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Annex for Bluetooth Low Energy

Test Report No.: CTL2603252101-WF02

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1. Duty Cycle

1.1 Test Result

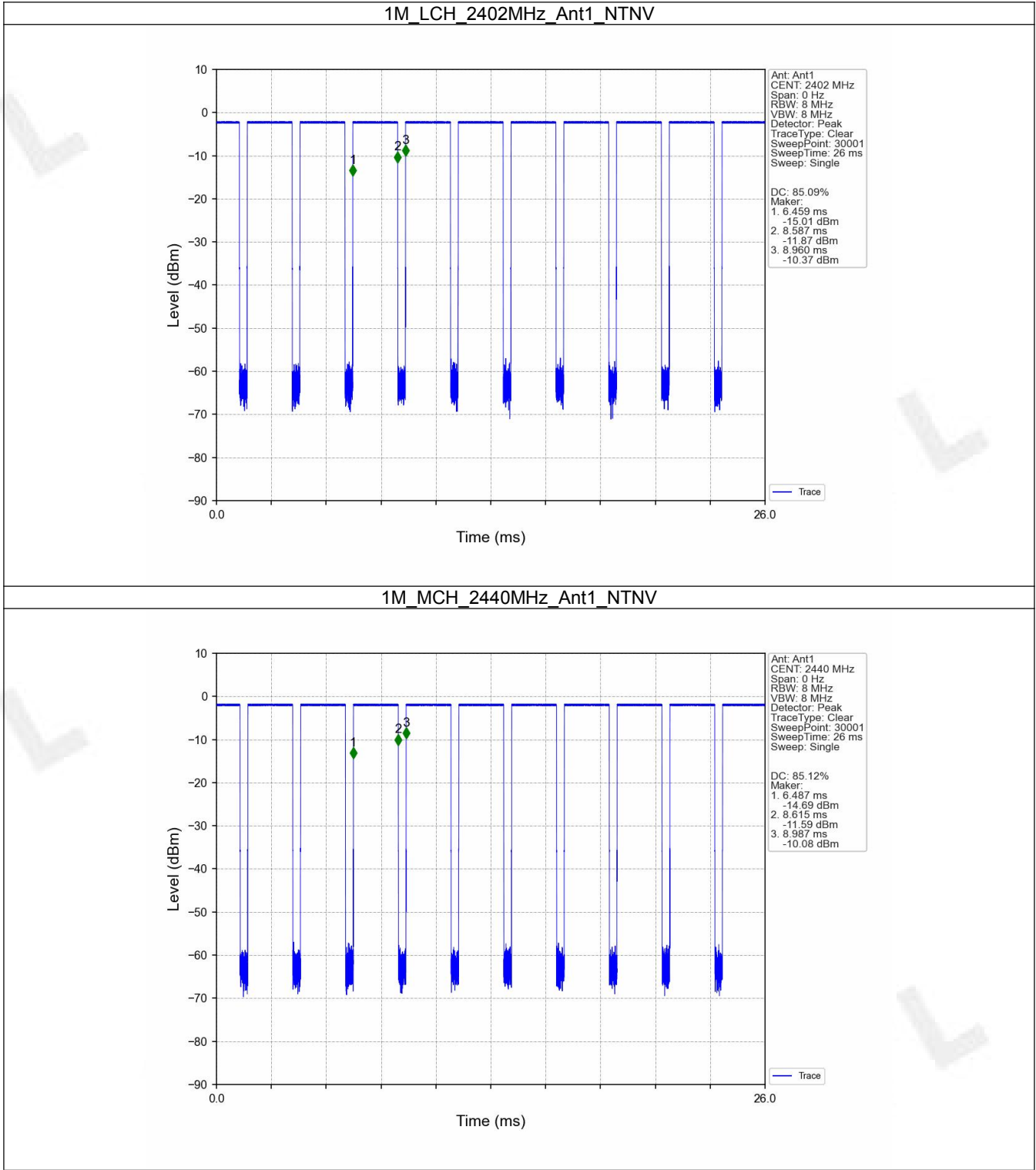
1.1.1 Ant1

Ant1							
Mode	TX Type	Frequency (MHz)	T_on (ms)	Period (ms)	Duty Cycle (%)	Duty Cycle Correction Factor (dB)	Max. DC Variation (%)
1M	SISO	2402	2.128	2.501	85.09	0.70	0.03
		2440	2.128	2.500	85.12	0.70	0.03
		2480	2.127	2.500	85.08	0.70	0.03
2M	SISO	2402	1.072	1.875	57.17	2.43	0.03
		2440	1.071	1.875	57.12	2.43	0.03
		2480	1.072	1.875	57.17	2.43	0.03

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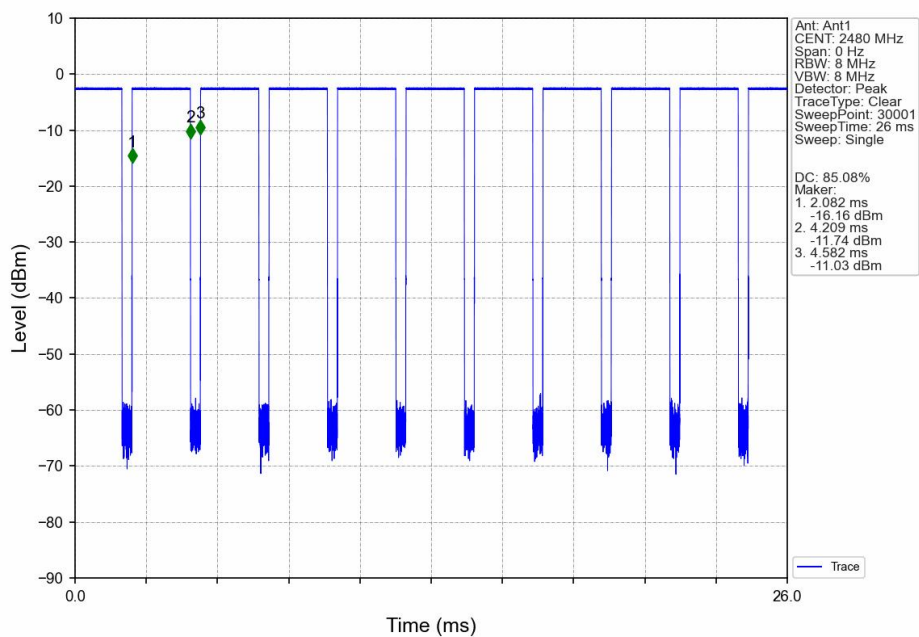
1.2 Test Graph

1.2.1 Ant1

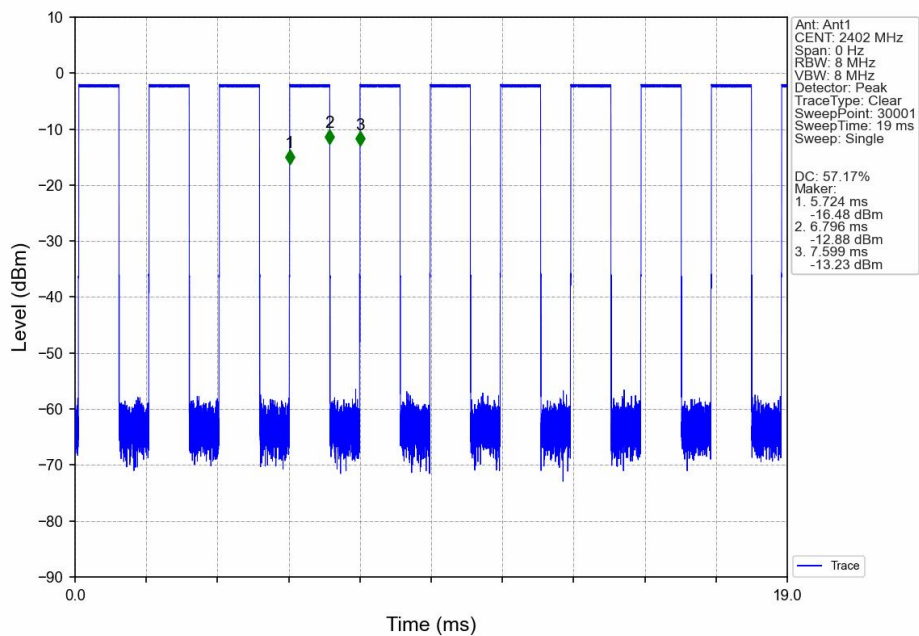


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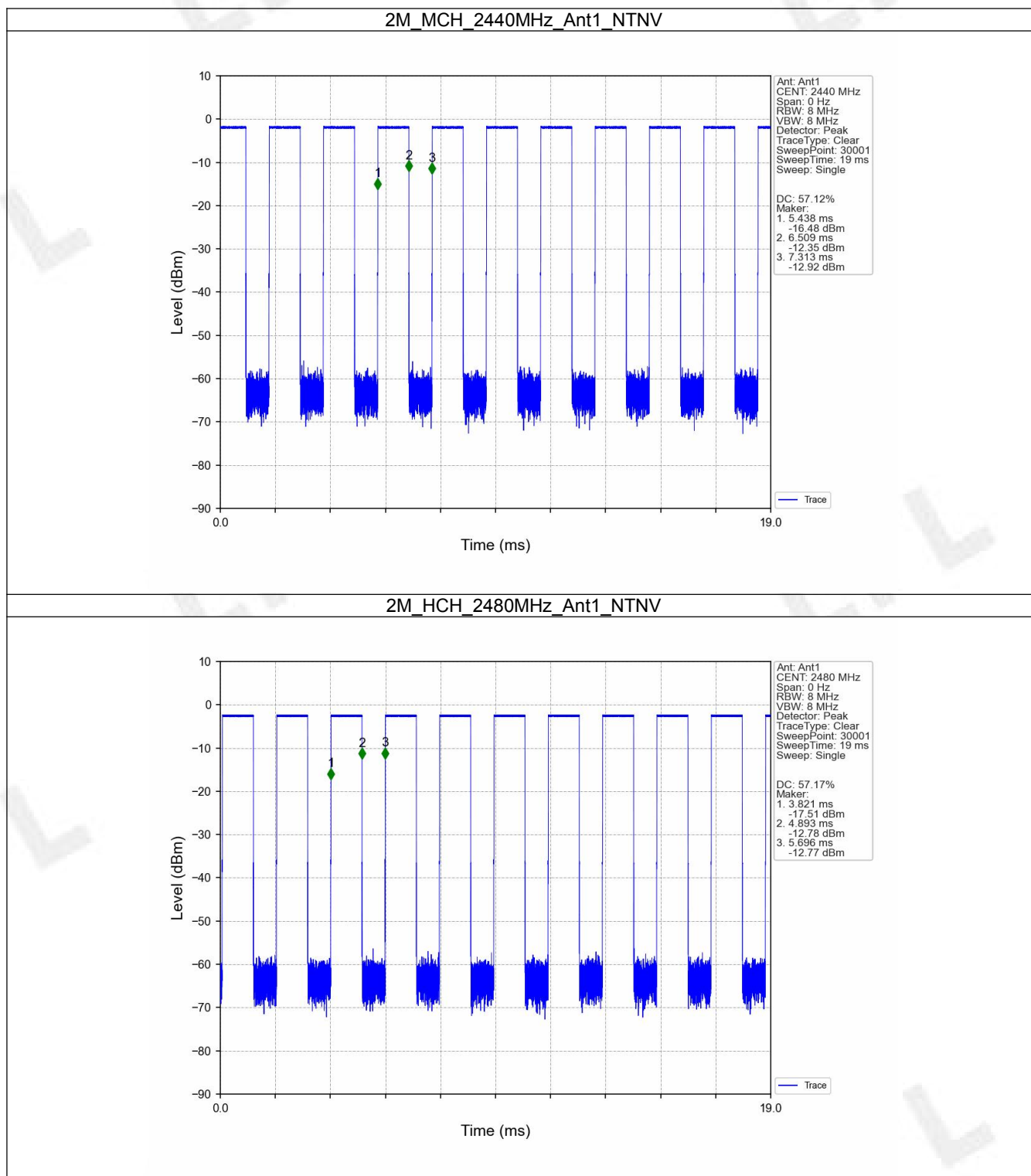
1M_HCH_2480MHz_Ant1_NTNV



