RF Test Report

For

Project No.:	DLE-250407018ER
Client:	Shenzhen SHANSHUI POWER Technology Co.Ltd
Manufacturer:	Shenzhen SHANSHUI POWER Technology Co.Ltd
Product Description:	Oscilloscope
Model No.:	S810
Test Engineer:	Alisa Song
Test Date:	2025-02-19

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

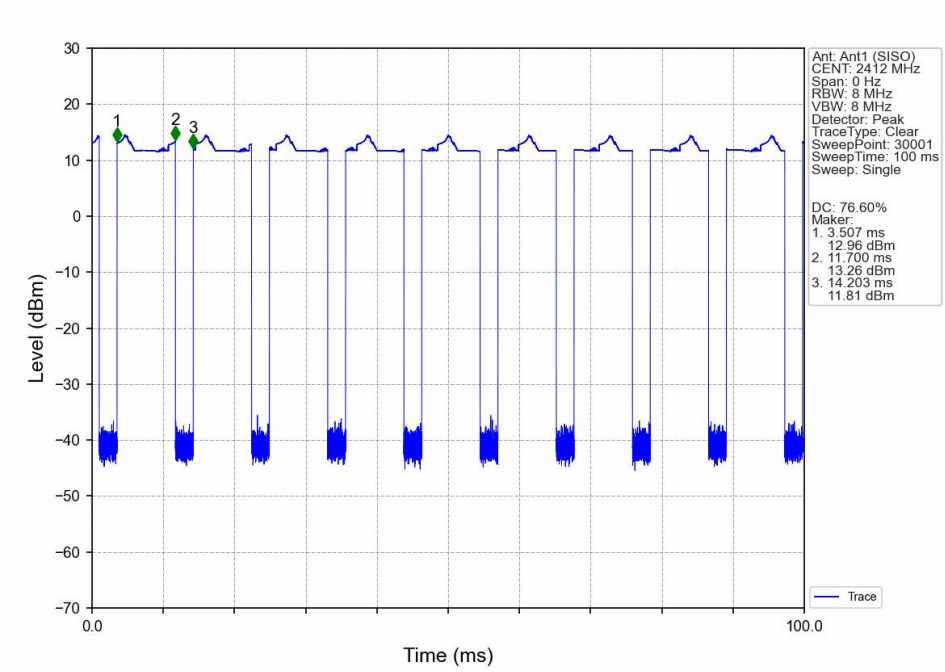
1.1.1 Ant1

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	8.193	10.696	76.60	1.16	0.02
		2437	8.194	10.697	76.60	1.16	0.02
		2462	8.193	10.697	76.59	1.16	0.02
802.11g	SISO	2412	1.360	3.863	35.21	4.53	0.00
		2437	1.360	3.863	35.21	4.53	0.03
		2462	1.361	3.863	35.23	4.53	0.00
802.11n (HT20)	SISO	2412	1.149	3.650	31.48	5.02	0.02
		2437	1.148	3.650	31.45	5.02	0.02
		2462	1.148	3.650	31.45	5.02	0.02
802.11n (HT40)	SISO	2422	0.573	3.076	18.63	7.30	0.03
		2437	0.573	3.075	18.63	7.30	0.03
		2452	0.573	3.076	18.63	7.30	0.03

