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Annex for BLE

Test Report No.: CTL2401102093-WF02

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FCC ID:2AU4P-BTS121

1. Duty Cycle

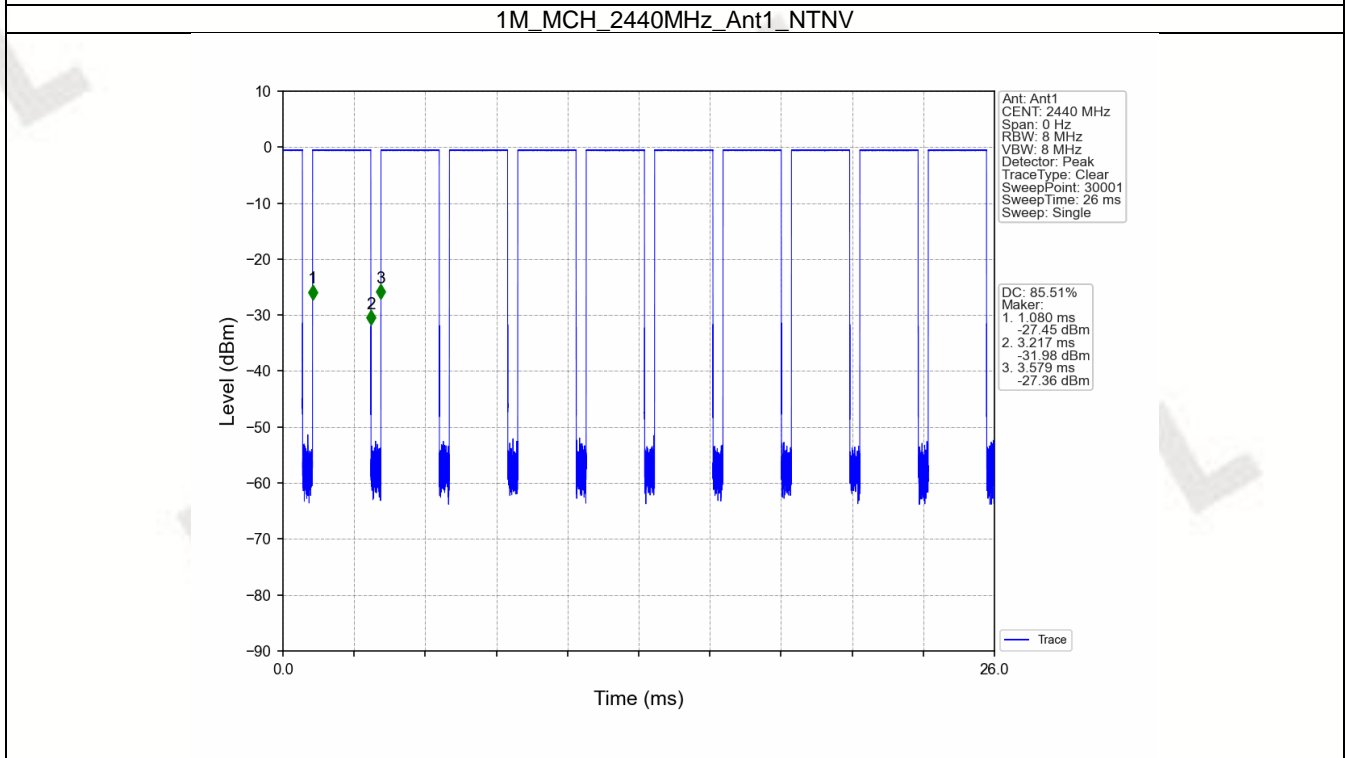
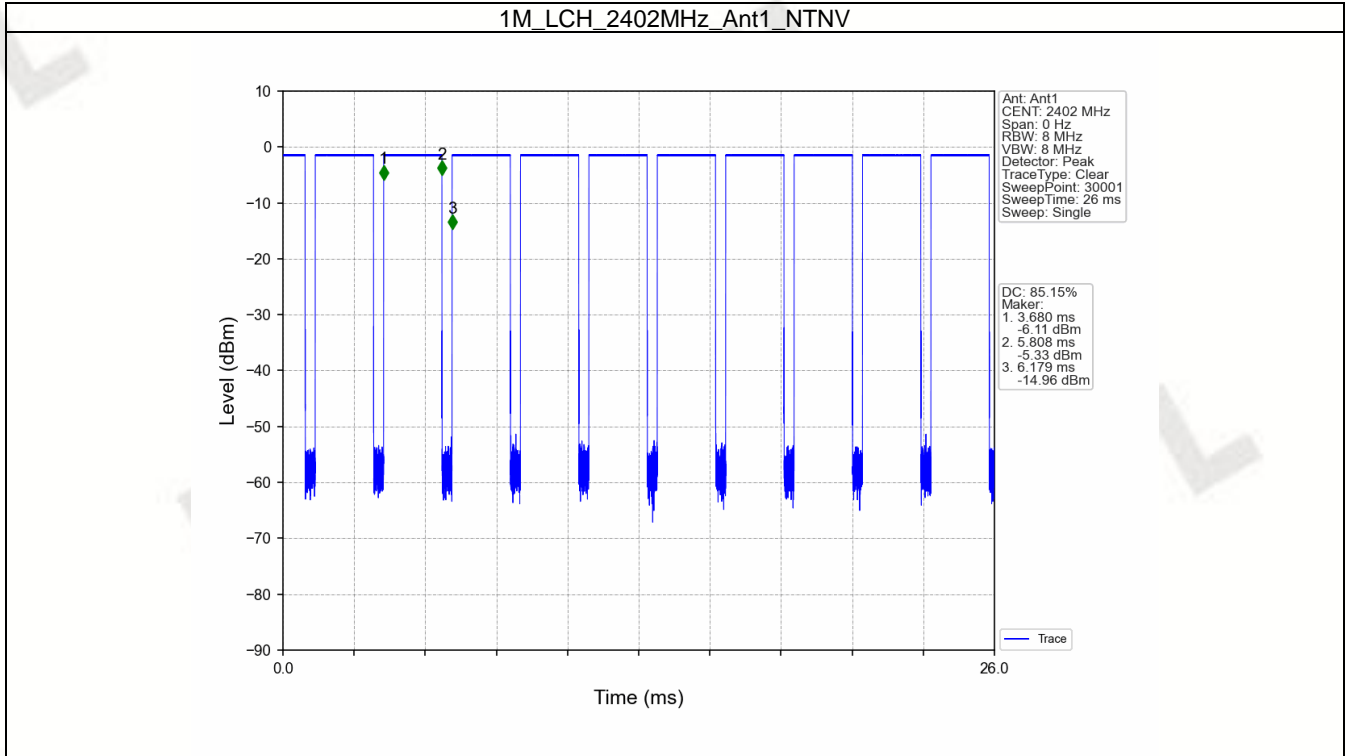
1.1 Ant1

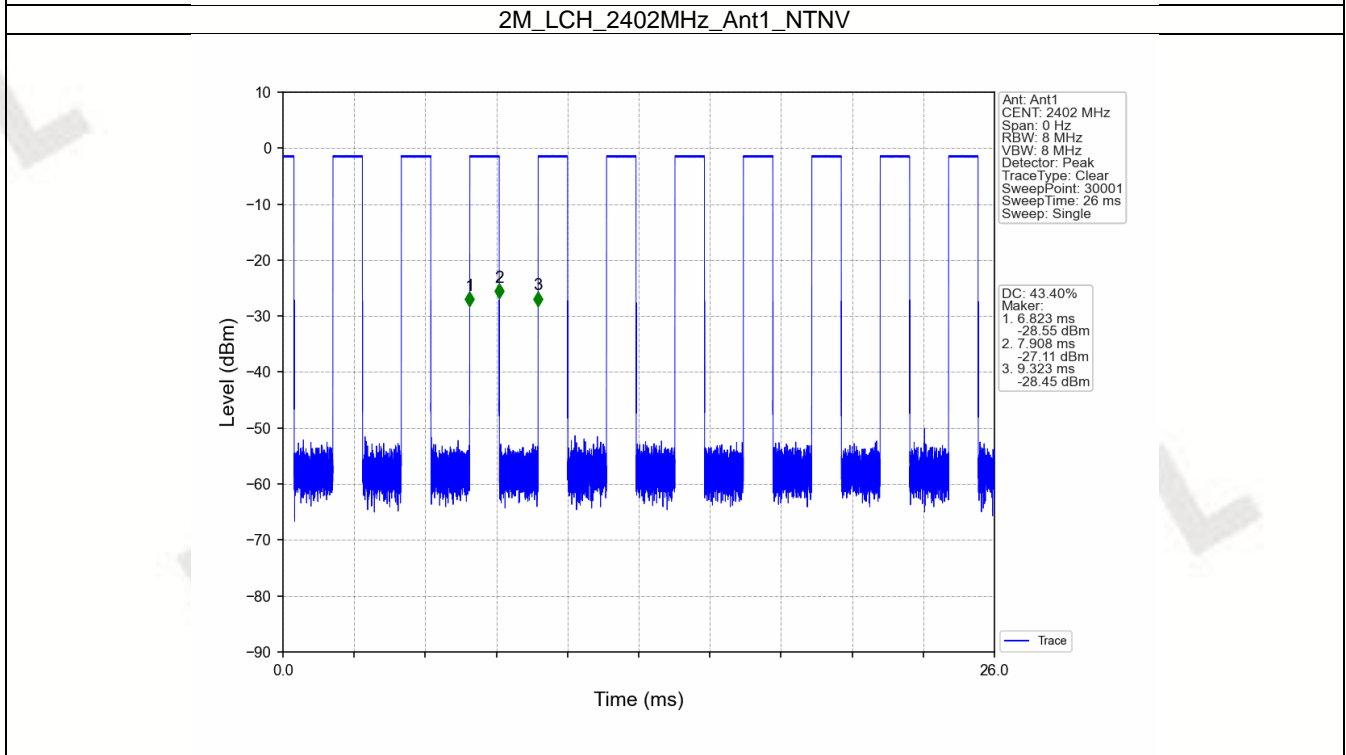
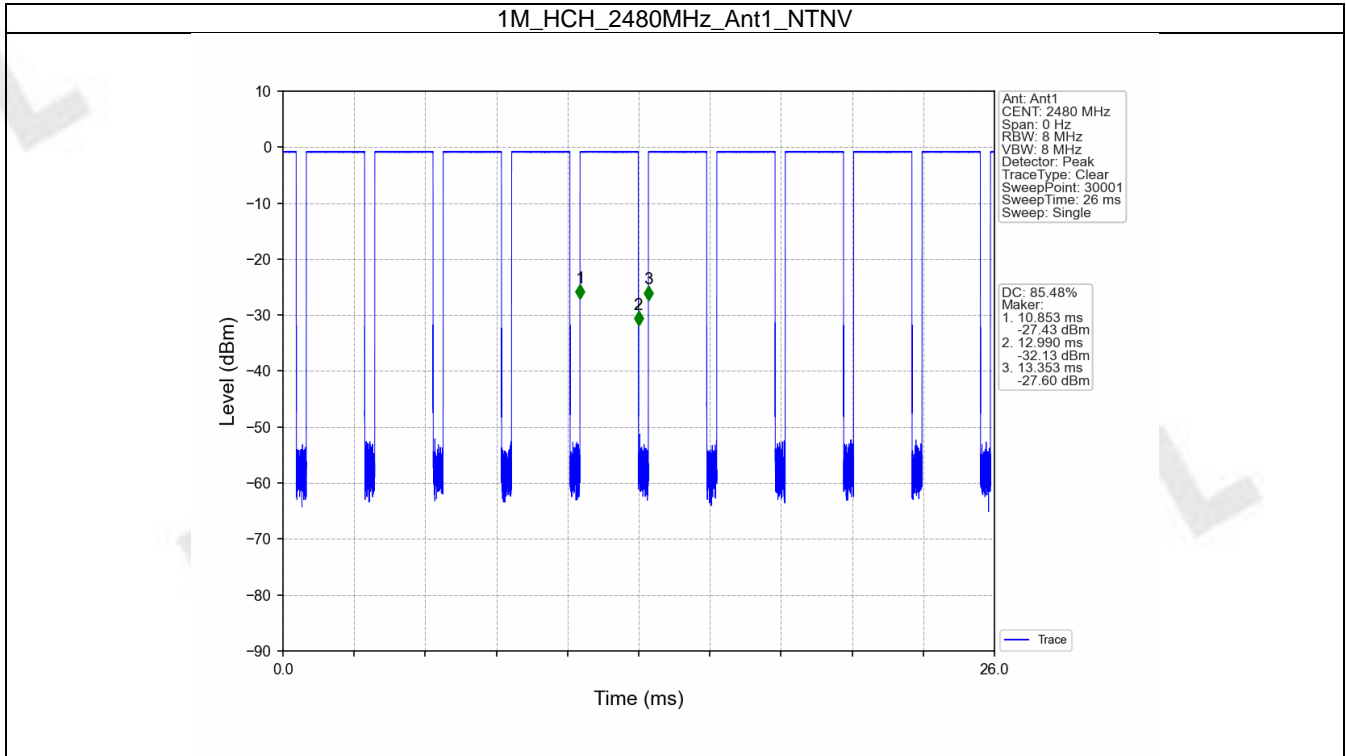
1.1.1 Test Result

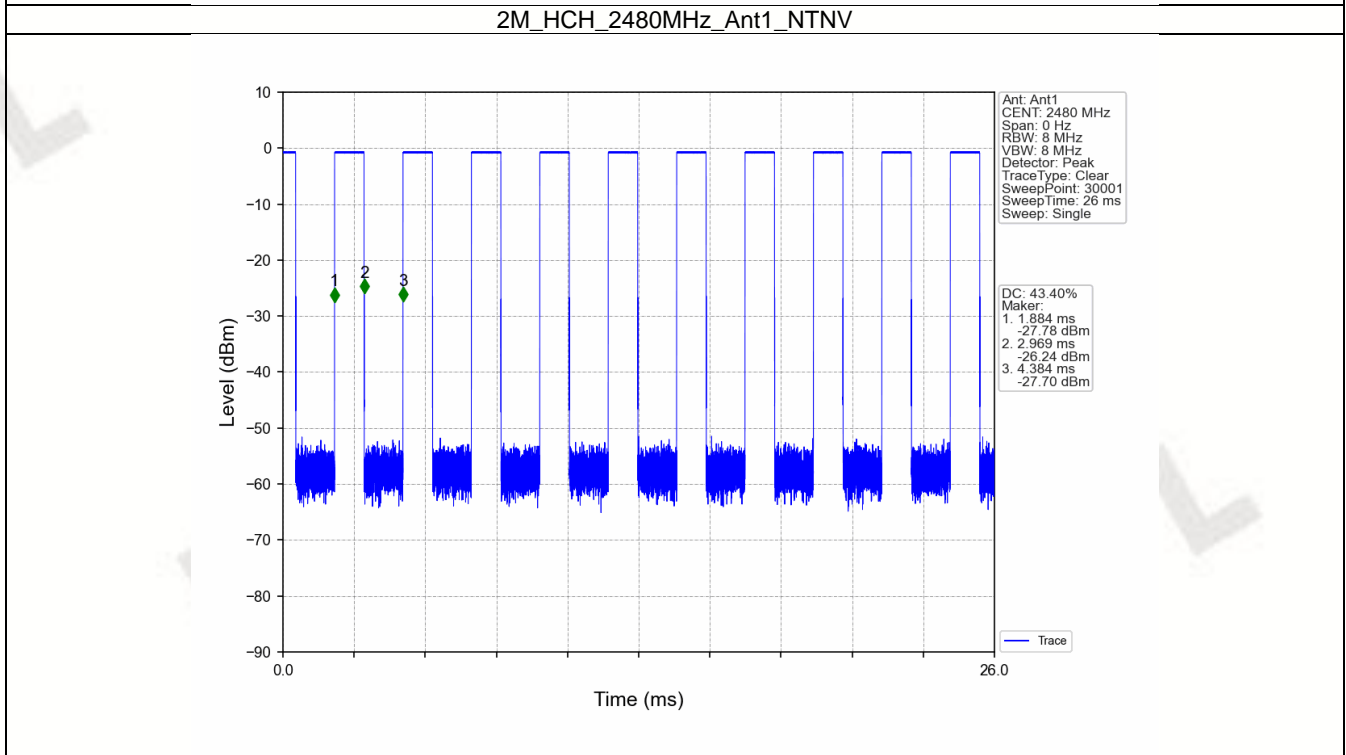
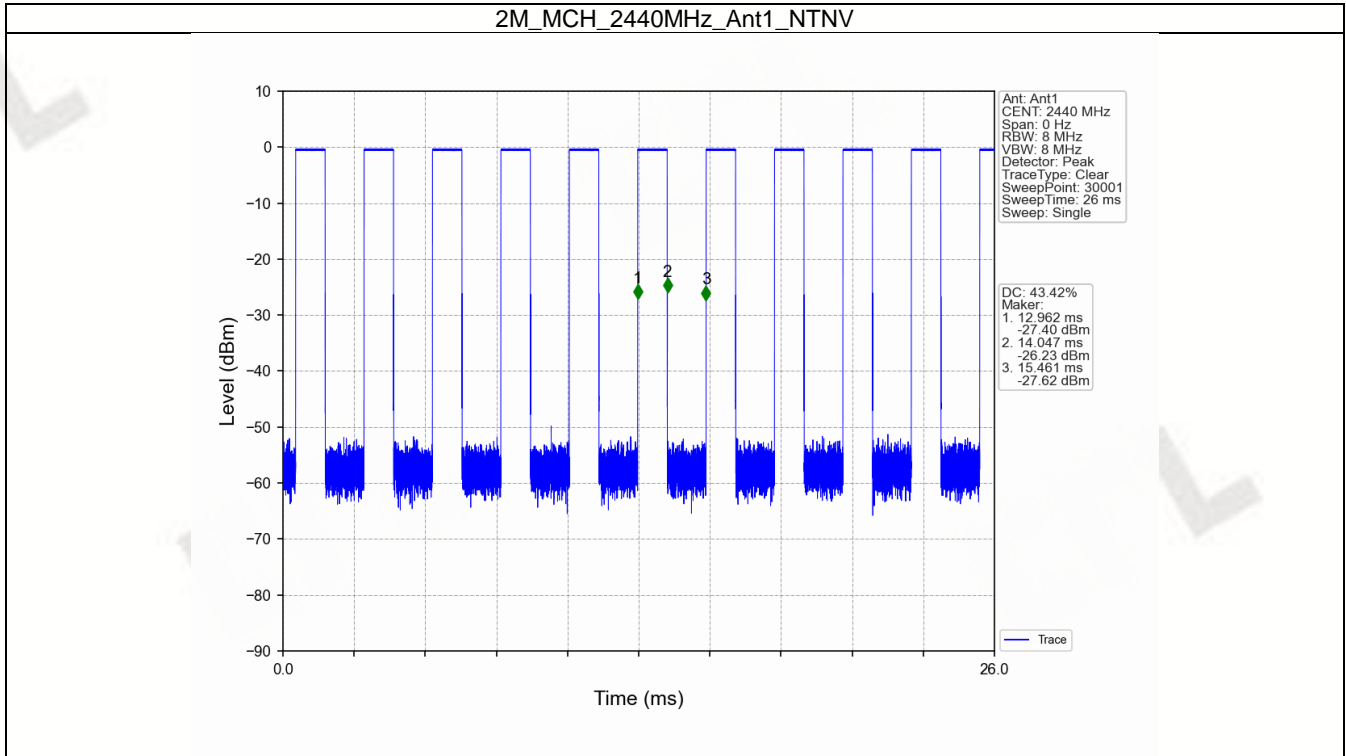
Ant1							
Mode	TX Type	Frequency (MHz)	T_on (ms)	Period (ms)	Duty Cycle (%)	Duty Cycle Correction Factor (dB)	Max. DC Variation (%)
1M	SISO	2402	2.128	2.499	85.15	0.70	0.03
		2440	2.137	2.499	85.51	0.68	0.01
		2480	2.137	2.500	85.48	0.68	0.03
2M	SISO	2402	1.085	2.500	43.40	3.63	0.03
		2440	1.085	2.499	43.42	3.62	0.03
		2480	1.085	2.500	43.40	3.63	0.03

