

ANNEX D TEST DATA

For

Project No.:	8236EU121103W
Client:	Dragonglass Technology (SHENZHEN) Co., Ltd.
Product Description:	ROUTER
Model No.:	DGR7
FCC ID:	2A7HY-DGR7
Technology:	WiFi 2.4G
Test Engineer:	<i>Mikoy zhu</i>
Test Date:	2024-12-27

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



1. Duty Cycle

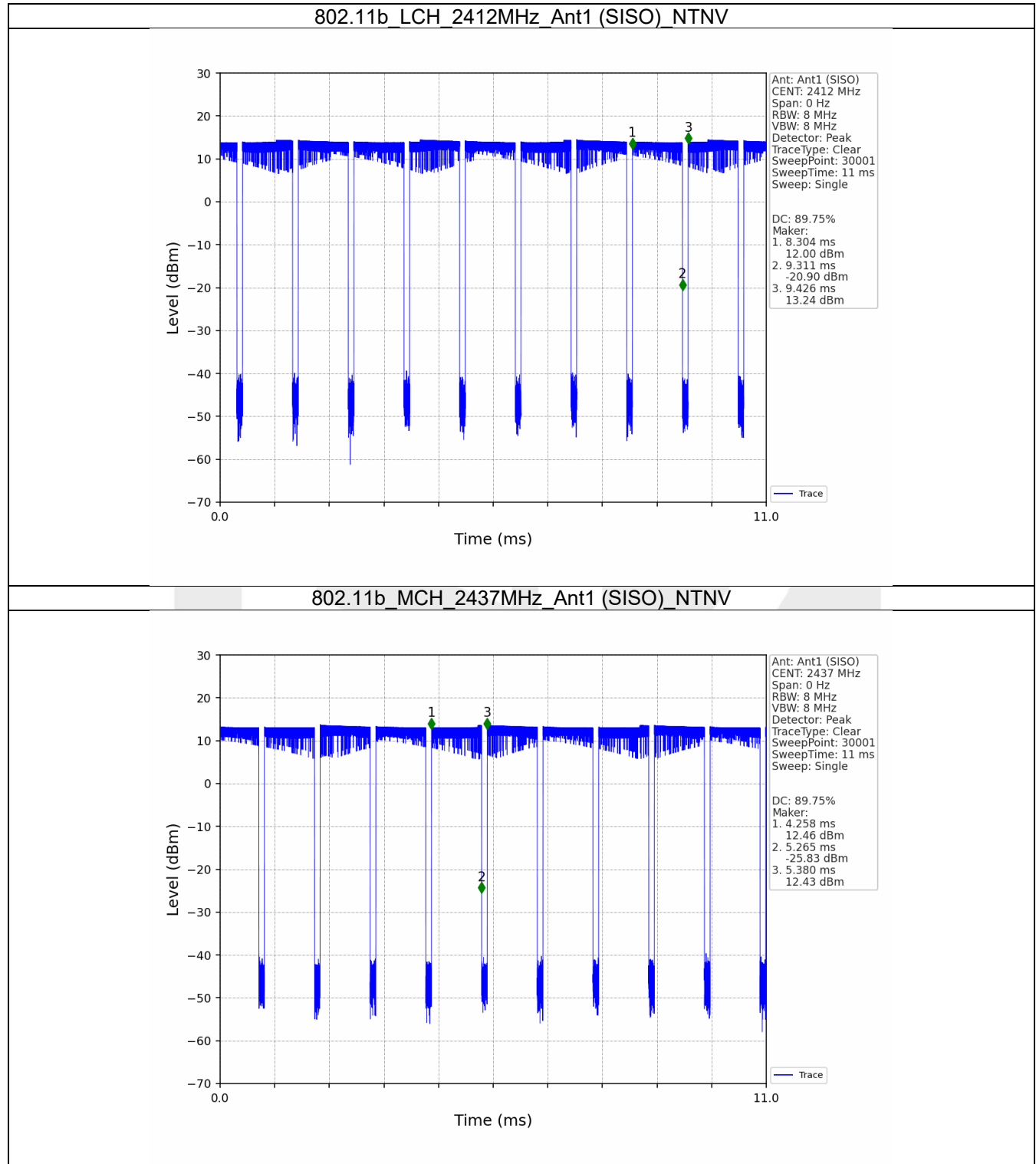
1.1 Test Result

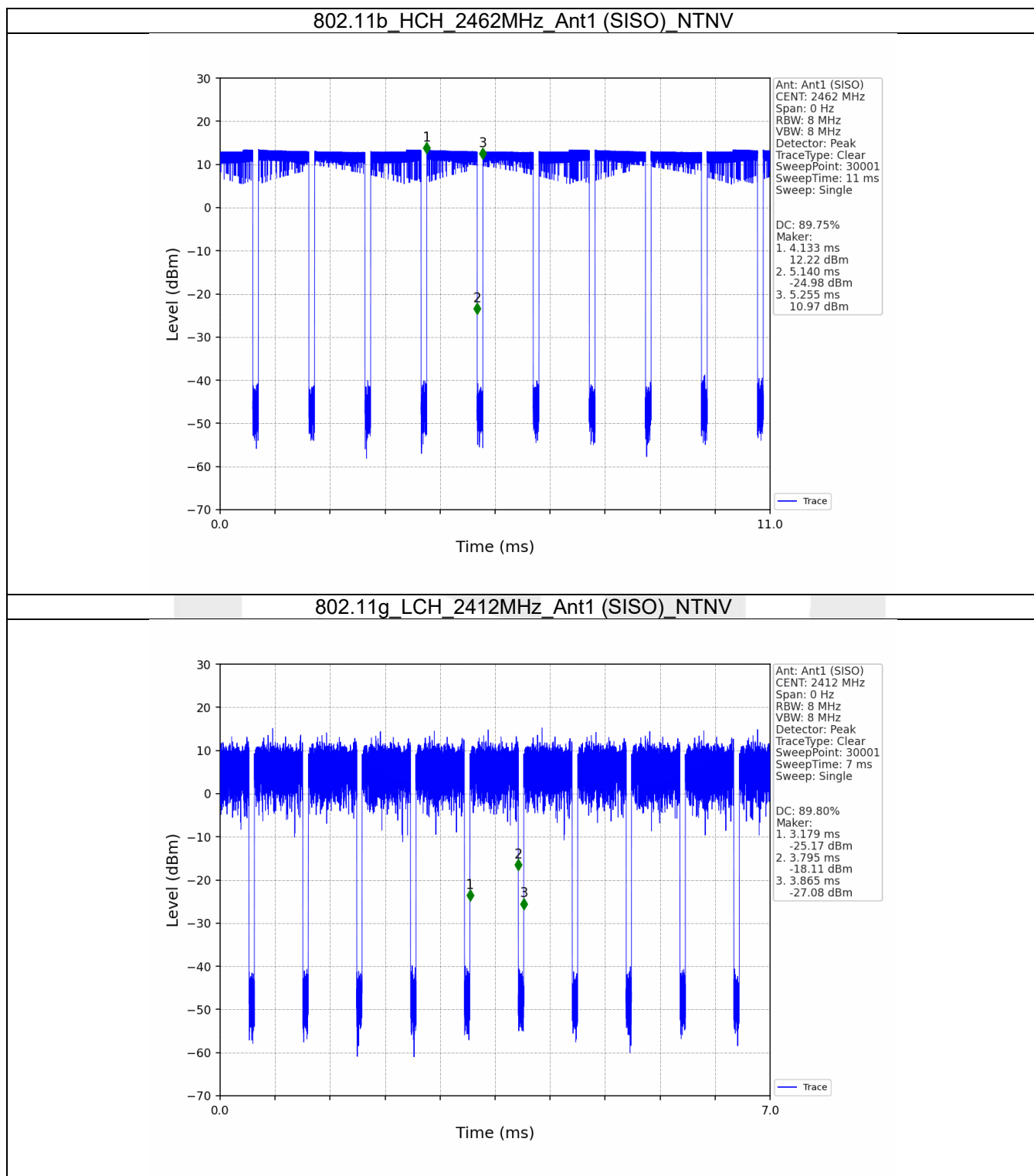
1.1.1 Ant1

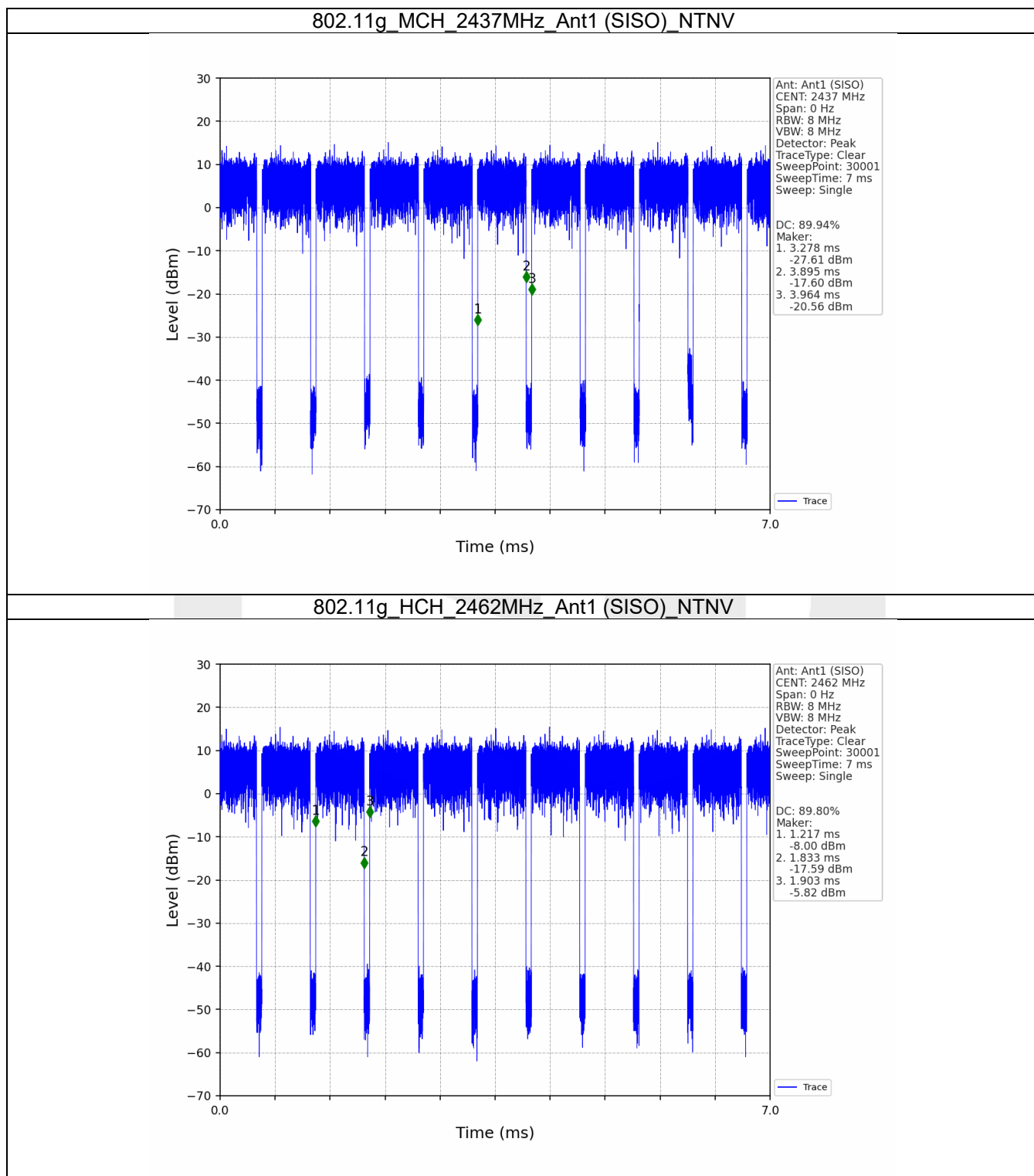
Ant1							
Mode	TX Type	Frequency (MHz)	T_on (ms)	Period (ms)	Duty Cycle (%)	Duty Cycle Correction Factor (dB)	Max. DC Variation (%)
802.11b	SISO	2412	1.007	1.122	89.75	0.47	0.12
		2437	1.007	1.122	89.75	0.47	0.12
		2462	1.007	1.122	89.75	0.47	0.12
802.11g	SISO	2412	0.616	0.686	89.80	0.47	0.16
		2437	0.617	0.686	89.94	0.46	0.31
		2462	0.616	0.686	89.80	0.47	0.16
802.11n (HT20)	SISO	2412	0.613	0.683	89.75	0.47	0.16
		2437	0.613	0.683	89.75	0.47	0.15
		2462	0.613	0.683	89.75	0.47	0.16

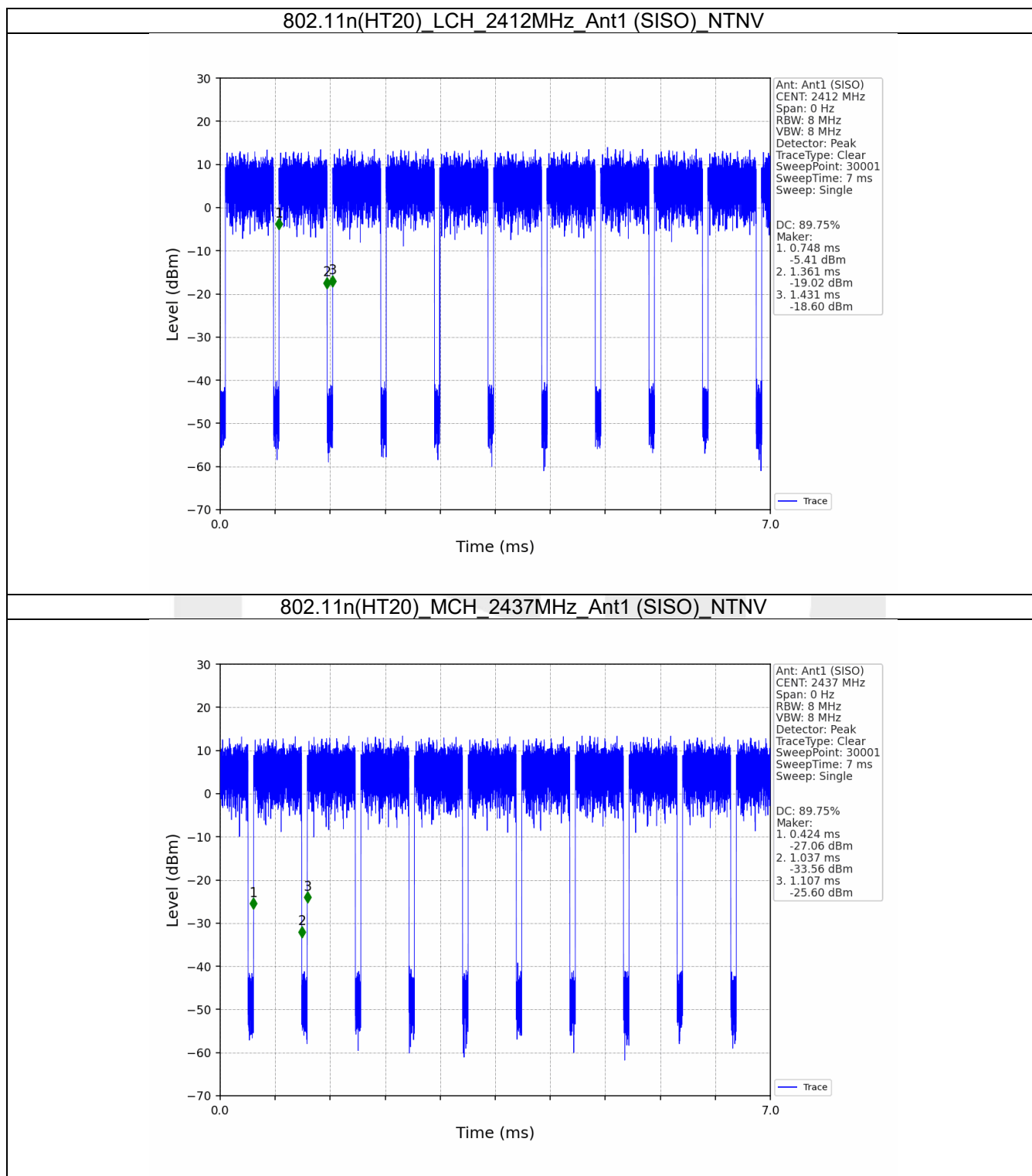
1.2 Test Graph

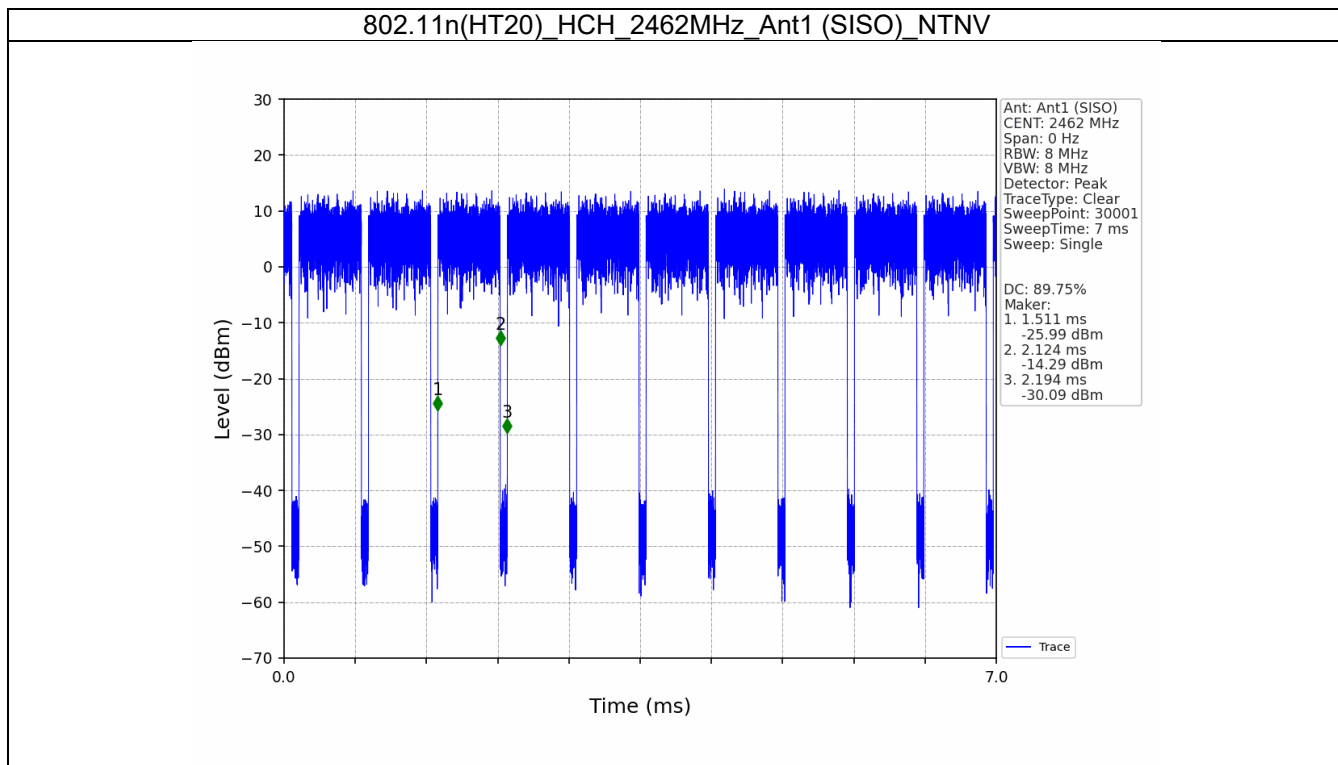
1.2.1 Ant1











2. Bandwidth

2.1 Test Result

2.1.1 OBW

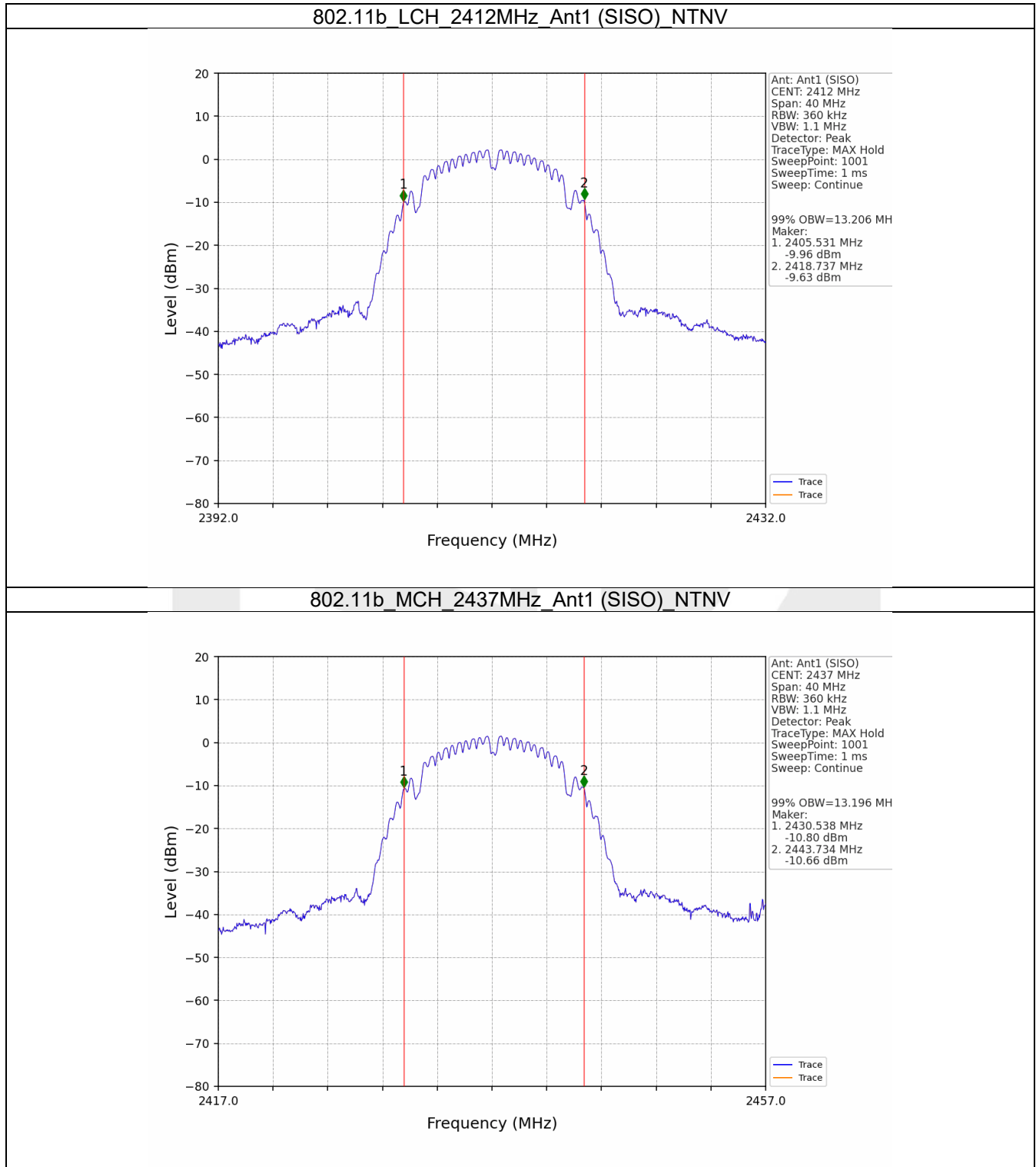
Mode	TX Type	Frequency (MHz)	ANT	99% Occupied Bandwidth (MHz)		Verdict
				Result	Limit	
802.11b	SISO	2412	1	13.206	/	Pass
		2437	1	13.196	/	Pass
		2462	1	13.160	/	Pass
802.11g	SISO	2412	1	18.459	/	Pass
		2437	1	18.428	/	Pass
		2462	1	18.349	/	Pass
802.11n (HT20)	SISO	2412	1	19.181	/	Pass
		2437	1	19.144	/	Pass
		2462	1	19.095	/	Pass

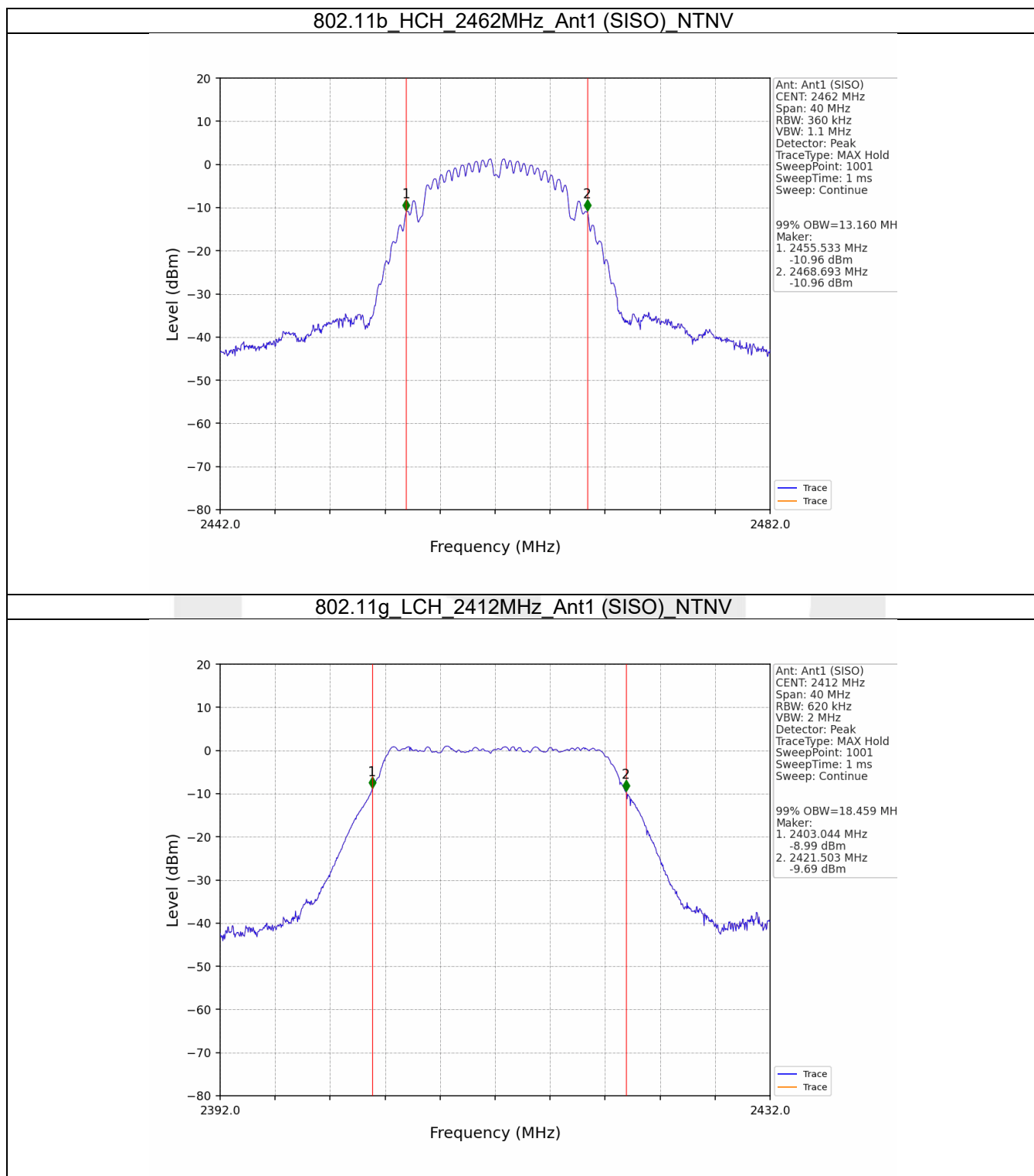
2.1.2 6dB BW

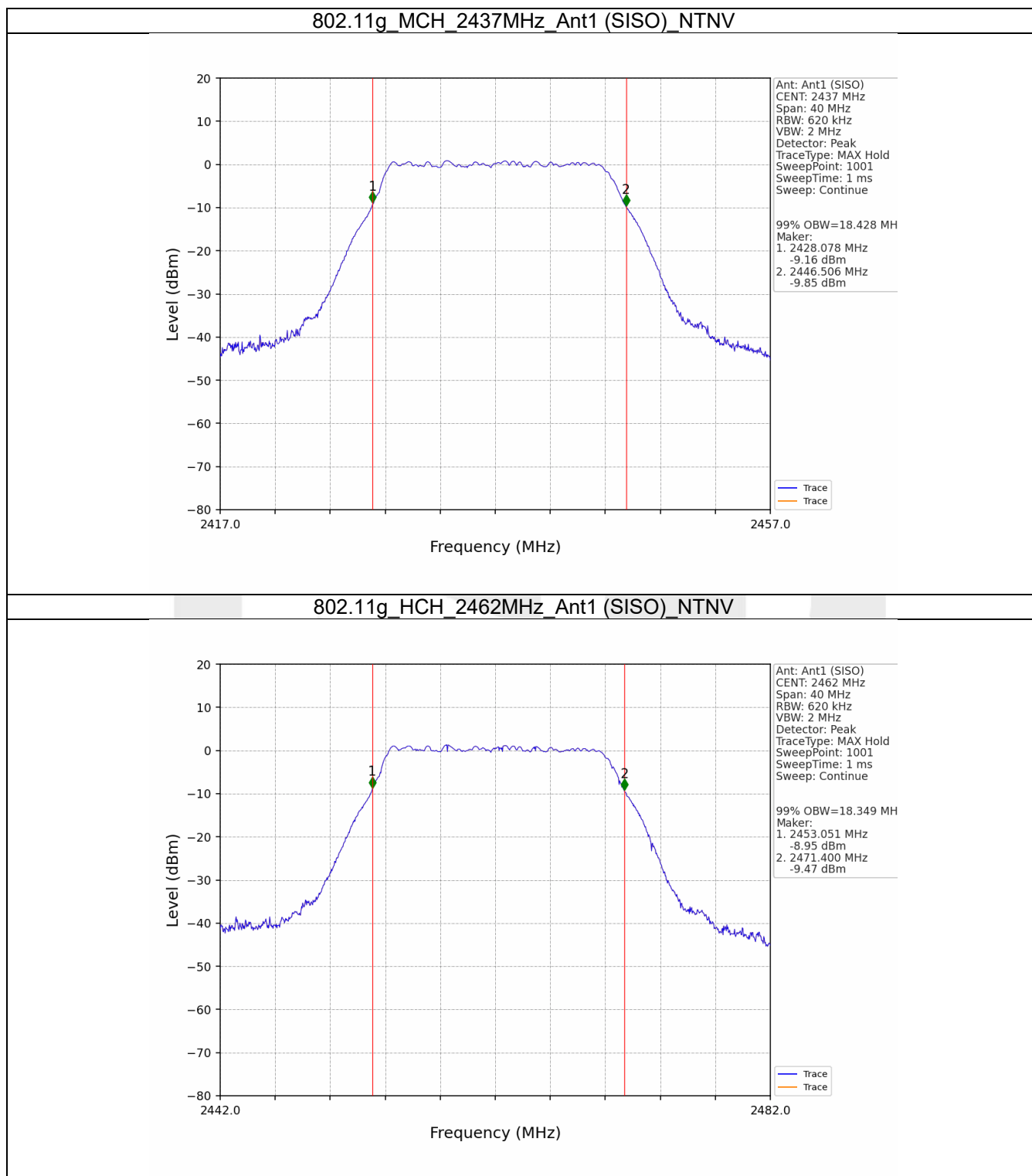
Mode	TX Type	Frequency (MHz)	ANT	6dB Bandwidth (MHz)		Verdict
				Result	Limit	
802.11b	SISO	2412	1	9.730	≥ 0.5	Pass
		2437	1	9.705	≥ 0.5	Pass
		2462	1	9.364	≥ 0.5	Pass
802.11g	SISO	2412	1	17.180	≥ 0.5	Pass
		2437	1	17.140	≥ 0.5	Pass
		2462	1	17.080	≥ 0.5	Pass
802.11n (HT20)	SISO	2412	1	18.346	≥ 0.5	Pass
		2437	1	18.102	≥ 0.5	Pass
		2462	1	18.096	≥ 0.5	Pass

