

10 Appendix

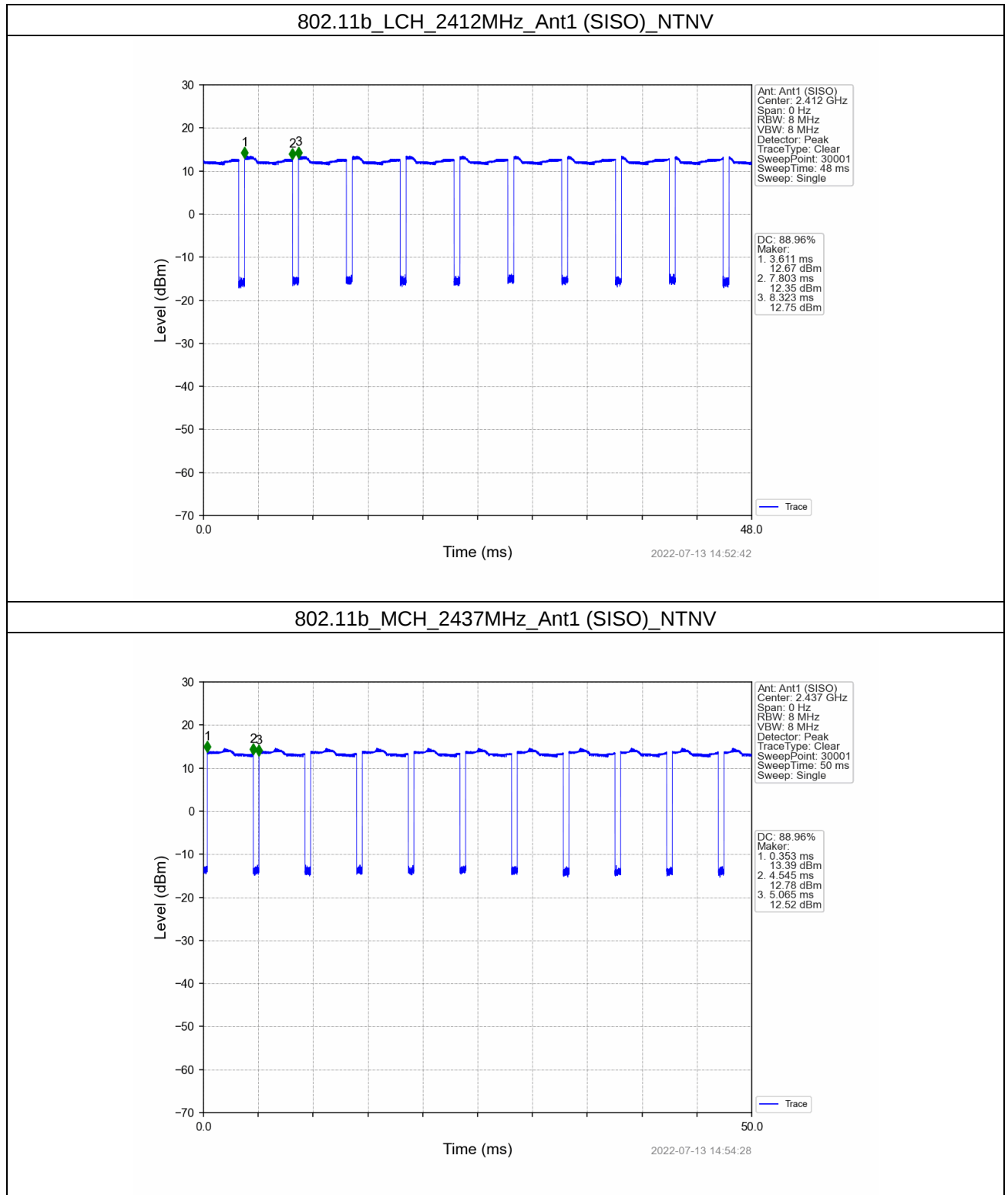
1. Duty Cycle

1.1 Ant1

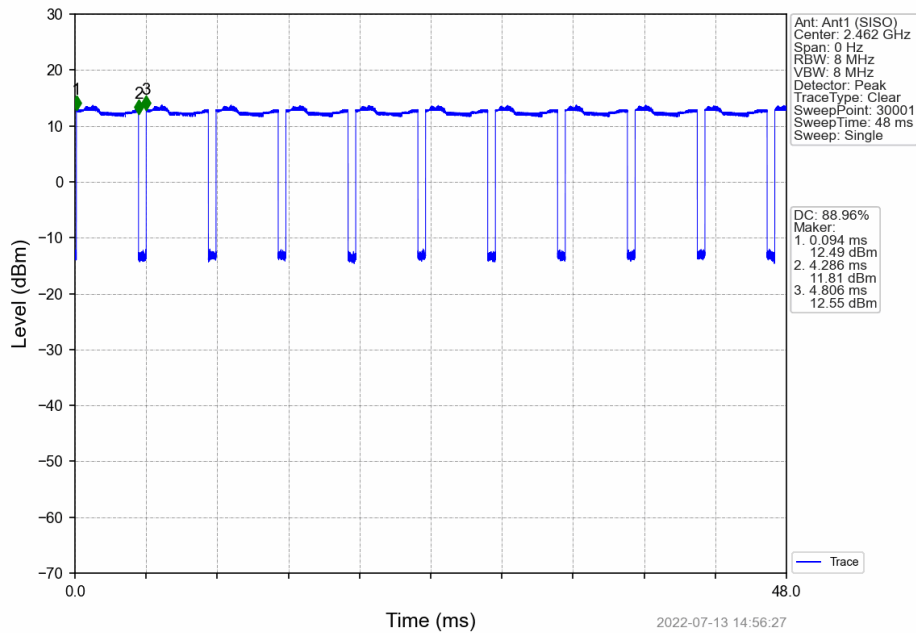
1.1.1 Test Result

Ant1							
Mode	TX Type	Frequency (MHz)	T_on (ms)	Period (ms)	Duty Cycle (%)	Duty Cycle Correction Factor (dB)	Max. DC Variation (%)
802.11b	SISO	2412	4.192	4.712	88.96	0.51	0.00
		2437	4.192	4.712	88.96	0.51	0.04
		2462	4.192	4.712	88.96	0.51	0.00
802.11g	SISO	2412	0.356	0.876	40.64	3.91	0.03
		2437	0.357	0.875	40.80	3.89	0.02
		2462	0.356	0.876	40.64	3.91	0.01
802.11n (HT20)	SISO	2412	0.245	0.764	32.07	4.94	0.00
		2437	0.245	0.764	32.07	4.94	0.01
		2462	0.244	0.763	31.98	4.95	0.01

