

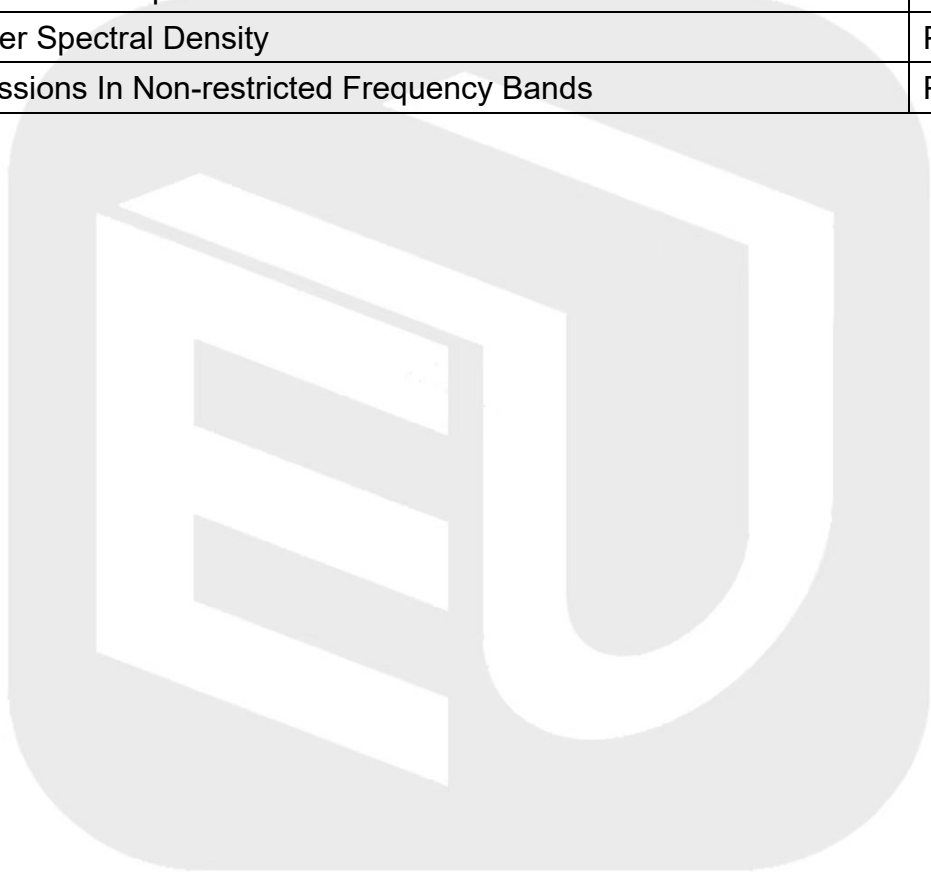
ANNEX F TEST DATA

For

Project No.:	8230EU012401W
Client:	Guangzhou Munbyn Information Technology Co, Ltd.
Product Name:	Android Barcode Scanner
Model No.:	IPDA099
FCC ID:	2A8JV-IPDA099
Technology:	WiFi 2.4G
Test Engineer:	<i>Mikoy zhu</i>
Test Date:	2024-06-25

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



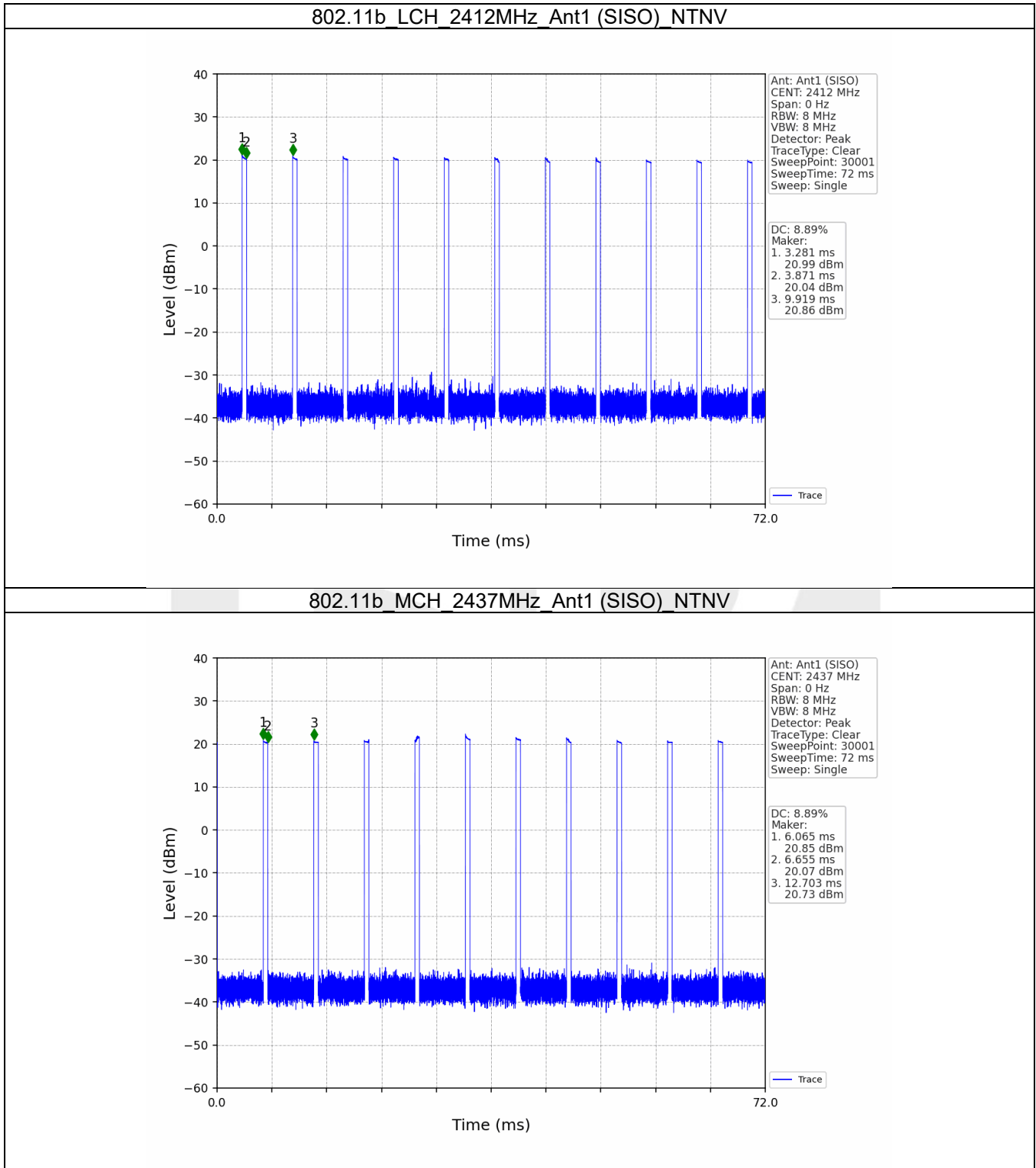
1. Duty Cycle

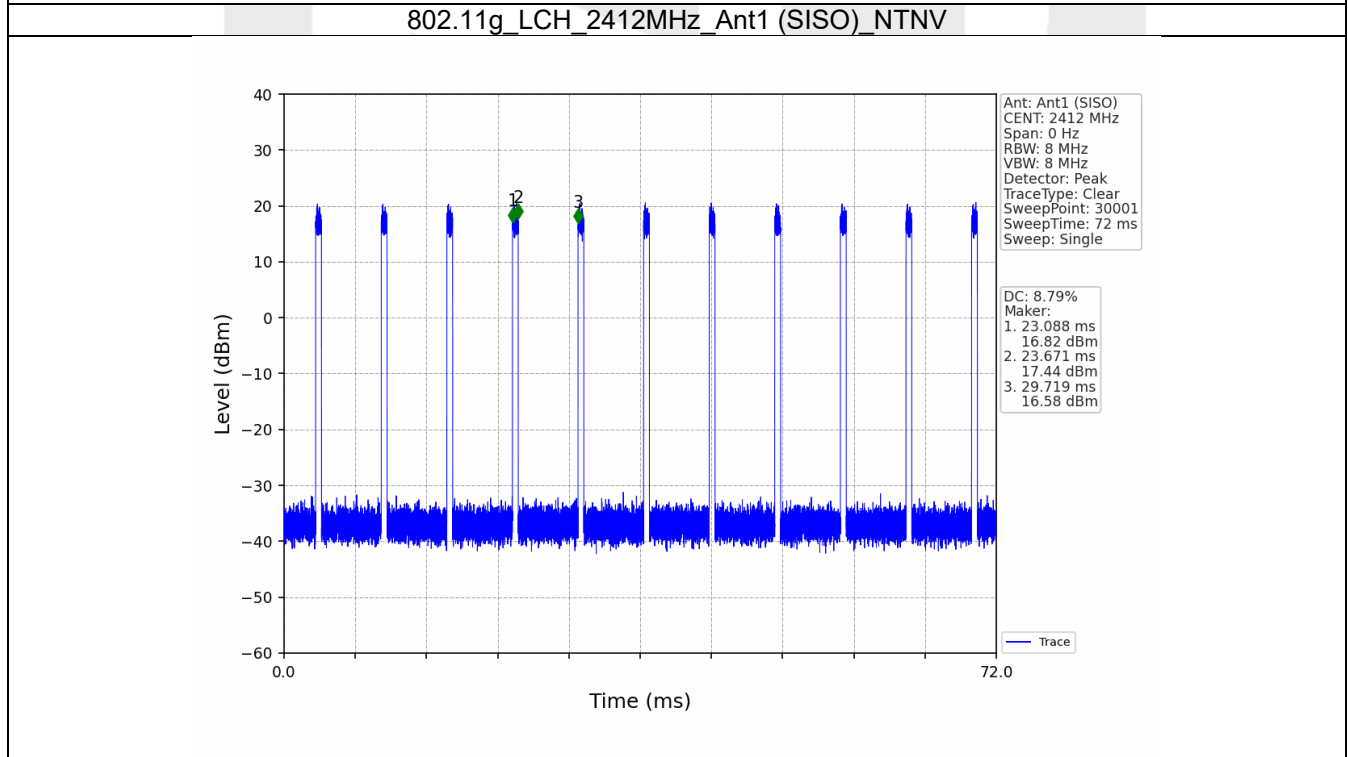
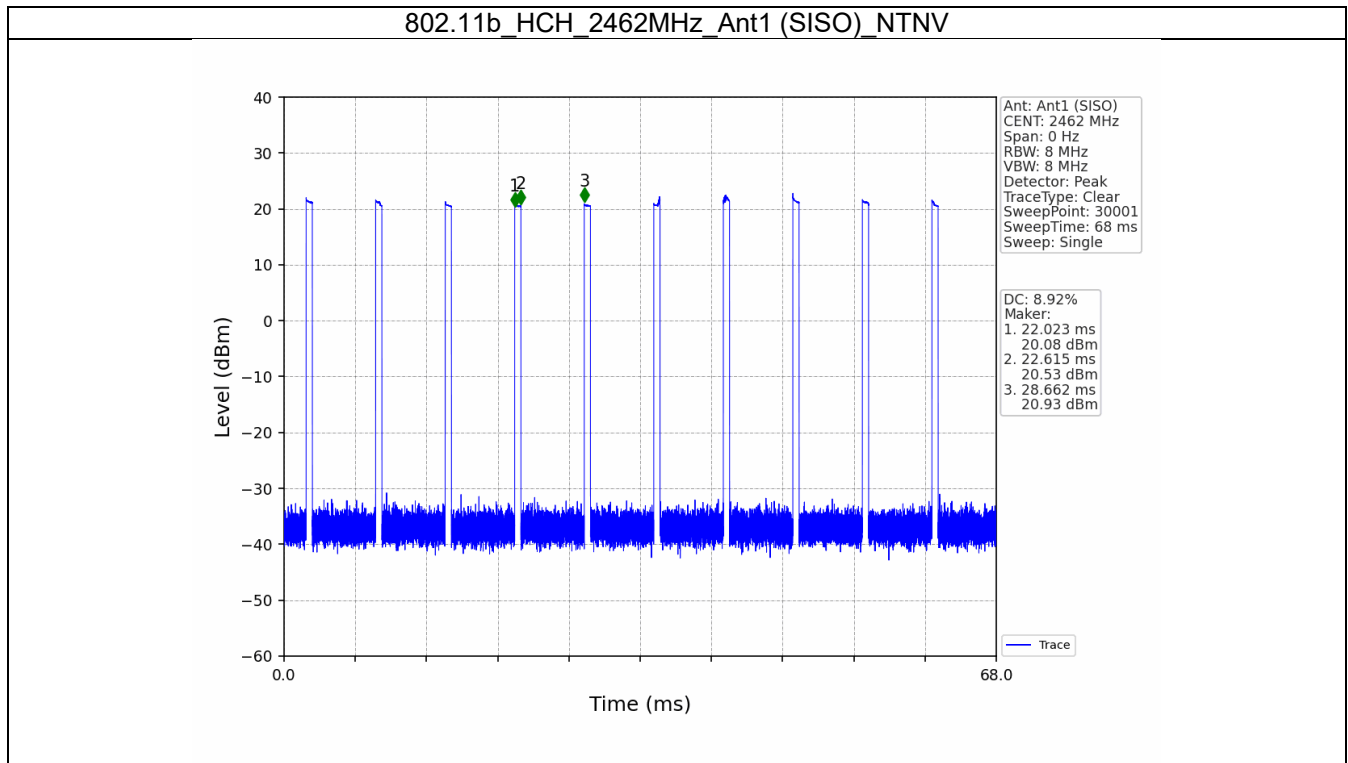
1.1 Ant1

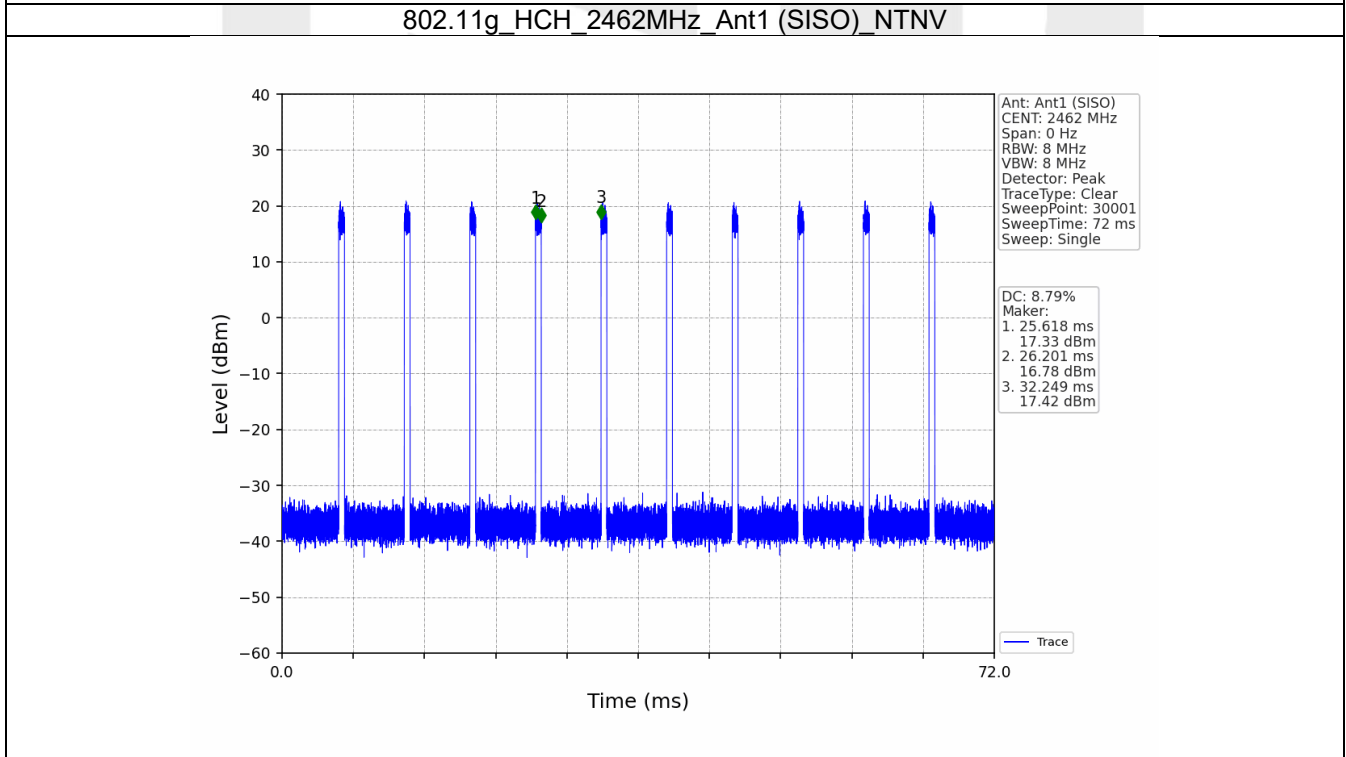
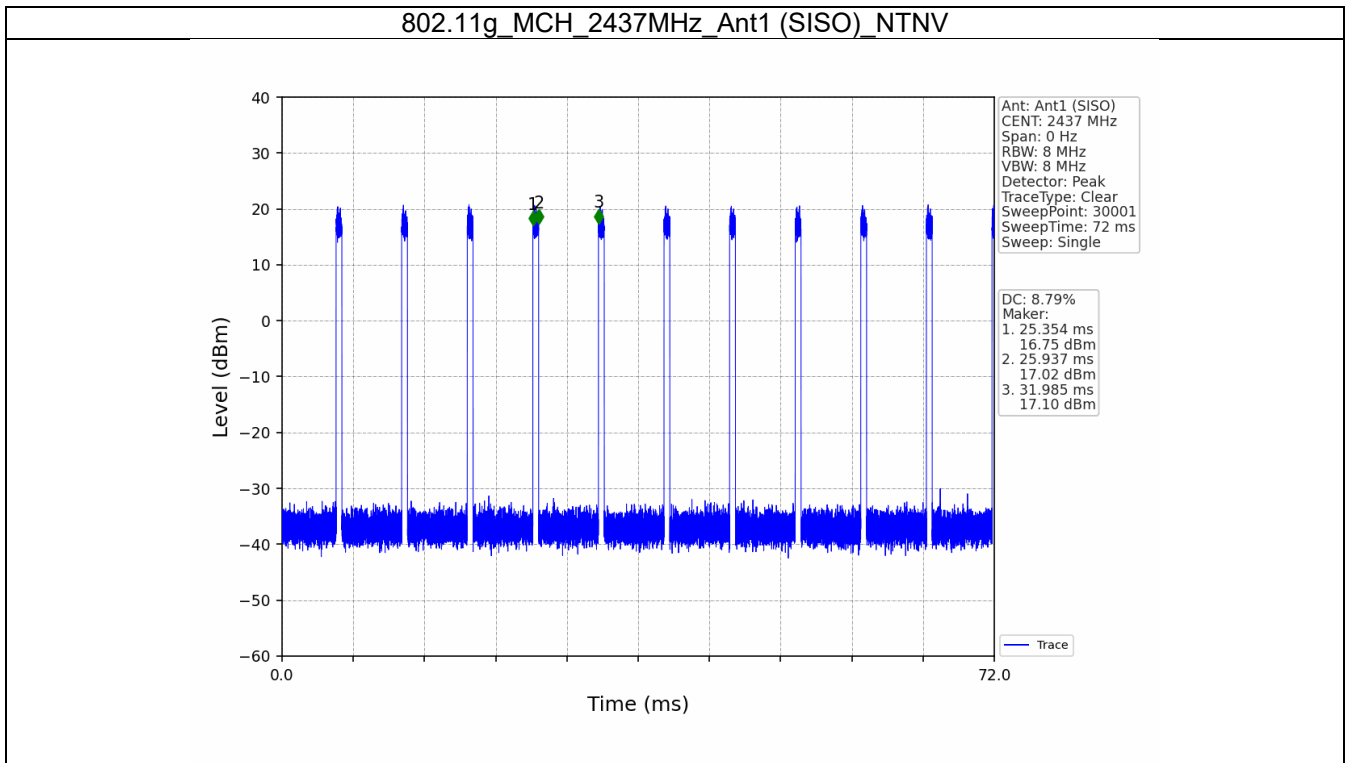
1.1.1 Test Result

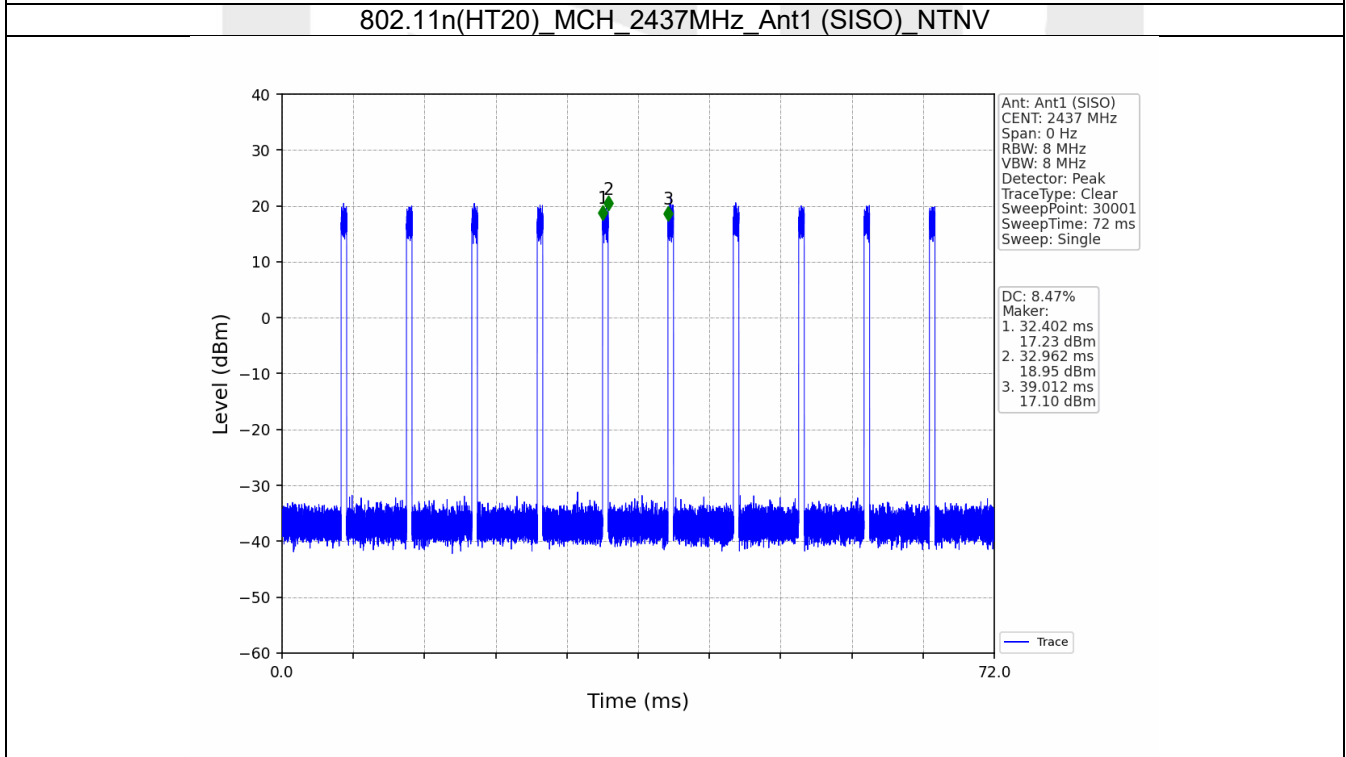
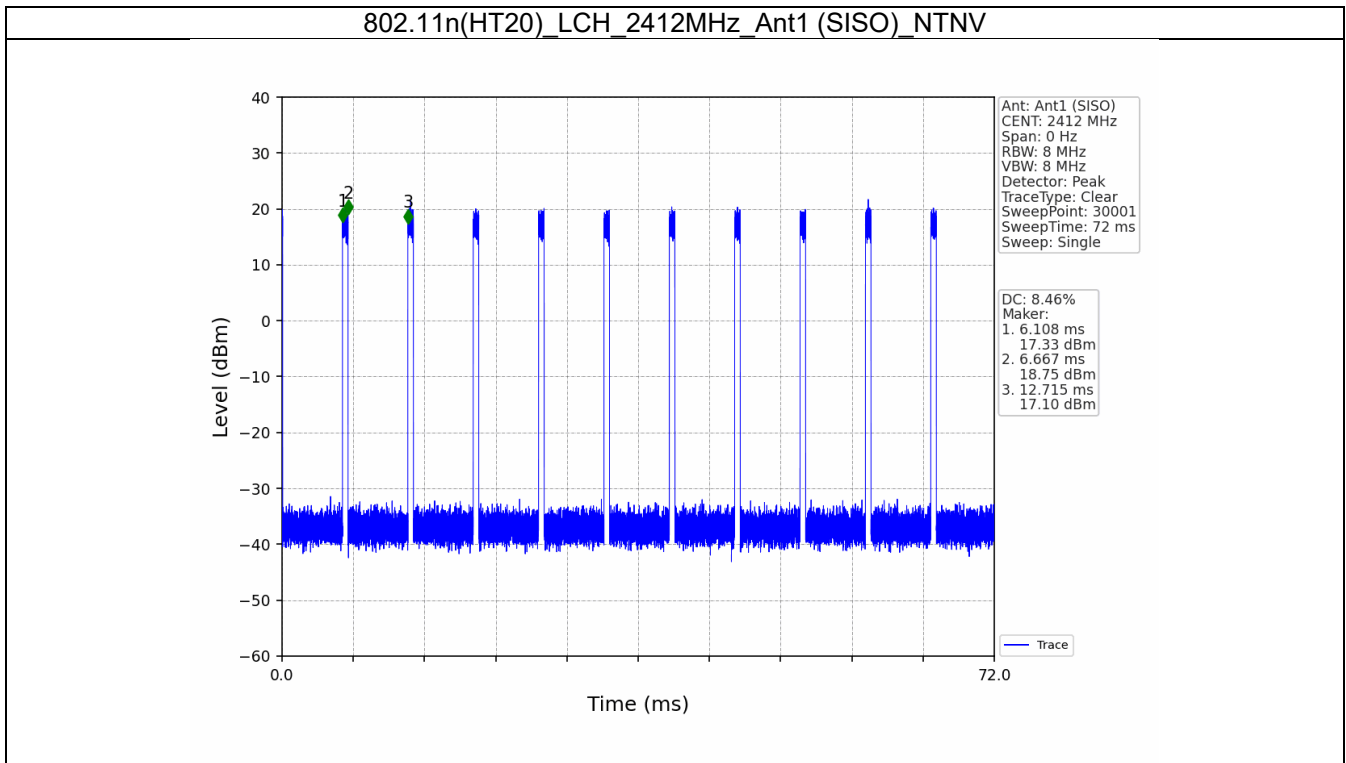
Ant1							
Mode	TX Type	Frequency (MHz)	T_on (ms)	Period (ms)	Duty Cycle (%)	Duty Cycle Correction Factor (dB)	Max. DC Variation (%)
802.11b	SISO	2412	0.590	6.638	8.89	10.51	0.04
		2437	0.590	6.638	8.89	10.51	0.04
		2462	0.592	6.639	8.92	10.50	0.03
802.11g	SISO	2412	0.583	6.631	8.79	10.56	0.04
		2437	0.583	6.631	8.79	10.56	0.04
		2462	0.583	6.631	8.79	10.56	0.04
802.11n (HT20)	SISO	2412	0.559	6.607	8.46	10.73	0.03
		2437	0.560	6.610	8.47	10.72	0.04
		2462	0.559	6.607	8.46	10.73	0.03
802.11n (HT40)	SISO	2422	0.581	6.629	8.76	10.57	0.00
		2437	0.579	6.627	8.74	10.59	0.04
		2452	0.578	6.626	8.72	10.59	0.04

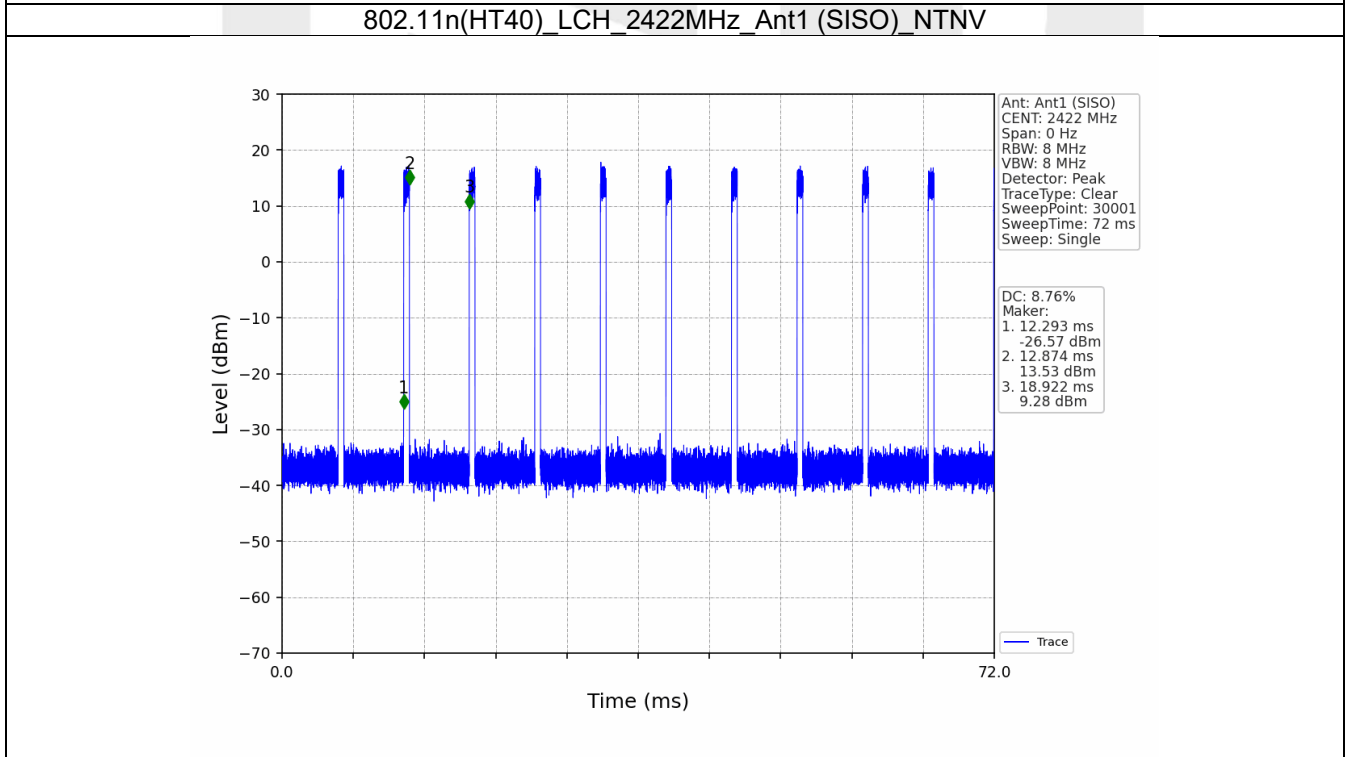
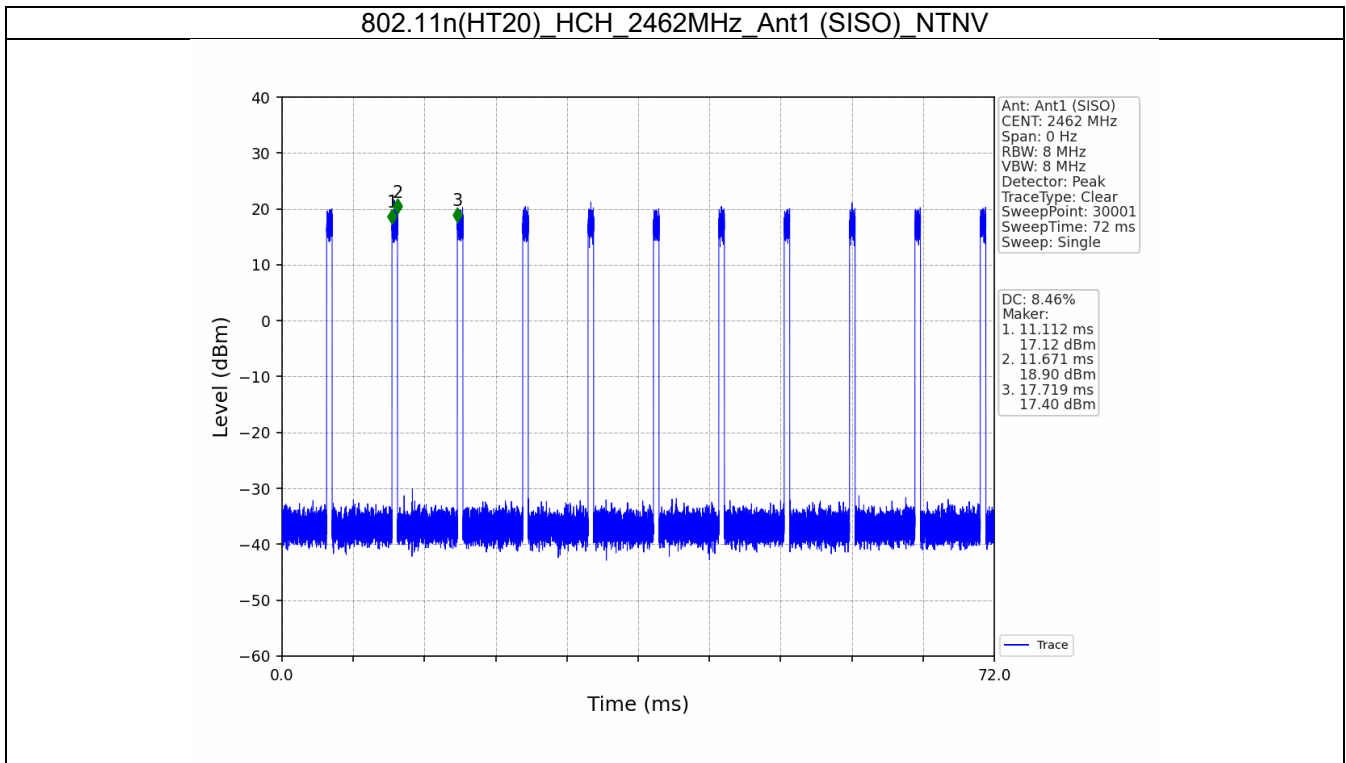
1.1.2 Test Graph

