

# Appendix A for KSEM210700115601

# 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	12.410	12.580	98.65	0.06	0.95	
		2437	12.417	12.587	98.65	0.06	1.06	
		2462	12.420	12.580	98.73	0.06	0.98	
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	



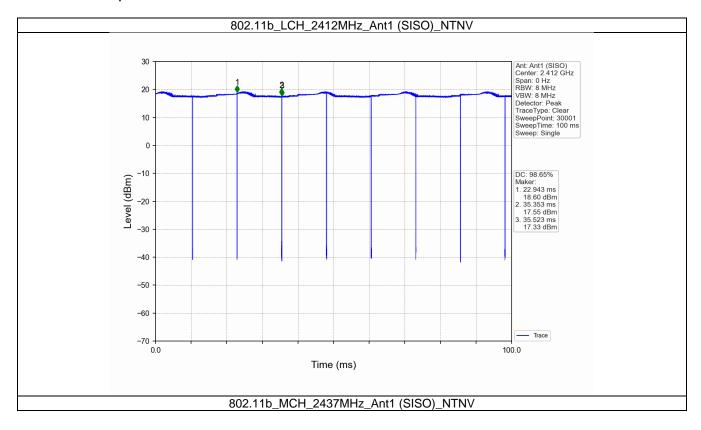
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# 1.1.2 Test Graph

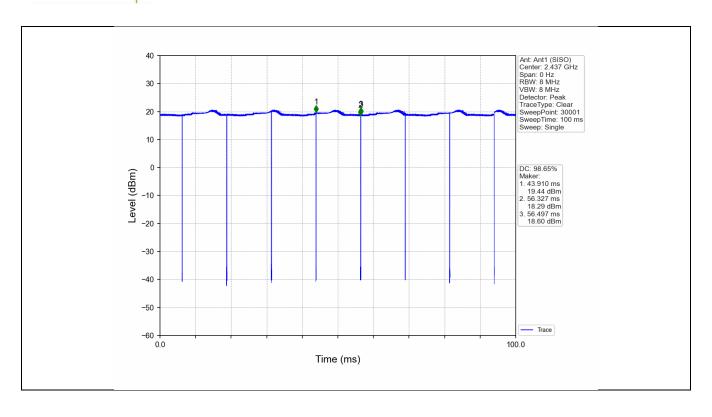




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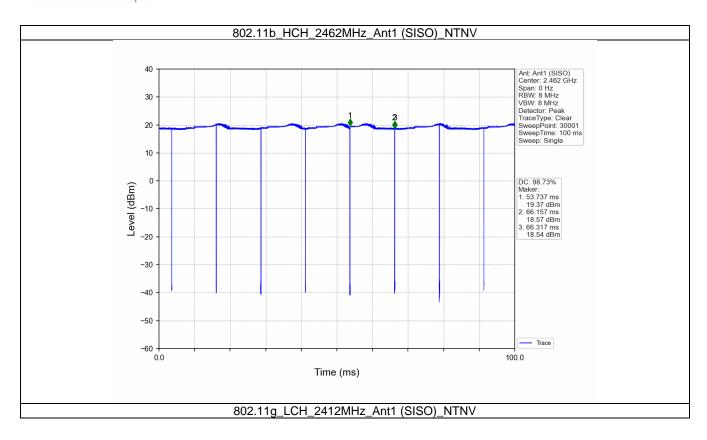






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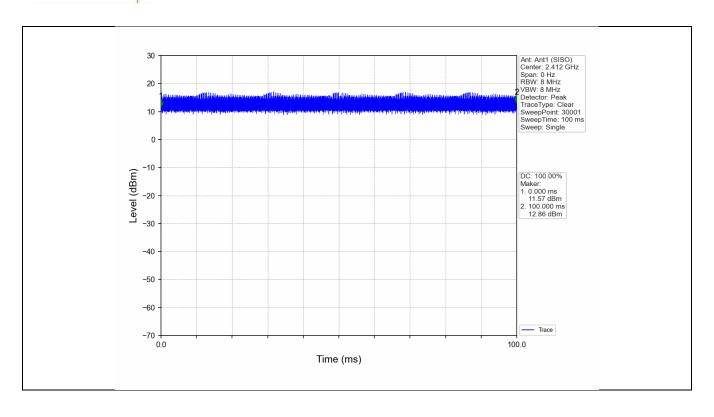






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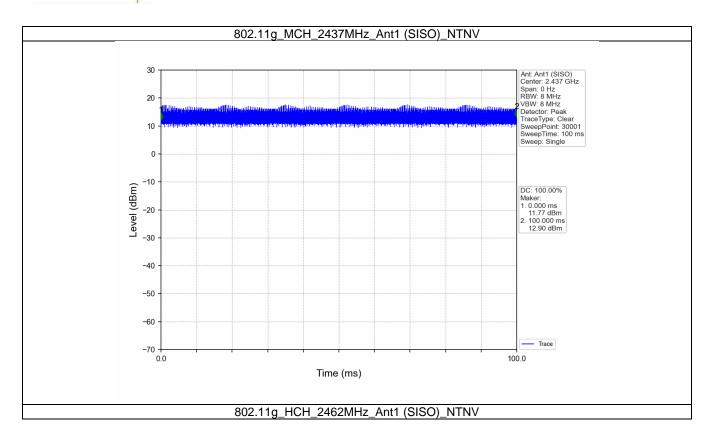


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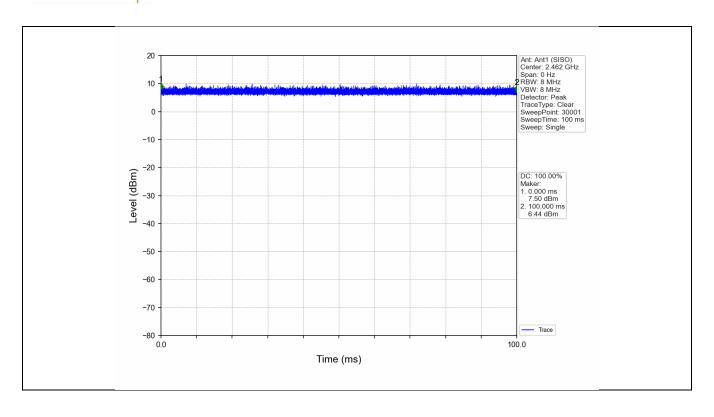






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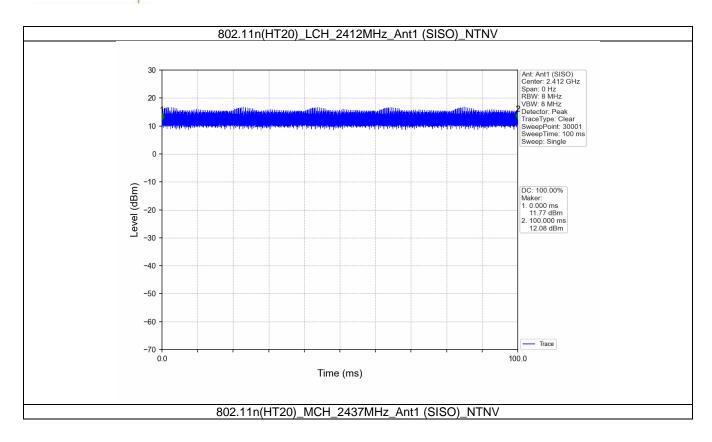






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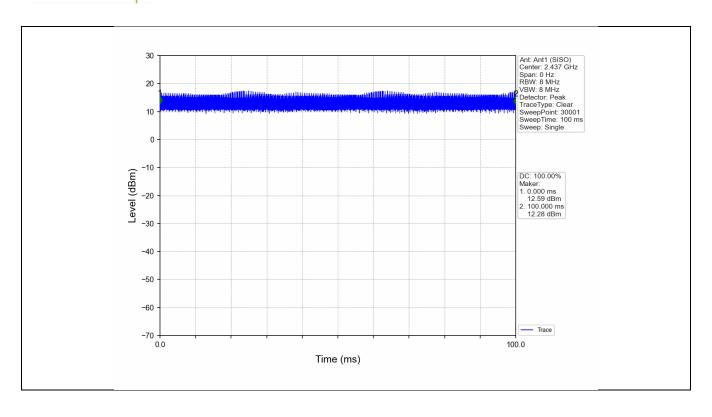






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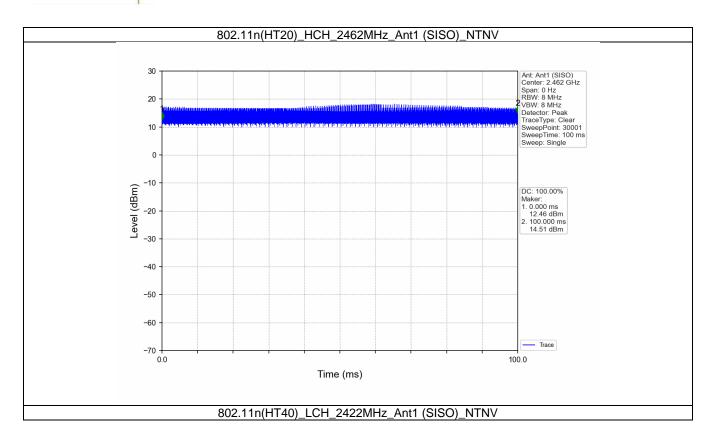


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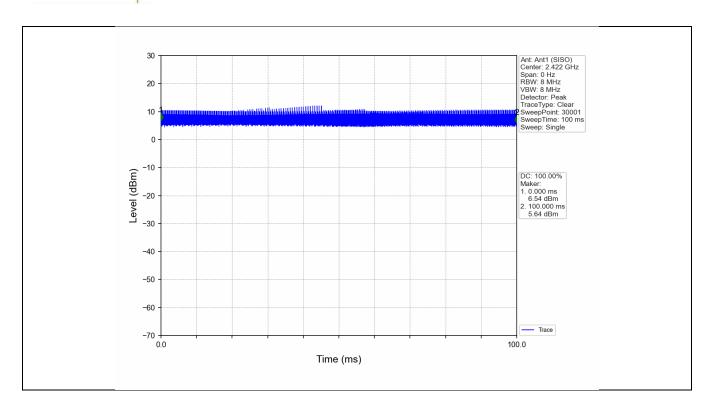






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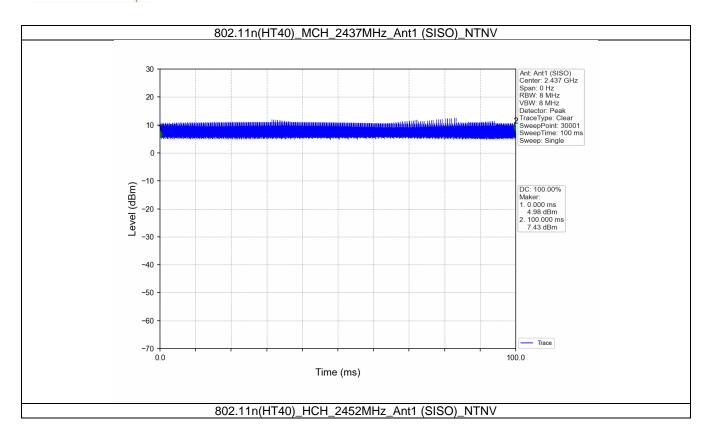






