Test Data for BLE

Product Name: MaaXBoard RT

Test Model: AES-MC-SBC-IMXRT1176-G

1. Bandwidth

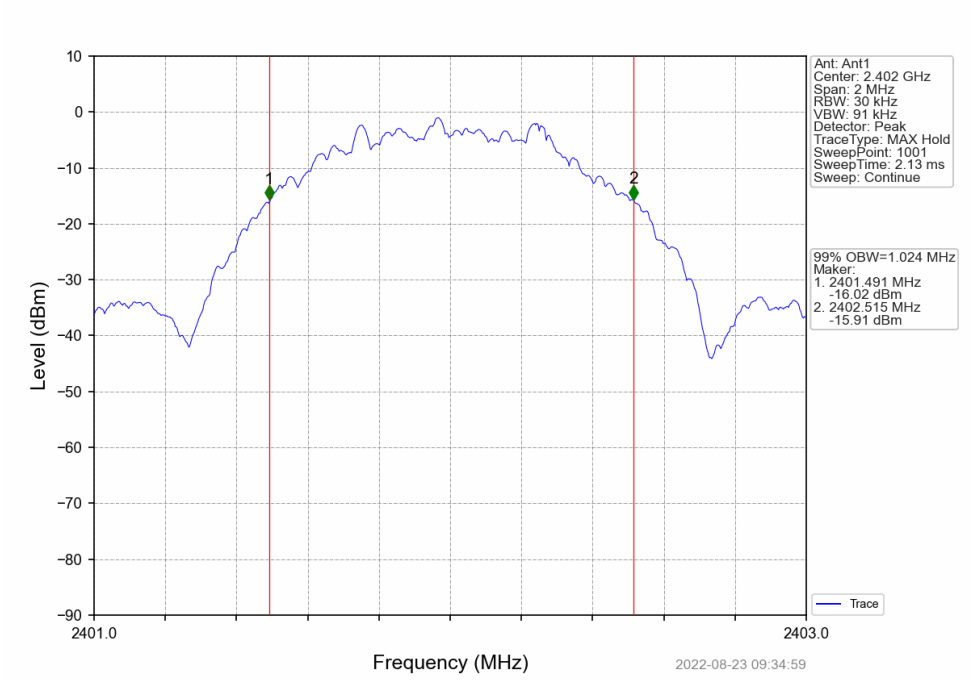
1.1 OBW

1.1.1 Test Result

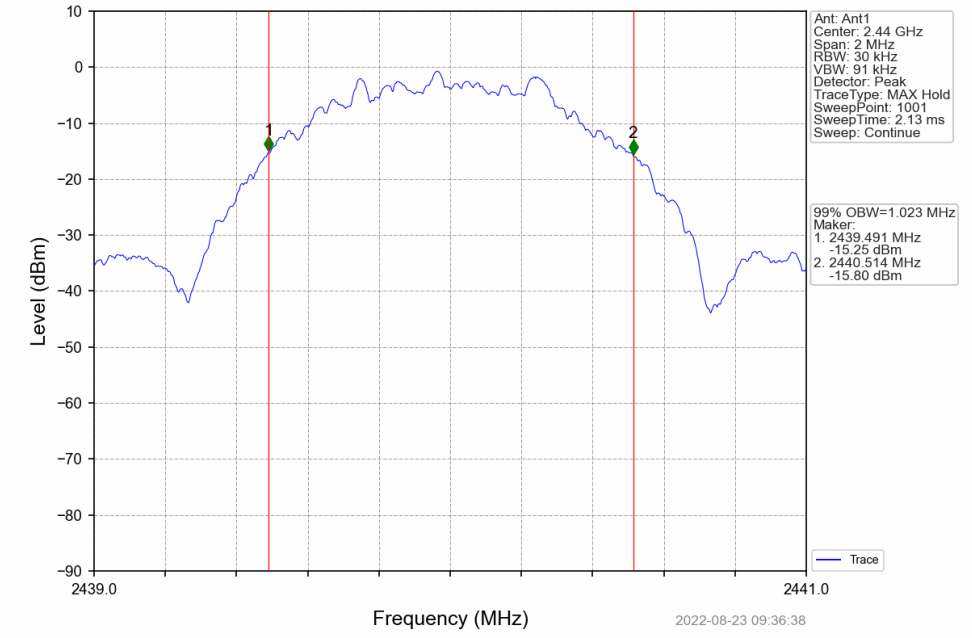
Mode	TX Type	Frequency (MHz)	ANT	99% Occupied Bandwidth (MHz) Result	Verdict
1M	SISO	2402	1	1.024	Pass
		2440	1	1.023	Pass
		2480	1	1.025	Pass
2M	SISO	2402	1	2.056	Pass
		2440	1	2.053	Pass
		2480	1	2.058	Pass