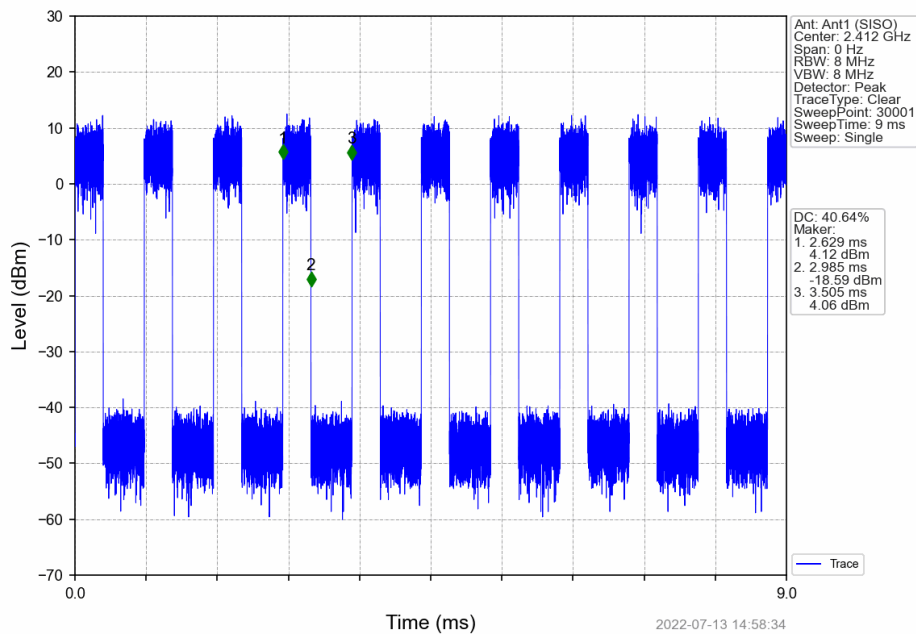
1.1.2 Test Graph



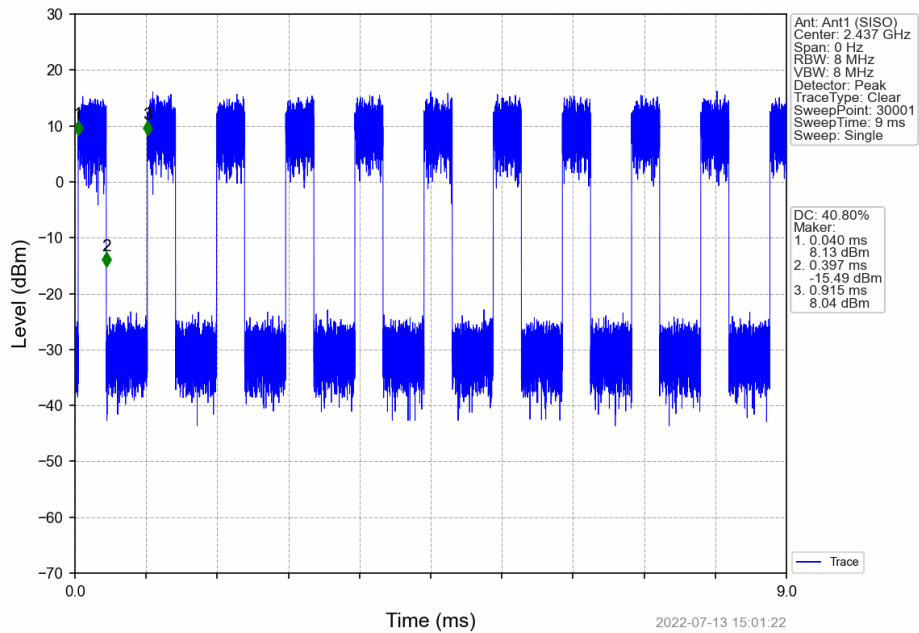
802.11b_HCH_2462MHz_Ant1 (SISO)_NTNV



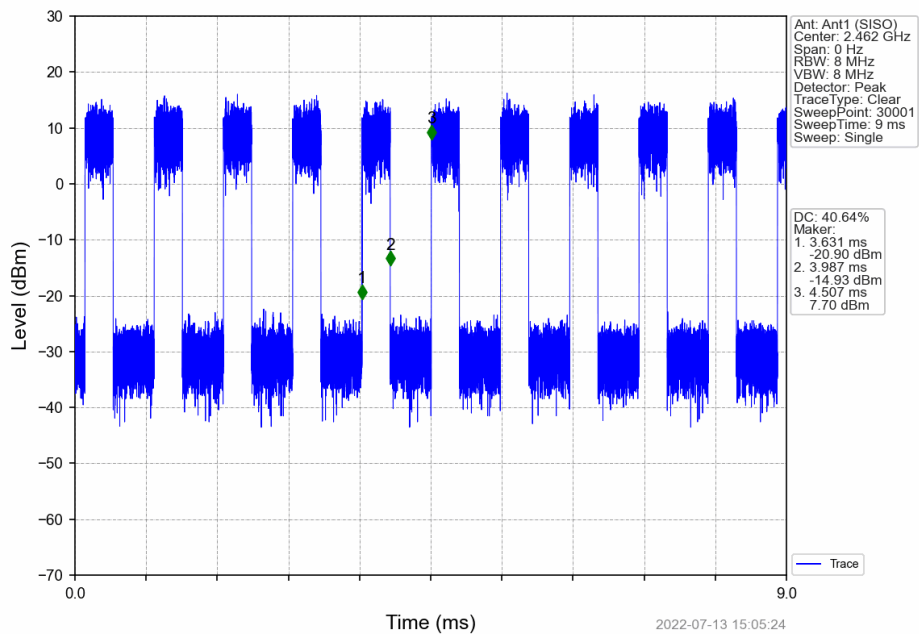
802.11g_LCH_2412MHz_Ant1 (SISO)_NTNV



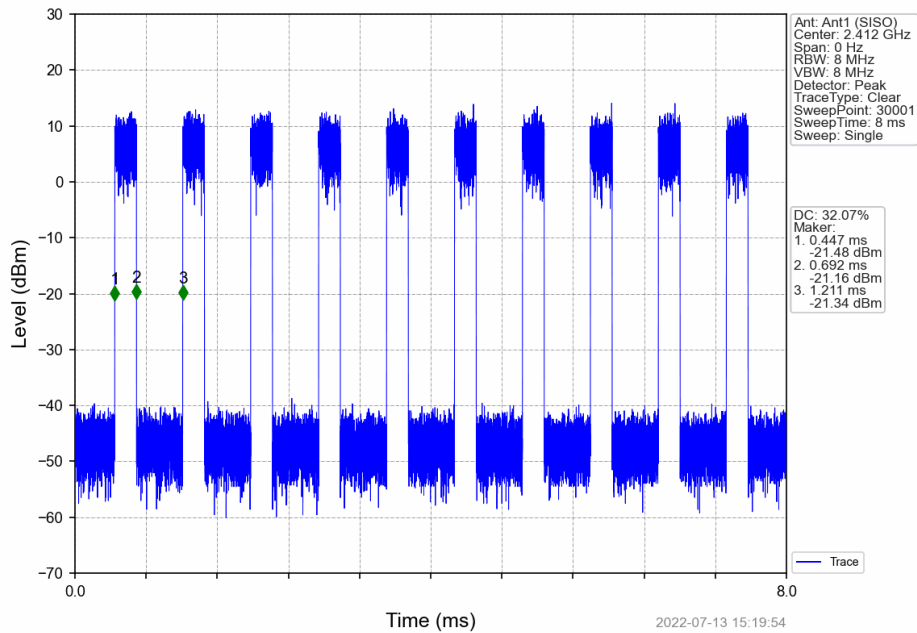
802.11g_MCH_2437MHz_Ant1 (SISO)_NTNV



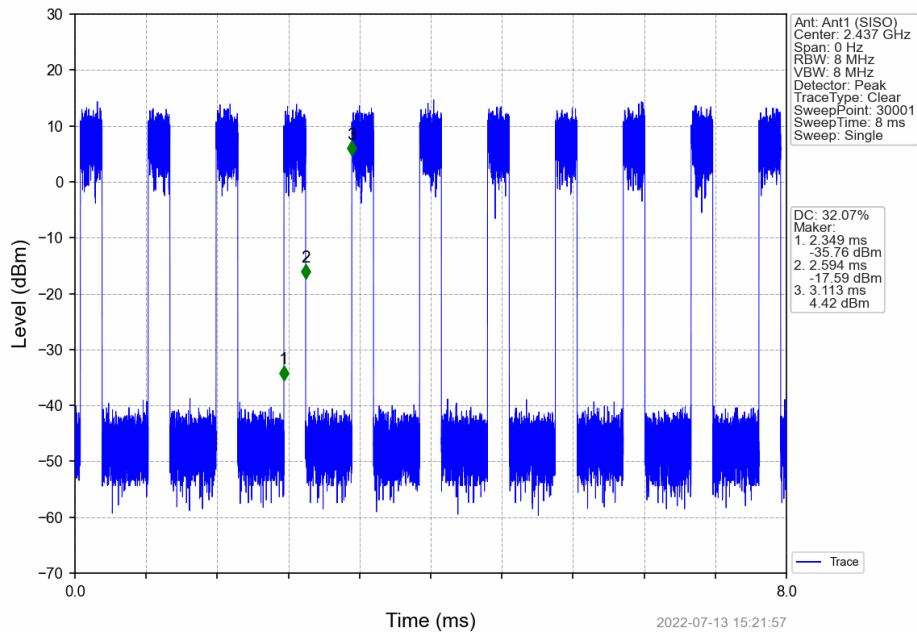
802.11g_HCH_2462MHz_Ant1 (SISO)_NTNV



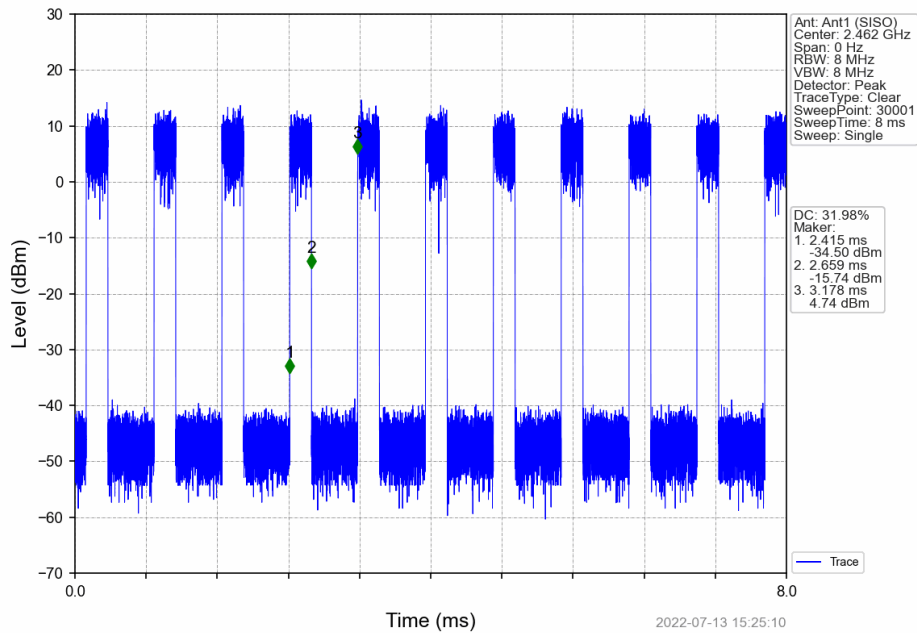
802.11n(HT20)_LCH_2412MHz_Ant1 (SISO)_NTNV



802.11n(HT20)_MCH_2437MHz_Ant1 (SISO)_NTNV



802.11n(HT20)_HCH_2462MHz_Ant1 (SISO)_NTNV



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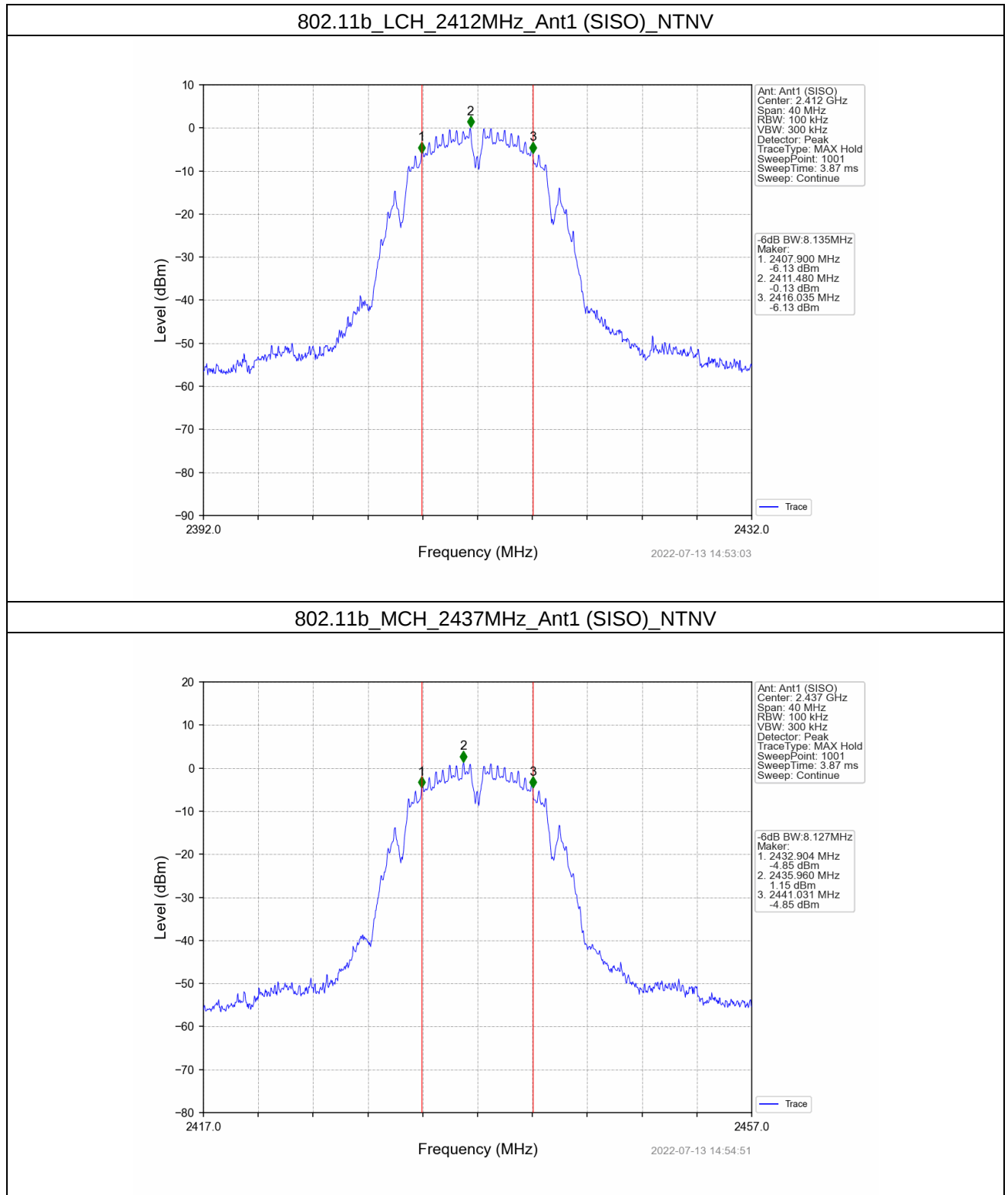
2. Bandwidth

2.1 6dB BW

2.1.1 Test Result

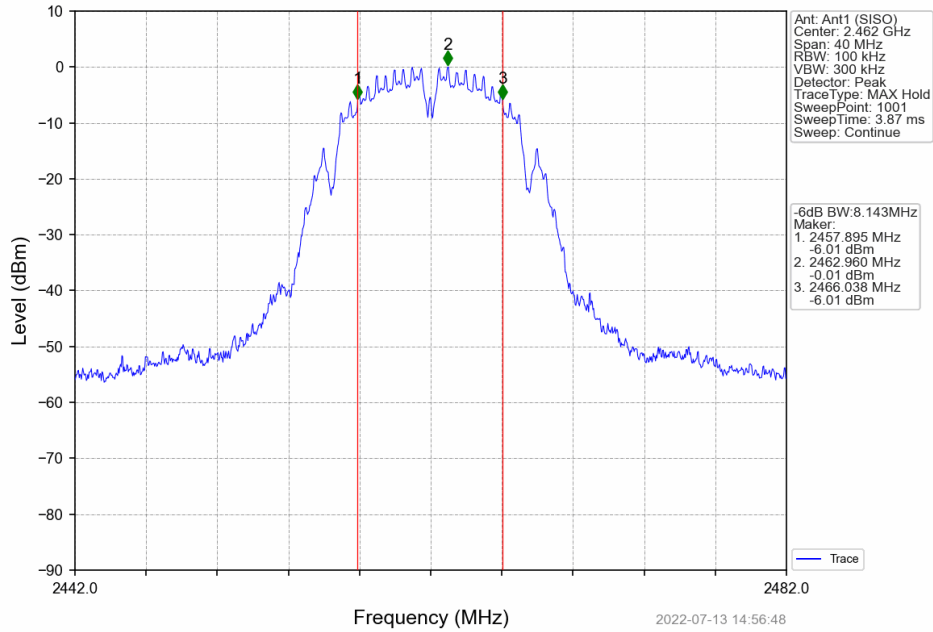
Mode	TX Type	Frequency (MHz)	ANT	6dB Bandwidth (MHz)		Verdict
				Result	Limit	
802.11b	SISO	2412	1	8.135	≥ 0.5	Pass
		2437	1	8.127	≥ 0.5	Pass
		2462	1	8.143	≥ 0.5	Pass
802.11g	SISO	2412	1	16.474	≥ 0.5	Pass
		2437	1	16.467	≥ 0.5	Pass
		2462	1	16.463	≥ 0.5	Pass
802.11n (HT20)	SISO	2412	1	17.690	≥ 0.5	Pass
		2437	1	17.663	≥ 0.5	Pass
		2462	1	17.677	≥ 0.5	Pass

2.1.2 Test Graph

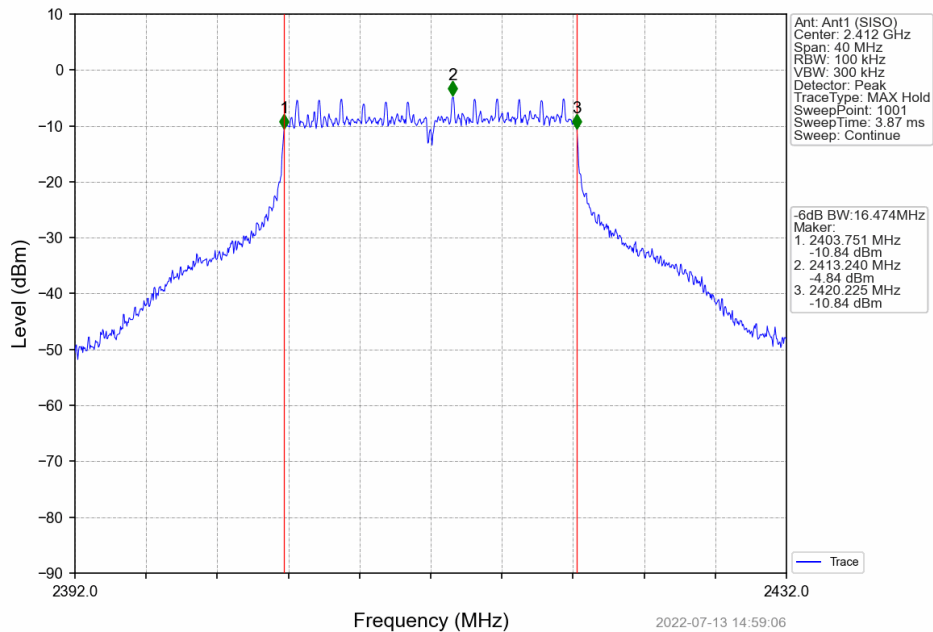


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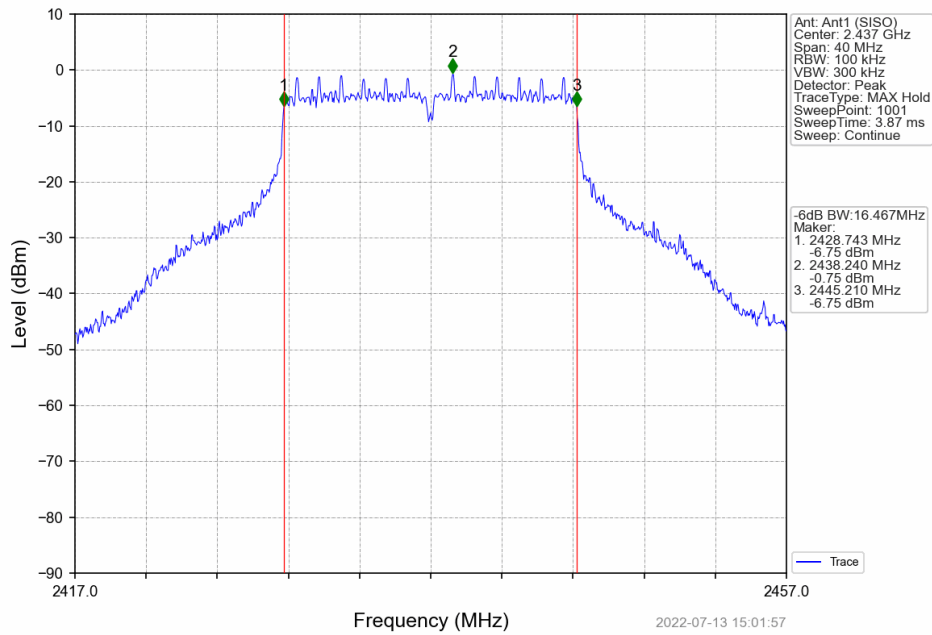
802.11b_HCH_2462MHz_Ant1 (SISO)_NTNV