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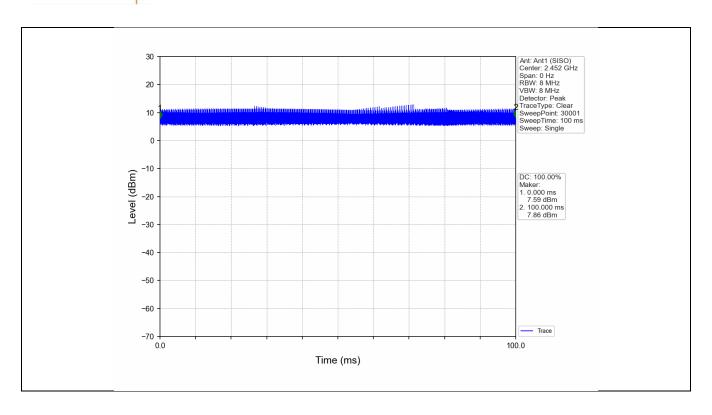






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## 2. Bandwidth

#### 2.1 OBW

#### 2.1.1 Test Result

Mode	TX Type	Frequency (MHz)	Ant	99% Occupied Bandwidth (MHz)	Limit (MHz)	Verdict
802.11b	SISO	2412	1	15.116	/	Pass
		2437	1	15.104	/	Pass
		2462	1	15.134	/	Pass
802.11g	SISO	2412	1	17.592	/	Pass
		2437	1	17.626	/	Pass
		2462	1	17.622	/	Pass
802.11n (HT20)	SISO	2412	1	17.588	/	Pass
		2437	1	17.627	/	Pass
		2462	1	17.645	/	Pass
802.11n (HT40)	SISO	2422	1	37.018	/	Pass
		2437	1	37.034	/	Pass
		2452	1	36.995	/	Pass

#### 2.1.2 Test Graph

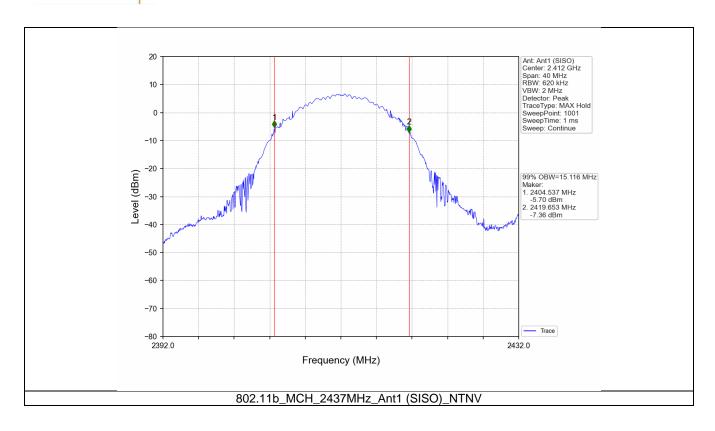
802.11b\_LCH\_2412MHz\_Ant1 (SISO)\_NTNV



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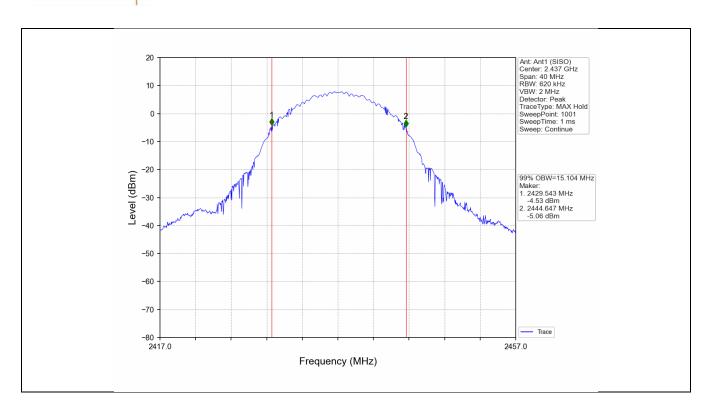






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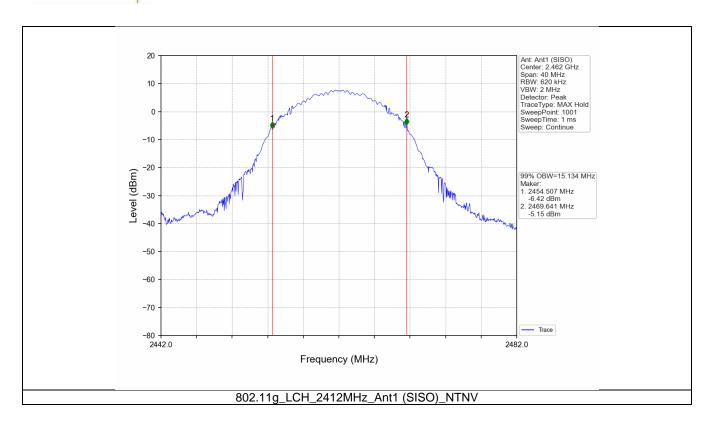
802.11b\_HCH\_2462MHz\_Ant1 (SISO)\_NTNV



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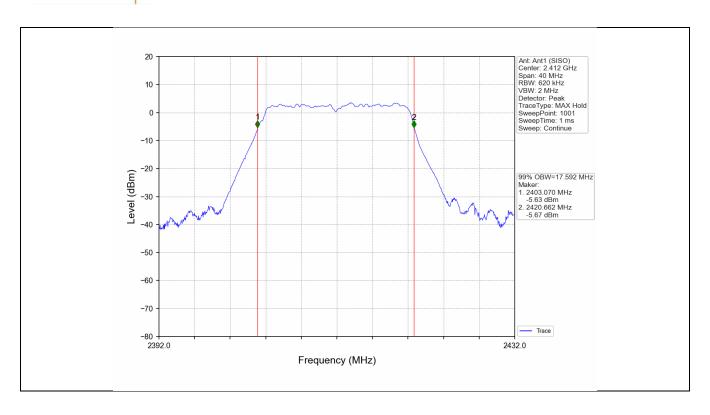






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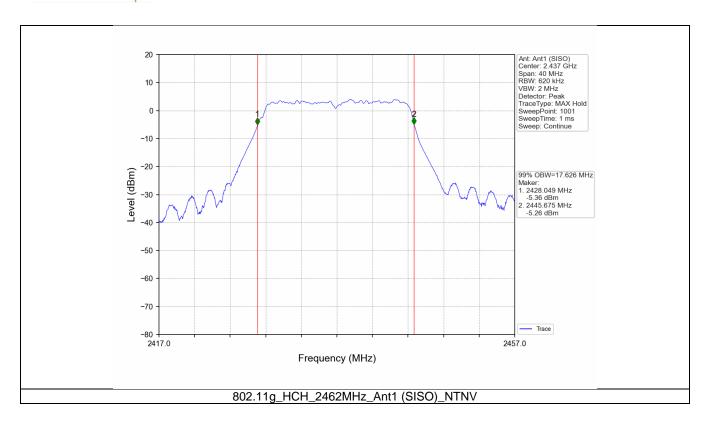
802.11g\_MCH\_2437MHz\_Ant1 (SISO)\_NTNV



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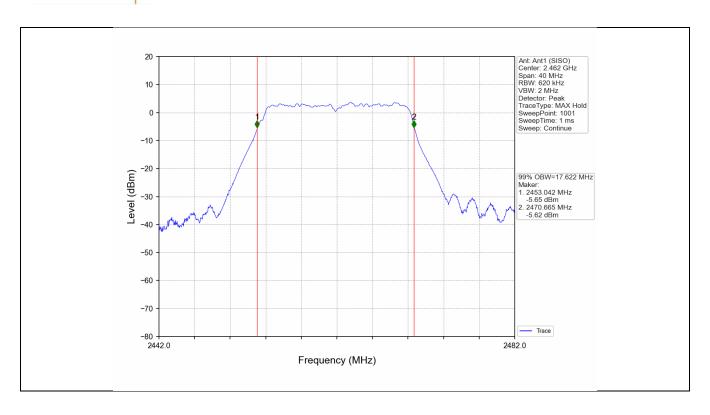






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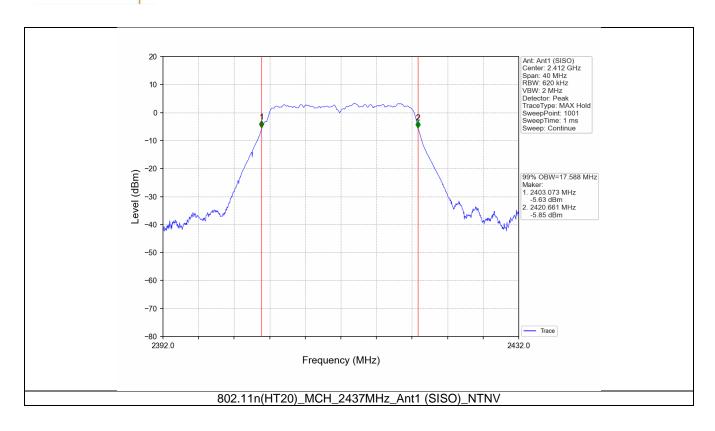
802.11n(HT20)\_LCH\_2412MHz\_Ant1 (SISO)\_NTNV



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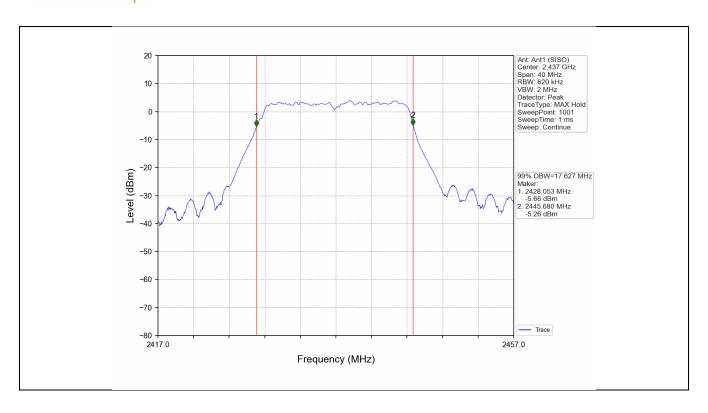