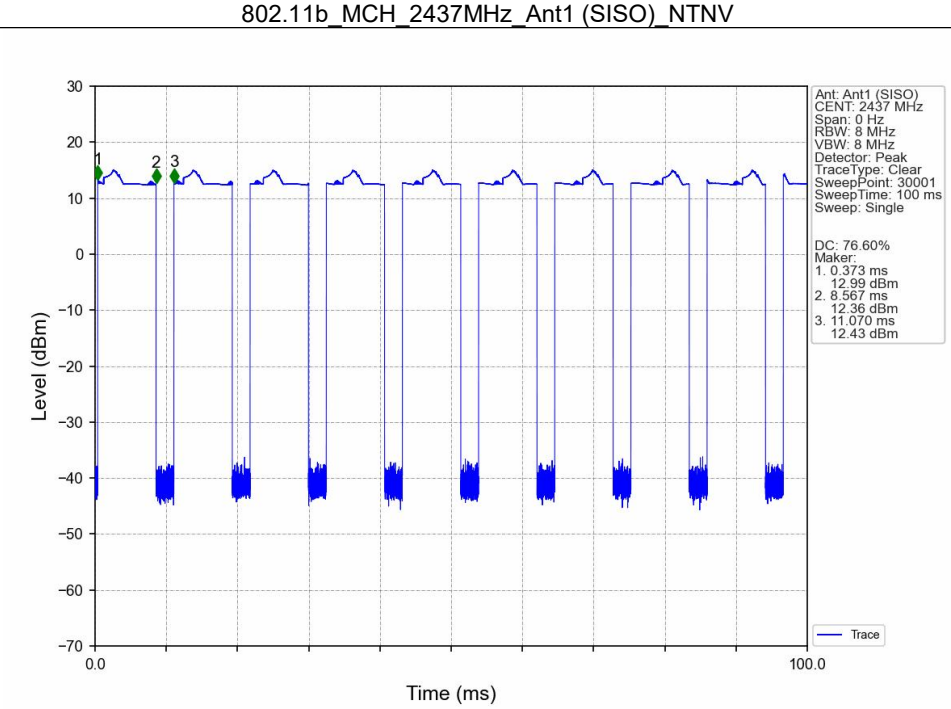
1.2 Test Graph

1.2.1 Ant1

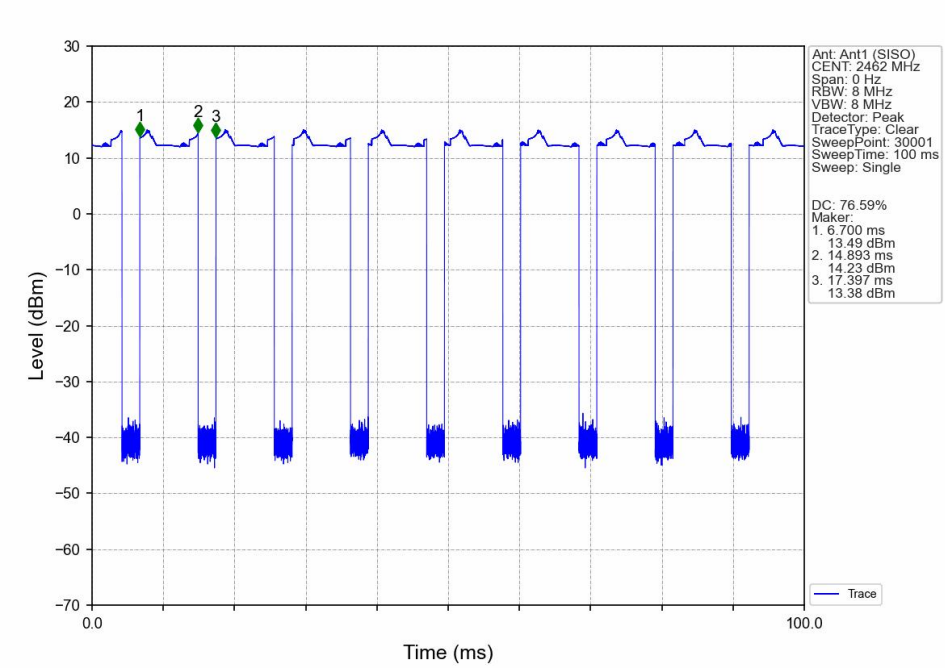
802.11b_LCH_2412MHz_Ant1 (SISO)_NTNV



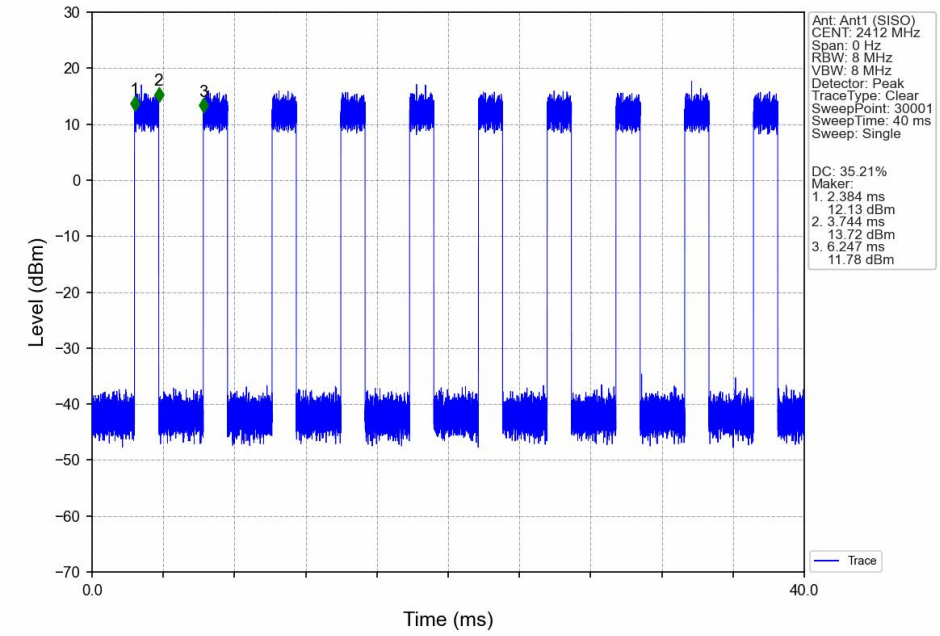
802.11b_MCH_2437MHz_Ant1 (SISO)_NTNV



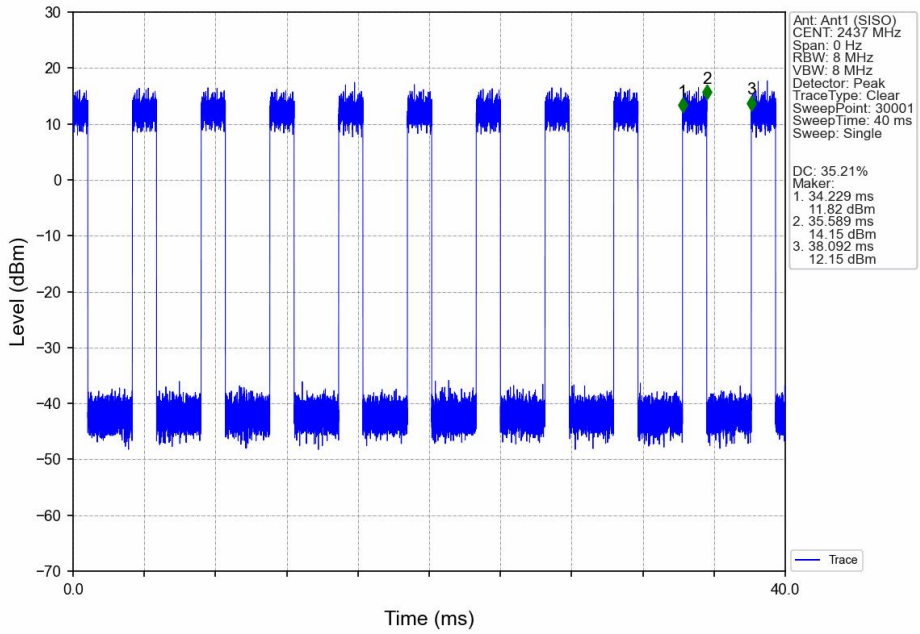
802.11b_HCH_2462MHz_Ant1 (SISO)_NTNV



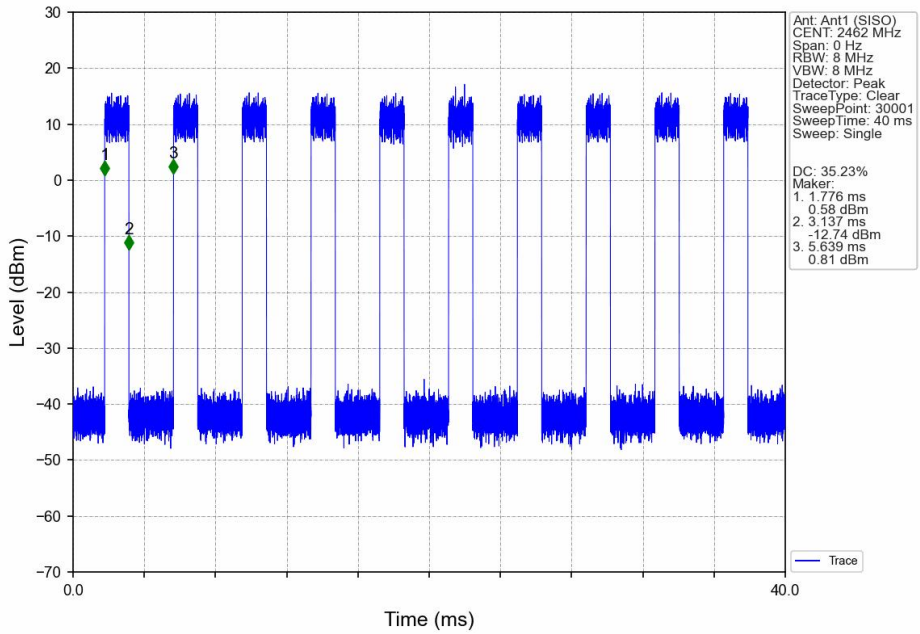
802.11g_LCH_2412MHz_Ant1 (SISO)_NTNV



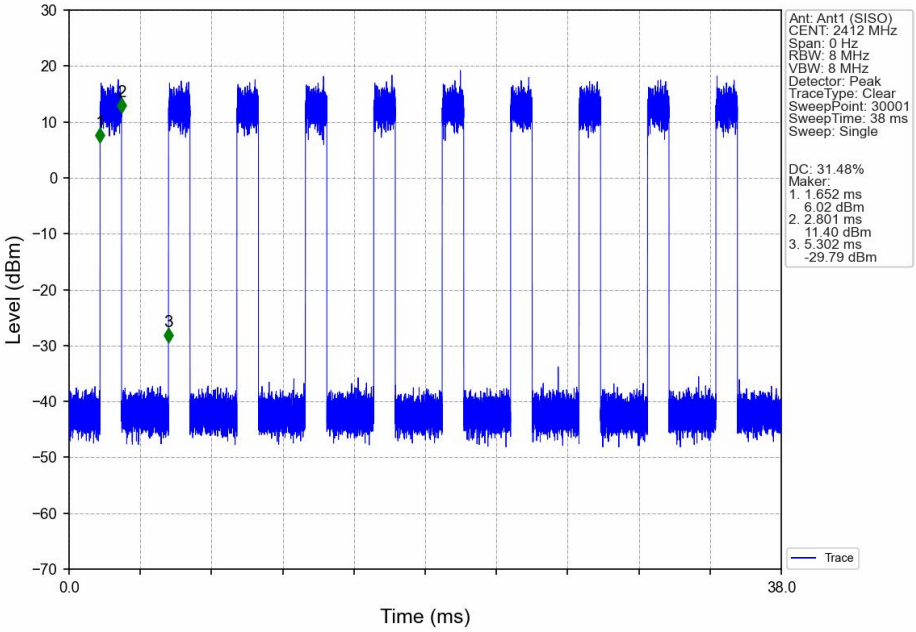
802.11g_MCH_2437MHz_Ant1 (SISO)_NTNV



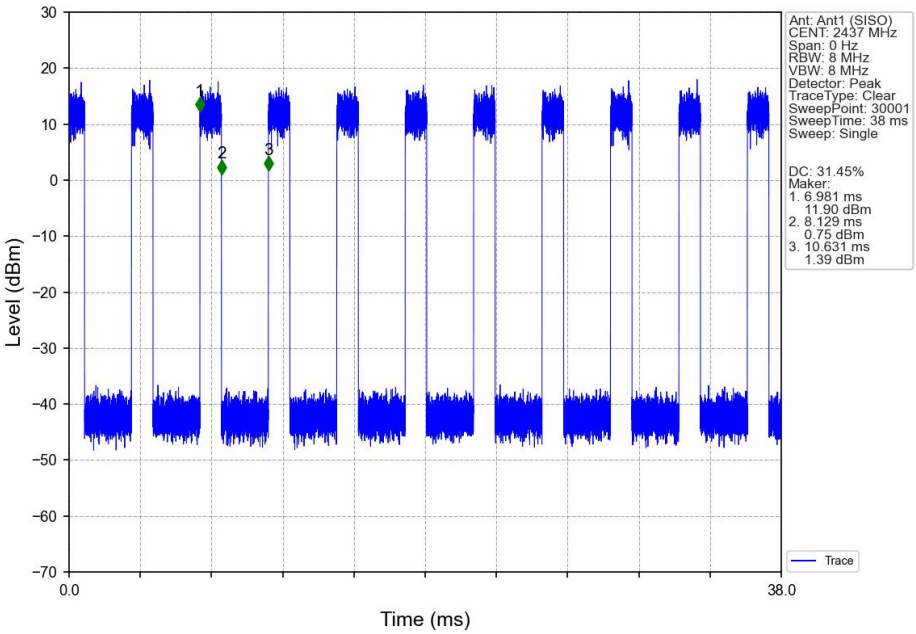
802.11g_HCH_2462MHz_Ant1 (SISO)_NTNV



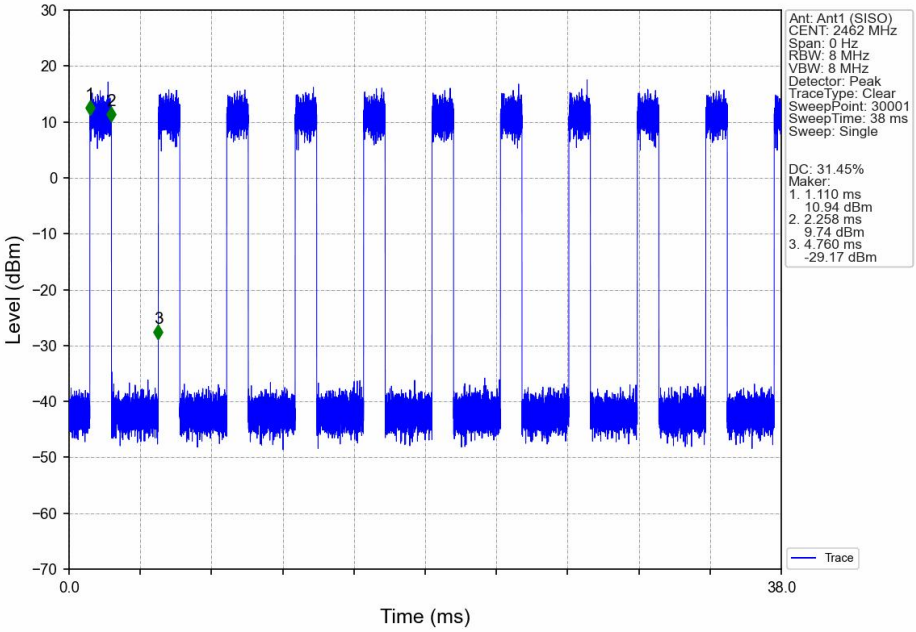
802.11n(HT20)_LCH_2412MHz_Ant1 (SISO)_NTNV



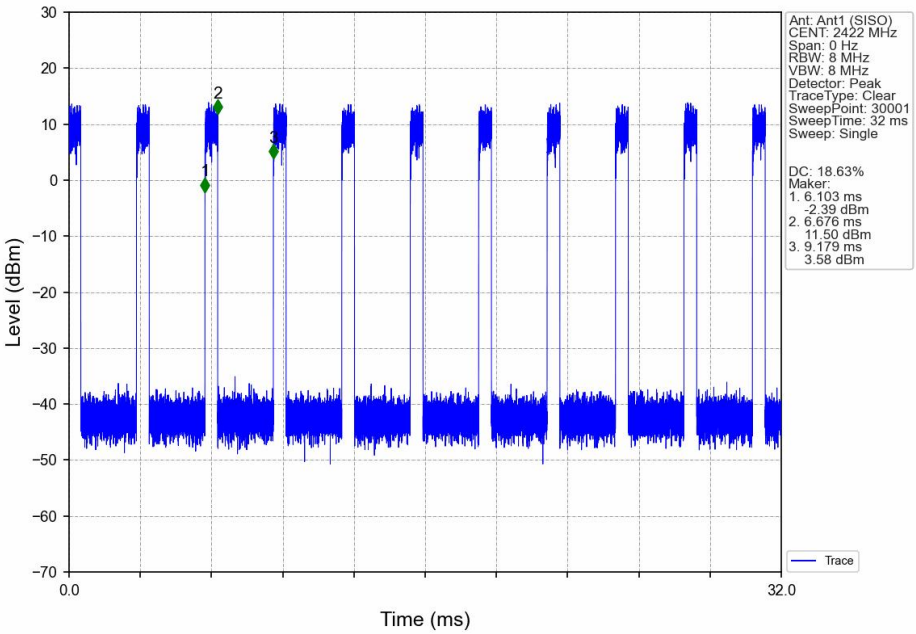
802.11n(HT20)_MCH_2437MHz_Ant1 (SISO)_NTNV



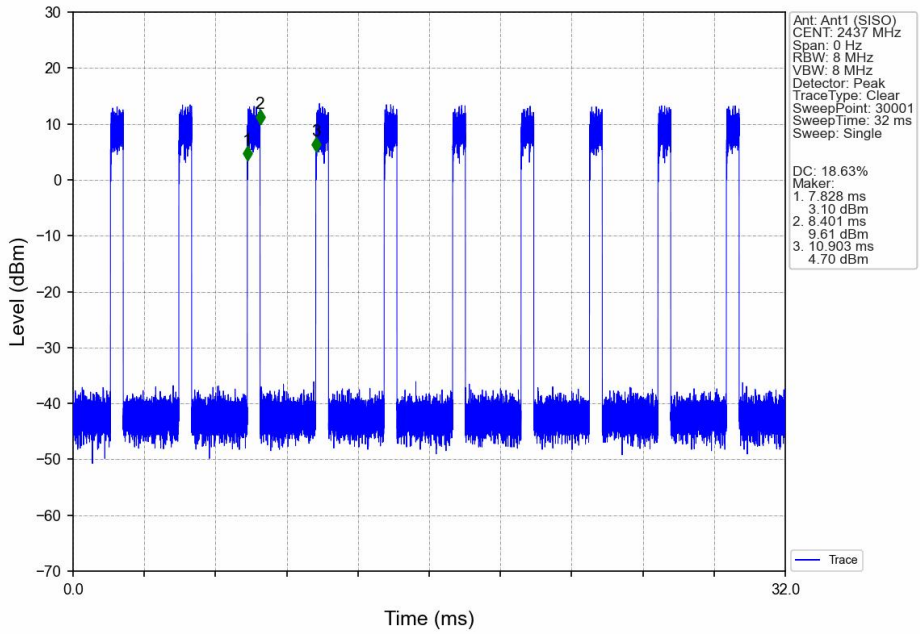
802.11n(HT20)_HCH_2462MHz_Ant1 (SISO)_NTNV



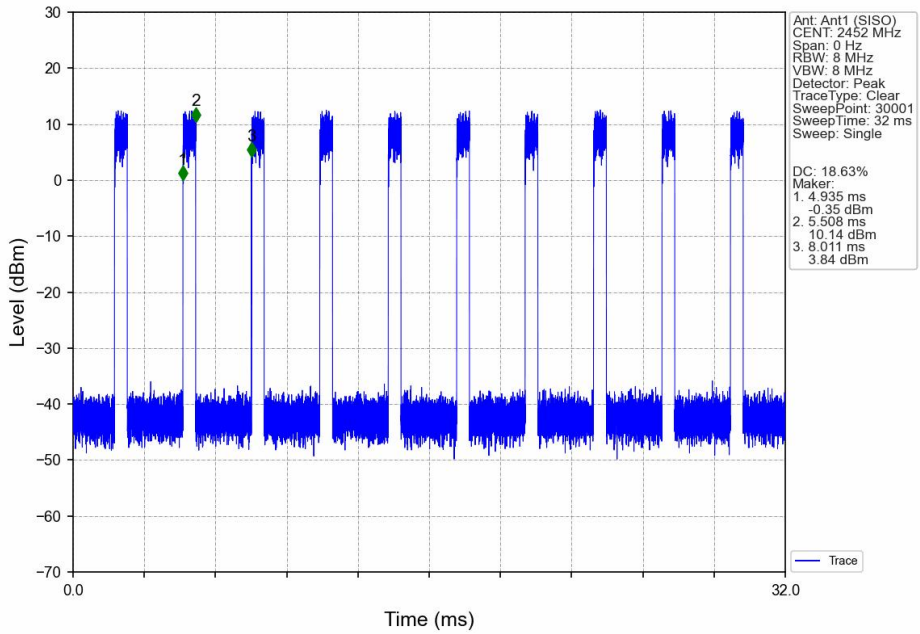
802.11n(HT40)_LCH_2422MHz_Ant1 (SISO)_NTNV



802.11n(HT40)_MCH_2437MHz_Ant1 (SISO)_NTNV



802.11n(HT40)_HCH_2452MHz_Ant1 (SISO)_NTNV



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	13.997	/	Pass
		2437	1	14.021	/	Pass
		2462	1	14.032	/	Pass
802.11g	SISO	2412	1	16.463	/	Pass
		2437	1	16.458	/	Pass
		2462	1	16.436	/	Pass
802.11n (HT20)	SISO	2412	1	17.378	/	Pass
		2437	1	17.353	/	Pass
		2462	1	17.369	/	Pass
802.11n (HT40)	SISO	2422	1	35.790	/	Pass
		2437	1	35.887	/	Pass
		2452	1	35.824	/	Pass

