



RF Test Report

For

Project No.:	DLE-250403004R
Client:	Zhongshan Haohan Hardware Technology Co.,Ltd.
Manufacturer:	Zhongshan Haohan Hardware Technology Co.,Ltd.
Product Description:	digital deadbolt lock
Test Engineer:	Ken Tan
Test Date:	2025-03-31
Test Model:	905ML

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



1. Duty Cycle

1.1 Test Result

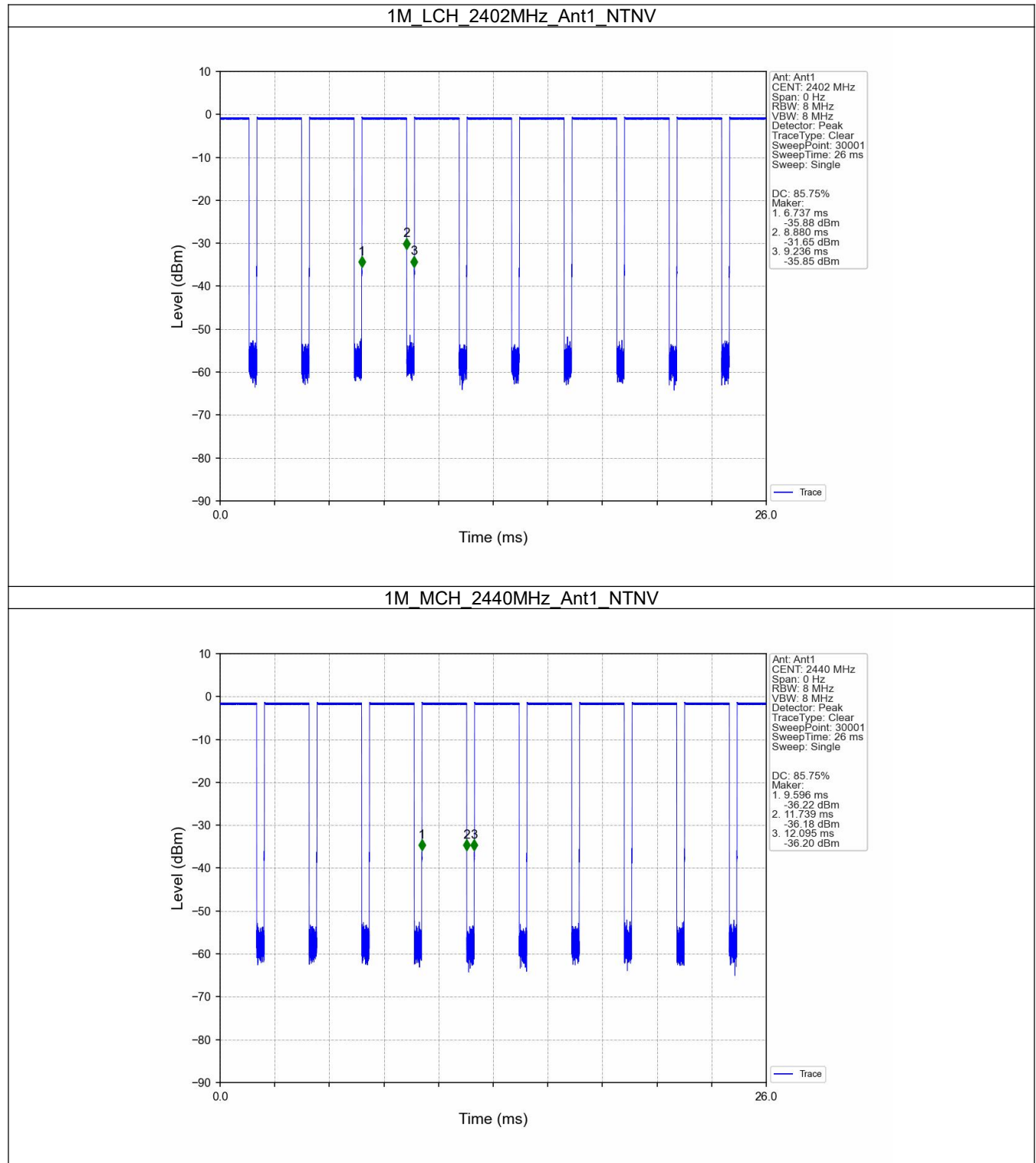
1.1.1 Ant1

Ant1							
Mode	TX Type	Frequency (MHz)	T_on (ms)	Period (ms)	Duty Cycle (%)	Duty Cycle Correction Factor (dB)	Max. DC Variation (%)
1M	SISO	2402	2.143	2.499	85.75	0.67	0.00
		2440	2.143	2.499	85.75	0.67	0.03
		2480	2.143	2.500	85.72	0.67	0.03



