

ANNEX D TEST DATA

For

Project No.:	8327EU012609W
Client:	SANWA LIMITED
Product Name:	Dongle
Model No.:	GMAERGW17WL-RC
FCC ID:	2AMSUGMAERGW17WLRC
Technology:	2.4G ISM Band (GFSK modulation)
Test Engineer:	<i>Mikoy zhu</i>
Test Date:	2025-03-26

Test Summary

Item	Result
Duty Cycle	Pass
Bandwidth	Pass
Maximum Conducted Output Power	Pass
Carrier Frequency Separation	Pass
Number of Hopping Frequencies	Pass
Time of Occupancy (Dwell Time)	Pass
Unwanted Emissions In Non-restricted Frequency Bands	Pass

1. Duty Cycle

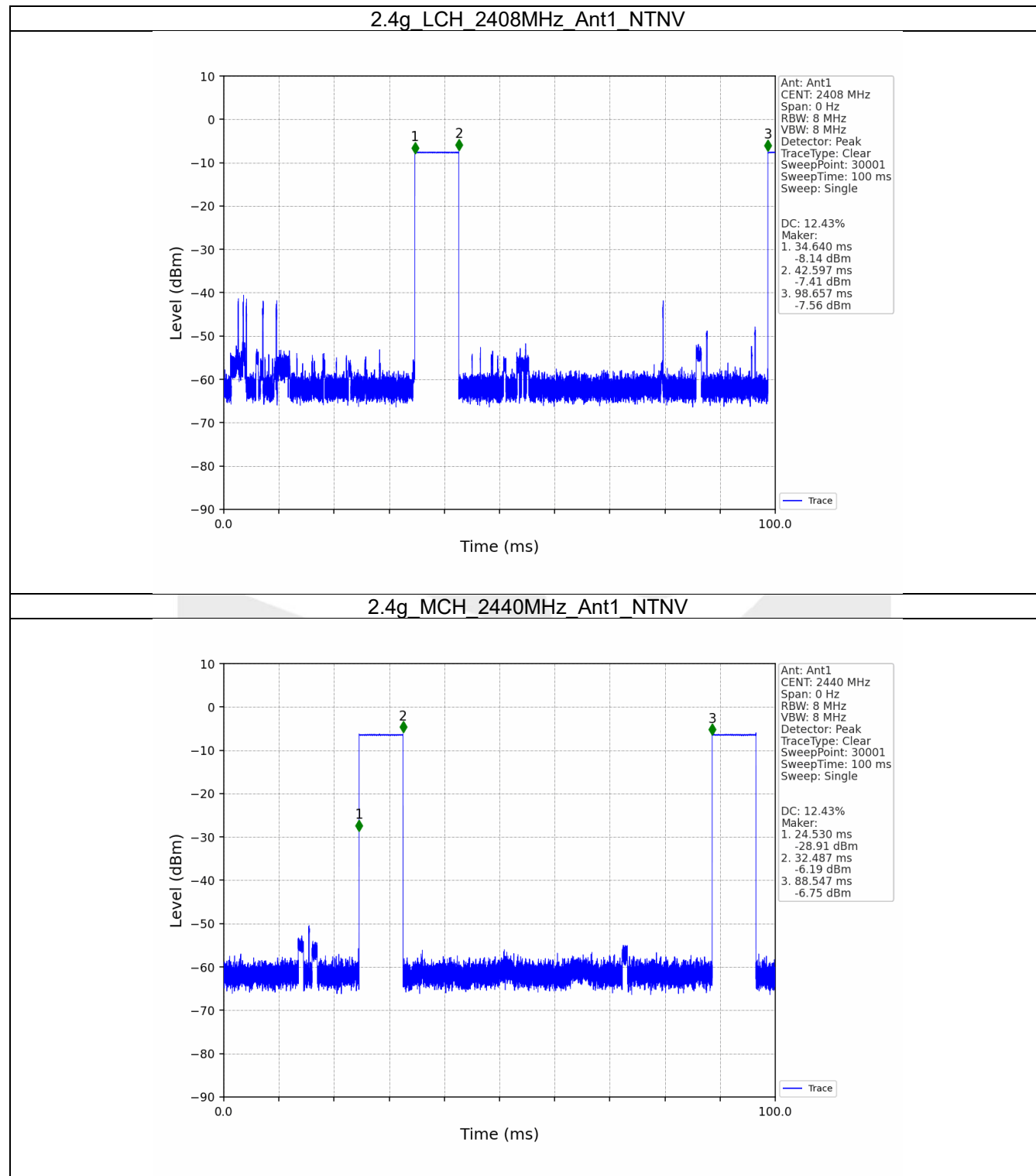
1.1 Test Result

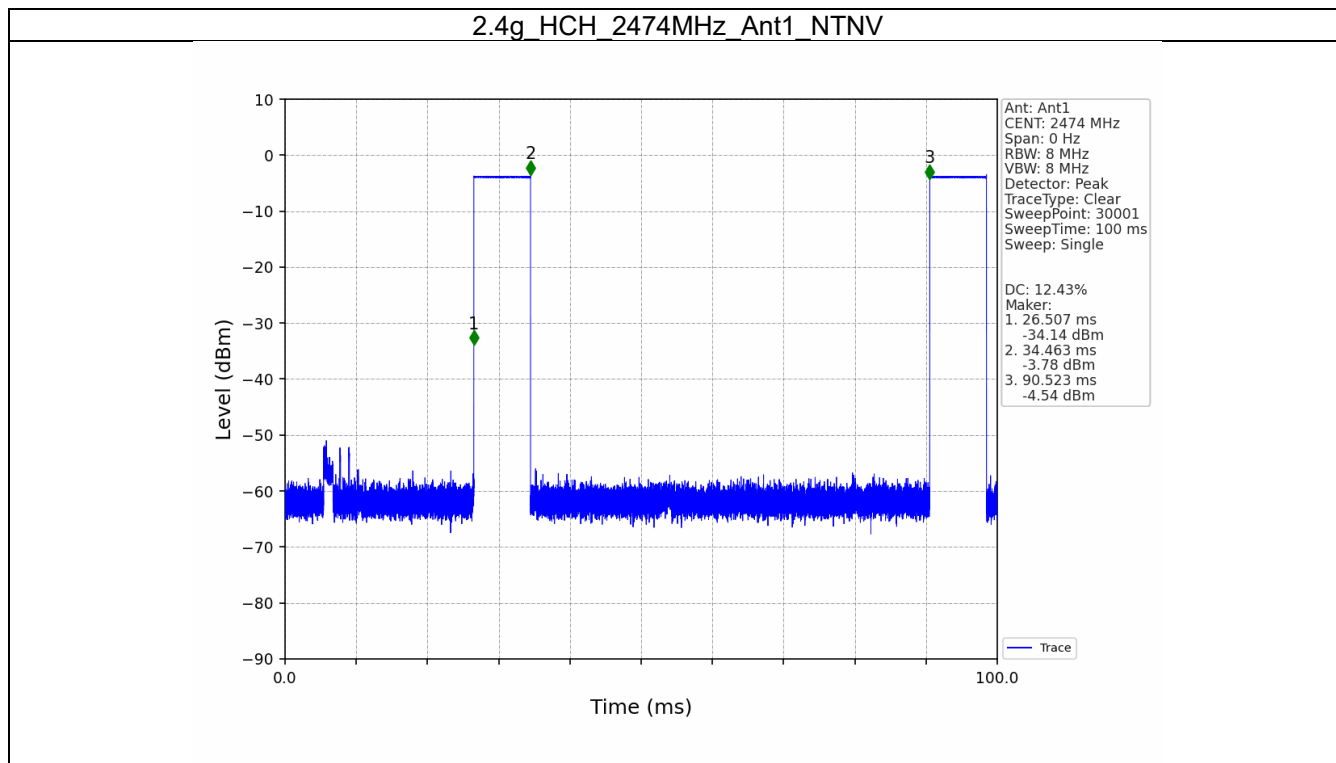
1.1.1 Ant1

Ant1							
Mode	TX Type	Frequency (MHz)	T_on (ms)	Period (ms)	Duty Cycle (%)	Duty Cycle Correction Factor (dB)	Max. DC Variation (%)
2.4g	SISO	2408	7.957	64.017	12.43	9.06	0.00
		2440	7.957	64.017	12.43	9.06	0.00
		2474	7.956	64.016	12.43	9.06	0.00

1.2 Test Graph

1.2.1 Ant1





2. Bandwidth

2.1 Test Result

2.1.1 OBW

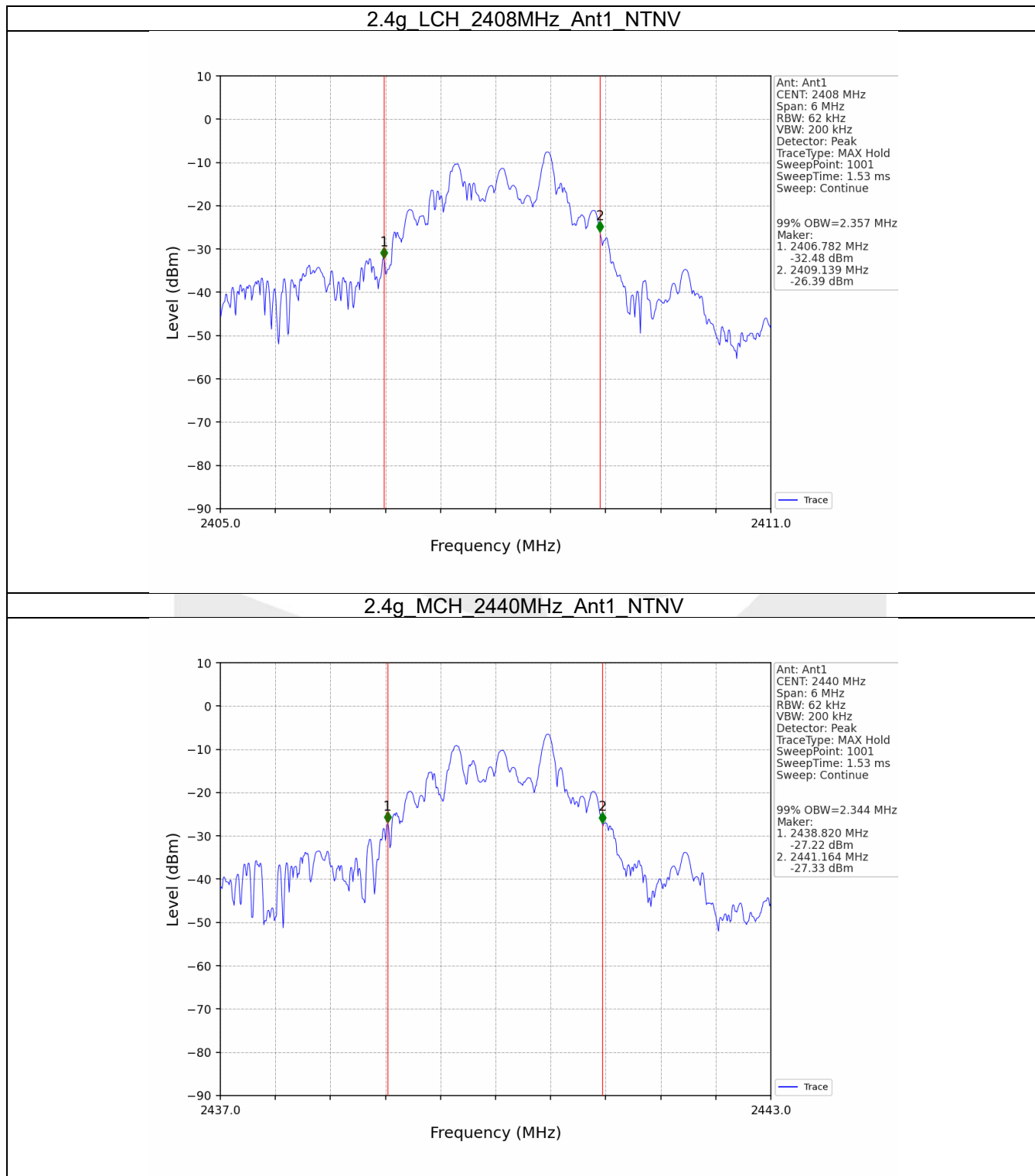
Mode	TX Type	Frequency (MHz)	ANT	99% Occupied Bandwidth (MHz)		Verdict
				Result	Limit	
2.4g	SISO	2408	1	2.357	/	Pass
		2440	1	2.344	/	Pass
		2474	1	2.402	/	Pass

