

RF Test Report

For

Project No.:	DLE-260408032R
Client:	Worldwide Telecommunications, Inc.
Manufacturer:	HOMTECS M2M TECHNOLOGY COMPANY LIMITED
Product Description:	Industrial Router
Model Number:	4200
Test Engineer:	Alisa Song
Test Date:	2026-4-11

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

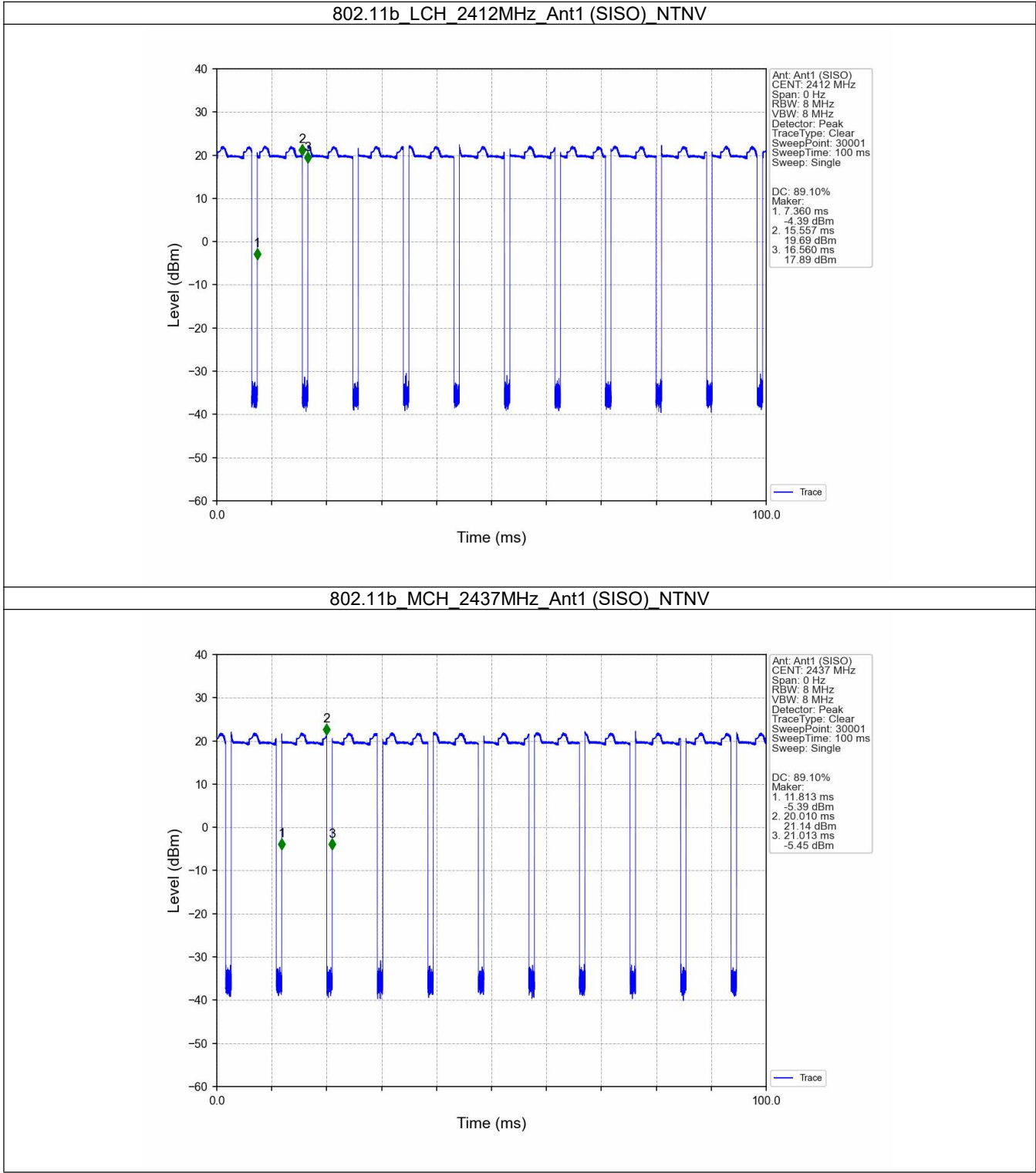
1.1 Test Result

1.1.1 Ant1

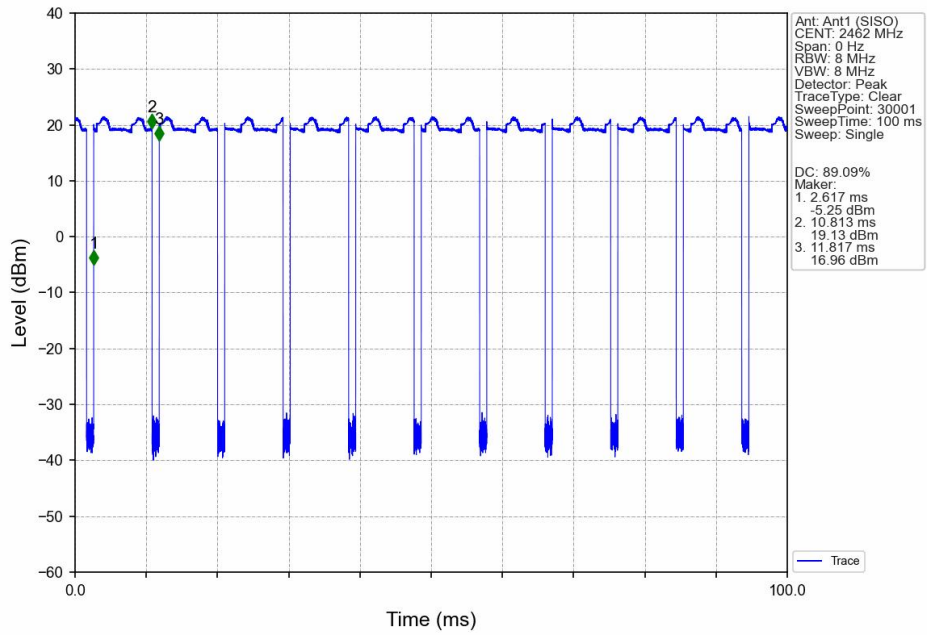
Ant1							
Mode	Tx Type	Frequency (MHz)	T_on (ms)	Period (ms)	Duty Cycle (%)	Duty Cycle Correction Factor (dB)	Max. DC Variation (%)
802.11b	SISO	2412	8.197	9.200	89.10	0.50	0.03
		2437	8.197	9.200	89.10	0.50	0.03
		2462	8.196	9.200	89.09	0.50	0.04
802.11g	SISO	2412	1.361	2.363	57.60	2.40	0.03
		2437	1.361	2.363	57.60	2.40	0.03
		2462	1.361	2.363	57.60	2.40	0.03
802.11n (HT20)	SISO	2412	1.272	2.275	55.91	2.52	0.04
		2437	1.273	2.275	55.96	2.52	0.04
		2462	1.273	2.275	55.96	2.52	0.04
802.11n (HT40)	SISO	2422	0.633	1.635	38.72	4.12	0.03
		2437	0.633	1.636	38.69	4.12	0.03
		2452	0.633	1.635	38.72	4.12	0.03