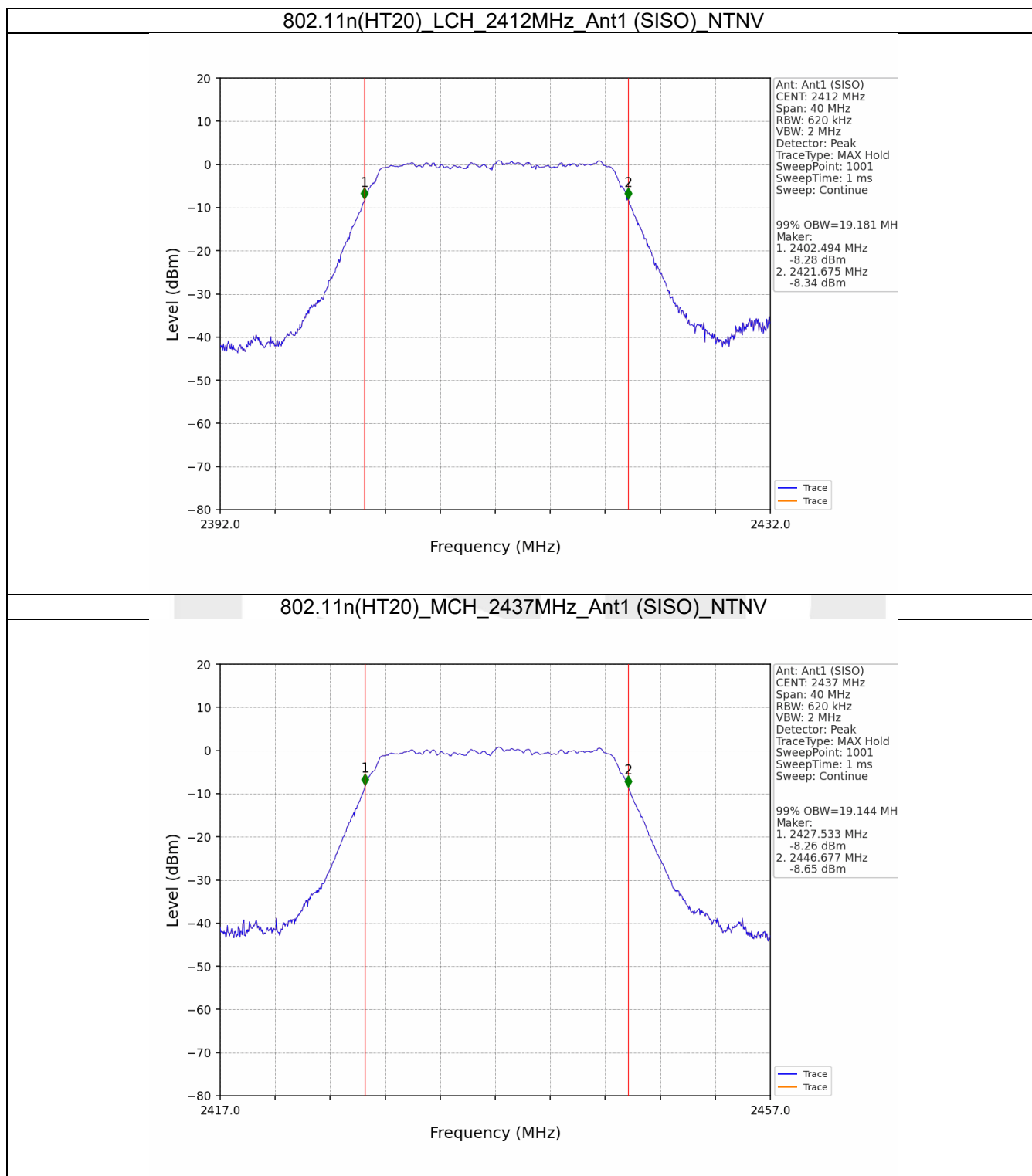
2.2 Test Graph

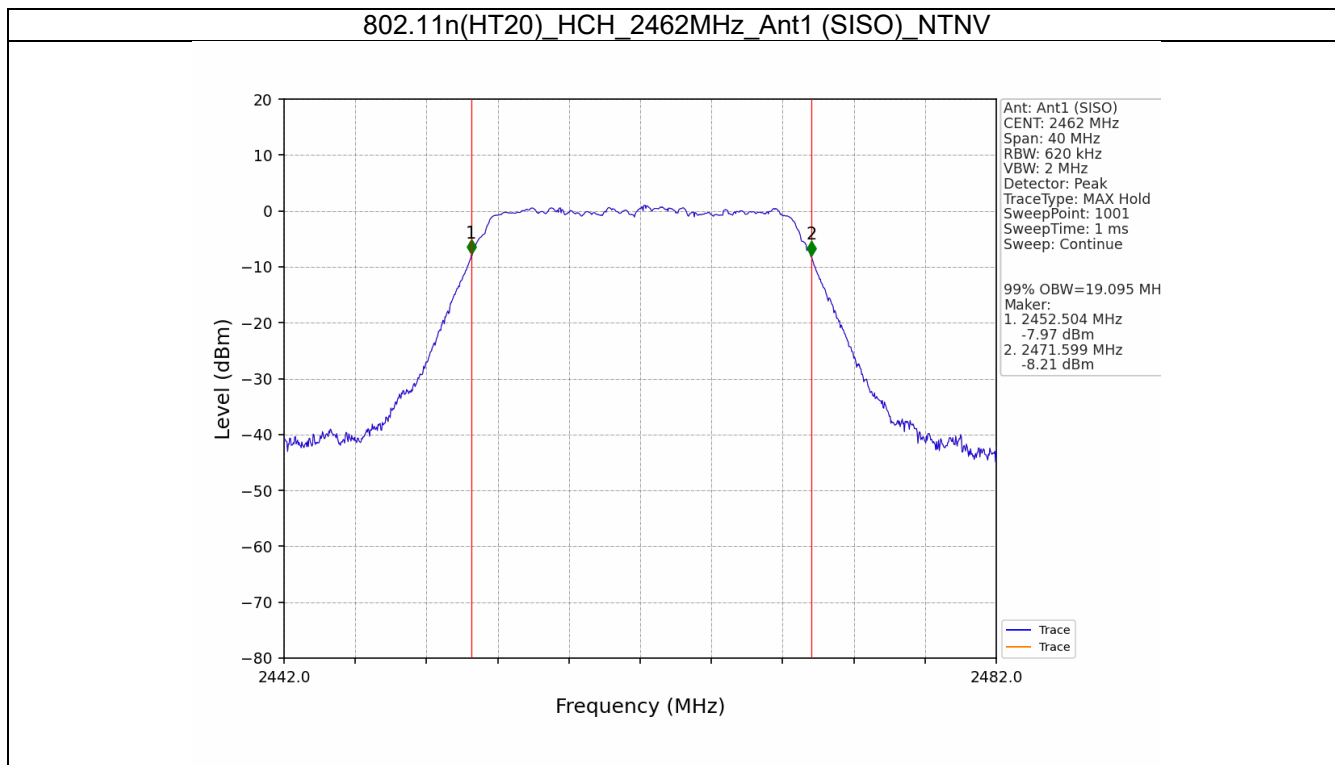
2.2.1 OBW



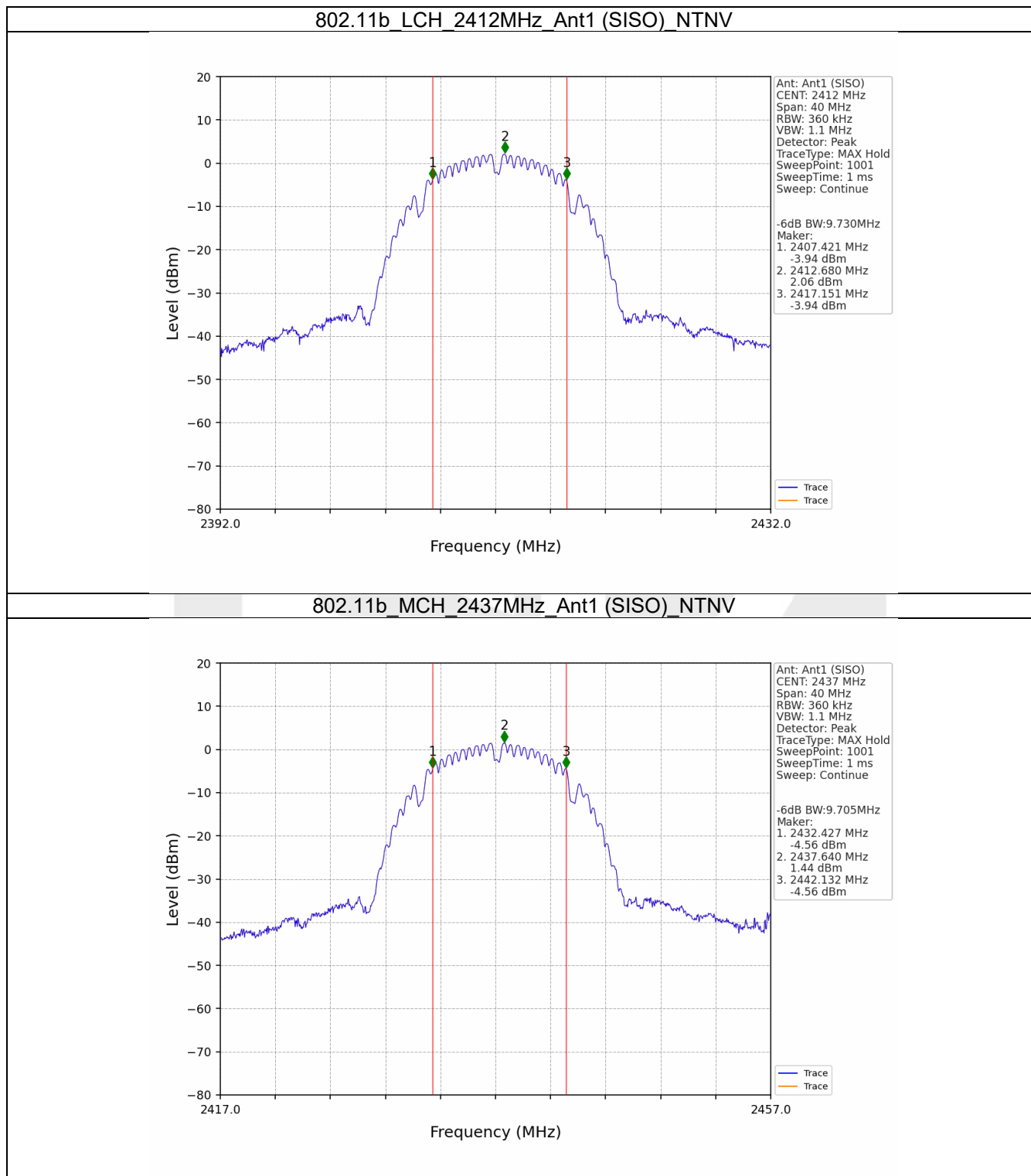


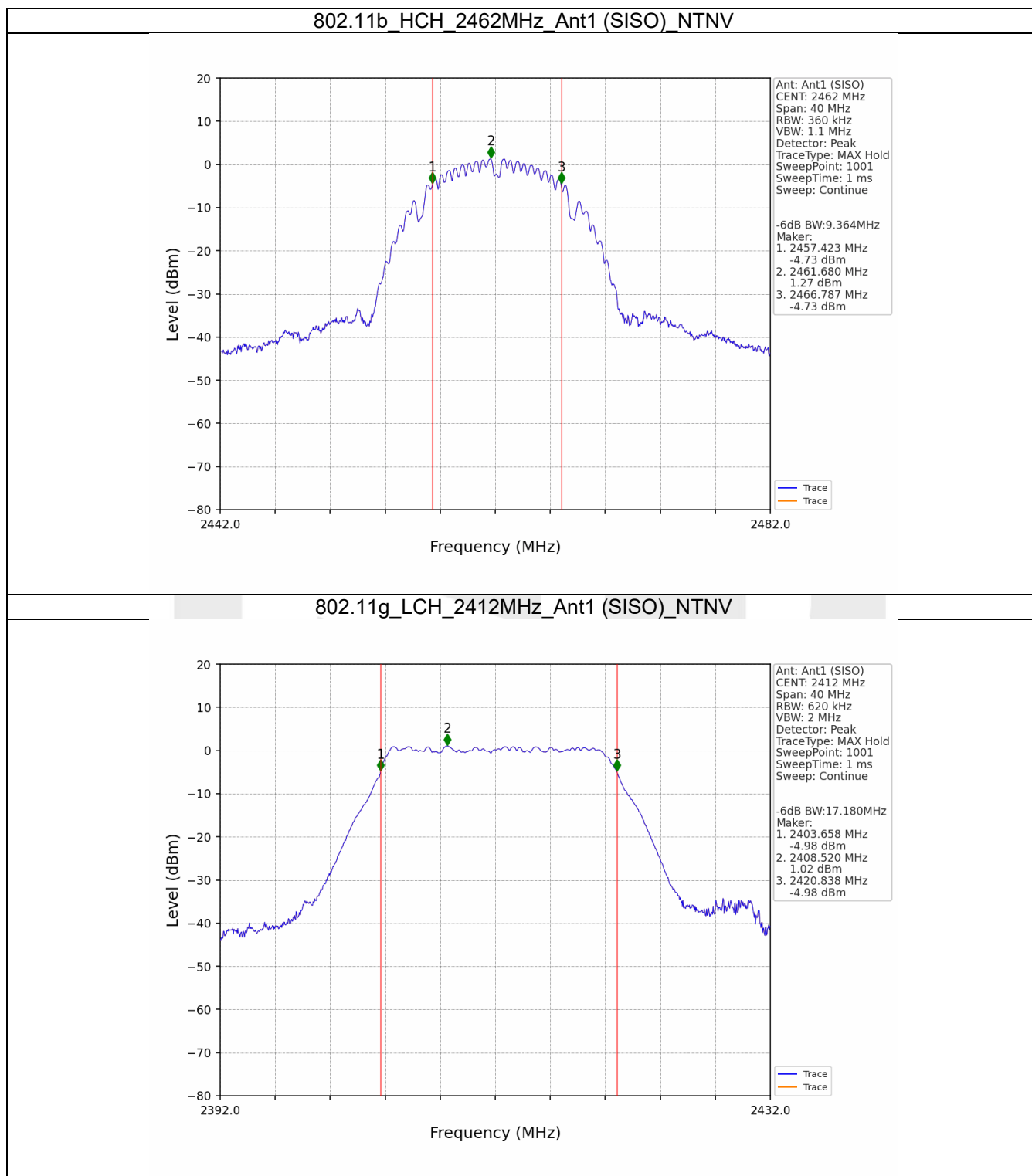


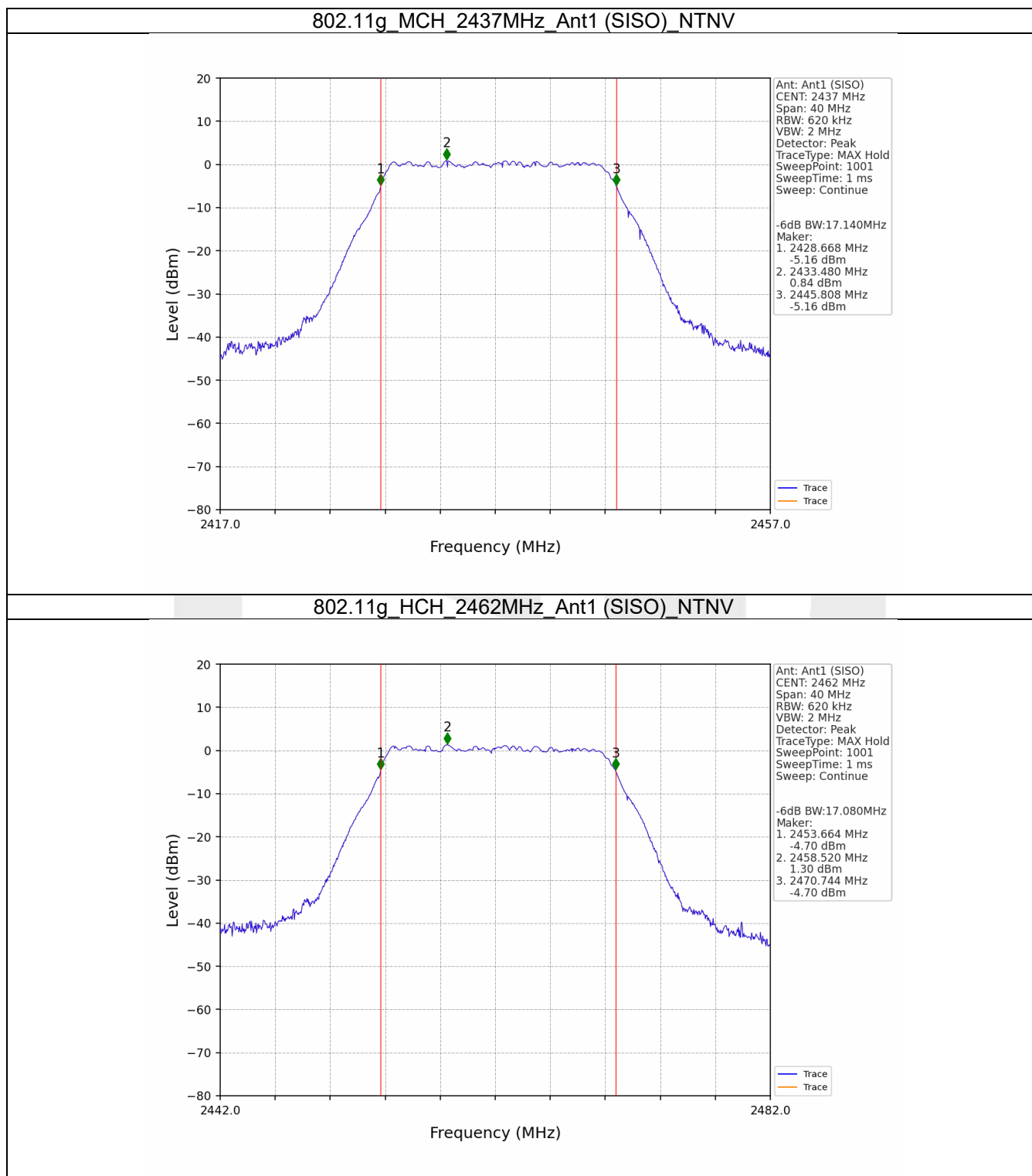


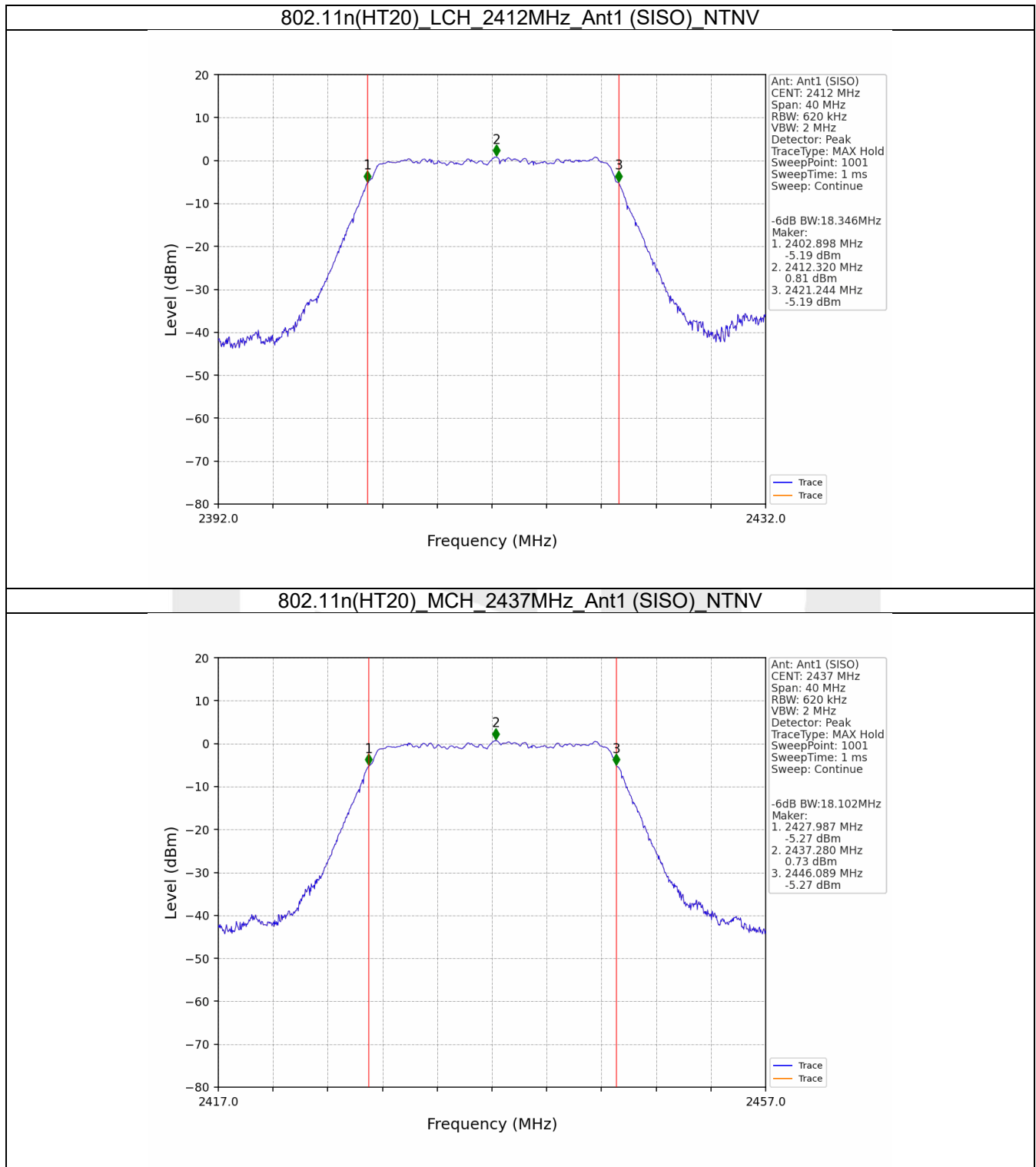


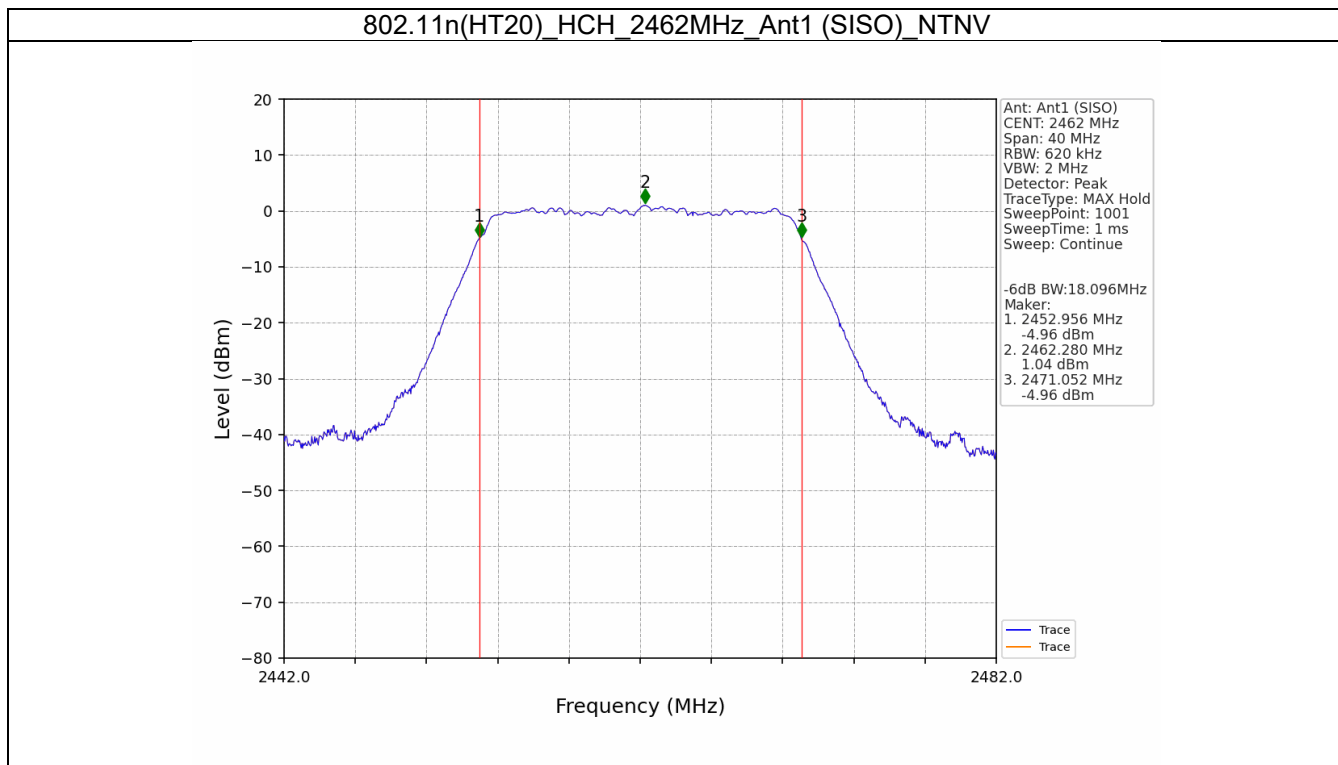
2.2.2 6dB BW











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	ANT2	Limit	
802.11b	SISO	2412	12.94	14.63	≤ 30	Pass
		2437	12.35	14.70	≤ 30	Pass
		2462	12.11	14.89	≤ 30	Pass
802.11g	SISO	2412	15.15	15.90	≤ 30	Pass
		2437	15.00	15.86	≤ 30	Pass
		2462	15.29	16.27	≤ 30	Pass
802.11n (HT20)	SISO	2412	15.20	15.79	≤ 30	Pass
		2437	14.94	15.77	≤ 30	Pass
		2462	15.19	16.31	≤ 30	Pass

3.1.2 MIMO

Mode	TX Type	Frequency (MHz)	Maximum Peak Conducted Output Power (dBm)		Verdict
			MIMO	Limit	
802.11g	SISO	2412	18.55	≤ 28.52	Pass
		2437	18.46	≤ 28.52	Pass
		2462	18.82	≤ 28.52	Pass
802.11n (HT20)	SISO	2412	18.52	≤ 28.52	Pass
		2437	18.39	≤ 28.52	Pass
		2462	18.80	≤ 28.52	Pass

4. Maximum Power Spectral Density

4.1 Test Result

4.1.1 PSD

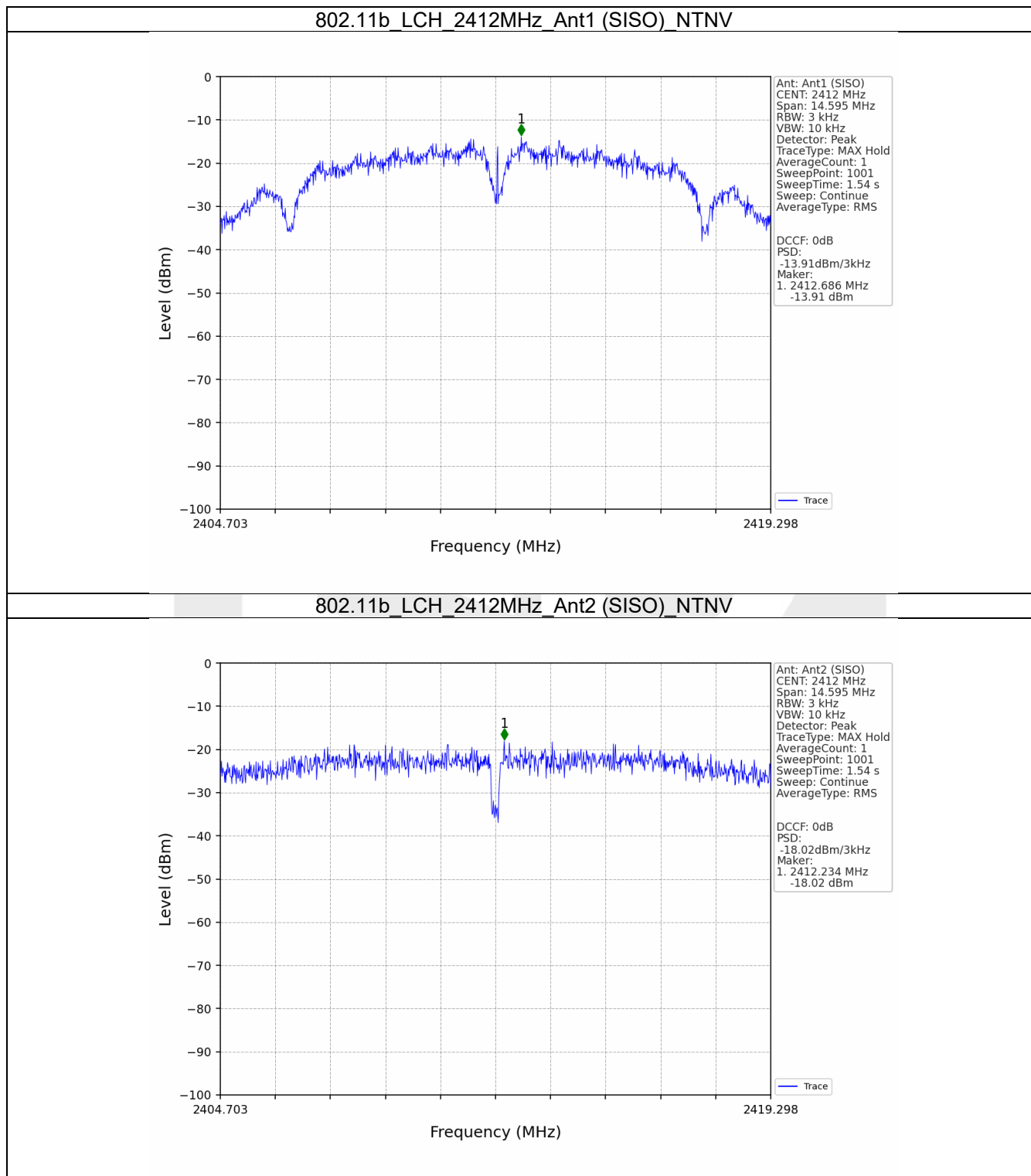
Mode	TX Type	Frequency (MHz)	Maximum PSD (dBm/3kHz)			Verdict
			ANT1	ANT2	Limit	
802.11b	SISO	2412	-13.91	-18.02	<=8	Pass
		2437	-14.16	-17.46	<=8	Pass
		2462	-13.39	-17.80	<=8	Pass
802.11g	SISO	2412	-16.03	-17.28	<=8	Pass
		2437	-14.58	-17.78	<=8	Pass
		2462	-13.99	-16.20	<=8	Pass
802.11n (HT20)	SISO	2412	-16.09	-16.08	<=8	Pass
		2437	-15.10	-17.42	<=8	Pass
		2462	-15.20	-17.48	<=8	Pass

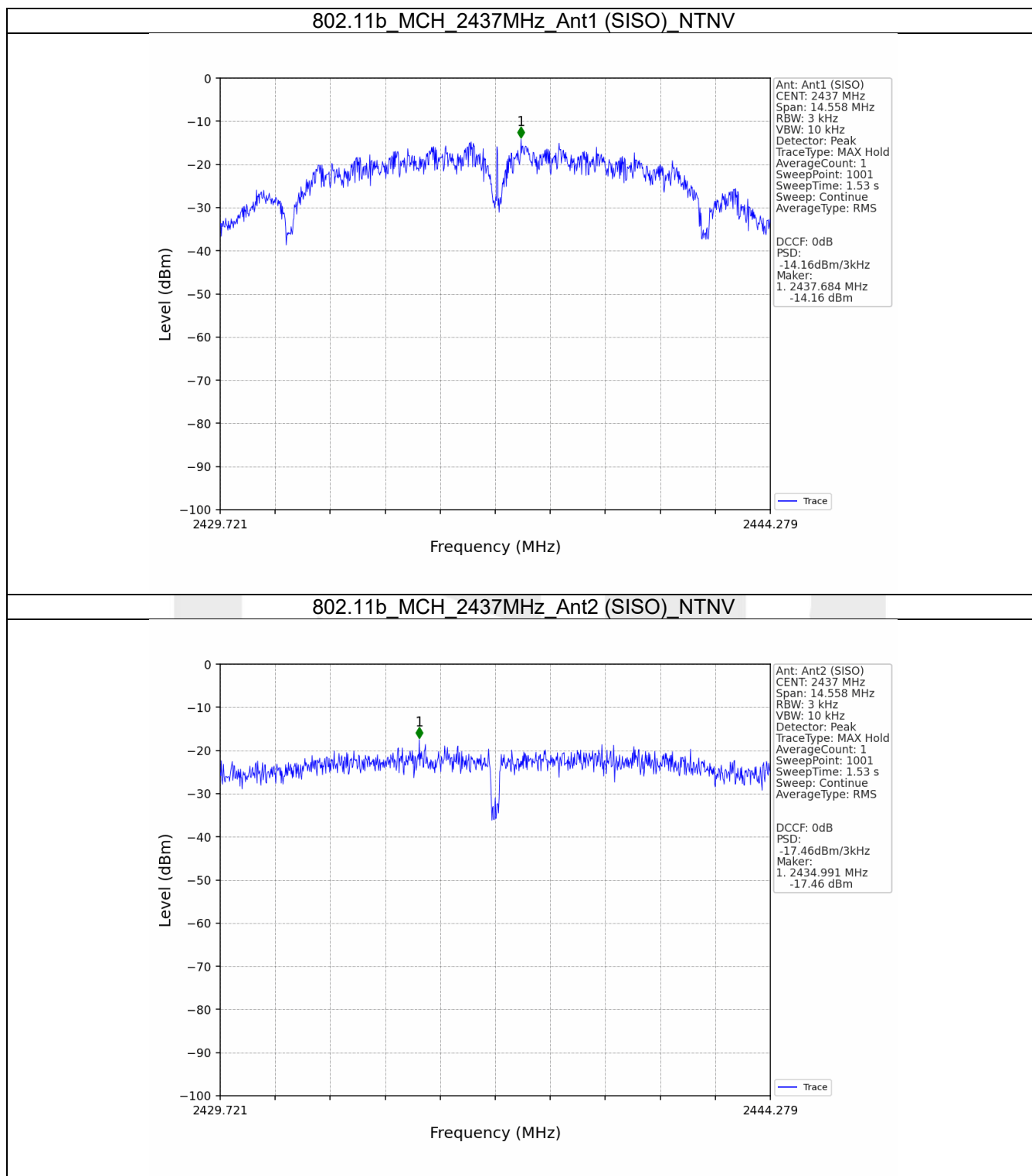
4.1.2 MIMO

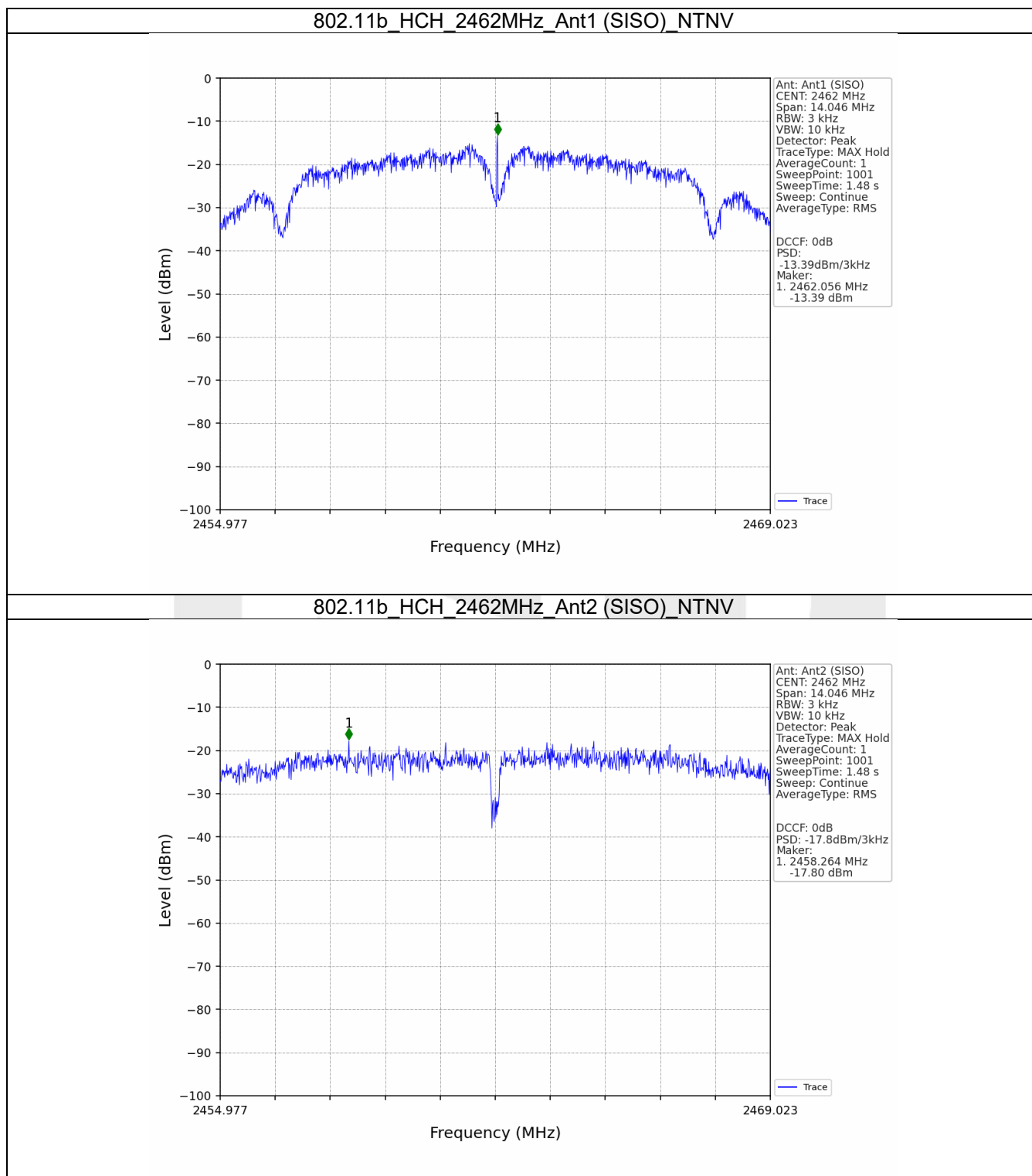
Mode	TX Type	Frequency (MHz)	Maximum PSD (dBm/3kHz)		Verdict
			MIMO	Limit	
802.11g	SISO	2412	-13.60	<=6.52	Pass
		2437	-12.88	<=6.52	Pass
		2462	-11.95	<=6.52	Pass
802.11n (HT20)	SISO	2412	-13.07	<=6.52	Pass
		2437	-13.10	<=6.52	Pass
		2462	-13.18	<=6.52	Pass

