

Appendix RF Test Data for BLE

FCC ID : 2A595YH-258

Company : Dongguan Yihong Hardware Electronics Co., Ltd

EUT : Rader LED controller

Model Number : YH-258

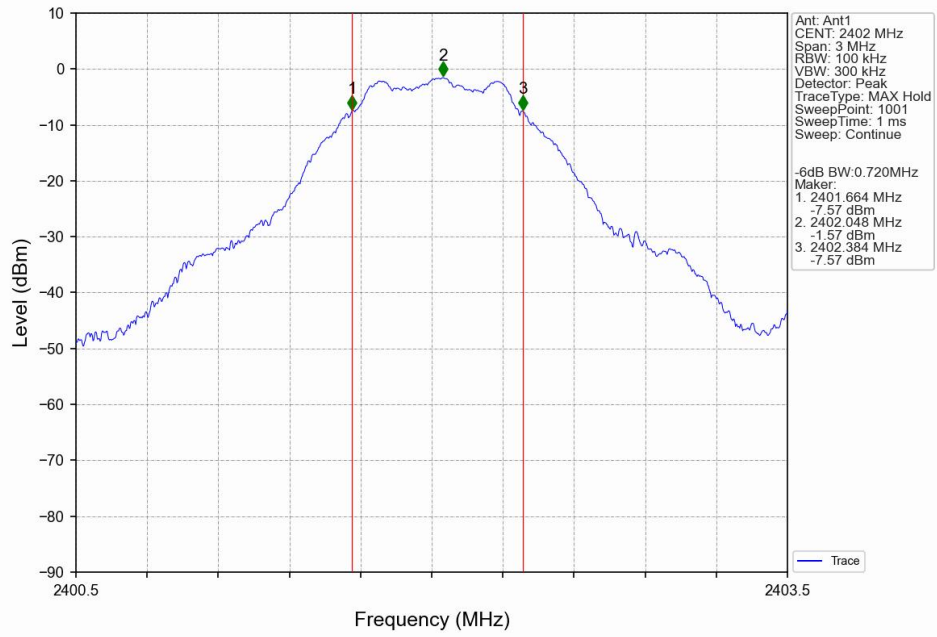
Report No. : CTA25050803502

Reviewed By : Eric Wang

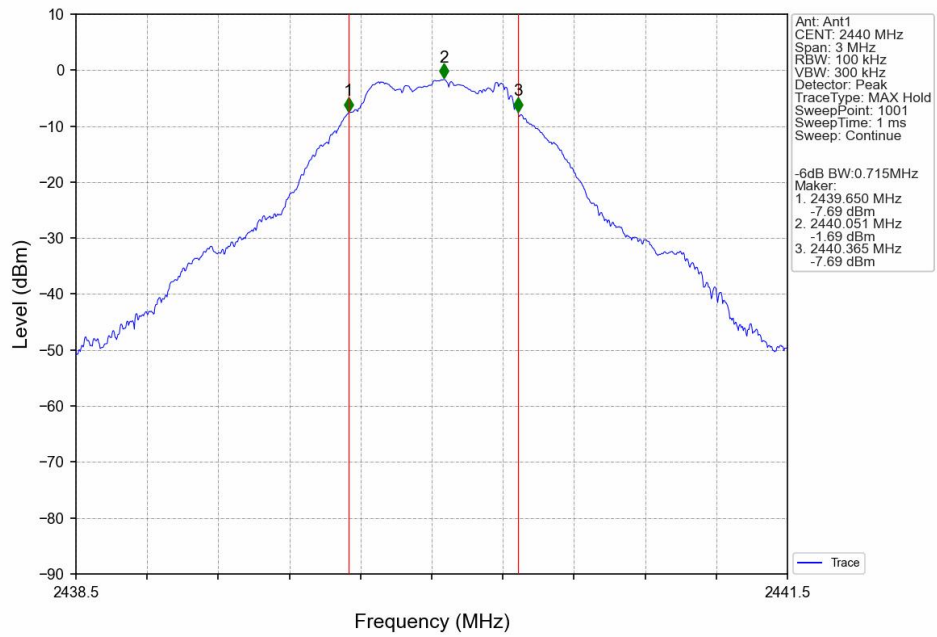
A.1 -6dB Bandwidth

Mode	TX Type	Frequency (MHz)	ANT	6dB Bandwidth (MHz)		Verdict
				Result	Limit	
1M	SISO	2402	1	0.720	≥ 0.5	Pass
		2440	1	0.715	≥ 0.5	Pass
		2480	1	0.709	≥ 0.5	Pass

