

Appendix – 2.4G WIFI

1. Duty Cycle

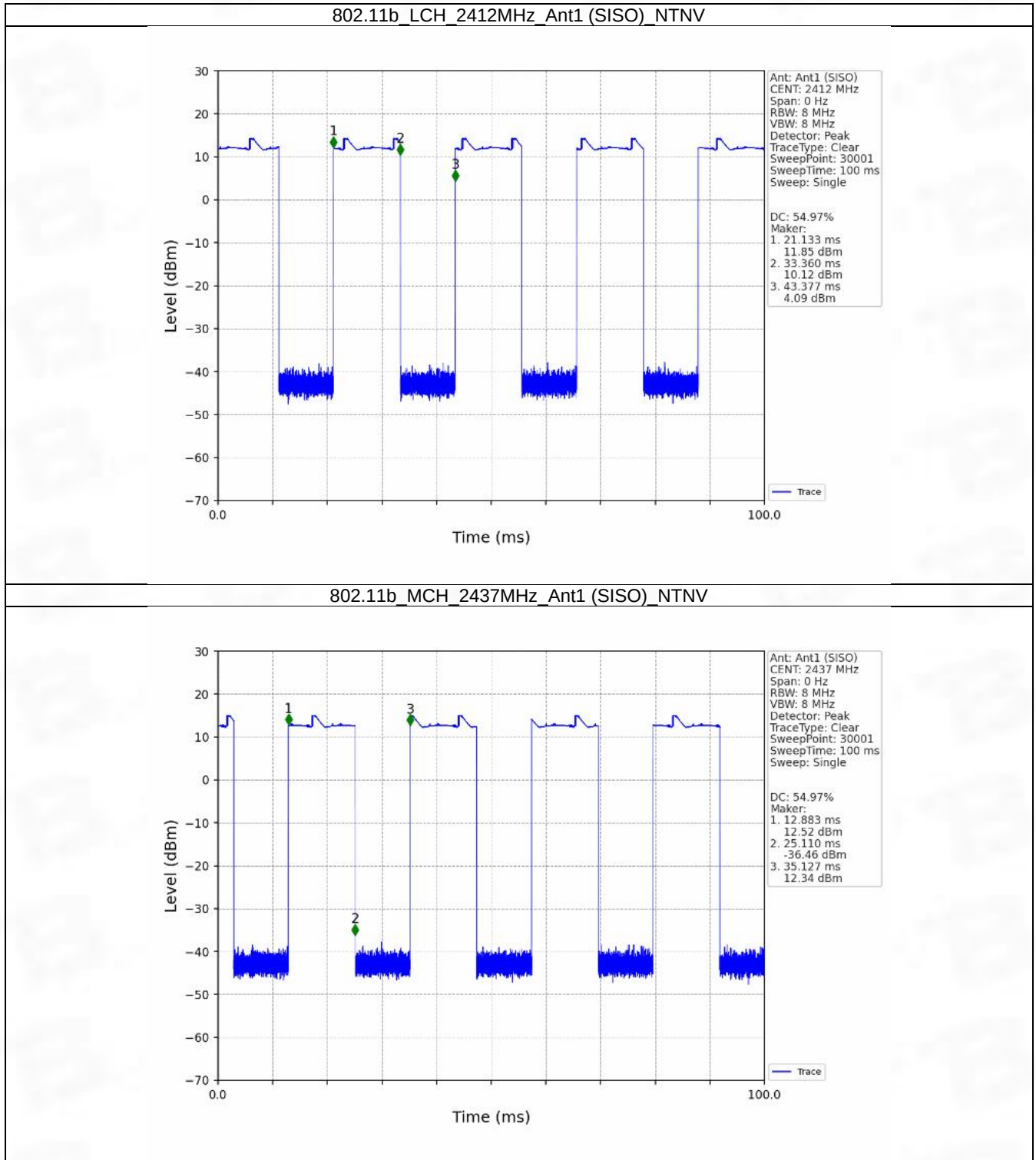
1.1 Test Result

1.1.1 Ant1

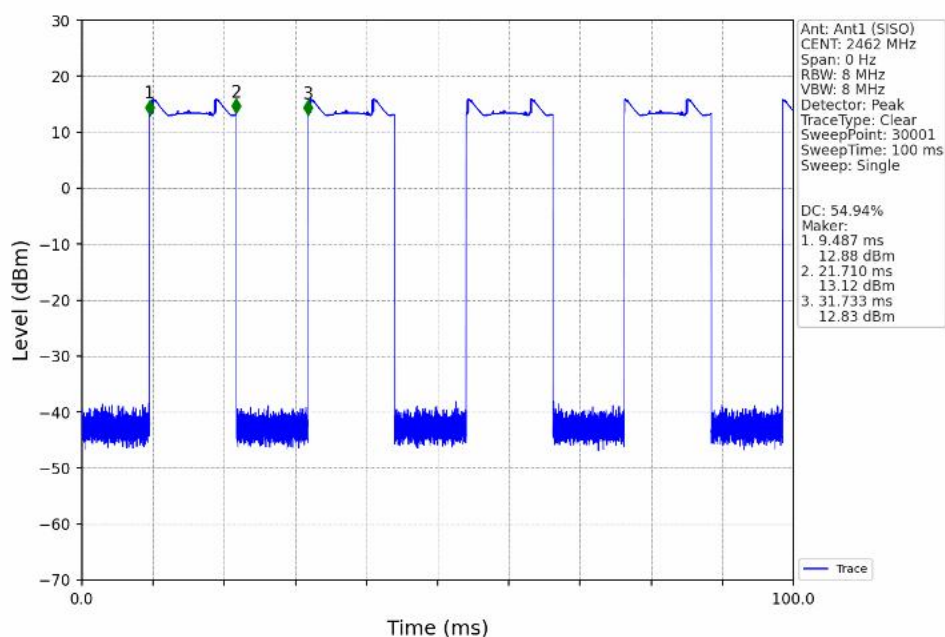
Ant1									
Mode	TX Type	Frequency (MHz)	RU	RU Pos	T_on (ms)	Period (ms)	Duty Cycle (%)	Duty Cycle Correction Factor (dB)	Max. DC Variation (%)
802.11b	SISO	2412	/	/	12.227	22.244	54.97	2.60	0.00
		2437	/	/	12.227	22.244	54.97	2.60	0.00
		2462	/	/	12.223	22.246	54.94	2.60	0.01
802.11g	SISO	2412	/	/	2.033	12.063	16.85	7.73	0.01
		2437	/	/	2.033	12.056	16.86	7.73	0.03
		2462	/	/	2.033	12.063	16.85	7.73	0.04
802.11n (HT20)	SISO	2412	/	/	1.893	12.783	14.81	8.29	1.10
		2437	/	/	1.893	11.920	15.88	7.99	0.00
		2462	/	/	1.894	11.924	15.88	7.99	0.03
802.11n (HT40)	SISO	2422	/	/	0.934	10.960	8.52	10.69	0.01
		2437	/	/	0.933	10.963	8.51	10.70	0.03
		2452	/	/	0.933	11.020	8.47	10.72	0.08
802.11ax (HEW20)	SISO	2412	SU	/	1.463	12.147	12.04	9.19	0.72
		2437	SU	/	1.464	12.134	12.07	9.18	0.68
		2462	SU	/	1.464	11.494	12.74	8.95	0.03
802.11ax (HEW40)	SISO	2422	SU	/	0.763	11.643	6.55	11.84	0.53
		2437	SU	/	0.763	11.057	6.90	11.61	0.20
		2452	SU	/	0.764	10.794	7.08	11.50	0.03

1.2 Test Graph

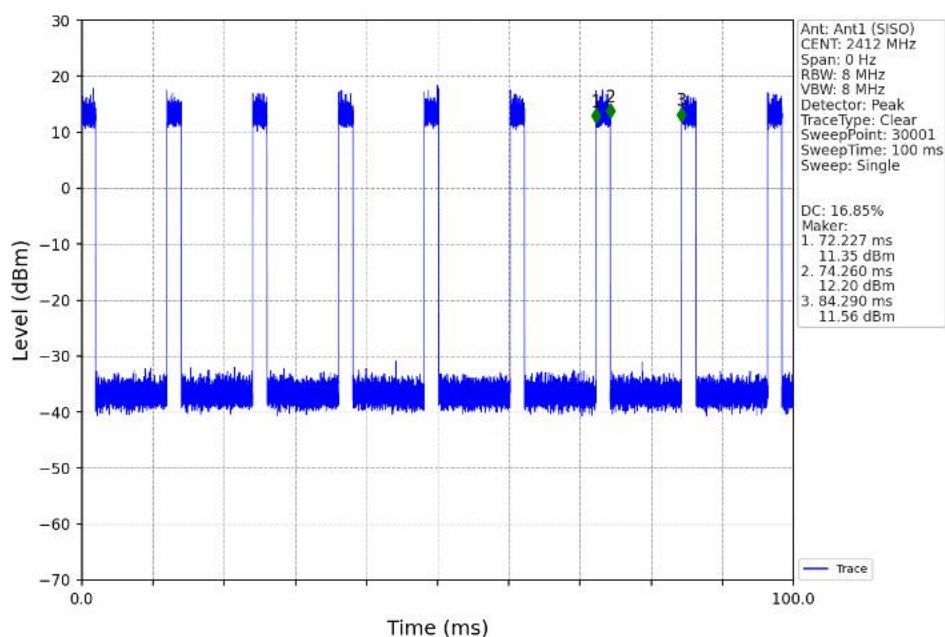
1.2.1 Ant1



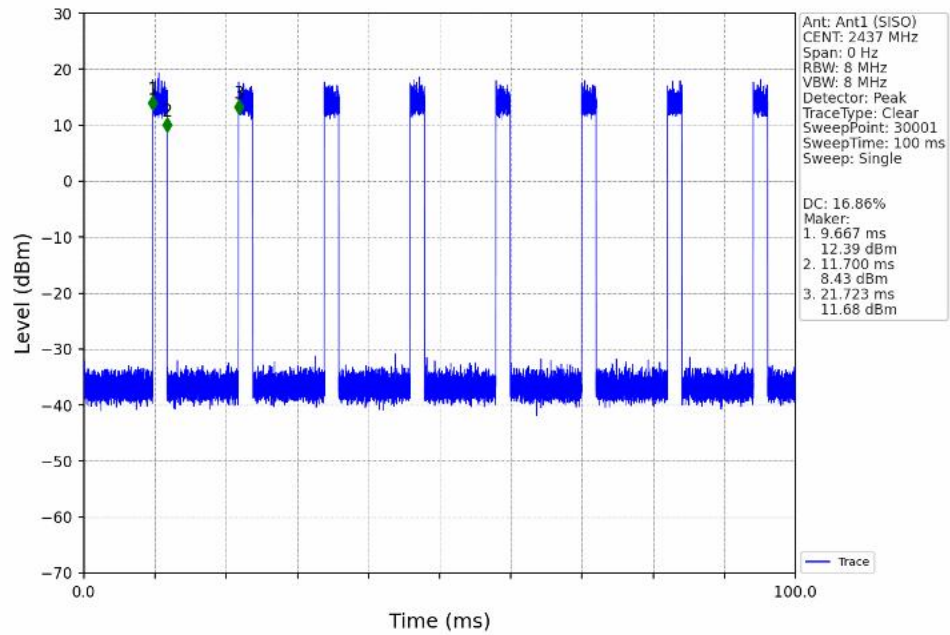
802.11b_HCH_2462MHz_Ant1 (SISO)_NTNV



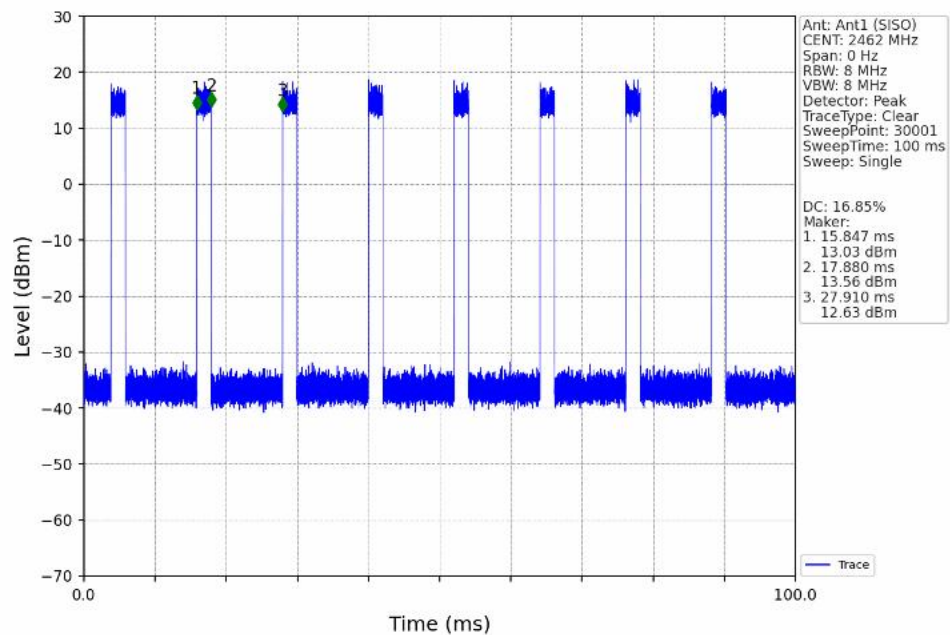
802.11g_LCH_2412MHz_Ant1 (SISO)_NTNV



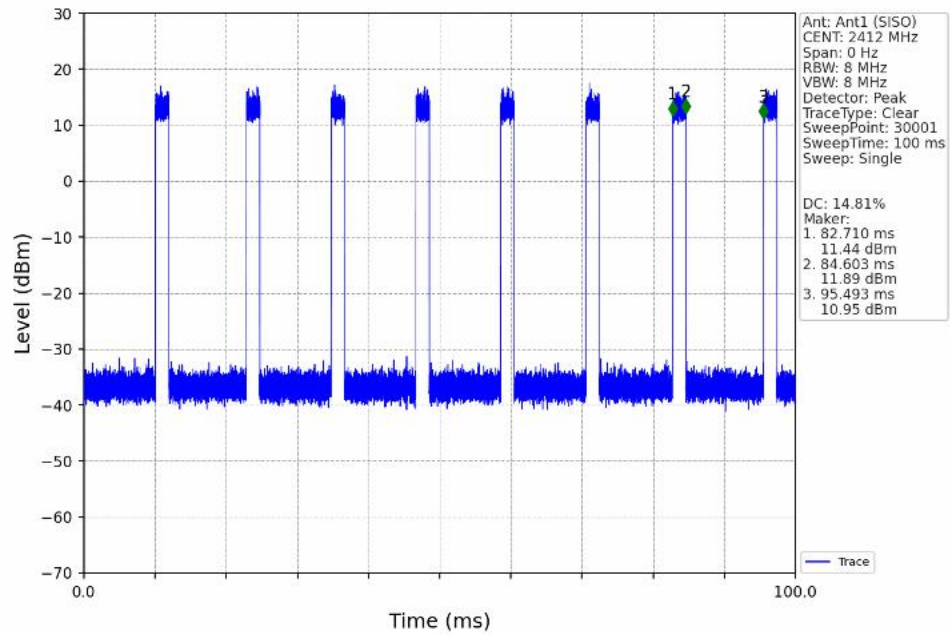
802.11g_MCH_2437MHz_Ant1 (SISO)_NTNV



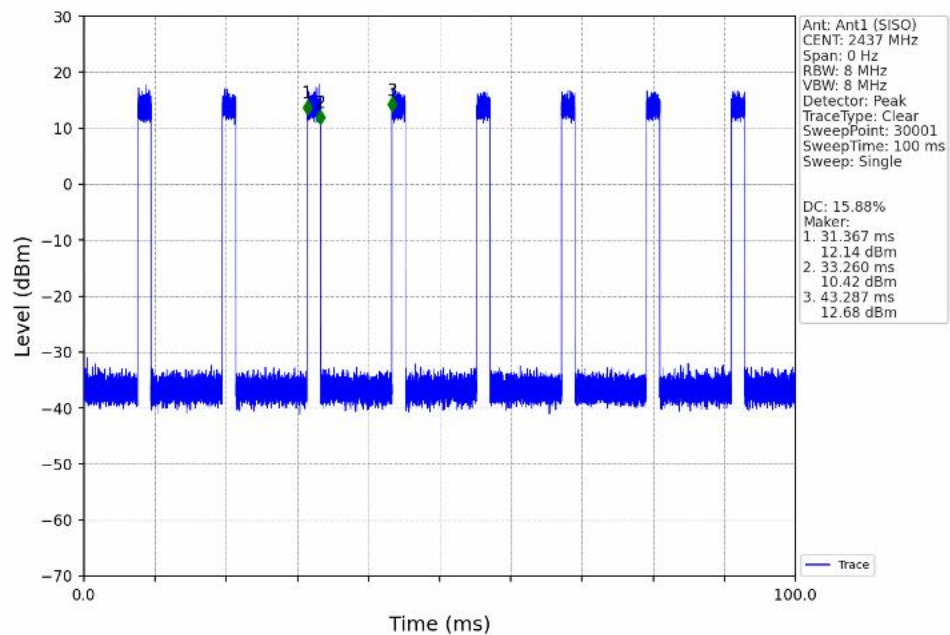
802.11g_HCH_2462MHz_Ant1 (SISO)_NTNV



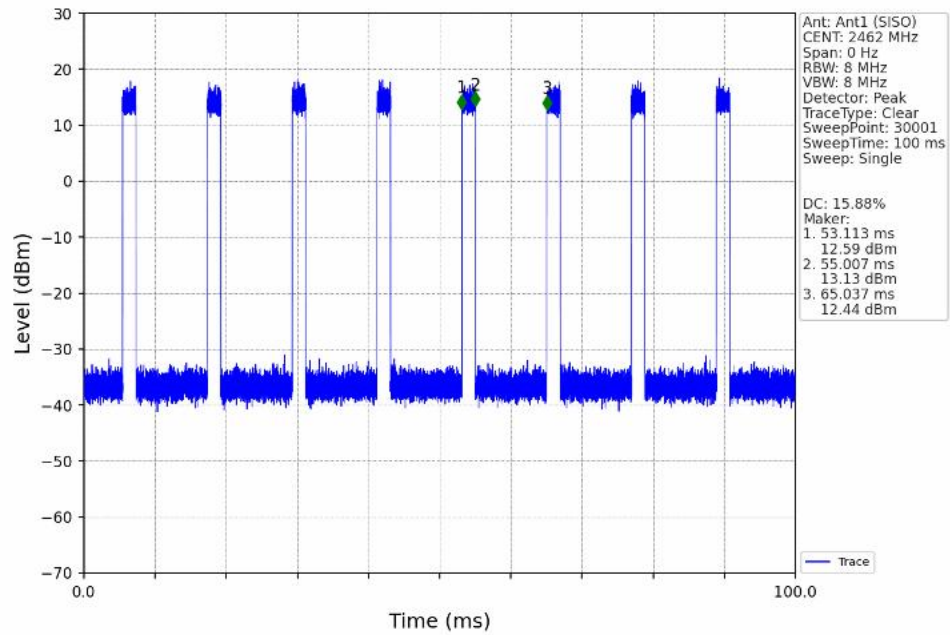
802.11n(HT20)_LCH_2412MHz_Ant1 (SISO)_NTNV