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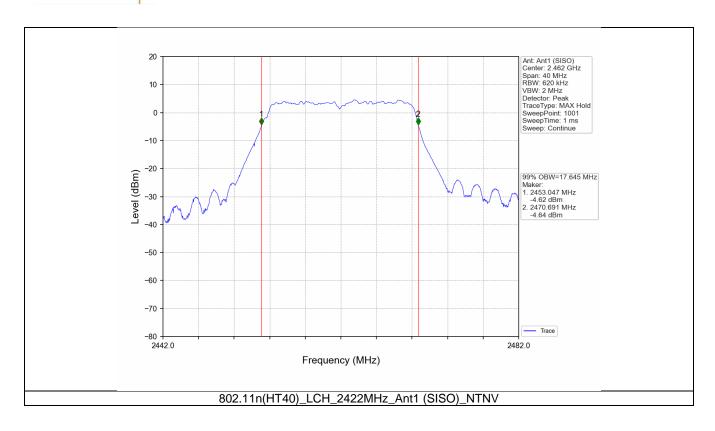
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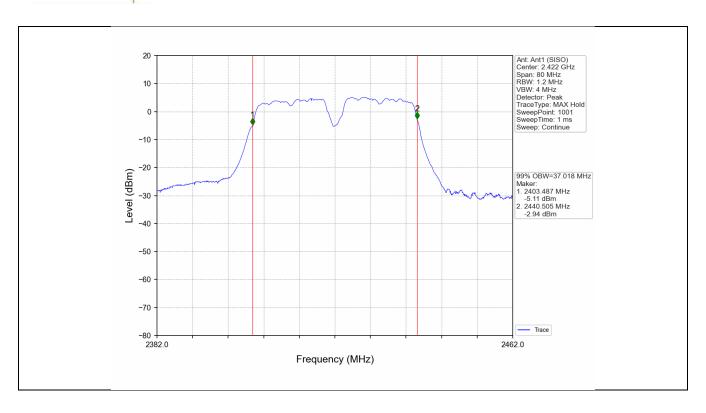






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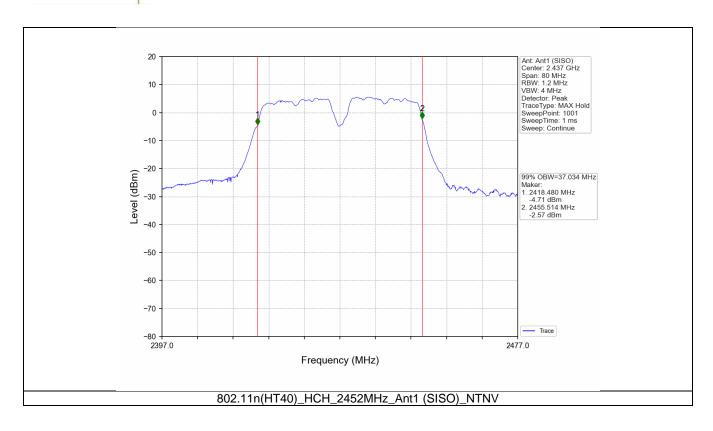
802.11n(HT40)\_MCH\_2437MHz\_Ant1 (SISO)\_NTNV



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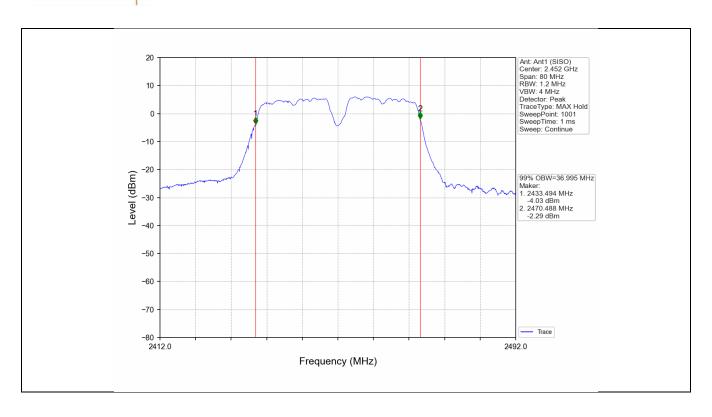






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#### 2.2 6dB BW

### 2.2.1 Test Result

Mode	TX Type	Frequency (MHz)	Ant	6dB Bandwidth (MHz)	Limit (MHz)	Verdict
802.11b		2412	1	10.094	>=0.5	Pass
	SISO	2437	1	10.066	>=0.5	Pass
		2462	1	10.085	>=0.5	Pass
802.11g	SISO	2412	1	16.609	>=0.5	Pass
		2437	1	16.608	>=0.5	Pass
		2462	1	16.608	>=0.5	Pass
802.11n (HT20)	SISO	2412	1	16.609	>=0.5	Pass
		2437	1	16.609	>=0.5	Pass
		2462	1	16.607	>=0.5	Pass
802.11n (HT40)	SISO	2422	1	36.450	>=0.5	Pass
		2437	1	36.439	>=0.5	Pass
		2452	1	36.442	>=0.5	Pass

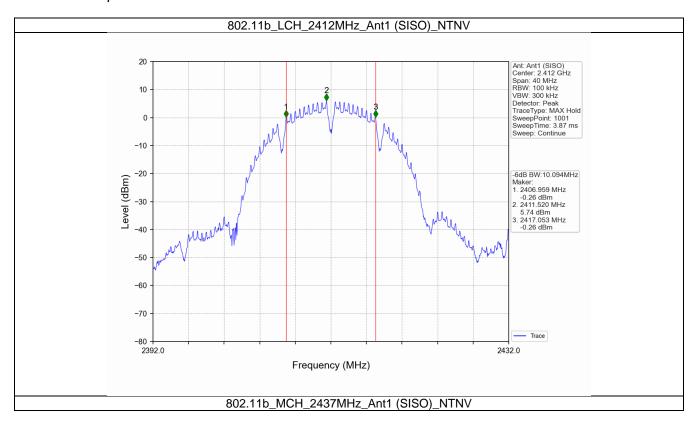


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#### 2.2.2 Test Graph

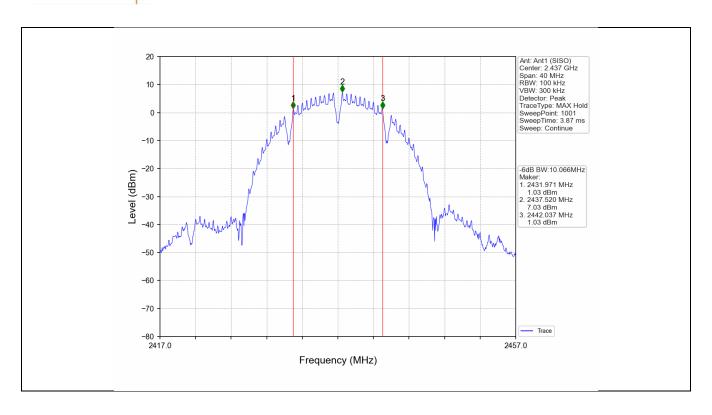




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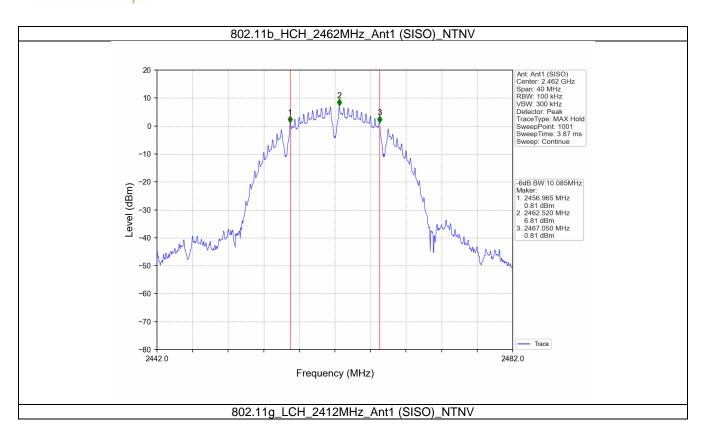


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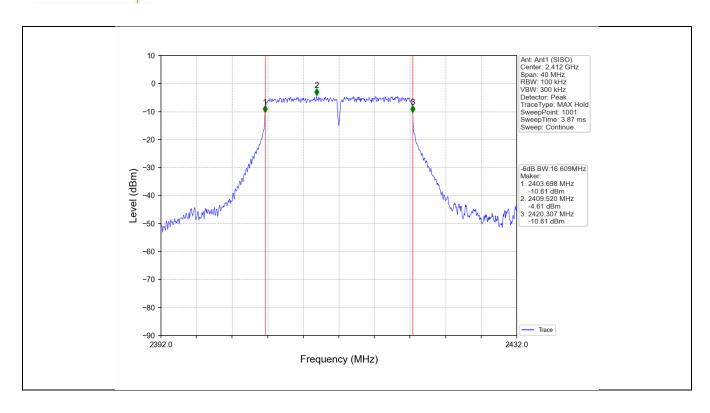






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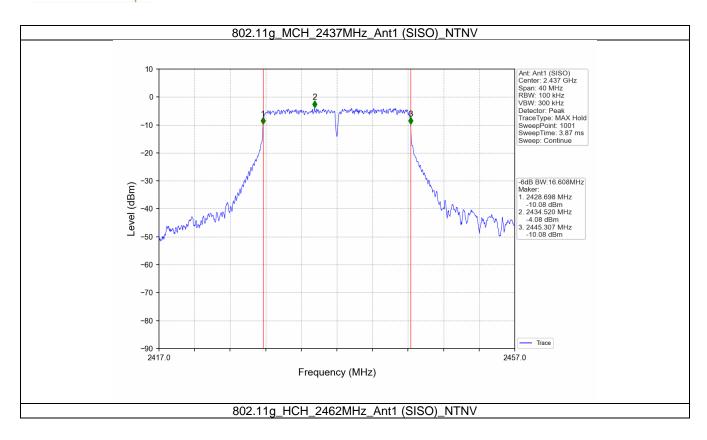






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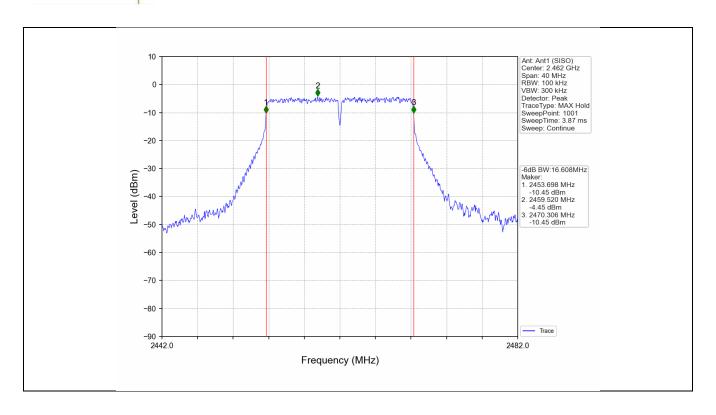






