

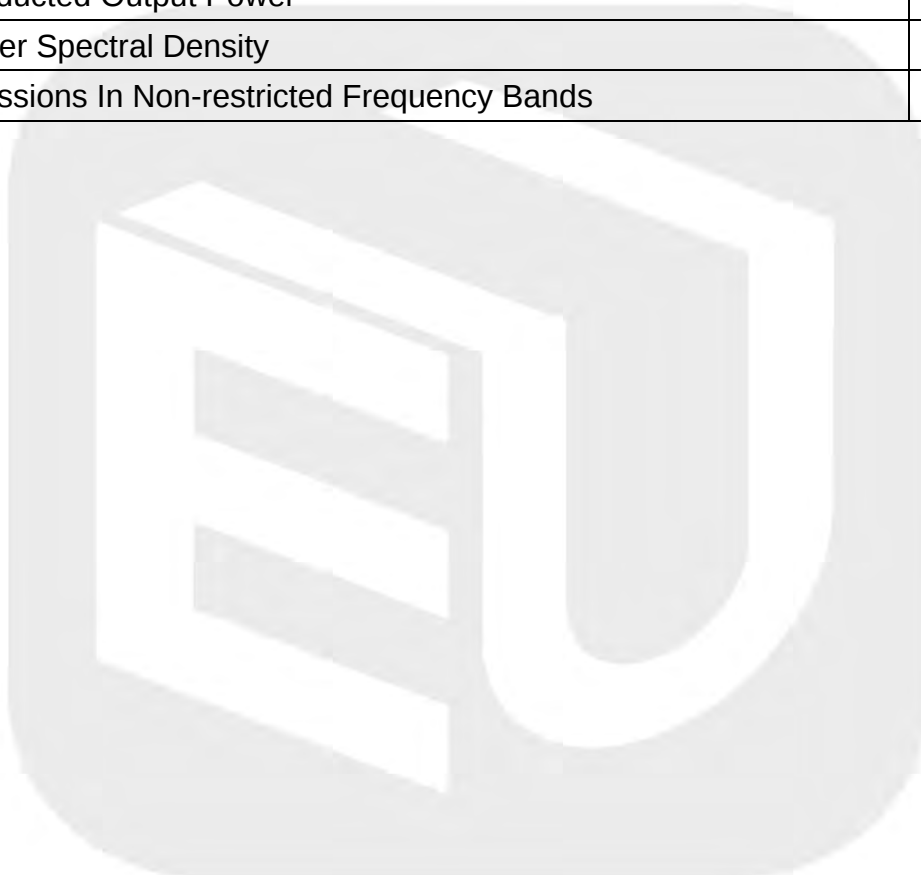
ANNEX F TEST DATA

For

Project No.:	8327EU012004W
Client:	SHENZHEN ELECTRON TECHNOLOGY CO., LTD.
Product Description:	Digital Calendar
Model No.:	FA158AT
FCC ID:	2ABC5-E0087
Technology:	WiFi 2.4G
Test Engineer:	<i>Mikoy zhu</i>
Test Date:	2025-03-25

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

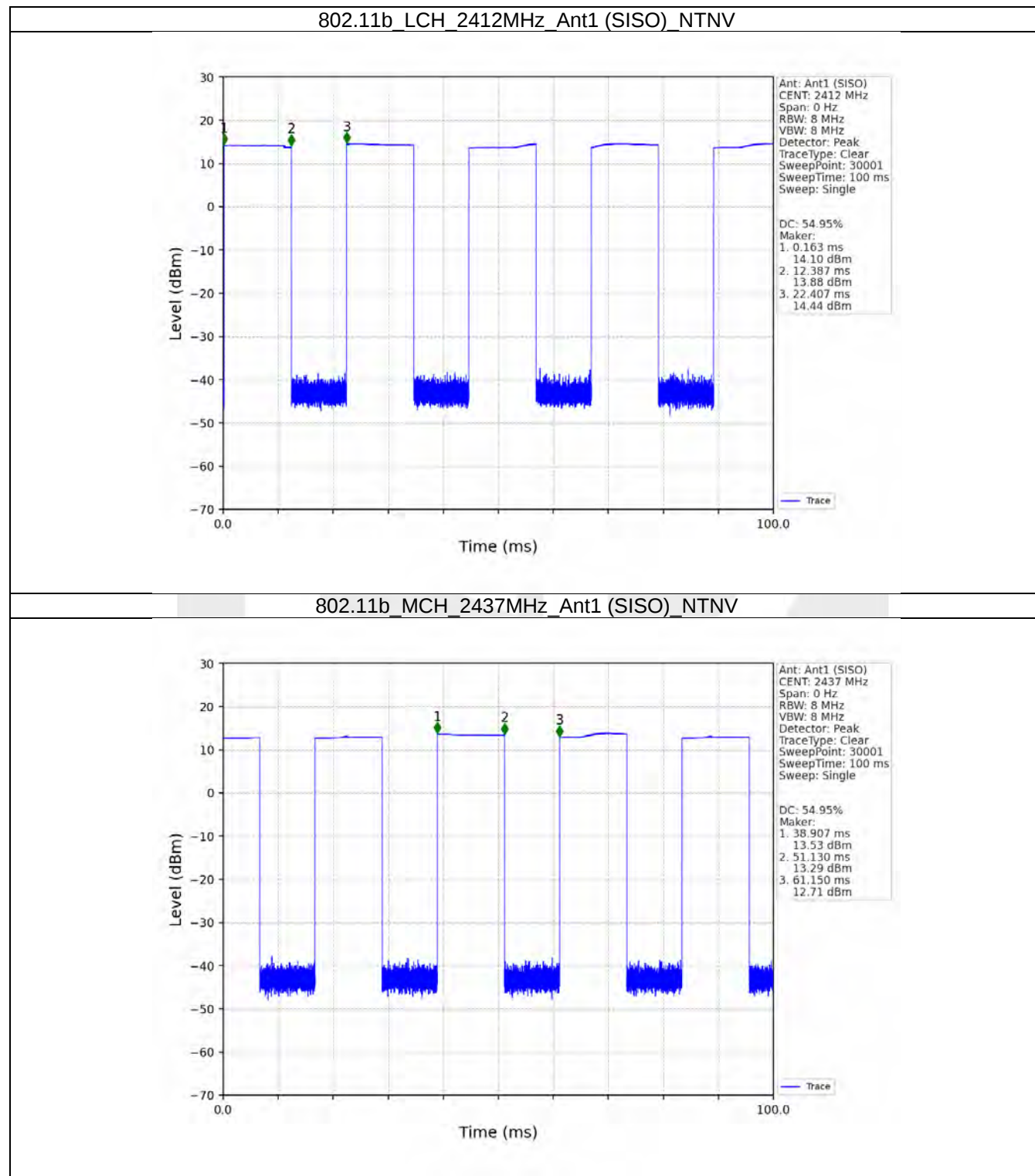
1.1 Test Result

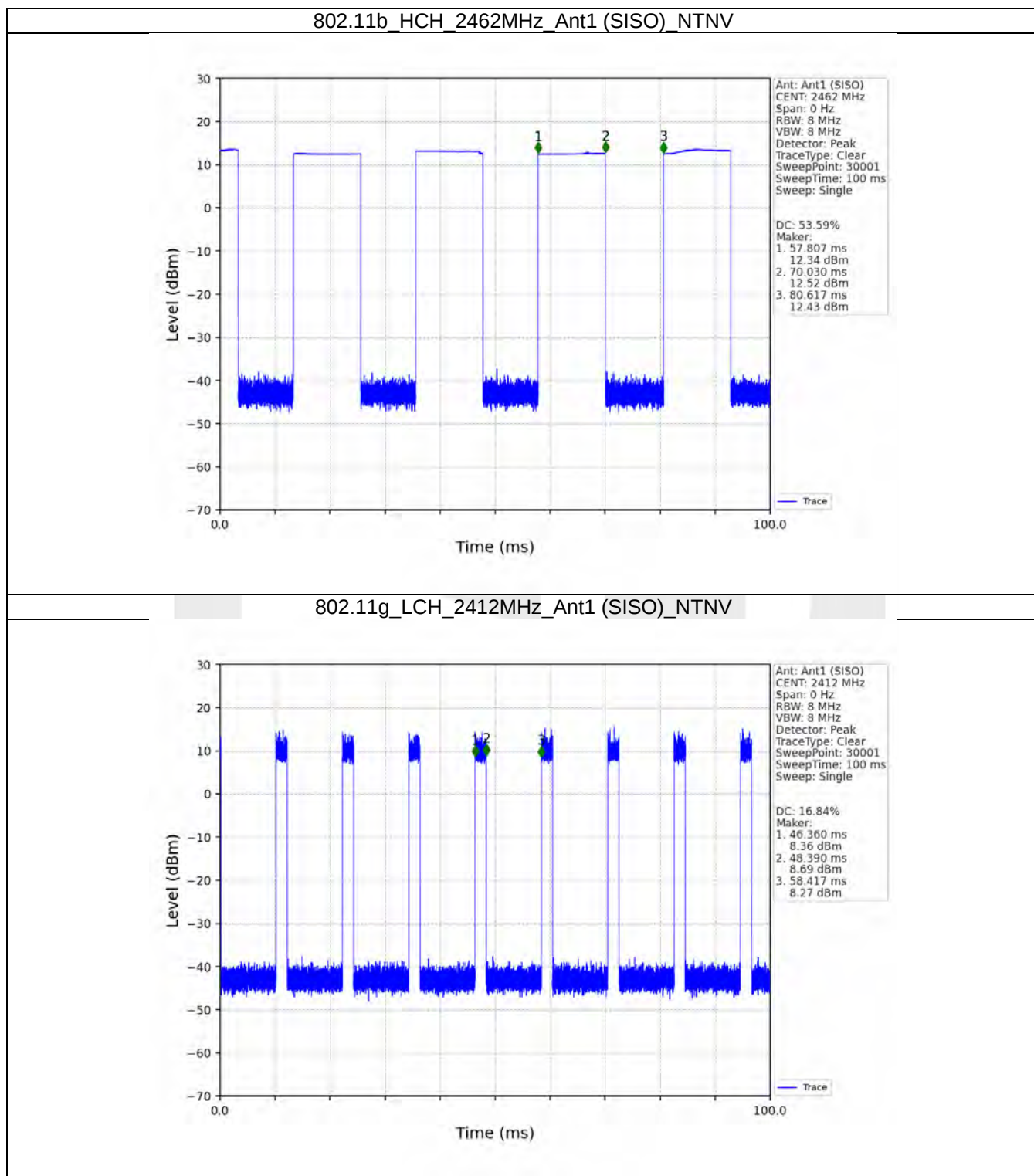
1.1.1 Ant1

Ant1									
Mode	TX Type	Frequency (MHz)	RU	RU Pos	T_on (ms)	Period (ms)	Duty Cycle (%)	Duty Cycle Correction Factor (dB)	Max. DC Variation (%)
802.11b	SISO	2412	/	/	12.224	22.244	54.95	2.60	0.01
		2437	/	/	12.223	22.243	54.95	2.60	0.01
		2462	/	/	12.223	22.810	53.59	2.71	1.37
802.11g	SISO	2412	/	/	2.030	12.057	16.84	7.74	0.05
		2437	/	/	2.033	12.063	16.85	7.73	0.01
		2462	/	/	2.033	13.573	14.98	8.25	1.89
802.11n (HT20)	SISO	2412	/	/	1.893	15.723	12.04	9.19	3.87
		2437	/	/	1.893	11.920	15.88	7.99	0.03
		2462	/	/	1.894	16.407	11.54	9.38	4.33
802.11n (HT40)	SISO	2422	/	/	0.934	13.947	6.70	11.74	1.84
		2437	/	/	0.934	10.964	8.52	10.70	0.01
		2452	/	/	0.933	10.960	8.51	10.70	0.03
802.11ax (HEW20)	SISO	2412	SU	/	1.463	11.493	12.73	8.95	0.01
		2437	SU	/	1.463	11.526	12.69	8.96	0.05
		2462	SU	/	1.463	13.910	10.52	9.78	2.23
802.11ax (HEW40)	SISO	2422	SU	/	0.764	14.180	5.39	12.69	1.70
		2437	SU	/	0.763	10.793	7.07	11.51	0.03
		2452	SU	/	0.760	10.830	7.02	11.54	0.06

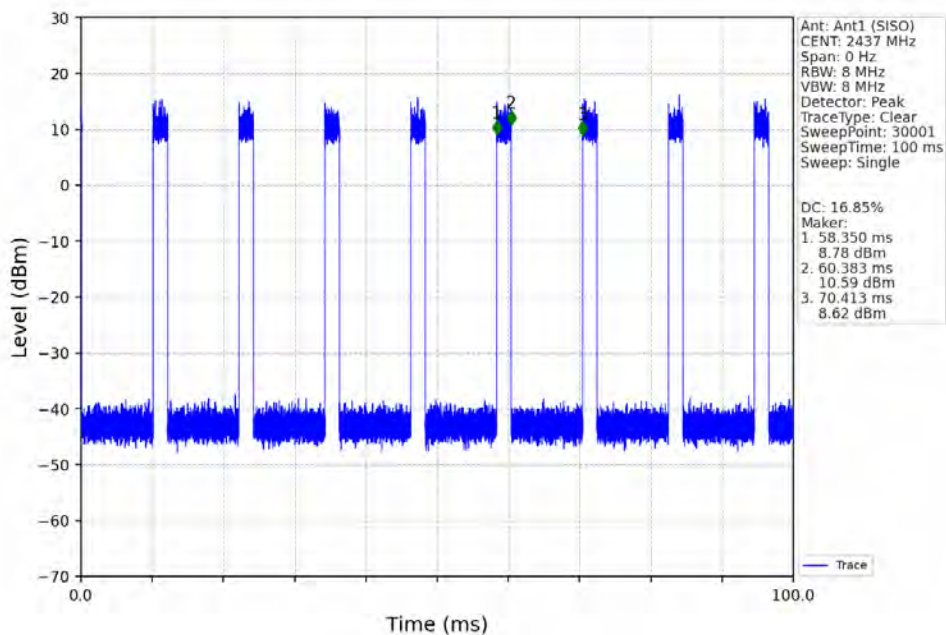
1.2 Test Graph

1.2.1 Ant1

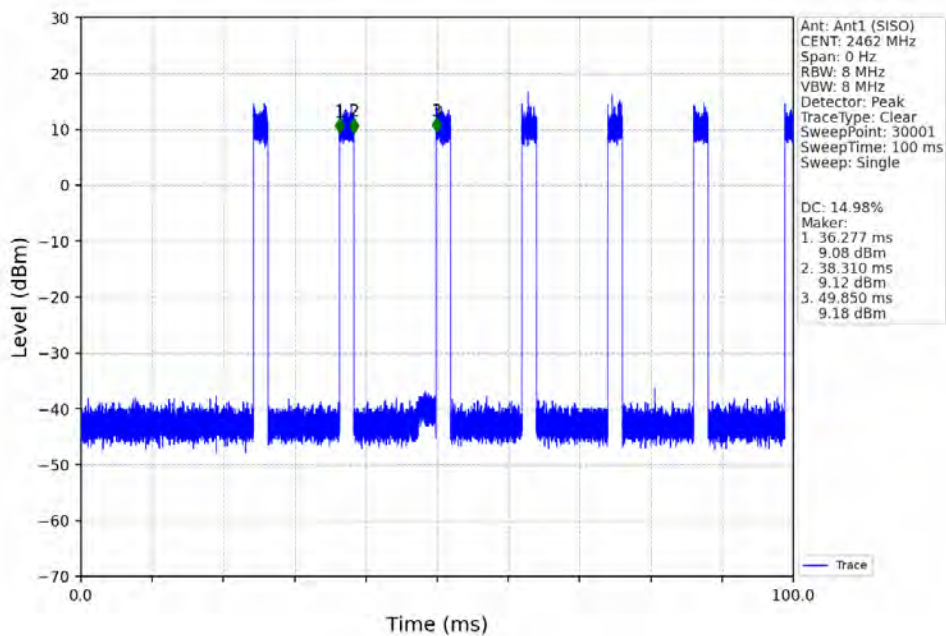




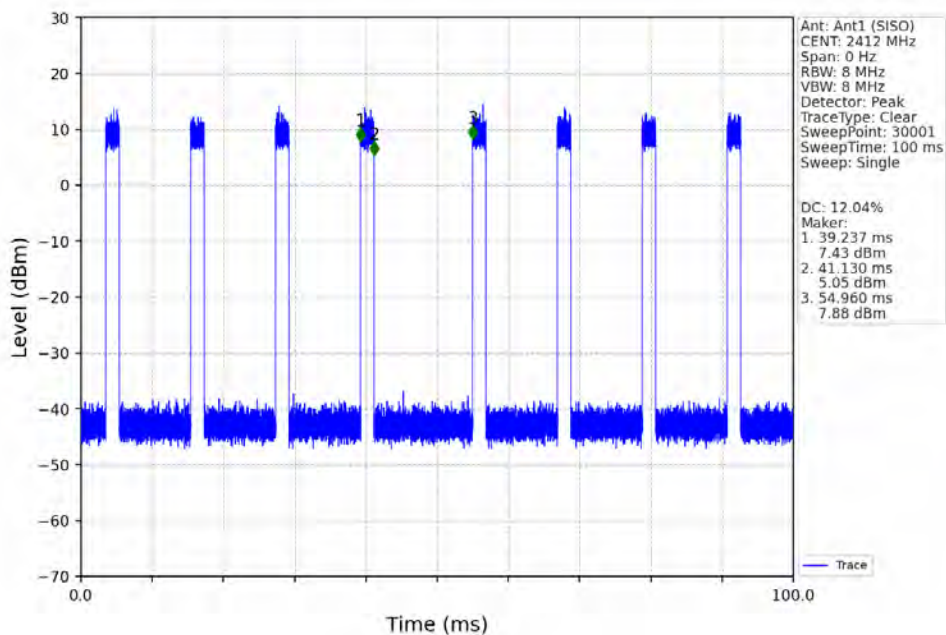
802.11g_MCH_2437MHz_Ant1 (SISO)_NTNV



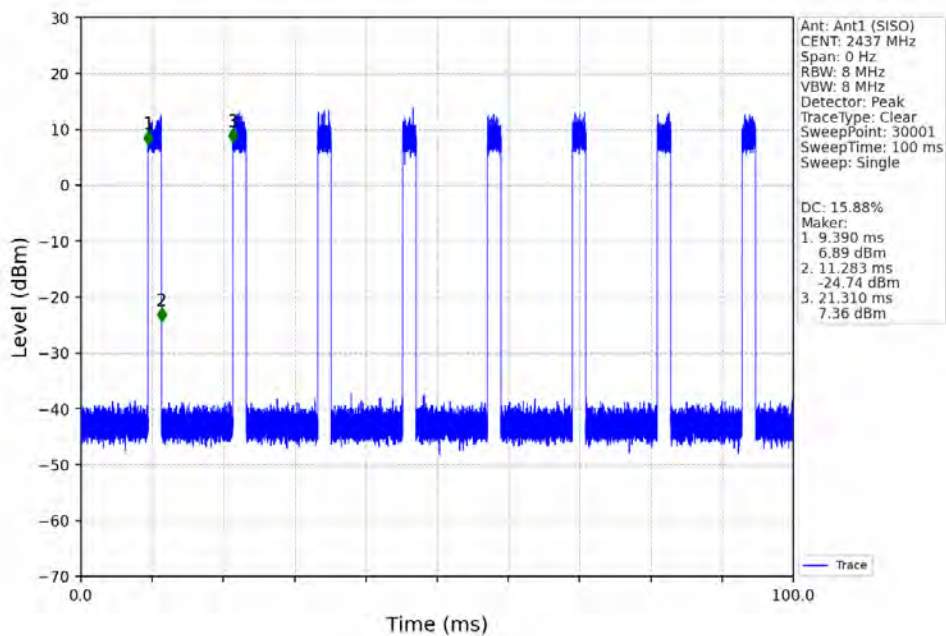
802.11g_HCH_2462MHz_Ant1 (SISO)_NTNV

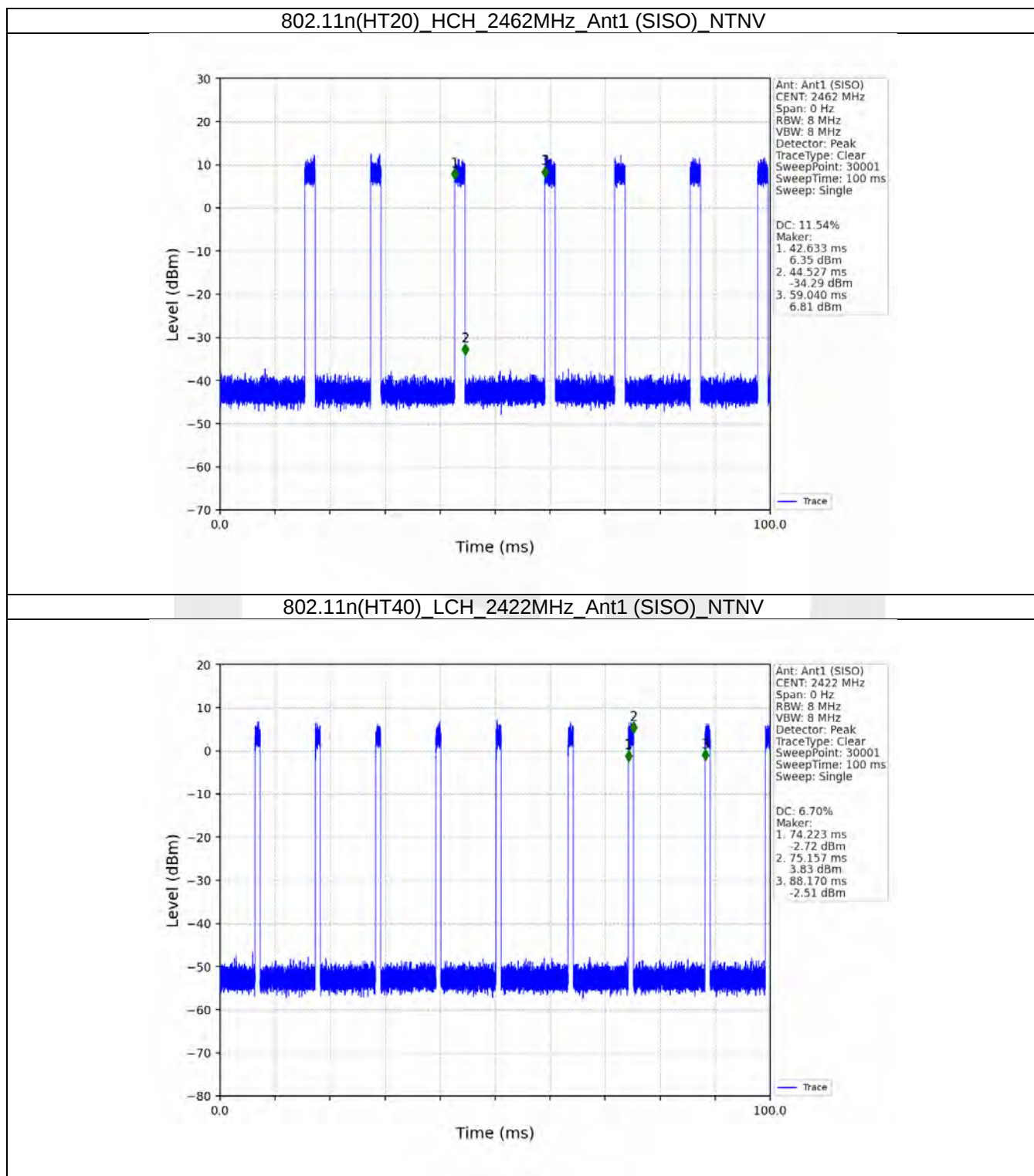


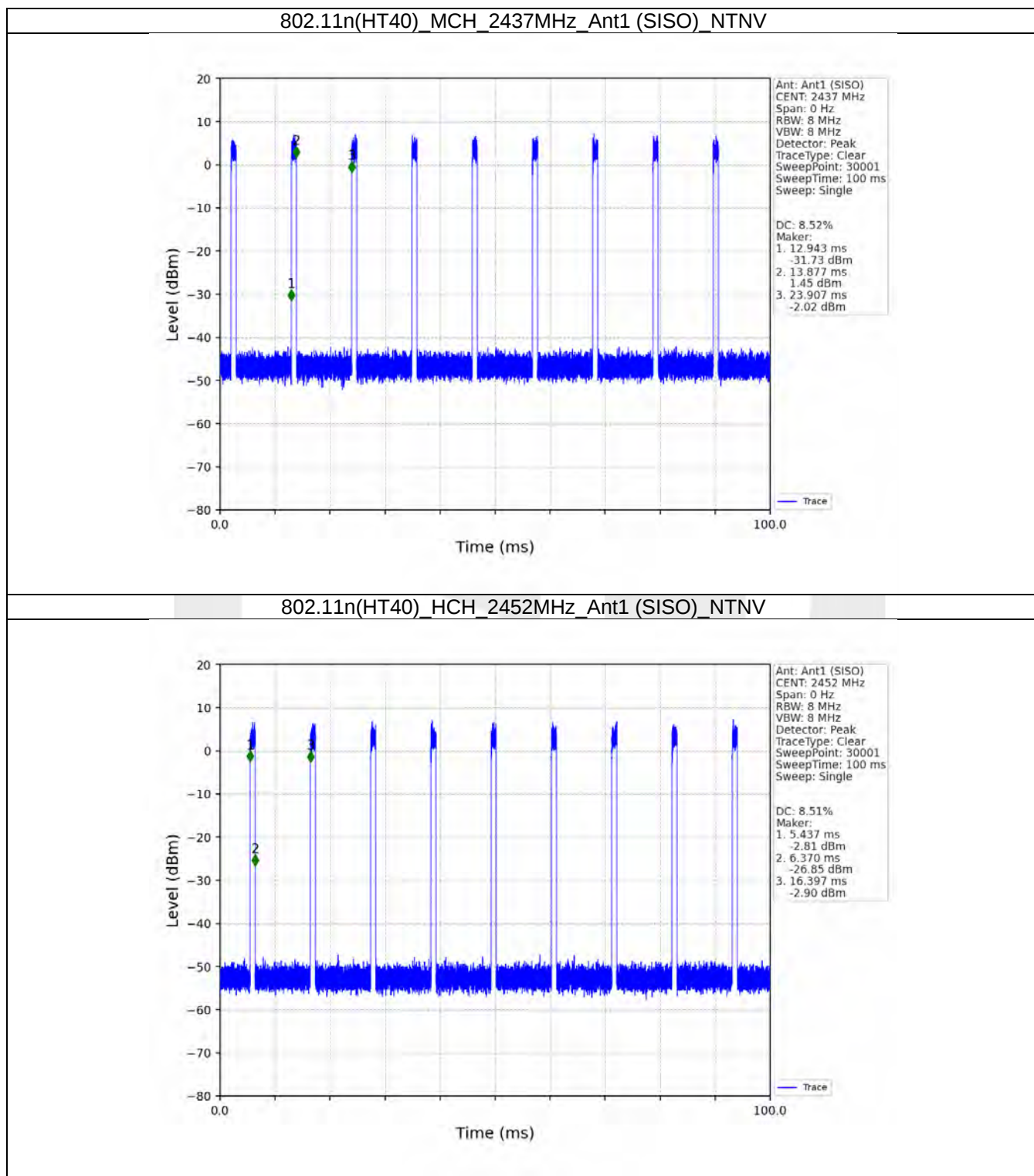
802.11n(HT20)_LCH_2412MHz_Ant1 (SISO)_NTNV



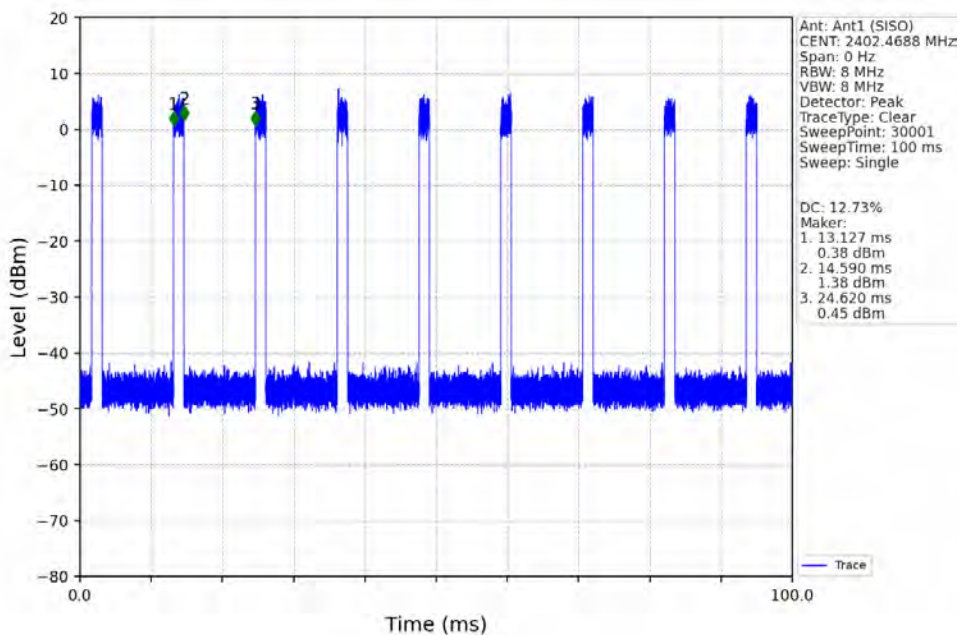
802.11n(HT20)_MCH_2437MHz_Ant1 (SISO)_NTNV



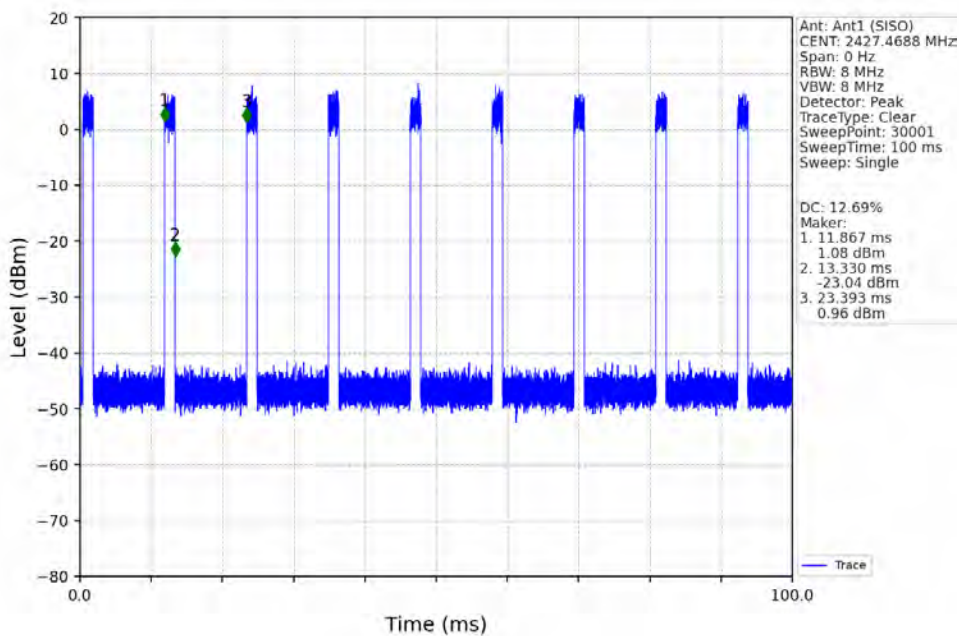




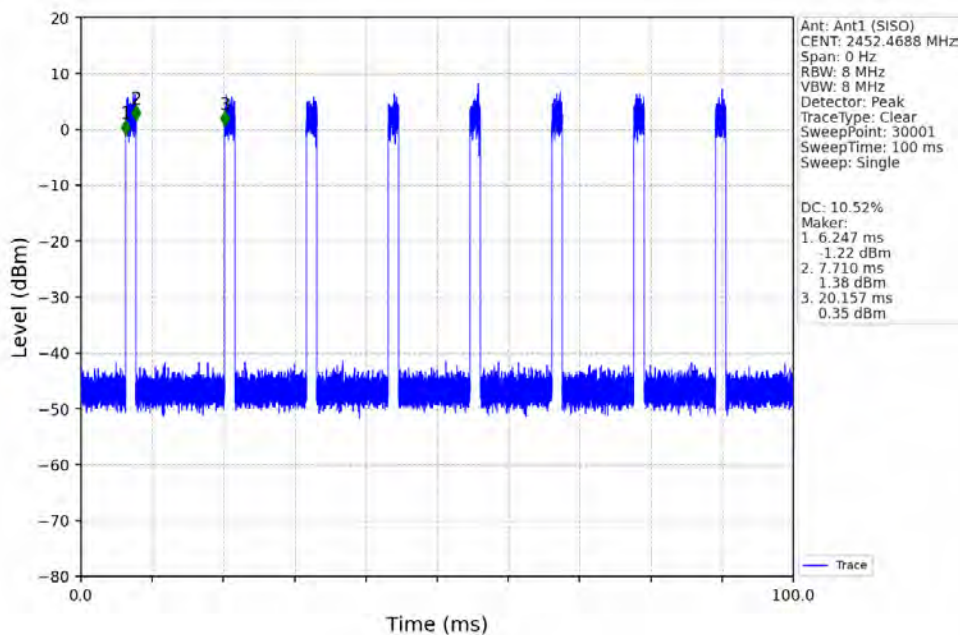
802.11ax(HEW20)_LCH_2412MHz_SU_ / _Ant1 (SISO)_NTNV



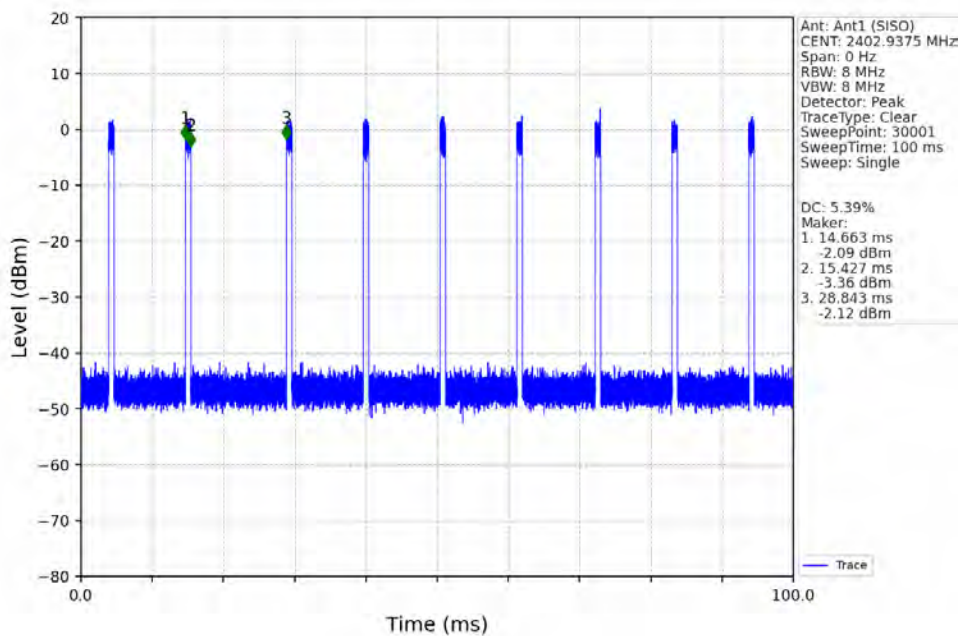
802.11ax(HEW20)_MCH_2437MHz_SU_ / _Ant1 (SISO)_NTNV



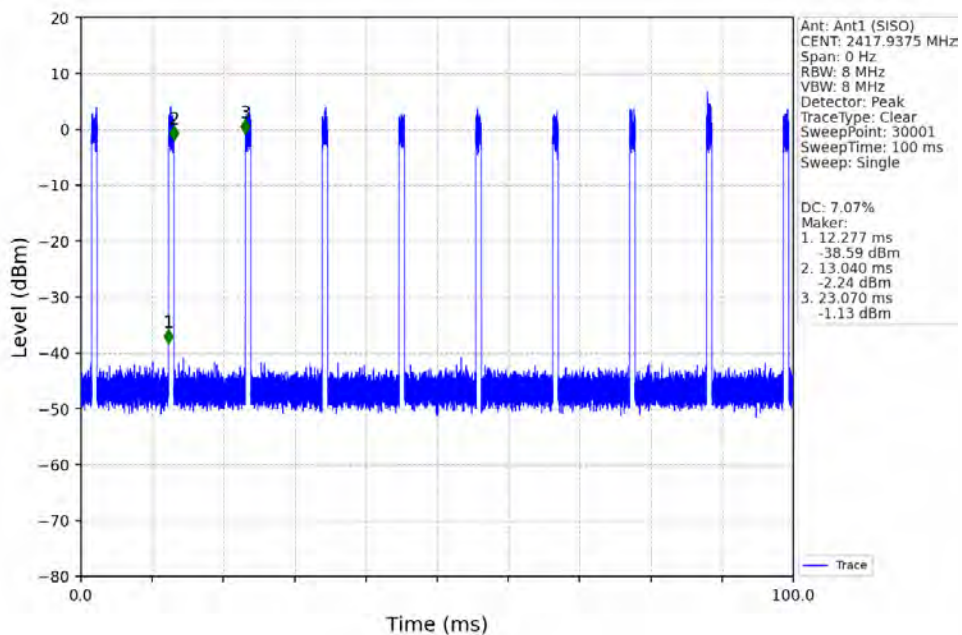
802.11ax(HEW20)_HCH_2462MHz_SU_ / _Ant1 (SISO)_NTNV



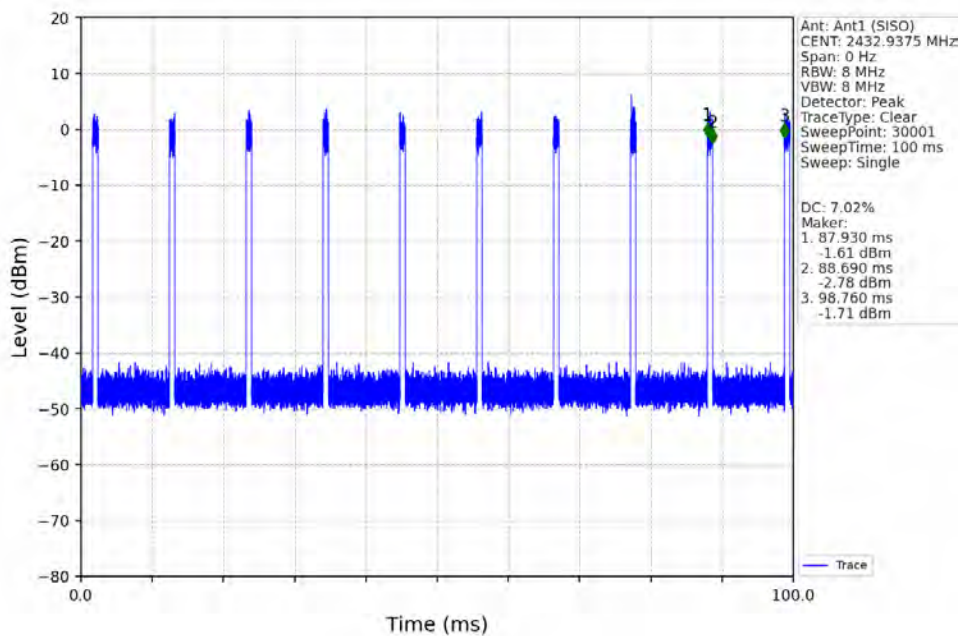
802.11ax(HEW40)_LCH_2422MHz_SU_ / _Ant1 (SISO)_NTNV



802.11ax(HEW40)_MCH_2437MHz_SU / _Ant1 (SISO)_NTNV



802.11ax(HEW40)_HCH_2452MHz_SU / _Ant1 (SISO)_NTNV



2. Bandwidth

2.1 Test Result

2.1.1 OBW

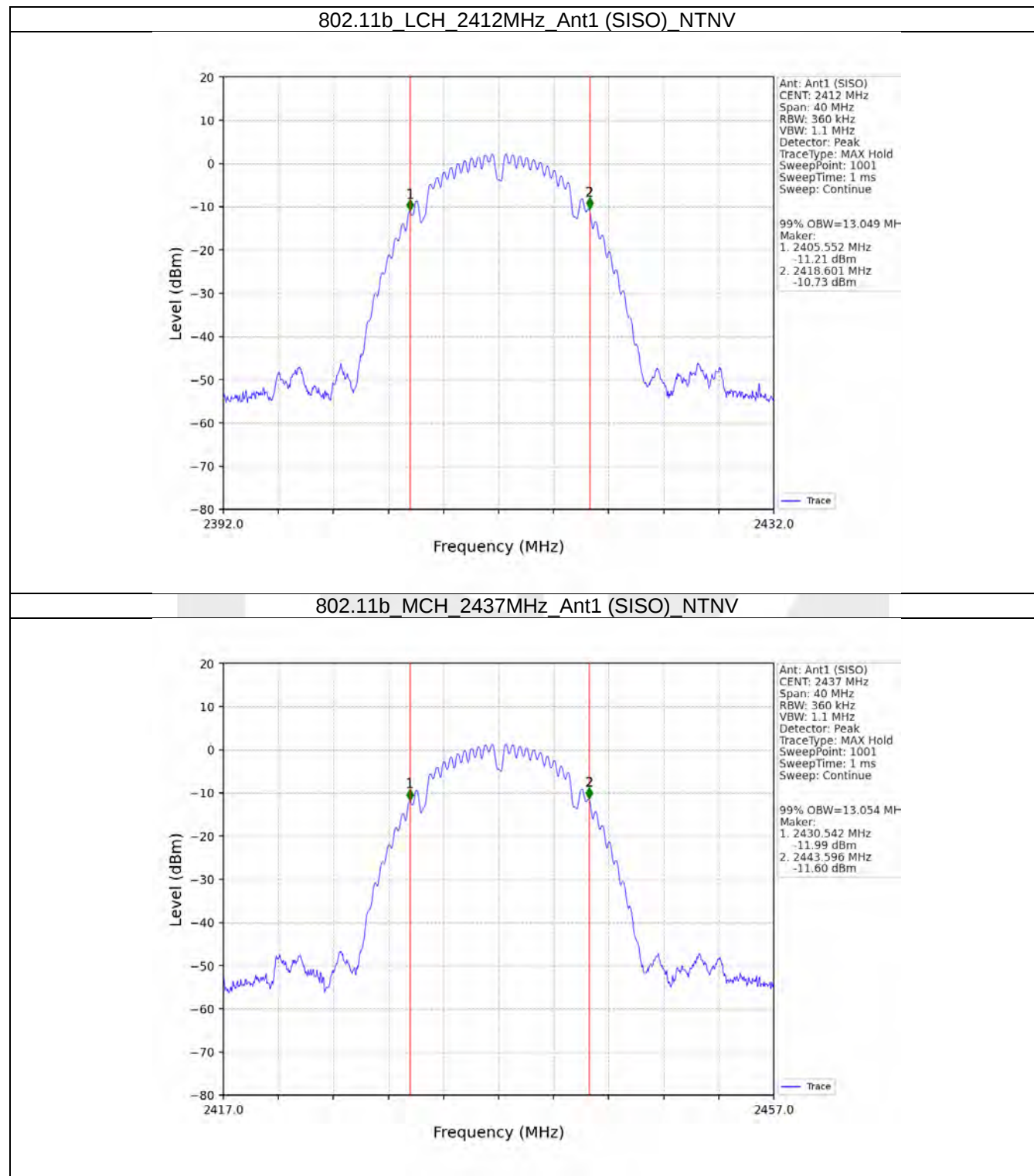
Mode	TX Type	Frequency (MHz)	RU	RU Pos	ANT	99% Occupied Bandwidth (MHz)		Verdict
						Result	Limit	
802.11b	SISO	2412	/	/	1	13.049	/	Pass
		2437	/	/	1	13.054	/	Pass
		2462	/	/	1	13.056	/	Pass
802.11g	SISO	2412	/	/	1	18.552	/	Pass
		2437	/	/	1	18.808	/	Pass
		2462	/	/	1	18.535	/	Pass
802.11n (HT20)	SISO	2412	/	/	1	19.609	/	Pass
		2437	/	/	1	19.668	/	Pass
		2462	/	/	1	19.697	/	Pass
802.11n (HT40)	SISO	2422	/	/	1	37.332	/	Pass
		2437	/	/	1	37.443	/	Pass
		2452	/	/	1	37.486	/	Pass
802.11ax (HEW20)	SISO	2412	SU	/	1	19.949	/	Pass
		2437	SU	/	1	19.934	/	Pass
		2462	SU	/	1	19.963	/	Pass
802.11ax (HEW40)	SISO	2422	SU	/	1	38.382	/	Pass
		2437	SU	/	1	38.489	/	Pass
		2452	SU	/	1	38.551	/	Pass