1.2 Test Graph

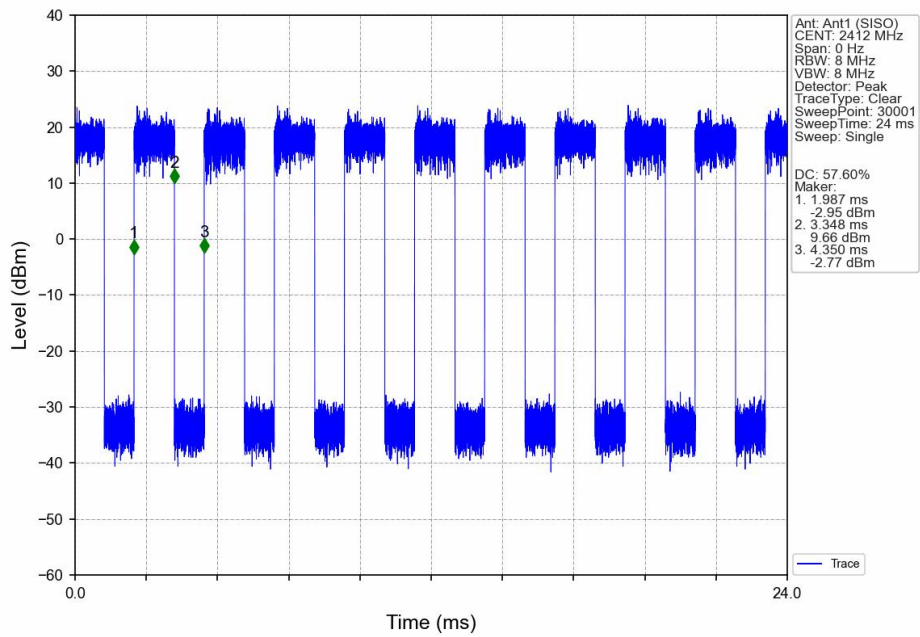
1.2.1 Ant1



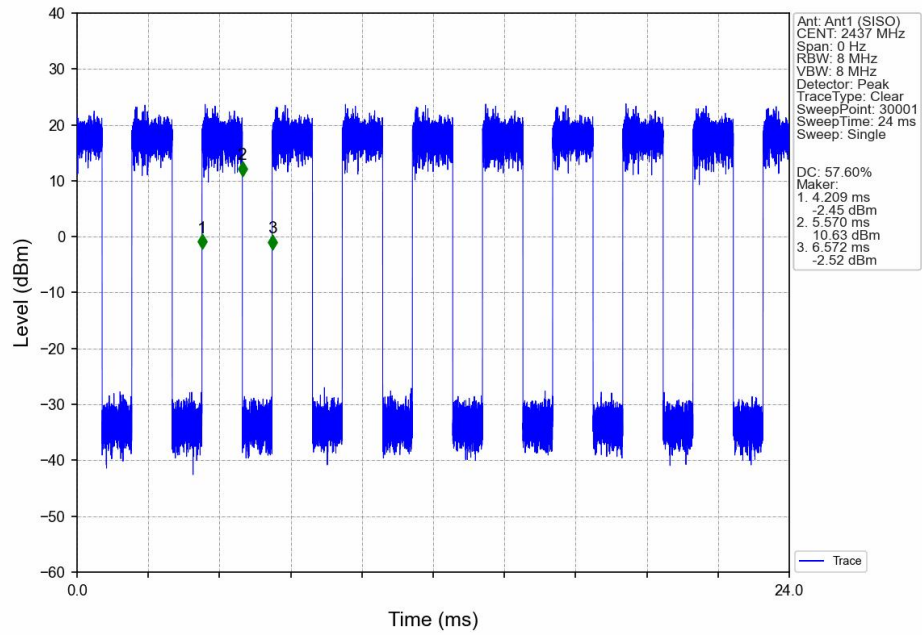
802.11b_HCH_2462MHz_Ant1 (SISO)_NTNV



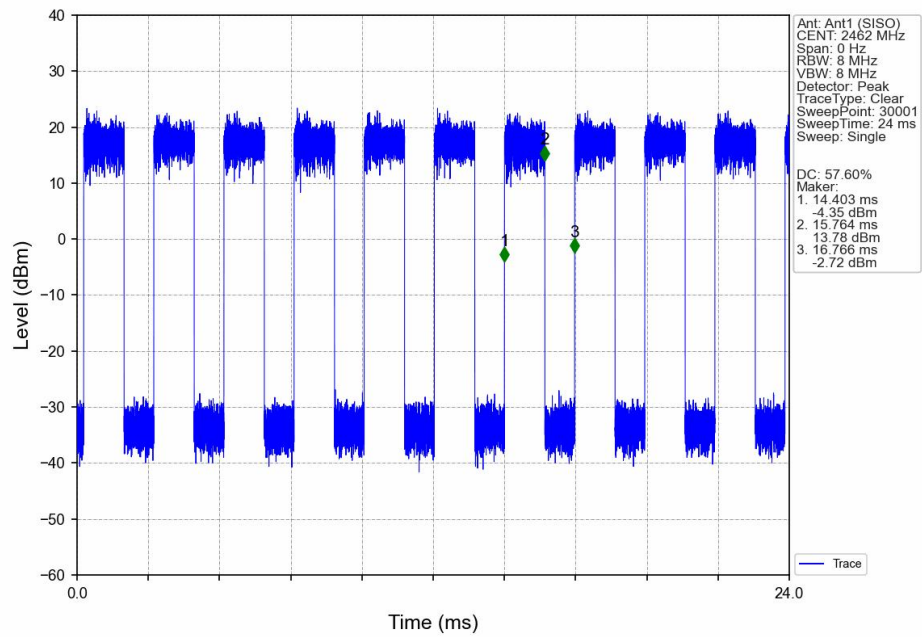
802.11g_LCH_2412MHz_Ant1 (SISO)_NTNV



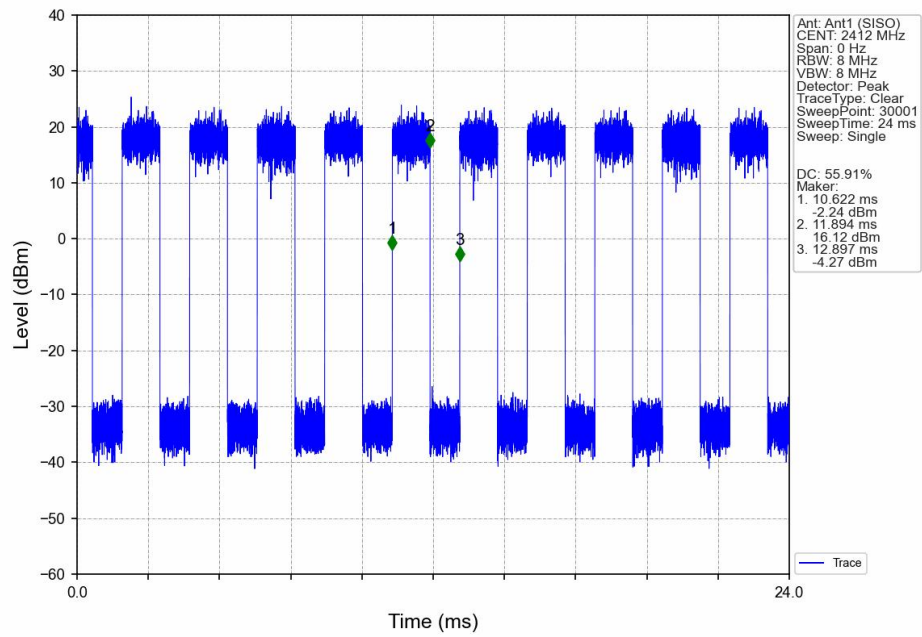
802.11g_MCH_2437MHz_Ant1 (SISO)_NTNV



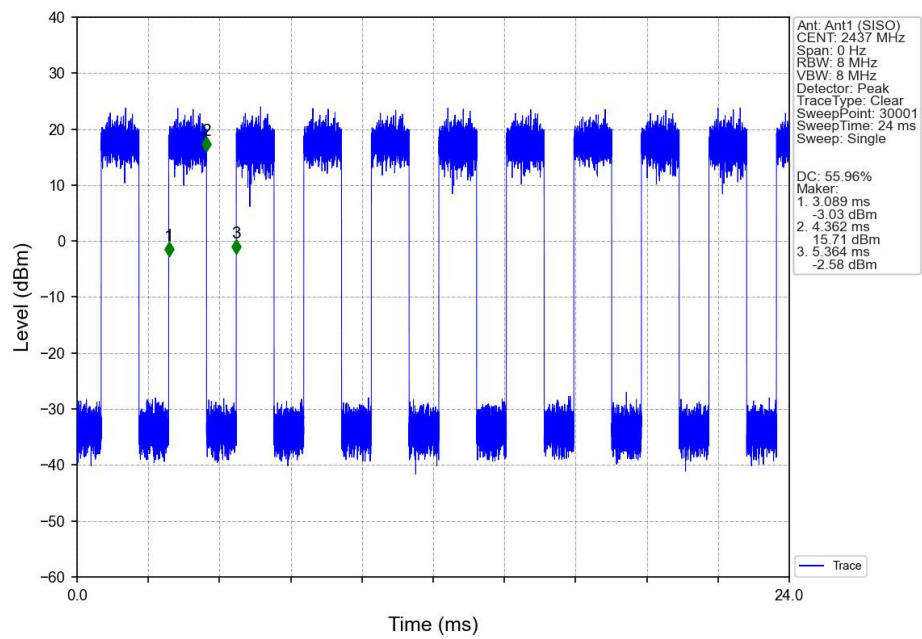
802.11g_HCH_2462MHz_Ant1 (SISO)_NTNV



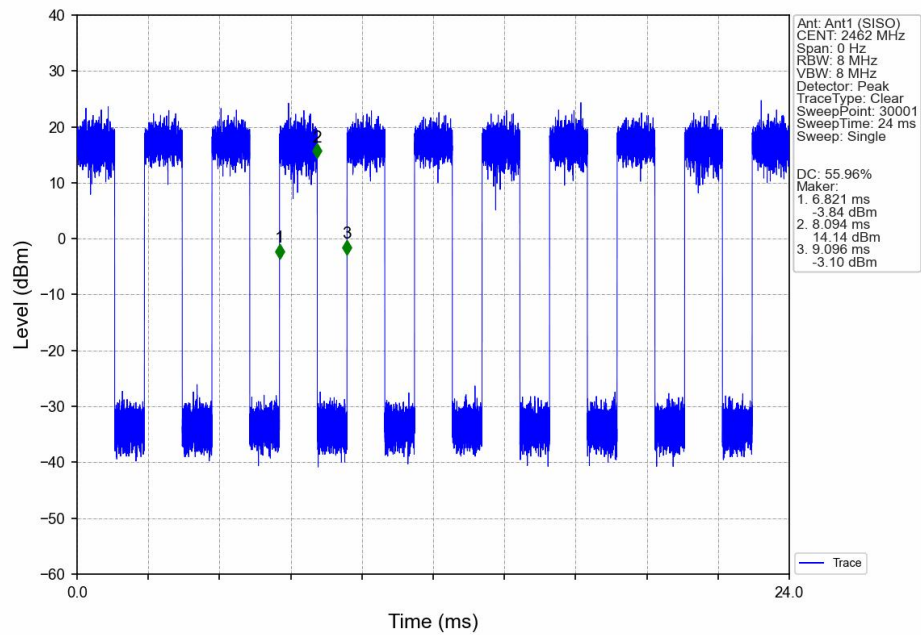
802.11n(HT20)_LCH_2412MHz_Ant1 (SISO)_NTNV



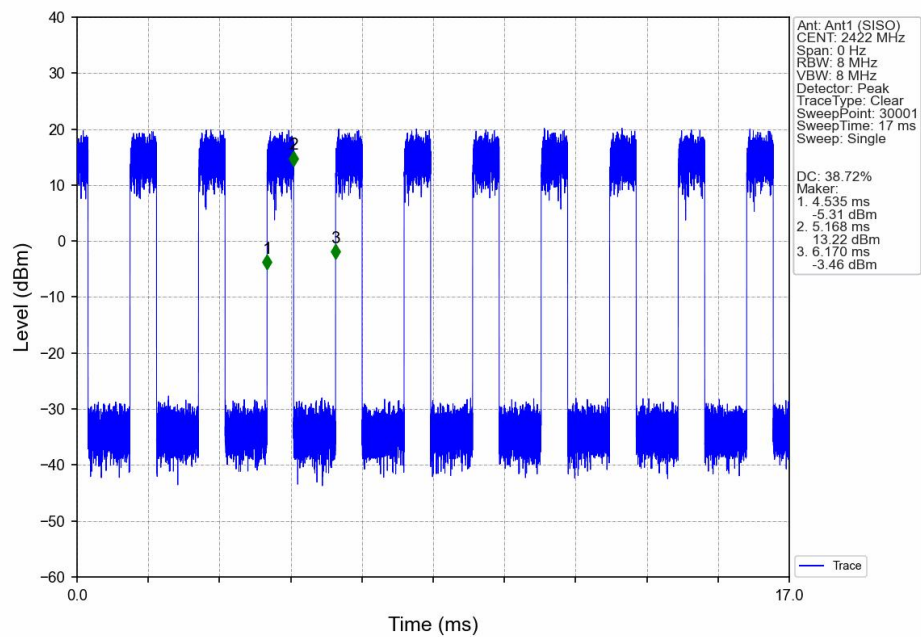
802.11n(HT20)_MCH_2437MHz_Ant1 (SISO)_NTNV