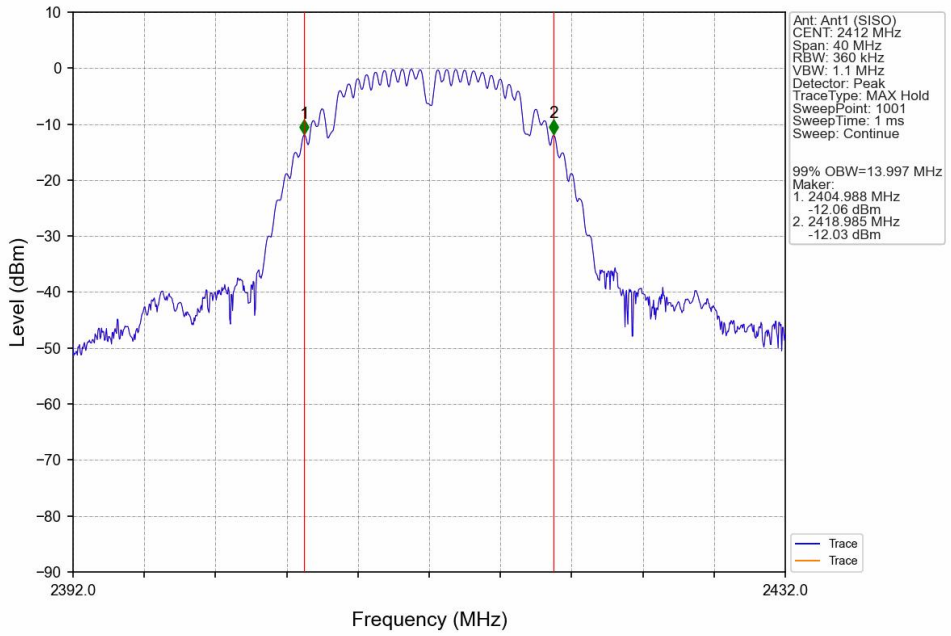
2.1.2 6dB BW

Mode	TX Type	Frequency (MHz)	ANT	6dB Bandwidth (MHz)		Verdict
				Result	Limit	
802.11b	SISO	2412	1	10.148	>=0.5	Pass
		2437	1	10.155	>=0.5	Pass
		2462	1	10.144	>=0.5	Pass
802.11g	SISO	2412	1	15.149	>=0.5	Pass
		2437	1	15.146	>=0.5	Pass
		2462	1	15.091	>=0.5	Pass
802.11n (HT20)	SISO	2412	1	15.131	>=0.5	Pass
		2437	1	15.123	>=0.5	Pass
		2462	1	15.171	>=0.5	Pass
802.11n (HT40)	SISO	2422	1	33.920	>=0.5	Pass
		2437	1	35.169	>=0.5	Pass
		2452	1	35.157	>=0.5	Pass