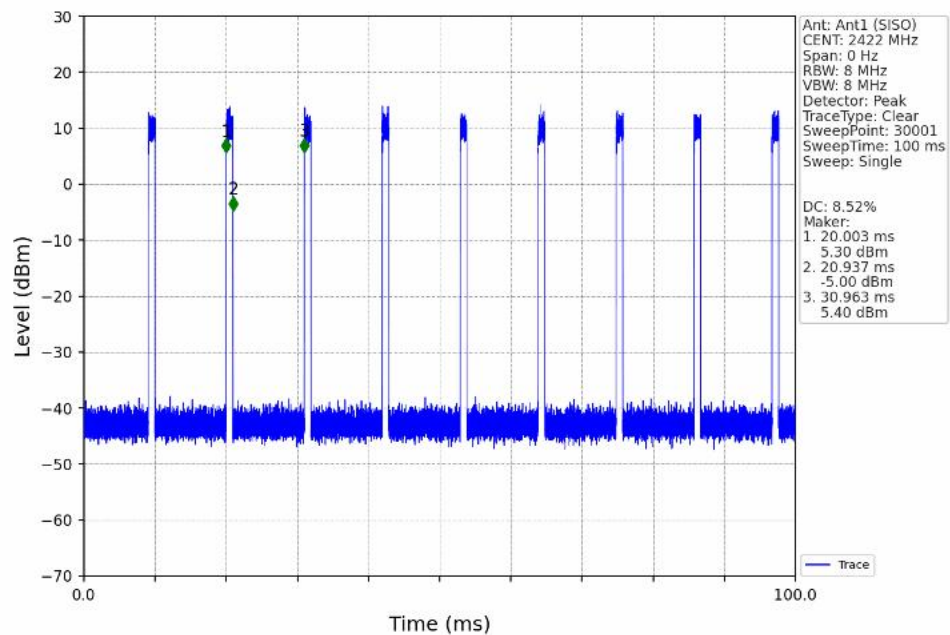
802.11n(HT20)_MCH_2437MHz_Ant1 (SISO)_NTNV



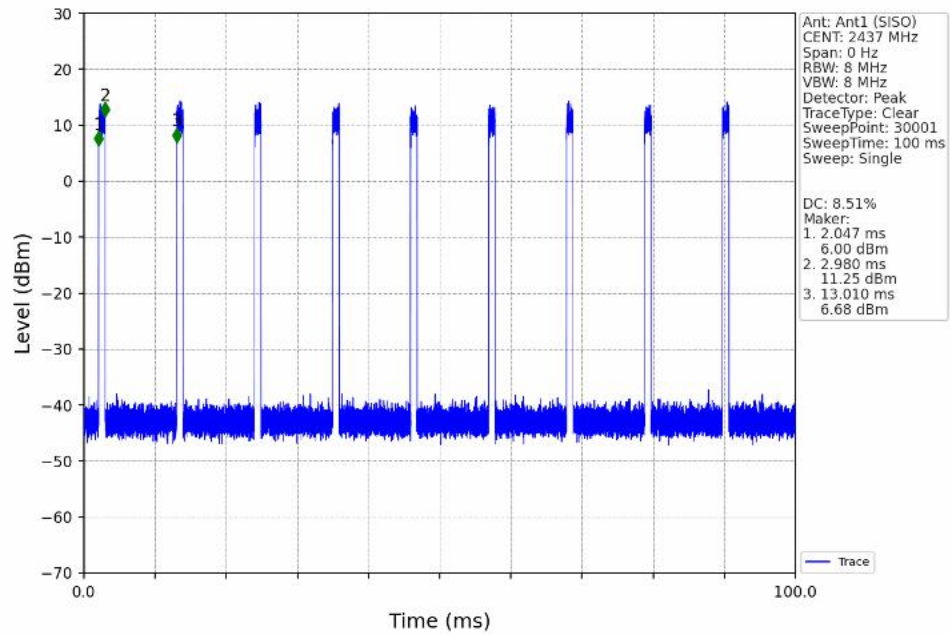
802.11n(HT20)_HCH_2462MHz_Ant1 (SISO)_NTNV



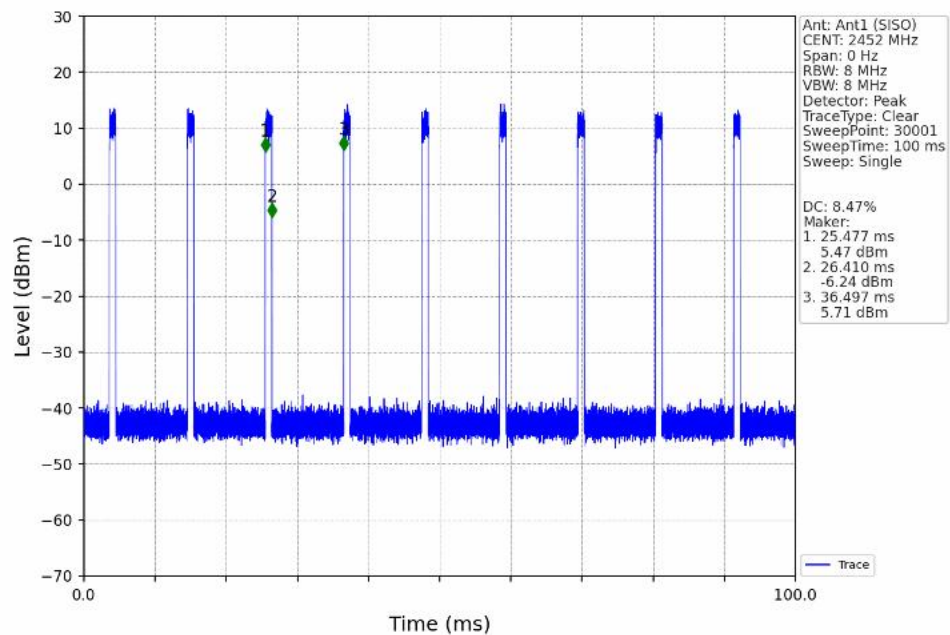
802.11n(HT40)_LCH_2422MHz_Ant1 (SISO)_NTNV



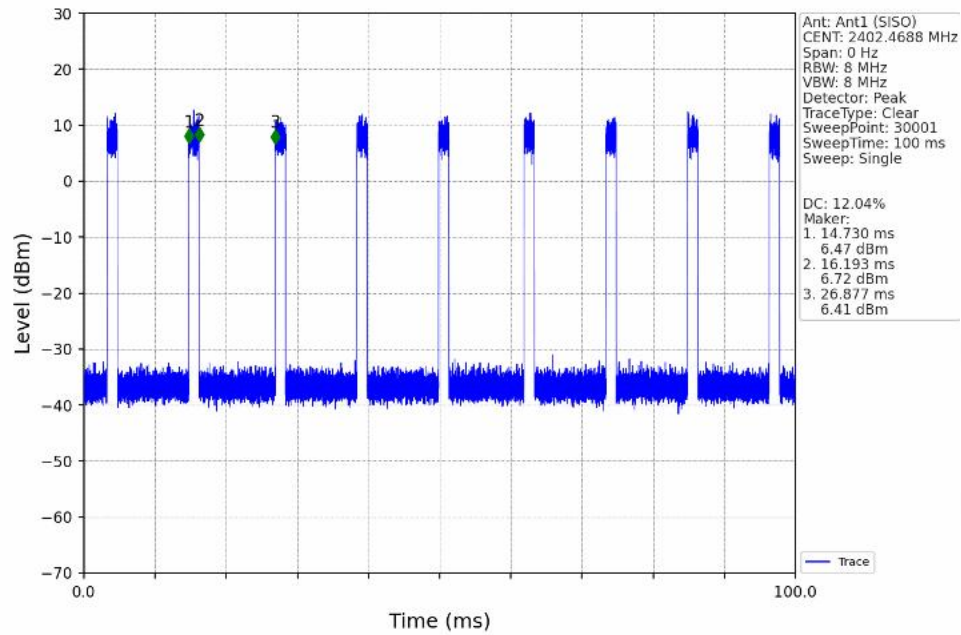
802.11n(HT40)_MCH_2437MHz_Ant1 (SISO)_NTNV



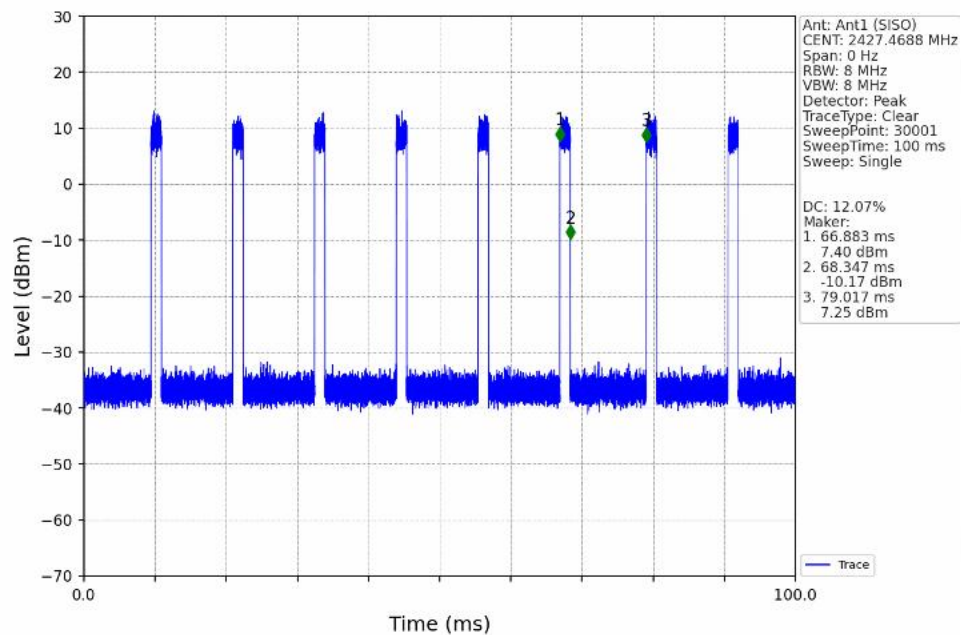
802.11n(HT40)_HCH_2452MHz_Ant1 (SISO)_NTNV



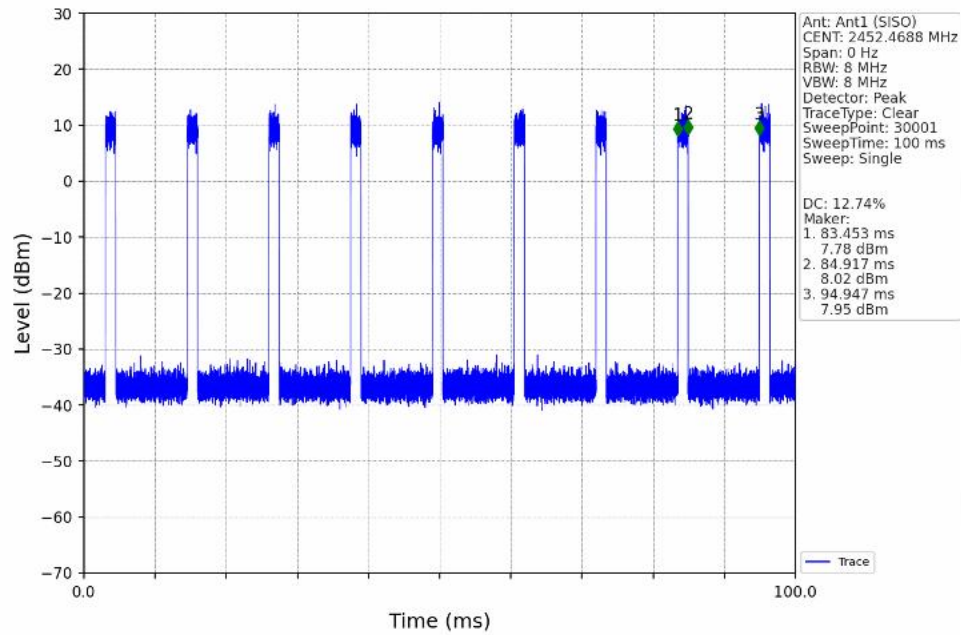
802.11ax(HEW20) LCH 2412MHz_SU / _Ant1 (SISO) _NTNV



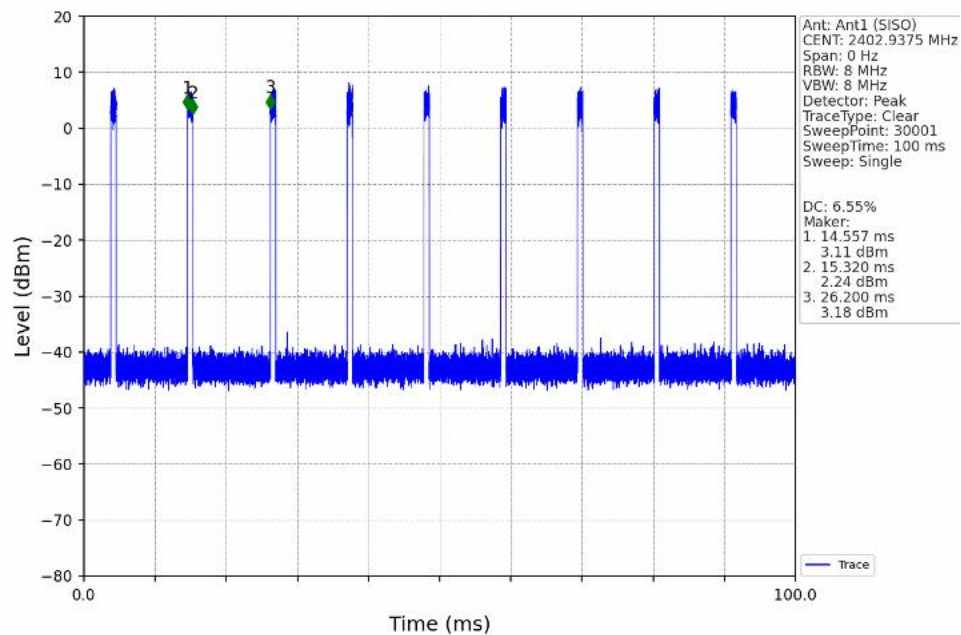
802.11ax(HEW20) MCH 2437MHz_SU / _Ant1 (SISO) _NTNV



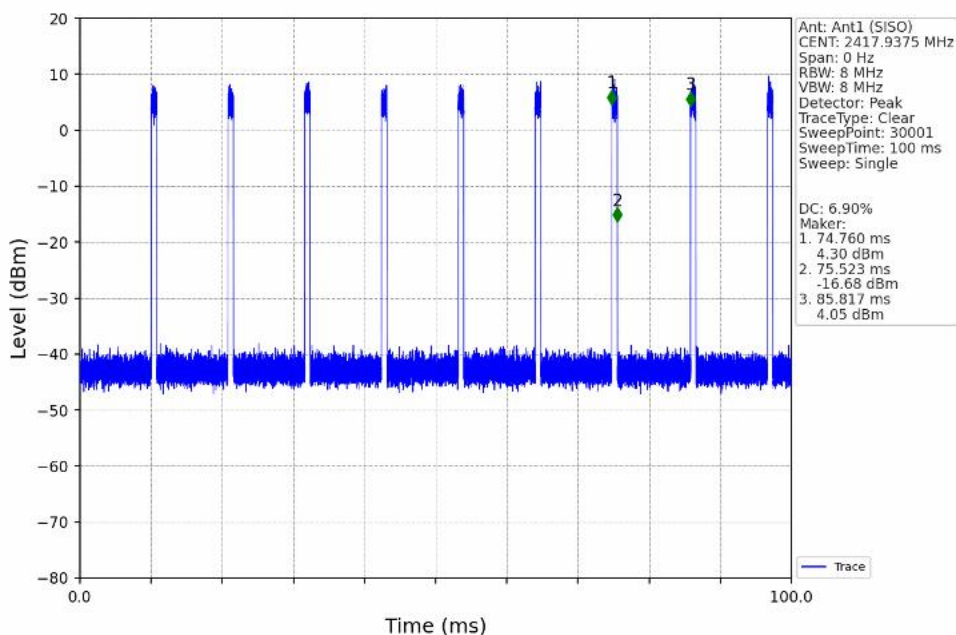
802.11ax(HEW20) HCH 2462MHz_SU / Ant1 (SISO) NTNv



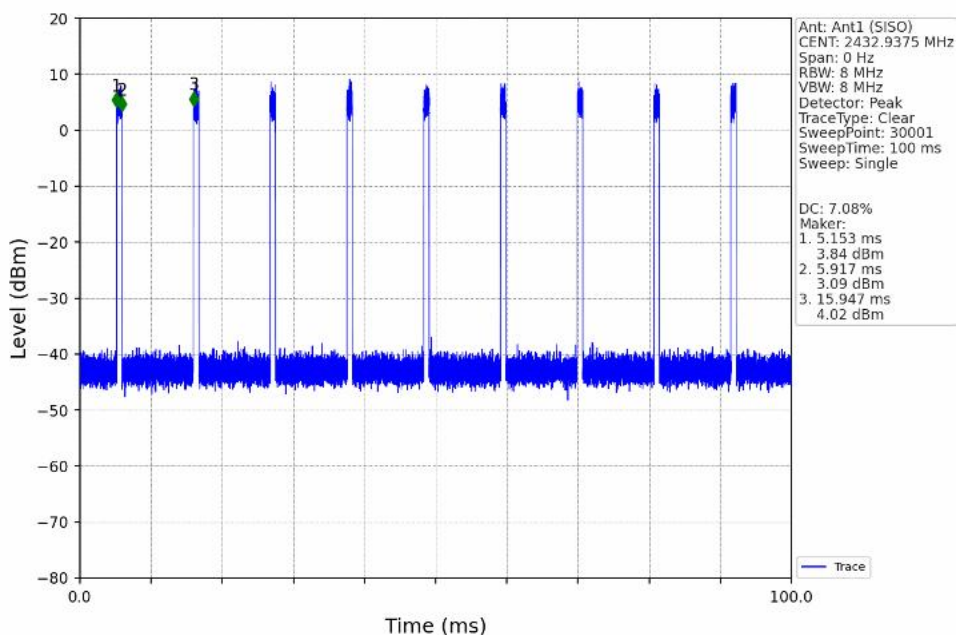
802.11ax(HEW40) LCH 2422MHz_SU / Ant1 (SISO) NTNv