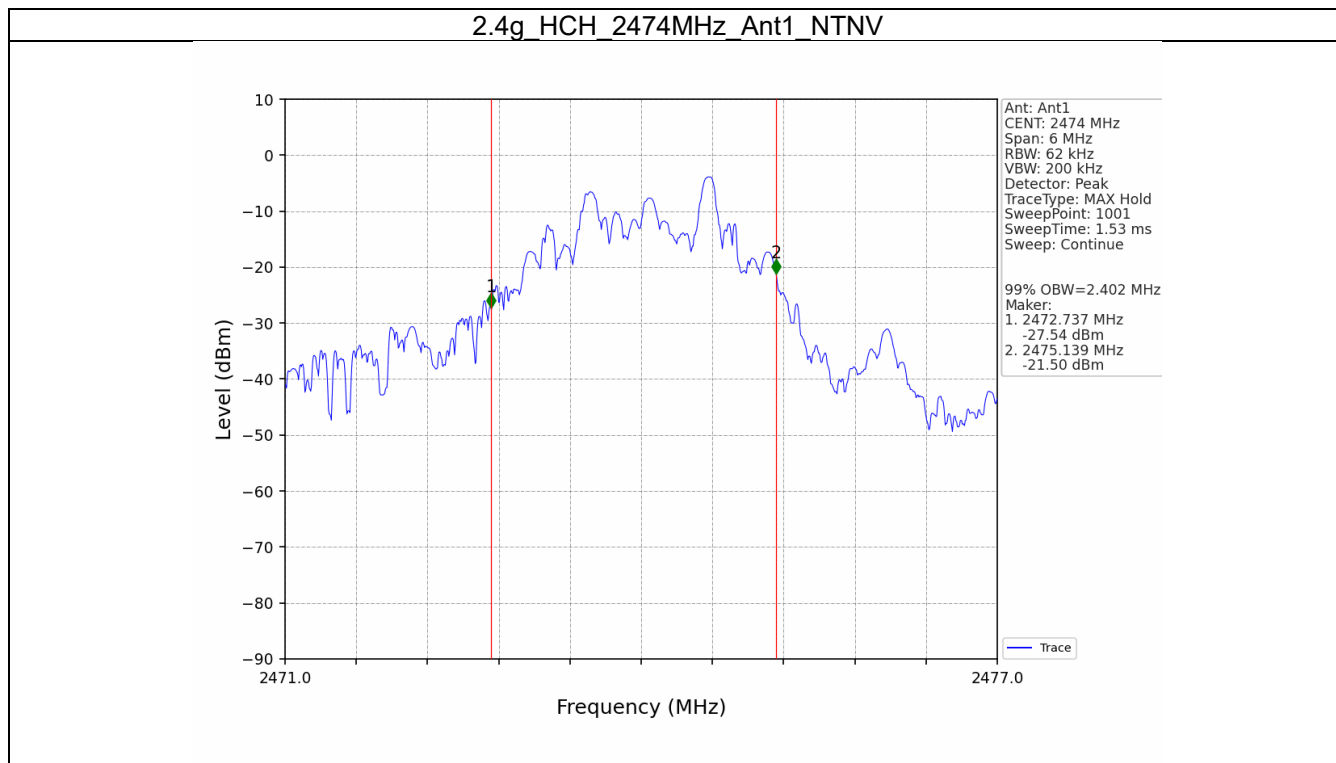
2.1.2 20dB BW

Mode	TX Type	Frequency (MHz)	ANT	20dB Bandwidth (MHz)		Verdict
				Result	Limit	
2.4g	SISO	2408	1	2.359	/	Pass
		2440	1	2.366	/	Pass
		2474	1	2.381	/	Pass