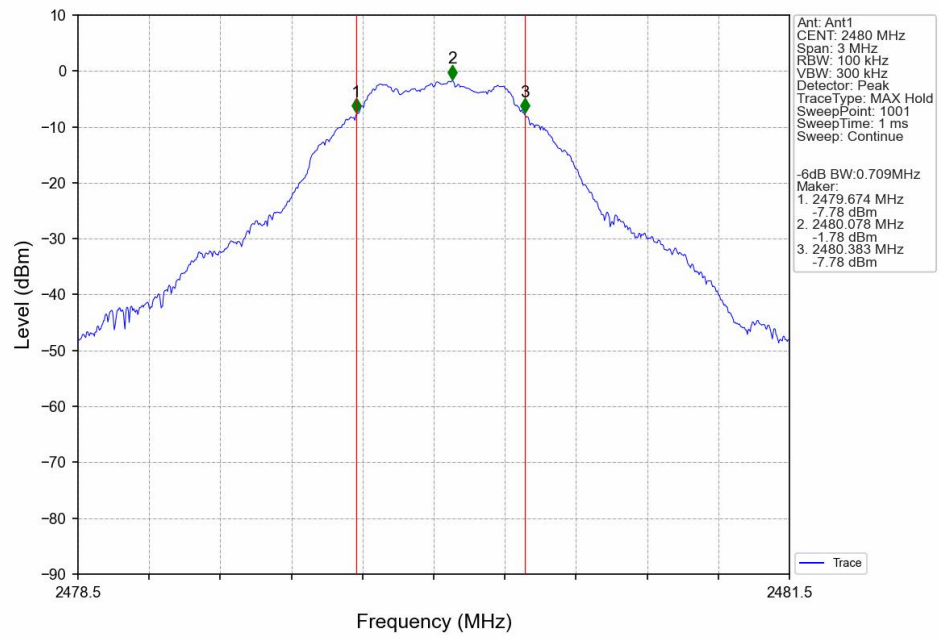
1M_LCH_2402MHz_Ant1_NTNV



1M_MCH_2440MHz_Ant1_NTNV



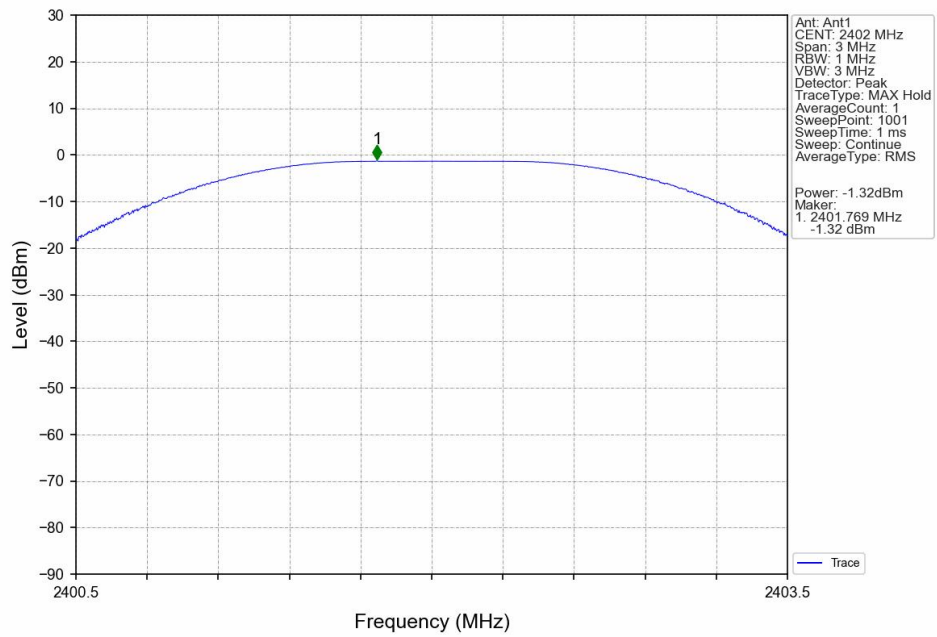
1M_HCH_2480MHz_Ant1_NTNV



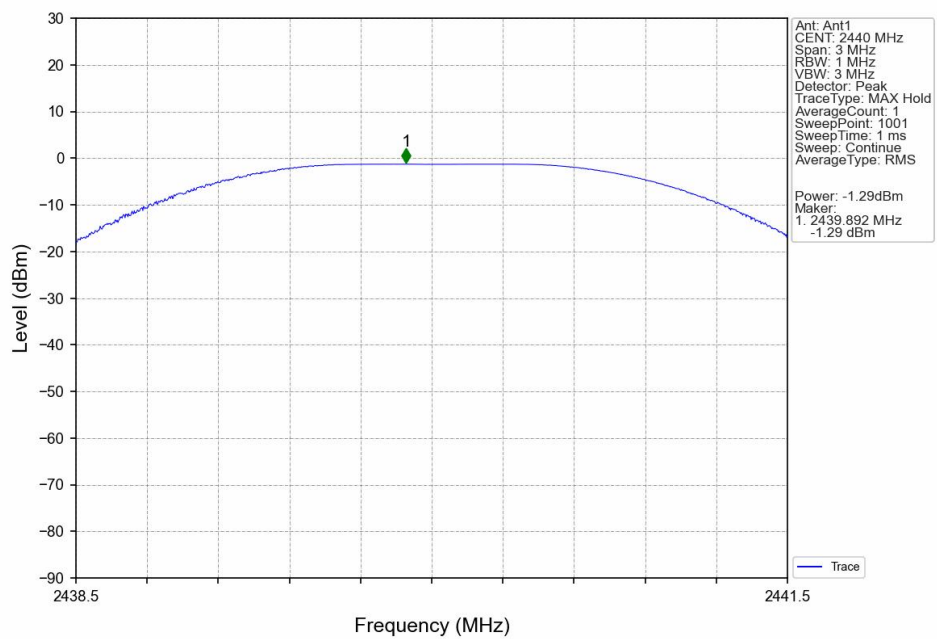
A.2 Maximum peak Conducted Output Power

Mode	TX Type	Frequency (MHz)	Maximum Peak Conducted Output Power (dBm)		Verdict
			ANT1	Limit	
1M	SISO	2402	-1.32	<=30	Pass
		2440	-1.29	<=30	Pass
		2480	-1.45	<=30	Pass

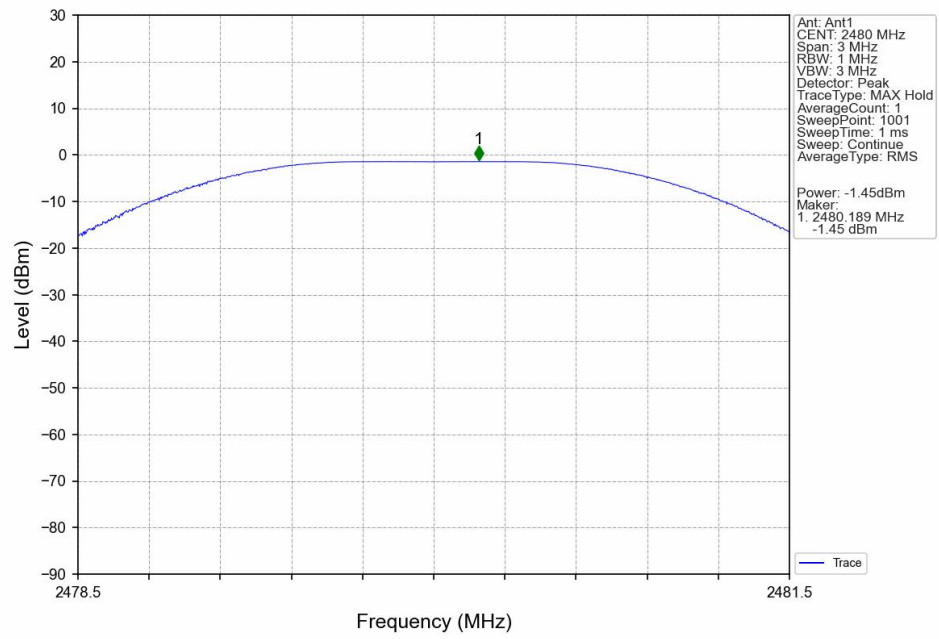
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1M_MCH_2440MHz_Ant1_NTNV



