

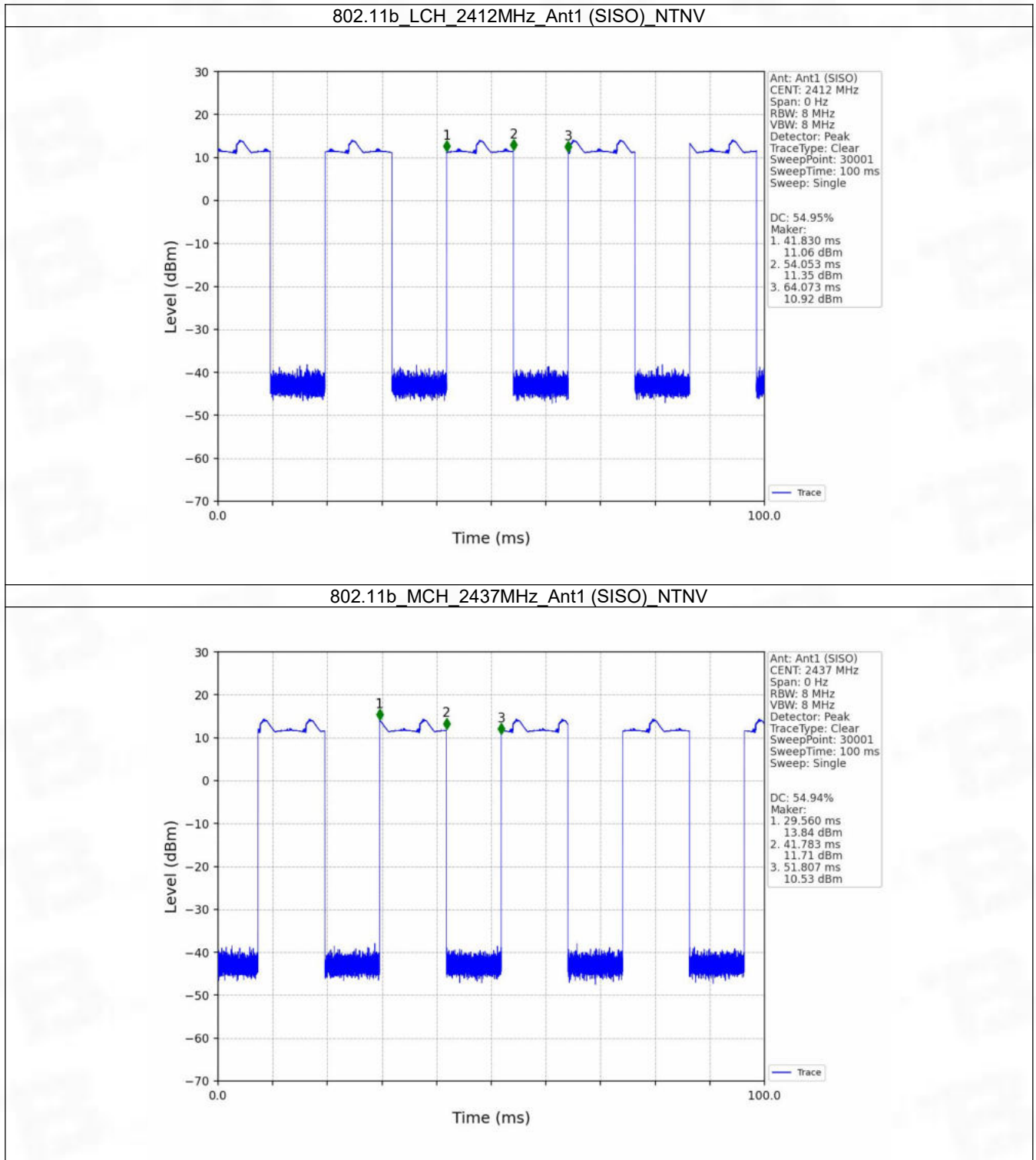
Appendix – 2.4G WIFI

1. Duty Cycle

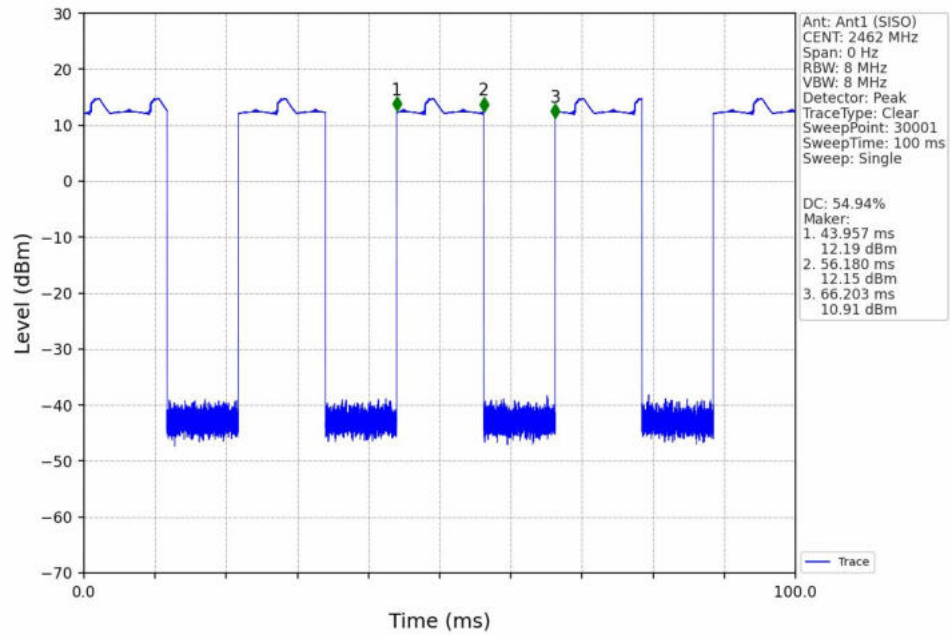
1.1 Test Result

Ant1									
Mode	TX Type	Frequency (MHz)	RU	RU Pos	T_on (ms)	Period (ms)	Duty Cycle (%)	Duty Cycle Correction Factor (dB)	Max. DC Variation (%)
802.11b	SISO	2412	/	/	12.223	22.243	54.95	2.60	0.01
		2437	/	/	12.223	22.247	54.94	2.60	0.02
		2462	/	/	12.223	22.246	54.94	2.60	0.02
802.11g	SISO	2412	/	/	2.030	12.057	16.84	7.74	0.03
		2437	/	/	2.030	12.060	16.83	7.74	0.05
		2462	/	/	2.033	12.056	16.86	7.73	0.03
802.11n (HT20)	SISO	2412	/	/	1.893	11.920	15.88	7.99	0.03
		2437	/	/	1.893	11.920	15.88	7.99	0.03
		2462	/	/	1.893	11.923	15.88	7.99	0.03
802.11n (HT40)	SISO	2422	/	/	0.934	11.357	8.22	10.85	0.30
		2437	/	/	0.933	10.963	8.51	10.70	0.01
		2452	/	/	0.933	10.963	8.51	10.70	0.03
802.11ax (HEW20)	SISO	2412	SU	/	1.463	11.493	12.73	8.95	0.01
		2437	SU	/	1.463	11.493	12.73	8.95	0.03
		2462	SU	/	1.460	11.490	12.71	8.96	0.03
802.11ax (HEW40)	SISO	2422	SU	/	0.763	10.960	6.96	11.57	0.11
		2437	SU	/	0.763	10.793	7.07	11.51	0.00
		2452	SU	/	0.763	10.790	7.07	11.50	0.00

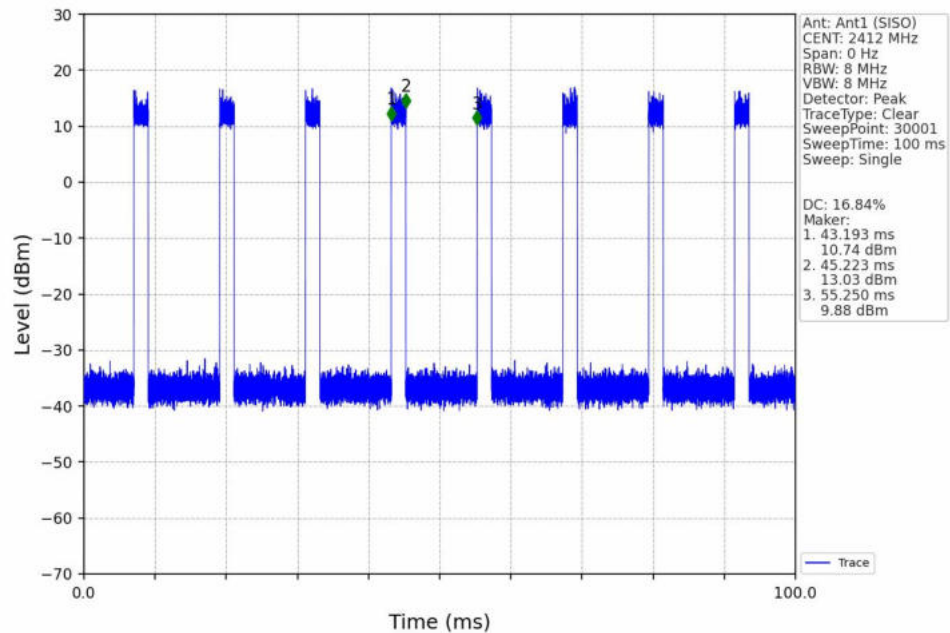
1.2 Test Graph



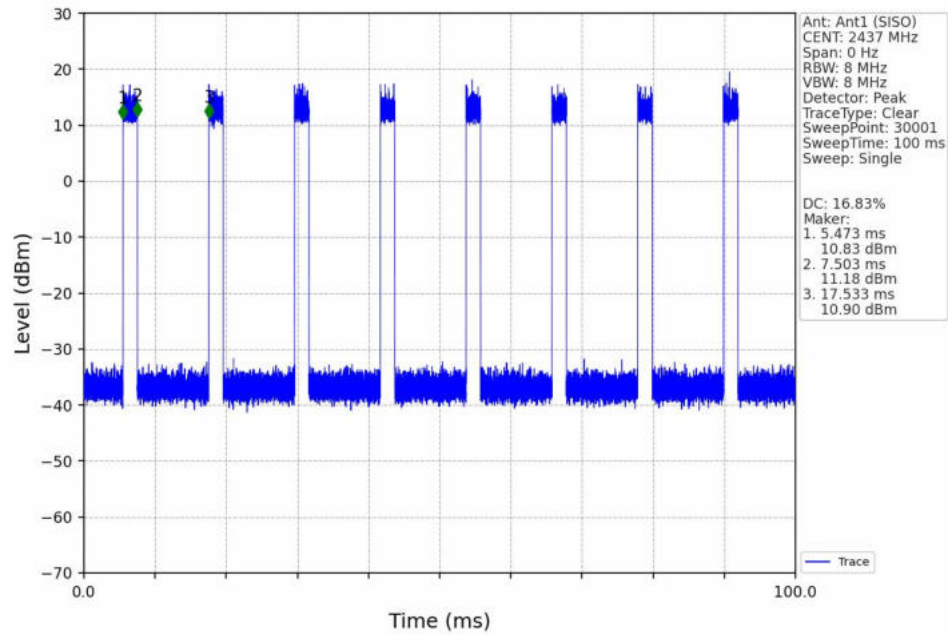
802.11b_HCH_2462MHz_Ant1 (SISO)_NTNV



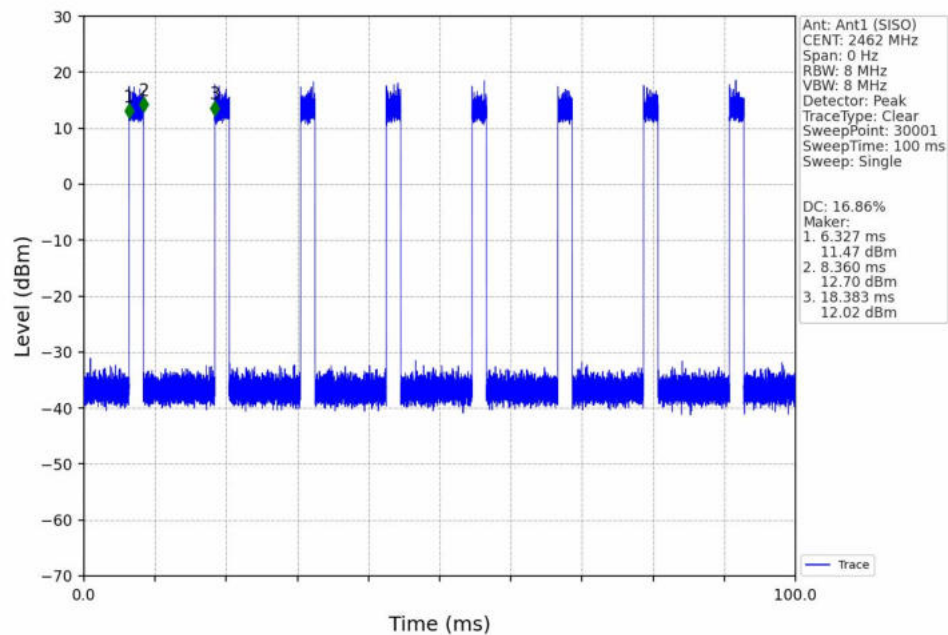
802.11g_LCH_2412MHz_Ant1 (SISO)_NTNV



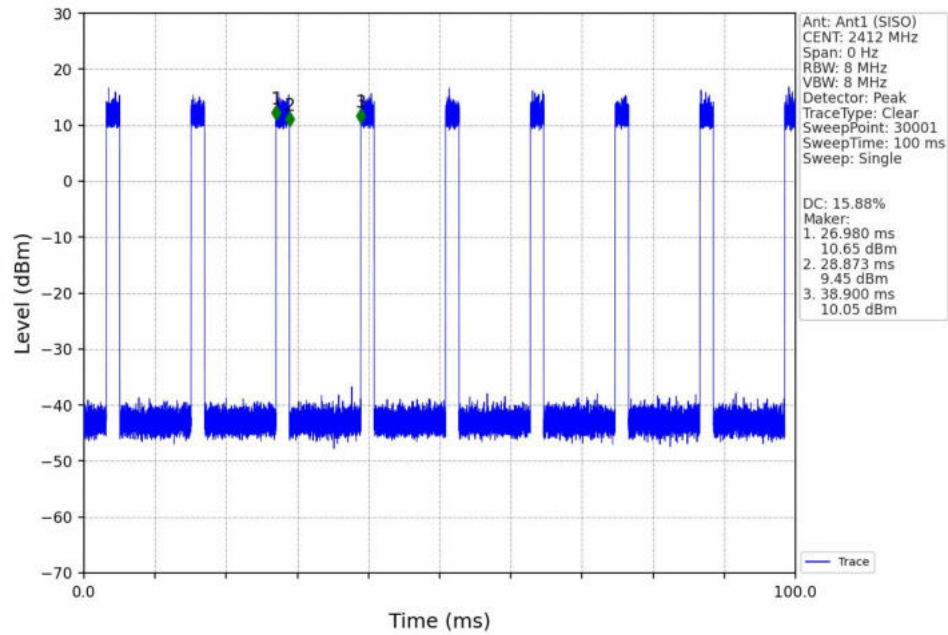
802.11g_MCH_2437MHz_Ant1 (SISO)_NTNV



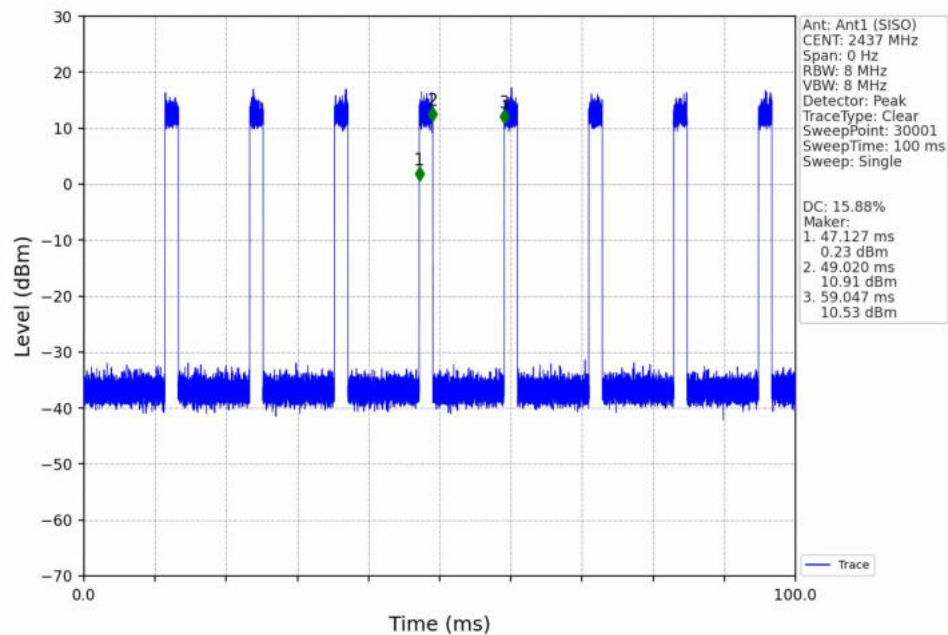
802.11g_HCH_2462MHz_Ant1 (SISO)_NTNV



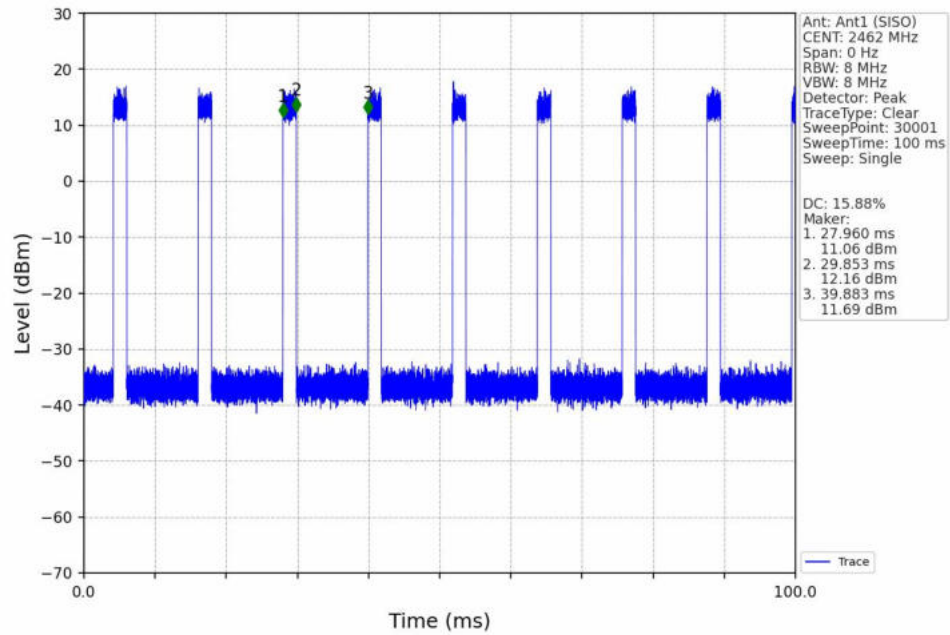
802.11n(HT20)_LCH_2412MHz_Ant1 (SISO)_NTNV



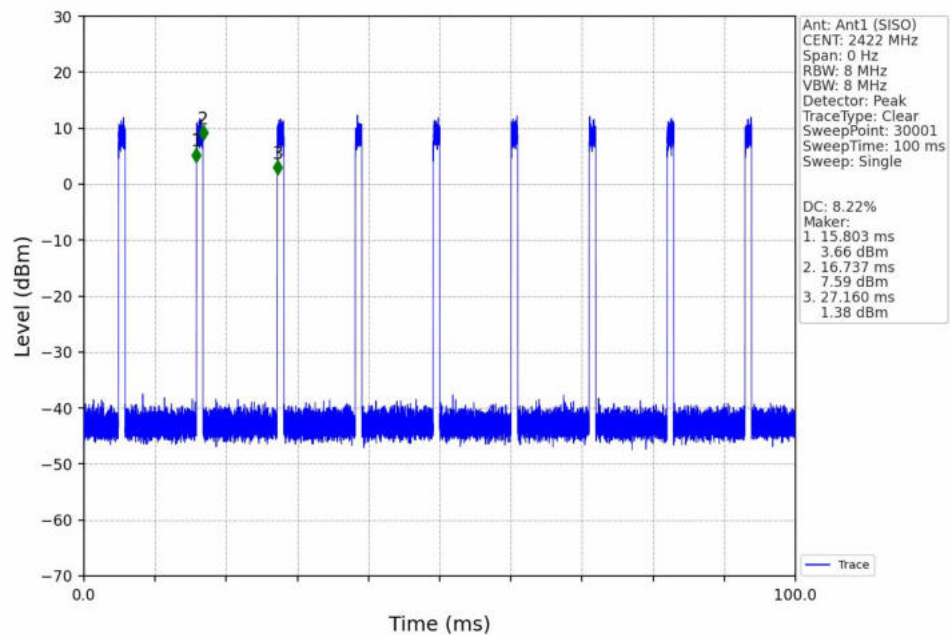
802.11n(HT20)_MCH_2437MHz_Ant1 (SISO)_NTNV



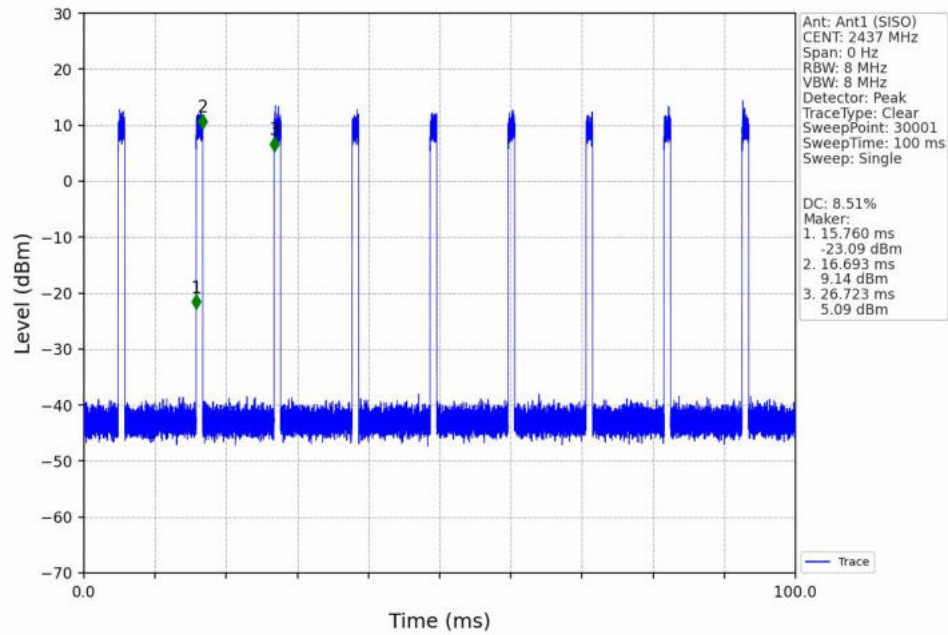
802.11n(HT20)_HCH_2462MHz_Ant1 (SISO)_NTNV



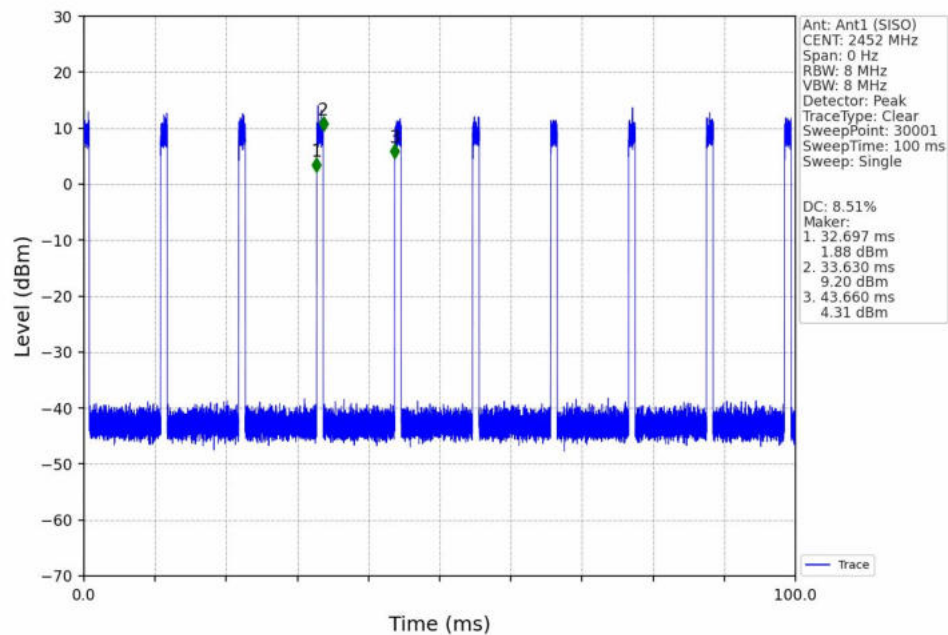
802.11n(HT40)_LCH_2422MHz_Ant1 (SISO)_NTNV



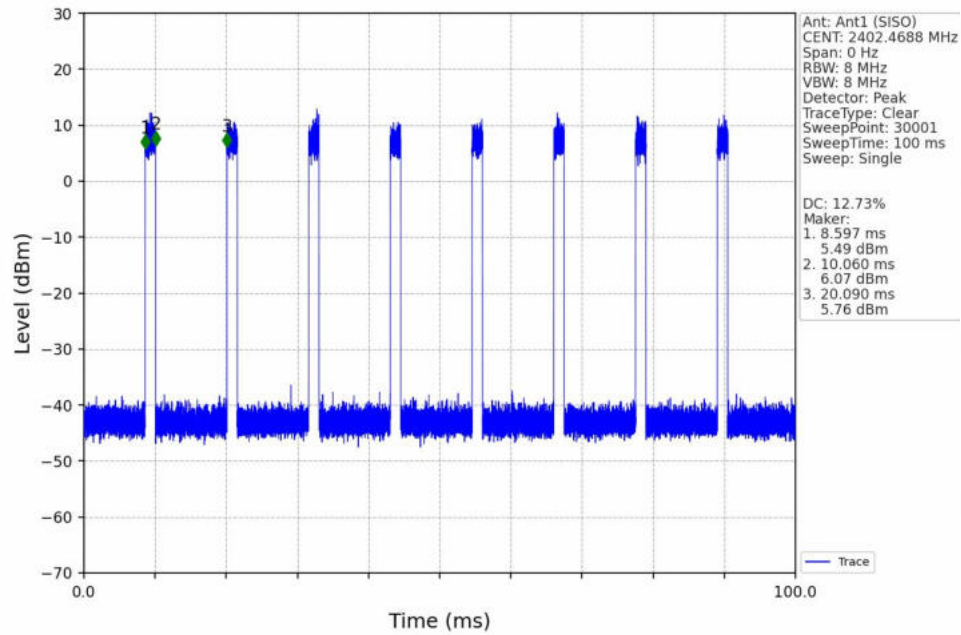
802.11n(HT40)_MCH_2437MHz_Ant1 (SISO)_NTNV



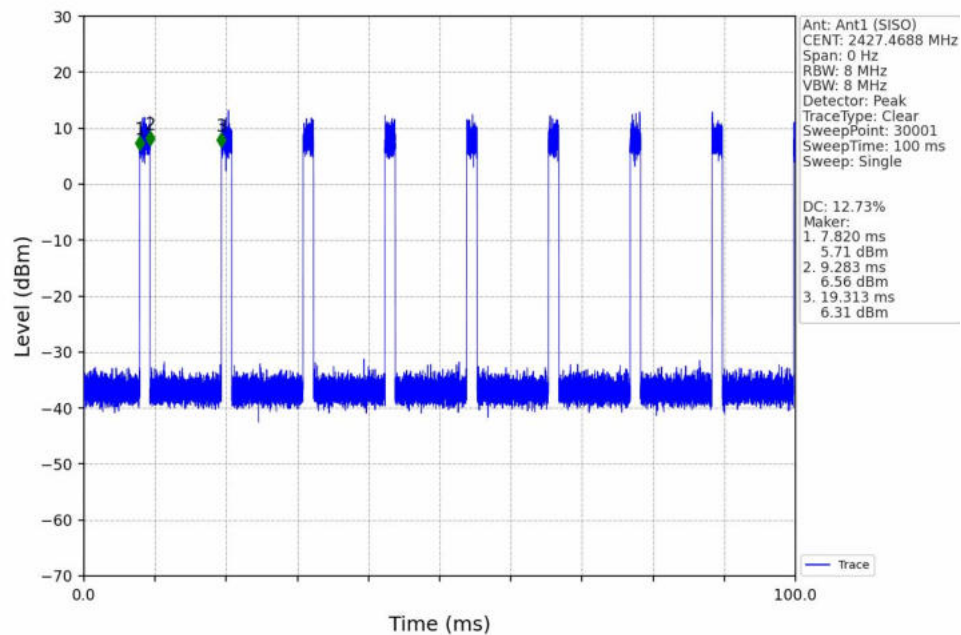
802.11n(HT40)_HCH_2452MHz_Ant1 (SISO)_NTNV



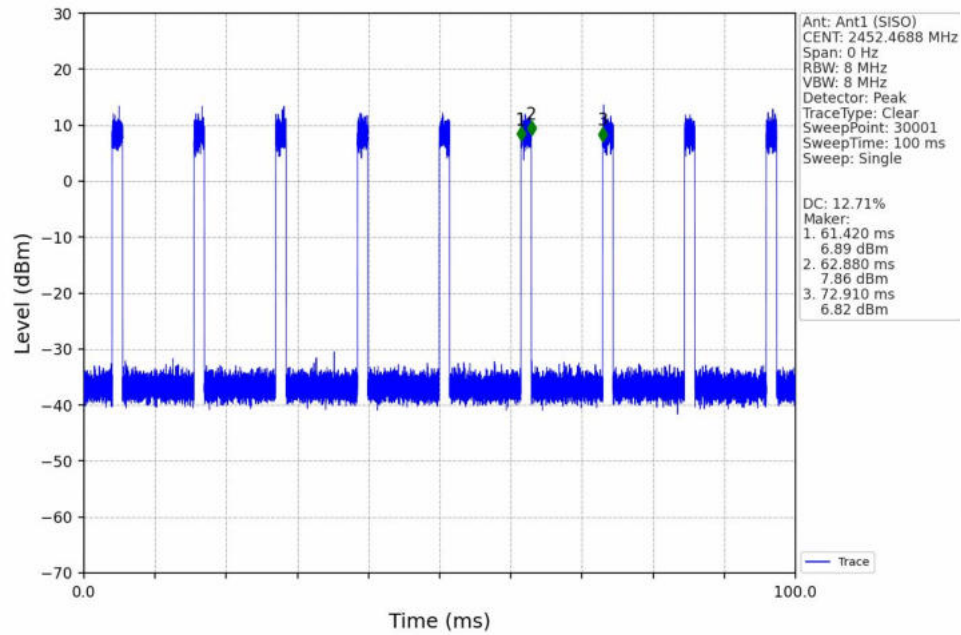
802.11ax(HEW20)_LCH_2412MHz_SU_/_Ant1 (SISO)_NTNV