2M_LCH_2402MHz_Ant1_NTNV



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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	1.035	/	Pass
		2440	1	1.035	/	Pass
		2480	1	1.036	/	Pass
2M	SISO	2402	1	2.064	/	Pass
		2440	1	2.066	/	Pass
		2480	1	2.065	/	Pass

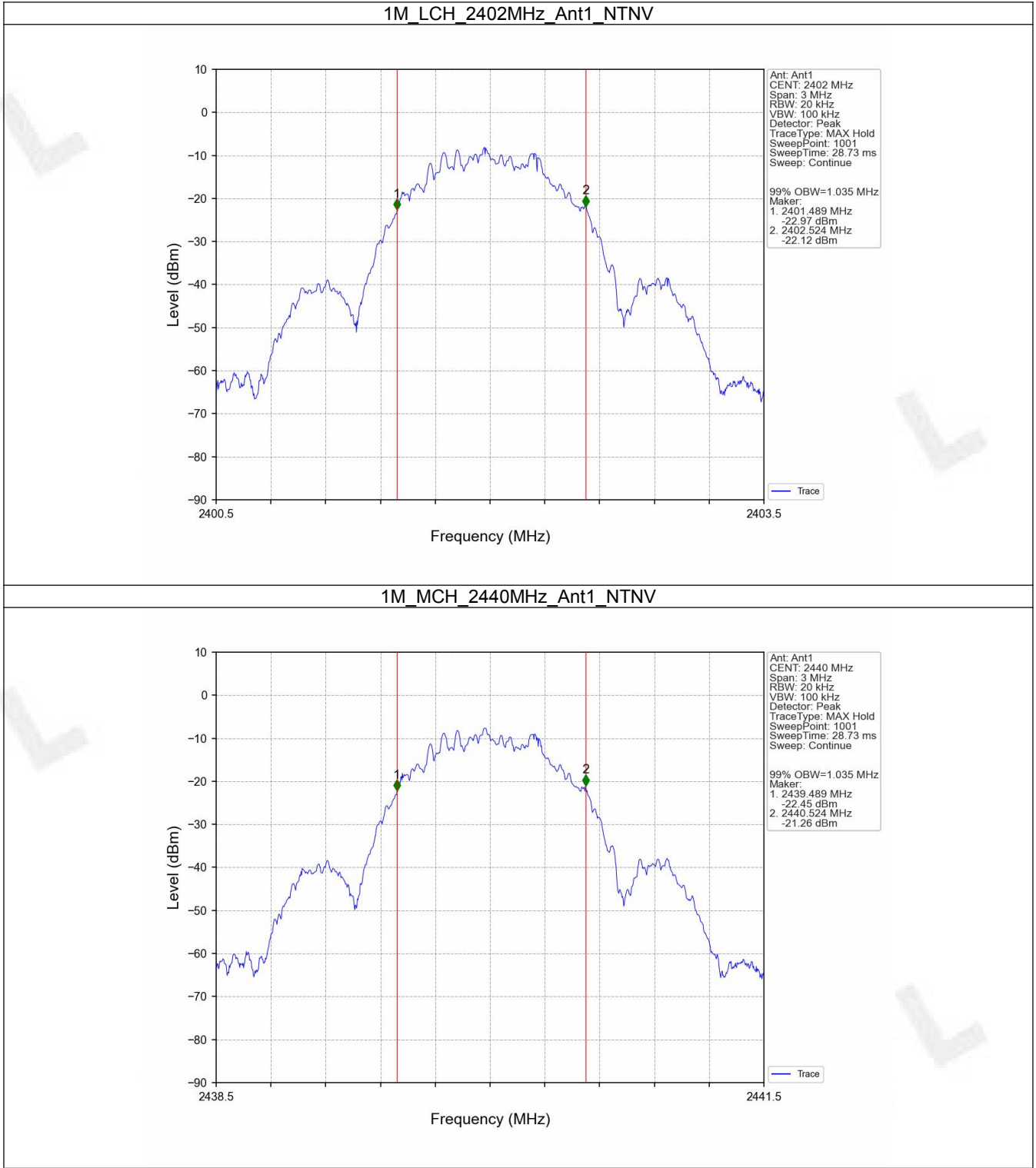
2.1.2 6dB BW

Mode	TX Type	Frequency (MHz)	ANT	6dB Bandwidth (MHz)		Verdict
				Result	Limit	
1M	SISO	2402	1	0.668	≥ 0.5	Pass
		2440	1	0.667	≥ 0.5	Pass
		2480	1	0.672	≥ 0.5	Pass
2M	SISO	2402	1	1.167	≥ 0.5	Pass
		2440	1	1.182	≥ 0.5	Pass
		2480	1	1.171	≥ 0.5	Pass