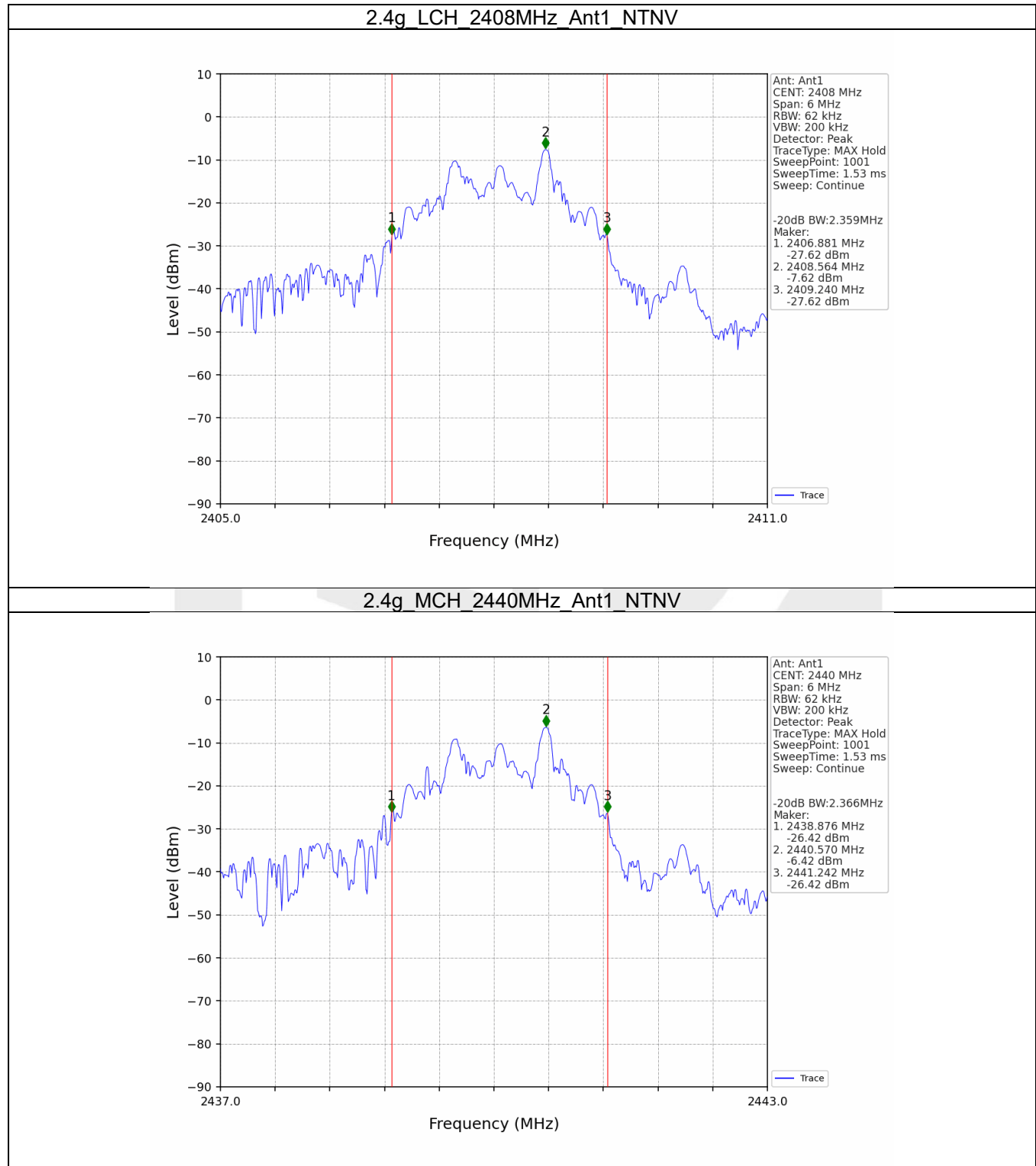
2.2 Test Graph

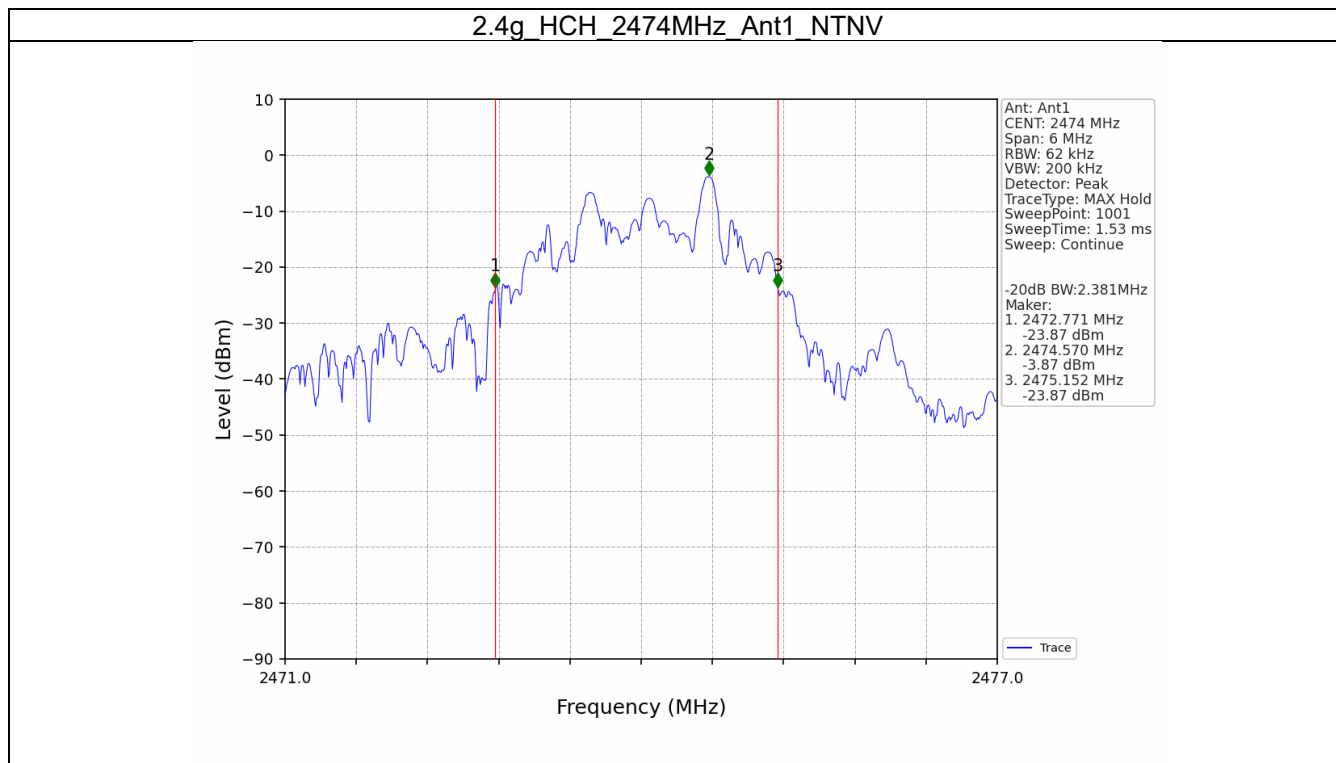
2.2.1 OBW





2.2.2 20dB BW





3. Maximum Conducted Output Power

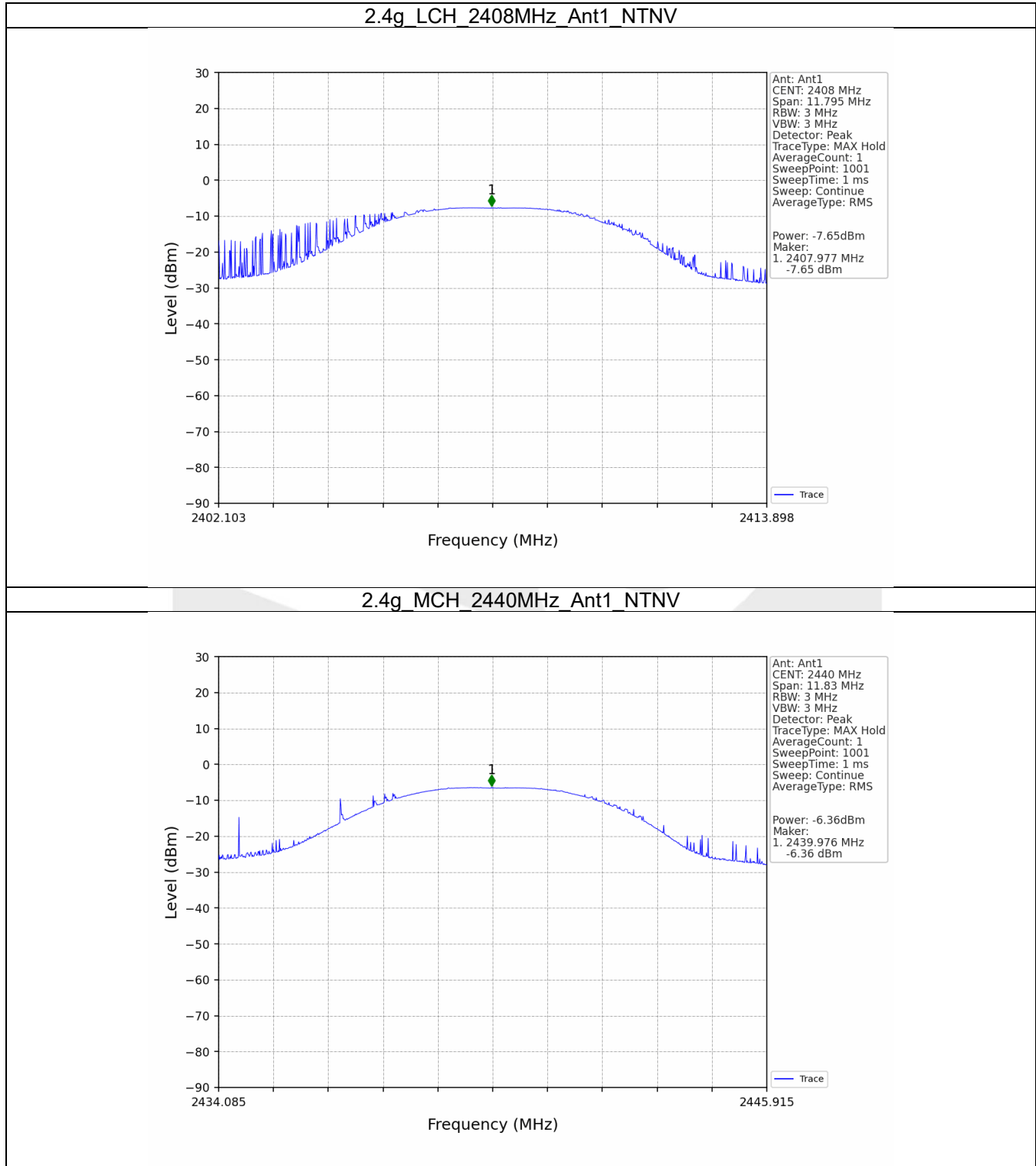
3.1 Test Result

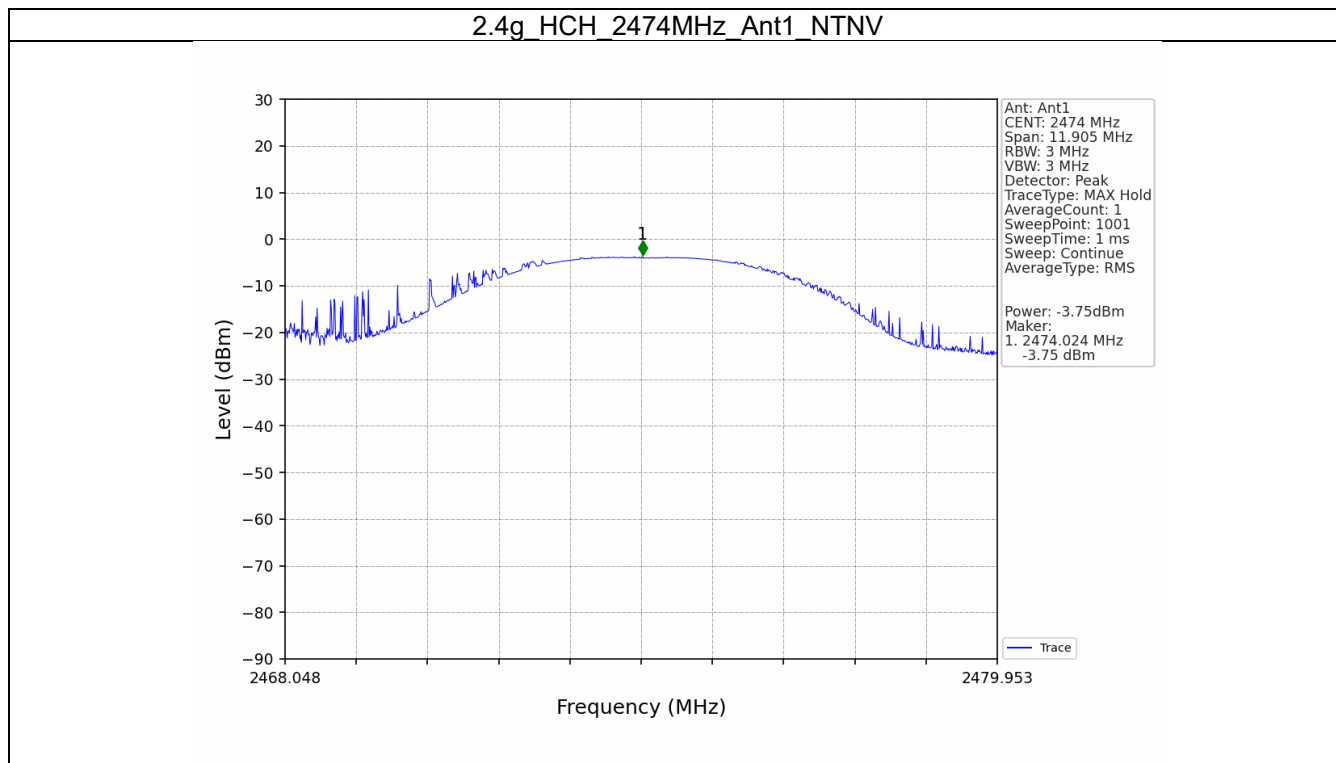
3.1.1 Power

Mode	TX Type	Frequency (MHz)	Maximum Peak Conducted Output Power (dBm)		Verdict
			ANT1	Limit	
2.4g	SISO	2408	-7.65	≤ 20.97	Pass
		2440	-6.36	≤ 20.97	Pass
		2474	-3.75	≤ 20.97	Pass

