

Appendix A for KSCR220500075901-2.4G

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	100.000	100.000	100.00	0.00	0.00
		2437	100.000	100.000	100.00	0.00	0.00
		2462	100.000	100.000	100.00	0.00	0.00
802.11g	SISO	2412	100.000	100.000	100.00	0.00	0.00
		2437	100.000	100.000	100.00	0.00	0.00
		2462	100.000	100.000	100.00	0.00	0.00
802.11n (HT20)	SISO	2412	100.000	100.000	100.00	0.00	0.00
		2437	100.000	100.000	100.00	0.00	0.00
		2462	100.000	100.000	100.00	0.00	0.00
802.11n (HT40)	SISO	2422	100.000	100.000	100.00	0.00	0.00
		2437	100.000	100.000	100.00	0.00	0.00
		2452	100.000	100.000	100.00	0.00	0.00



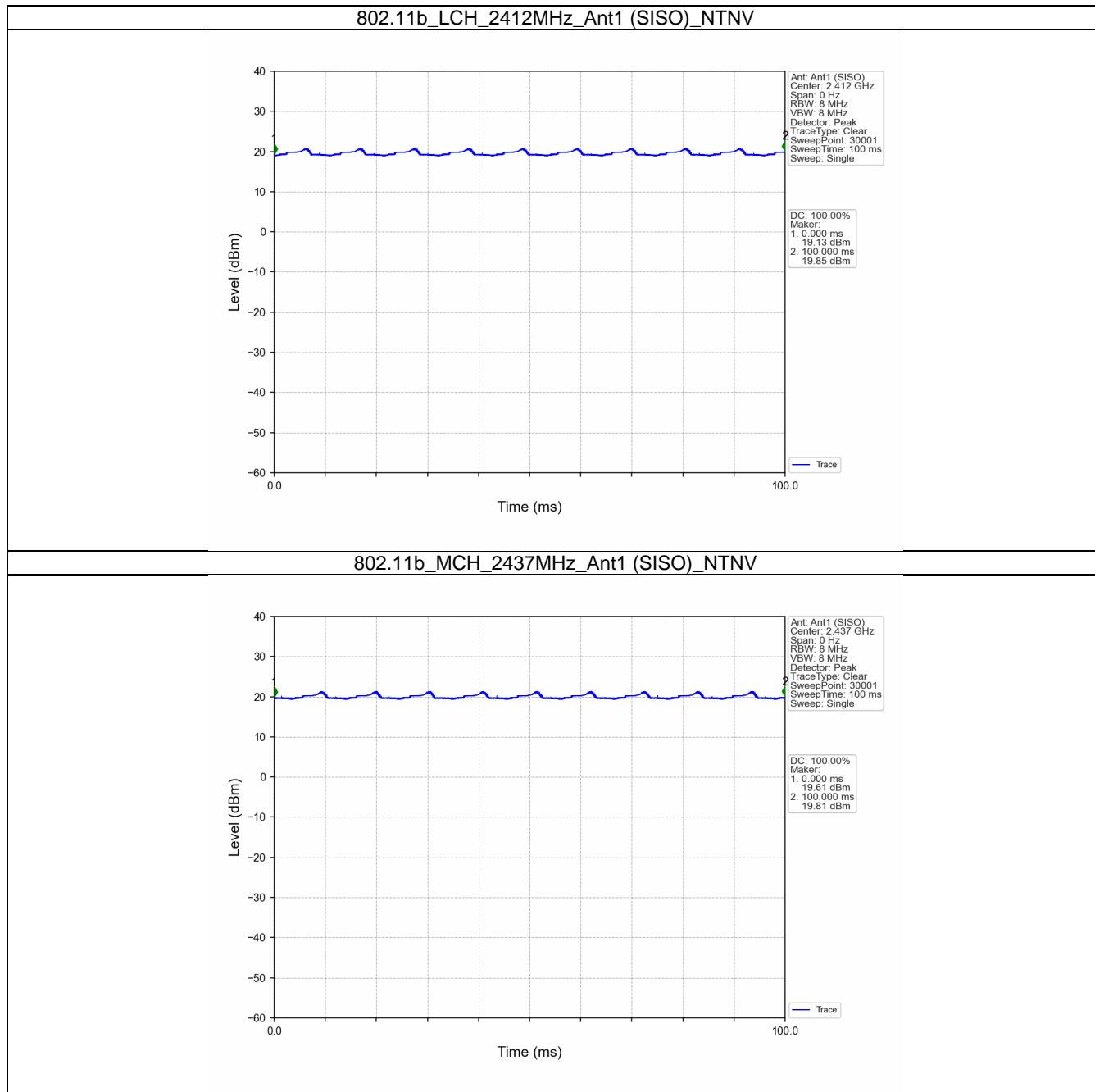
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1.1.2 Test Graph



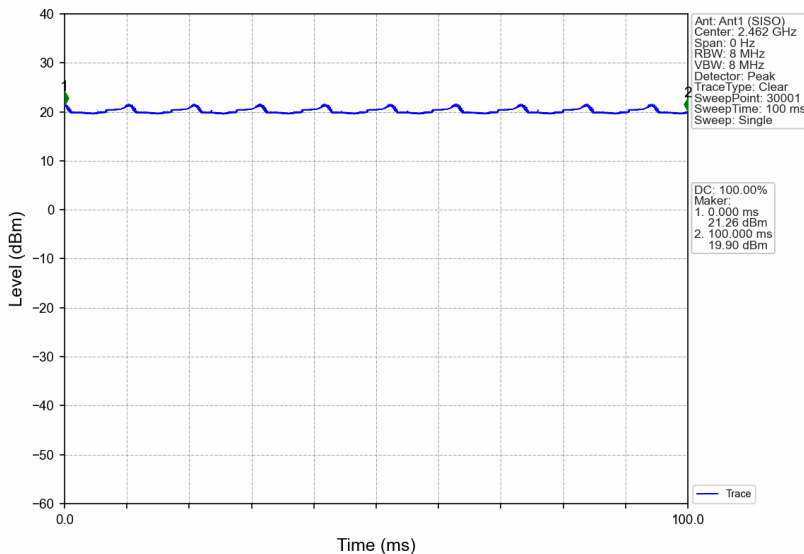
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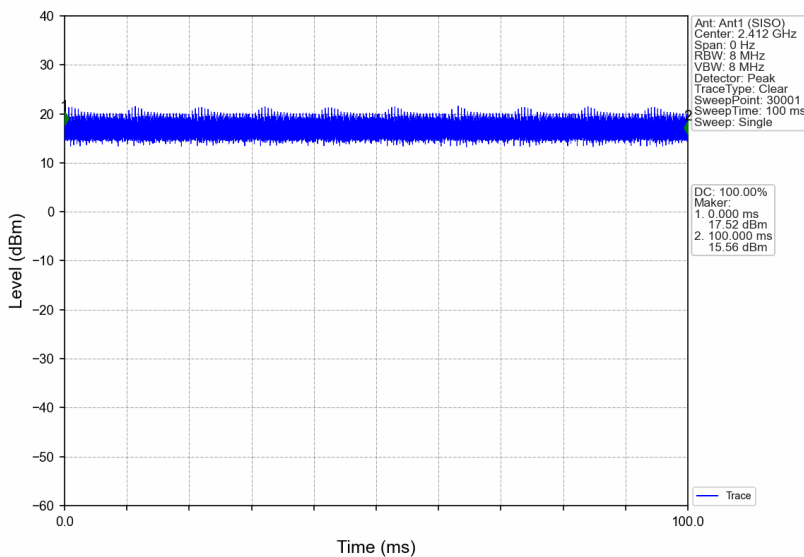
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802.11b\_HCH\_2462MHz\_Ant1 (SISO)\_NTNV



802.11g\_LCH\_2412MHz\_Ant1 (SISO)\_NTNV



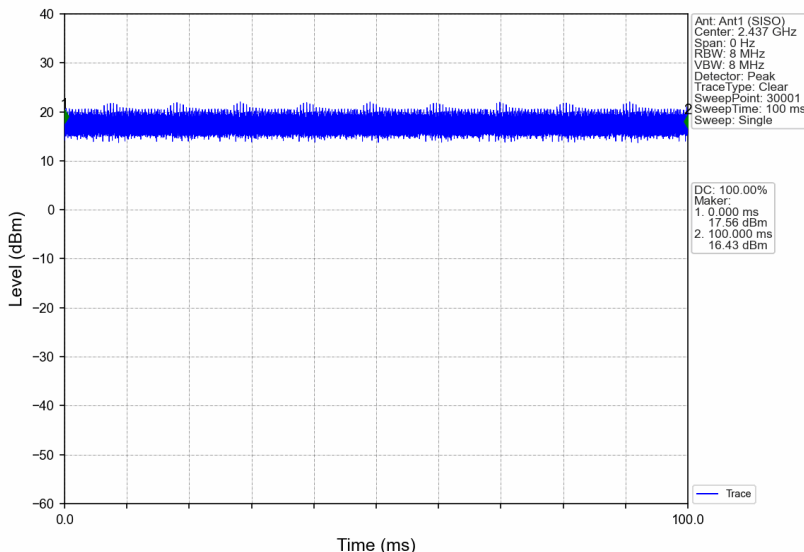
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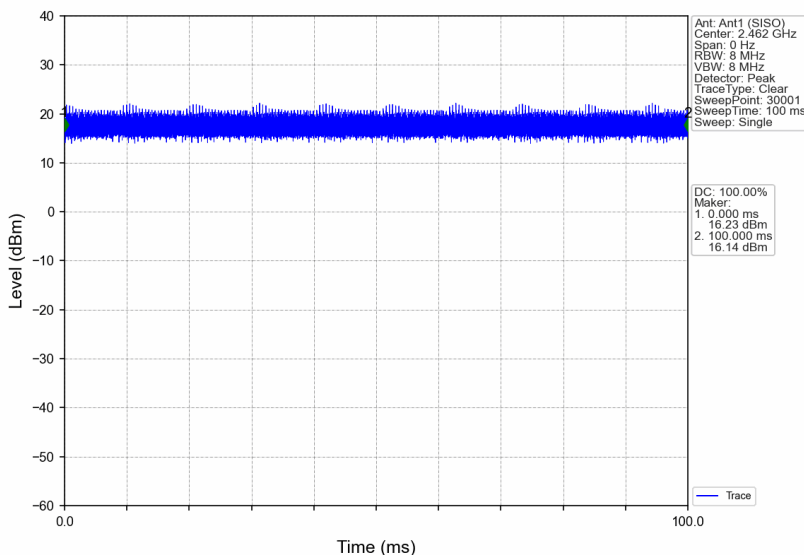
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802.11g\_HCH\_2462MHz\_Ant1 (SISO)\_NTNV



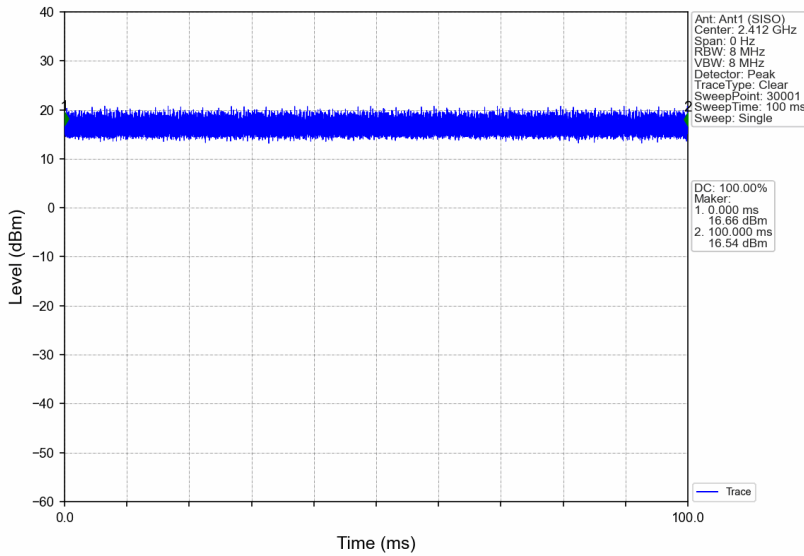
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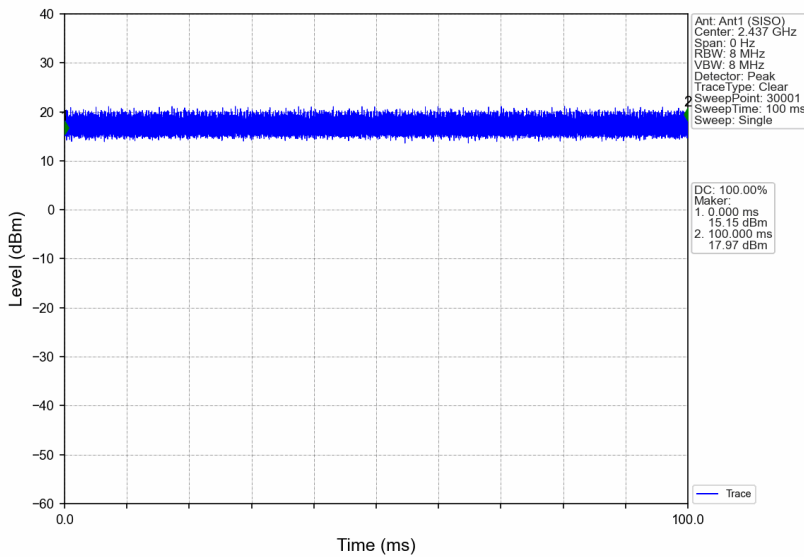
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802.11n(HT20)\_MCH\_2437MHz\_Ant1 (SISO)\_NTNV



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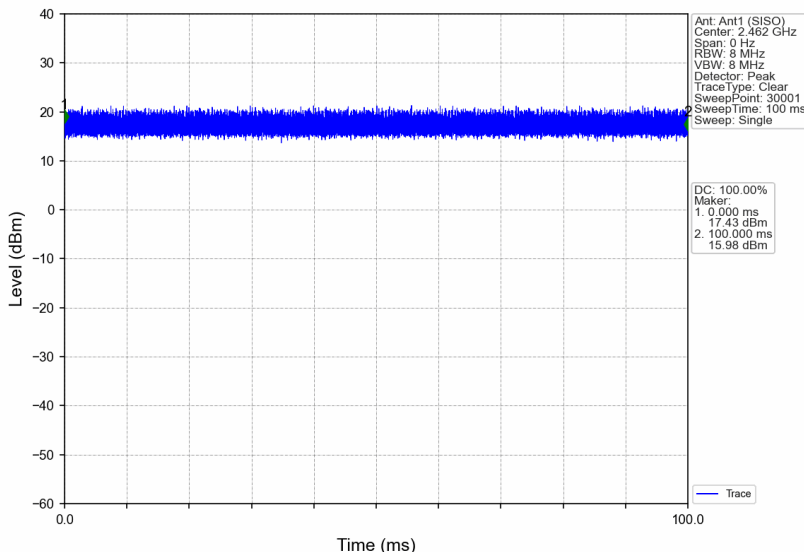
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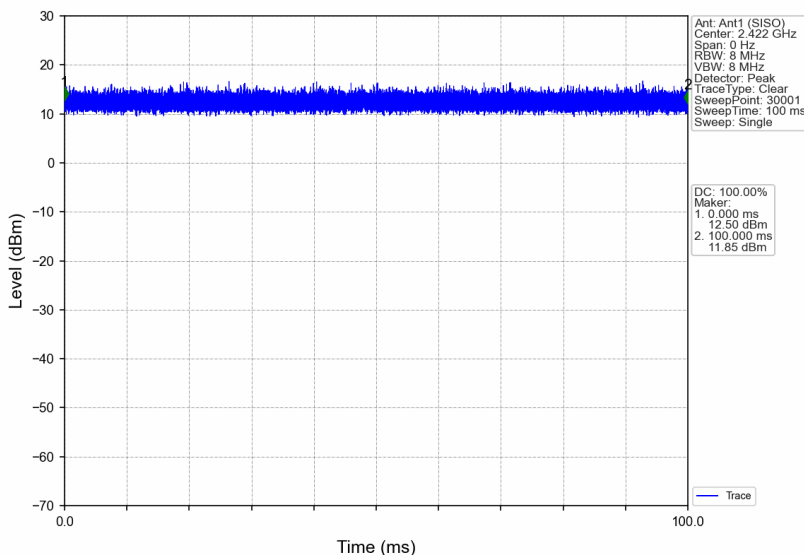
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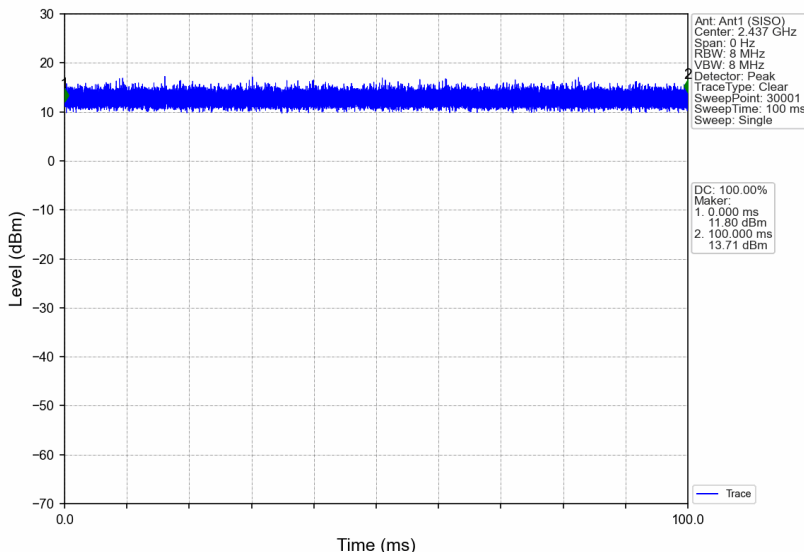
802.11n(HT40)\_LCH\_2422MHz\_Ant1 (SISO)\_NTNV



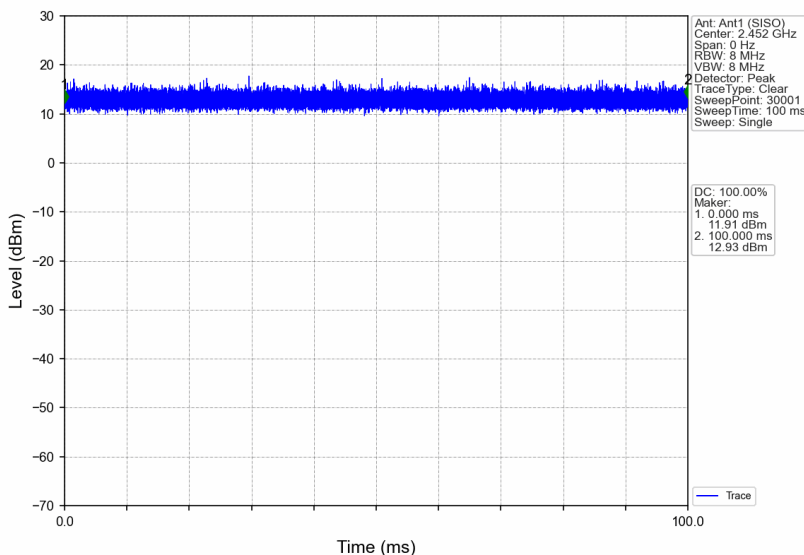
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802.11n(HT40)\_MCH\_2437MHz\_Ant1 (SISO)\_NTNV