1.1.2 Test Graph

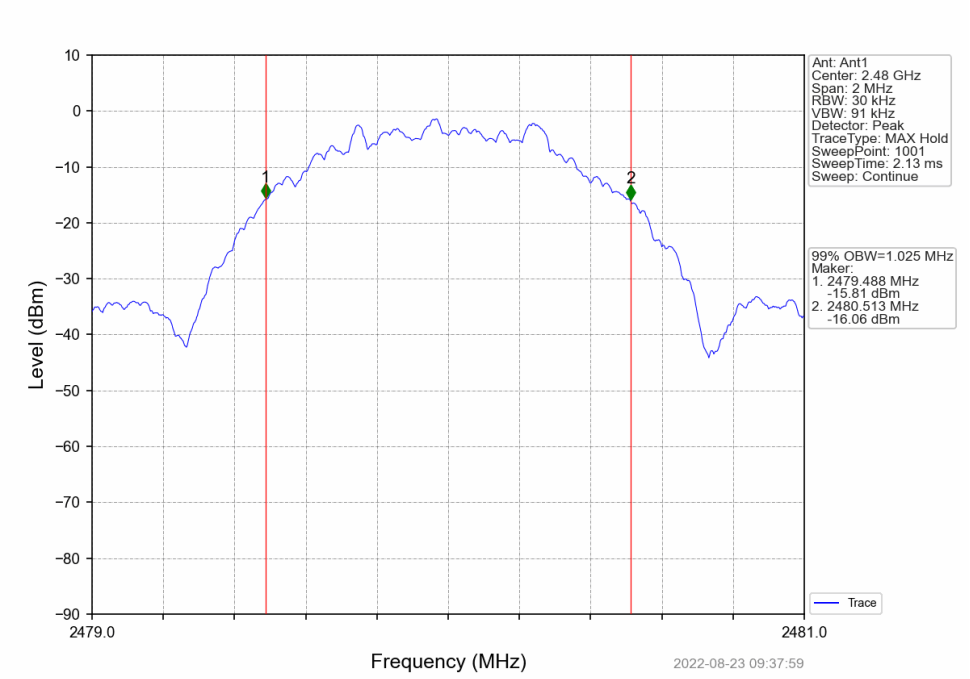
1M_LCH_2402MHz_Ant1_NTNV



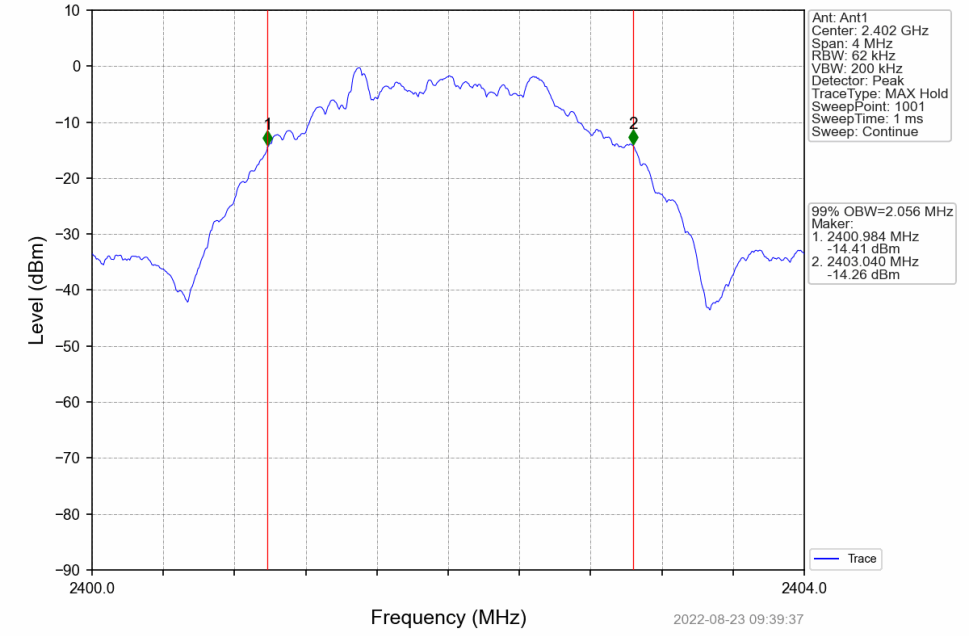
1M_MCH_2440MHz_Ant1_NTNV



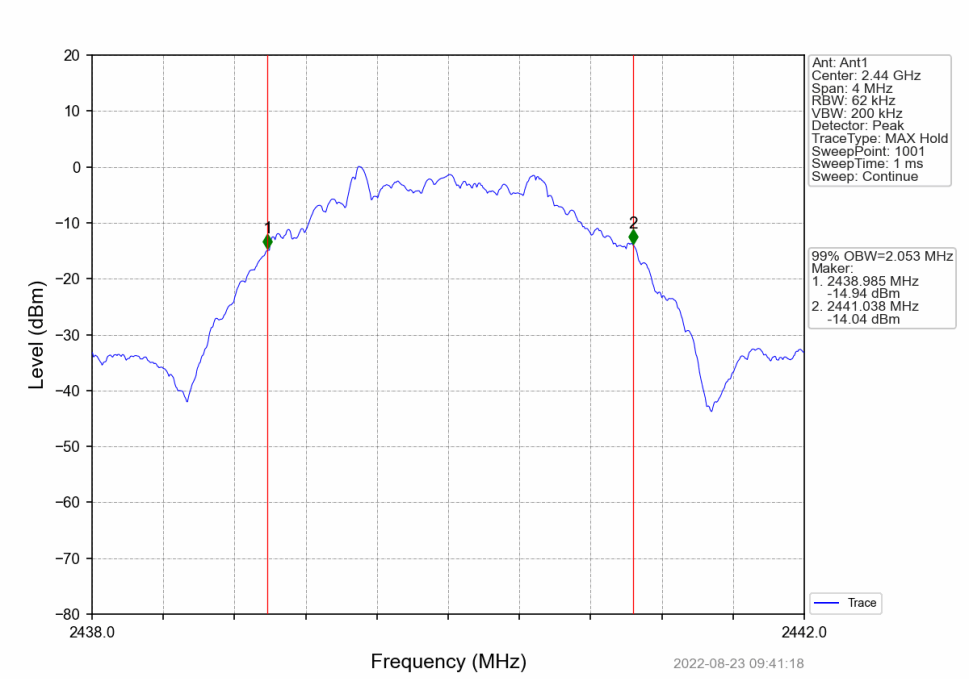
1M_HCH_2480MHz_Ant1_NTNV



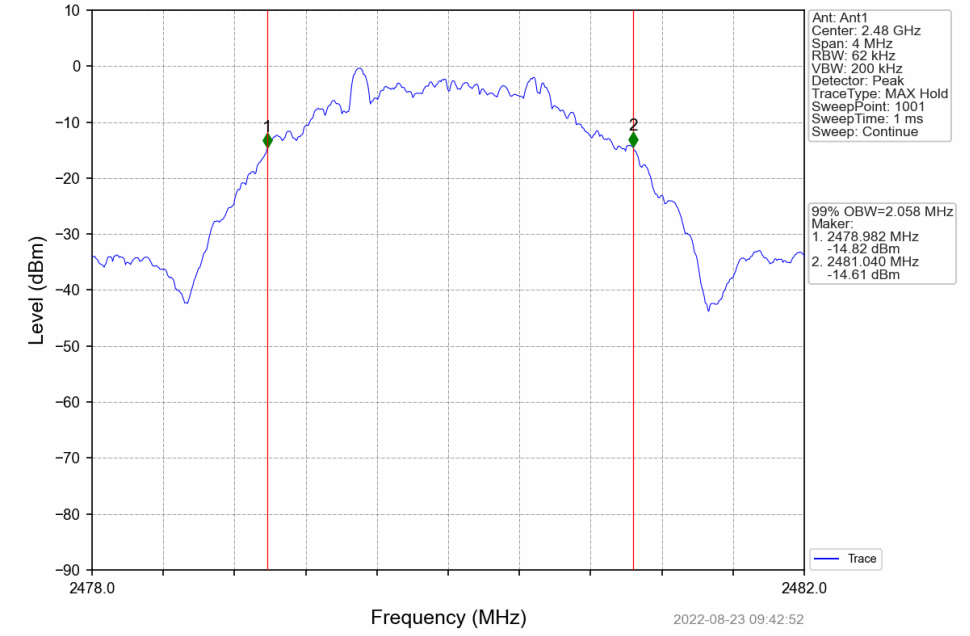
2M_LCH_2402MHz_Ant1_NTNV



2M_MCH_2440MHz_Ant1_NTNV



2M_HCH_2480MHz_Ant1_NTNV



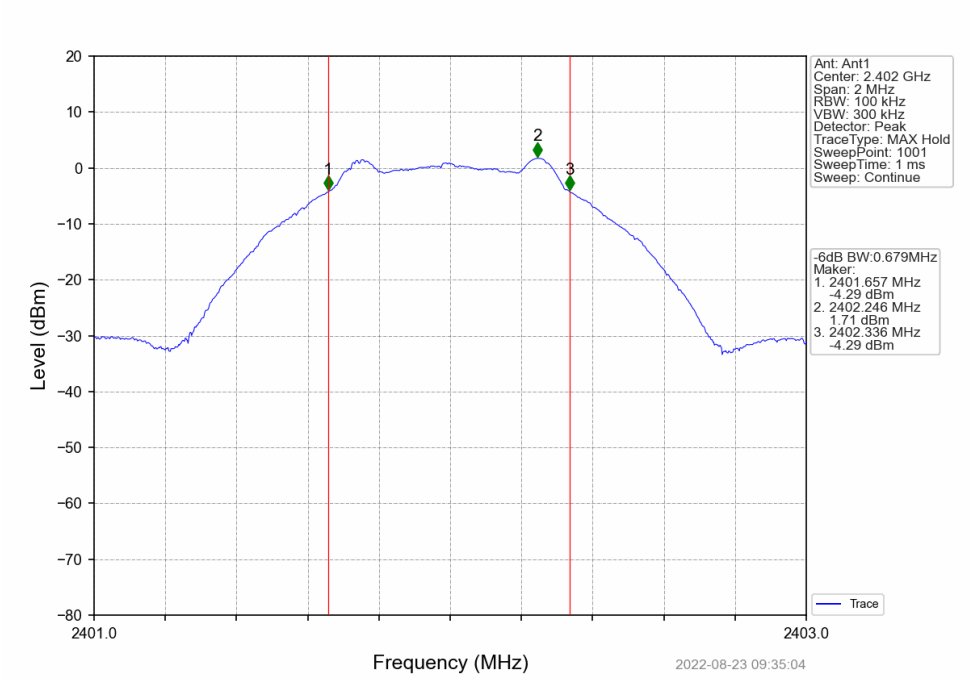
1.2 6dB BW

1.2.1 Test Result

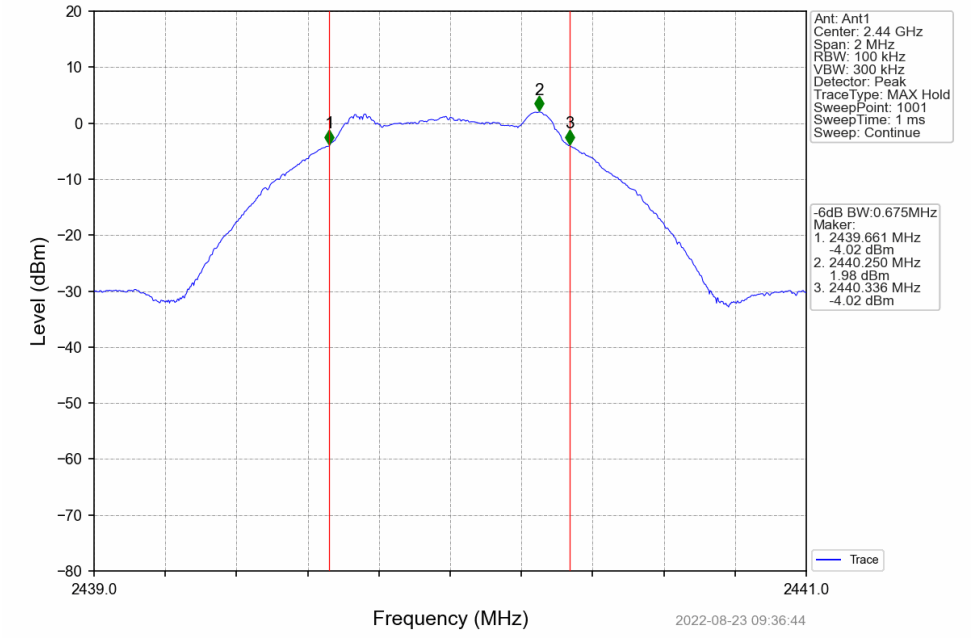
Mode	TX Type	Frequency (MHz)	ANT	6dB Bandwidth (MHz)		Verdict
				Result	Limit	
1M	SISO	2402	1	0.679	>=0.5	Pass
		2440	1	0.675	>=0.5	Pass
		2480	1	0.672	>=0.5	Pass
2M	SISO	2402	1	1.174	>=0.5	Pass
		2440	1	1.171	>=0.5	Pass
		2480	1	1.174	>=0.5	Pass