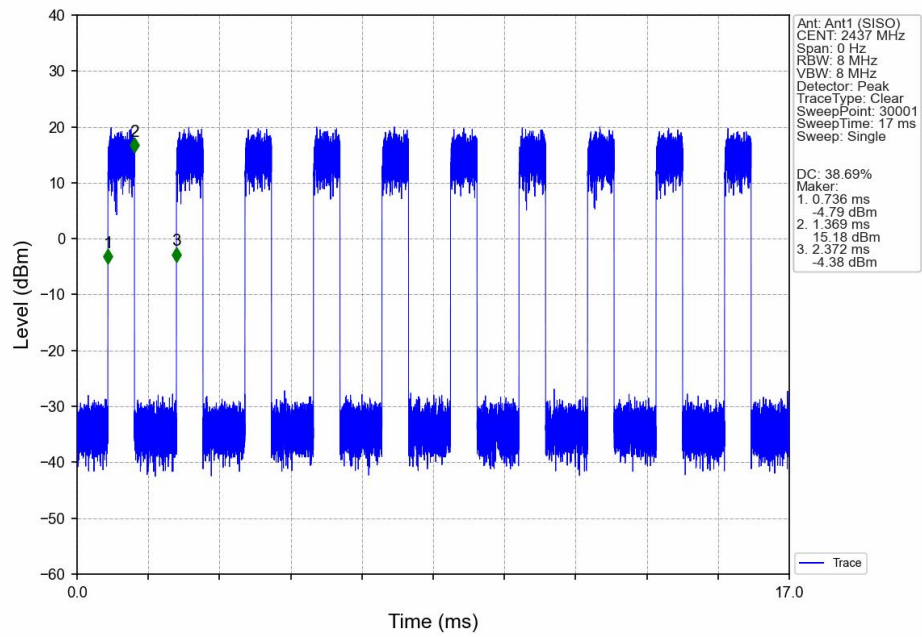
802.11n(HT20)_HCH_2462MHz_Ant1 (SISO)_NTNV



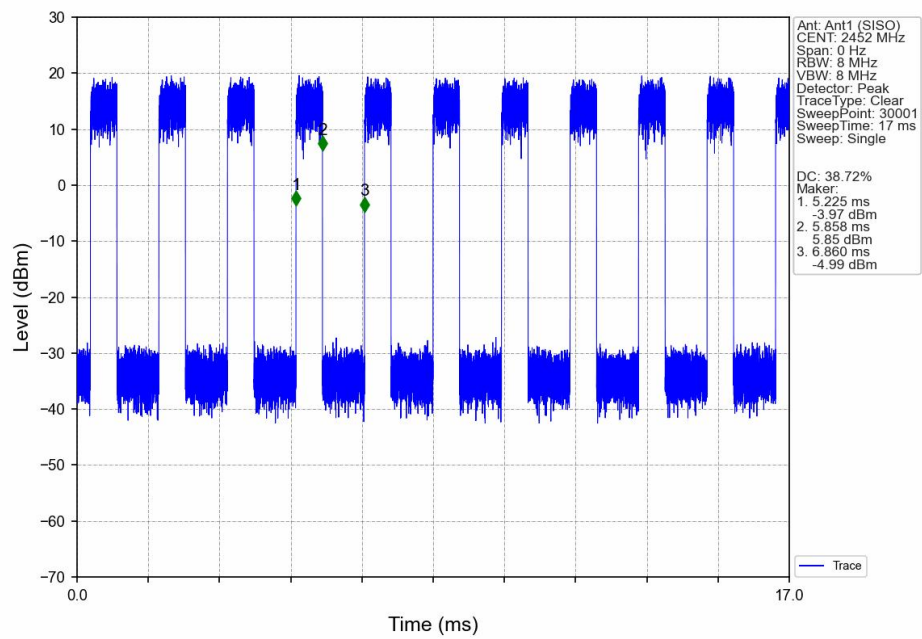
802.11n(HT40)_LCH_2422MHz_Ant1 (SISO)_NTNV



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

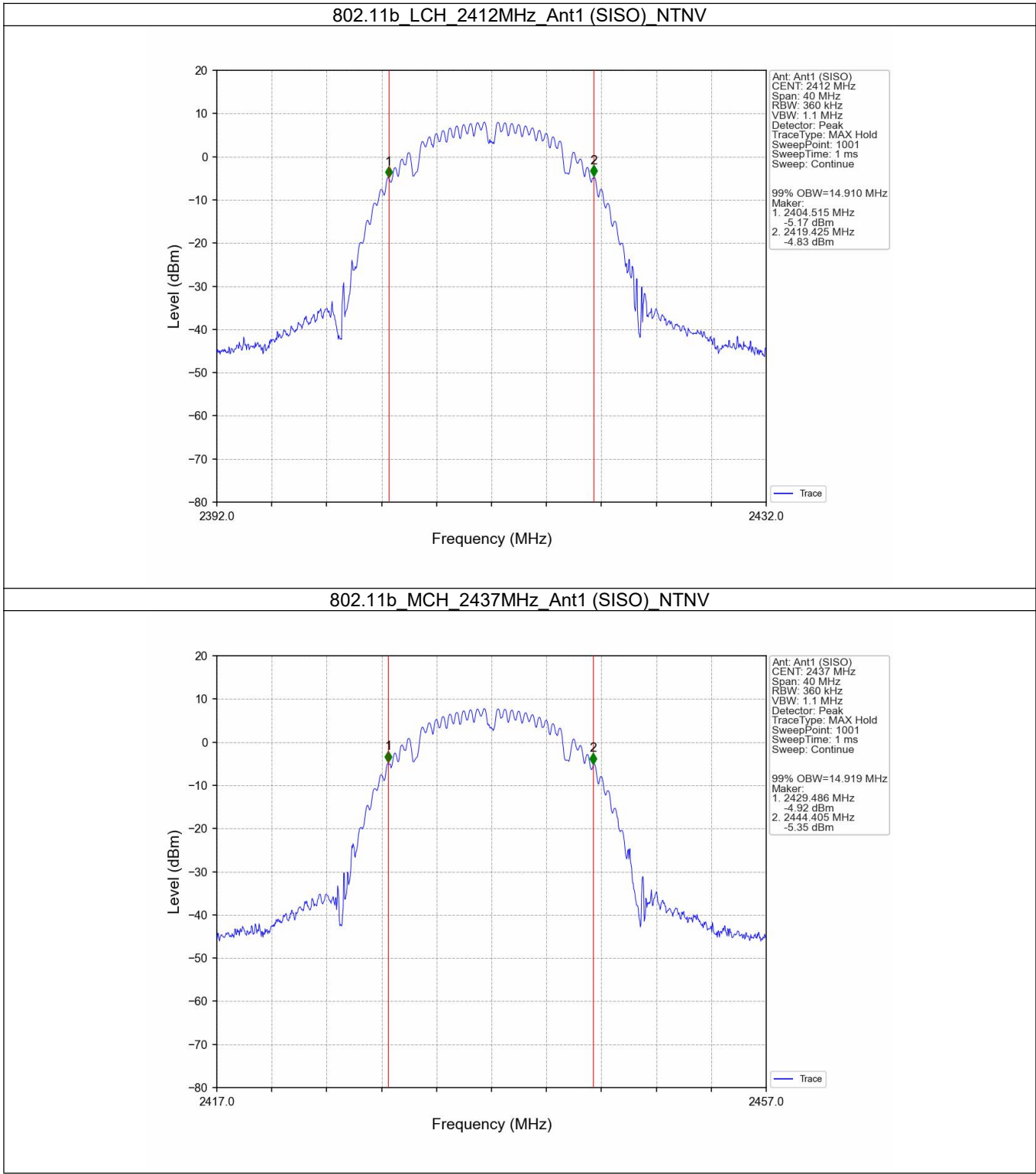
Mode	TX Type	Frequency (MHz)	ANT	99% Occupied Bandwidth (MHz)		Verdict
				Result	Limit	
802.11b	SISO	2412	1	14.910	/	Pass
		2437	1	14.919	/	Pass
		2462	1	14.911	/	Pass
802.11g	SISO	2412	1	17.277	/	Pass
		2437	1	17.287	/	Pass
		2462	1	17.316	/	Pass
802.11n (HT20)	SISO	2412	1	18.221	/	Pass
		2437	1	18.230	/	Pass
		2462	1	18.201	/	Pass
802.11n (HT40)	SISO	2422	1	36.776	/	Pass
		2437	1	36.776	/	Pass
		2452	1	36.846	/	Pass

2.1.2 6dB BW

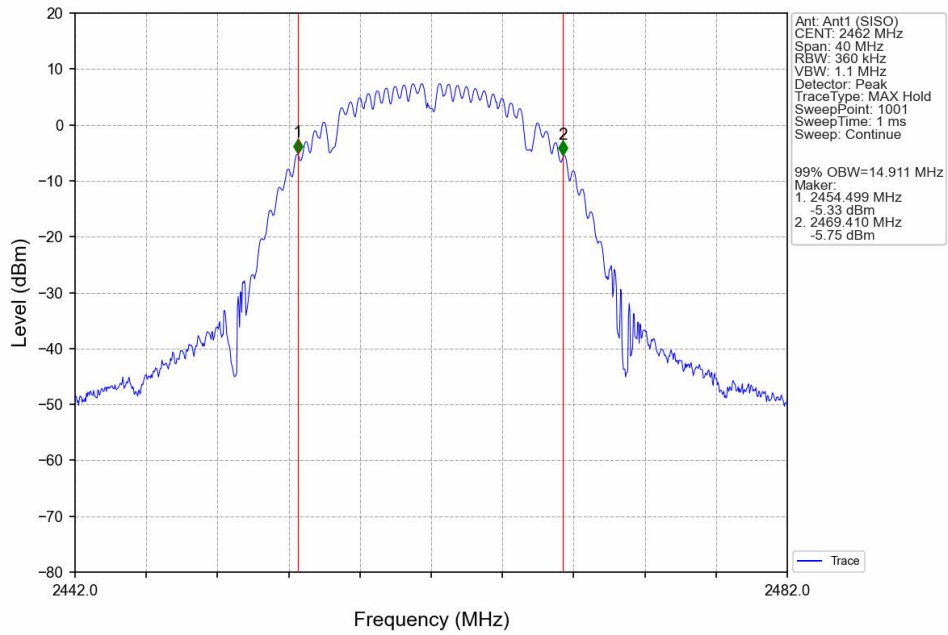
Mode	TX Type	Frequency (MHz)	ANT	6dB Bandwidth (MHz)		Verdict
				Result	Limit	
802.11b	SISO	2412	1	10.299	≥ 0.5	Pass
		2437	1	10.304	≥ 0.5	Pass
		2462	1	10.298	≥ 0.5	Pass
802.11g	SISO	2412	1	16.555	≥ 0.5	Pass
		2437	1	16.571	≥ 0.5	Pass
		2462	1	16.489	≥ 0.5	Pass
802.11n (HT20)	SISO	2412	1	17.636	≥ 0.5	Pass
		2437	1	17.531	≥ 0.5	Pass
		2462	1	17.616	≥ 0.5	Pass
802.11n (HT40)	SISO	2422	1	35.947	≥ 0.5	Pass
		2437	1	36.002	≥ 0.5	Pass
		2452	1	36.011	≥ 0.5	Pass

