

Appendix A for KSCR220200021001

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	8.607	8.707	98.85	0.05	0.04
		2437	8.606	8.706	98.85	0.05	0.04
		2462	8.607	8.707	98.85	0.05	0.04
802.11g	SISO	2412	1.428	1.529	93.39	0.30	0.00
		2437	1.428	1.529	93.39	0.30	0.03
		2462	1.428	1.530	93.33	0.30	0.13
802.11n (HT20)	SISO	2412	1.336	1.436	93.04	0.31	0.00
		2437	1.336	1.437	92.97	0.32	0.03
		2462	1.336	1.437	92.97	0.32	0.00

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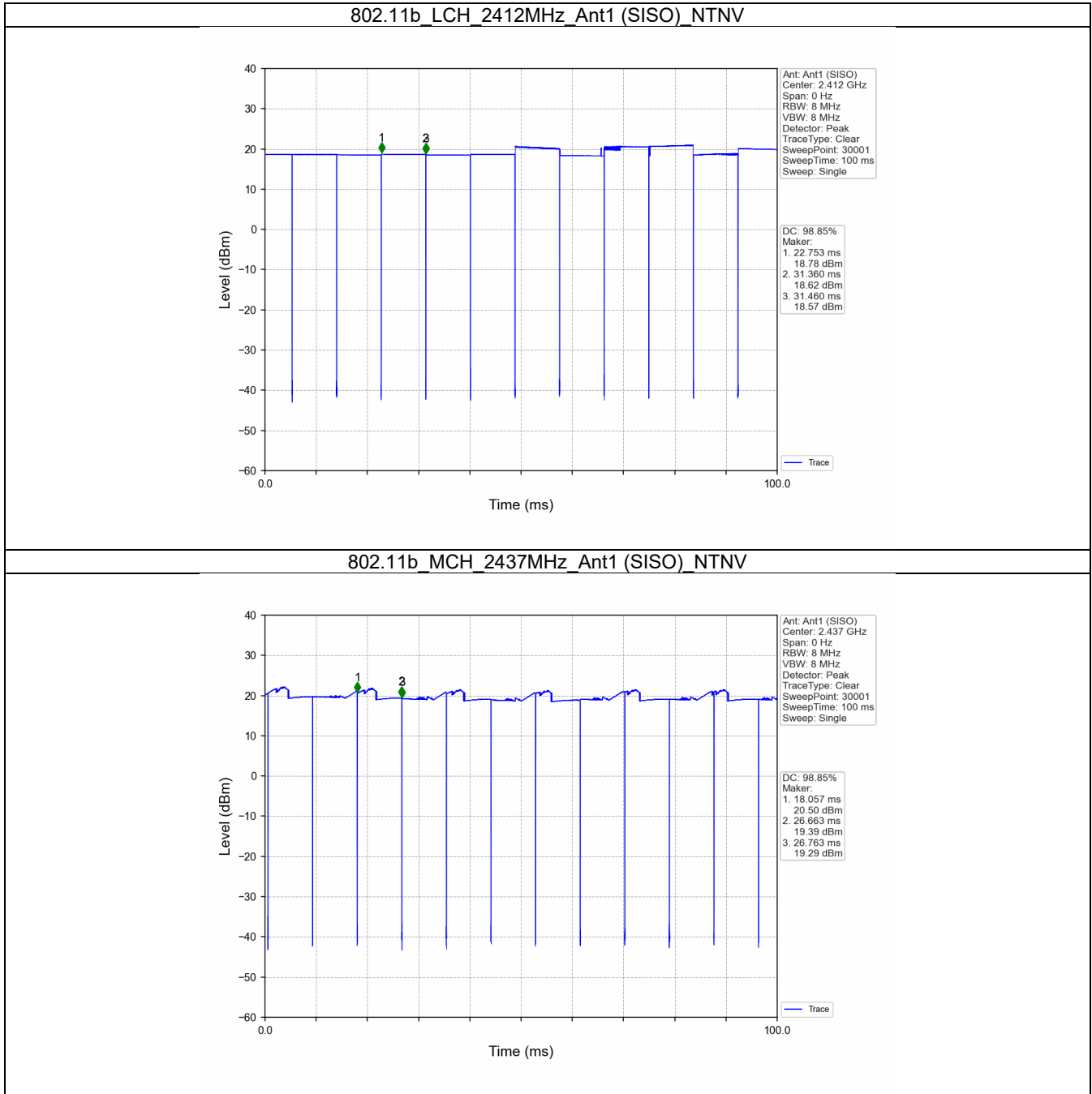
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1.1.2 Test Graph



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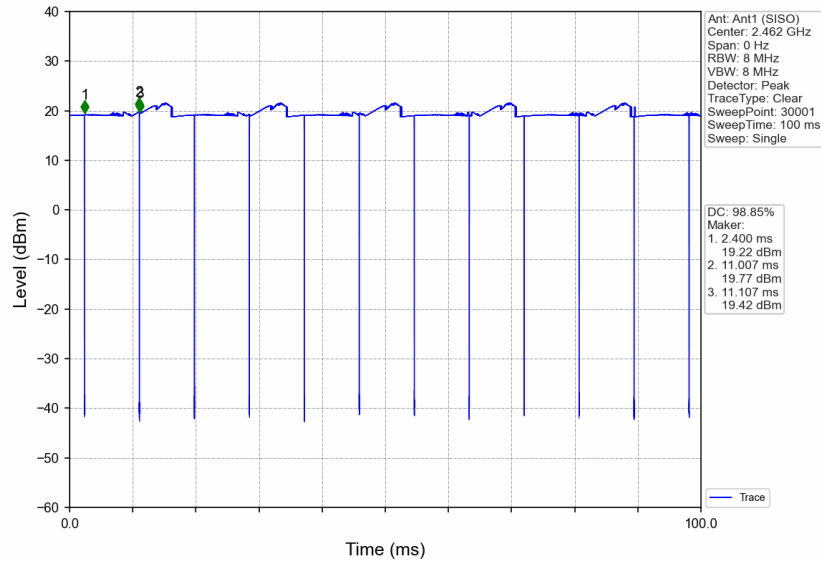
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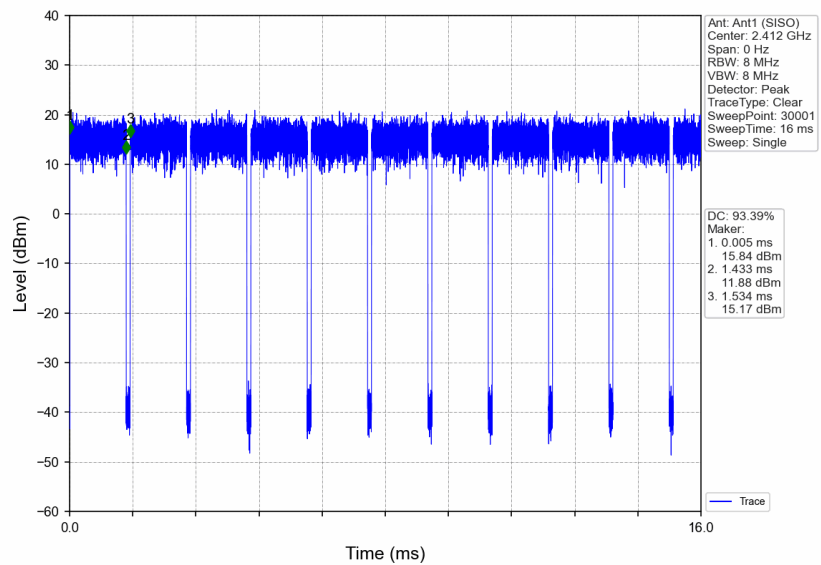


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802.11b\_HCH\_2462MHz\_Ant1 (SISO) NTVV



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



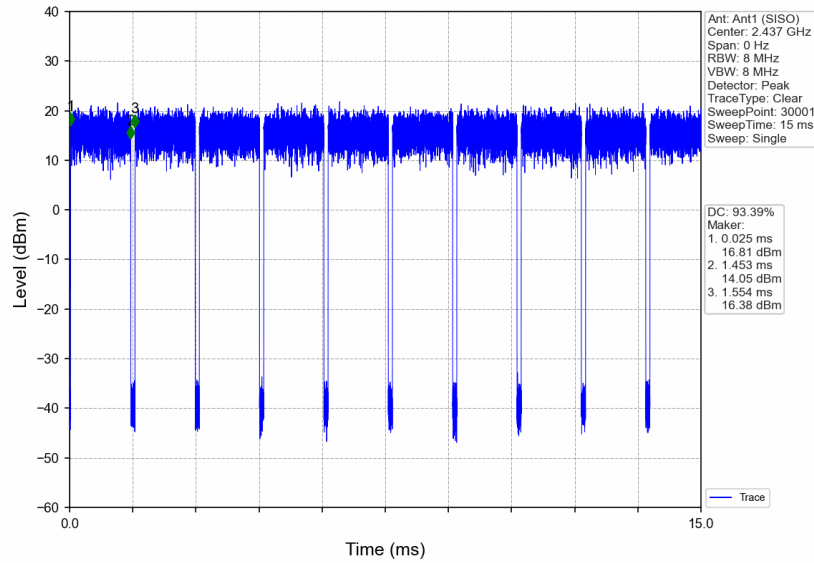
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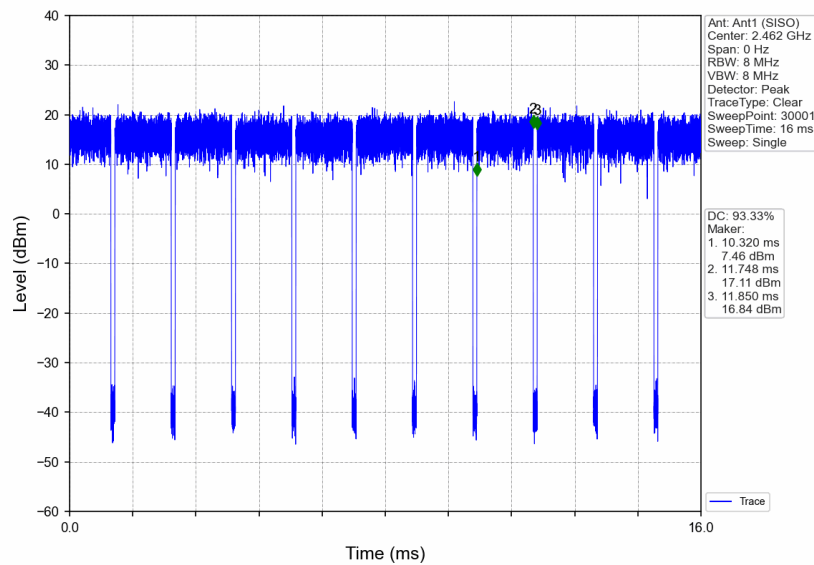
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802.11g\_MCH\_2437MHz\_Ant1 (SISO) NTVN



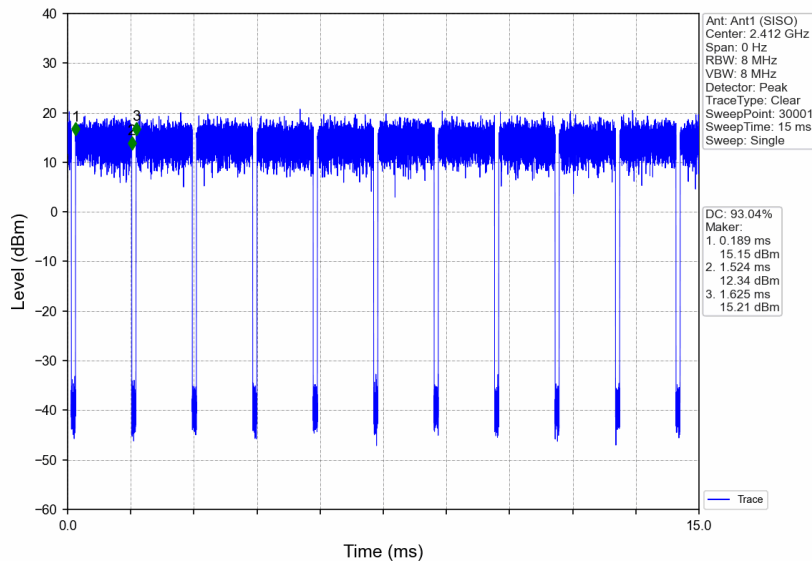
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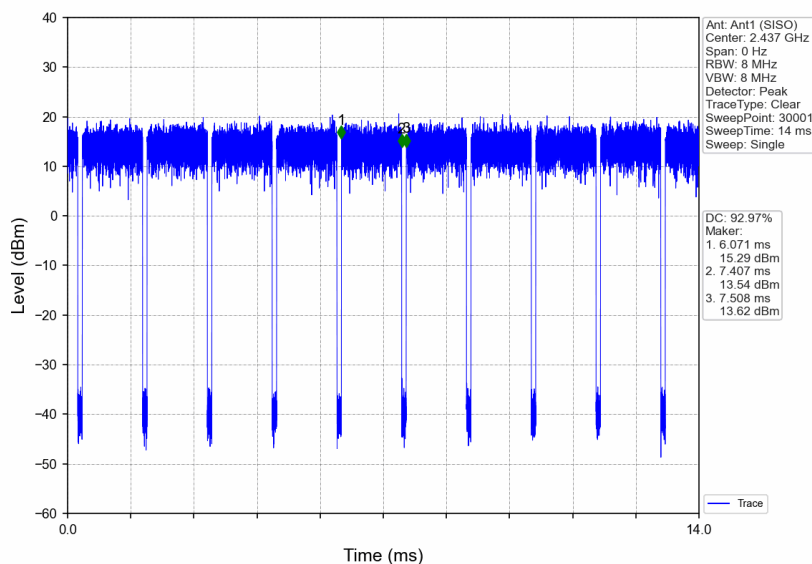
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802.11n(HT20)\_LCH\_2412MHz\_Ant1 (SISO)\_NTNV



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



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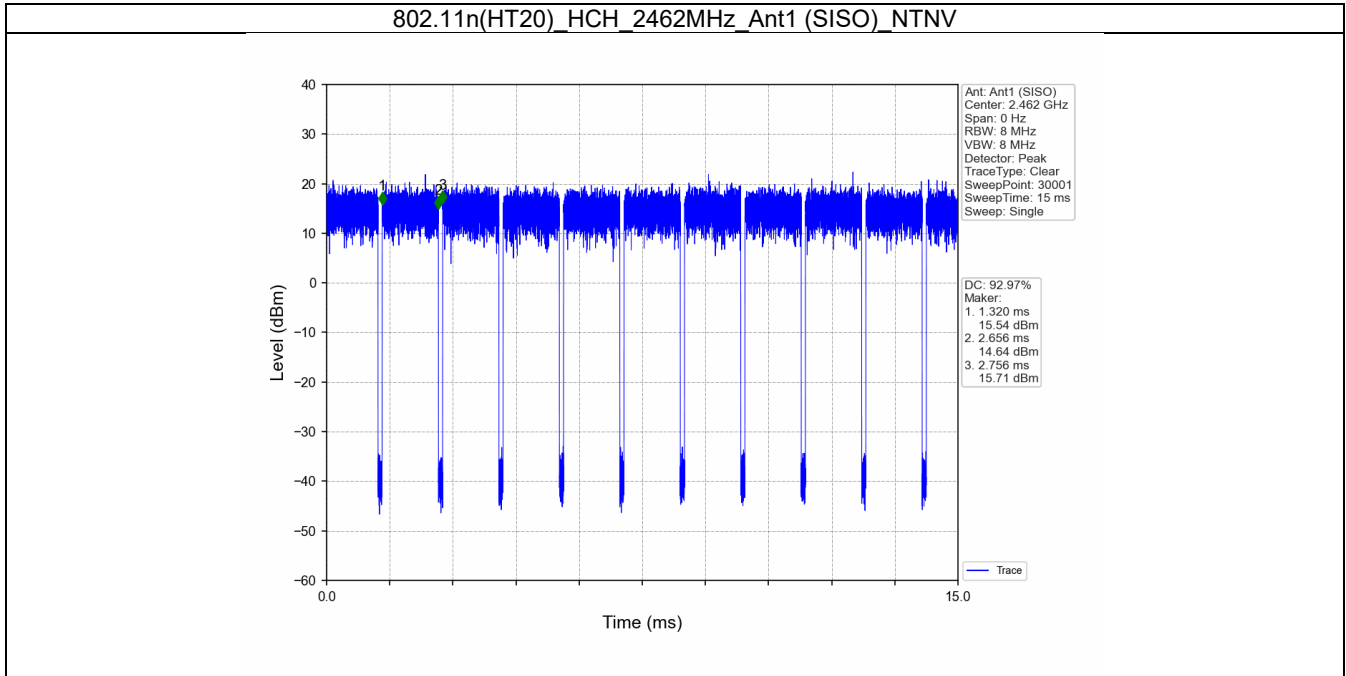
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## 2. Bandwidth