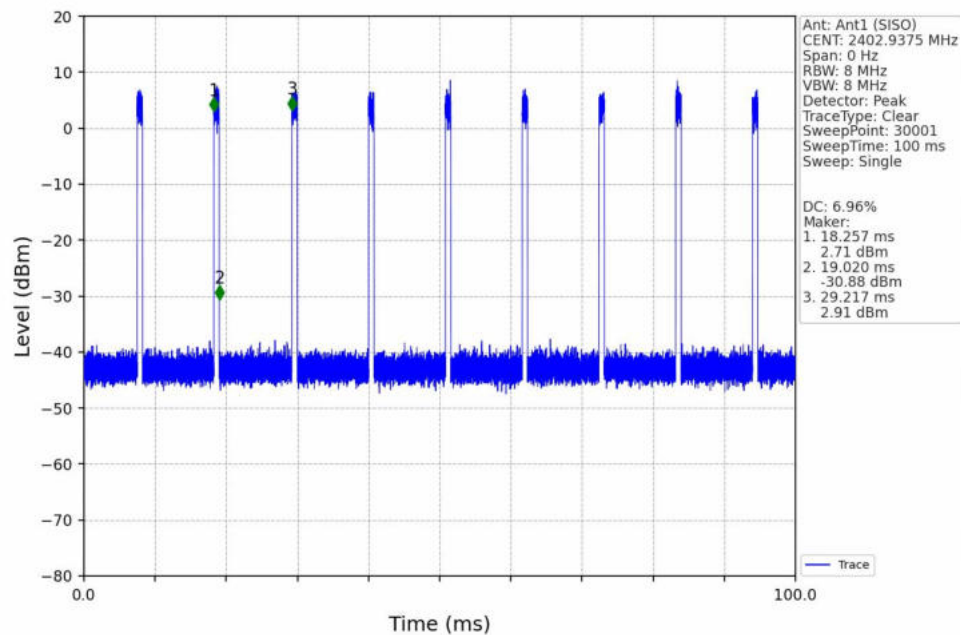
802.11ax(HEW20)_MCH_2437MHz_SU_/_Ant1 (SISO)_NTNV



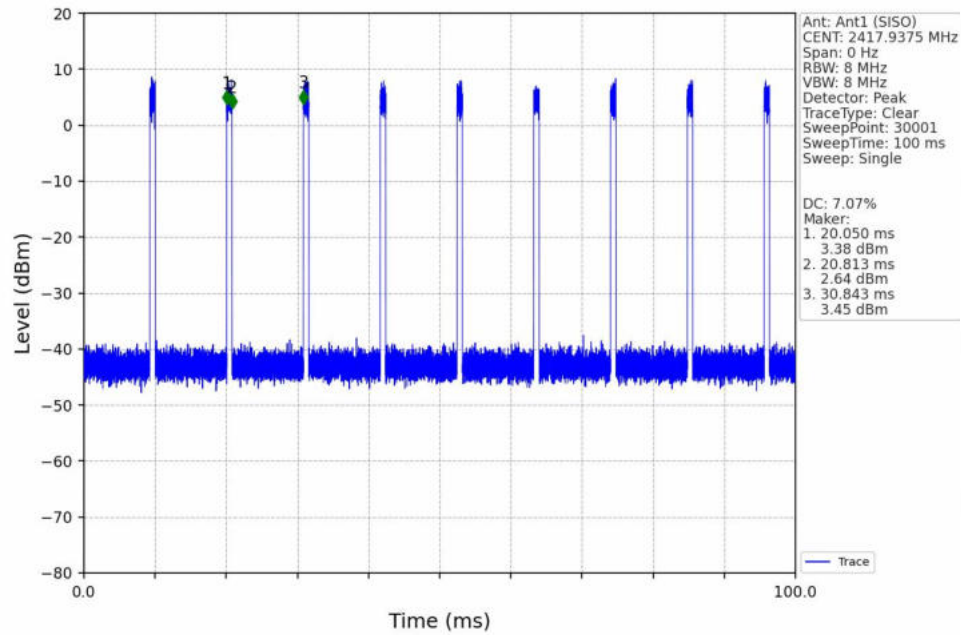
802.11ax(HEW20)_HCH_2462MHz_SU_/_Ant1 (SISO)_NTNV



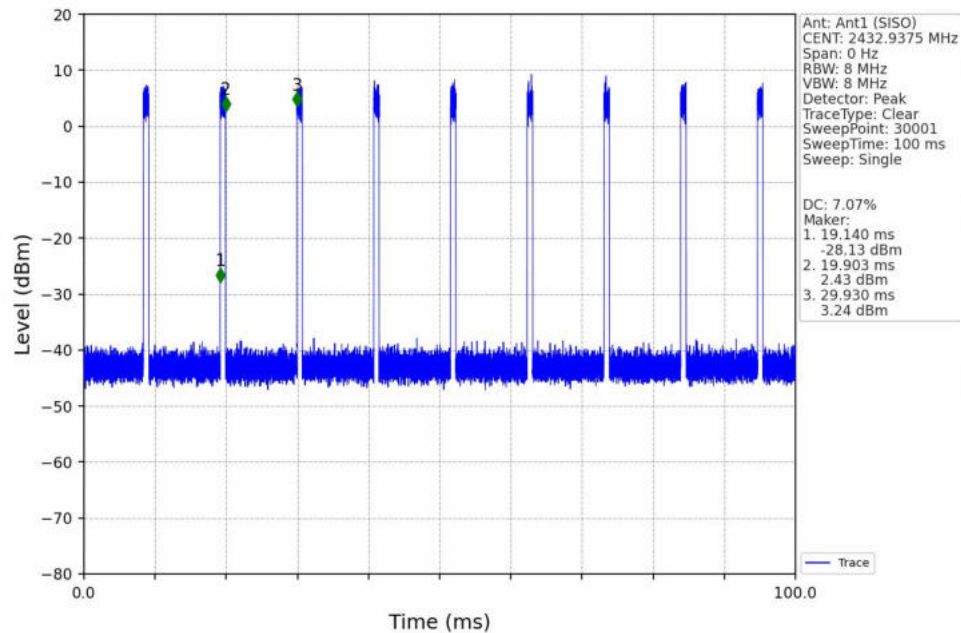
802.11ax(HEW40)_LCH_2422MHz_SU_/_Ant1 (SISO)_NTNV



802.11ax(HEW40) MCH_2437MHz_SU / _Ant1 (SISO) _NTNV



802.11ax(HEW40) HCH_2452MHz_SU / _Ant1 (SISO) _NTNV



2. Bandwidth

2.1 Test Result

2.1.1 OBW

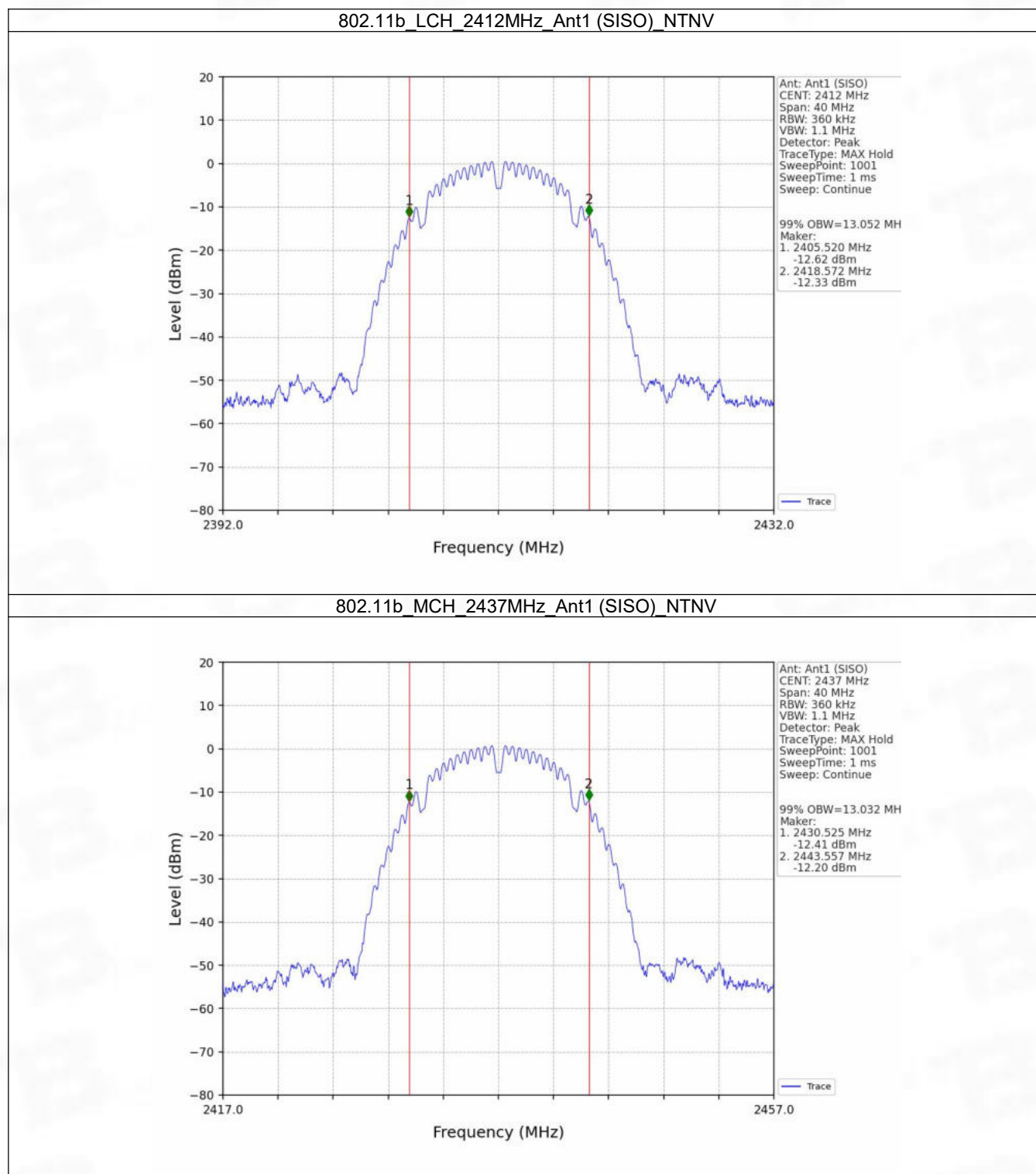
Mode	TX Type	Frequency (MHz)	RU	RU Pos	ANT	99% Occupied Bandwidth (MHz)		Verdict
						Result	Limit	
802.11b	SISO	2412	/	/	1	13.052	/	Pass
		2437	/	/	1	13.032	/	Pass
		2462	/	/	1	13.016	/	Pass
802.11g	SISO	2412	/	/	1	18.202	/	Pass
		2437	/	/	1	18.055	/	Pass
		2462	/	/	1	18.107	/	Pass
802.11n (HT20)	SISO	2412	/	/	1	19.084	/	Pass
		2437	/	/	1	19.126	/	Pass
		2462	/	/	1	19.089	/	Pass
802.11n (HT40)	SISO	2422	/	/	1	37.196	/	Pass
		2437	/	/	1	37.090	/	Pass
		2452	/	/	1	37.088	/	Pass
802.11ax (HEW20)	SISO	2412	SU	/	1	19.471	/	Pass
		2437	SU	/	1	19.492	/	Pass
		2462	SU	/	1	19.555	/	Pass
802.11ax (HEW40)	SISO	2422	SU	/	1	38.345	/	Pass
		2437	SU	/	1	38.253	/	Pass
		2452	SU	/	1	38.199	/	Pass

2.1.2 6dB BW

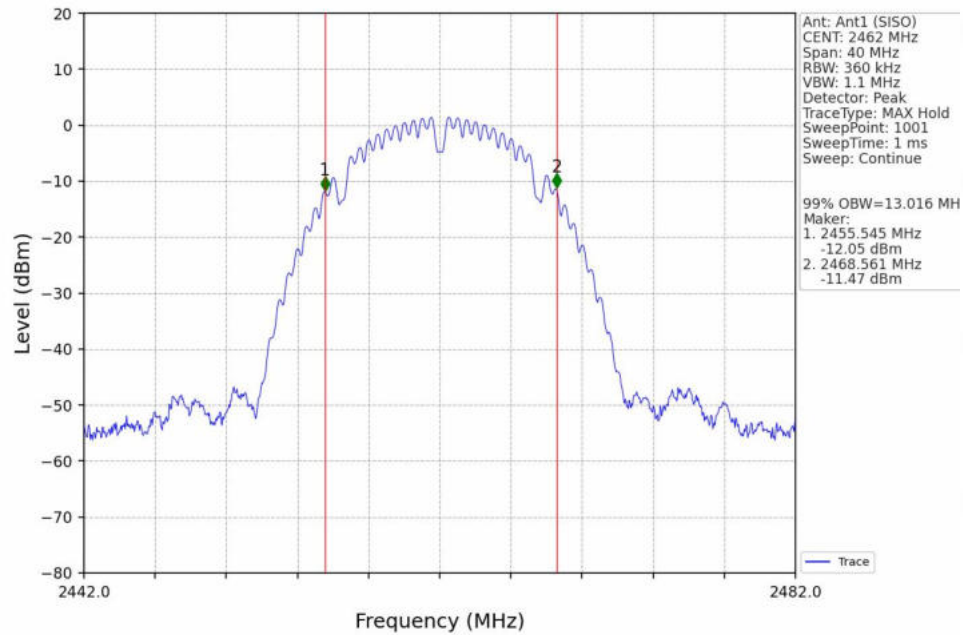
Mode	TX Type	Frequency (MHz)	RU	RU Pos	ANT	6dB Bandwidth (MHz)		Verdict
						Result	Limit	
802.11b	SISO	2412	/	/	1	9.242	≥ 0.5	Pass
		2437	/	/	1	9.240	≥ 0.5	Pass
		2462	/	/	1	9.231	≥ 0.5	Pass
802.11g	SISO	2412	/	/	1	16.290	≥ 0.5	Pass
		2437	/	/	1	16.435	≥ 0.5	Pass
		2462	/	/	1	16.442	≥ 0.5	Pass
802.11n (HT20)	SISO	2412	/	/	1	17.601	≥ 0.5	Pass
		2437	/	/	1	17.302	≥ 0.5	Pass
		2462	/	/	1	17.402	≥ 0.5	Pass
802.11n (HT40)	SISO	2422	/	/	1	35.973	≥ 0.5	Pass
		2437	/	/	1	36.065	≥ 0.5	Pass
		2452	/	/	1	36.366	≥ 0.5	Pass
802.11ax (HEW20)	SISO	2412	SU	/	1	18.832	≥ 0.5	Pass
		2437	SU	/	1	18.815	≥ 0.5	Pass
		2462	SU	/	1	18.806	≥ 0.5	Pass
802.11ax (HEW40)	SISO	2422	SU	/	1	37.240	≥ 0.5	Pass
		2437	SU	/	1	37.596	≥ 0.5	Pass
		2452	SU	/	1	36.996	≥ 0.5	Pass

2.2 Test Graph

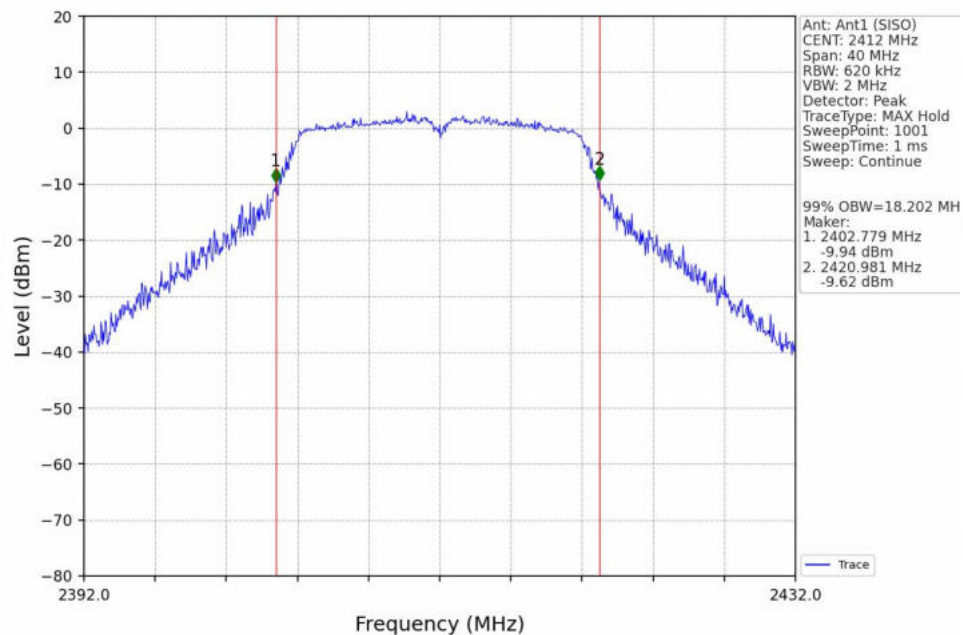
2.2.1 OBW



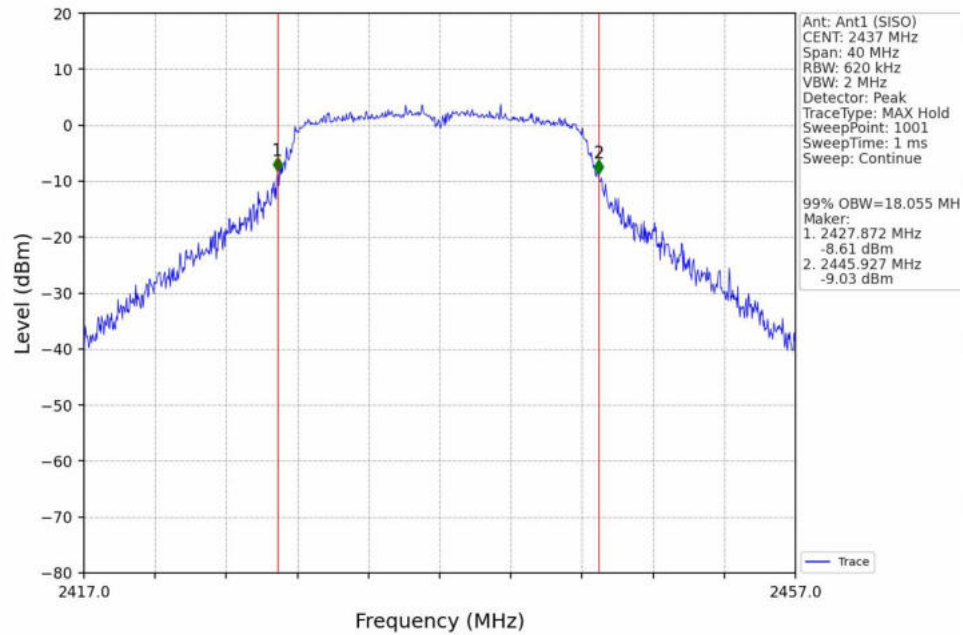
802.11b_HCH_2462MHz_Ant1 (SISO)_NTNV



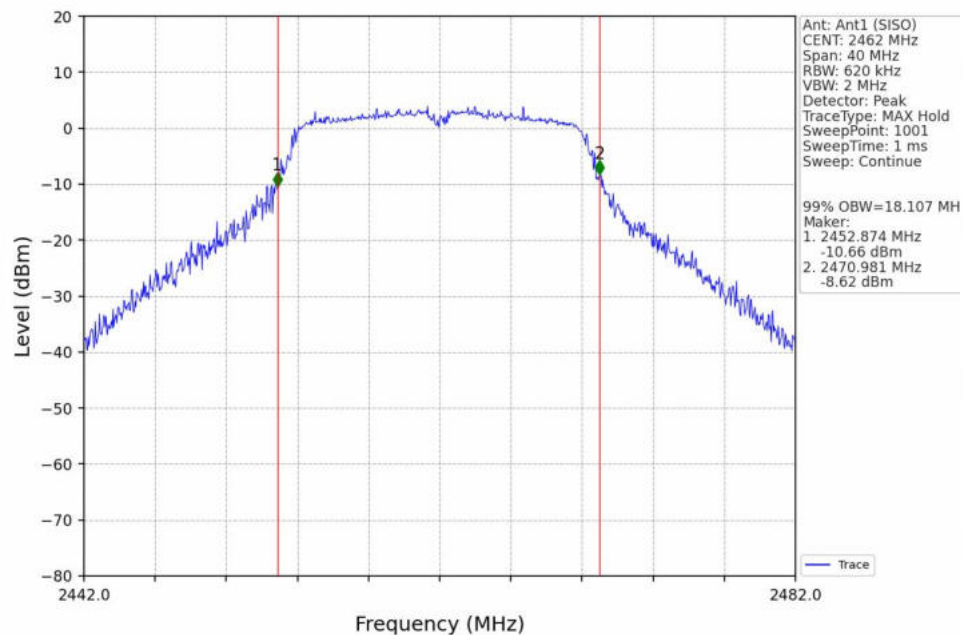
802.11g_LCH_2412MHz_Ant1 (SISO)_NTNV



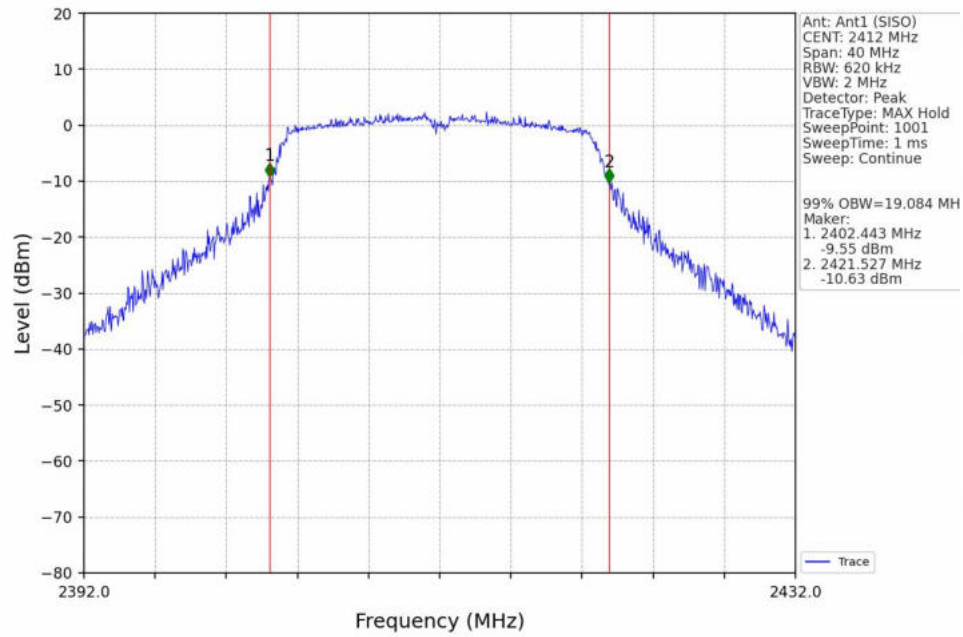
802.11g_MCH_2437MHz_Ant1 (SISO)_NTNV



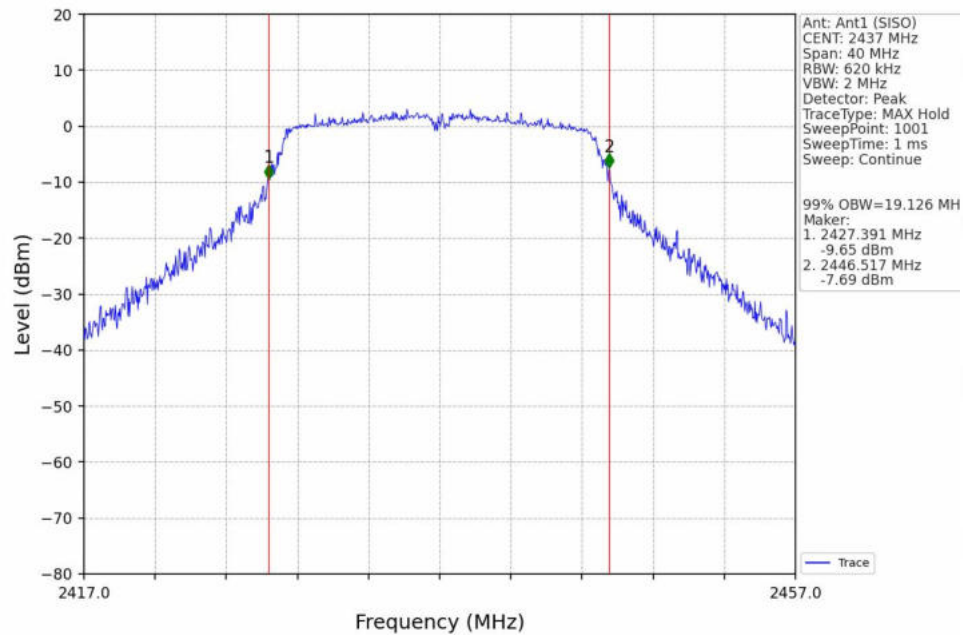
802.11g_HCH_2462MHz_Ant1 (SISO)_NTNV



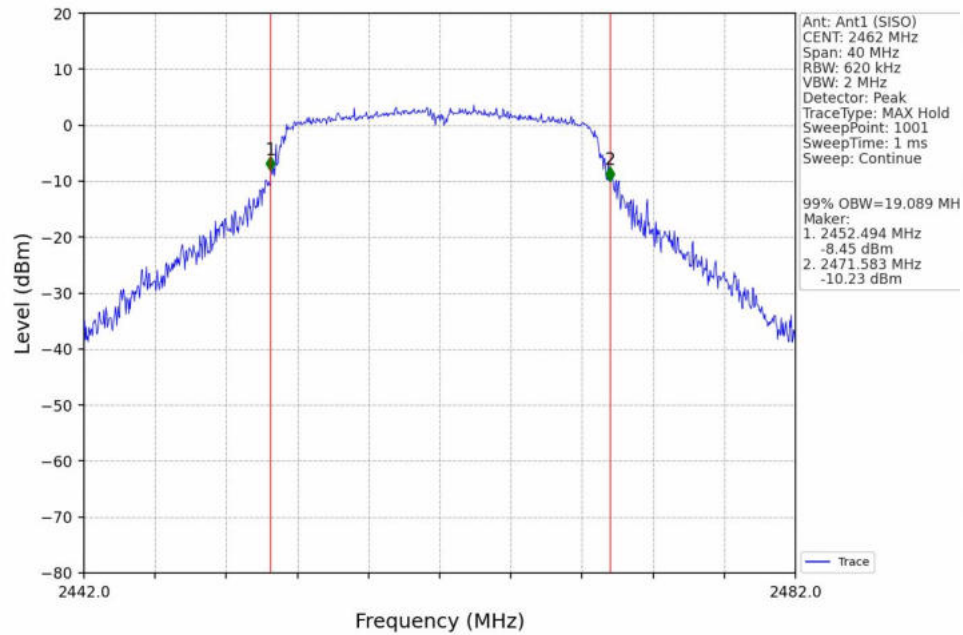
802.11n(HT20)_LCH_2412MHz_Ant1 (SISO)_NTNV



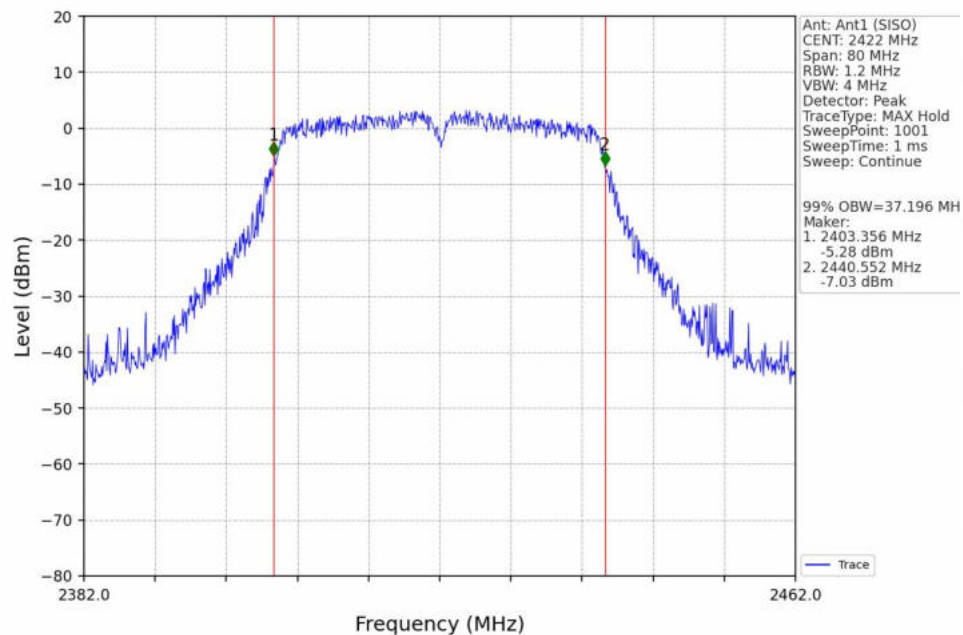
802.11n(HT20)_MCH_2437MHz_Ant1 (SISO)_NTNV



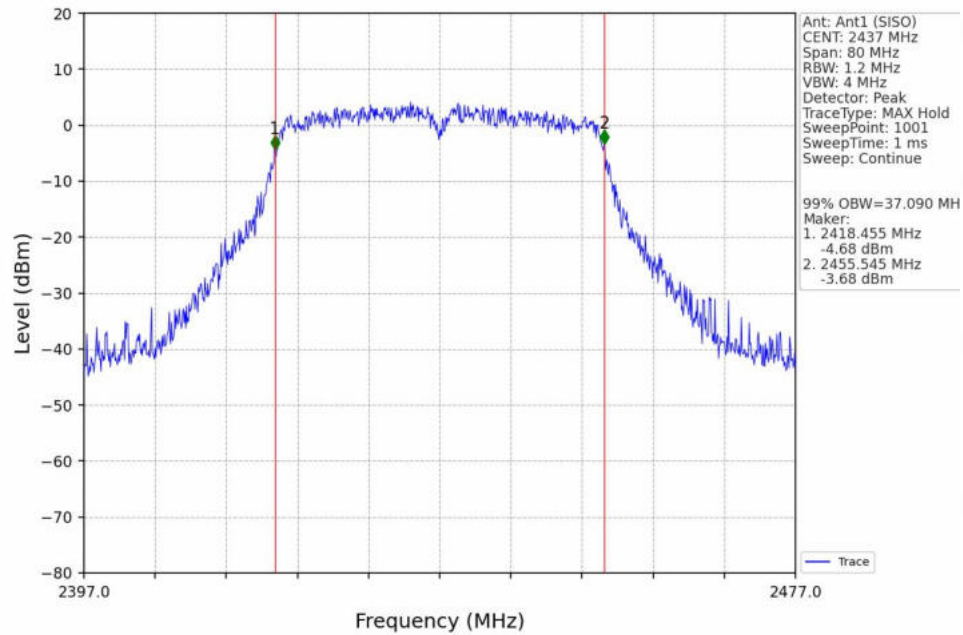
802.11n(HT20)_HCH_2462MHz_Ant1 (SISO)_NTNV