802.11n(HT40)\_HCH\_2452MHz\_Ant1 (SISO)\_NTNV



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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	
802.11b	SISO	2412	1	14.666	Pass
		2437	1	14.704	Pass
		2462	1	14.728	Pass
802.11g	SISO	2412	1	17.755	Pass
		2437	1	17.769	Pass
		2462	1	17.760	Pass
802.11n (HT20)	SISO	2412	1	18.618	Pass
		2437	1	18.621	Pass
		2462	1	18.603	Pass
802.11n (HT40)	SISO	2422	1	35.980	Pass
		2437	1	35.970	Pass
		2452	1	35.978	Pass



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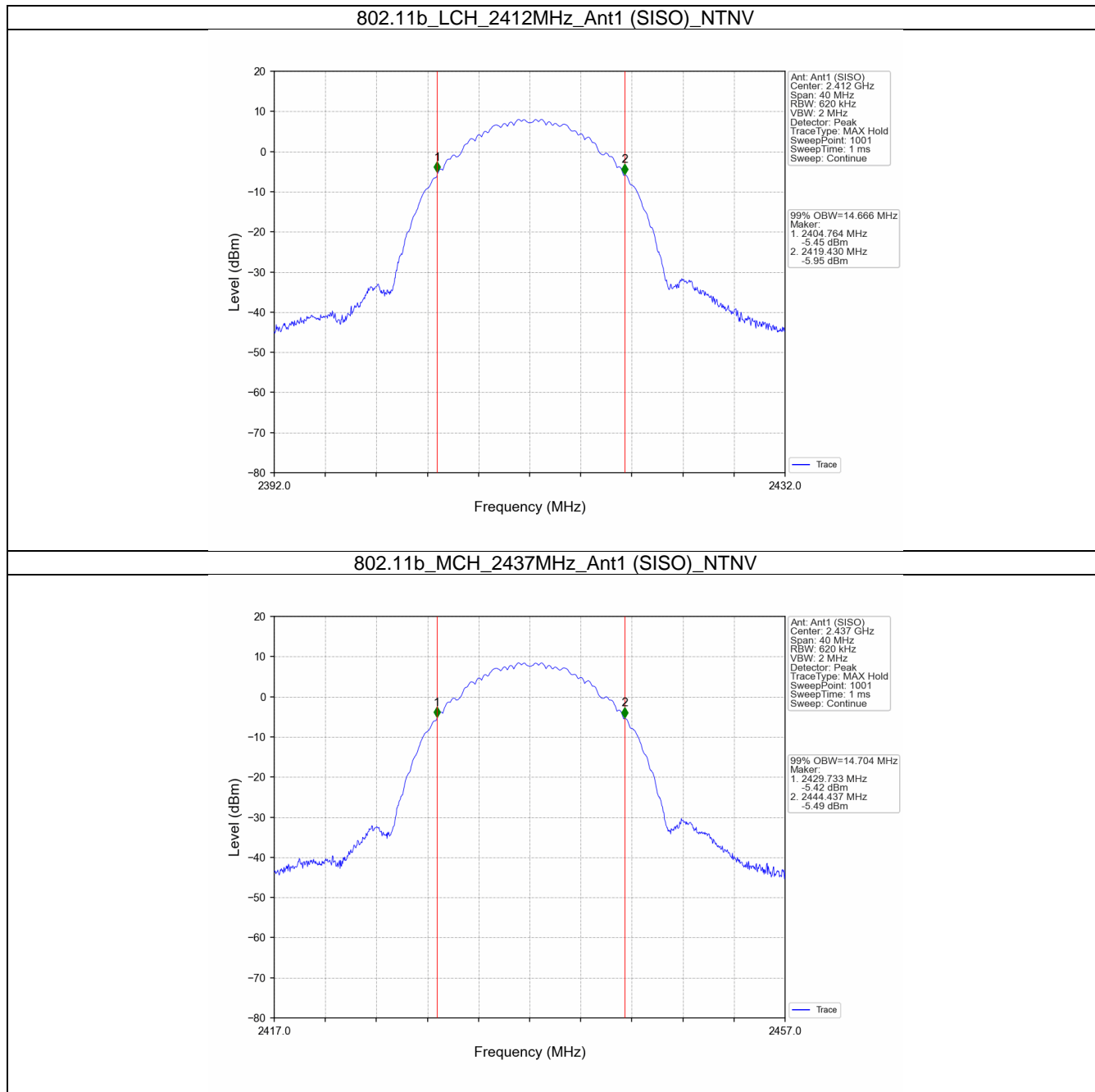
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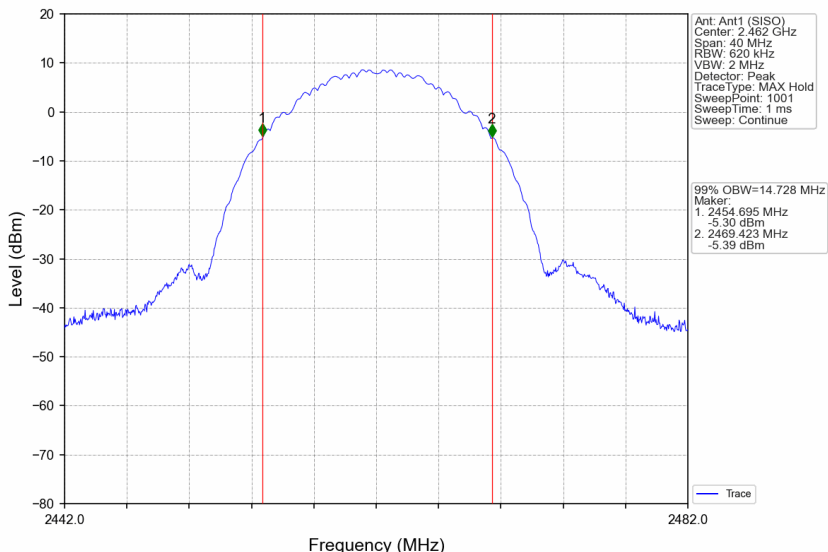
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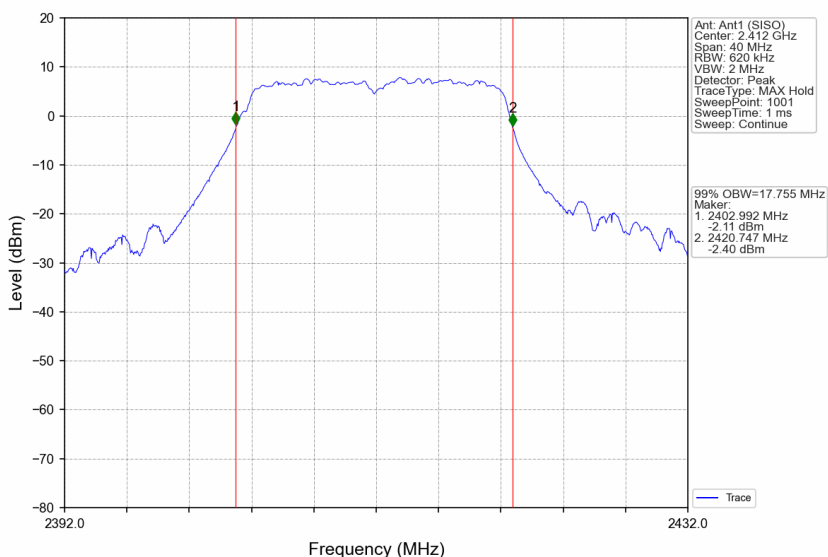
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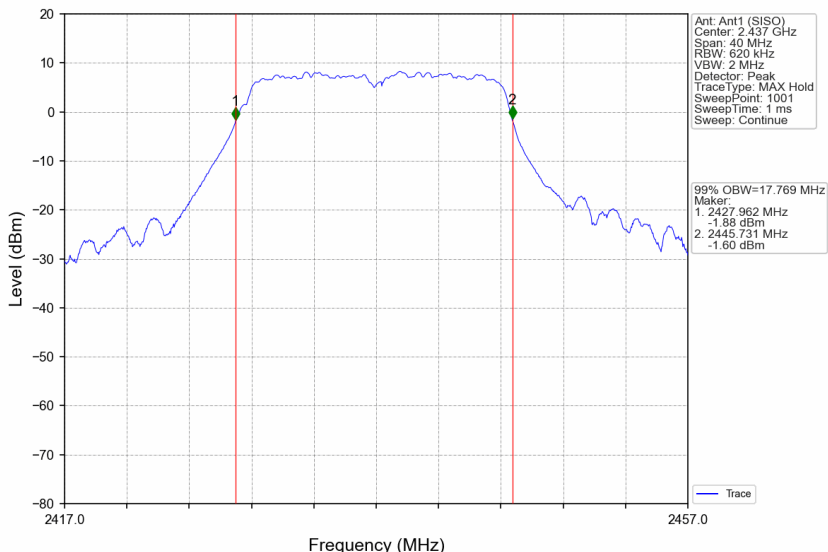
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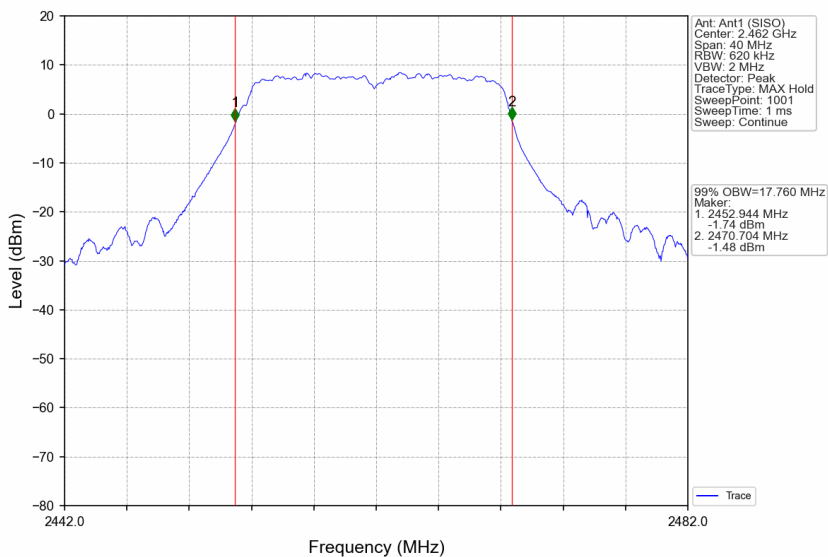
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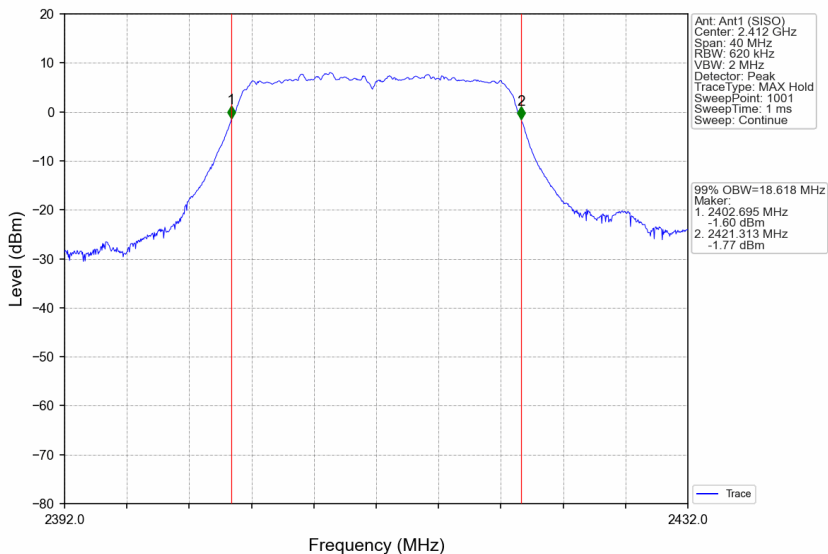
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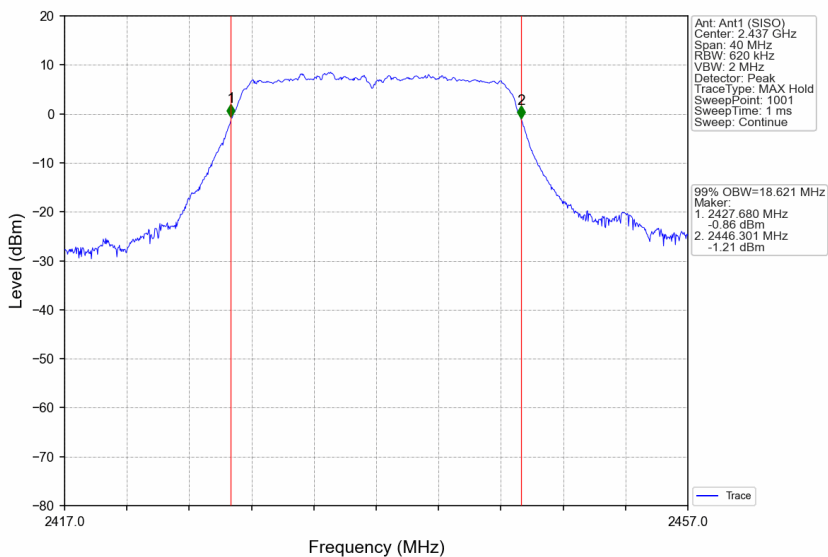
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802.11n(HT20)\_MCH\_2437MHz\_Ant1 (SISO)\_NTNV



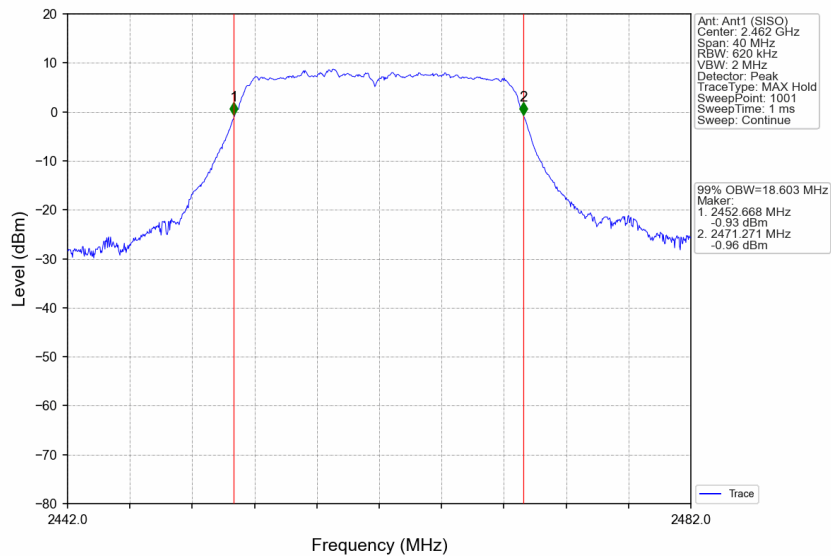
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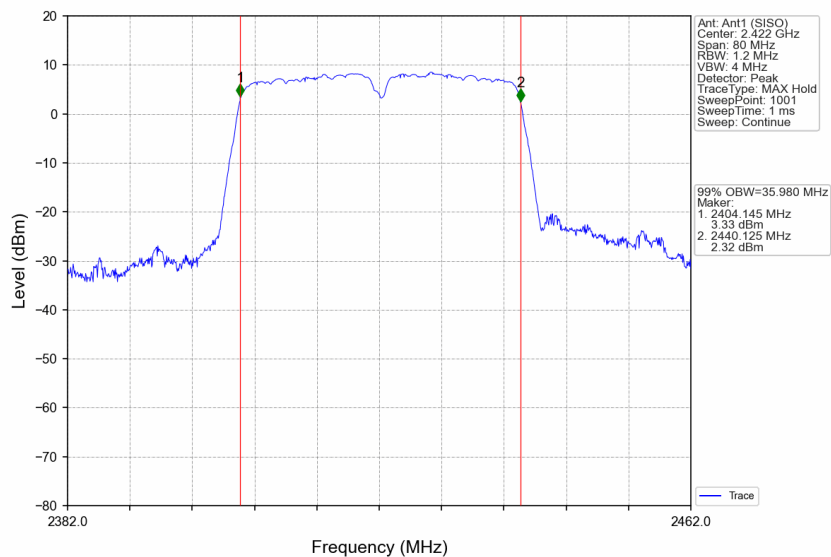
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802.11n(HT20)\_HCH\_2462MHz\_Ant1 (SISO)\_NTNV



802.11n(HT40)\_LCH\_2422MHz\_Ant1 (SISO)\_NTNV



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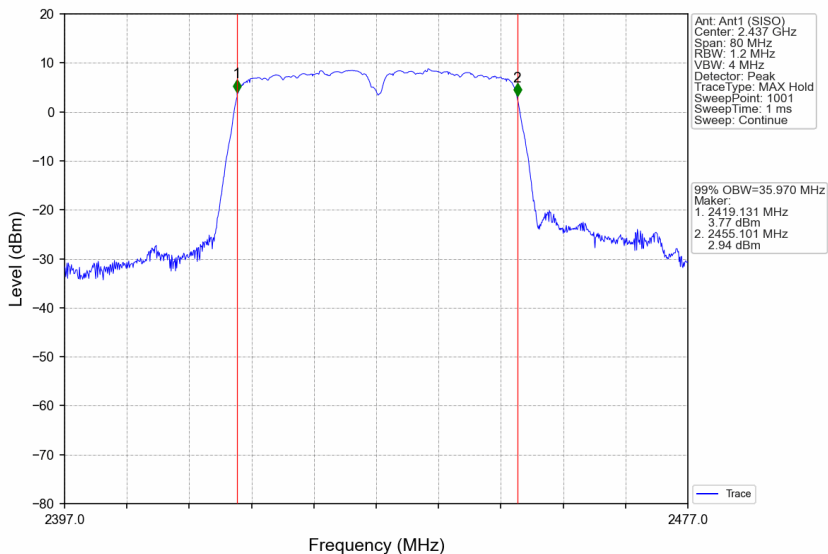
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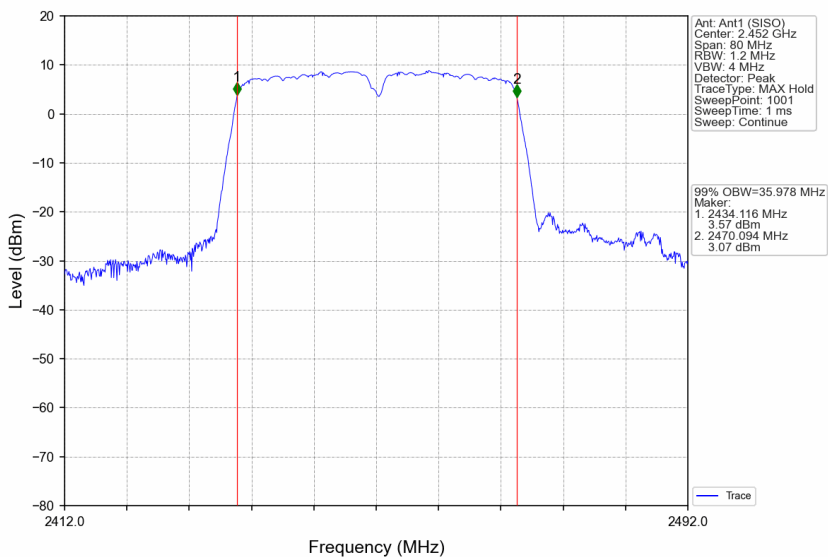
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2.2 6dB BW