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1.1.2 Test Graph







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2. Bandwidth

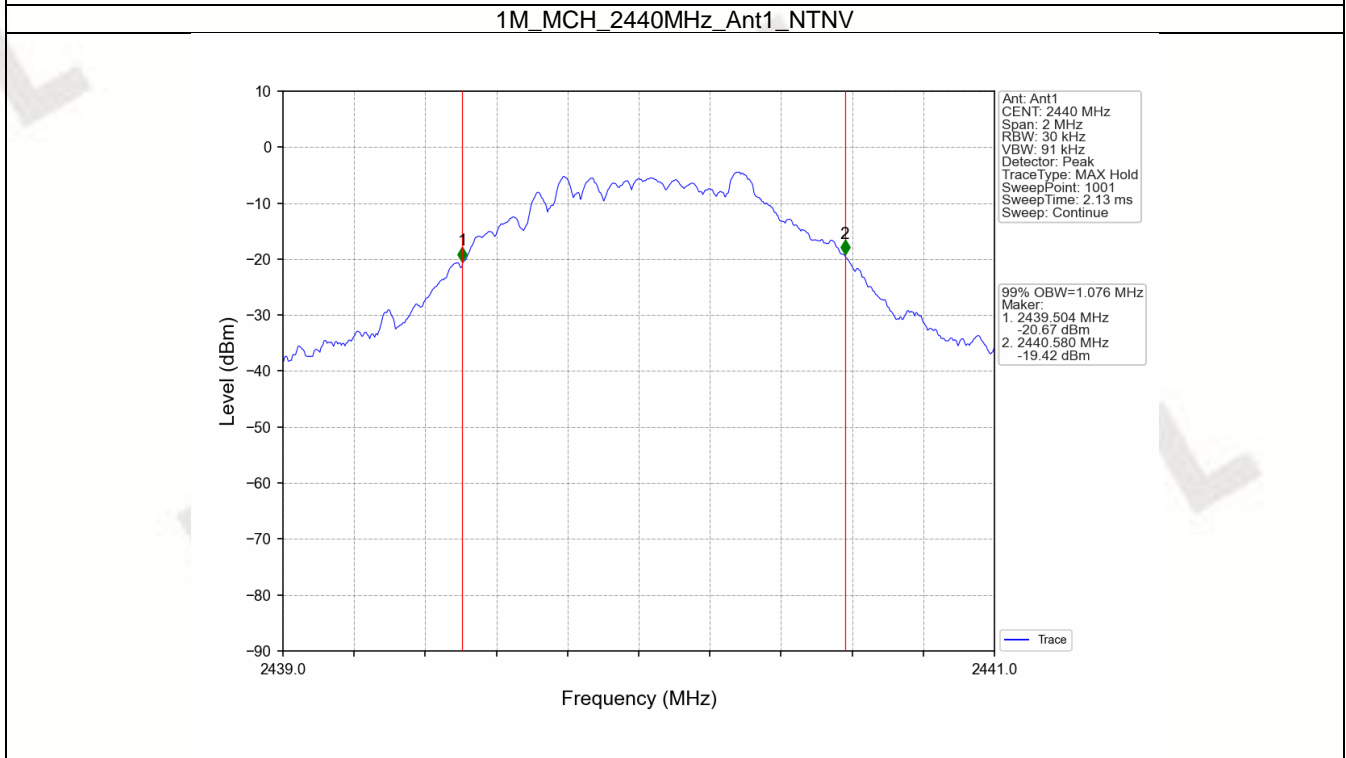
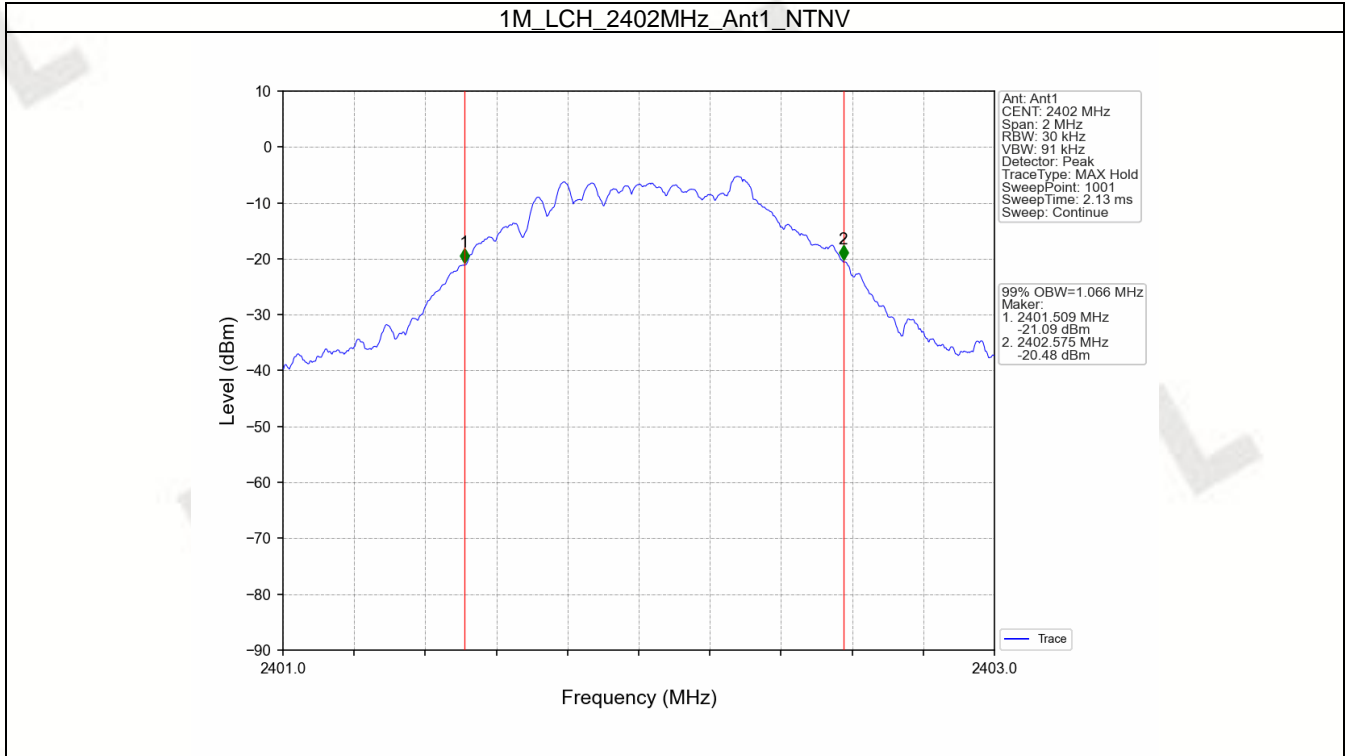
2.1 OBW

2.1.1 Test Result

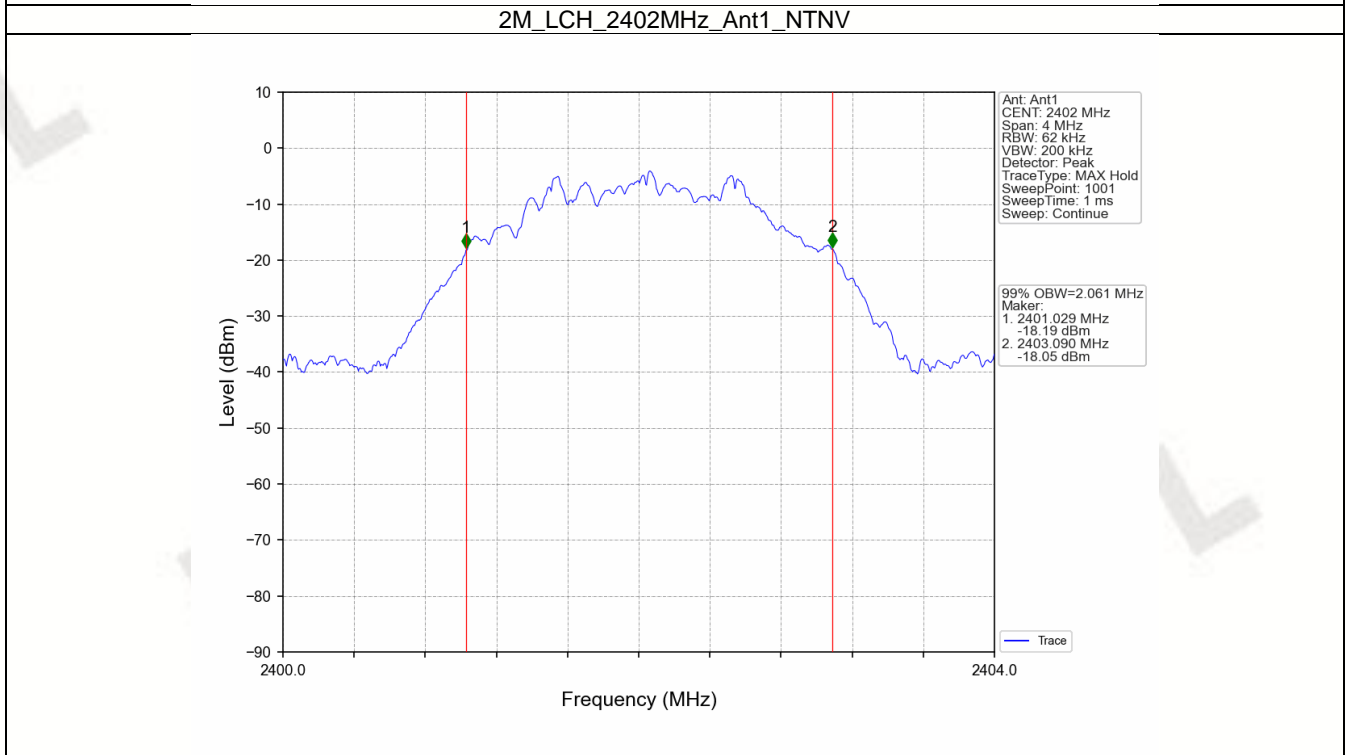
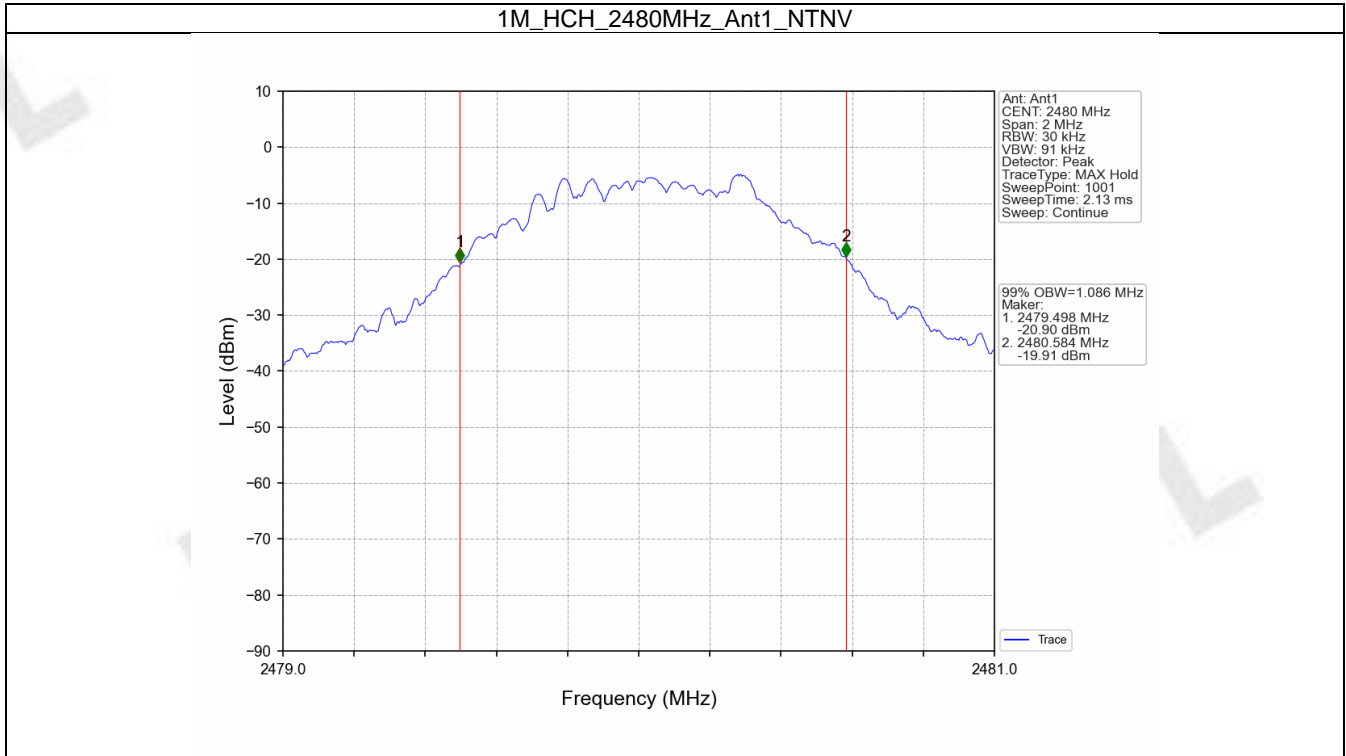
Mode	TX Type	Frequency (MHz)	ANT	99% Occupied Bandwidth (MHz)		Verdict
				Result	Limit	
1M	SISO	2402	1	1.066	/	Pass
		2440	1	1.076	/	Pass
		2480	1	1.086	/	Pass
2M	SISO	2402	1	2.061	/	Pass
		2440	1	2.056	/	Pass
		2480	1	2.053	/	Pass