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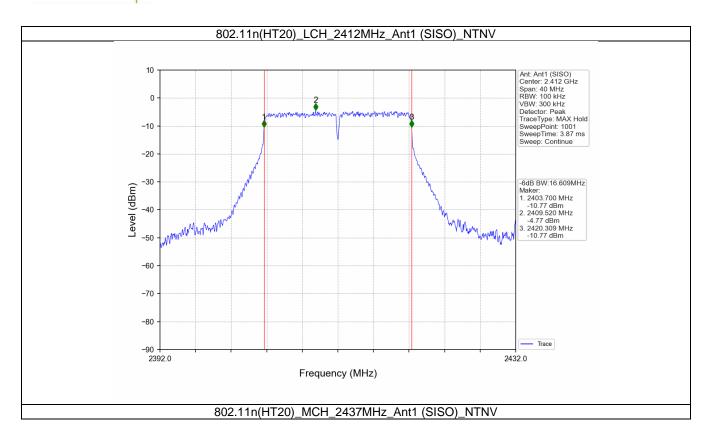






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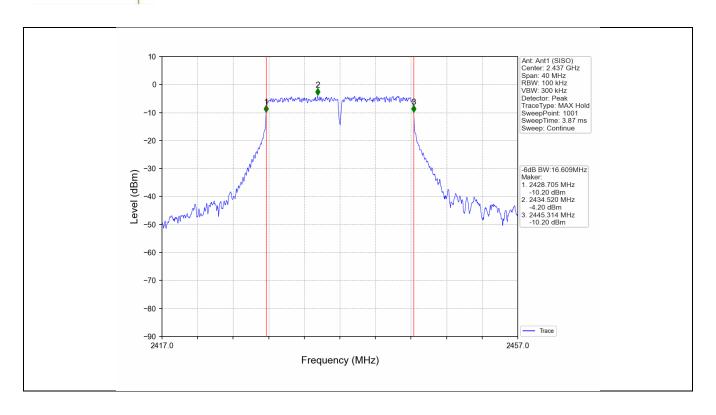






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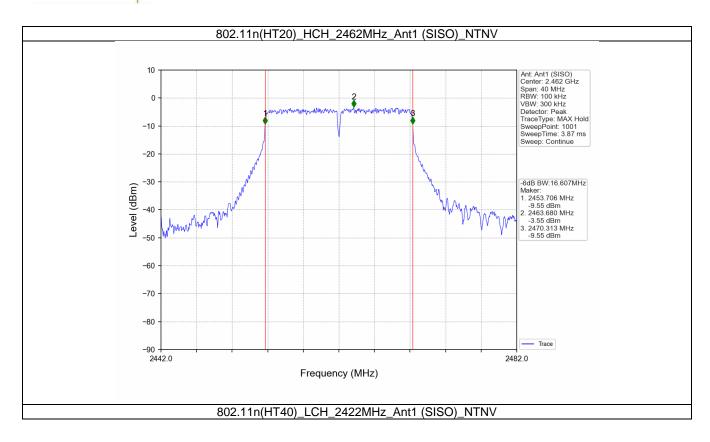






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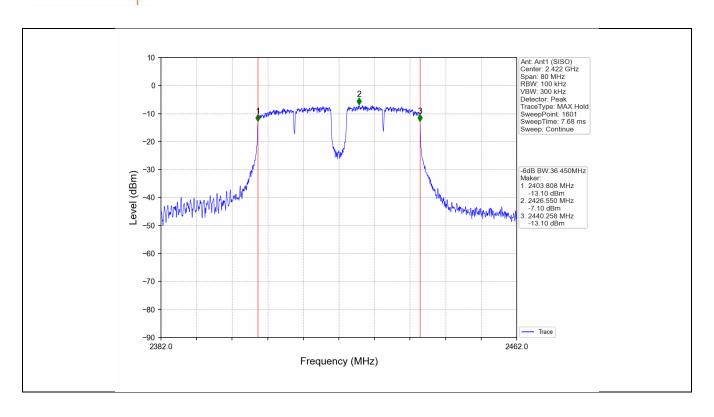






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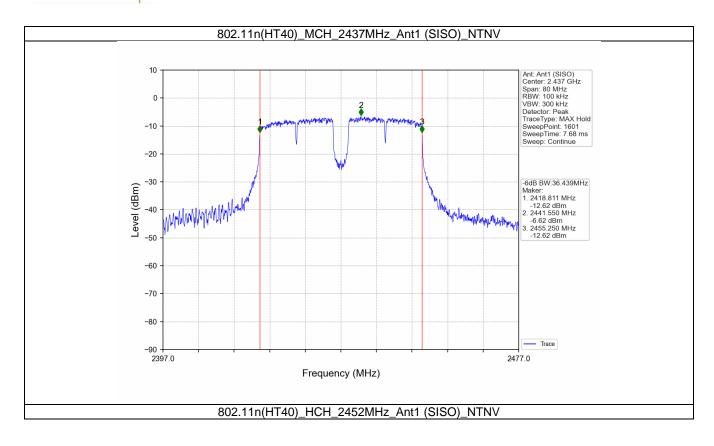






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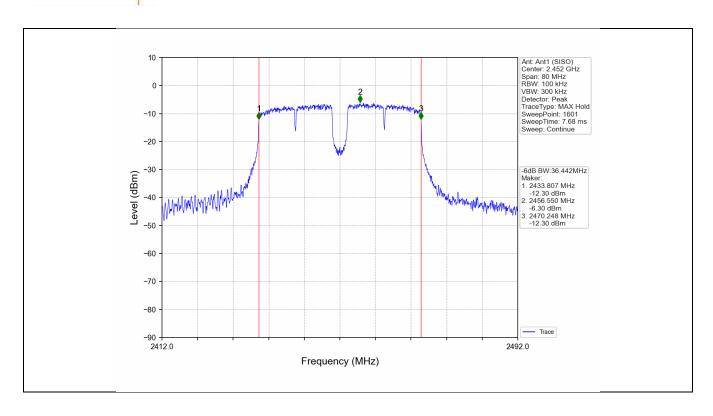






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# 3. Maximum Conducted Output Power

### 3.1 Power

### 3.1.1 Test Result

Mode	TX Type	Frequency (MHz)	Measured Peak O	Verdict		
			Ant1	Limit	verdict	
802.11b	SISO	2412	17.06	<=30	Pass	
		2437	18.33	<=30	Pass	
		2462	18.09	<=30	Pass	
802.11g	SISO	2412	17.43	<=30	Pass	
		2437	17.97	<=30	Pass	
		2462	17.59	<=30	Pass	
000 115	SISO	22.115	2412	17.26	<=30	Pass
802.11n (HT20)		2437	17.85	<=30	Pass	
		2462	18.48	<=30	Pass	
802.11n (HT40)	SISO	2422	17.41	<=30	Pass	
		2437	17.84	<=30	Pass	
		2452	18.25	<=30	Pass	
Note1: Ante	enna Gain: A	nt1: 1.80dBi;				

# 4. Maximum Power Spectral Density

### 4.1 PSD

#### 4.1.1 Test Result

Mode	TX Type	Frequency (MHz)	Maximum PS	Verdict	
			Ant1	Limit	verdict
802.11b	SISO	2412	-7.93	<=8	Pass
		2437	-7.28	<=8	Pass
		2462	-7.84	<=8	Pass
802.11g	SISO	2412	-18.66	<=8	Pass
		2437	-18.28	<=8	Pass
		2462	-18.41	<=8	Pass
000.115	SISO	2412	-18.81	<=8	Pass
802.11n (HT20)		2437	-18.35	<=8	Pass
		2462	-17.49	<=8	Pass
802.11n (HT40)	SISO	2422	-21.33	<=8	Pass
		2437	-20.86	<=8	Pass
		2452	-20.53	<=8	Pass
Note1: Antenna Gain: Ant1: 1.80dBi;					

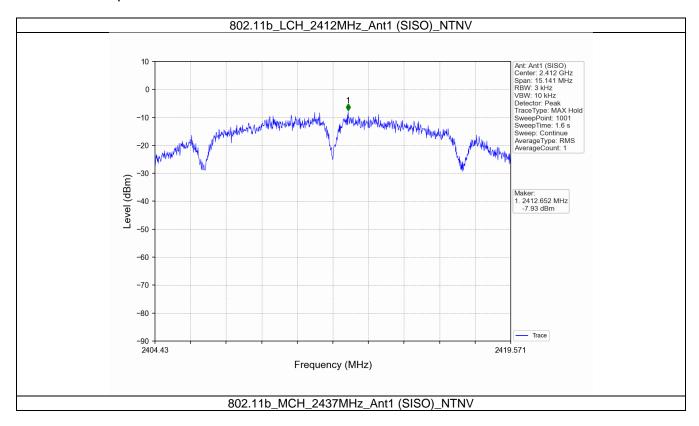


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### 4.1.2 Test Graph

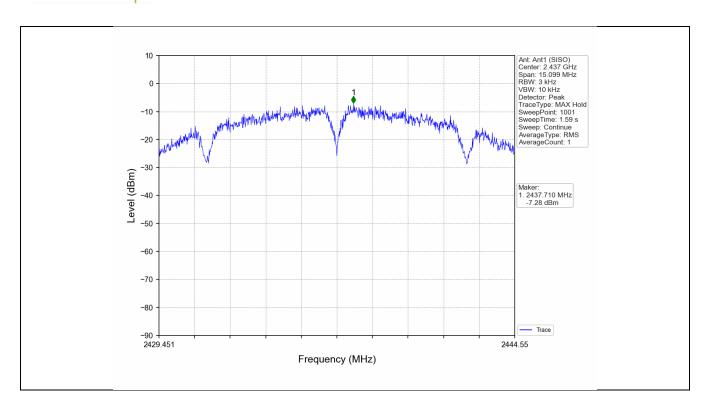




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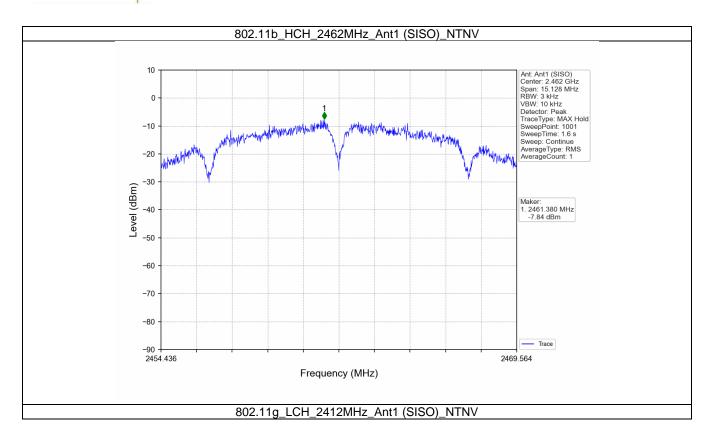