2.2.1 Test Result

Mode	TX Type	Frequency (MHz)	ANT	6dB Bandwidth (MHz)		Verdict
				Result	Limit	
802.11b	SISO	2412	1	10.054	>=0.5	Pass
		2437	1	10.070	>=0.5	Pass
		2462	1	10.065	>=0.5	Pass
802.11g	SISO	2412	1	16.573	>=0.5	Pass
		2437	1	16.567	>=0.5	Pass
		2462	1	16.561	>=0.5	Pass
802.11n (HT20)	SISO	2412	1	17.741	>=0.5	Pass
		2437	1	17.749	>=0.5	Pass
		2462	1	17.741	>=0.5	Pass
802.11n (HT40)	SISO	2422	1	36.410	>=0.5	Pass
		2437	1	36.403	>=0.5	Pass
		2452	1	36.400	>=0.5	Pass



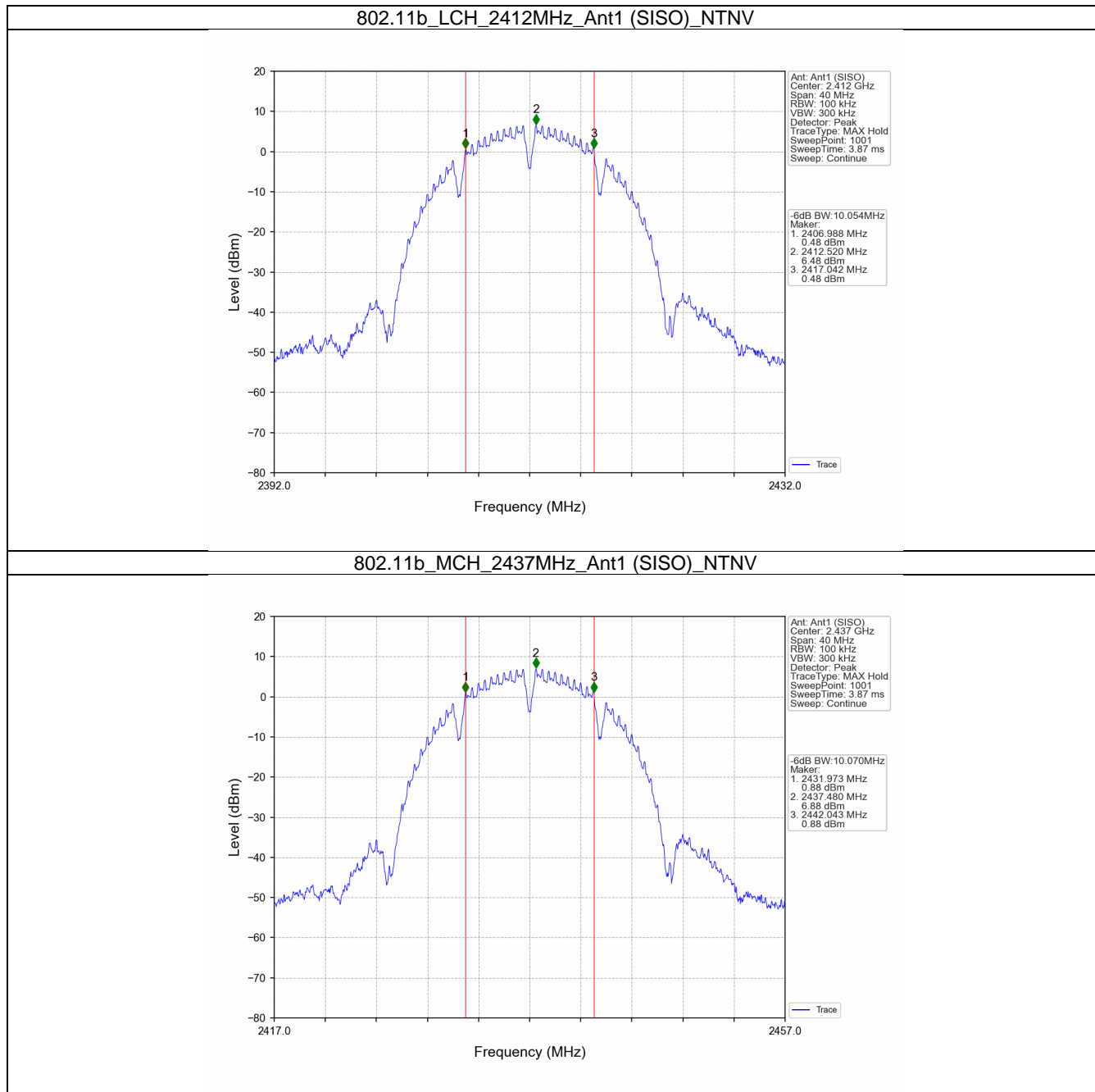
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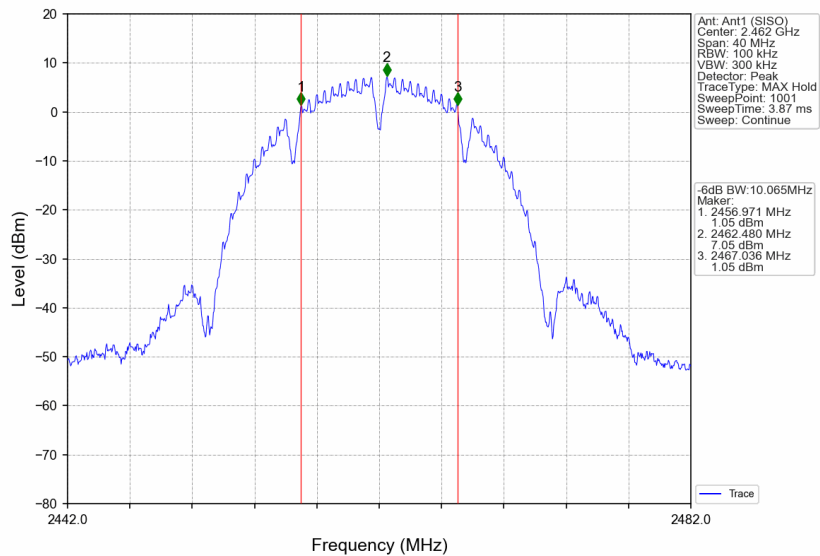
## 2.2.2 Test Graph



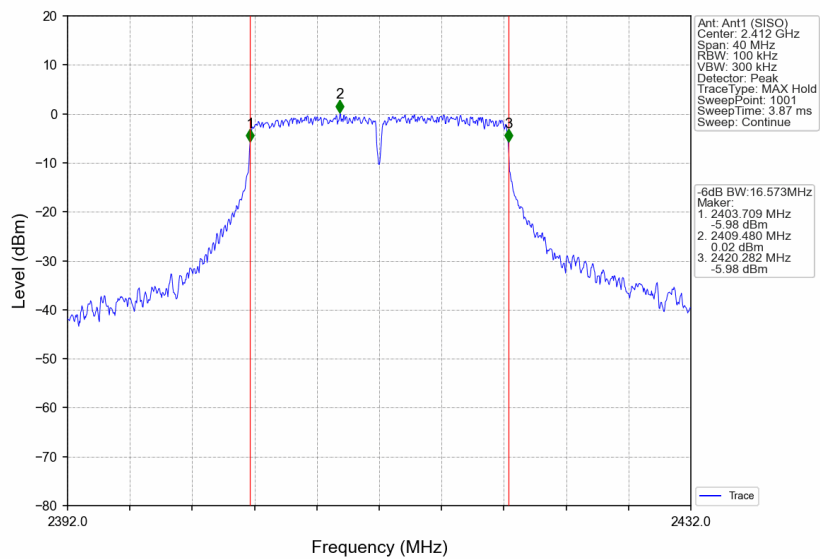
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802.11g\_LCH\_2412MHz\_Ant1 (SISO)\_NTNV



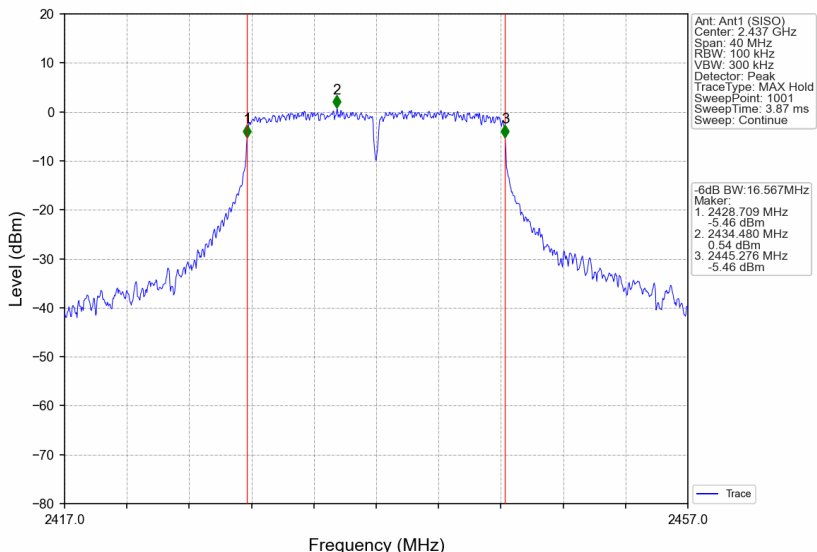
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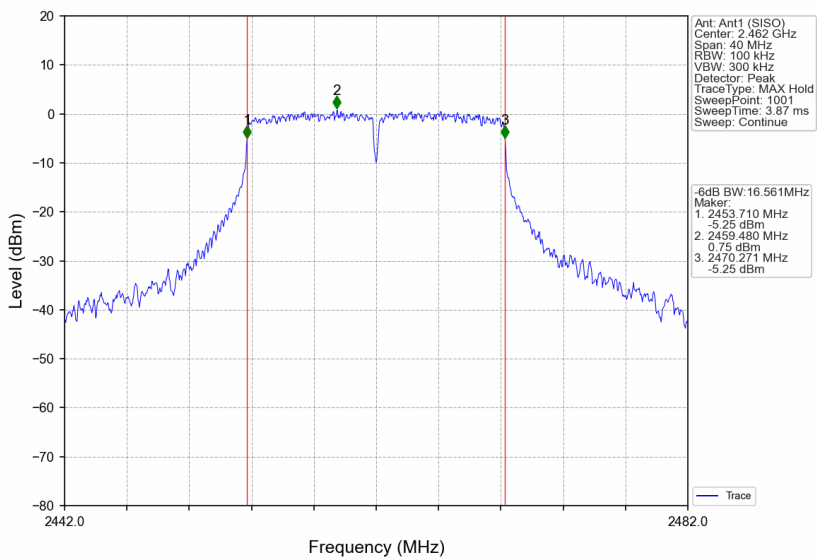
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802.11g\_HCH\_2462MHz\_Ant1 (SISO)\_NTNV

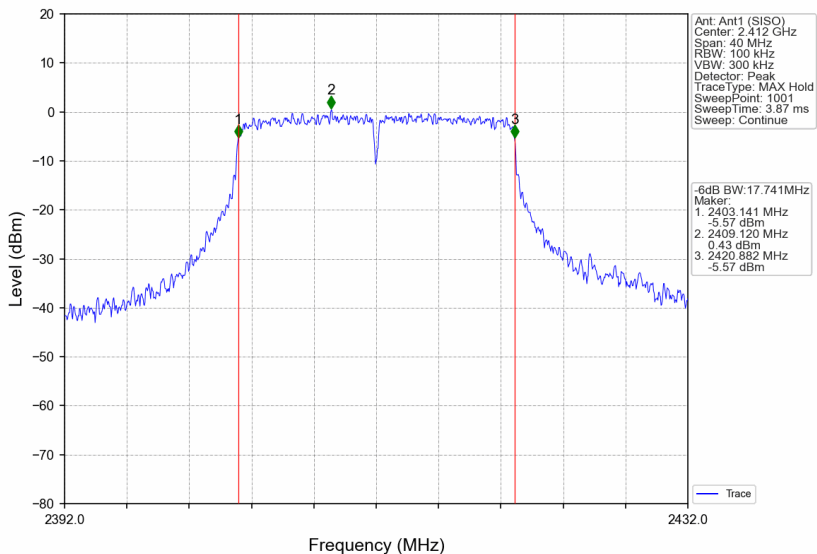


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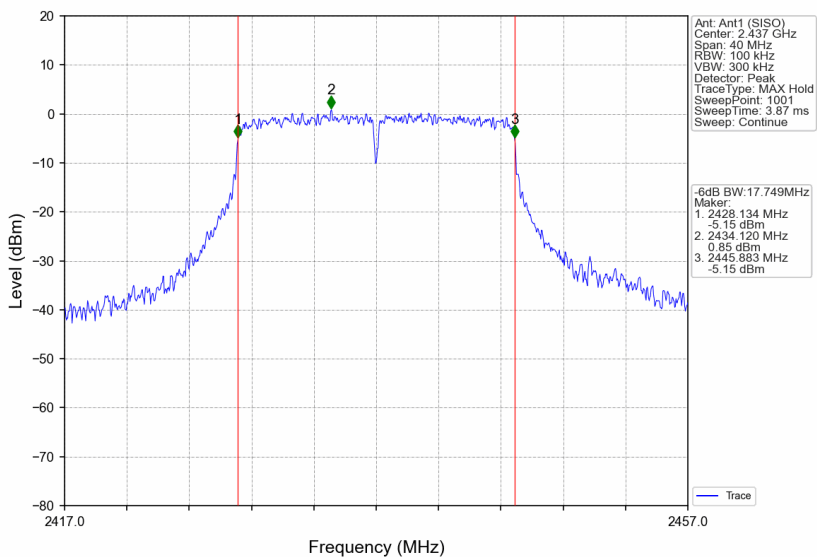
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802.11n(HT20)\_MCH\_2437MHz\_Ant1 (SISO)\_NTNV



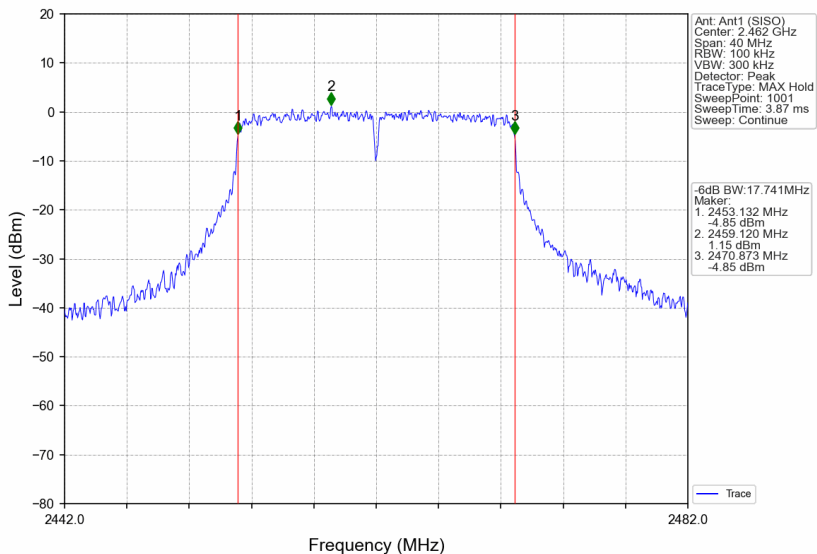
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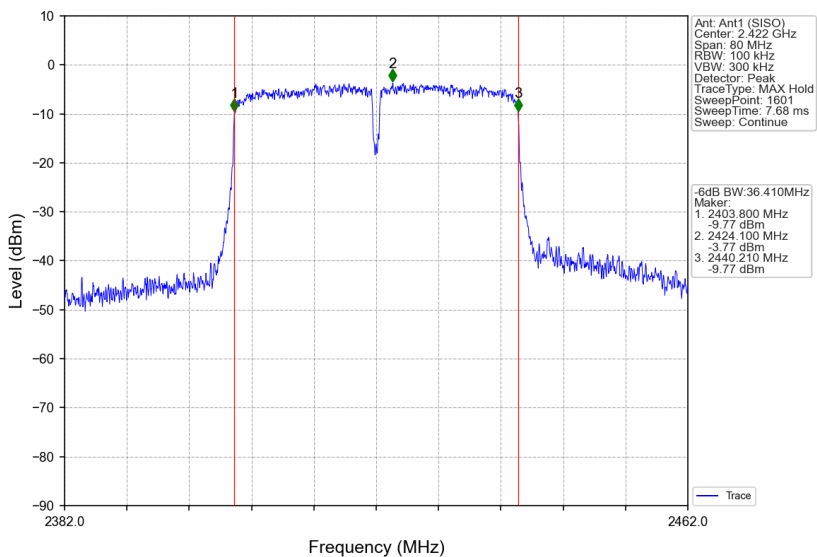
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802.11n(HT40)\_LCH\_2422MHz\_Ant1 (SISO)\_NTNV



