

Appendix – 2.4G WIFI

1. Duty Cycle

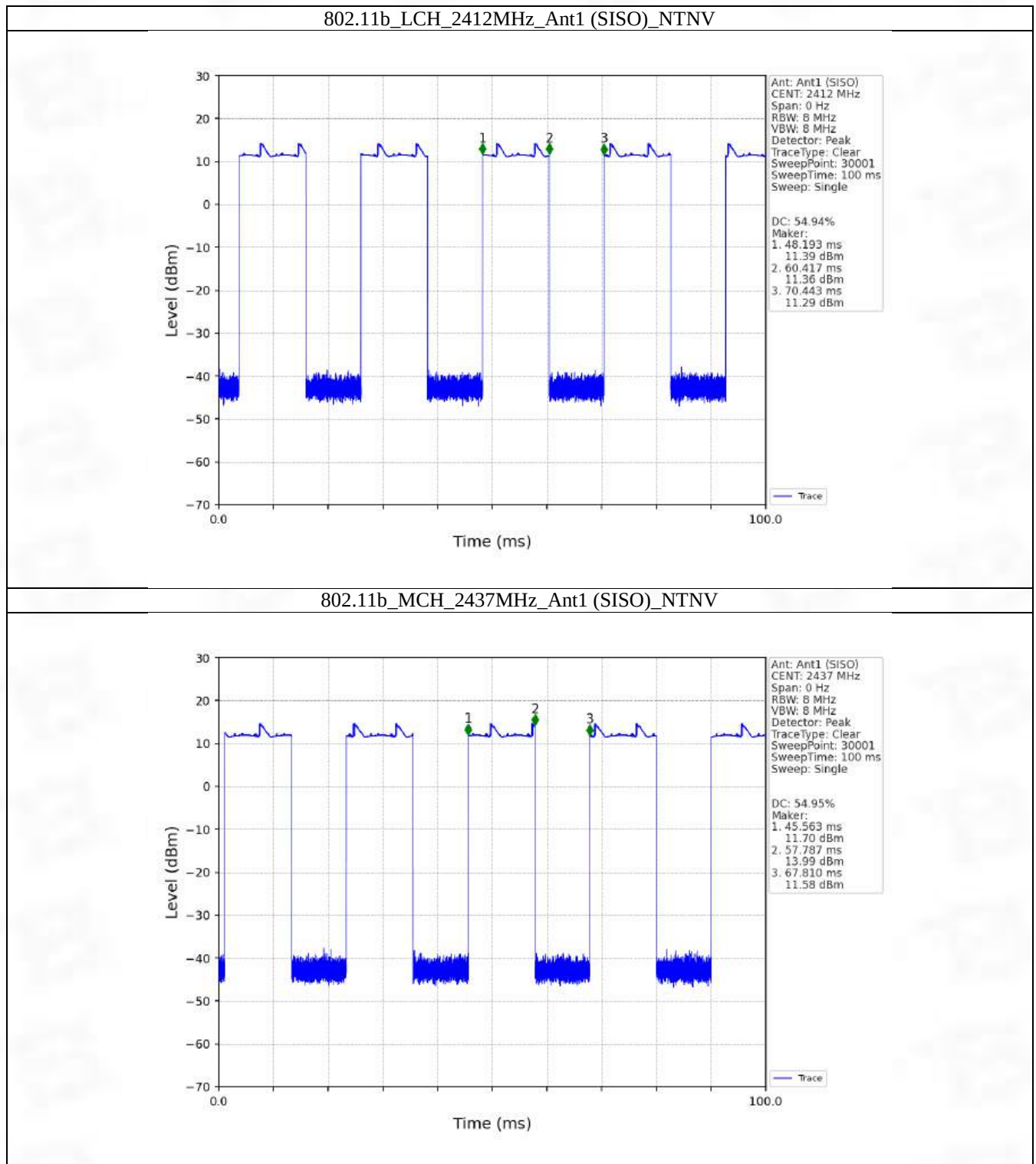
1.1 Test Result

1.1.1 Ant1

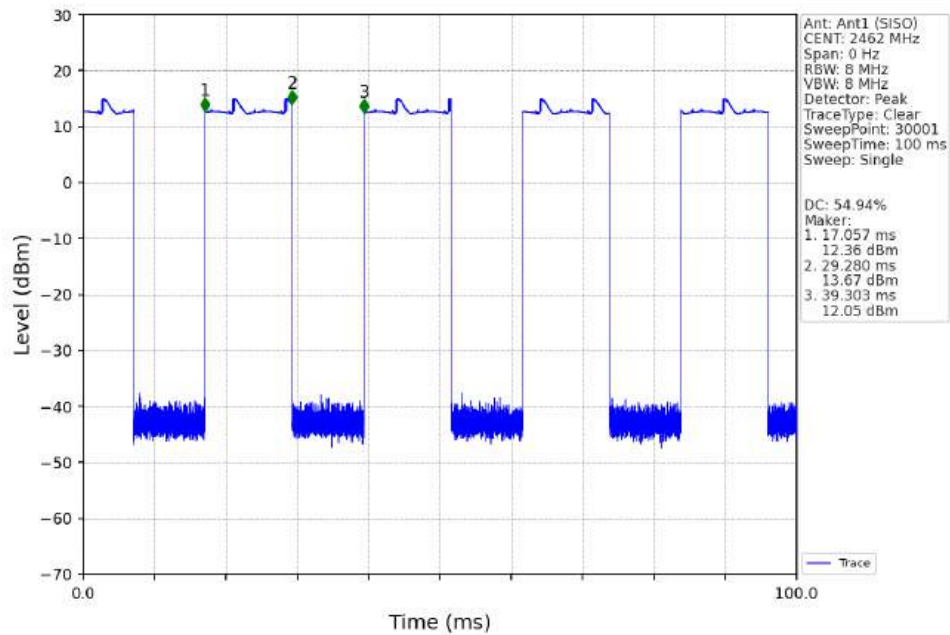
Ant1									
Mode	TX Type	Frequency (MHz)	RU	RU Pos	T_on (ms)	Period (ms)	Duty Cycle (%)	Duty Cycle Correction Factor (dB)	Max. DC Variation (%)
802.11b	SISO	2412	/	/	12.224	22.250	54.94	2.60	0.02
		2437	/	/	12.224	22.247	54.95	2.60	0.01
		2462	/	/	12.223	22.246	54.94	2.60	0.01
802.11g	SISO	2412	/	/	2.034	12.057	16.87	7.73	0.03
		2437	/	/	2.036	12.383	16.44	7.84	0.44
		2462	/	/	2.033	12.063	16.85	7.73	0.04
802.11n (HT20)	SISO	2412	/	/	1.894	11.917	15.89	7.99	0.03
		2437	/	/	1.893	11.923	15.88	7.99	0.03
		2462	/	/	1.893	11.923	15.88	7.99	0.04
802.11n (HT40)	SISO	2422	/	/	0.933	11.493	8.12	10.91	0.40
		2437	/	/	0.934	10.960	8.52	10.69	0.03
		2452	/	/	0.933	10.963	8.51	10.70	0.03
802.11ax (HEW20)	SISO	2412	SU	/	1.460	11.486	12.71	8.96	0.03
		2437	SU	/	1.463	11.493	12.73	8.95	0.01
		2462	SU	/	1.463	11.486	12.74	8.95	0.03
802.11ax (HEW40)	SISO	2422	SU	/	0.763	10.790	7.07	11.50	0.03
		2437	SU	/	0.763	10.863	7.02	11.53	0.08
		2452	SU	/	0.763	10.793	7.07	11.51	0.04

1.2 Test Graph

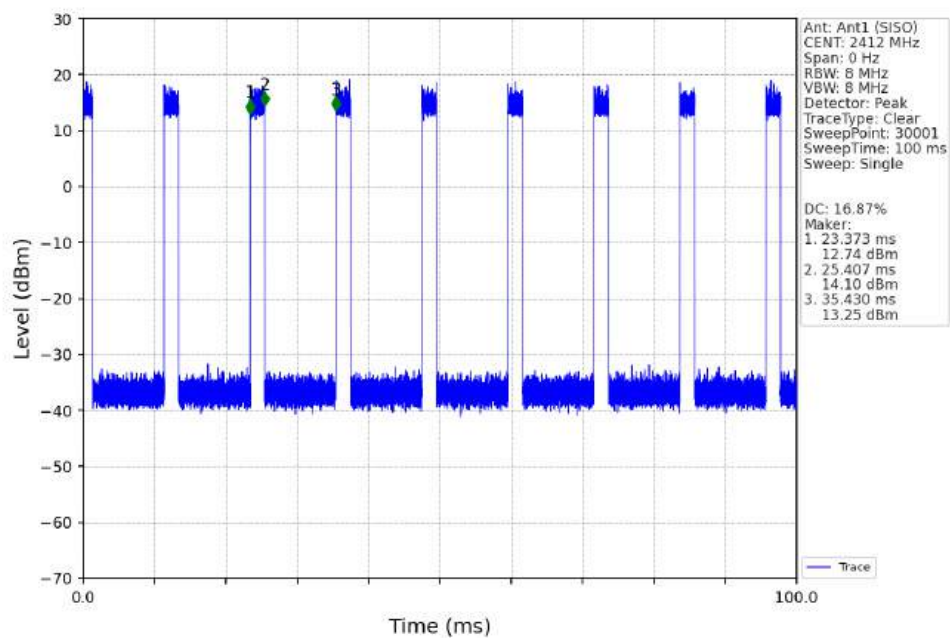
1.2.1 Ant1



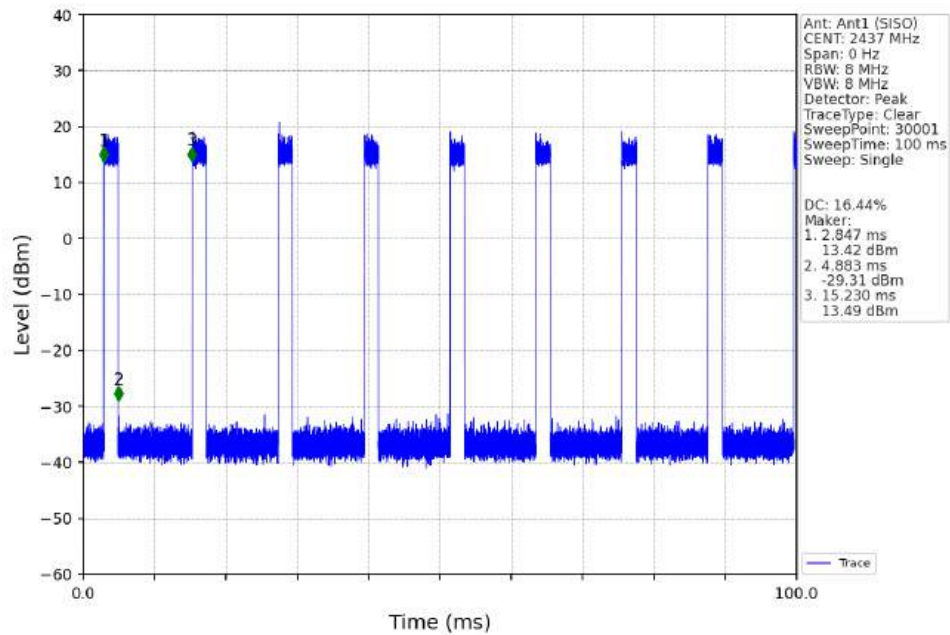
802.11b_HCH_2462MHz_Ant1 (SISO)_NTNV



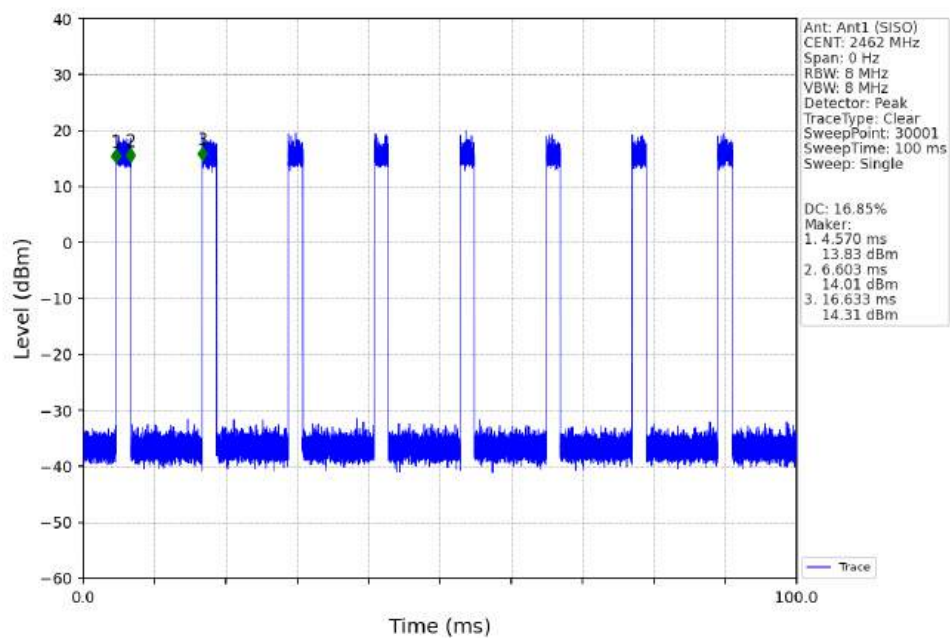
802.11g_LCH_2412MHz_Ant1 (SISO)_NTNV



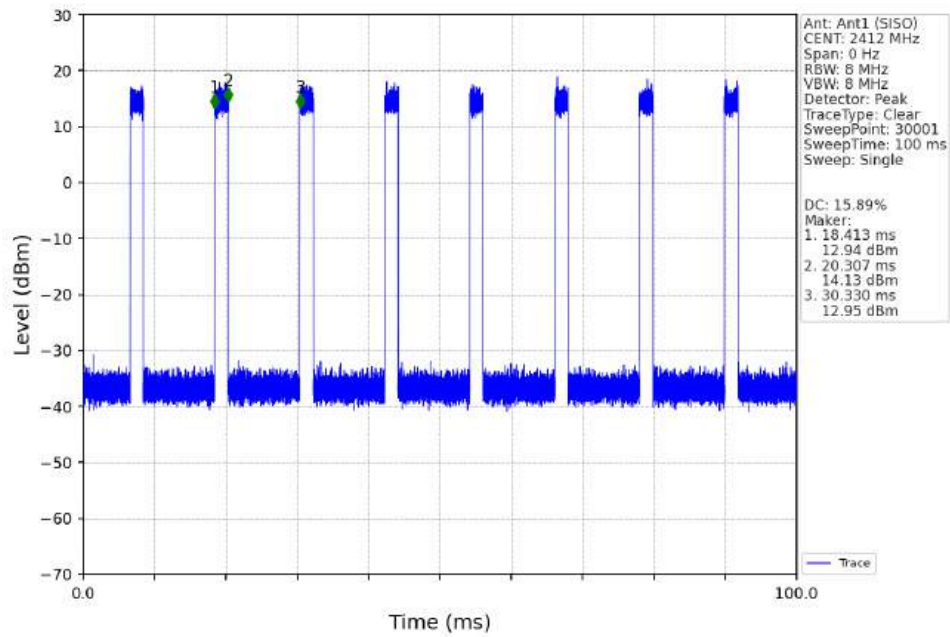
802.11g_MCH_2437MHz_Ant1 (SISO)_NTNV



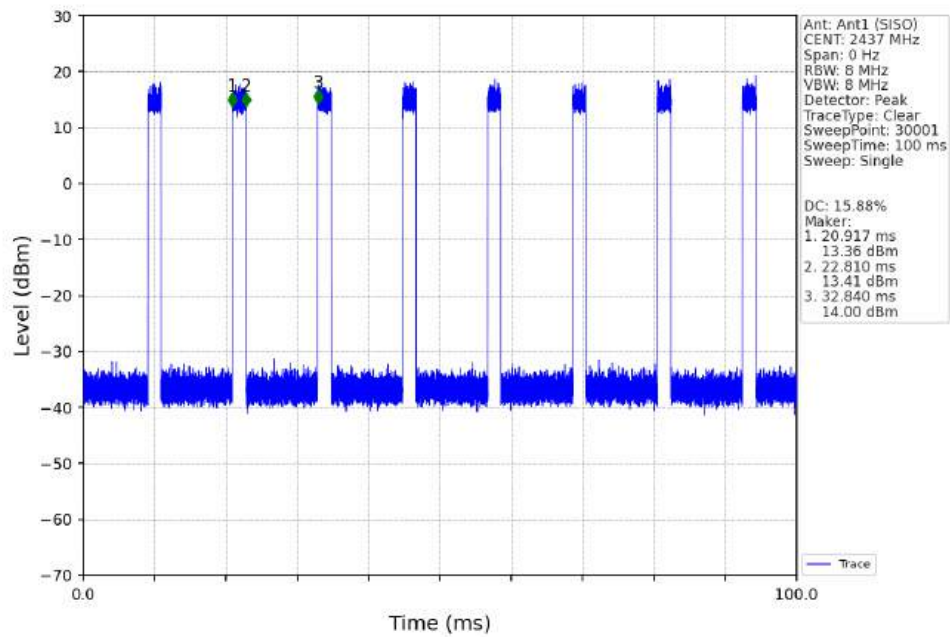
802.11g_HCH_2462MHz_Ant1 (SISO)_NTNV



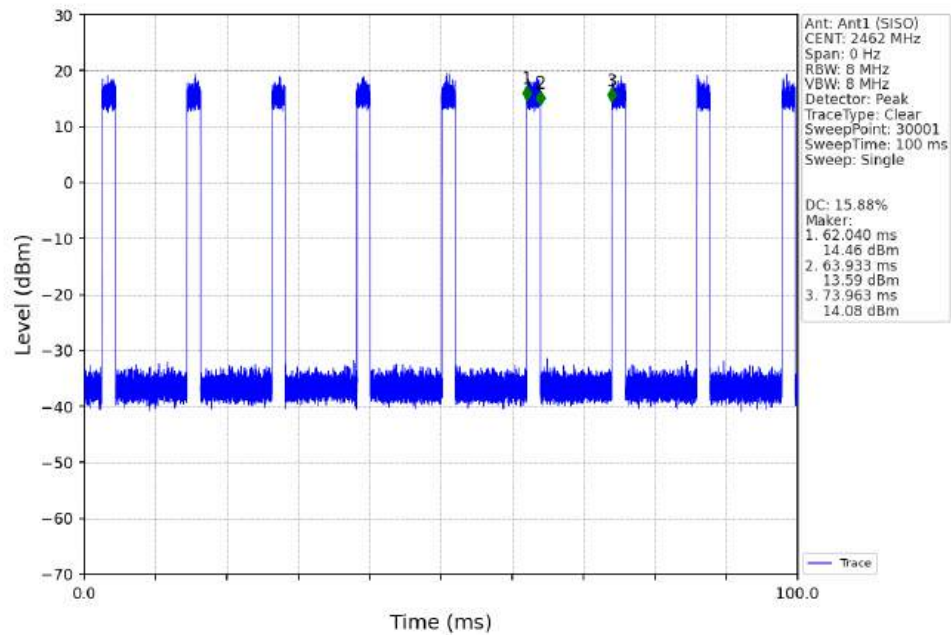
802.11n(HT20)_LCH_2412MHz_Ant1 (SISO)_NTNV



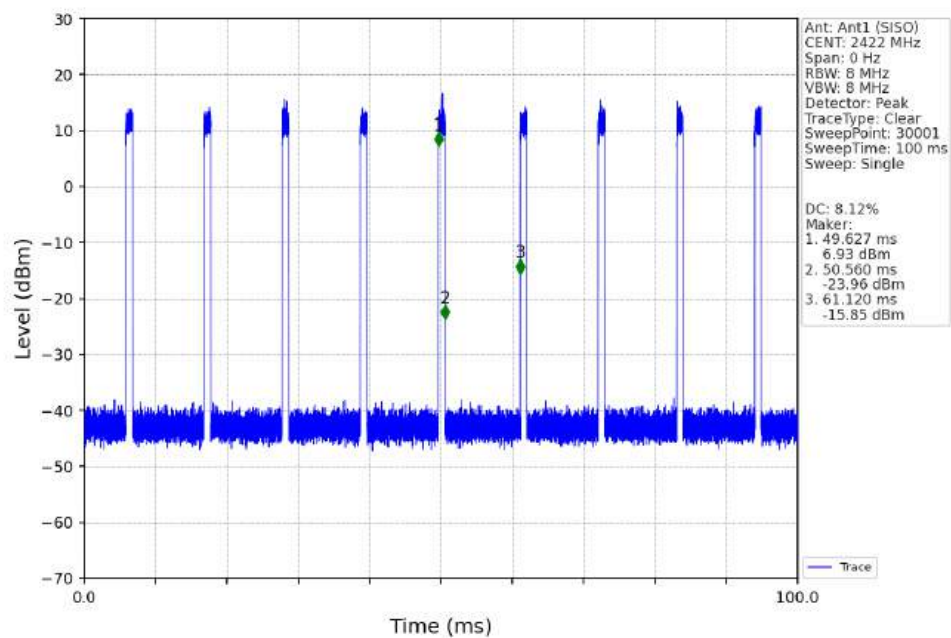
802.11n(HT20)_MCH_2437MHz_Ant1 (SISO)_NTNV



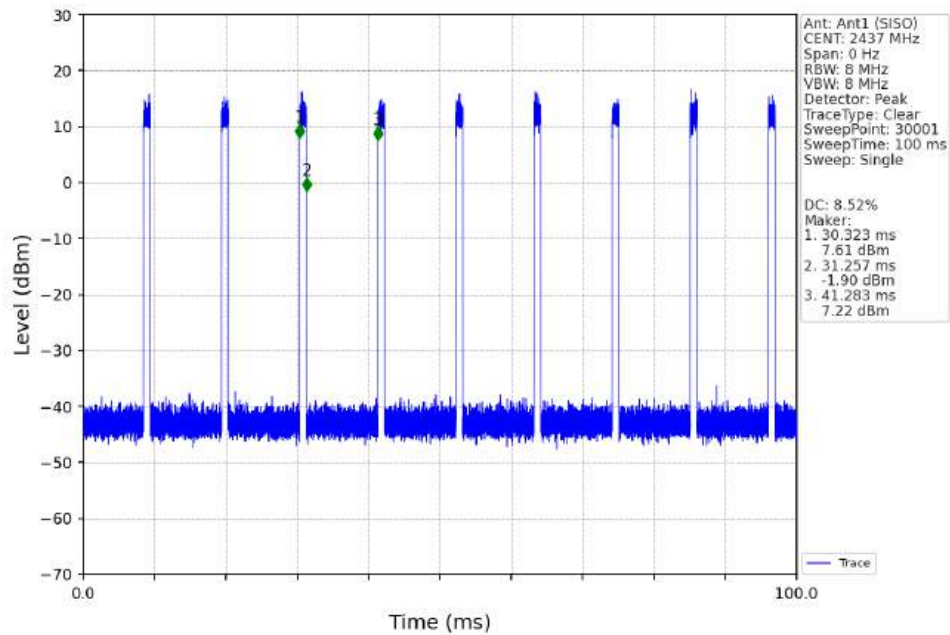
802.11n(HT20)_HCH_2462MHz_Ant1 (SISO)_NTNV



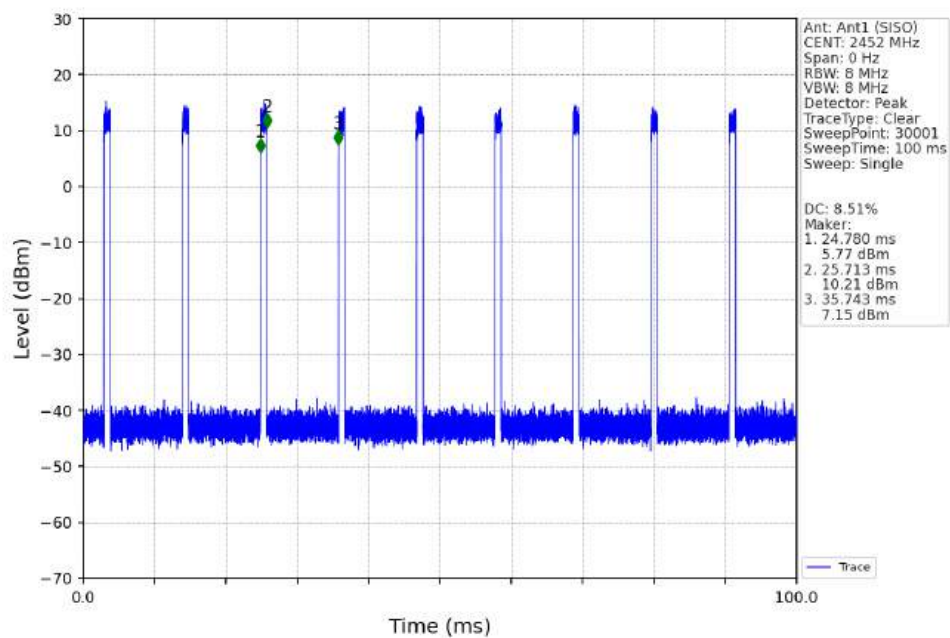
802.11n(HT40)_LCH_2422MHz_Ant1 (SISO)_NTNV



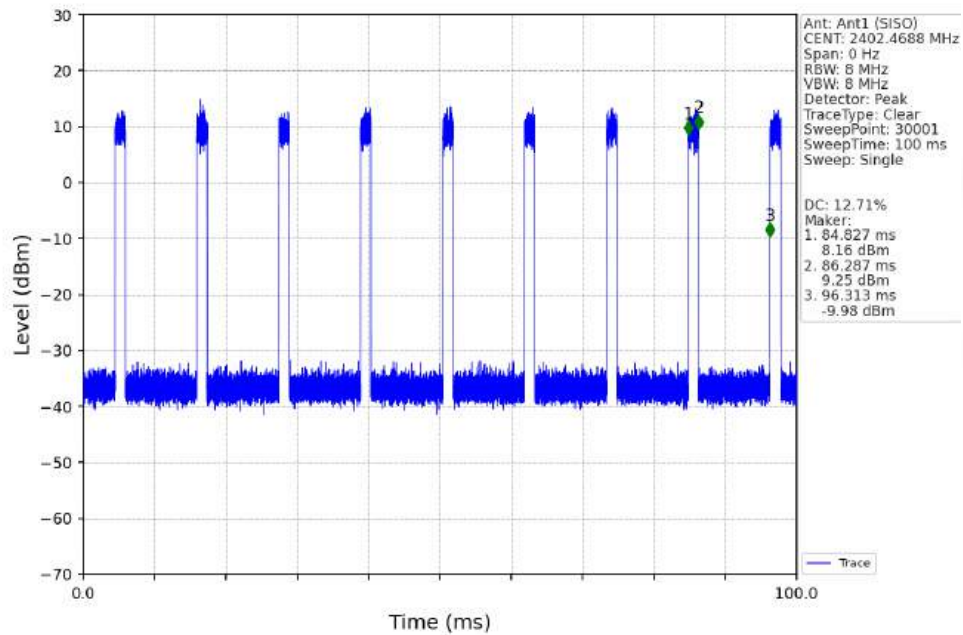
802.11n(HT40)_MCH_2437MHz_Ant1 (SISO)_NTNV



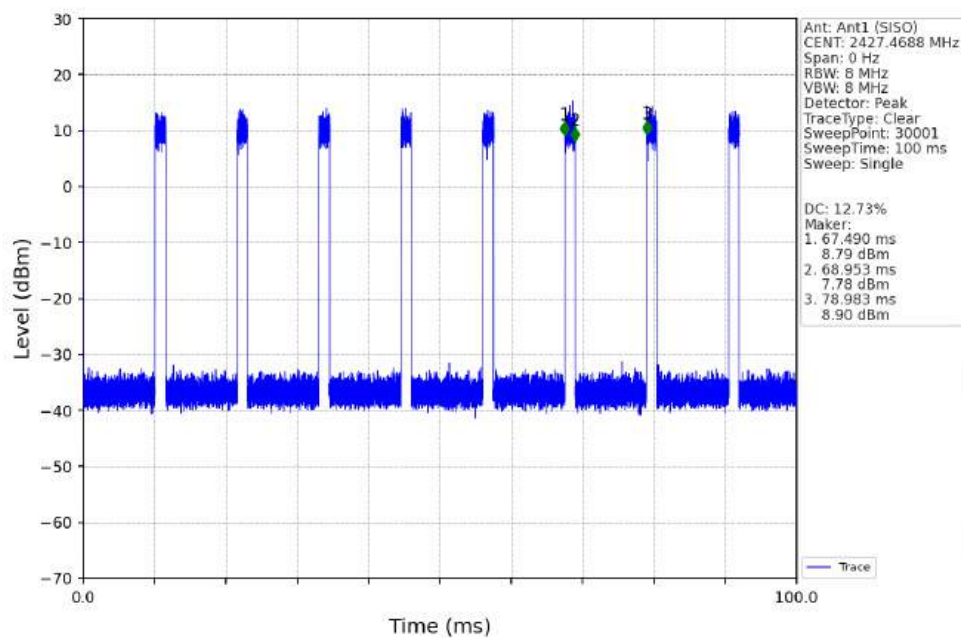
802.11n(HT40)_HCH_2452MHz_Ant1 (SISO)_NTNV



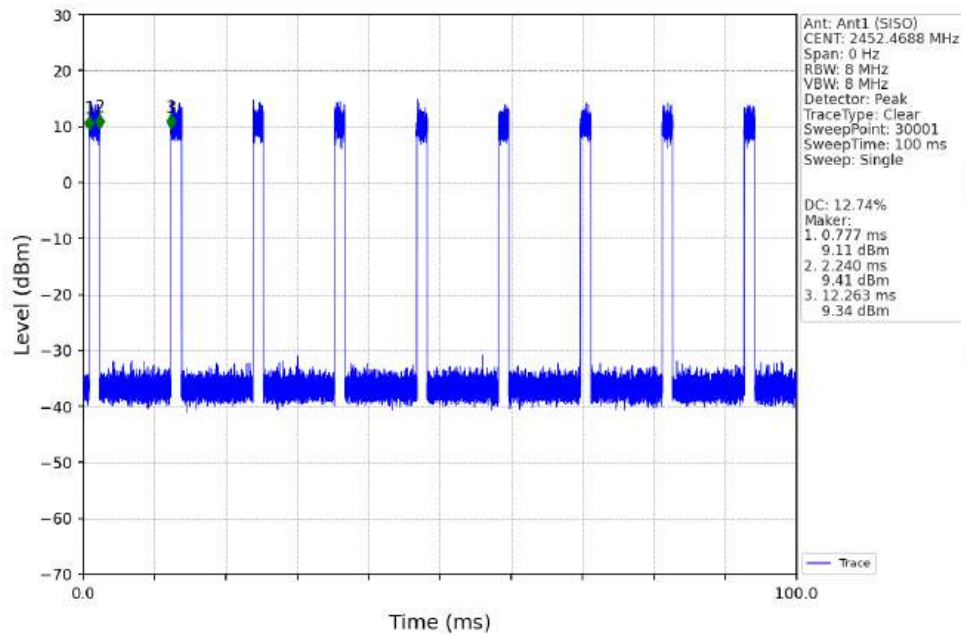
802.11ax(HEW20)_LCH_2412MHz_SU_ / _Ant1 (SISO)_NTNV