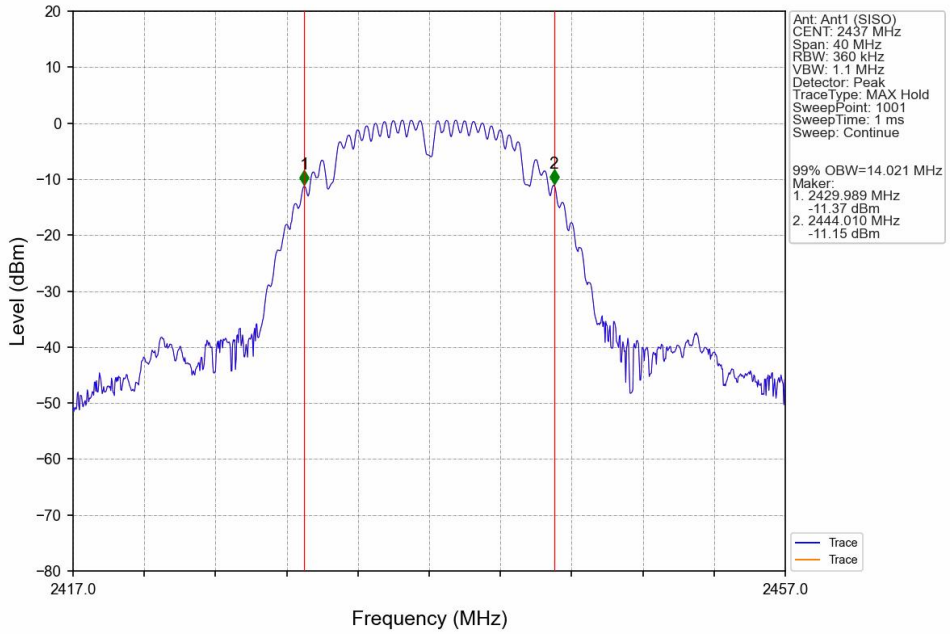
2.2 Test Graph

2.2.1 OBW

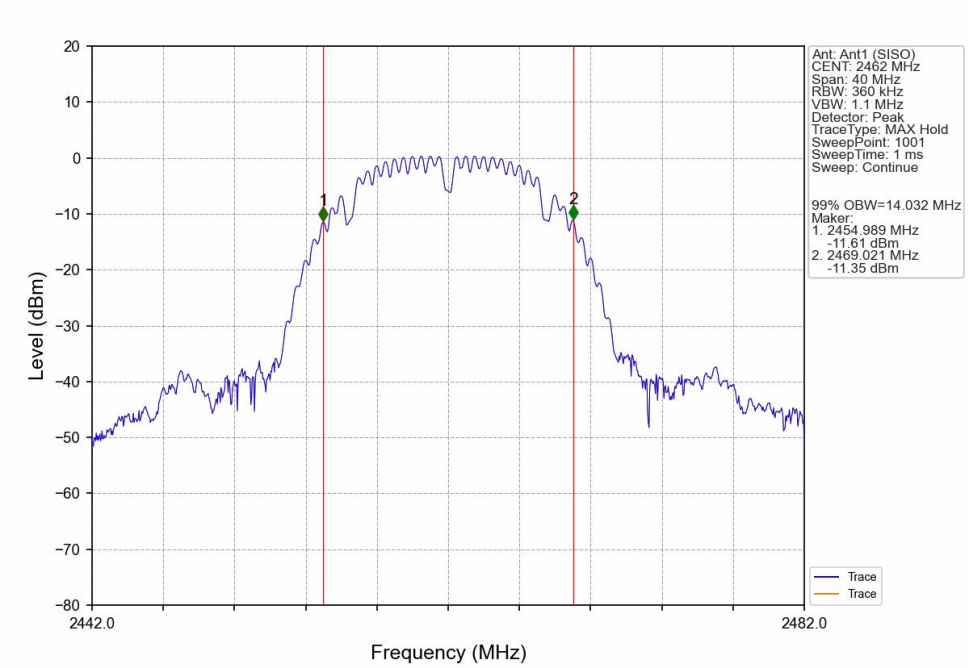
802.11b_LCH_2412MHz_Ant1 (SISO)_NTNV



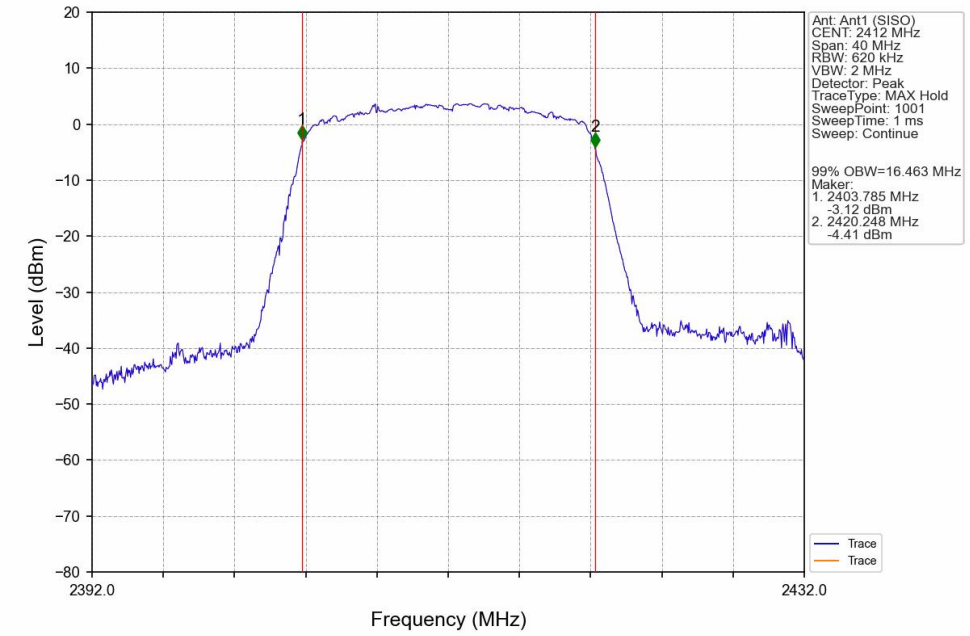
802.11b_MCH_2437MHz_Ant1 (SISO)_NTNV



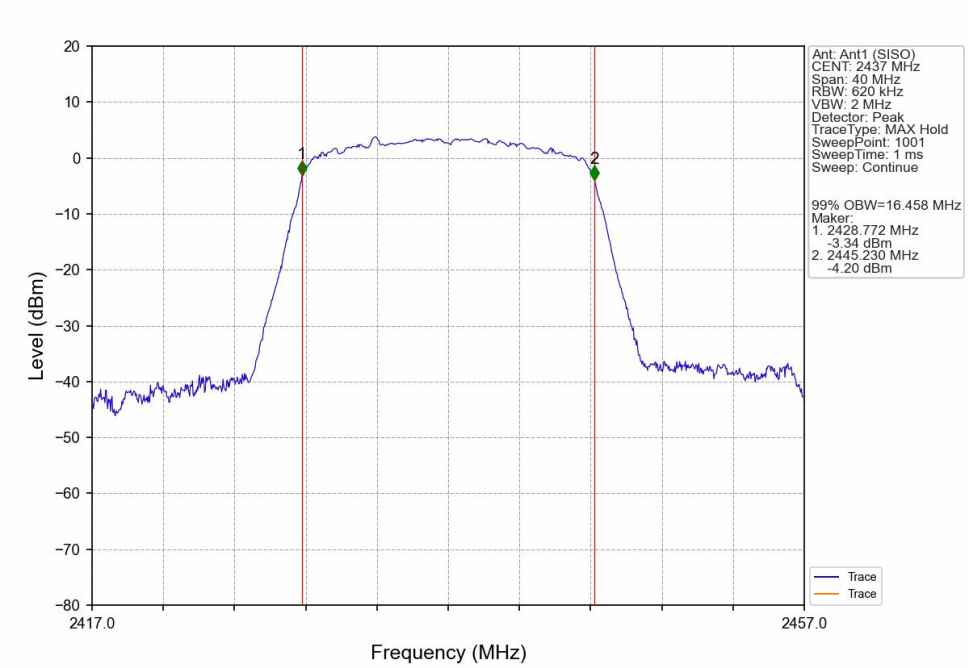
802.11b_HCH_2462MHz_Ant1 (SISO)_NTNV



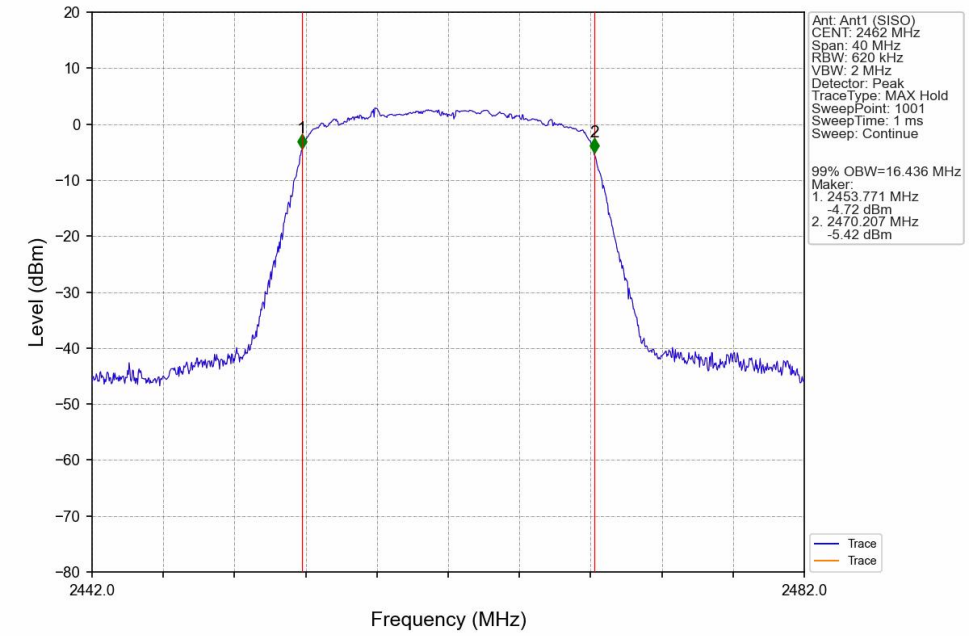
802.11g_LCH_2412MHz_Ant1 (SISO)_NTNV



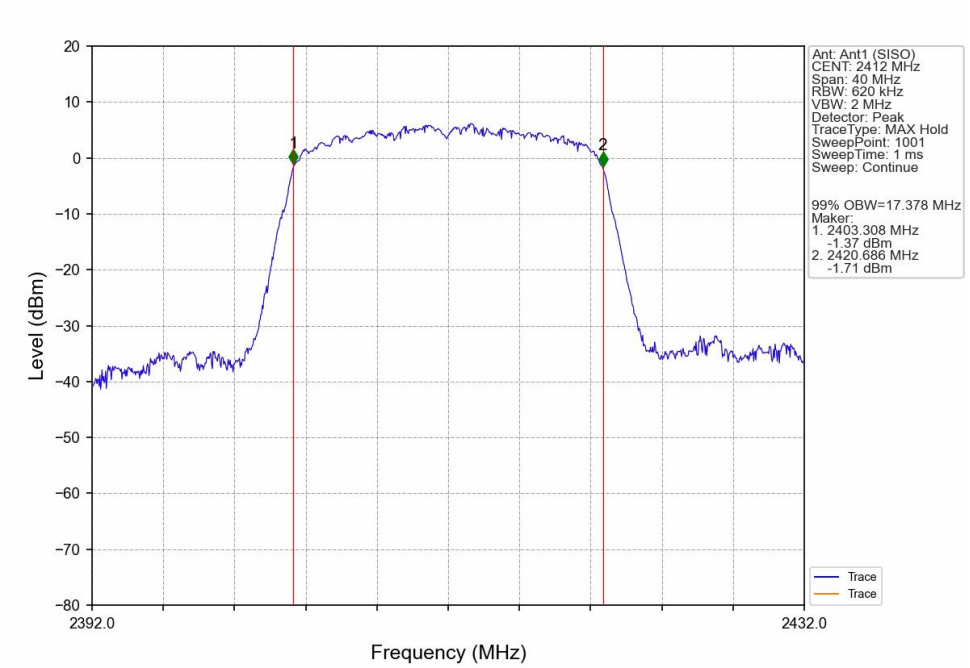
802.11g_MCH_2437MHz_Ant1 (SISO)_NTNV



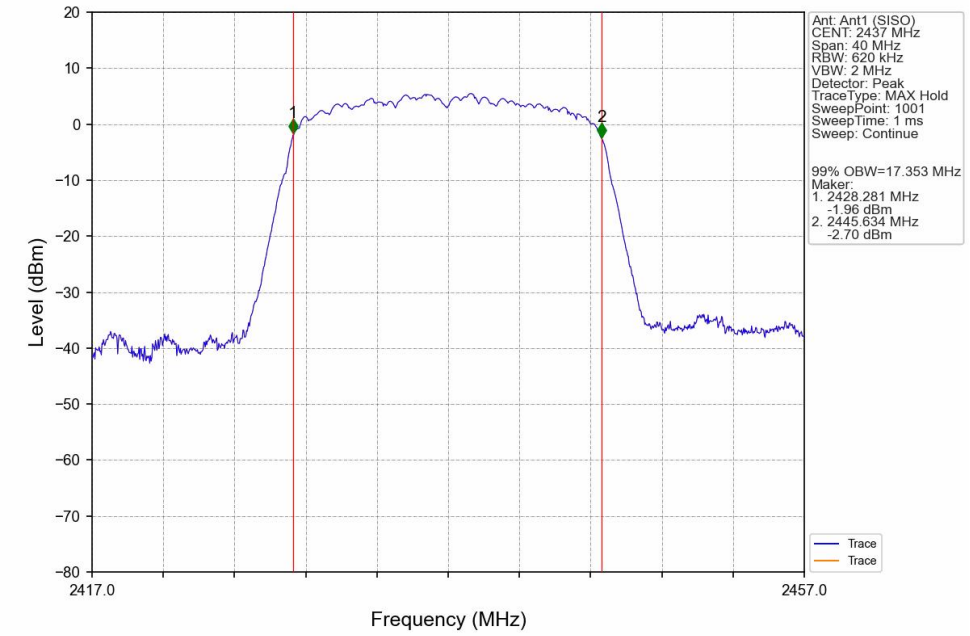
802.11g_HCH_2462MHz_Ant1 (SISO)_NTNV



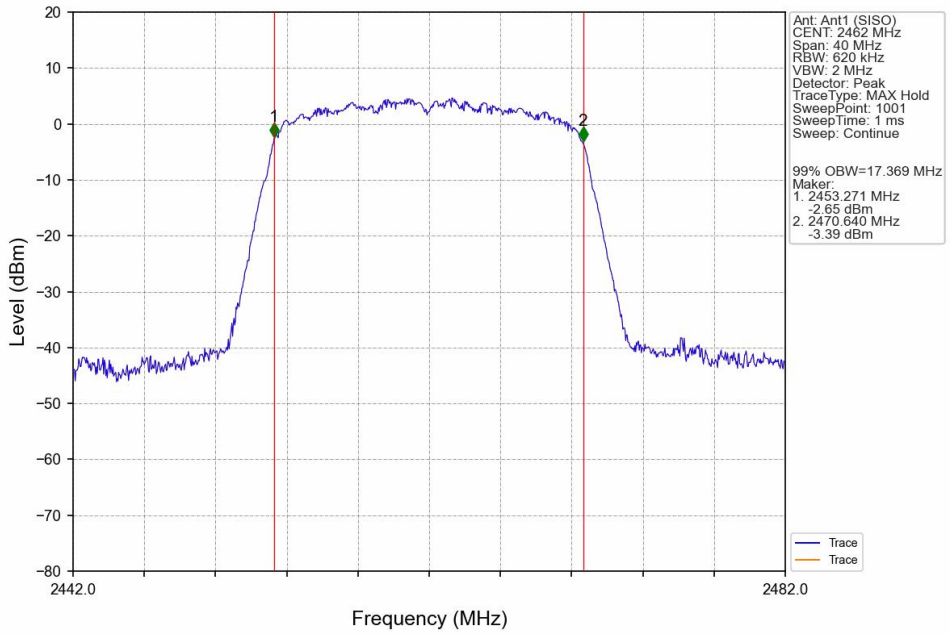
802.11n(HT20)_LCH_2412MHz_Ant1 (SISO)_NTNV



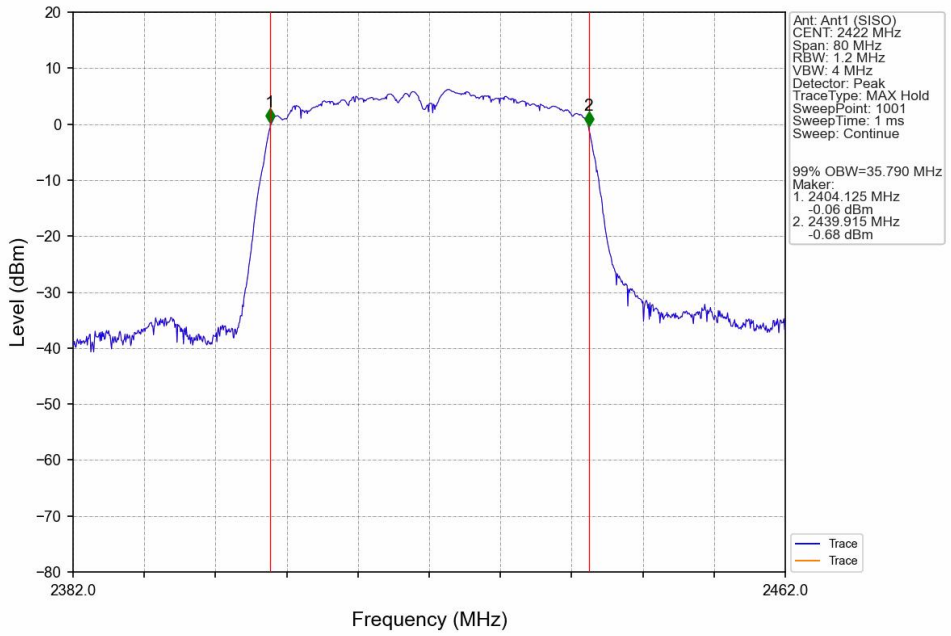
802.11n(HT20)_MCH_2437MHz_Ant1 (SISO)_NTNV



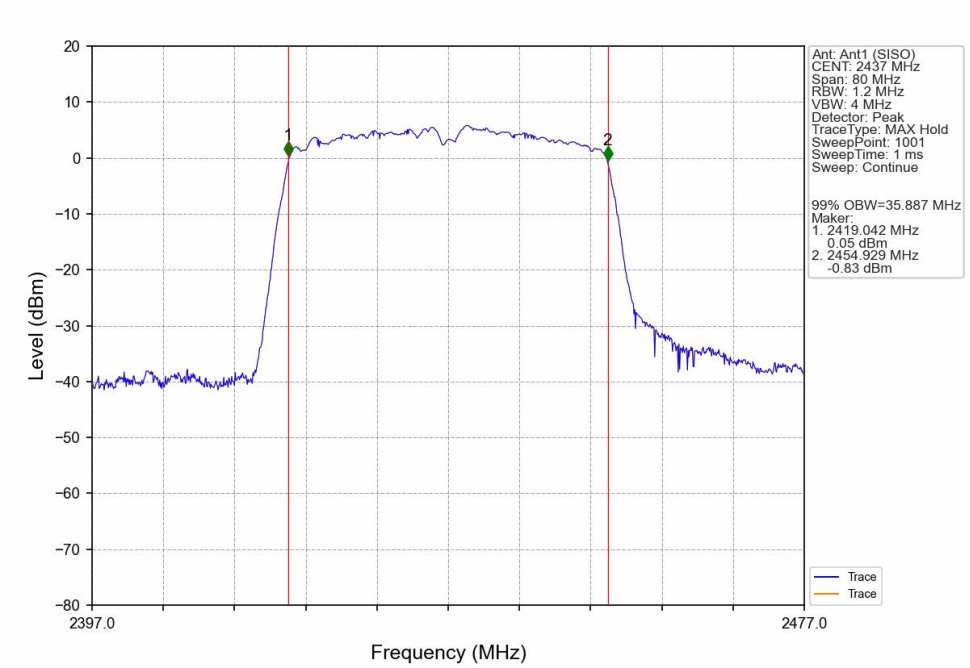
802.11n(HT20)_HCH_2462MHz_Ant1 (SISO)_NTNV



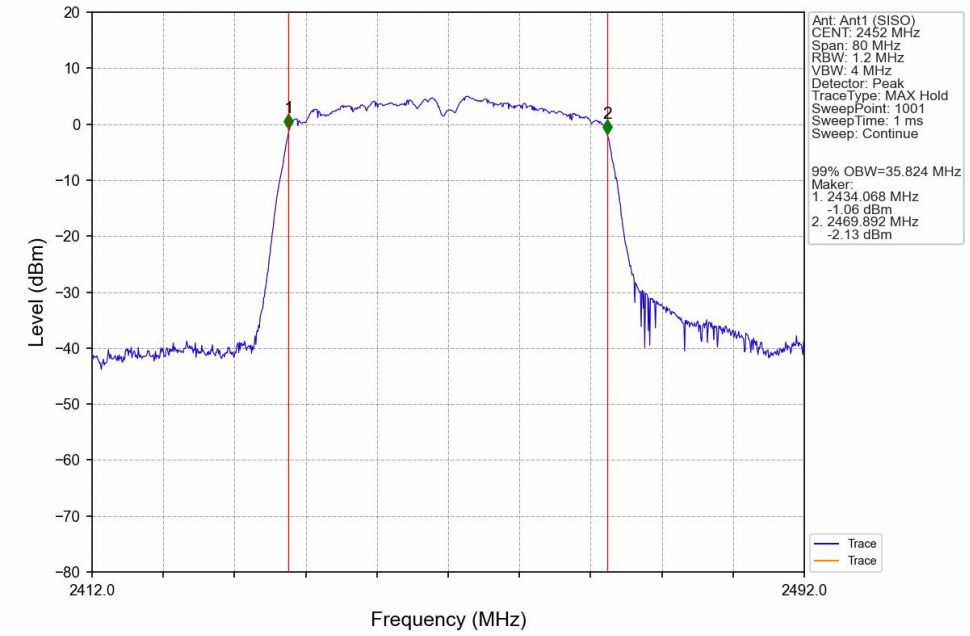
802.11n(HT40)_LCH_2422MHz_Ant1 (SISO)_NTNV



