

Appendix RF test data for BLE

1. Duty Cycle

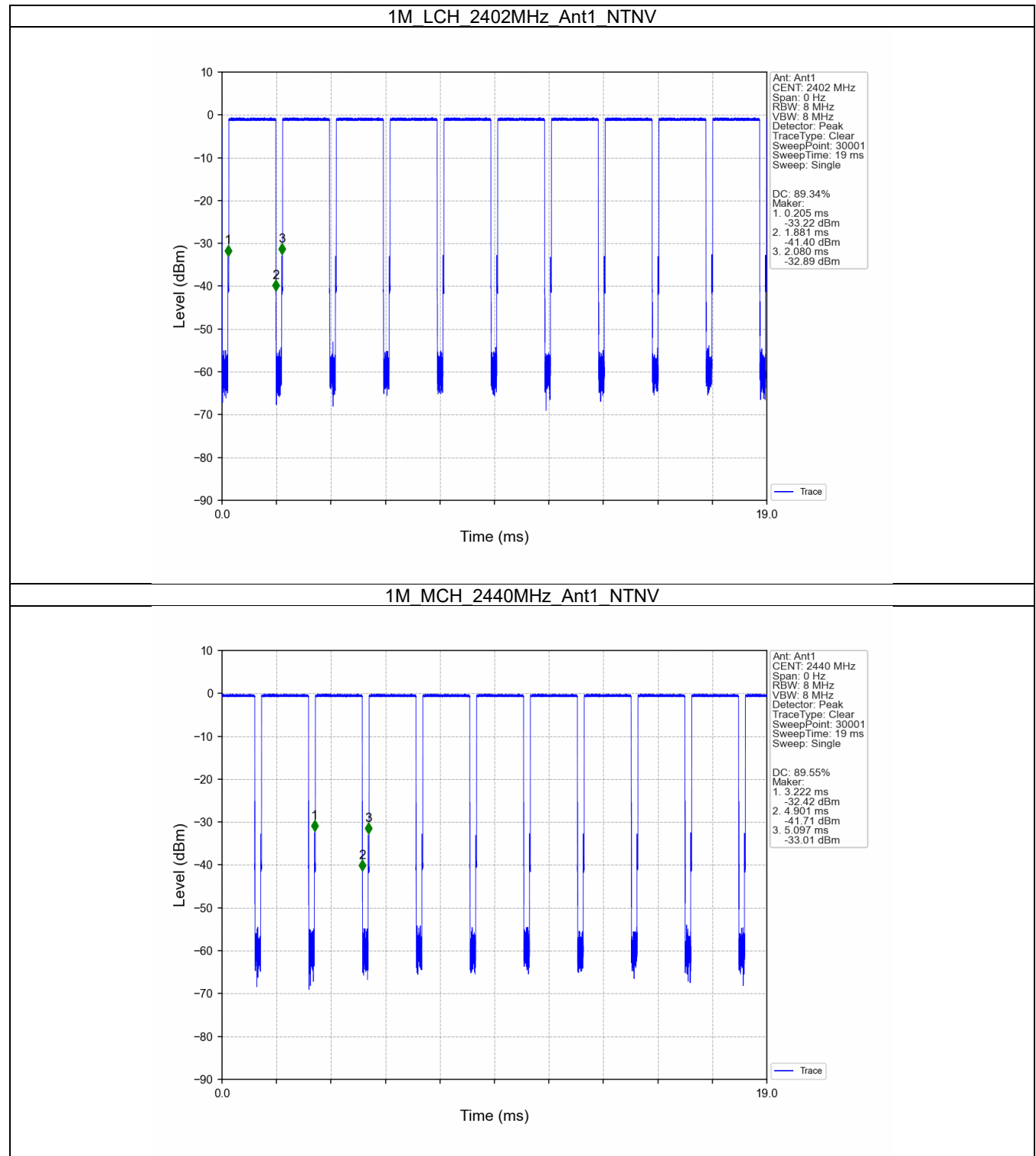
1.1 Test Result

1.1.1 Ant1

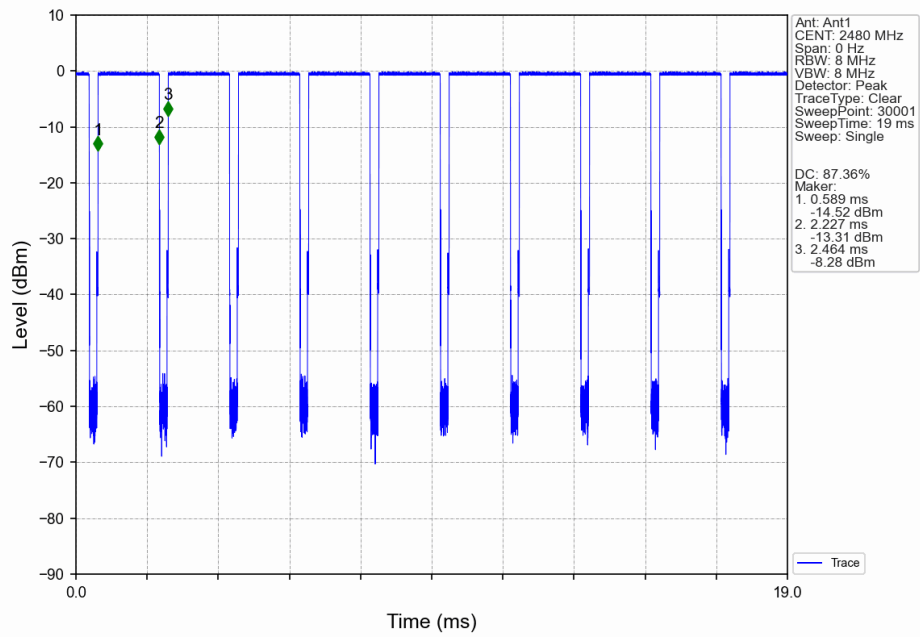
Ant1							
Mode	TX Type	Frequency (MHz)	T_on (ms)	Period (ms)	Duty Cycle (%)	Duty Cycle Correction Factor (dB)	Max. DC Variation (%)
1M	SISO	2402	1.676	1.876	89.34	0.49	0.03
		2440	1.679	1.875	89.55	0.48	0.03
		2480	1.638	1.875	87.36	0.59	0.03
2M	SISO	2402	0.865	1.250	69.20	1.60	0.03
		2440	0.866	1.250	69.28	1.59	0.03
		2480	0.866	1.250	69.28	1.59	0.07

