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Annex for BLE

Test Report No.: CTL2404222091-WR

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1. Bandwidth

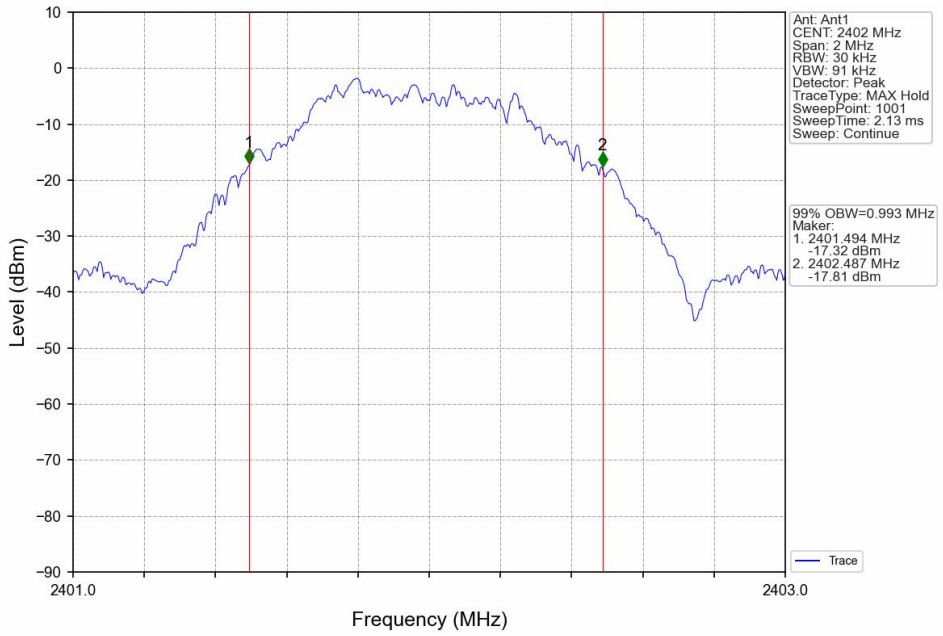
1.1 OBW

1.1.1 Test Result

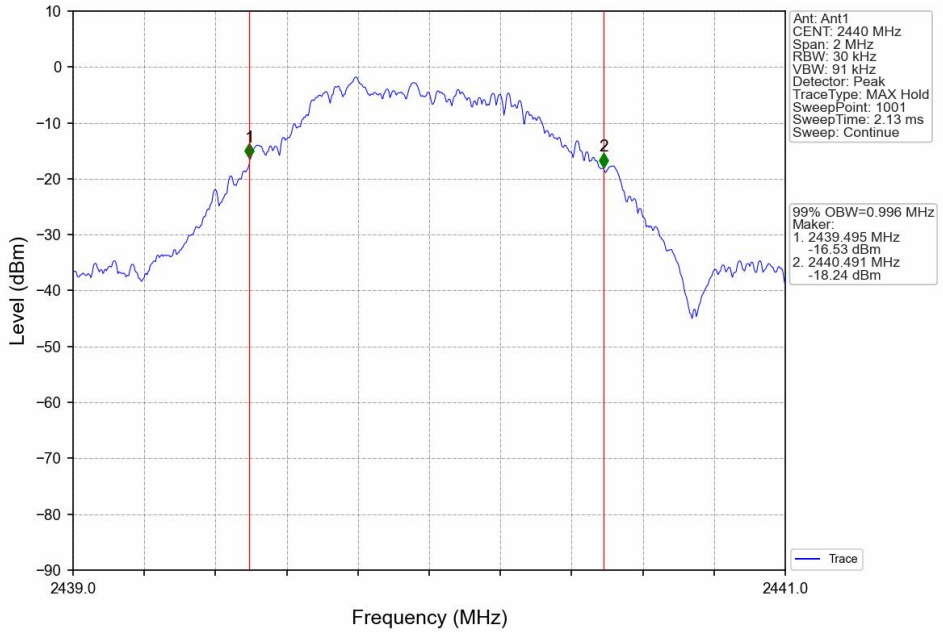
Mode	TX Type	Frequency (MHz)	ANT	99% Occupied Bandwidth (MHz)		Verdict
				Result	Limit	
1M	SISO	2402	1	0.993	/	Pass
		2440	1	0.996	/	Pass
		2480	1	1.034	/	Pass
2M	SISO	2402	1	2.010	/	Pass
		2440	1	2.024	/	Pass
		2480	1	2.026	/	Pass

