

Appendix A for SHEM210700797901

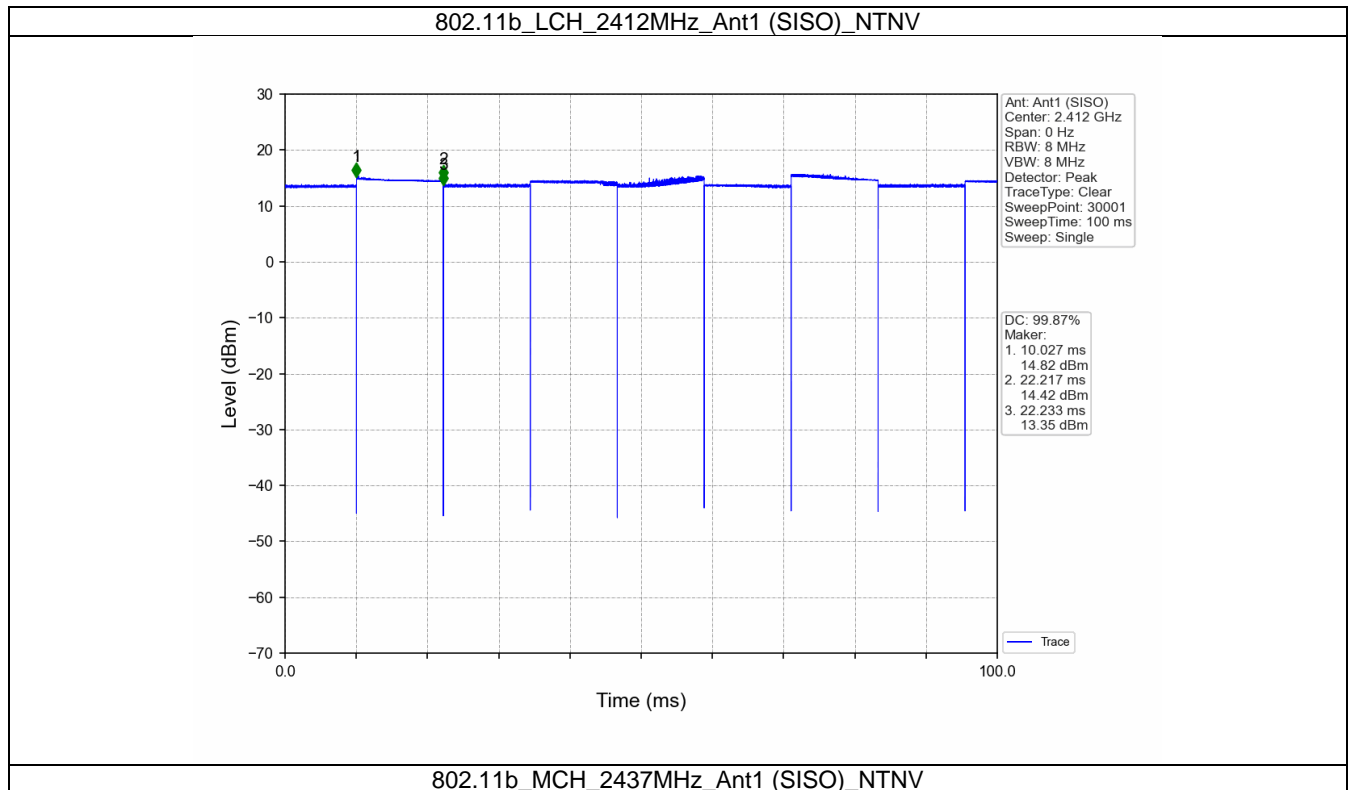
1. Duty Cycle

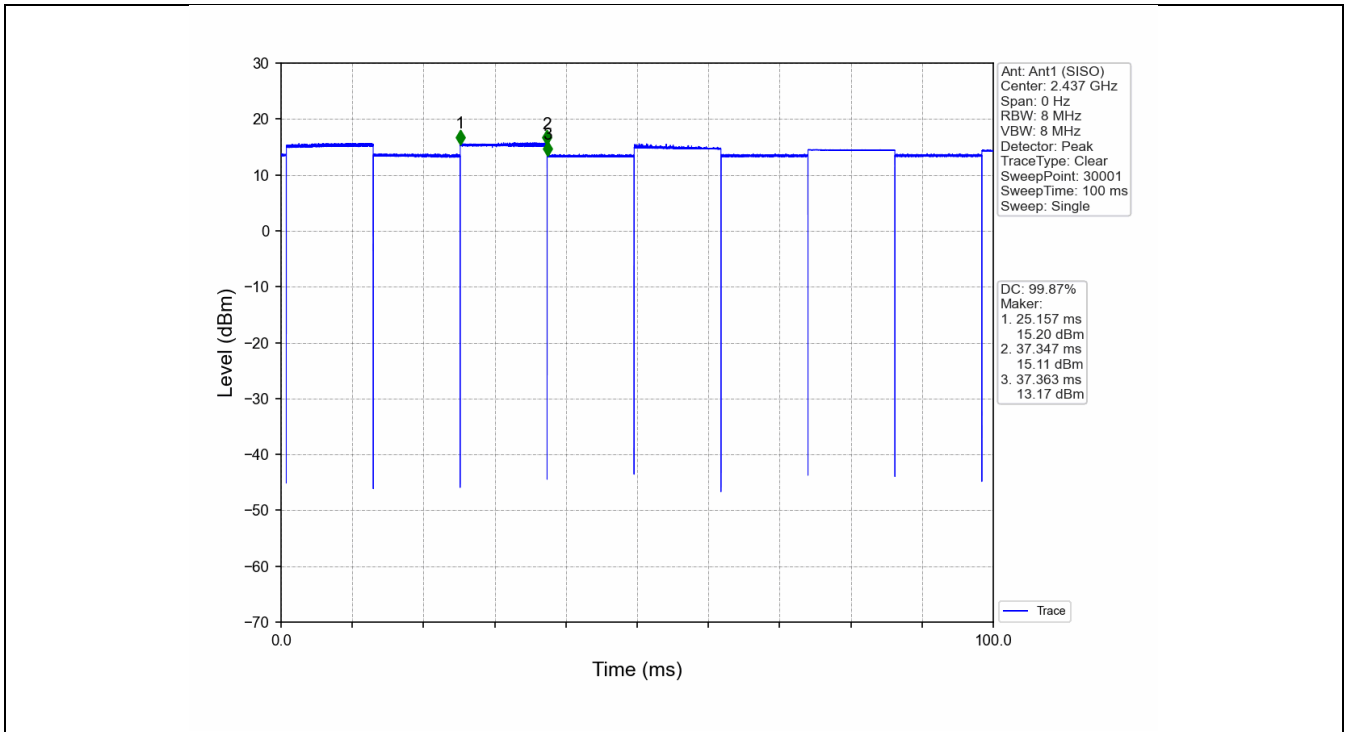
1.1 Ant1

1.1.1 Test Result

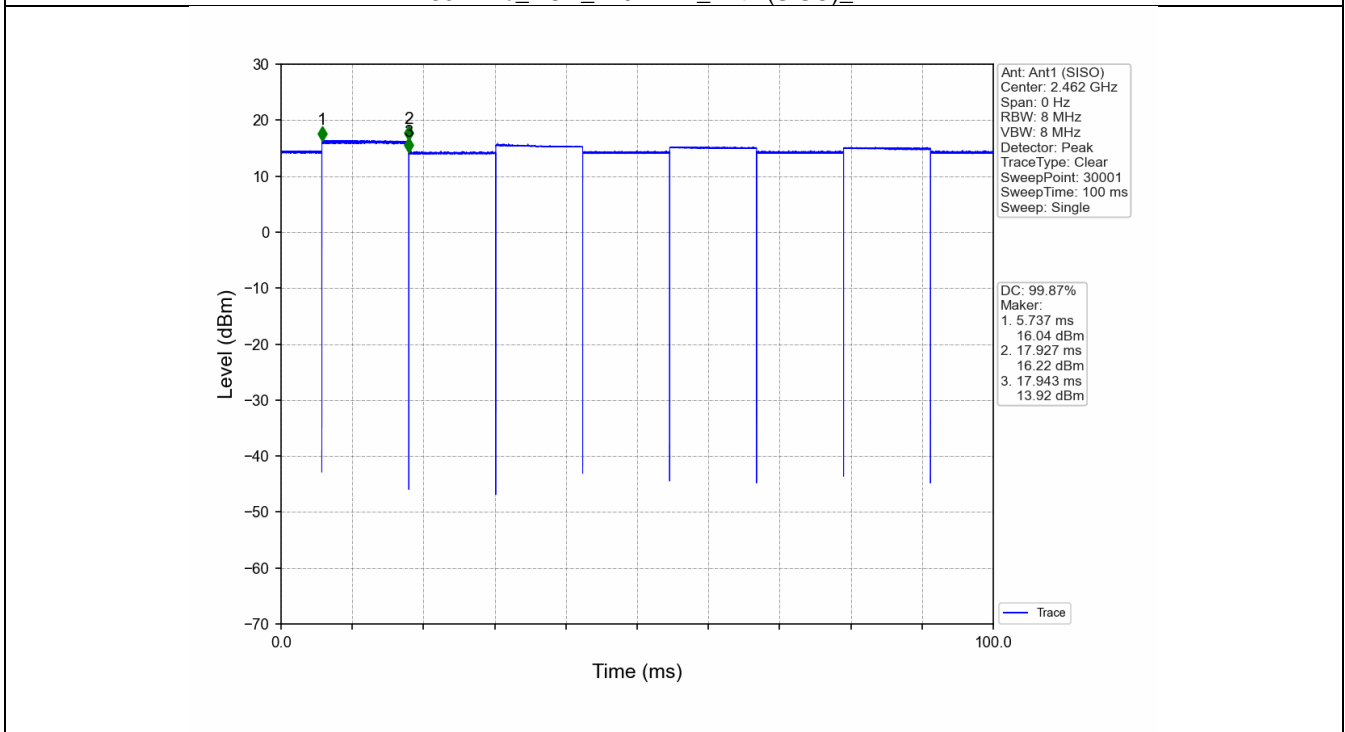
Ant1							
Mode	TX Type	Frequency (MHz)	T_on (ms)	Period (ms)	Duty Cycle (%)	Duty Cycle Correction Factor (dB)	Max. DC Variation (%)
802.11b	SISO	2412	12.190	12.206	99.87	0.01	0.00
		2437	12.190	12.206	99.87	0.01	0.03
		2462	12.190	12.206	99.87	0.01	0.00
802.11g	SISO	2412	2.023	2.527	80.06	0.97	0.03
		2437	2.024	2.527	80.09	0.96	0.03
		2462	2.023	2.527	80.06	0.97	0.03
802.11n (HT20)	SISO	2412	1.887	2.390	78.95	1.03	0.01
		2437	1.888	2.391	78.96	1.03	0.01
		2462	1.888	2.391	78.96	1.03	0.01
802.11n (HT40)	SISO	2422	0.928	1.431	64.85	1.88	0.01
		2437	0.927	1.430	64.83	1.88	0.03
		2452	0.927	1.430	64.83	1.88	0.01

1.1.2 Test Graph

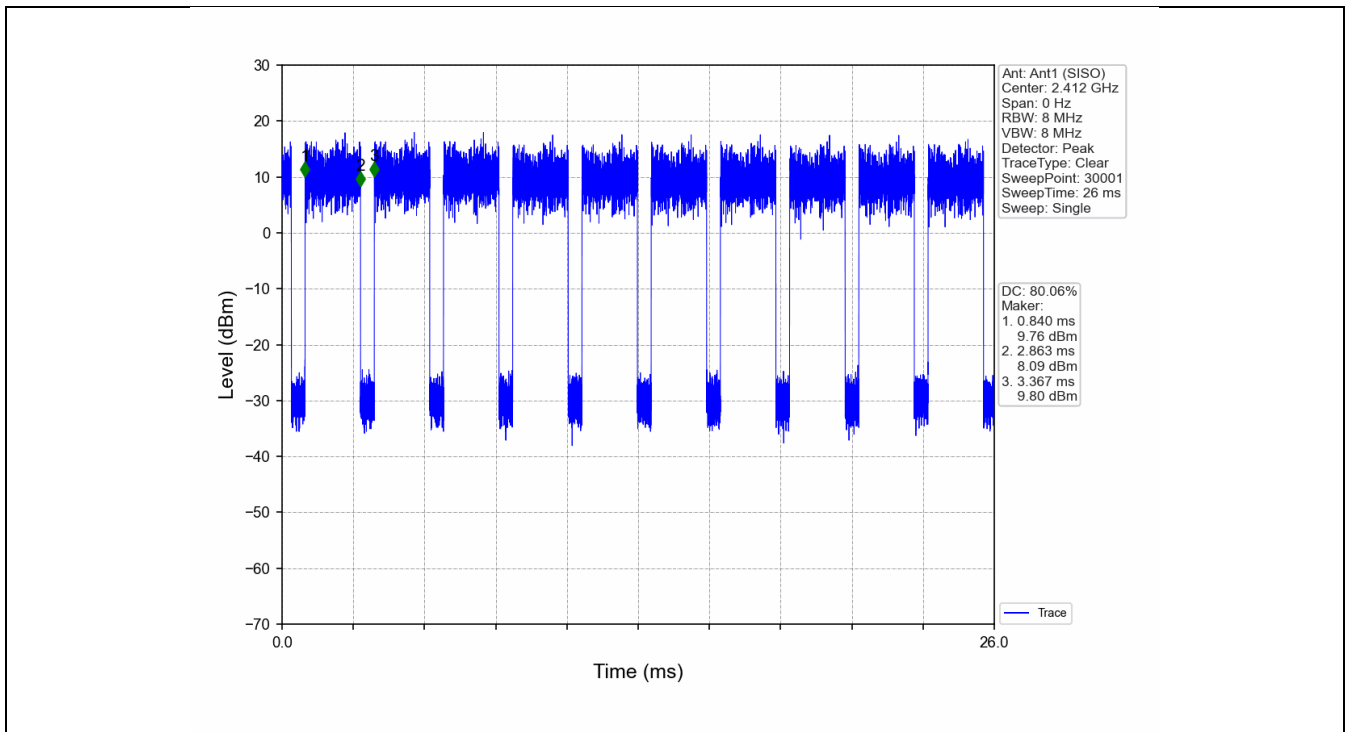


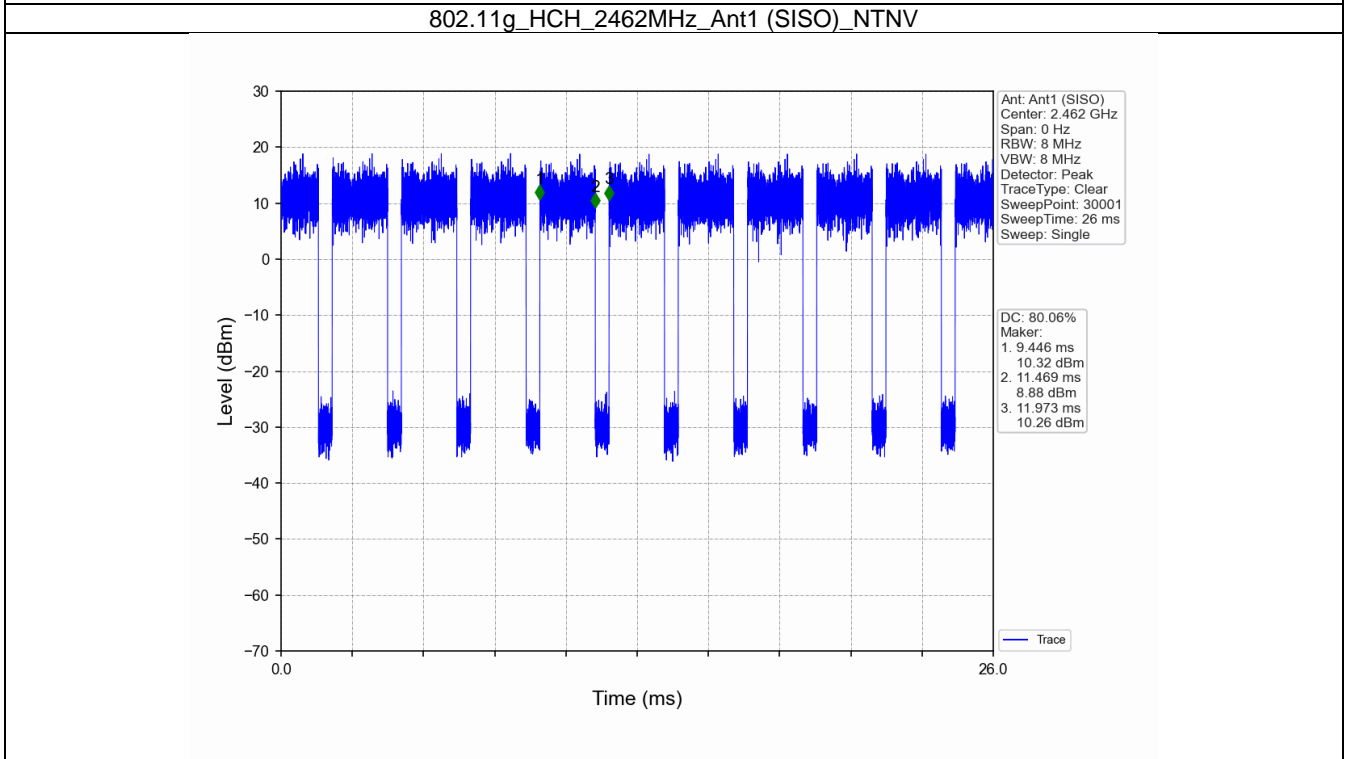
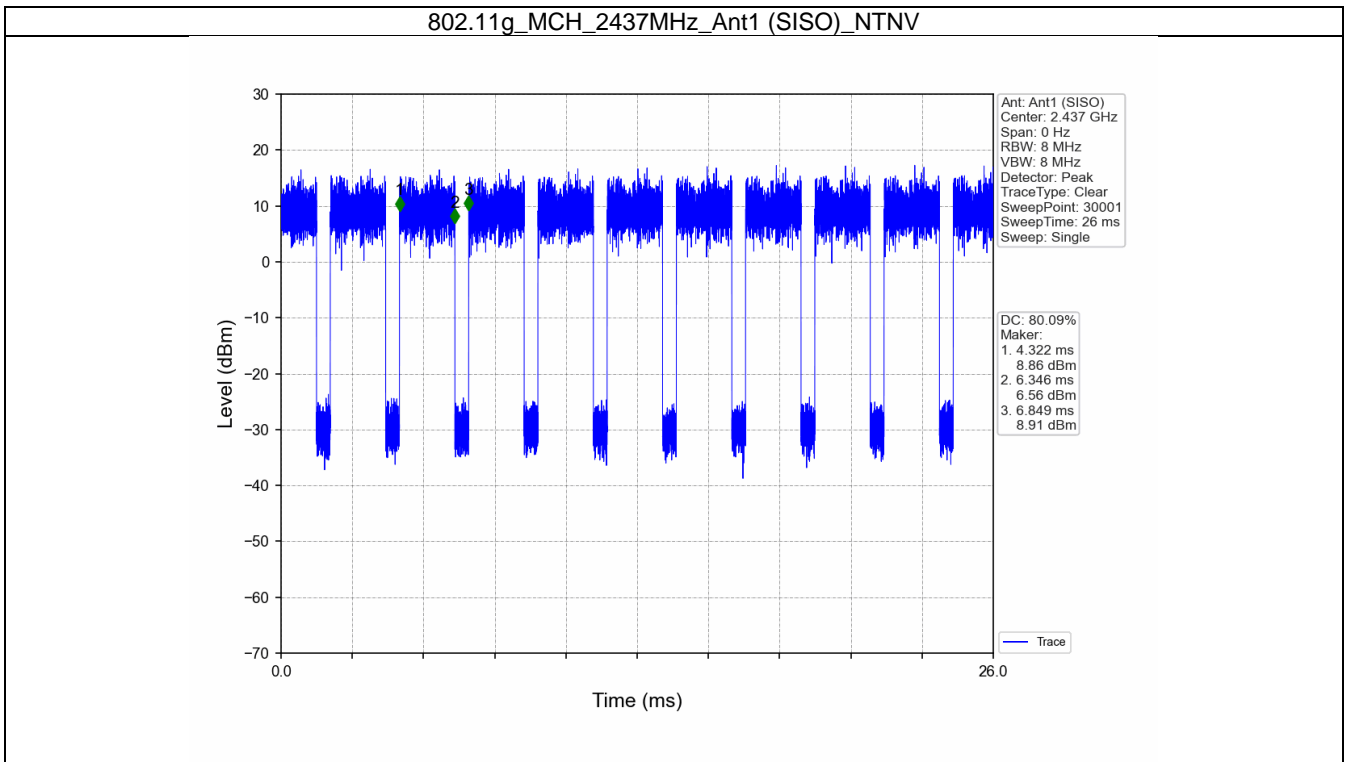


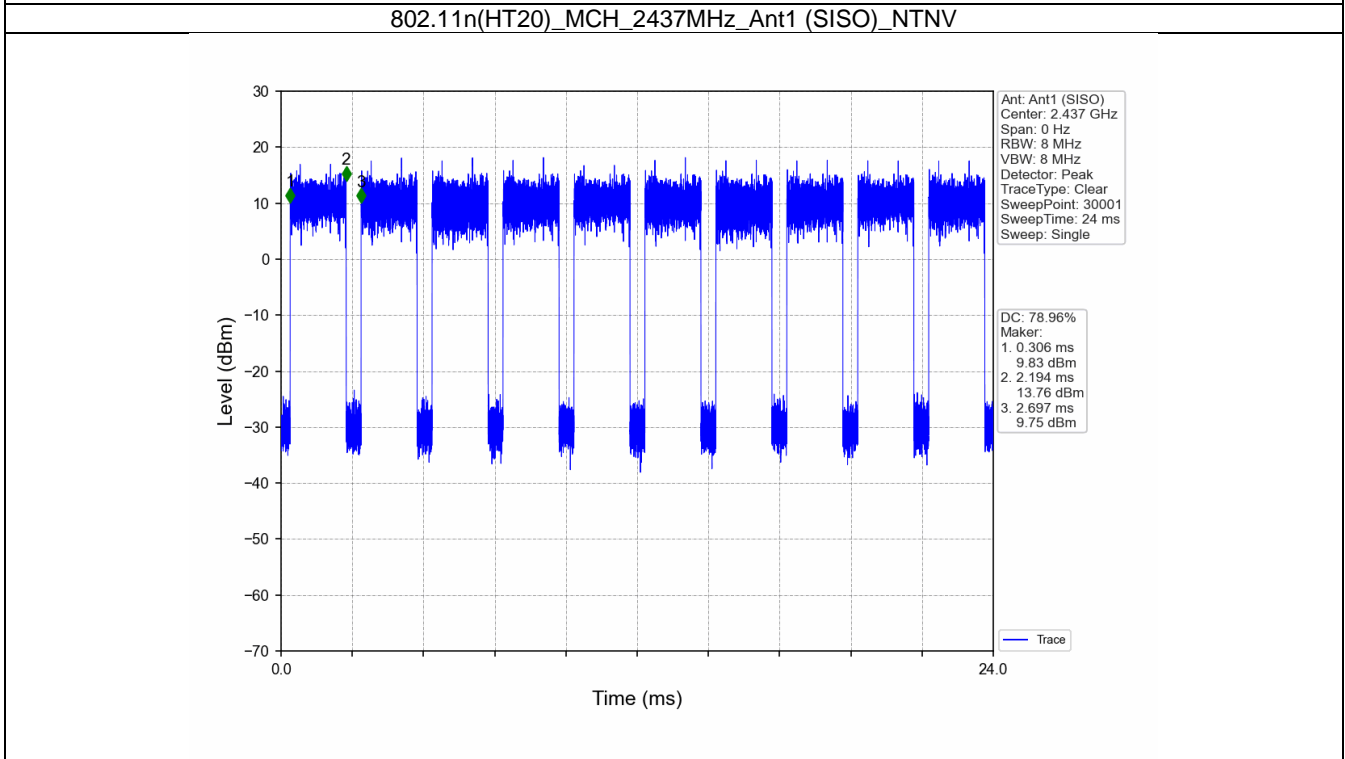
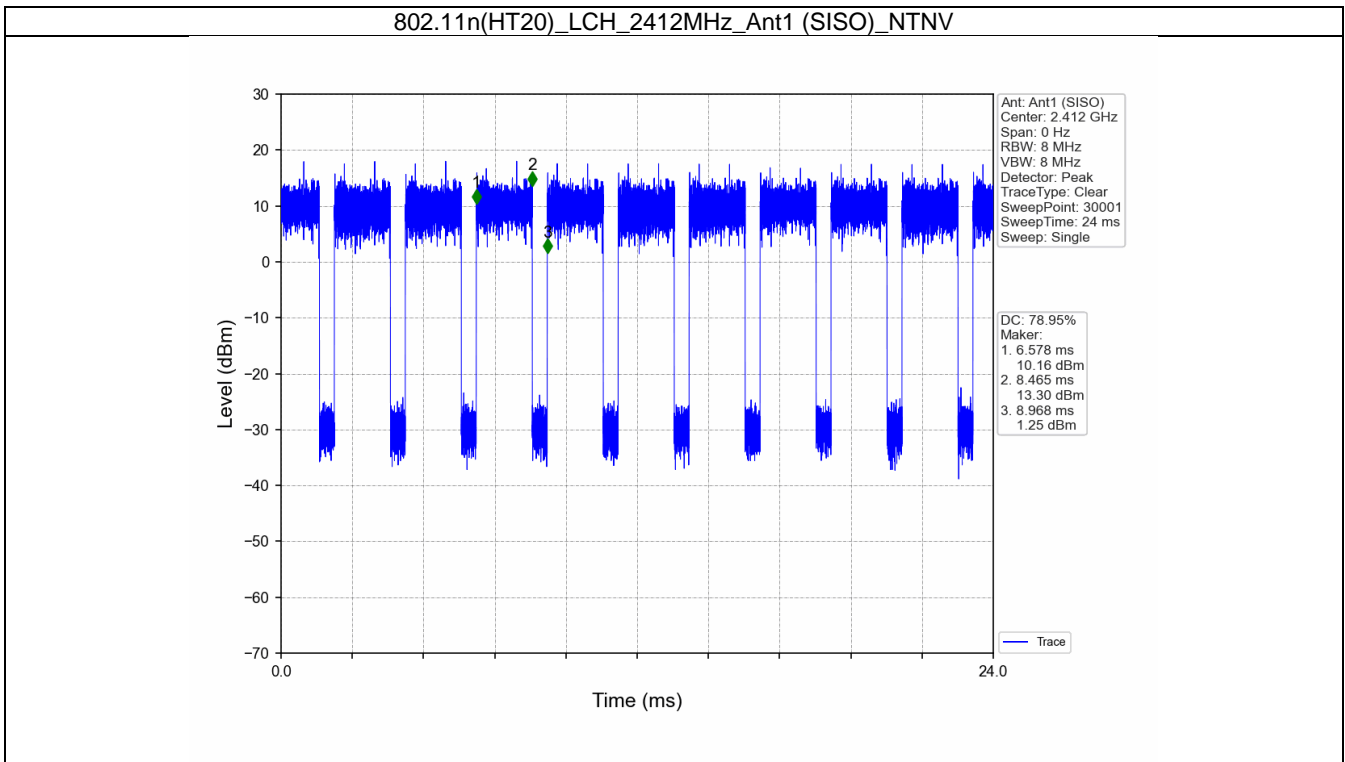
802.11b_HCH_2462MHz_Ant1 (SISO)_NTNV