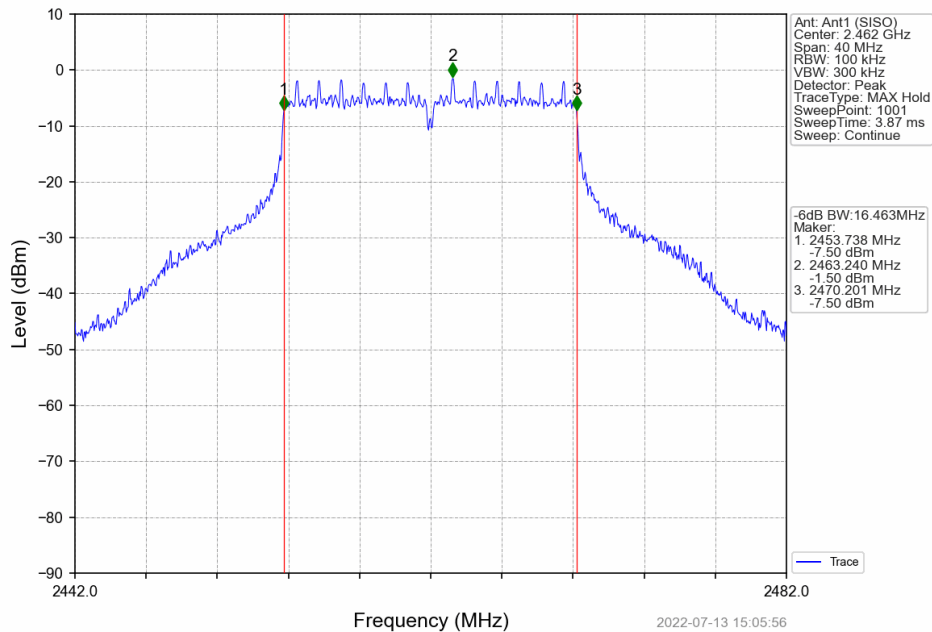
802.11g_LCH_2412MHz_Ant1 (SISO)_NTNV



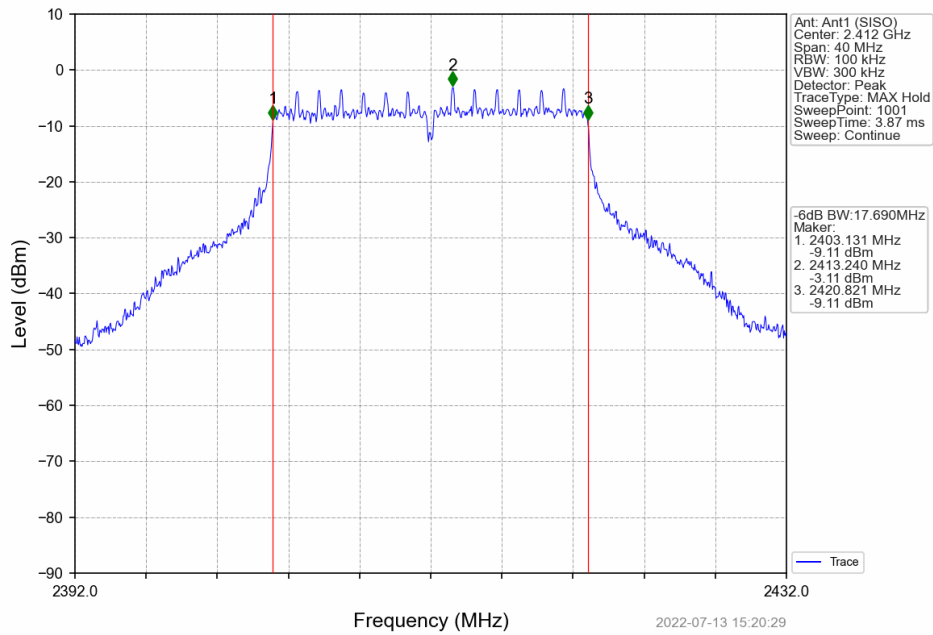
802.11g_MCH_2437MHz_Ant1 (SISO)_NTNV



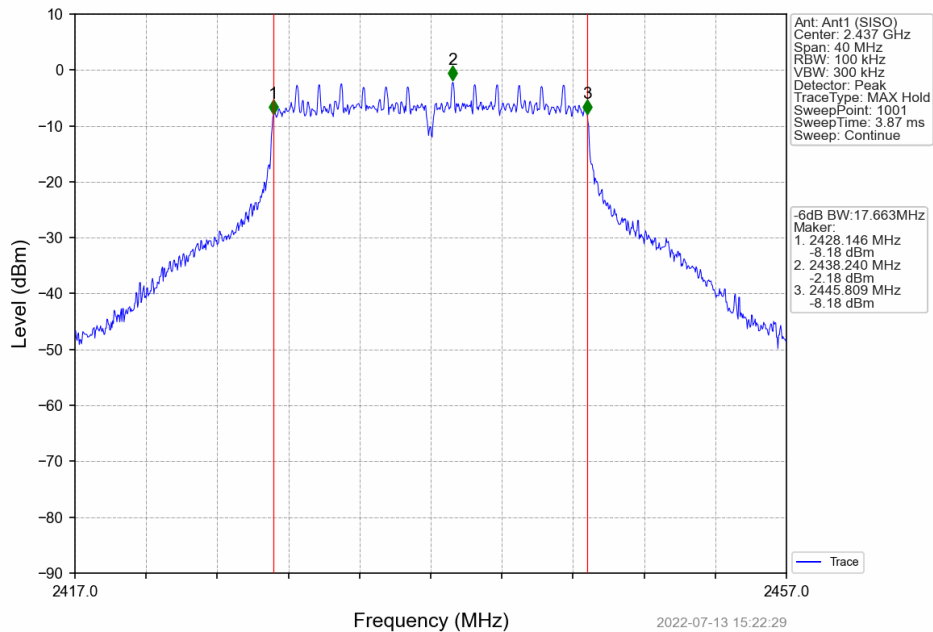
802.11g_HCH_2462MHz_Ant1 (SISO)_NTNV



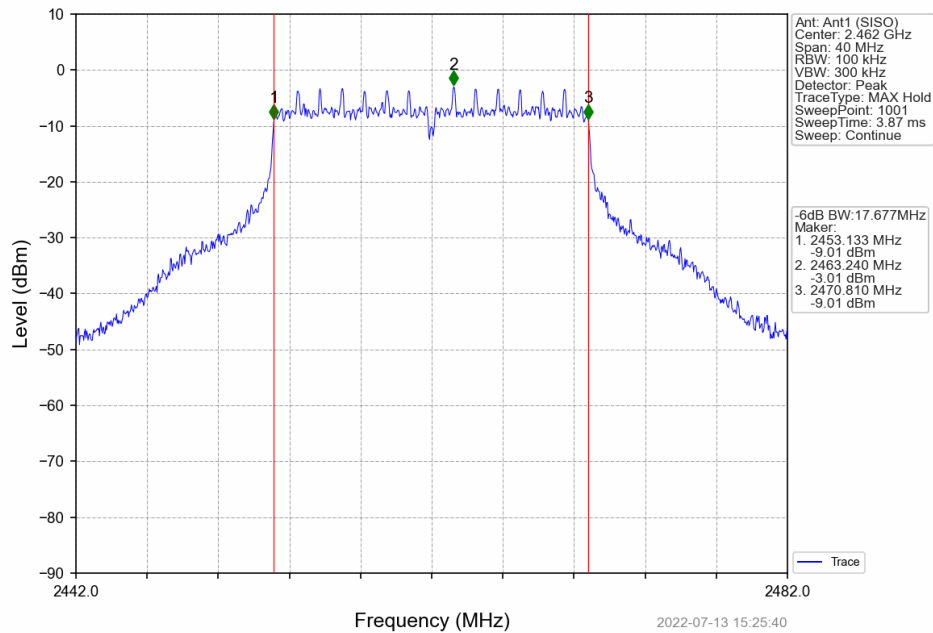
802.11n(HT20)_LCH_2412MHz_Ant1 (SISO)_NTNV



802.11n(HT20)_MCH_2437MHz_Ant1 (SISO)_NTNV



802.11n(HT20)_HCH_2462MHz_Ant1 (SISO)_NTNV



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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	
802.11b	SISO	2412	10.97	≤ 30	Pass
		2437	12.00	≤ 30	Pass
		2462	11.17	≤ 30	Pass
802.11g	SISO	2412	13.43	≤ 30	Pass
		2437	17.39	≤ 30	Pass
		2462	16.81	≤ 30	Pass
802.11n (HT20)	SISO	2412	15.08	≤ 30	Pass
		2437	16.10	≤ 30	Pass
		2462	15.33	≤ 30	Pass

Note1: Antenna Gain: Ant1: 3.39dBi;

Mode	TX Type	Frequency (MHz)	Duty Cycle (%)	Duty Cycle Factor (dB)	Maximum Average Conducted Output Power (dBm)
802.11b	SISO	2412	88.96	-1.016	9.954
		2437	88.96	-1.016	10.984
		2462	88.96	-1.016	10.154
802.11g	SISO	2412	40.64	-7.829	5.601
		2437	40.80	-7.787	9.603
		2462	40.64	-7.829	8.981
802.11n (HT20)	SISO	2412	32.07	-9.709	5.371
		2437	32.07	-9.709	6.391
		2462	31.98	-9.902	5.428