3.2 Test Graph

3.2.1 Power





4. Carrier Frequency Separation

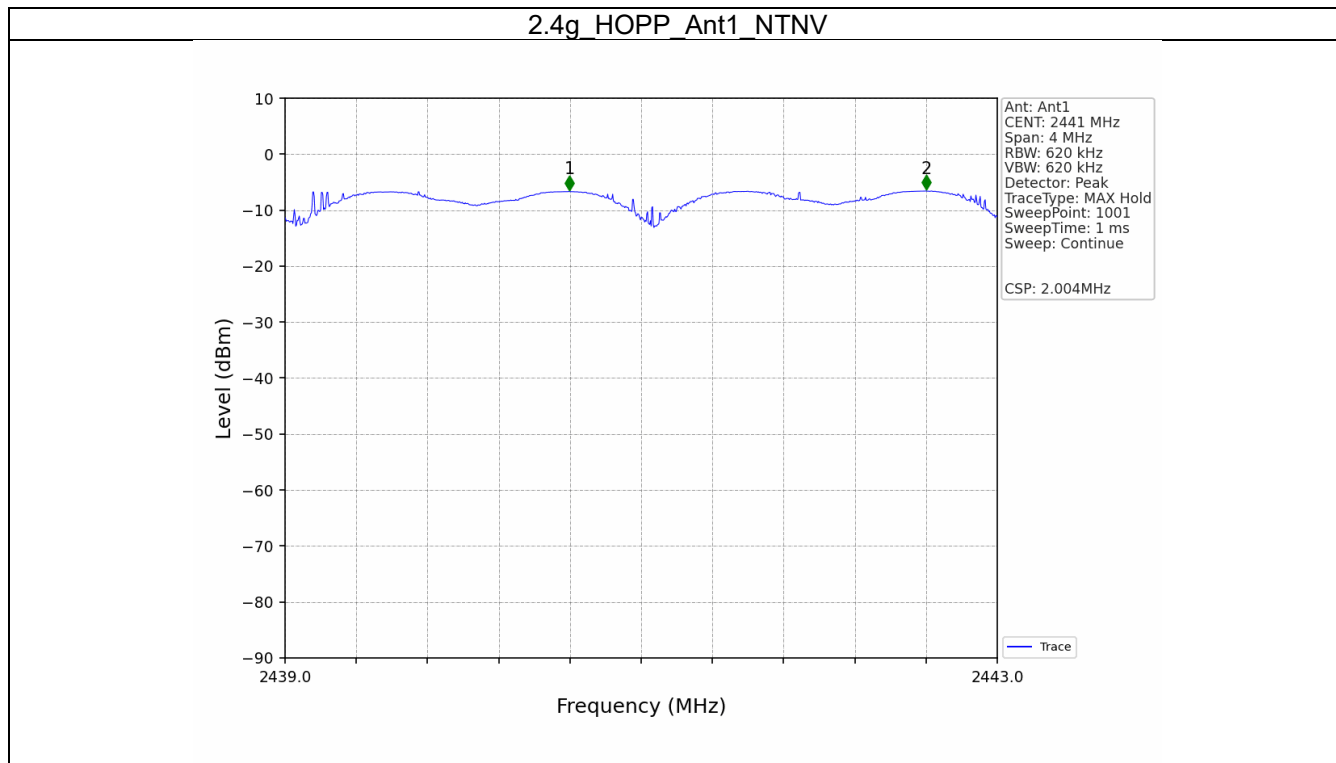
4.1 Test Result

4.1.1 Ant1

Ant1						
Mode	TX Type	Frequency (MHz)	Channel Separation (MHz)	20dB Bandwidth (MHz)	Limit (MHz)	Verdict
2.4g	SISO	HOPP	2.004	2.381	≥ 1.587	Pass

4.2 Test Graph

4.2.1 Ant1



5. Number of Hopping Frequencies

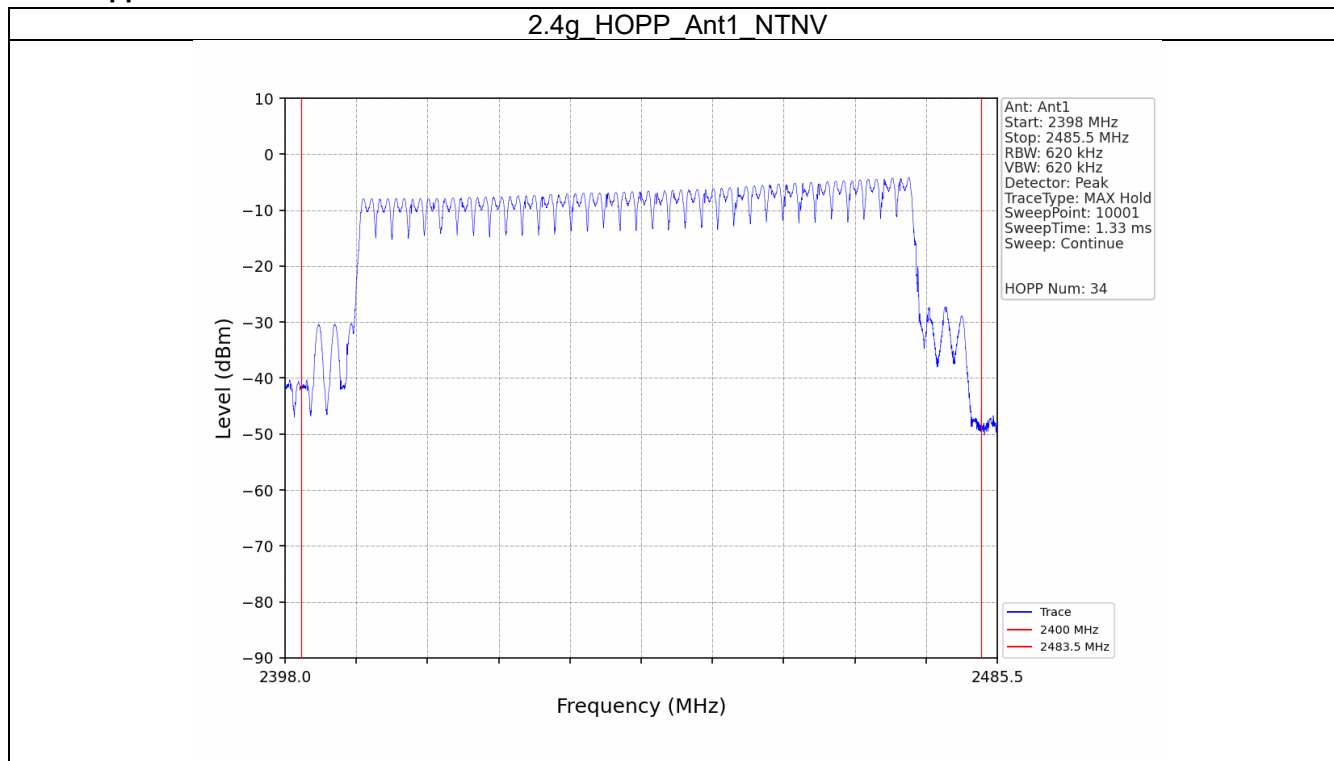
5.1 Test Result

5.1.1 HoppNum

Mode	TX Type	Frequency (MHz)	Num of Hopping Frequencies		Verdict
			ANT1	Limit	
2.4g	SISO	HOPP	34	≥ 15	Pass

5.2 Test Graph

5.2.1 HoppNum



6. Time of Occupancy (Dwell Time)

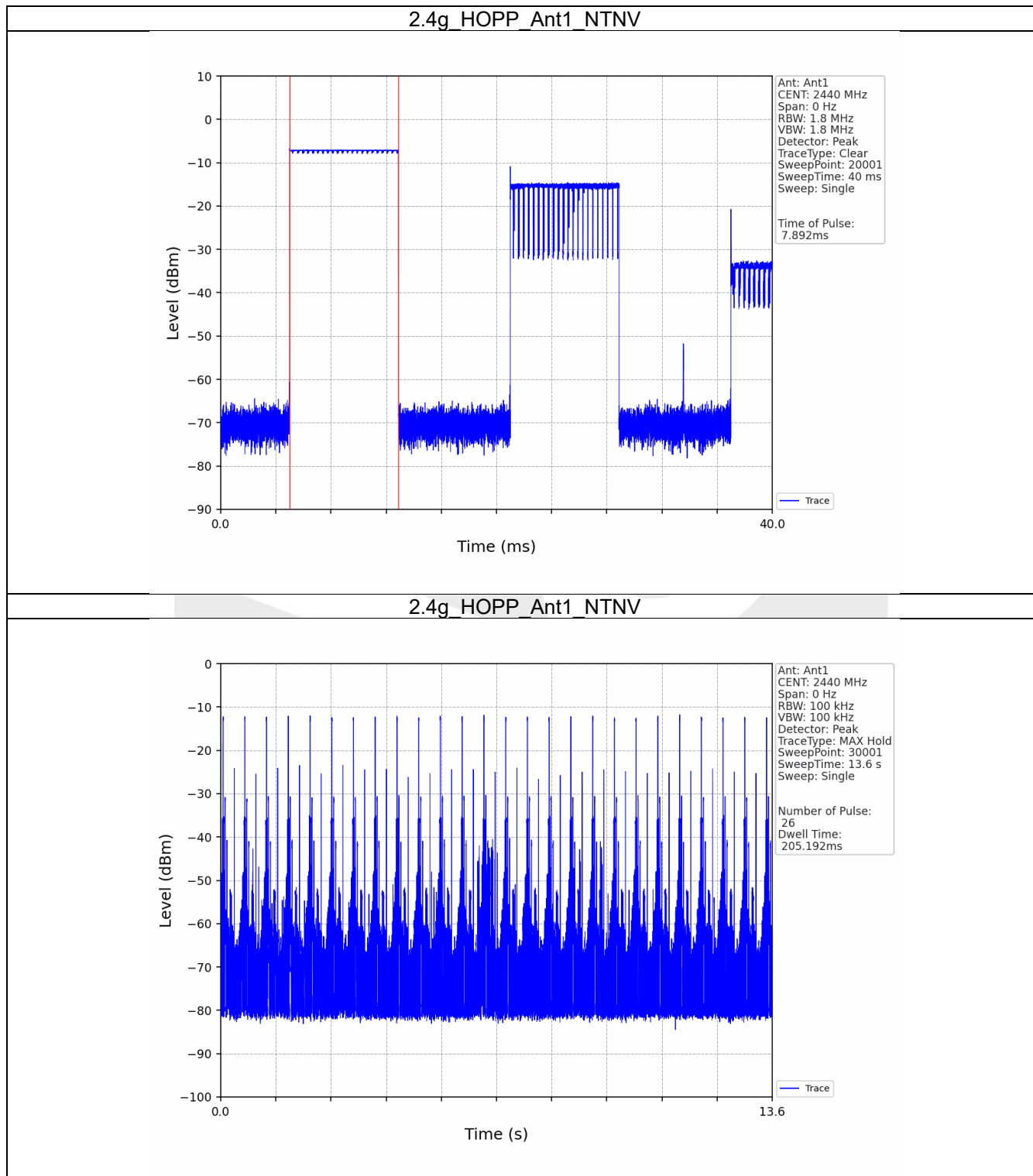
6.1 Test Result

6.1.1 Ant1

Ant1								
Mode	TX Type	Frequency (MHz)	Duration of Single Pulse (ms)	Observation Period (s)	Num of Pulse in Observation Period	Dwell Time (ms)	Limit (ms)	Verdict
2.4g	SISO	HOPP	7.892	13.600	26	205.192	<=400	Pass