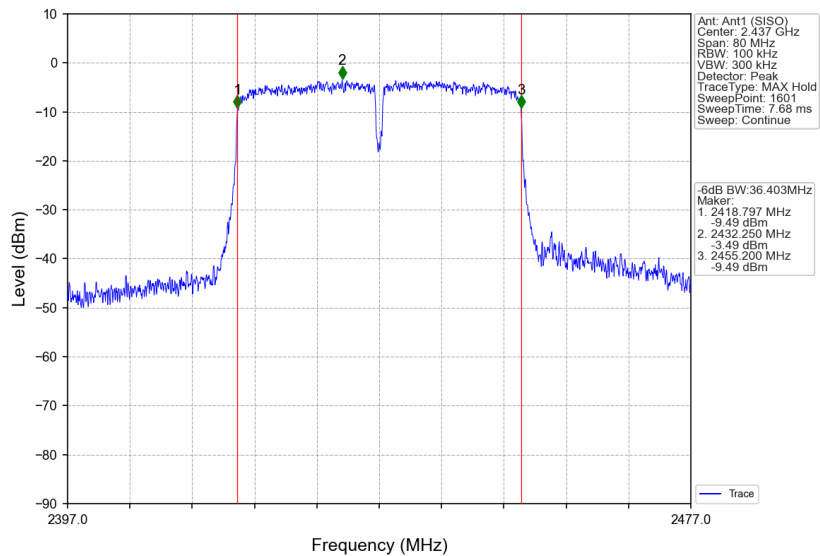
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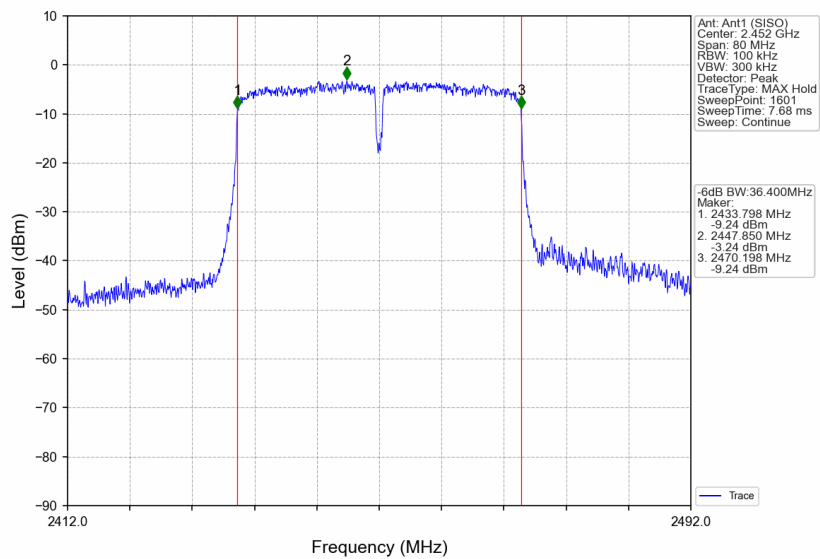
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802.11n(HT40)\_MCH\_2437MHz\_Ant1 (SISO)\_NTNV



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### 3. Maximum Conducted Output Power

#### 3.1 Power

##### 3.1.1 Test Result

Mode	TX Type	Frequency (MHz)	Maximum Average Conducted Output Power (dBm)		Verdict
			ANT1	Limit	
802.11b	SISO	2412	15.96	<=30	Pass
		2437	16.36	<=30	Pass
		2462	16.56	<=30	Pass
802.11g	SISO	2412	14.04	<=30	Pass
		2437	14.51	<=30	Pass
		2462	14.69	<=30	Pass
802.11n (HT20)	SISO	2412	13.94	<=30	Pass
		2437	14.42	<=30	Pass
		2462	14.60	<=30	Pass
802.11n (HT40)	SISO	2422	13.16	<=30	Pass
		2437	13.42	<=30	Pass
		2452	13.56	<=30	Pass

Note1: Antenna Gain: Ant1: -1.00dBi;



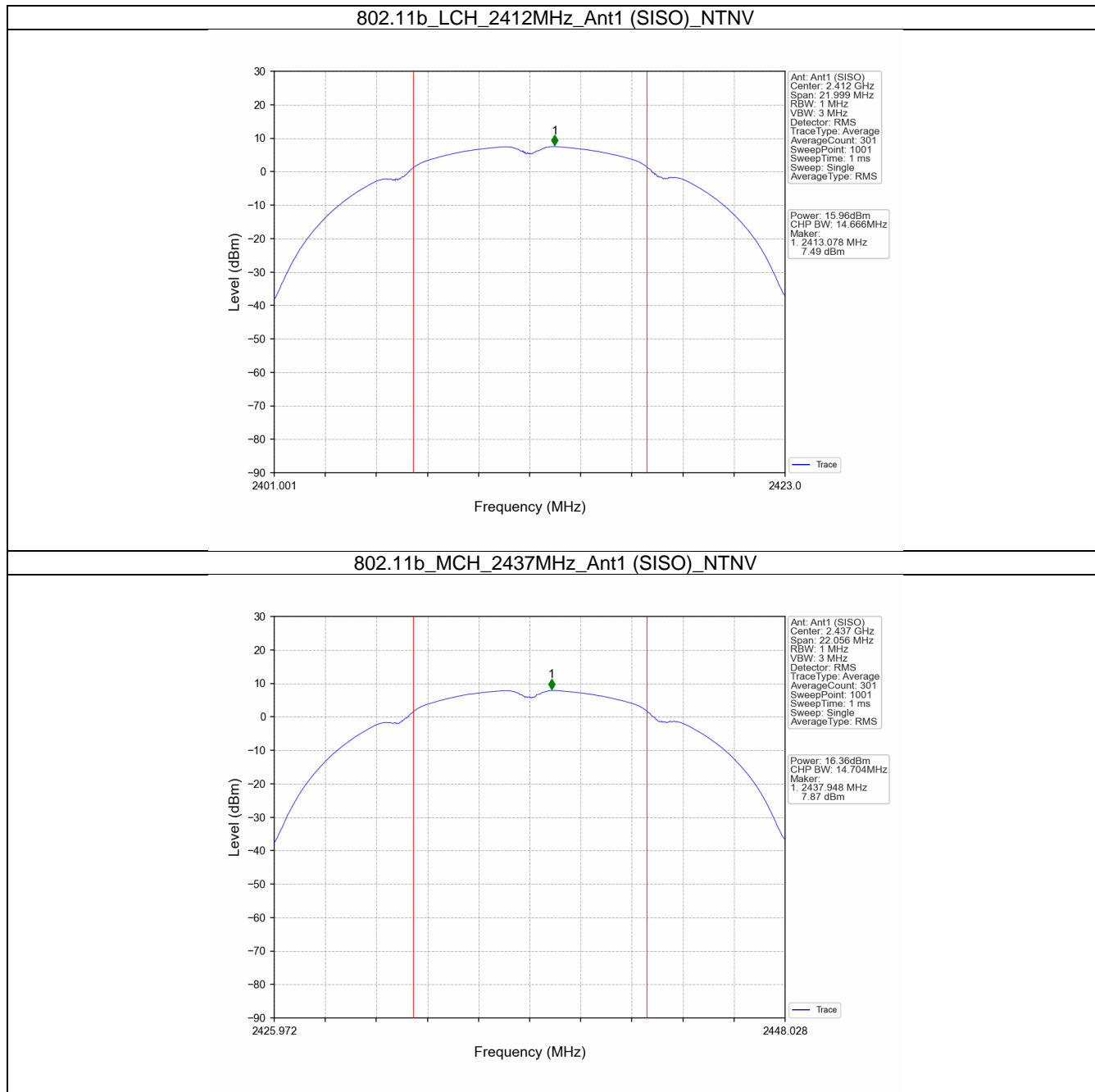
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3.1.2 Test Graph



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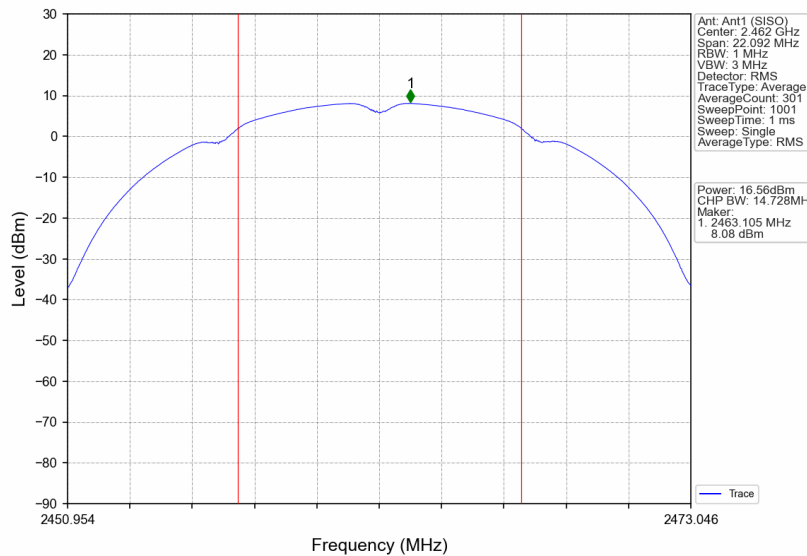
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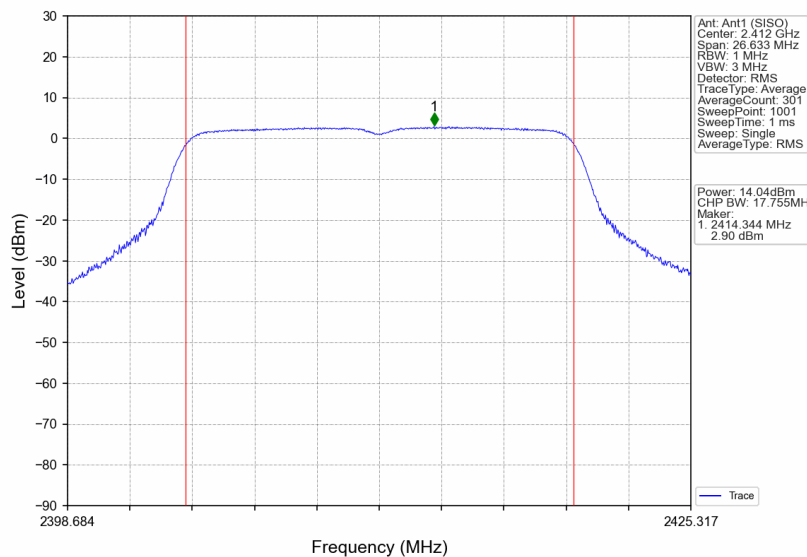
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802.11g\_LCH\_2412MHz\_Ant1 (SISO)\_NTNV



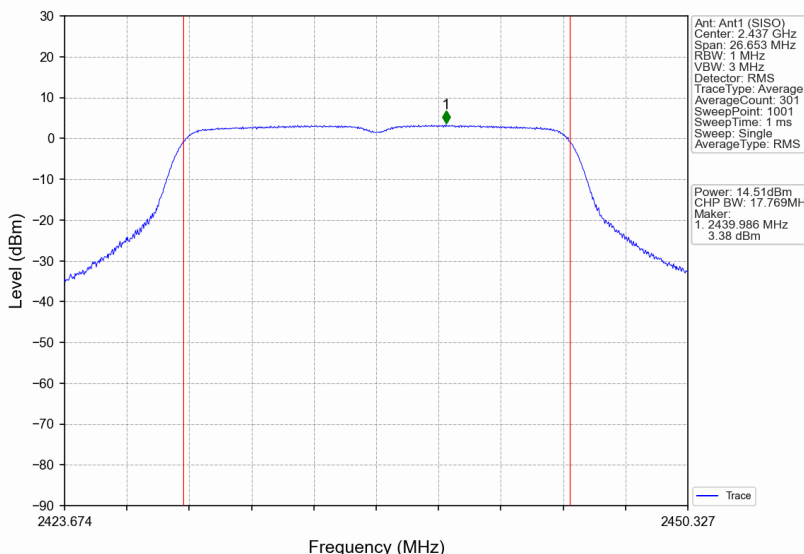
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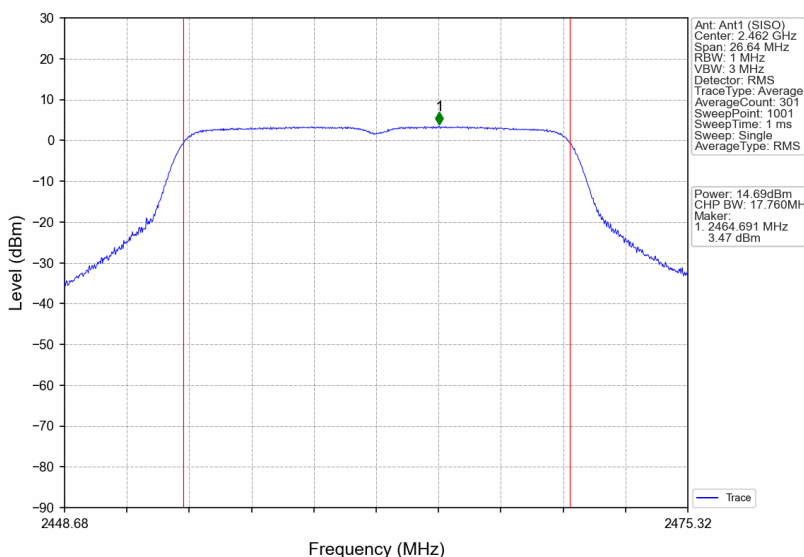
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802.11g\_HCH\_2462MHz\_Ant1 (SISO)\_NTNV



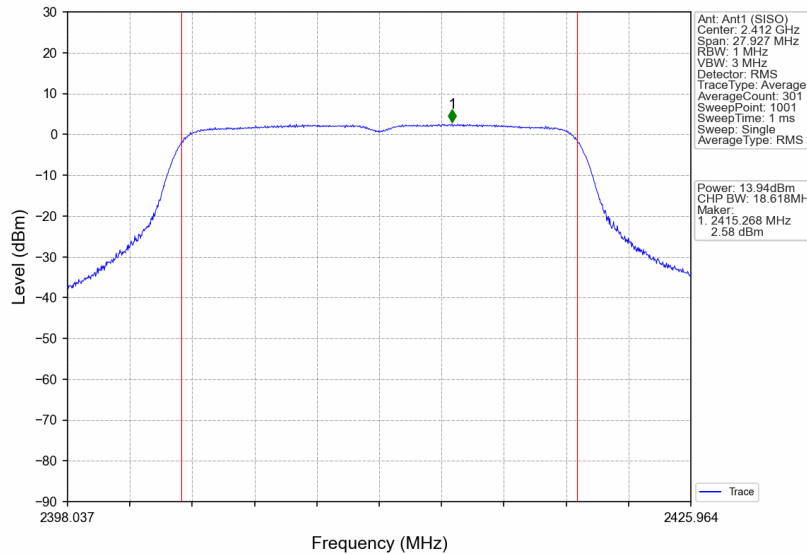
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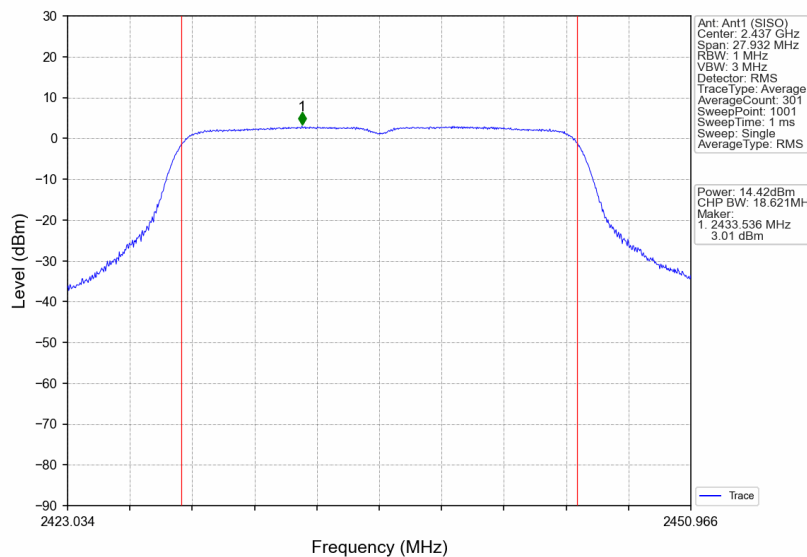
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802.11n(HT20)\_LCH\_2412MHz\_Ant1 (SISO)\_NTNV



802.11n(HT20)\_MCH\_2437MHz\_Ant1 (SISO)\_NTNV



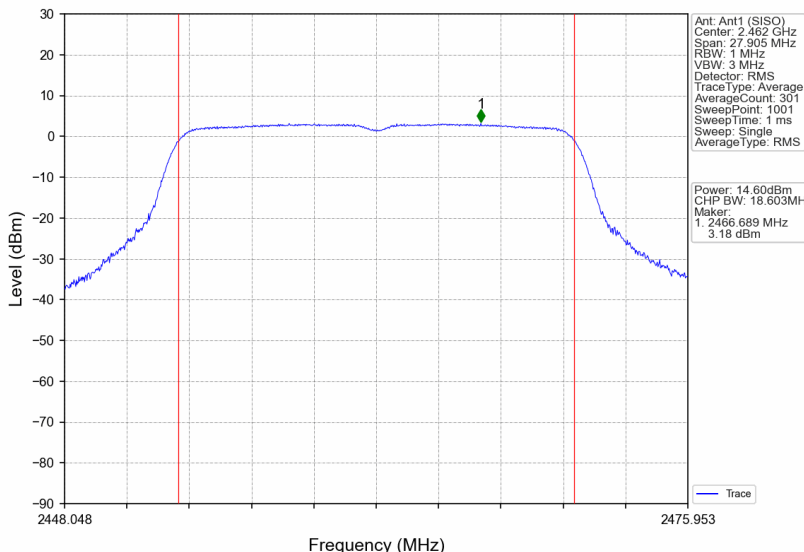
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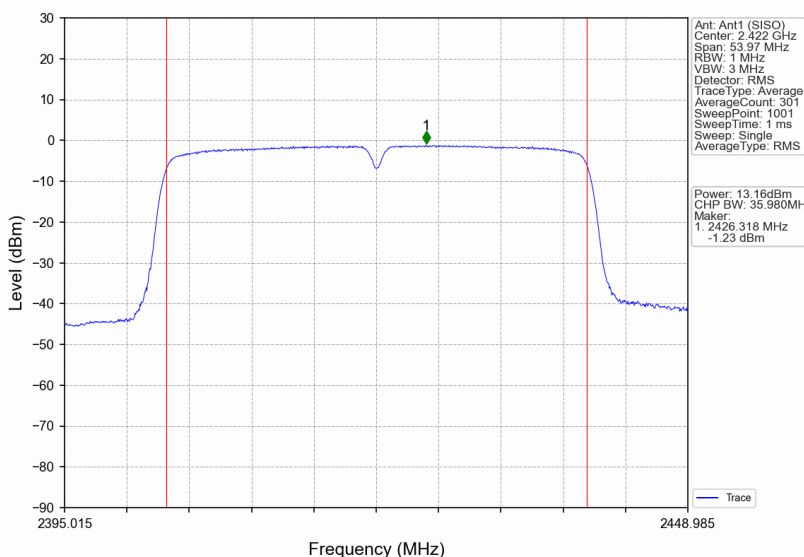
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802.11n(HT40)\_LCH\_2422MHz\_Ant1 (SISO)\_NTNV



