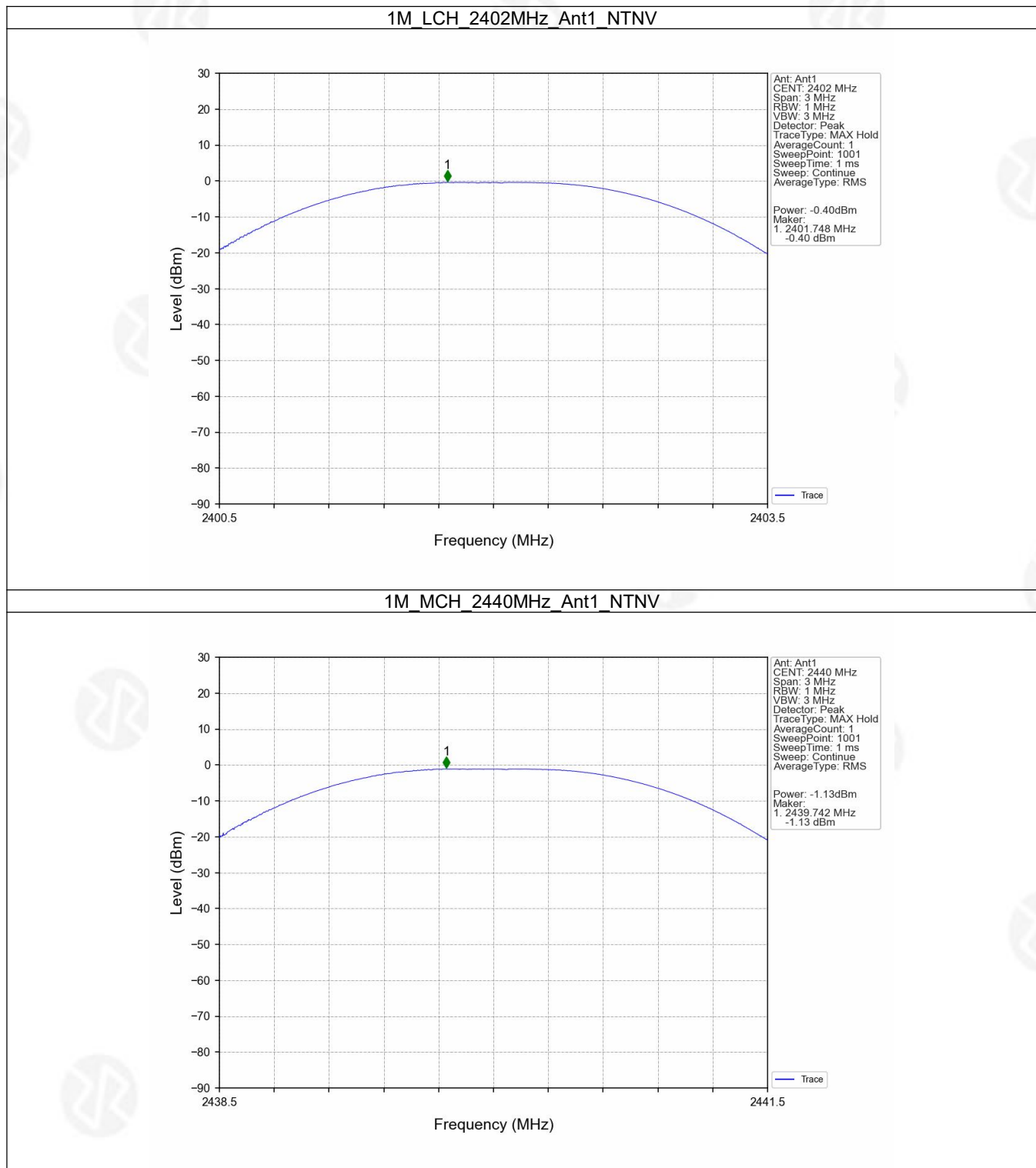
Mode	TX Type	Frequency (MHz)	Maximum Peak Conducted Output Power (dBm)		Verdict
			ANT1	Limit	
1M	SISO	2402	-0.40	<=30	Pass
		2440	-1.13	<=30	Pass
		2480	-1.70	<=30	Pass