2.2 Test Graph

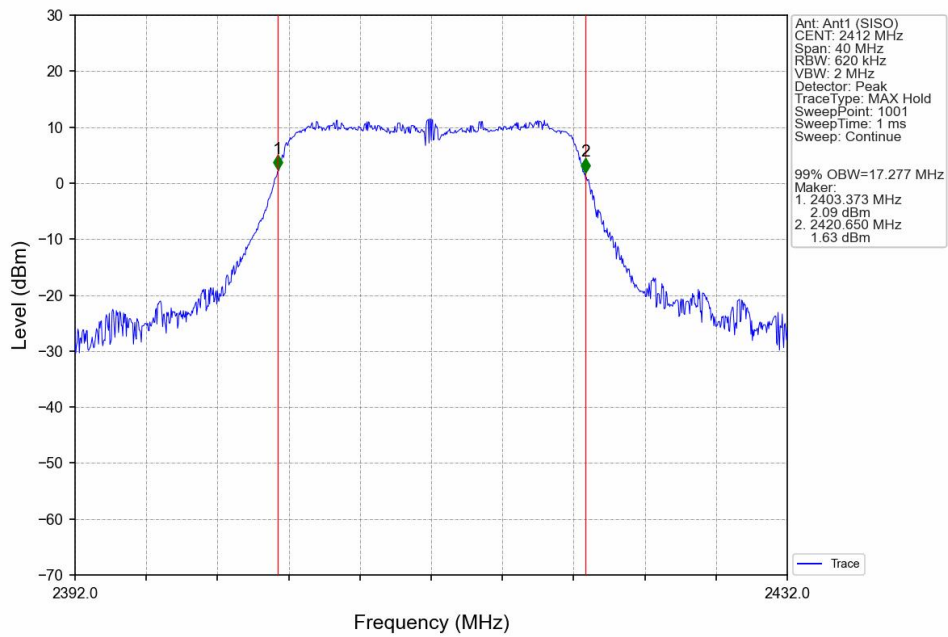
2.2.1 OBW



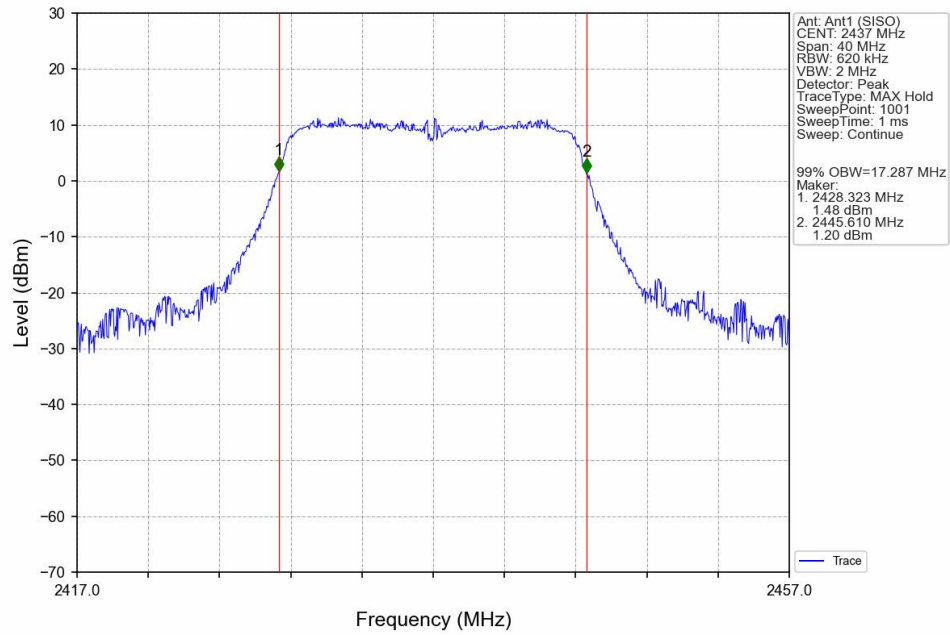
802.11b_HCH_2462MHz_Ant1 (SISO)_NTNV



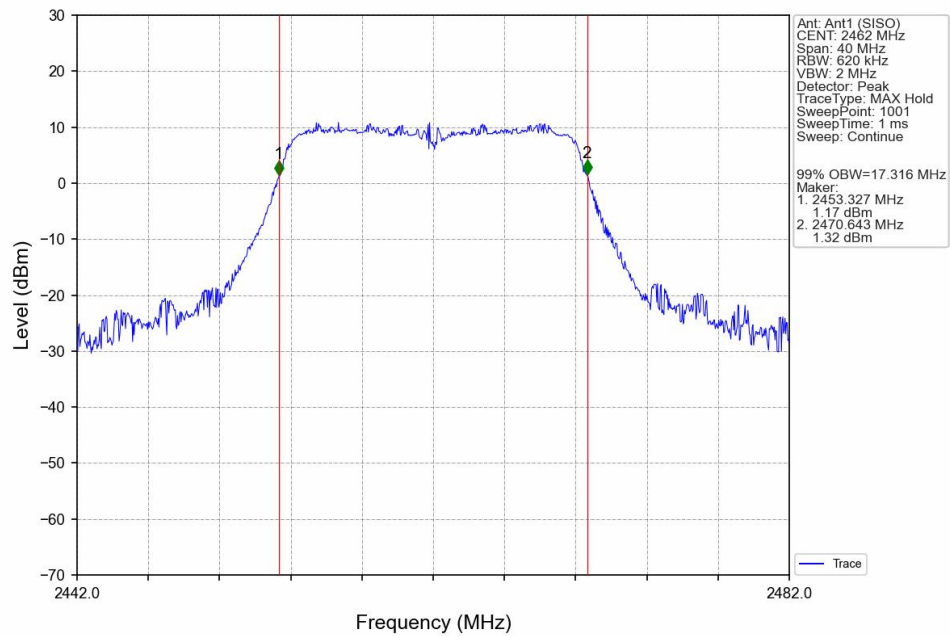
802.11g_LCH_2412MHz_Ant1 (SISO)_NTNV



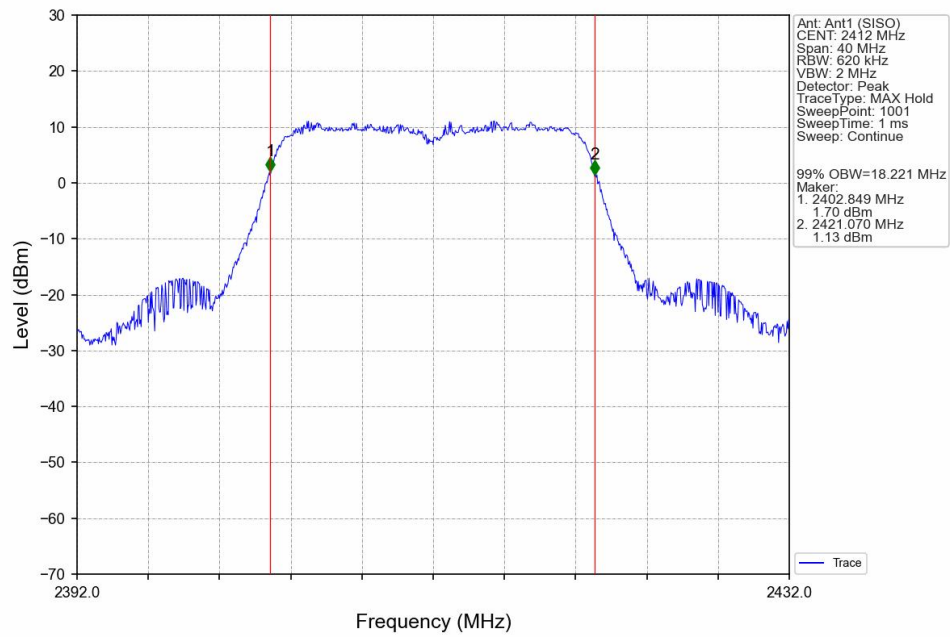
802.11g_MCH_2437MHz_Ant1 (SISO)_NTNV



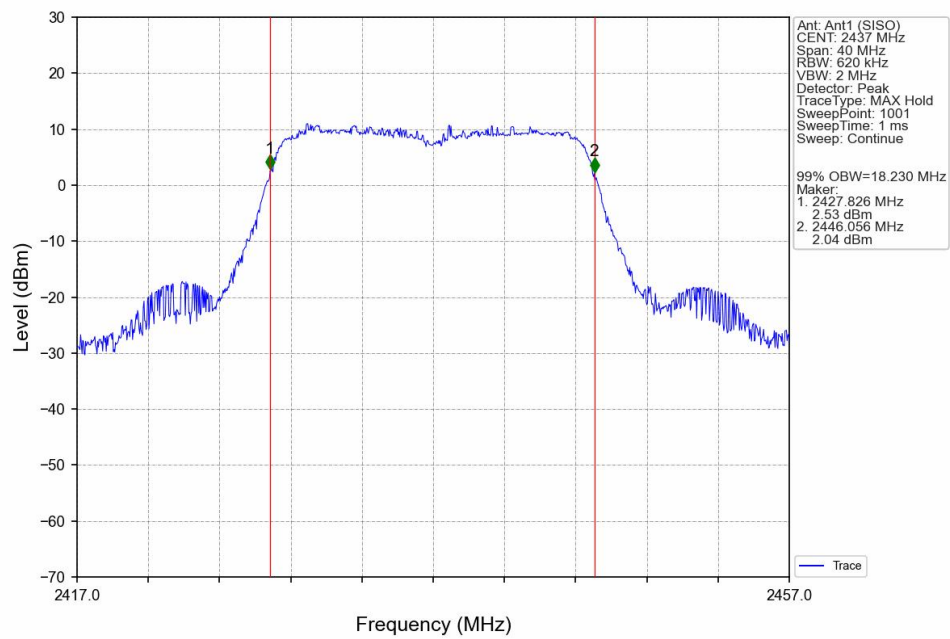