1.2 Test Graph

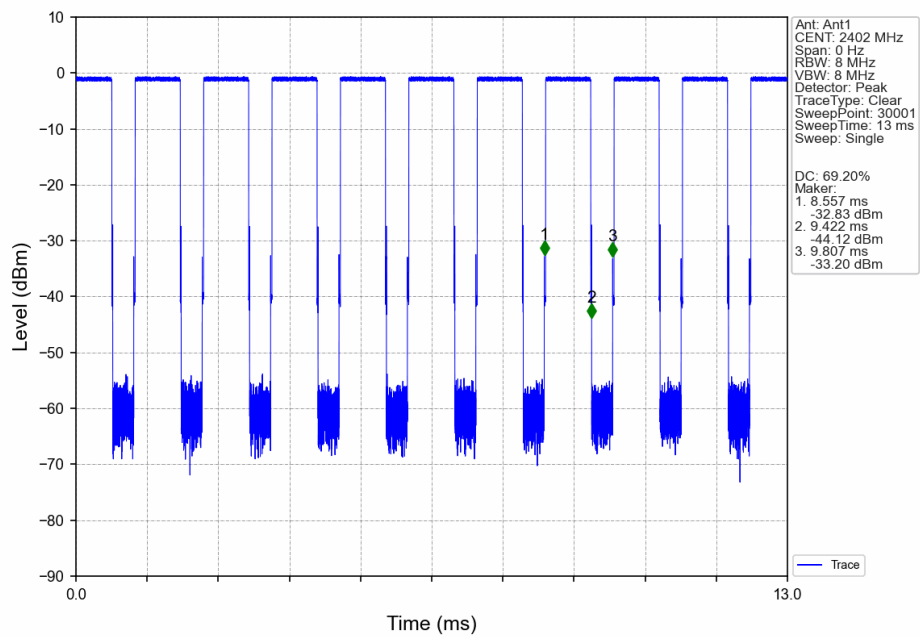
1.2.1 Ant1



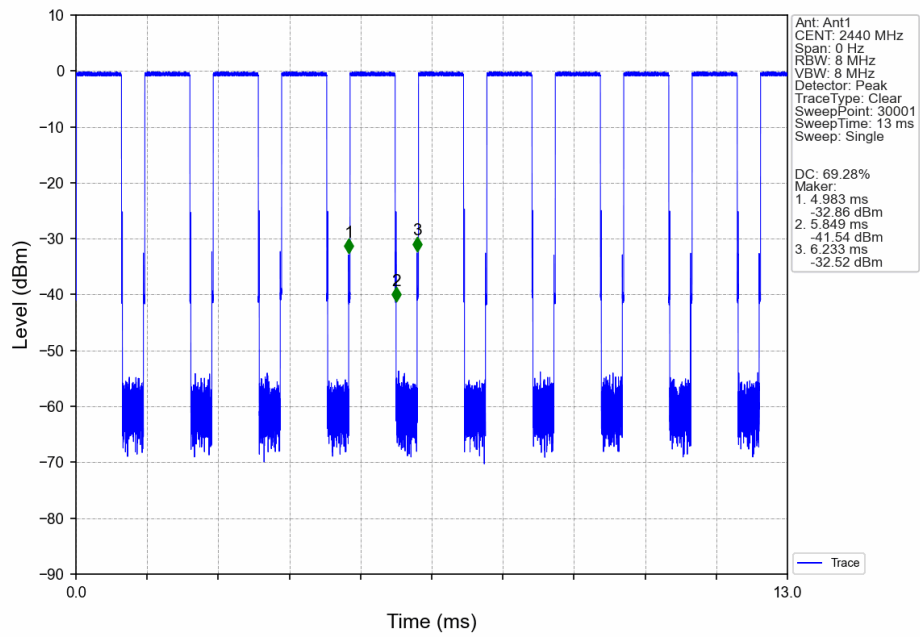
1M HCH 2480MHz Ant1 NTVN



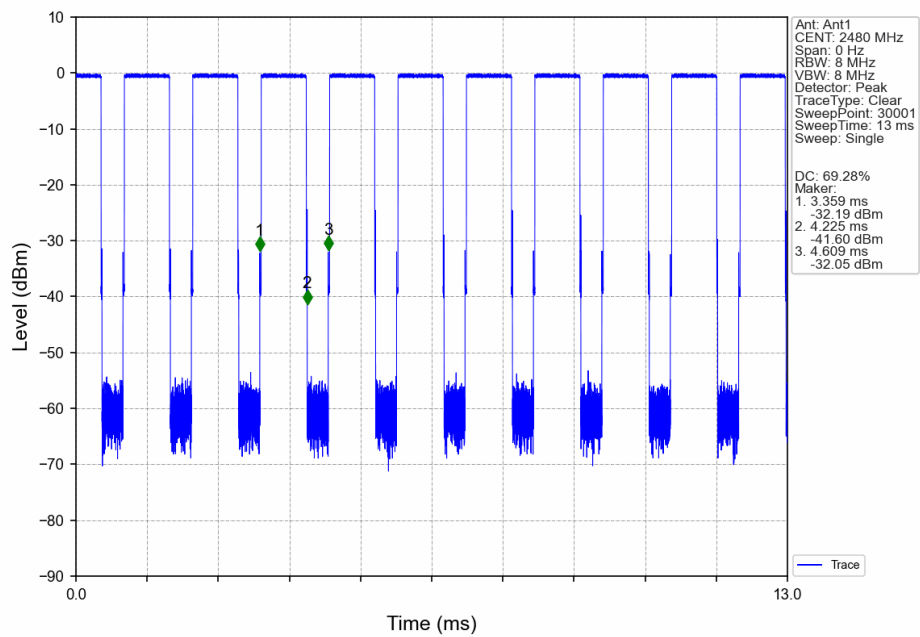
2M LCH 2402MHz Ant1 NTVN



2M MCH 2440MHz Ant1 NTNV



2M HCH 2480MHz Ant1 NTNV



2. Bandwidth

2.1 Test Result

2.1.1 OBW

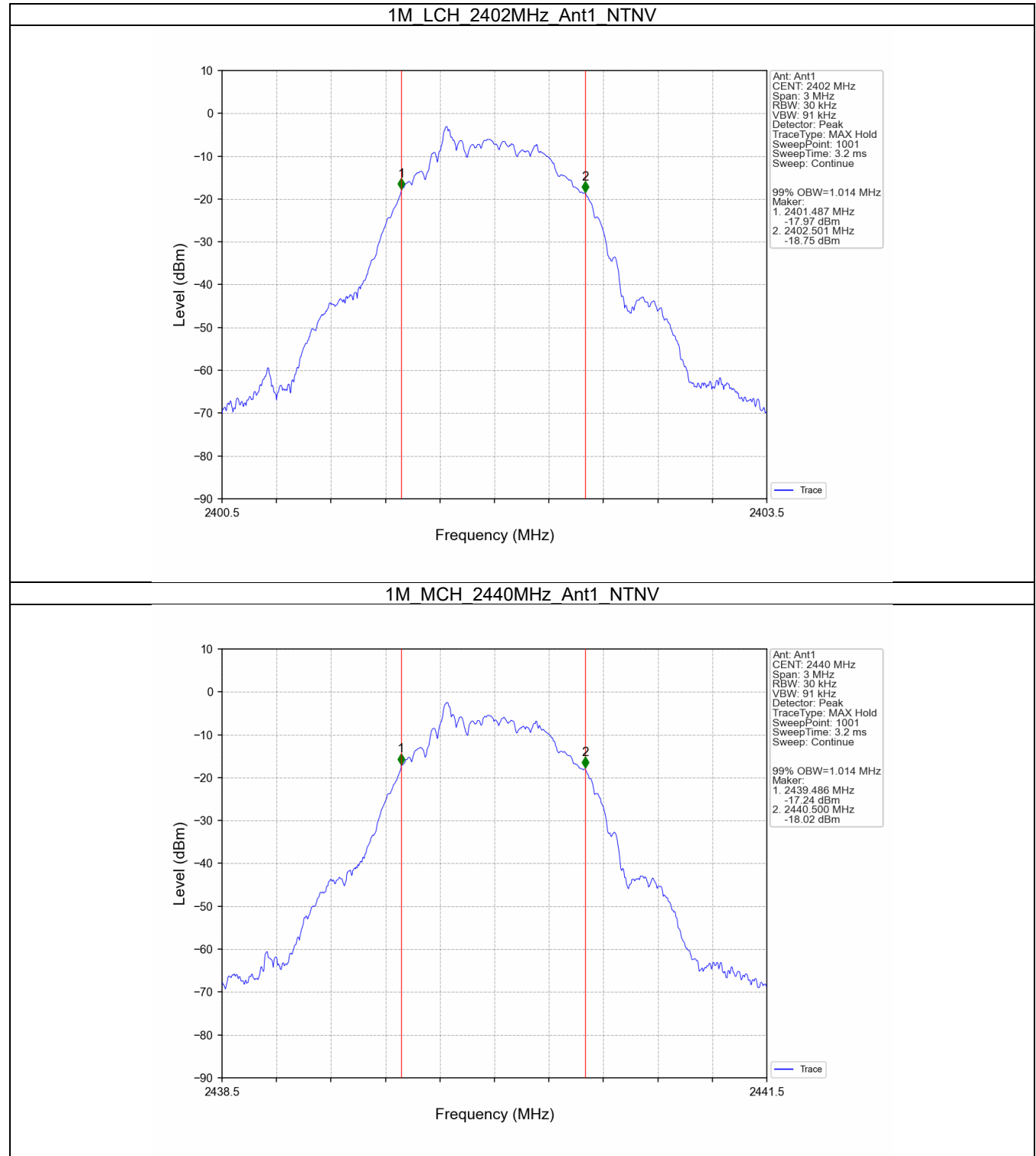
Mode	TX Type	Frequency (MHz)	ANT	99% Occupied Bandwidth (MHz)		Verdict
				Result	Limit	
1M	SISO	2402	1	1.014	/	Pass
		2440	1	1.014	/	Pass
		2480	1	1.017	/	Pass
2M	SISO	2402	1	2.034	/	Pass
		2440	1	2.032	/	Pass
		2480	1	2.035	/	Pass

2.1.2 6dB BW

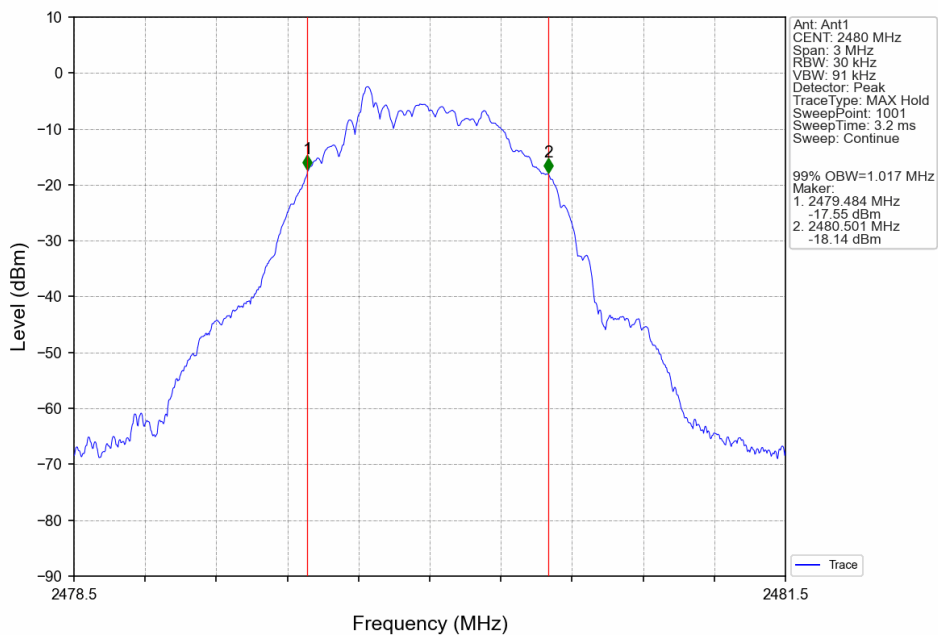
Mode	TX Type	Frequency (MHz)	ANT	6dB Bandwidth (MHz)		Verdict
				Result	Limit	
1M	SISO	2402	1	0.667	≥ 0.5	Pass
		2440	1	0.664	≥ 0.5	Pass
		2480	1	0.664	≥ 0.5	Pass
2M	SISO	2402	1	1.171	≥ 0.5	Pass
		2440	1	1.162	≥ 0.5	Pass
		2480	1	1.166	≥ 0.5	Pass