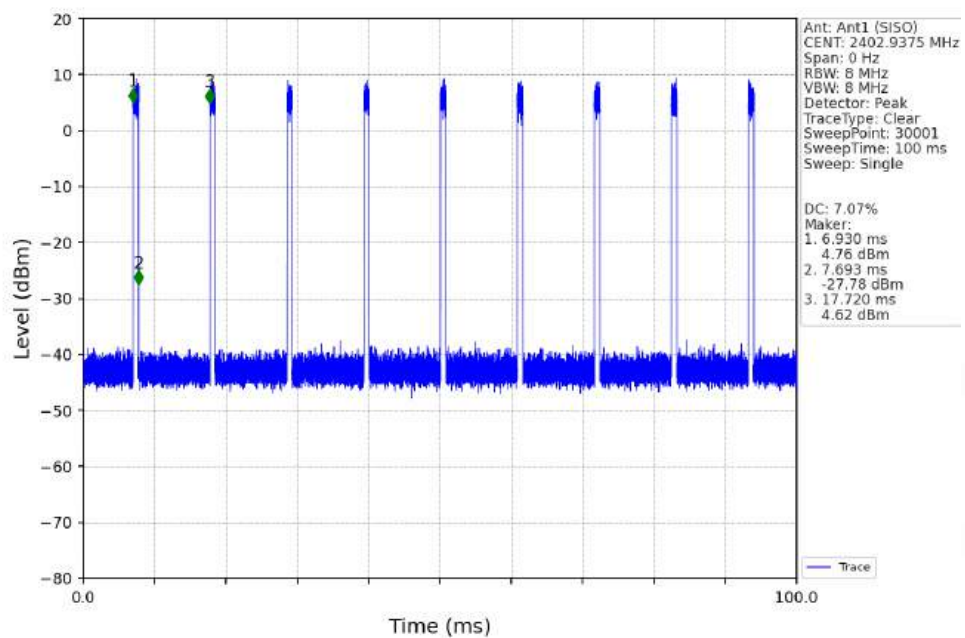
802.11ax(HEW20)_MCH_2437MHz_SU_ / _Ant1 (SISO)_NTNV



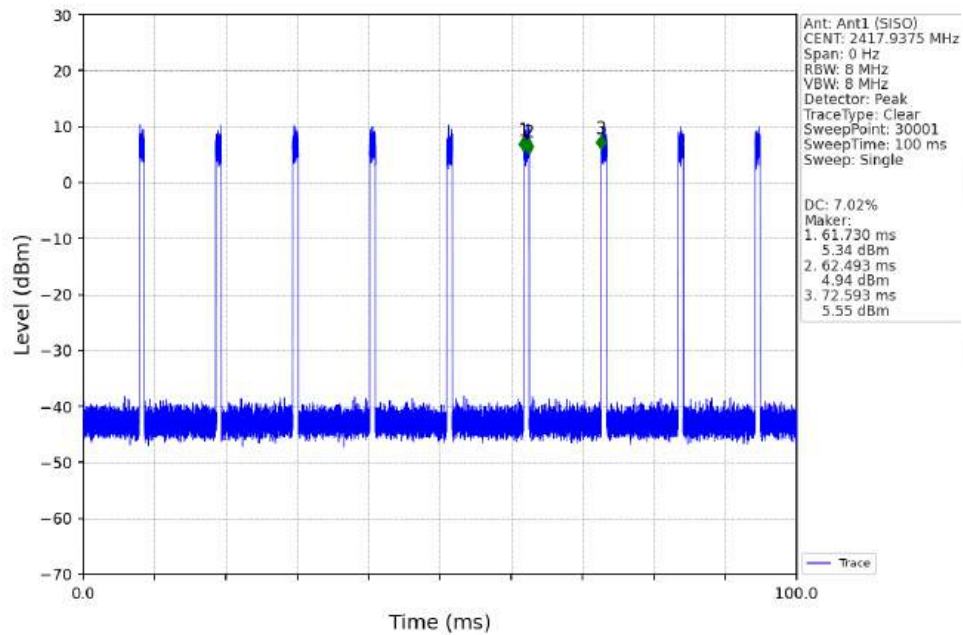
802.11ax(HEW20)_HCH_2462MHz_SU_ / _Ant1 (SISO)_NTNV



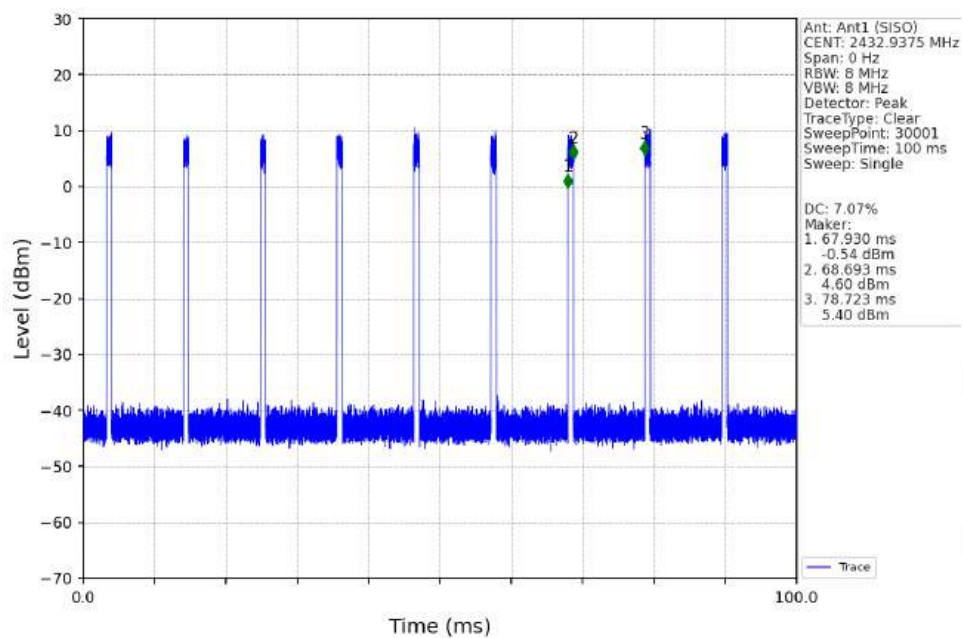
802.11ax(HEW40)_LCH_2422MHz_SU_ / _Ant1 (SISO)_NTNV



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

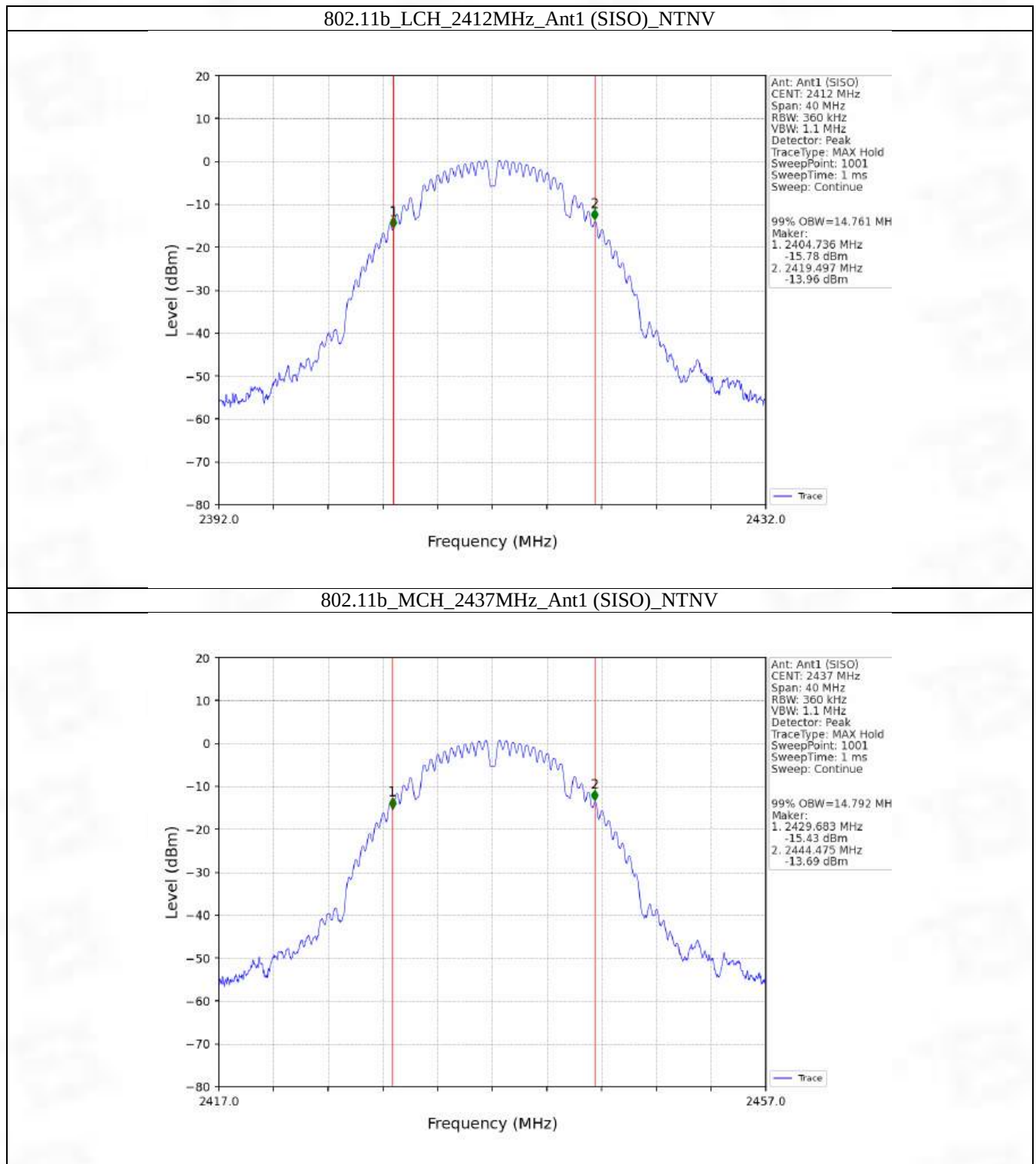
Mode	TX Type	Frequency (MHz)	RU	RU Pos	ANT	99% Occupied Bandwidth (MHz)		Verdict
						Result	Limit	
802.11b	SISO	2412	/	/	1	14.761	/	Pass
		2437	/	/	1	14.792	/	Pass
		2462	/	/	1	14.822	/	Pass
802.11g	SISO	2412	/	/	1	17.920	/	Pass
		2437	/	/	1	17.821	/	Pass
		2462	/	/	1	17.929	/	Pass
802.11n (HT20)	SISO	2412	/	/	1	18.844	/	Pass
		2437	/	/	1	18.910	/	Pass
		2462	/	/	1	18.914	/	Pass
802.11n (HT40)	SISO	2422	/	/	1	36.934	/	Pass
		2437	/	/	1	36.921	/	Pass
		2452	/	/	1	36.924	/	Pass
802.11ax (HEW20)	SISO	2412	SU	/	1	19.333	/	Pass
		2437	SU	/	1	19.348	/	Pass
		2462	SU	/	1	19.391	/	Pass
802.11ax (HEW40)	SISO	2422	SU	/	1	38.185	/	Pass
		2437	SU	/	1	38.029	/	Pass
		2452	SU	/	1	38.022	/	Pass

2.1.2 6dB BW

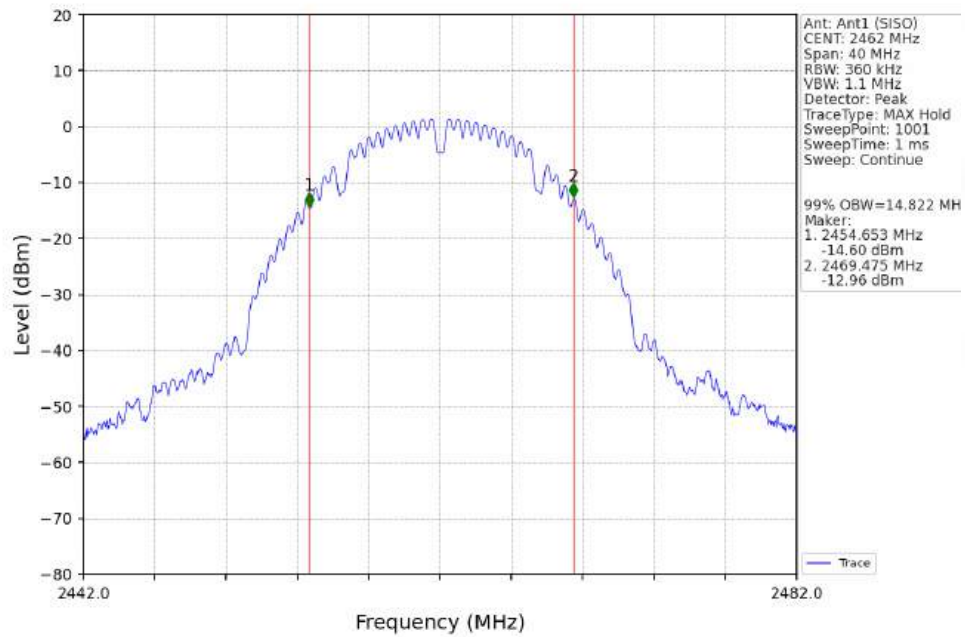
Mode	TX Type	Frequency (MHz)	RU	RU Pos	ANT	6dB Bandwidth (MHz)		Verdict
						Result	Limit	
802.11b	SISO	2412	/	/	1	10.173	≥ 0.5	Pass
		2437	/	/	1	10.182	≥ 0.5	Pass
		2462	/	/	1	10.182	≥ 0.5	Pass
802.11g	SISO	2412	/	/	1	16.242	≥ 0.5	Pass
		2437	/	/	1	16.171	≥ 0.5	Pass
		2462	/	/	1	16.359	≥ 0.5	Pass
802.11n (HT20)	SISO	2412	/	/	1	17.374	≥ 0.5	Pass
		2437	/	/	1	17.532	≥ 0.5	Pass
		2462	/	/	1	17.514	≥ 0.5	Pass
802.11n (HT40)	SISO	2422	/	/	1	35.644	≥ 0.5	Pass
		2437	/	/	1	35.688	≥ 0.5	Pass
		2452	/	/	1	35.813	≥ 0.5	Pass
802.11ax (HEW20)	SISO	2412	SU	/	1	18.535	≥ 0.5	Pass
		2437	SU	/	1	17.774	≥ 0.5	Pass
		2462	SU	/	1	18.901	≥ 0.5	Pass
802.11ax (HEW40)	SISO	2422	SU	/	1	37.173	≥ 0.5	Pass
		2437	SU	/	1	36.916	≥ 0.5	Pass
		2452	SU	/	1	37.233	≥ 0.5	Pass

2.2 Test Graph

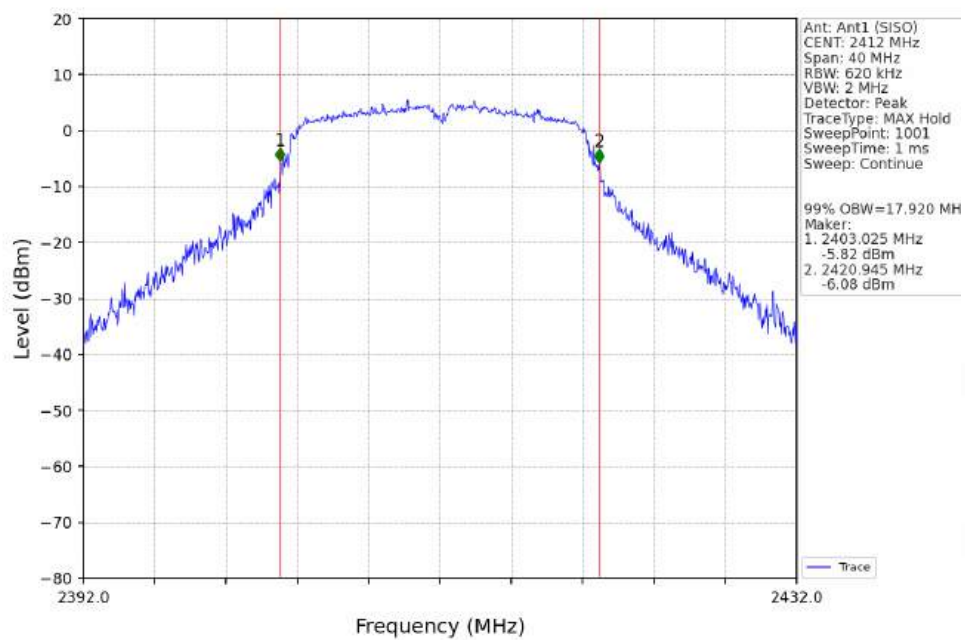
2.2.1 OBW



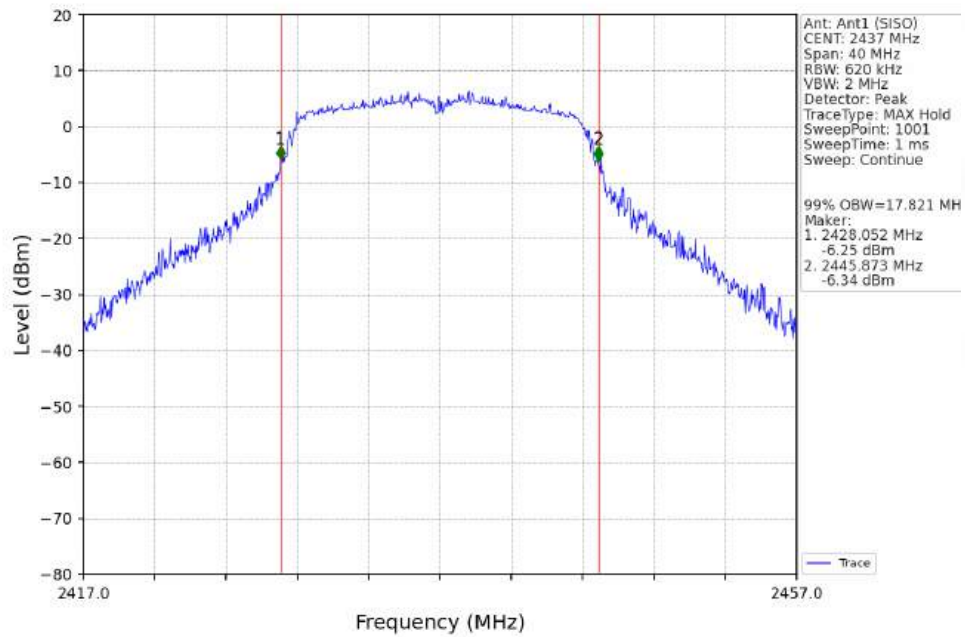
802.11b_HCH_2462MHz_Ant1 (SISO)_NTNV



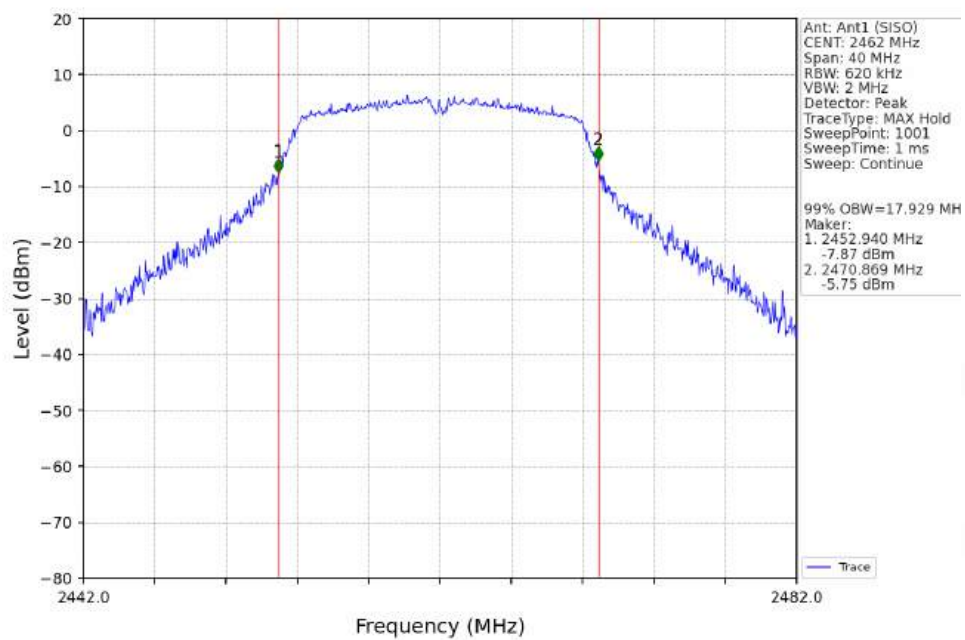
802.11g_LCH_2412MHz_Ant1 (SISO)_NTNV



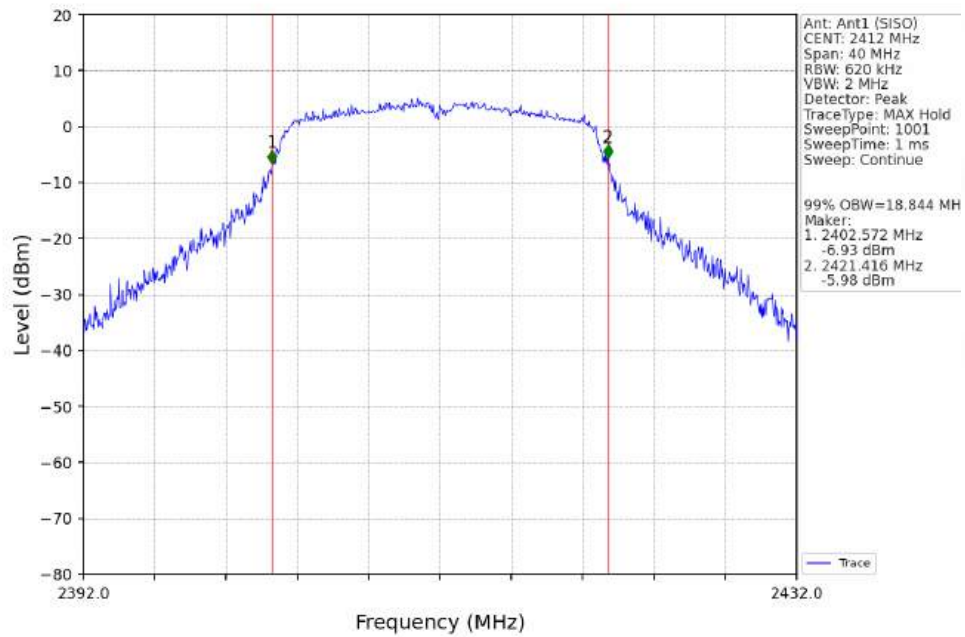
802.11g_MCH_2437MHz_Ant1 (SISO)_NTNV



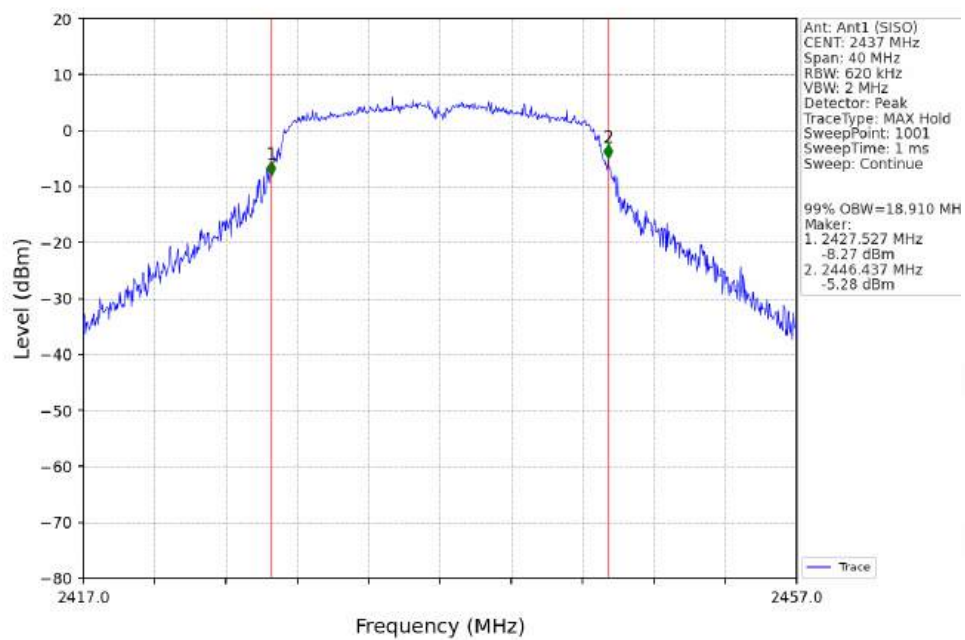
802.11g_HCH_2462MHz_Ant1 (SISO)_NTNV



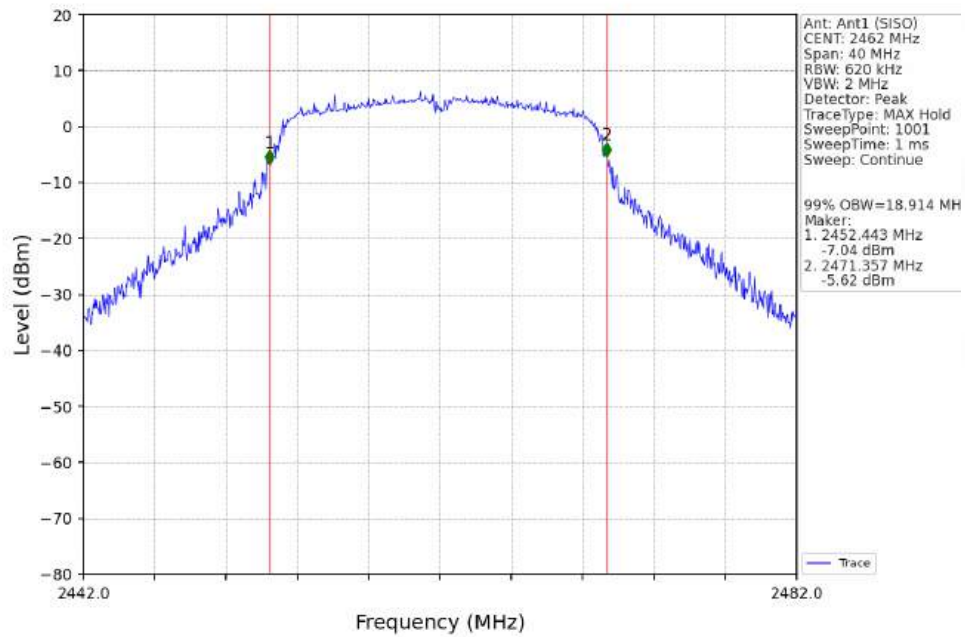
802.11n(HT20)_LCH_2412MHz_Ant1 (SISO)_NTNV



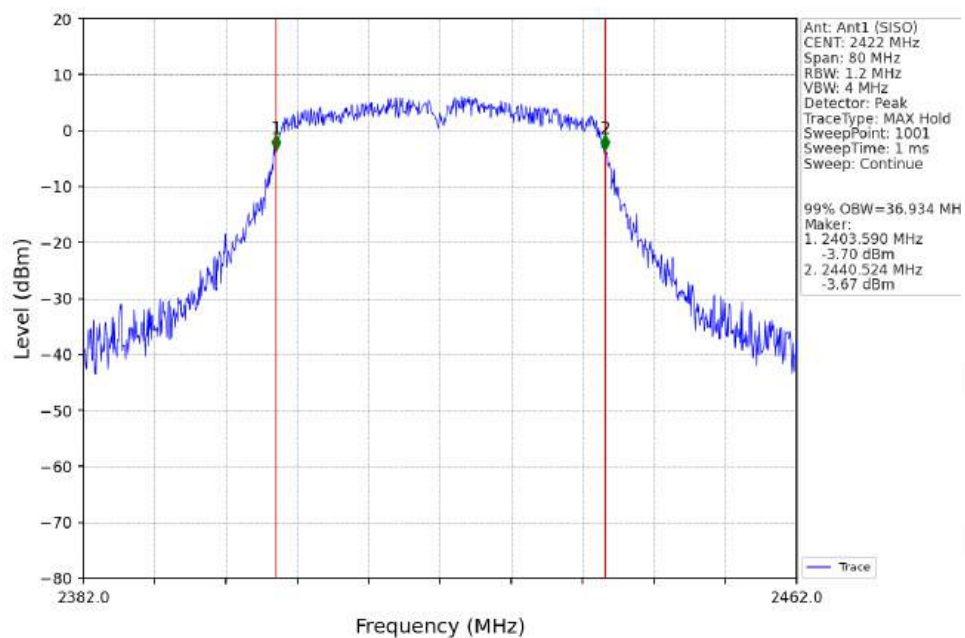
802.11n(HT20)_MCH_2437MHz_Ant1 (SISO)_NTNV



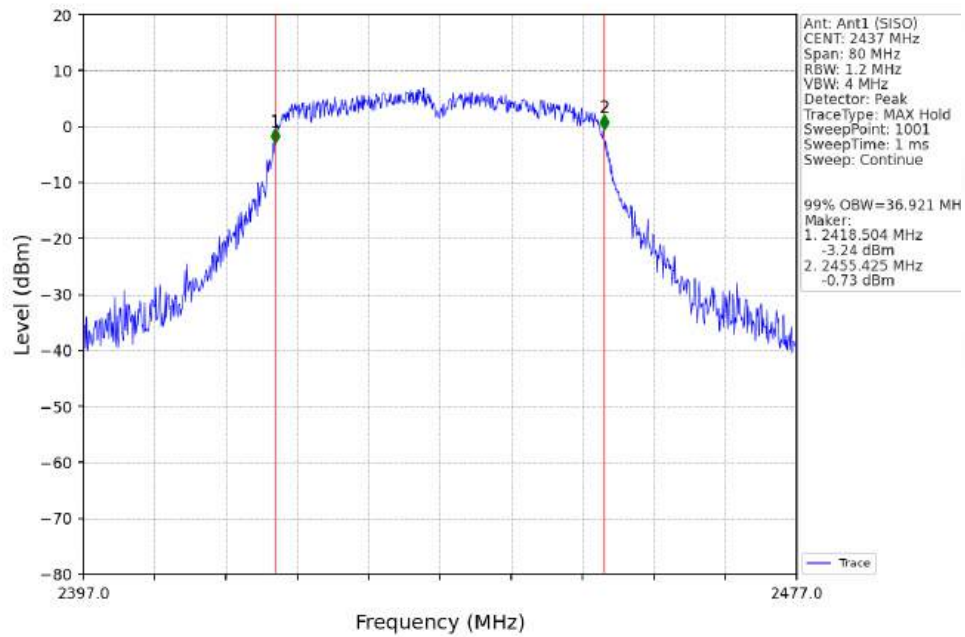
802.11n(HT20)_HCH_2462MHz_Ant1 (SISO)_NTNV