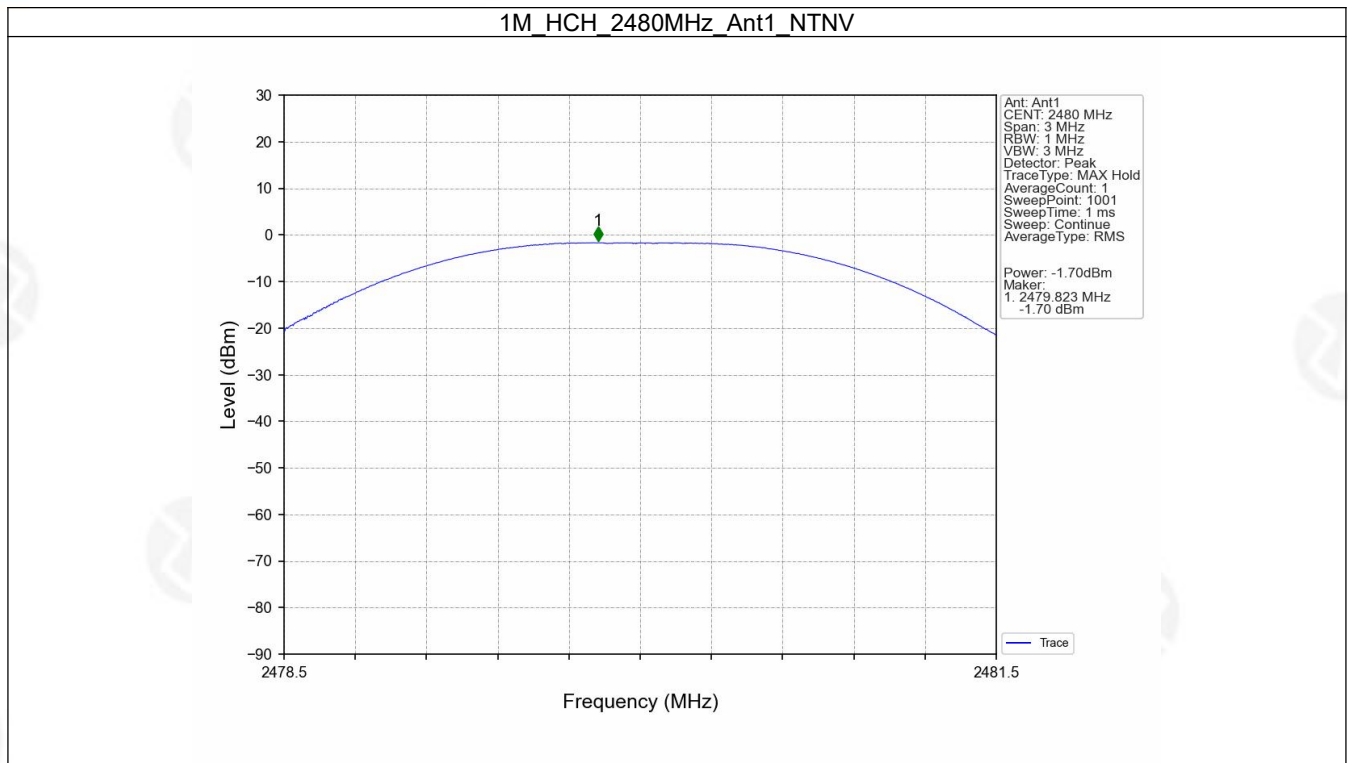
Note1: Antenna Gain: Ant1: 0.41dBi;