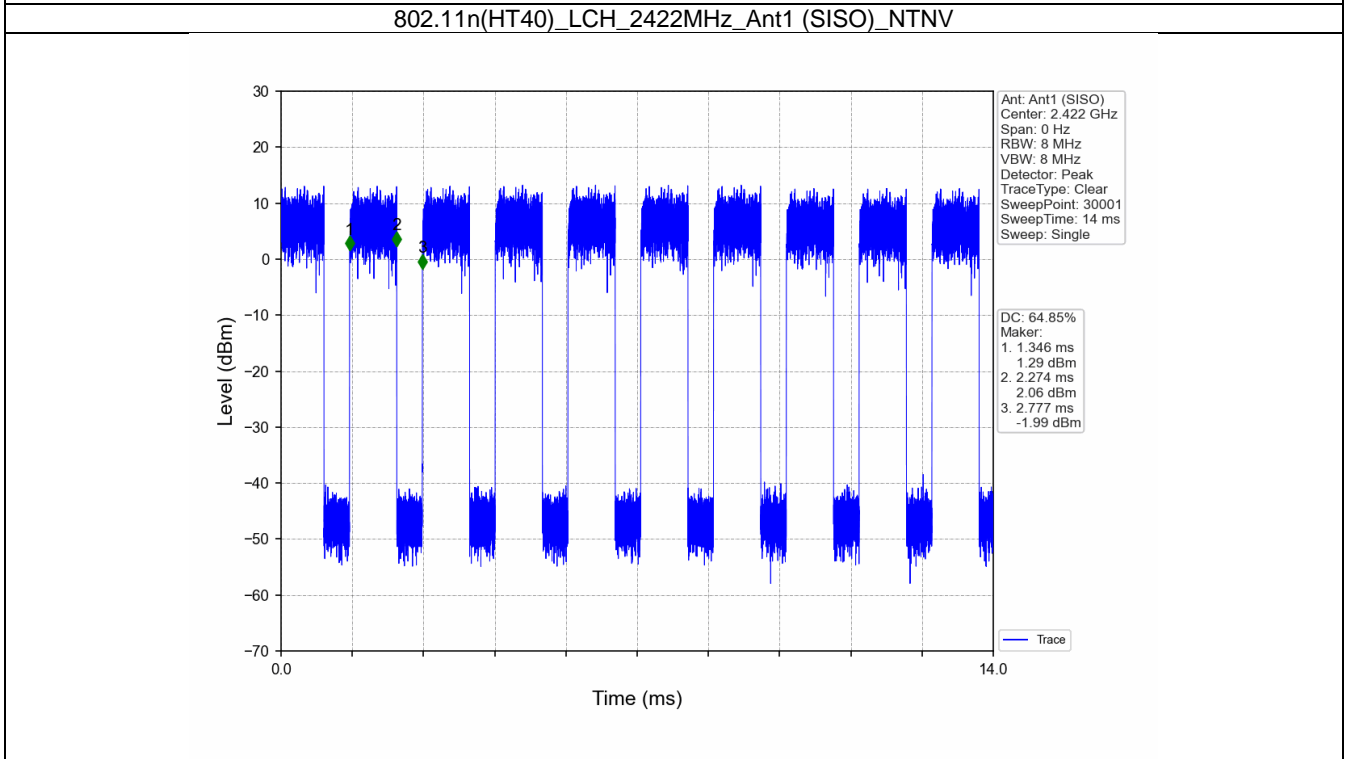
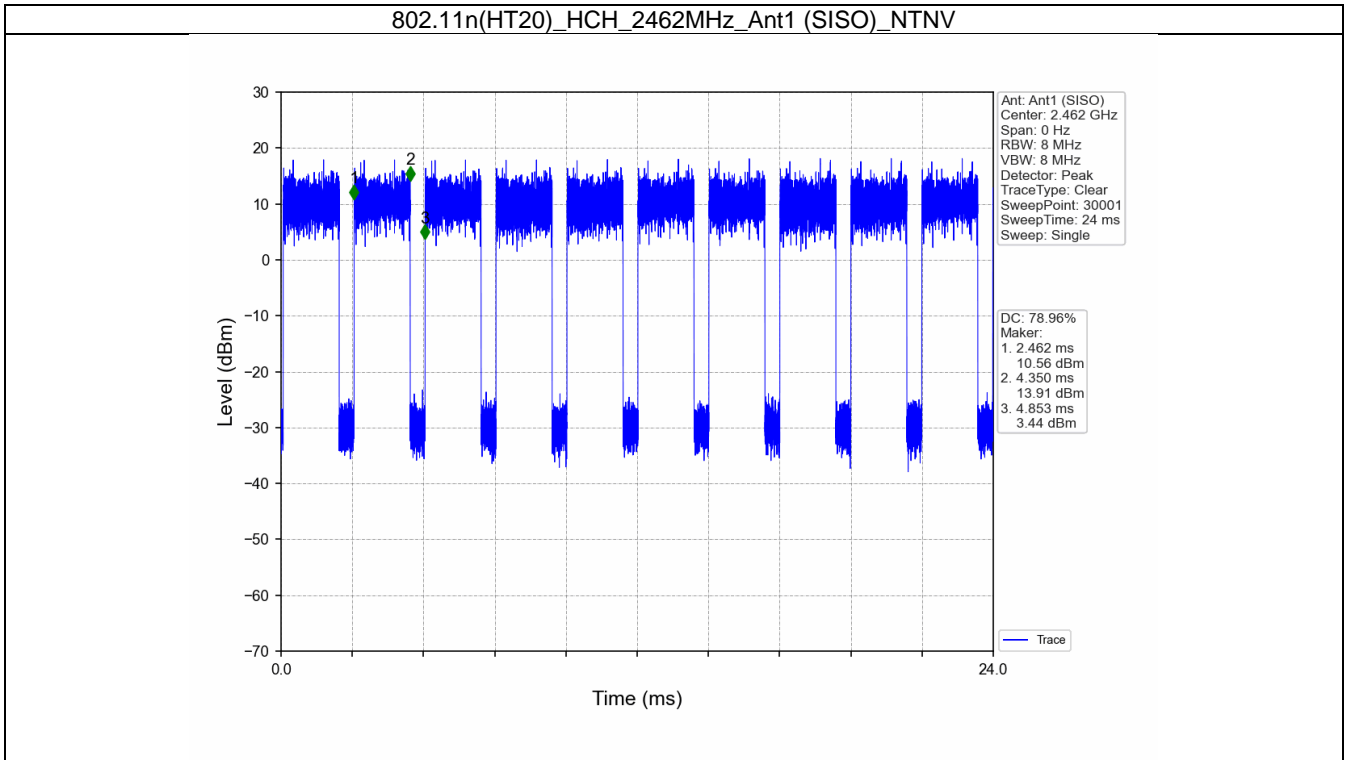


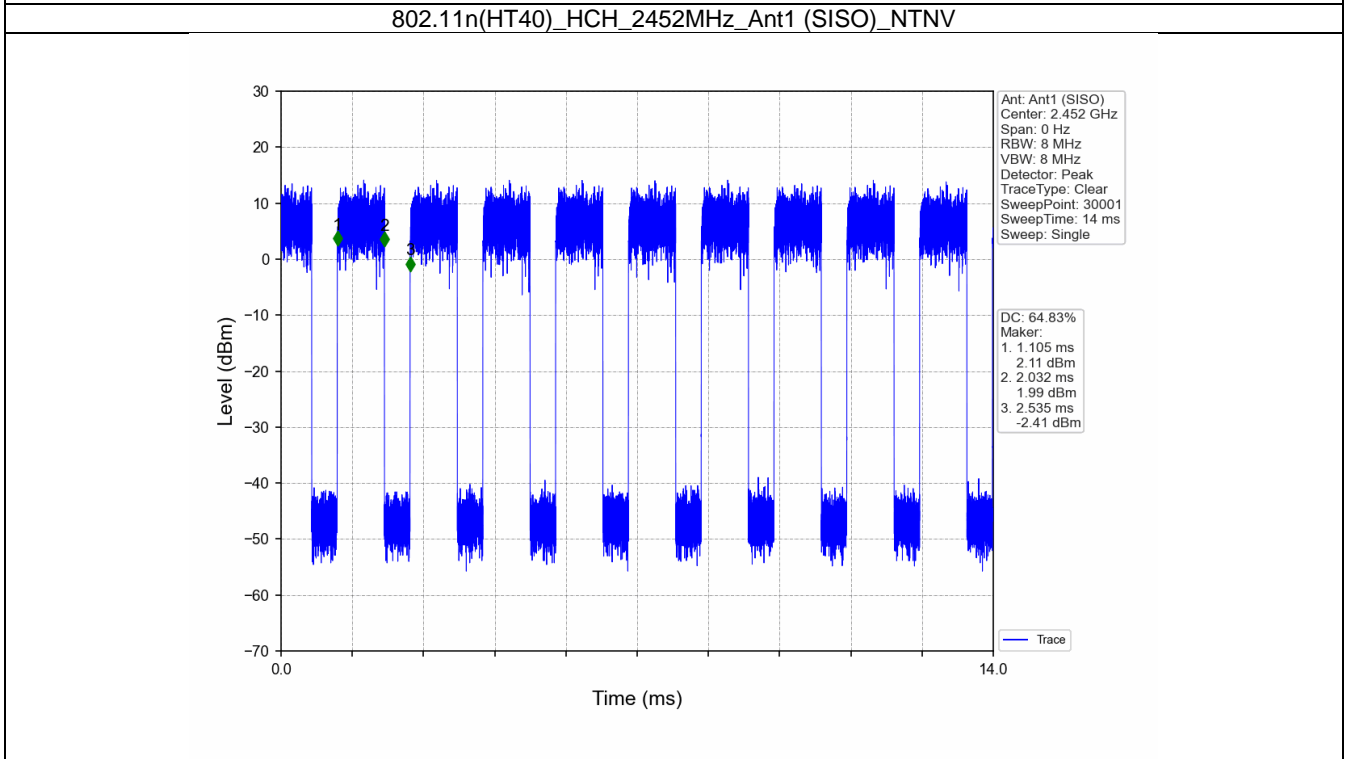
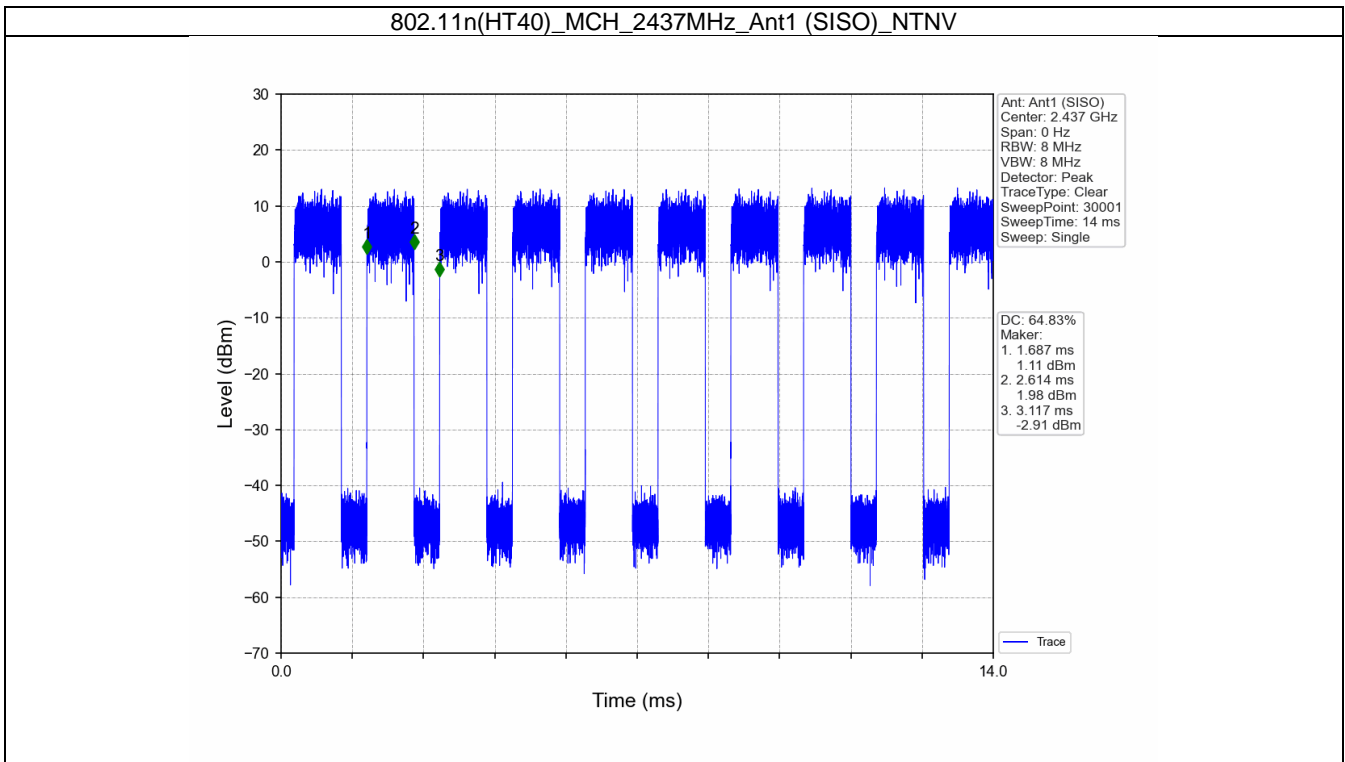
802.11g_LCH_2412MHz_Ant1 (SISO)_NTNV











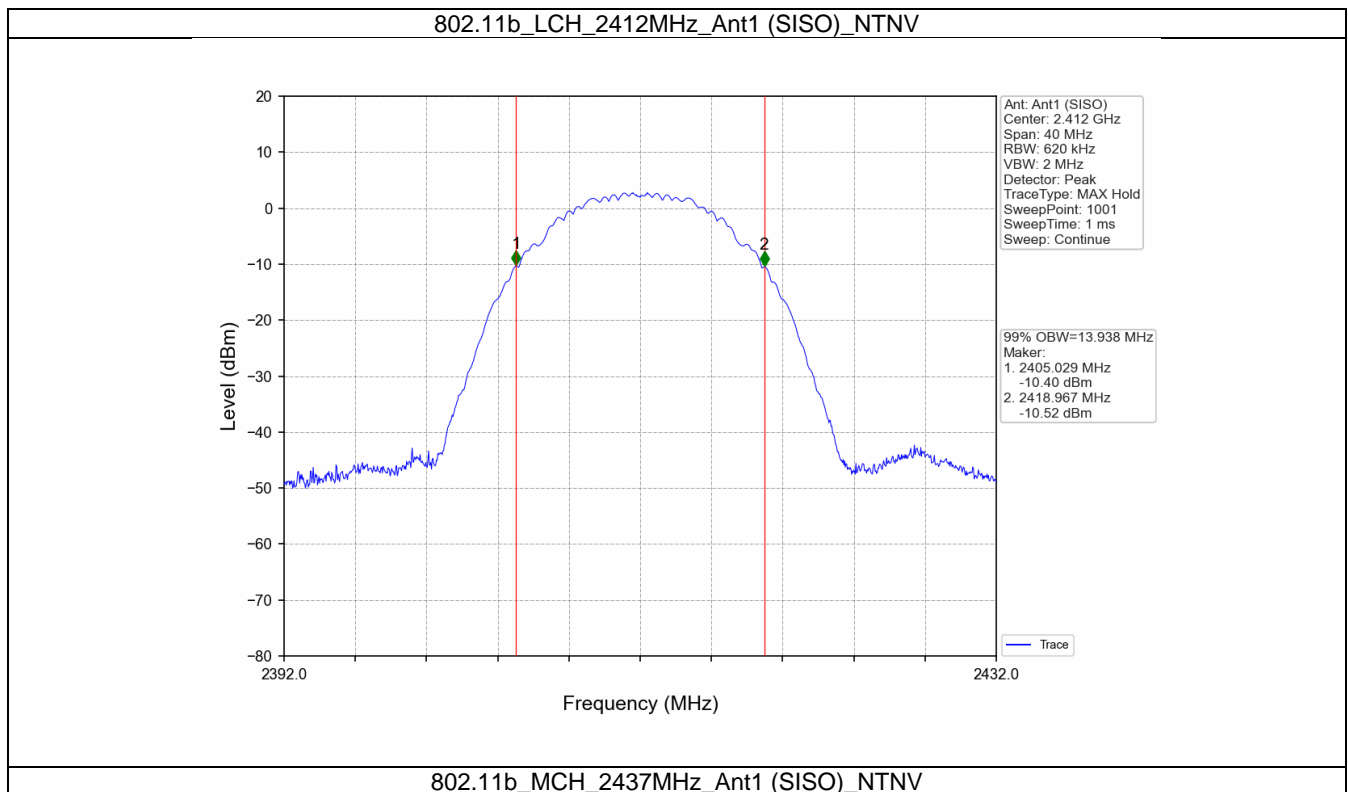
2. Bandwidth

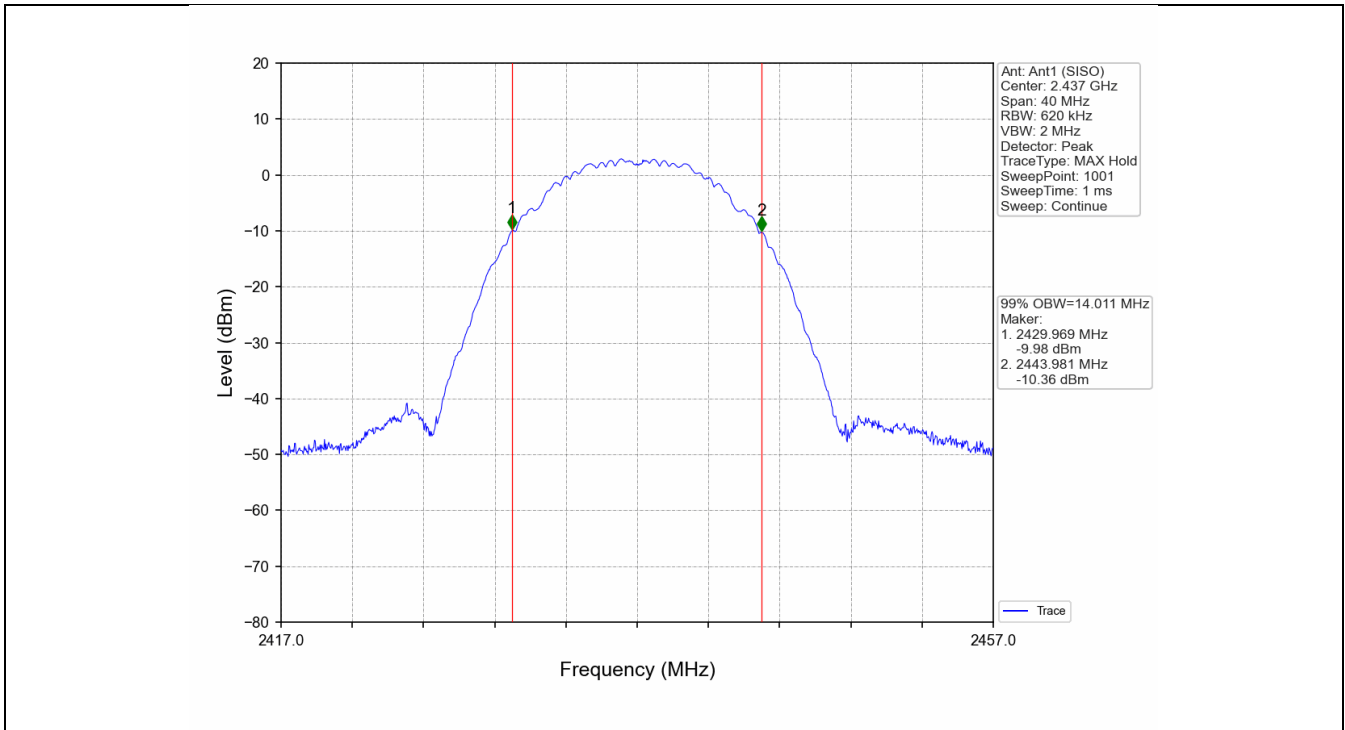
2.1 OBW

2.1.1 Test Result

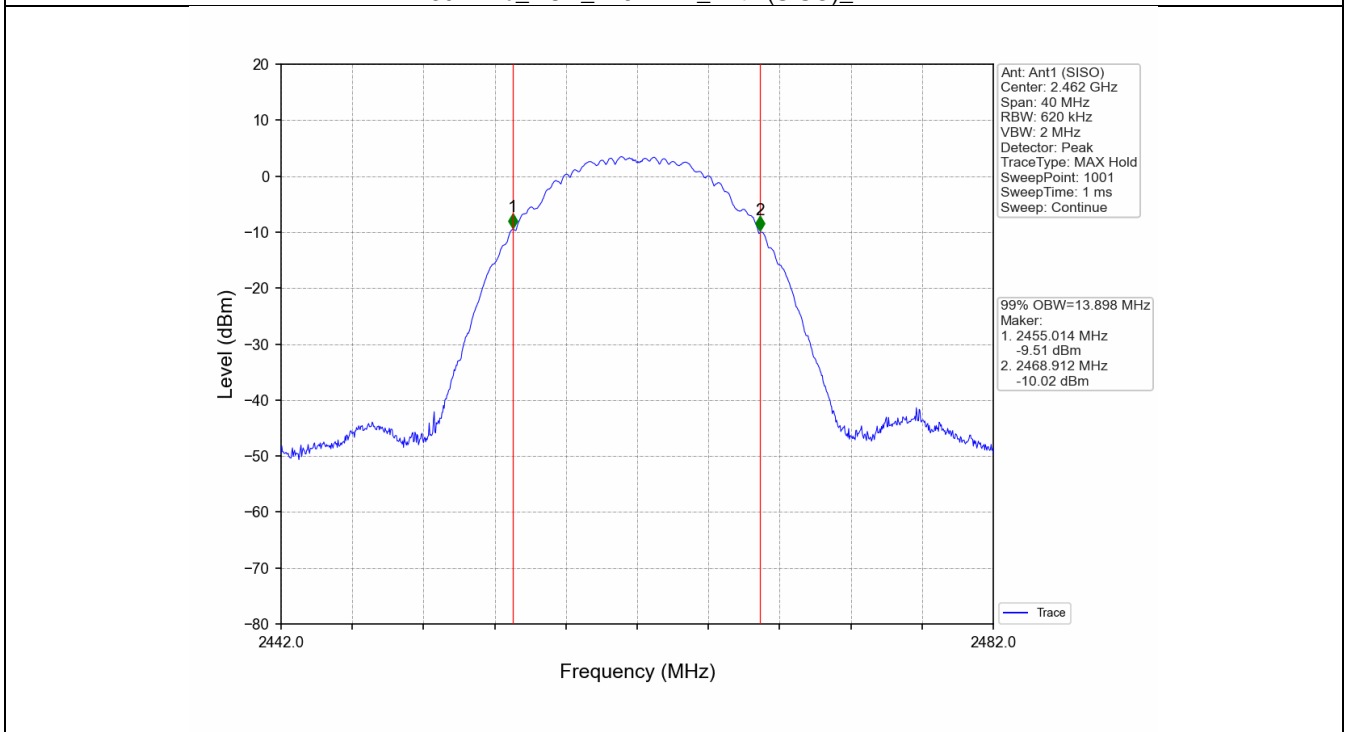
Mode	TX Type	Frequency (MHz)	Ant	99% Occupied Bandwidth (MHz)	Limit (MHz)	Verdict
802.11b	SISO	2412	1	13.938	/	Pass
		2437	1	14.011	/	Pass
		2462	1	13.898	/	Pass
802.11g	SISO	2412	1	17.601	/	Pass
		2437	1	17.572	/	Pass
		2462	1	17.750	/	Pass
802.11n (HT20)	SISO	2412	1	18.763	/	Pass
		2437	1	18.833	/	Pass
		2462	1	19.038	/	Pass
802.11n (HT40)	SISO	2422	1	36.165	/	Pass
		2437	1	36.151	/	Pass
		2452	1	36.244	/	Pass