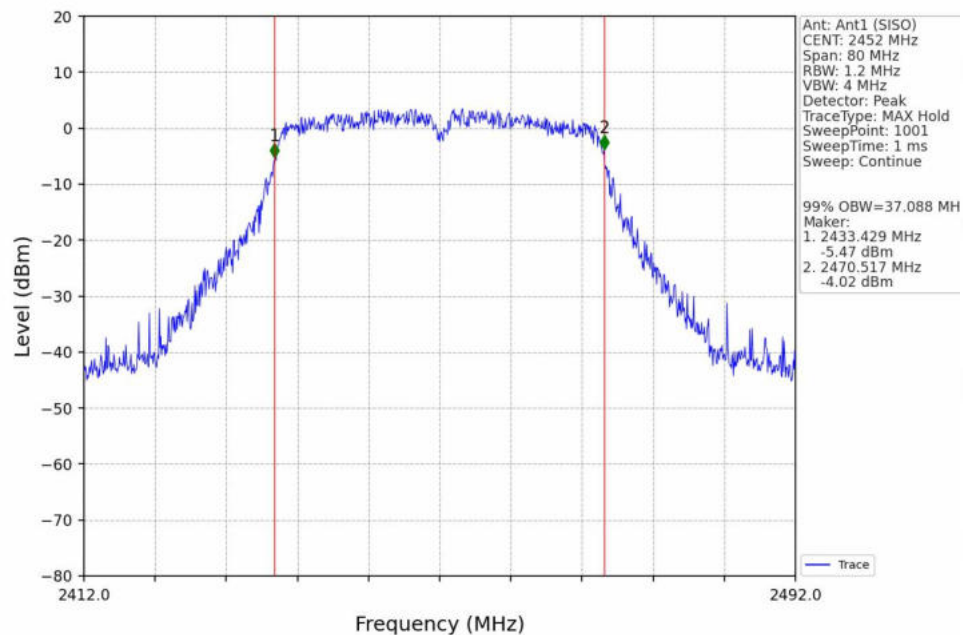
802.11n(HT40)_LCH_2422MHz_Ant1 (SISO)_NTNV



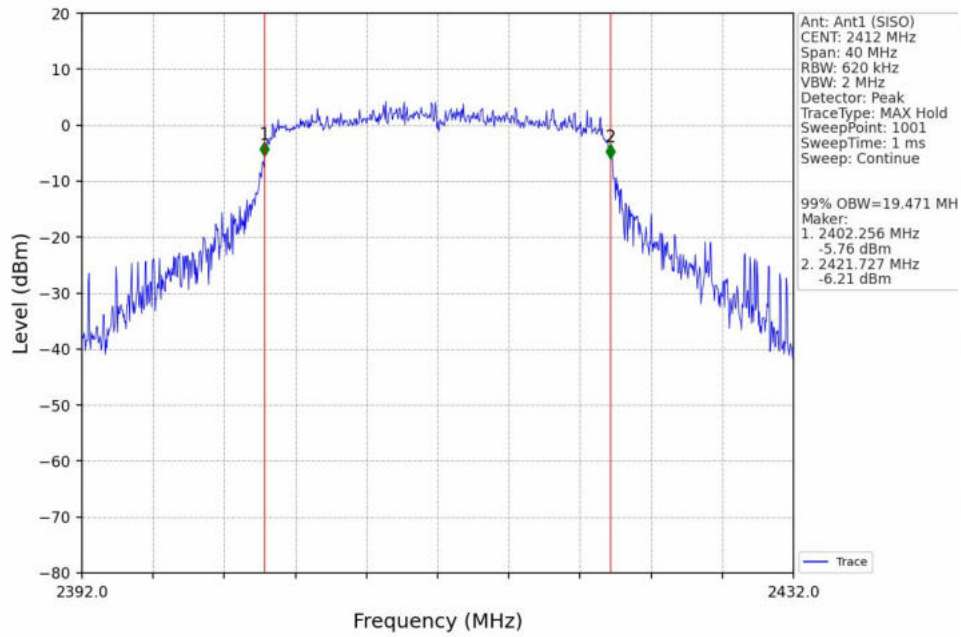
802.11n(HT40)_MCH_2437MHz_Ant1 (SISO)_NTNV



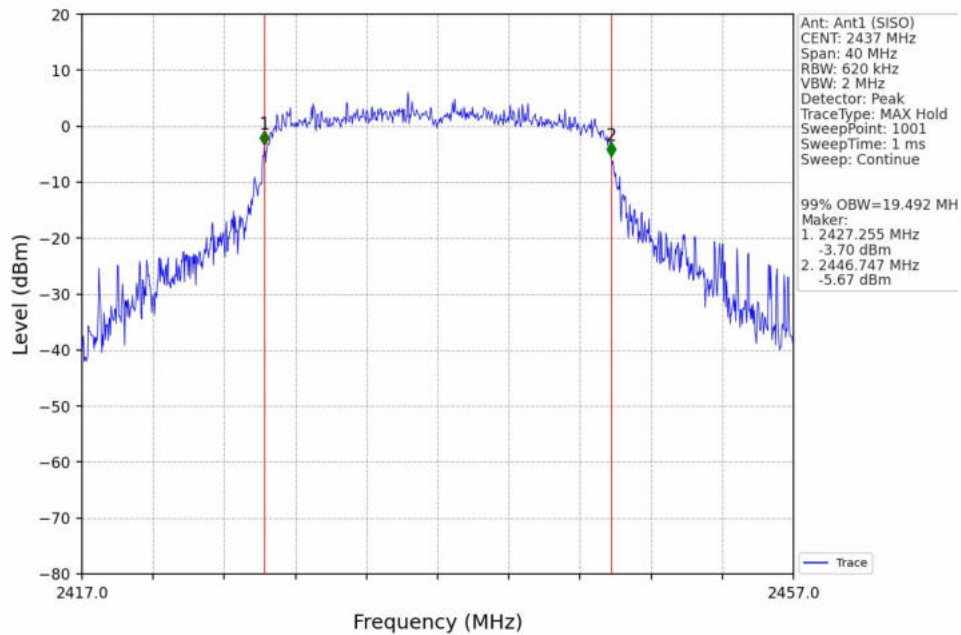
802.11n(HT40)_HCH_2452MHz_Ant1 (SISO)_NTNV



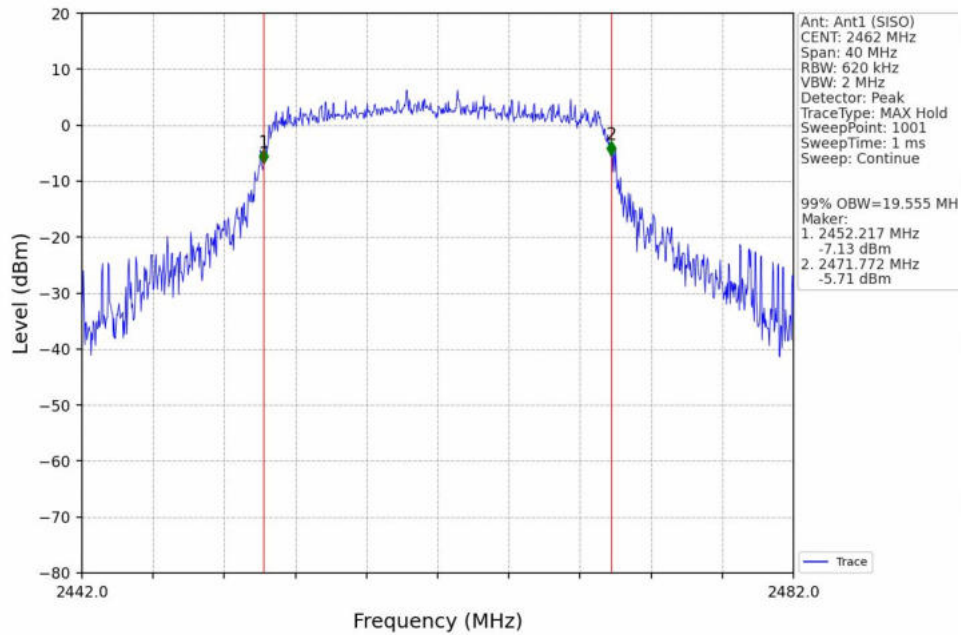
802.11ax(HEW20)_LCH_2412MHz_SU_/_Ant1 (SISO)_NTNV



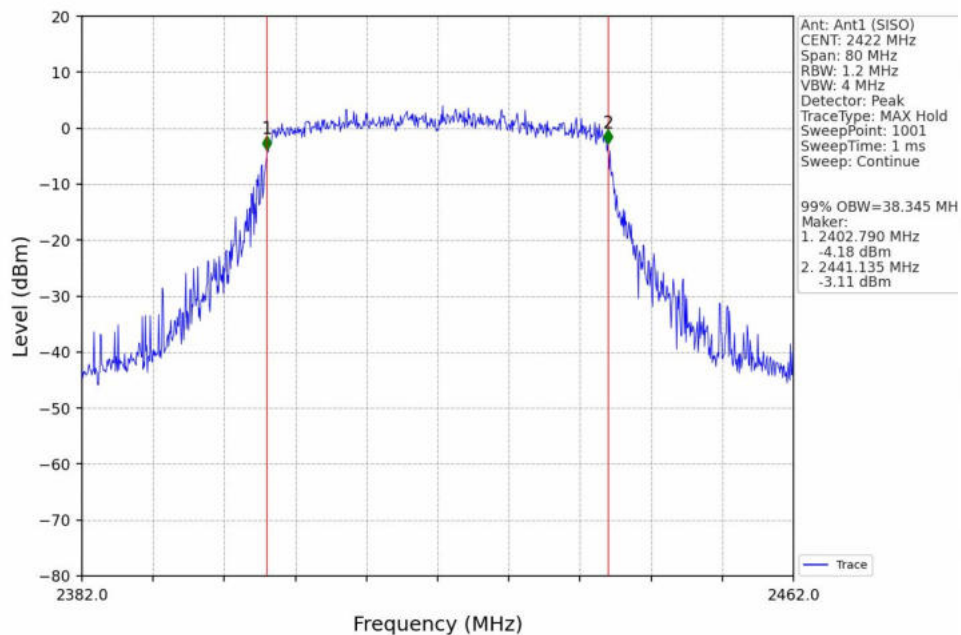
802.11ax(HEW20)_MCH_2437MHz_SU_/_Ant1 (SISO)_NTNV



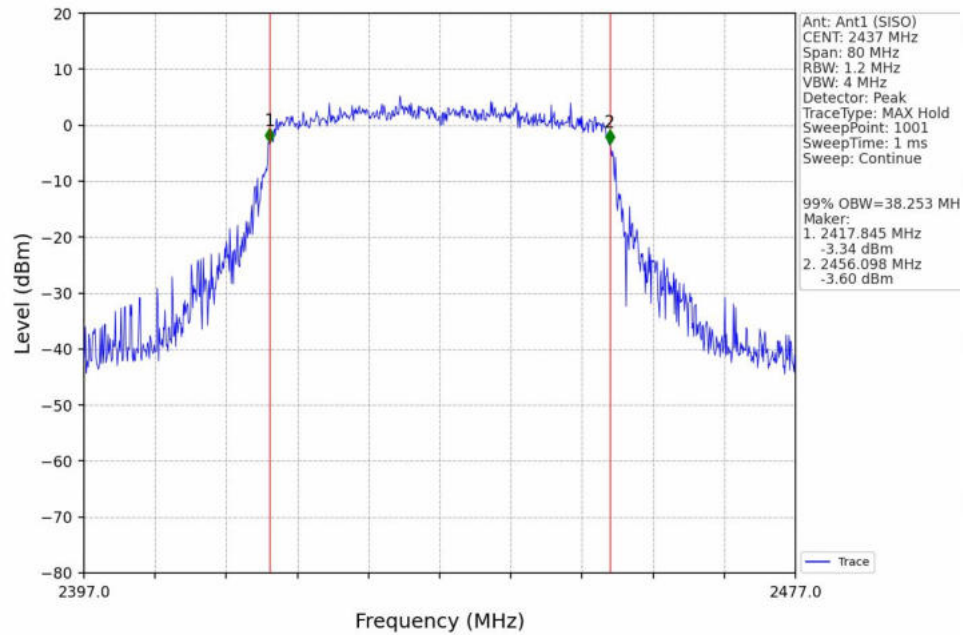
802.11ax(HEW20)_HCH_2462MHz_SU_/_Ant1(SISO)_NTNV



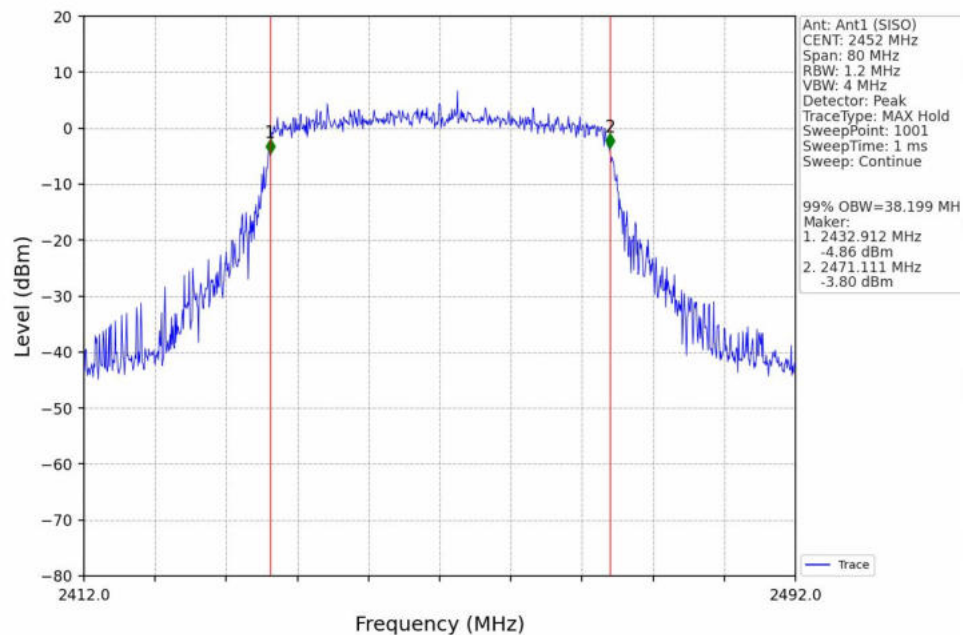
802.11ax(HEW40)_LCH_2422MHz_SU_/_Ant1(SISO)_NTNV



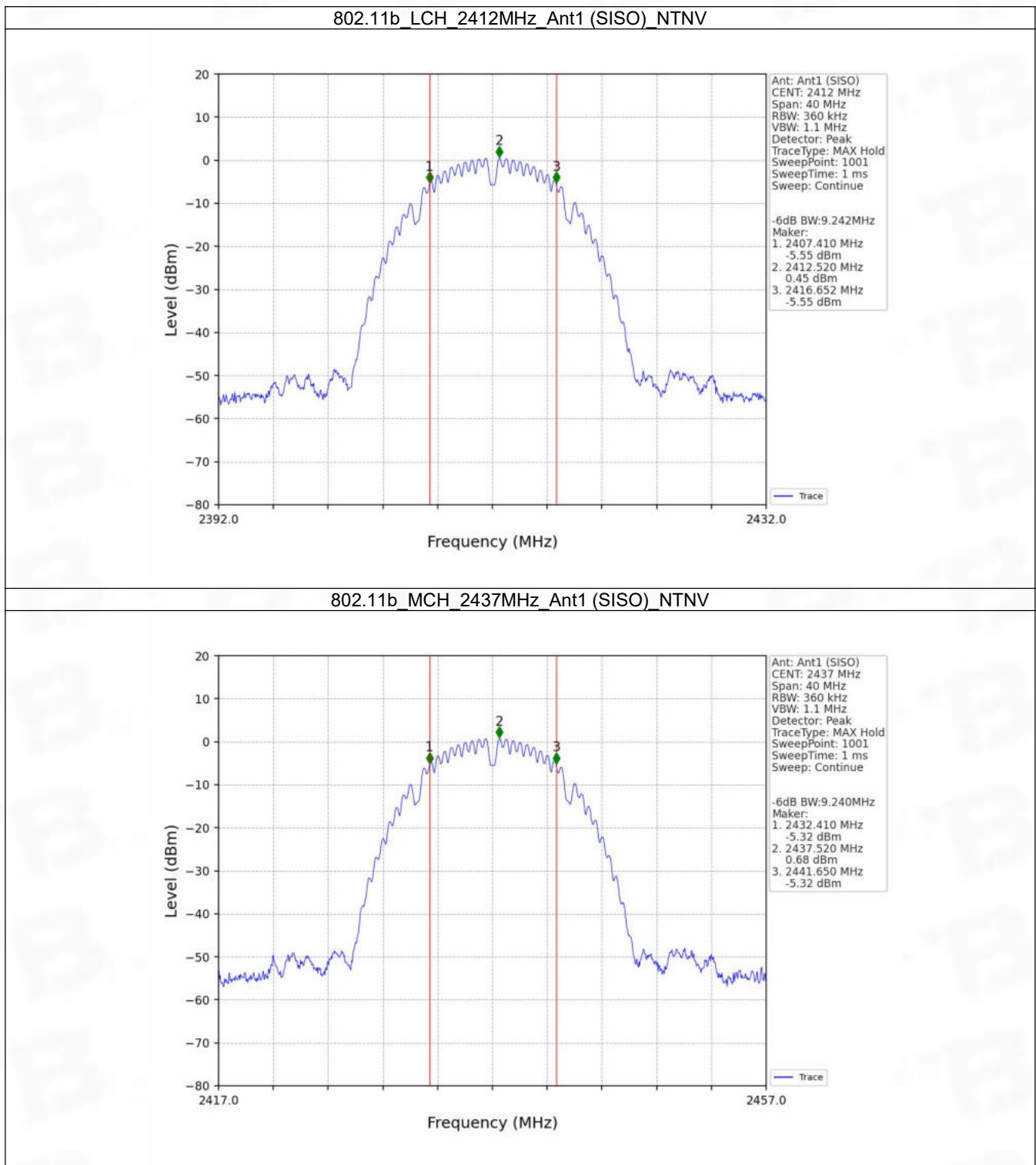
802.11ax(HEW40) MCH_2437MHz_SU / _Ant1 (SISO)_NTNV



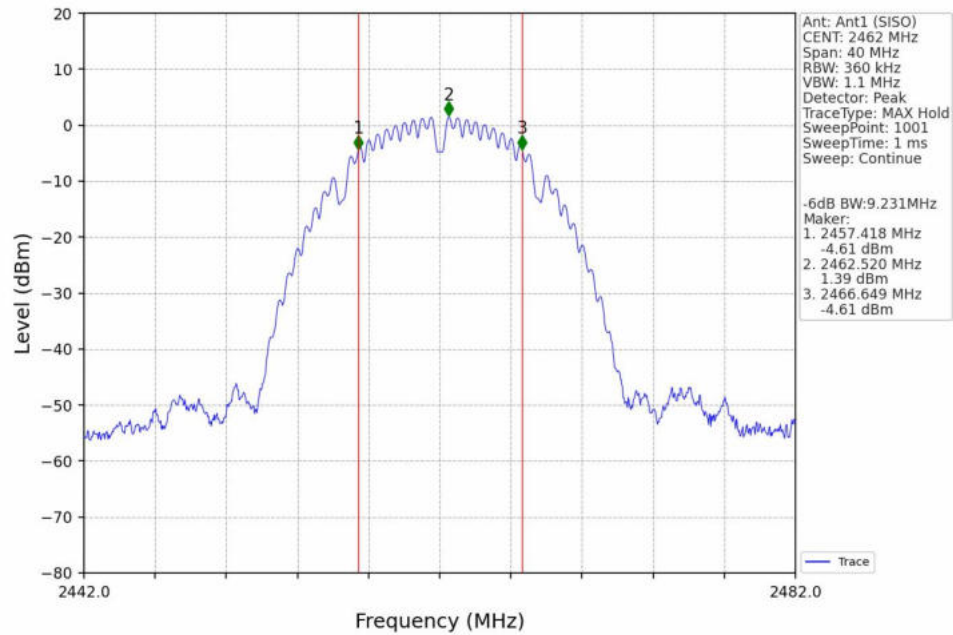
802.11ax(HEW40) HCH_2452MHz_SU / _Ant1 (SISO)_NTNV



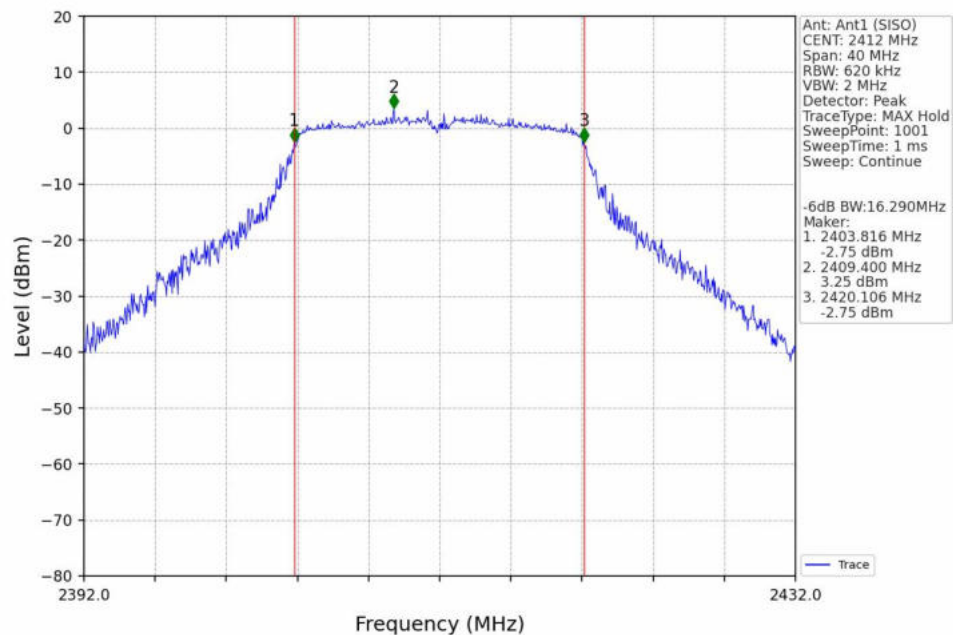
2.2.2 6dB BW



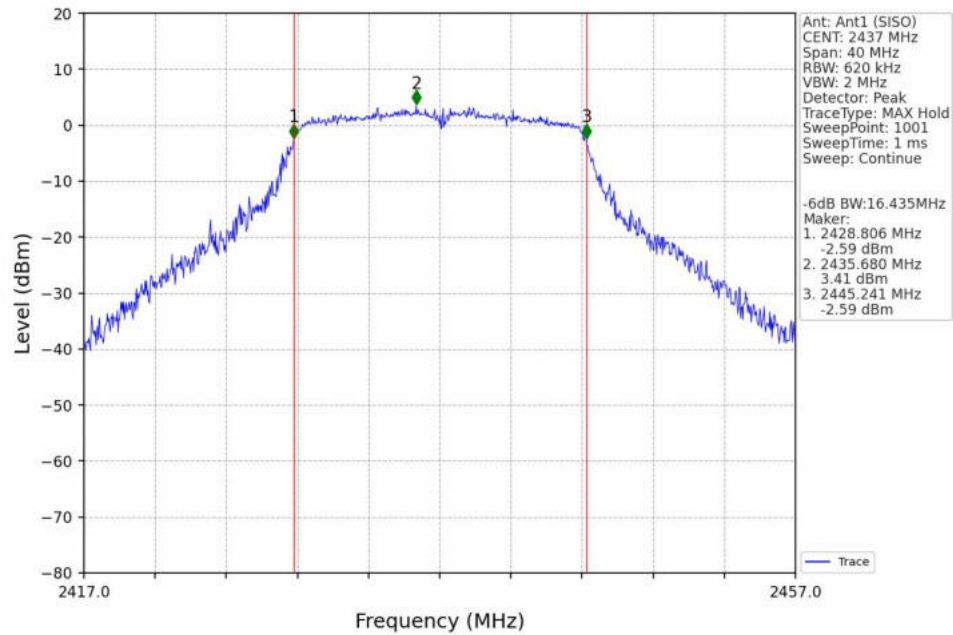
802.11b_HCH_2462MHz_Ant1 (SISO)_NTNV



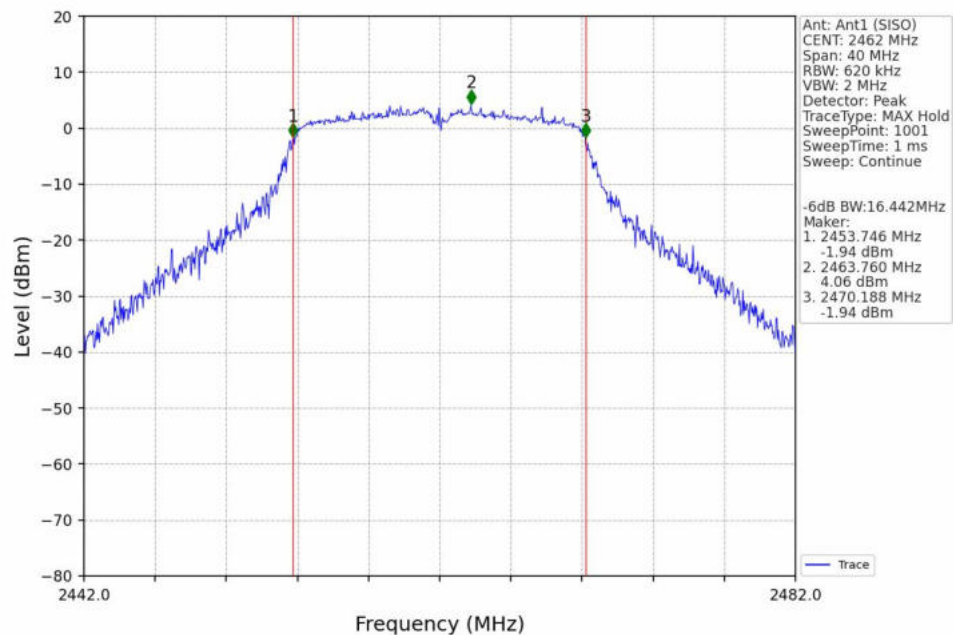
802.11g_LCH_2412MHz_Ant1 (SISO)_NTNV



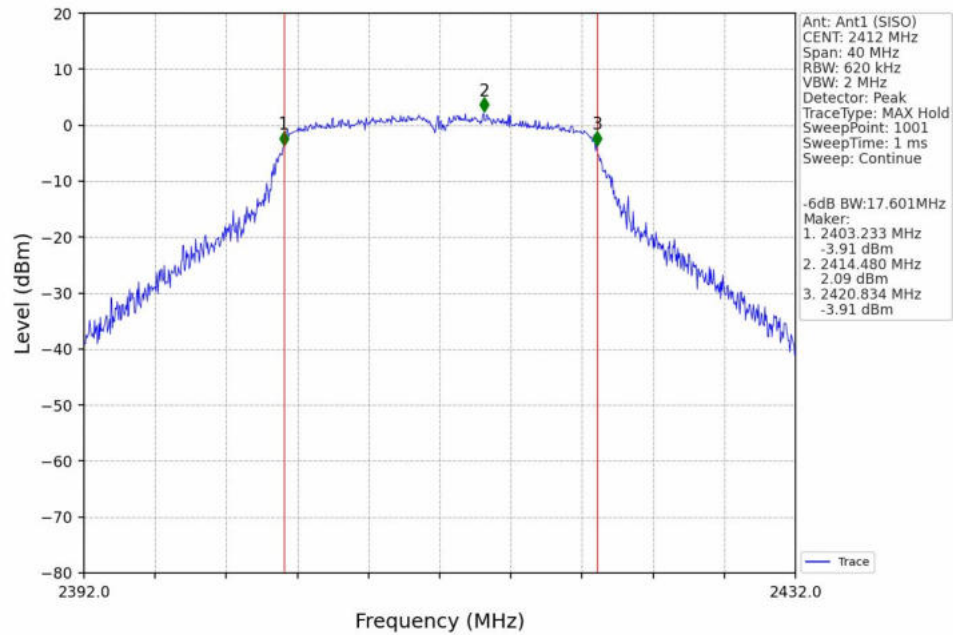
802.11g_MCH_2437MHz_Ant1 (SISO)_NTNV



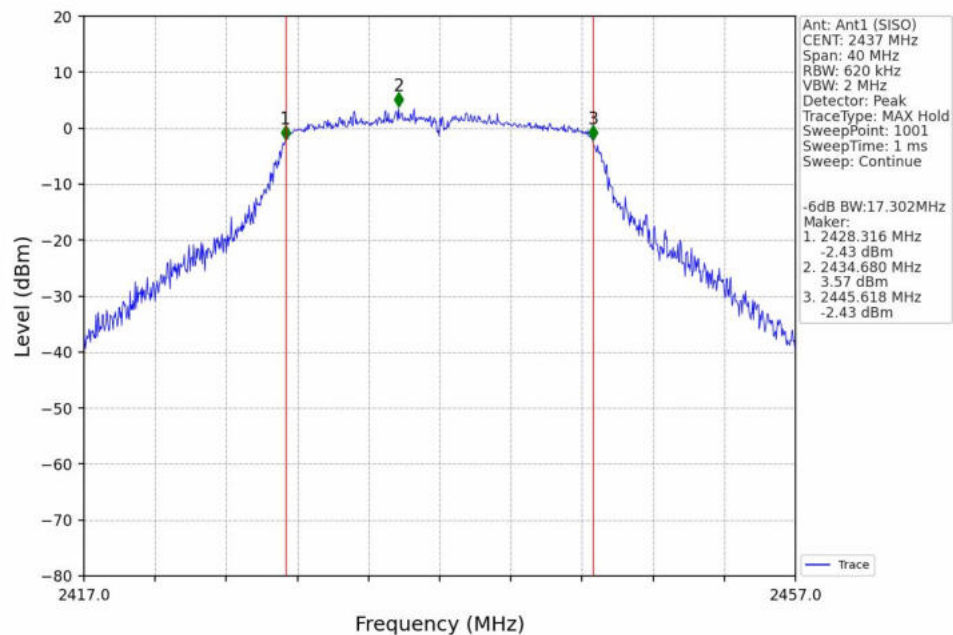
802.11g_HCH_2462MHz_Ant1 (SISO)_NTNV



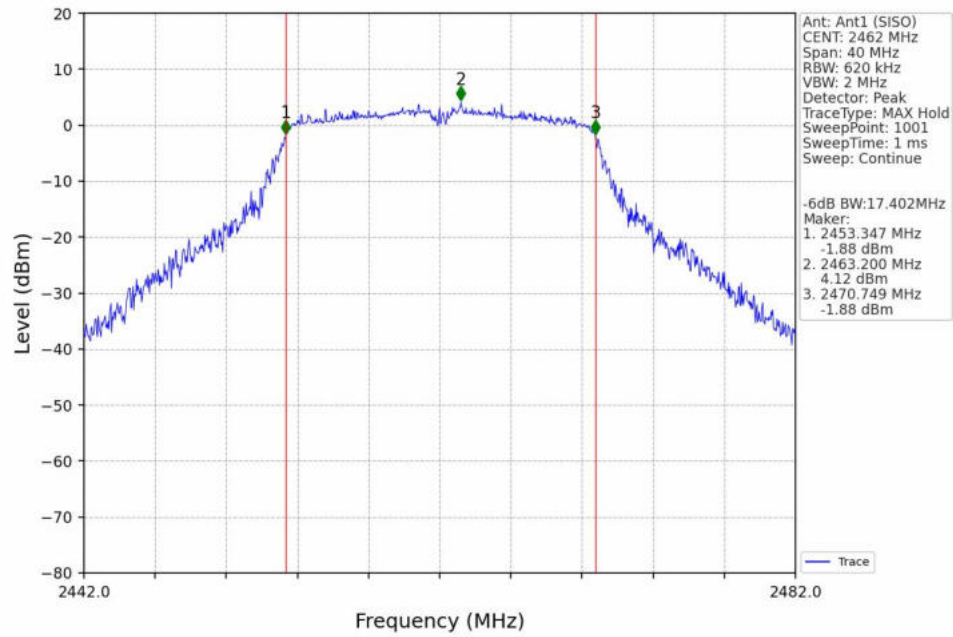
802.11n(HT20)_LCH_2412MHz_Ant1 (SISO)_NTNV