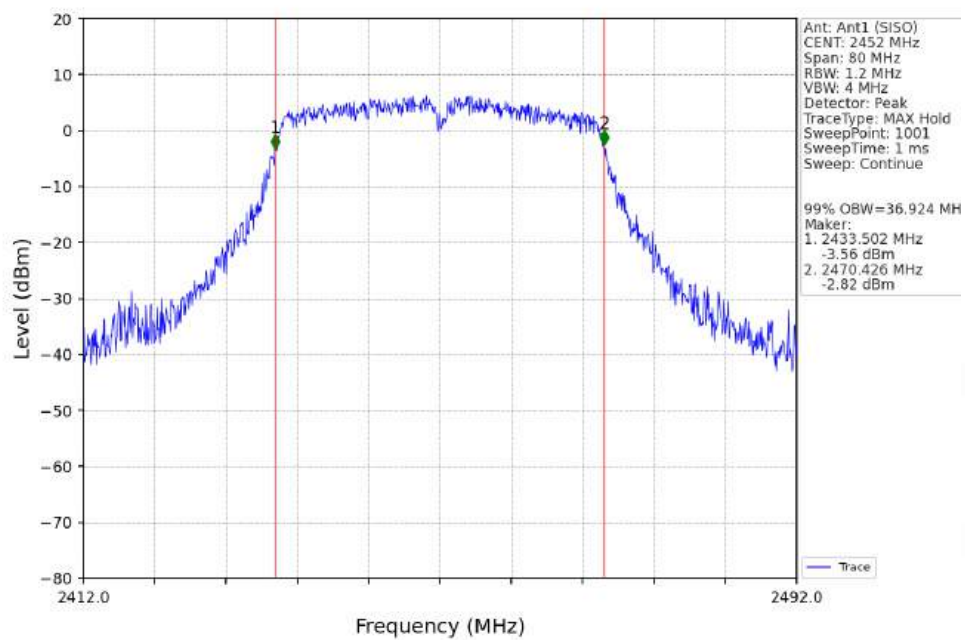
802.11n(HT40)_LCH_2422MHz_Ant1 (SISO)_NTNV



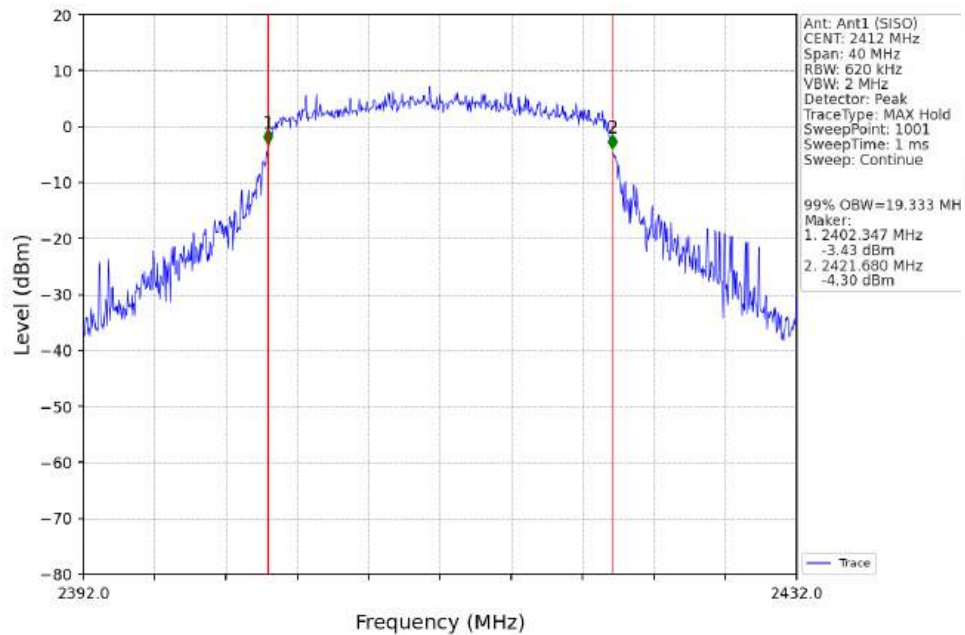
802.11n(HT40)_MCH_2437MHz_Ant1 (SISO)_NTNV



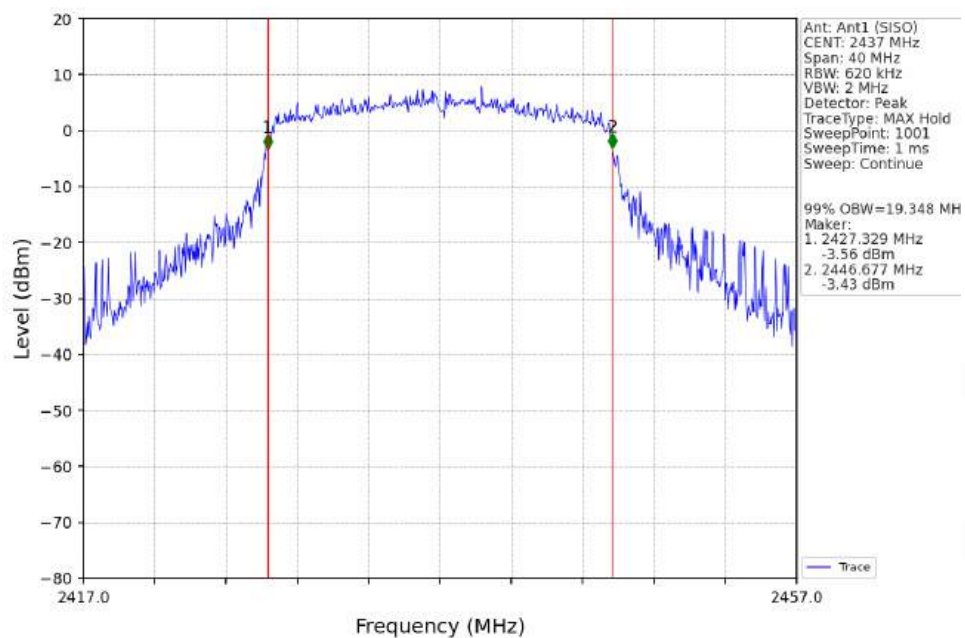
802.11n(HT40)_HCH_2452MHz_Ant1 (SISO)_NTNV



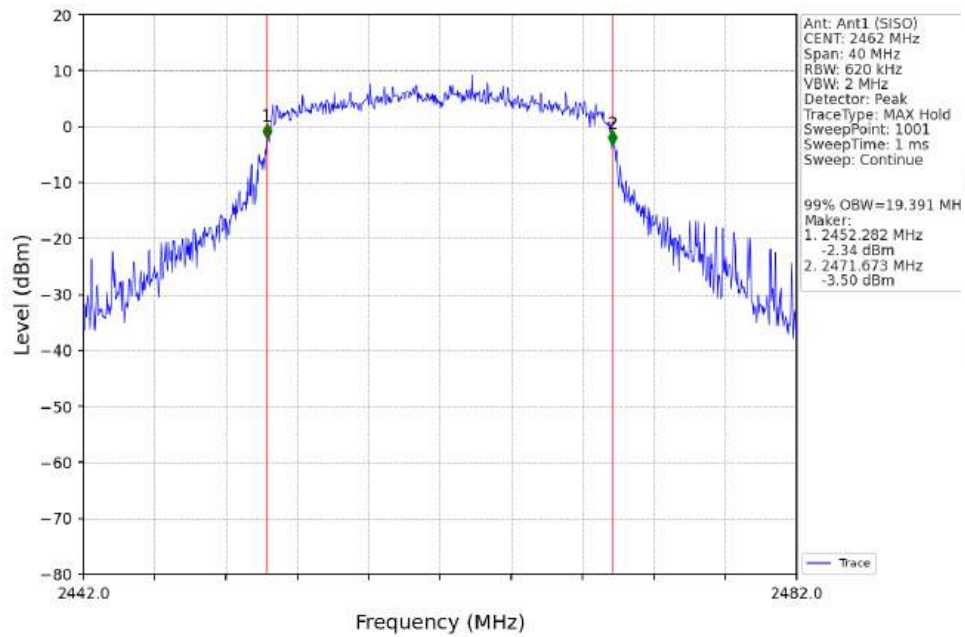
802.11ax(HEW20)_LCH_2412MHz_SU_ / _Ant1 (SISO)_NTNV



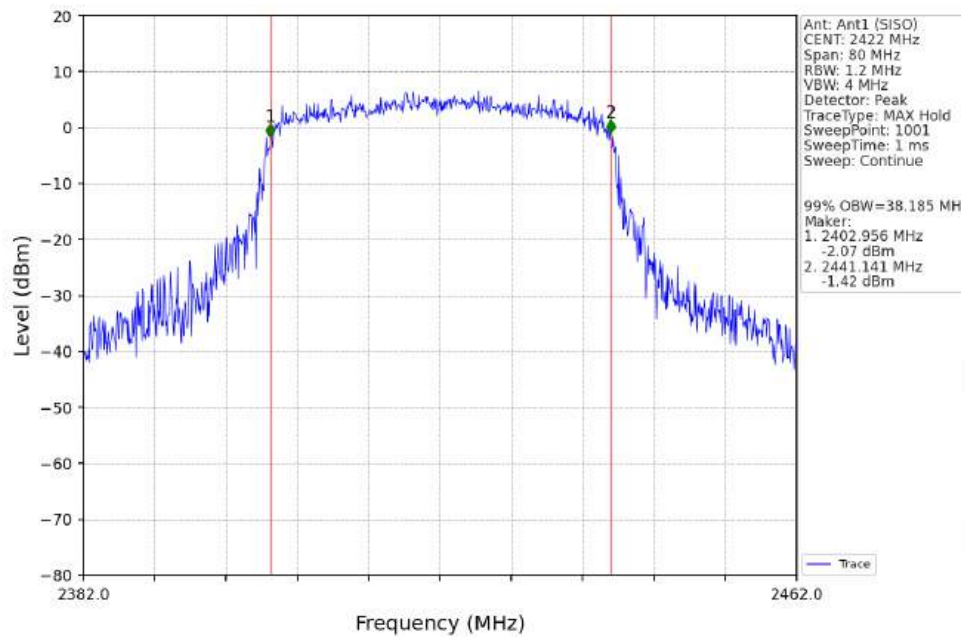
802.11ax(HEW20)_MCH_2437MHz_SU_ / _Ant1 (SISO)_NTNV



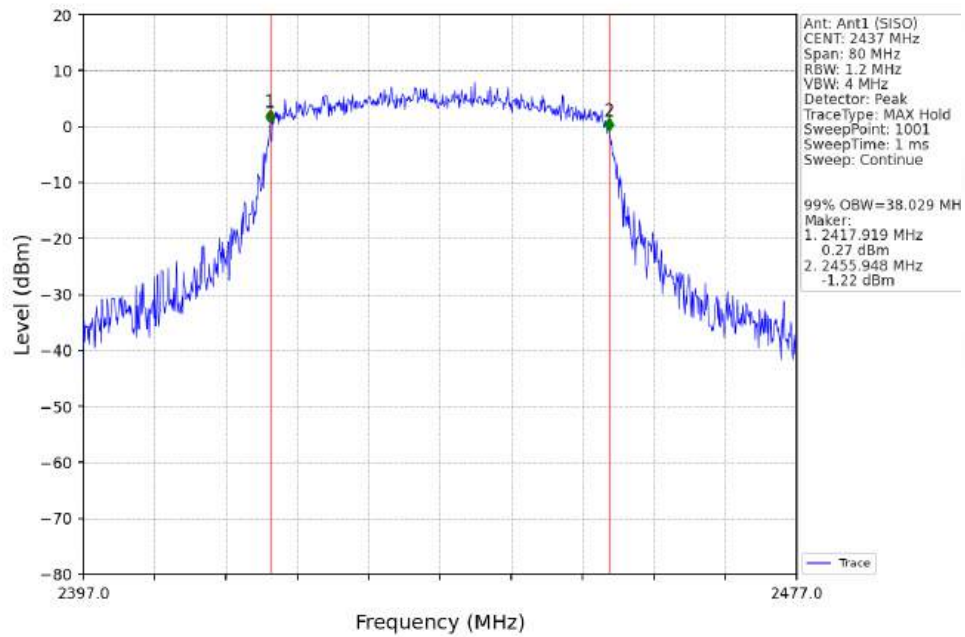
802.11ax(HEW20)_HCH_2462MHz_SU_ / _Ant1 (SISO)_NTNV



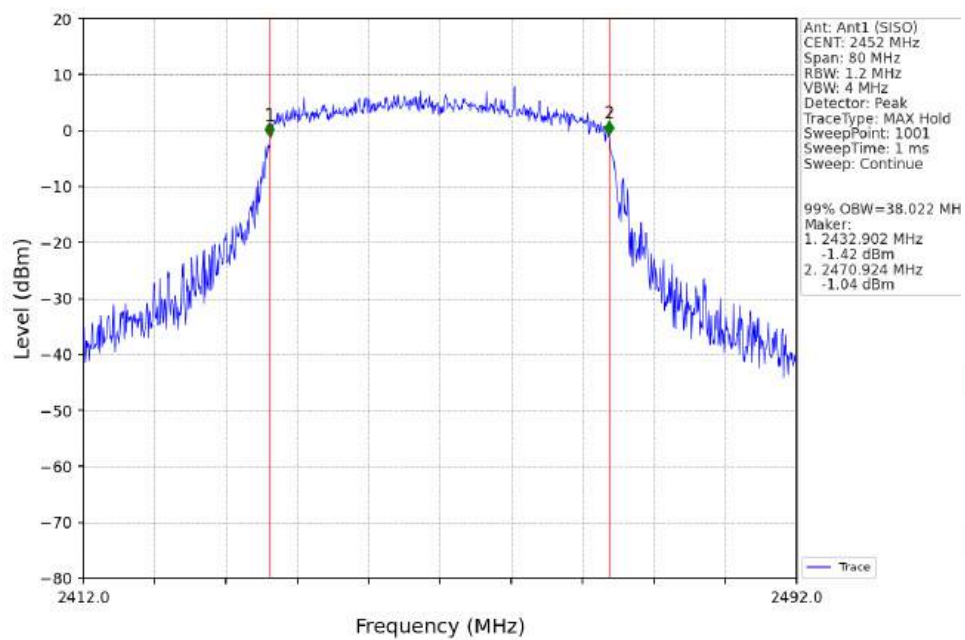
802.11ax(HEW40)_LCH_2422MHz_SU_ / _Ant1 (SISO)_NTNV



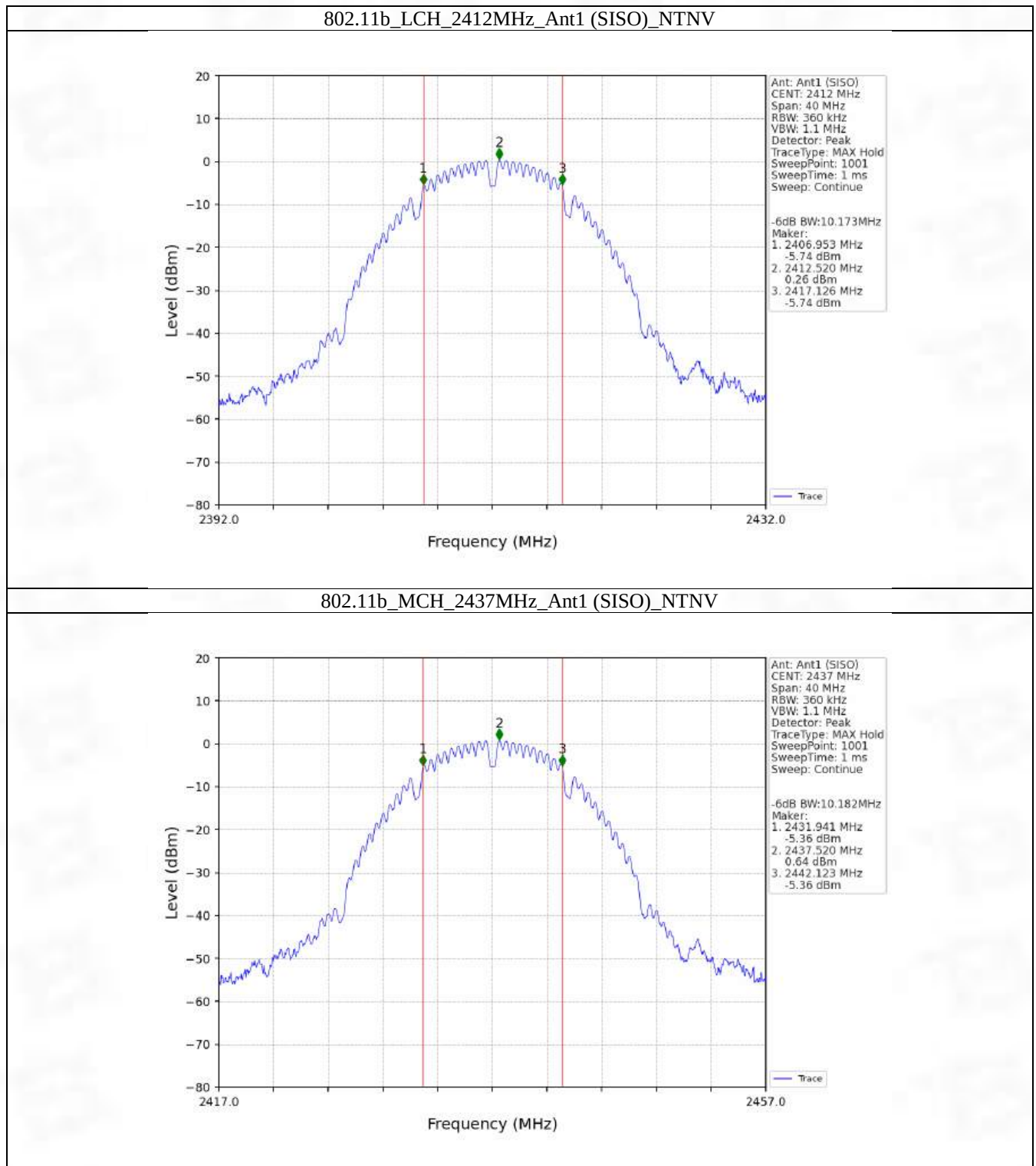
802.11ax(HEW40)_MCH_2437MHz_SU_ / _Ant1 (SISO)_NTNV



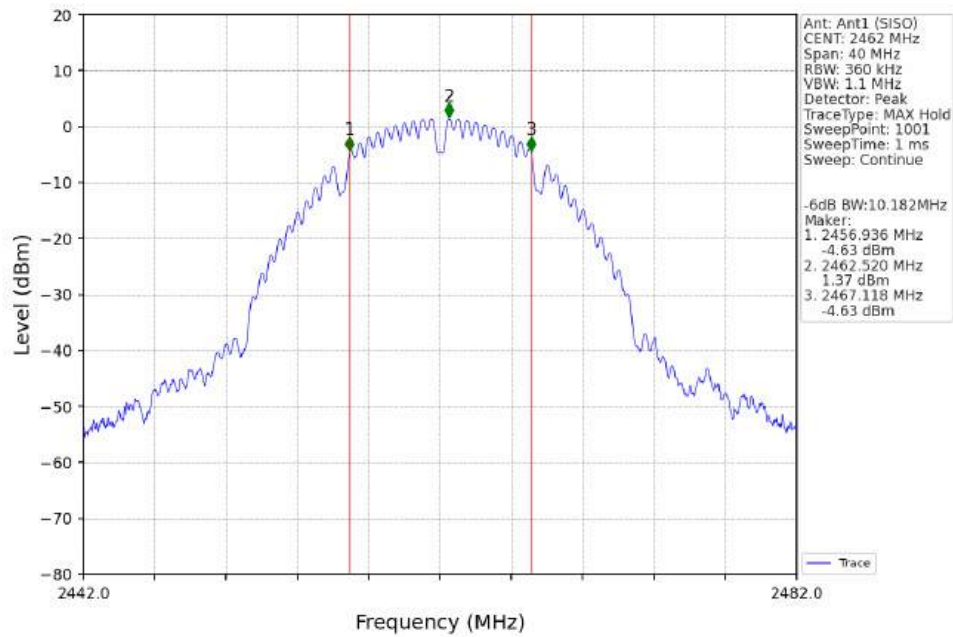
802.11ax(HEW40)_HCH_2452MHz_SU_ / _Ant1 (SISO)_NTNV



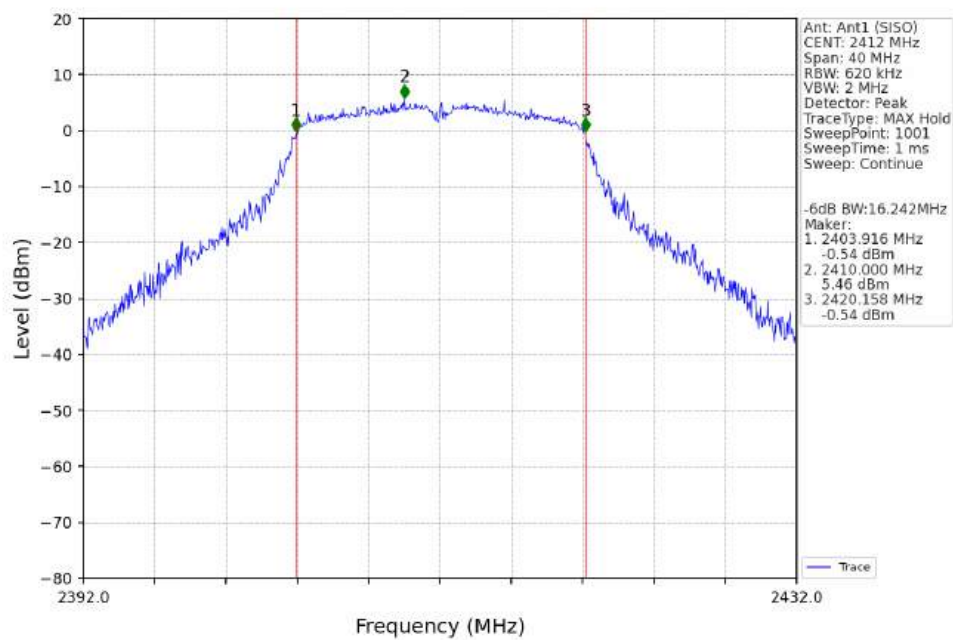
2.2.2 6dB BW



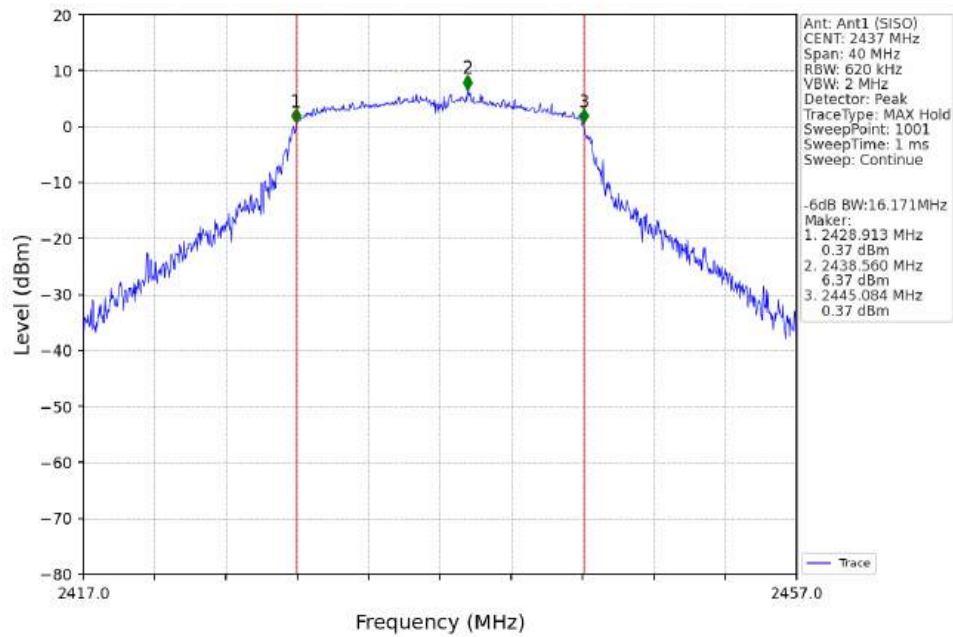
802.11b_HCH_2462MHz_Ant1 (SISO)_NTNV



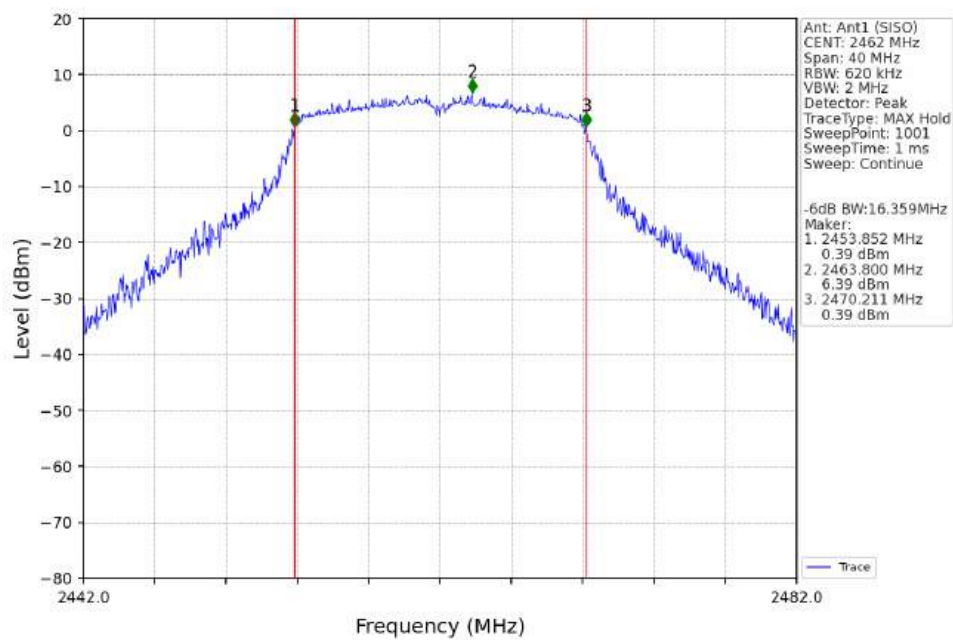
802.11g_LCH_2412MHz_Ant1 (SISO)_NTNV



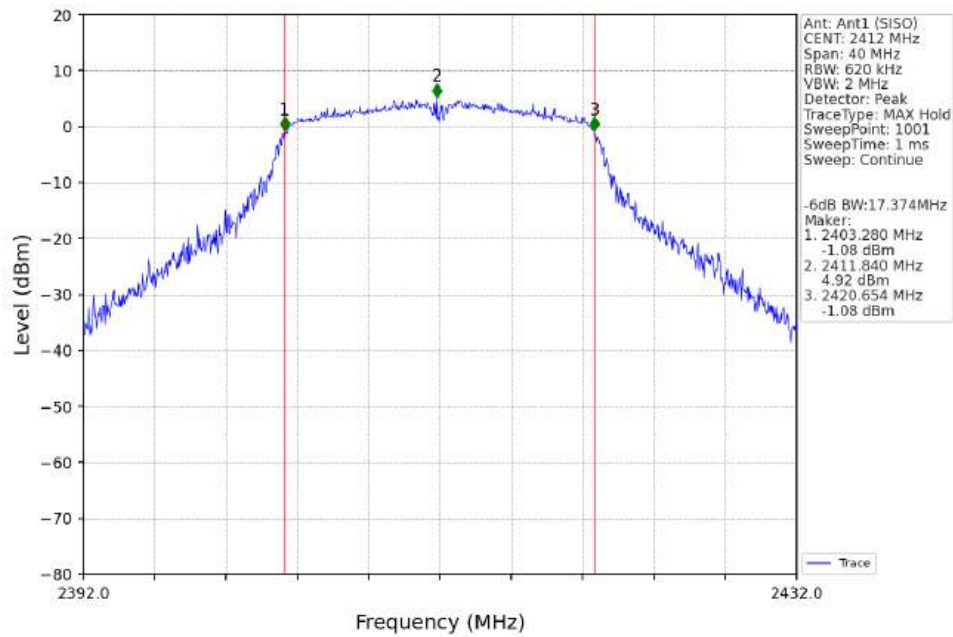
802.11g_MCH_2437MHz_Ant1 (SISO)_NTNV



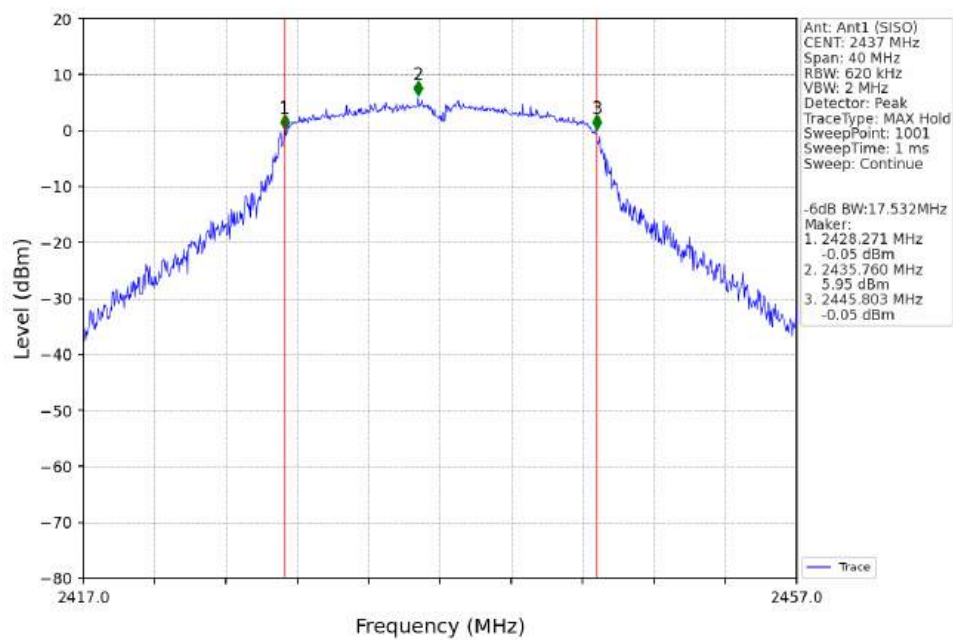
802.11g_HCH_2462MHz_Ant1 (SISO)_NTNV



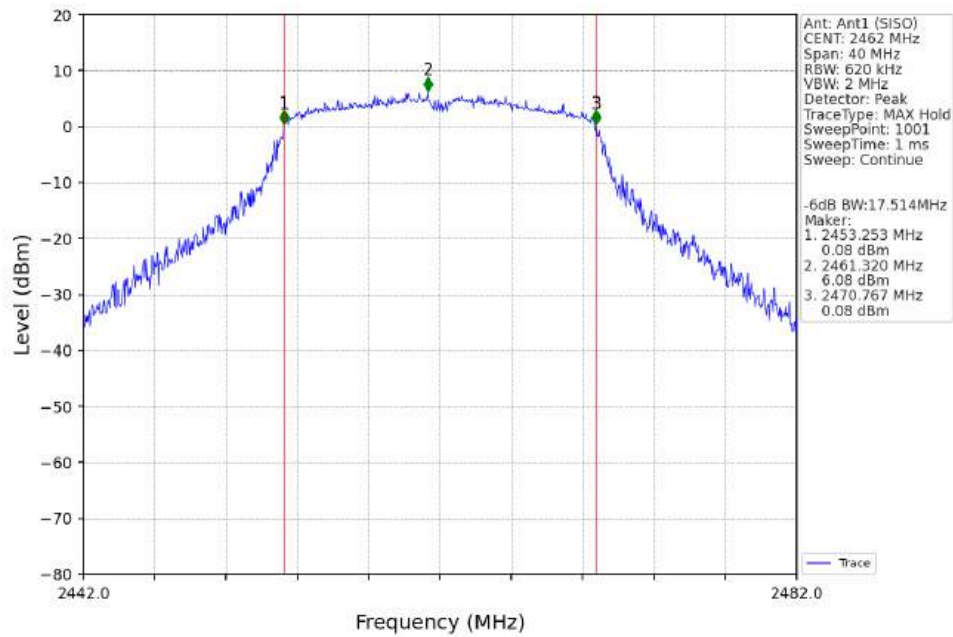
802.11n(HT20)_LCH_2412MHz_Ant1 (SISO)_NTNV