2.2 Test Graph

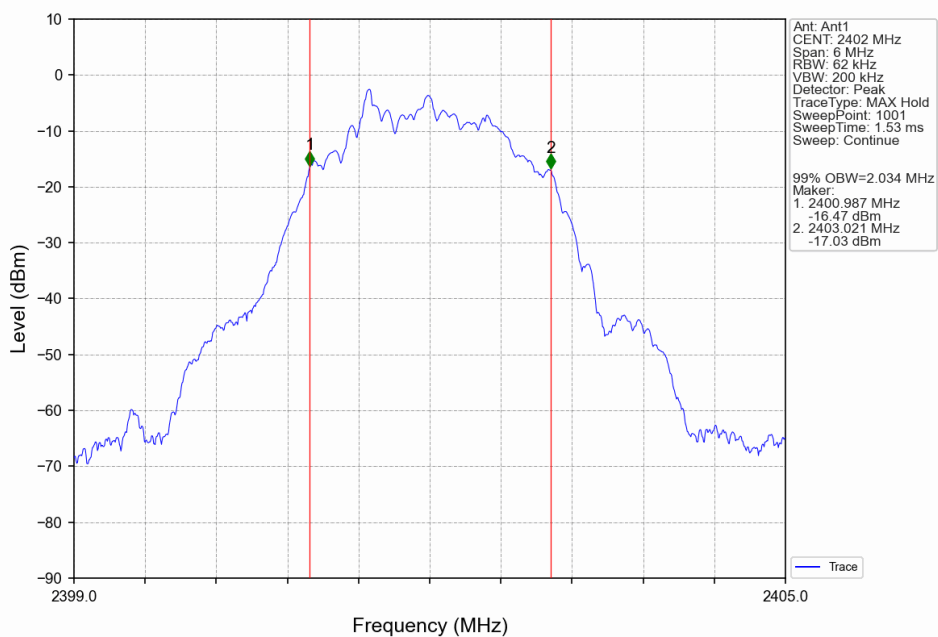
2.2.1 OBW



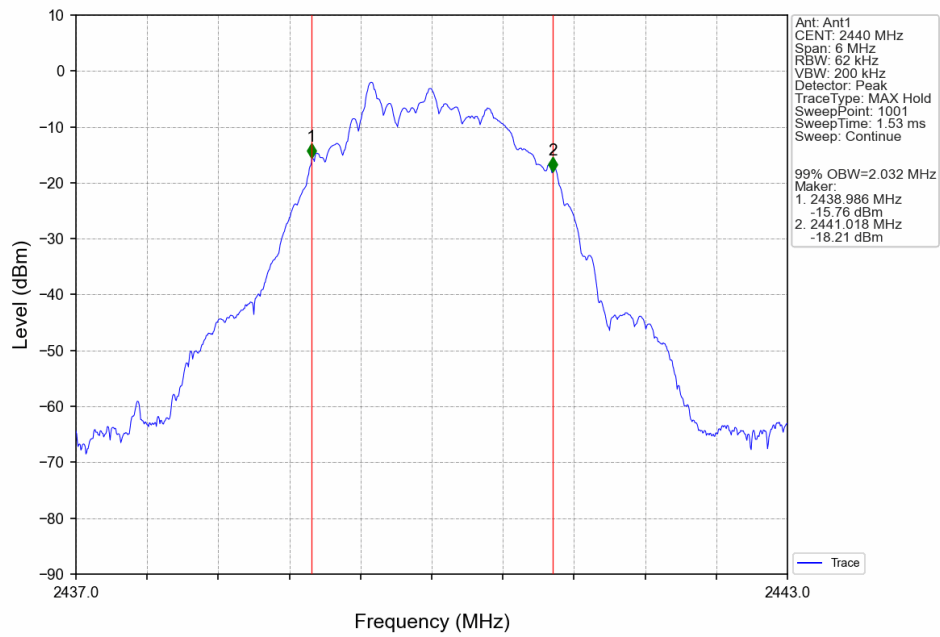
1M HCH 2480MHz Ant1 NTVN



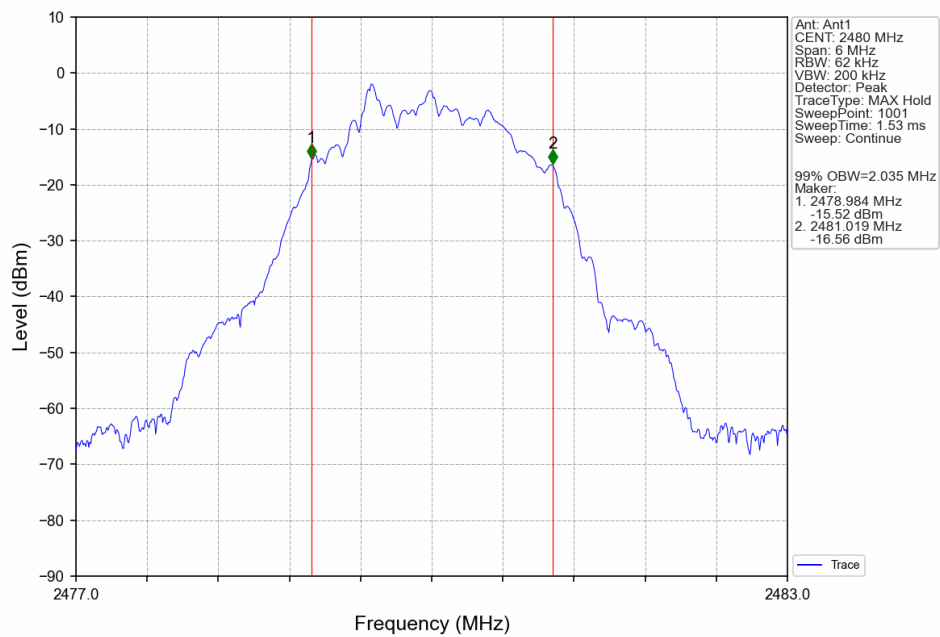
2M LCH 2402MHz Ant1 NTVN



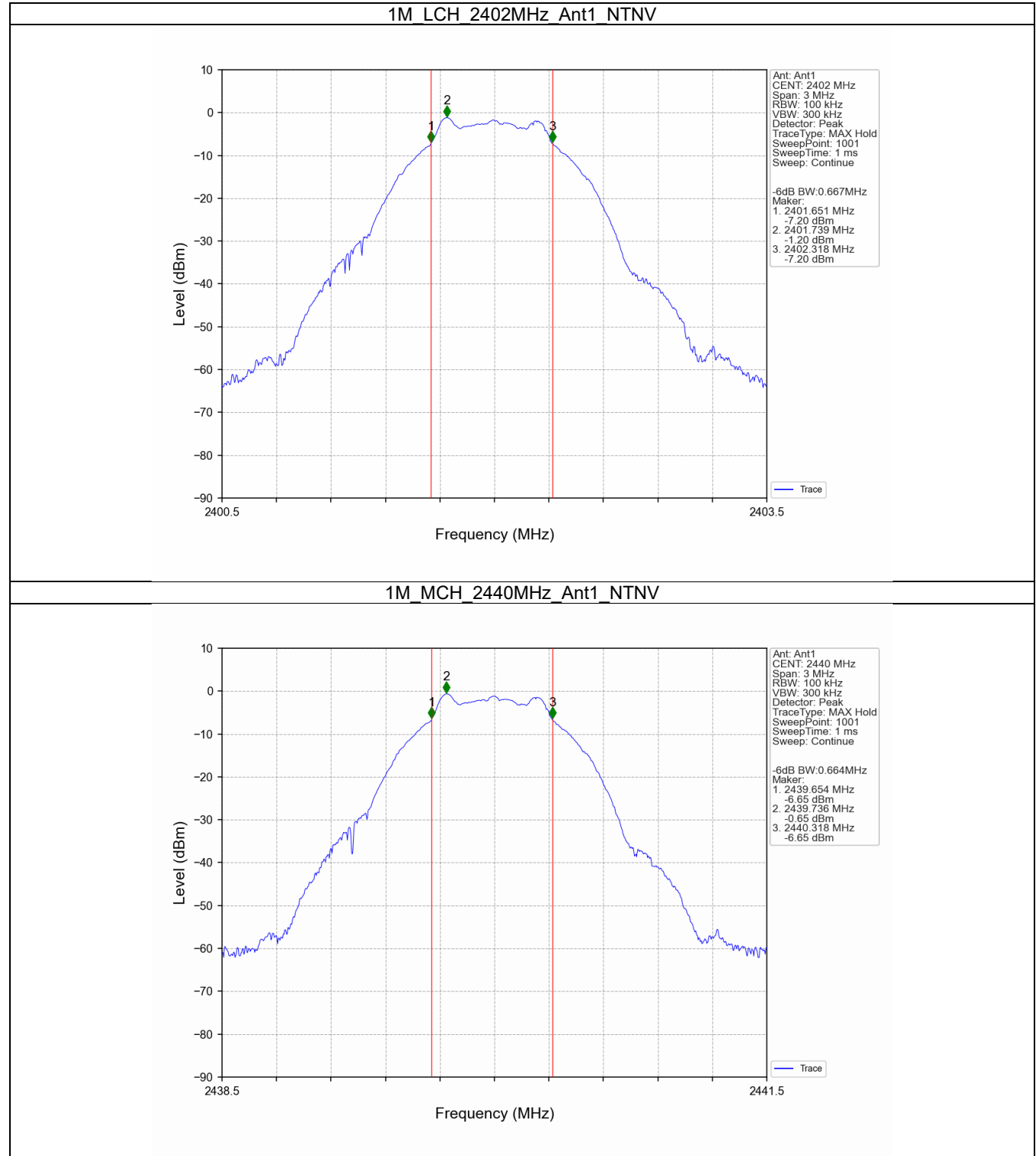
2M MCH 2440MHz Ant1 NTNV



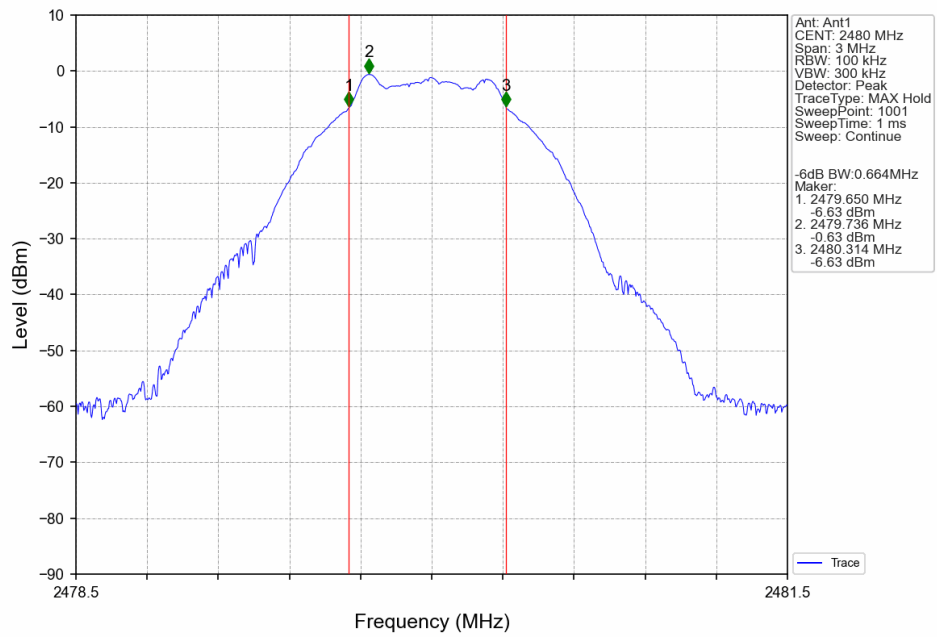
2M HCH 2480MHz Ant1 NTNV



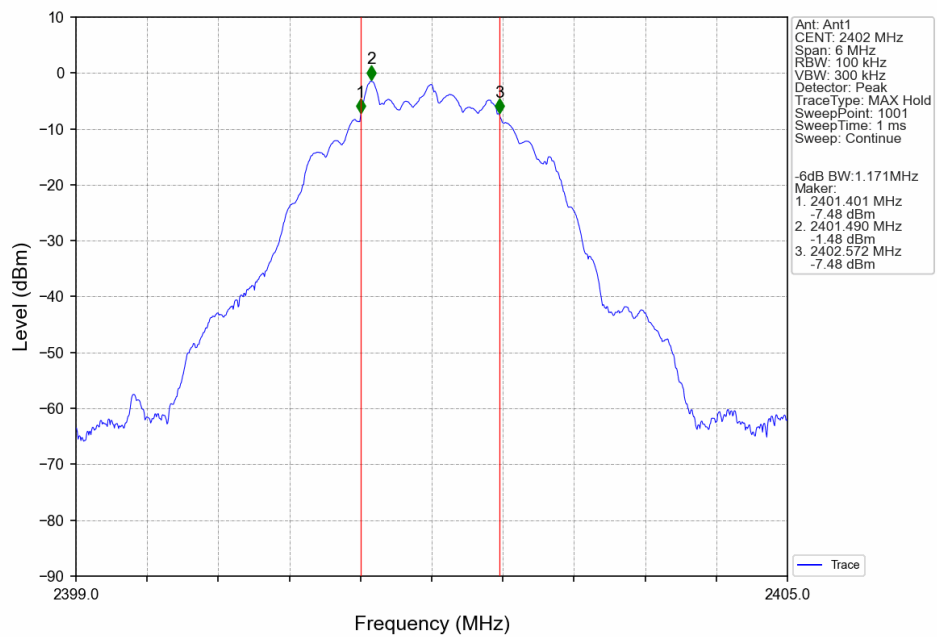
2.2.2 6dB BW



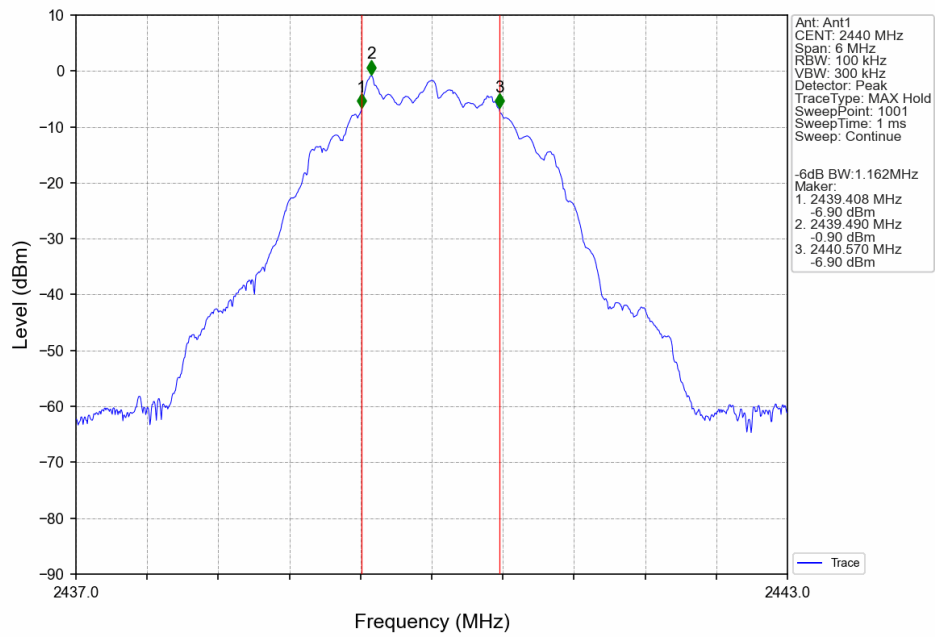
1M HCH 2480MHz Ant1 NTV



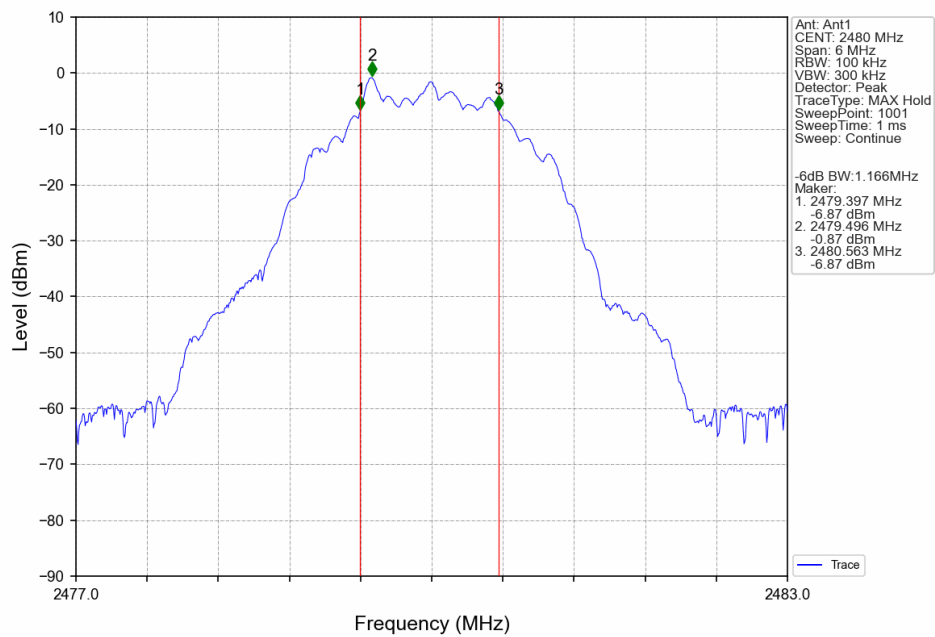