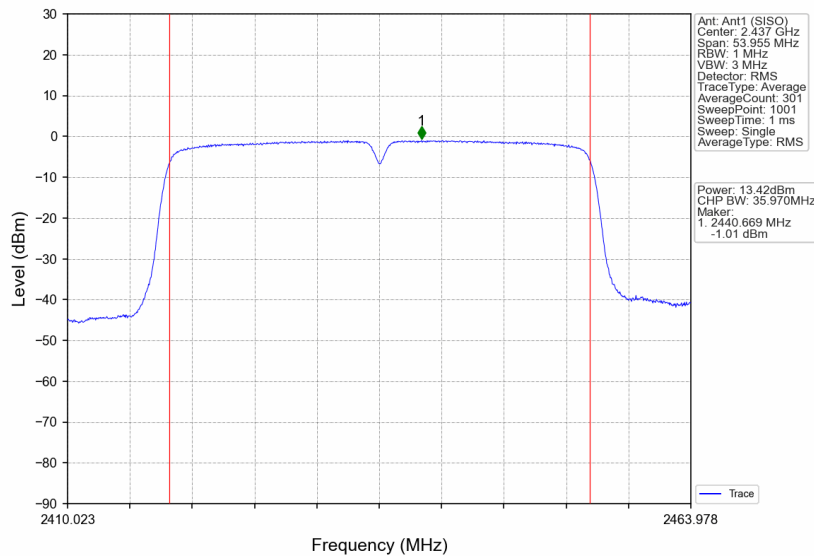
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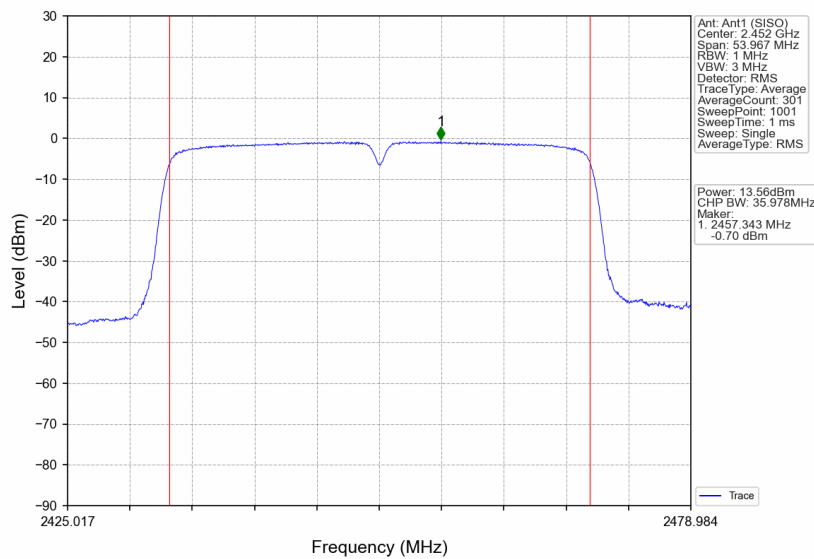
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802.11n(HT40)\_HCH\_2452MHz\_Ant1 (SISO)\_NTNV



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## 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	-13.68	<=8	Pass
		2437	-13.27	<=8	Pass
		2462	-13.13	<=8	Pass
802.11g	SISO	2412	-14.33	<=8	Pass
		2437	-13.95	<=8	Pass
		2462	-13.94	<=8	Pass
802.11n (HT20)	SISO	2412	-14.30	<=8	Pass
		2437	-13.84	<=8	Pass
		2462	-13.45	<=8	Pass
802.11n (HT40)	SISO	2422	-16.43	<=8	Pass
		2437	-14.98	<=8	Pass
		2452	-14.66	<=8	Pass

Note1: Antenna Gain: Ant1: -1.00dBi;



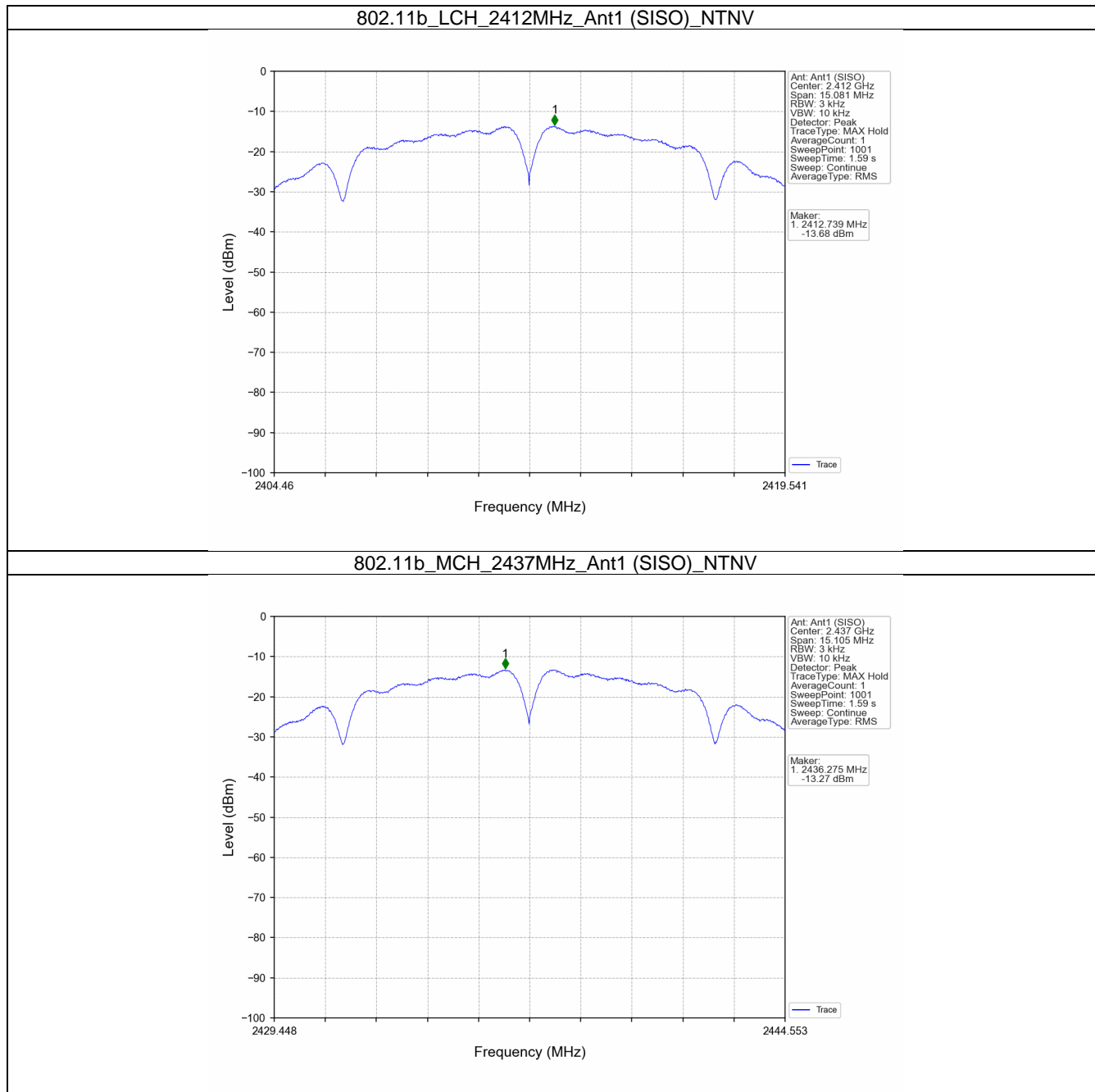
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4.1.2 Test Graph



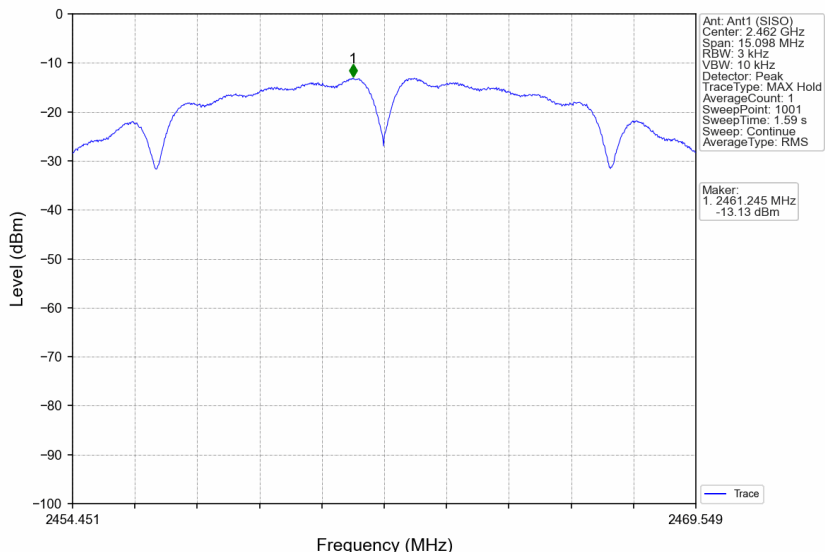
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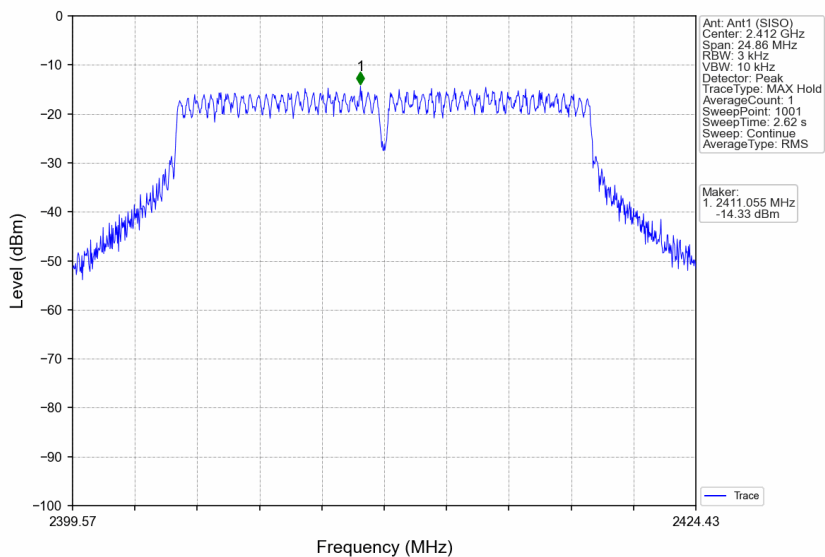
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802.11g\_LCH\_2412MHz\_Ant1 (SISO)\_NTNV

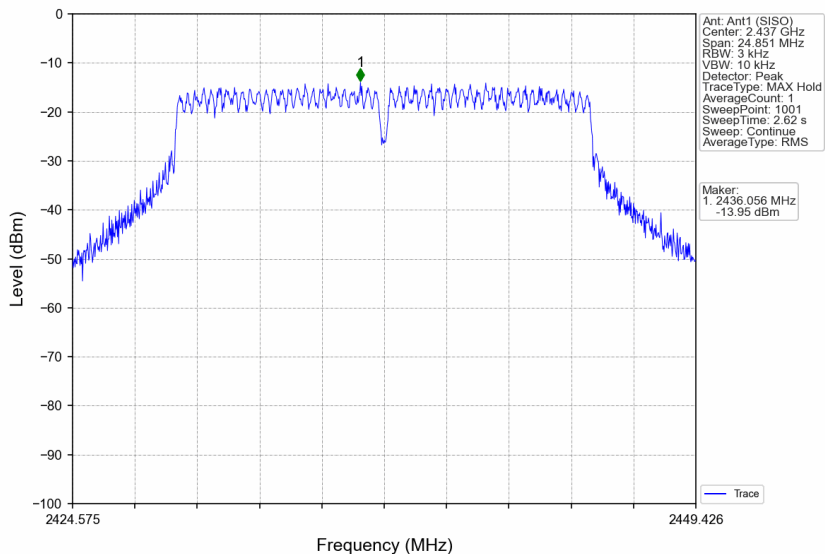


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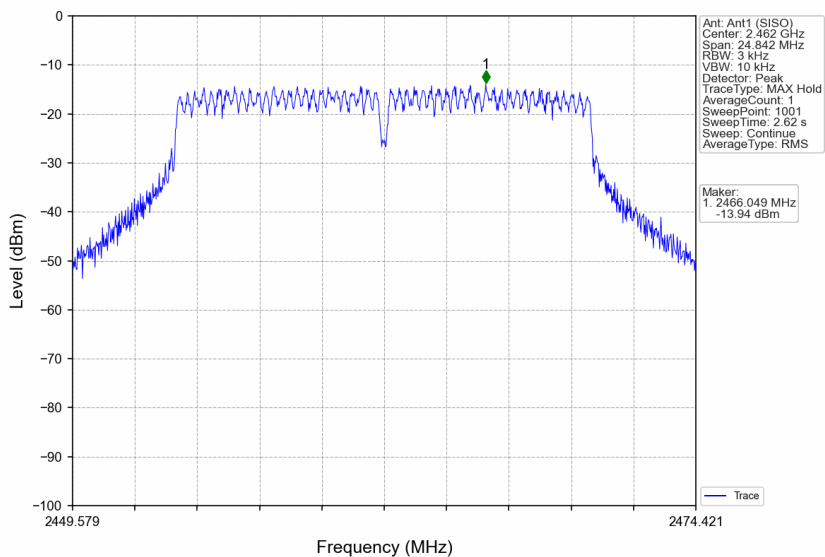
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802.11g\_MCH\_2437MHz\_Ant1 (SISO)\_NTNV



802.11g\_HCH\_2462MHz\_Ant1 (SISO)\_NTNV



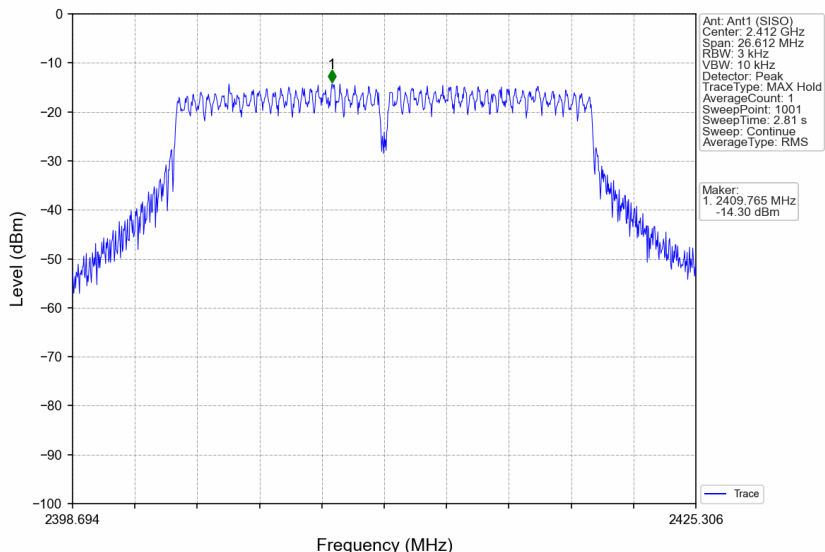
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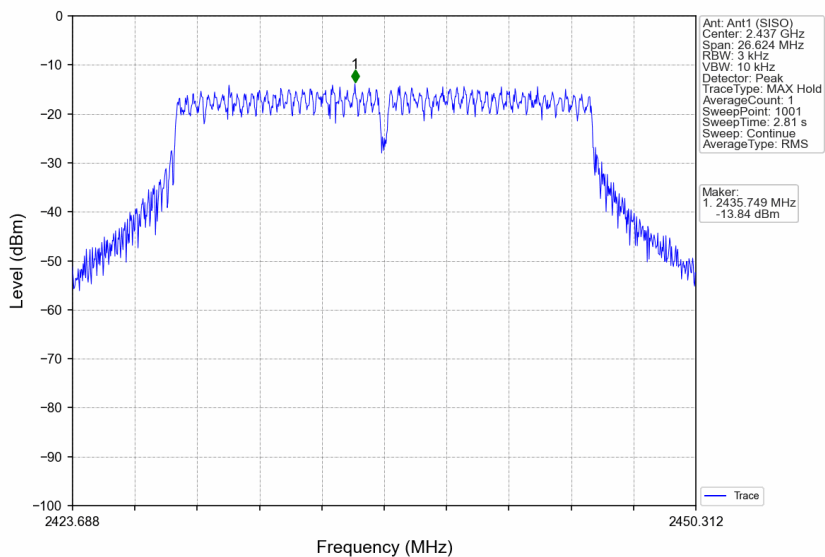
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802.11n(HT20)\_MCH\_2437MHz\_Ant1 (SISO)\_NTNV