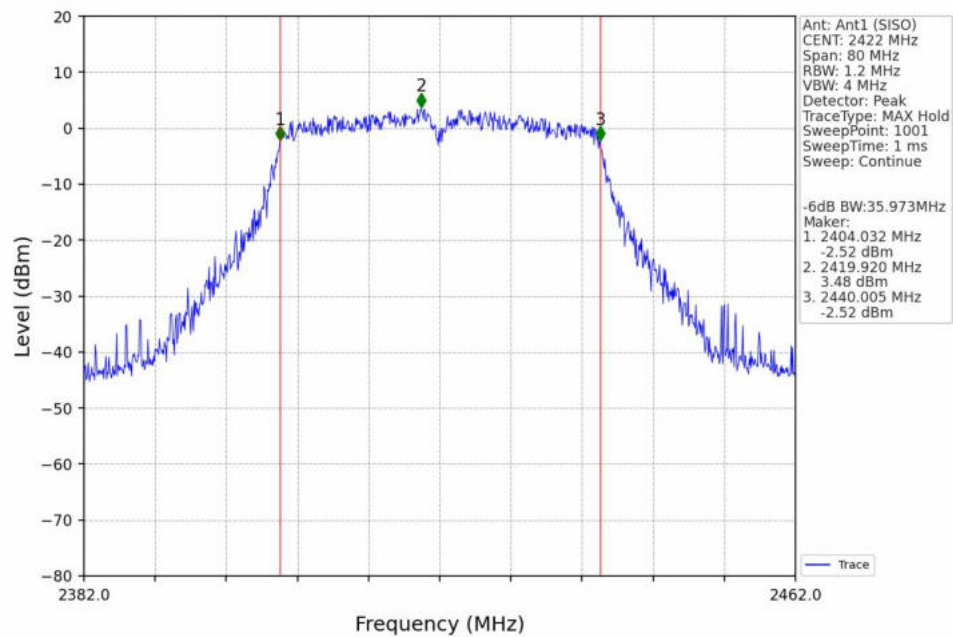
802.11n(HT20)_MCH_2437MHz_Ant1 (SISO)_NTNV



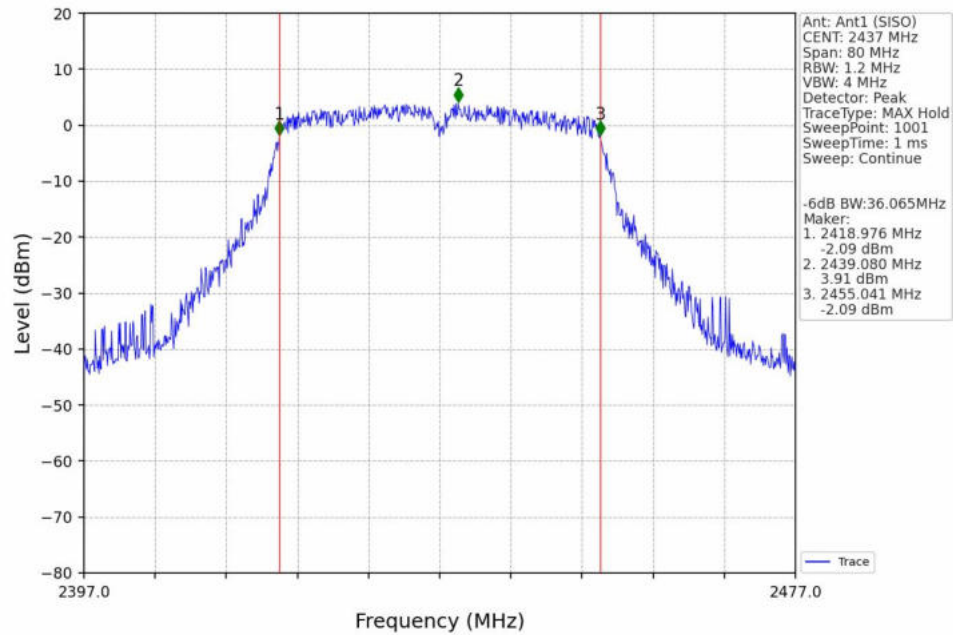
802.11n(HT20)_HCH_2462MHz_Ant1 (SISO)_NTNV



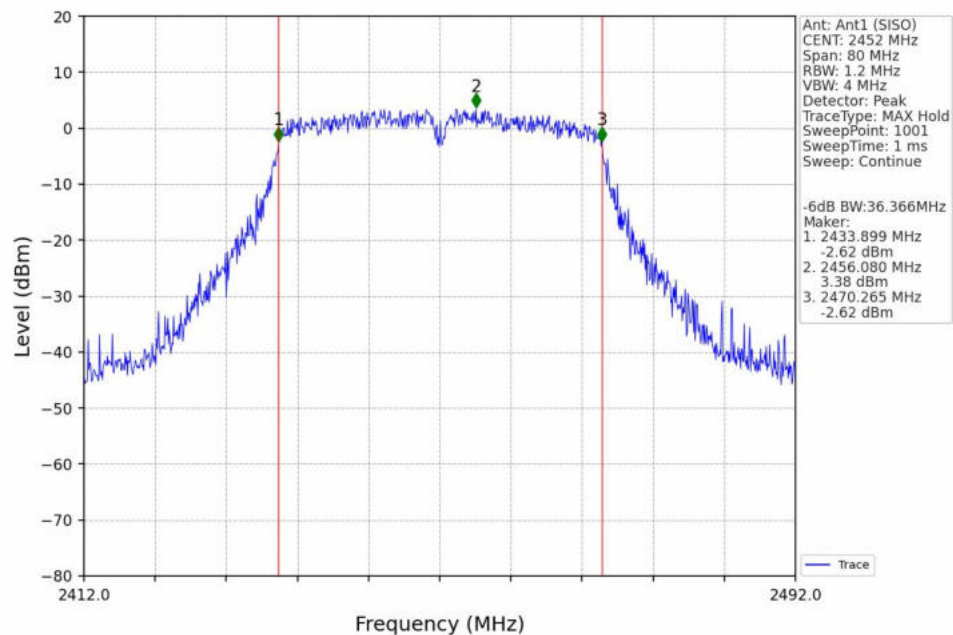
802.11n(HT40)_LCH_2422MHz_Ant1 (SISO)_NTNV



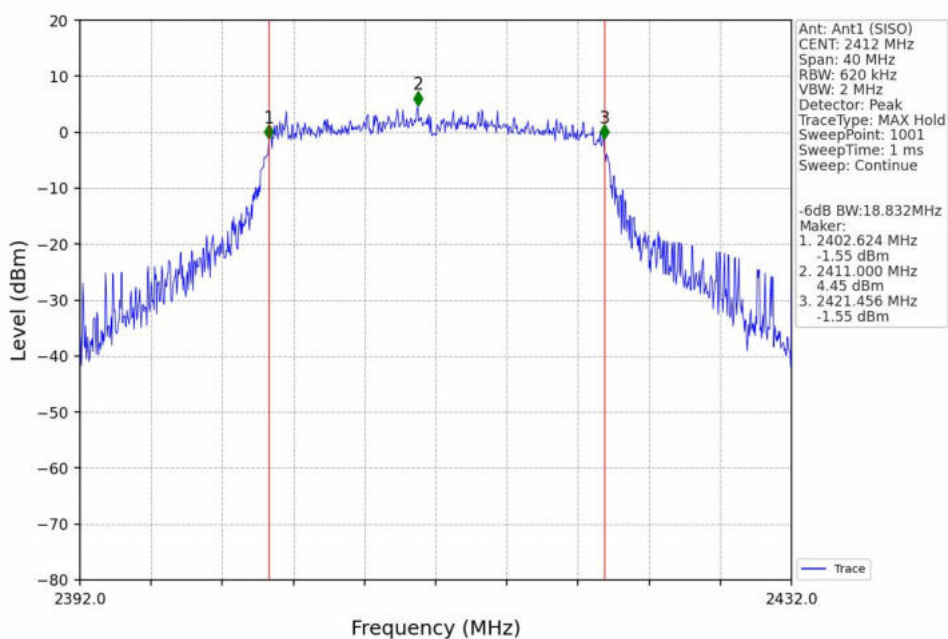
802.11n(HT40)_MCH_2437MHz_Ant1 (SISO)_NTNV



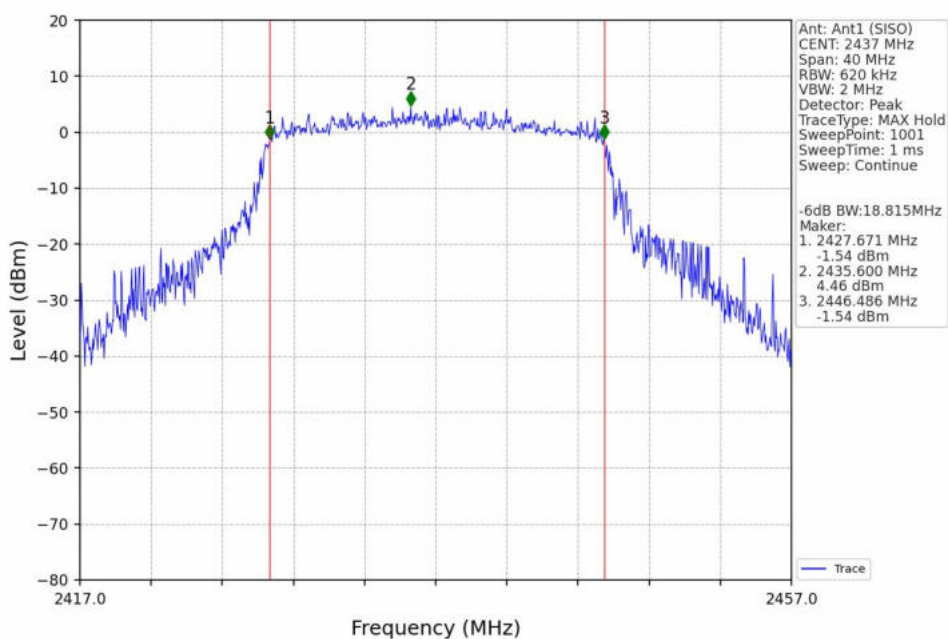
802.11n(HT40)_HCH_2452MHz_Ant1 (SISO)_NTNV



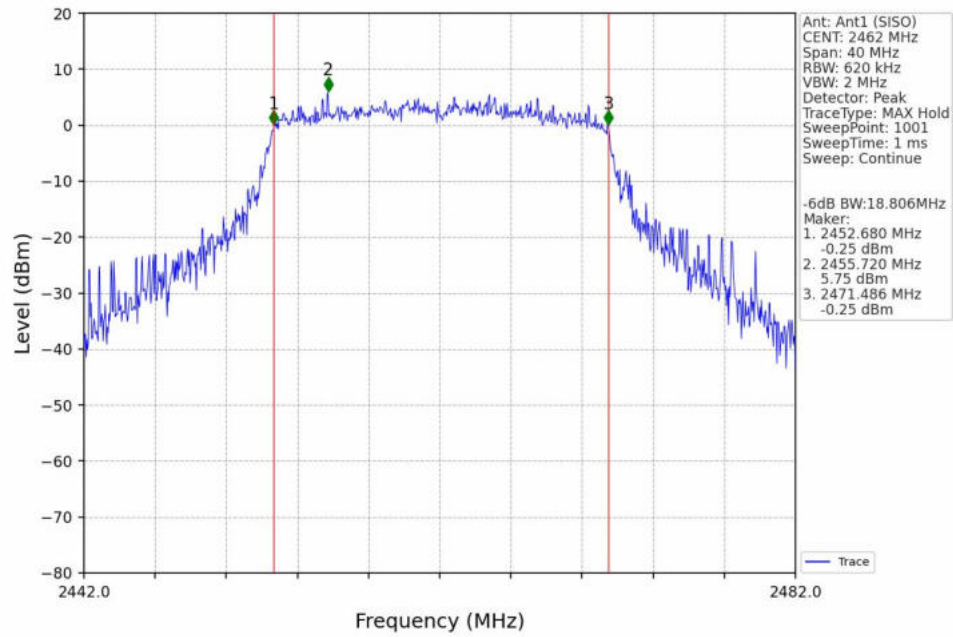
802.11ax(HEW20)_LCH_2412MHz_SU_/_Ant1 (SISO)_NTNV



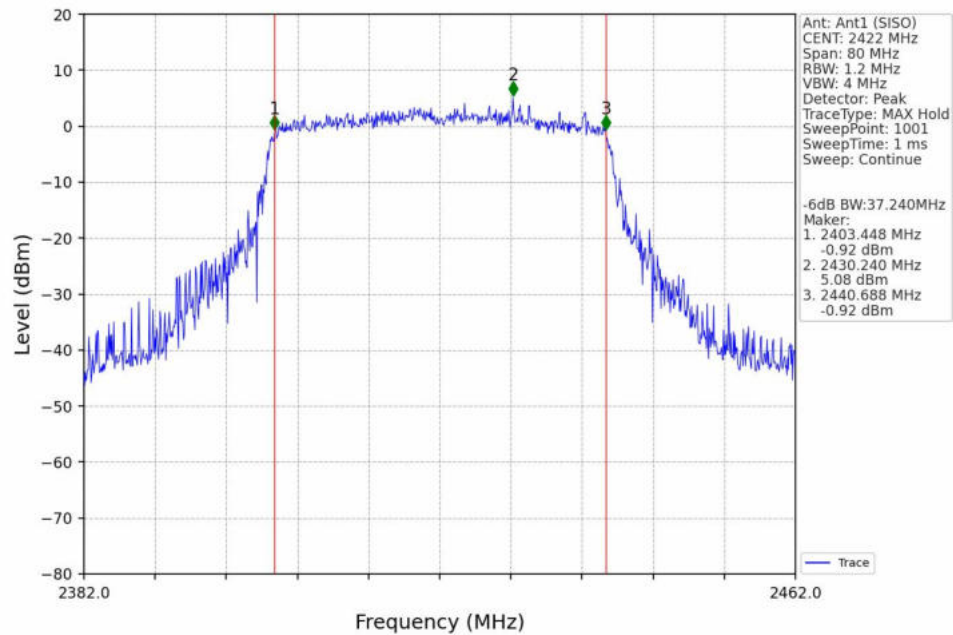
802.11ax(HEW20)_MCH_2437MHz_SU_/_Ant1 (SISO)_NTNV



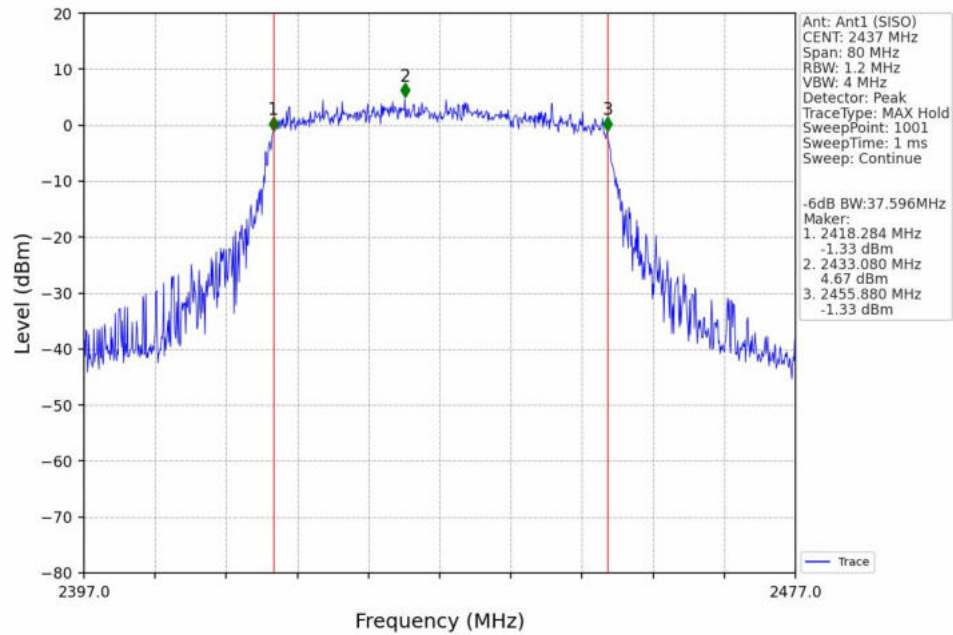
802.11ax(HEW20)_HCH_2462MHz_SU_/_Ant1 (SISO)_NTNV



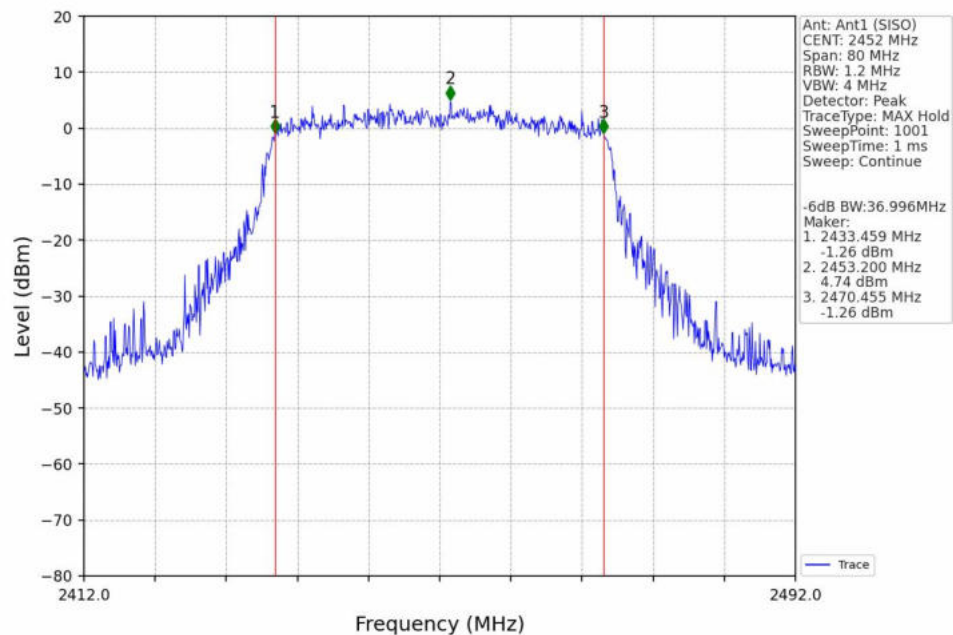
802.11ax(HEW40)_LCH_2422MHz_SU_/_Ant1 (SISO)_NTNV



802.11ax(HEW40) MCH_2437MHz_SU / _Ant1 (SISO)_NTNV



802.11ax(HEW40) HCH_2452MHz_SU / _Ant1 (SISO)_NTNV



3. Maximum Conducted Output Power

3.1 Test Result

Mode	TX Type	Frequency (MHz)	RU	RU Pos	Maximum Peak Conducted Output Power (dBm)		Verdict
					ANT1	Limit	
802.11b	SISO	2412	/	/	11.13	<=30	Pass
		2437	/	/	11.38	<=30	Pass
		2462	/	/	12.06	<=30	Pass
802.11g	SISO	2412	/	/	15.59	<=30	Pass
		2437	/	/	16.16	<=30	Pass
		2462	/	/	16.85	<=30	Pass
802.11n (HT20)	SISO	2412	/	/	15.45	<=30	Pass
		2437	/	/	15.95	<=30	Pass
		2462	/	/	16.73	<=30	Pass
802.11n (HT40)	SISO	2422	/	/	15.02	<=30	Pass
		2437	/	/	15.67	<=30	Pass
		2452	/	/	15.31	<=30	Pass
802.11ax (HEW20)	SISO	2412	SU	/	16.85	<=30	Pass
		2437	SU	/	16.42	<=30	Pass
		2462	SU	/	17.09	<=30	Pass
802.11ax (HEW40)	SISO	2422	SU	/	15.17	<=30	Pass
		2437	SU	/	16.23	<=30	Pass
		2452	SU	/	15.58	<=30	Pass

Note1: Antenna Gain: Ant1: 2.76dBi;

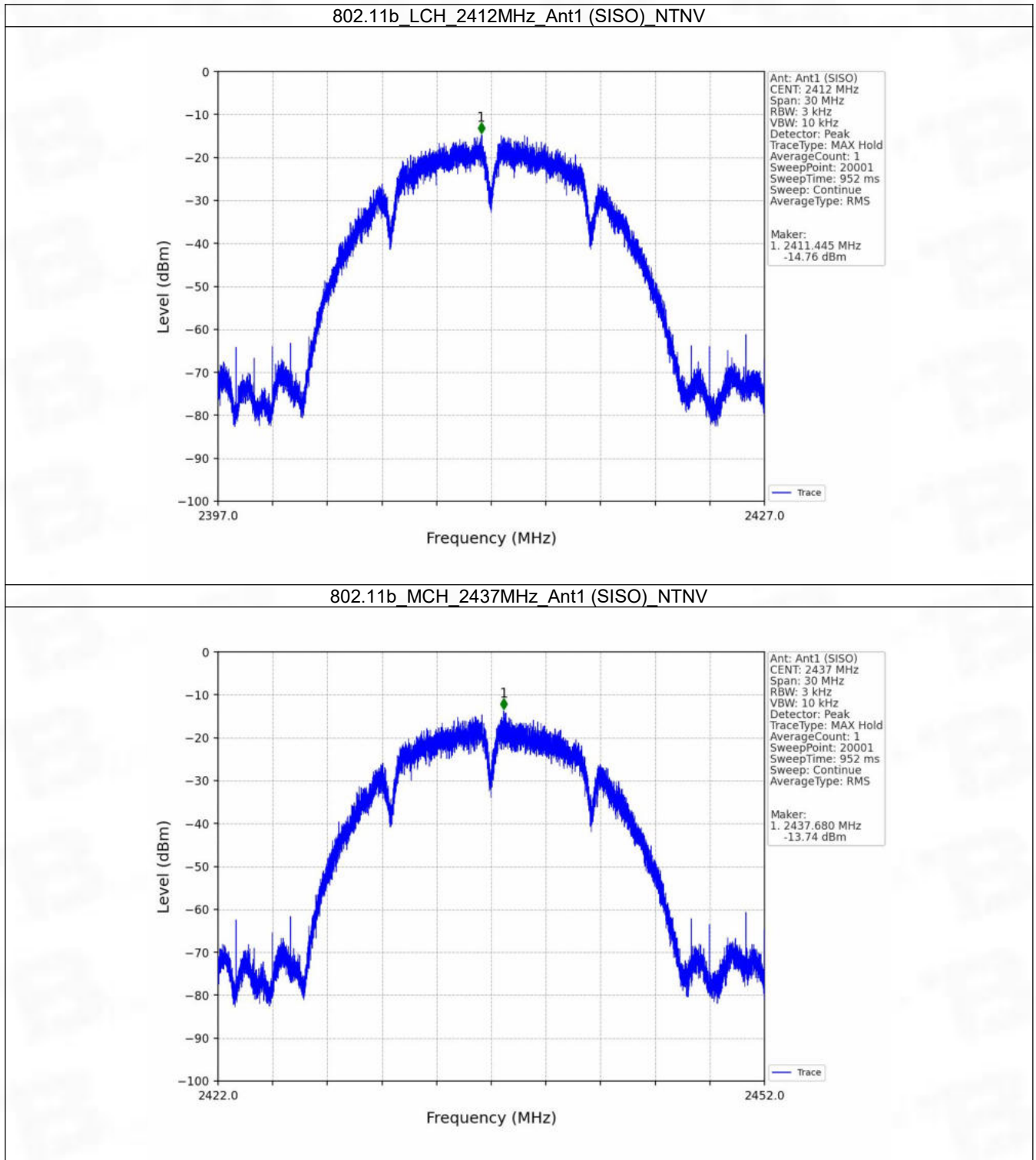
4. Maximum Power Spectral Density

4.1 Test Result

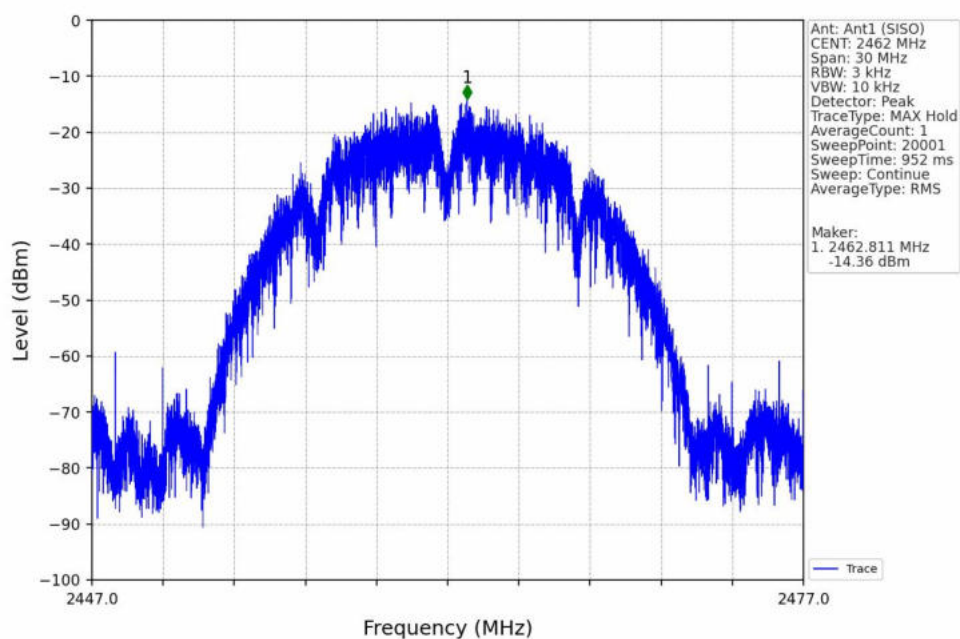
Mode	TX Type	Frequency (MHz)	RU	RU Pos	Maximum PSD (dBm)		Verdict
					ANT1	Limit	
802.11b	SISO	2412	/	/	-14.76	<=8	Pass
		2437	/	/	-13.74	<=8	Pass
		2462	/	/	-14.36	<=8	Pass
802.11g	SISO	2412	/	/	-16.72	<=8	Pass
		2437	/	/	-15.75	<=8	Pass
		2462	/	/	-16.10	<=8	Pass
802.11n (HT20)	SISO	2412	/	/	-16.16	<=8	Pass
		2437	/	/	-16.52	<=8	Pass
		2462	/	/	-15.88	<=8	Pass
802.11n (HT40)	SISO	2422	/	/	-20.56	<=8	Pass
		2437	/	/	-20.31	<=8	Pass
		2452	/	/	-19.80	<=8	Pass
802.11ax (HEW20)	SISO	2412	SU	/	-18.07	<=8	Pass
		2437	SU	/	-17.30	<=8	Pass
		2462	SU	/	-17.17	<=8	Pass
802.11ax (HEW40)	SISO	2422	SU	/	-21.24	<=8	Pass
		2437	SU	/	-19.96	<=8	Pass
		2452	SU	/	-19.46	<=8	Pass

Note1: Antenna Gain: Ant1: 2.76dBi;