2.1.2 6dB BW

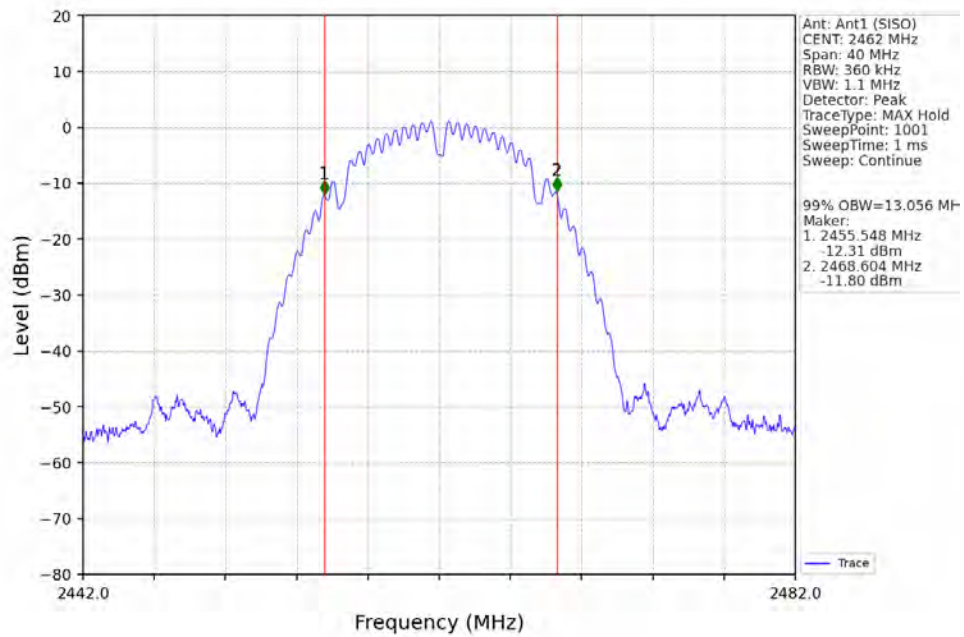
Mode	TX Type	Frequency (MHz)	RU	RU Pos	ANT	6dB Bandwidth (MHz)		Verdict
						Result	Limit	
802.11b	SISO	2412	/	/	1	9.234	>=0.5	Pass
		2437	/	/	1	9.241	>=0.5	Pass
		2462	/	/	1	9.241	>=0.5	Pass
802.11g	SISO	2412	/	/	1	16.550	>=0.5	Pass
		2437	/	/	1	16.543	>=0.5	Pass
		2462	/	/	1	16.731	>=0.5	Pass
802.11n (HT20)	SISO	2412	/	/	1	17.708	>=0.5	Pass
		2437	/	/	1	17.605	>=0.5	Pass
		2462	/	/	1	17.689	>=0.5	Pass
802.11n (HT40)	SISO	2422	/	/	1	36.047	>=0.5	Pass
		2437	/	/	1	36.240	>=0.5	Pass
		2452	/	/	1	36.191	>=0.5	Pass
802.11ax (HEW20)	SISO	2412	SU	/	1	18.806	>=0.5	Pass
		2437	SU	/	1	18.786	>=0.5	Pass
		2462	SU	/	1	18.781	>=0.5	Pass
802.11ax (HEW40)	SISO	2422	SU	/	1	37.248	>=0.5	Pass
		2437	SU	/	1	36.874	>=0.5	Pass
		2452	SU	/	1	37.482	>=0.5	Pass

2.2 Test Graph

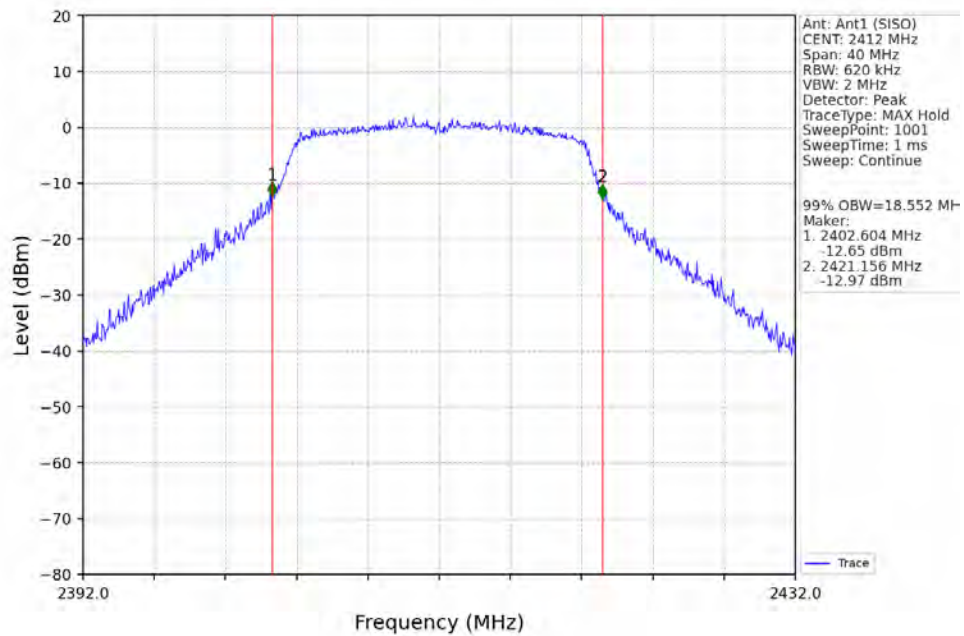
2.2.1 OBW



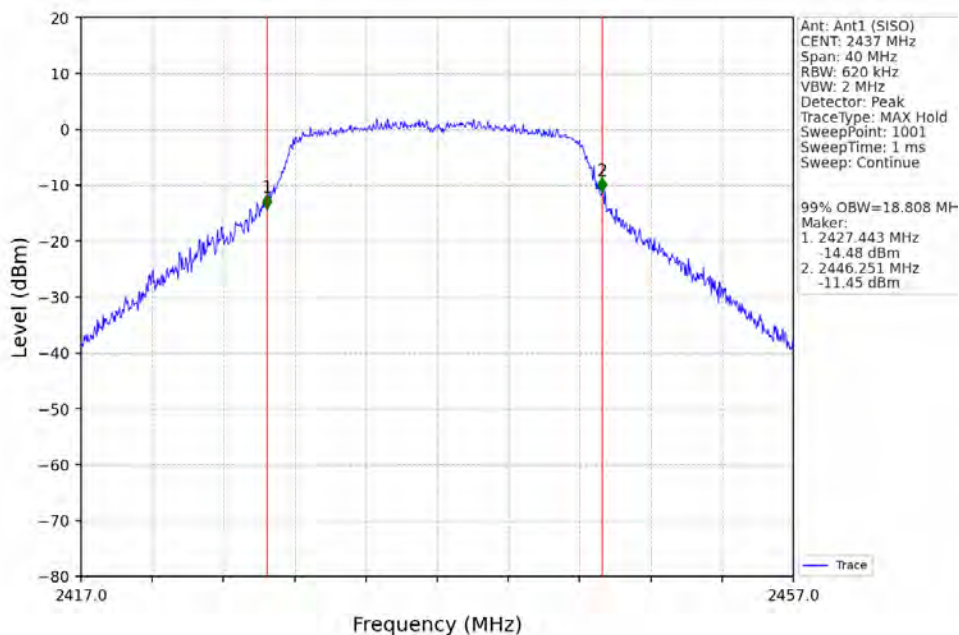
802.11b_HCH_2462MHz_Ant1 (SISO)_NTNV



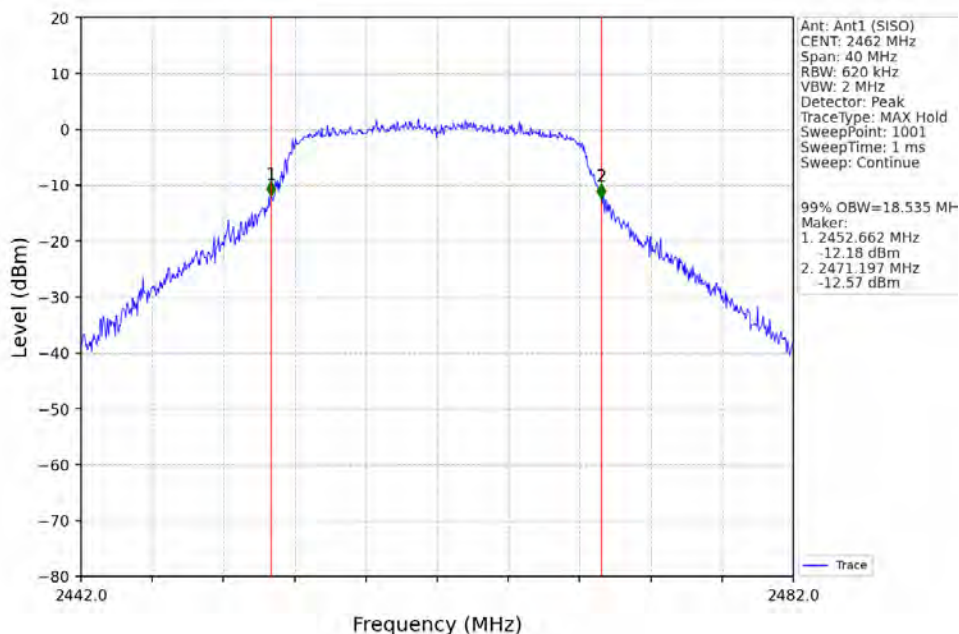
802.11g_LCH_2412MHz_Ant1 (SISO)_NTNV



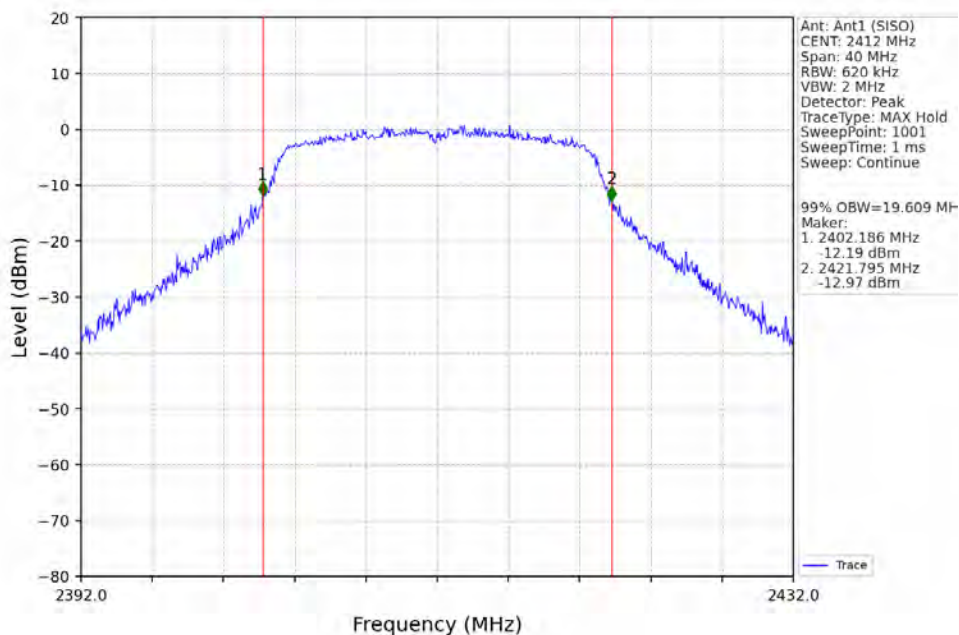
802.11g_MCH_2437MHz_Ant1 (SISO)_NTNV



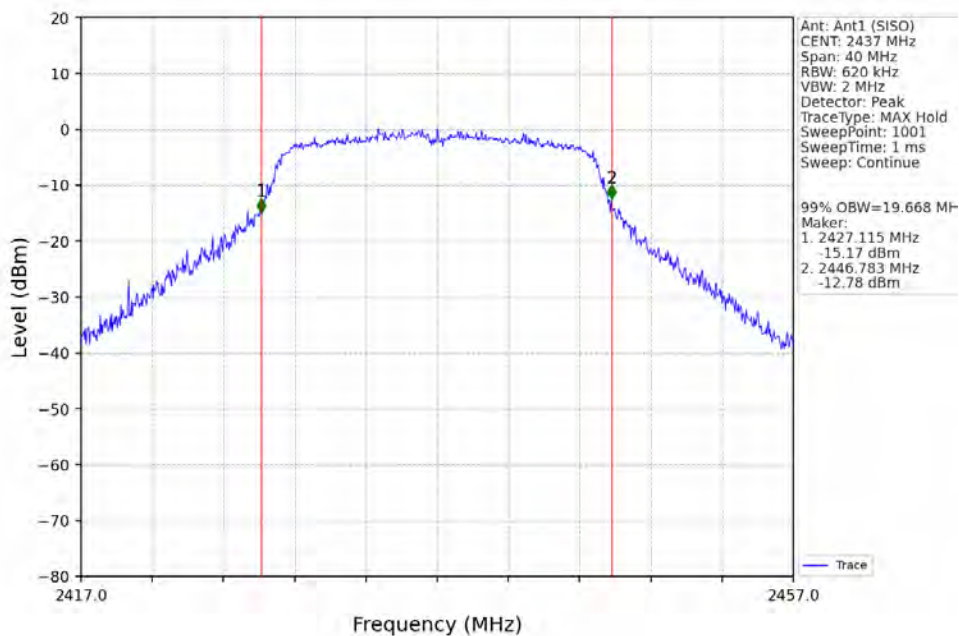
802.11g_HCH_2462MHz_Ant1 (SISO)_NTNV

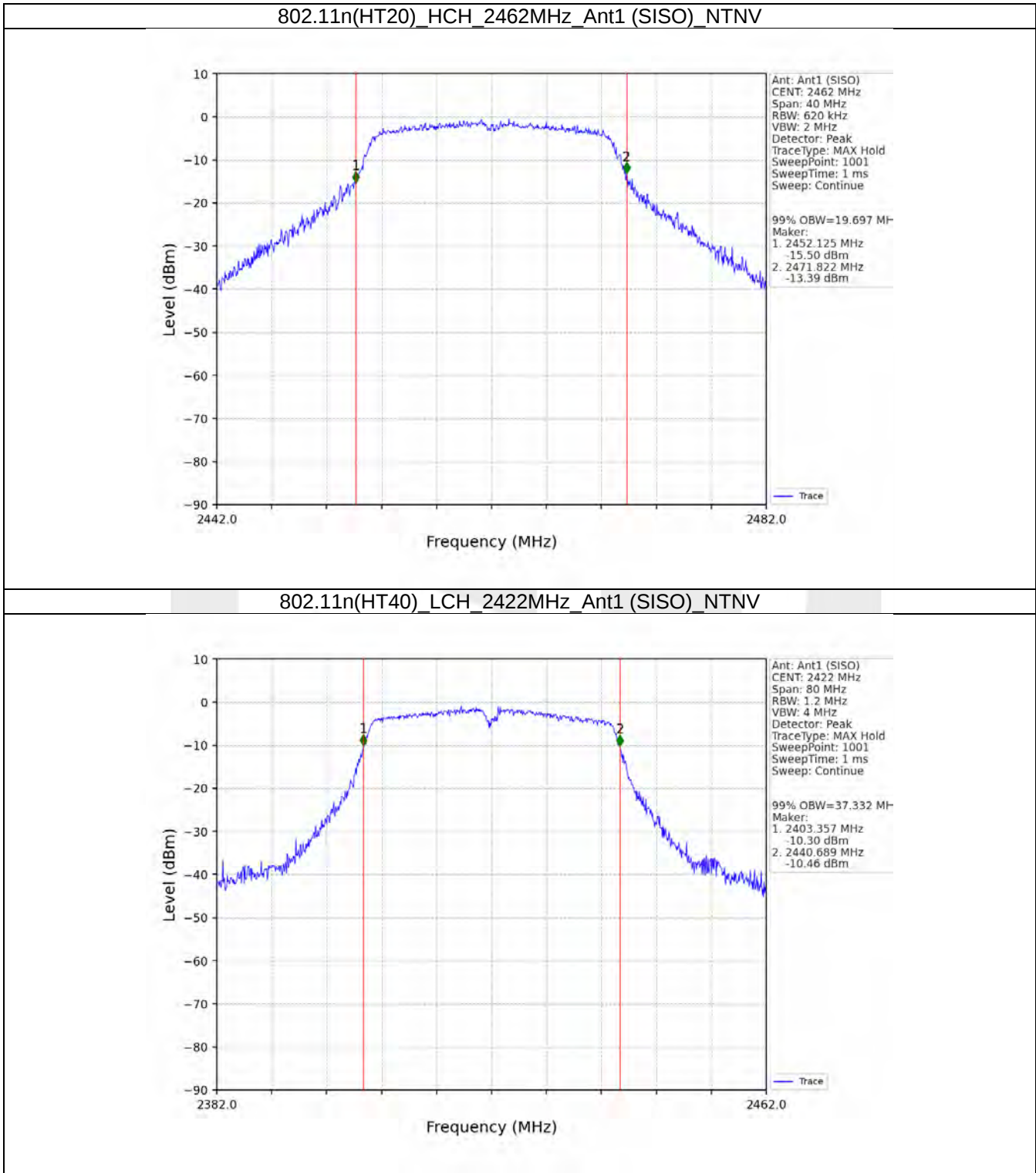


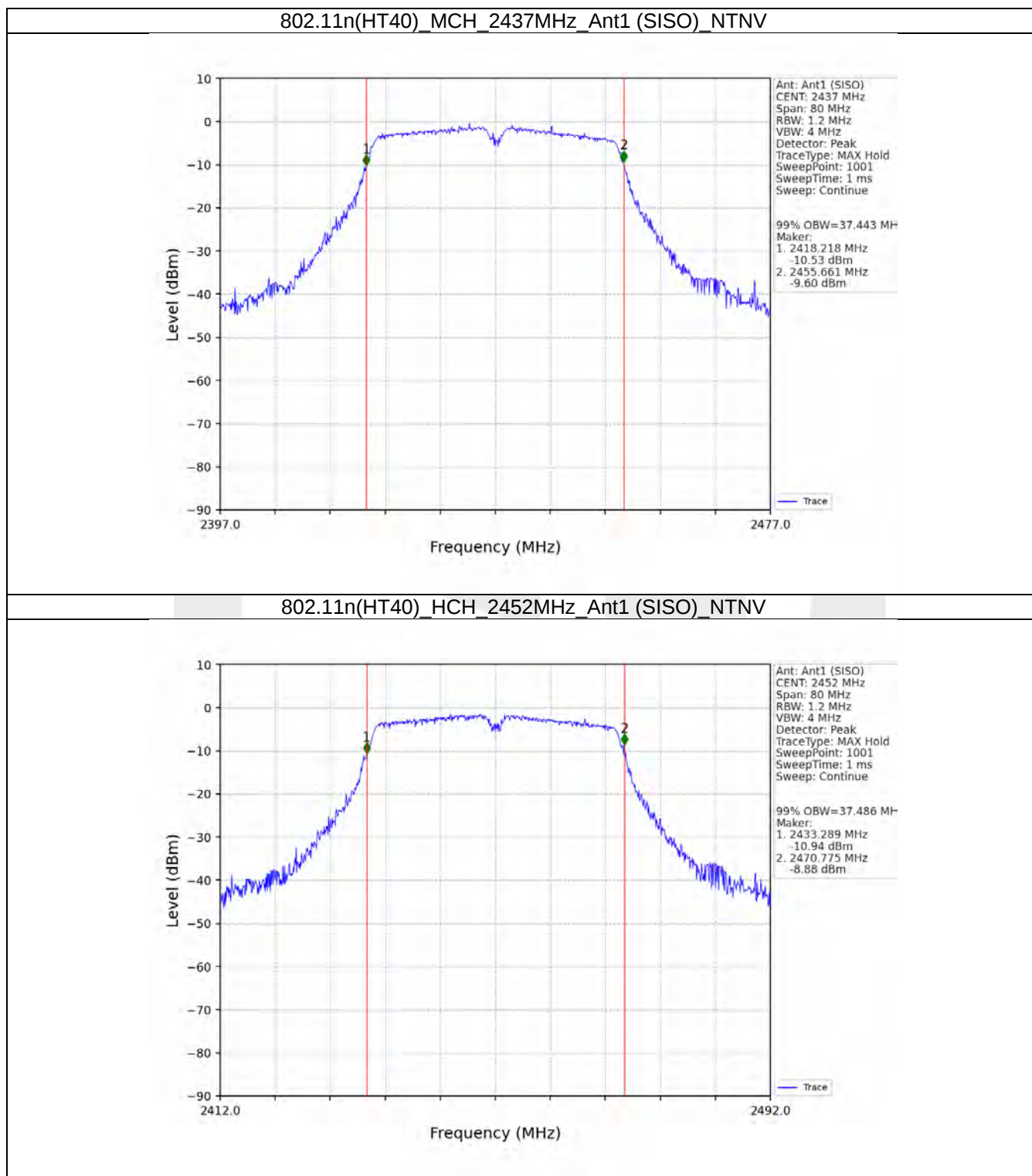
802.11n(HT20)_LCH_2412MHz_Ant1 (SISO)_NTNV



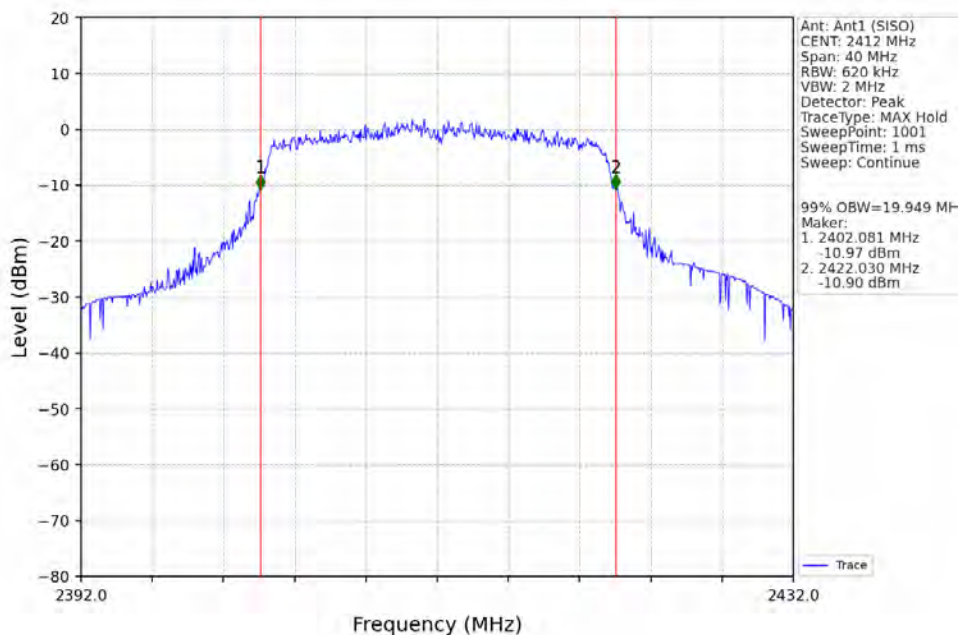
802.11n(HT20)_MCH_2437MHz_Ant1 (SISO)_NTNV



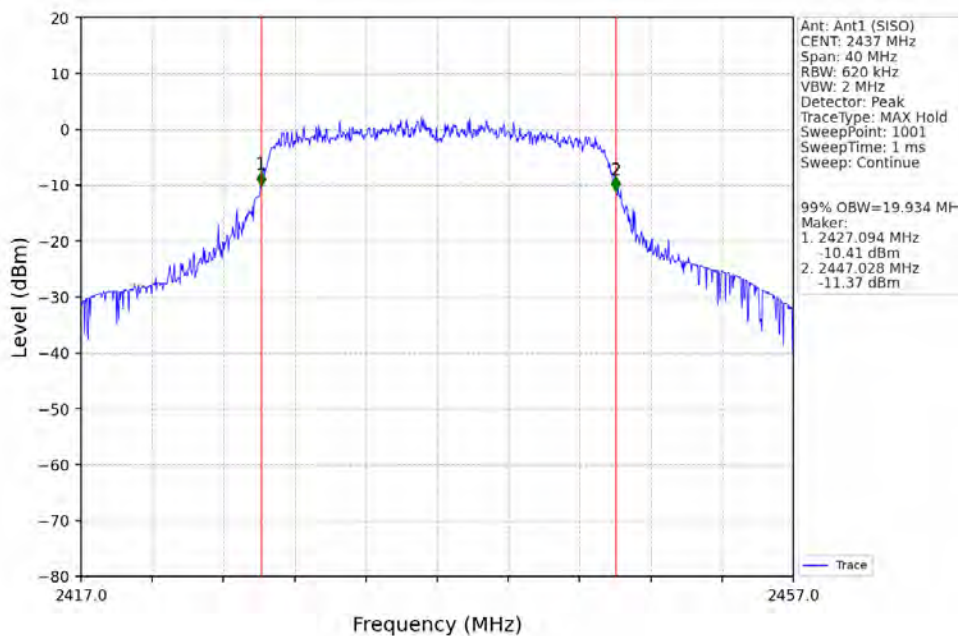




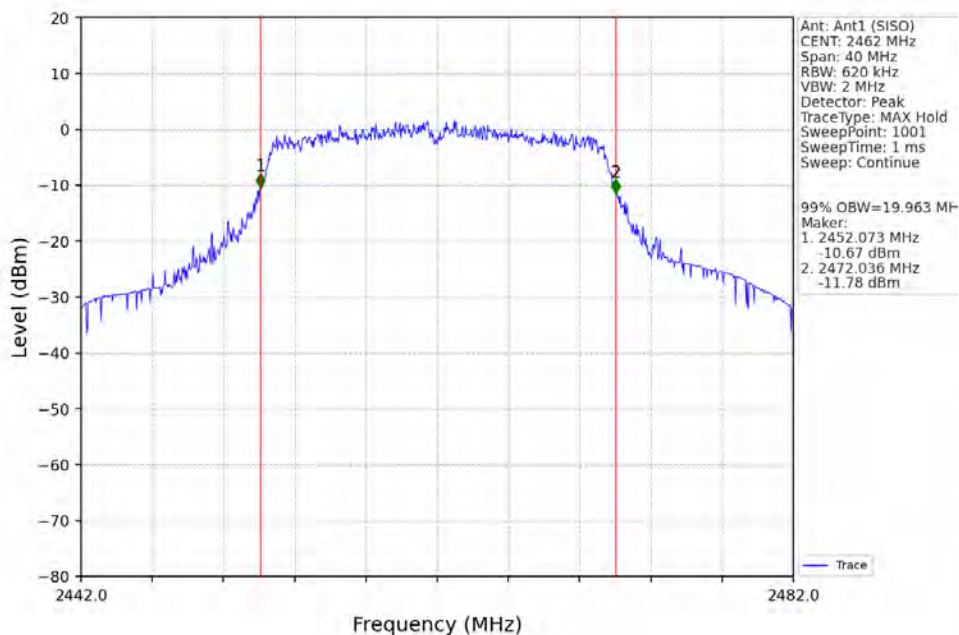
802.11ax(HEW20)_LCH_2412MHz_SU_ / _Ant1 (SISO)_NTNV



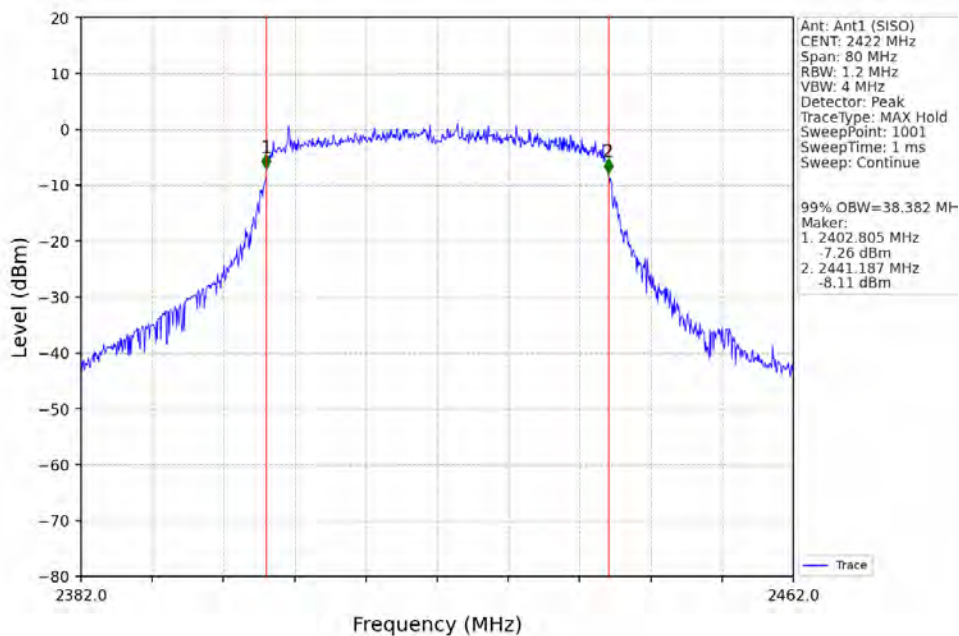
802.11ax(HEW20)_MCH_2437MHz_SU_ / _Ant1 (SISO)_NTNV



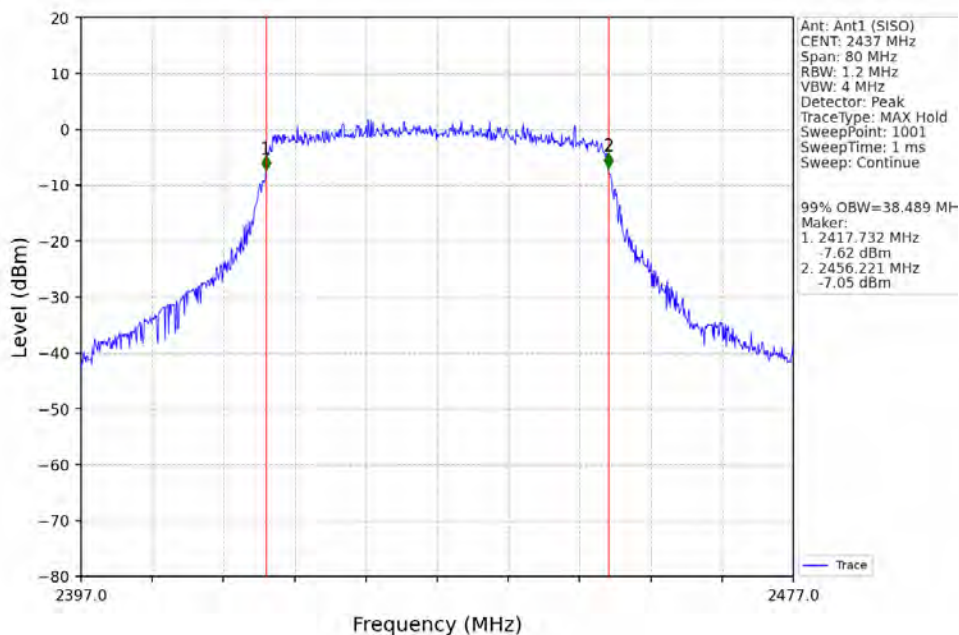
802.11ax(HEW20)_HCH_2462MHz_SU_ / _Ant1 (SISO)_NTNV



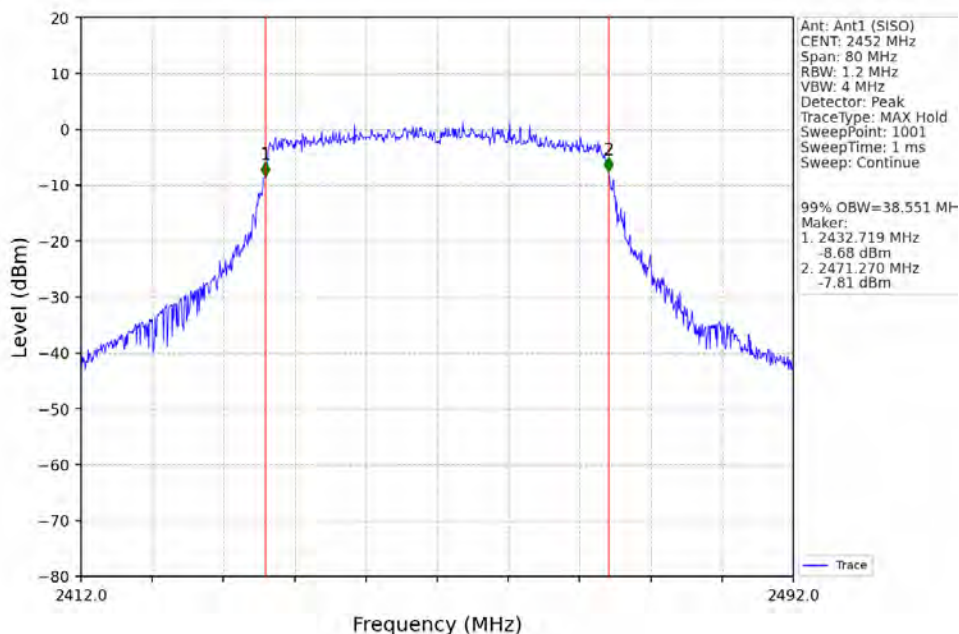
802.11ax(HEW40)_LCH_2422MHz_SU_ / _Ant1 (SISO)_NTNV



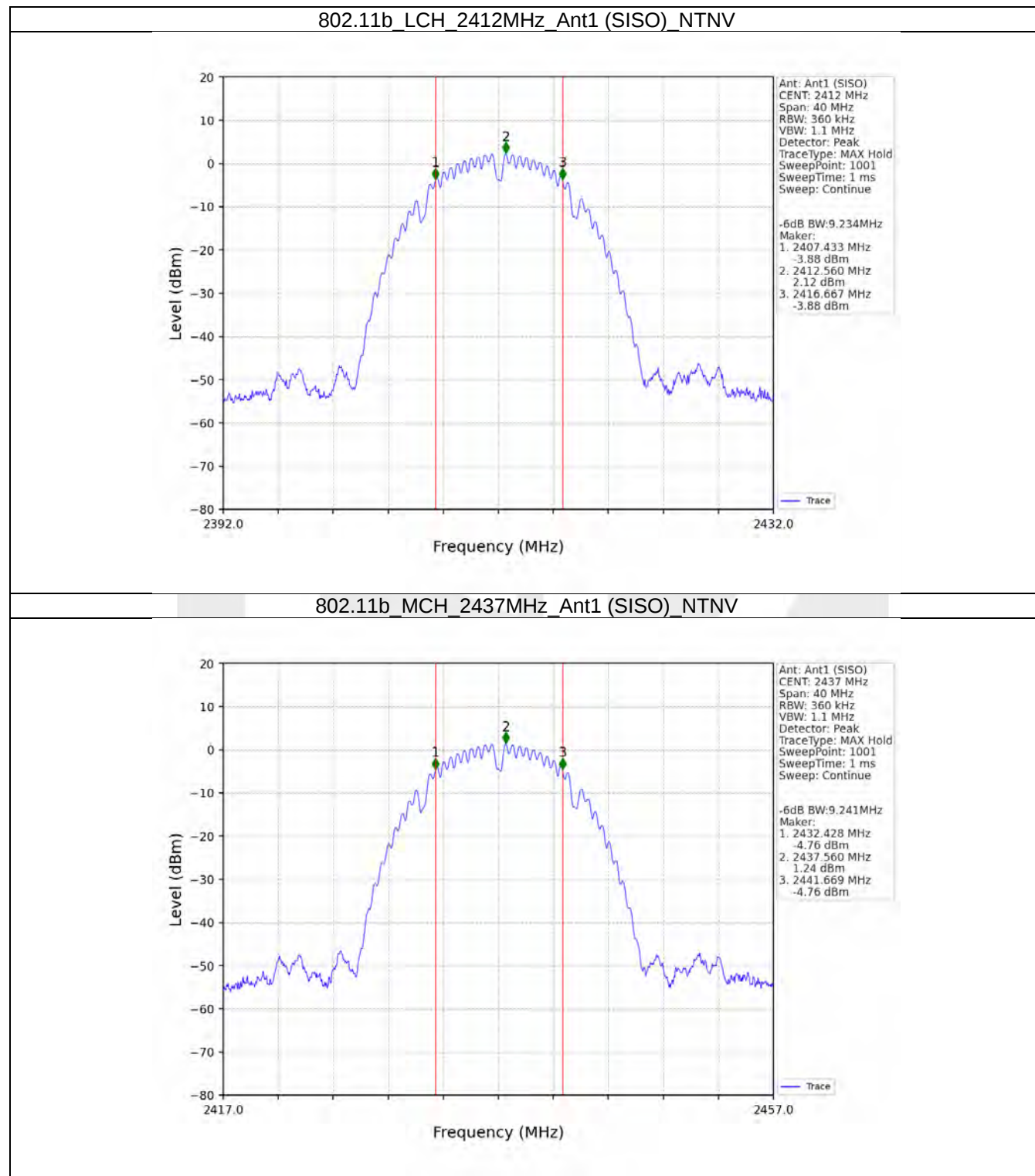
802.11ax(HEW40)_MCH_2437MHz_SU / _Ant1 (SISO)_NTNV

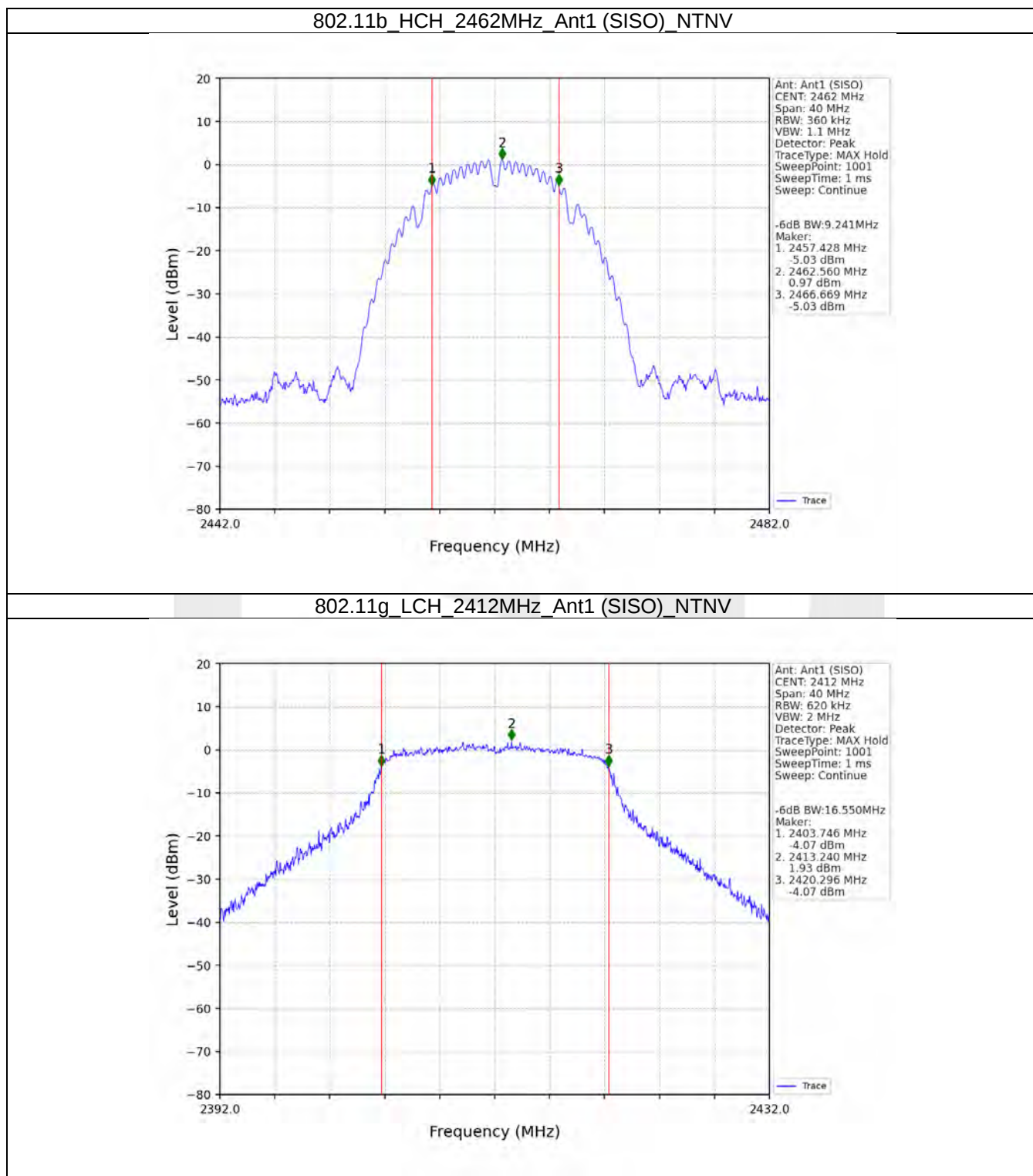


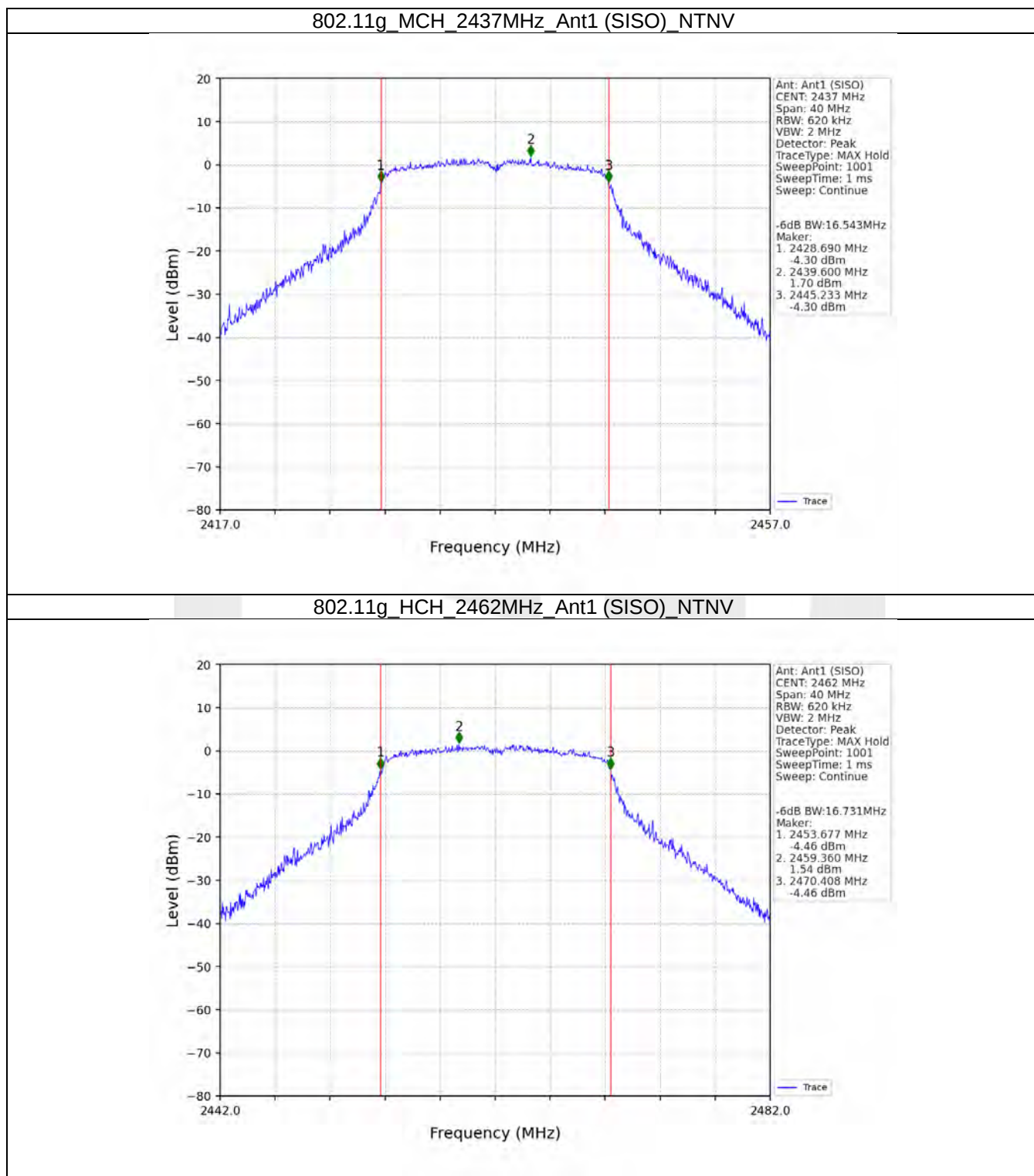
802.11ax(HEW40)_HCH_2452MHz_SU / _Ant1 (SISO)_NTNV