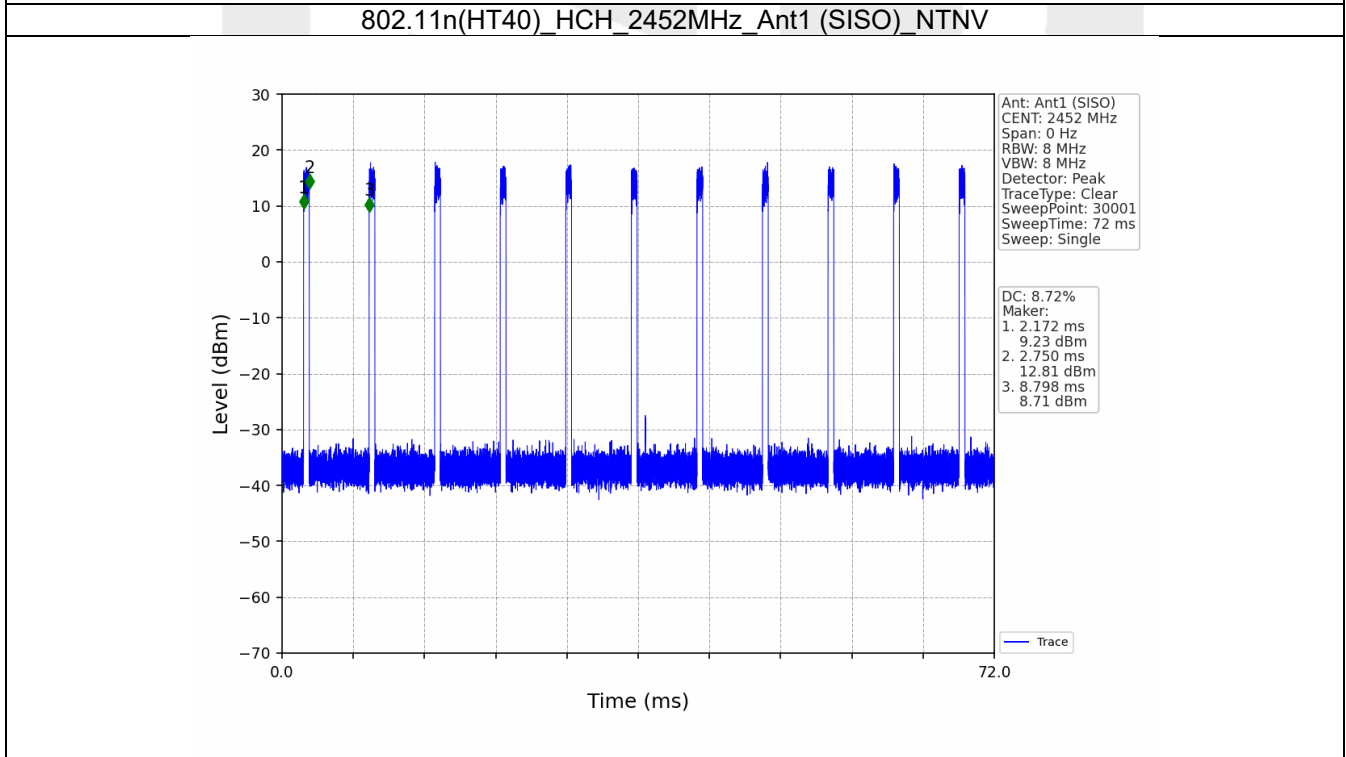
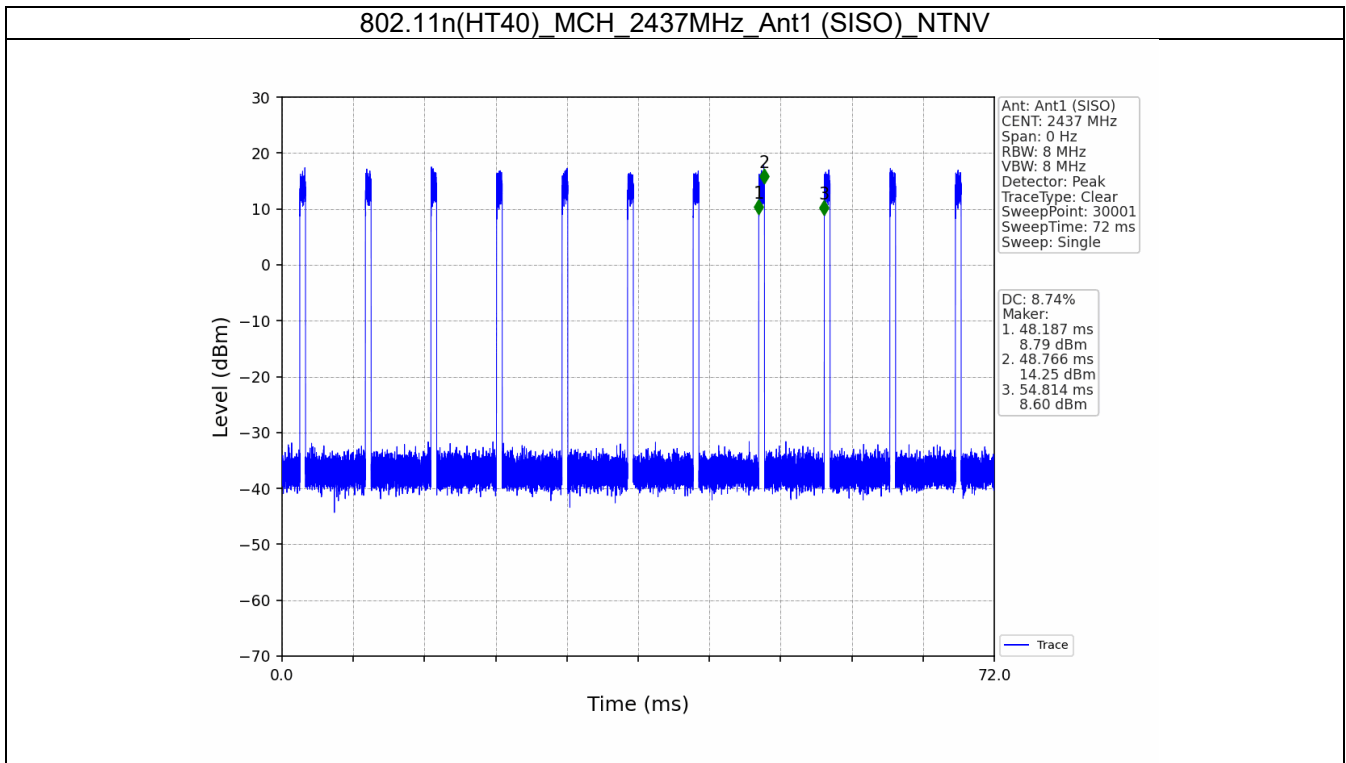












2. Bandwidth

2.1 OBW

2.1.1 Test Result

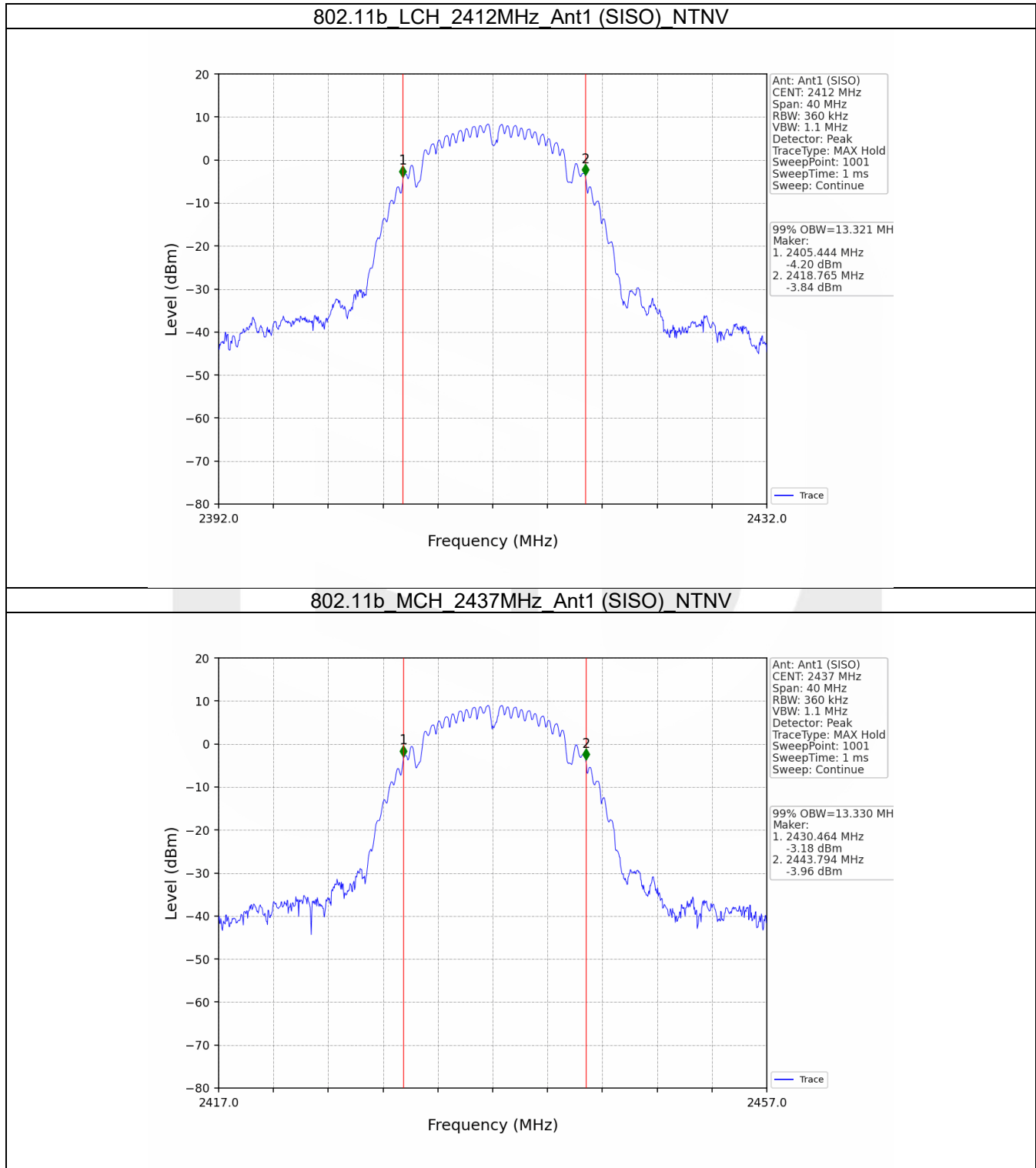
Mode	TX Type	Frequency (MHz)	ANT	99% Occupied Bandwidth (MHz)		Verdict
				Result	Limit	
802.11b	SISO	2412	1	13.321	/	Pass
		2437	1	13.330	/	Pass
		2462	1	13.328	/	Pass
802.11g	SISO	2412	1	18.679	/	Pass
		2437	1	18.559	/	Pass
		2462	1	18.628	/	Pass
802.11n (HT20)	SISO	2412	1	19.414	/	Pass
		2437	1	19.354	/	Pass
		2462	1	19.367	/	Pass
802.11n (HT40)	SISO	2422	1	39.316	/	Pass
		2437	1	38.986	/	Pass
		2452	1	39.051	/	Pass

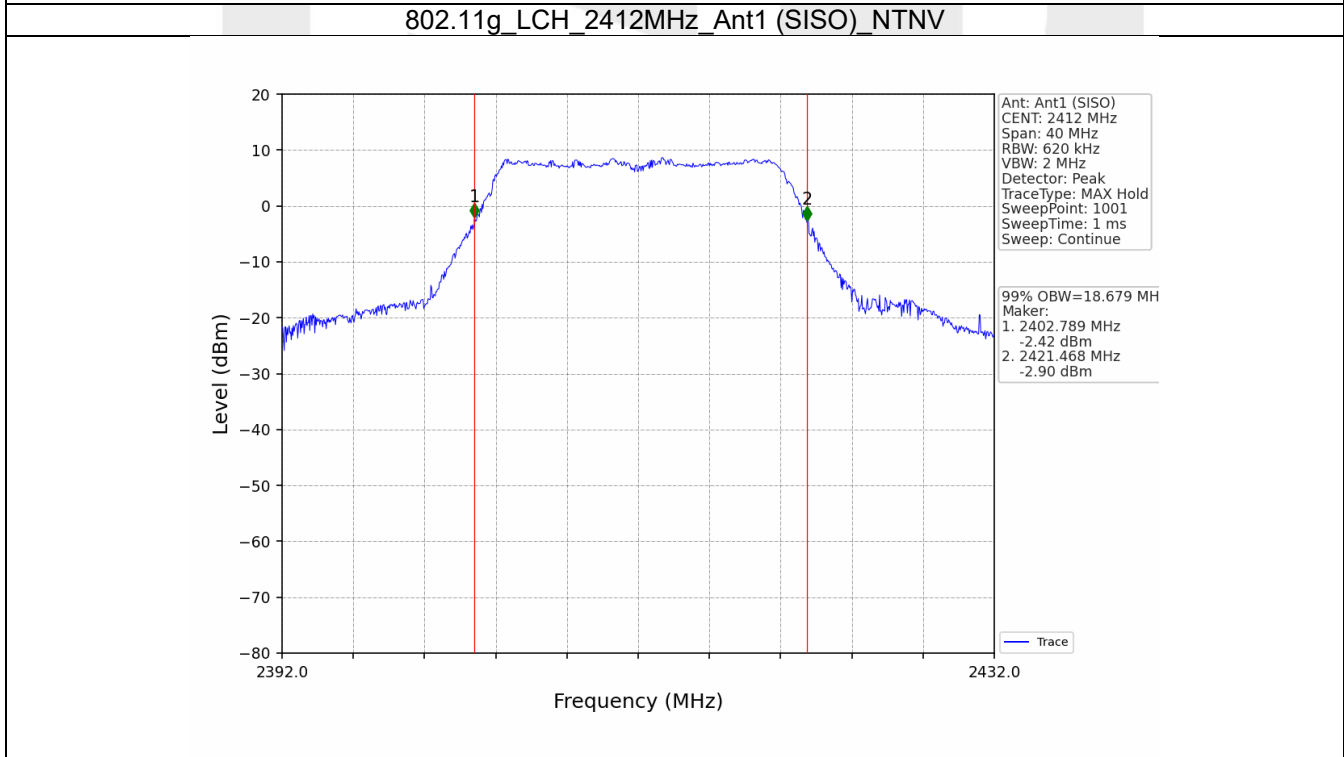
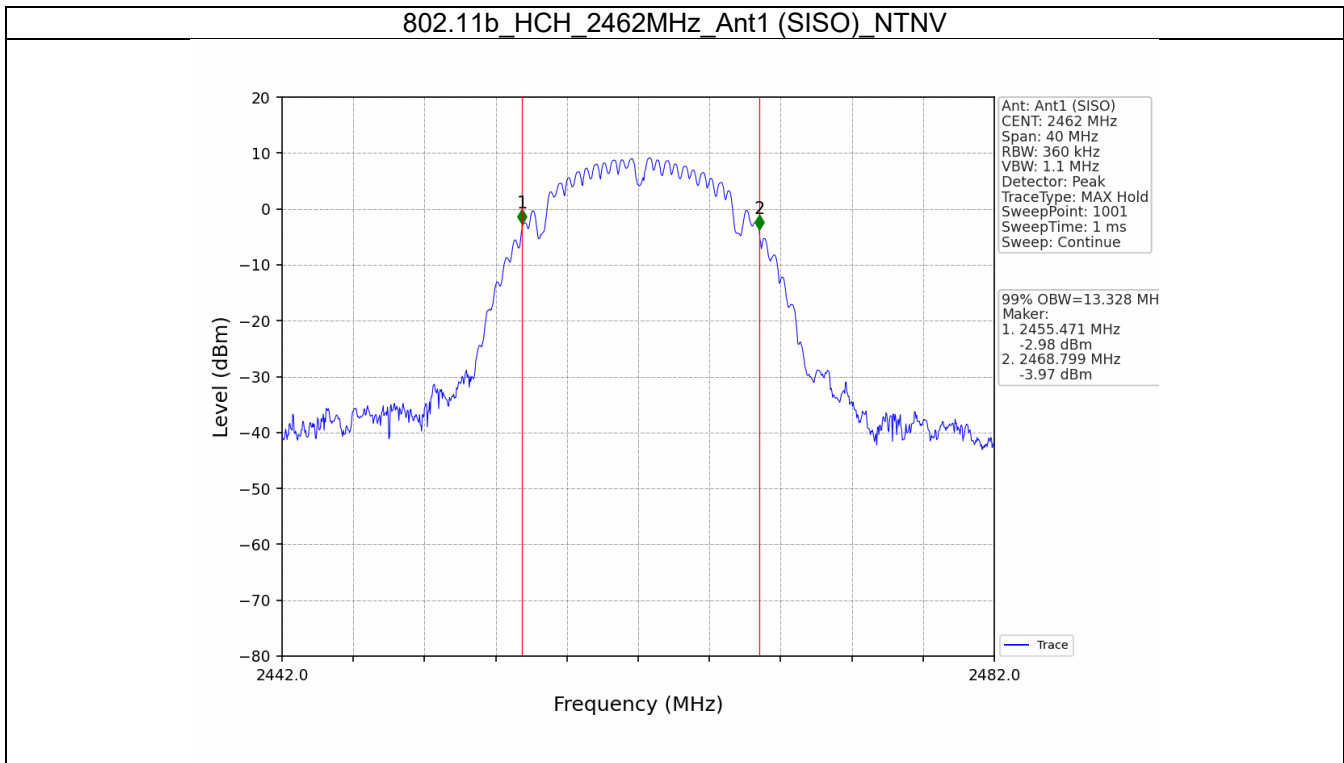
2.2 6dB BW

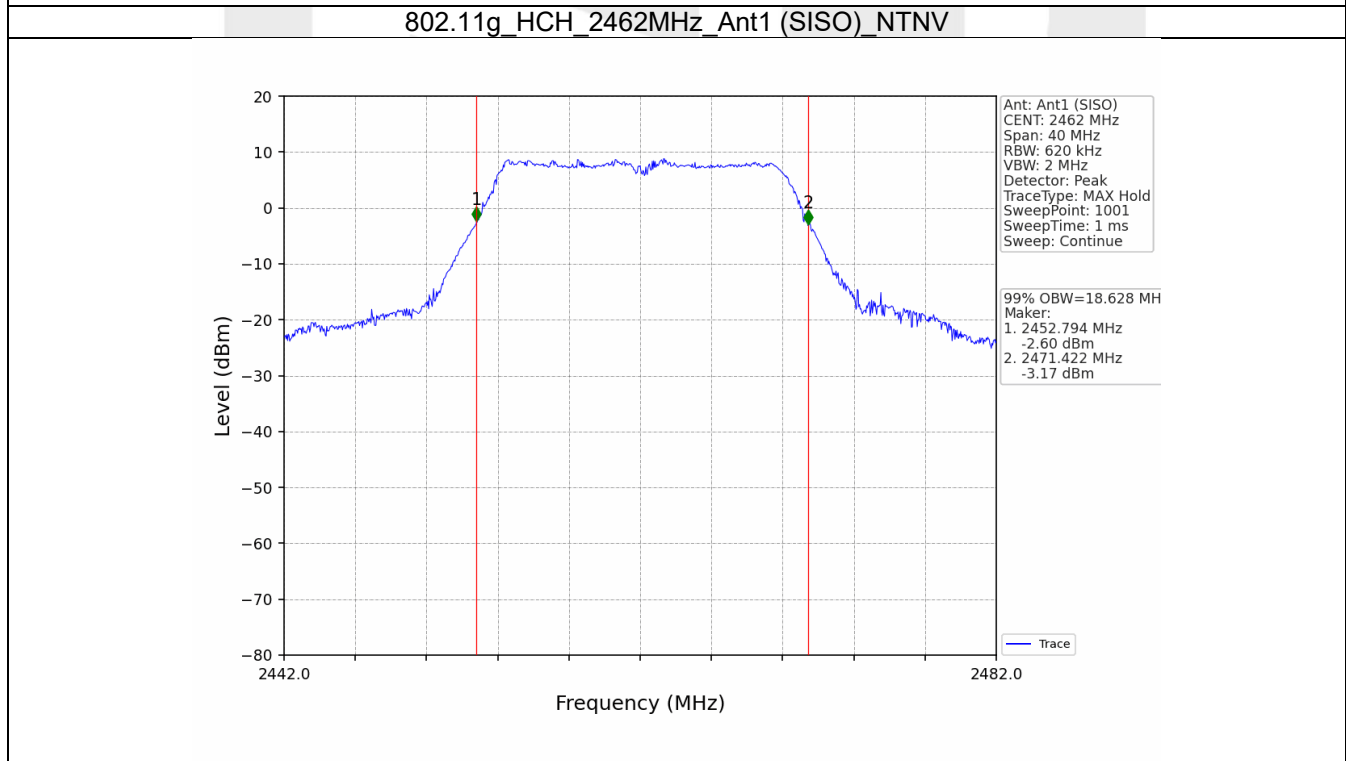
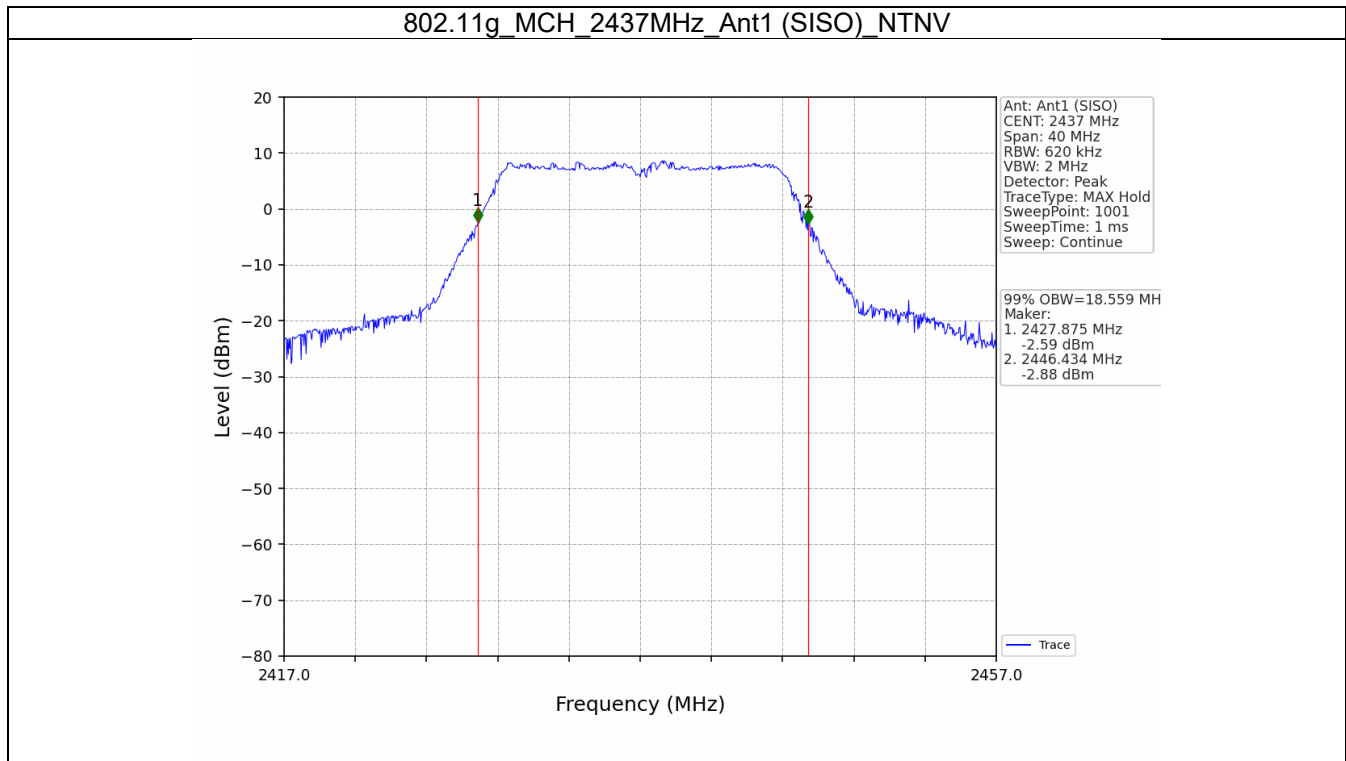
2.2.1 Test Result

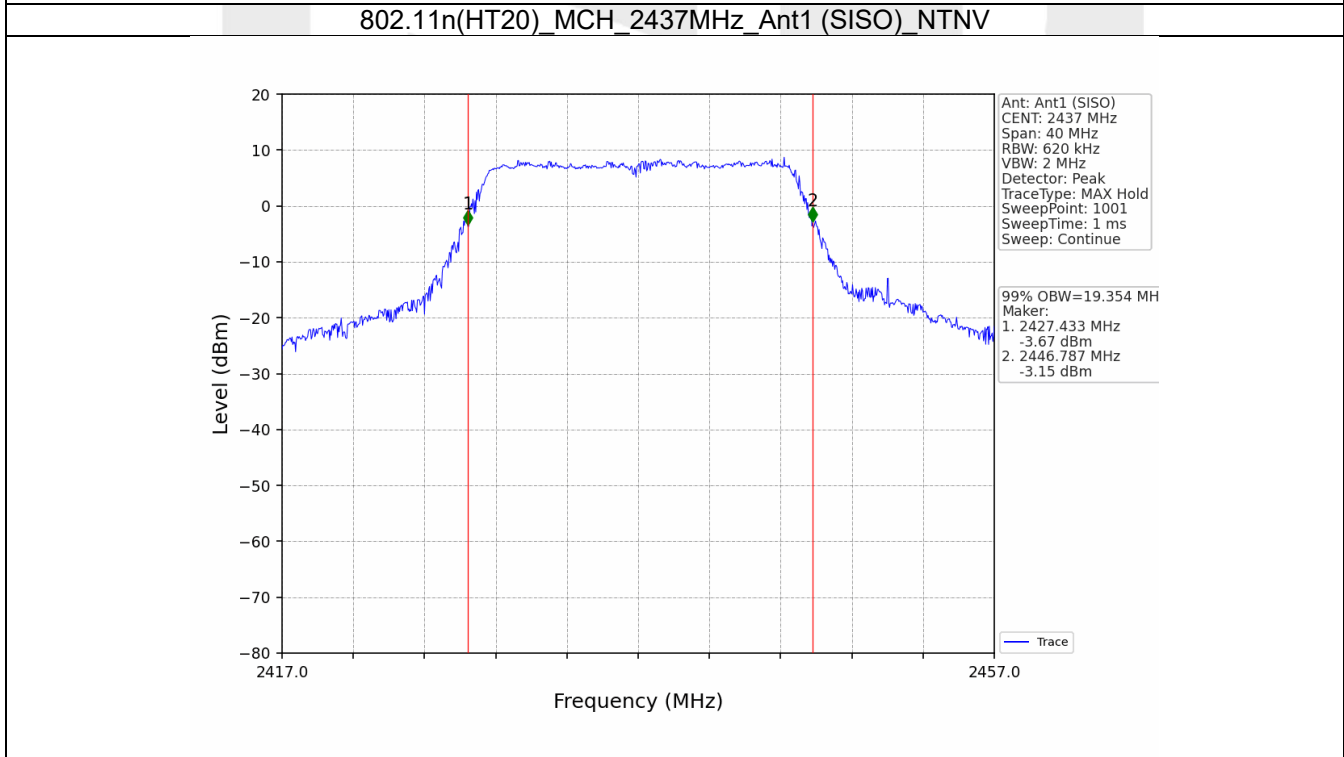
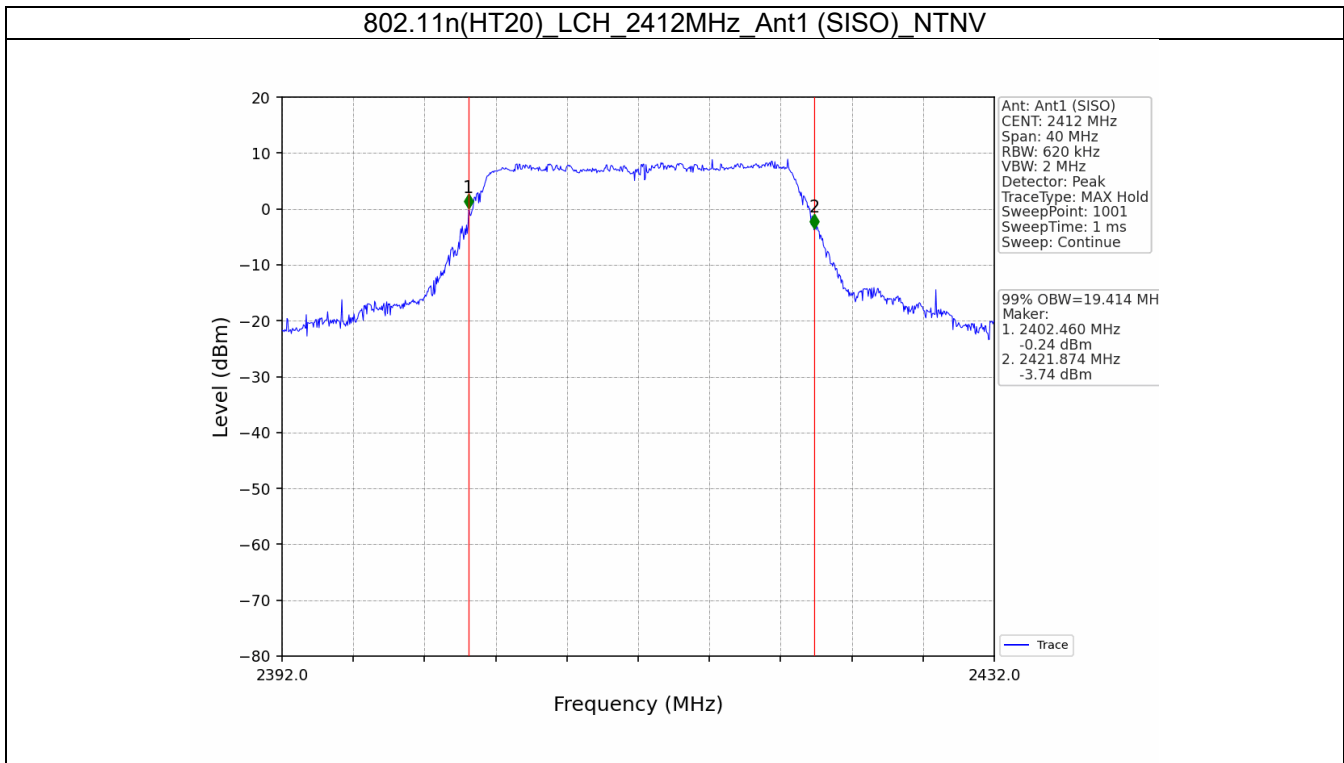
Mode	TX Type	Frequency (MHz)	ANT	6dB Bandwidth (MHz)		Verdict
				Result	Limit	
802.11b	SISO	2412	1	10.079	≥ 0.5	Pass
		2437	1	9.590	≥ 0.5	Pass
		2462	1	9.111	≥ 0.5	Pass
802.11g	SISO	2412	1	16.404	≥ 0.5	Pass
		2437	1	16.384	≥ 0.5	Pass
		2462	1	16.379	≥ 0.5	Pass
802.11n (HT20)	SISO	2412	1	17.605	≥ 0.5	Pass
		2437	1	17.615	≥ 0.5	Pass
		2462	1	17.622	≥ 0.5	Pass
802.11n (HT40)	SISO	2422	1	36.129	≥ 0.5	Pass
		2437	1	35.981	≥ 0.5	Pass
		2452	1	36.168	≥ 0.5	Pass