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

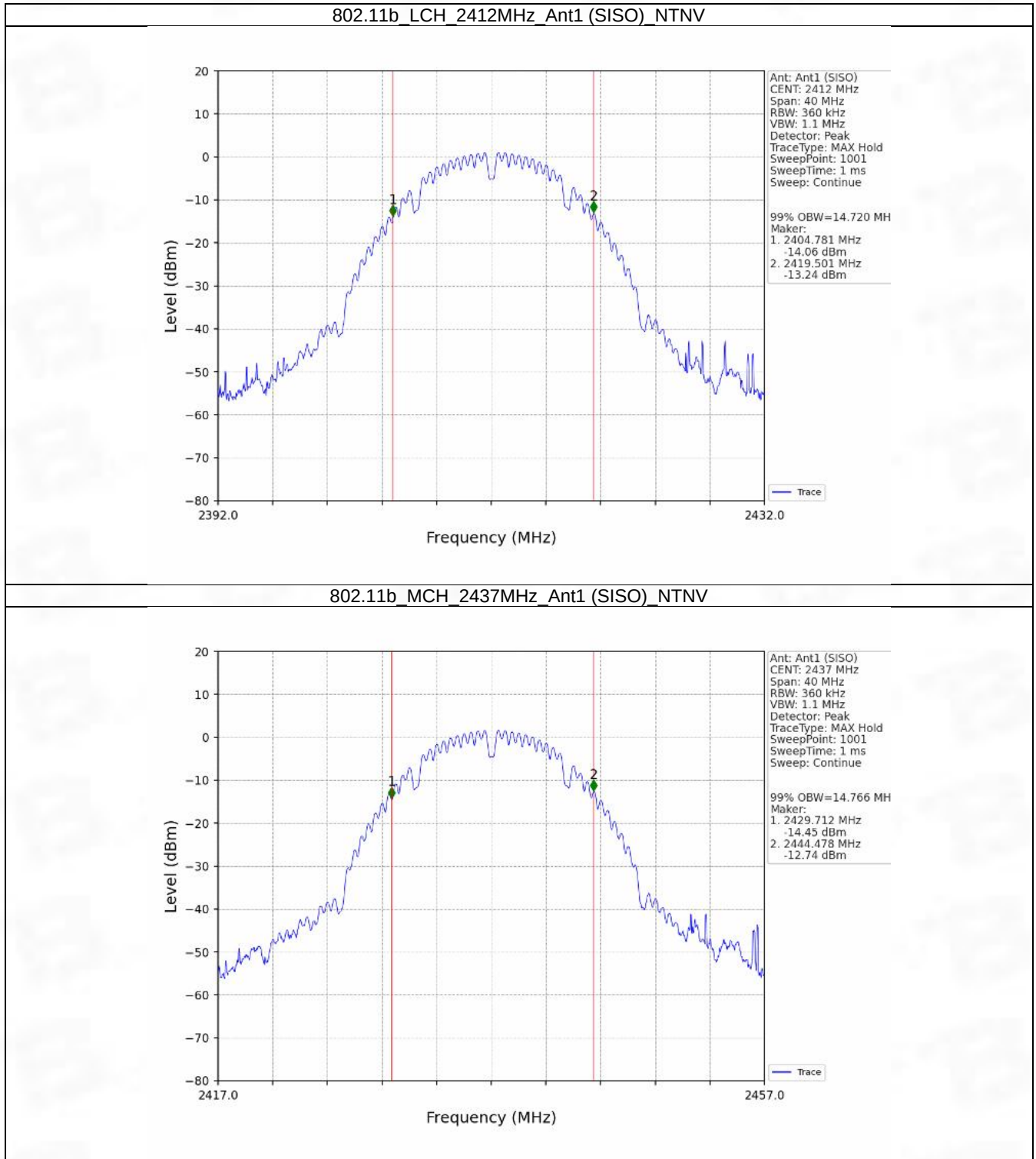
Mode	TX Type	Frequency (MHz)	RU	RU Pos	ANT	99% Occupied Bandwidth (MHz)		Verdict
						Result	Limit	
802.11b	SISO	2412	/	/	1	14.720	/	Pass
		2437	/	/	1	14.766	/	Pass
		2462	/	/	1	14.800	/	Pass
802.11g	SISO	2412	/	/	1	17.961	/	Pass
		2437	/	/	1	17.968	/	Pass
		2462	/	/	1	17.950	/	Pass
802.11n (HT20)	SISO	2412	/	/	1	18.845	/	Pass
		2437	/	/	1	18.968	/	Pass
		2462	/	/	1	18.911	/	Pass
802.11n (HT40)	SISO	2422	/	/	1	36.752	/	Pass
		2437	/	/	1	36.751	/	Pass
		2452	/	/	1	36.692	/	Pass
802.11ax (HEW20)	SISO	2412	SU	/	1	19.338	/	Pass
		2437	SU	/	1	19.414	/	Pass
		2462	SU	/	1	19.379	/	Pass
802.11ax (HEW40)	SISO	2422	SU	/	1	38.069	/	Pass
		2437	SU	/	1	38.002	/	Pass
		2452	SU	/	1	38.038	/	Pass

2.1.2 6dB BW

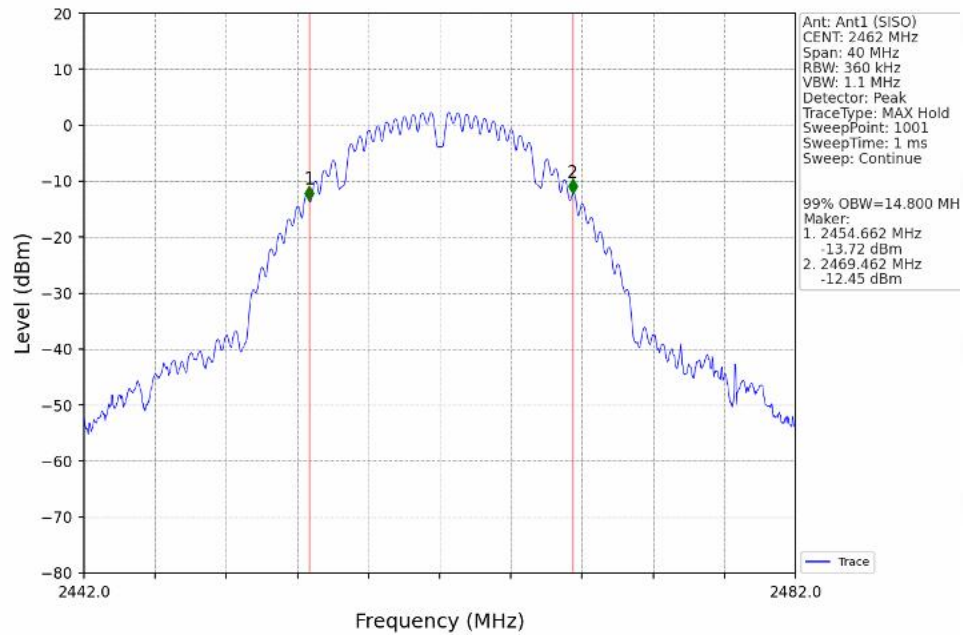
Mode	TX Type	Frequency (MHz)	RU	RU Pos	ANT	6dB Bandwidth (MHz)		Verdict
						Result	Limit	
802.11b	SISO	2412	/	/	1	10.162	≥ 0.5	Pass
		2437	/	/	1	10.176	≥ 0.5	Pass
		2462	/	/	1	10.183	≥ 0.5	Pass
802.11g	SISO	2412	/	/	1	16.206	≥ 0.5	Pass
		2437	/	/	1	16.596	≥ 0.5	Pass
		2462	/	/	1	16.246	≥ 0.5	Pass
802.11n (HT20)	SISO	2412	/	/	1	17.218	≥ 0.5	Pass
		2437	/	/	1	17.529	≥ 0.5	Pass
		2462	/	/	1	17.301	≥ 0.5	Pass
802.11n (HT40)	SISO	2422	/	/	1	35.746	≥ 0.5	Pass
		2437	/	/	1	35.237	≥ 0.5	Pass
		2452	/	/	1	35.673	≥ 0.5	Pass
802.11ax (HEW20)	SISO	2412	SU	/	1	17.557	≥ 0.5	Pass
		2437	SU	/	1	17.410	≥ 0.5	Pass
		2462	SU	/	1	17.827	≥ 0.5	Pass
802.11ax (HEW40)	SISO	2422	SU	/	1	35.890	≥ 0.5	Pass
		2437	SU	/	1	36.864	≥ 0.5	Pass
		2452	SU	/	1	38.073	≥ 0.5	Pass

2.2 Test Graph

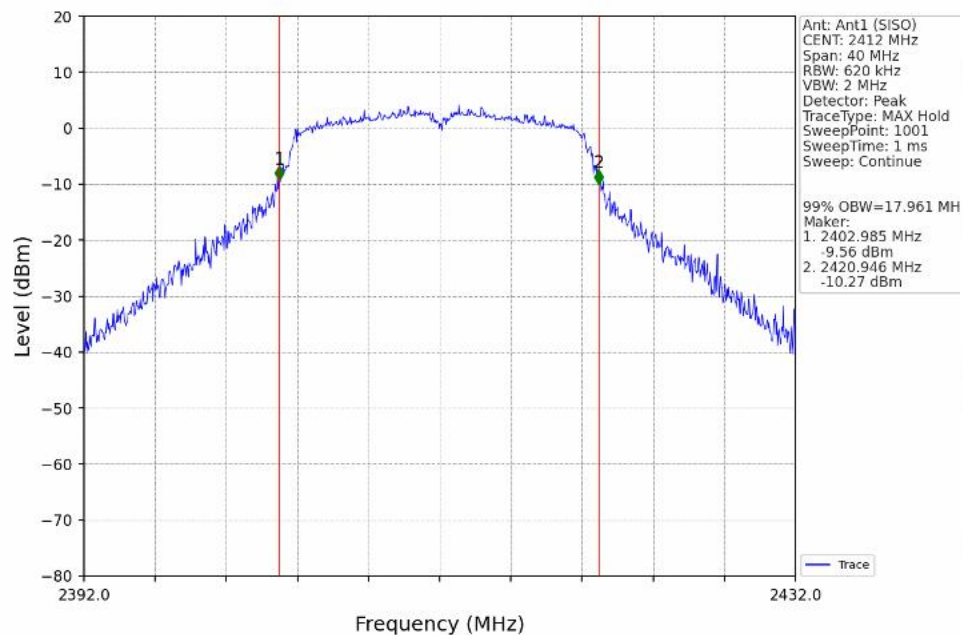
2.2.1 OBW



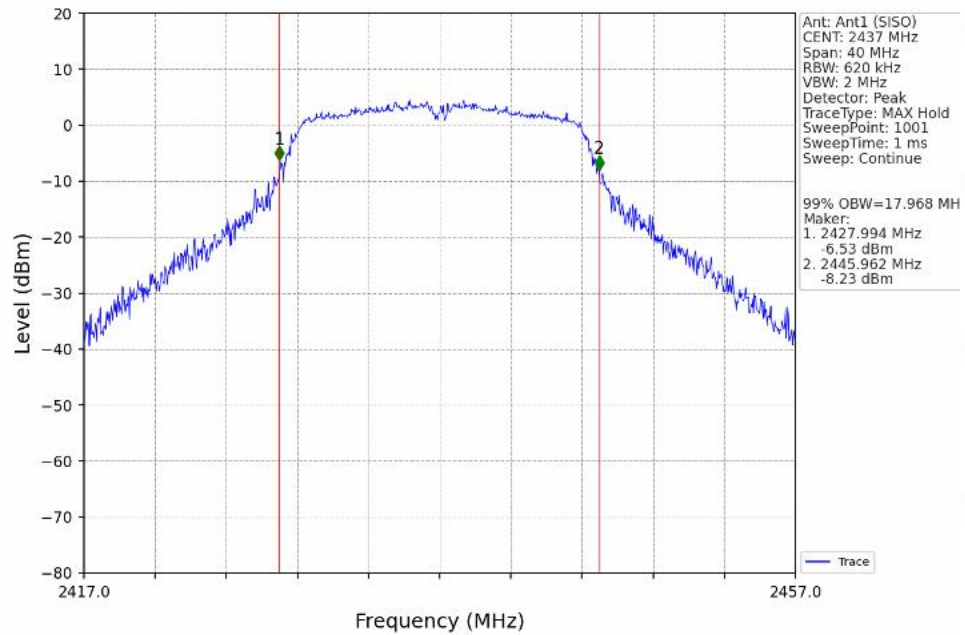
802.11b_HCH_2462MHz_Ant1 (SISO)_NTNV



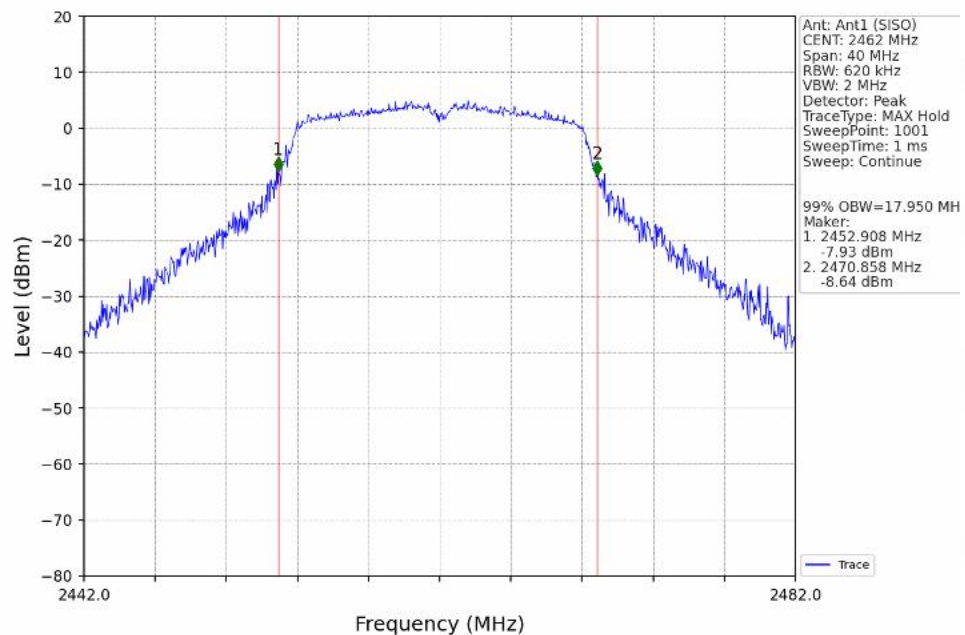
802.11g_LCH_2412MHz_Ant1 (SISO)_NTNV



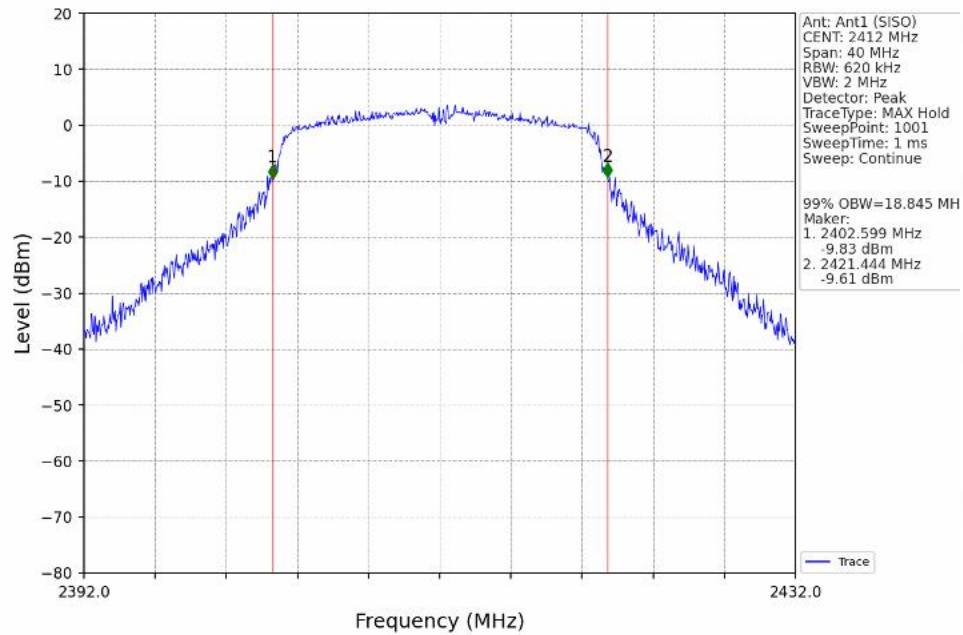
802.11g_MCH_2437MHz_Ant1 (SISO)_NTNV



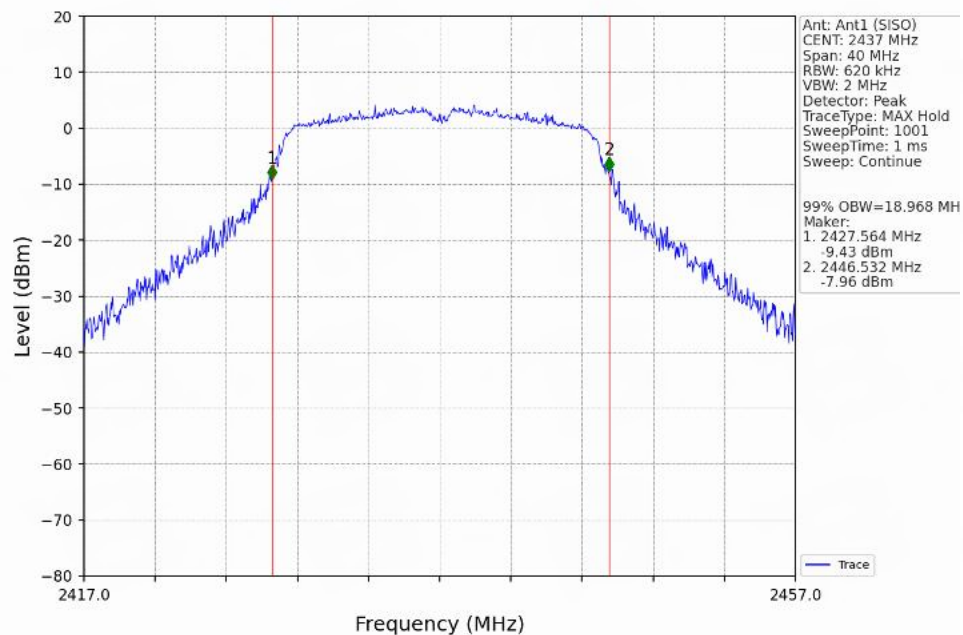
802.11g_HCH_2462MHz_Ant1 (SISO)_NTNV



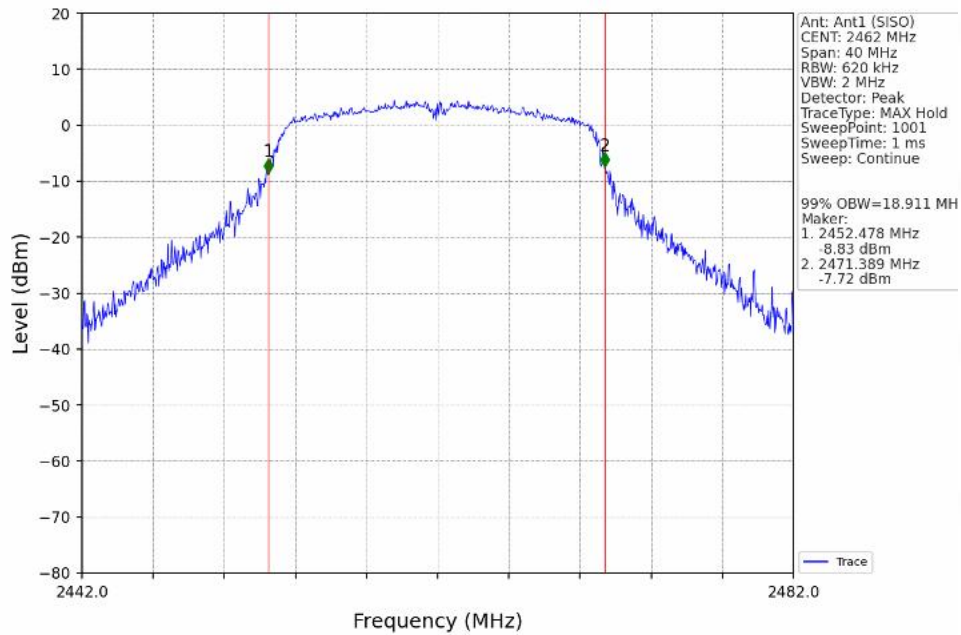
802.11n(HT20)_LCH_2412MHz_Ant1 (SISO)_NTNV



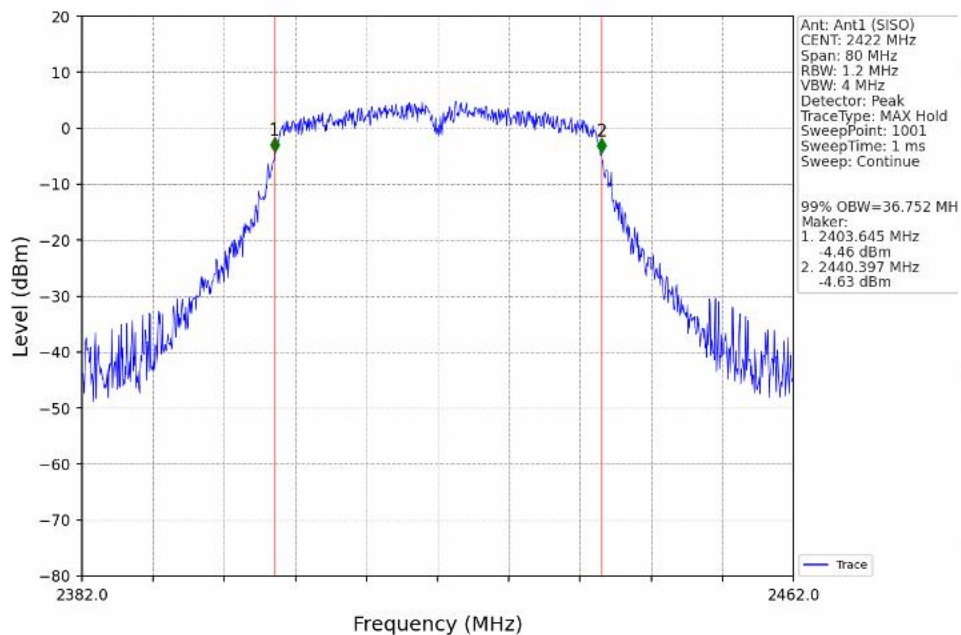
802.11n(HT20)_MCH_2437MHz_Ant1 (SISO)_NTNV