802.11g_HCH_2462MHz_Ant1 (SISO)_NTNV



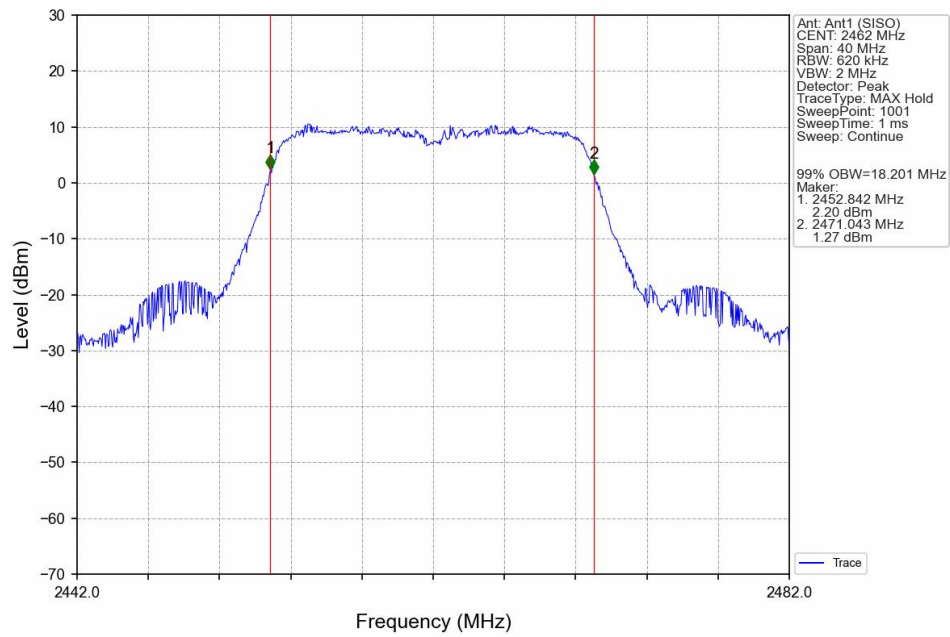
802.11n(HT20)_LCH_2412MHz_Ant1 (SISO)_NTNV



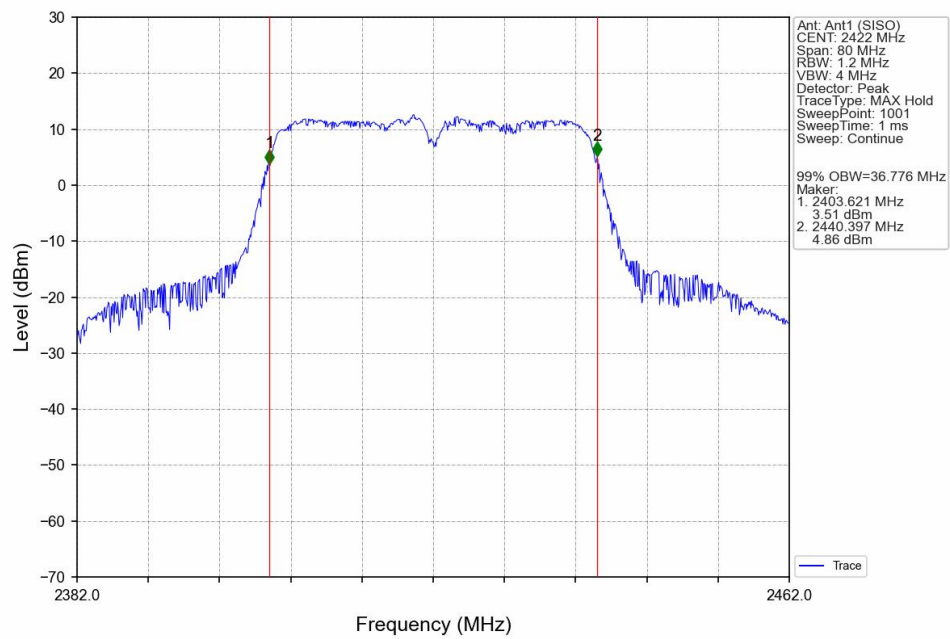
802.11n(HT20)_MCH_2437MHz_Ant1 (SISO)_NTNV



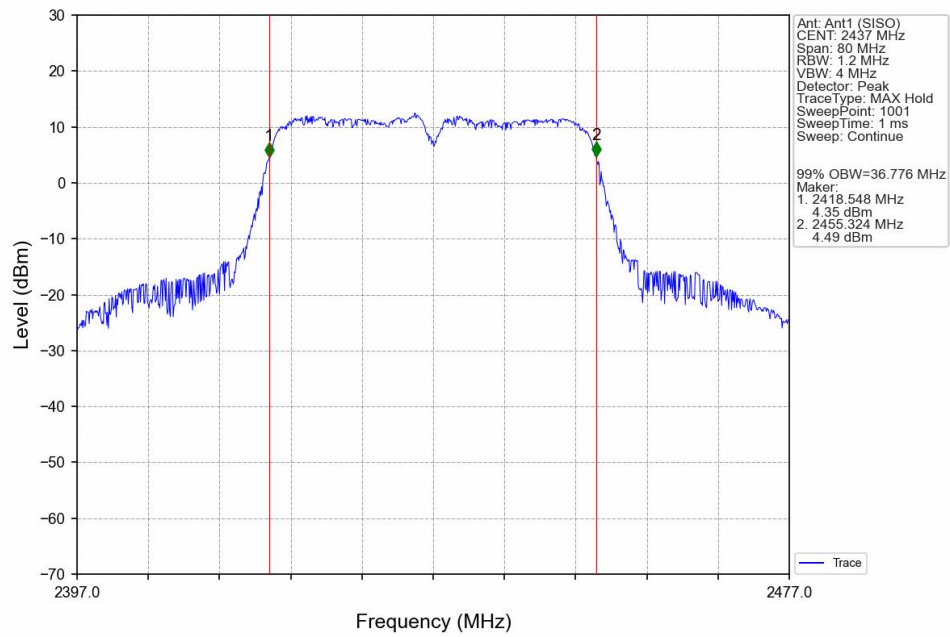
802.11n(HT20)_HCH_2462MHz_Ant1 (SISO)_NTNV



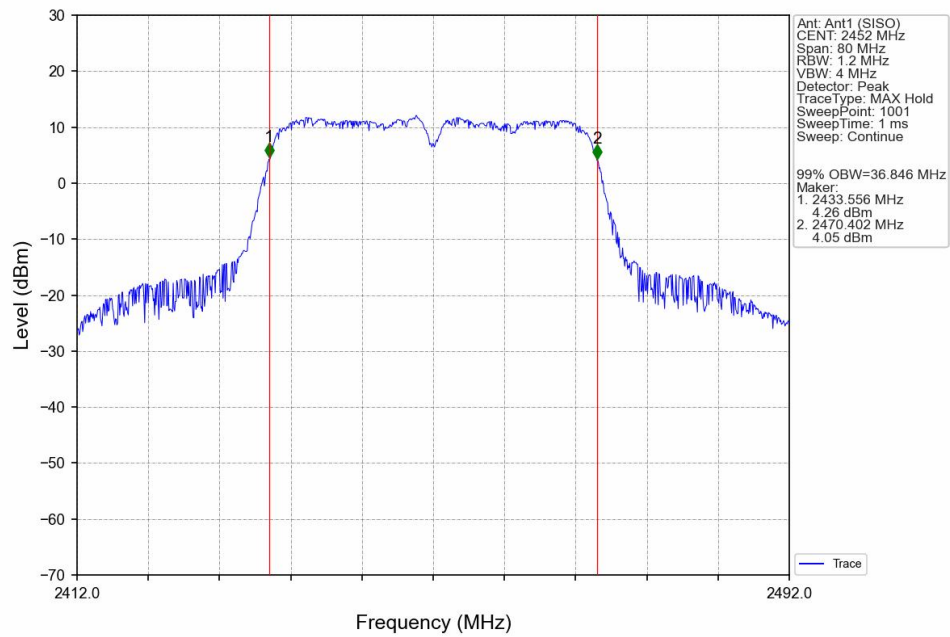
802.11n(HT40)_LCH_2422MHz_Ant1 (SISO)_NTNV



