

RF Test Report

For

Project No.:	DLE-250527019R
Client:	Atulo Products
Manufacturer:	Glucose Projector Clock, LLC
Product Description:	Digital projector clock
Model Number:	TABP-101
Test Engineer:	Alisa Song
Test Date:	2025-05-26

Test Summary

Item	Result
Duty Cycle	Pass
Bandwidth	Pass
Maximum Conducted Output Power	Pass
Maximum Power Spectral Density	Pass
Unwanted Emissions In Non-restricted Frequency Bands	Pass
Frequency Error	Pass

1. Duty Cycle

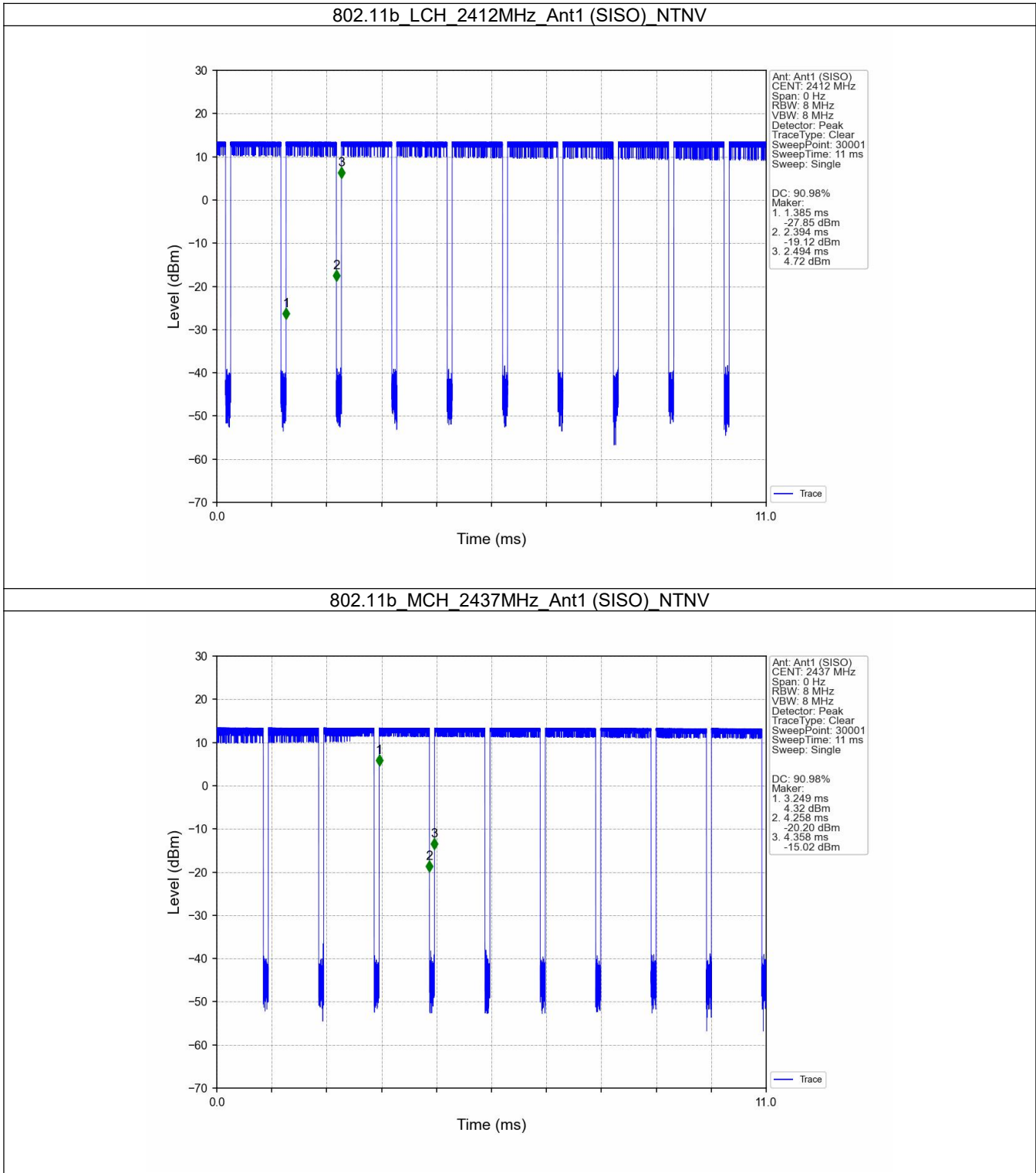
1.1 Test Result

1.1.1 Ant1

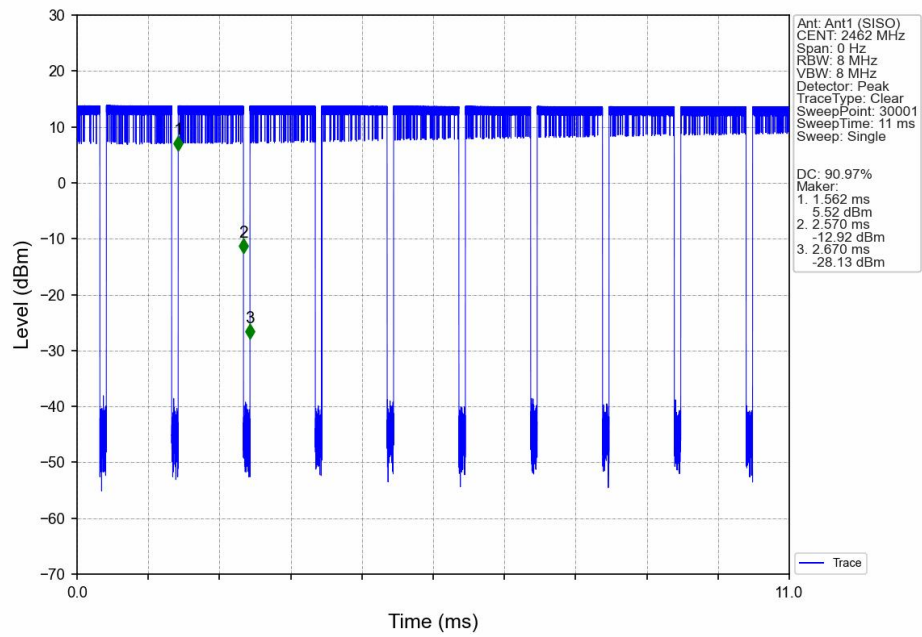
Ant1							
Mode	Tx Type	Frequency (MHz)	T_on (ms)	Period (ms)	Duty Cycle (%)	Duty Cycle Correction Factor (dB)	Max. DC Variation (%)
802.11b	SISO	2412	1.009	1.109	90.98	0.41	0.03
		2437	1.009	1.109	90.98	0.41	0.03
		2462	1.008	1.108	90.97	0.41	0.03
802.11g	SISO	2412	0.617	0.669	92.23	0.35	0.03
		2437	0.617	0.669	92.23	0.35	0.03
		2462	0.616	0.669	92.08	0.36	0.03
802.11n (HT20)	SISO	2412	0.613	0.665	92.18	0.35	0.00
		2437	0.613	0.665	92.18	0.35	0.00
		2462	0.612	0.665	92.03	0.36	0.04
802.11n (HT40)	SISO	2422	0.317	0.369	85.91	0.66	0.04
		2437	0.317	0.395	80.25	0.96	5.66
		2452	0.317	0.369	85.91	0.66	0.03