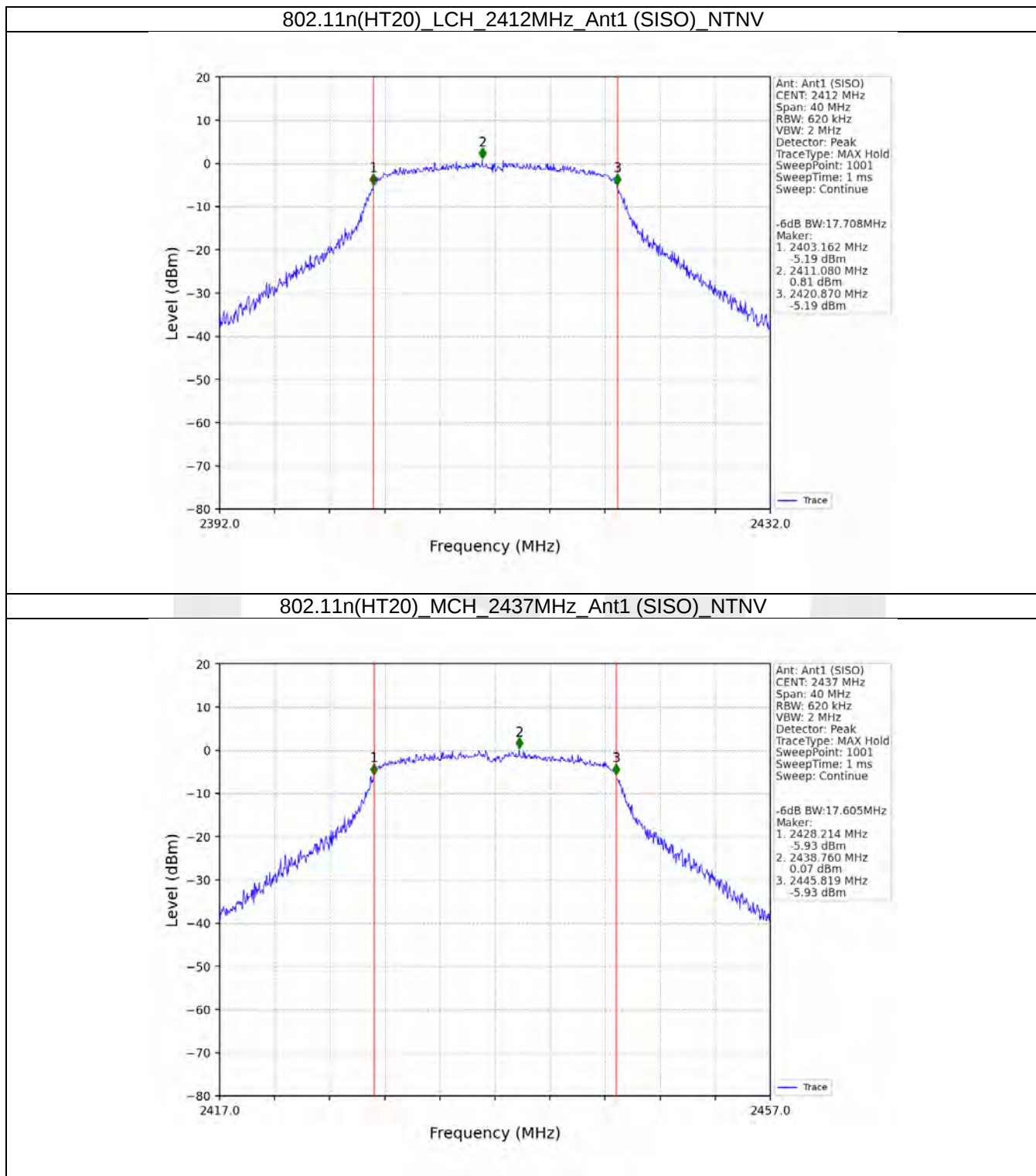


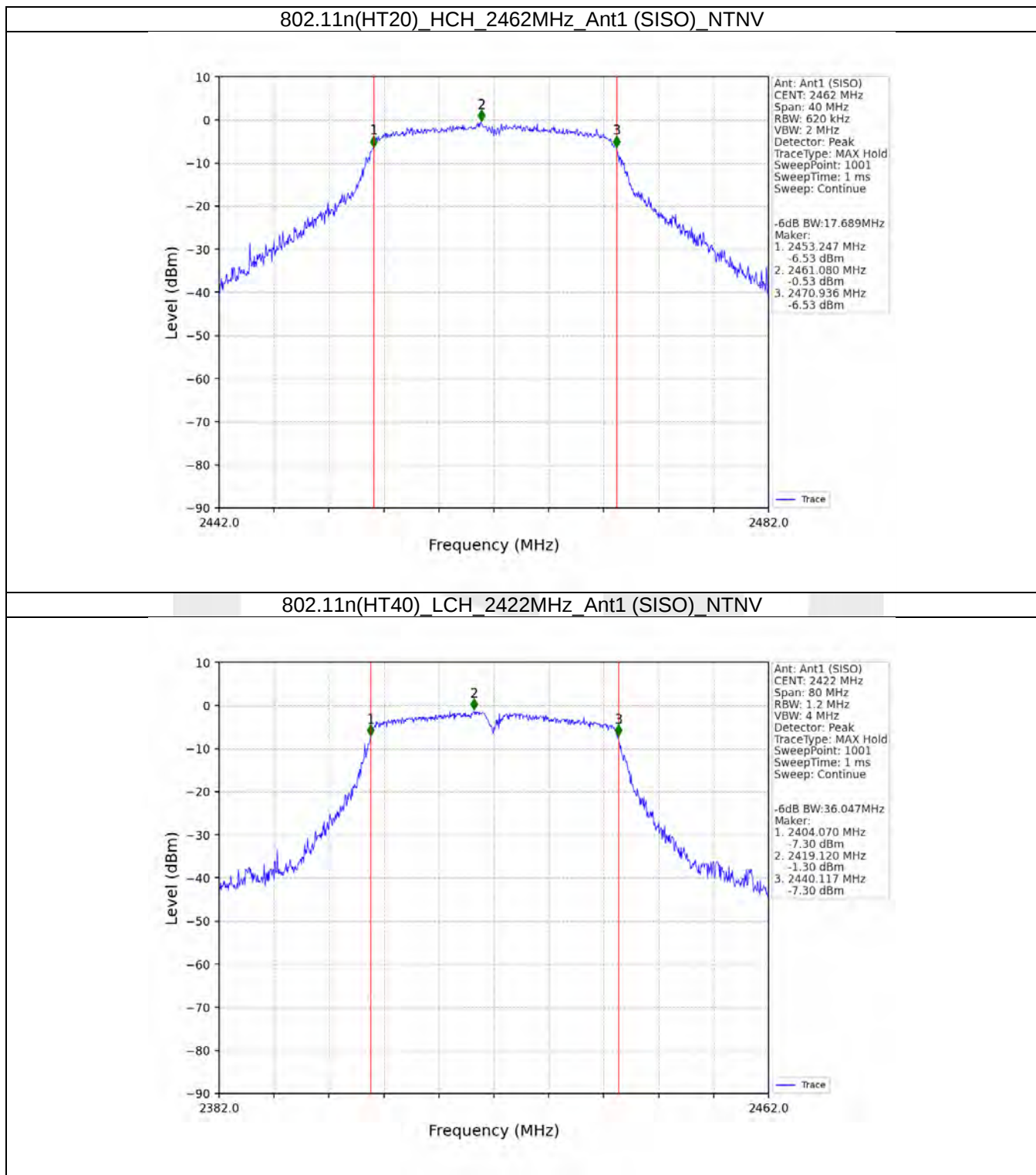
2.2.2 6dB BW

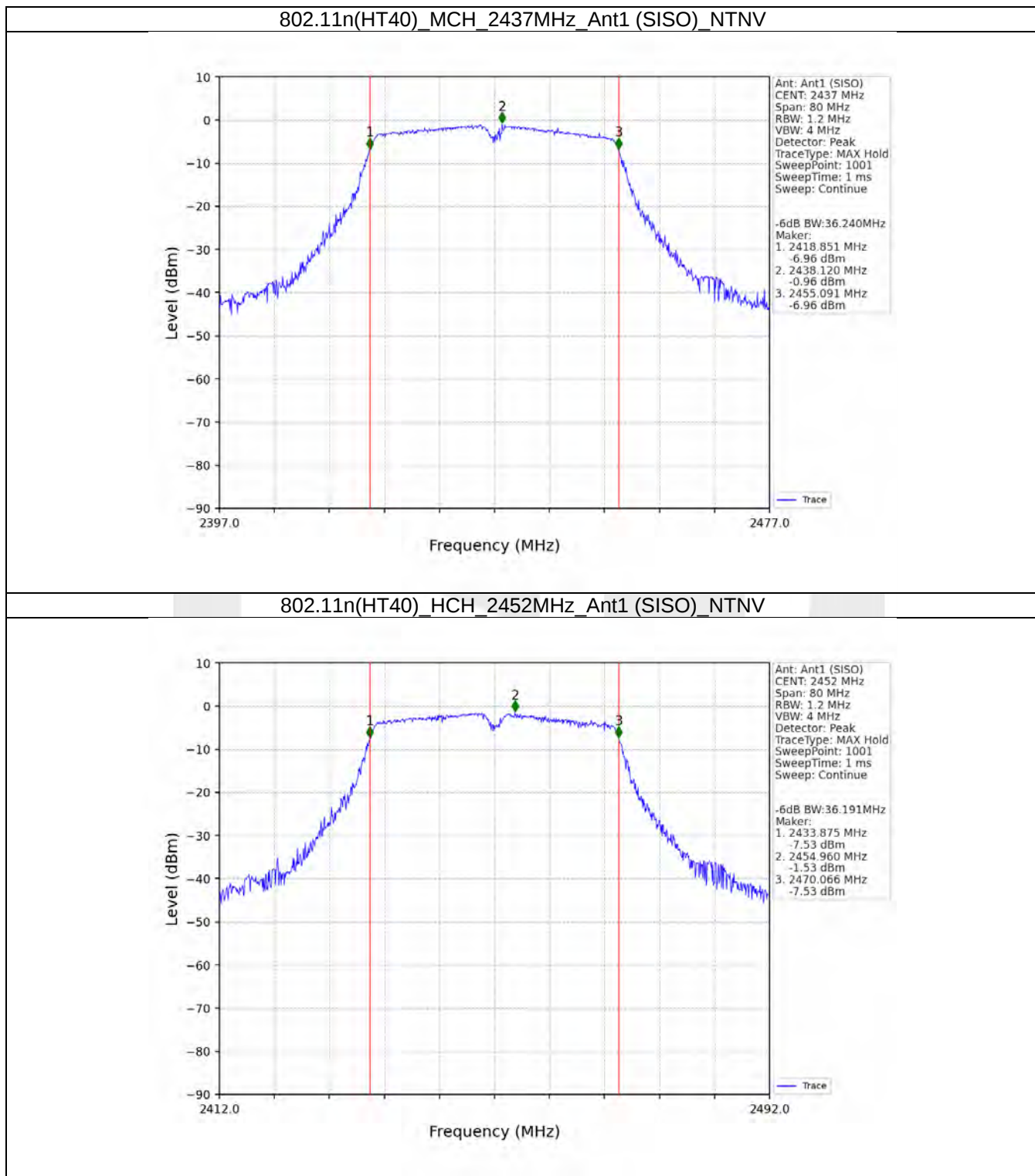


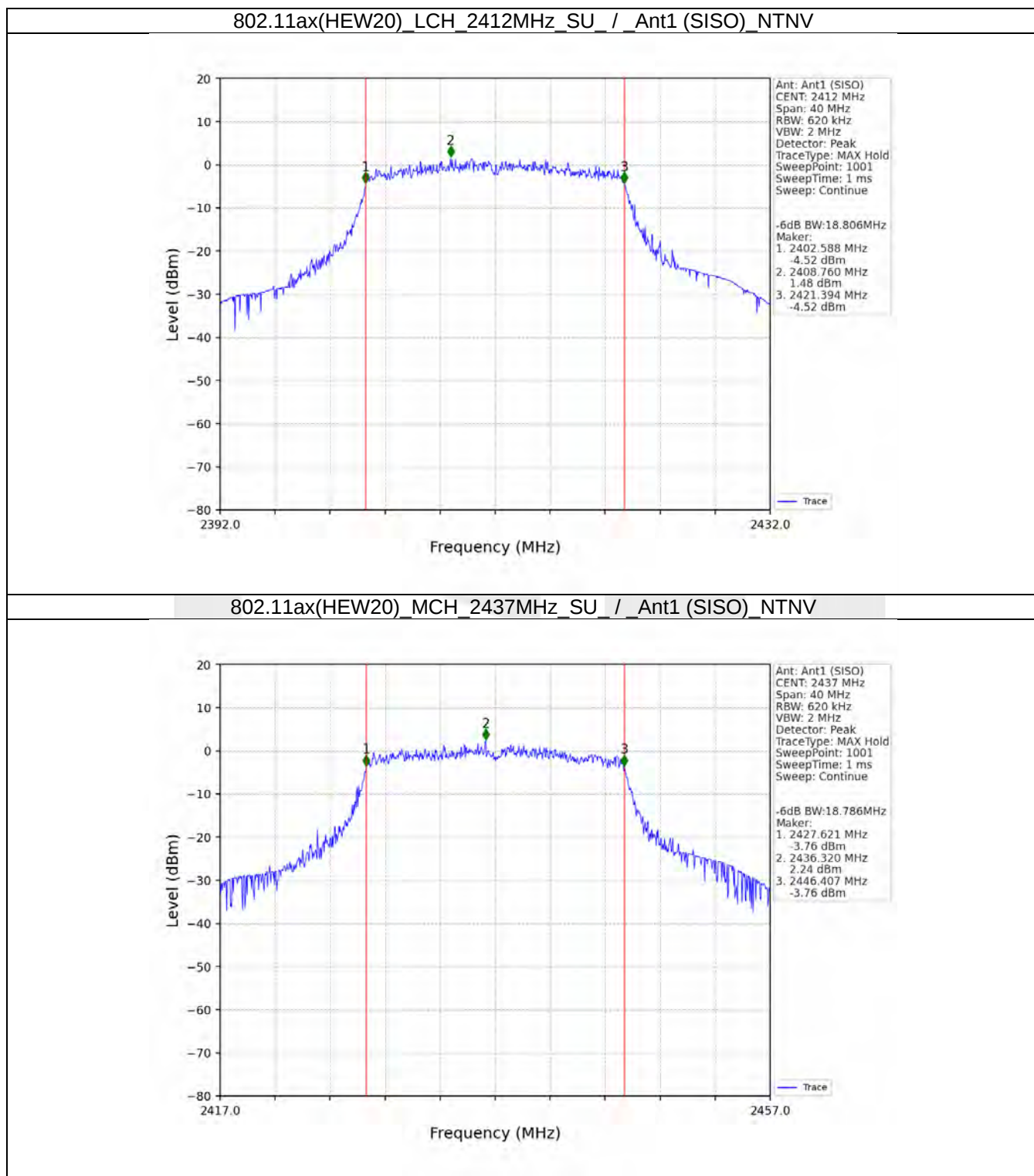


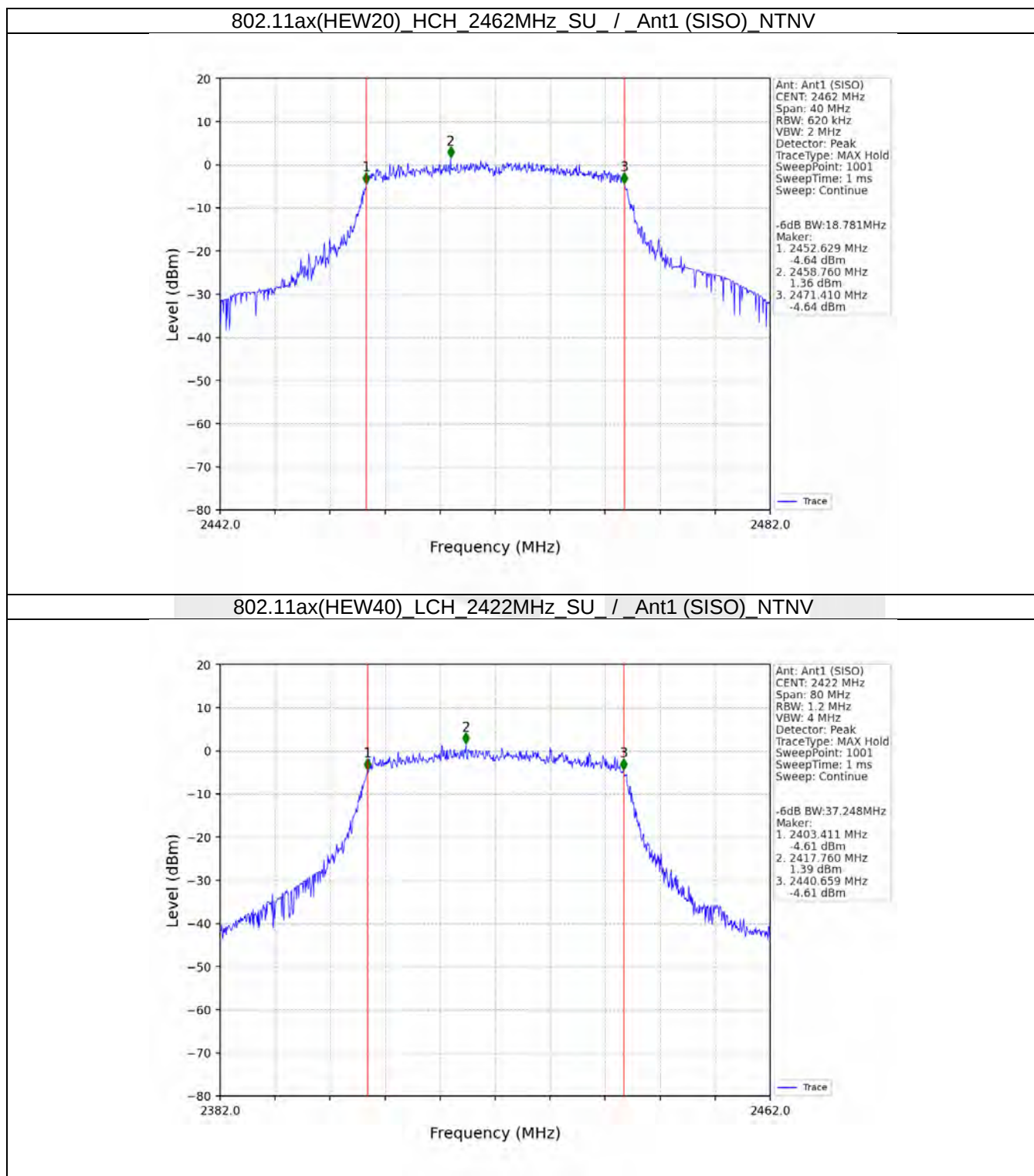




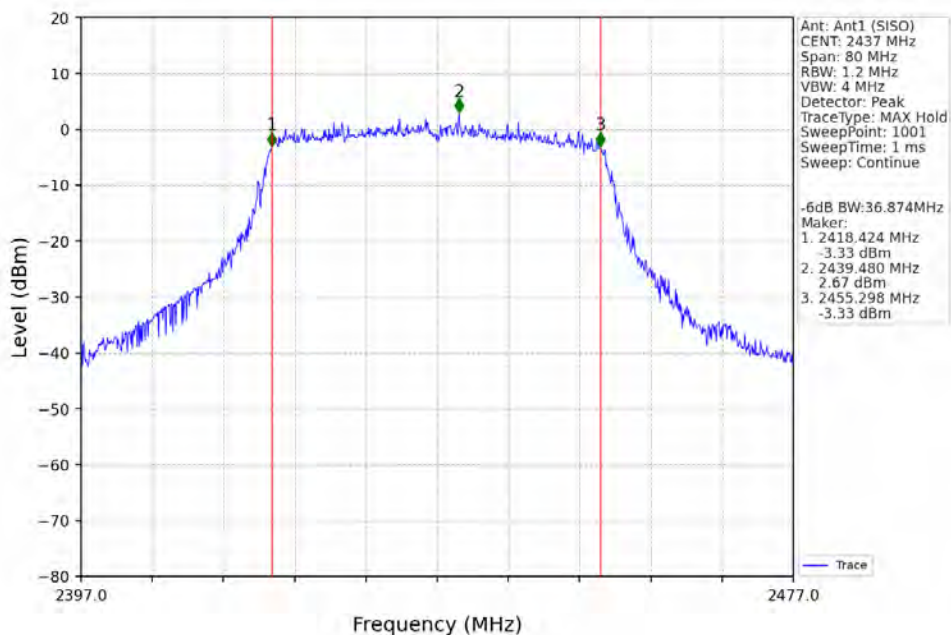




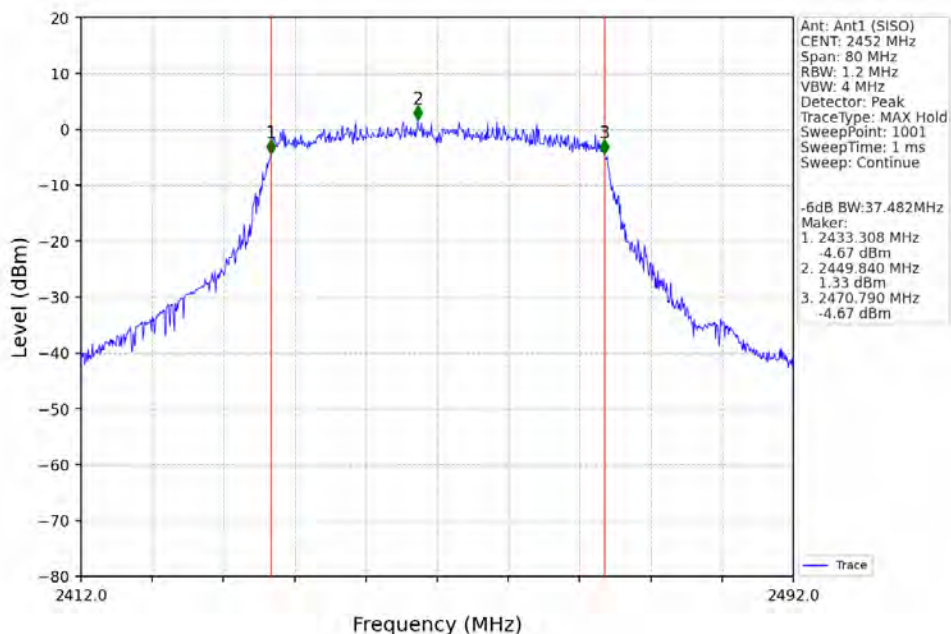




802.11ax(HEW40)_MCH_2437MHz_SU / _Ant1 (SISO)_NTNV



802.11ax(HEW40)_HCH_2452MHz_SU / _Ant1 (SISO)_NTNV



3. Maximum Conducted Output Power

3.1 Test Result

3.1.1 Power

Mode	TX Type	Frequency (MHz)	RU	RU Pos	Maximum Peak Conducted Output Power (dBm)		Verdict
					ANT1	Limit	
802.11b	SISO	2412	/	/	12.80	<=30	Pass
		2437	/	/	11.92	<=30	Pass
		2462	/	/	11.66	<=30	Pass
802.11g	SISO	2412	/	/	14.23	<=30	Pass
		2437	/	/	14.48	<=30	Pass
		2462	/	/	14.49	<=30	Pass
802.11n (HT20)	SISO	2412	/	/	13.59	<=30	Pass
		2437	/	/	12.82	<=30	Pass
		2462	/	/	12.29	<=30	Pass
802.11n (HT40)	SISO	2422	/	/	10.33	<=30	Pass
		2437	/	/	10.69	<=30	Pass
		2452	/	/	10.43	<=30	Pass
802.11ax (HEW20)	SISO	2412	SU	/	12.50	<=30	Pass
		2437	SU	/	12.99	<=30	Pass
		2462	SU	/	12.34	<=30	Pass
802.11ax (HEW40)	SISO	2422	SU	/	11.92	<=30	Pass
		2437	SU	/	12.93	<=30	Pass
		2452	SU	/	12.19	<=30	Pass

4. Maximum Power Spectral Density

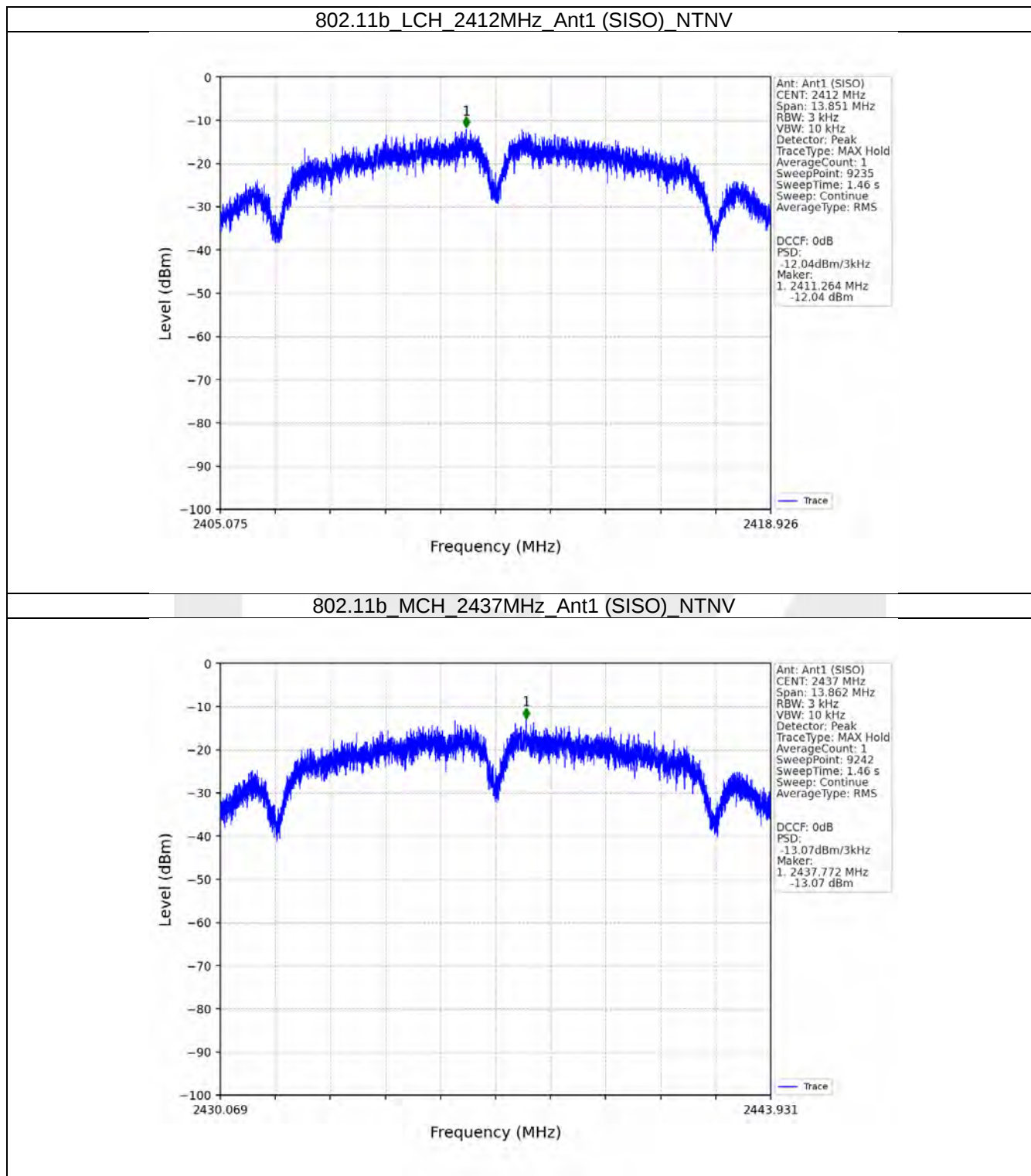
4.1 Test Result

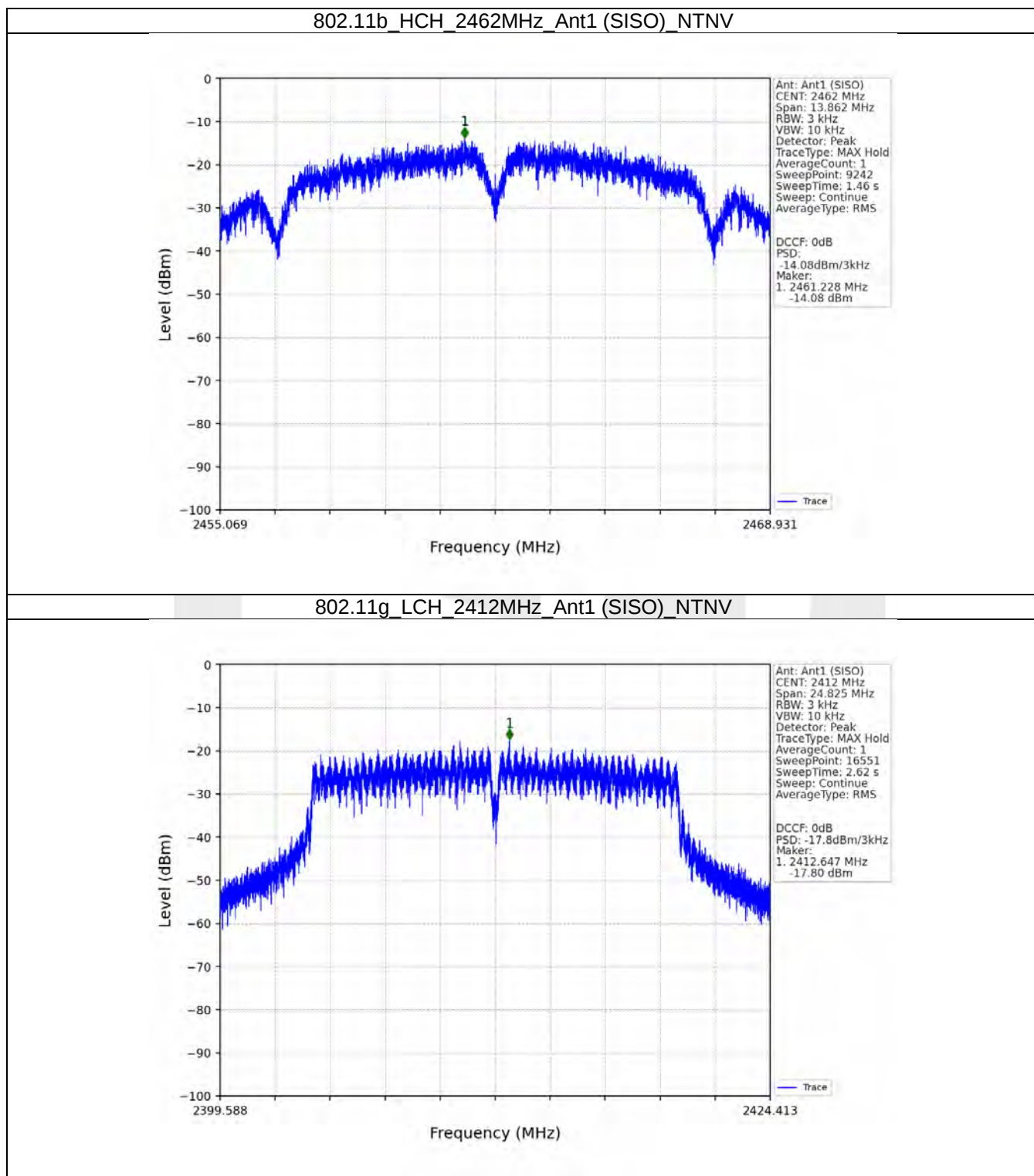
4.1.1 PSD

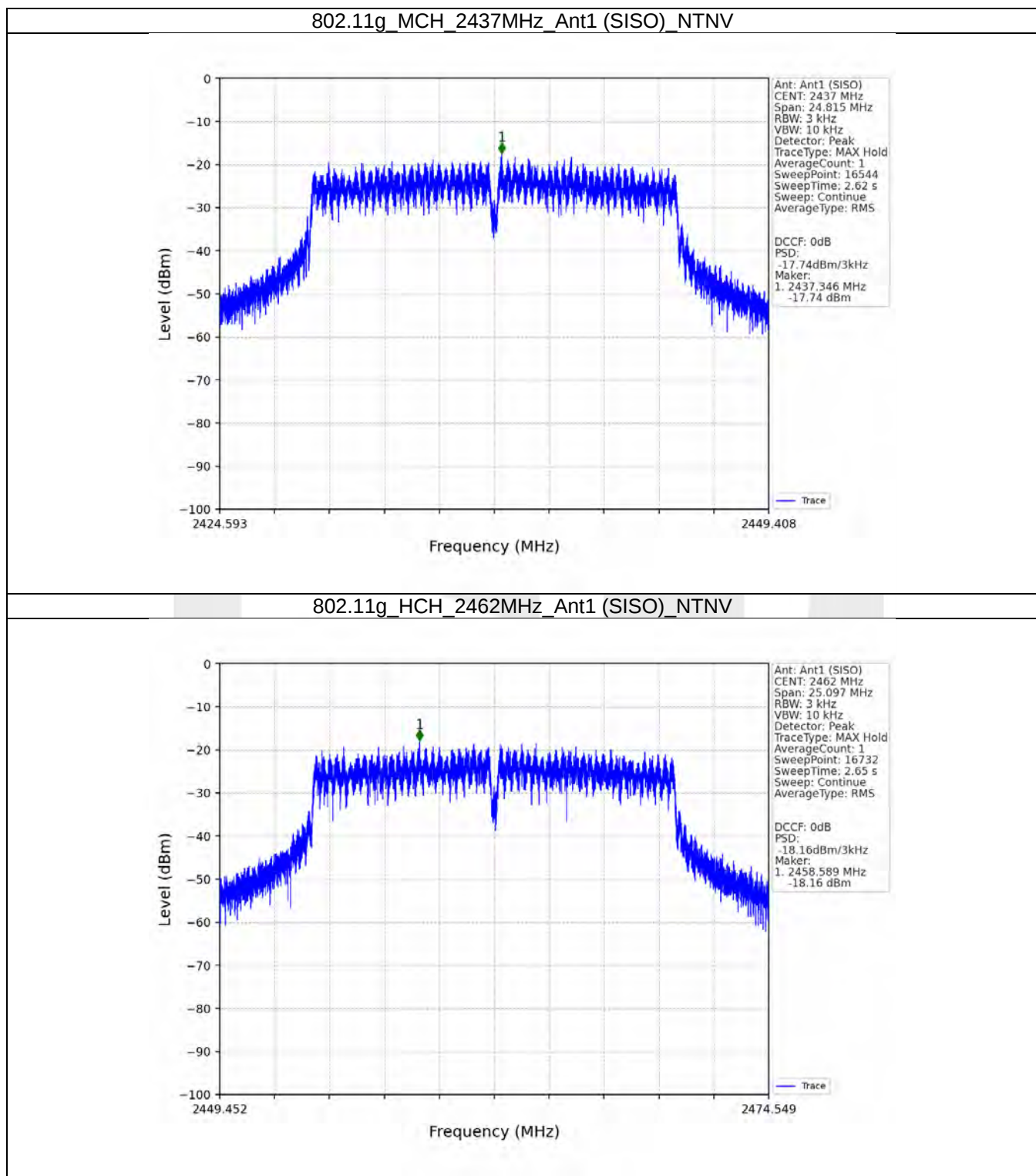
Mode	TX Type	Frequency (MHz)	RU	RU Pos	Maximum PSD (dBm/3kHz)		Verdict
					ANT1	Limit	
802.11b	SISO	2412	/	/	-12.04	<=8	Pass
		2437	/	/	-13.07	<=8	Pass
		2462	/	/	-14.08	<=8	Pass
802.11g	SISO	2412	/	/	-17.80	<=8	Pass
		2437	/	/	-17.74	<=8	Pass
		2462	/	/	-18.16	<=8	Pass
802.11n (HT20)	SISO	2412	/	/	-19.09	<=8	Pass
		2437	/	/	-18.84	<=8	Pass
		2462	/	/	-20.02	<=8	Pass
802.11n (HT40)	SISO	2422	/	/	-24.20	<=8	Pass
		2437	/	/	-24.40	<=8	Pass
		2452	/	/	-25.54	<=8	Pass
802.11ax (HEW20)	SISO	2412	SU	/	-21.65	<=8	Pass
		2437	SU	/	-21.72	<=8	Pass
		2462	SU	/	-22.08	<=8	Pass
802.11ax (HEW40)	SISO	2422	SU	/	-24.66	<=8	Pass
		2437	SU	/	-24.47	<=8	Pass
		2452	SU	/	-23.83	<=8	Pass