3.2 Test Graph

3.2.1 Power







4. Maximum Power Spectral Density

4.1 Test Result

4.1.1 PSD

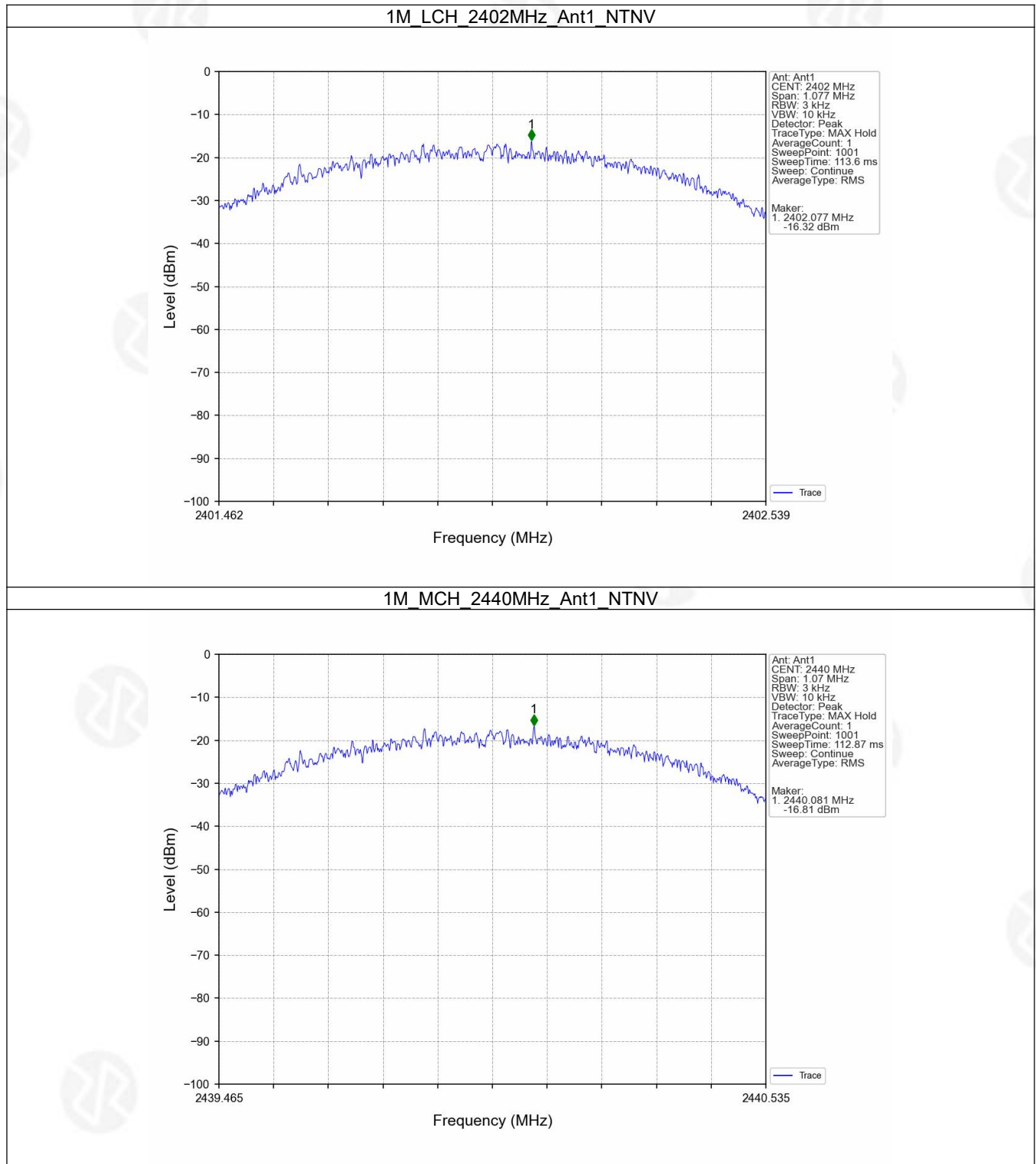
Mode	TX Type	Frequency (MHz)	Maximum PSD (dBm/3kHz)		Verdict
			ANT1	Limit	
1M	SISO	2402	-16.32	<=8	Pass
		2440	-16.81	<=8	Pass
		2480	-17.88	<=8	Pass

