

FCC ID: 2A54Y-HA111

Applicant: Shenzhen TFIRETEK Technology Co., Ltd.

Address: 204, Building 2, Stech Park, Taoyuan Community, Dalang Street, LongHua District, ShenZhen

Manufacturer: Shenzhen TFIRETEK Technology Co., Ltd.

Address: 204, Building 2, Stech Park, Taoyuan Community, Dalang Street, LongHua District, ShenZhen

Product Name: Projector

Trade Mark: N/A

Model Number: HA111, HA111-Mini, HA111-Max, HA111-A, HA111-B, HA111-C, HA111-D, HA111-E, HA111-Plus, HA111-Ultra

Date of Receipt: Jul. 10, 2026

Test Date: Jul. 10, 2026 – Sep. 11, 2026

Date of Report: Sep. 11, 2026

Prepared By: Shenzhen DL Testing Technology Co., Ltd.

Address: 101-201, Comprehensive Building, Tongzhou Electronics Longgang Factory Area, No.1 Baolong Fifth Road, Baolong Community, Baolong Street, Longgang District, Shenzhen, China

Applicable Standards: FCC PART 15 C 15.247
ANSI C63.10-2020 + Cor. 1-2023+C63.10a-2024 + Errata to C63.10a-2024

Test Result: Pass

Report Number: DLE-260610101R

1. Bandwidth

1.1 Test Result

1.1.1 OBW

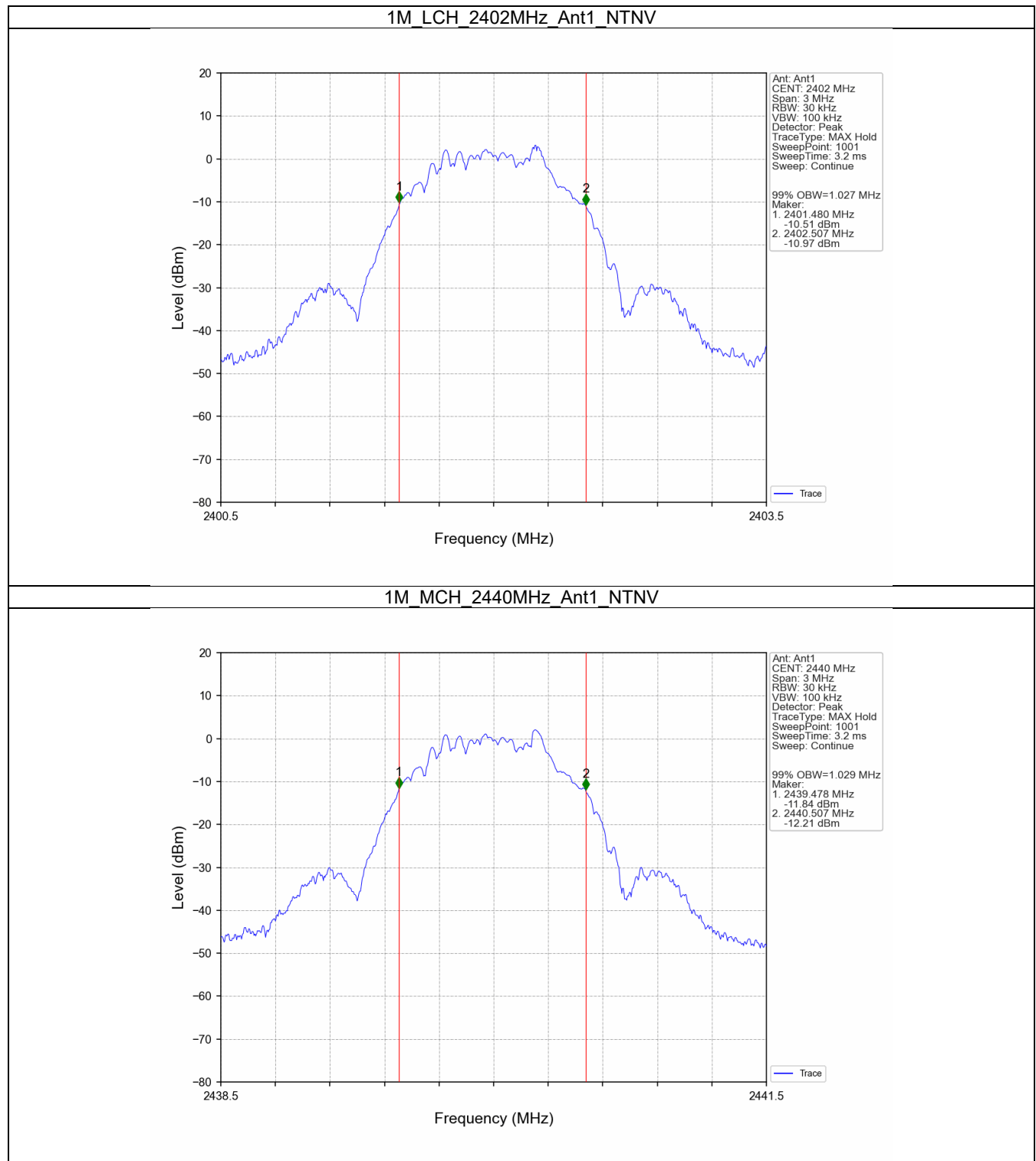
Mode	TX Type	Frequency (MHz)	ANT	99% Occupied Bandwidth (MHz)		Verdict
				Result	Limit	
1M	SISO	2402	1	1.027	/	Pass
		2440	1	1.029	/	Pass
		2480	1	1.030	/	Pass
2M	SISO	2402	1	2.053	/	Pass
		2440	1	2.060	/	Pass
		2480	1	2.052	/	Pass

1.1.2 6dB BW

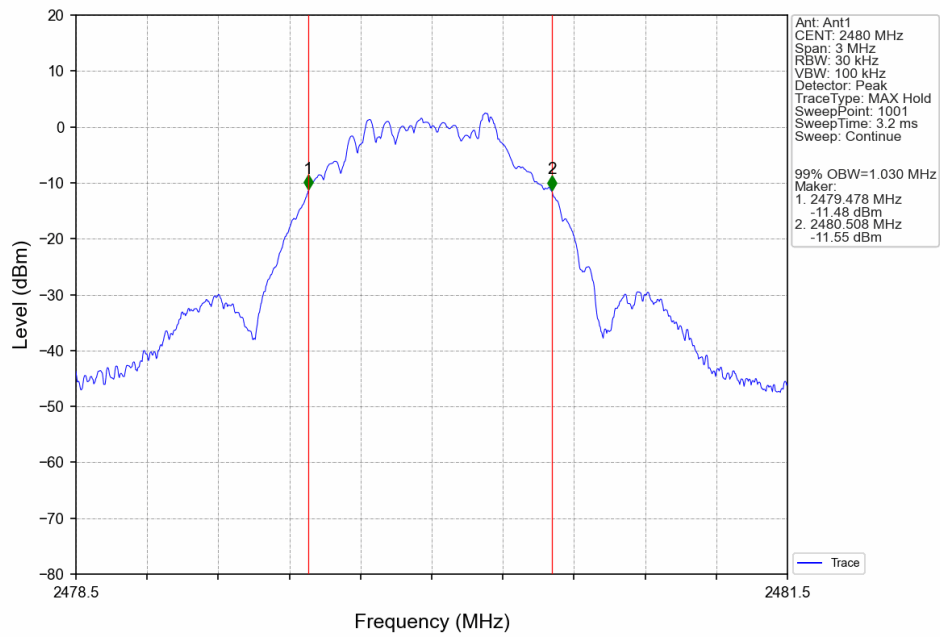
Mode	TX Type	Frequency (MHz)	ANT	6dB Bandwidth (MHz)		Verdict
				Result	Limit	
1M	SISO	2402	1	0.665	≥ 0.5	Pass
		2440	1	0.664	≥ 0.5	Pass
		2480	1	0.664	≥ 0.5	Pass
2M	SISO	2402	1	1.205	≥ 0.5	Pass
		2440	1	1.251	≥ 0.5	Pass
		2480	1	1.205	≥ 0.5	Pass