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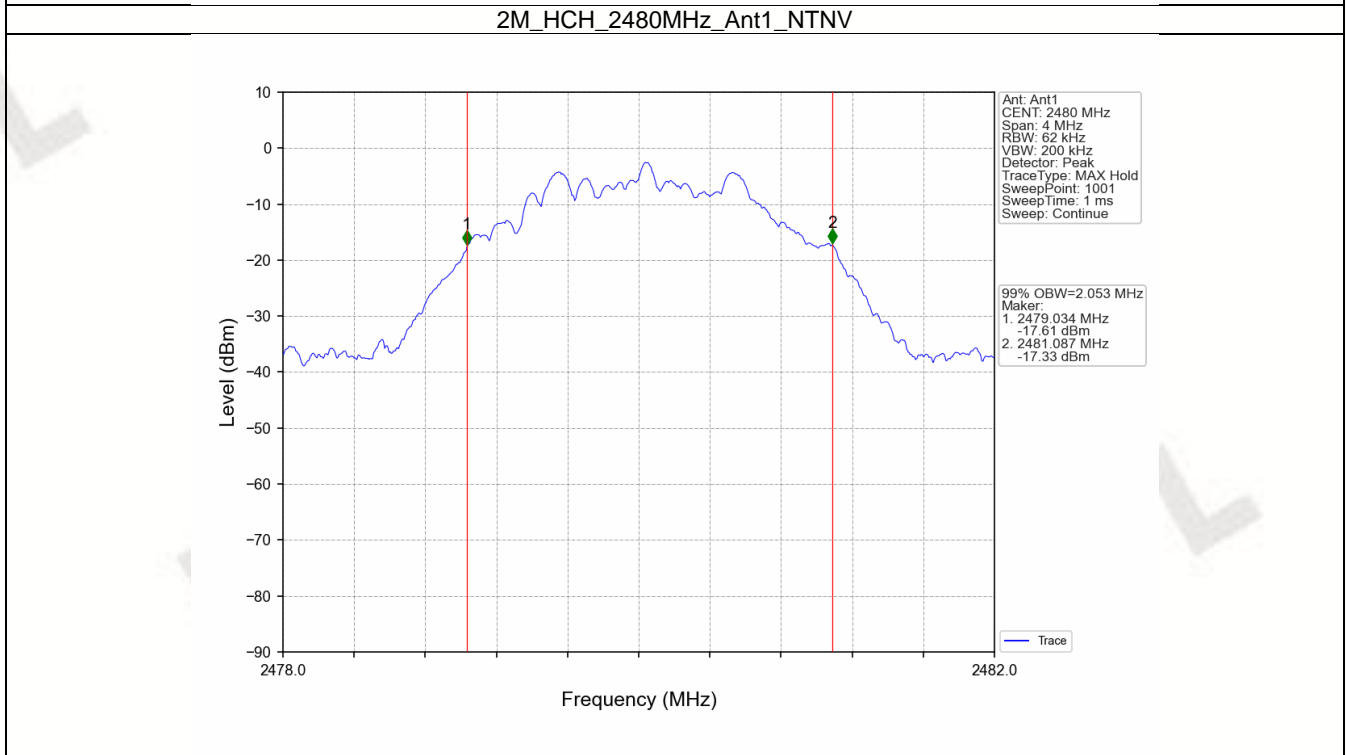
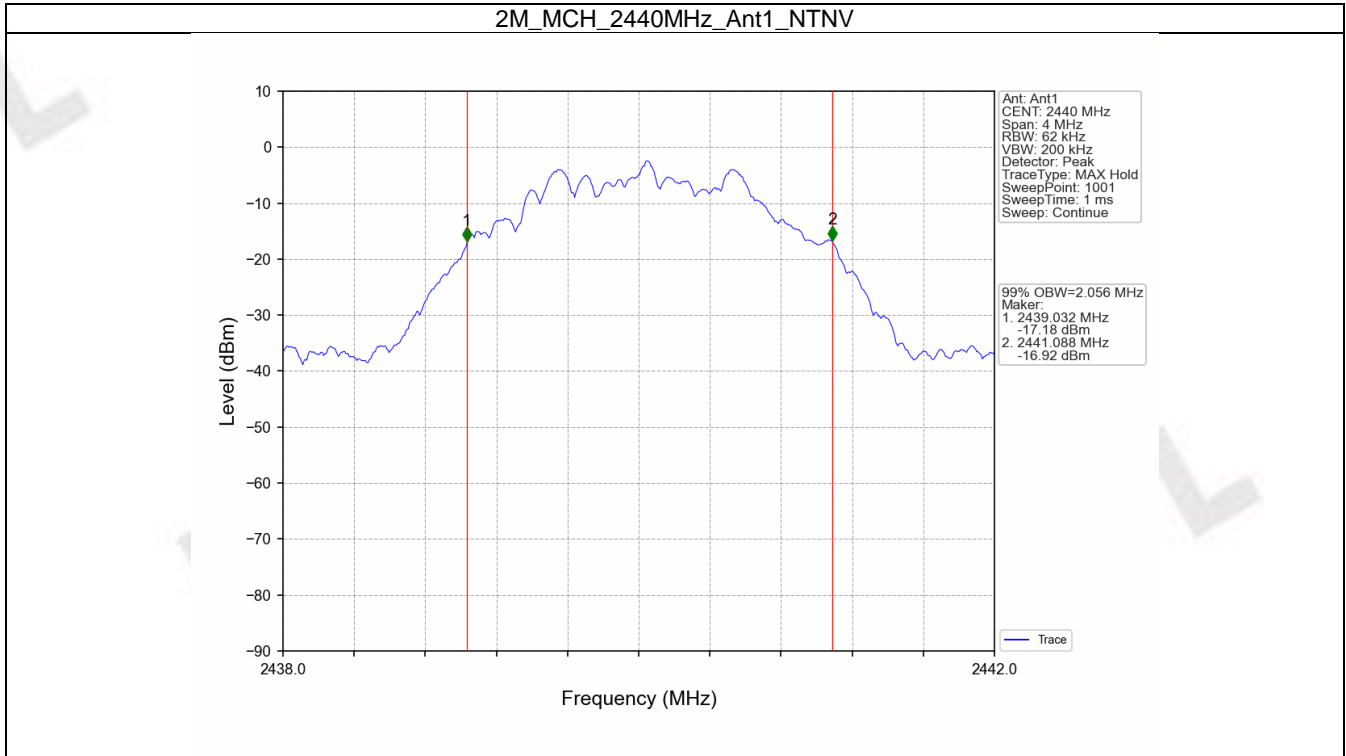
2.1.2 Test Graph



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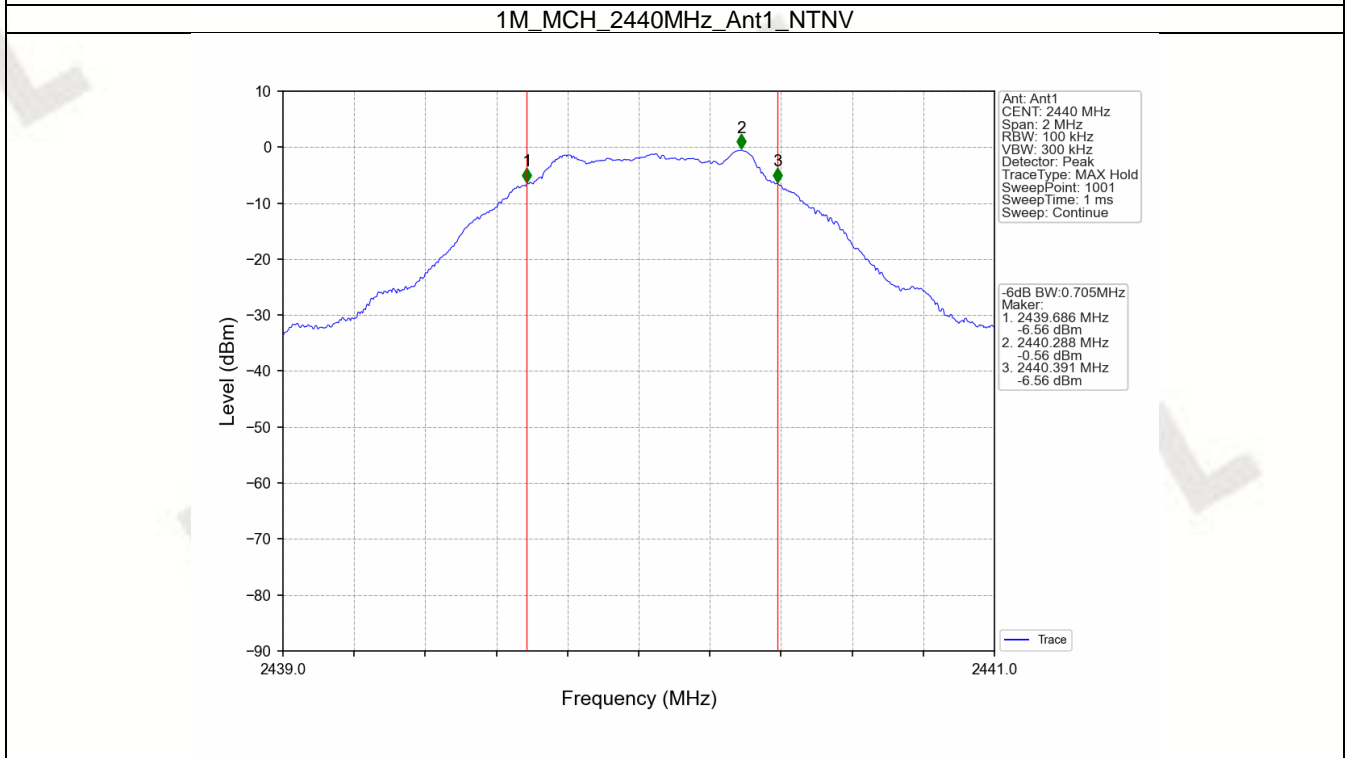
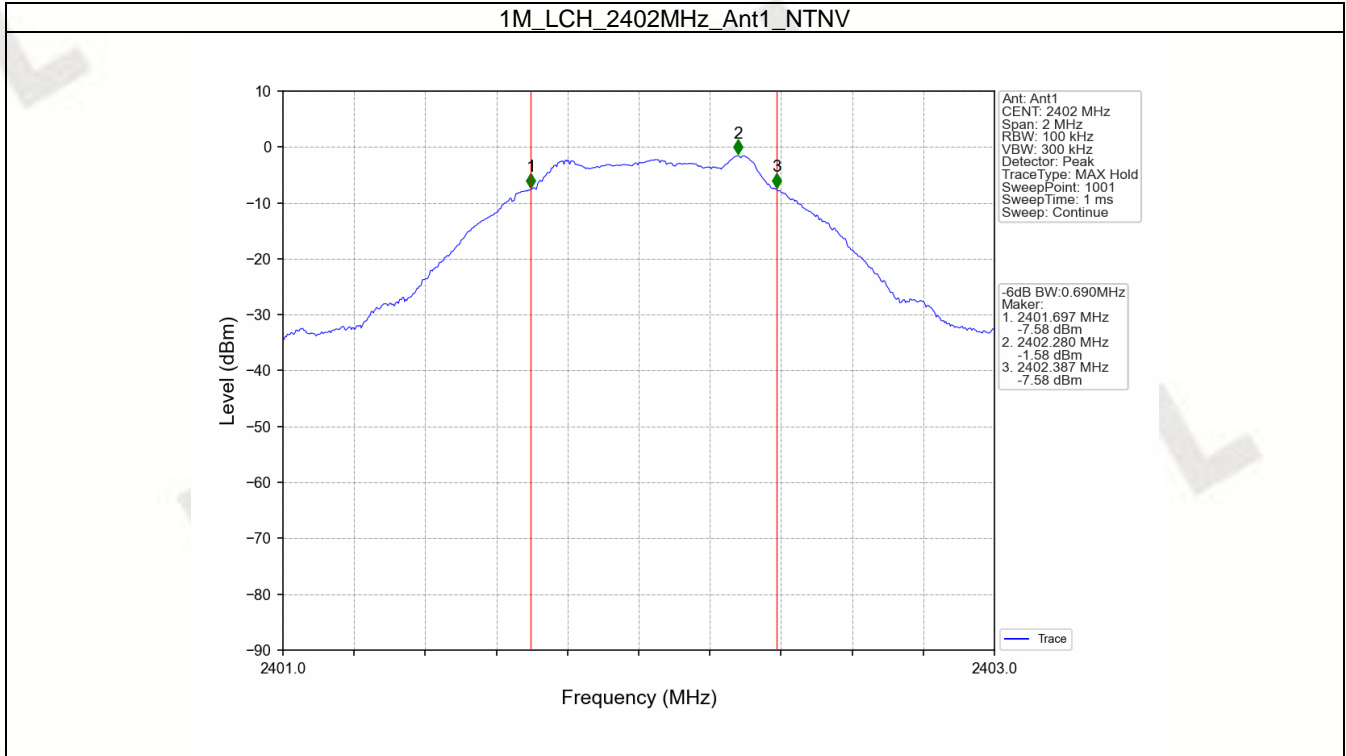
2.2 6dB BW

2.2.1 Test Result

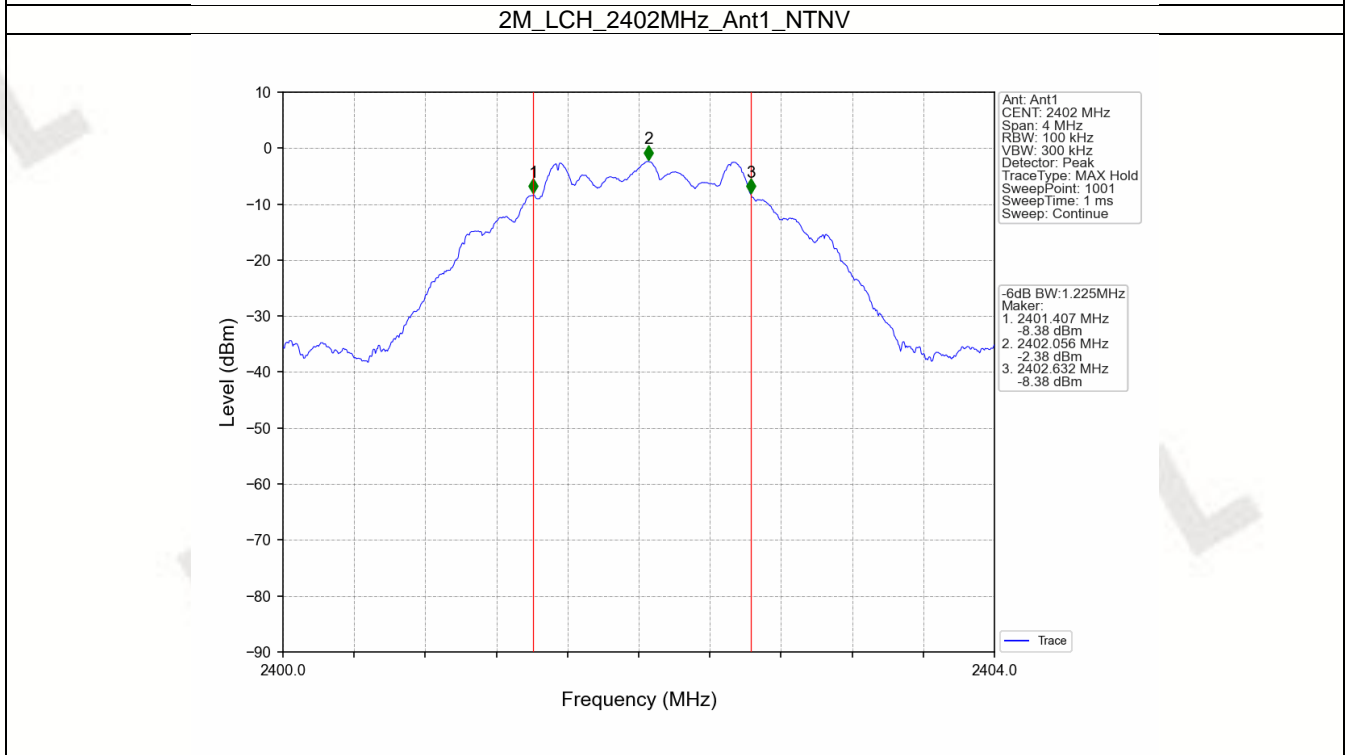
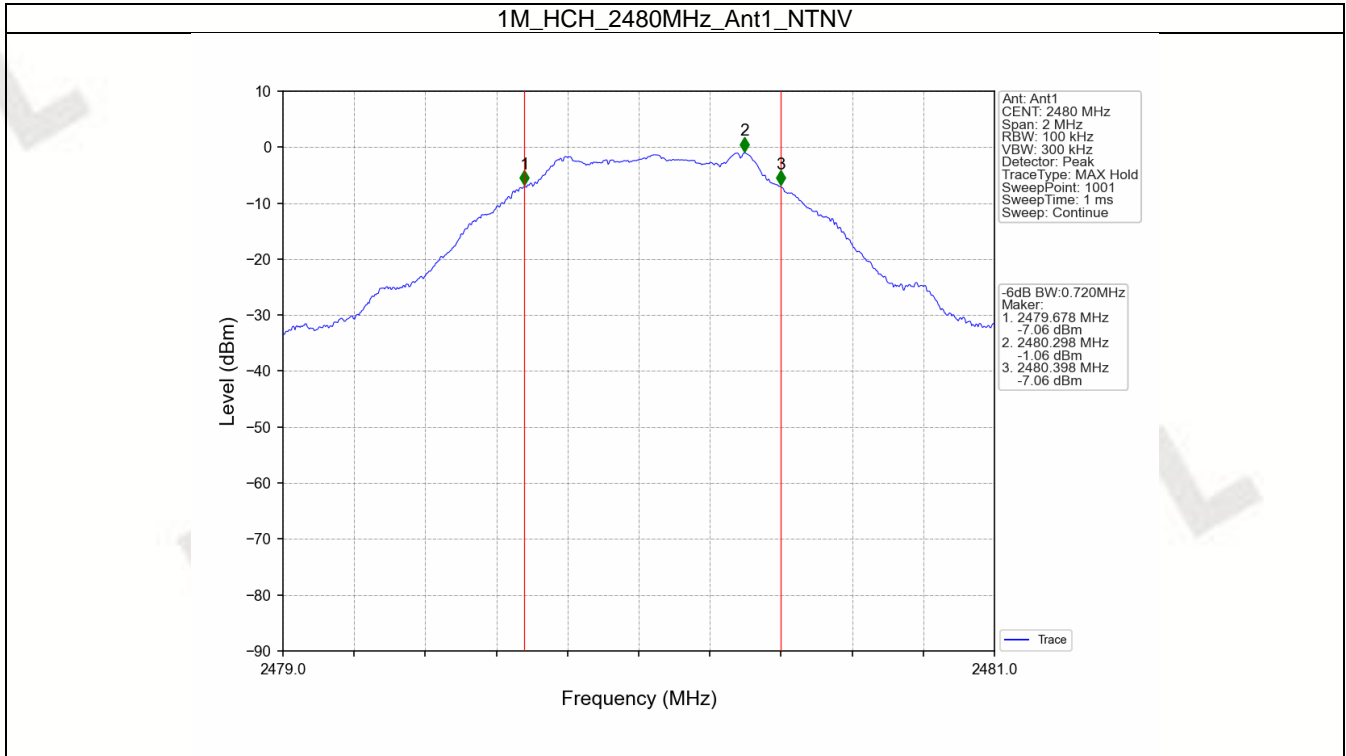
Mode	TX Type	Frequency (MHz)	ANT	6dB Bandwidth (MHz)		Verdict
				Result	Limit	
1M	SISO	2402	1	0.690	≥ 0.5	Pass
		2440	1	0.705	≥ 0.5	Pass
		2480	1	0.720	≥ 0.5	Pass
2M	SISO	2402	1	1.225	≥ 0.5	Pass
		2440	1	1.174	≥ 0.5	Pass
		2480	1	1.165	≥ 0.5	Pass