2.1.2 Test Graph

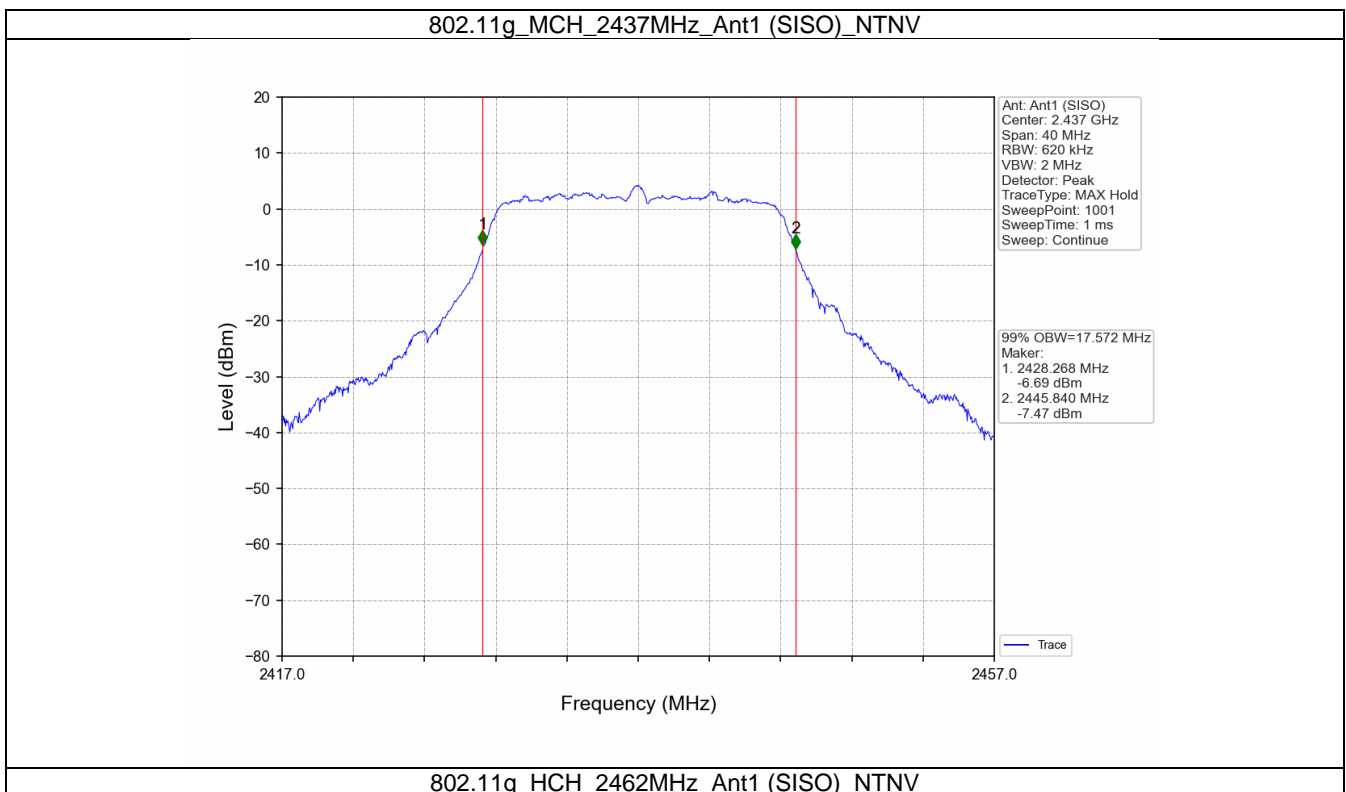
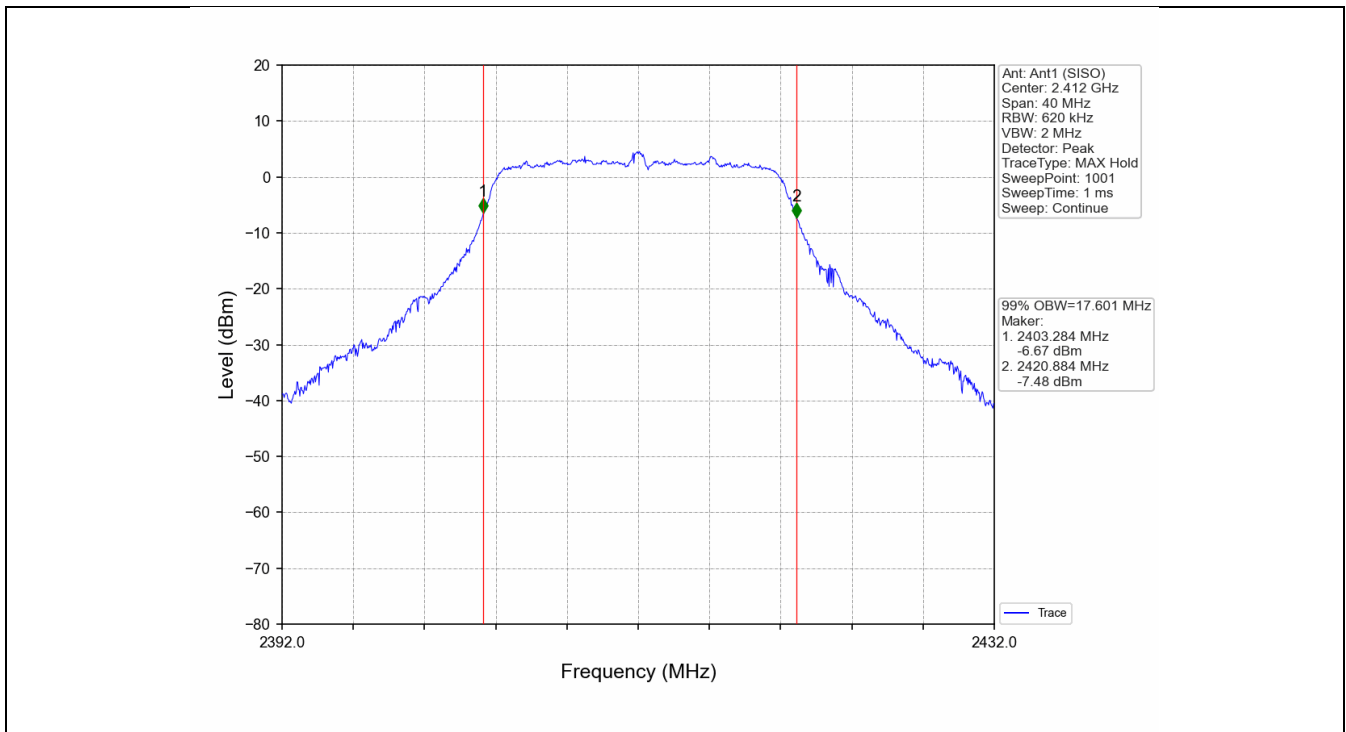


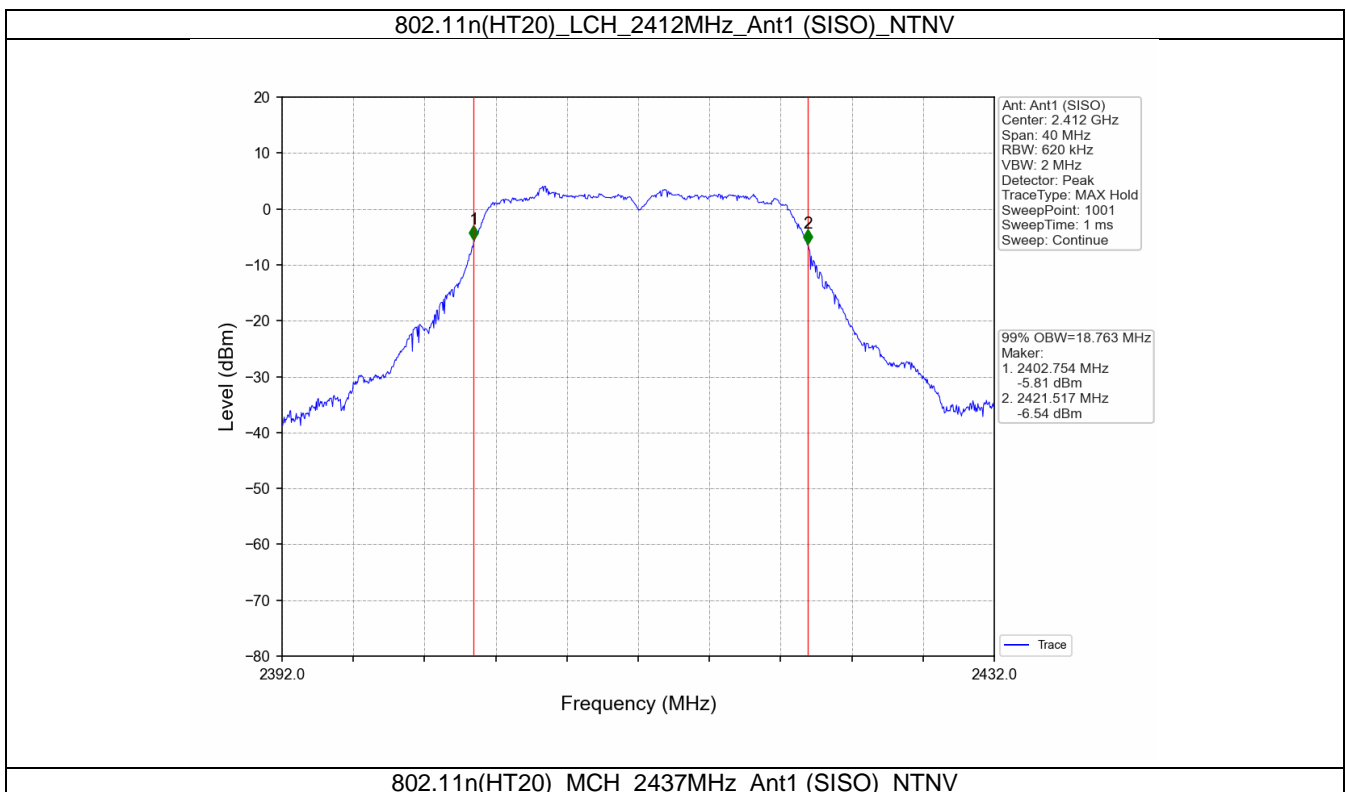
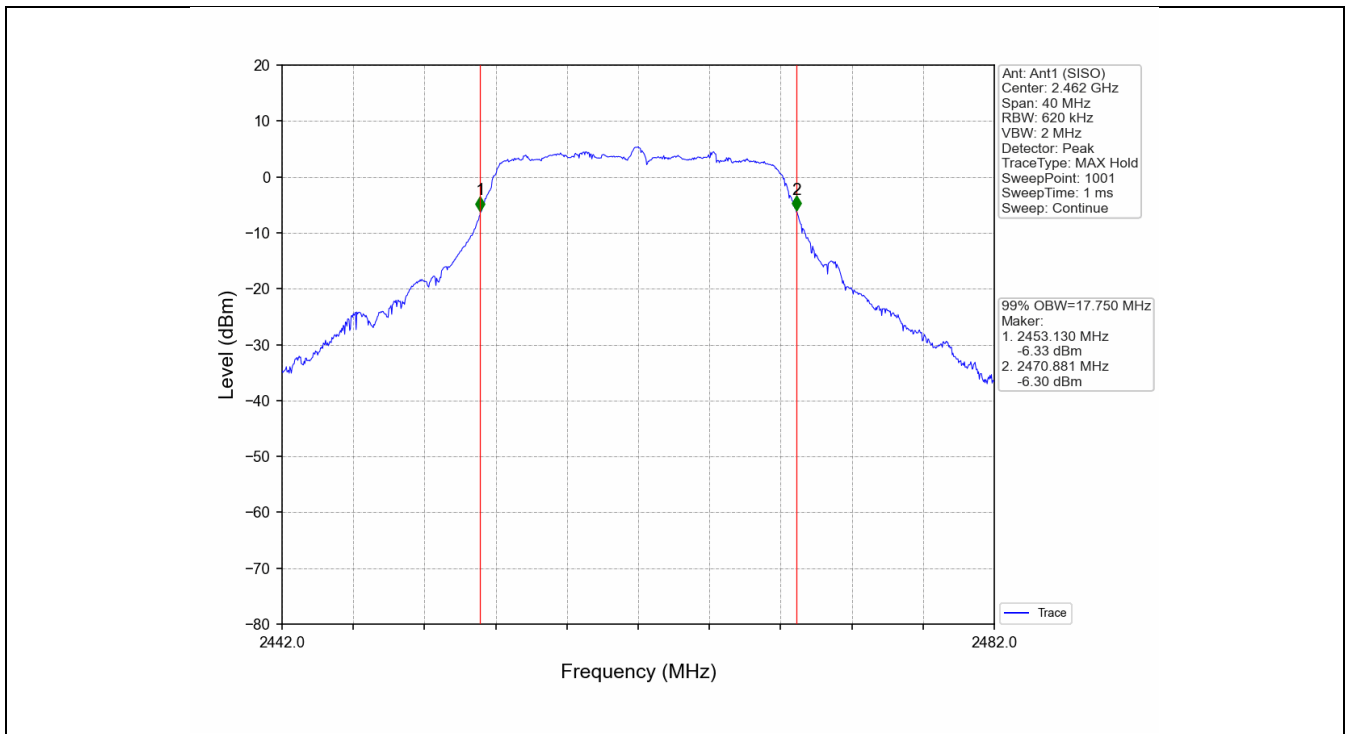


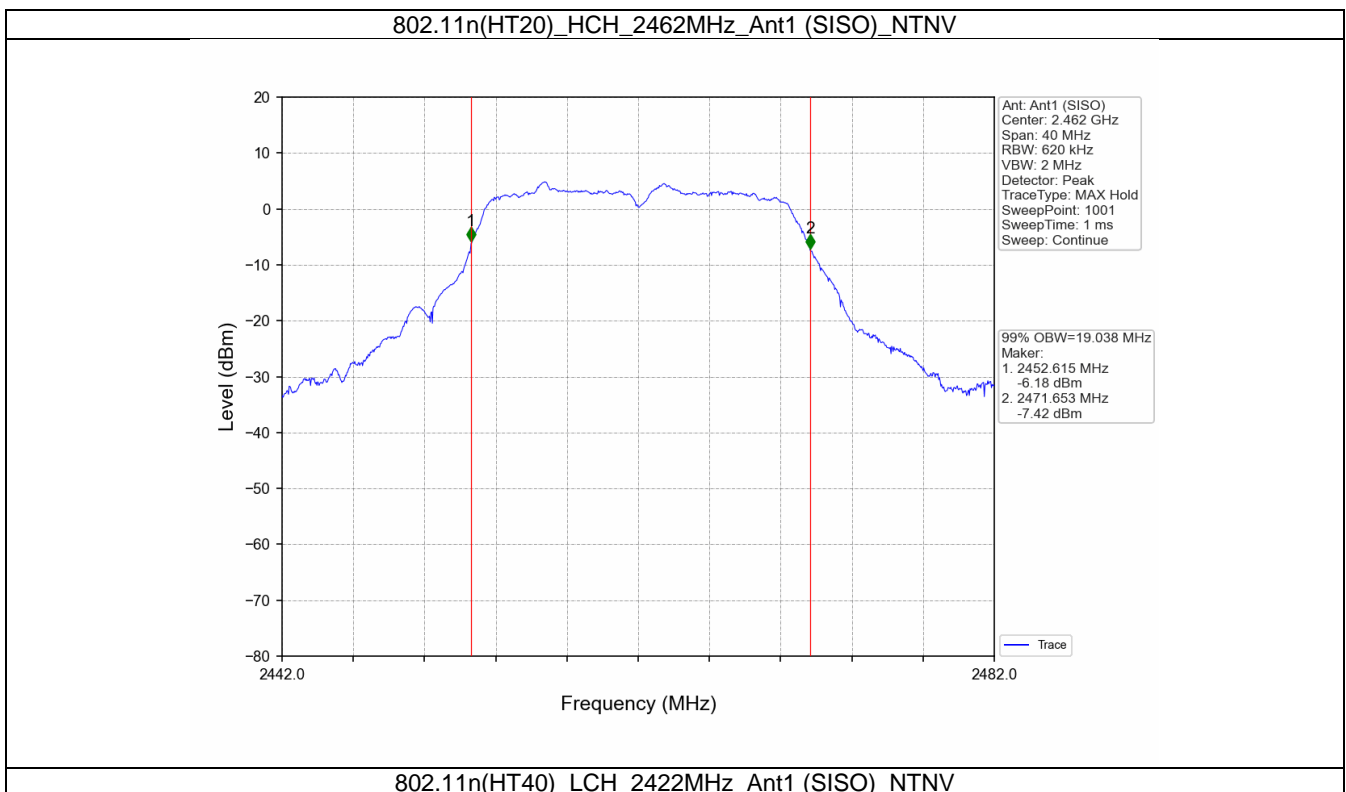
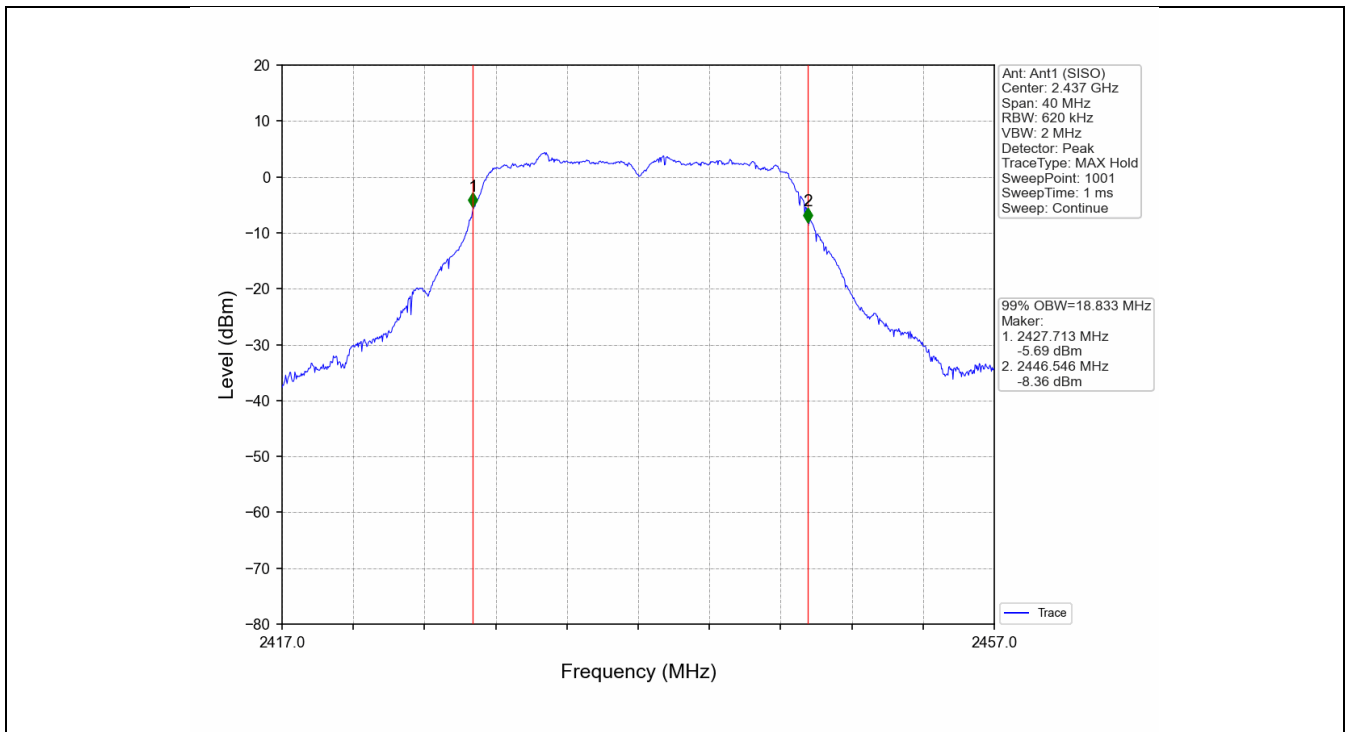
802.11b_HCH_2462MHz_Ant1 (SISO)_NTNV

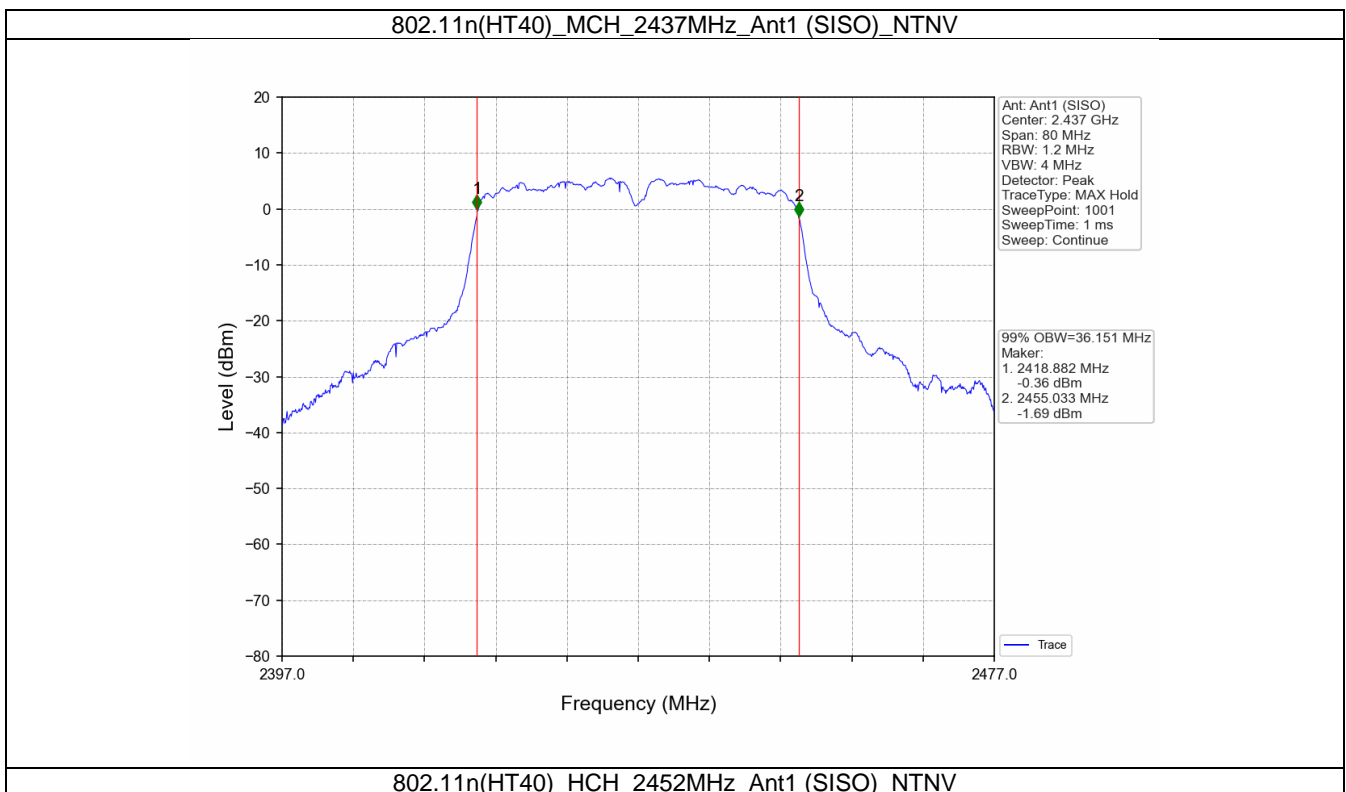
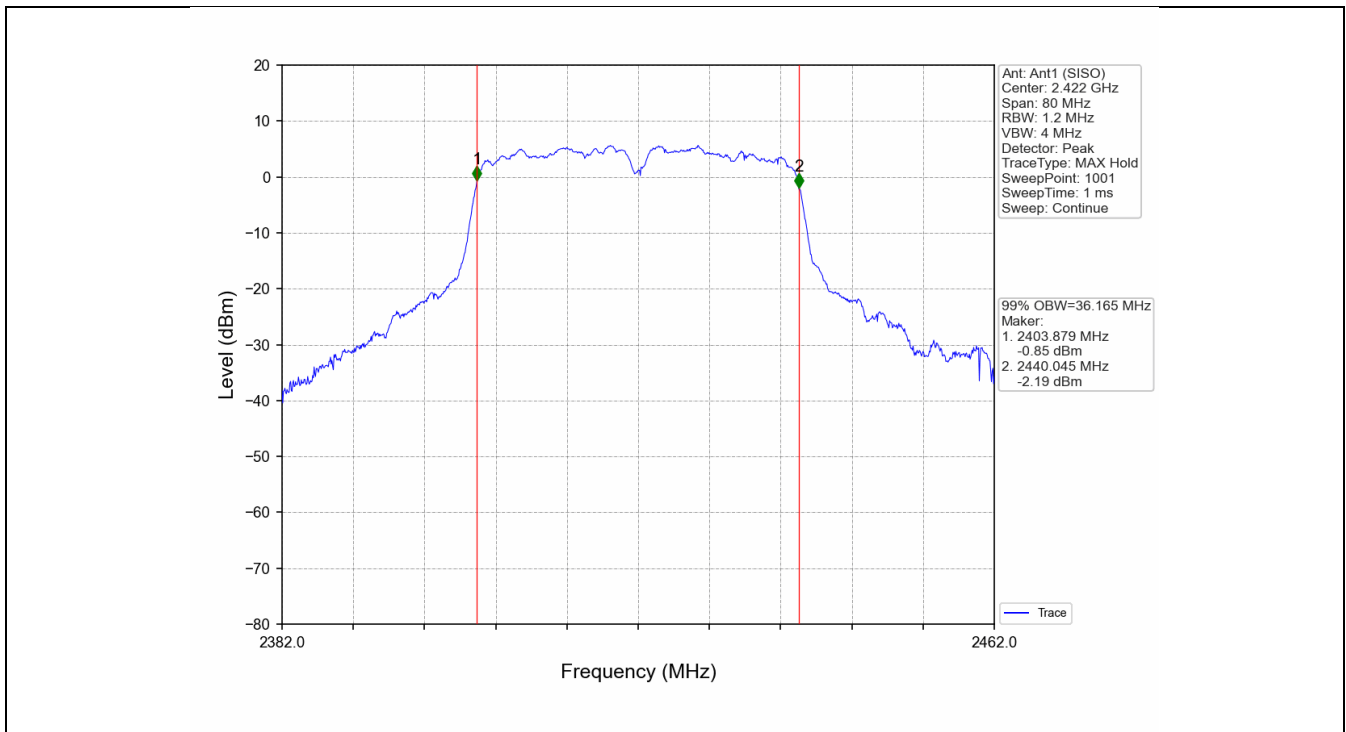