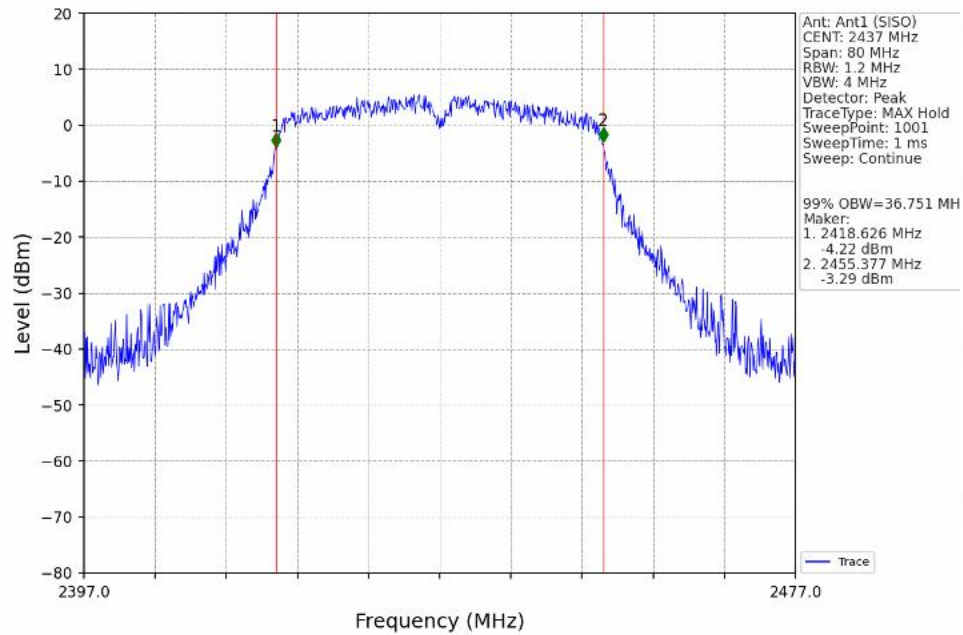
802.11n(HT20)_HCH_2462MHz_Ant1 (SISO)_NTNV



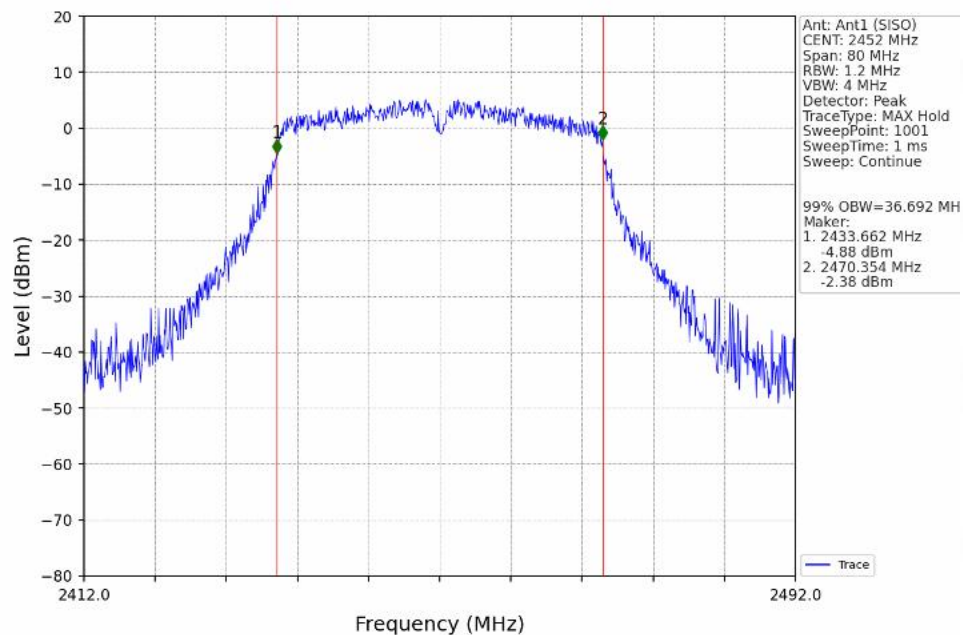
802.11n(HT40)_LCH_2422MHz_Ant1 (SISO)_NTNV



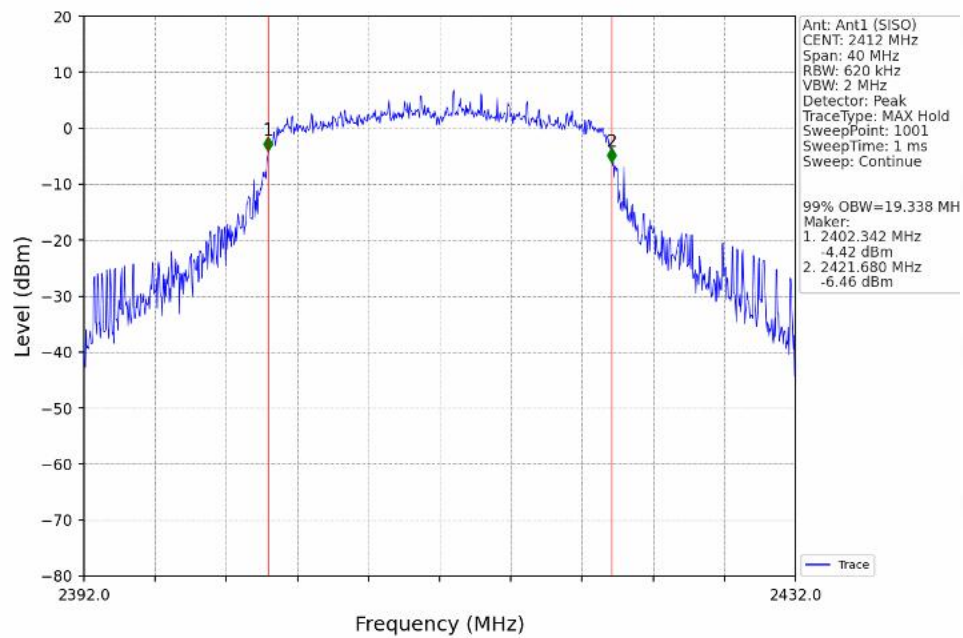
802.11n(HT40)_MCH_2437MHz_Ant1(SISO)_NTNV



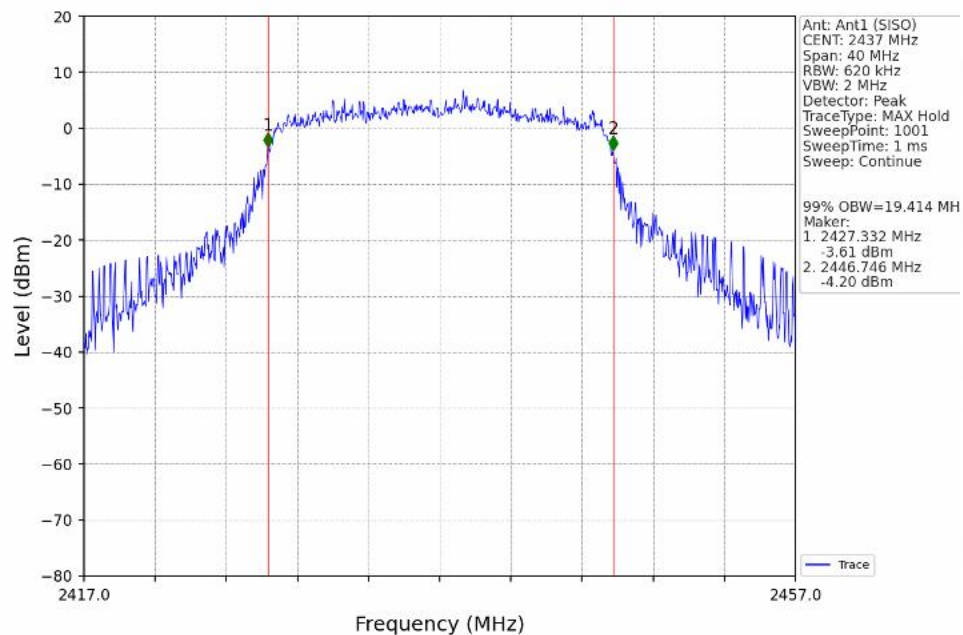
802.11n(HT40)_HCH_2452MHz_Ant1(SISO)_NTNV



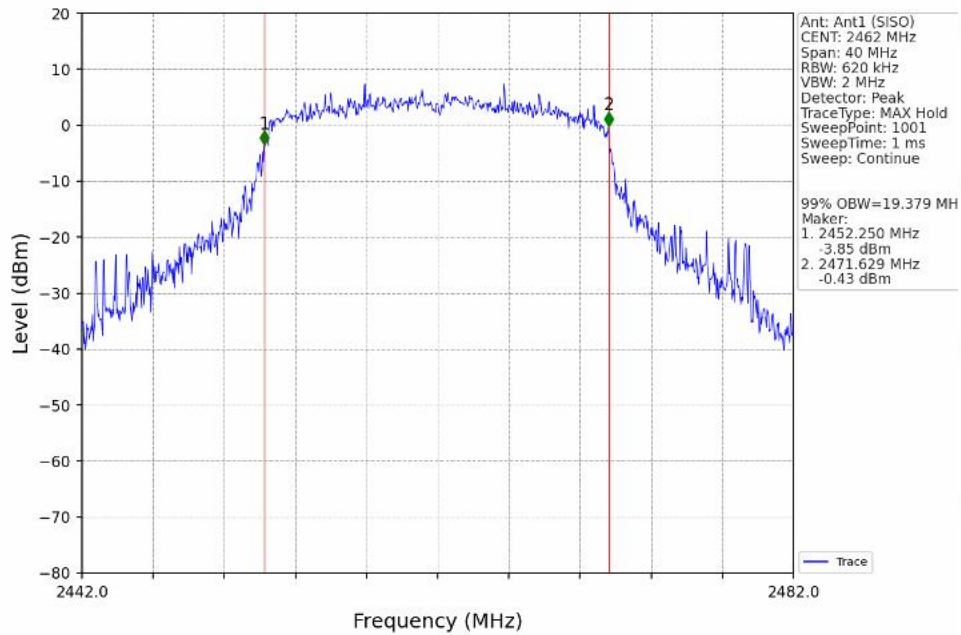
802.11ax(HEW20) LCH 2412MHz_SU / _Ant1 (SISO) _NTNV



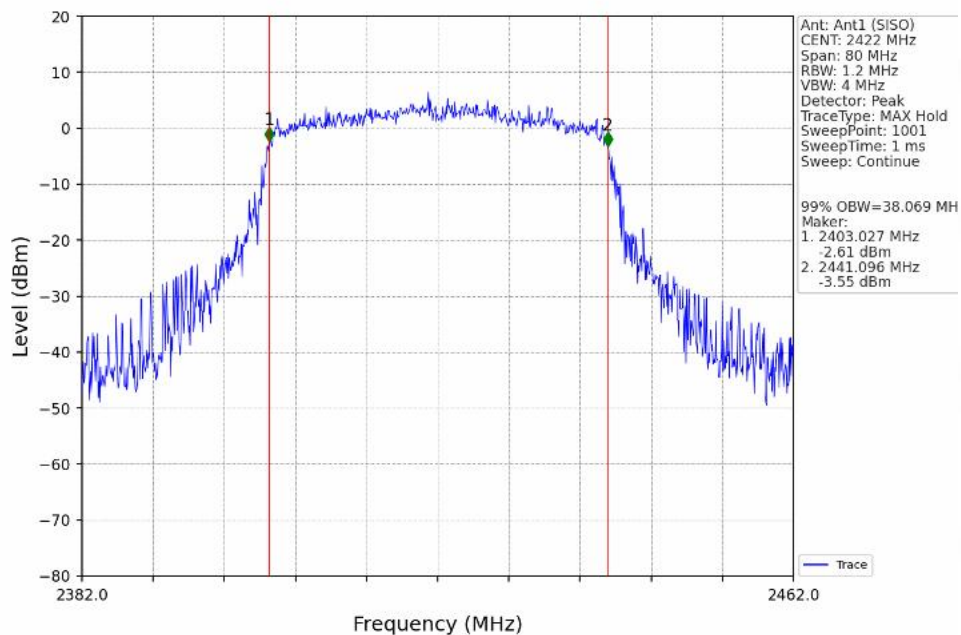
802.11ax(HEW20) MCH 2437MHz_SU / _Ant1 (SISO) _NTNV



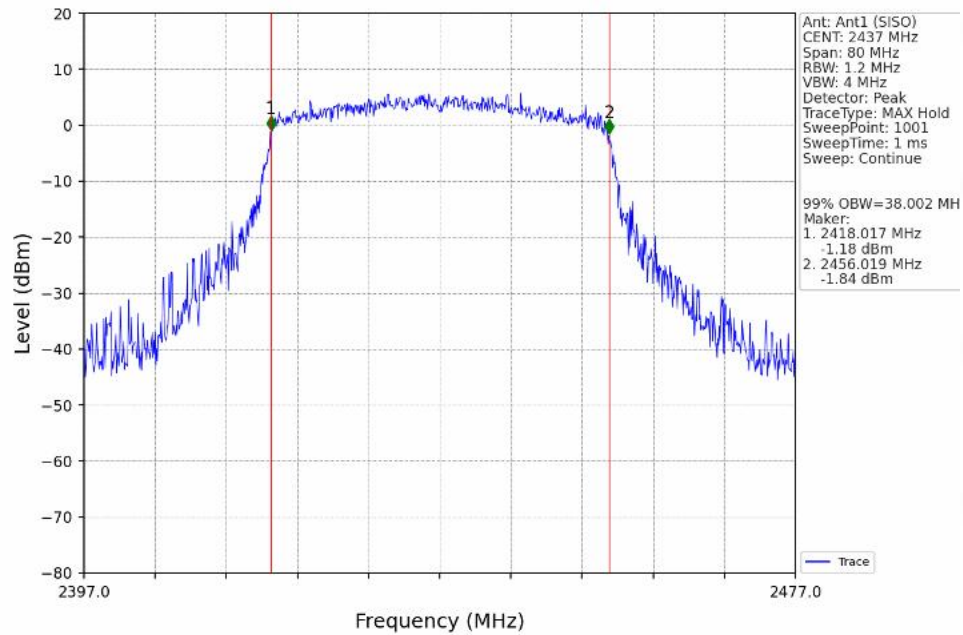
802.11ax(HEW20) HCH 2462MHz_SU / Ant1 (SISO) NTNv



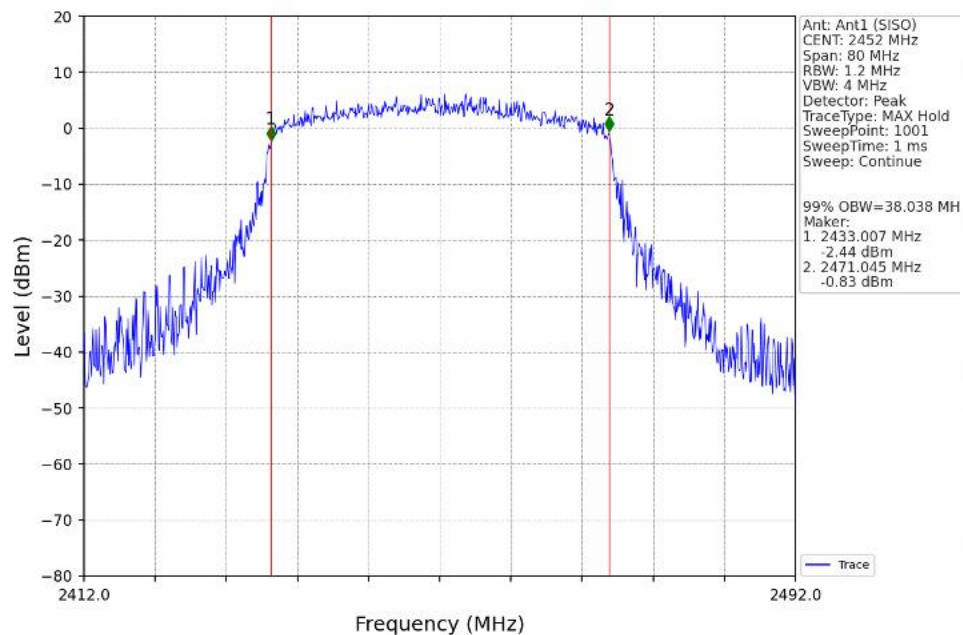
802.11ax(HEW40) LCH 2422MHz_SU / Ant1 (SISO) NTNv



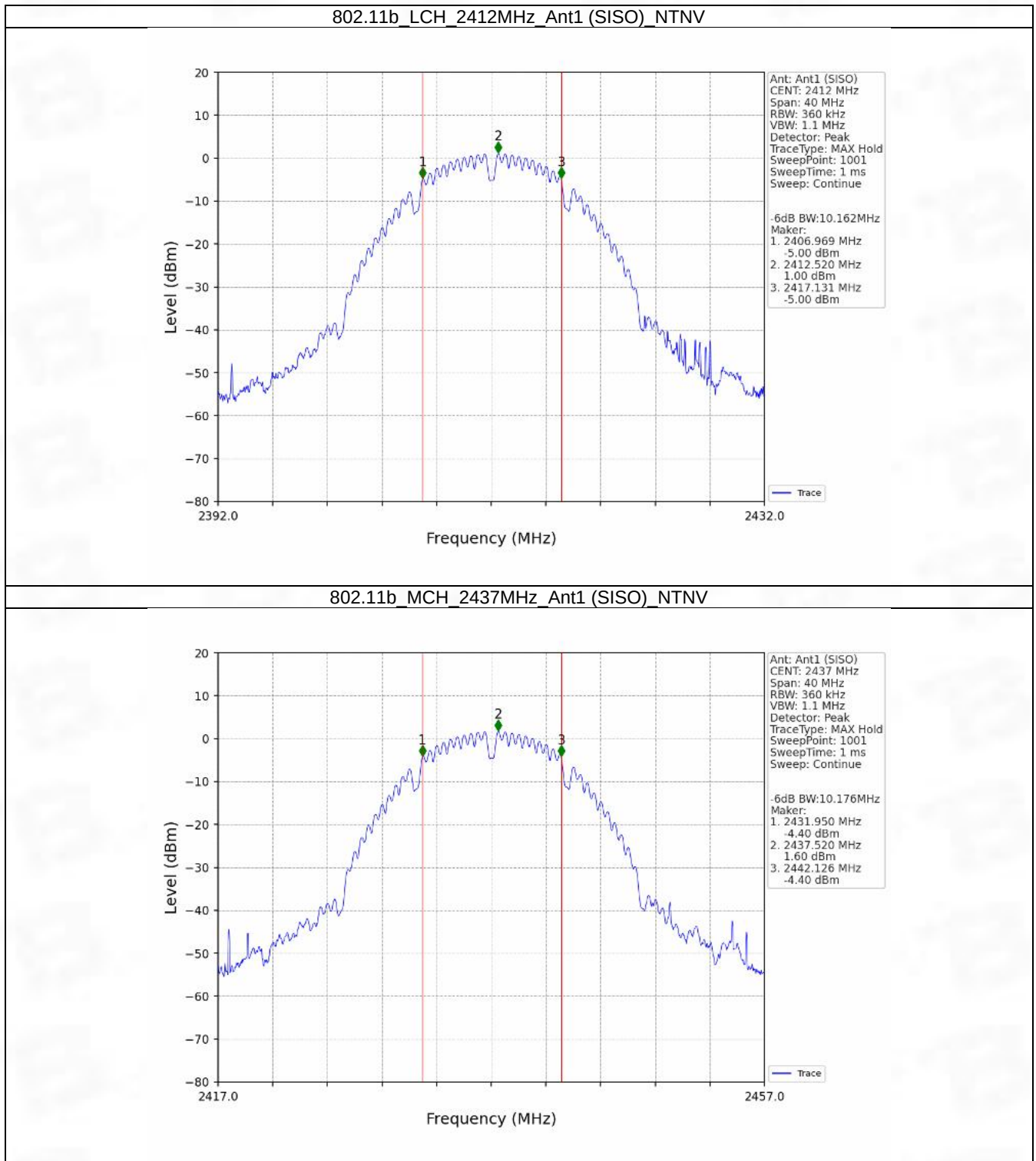
802.11ax(HEW40) MCH_2437MHz_SU / Ant1 (SISO) NTNv