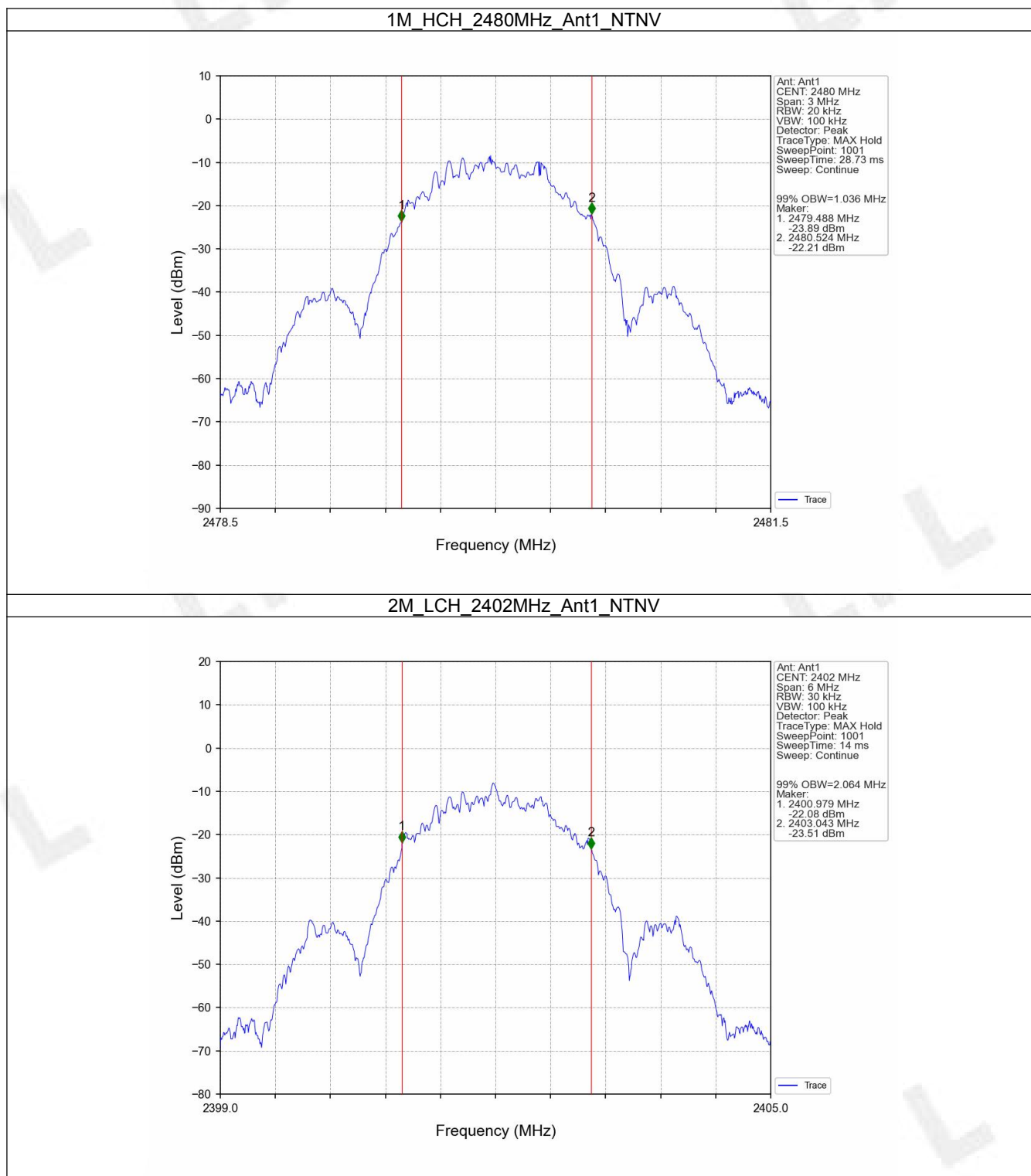
FCC ID: 2BWH8-17PROMAX

2.2 Test Graph

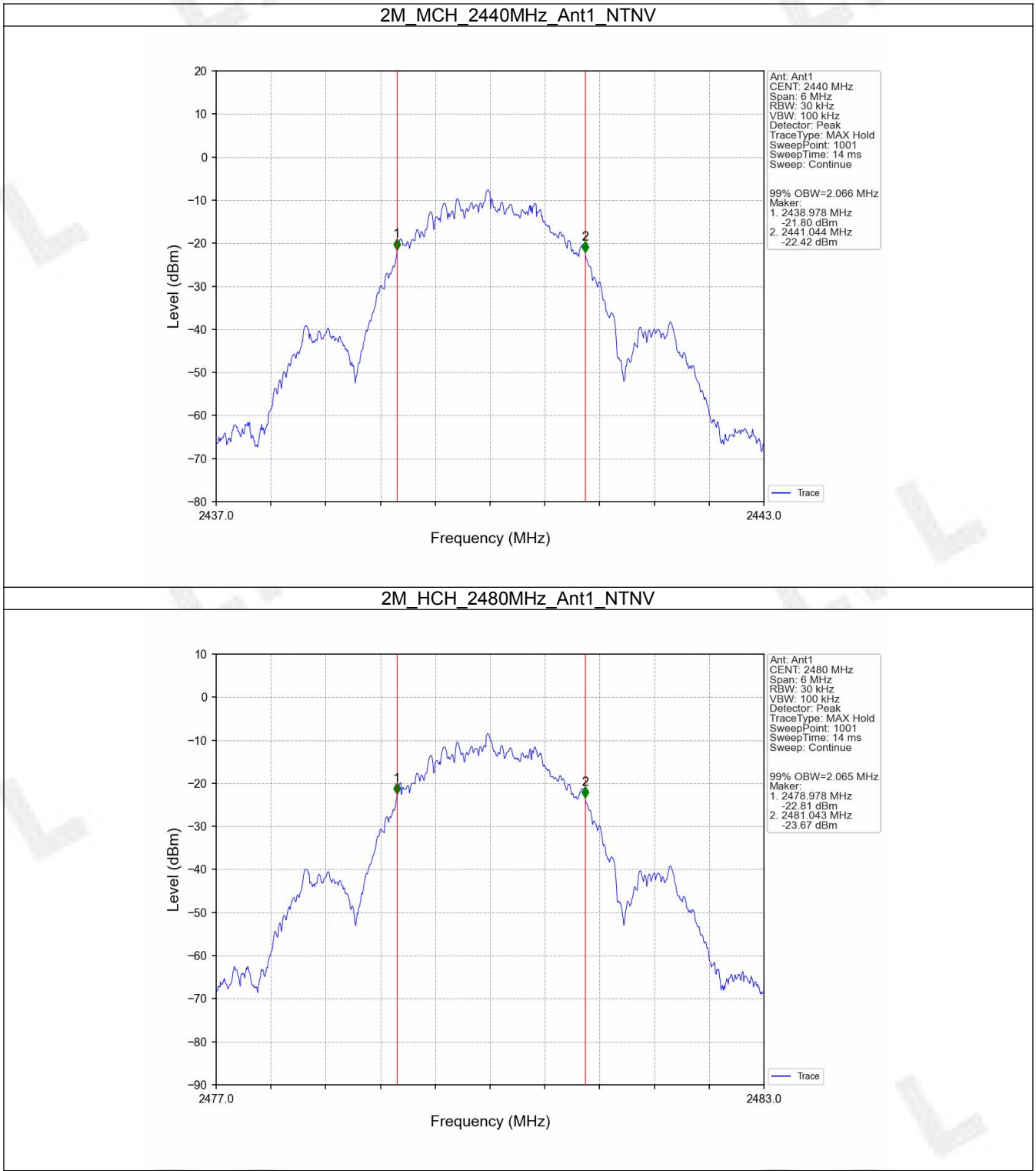
2.2.1 OBW



FCC ID: 2BWH8-17PROMAX

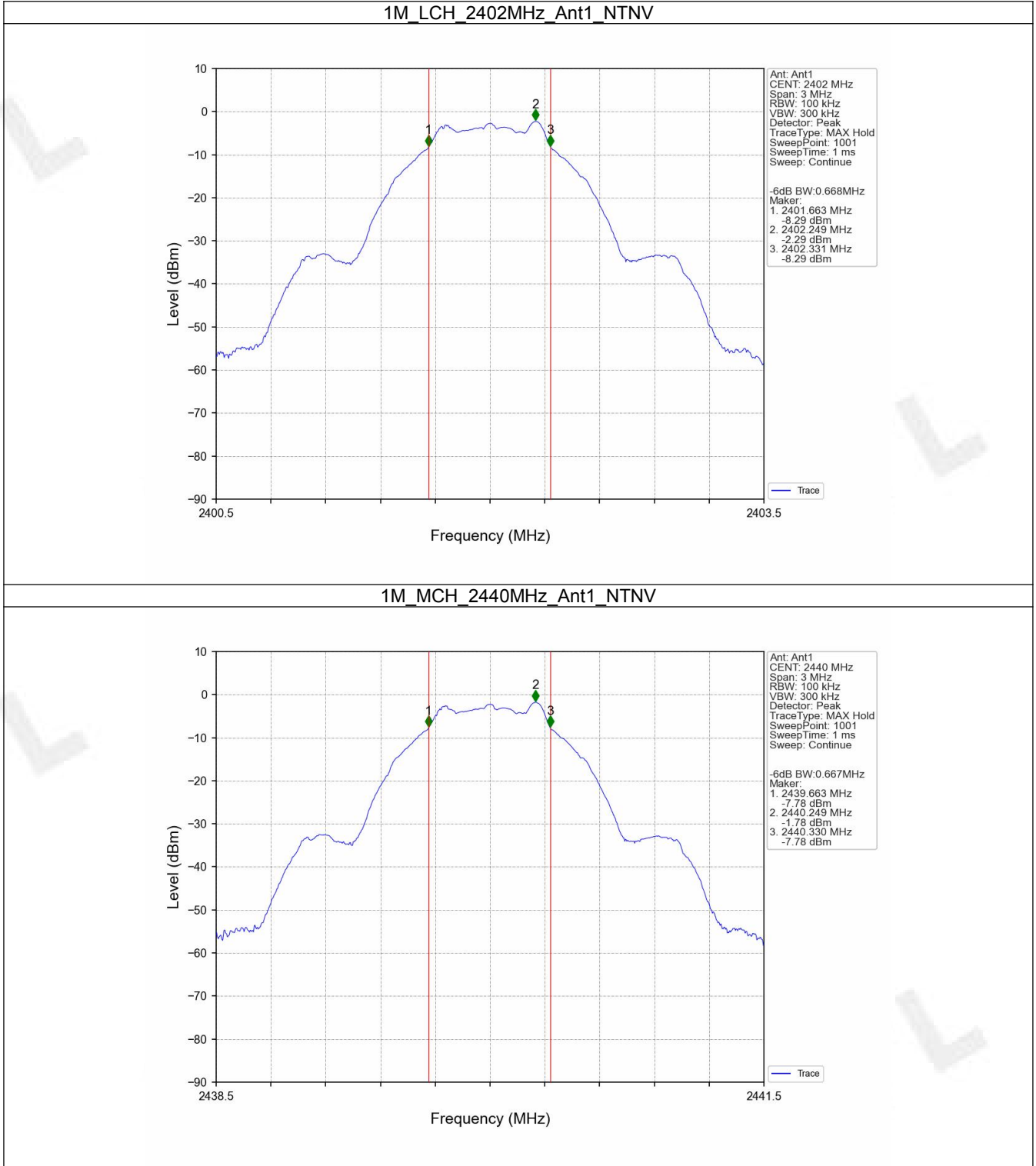


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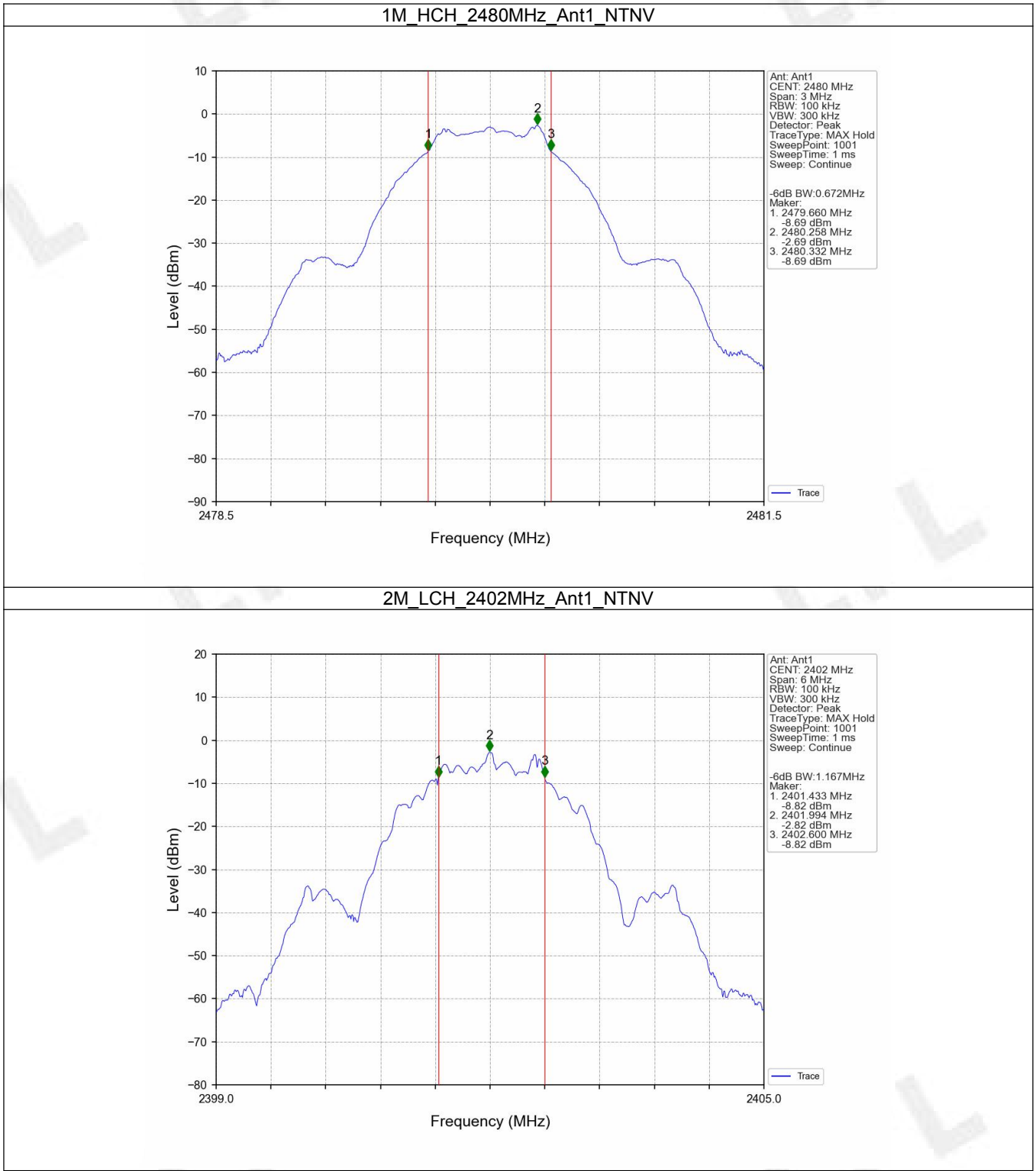


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2.2.2 6dB BW

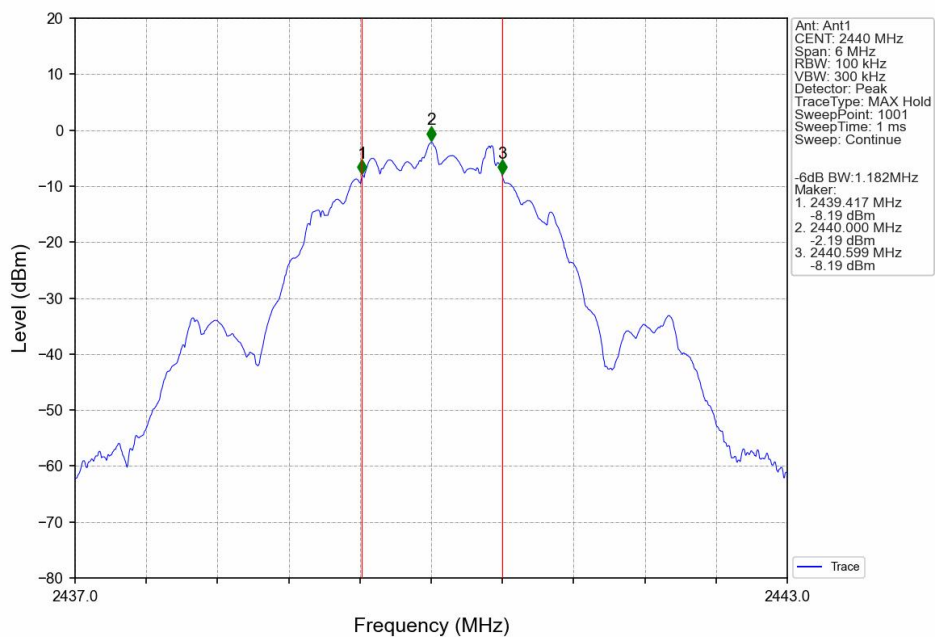


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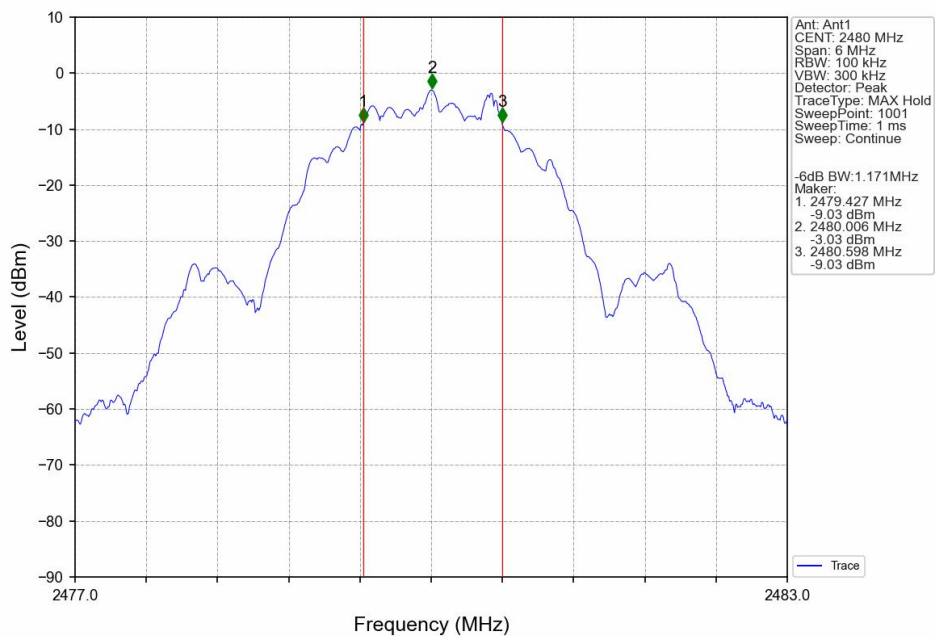