2M LCH 2402MHz Ant1 NTV



2M MCH 2440MHz Ant1 NTN



2M HCH 2480MHz Ant1 NTN



3. Maximum Conducted Output Power

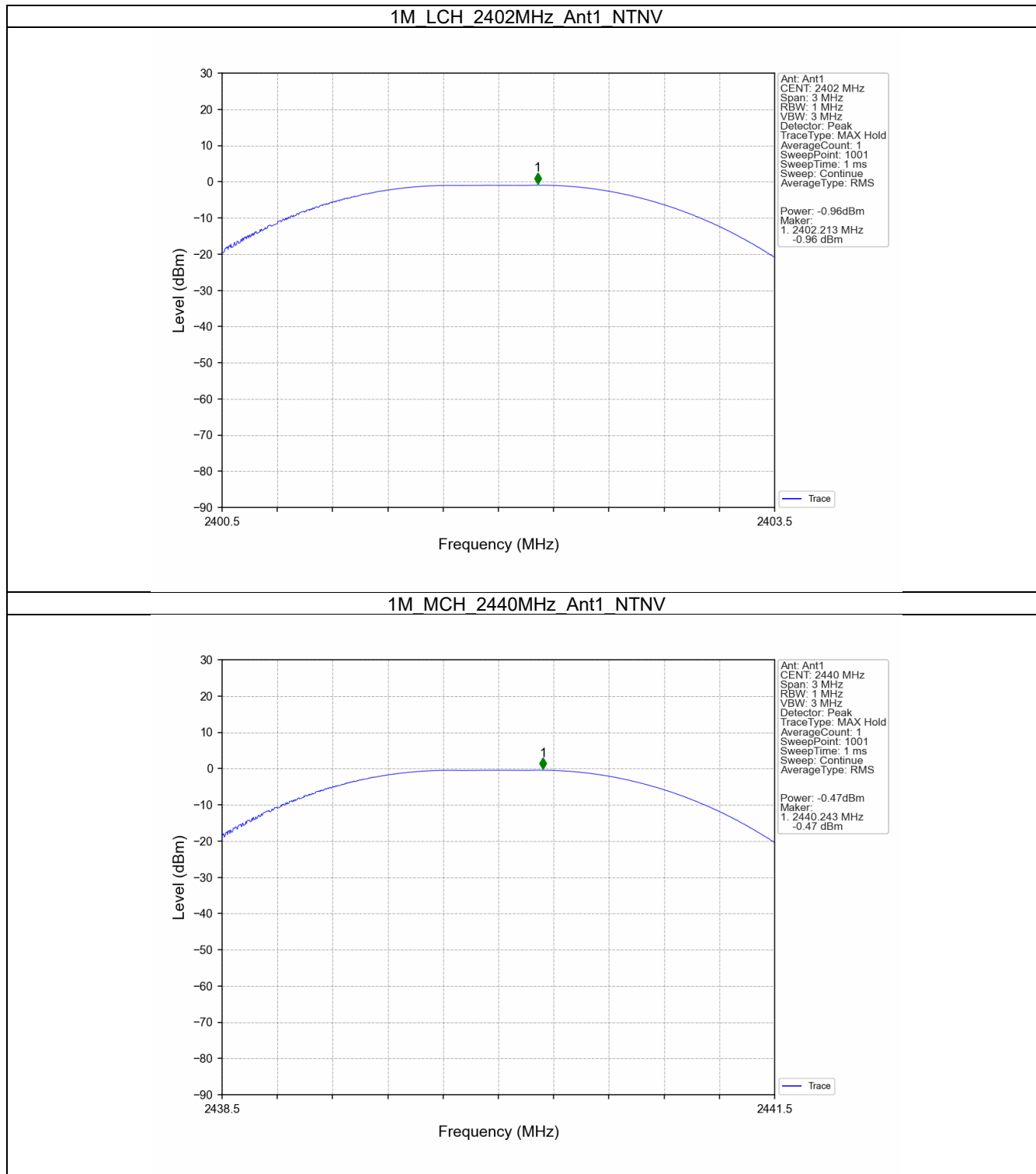
3.1 Test Result

3.1.1 Power

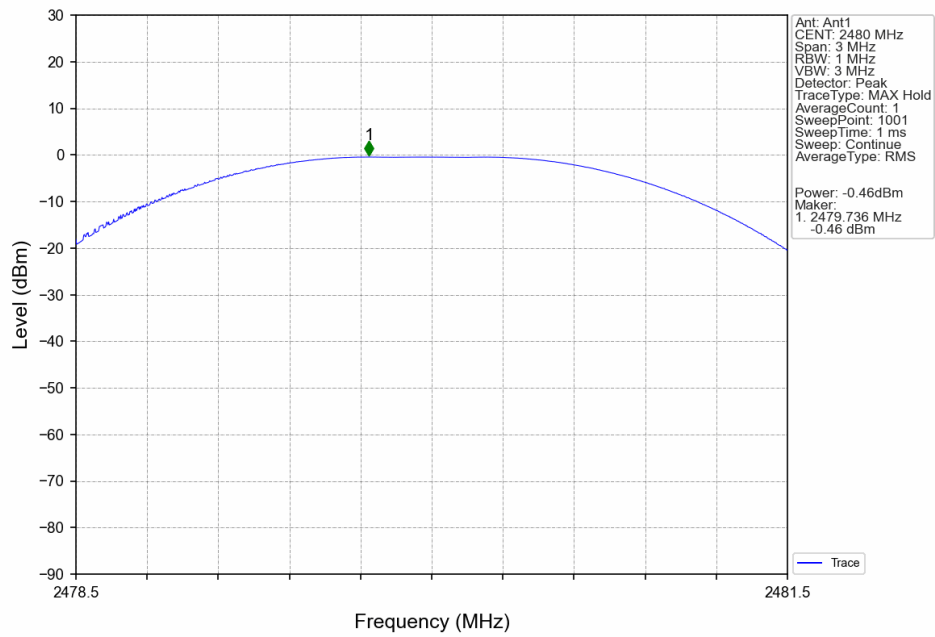
Mode	TX Type	Frequency (MHz)	Maximum Peak Conducted Output Power (dBm)		Verdict
			ANT1	Limit	
1M	SISO	2402	-0.96	<=30	Pass
		2440	-0.47	<=30	Pass
		2480	-0.46	<=30	Pass
2M	SISO	2402	-0.97	<=30	Pass
		2440	-0.46	<=30	Pass
		2480	-0.45	<=30	Pass