1.2.2 Test Graph

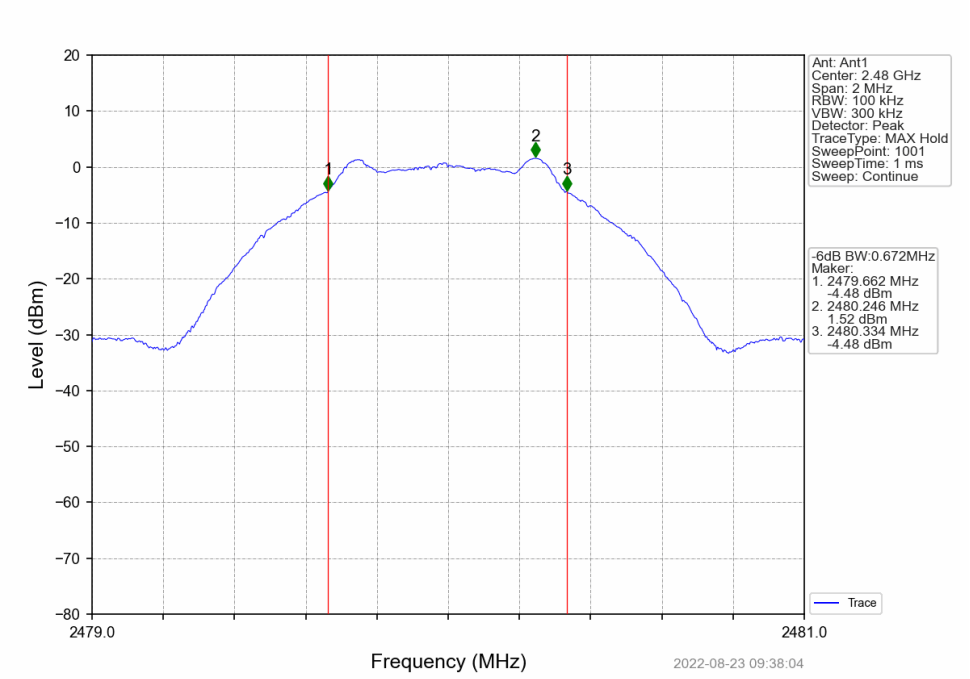
1M_LCH_2402MHz_Ant1_NTNV



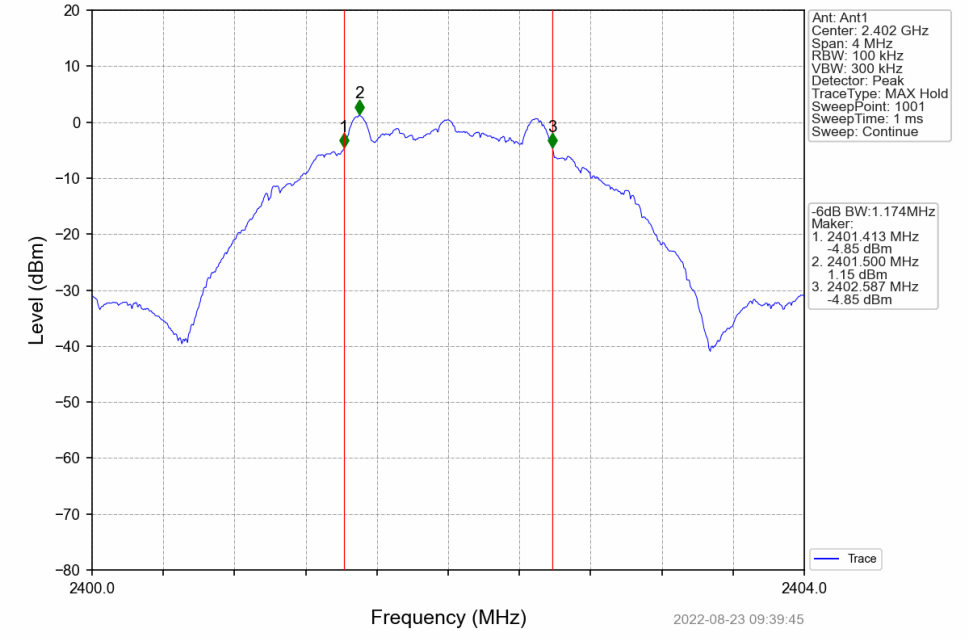
1M_MCH_2440MHz_Ant1_NTNV



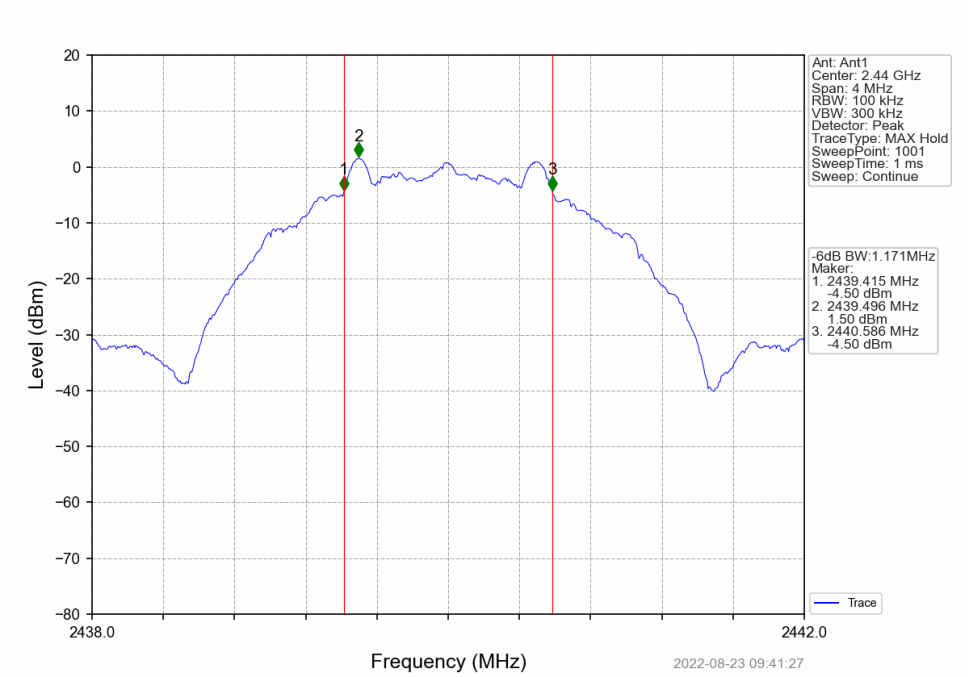
1M_HCH_2480MHz_Ant1_NTNV



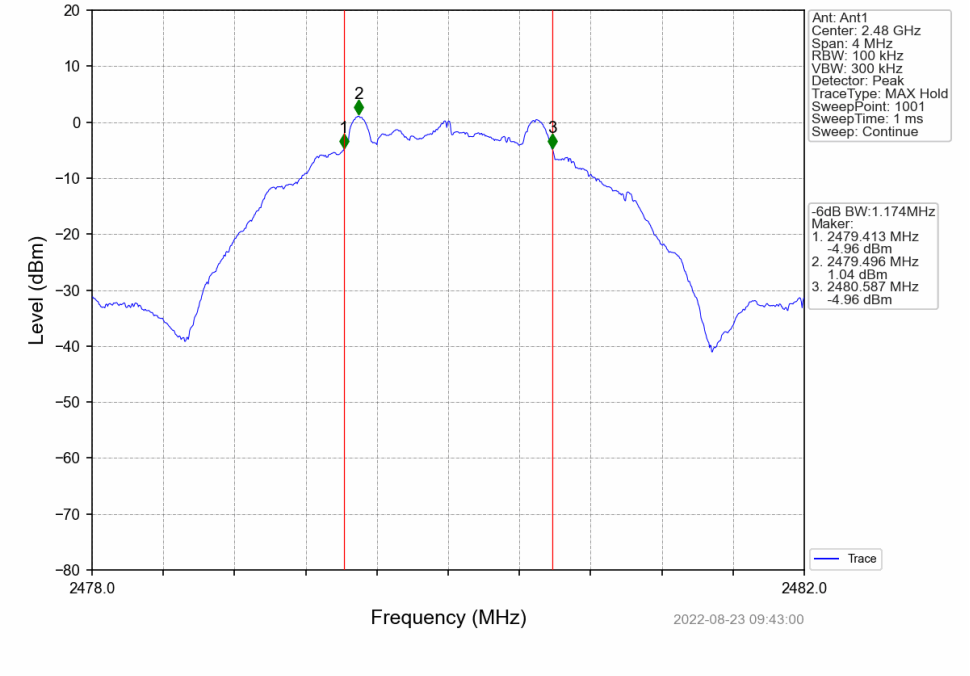
2M_LCH_2402MHz_Ant1_NTNV



2M_MCH_2440MHz_Ant1_NTNV



2M_HCH_2480MHz_Ant1_NTNV



2. Maximum Conducted Output Power

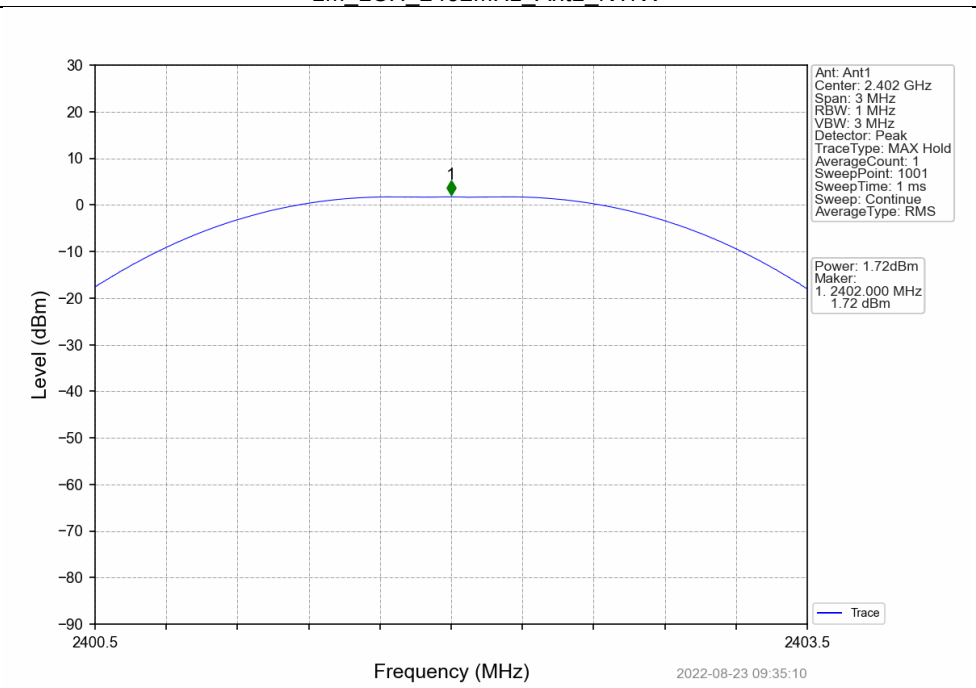
2.1 Power

2.1.1 Test Result

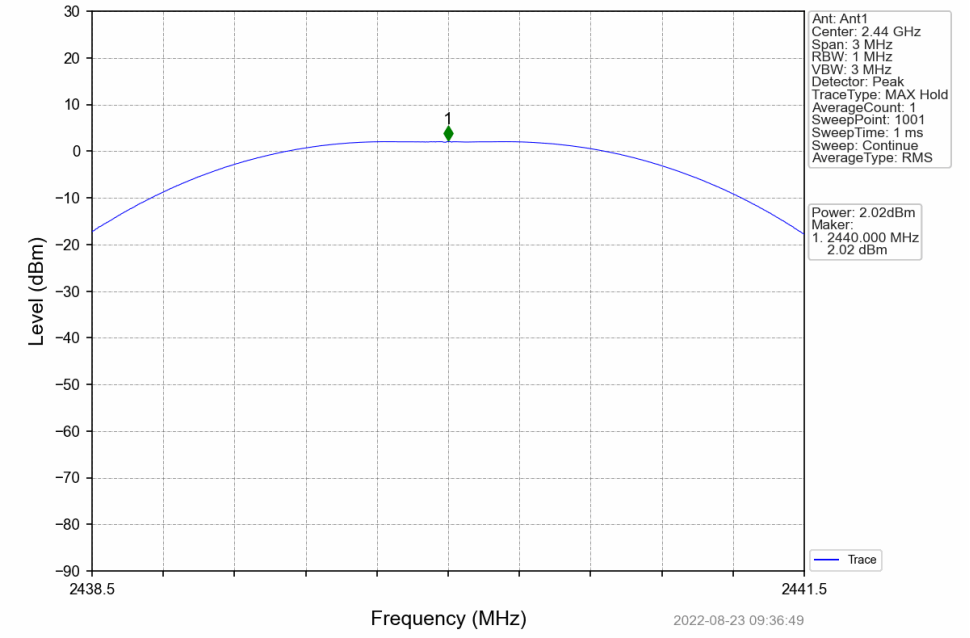
Mode	TX Type	Frequency (MHz)	Maximum Peak Conducted Output Power (dBm)				Verdict
			ANT1	Limit	EIRP	Limit	
1M	SISO	2402	1.72	<=30	4.92	<=36	Pass
		2440	2.02	<=30	5.22	<=36	Pass
		2480	1.54	<=30	4.74	<=36	Pass
2M	SISO	2402	1.71	<=30	4.91	<=36	Pass
		2440	2.03	<=30	5.23	<=36	Pass
		2480	1.57	<=30	4.77	<=36	Pass
Note1: Antenna Gain: Ant1: 3.20dBi;							