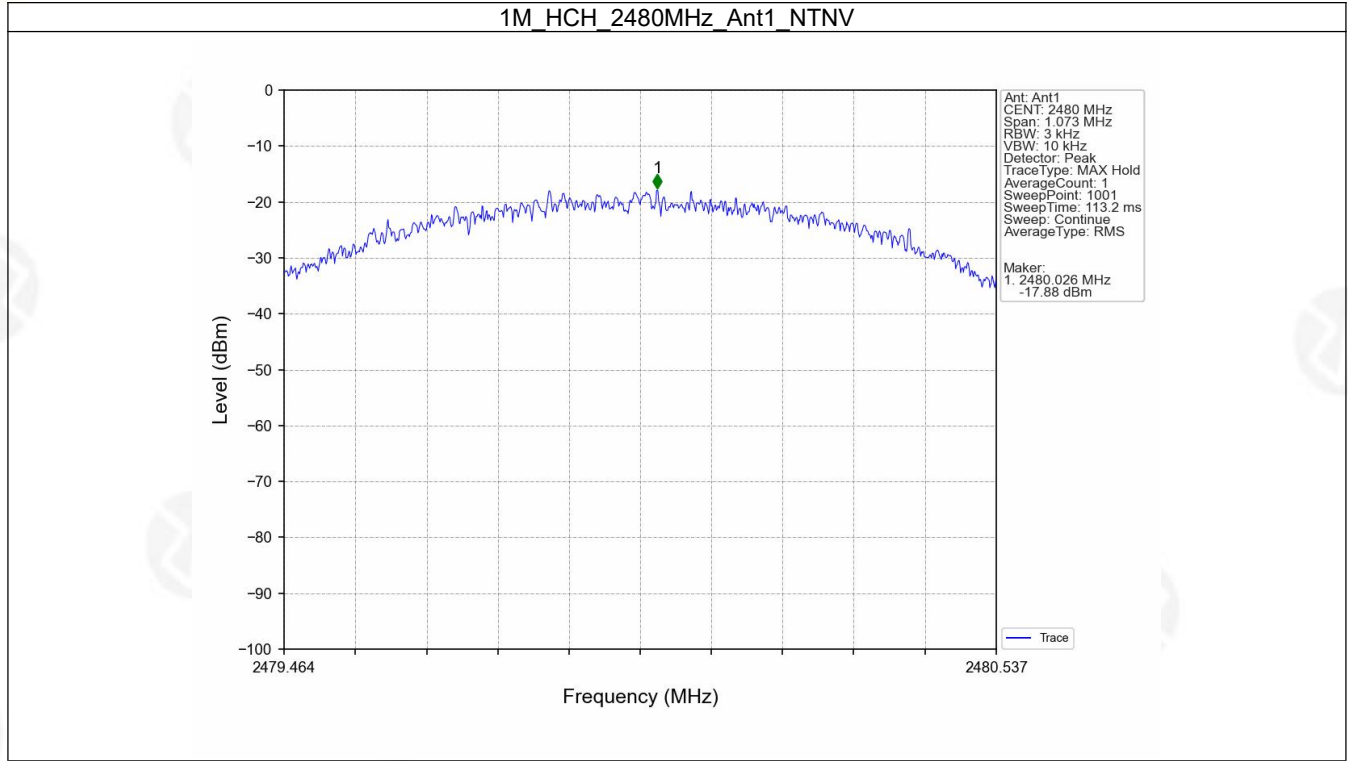
Note1: Antenna Gain: Ant1: 0.41dBi;



4.2 Test Graph

4.2.1 PSD







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	-1.50
		2440	1	-2.20
		2480	1	-2.77
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.				