3.2 Test Graph

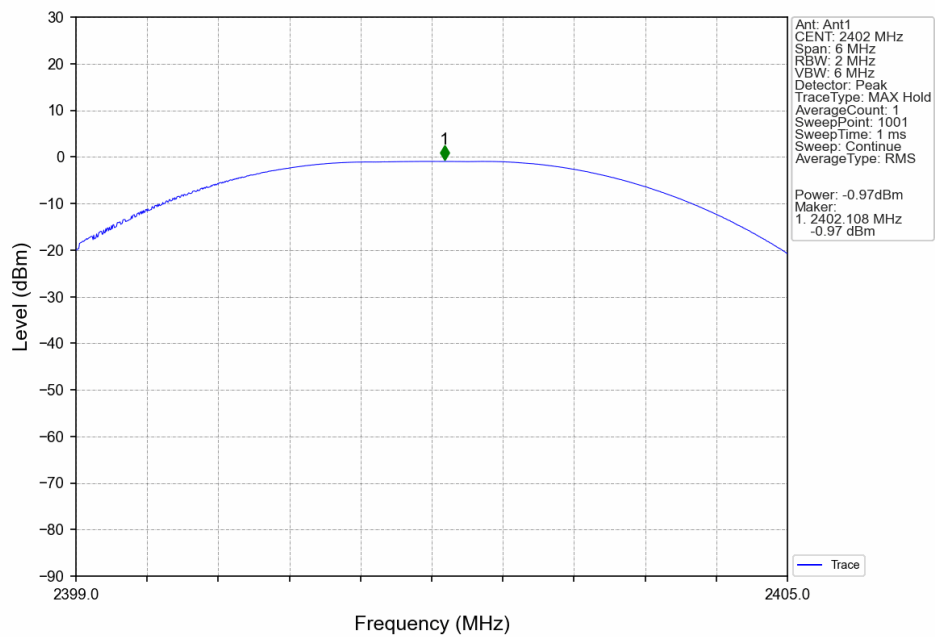
3.2.1 Power



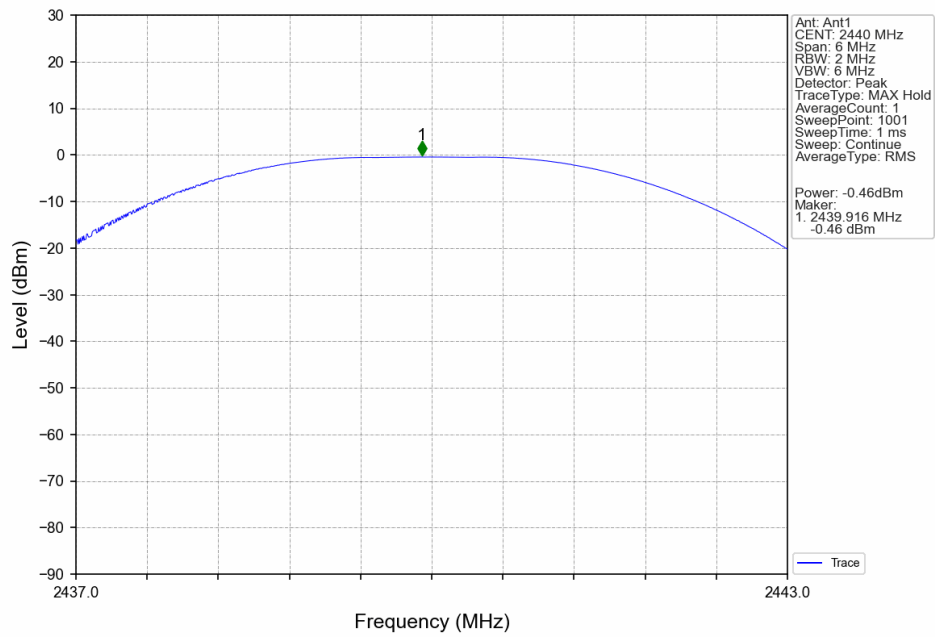
1M HCH 2480MHz Ant1 NTV



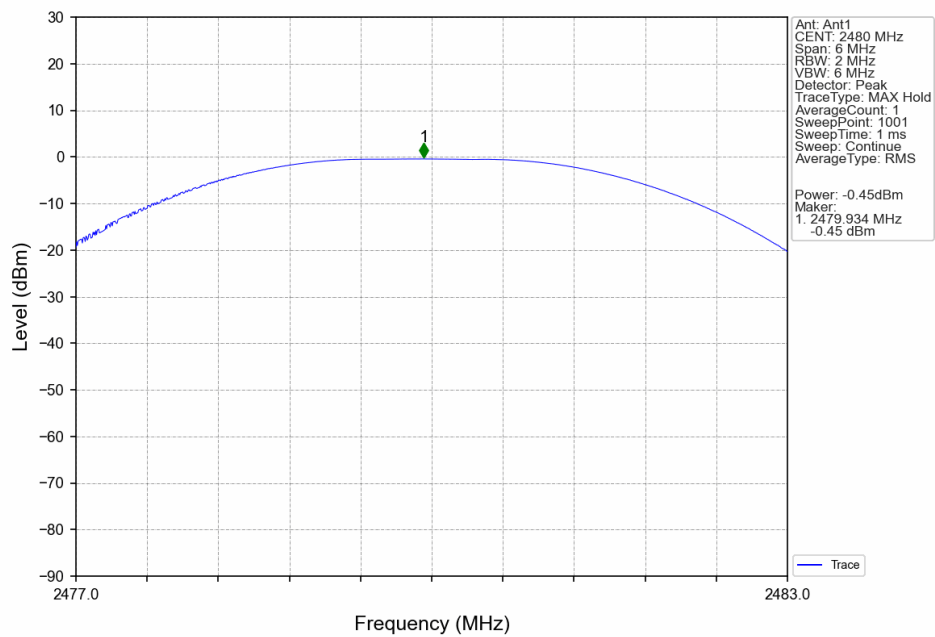
2M LCH 2402MHz Ant1 NTV



2M MCH 2440MHz Ant1 NTVN



2M HCH 2480MHz Ant1 NTVN



4. Maximum Power Spectral Density

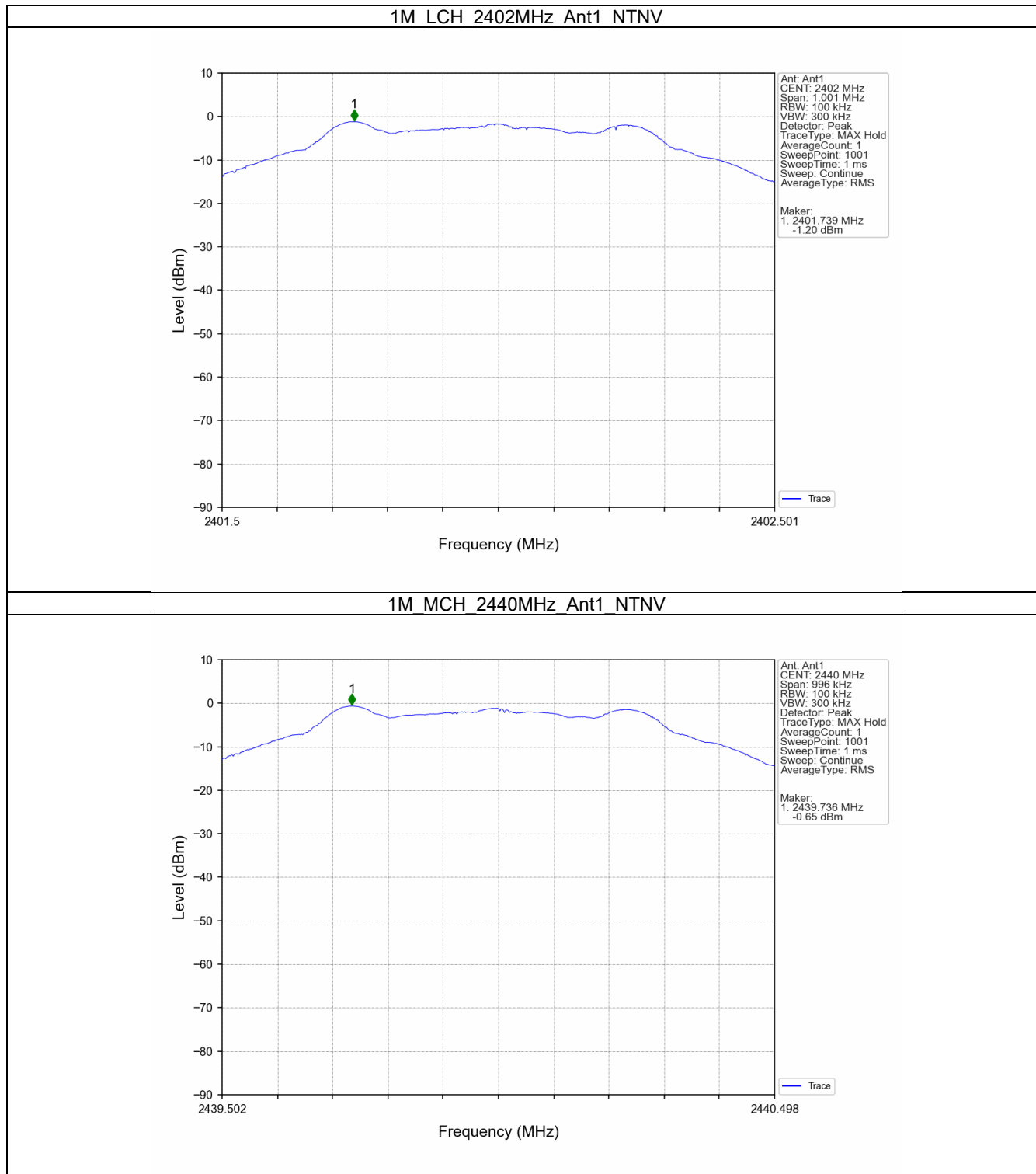
4.1 Test Result

4.1.1 PSD

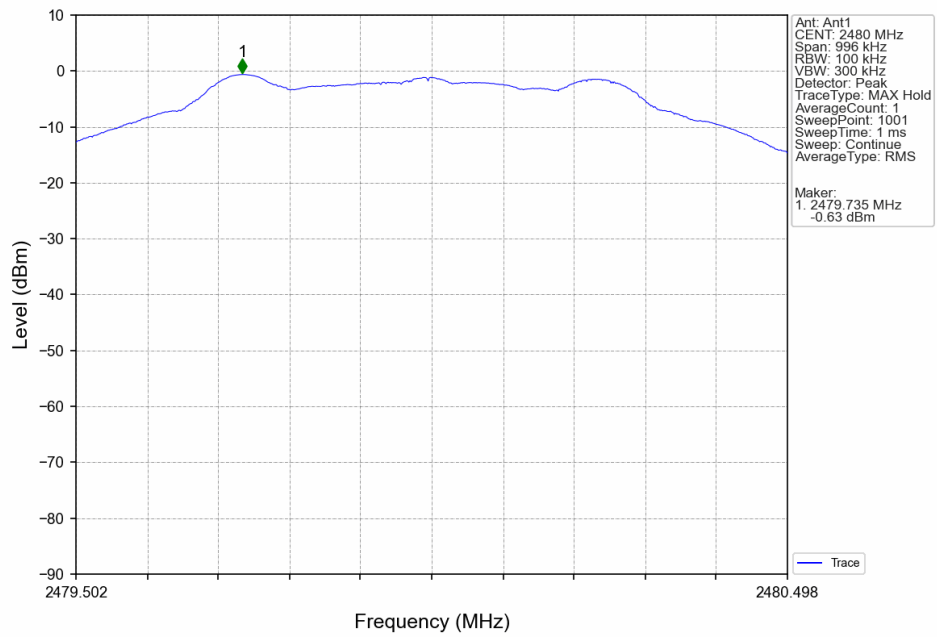
Mode	TX Type	Frequency (MHz)	Maximum PSD (dBm)		Verdict
			ANT1	Limit	
1M	SISO	2402	-1.20	<=8	Pass
		2440	-0.65	<=8	Pass
		2480	-0.63	<=8	Pass
2M	SISO	2402	-1.50	<=8	Pass
		2440	-0.96	<=8	Pass
		2480	-0.94	<=8	Pass