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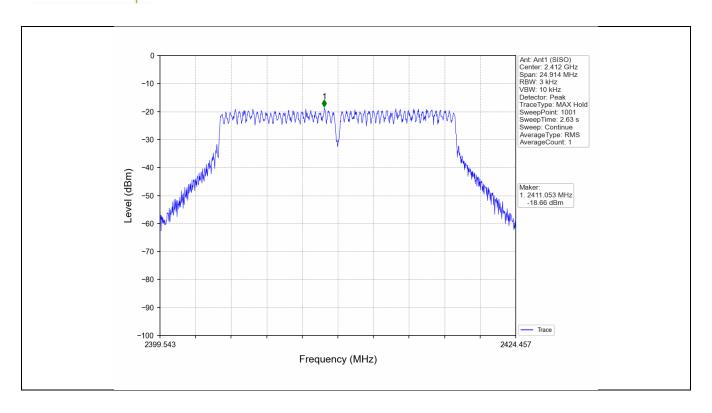






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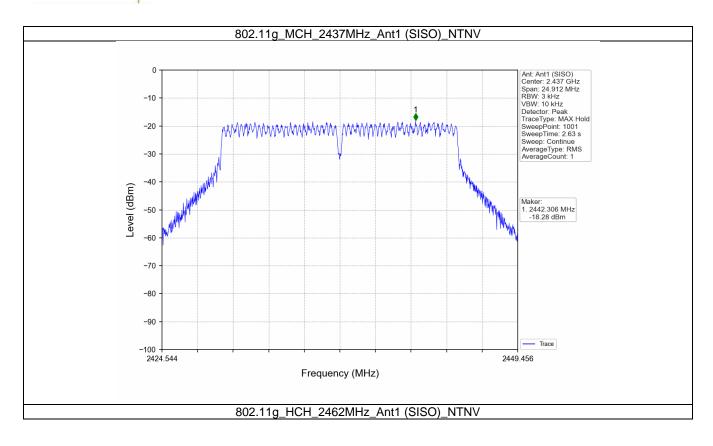






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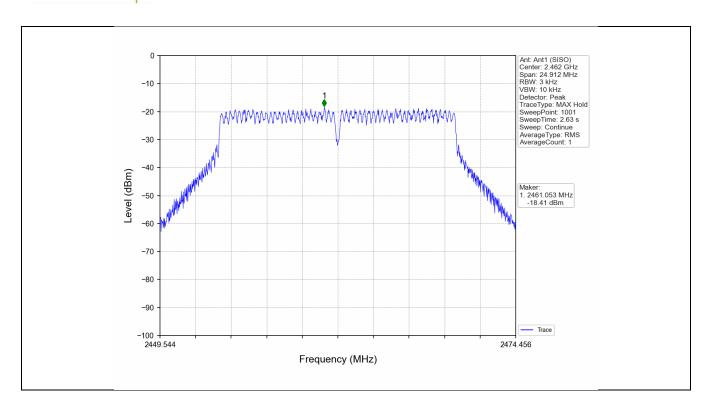






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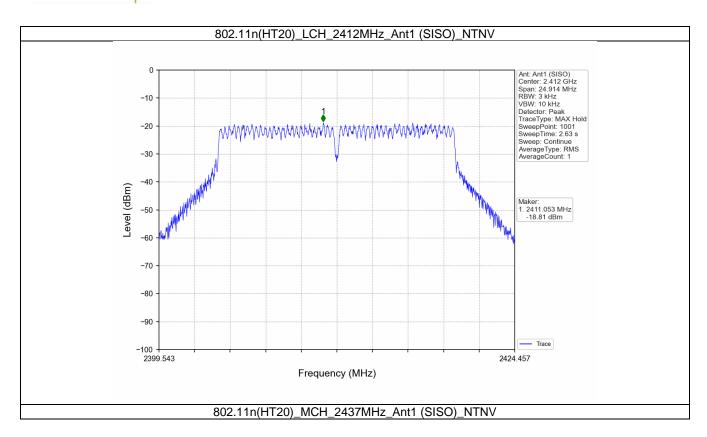






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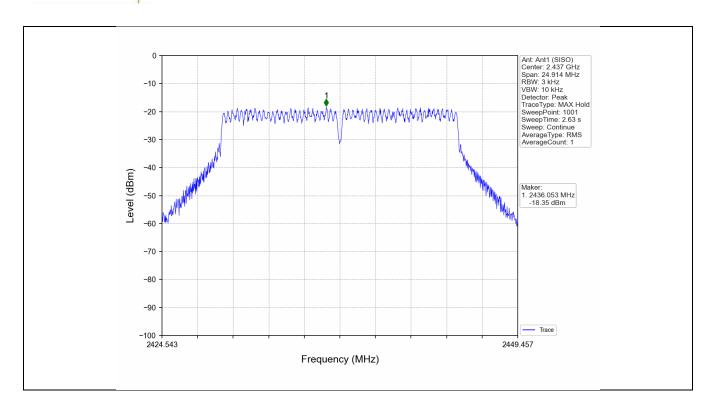






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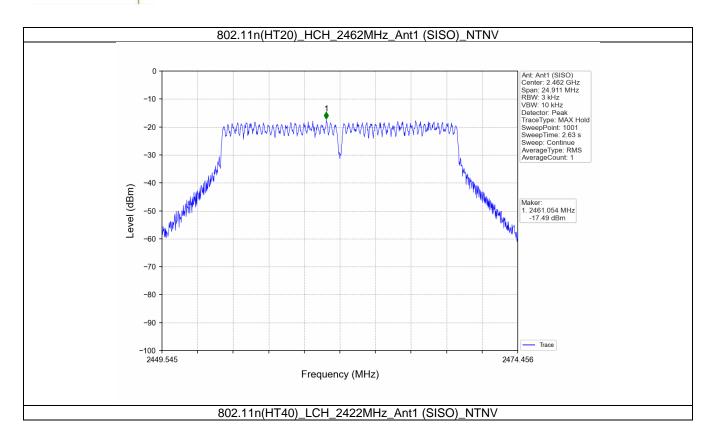






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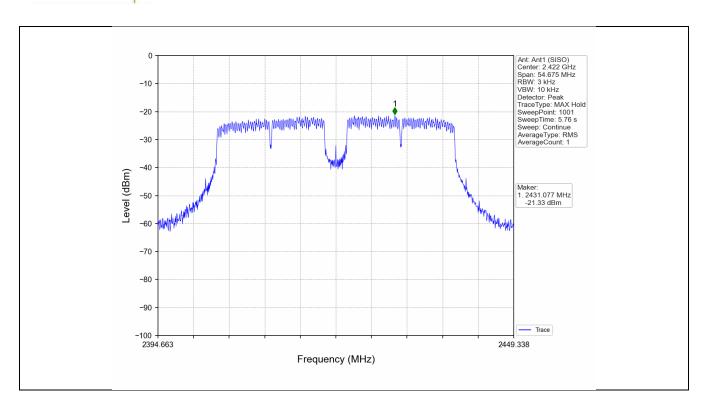


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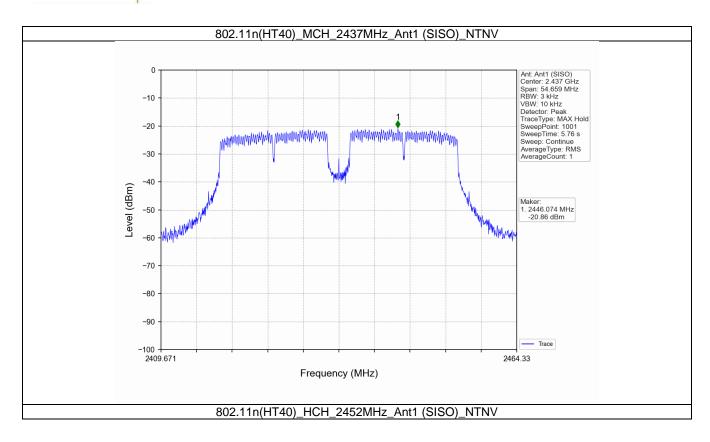






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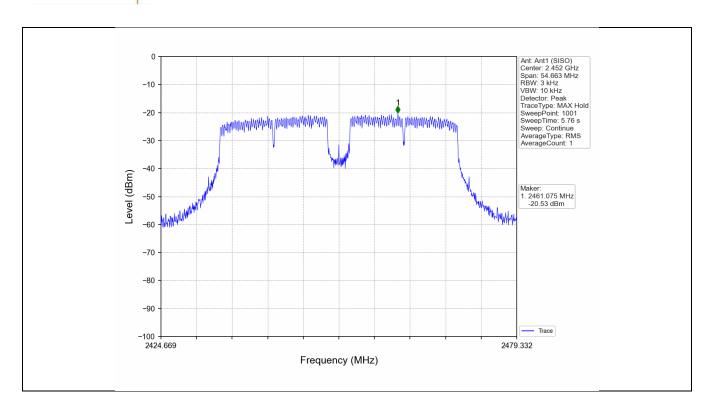






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# 5. Unwanted Emissions In Non-restricted Frequency Bands

#### 5.1 Ref

### 5.1.1 Test Result

Mode	TX Type	Frequency (MHz)	Ant	Level of Reference (dBm)
		2412	1	5.46
802.11b	SISO	2437	1	7.00
		2462	1	6.54
		2412	1	-4.64
802.11g	SISO	2437	1	-4.15
		2462	1	-4.53
		2412	1	-4.80
802.11n (HT20)	SISO	2437	1	-4.20
		2462	1	-3.61
		2422	1	-7.09
802.11n (HT40)	SISO	2437	1	-6.64
		2452	1	-6.28

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.