### 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	13.946	Pass
		2437	1	13.978	Pass
		2462	1	13.960	Pass
802.11g	SISO	2412	1	17.968	Pass
		2437	1	17.950	Pass
		2462	1	17.918	Pass
802.11n (HT20)	SISO	2412	1	18.570	Pass
		2437	1	18.559	Pass
		2462	1	18.609	Pass



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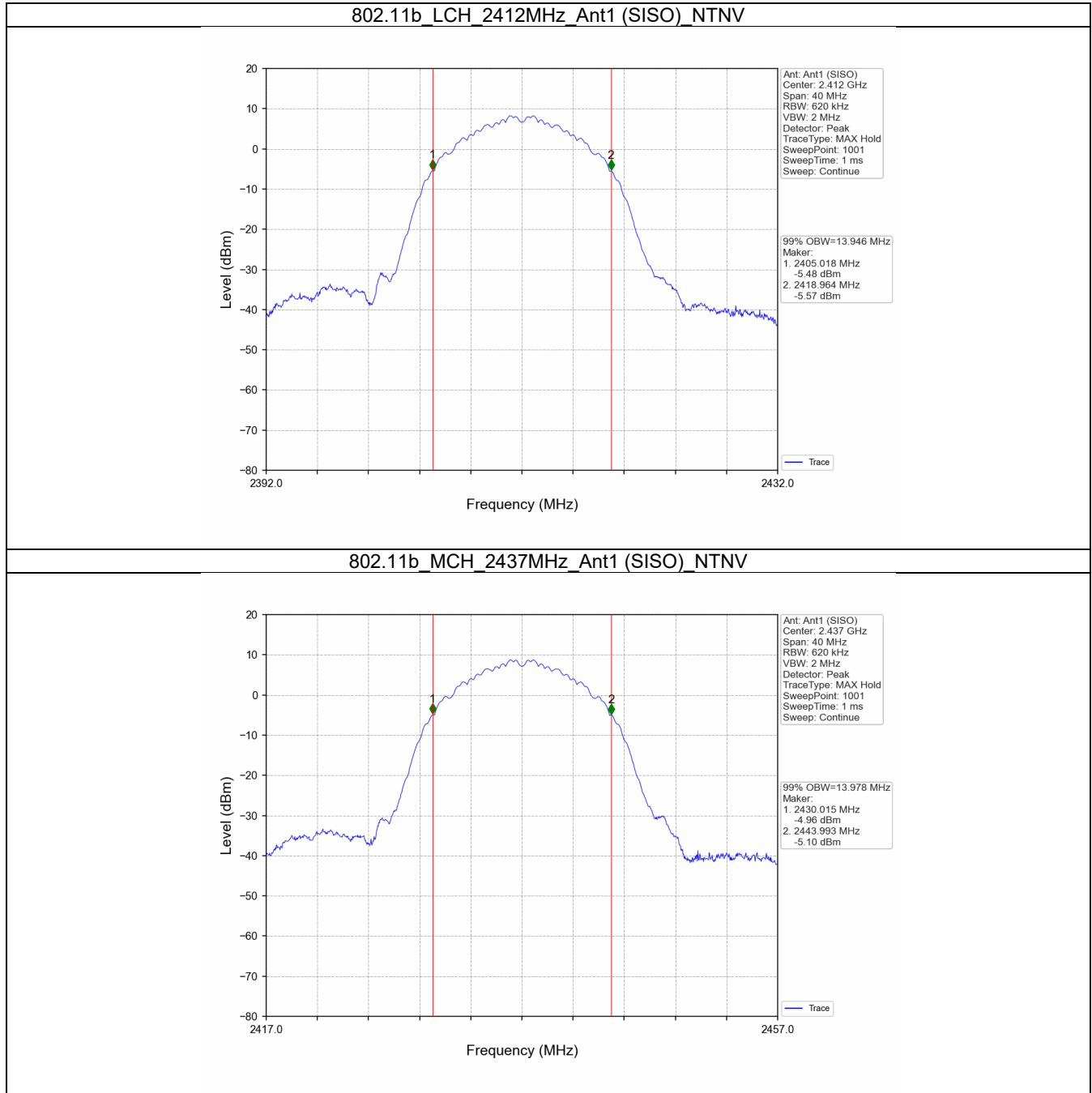
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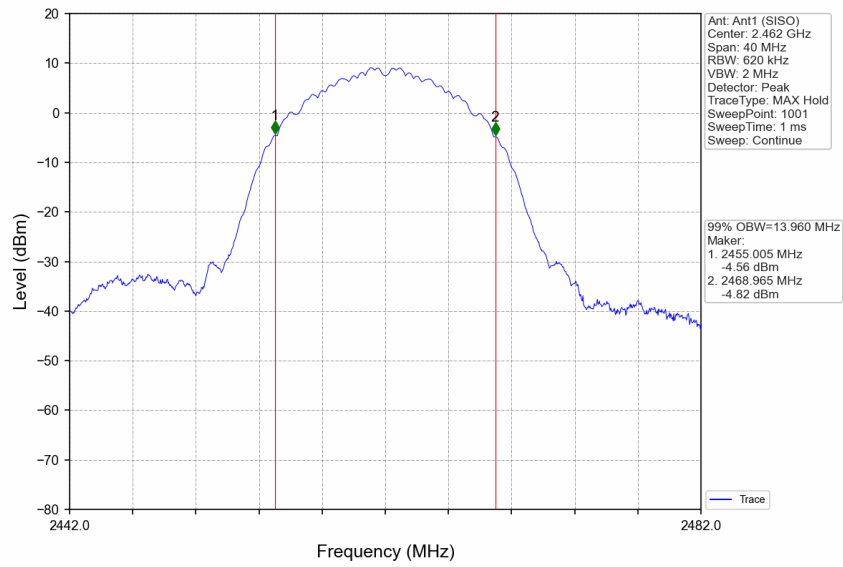
2.1.2 Test Graph



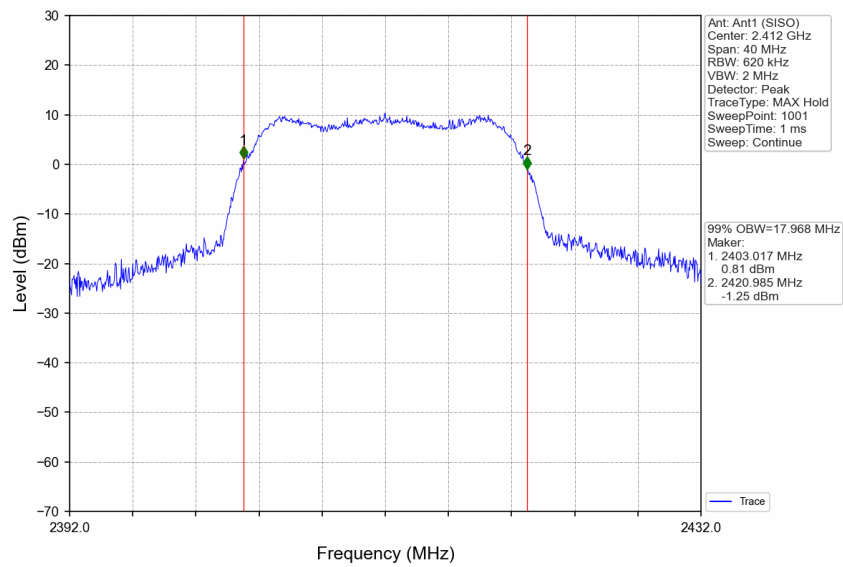
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802.11g\_LCH\_2412MHz\_Ant1 (SISO) NTVV



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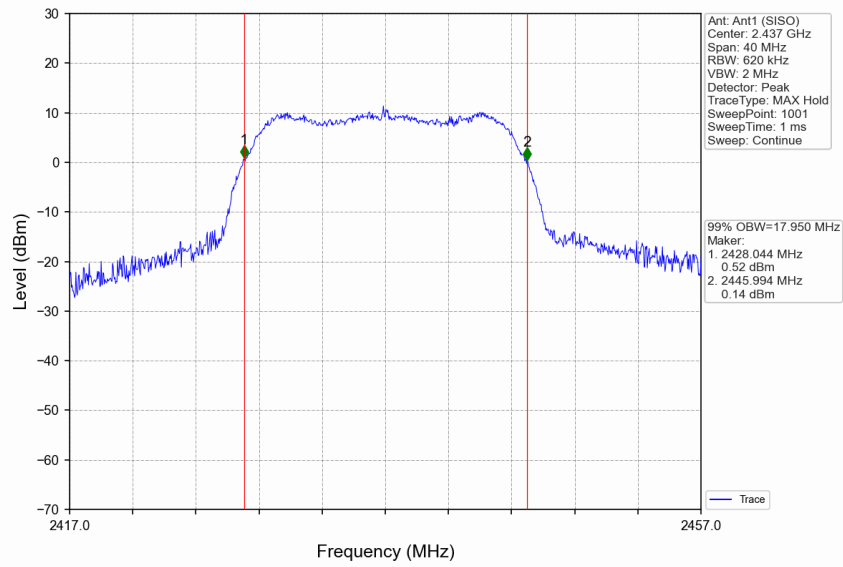
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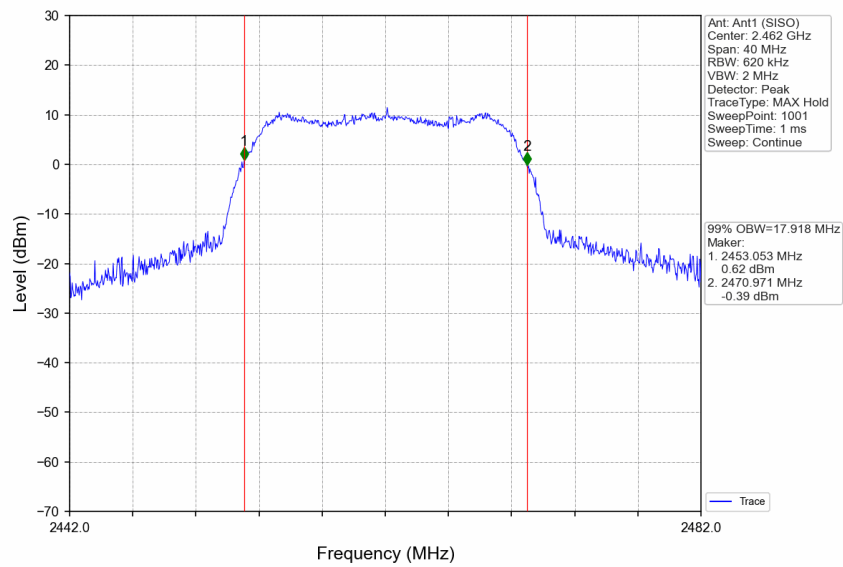
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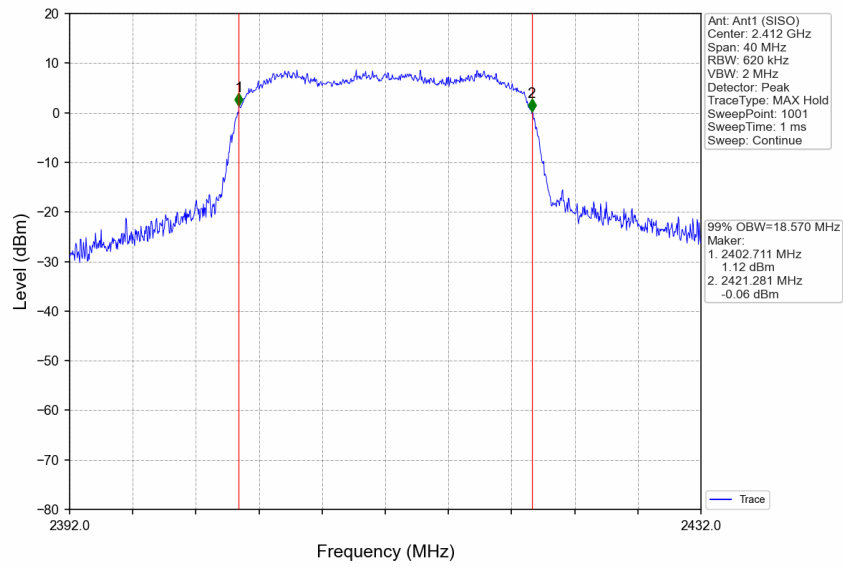
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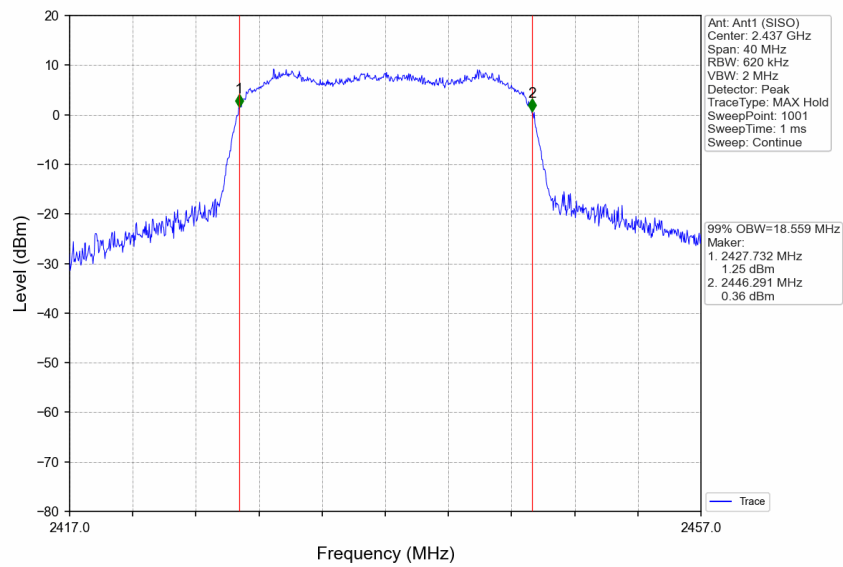
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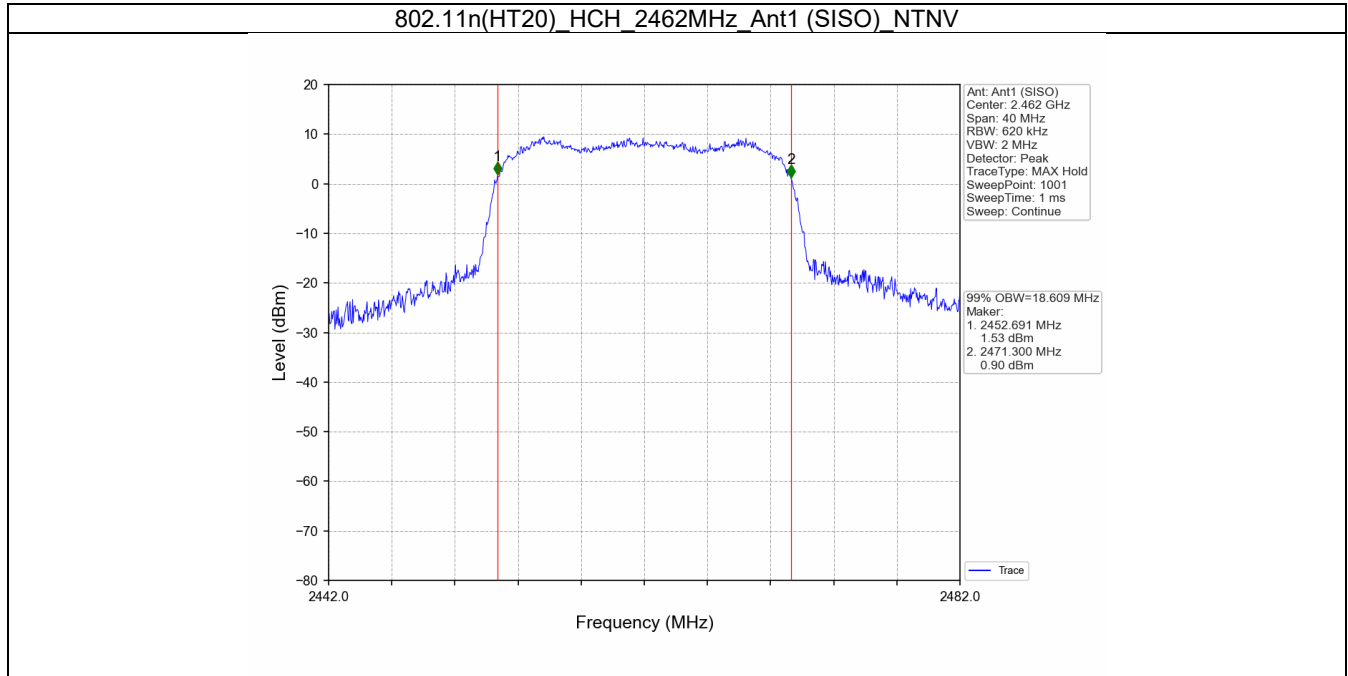