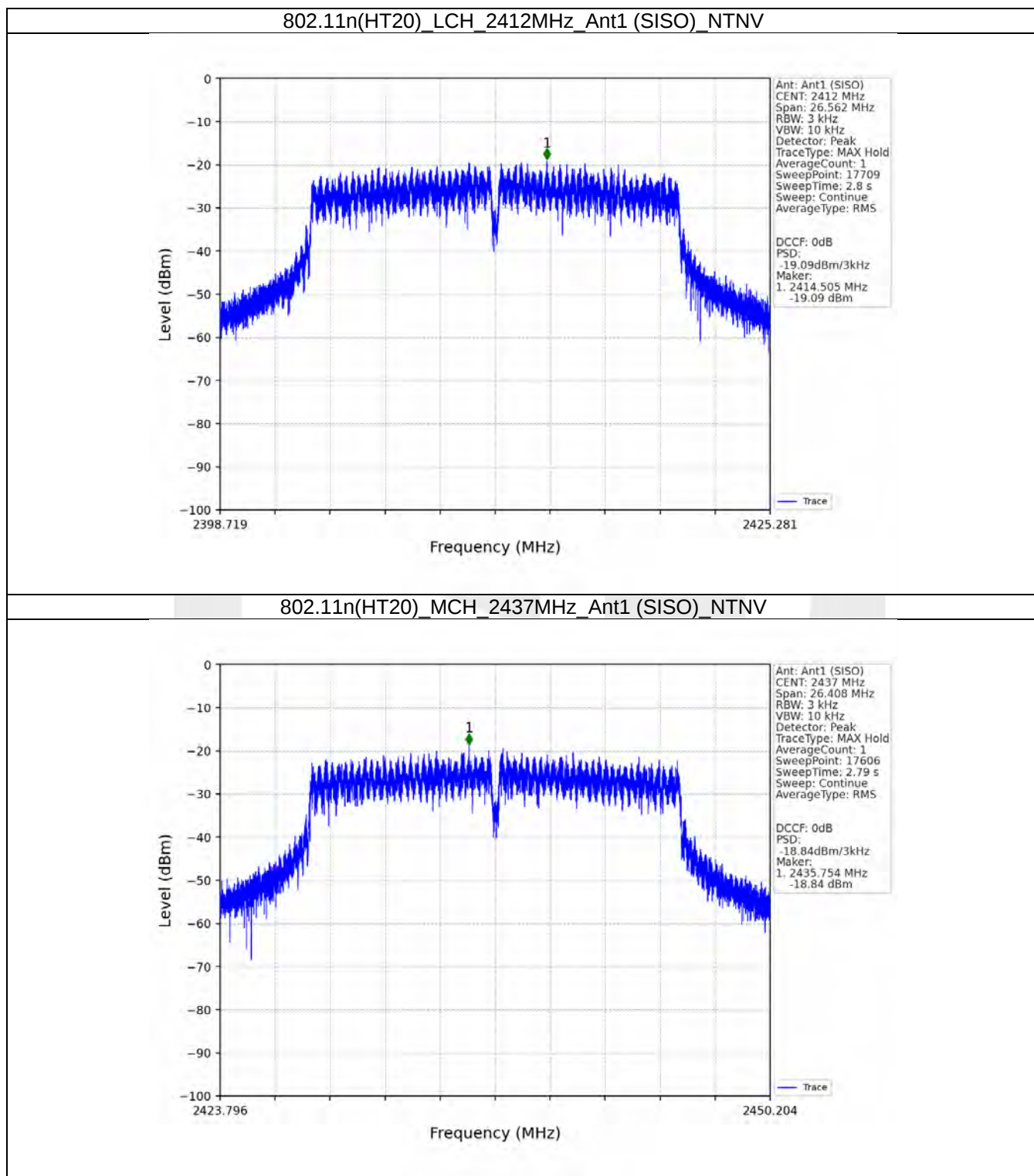
4.2 Test Graph

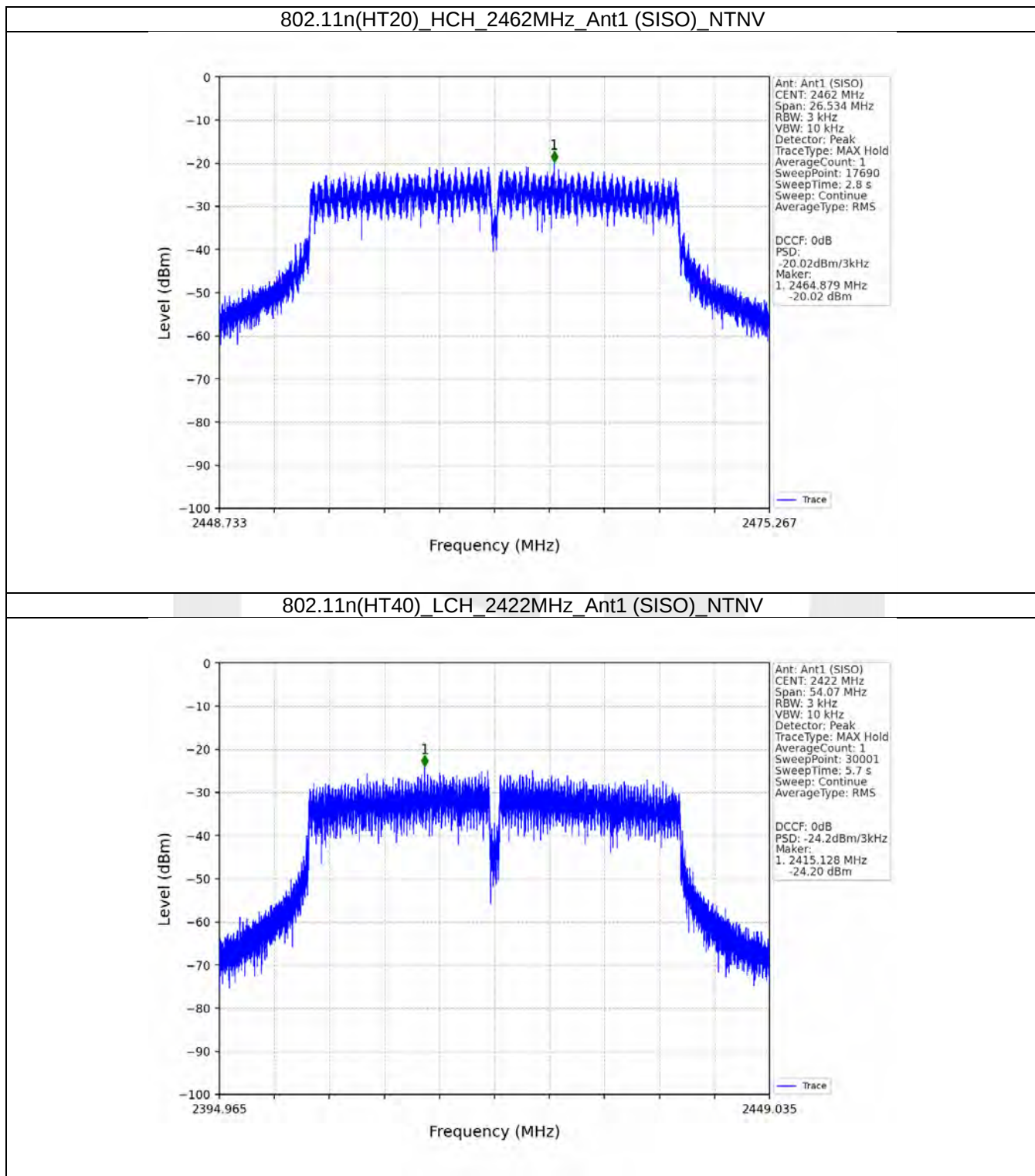
4.2.1 PSD

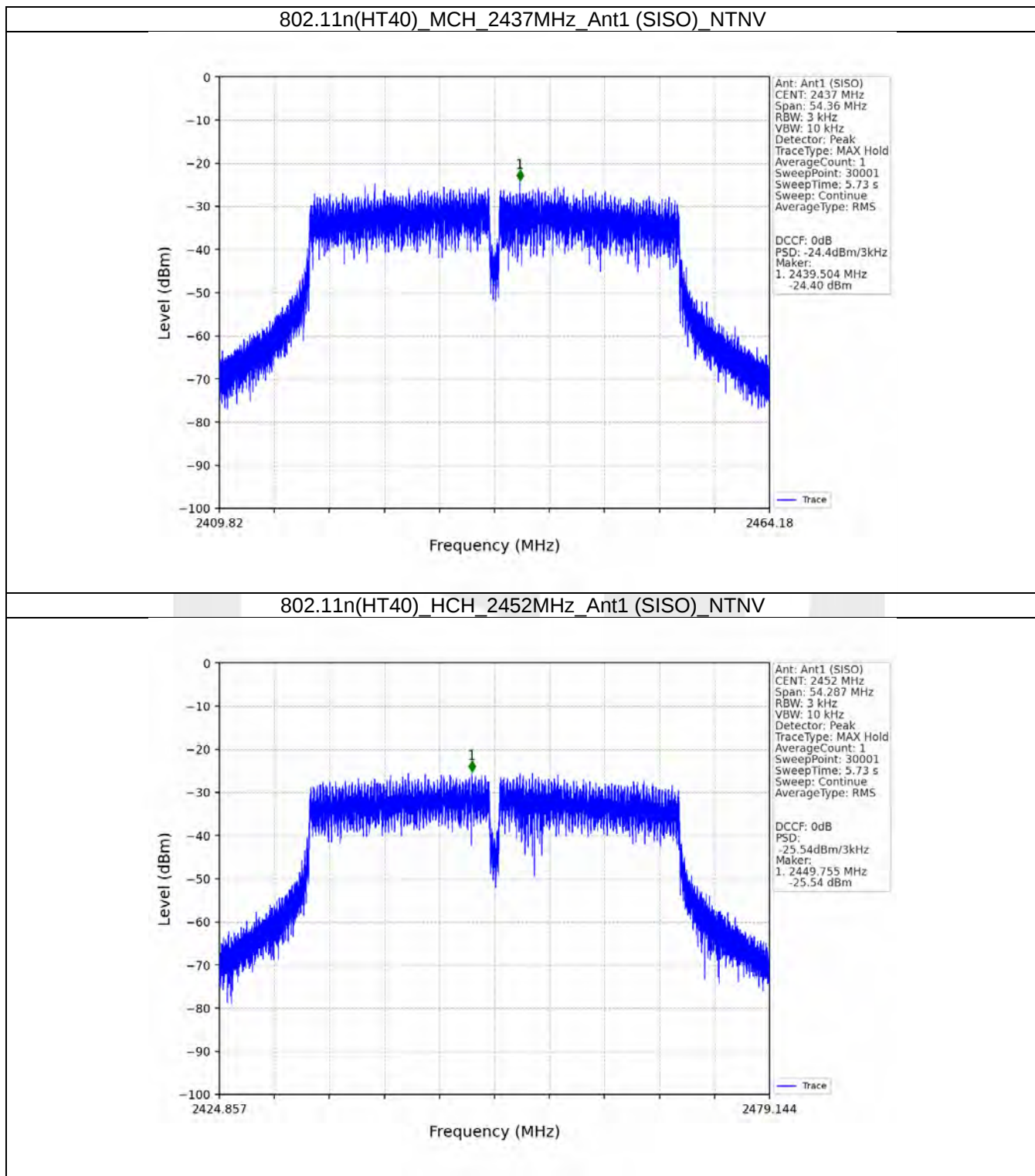


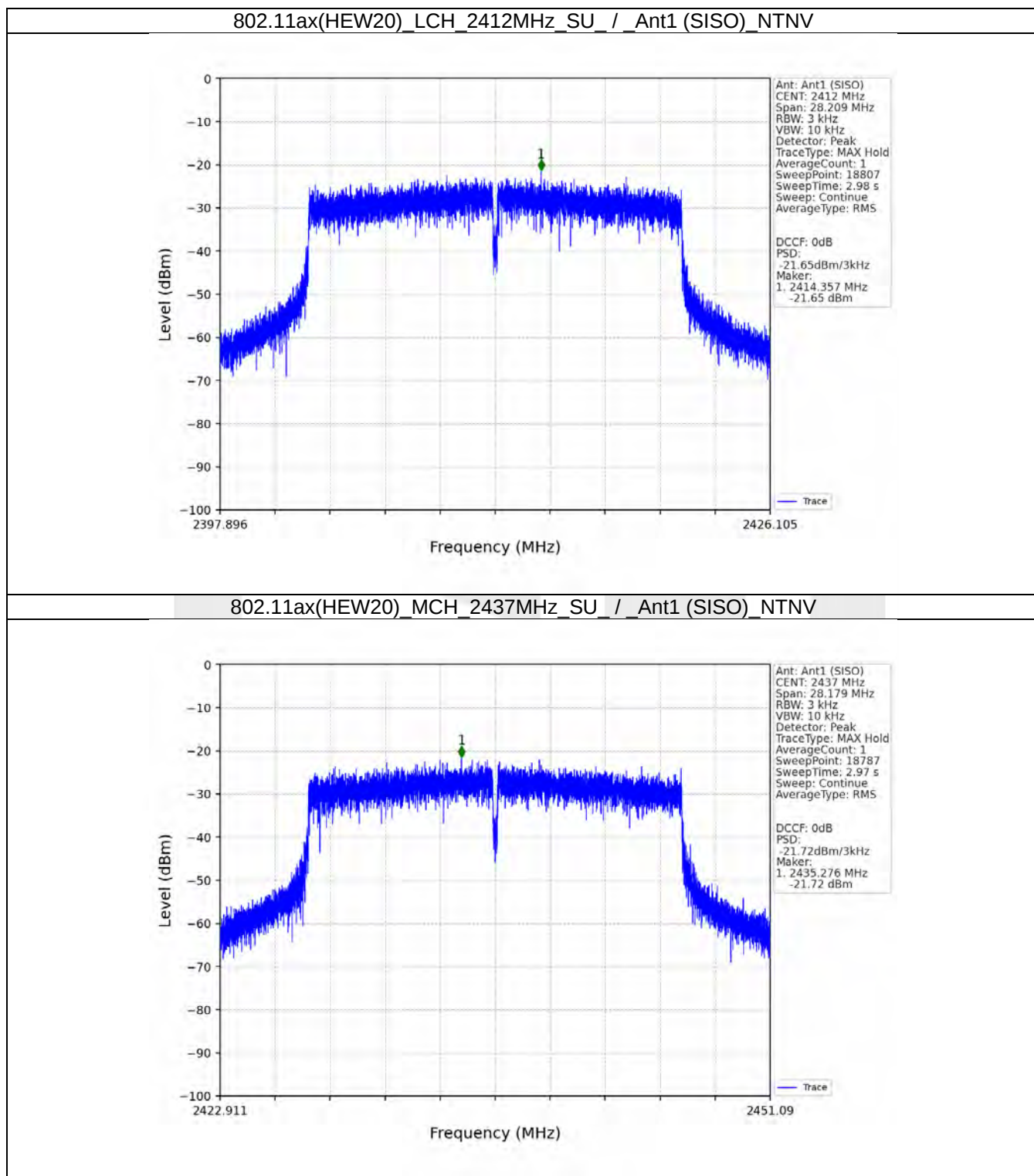


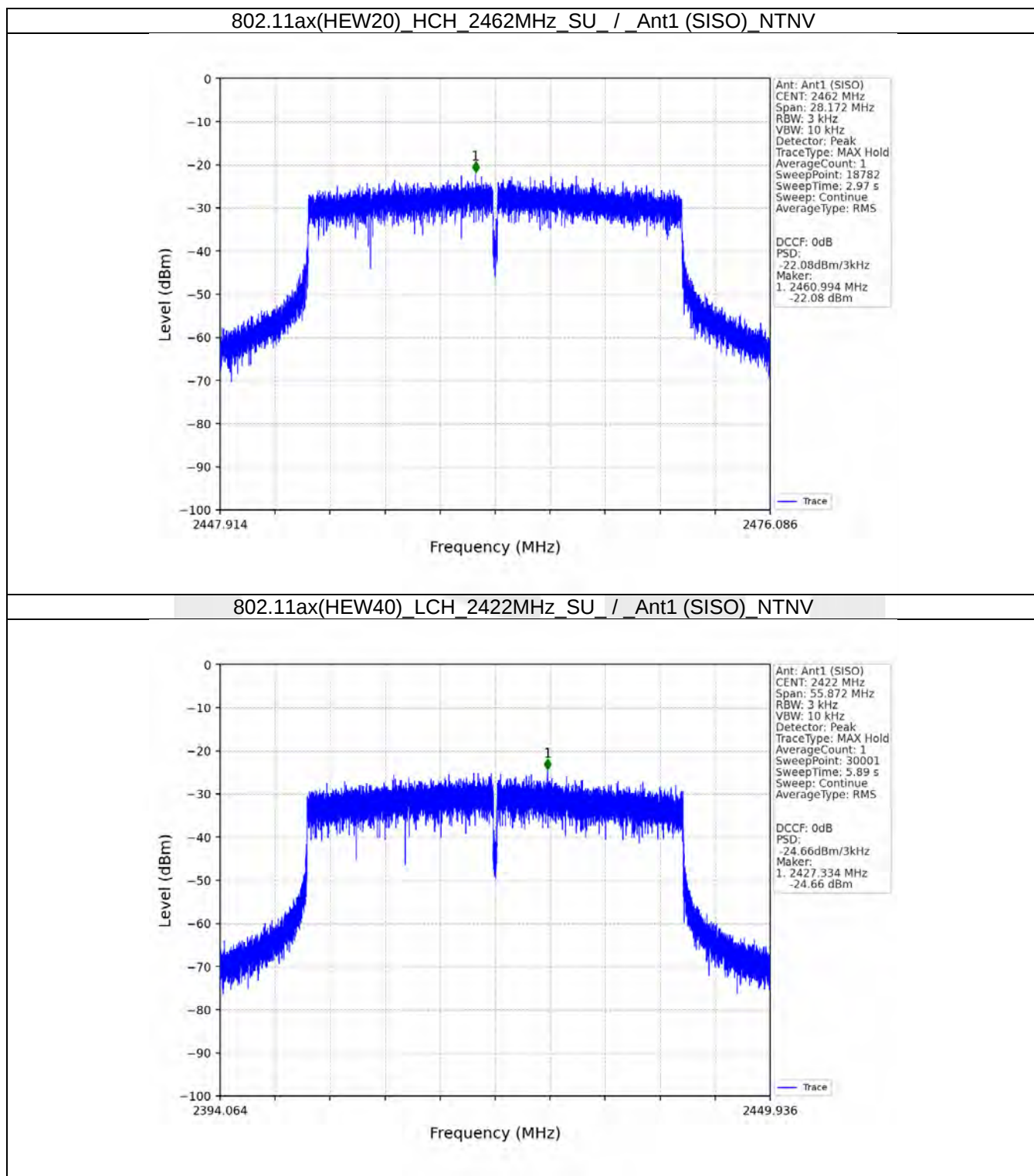


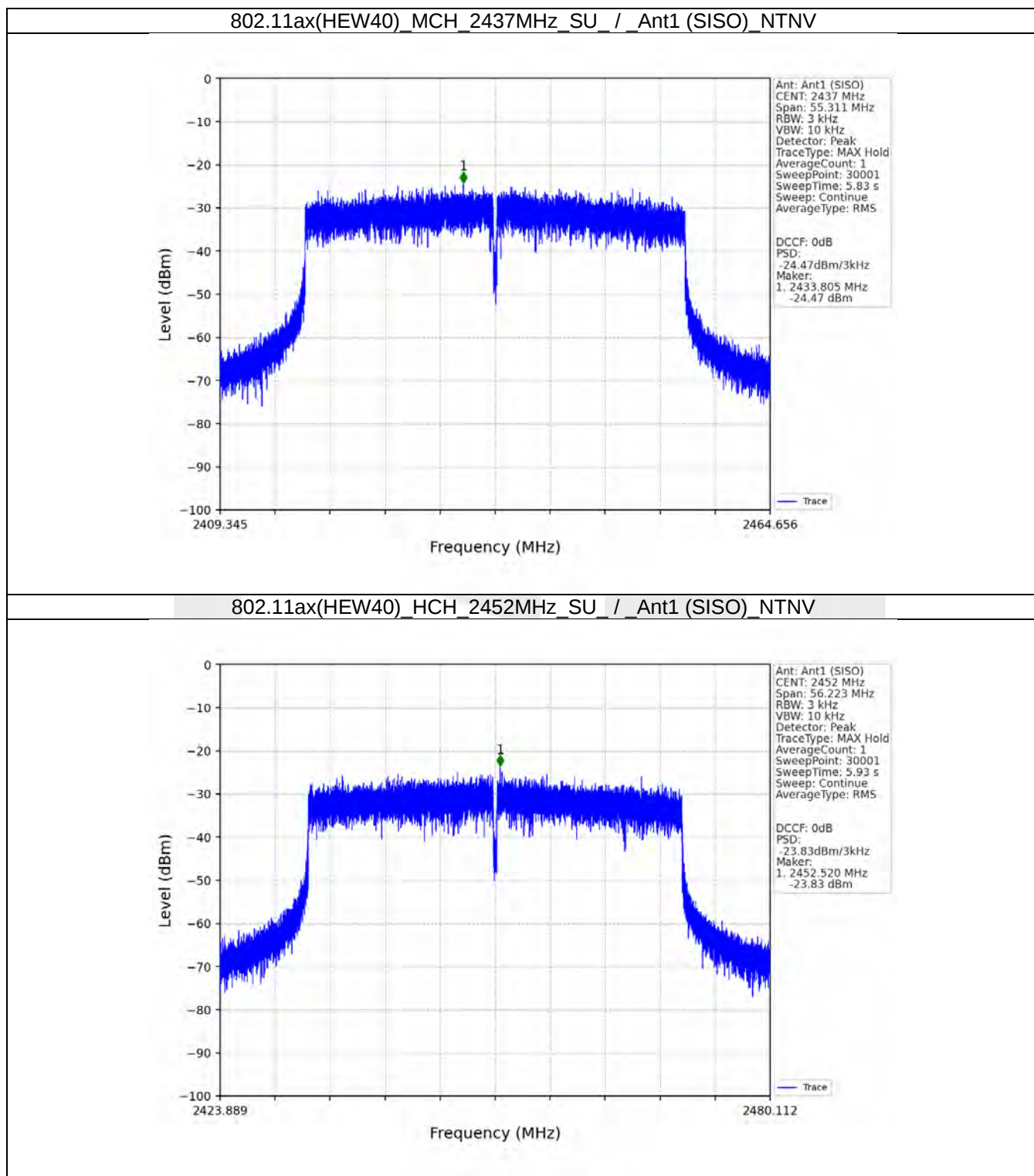












5. Unwanted Emissions In Non-restricted Frequency Bands

5.1 Test Result

5.1.1 Ref

Mode	TX Type	Frequency (MHz)	RU	RU Pos	ANT	Level of Reference (dBm)
802.11b	SISO	2412	/	/	1	2.08
		2437	/	/	1	1.14
		2462	/	/	1	0.87
802.11g	SISO	2412	/	/	1	-4.99
		2437	/	/	1	-4.28
		2462	/	/	1	-4.33
802.11n (HT20)	SISO	2412	/	/	1	-5.81
		2437	/	/	1	-5.46
		2462	/	/	1	-6.70
802.11n (HT40)	SISO	2422	/	/	1	2.41
		2437	/	/	1	-10.66
		2452	/	/	1	-12.60
802.11ax (HEW20)	SISO	2412	SU	/	1	-7.30
		2437	SU	/	1	-7.78
		2462	SU	/	1	-8.18
802.11ax (HEW40)	SISO	2422	SU	/	1	-10.05
		2437	SU	/	1	-9.60
		2452	SU	/	1	-9.73

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.

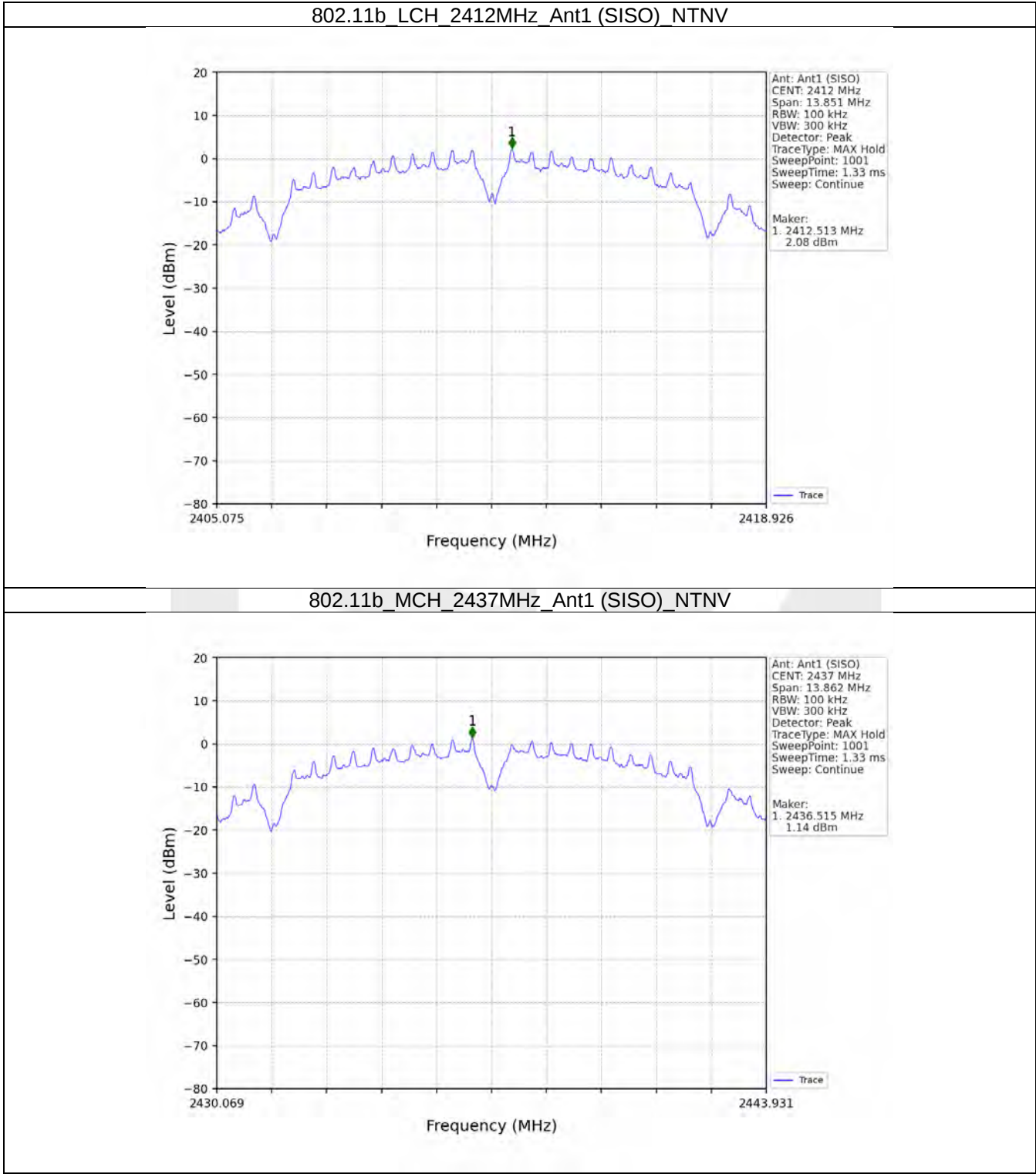
5.1.2 CSE

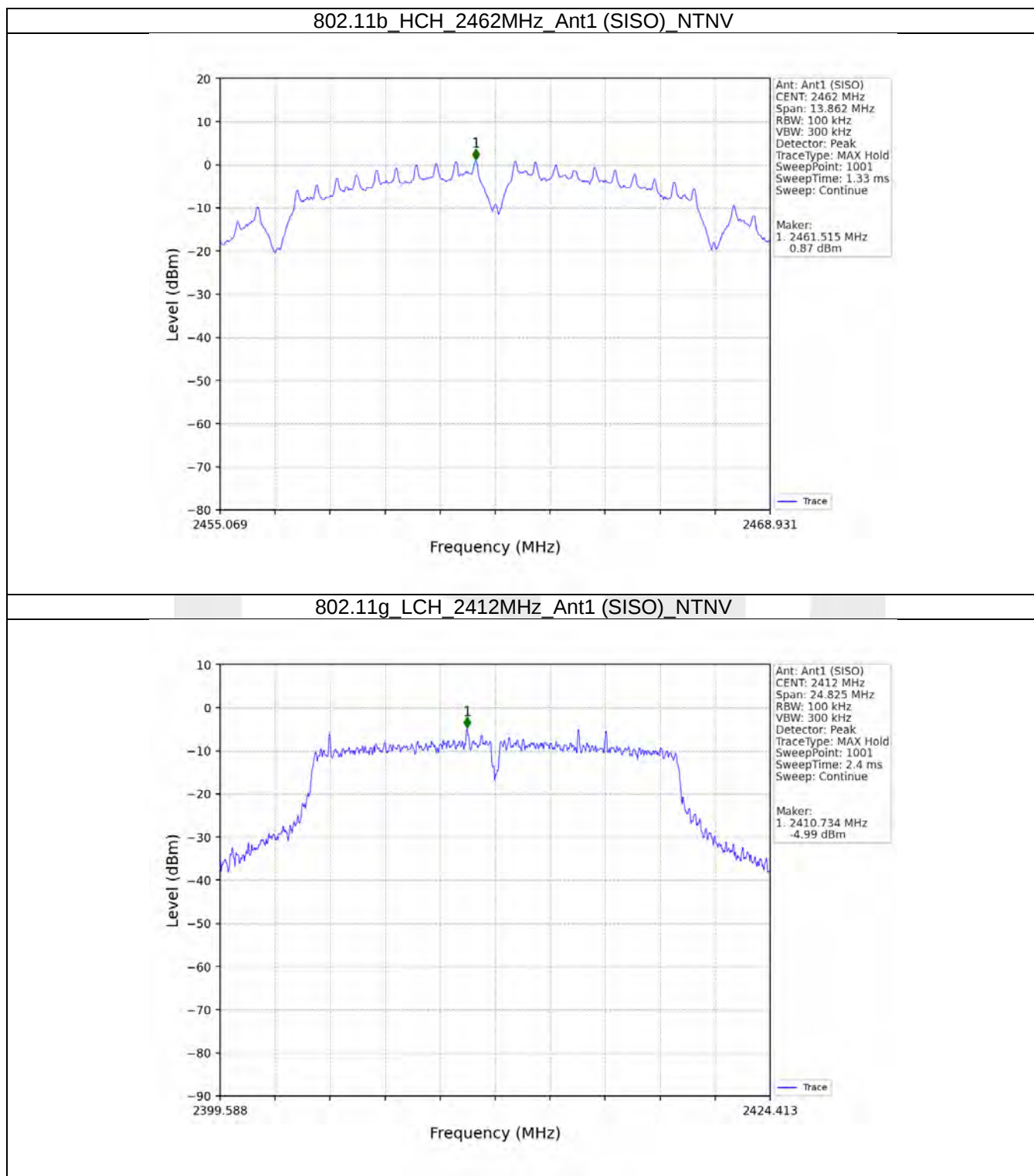
Mode	TX Type	Frequency (MHz)	RU	RU Pos	ANT	Level of Reference (dBm)	Limit (dBm)	Verdict
802.11b	SISO	2412	/	/	1	2.08	-17.92	Pass
		2437	/	/	1	1.14	-18.86	Pass
		2462	/	/	1	0.87	-19.13	Pass
802.11g	SISO	2412	/	/	1	-4.99	-24.99	Pass
		2437	/	/	1	-4.28	-24.28	Pass
		2462	/	/	1	-4.33	-24.33	Pass
802.11n (HT20)	SISO	2412	/	/	1	-5.81	-25.81	Pass
		2437	/	/	1	-5.46	-25.46	Pass
		2462	/	/	1	-6.70	-26.70	Pass
802.11n (HT40)	SISO	2422	/	/	1	2.41	-17.59	Pass
		2437	/	/	1	-10.66	-30.66	Pass
		2452	/	/	1	-12.60	-32.60	Pass
802.11ax (HEW20)	SISO	2412	SU	/	1	-7.30	-27.30	Pass
		2437	SU	/	1	-7.78	-27.78	Pass
		2462	SU	/	1	-8.18	-28.18	Pass
802.11ax (HEW40)	SISO	2422	SU	/	1	-10.05	-30.05	Pass
		2437	SU	/	1	-9.60	-29.60	Pass
		2452	SU	/	1	-9.73	-29.73	Pass

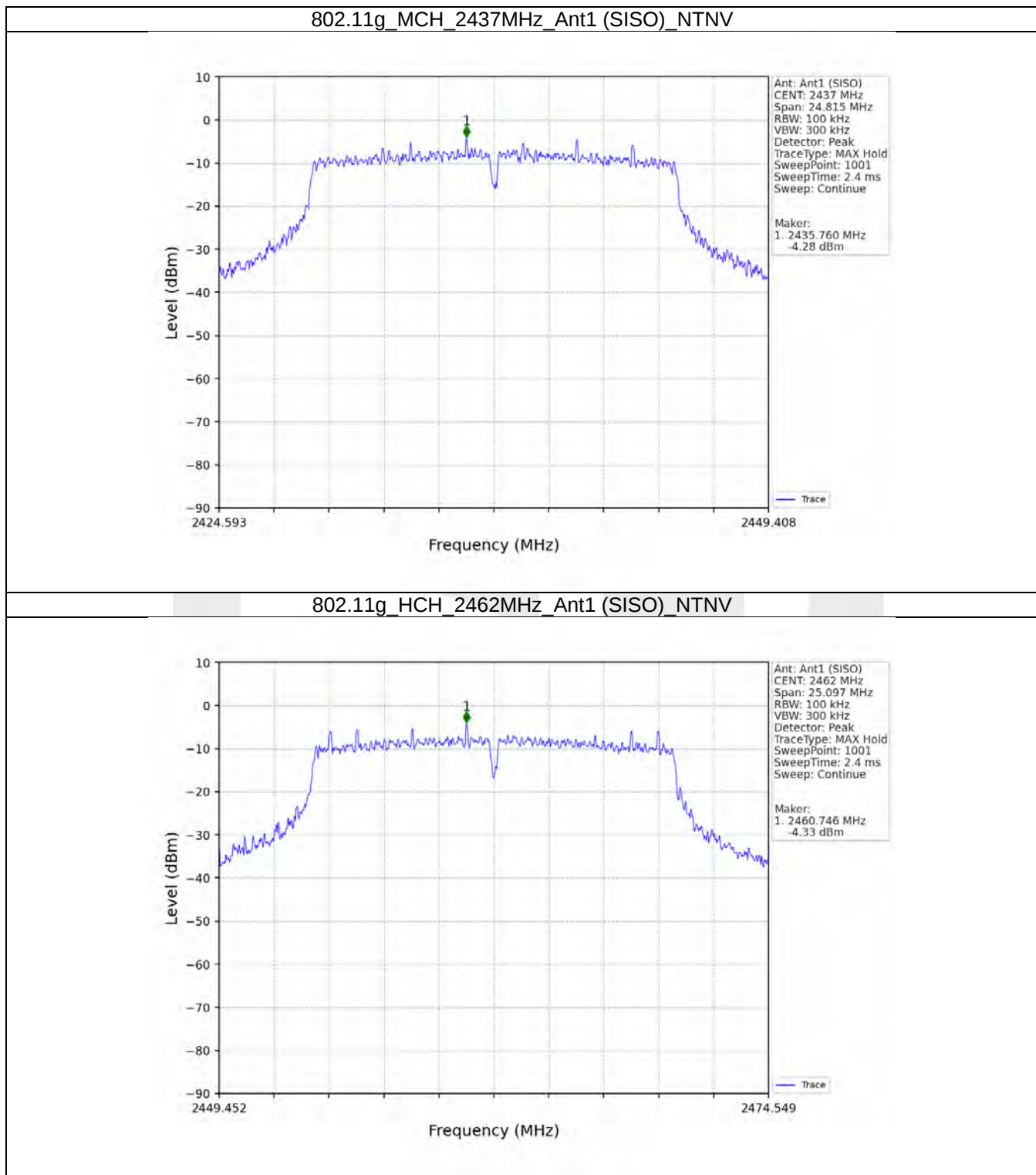
Note1: Refer to FCC Part 15.247 (d) and ANSI C63.10-2020, the channel contains the maximum PSD level was used to establish the reference level.

5.2 Test Graph

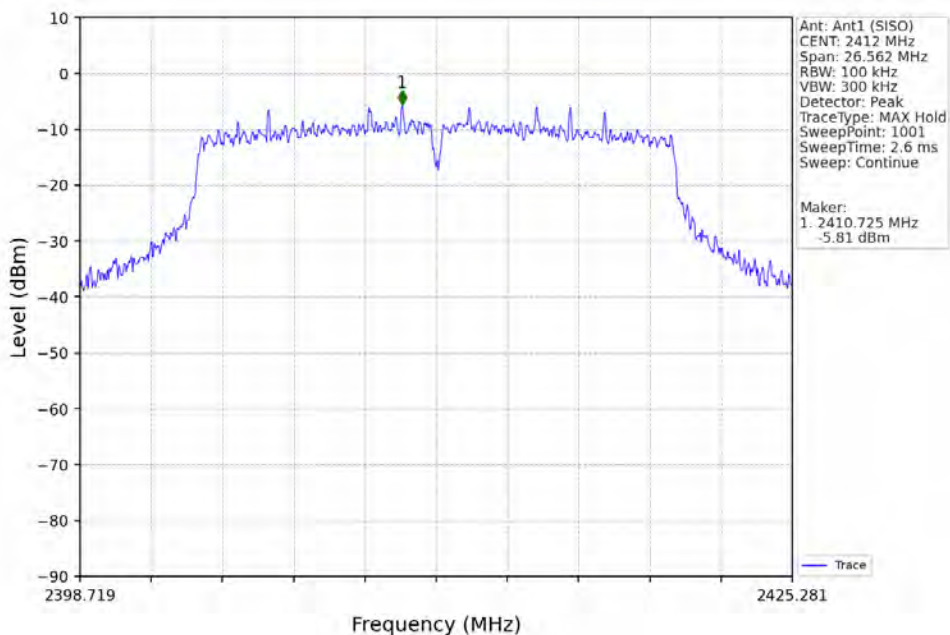
5.2.1 Ref



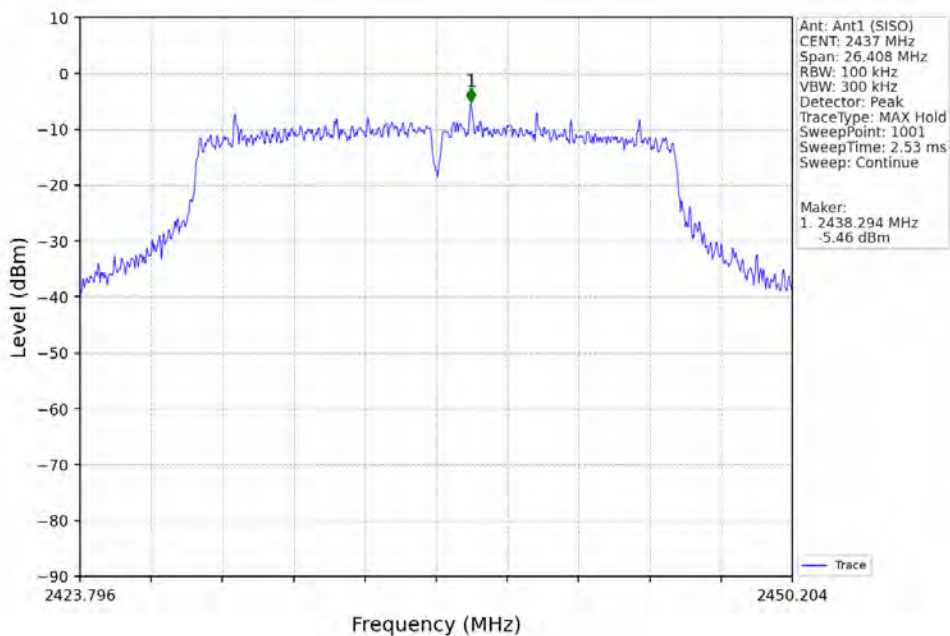


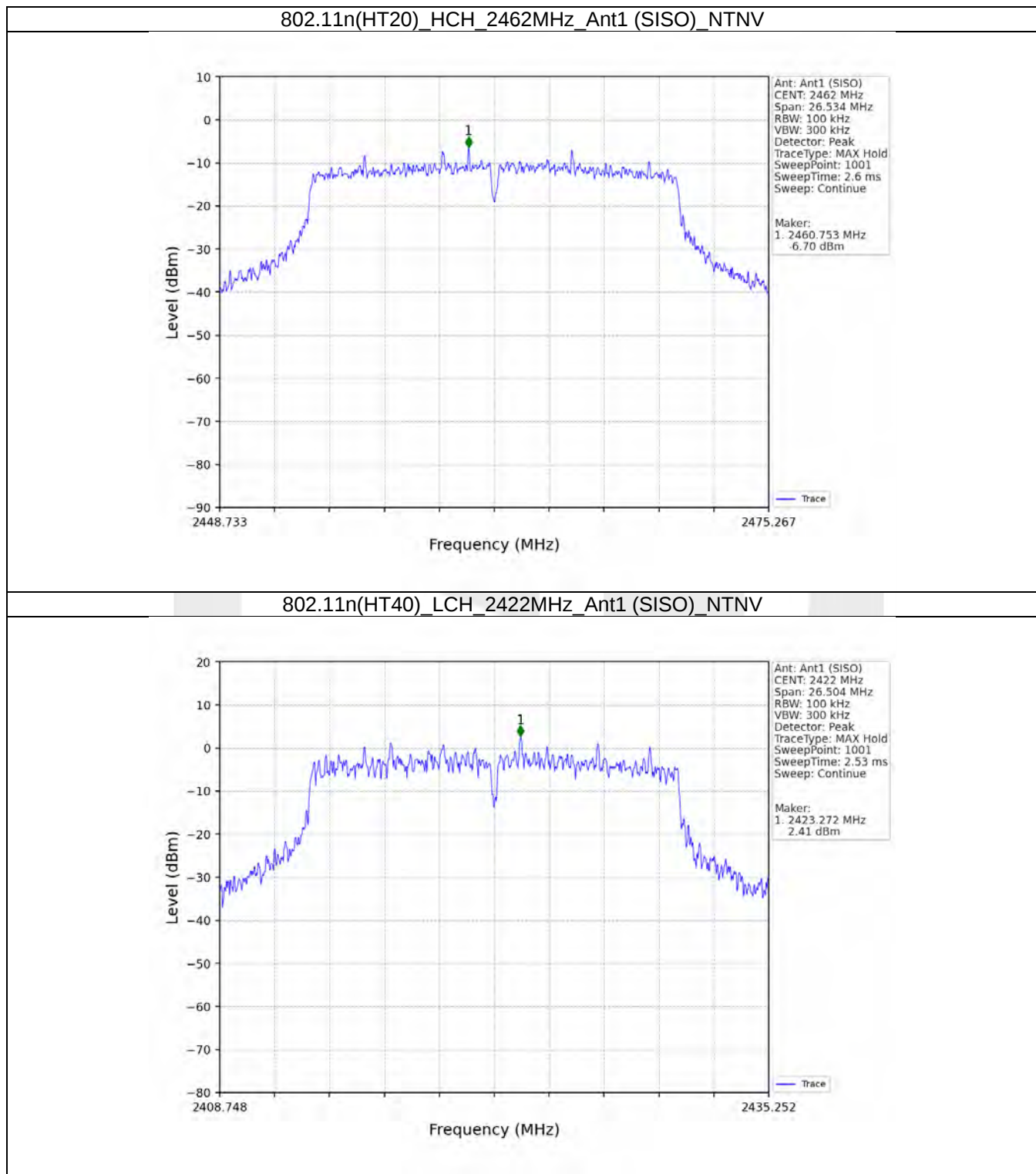


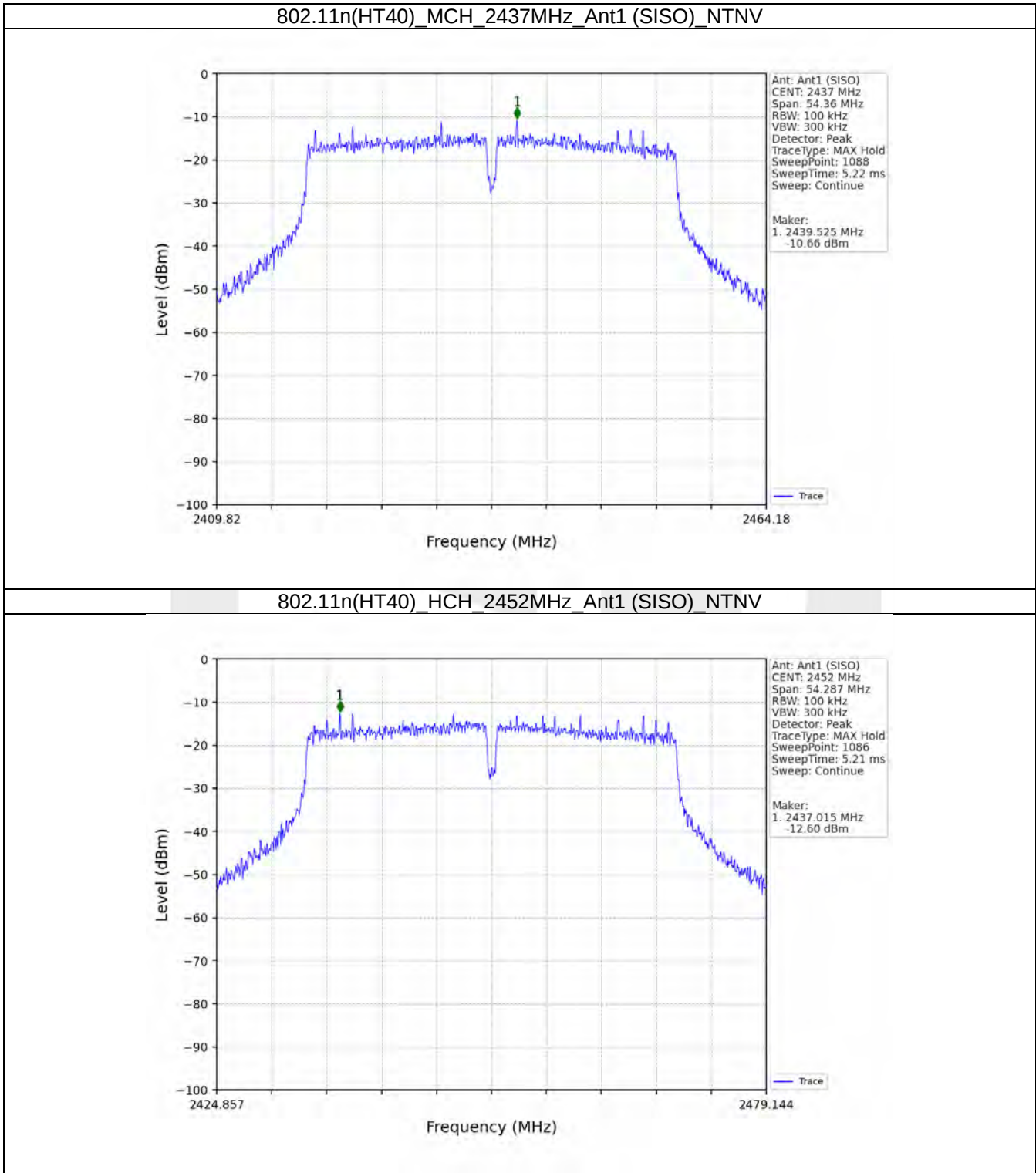
802.11n(HT20)_LCH_2412MHz_Ant1 (SISO)_NTNV