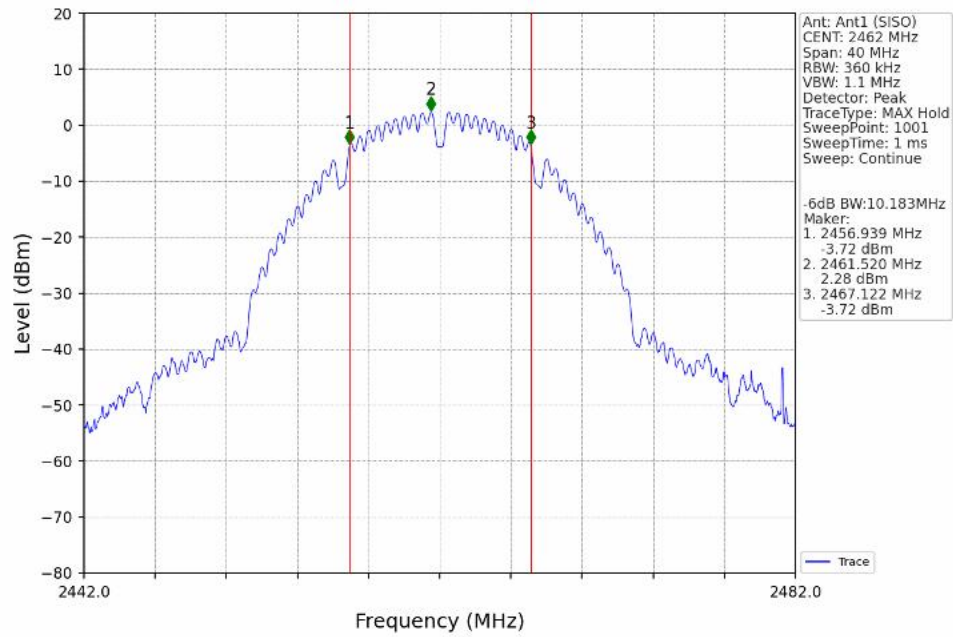
802.11ax(HEW40) HCH_2452MHz_SU / Ant1 (SISO) NTNv



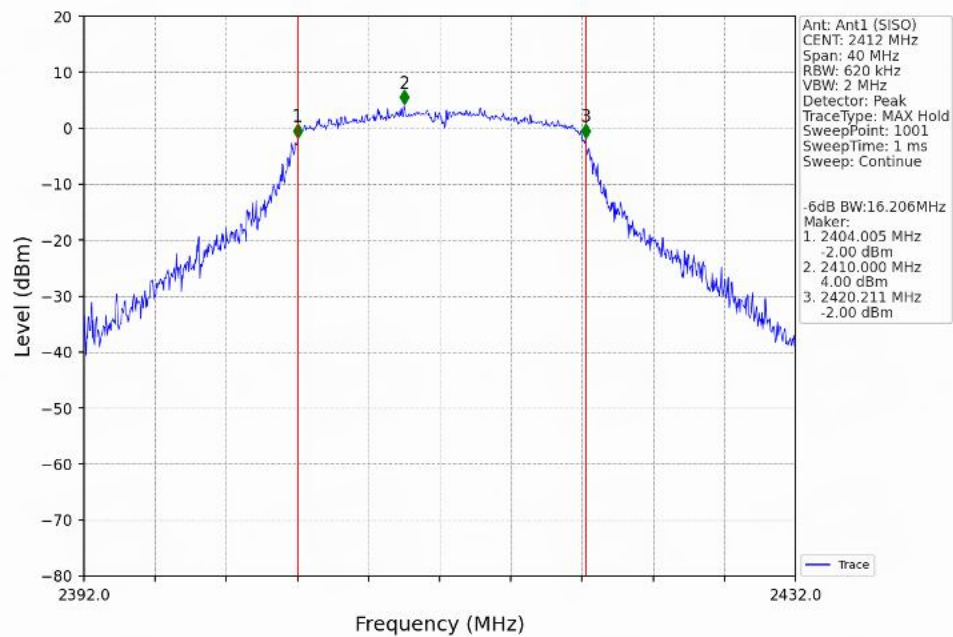
2.2.2 6dB BW



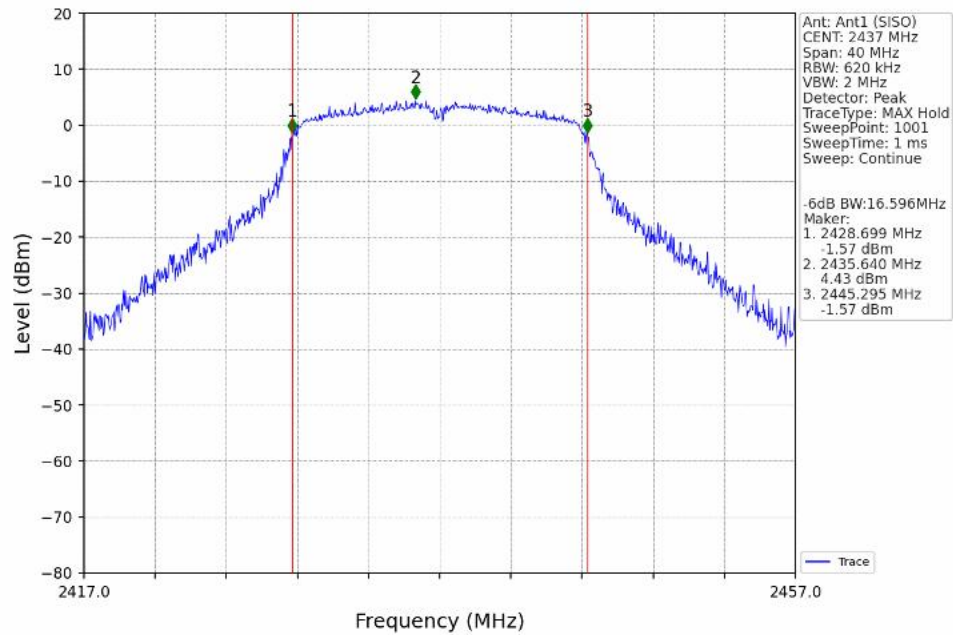
802.11b_HCH_2462MHz_Ant1 (SISO)_NTNV



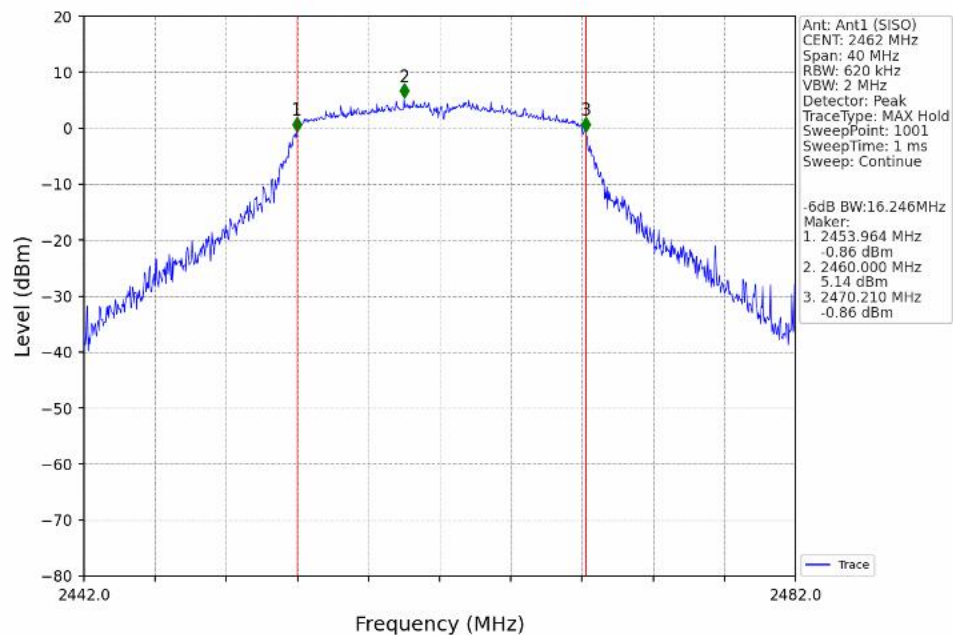
802.11g_LCH_2412MHz_Ant1 (SISO)_NTNV



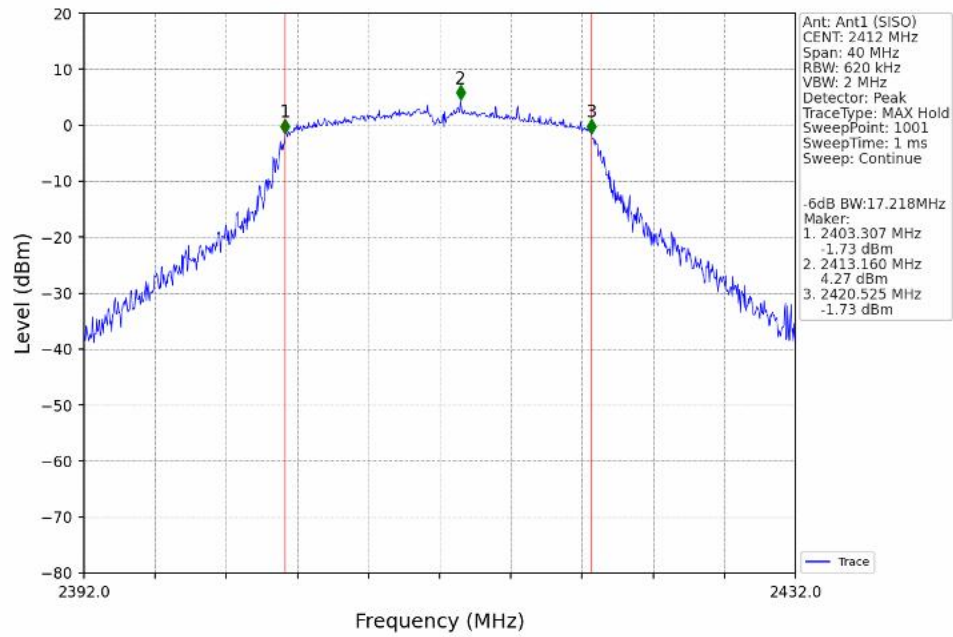
802.11g_MCH_2437MHz_Ant1 (SISO)_NTNV



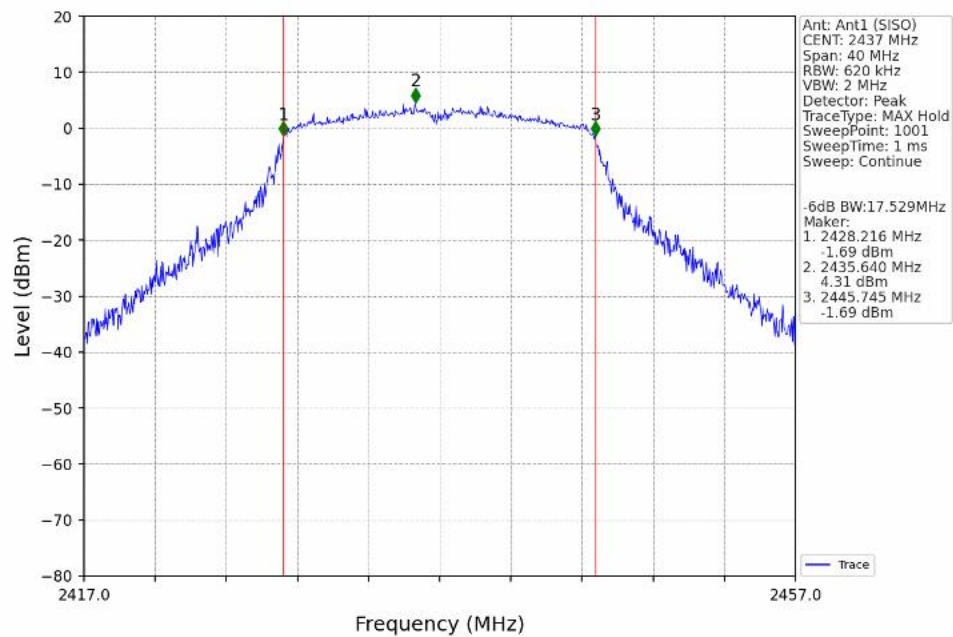
802.11g_HCH_2462MHz_Ant1 (SISO)_NTNV



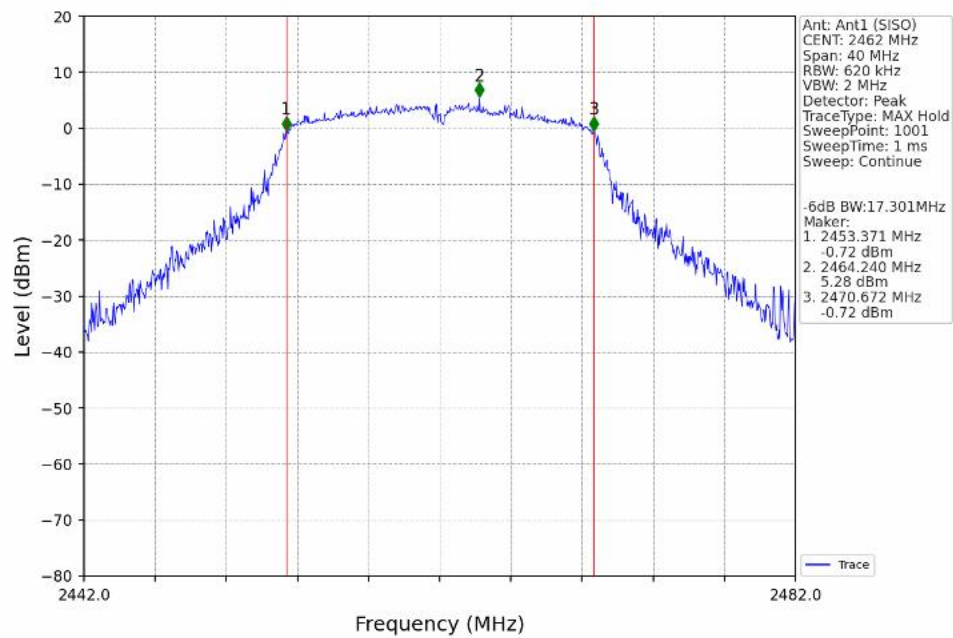
802.11n(HT20)_LCH_2412MHz_Ant1 (SISO)_NTNV



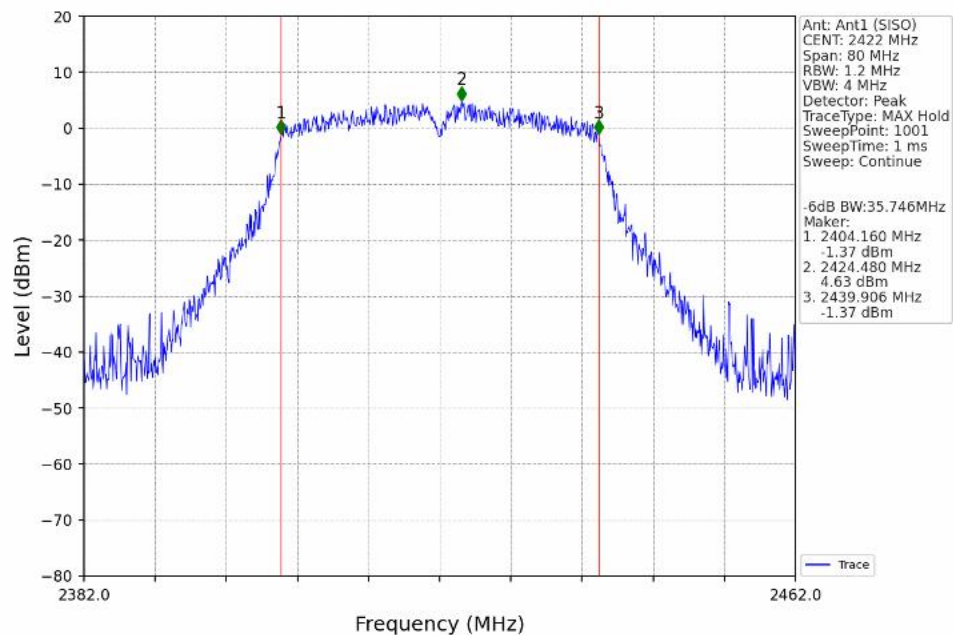
802.11n(HT20)_MCH_2437MHz_Ant1 (SISO)_NTNV



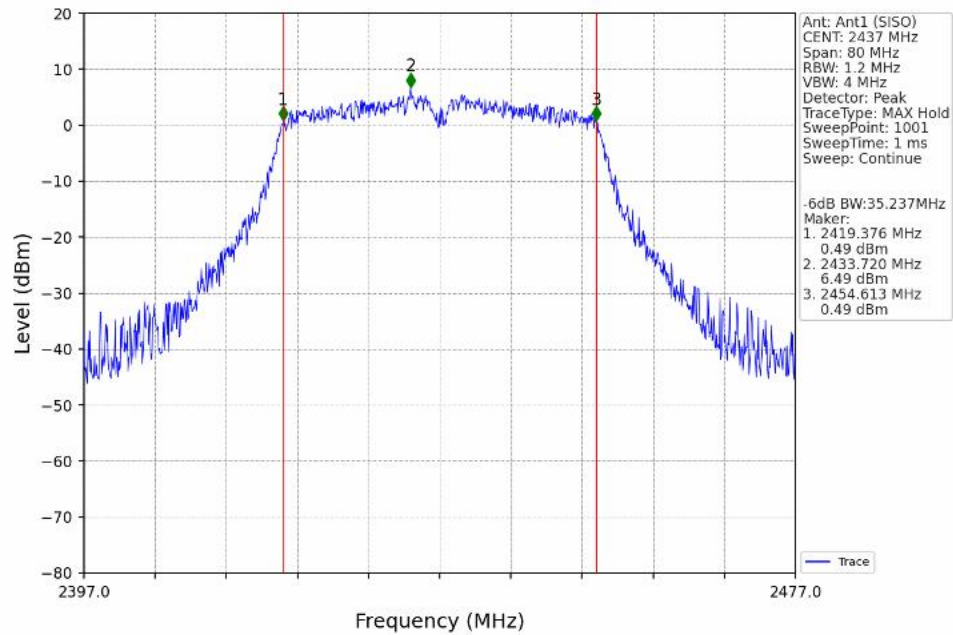
802.11n(HT20)_HCH_2462MHz_Ant1 (SISO)_NTNV