2.1.2 Test Graph

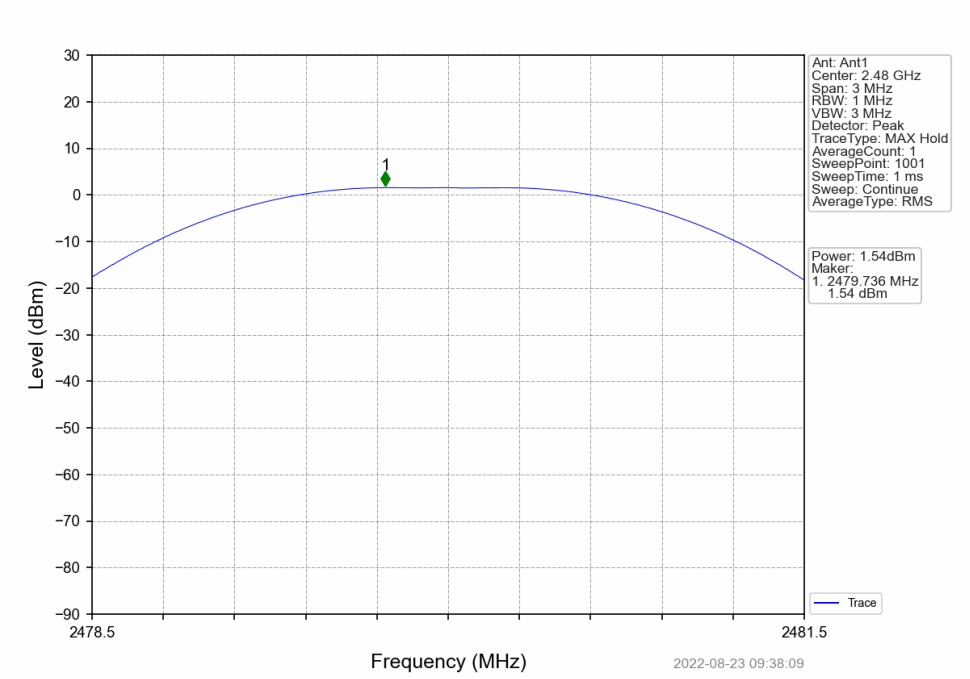
1M_LCH_2402MHz_Ant1_NTNV



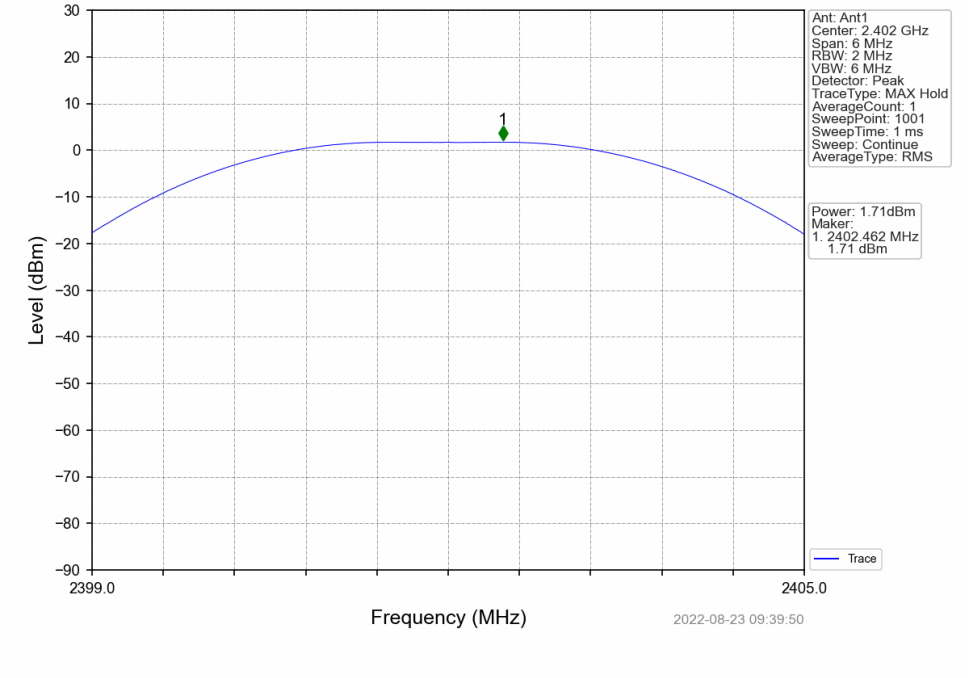
1M_MCH_2440MHz_Ant1_NTNV



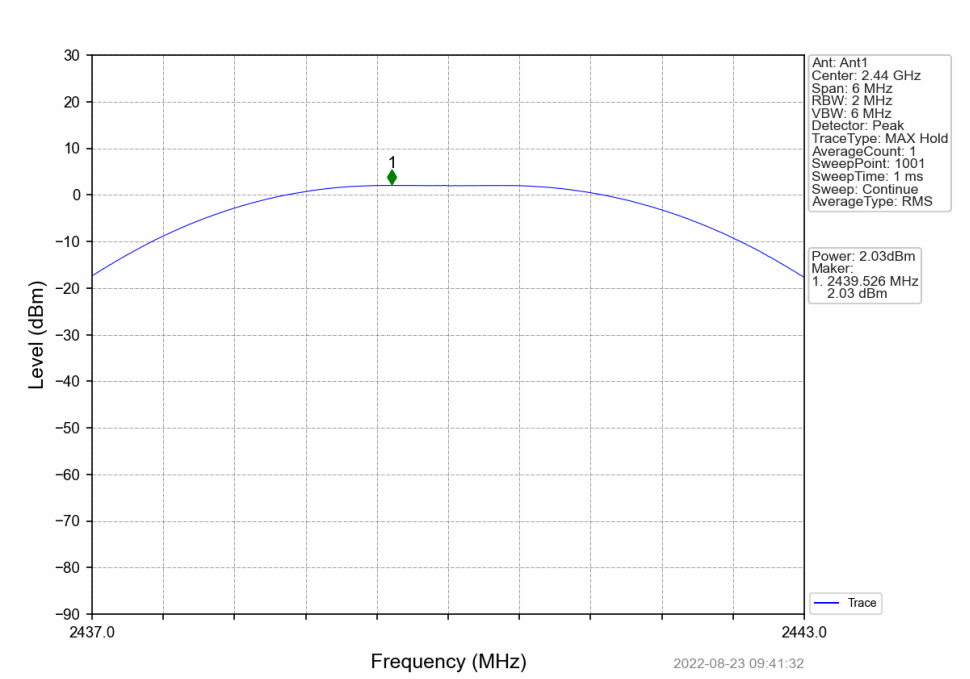
1M_HCH_2480MHz_Ant1_NTNV



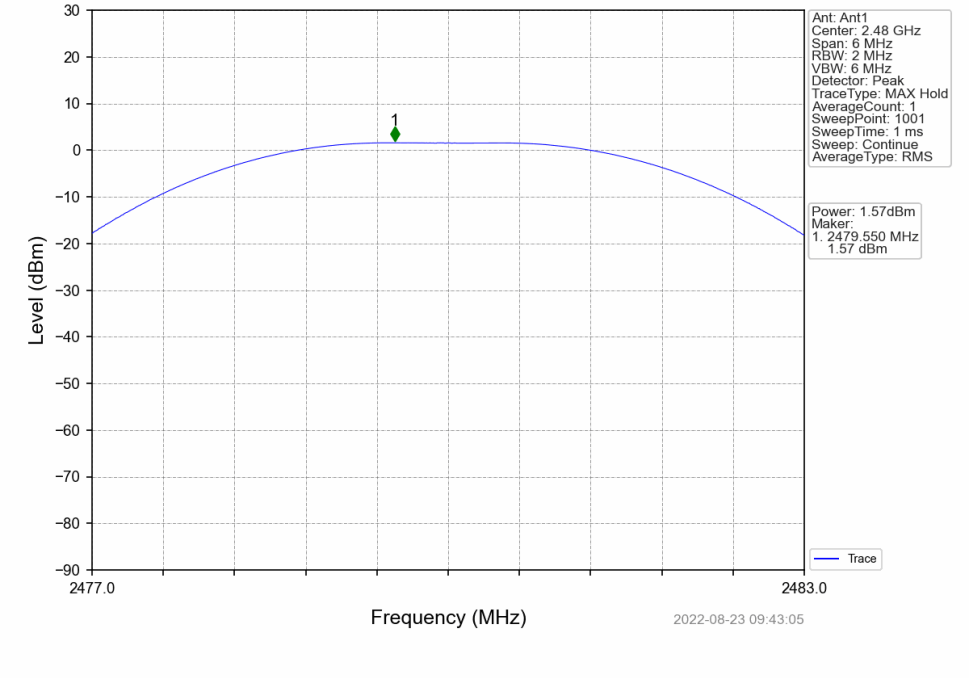
2M_LCH_2402MHz_Ant1_NTNV



2M_MCH_2440MHz_Ant1_NTNV



2M_HCH_2480MHz_Ant1_NTNV



3. Maximum Power Spectral Density

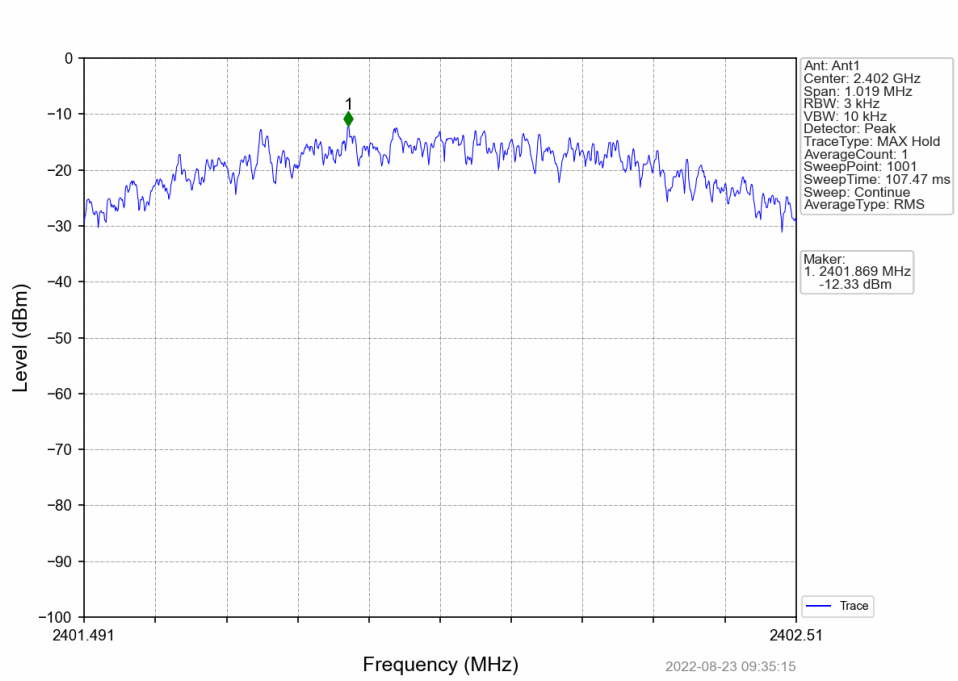
3.1 PSD

3.1.1 Test Result

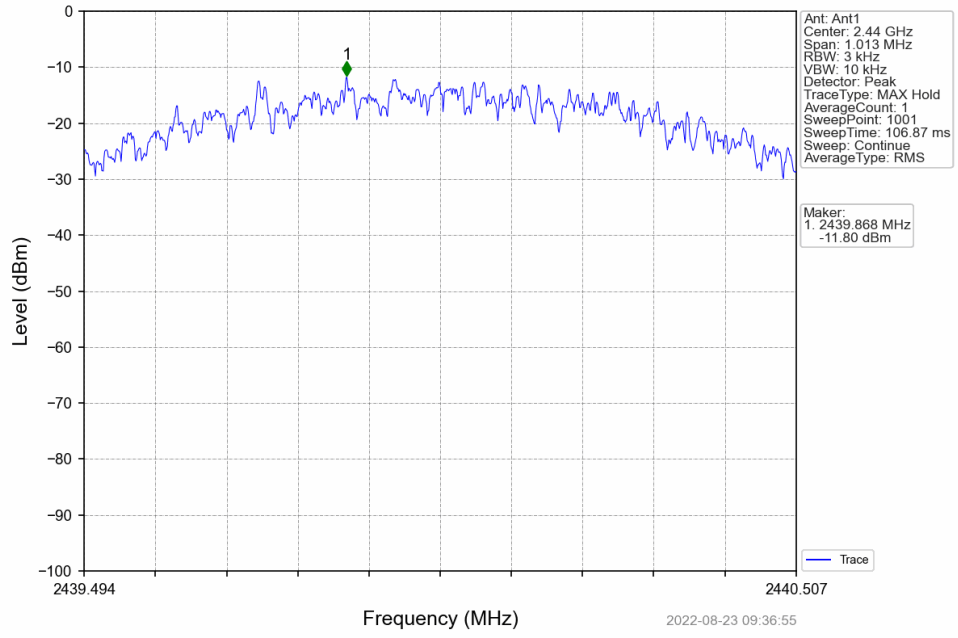
Mode	TX Type	Frequency (MHz)	Maximum PSD (dBm/3kHz)		Verdict
			ANT1	Limit	
1M	SISO	2402	-12.33	<=8	Pass
		2440	-11.80	<=8	Pass
		2480	-12.33	<=8	Pass
2M	SISO	2402	-14.13	<=8	Pass
		2440	-14.15	<=8	Pass
		2480	-14.25	<=8	Pass
Note1: Antenna Gain: Ant1: 3.20dBi;					