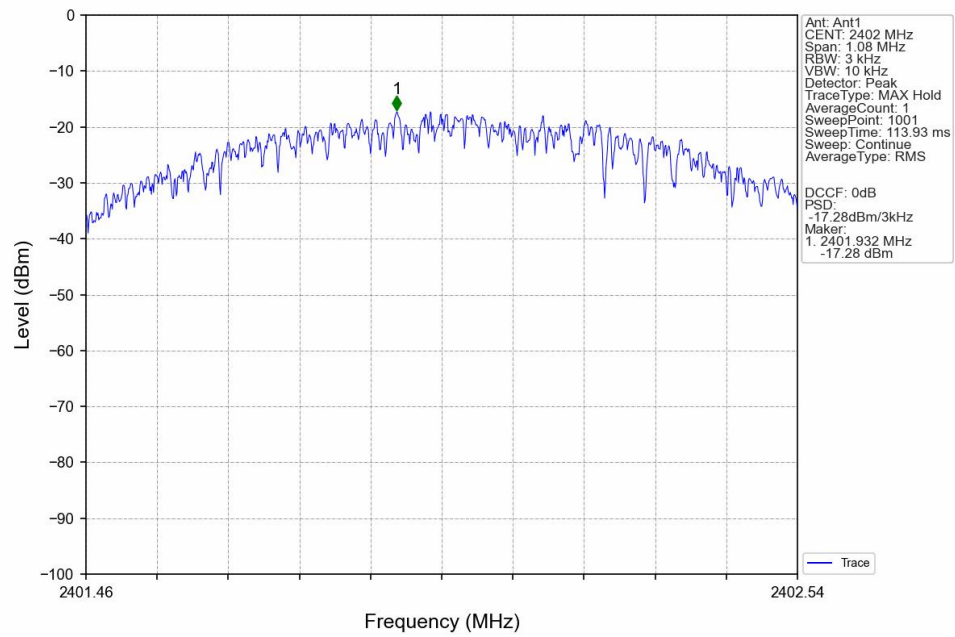
1M_HCH_2480MHz_Ant1_NTNV



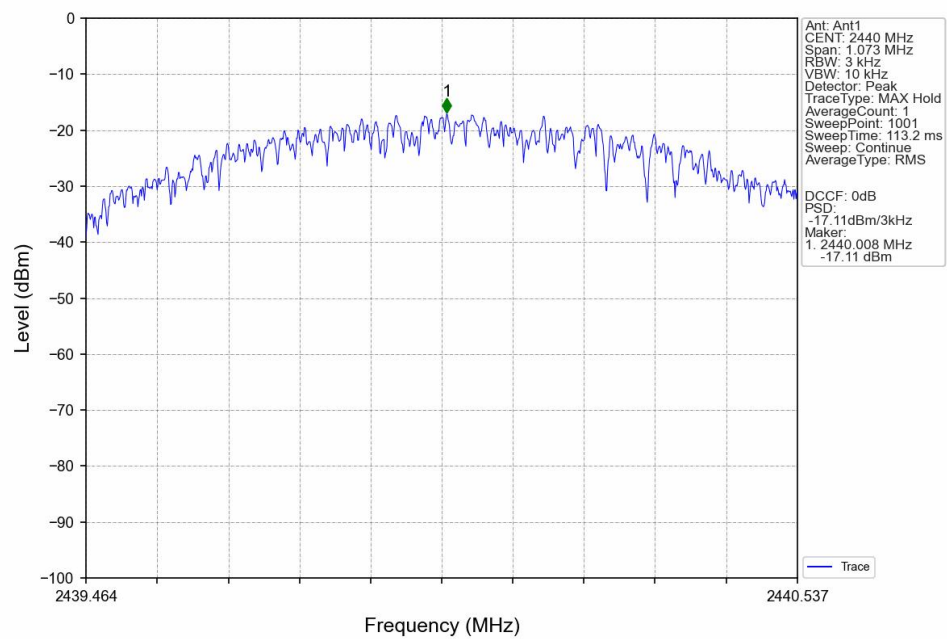
A.3 Maximum Power Spectral Density

Mode	TX Type	Frequency (MHz)	Maximum PSD (dBm/3kHz)		Verdict
			ANT1	Limit	
1M	SISO	2402	-17.28	<=8	Pass
		2440	-17.11	<=8	Pass
		2480	-16.46	<=8	Pass
Note1: Antenna Gain: Ant1: 0.00dBi;					