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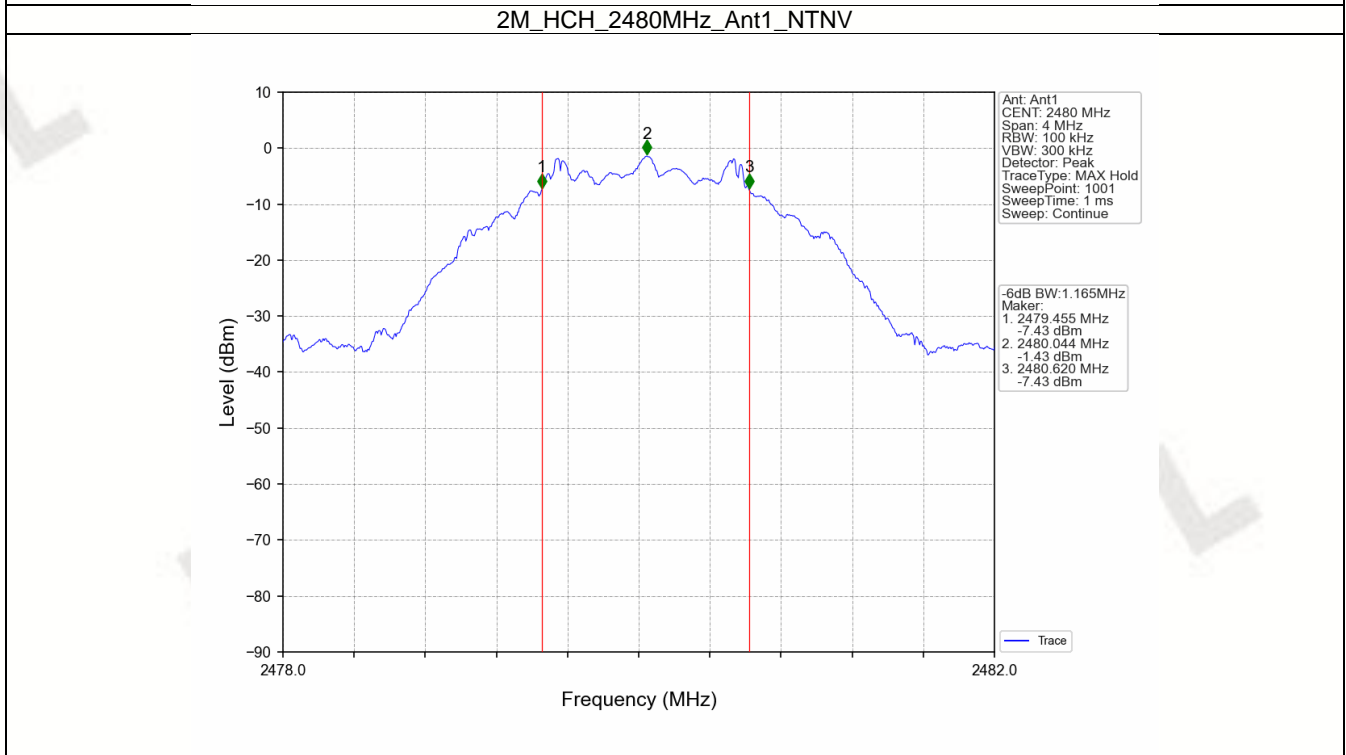
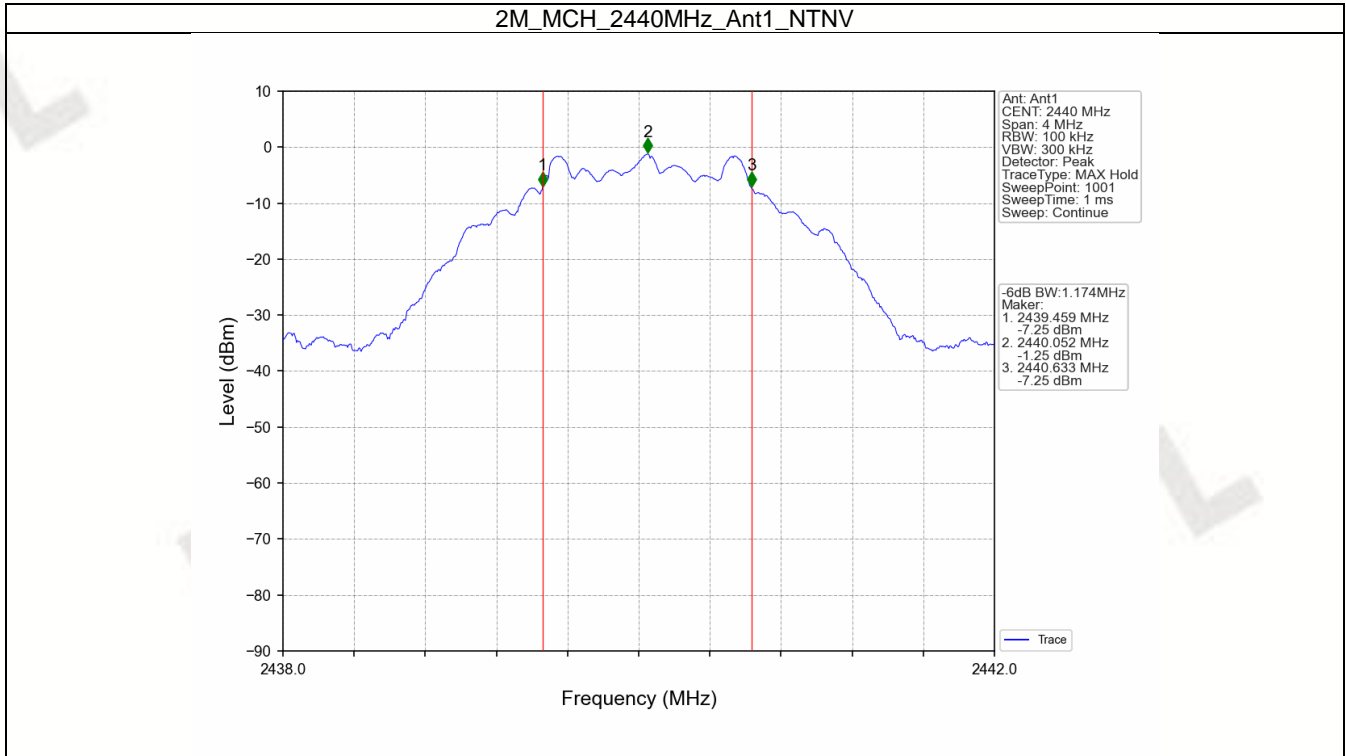
2.2.2 Test Graph



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3. Maximum Conducted Output Power

3.1 Power

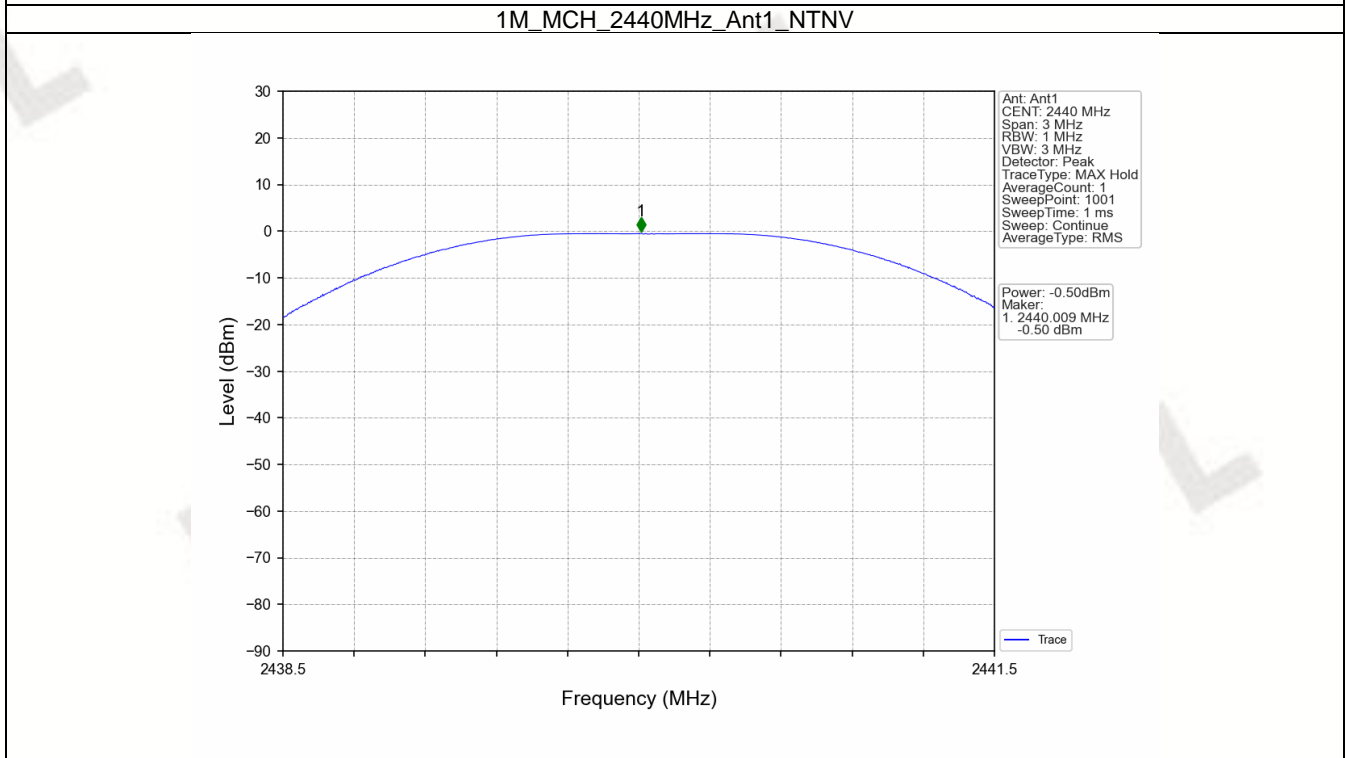
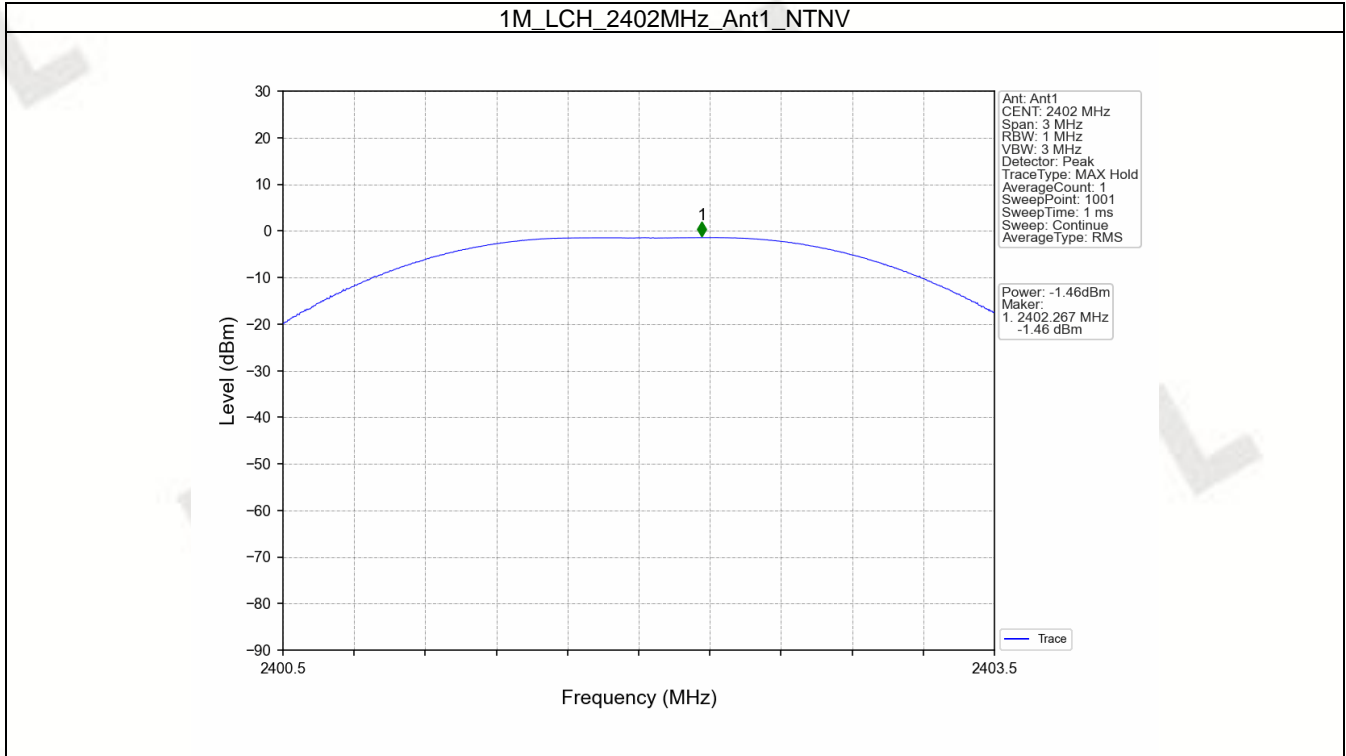
3.1.1 Test Result

Mode	TX Type	Frequency (MHz)	Maximum Peak Conducted Output Power (dBm)		Verdict
			ANT1	Limit	
1M	SISO	2402	-1.46	<=30	Pass
		2440	-0.50	<=30	Pass
		2480	-0.80	<=30	Pass
2M	SISO	2402	-1.40	<=30	Pass
		2440	-0.44	<=30	Pass
		2480	-0.74	<=30	Pass

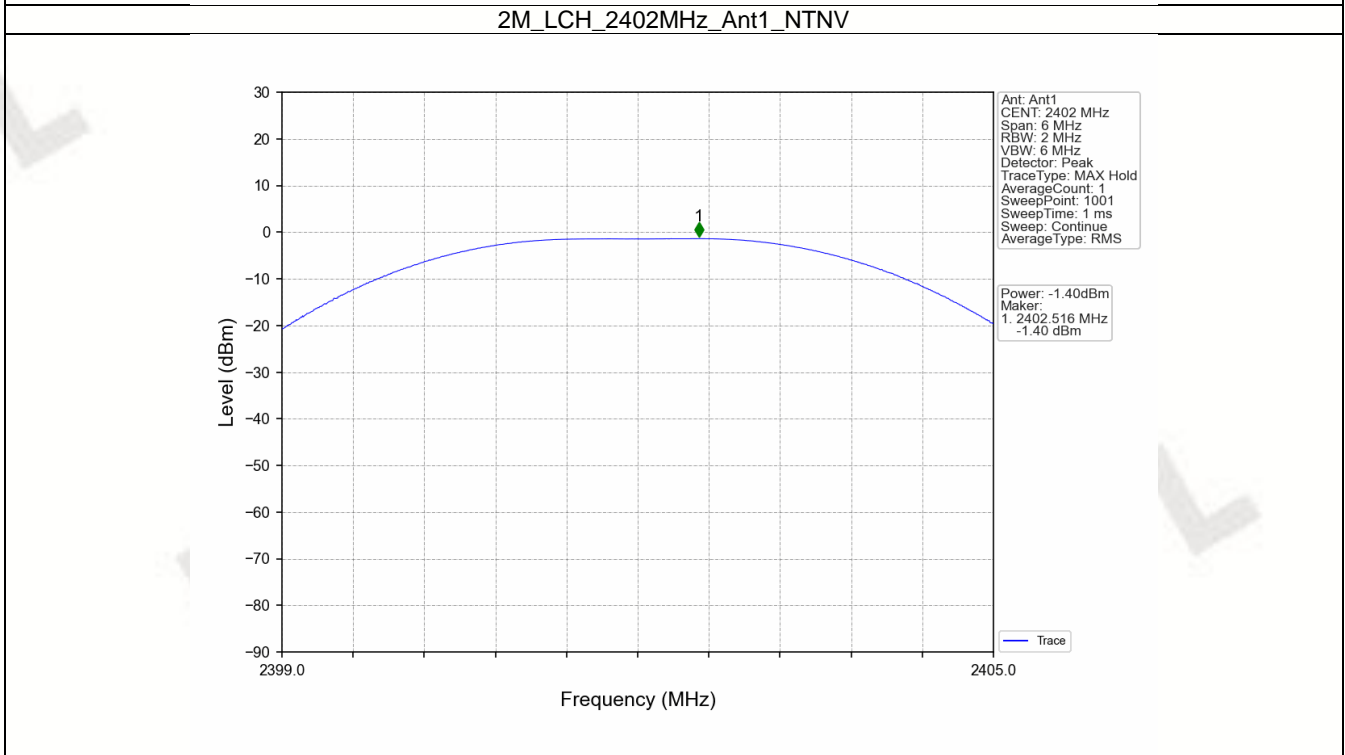
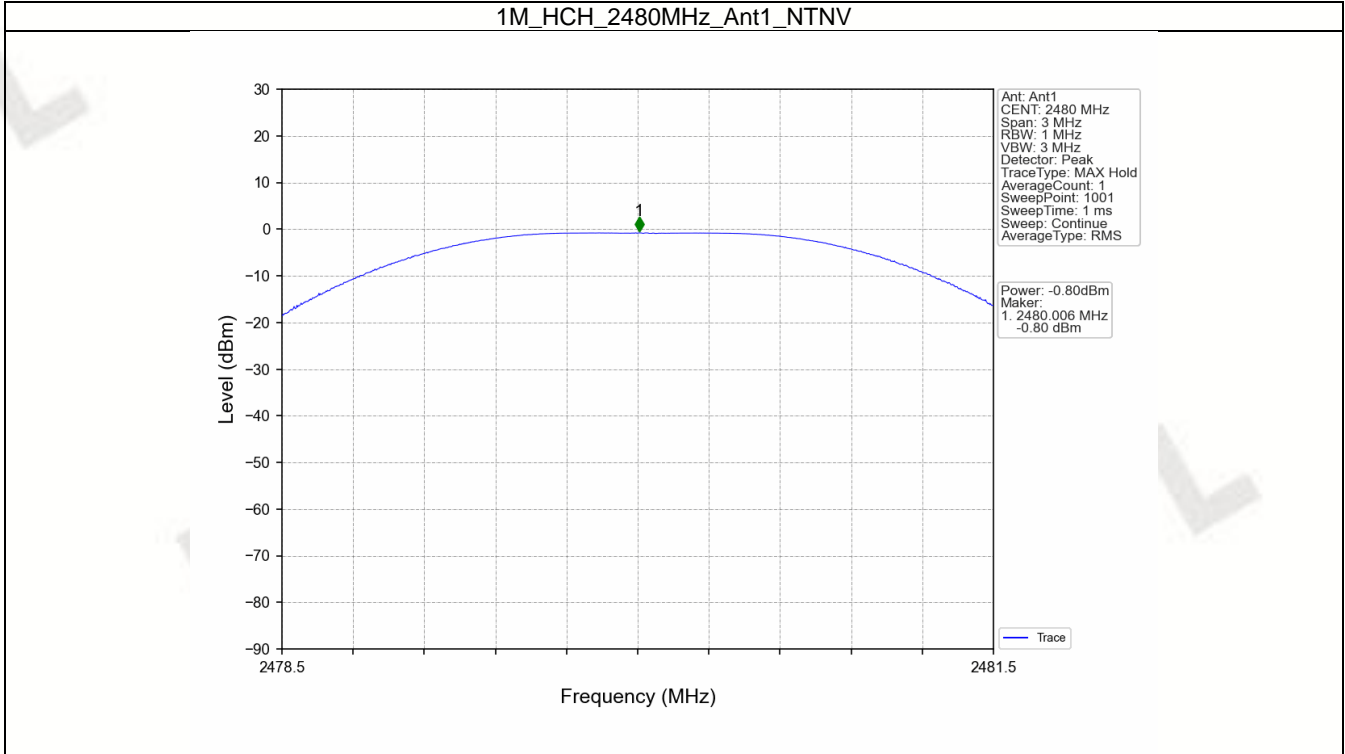
Note1: Antenna Gain: Ant1: -0.58dBi;