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## 2.2 6dB BW

### 2.2.1 Test Result

Mode	TX Type	Frequency (MHz)	Ant	6dB Bandwidth (MHz)		Verdict
				Result	Limit	
802.11b	SISO	2412	1	9.070	>=0.5	Pass
		2437	1	8.595	>=0.5	Pass
		2462	1	8.585	>=0.5	Pass
802.11g	SISO	2412	1	15.813	>=0.5	Pass
		2437	1	15.824	>=0.5	Pass
		2462	1	15.782	>=0.5	Pass
802.11n (HT20)	SISO	2412	1	16.933	>=0.5	Pass
		2437	1	17.539	>=0.5	Pass
		2462	1	17.299	>=0.5	Pass



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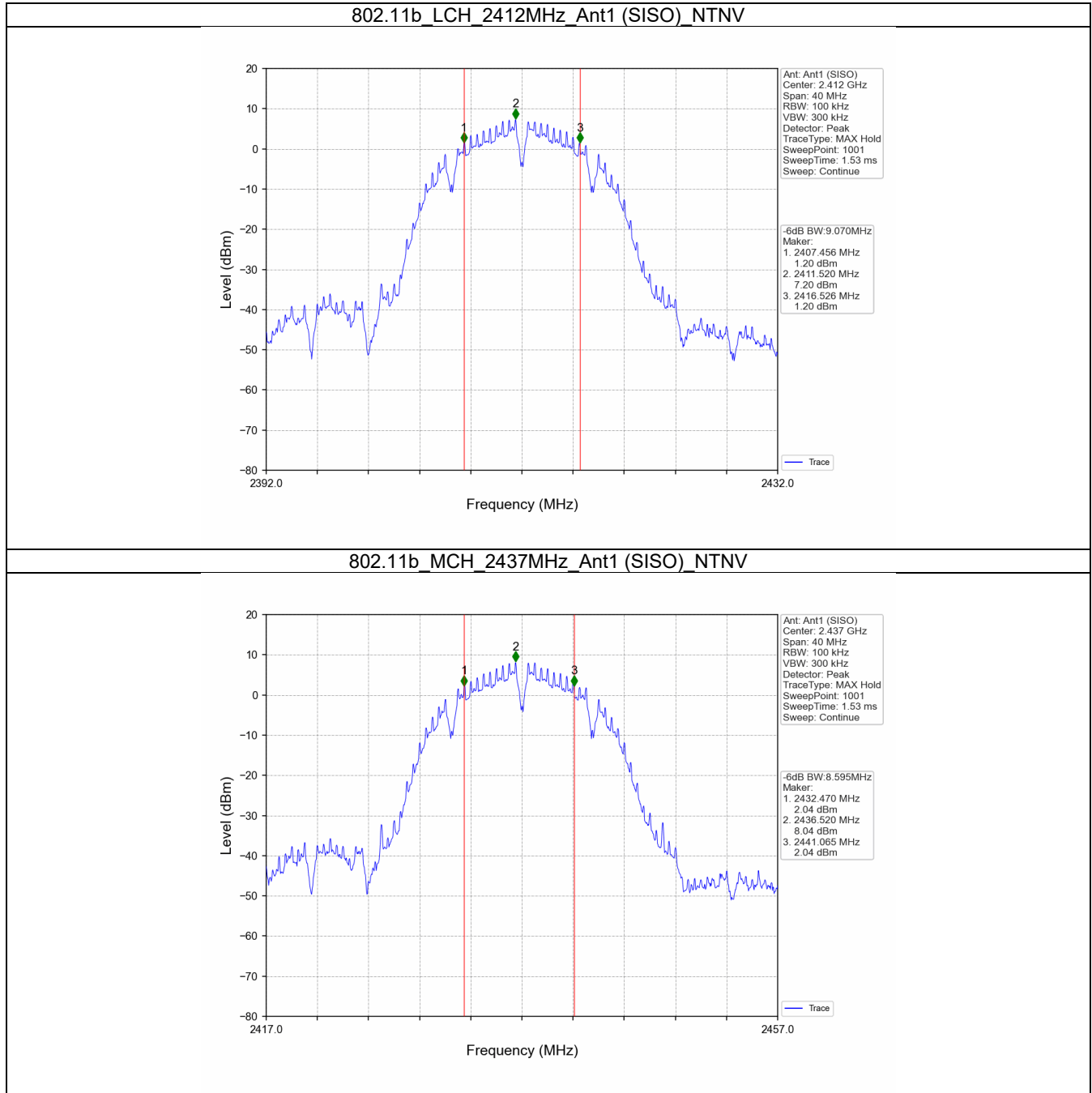
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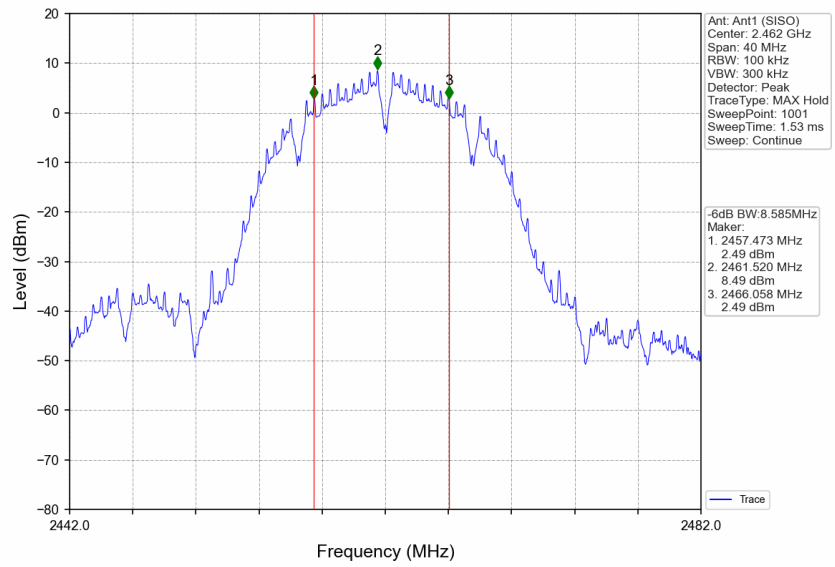
2.2.2 Test Graph



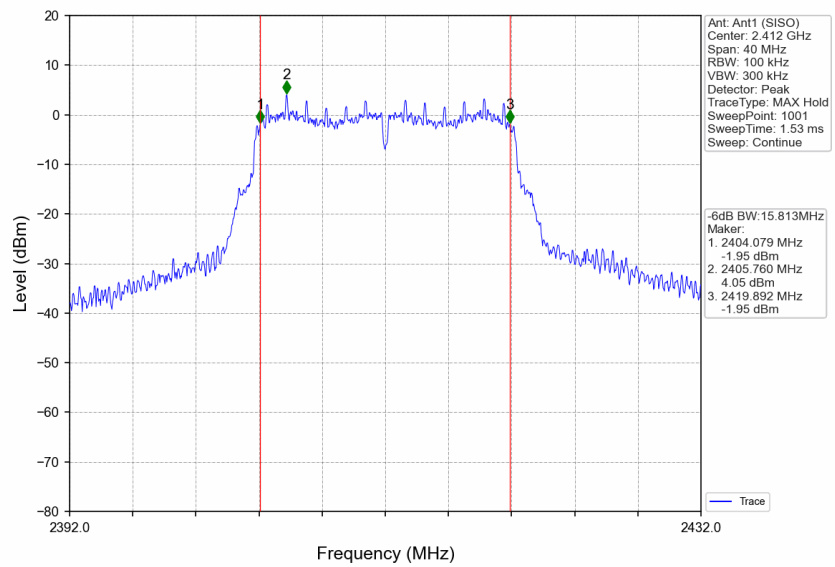
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802.11b\_HCH 2462MHz Ant1 (SISO) NTVV



802.11g\_LCH 2412MHz Ant1 (SISO) NTVV

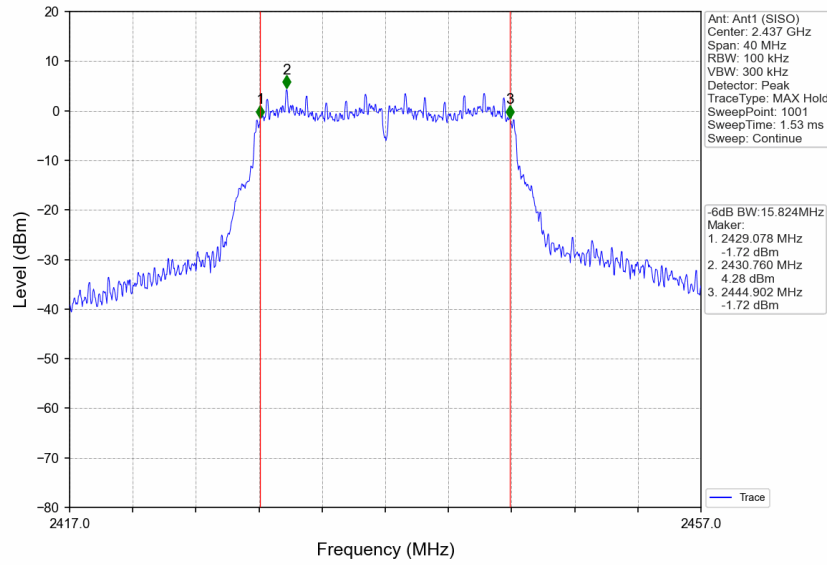


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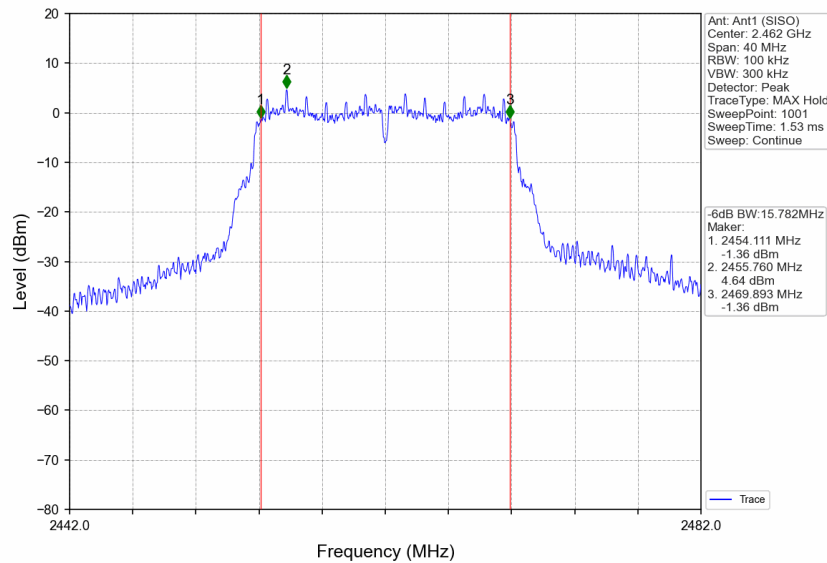
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802.11g\_MCH\_2437MHz\_Ant1 (SISO) NTVN



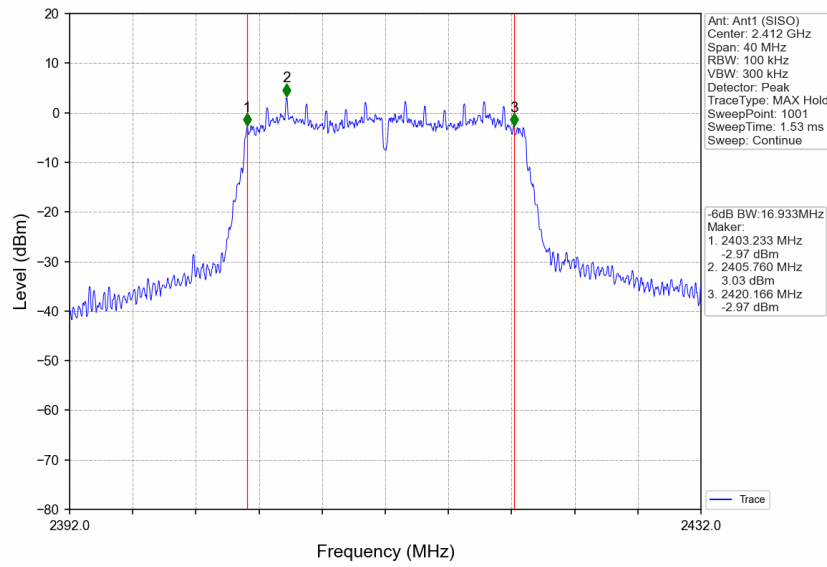
802.11g\_HCH\_2462MHz\_Ant1 (SISO) NTVN



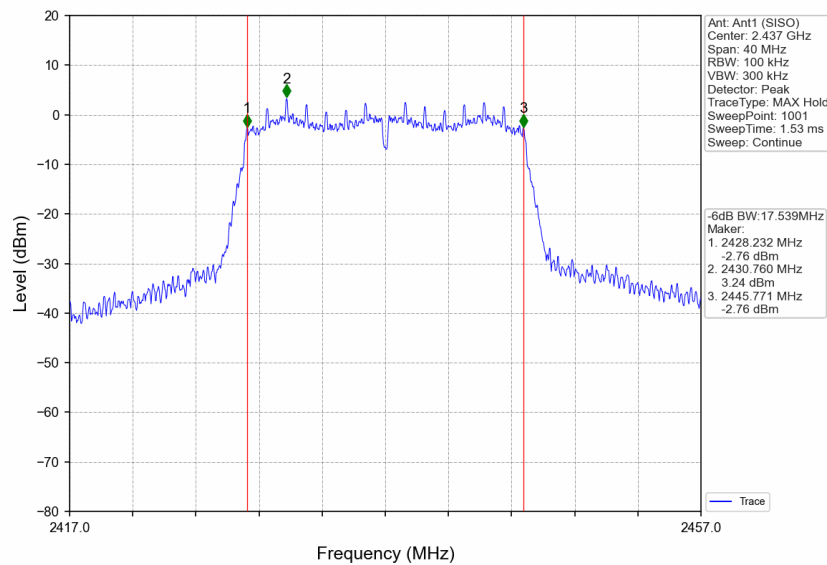
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802.11n(HT20)\_LCH\_2412MHz\_Ant1 (SISO)\_NTNV