### 5.1.2 Test Graph

802.11b LCH 2412MHz Ant1 (SISO) NTNV

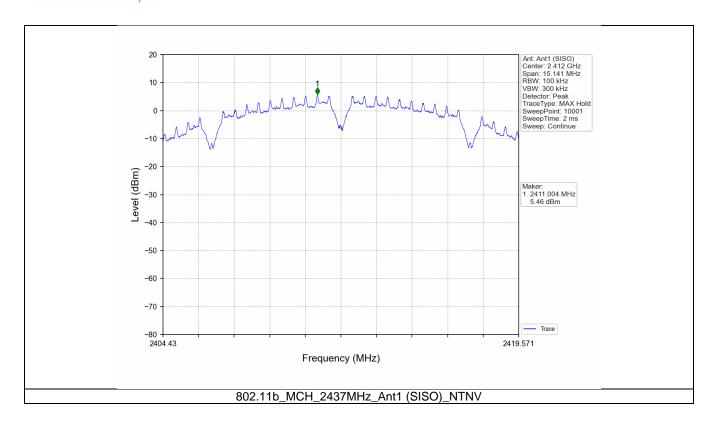


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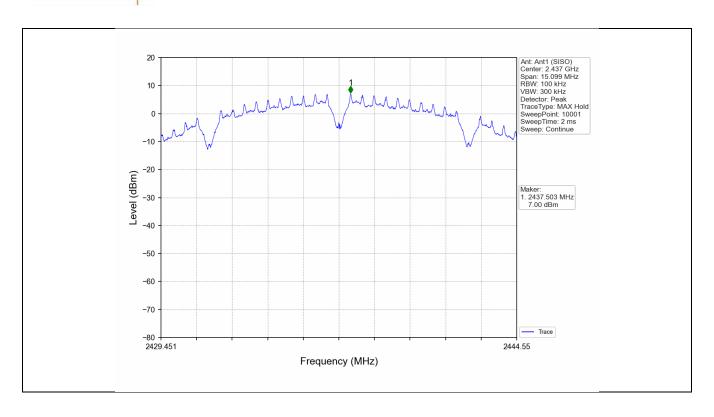






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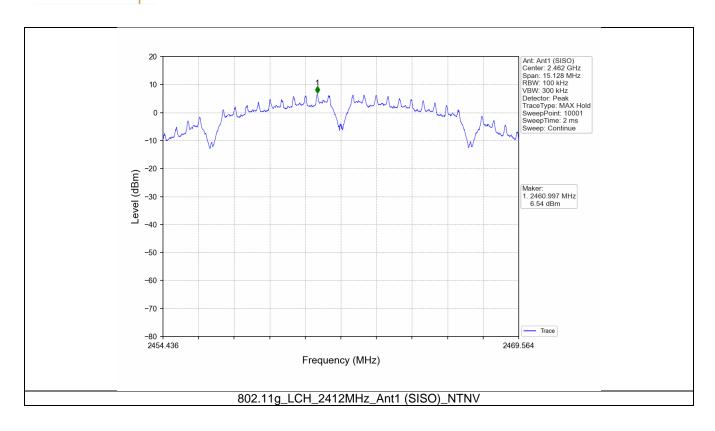
802.11b\_HCH\_2462MHz\_Ant1 (SISO)\_NTNV



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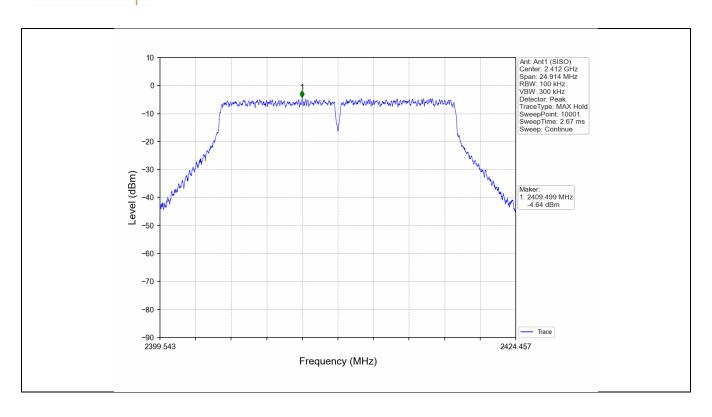


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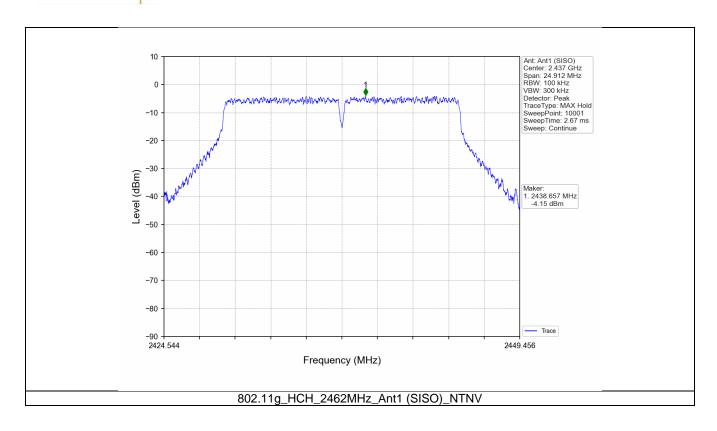
802.11g\_MCH\_2437MHz\_Ant1 (SISO)\_NTNV



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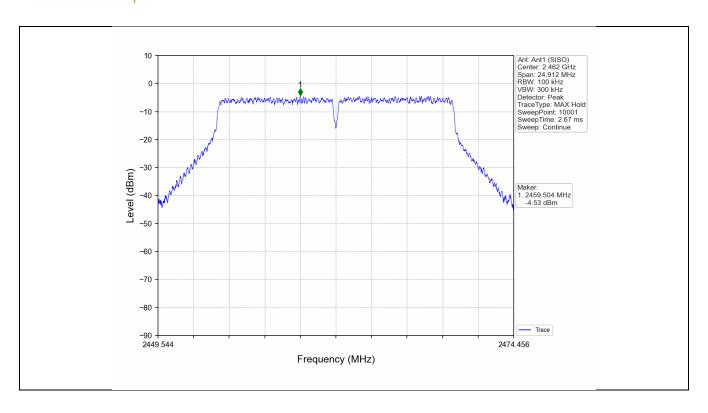






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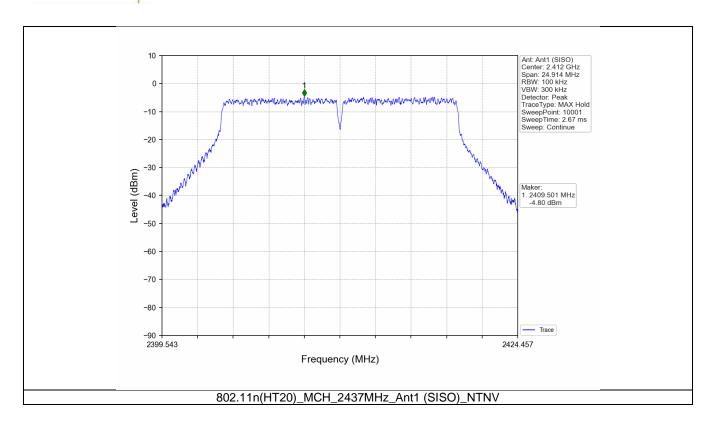
802.11n(HT20)\_LCH\_2412MHz\_Ant1 (SISO)\_NTNV



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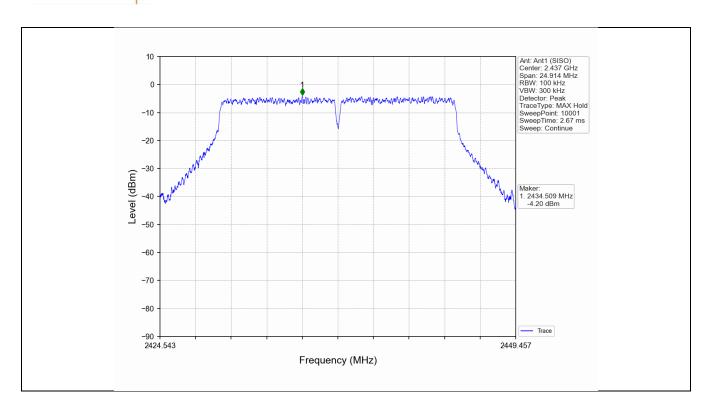






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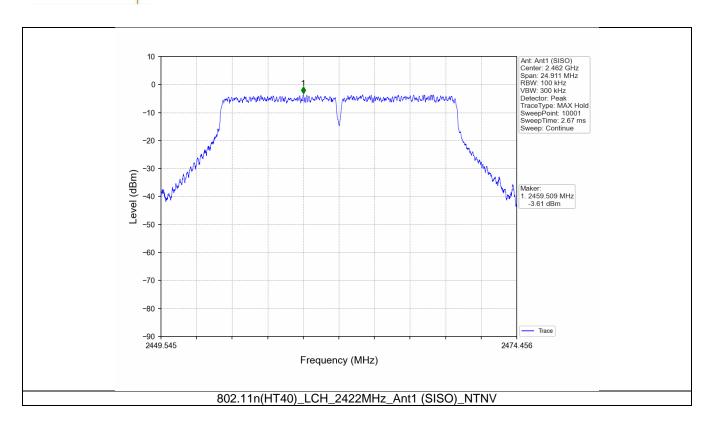
802.11n(HT20)\_HCH\_2462MHz\_Ant1 (SISO)\_NTNV



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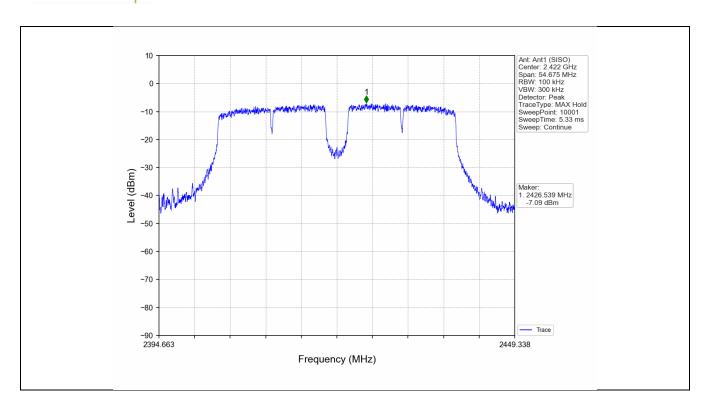






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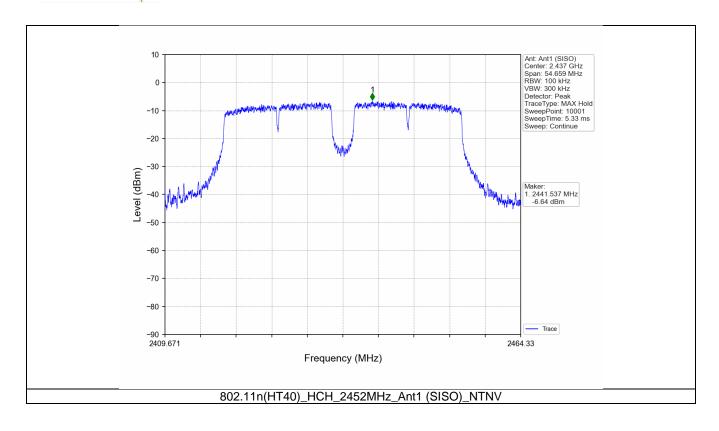
802.11n(HT40)\_MCH\_2437MHz\_Ant1 (SISO)\_NTNV



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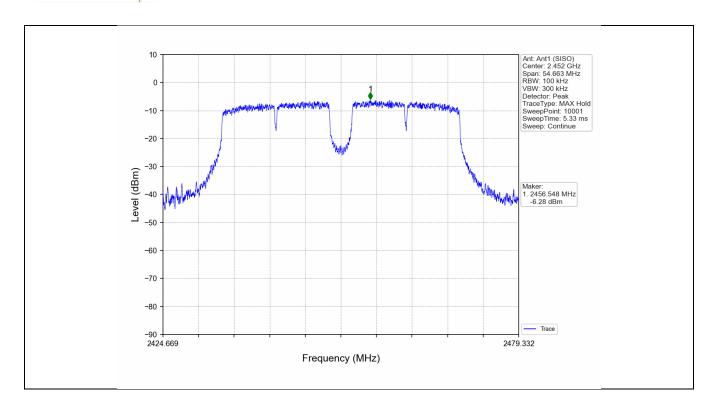






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### 5.2 CSE

### 5.2.1 Test Result

Mode	TX Type	Frequency (MHz)	Ant	Level of Reference (dBm)	Limit (dBm)	Verdict
802.11b	SISO	2412	1	7.00	-13.00	Pass
		2437	1	7.00	-13.00	Pass
		2462	1	7.00	-13.00	Pass
802.11g	SISO	2412	1	-4.15	-24.15	Pass
		2437	1	-4.15	-24.15	Pass
		2462	1	-4.15	-24.15	Pass
802.11n (HT20)	SISO	2412	1	-3.61	-23.61	Pass
		2437	1	-3.61	-23.61	Pass
		2462	1	-3.61	-23.61	Pass
802.11n (HT40)	SISO	2422	1	-6.28	-26.28	Pass
		2437	1	-6.28	-26.28	Pass
		2452	1	-6.28	-26.28	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.