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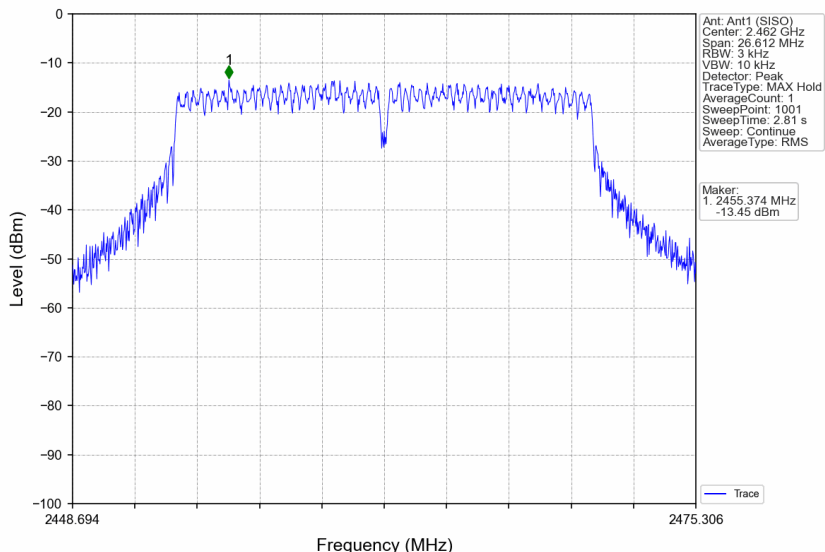
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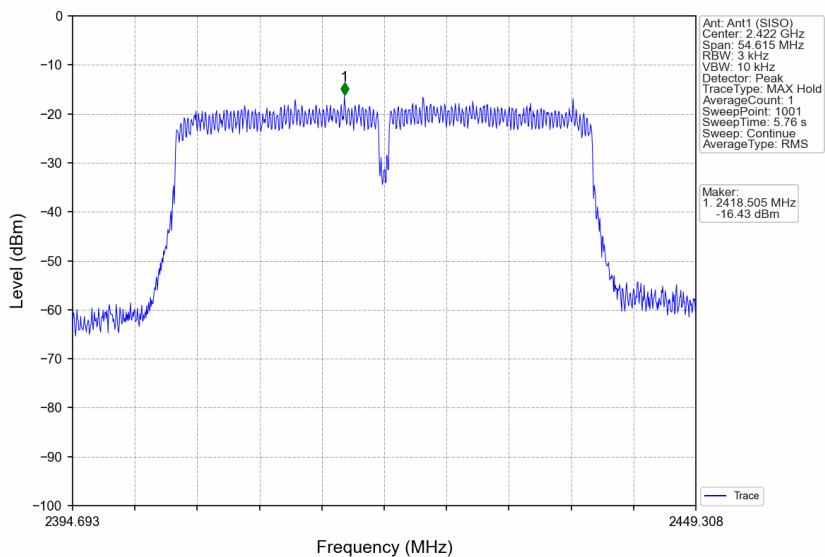
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802.11n(HT40)\_LCH\_2422MHz\_Ant1 (SISO)\_NTNV



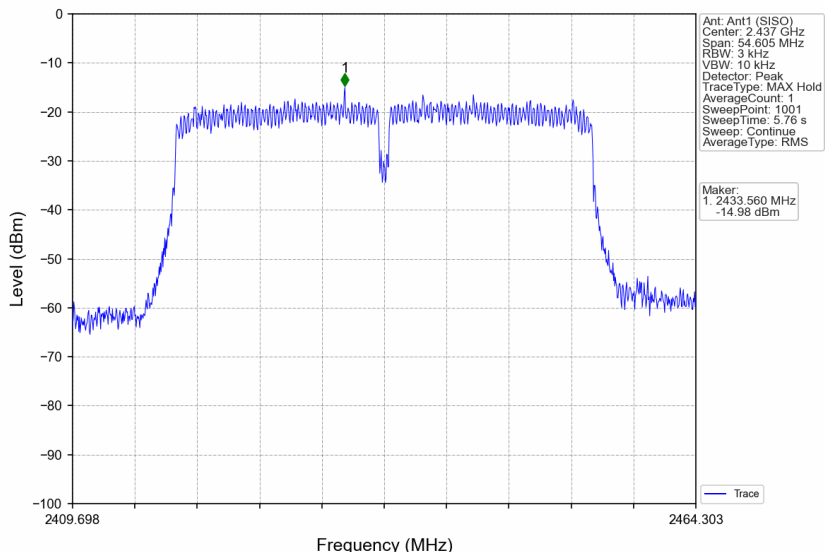
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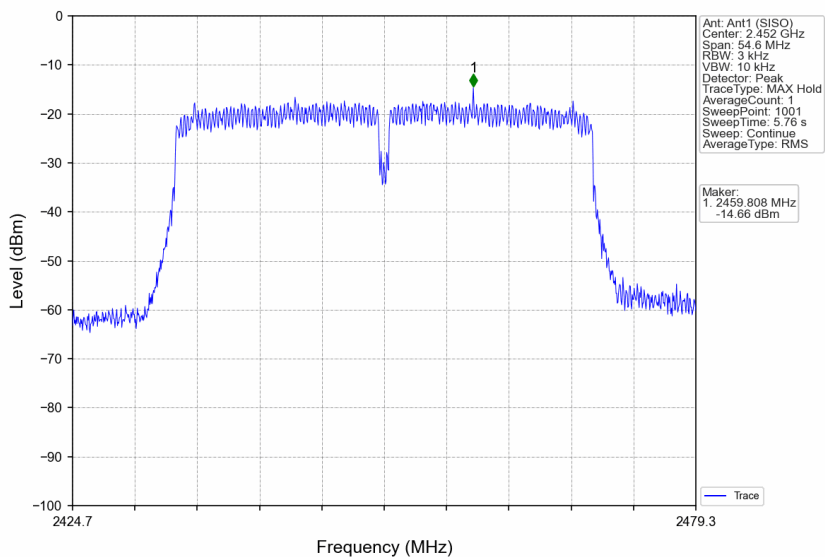
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## 5. Unwanted Emissions In Non-restricted Frequency Bands

### 5.1 Ref

#### 5.1.1 Test Result

Mode	TX Type	Frequency (MHz)	ANT	Level of Reference (dBm)
802.11b	SISO	2412	1	6.28
		2437	1	6.68
		2462	1	6.85
802.11g	SISO	2412	1	-0.03
		2437	1	0.50
		2462	1	0.73
802.11n (HT20)	SISO	2412	1	0.43
		2437	1	0.73
		2462	1	0.93
802.11n (HT40)	SISO	2422	1	-3.84
		2437	1	-3.46
		2452	1	-3.26

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.



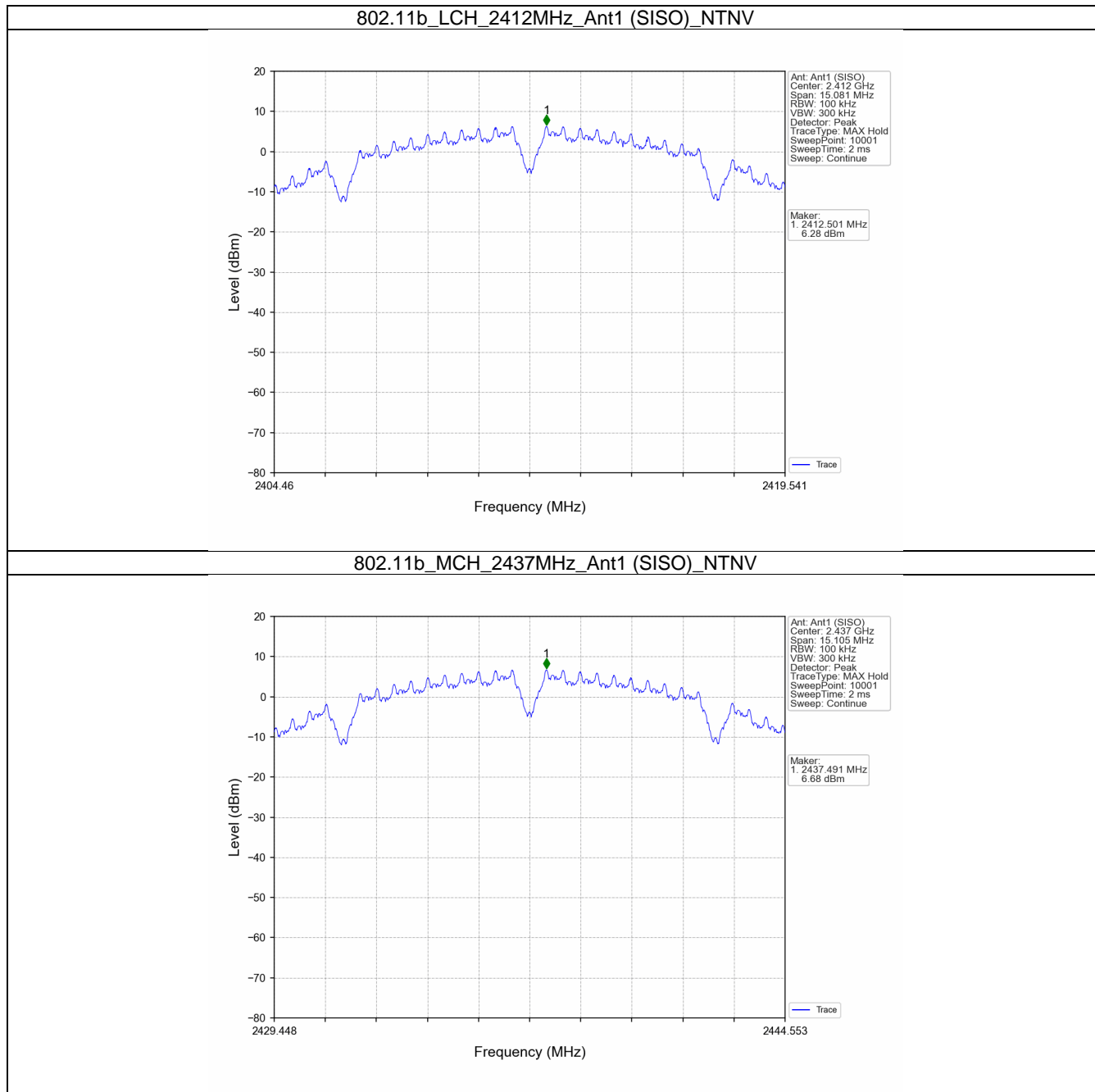
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## 5.1.2 Test Graph



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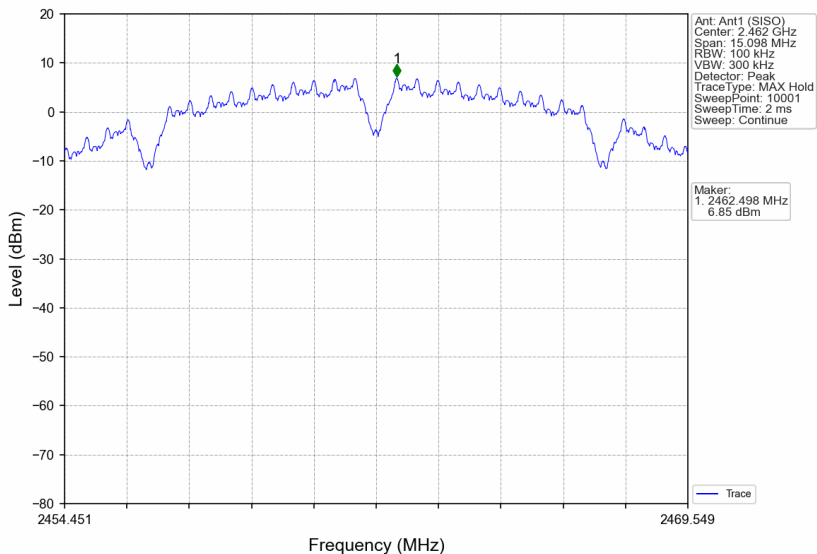
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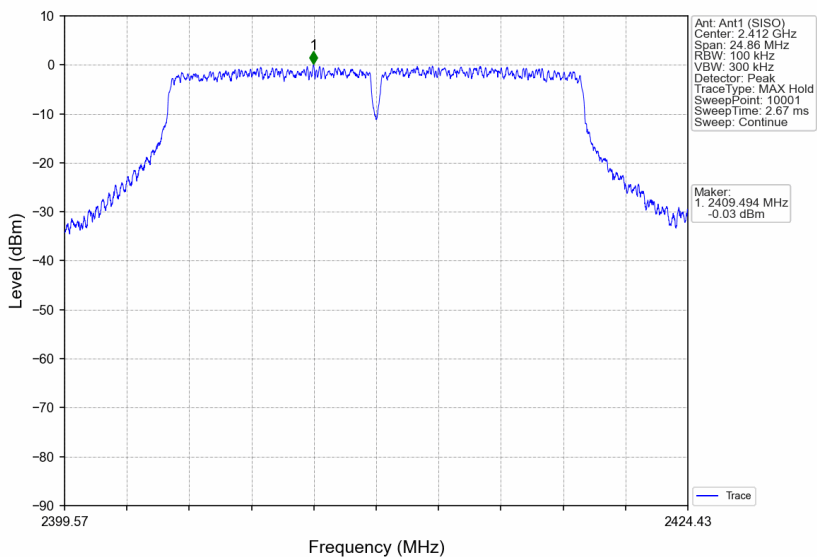
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802.11b\_HCH\_2462MHz\_Ant1 (SISO)\_NTNV



802.11g\_LCH\_2412MHz\_Ant1 (SISO)\_NTNV



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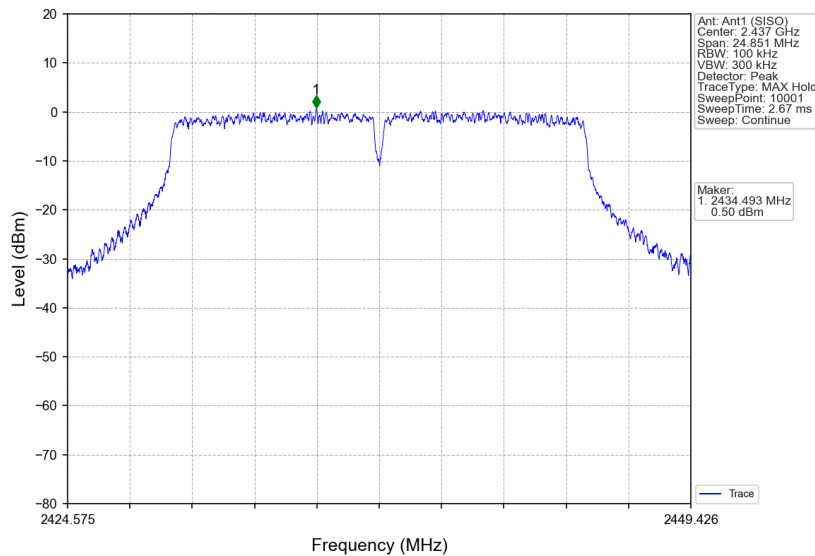
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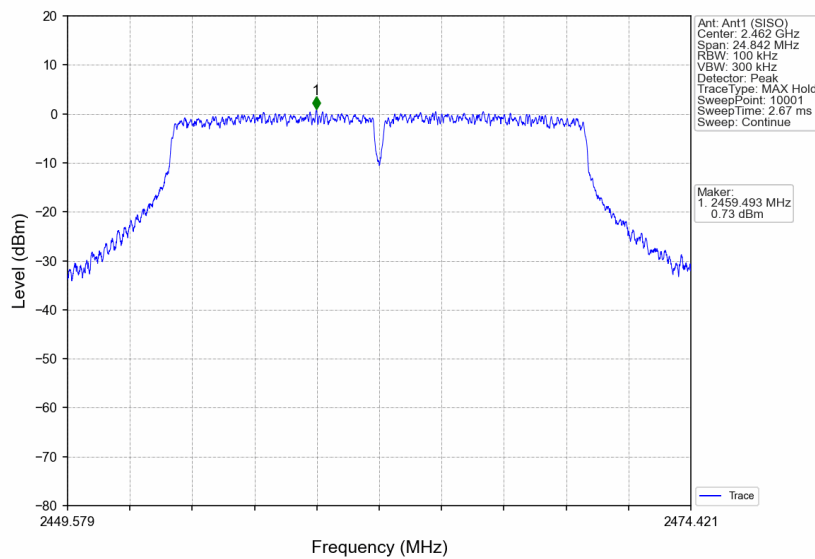
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802.11g\_MCH\_2437MHz\_Ant1 (SISO)\_NTNV



802.11g\_HCH\_2462MHz\_Ant1 (SISO)\_NTNV



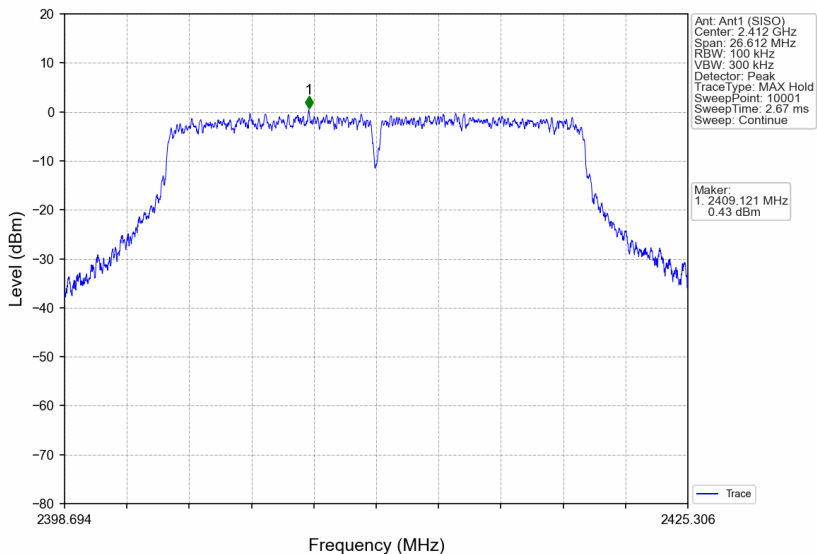
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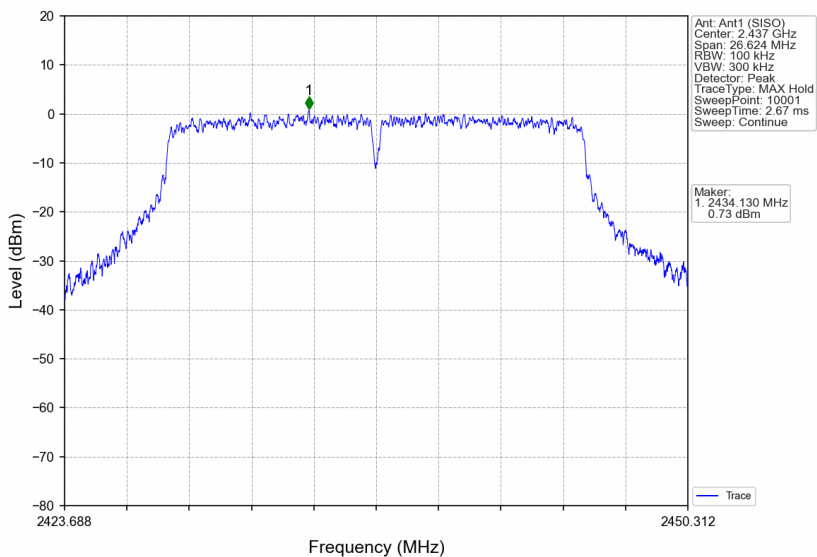
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802.11n(HT20)\_LCH\_2412MHz\_Ant1 (SISO)\_NTNV