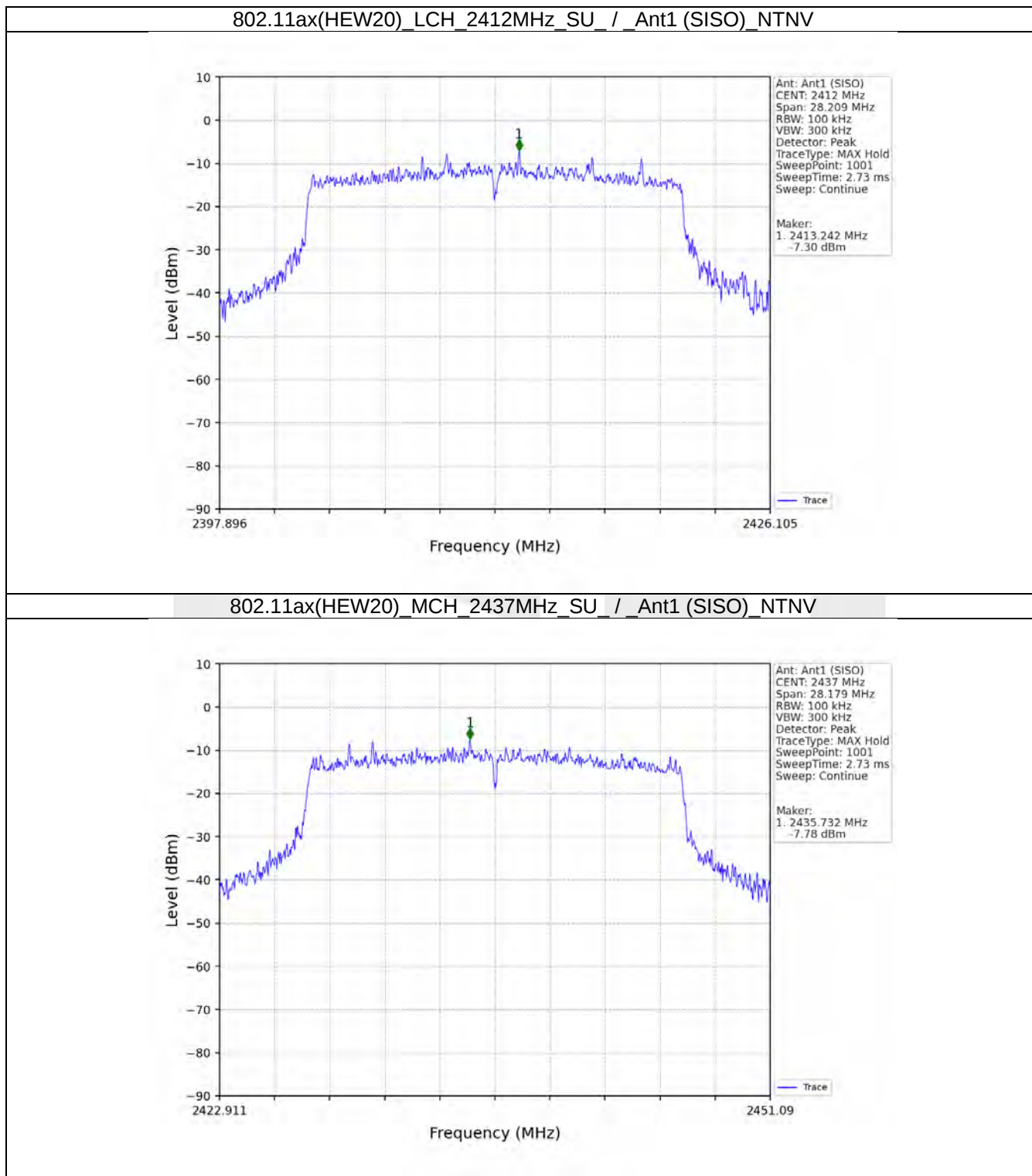


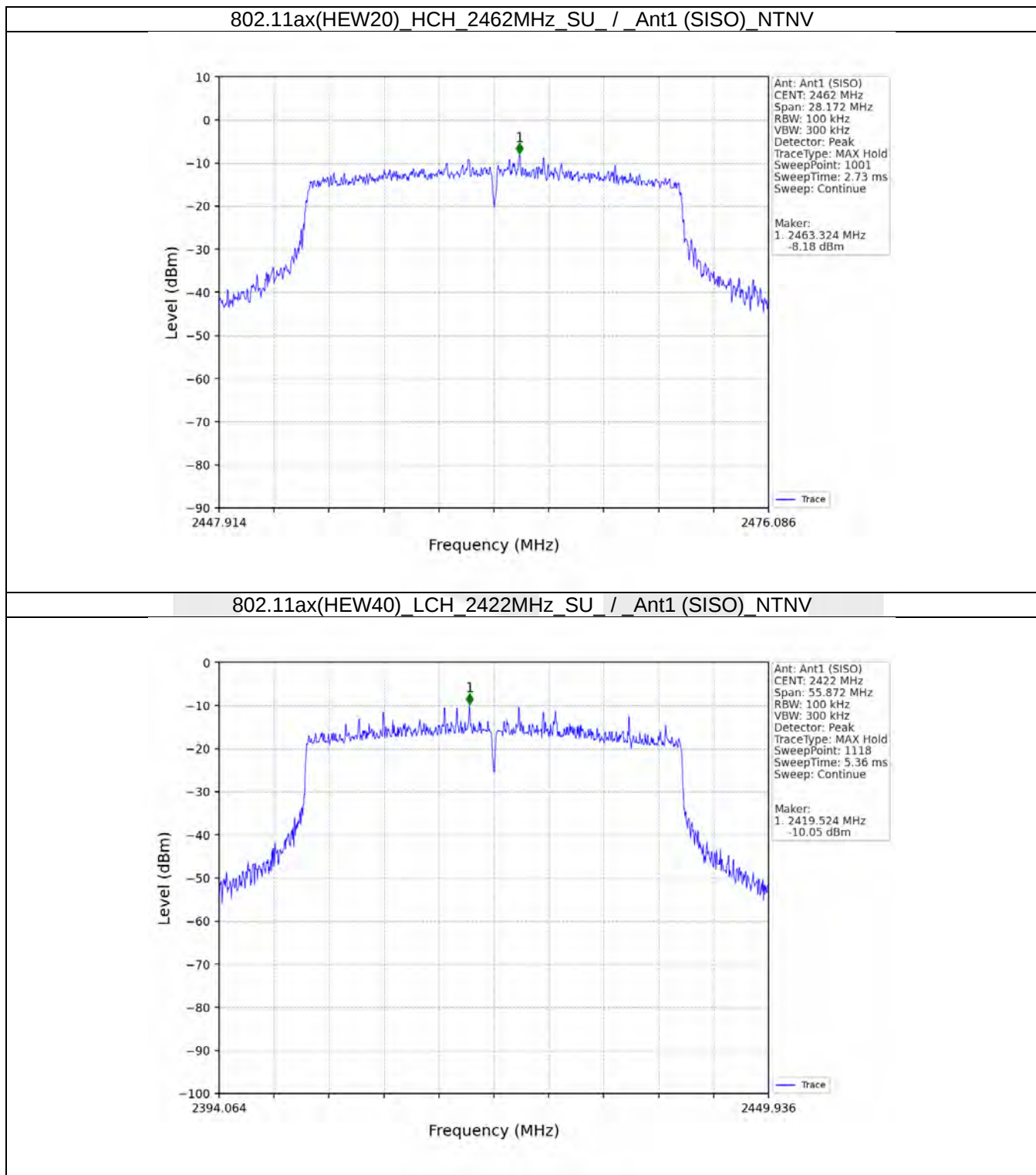
802.11n(HT20)_MCH_2437MHz_Ant1 (SISO)_NTNV