4.2 Test Graph

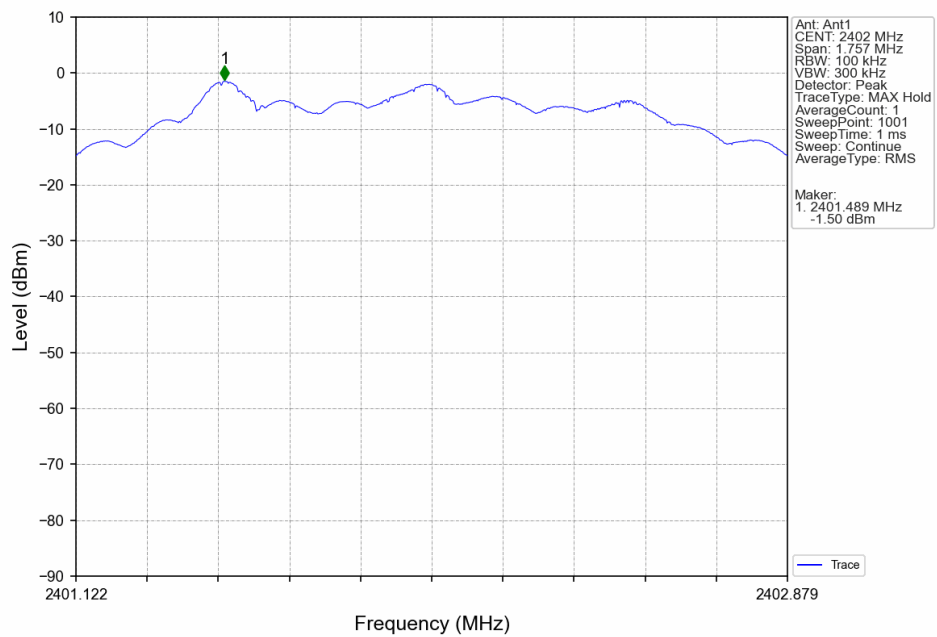
4.2.1 PSD



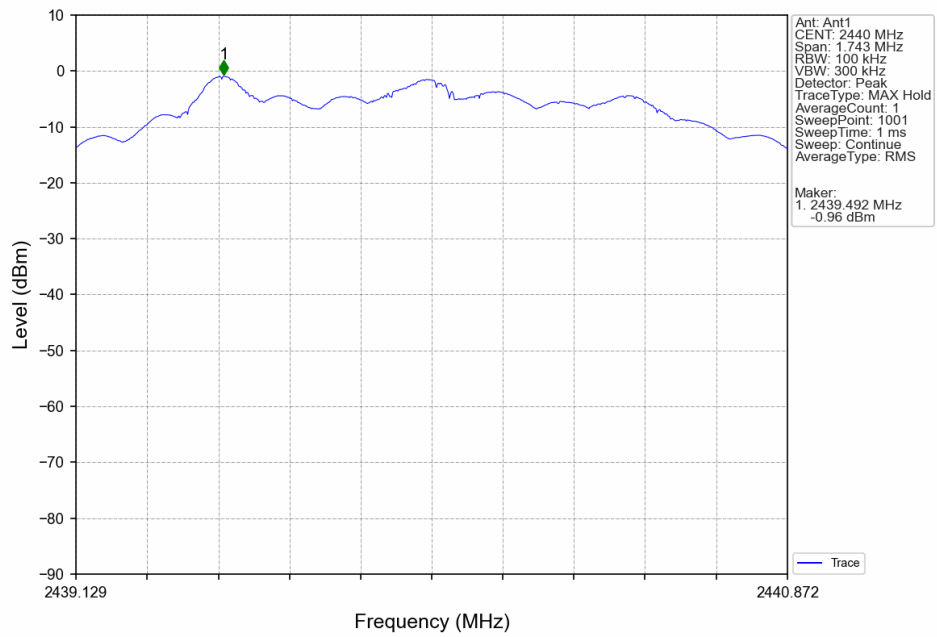
1M HCH 2480MHz Ant1 NTV



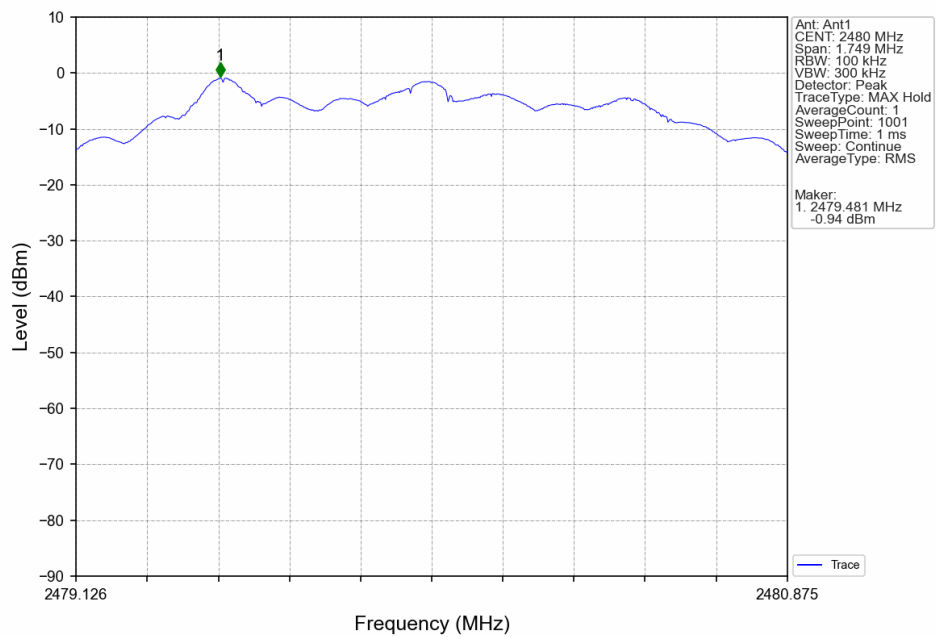
2M LCH 2402MHz Ant1 NTV



2M MCH 2440MHz Ant1 NTNV



2M HCH 2480MHz Ant1 NTNV



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)
1M	SISO	2402	1	-1.20
		2440	1	-0.66
		2480	1	-0.65
2M	SISO	2402	1	-1.51
		2440	1	-0.95
		2480	1	-0.90

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.

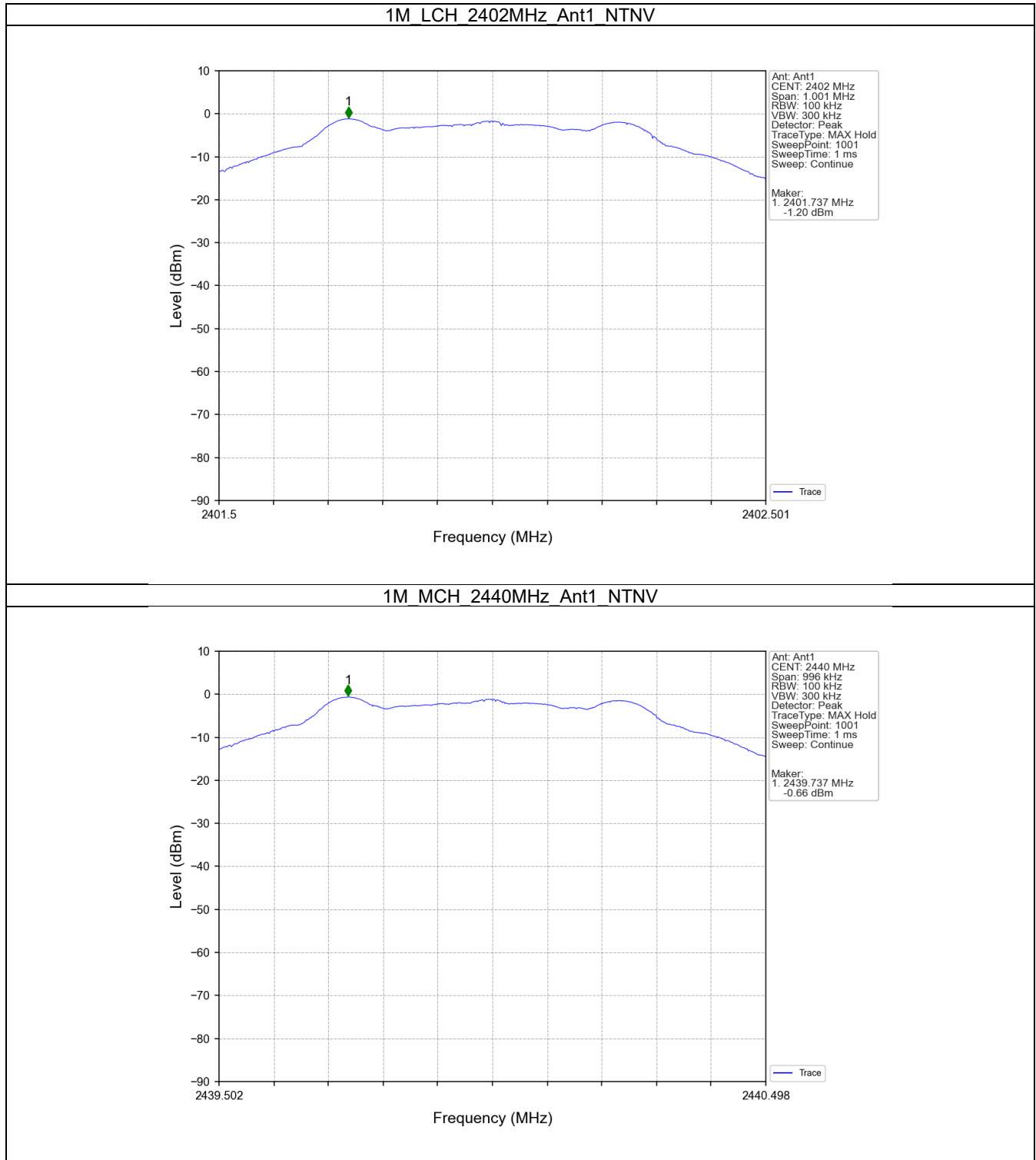
5.1.2 CSE

Mode	TX Type	Frequency (MHz)	ANT	Level of Reference (dBm)	Limit (dBm)	Verdict
1M	SISO	2402	1	-0.65	-20.65	Pass
		2440	1	-0.65	-20.65	Pass
		2480	1	-0.65	-20.65	Pass
2M	SISO	2402	1	-0.90	-20.90	Pass
		2440	1	-0.90	-20.90	Pass
		2480	1	-0.90	-20.90	Pass

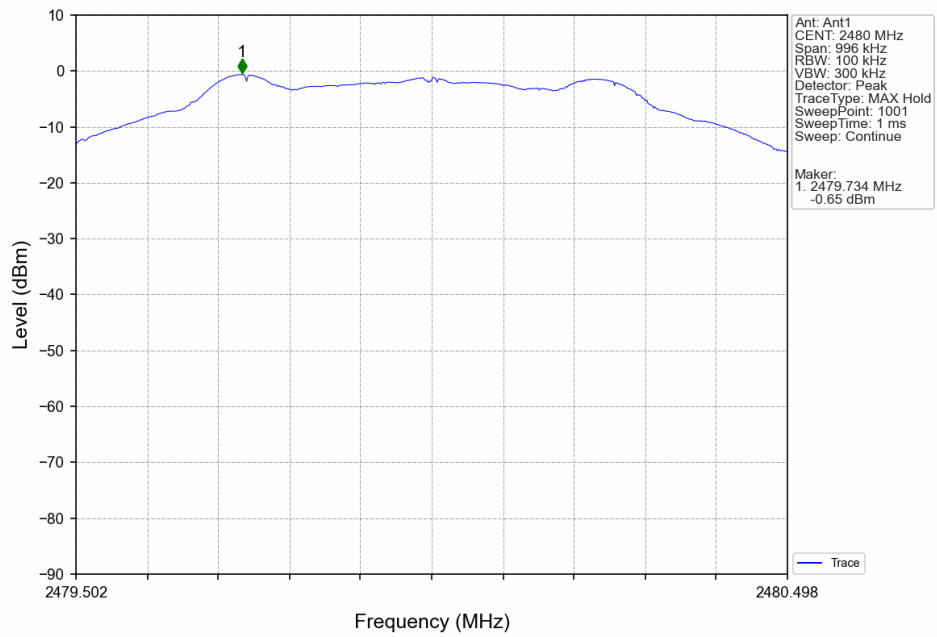
Note1: Refer to FCC Part 15.247 (d) and ANSI C63.10-2020, the channel contains the maximum PSD level was used to establish the reference level.