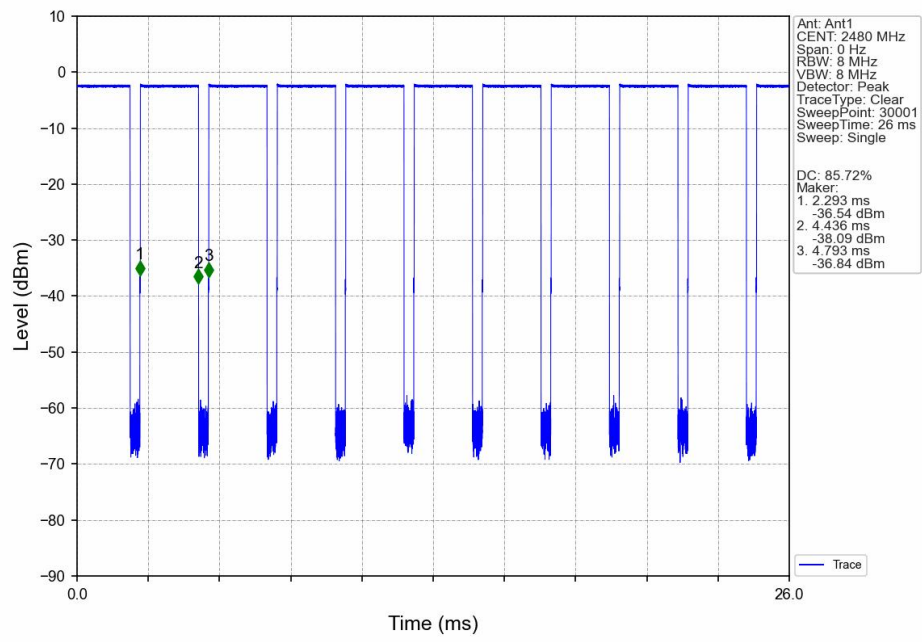
1.2 Test Graph

1.2.1 Ant1





1M_HCH_2480MHz_Ant1_NTNV





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	1.061	/	Pass
		2480	1	1.064	/	Pass

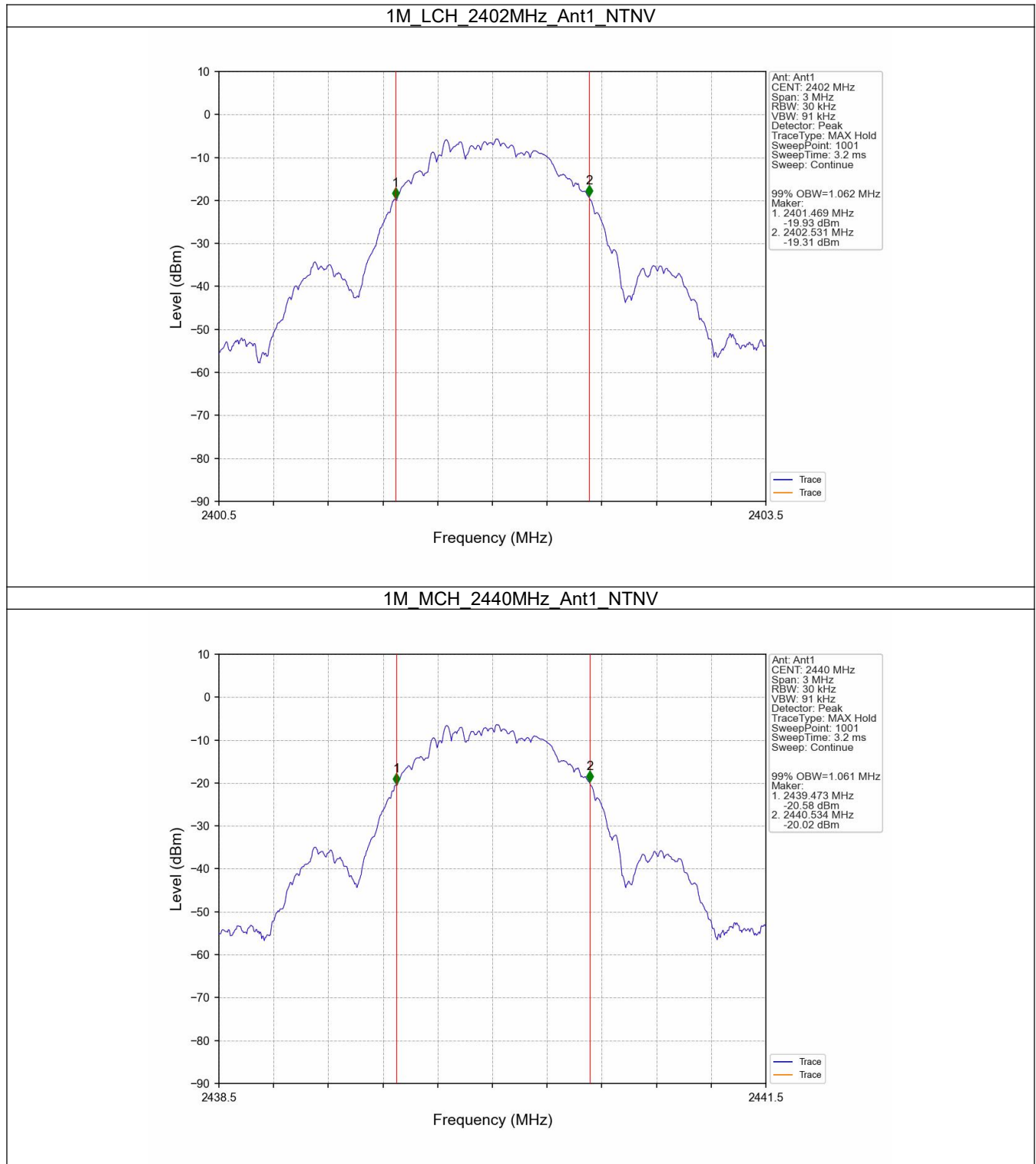
2.1.2 6dB BW

Mode	TX Type	Frequency (MHz)	ANT	6dB Bandwidth (MHz)		Verdict
				Result	Limit	
1M	SISO	2402	1	0.716	≥ 0.5	Pass
		2440	1	0.716	≥ 0.5	Pass
		2480	1	0.718	≥ 0.5	Pass