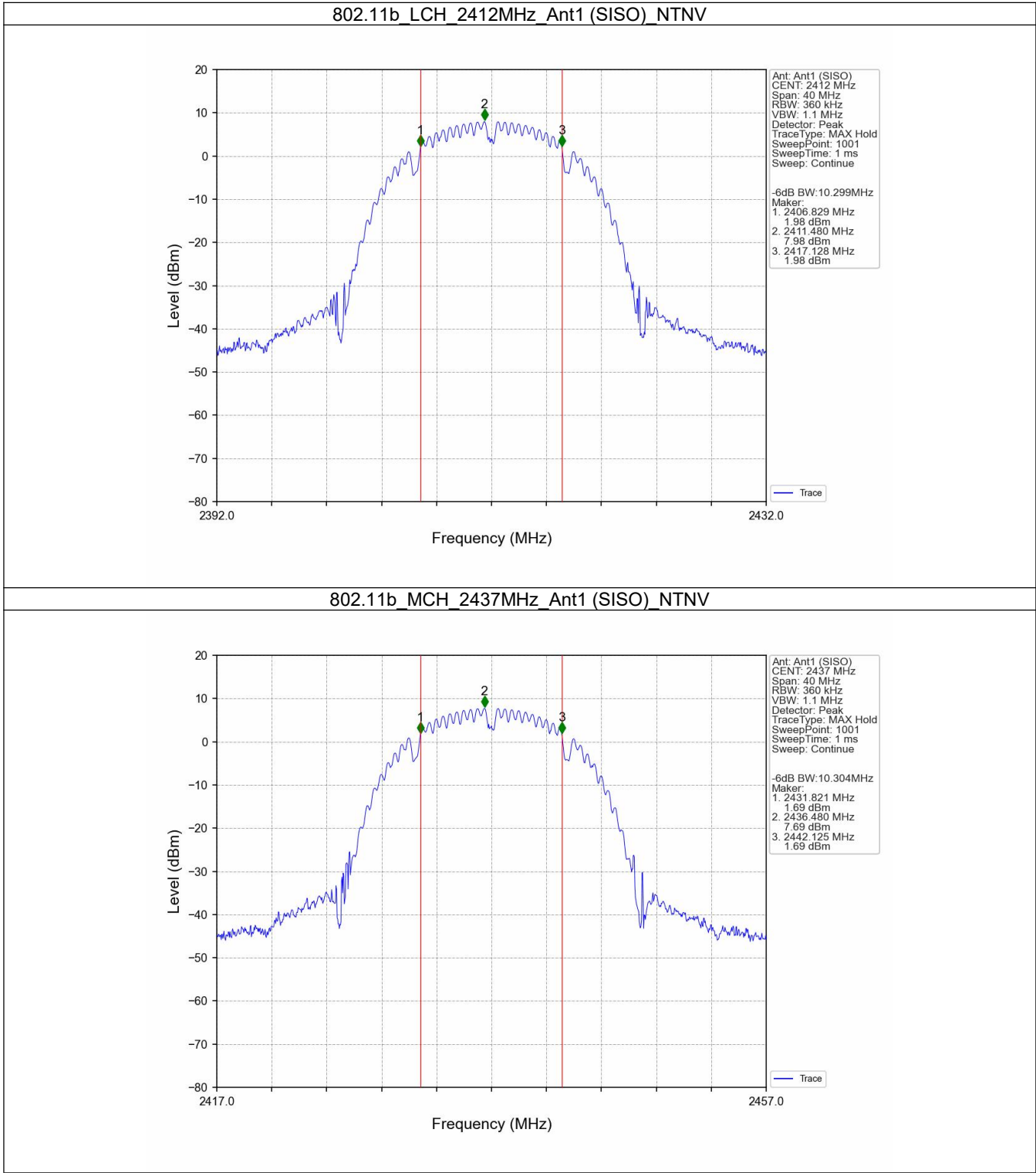
802.11n(HT40)_MCH_2437MHz_Ant1 (SISO)_NTNV



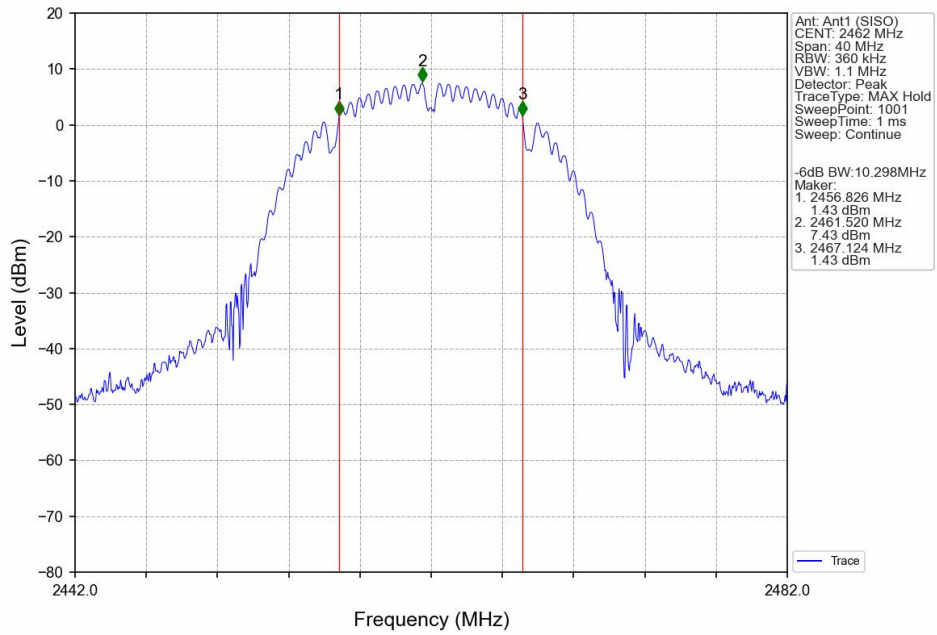
802.11n(HT40)_HCH_2452MHz_Ant1 (SISO)_NTNV