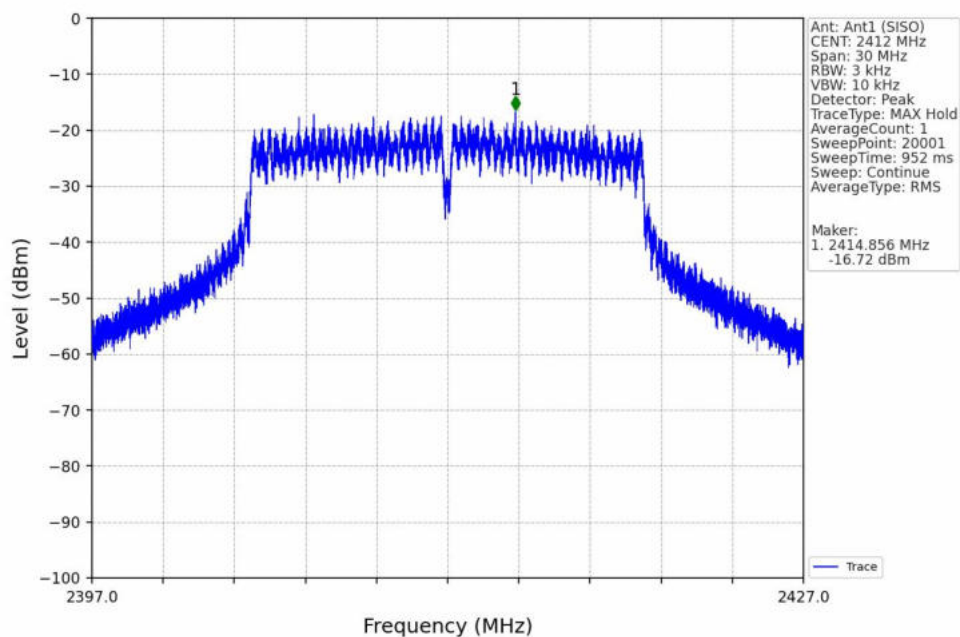
4.2 Test Graph



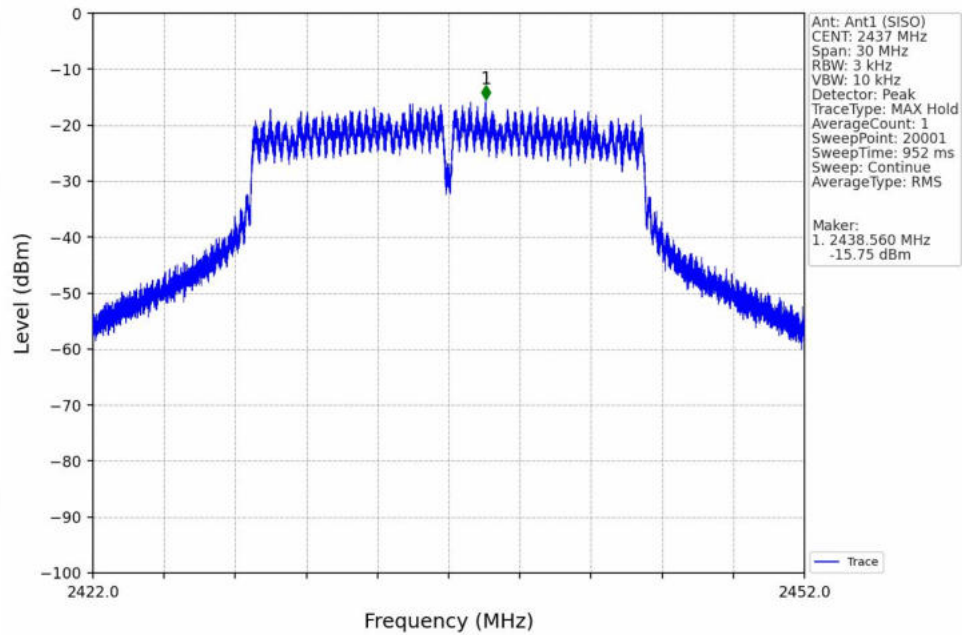
802.11b_HCH_2462MHz_Ant1 (SISO)_NTNV



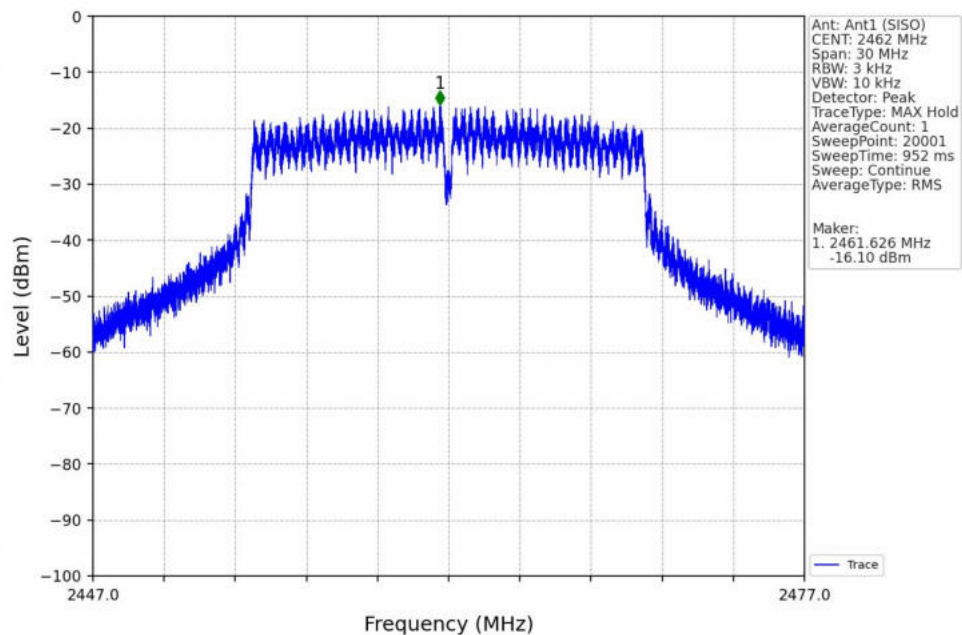
802.11g_LCH_2412MHz_Ant1 (SISO)_NTNV



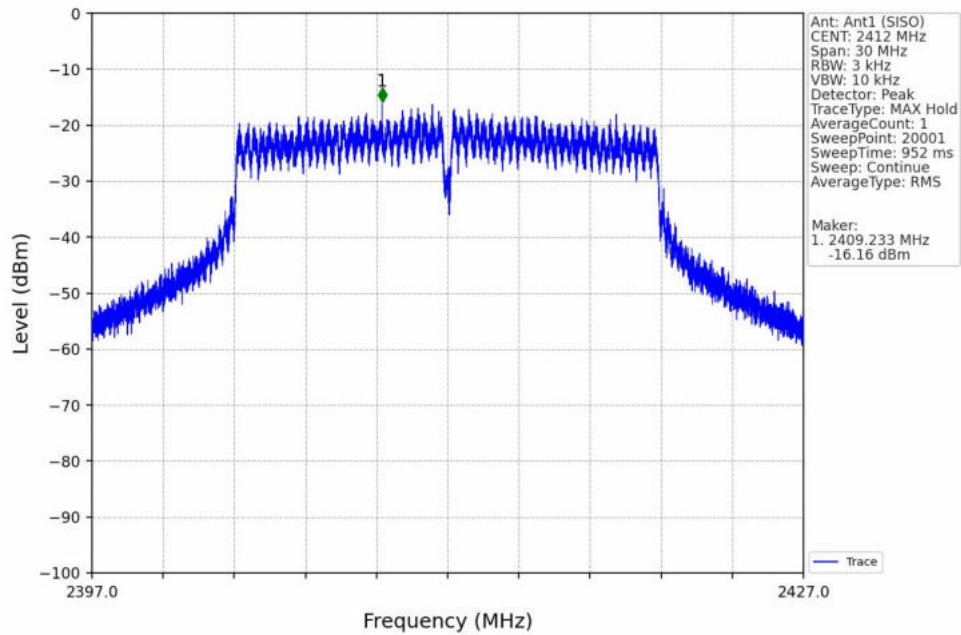
802.11g_MCH_2437MHz_Ant1 (SISO)_NTNV



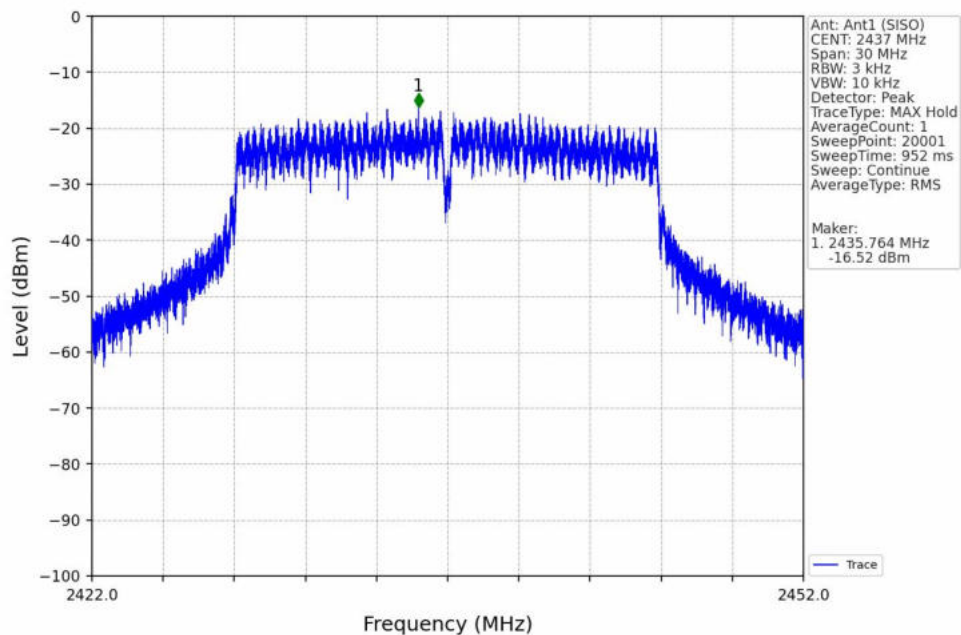
802.11g_HCH_2462MHz_Ant1 (SISO)_NTNV



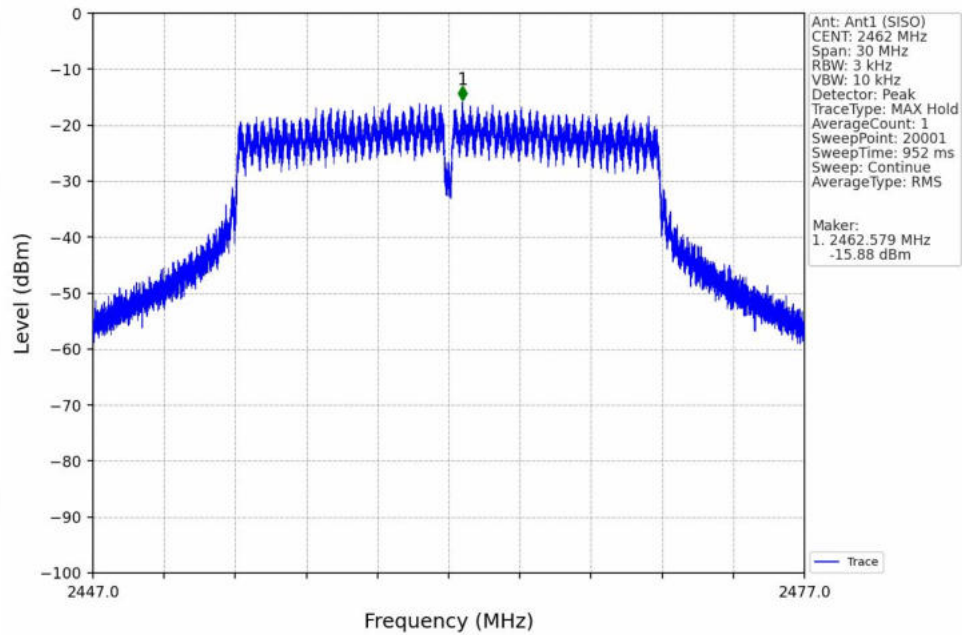
802.11n(HT20)_LCH_2412MHz_Ant1 (SISO)_NTNV



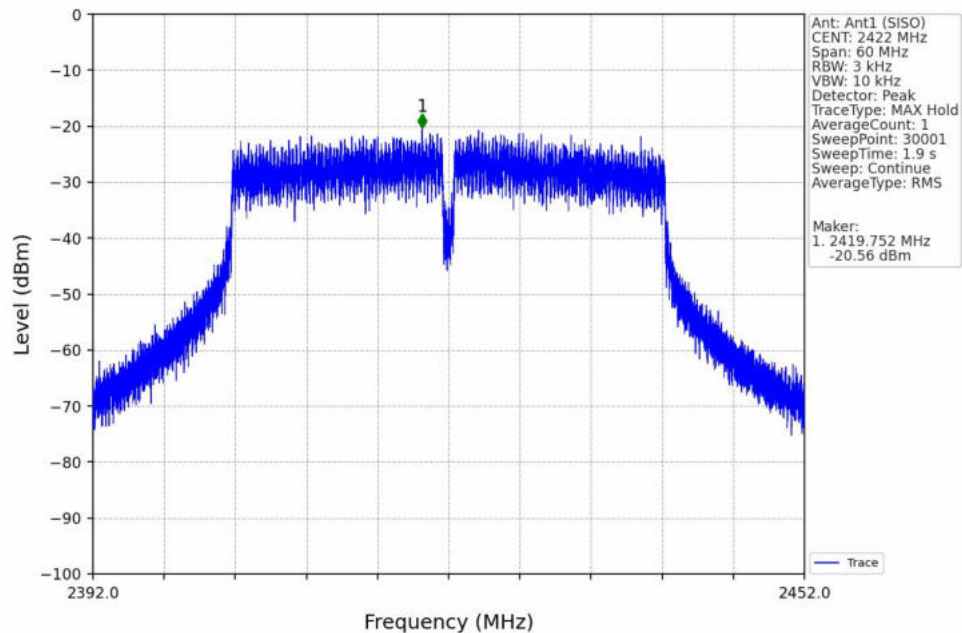
802.11n(HT20)_MCH_2437MHz_Ant1 (SISO)_NTNV



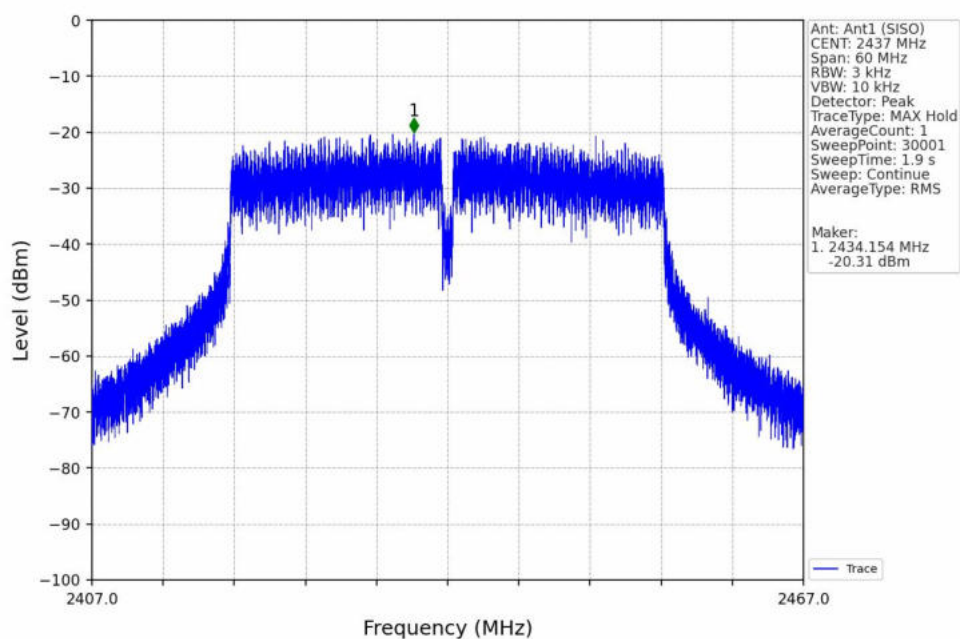
802.11n(HT20)_HCH_2462MHz_Ant1 (SISO)_NTNV



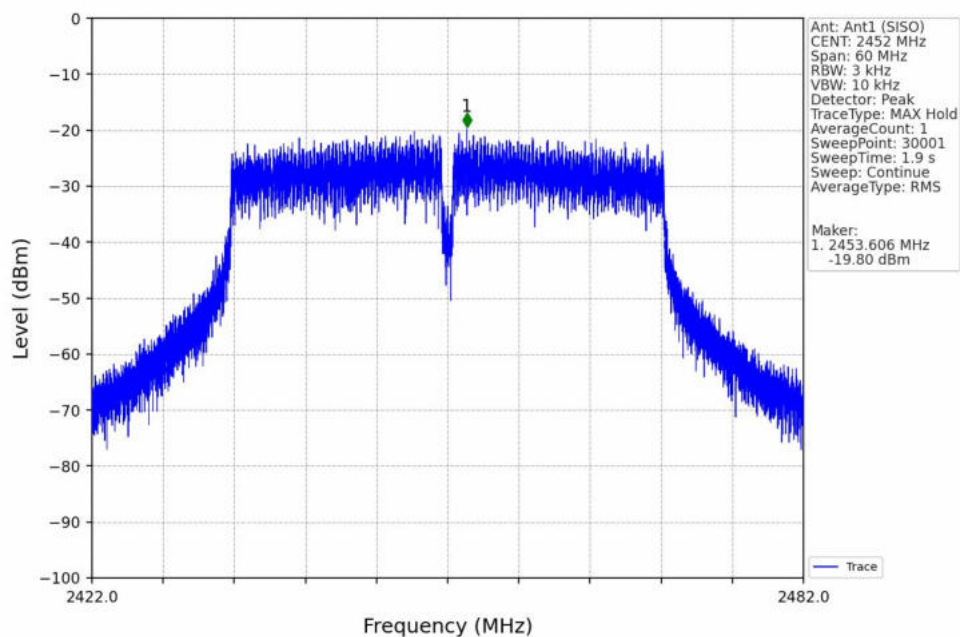
802.11n(HT40)_LCH_2422MHz_Ant1 (SISO)_NTNV



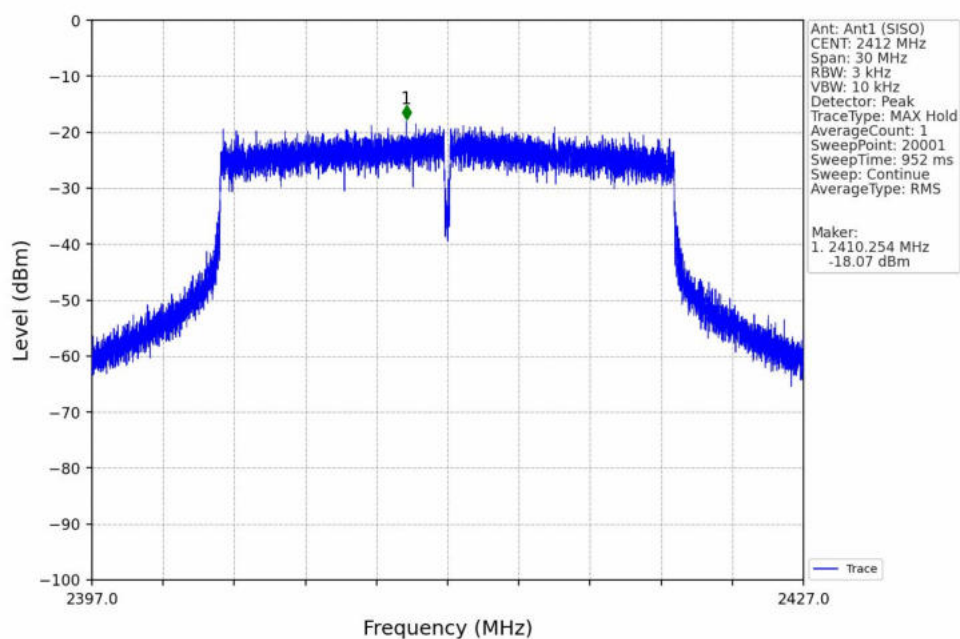
802.11n(HT40)_MCH_2437MHz_Ant1 (SISO)_NTNV



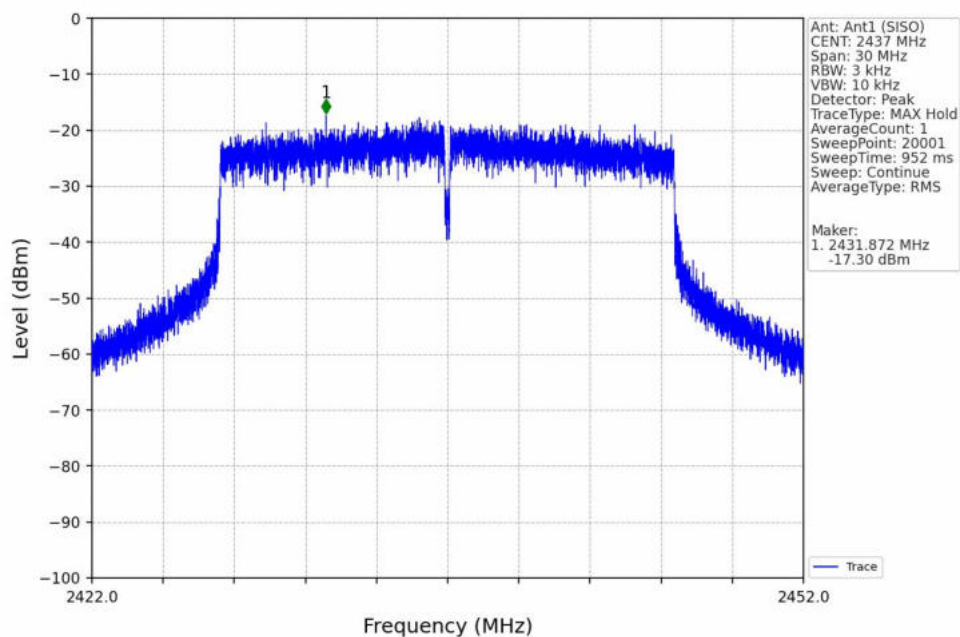
802.11n(HT40)_HCH_2452MHz_Ant1 (SISO)_NTNV



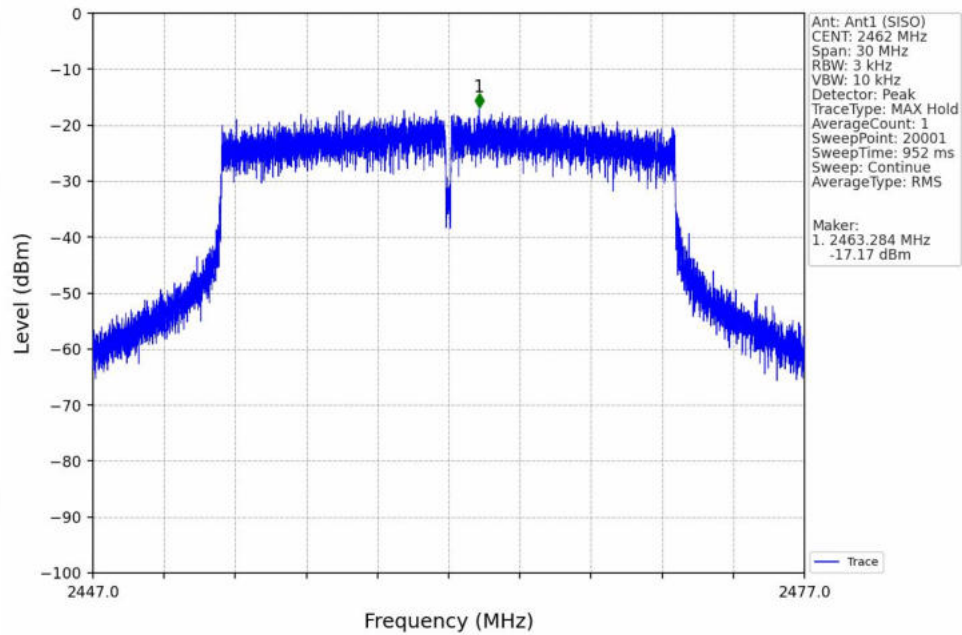
802.11ax(HEW20)_LCH_2412MHz_SU_/_Ant1 (SISO)_NTNV



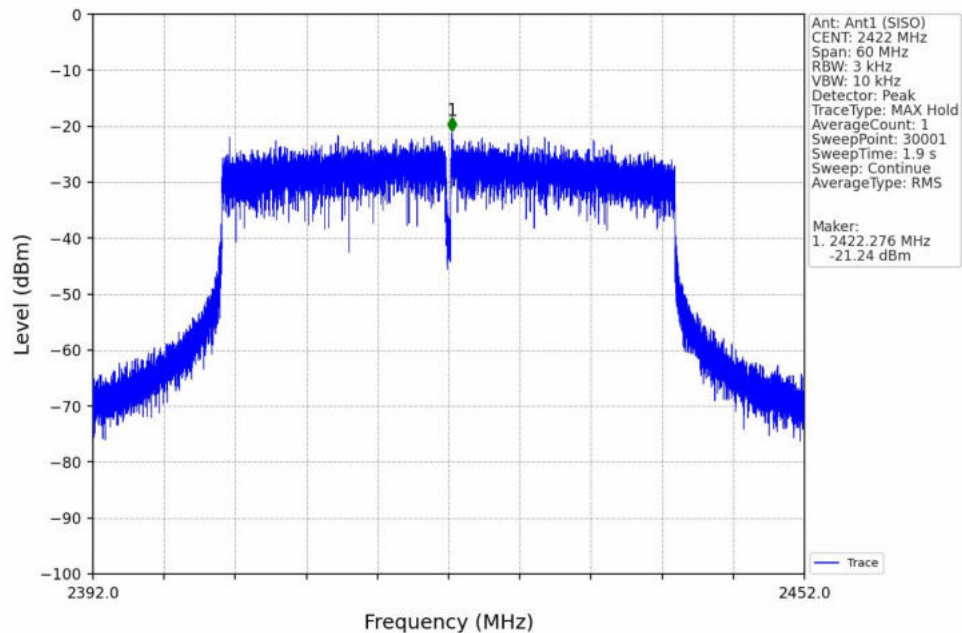
802.11ax(HEW20)_MCH_2437MHz_SU_/_Ant1 (SISO)_NTNV



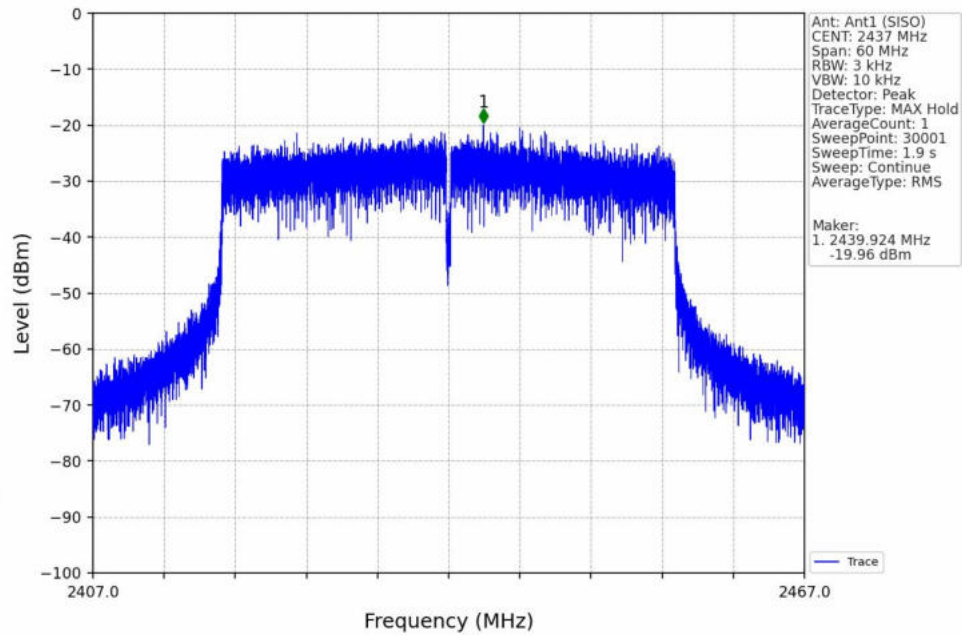
802.11ax(HEW20)_HCH_2462MHz_SU / _Ant1 (SISO)_NTNV



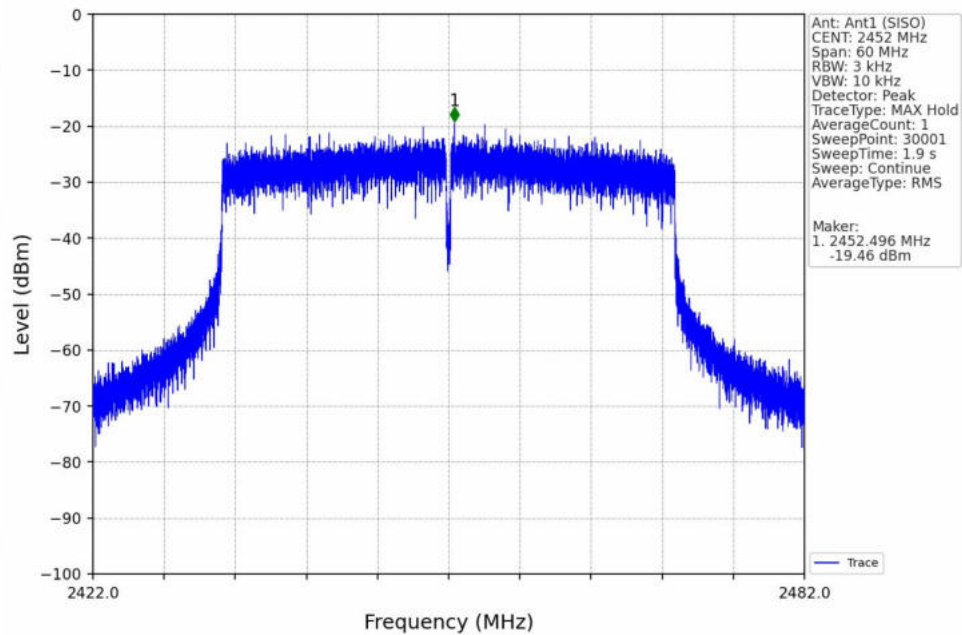
802.11ax(HEW40)_LCH_2422MHz_SU / _Ant1 (SISO)_NTNV



802.11ax(HEW40) MCH_2437MHz_SU / _Ant1 (SISO)_NTNV



802.11ax(HEW40) HCH_2452MHz_SU / _Ant1 (SISO)_NTNV



5. Unwanted Emissions In Non-restricted Frequency Bands

5.1 Test Result

5.1.1 Ref

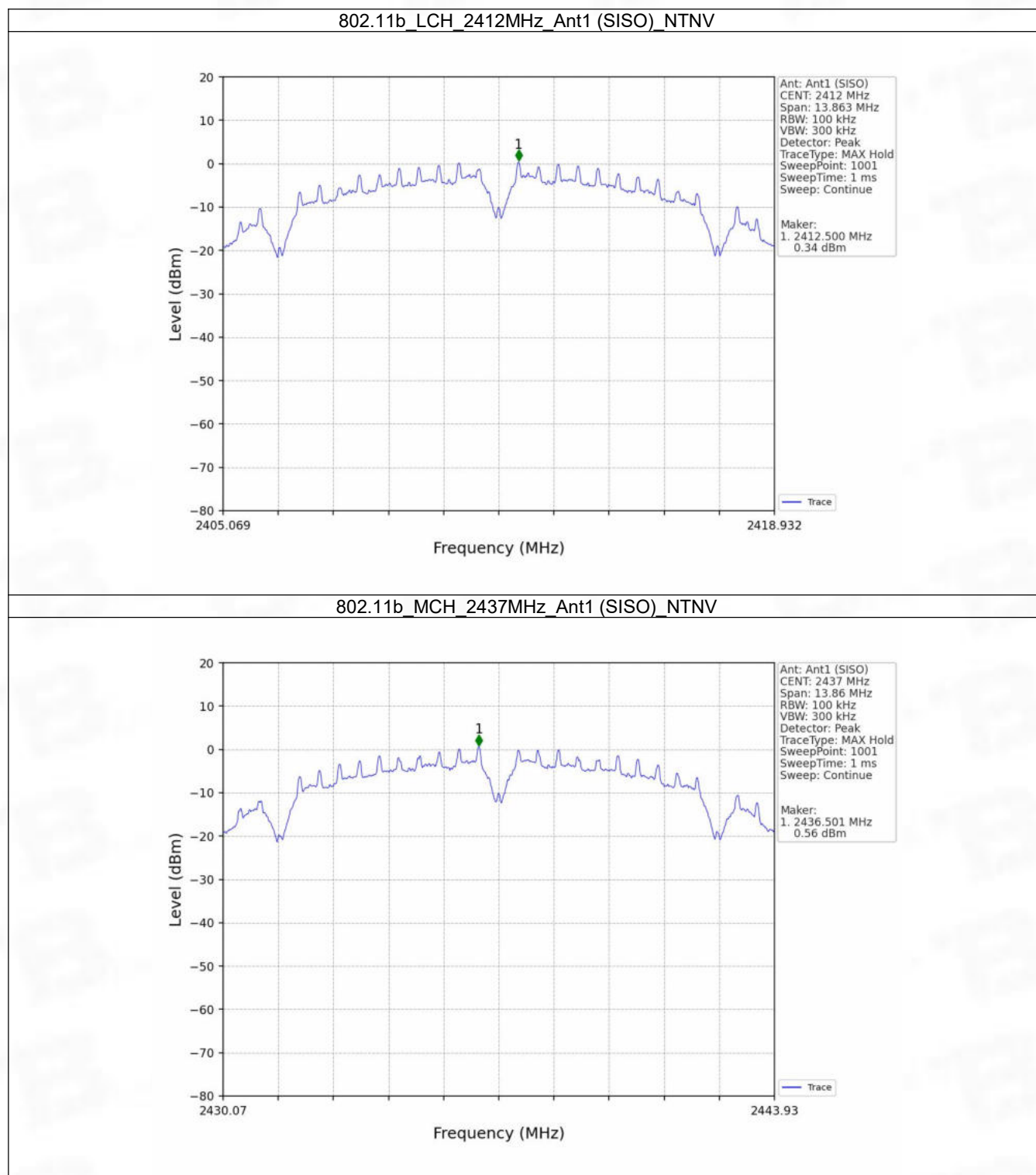
Mode	TX Type	Frequency (MHz)	RU	RU Pos	ANT	Level of Reference (dBm)
802.11b	SISO	2412	/	/	1	0.34
		2437	/	/	1	0.56
		2462	/	/	1	1.25
802.11g	SISO	2412	/	/	1	-3.35
		2437	/	/	1	-2.33
		2462	/	/	1	-2.65
802.11n (HT20)	SISO	2412	/	/	1	-4.44
		2437	/	/	1	-3.19
		2462	/	/	1	-1.74
802.11n (HT40)	SISO	2422	/	/	1	-6.57
		2437	/	/	1	-5.45
		2452	/	/	1	-6.30
802.11ax (HEW20)	SISO	2412	SU	/	1	-4.04
		2437	SU	/	1	-3.24
		2462	SU	/	1	-2.65
802.11ax (HEW40)	SISO	2422	SU	/	1	-6.12
		2437	SU	/	1	-5.36
		2452	SU	/	1	-5.26