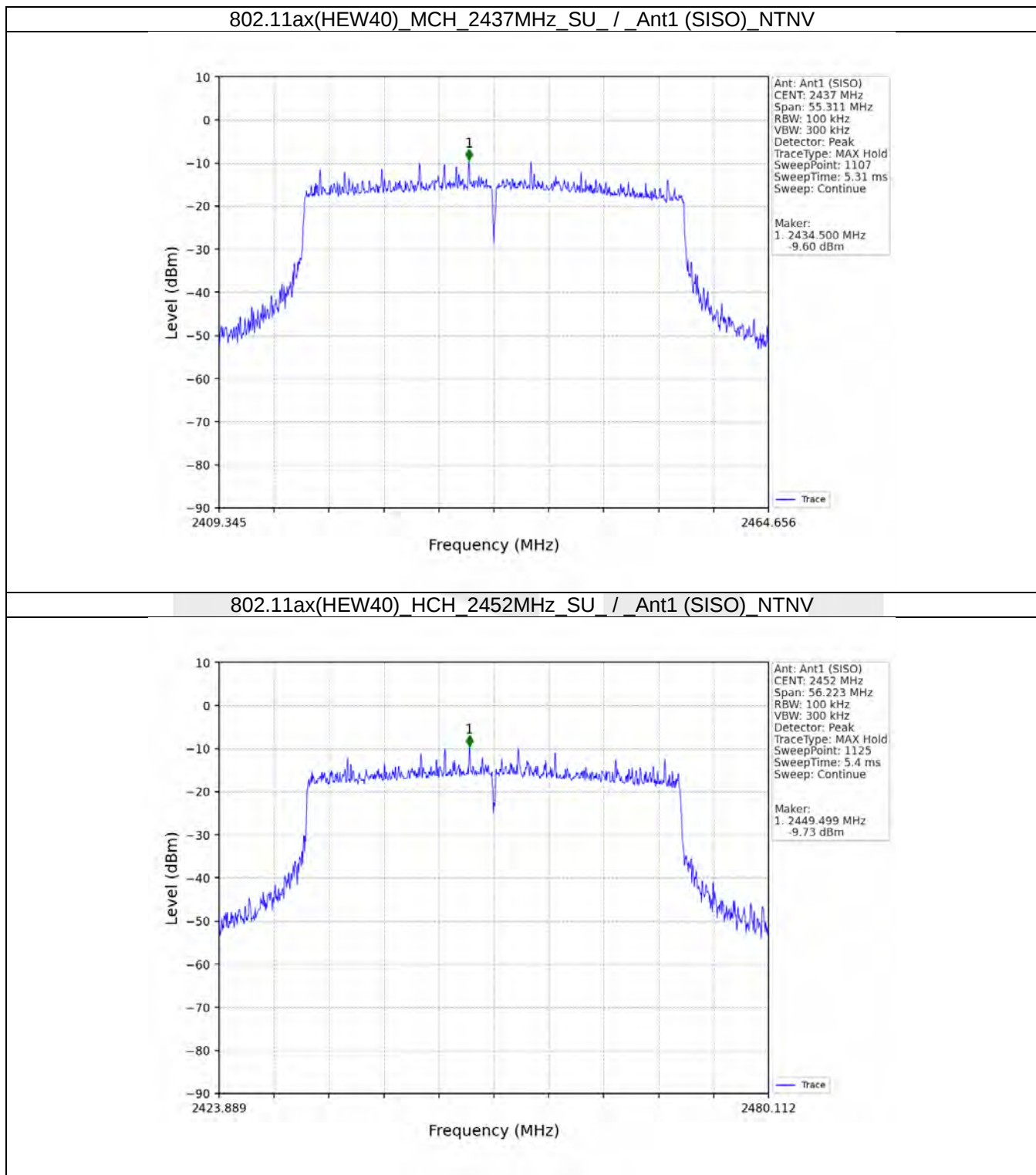




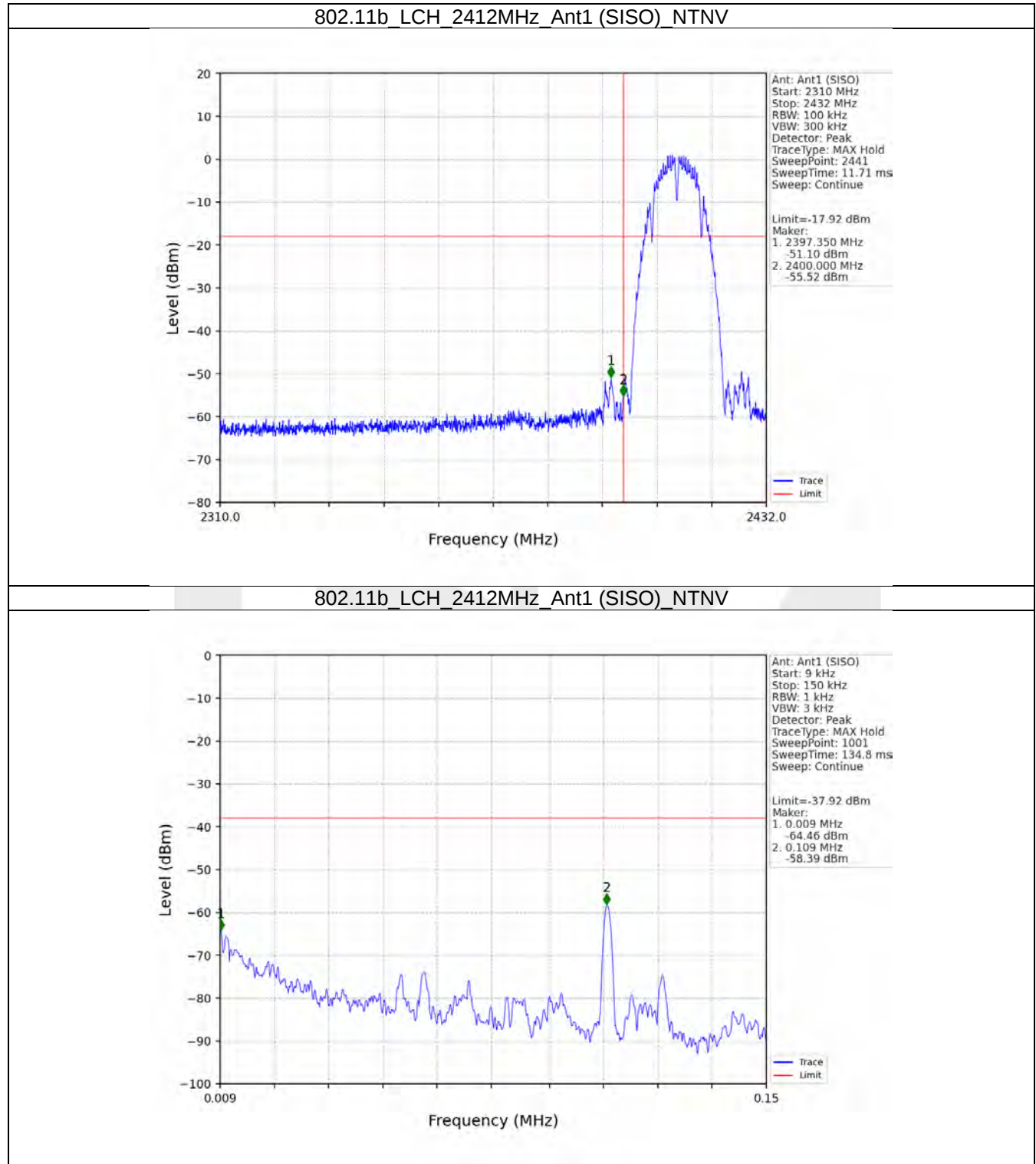


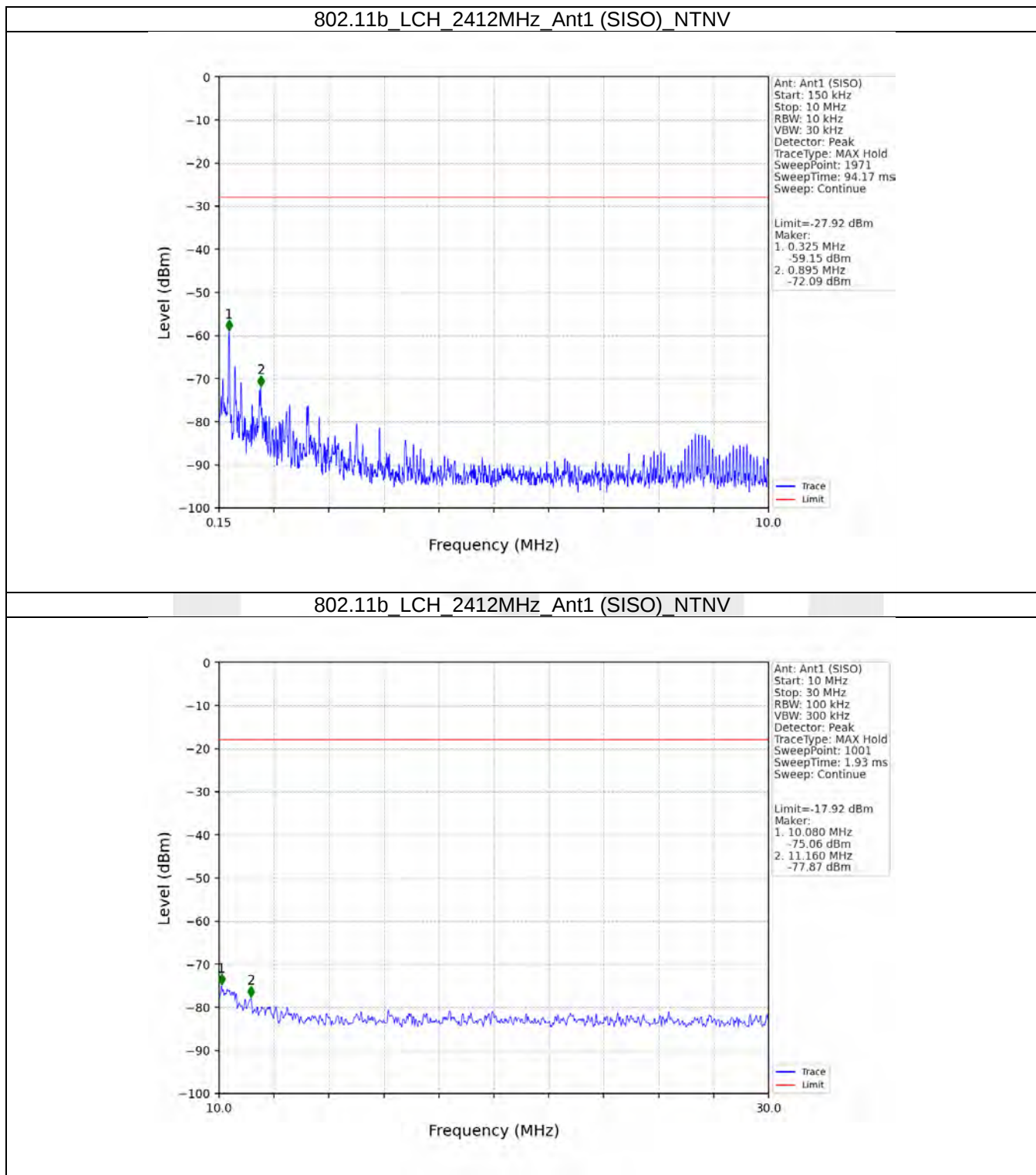


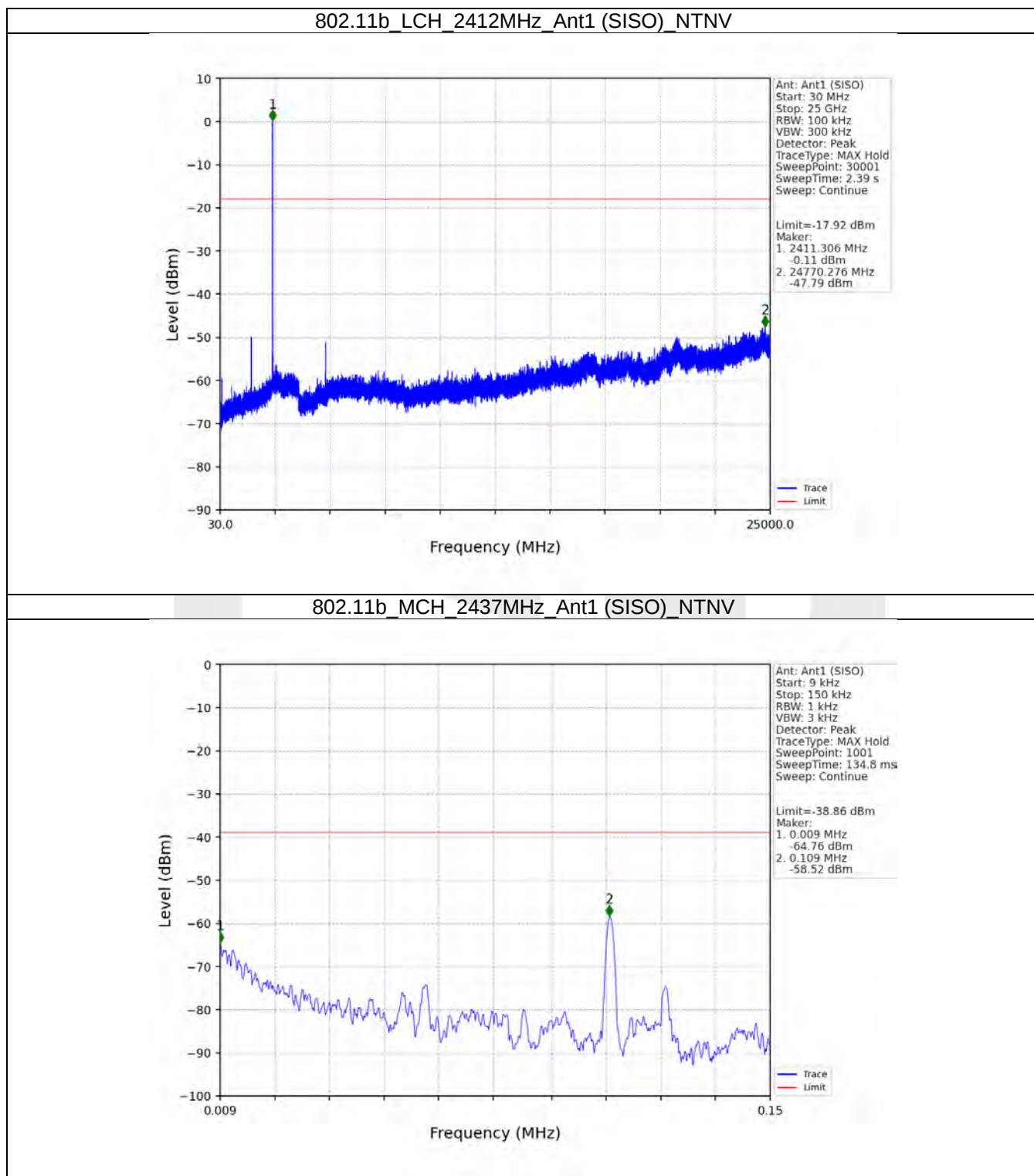


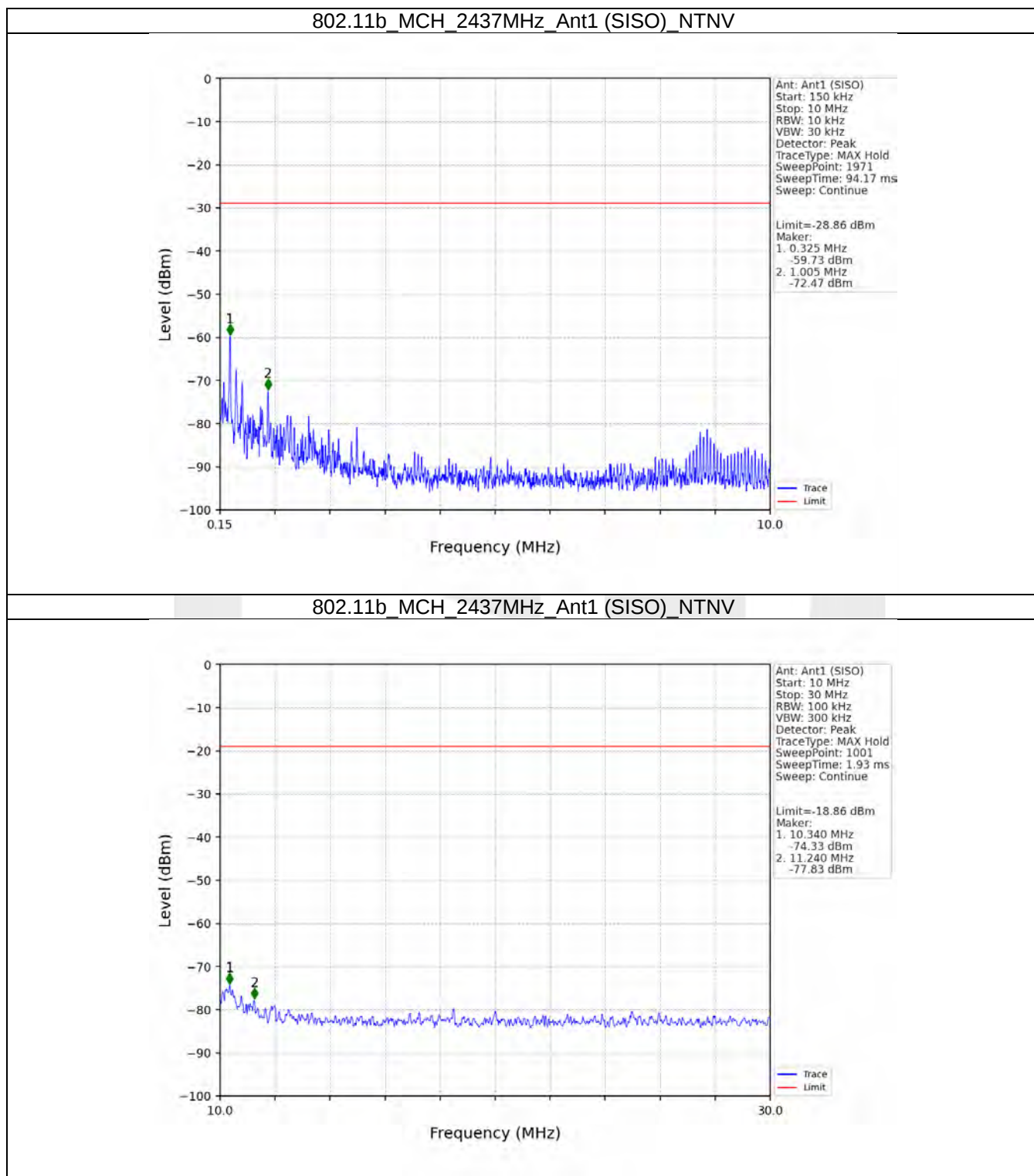


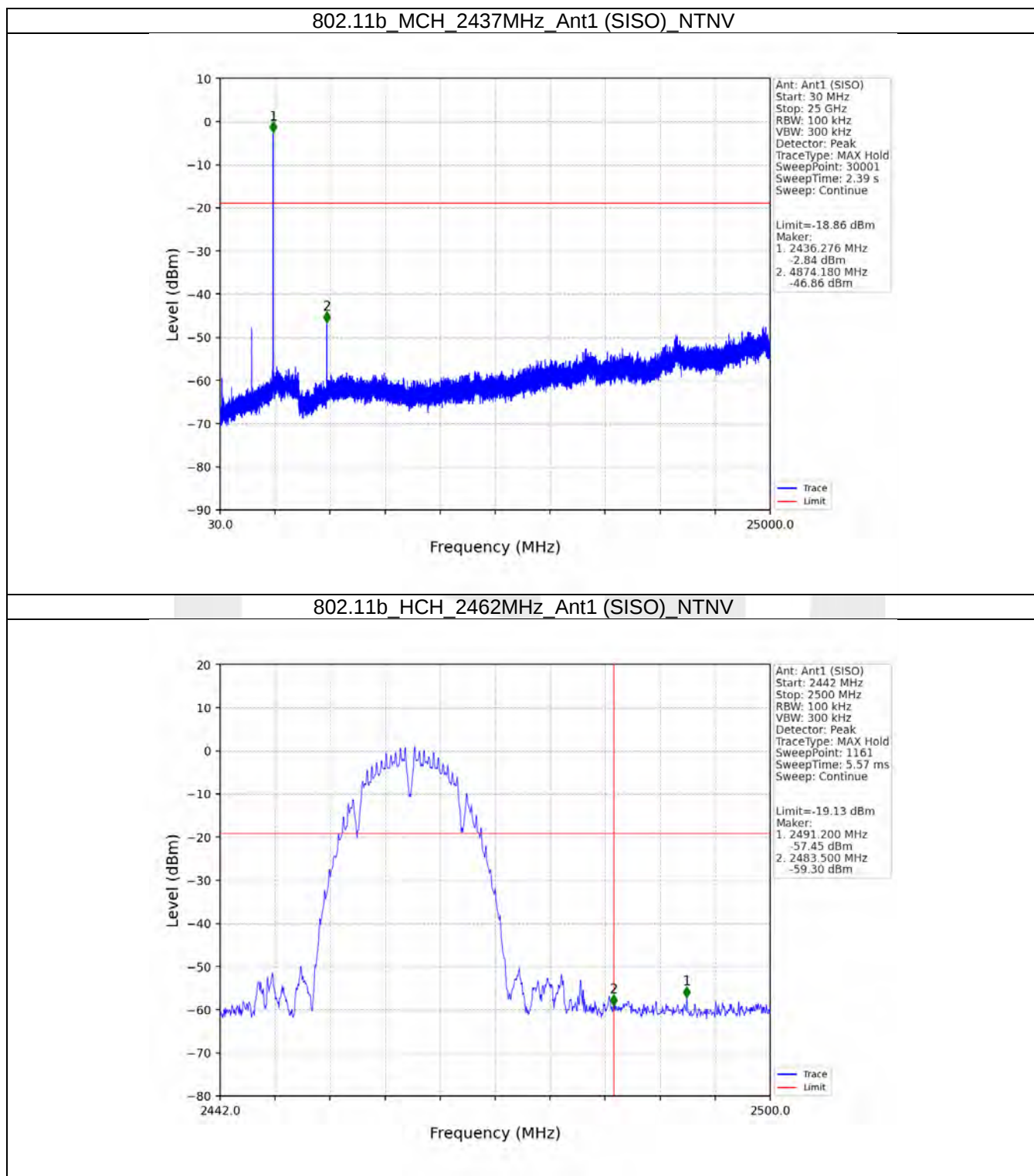
5.2.2 CSE

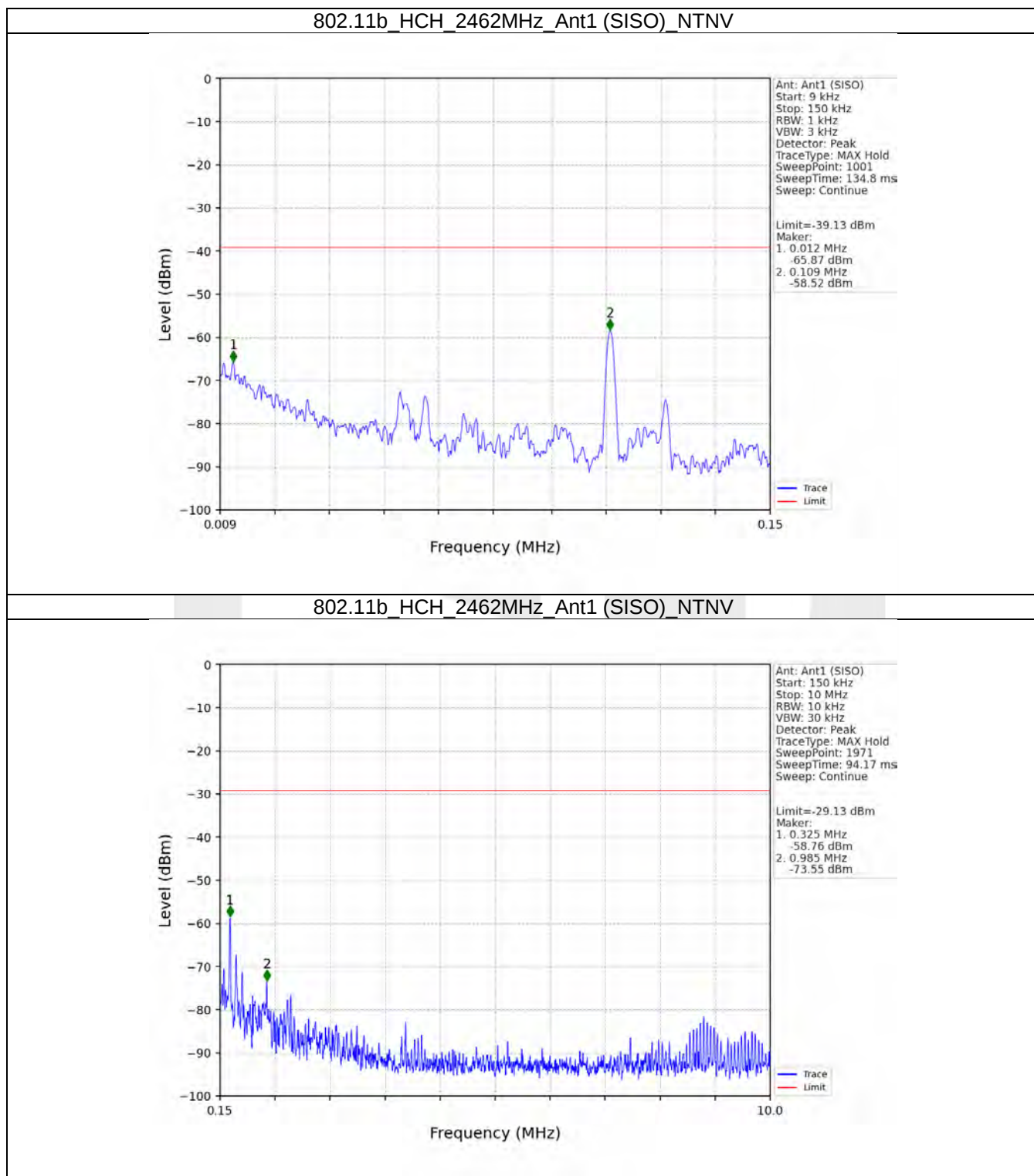


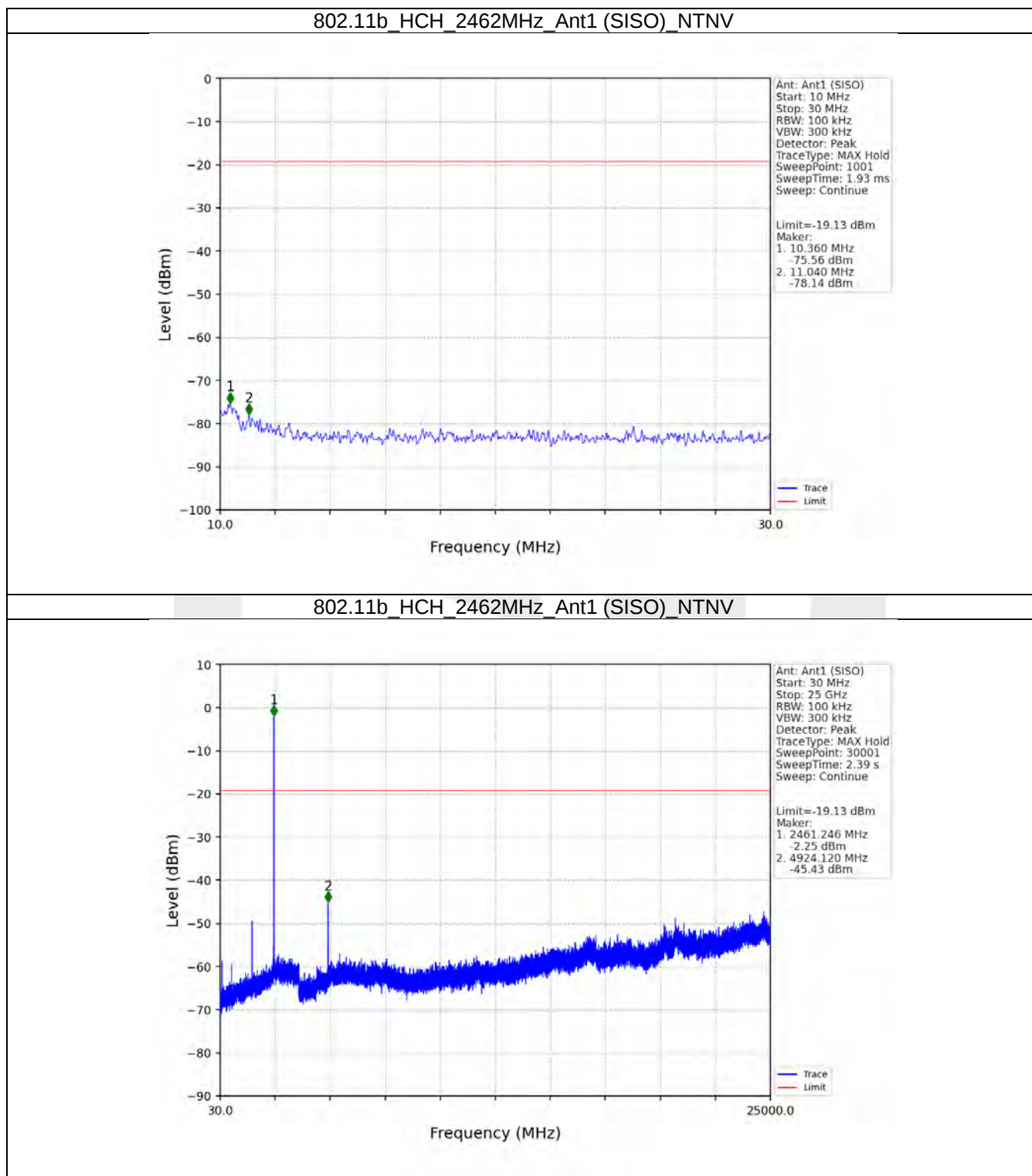


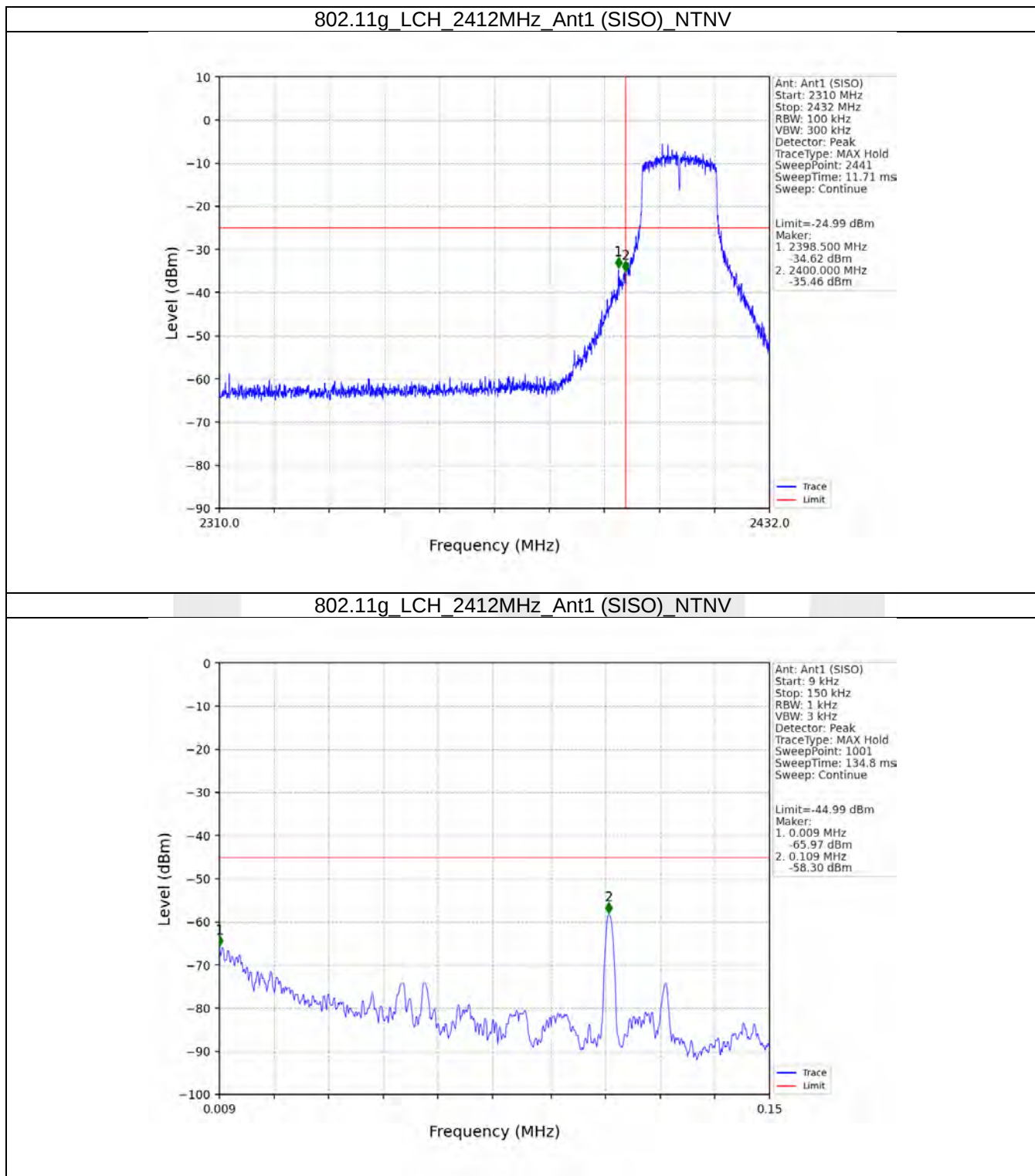


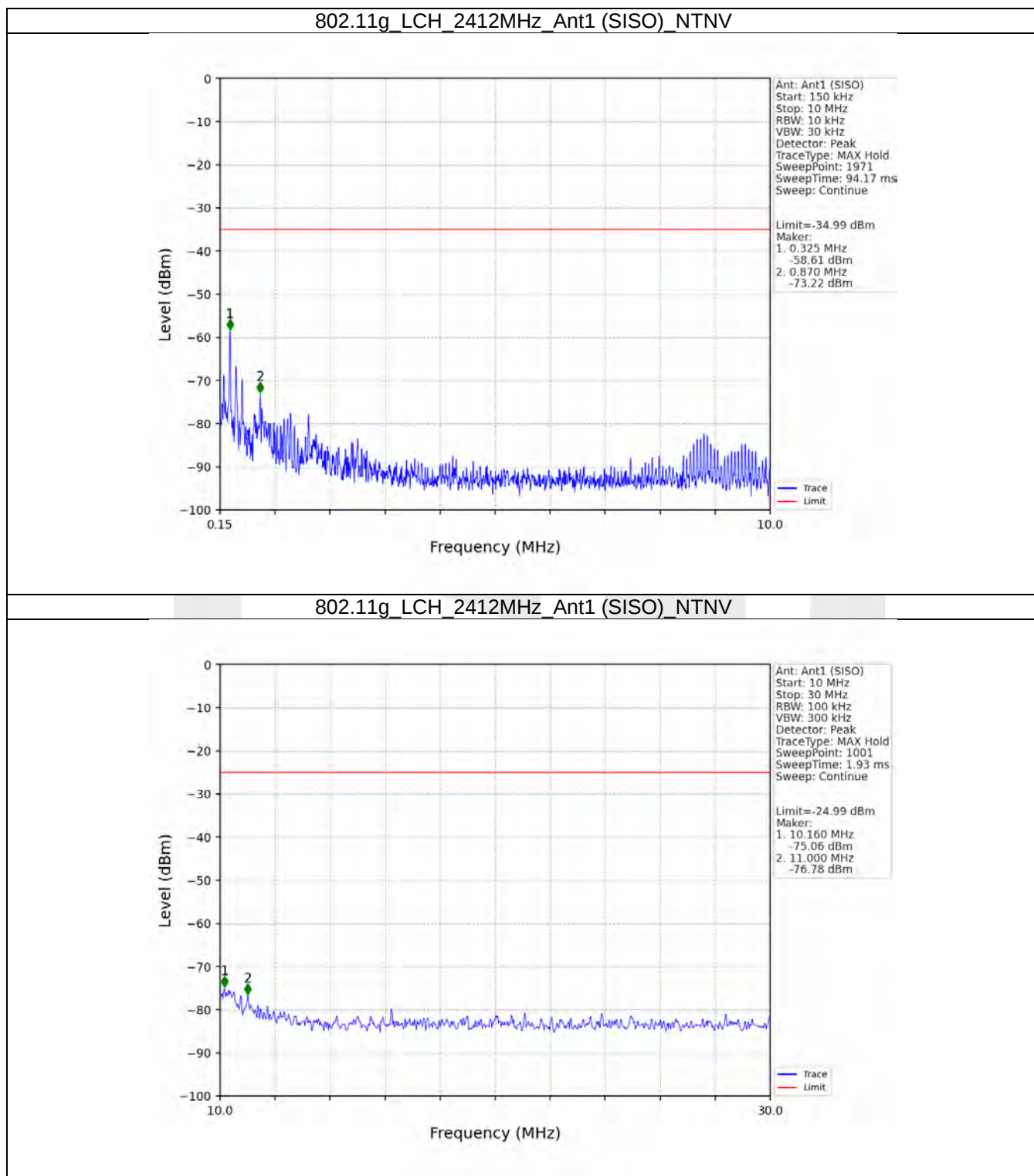


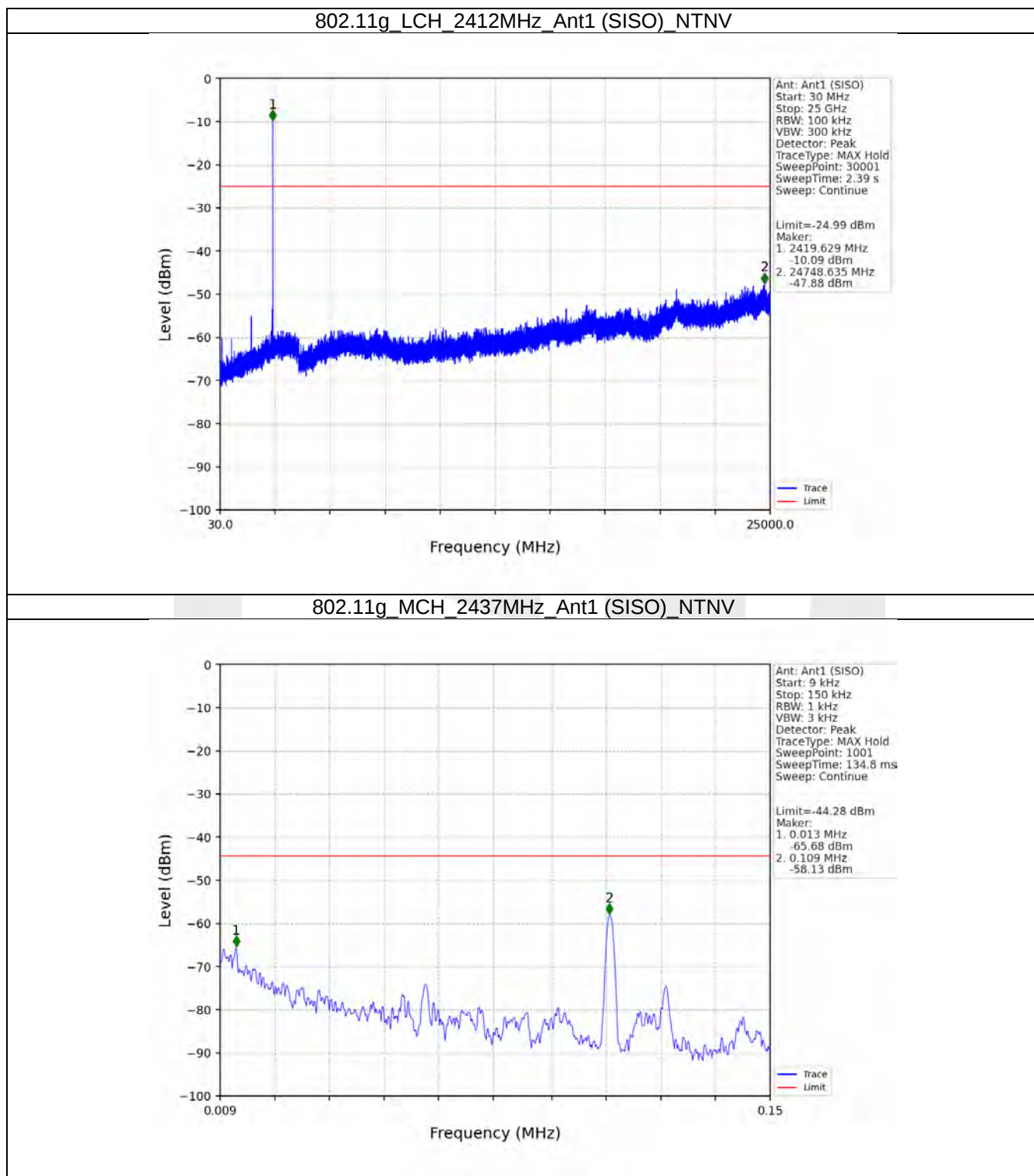


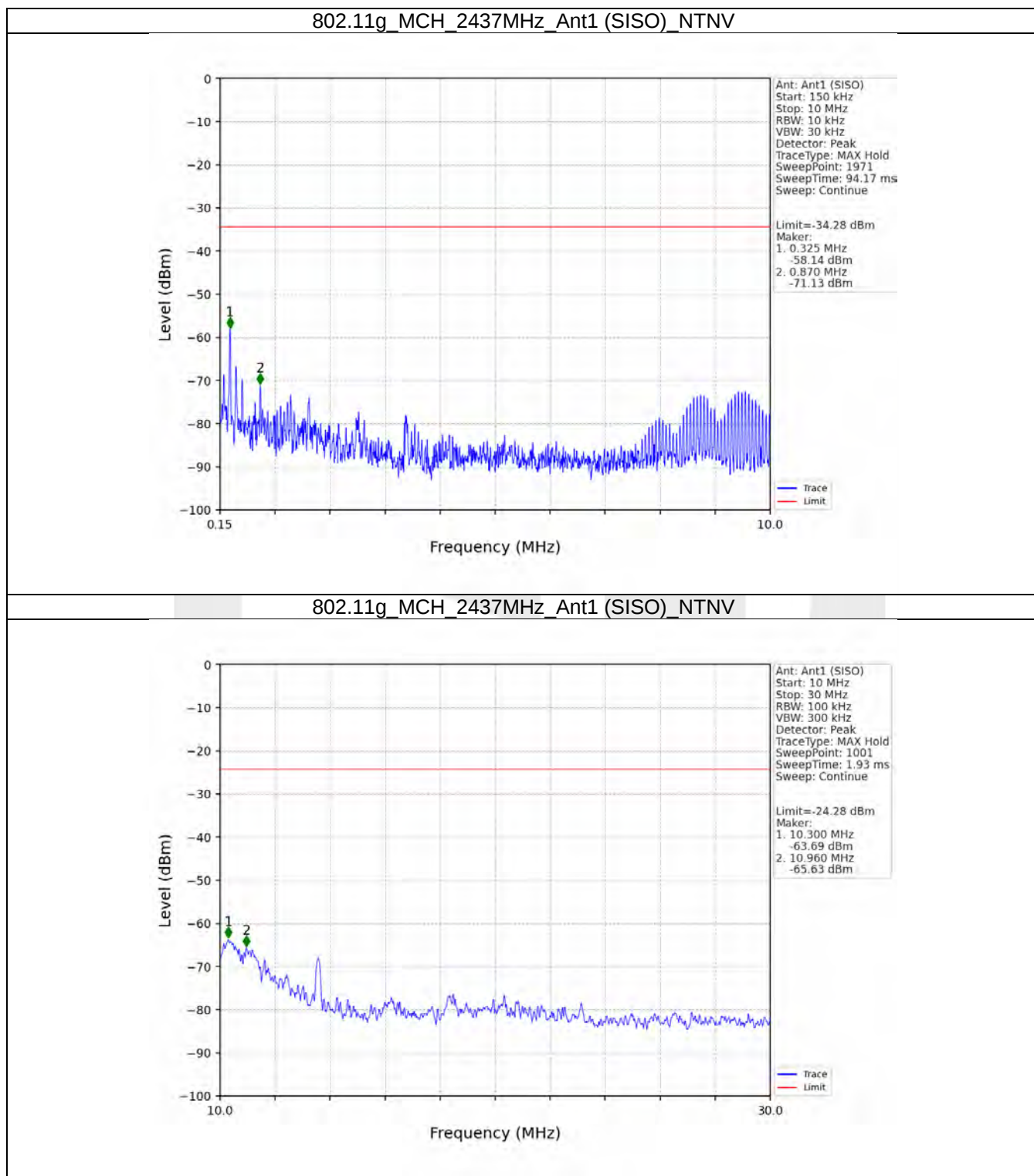


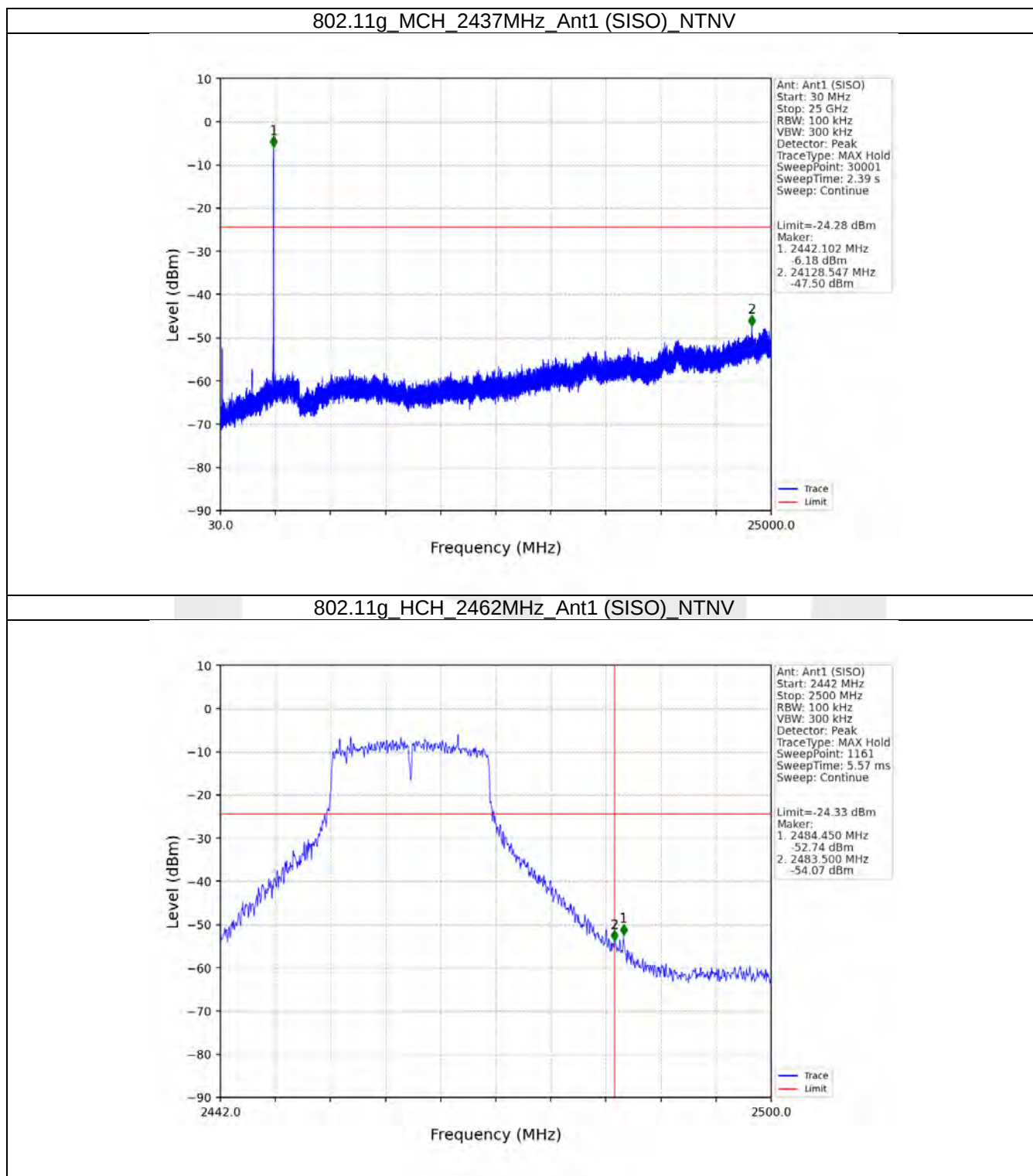


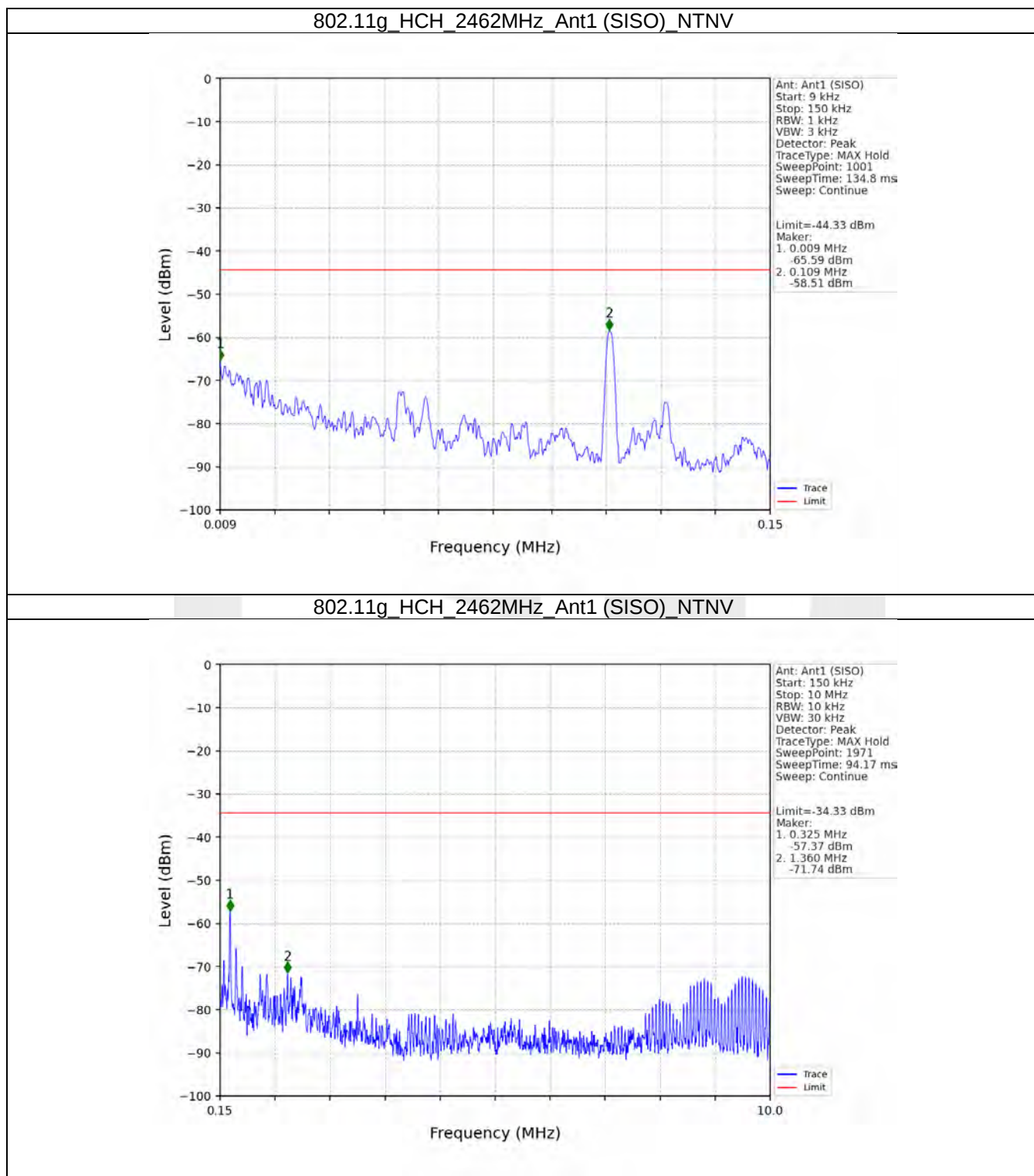




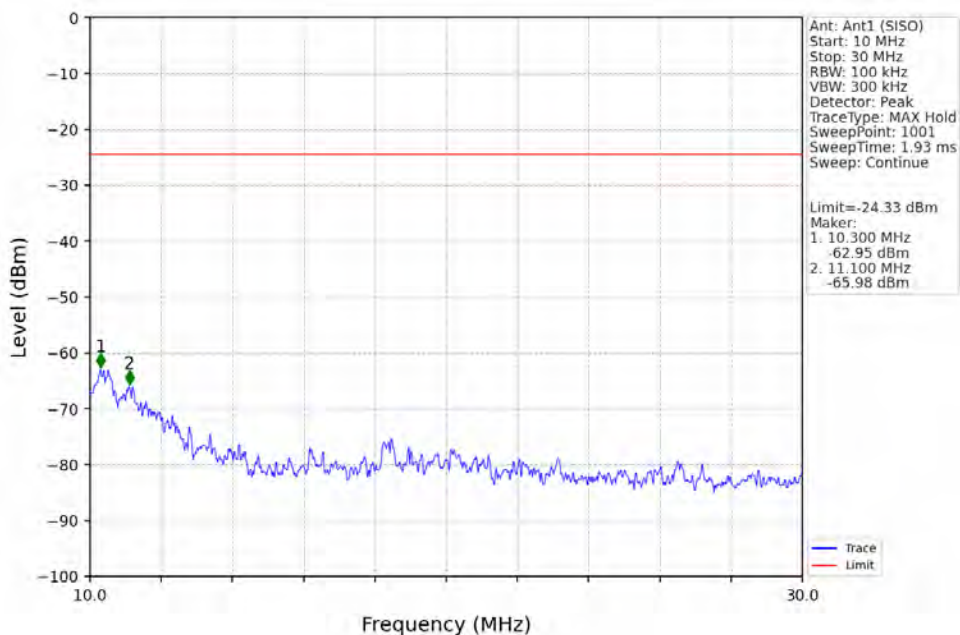




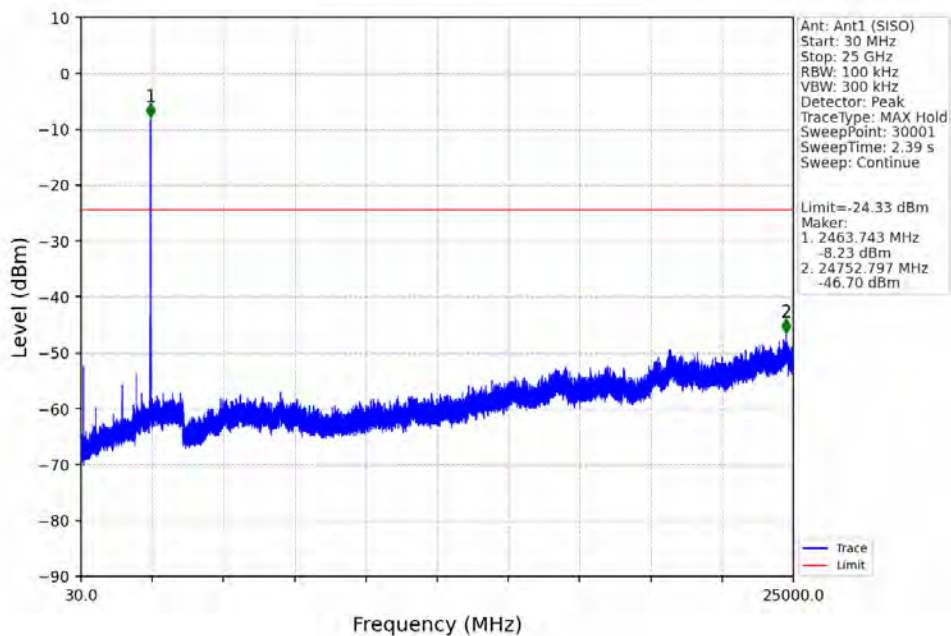


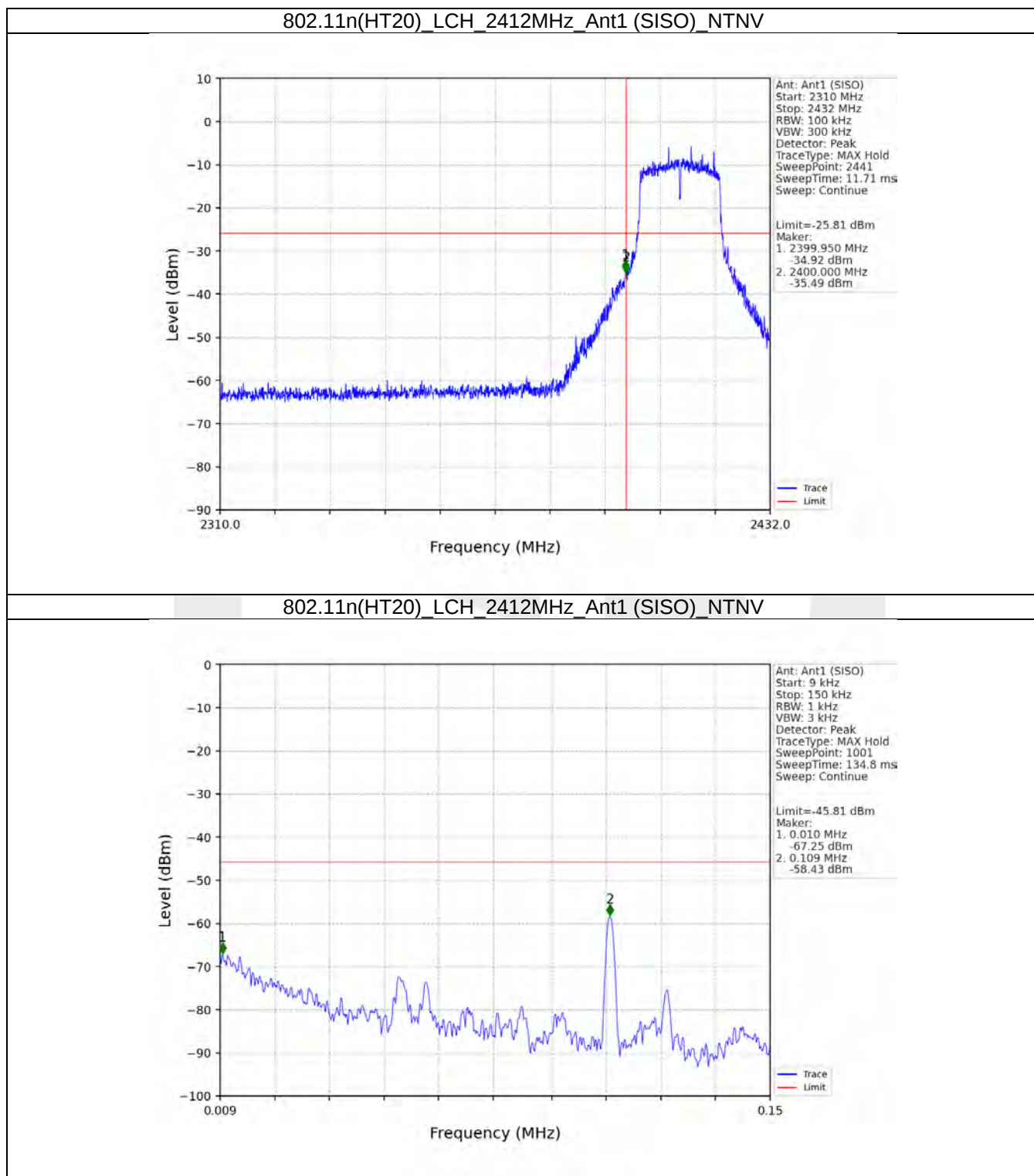


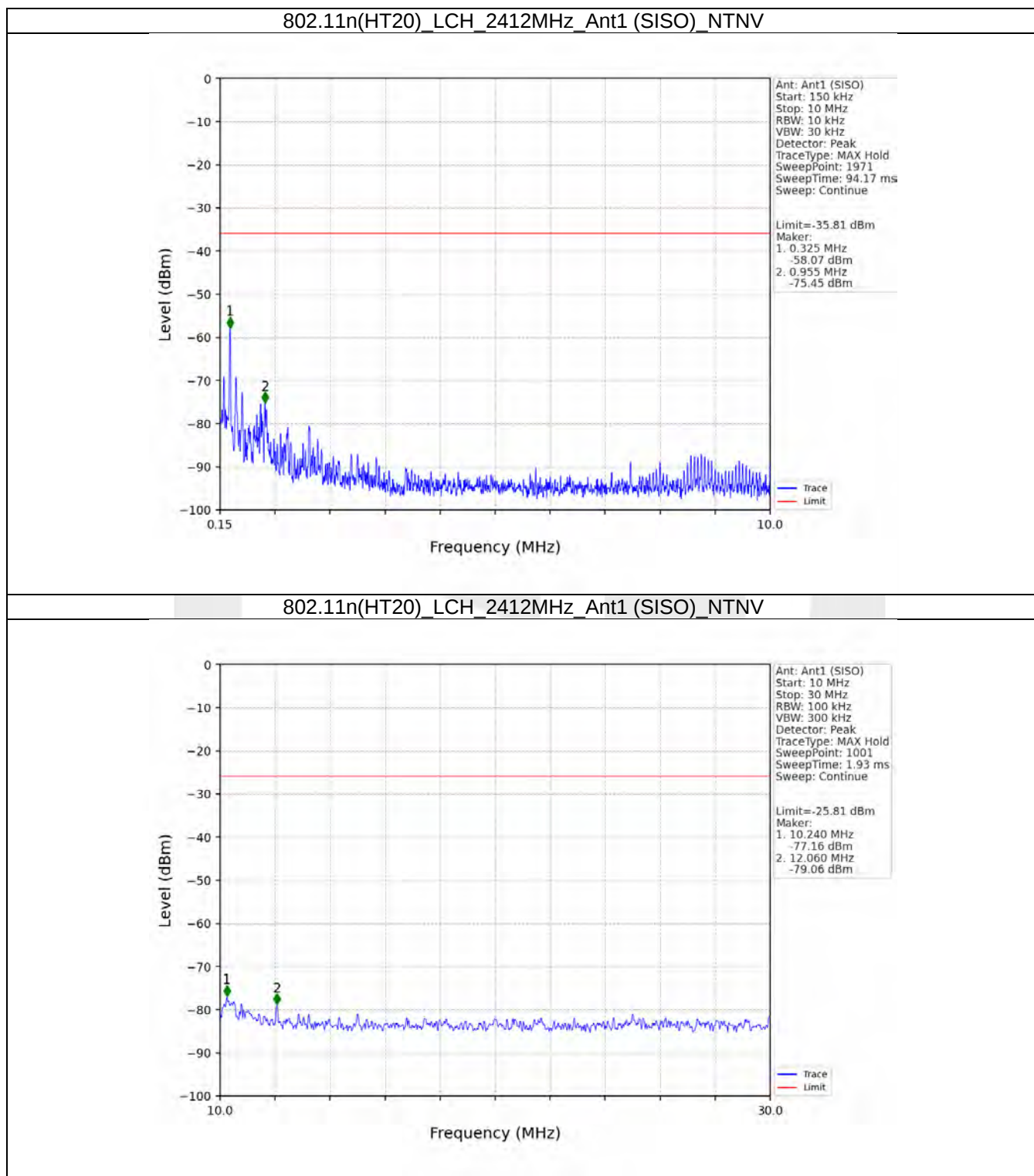
802.11g_HCH_2462MHz_Ant1 (SISO)_NTNV

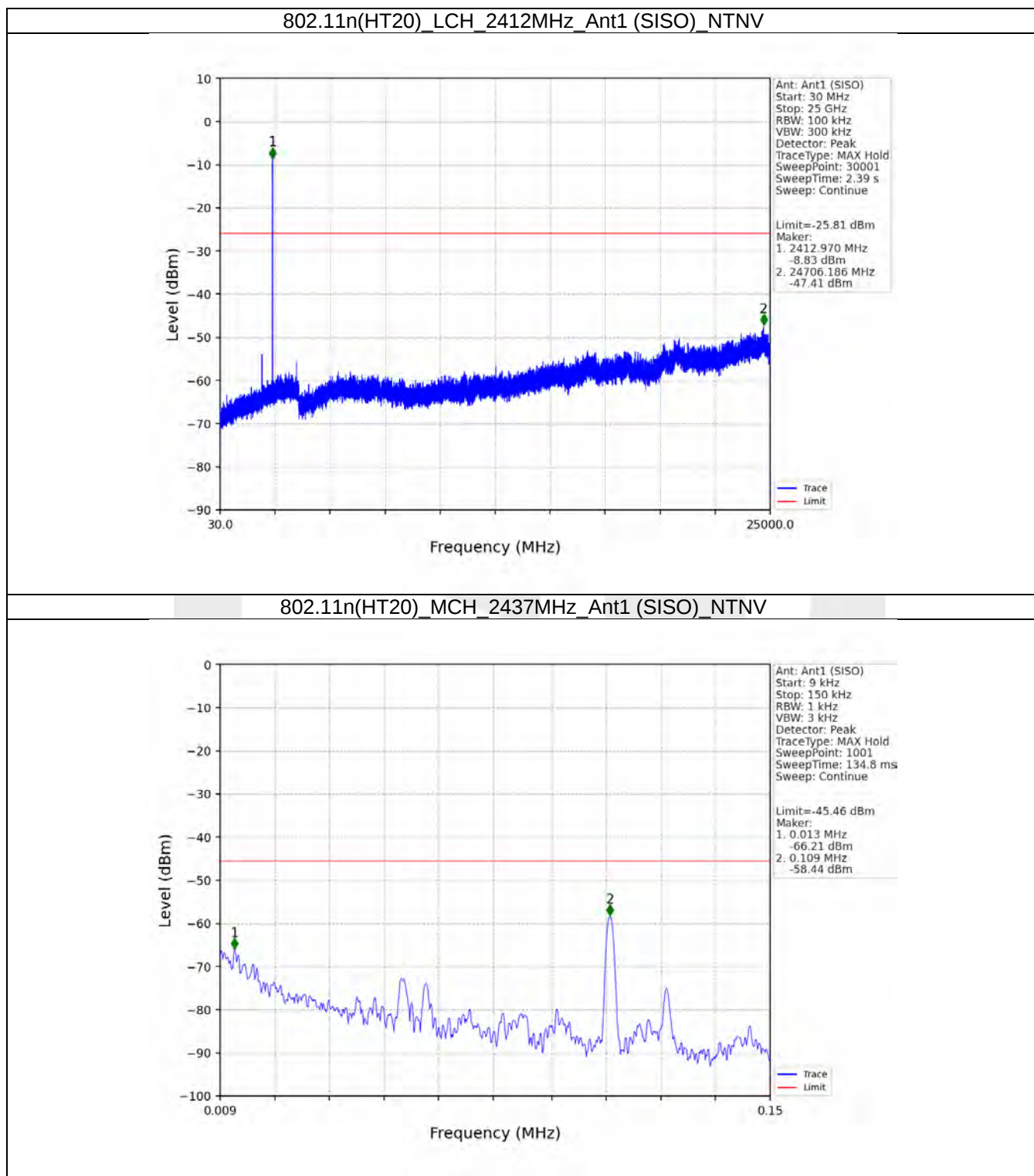


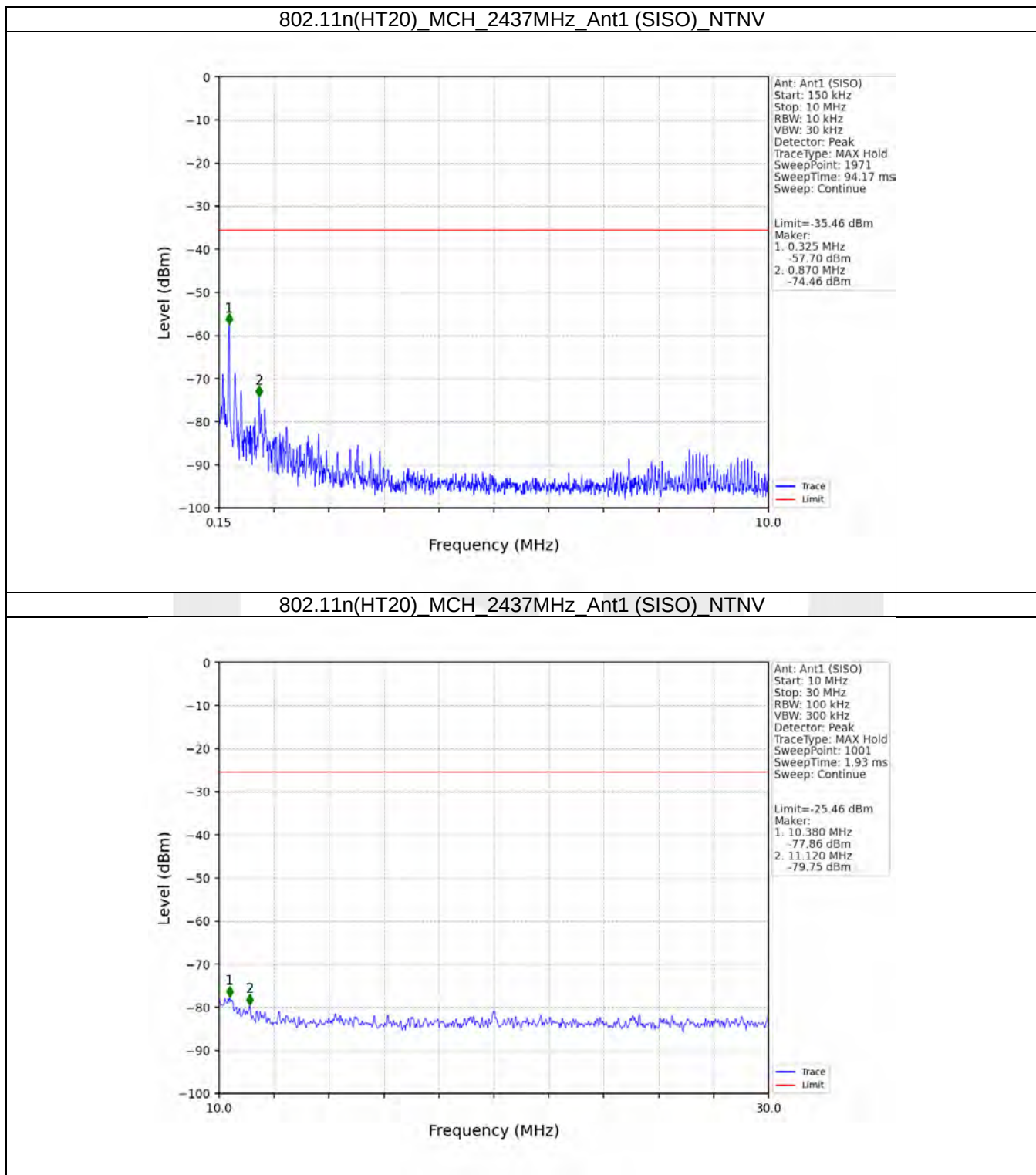
802.11g_HCH_2462MHz_Ant1 (SISO)_NTNV

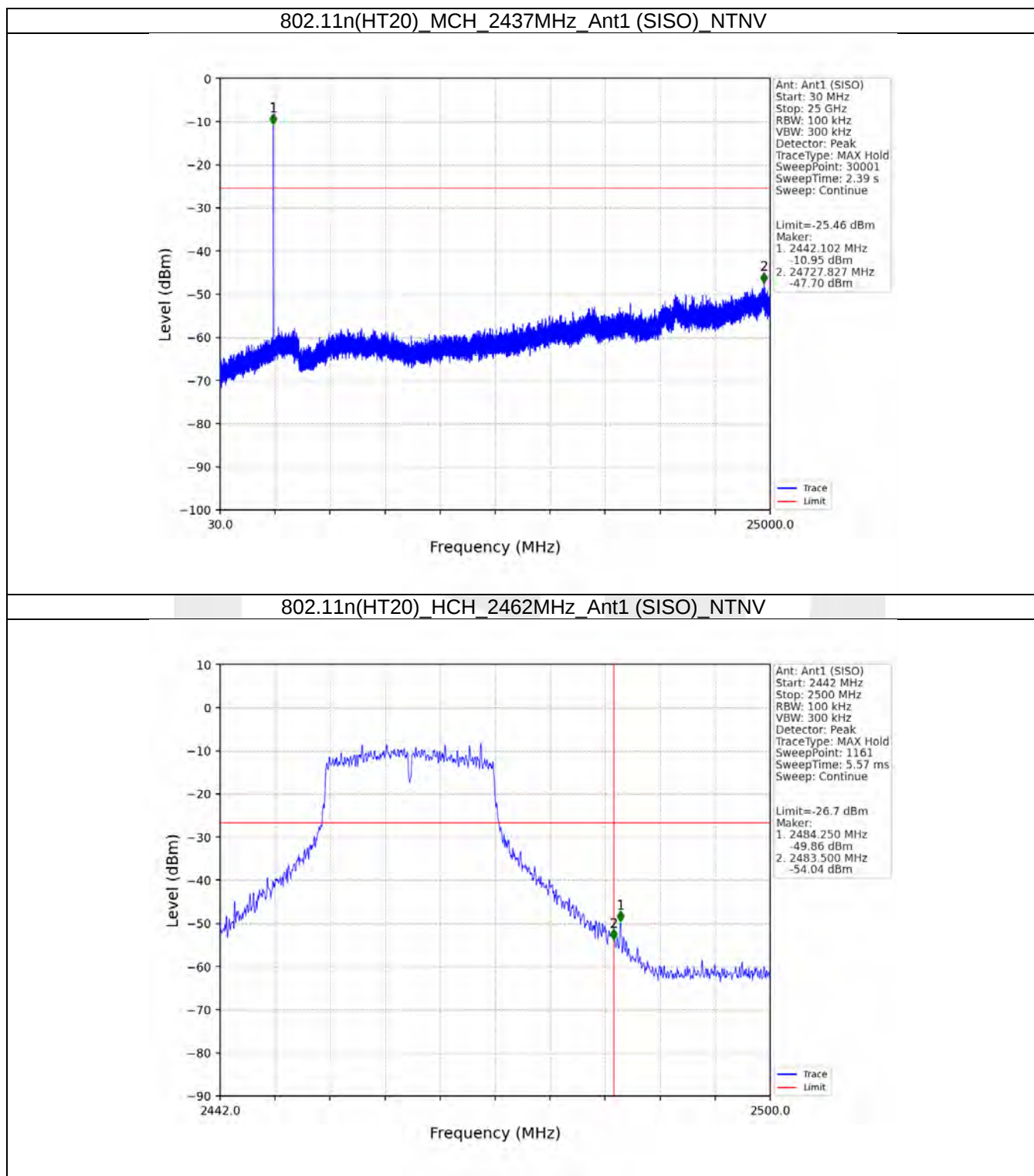