1.1.2 Test Graph

1M_LCH_2402MHz_Ant1_NTNV

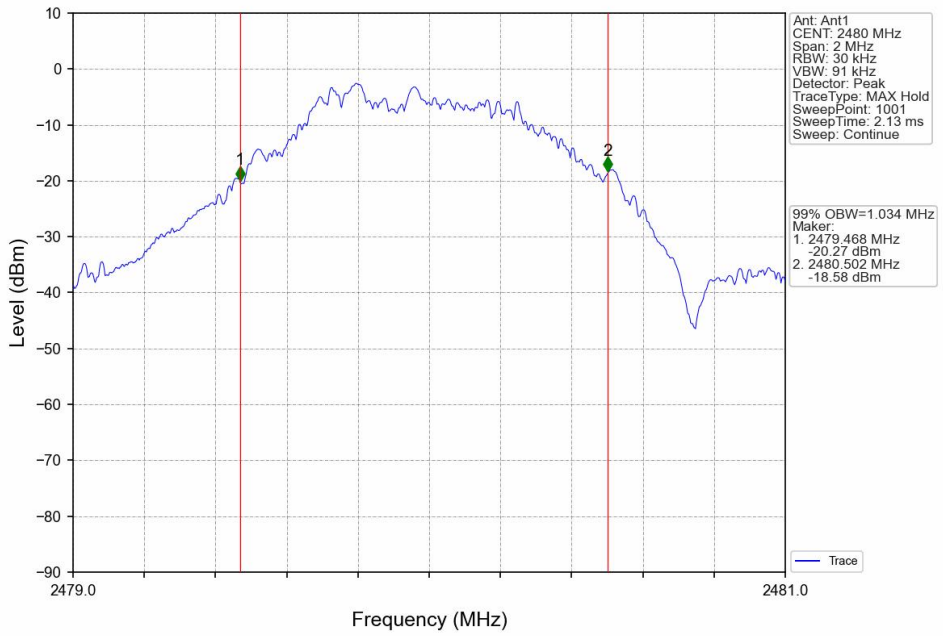


1M_MCH_2440MHz_Ant1_NTNV

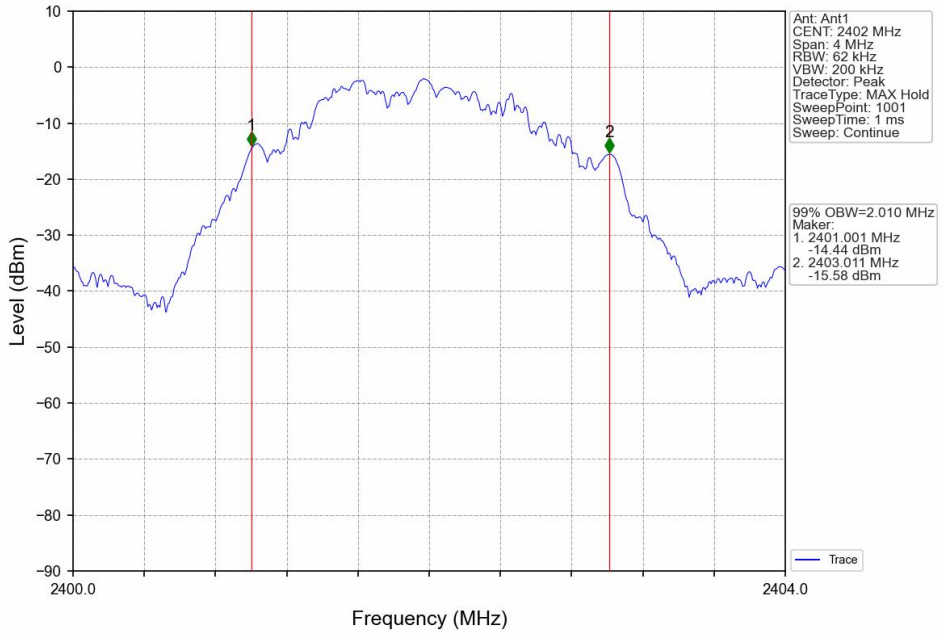


FCCID: 2BGTJ-CQ-F20

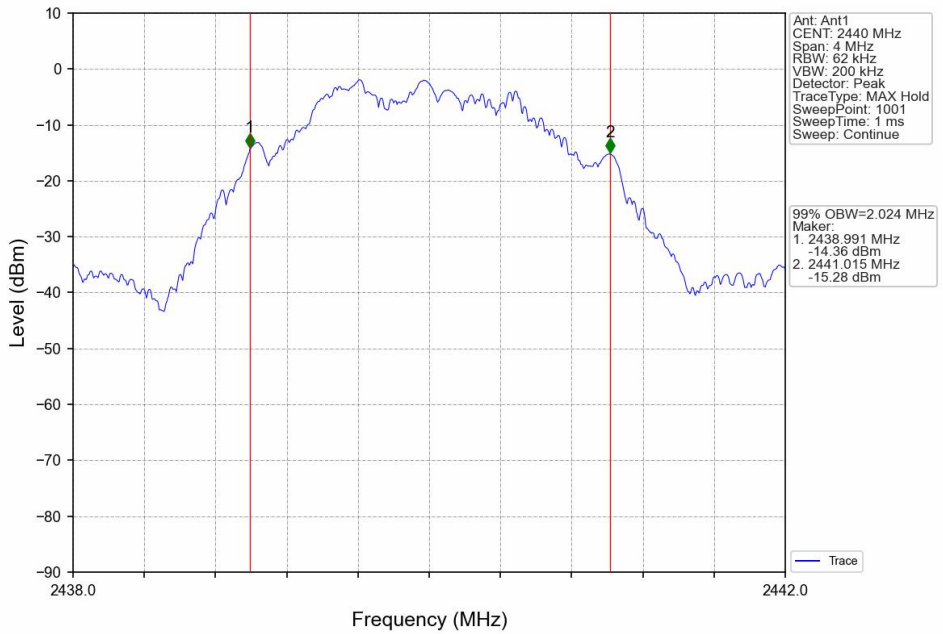
1M_HCH_2480MHz_Ant1_NTNV



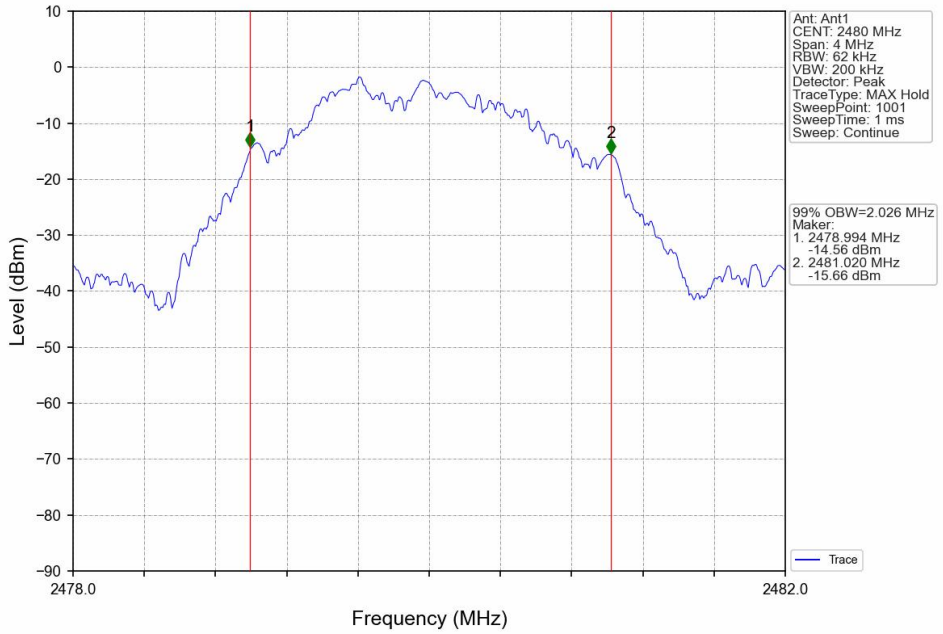
2M_LCH_2402MHz_Ant1_NTNV



2M_MCH_2440MHz_Ant1_NTNV



2M_HCH_2480MHz_Ant1_NTNV



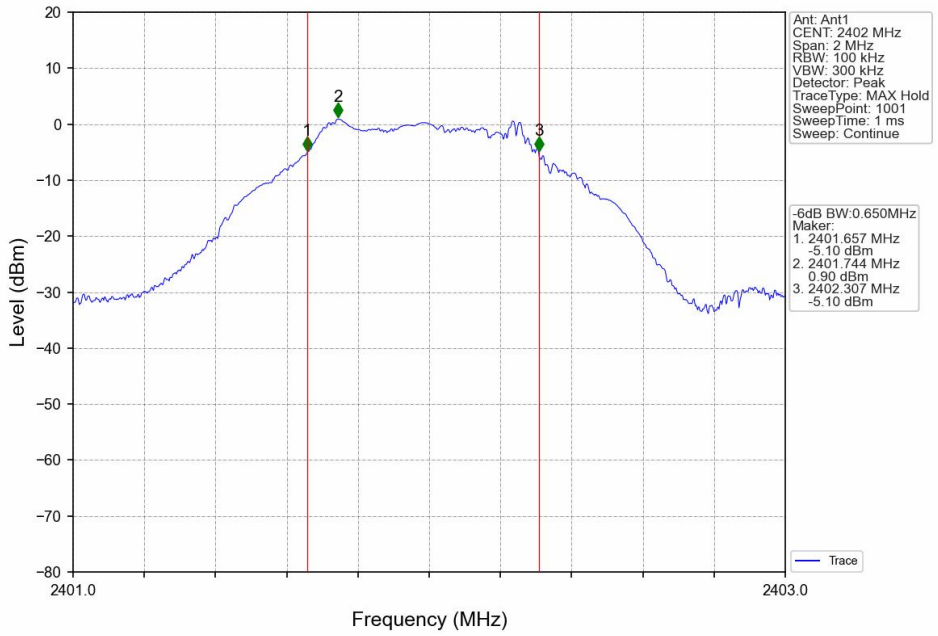
1.2 6dB BW

1.2.1 Test Result

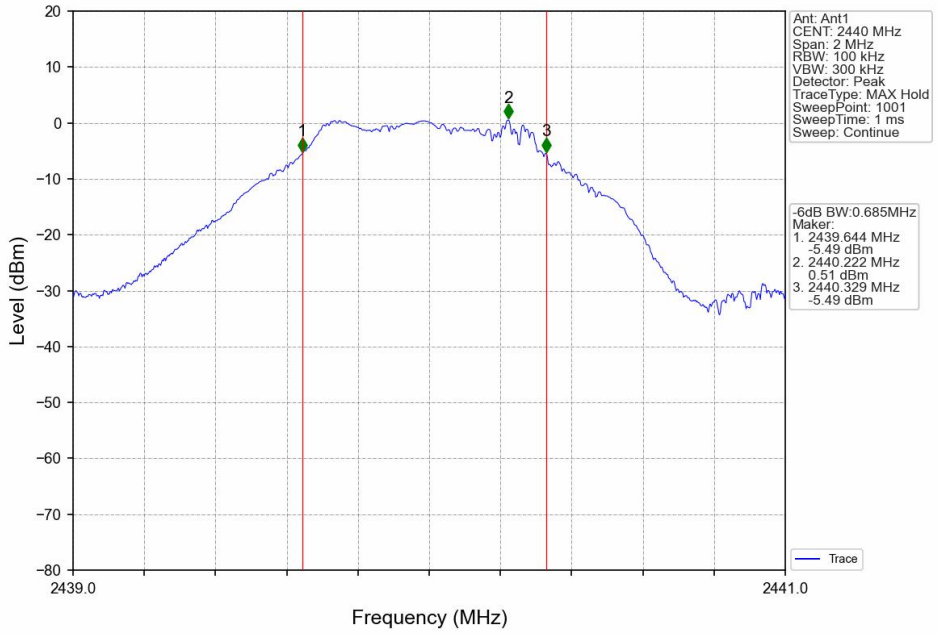
Mode	TX Type	Frequency (MHz)	ANT	6dB Bandwidth (MHz)		Verdict
				Result	Limit	
1M	SISO	2402	1	0.650	>=0.5	Pass
		2440	1	0.685	>=0.5	Pass
		2480	1	0.660	>=0.5	Pass
2M	SISO	2402	1	1.218	>=0.5	Pass
		2440	1	1.209	>=0.5	Pass
		2480	1	1.208	>=0.5	Pass