5.1.2 CSE

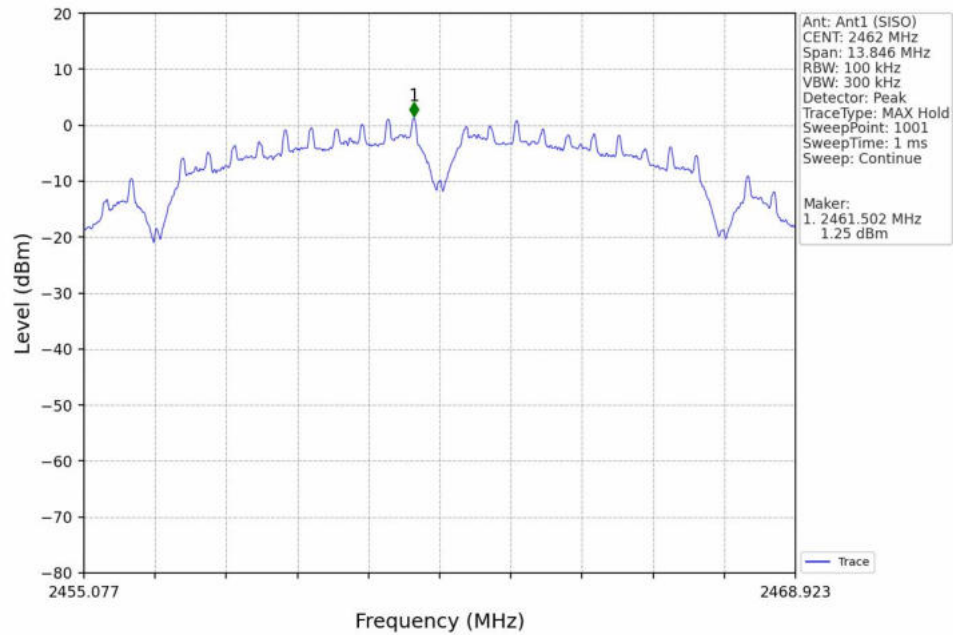
Mode	TX Type	Frequency (MHz)	RU	RU Pos	ANT	Level of Reference (dBm)	Limit (dBm)	Verdict
802.11b	SISO	2412	/	/	1	0.34	-19.66	Pass
		2437	/	/	1	0.56	-19.44	Pass
		2462	/	/	1	1.25	-18.75	Pass
802.11g	SISO	2412	/	/	1	-3.35	-23.35	Pass
		2437	/	/	1	-2.33	-22.33	Pass
		2462	/	/	1	-2.65	-22.65	Pass
802.11n (HT20)	SISO	2412	/	/	1	-4.44	-24.44	Pass
		2437	/	/	1	-3.19	-23.19	Pass
		2462	/	/	1	-1.74	-21.74	Pass
802.11n (HT40)	SISO	2422	/	/	1	-6.57	-26.57	Pass
		2437	/	/	1	-5.45	-25.45	Pass
		2452	/	/	1	-6.30	-26.30	Pass
802.11ax (HEW20)	SISO	2412	SU	/	1	-4.04	-24.04	Pass
		2437	SU	/	1	-3.24	-23.24	Pass
		2462	SU	/	1	-2.65	-22.65	Pass
802.11ax (HEW40)	SISO	2422	SU	/	1	-6.12	-26.12	Pass
		2437	SU	/	1	-5.36	-25.36	Pass
		2452	SU	/	1	-5.26	-25.26	Pass

5.2 Test Graph

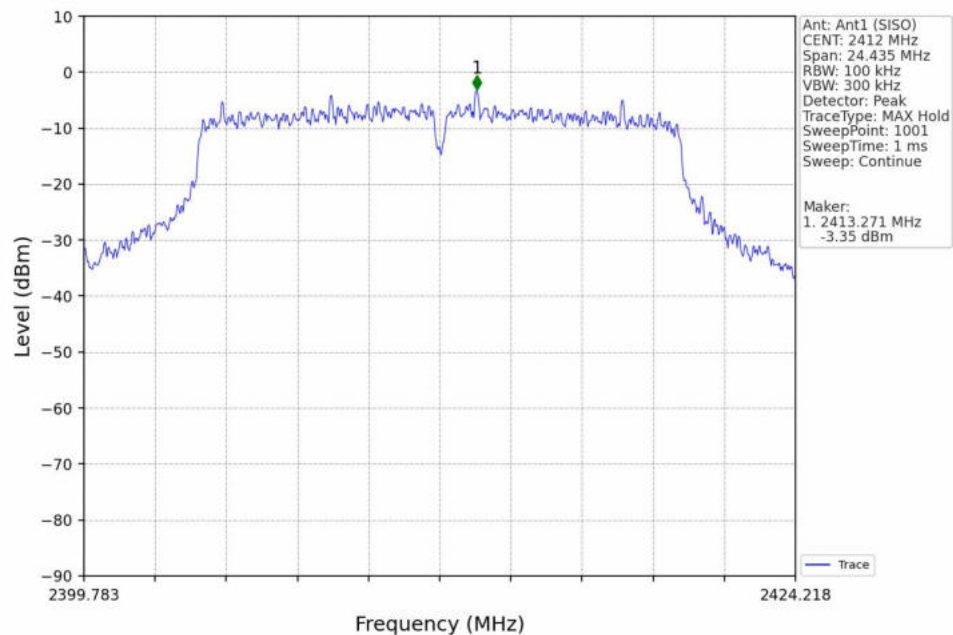
5.2.1 Ref



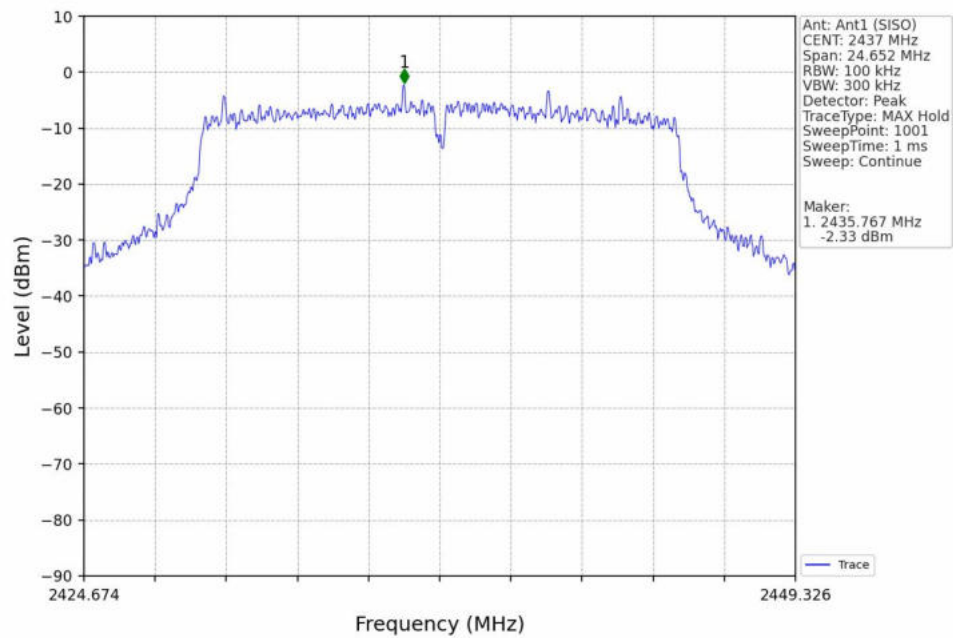
802.11b_HCH_2462MHz_Ant1 (SISO)_NTNV



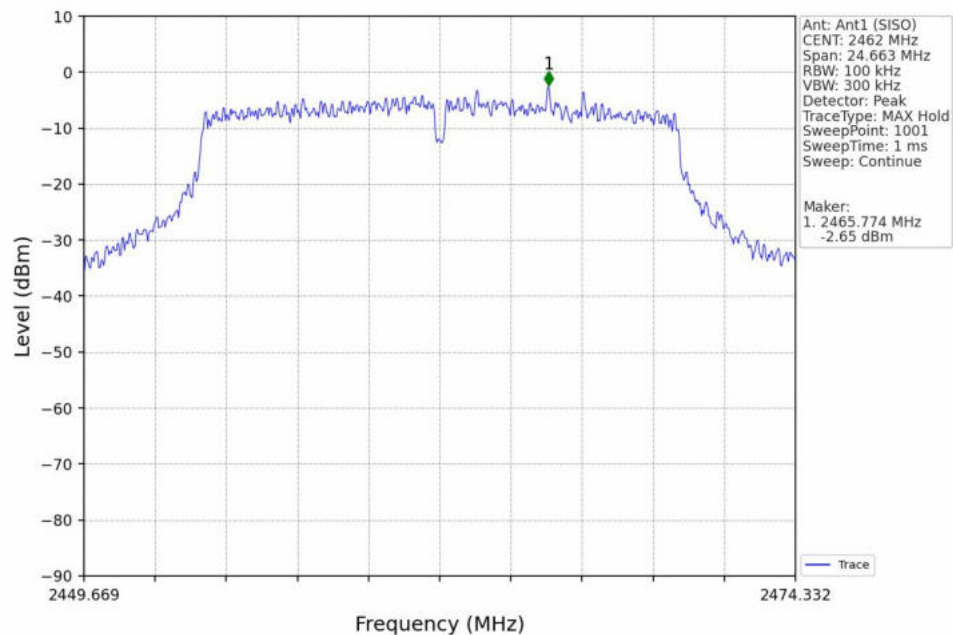
802.11g_LCH_2412MHz_Ant1 (SISO)_NTNV



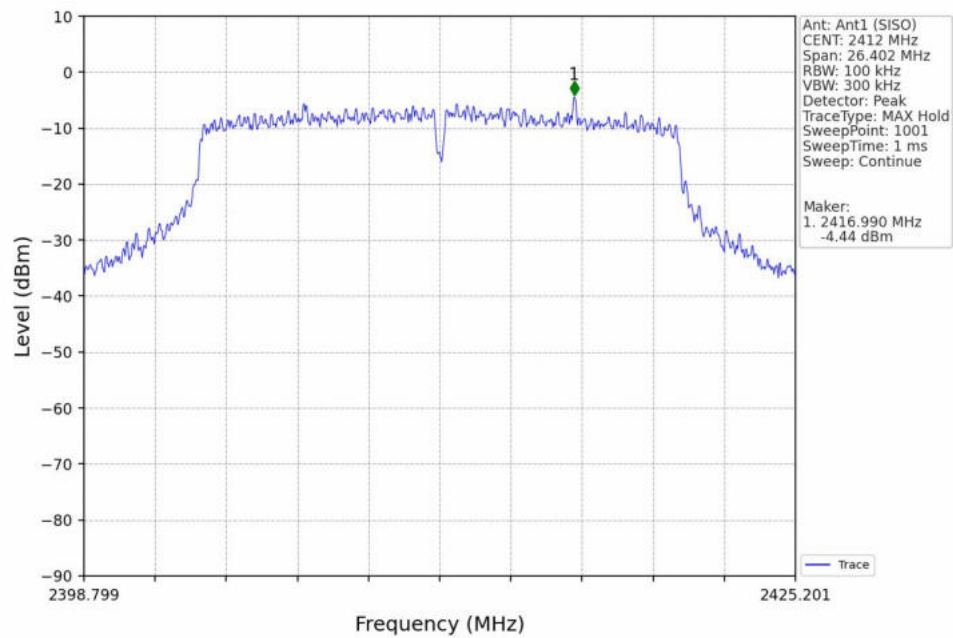
802.11g_MCH_2437MHz_Ant1 (SISO)_NTNV



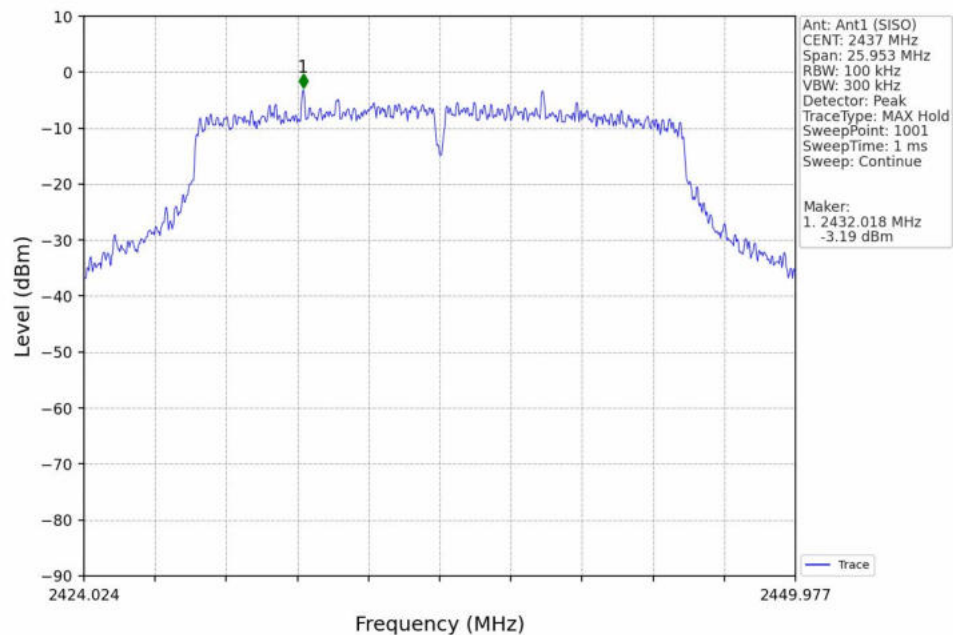
802.11g_HCH_2462MHz_Ant1 (SISO)_NTNV



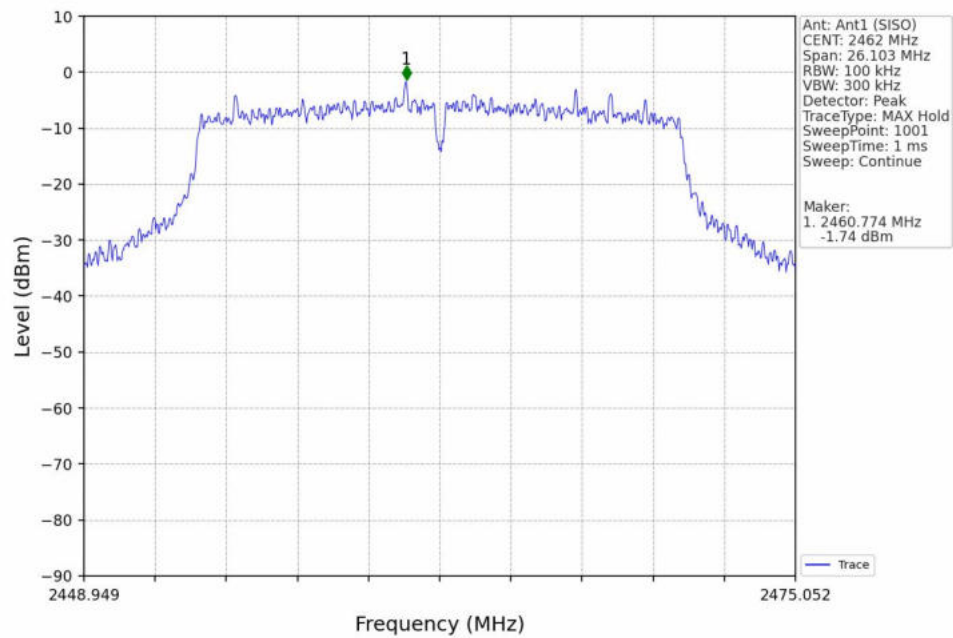
802.11n(HT20)_LCH_2412MHz_Ant1 (SISO)_NTNV



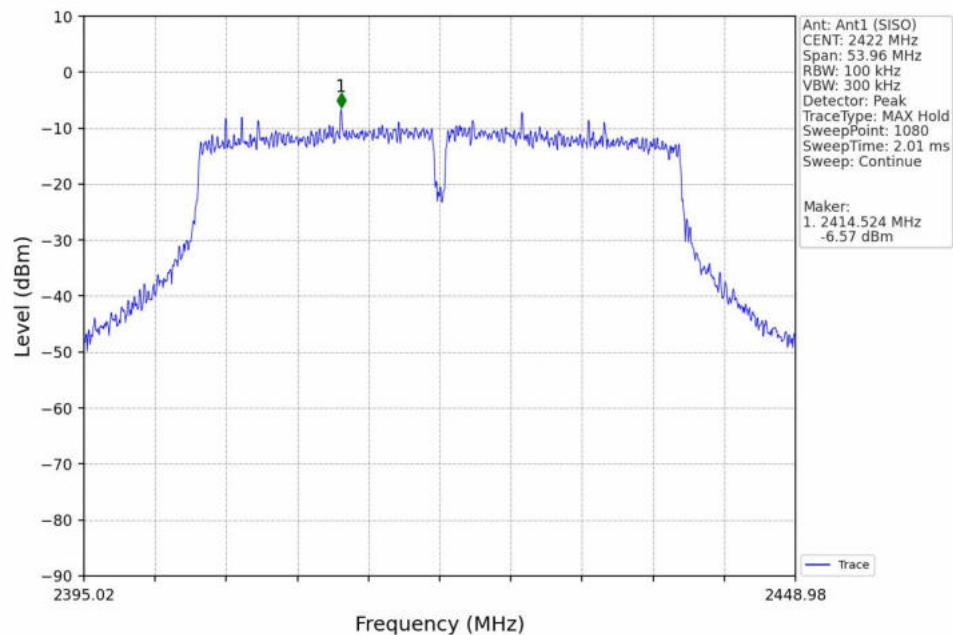
802.11n(HT20)_MCH_2437MHz_Ant1 (SISO)_NTNV



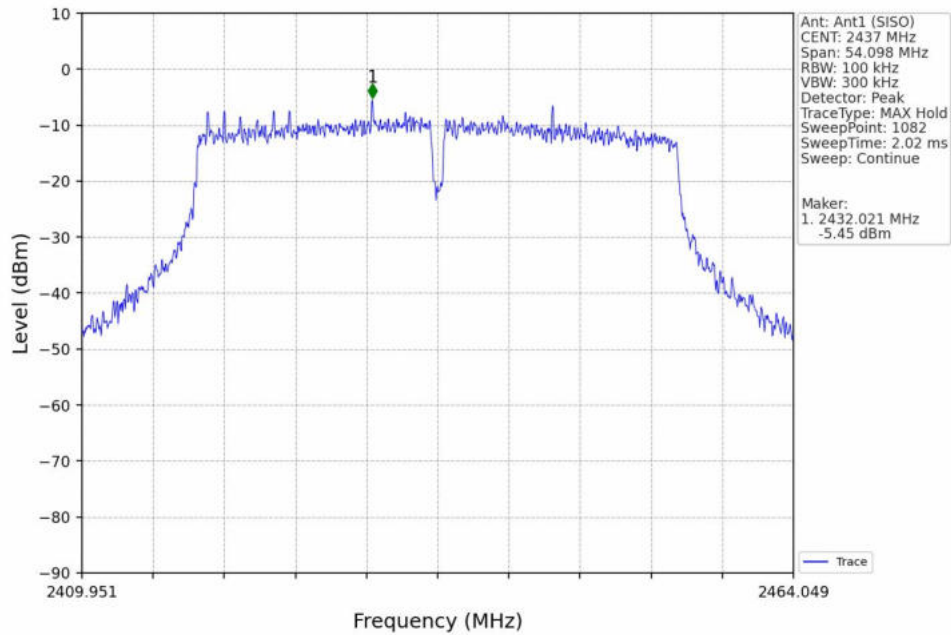
802.11n(HT20)_HCH_2462MHz_Ant1 (SISO)_NTNV



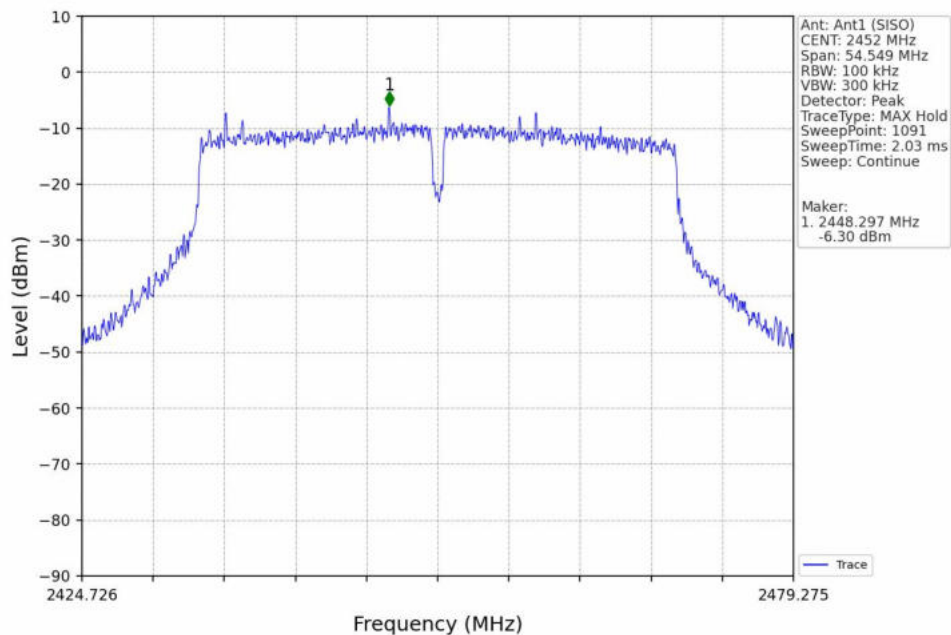
802.11n(HT40)_LCH_2422MHz_Ant1 (SISO)_NTNV



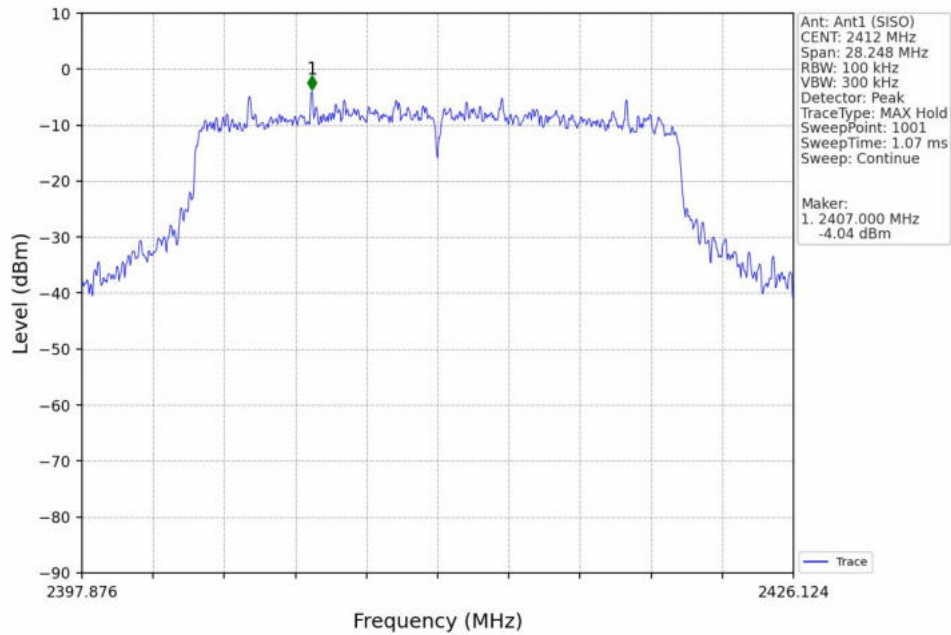
802.11n(HT40)_MCH_2437MHz_Ant1 (SISO)_NTNV



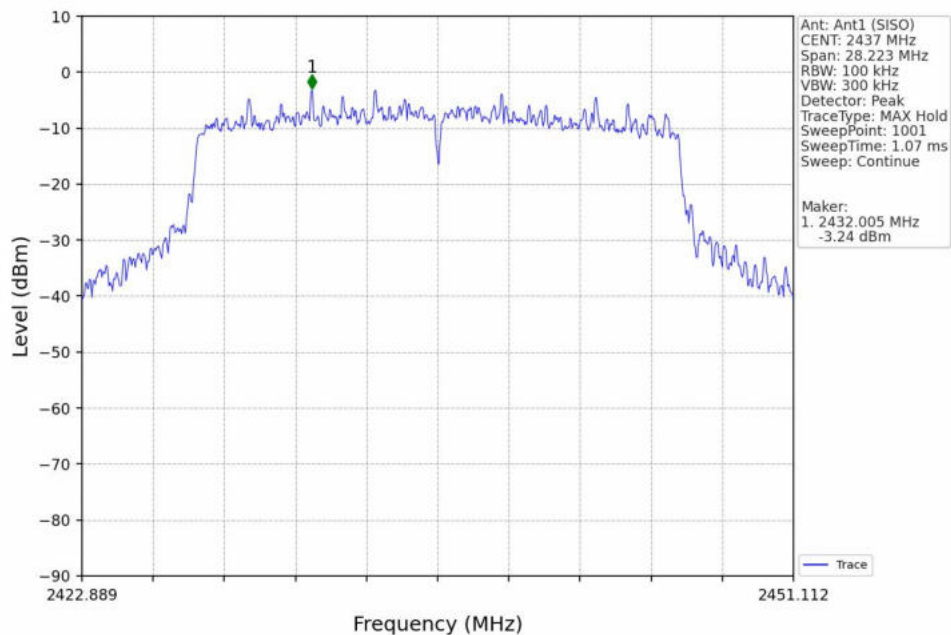
802.11n(HT40)_HCH_2452MHz_Ant1 (SISO)_NTNV



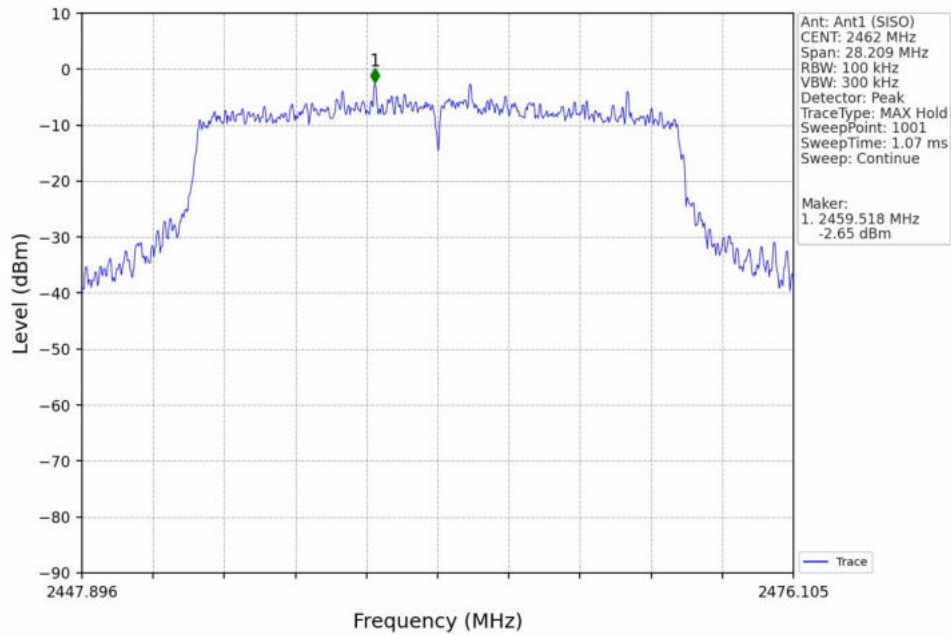
802.11ax(HEW20)_LCH_2412MHz_SU / _Ant1 (SISO)_NTNV



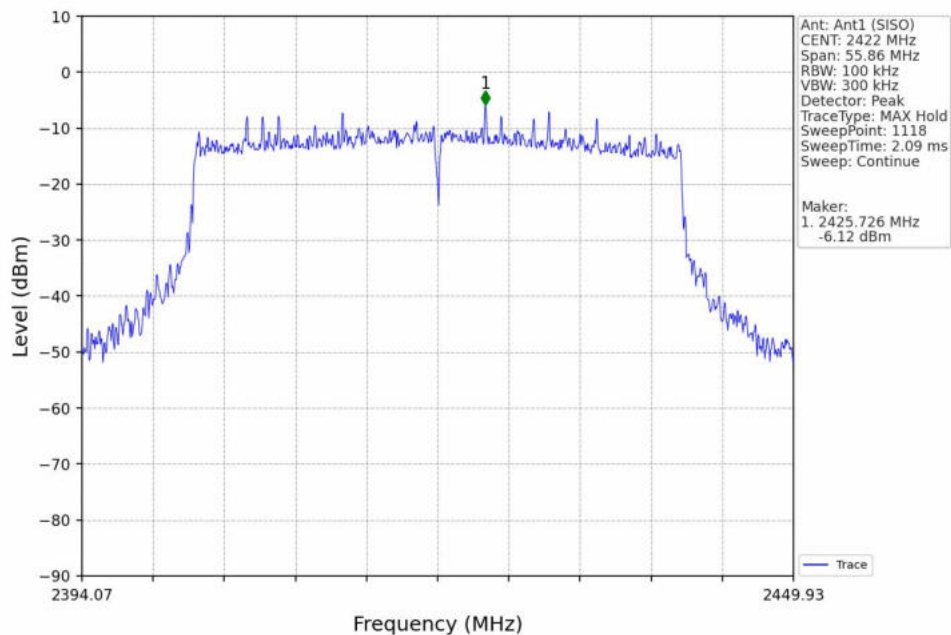
802.11ax(HEW20)_MCH_2437MHz_SU / _Ant1 (SISO)_NTNV