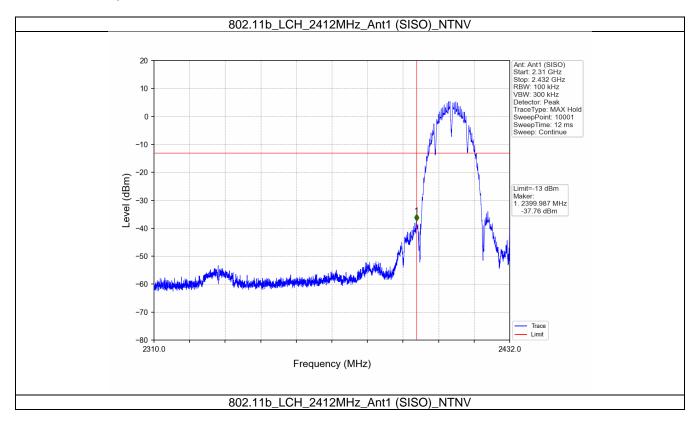
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## 5.2.2 Test Graph

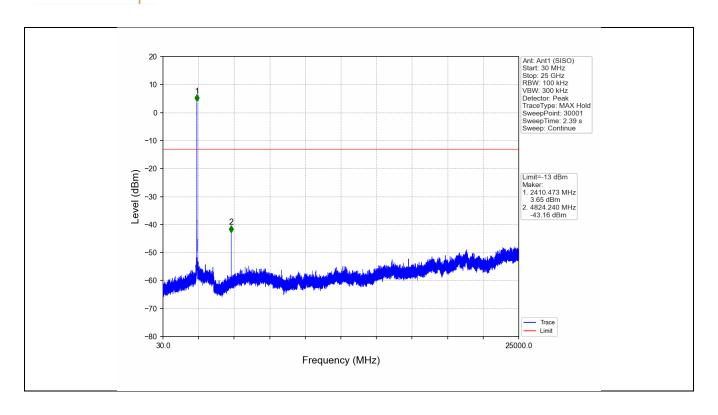




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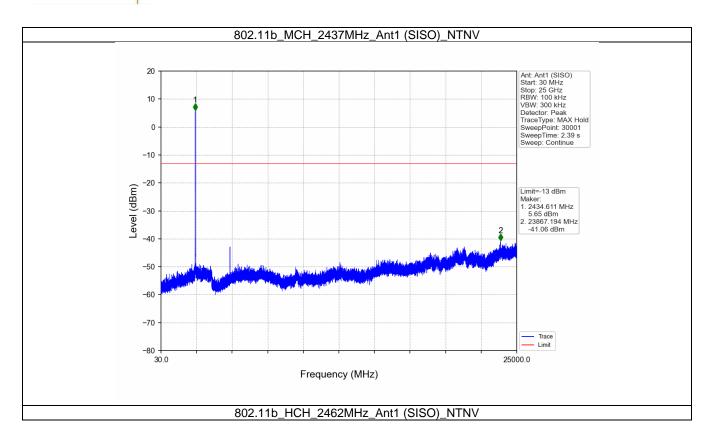






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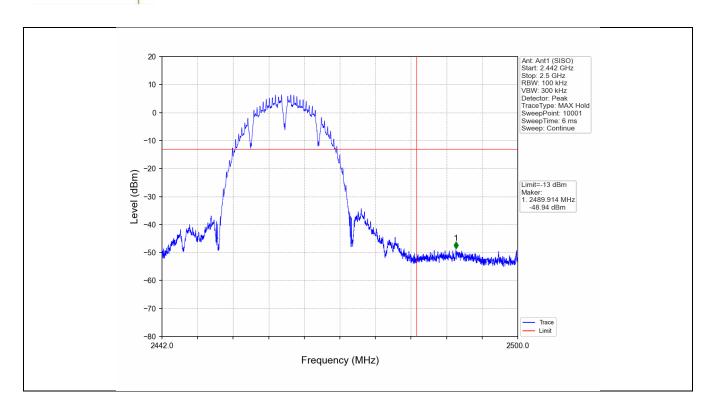






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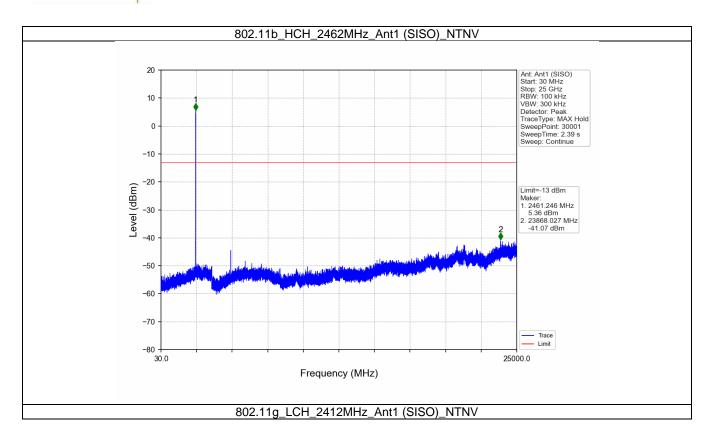


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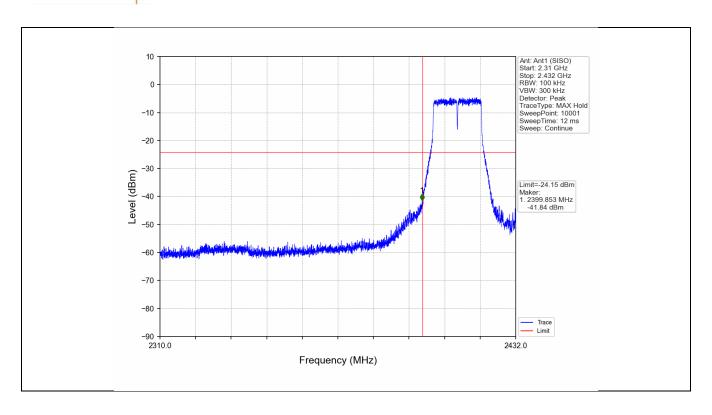






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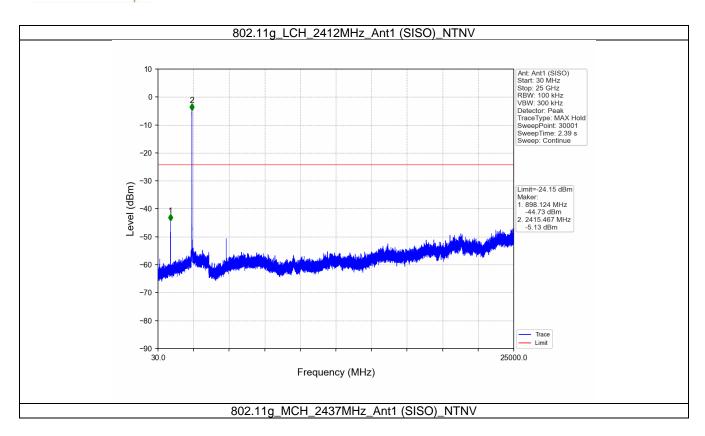






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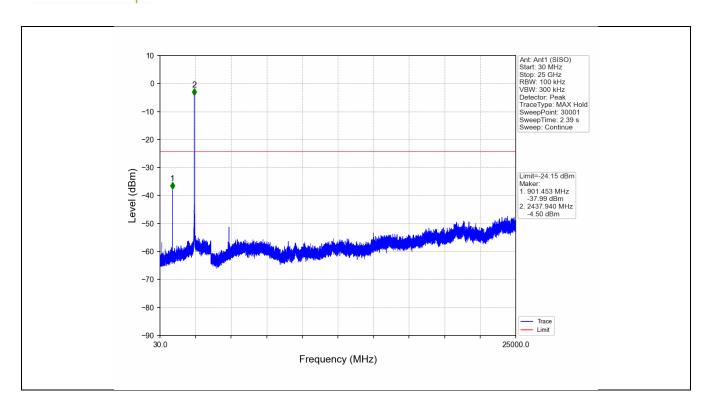






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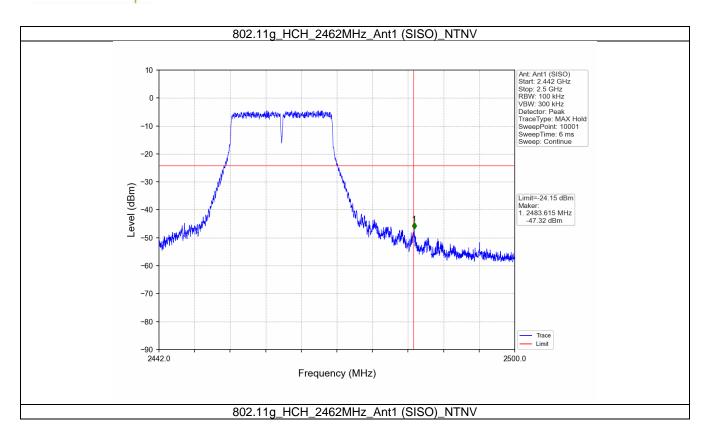