1.2.2 Test Graph

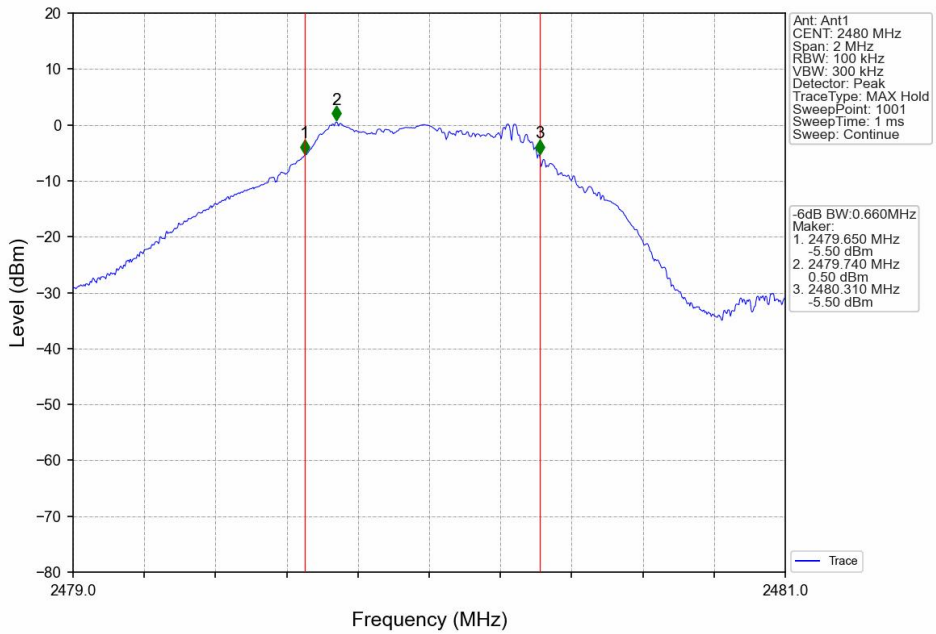
1M_LCH_2402MHz_Ant1_NTNV



1M_MCH_2440MHz_Ant1_NTNV



1M_HCH_2480MHz_Ant1_NTNV



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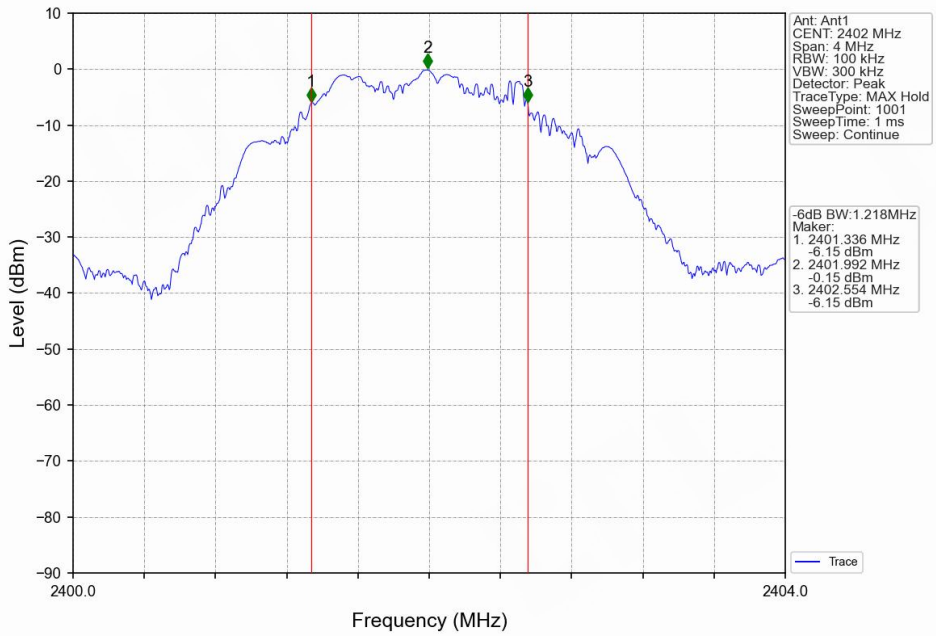
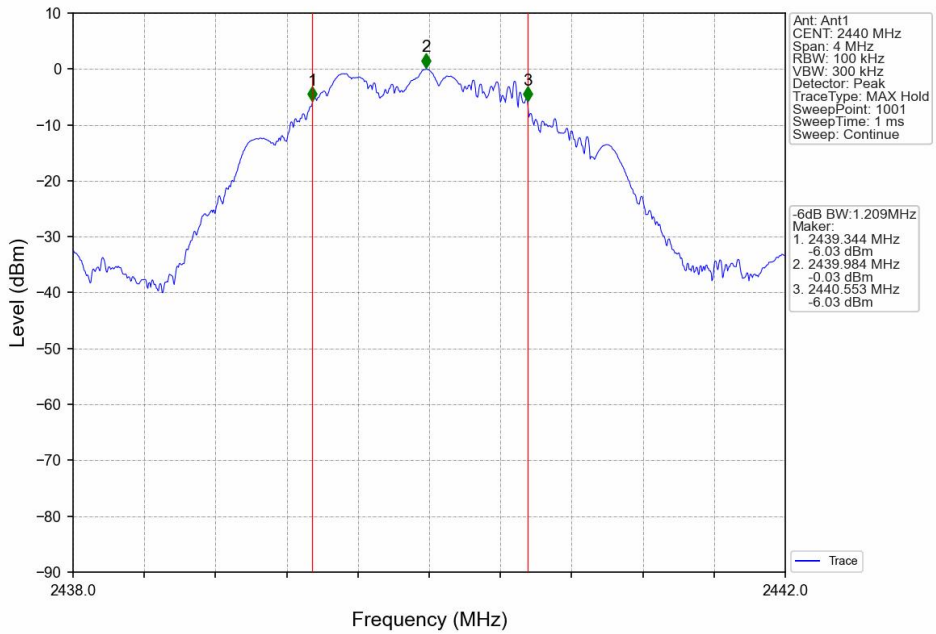
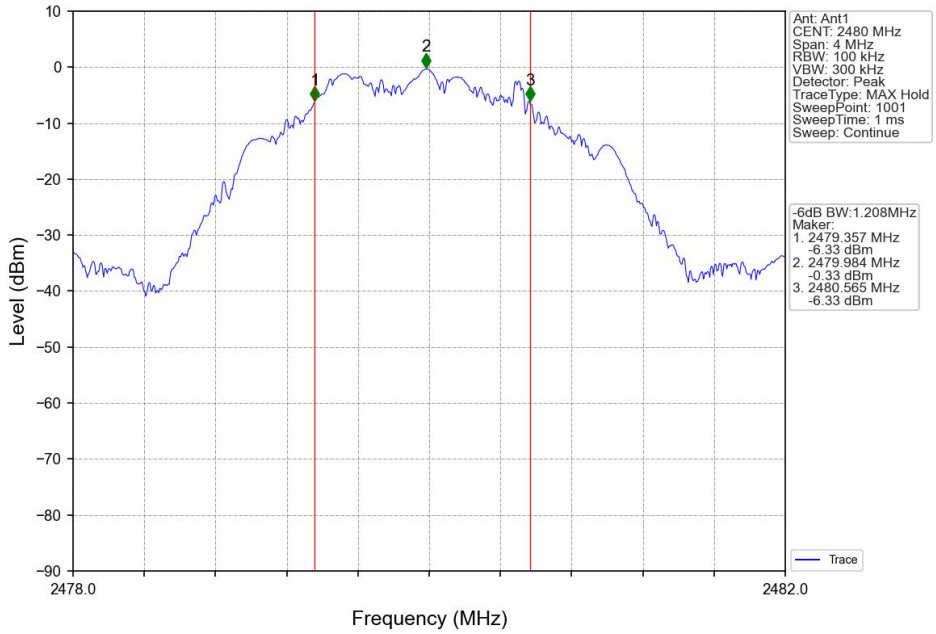


2M_MCH_2440MHz_Ant1_NTNV



2M_HCH_2480MHz_Ant1_NTNV



2. Maximum Conducted Output Power

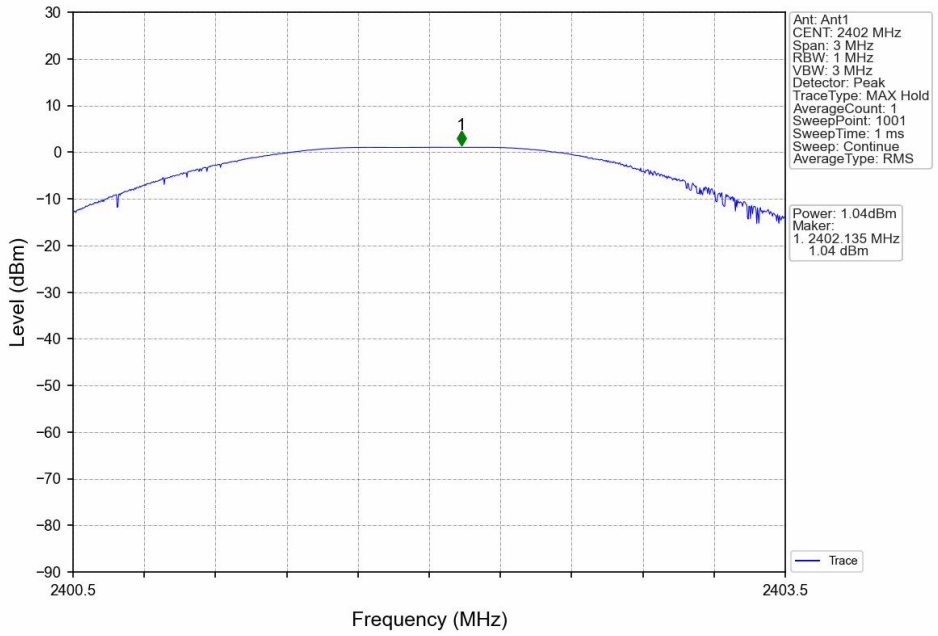
2.1 Power

2.1.1 Test Result

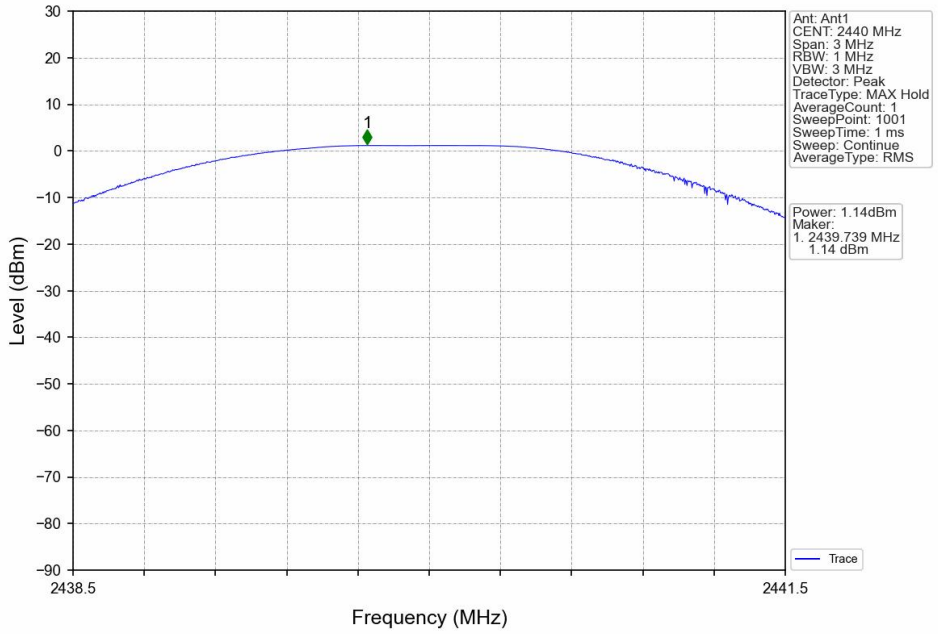
Mode	TX Type	Frequency (MHz)	Maximum Peak Conducted Output Power (dBm)		Verdict
			ANT1	Limit	
1M	SISO	2402	1.04	<=30	Pass
		2440	1.14	<=30	Pass
		2480	0.82	<=30	Pass
2M	SISO	2402	1.04	<=30	Pass
		2440	1.16	<=30	Pass
		2480	0.84	<=30	Pass
Note1: Antenna Gain: Ant1: -0.58dBi;					