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2M_MCH_2440MHz_Ant1_NTNV



2M_HCH_2480MHz_Ant1_NTNV



FCC ID: 2BWH8-17PROMAX

3. Maximum Conducted Output Power

3.1 Test Result

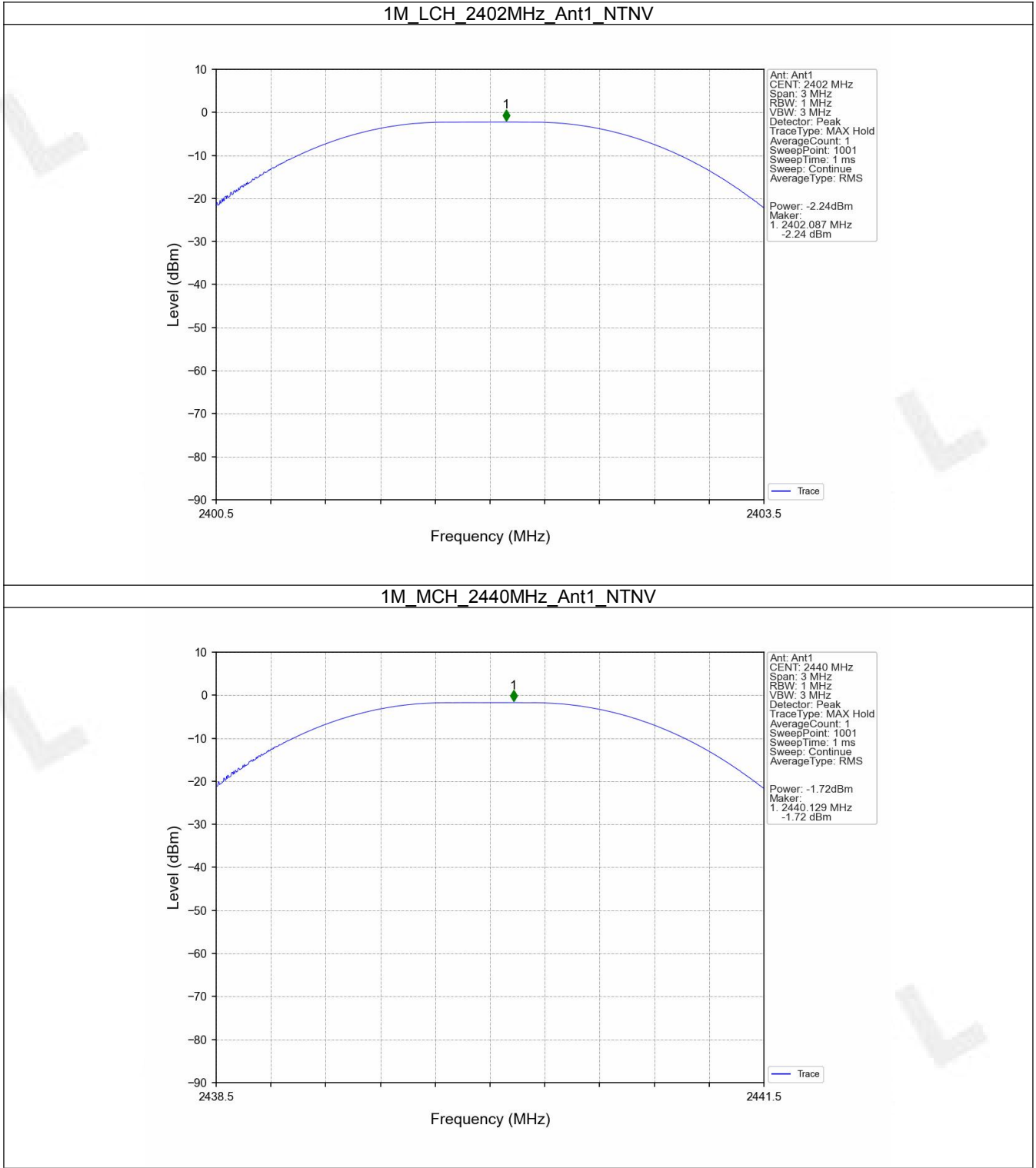
3.1.1 Power

Mode	TX Type	Frequency (MHz)	Maximum Peak Conducted Output Power (dBm)		Verdict
			ANT1	Limit	
1M	SISO	2402	-2.24	<=30	Pass
		2440	-1.72	<=30	Pass
		2480	-2.55	<=30	Pass
2M	SISO	2402	-2.18	<=30	Pass
		2440	-1.64	<=30	Pass
		2480	-2.46	<=30	Pass
Note1: Antenna Gain: Ant1: -0.15dBi; Note2: RF Cable loss=0.5dB Note3: The test results include RF Cable loss.					