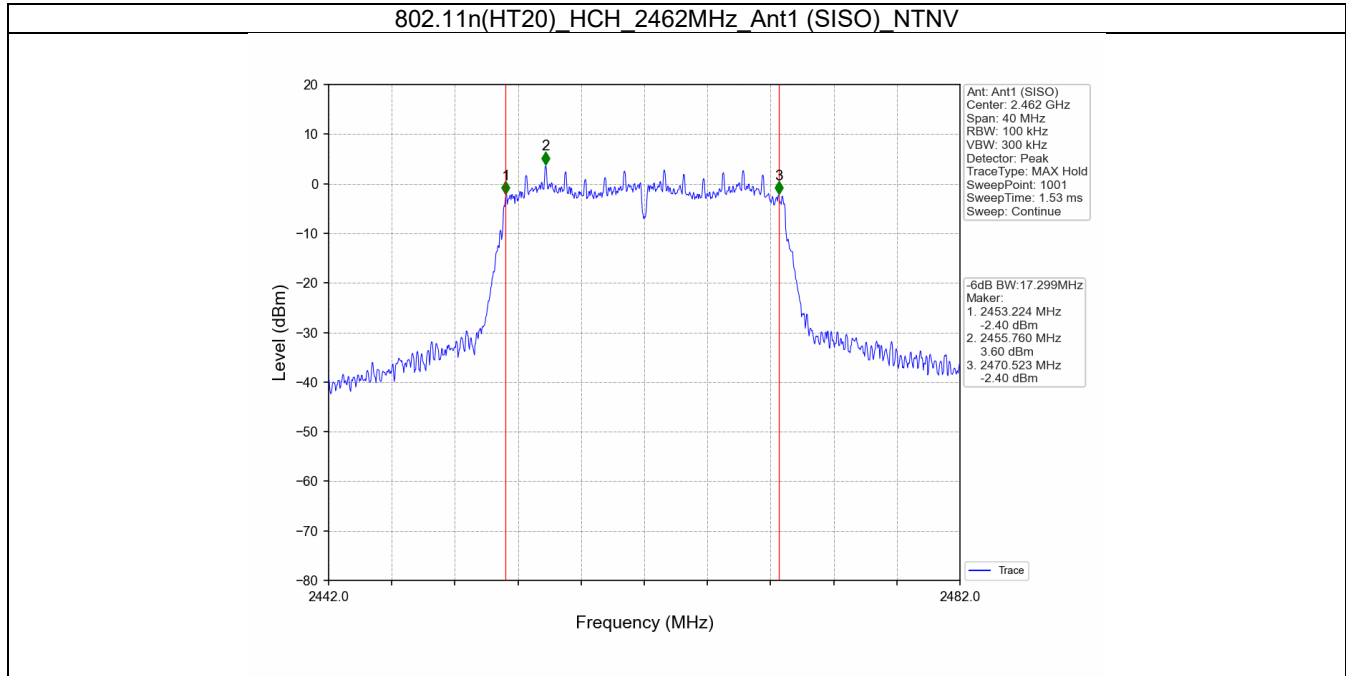


802.11n(HT20)\_MCH\_2437MHz\_Ant1 (SISO)\_NTNV



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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	15.59	<=30	Pass
		2437	16.08	<=30	Pass
		2462	16.23	<=30	Pass
802.11g	SISO	2412	14.29	<=30	Pass
		2437	14.61	<=30	Pass
		2462	14.83	<=30	Pass
802.11n (HT20)	SISO	2412	13.25	<=30	Pass
		2437	13.58	<=30	Pass
		2462	13.86	<=30	Pass

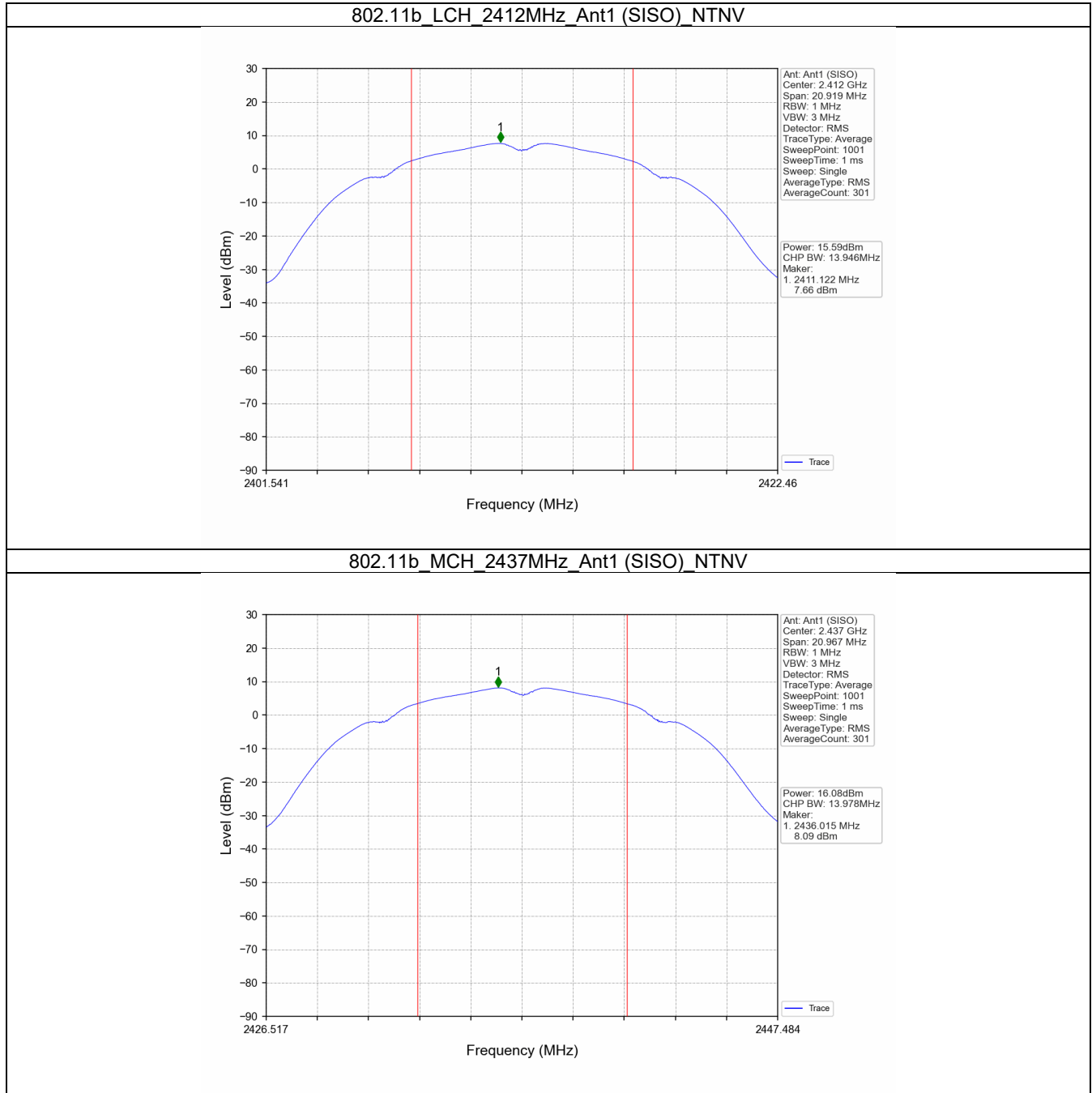
Note1: Antenna Gain: Ant1: 4.90dBi;



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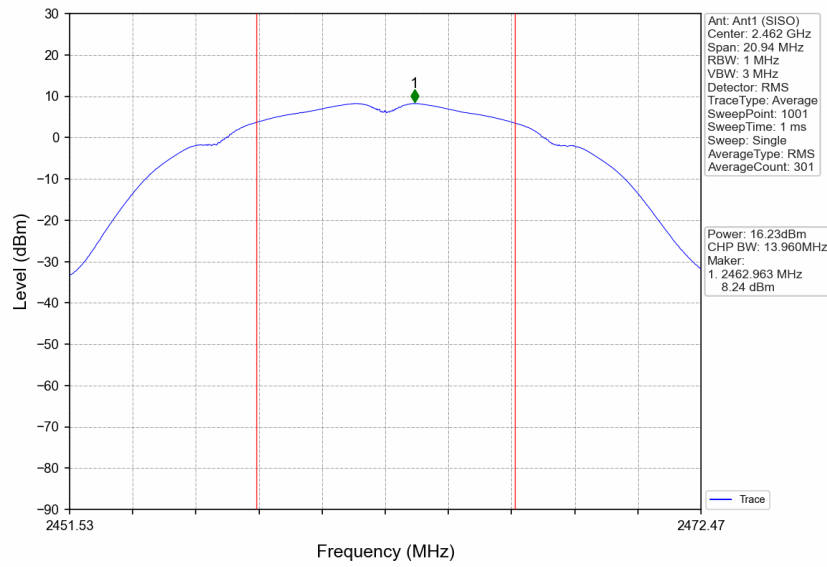
3.1.2 Test Graph



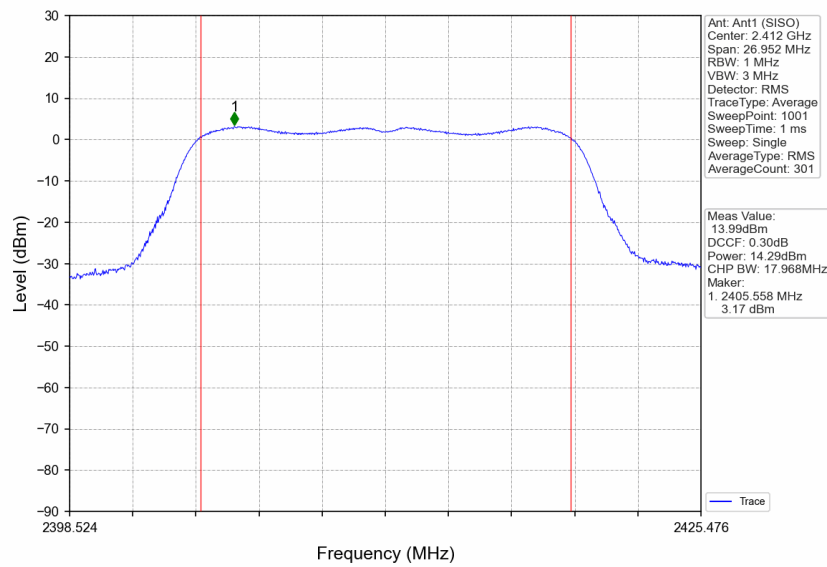
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802.11b\_HCH\_2462MHz\_Ant1 (SISO) NTVV



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

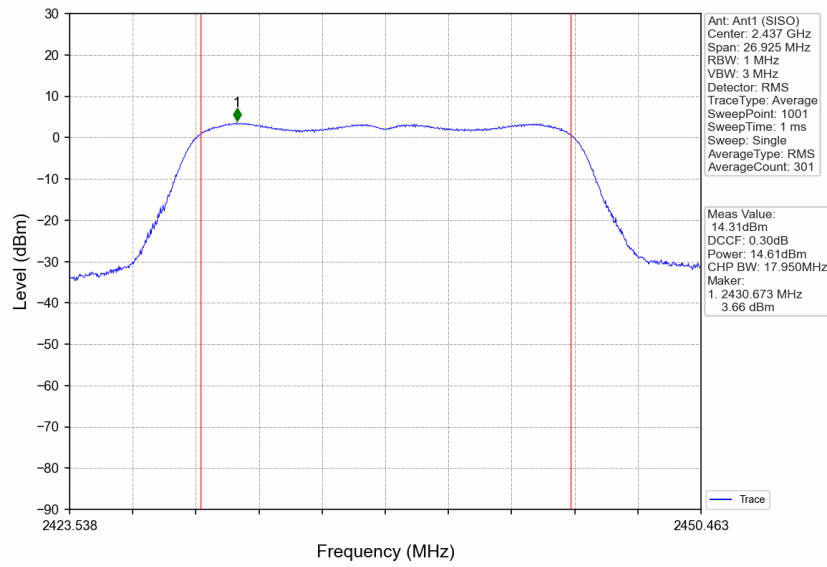


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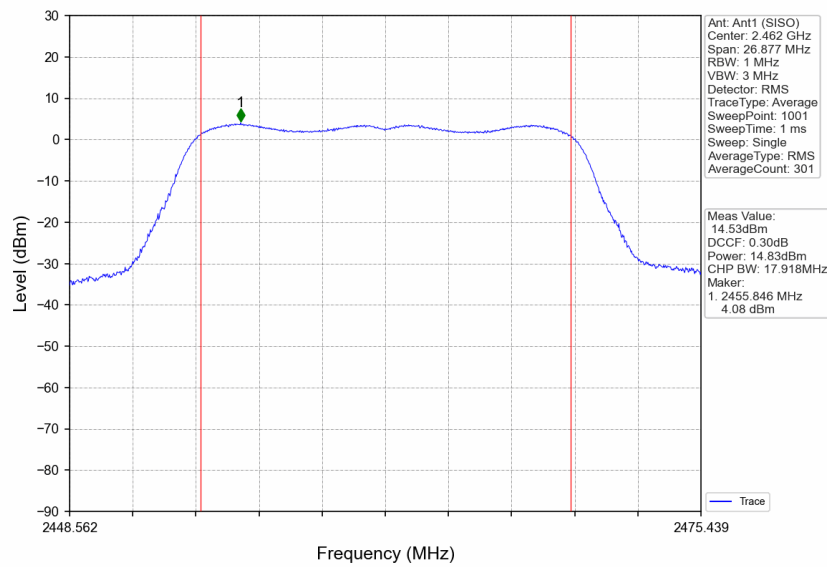
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802.11g\_MCH\_2437MHz\_Ant1 (SISO) NTVN



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



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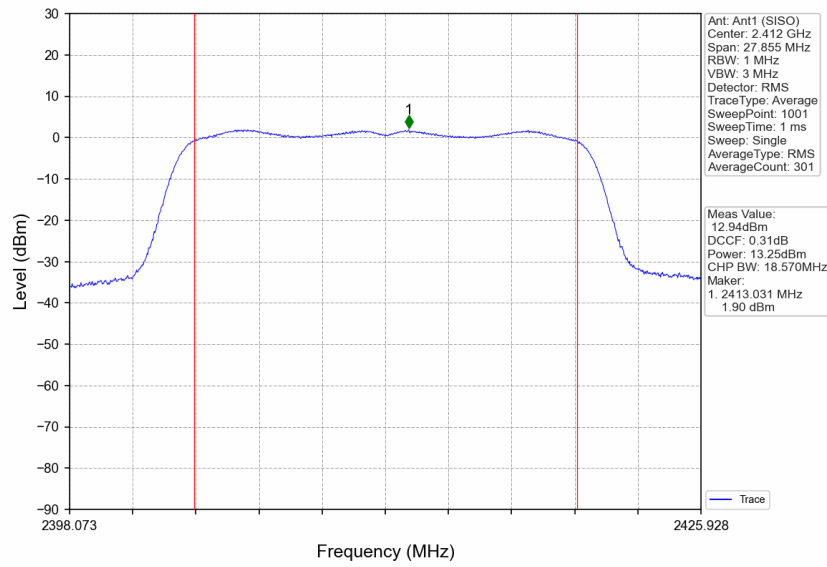
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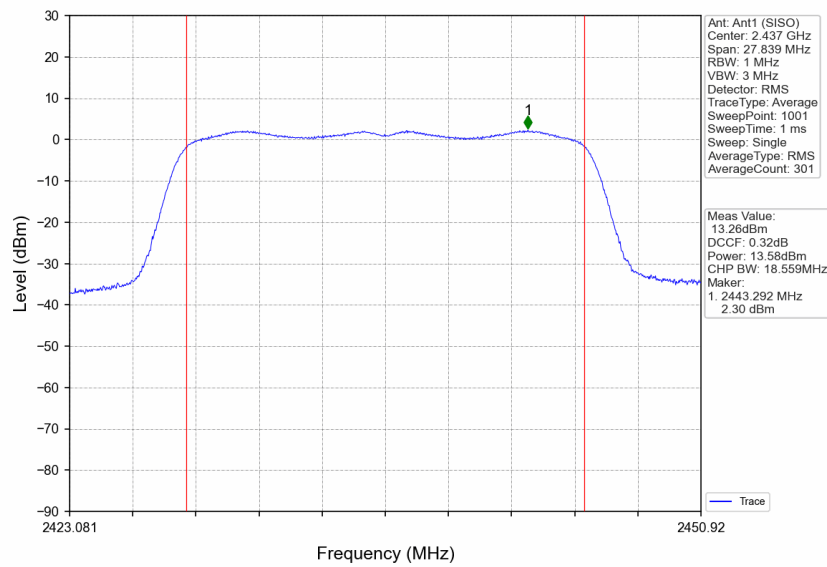
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802.11n(HT20)\_LCH\_2412MHz\_Ant1 (SISO)\_NTNV