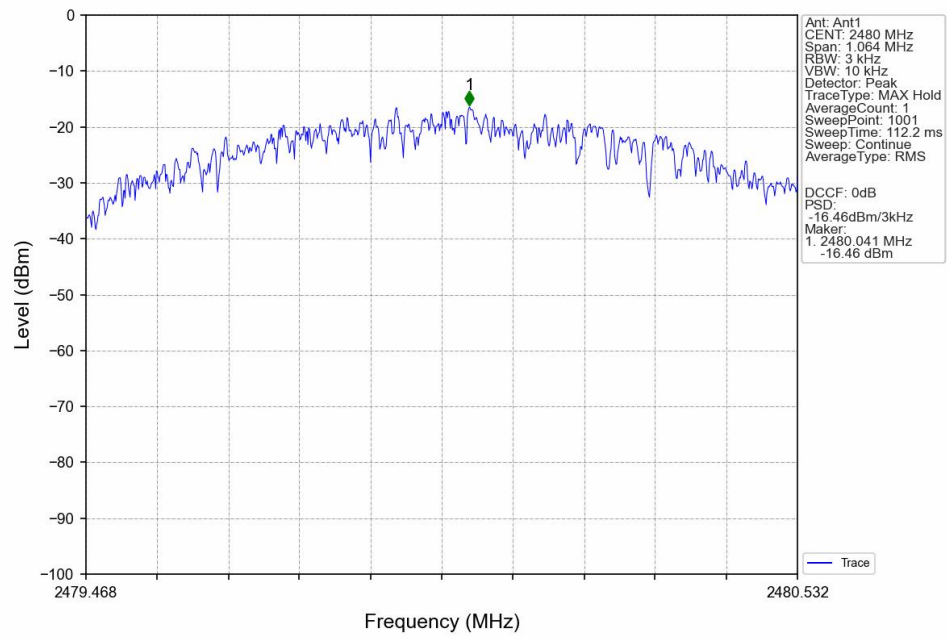
1M_LCH_2402MHz_Ant1_NTNV



1M_MCH_2440MHz_Ant1_NTNV



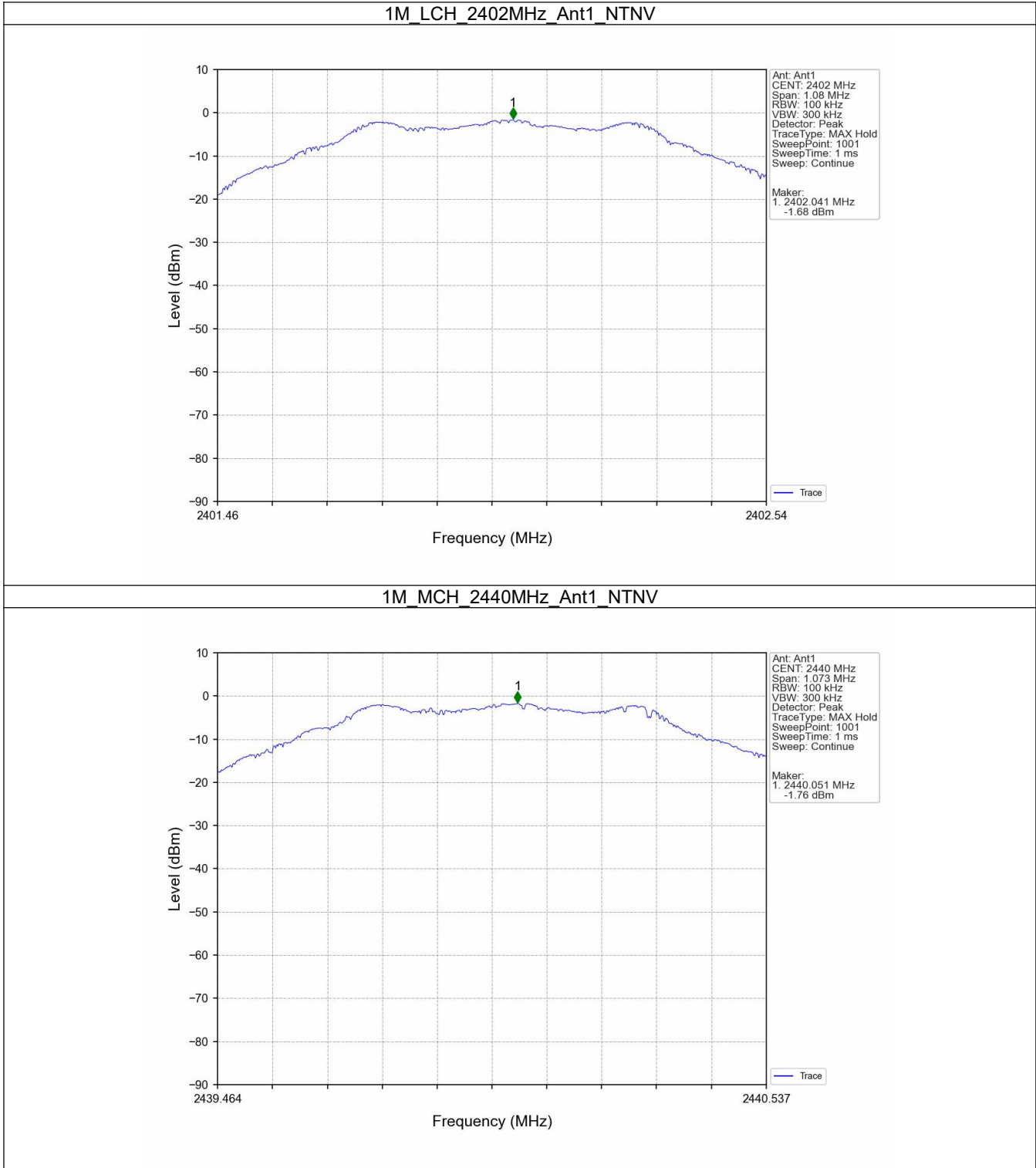
1M_HCH_2480MHz_Ant1_NTNV



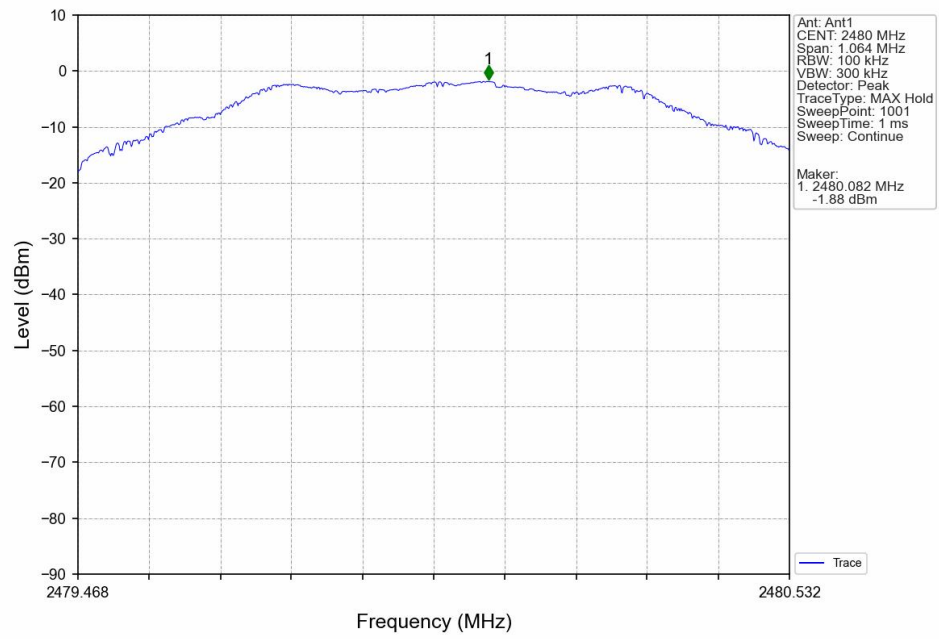
A.4 Band Edge

Mode	TX Type	Frequency (MHz)	ANT	Level of Reference (dBm)	Limit (dBm)	Verdict
1M	SISO	2402	1	-1.68	-21.68	Pass
		2440	1	-1.68	-21.68	Pass
		2480	1	-1.68	-21.68	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.						