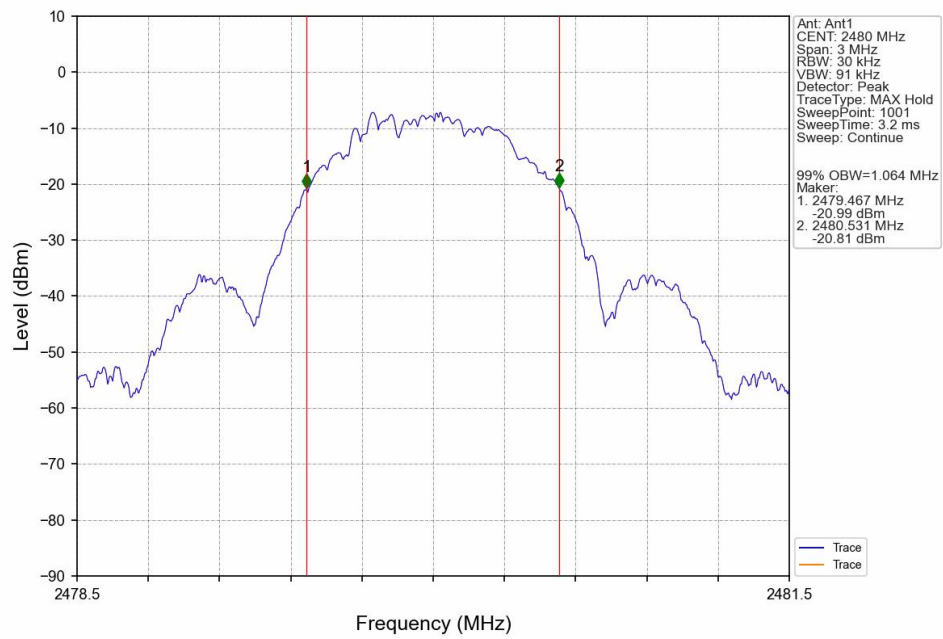
2.2 Test Graph

2.2.1 OBW



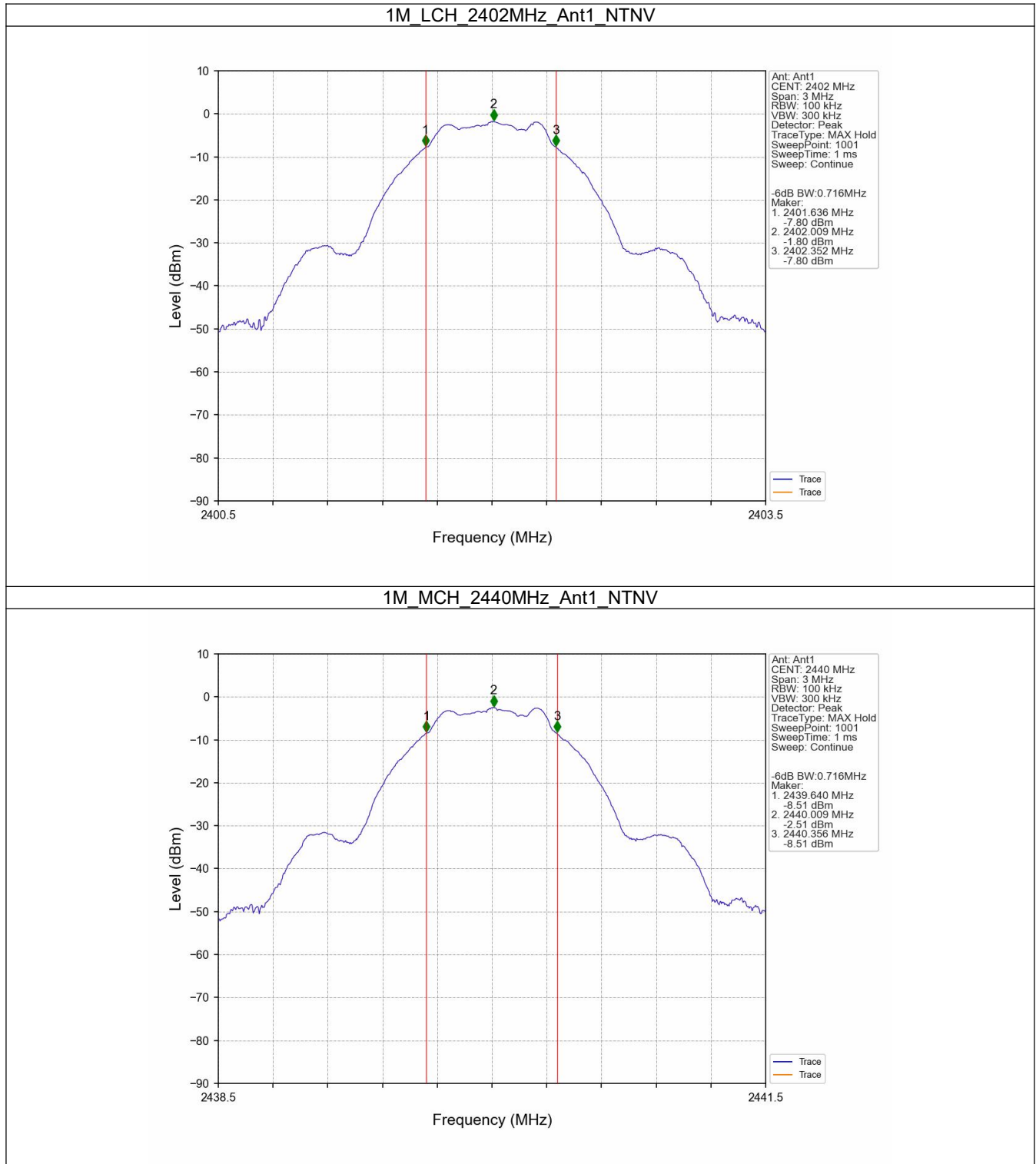


1M_HCH_2480MHz_Ant1_NTNV



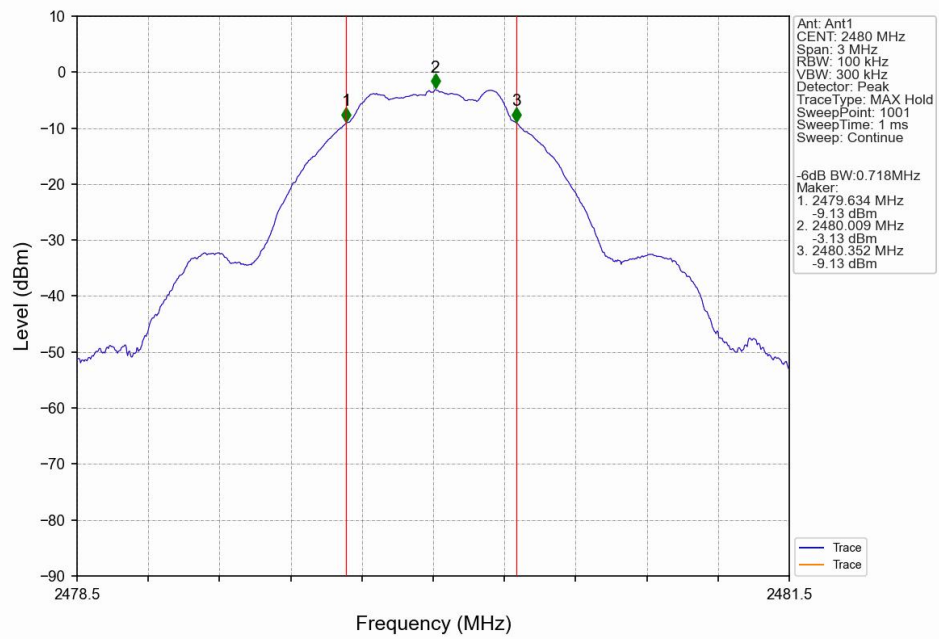


2.2.2 6dB BW





1M_HCH_2480MHz_Ant1_NTNV





3. Maximum Conducted Output Power

3.1 Test Result