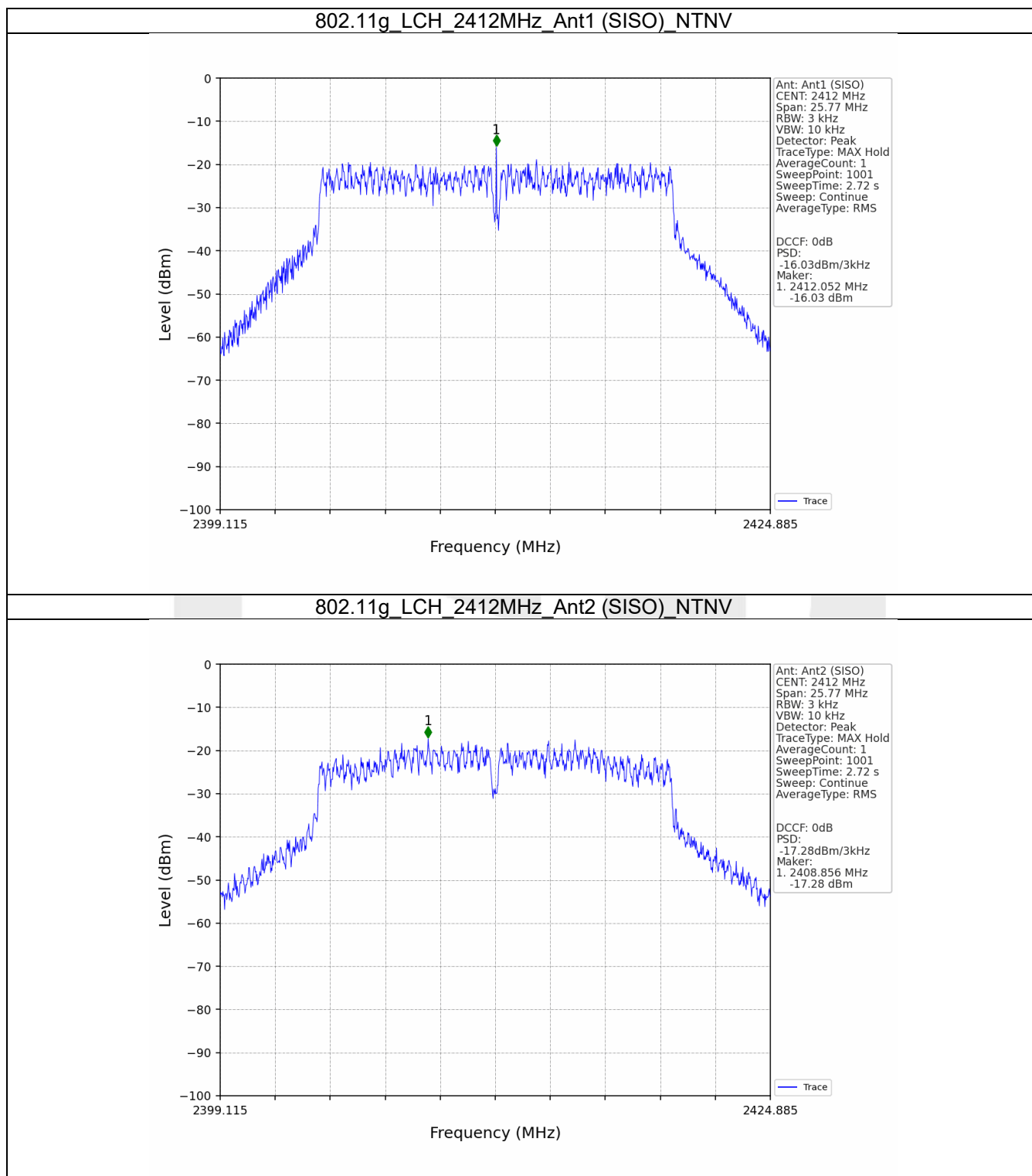
4.2 Test Graph

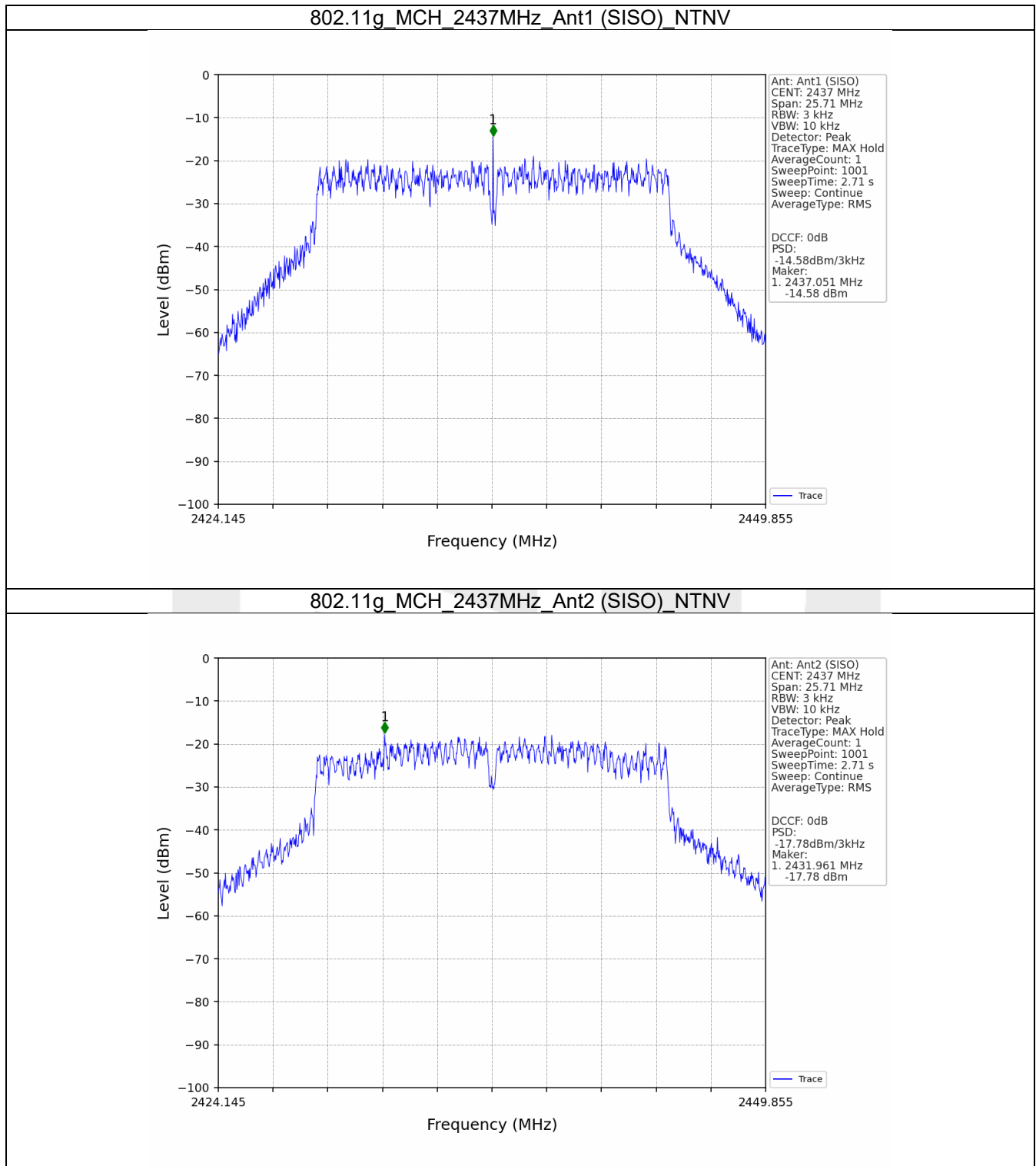
4.2.1 PSD

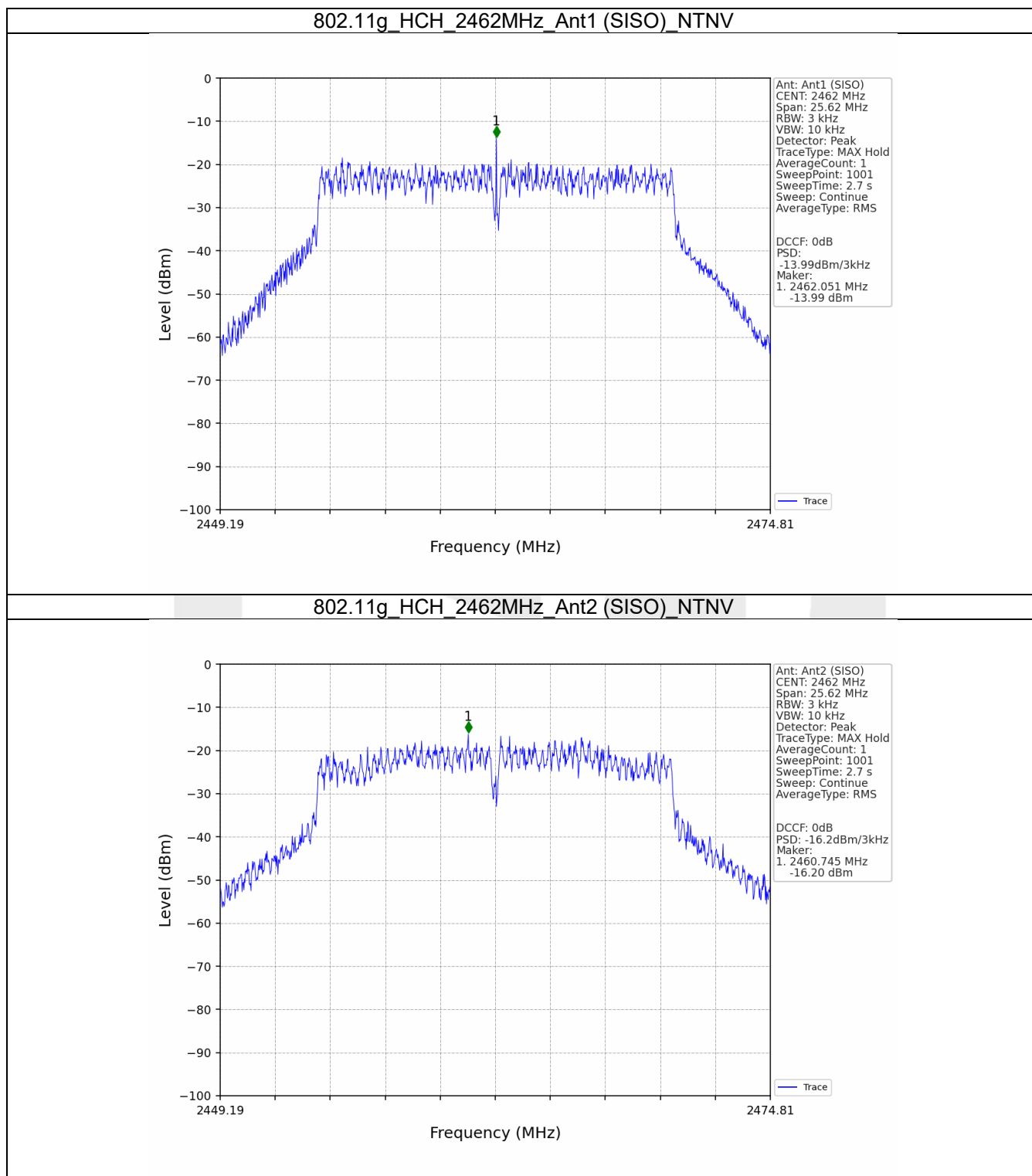


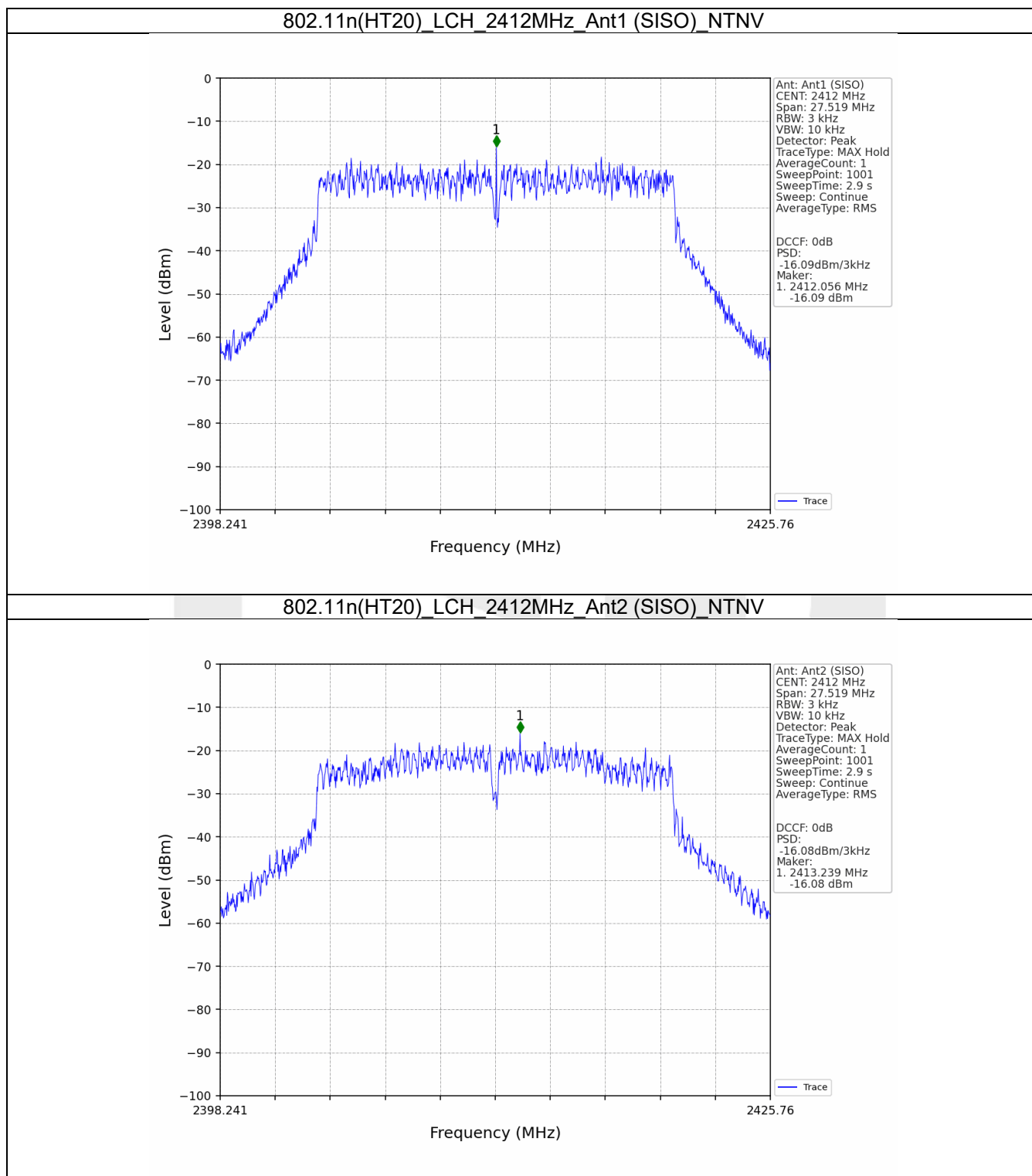


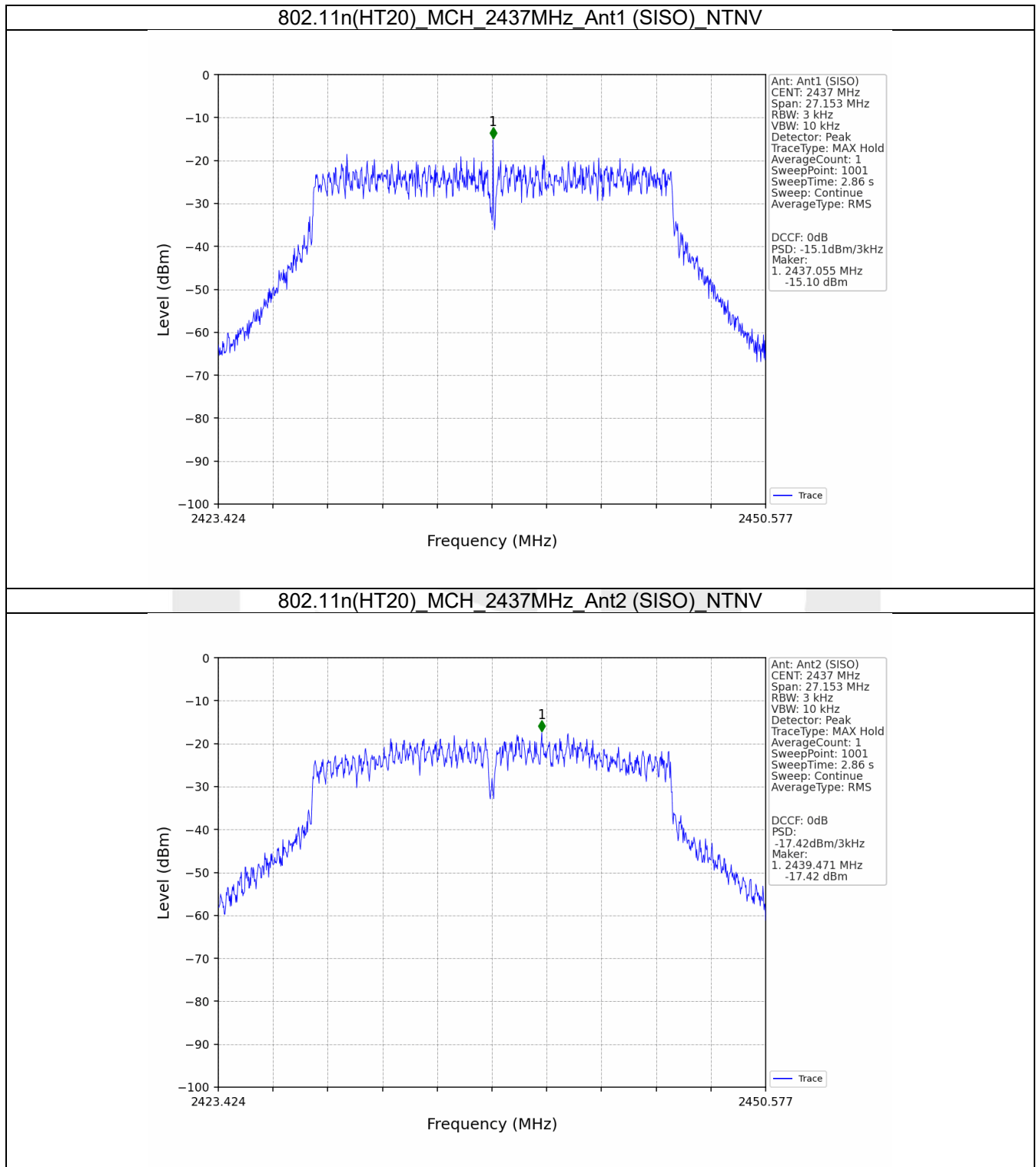


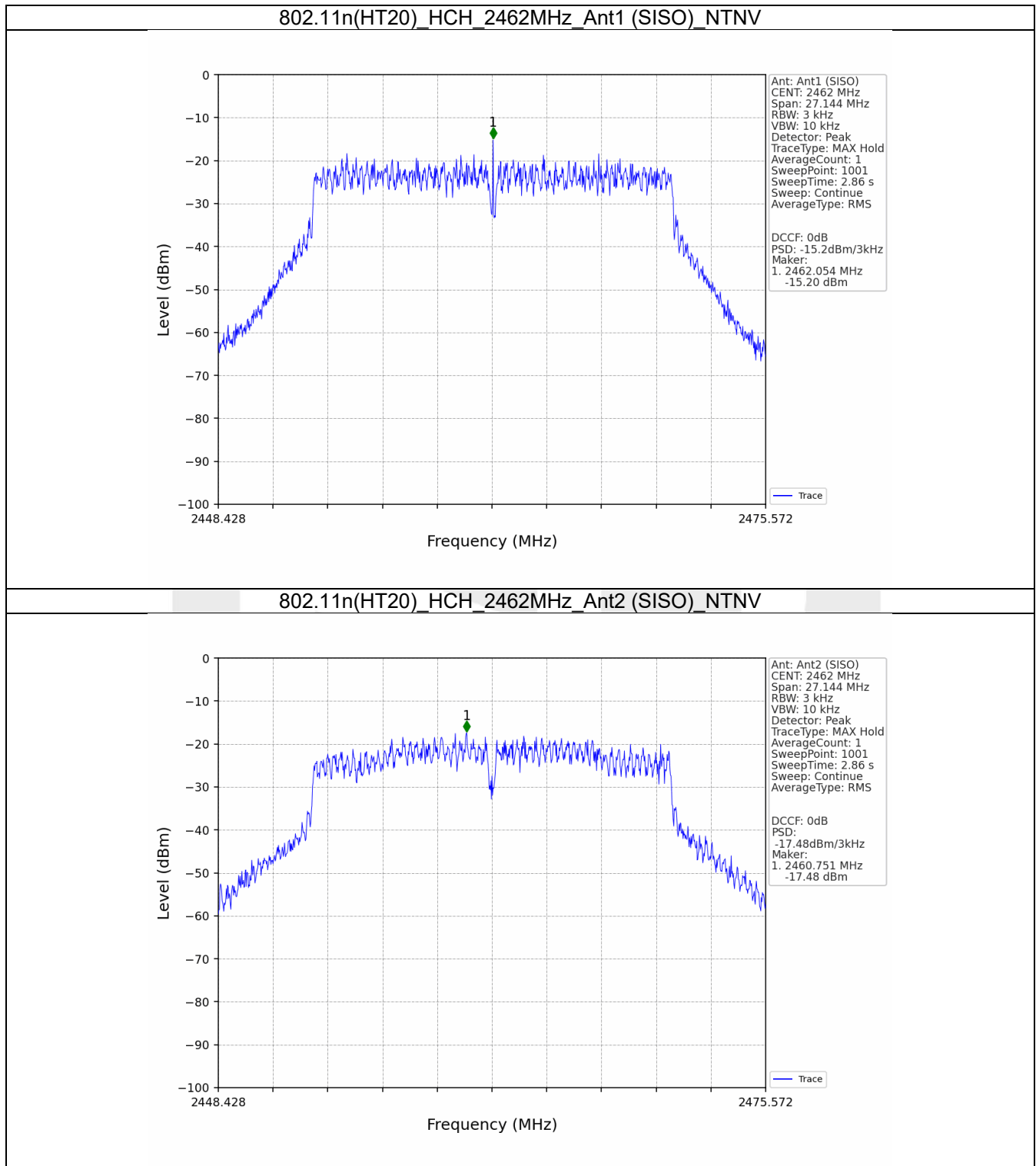












5. Unwanted Emissions In Non-restricted Frequency Bands

5.1 Test Result

5.1.1 Ref

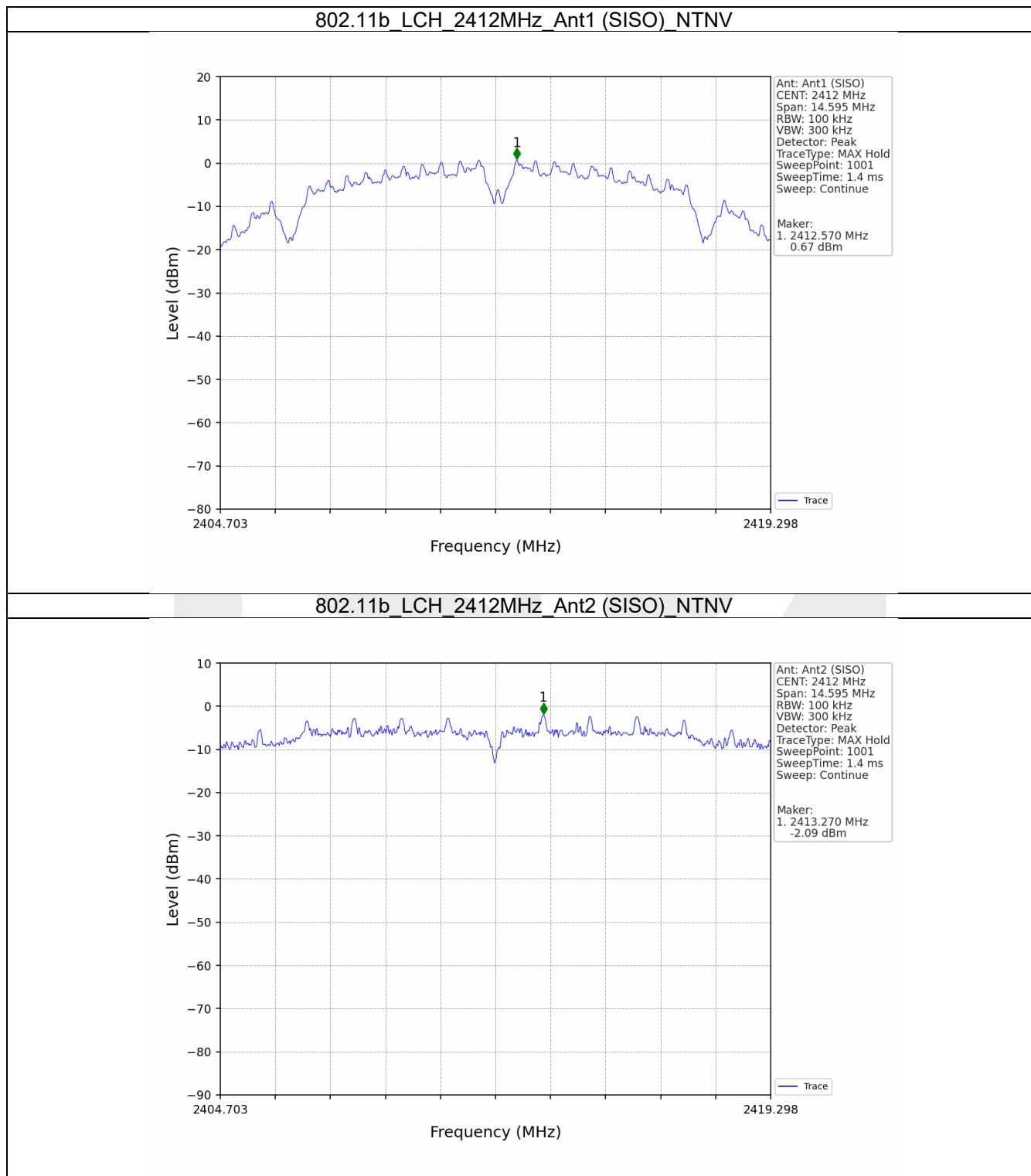
Mode	TX Type	Frequency (MHz)	ANT	Level of Reference (dBm)
802.11b	SISO	2412	1	0.67
			2	-2.09
		2437	1	0.17
			2	-1.98
		2462	1	-0.06
			2	-1.71
802.11g	SISO	2412	1	-3.82
			2	-1.59
		2437	1	-3.98
			2	-1.65
		2462	1	-3.65
			2	-1.23
802.11n (HT20)	SISO	2412	1	-4.08
			2	-1.63
		2437	1	-4.07
			2	-1.55
		2462	1	-3.95
			2	-1.25
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.				

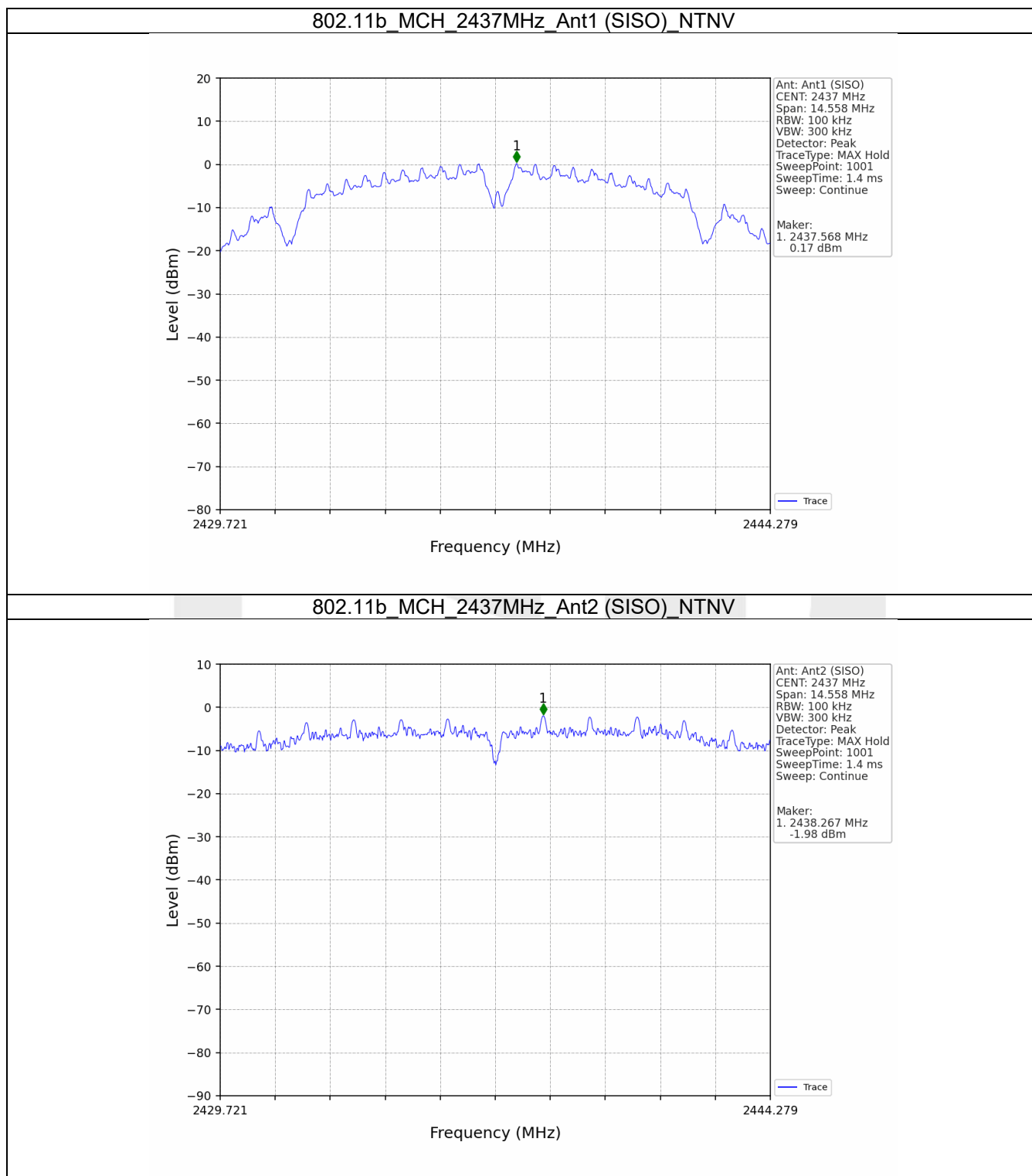
5.1.2 CSE

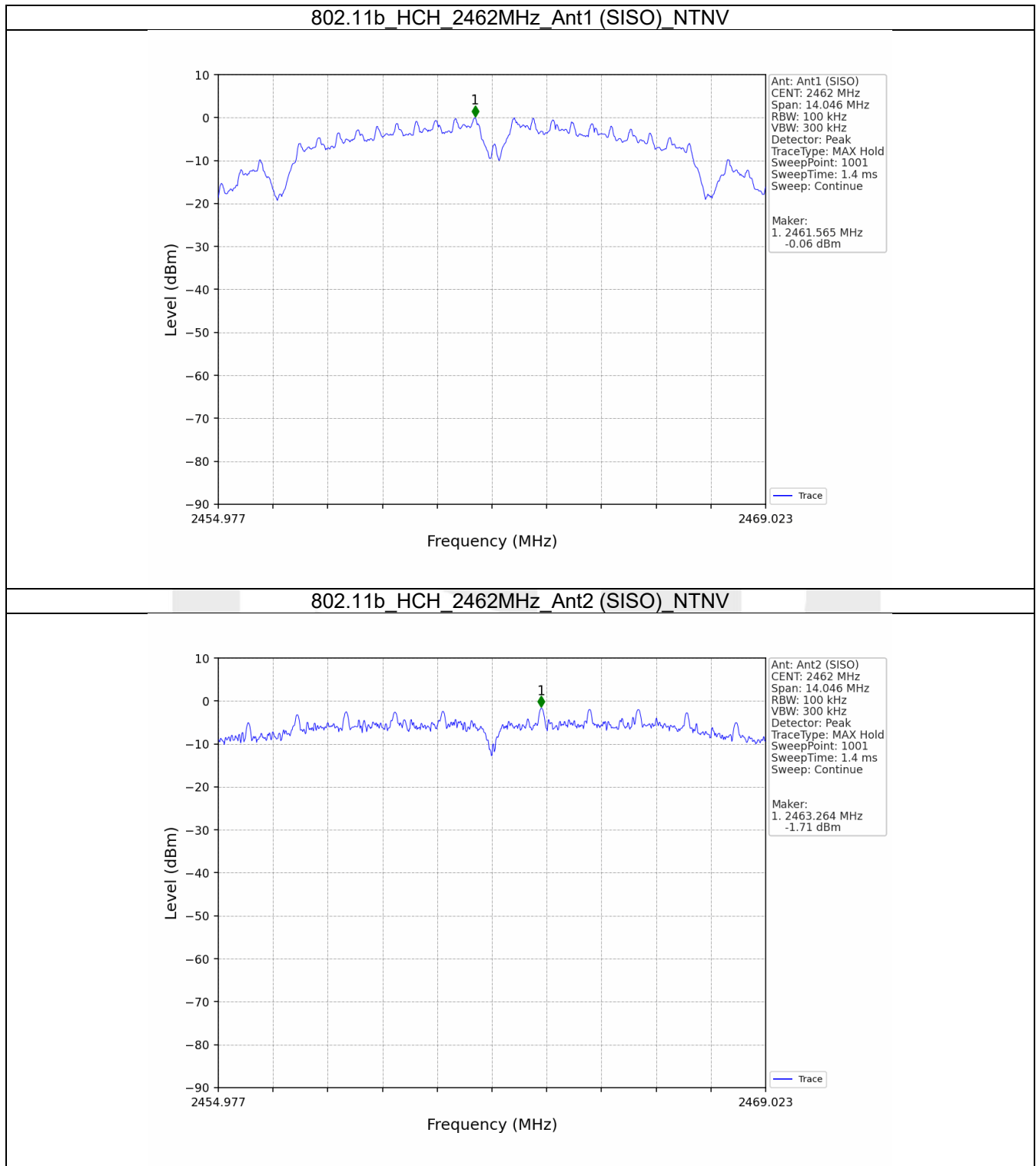
Mode	TX Type	Frequency (MHz)	ANT	Level of Reference (dBm)	Limit (dBm)	Verdict
802.11b	SISO	2412	1	0.67	-19.33	Pass
			2	-2.09	-22.09	Pass
		2437	1	0.17	-19.83	Pass
			2	-1.98	-21.98	Pass
		2462	1	-0.06	-20.06	Pass
			2	-1.71	-21.71	Pass
802.11g	SISO	2412	1	-3.82	-23.82	Pass
			2	-1.59	-21.59	Pass
		2437	1	-3.98	-23.98	Pass
			2	-1.65	-21.65	Pass
		2462	1	-3.65	-23.65	Pass
			2	-1.23	-21.23	Pass
802.11n (HT20)	SISO	2412	1	-4.08	-24.08	Pass
			2	-1.63	-21.63	Pass
		2437	1	-4.07	-24.07	Pass
			2	-1.55	-21.55	Pass
		2462	1	-3.95	-23.95	Pass
			2	-1.25	-21.25	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.						