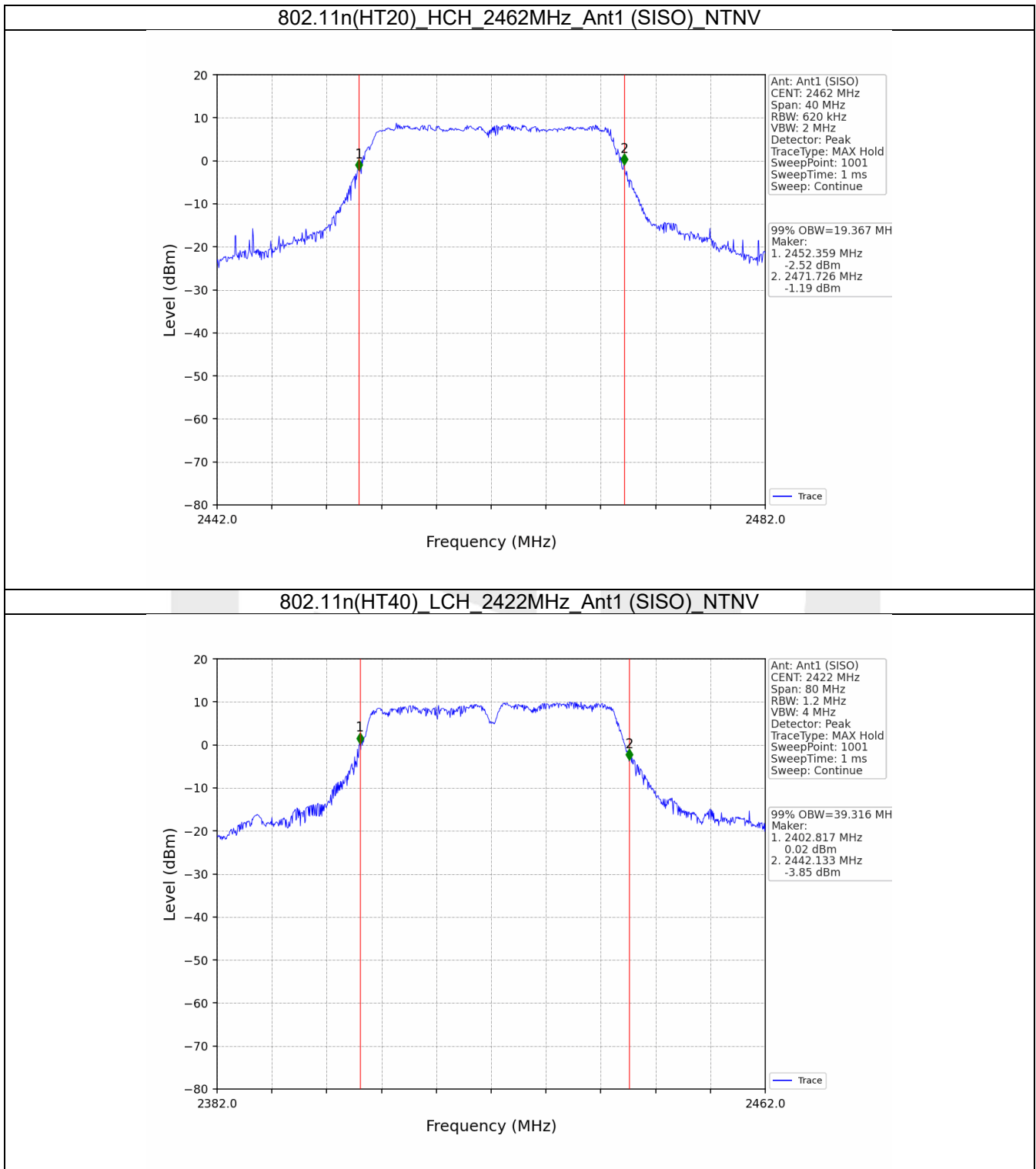
2.1.2 Test Graph

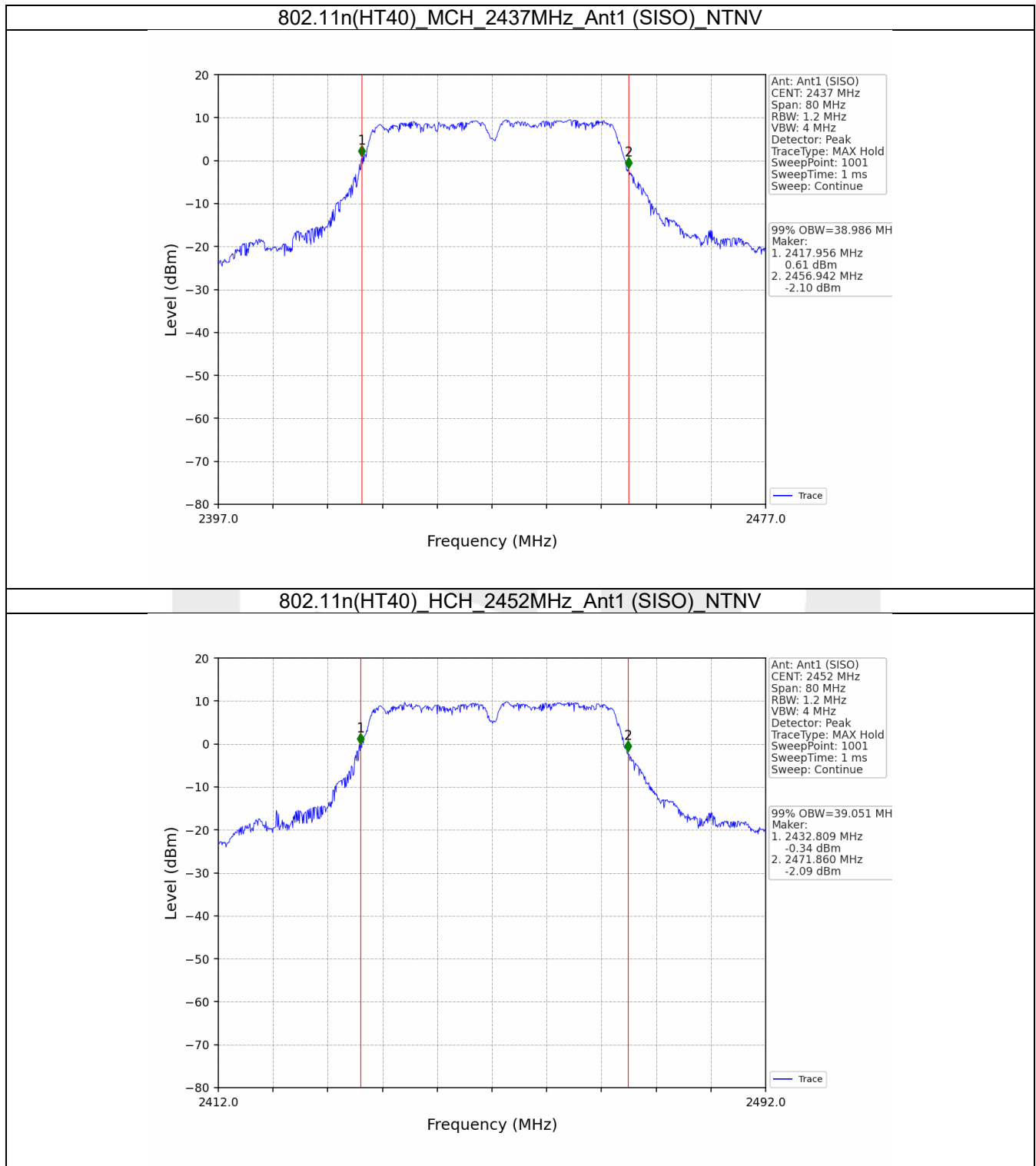




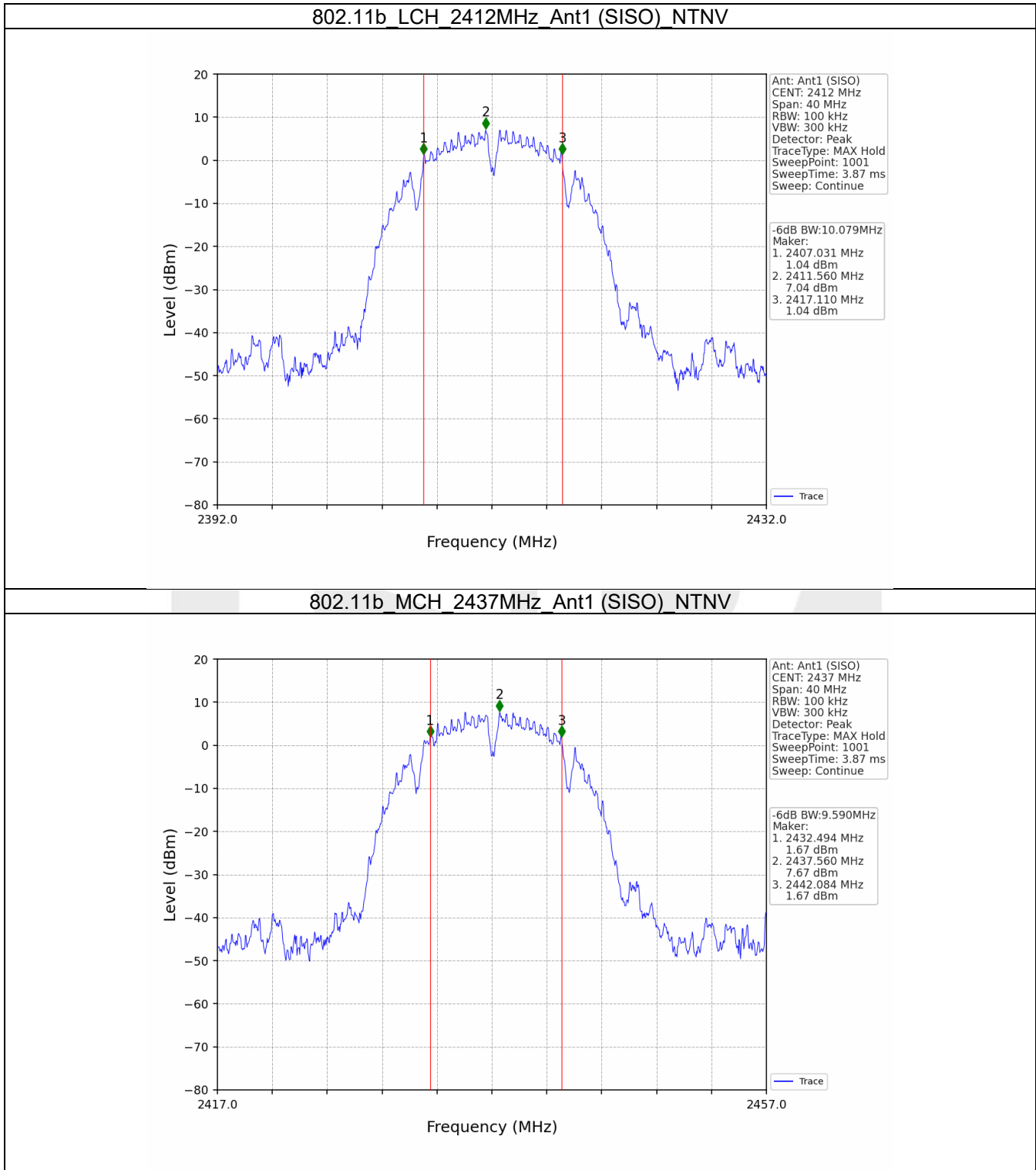


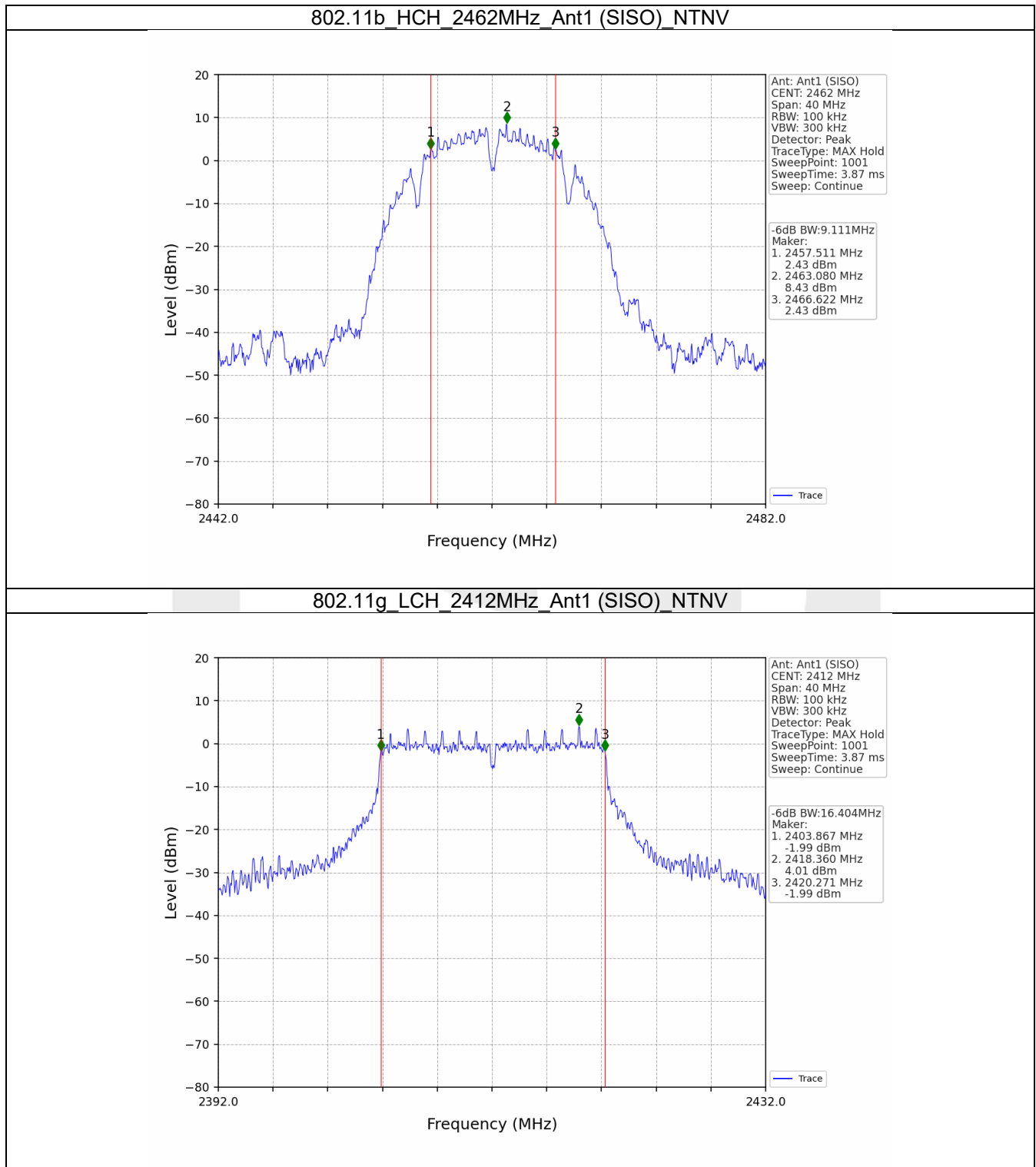


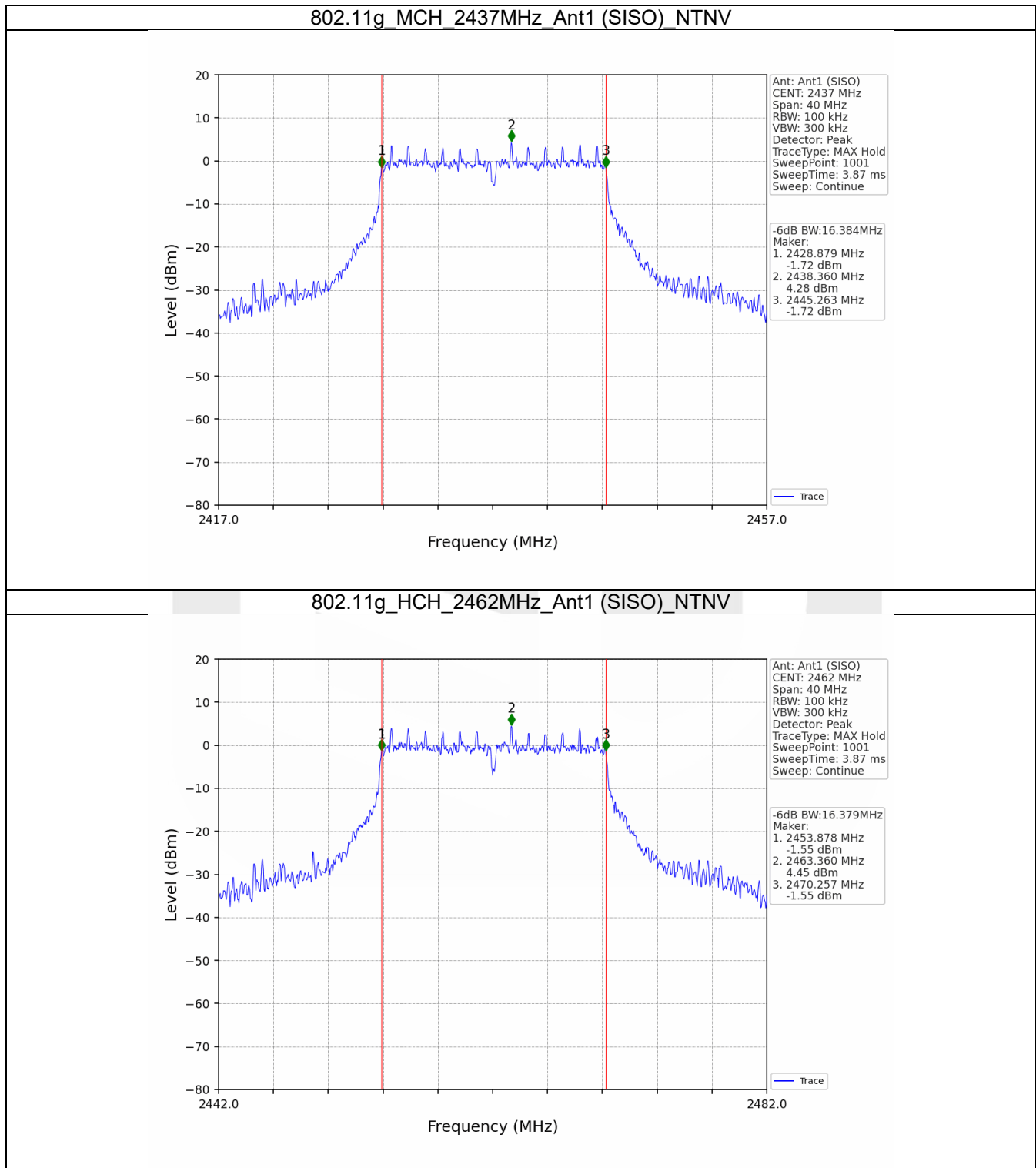


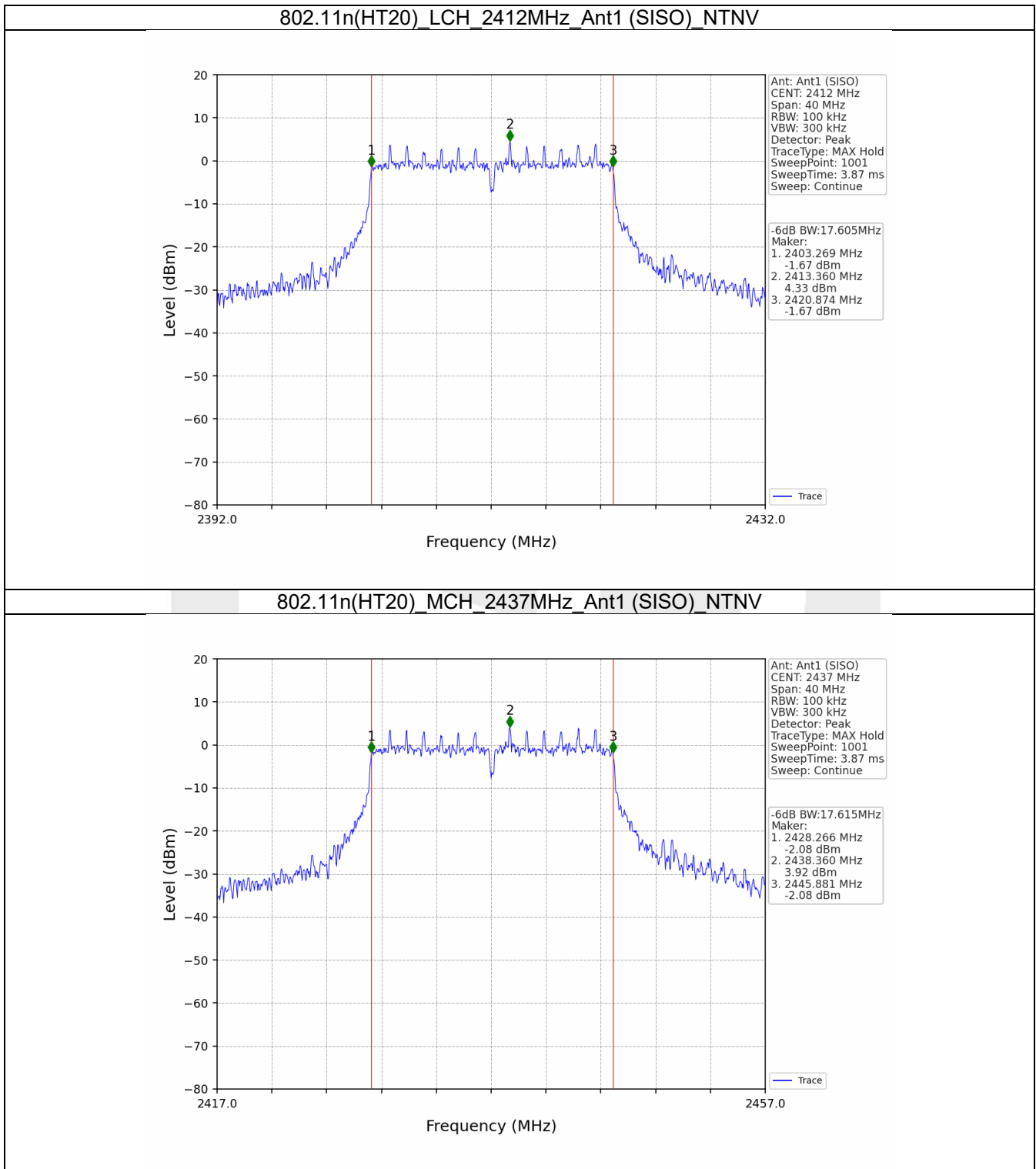


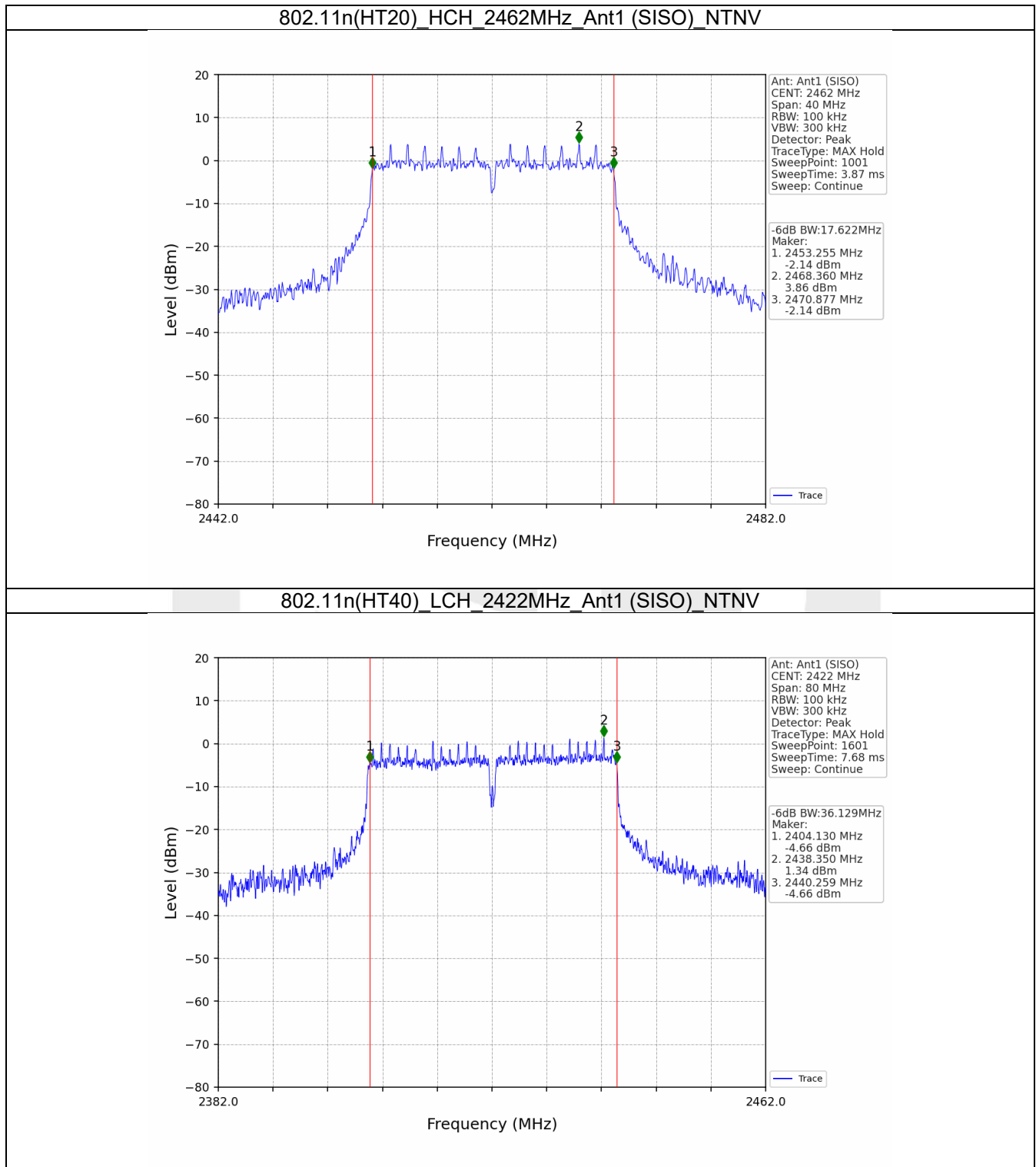
2.2.2 Test Graph

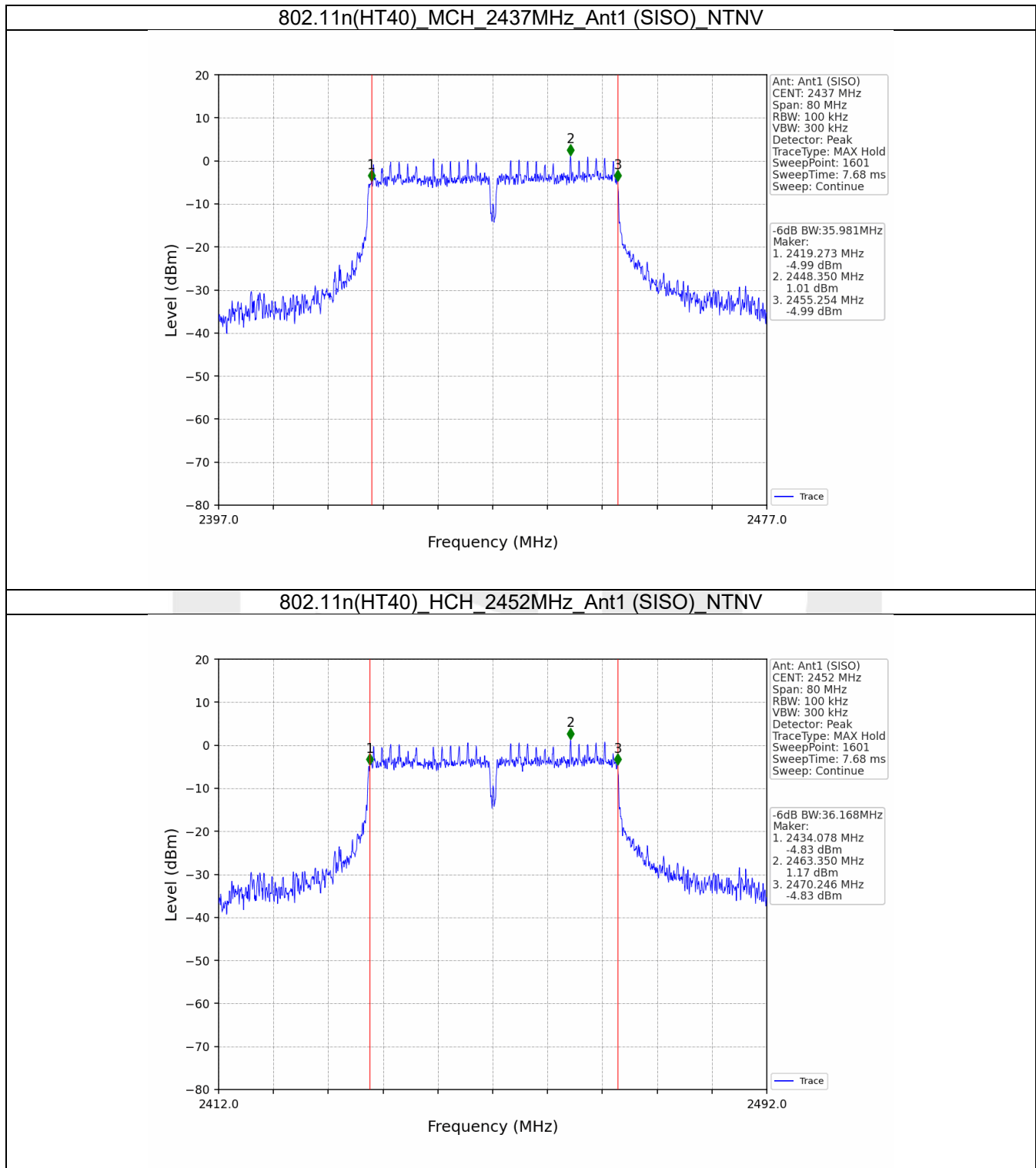












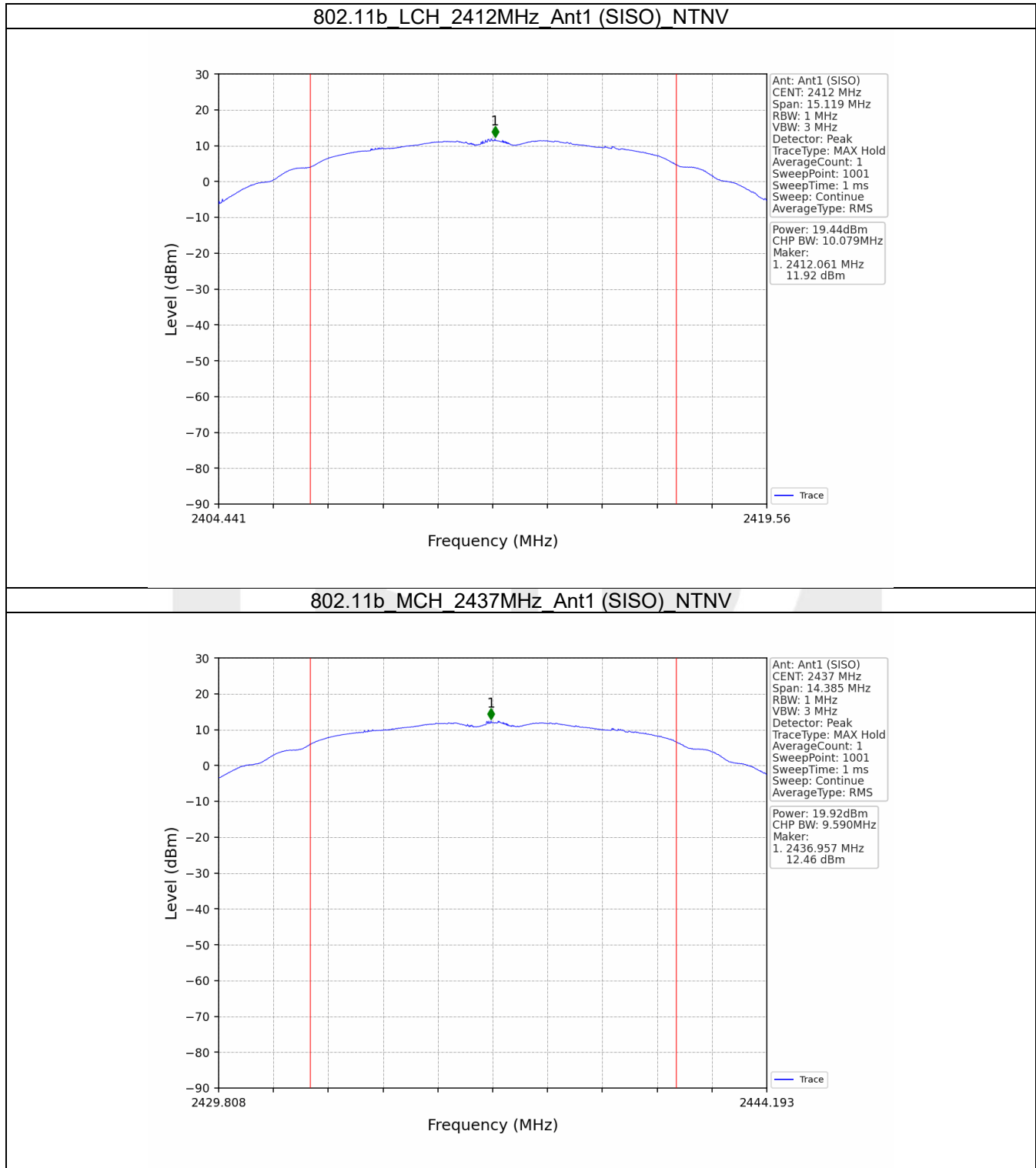
3. Maximum Conducted Output Power

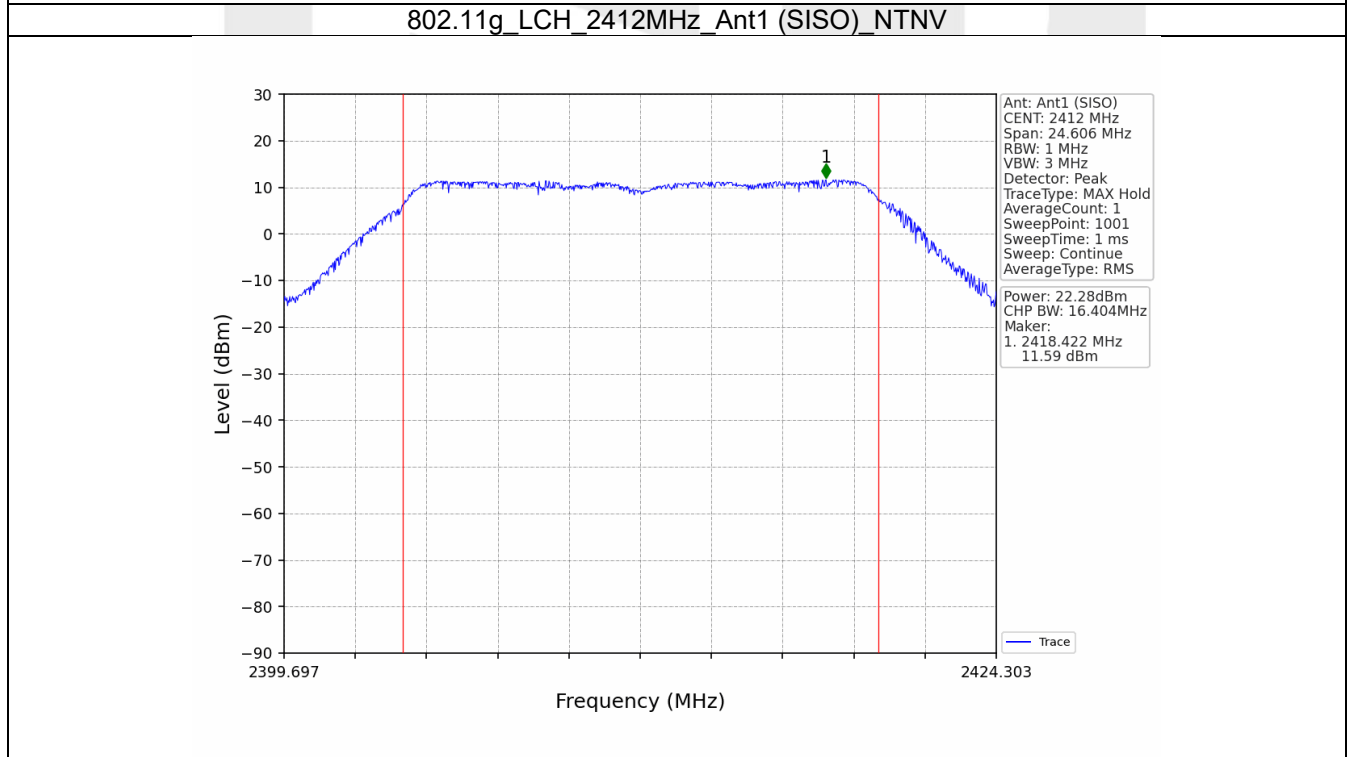
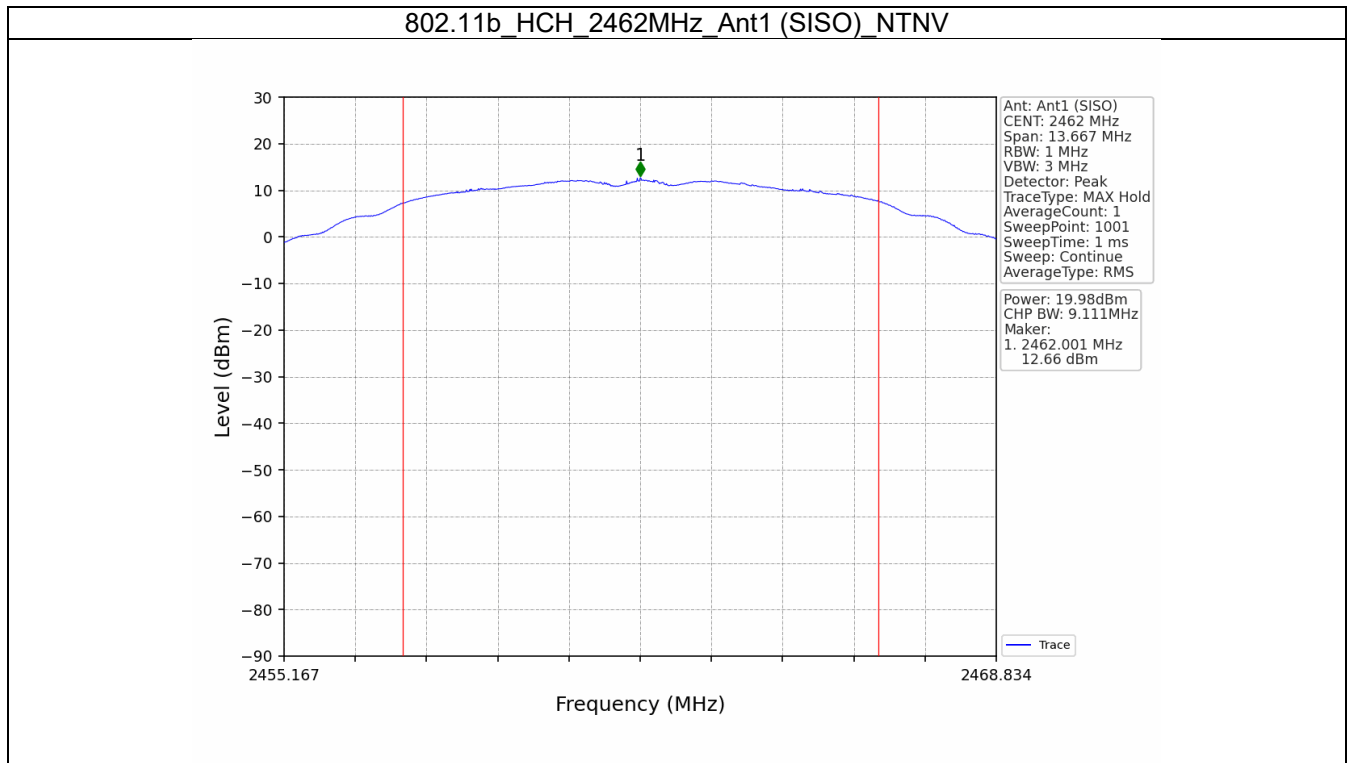
3.1 Power