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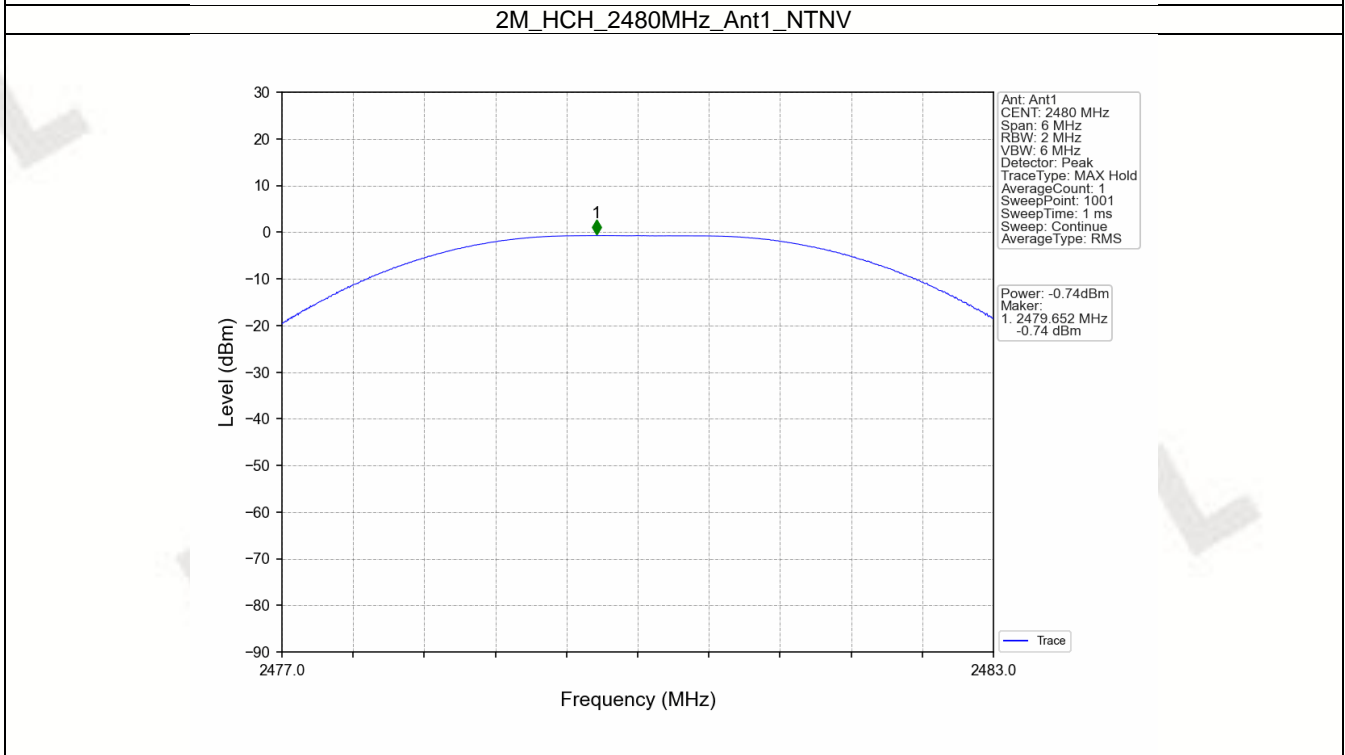
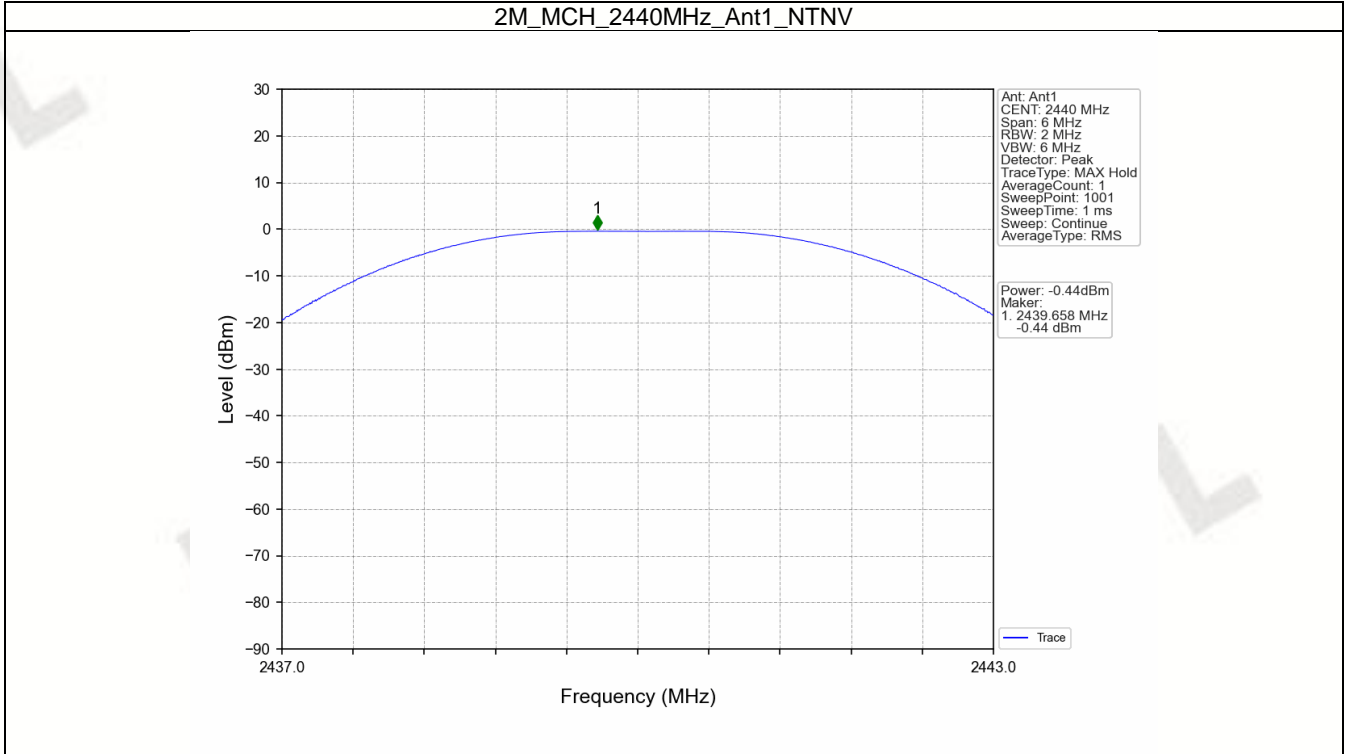
3.1.2 Test Graph



FCC ID:2AU4P-BTS121



FCC ID:2AU4P-BTS121



FCC ID:2AU4P-BTS121

4. Maximum Power Spectral Density

4.1 PSD

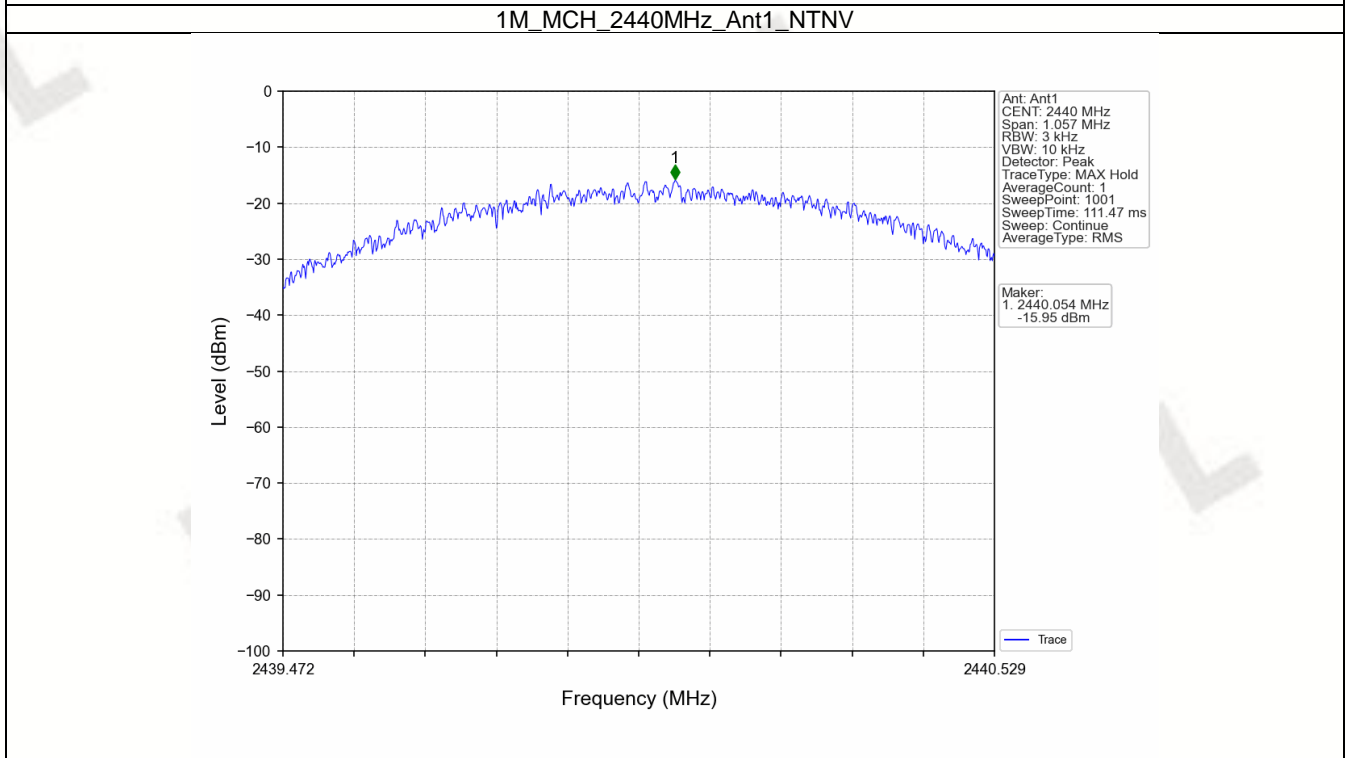
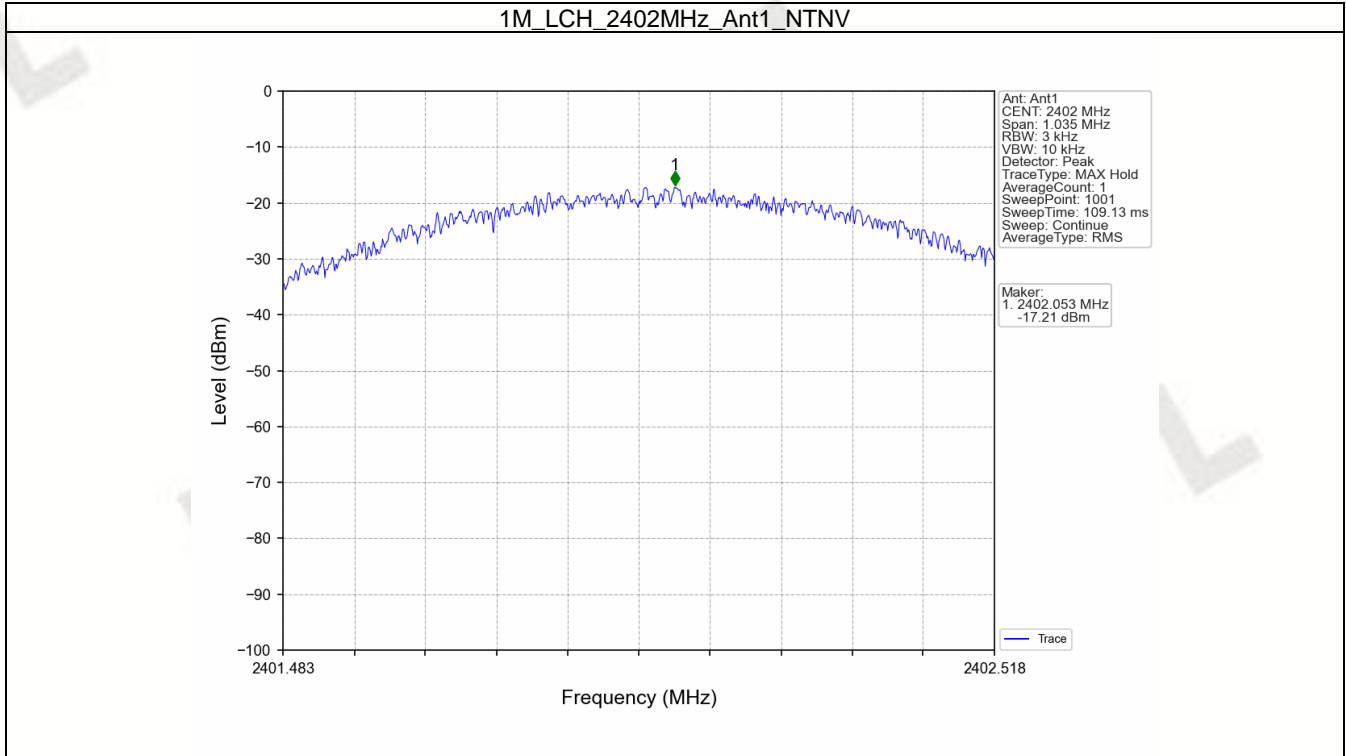
4.1.1 Test Result

Mode	TX Type	Frequency (MHz)	Maximum PSD (dBm/3kHz)		Verdict
			ANT1	Limit	
1M	SISO	2402	-17.21	<=8	Pass
		2440	-15.95	<=8	Pass
		2480	-16.43	<=8	Pass
2M	SISO	2402	-21.01	<=8	Pass
		2440	-19.97	<=8	Pass
		2480	-19.57	<=8	Pass