4. Maximum Power Spectral Density

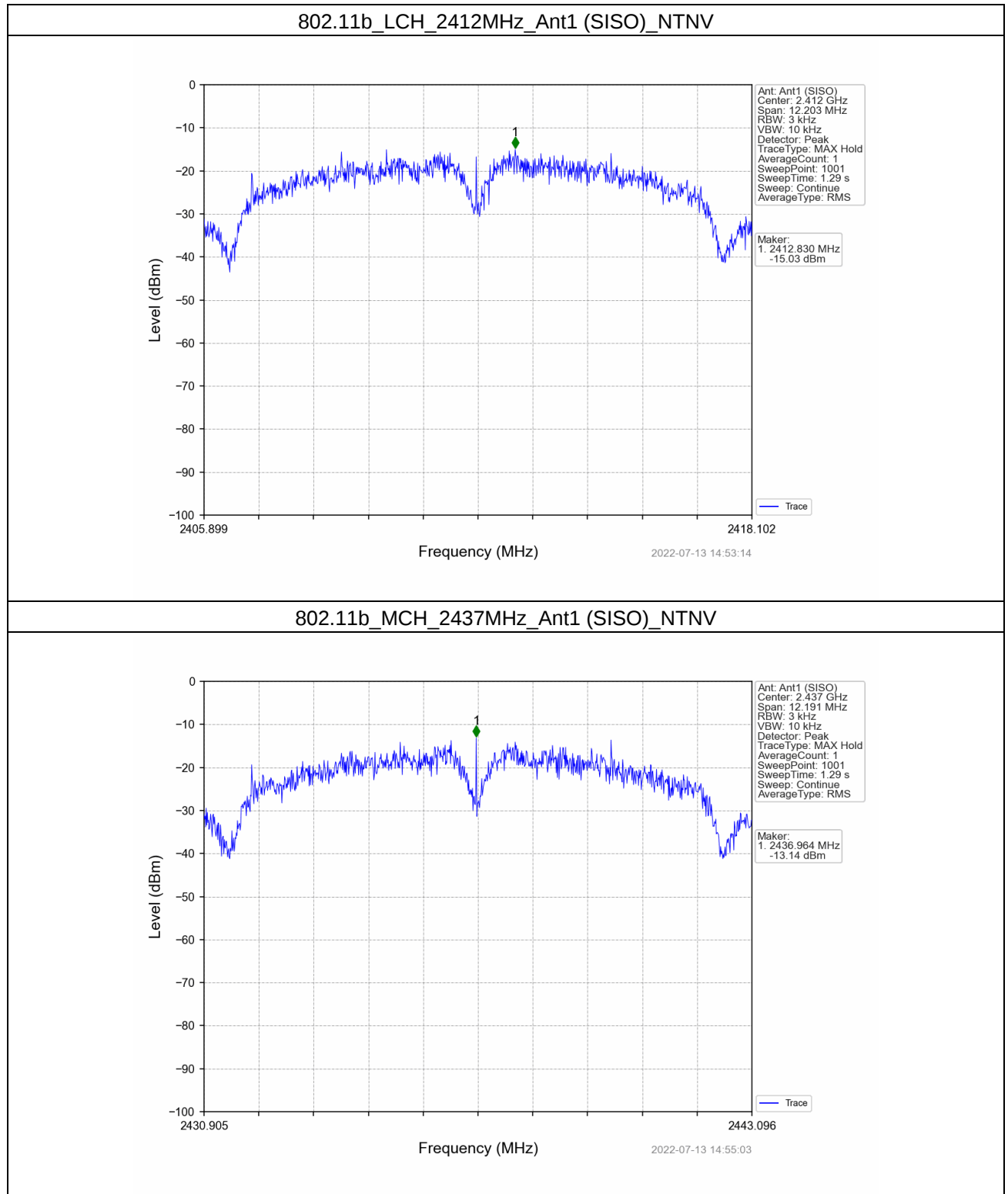
4.1 PSD

4.1.1 Test Result

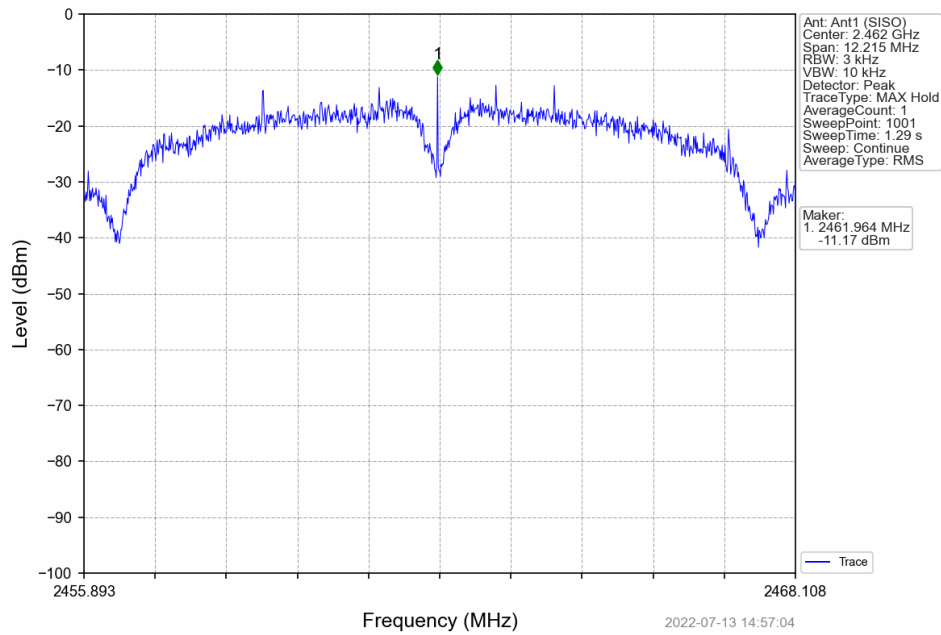
Mode	TX Type	Frequency (MHz)	Maximum PSD (dBm/3kHz)		Verdict
			ANT1	Limit	
802.11b	SISO	2412	-15.03	<=8	Pass
		2437	-13.14	<=8	Pass
		2462	-11.17	<=8	Pass
802.11g	SISO	2412	-15.99	<=8	Pass
		2437	-14.45	<=8	Pass
		2462	-15.76	<=8	Pass
802.11n (HT20)	SISO	2412	-17.70	<=8	Pass
		2437	-17.20	<=8	Pass
		2462	-16.94	<=8	Pass

Note1: Antenna Gain: Ant1: 3.39dBi;

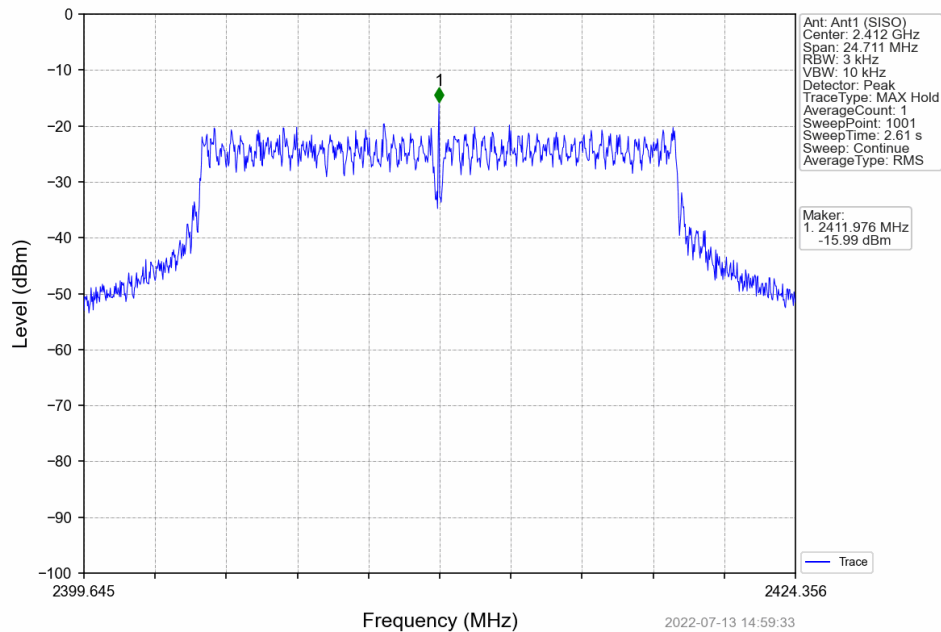
4.1.2 Test Graph



802.11b_HCH_2462MHz_Ant1 (SISO)_NTNV

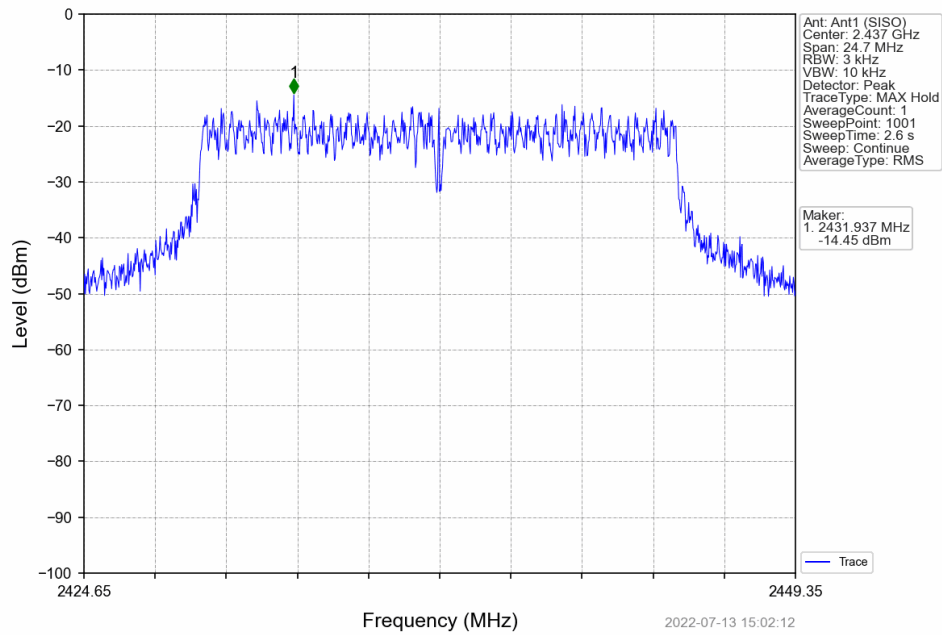


802.11g_LCH_2412MHz_Ant1 (SISO)_NTNV

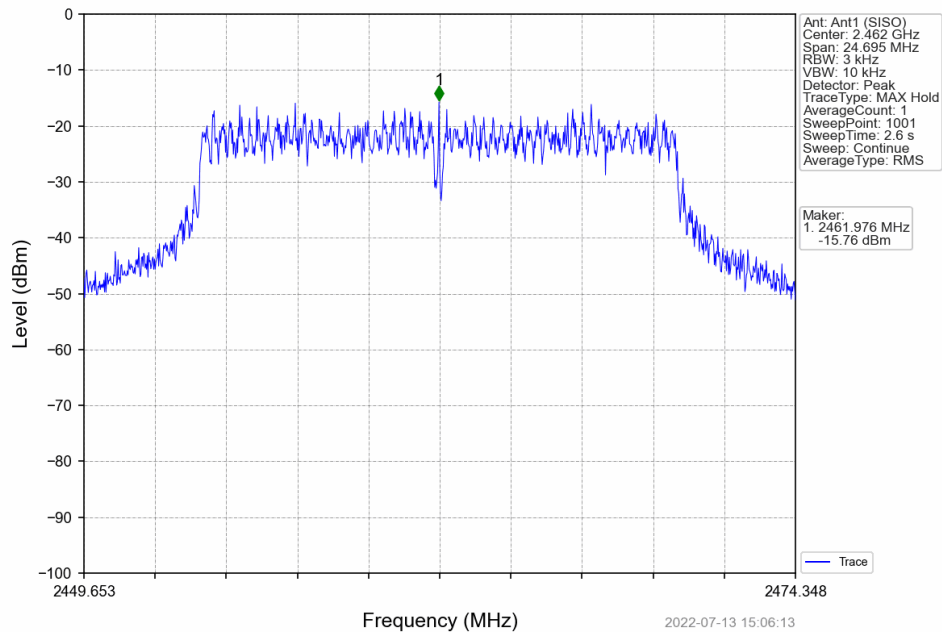


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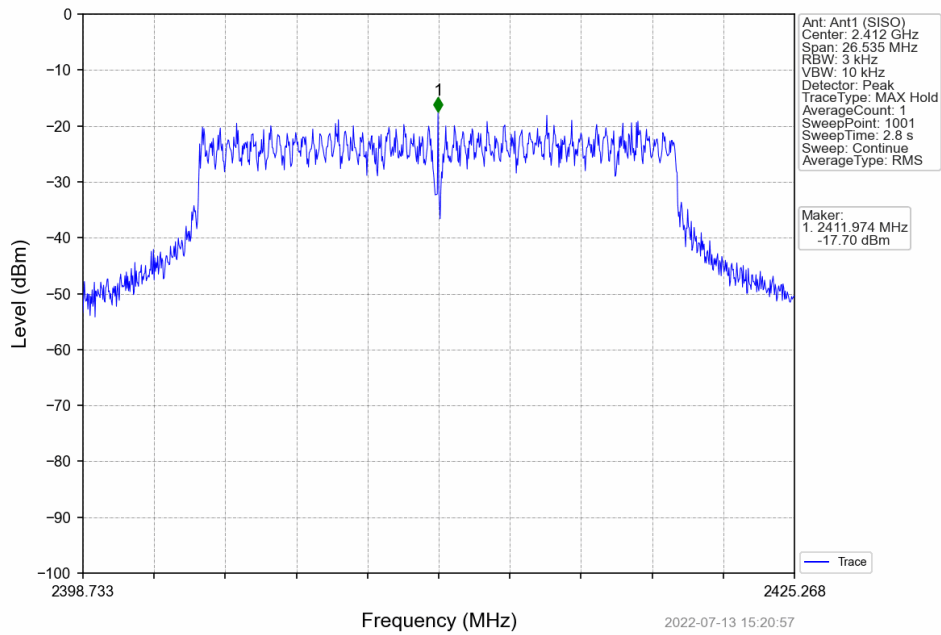
802.11g_MCH_2437MHz_Ant1 (SISO)_NTNV