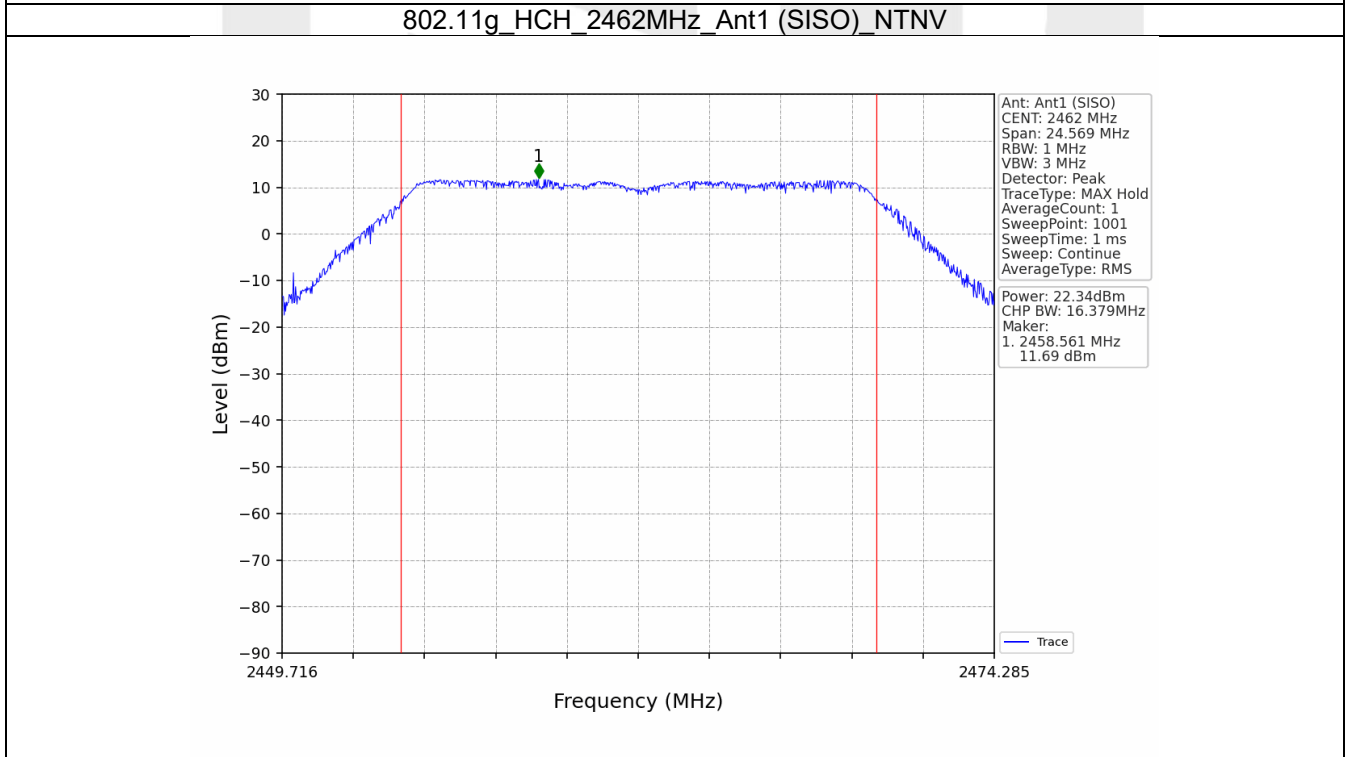
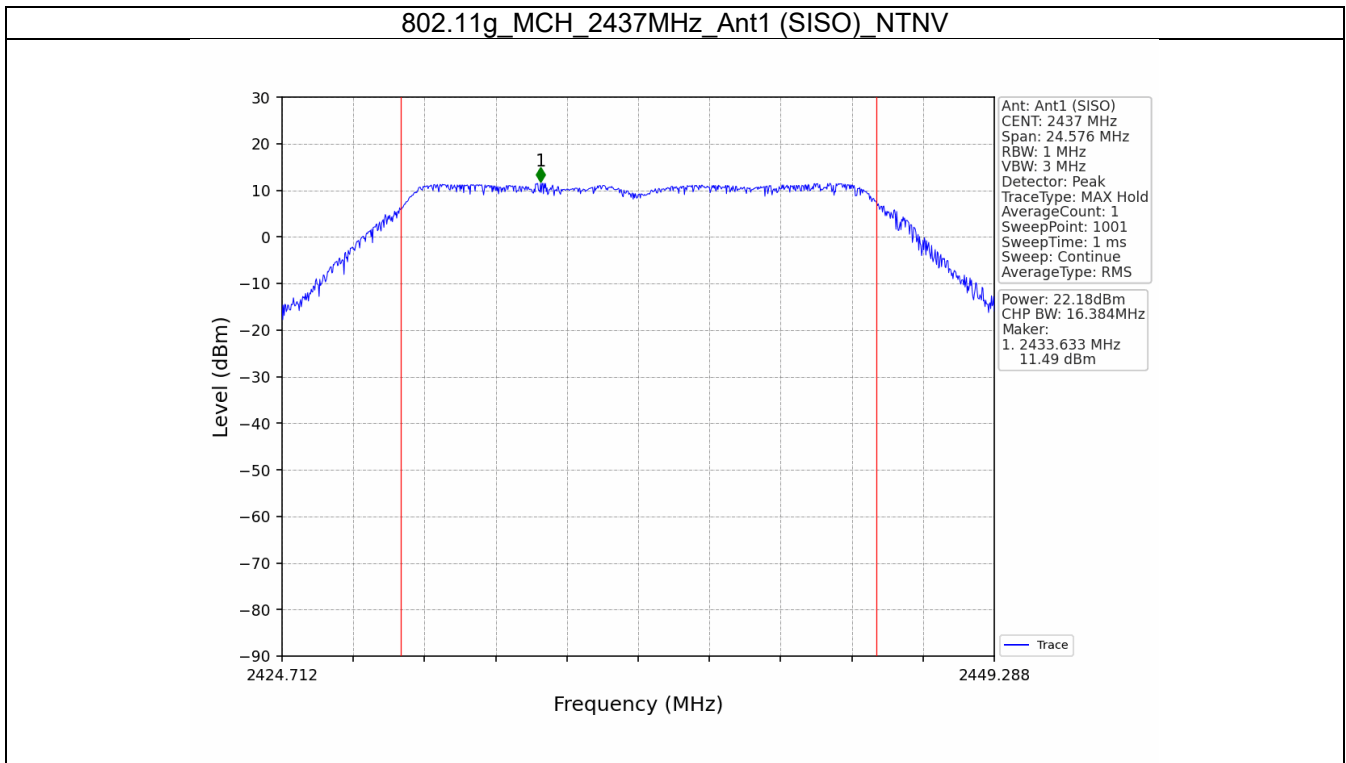
3.1.1 Test Result

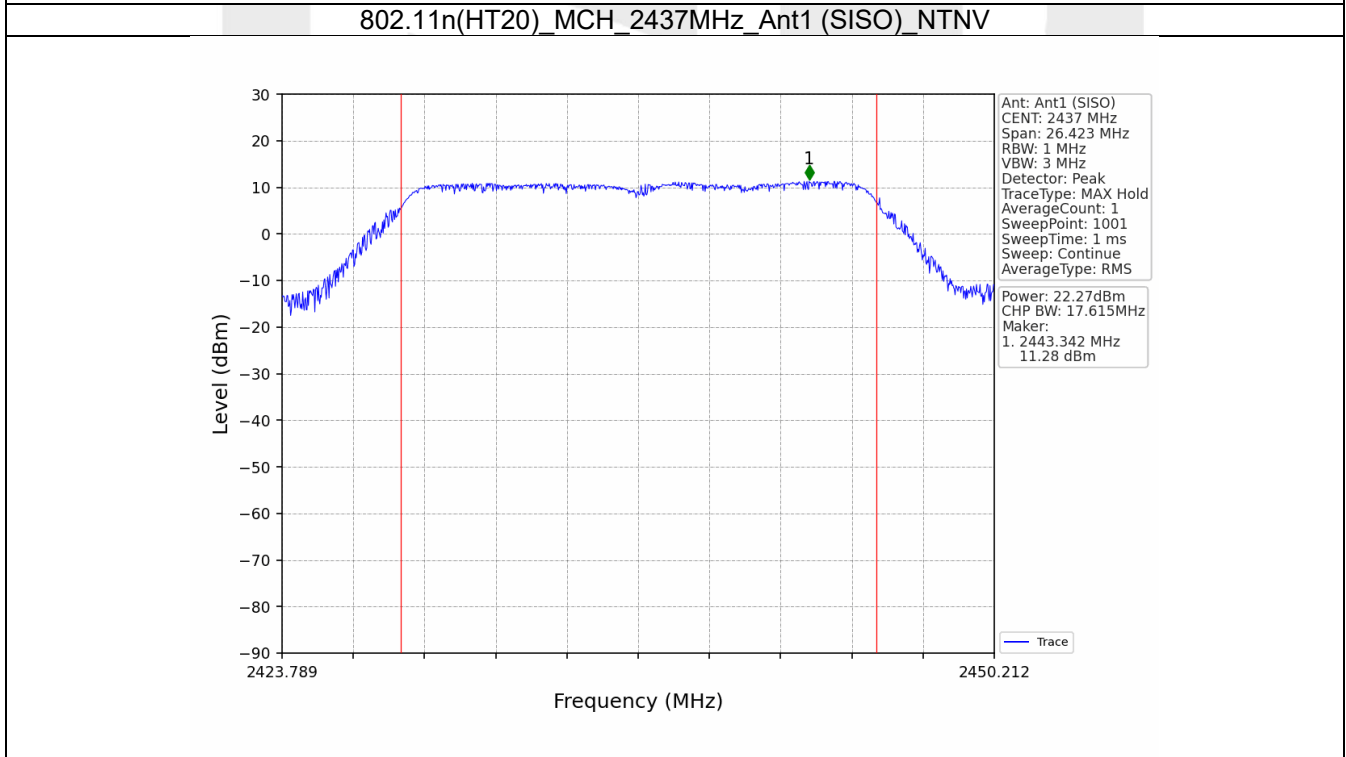
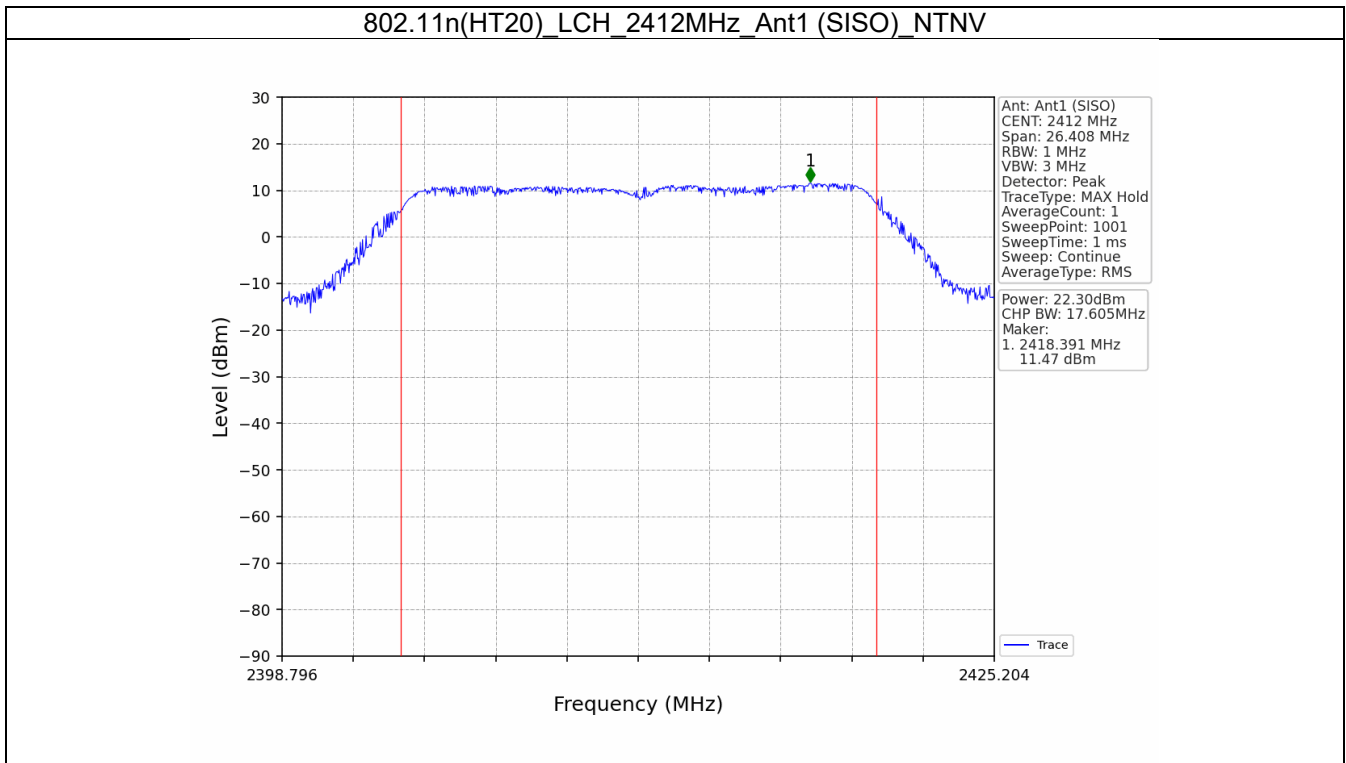
Mode	TX Type	Frequency (MHz)	Maximum Peak Conducted Output Power (dBm)		Verdict
			ANT1	Limit	
802.11b	SISO	2412	19.44	<=30	Pass
		2437	19.92	<=30	Pass
		2462	19.98	<=30	Pass
802.11g	SISO	2412	22.28	<=30	Pass
		2437	22.18	<=30	Pass
		2462	22.34	<=30	Pass
802.11n (HT20)	SISO	2412	22.30	<=30	Pass
		2437	22.27	<=30	Pass
		2462	22.42	<=30	Pass
802.11n (HT40)	SISO	2422	22.31	<=30	Pass
		2437	22.07	<=30	Pass
		2452	22.44	<=30	Pass

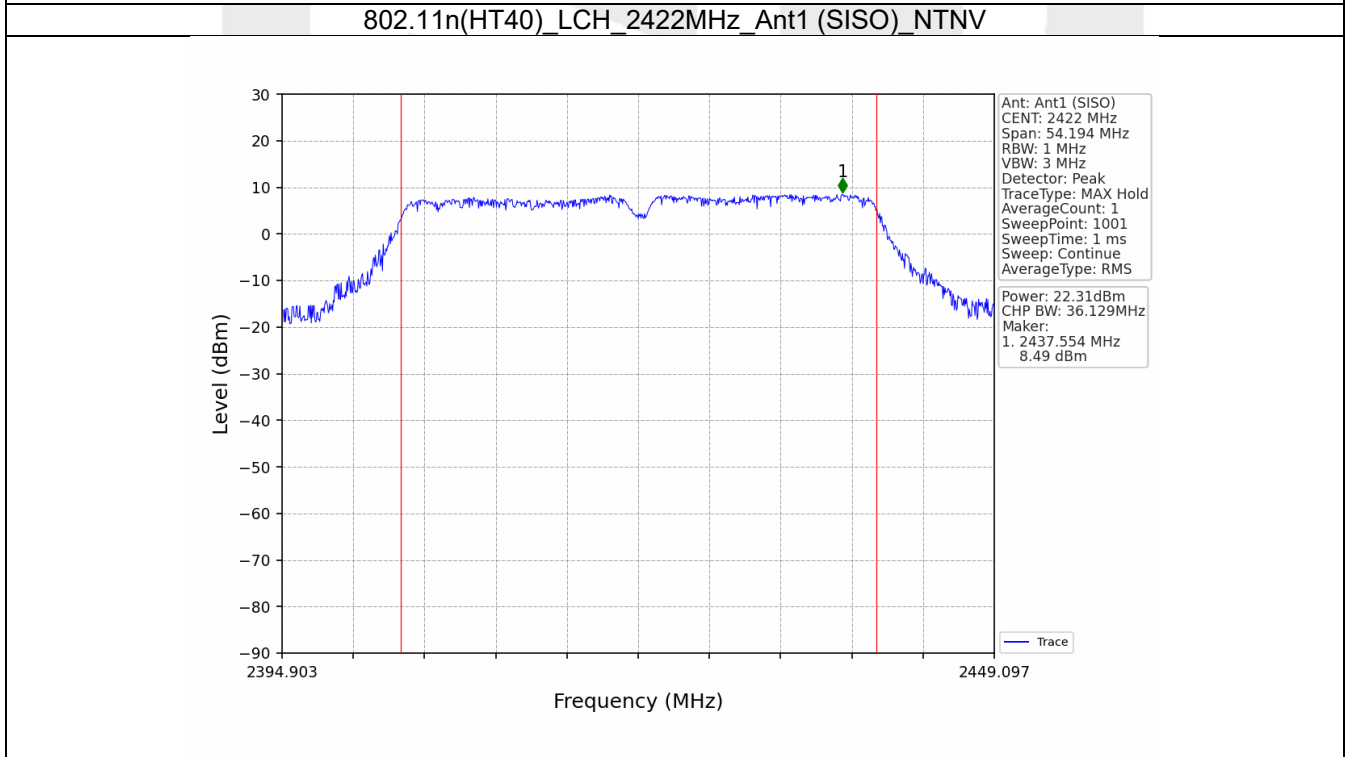
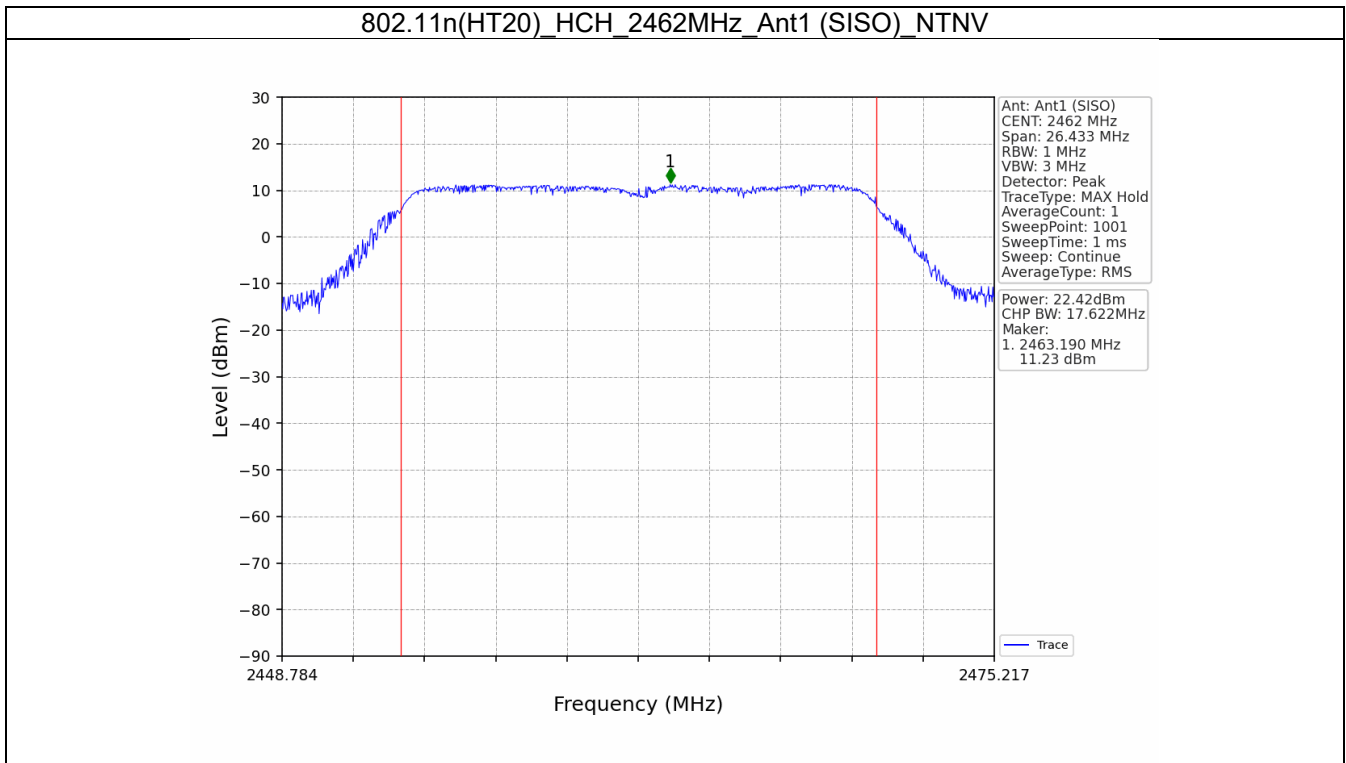
3.1.2 Test Graph

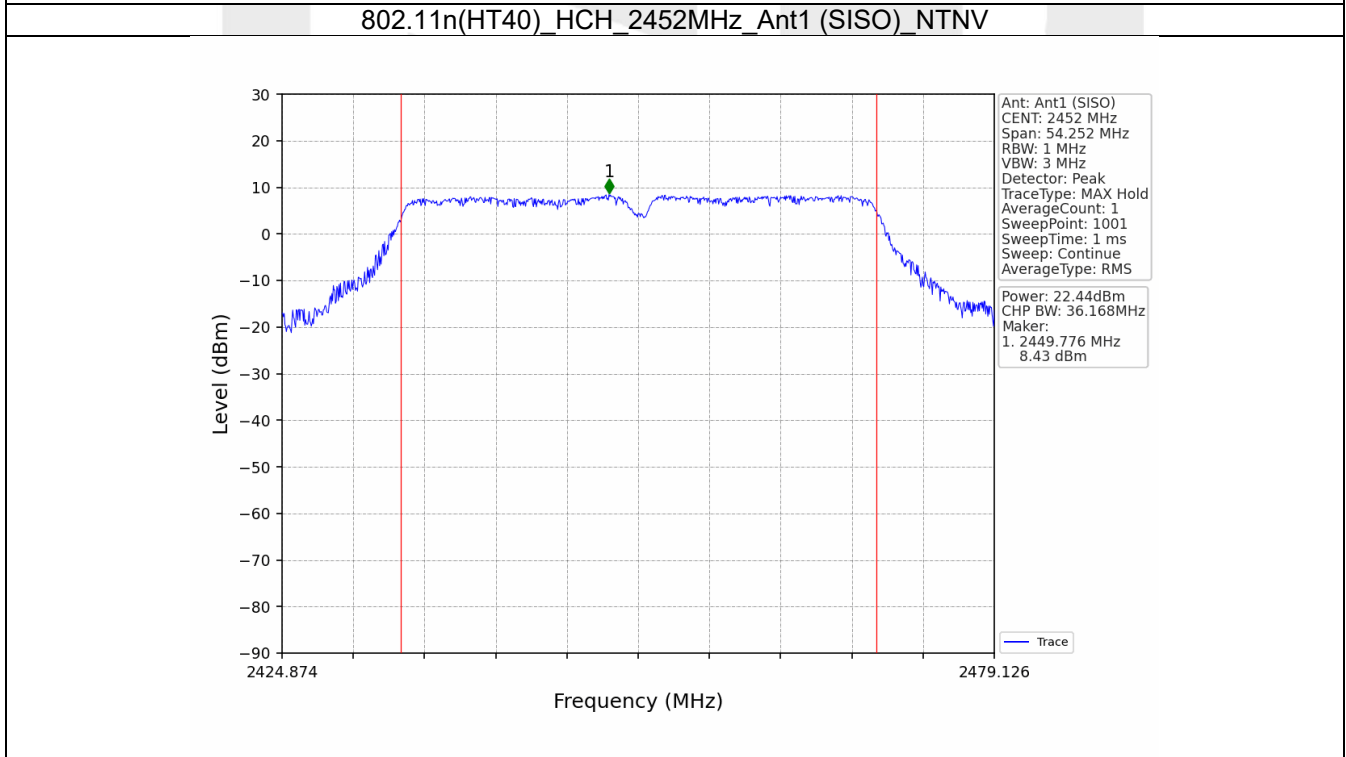
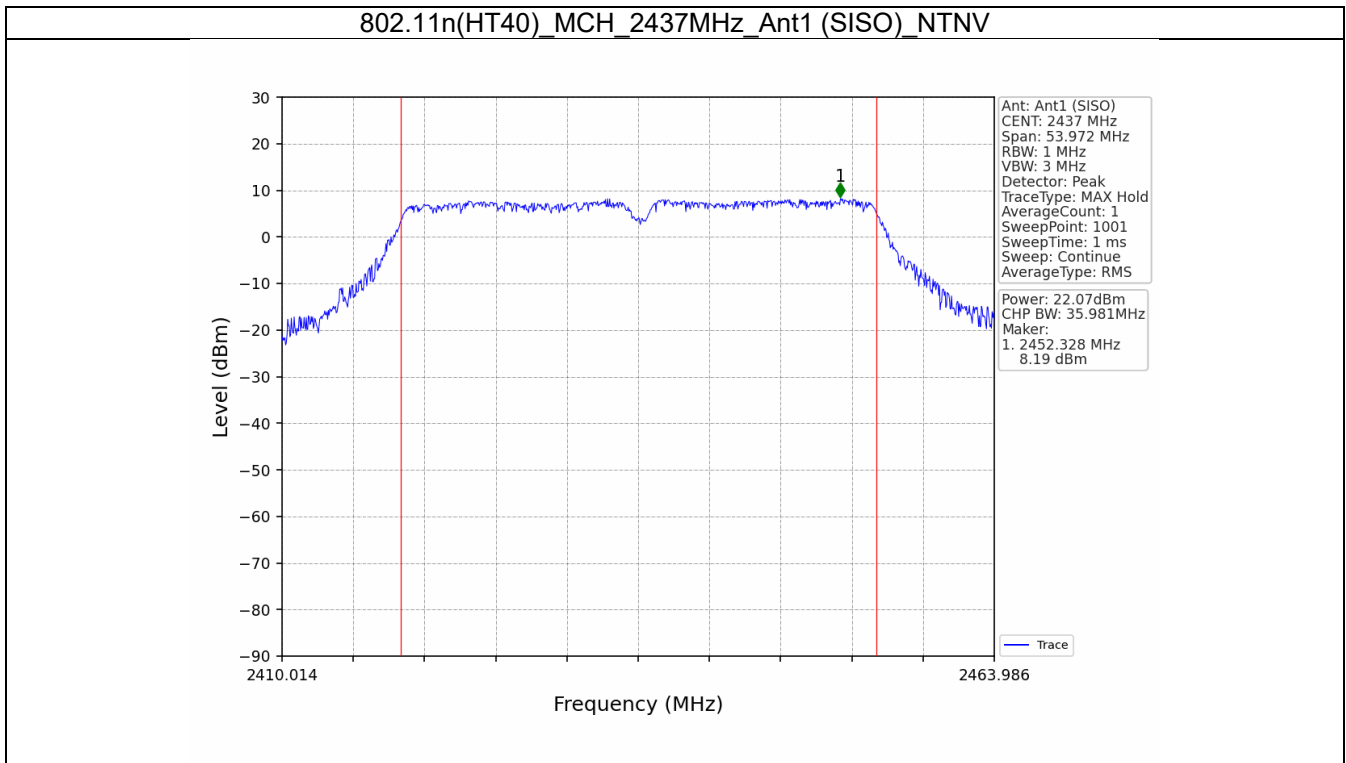