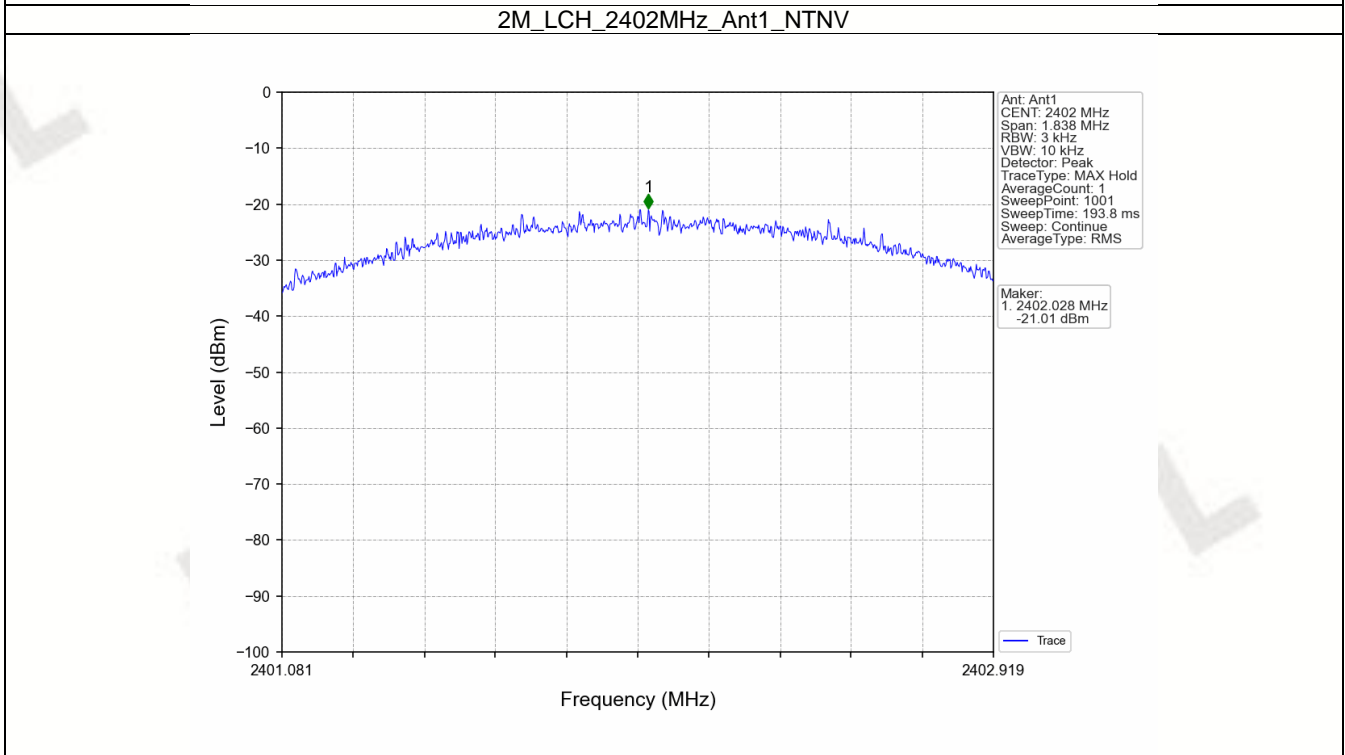
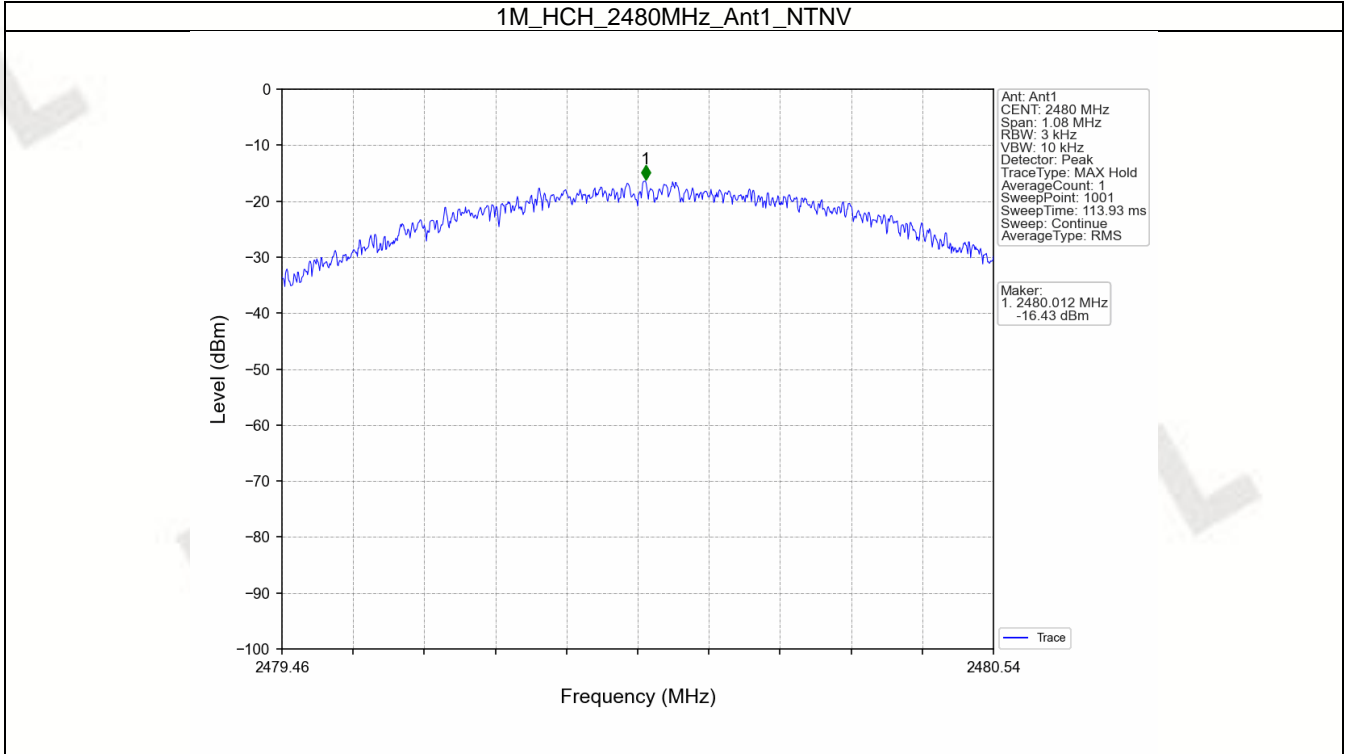
Note1: Antenna Gain: Ant1: -0.58dBi;

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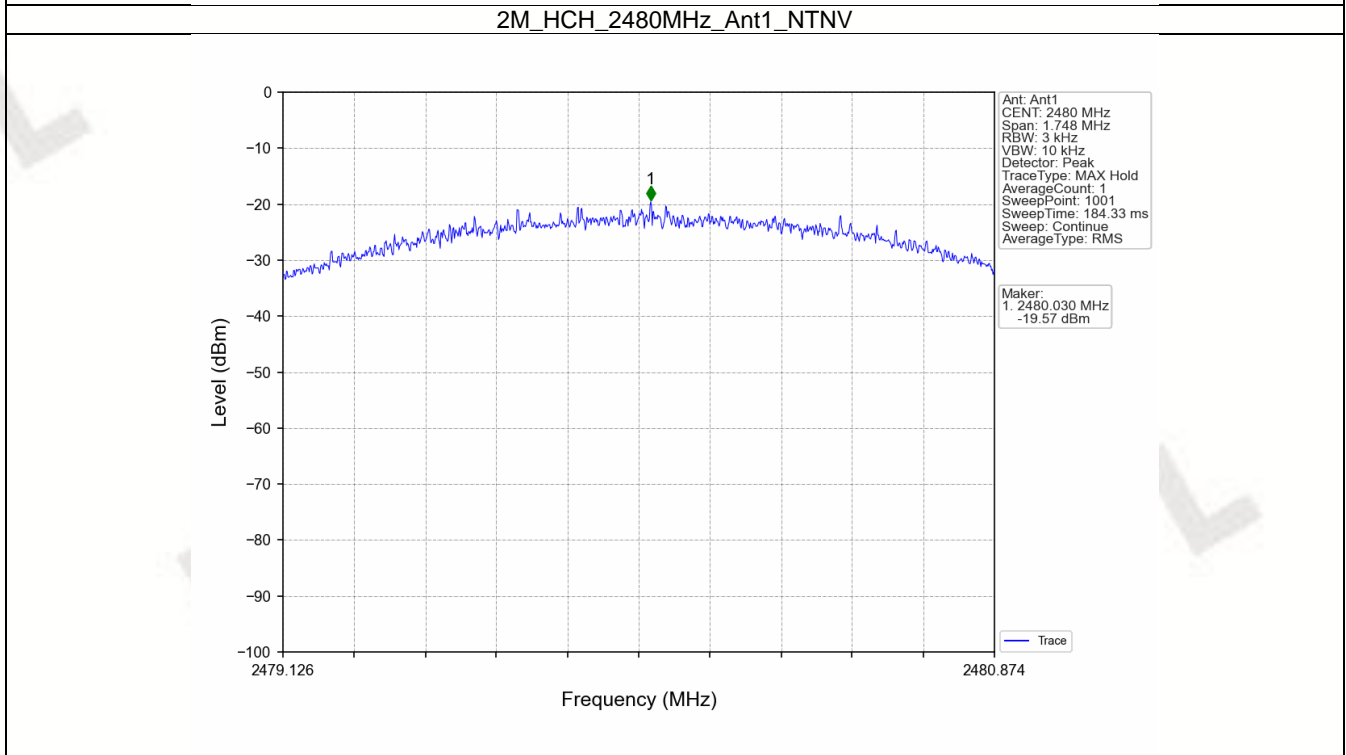
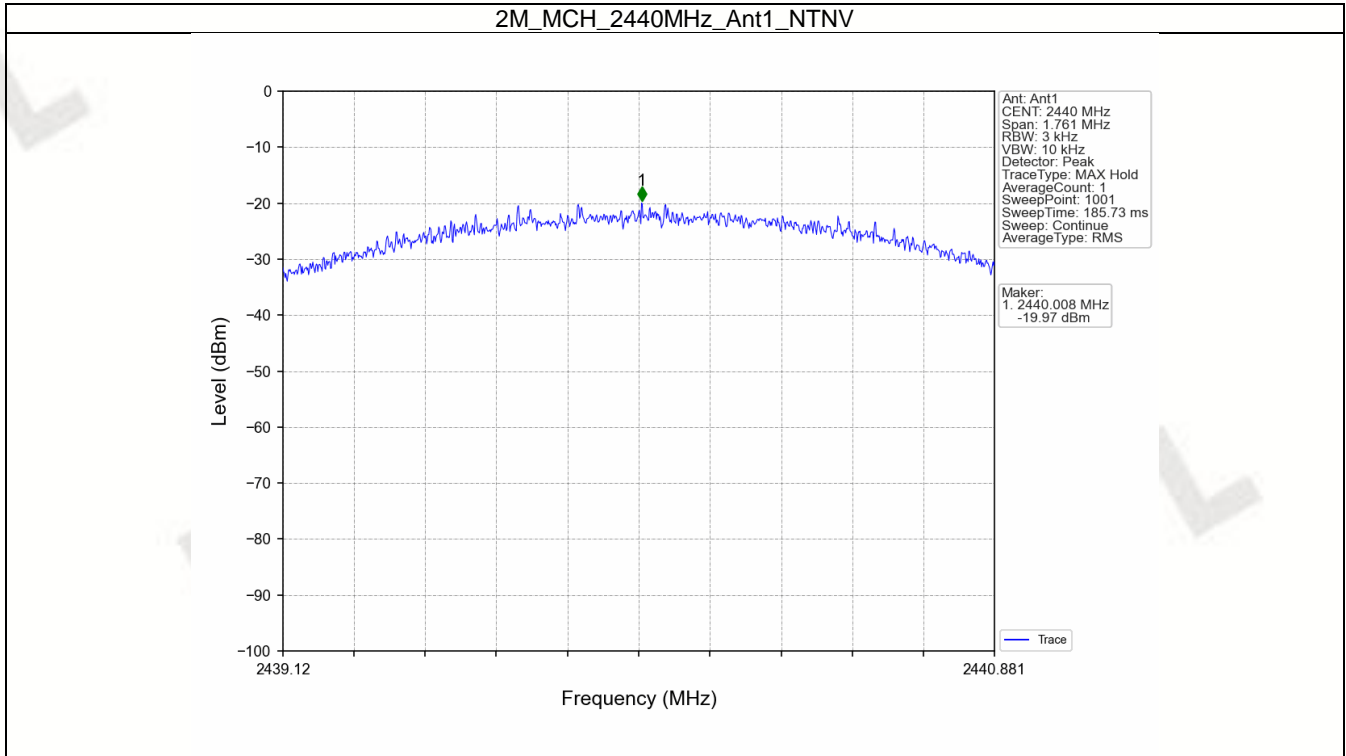
4.1.2 Test Graph



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5. Unwanted Emissions In Non-restricted Frequency Bands

5.1 Ref

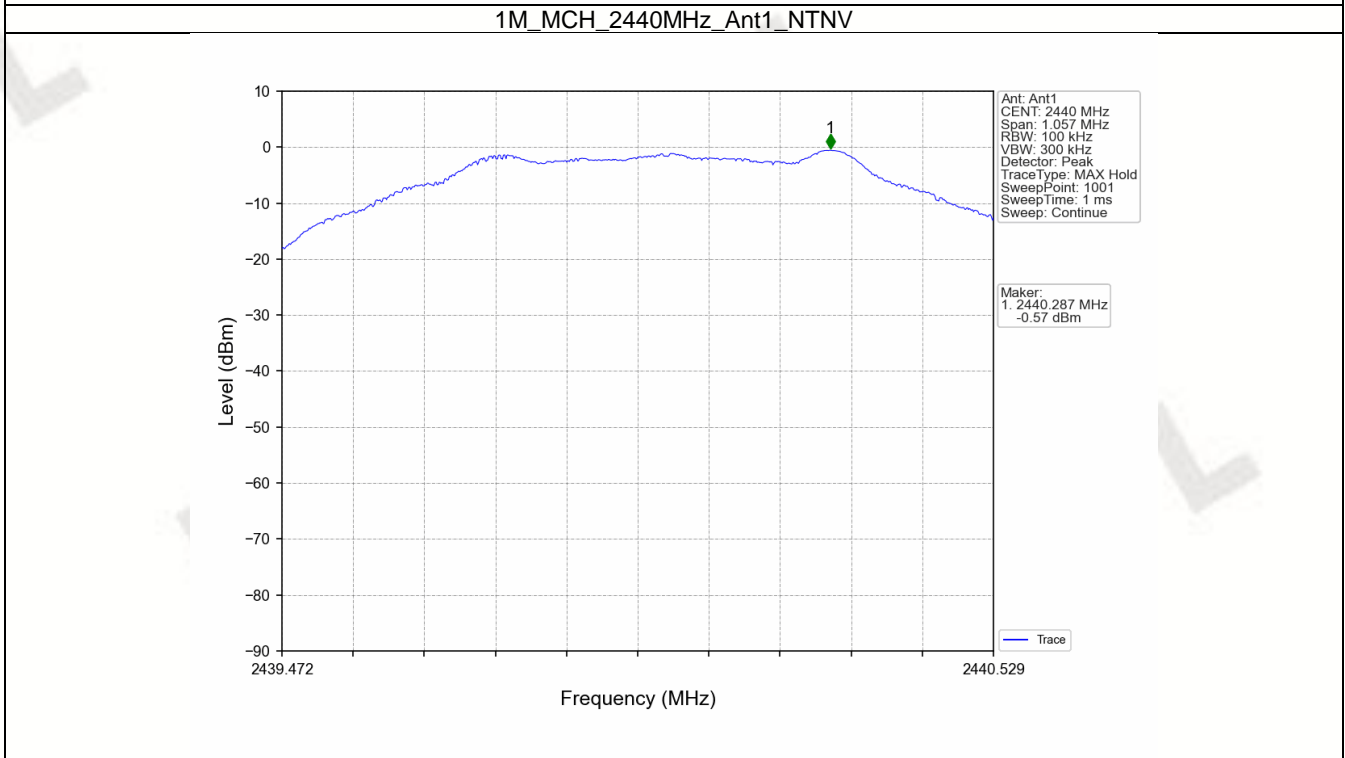
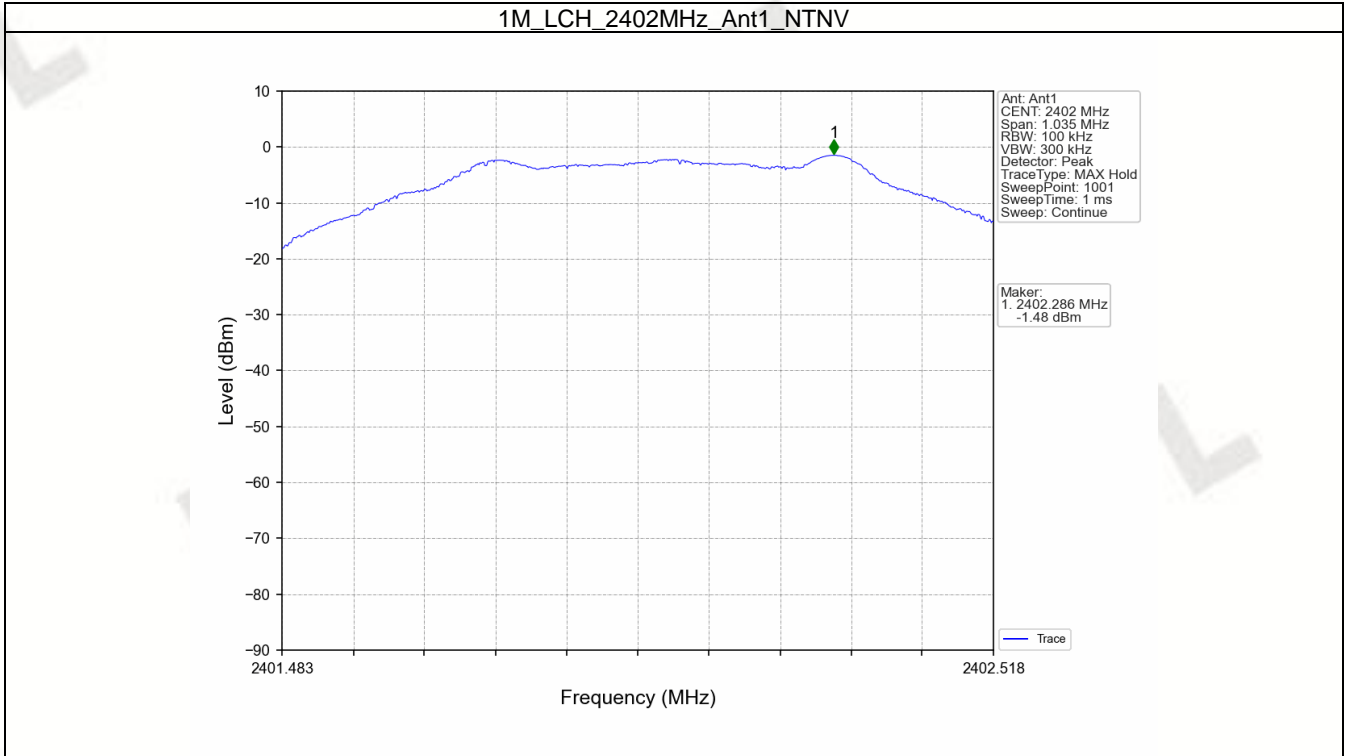
5.1.1 Test Result

Mode	TX Type	Frequency (MHz)	ANT	Level of Reference (dBm)
1M	SISO	2402	1	-1.48
		2440	1	-0.57
		2480	1	-0.88
2M	SISO	2402	1	-2.28
		2440	1	-1.18
		2480	1	-1.44