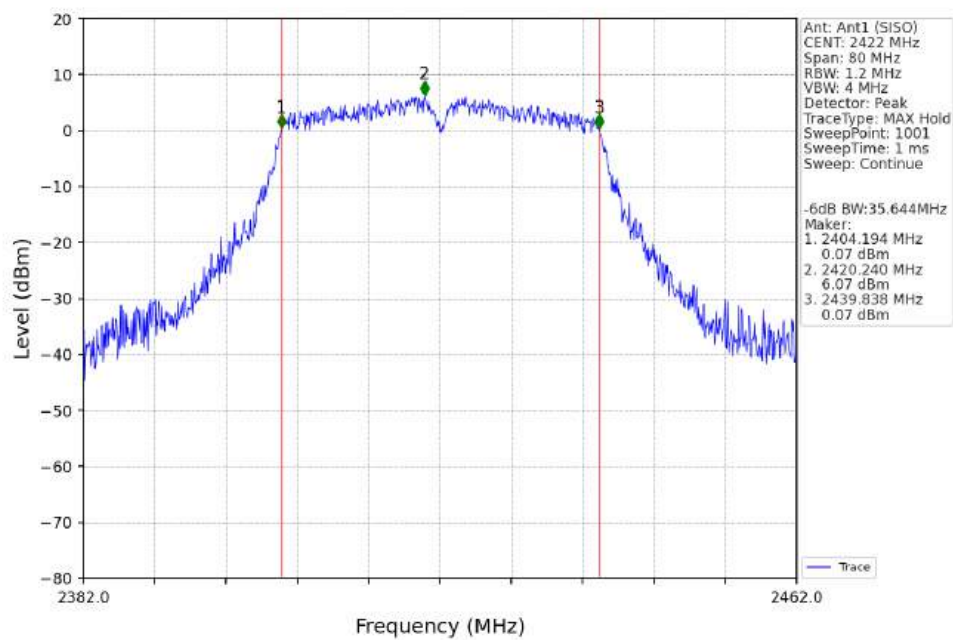
802.11n(HT20)_MCH_2437MHz_Ant1 (SISO)_NTNV



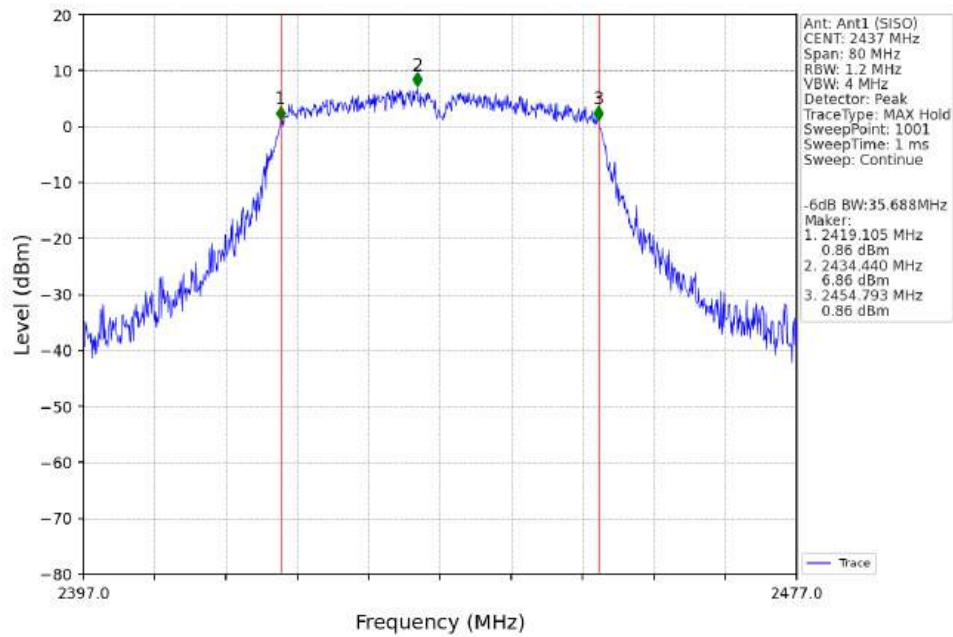
802.11n(HT20)_HCH_2462MHz_Ant1 (SISO)_NTNV



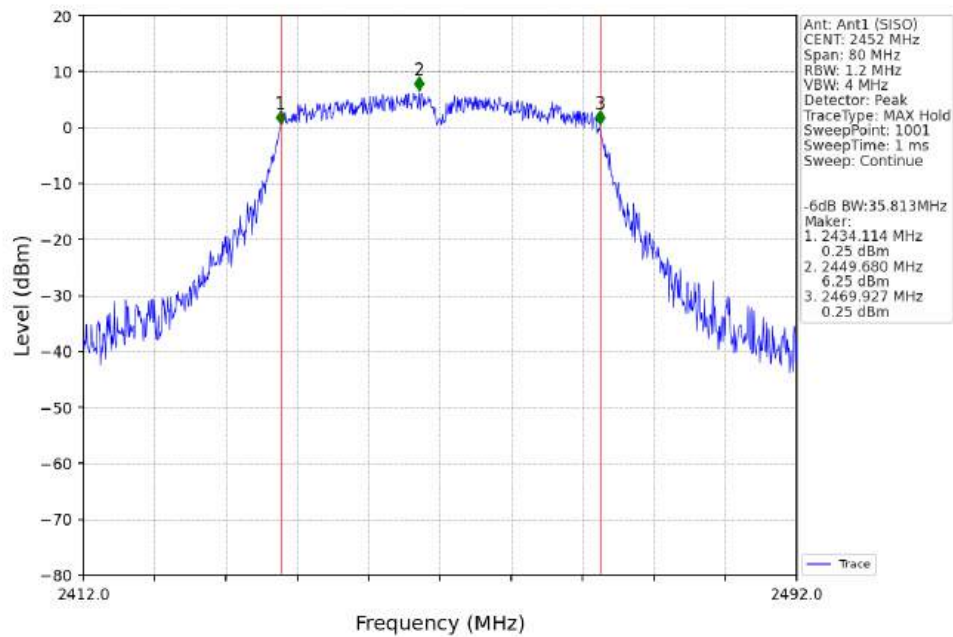
802.11n(HT40)_LCH_2422MHz_Ant1 (SISO)_NTNV



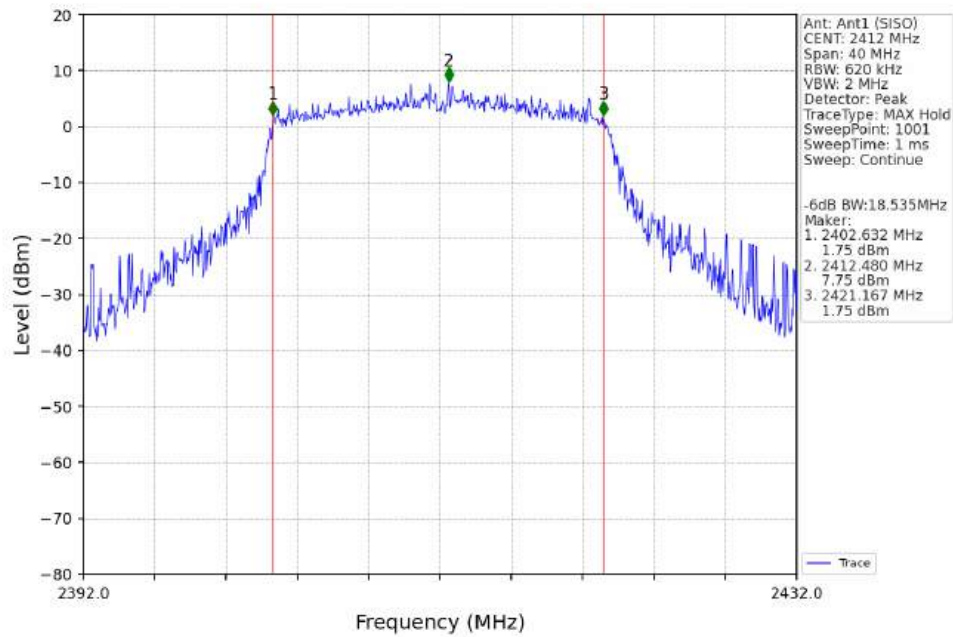
802.11n(HT40)_MCH_2437MHz_Ant1 (SISO)_NTNV



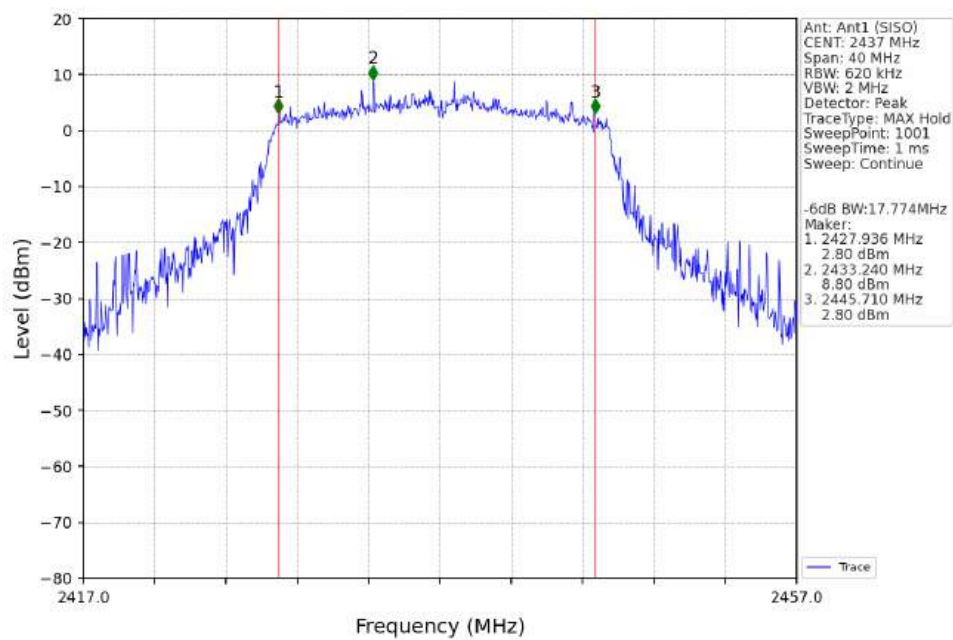
802.11n(HT40)_HCH_2452MHz_Ant1 (SISO)_NTNV



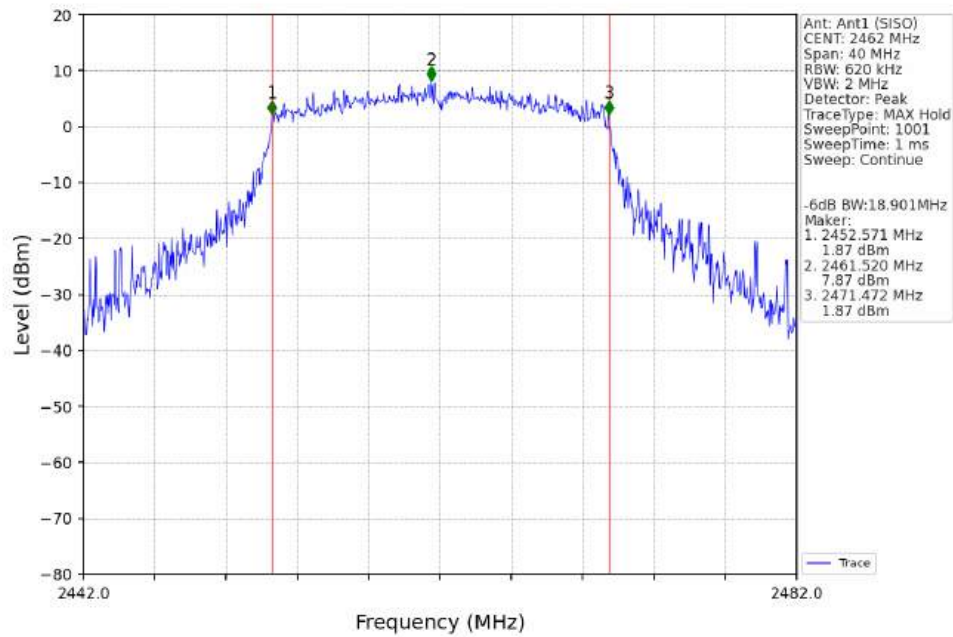
802.11ax(HEW20)_LCH_2412MHz_SU_ / _Ant1 (SISO)_NTNV



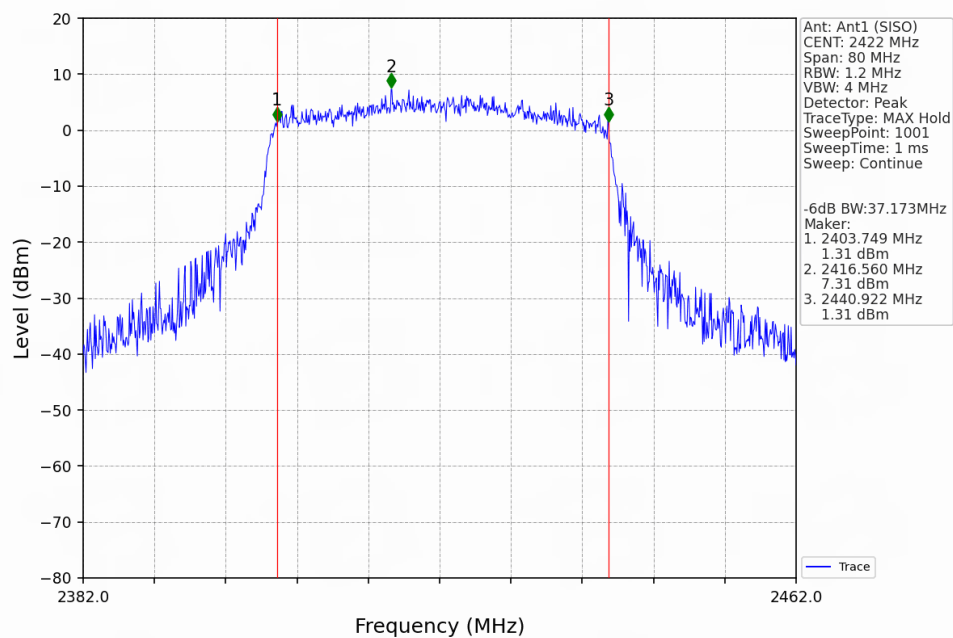
802.11ax(HEW20)_MCH_2437MHz_SU_ / _Ant1 (SISO)_NTNV



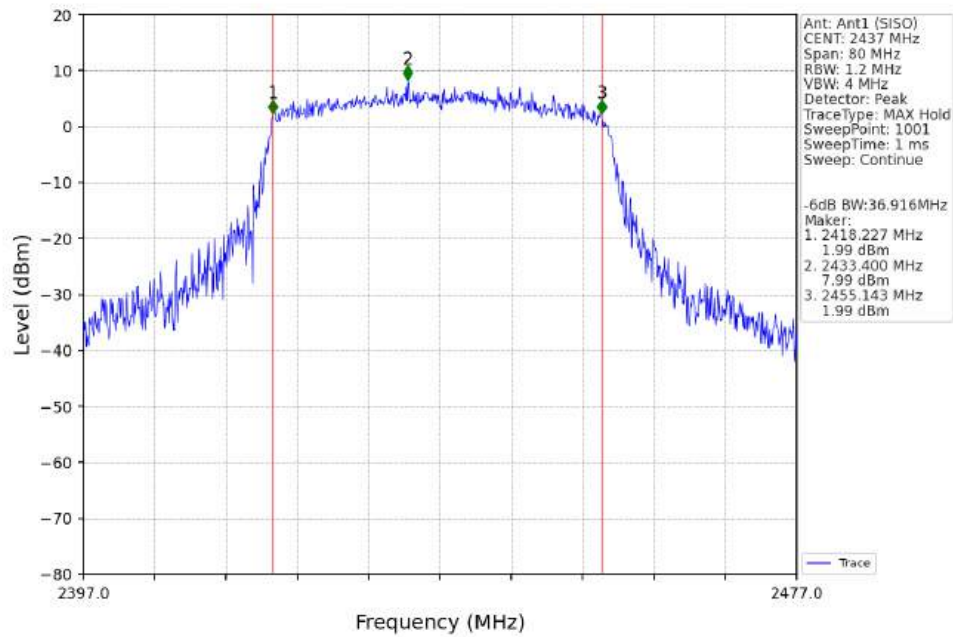
802.11ax(HEW20)_HCH_2462MHz_SU_ / _Ant1 (SISO)_NTNV



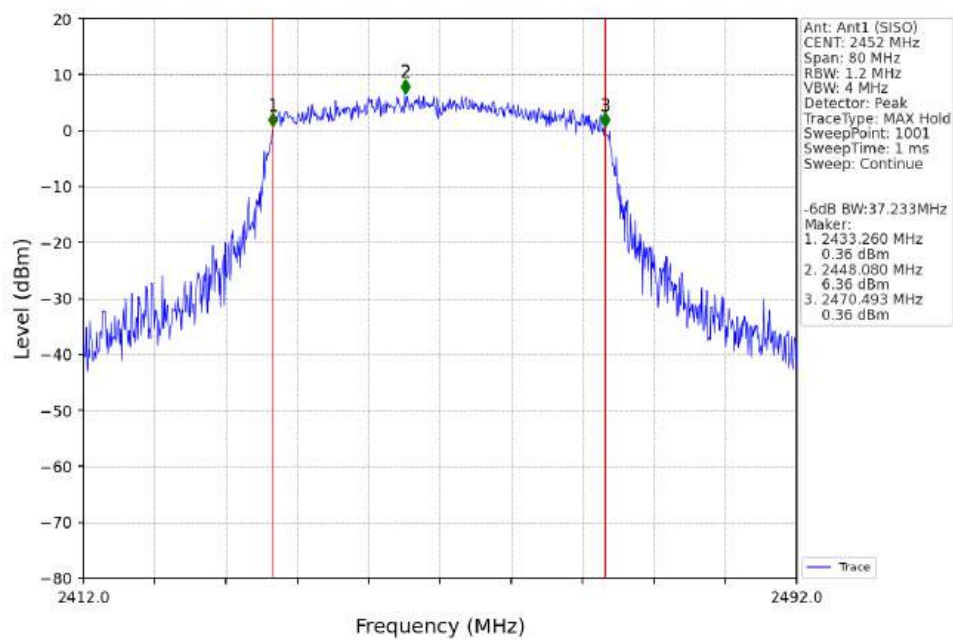
802.11ax(HEW40)_LCH_2422MHz_SU_ / _Ant1 (SISO)_NTNV



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

3.1.1 Power

Mode	TX Type	Frequency (MHz)	RU	RU Pos	Maximum Peak Conducted Output Power (dBm)		Verdict
					ANT1	Limit	
802.11b	SISO	2412	/	/	11.46	<=30	Pass
		2437	/	/	11.86	<=30	Pass
		2462	/	/	12.59	<=30	Pass
802.11g	SISO	2412	/	/	17.82	<=30	Pass
		2437	/	/	18.50	<=30	Pass
		2462	/	/	18.93	<=30	Pass
802.11n (HT20)	SISO	2412	/	/	17.80	<=30	Pass
		2437	/	/	18.36	<=30	Pass
		2462	/	/	18.84	<=30	Pass
802.11n (HT40)	SISO	2422	/	/	17.48	<=30	Pass
		2437	/	/	18.07	<=30	Pass
		2452	/	/	17.84	<=30	Pass
802.11ax (HEW20)	SISO	2412	SU	/	18.27	<=30	Pass
		2437	SU	/	18.73	<=30	Pass
		2462	SU	/	19.25	<=30	Pass
802.11ax (HEW40)	SISO	2422	SU	/	17.85	<=30	Pass
		2437	SU	/	18.33	<=30	Pass
		2452	SU	/	18.16	<=30	Pass

4. Maximum Power Spectral Density

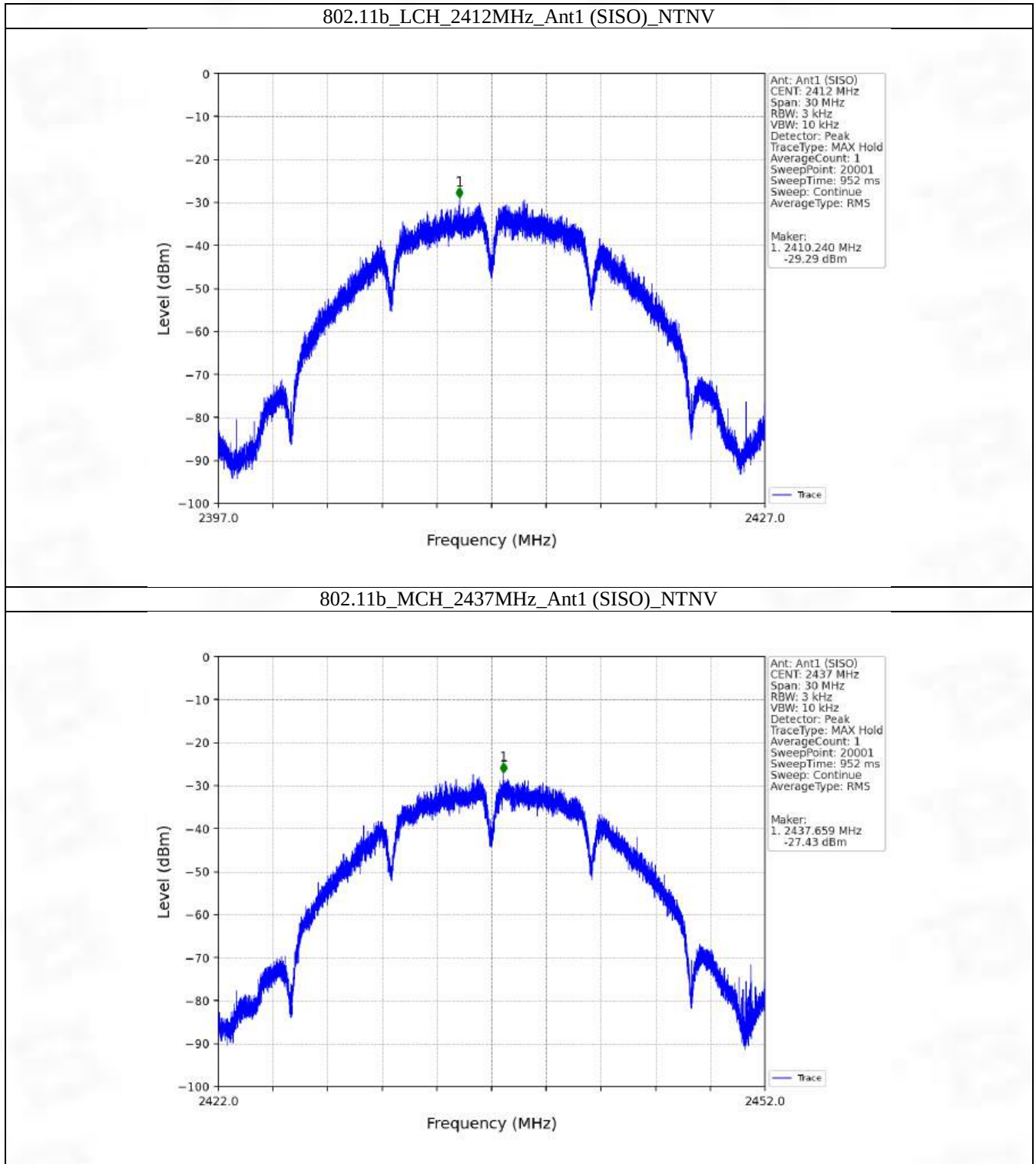
4.1 Test Result

4.1.1 PSD

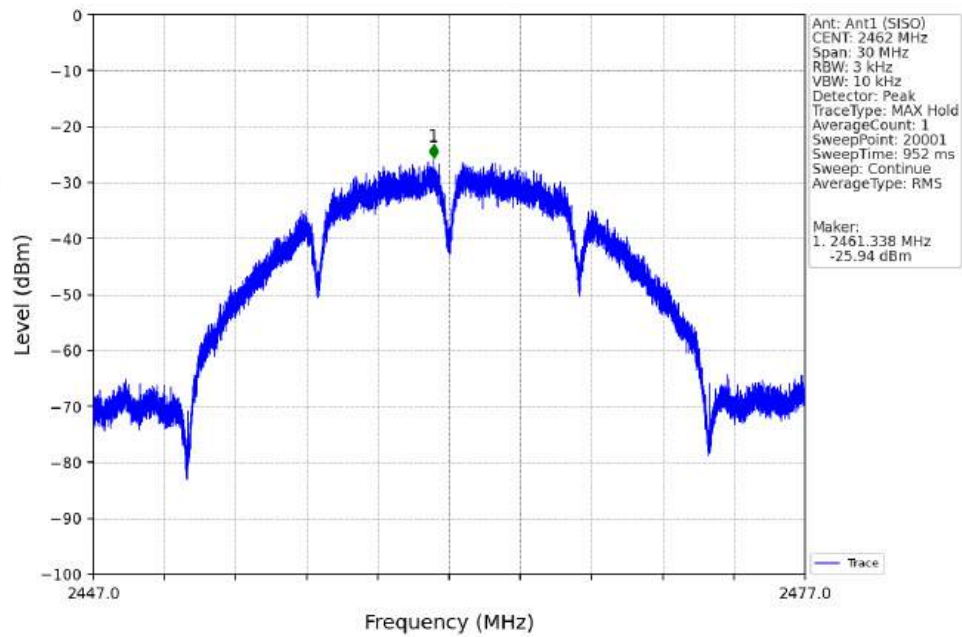
Mode	TX Type	Frequency (MHz)	RU	RU Pos	Maximum PSD (dBm)		Verdict
					ANT1	Limit	
802.11b	SISO	2412	/	/	-29.29	<=8	Pass
		2437	/	/	-27.43	<=8	Pass
		2462	/	/	-25.94	<=8	Pass
802.11g	SISO	2412	/	/	-29.37	<=8	Pass
		2437	/	/	-26.69	<=8	Pass
		2462	/	/	-27.20	<=8	Pass
802.11n (HT20)	SISO	2412	/	/	-28.62	<=8	Pass
		2437	/	/	-26.54	<=8	Pass
		2462	/	/	-25.70	<=8	Pass
802.11n (HT40)	SISO	2422	/	/	-32.23	<=8	Pass
		2437	/	/	-30.44	<=8	Pass
		2452	/	/	-29.96	<=8	Pass
802.11ax (HEW20)	SISO	2412	SU	/	-30.31	<=8	Pass
		2437	SU	/	-29.27	<=8	Pass
		2462	SU	/	-26.93	<=8	Pass
802.11ax (HEW40)	SISO	2422	SU	/	-33.21	<=8	Pass
		2437	SU	/	-32.23	<=8	Pass
		2452	SU	/	-31.57	<=8	Pass