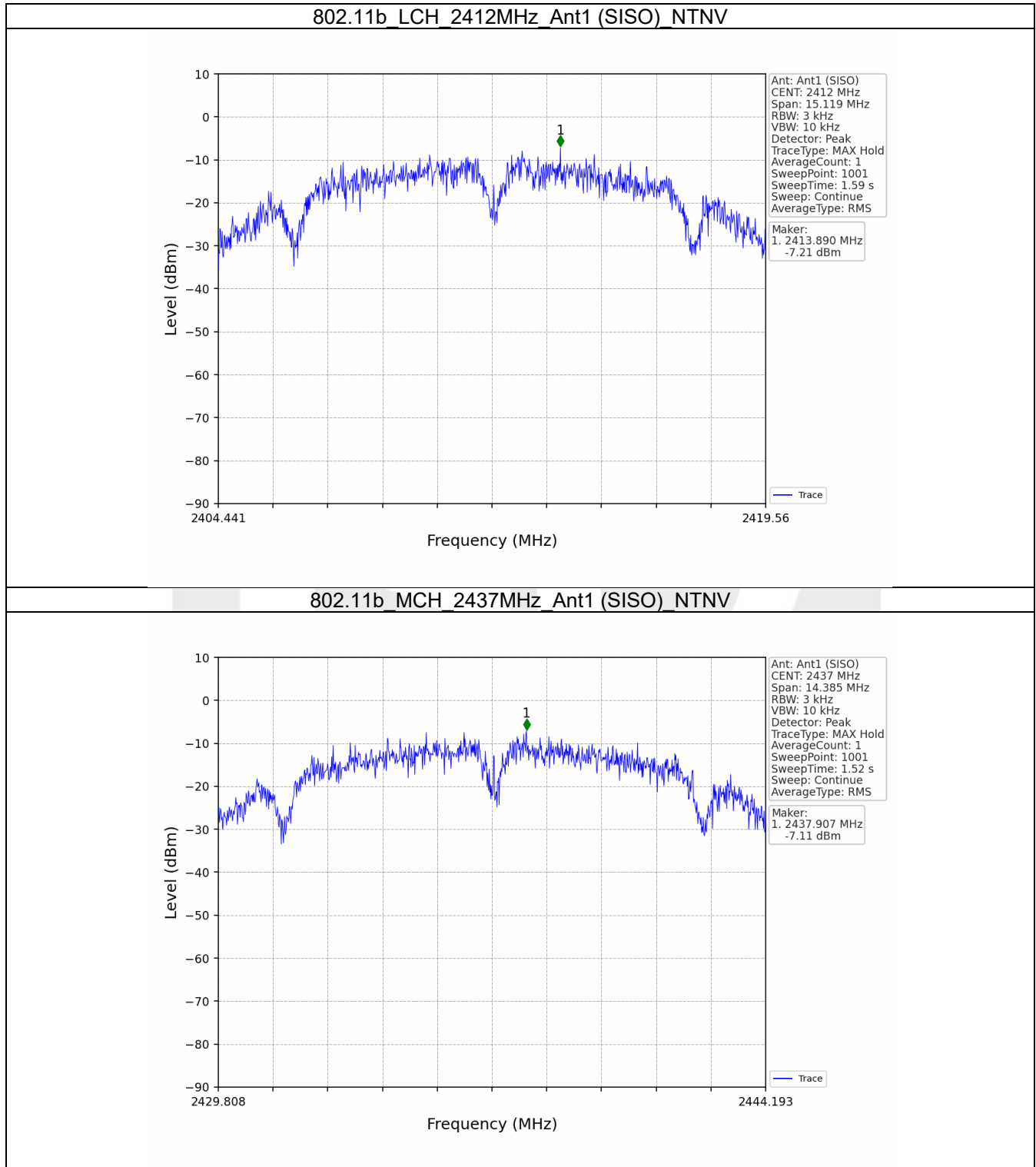
4. Maximum Power Spectral Density

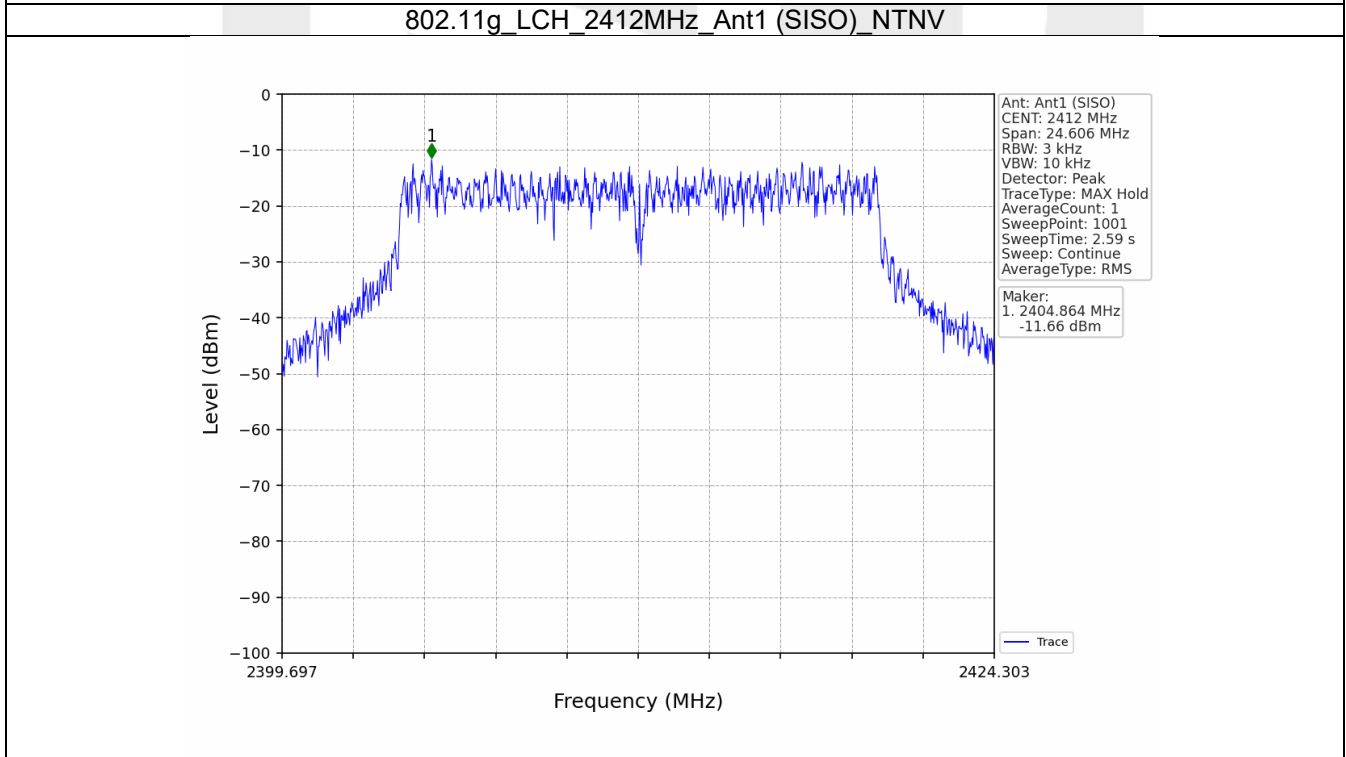
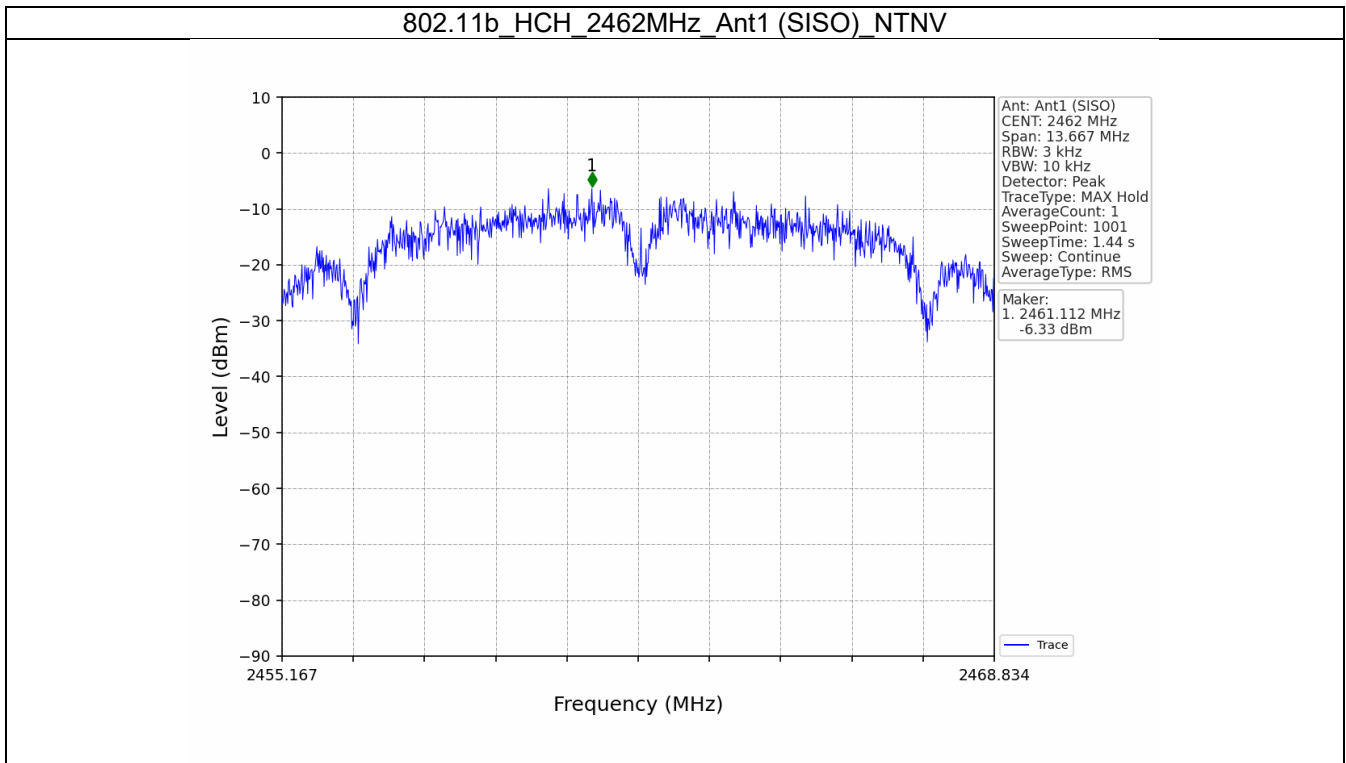
4.1 PSD

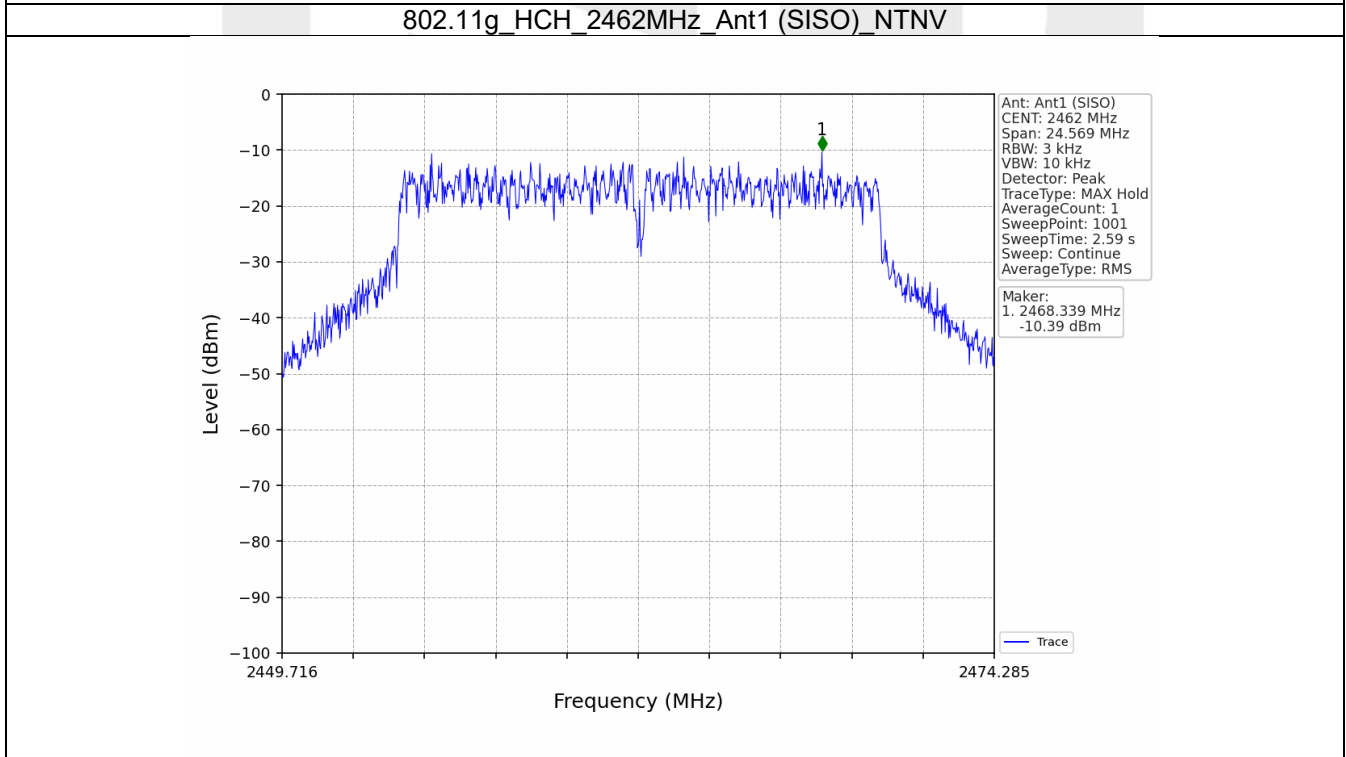
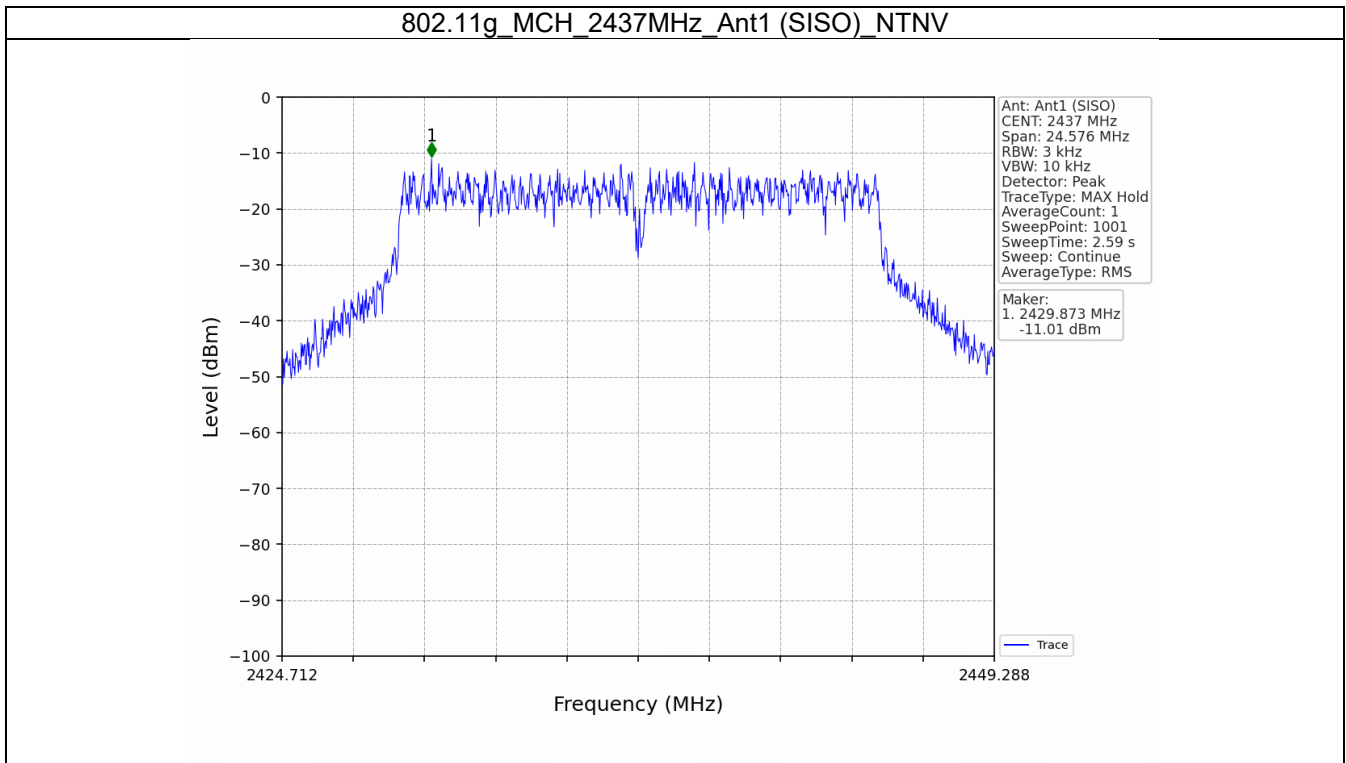
4.1.1 Test Result

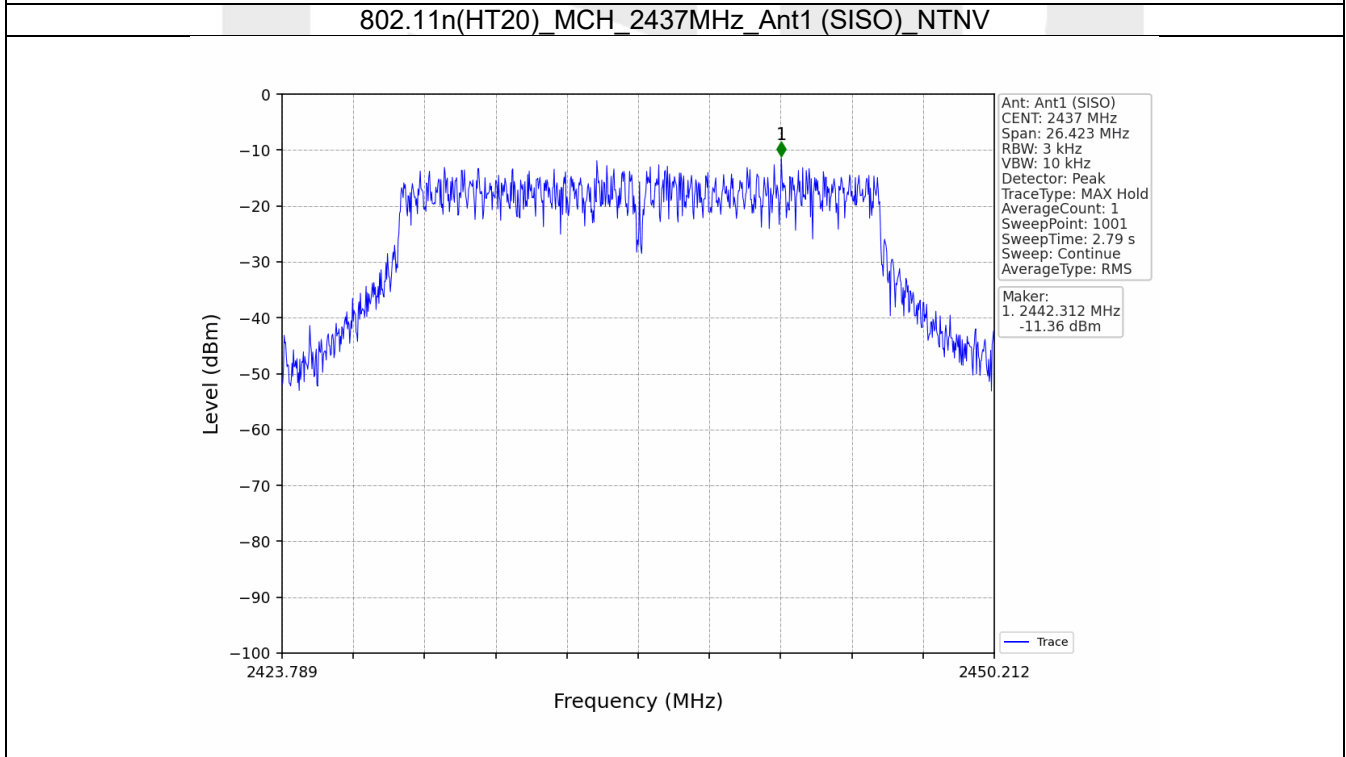
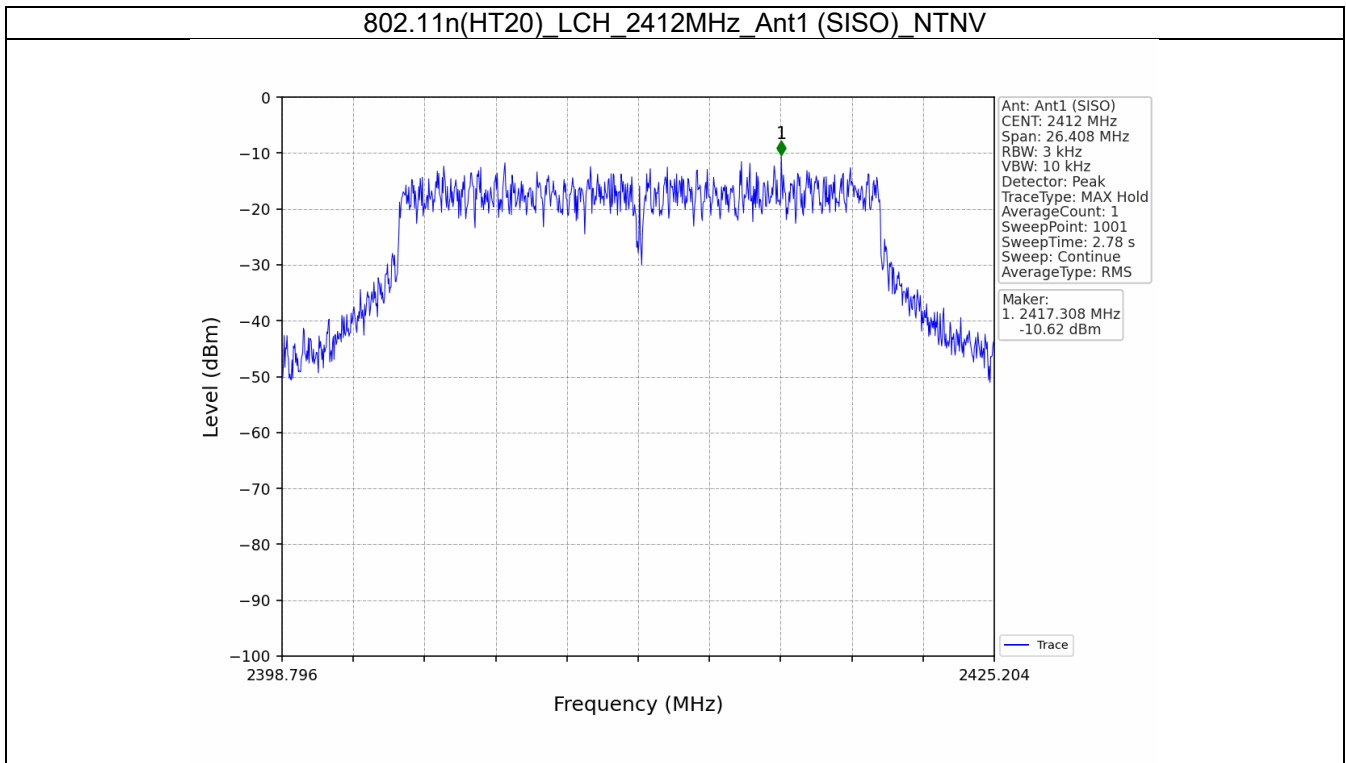
Mode	TX Type	Frequency (MHz)	Maximum PSD (dBm/3kHz)		Verdict
			ANT1	Limit	
802.11b	SISO	2412	-7.21	<=8	Pass
		2437	-7.11	<=8	Pass
		2462	-6.33	<=8	Pass
802.11g	SISO	2412	-11.66	<=8	Pass
		2437	-11.01	<=8	Pass
		2462	-10.39	<=8	Pass
802.11n (HT20)	SISO	2412	-10.62	<=8	Pass
		2437	-11.36	<=8	Pass
		2462	-11.31	<=8	Pass
802.11n (HT40)	SISO	2422	-14.28	<=8	Pass
		2437	-14.54	<=8	Pass
		2452	-13.96	<=8	Pass

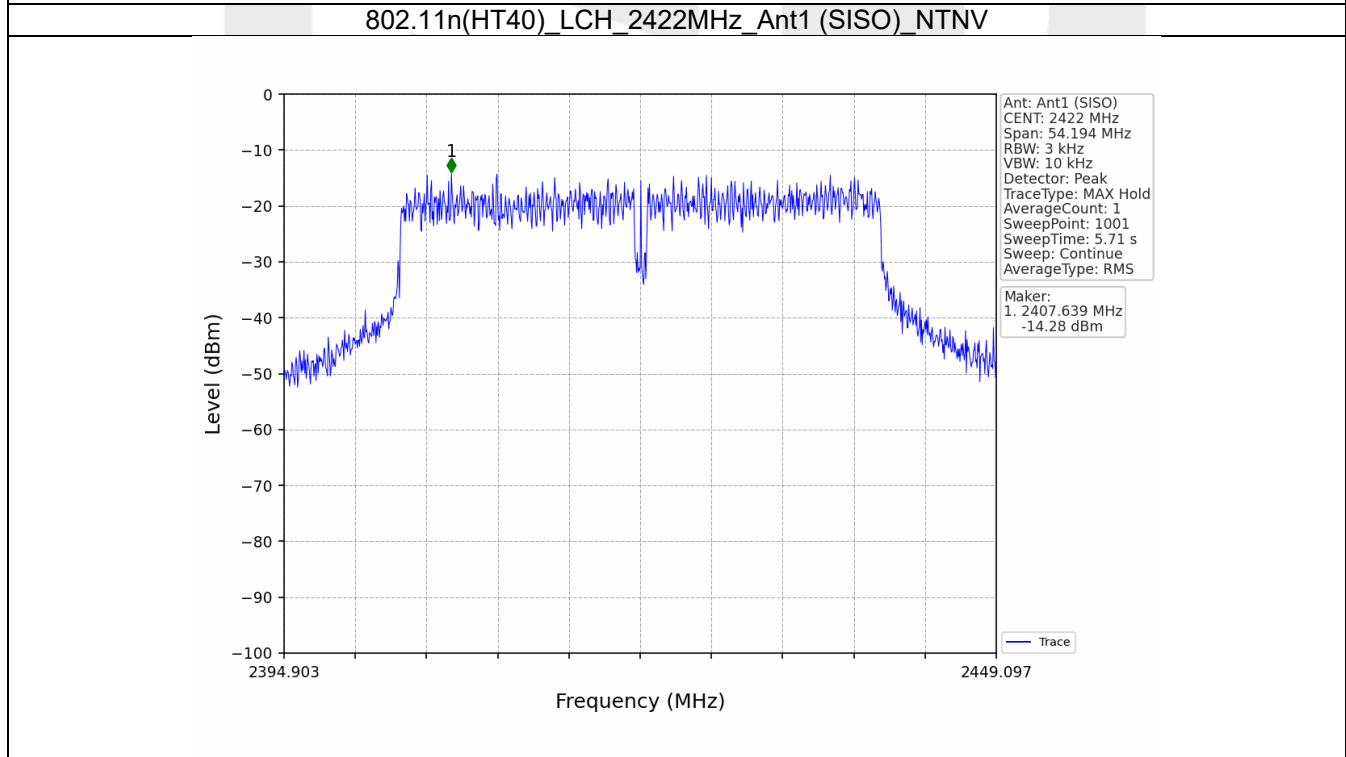
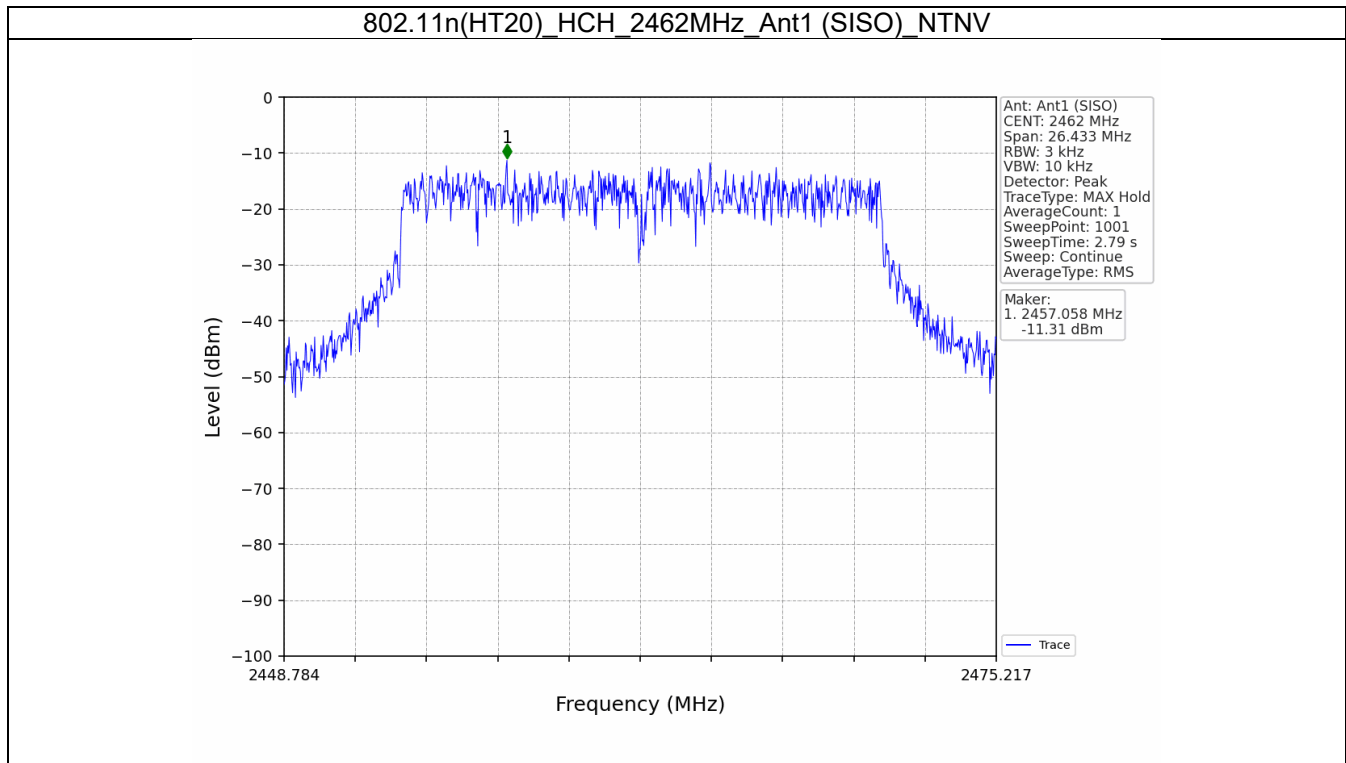
4.1.2 Test Graph

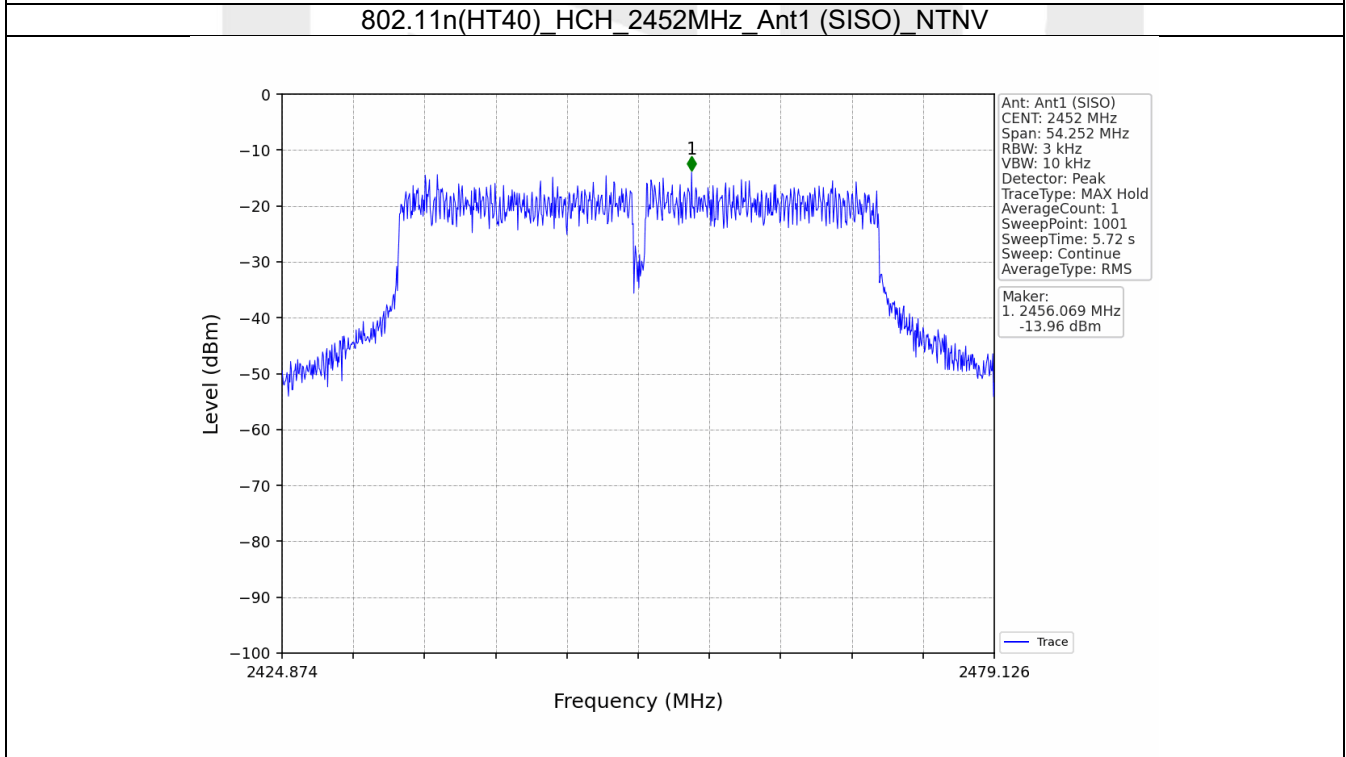
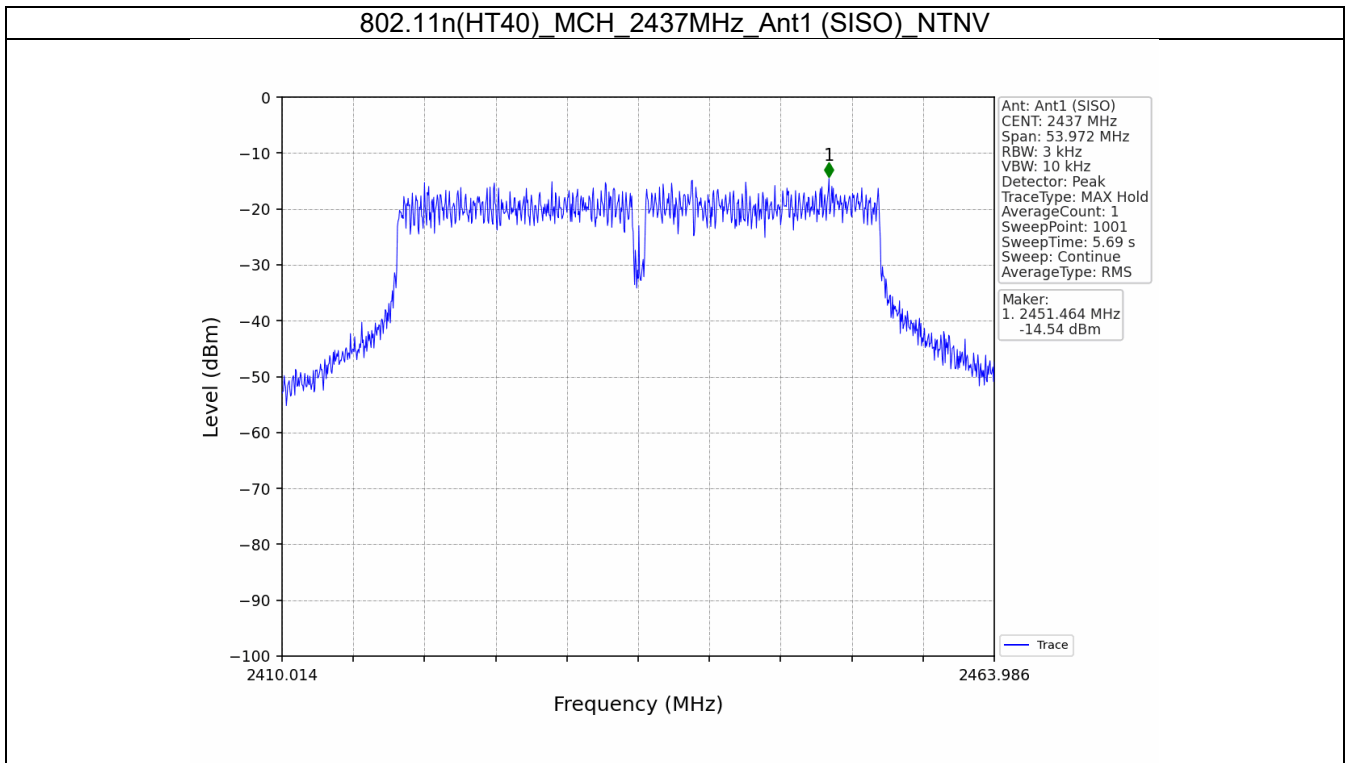