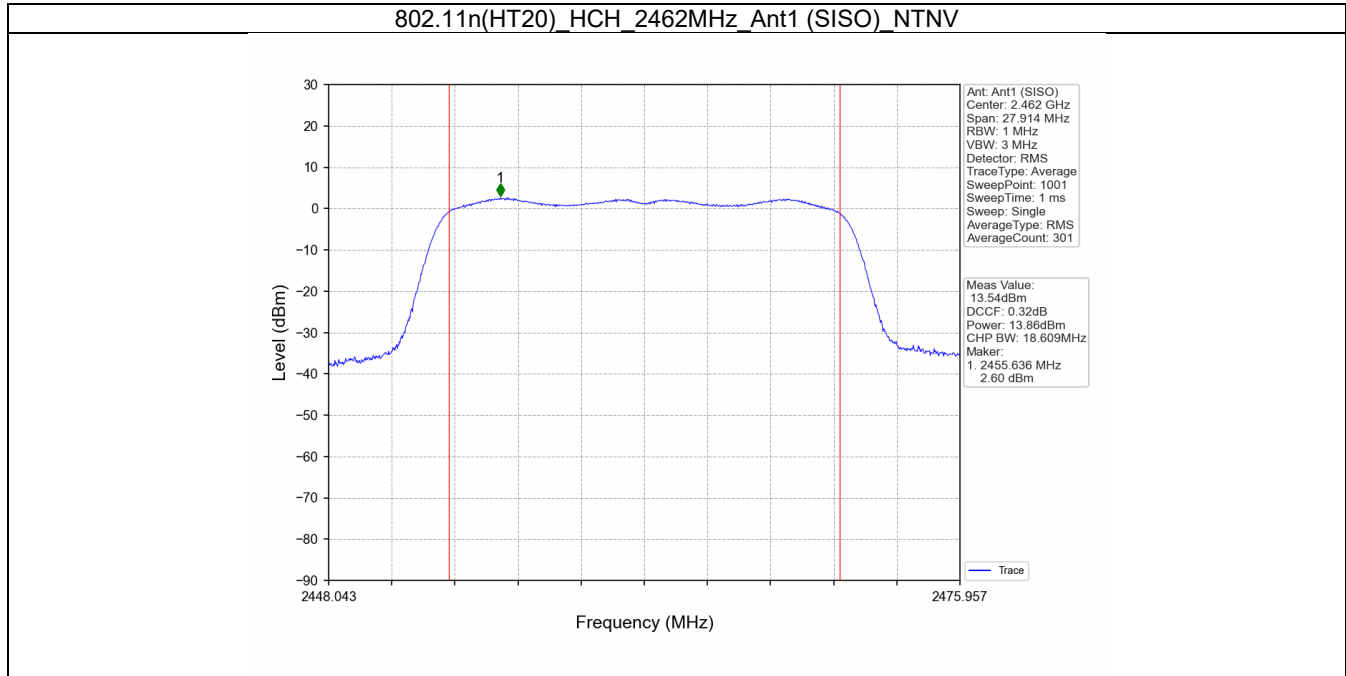


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## 4. Maximum Power Spectral Density

### 4.1 PSD

#### 4.1.1 Test Result

Mode	TX Type	Frequency (MHz)	Maximum PSD (dBm/3kHz)		Verdict
			Ant1	Limit	
802.11b	SISO	2412	-6.33	<=8	Pass
		2437	-6.83	<=8	Pass
		2462	-5.47	<=8	Pass
802.11g	SISO	2412	-11.92	<=8	Pass
		2437	-10.06	<=8	Pass
		2462	-10.39	<=8	Pass
802.11n (HT20)	SISO	2412	-12.73	<=8	Pass
		2437	-12.05	<=8	Pass
		2462	-11.55	<=8	Pass

Note1: Antenna Gain: Ant1: 4.90dBi;



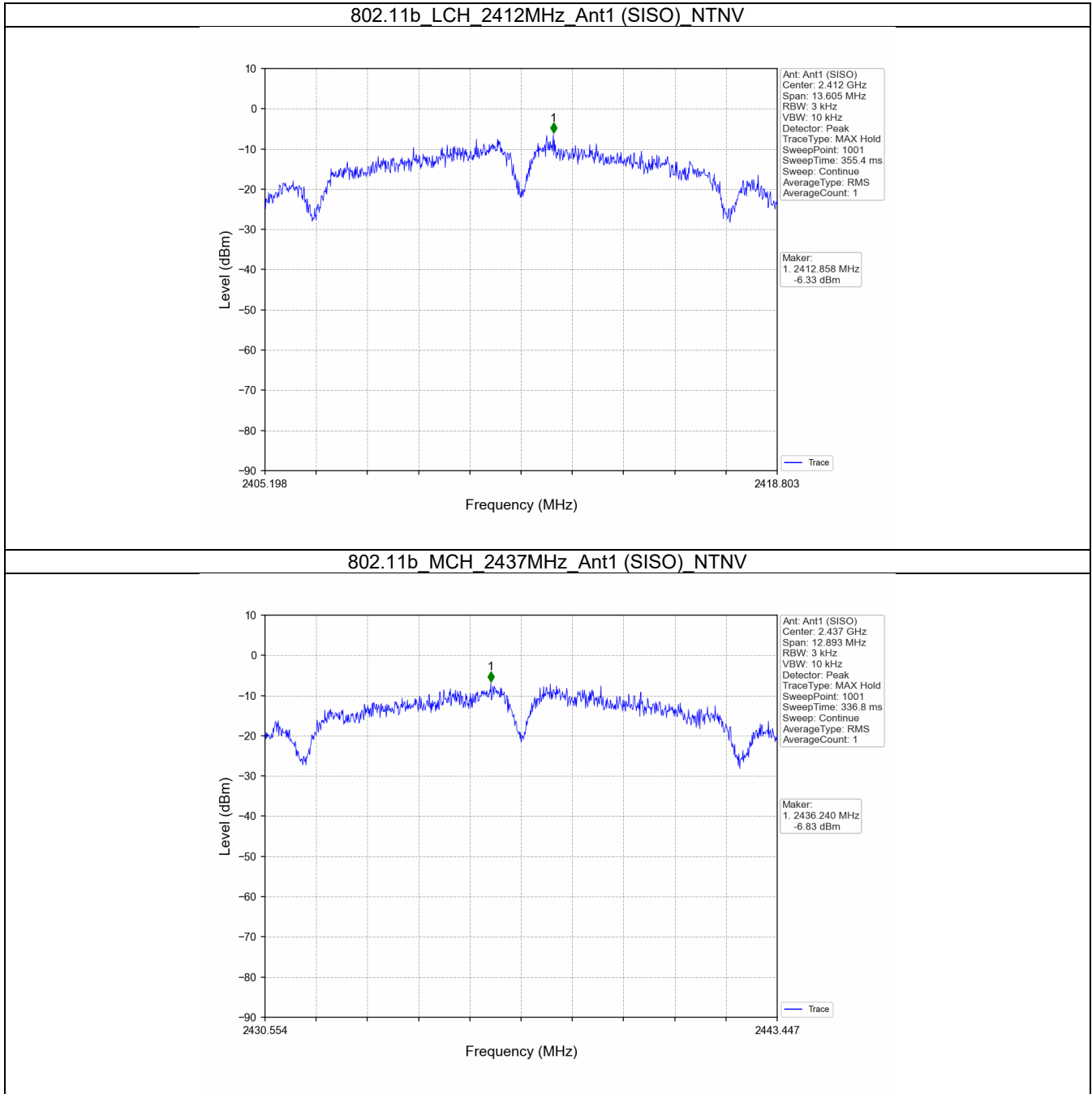
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4.1.2 Test Graph

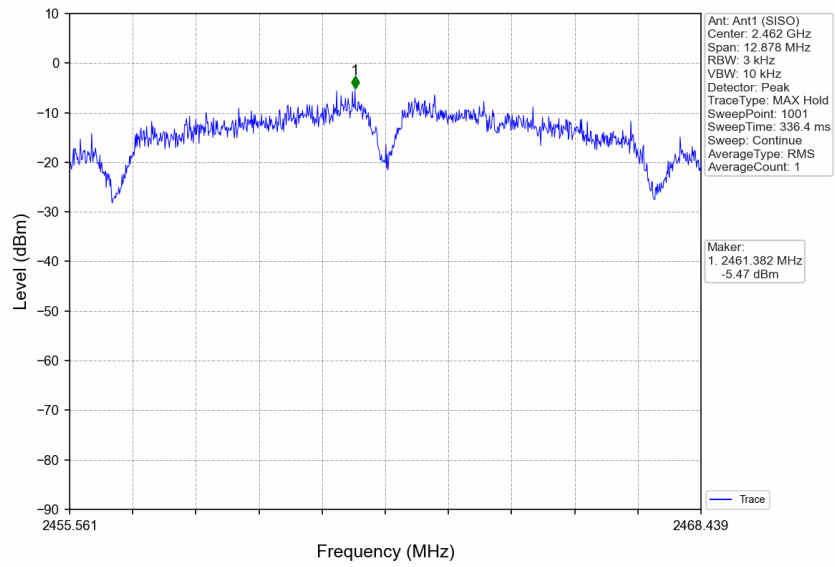


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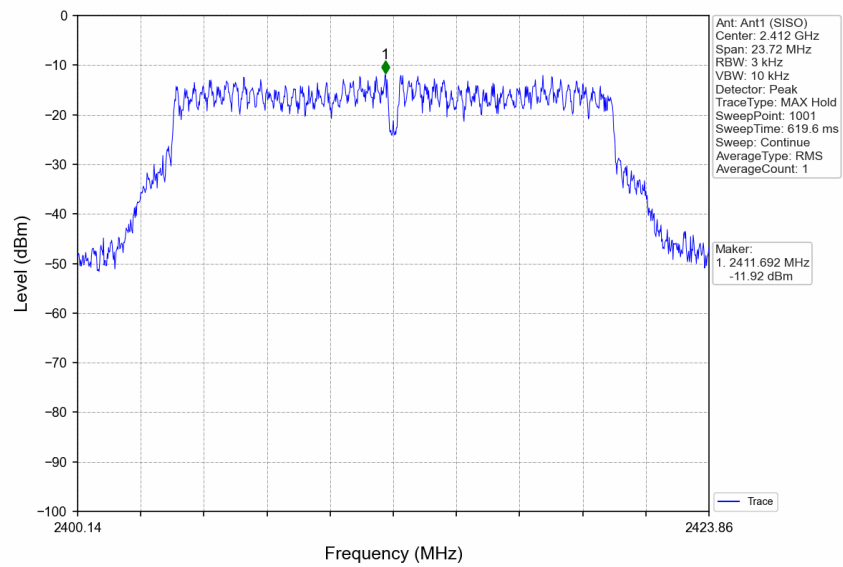
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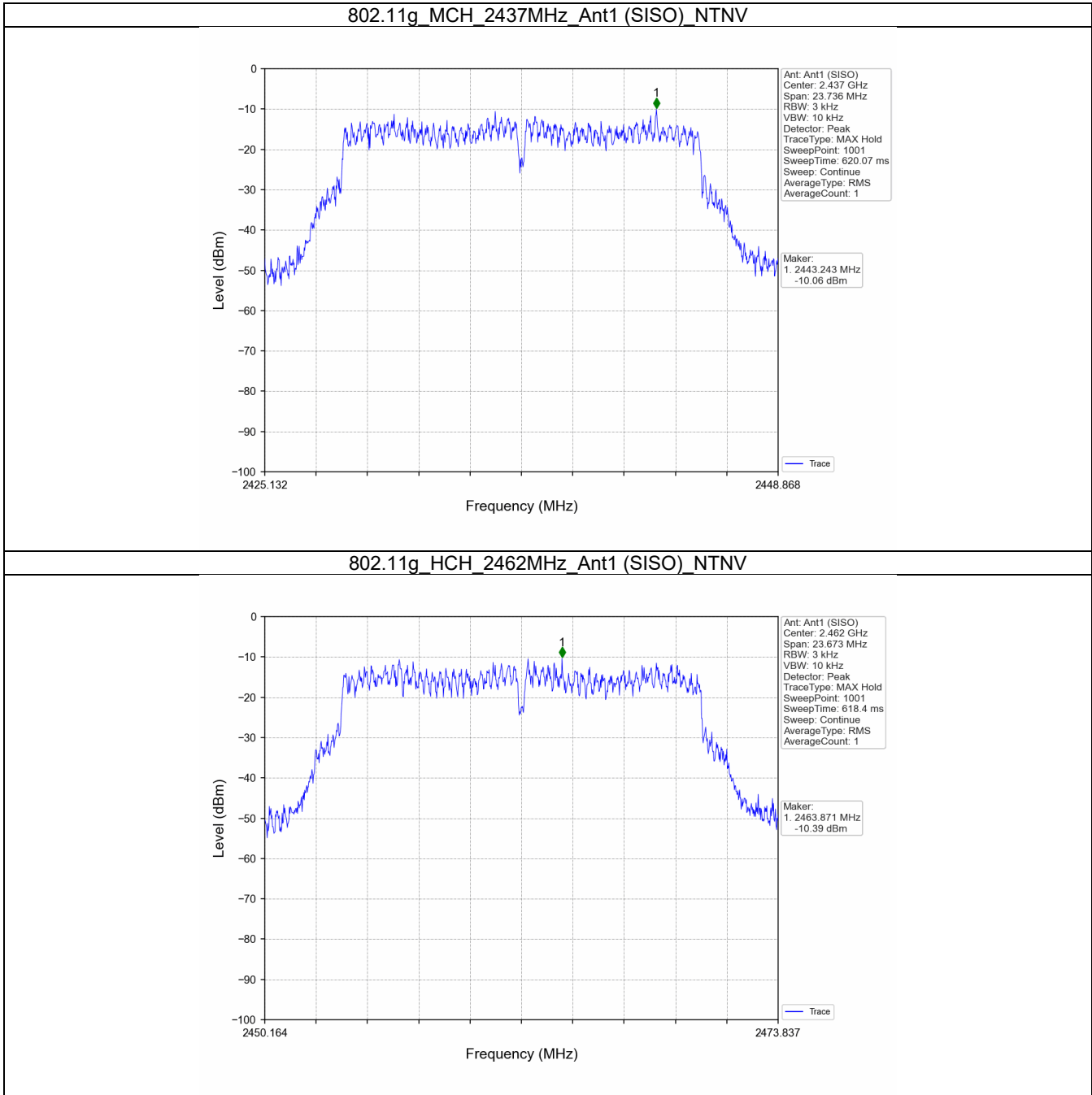
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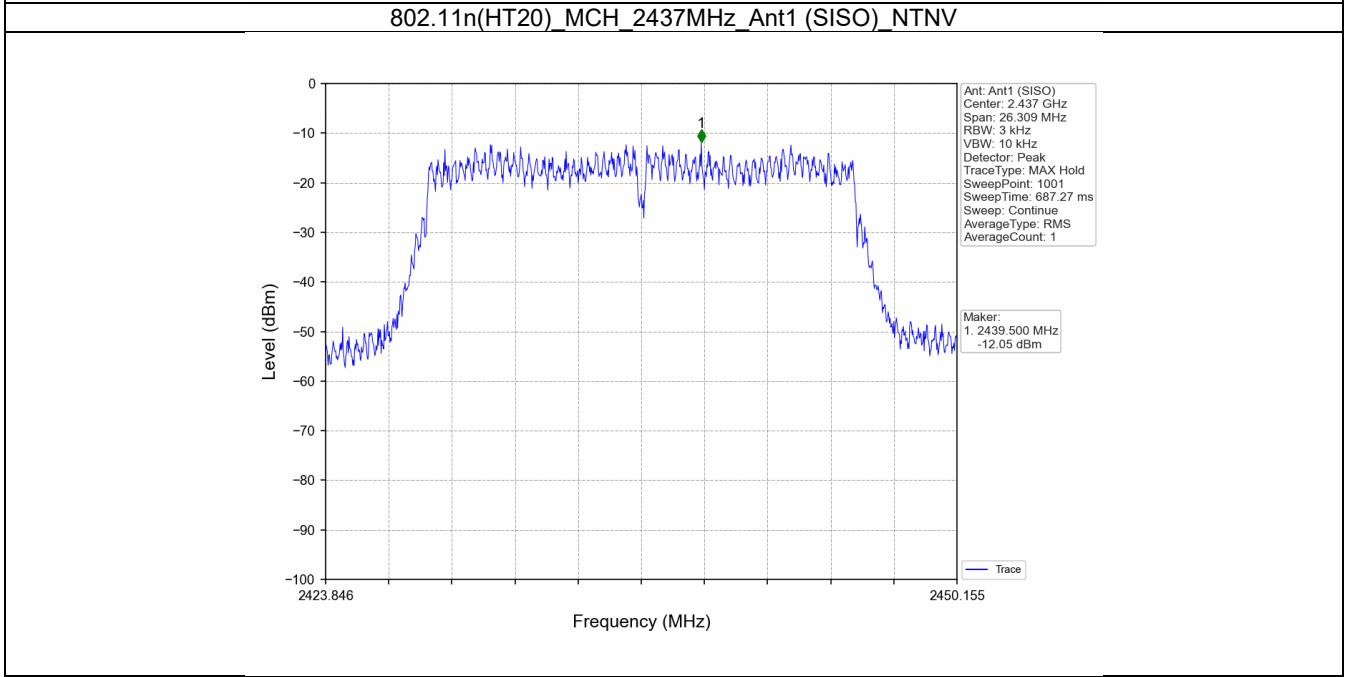
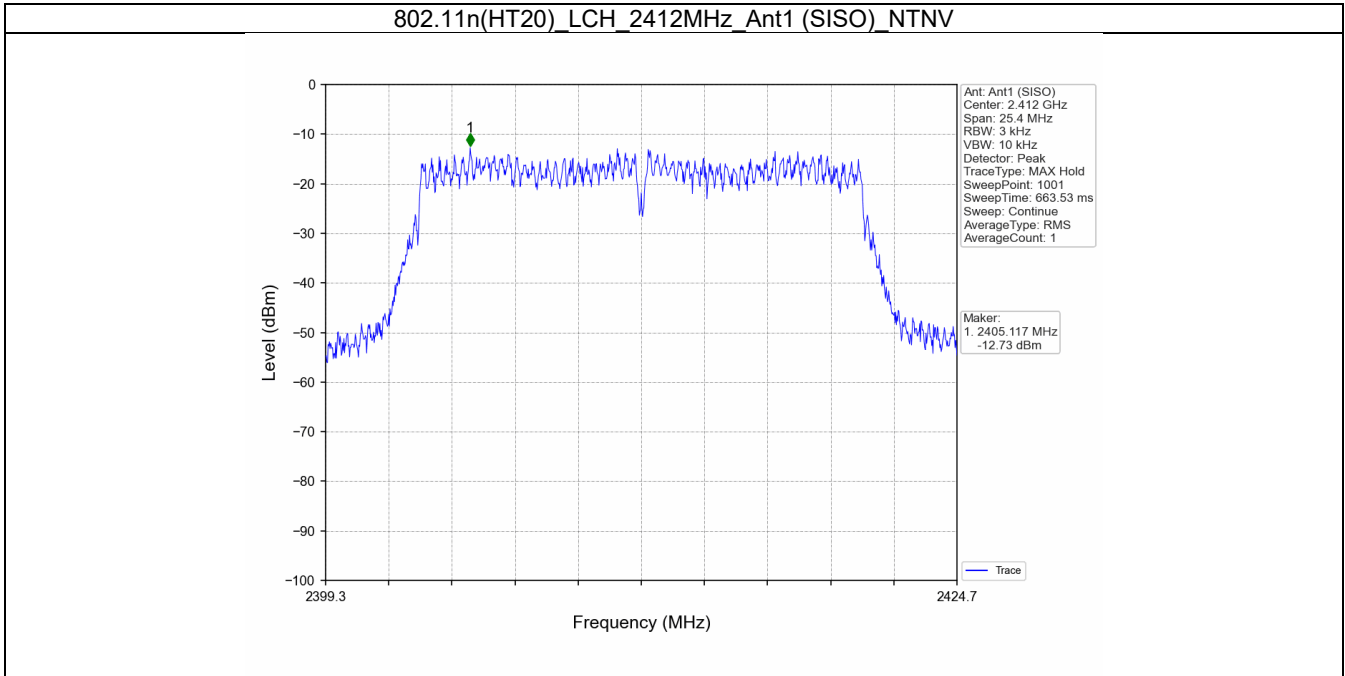