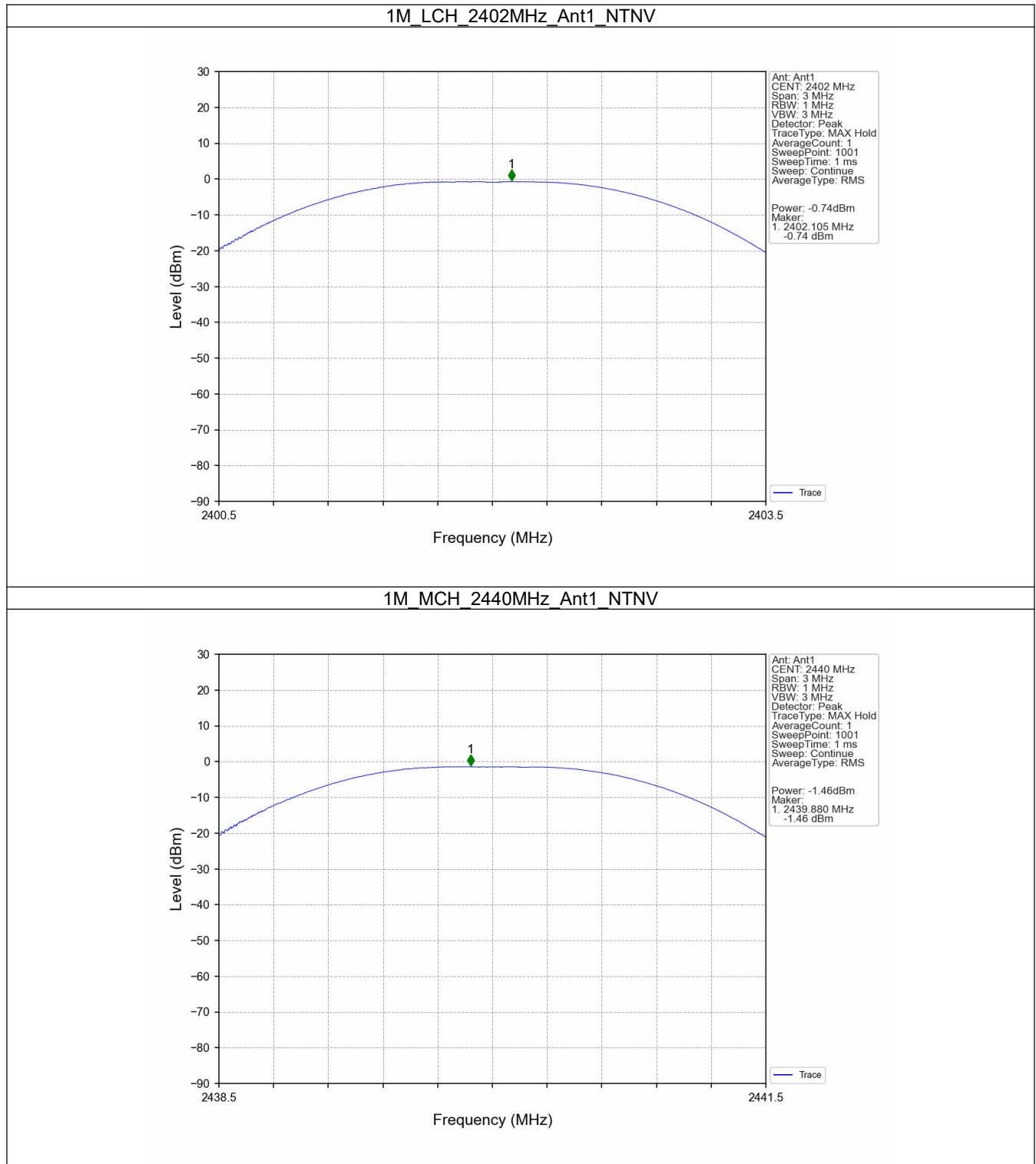
3.1.1 Power

Mode	TX Type	Frequency (MHz)	Maximum Peak Conducted Output Power (dBm)		Verdict
			ANT1	Limit	
1M	SISO	2402	-0.74	<=30	Pass
		2440	-1.46	<=30	Pass
		2480	-2.05	<=30	Pass
Note1: Antenna Gain: Ant1: 0.00dBi;					