1.2 Test Graph

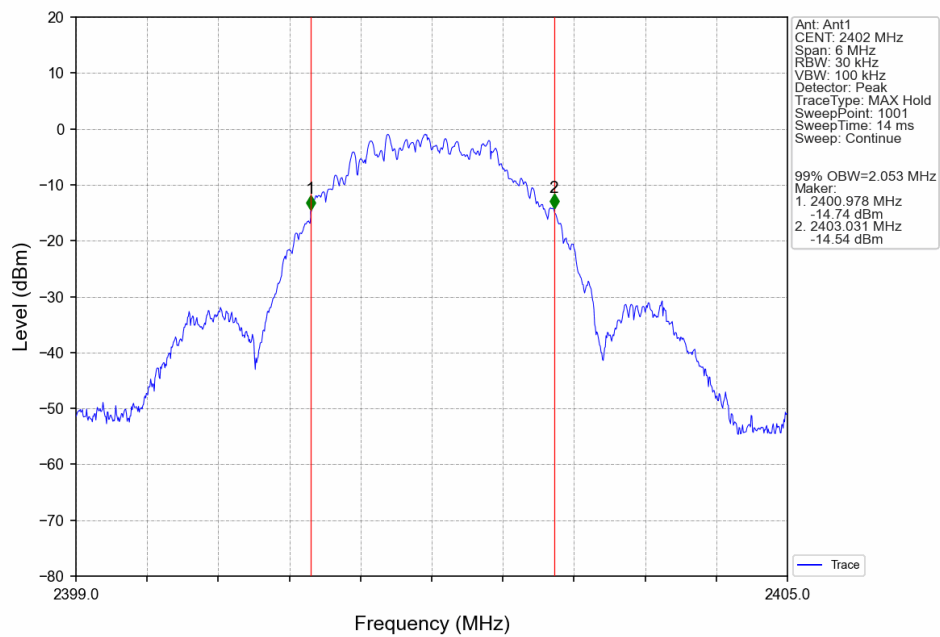
1.2.1 OBW



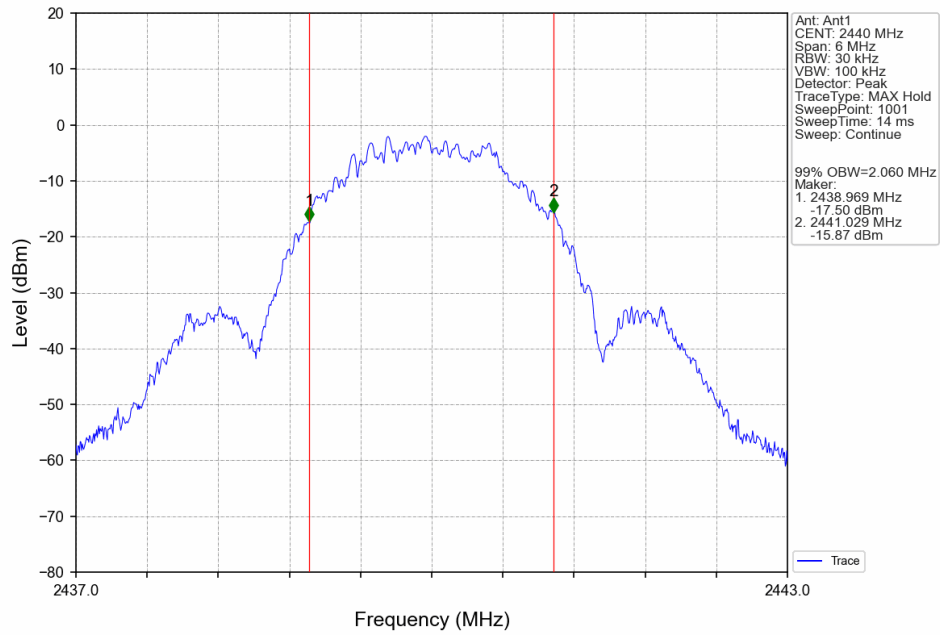
1M_HCH_2480MHz_Ant1_NTNV



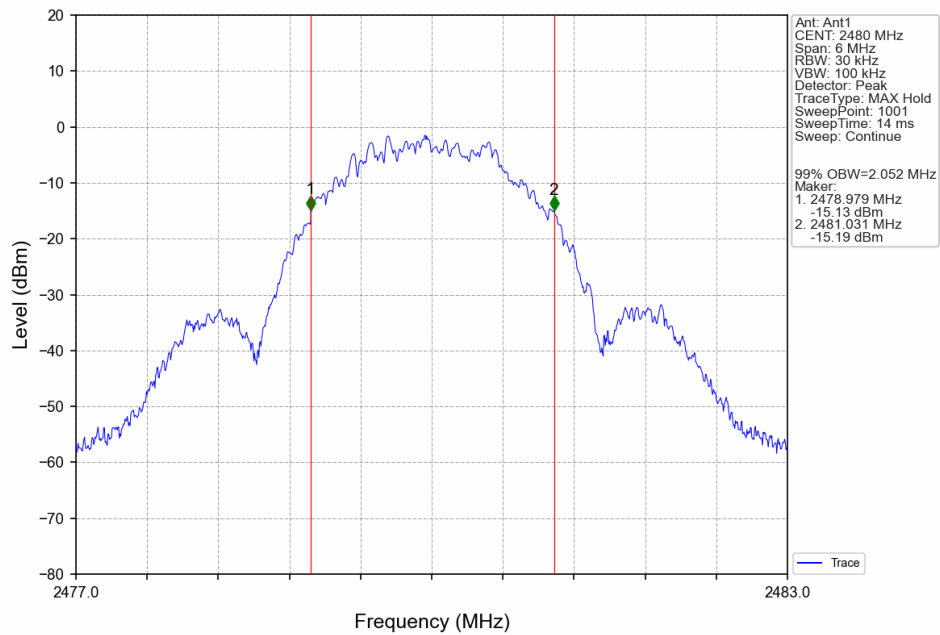
2M_LCH_2402MHz_Ant1_NTNV



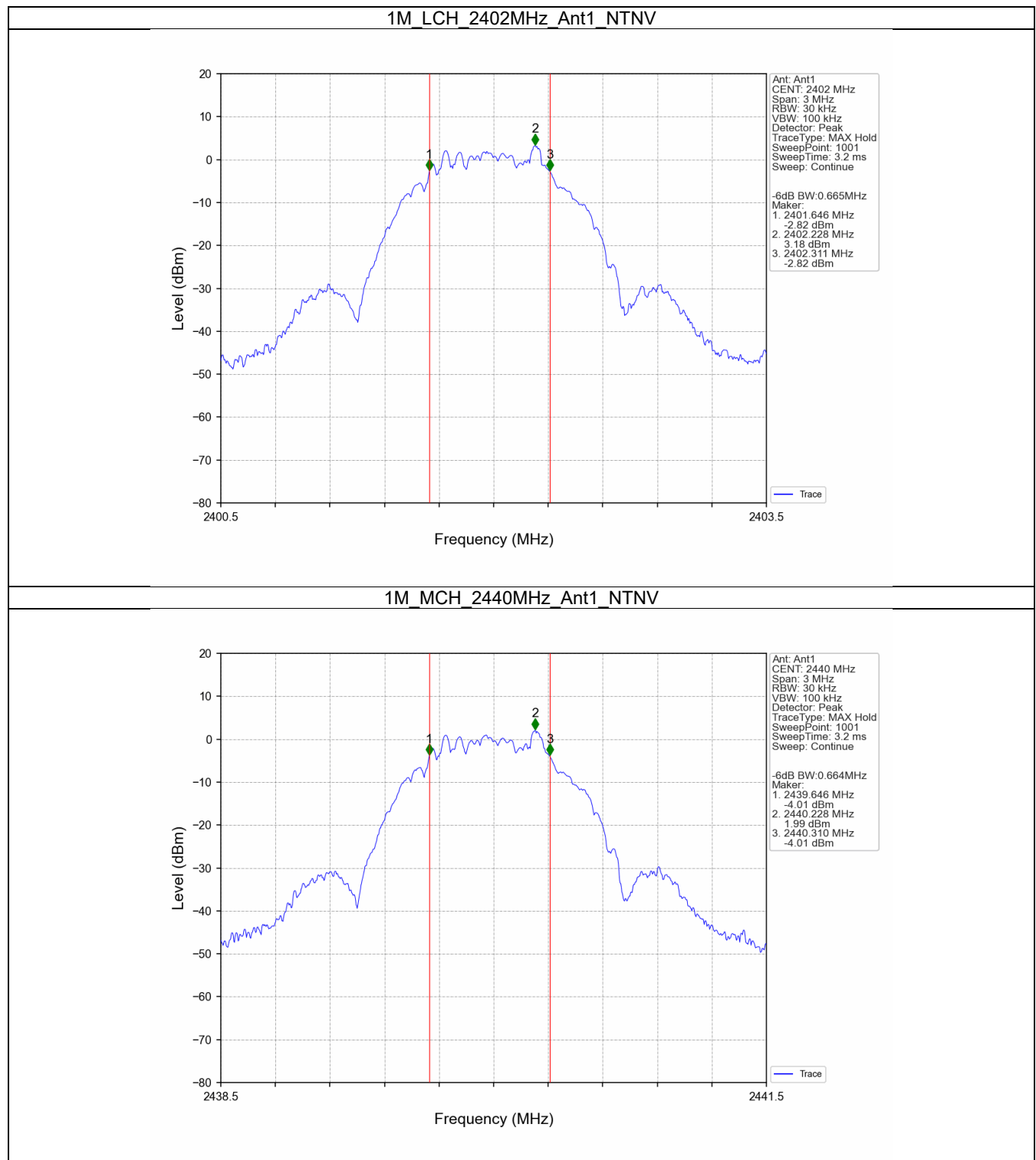
2M MCH 2440MHz Ant1 NTN



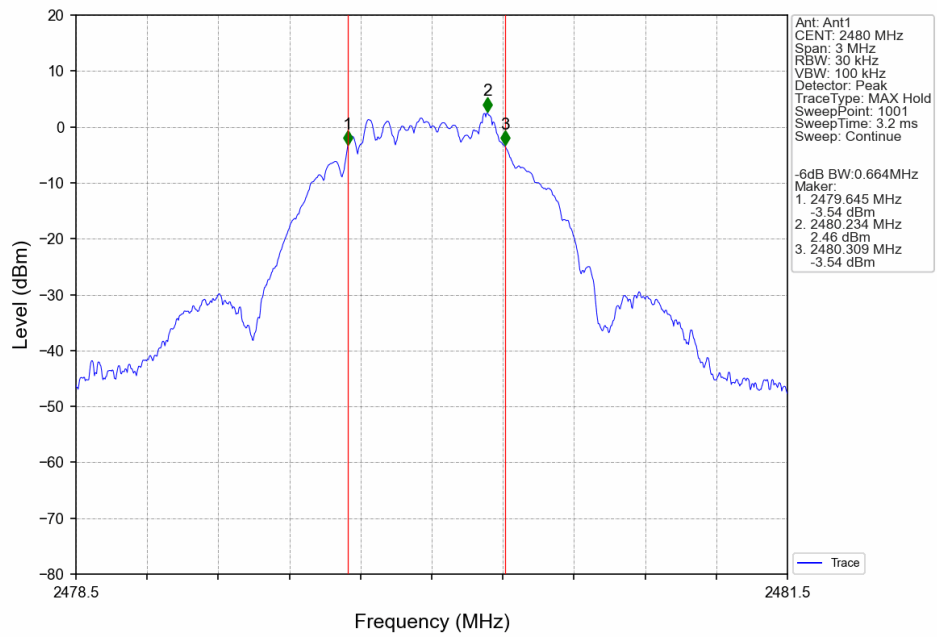