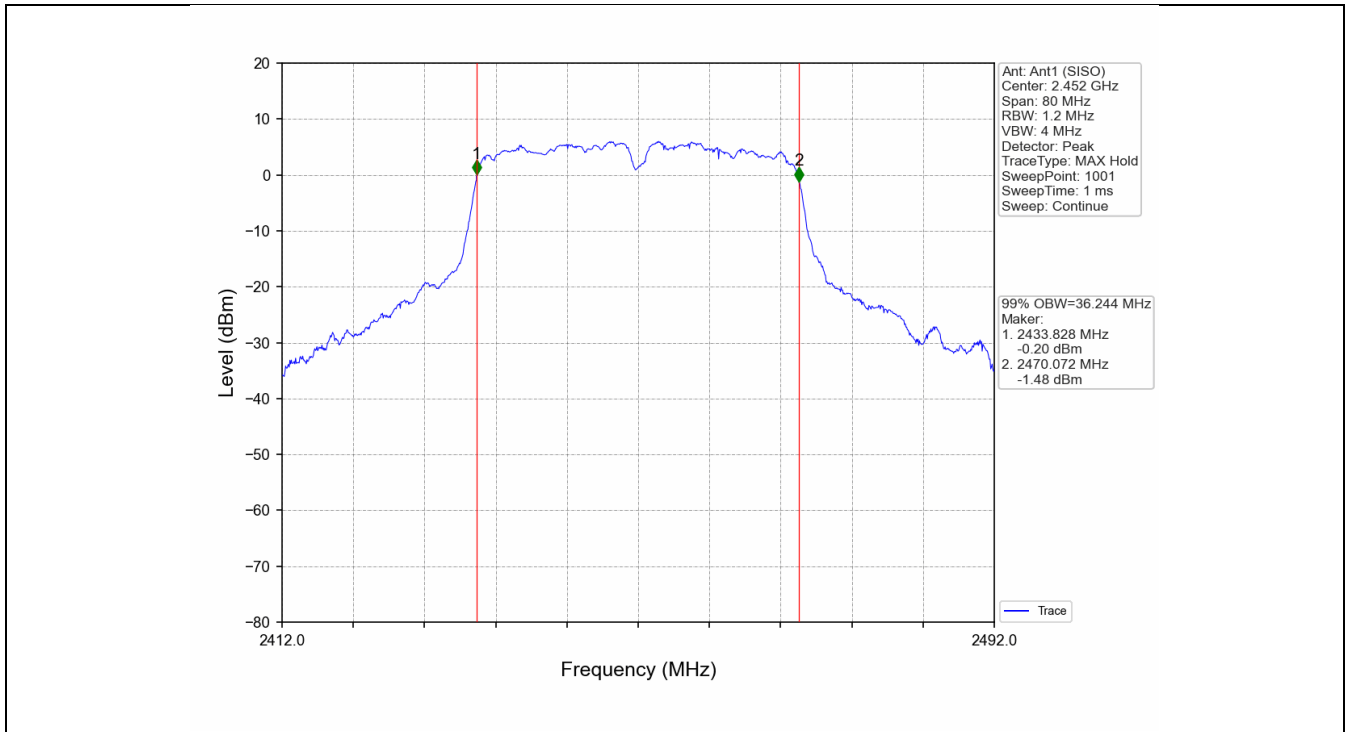
802.11g_LCH_2412MHz_Ant1 (SISO)_NTNV











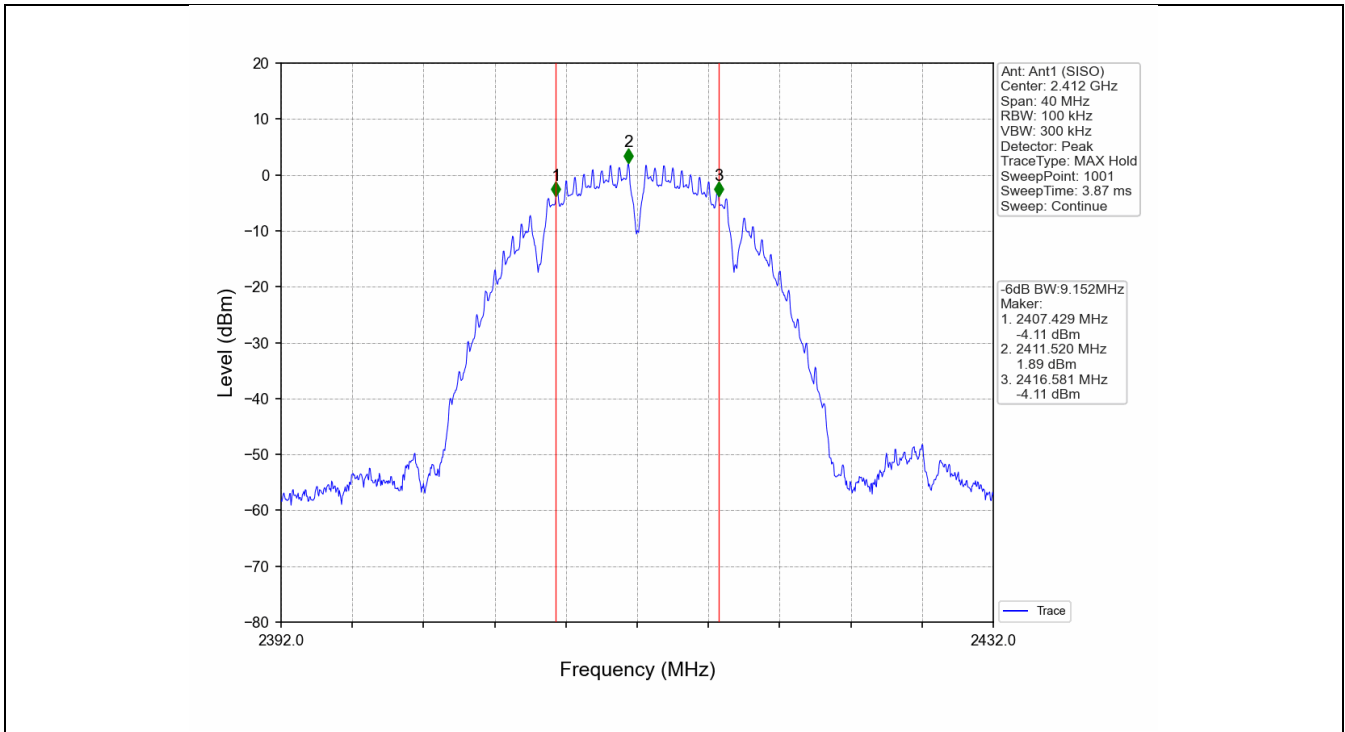
2.2 6dB BW

2.2.1 Test Result

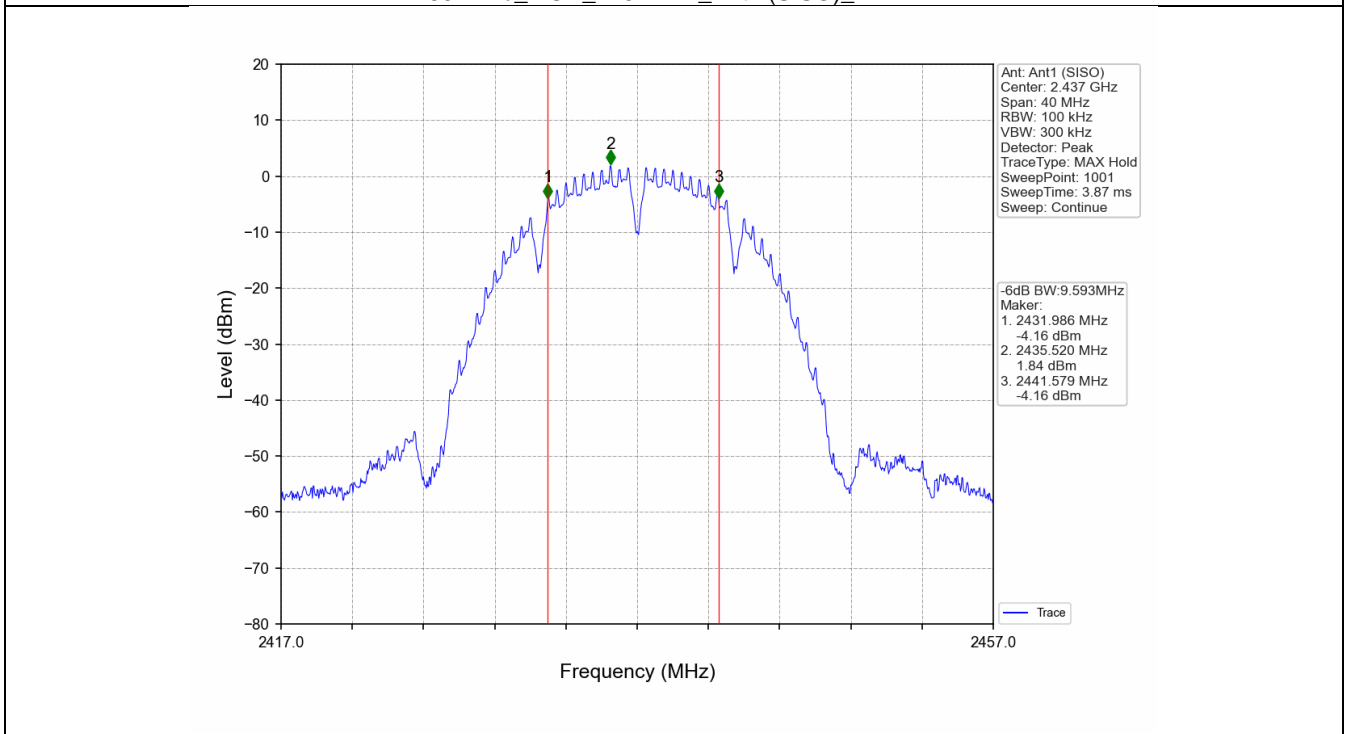
Mode	TX Type	Frequency (MHz)	Ant	6dB Bandwidth (MHz)	Limit (MHz)	Verdict
802.11b	SISO	2412	1	9.152	≥ 0.5	Pass
		2437	1	9.593	≥ 0.5	Pass
		2462	1	9.601	≥ 0.5	Pass
802.11g	SISO	2412	1	16.397	≥ 0.5	Pass
		2437	1	16.369	≥ 0.5	Pass
		2462	1	16.427	≥ 0.5	Pass
802.11n (HT20)	SISO	2412	1	17.302	≥ 0.5	Pass
		2437	1	17.591	≥ 0.5	Pass
		2462	1	17.369	≥ 0.5	Pass
802.11n (HT40)	SISO	2422	1	35.643	≥ 0.5	Pass
		2437	1	35.662	≥ 0.5	Pass
		2452	1	35.507	≥ 0.5	Pass