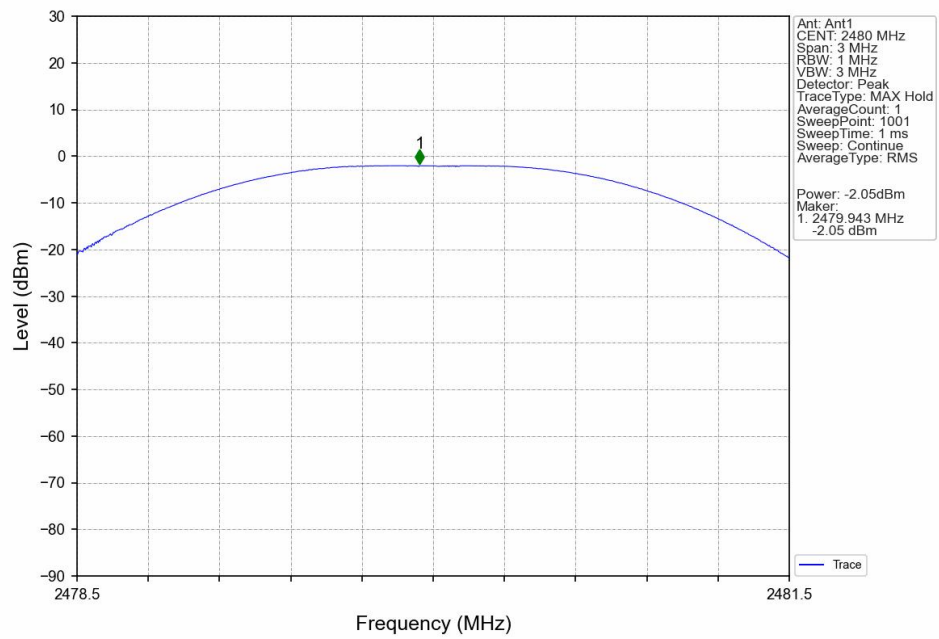
3.2 Test Graph

3.2.1 Power





1M_HCH_2480MHz_Ant1_NTNV





4. Maximum Power Spectral Density

4.1 Test Result

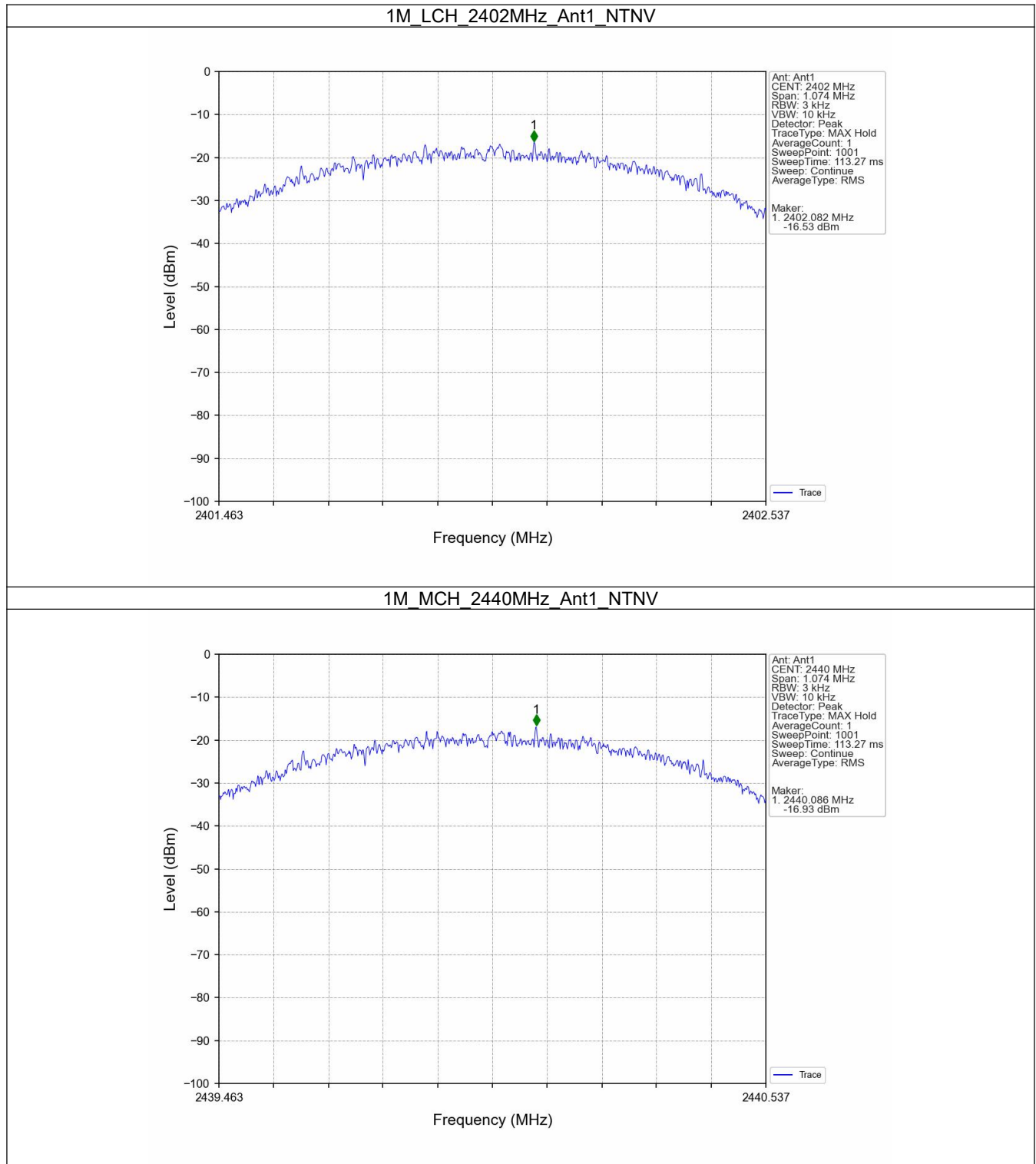
4.1.1 PSD

Mode	TX Type	Frequency (MHz)	Maximum PSD (dBm/3kHz)		Verdict
			ANT1	Limit	
1M	SISO	2402	-16.53	<=8	Pass
		2440	-16.93	<=8	Pass
		2480	-17.85	<=8	Pass
Note1: Antenna Gain: Ant1: 0.00dBi;					



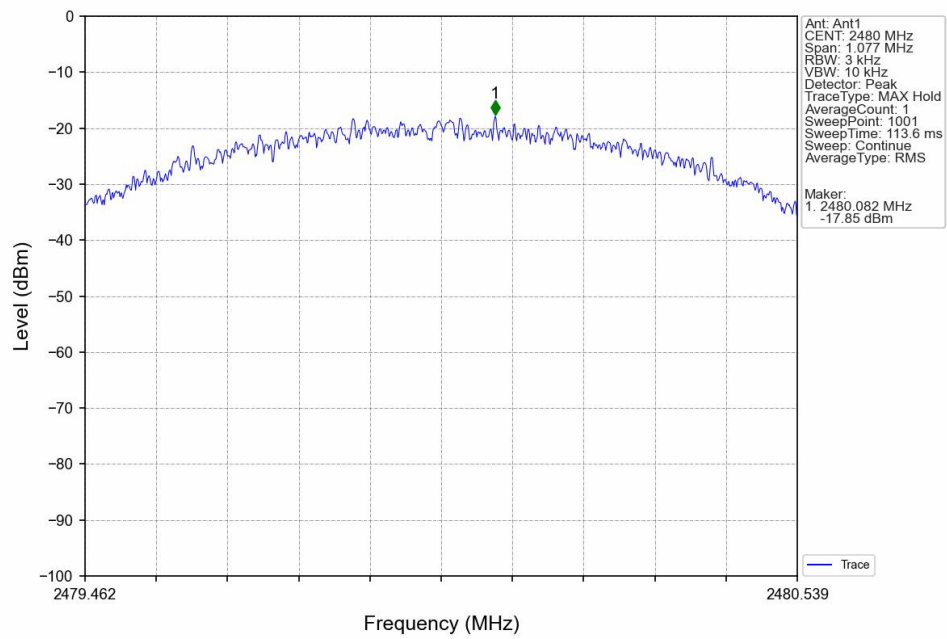
4.2 Test Graph

4.2.1 PSD





1M_HCH_2480MHz_Ant1_NTNV





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	-1.88
		2440	1	-2.61
		2480	1	-3.19
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.				