802.11n(HT40)_MCH_2437MHz_Ant1 (SISO)_NTNV

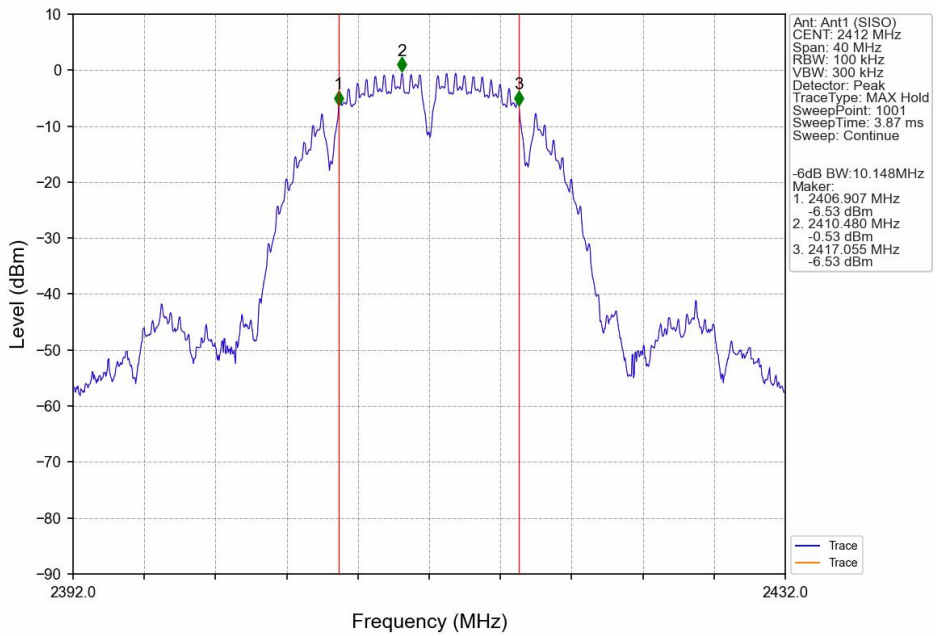


802.11n(HT40)_HCH_2452MHz_Ant1 (SISO)_NTNV

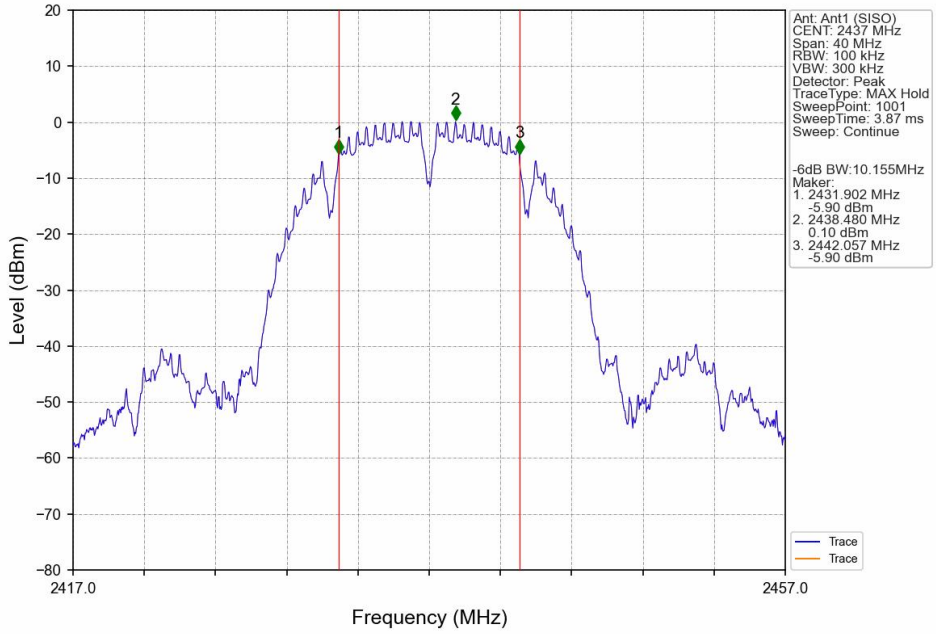


2.2.2 6dB BW

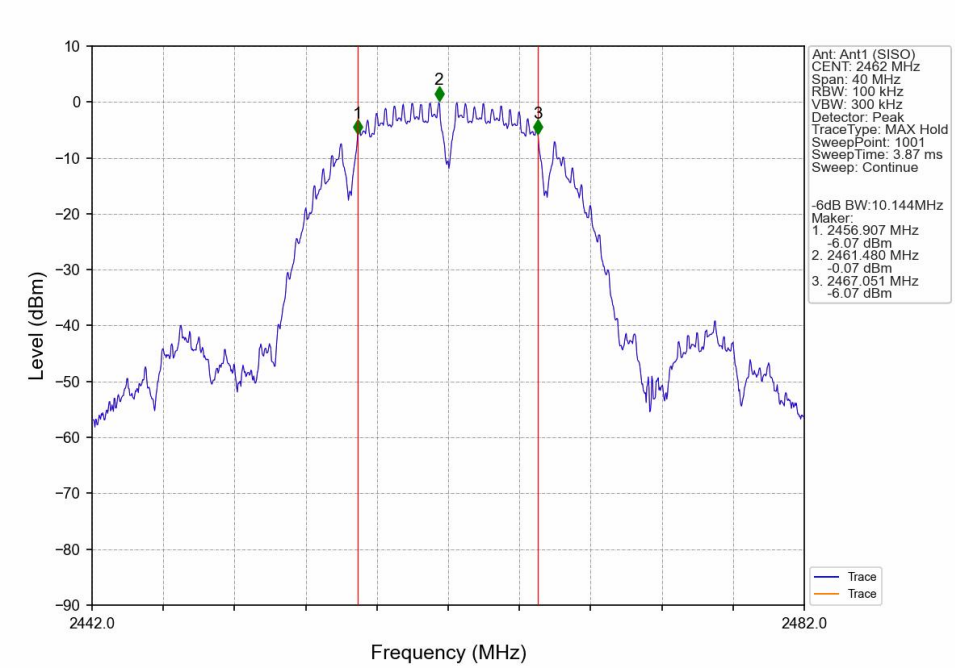
802.11b_LCH_2412MHz_Ant1 (SISO)_NTNV



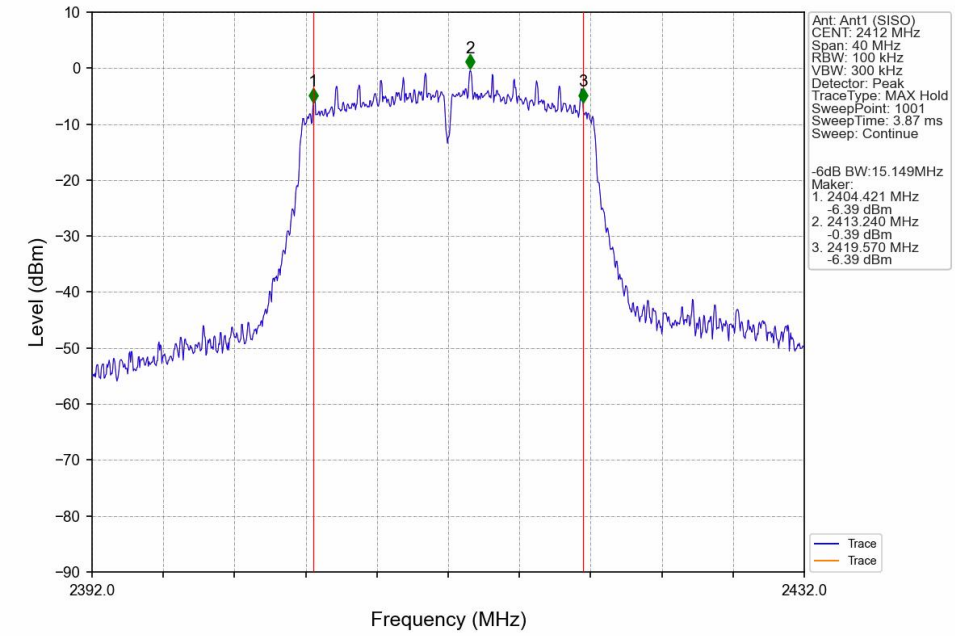
802.11b_MCH_2437MHz_Ant1 (SISO)_NTNV



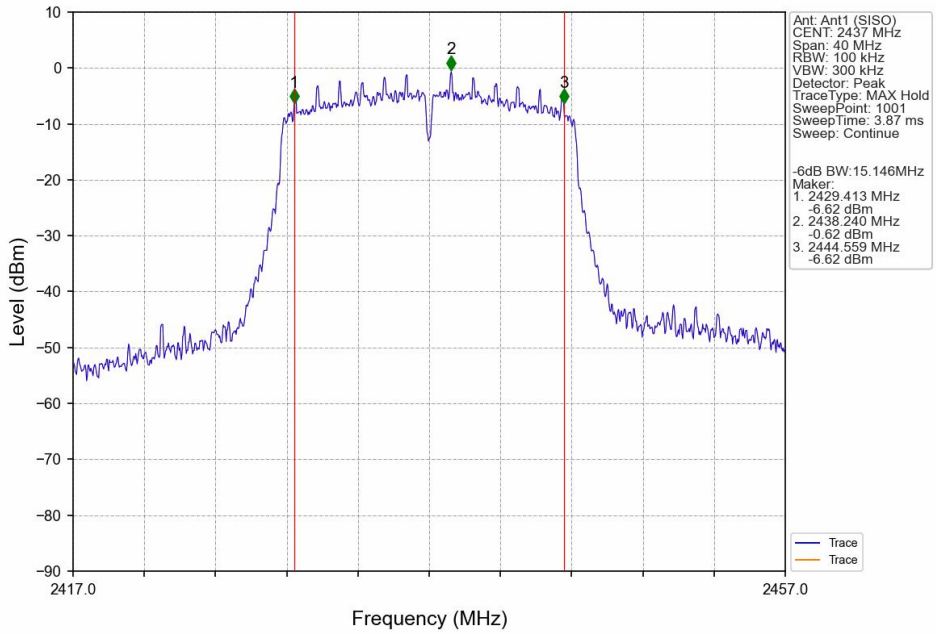
802.11b_HCH_2462MHz_Ant1 (SISO)_NTNV



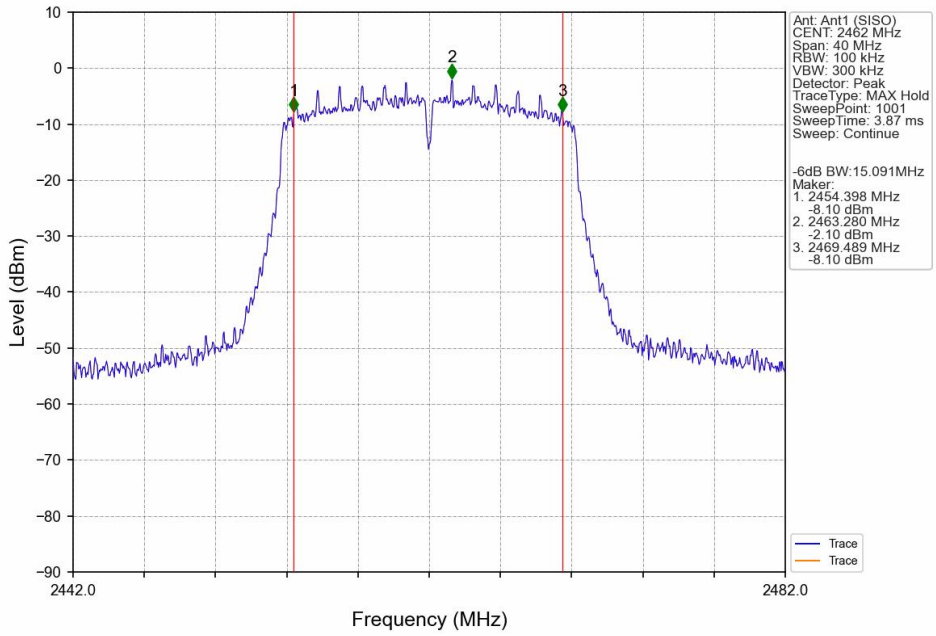
802.11g_LCH_2412MHz_Ant1 (SISO)_NTNV