2.2.2 Test Graph

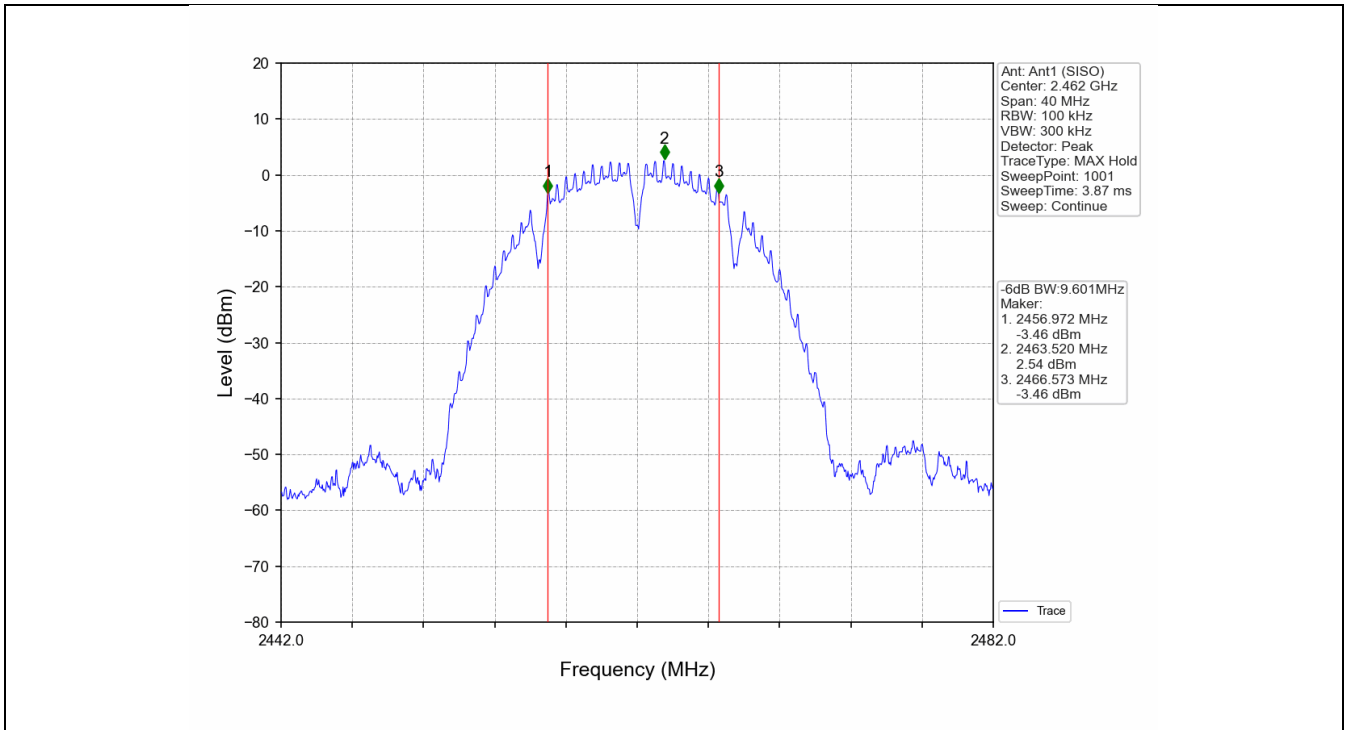
802.11b_LCH_2412MHz_Ant1 (SISO)_NTNV



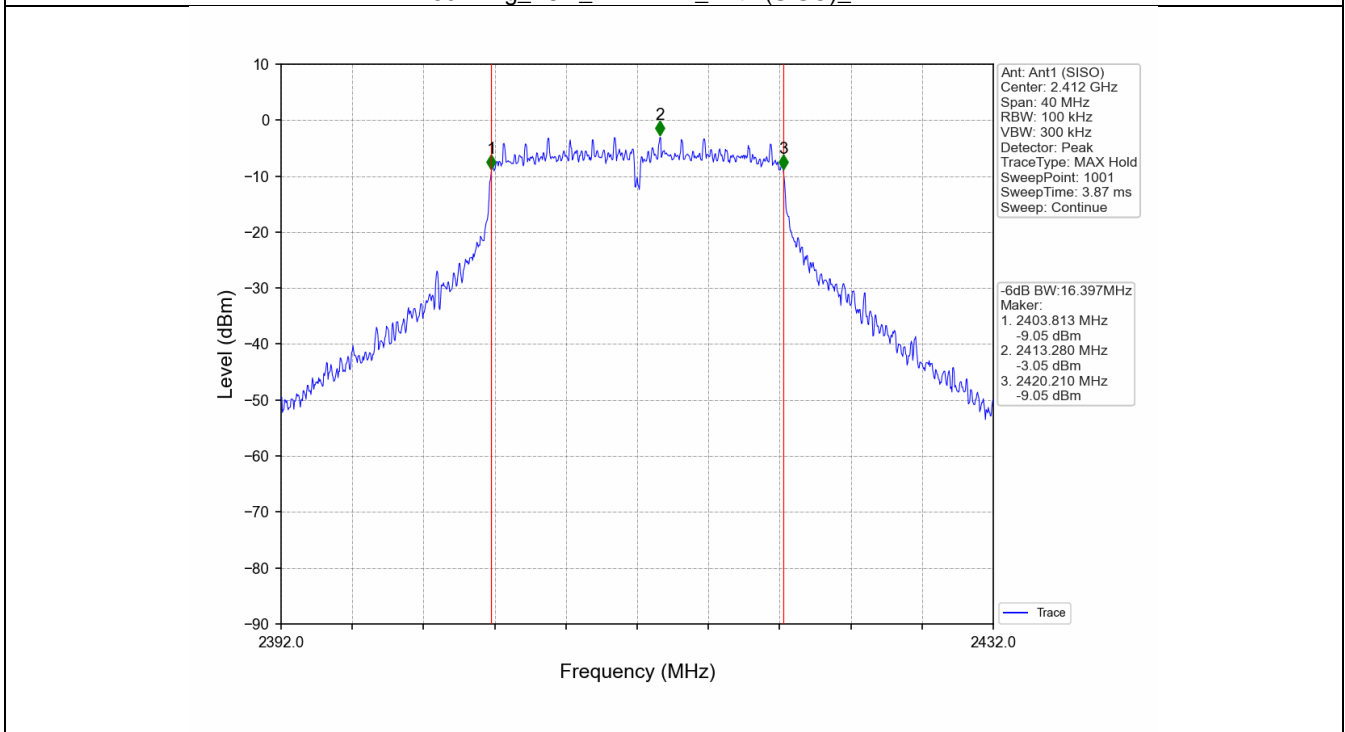
802.11b_MCH_2437MHz_Ant1 (SISO)_NTNV



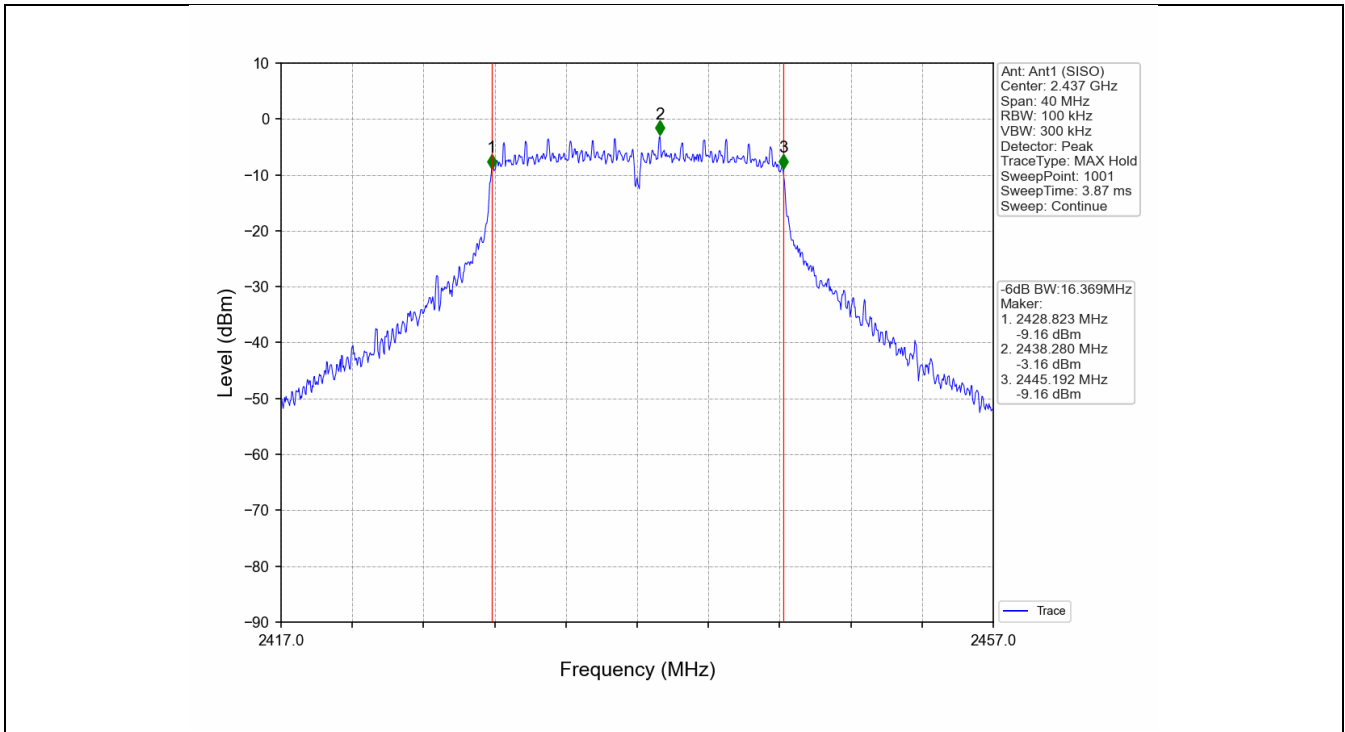
802.11b_HCH_2462MHz_Ant1 (SISO)_NTNV



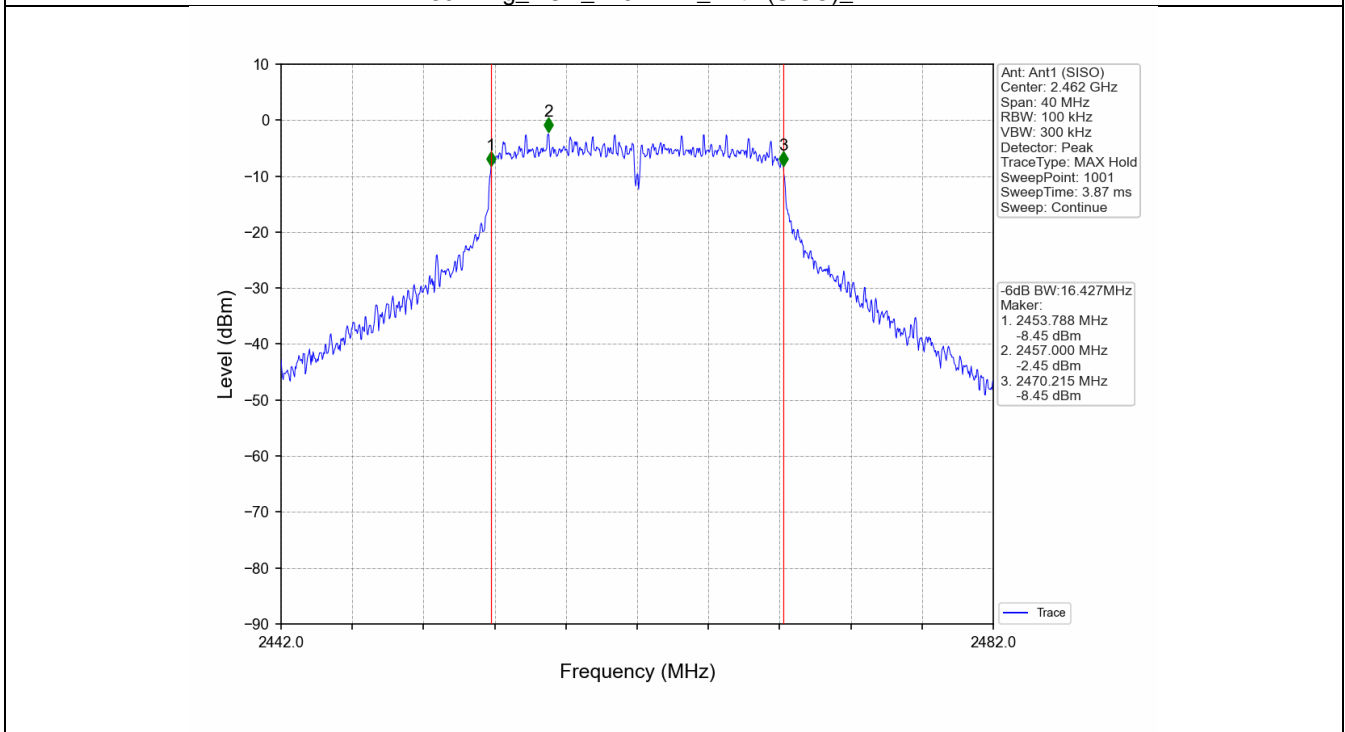
802.11g_LCH_2412MHz_Ant1 (SISO)_NTNV



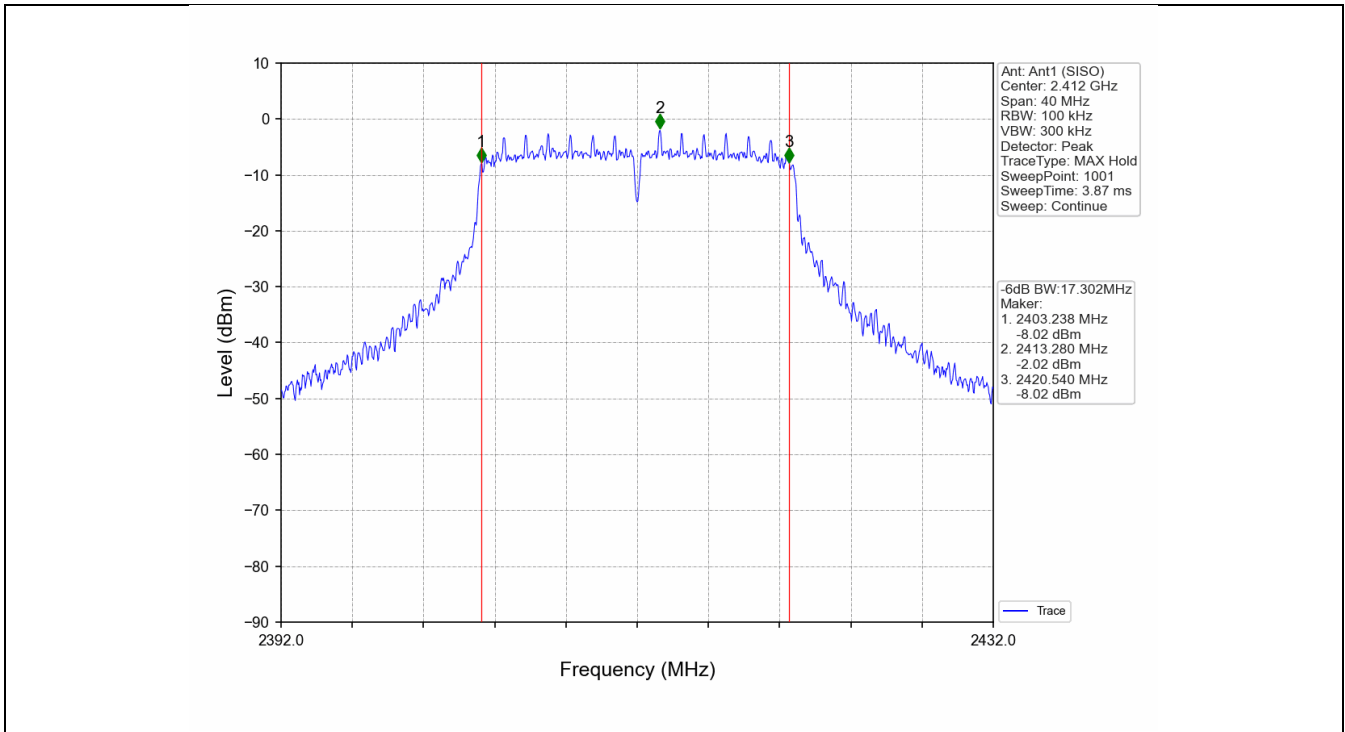
802.11g_MCH_2437MHz_Ant1 (SISO)_NTNV



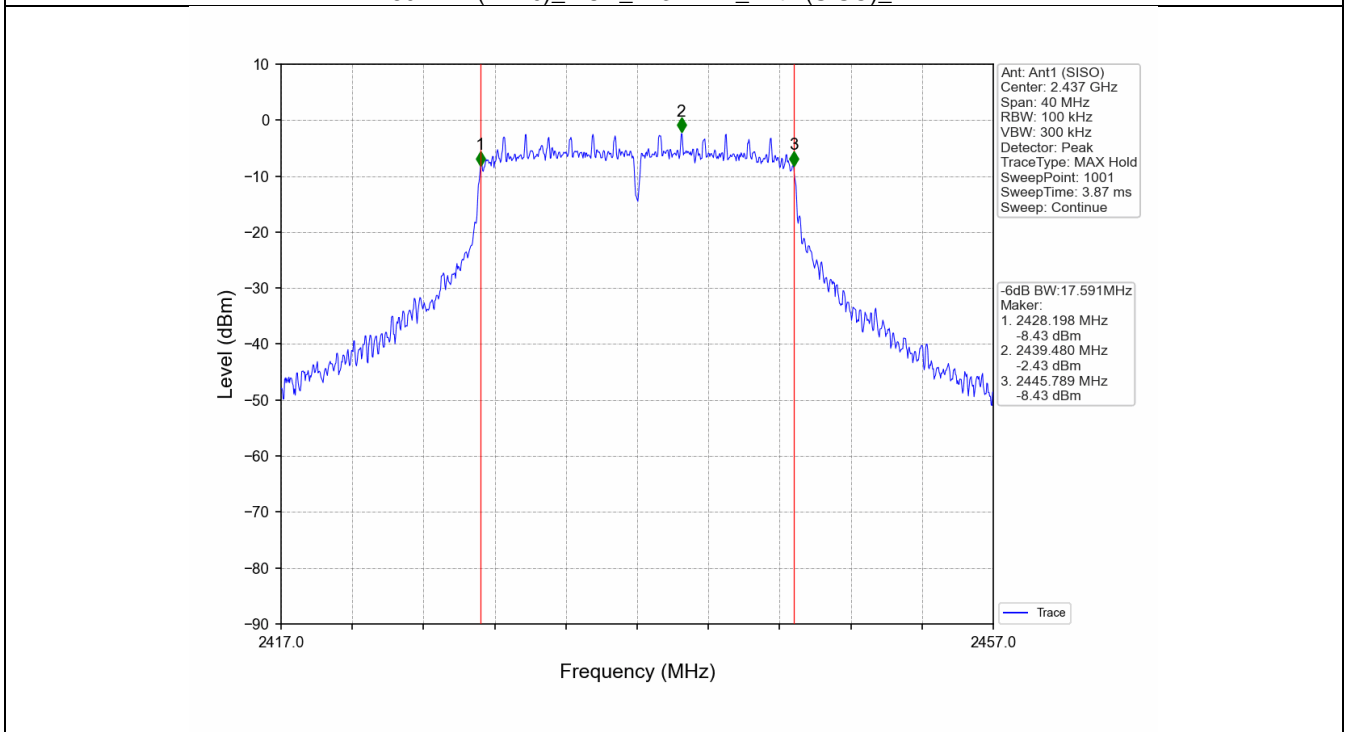
802.11g_HCH_2462MHz_Ant1 (SISO)_NTNV



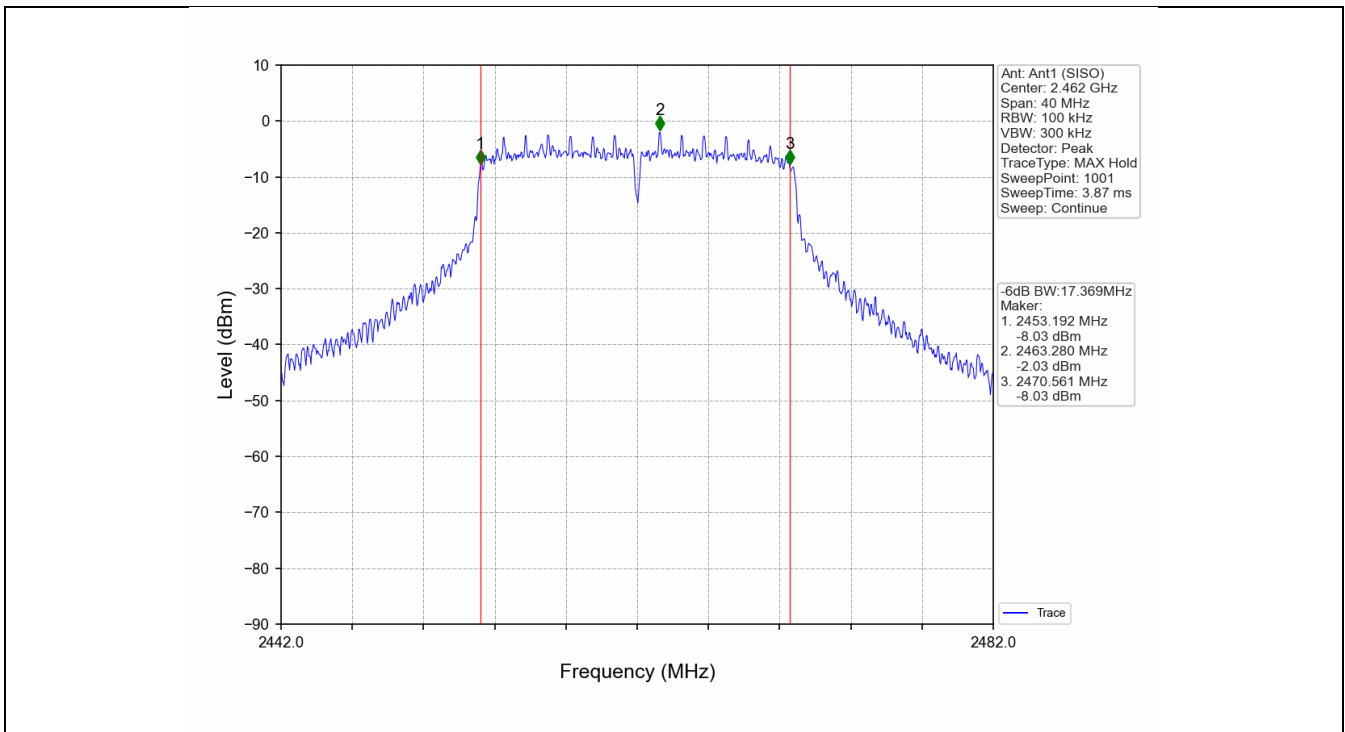
802.11n(HT20)_LCH_2412MHz_Ant1 (SISO)_NTNV



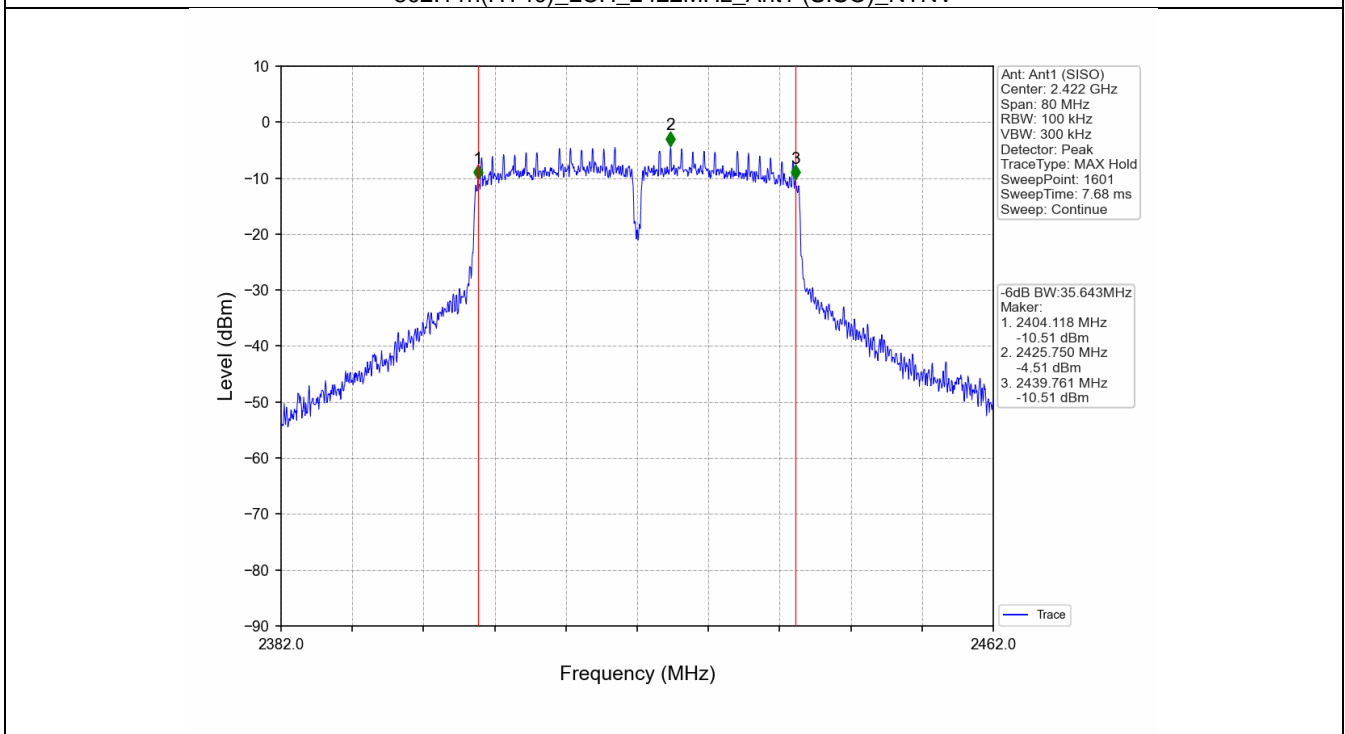
802.11n(HT20)_MCH_2437MHz_Ant1 (SISO)_NTNV



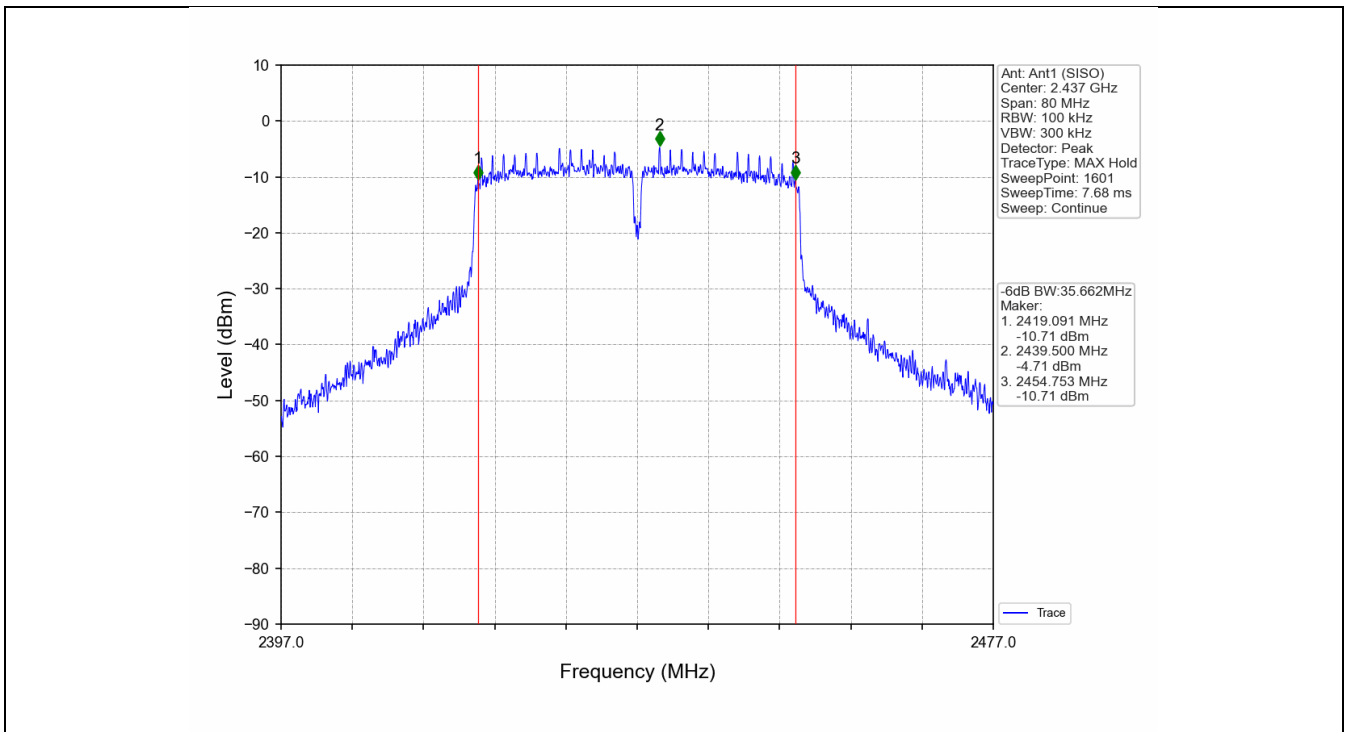
802.11n(HT20)_HCH_2462MHz_Ant1 (SISO)_NTNV



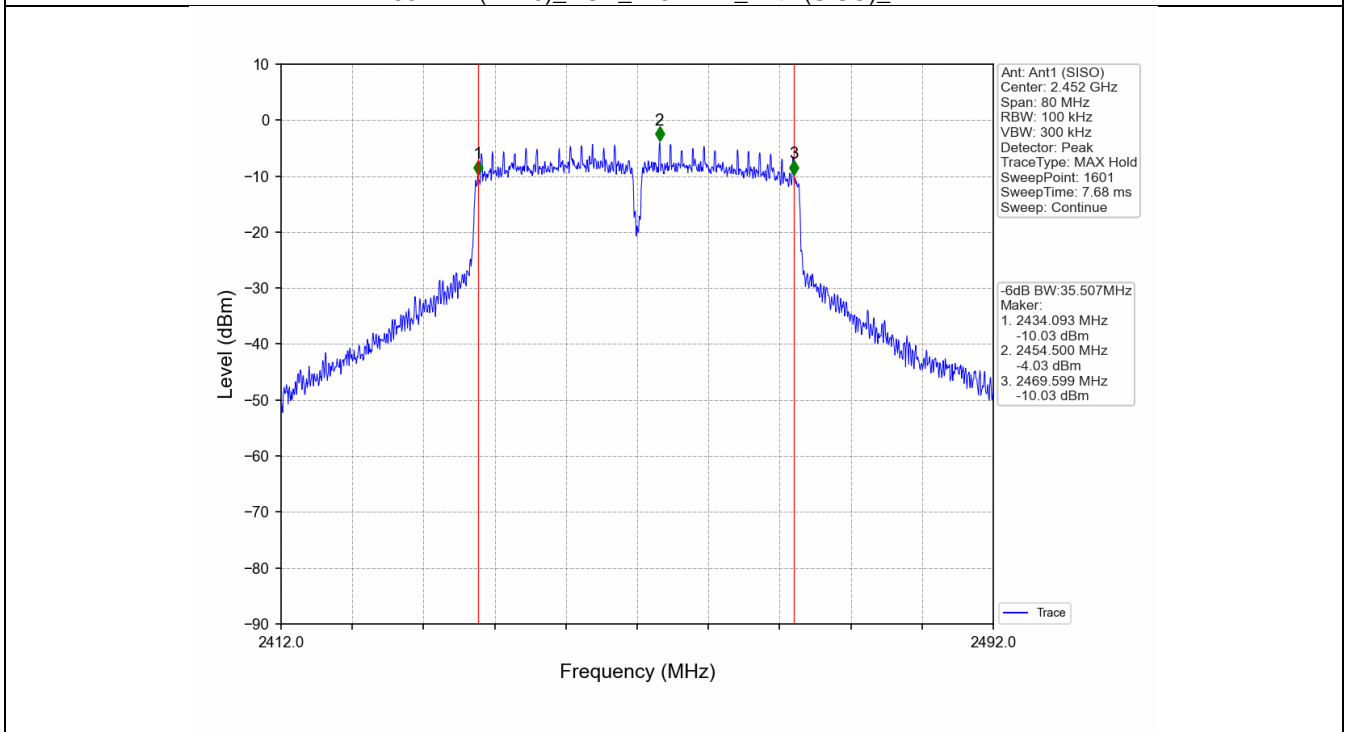
802.11n(HT40)_LCH_2422MHz_Ant1 (SISO)_NTNV



802.11n(HT40)_MCH_2437MHz_Ant1 (SISO)_NTNV



802.11n(HT40)_HCH_2452MHz_Ant1 (SISO)_NTNV



3. Maximum Conducted Output Power

3.1 Power

3.1.1 Test Result

Mode	TX Type	Frequency (MHz)	Measured Peak Output Power (dBm)		Verdict
			Ant1	Limit	
802.11b	SISO	2412	13.40	<=30	Pass
		2437	13.36	<=30	Pass
		2462	14.10	<=30	Pass
802.11g	SISO	2412	17.12	<=30	Pass
		2437	16.78	<=30	Pass
		2462	18.33	<=30	Pass
802.11n (HT20)	SISO	2412	17.41	<=30	Pass
		2437	17.73	<=30	Pass
		2462	18.09	<=30	Pass
802.11n (HT40)	SISO	2422	17.61	<=30	Pass
		2437	17.52	<=30	Pass
		2452	18.08	<=30	Pass

Note1: Antenna Gain: Ant1: 1.62dBi;

4. Maximum Power Spectral Density

4.1 PSD

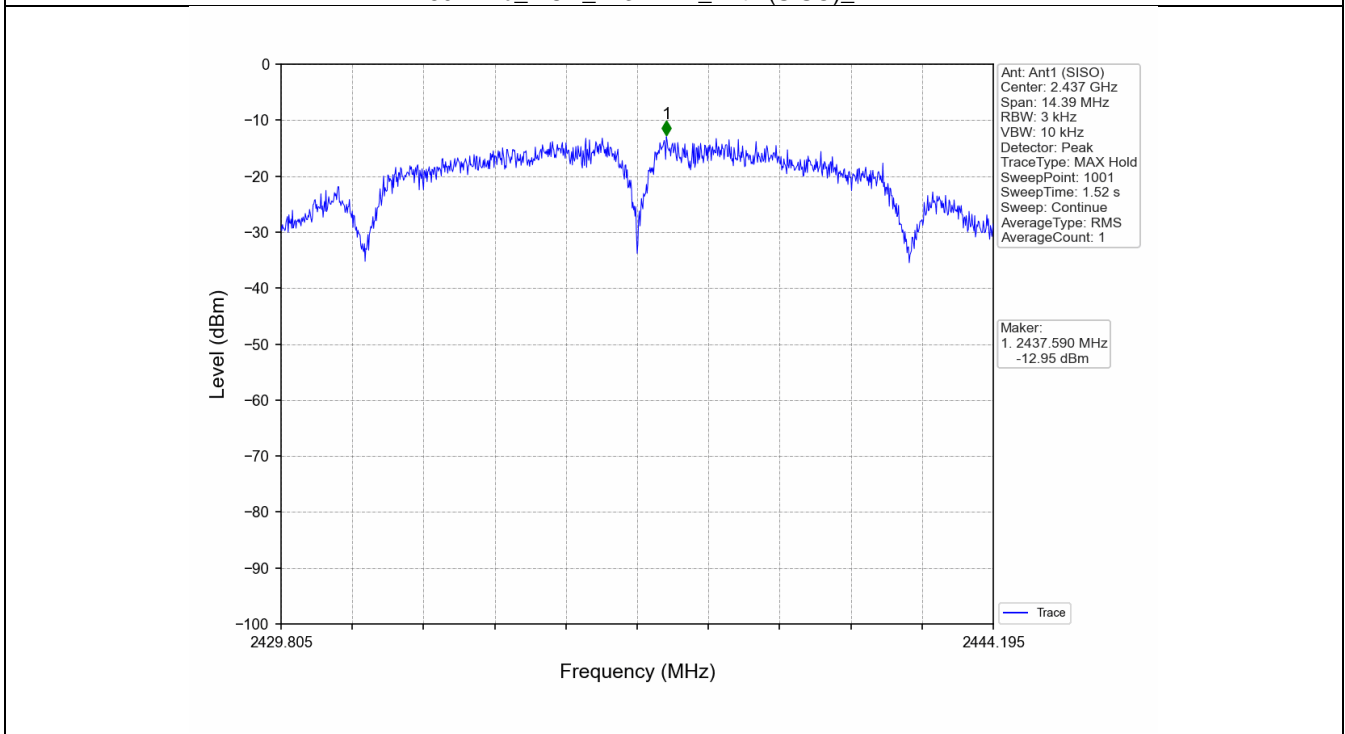
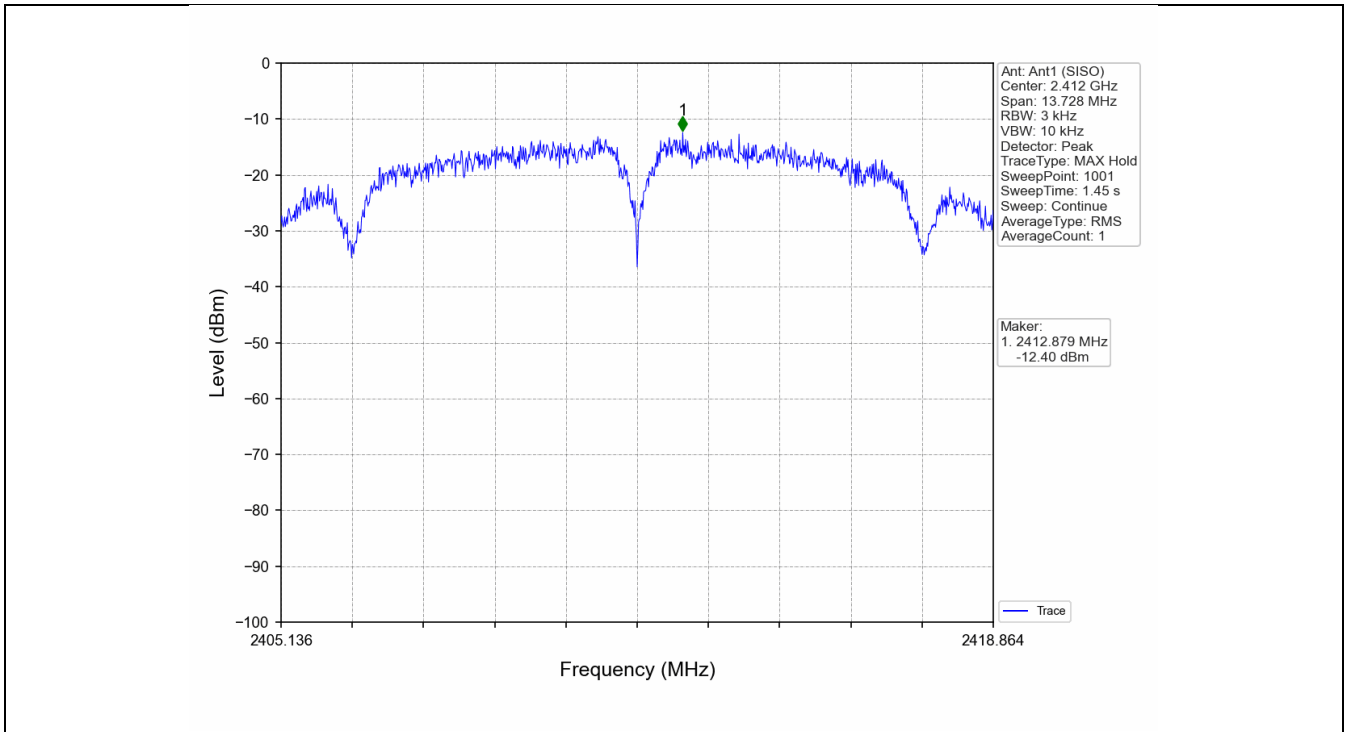
4.1.1 Test Result