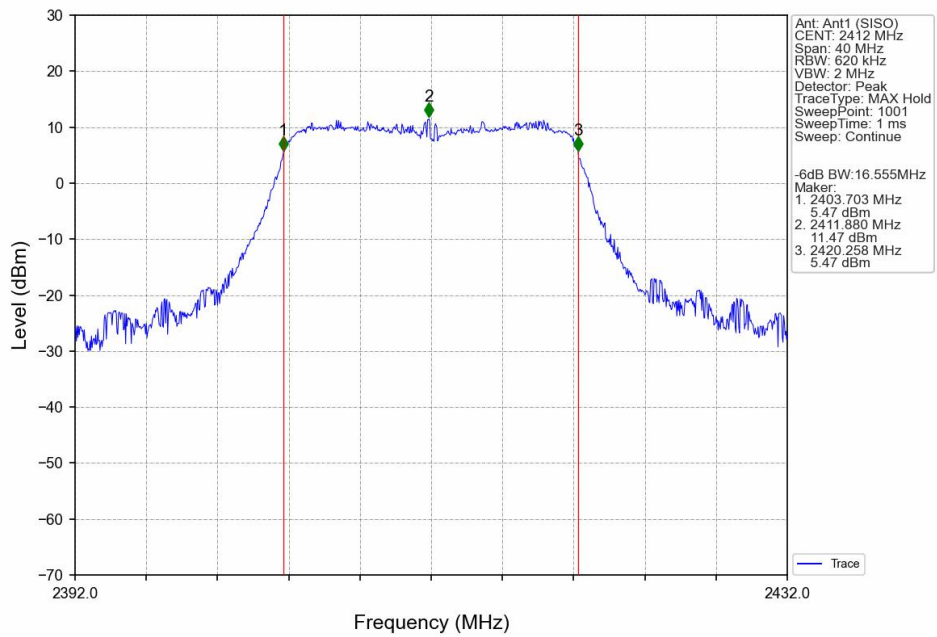
2.2.2 6dB BW



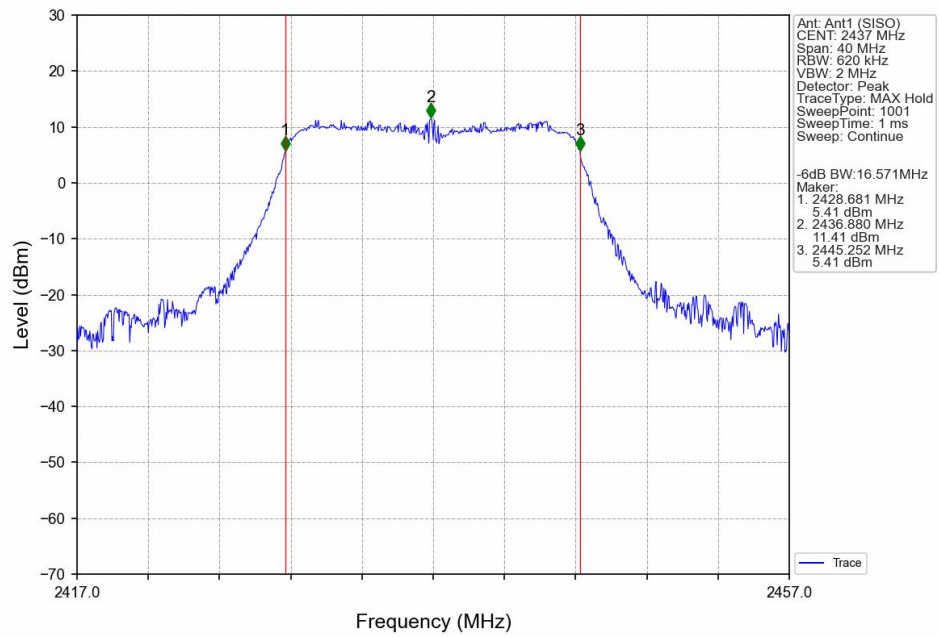
802.11b_HCH_2462MHz_Ant1 (SISO)_NTNV



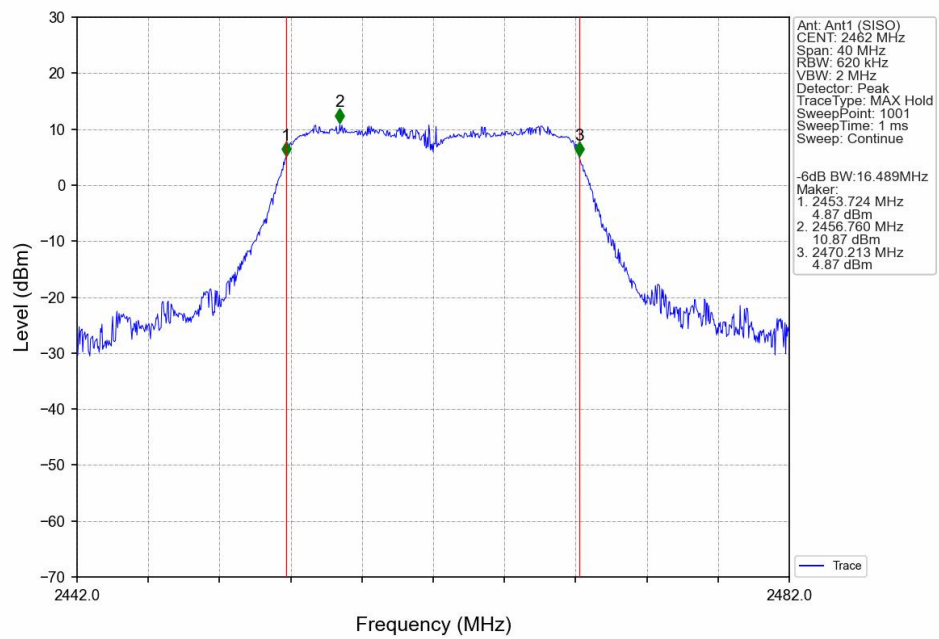
802.11g_LCH_2412MHz_Ant1 (SISO)_NTNV



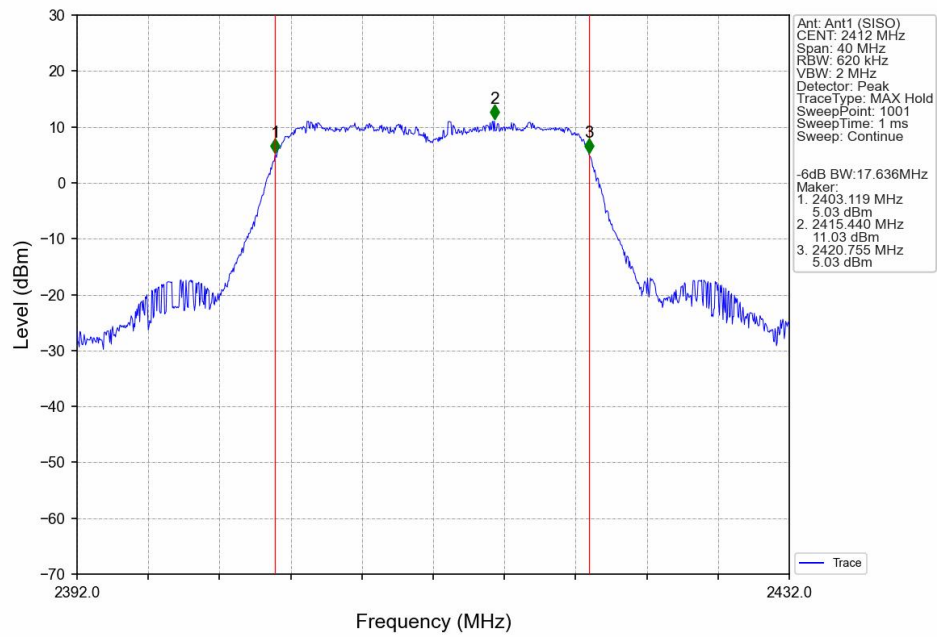
802.11g_MCH_2437MHz_Ant1 (SISO)_NTNV



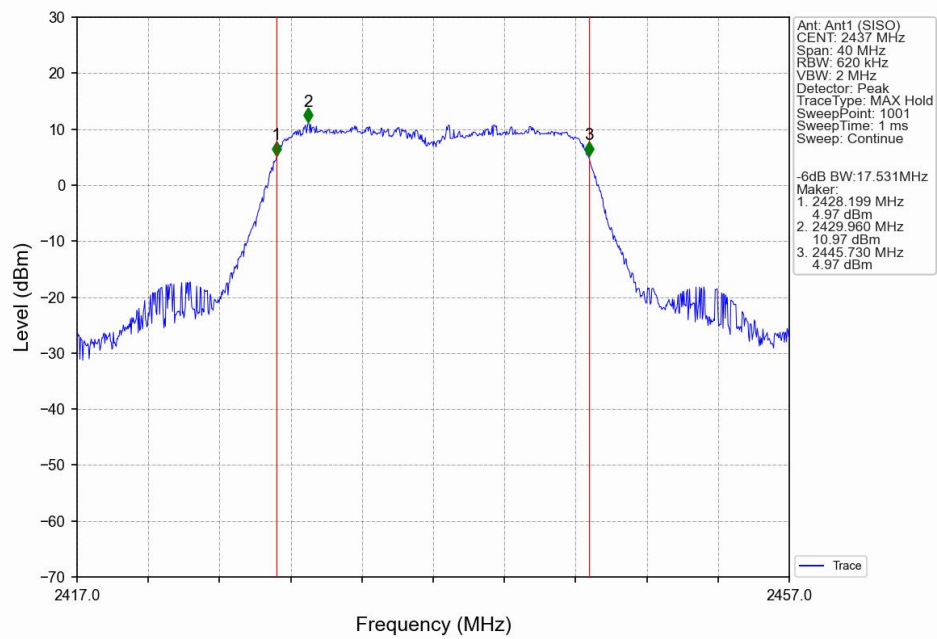
802.11g_HCH_2462MHz_Ant1 (SISO)_NTNV



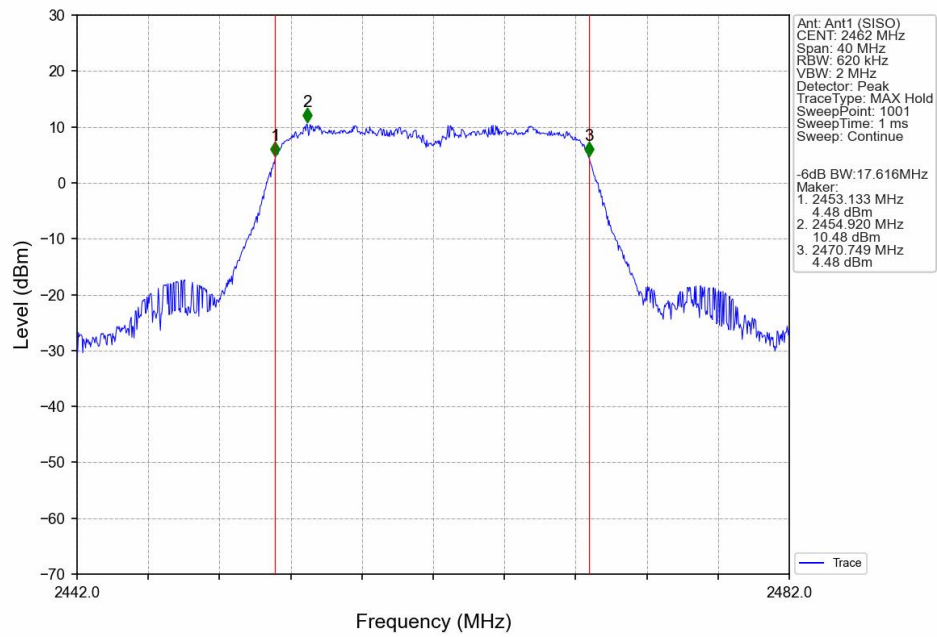
802.11n(HT20)_LCH_2412MHz_Ant1 (SISO)_NTNV



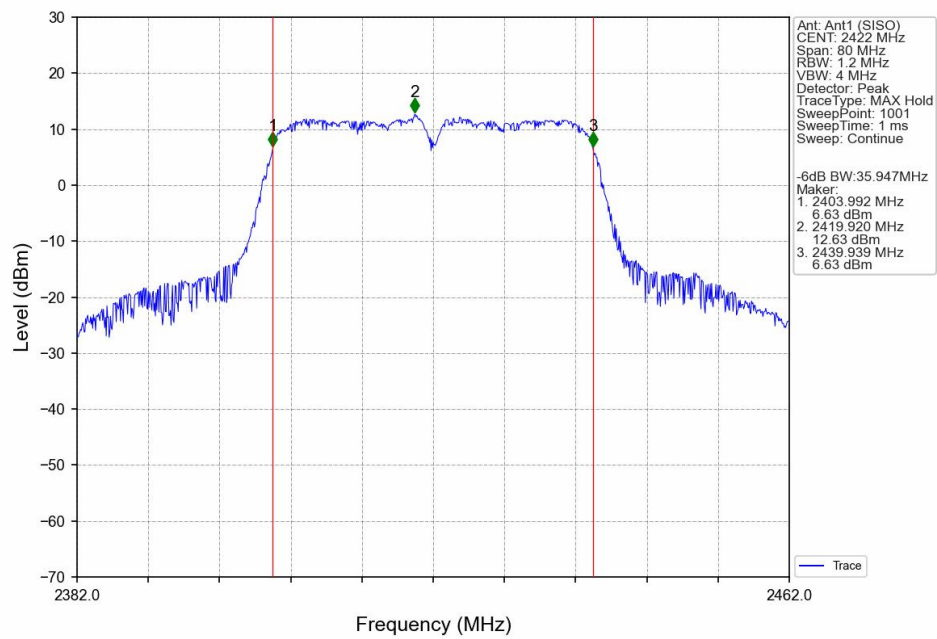
802.11n(HT20)_MCH_2437MHz_Ant1 (SISO)_NTNV



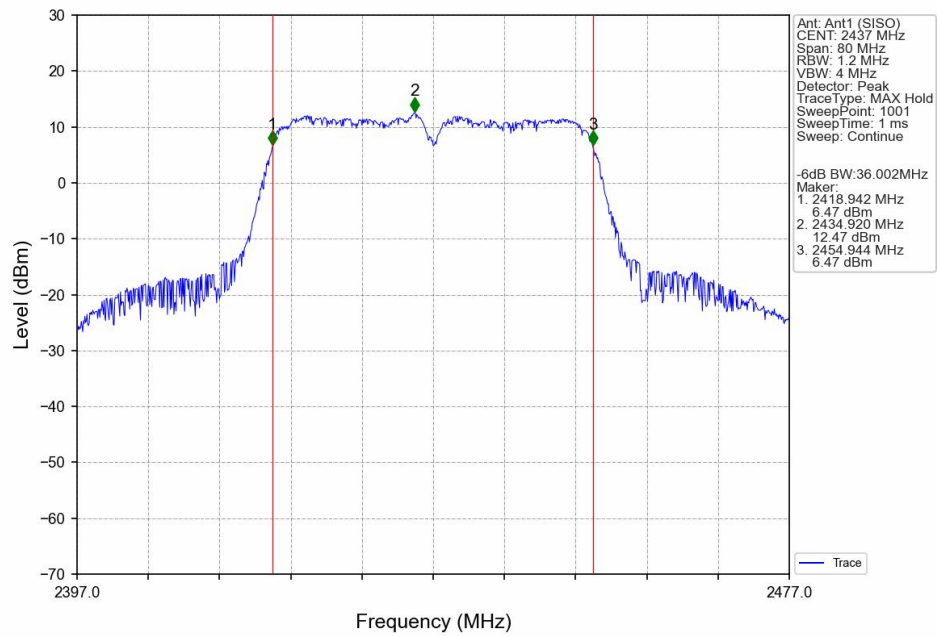
802.11n(HT20)_HCH_2462MHz_Ant1 (SISO)_NTNV