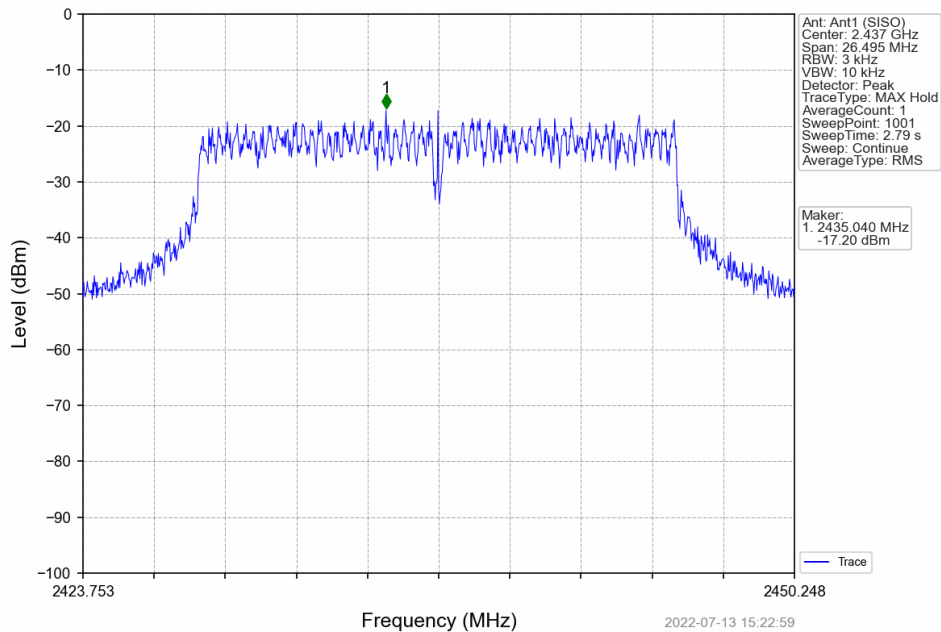
802.11g_HCH_2462MHz_Ant1 (SISO)_NTNV



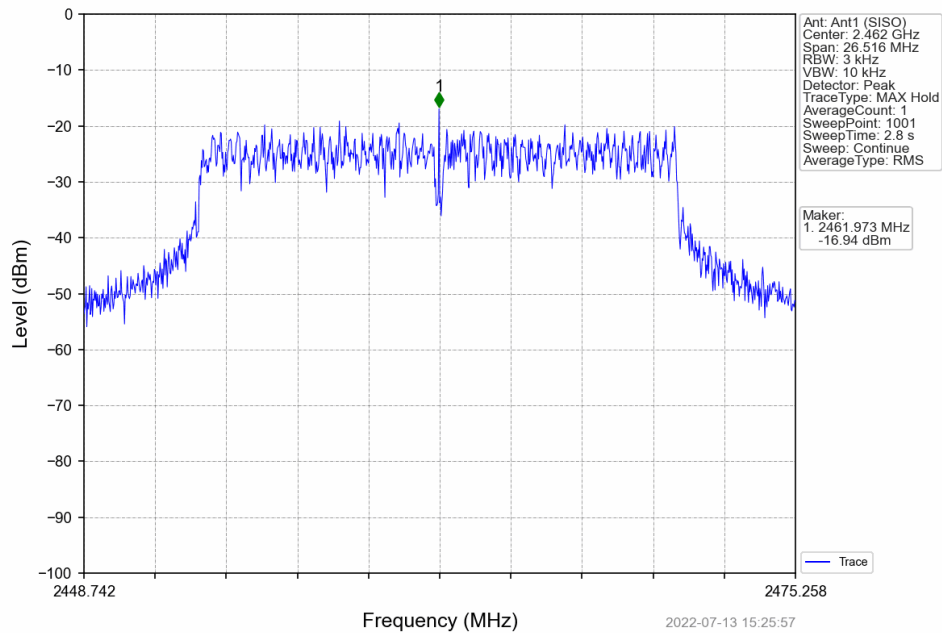
802.11n(HT20)_LCH_2412MHz_Ant1 (SISO)_NTNV



802.11n(HT20)_MCH_2437MHz_Ant1 (SISO)_NTNV



802.11n(HT20)_HCH_2462MHz_Ant1 (SISO)_NTNV



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5. Unwanted Emissions In Non-restricted Frequency Bands

5.1 Ref

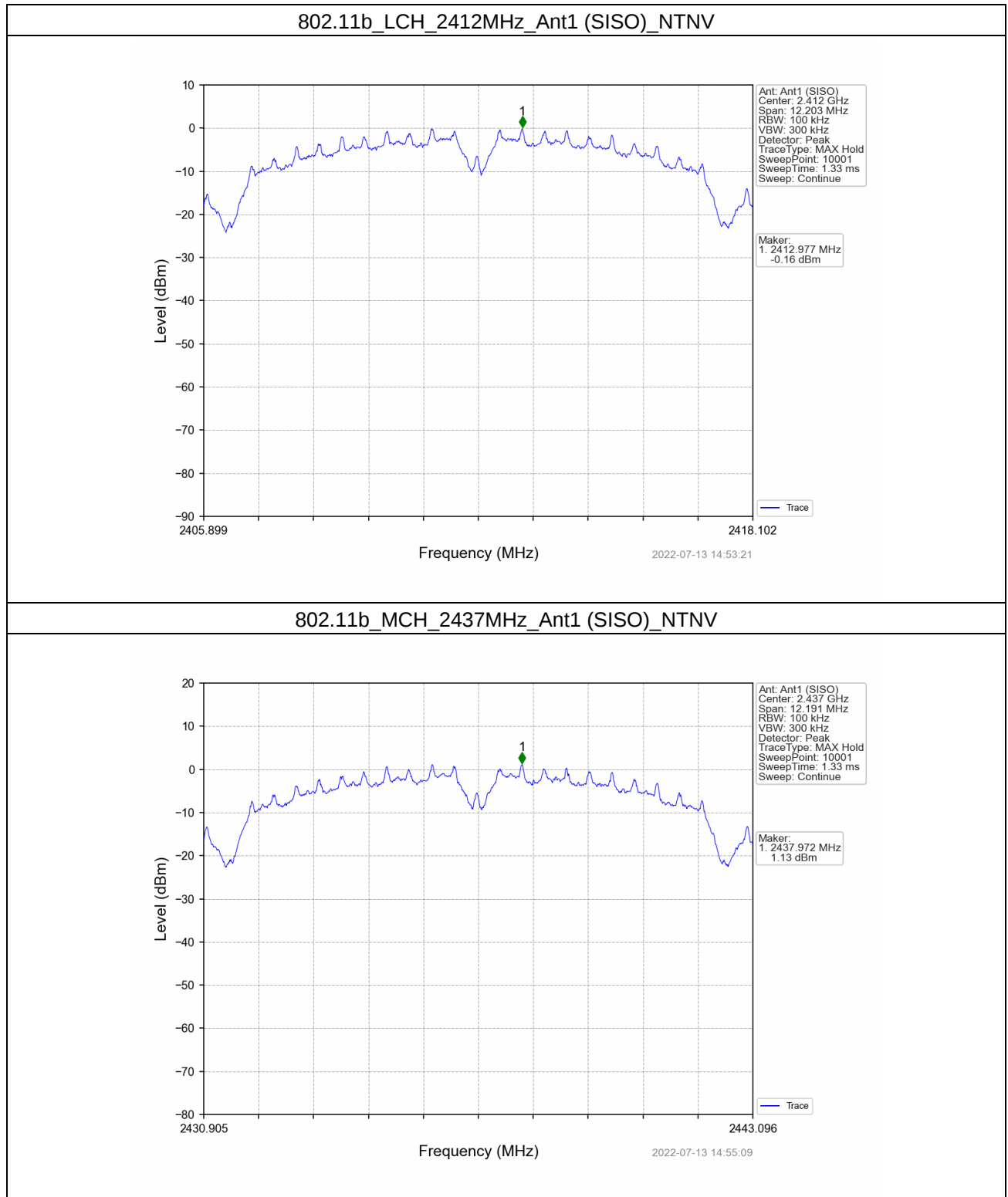
5.1.1 Test Result

Mode	TX Type	Frequency (MHz)	ANT	Level of Reference (dBm)
802.11b	SISO	2412	1	-0.16
		2437	1	1.13
		2462	1	0.25
802.11g	SISO	2412	1	-4.86
		2437	1	-0.90
		2462	1	-1.63
802.11n (HT20)	SISO	2412	1	-3.32
		2437	1	-2.29
		2462	1	-3.07

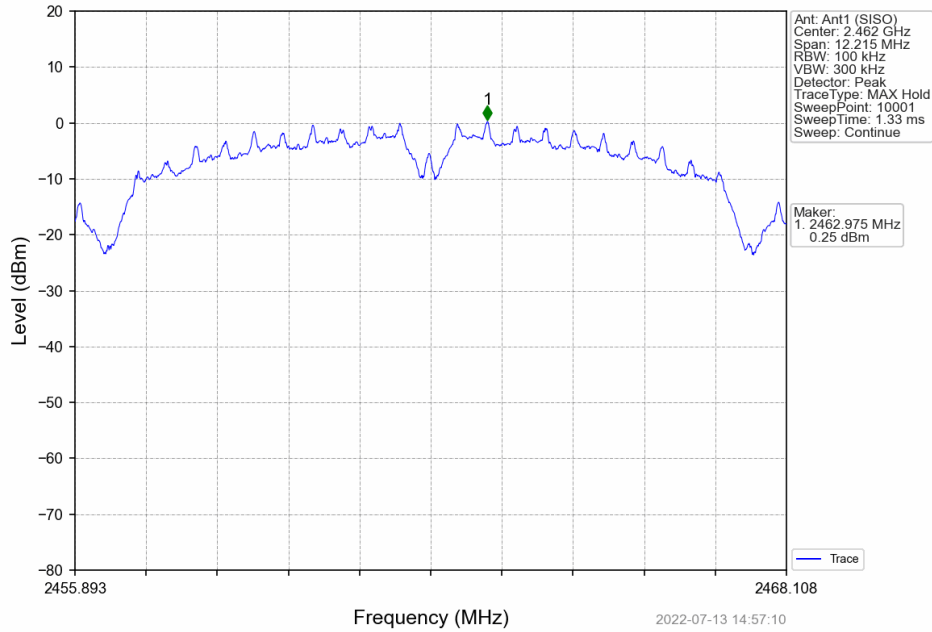
Note1: Refer to FCC Part 15.247 (d) and ANSI C63.10-2013, the channel contains the maximum PSD level was used to establish the reference level.

Note2: RBW = 1MHz was used during the pre-test. The final test will be performed at RBW=100kHz while the margin is less than 3dB.