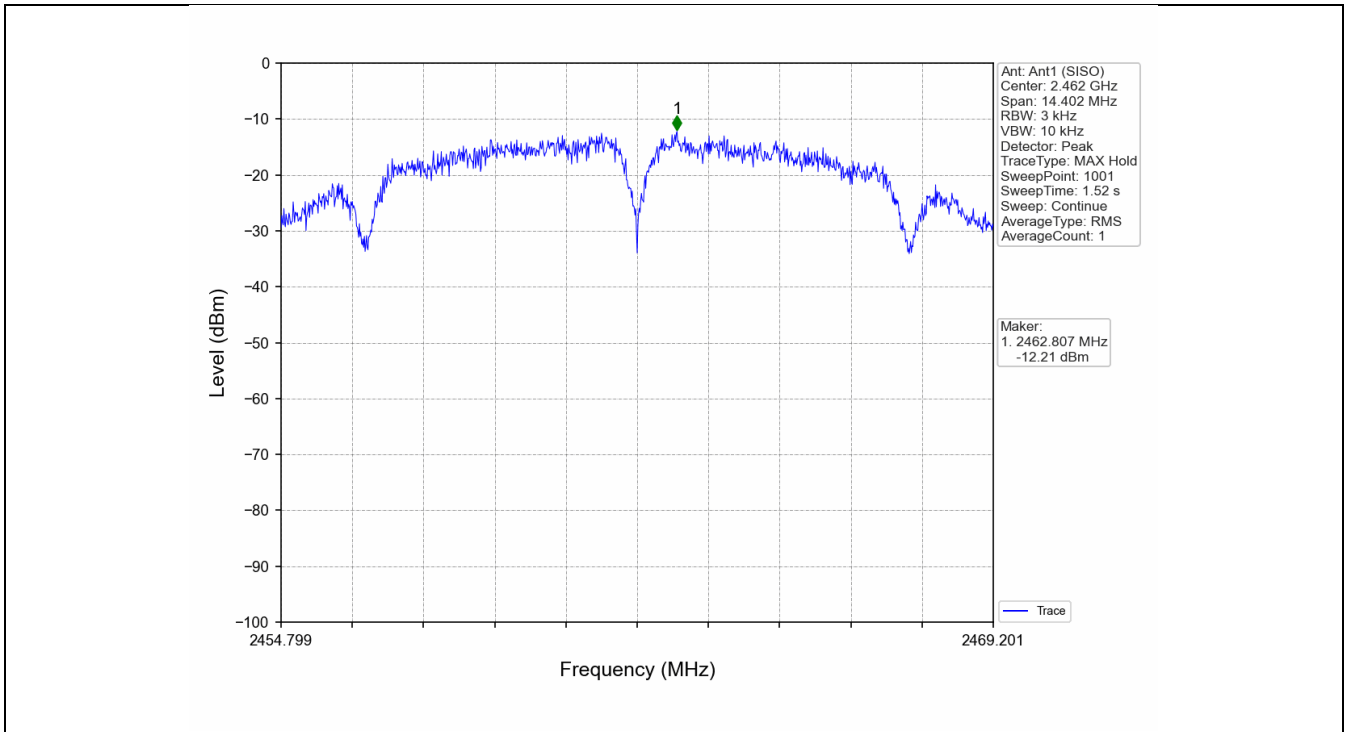
Mode	TX Type	Frequency (MHz)	Maximum PSD (dBm/3kHz)		Verdict
			Ant1	Limit	
802.11b	SISO	2412	-12.40	<=8	Pass
		2437	-12.95	<=8	Pass
		2462	-12.21	<=8	Pass
802.11g	SISO	2412	-17.25	<=8	Pass
		2437	-17.79	<=8	Pass
		2462	-16.32	<=8	Pass
802.11n (HT20)	SISO	2412	-16.51	<=8	Pass
		2437	-16.70	<=8	Pass
		2462	-16.49	<=8	Pass
802.11n (HT40)	SISO	2422	-18.25	<=8	Pass
		2437	-18.84	<=8	Pass
		2452	-17.43	<=8	Pass

Note1: Antenna Gain: Ant1: 1.62dBi;

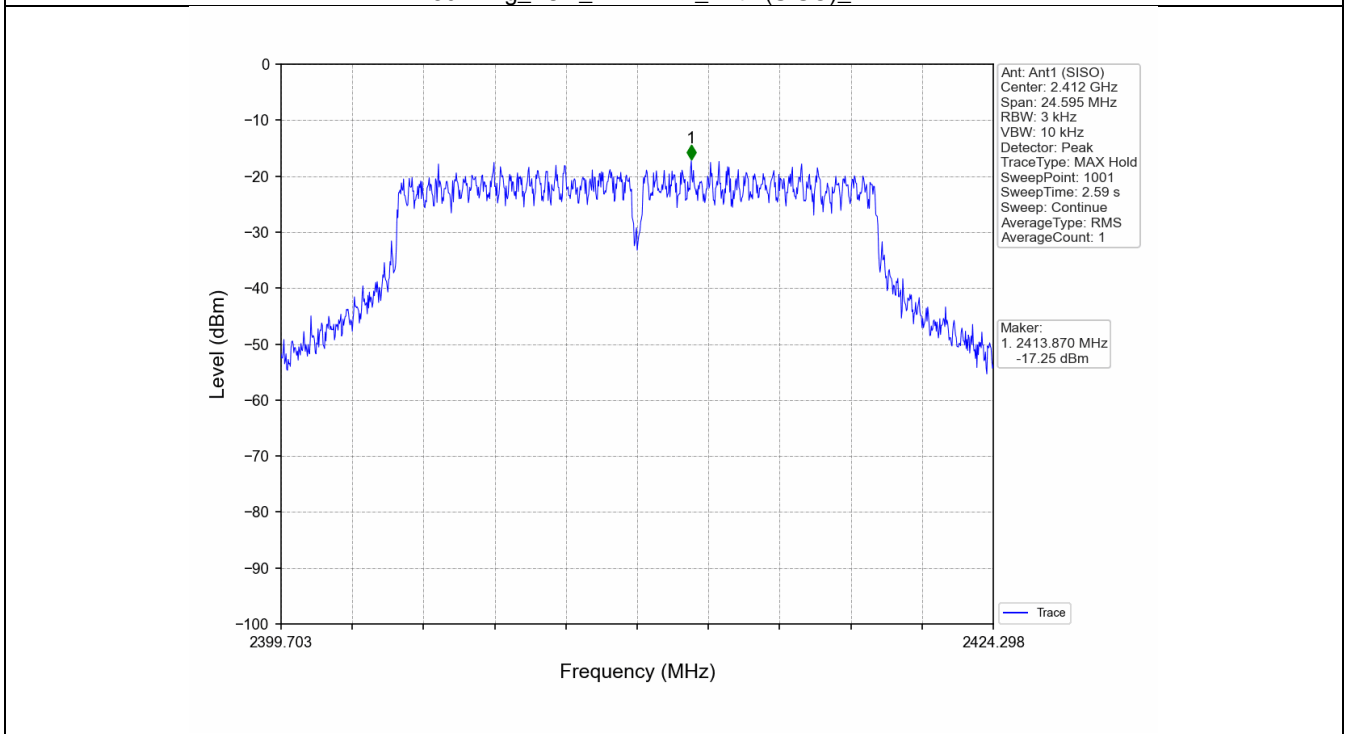
4.1.2 Test Graph

802.11b_LCH_2412MHz_Ant1 (SISO)_NTNV

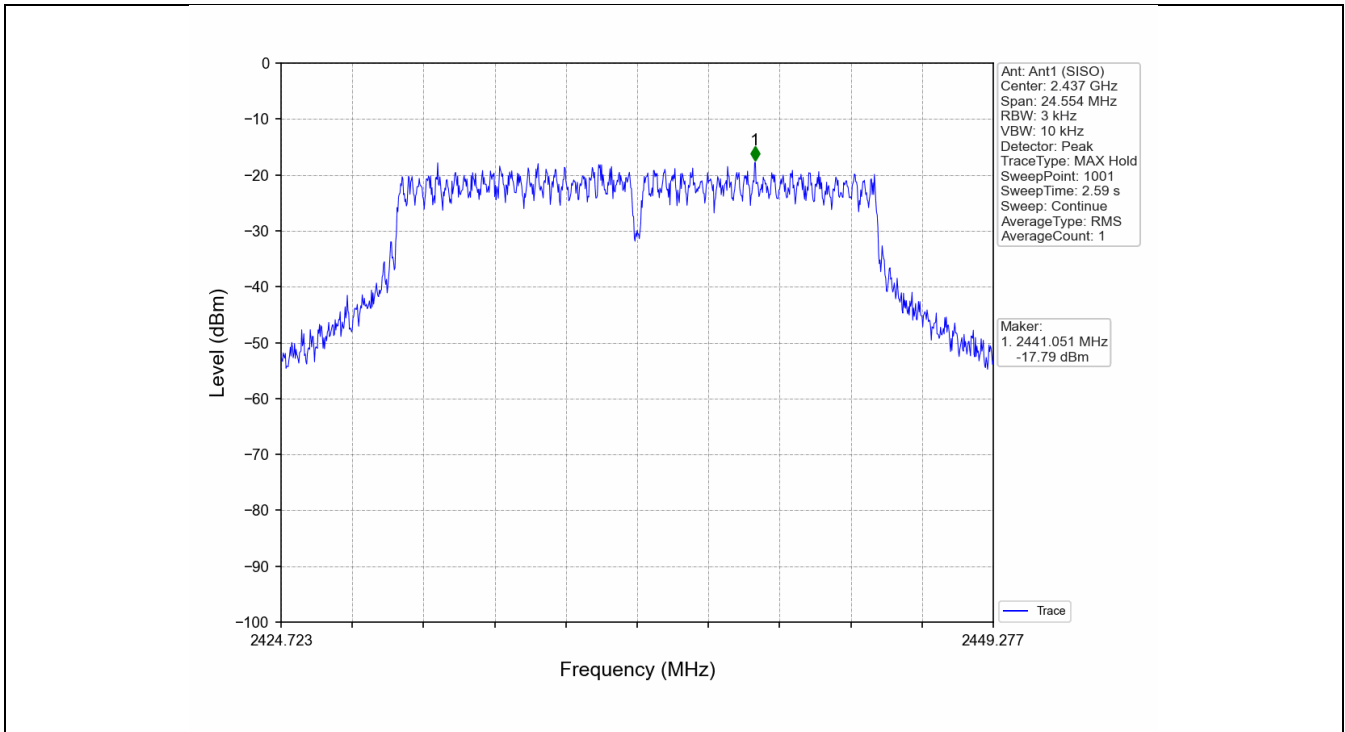




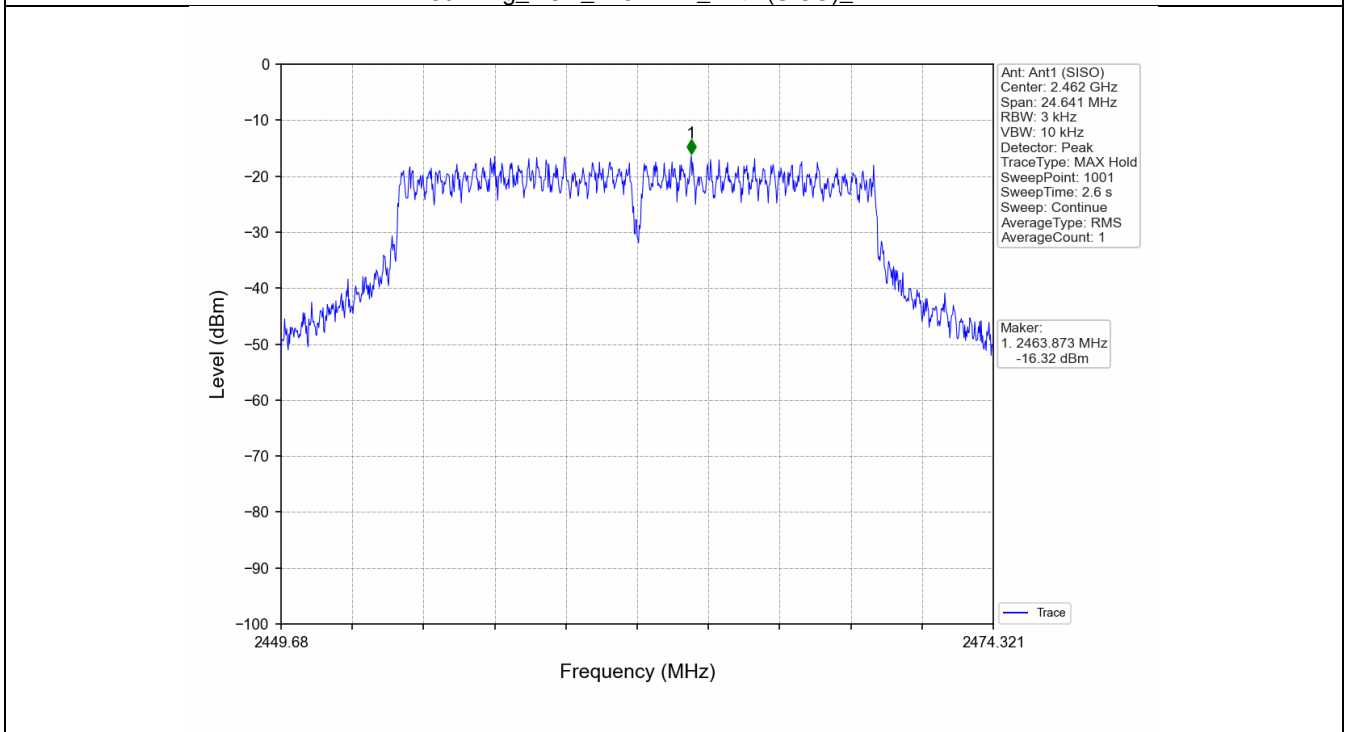
802.11g_LCH_2412MHz_Ant1 (SISO)_NTNV



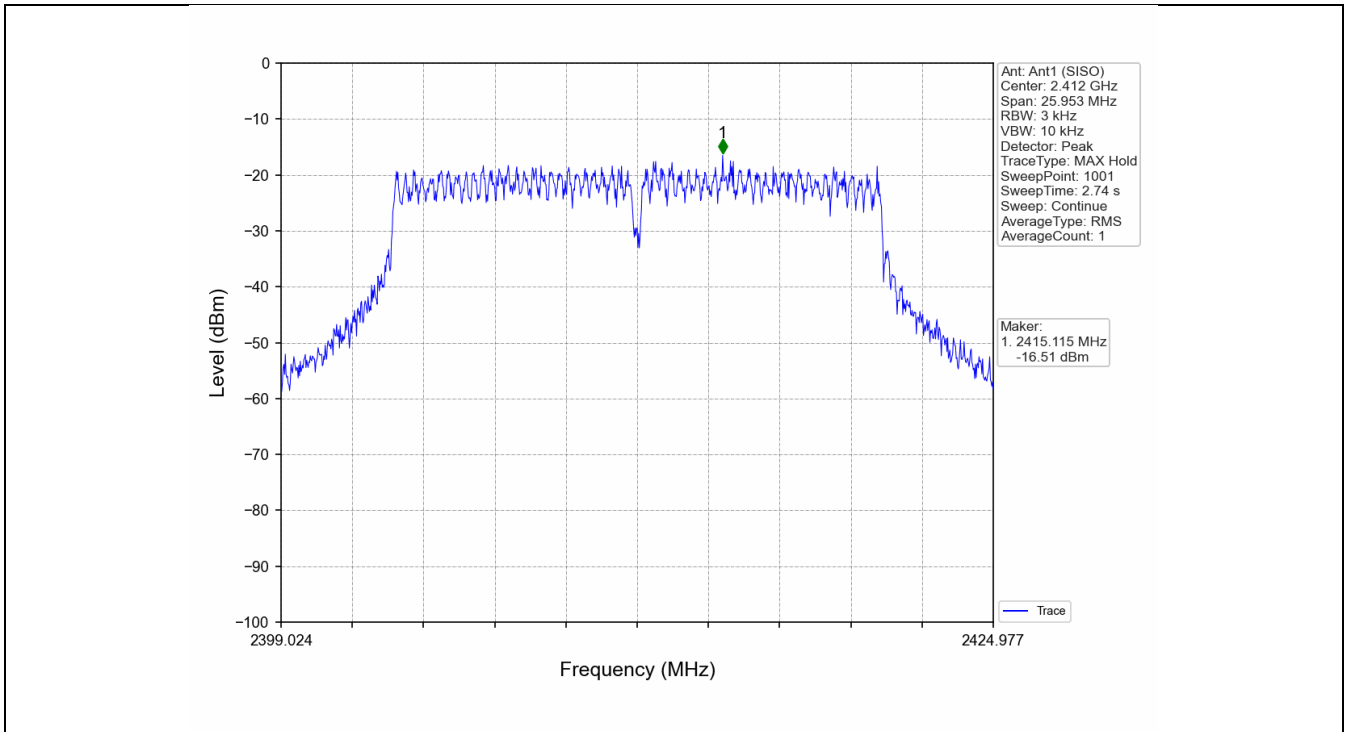
802.11g_MCH_2437MHz_Ant1 (SISO)_NTNV



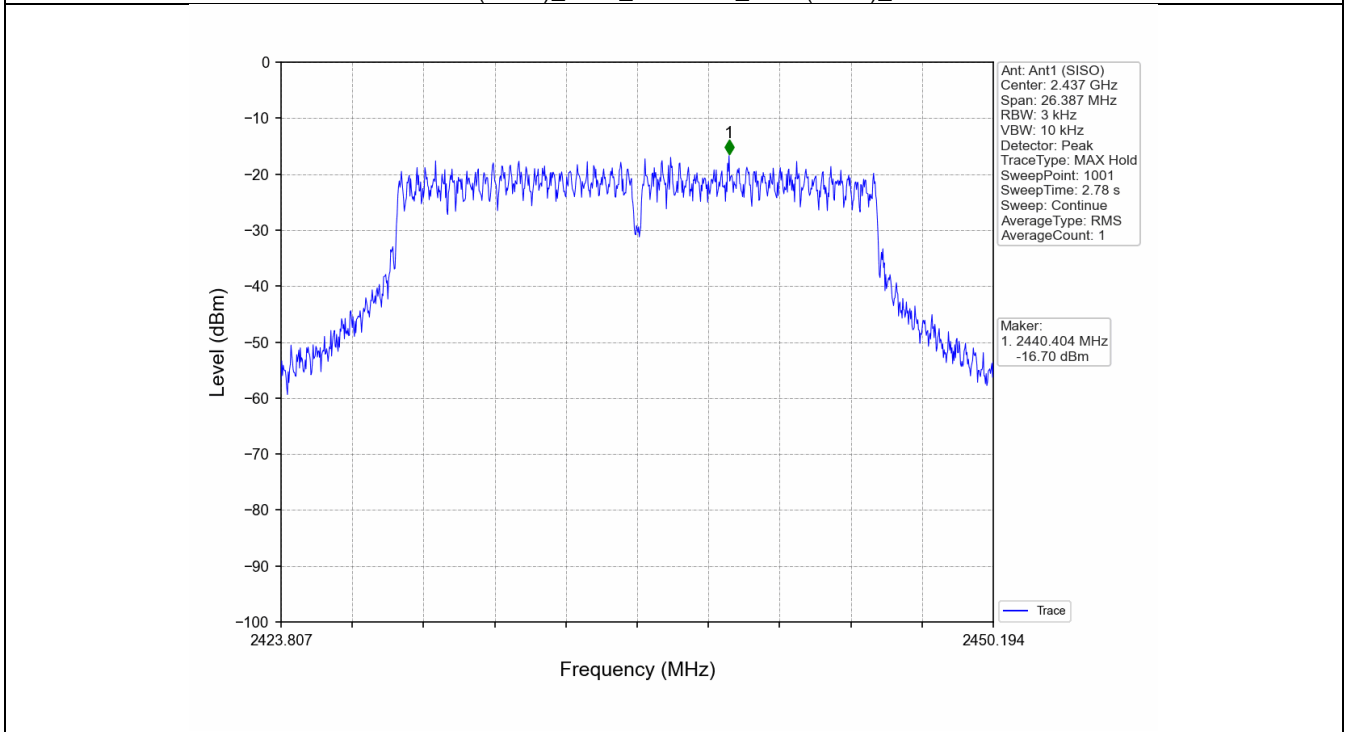
802.11g_HCH_2462MHz_Ant1 (SISO)_NTNV



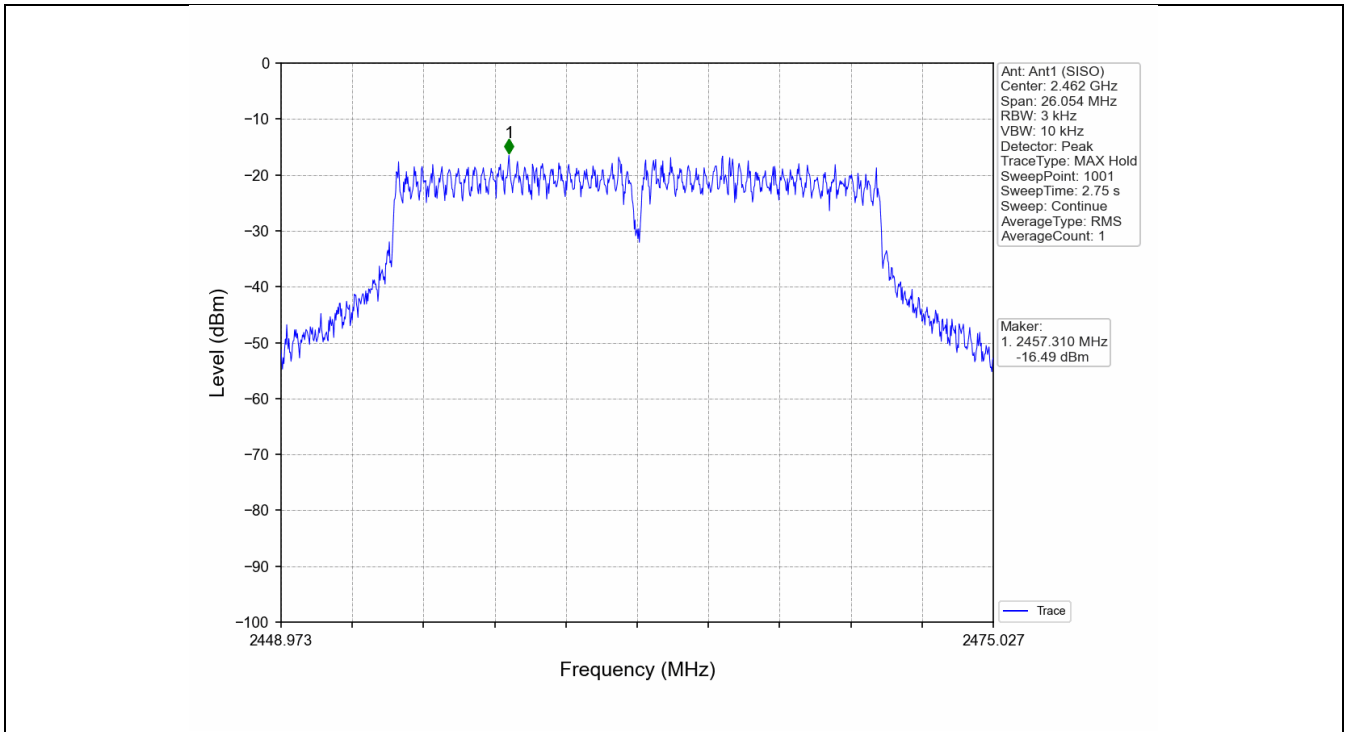
802.11n(HT20)_LCH_2412MHz_Ant1 (SISO)_NTNV