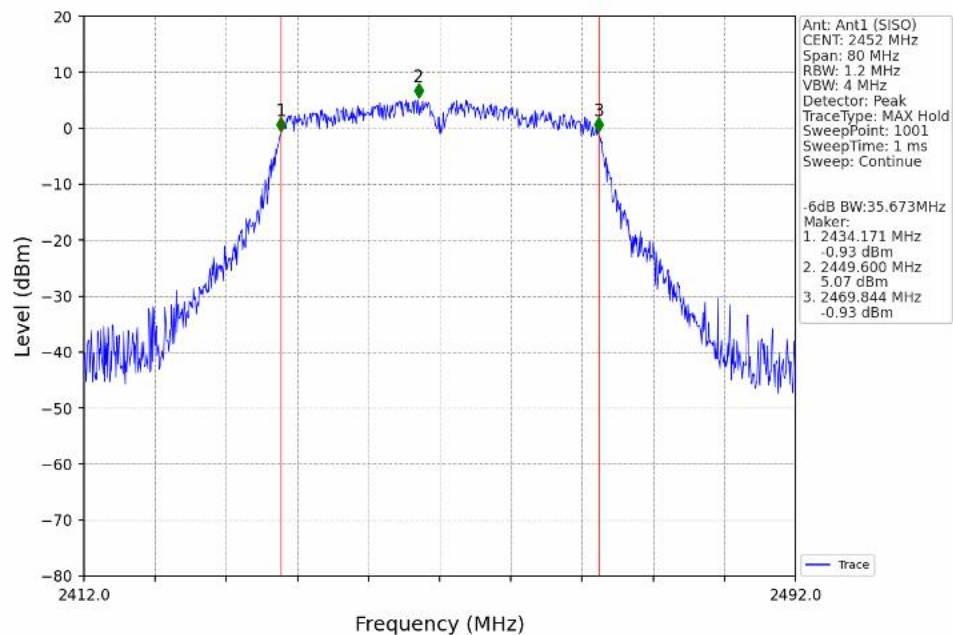
802.11n(HT40)_LCH_2422MHz_Ant1 (SISO)_NTNV



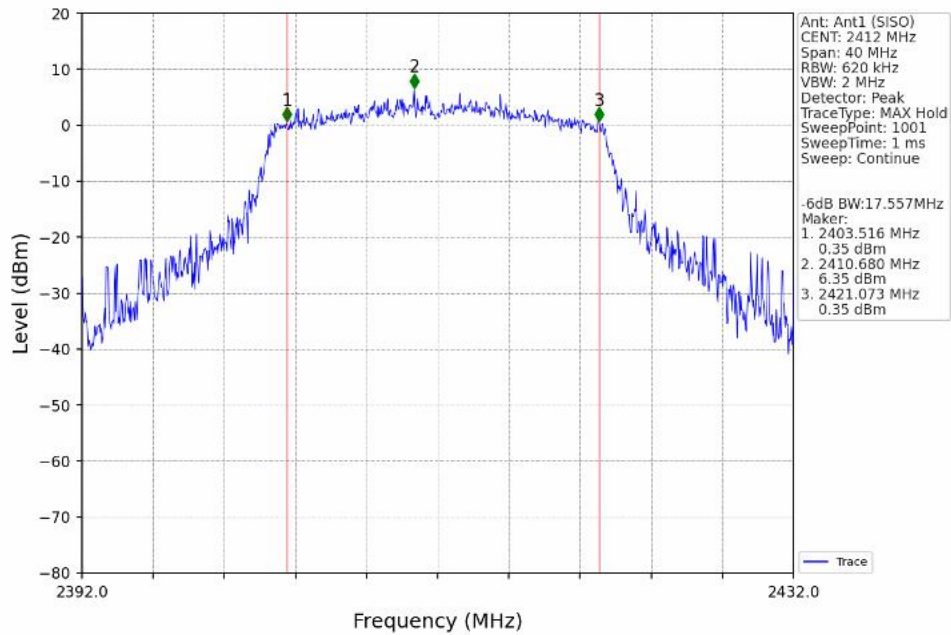
802.11n(HT40)_MCH_2437MHz_Ant1 (SISO)_NTNV



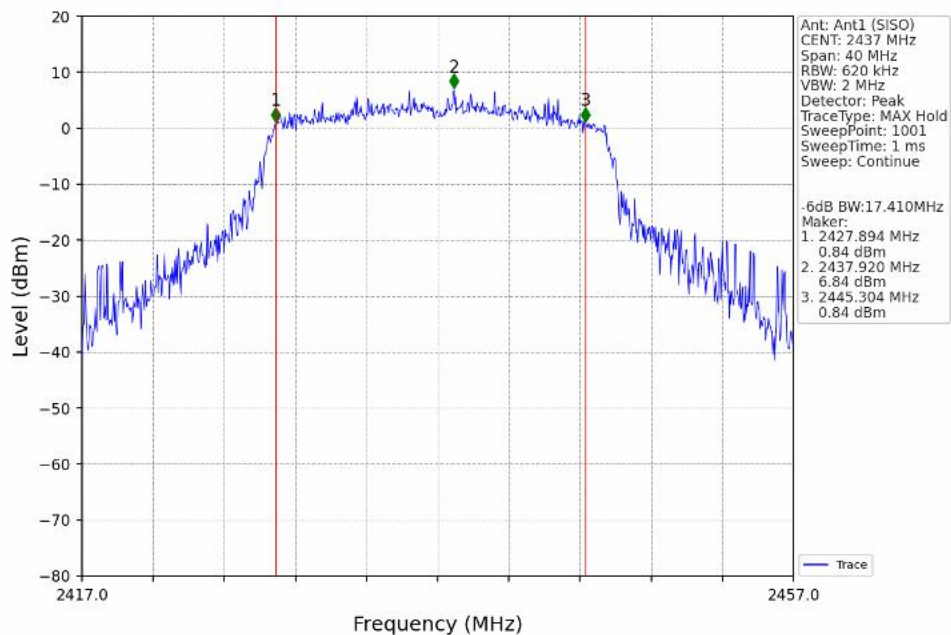
802.11n(HT40)_HCH_2452MHz_Ant1 (SISO)_NTNV



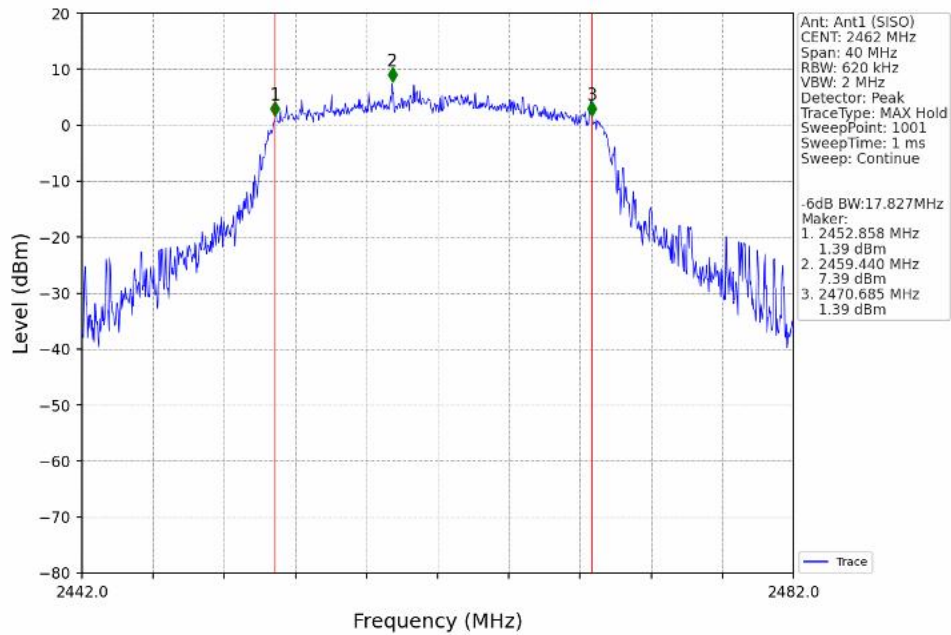
802.11ax(HEW20)_LCH_2412MHz_SU / _Ant1 (SISO)_NTNV



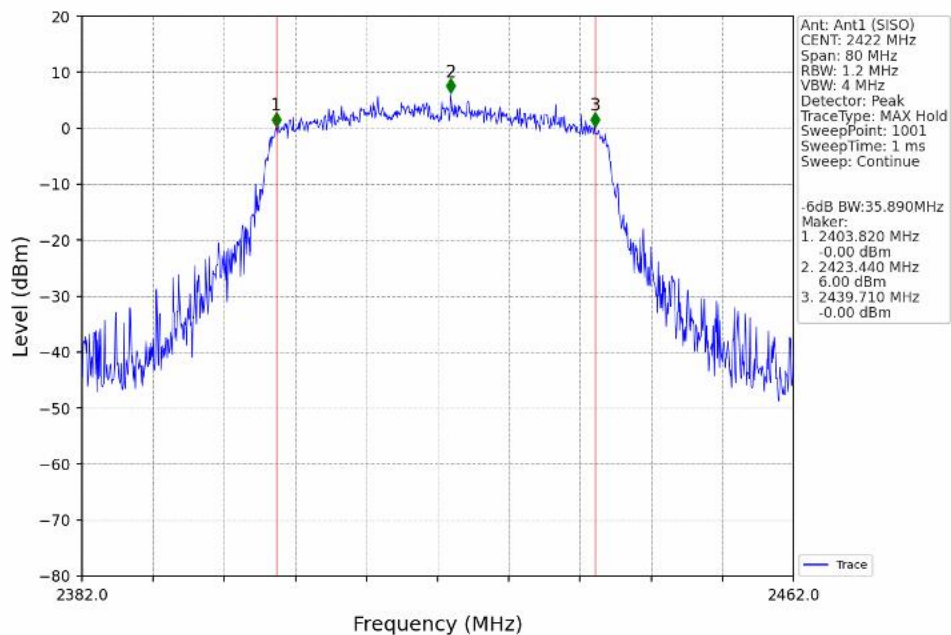
802.11ax(HEW20)_MCH_2437MHz_SU / _Ant1 (SISO)_NTNV



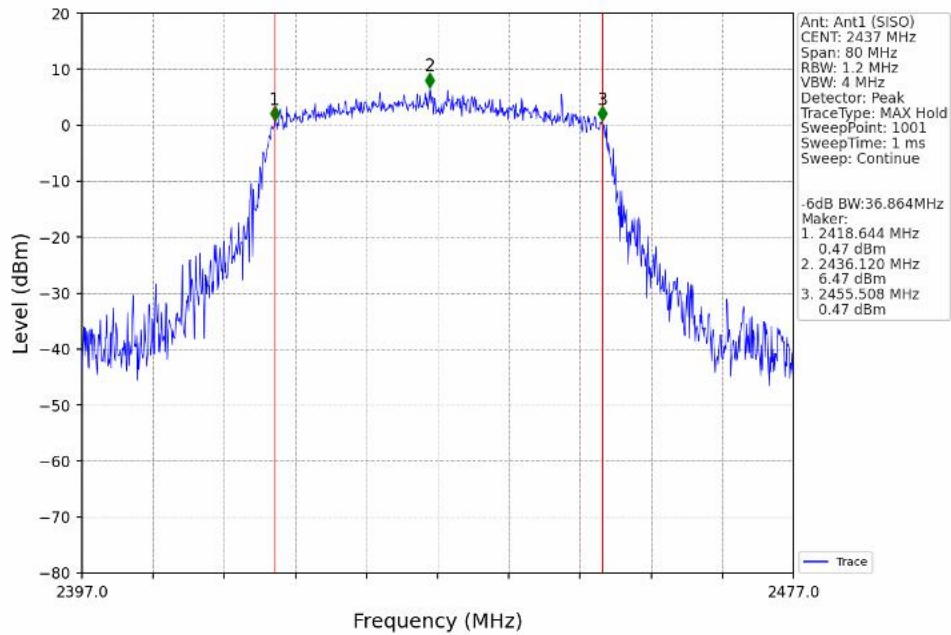
802.11ax(HEW20) HCH 2462MHz_SU / _Ant1 (SISO) _NTNV



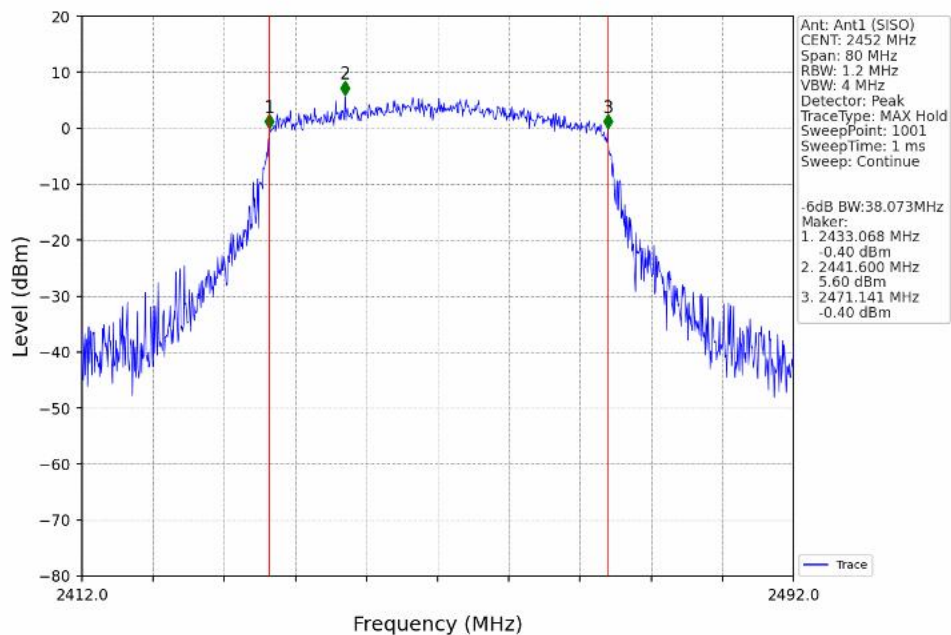
802.11ax(HEW40) LCH 2422MHz_SU / _Ant1 (SISO) _NTNV



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	/	/	12.04	<=30	Pass
		2437	/	/	12.66	<=30	Pass
		2462	/	/	13.35	<=30	Pass
802.11g	SISO	2412	/	/	16.46	<=30	Pass
		2437	/	/	17.23	<=30	Pass
		2462	/	/	17.65	<=30	Pass
802.11n (HT20)	SISO	2412	/	/	16.23	<=30	Pass
		2437	/	/	17.06	<=30	Pass
		2462	/	/	17.47	<=30	Pass
802.11n (HT40)	SISO	2422	/	/	16.05	<=30	Pass
		2437	/	/	16.75	<=30	Pass
		2452	/	/	16.67	<=30	Pass
802.11ax (HEW20)	SISO	2412	SU	/	16.69	<=30	Pass
		2437	SU	/	17.40	<=30	Pass
		2462	SU	/	17.94	<=30	Pass
802.11ax (HEW40)	SISO	2422	SU	/	16.26	<=30	Pass
		2437	SU	/	17.16	<=30	Pass
		2452	SU	/	17.17	<=30	Pass

4. Maximum Power Spectral Density

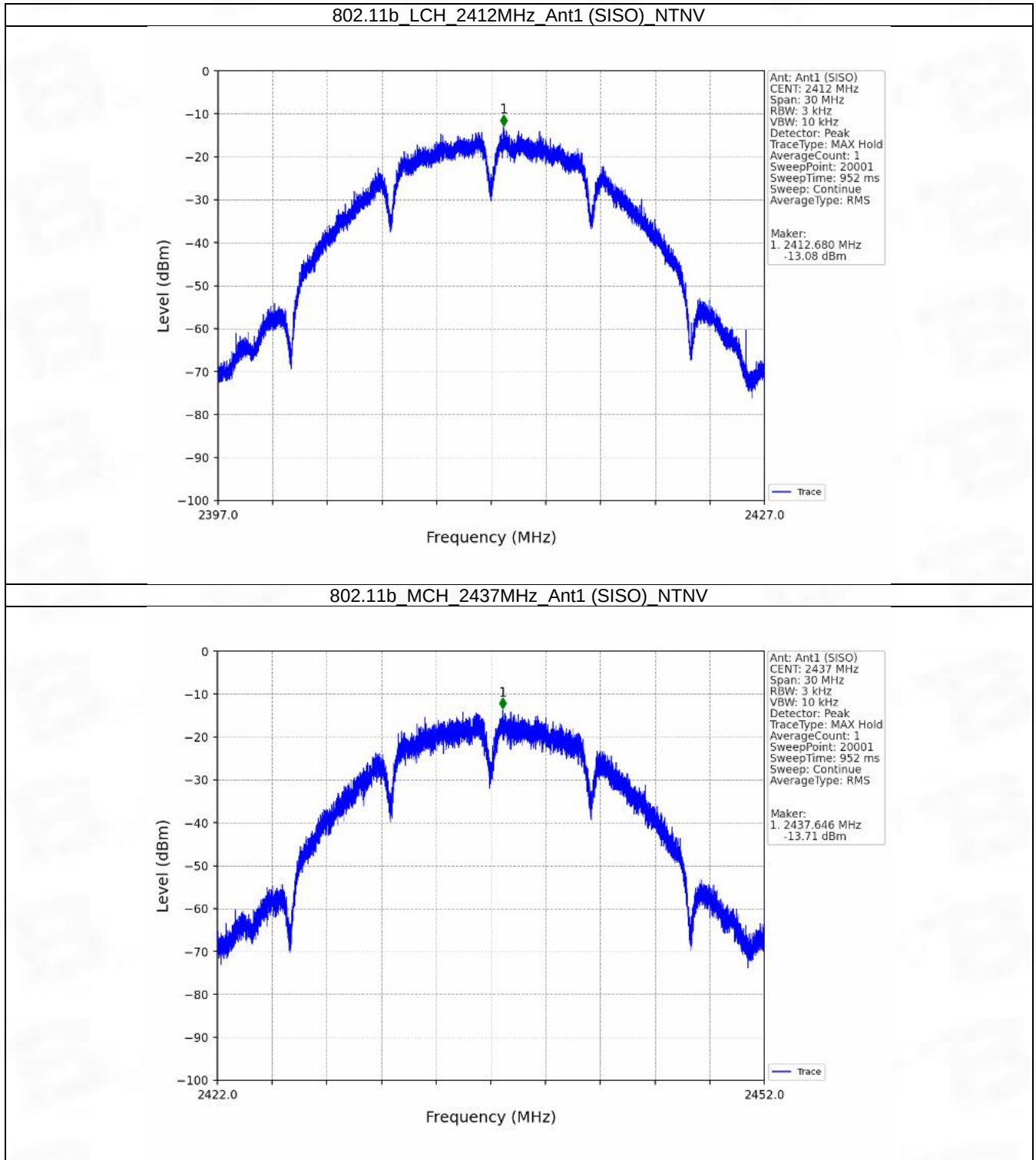
4.1 Test Result

4.1.1 PSD

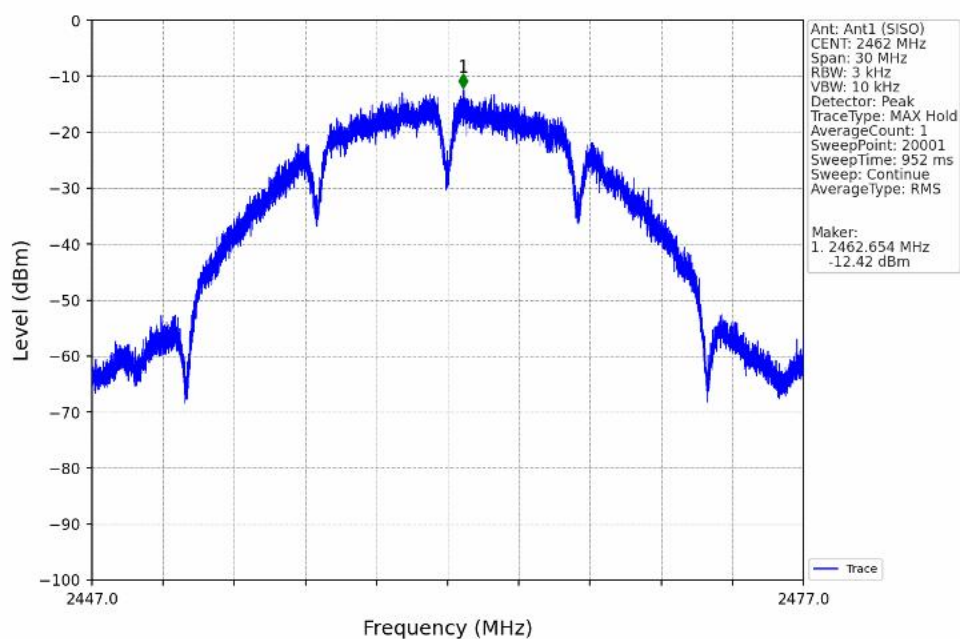
Mode	TX Type	Frequency (MHz)	RU	RU Pos	Maximum PSD (dBm)		Verdict
					ANT1	Limit	
802.11b	SISO	2412	/	/	-13.08	<=8	Pass
		2437	/	/	-13.71	<=8	Pass
		2462	/	/	-12.42	<=8	Pass
802.11g	SISO	2412	/	/	-15.70	<=8	Pass
		2437	/	/	-14.52	<=8	Pass
		2462	/	/	-14.81	<=8	Pass
802.11n (HT20)	SISO	2412	/	/	-16.20	<=8	Pass
		2437	/	/	-15.47	<=8	Pass
		2462	/	/	-15.17	<=8	Pass
802.11n (HT40)	SISO	2422	/	/	-19.10	<=8	Pass
		2437	/	/	-18.41	<=8	Pass
		2452	/	/	-17.78	<=8	Pass
802.11ax (HEW20)	SISO	2412	SU	/	-15.71	<=8	Pass
		2437	SU	/	-16.34	<=8	Pass
		2462	SU	/	-15.43	<=8	Pass
802.11ax (HEW40)	SISO	2422	SU	/	-20.22	<=8	Pass
		2437	SU	/	-19.48	<=8	Pass
		2452	SU	/	-19.20	<=8	Pass