5. Unwanted Emissions In Non-restricted Frequency Bands

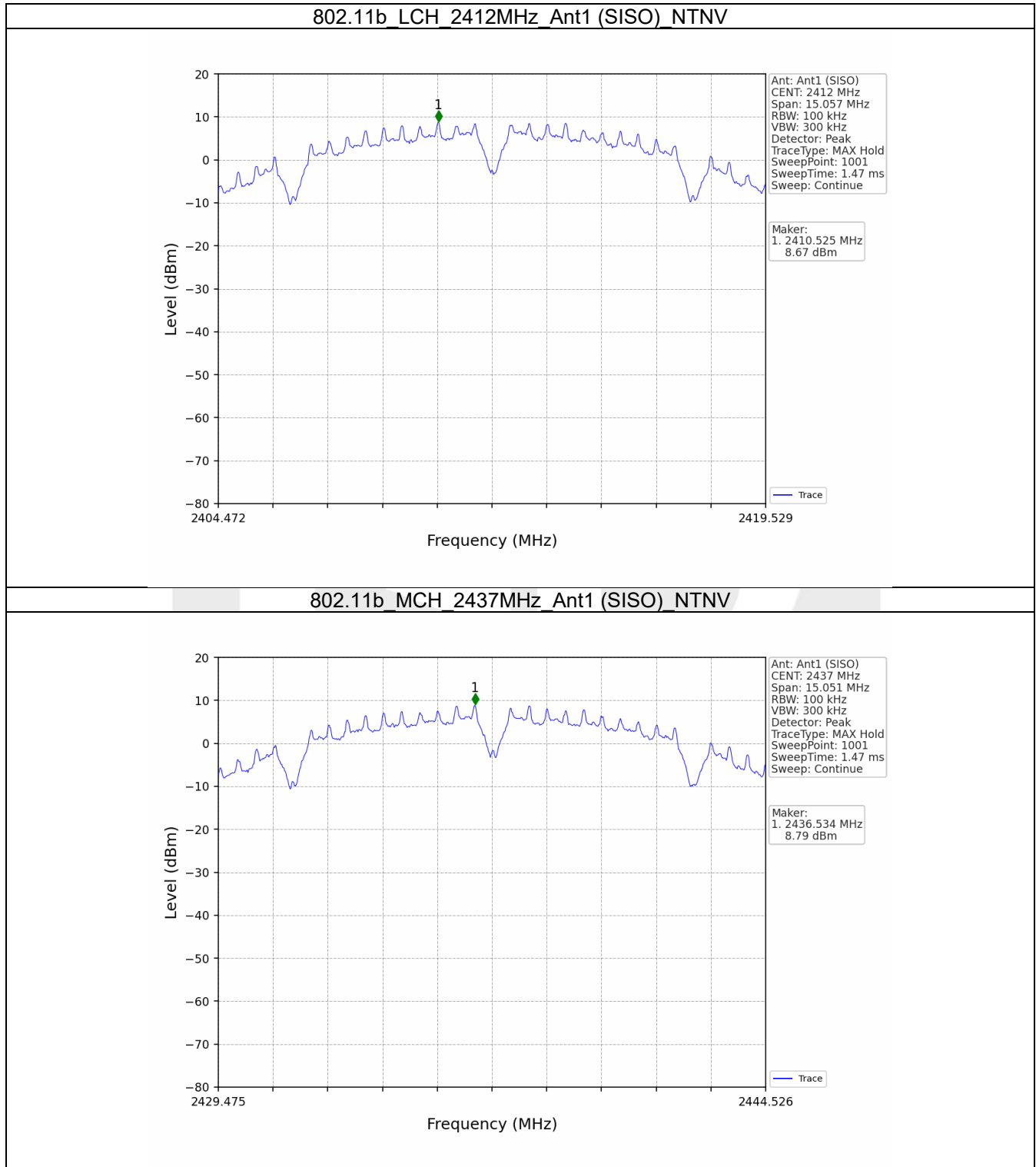
5.1 Ref

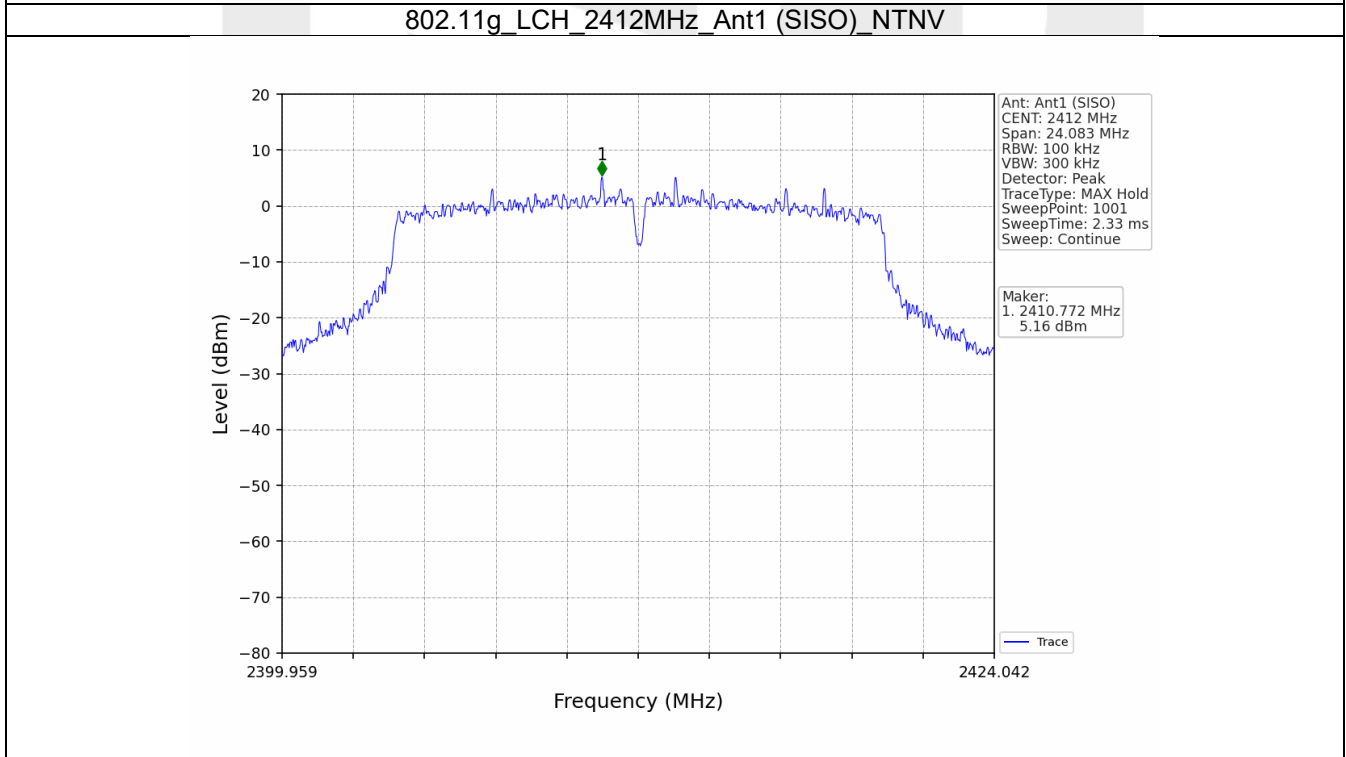
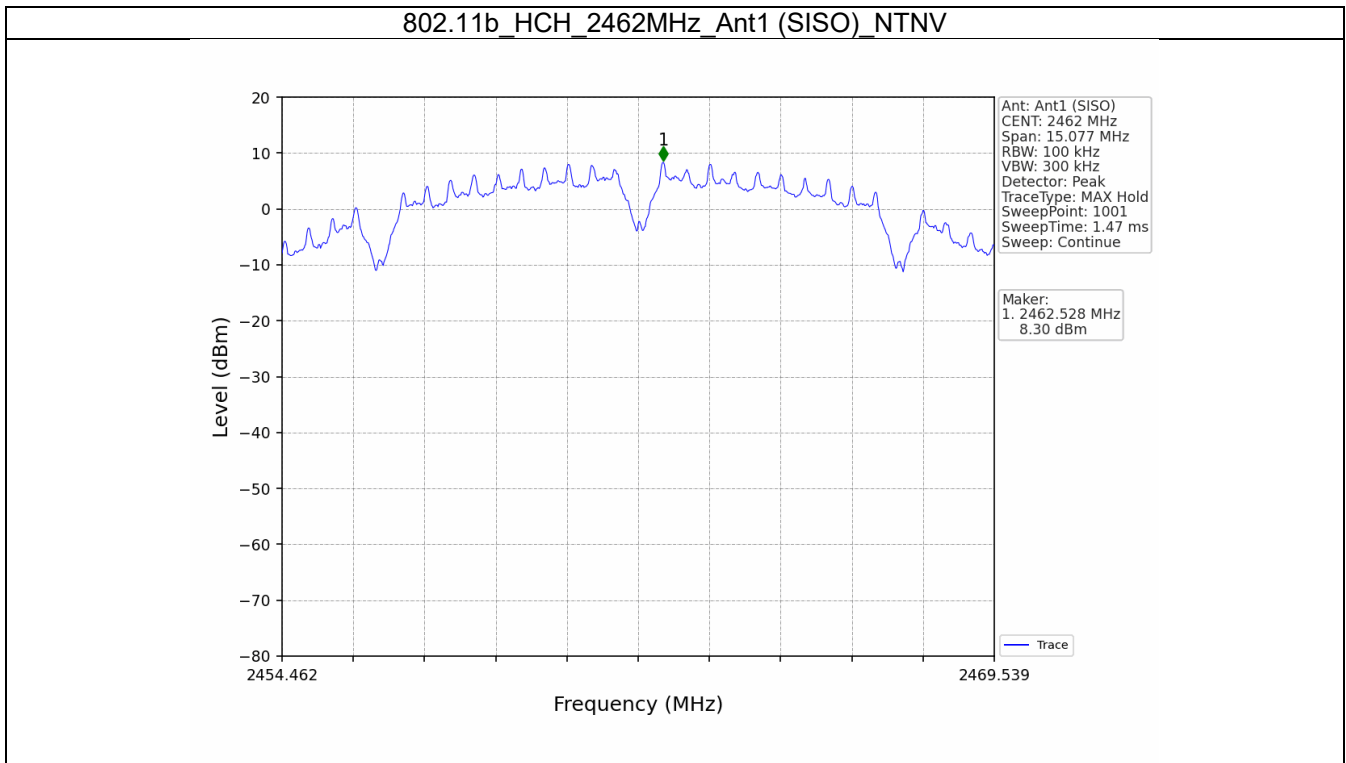
5.1.1 Test Result

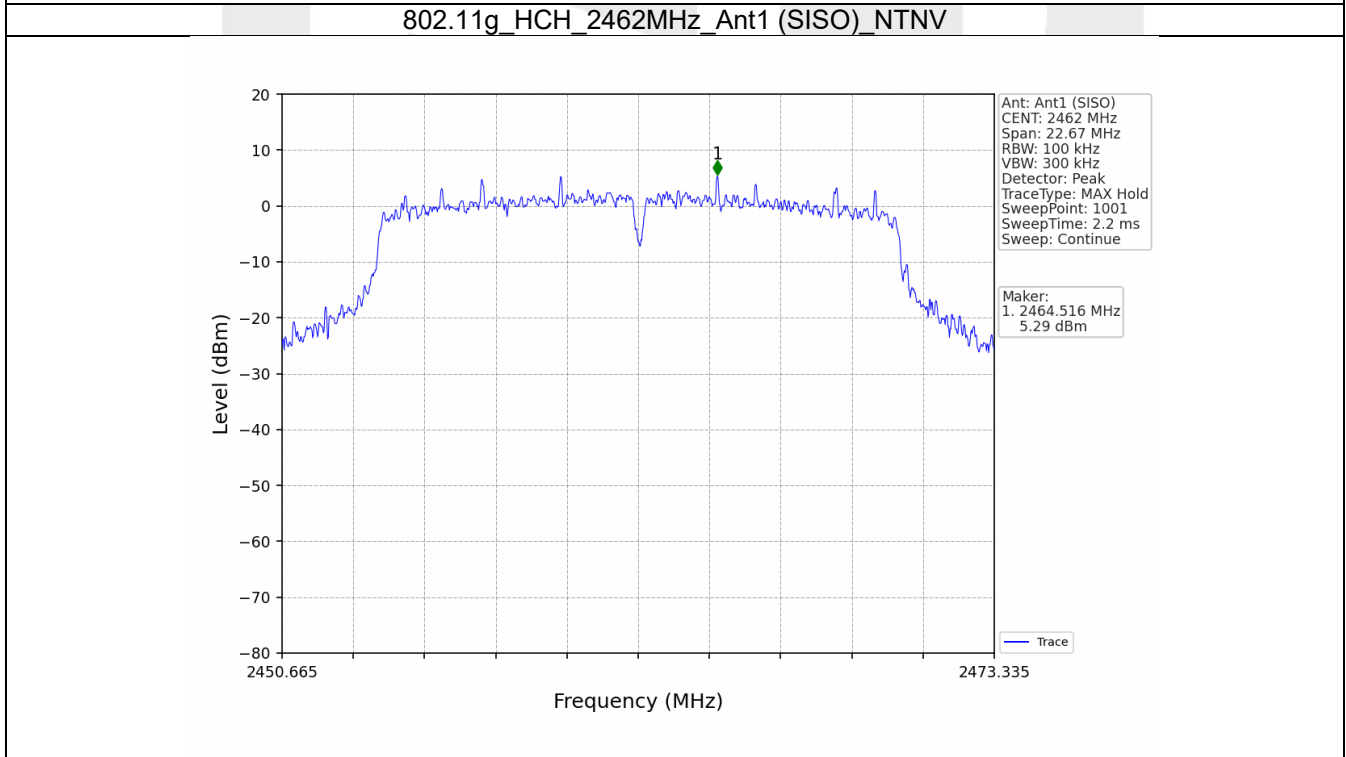
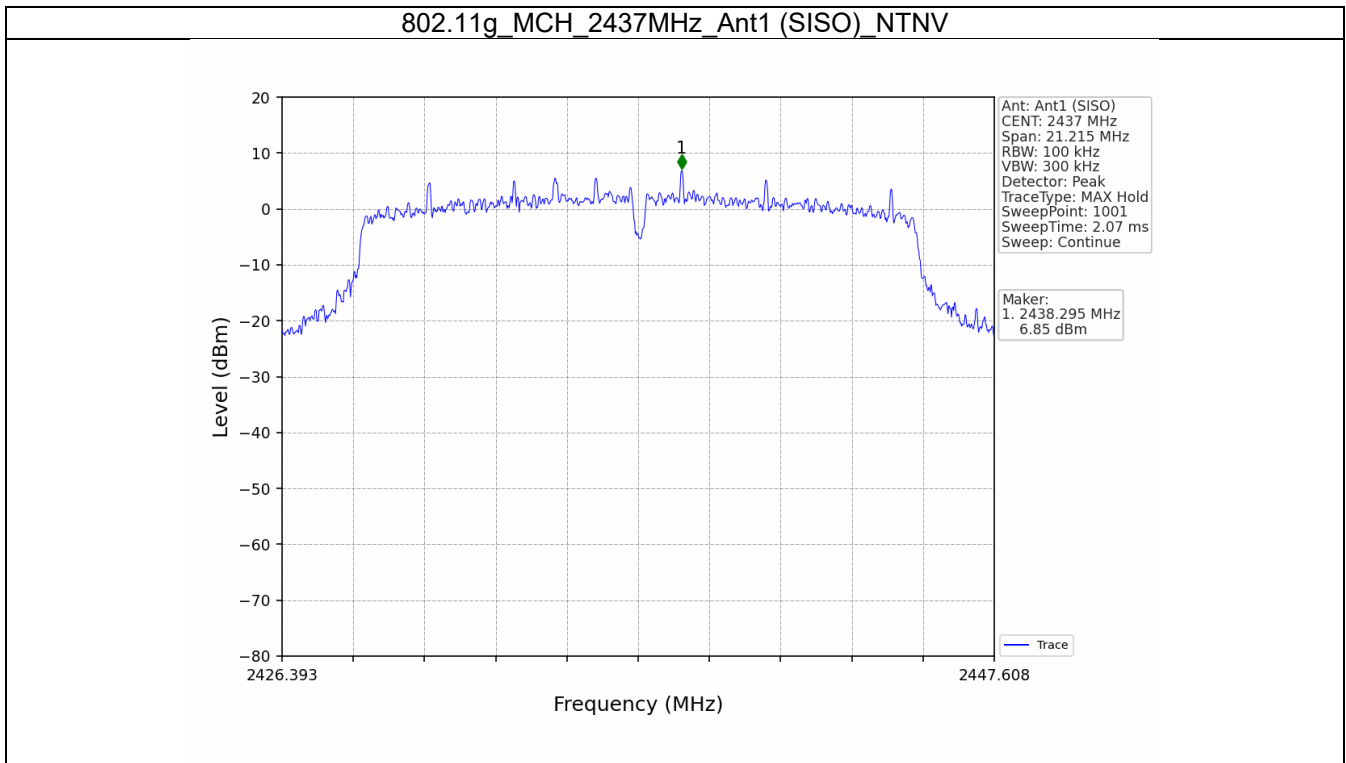
Mode	TX Type	Frequency (MHz)	RU	RU Pos	ANT	Level of Reference (dBm)
802.11b	SISO	2412	/	/	1	8.67
		2437	/	/	1	8.79
		2462	/	/	1	8.30
802.11g	SISO	2412	/	/	1	5.16
		2437	/	/	1	6.85
		2462	/	/	1	5.29
802.11n (HT20)	SISO	2412	/	/	1	-18.28
		2437	/	/	1	5.38
		2462	/	/	1	5.80
802.11n (HT40)	SISO	2422	/	/	1	1.76
		2437	/	/	1	3.18
		2452	/	/	1	1.91

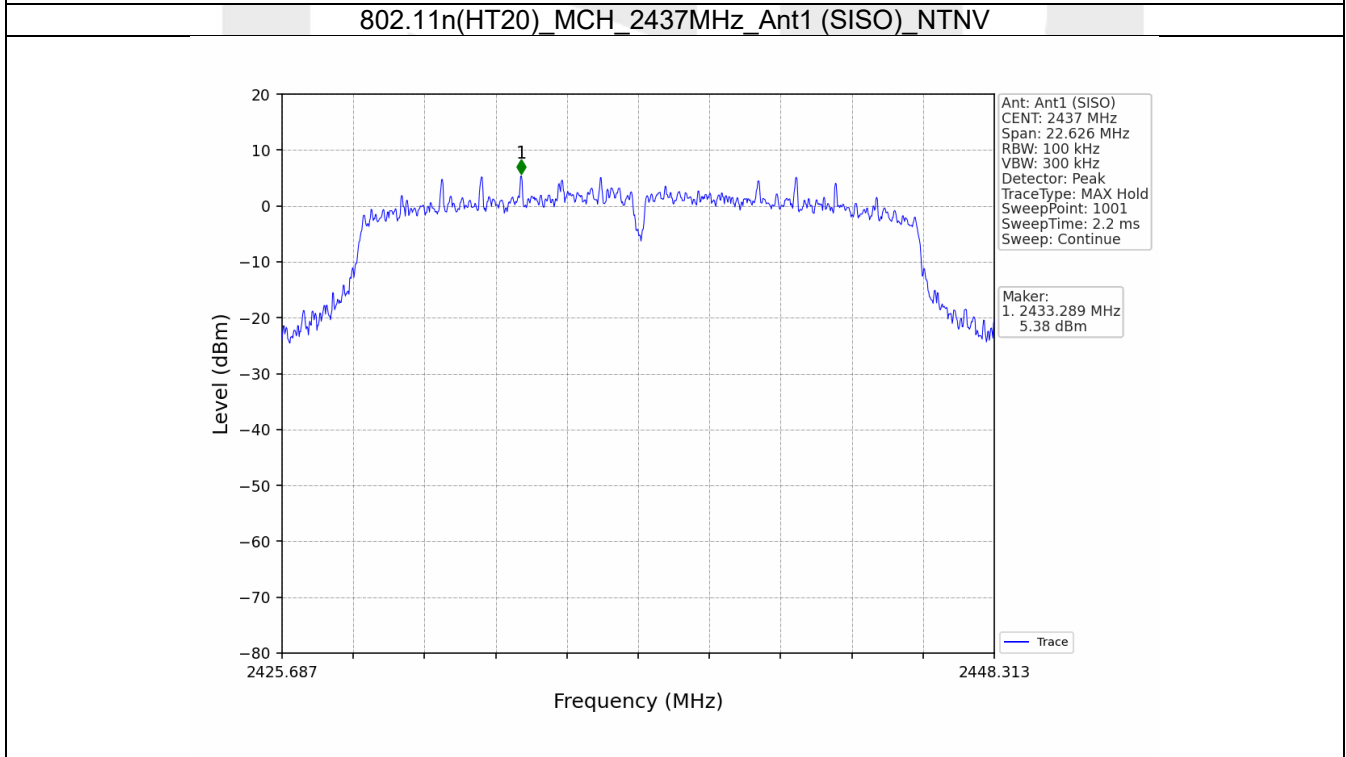
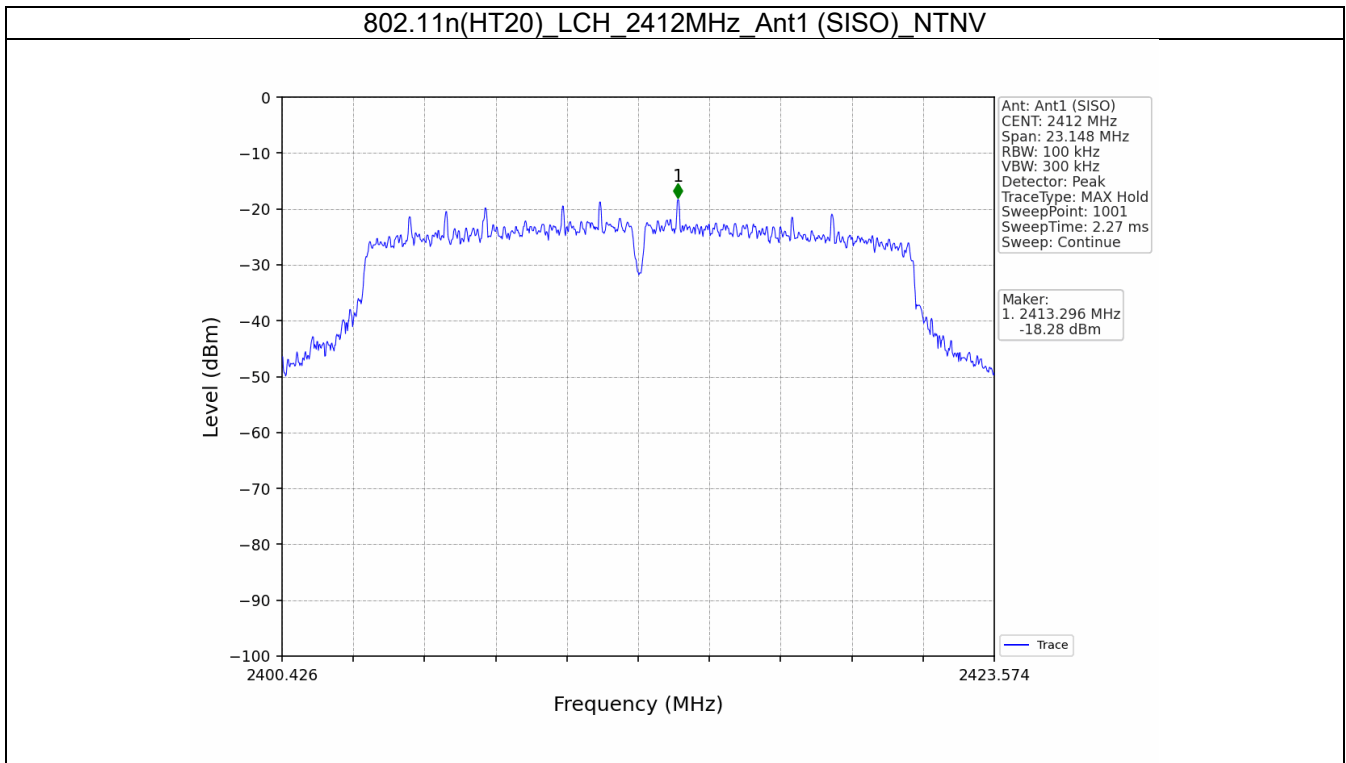
Note1: Refer to RSS-247 Issue 3 section 5.5 and ANSI C63.10-2020, the channel contains the maximum PSD level was used to establish the reference level.

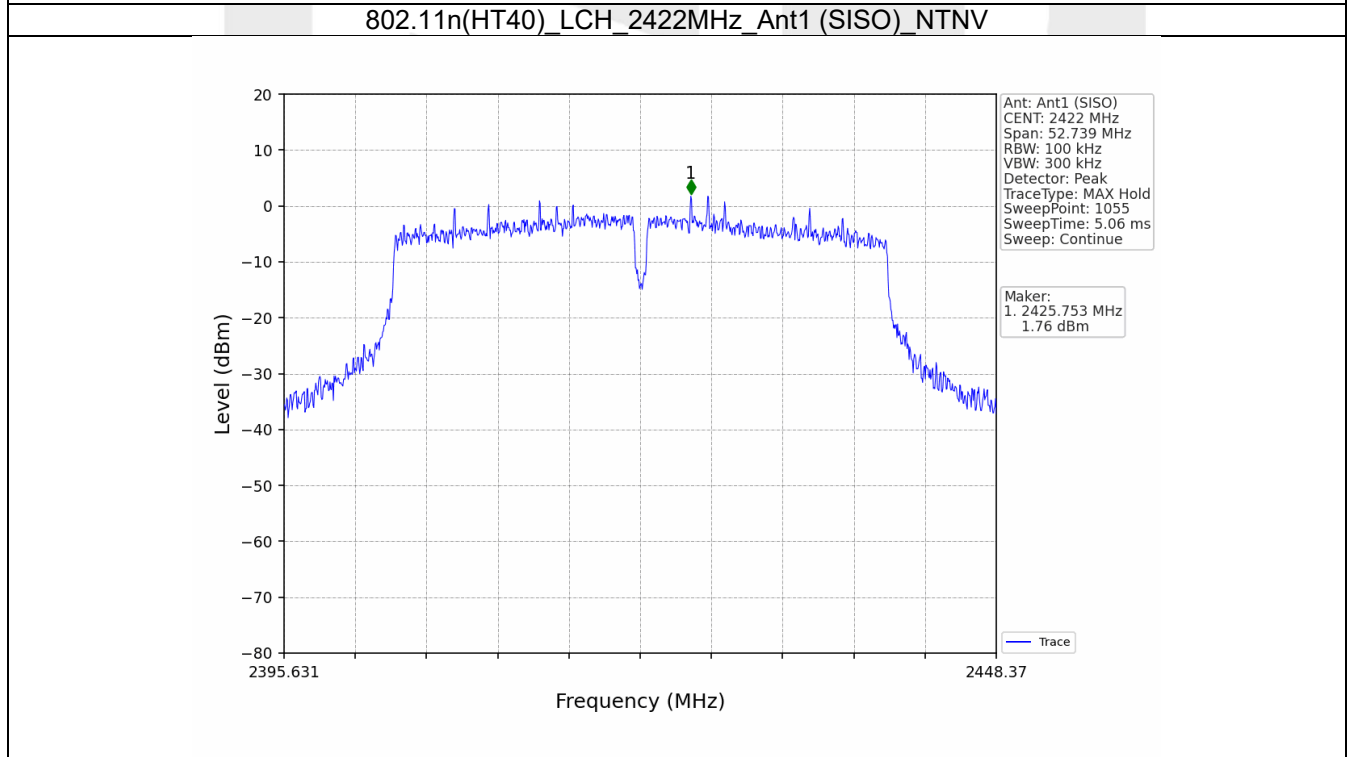
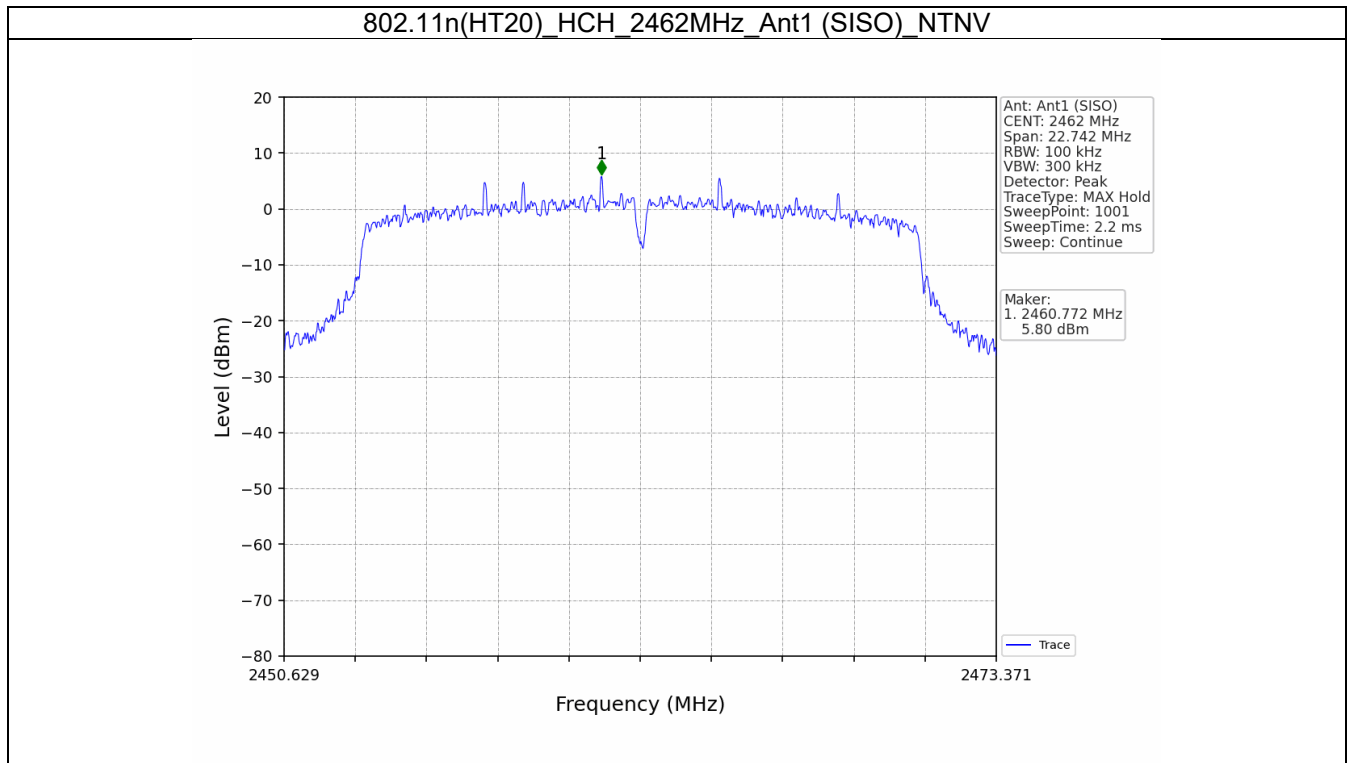
5.1.2 Test Graph