3.1.2 Test Graph

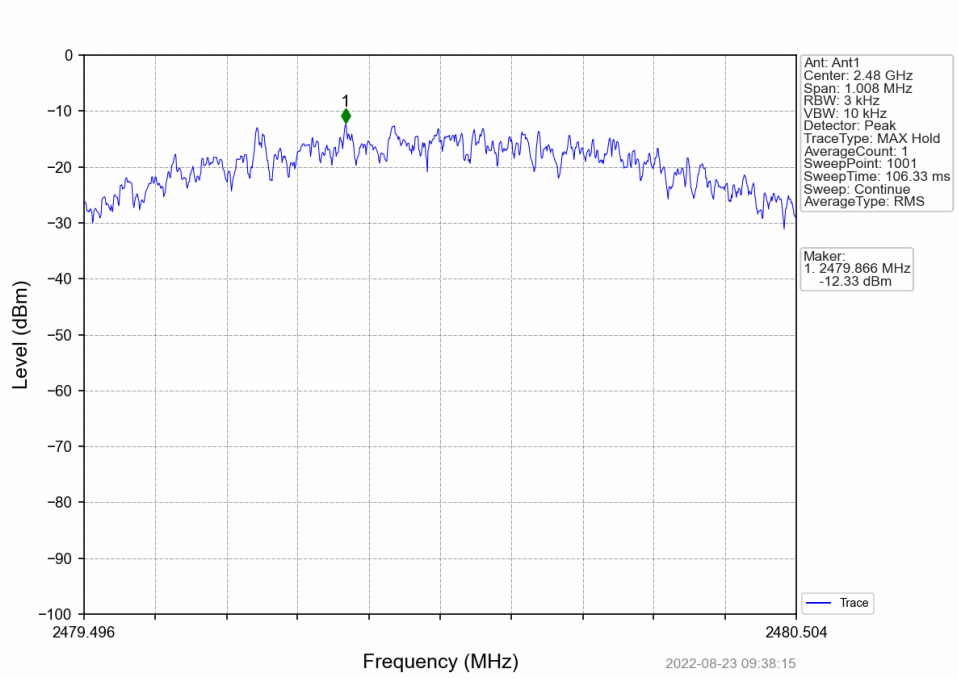
1M_LCH_2402MHz_Ant1_NTNV



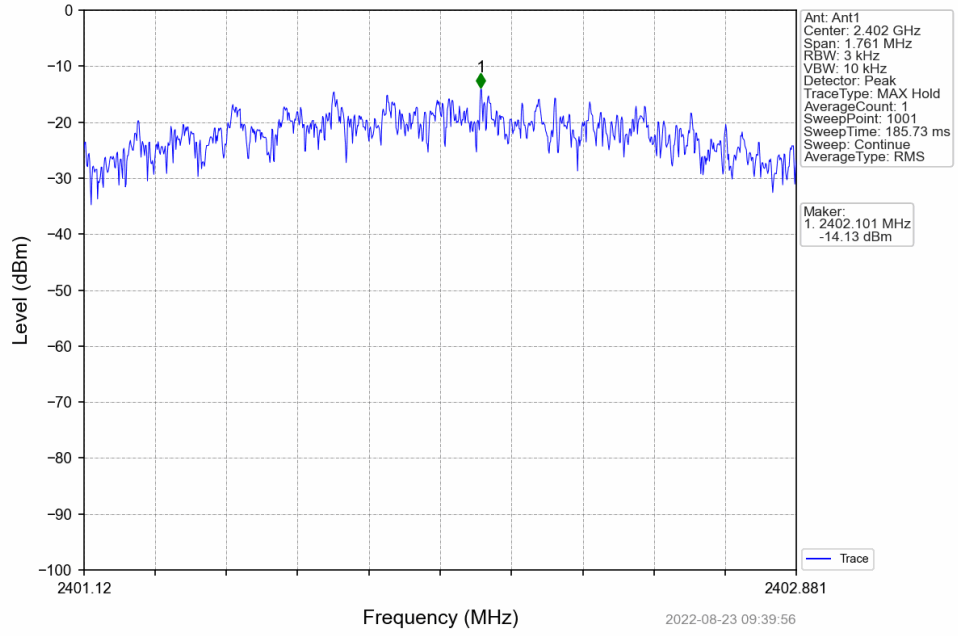
1M_MCH_2440MHz_Ant1_NTNV



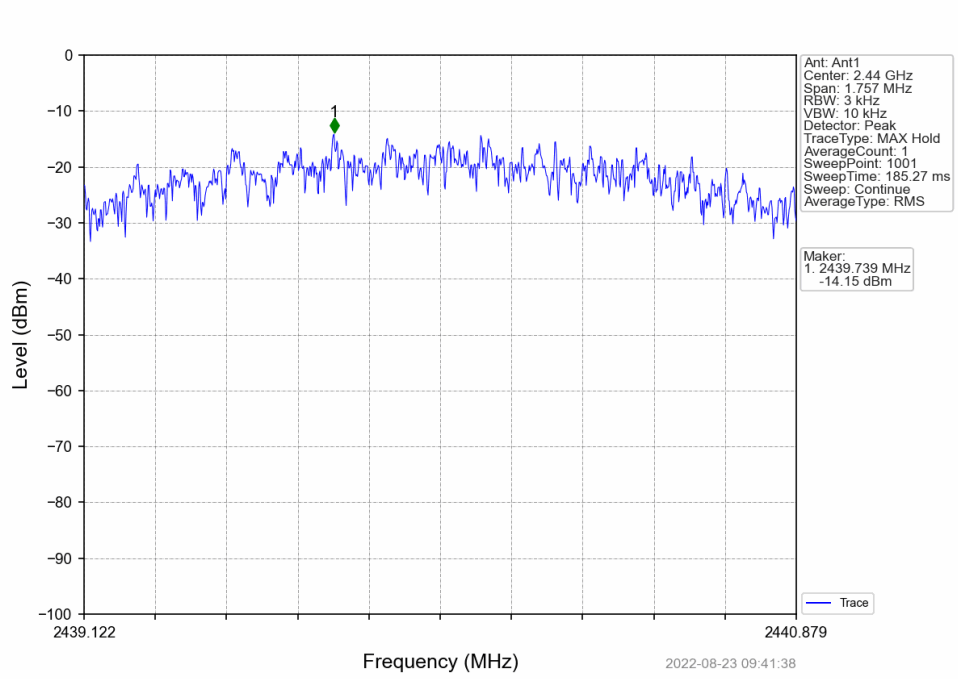
1M_HCH_2480MHz_Ant1_NTNV



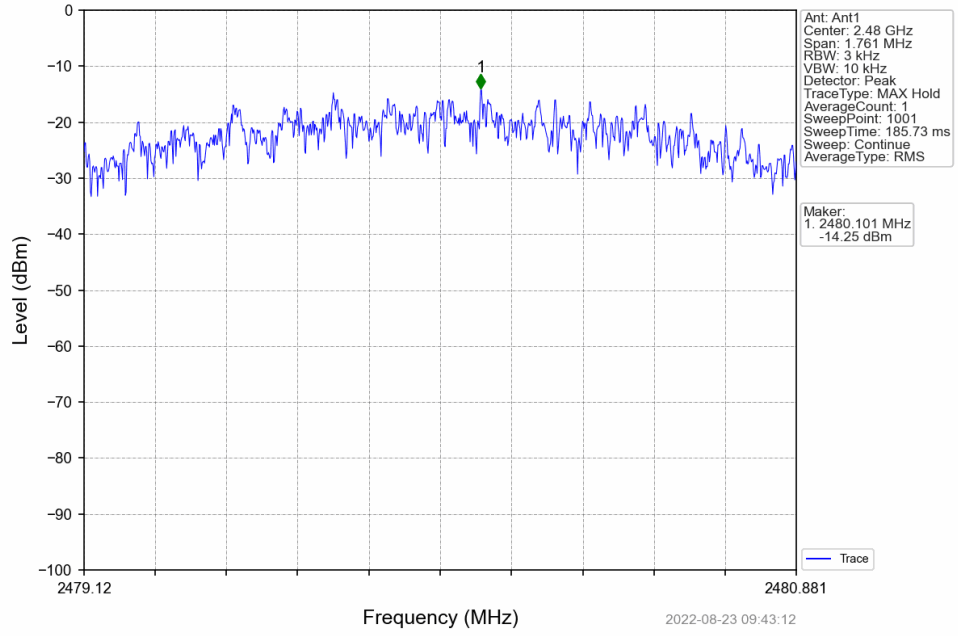
2M_LCH_2402MHz_Ant1_NTNV



2M_MCH_2440MHz_Ant1_NTNV



2M_HCH_2480MHz_Ant1_NTNV



4. Unwanted Emissions In Non-restricted Frequency Bands

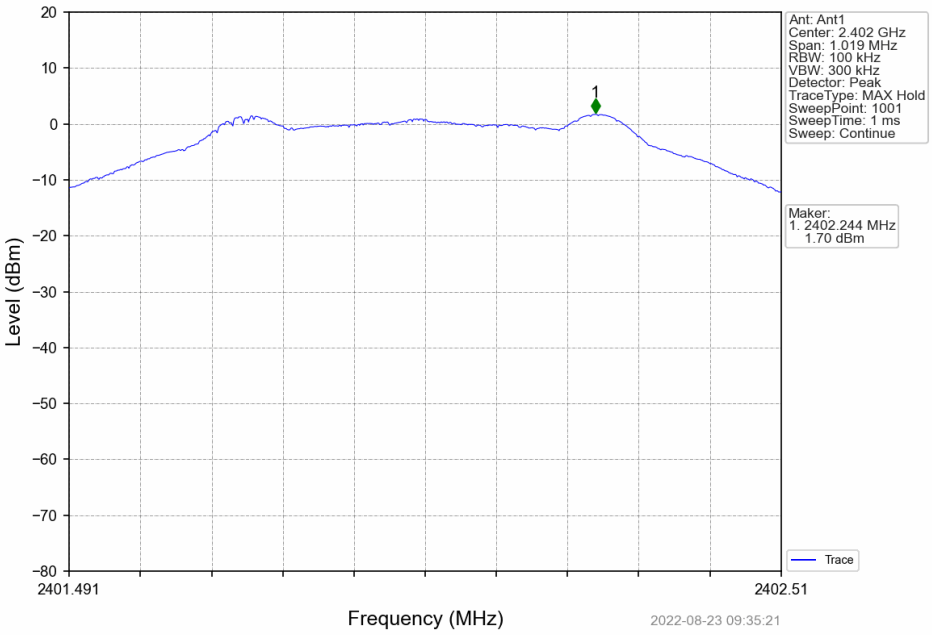
4.1 Ref

4.1.1 Test Result

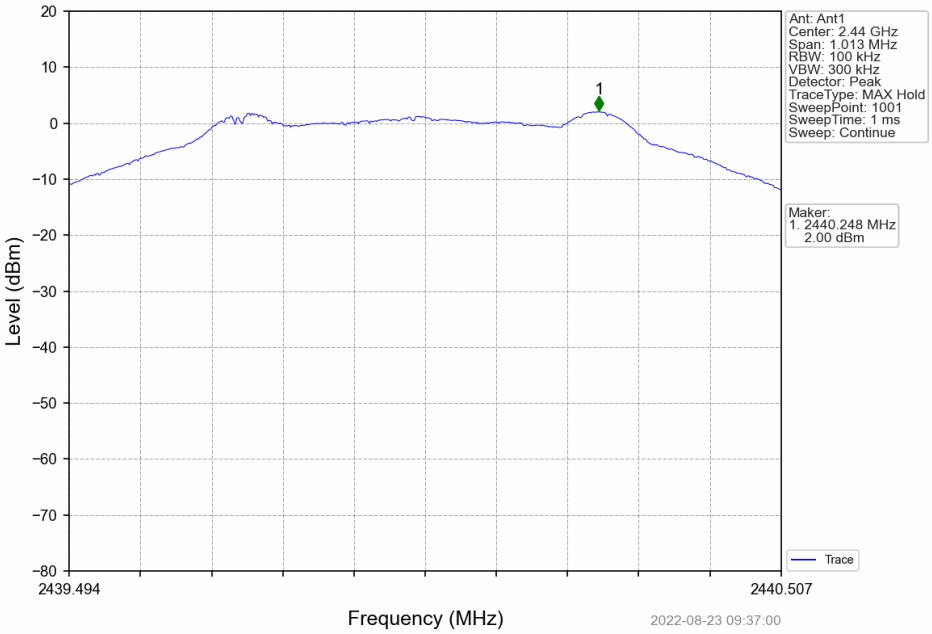
Mode	TX Type	Frequency (MHz)	ANT	Level of Reference (dBm)
1M	SISO	2402	1	1.70
		2440	1	**2.00**
		2480	1	1.52
2M	SISO	2402	1	1.12
		2440	1	**1.48**
		2480	1	0.96
Note1: Refer to FCC Part 15.247 (d) and ANSI C63.10-2013, the channel contains the maximum PSD level was used to establish the reference level.				