4.2 Test Graph

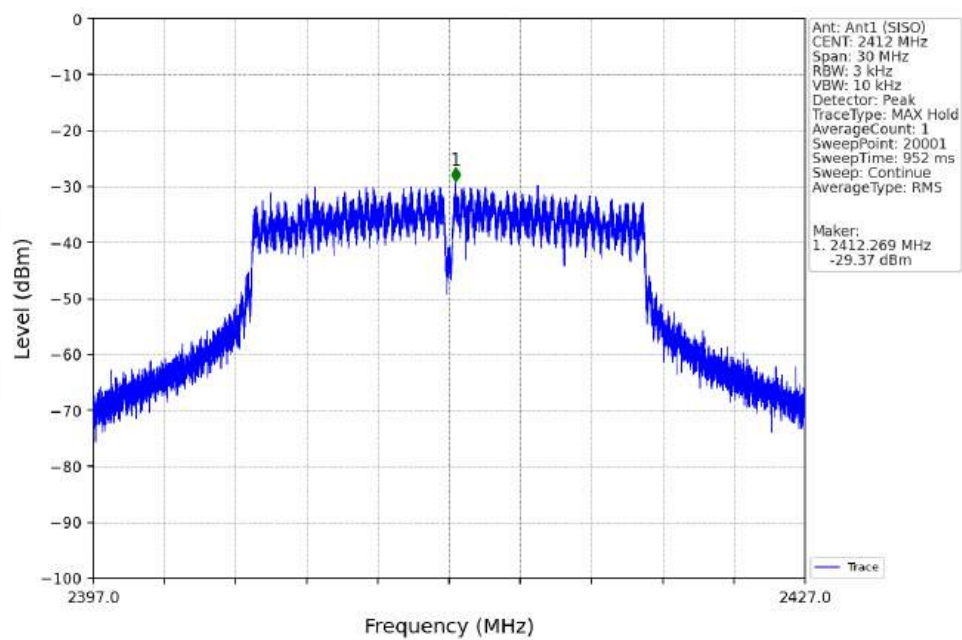
4.2.1 PSD



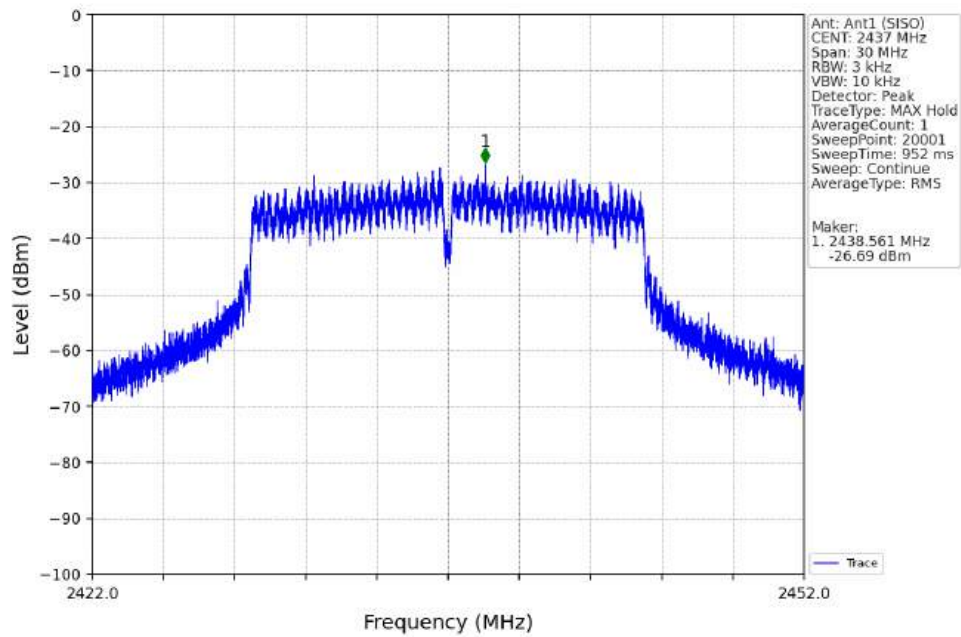
802.11b_HCH_2462MHz_Ant1 (SISO)_NTNV



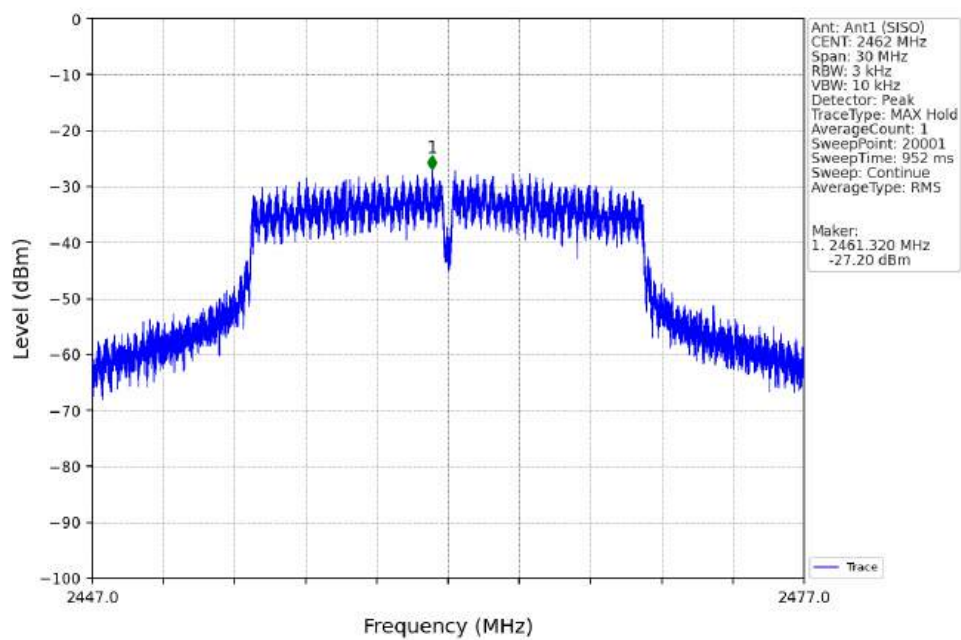
802.11g_LCH_2412MHz_Ant1 (SISO)_NTNV



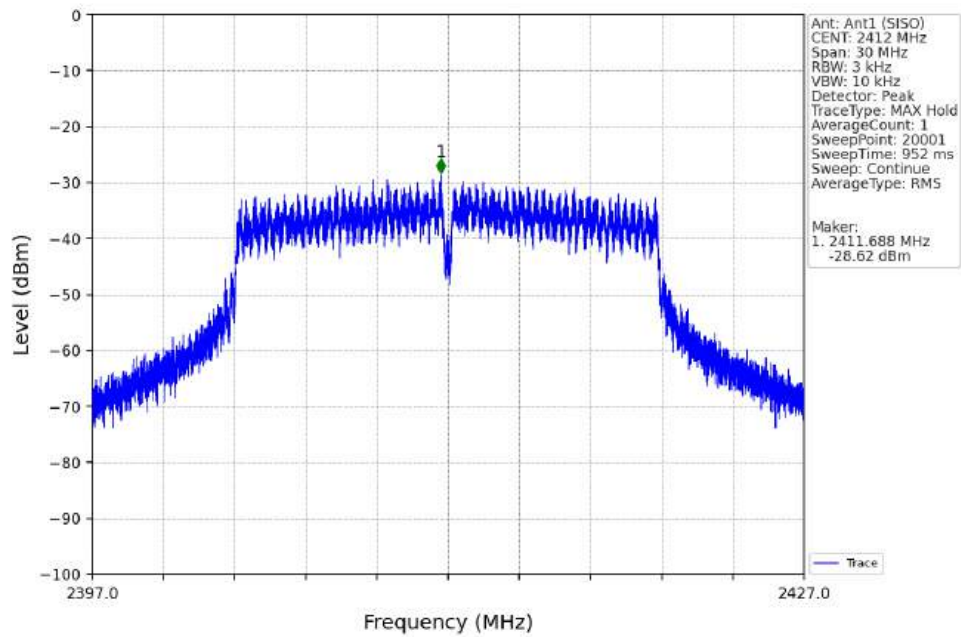
802.11g_MCH_2437MHz_Ant1 (SISO)_NTNV



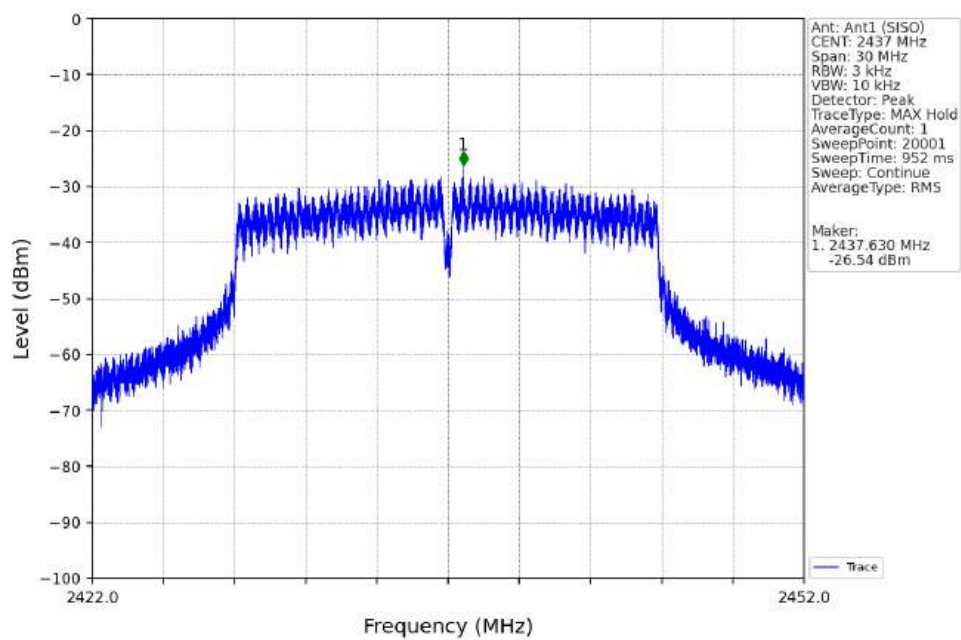
802.11g_HCH_2462MHz_Ant1 (SISO)_NTNV



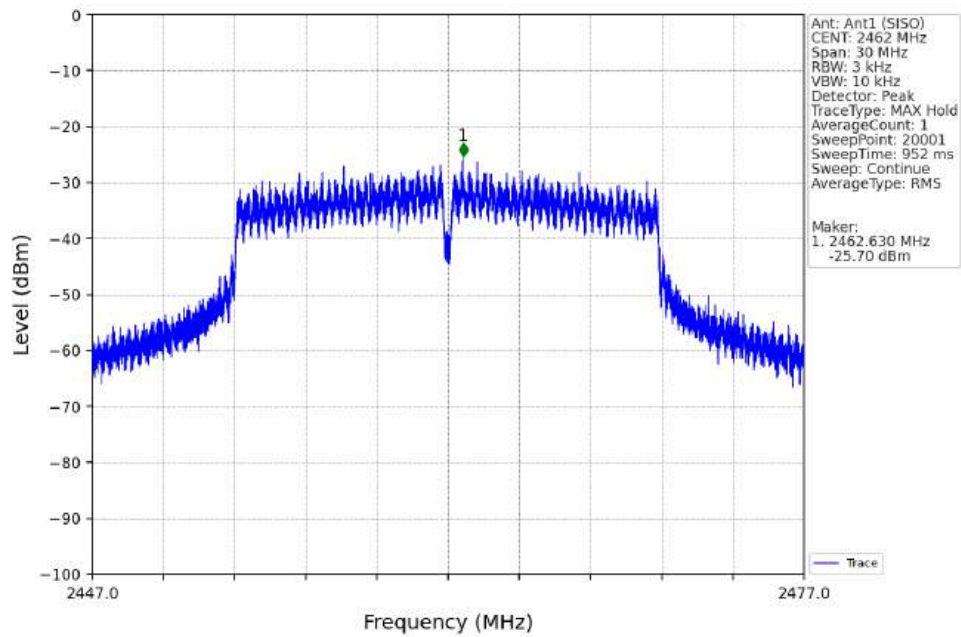
802.11n(HT20)_LCH_2412MHz_Ant1 (SISO)_NTNV



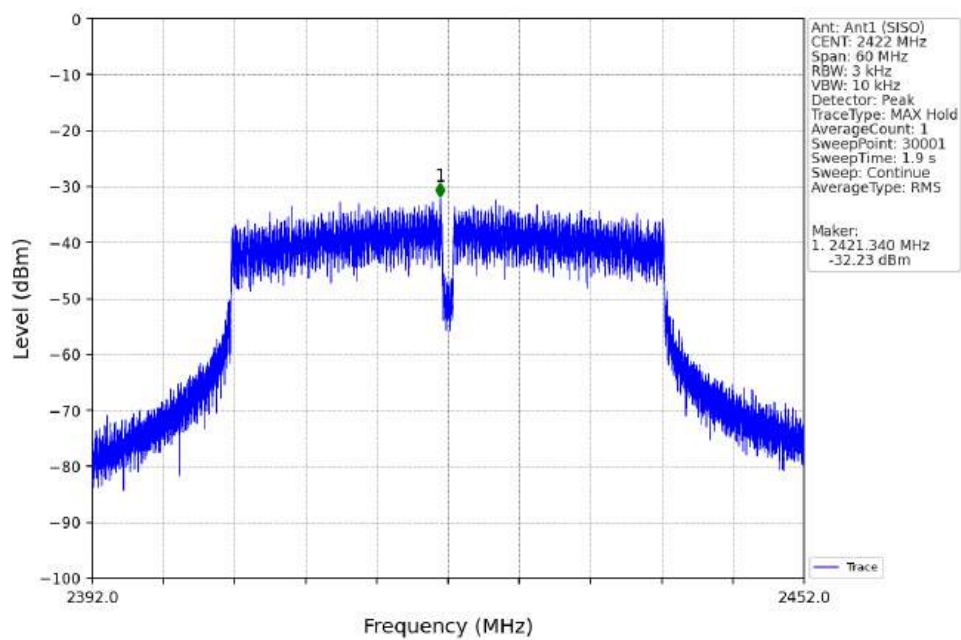
802.11n(HT20)_MCH_2437MHz_Ant1 (SISO)_NTNV



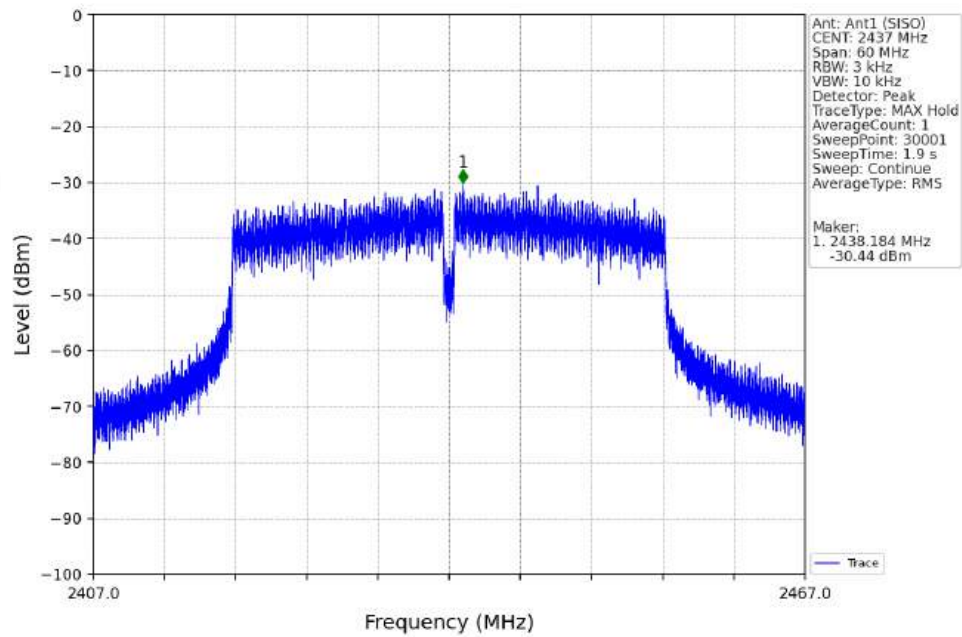
802.11n(HT20)_HCH_2462MHz_Ant1 (SISO)_NTNV



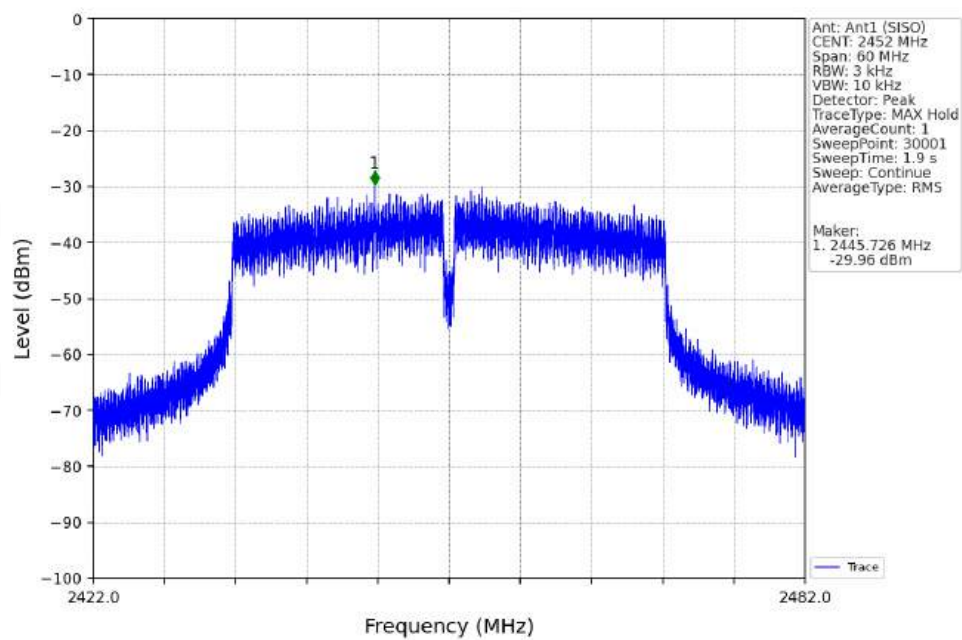
802.11n(HT40)_LCH_2422MHz_Ant1 (SISO)_NTNV



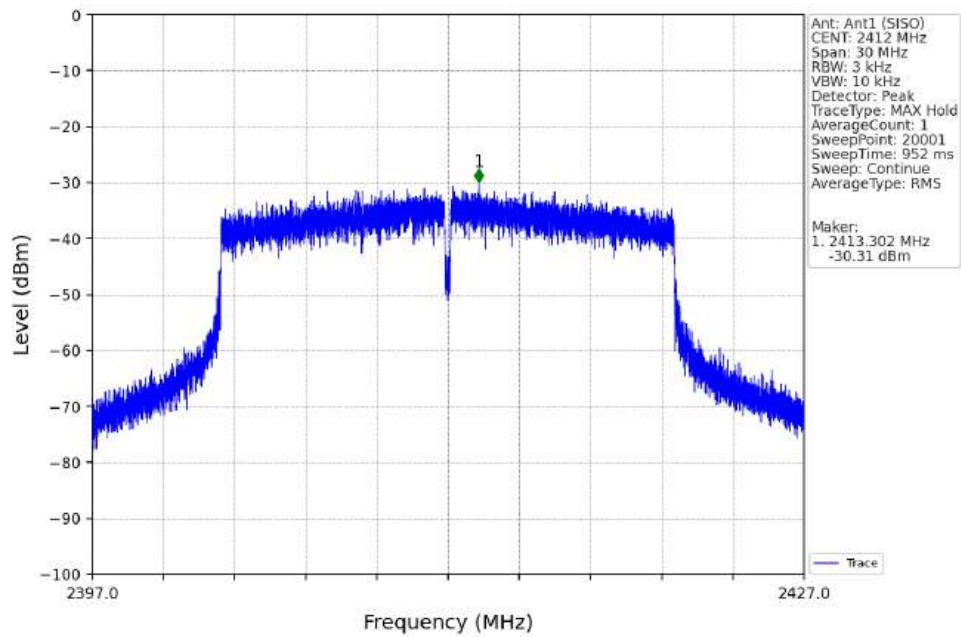
802.11n(HT40)_MCH_2437MHz_Ant1 (SISO)_NTNV



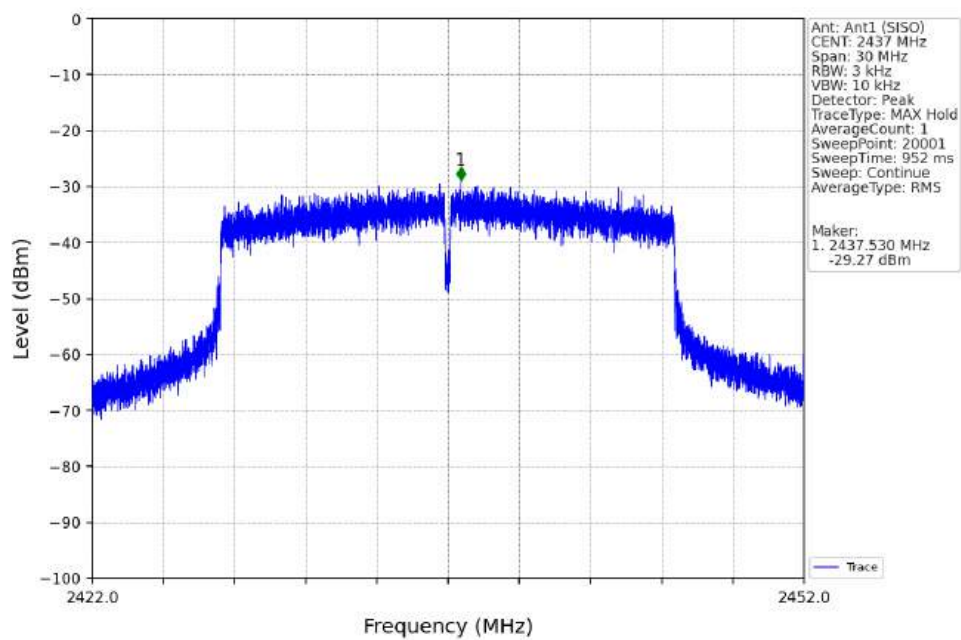
802.11n(HT40)_HCH_2452MHz_Ant1 (SISO)_NTNV



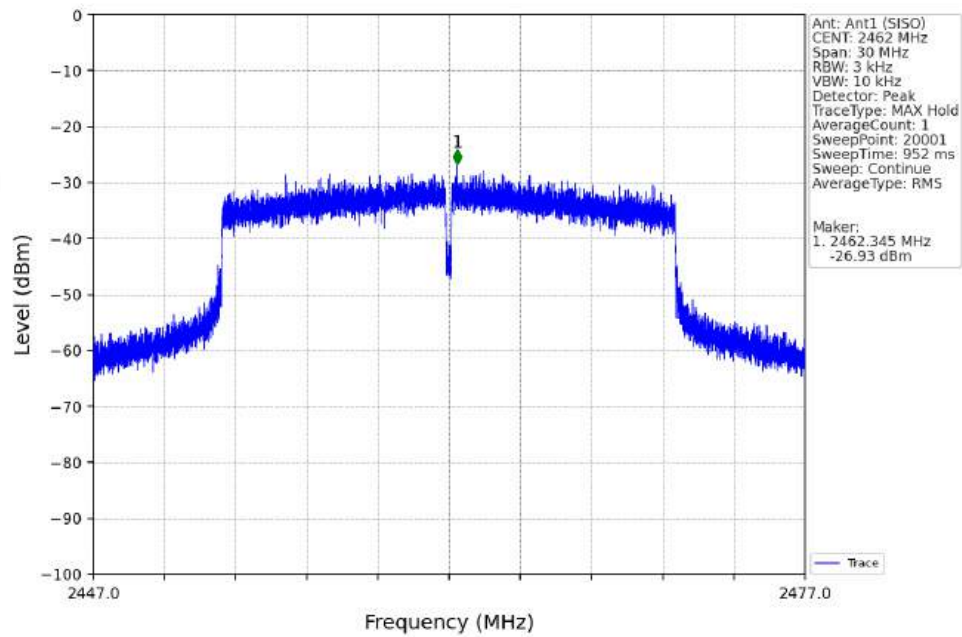
802.11ax(HEW20)_LCH_2412MHz_SU_/_Ant1 (SISO)_NTNV



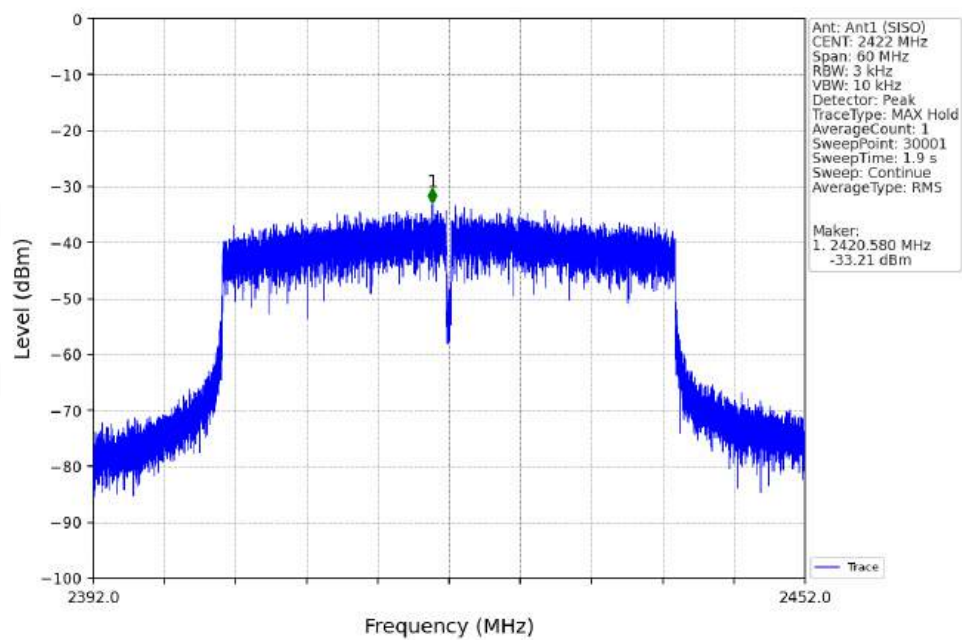
802.11ax(HEW20)_MCH_2437MHz_SU_/_Ant1 (SISO)_NTNV



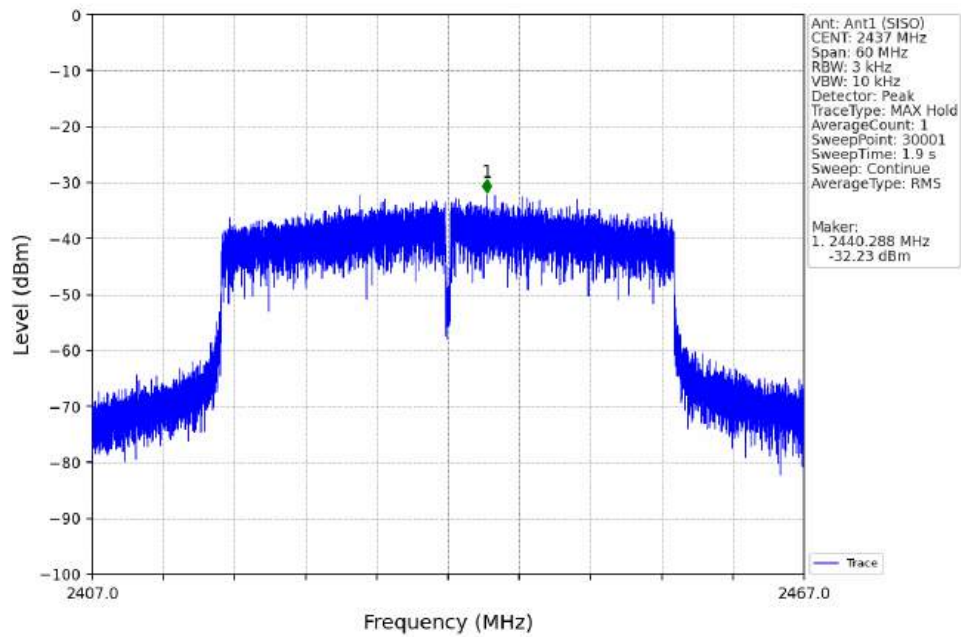
802.11ax(HEW20)_HCH_2462MHz_SU_/_Ant1 (SISO)_NTNV



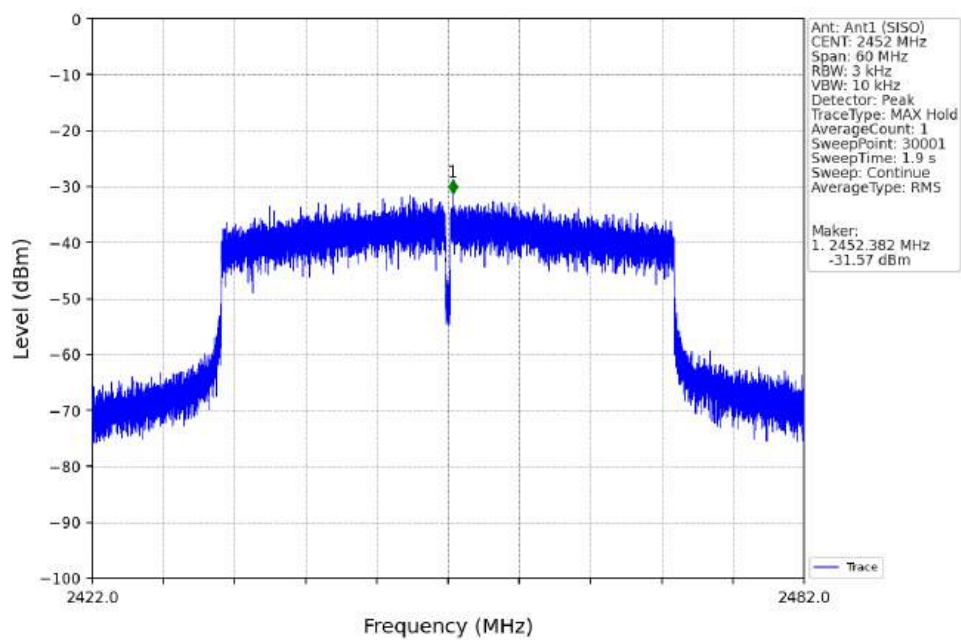
802.11ax(HEW40)_LCH_2422MHz_SU_/_Ant1 (SISO)_NTNV



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

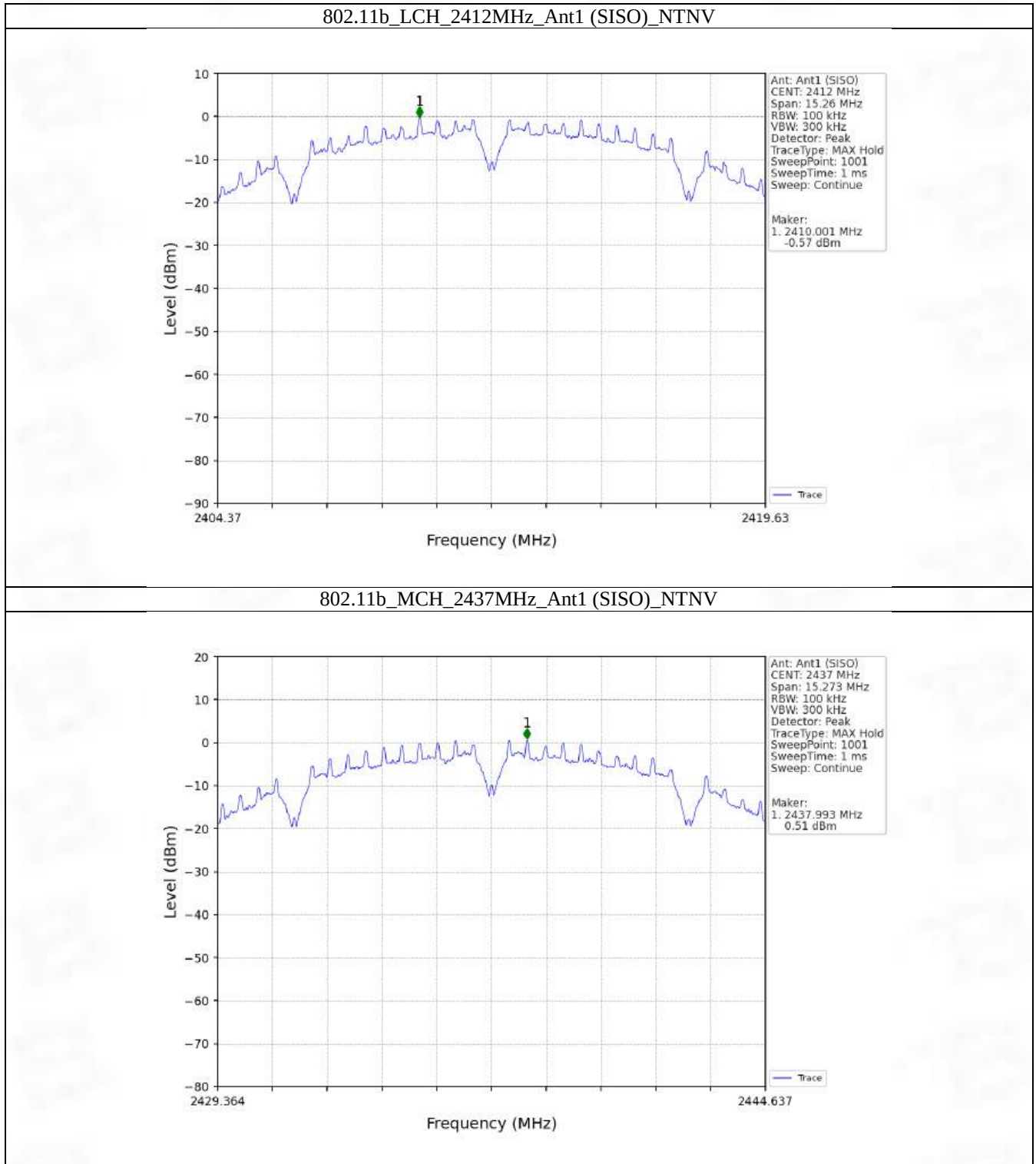
Mode	TX Type	Frequency (MHz)	RU	RU Pos	ANT	Level of Reference (dBm)
802.11b	SISO	2412	/	/	1	-0.57
		2437	/	/	1	0.51
		2462	/	/	1	1.19
802.11g	SISO	2412	/	/	1	-0.71
		2437	/	/	1	-0.38
		2462	/	/	1	0.81
802.11n (HT20)	SISO	2412	/	/	1	-1.87
		2437	/	/	1	0.33
		2462	/	/	1	-0.71
802.11n (HT40)	SISO	2422	/	/	1	-4.64
		2437	/	/	1	-2.45
		2452	/	/	1	-2.95
802.11ax (HEW20)	SISO	2412	SU	/	1	-1.90
		2437	SU	/	1	-0.85
		2462	SU	/	1	-0.77
802.11ax (HEW40)	SISO	2422	SU	/	1	-3.88
		2437	SU	/	1	-2.84
		2452	SU	/	1	-2.80