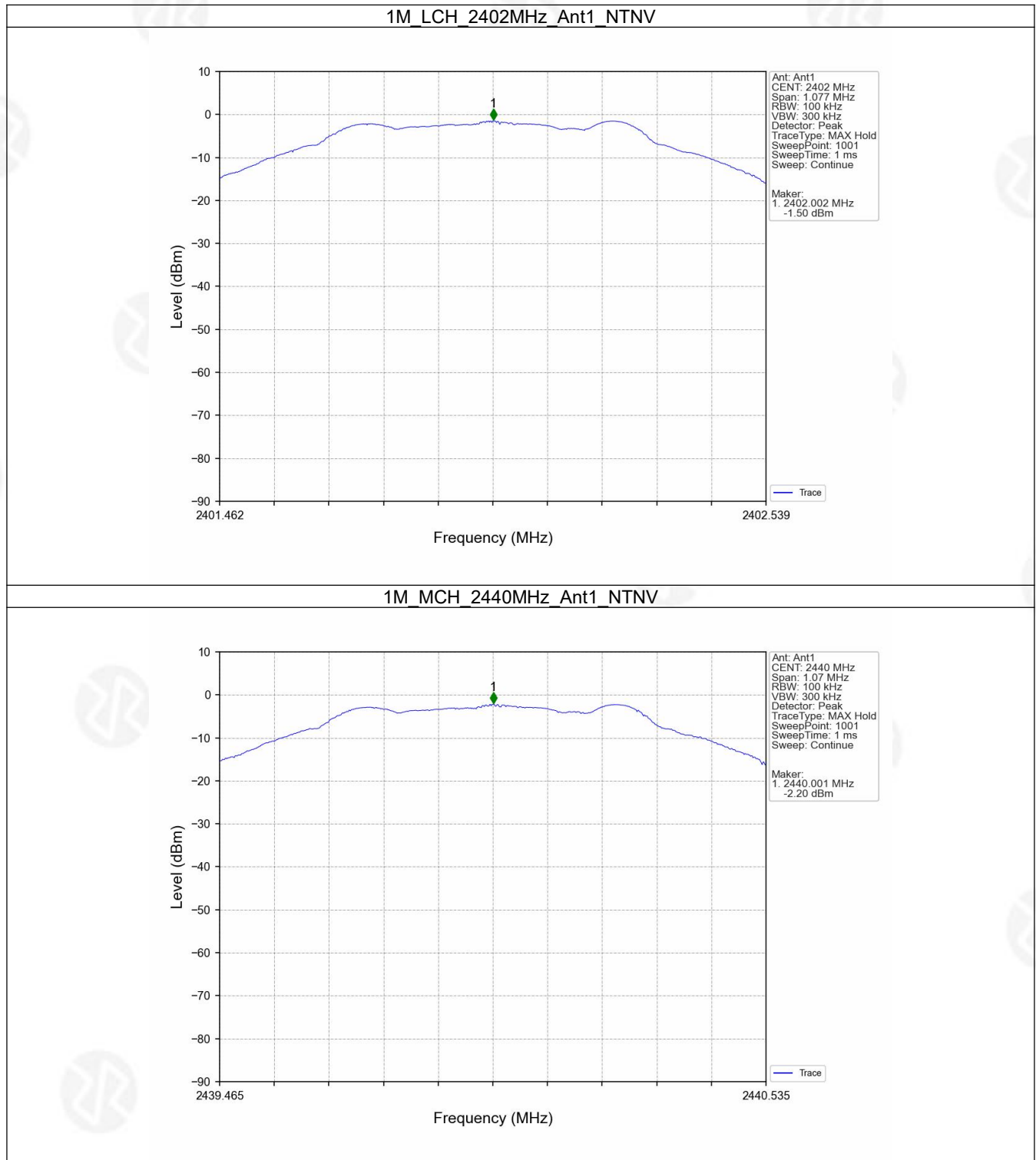
5.1.2 CSE

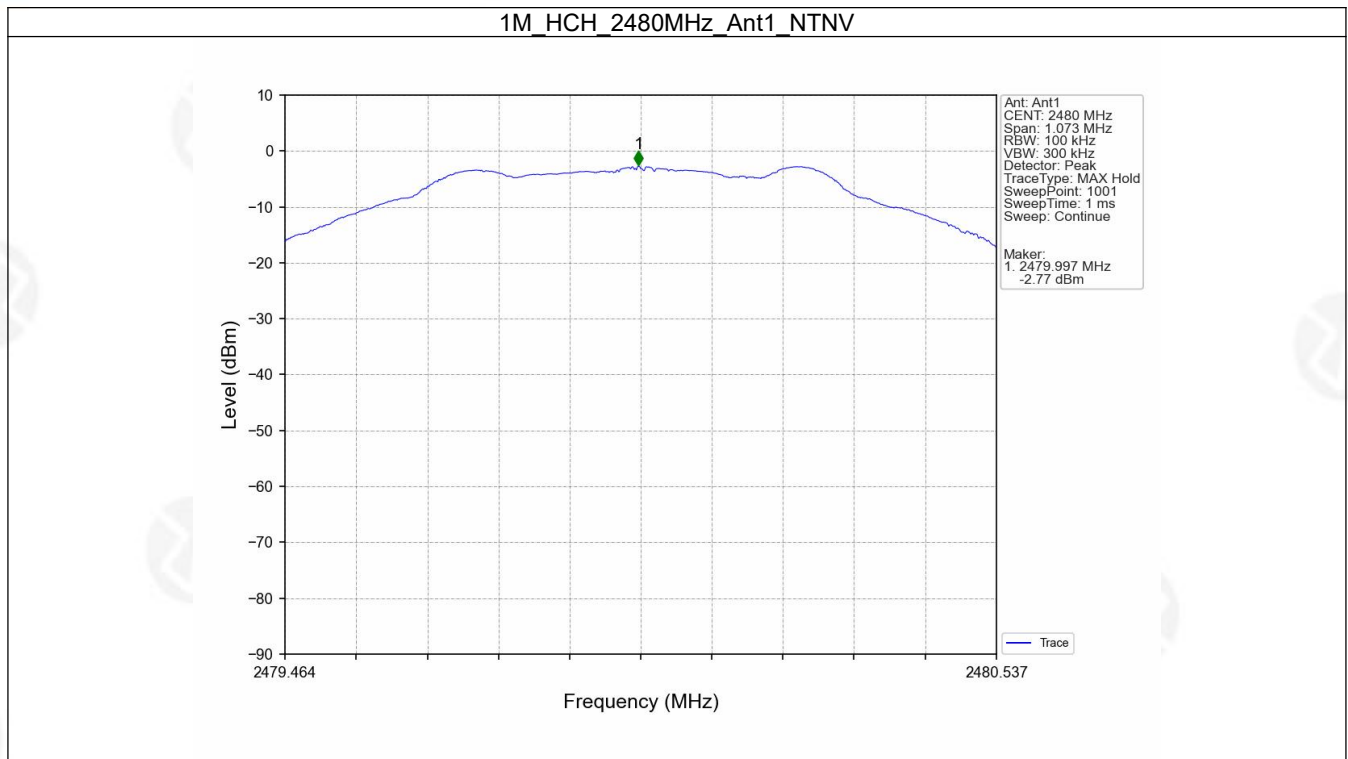
Mode	TX Type	Frequency (MHz)	ANT	Level of Reference (dBm)	Limit (dBm)	Verdict
1M	SISO	2402	1	-1.50	-21.50	Pass
		2440	1	-2.20	-22.20	Pass
		2480	1	-2.77	-22.77	Pass
Note1: Refer to FCC Part 15.247 (d) and ANSI C63.10-2013, the channel contains the maximum PSD level was used to establish the reference level.						