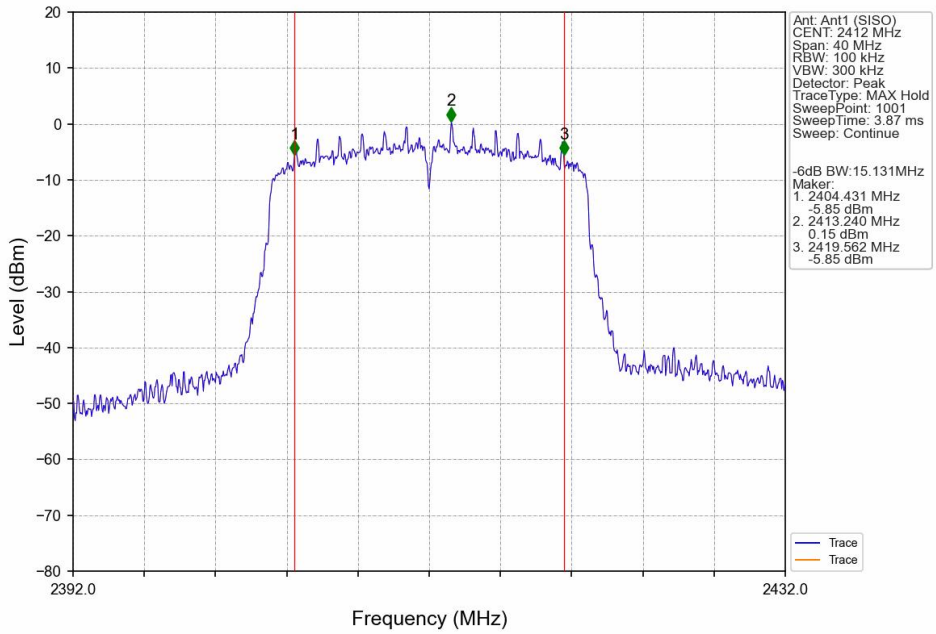
802.11g_MCH_2437MHz_Ant1 (SISO)_NTNV



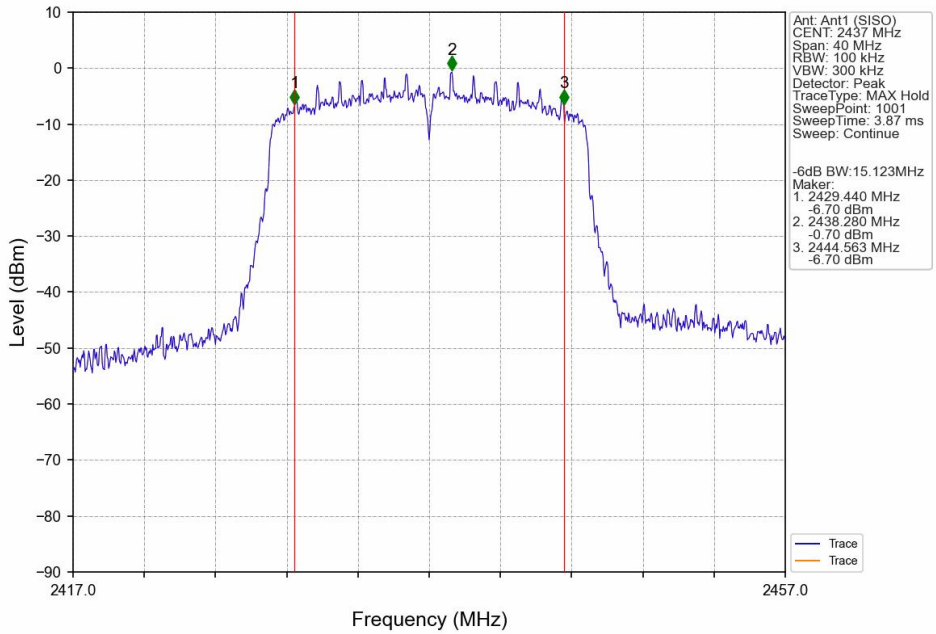
802.11g_HCH_2462MHz_Ant1 (SISO)_NTNV



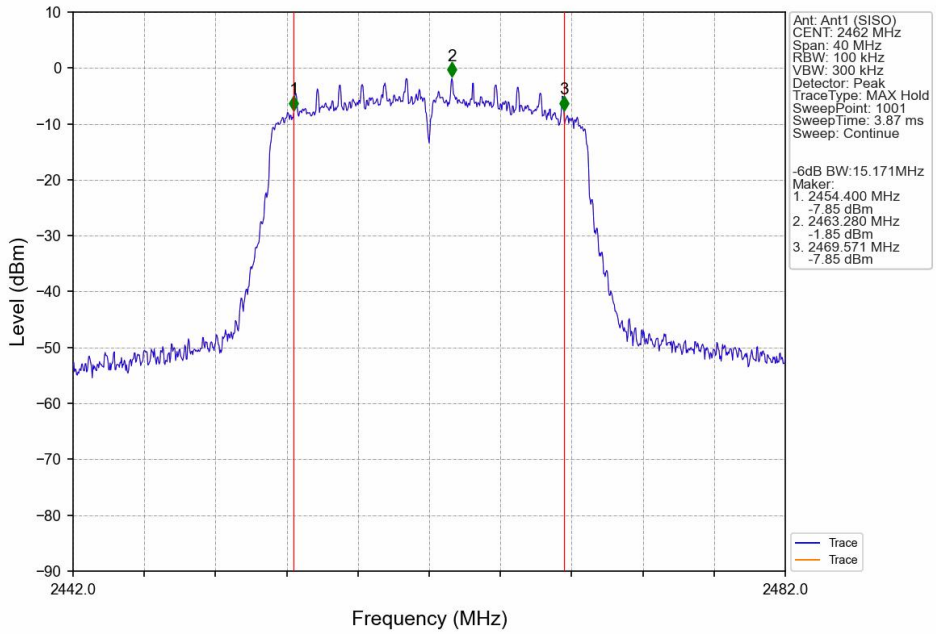
802.11n(HT20)_LCH_2412MHz_Ant1 (SISO)_NTNV



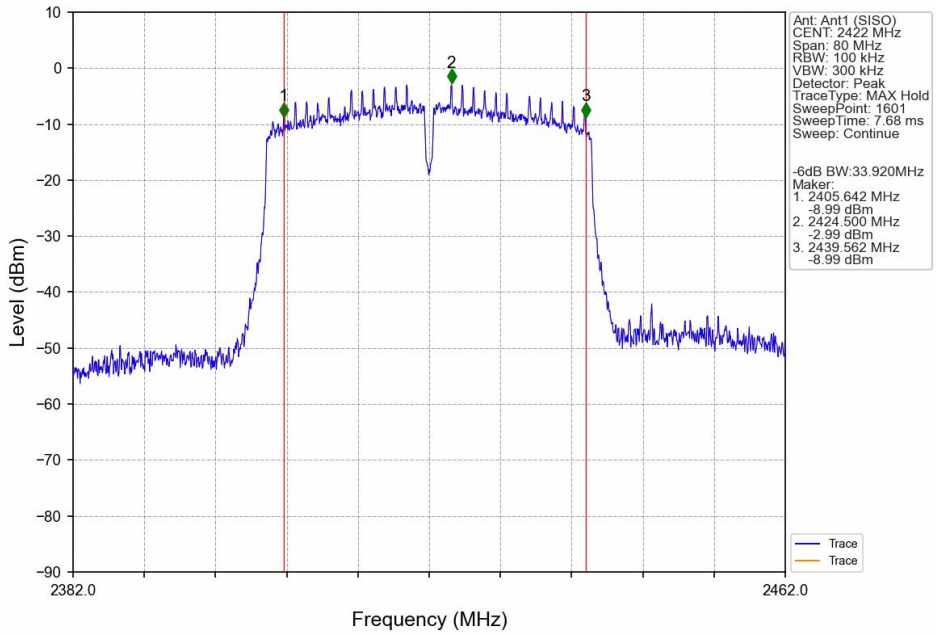
802.11n(HT20)_MCH_2437MHz_Ant1 (SISO)_NTNV



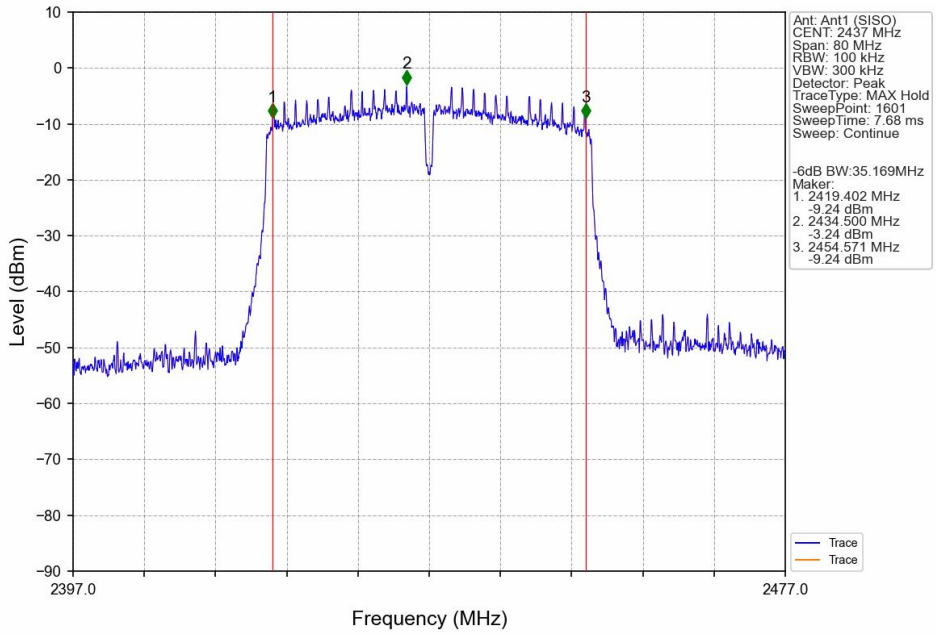
802.11n(HT20)_HCH_2462MHz_Ant1 (SISO)_NTNV



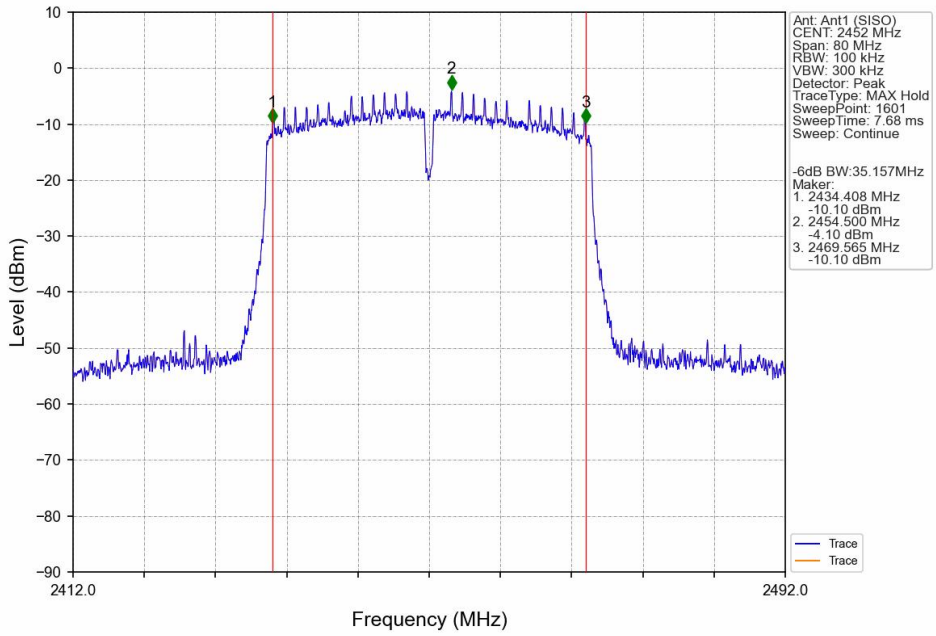
802.11n(HT40)_LCH_2422MHz_Ant1 (SISO)_NTNV