1.2 Test Graph

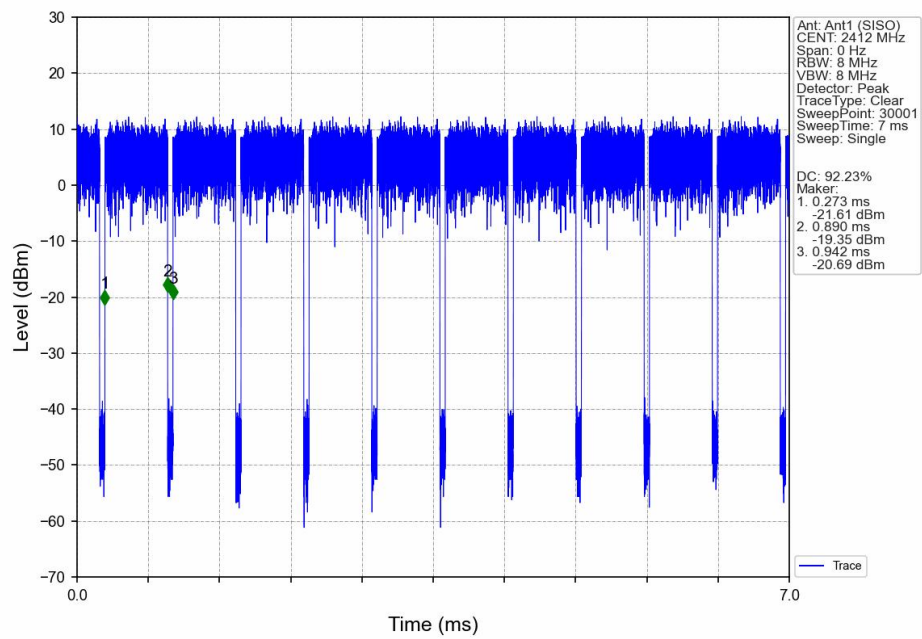
1.2.1 Ant1



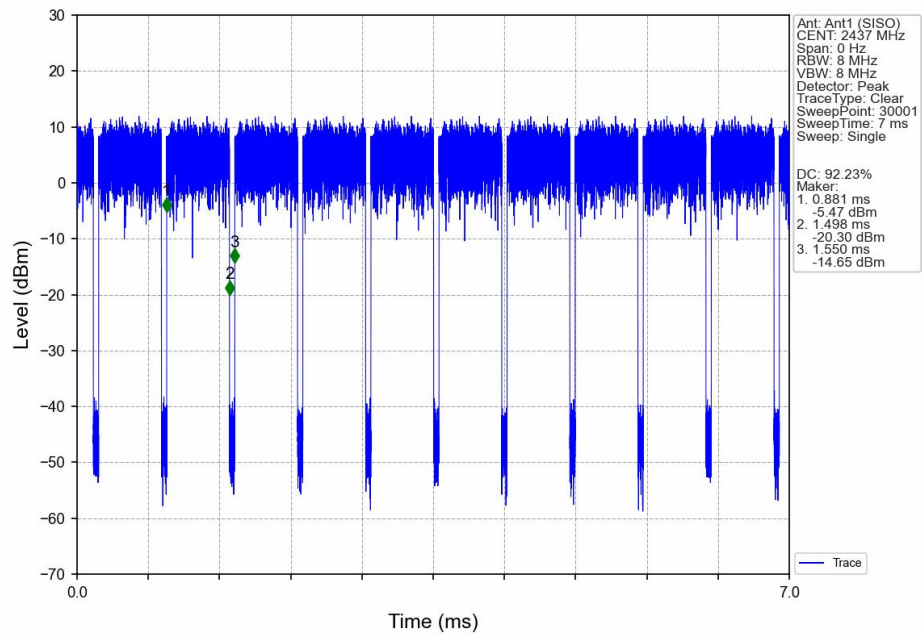
802.11b_HCH_2462MHz_Ant1 (SISO)_NTNV



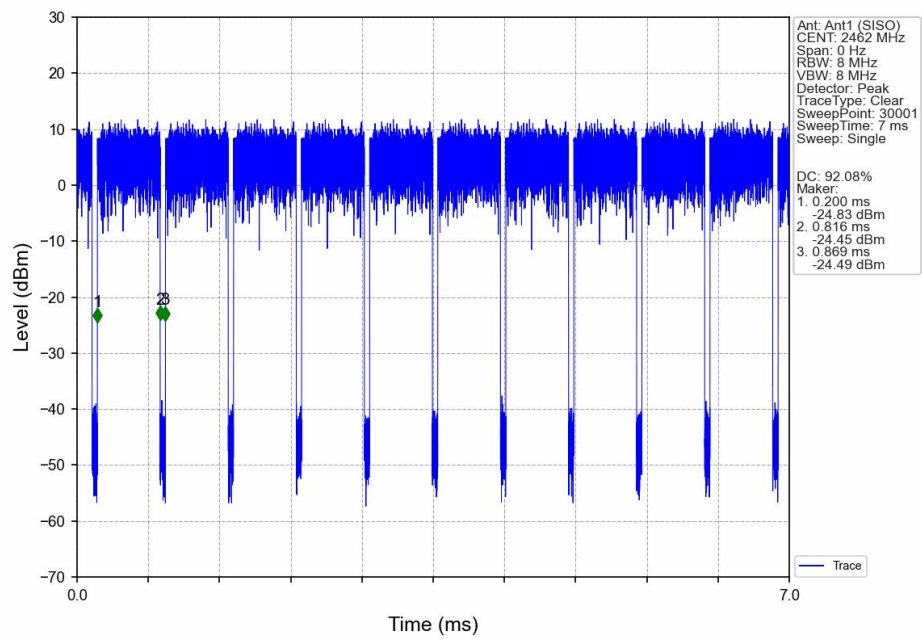
802.11g_LCH_2412MHz_Ant1 (SISO)_NTNV



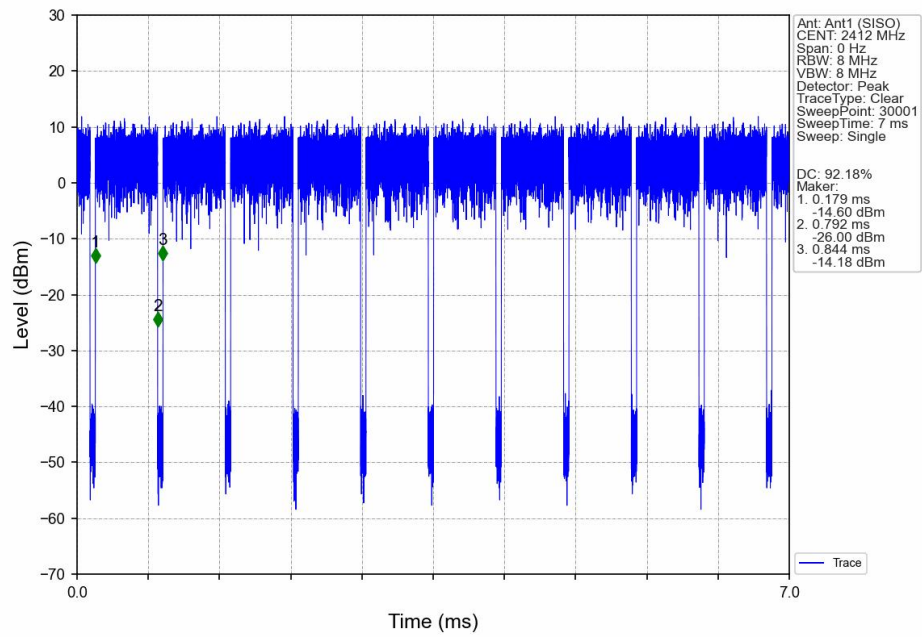
802.11g_MCH_2437MHz_Ant1 (SISO)_NTNV



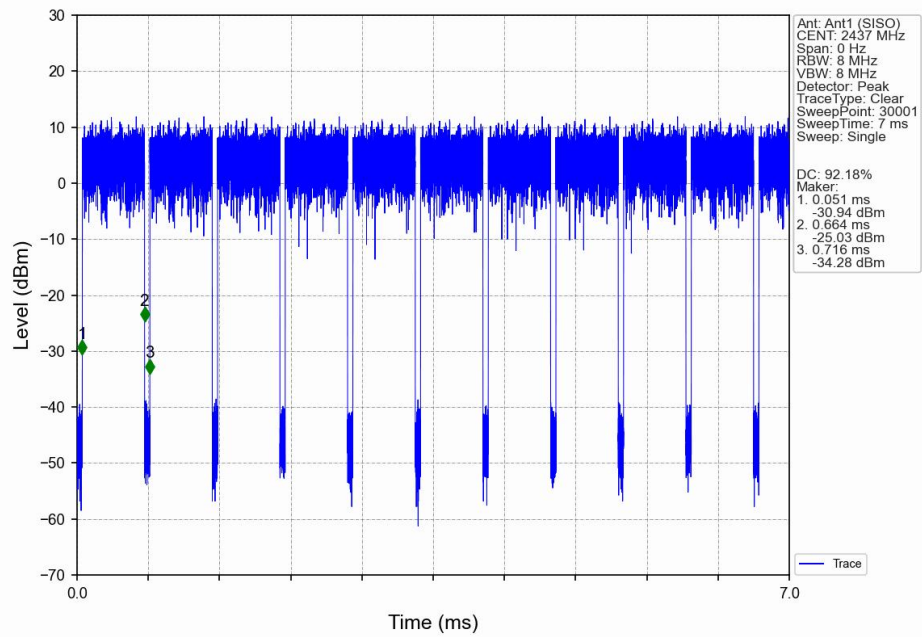
802.11g_HCH_2462MHz_Ant1 (SISO)_NTNV



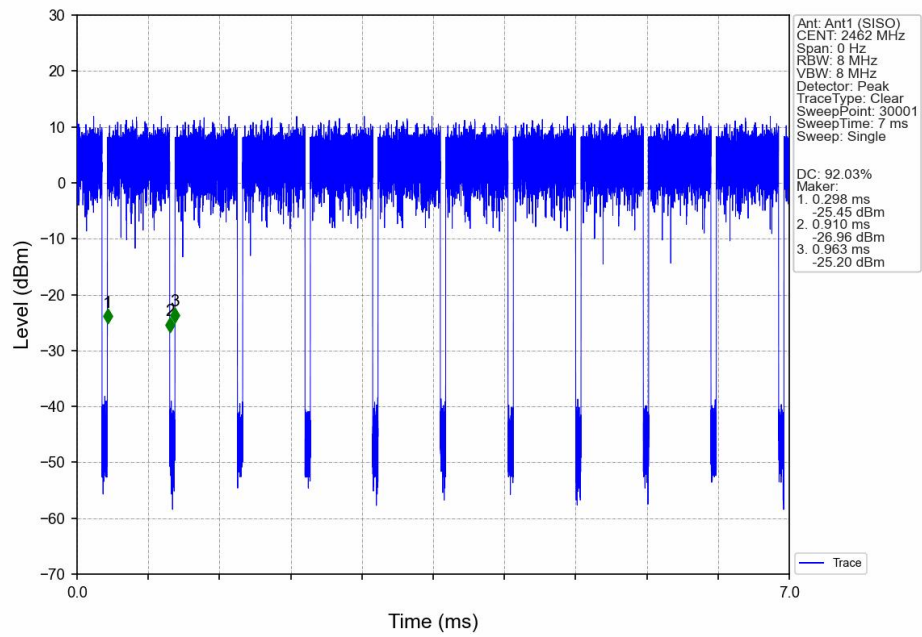
802.11n(HT20)_LCH_2412MHz_Ant1 (SISO)_NTNV



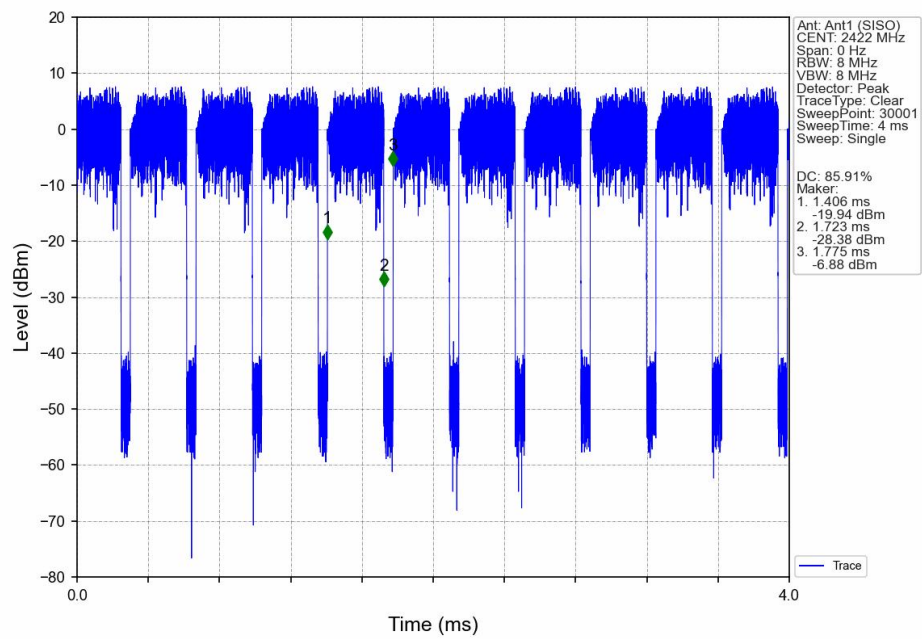
802.11n(HT20)_MCH_2437MHz_Ant1 (SISO)_NTNV



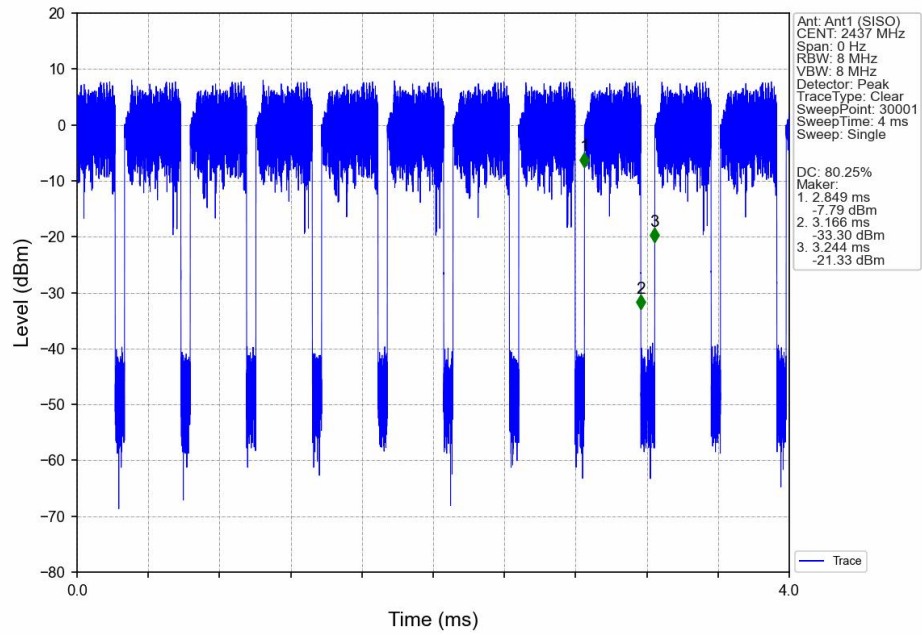
802.11n(HT20)_HCH_2462MHz_Ant1 (SISO)_NTNV



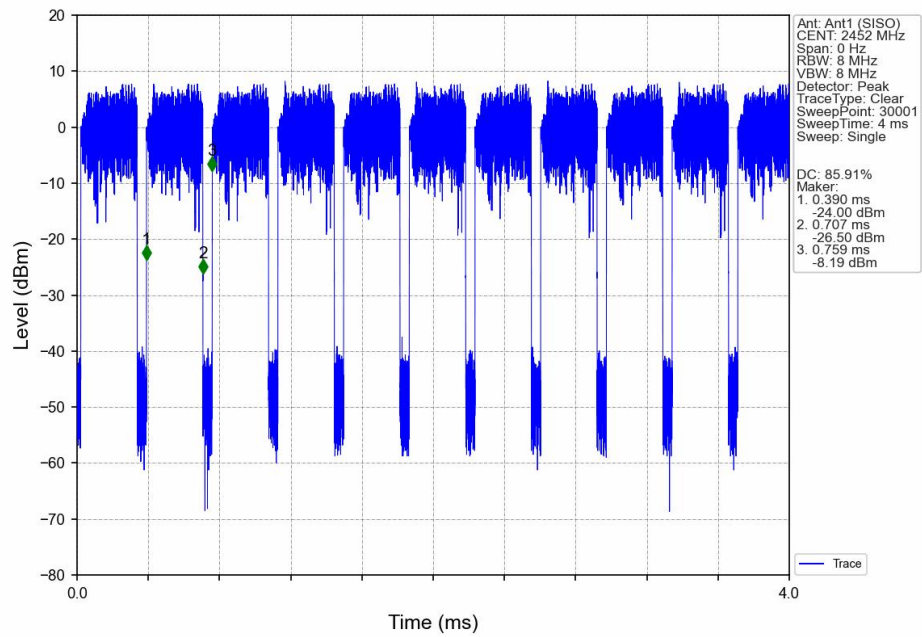
802.11n(HT40)_LCH_2422MHz_Ant1 (SISO)_NTNV



802.11n(HT40)_MCH_2437MHz_Ant1 (SISO)_NTNV



802.11n(HT40)_HCH_2452MHz_Ant1 (SISO)_NTNV



2. Bandwidth

2.1 Test Result

2.1.1 OBW

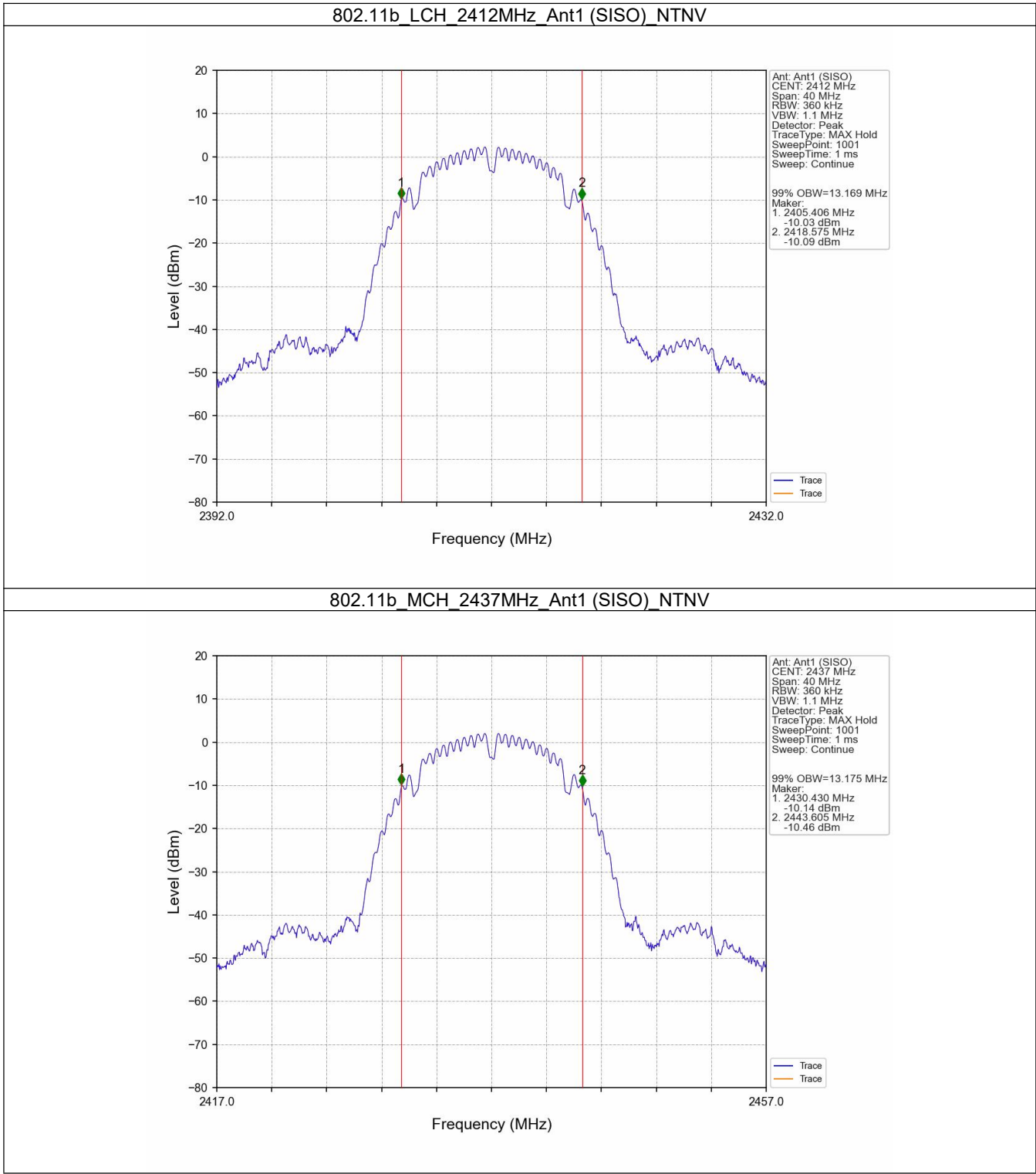
Mode	TX Type	Frequency (MHz)	ANT	99% Occupied Bandwidth (MHz)		Verdict
				Result	Limit	
802.11b	SISO	2412	1	13.169	/	Pass
		2437	1	13.175	/	Pass
		2462	1	13.186	/	Pass
802.11g	SISO	2412	1	18.013	/	Pass
		2437	1	18.025	/	Pass
		2462	1	18.031	/	Pass
802.11n (HT20)	SISO	2412	1	18.854	/	Pass
		2437	1	18.870	/	Pass
		2462	1	18.889	/	Pass
802.11n (HT40)	SISO	2422	1	37.124	/	Pass
		2437	1	37.118	/	Pass
		2452	1	37.124	/	Pass