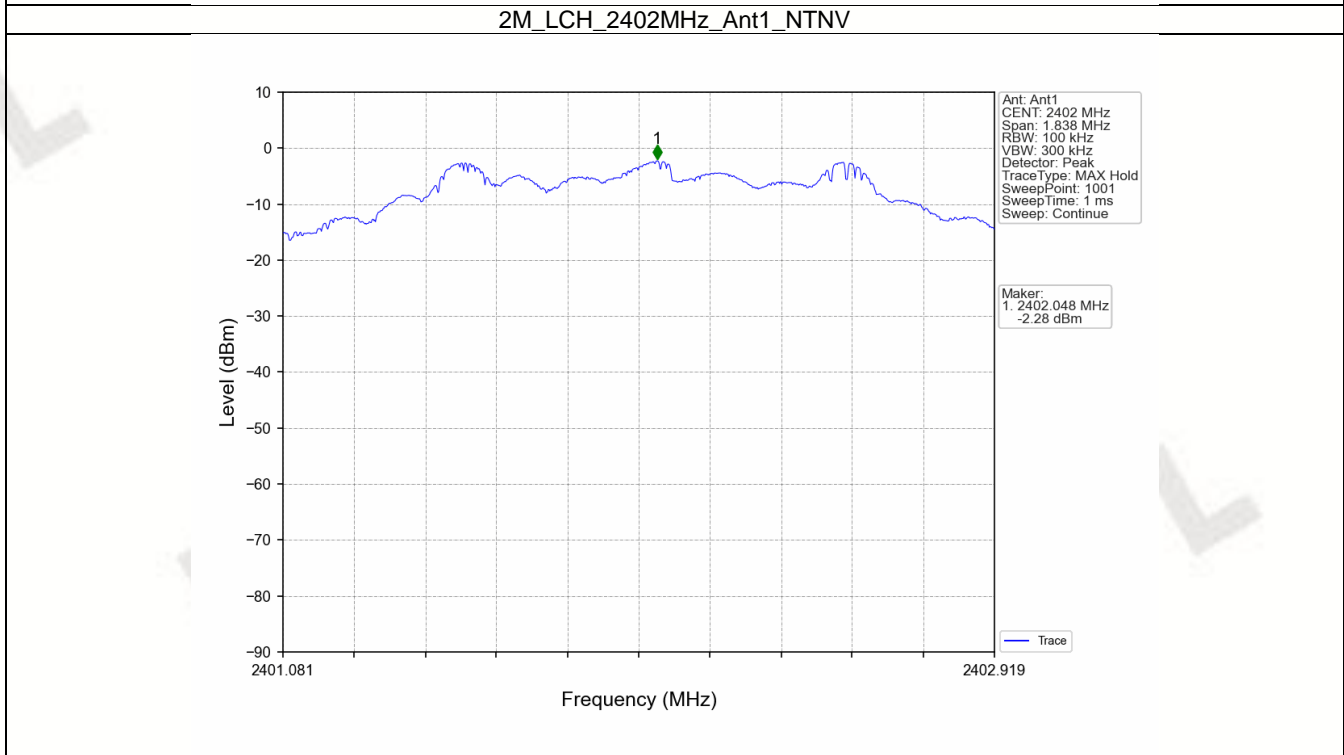
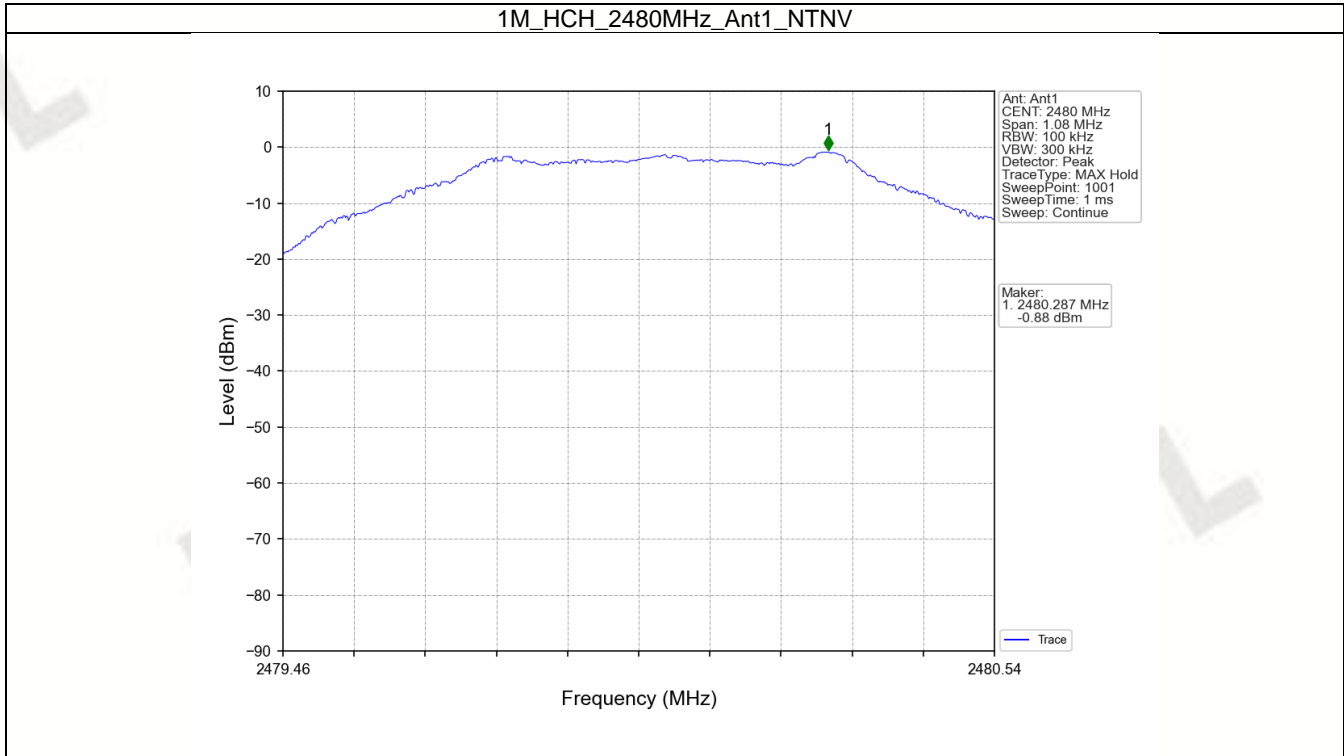
Note1: Refer to FCC Part 15.247 (d) and ANSI C63.10-2013, the channel contains the maximum PSD level was used to establish the reference level.

FCC ID:2AU4P-BTS121

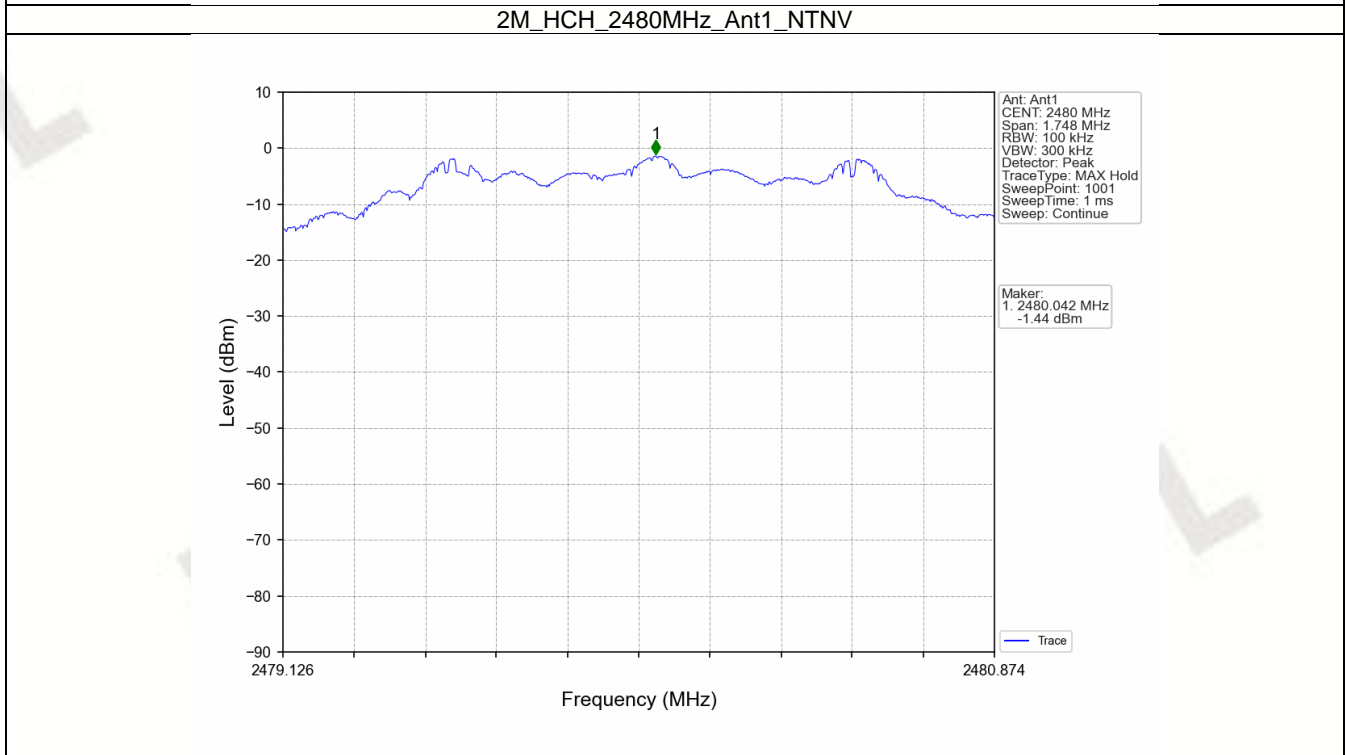
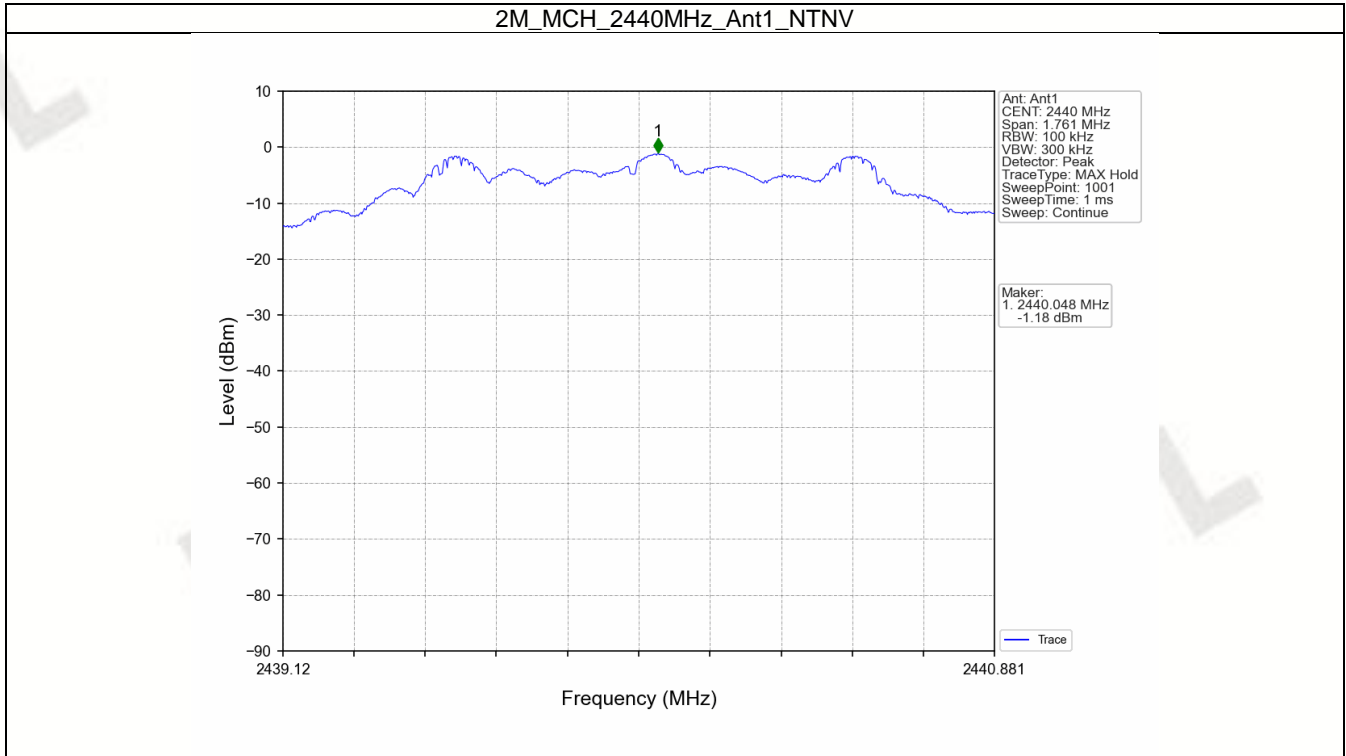
5.1.2 Test Graph



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FCC ID:2AU4P-BTS121



FCC ID:2AU4P-BTS121

5.2 CSE

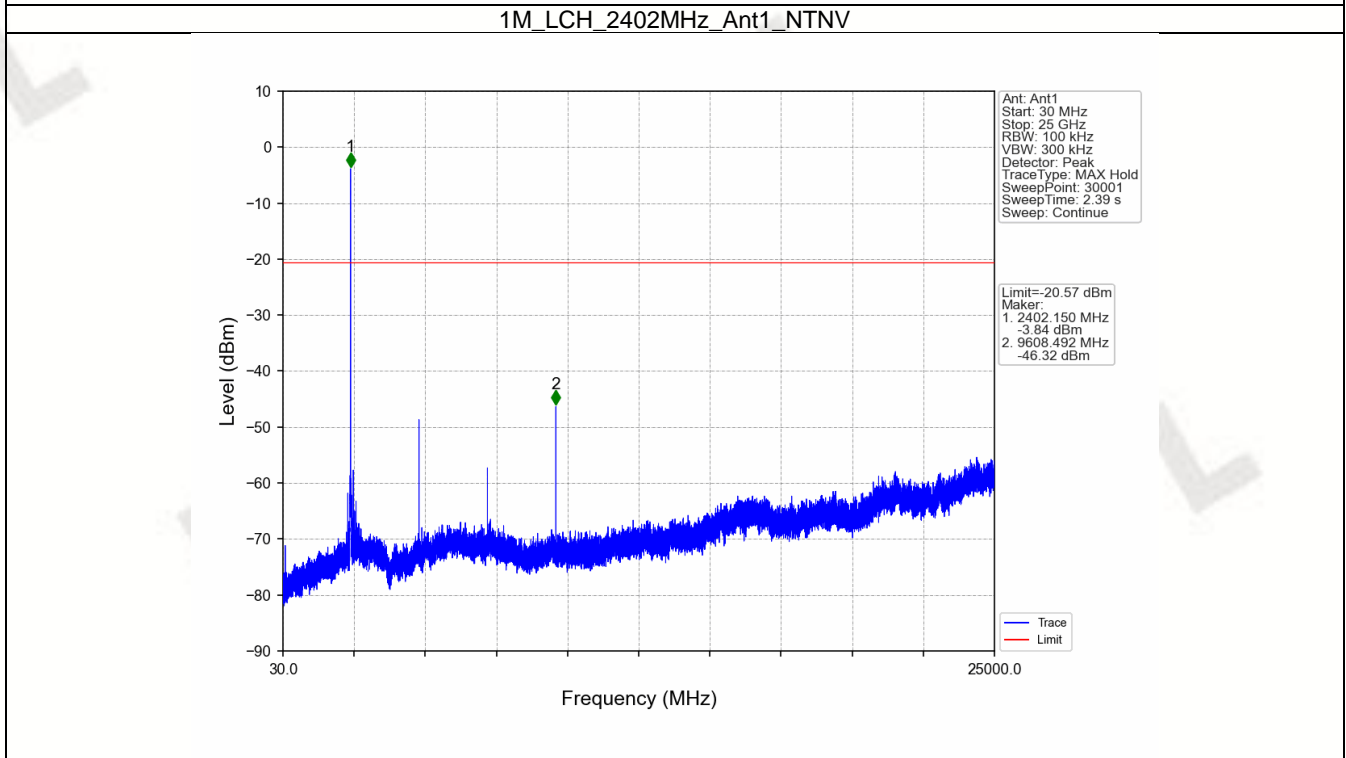
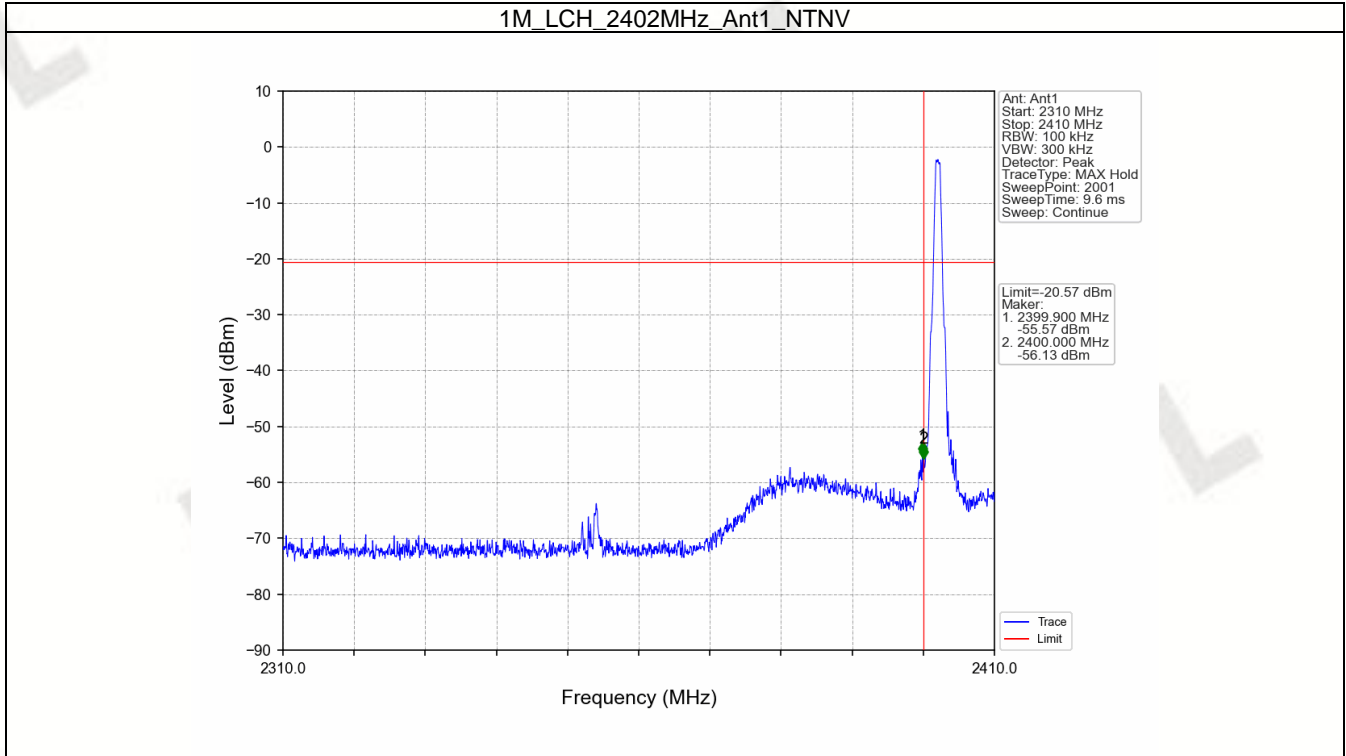
5.2.1 Test Result