802.11n(HT40)_MCH_2437MHz_Ant1 (SISO)_NTNV



802.11n(HT40)_HCH_2452MHz_Ant1 (SISO)_NTNV



3. Maximum Conducted Output Power

3.1 Test Result

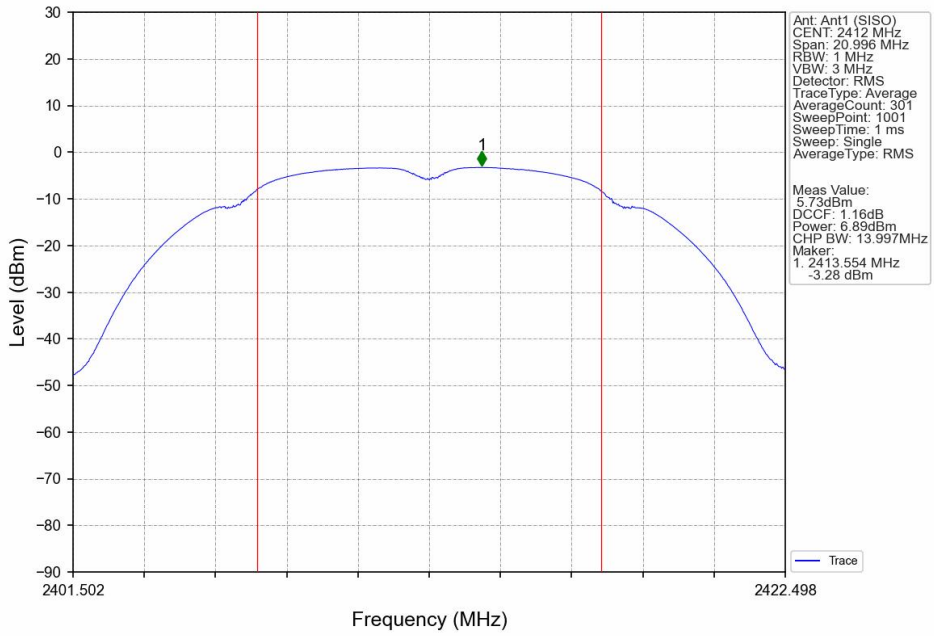
3.1.1 Power

Mode	TX Type	Frequency (MHz)	Maximum Average Conducted Output Power (dBm)		Verdict
			ANT1	Limit	
802.11b	SISO	2412	6.89	<=30	Pass
		2437	7.58	<=30	Pass
		2462	7.54	<=30	Pass
802.11g	SISO	2412	7.57	<=30	Pass
		2437	7.36	<=30	Pass
		2462	6.68	<=30	Pass
802.11n (HT20)	SISO	2412	7.07	<=30	Pass
		2437	7.46	<=30	Pass
		2462	7.31	<=30	Pass
802.11n (HT40)	SISO	2422	7.95	<=30	Pass
		2437	7.60	<=30	Pass
		2452	7.17	<=30	Pass
Note1: Antenna Gain: Ant1: 0.00dBi;					