2.1.2 6dB BW

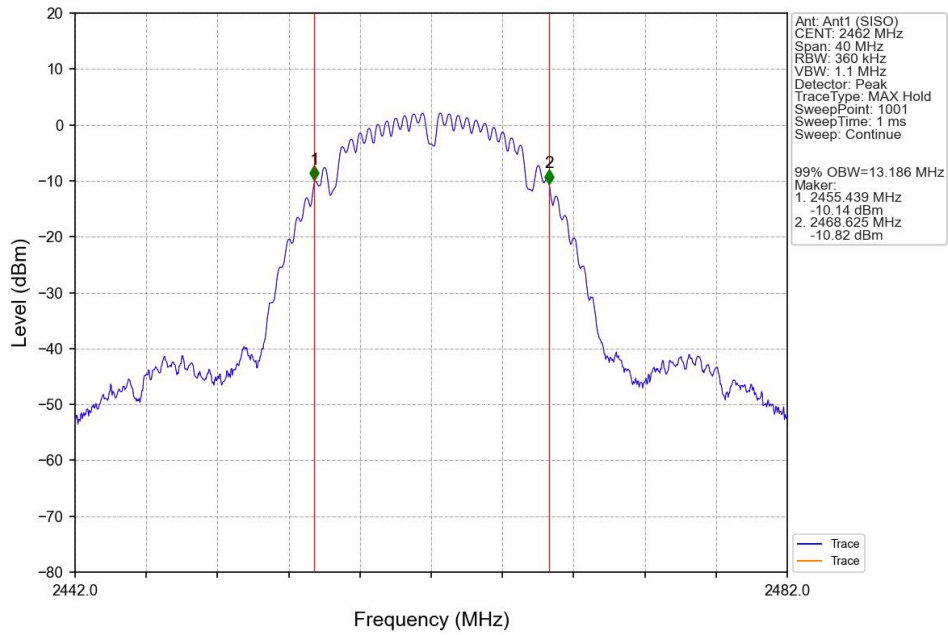
Mode	TX Type	Frequency (MHz)	ANT	6dB Bandwidth (MHz)		Verdict
				Result	Limit	
802.11b	SISO	2412	1	9.138	≥ 0.5	Pass
		2437	1	9.134	≥ 0.5	Pass
		2462	1	9.156	≥ 0.5	Pass
802.11g	SISO	2412	1	16.335	≥ 0.5	Pass
		2437	1	16.094	≥ 0.5	Pass
		2462	1	16.089	≥ 0.5	Pass
802.11n (HT20)	SISO	2412	1	17.545	≥ 0.5	Pass
		2437	1	17.223	≥ 0.5	Pass
		2462	1	17.026	≥ 0.5	Pass
802.11n (HT40)	SISO	2422	1	35.505	≥ 0.5	Pass
		2437	1	35.189	≥ 0.5	Pass
		2452	1	35.185	≥ 0.5	Pass

2.2 Test Graph

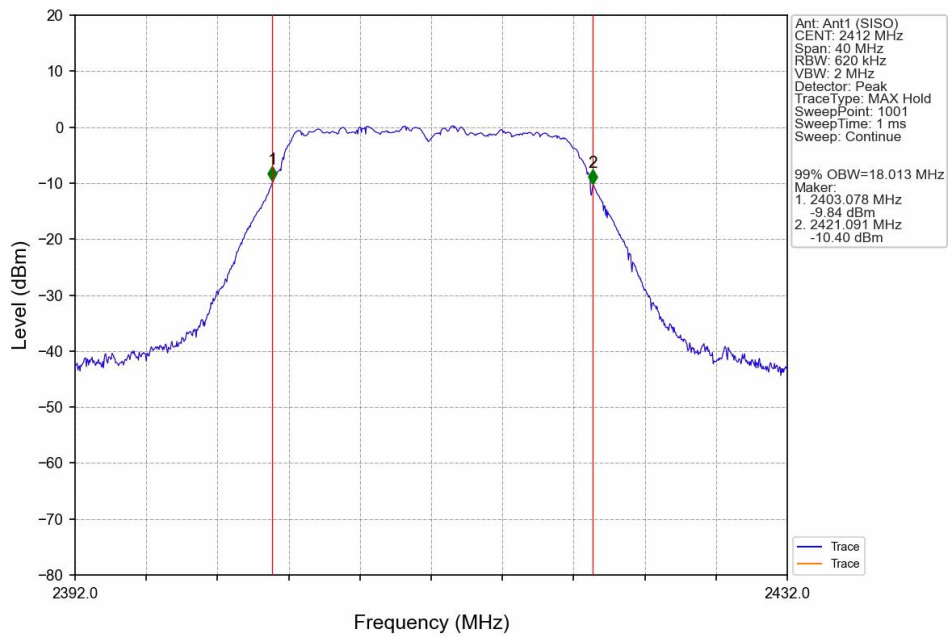
2.2.1 OBW



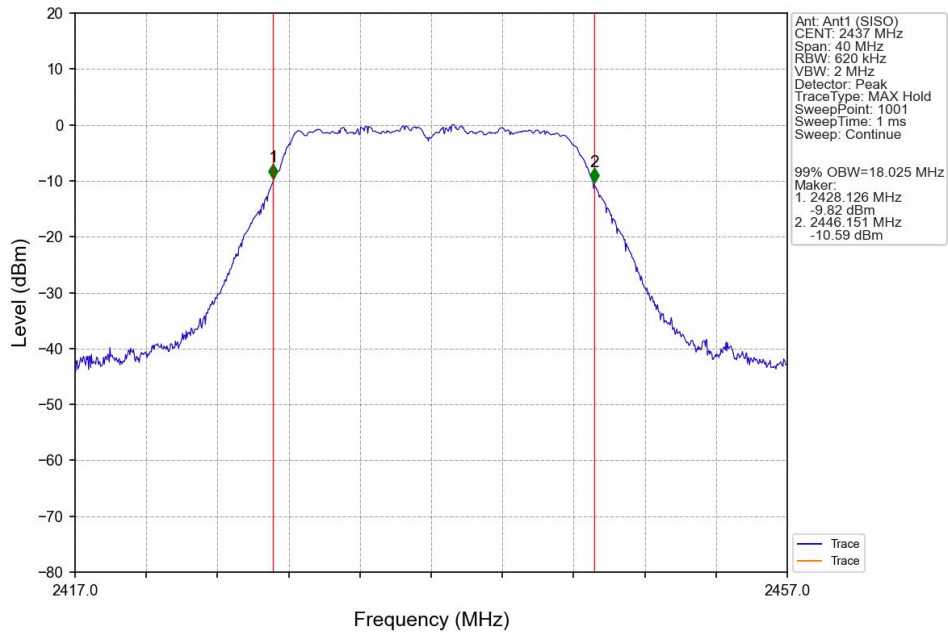
802.11b_HCH_2462MHz_Ant1 (SISO)_NTNV



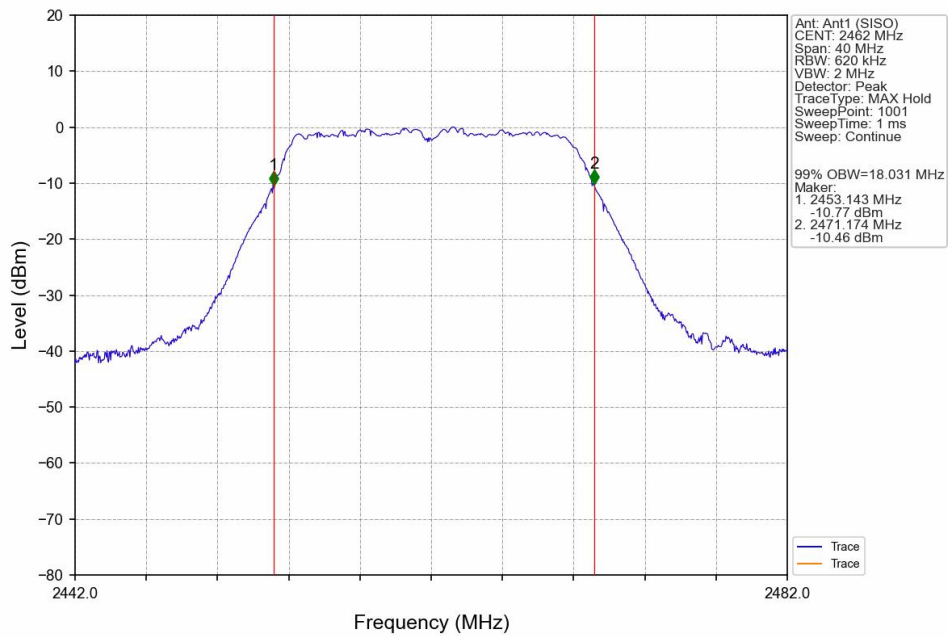
802.11g_LCH_2412MHz_Ant1 (SISO)_NTNV



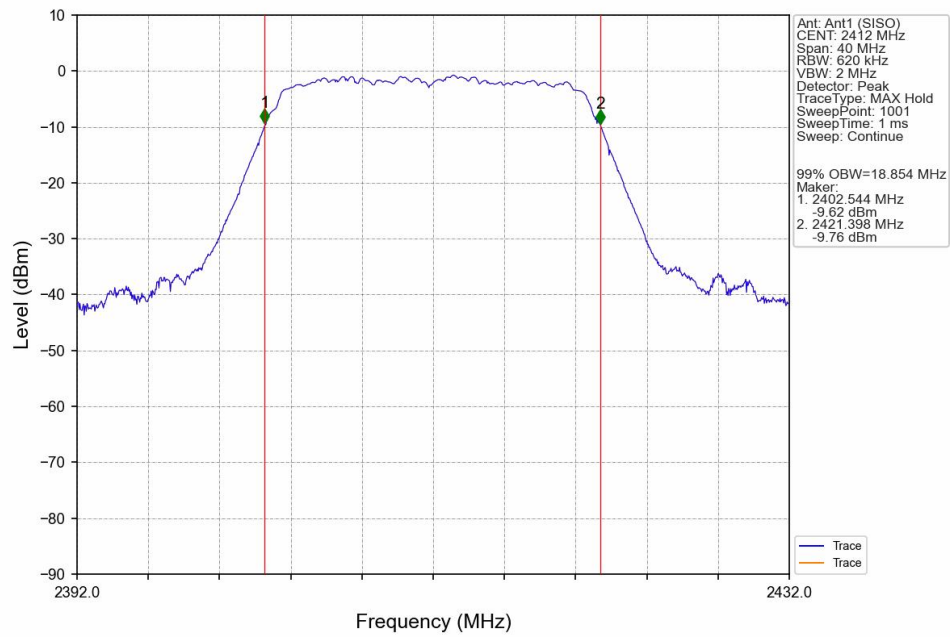
802.11g_MCH_2437MHz_Ant1 (SISO)_NTNV



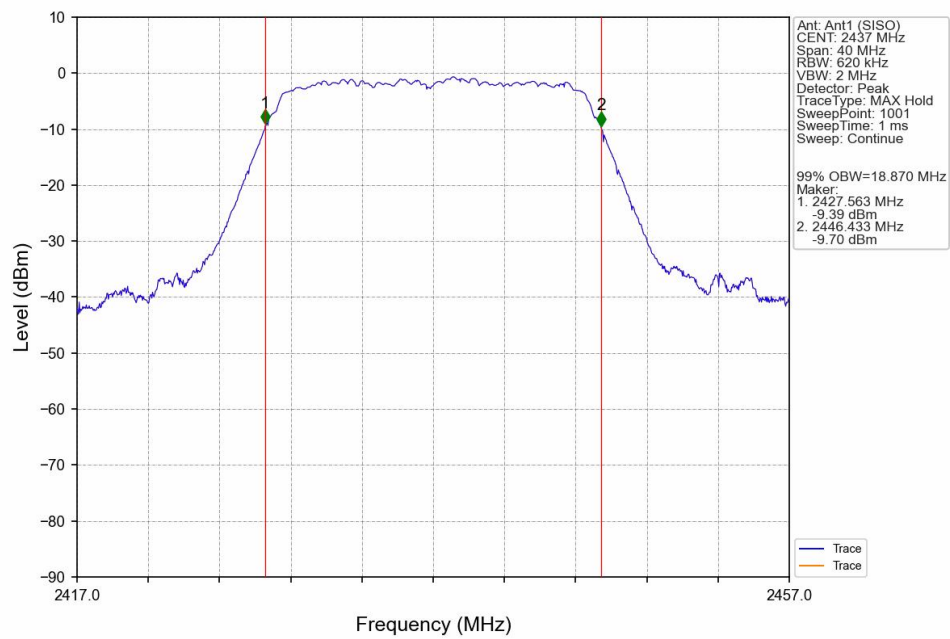
802.11g_HCH_2462MHz_Ant1 (SISO)_NTNV



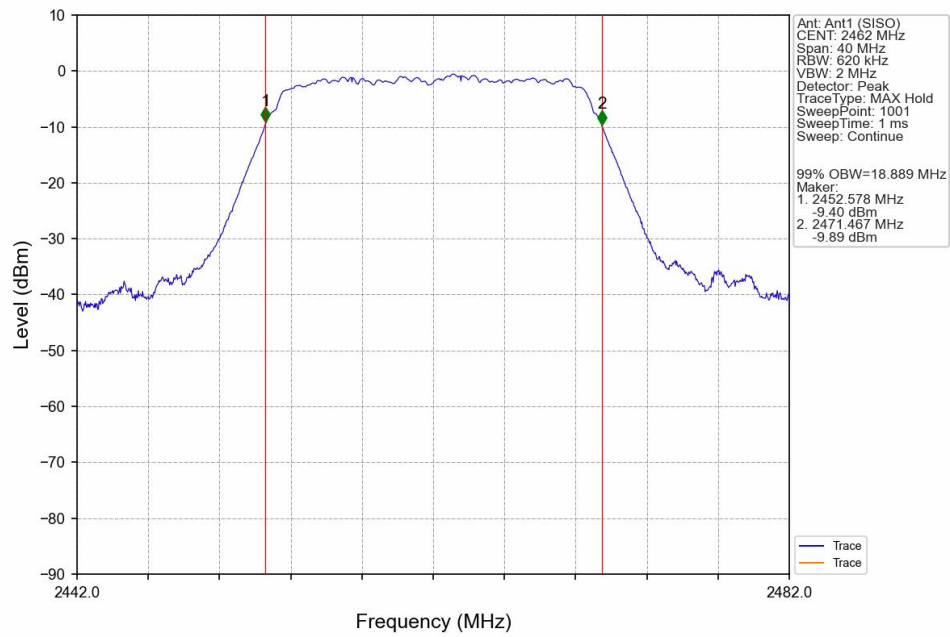
802.11n(HT20)_LCH_2412MHz_Ant1 (SISO)_NTNV



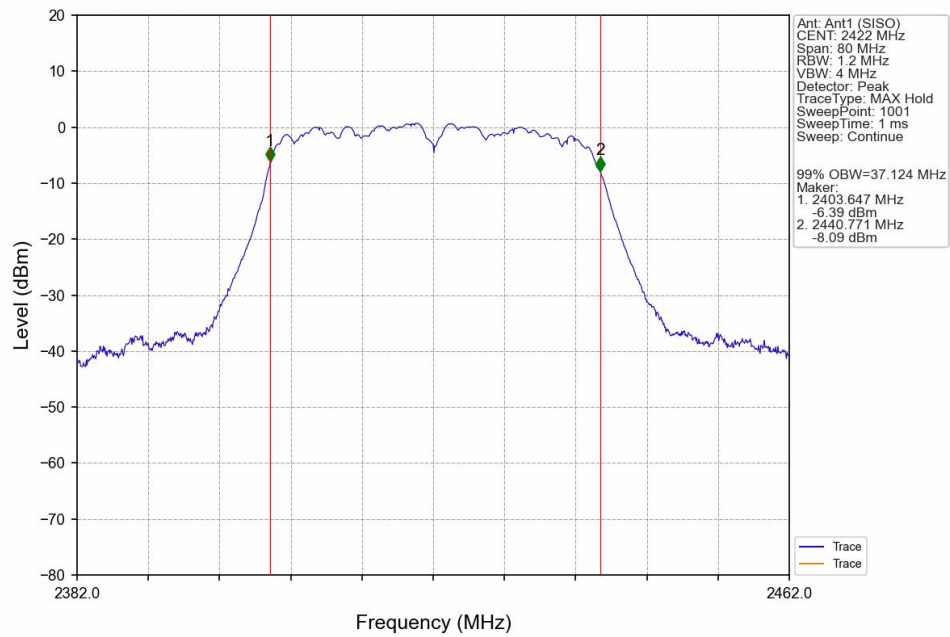
802.11n(HT20)_MCH_2437MHz_Ant1 (SISO)_NTNV