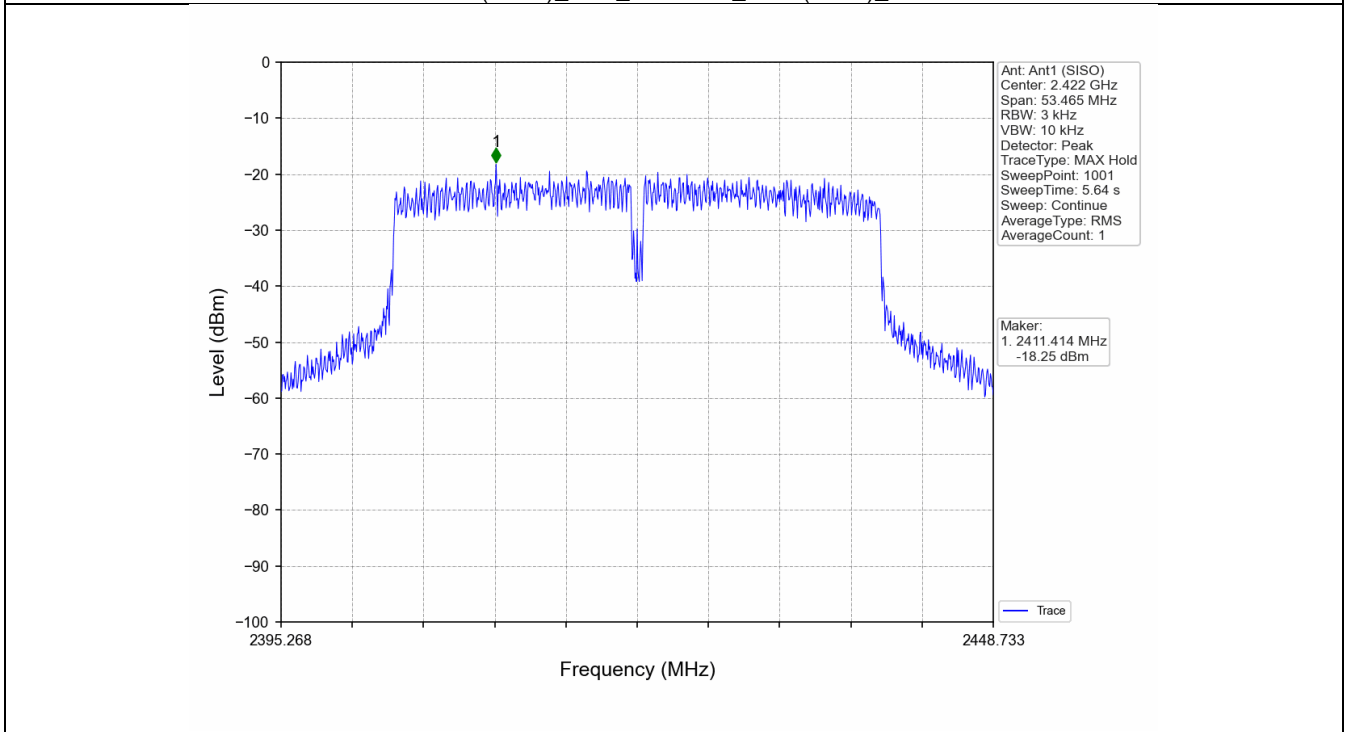
802.11n(HT20)_MCH_2437MHz_Ant1 (SISO)_NTNV



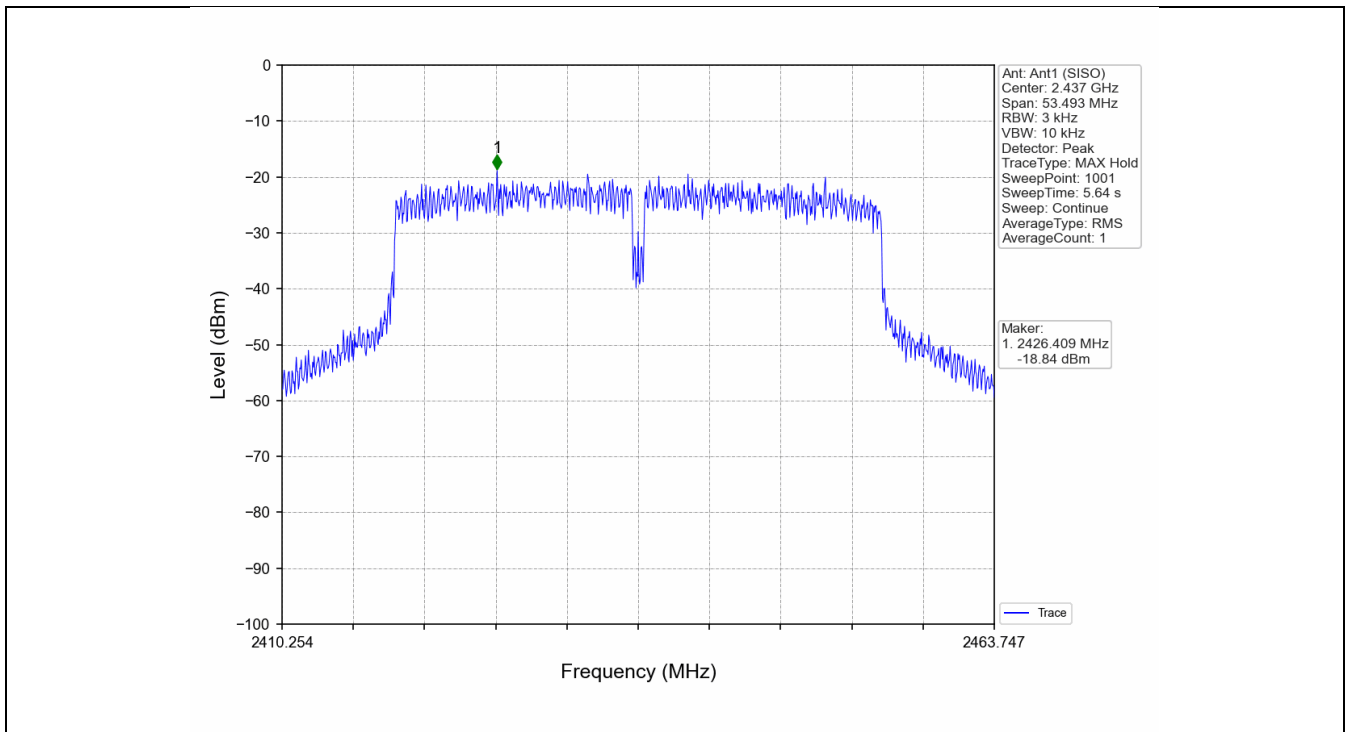
802.11n(HT20)_HCH_2462MHz_Ant1 (SISO)_NTNV



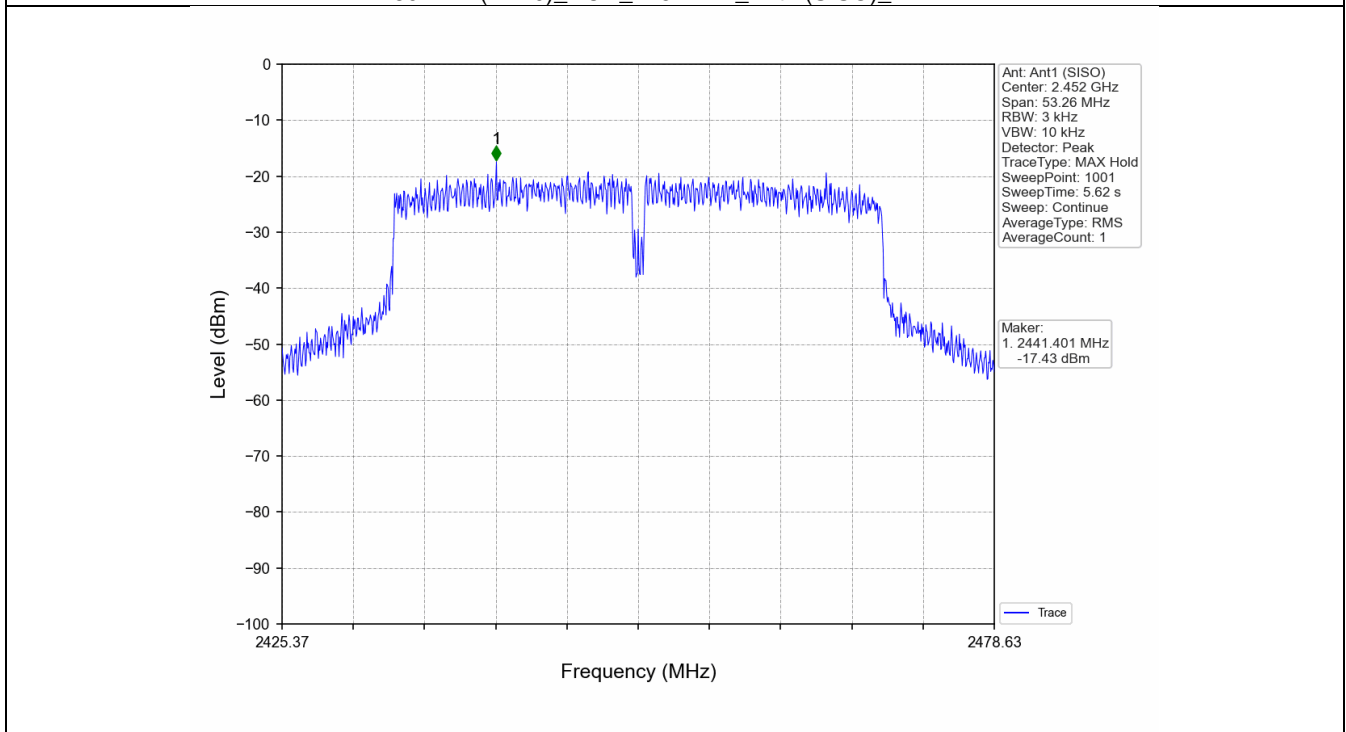
802.11n(HT40)_LCH_2422MHz_Ant1 (SISO)_NTNV



802.11n(HT40)_MCH_2437MHz_Ant1 (SISO)_NTNV



802.11n(HT40)_HCH_2452MHz_Ant1 (SISO)_NTNV



5. Unwanted Emissions In Non-restricted Frequency Bands

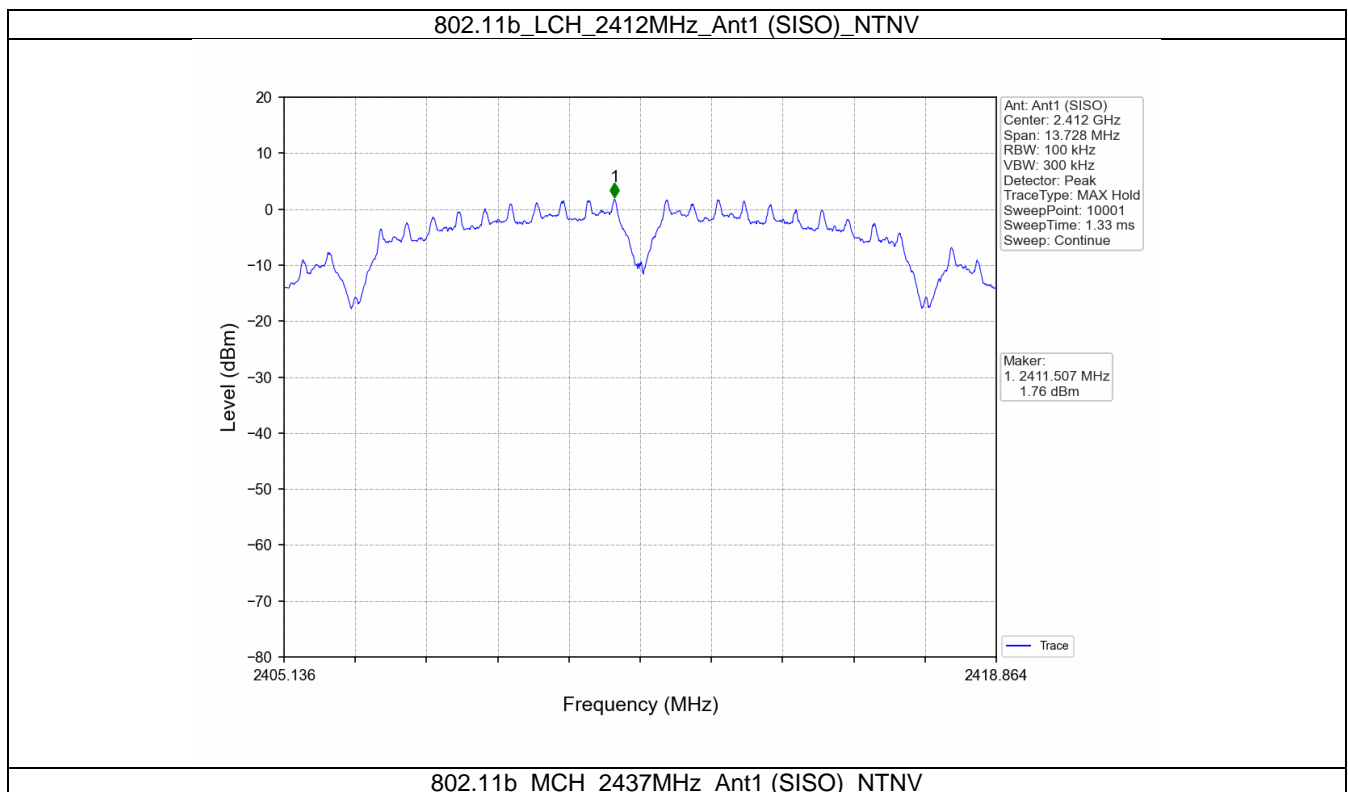
5.1 Ref

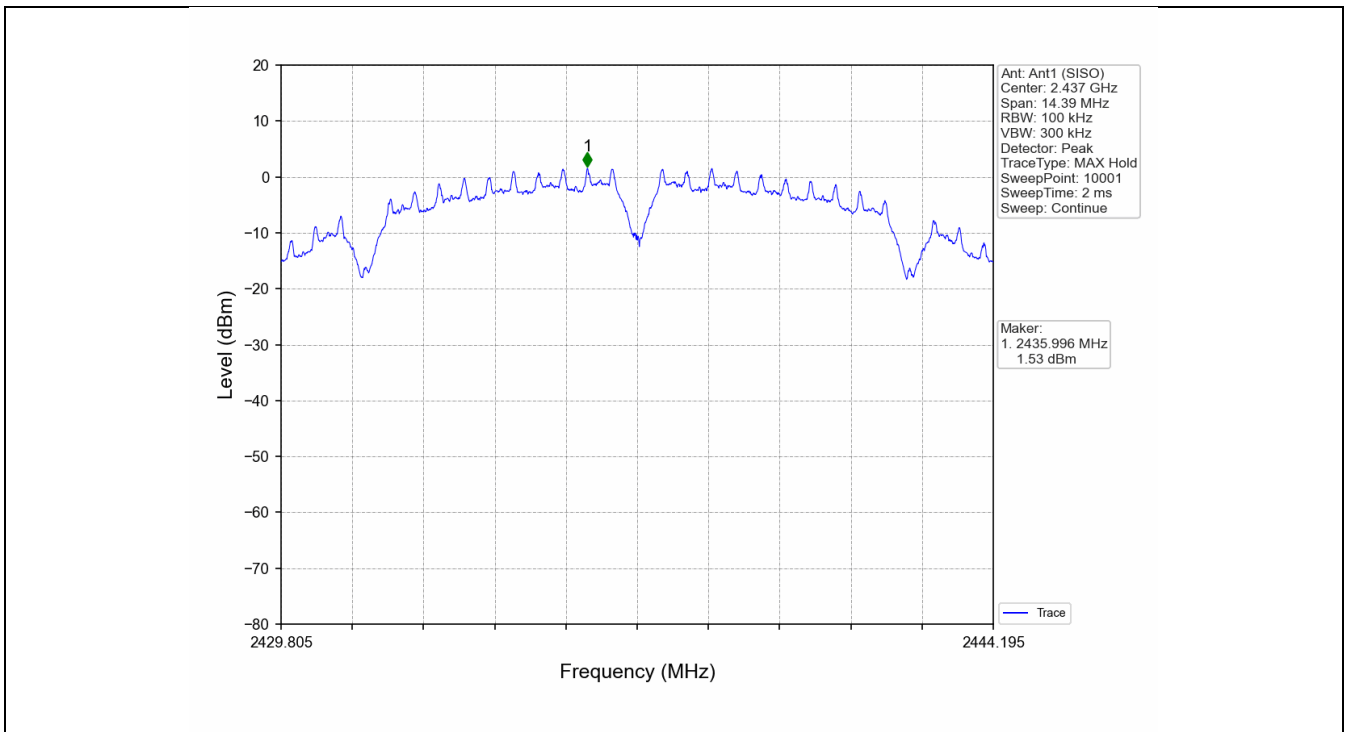
5.1.1 Test Result

Mode	TX Type	Frequency (MHz)	Ant	Level of Reference (dBm)
802.11b	SISO	2412	1	1.76
		2437	1	1.53
		2462	1	2.58
802.11g	SISO	2412	1	-3.35
		2437	1	-3.58
		2462	1	-2.18
802.11n (HT20)	SISO	2412	1	-2.64
		2437	1	-2.34
		2462	1	-2.62
802.11n (HT40)	SISO	2422	1	-4.65
		2437	1	-4.70
		2452	1	-4.05

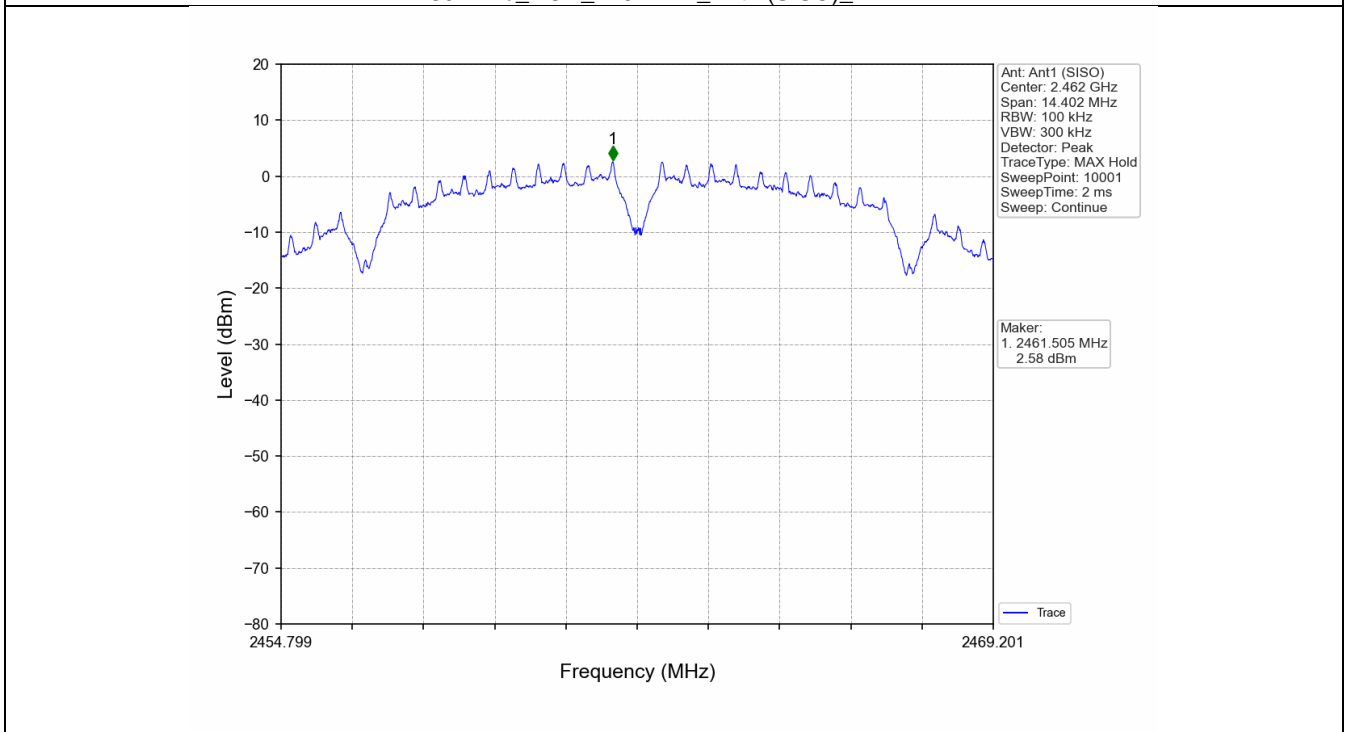
Note1: Refer to FCC Part 15.247 (d) and ANSI C63.10-2013, the channel contains the maximum PSD level was used to establish the reference level.

5.1.2 Test Graph

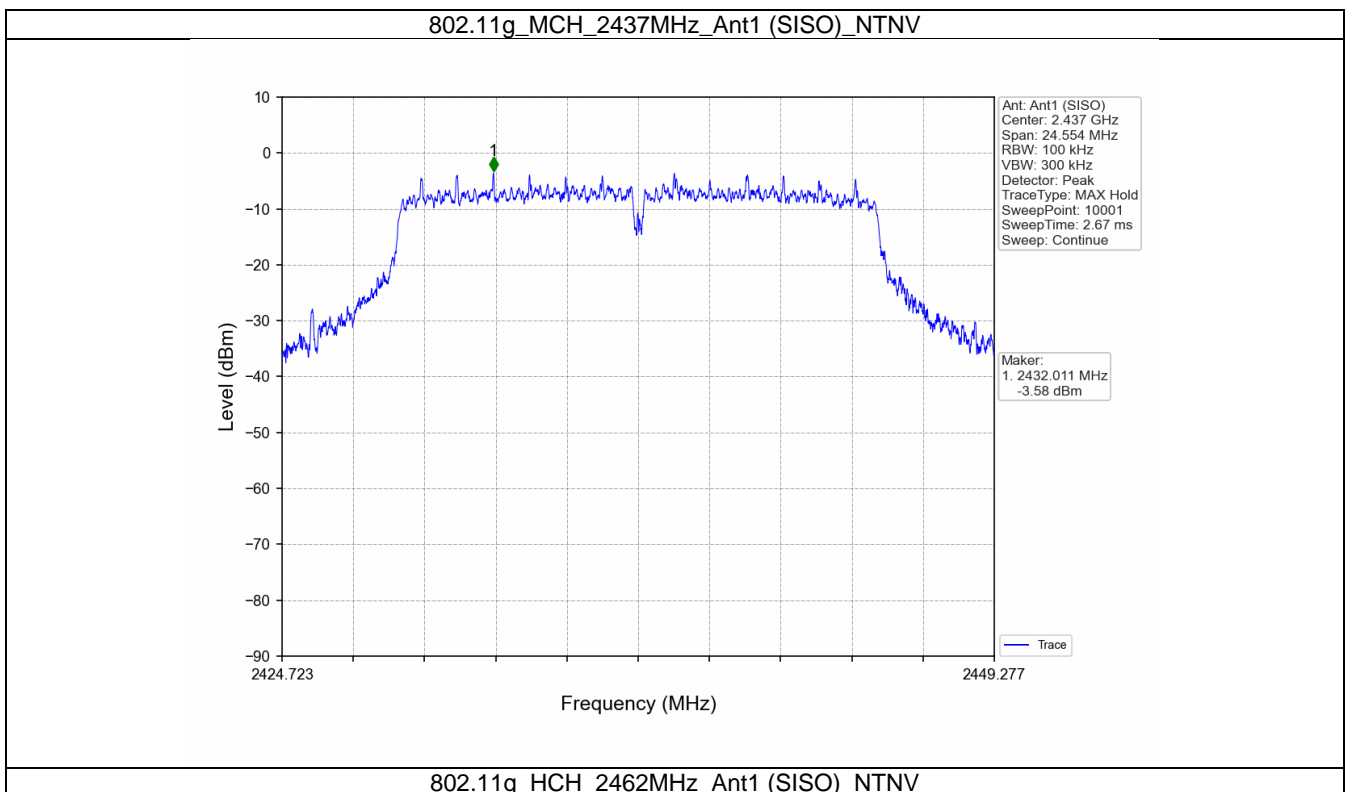
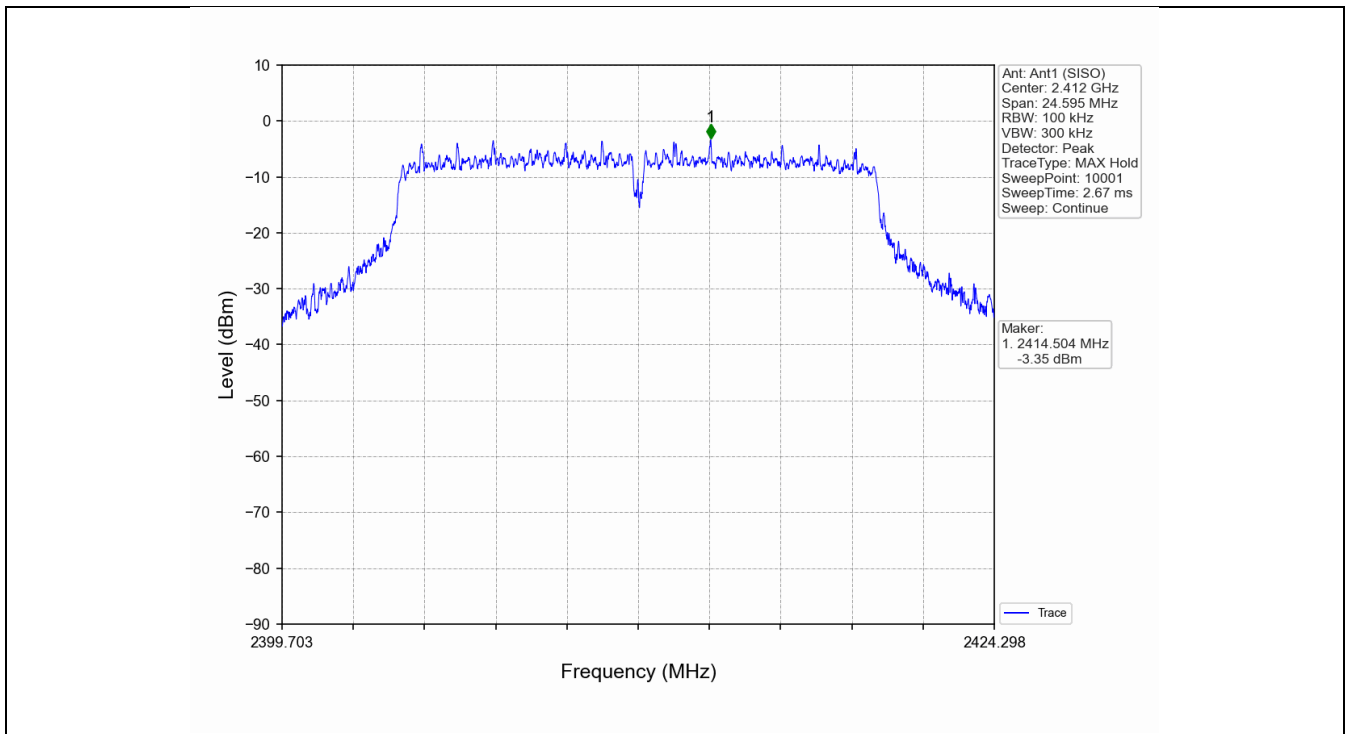