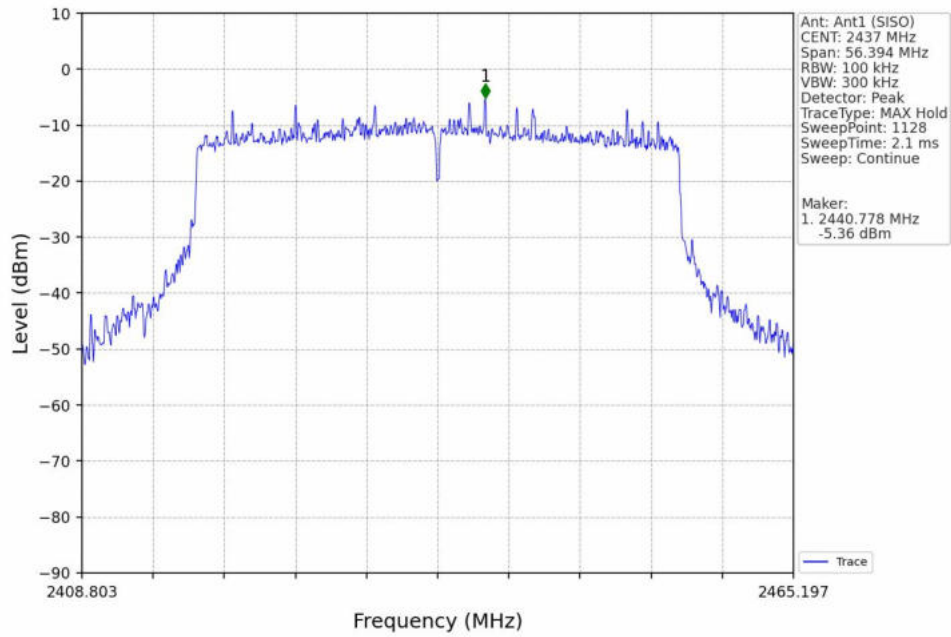
802.11ax(HEW20)_HCH_2462MHz_SU_/_Ant1 (SISO)_NTNV



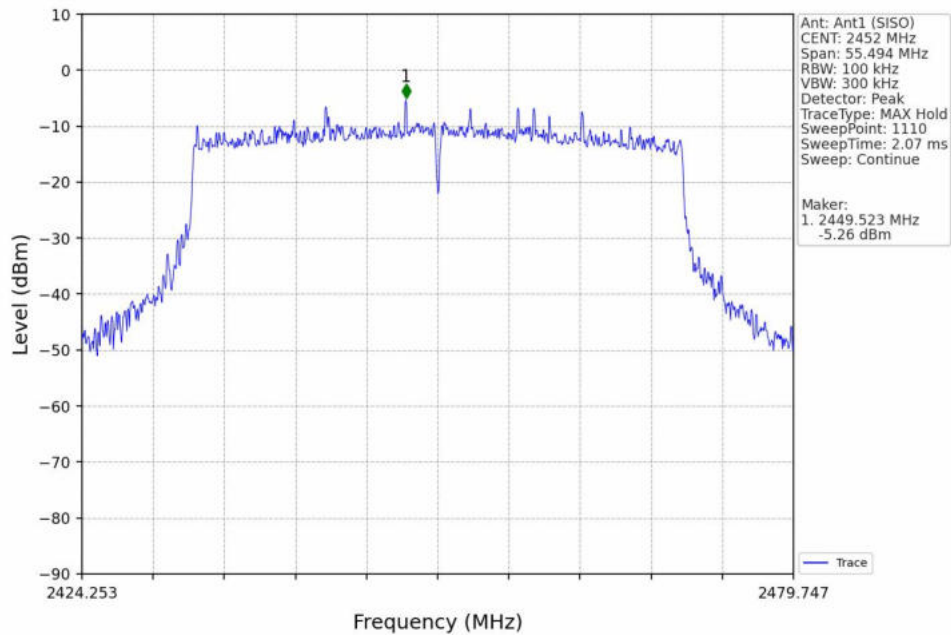
802.11ax(HEW40)_LCH_2422MHz_SU_/_Ant1 (SISO)_NTNV



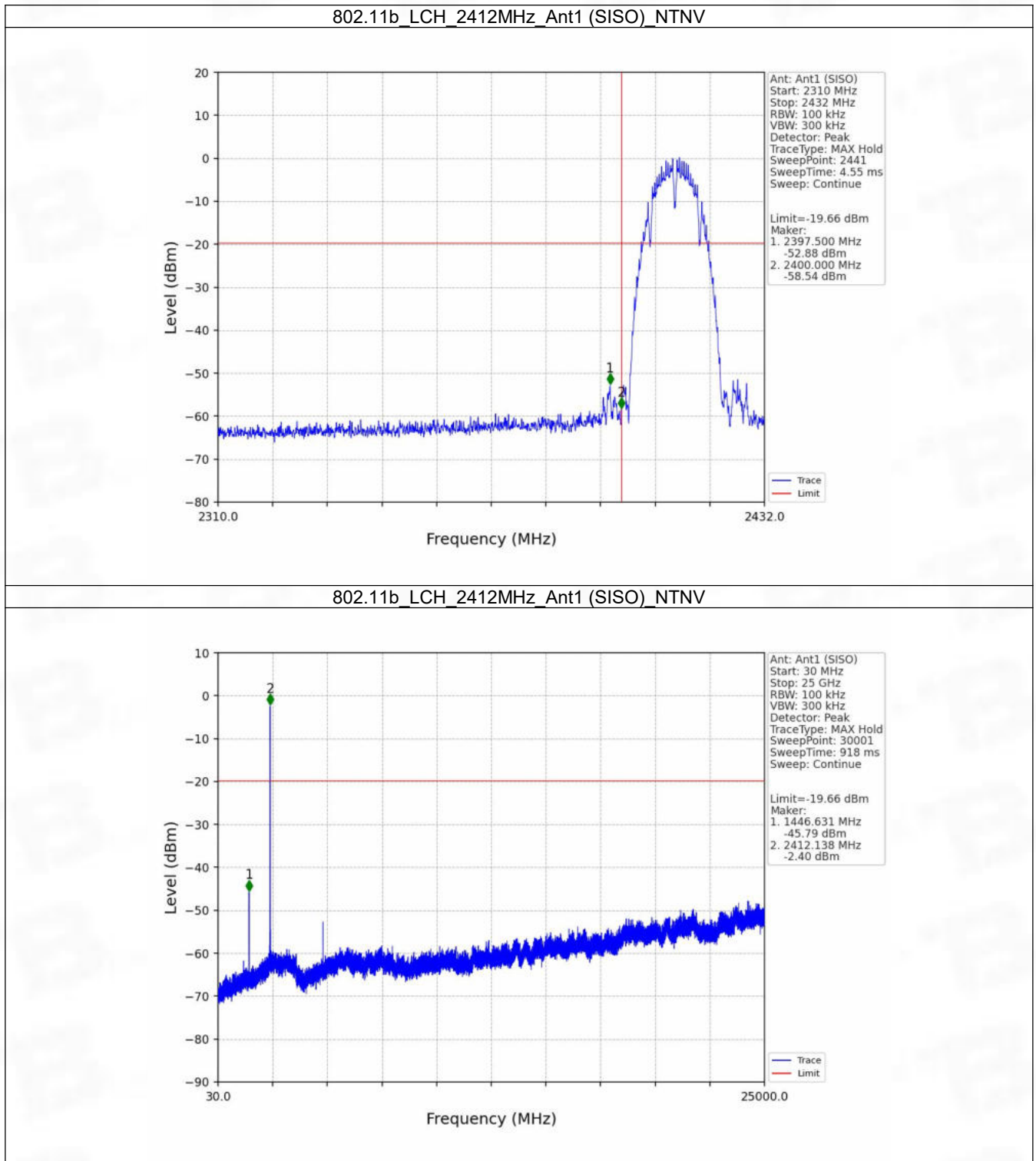
802.11ax(HEW40) MCH_2437MHz_SU / _Ant1 (SISO)_NTNV



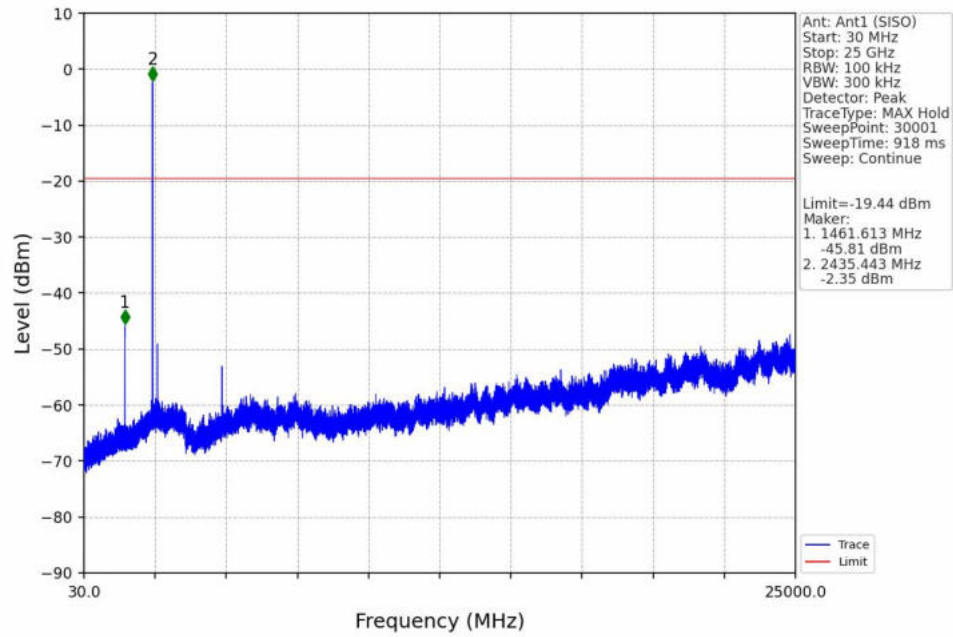
802.11ax(HEW40) HCH_2452MHz_SU / _Ant1 (SISO)_NTNV



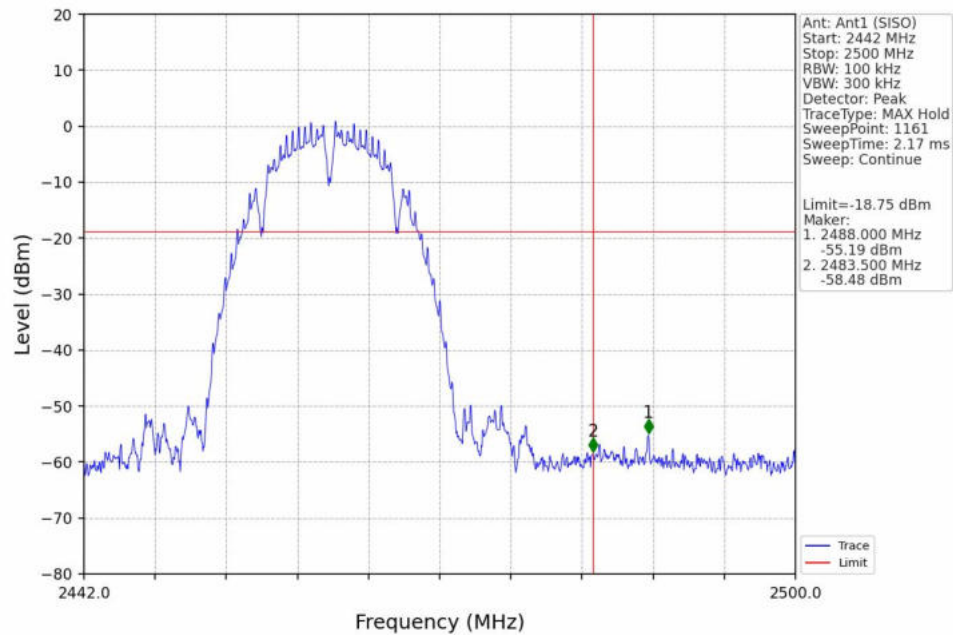
5.2.2 CSE



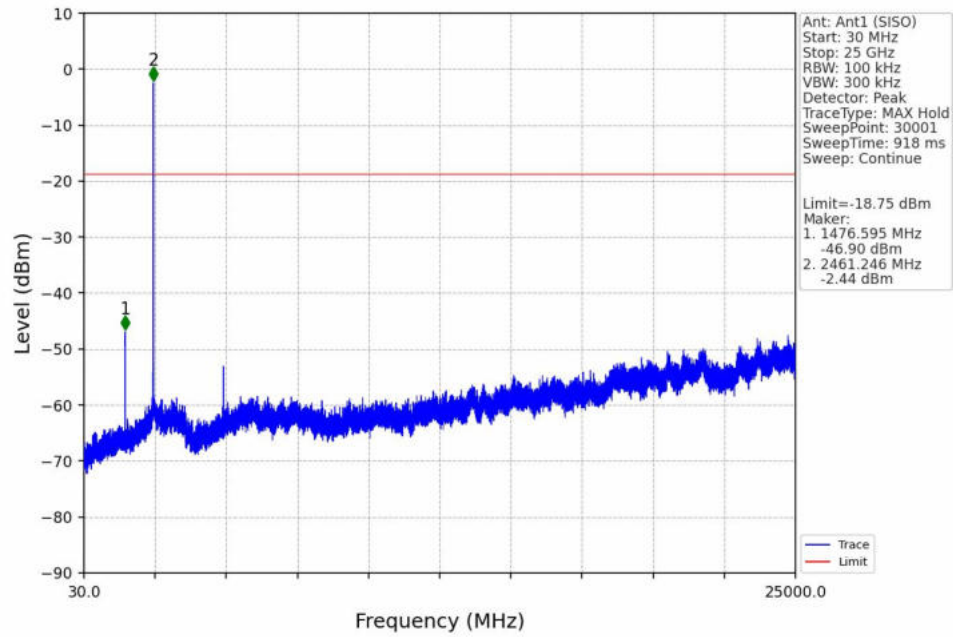
802.11b_MCH_2437MHz_Ant1 (SISO)_NTNV



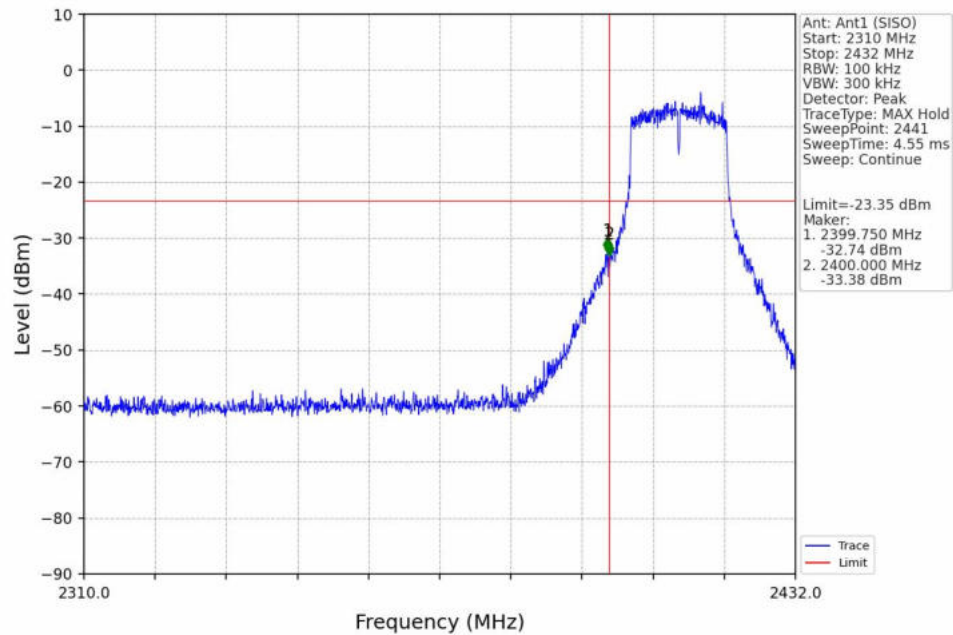
802.11b_HCH_2462MHz_Ant1 (SISO)_NTNV



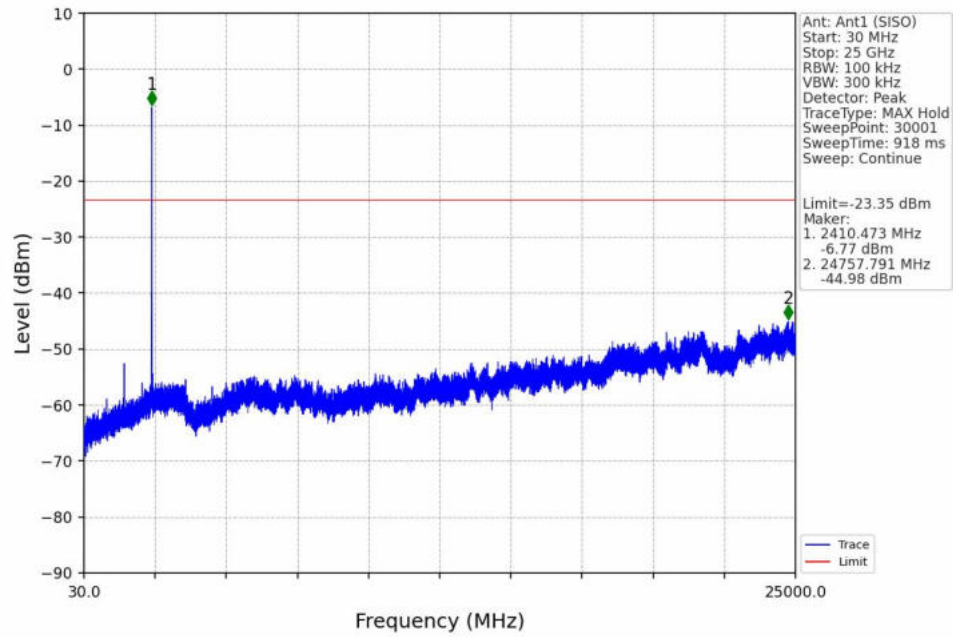
802.11b_HCH_2462MHz_Ant1 (SISO)_NTNV



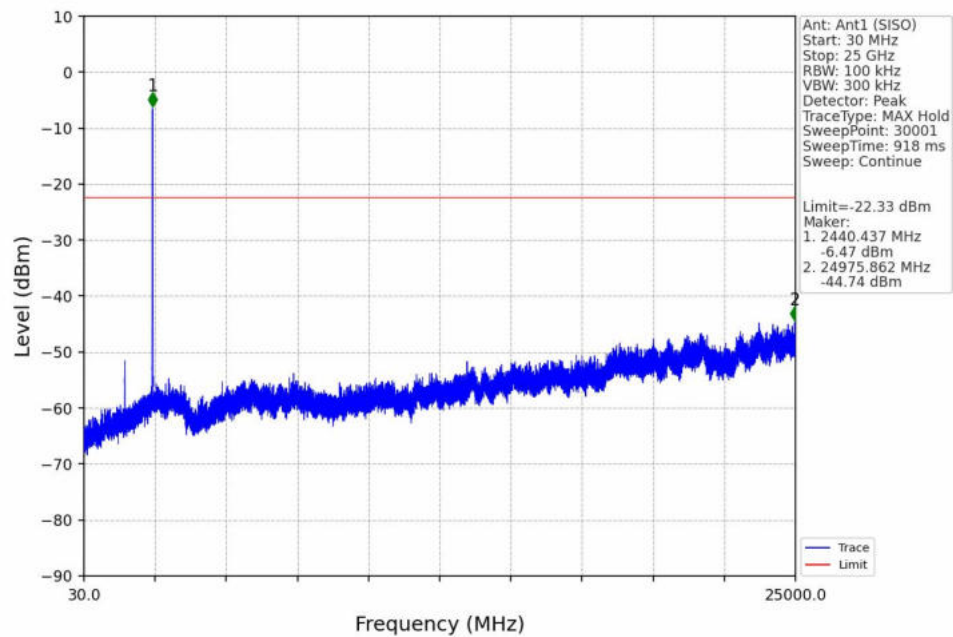
802.11g_LCH_2412MHz_Ant1 (SISO)_NTNV



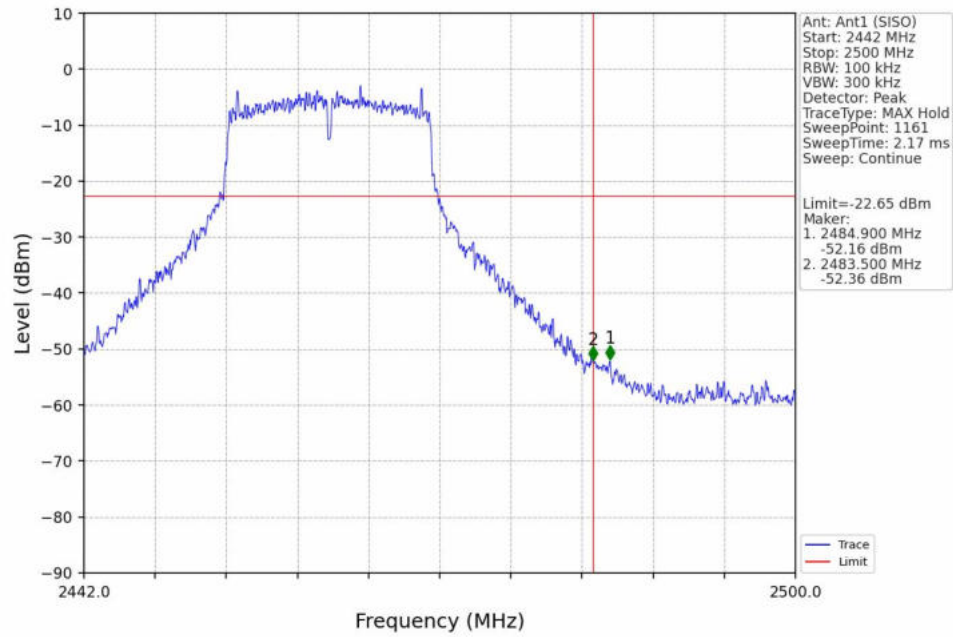
802.11g_LCH_2412MHz_Ant1 (SISO)_NTNV



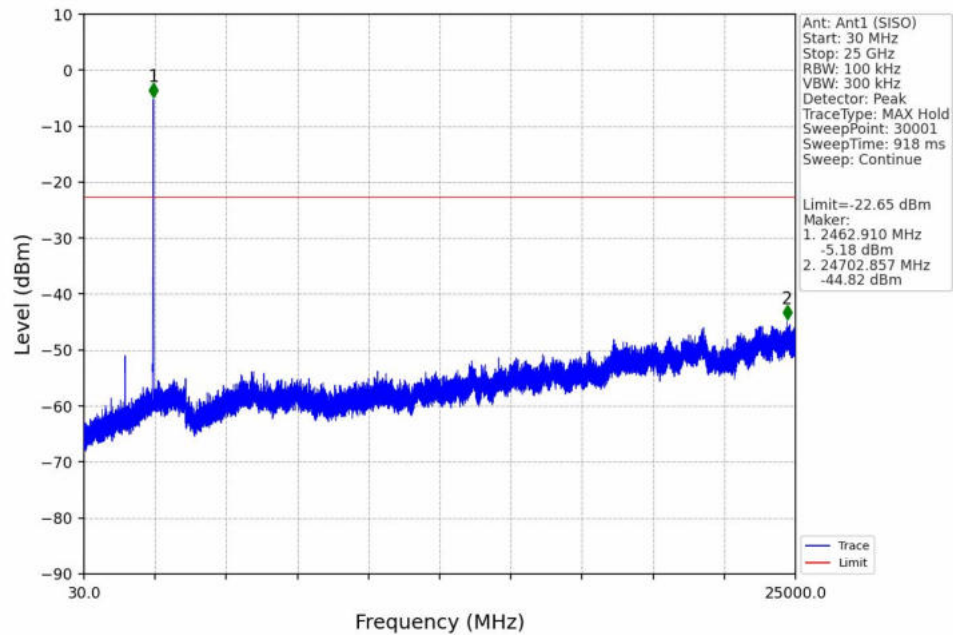
802.11g_MCH_2437MHz_Ant1 (SISO)_NTNV



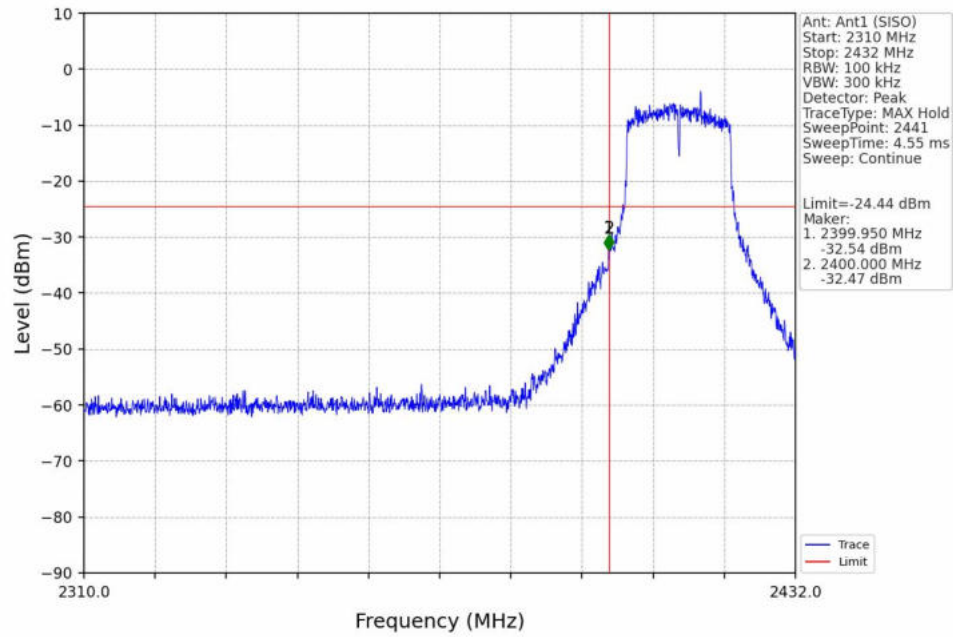
802.11g_HCH_2462MHz_Ant1 (SISO)_NTNV



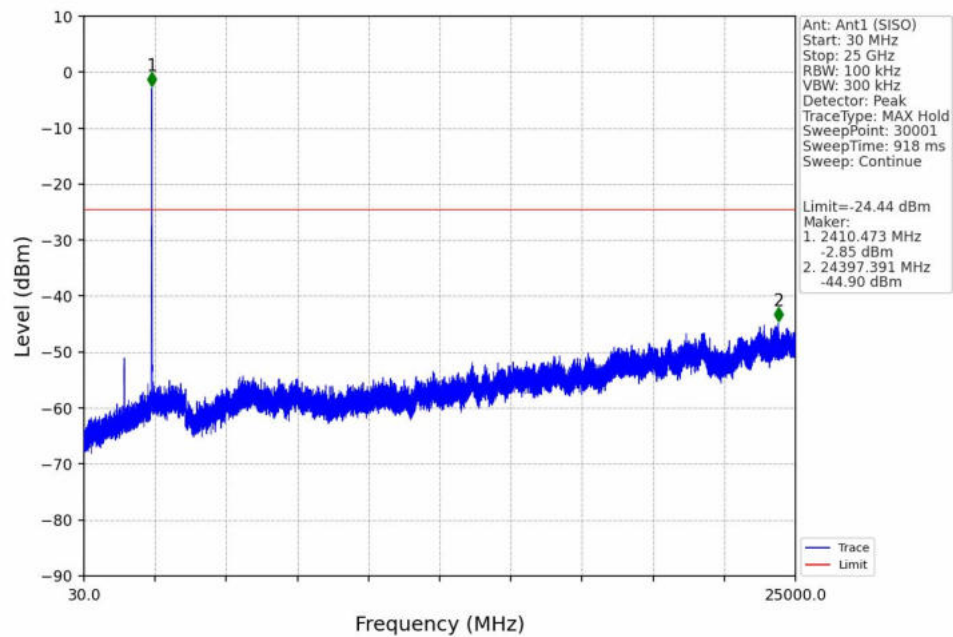
802.11g_HCH_2462MHz_Ant1 (SISO)_NTNV



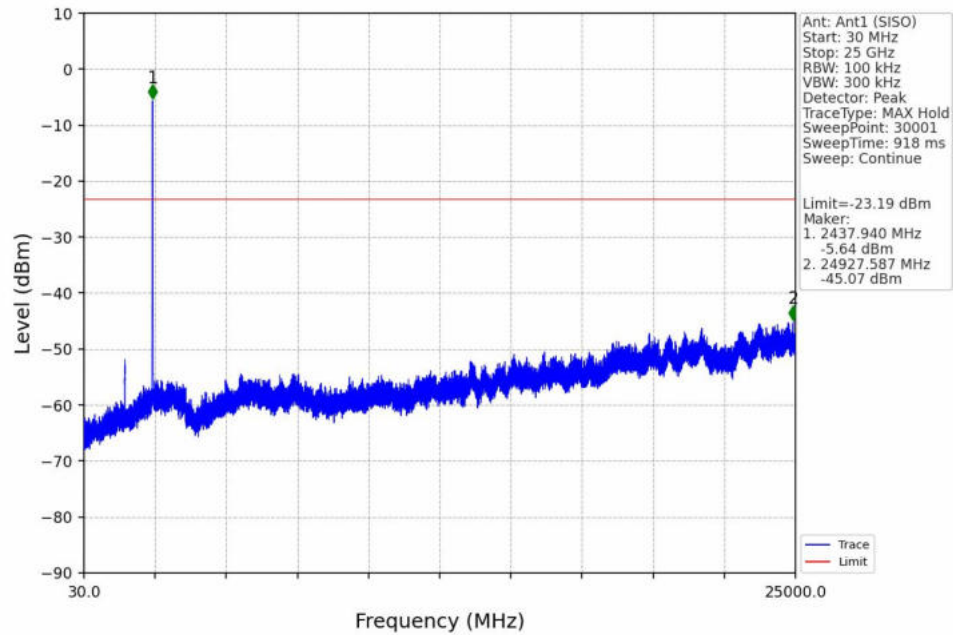
802.11n(HT20)_LCH_2412MHz_Ant1 (SISO)_NTNV



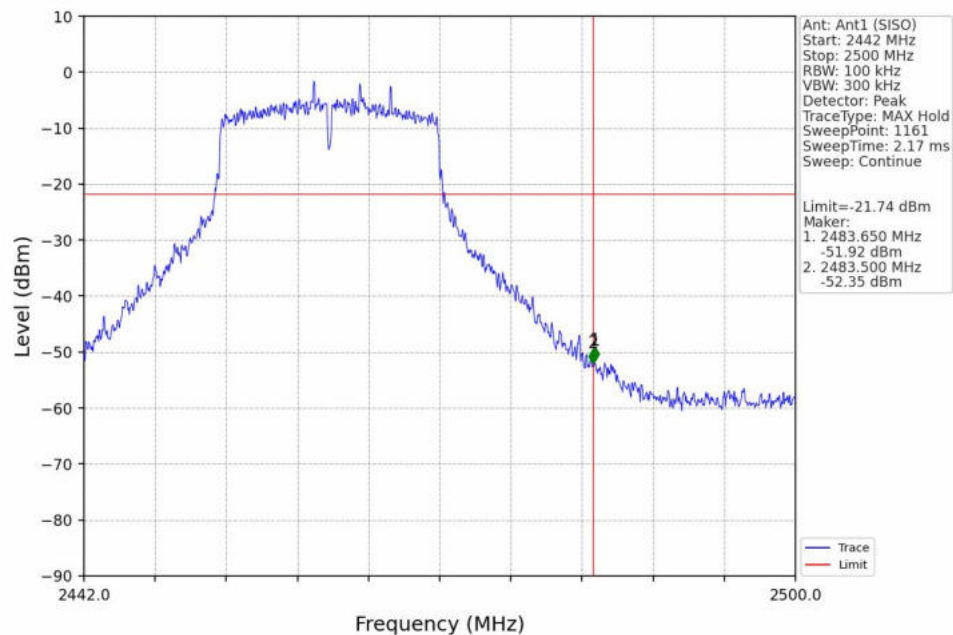
802.11n(HT20)_LCH_2412MHz_Ant1 (SISO)_NTNV