2M HCH 2480MHz Ant1 NTN



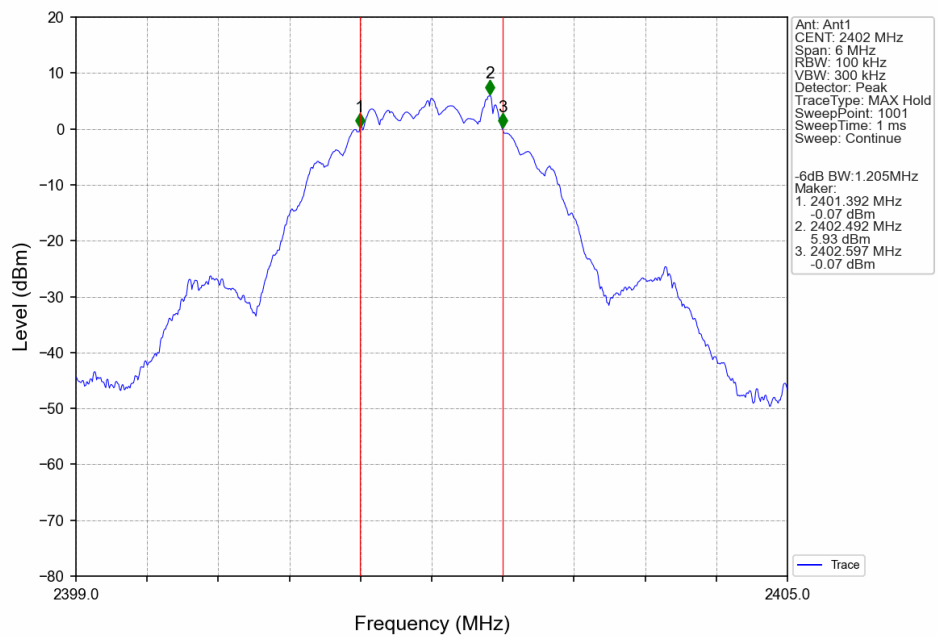
1.2.2 6dB BW



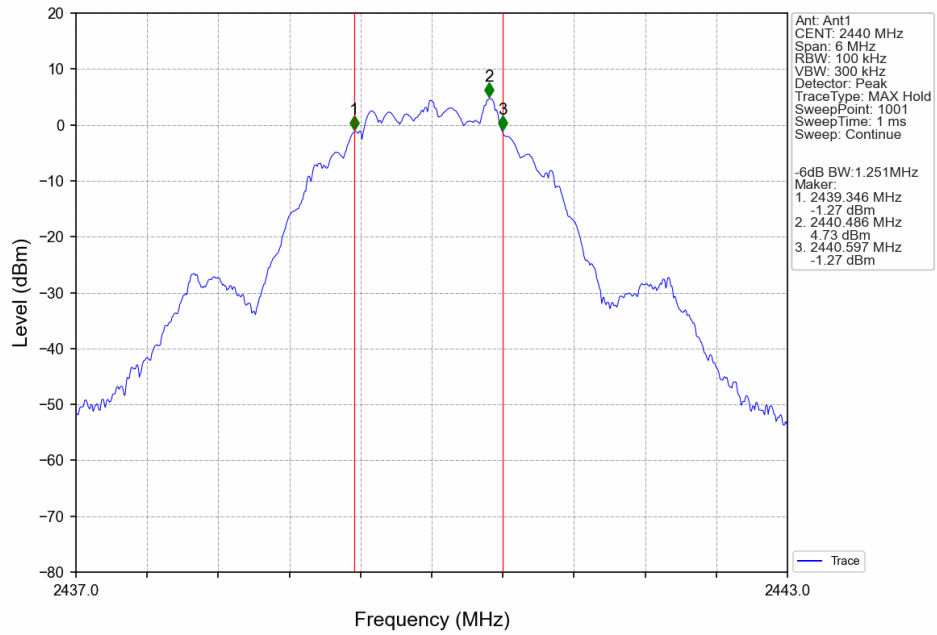
1M_HCH_2480MHz_Ant1_NTNV



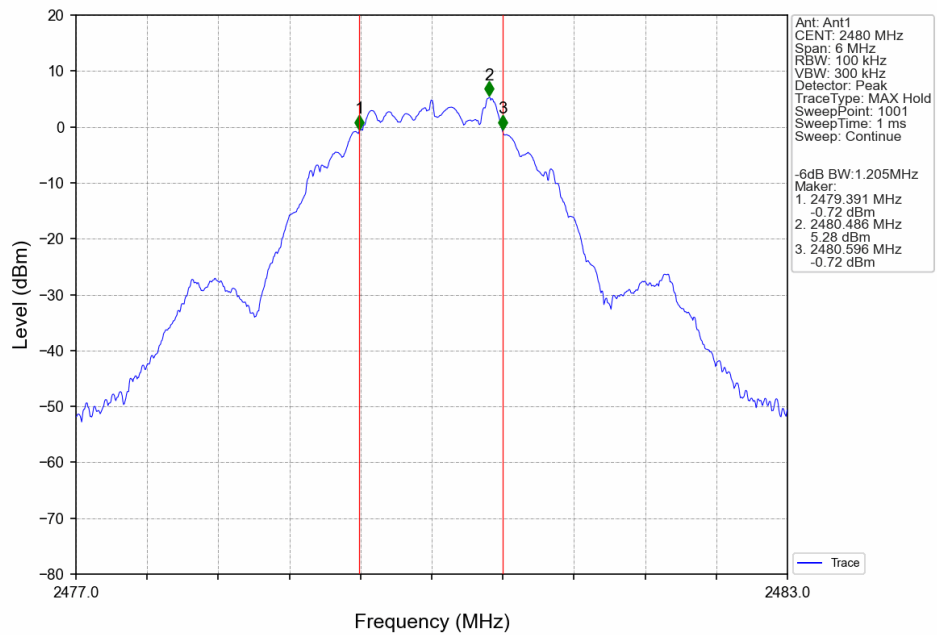
2M_LCH_2402MHz_Ant1_NTNV



2M_MCH_2440MHz_Ant1_NTNV



2M_HCH_2480MHz_Ant1_NTNV



2. Maximum Conducted Output Power

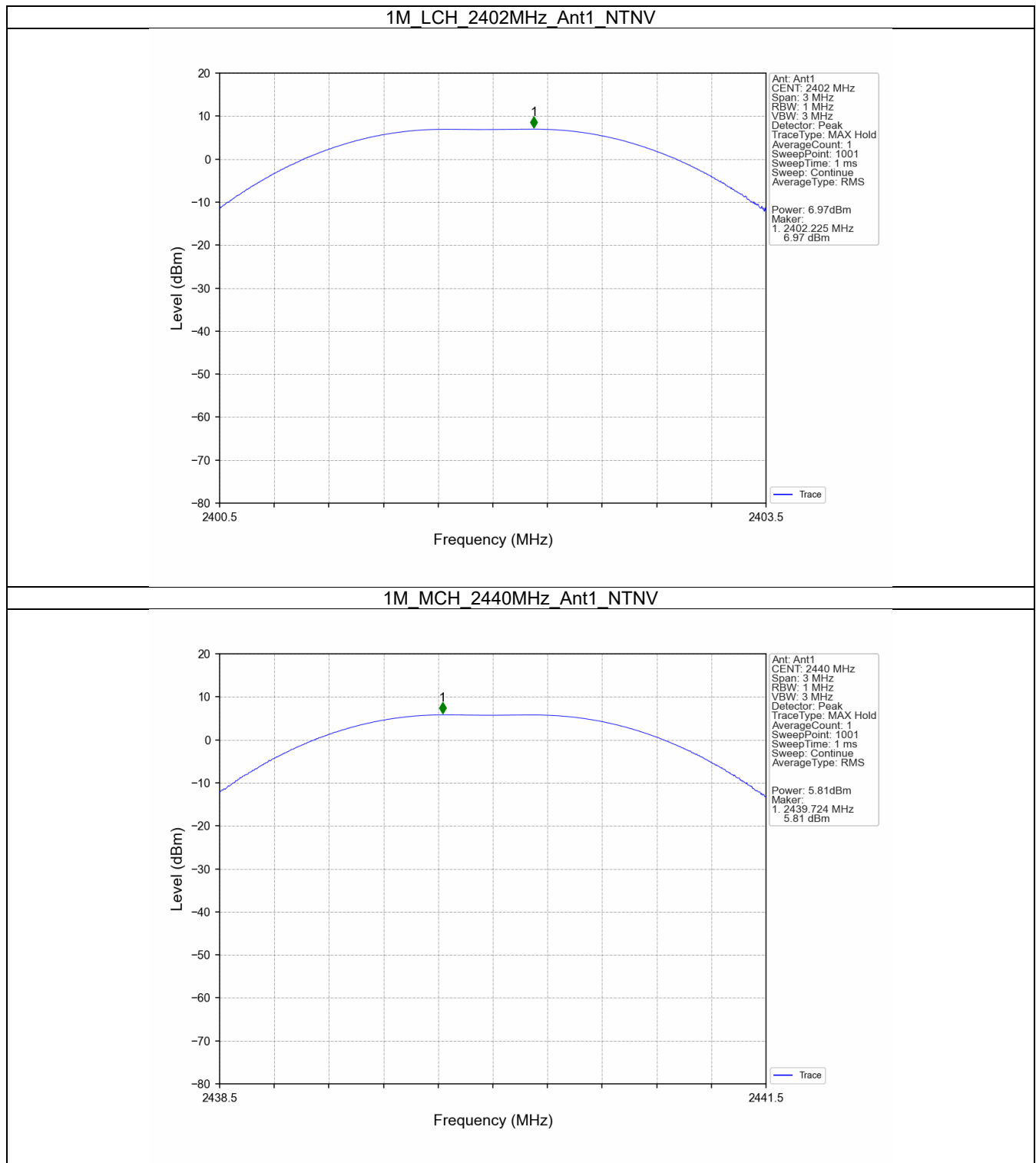