Mode	TX Type	Frequency (MHz)	ANT	Level of Reference (dBm)	Limit (dBm)	Verdict
1M	SISO	2402	1	-0.57	-20.57	Pass
		2440	1	-0.57	-20.57	Pass
		2480	1	-0.57	-20.57	Pass
2M	SISO	2402	1	-1.18	-21.18	Pass
		2440	1	-1.18	-21.18	Pass
		2480	1	-1.18	-21.18	Pass

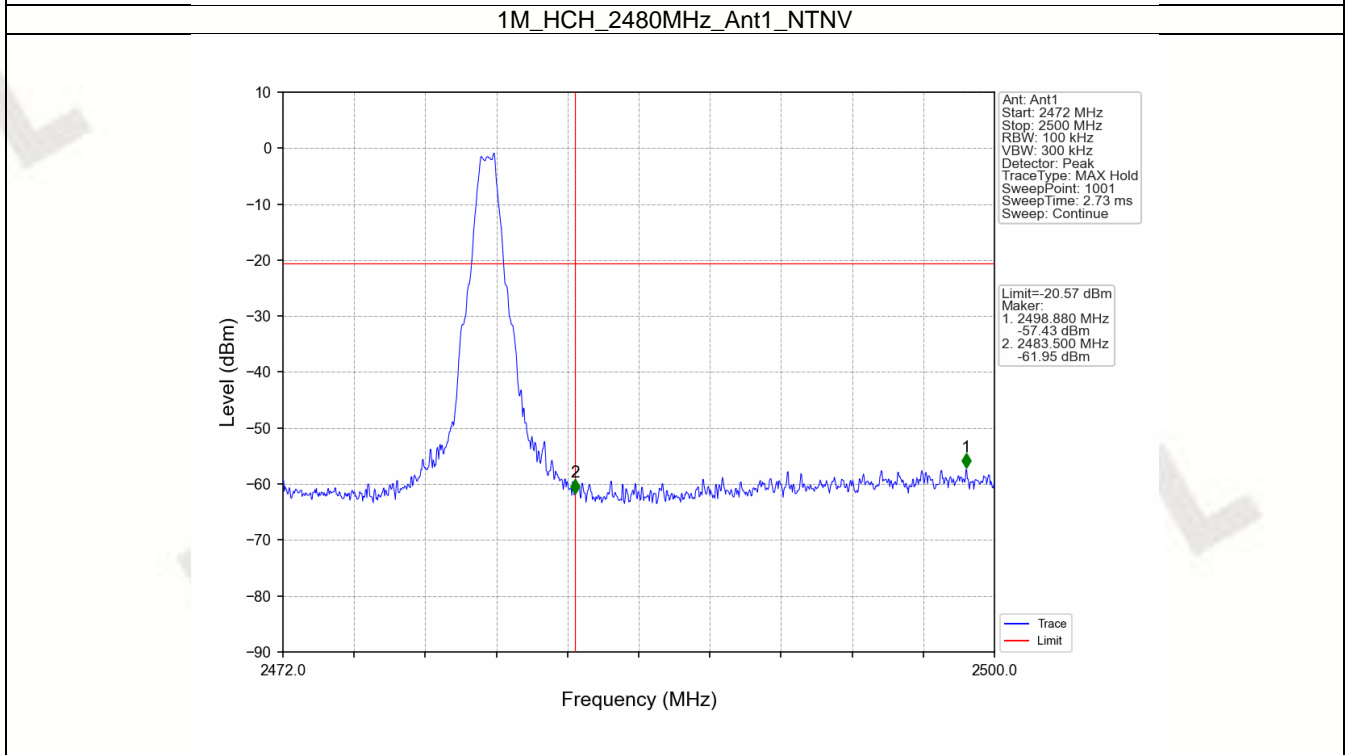
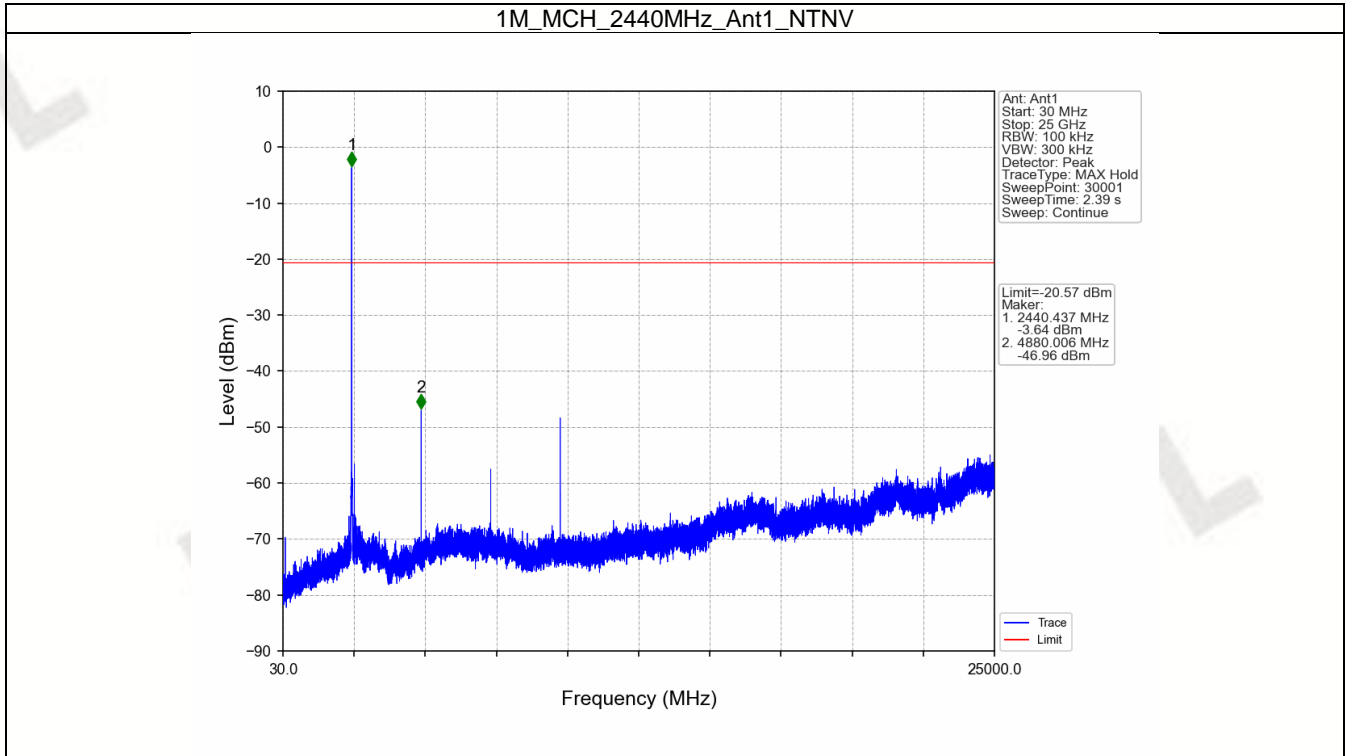
Note1: Refer to FCC Part 15.247 (d) and ANSI C63.10-2013, the channel contains the maximum PSD level was used to establish the reference level.

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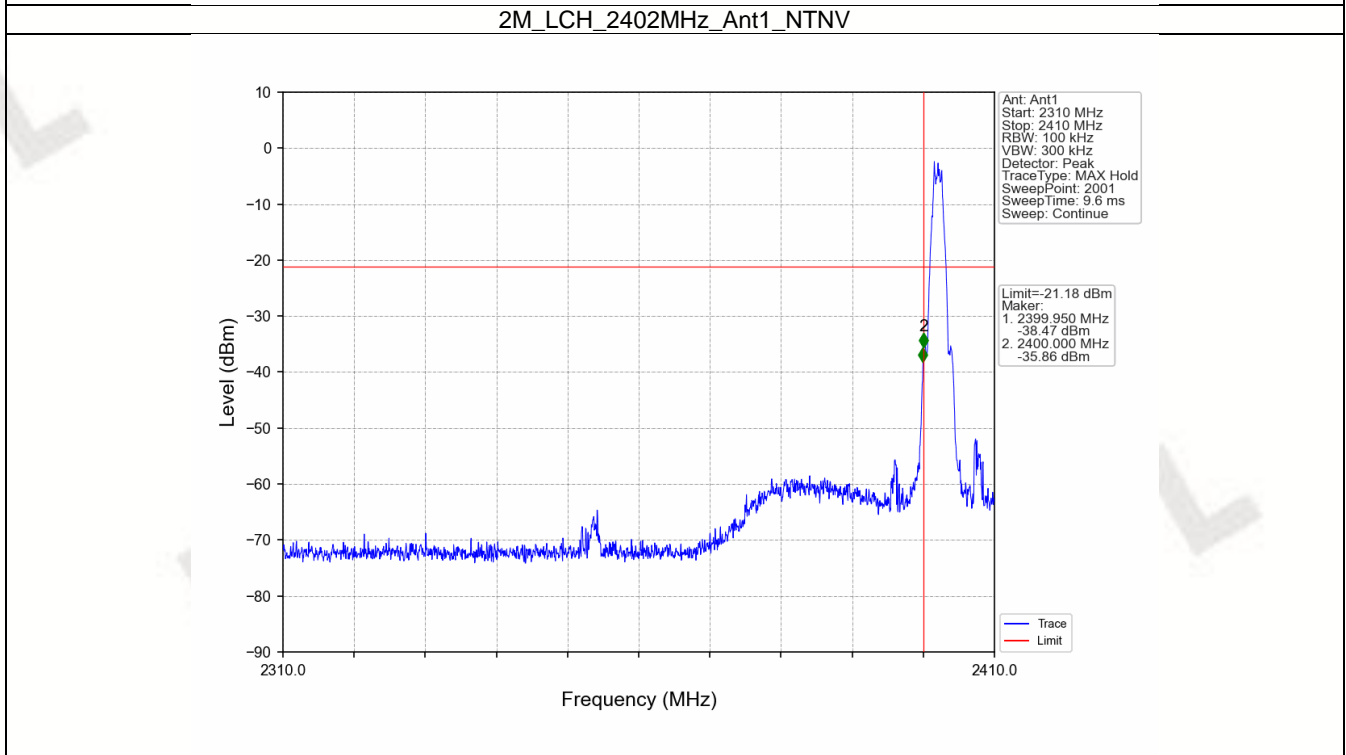
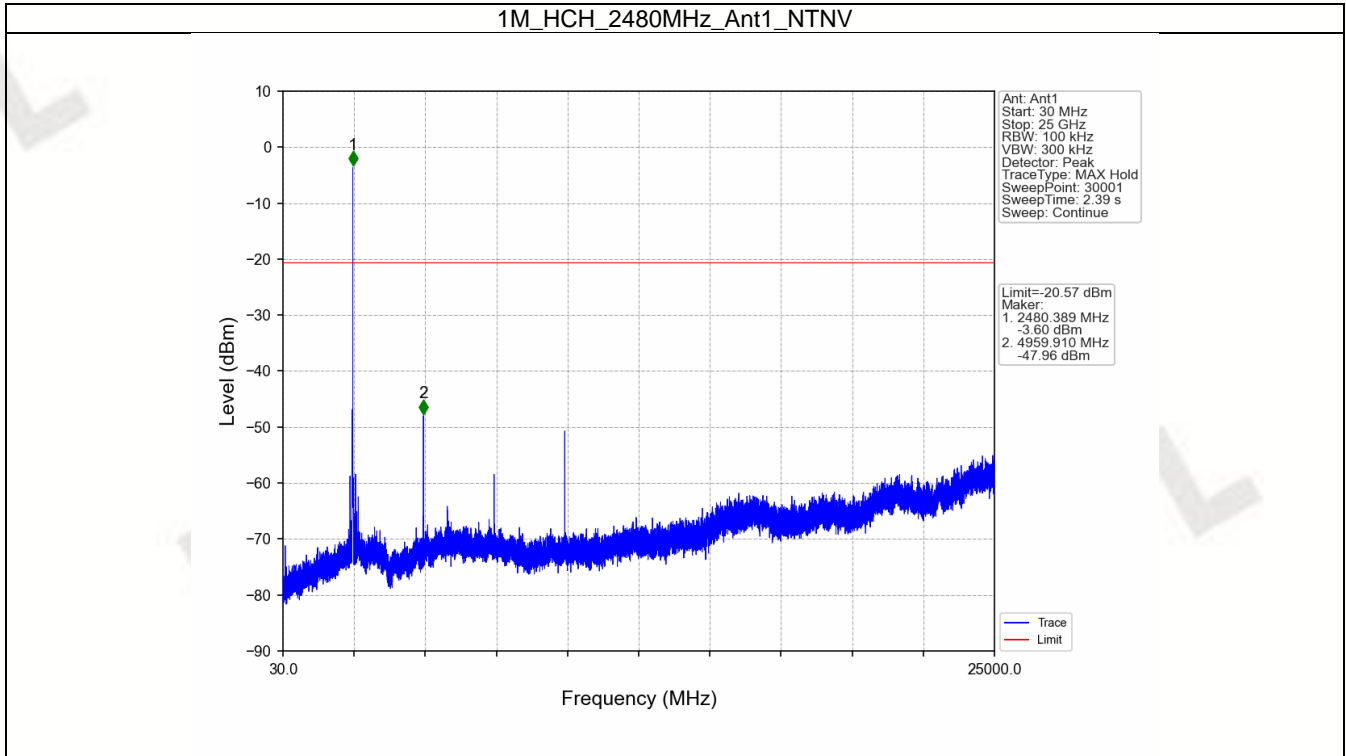
5.2.2 Test Graph



FCC ID:2AU4P-BTS121

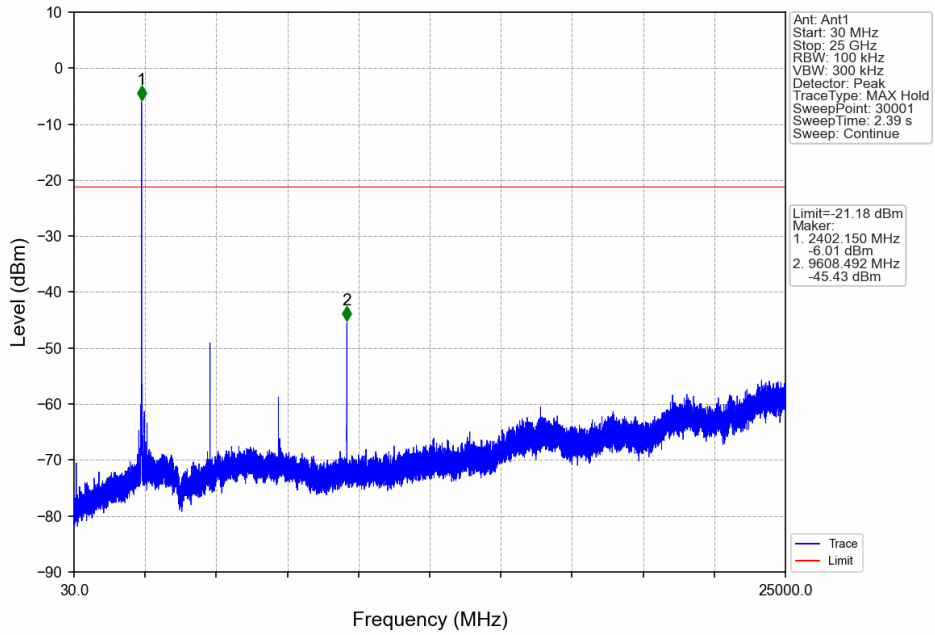


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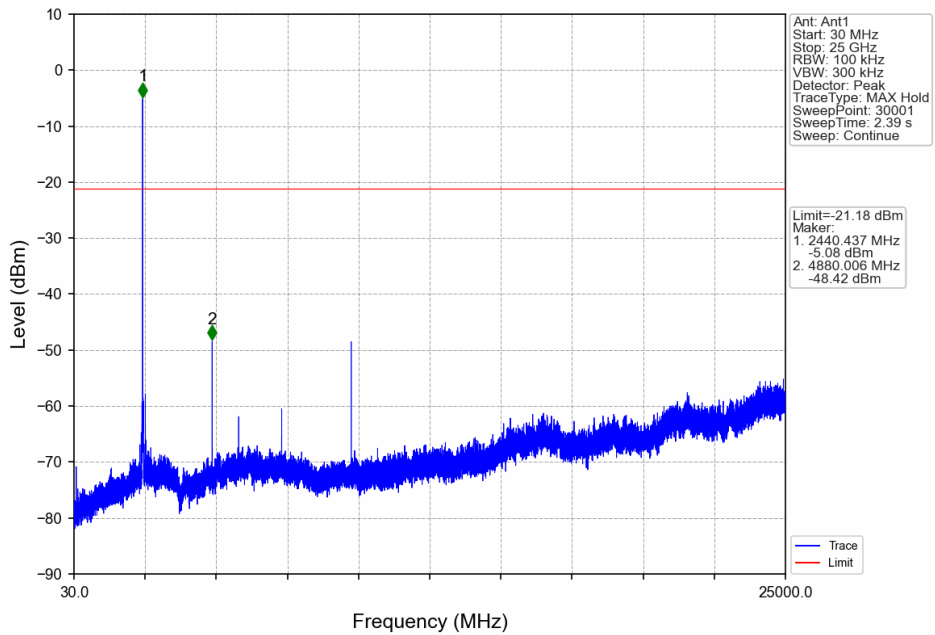


FCC ID:2AU4P-BTS121

2M_LCH_2402MHz_Ant1_NTNV



2M_MCH_2440MHz_Ant1_NTNV



FCC ID:2AU4P-BTS121