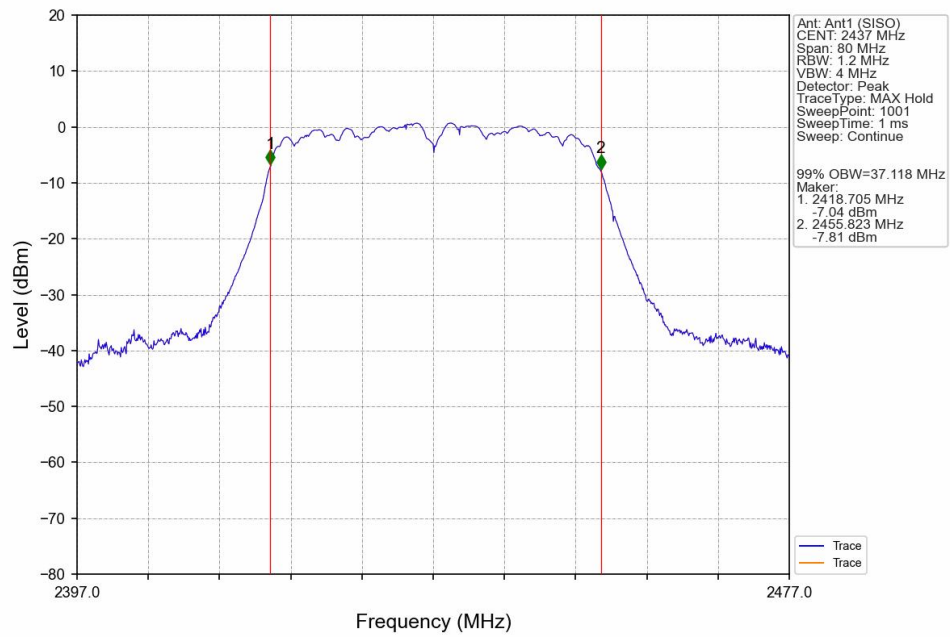
802.11n(HT20)_HCH_2462MHz_Ant1 (SISO)_NTNV



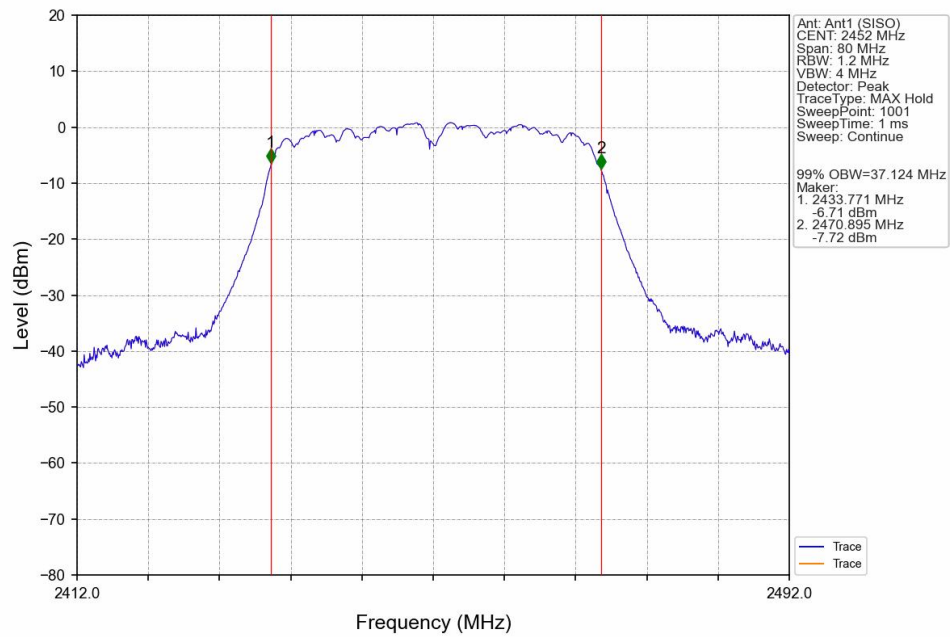
802.11n(HT40)_LCH_2422MHz_Ant1 (SISO)_NTNV



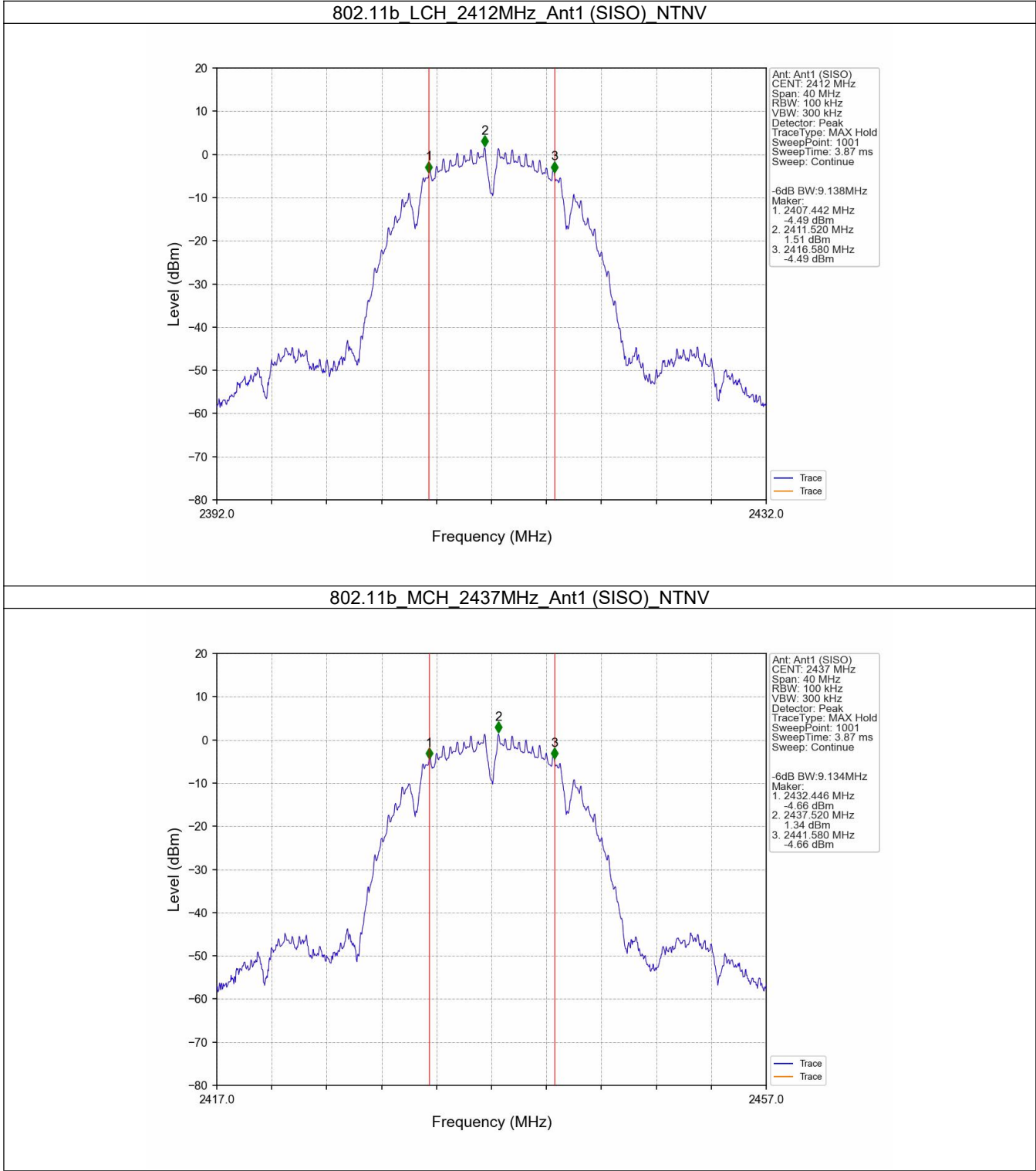
802.11n(HT40)_MCH_2437MHz_Ant1 (SISO)_NTNV



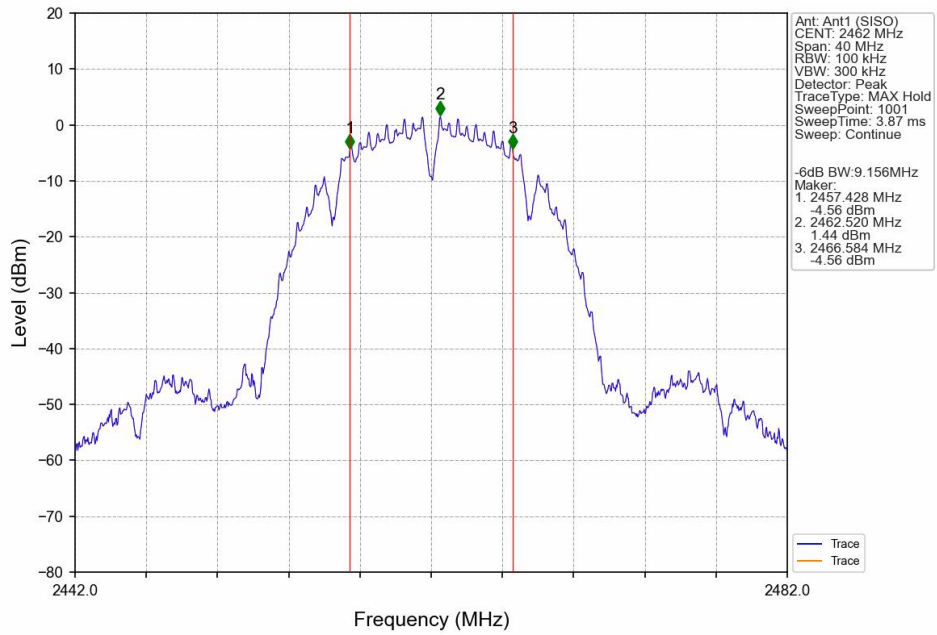
802.11n(HT40)_HCH_2452MHz_Ant1 (SISO)_NTNV