5.2 Test Graph

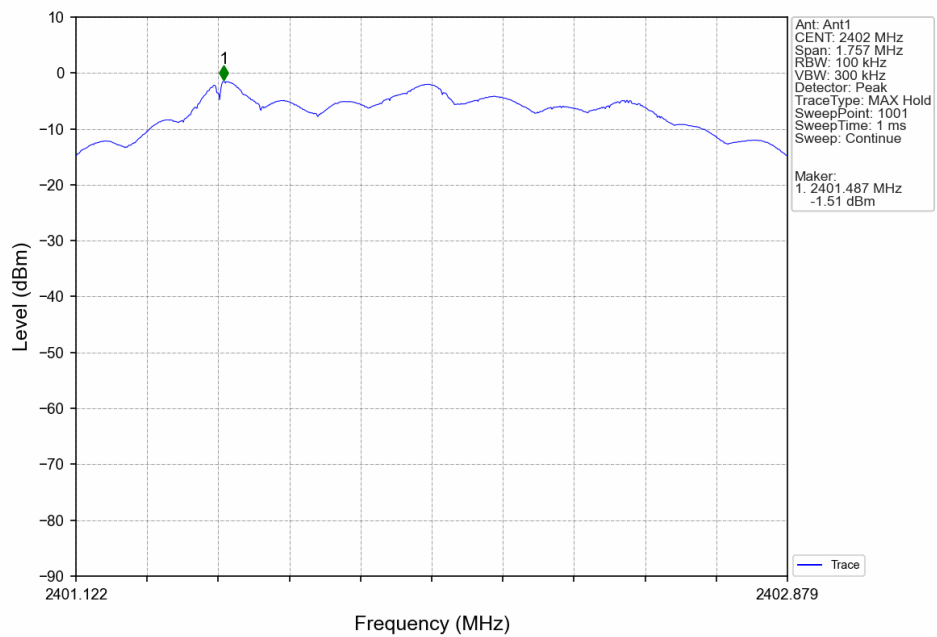
5.2.1 Ref



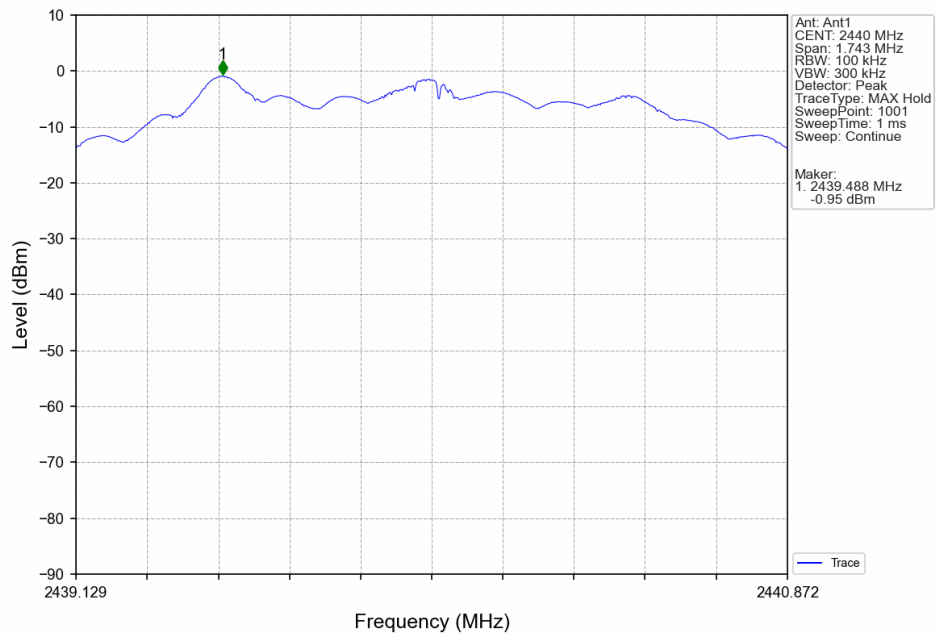
1M HCH 2480MHz Ant1 NTV



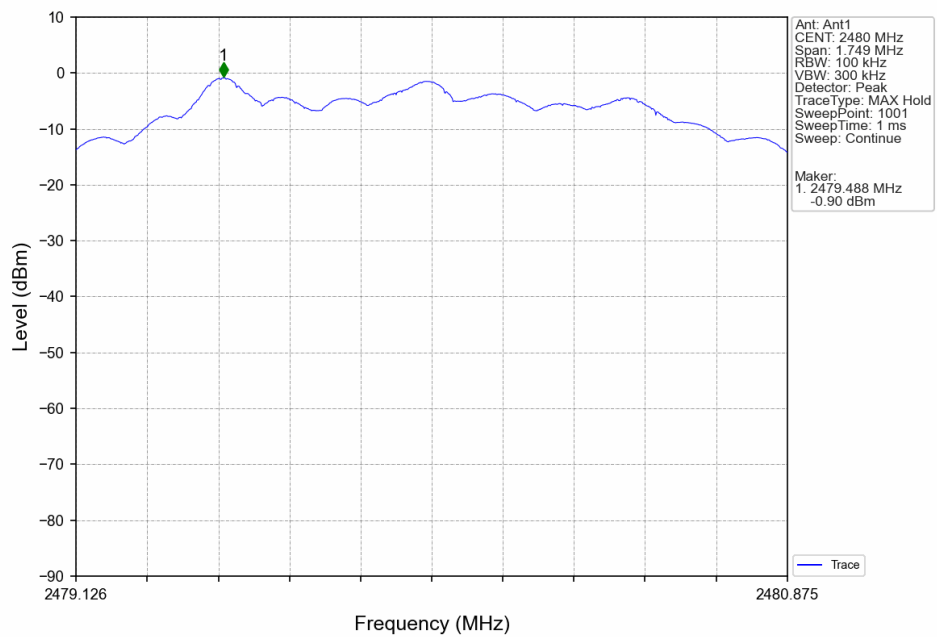
2M LCH 2402MHz Ant1 NTV



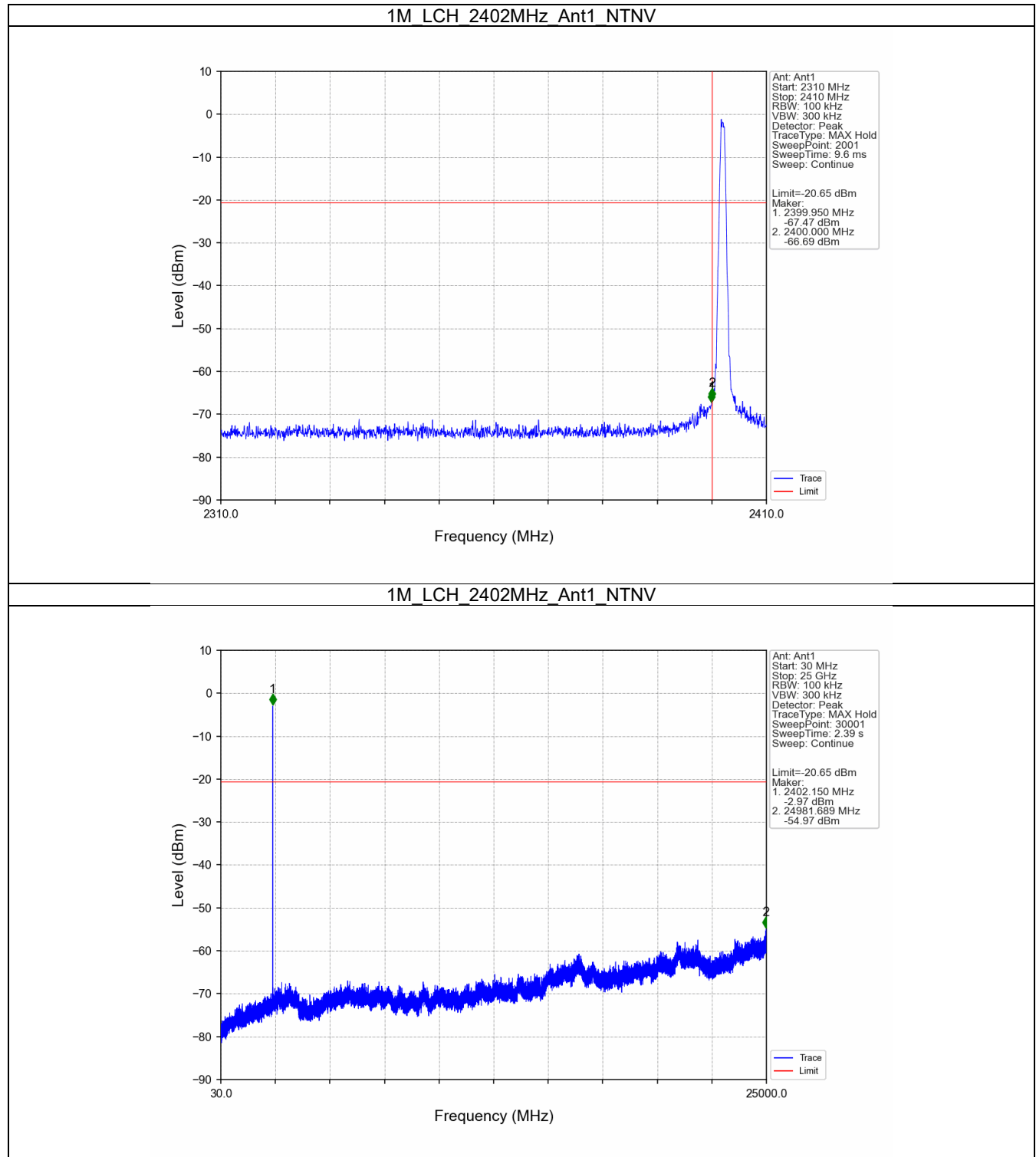
2M MCH 2440MHz Ant1 NTNV



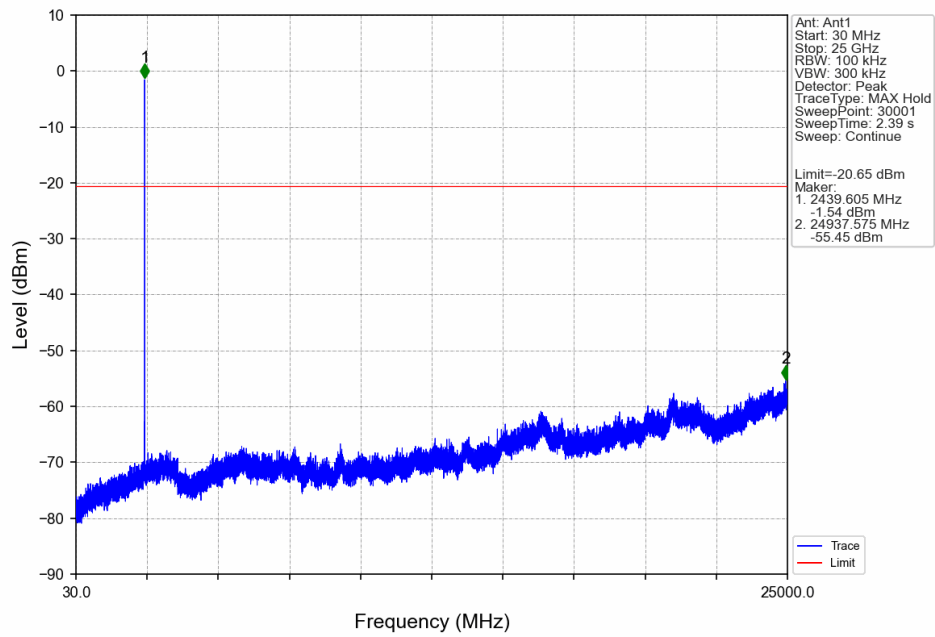
2M HCH 2480MHz Ant1 NTNV



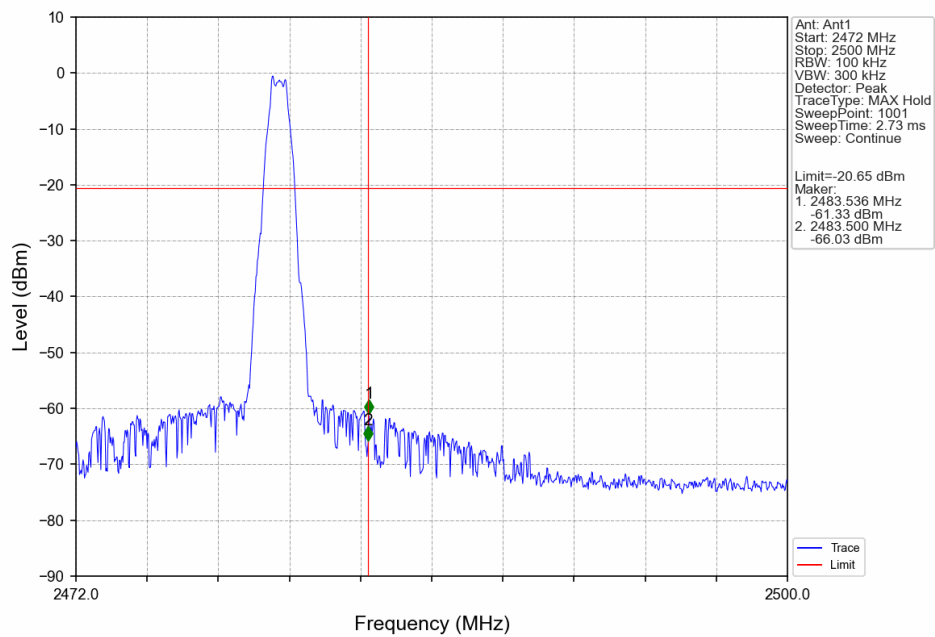
5.2.2 CSE



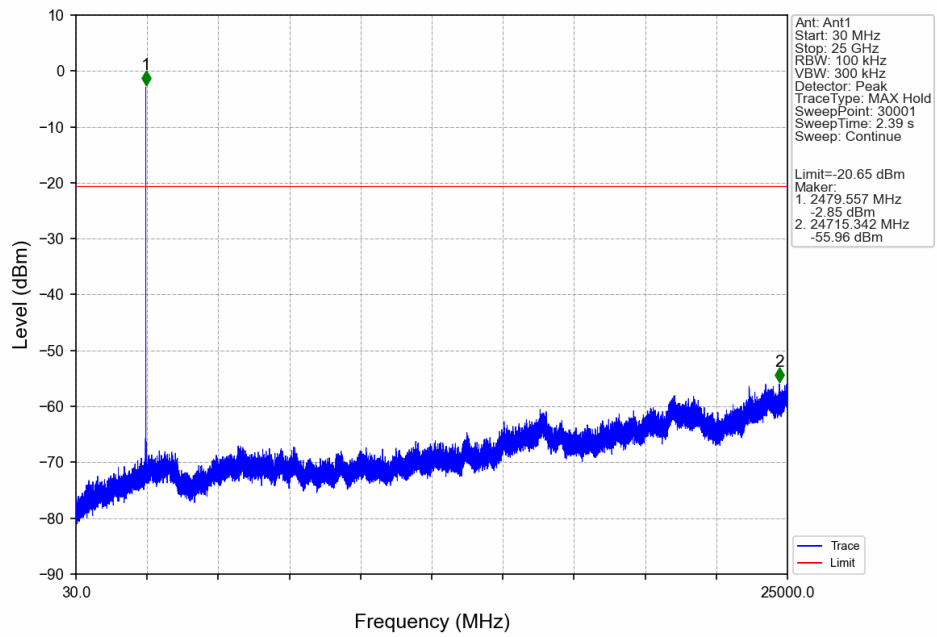