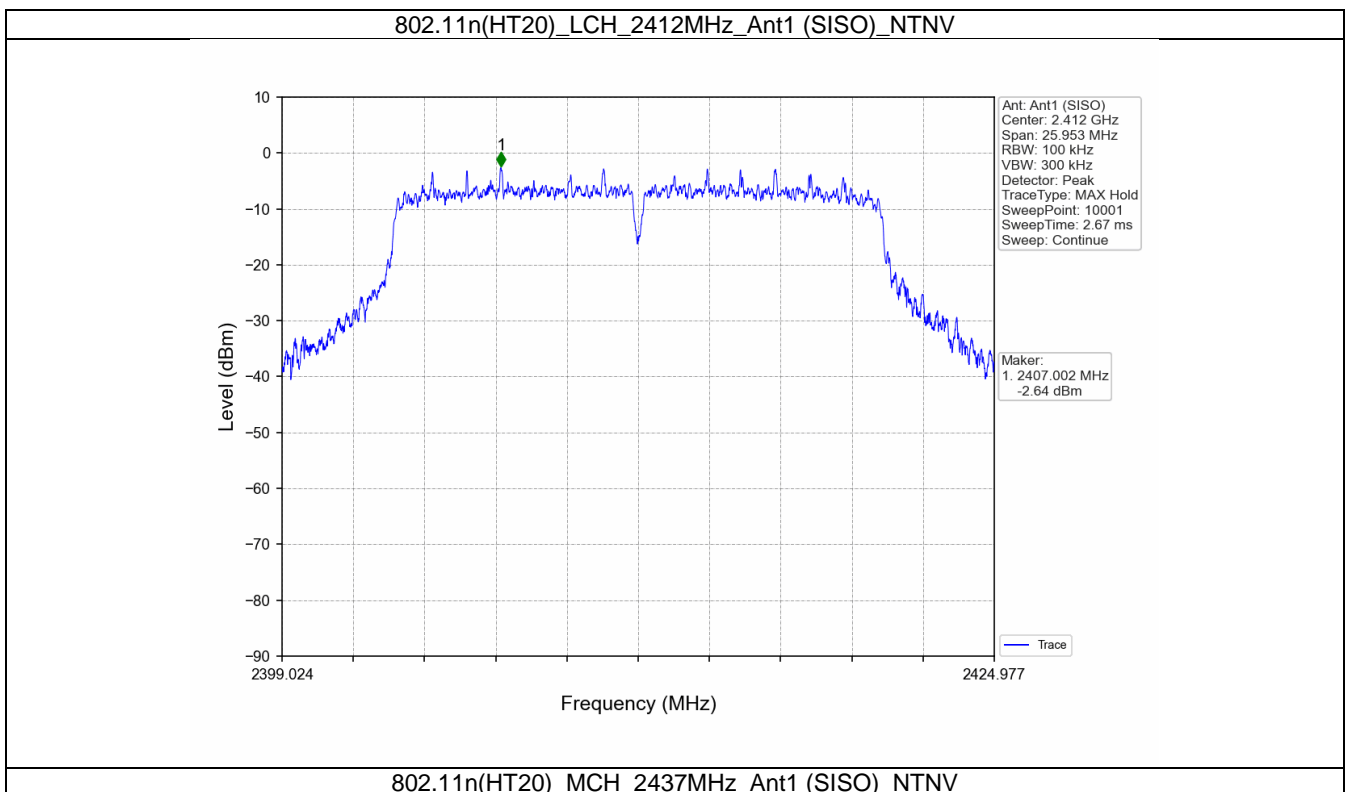
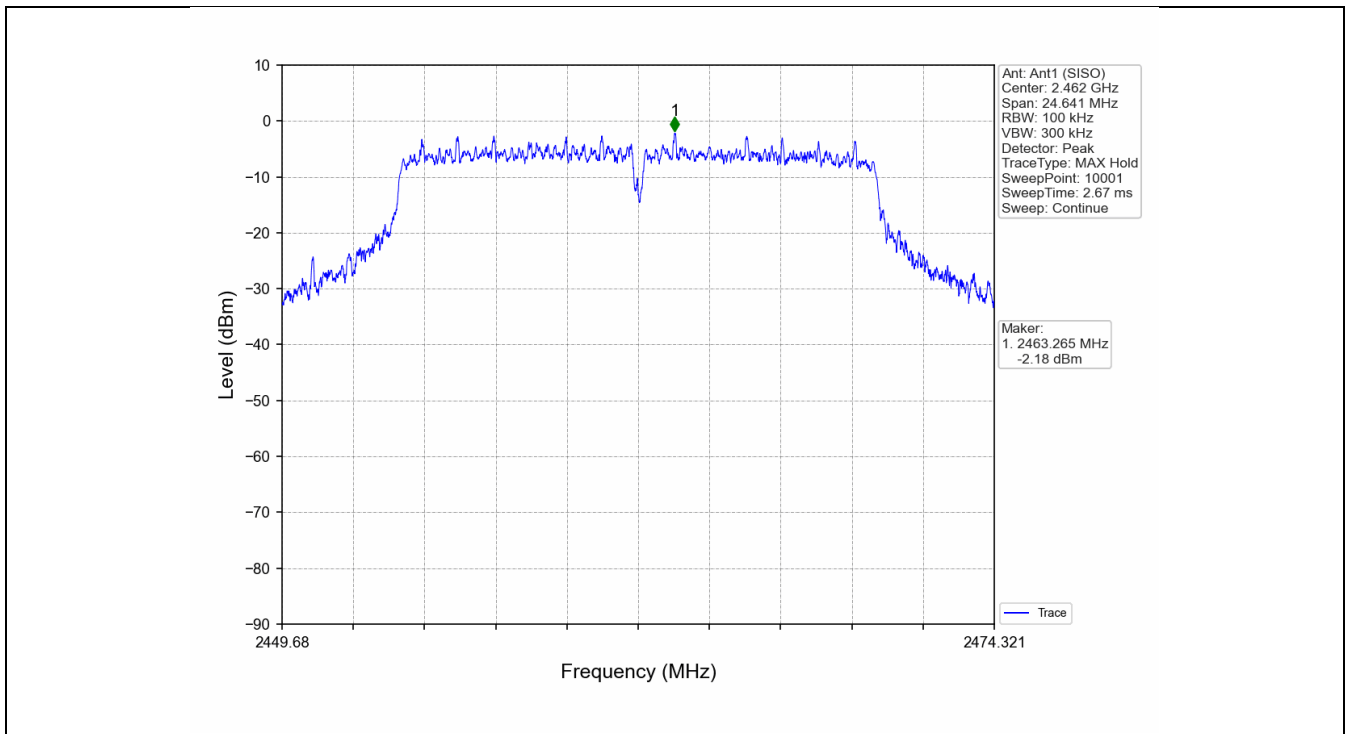


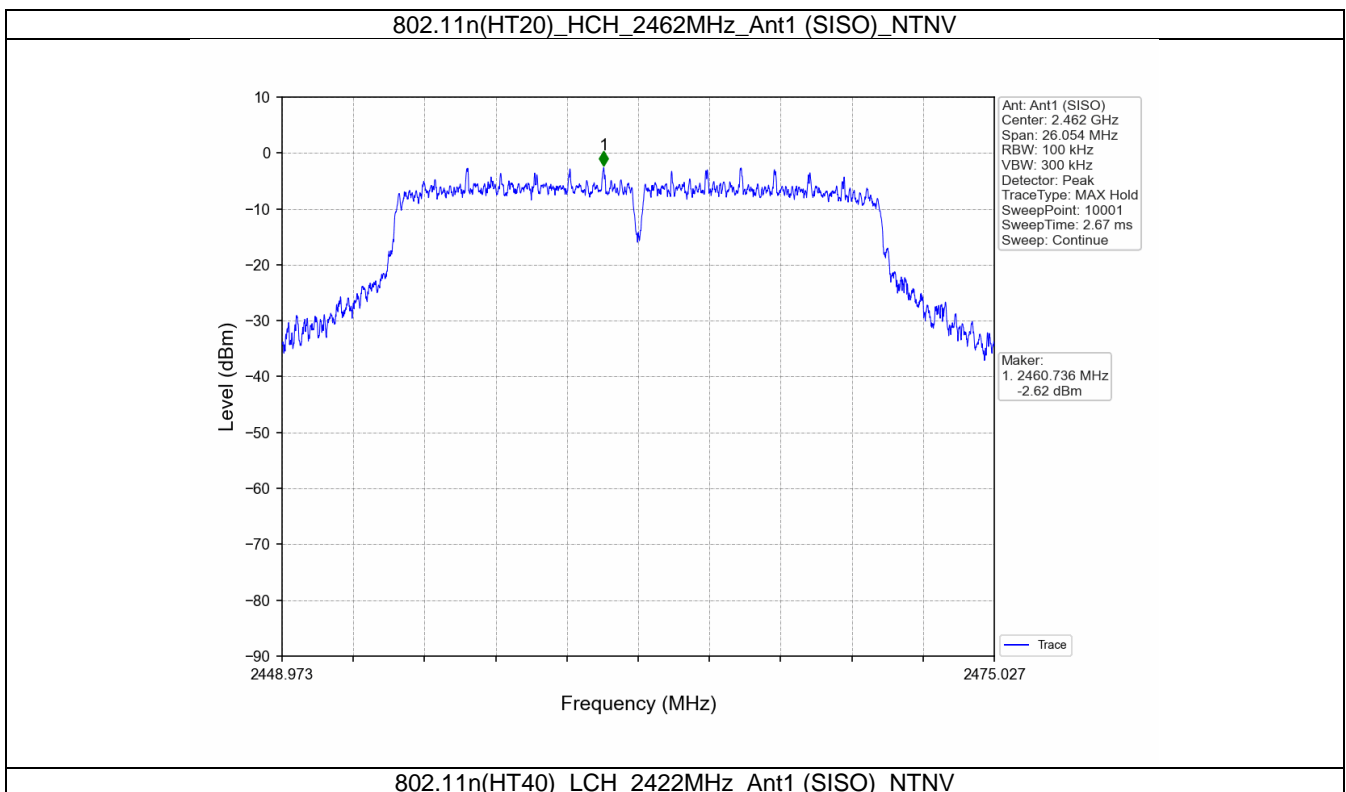
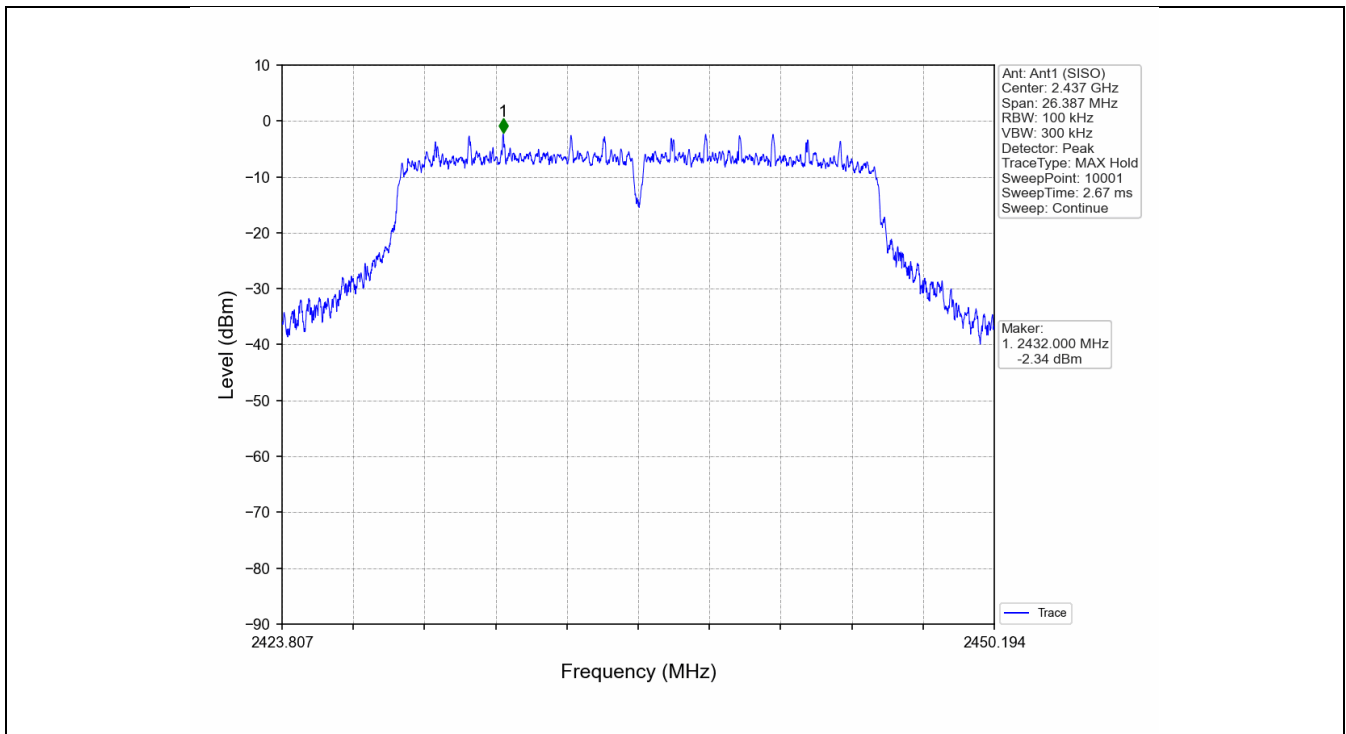
802.11b_HCH_2462MHz_Ant1 (SISO)_NTNV

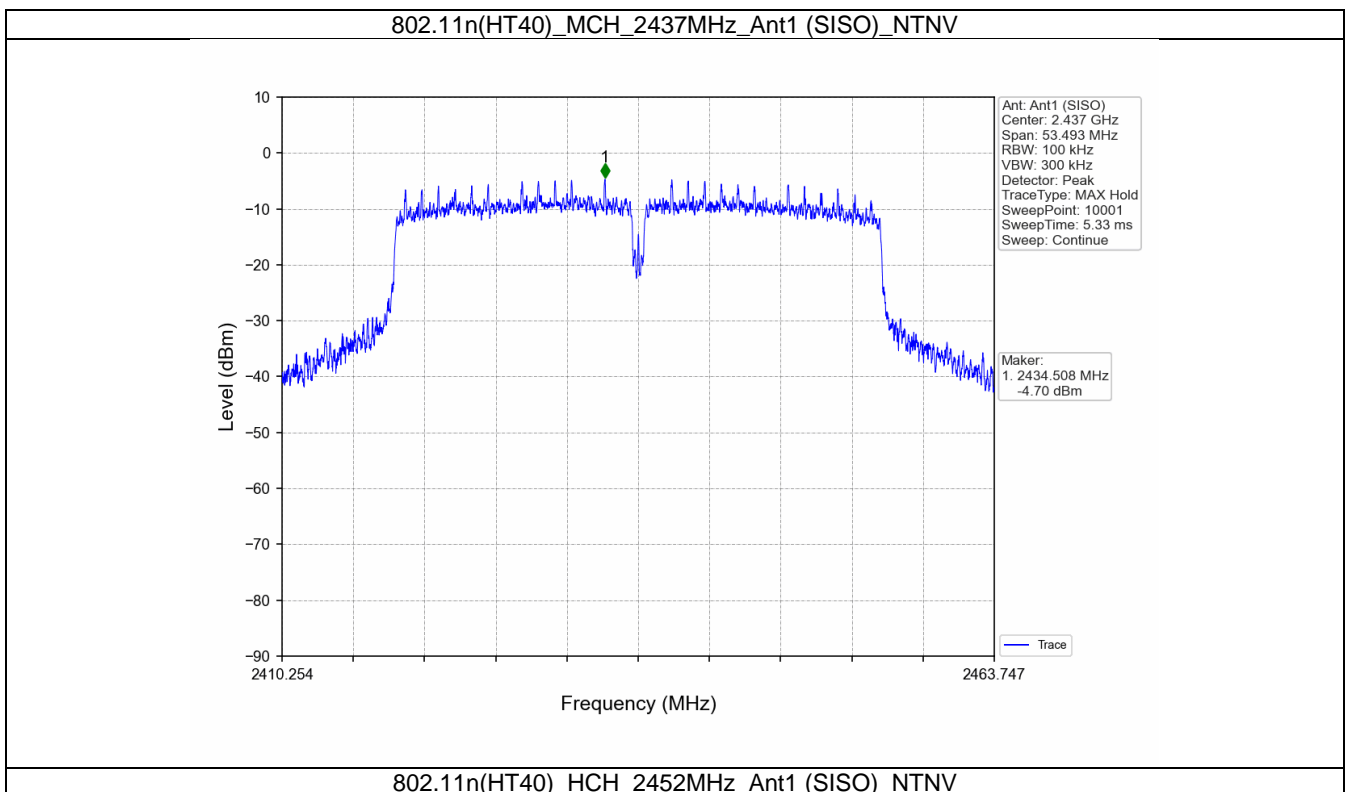
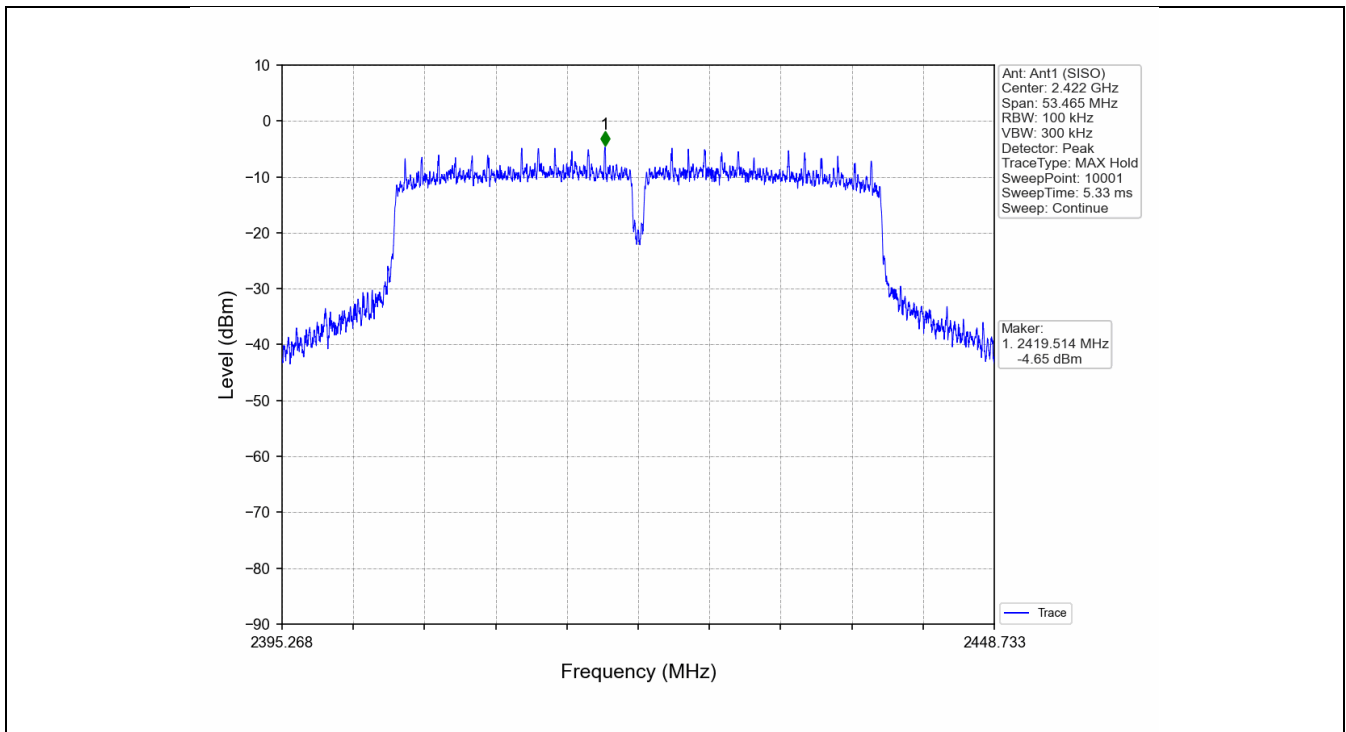


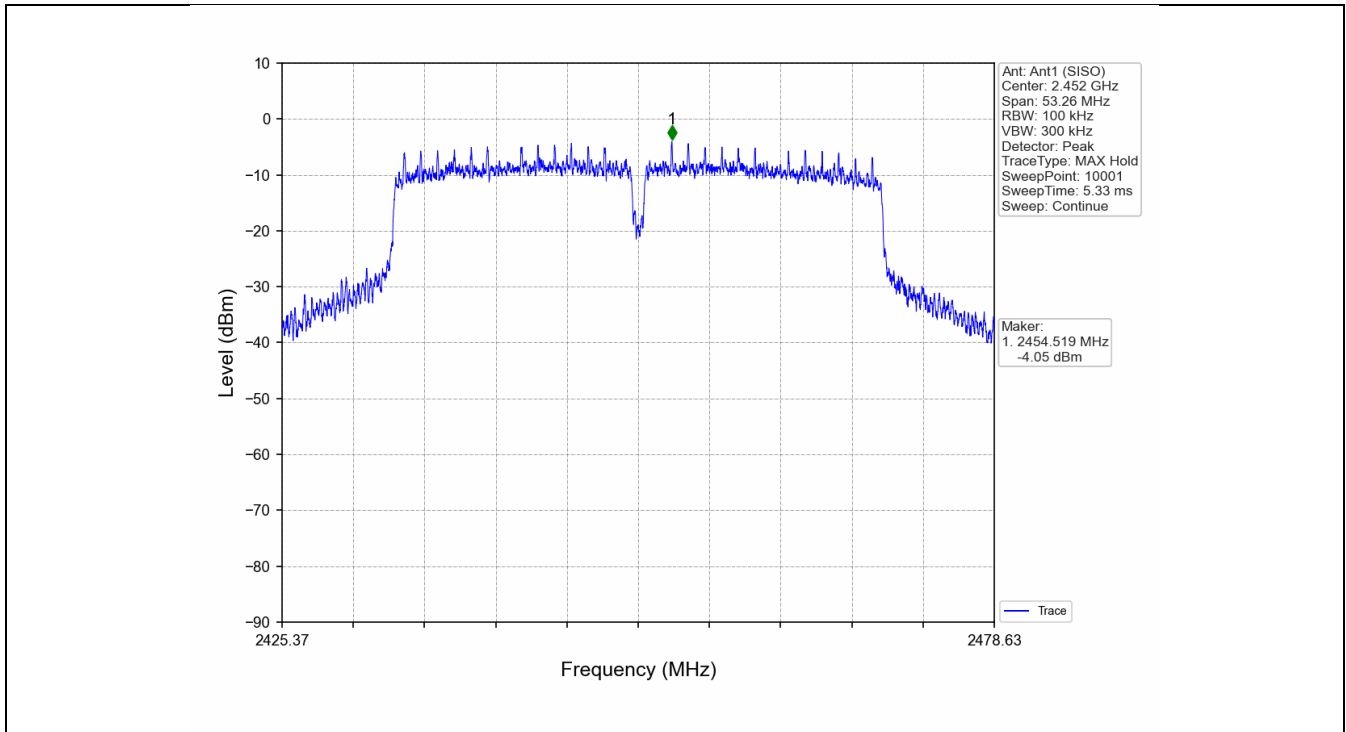
802.11g_LCH_2412MHz_Ant1 (SISO)_NTNV











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	2.58	-17.42	Pass
		2437	1	2.58	-17.42	Pass
		2462	1	2.58	-17.42	Pass
802.11g	SISO	2412	1	-2.18	-22.18	Pass
		2437	1	-2.18	-22.18	Pass
		2462	1	-2.18	-22.18	Pass
802.11n (HT20)	SISO	2412	1	-2.34	-22.34	Pass
		2437	1	-2.34	-22.34	Pass
		2462	1	-2.34	-22.34	Pass
802.11n (HT40)	SISO	2422	1	-4.05	-24.05	Pass
		2437	1	-4.05	-24.05	Pass
		2452	1	-4.05	-24.05	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.

5.2.2 Test Graph