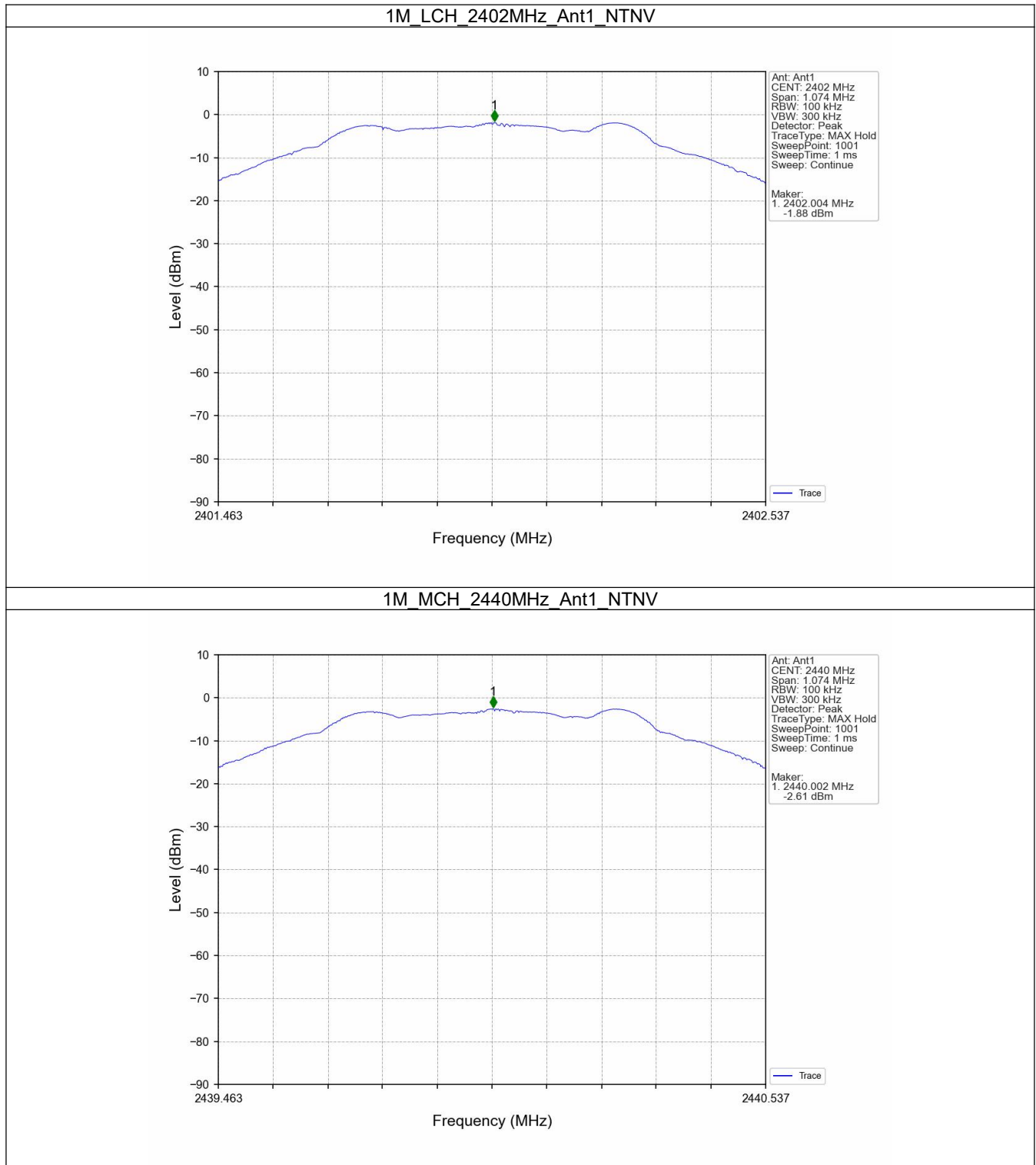
5.1.2 CSE

Mode	TX Type	Frequency (MHz)	ANT	Level of Reference (dBm)	Limit (dBm)	Verdict
1M	SISO	2402	1	-1.88	-21.88	Pass
		2440	1	-2.61	-22.61	Pass
		2480	1	-3.19	-23.19	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.						