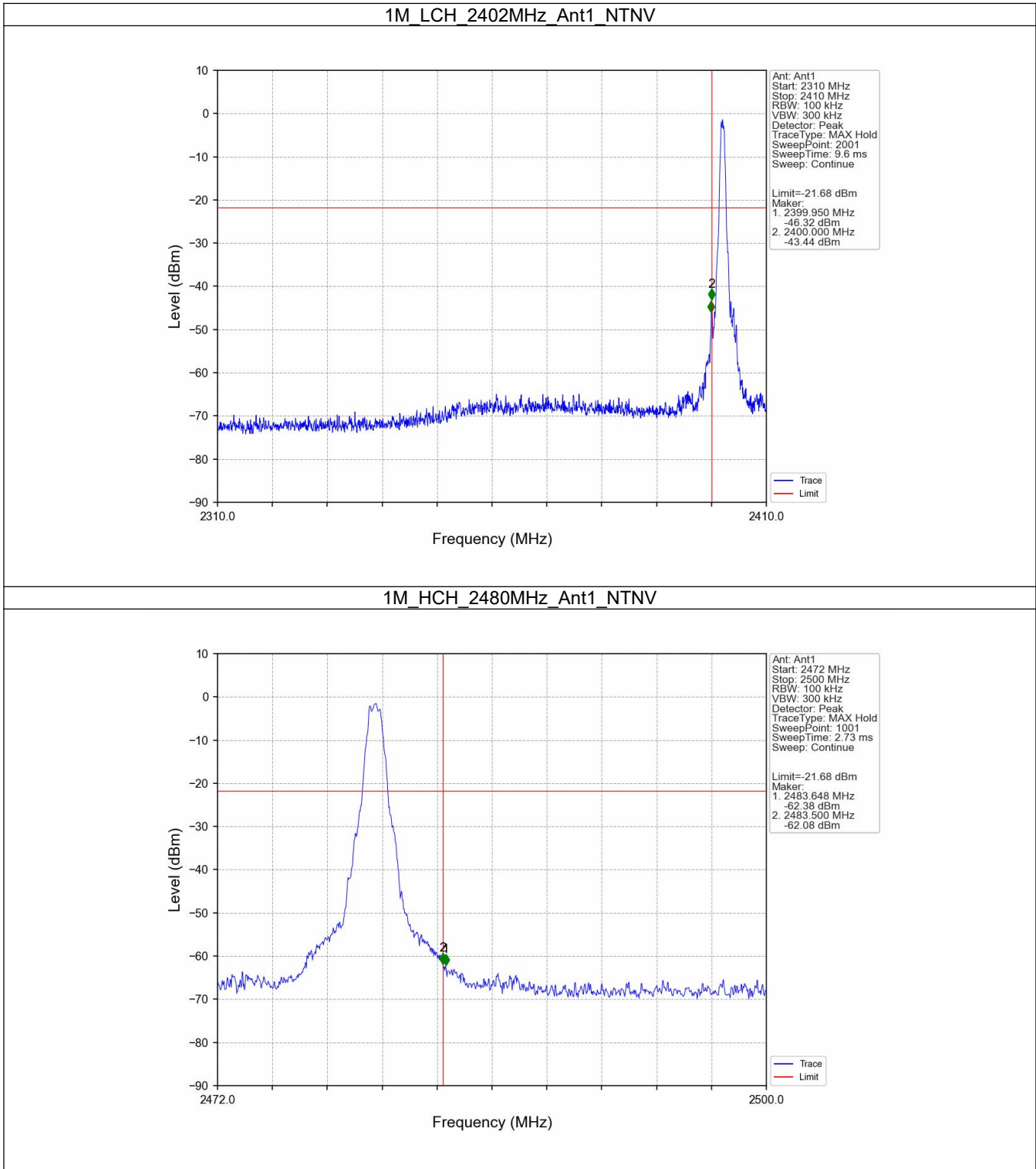
Ref



1M_HCH_2480MHz_Ant1_NTNV



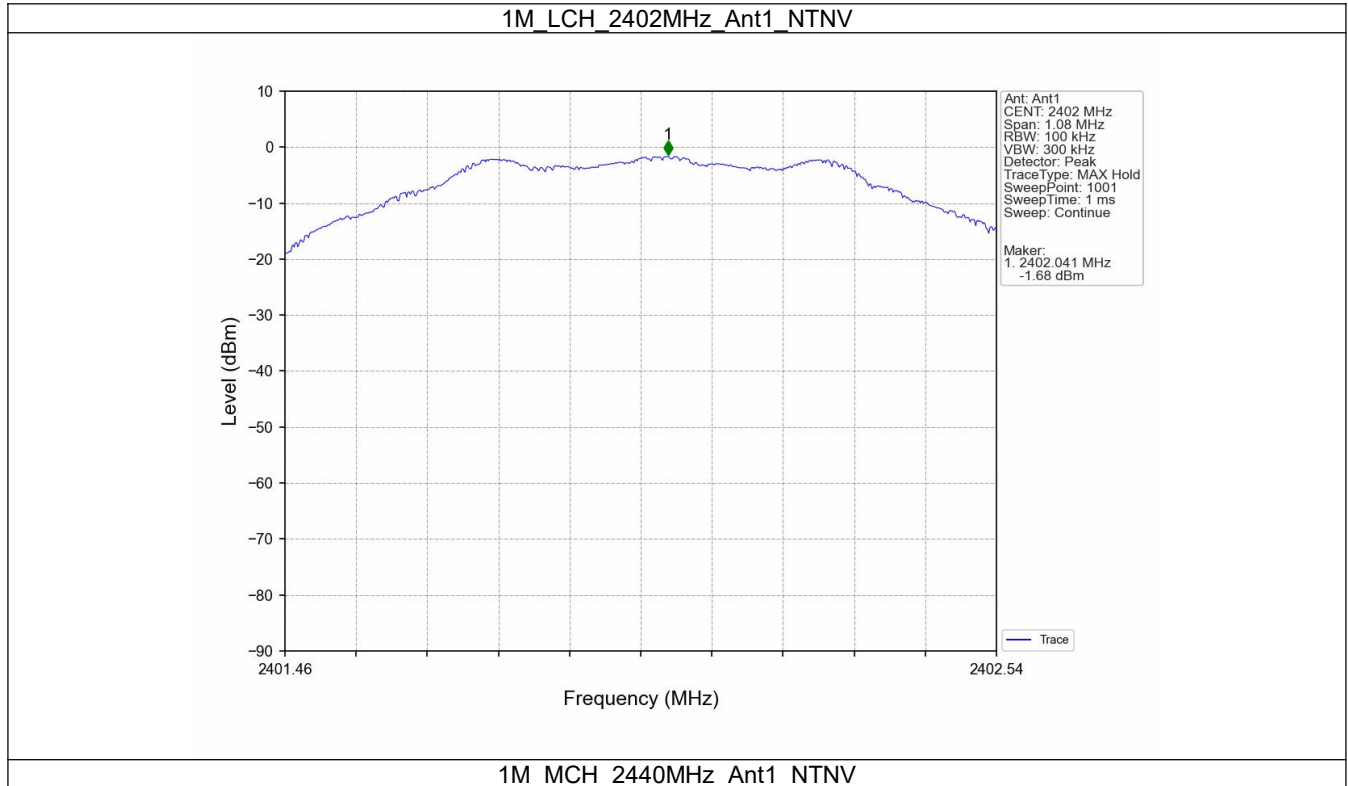
Band Edge

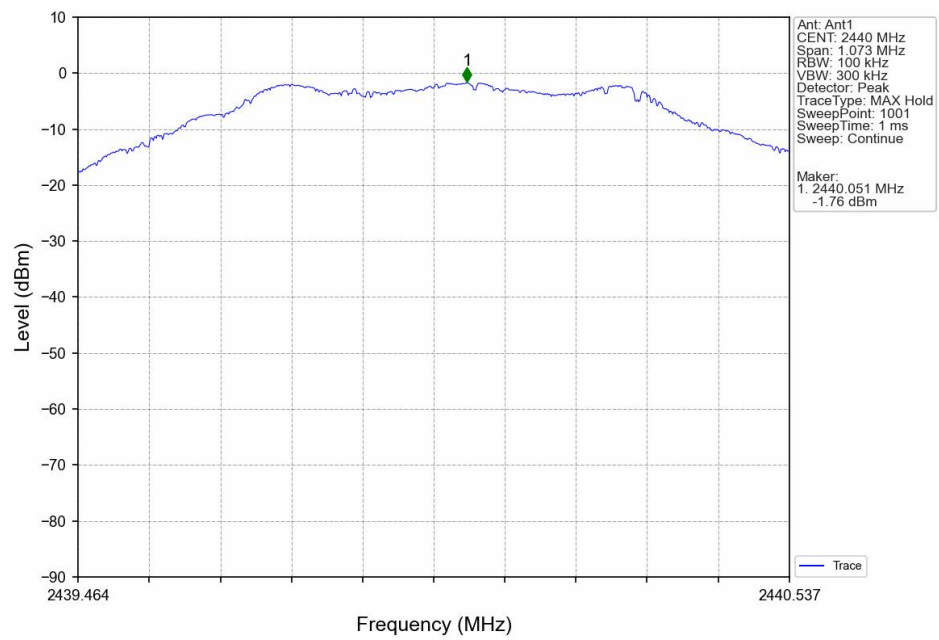


A.5 Conducted RF Spurious Emission

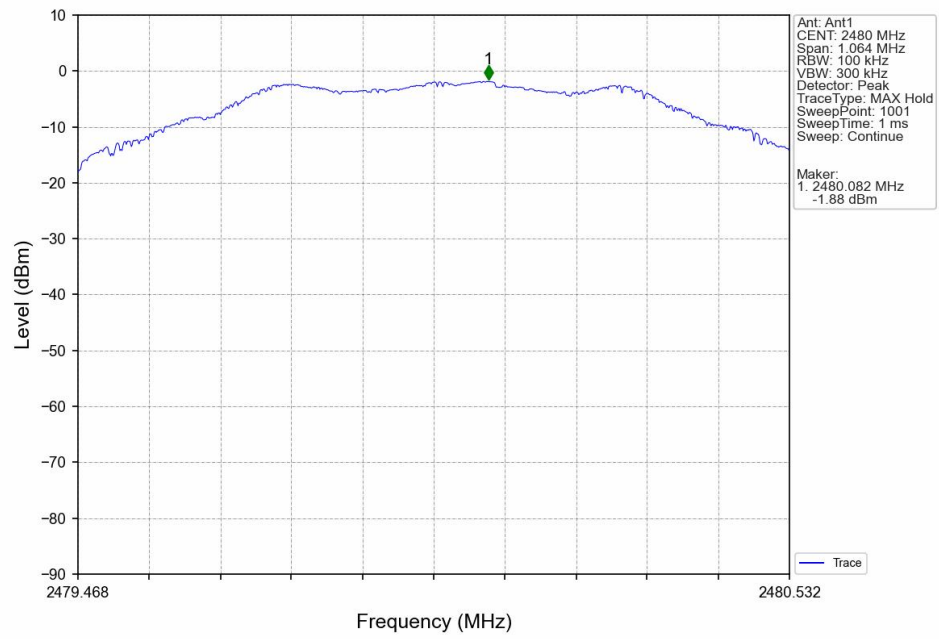
Mode	TX Type	Frequency (MHz)	ANT	Level of Reference (dBm)
1M	SISO	2402	1	-1.68