2.1.2 Test Graph

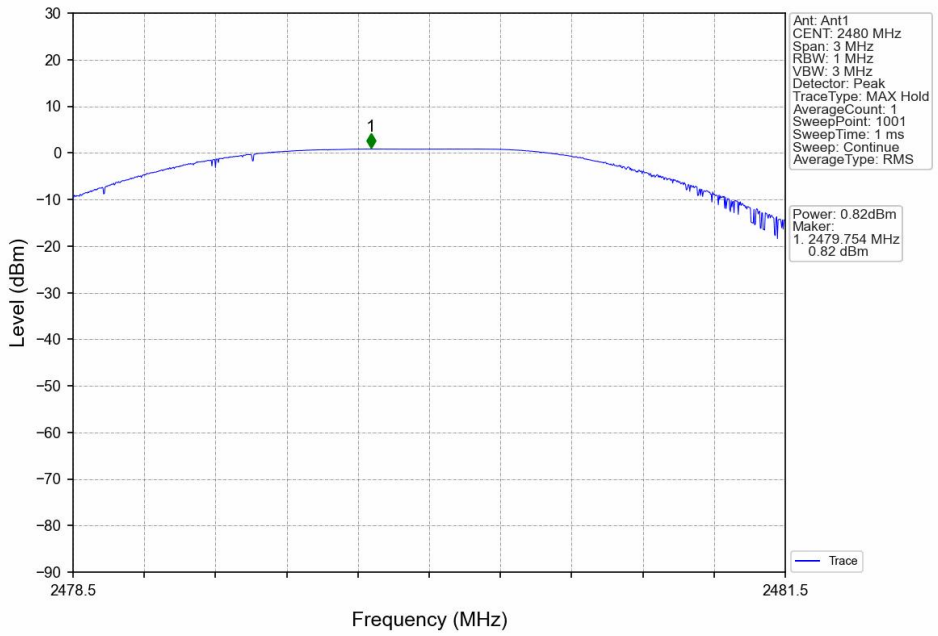
1M_LCH_2402MHz_Ant1_NTNV



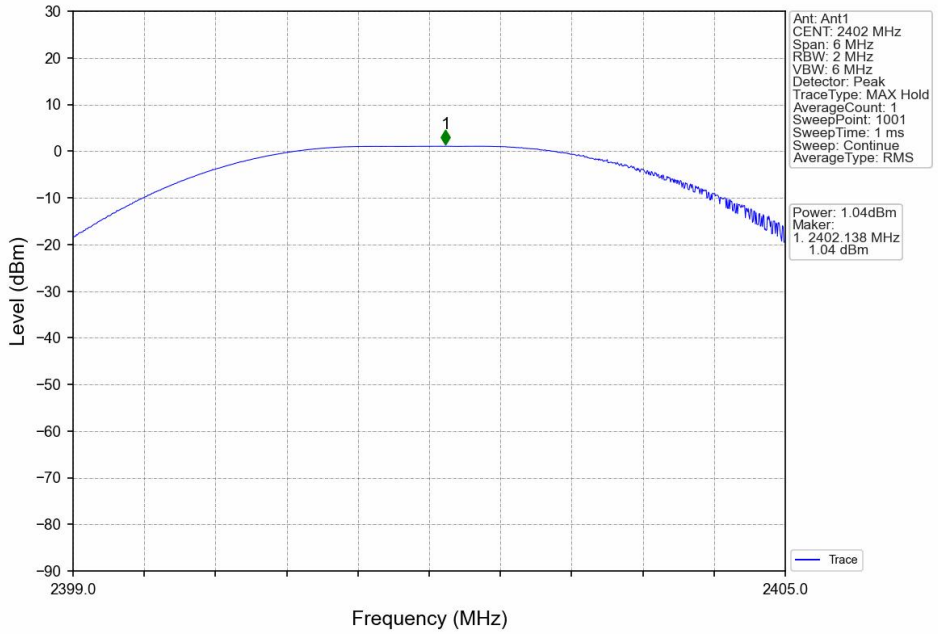
1M_MCH_2440MHz_Ant1_NTNV



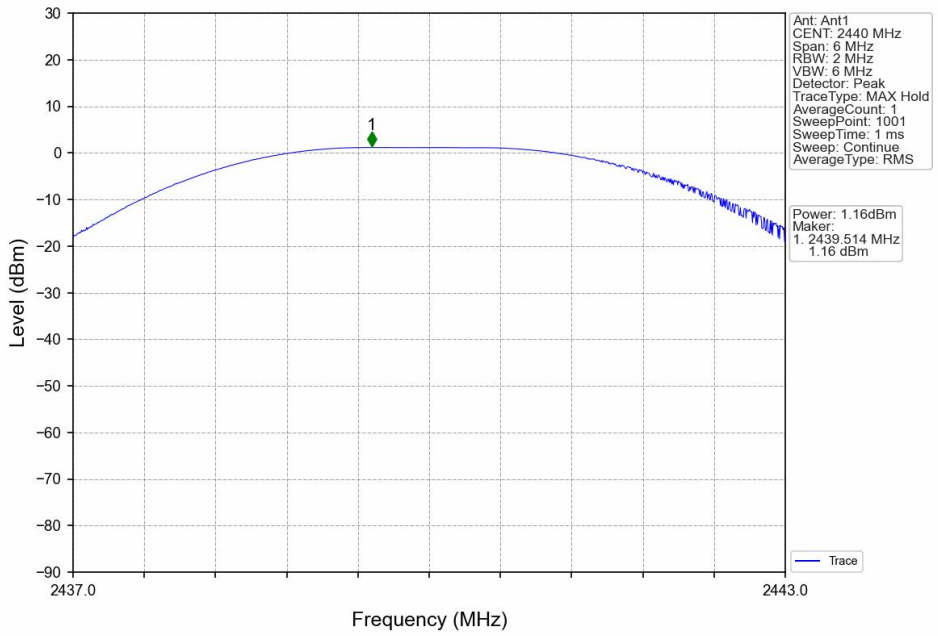
1M_HCH_2480MHz_Ant1_NTNV



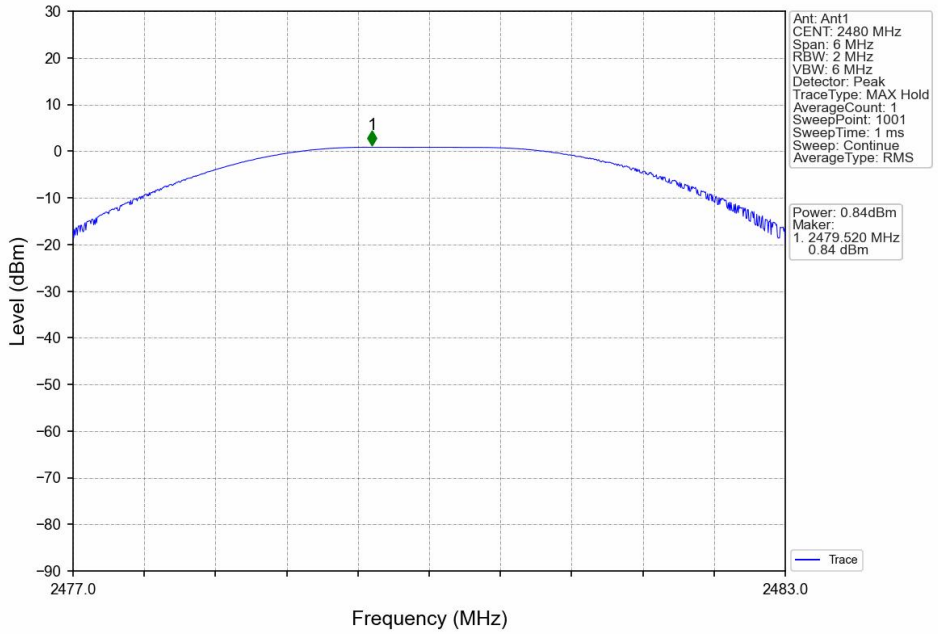
2M_LCH_2402MHz_Ant1_NTNV



2M_MCH_2440MHz_Ant1_NTNV



2M_HCH_2480MHz_Ant1_NTNV



3. Maximum Power Spectral Density

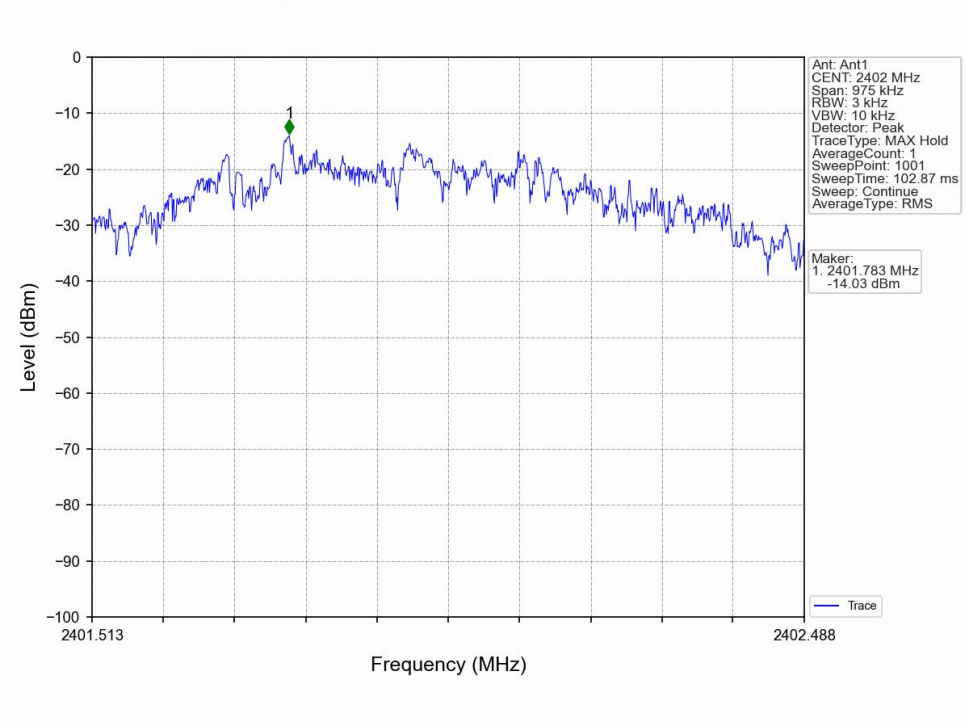
3.1 PSD

3.1.1 Test Result

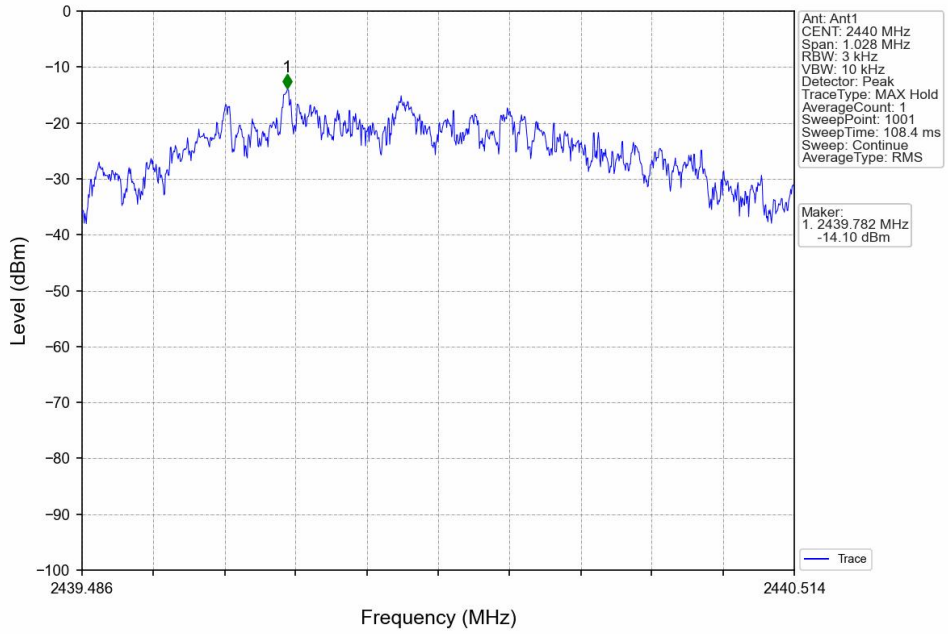
Mode	TX Type	Frequency (MHz)	Maximum PSD (dBm/3kHz)		Verdict
			ANT1	Limit	
1M	SISO	2402	-14.03	<=8	Pass
		2440	-14.10	<=8	Pass
		2480	-14.66	<=8	Pass
2M	SISO	2402	-20.10	<=8	Pass
		2440	-20.27	<=8	Pass
		2480	-19.51	<=8	Pass
Note1: Antenna Gain: Ant1: -0.58dBi;					