5.1.2 CSE

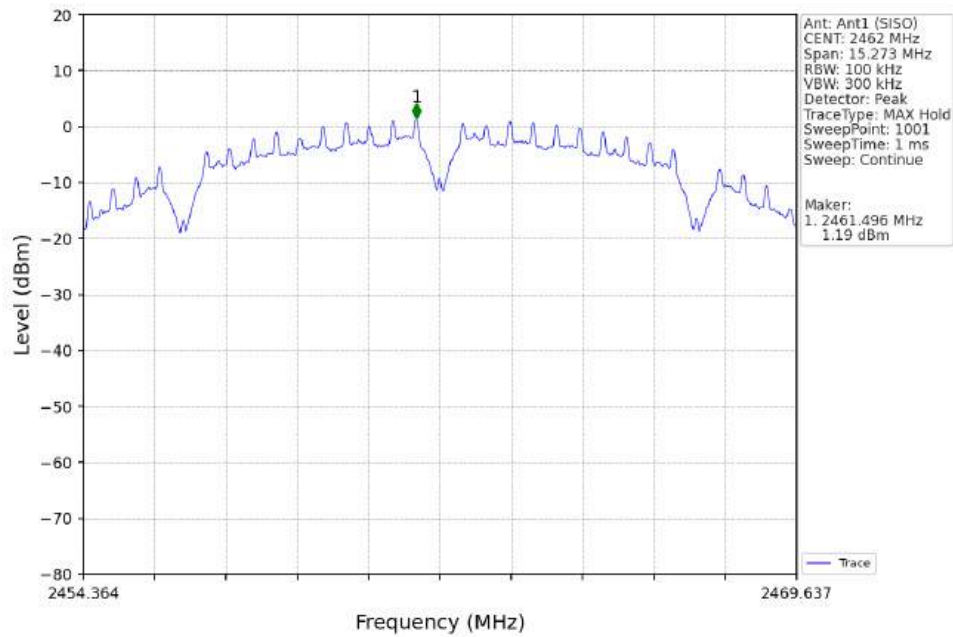
Mode	TX Type	Frequency (MHz)	RU	RU Pos	ANT	Level of Reference (dBm)	Limit (dBm)	Verdict
802.11b	SISO	2412	/	/	1	-0.57	-20.57	Pass
		2437	/	/	1	0.51	-19.49	Pass
		2462	/	/	1	1.19	-18.81	Pass
802.11g	SISO	2412	/	/	1	-0.71	-20.71	Pass
		2437	/	/	1	-0.38	-20.38	Pass
		2462	/	/	1	0.81	-19.19	Pass
802.11n (HT20)	SISO	2412	/	/	1	-1.87	-21.87	Pass
		2437	/	/	1	0.33	-19.67	Pass
		2462	/	/	1	-0.71	-20.71	Pass
802.11n (HT40)	SISO	2422	/	/	1	-4.64	-24.64	Pass
		2437	/	/	1	-2.45	-22.45	Pass
		2452	/	/	1	-2.95	-22.95	Pass
802.11ax (HEW20)	SISO	2412	SU	/	1	-1.90	-21.90	Pass
		2437	SU	/	1	-0.85	-20.85	Pass
		2462	SU	/	1	-0.77	-20.77	Pass
802.11ax (HEW40)	SISO	2422	SU	/	1	-3.88	-23.88	Pass
		2437	SU	/	1	-2.84	-22.84	Pass
		2452	SU	/	1	-2.80	-22.80	Pass

5.2 Test Graph

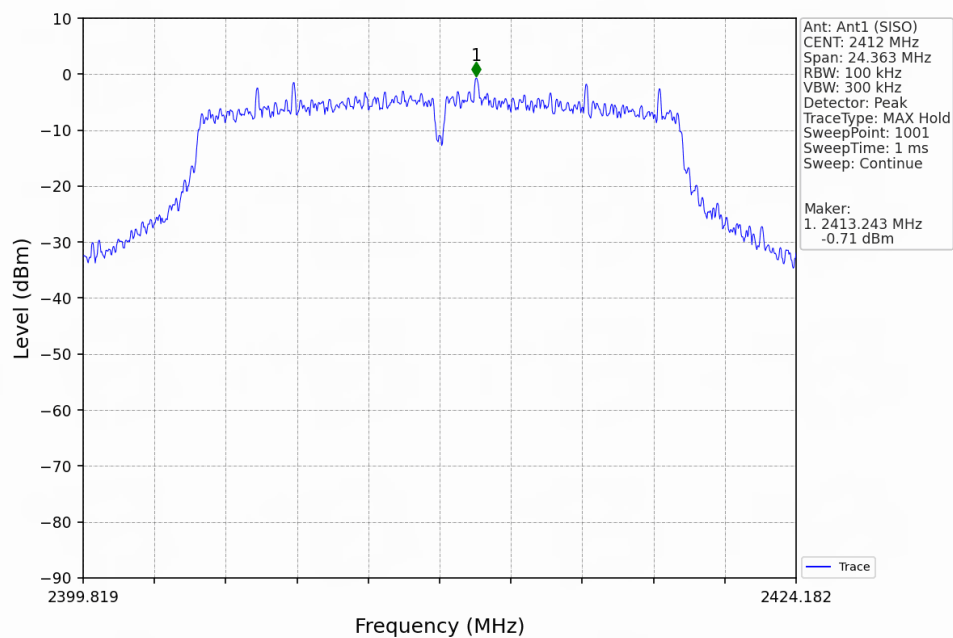
5.2.1 Ref



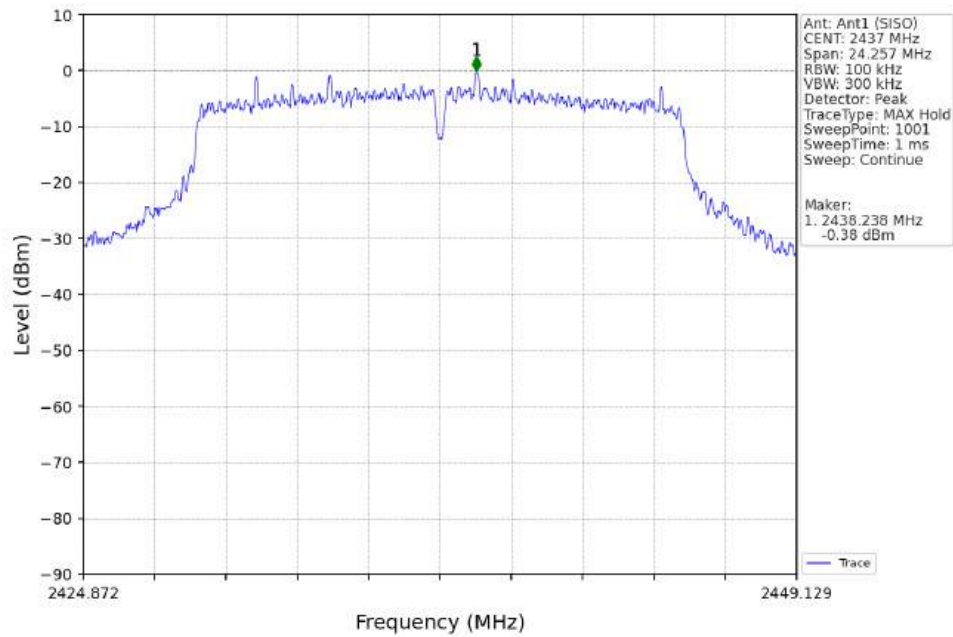
802.11b_HCH_2462MHz_Ant1 (SISO)_NTNV



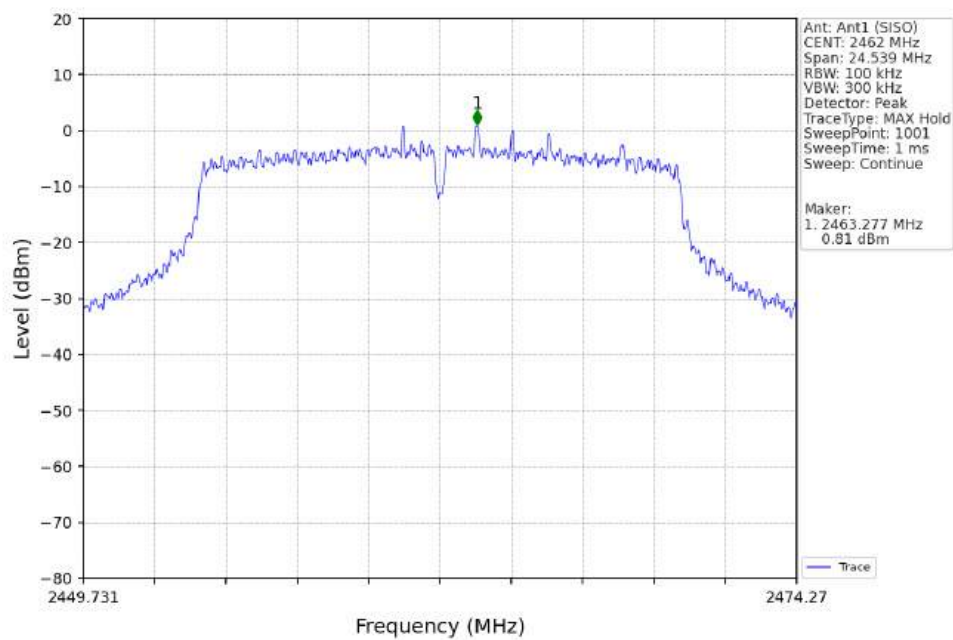
802.11g_LCH_2412MHz_Ant1 (SISO)_NTNV



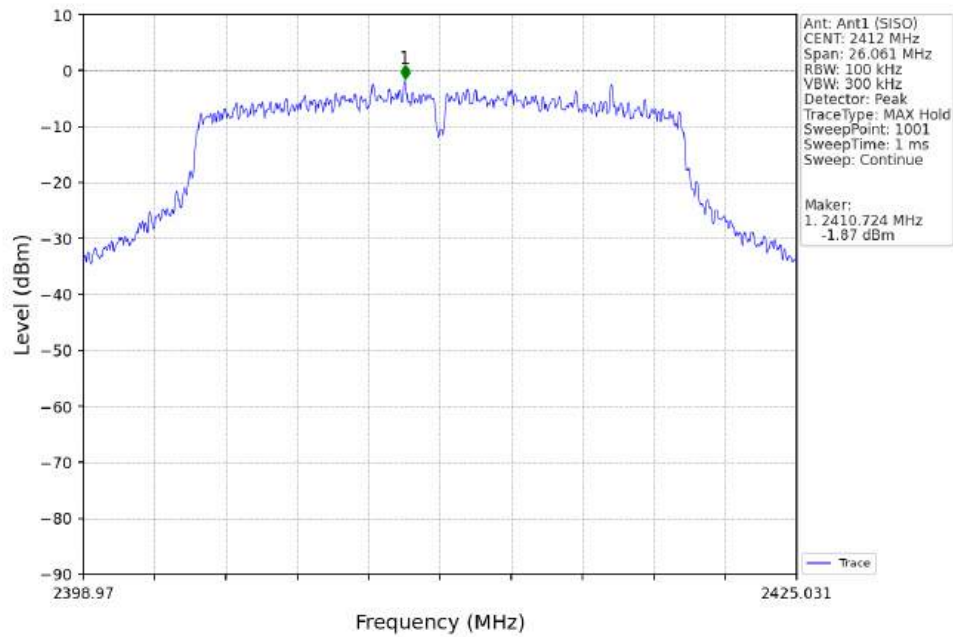
802.11g_MCH_2437MHz_Ant1 (SISO)_NTNV



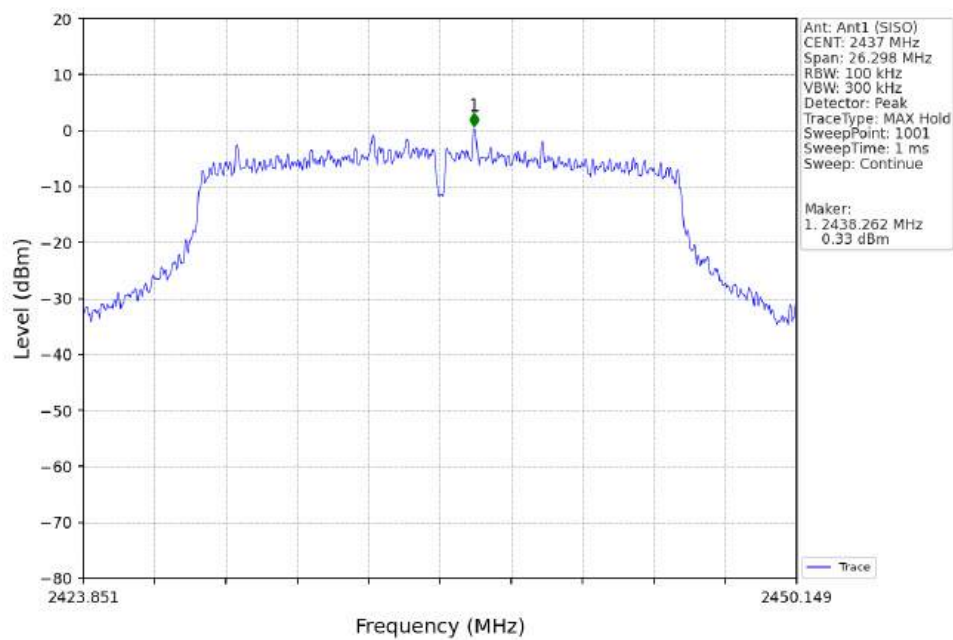
802.11g_HCH_2462MHz_Ant1 (SISO)_NTNV



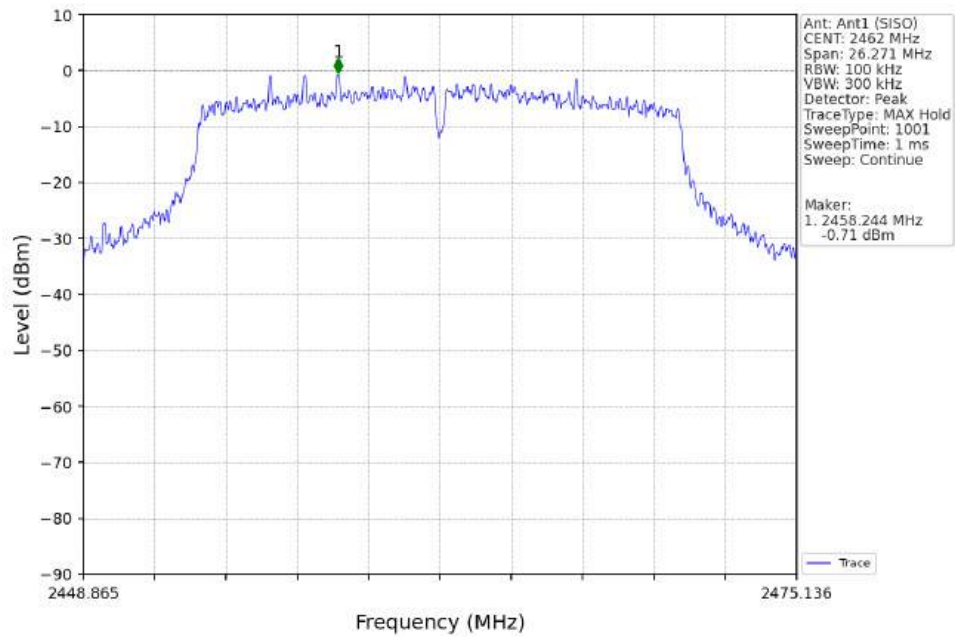
802.11n(HT20)_LCH_2412MHz_Ant1 (SISO)_NTNV



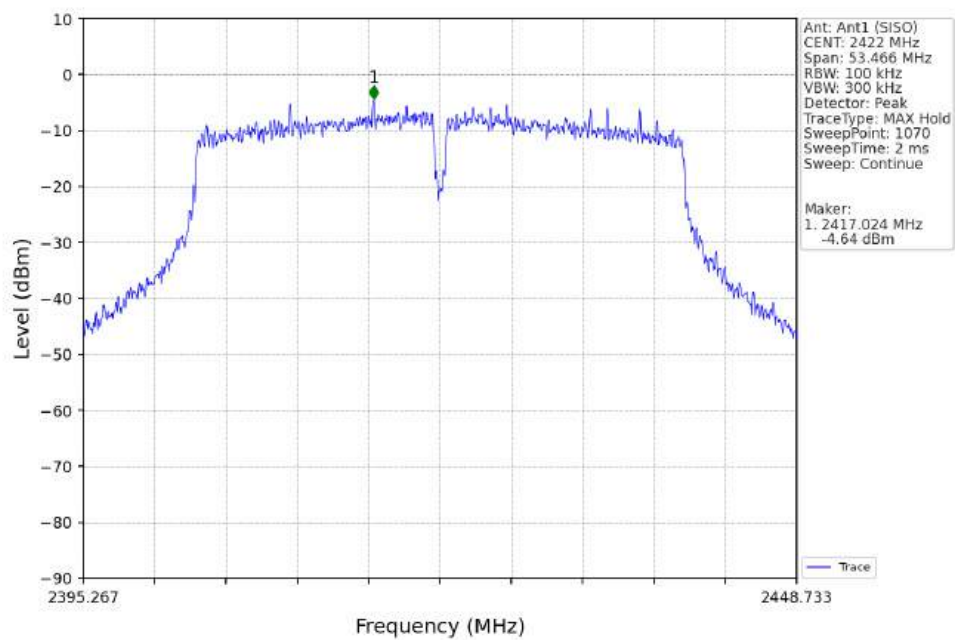
802.11n(HT20)_MCH_2437MHz_Ant1 (SISO)_NTNV



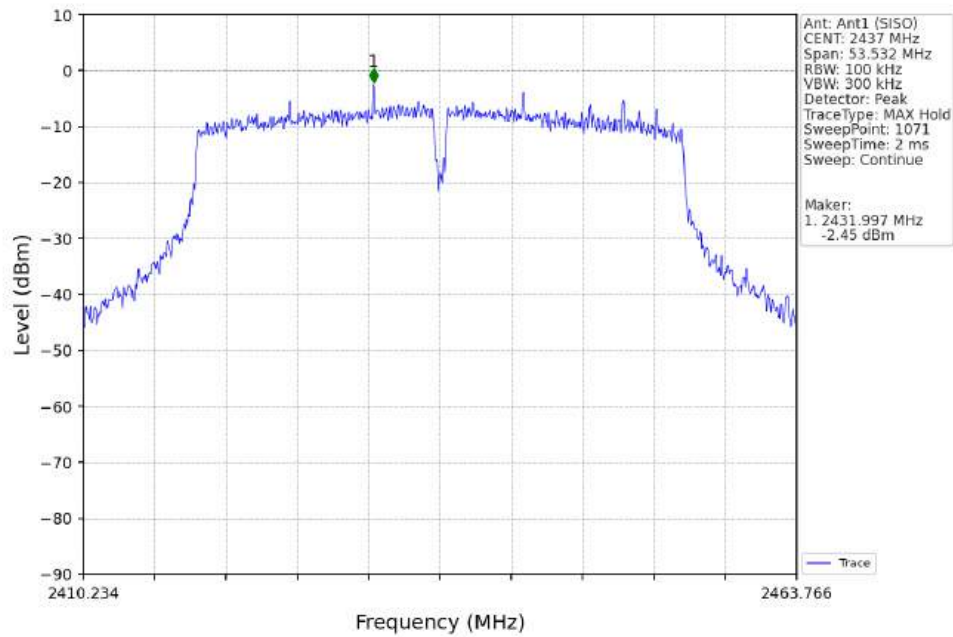
802.11n(HT20)_HCH_2462MHz_Ant1 (SISO)_NTNV



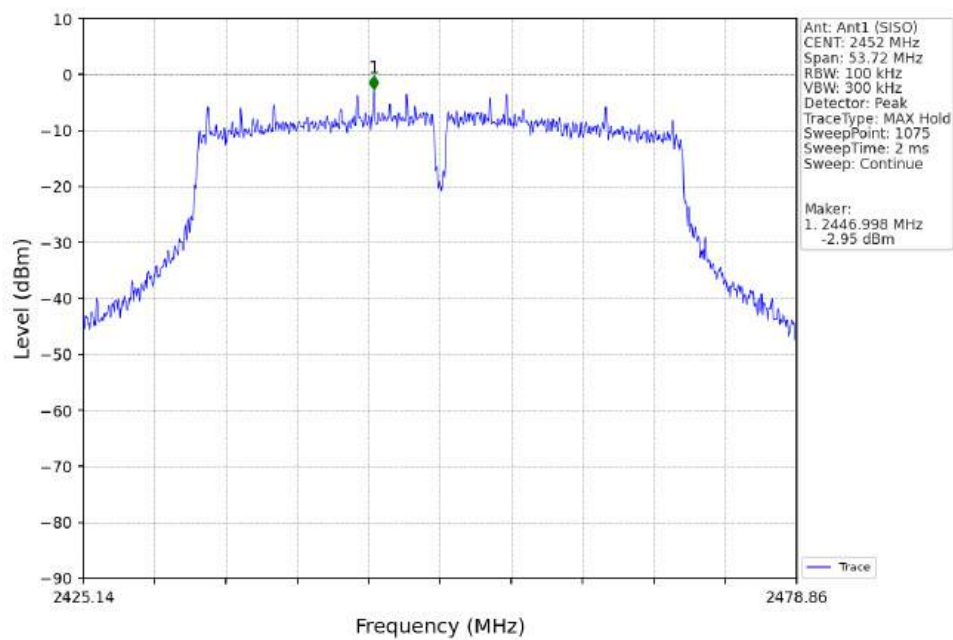
802.11n(HT40)_LCH_2422MHz_Ant1 (SISO)_NTNV



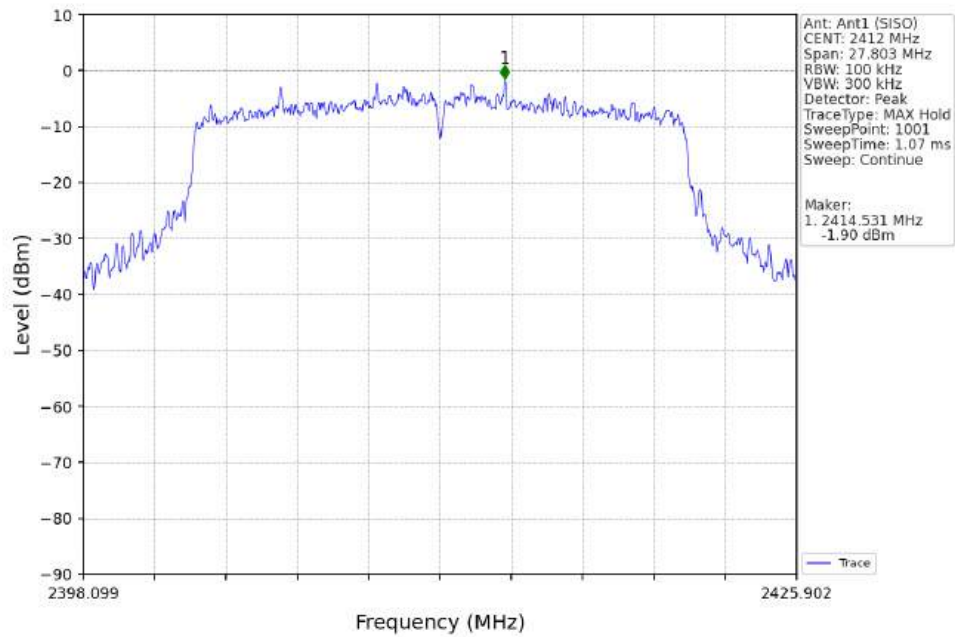
802.11n(HT40)_MCH_2437MHz_Ant1 (SISO)_NTNV



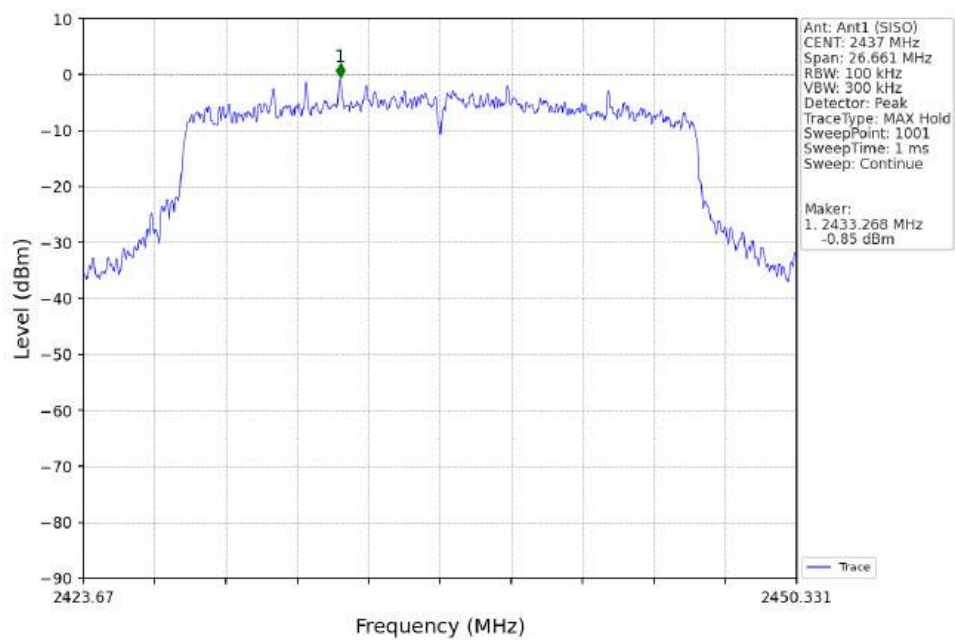
802.11n(HT40)_HCH_2452MHz_Ant1 (SISO)_NTNV



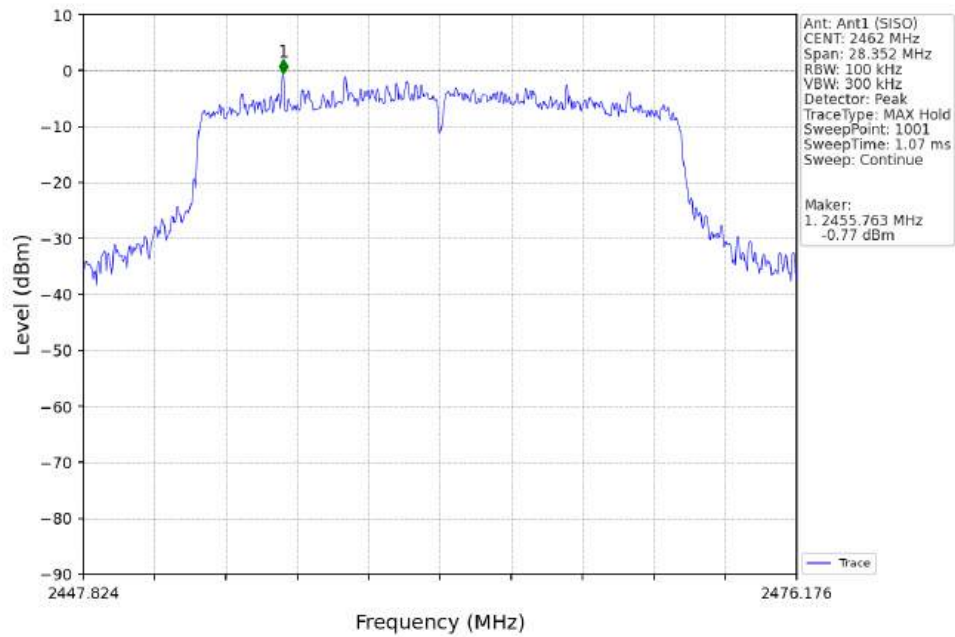
802.11ax(HEW20)_LCH_2412MHz_SU_ / _Ant1 (SISO)_NTNV



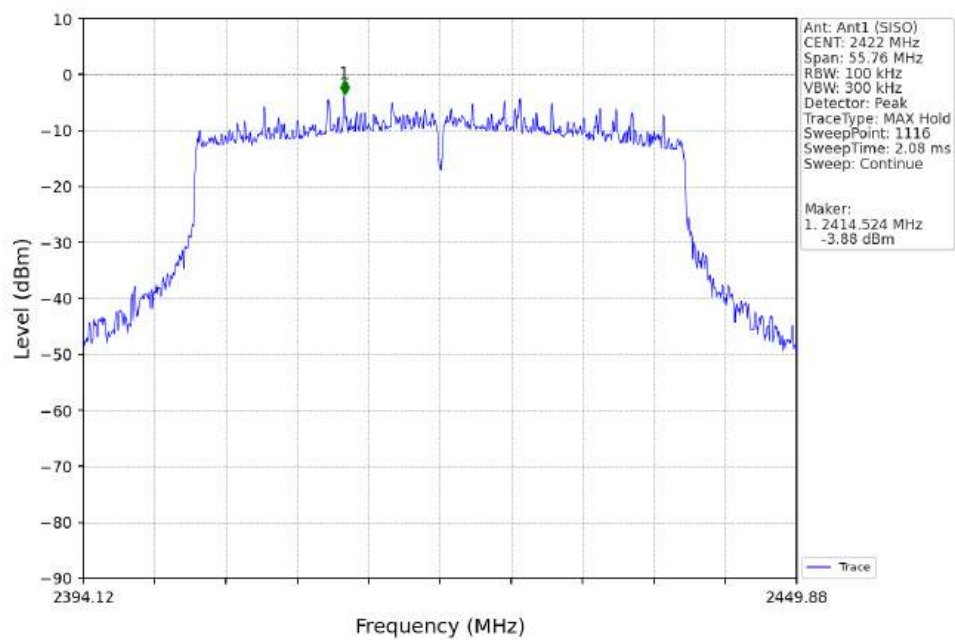
802.11ax(HEW20)_MCH_2437MHz_SU_ / _Ant1 (SISO)_NTNV