4.1.2 Test Graph

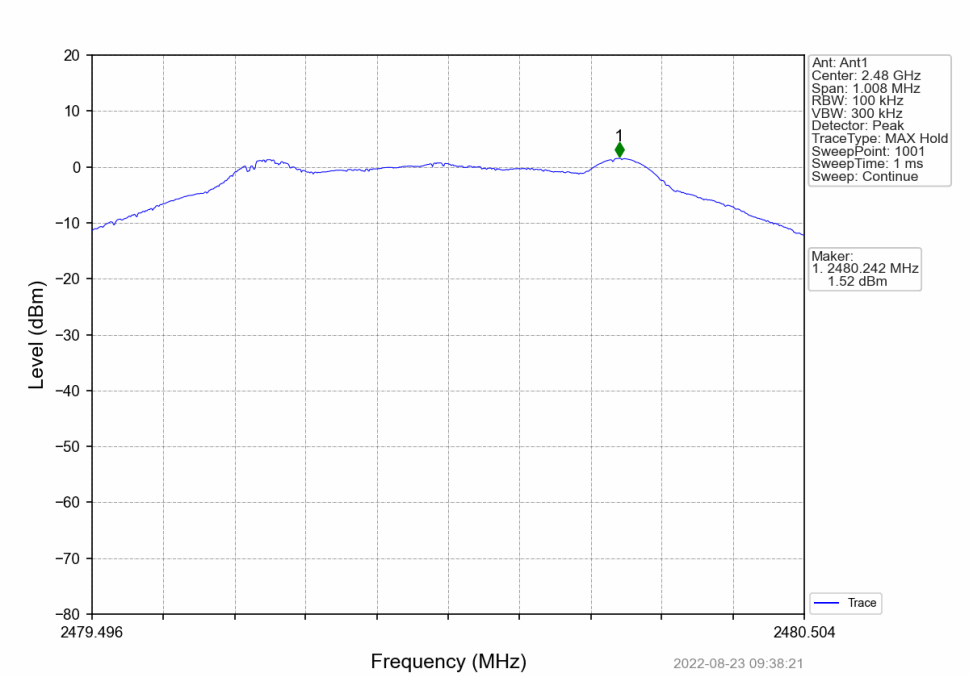
1M_LCH_2402MHz_Ant1_NTNV



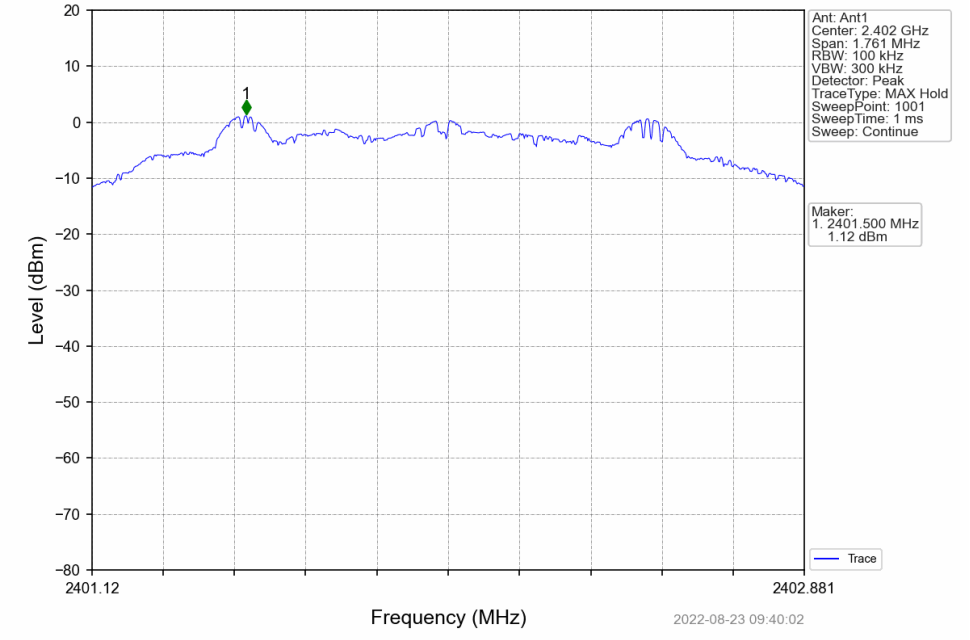
1M_MCH_2440MHz_Ant1_NTNV



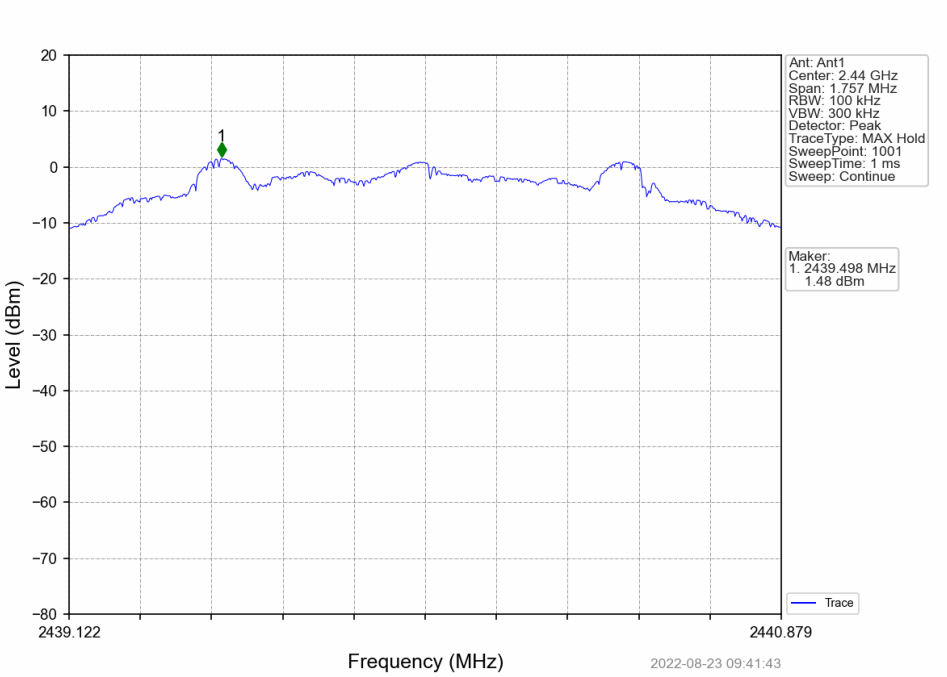
1M_HCH_2480MHz_Ant1_NTNV



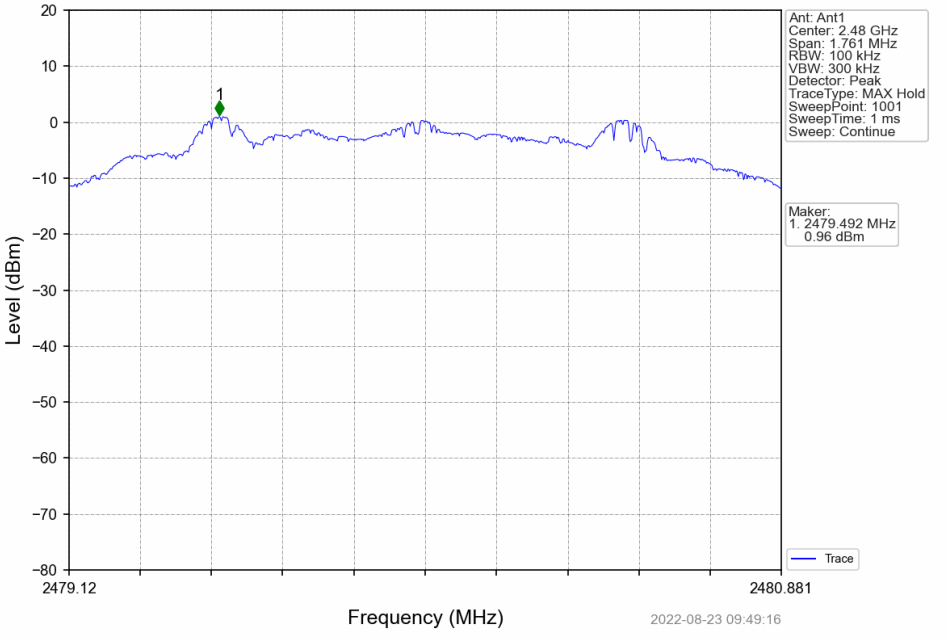
2M_LCH_2402MHz_Ant1_NTNV



2M_MCH_2440MHz_Ant1_NTNV



2M_HCH_2480MHz_Ant1_NTNV



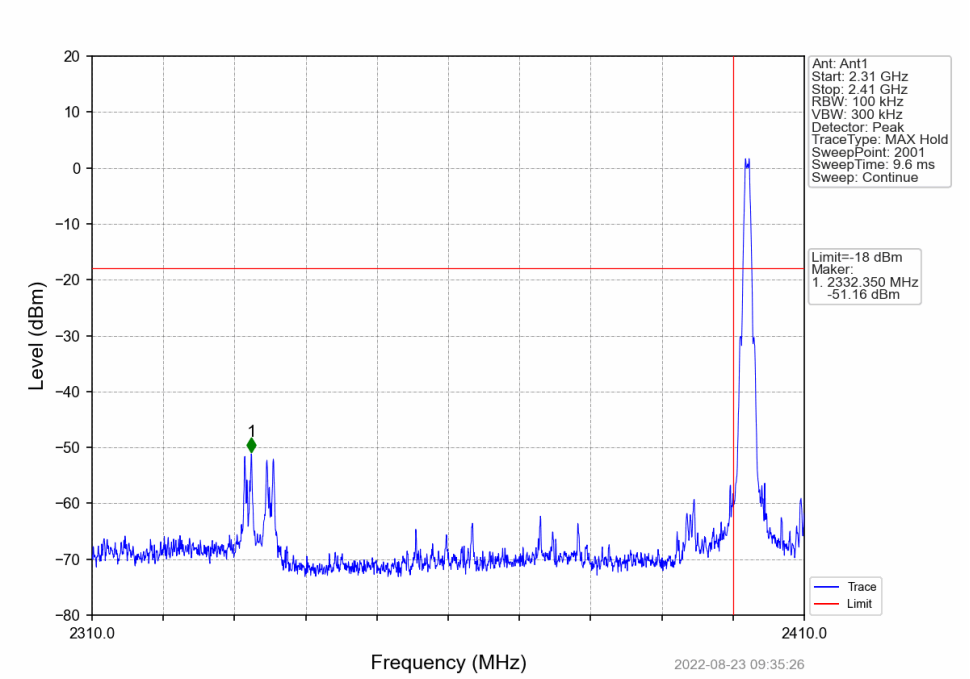
4.2 CSE

4.2.1 Test Result

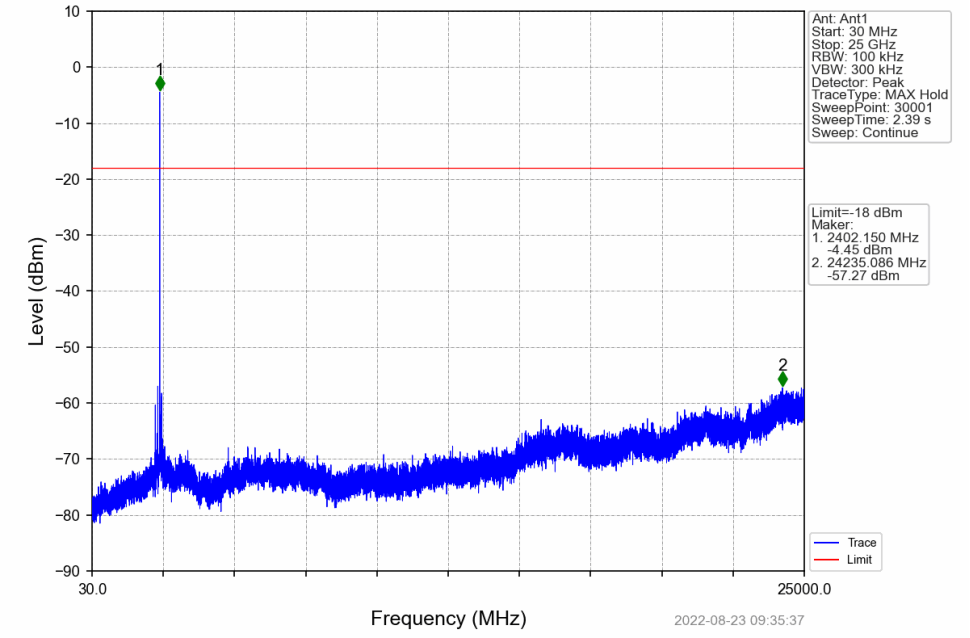
Mode	TX Type	Frequency (MHz)	ANT	Level of Reference (dBm)	Limit (dBm)	Verdict
1M	SISO	2402	1	2.00	-18.00	Pass
		2440	1	2.00	-18.00	Pass
		2480	1	2.00	-18.00	Pass
2M	SISO	2402	1	1.48	-18.52	Pass
		2440	1	1.48	-18.52	Pass
		2480	1	1.48	-18.52	Pass
Note1: Refer to FCC Part 15.247 (d) and ANSI C63.10-2013, the channel contains the maximum PSD level was used to establish the reference level.						