3.1.2 Test Graph

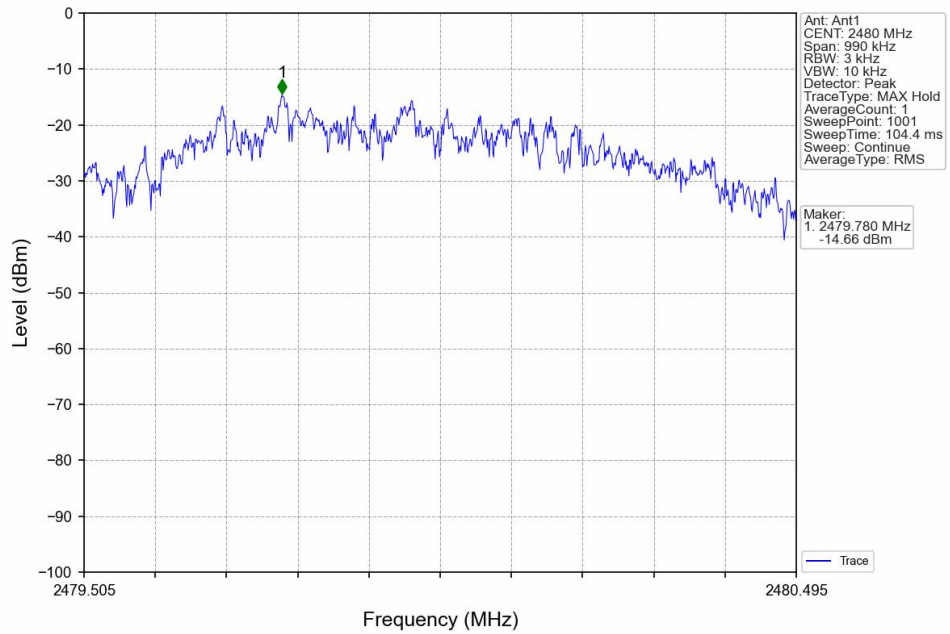
1M_LCH_2402MHz_Ant1_NTNV



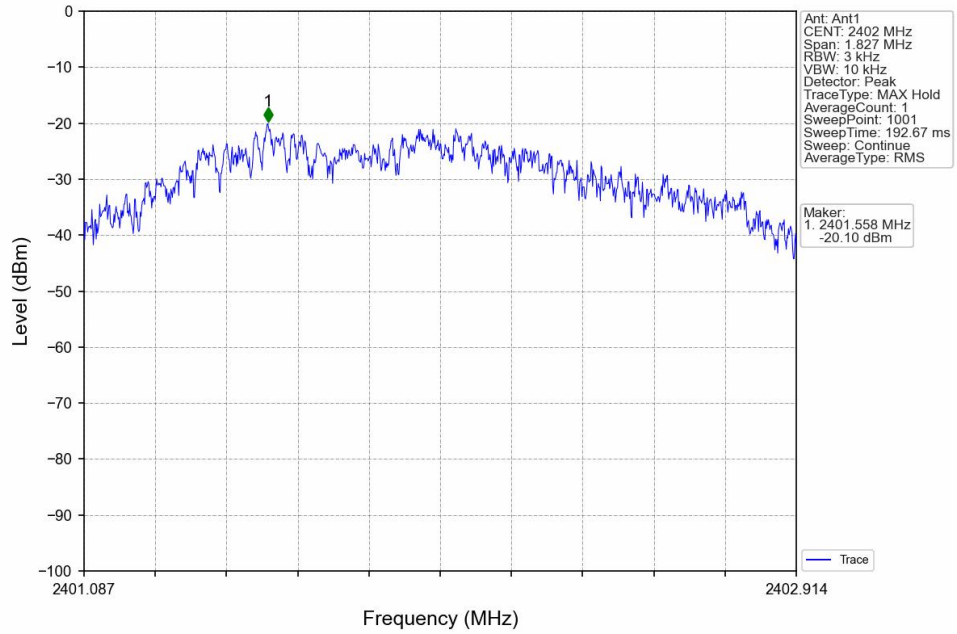
1M_MCH_2440MHz_Ant1_NTNV



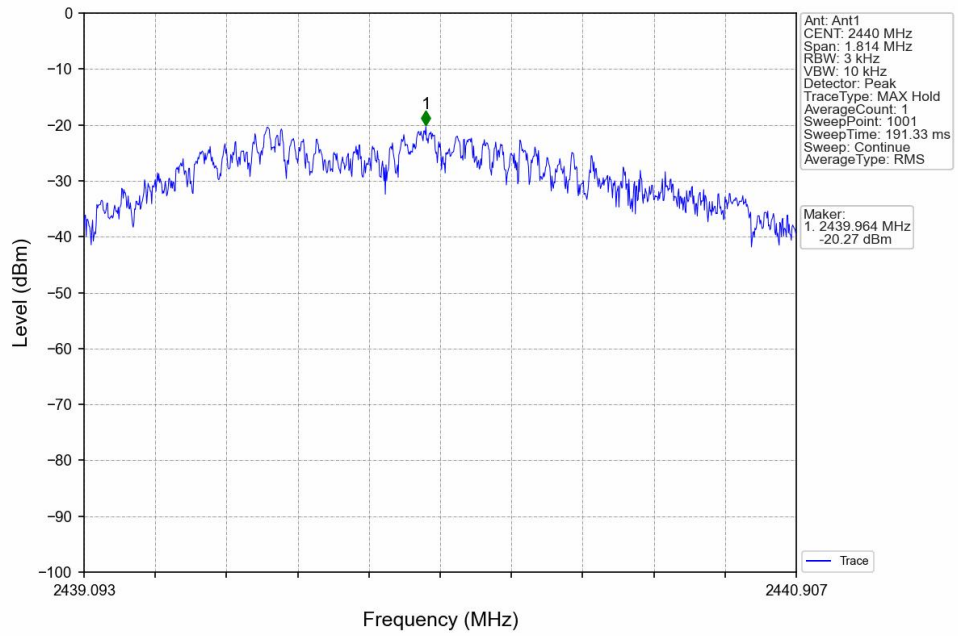
1M_HCH_2480MHz_Ant1_NTNV



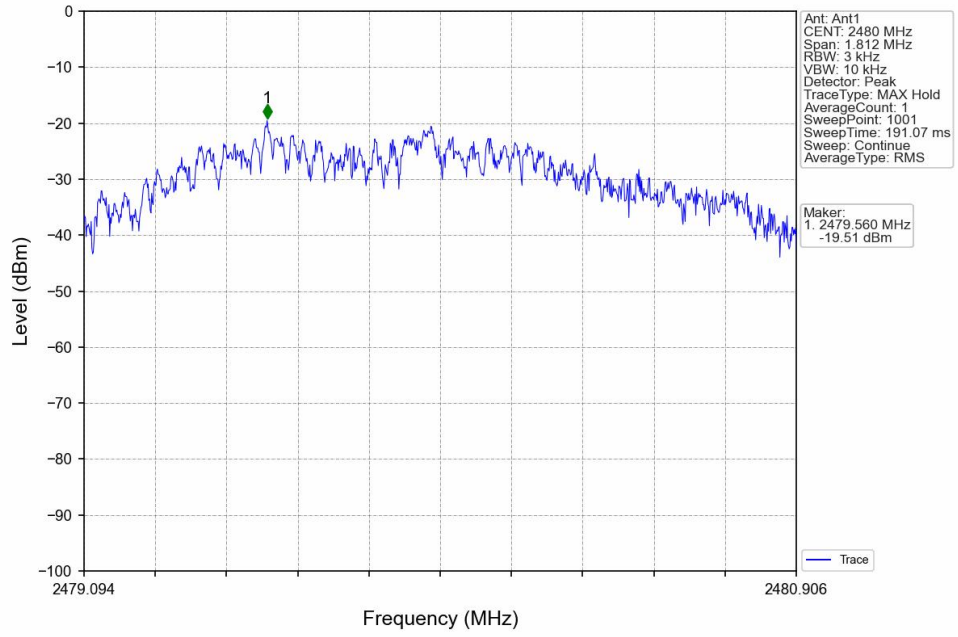
2M_LCH_2402MHz_Ant1_NTNV



2M_MCH_2440MHz_Ant1_NTNV



2M_HCH_2480MHz_Ant1_NTNV



4. Unwanted Emissions In Non-restricted Frequency Bands

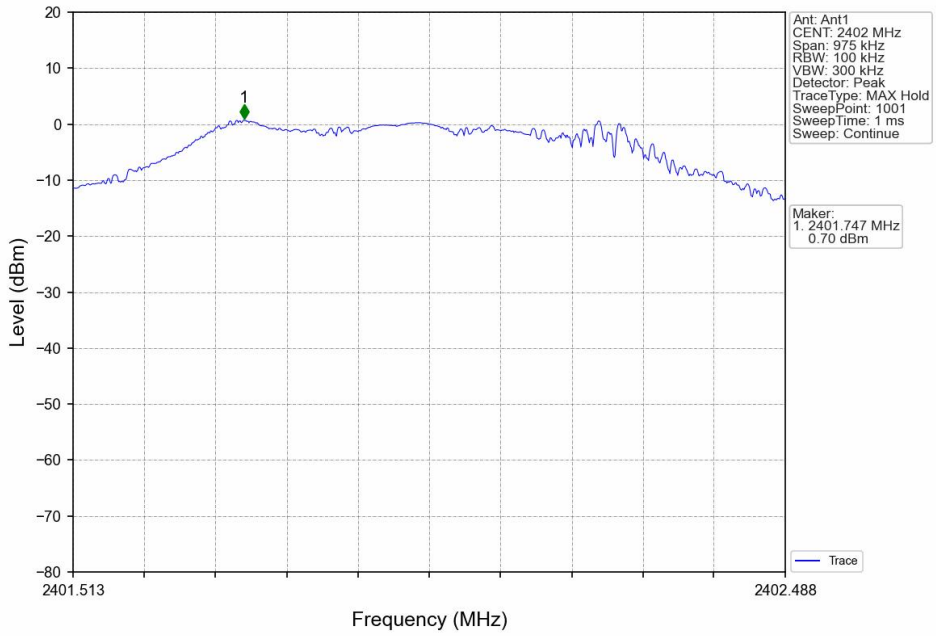
4.1 Ref

4.1.1 Test Result

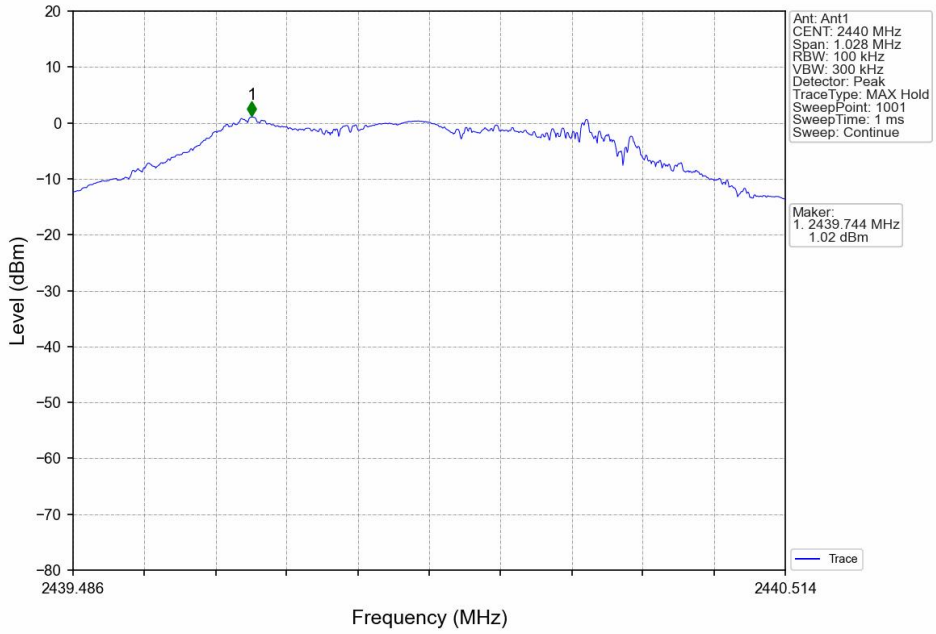
Mode	TX Type	Frequency (MHz)	ANT	Level of Reference (dBm)
1M	SISO	2402	1	0.70
		2440	1	**1.02**
		2480	1	0.37
2M	SISO	2402	1	**0.30**
		2440	1	-0.03
		2480	1	-0.32
Note1: Refer to FCC Part 15.247 (d) and ANSI C63.10-2013, the channel contains the maximum PSD level was used to establish the reference level.				