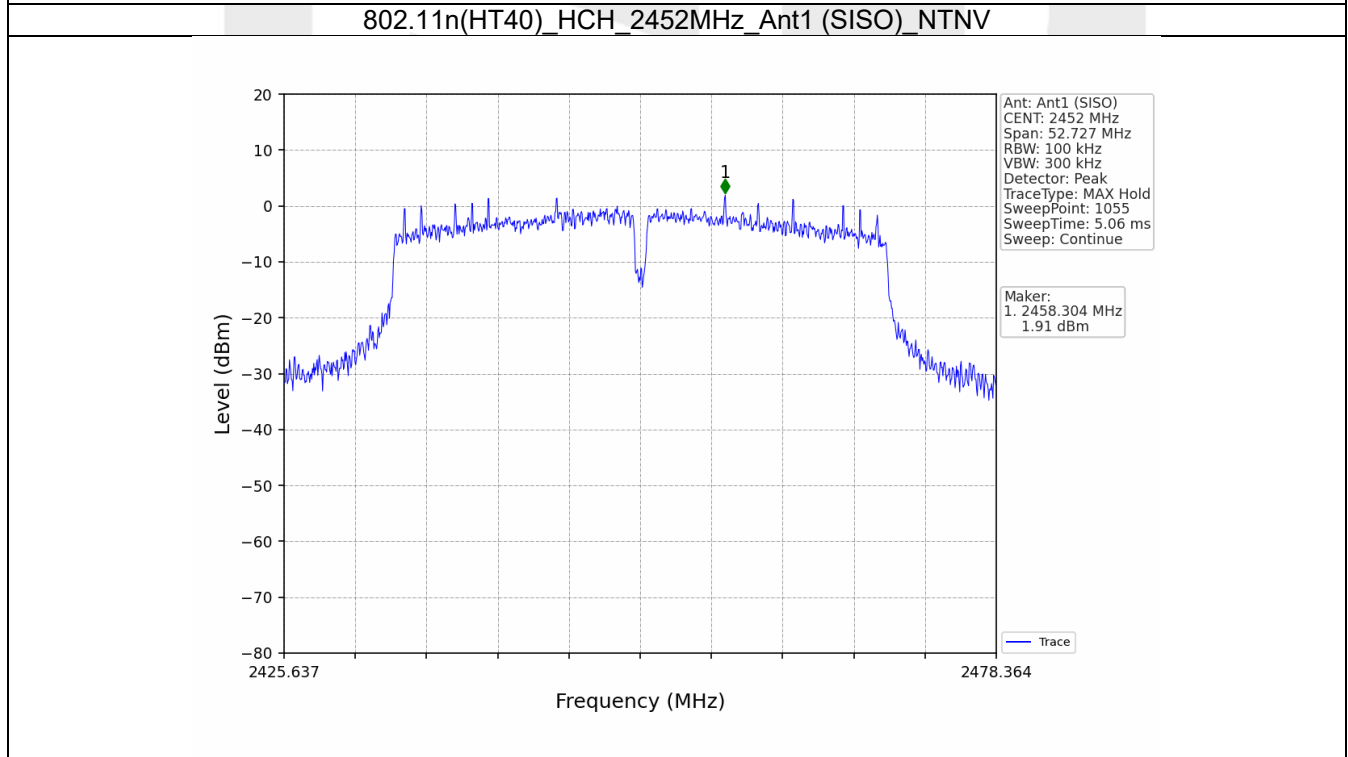
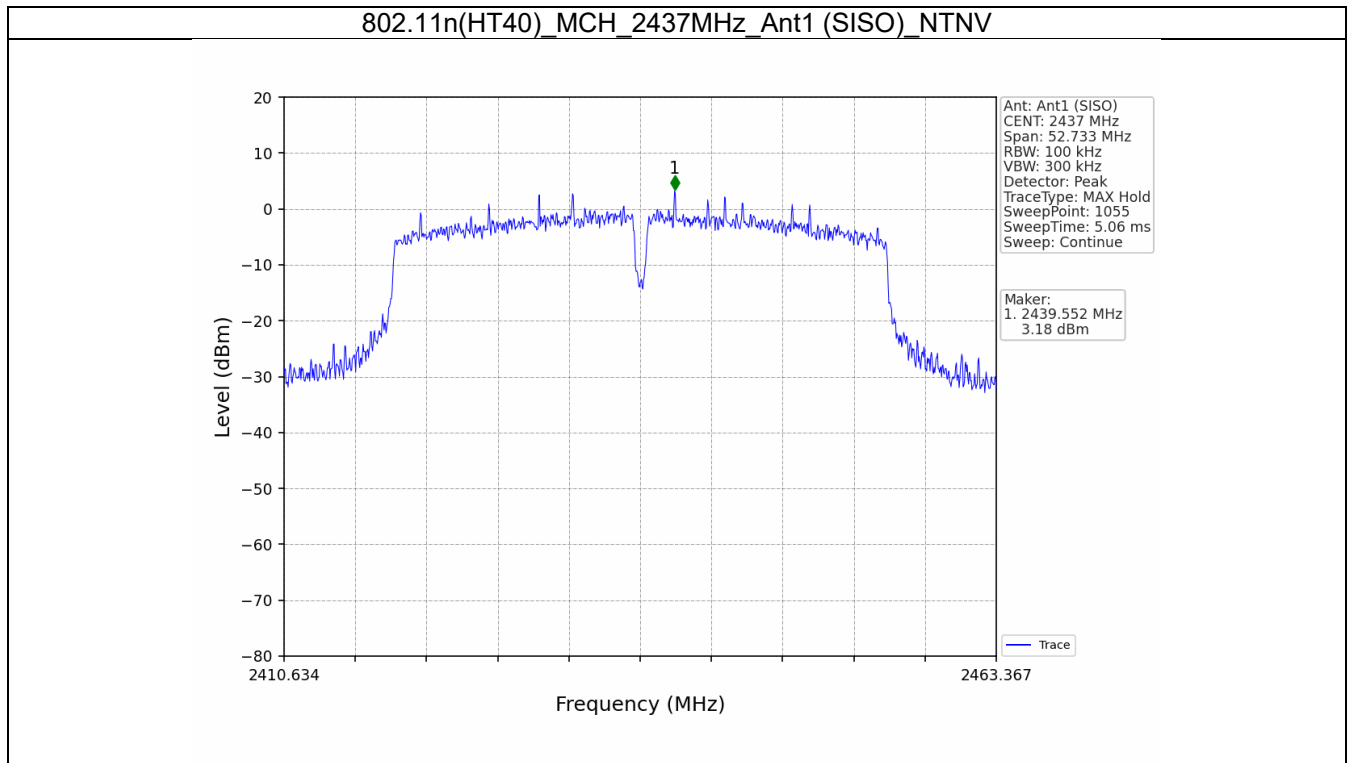










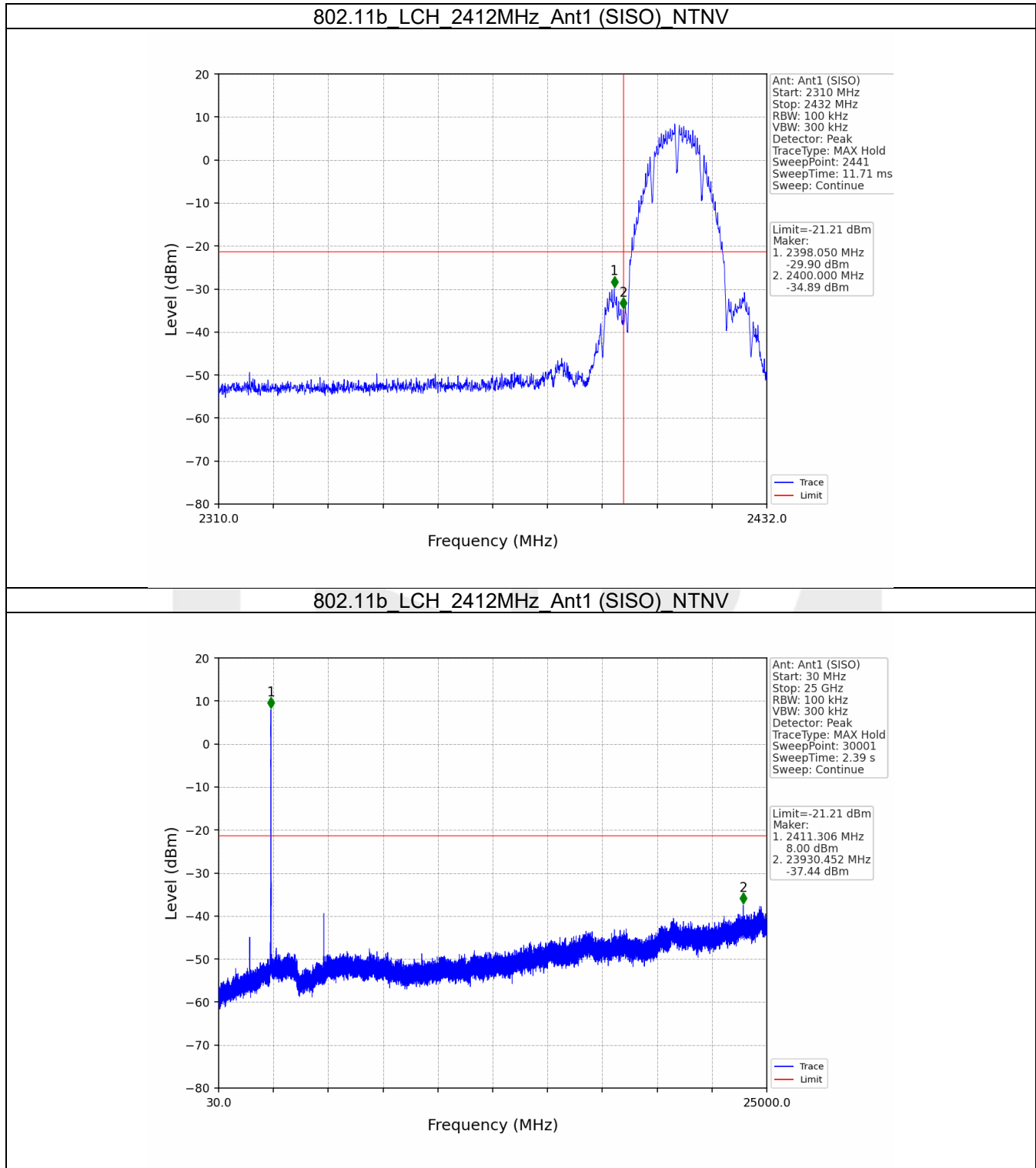


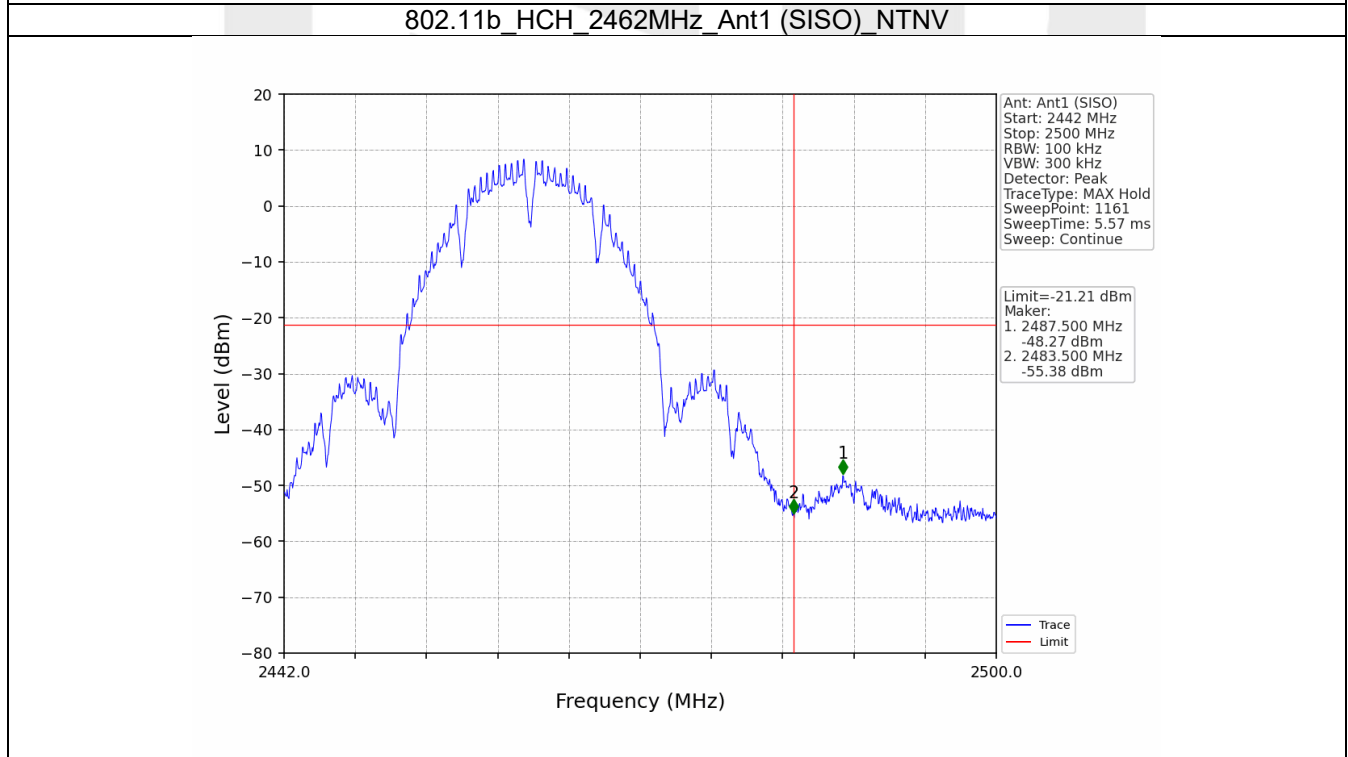
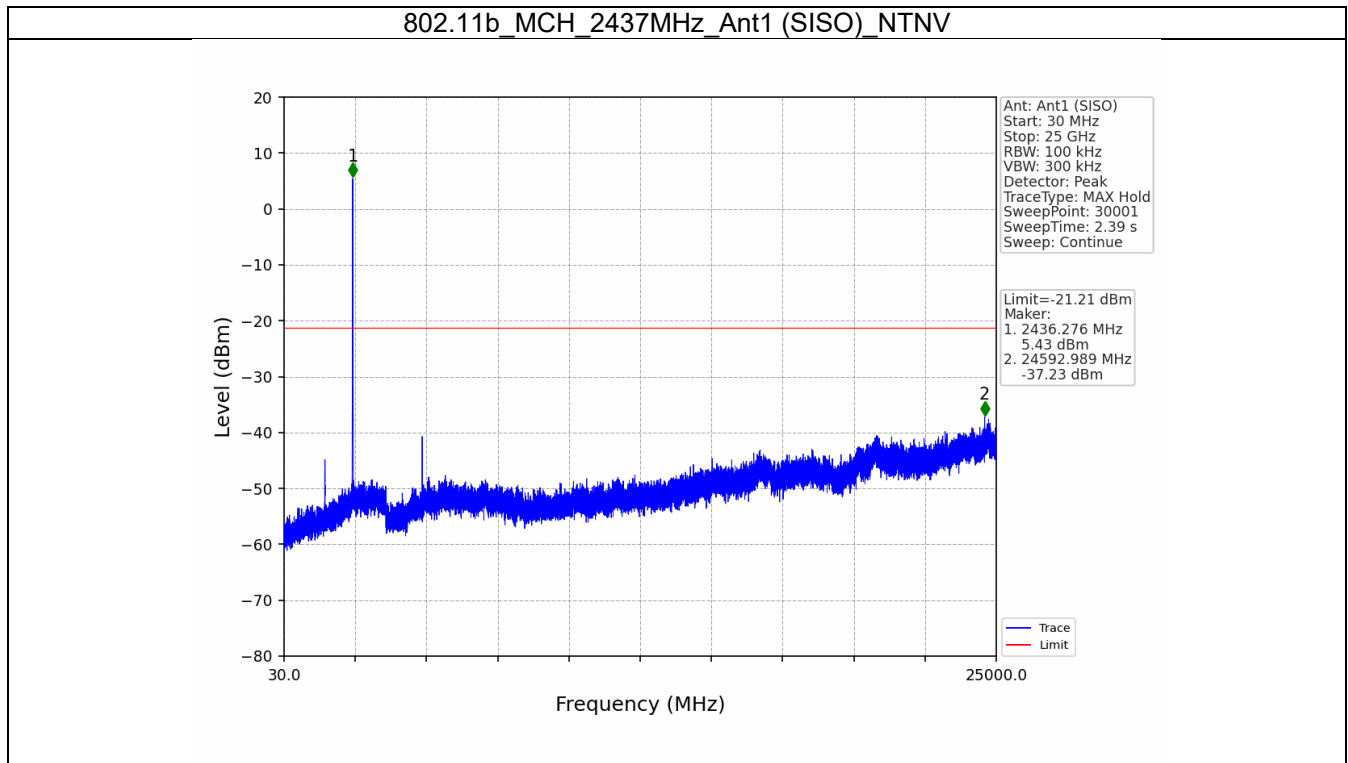
5.2 CSE
5.2.1 Test Result

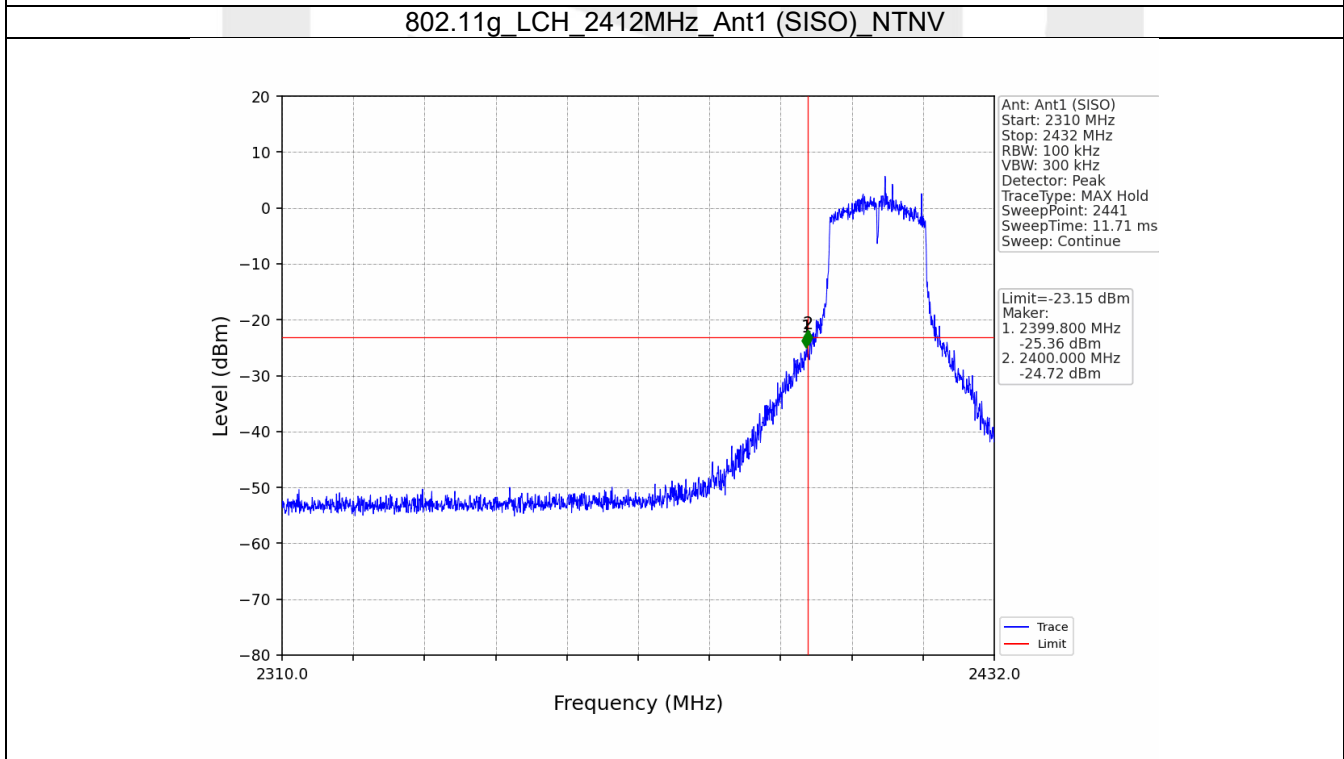
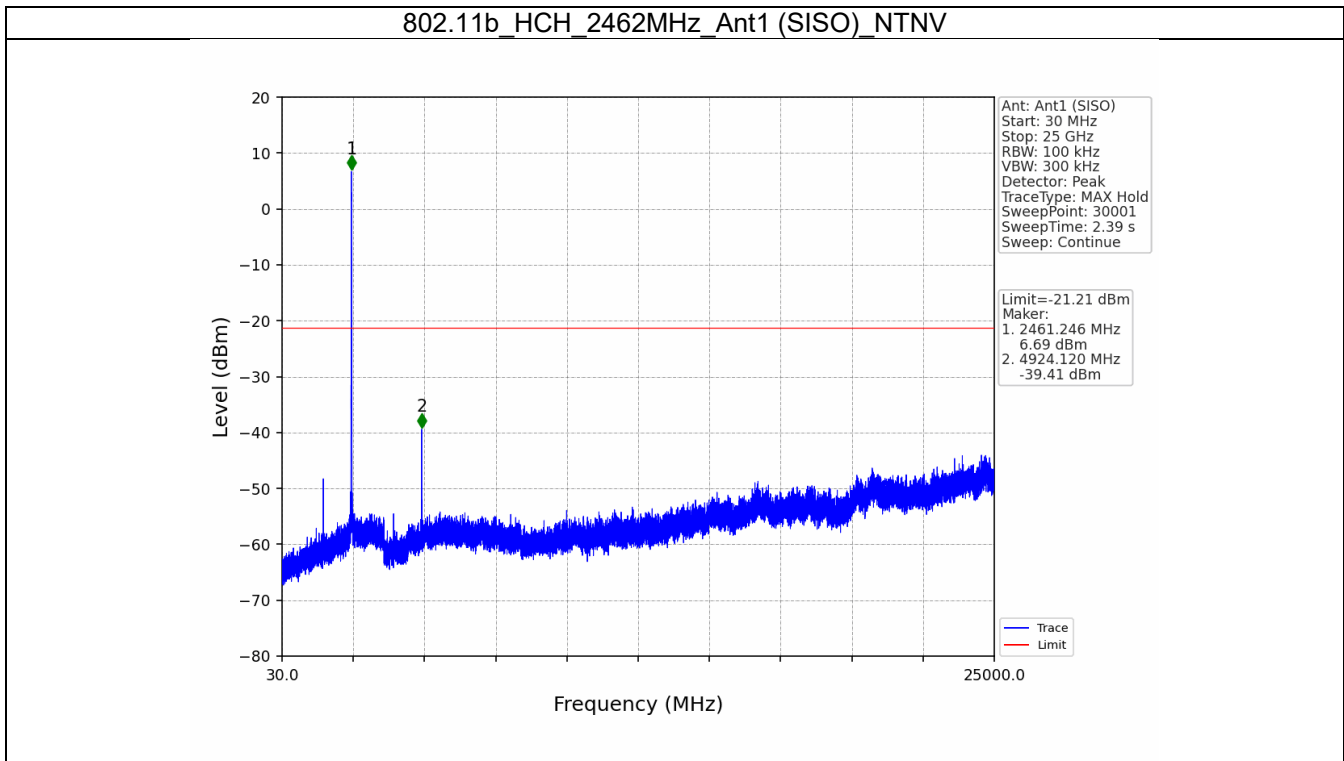
Mode	TX Type	Frequency (MHz)	RU	RU Pos	ANT	Level of Reference (dBm)	Limit (dBm)	Verdict
802.11b	SISO	2412	/	/	1	8.79	-21.21	Pass
		2437	/	/	1	8.79	-21.21	Pass
		2462	/	/	1	8.79	-21.21	Pass
802.11g	SISO	2412	/	/	1	6.85	-23.15	Pass
		2437	/	/	1	6.85	-23.15	Pass
		2462	/	/	1	6.85	-23.15	Pass
802.11n (HT20)	SISO	2412	/	/	1	5.80	-24.20	Pass
		2437	/	/	1	5.80	-24.20	Pass
		2462	/	/	1	5.80	-24.20	Pass
802.11n (HT40)	SISO	2422	/	/	1	3.18	-26.82	Pass
		2437	/	/	1	3.18	-26.82	Pass
		2452	/	/	1	3.18	-26.82	Pass

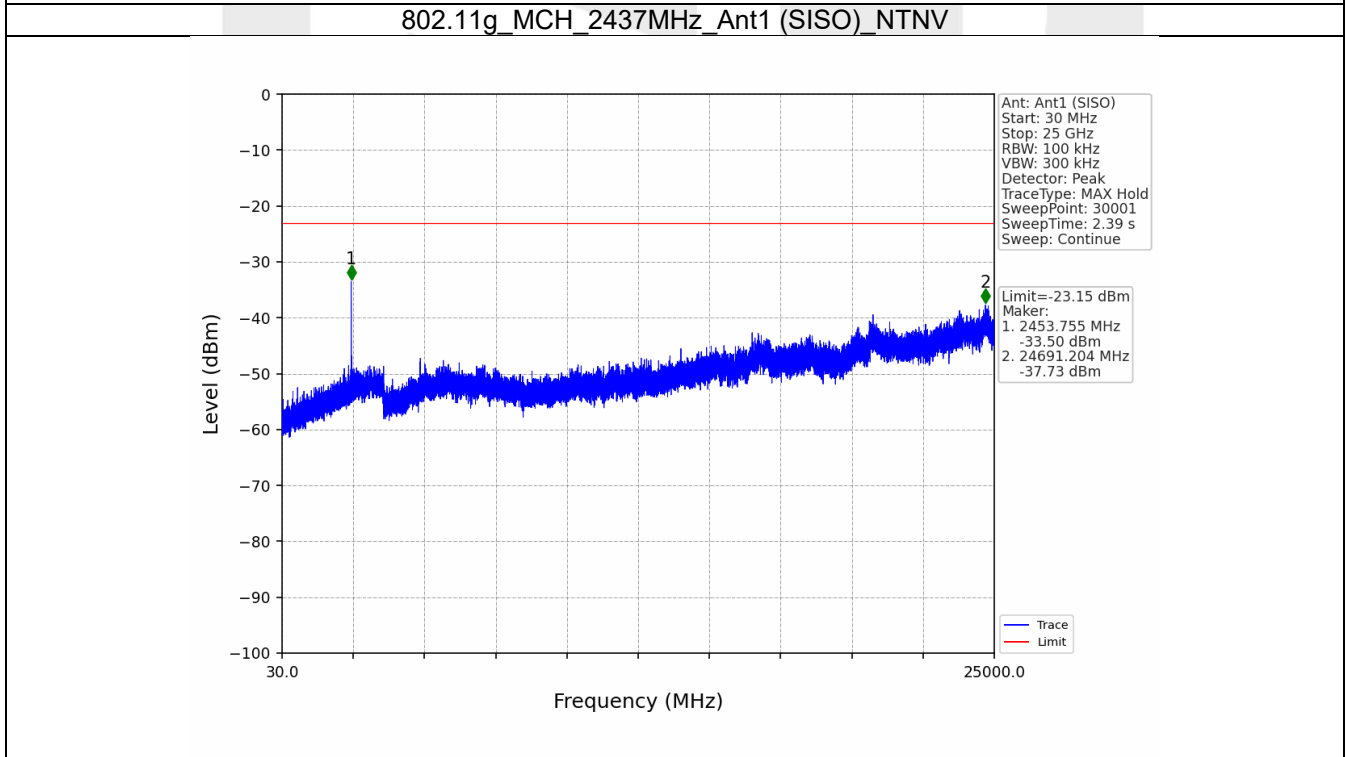
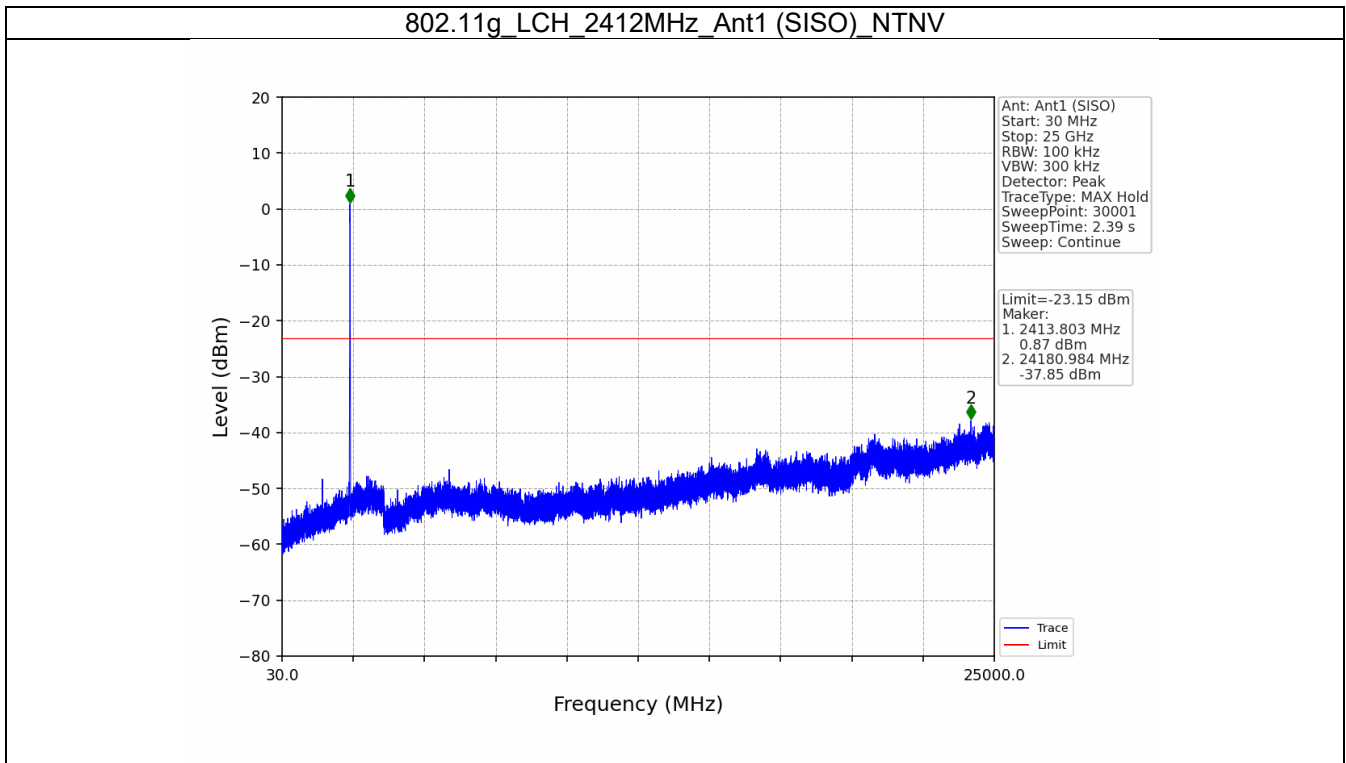
Note1: Refer to RSS-247 Issue 3 section 5.5 and ANSI C63.10-2020, the channel contains the maximum PSD level was used to establish the reference level.

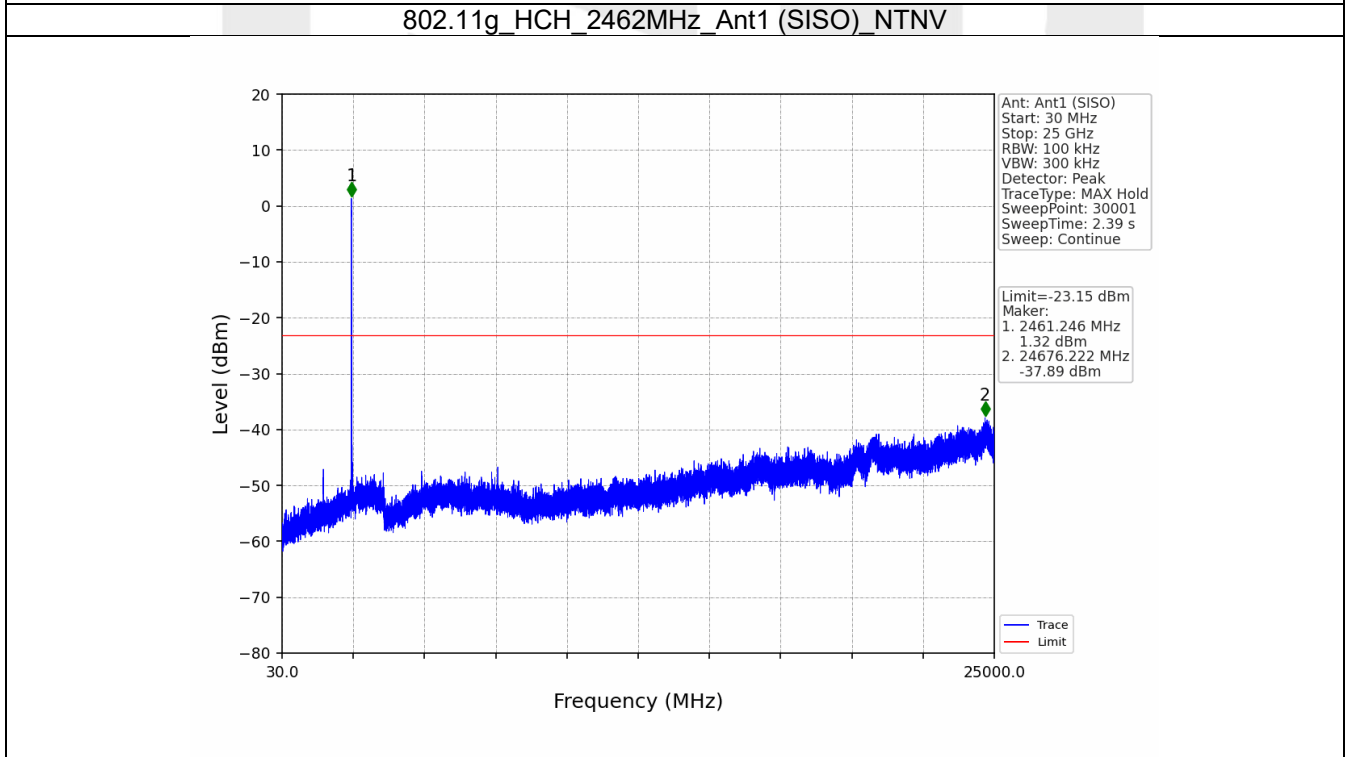
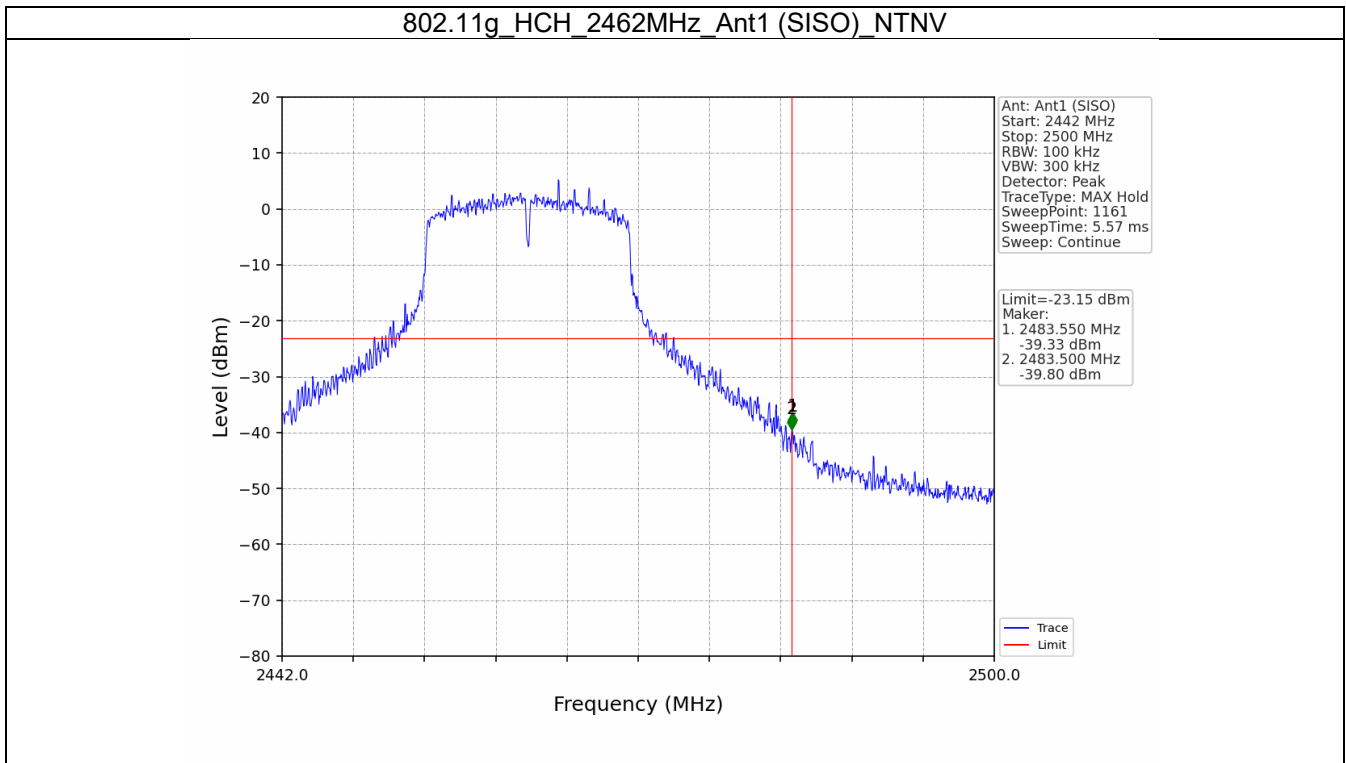
5.2.2 Test Graph