4.2.2 Test Graph

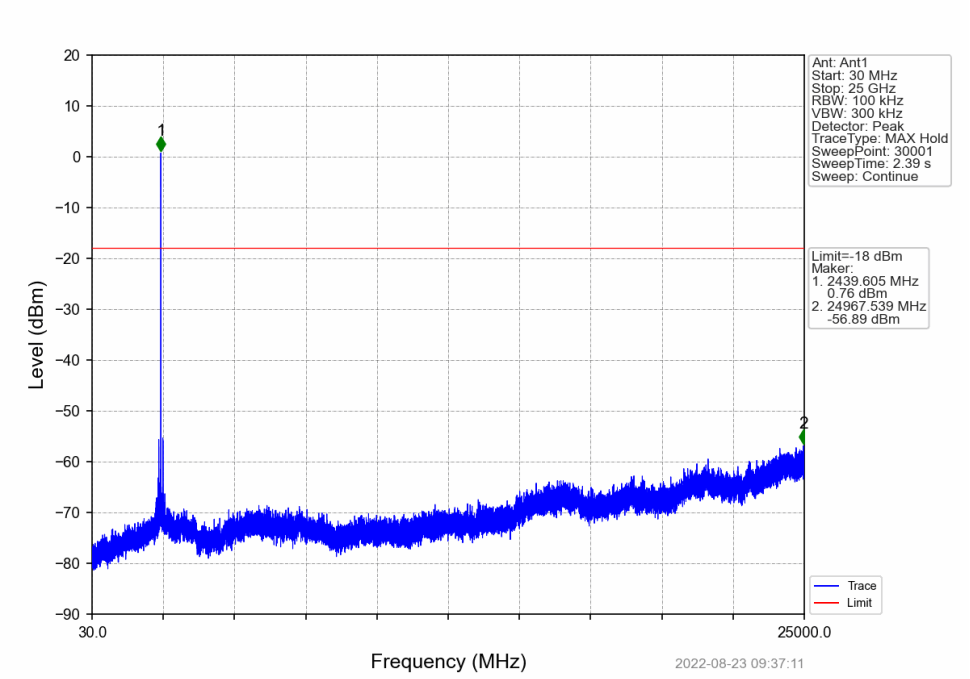
1M_LCH_2402MHz_Ant1_NTNV



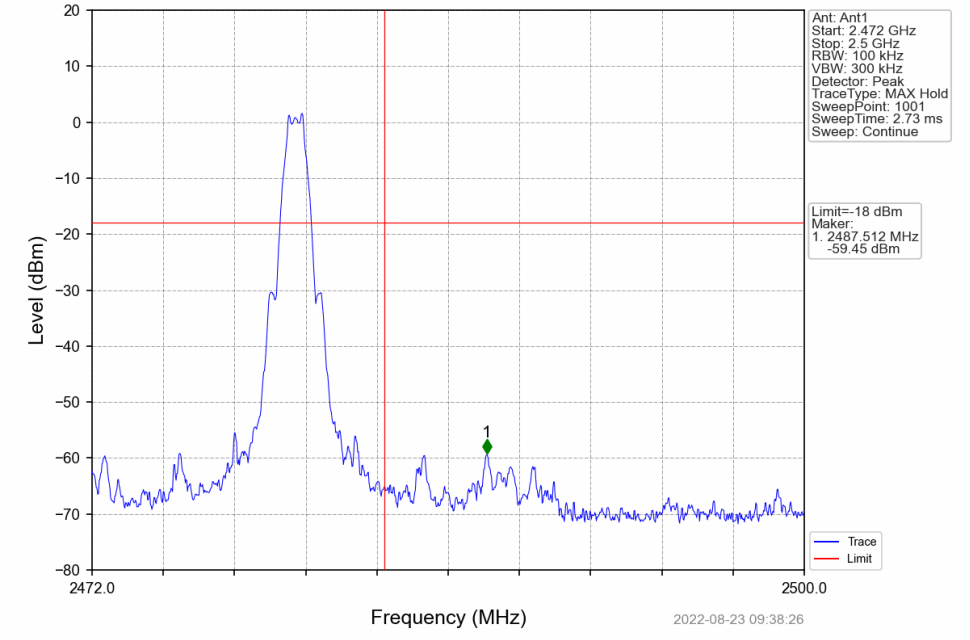
1M_LCH_2402MHz_Ant1_NTNV



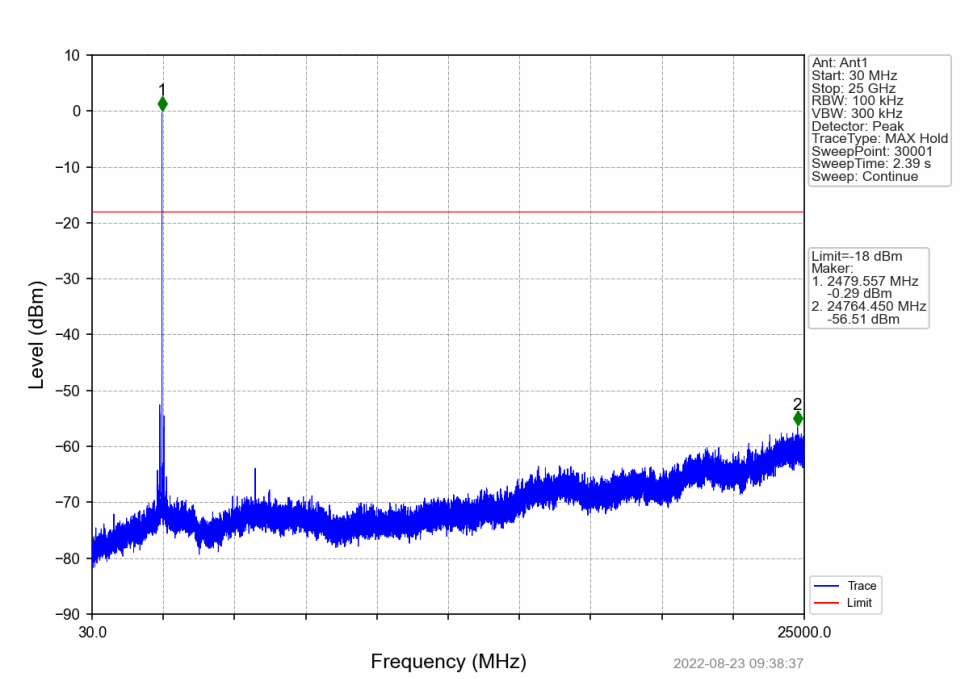
1M_MCH_2440MHz_Ant1_NTNV



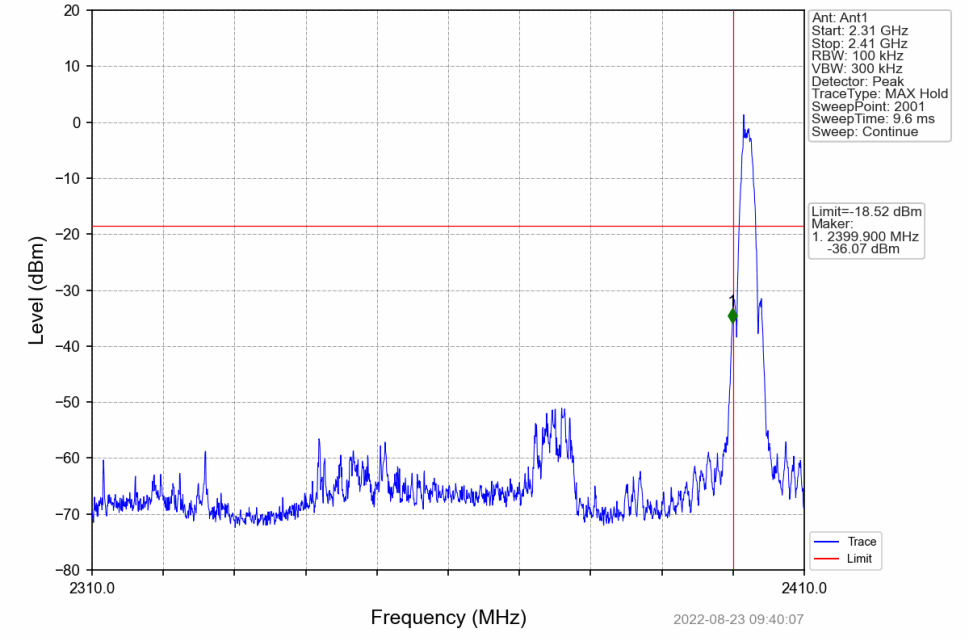
1M_HCH_2480MHz_Ant1_NTNV