4.1.2 Test Graph

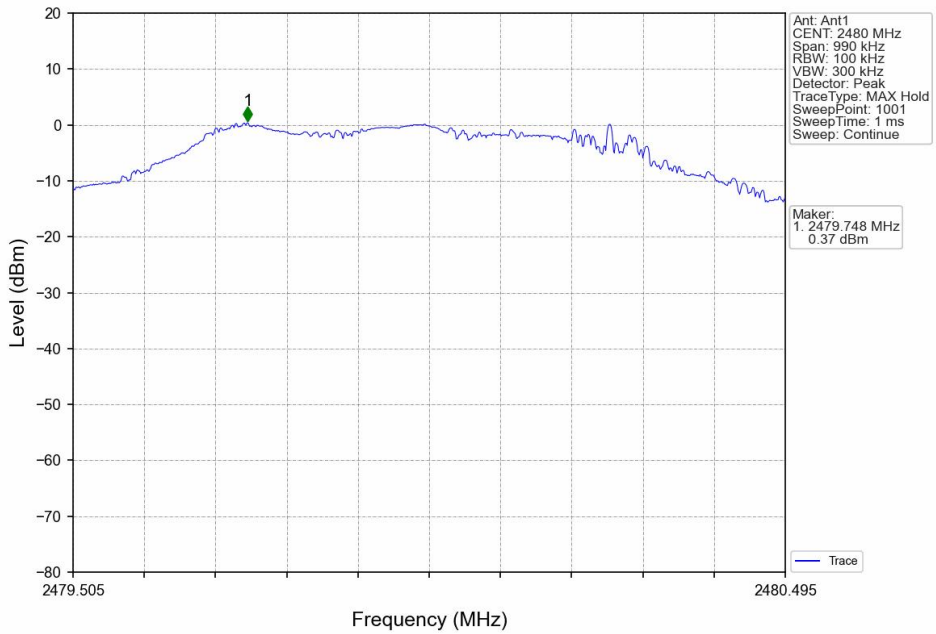
1M_LCH_2402MHz_Ant1_NTNV



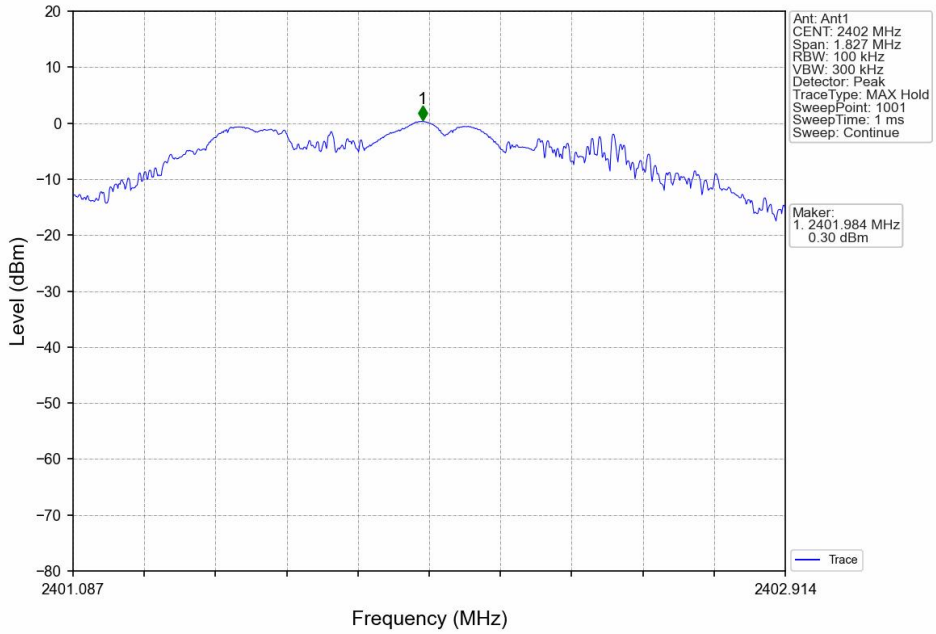
1M_MCH_2440MHz_Ant1_NTNV



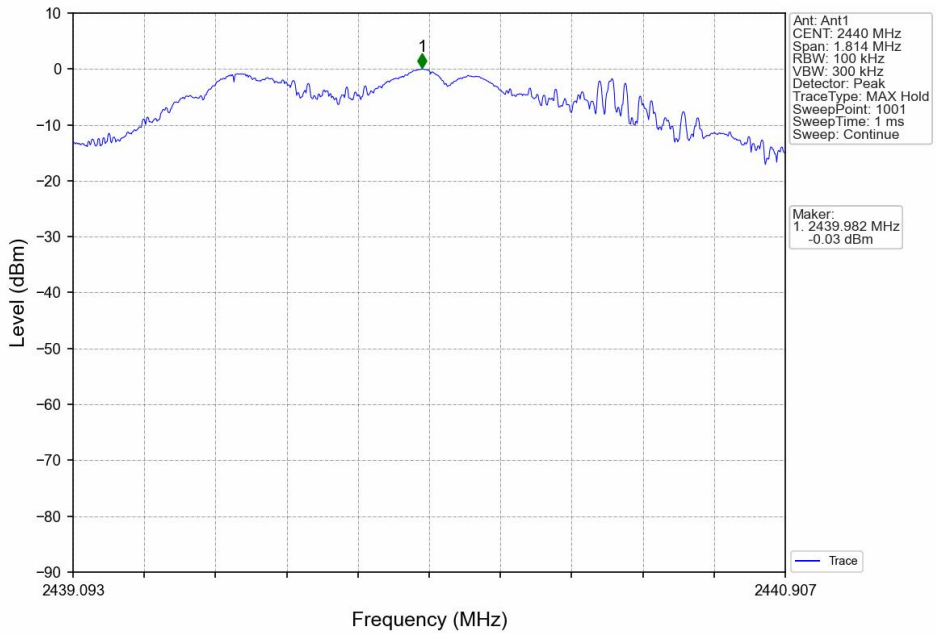
1M_HCH_2480MHz_Ant1_NTNV



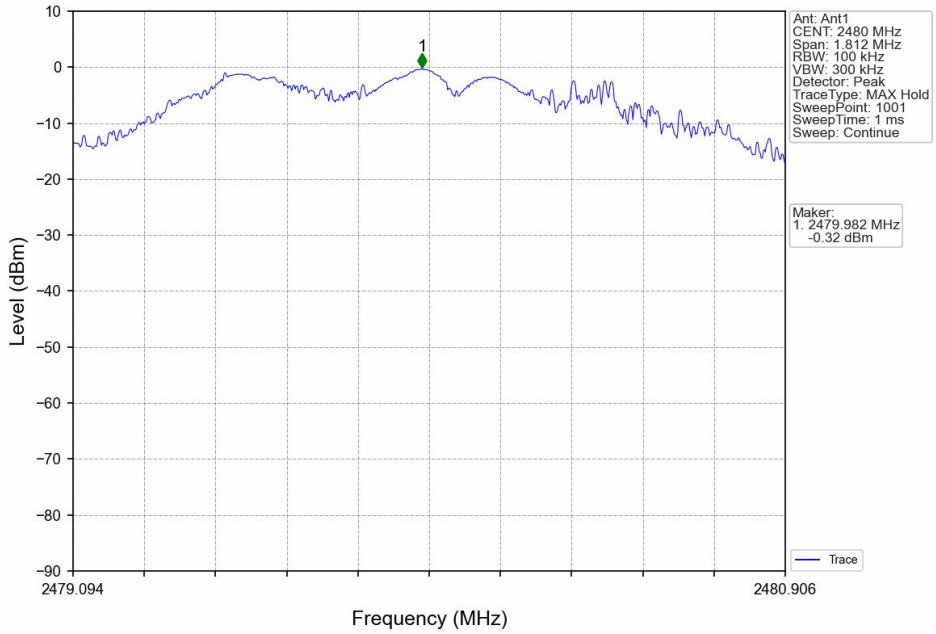
2M_LCH_2402MHz_Ant1_NTNV



2M_MCH_2440MHz_Ant1_NTNV



2M_HCH_2480MHz_Ant1_NTNV



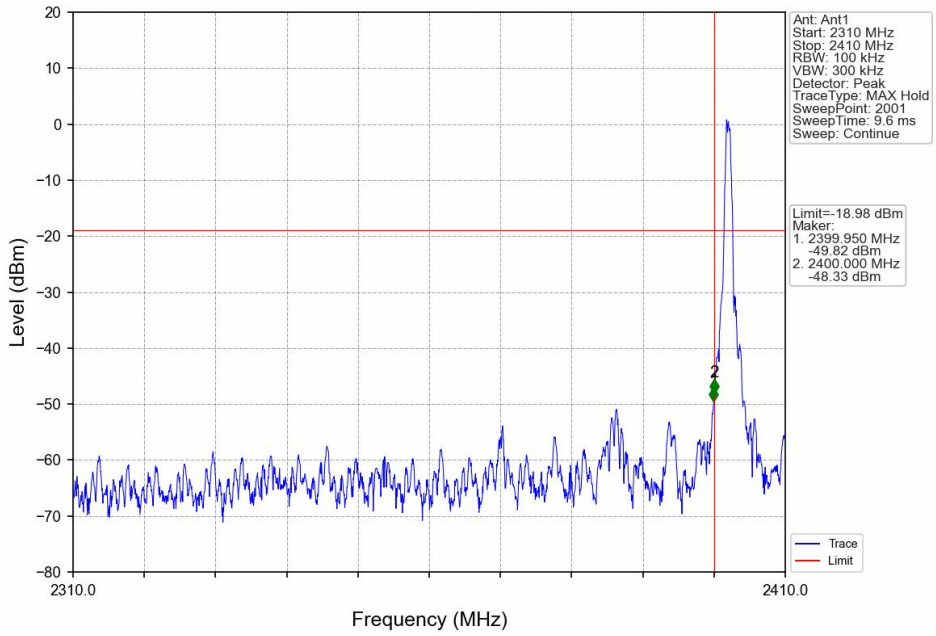
4.2 CSE

4.2.1 Test Result

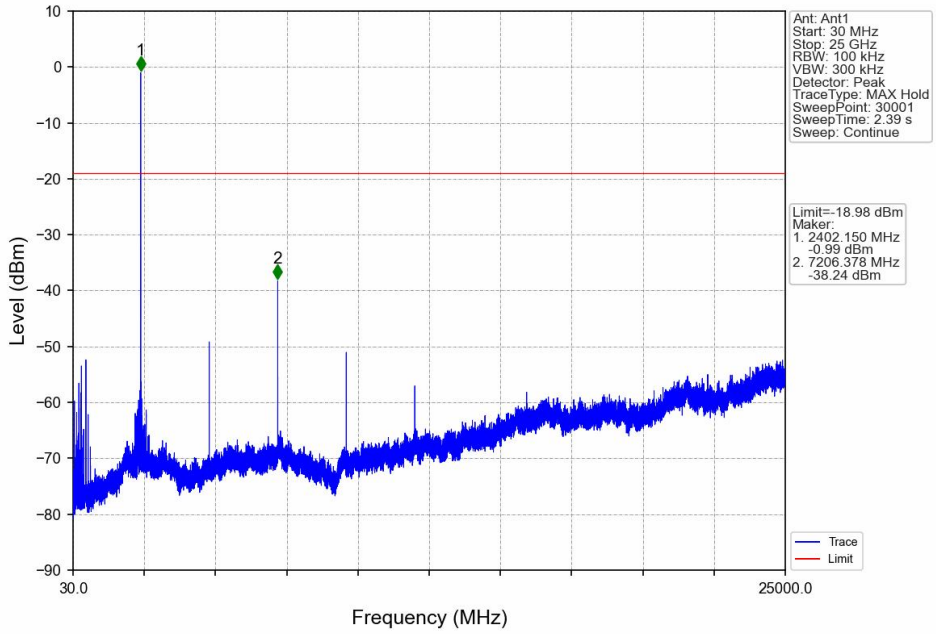
Mode	TX Type	Frequency (MHz)	ANT	Level of Reference (dBm)	Limit (dBm)	Verdict
1M	SISO	2402	1	1.02	-18.98	Pass
		2440	1	1.02	-18.98	Pass
		2480	1	1.02	-18.98	Pass
2M	SISO	2402	1	0.30	-19.70	Pass
		2440	1	0.30	-19.70	Pass
		2480	1	0.30	-19.70	Pass
Note1: Refer to FCC Part 15.247 (d) and ANSI C63.10-2013, the channel contains the maximum PSD level was used to establish the reference level.						