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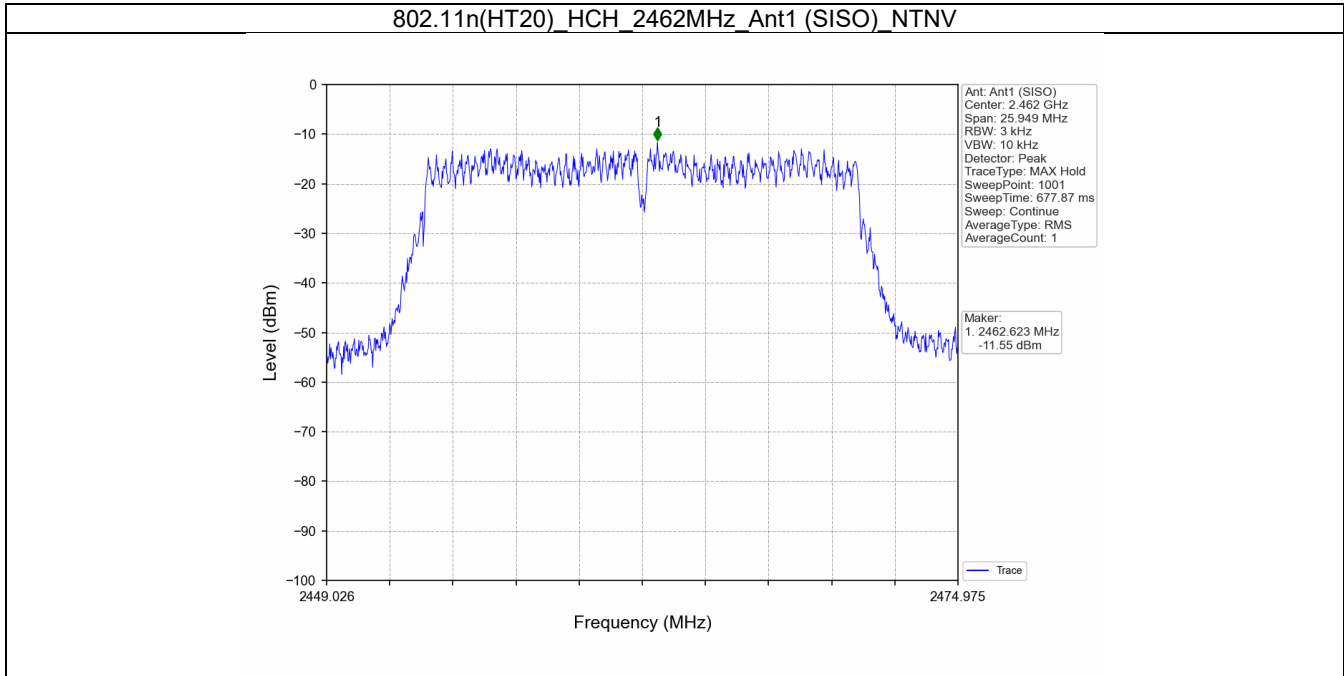
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## 5. Unwanted Emissions In Non-restricted Frequency Bands

### 5.1 Ref

#### 5.1.1 Test Result

Mode	TX Type	Frequency (MHz)	Ant	Level of Reference (dBm)
802.11b	SISO	2412	1	7.40
		2437	1	8.16
		2462	1	8.43
802.11g	SISO	2412	1	3.79
		2437	1	3.58
		2462	1	4.10
802.11n (HT20)	SISO	2412	1	2.35
		2437	1	2.37
		2462	1	3.53

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.

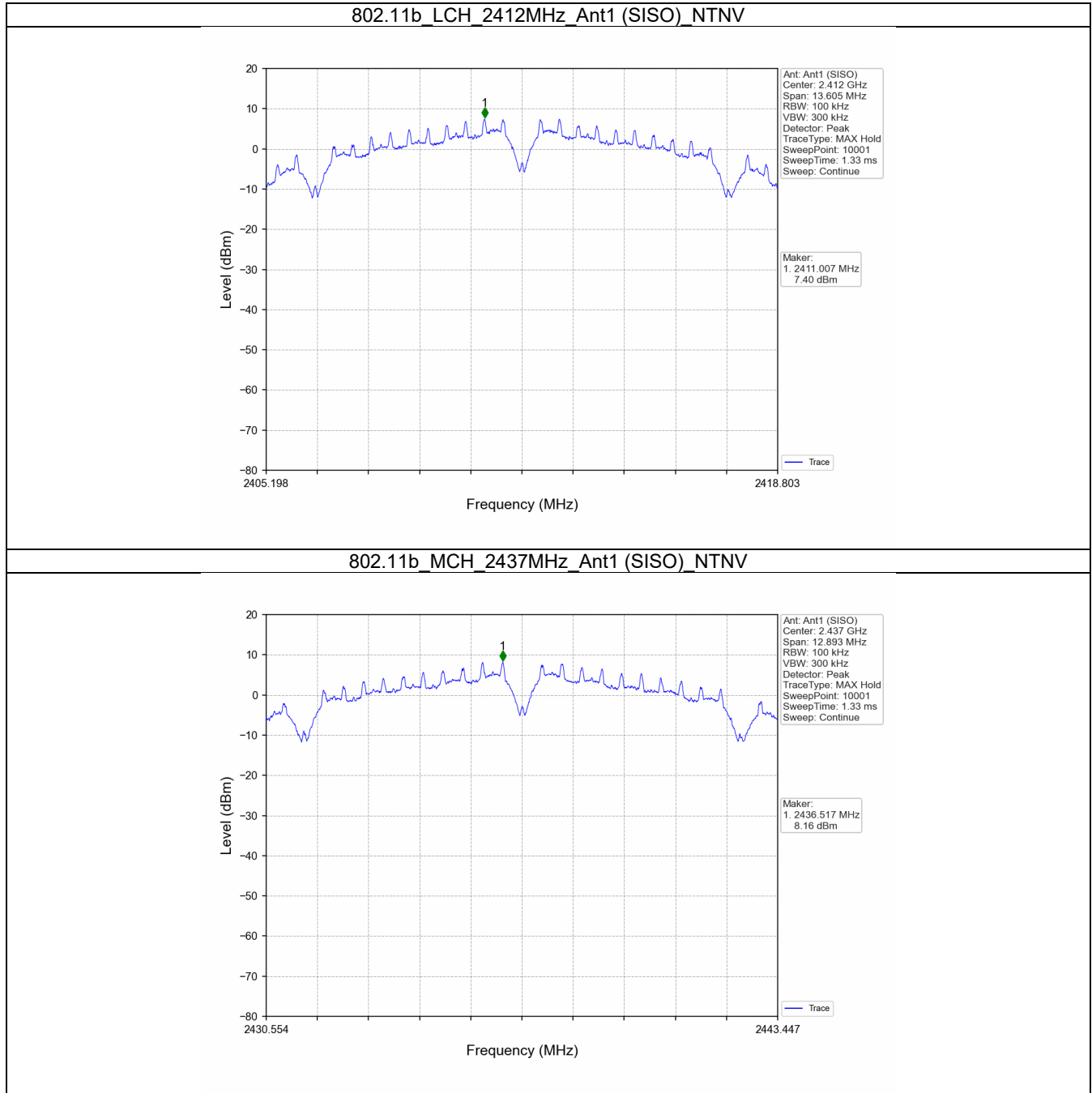


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5.1.2 Test Graph



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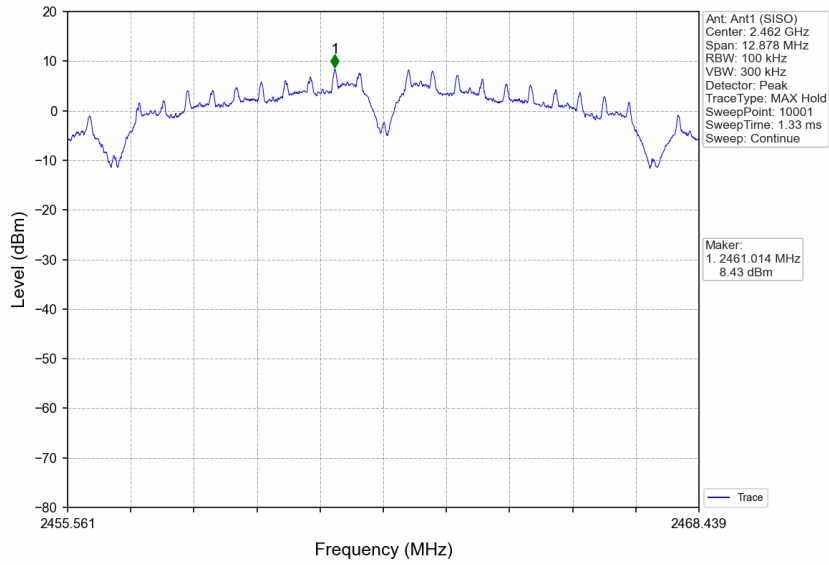
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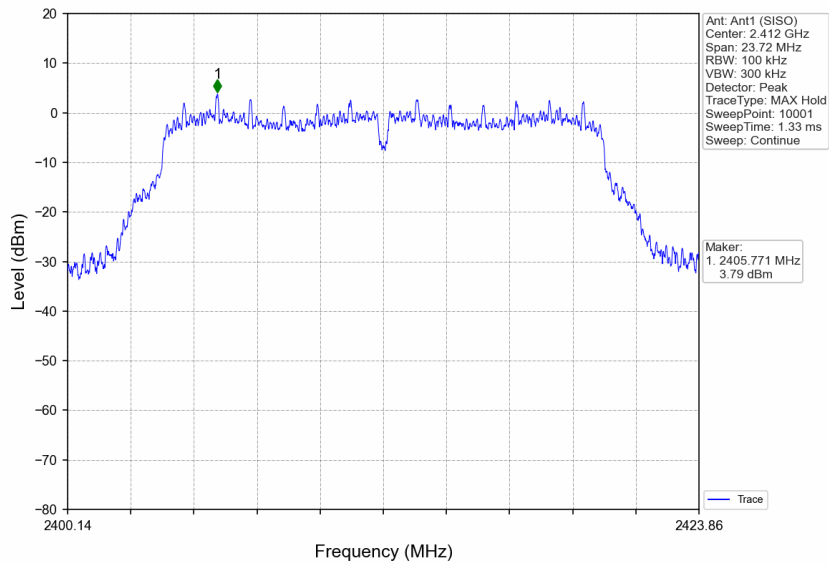


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802.11b\_HCH\_2462MHz\_Ant1 (SISO) NTVN



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

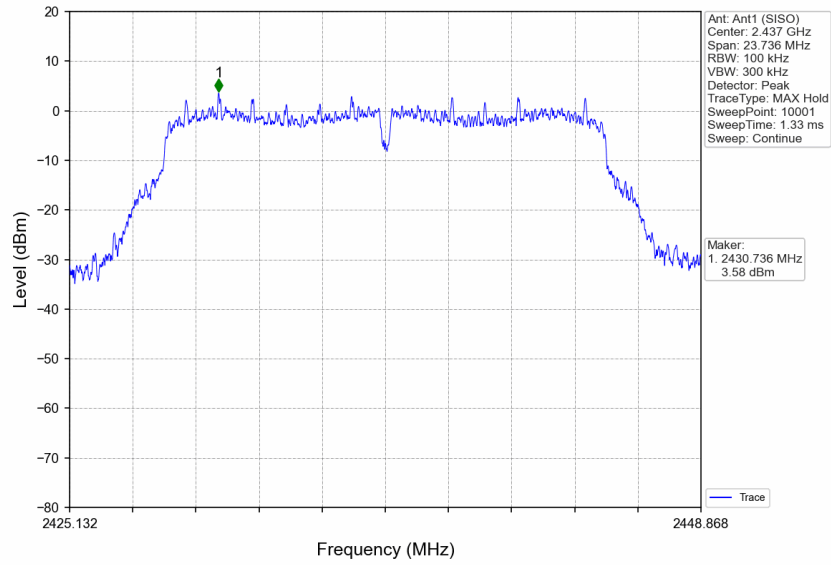


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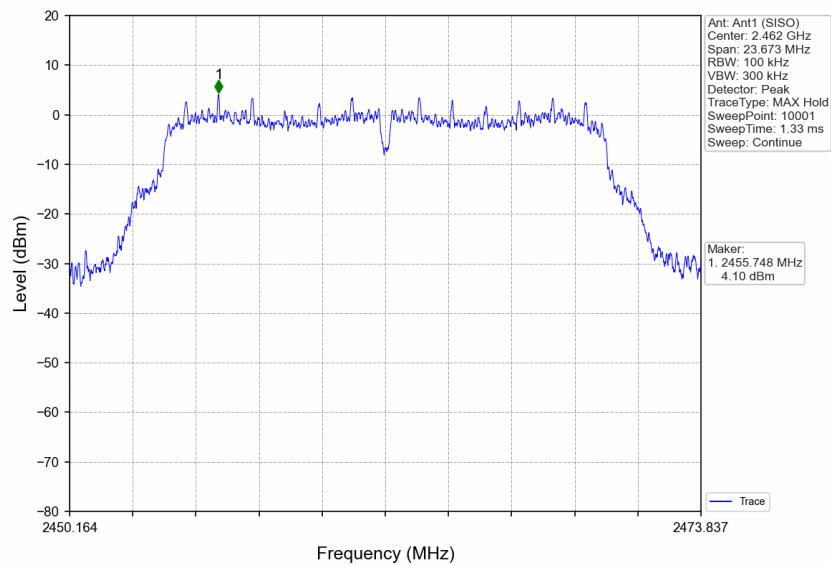
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802.11g\_MCH\_2437MHz\_Ant1 (SISO) NTVN