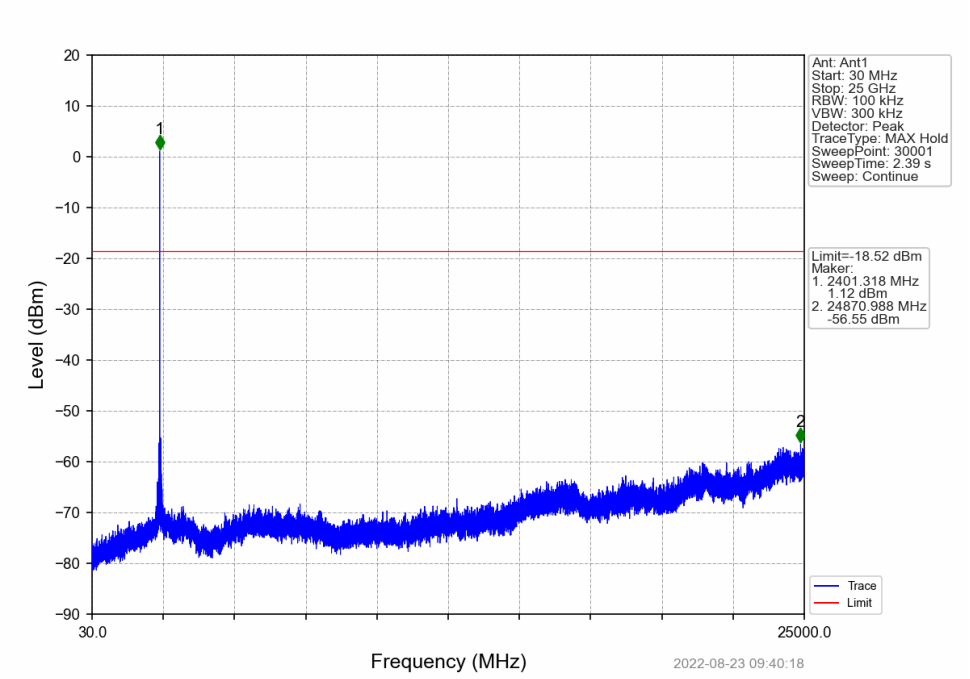
1M_HCH_2480MHz_Ant1_NTNV



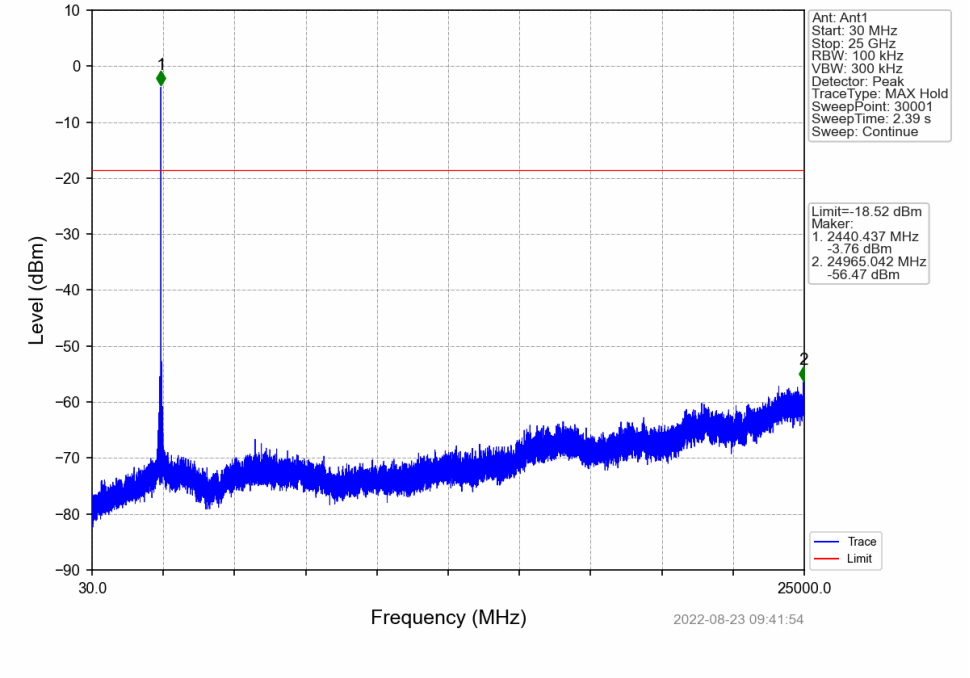
2M_LCH_2402MHz_Ant1_NTNV



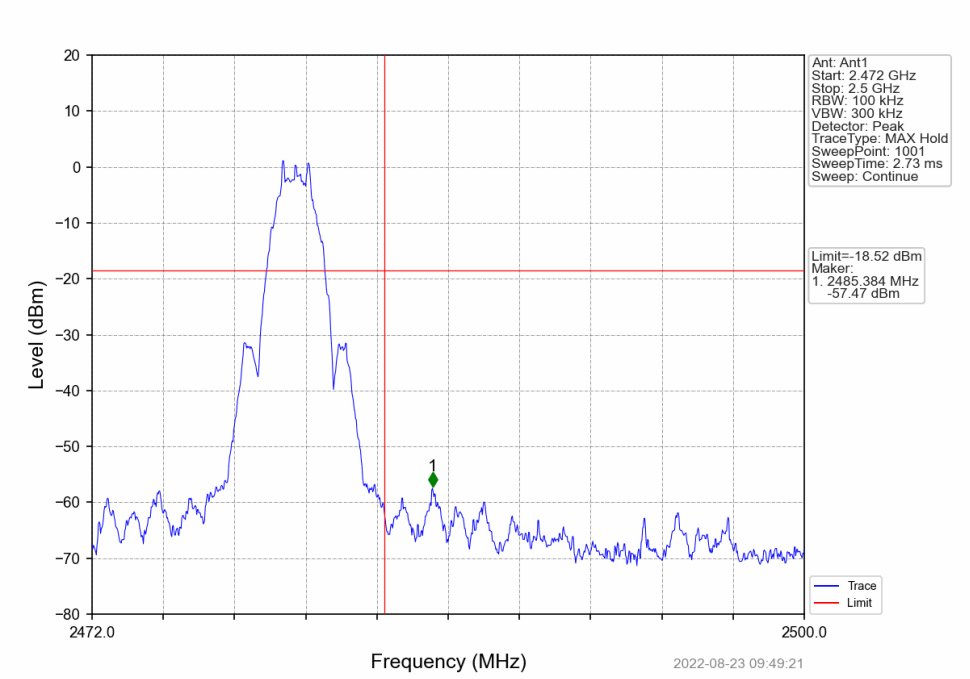
2M_LCH_2402MHz_Ant1_NTNV



2M_MCH_2440MHz_Ant1_NTNV



2M_HCH_2480MHz_Ant1_NTNV



2M_HCH_2480MHz_Ant1_NTNV