		2440	1	-1.76
		2480	1	-1.88
Note1: Refer to FCC Part 15.247 (d) and ANSI C63.10-2013, the channel contains the maximum PSD level was used to establish the reference level.				

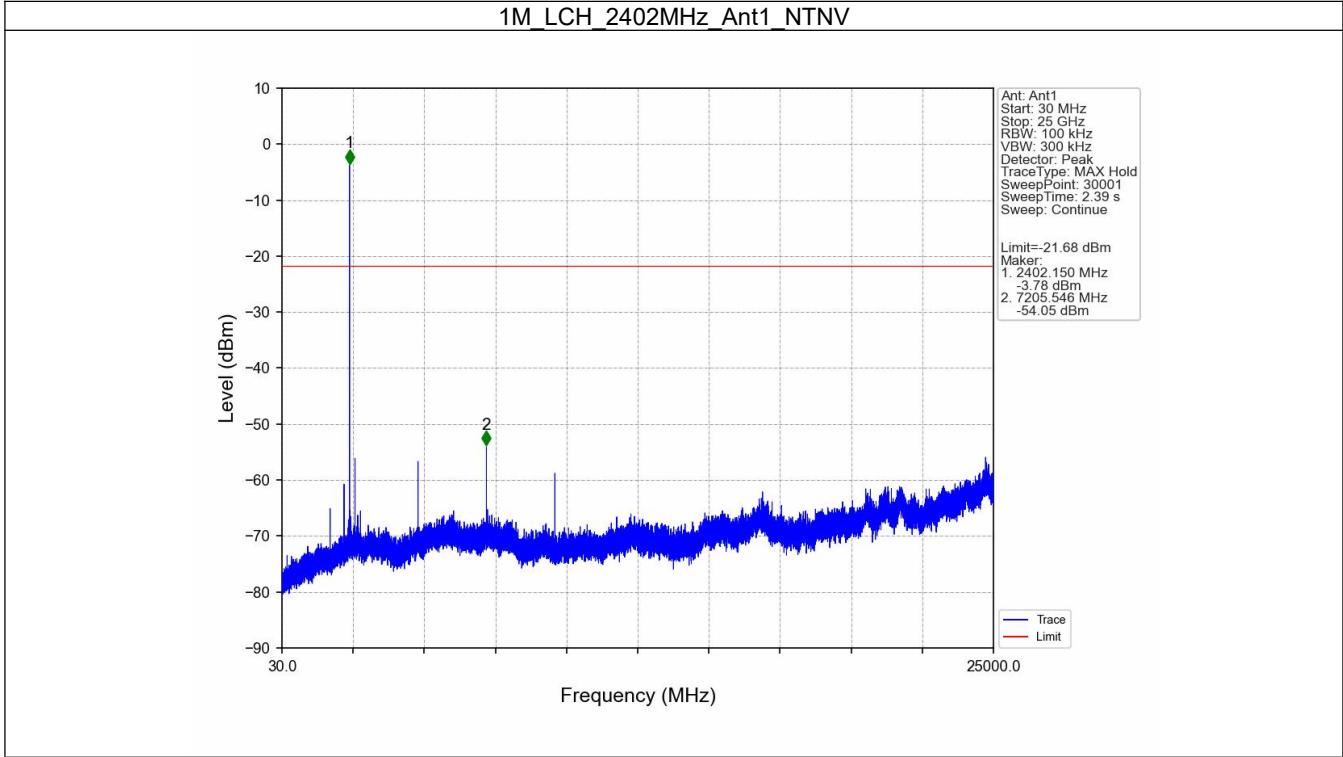
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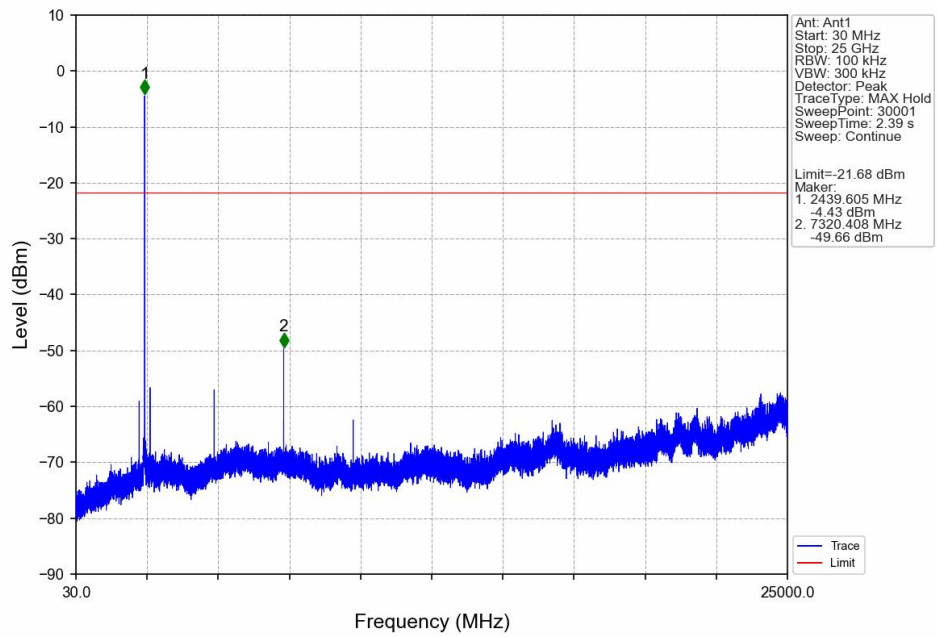