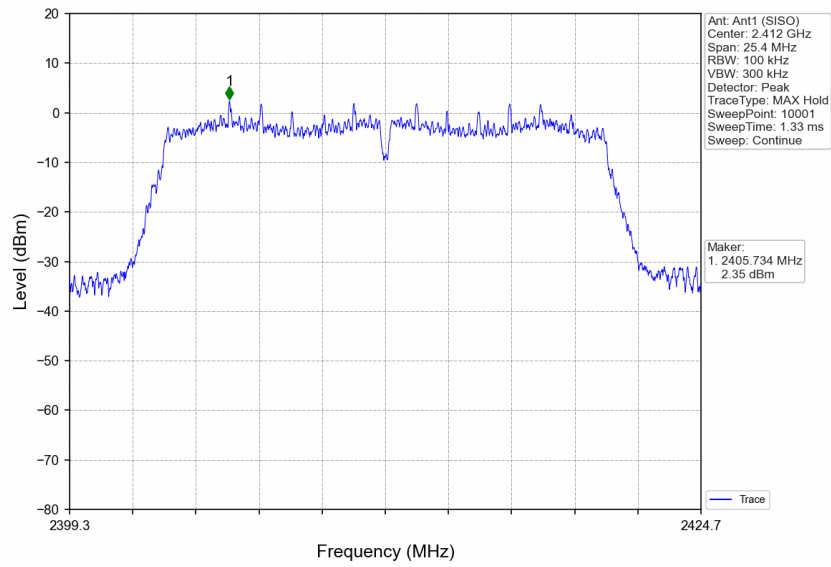
802.11g\_HCH\_2462MHz\_Ant1 (SISO) NTVN



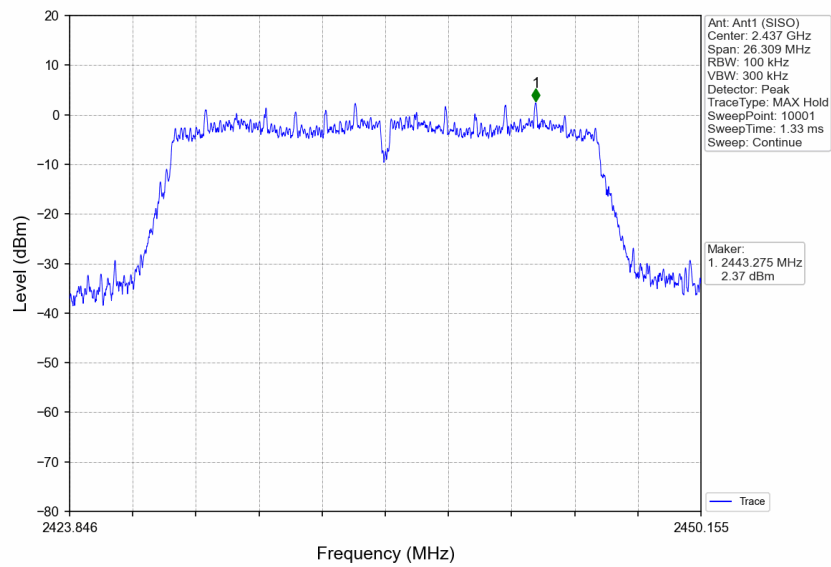
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802.11n(HT20)\_LCH\_2412MHz\_Ant1 (SISO)\_NTNV

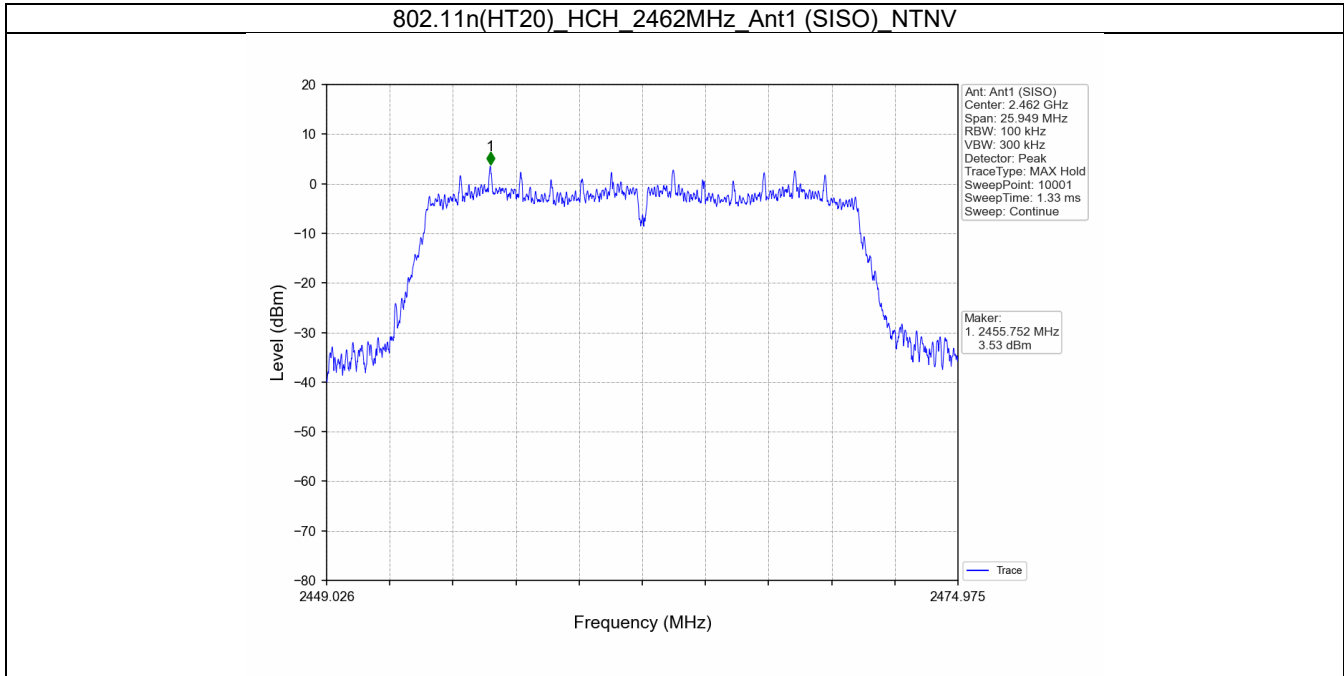


802.11n(HT20)\_MCH\_2437MHz\_Ant1 (SISO)\_NTNV



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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	8.43	-21.57	Pass
		2437	1	8.43	-21.57	Pass
		2462	1	8.43	-21.57	Pass
802.11g	SISO	2412	1	4.10	-25.90	Pass
		2437	1	4.10	-25.90	Pass
		2462	1	4.10	-25.90	Pass
802.11n (HT20)	SISO	2412	1	3.53	-26.47	Pass
		2437	1	3.53	-26.47	Pass
		2462	1	3.53	-26.47	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.

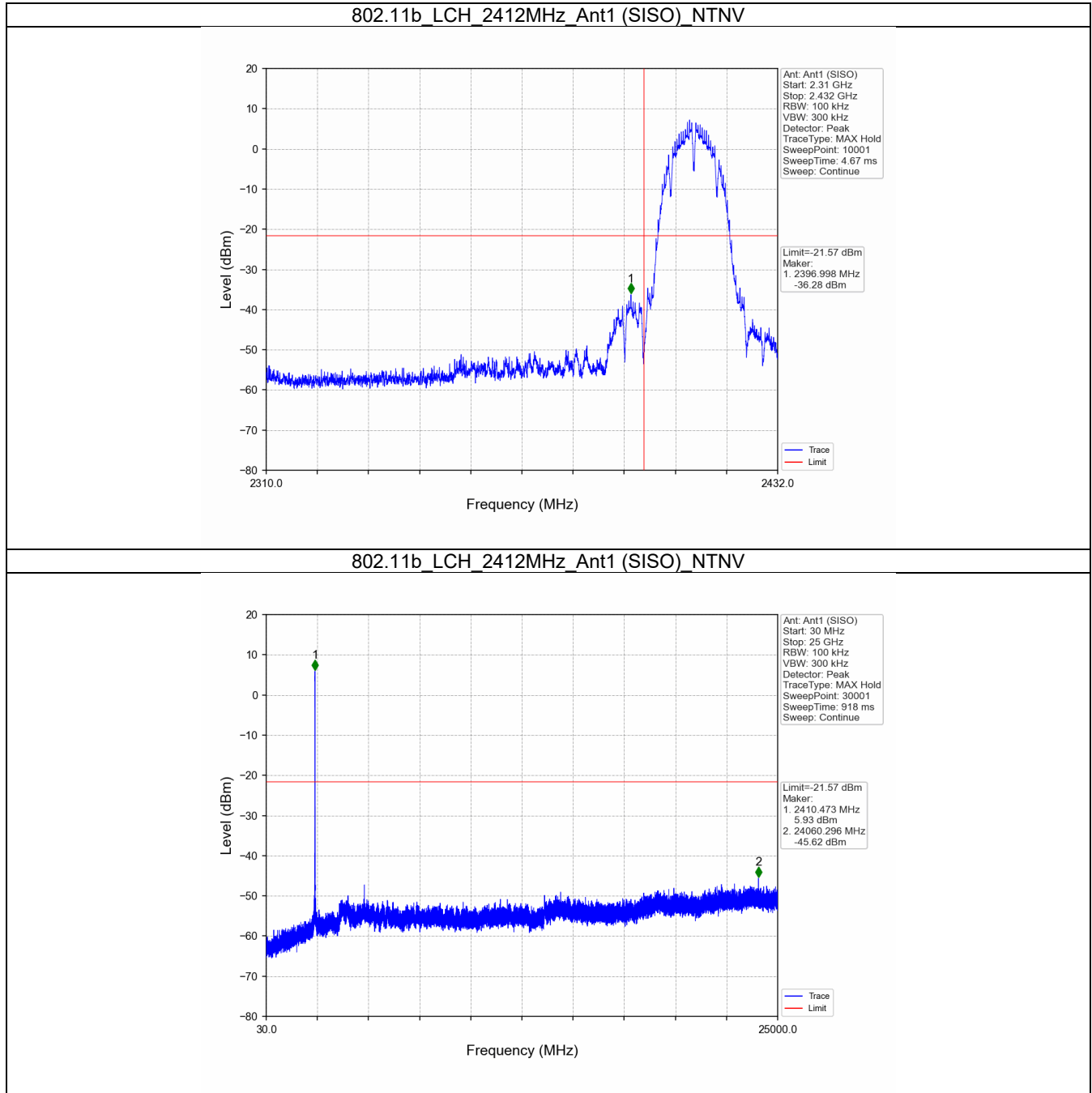


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5.2.2 Test Graph



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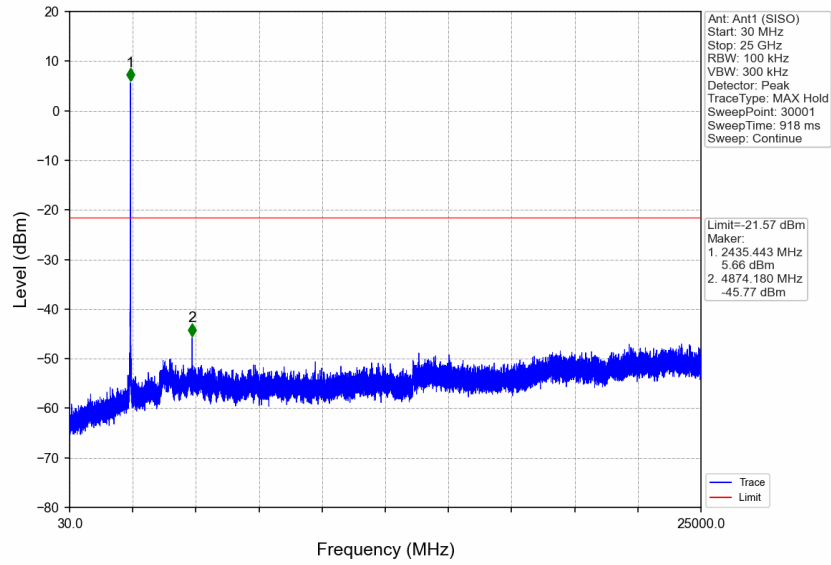
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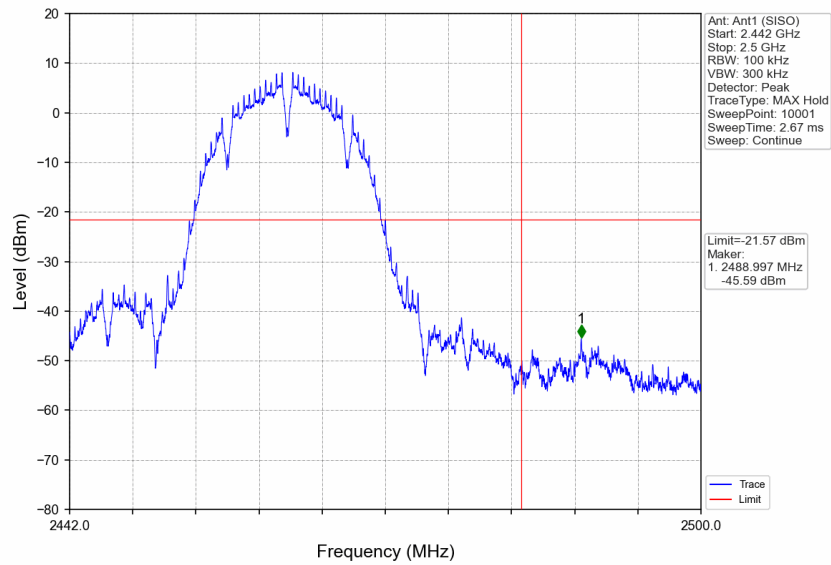


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802.11b\_MCH\_2437MHz\_Ant1 (SISO) NTN



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

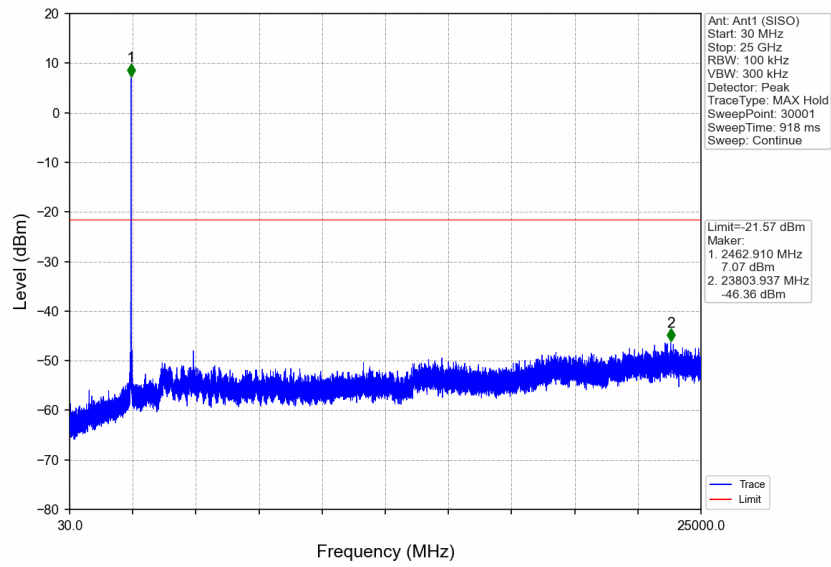


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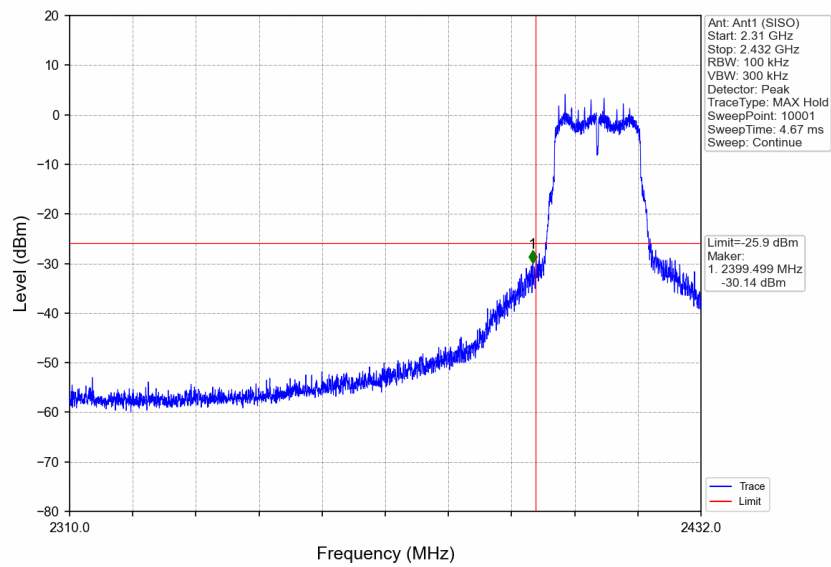
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802.11g\_LCH\_2412MHz\_Ant1 (SISO) NTN