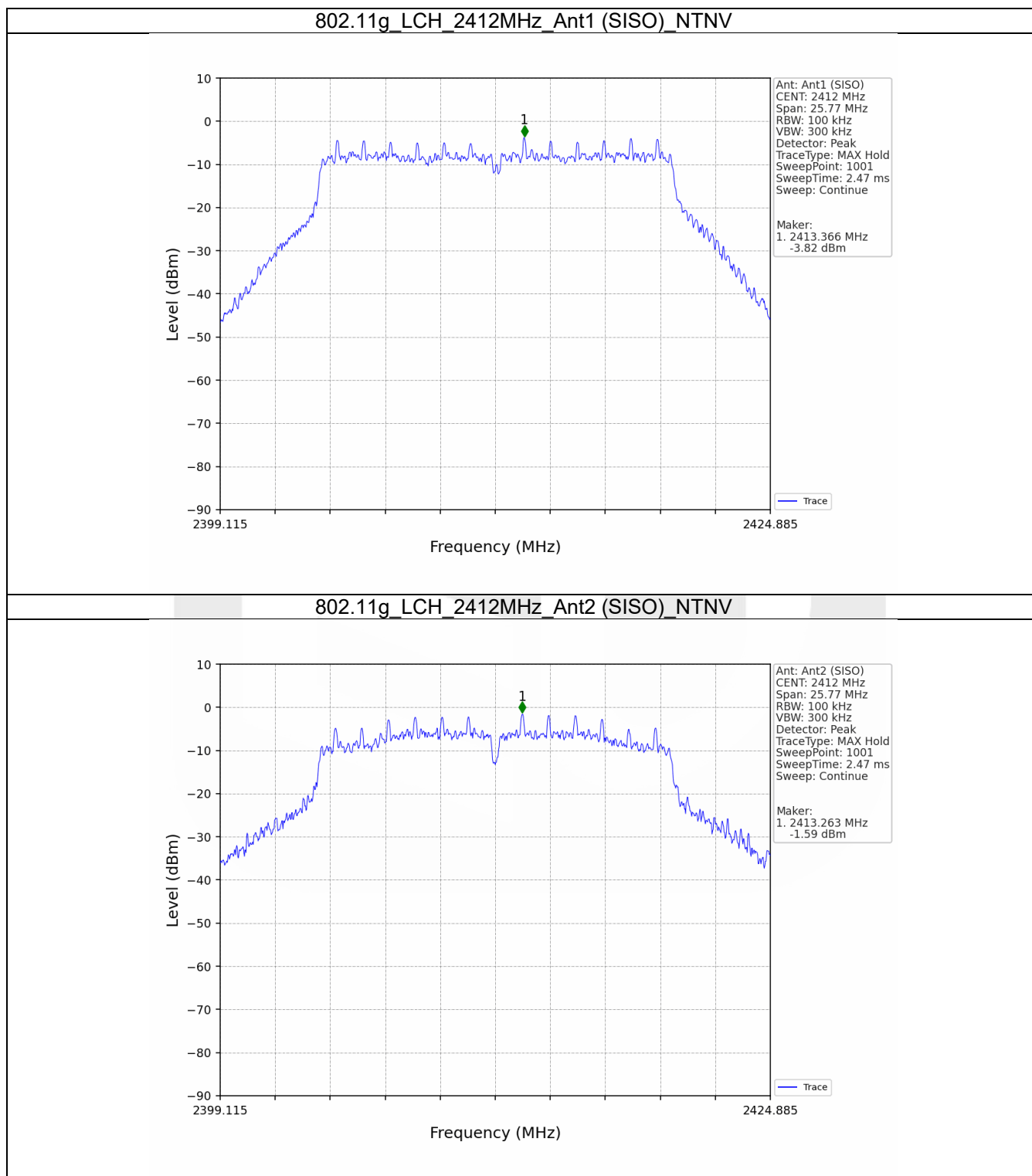
5.2 Test Graph

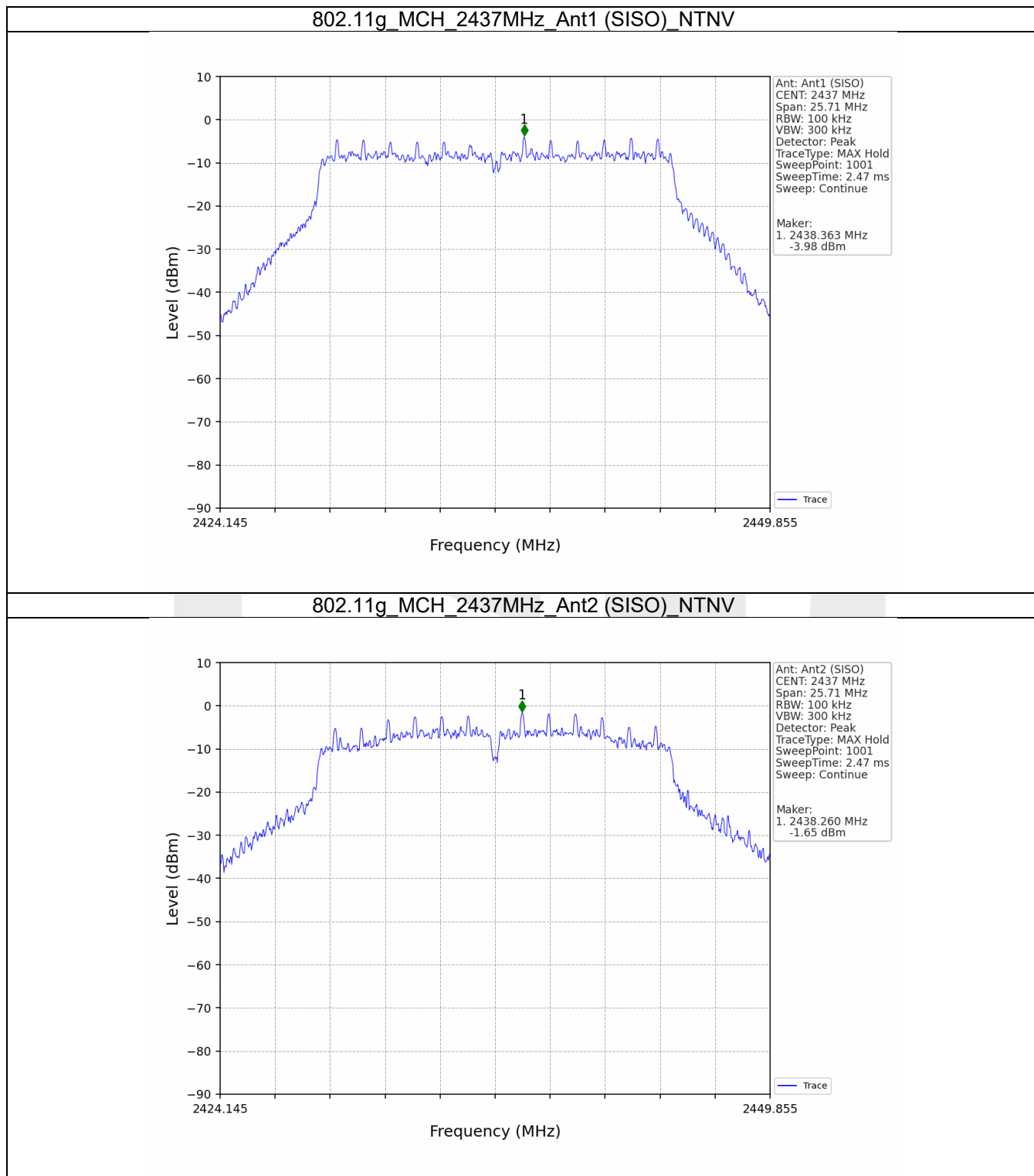
5.2.1 Ref

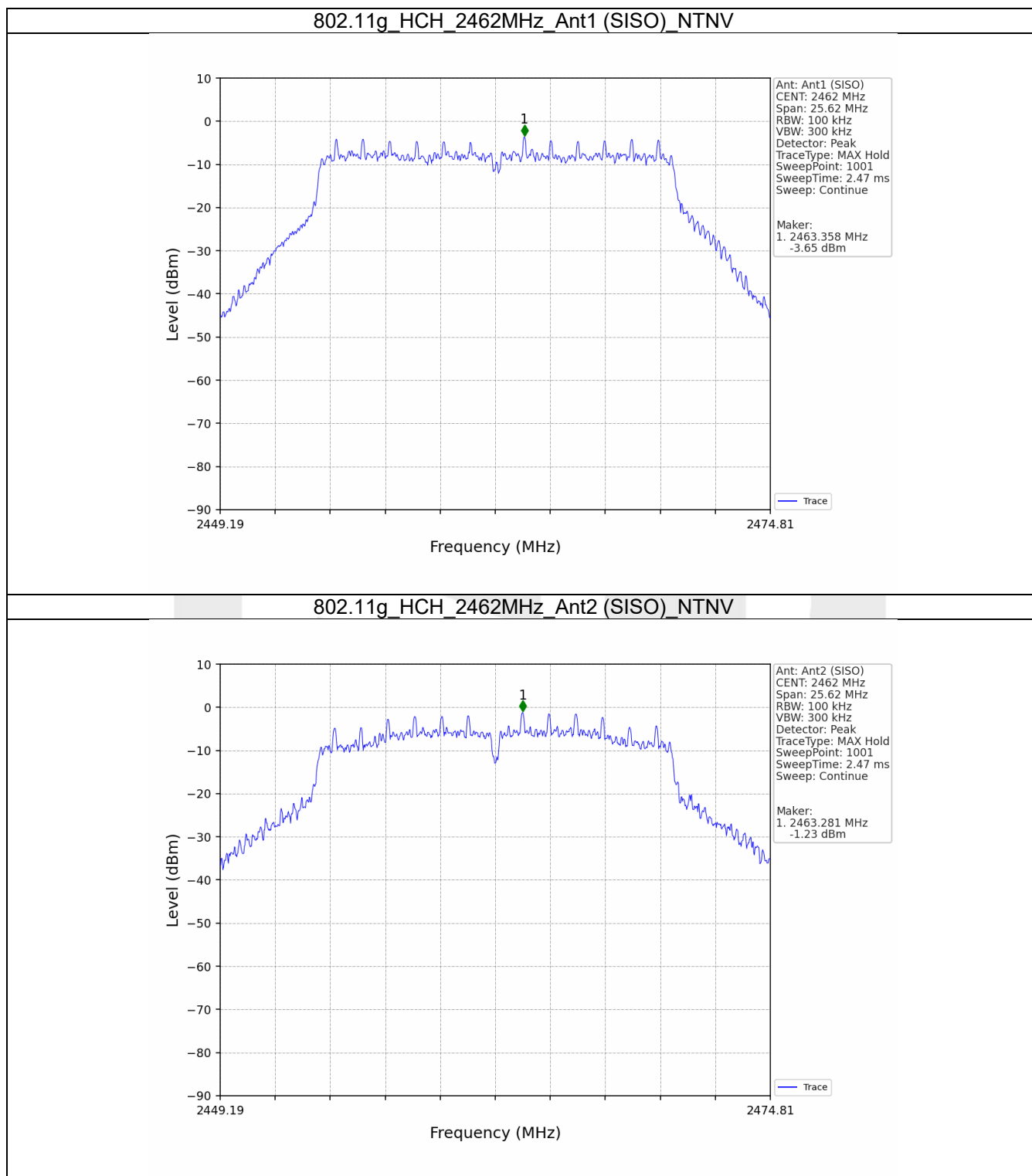


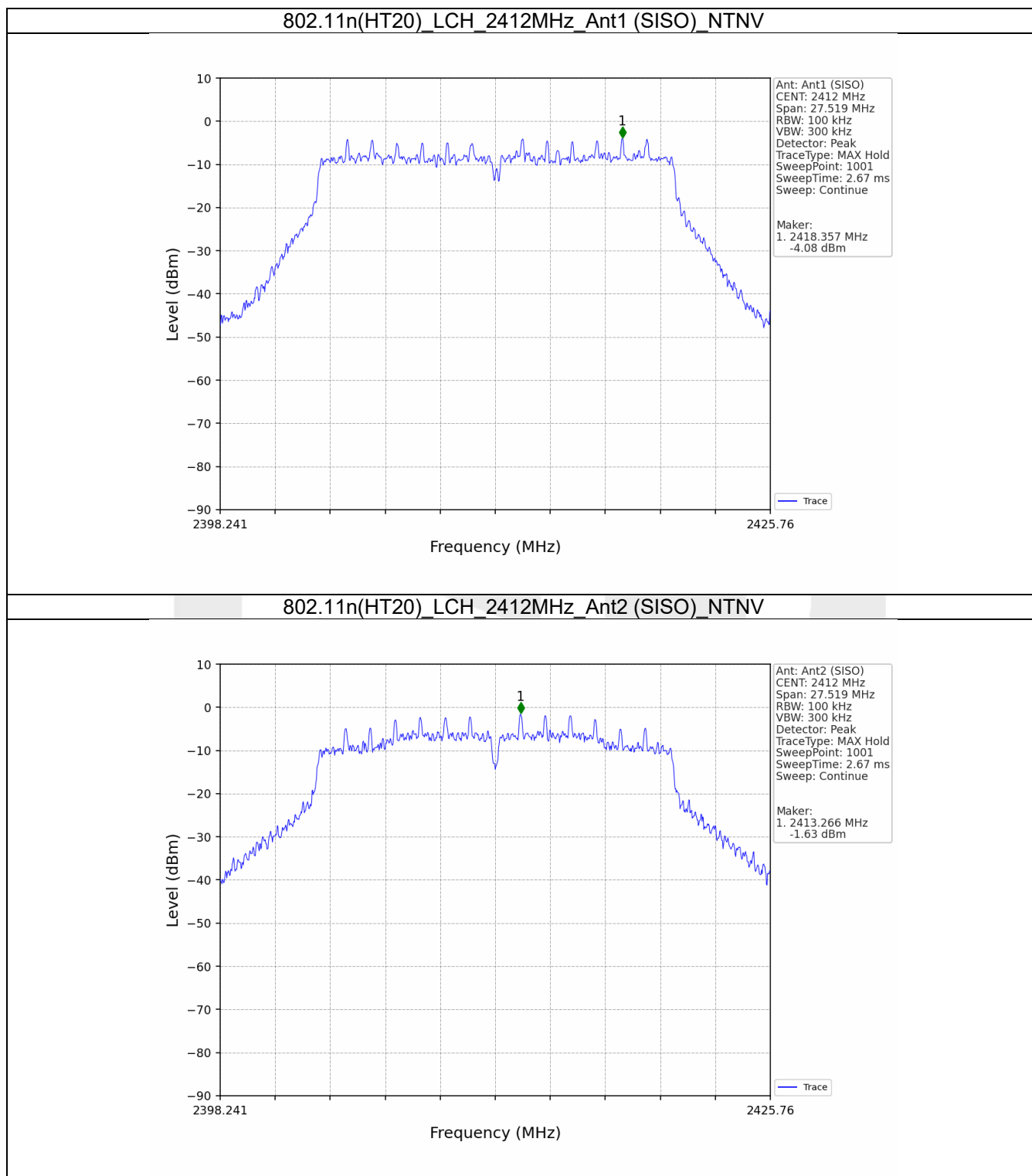


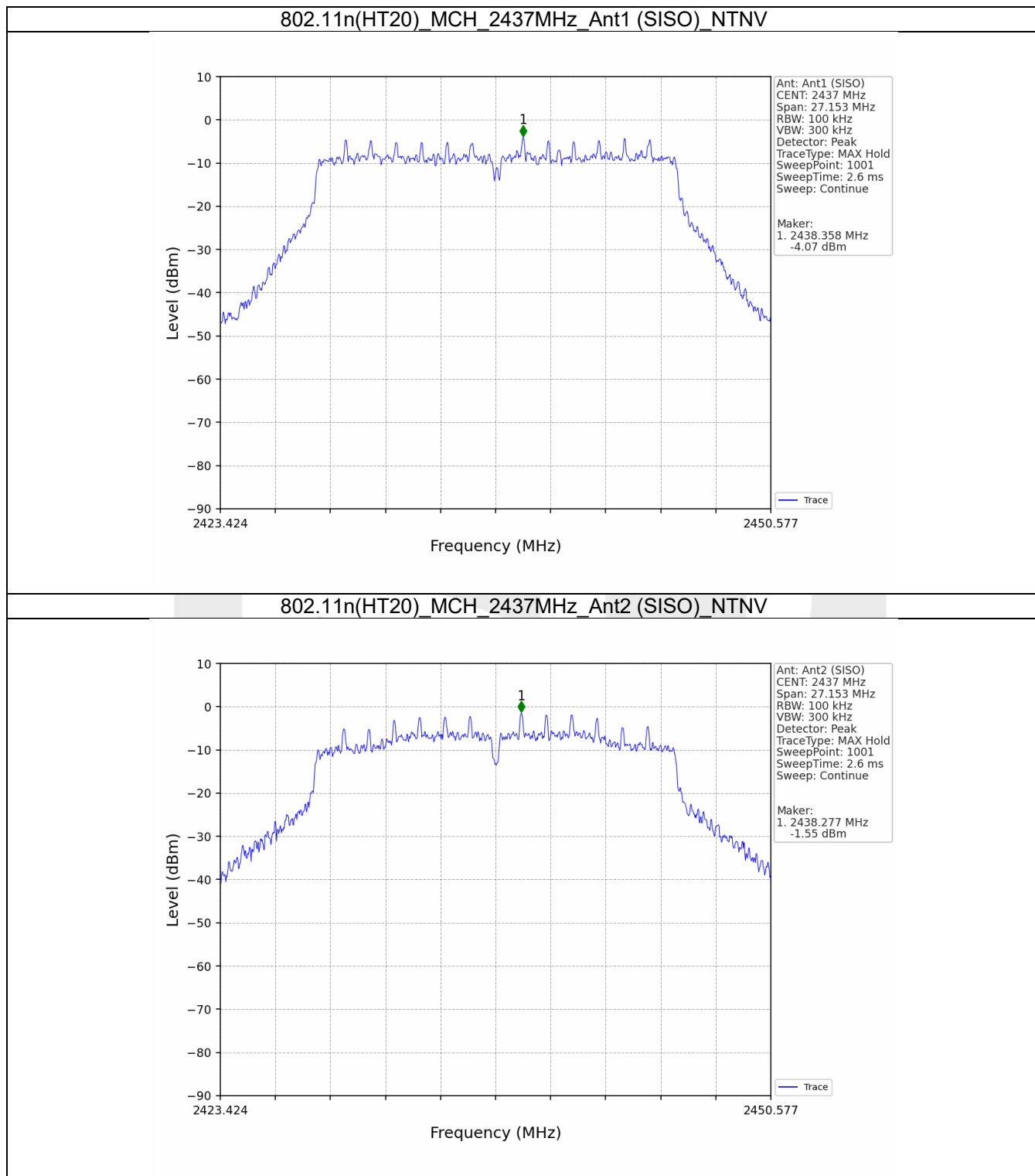


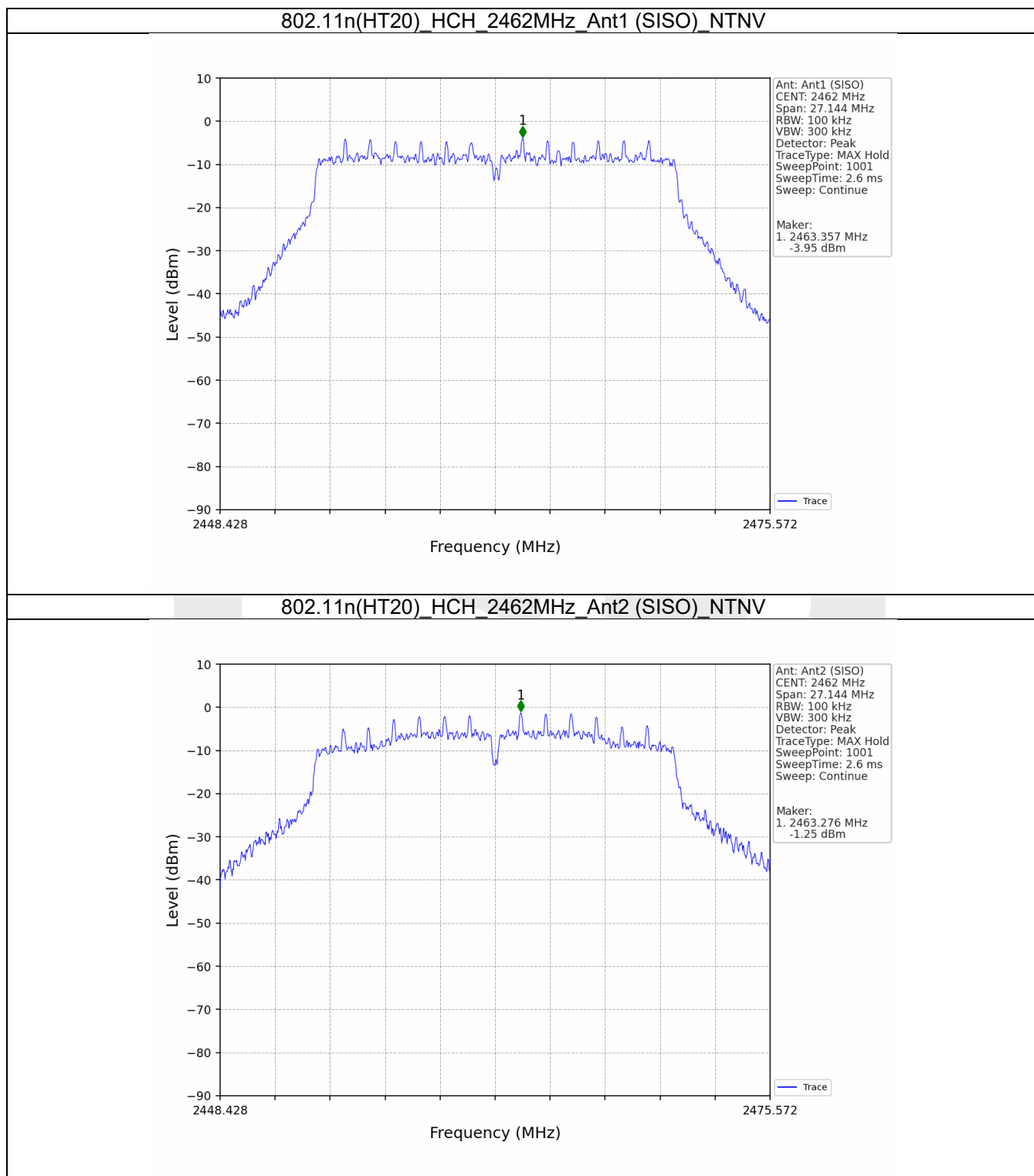




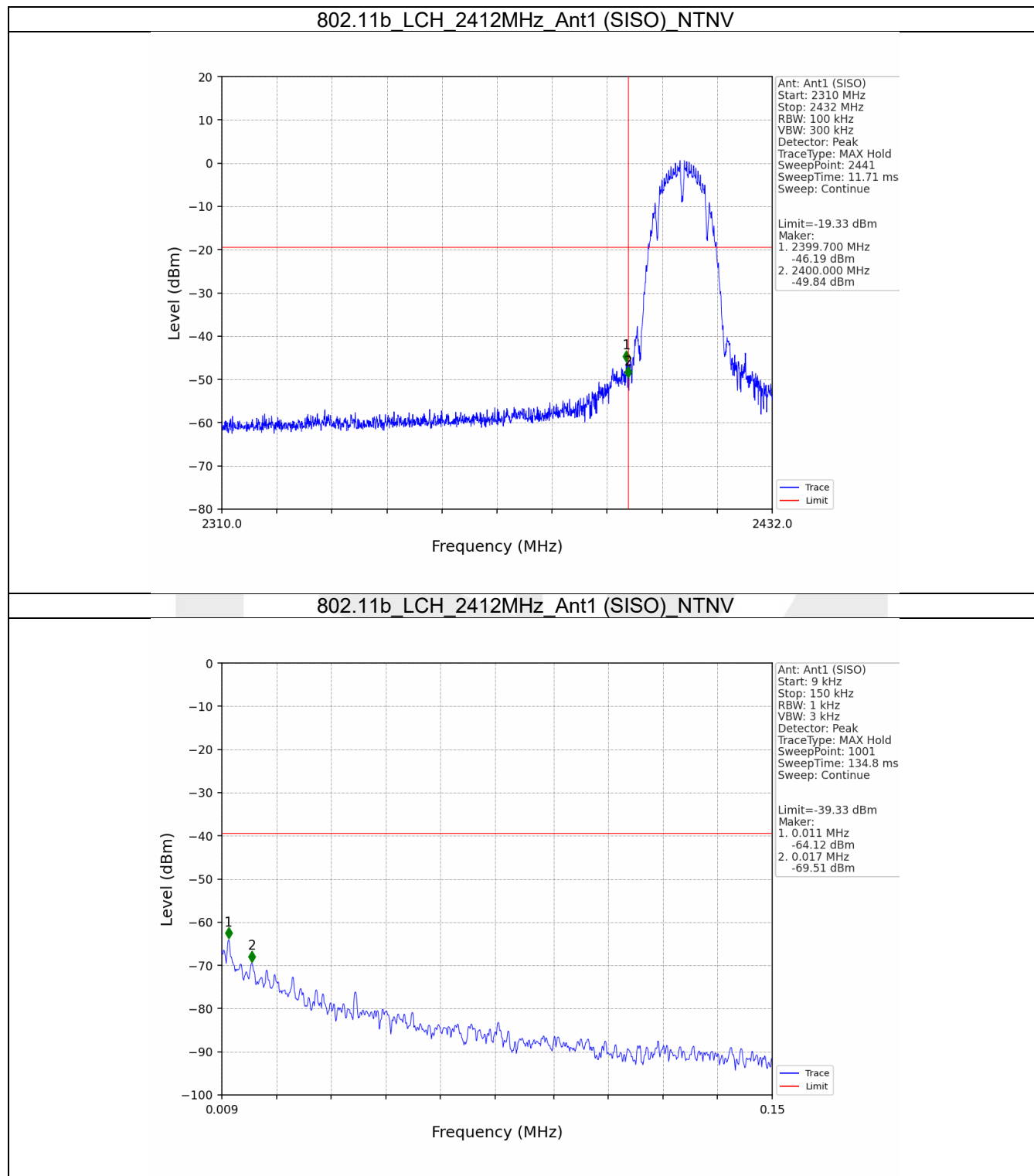


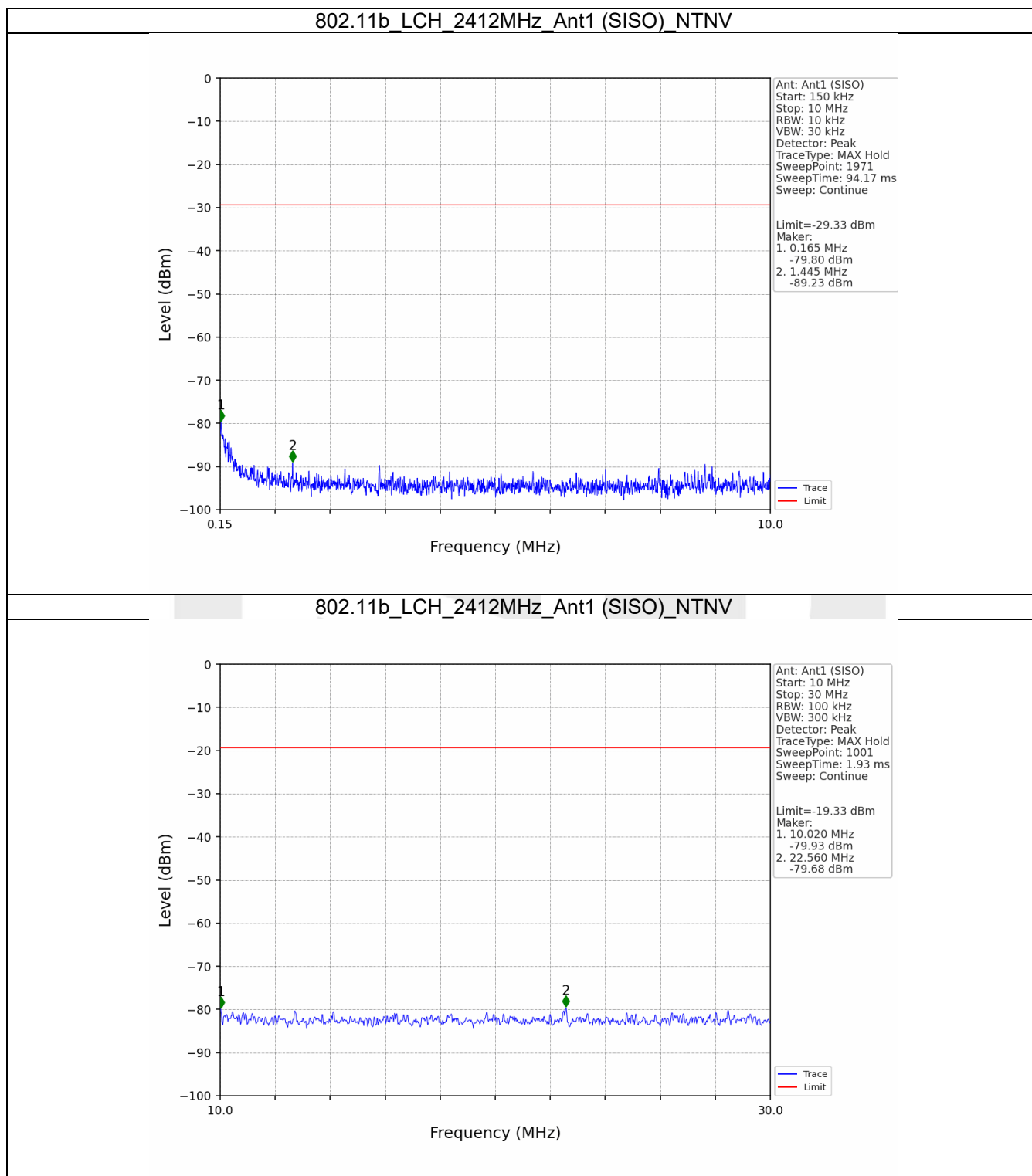


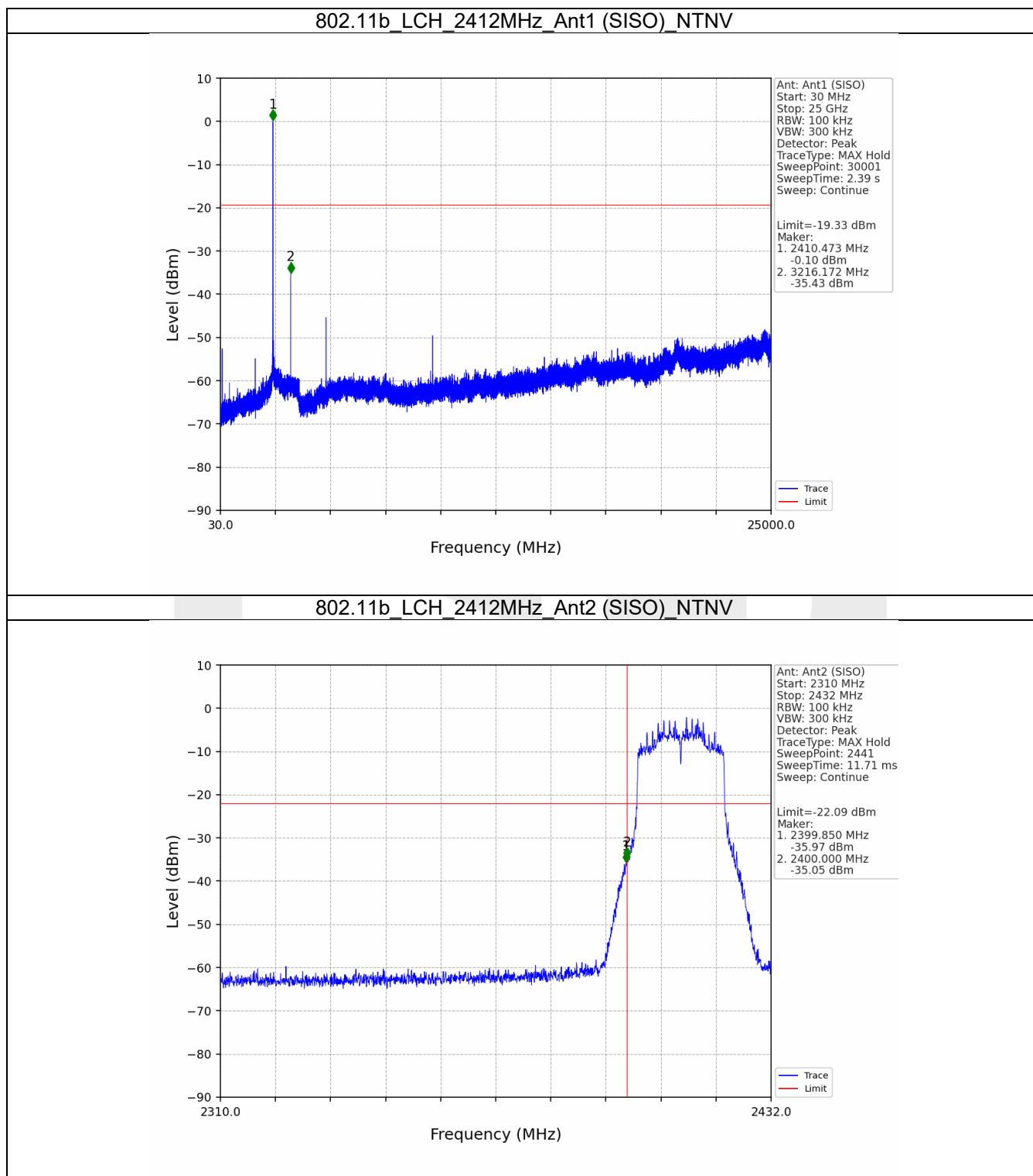