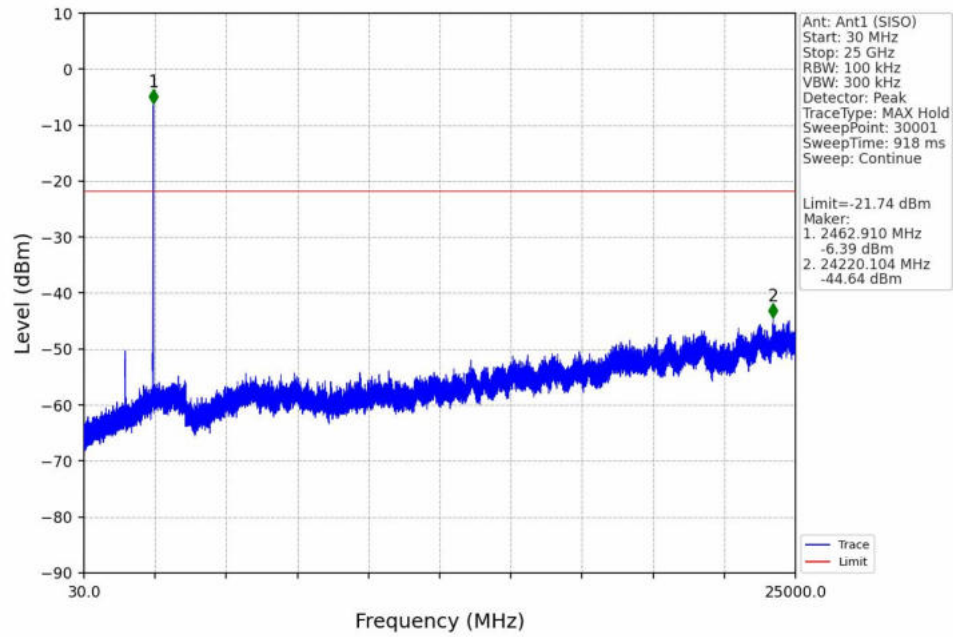
802.11n(HT20)_MCH_2437MHz_Ant1 (SISO)_NTNV



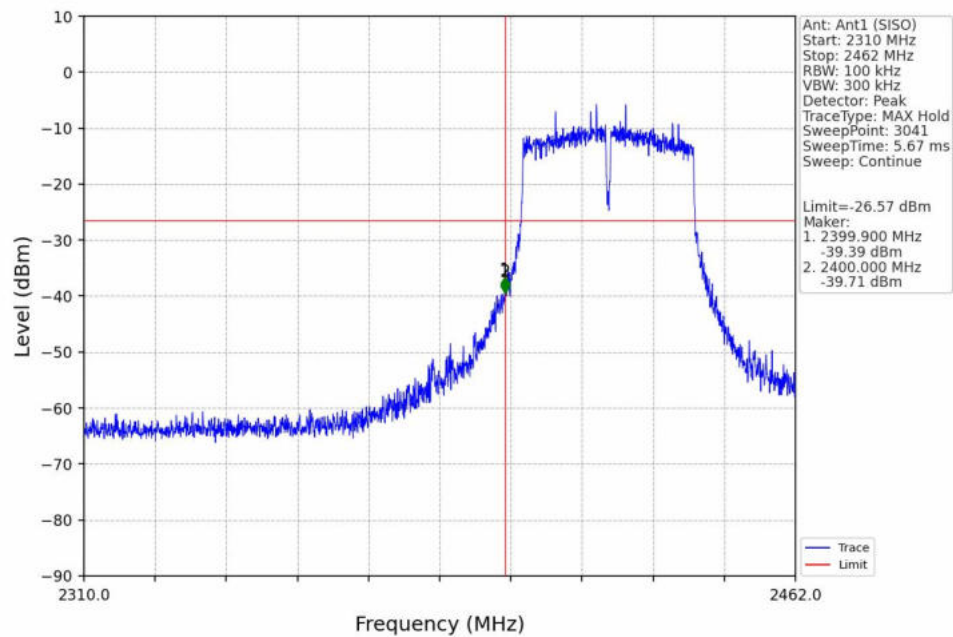
802.11n(HT20)_HCH_2462MHz_Ant1 (SISO)_NTNV



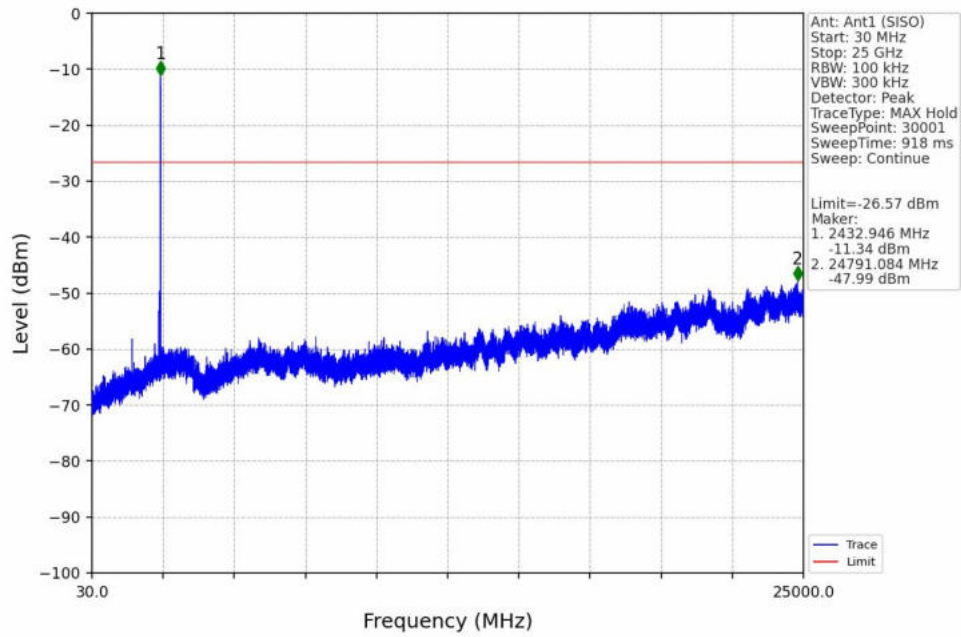
802.11n(HT20)_HCH_2462MHz_Ant1 (SISO)_NTNV



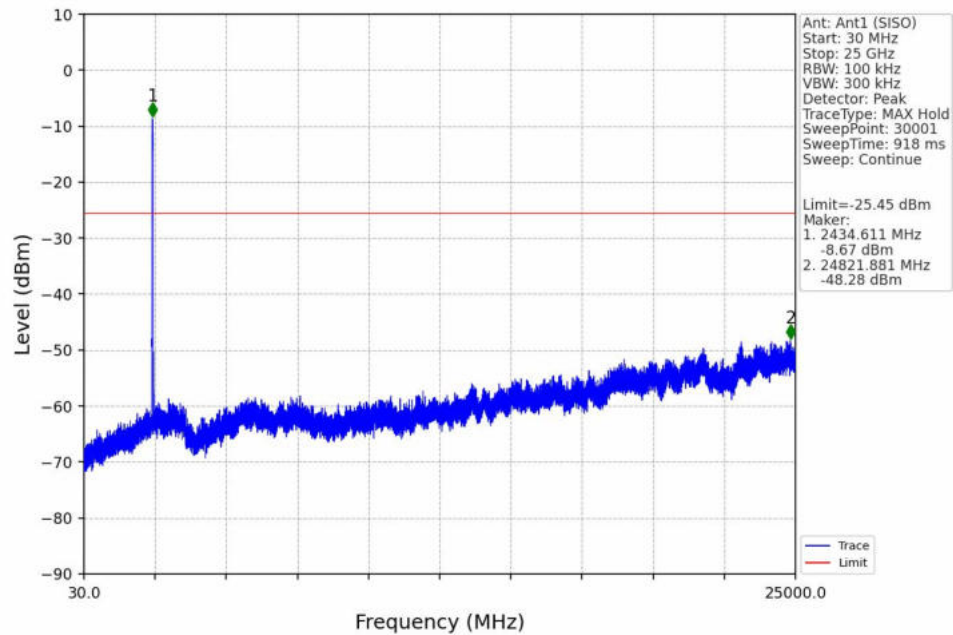
802.11n(HT40)_LCH_2422MHz_Ant1 (SISO)_NTNV



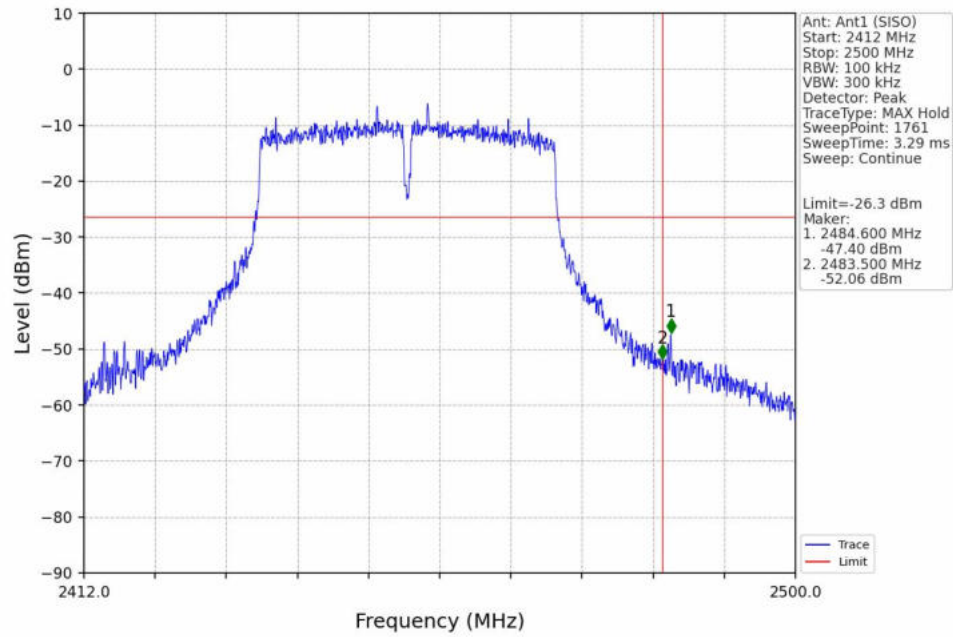
802.11n(HT40)_LCH_2422MHz_Ant1 (SISO)_NTNV



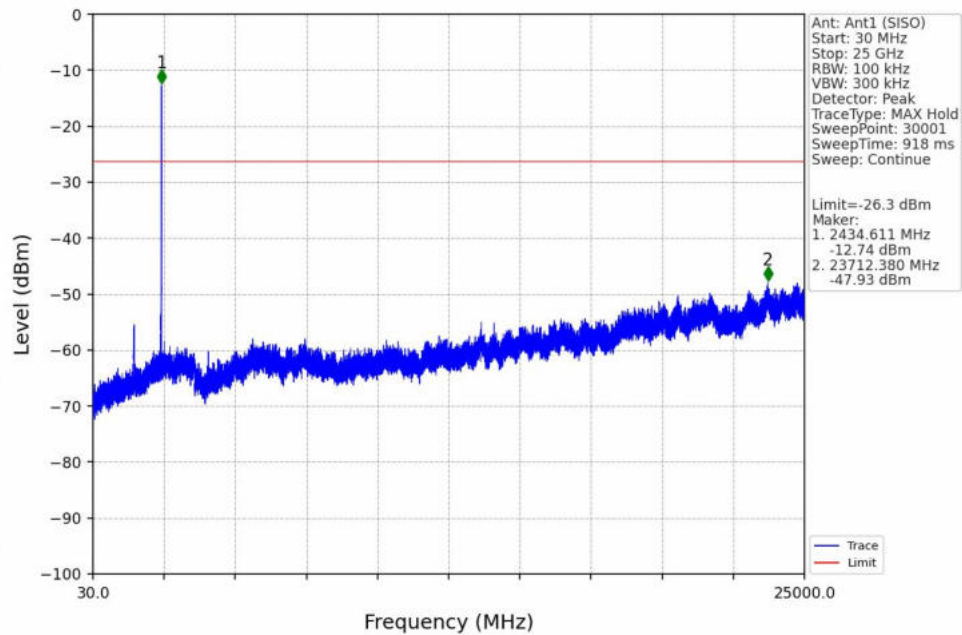
802.11n(HT40)_MCH_2437MHz_Ant1 (SISO)_NTNV



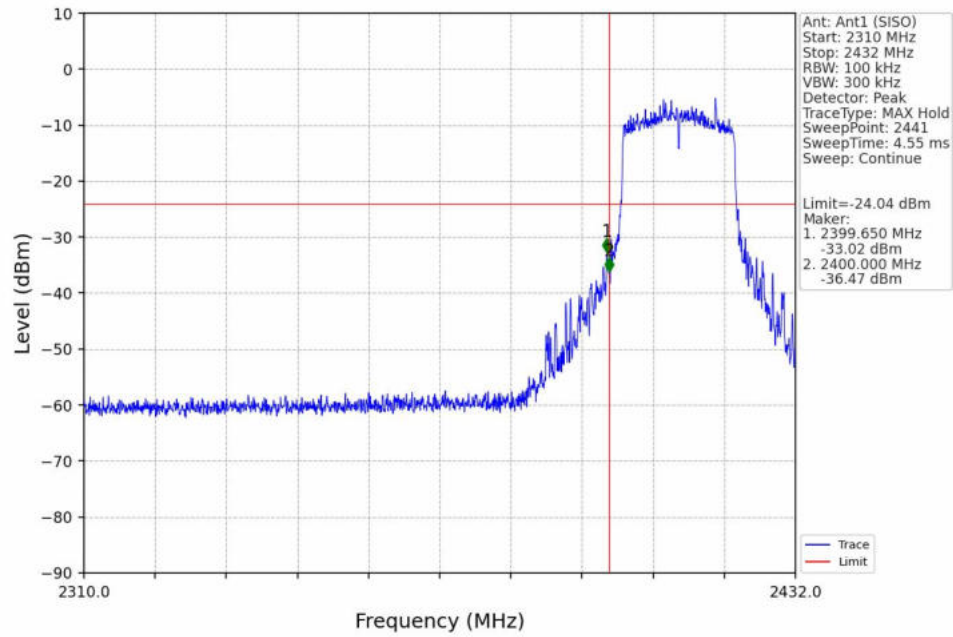
802.11n(HT40)_HCH_2452MHz_Ant1 (SISO)_NTNV



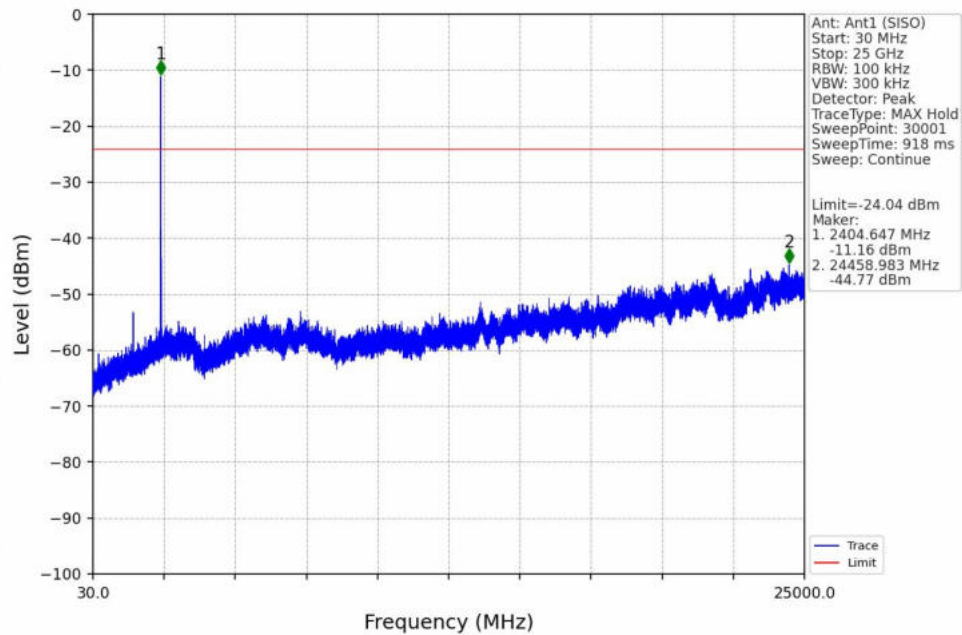
802.11n(HT40)_HCH_2452MHz_Ant1 (SISO)_NTNV



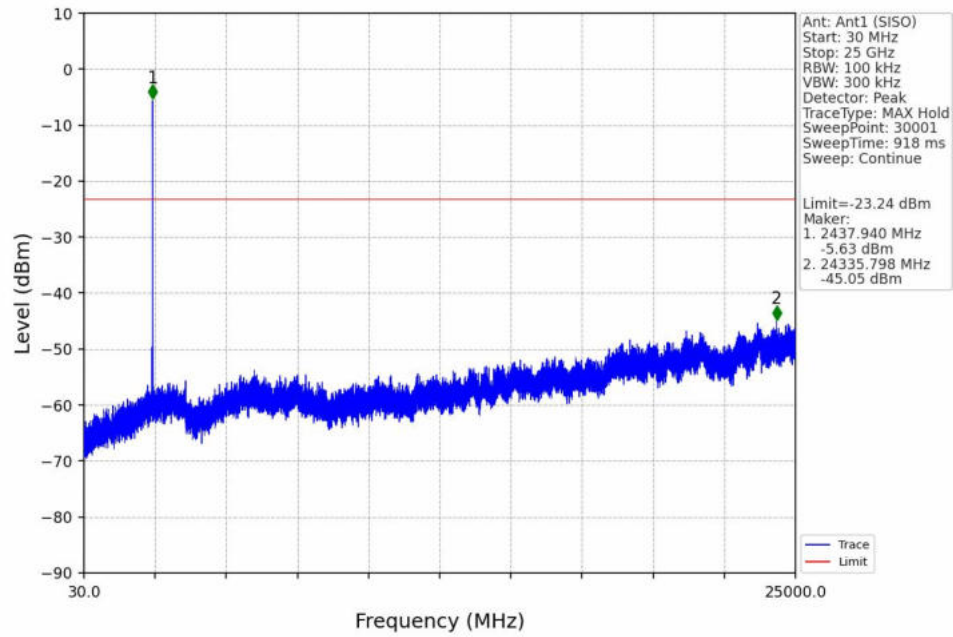
802.11ax(HEW20)_LCH_2412MHz_SU_/_Ant1(SISO)_NTNV



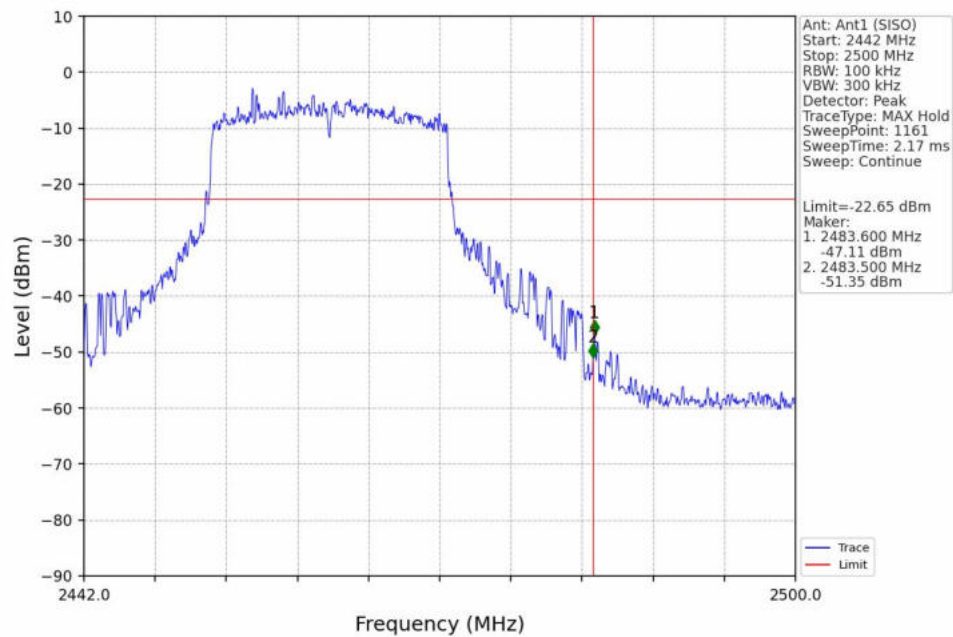
802.11ax(HEW20)_LCH_2412MHz_SU_/_Ant1(SISO)_NTNV



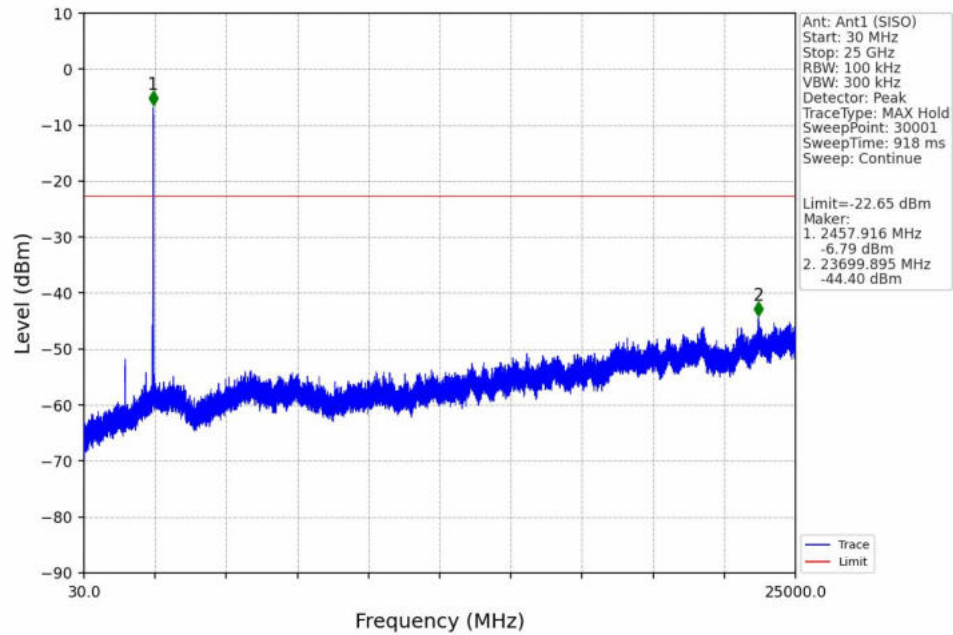
802.11ax(HEW20) MCH_2437MHz_SU / _Ant1 (SISO)_NTNV



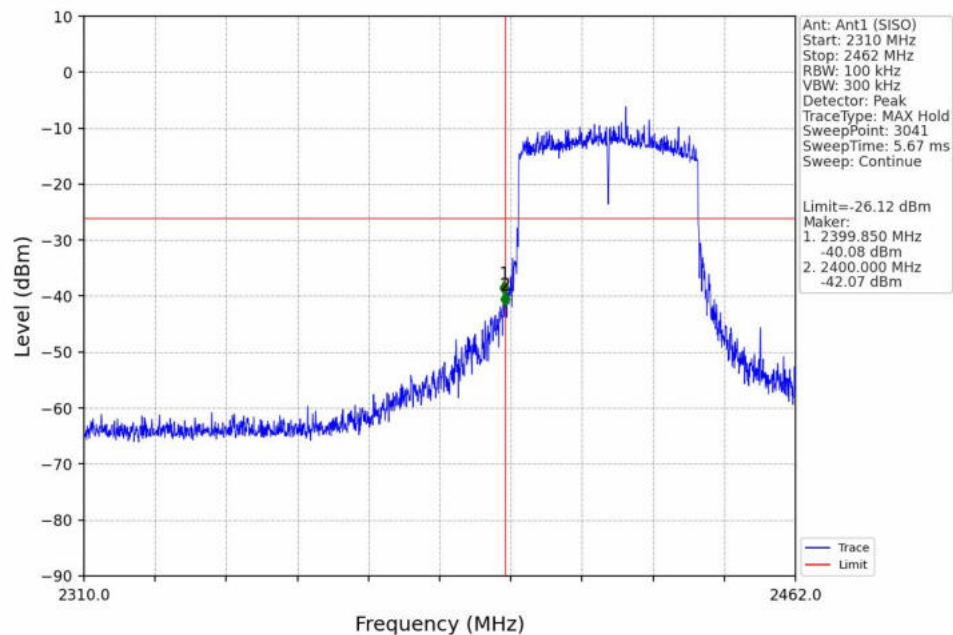
802.11ax(HEW20) HCH_2462MHz_SU / _Ant1 (SISO)_NTNV



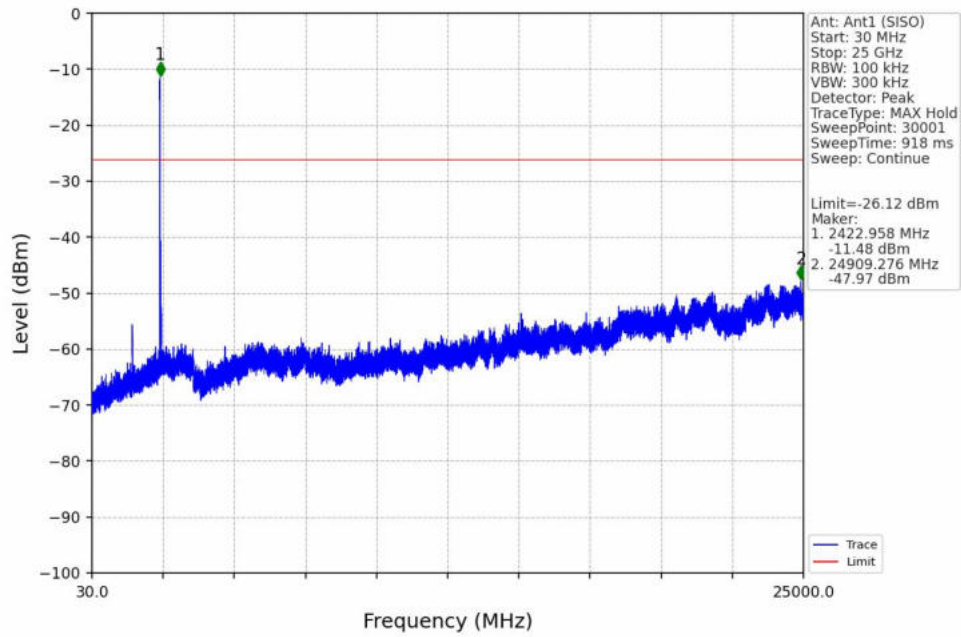
802.11ax(HEW20)_HCH_2462MHz_SU_/_Ant1 (SISO)_NTNV



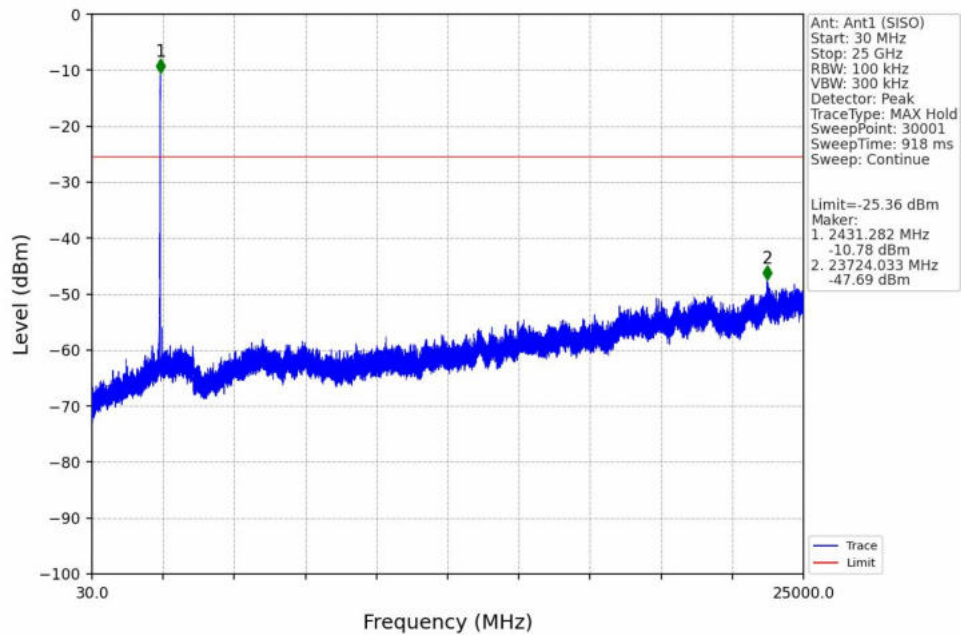
802.11ax(HEW40)_LCH_2422MHz_SU_/_Ant1 (SISO)_NTNV



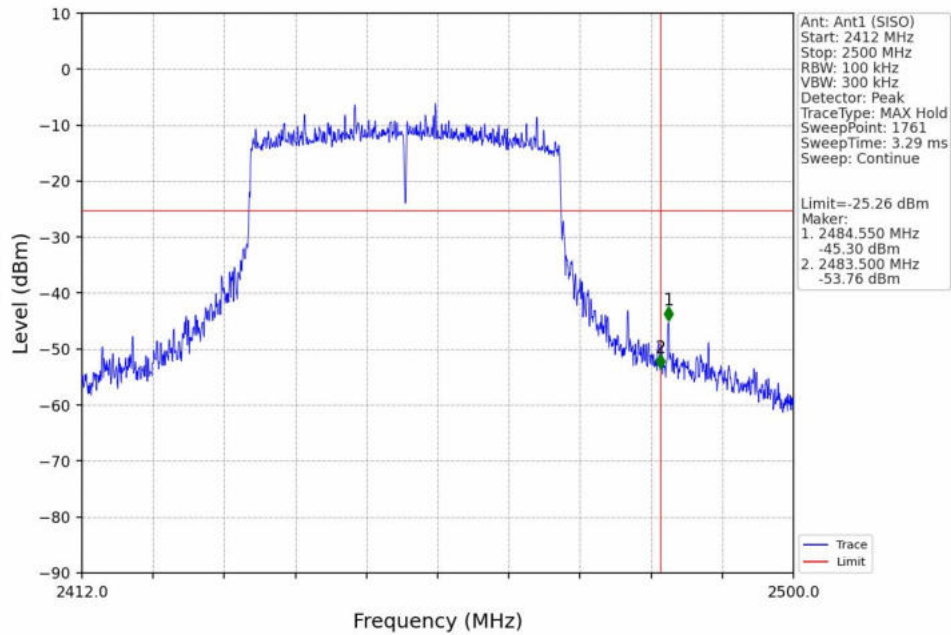
802.11ax(HEW40)_LCH_2422MHz_SU_/_Ant1 (SISO)_NTNV



802.11ax(HEW40)_MCH_2437MHz_SU_/_Ant1 (SISO)_NTNV



802.11ax(HEW40)_HCH_2452MHz_SU_/_Ant1 (SISO)_NTNV



802.11ax(HEW40)_HCH_2452MHz_SU_/_Ant1 (SISO)_NTNV