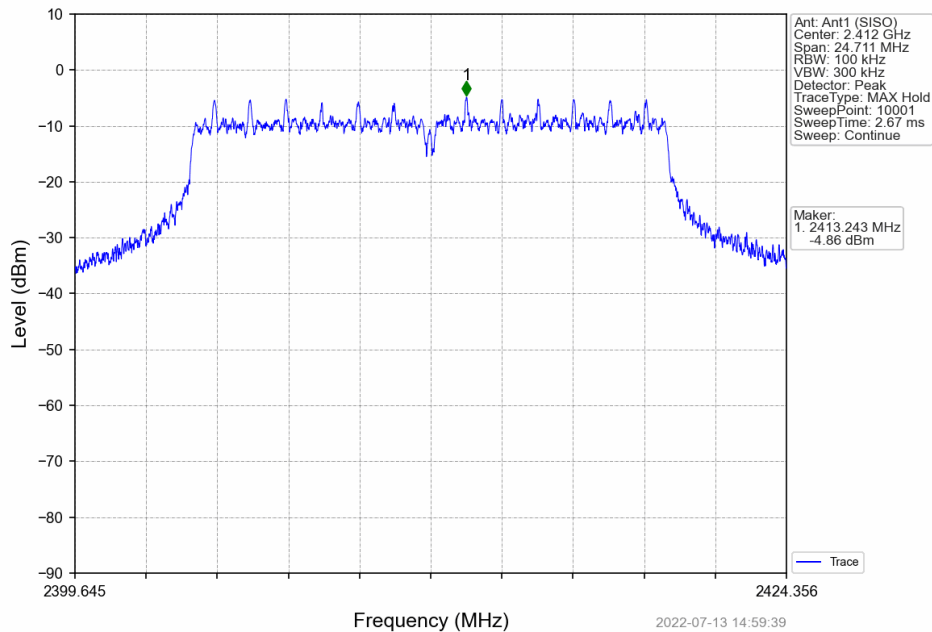
5.1.2 Test Graph



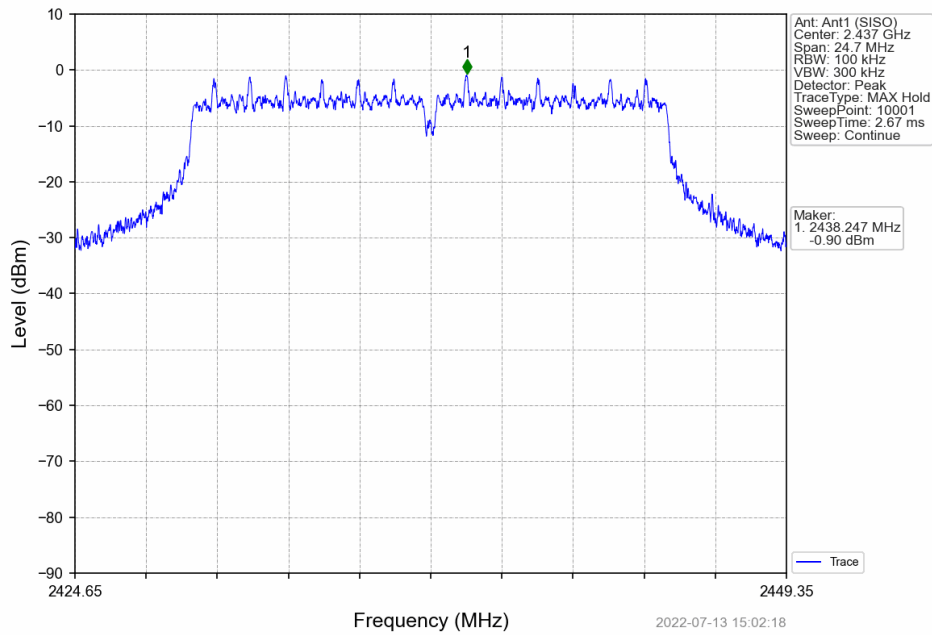
802.11b_HCH_2462MHz_Ant1 (SISO)_NTNV



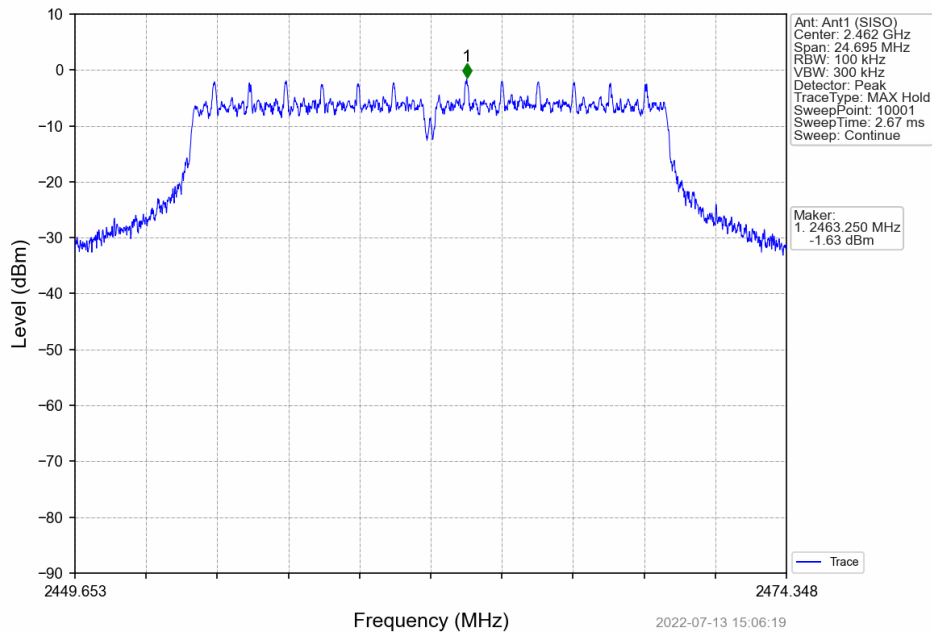
802.11g_LCH_2412MHz_Ant1 (SISO)_NTNV



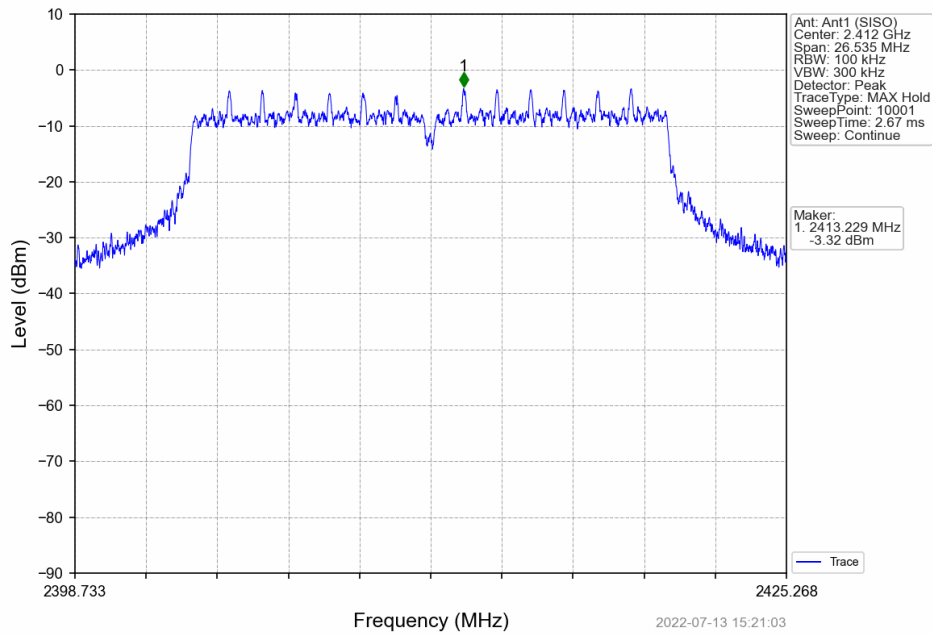
802.11g_MCH_2437MHz_Ant1 (SISO)_NTNV



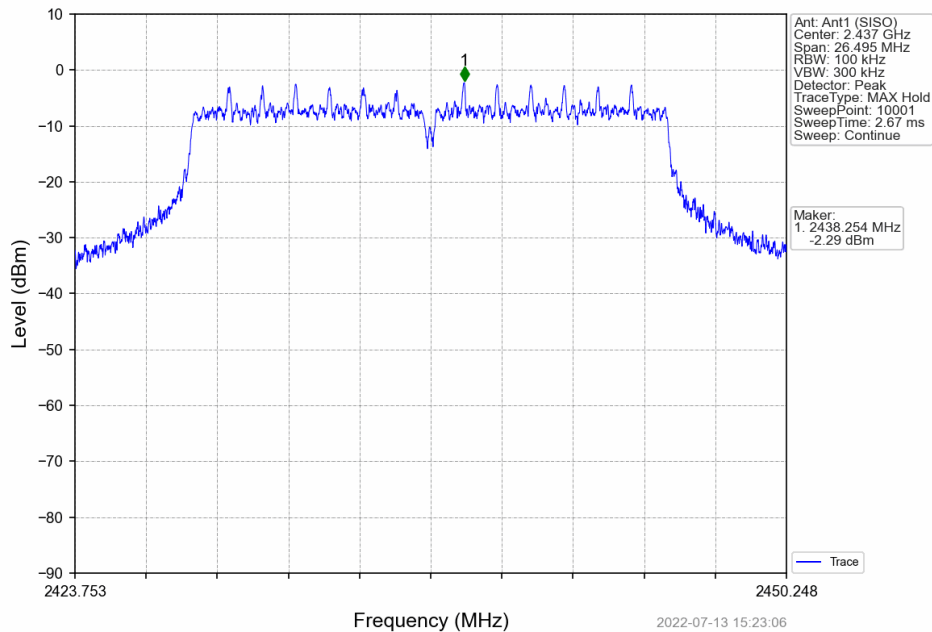
802.11g_HCH_2462MHz_Ant1 (SISO)_NTNV



802.11n(HT20)_LCH_2412MHz_Ant1 (SISO)_NTNV

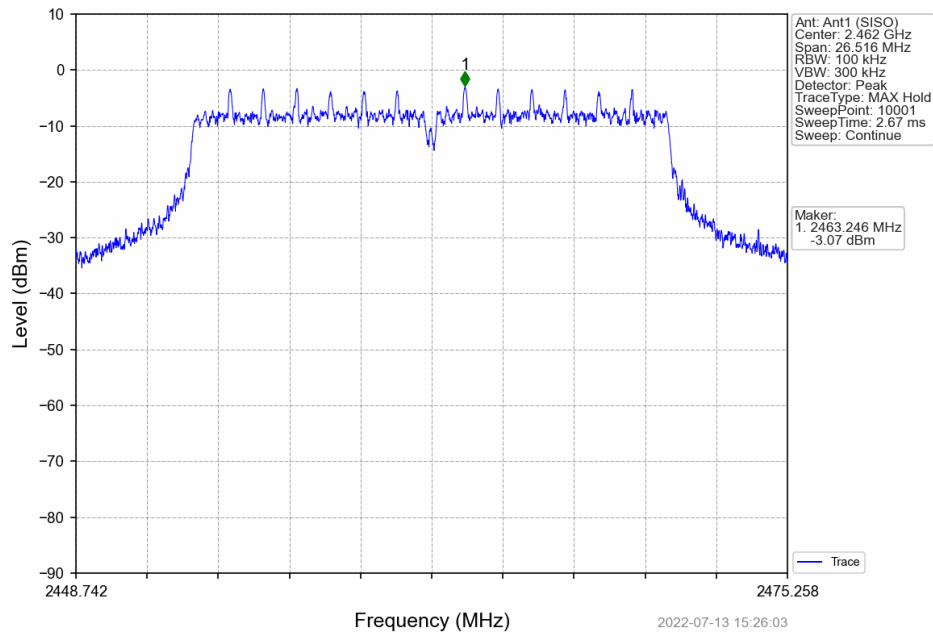


802.11n(HT20)_MCH_2437MHz_Ant1 (SISO)_NTNV



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802.11n(HT20)_HCH_2462MHz_Ant1 (SISO)_NTNV



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5.2 CSE

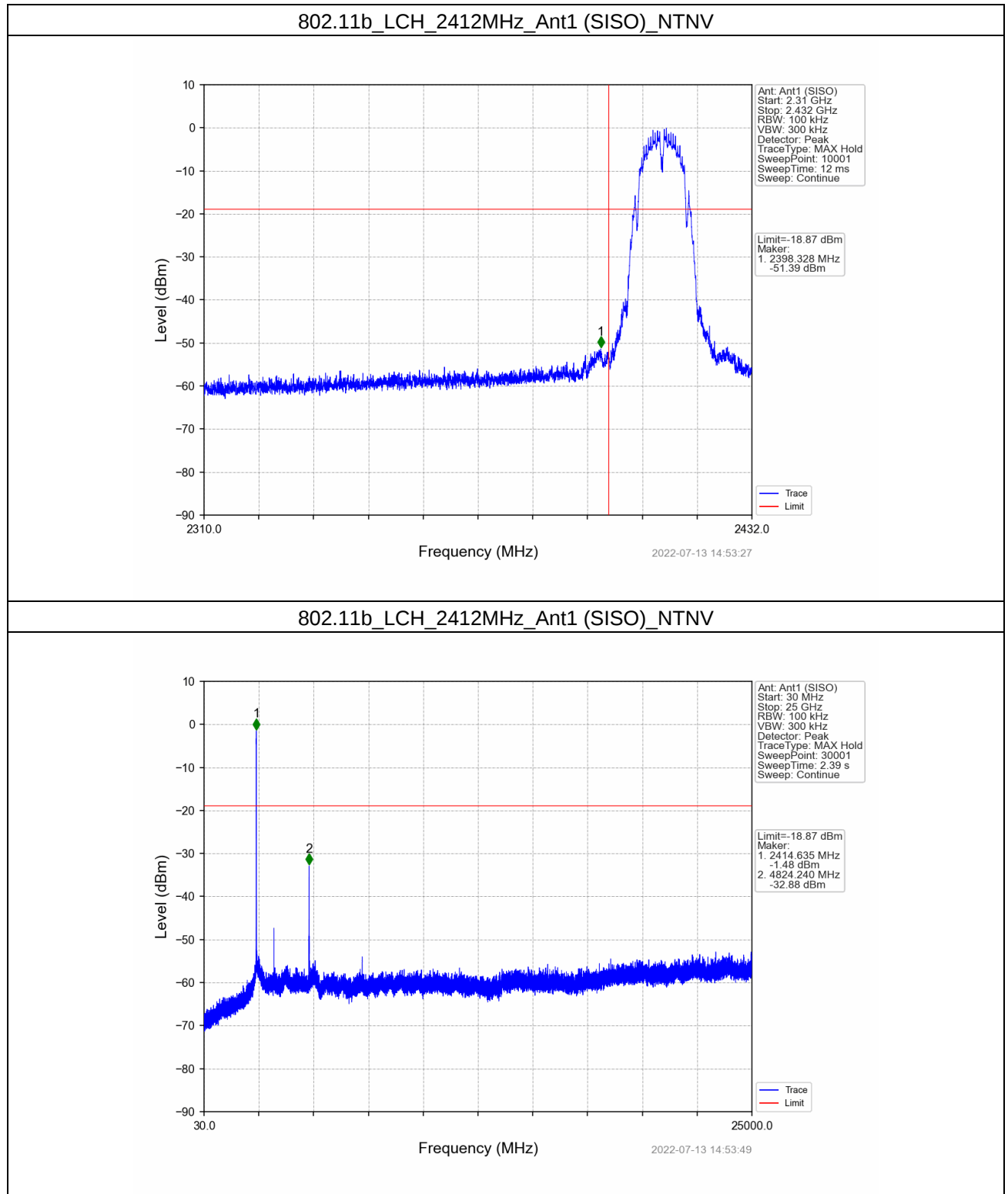
5.2.1 Test Result

Mode	TX Type	Frequency (MHz)	ANT	Level of Reference (dBm)	Limit (dBm)	Verdict
802.11b	SISO	2412	1	1.13	-18.87	Pass
		2437	1	1.13	-18.87	Pass
		2462	1	1.13	-18.87	Pass
802.11g	SISO	2412	1	-0.90	-20.90	Pass
		2437	1	-0.90	-20.90	Pass
		2462	1	-0.90	-20.90	Pass
802.11n (HT20)	SISO	2412	1	-2.29	-22.29	Pass
		2437	1	-2.29	-22.29	Pass
		2462	1	-2.29	-22.29	Pass

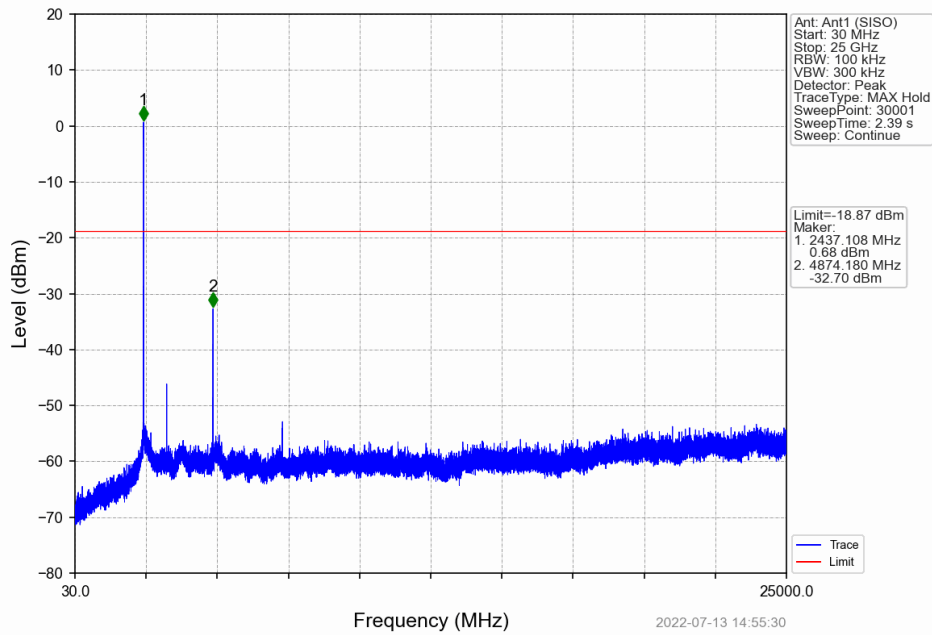
Note1: Refer to FCC Part 15.247 (d) and ANSI C63.10-2013, the channel contains the maximum PSD level was used to establish the reference level.