802.11n(HT20)\_MCH\_2437MHz\_Ant1 (SISO)\_NTNV



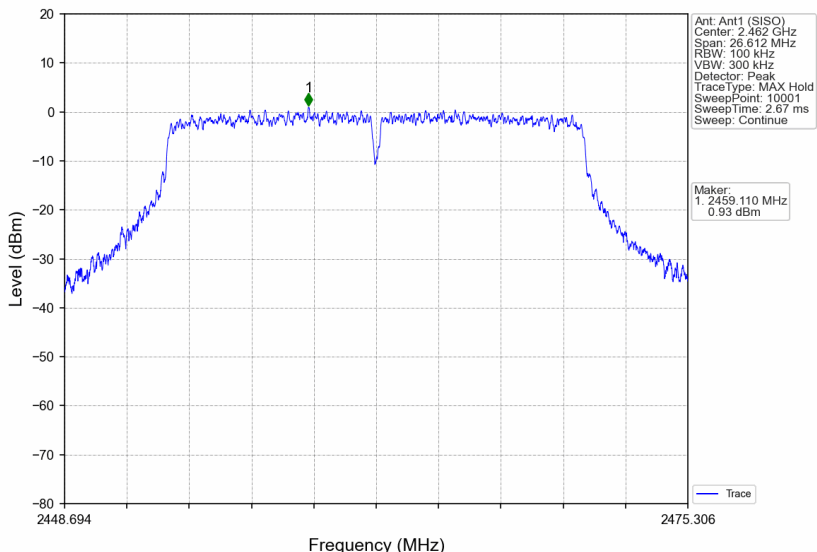
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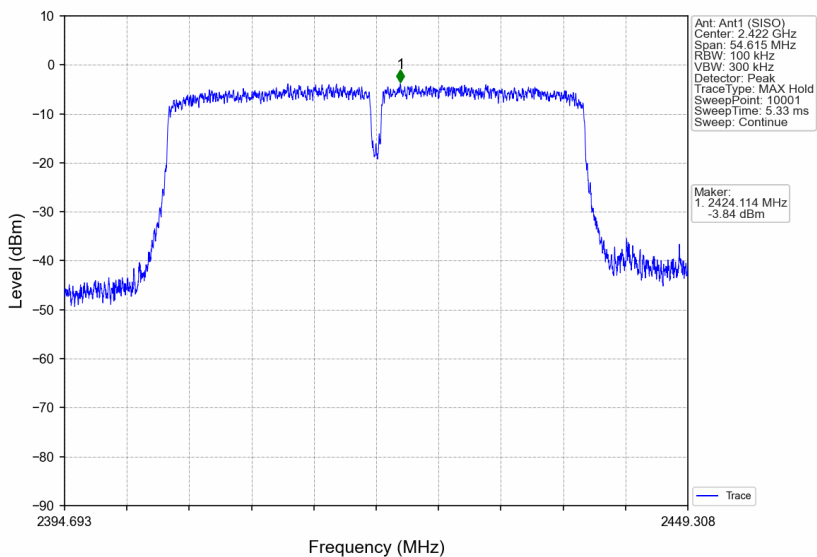
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802.11n(HT40)\_LCH\_2422MHz\_Ant1 (SISO)\_NTNV



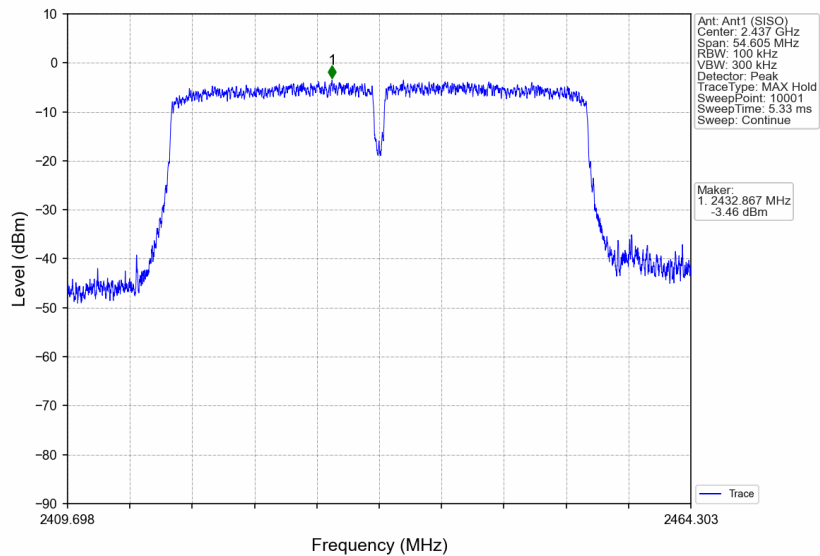
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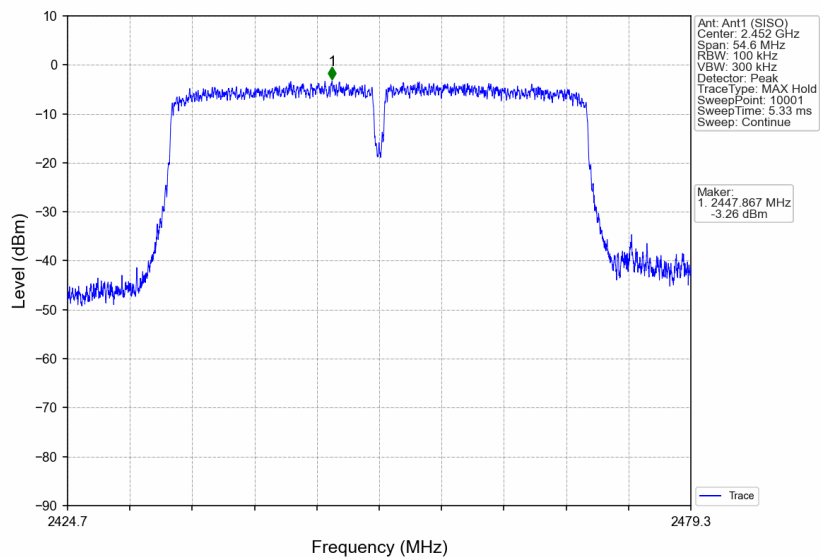
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802.11n(HT40)\_HCH\_2452MHz\_Ant1 (SISO)\_NTNV



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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	6.85	-23.15	Pass
		2437	1	6.85	-23.15	Pass
		2462	1	6.85	-23.15	Pass
802.11g	SISO	2412	1	0.73	-29.27	Pass
		2437	1	0.73	-29.27	Pass
		2462	1	0.73	-29.27	Pass
802.11n (HT20)	SISO	2412	1	0.93	-29.07	Pass
		2437	1	0.93	-29.07	Pass
		2462	1	0.93	-29.07	Pass
802.11n (HT40)	SISO	2422	1	-3.26	-33.26	Pass
		2437	1	-3.26	-33.26	Pass
		2452	1	-3.26	-33.26	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.



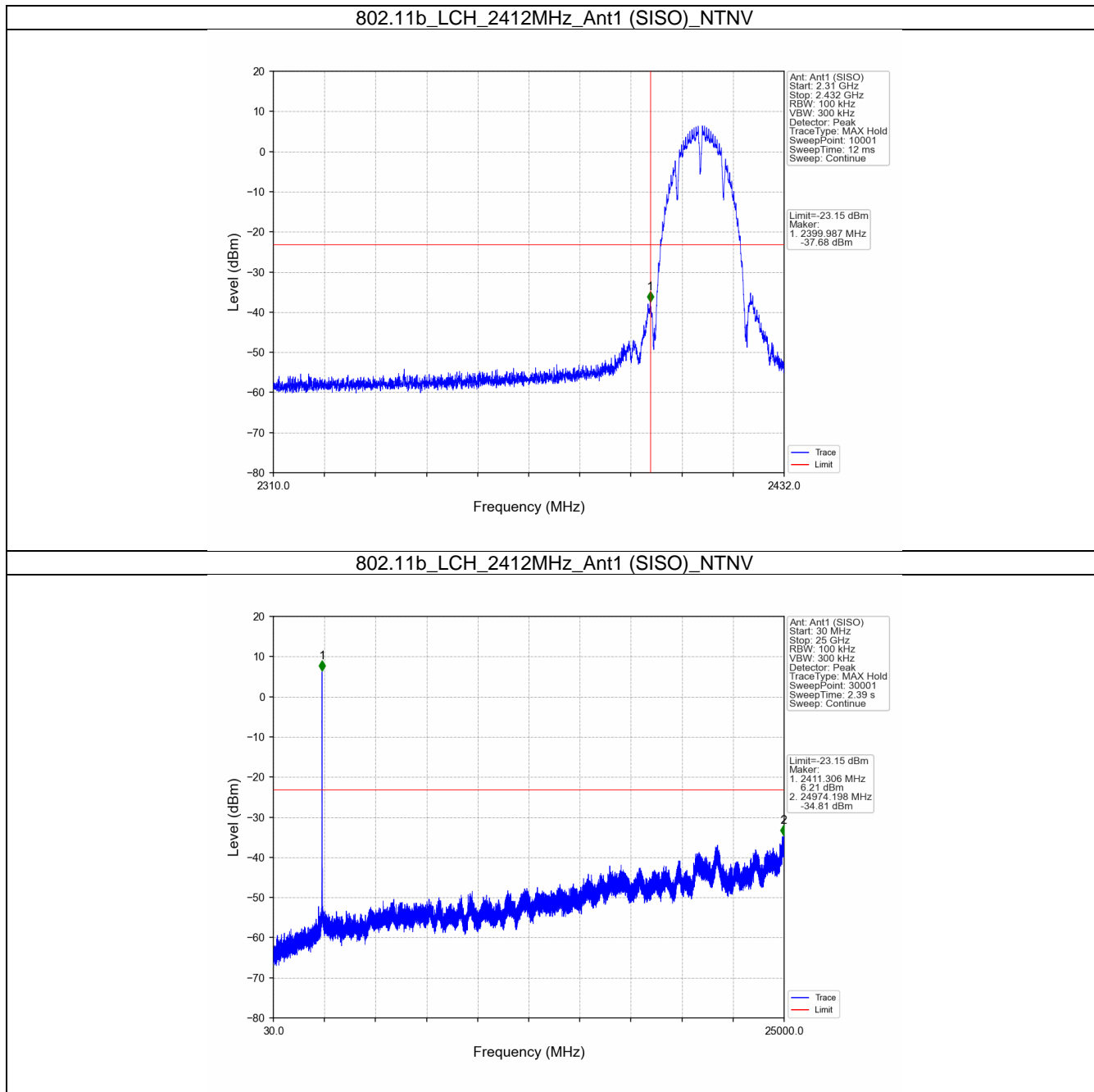
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5.2.2 Test Graph



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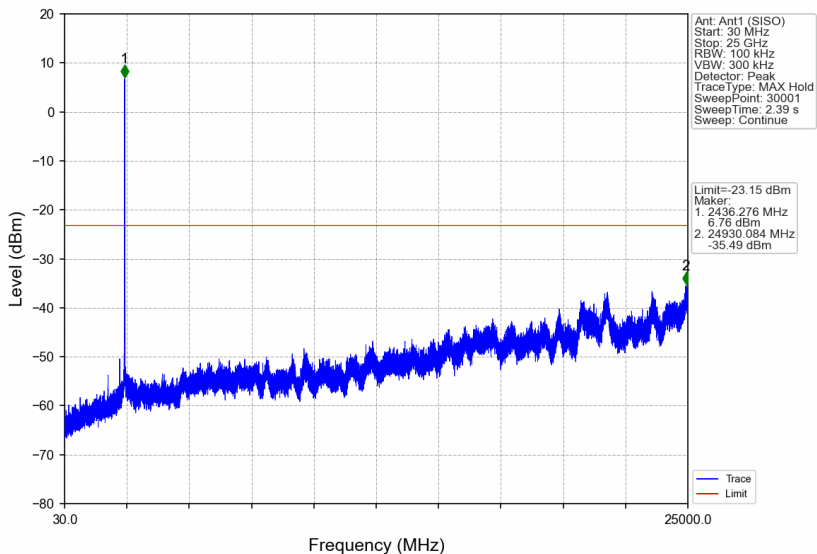
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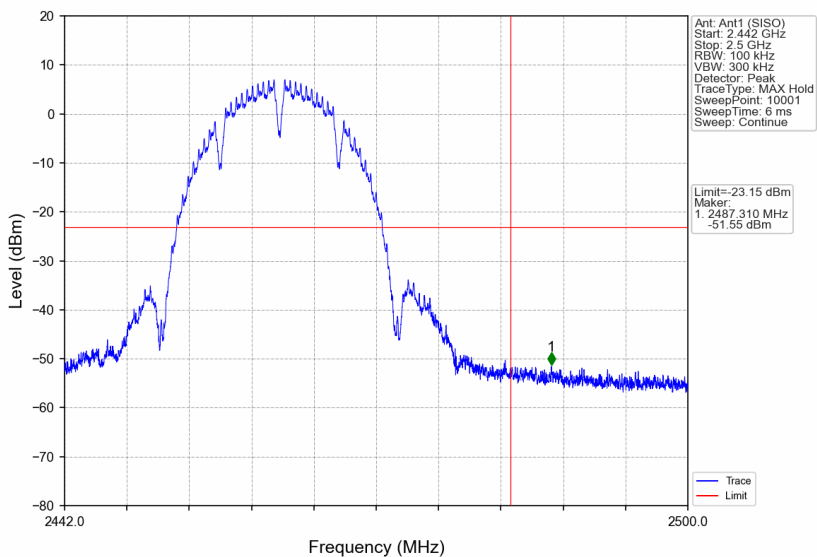
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802.11b\_HCH\_2462MHz\_Ant1 (SISO)\_NTNV