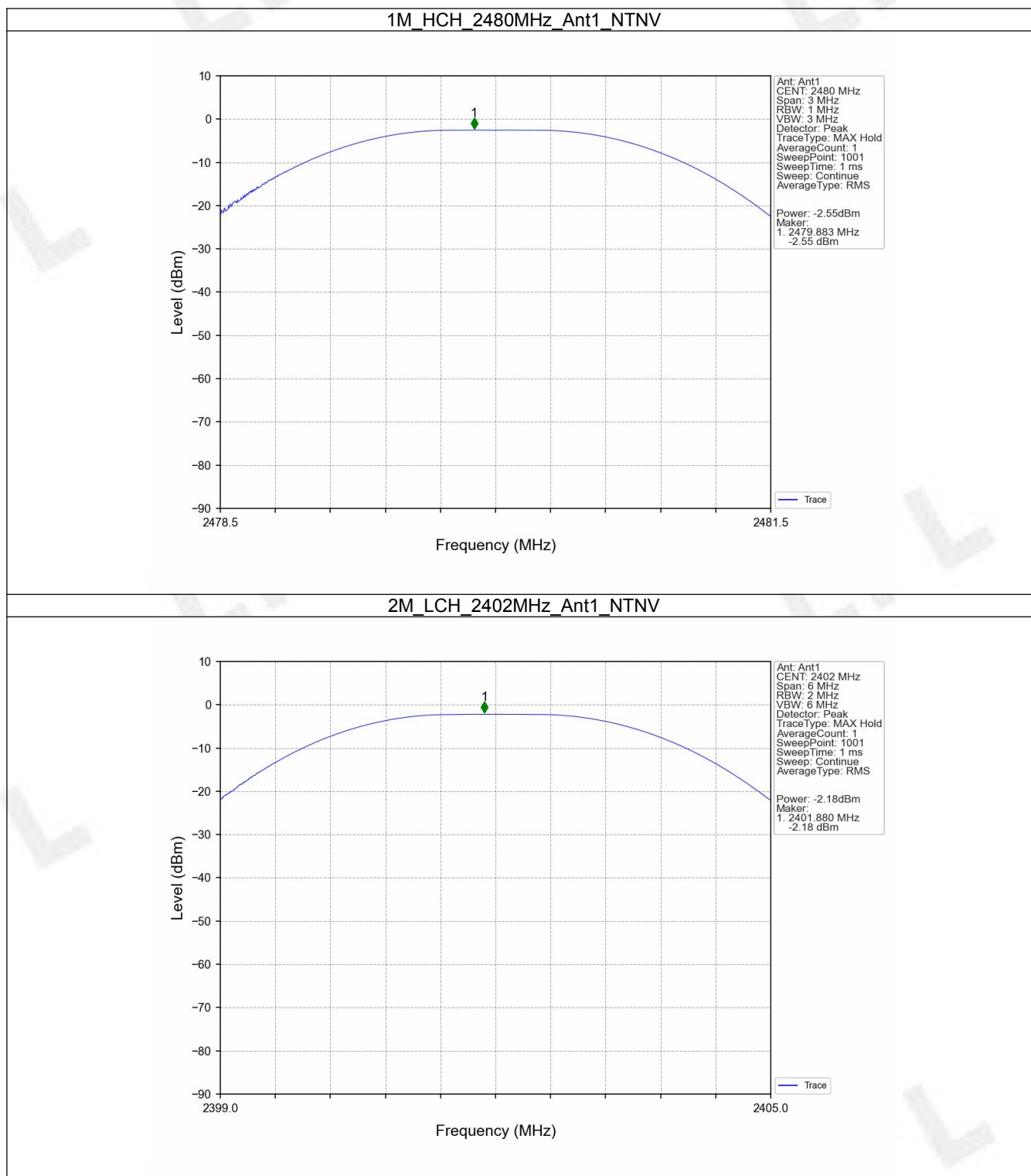
FCC ID: 2BWH8-17PROMAX

3.2 Test Graph

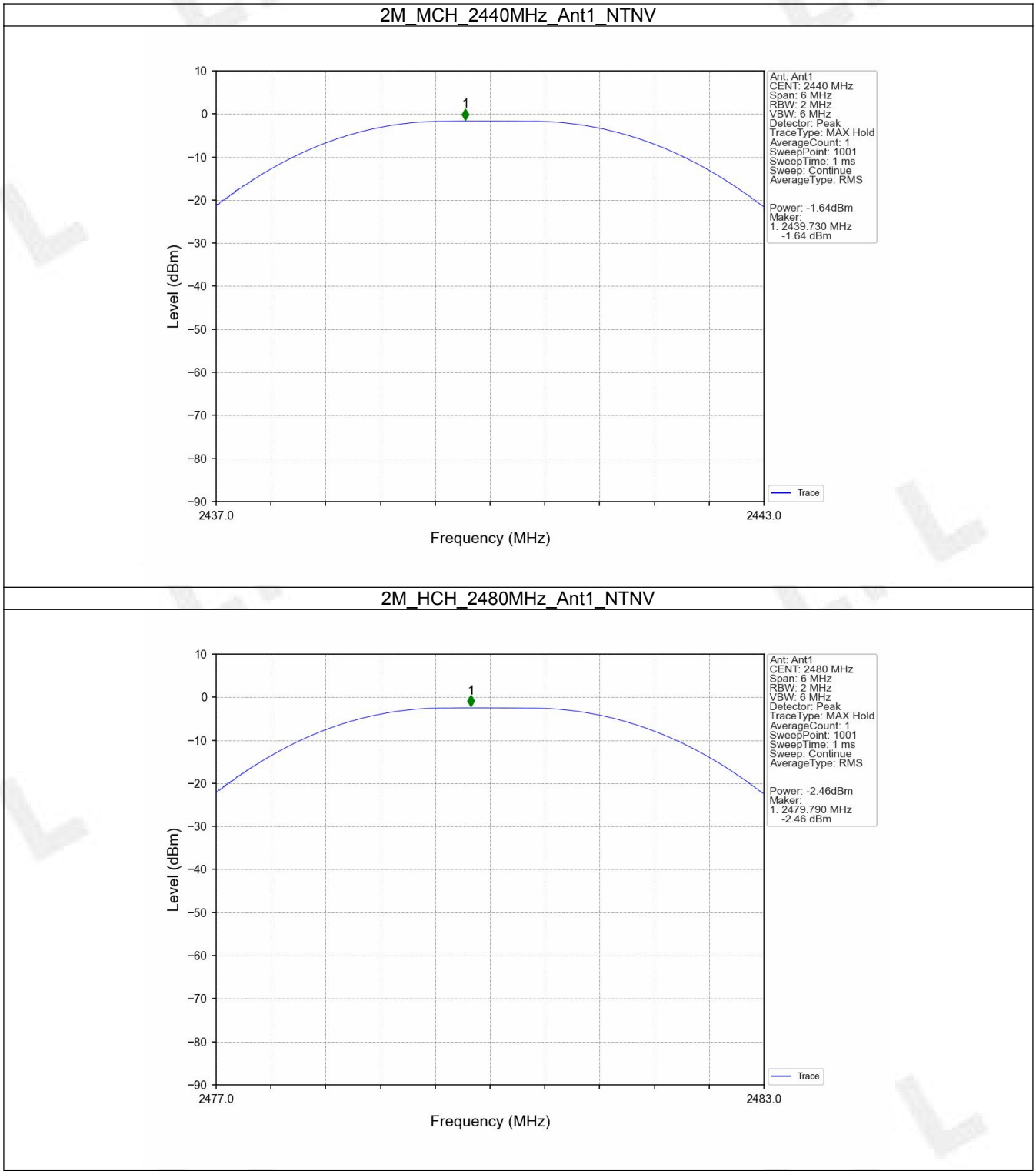
3.2.1 Power



FCC ID: 2BWH8-17PROMAX



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4. Maximum Power Spectral Density

4.1 Test Result

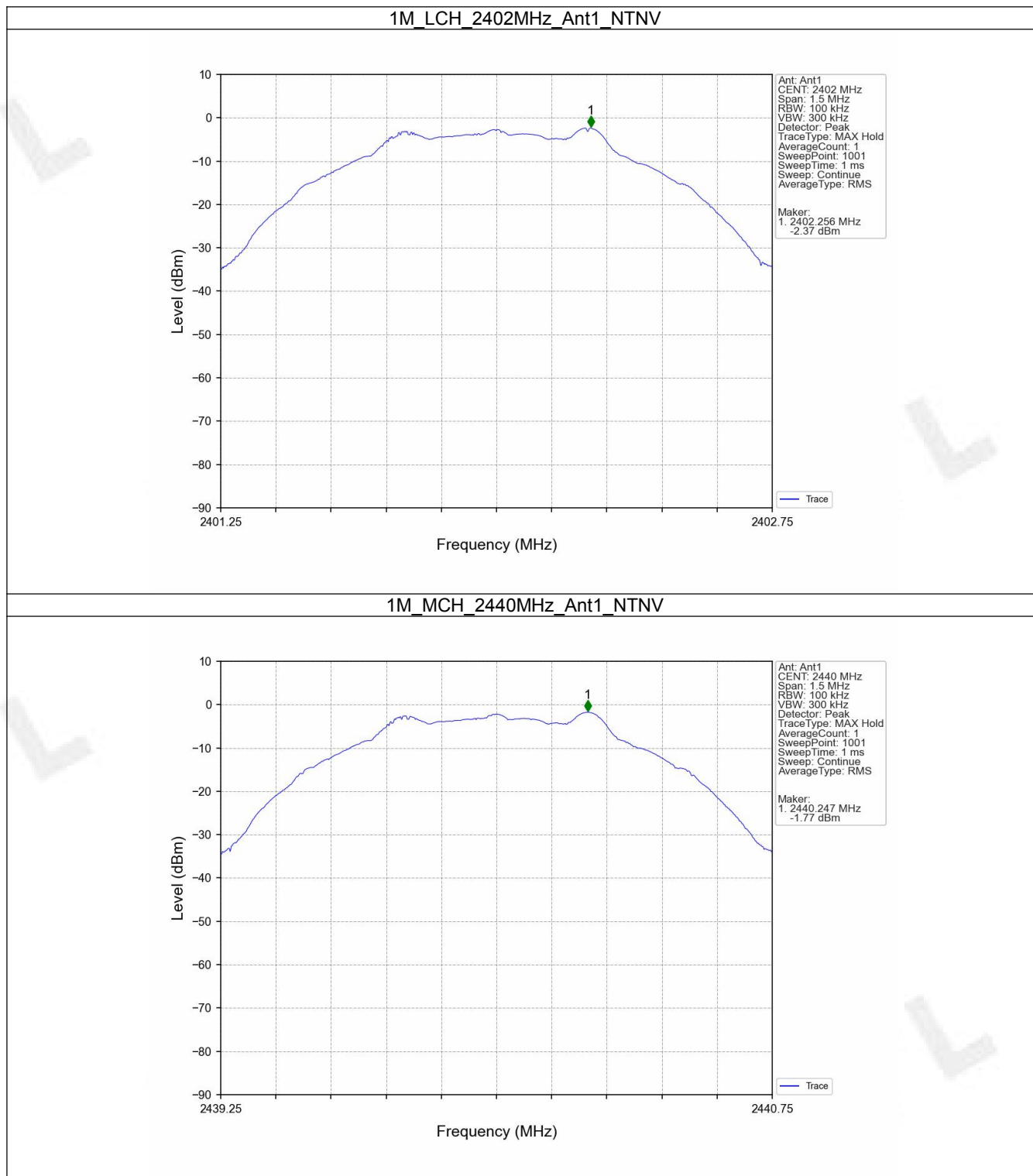
4.1.1 PSD

Mode	TX Type	Frequency (MHz)	Maximum PSD (dBm)		Verdict
			ANT1	Limit(dBm/3kHz)	
1M	SISO	2402	-2.37dBm/100kHz	<=8	Pass
		2440	-1.77dBm/100kHz	<=8	Pass
		2480	-2.77dBm/100kHz	<=8	Pass
2M	SISO	2402	-2.77dBm/100kHz	<=8	Pass
		2440	-2.21dBm/100kHz	<=8	Pass
		2480	-3.05dBm/100kHz	<=8	Pass
Note1: Antenna Gain: Ant1: -0.15dBi; Note2: RF Cable loss=0.5dB Note3: The test results include RF Cable loss.					