4.2.2 Test Graph

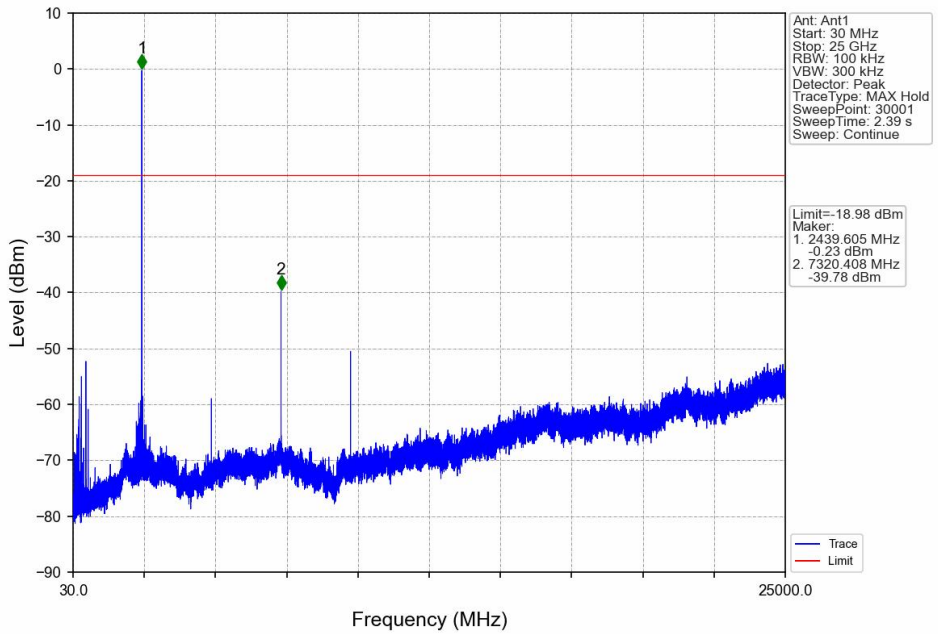
1M_LCH_2402MHz_Ant1_NTNV



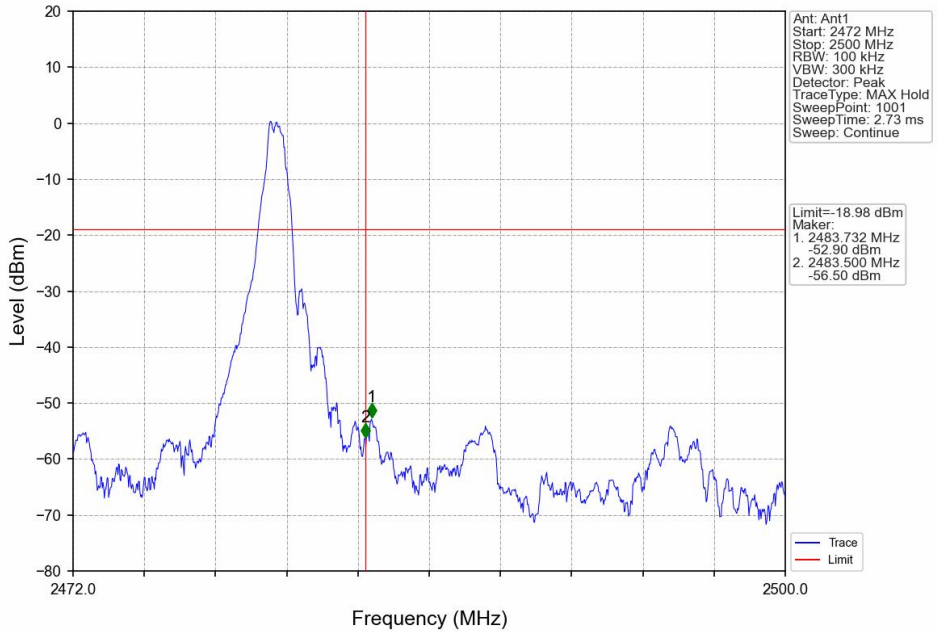
1M_LCH_2402MHz_Ant1_NTNV



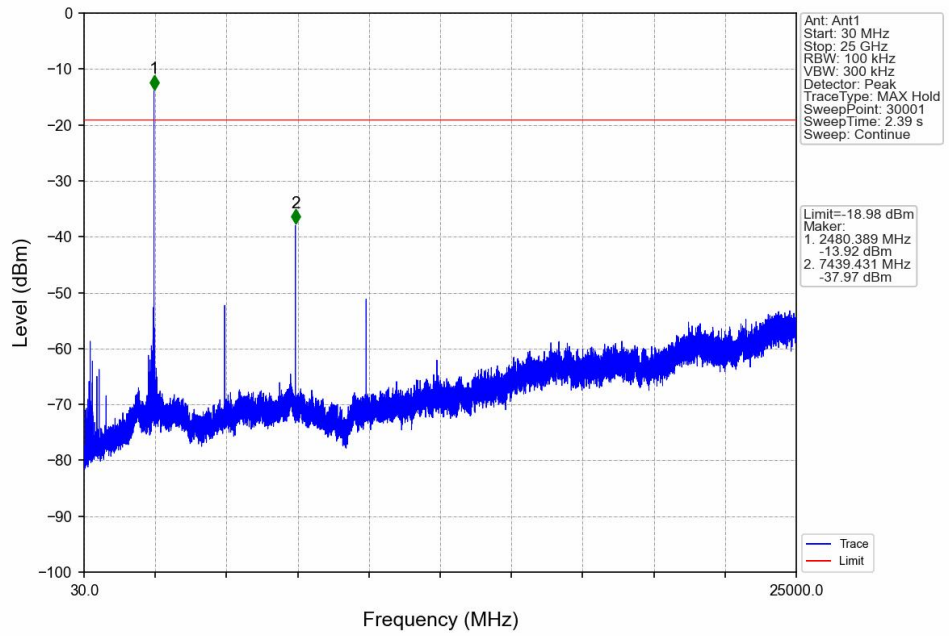
1M_MCH_2440MHz_Ant1_NTNV



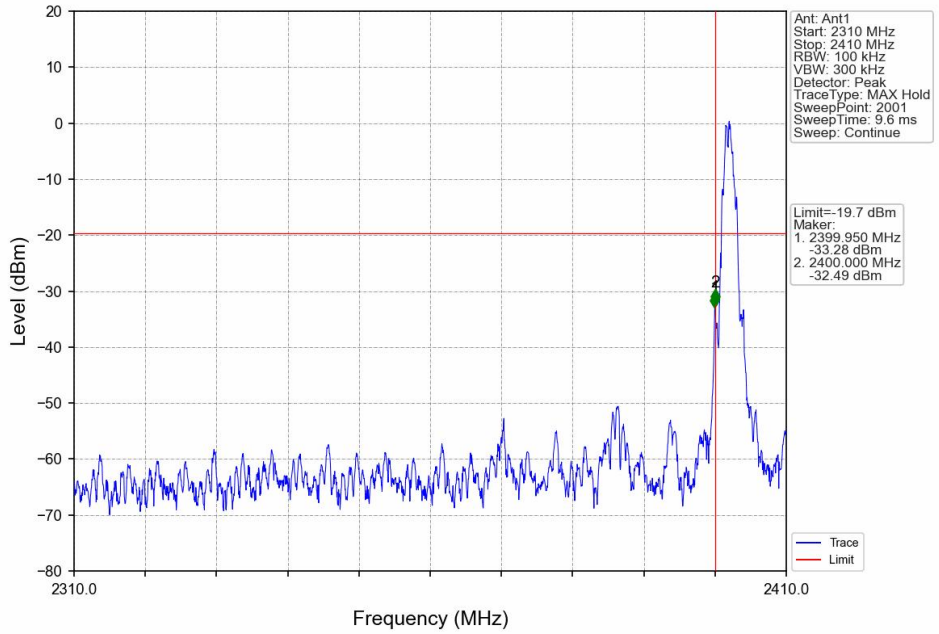
1M_HCH_2480MHz_Ant1_NTNV



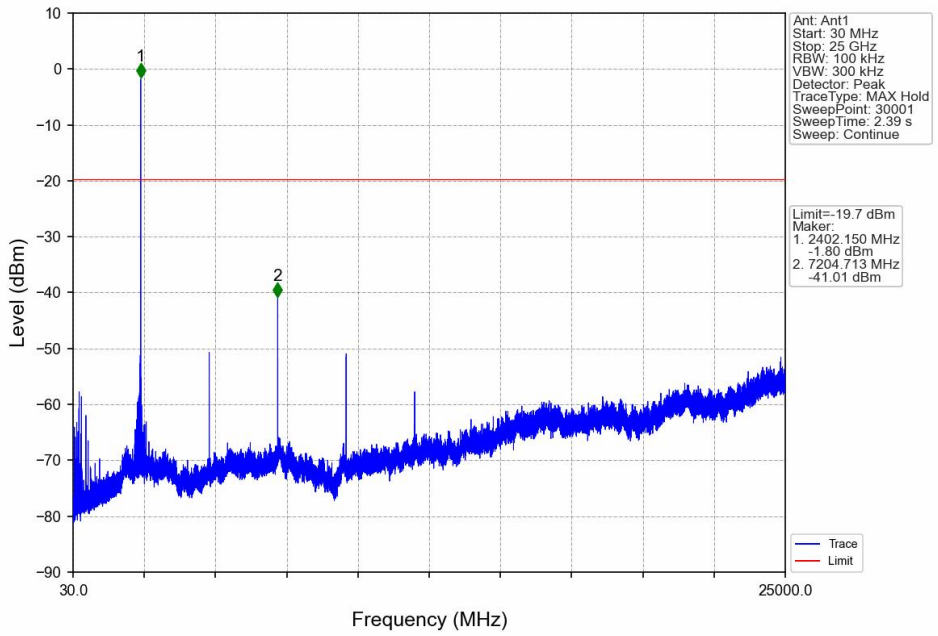