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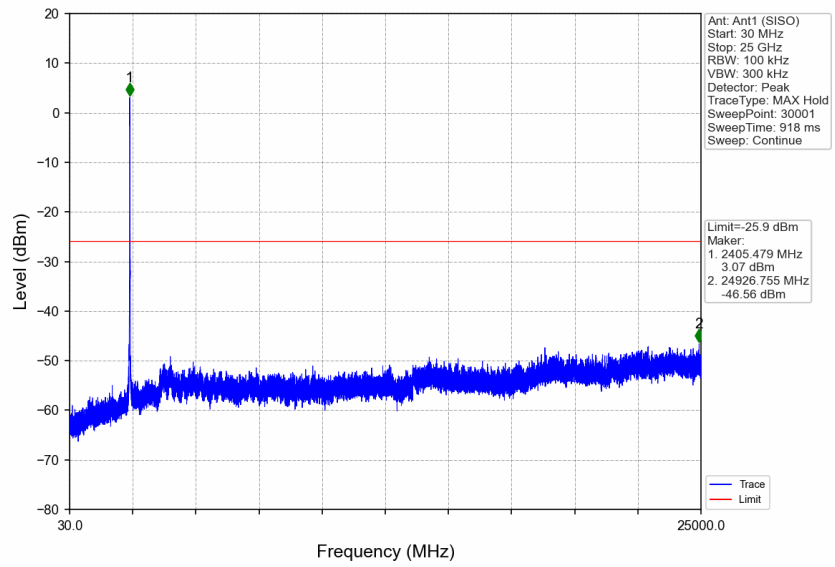
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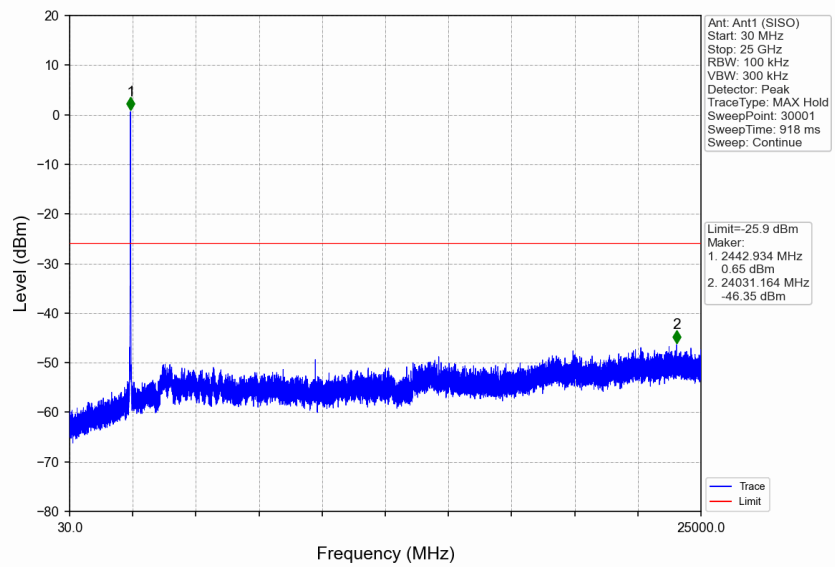
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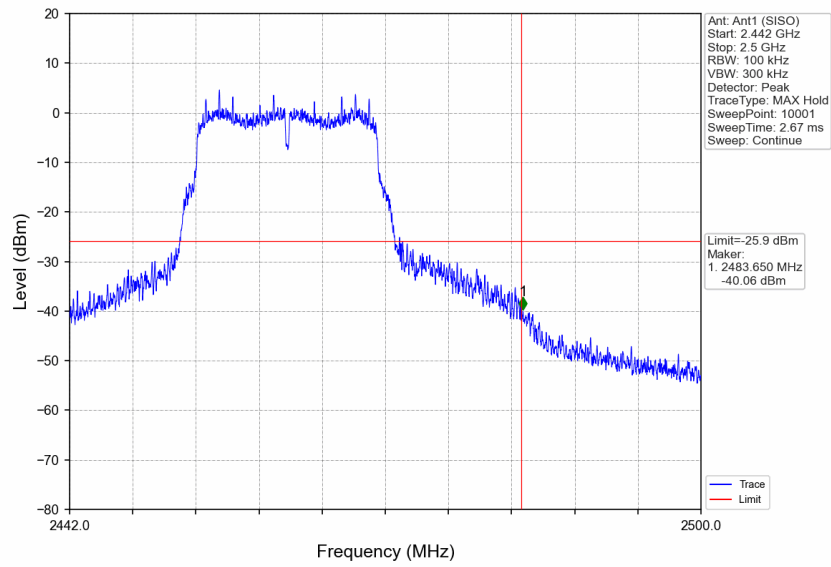
802.11g\_MCH\_2437MHz\_Ant1 (SISO) NTN



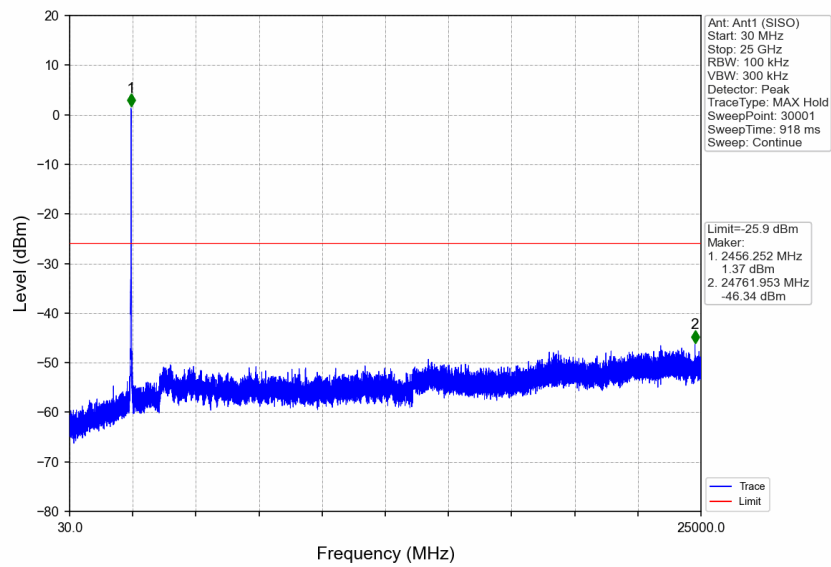
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802.11g\_HCH\_2462MHz\_Ant1 (SISO)\_NTNV



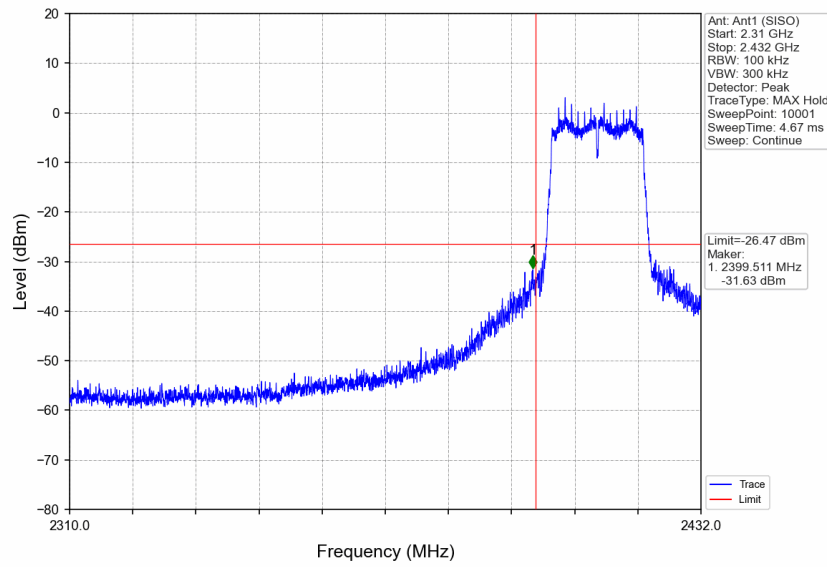
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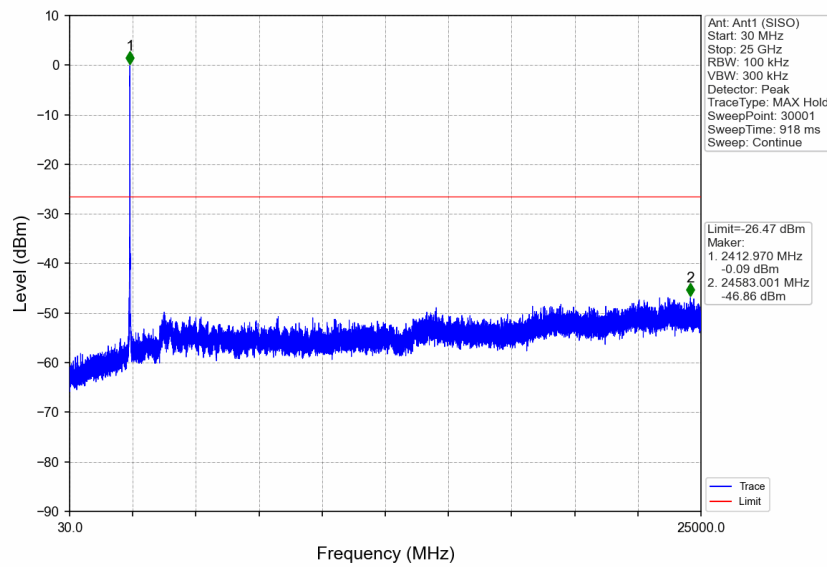
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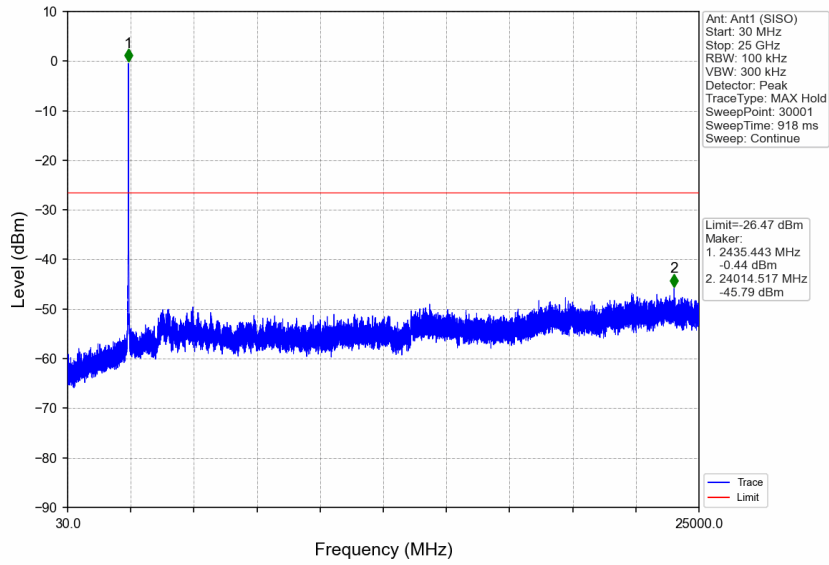
802.11n(HT20)\_LCH\_2412MHz\_Ant1 (SISO)\_NTNV



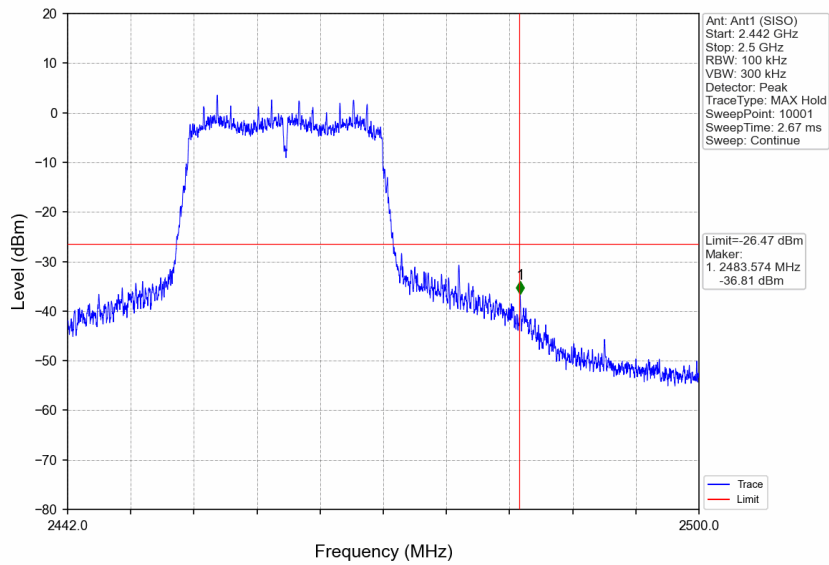
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802.11n(HT20)\_MCH\_2437MHz\_Ant1 (SISO)\_NTNV



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



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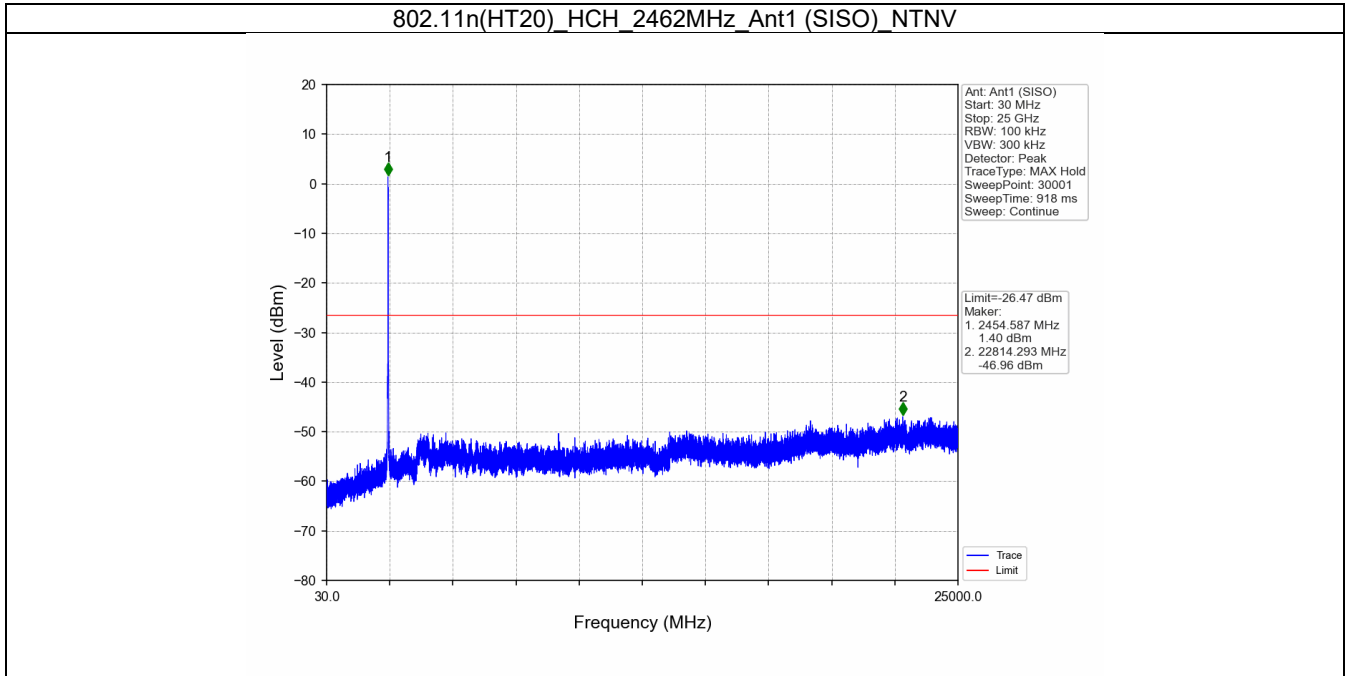
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