6.2 Test Graph

6.2.1 Ant1



7. Unwanted Emissions In Non-restricted Frequency Bands

7.1 Test Result

7.1.1 Ref

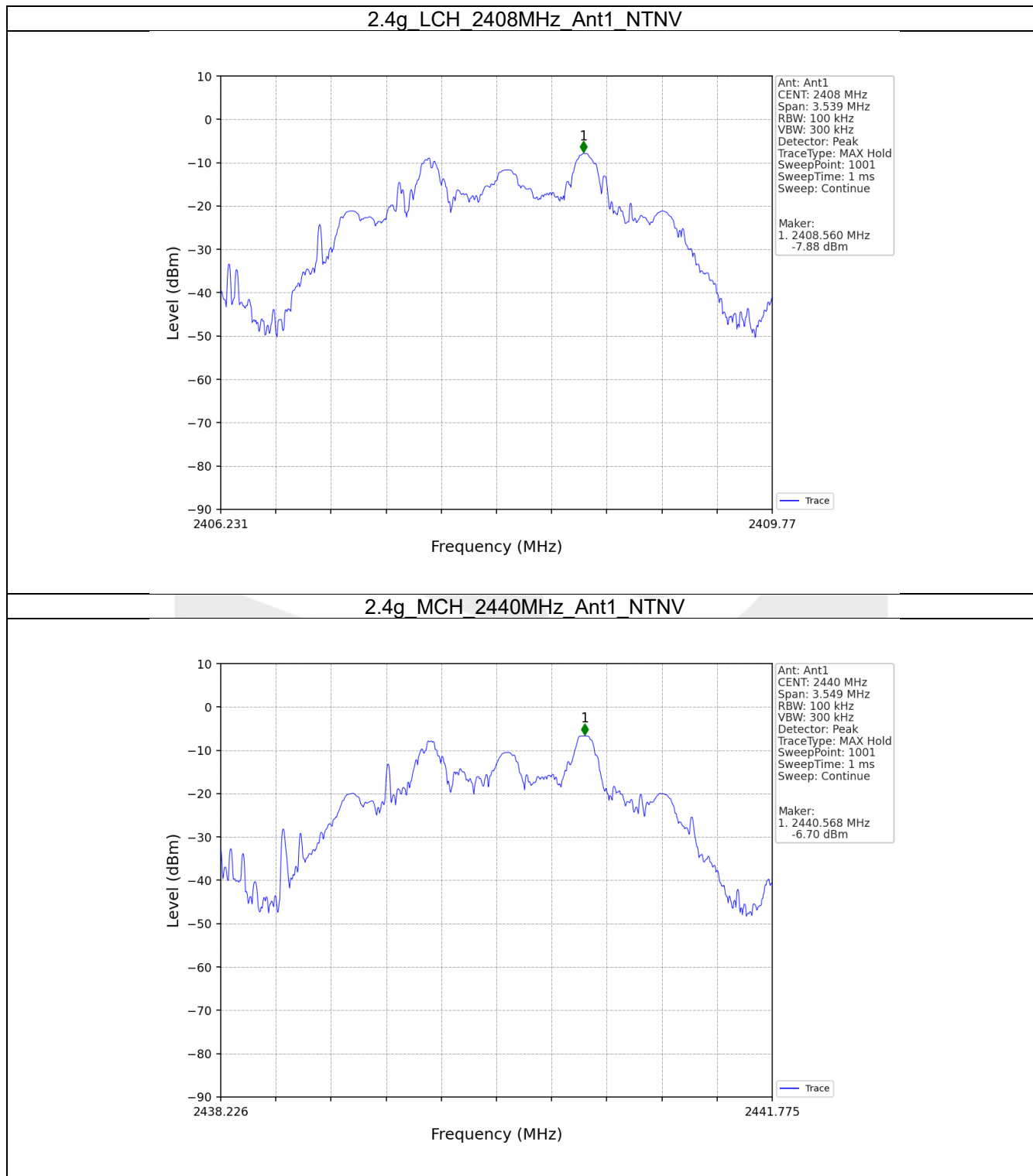
Mode	TX Type	Frequency (MHz)	ANT	Level of Reference (dBm)
2.4g	SISO	2408	1	-7.88
		2440	1	-6.70
		2474	1	-4.22
		HOPP	1	-4.25
				-4.25
Note1: Refer to FCC Part 15.247 (d) and ANSI C63.10-2020, the channel contains the maximum PSD level was used to establish the reference level.				

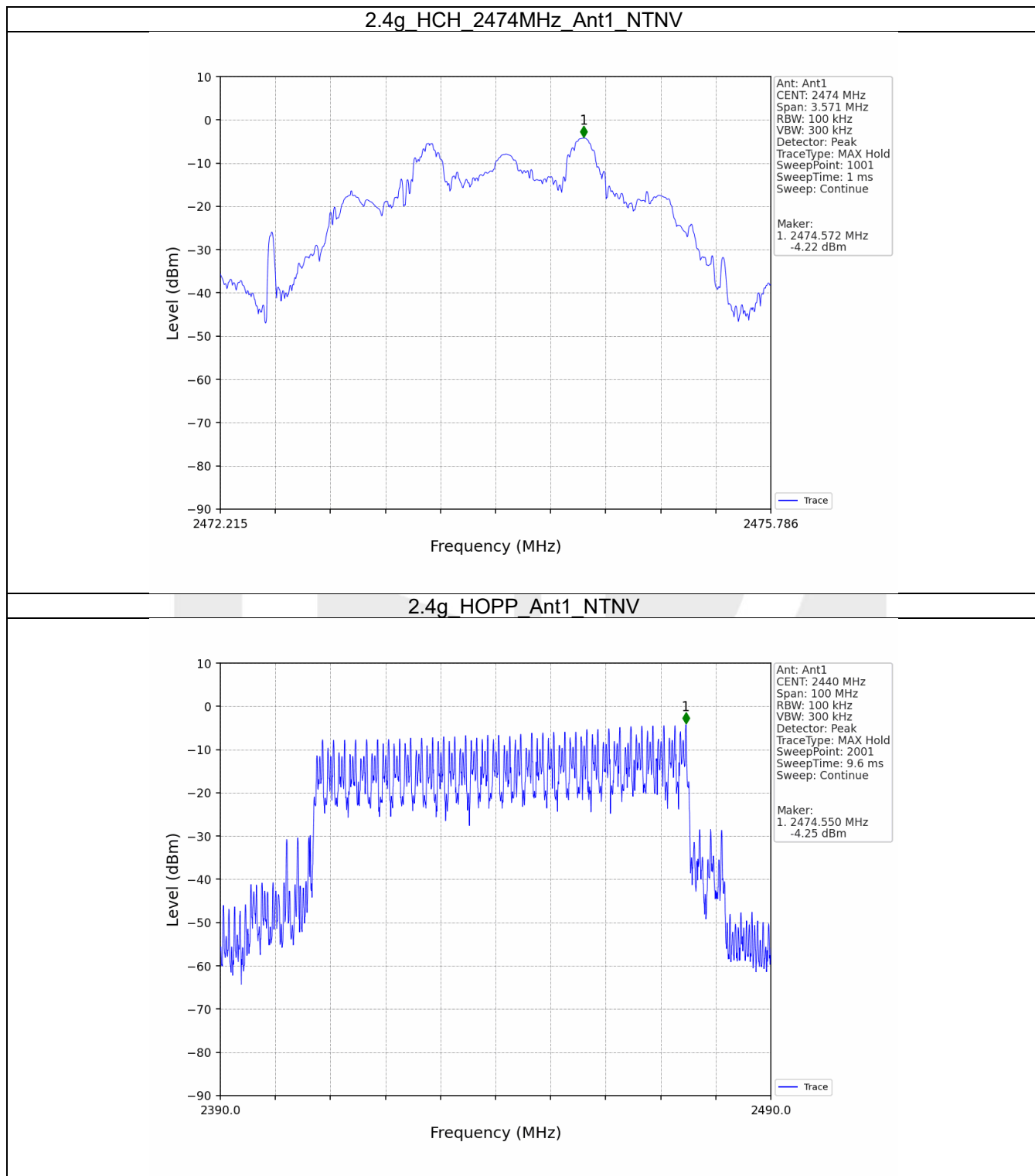
7.1.2 CSE

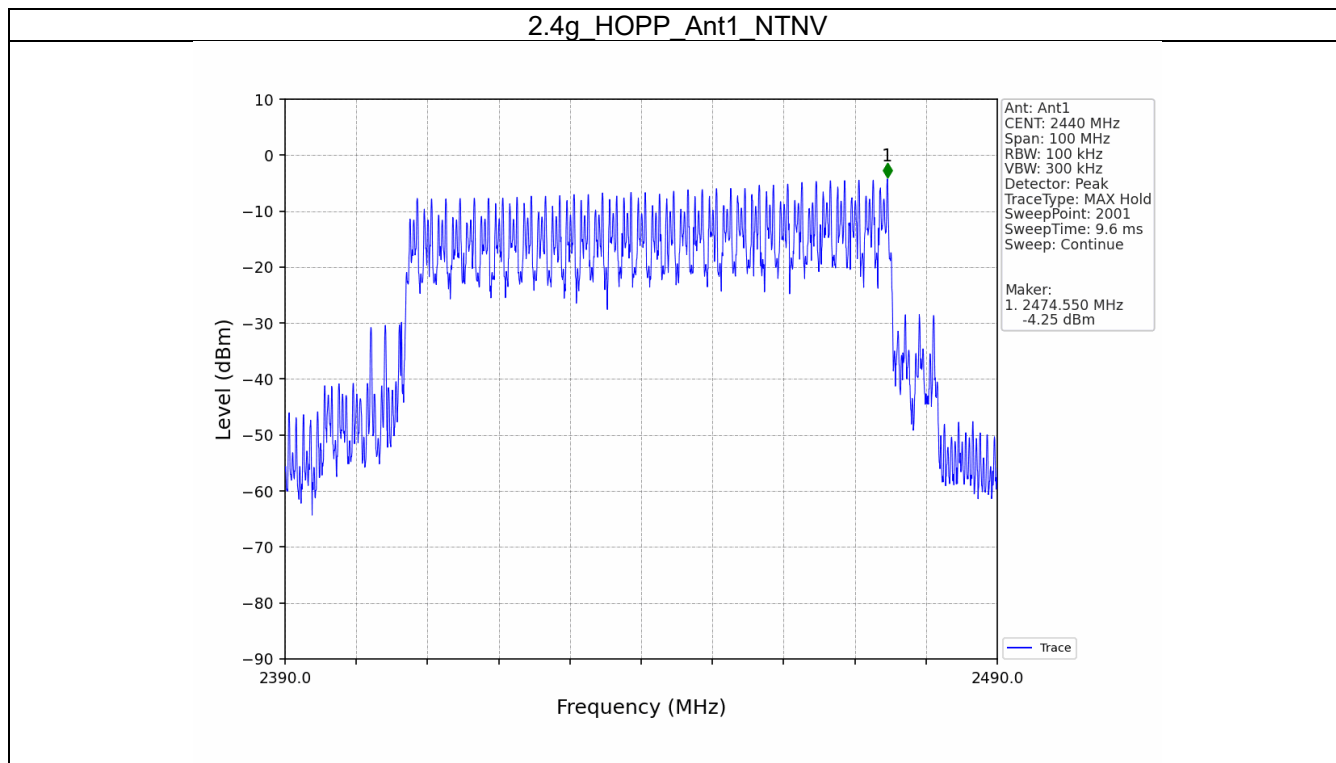
Mode	TX Type	Frequency (MHz)	ANT	Level of Reference (dBm)	Limit (dBm)	Verdict
2.4g	SISO	2408	1	-7.88	-27.88	Pass
		2440	1	-6.70	-26.70	Pass
		2474	1	-4.22	-24.22	Pass
		HOPP	1	-4.25	-24.25	Pass
				-4.25	-24.25	Pass
Note1: Refer to FCC Part 15.247 (d) and ANSI C63.10-2020, the channel contains the maximum PSD level was used to establish the reference level.						