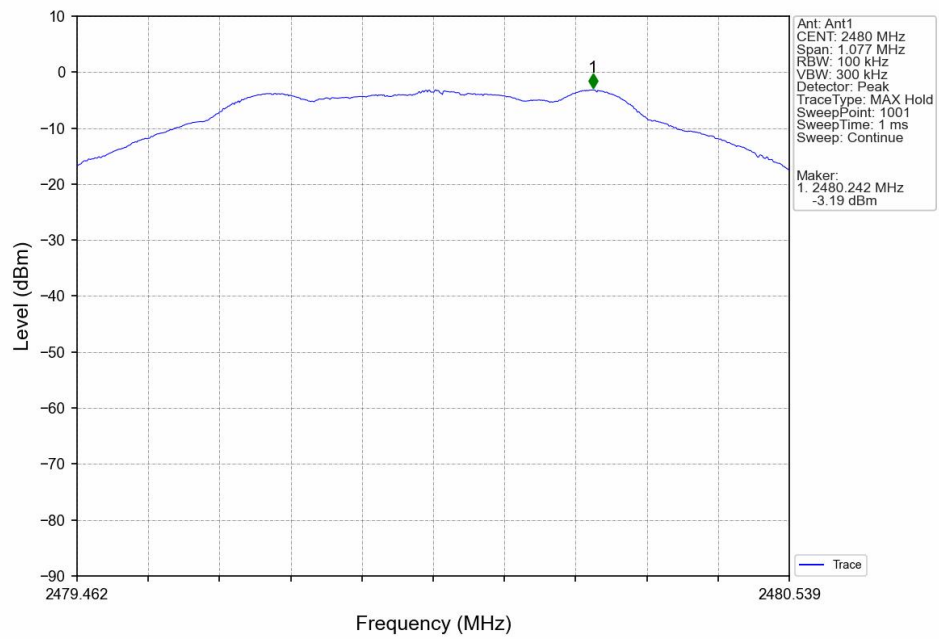
5.2 Test Graph

5.2.1 Ref



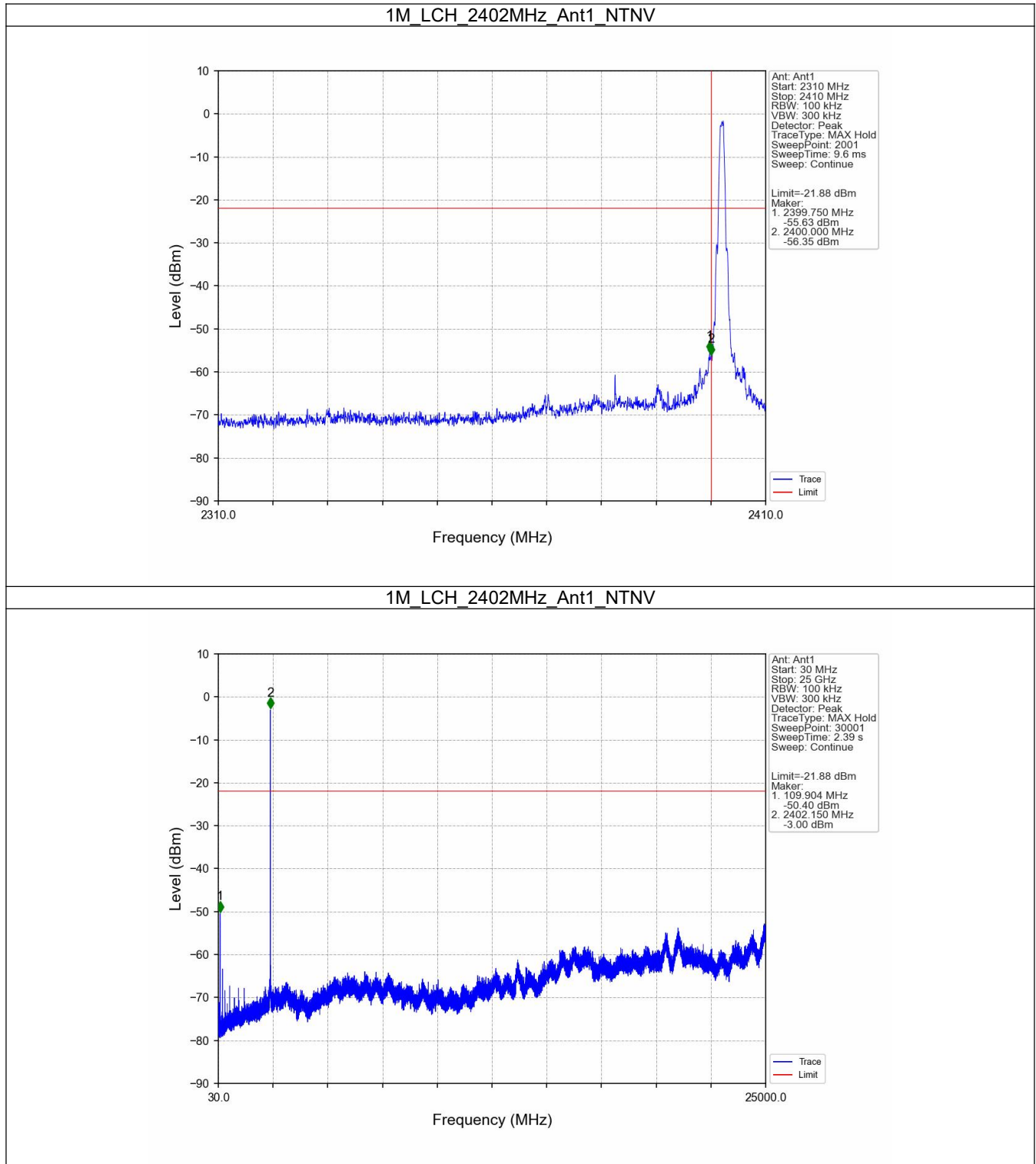


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