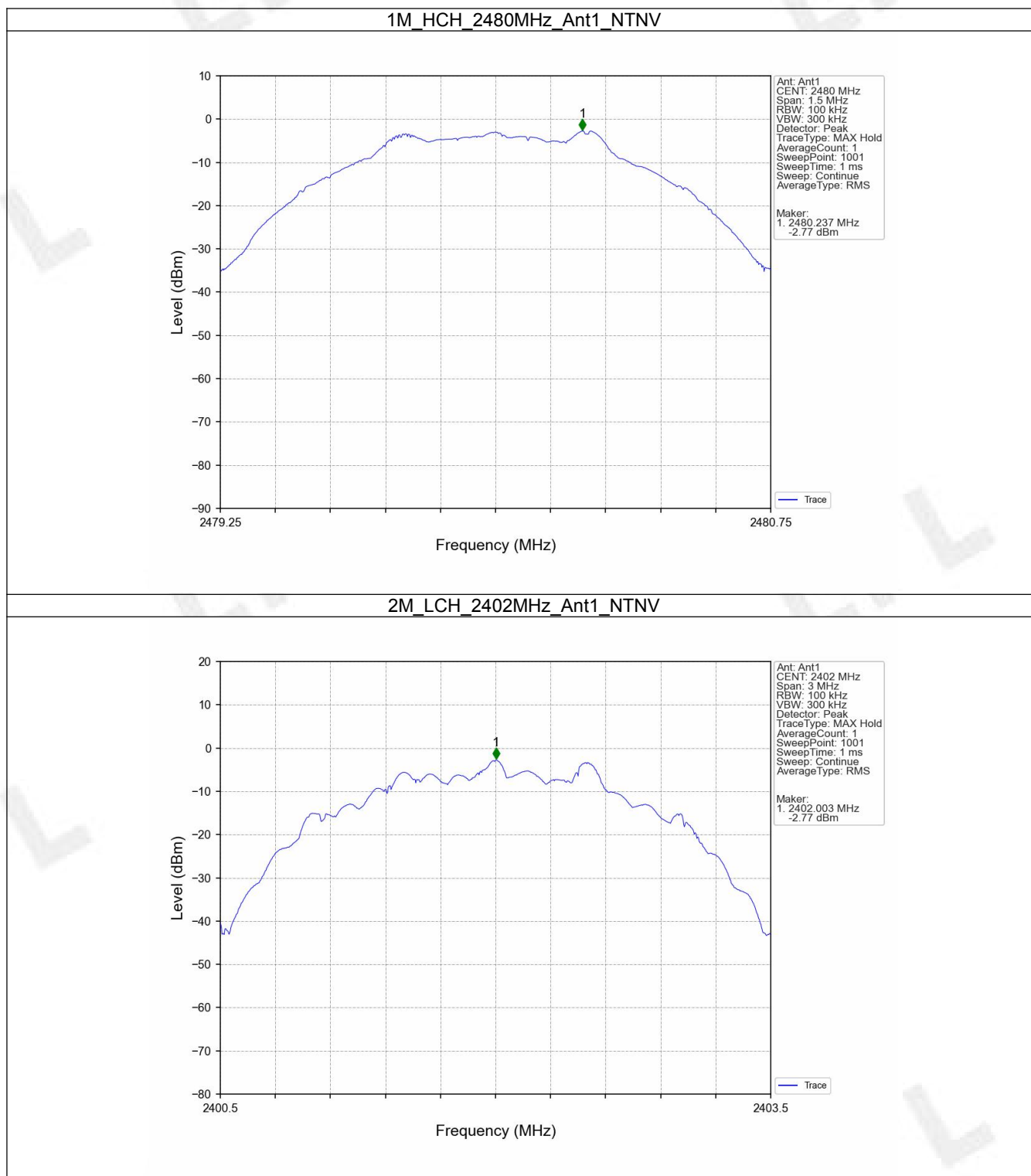
FCC ID: 2BWH8-17PROMAX

4.2 Test Graph

4.2.1 PSD

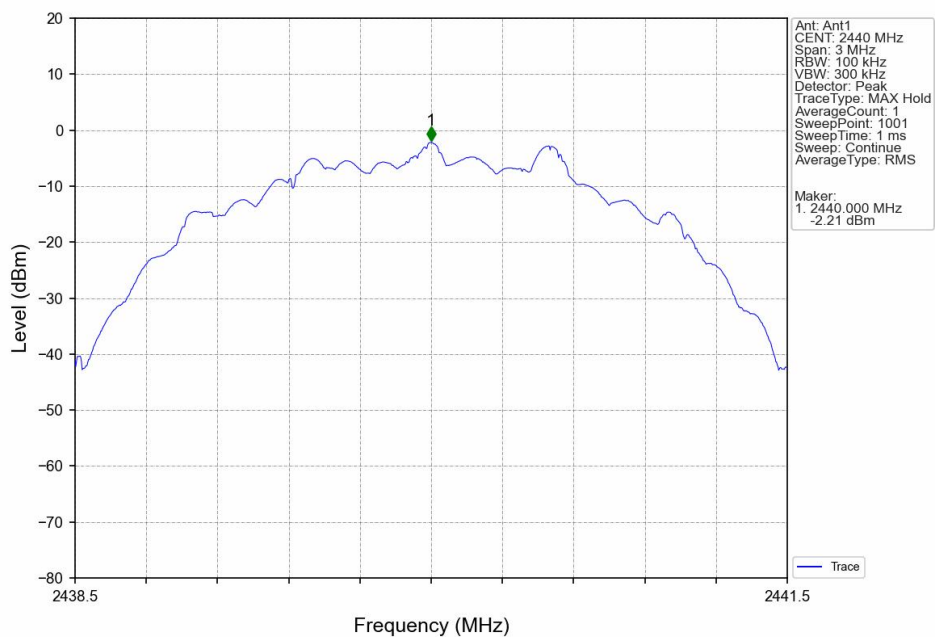


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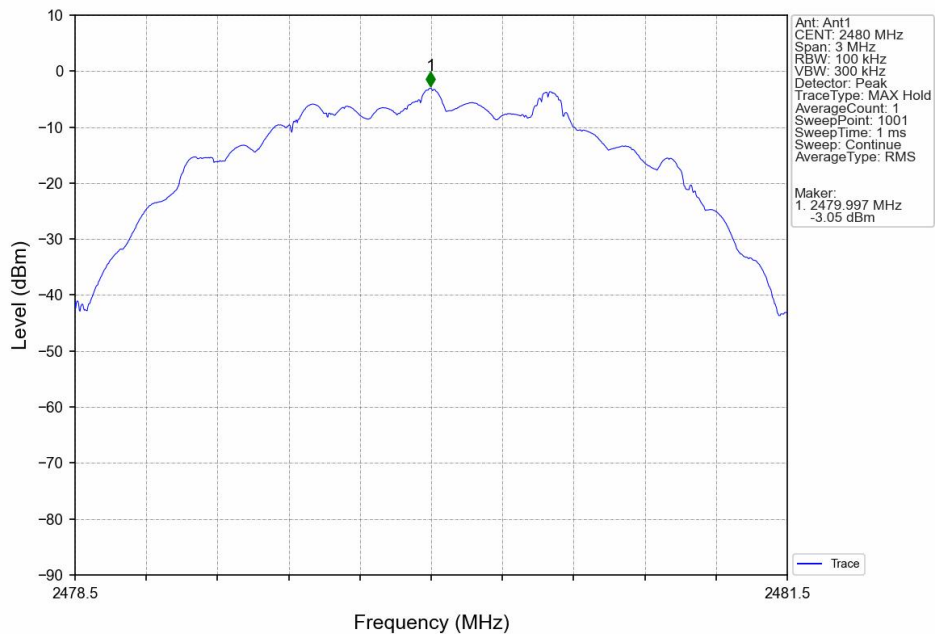


FCC ID: 2BWH8-17PROMAX

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	-2.29
		2440	1	-1.77
		2480	1	-2.61
2M	SISO	2402	1	-2.74
		2440	1	-2.21
		2480	1	-3.03

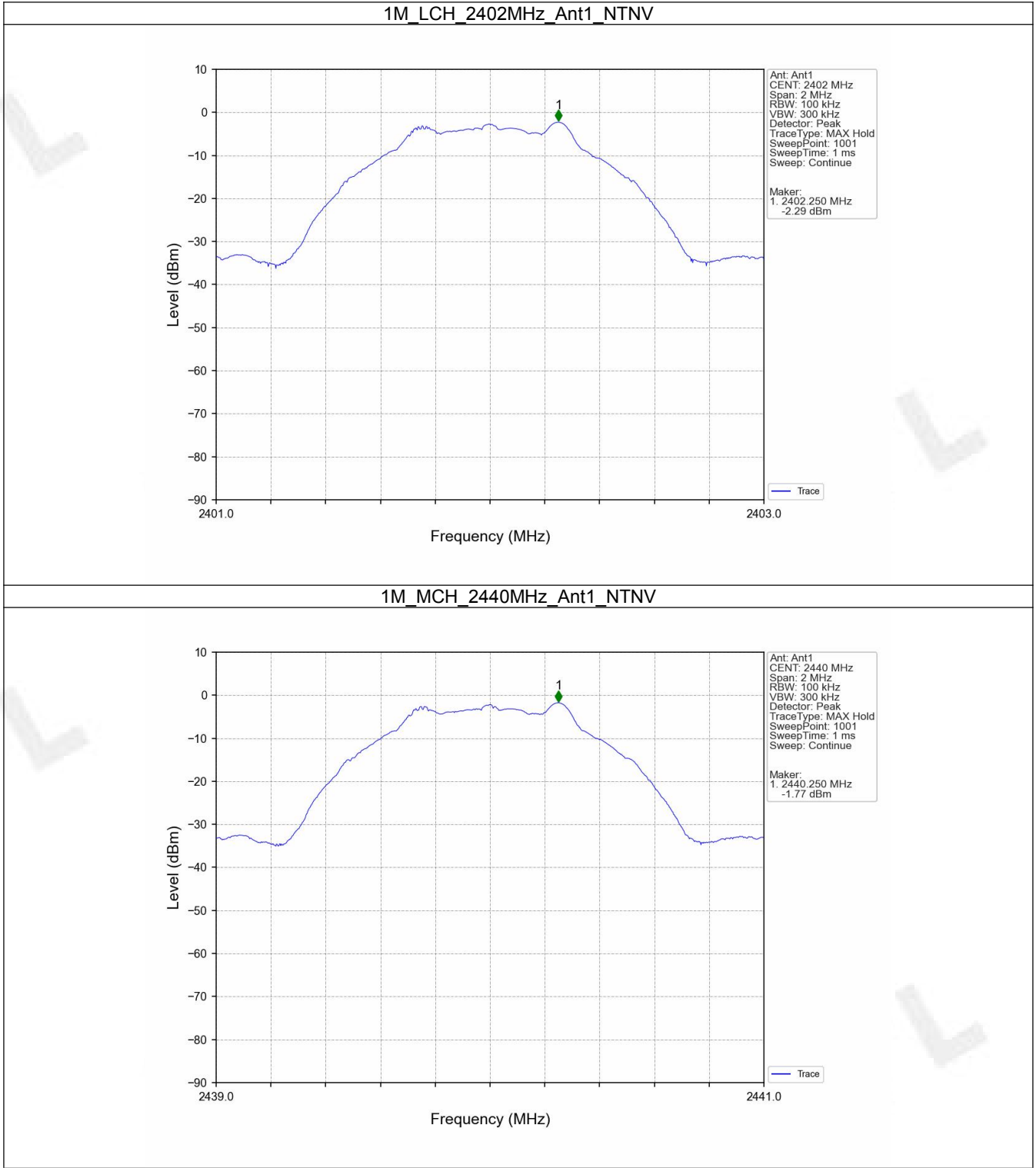
5.1.2 CSE

Mode	TX Type	Frequency (MHz)	ANT	Level of Reference (dBm)	Limit (dBm)	Verdict
1M	SISO	2402	1	-1.77	-21.77	Pass
		2440	1	-1.77	-21.77	Pass
		2480	1	-1.77	-21.77	Pass
2M	SISO	2402	1	-2.21	-22.21	Pass
		2440	1	-2.21	-22.21	Pass
		2480	1	-2.21	-22.21	Pass