5.2 Test Graph

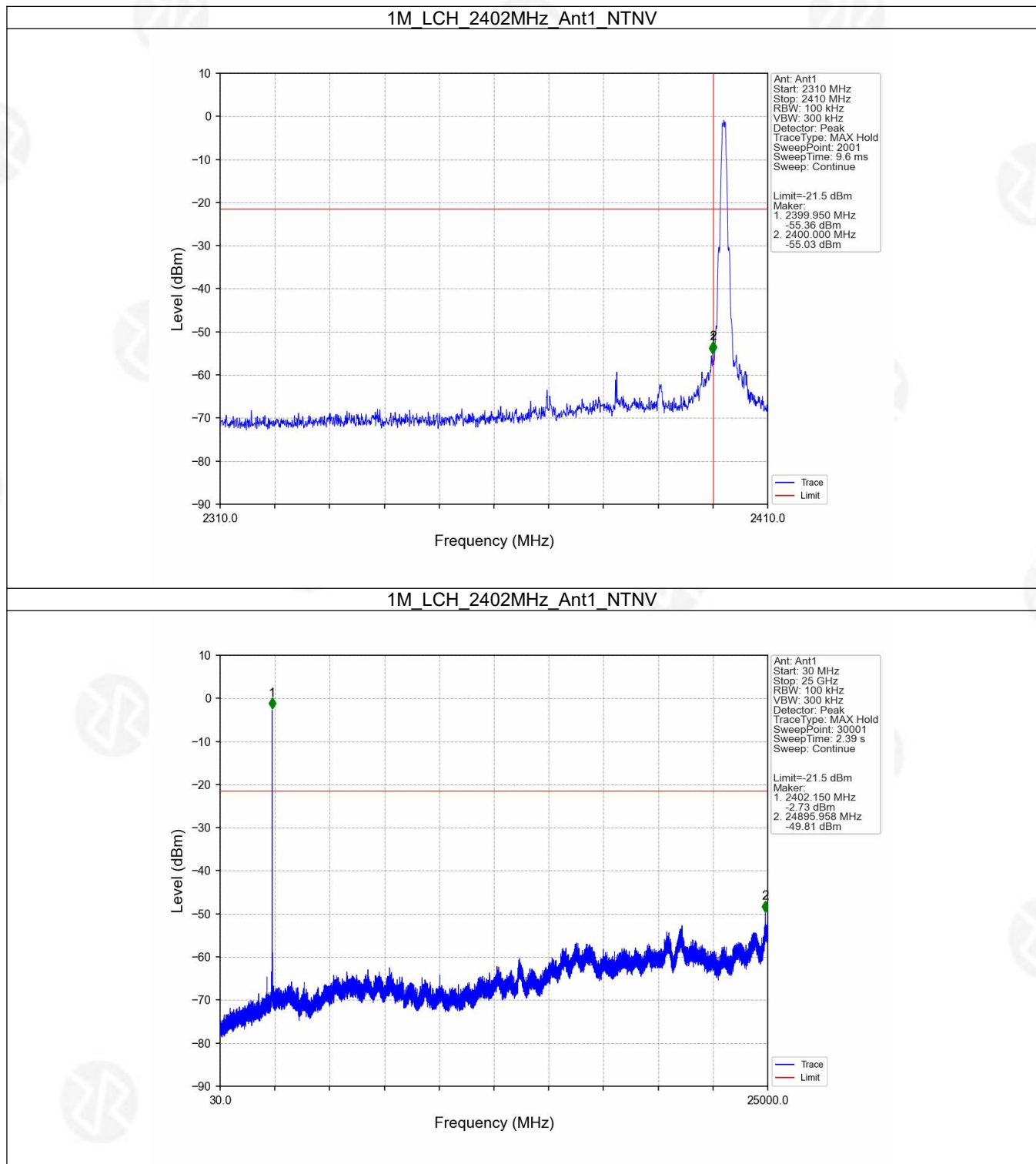
5.2.1 Ref





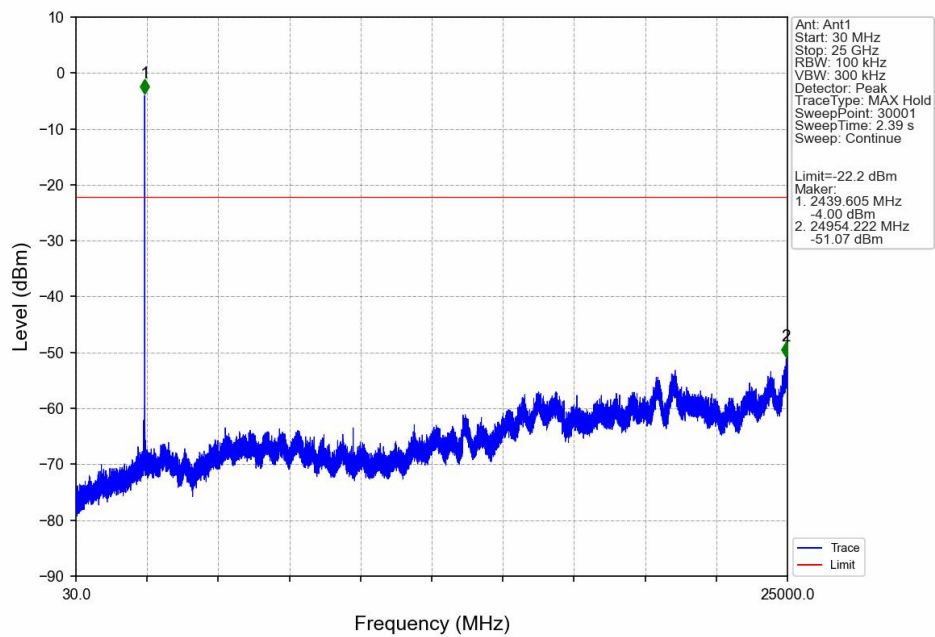


5.2.2 CSE

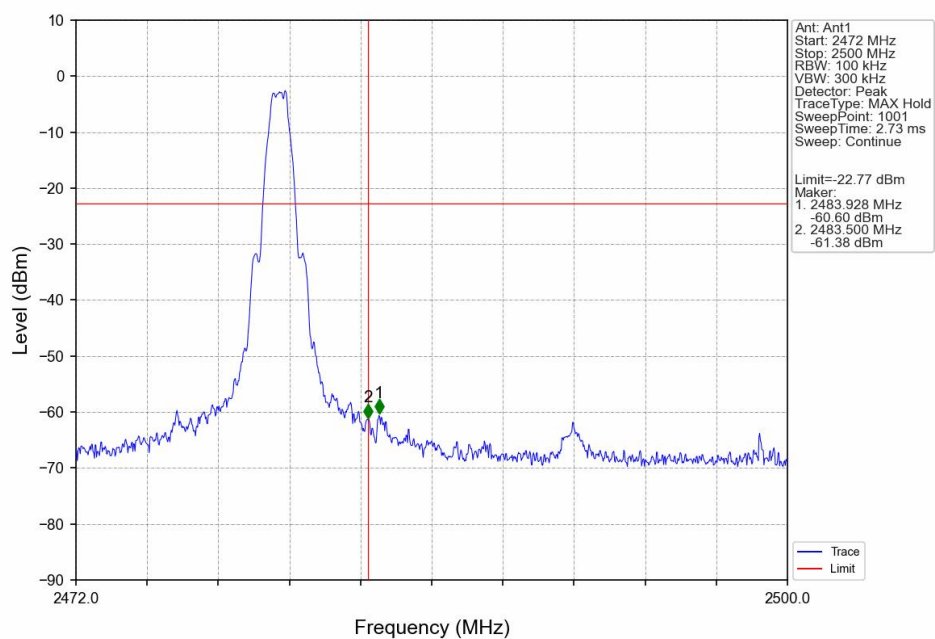


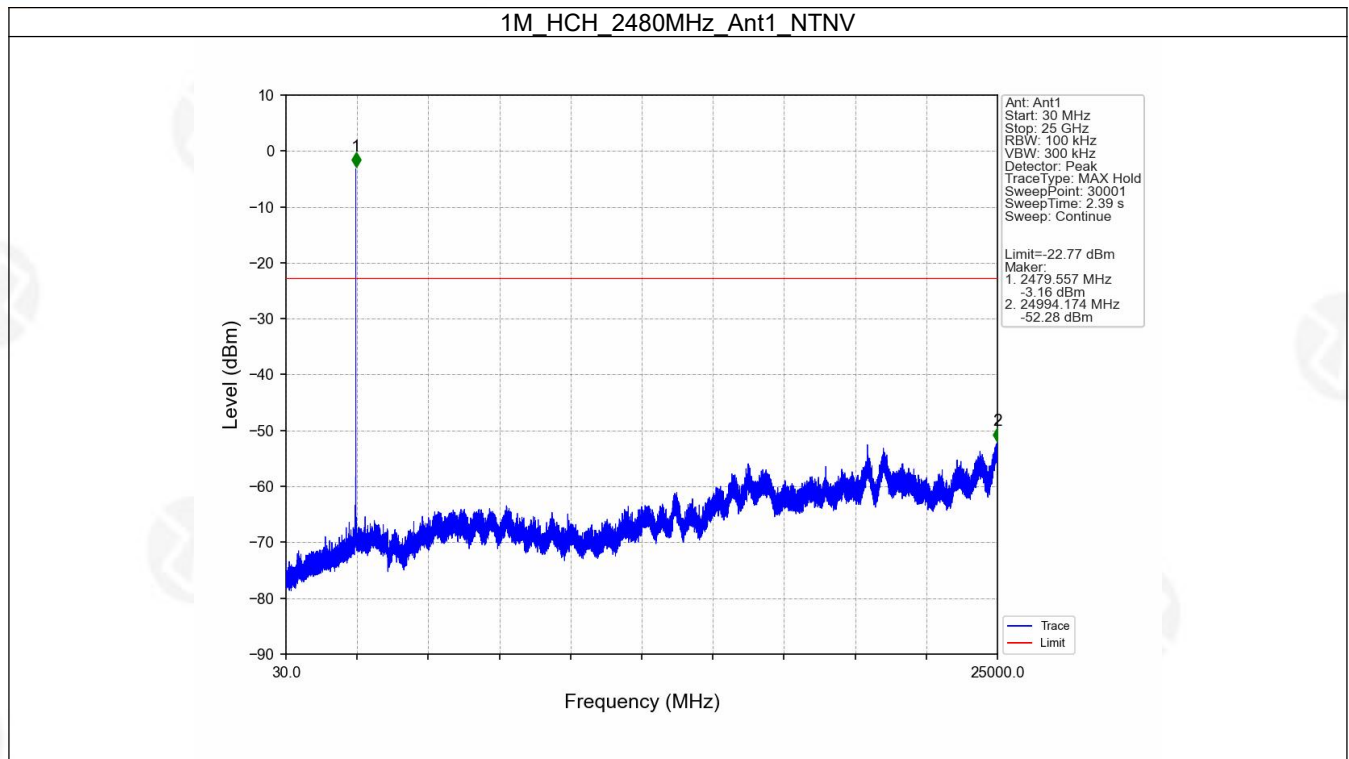


1M_MCH_2440MHz_Ant1_NTNV



1M_HCH_2480MHz_Ant1_NTNV







6. Form731

6.1 Test Result

6.1.1 Form731

Lower Freq (MHz)	High Freq (MHz)	MAX Power (W)	MAX Power (dBm)
2402	2480	0.0009	-0.40