4.2 Test Graph

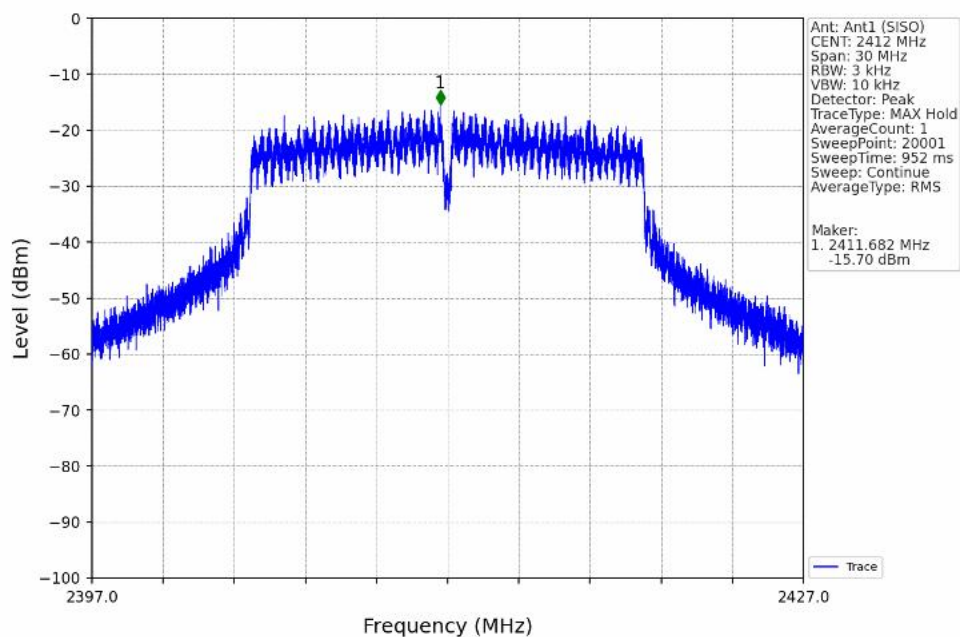
4.2.1 PSD



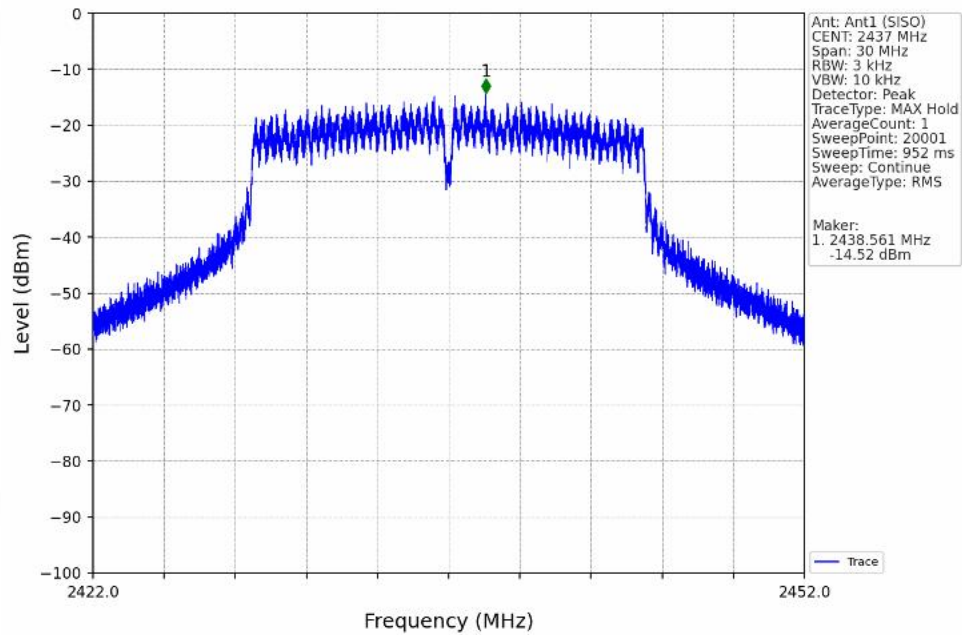
802.11b_HCH_2462MHz_Ant1 (SISO)_NTNV



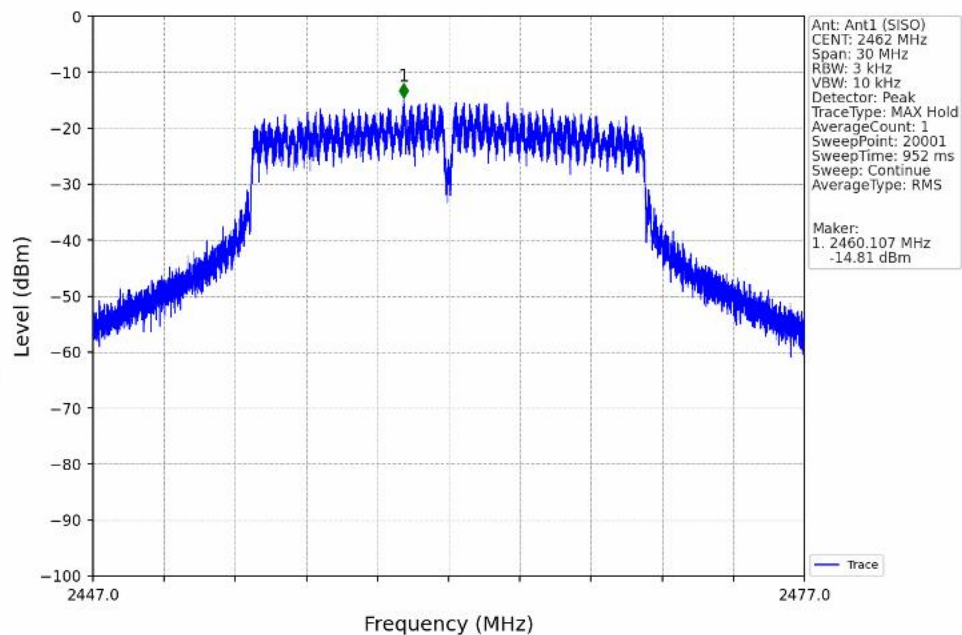
802.11g_LCH_2412MHz_Ant1 (SISO)_NTNV



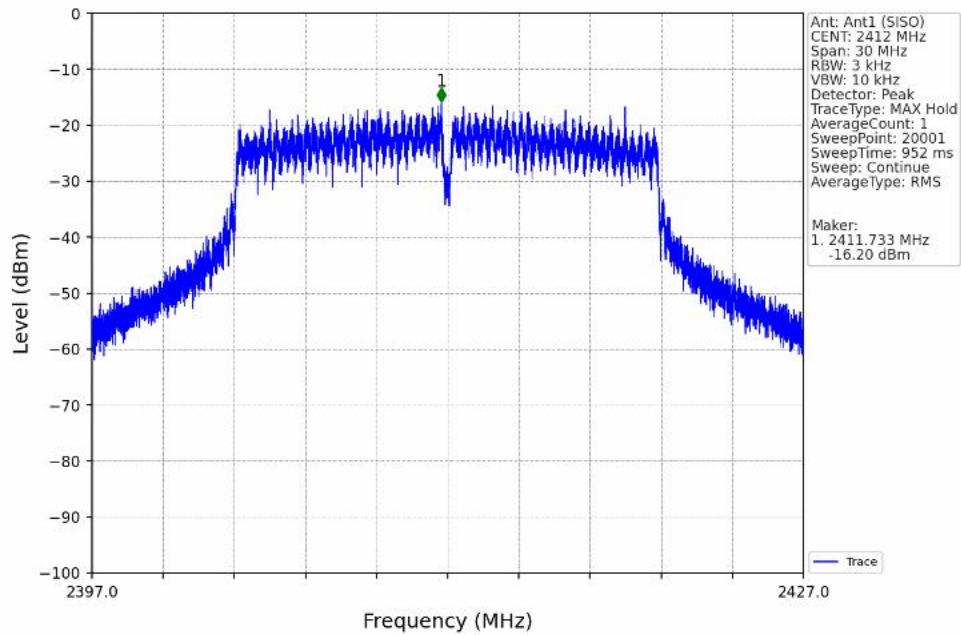
802.11g_MCH_2437MHz_Ant1 (SISO)_NTNV



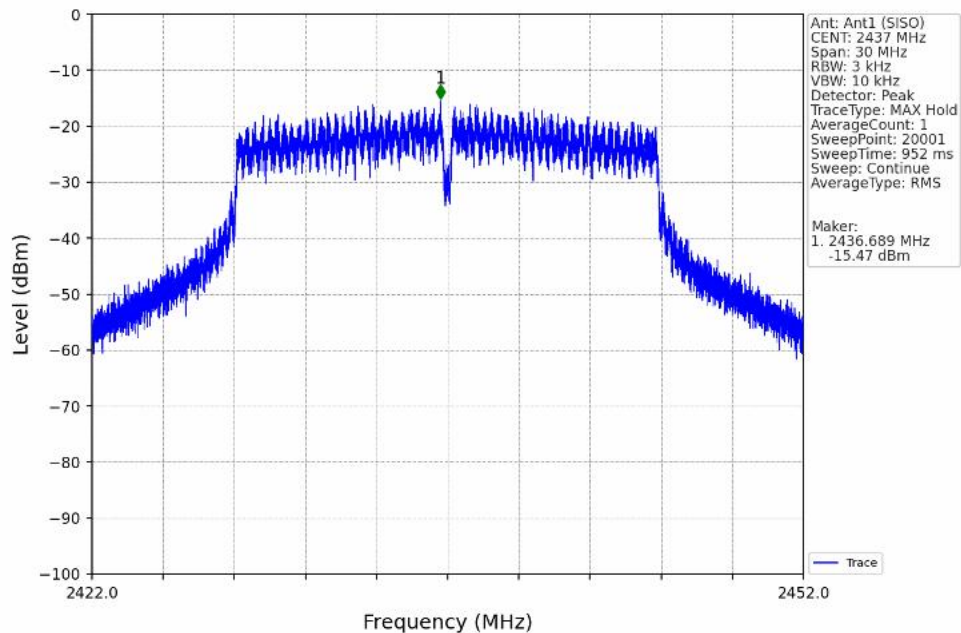
802.11g_HCH_2462MHz_Ant1 (SISO)_NTNV



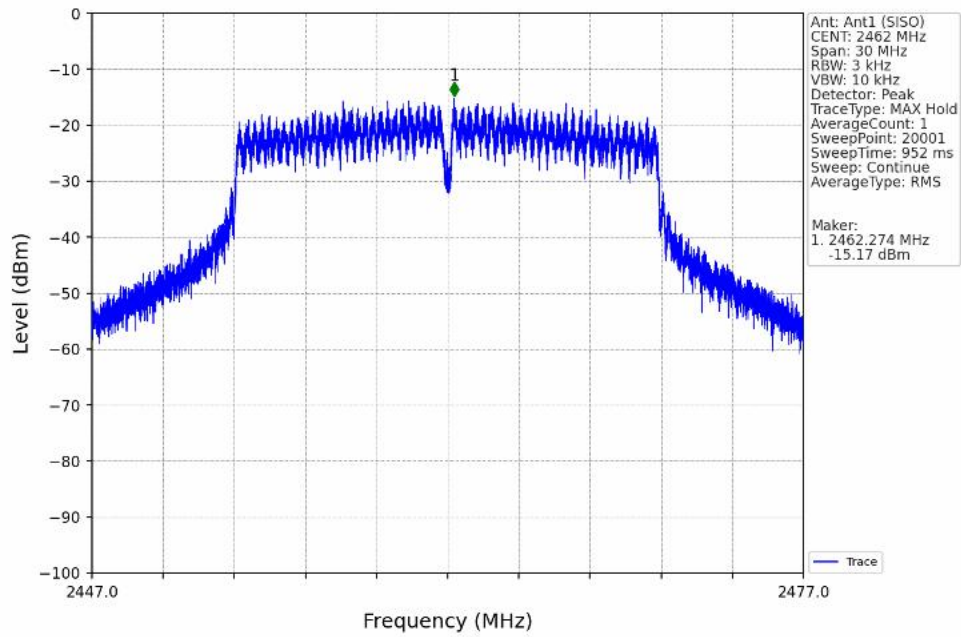
802.11n(HT20)_LCH_2412MHz_Ant1 (SISO)_NTNV



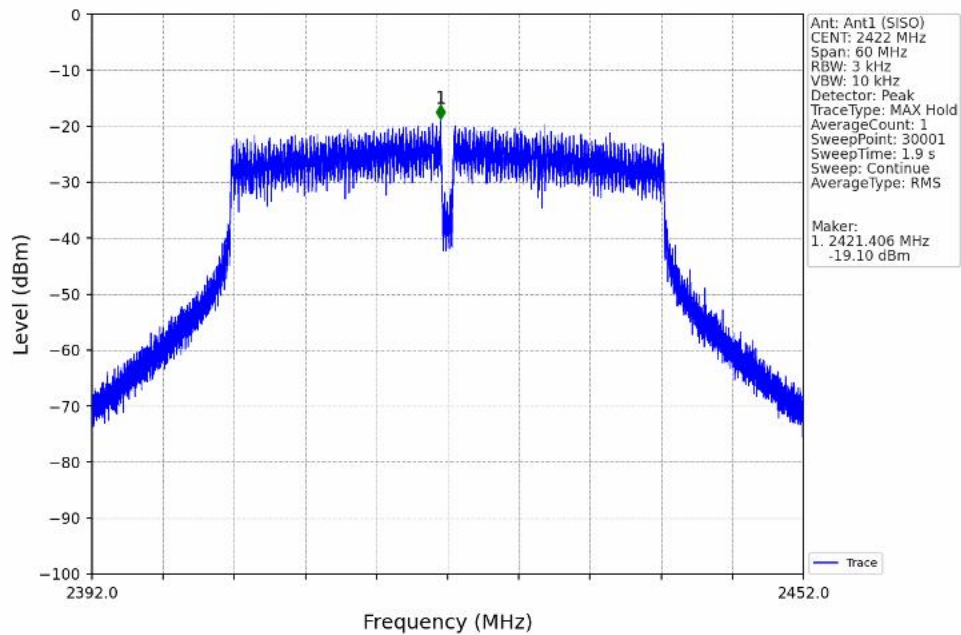
802.11n(HT20)_MCH_2437MHz_Ant1 (SISO)_NTNV



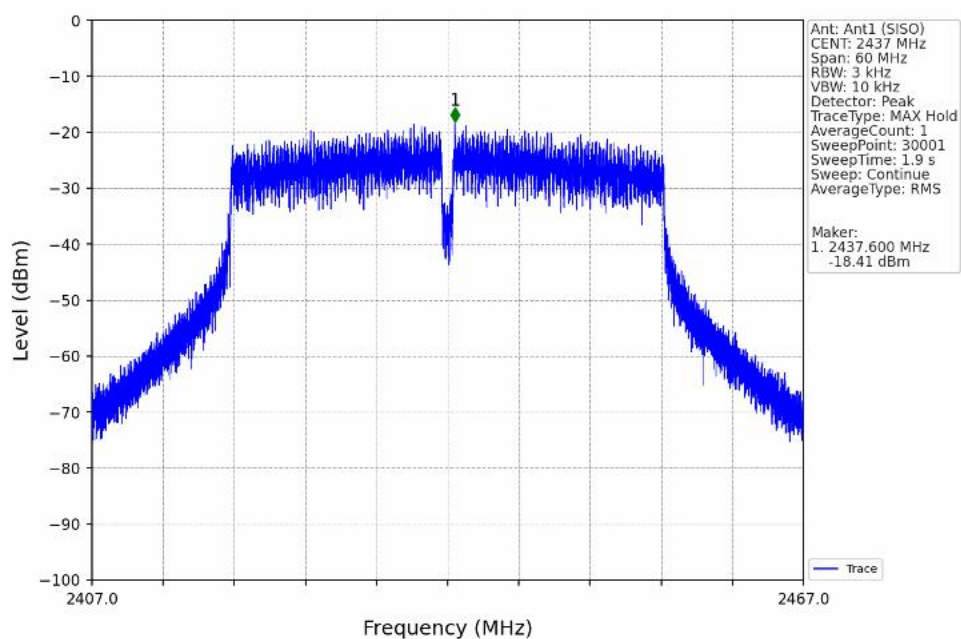
802.11n(HT20)_HCH_2462MHz_Ant1 (SISO)_NTNV



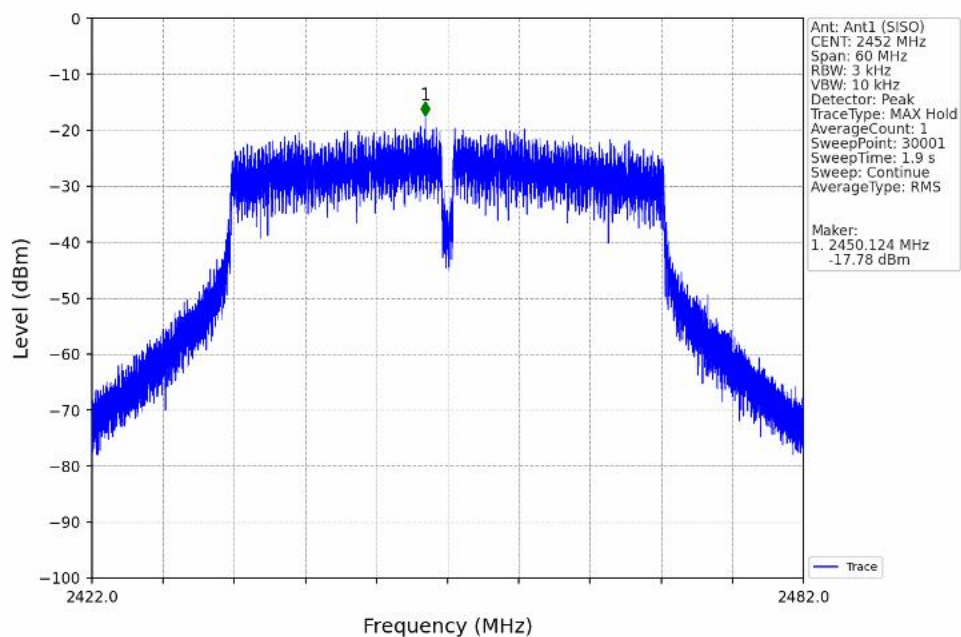
802.11n(HT40)_LCH_2422MHz_Ant1 (SISO)_NTNV