2.1 Test Result

2.1.1 Power

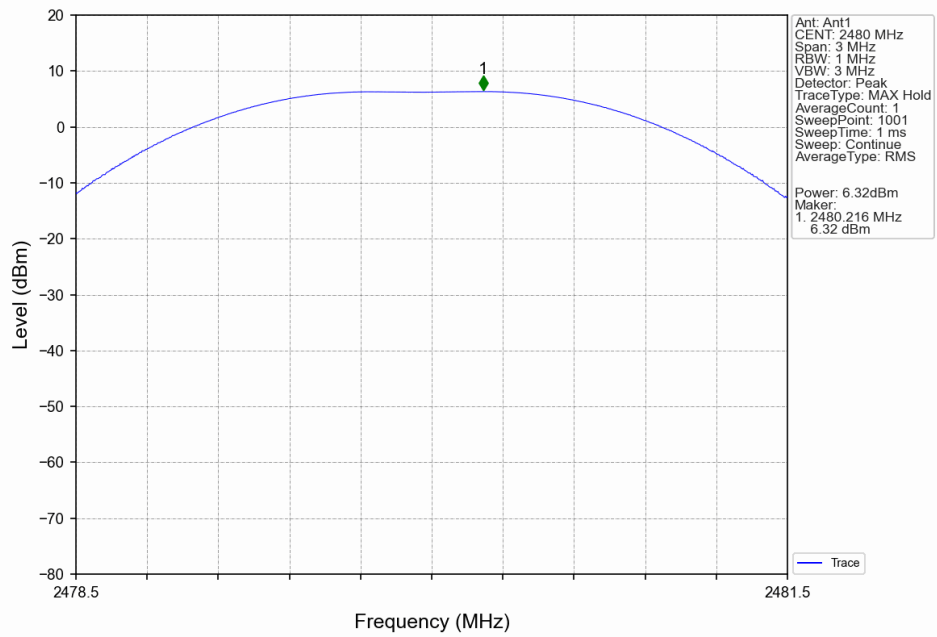
Mode	TX Type	Frequency (MHz)	Maximum Peak Conducted Output Power (dBm)		Verdict
			ANT1	Limit	
1M	SISO	2402	6.97	<=30	Pass
		2440	5.81	<=30	Pass
		2480	6.32	<=30	Pass
2M	SISO	2402	7.02	<=30	Pass
		2440	5.89	<=30	Pass
		2480	6.39	<=30	Pass