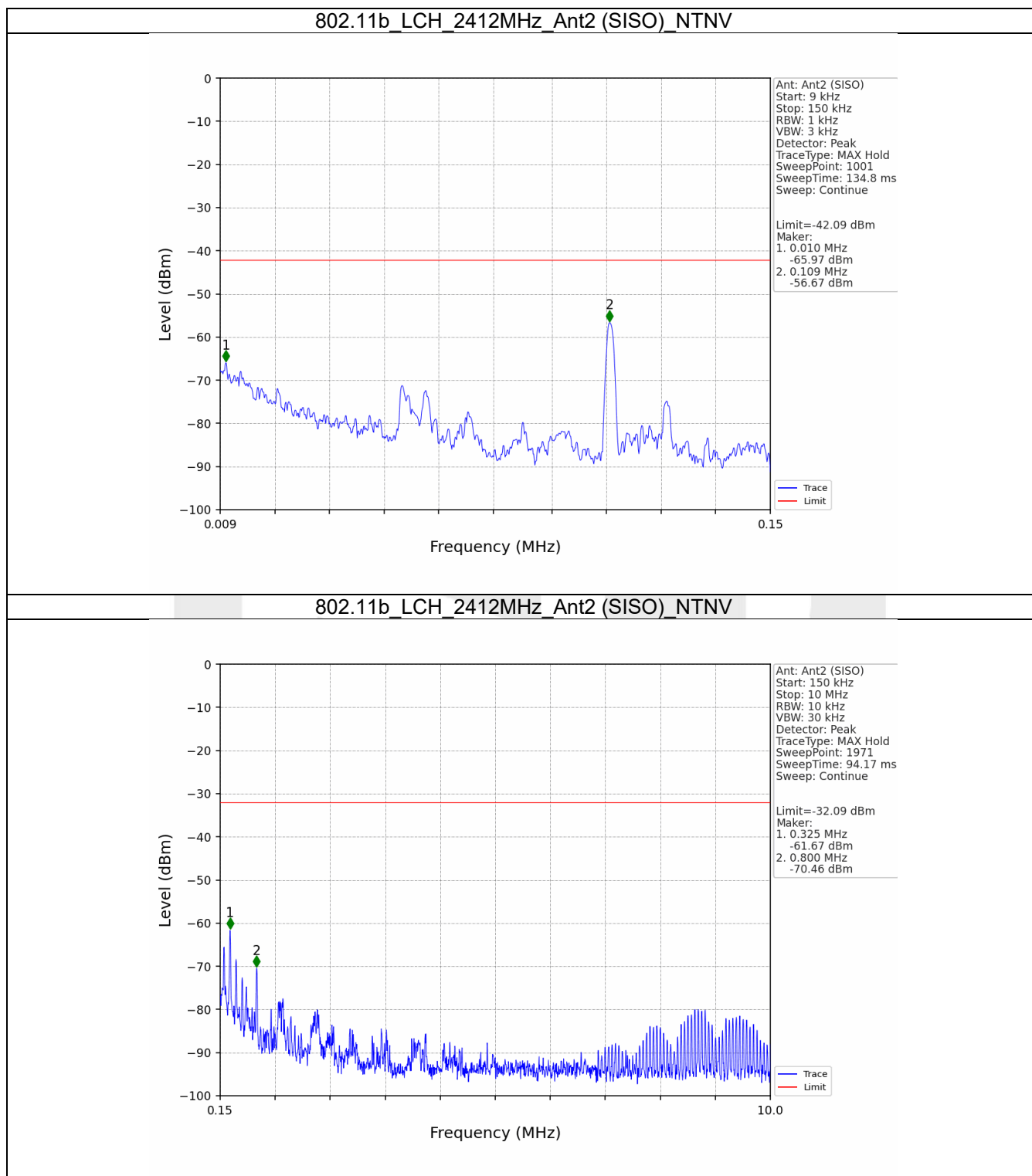


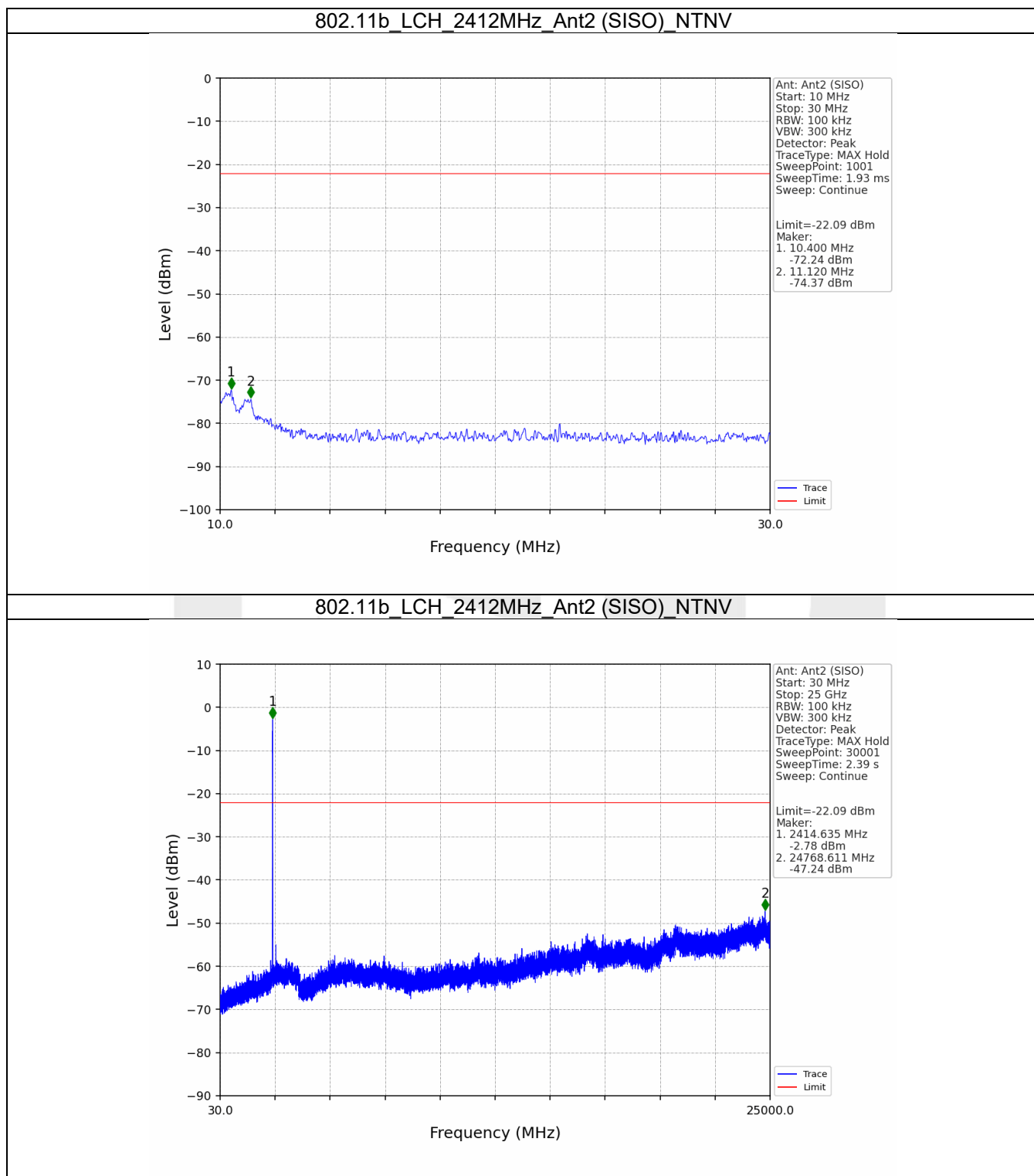
5.2.2 CSE

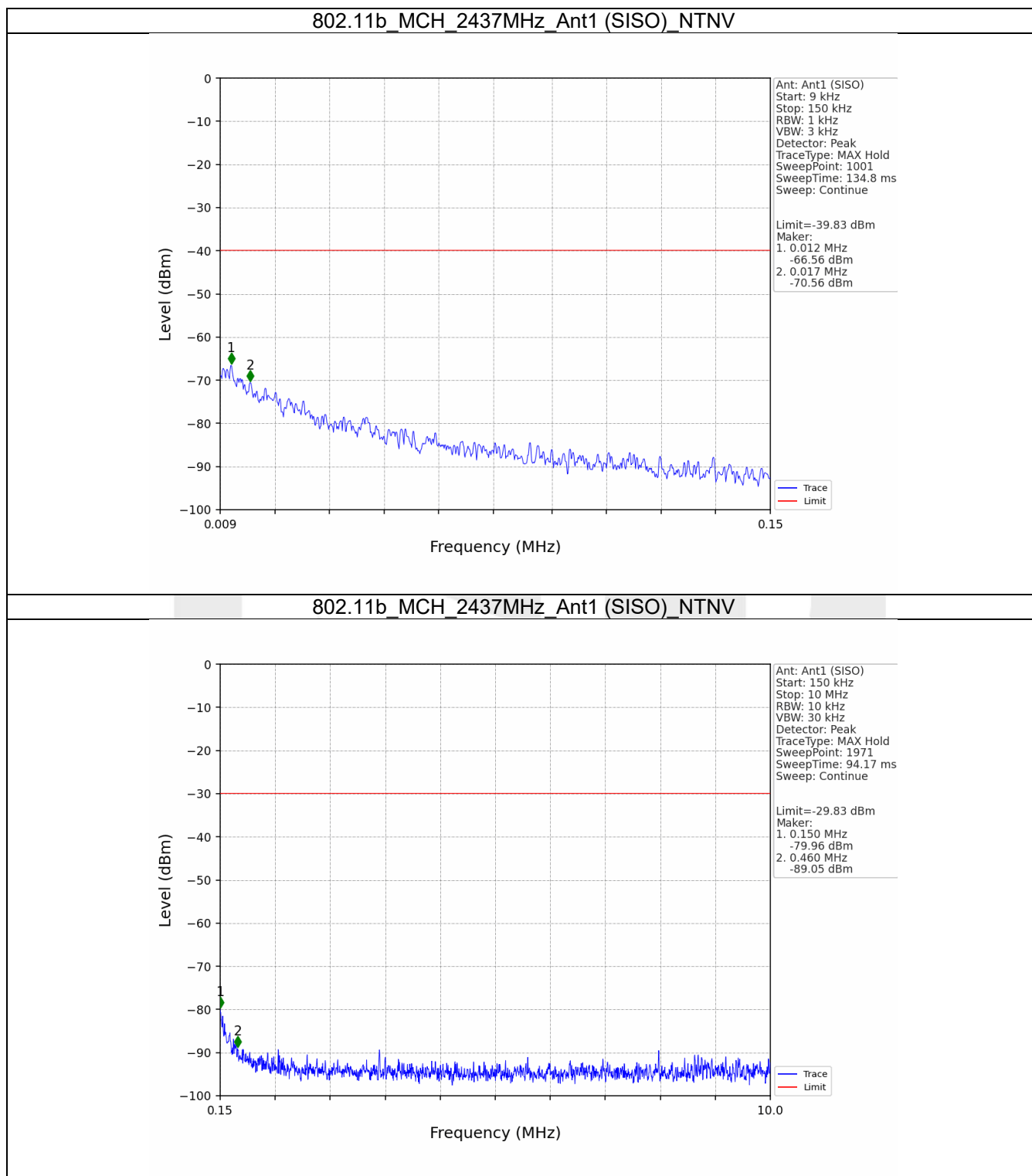


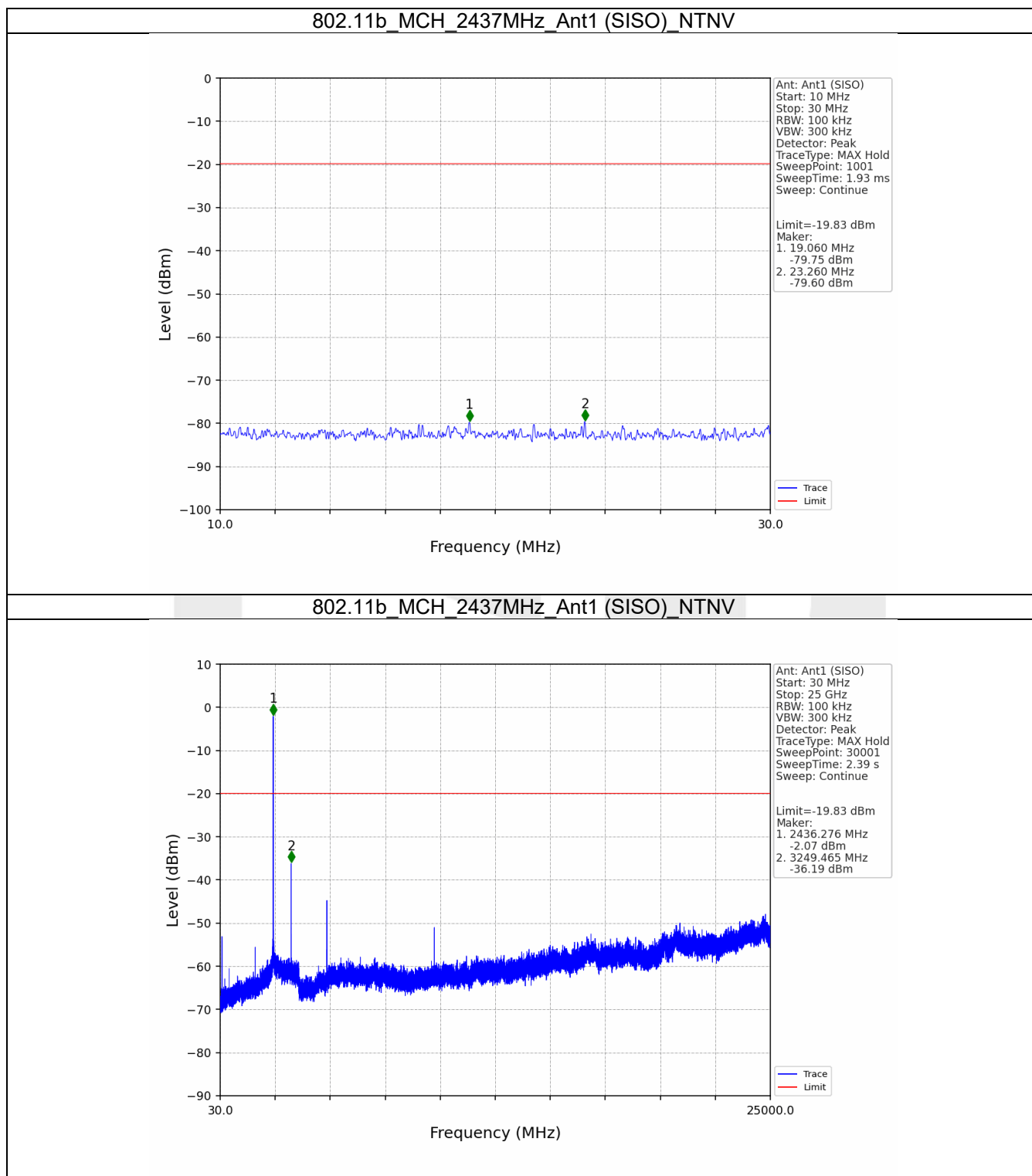


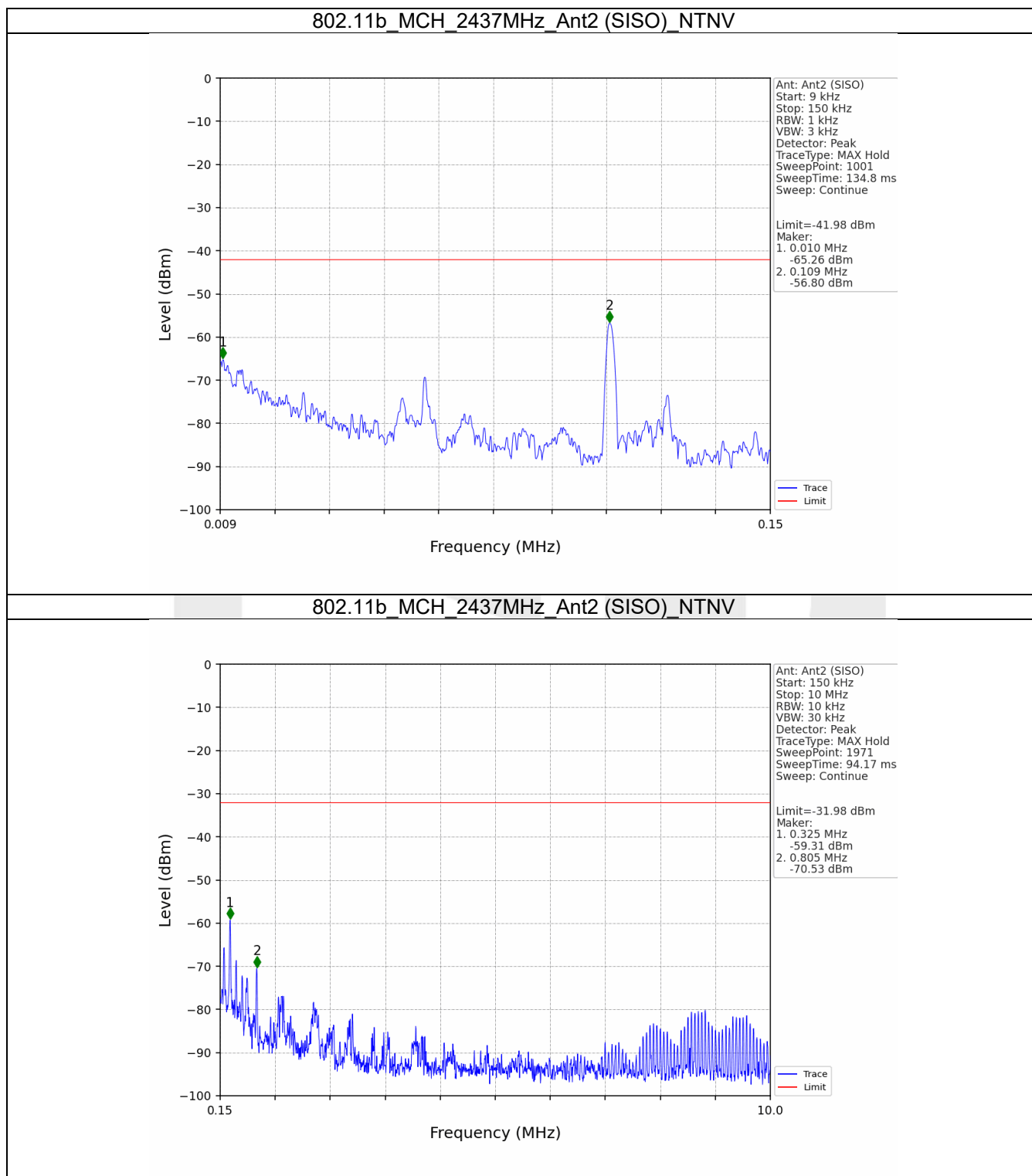


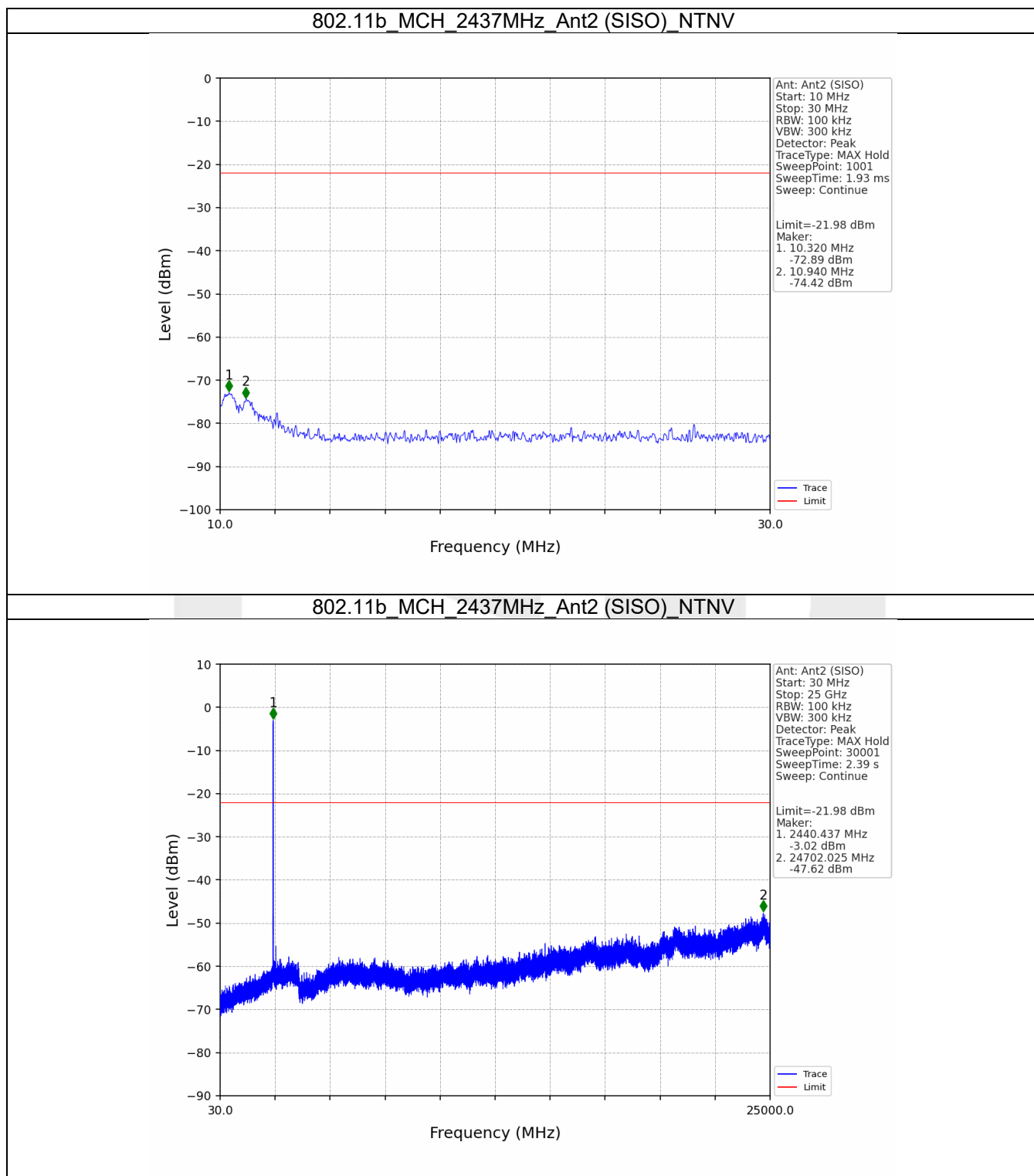


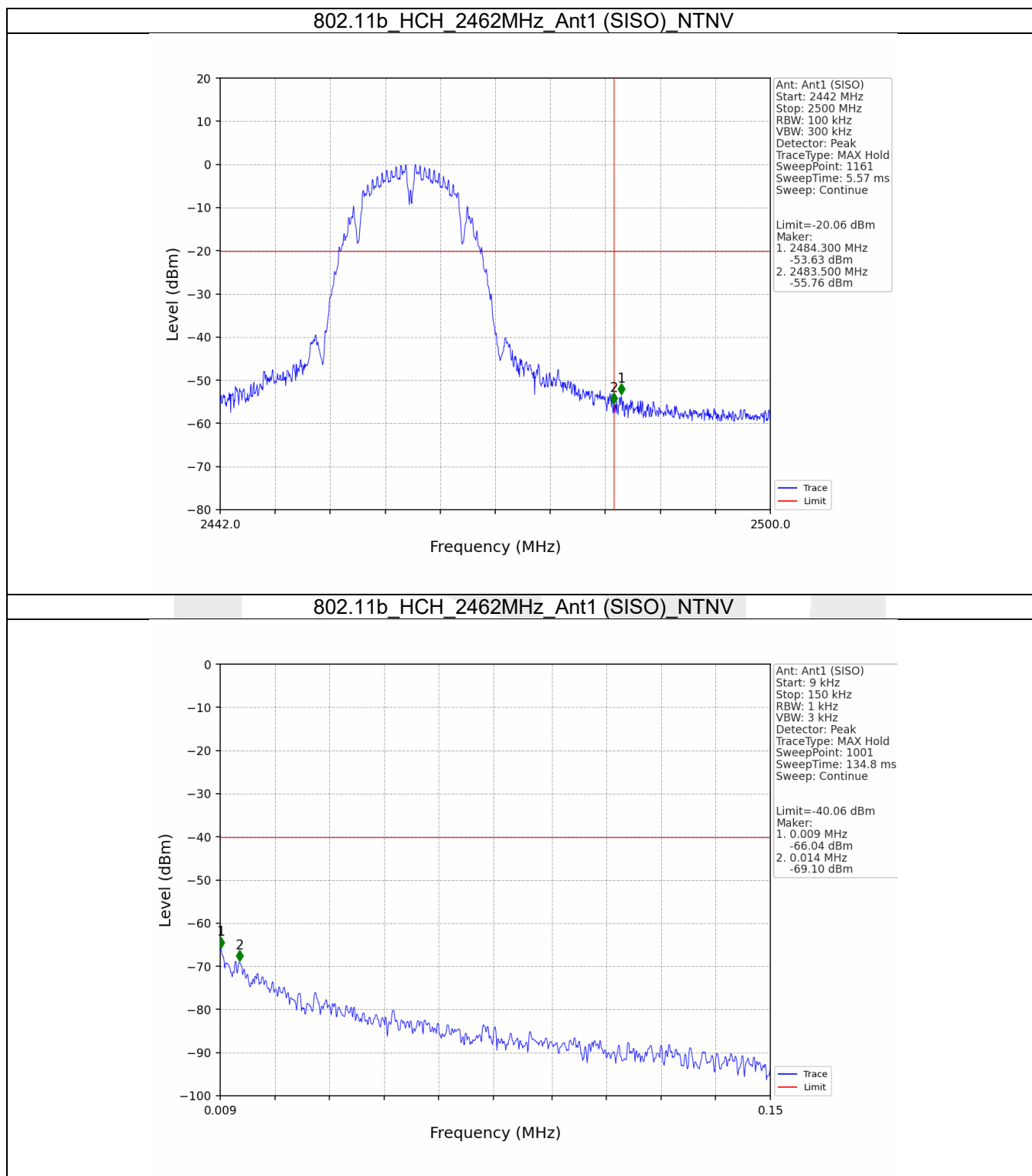


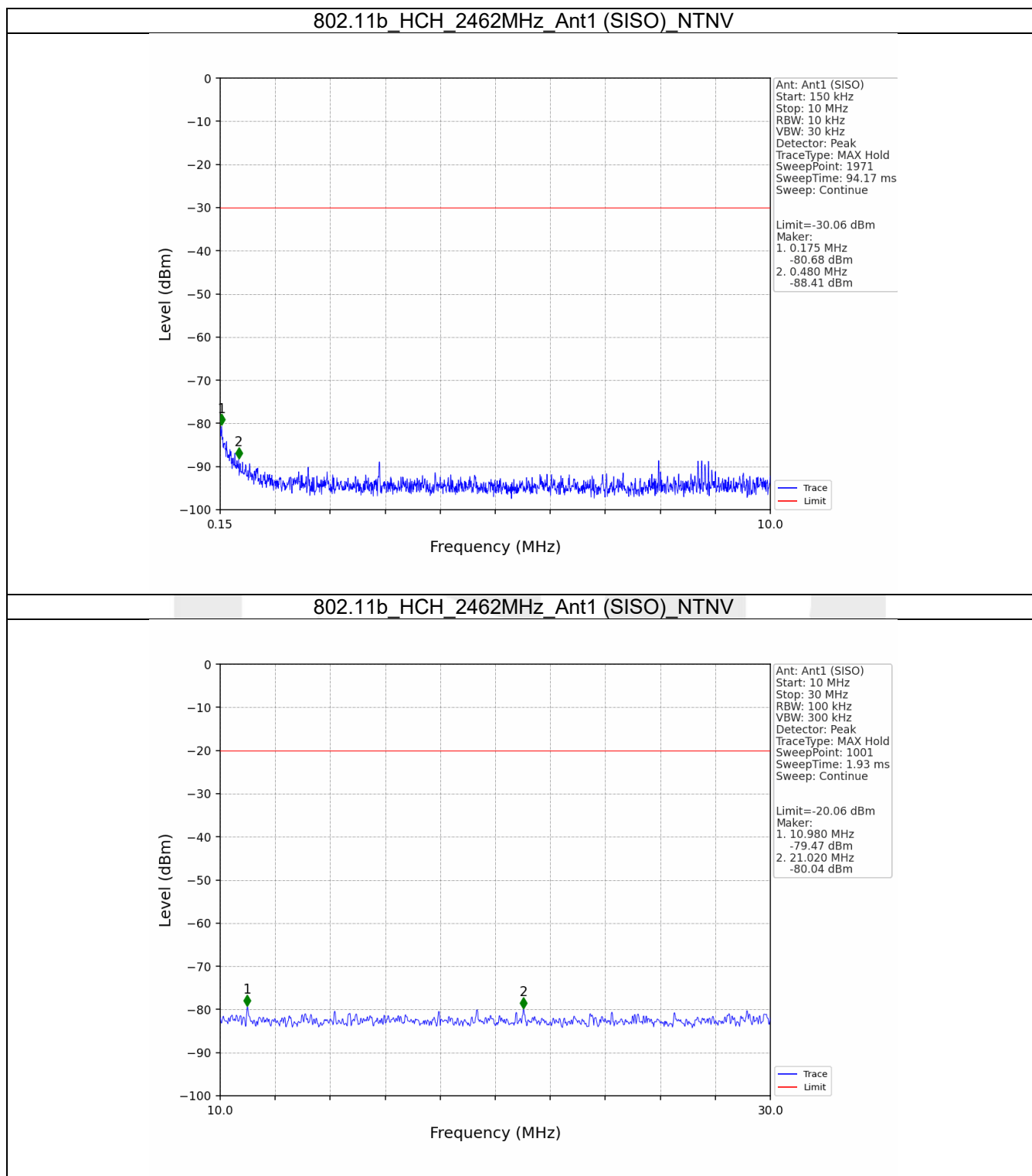


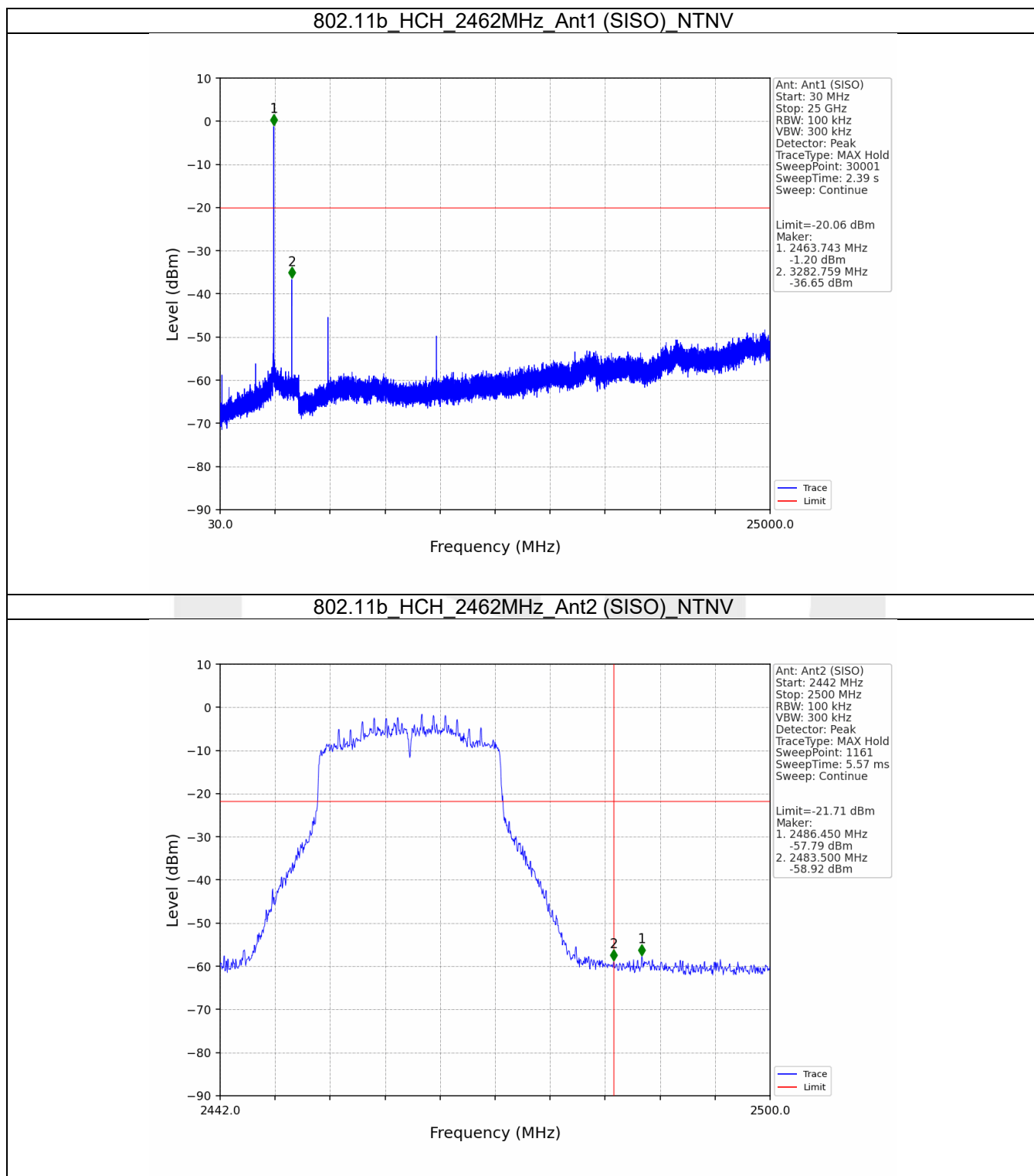


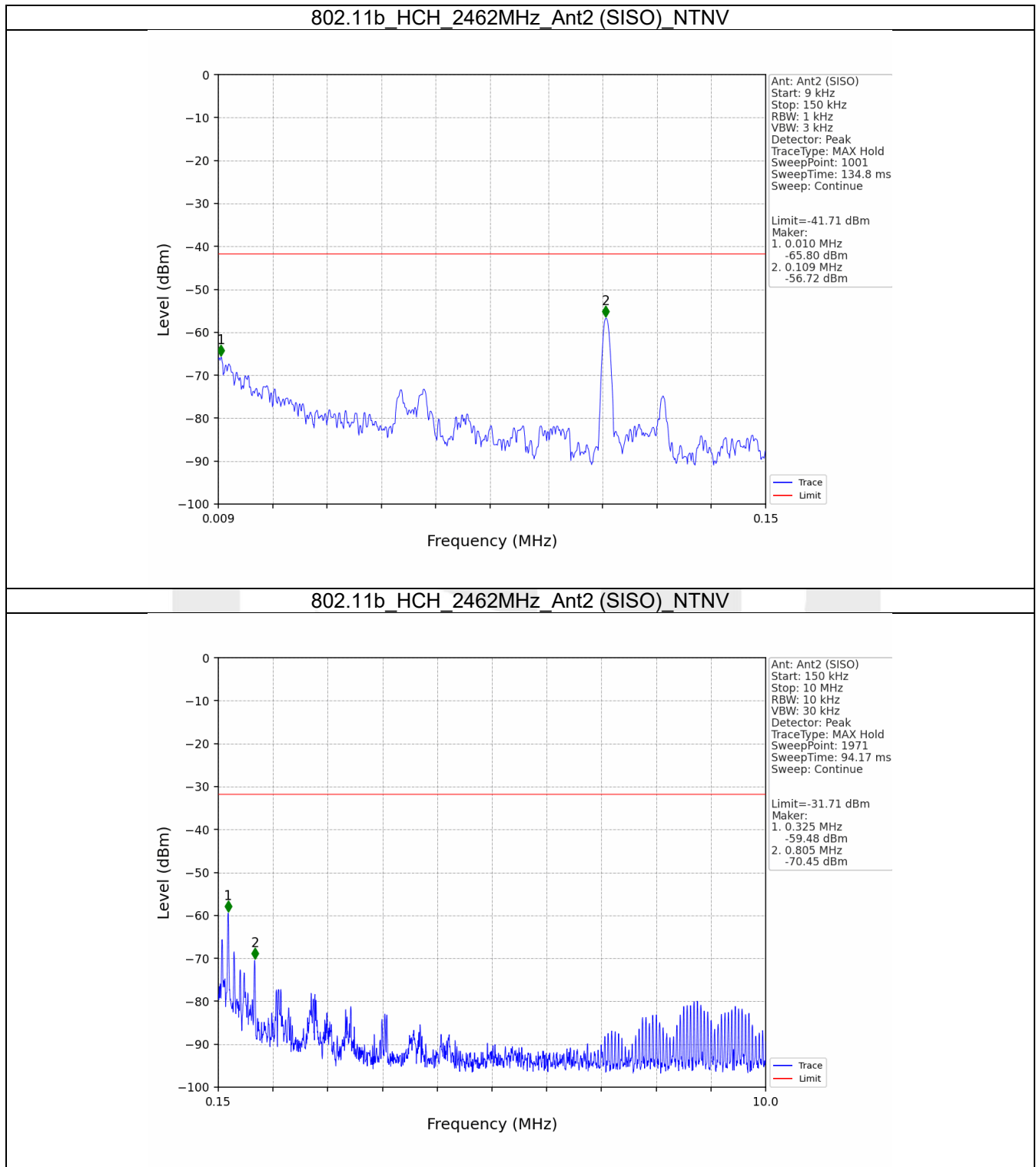