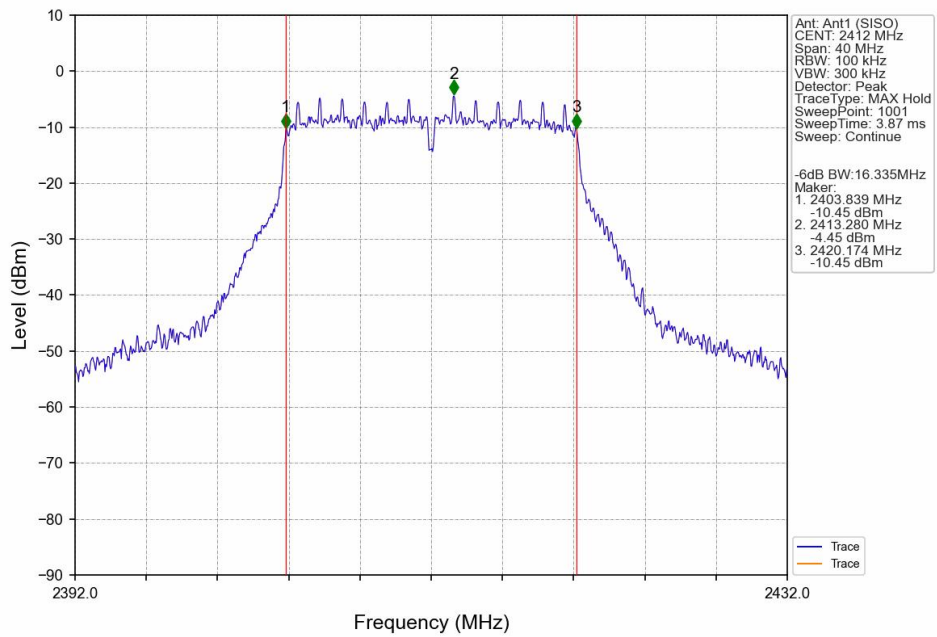
2.2.2 6dB BW



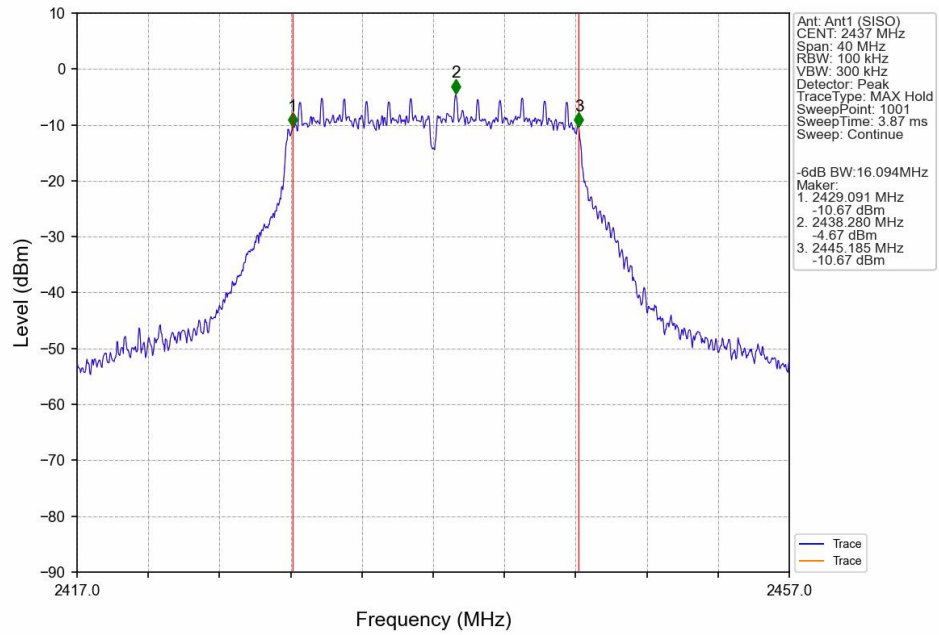
802.11b_HCH_2462MHz_Ant1 (SISO)_NTNV



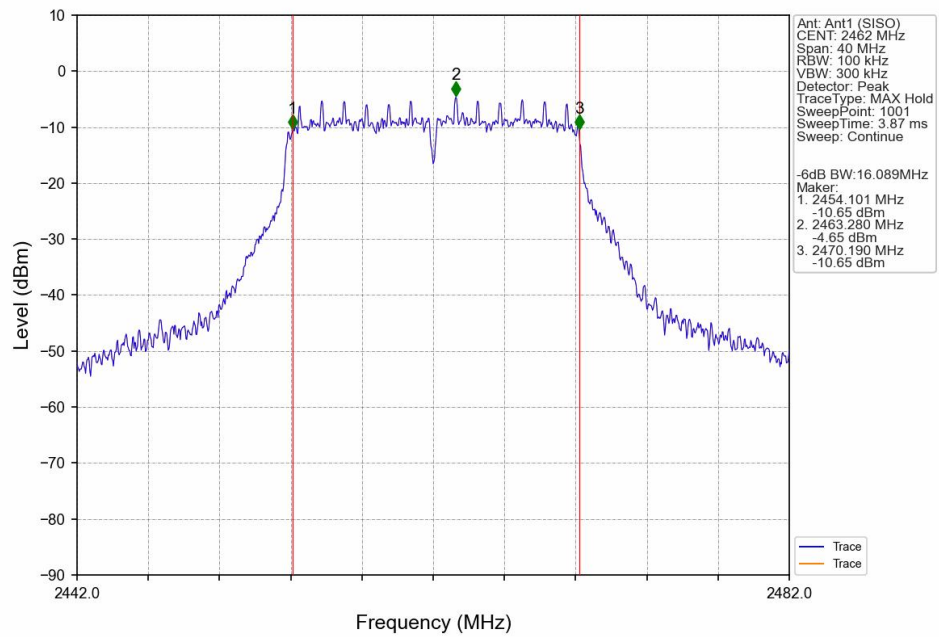
802.11g_LCH_2412MHz_Ant1 (SISO)_NTNV



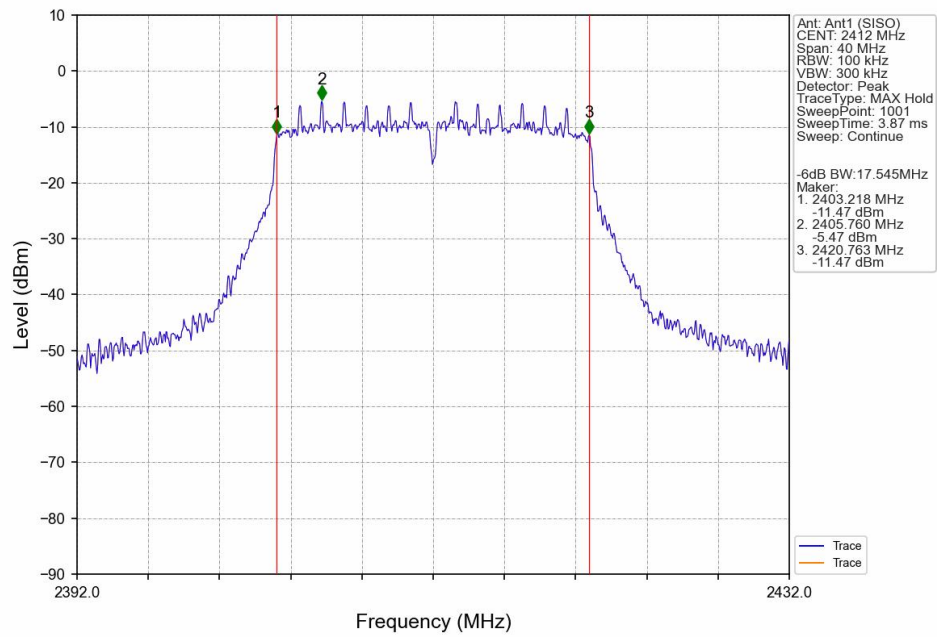
802.11g_MCH_2437MHz_Ant1 (SISO)_NTNV



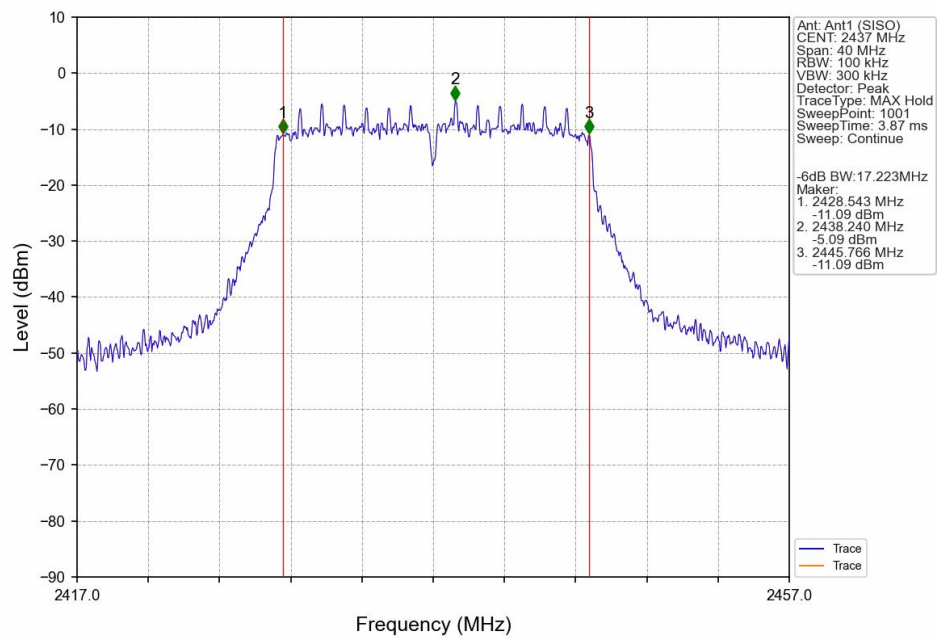
802.11g_HCH_2462MHz_Ant1 (SISO)_NTNV



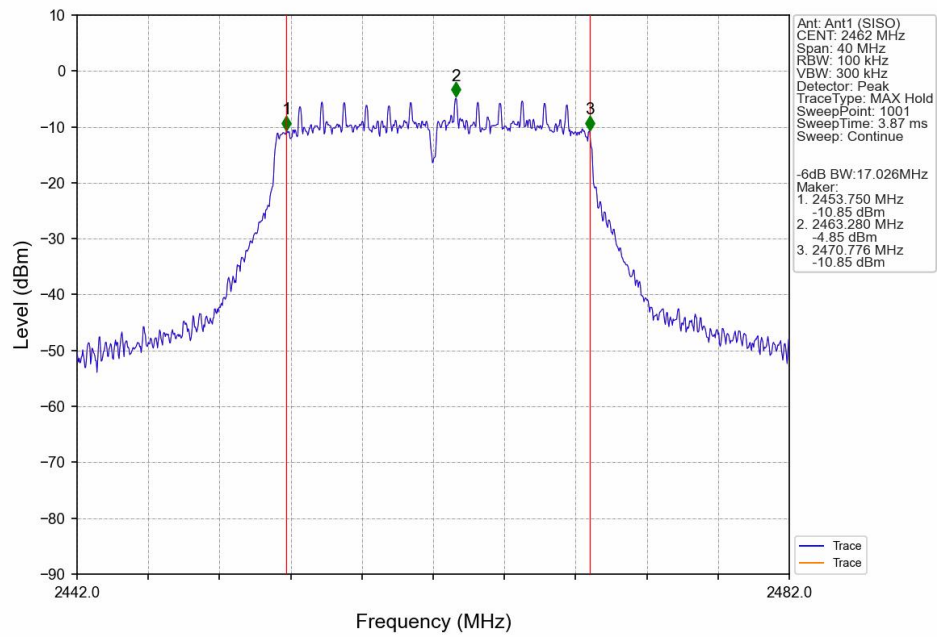
802.11n(HT20)_LCH_2412MHz_Ant1 (SISO)_NTNV



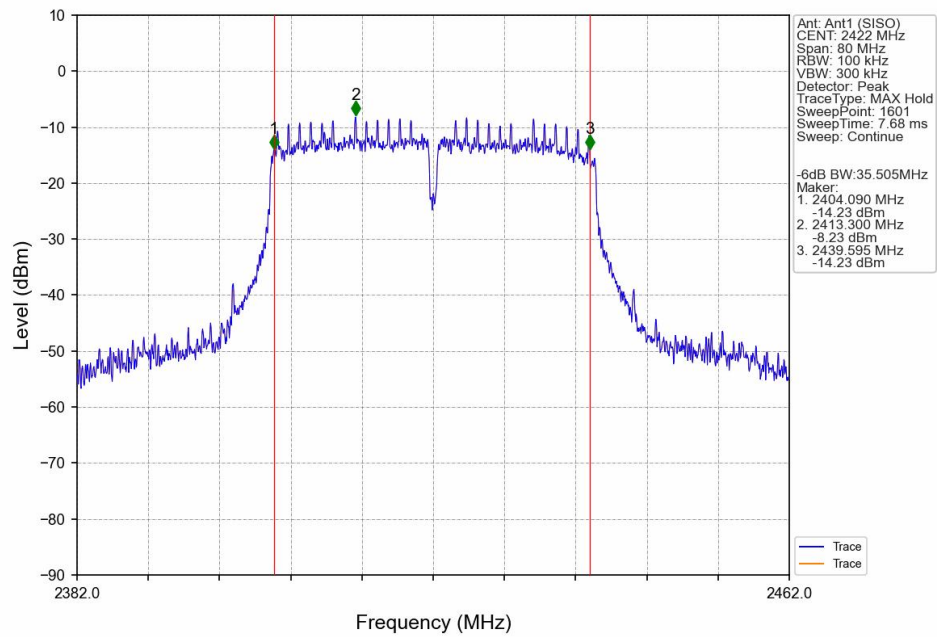
802.11n(HT20)_MCH_2437MHz_Ant1 (SISO)_NTNV



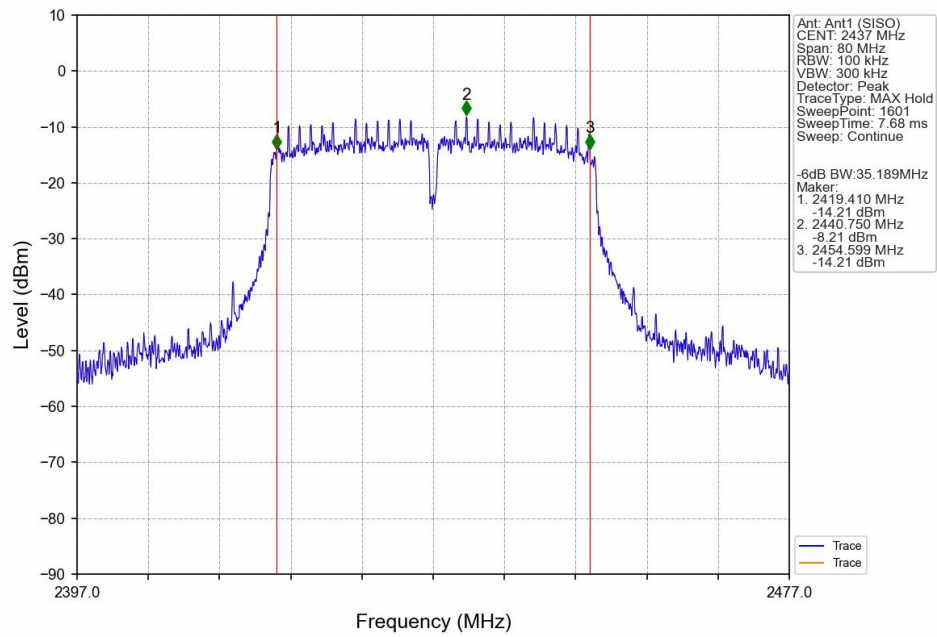
802.11n(HT20)_HCH_2462MHz_Ant1 (SISO)_NTNV



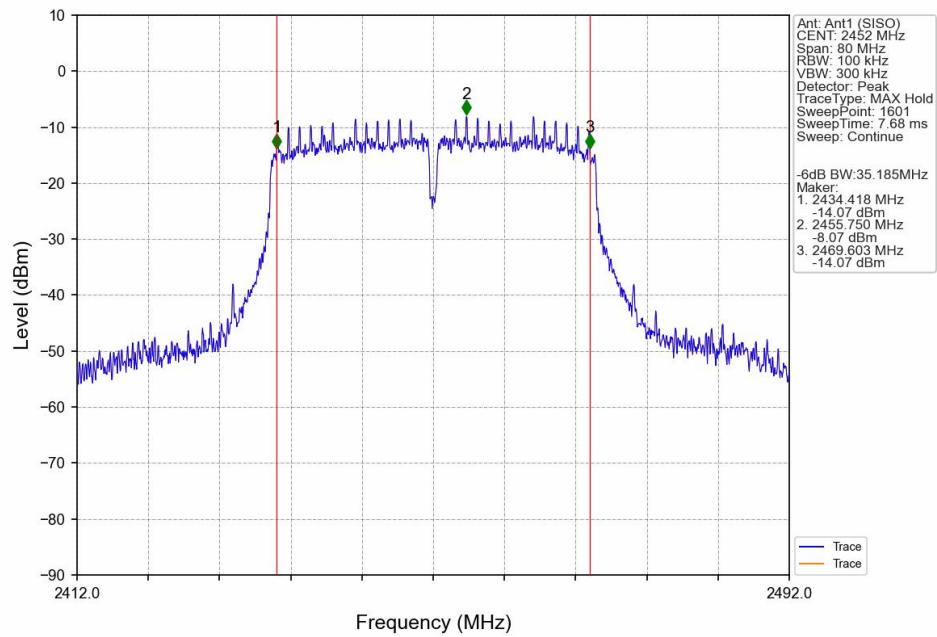
802.11n(HT40)_LCH_2422MHz_Ant1 (SISO)_NTNV



802.11n(HT40)_MCH_2437MHz_Ant1 (SISO)_NTNV



802.11n(HT40)_HCH_2452MHz_Ant1 (SISO)_NTNV



3. Maximum Conducted Output Power

3.1 Test Result

3.1.1 Power

Mode	TX Type	Frequency (MHz)	Maximum Peak Conducted Output Power (dBm)		Verdict
			ANT1	Limit	
802.11b	SISO	2412	12.92	<=30	Pass
		2437	12.72	<=30	Pass
		2462	12.84	<=30	Pass
802.11g	SISO	2412	13.95	<=30	Pass
		2437	13.69	<=30	Pass
		2462	13.63	<=30	Pass
802.11n (HT20)	SISO	2412	13.24	<=30	Pass
		2437	13.27	<=30	Pass
		2462	13.34	<=30	Pass
802.11n (HT40)	SISO	2422	13.10	<=30	Pass
		2437	13.00	<=30	Pass
		2452	13.12	<=30	Pass

Note1: Antenna Gain: Ant1: 0.16dBi;