Note2: RBW = 1MHz was used during the pre-test. The final test will be performed at RBW=100kHz while the margin is less than 3dB.

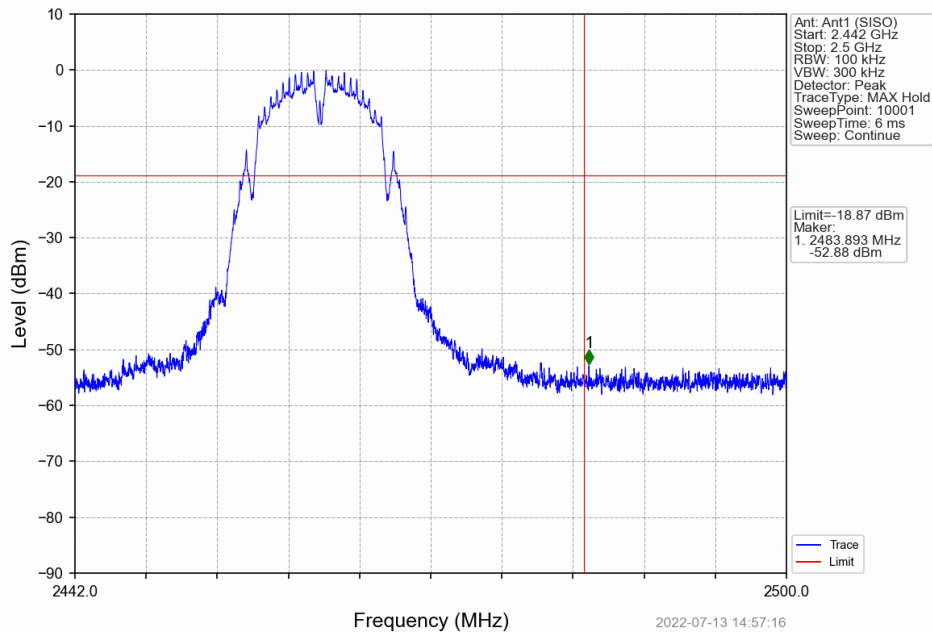
5.2.2 Test Graph



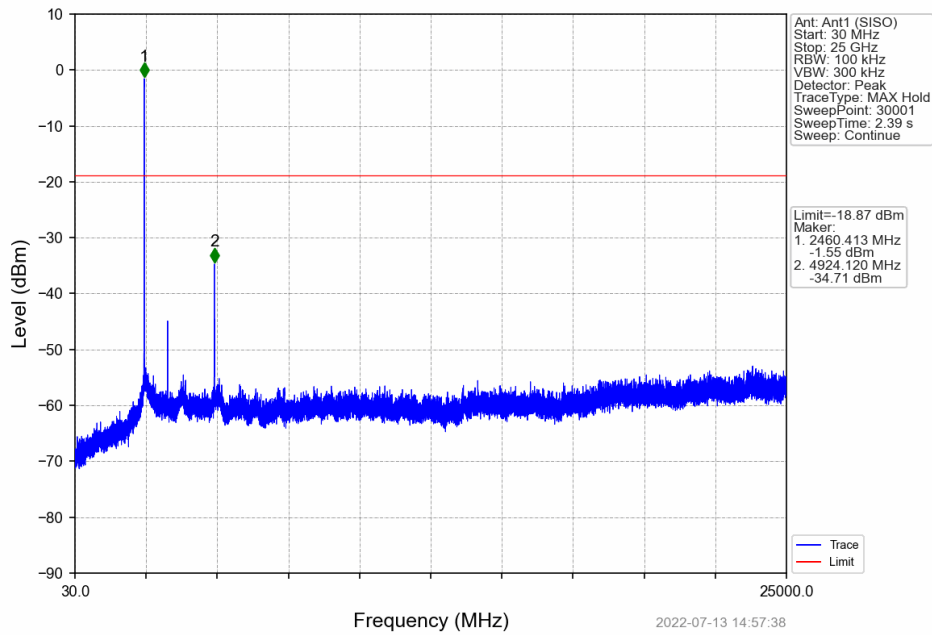
802.11b_MCH_2437MHz_Ant1 (SISO)_NTNV



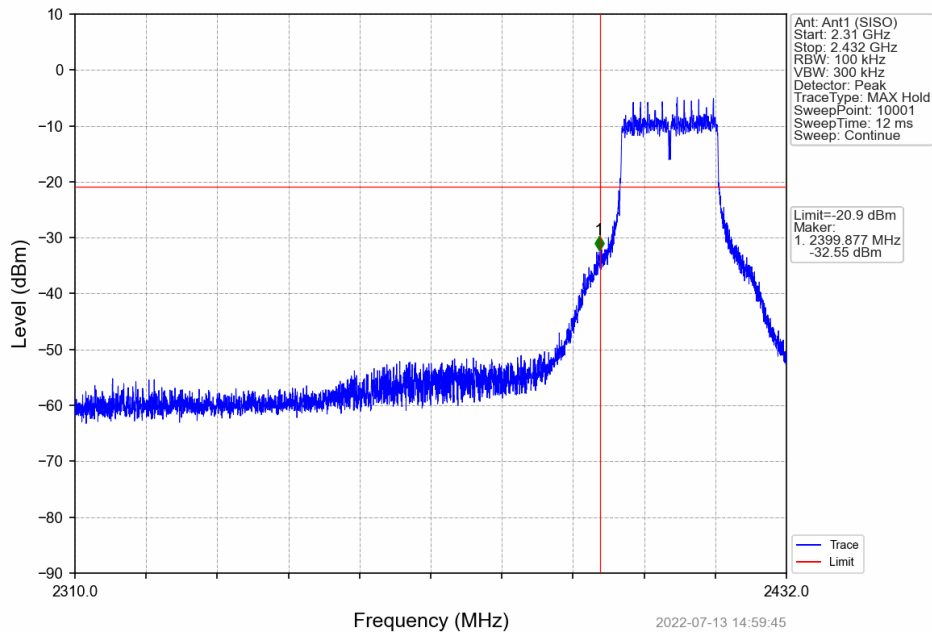
802.11b_HCH_2462MHz_Ant1 (SISO)_NTNV



802.11b_HCH_2462MHz_Ant1 (SISO)_NTNV

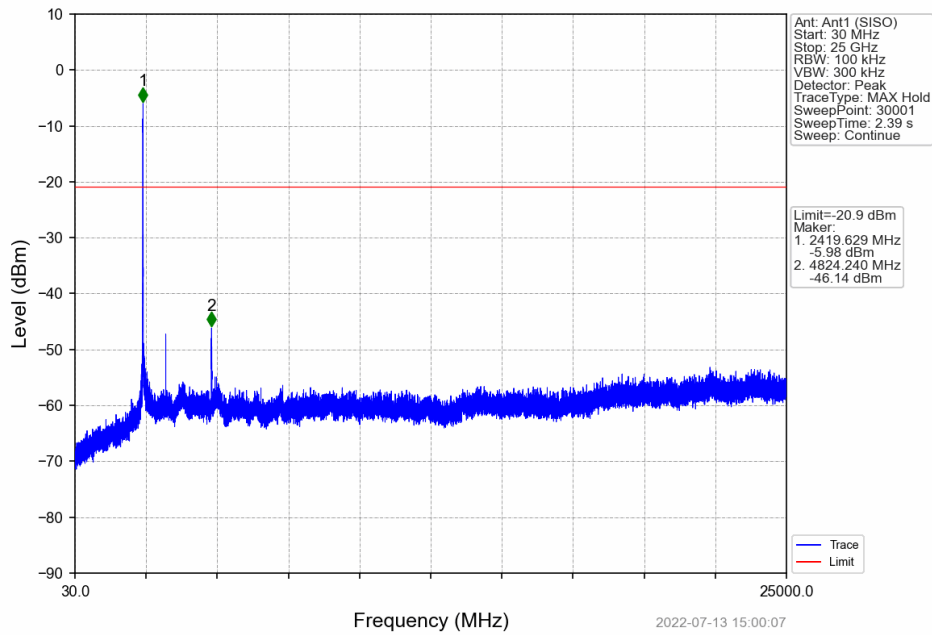


802.11g_LCH_2412MHz_Ant1 (SISO)_NTNV

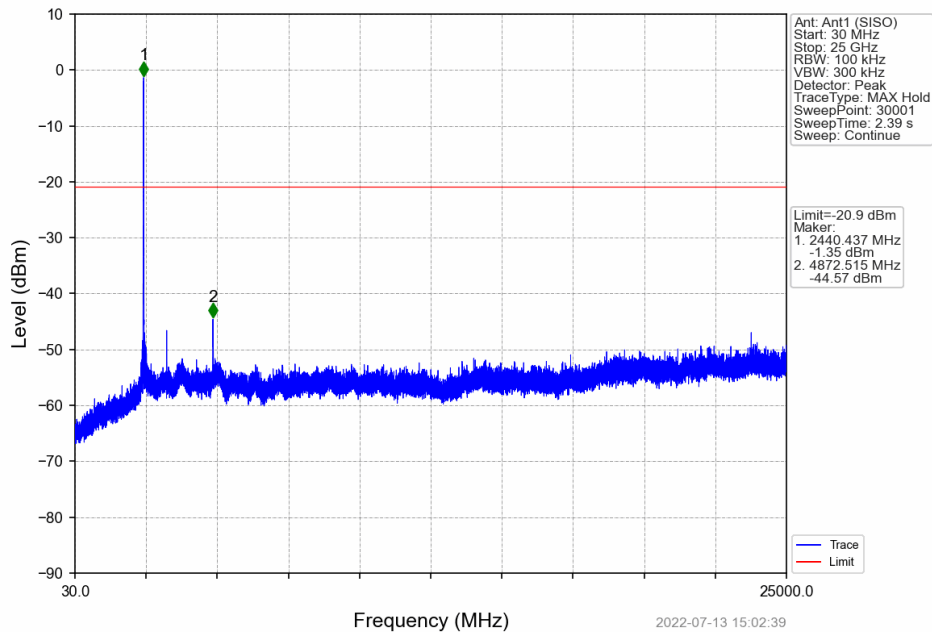


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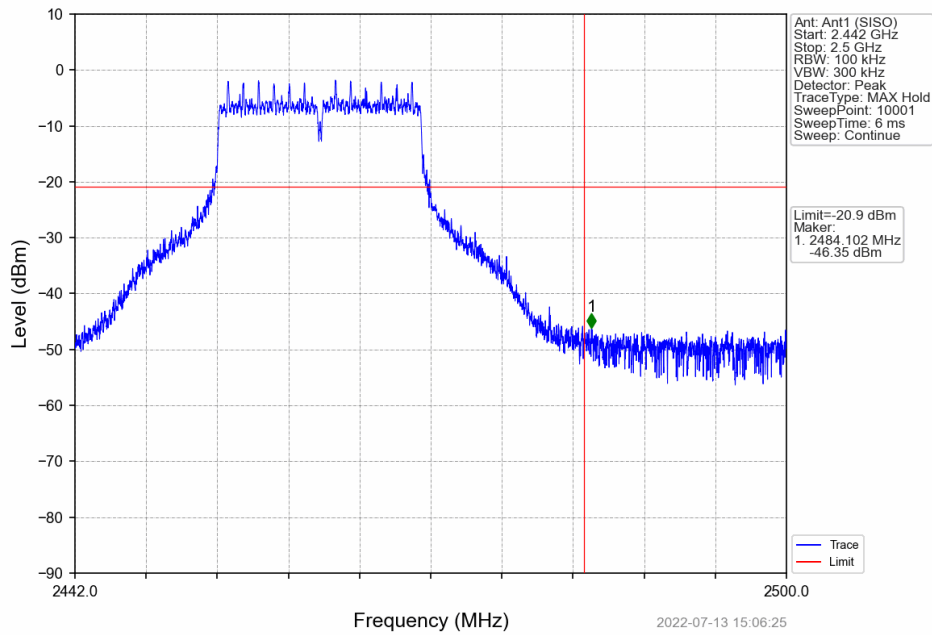
802.11g_LCH_2412MHz_Ant1 (SISO)_NTNV