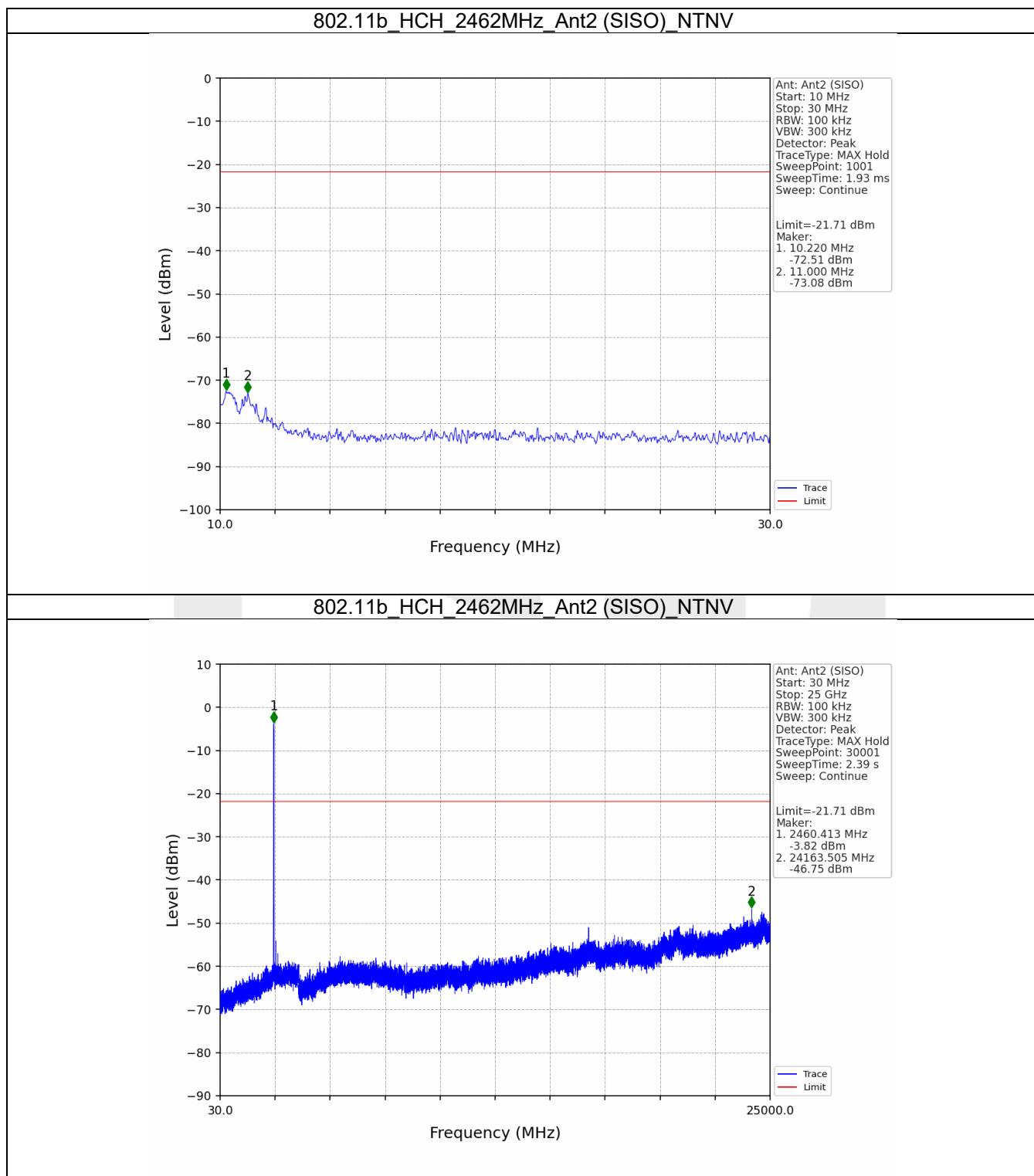


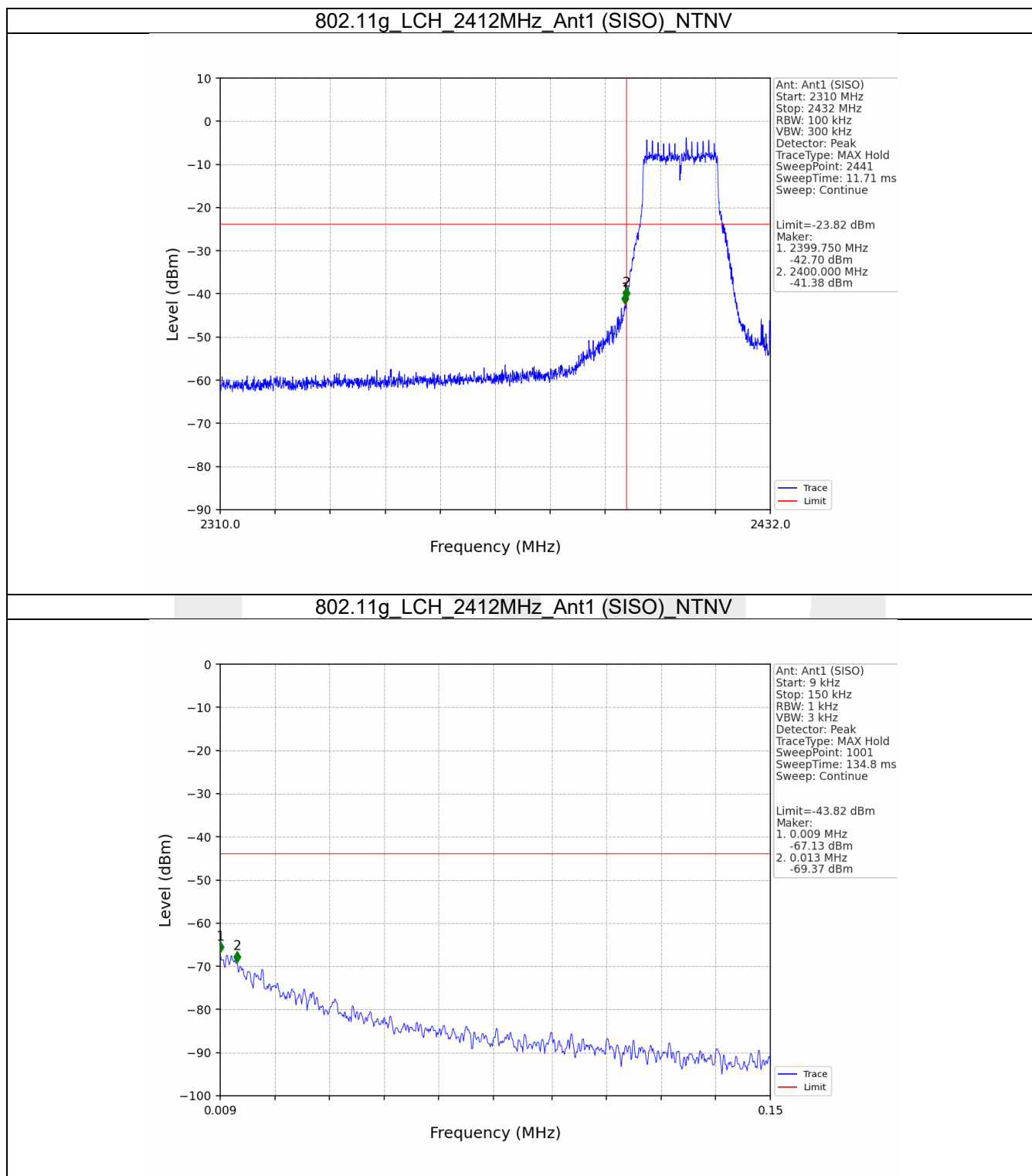


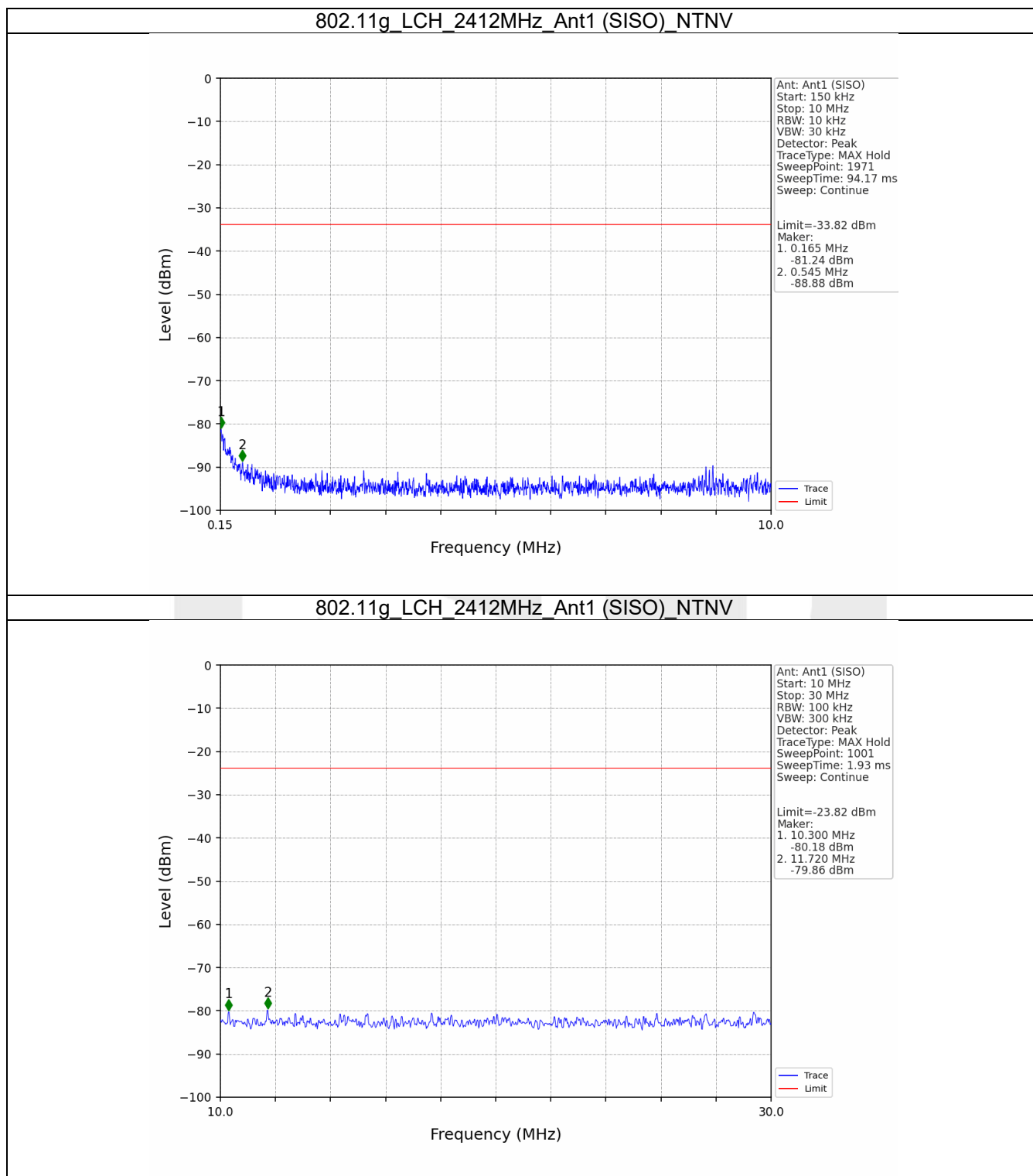


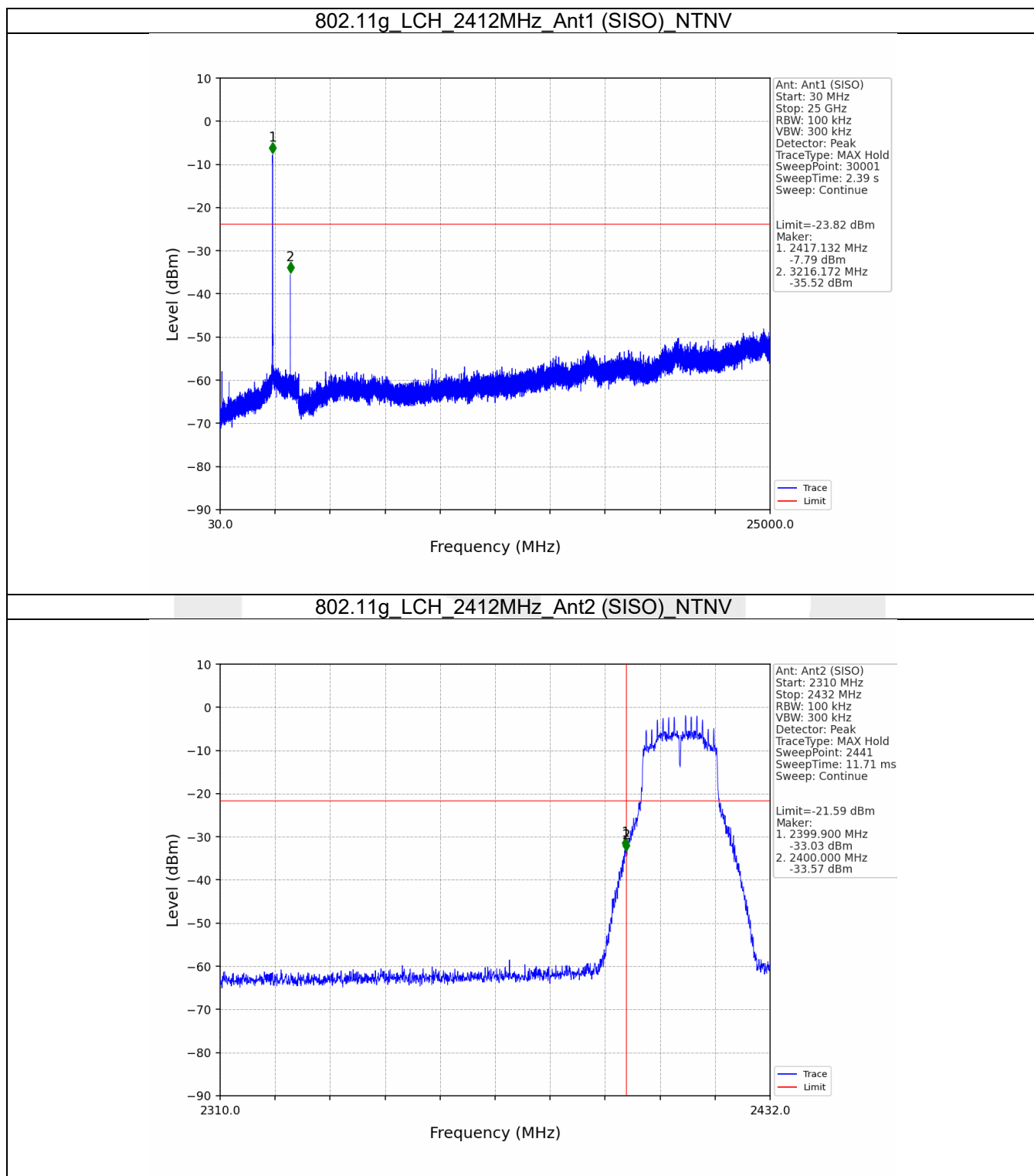


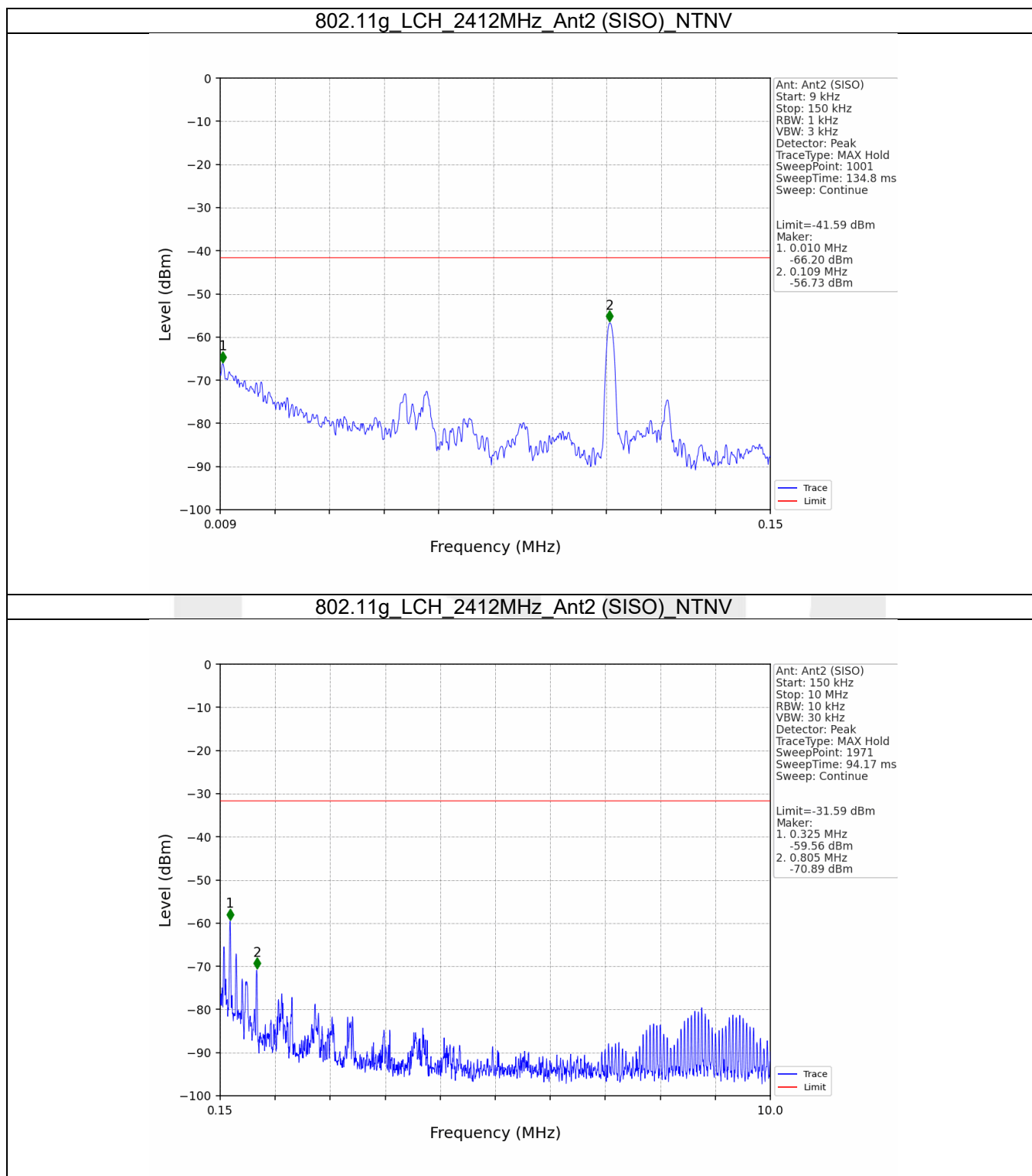


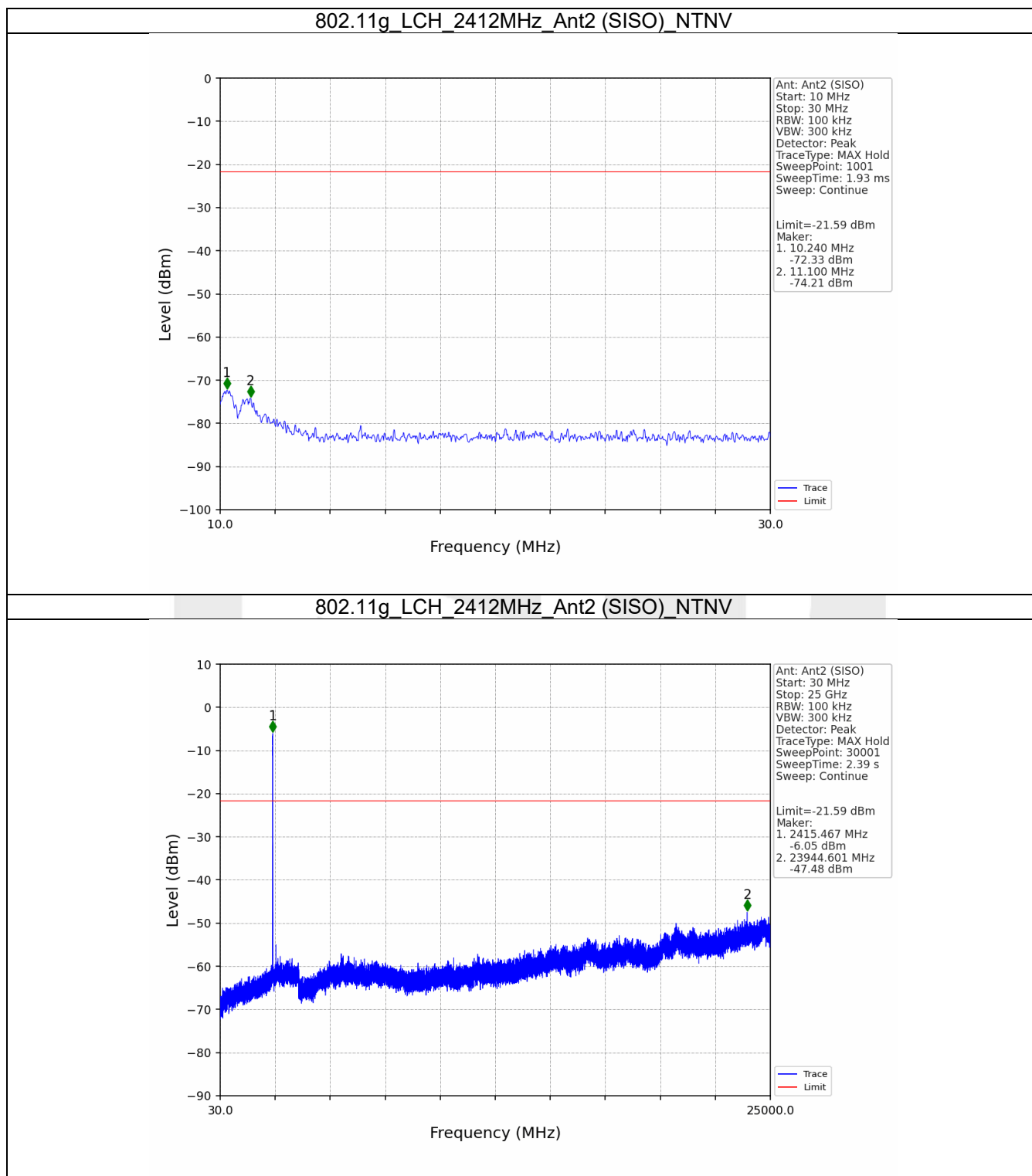


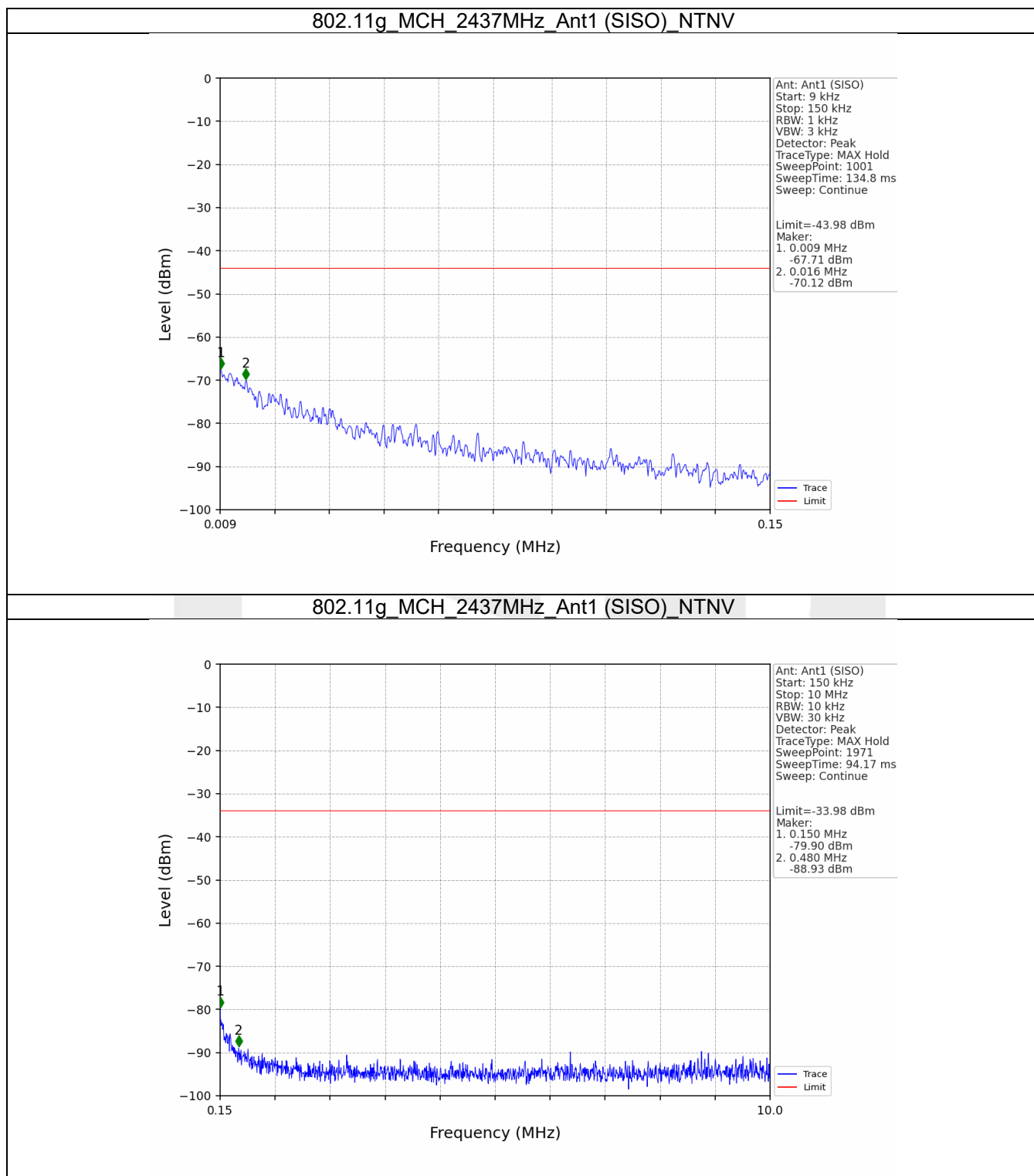


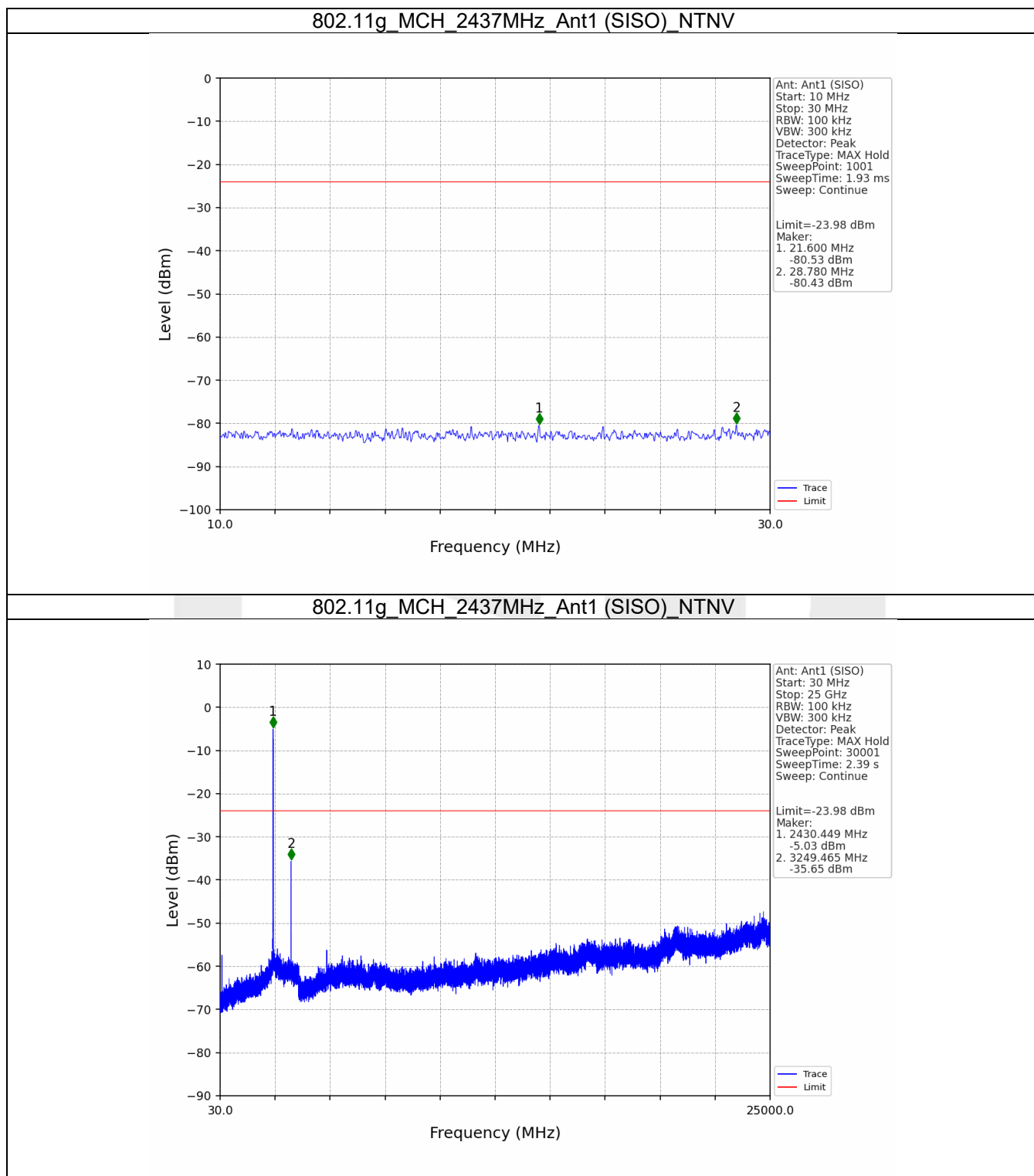


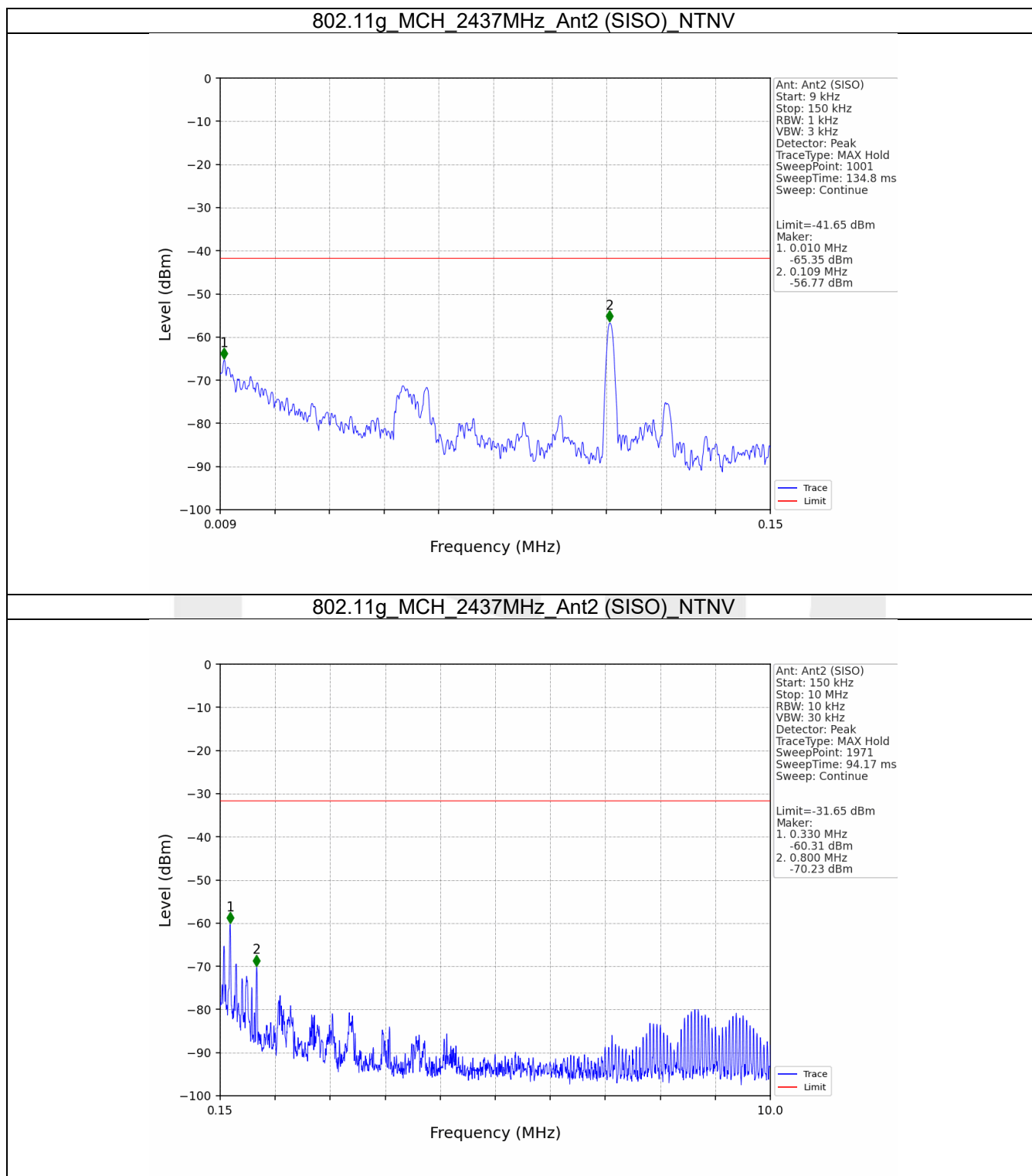


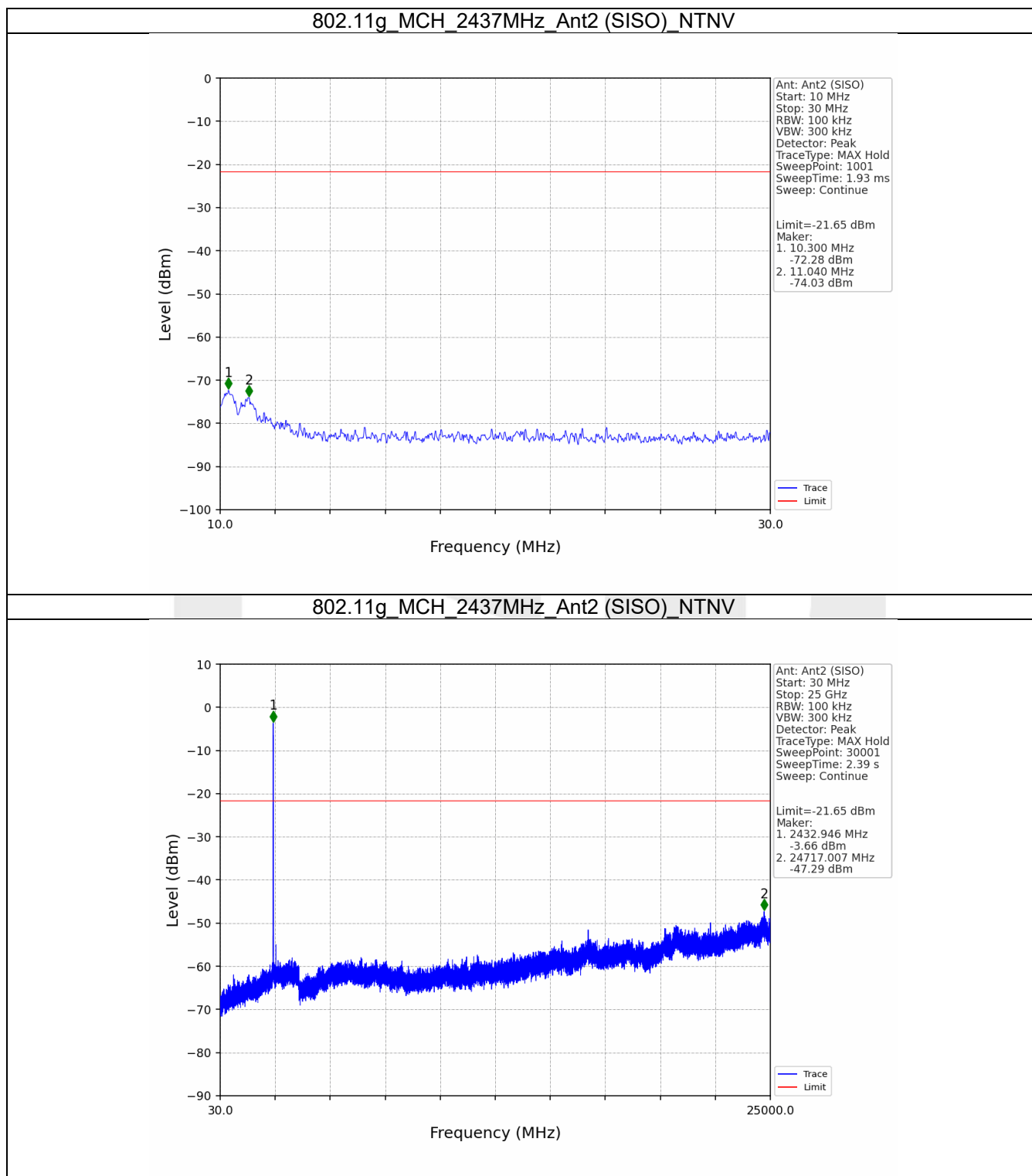