4. Maximum Power Spectral Density

4.1 Test Result

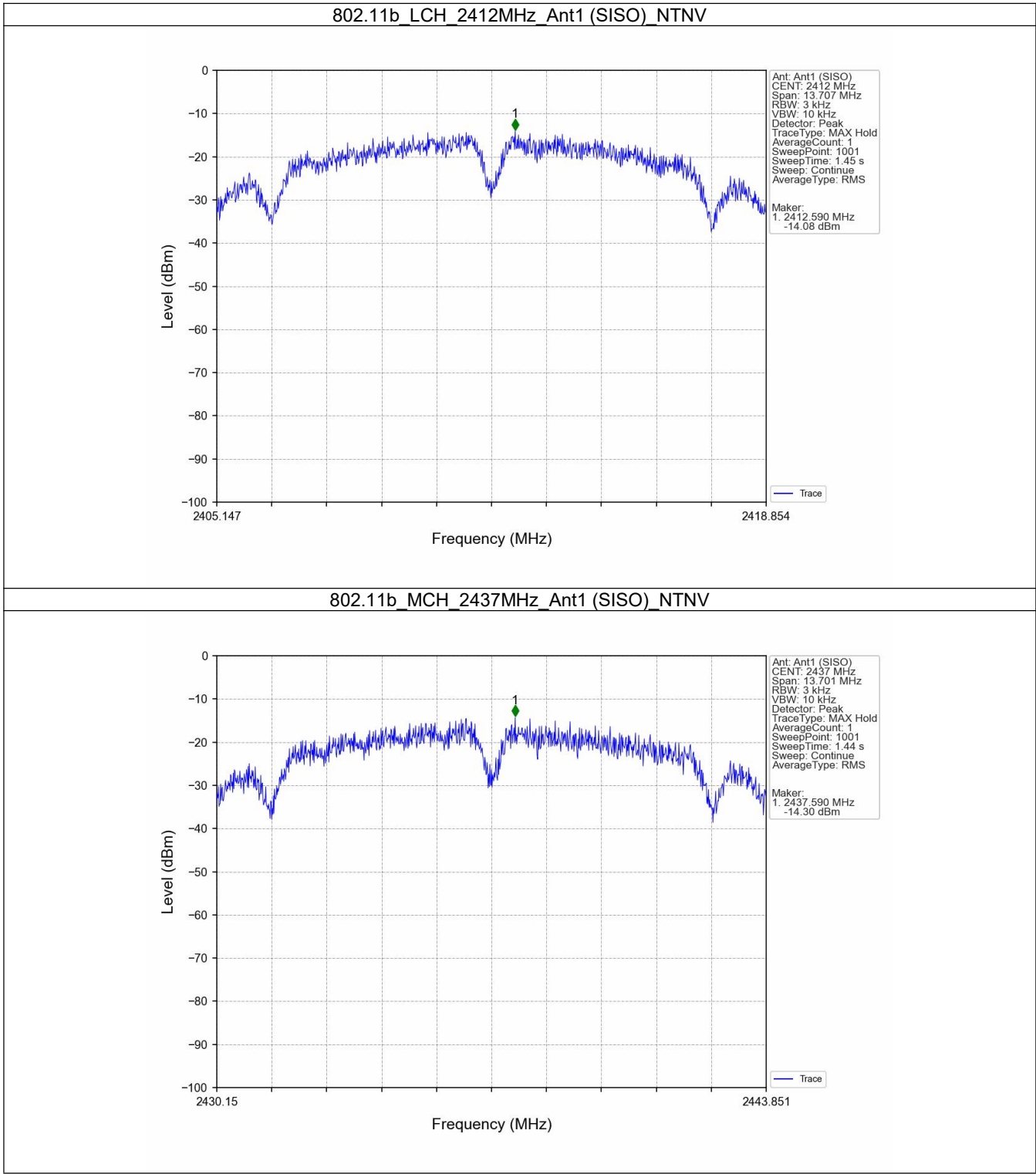
4.1.1 PSD

Mode	TX Type	Frequency (MHz)	Maximum PSD (dBm/3kHz)		Verdict
			ANT1	Limit	
802.11b	SISO	2412	-14.08	<=8	Pass
		2437	-14.30	<=8	Pass
		2462	-13.76	<=8	Pass
802.11g	SISO	2412	-19.60	<=8	Pass
		2437	-20.32	<=8	Pass
		2462	-20.27	<=8	Pass
802.11n (HT20)	SISO	2412	-20.38	<=8	Pass
		2437	-20.17	<=8	Pass
		2462	-19.96	<=8	Pass
802.11n (HT40)	SISO	2422	-22.23	<=8	Pass
		2437	-22.13	<=8	Pass
		2452	-22.02	<=8	Pass

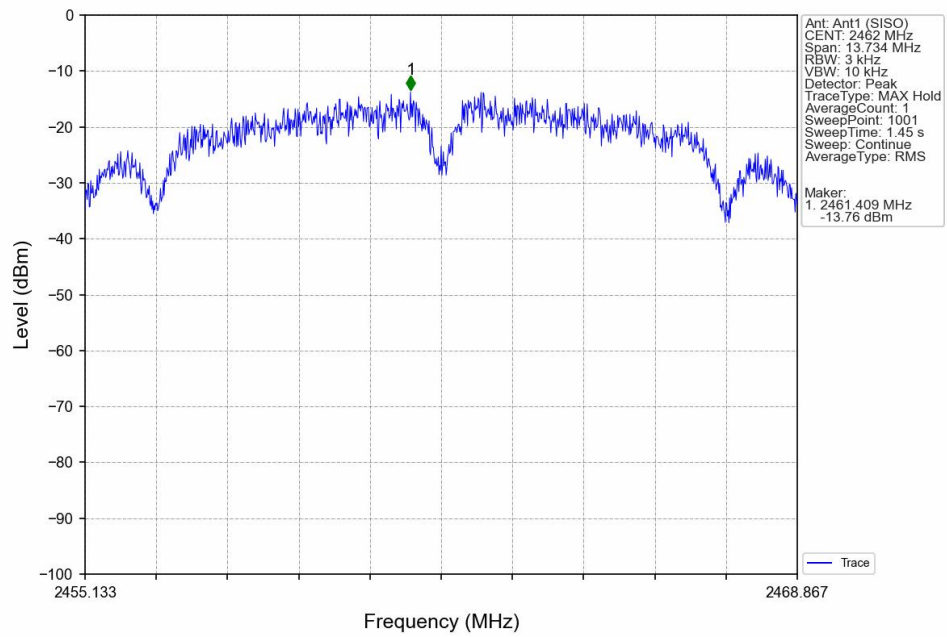
Note1: Antenna Gain: Ant1: 0.16dBi;

4.2 Test Graph

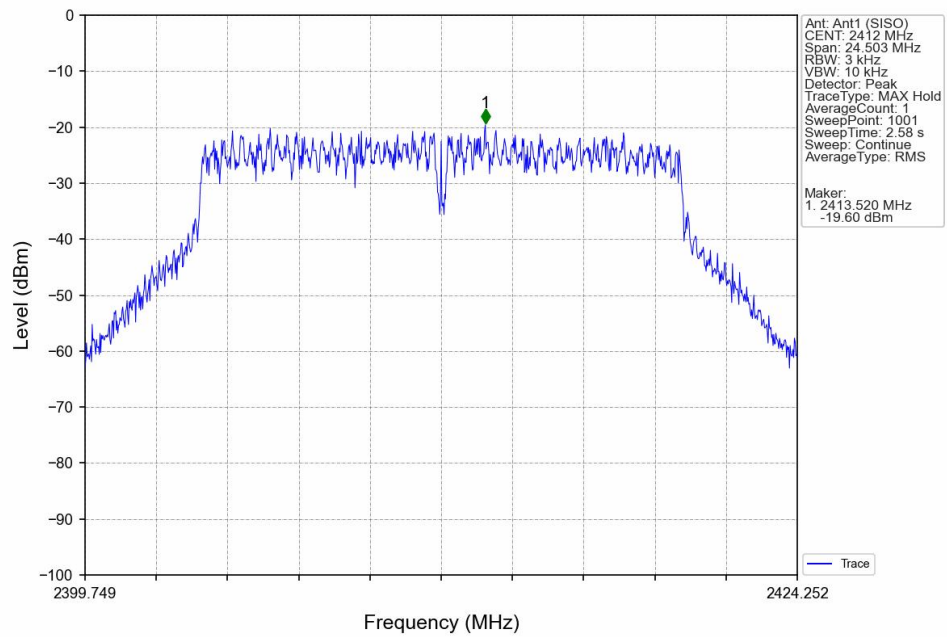
4.2.1 PSD



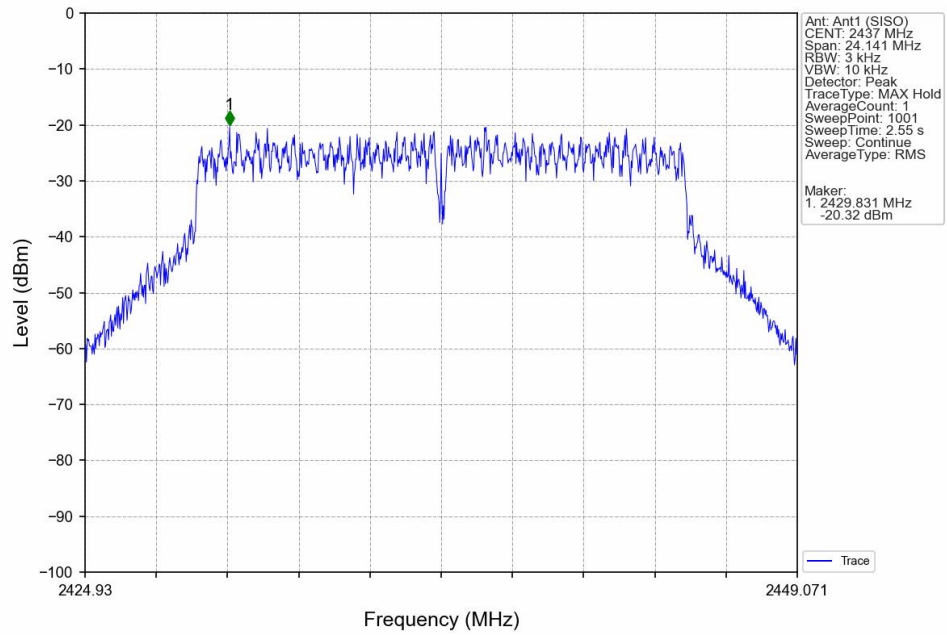
802.11b_HCH_2462MHz_Ant1 (SISO)_NTNV



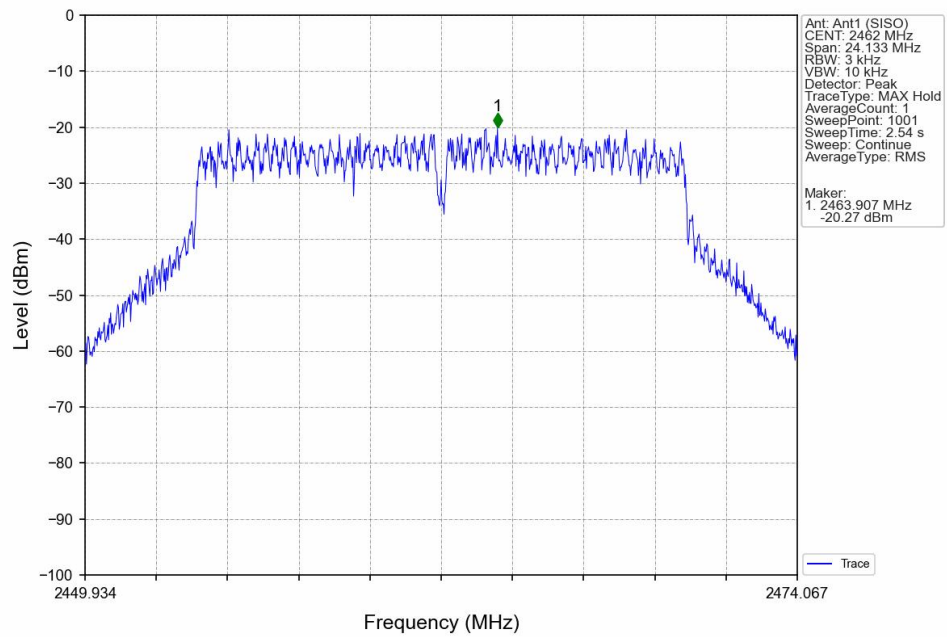
802.11g_LCH_2412MHz_Ant1 (SISO)_NTNV



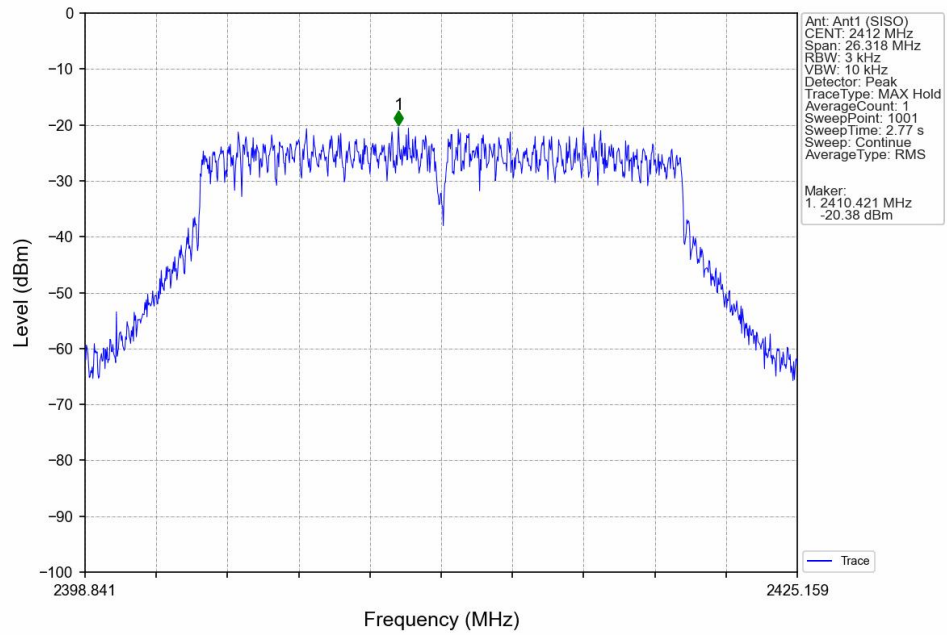
802.11g_MCH_2437MHz_Ant1 (SISO)_NTNV



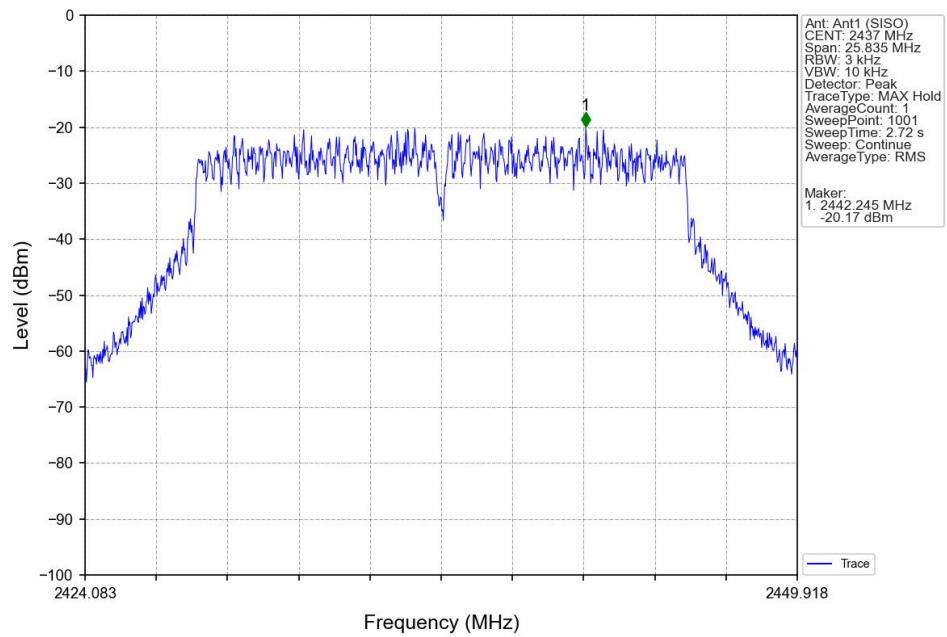
802.11g_HCH_2462MHz_Ant1 (SISO)_NTNV



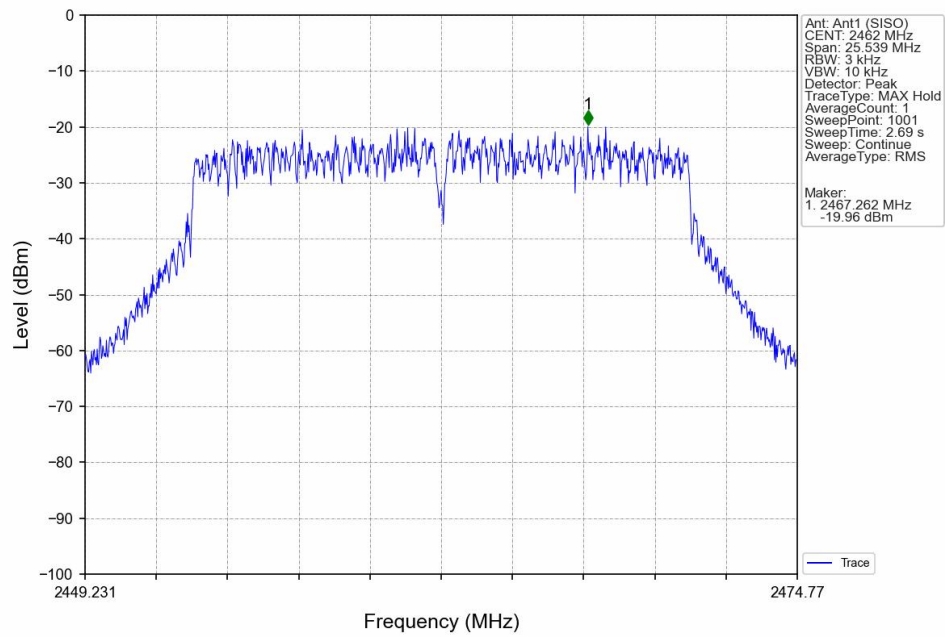
802.11n(HT20)_LCH_2412MHz_Ant1 (SISO)_NTNV