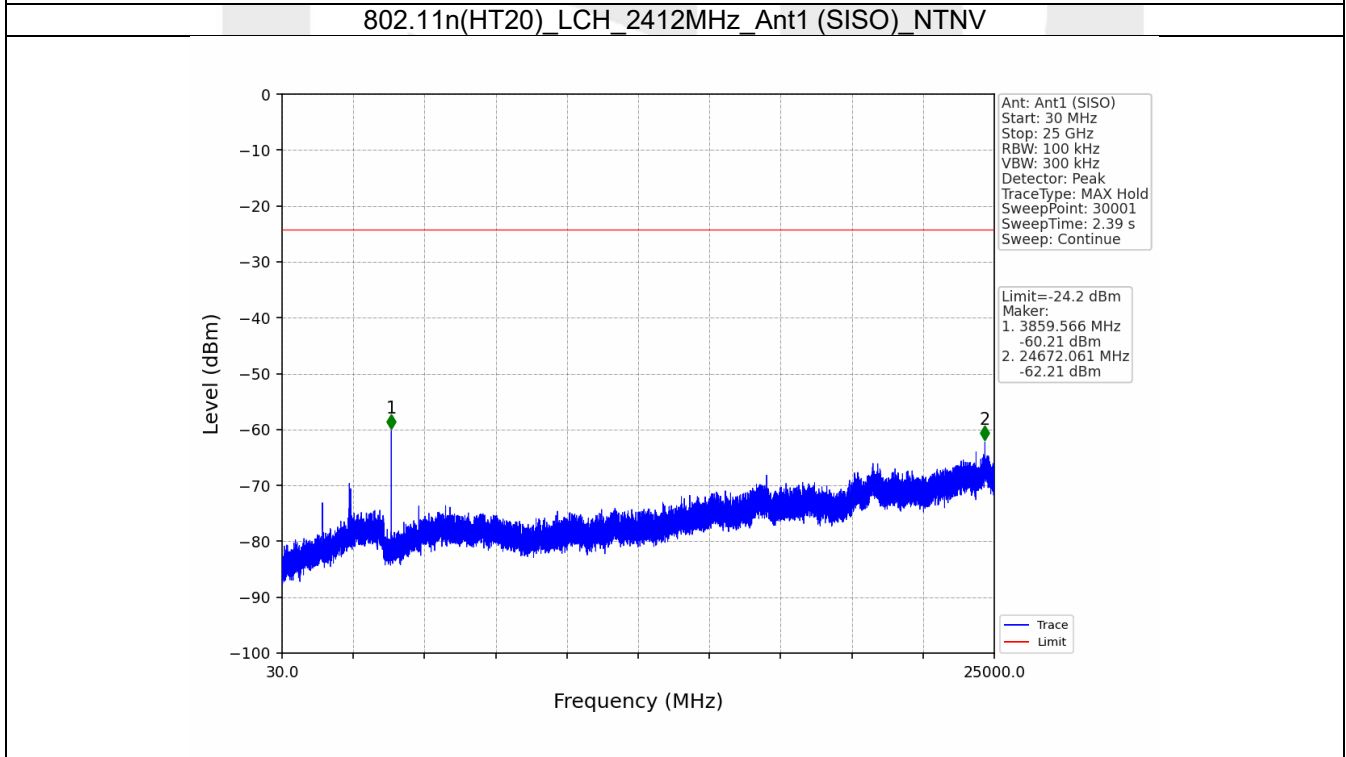
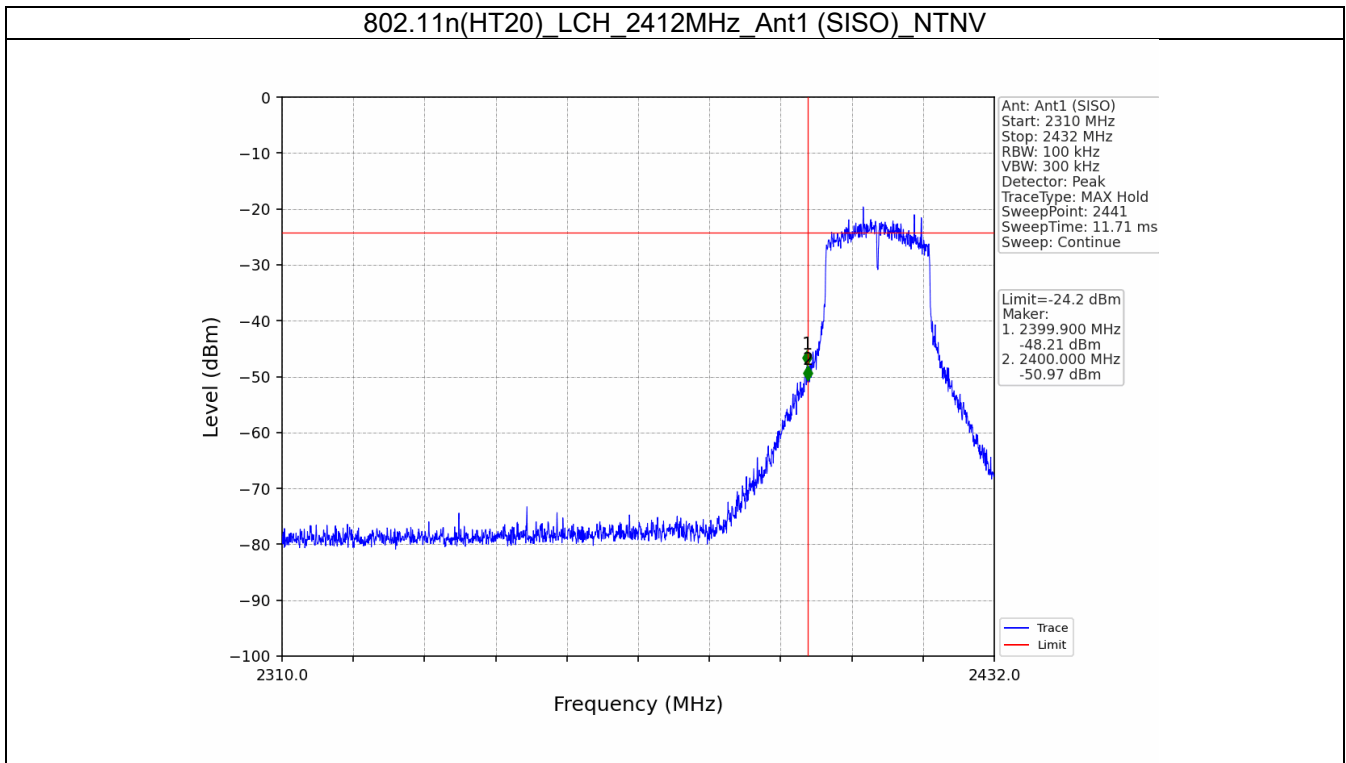


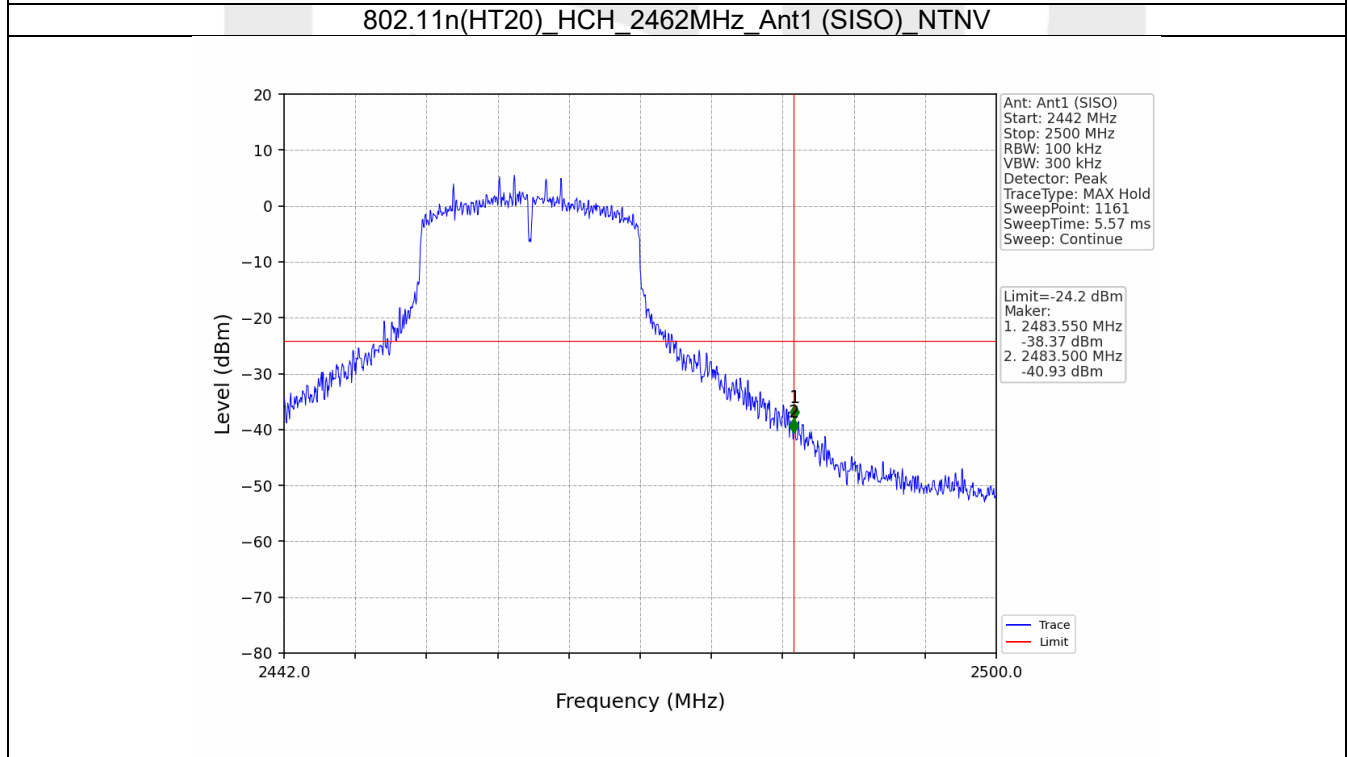
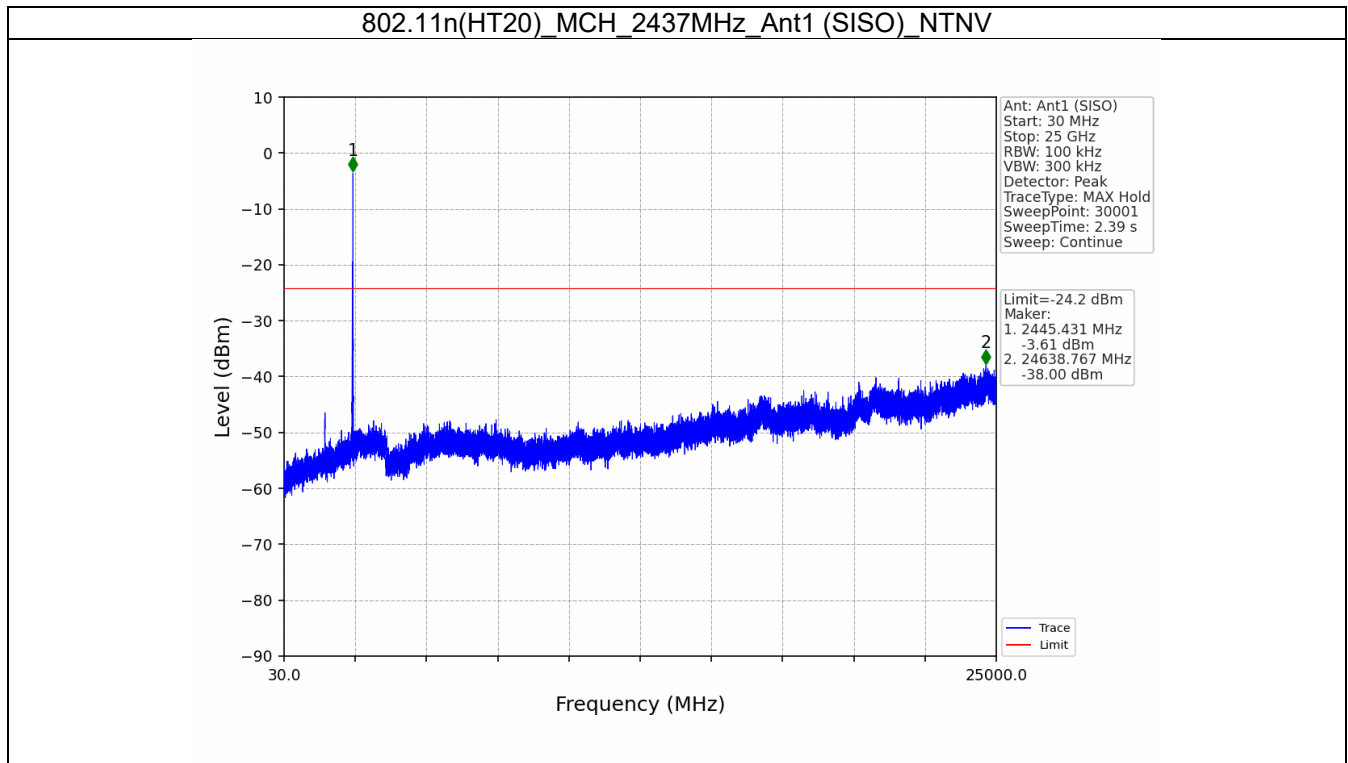


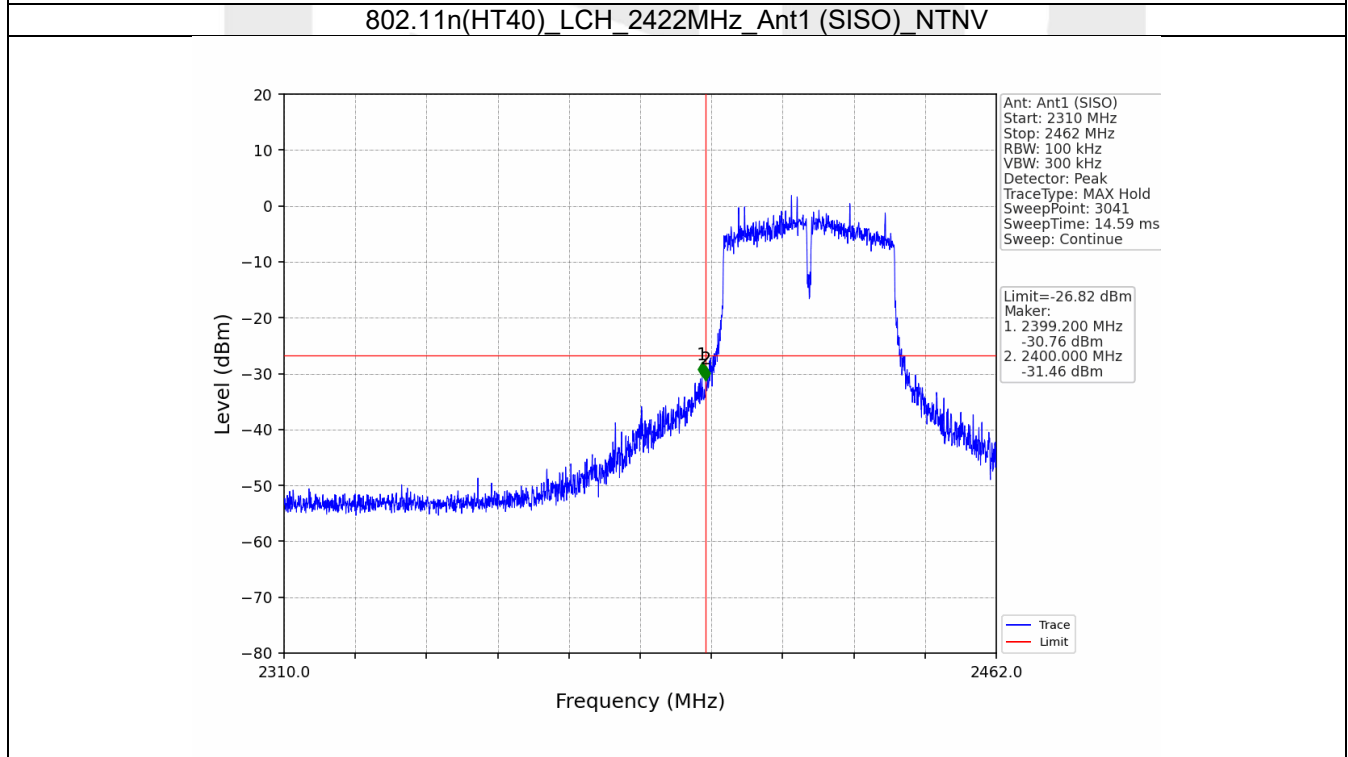
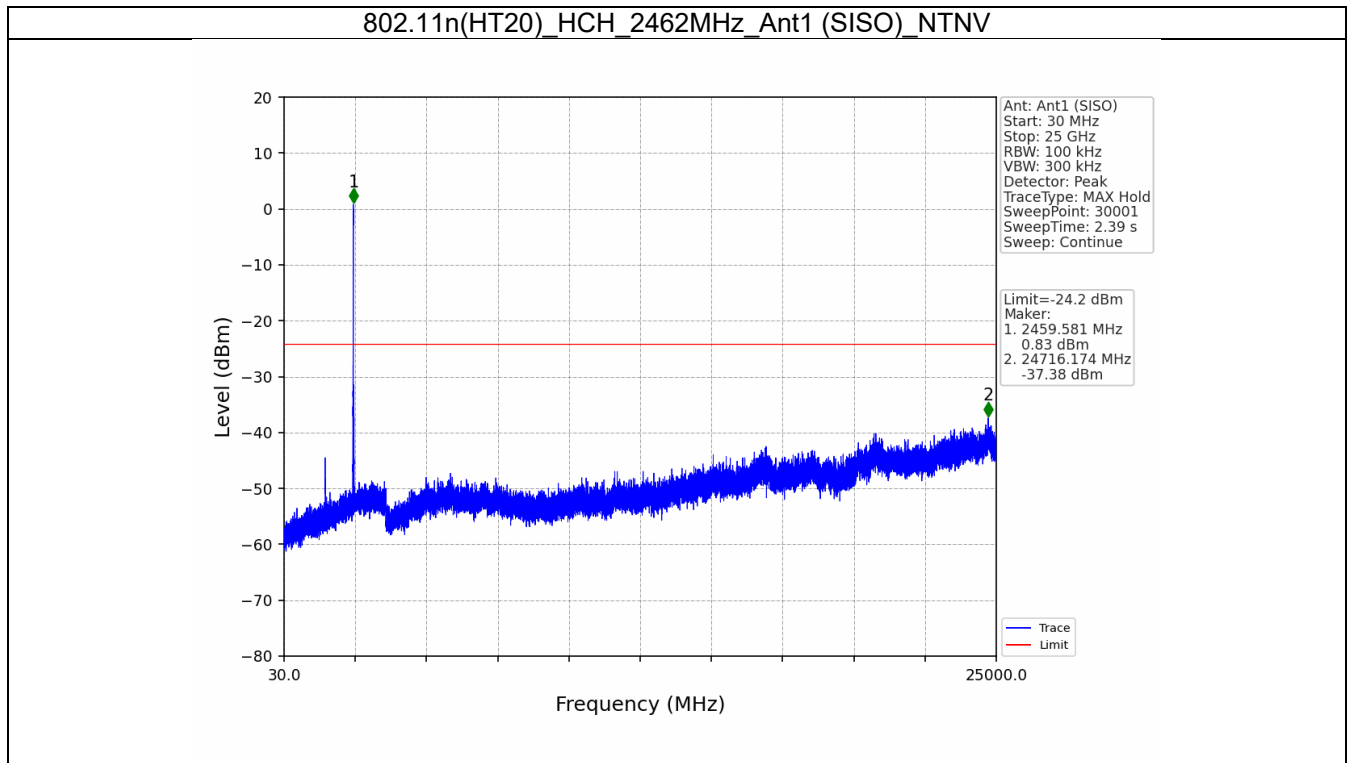


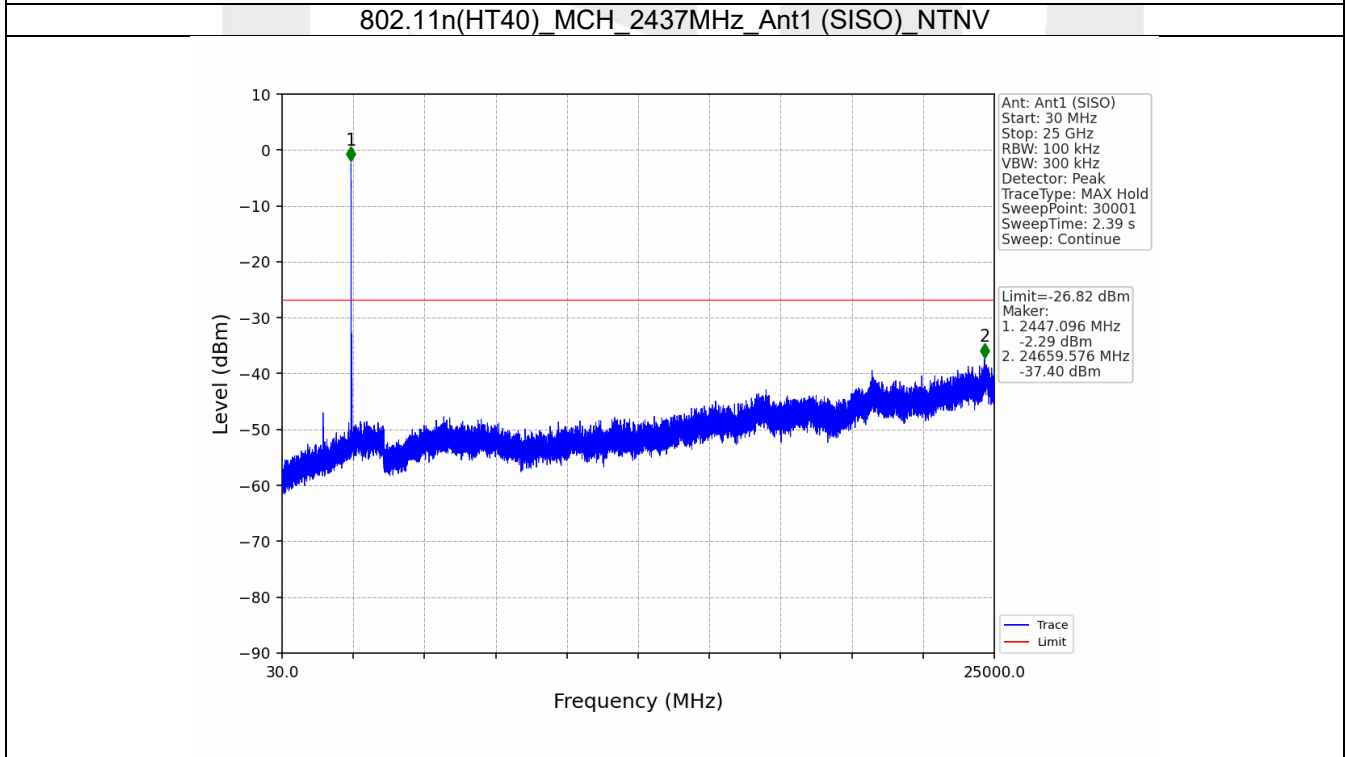
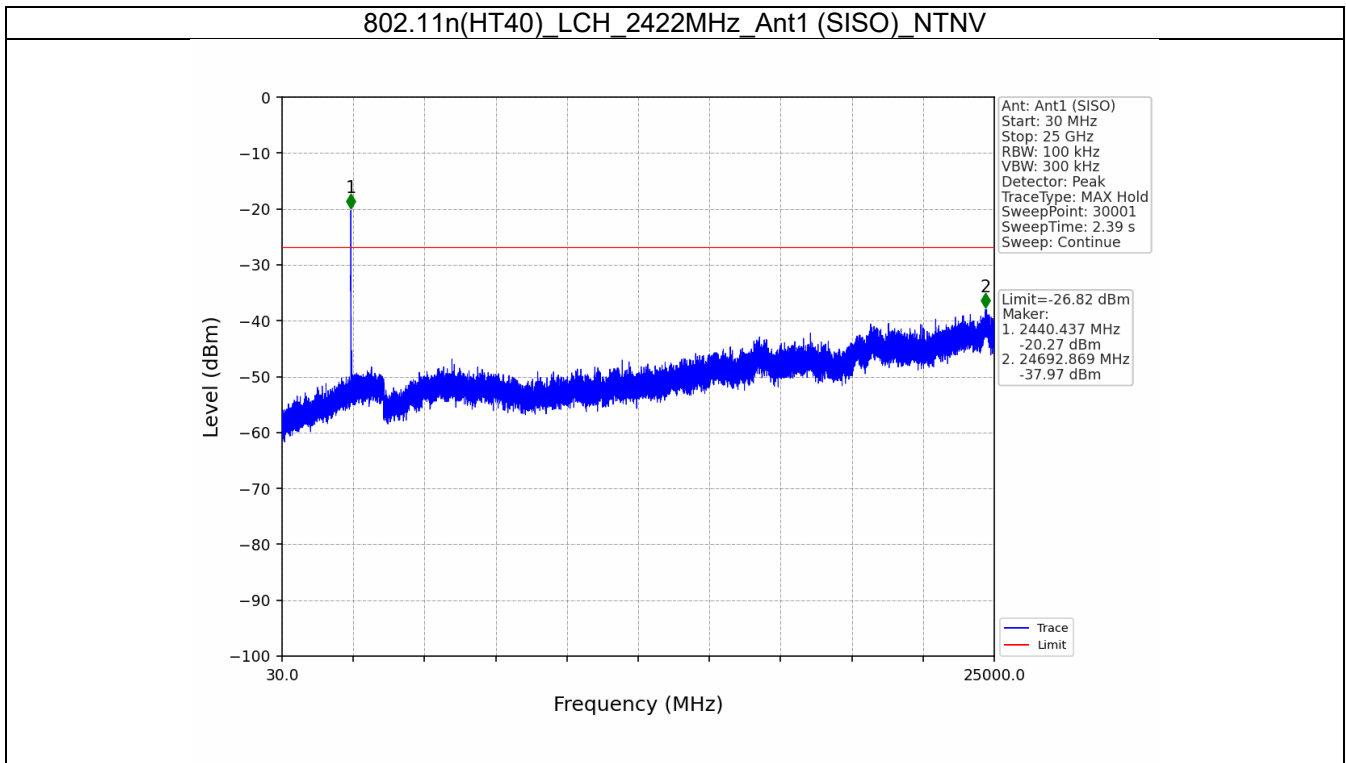


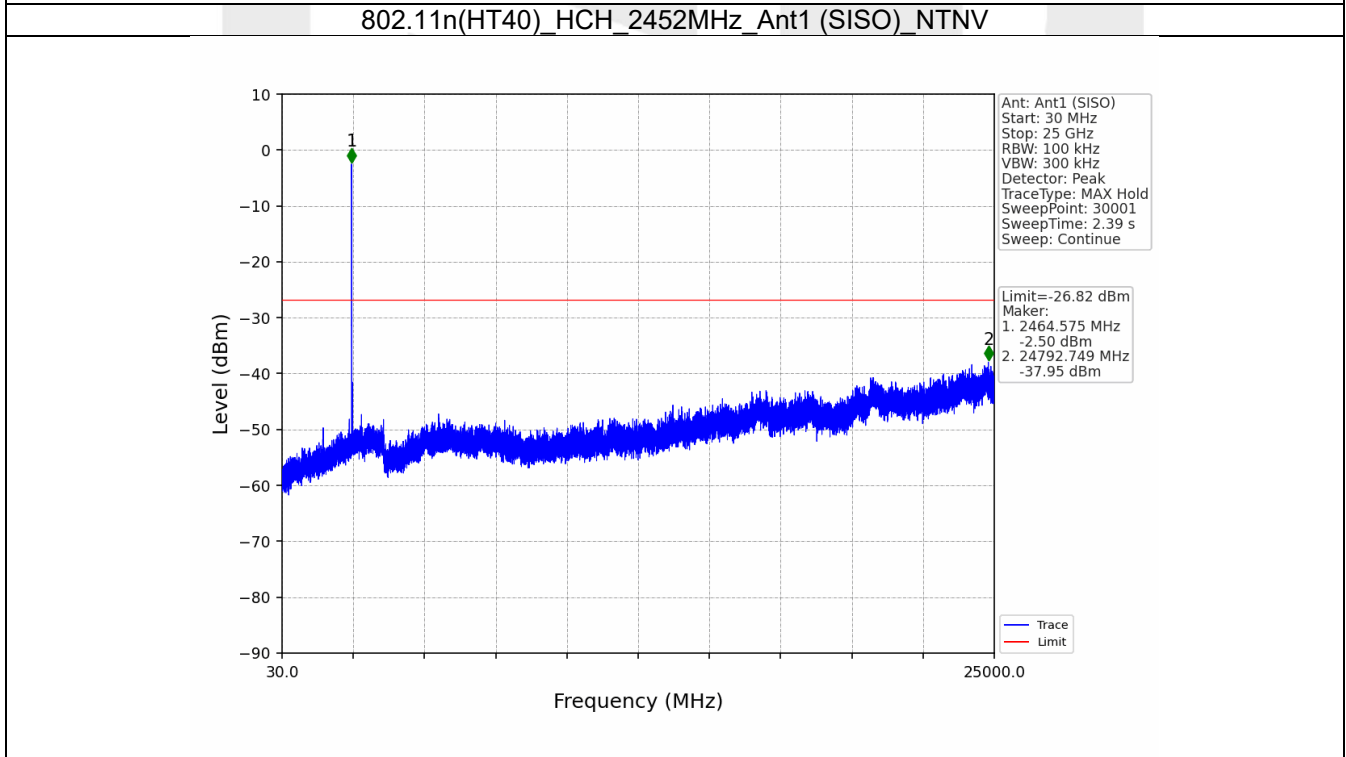
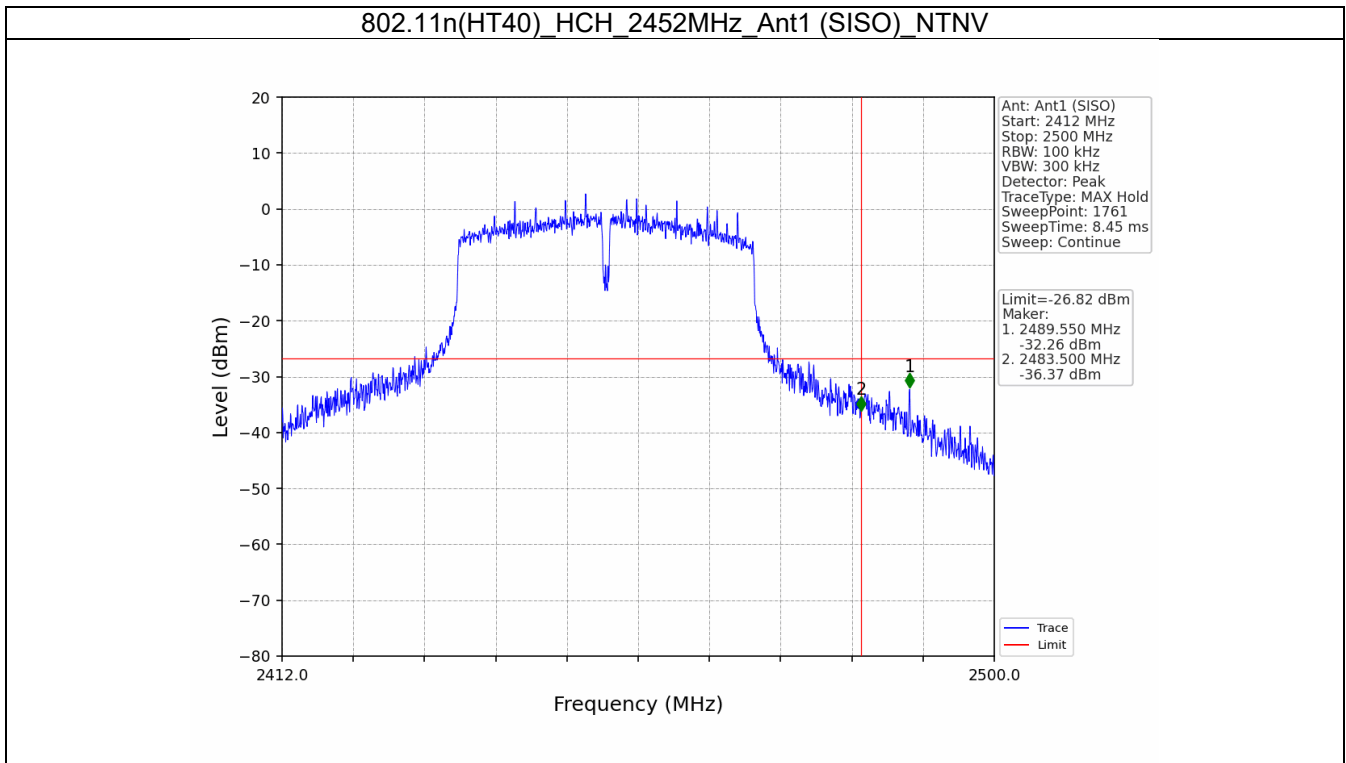












----- End of Report -----