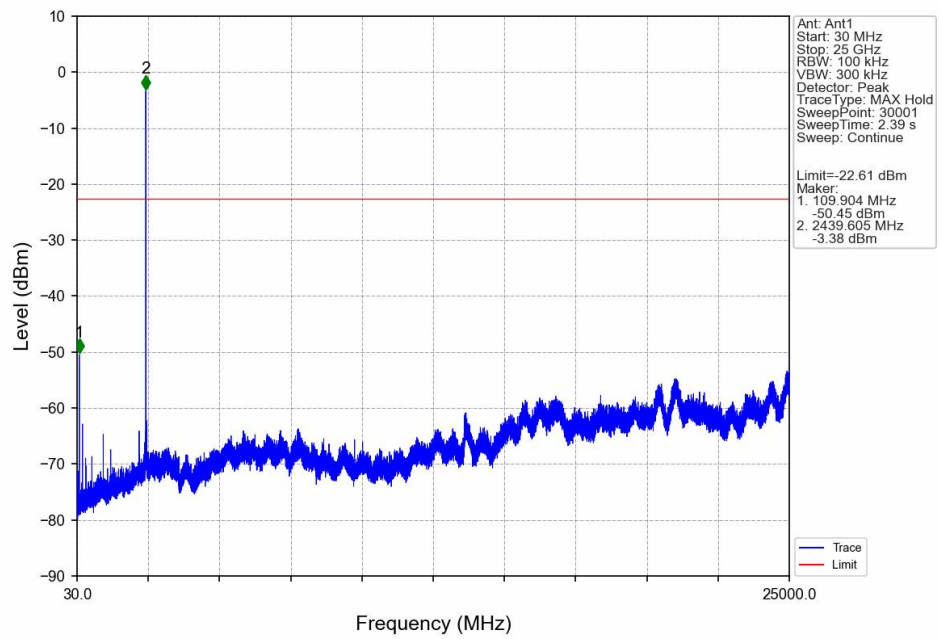


5.2.2 CSE

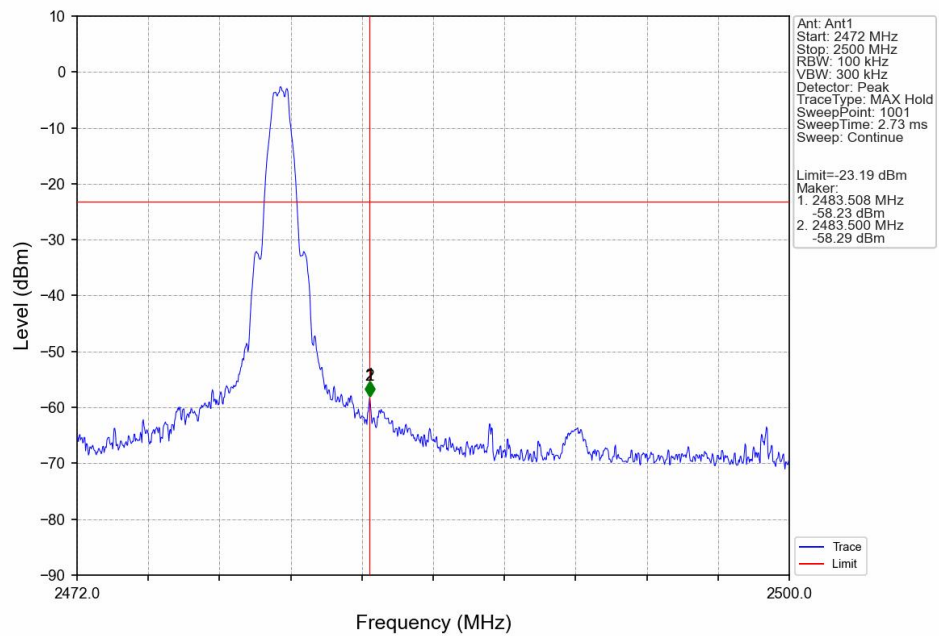




1M_MCH_2440MHz_Ant1_NTNV



1M_HCH_2480MHz_Ant1_NTNV





1M_HCH_2480MHz_Ant1_NTNV