2.2 Test Graph

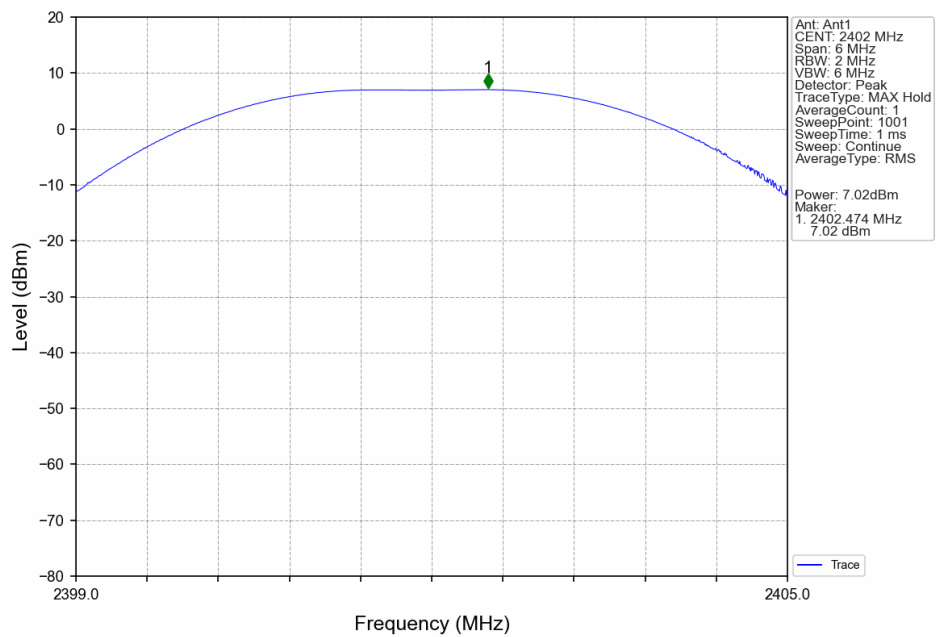
2.2.1 Power



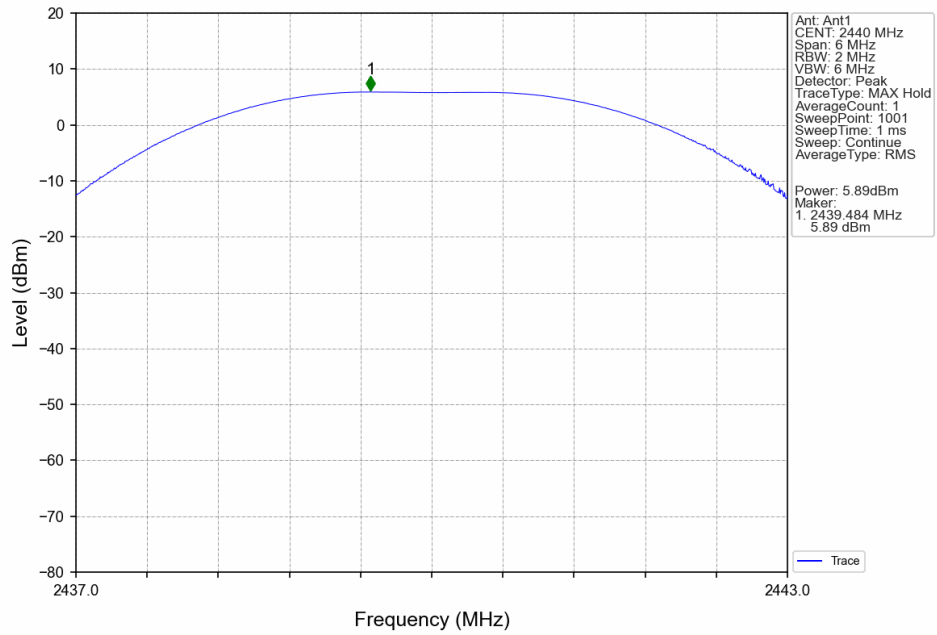
1M_HCH_2480MHz_Ant1_NTNV



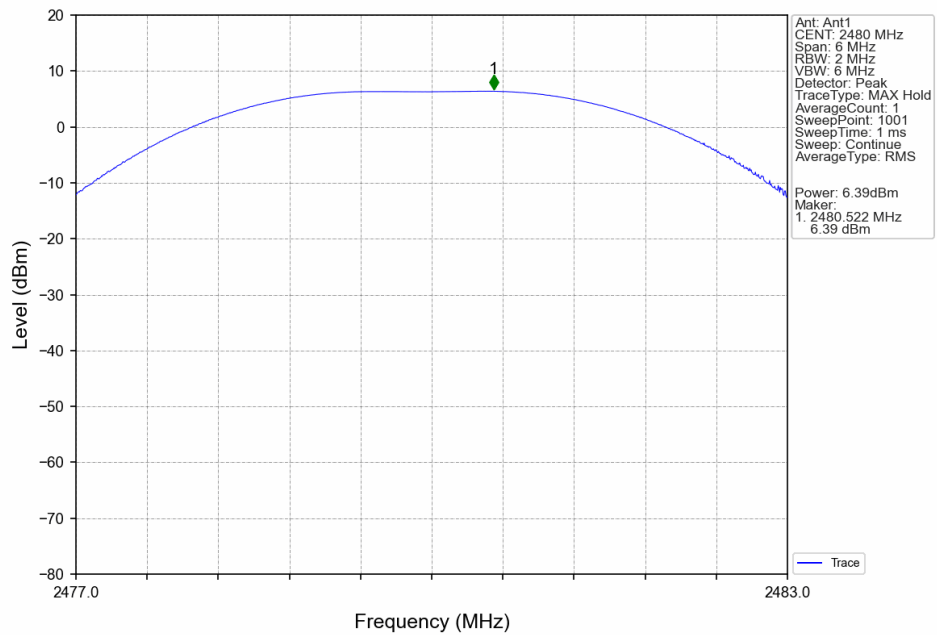
2M_LCH_2402MHz_Ant1_NTNV



2M MCH 2440MHz_Ant1_NTNV



2M HCH 2480MHz_Ant1_NTNV



3. Maximum Power Spectral Density

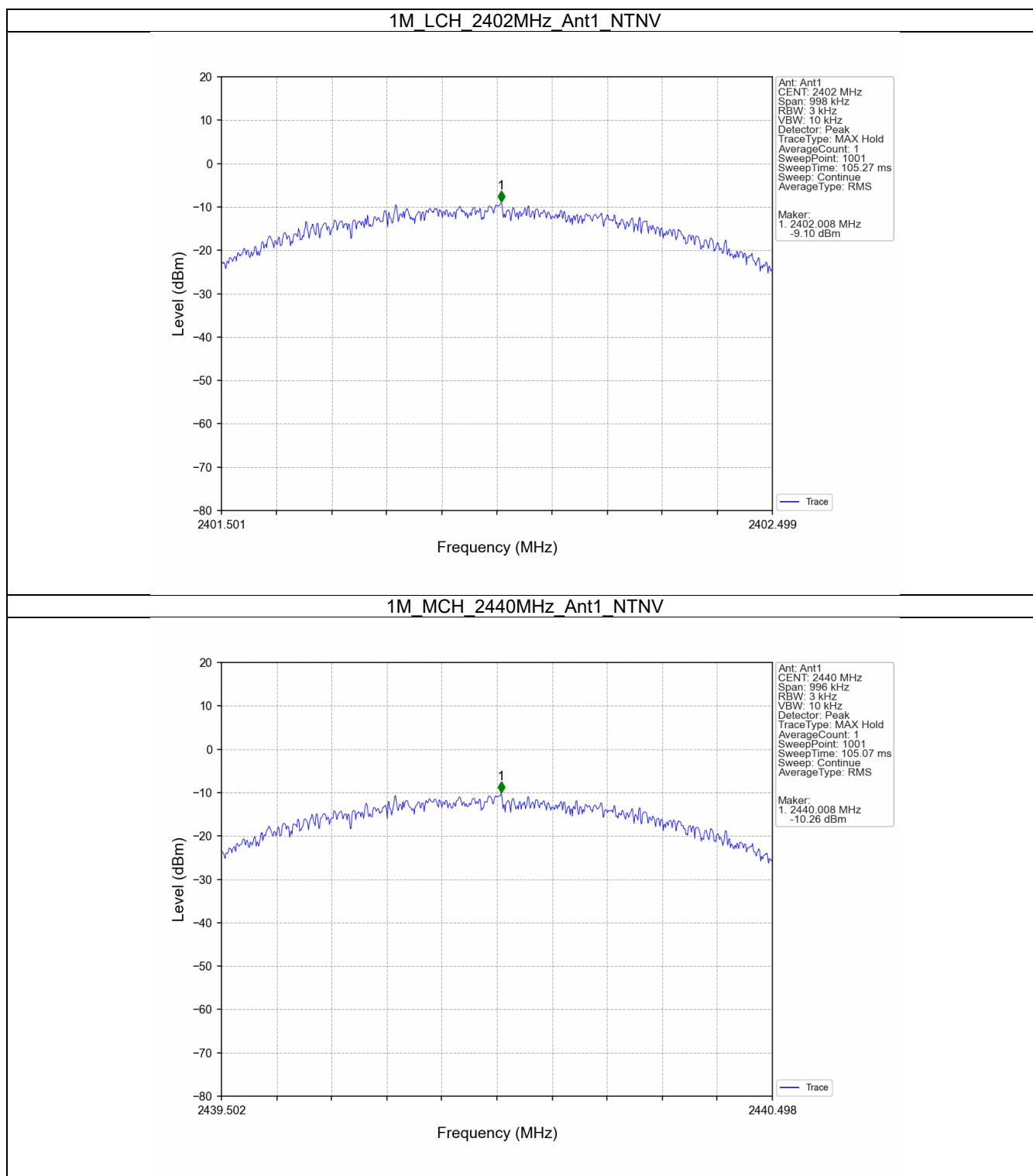
3.1 Test Result

3.1.1 PSD

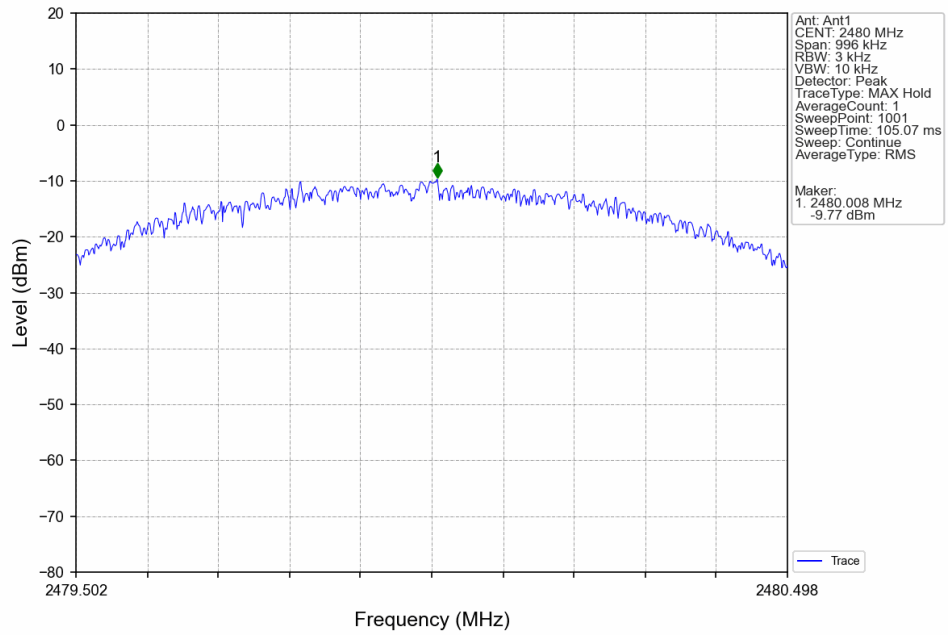
Mode	TX Type	Frequency (MHz)	Maximum PSD (dBm)		Verdict
			ANT1	Limit(dBm/3kHz)	
1M	SISO	2402	-9.10dBm/3kHz	<=8	Pass
		2440	-10.26dBm/3kHz	<=8	Pass
		2480	-9.77dBm/3kHz	<=8	Pass
2M	SISO	2402	-16.19dBm/3kHz	<=8	Pass
		2440	-16.96dBm/3kHz	<=8	Pass
		2480	-19.21dBm/3kHz	<=8	Pass