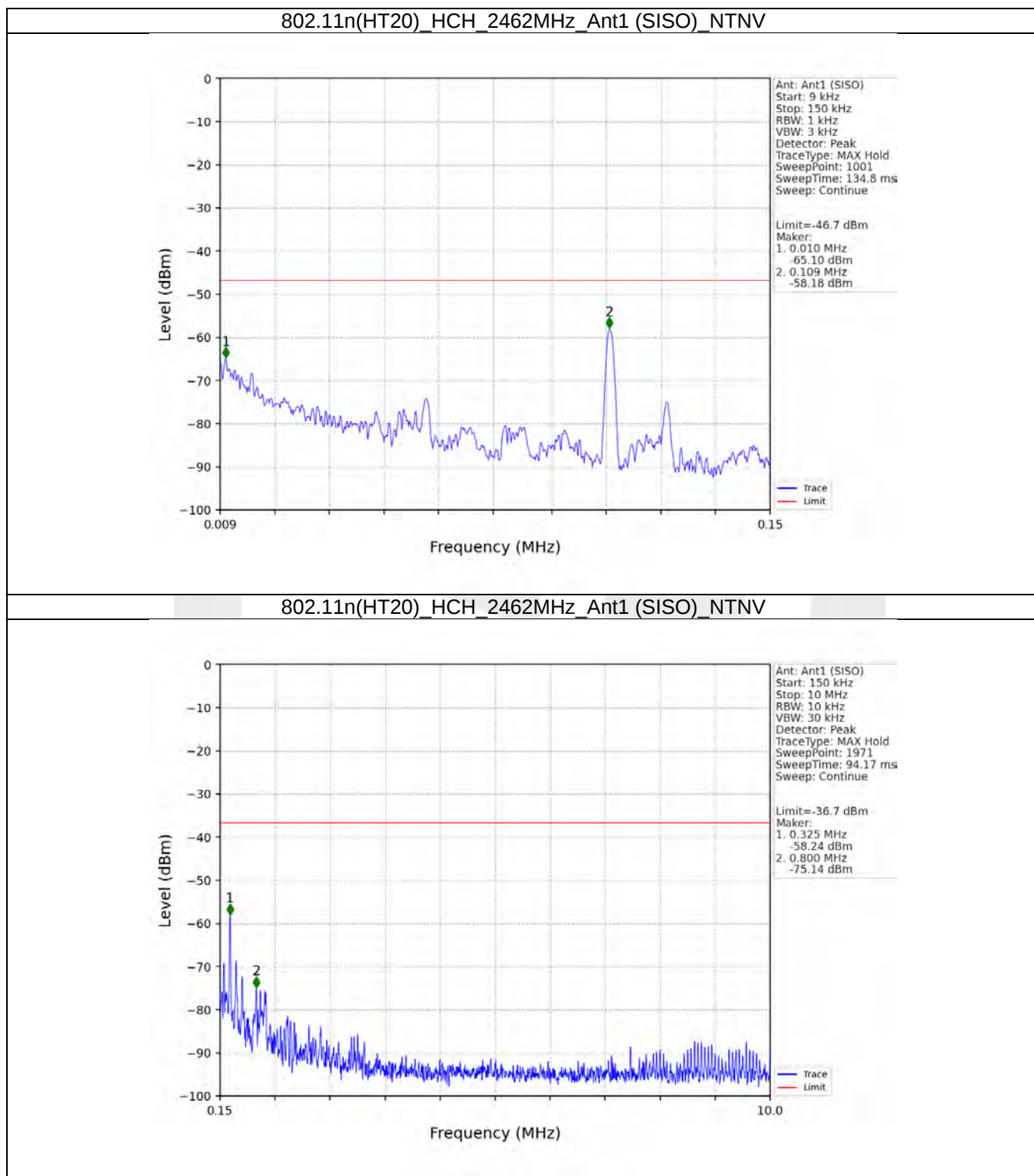


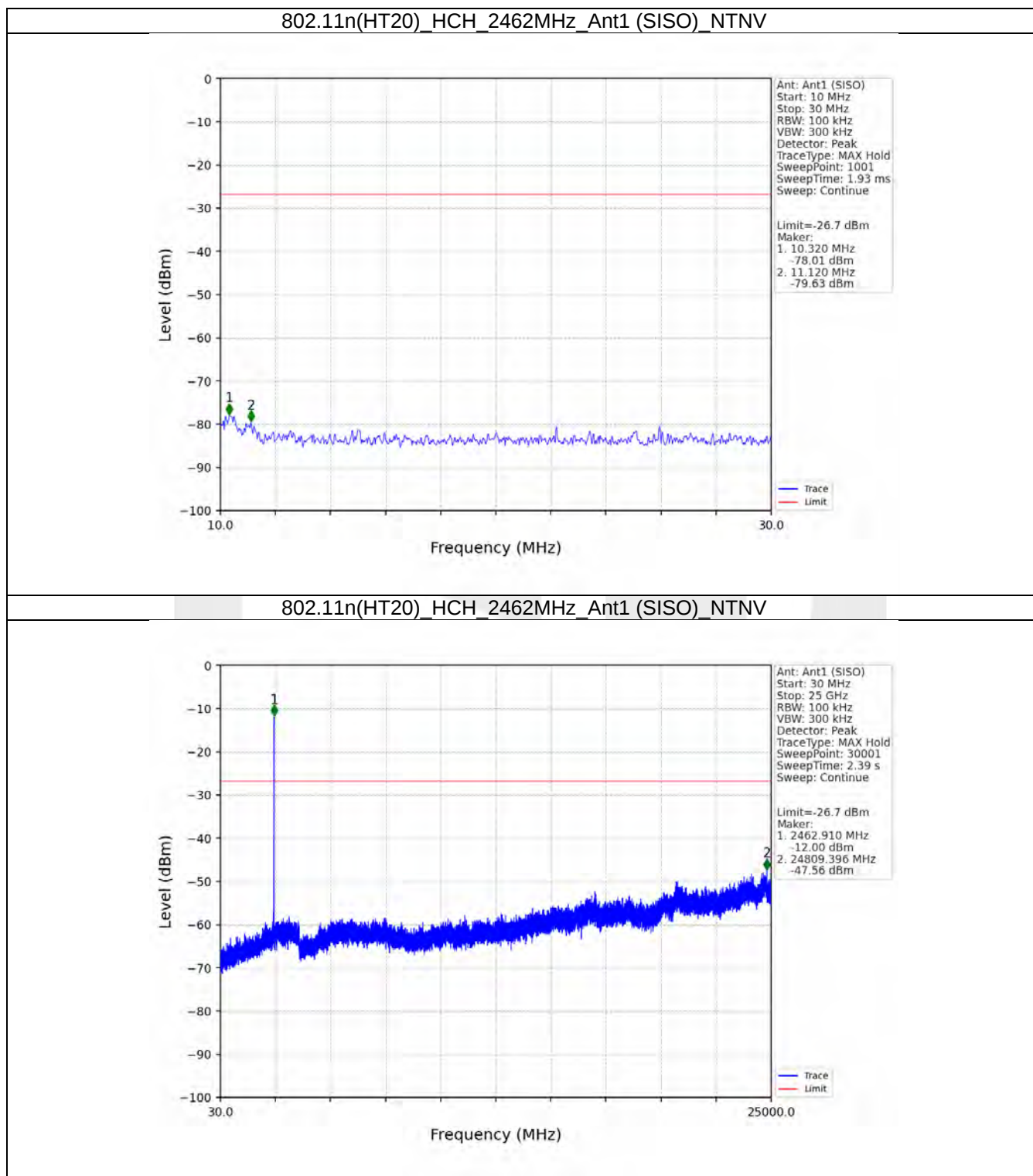




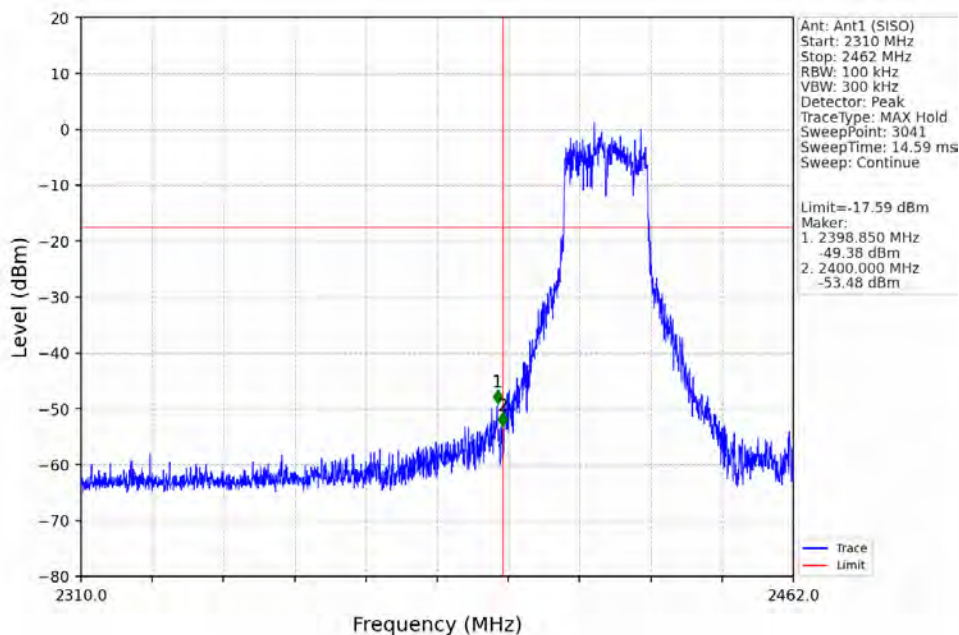




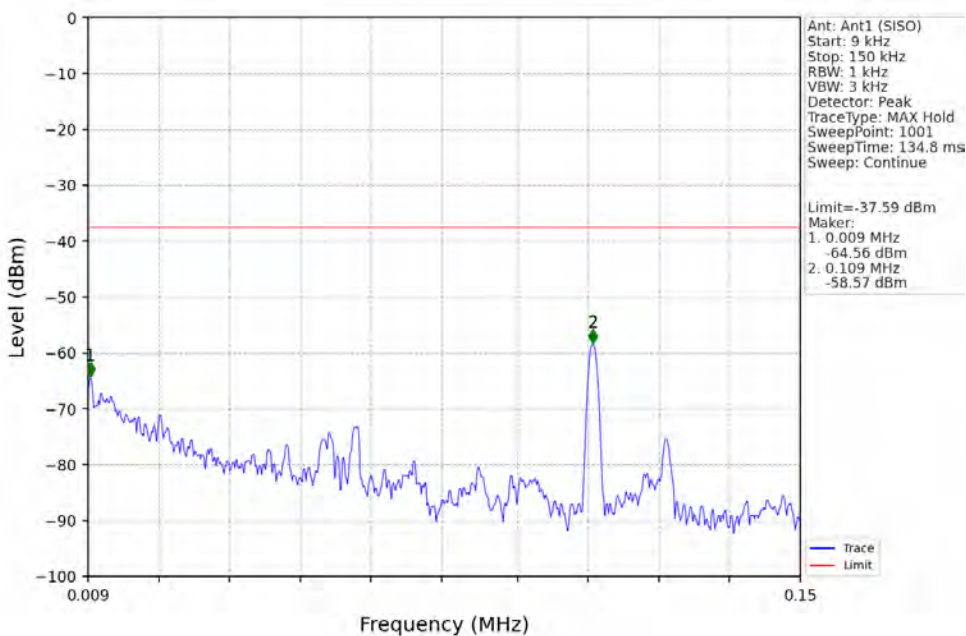


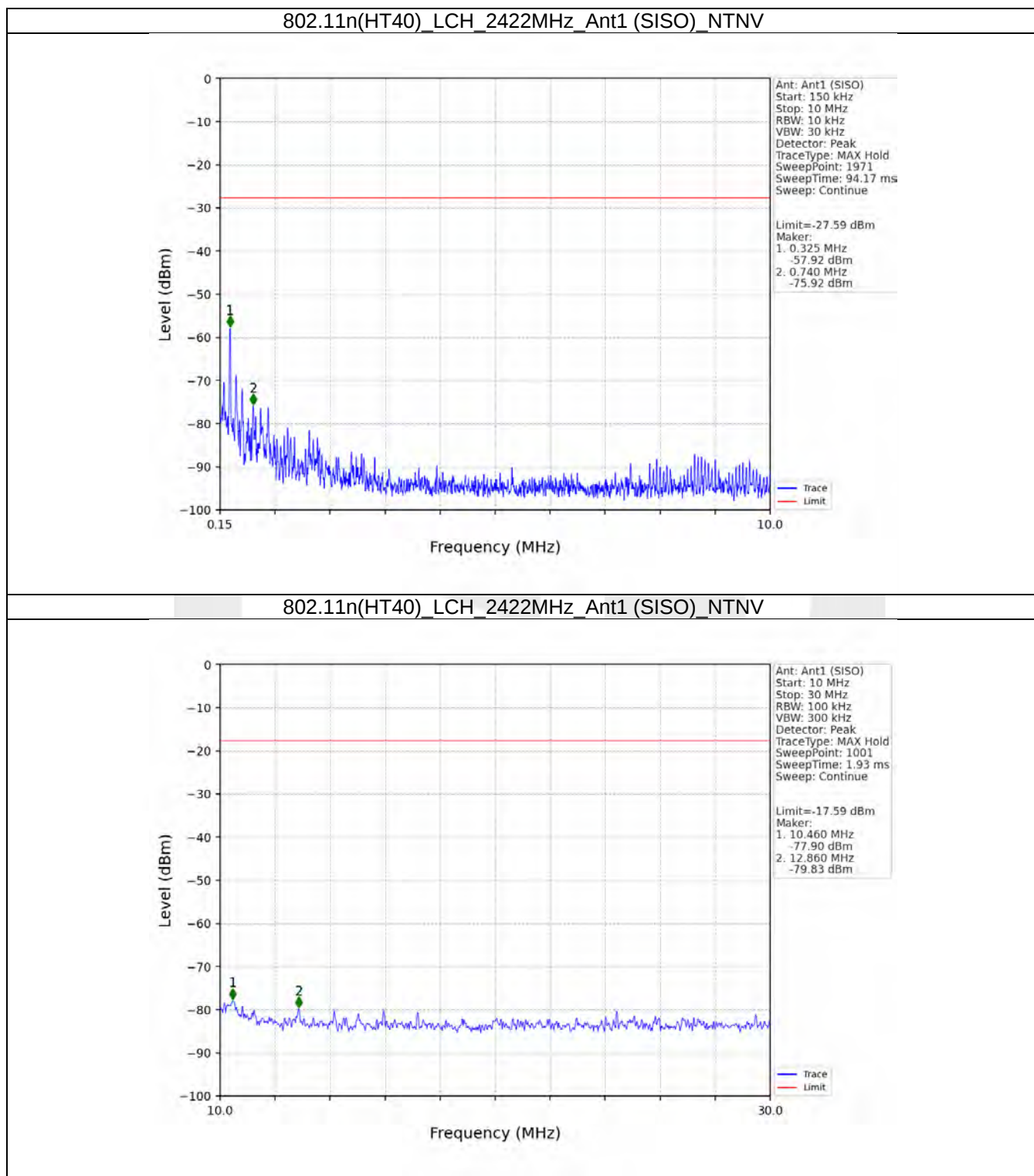


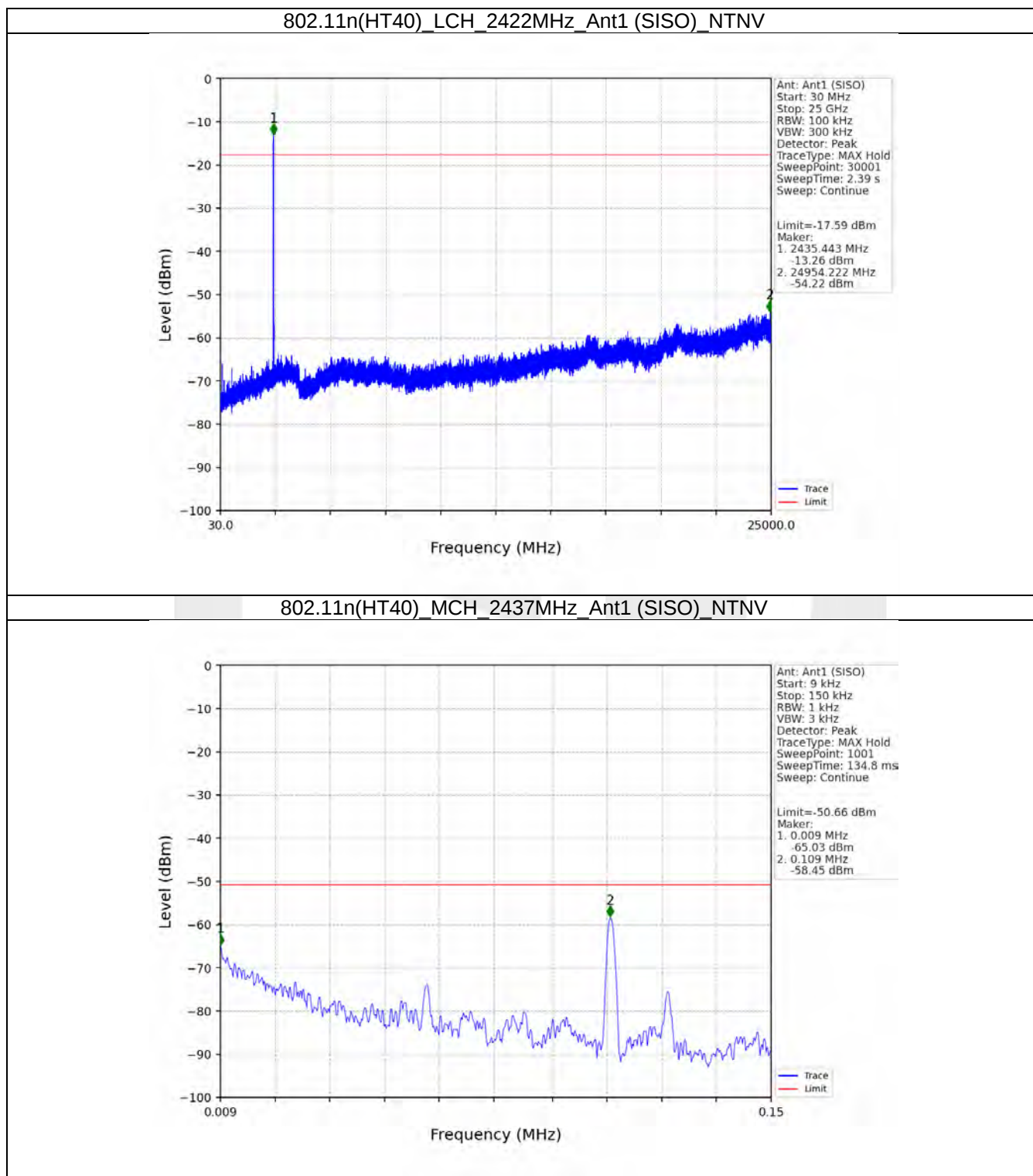
802.11n(HT40)_LCH_2422MHz_Ant1 (SISO)_NTNV

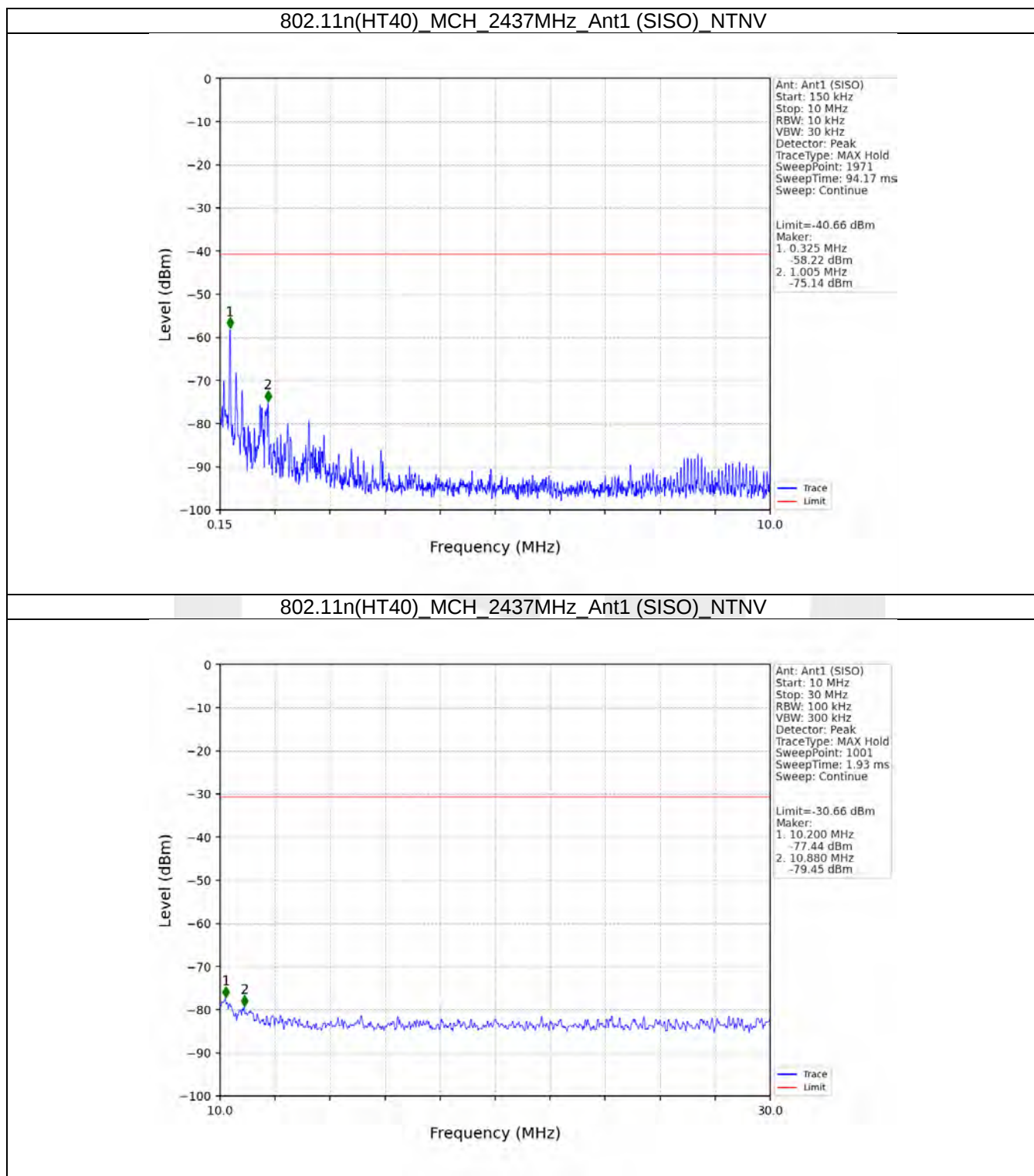


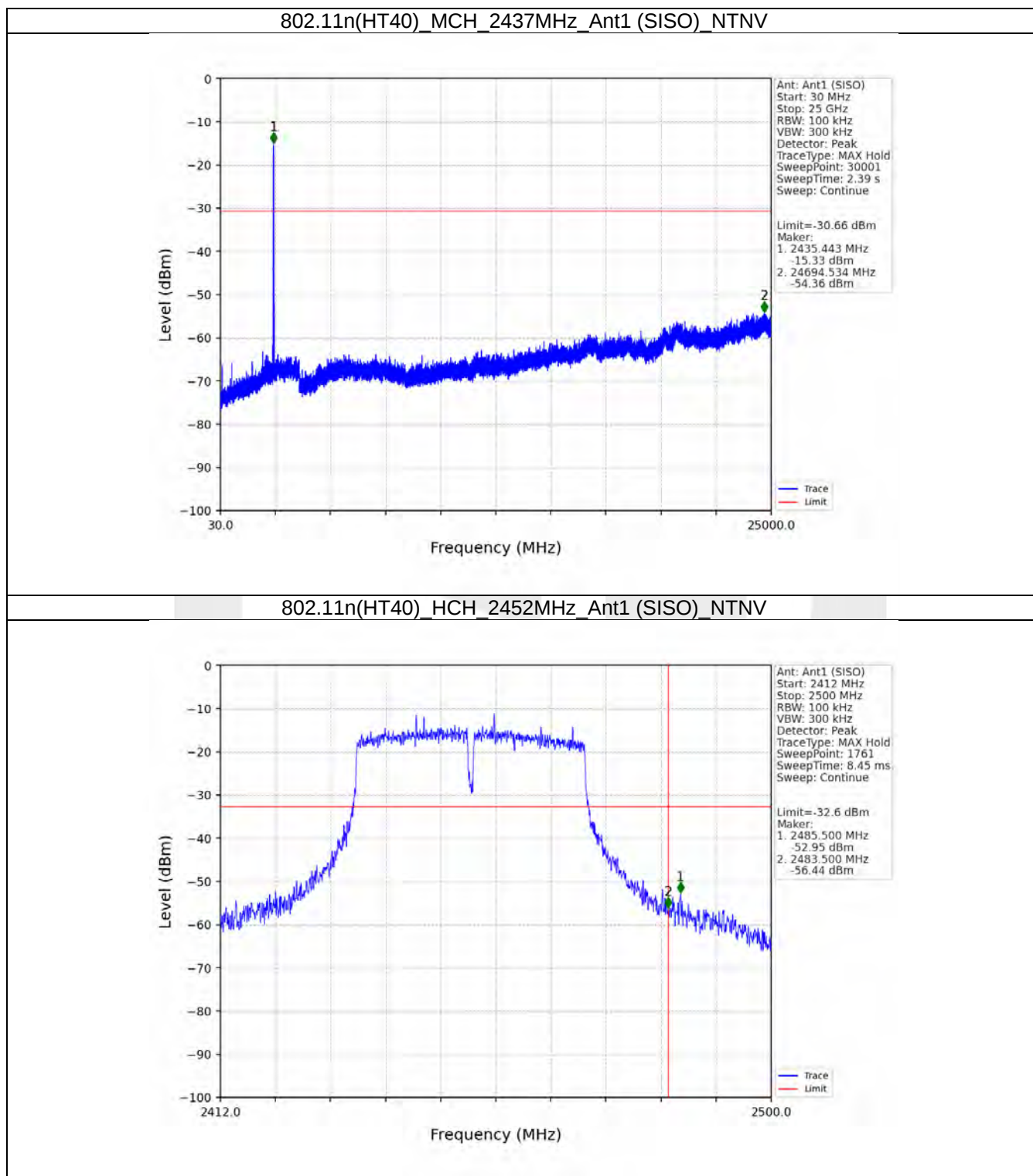
802.11n(HT40)_LCH_2422MHz_Ant1 (SISO)_NTNV

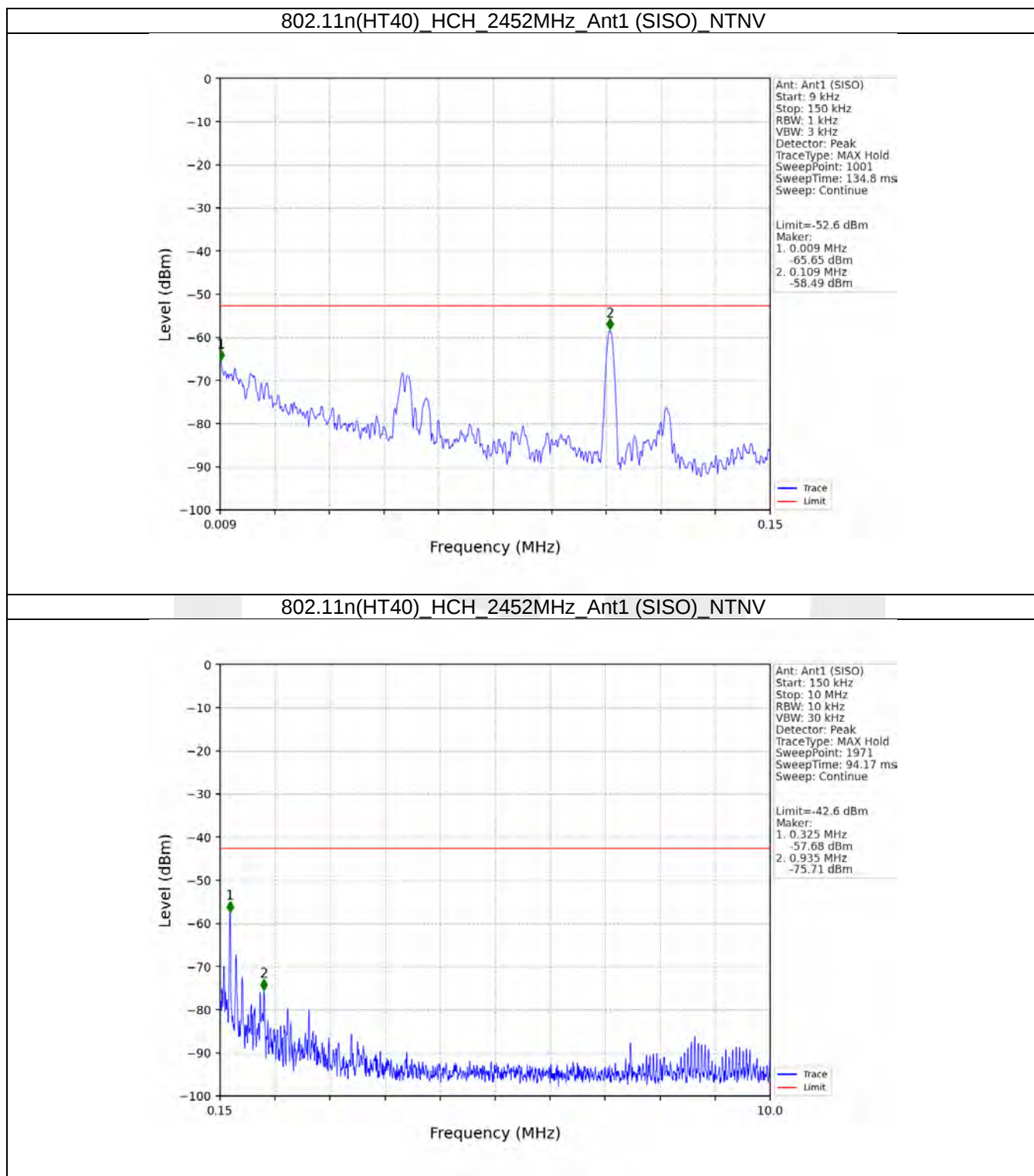


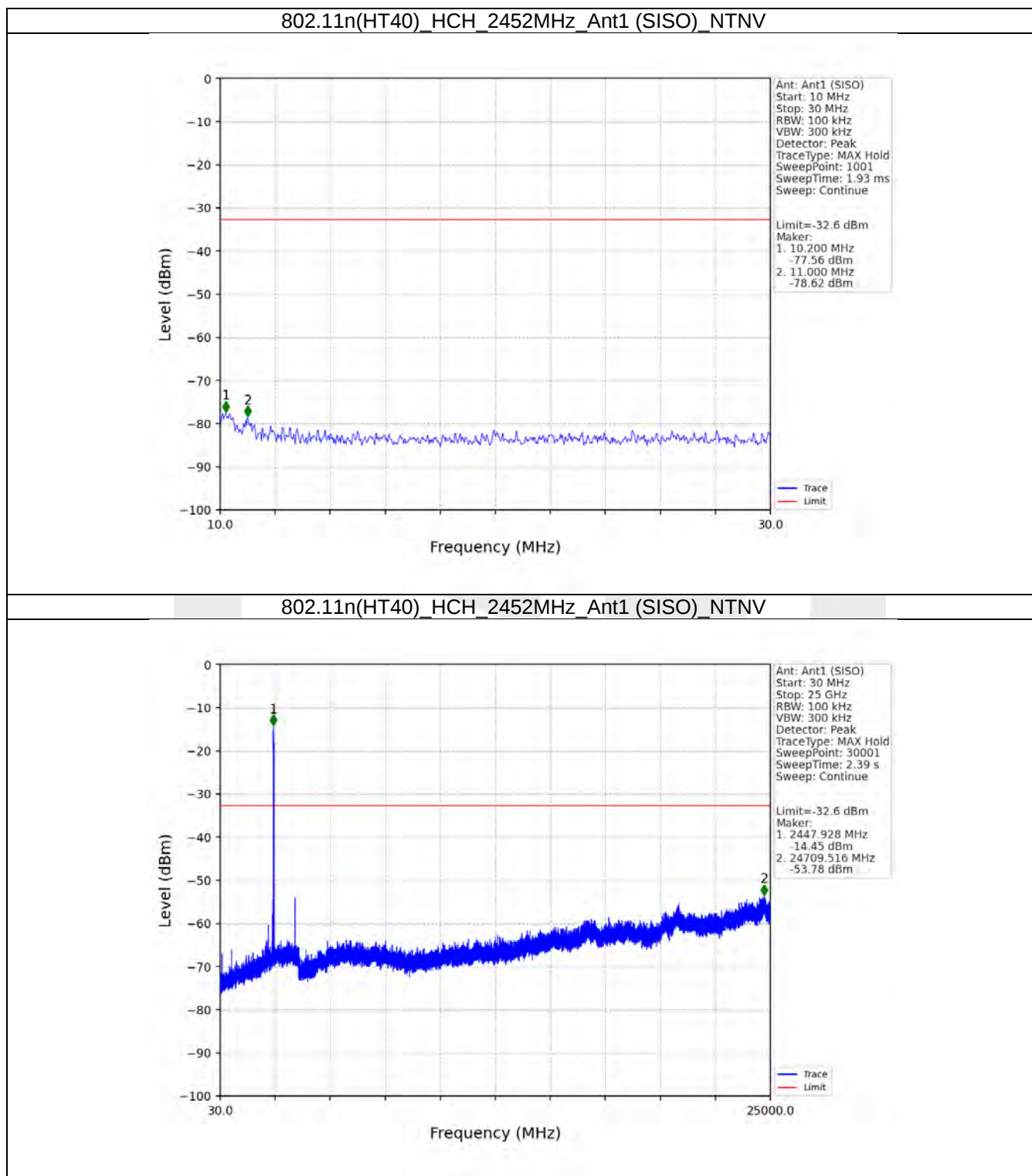


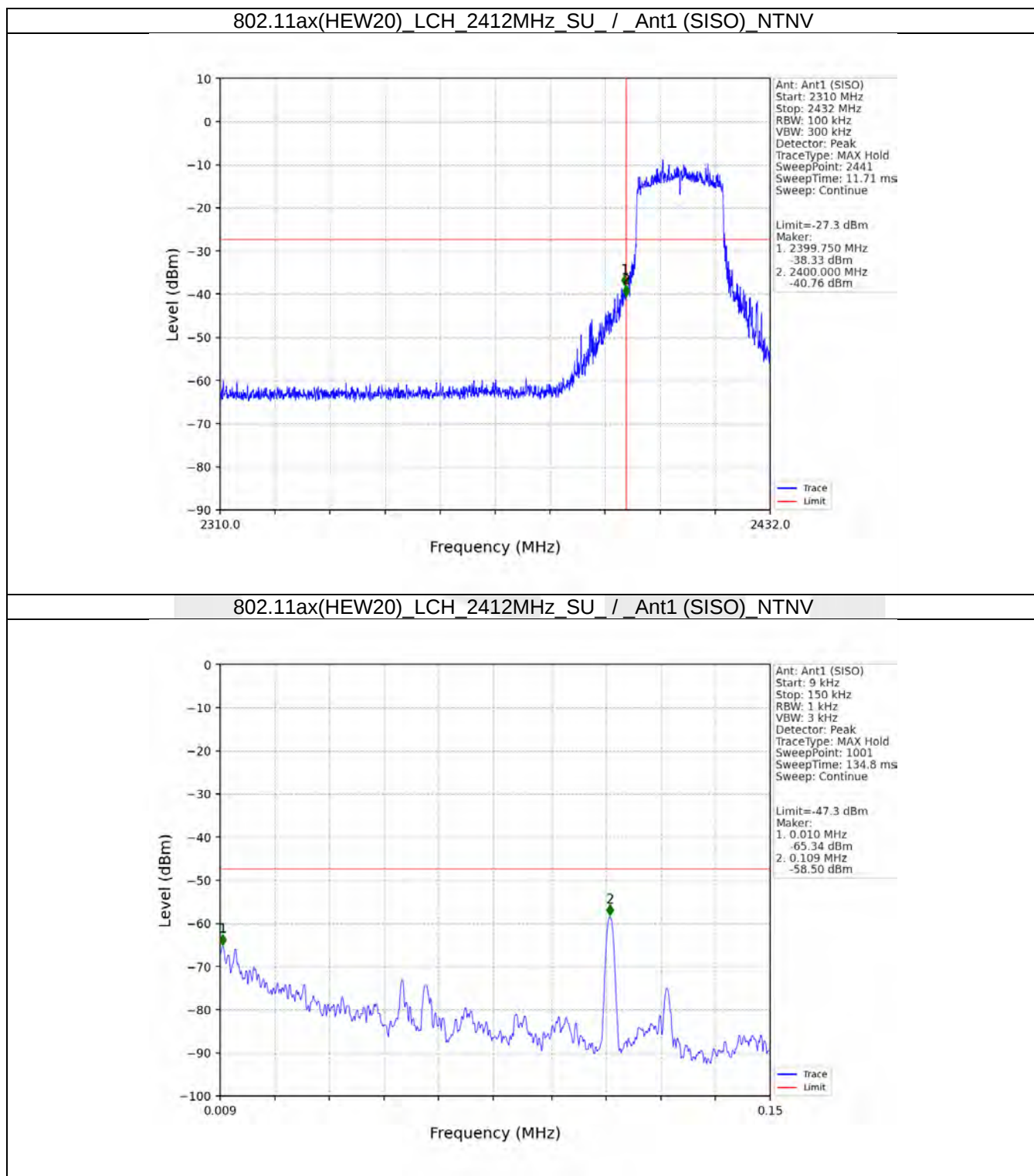




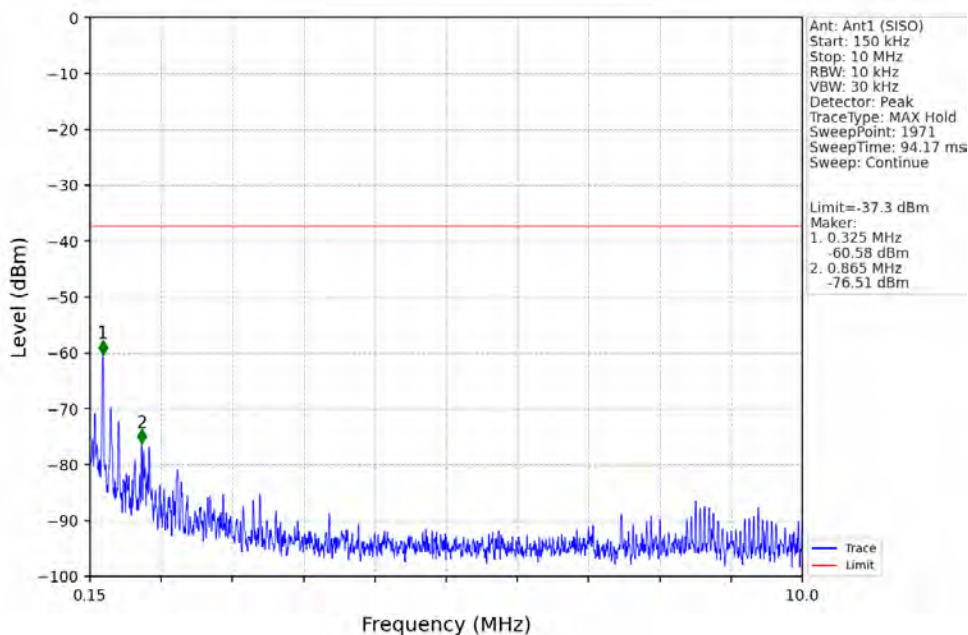




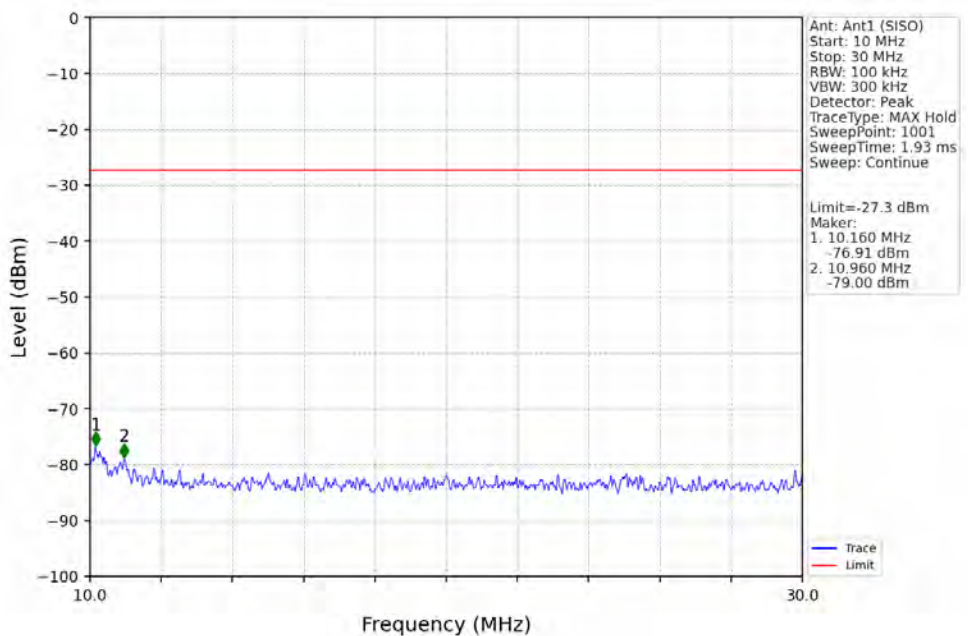


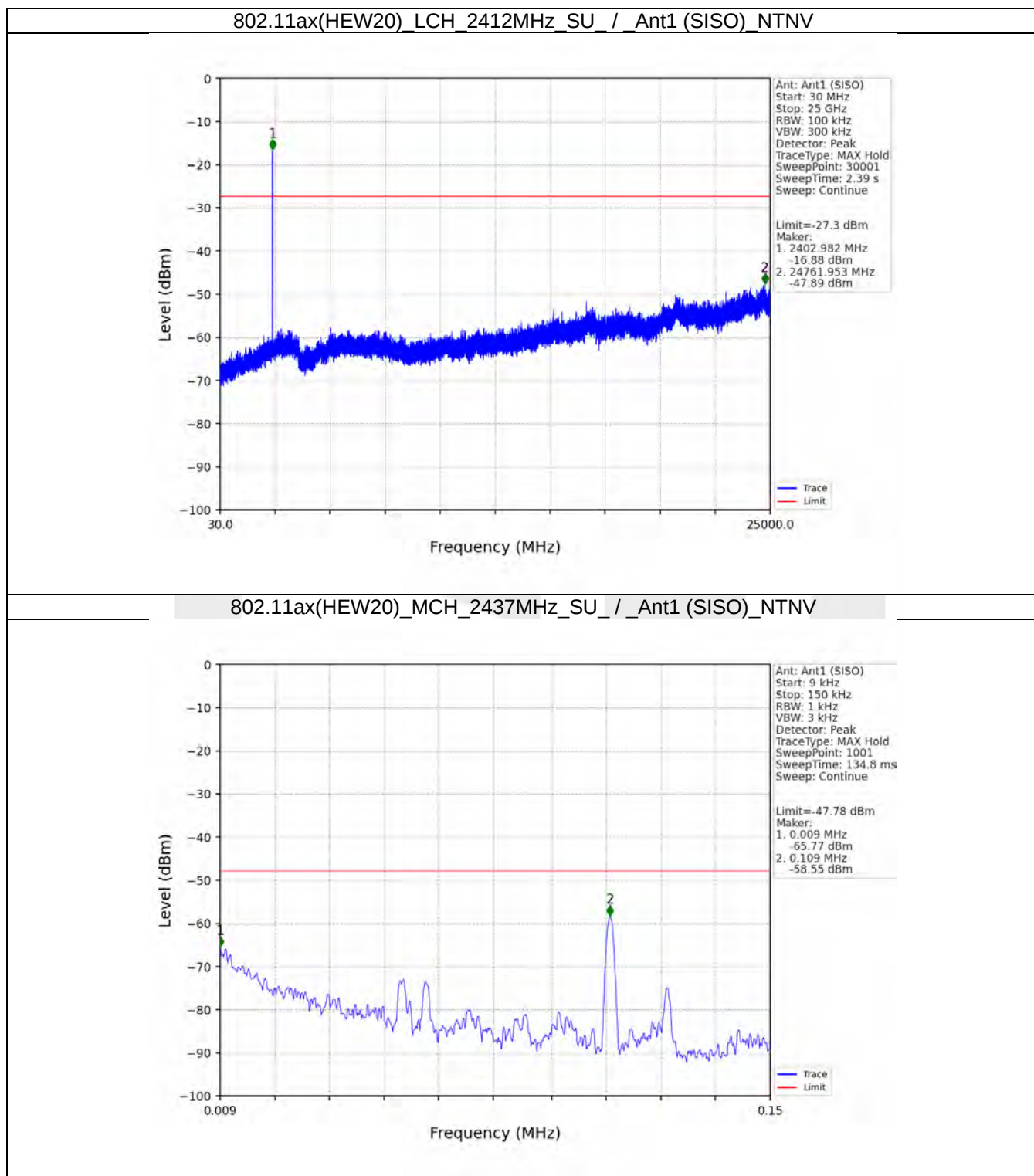


802.11ax(HEW20)_LCH_2412MHz_SU_ / _Ant1 (SISO)_NTNV

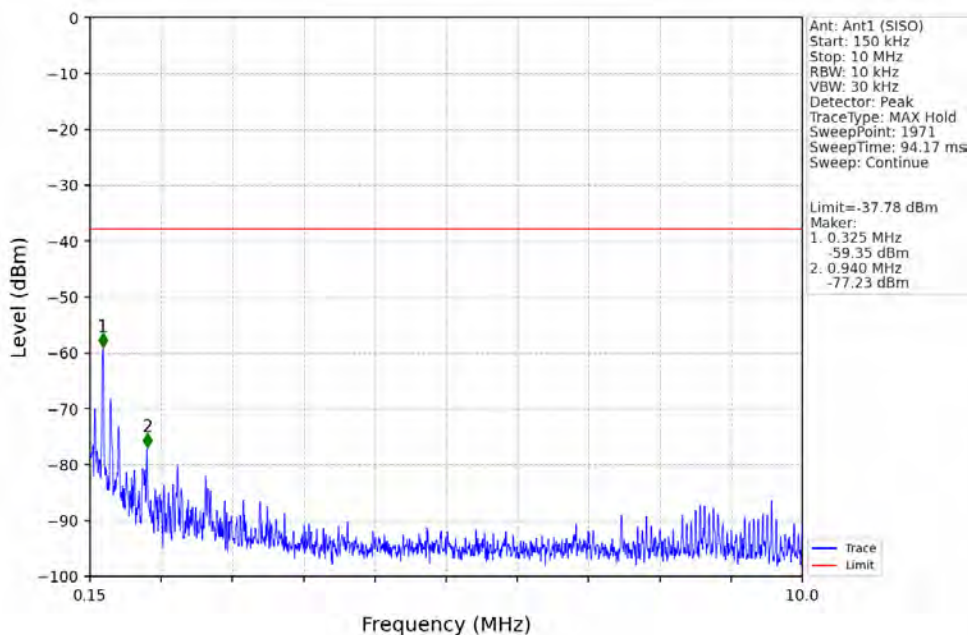


802.11ax(HEW20)_LCH_2412MHz_SU_ / _Ant1 (SISO)_NTNV

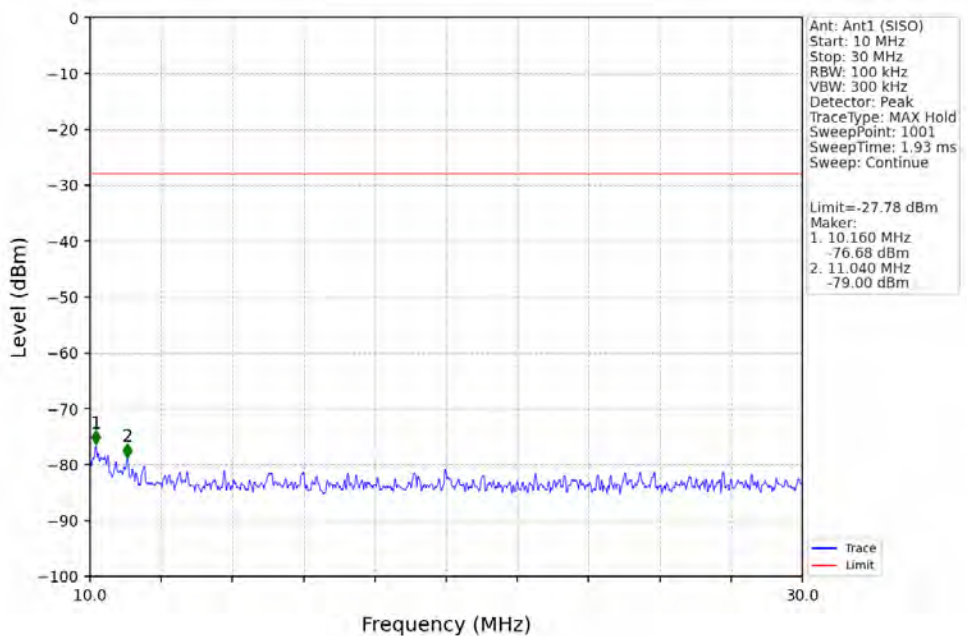




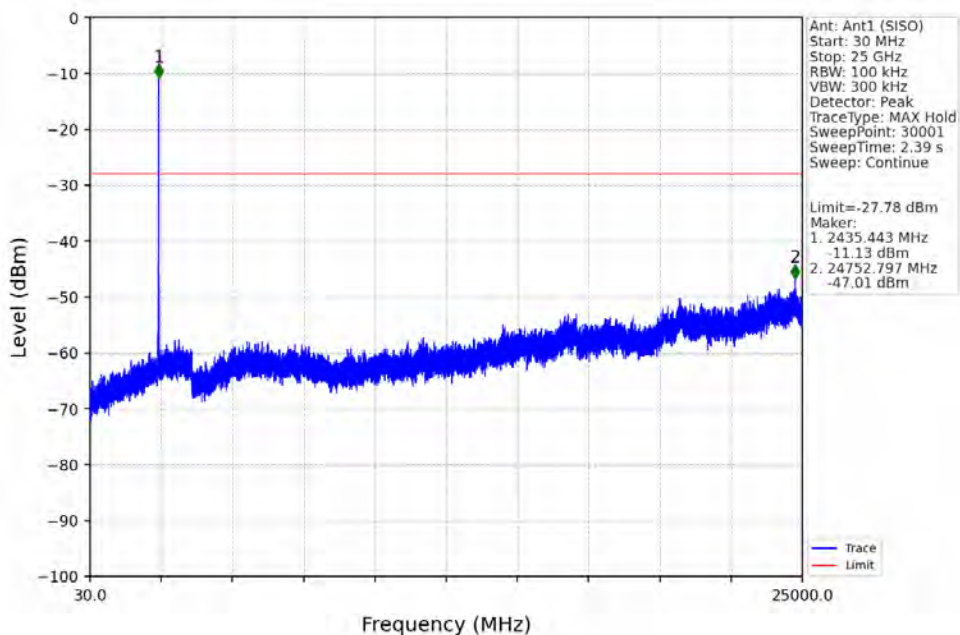
802.11ax(HEW20)_MCH_2437MHz_SU / _Ant1 (SISO)_NTNV