1M_HCH_2480MHz_Ant1_NTNV



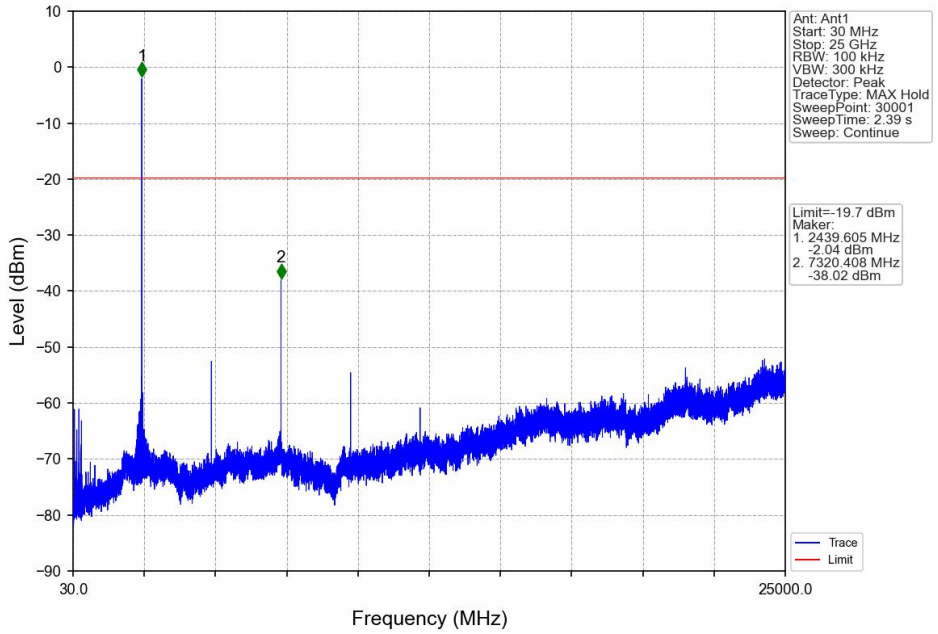
2M_LCH_2402MHz_Ant1_NTNV



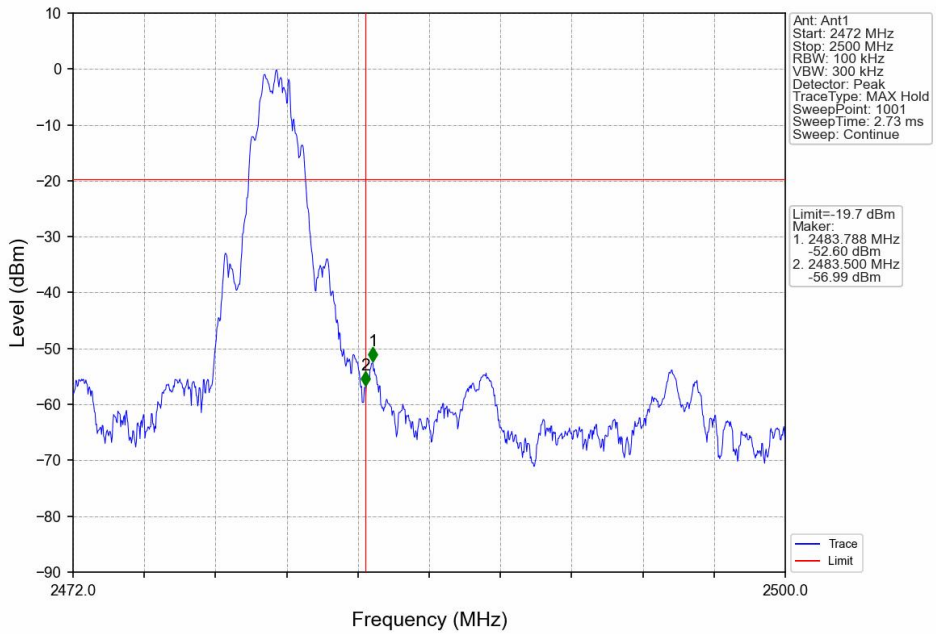
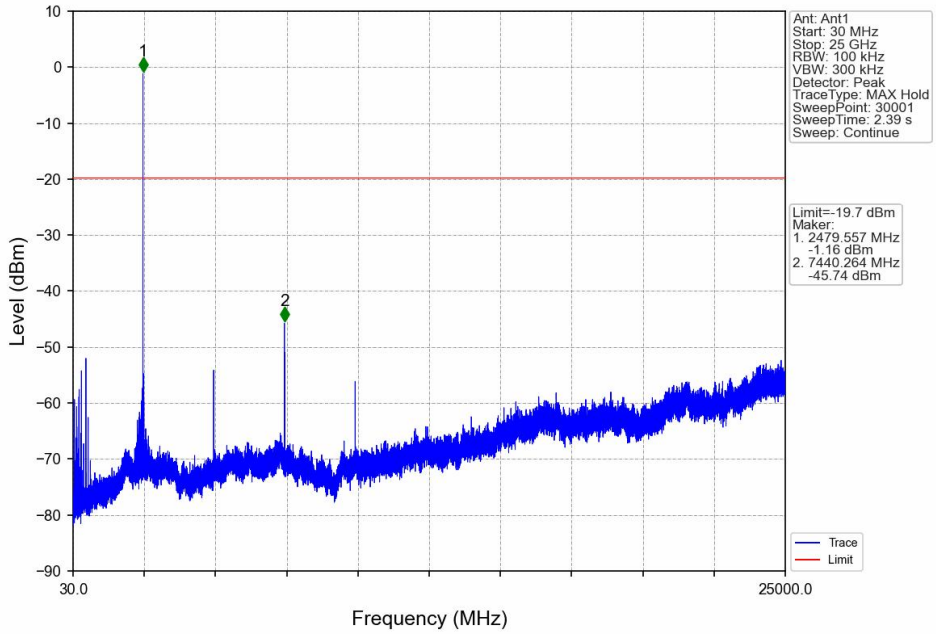
2M_LCH_2402MHz_Ant1_NTNV



2M_MCH_2440MHz_Ant1_NTNV



2M_HCH_2480MHz_Ant1_NTNV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