3.2 Test Graph

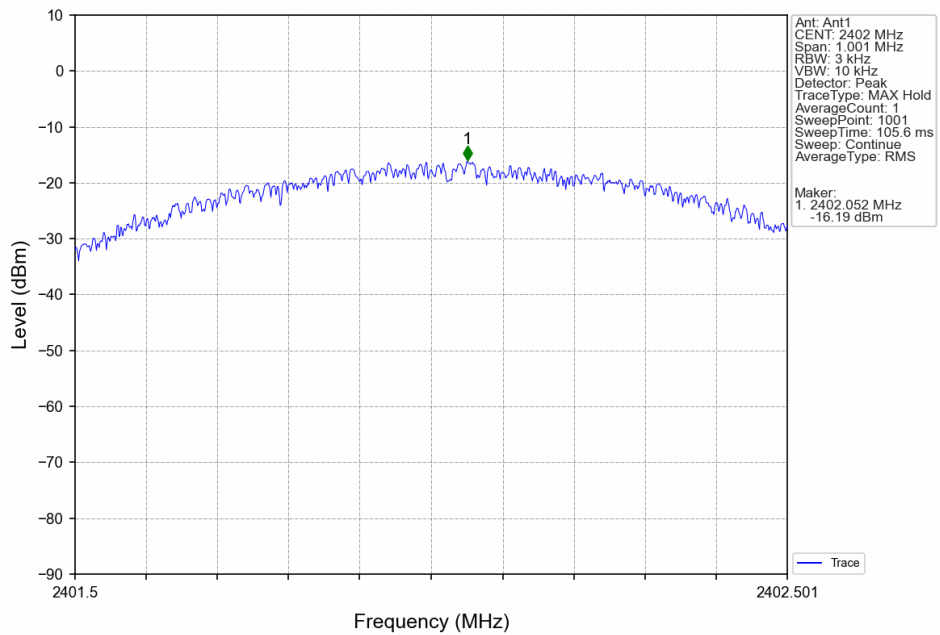
3.2.1 PSD



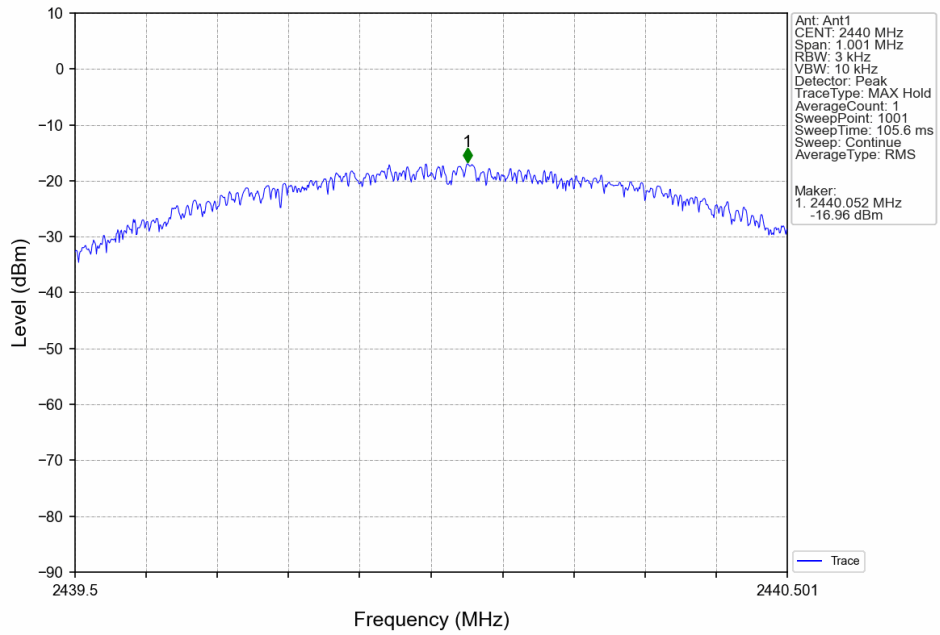
1M_HCH_2480MHz_Ant1_NTNV



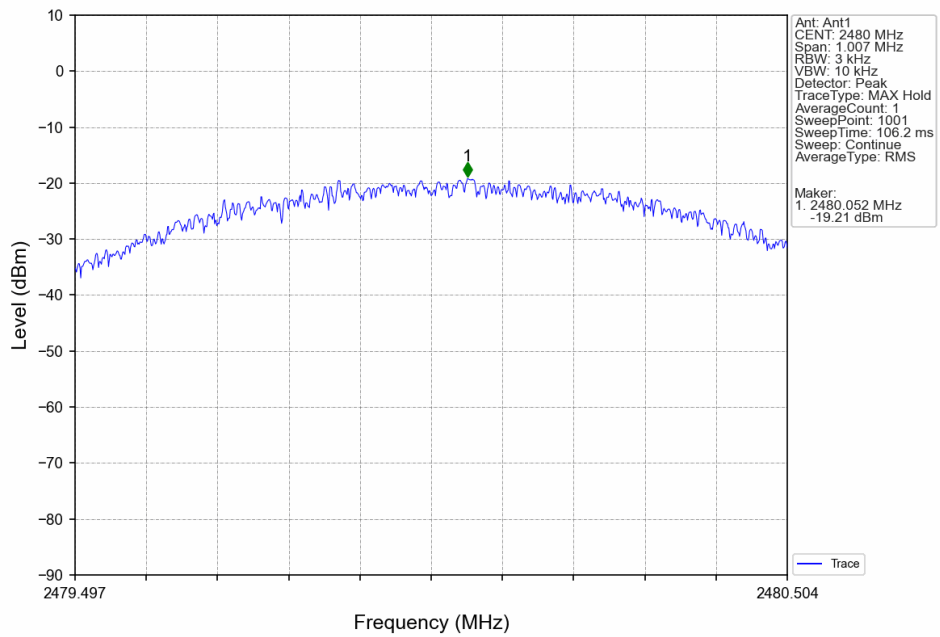
2M_LCH_2402MHz_Ant1_NTNV



2M_MCH_2440MHz_Ant1_NTNV



2M_HCH_2480MHz_Ant1_NTNV



4. Unwanted Emissions In Non-restricted Frequency Bands

4.1 Test Result

4.1.1 Ref

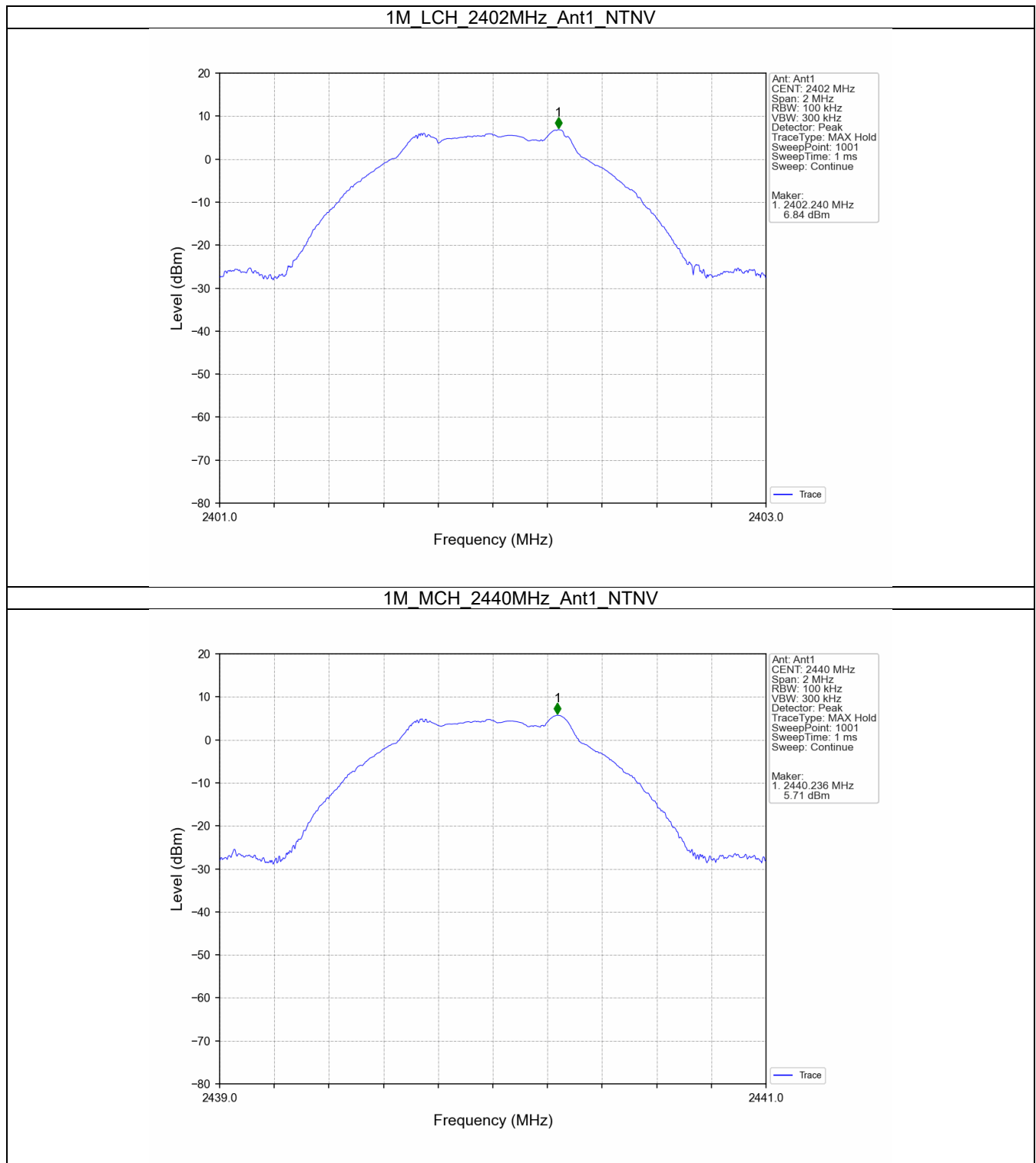
Mode	TX Type	Frequency (MHz)	ANT	Level of Reference (dBm)
1M	SISO	2402	1	6.84
		2440	1	5.71
		2480	1	6.21
2M	SISO	2402	1	5.86
		2440	1	4.54
		2480	1	5.23

4.1.2 CSE

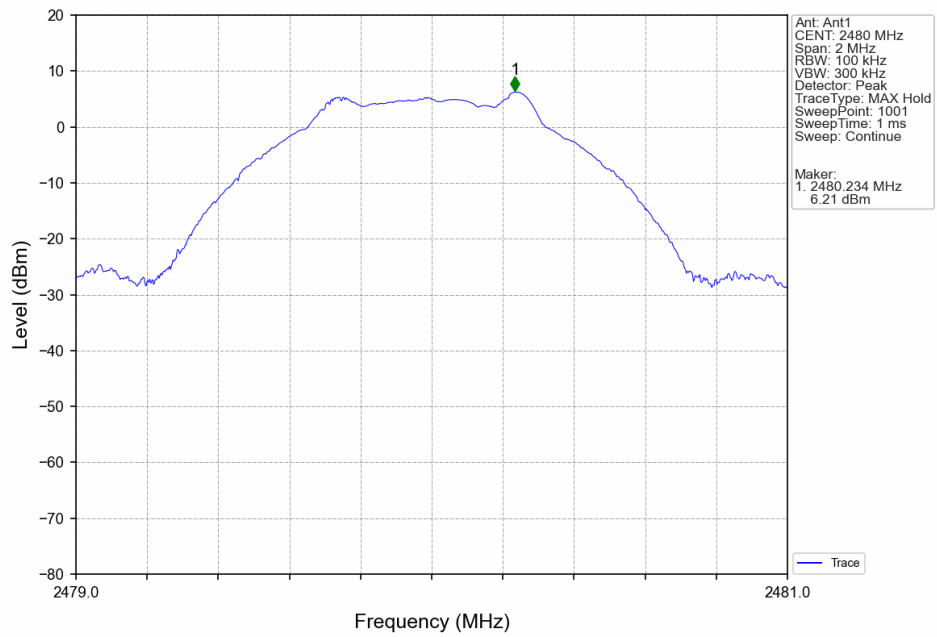
Mode	TX Type	Frequency (MHz)	ANT	Level of Reference (dBm)	Limit (dBm)	Verdict
1M	SISO	2402	1	6.84	-13.16	Pass
		2440	1	5.71	-14.29	Pass
		2480	1	6.21	-13.79	Pass
2M	SISO	2402	1	5.86	-14.14	Pass
		2440	1	4.54	-15.46	Pass
		2480	1	5.23	-14.77	Pass