1M_HCH_2480MHz_Ant1_NTNV

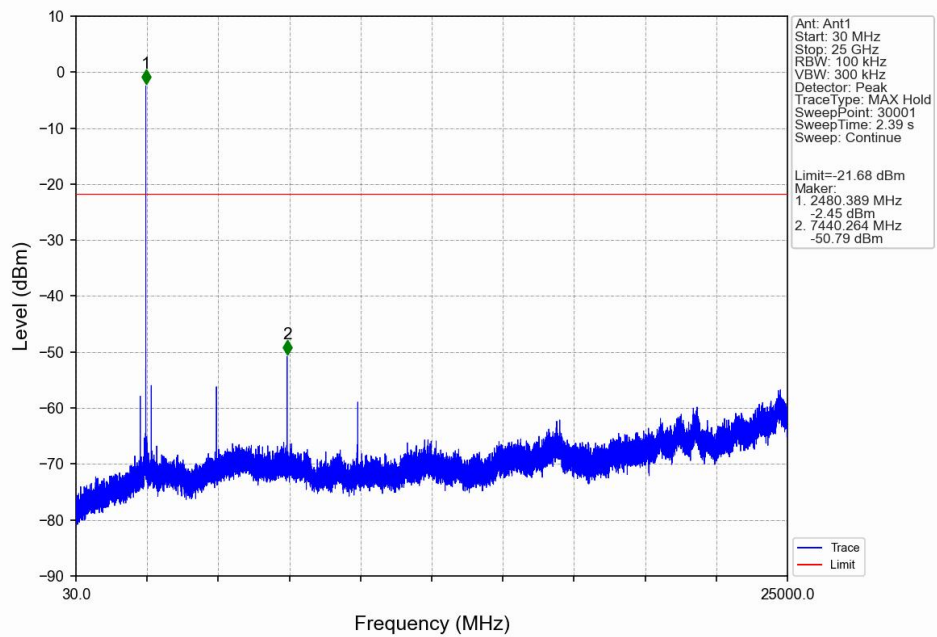




1M_MCH_2440MHz_Ant1_NTNV



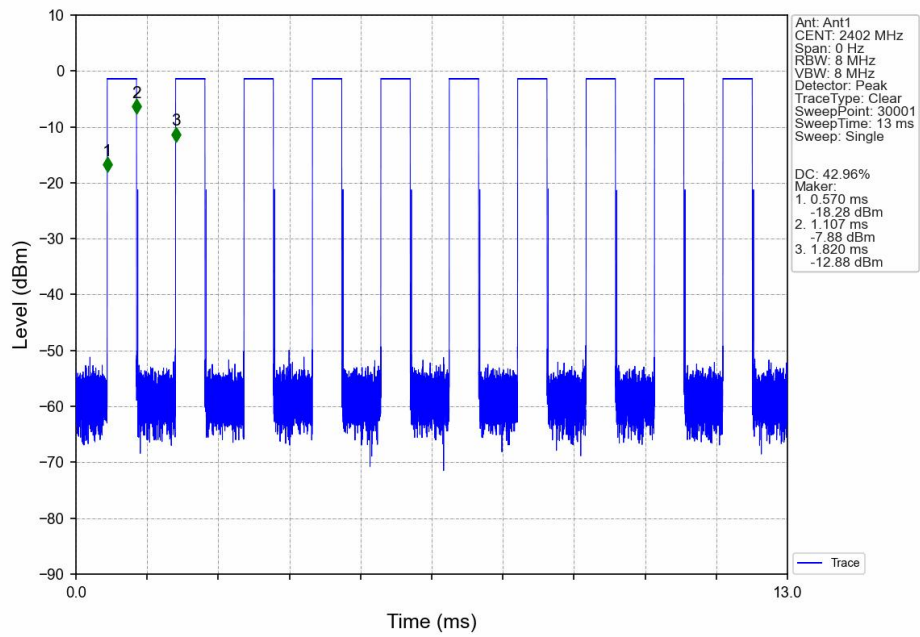
1M_HCH_2480MHz_Ant1_NTNV



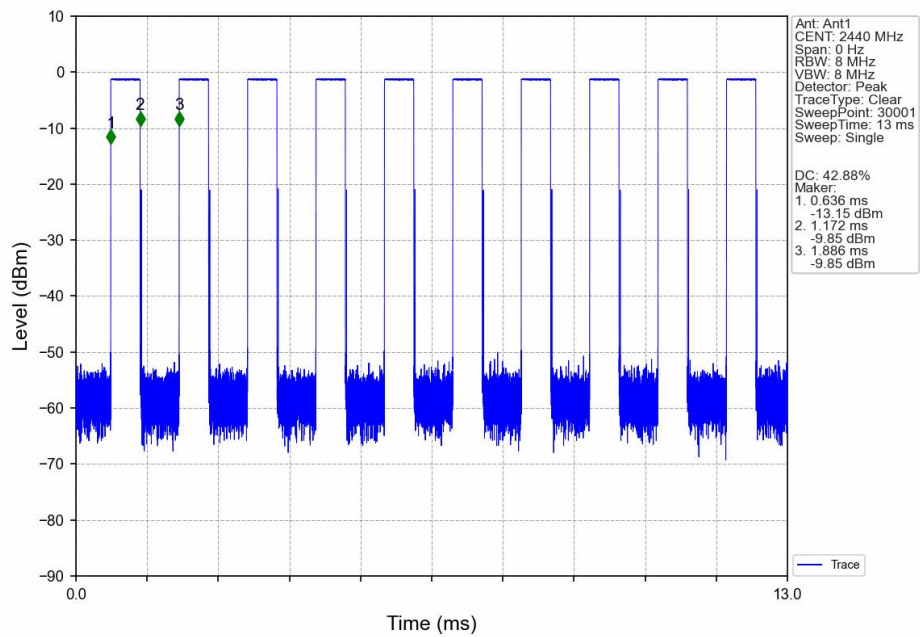
A.6 Duty Cycle

Ant1							
Mode	Tx Type	Frequency (MHz)	T_on (ms)	Period (ms)	Duty Cycle (%)	Duty Cycle Correction Factor (dB)	Max. DC Variation (%)
1M	SISO	2402	0.537	1.250	42.96	3.67	0.01
		2440	0.536	1.250	42.88	3.68	0.01
		2480	0.537	1.250	42.96	3.67	0.01