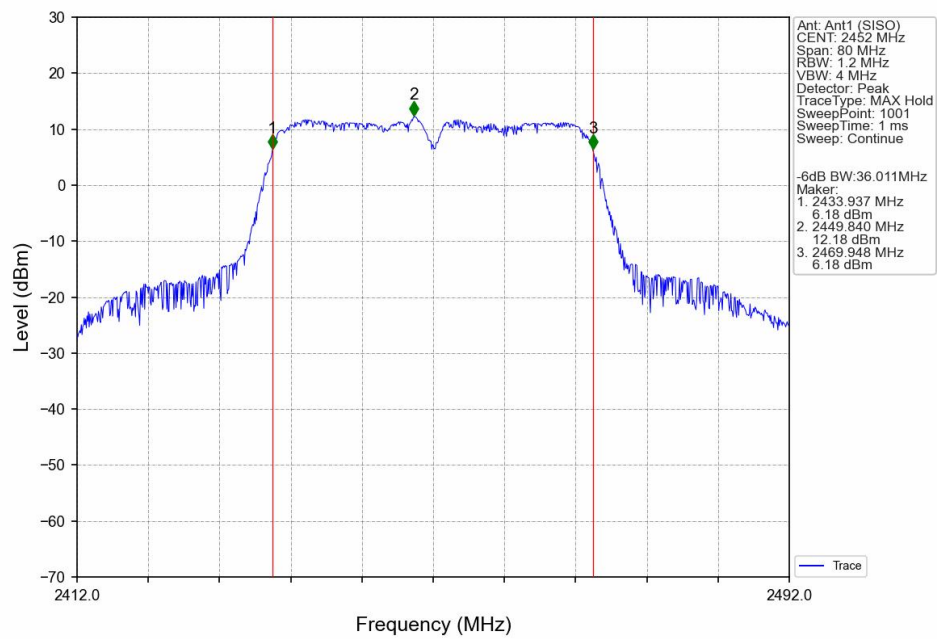
802.11n(HT40)_LCH_2422MHz_Ant1 (SISO)_NTNV



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)	Duty Cycle Correction Factor (dB)	Conducted measurement Average Power (dBm)	Maximum Average Output Power (dBm)	Limit	Verdict
802.11b	SISO	2412	0.50	16.21	16.71	<=30	Pass
		2437	0.50	16.02	16.52	<=30	Pass
		2462	0.50	15.53	16.03	<=30	Pass
802.11g	SISO	2412	2.40	14.54	16.94	<=30	Pass
		2437	2.40	14.25	16.65	<=30	Pass
		2462	2.40	14.01	16.41	<=30	Pass
802.11n (HT20)	SISO	2412	2.52	14.31	16.83	<=30	Pass
		2437	2.52	14.23	16.75	<=30	Pass
		2462	2.52	13.69	16.21	<=30	Pass
802.11n (HT40)	SISO	2422	4.12	13.04	17.16	<=30	Pass
		2437	4.12	12.92	17.04	<=30	Pass
		2452	4.12	12.89	17.01	<=30	Pass

Note1: Antenna Gain: Ant1: 1.60dBi;

4. Maximum Power Spectral Density

4.1 Test Result

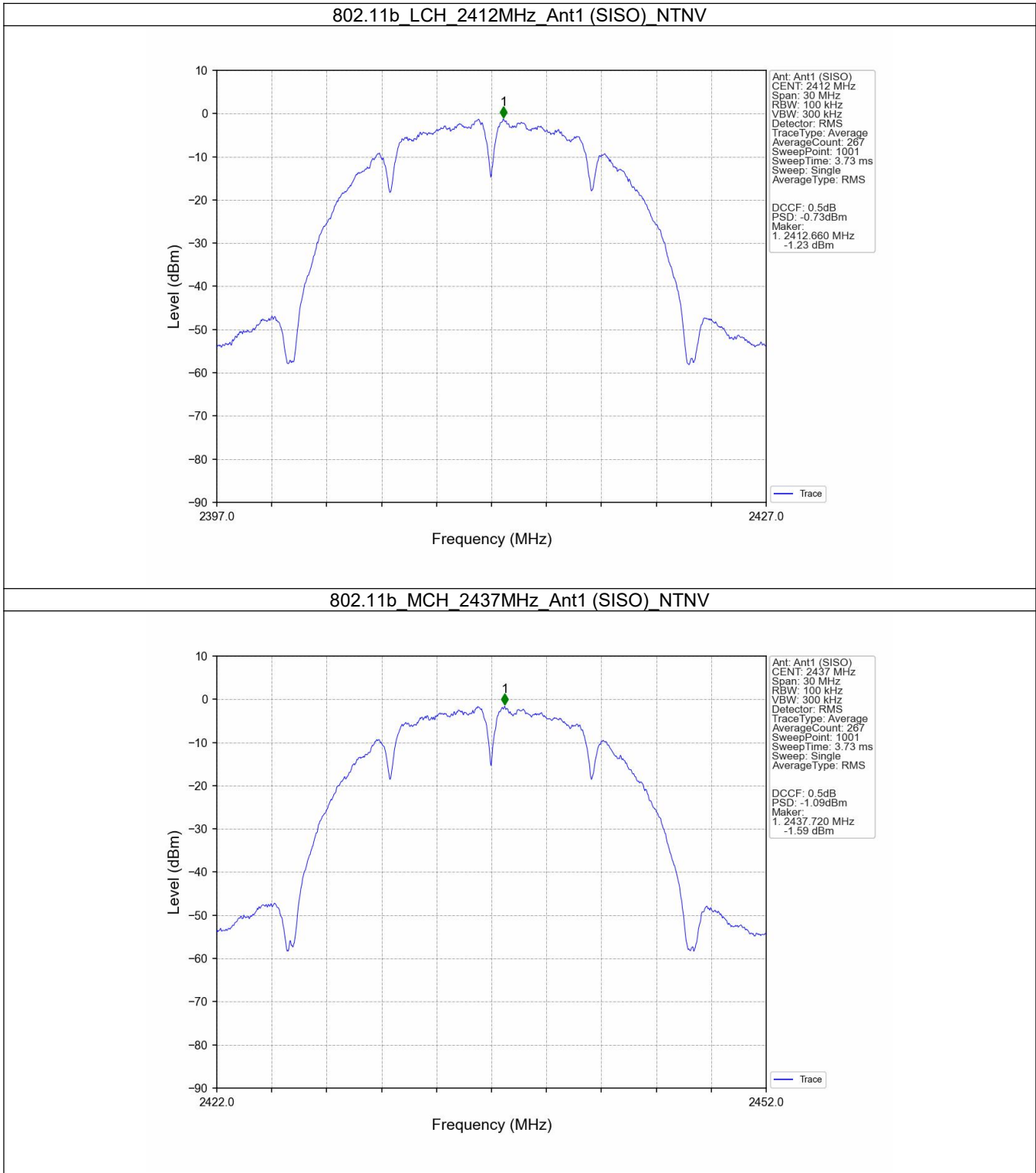
4.1.1 PSD

Mode	TX Type	Frequency (MHz)	Maximum PSD (dBm)		Verdict
			ANT1	Limit	
802.11b	SISO	2412	-0.73	<=8	Pass
		2437	-1.09	<=8	Pass
		2462	-1.51	<=8	Pass
802.11g	SISO	2412	-2.93	<=8	Pass
		2437	-3.07	<=8	Pass
		2462	-3.48	<=8	Pass
802.11n (HT20)	SISO	2412	-2.94	<=8	Pass
		2437	-3.15	<=8	Pass
		2462	-3.24	<=8	Pass
802.11n (HT40)	SISO	2422	-5.59	<=8	Pass
		2437	-5.41	<=8	Pass
		2452	-5.83	<=8	Pass

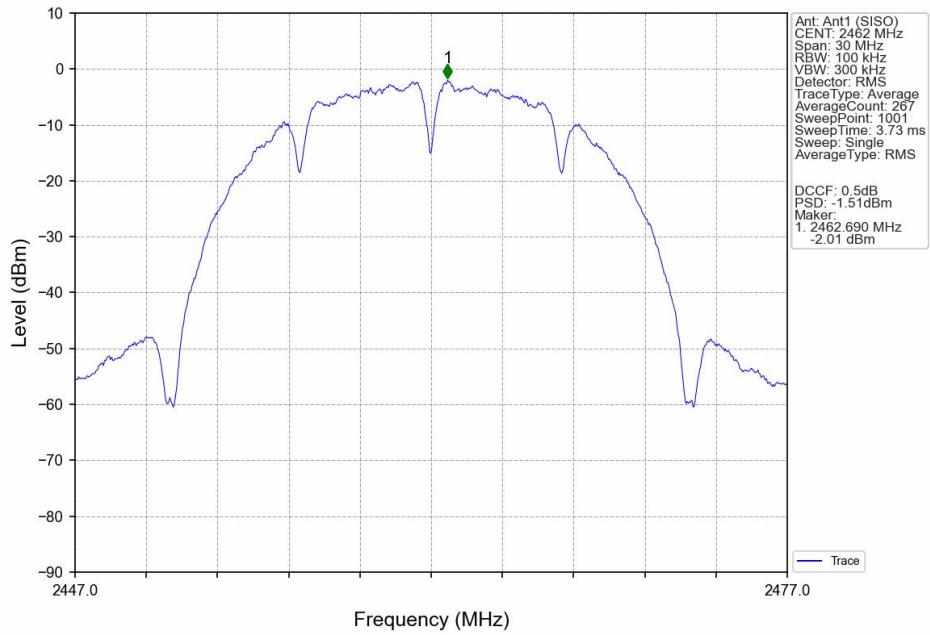
Note1: Antenna Gain: Ant1: 1.60dBi;

4.2 Test Graph

4.2.1 PSD



802.11b_HCH_2462MHz_Ant1 (SISO)_NTNV



802.11g_LCH_2412MHz_Ant1 (SISO)_NTNV