4.2 Test Graph

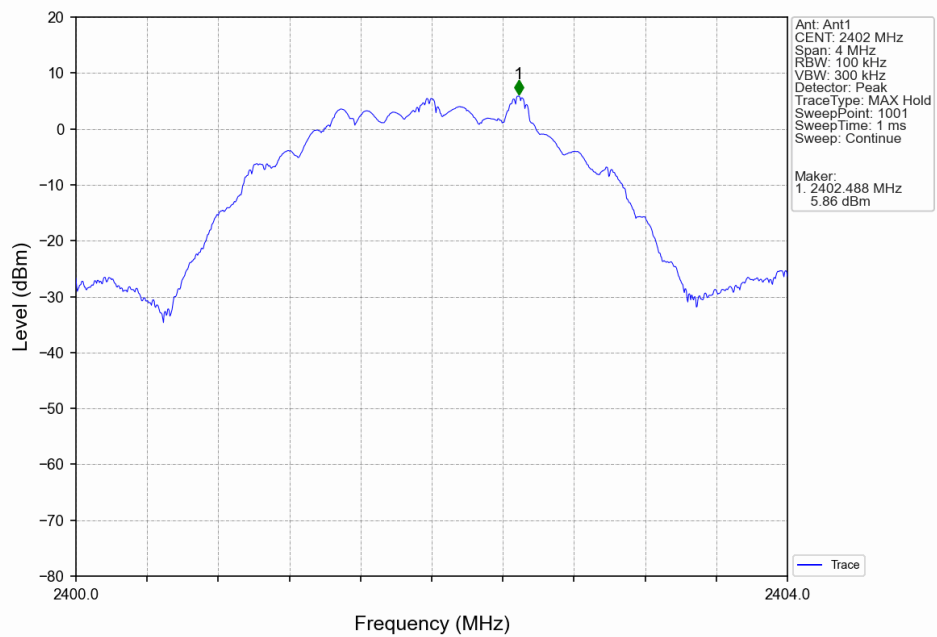
4.2.1 Ref



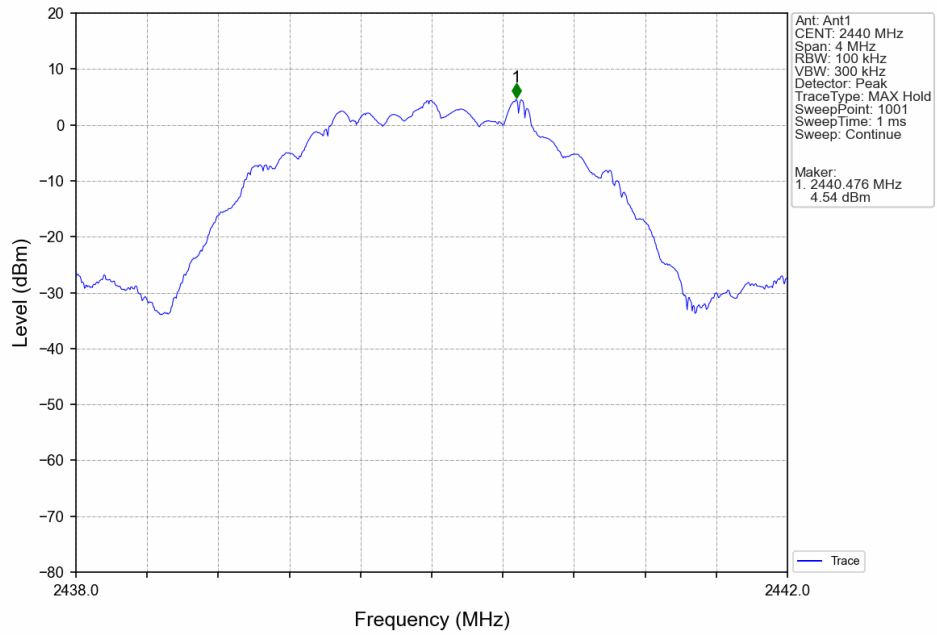
1M HCH 2480MHz Ant1 NTN



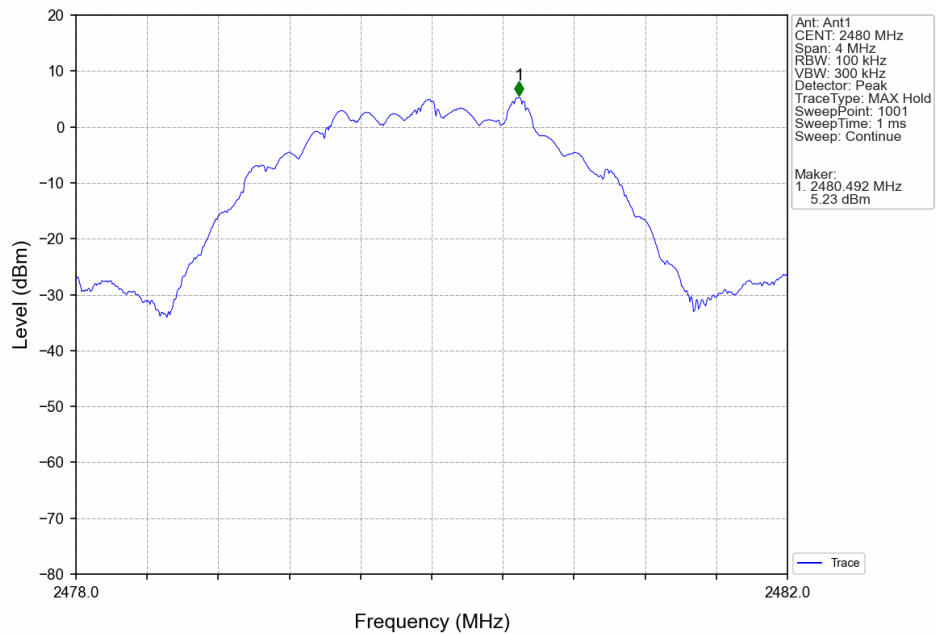
2M LCH 2402MHz Ant1 NTN



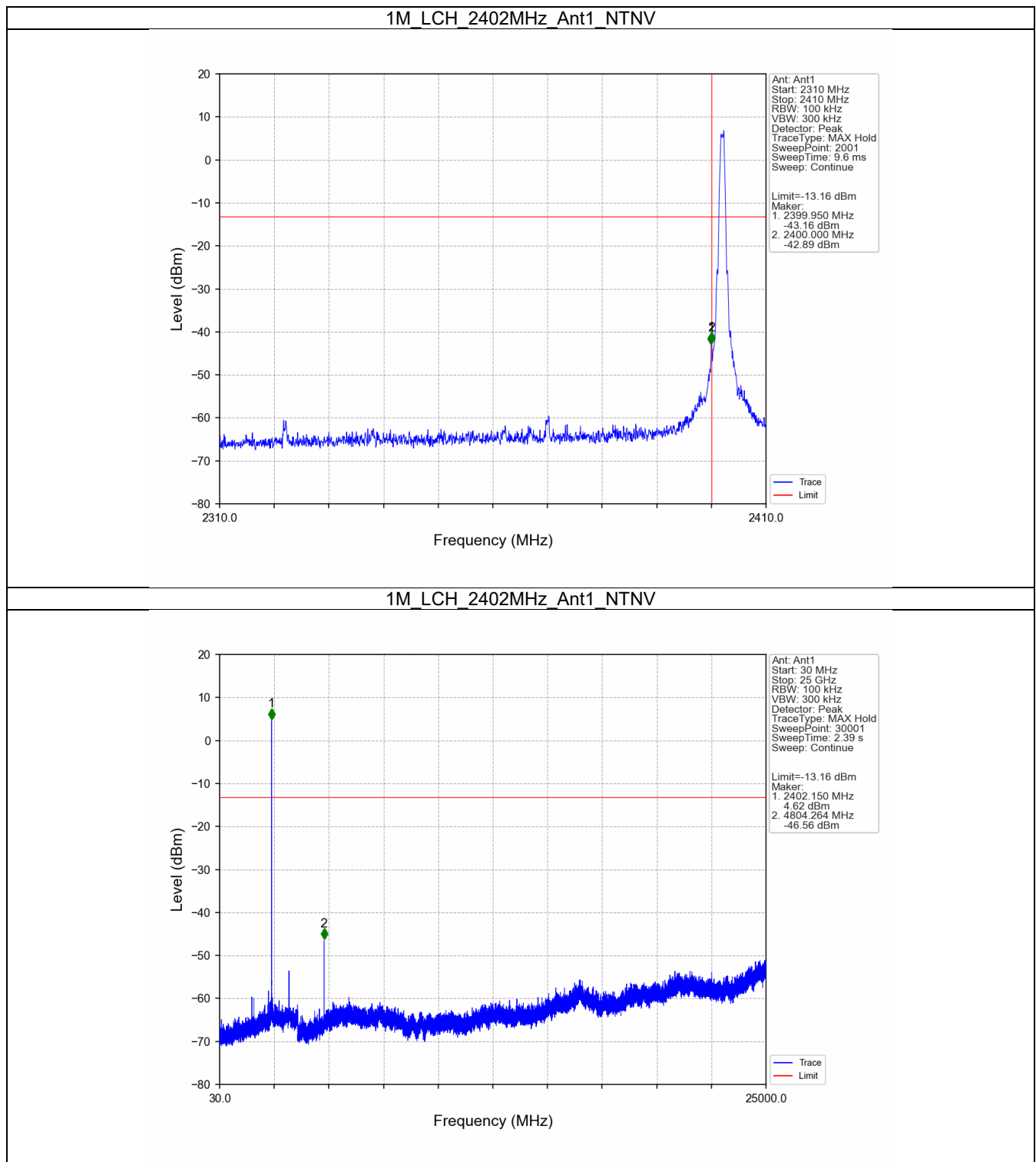
2M MCH 2440MHz_Ant1_NTNV



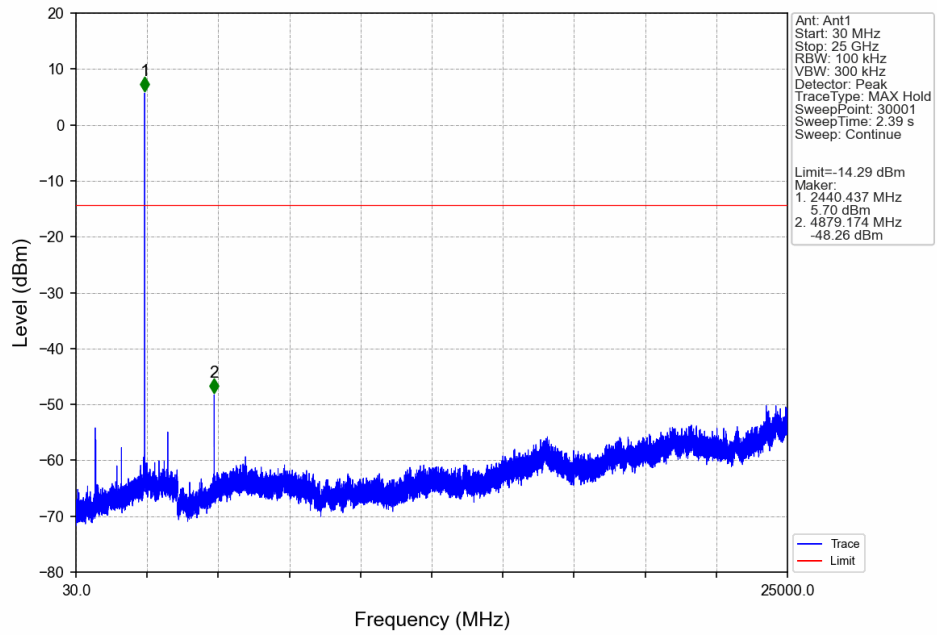
2M HCH 2480MHz_Ant1_NTNV



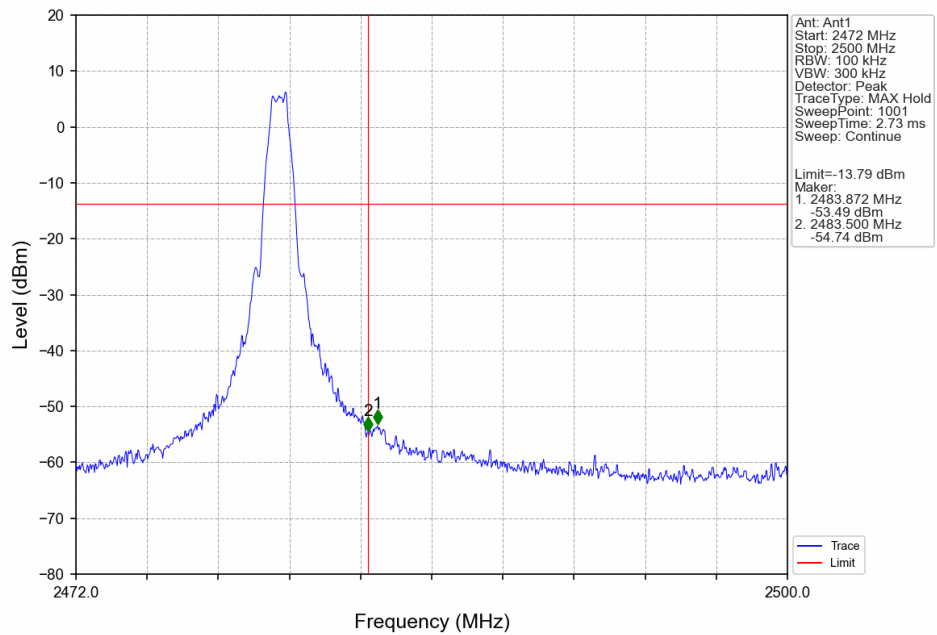
4.2.2 CSE