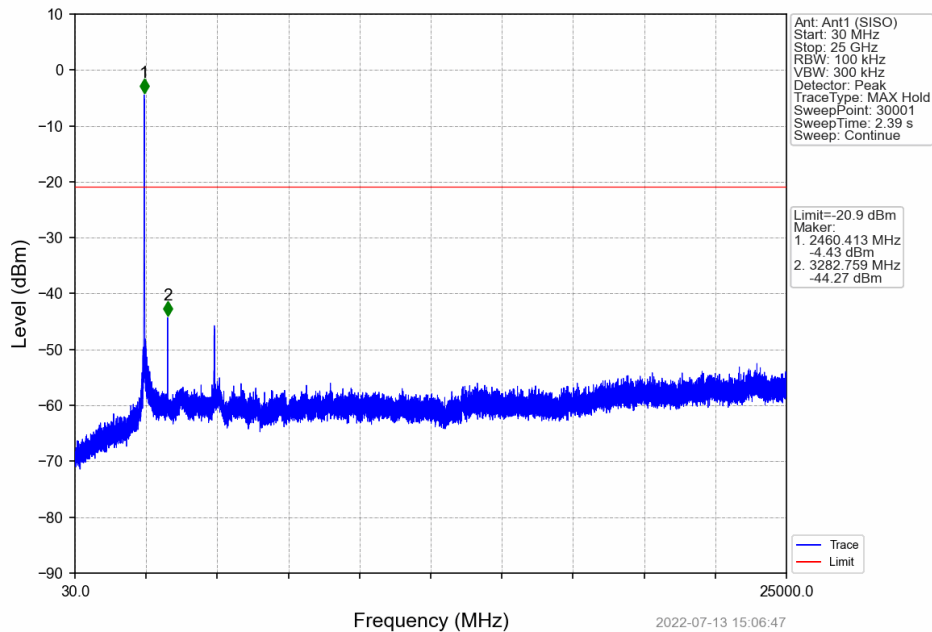
802.11g_MCH_2437MHz_Ant1 (SISO)_NTNV



802.11g_HCH_2462MHz_Ant1 (SISO)_NTNV

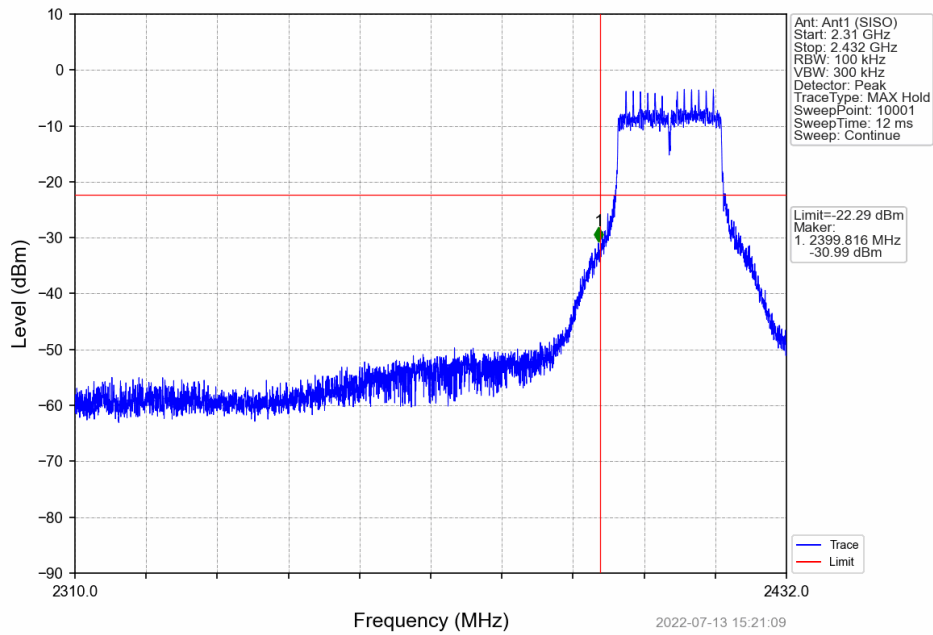


802.11g_HCH_2462MHz_Ant1 (SISO)_NTNV

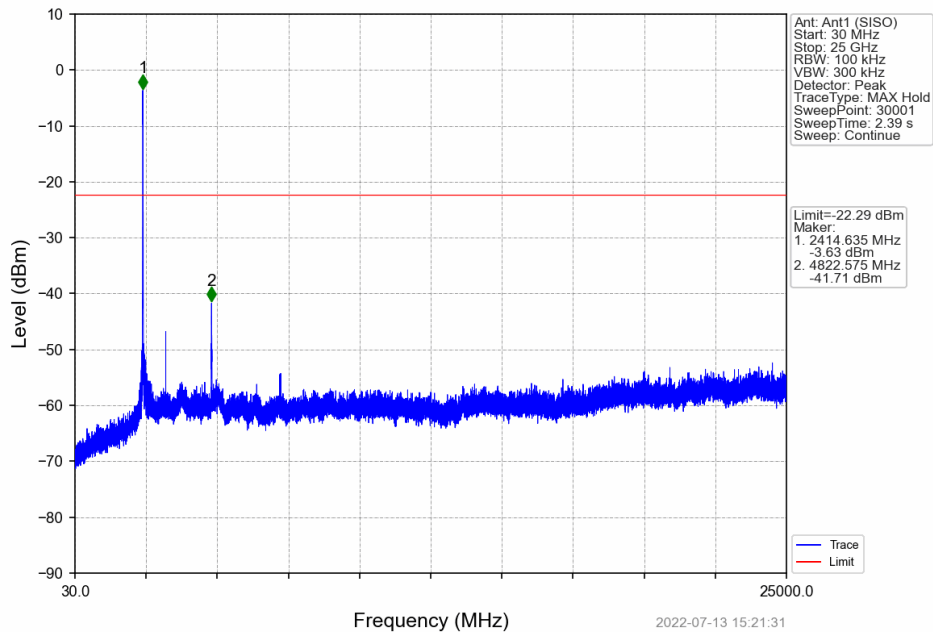


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802.11n(HT20)_LCH_2412MHz_Ant1 (SISO)_NTNV

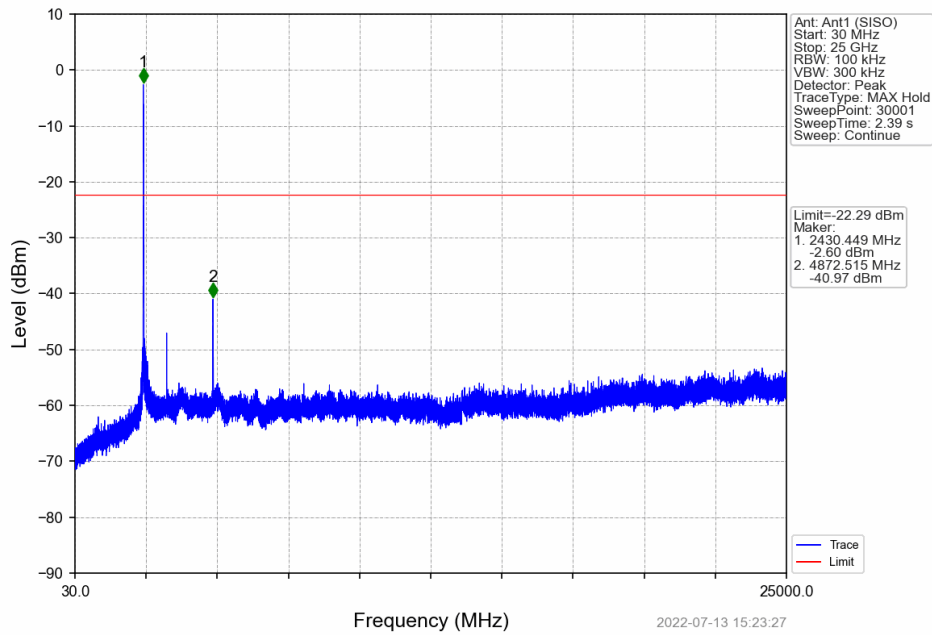


802.11n(HT20)_LCH_2412MHz_Ant1 (SISO)_NTNV

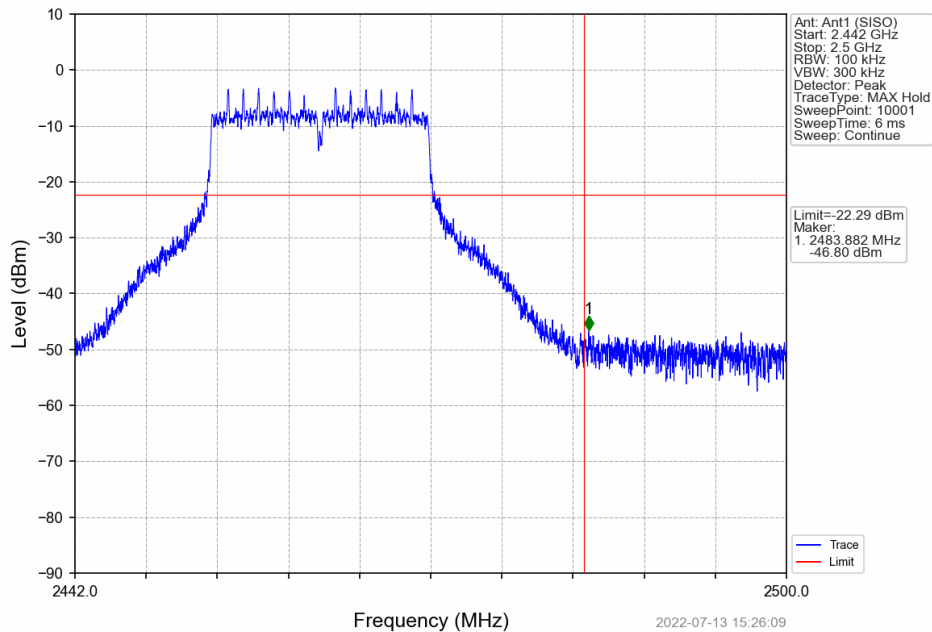


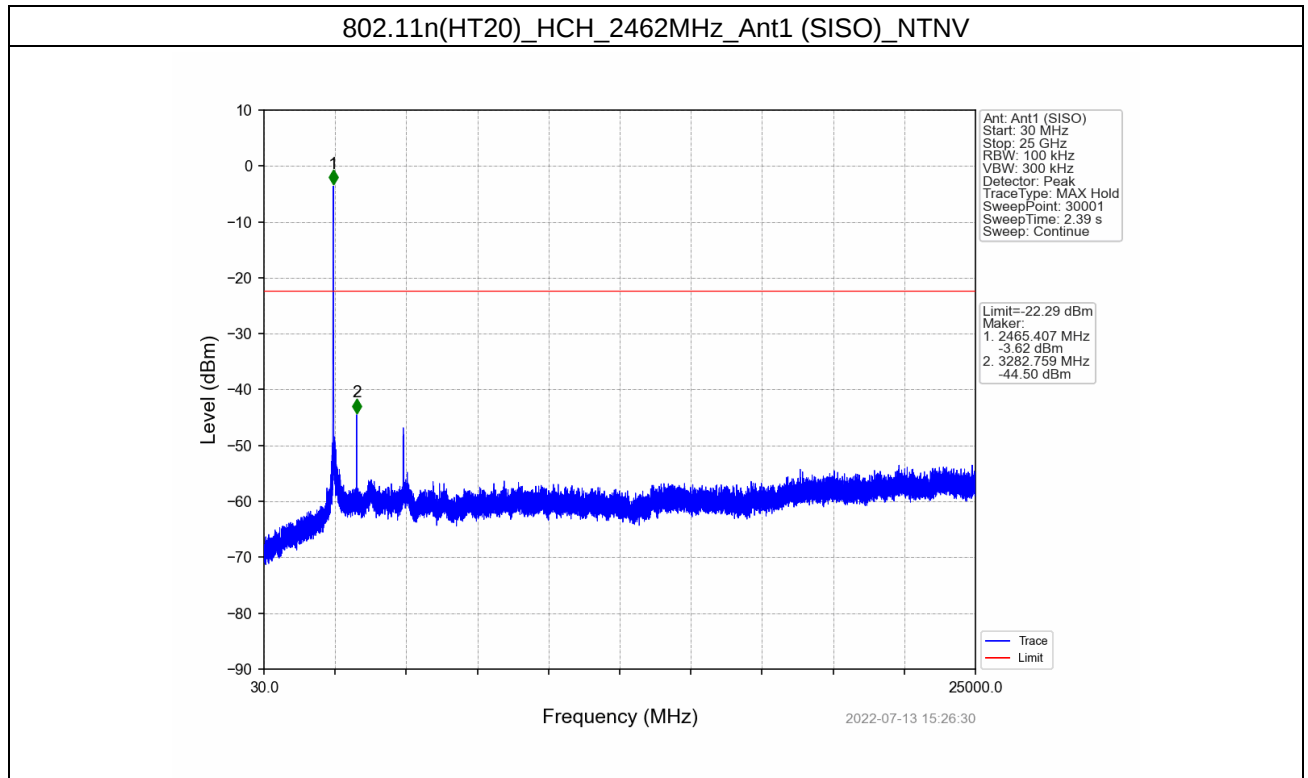
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802.11n(HT20)_MCH_2437MHz_Ant1 (SISO)_NTNV



802.11n(HT20)_HCH_2462MHz_Ant1 (SISO)_NTNV





- End of the Report -