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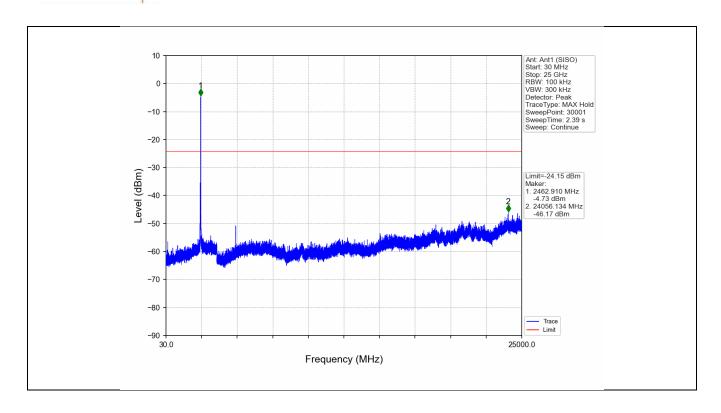


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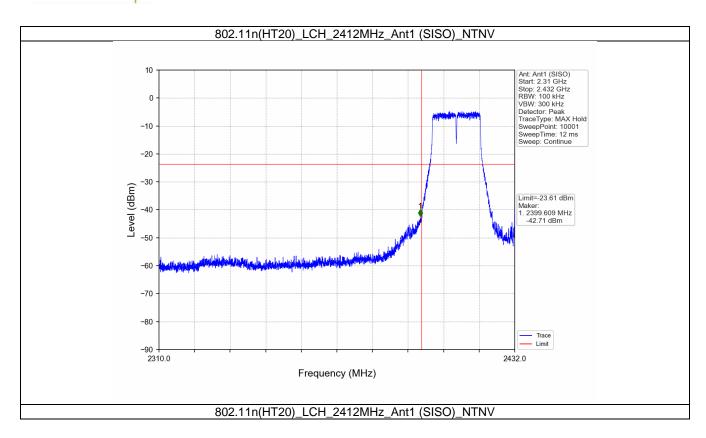






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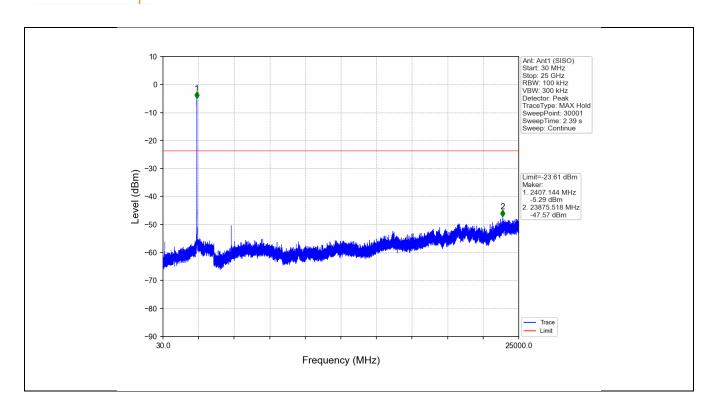






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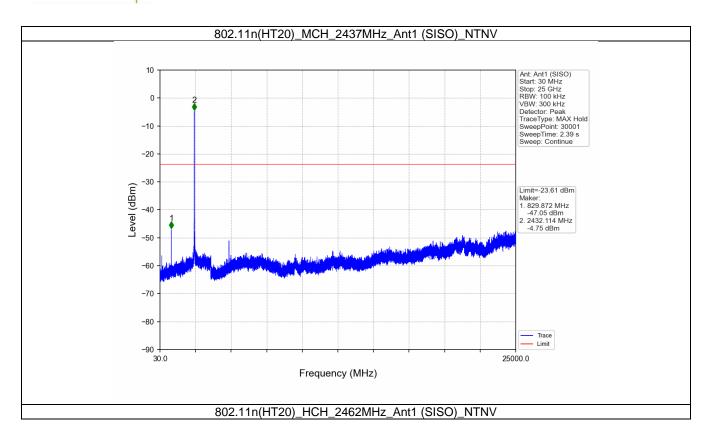






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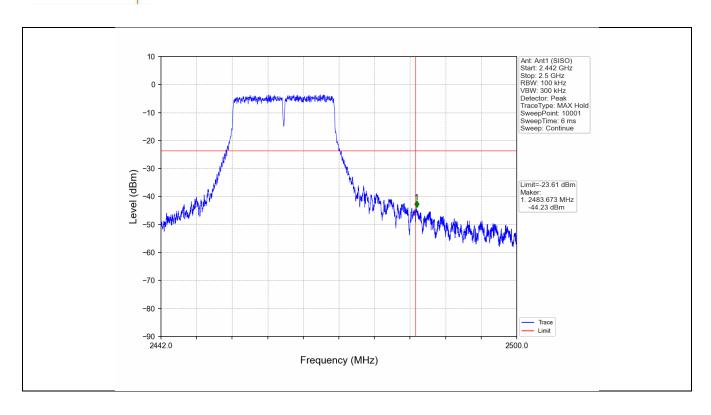






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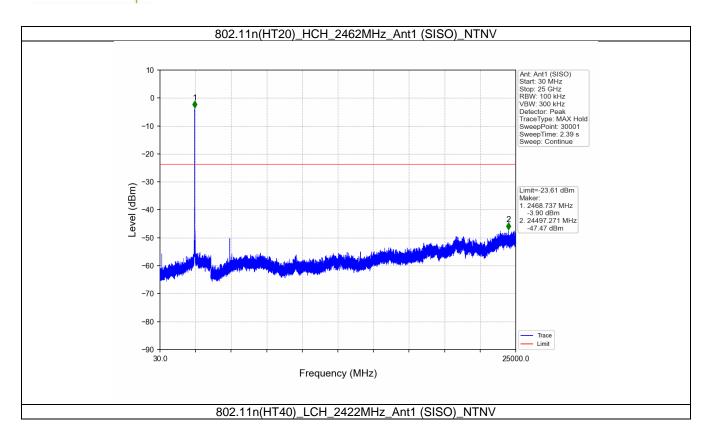


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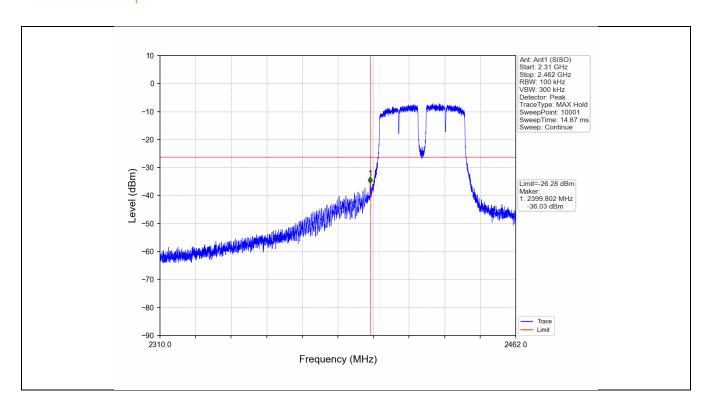






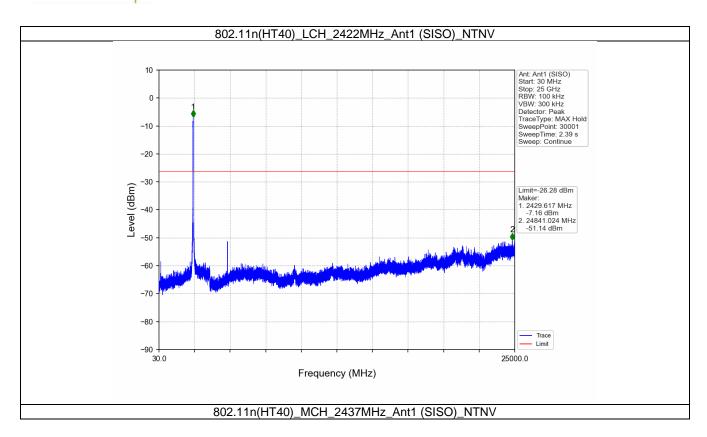
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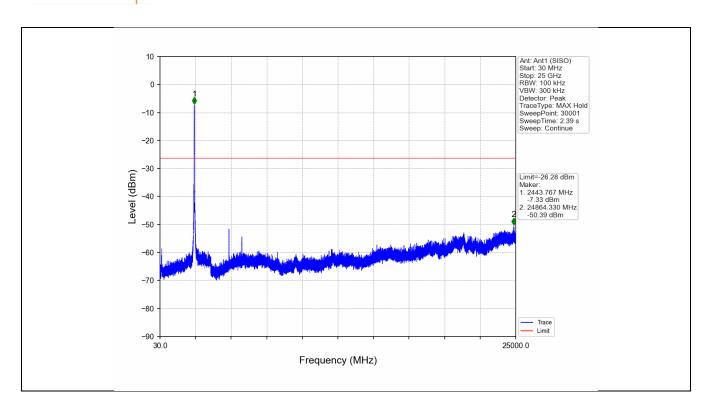
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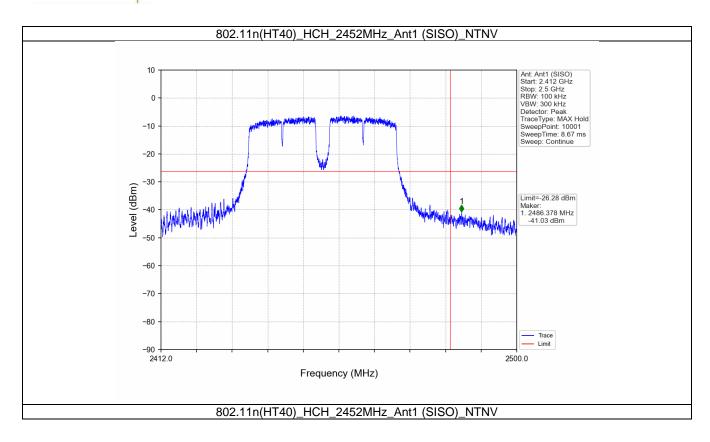






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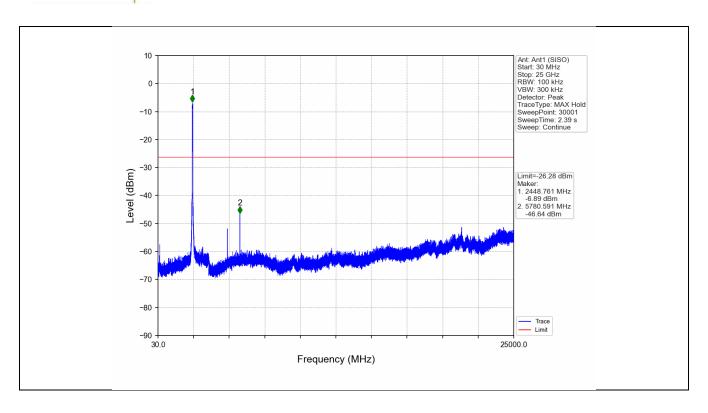


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