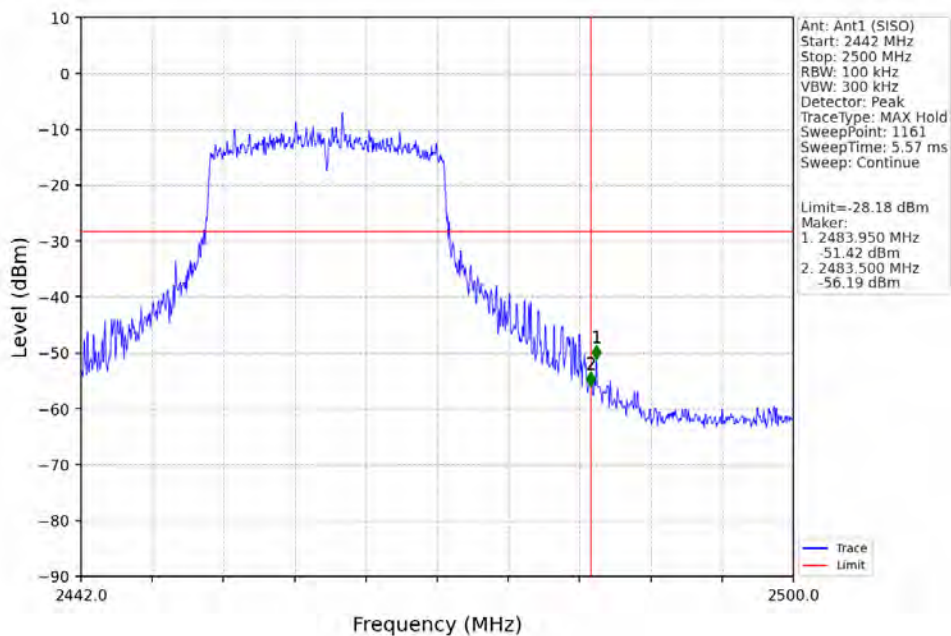
802.11ax(HEW20)_MCH_2437MHz_SU / _Ant1 (SISO)_NTNV

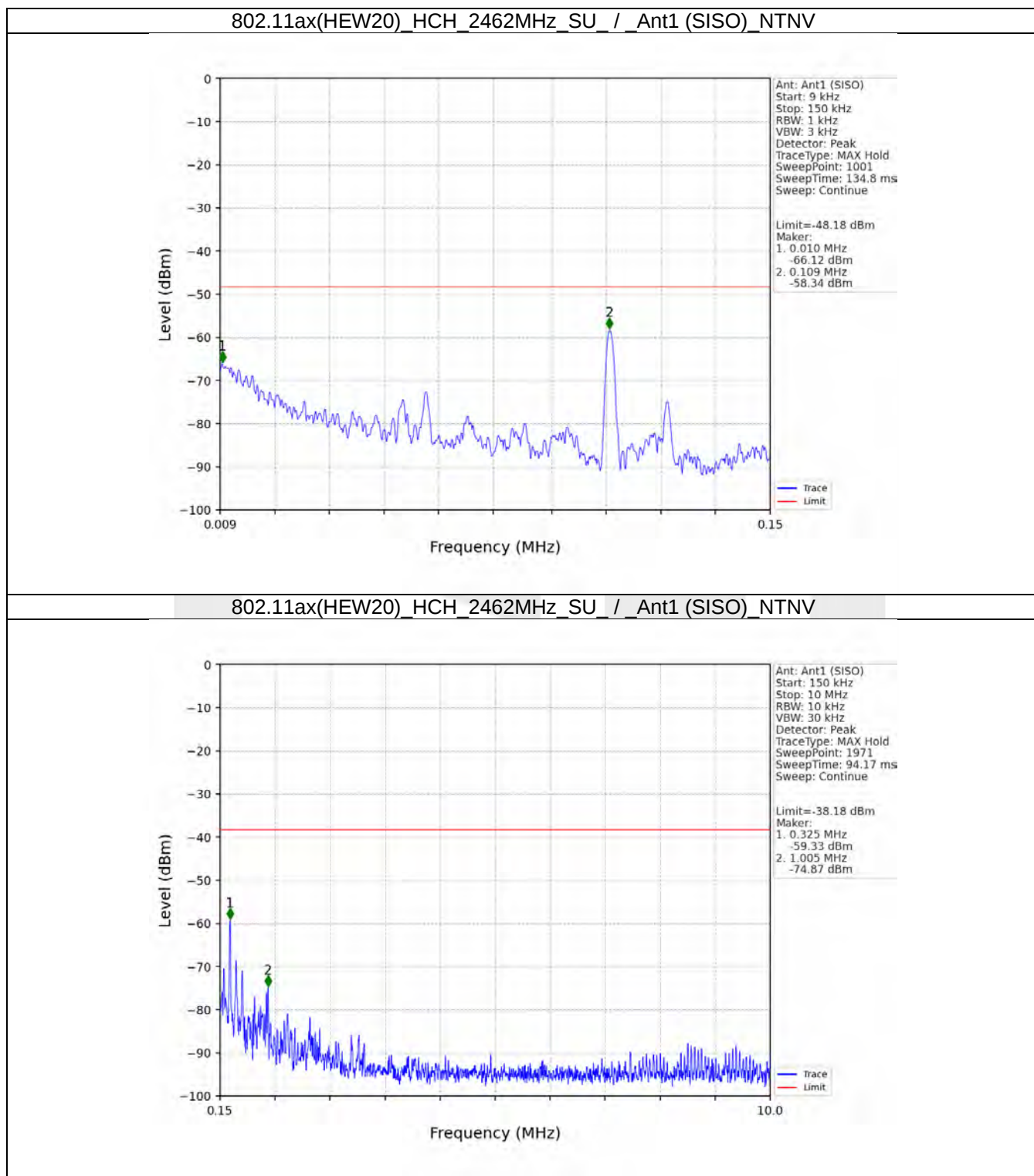


802.11ax(HEW20)_MCH_2437MHz_SU / _Ant1 (SISO)_NTNV

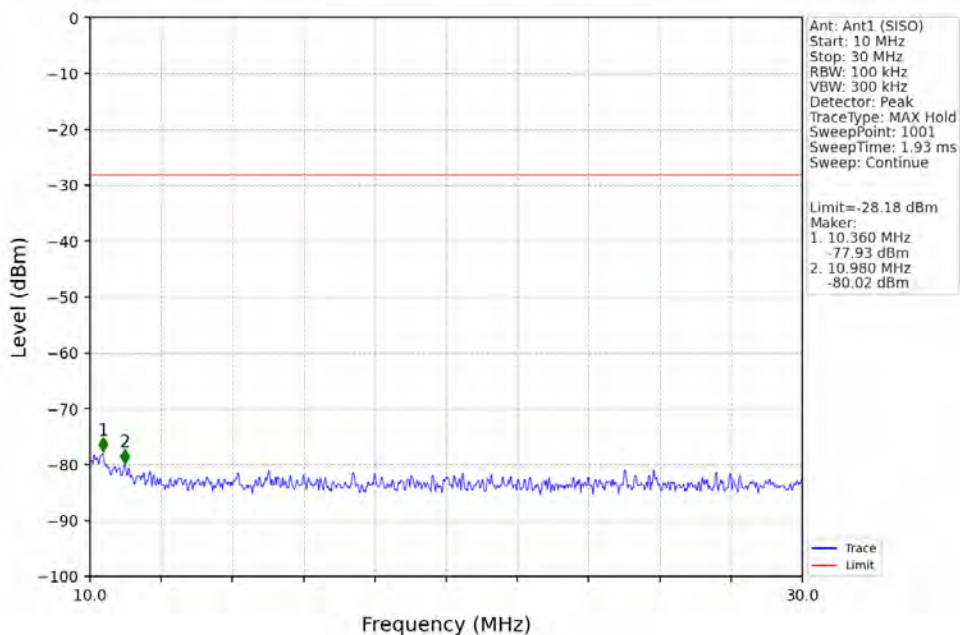


802.11ax(HEW20)_HCH_2462MHz_SU / _Ant1 (SISO)_NTNV

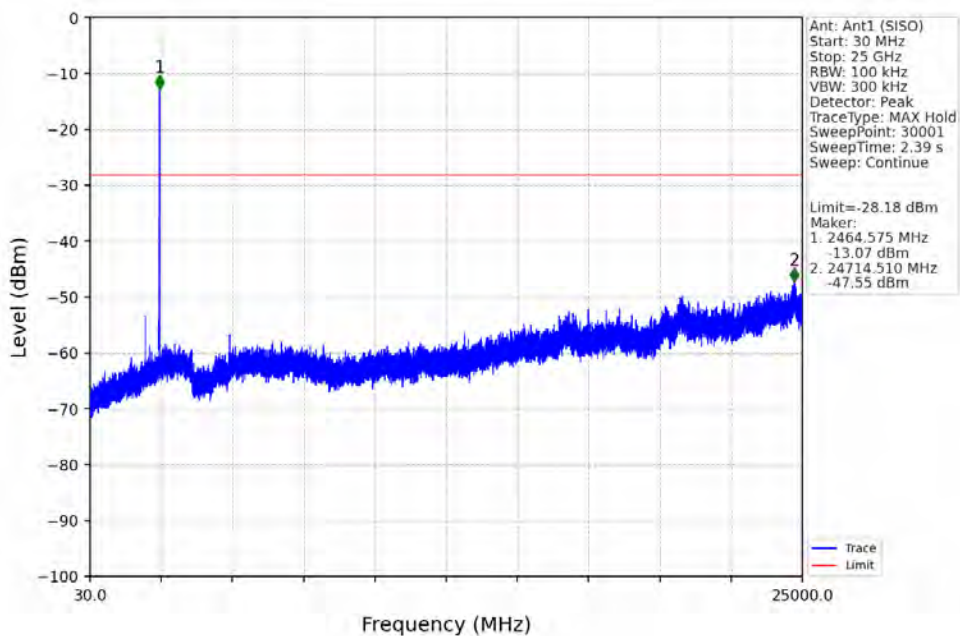




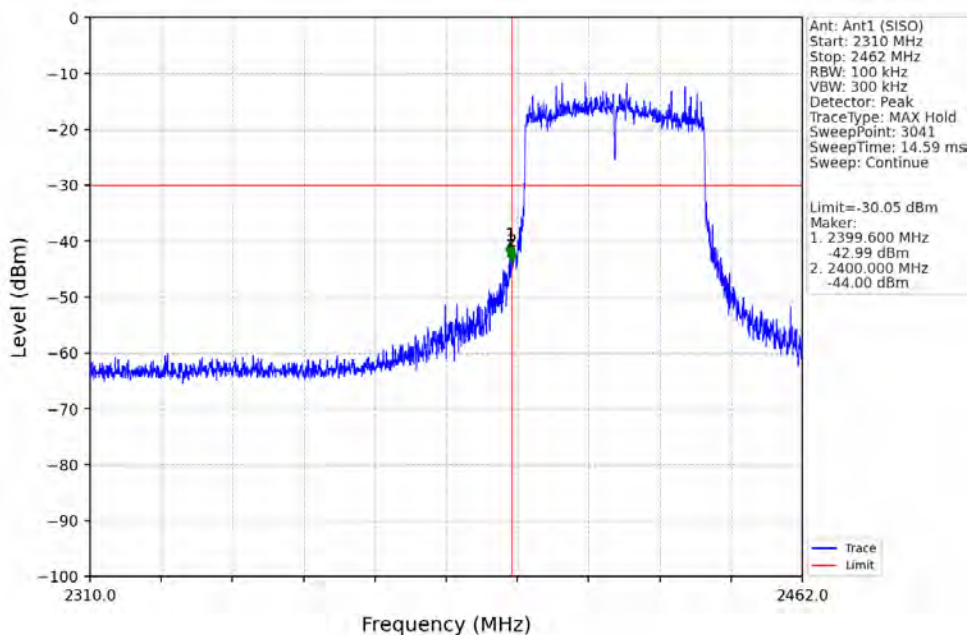
802.11ax(HEW20)_HCH_2462MHz_SU_ / _Ant1 (SISO)_NTNV



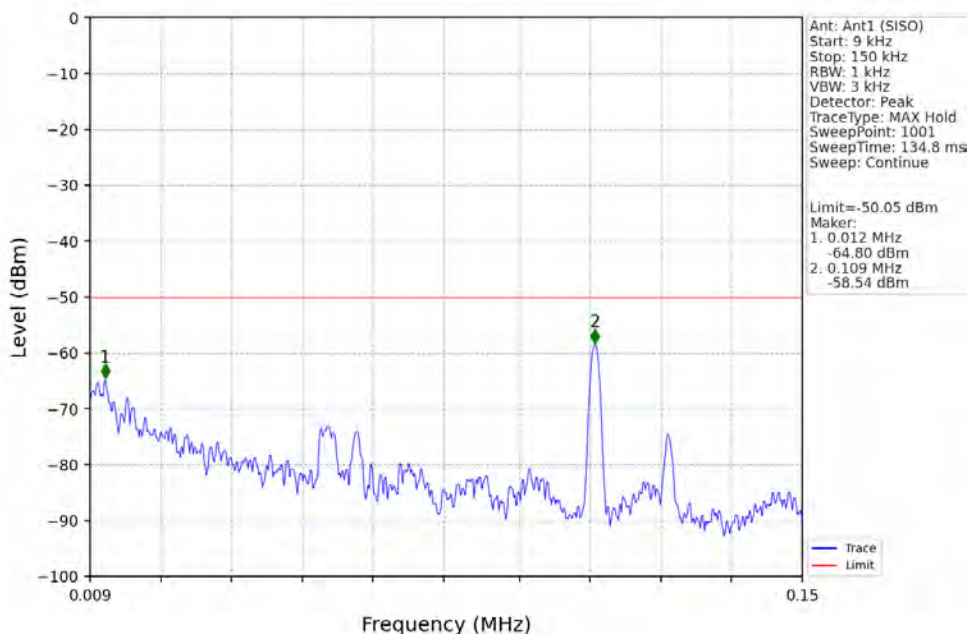
802.11ax(HEW20)_HCH_2462MHz_SU_ / _Ant1 (SISO)_NTNV



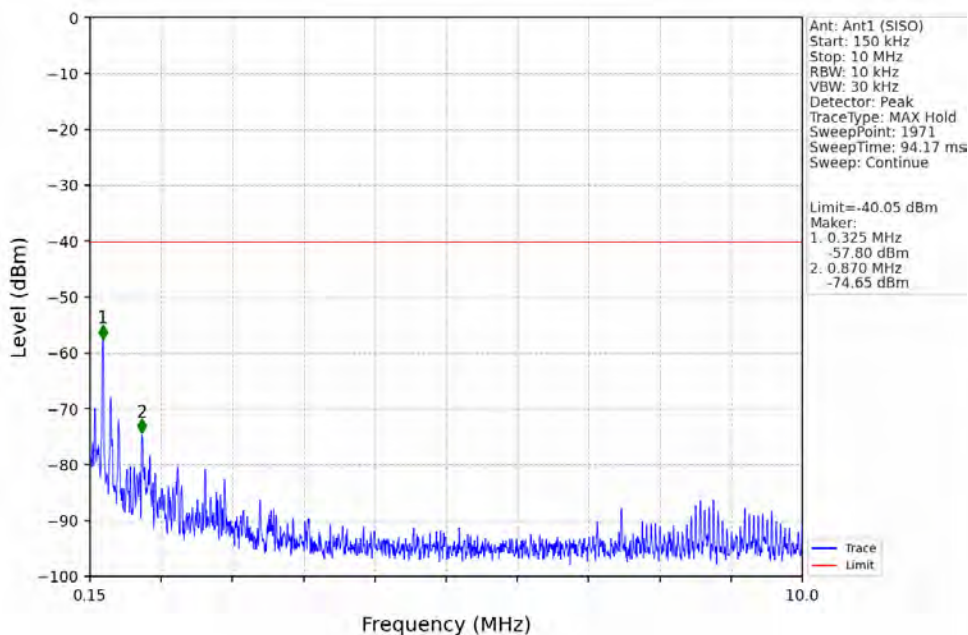
802.11ax(HEW40)_LCH_2422MHz_SU_ / _Ant1 (SISO)_NTNV



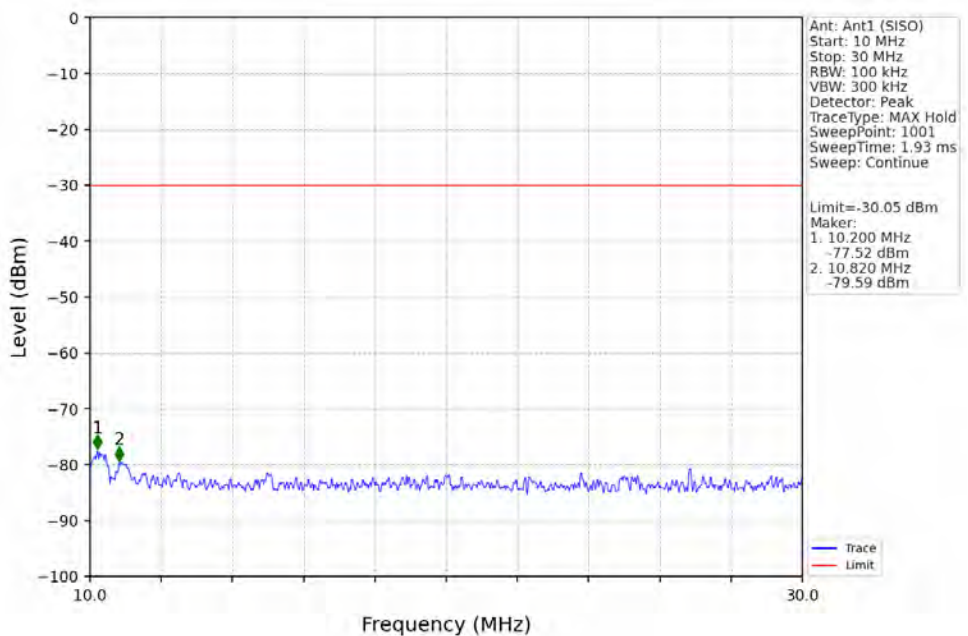
802.11ax(HEW40)_LCH_2422MHz_SU_ / _Ant1 (SISO)_NTNV

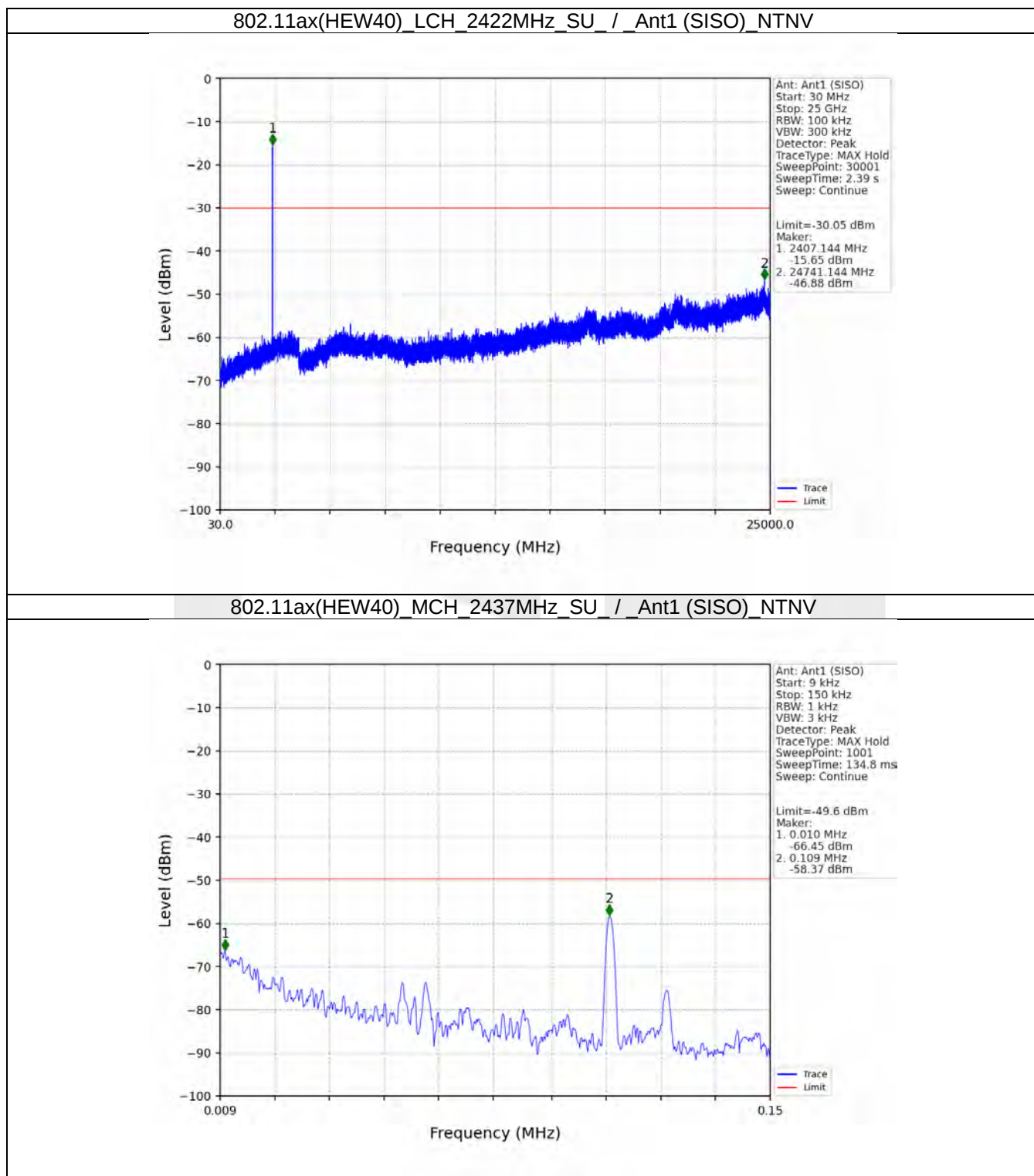


802.11ax(HEW40)_LCH_2422MHz_SU_ / _Ant1 (SISO)_NTNV

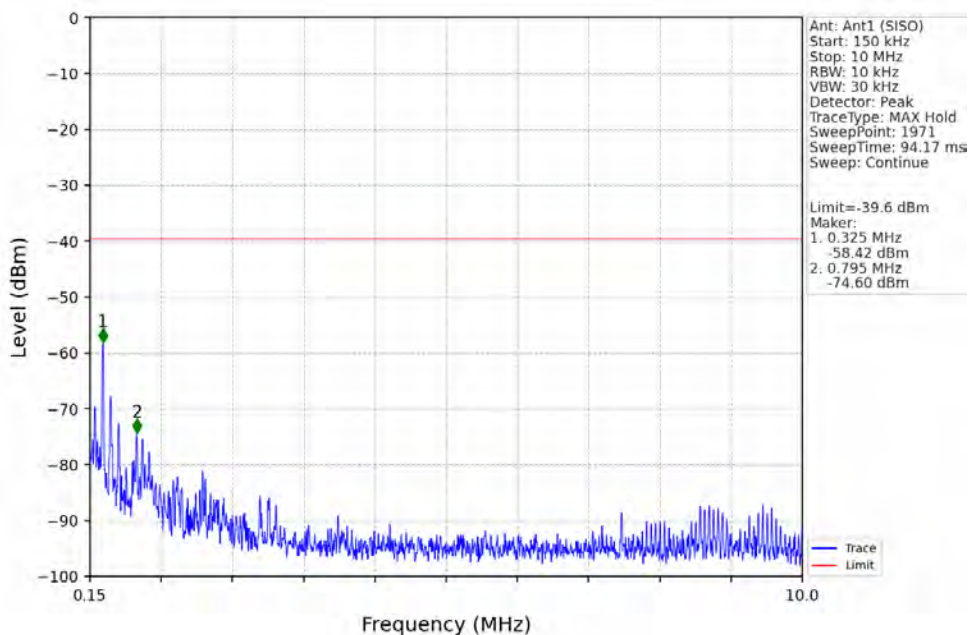


802.11ax(HEW40)_LCH_2422MHz_SU_ / _Ant1 (SISO)_NTNV

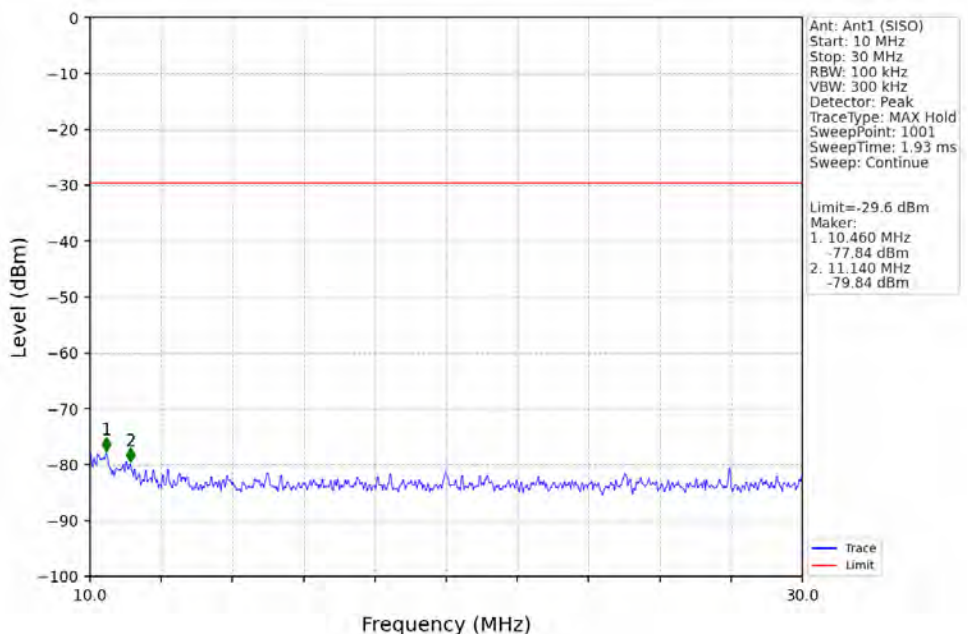




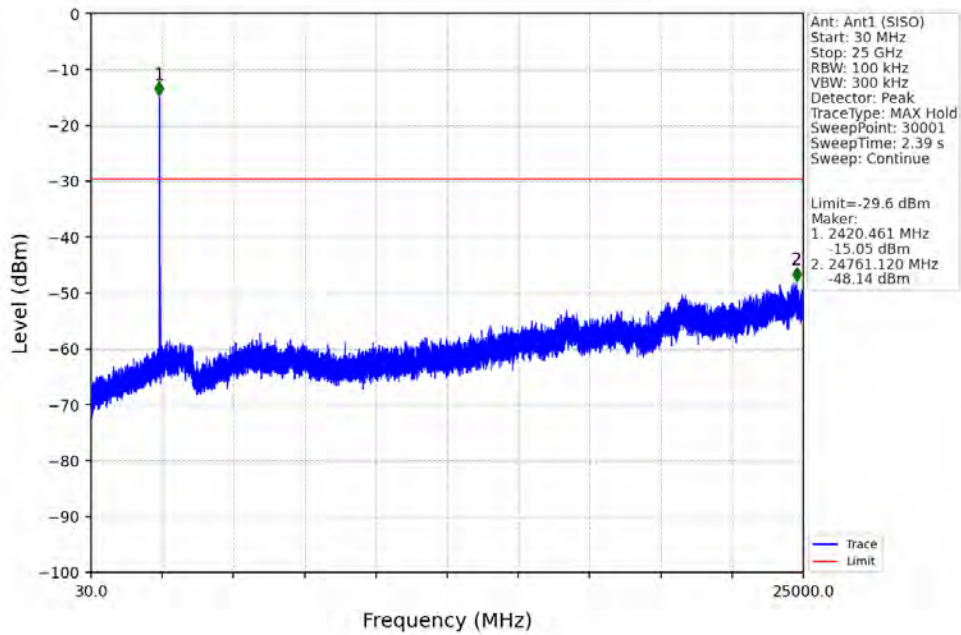
802.11ax(HEW40)_MCH_2437MHz_SU / _Ant1 (SISO)_NTNV



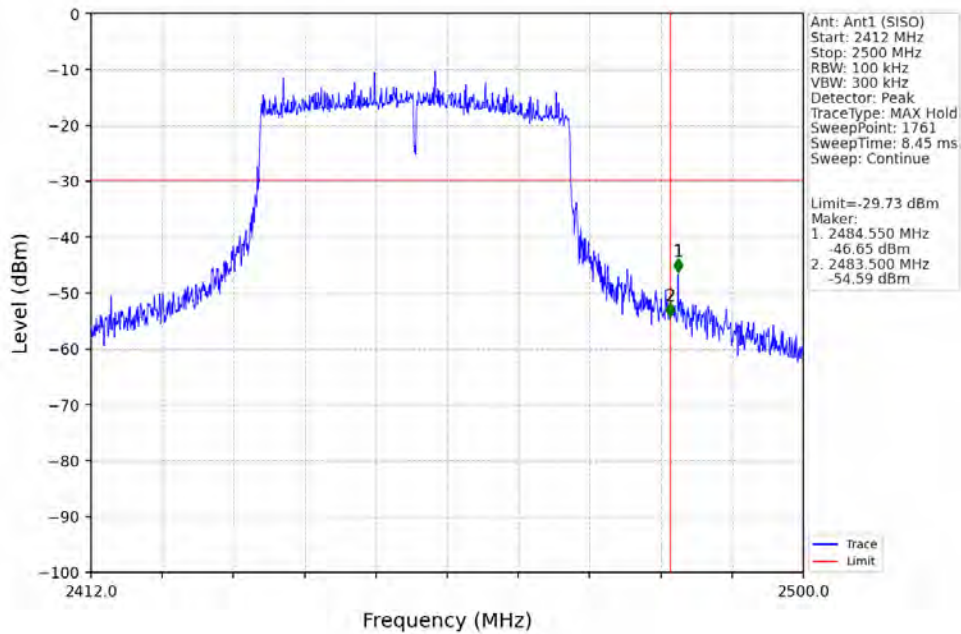
802.11ax(HEW40)_MCH_2437MHz_SU / _Ant1 (SISO)_NTNV



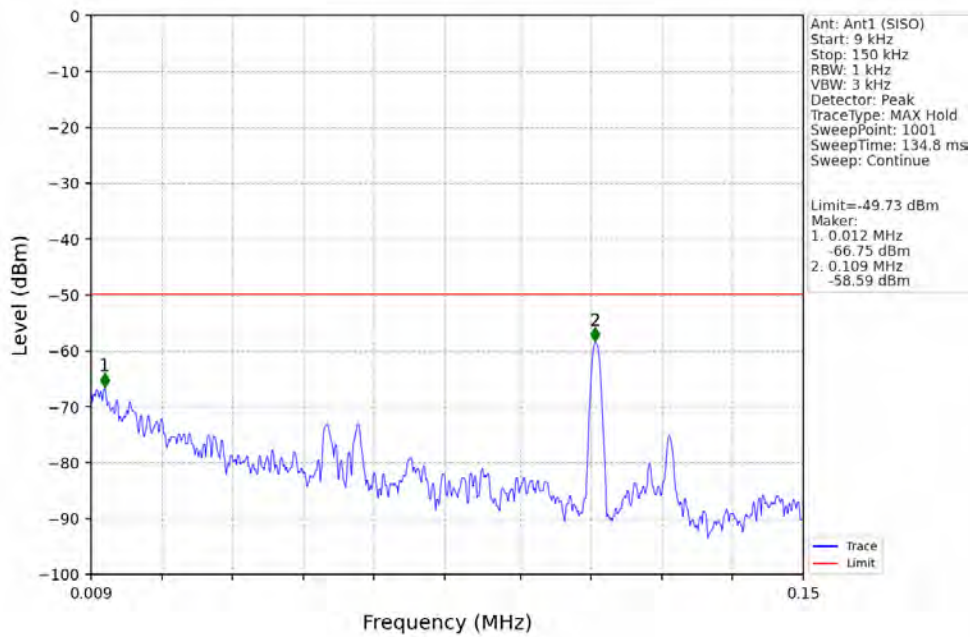
802.11ax(HEW40)_MCH_2437MHz_SU / _Ant1 (SISO)_NTNV



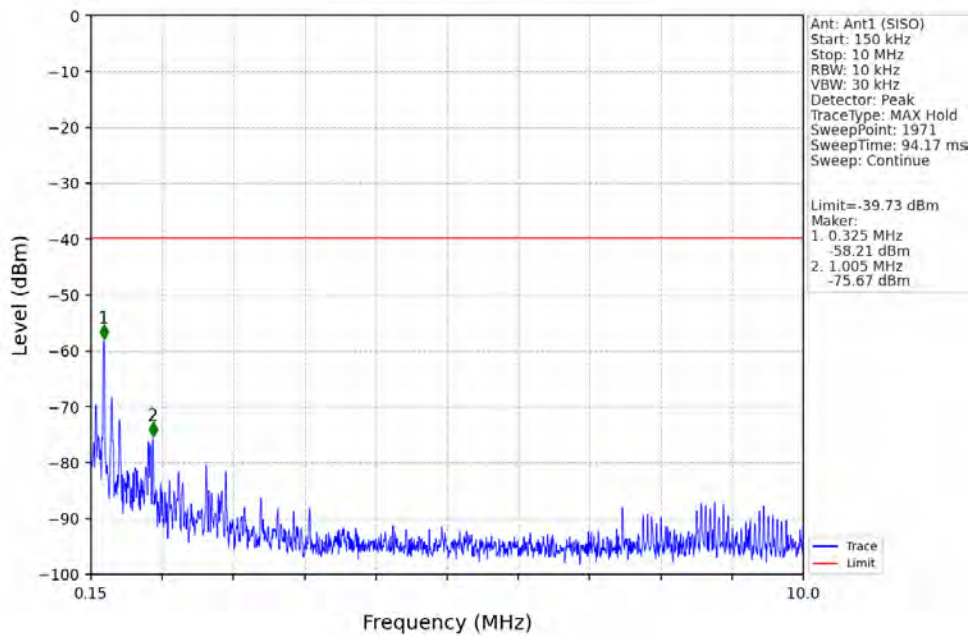
802.11ax(HEW40)_HCH_2452MHz_SU / _Ant1 (SISO)_NTNV

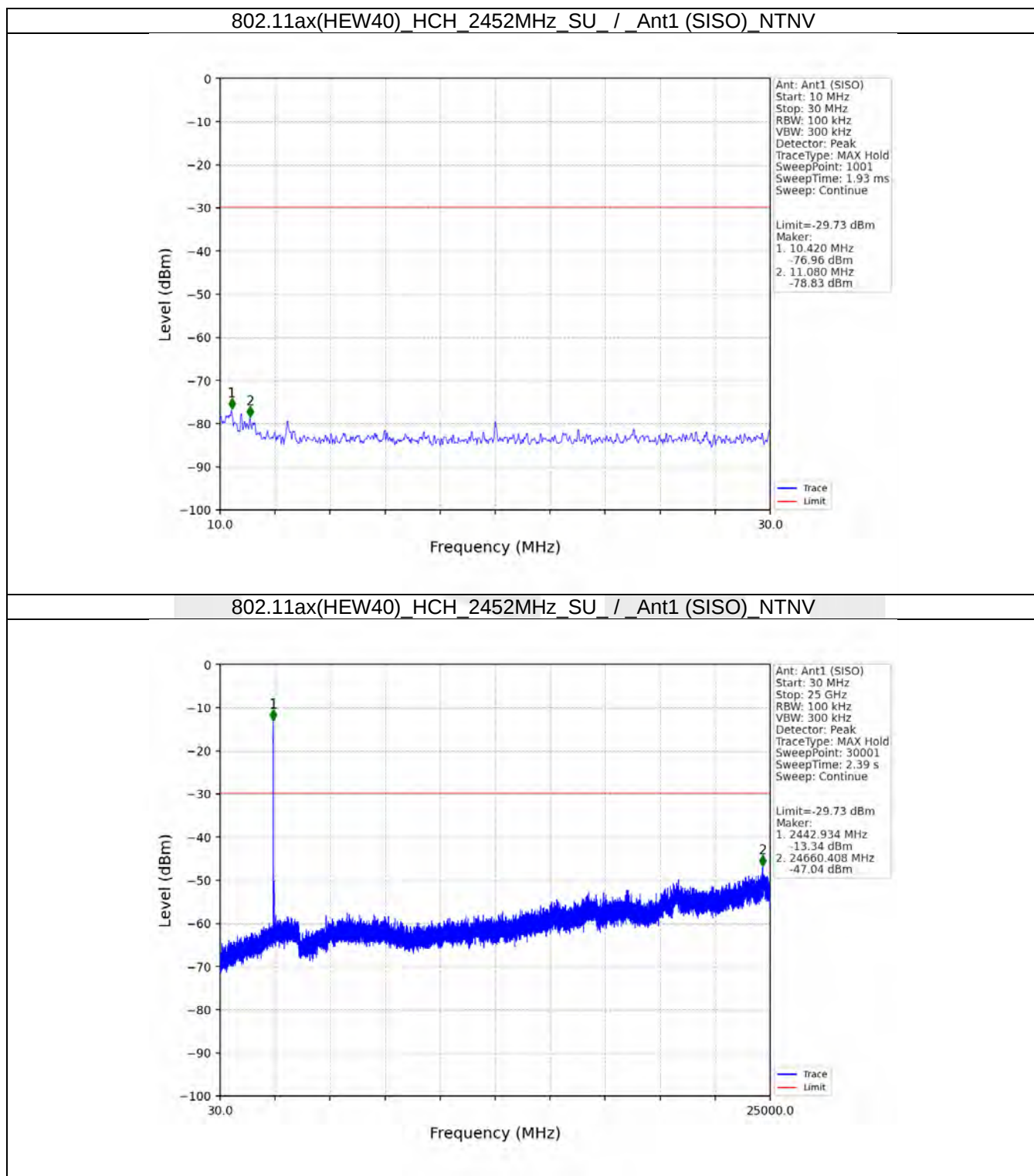


802.11ax(HEW40)_HCH_2452MHz_SU_/_Ant1 (SISO)_NTNV



802.11ax(HEW40)_HCH_2452MHz_SU_/_Ant1 (SISO)_NTNV





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