1M MCH 2440MHz Ant1 NTV



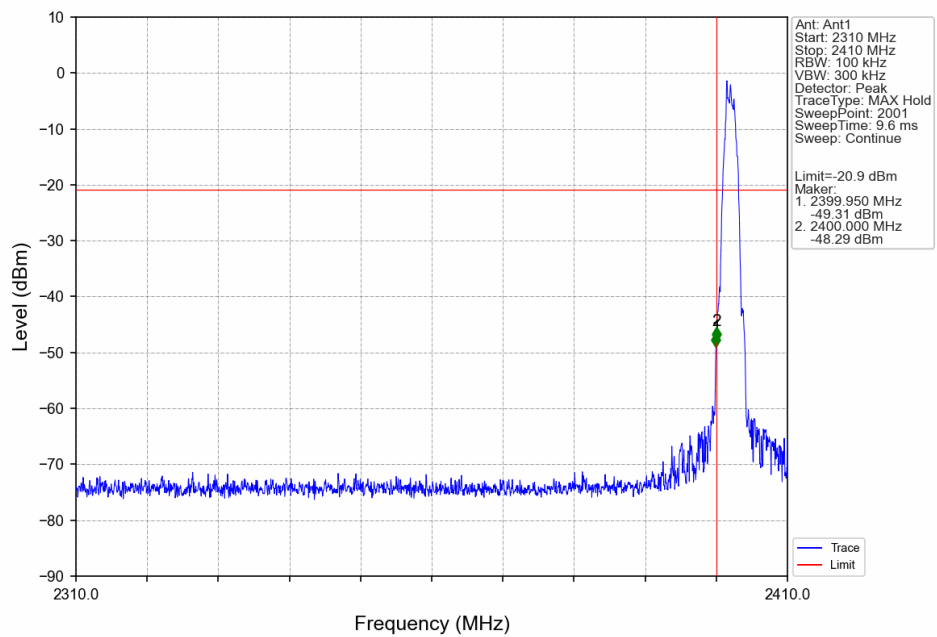
1M HCH 2480MHz Ant1 NTV



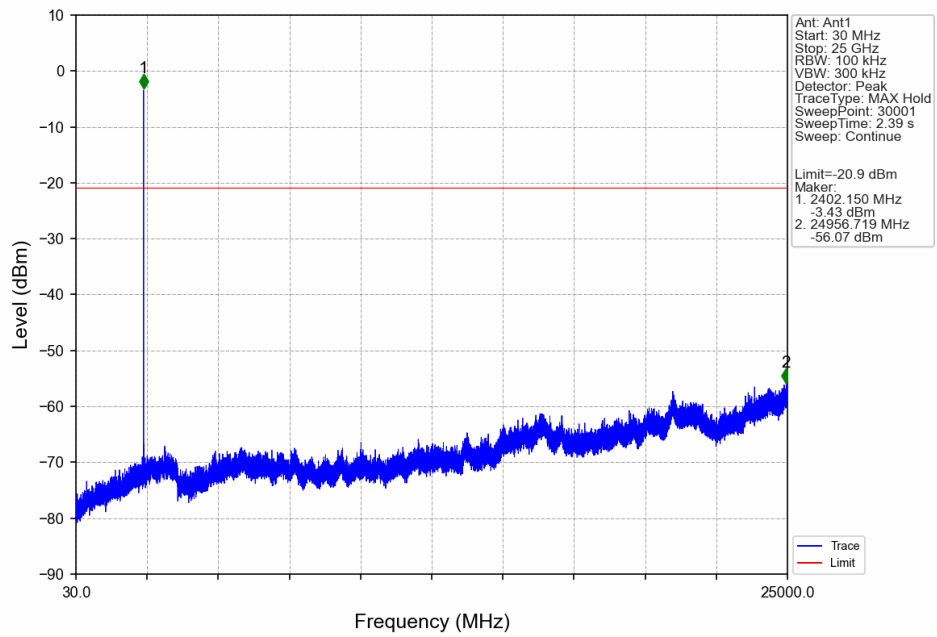
1M HCH 2480MHz Ant1 NTV



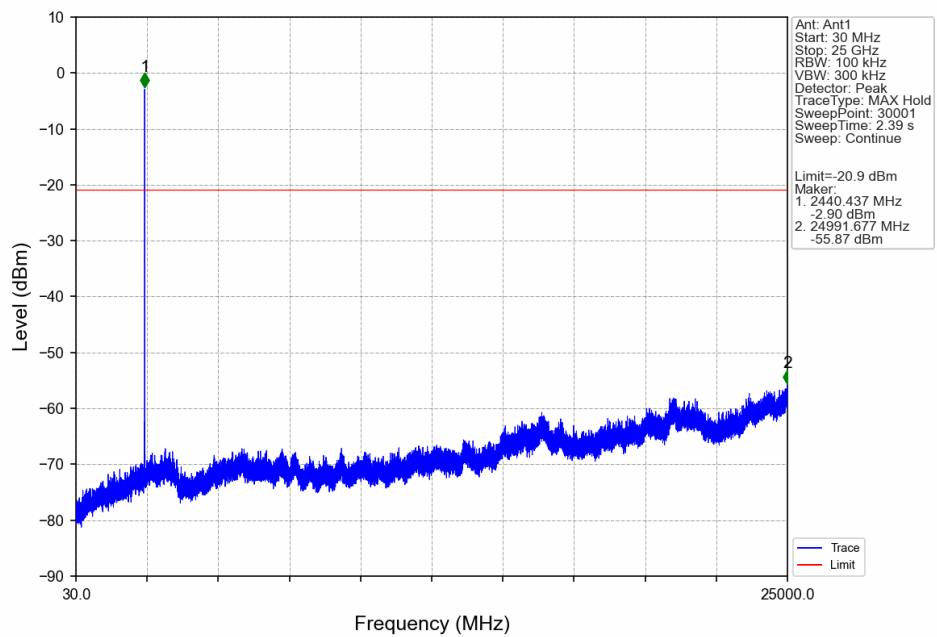
2M LCH 2402MHz Ant1 NTV



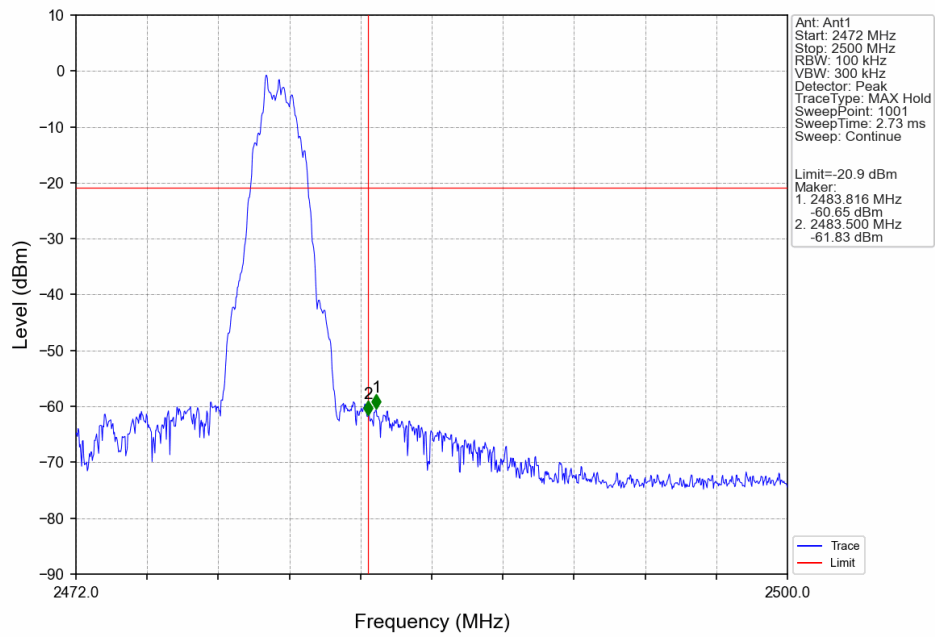
2M LCH 2402MHz Ant1 NTNV



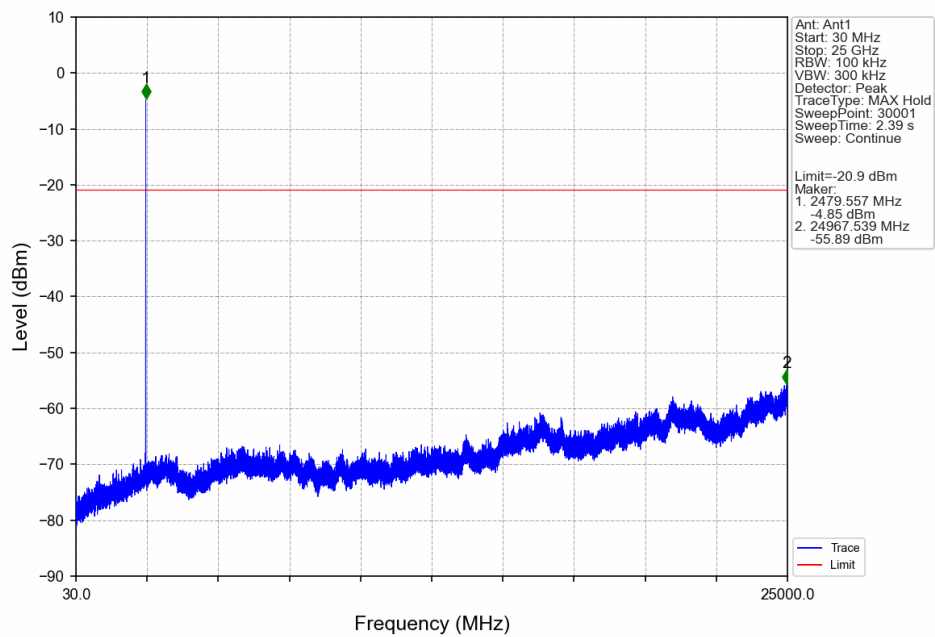
2M MCH 2440MHz Ant1 NTNV



2M HCH 2480MHz Ant1 NTV



2M HCH 2480MHz Ant1 NTV



***** End of Report *****