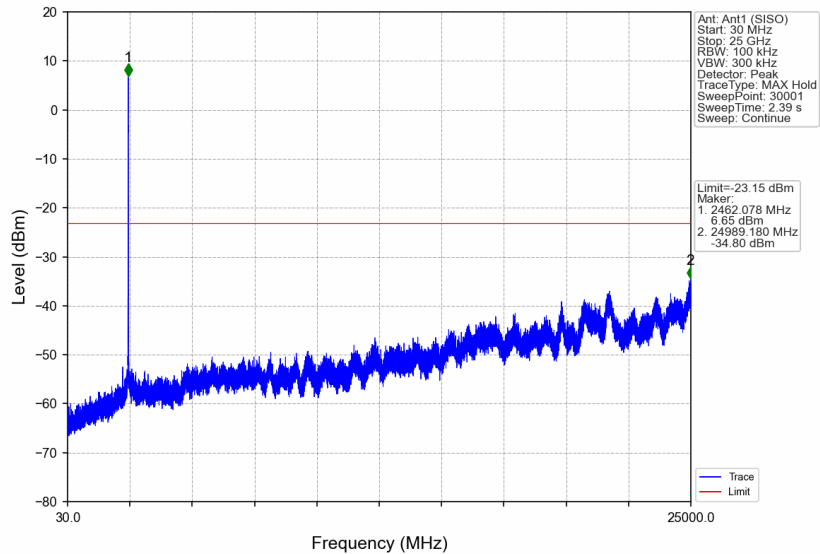
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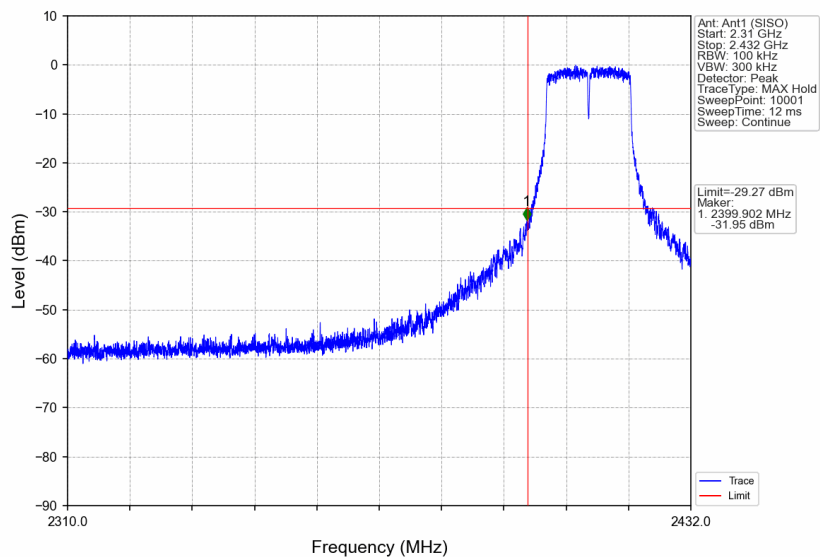
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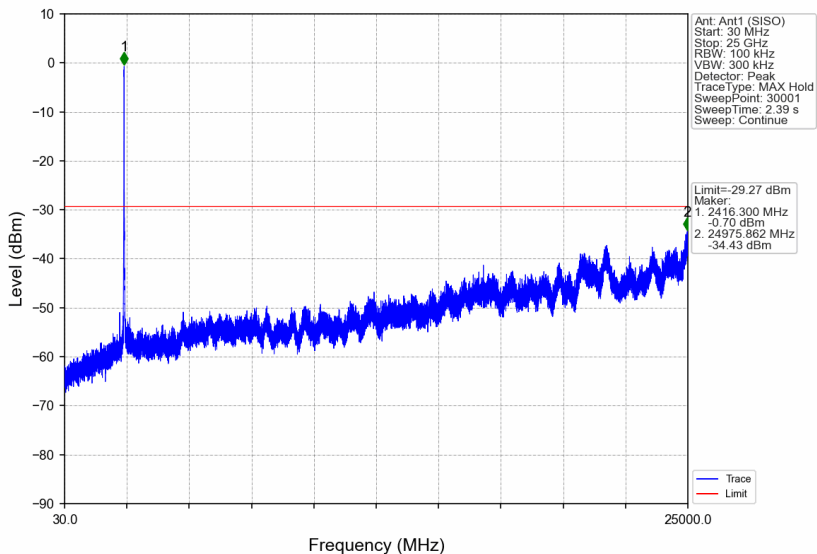
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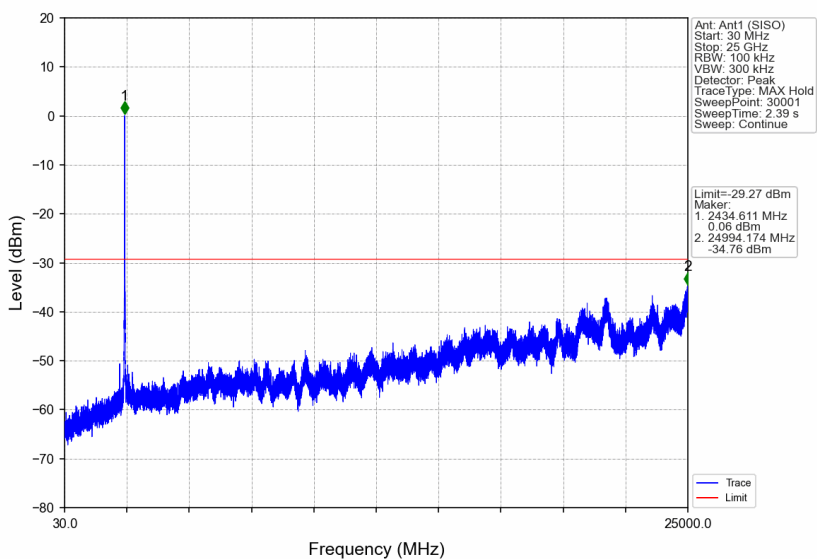
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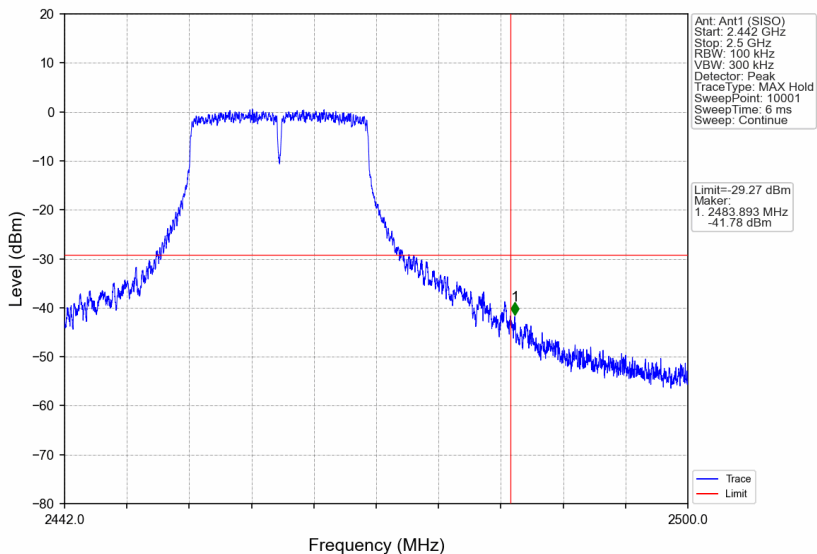
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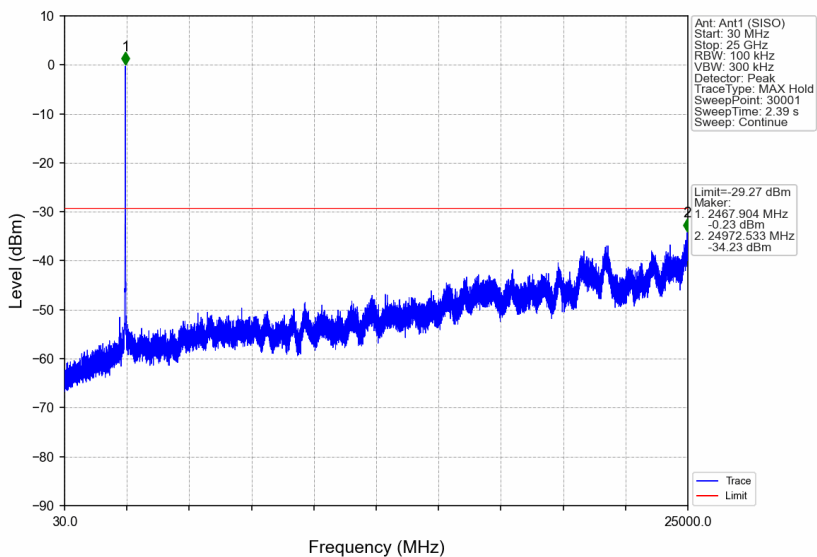
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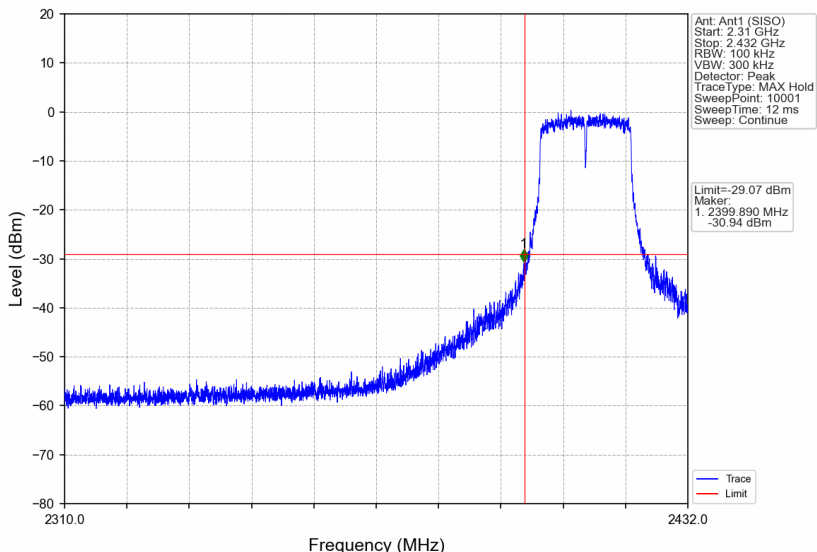
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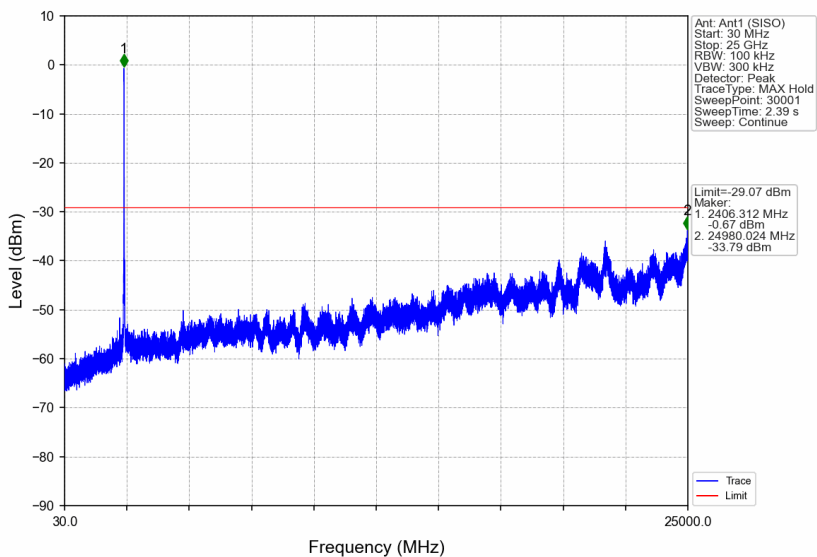
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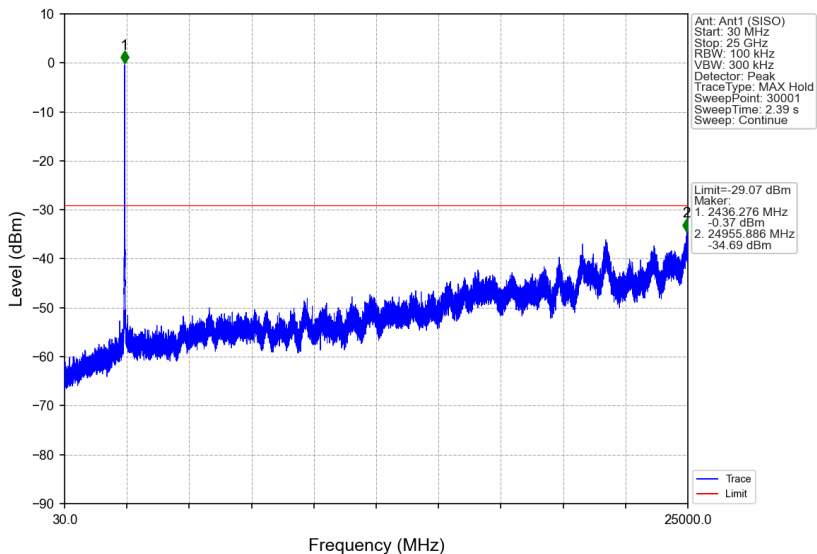
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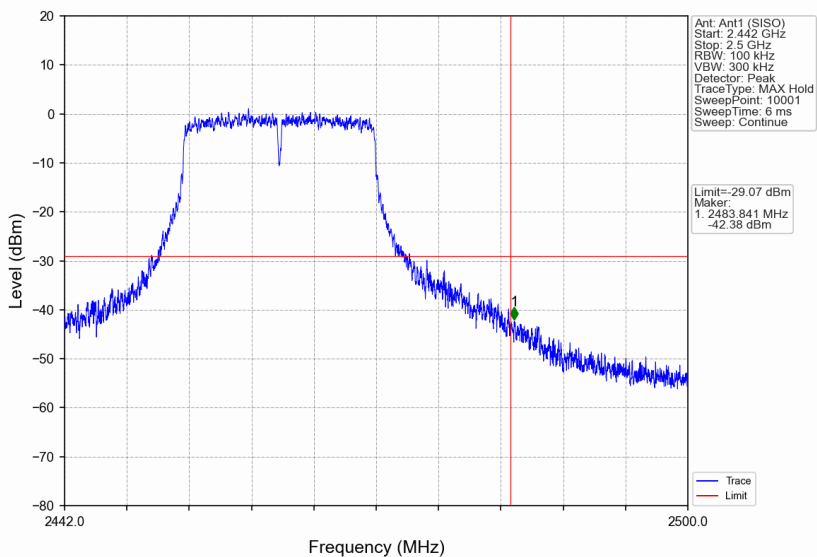
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802.11n(HT20)\_MCH\_2437MHz\_Ant1 (SISO)\_NTNV



802.11n(HT20)\_HCH\_2462MHz\_Ant1 (SISO)\_NTNV



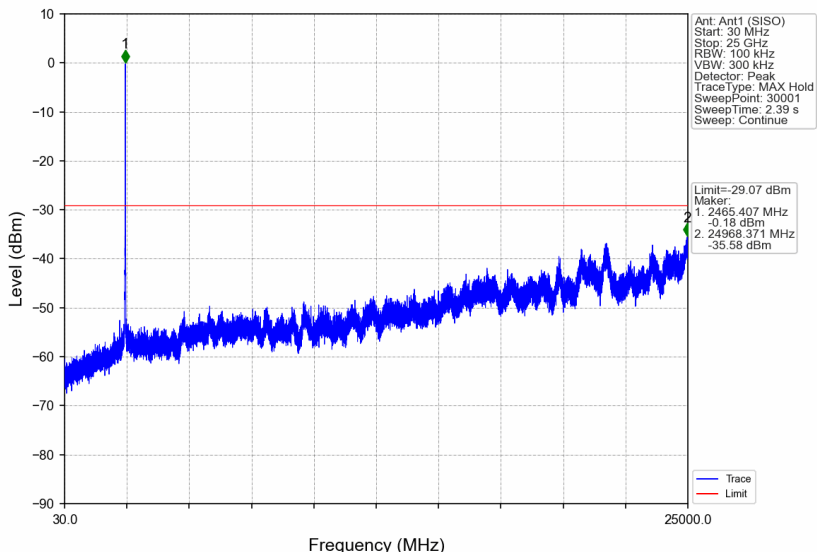
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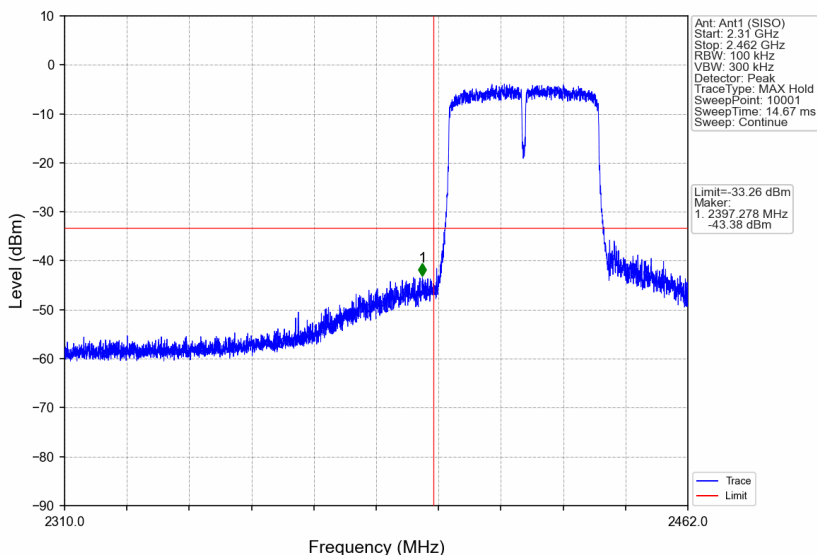
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802.11n(HT20)\_HCH\_2462MHz\_Ant1 (SISO)\_NTNV



802.11n(HT40)\_LCH\_2422MHz\_Ant1 (SISO)\_NTNV



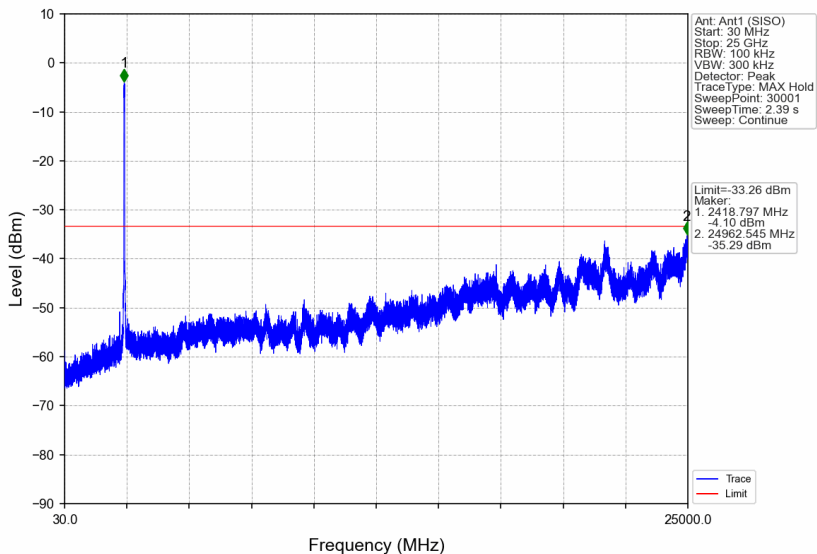
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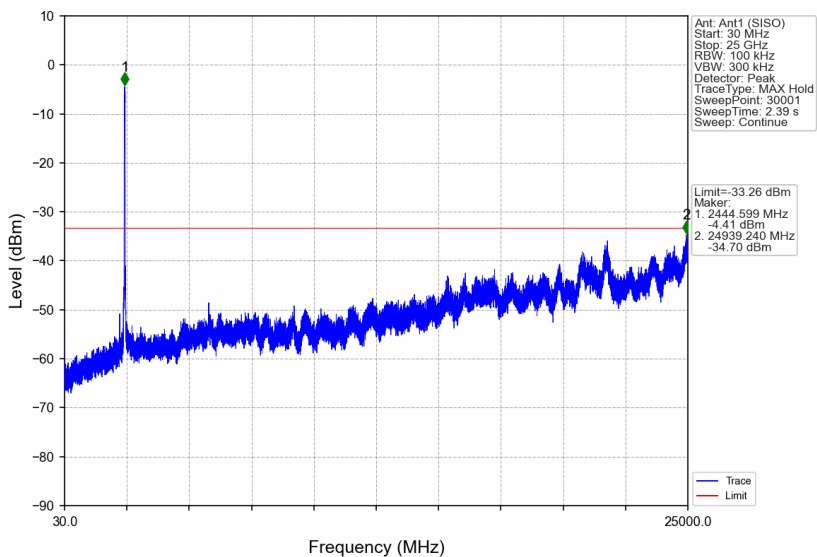
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802.11n(HT40)\_LCH\_2422MHz\_Ant1 (SISO)\_NTNV



802.11n(HT40)\_MCH\_2437MHz\_Ant1 (SISO)\_NTNV



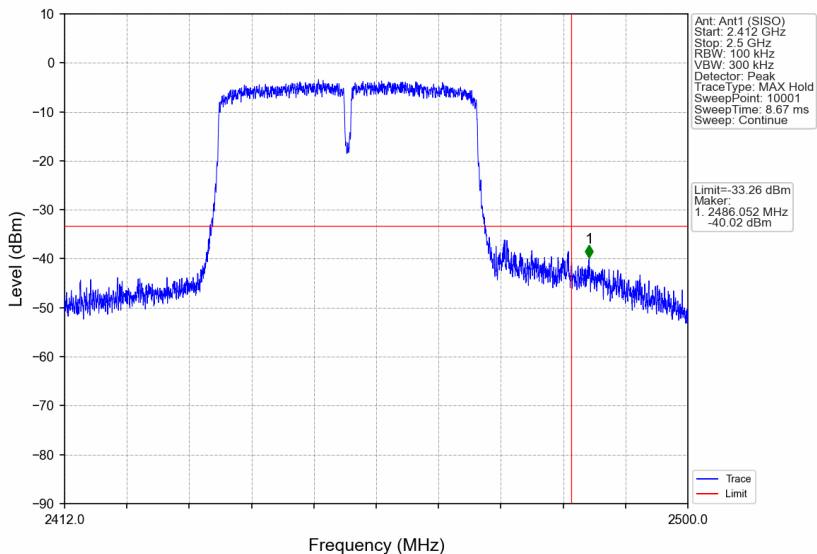
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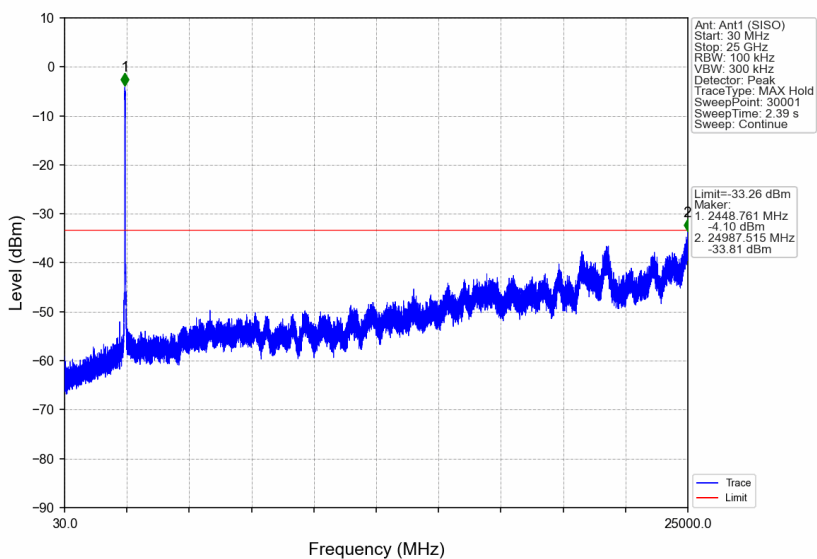
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