7.2 Test Graph

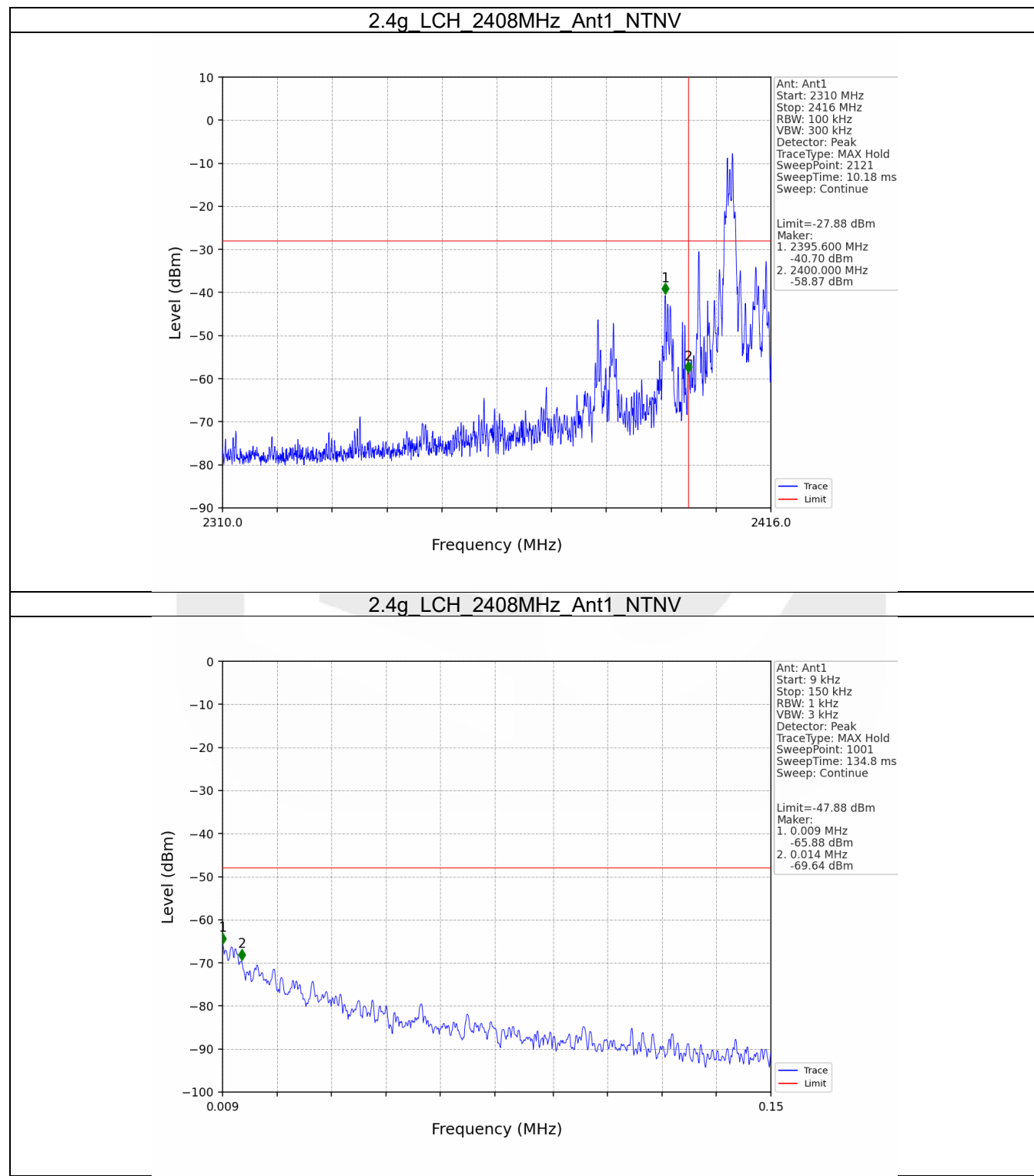
7.2.1 Ref

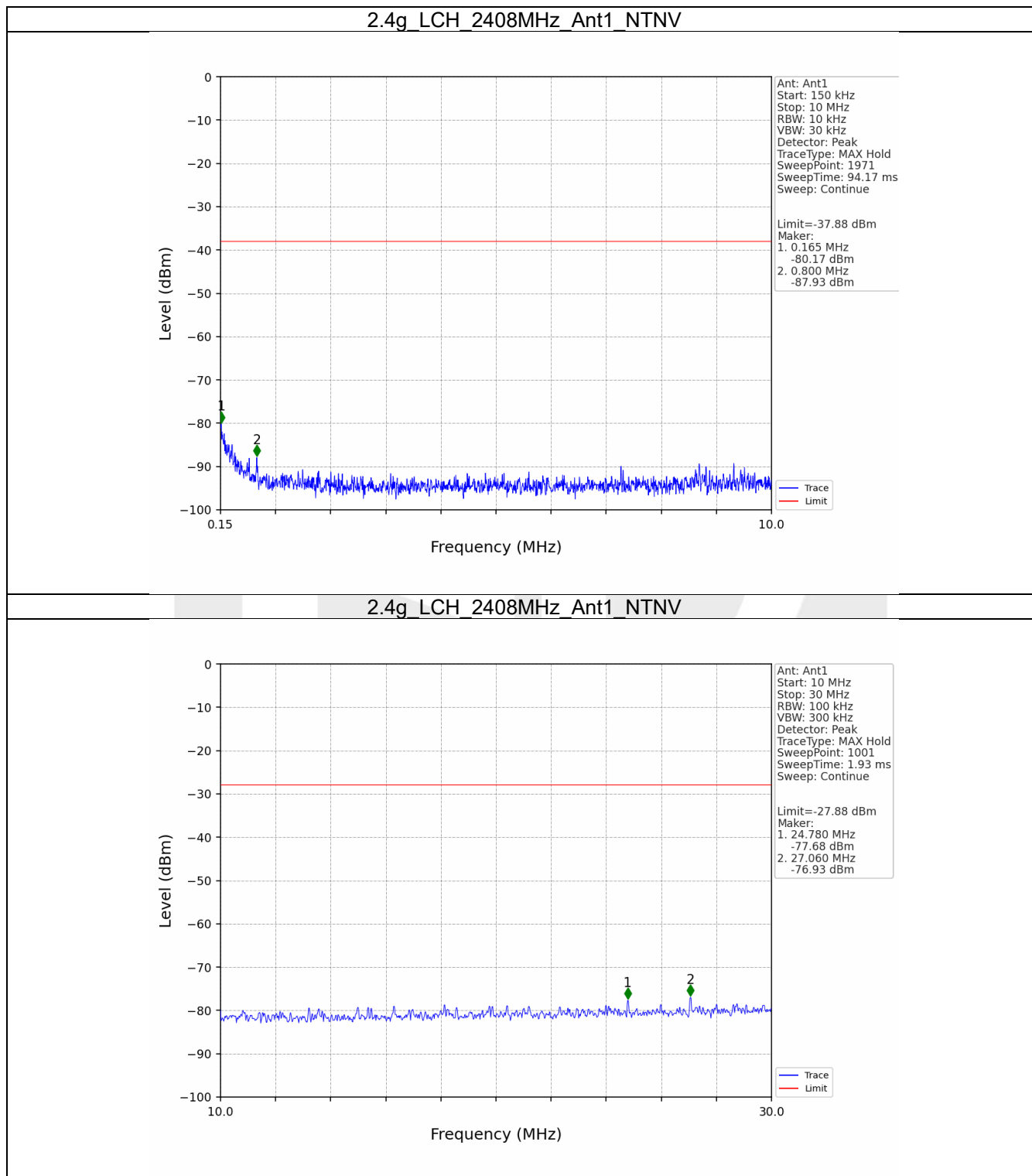


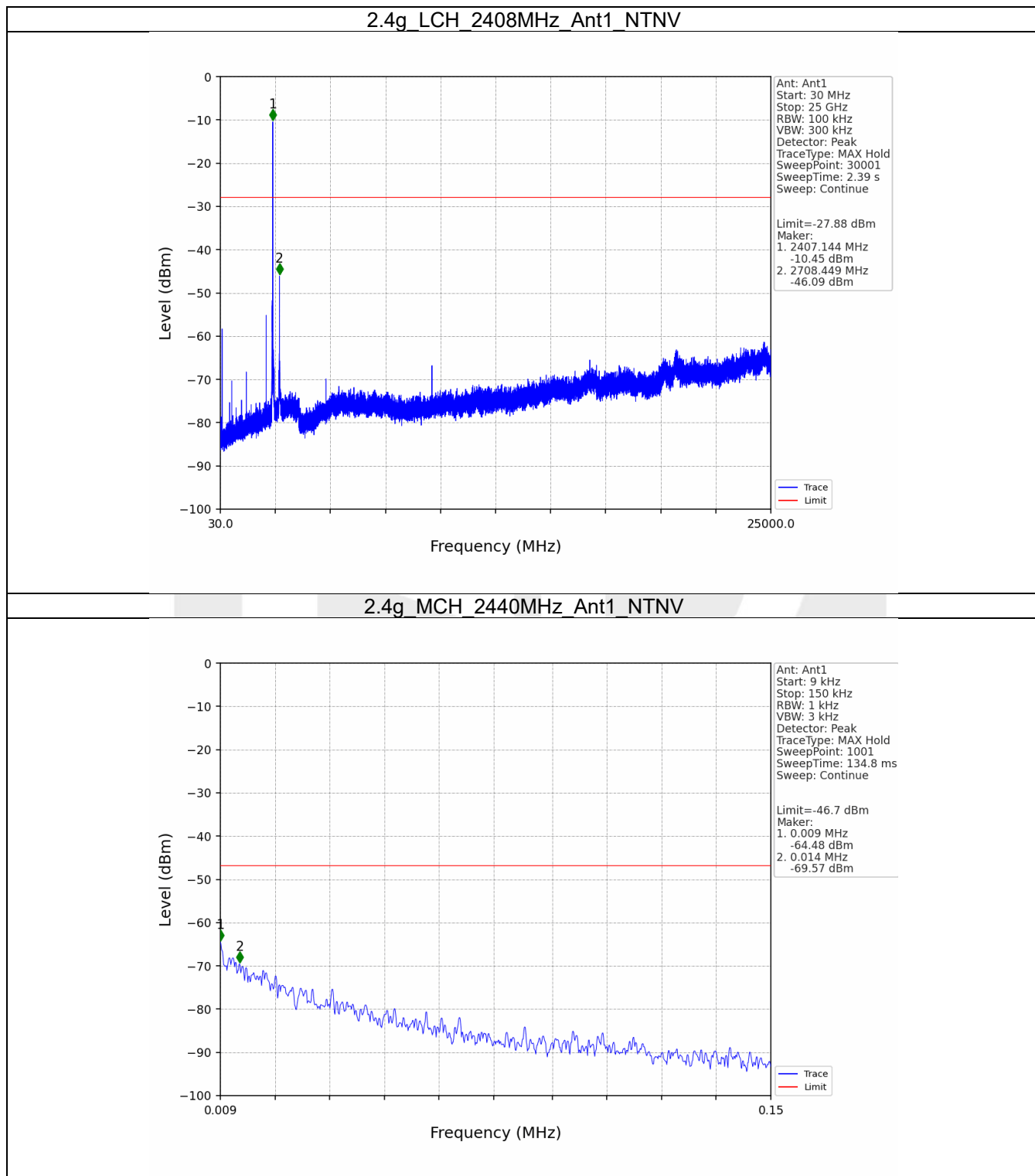