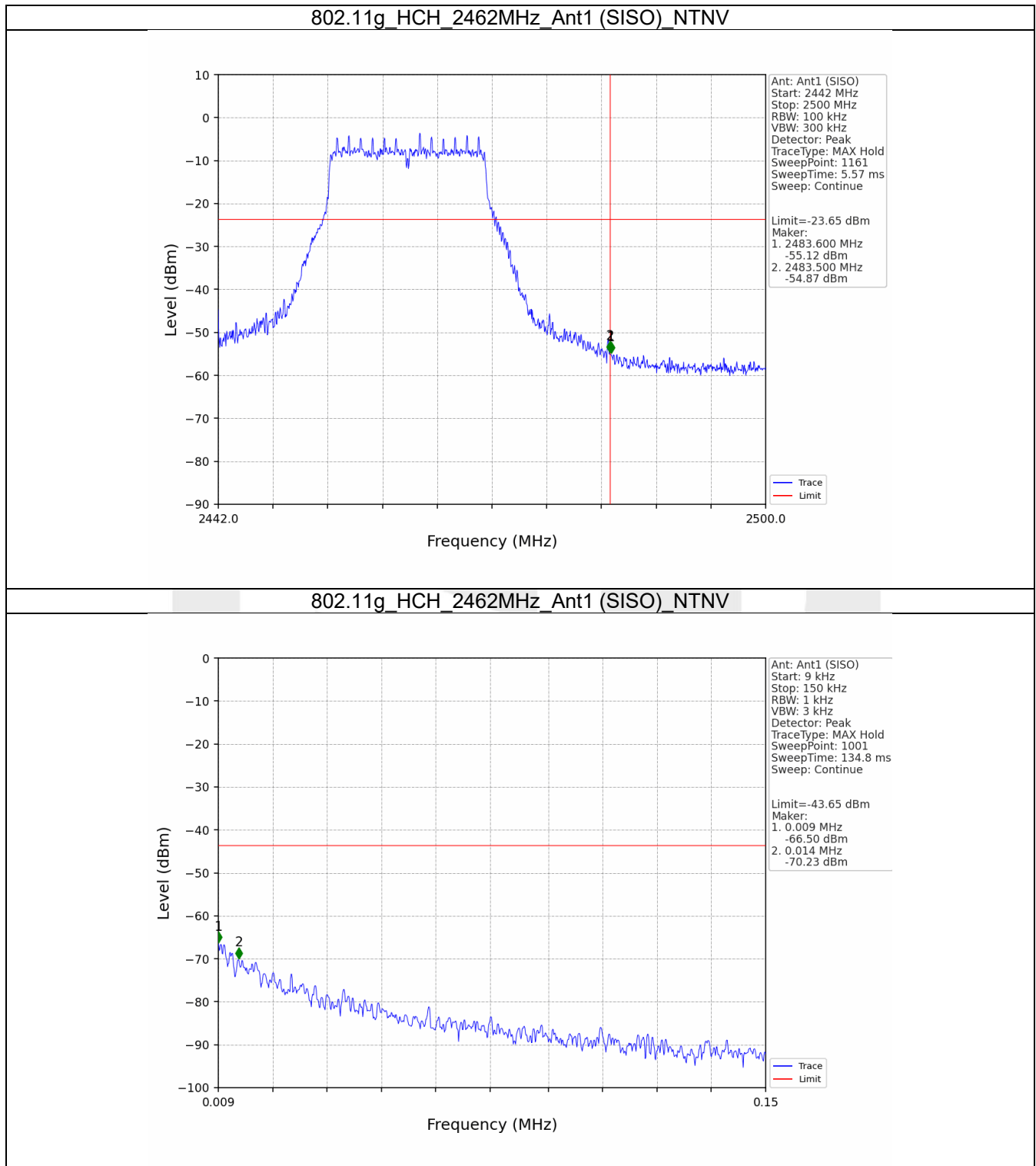


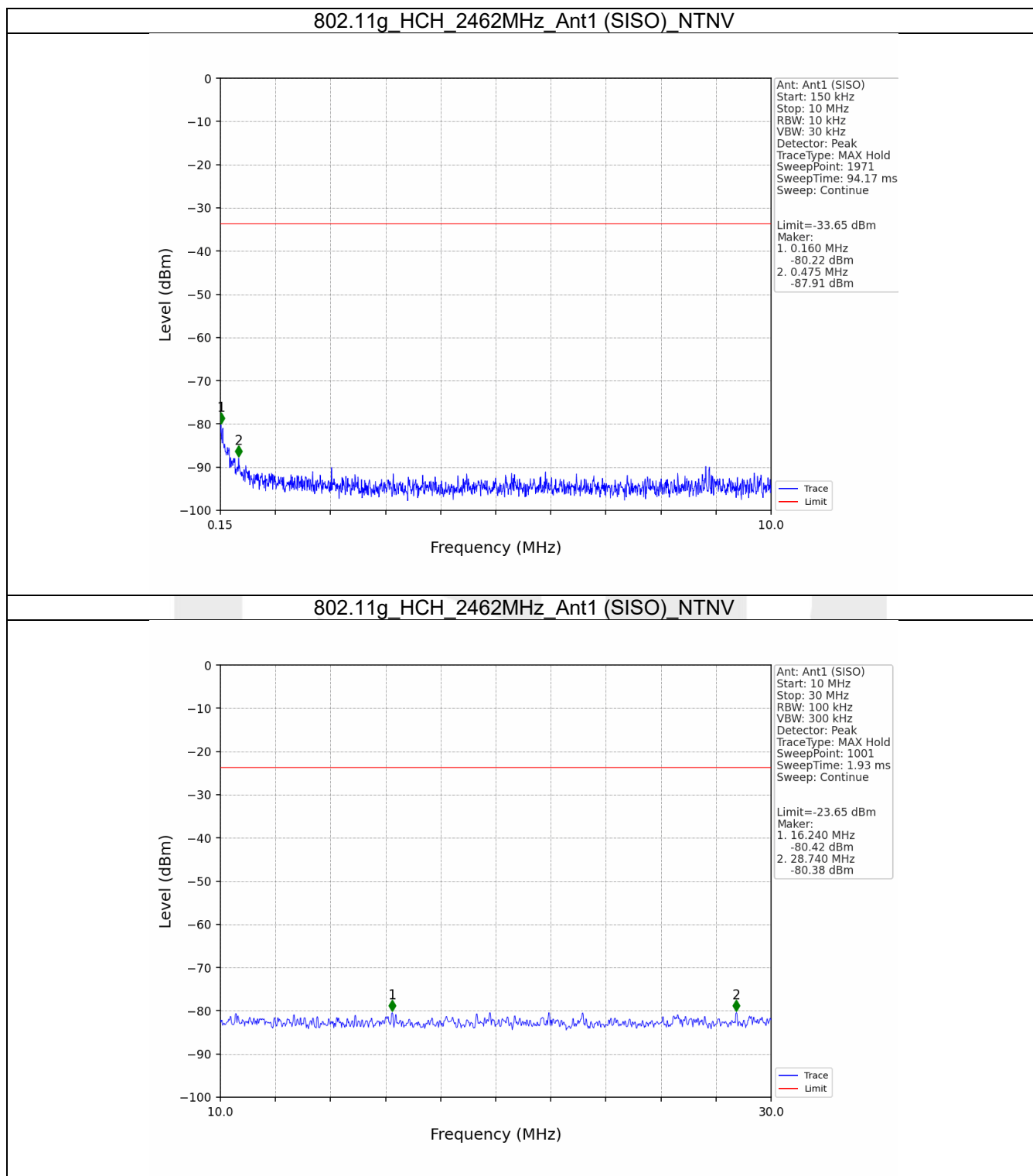


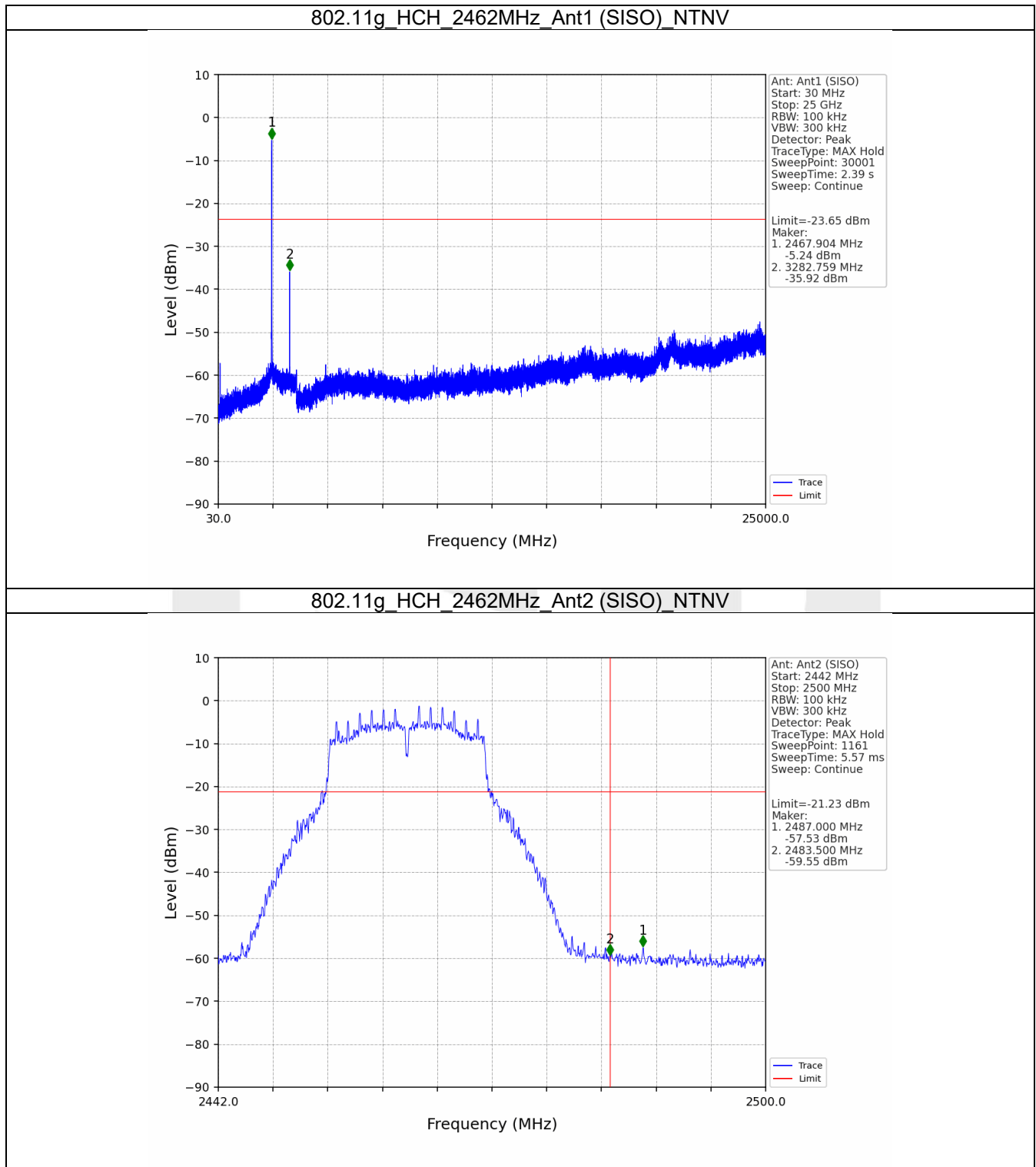


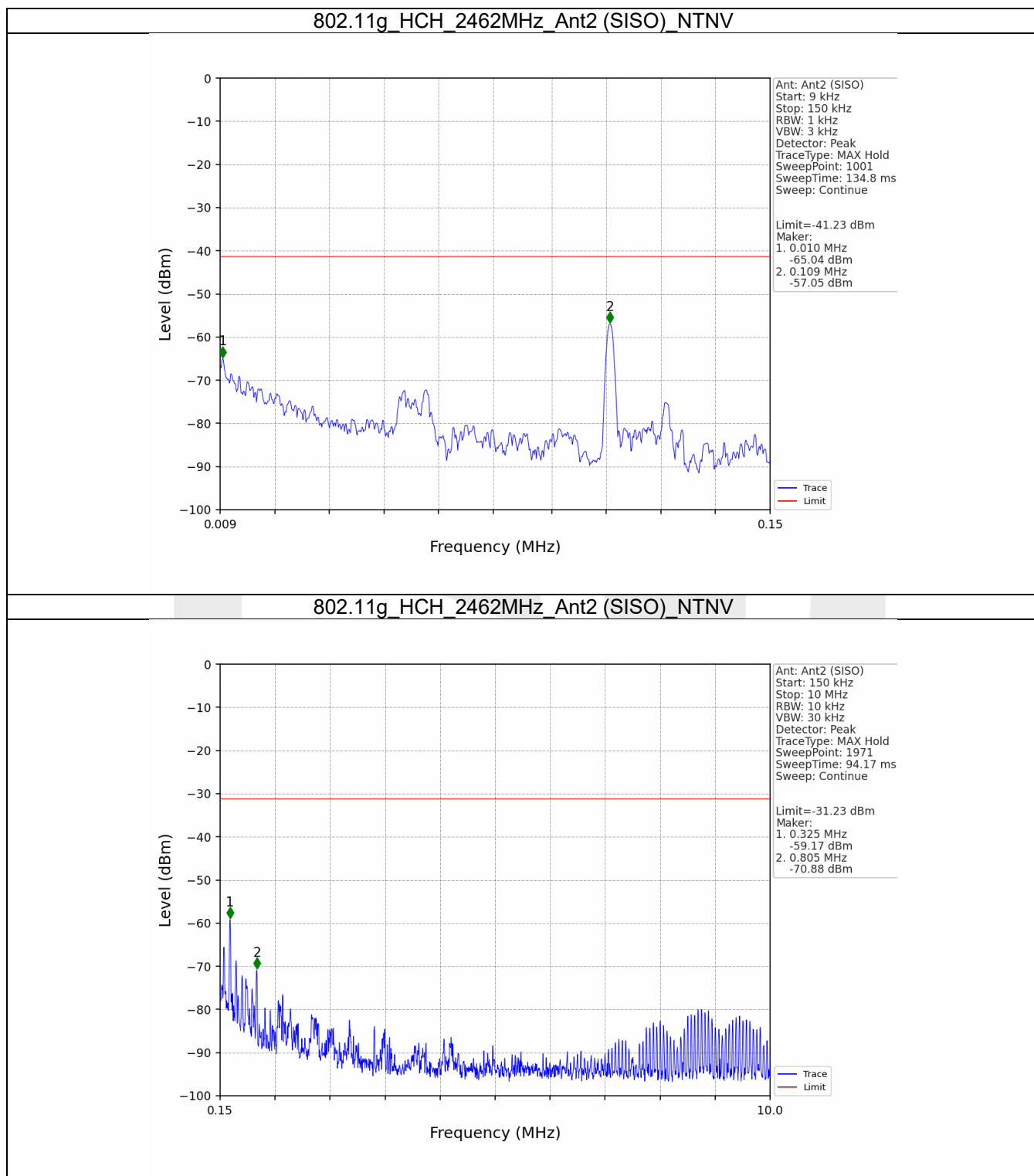


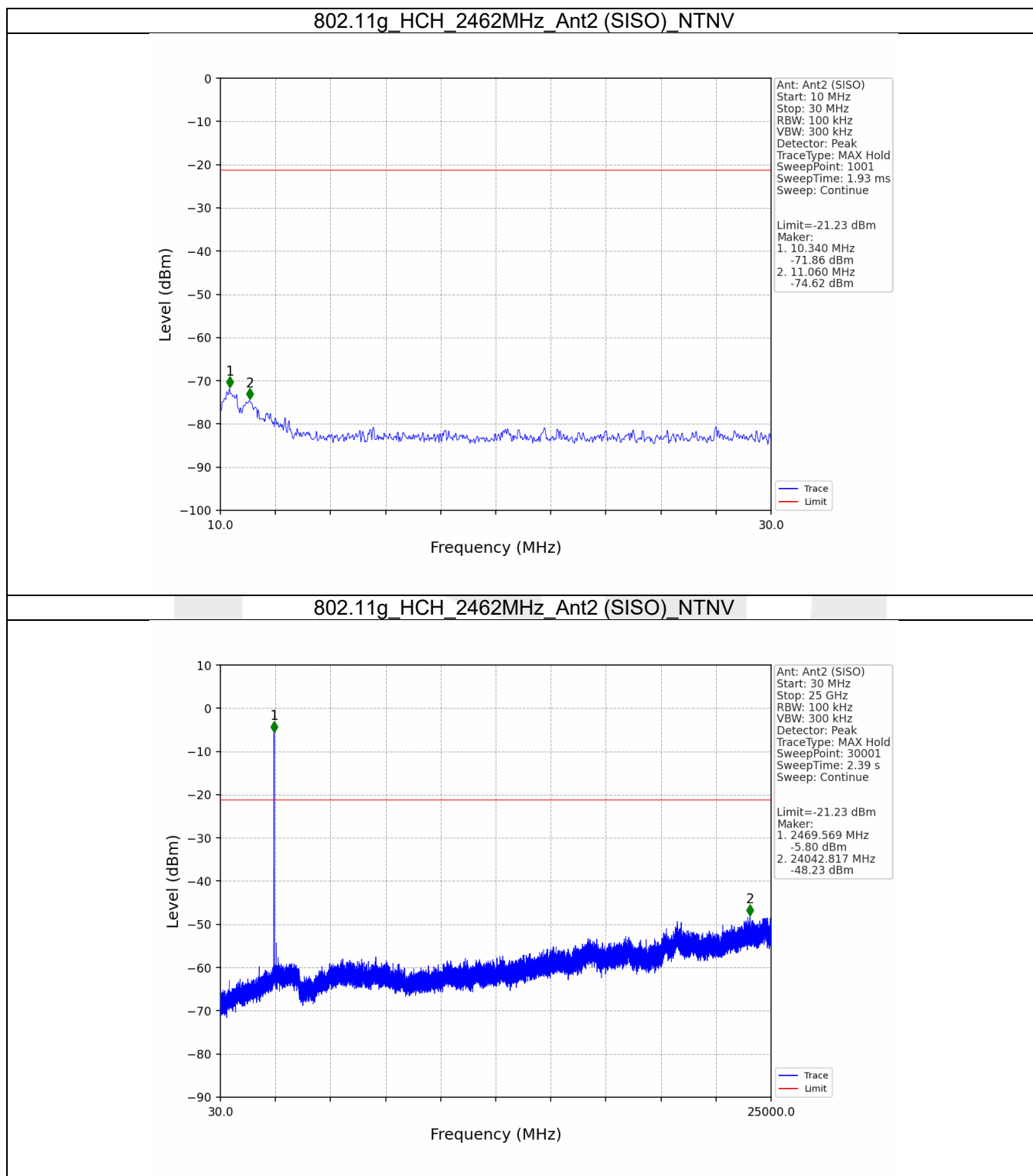


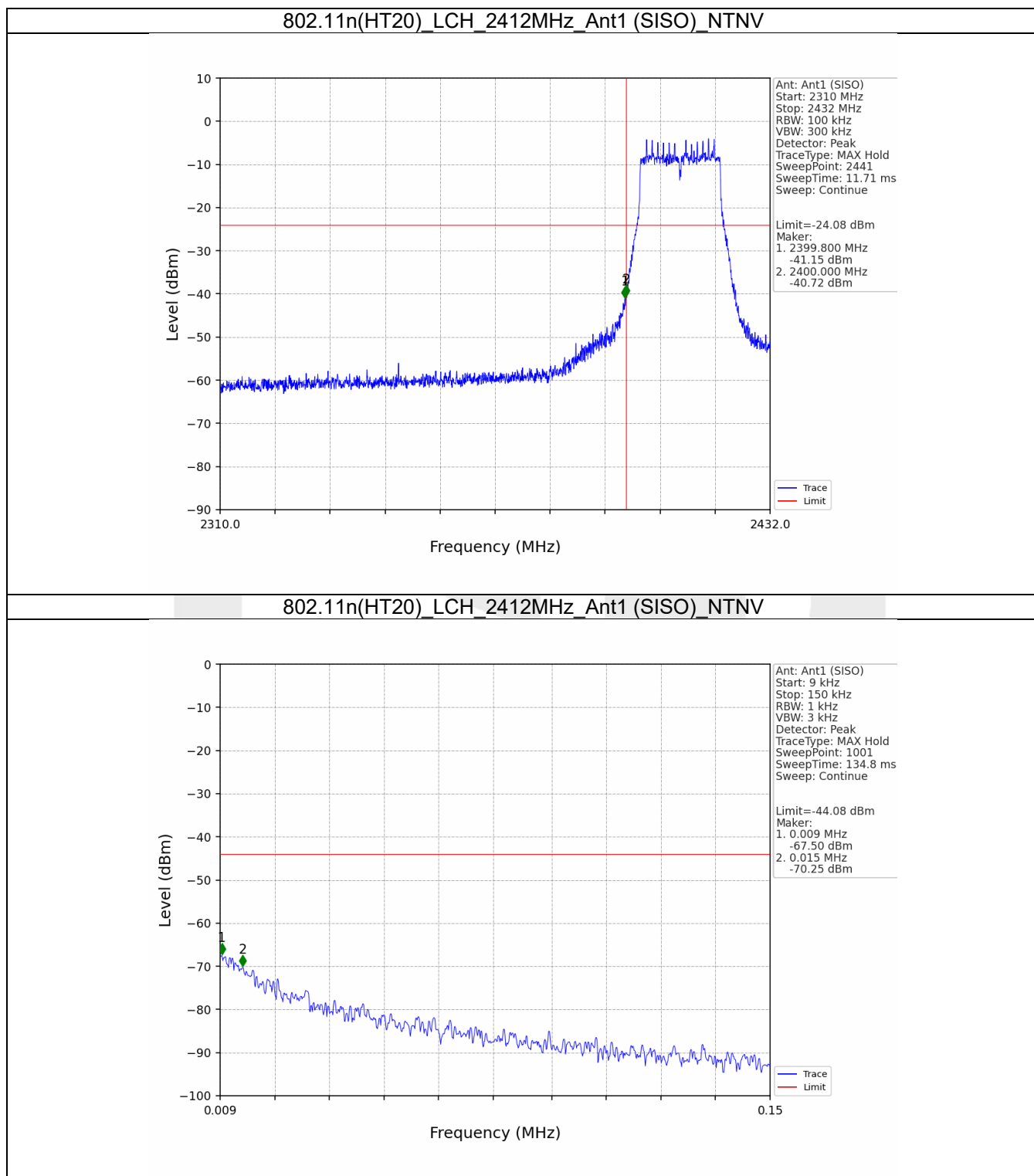


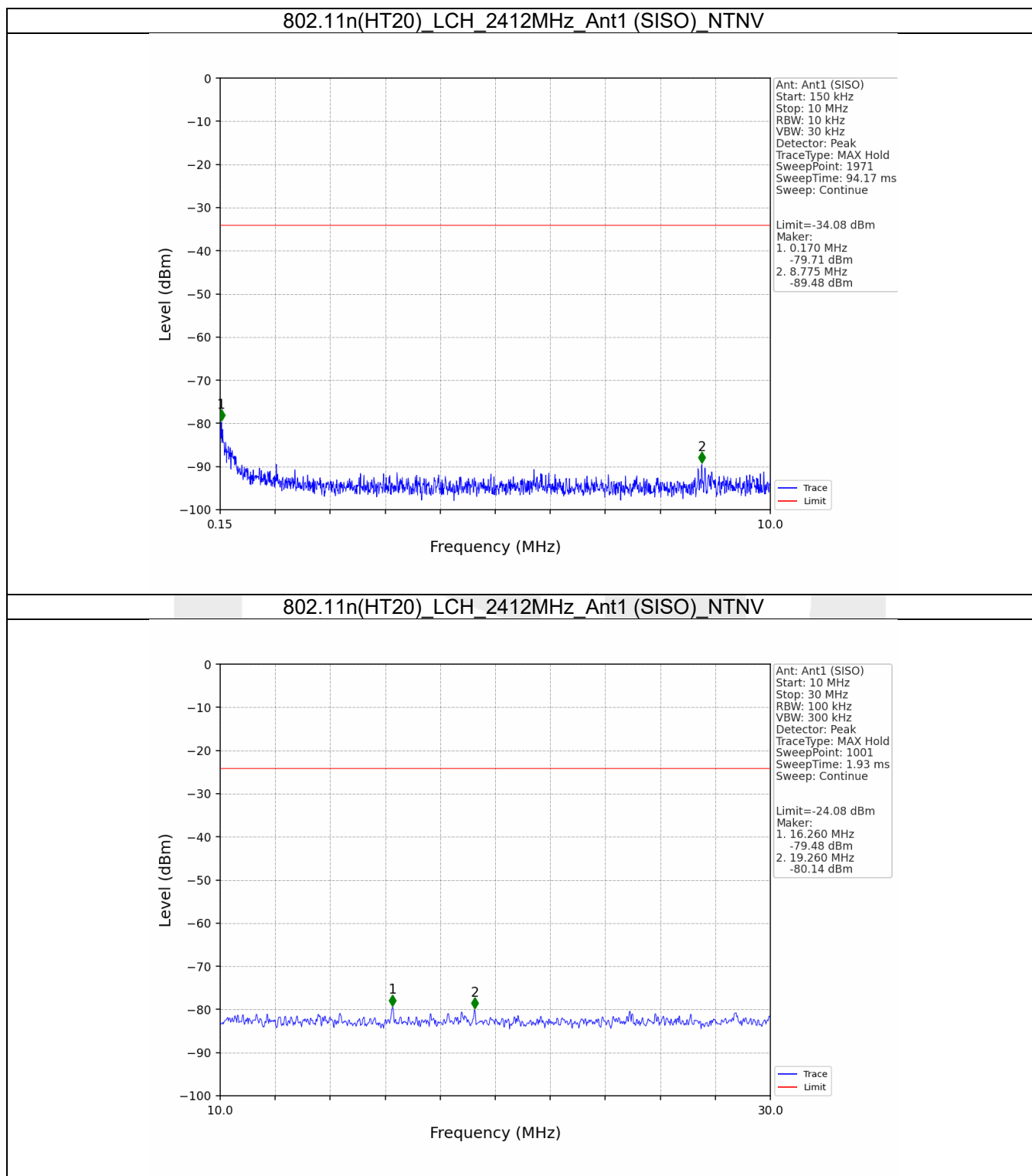


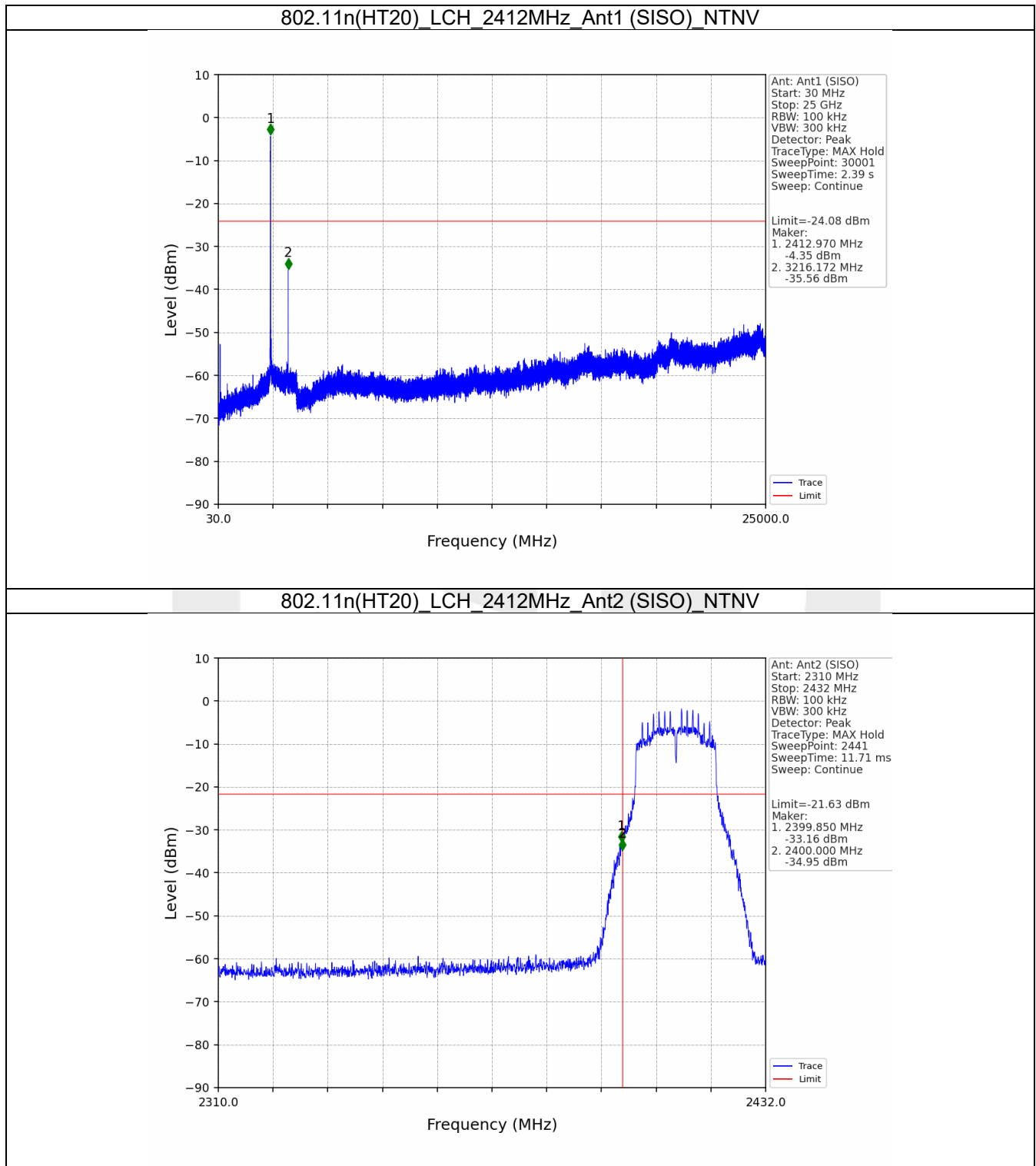


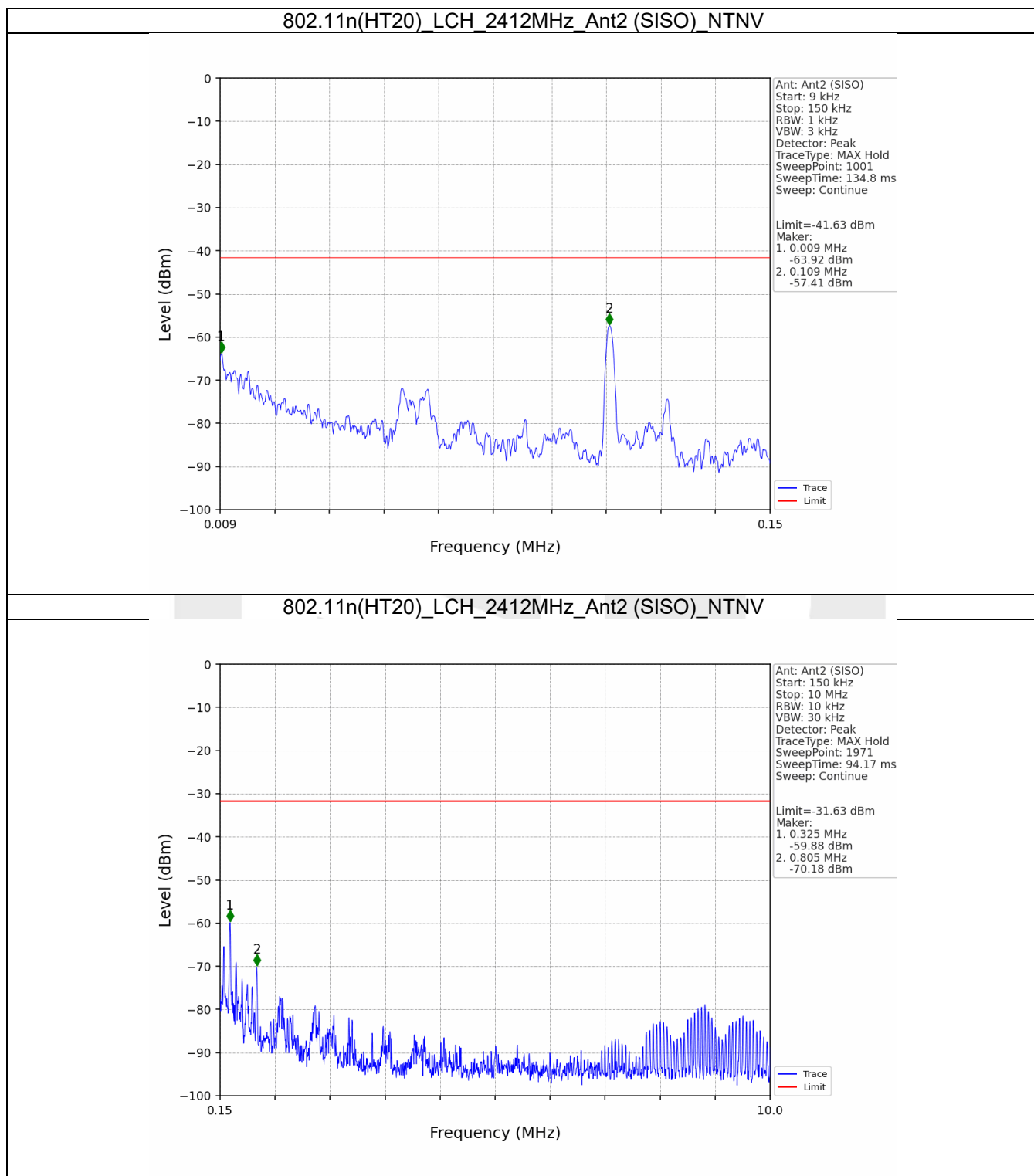


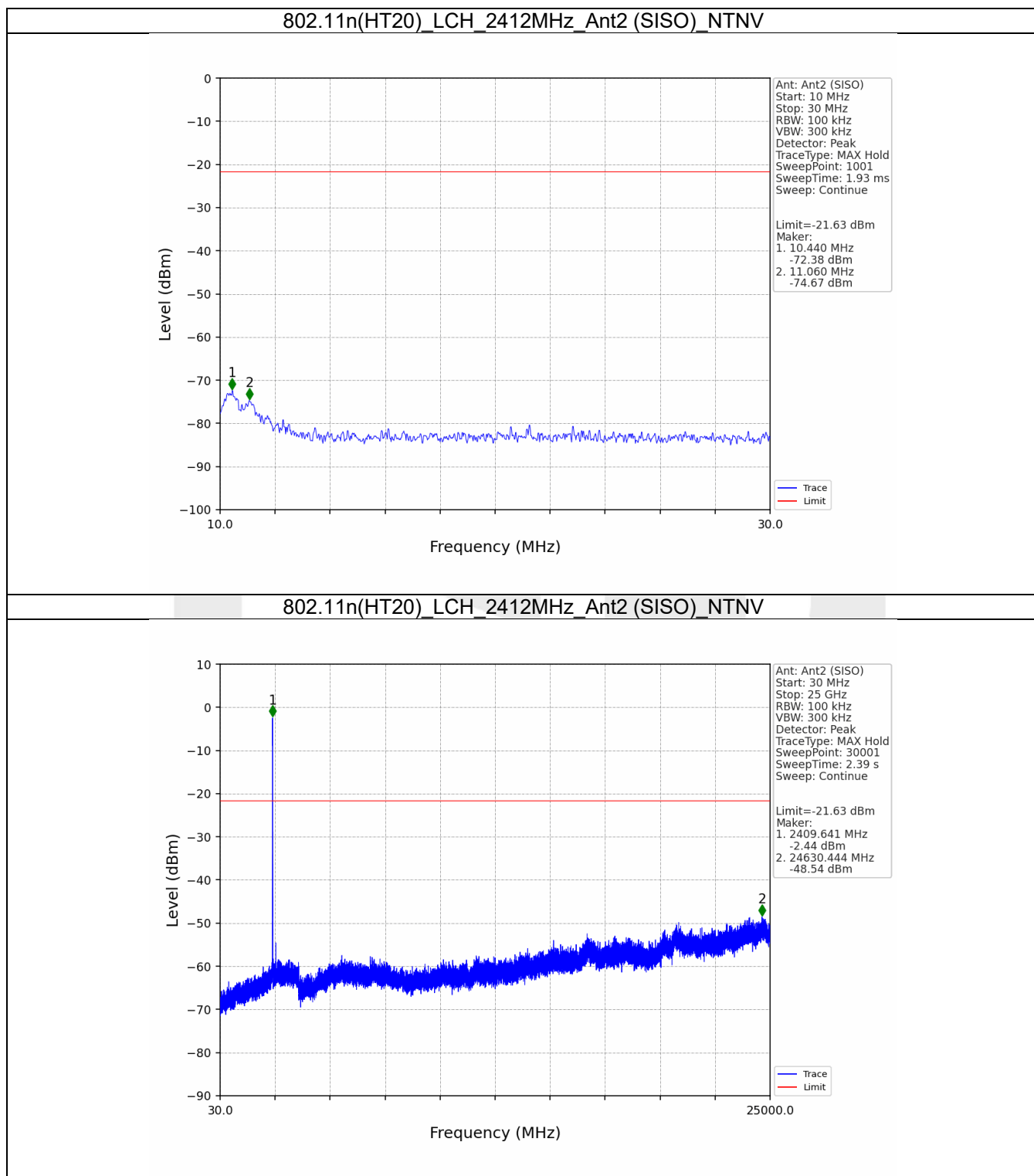