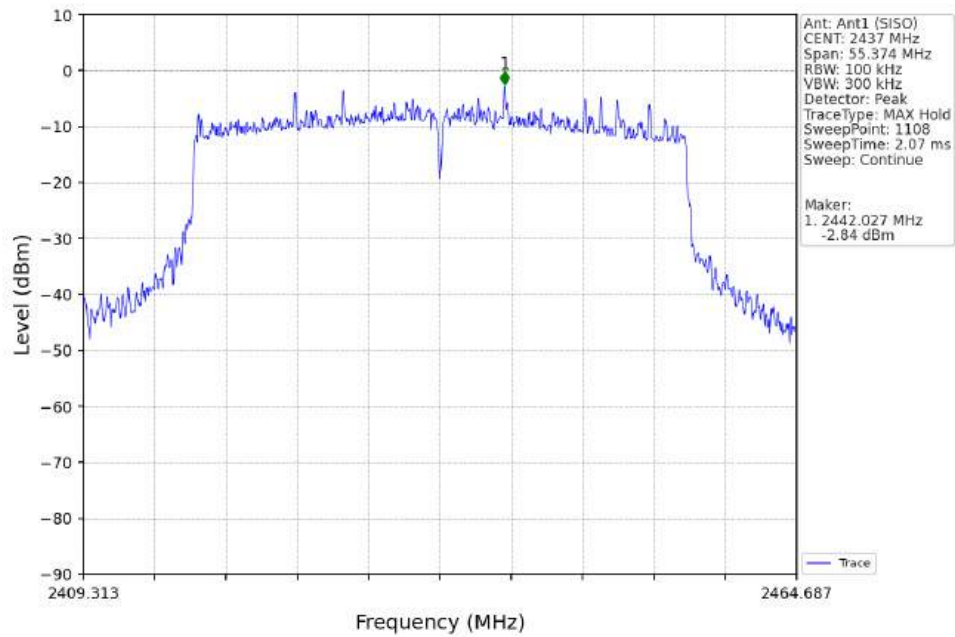
802.11ax(HEW20)_HCH_2462MHz_SU_/_Ant1 (SISO)_NTNV



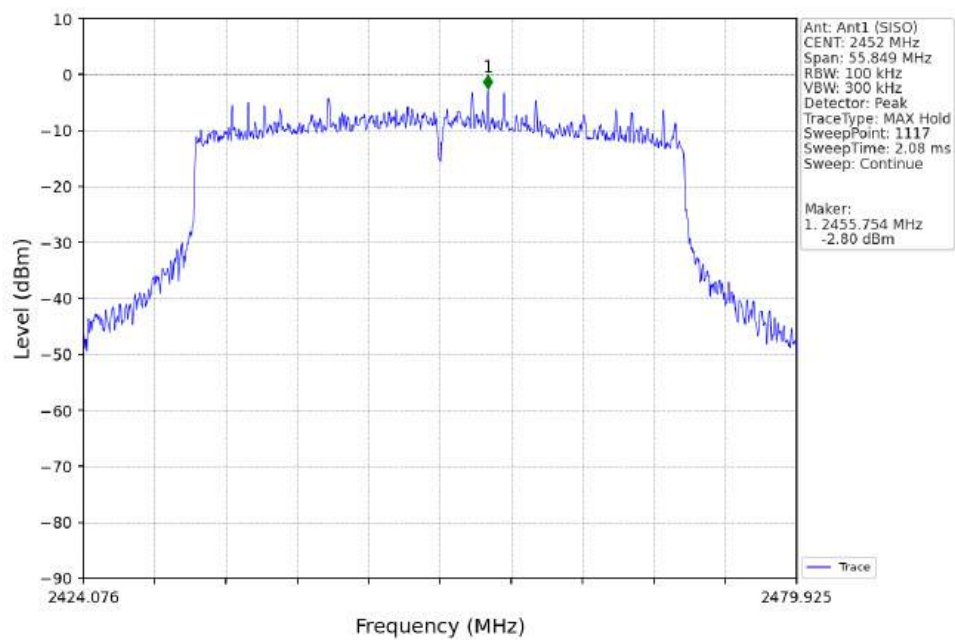
802.11ax(HEW40)_LCH_2422MHz_SU_/_Ant1 (SISO)_NTNV



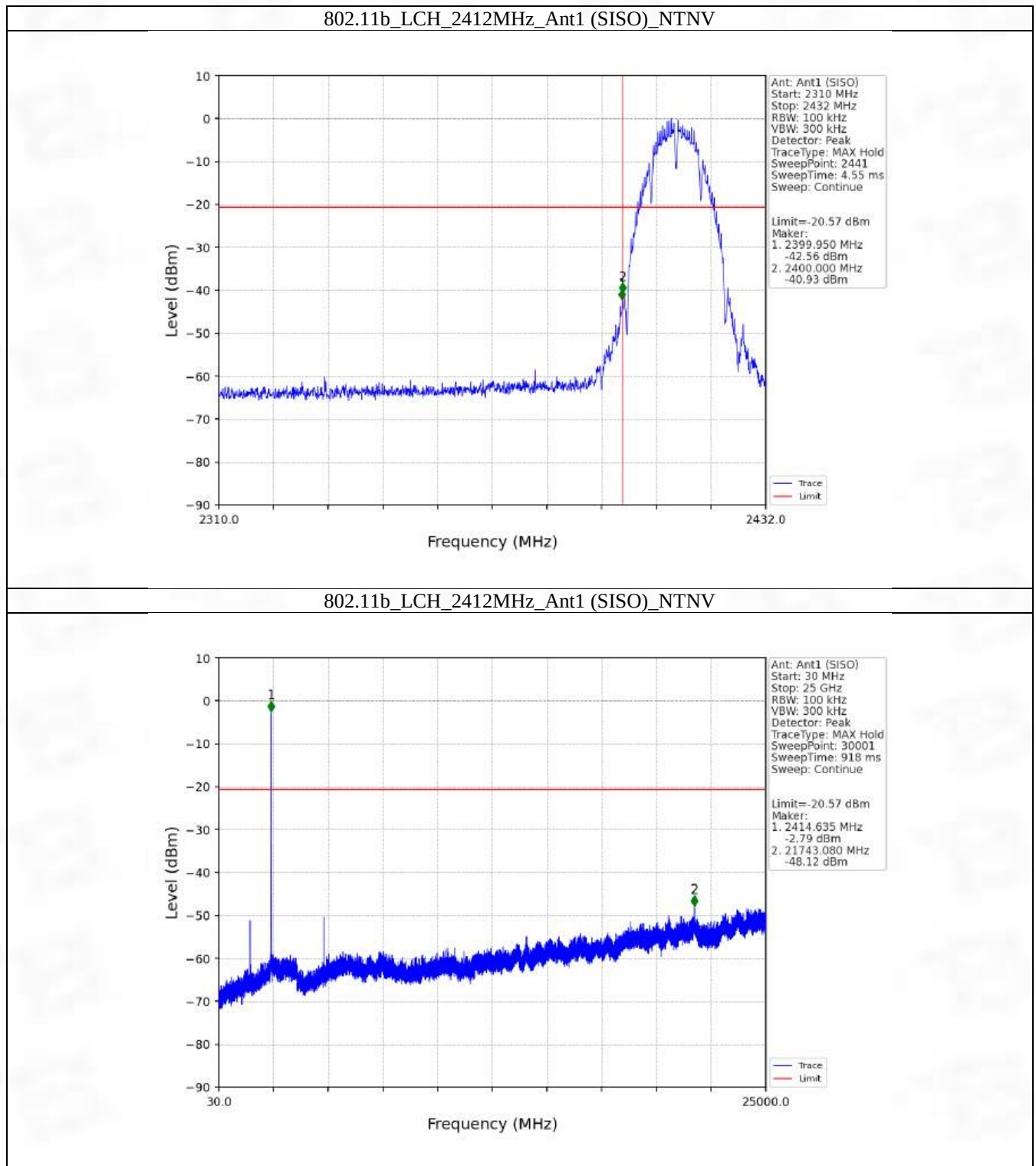
802.11ax(HEW40)_MCH_2437MHz_SU_/_Ant1 (SISO)_NTNV



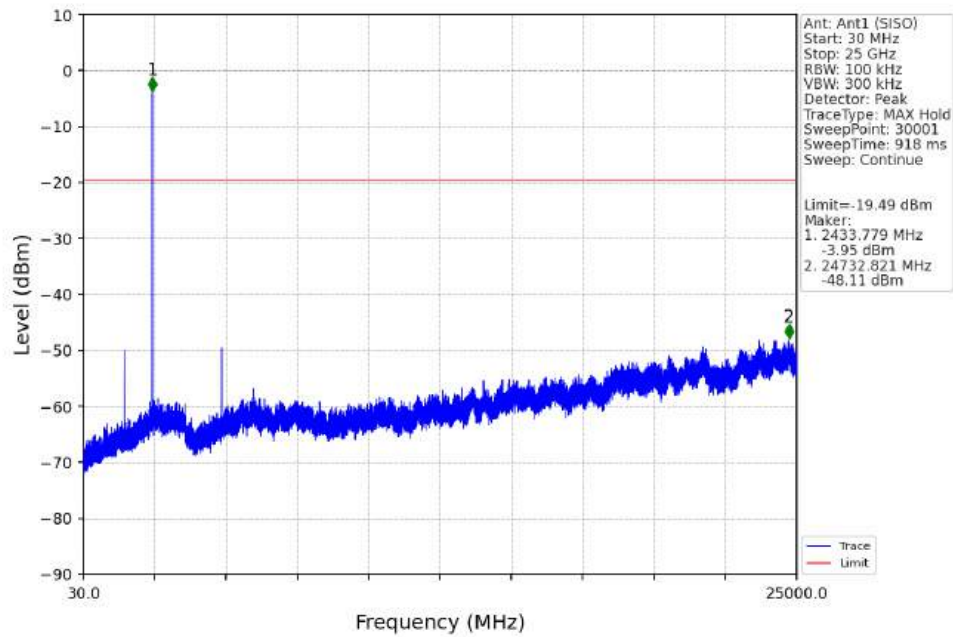
802.11ax(HEW40)_HCH_2452MHz_SU_/_Ant1 (SISO)_NTNV



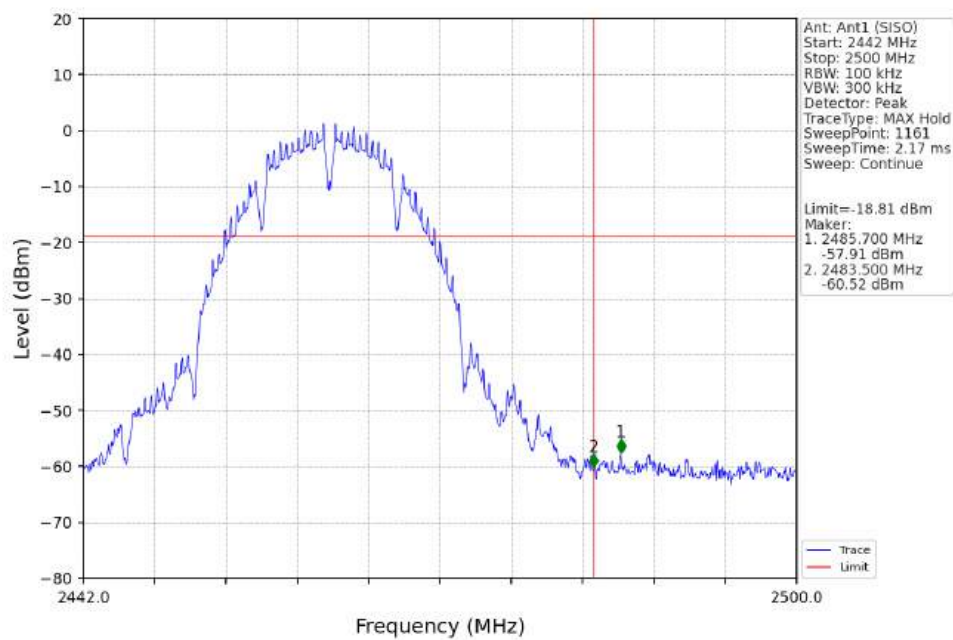
5.2.2 CSE



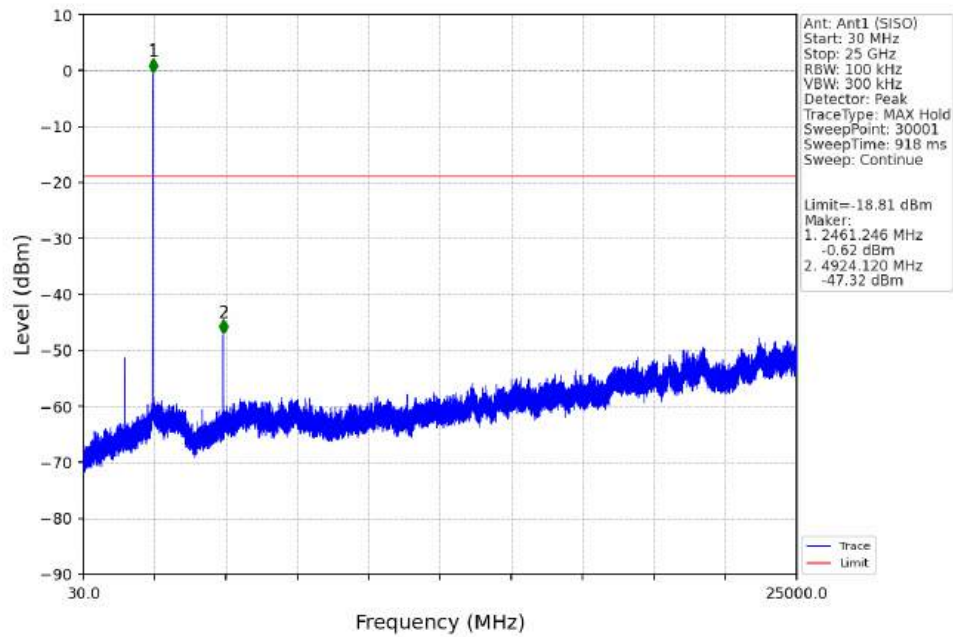
802.11b_MCH_2437MHz_Ant1 (SISO)_NTNV



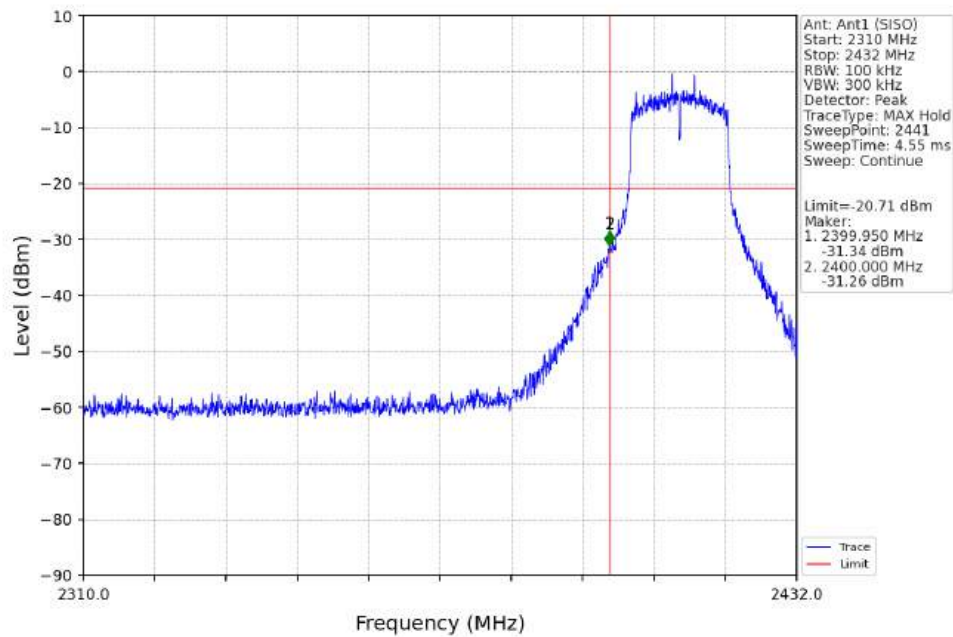
802.11b_HCH_2462MHz_Ant1 (SISO)_NTNV



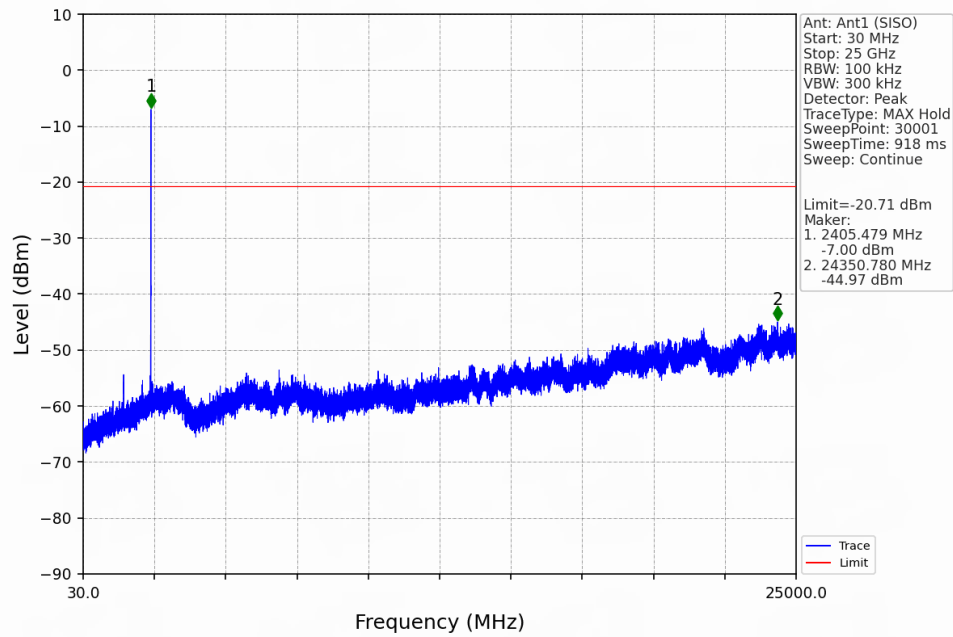
802.11b_HCH_2462MHz_Ant1 (SISO)_NTNV



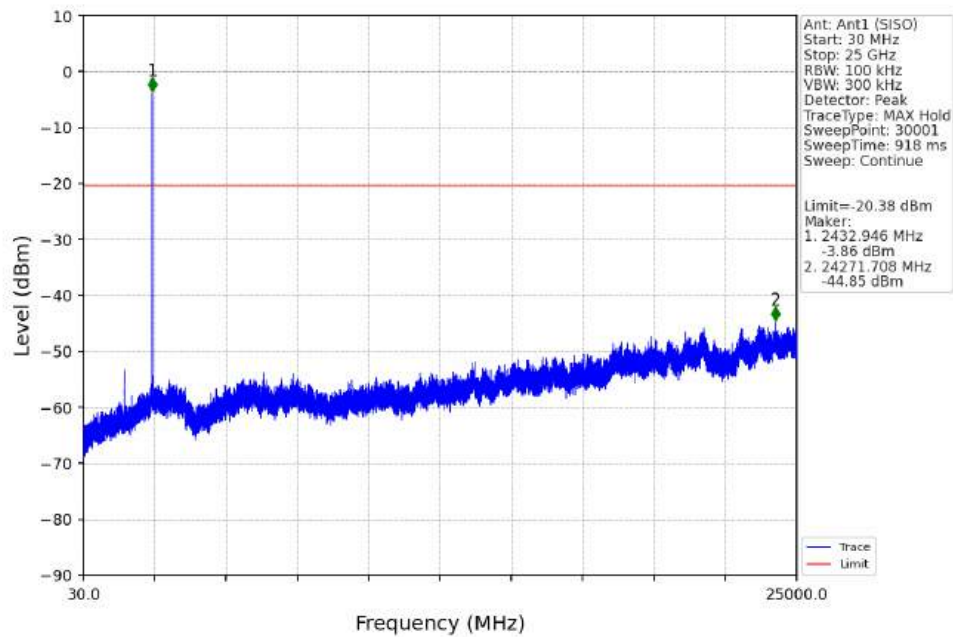
802.11g_LCH_2412MHz_Ant1 (SISO)_NTNV



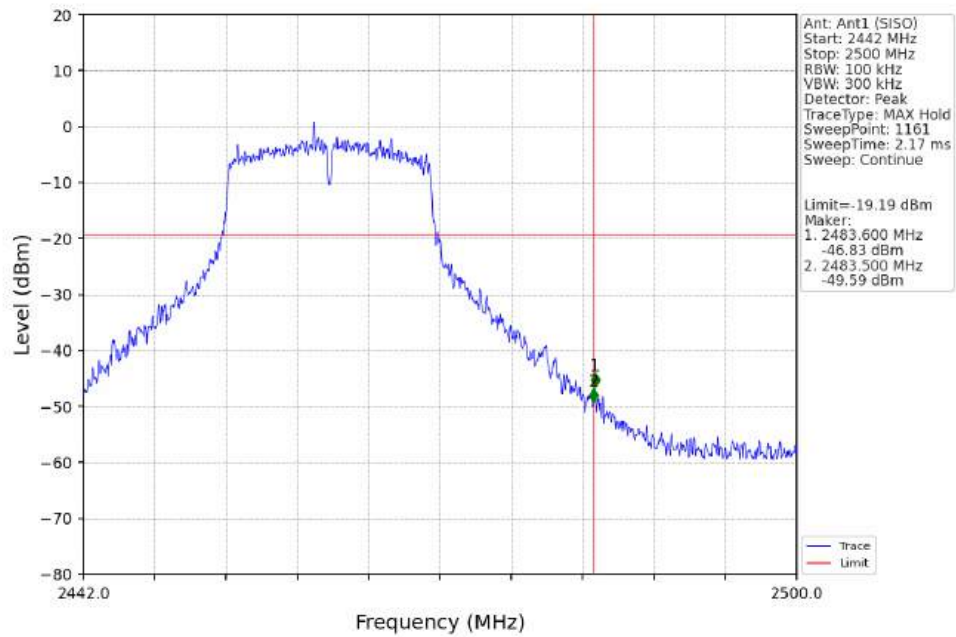
802.11g_LCH_2412MHz_Ant1 (SISO)_NTNV



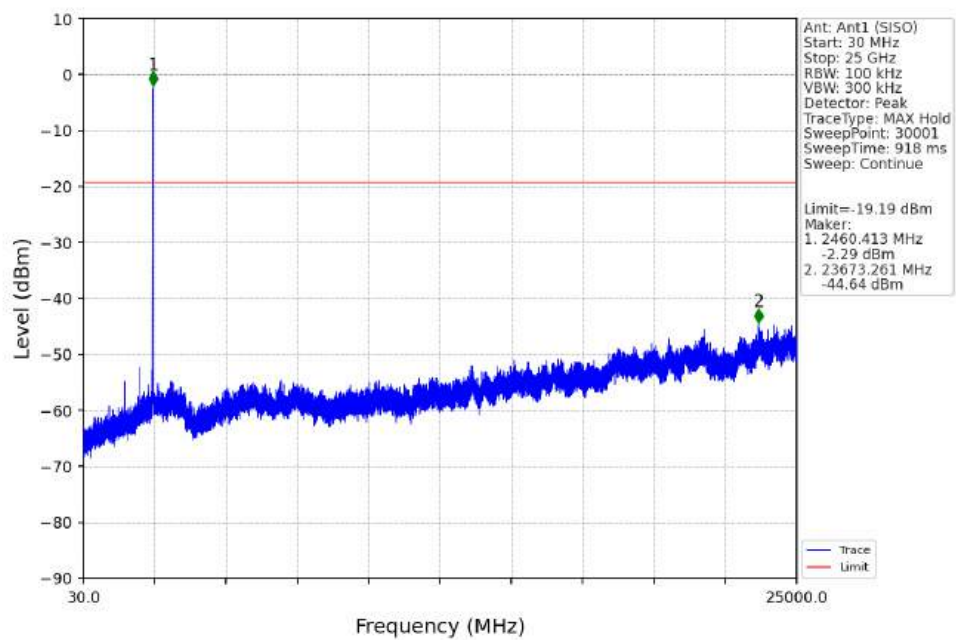
802.11g_MCH_2437MHz_Ant1 (SISO)_NTNV



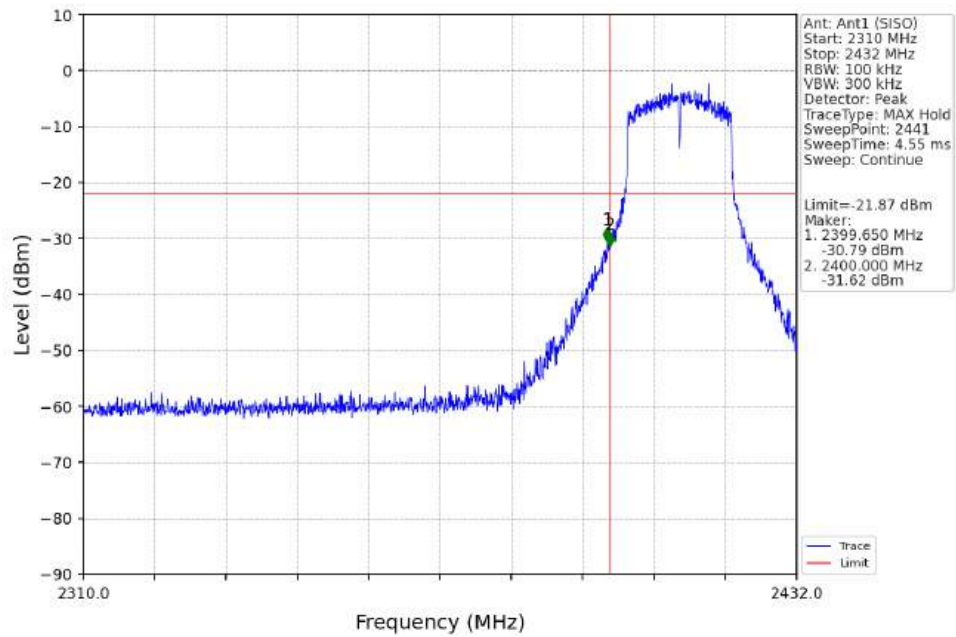
802.11g_HCH_2462MHz_Ant1 (SISO)_NTNV



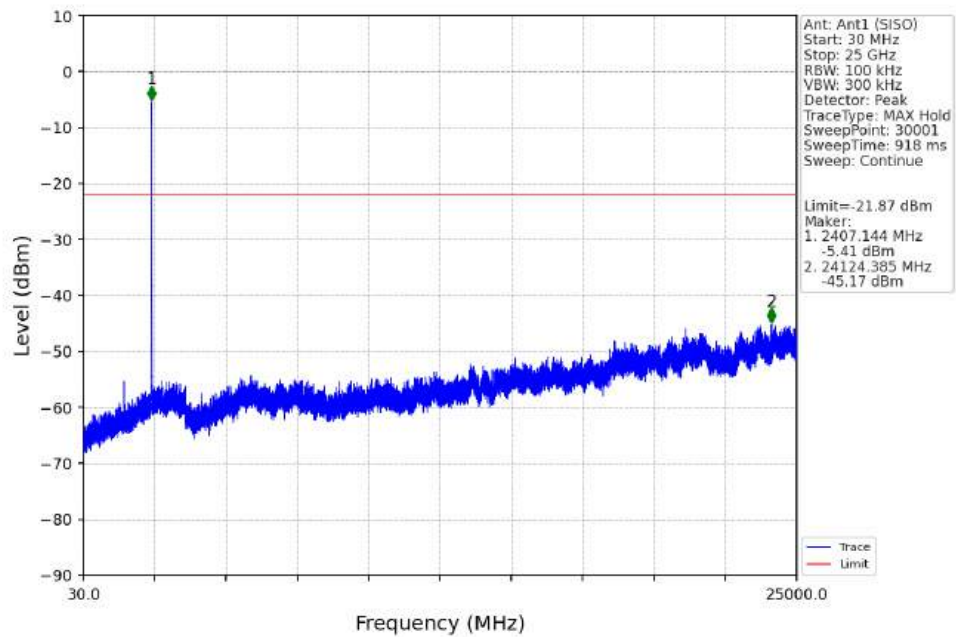
802.11g_HCH_2462MHz_Ant1 (SISO)_NTNV



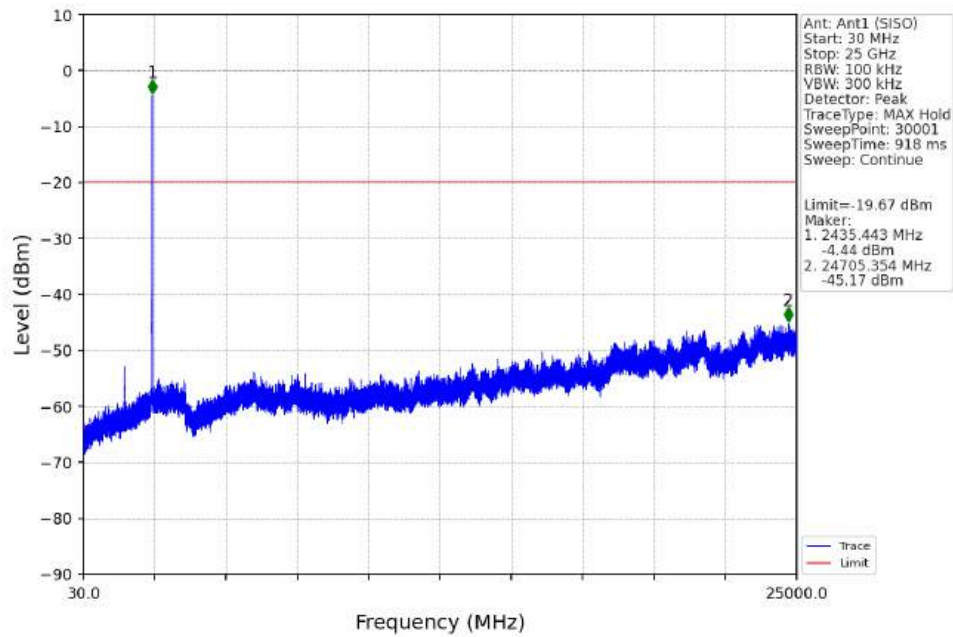
802.11n(HT20)_LCH_2412MHz_Ant1 (SISO)_NTNV



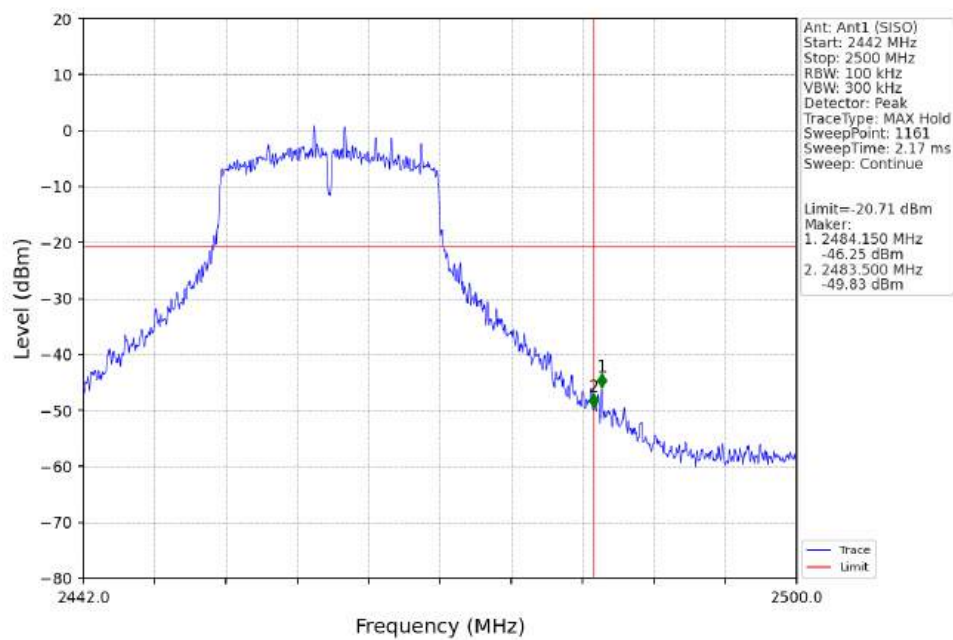
802.11n(HT20)_LCH_2412MHz_Ant1 (SISO)_NTNV