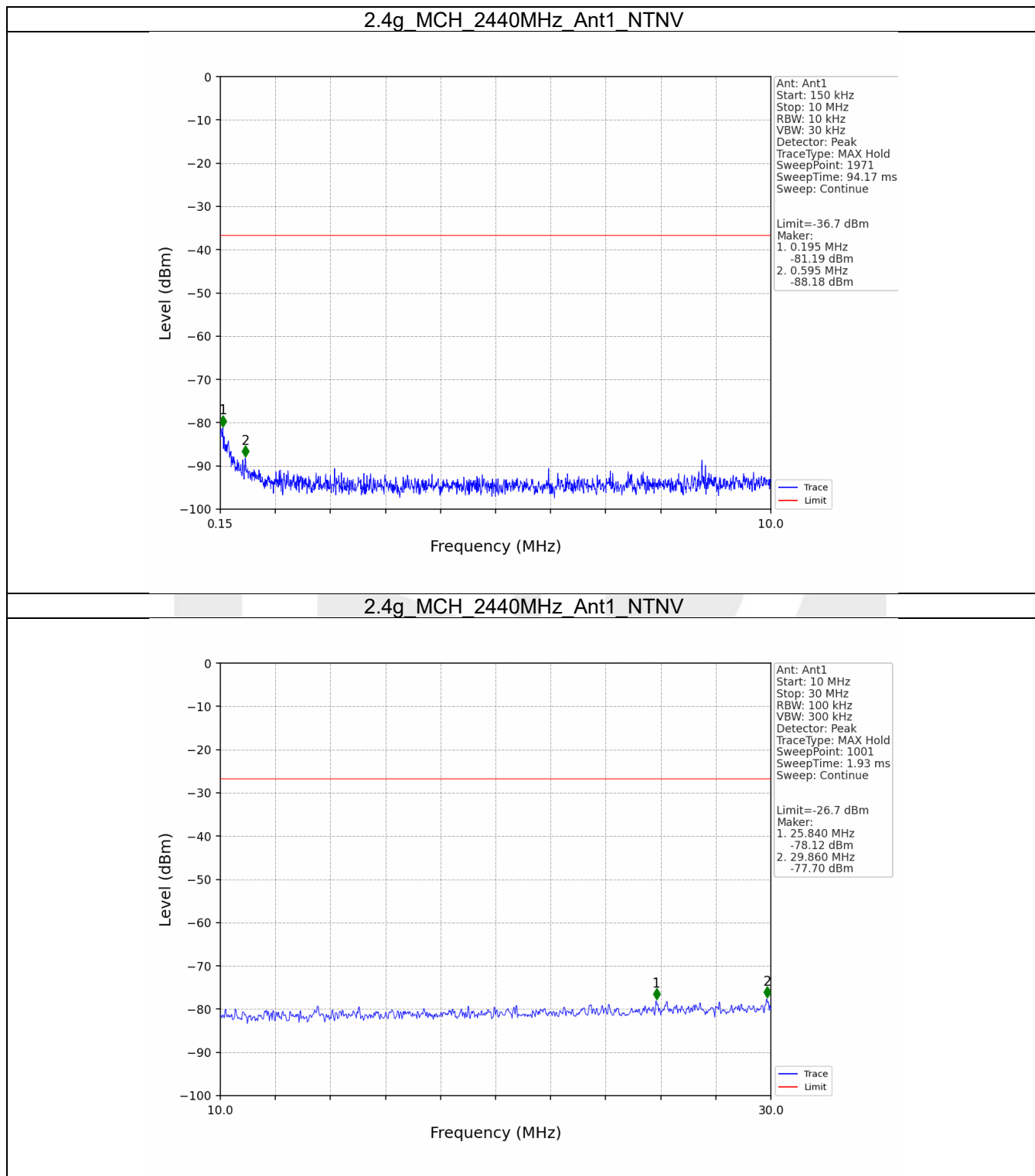


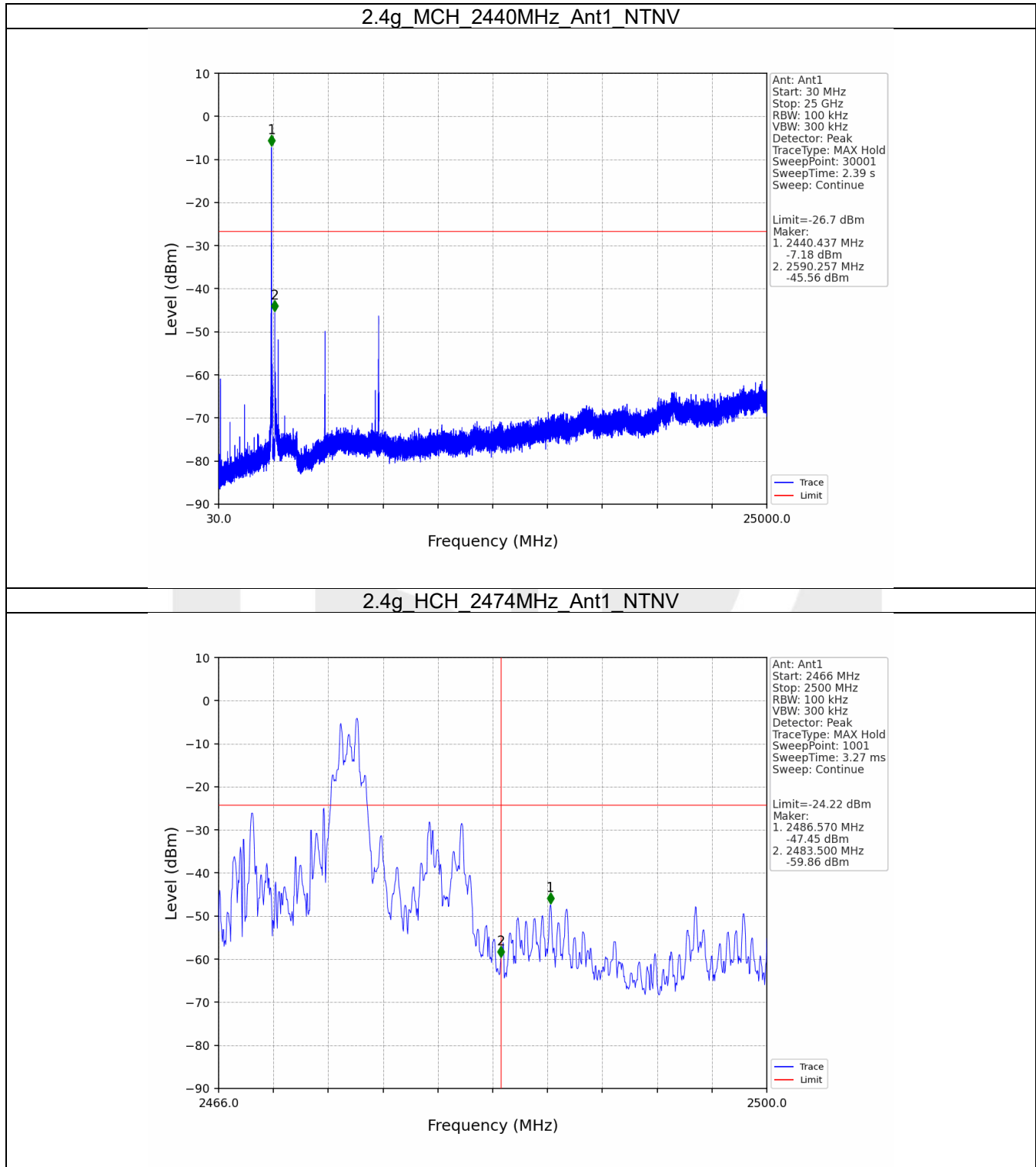
7.2.2 CSE

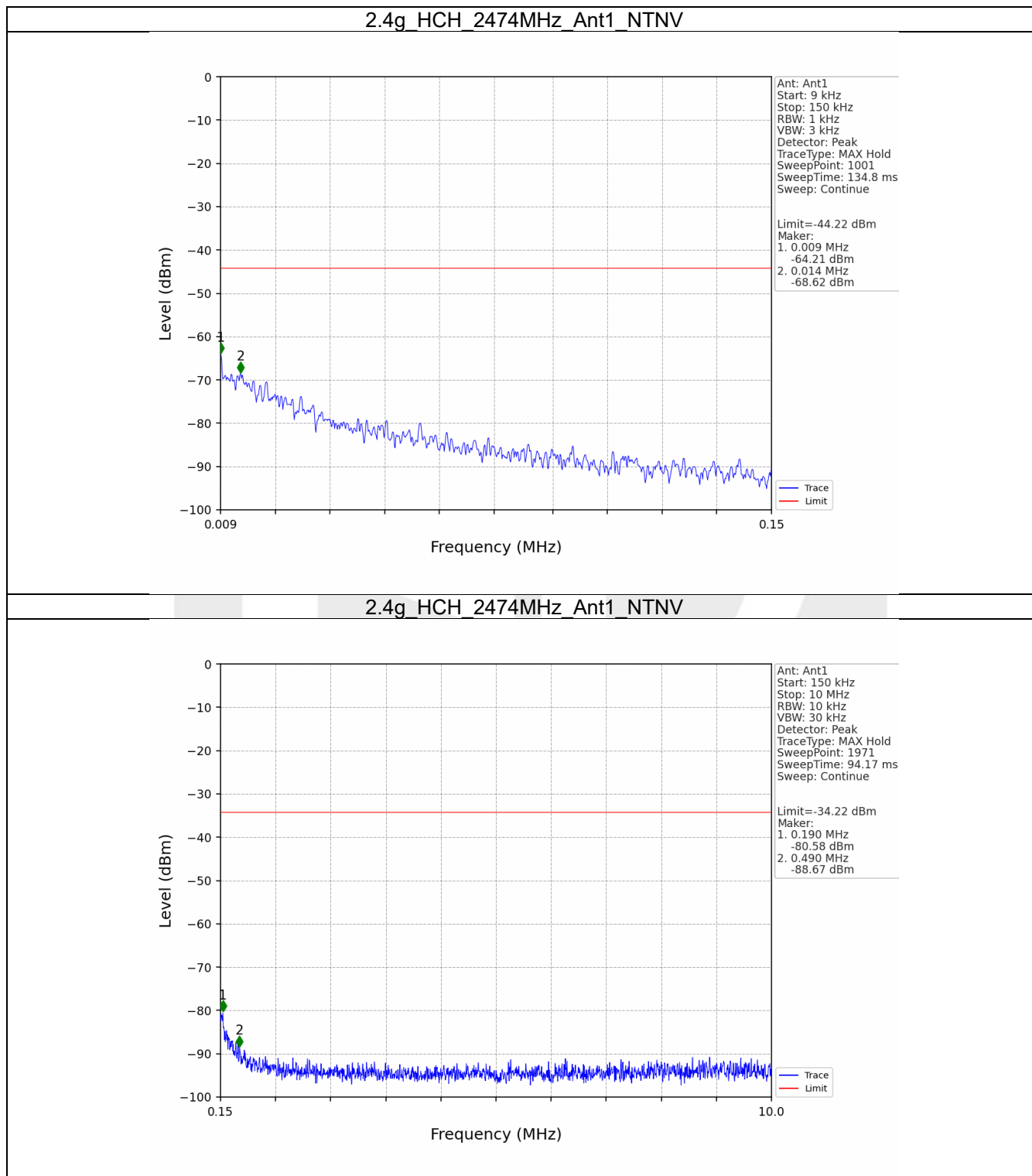