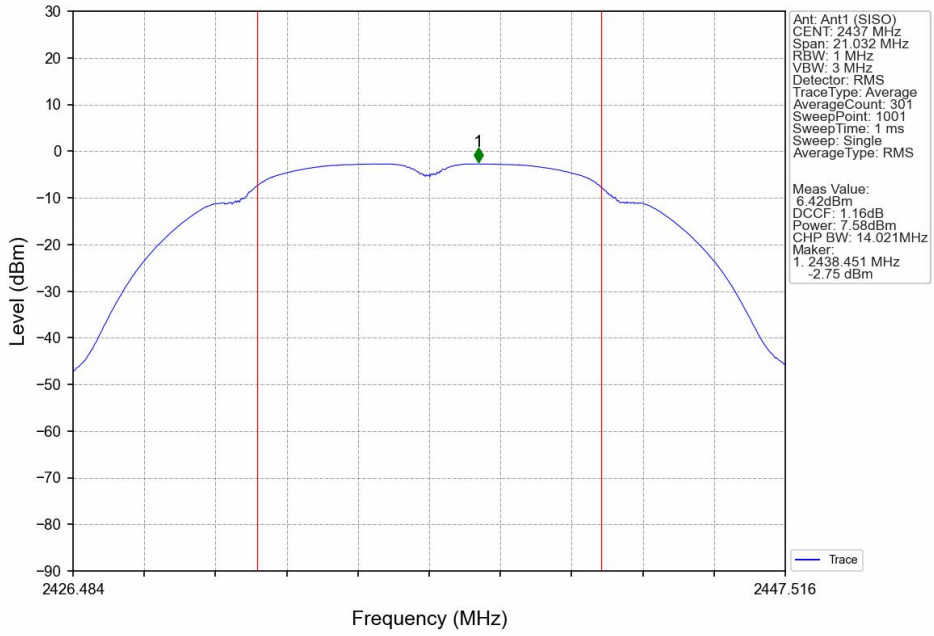
3.2 Test Graph

3.2.1 Power

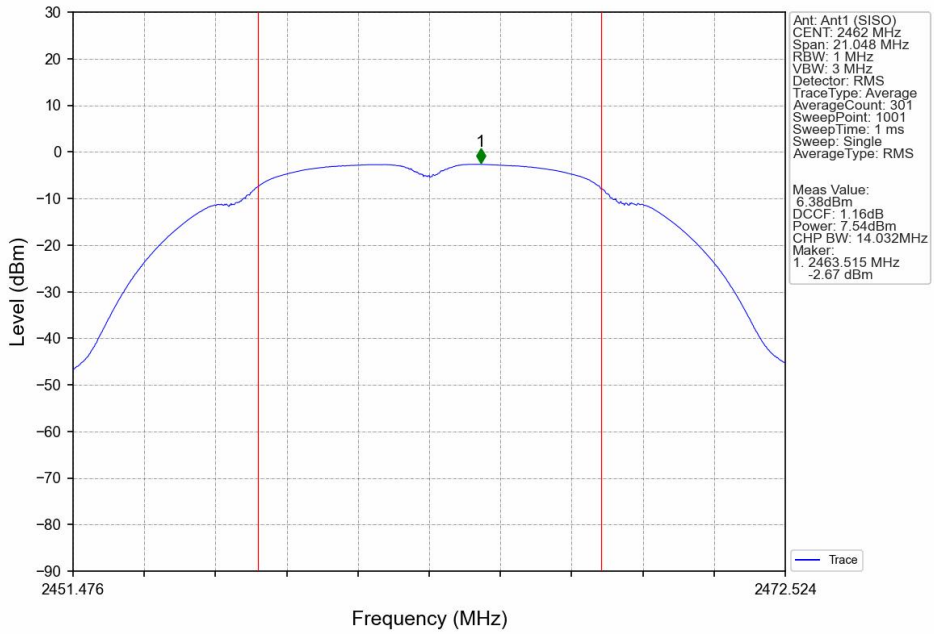
802.11b_LCH_2412MHz_Ant1 (SISO)_NTNV



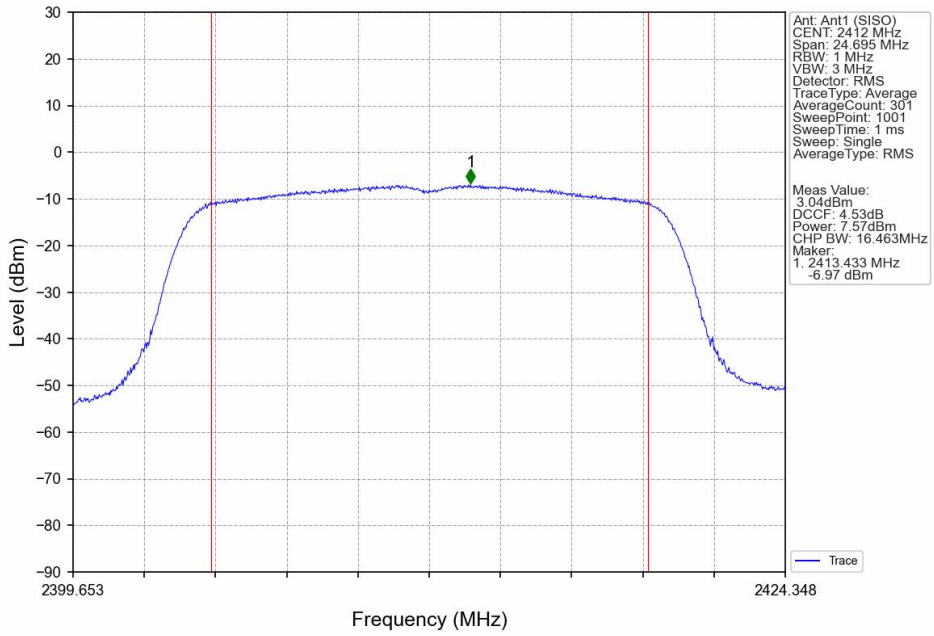
802.11b_MCH_2437MHz_Ant1 (SISO)_NTNV



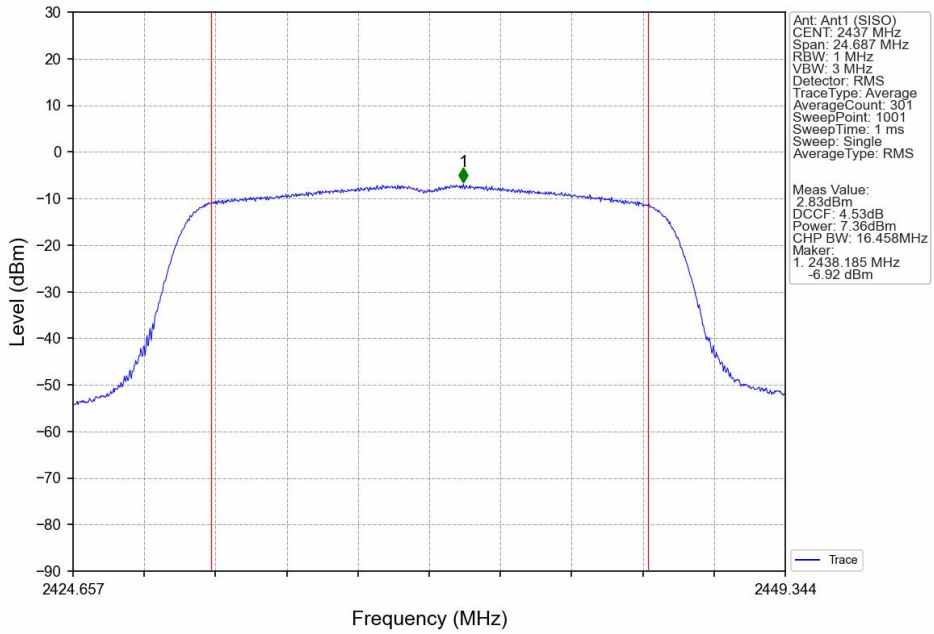
802.11b_HCH_2462MHz_Ant1 (SISO)_NTNV



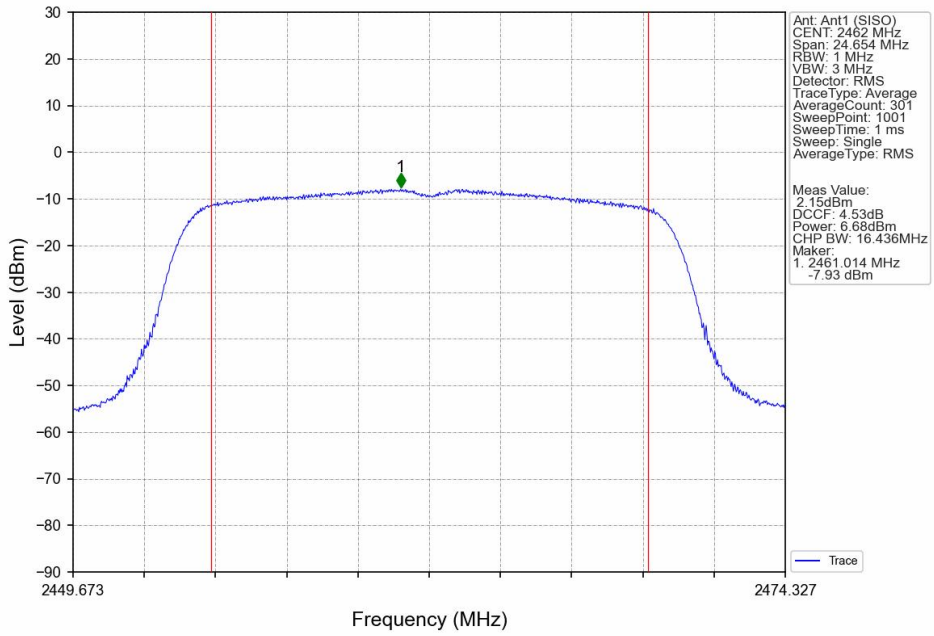
802.11g_LCH_2412MHz_Ant1 (SISO)_NTNV



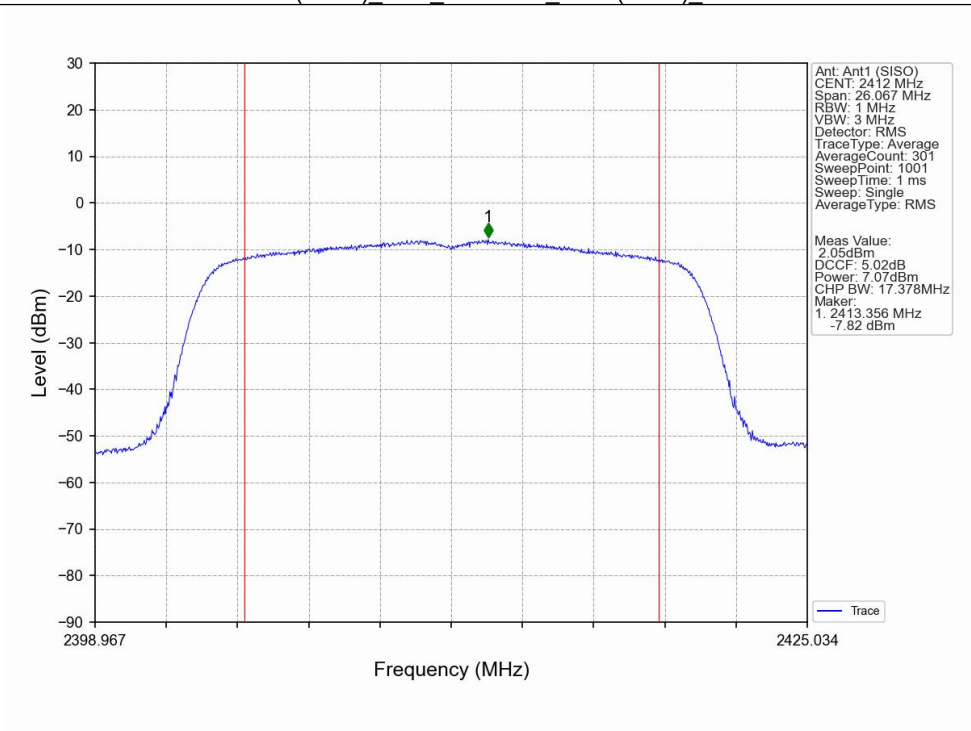
802.11g_MCH_2437MHz_Ant1 (SISO)_NTNV



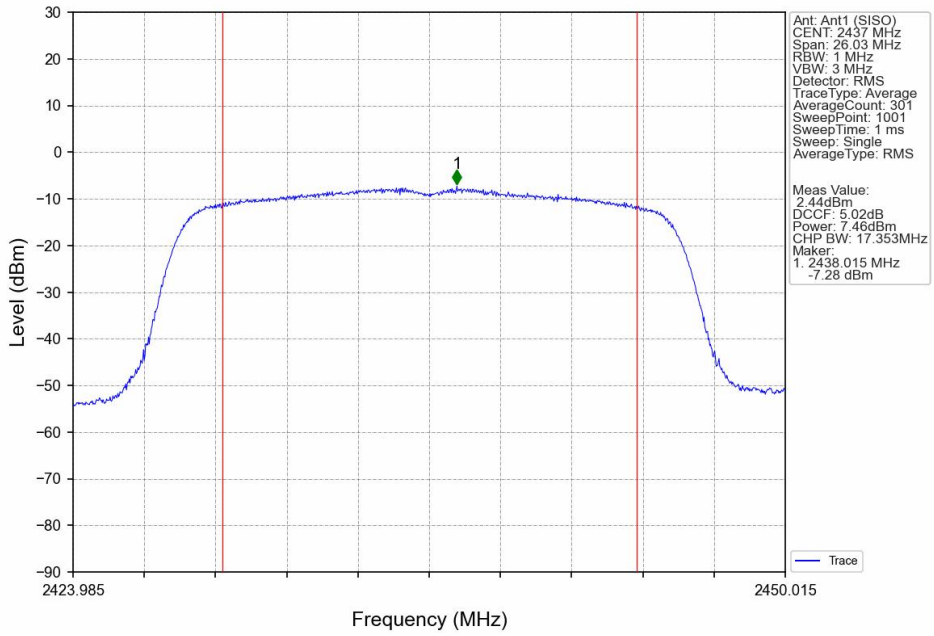
802.11g_HCH_2462MHz_Ant1 (SISO)_NTNV



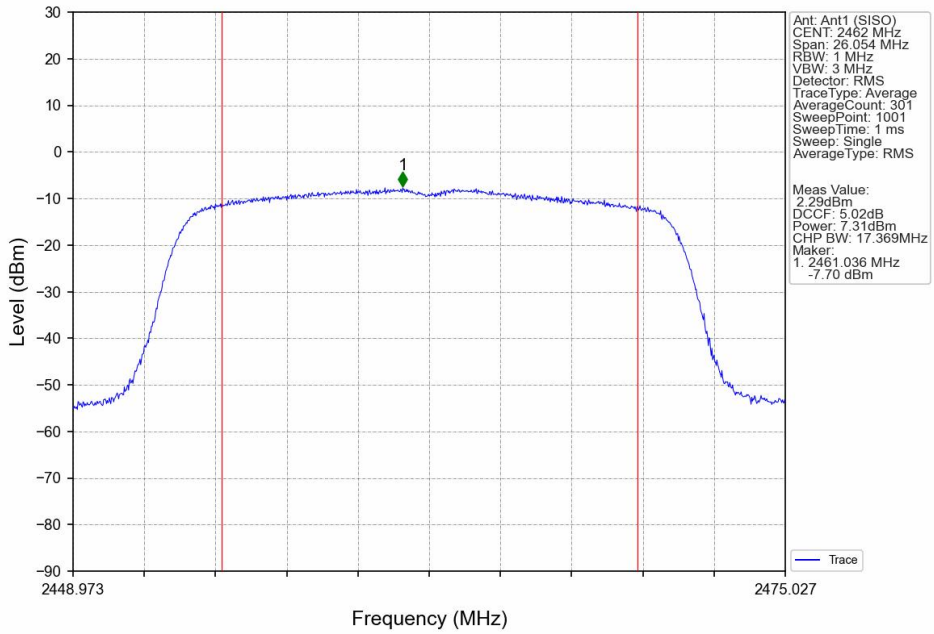
802.11n(HT20)_LCH_2412MHz_Ant1 (SISO)_NTNV



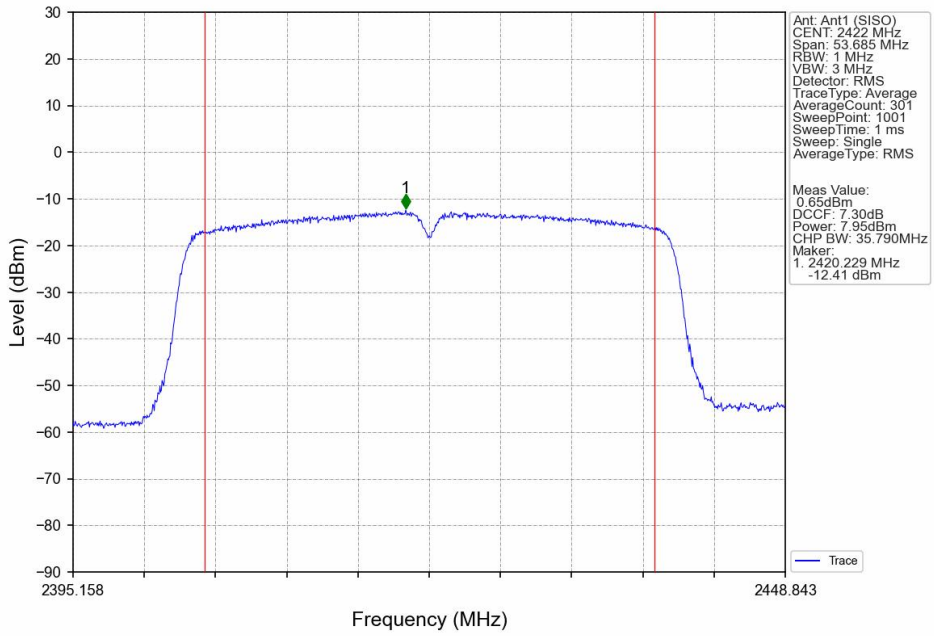
802.11n(HT20)_MCH_2437MHz_Ant1 (SISO)_NTNV



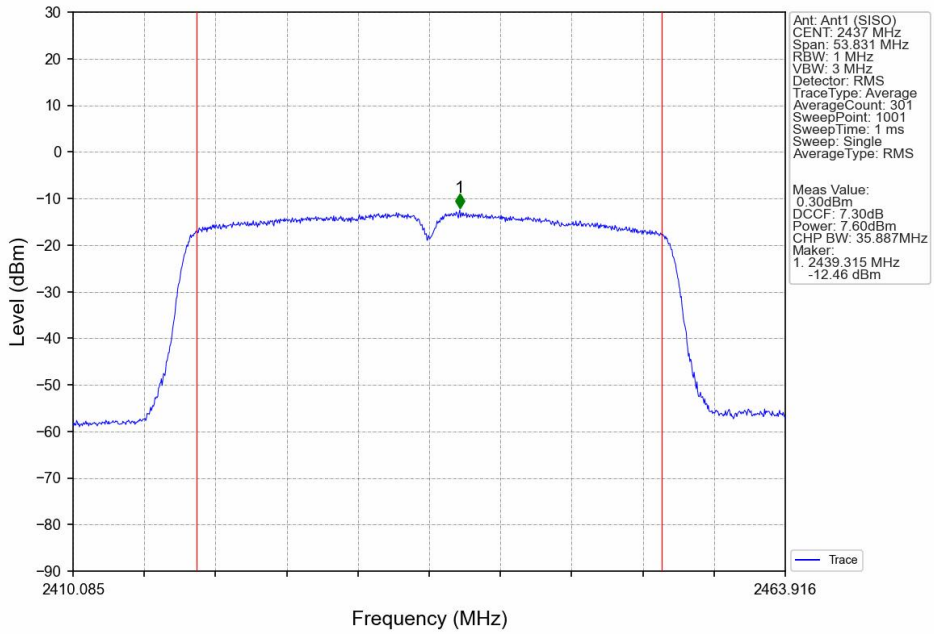
802.11n(HT20)_HCH_2462MHz_Ant1 (SISO)_NTNV



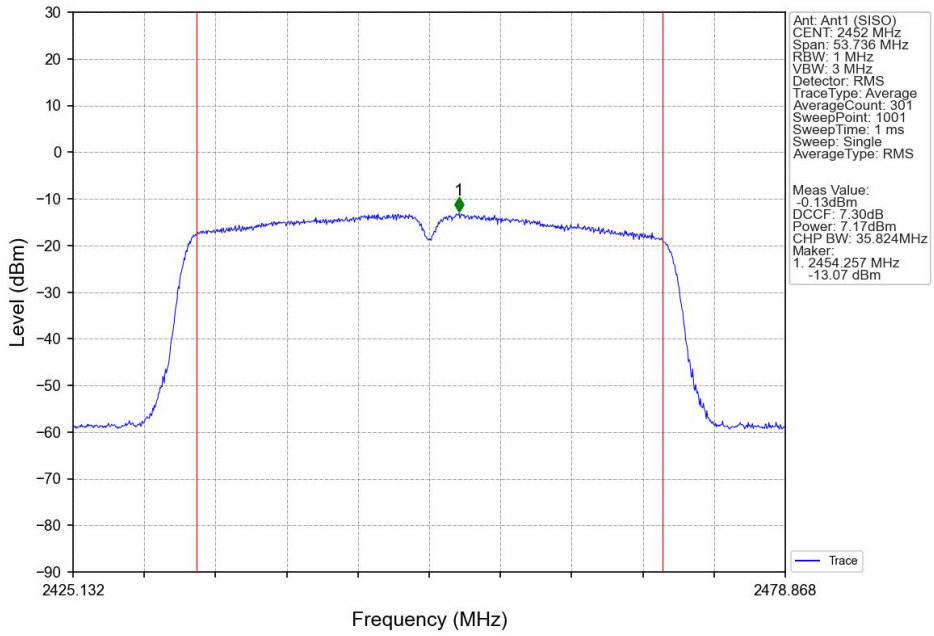
802.11n(HT40)_LCH_2422MHz_Ant1 (SISO)_NTNV



802.11n(HT40)_MCH_2437MHz_Ant1 (SISO)_NTNV



802.11n(HT40)_HCH_2452MHz_Ant1 (SISO)_NTNV



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	-22.64	<=8	Pass
		2437	-22.32	<=8	Pass
		2462	-22.43	<=8	Pass
802.11g	SISO	2412	-21.16	<=8	Pass
		2437	-21.32	<=8	Pass
		2462	-21.78	<=8	Pass
802.11n (HT20)	SISO	2412	-20.84	<=8	Pass
		2437	-22.87	<=8	Pass
		2462	-22.88	<=8	Pass
802.11n (HT40)	SISO	2422	-22.79	<=8	Pass
		2437	-23.20	<=8	Pass
		2452	-24.61	<=8	Pass
Note1: Antenna Gain: Ant1: 0.00dBi;					