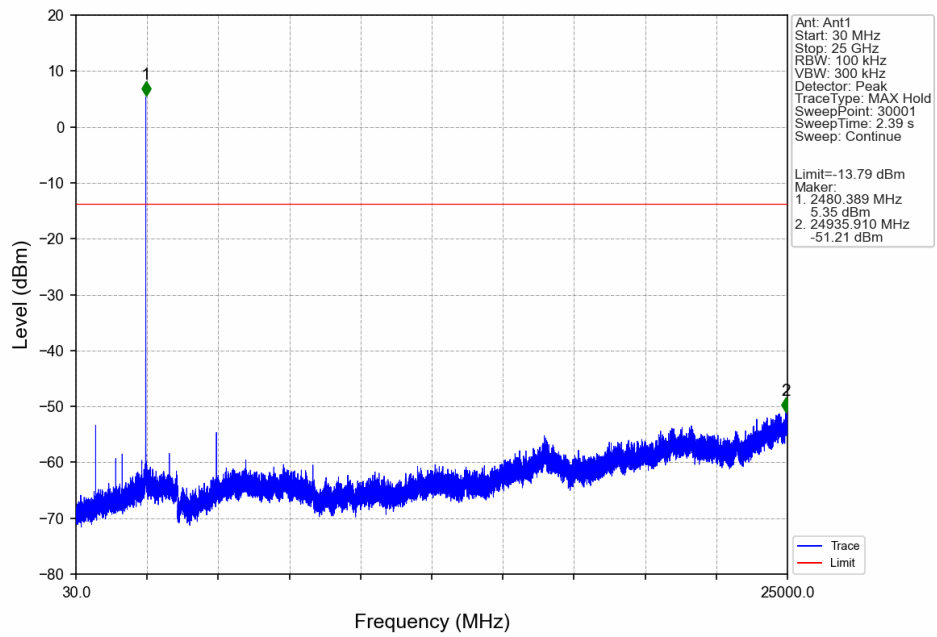
1M_MCH_2440MHz_Ant1_NTNV



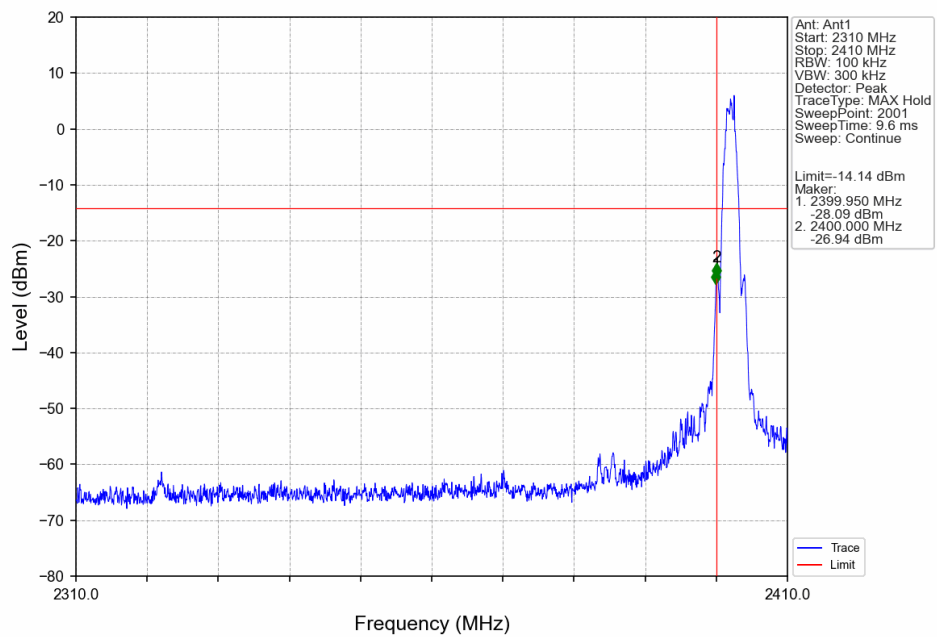
1M_HCH_2480MHz_Ant1_NTNV



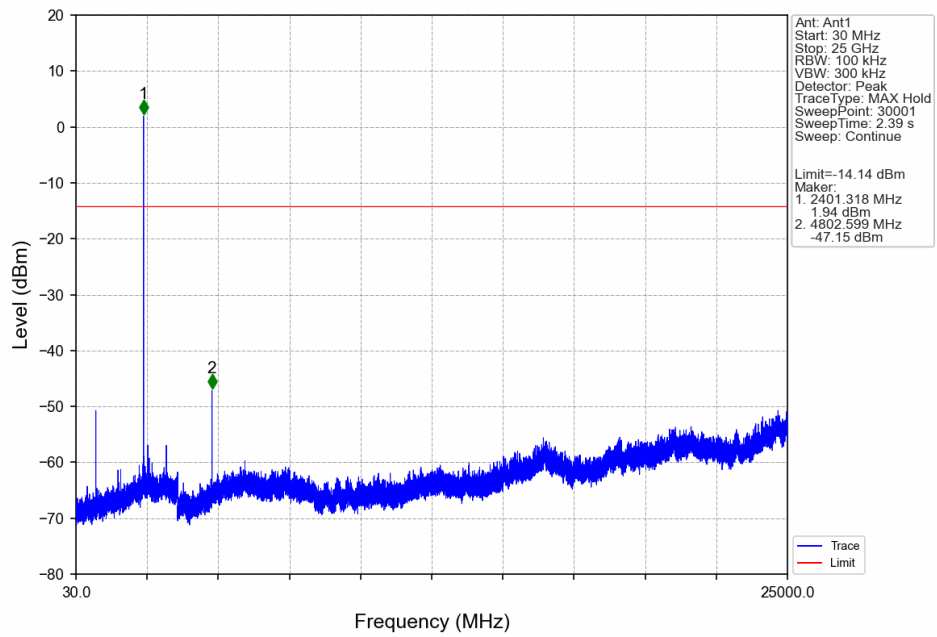
1M_HCH_2480MHz_Ant1_NTNV



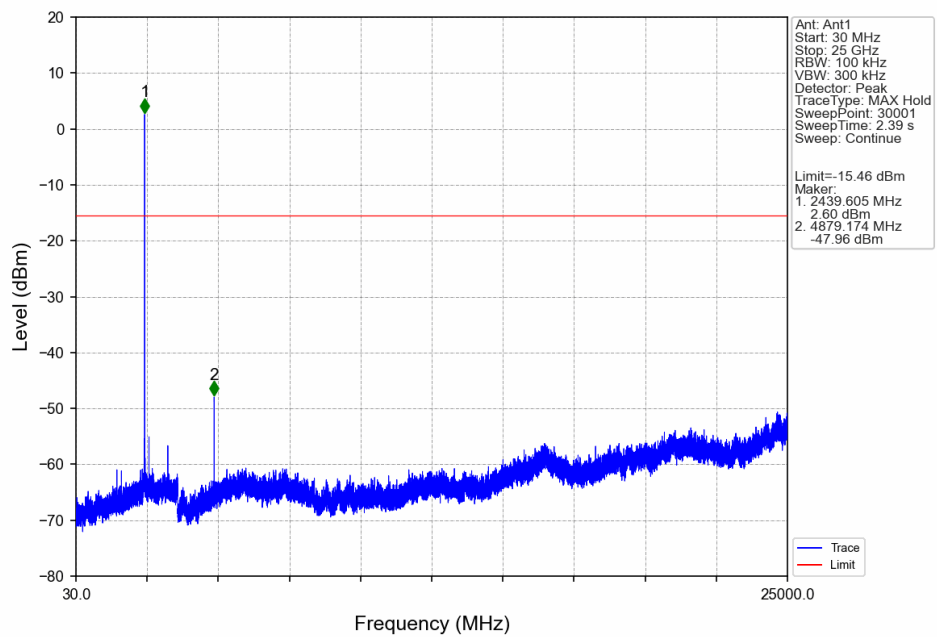
2M_LCH_2402MHz_Ant1_NTNV



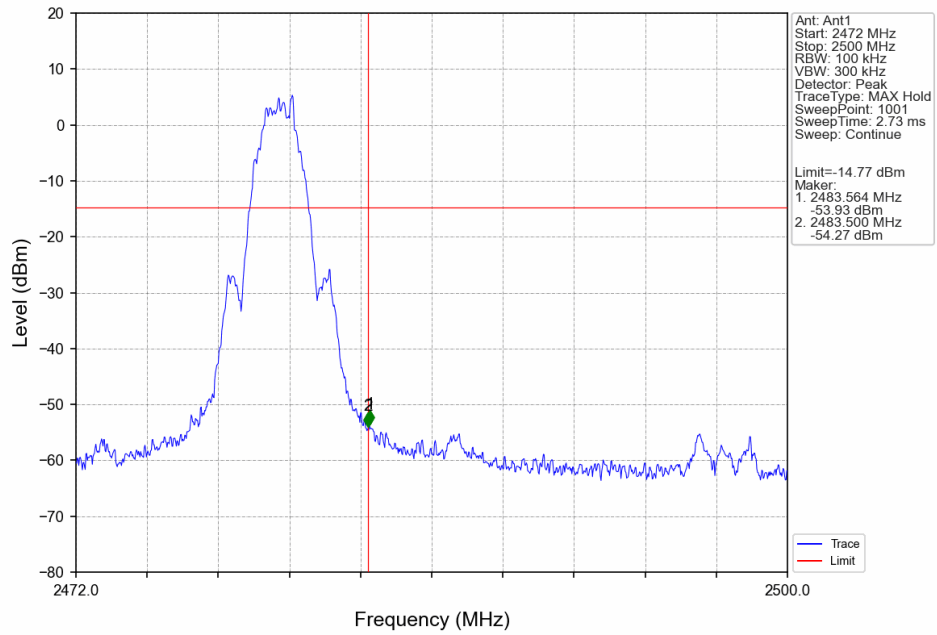
2M_LCH_2402MHz_Ant1_NTNV



2M_MCH_2440MHz_Ant1_NTNV



2M_HCH_2480MHz_Ant1_NTNV



2M_HCH_2480MHz_Ant1_NTNV