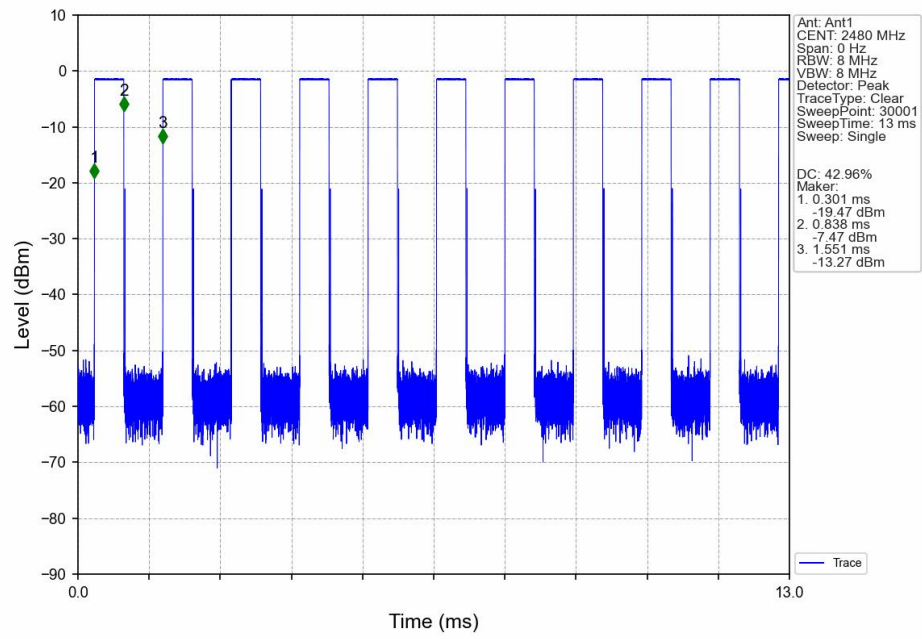
1M_LCH_2402MHz_Ant1_NTNV



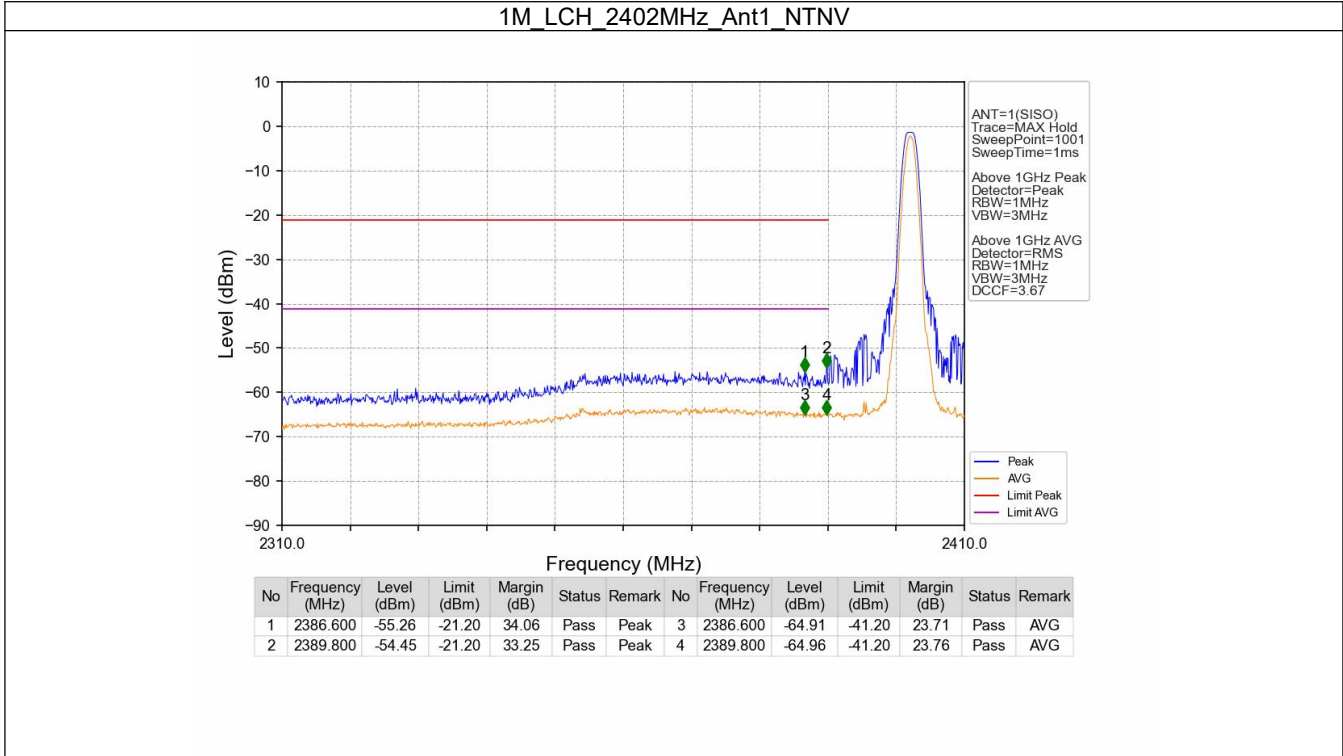
1M_MCH_2440MHz_Ant1_NTNV



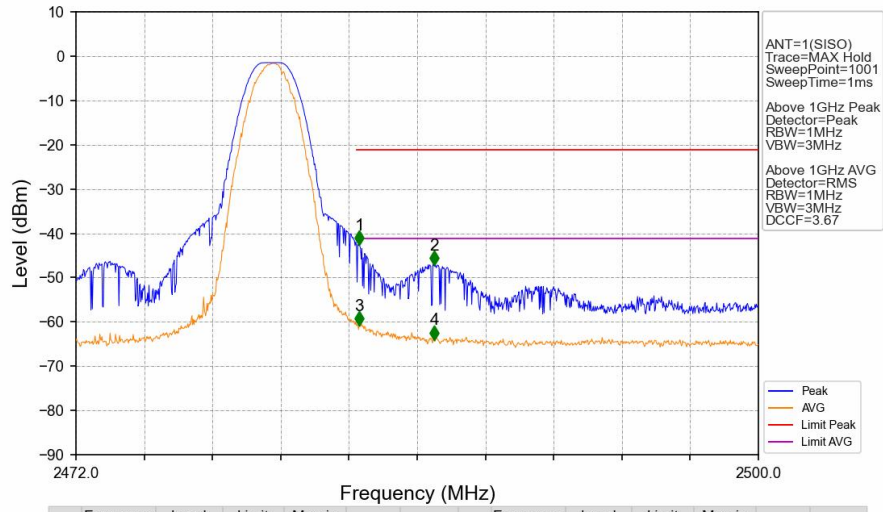
1M_HCH_2480MHz_Ant1_NTNV



A.7 Restrict Band



1M_HCH_2480MHz_Ant1_NTNV



No	Frequency (MHz)	Level (dBm)	Limit (dBm)	Margin (dB)	Status	Remark	No	Frequency (MHz)	Level (dBm)	Limit (dBm)	Margin (dB)	Status	Remark
1	2483.620	-42.54	-21.20	21.34	Pass	Peak	3	2483.620	-60.83	-41.20	19.63	Pass	AVG
2	2486.700	-47.06	-21.20	25.86	Pass	Peak	4	2486.700	-63.99	-41.20	22.79	Pass	AVG