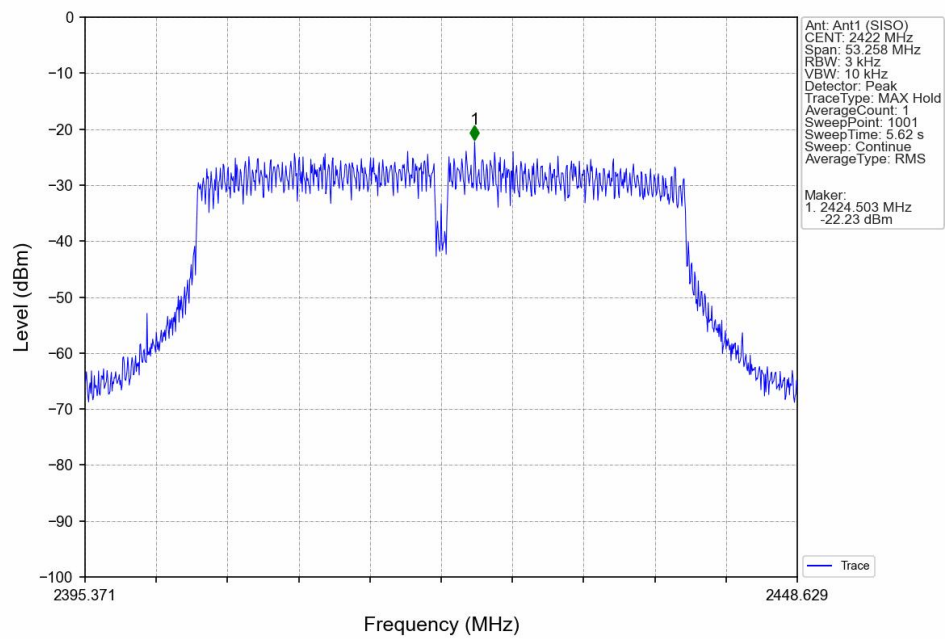
802.11n(HT20)_MCH_2437MHz_Ant1 (SISO)_NTNV



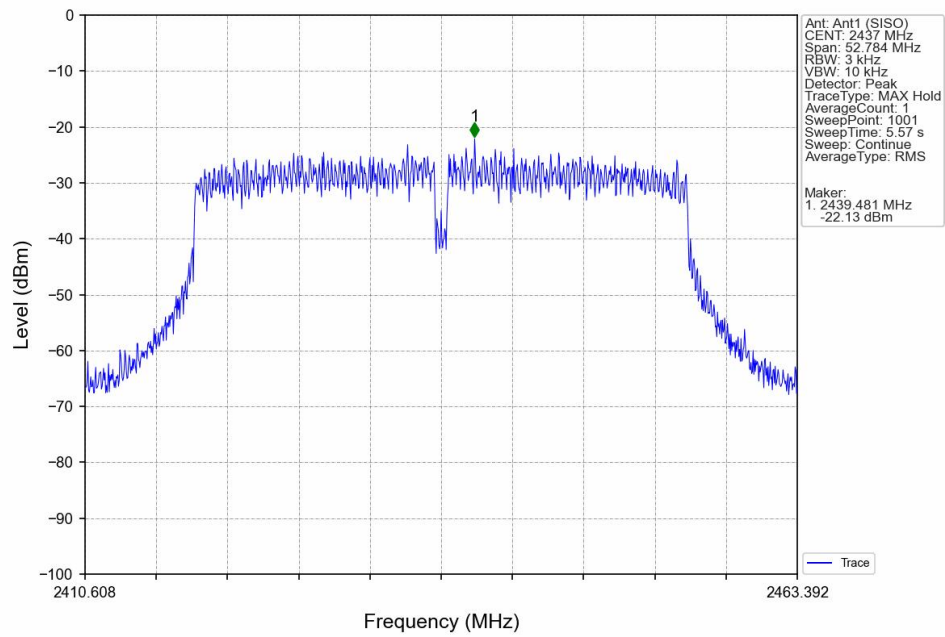
802.11n(HT20)_HCH_2462MHz_Ant1 (SISO)_NTNV



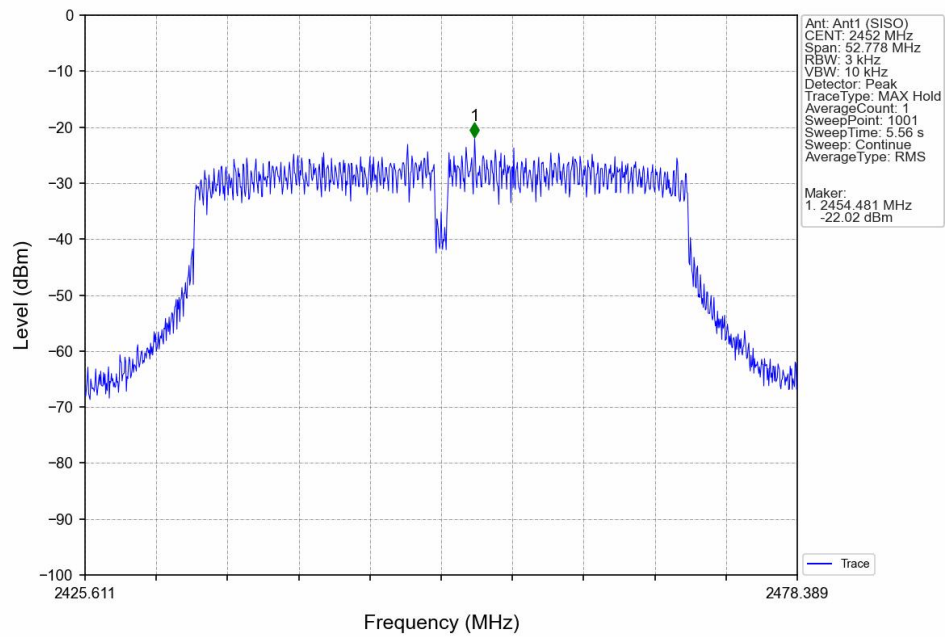
802.11n(HT40)_LCH_2422MHz_Ant1 (SISO)_NTNV



802.11n(HT40)_MCH_2437MHz_Ant1 (SISO)_NTNV



802.11n(HT40)_HCH_2452MHz_Ant1 (SISO)_NTNV



5. Unwanted Emissions In Non-restricted Frequency Bands

5.1 Test Result

5.1.1 Ref

Mode	TX Type	Frequency (MHz)	ANT	Level of Reference (dBm)
802.11b	SISO	2412	1	1.52
		2437	1	1.30
		2462	1	1.35
802.11g	SISO	2412	1	-4.46
		2437	1	-4.65
		2462	1	-4.64
802.11n (HT20)	SISO	2412	1	-5.20
		2437	1	-4.99
		2462	1	-4.85
802.11n (HT40)	SISO	2422	1	-8.27
		2437	1	-8.18
		2452	1	-8.06

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.

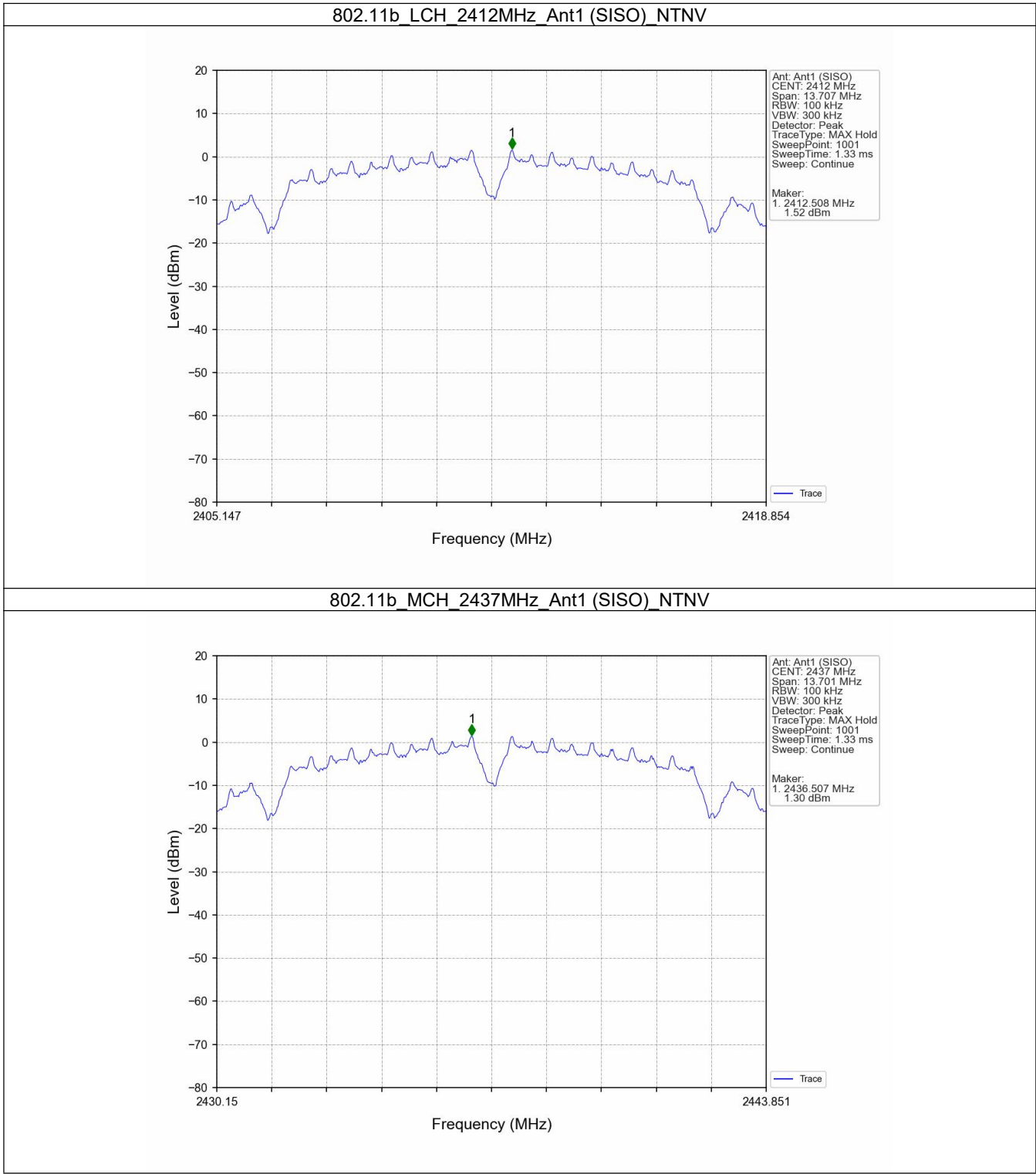
5.1.2 CSE

Mode	TX Type	Frequency (MHz)	ANT	Level of Reference (dBm)	Limit (dBm)	Verdict
802.11b	SISO	2412	1	1.52	-18.48	Pass
		2437	1	1.30	-18.70	Pass
		2462	1	1.35	-18.65	Pass
802.11g	SISO	2412	1	-4.46	-24.46	Pass
		2437	1	-4.65	-24.65	Pass
		2462	1	-4.64	-24.64	Pass
802.11n (HT20)	SISO	2412	1	-5.20	-25.20	Pass
		2437	1	-4.99	-24.99	Pass
		2462	1	-4.85	-24.85	Pass
802.11n (HT40)	SISO	2422	1	-8.27	-28.27	Pass
		2437	1	-8.18	-28.18	Pass
		2452	1	-8.06	-28.06	Pass

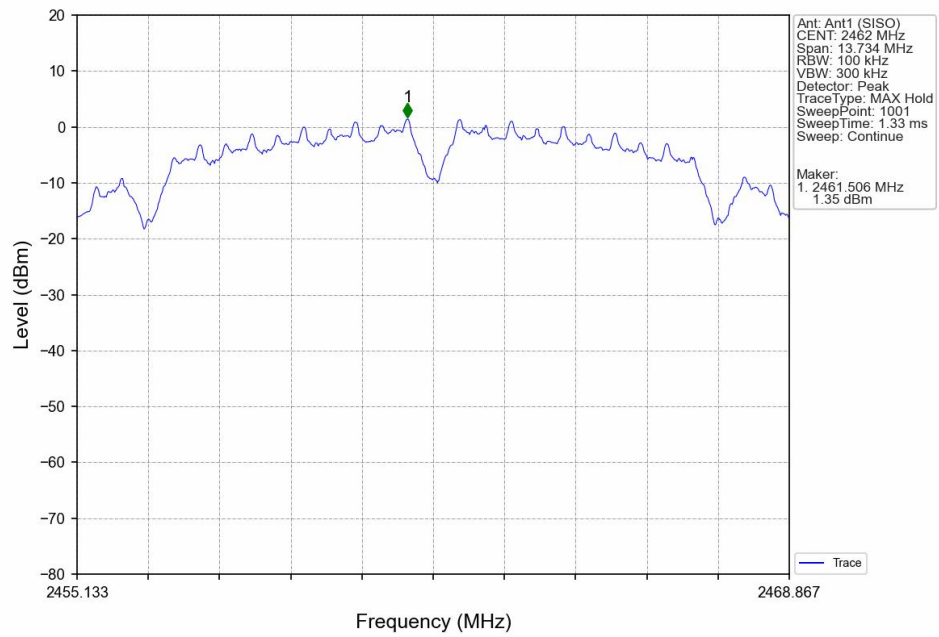
Note1: Refer to FCC Part 15.247 (d) and ANSI C63.10-2013, the channel contains the maximum PSD level was used to establish the reference level.