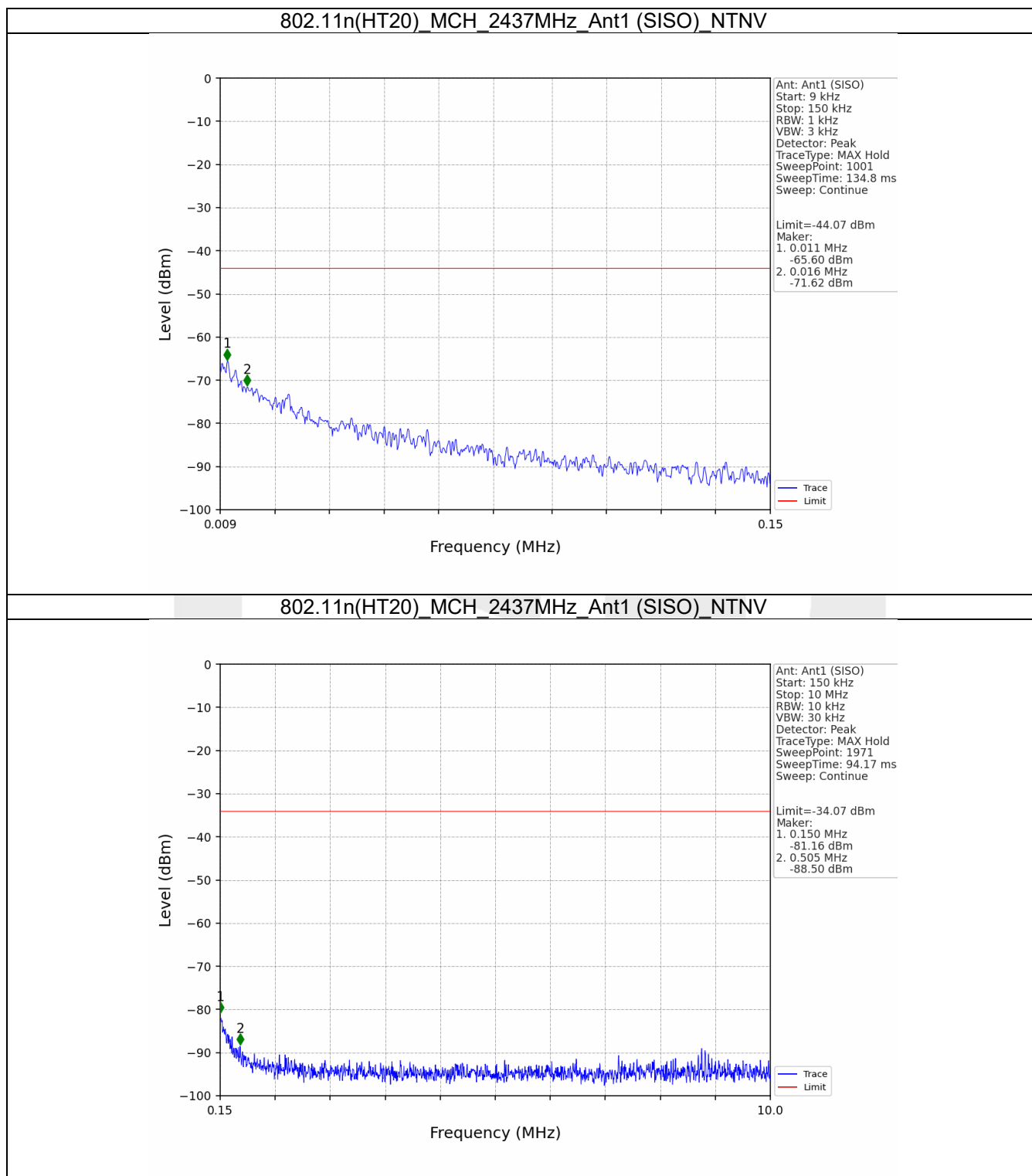


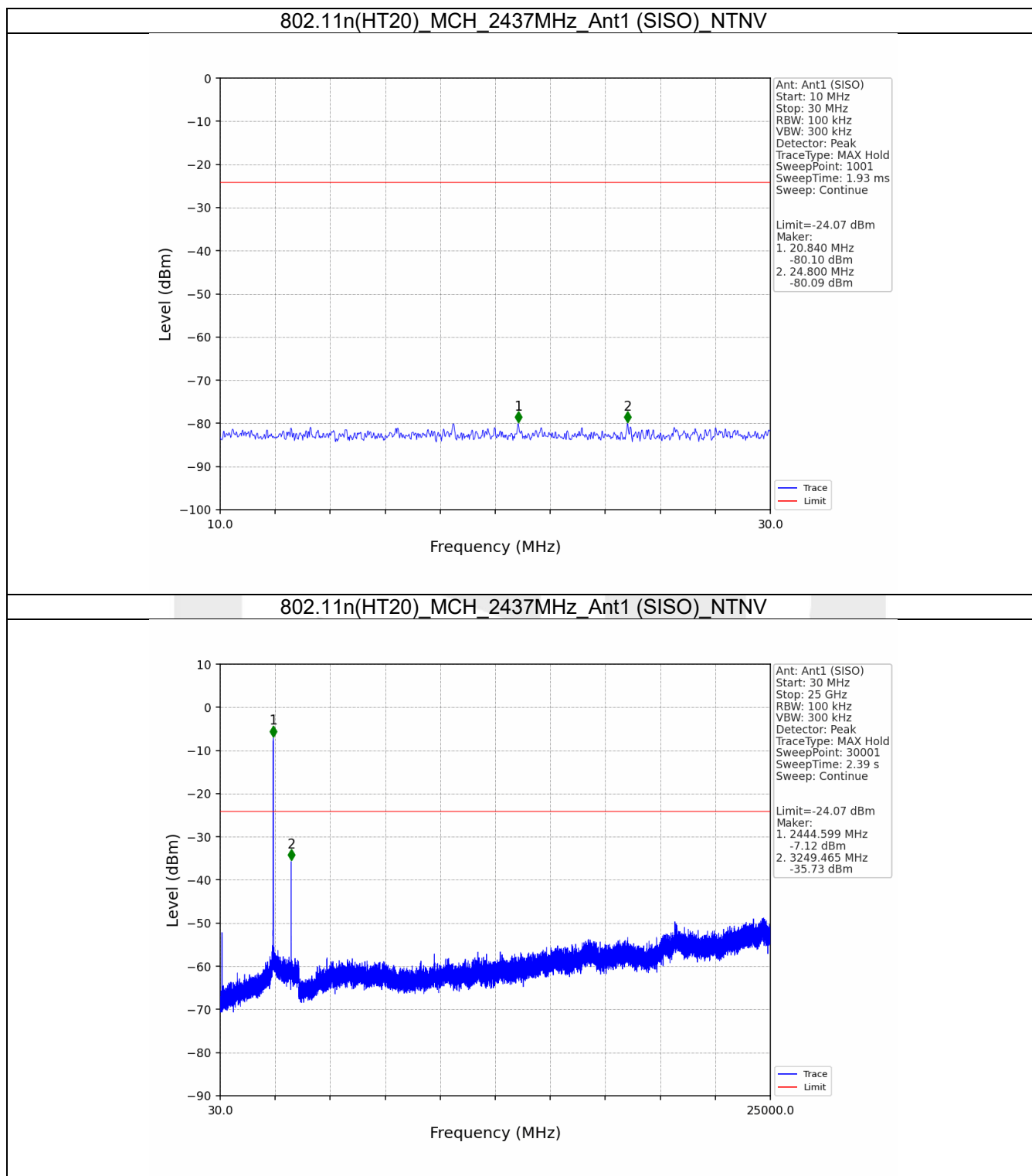


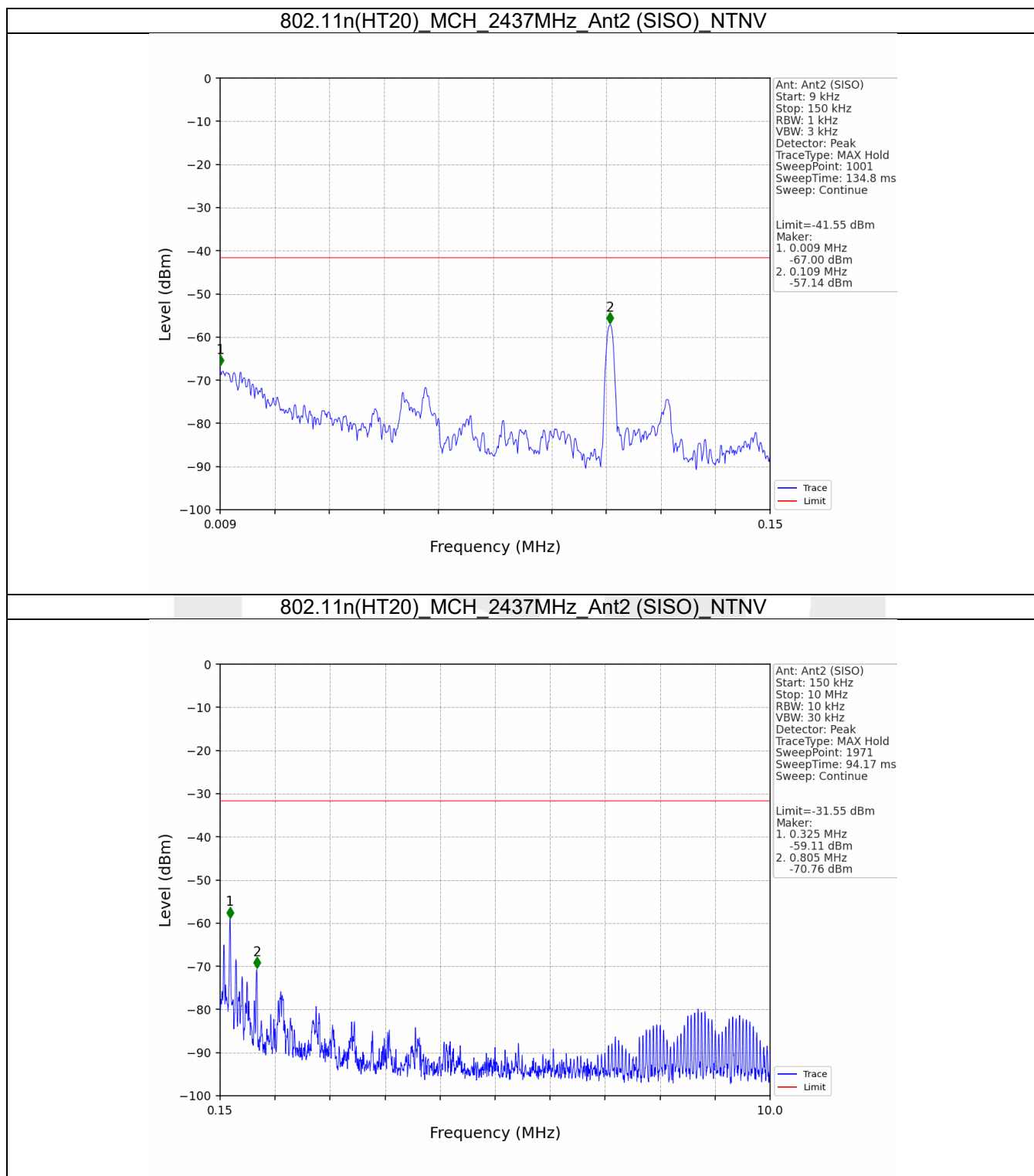


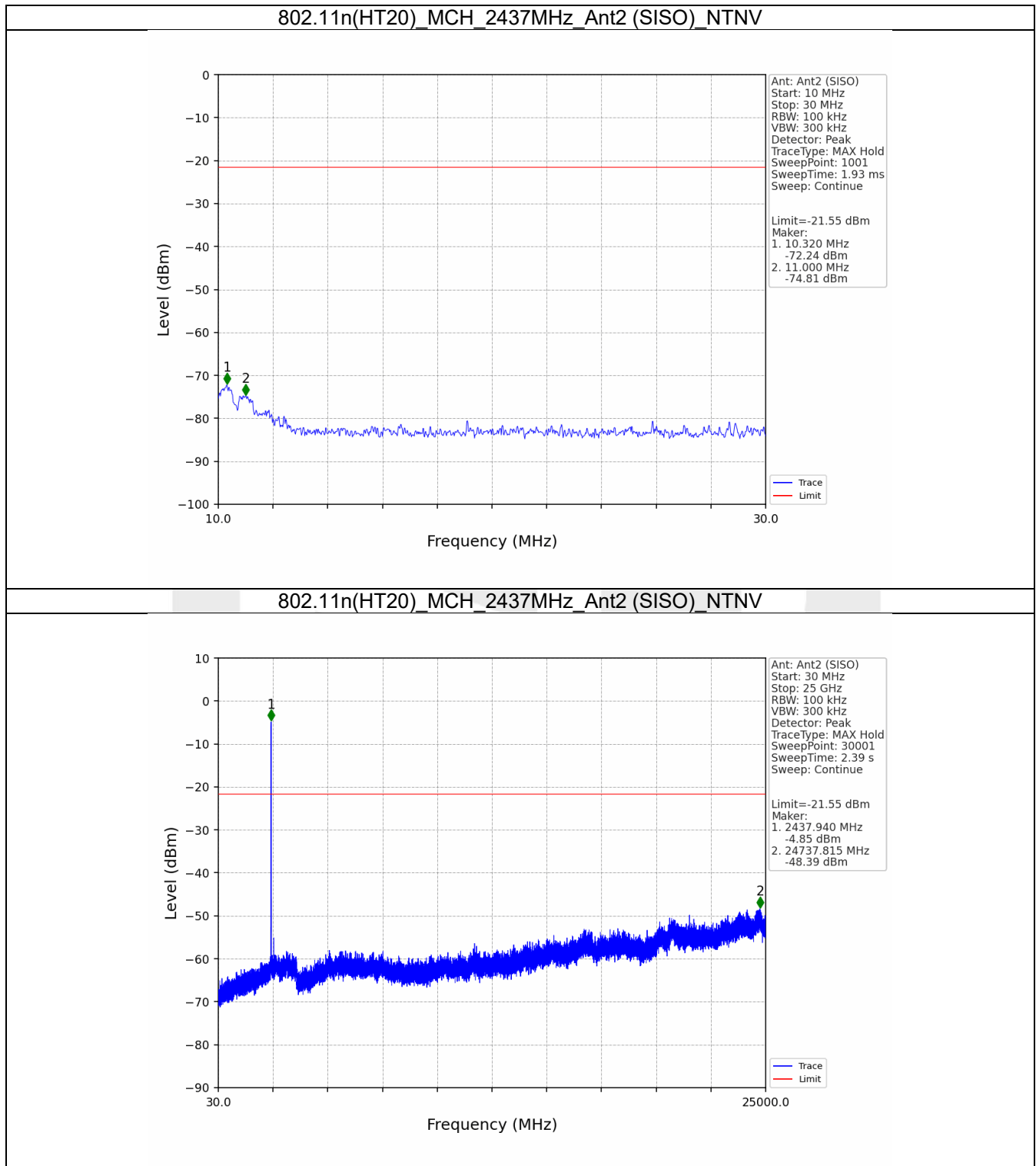


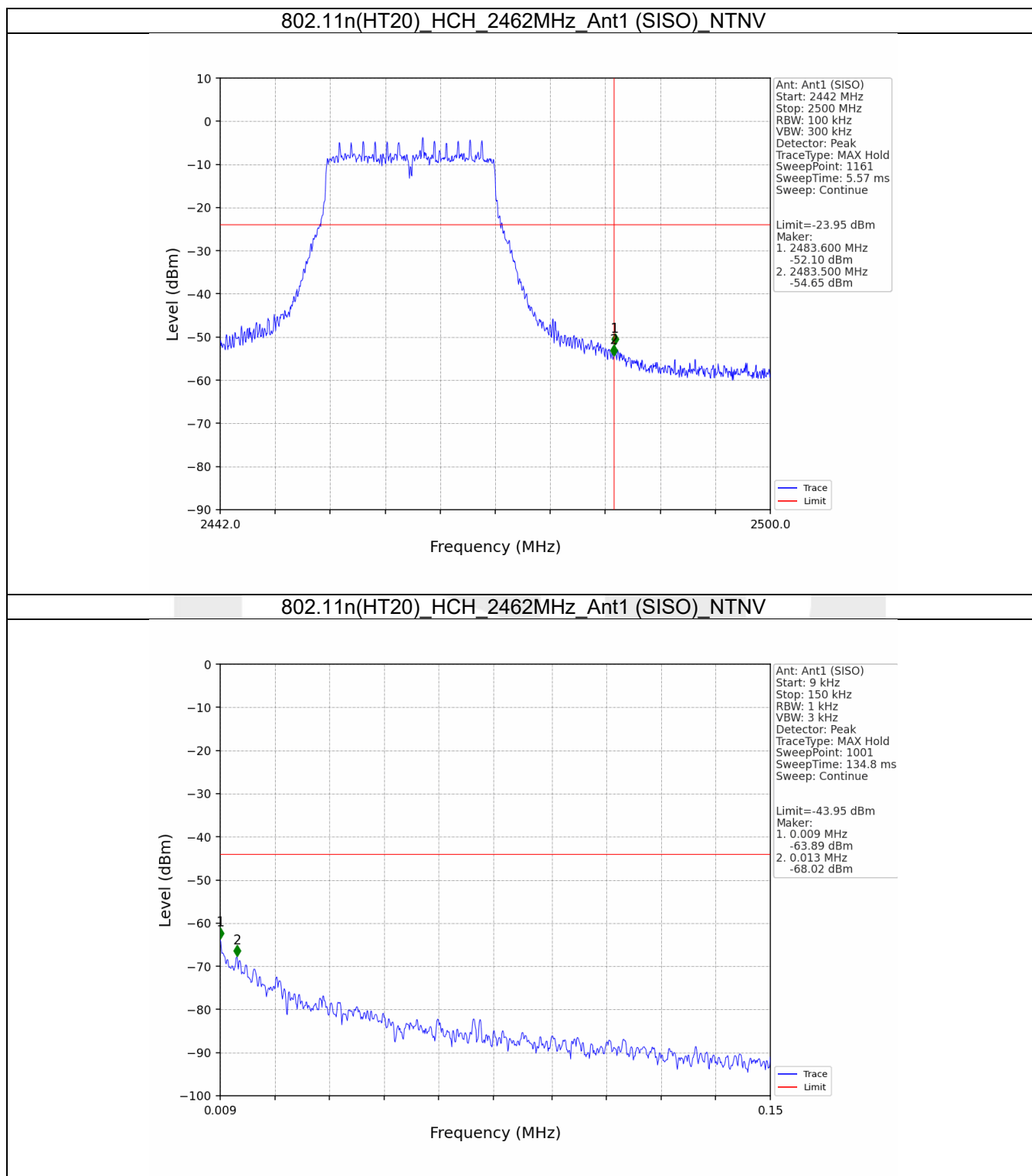


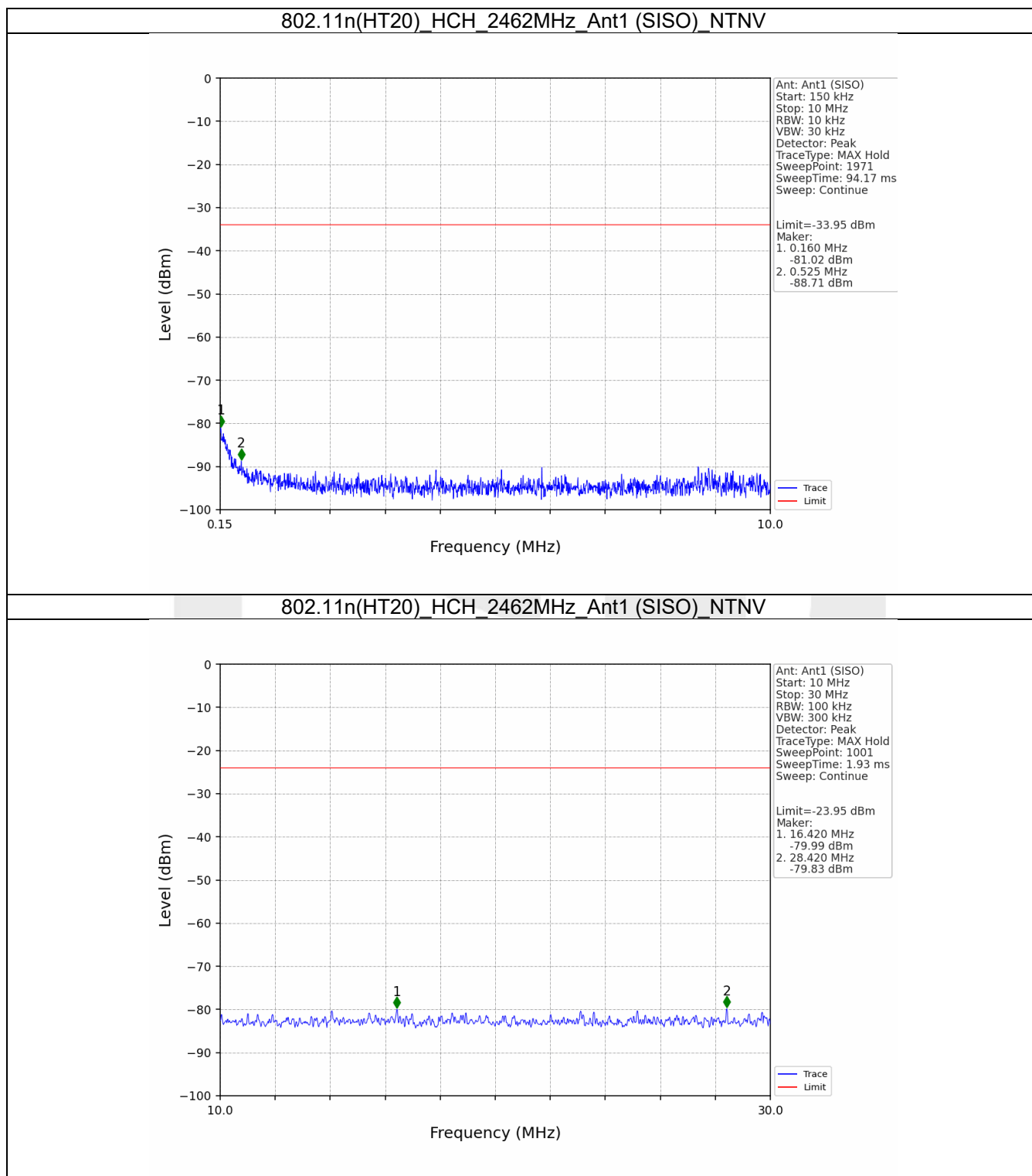


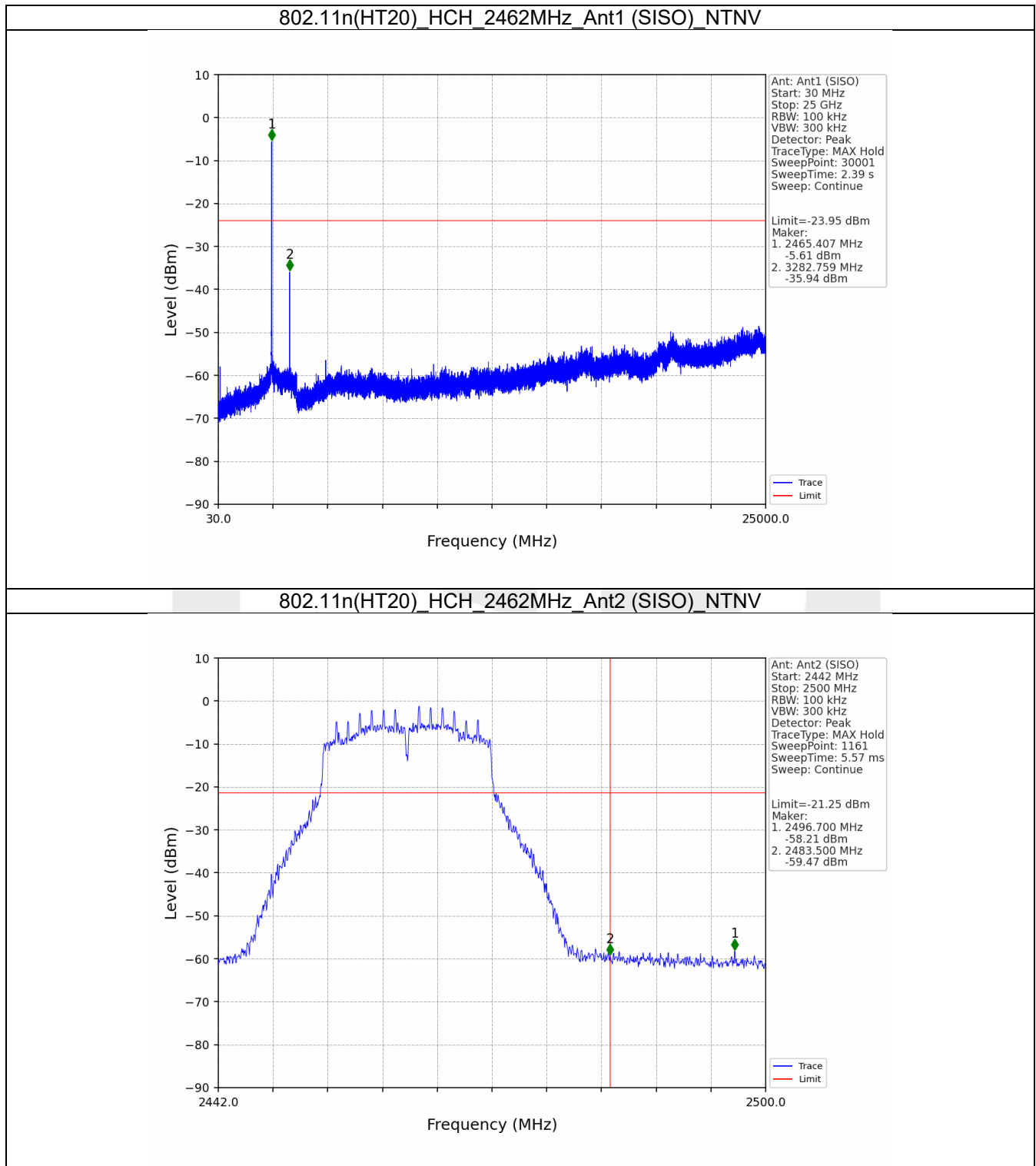


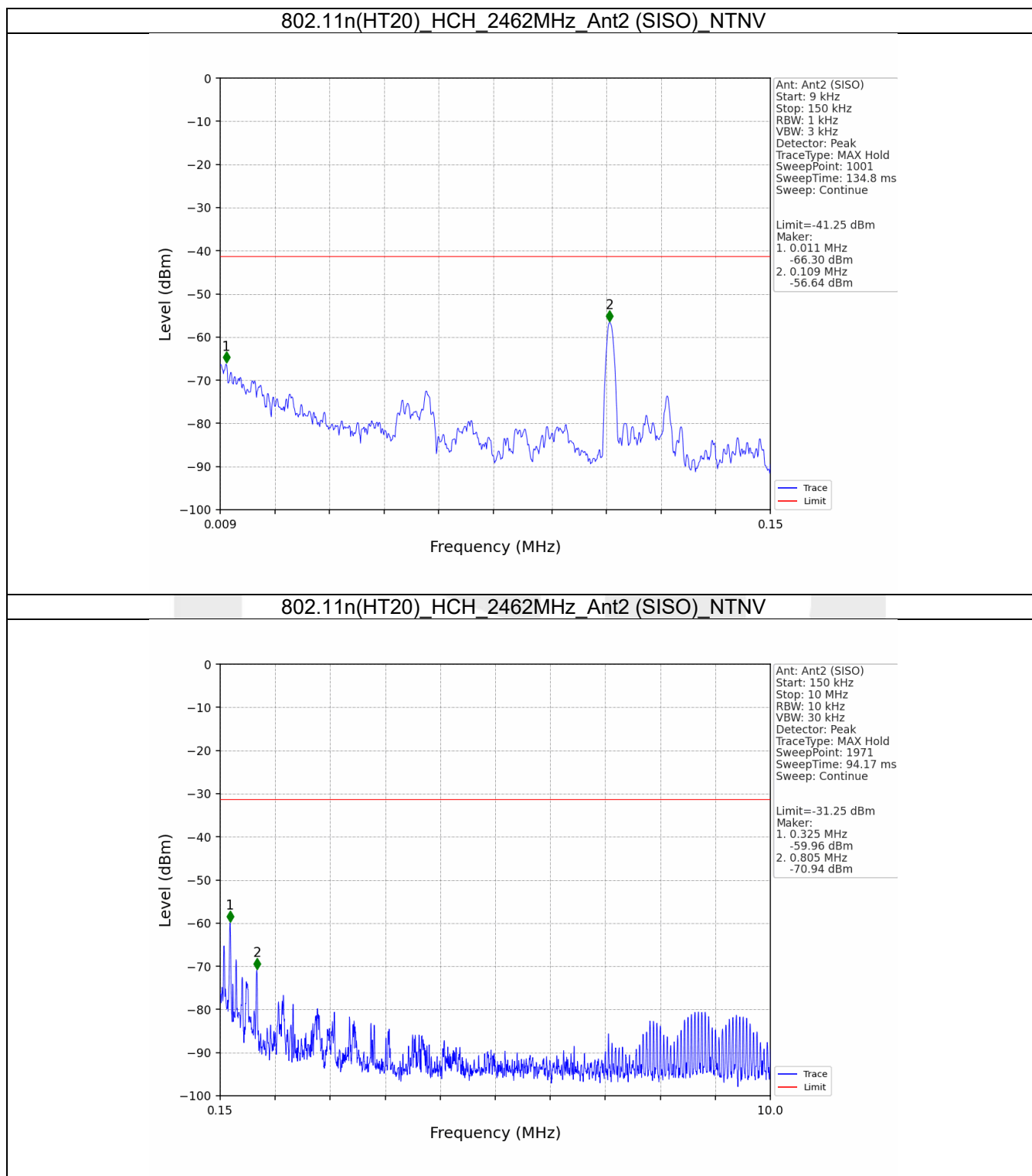


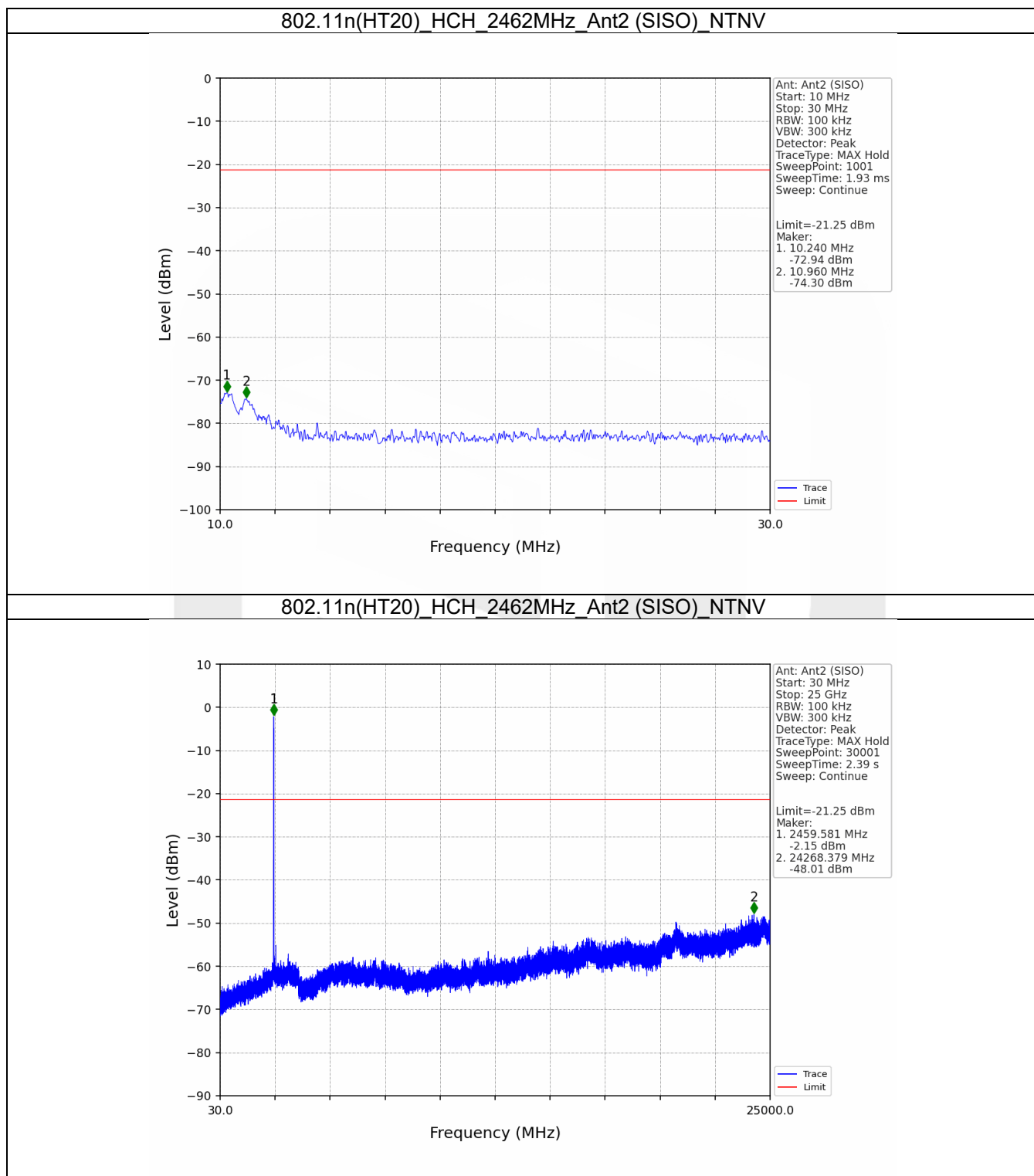












----- End of Report -----