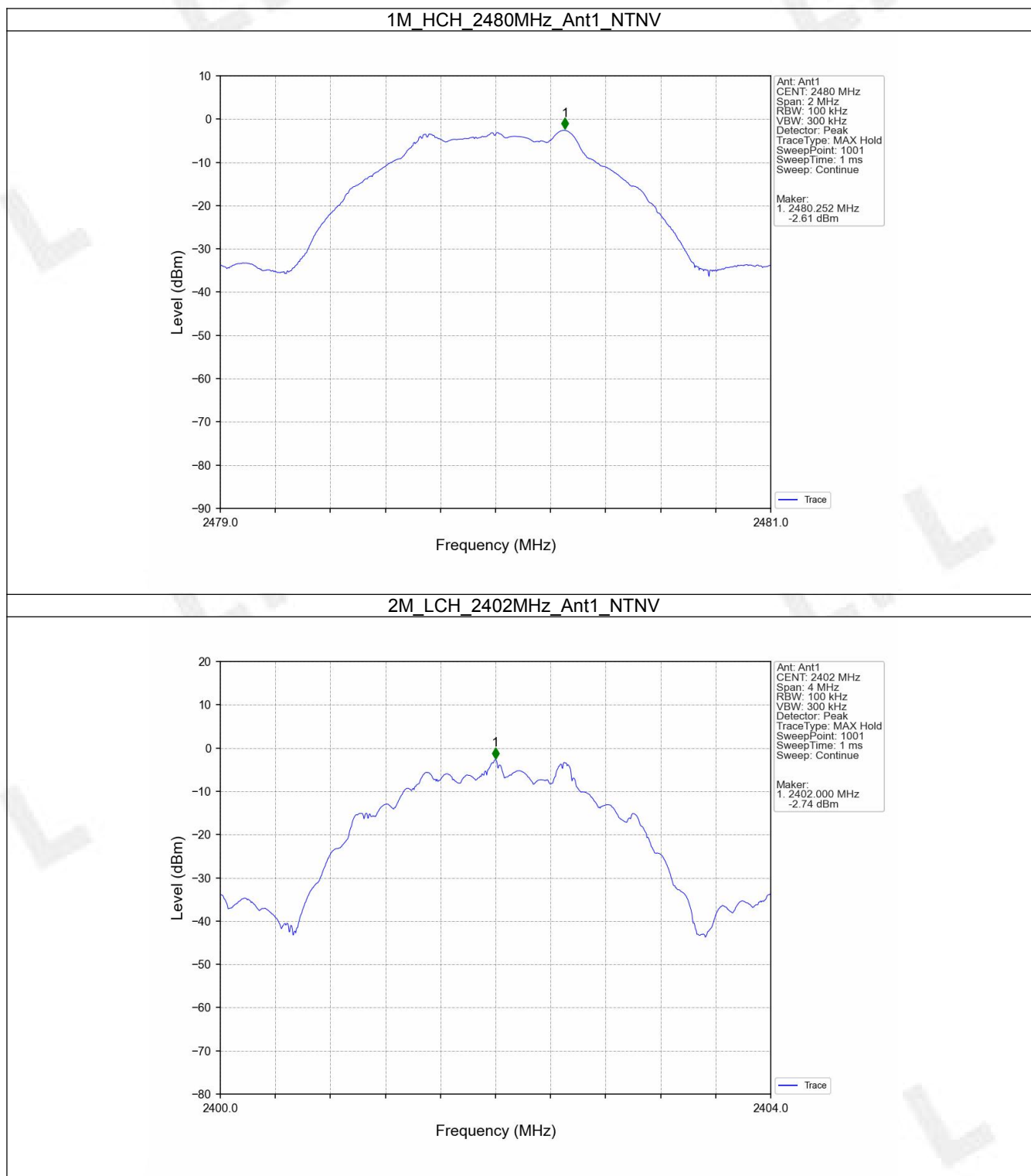
FCC ID: 2BWH8-17PROMAX

5.2 Test Graph

5.2.1 Ref

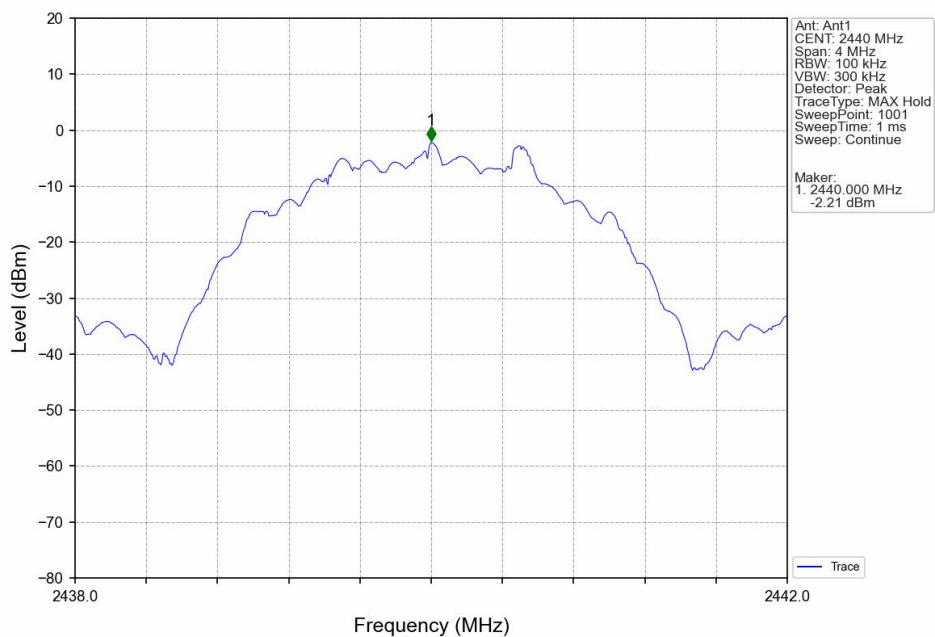


FCC ID: 2BWH8-17PROMAX

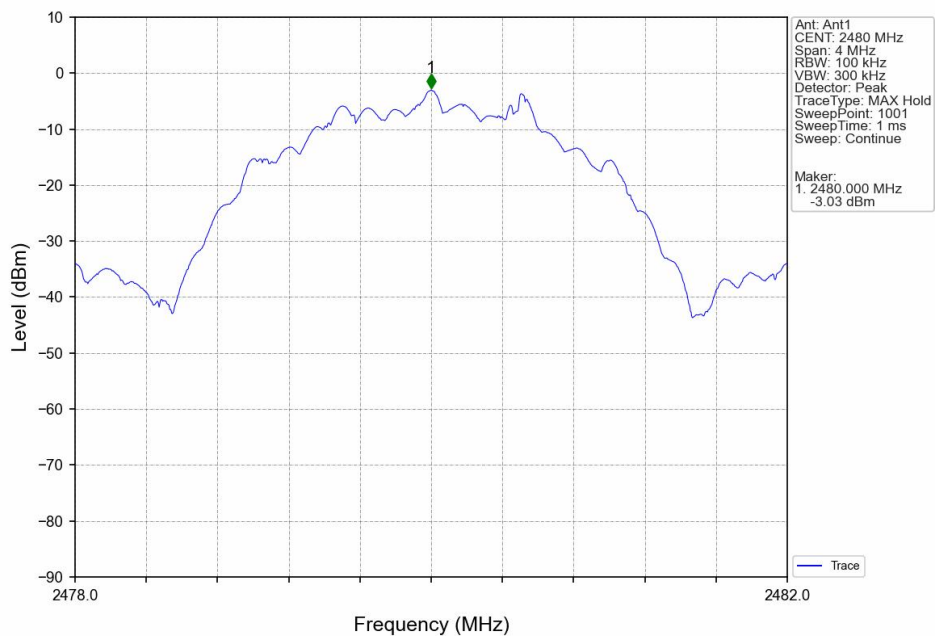


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2M_MCH_2440MHz_Ant1_NTNV

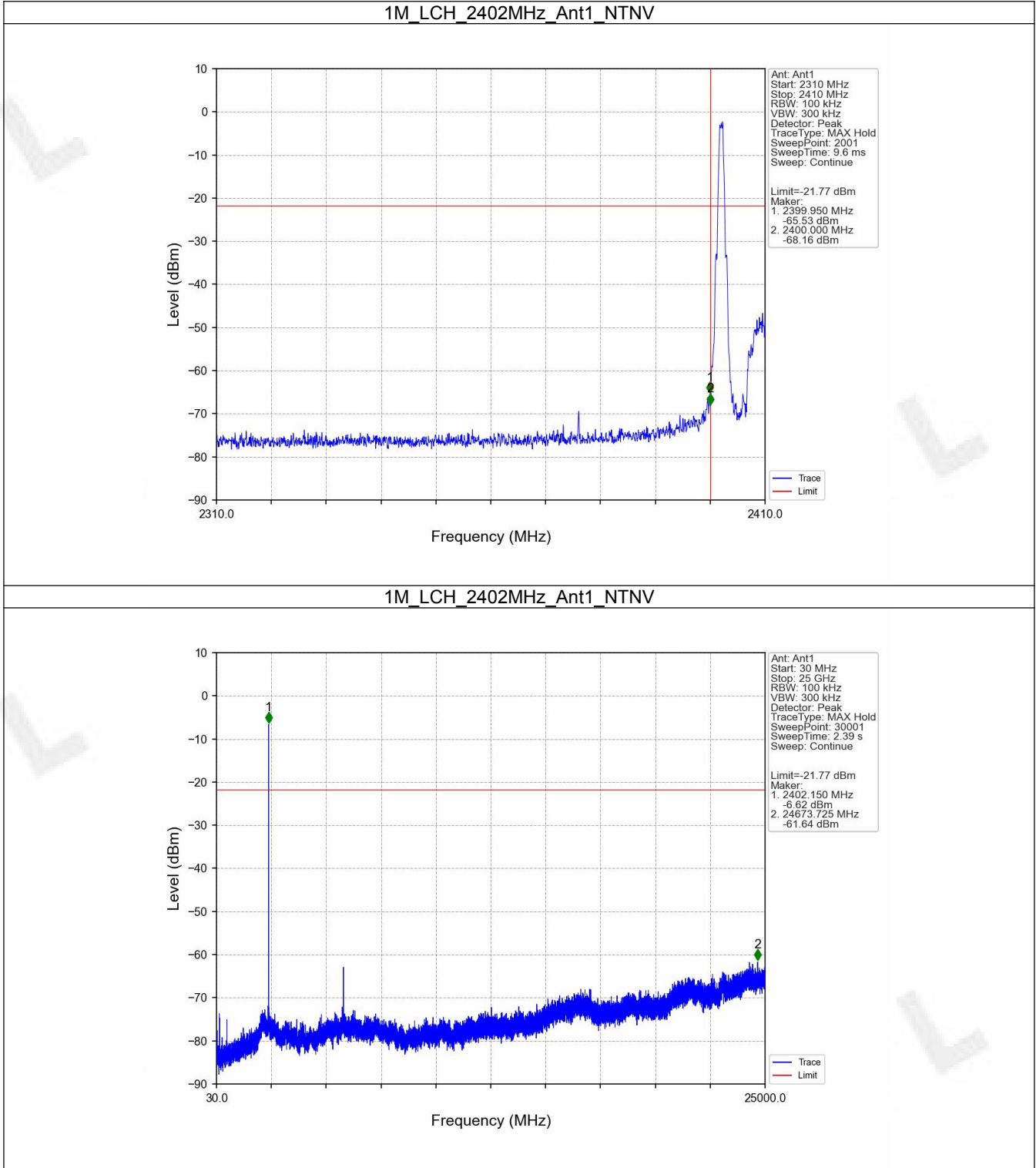


2M_HCH_2480MHz_Ant1_NTNV

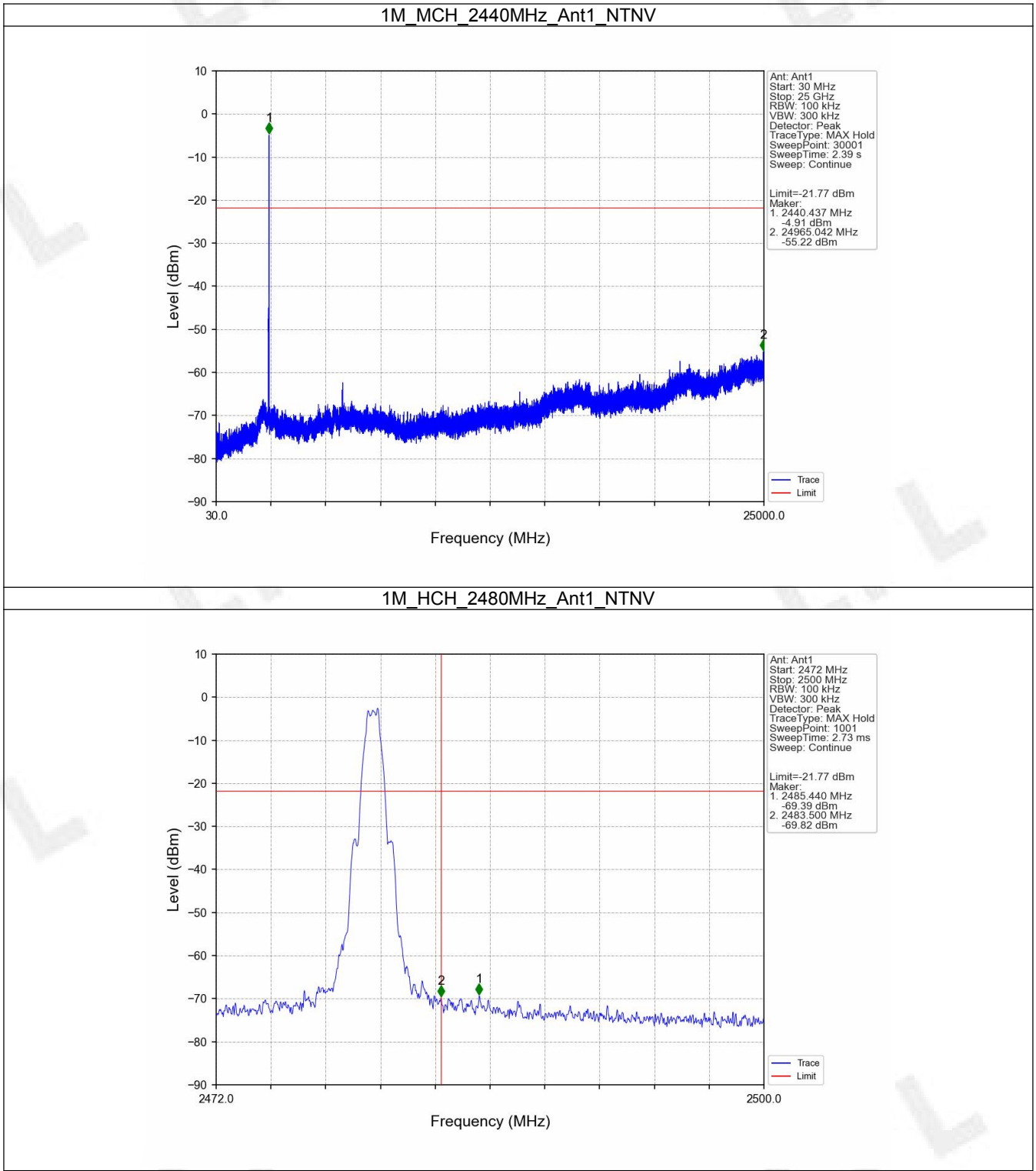


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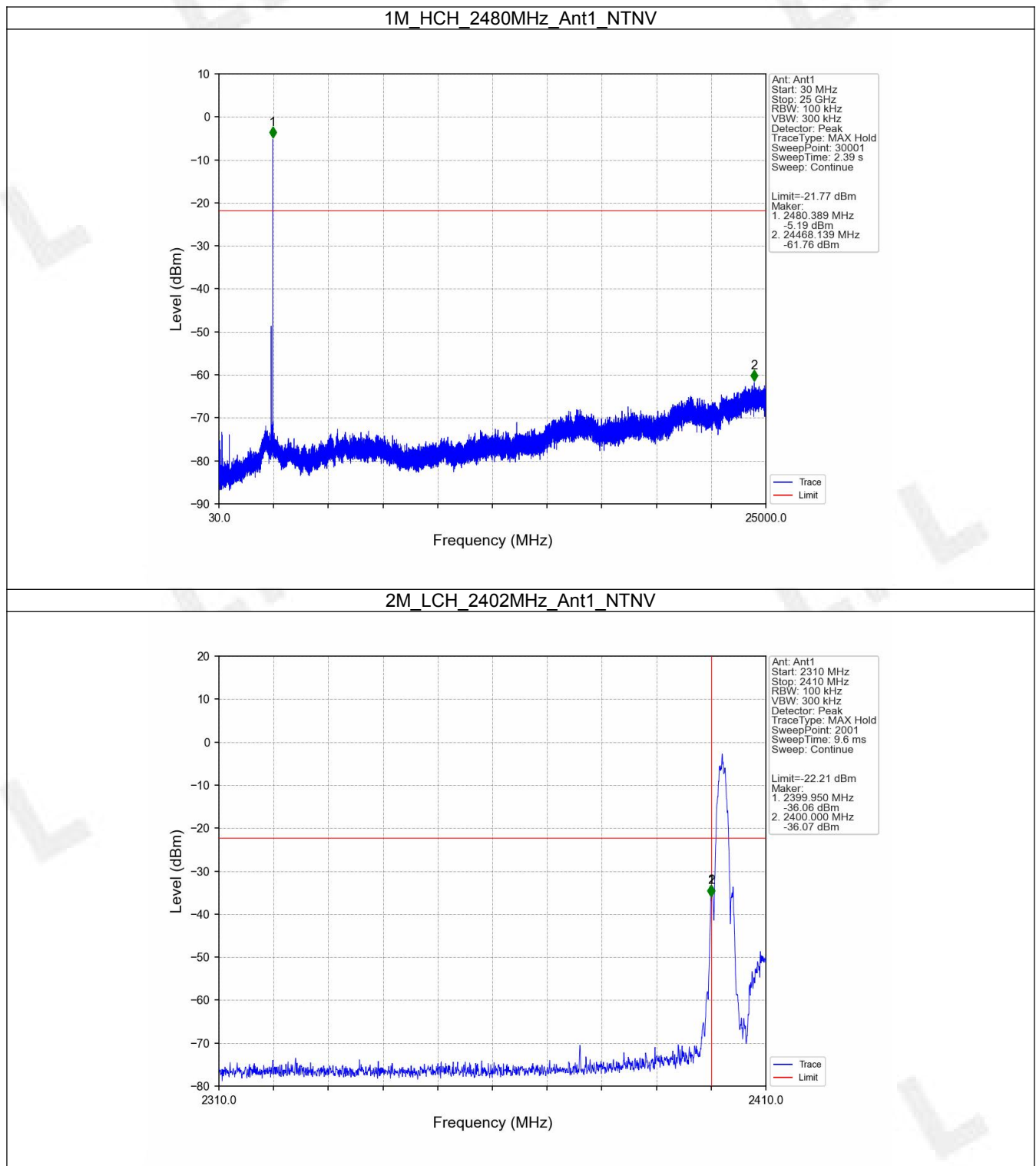
5.2.2 CSE