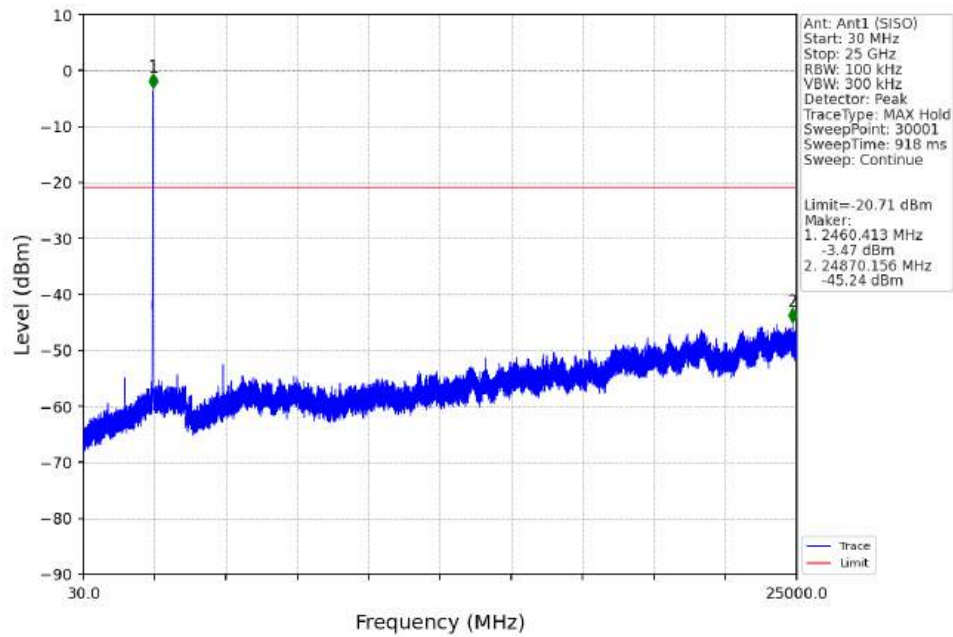
802.11n(HT20)_MCH_2437MHz_Ant1 (SISO)_NTNV



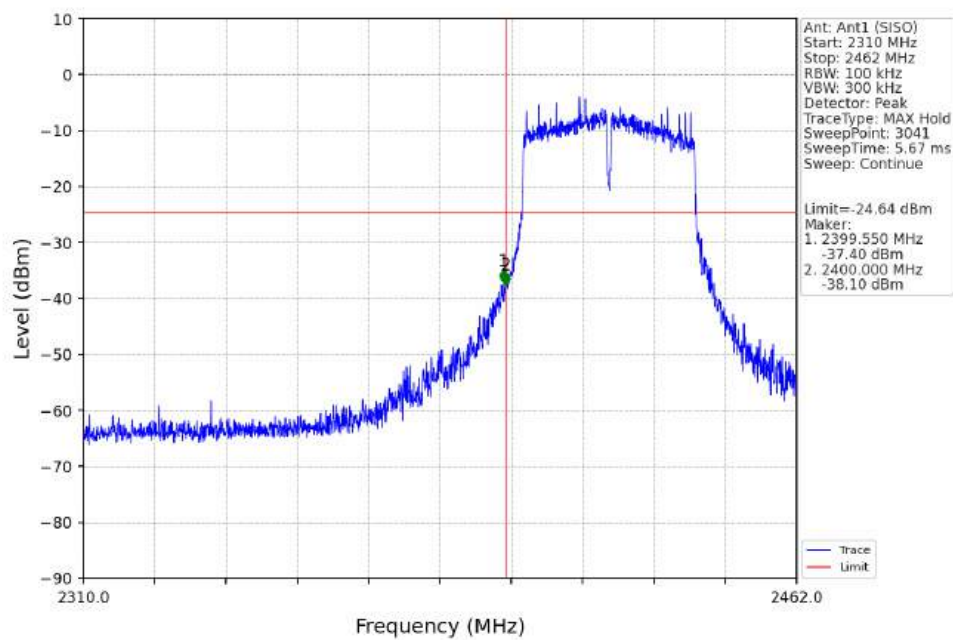
802.11n(HT20)_HCH_2462MHz_Ant1 (SISO)_NTNV



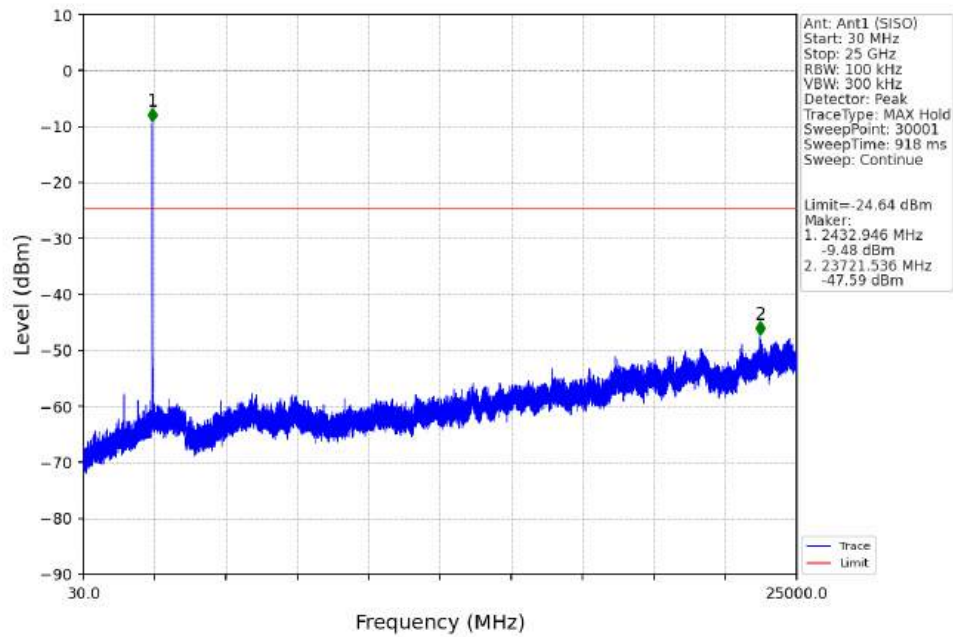
802.11n(HT20)_HCH_2462MHz_Ant1 (SISO)_NTNV



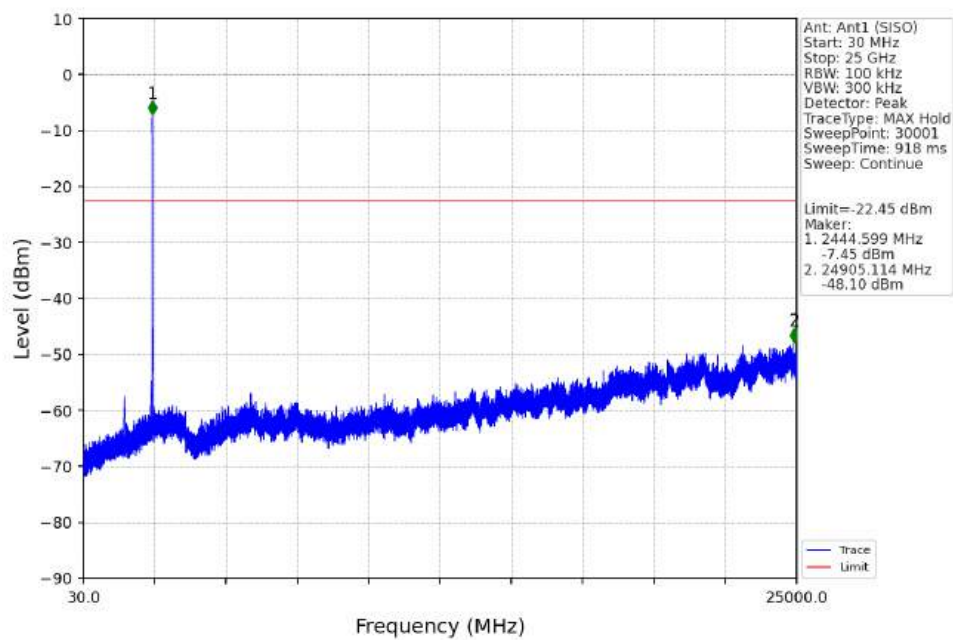
802.11n(HT40)_LCH_2422MHz_Ant1 (SISO)_NTNV



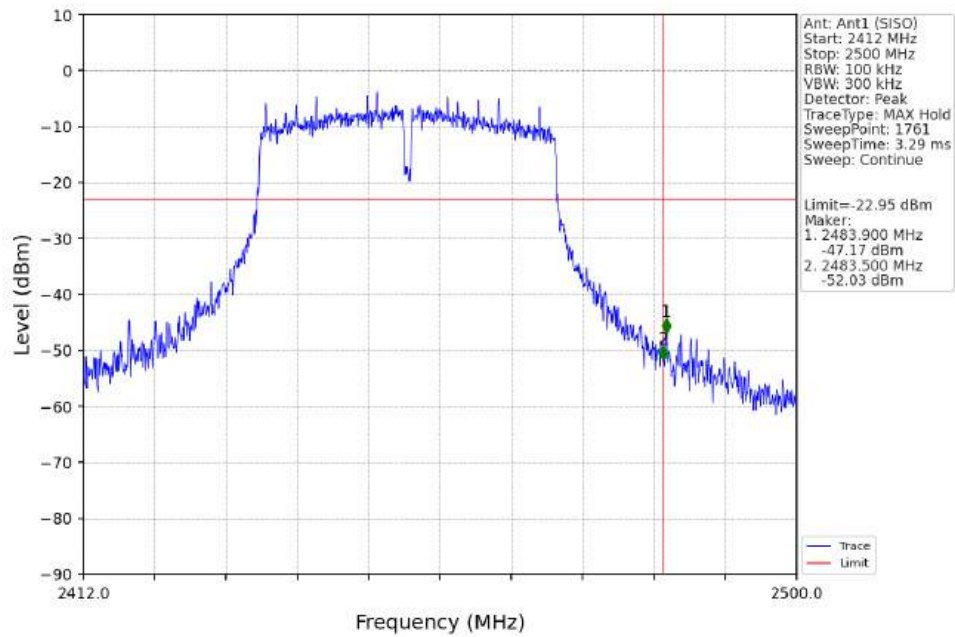
802.11n(HT40)_LCH_2422MHz_Ant1 (SISO)_NTNV



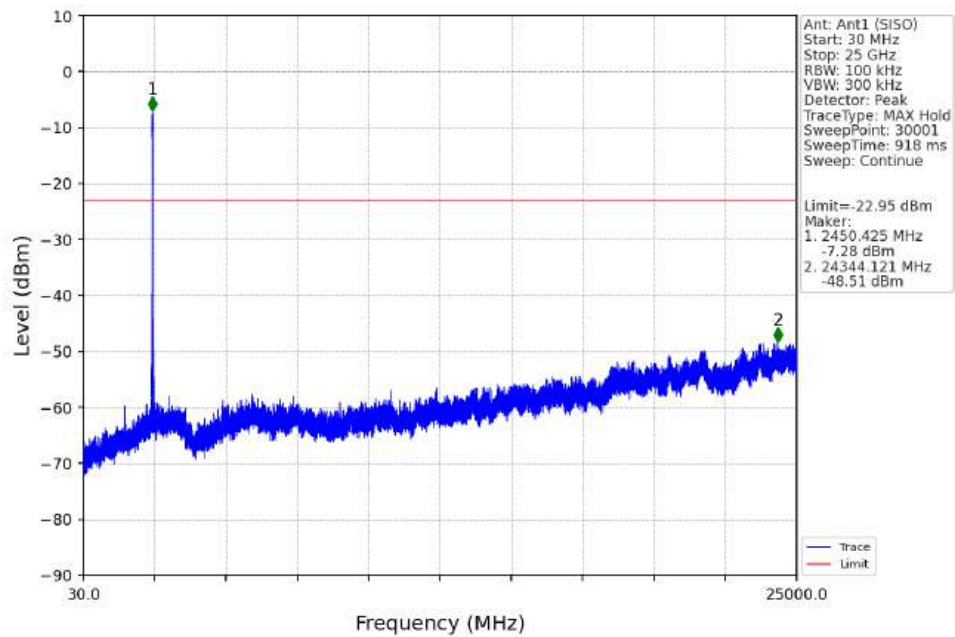
802.11n(HT40)_MCH_2437MHz_Ant1 (SISO)_NTNV



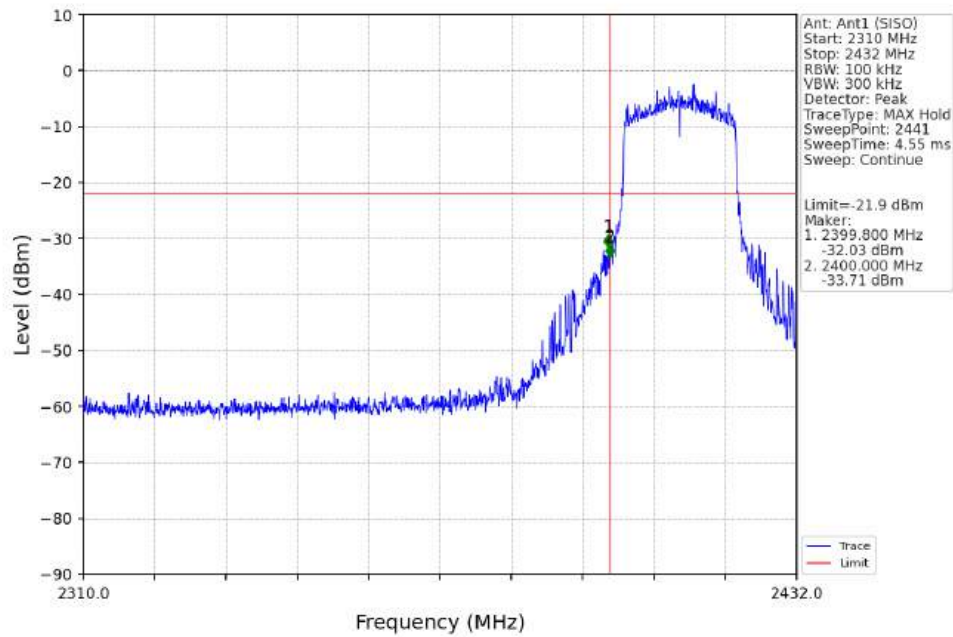
802.11n(HT40)_HCH_2452MHz_Ant1 (SISO)_NTNV



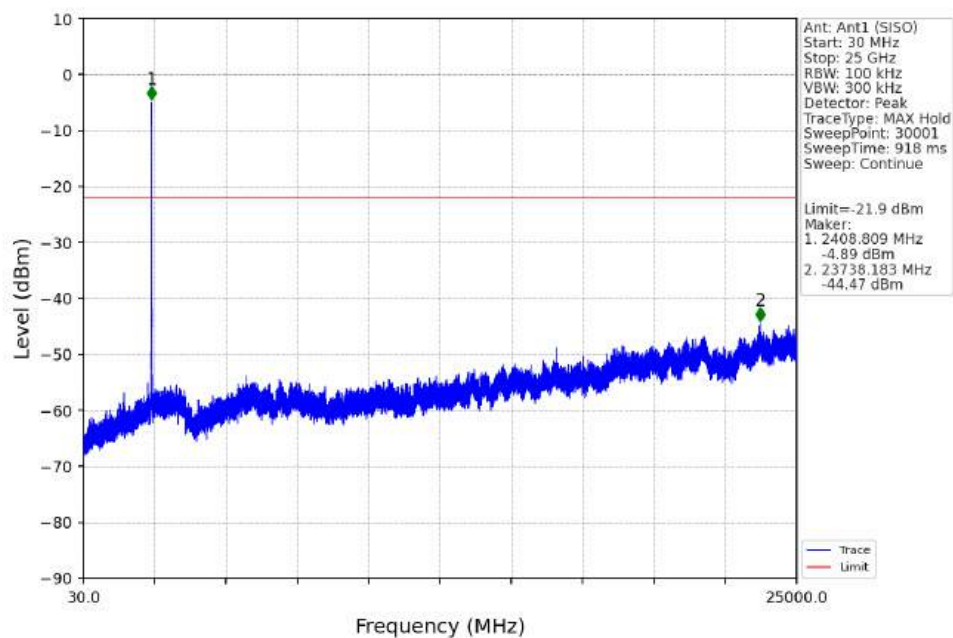
802.11n(HT40)_HCH_2452MHz_Ant1 (SISO)_NTNV



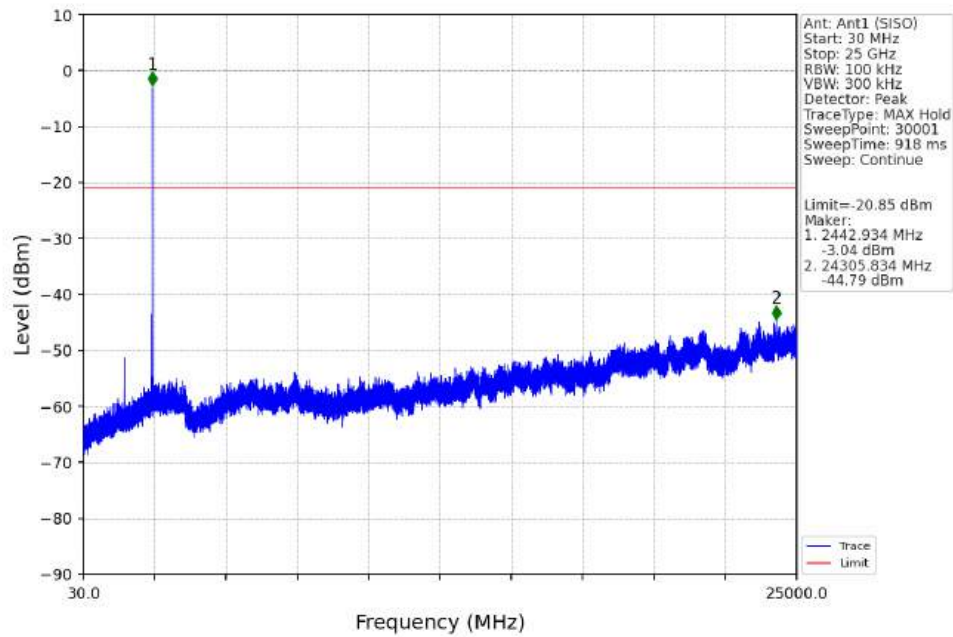
802.11ax(HEW20)_LCH_2412MHz_SU_ / _Ant1 (SISO)_NTNV



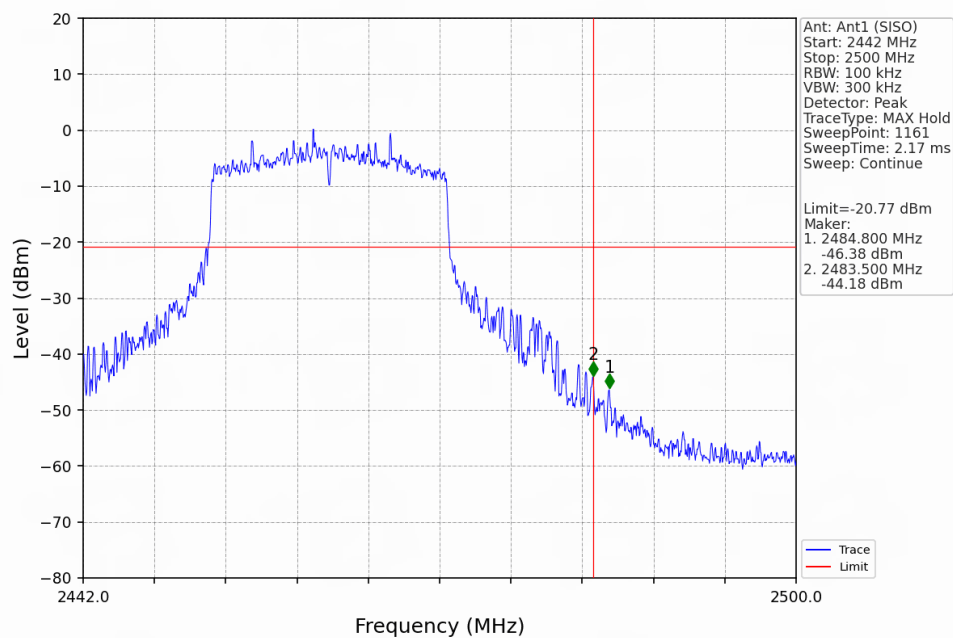
802.11ax(HEW20)_LCH_2412MHz_SU_ / _Ant1 (SISO)_NTNV



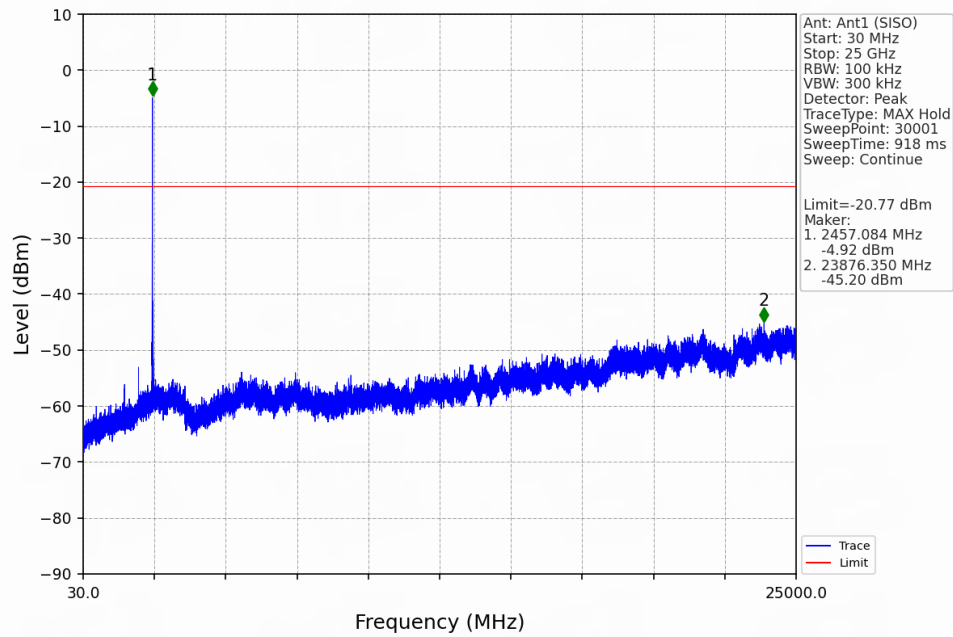
802.11ax(HEW20)_MCH_2437MHz_SU_ / _Ant1 (SISO)_NTNV



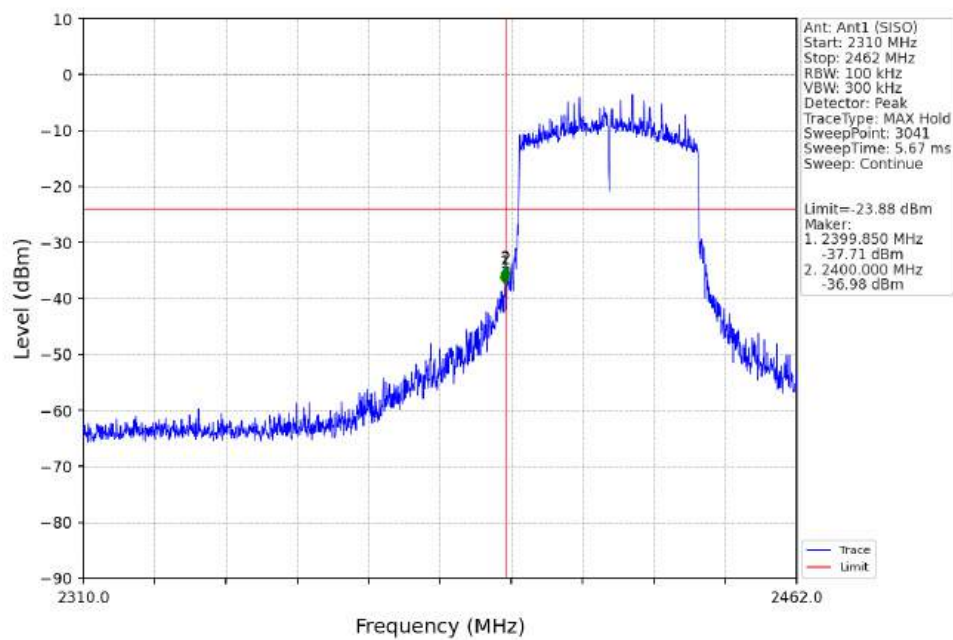
802.11ax(HEW20)_HCH_2462MHz_SU_ / _Ant1 (SISO)_NTNV



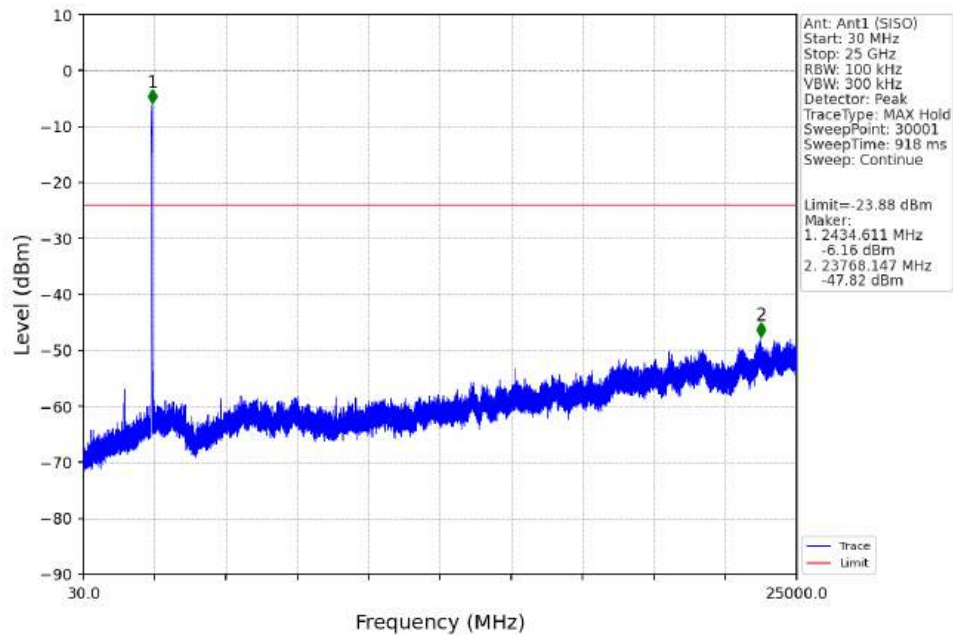
802.11ax(HEW20)_HCH_2462MHz_SU_ / _Ant1 (SISO)_NTNV



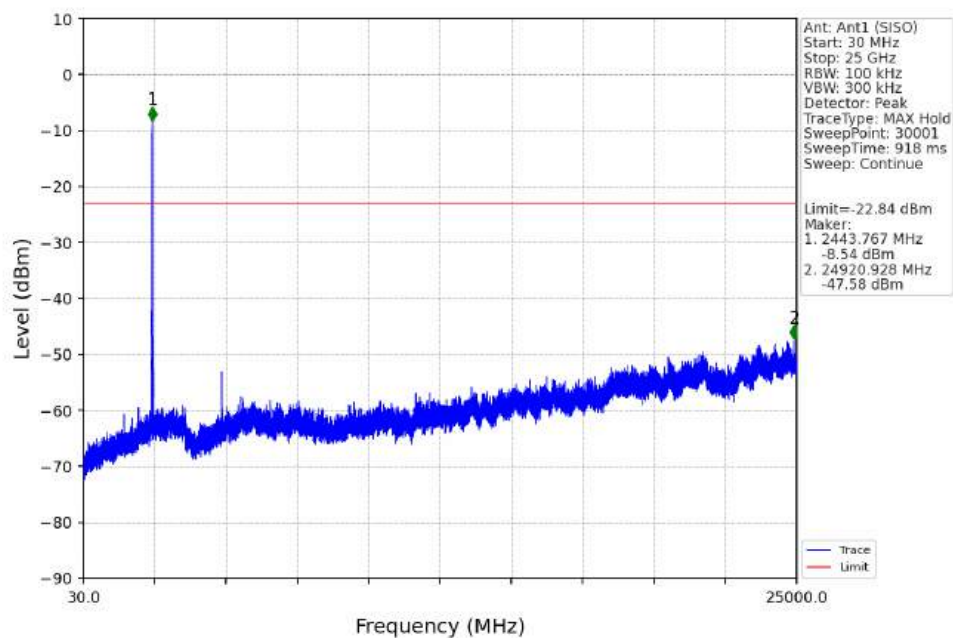
802.11ax(HEW40)_LCH_2422MHz_SU_ / _Ant1 (SISO)_NTNV



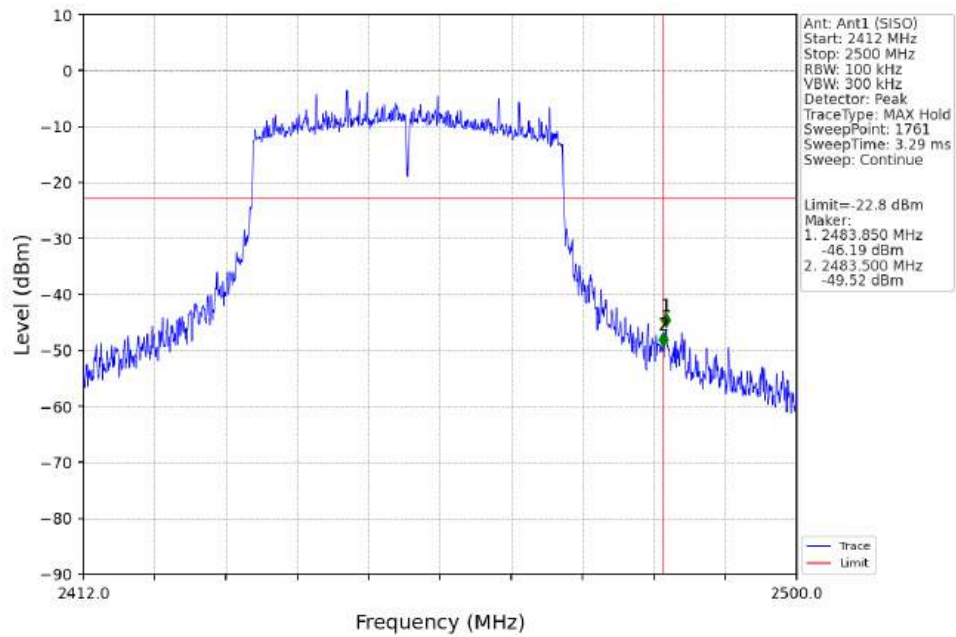
802.11ax(HEW40)_LCH_2422MHz_SU_ / _Ant1 (SISO)_NTNV



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