5.2 Test Graph

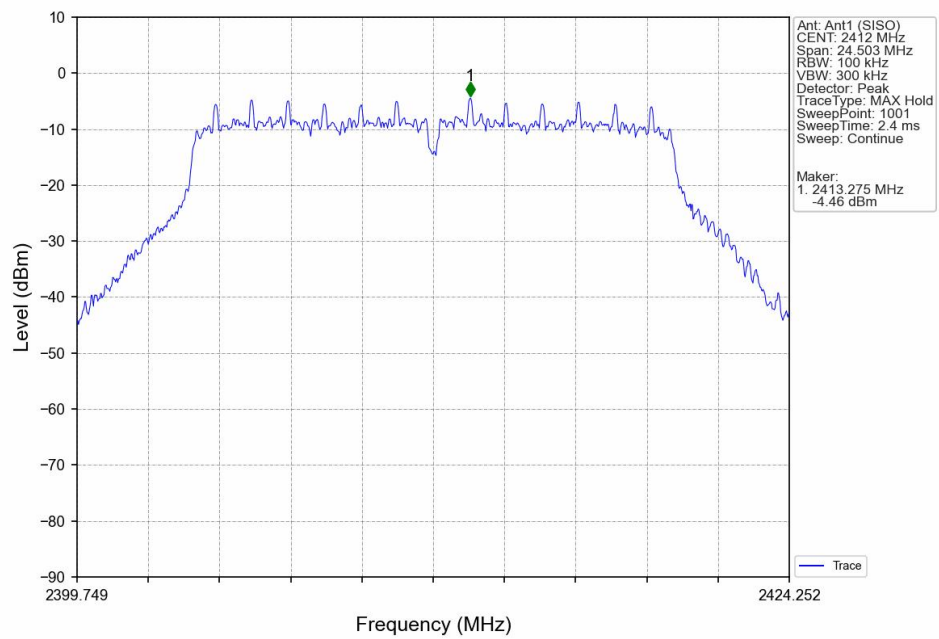
5.2.1 Ref



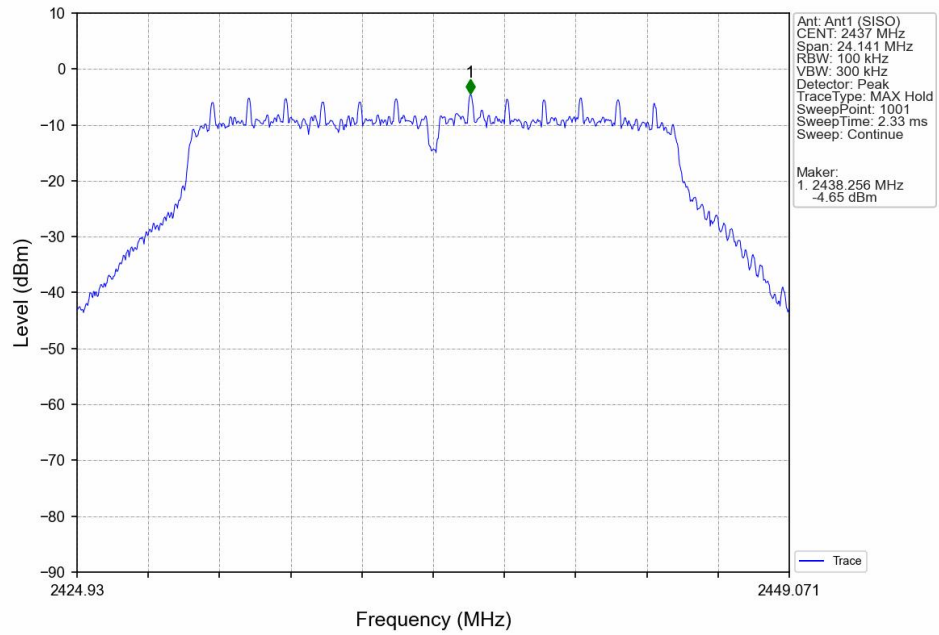
802.11b_HCH_2462MHz_Ant1 (SISO)_NTNV



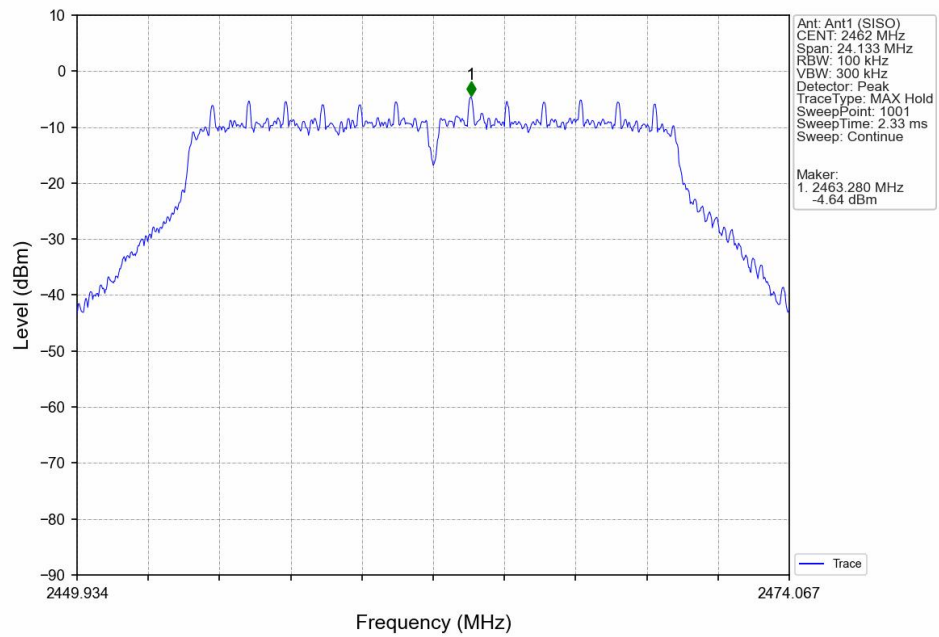
802.11g_LCH_2412MHz_Ant1 (SISO)_NTNV



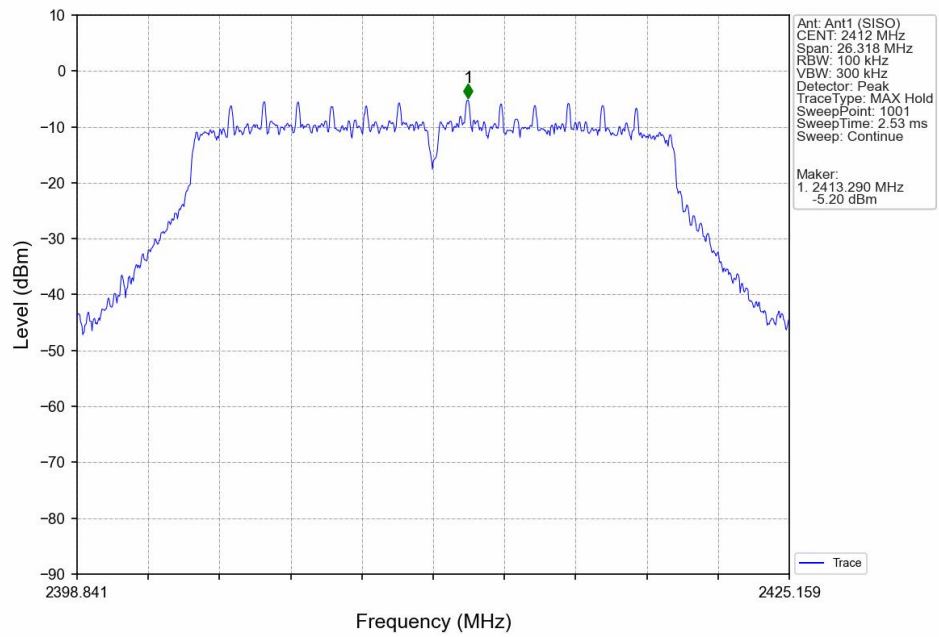
802.11g_MCH_2437MHz_Ant1 (SISO)_NTNV



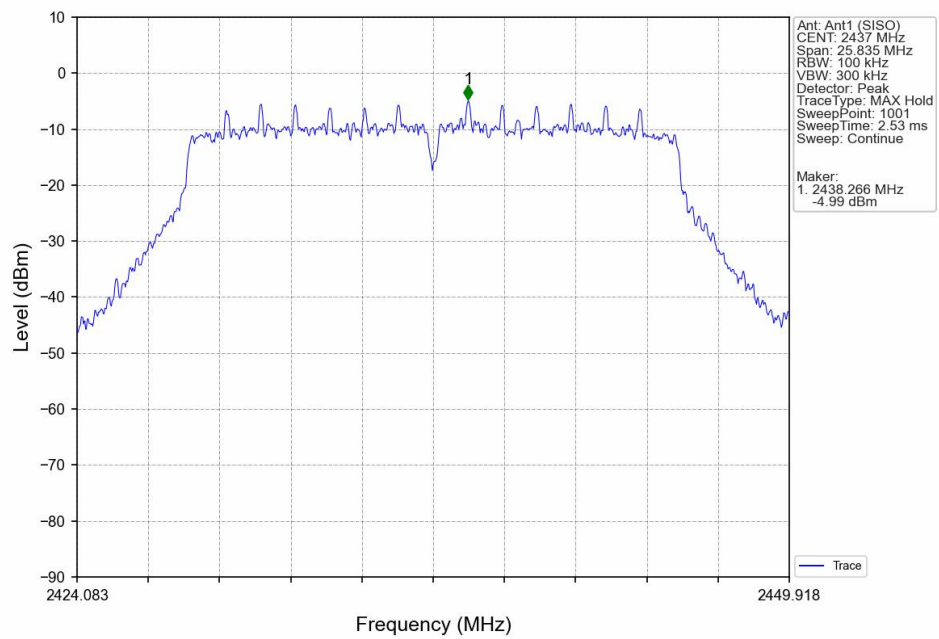
802.11g_HCH_2462MHz_Ant1 (SISO)_NTNV



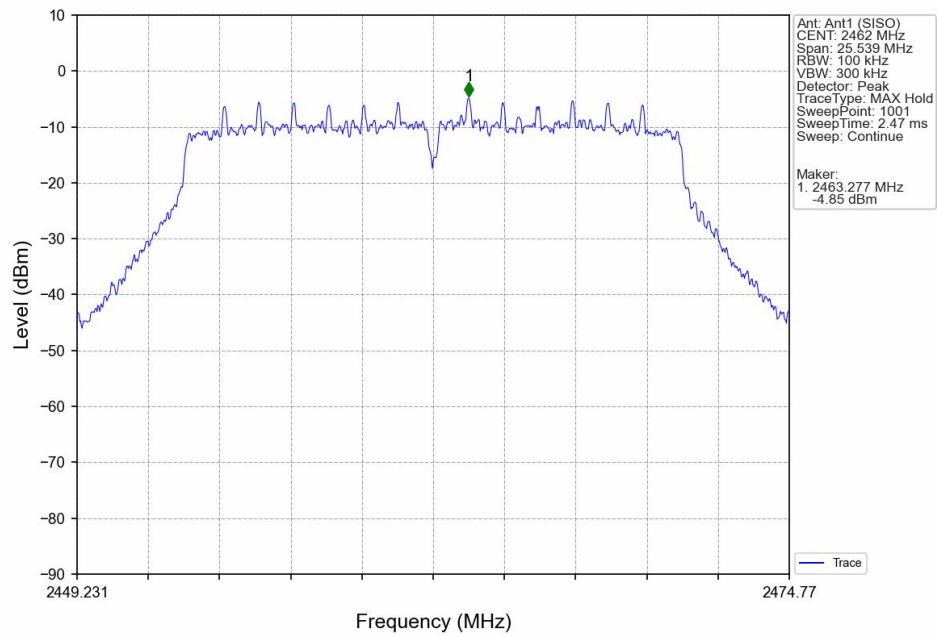
802.11n(HT20)_LCH_2412MHz_Ant1 (SISO)_NTNV



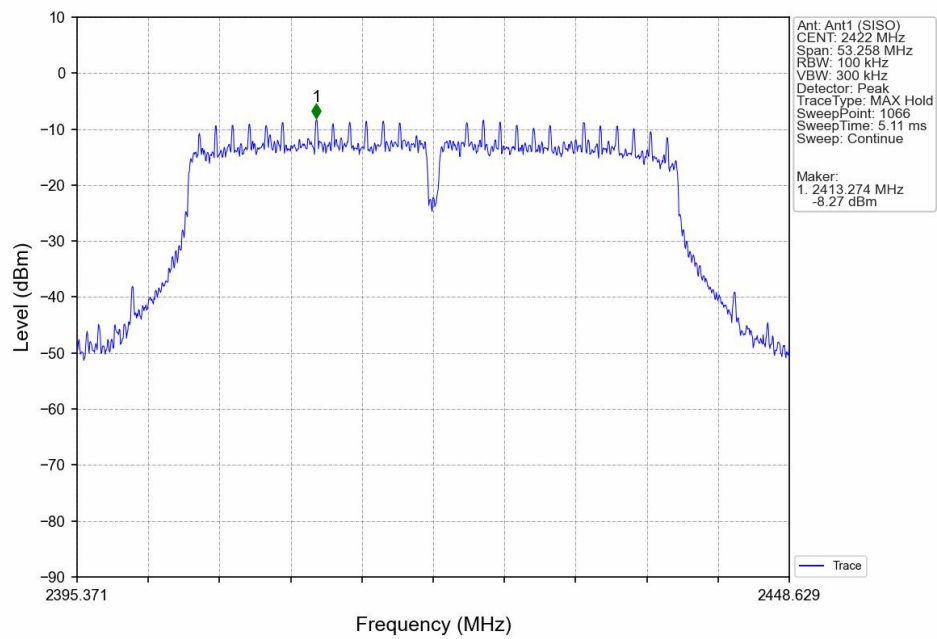
802.11n(HT20)_MCH_2437MHz_Ant1 (SISO)_NTNV



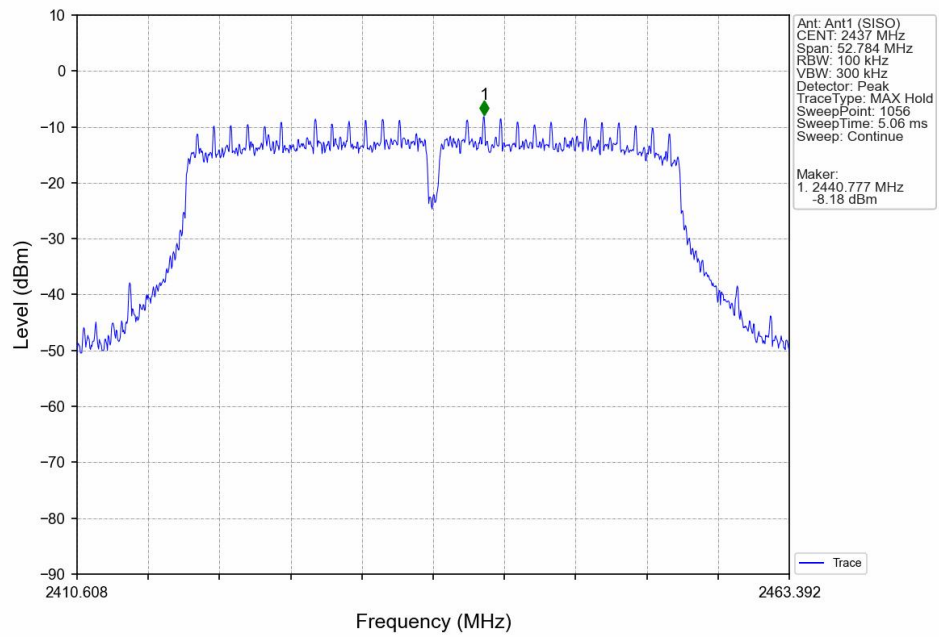
802.11n(HT20)_HCH_2462MHz_Ant1(SISO)_NTNV



802.11n(HT40)_LCH_2422MHz_Ant1(SISO)_NTNV



802.11n(HT40)_MCH_2437MHz_Ant1 (SISO)_NTNV



802.11n(HT40)_HCH_2452MHz_Ant1 (SISO)_NTNV