FCC ID: 2BWH8-17PROMAX

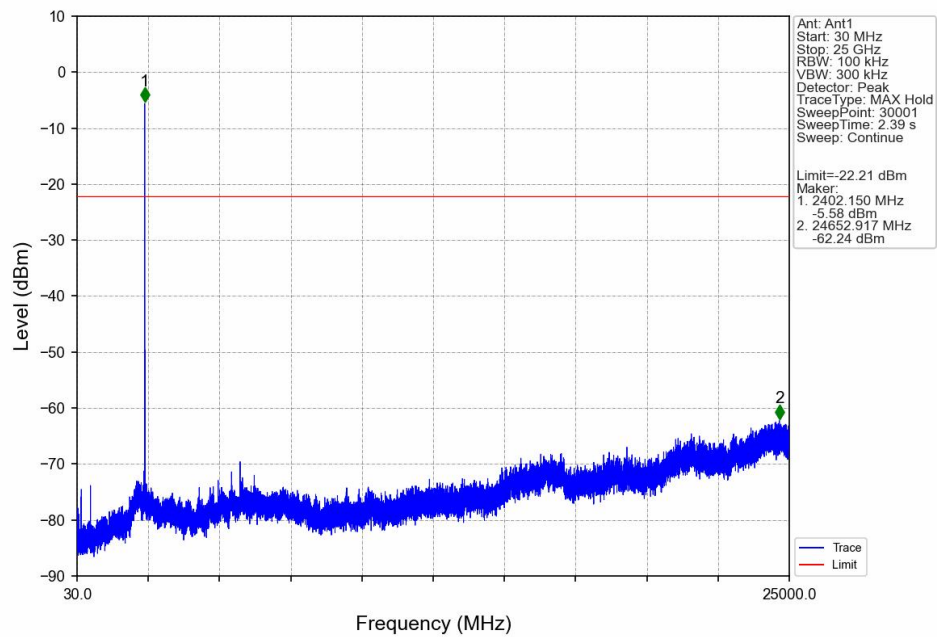


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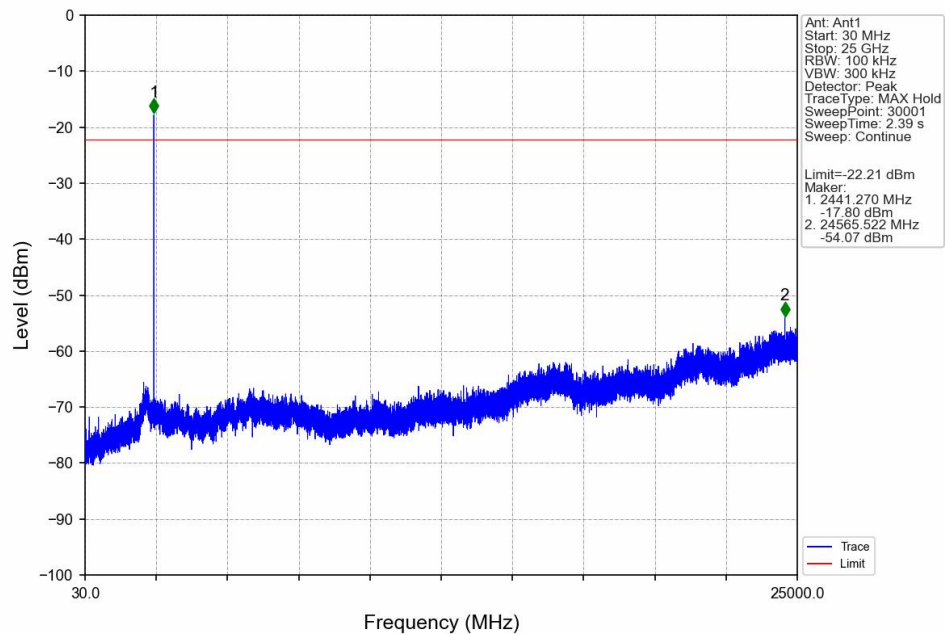


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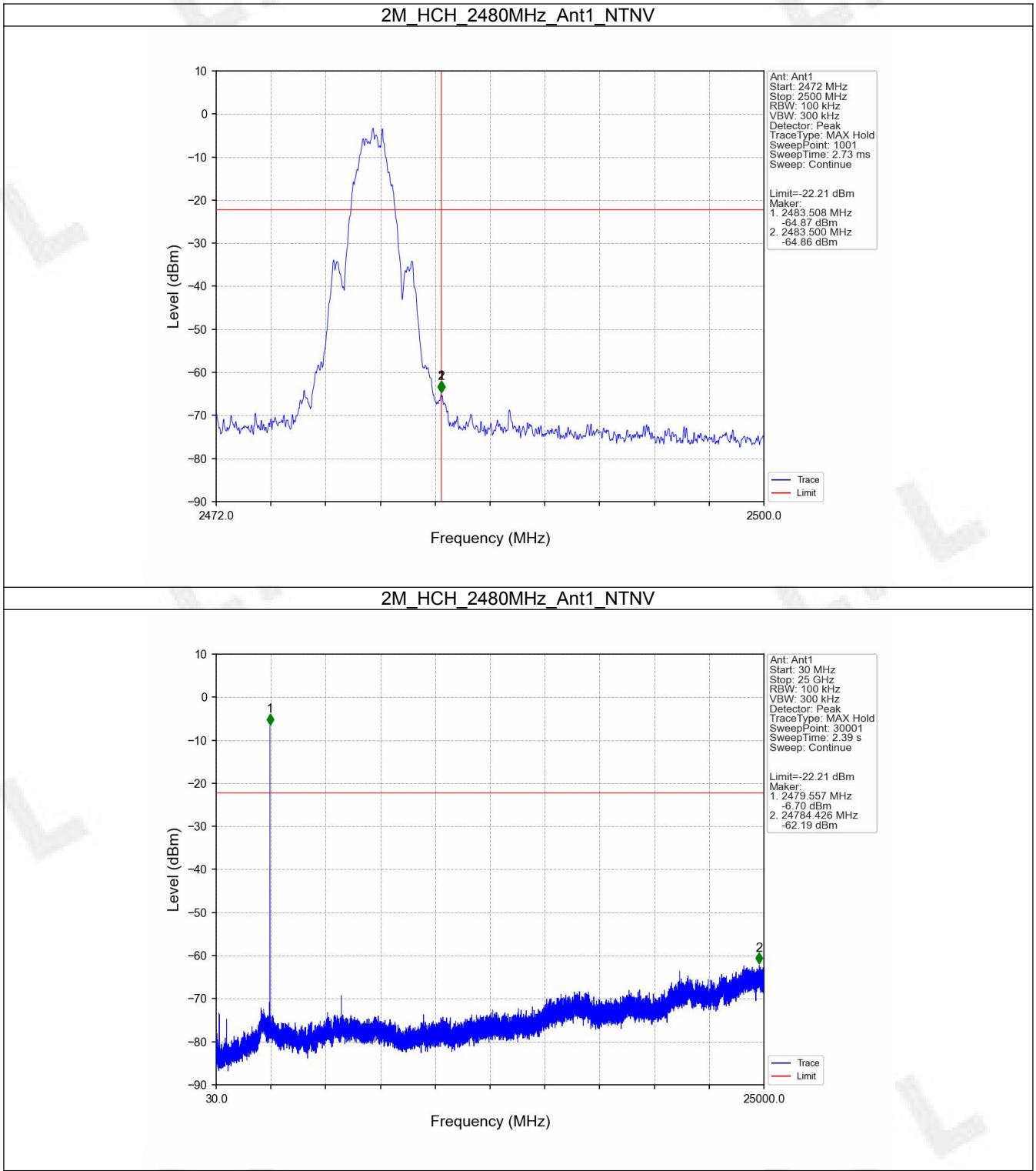
2M_LCH_2402MHz_Ant1_NTNV



2M_MCH_2440MHz_Ant1_NTNV



FCC ID: 2BWH8-17PROMAX



FCC ID: 2BWH8-17PROMAX

6. Form731

6.1 Test Result

6.1.1 Form731

Lower Freq (MHz)	High Freq (MHz)	MAX Power (W)	MAX Power (dBm)
2402	2480	0.0007	-1.64