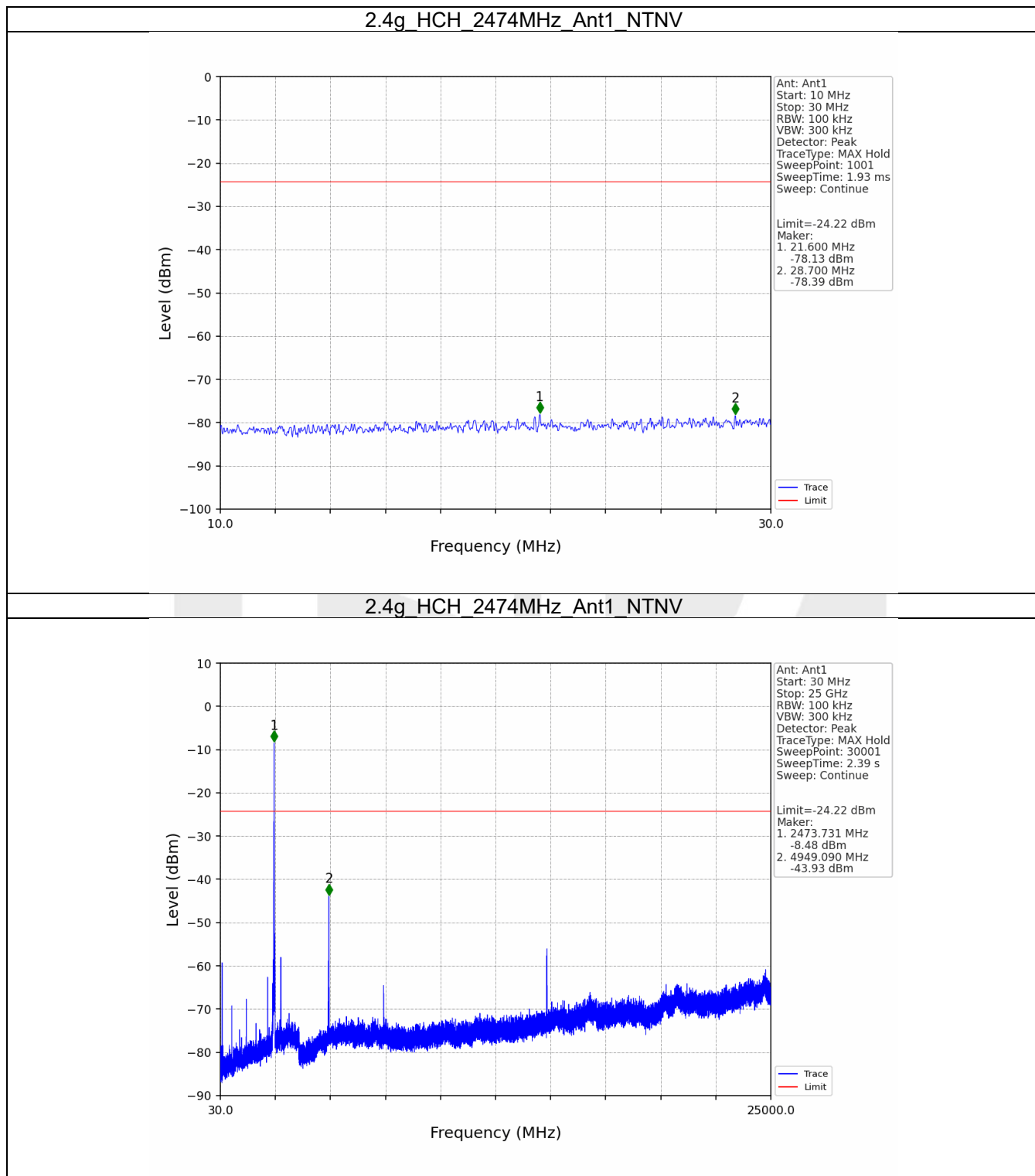


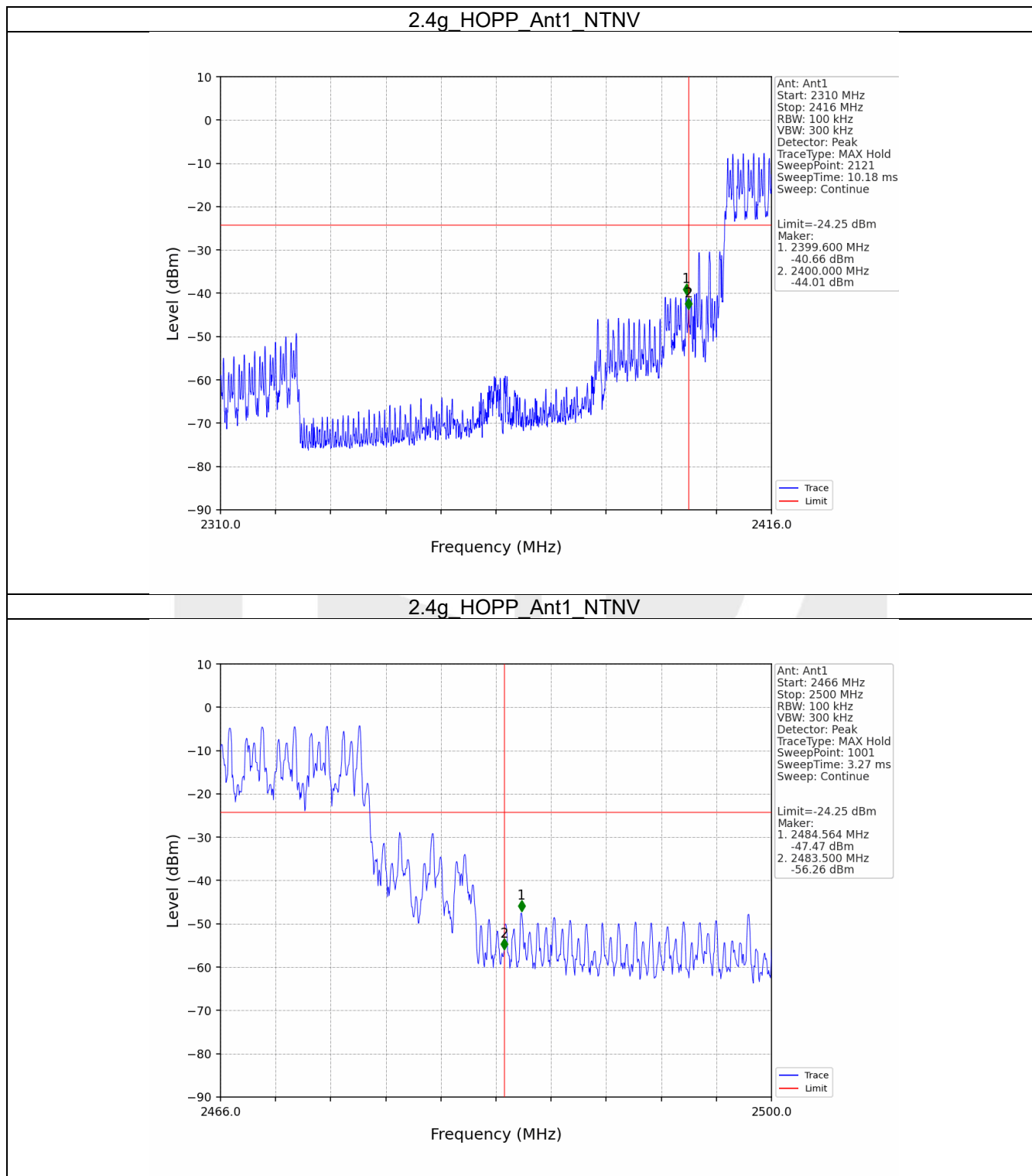












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