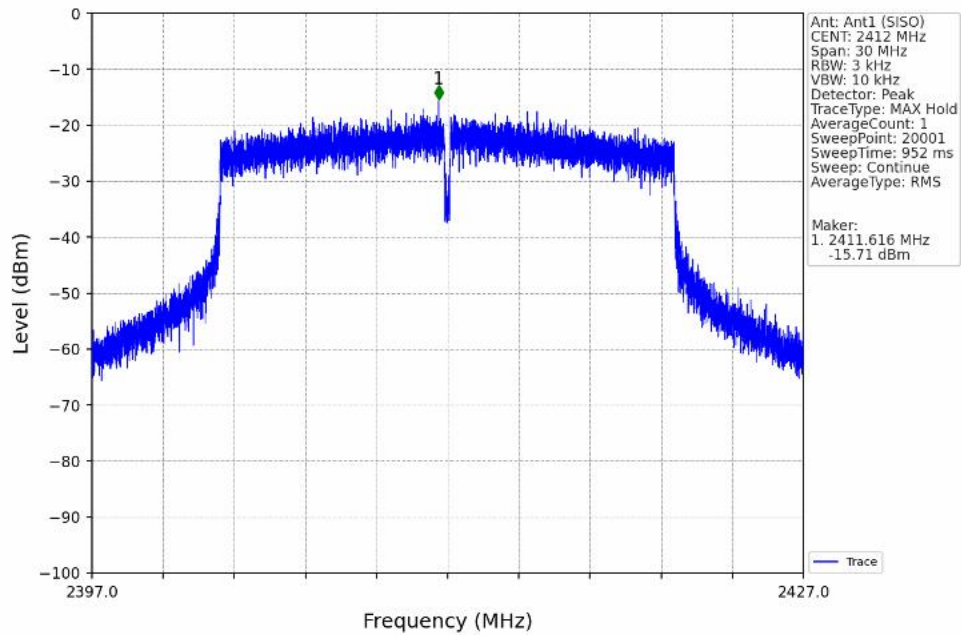
802.11n(HT40)_MCH_2437MHz_Ant1(SISO)_NTNV



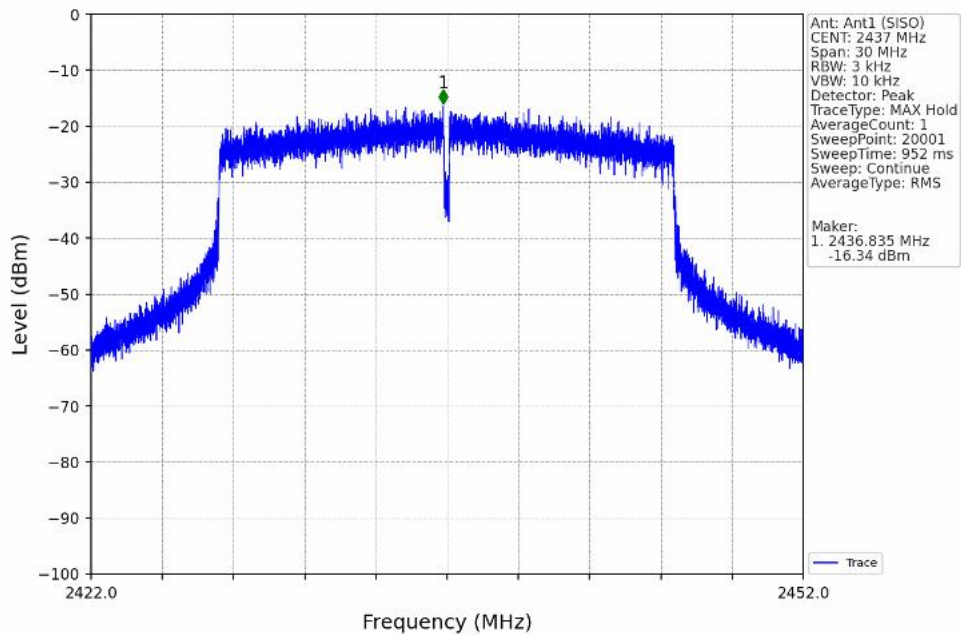
802.11n(HT40)_HCH_2452MHz_Ant1(SISO)_NTNV



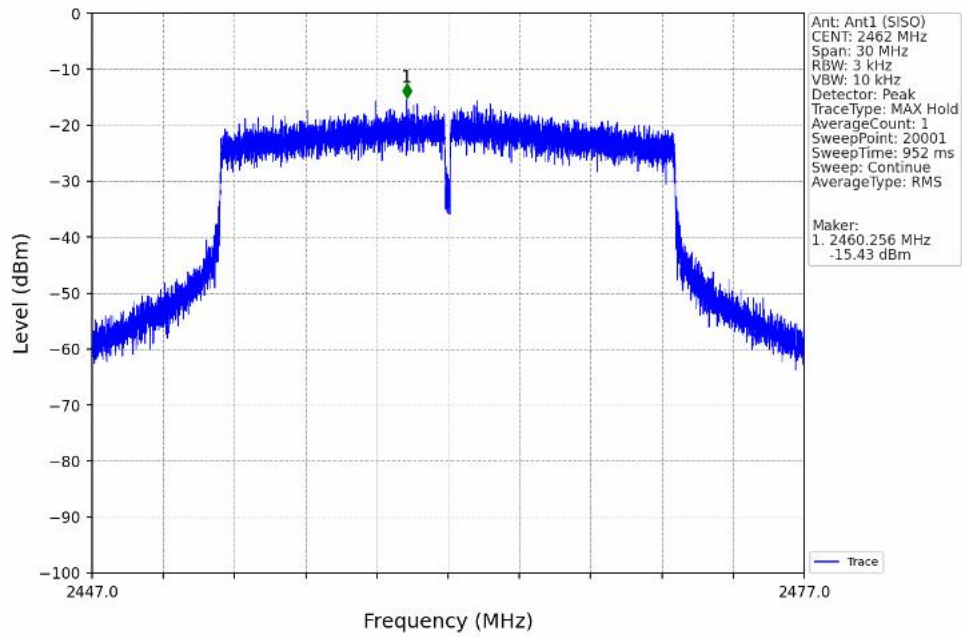
802.11ax(HEW20) LCH 2412MHz_SU / _Ant1 (SISO) _NTNV



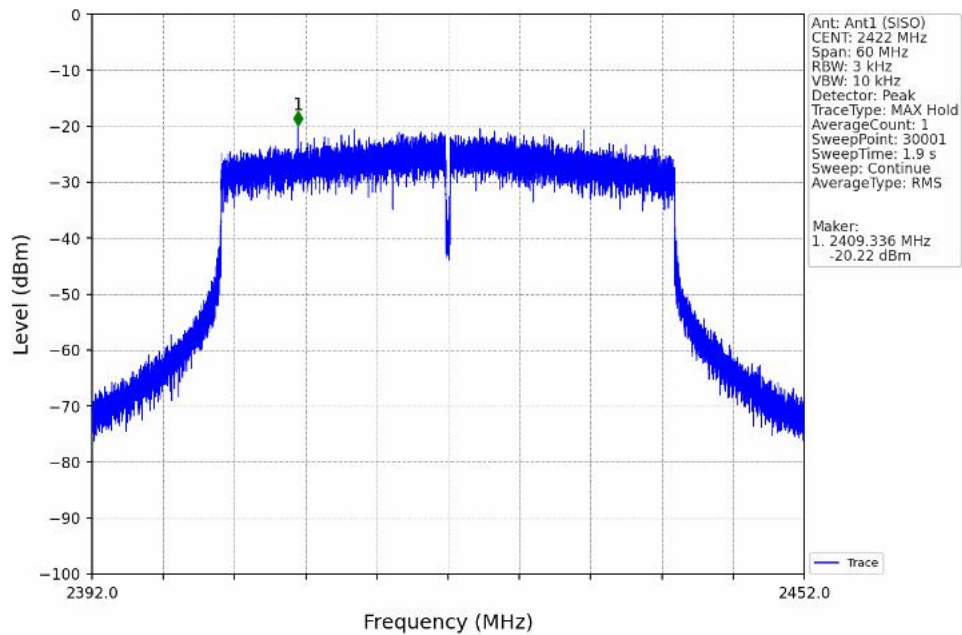
802.11ax(HEW20) MCH 2437MHz_SU / _Ant1 (SISO) _NTNV



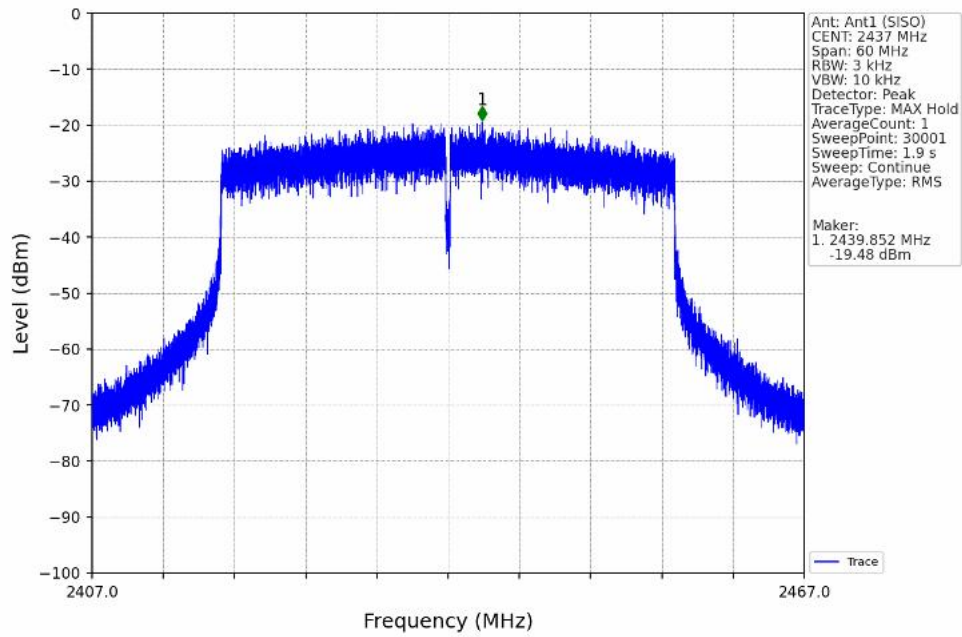
802.11ax(HEW20) HCH 2462MHz_SU / _Ant1 (SISO) _NTNV



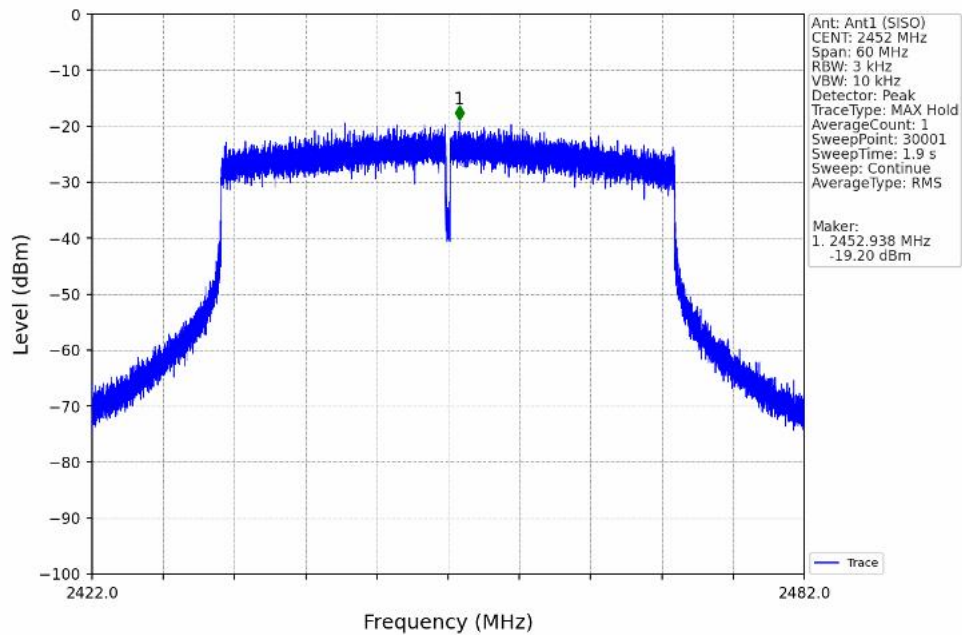
802.11ax(HEW40) LCH 2422MHz_SU / _Ant1 (SISO) _NTNV



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

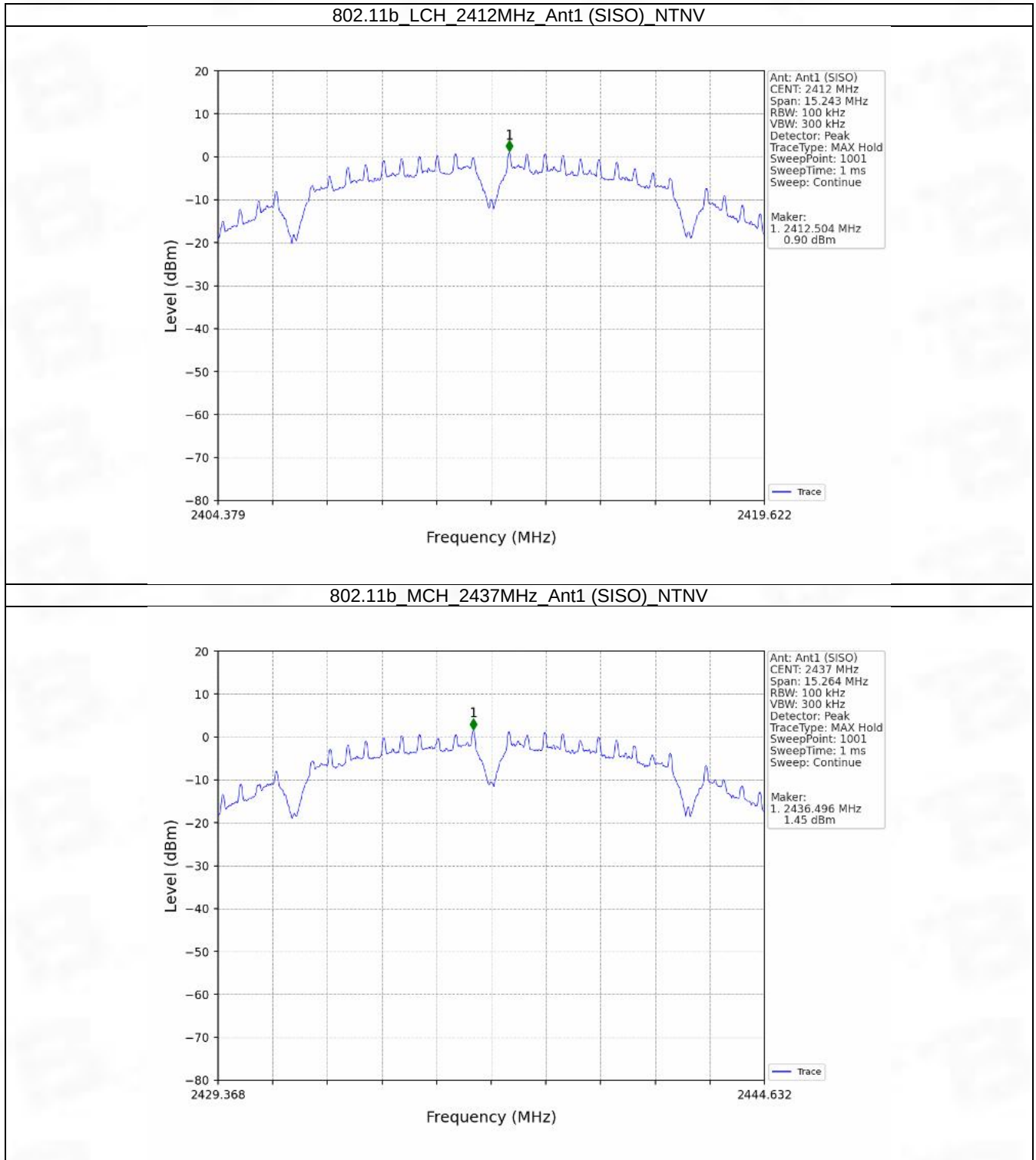
Mode	TX Type	Frequency (MHz)	RU	RU Pos	ANT	Level of Reference (dBm)
802.11b	SISO	2412	/	/	1	0.90
		2437	/	/	1	1.45
		2462	/	/	1	1.97
802.11g	SISO	2412	/	/	1	-1.82
		2437	/	/	1	-1.82
		2462	/	/	1	-1.31
802.11n (HT20)	SISO	2412	/	/	1	-2.75
		2437	/	/	1	-2.34
		2462	/	/	1	-0.83
802.11n (HT40)	SISO	2422	/	/	1	-5.01
		2437	/	/	1	-3.70
		2452	/	/	1	-4.55
802.11ax (HEW20)	SISO	2412	SU	/	1	-1.89
		2437	SU	/	1	-0.97
		2462	SU	/	1	-1.43
802.11ax (HEW40)	SISO	2422	SU	/	1	-4.76
		2437	SU	/	1	-3.75
		2452	SU	/	1	-4.17

5.1.2 CSE

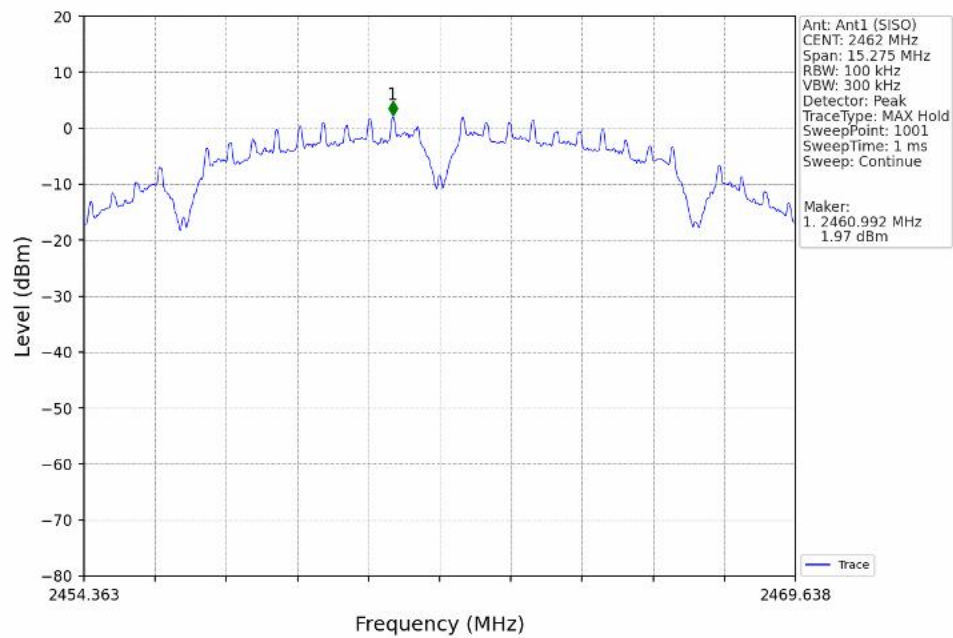
Mode	TX Type	Frequency (MHz)	RU	RU Pos	ANT	Level of Reference (dBm)	Limit (dBm)	Verdict
802.11b	SISO	2412	/	/	1	0.90	-19.10	Pass
		2437	/	/	1	1.45	-18.55	Pass
		2462	/	/	1	1.97	-18.03	Pass
802.11g	SISO	2412	/	/	1	-1.82	-21.82	Pass
		2437	/	/	1	-1.82	-21.82	Pass
		2462	/	/	1	-1.31	-21.31	Pass
802.11n (HT20)	SISO	2412	/	/	1	-2.75	-22.75	Pass
		2437	/	/	1	-2.34	-22.34	Pass
		2462	/	/	1	-0.83	-20.83	Pass
802.11n (HT40)	SISO	2422	/	/	1	-5.01	-25.01	Pass
		2437	/	/	1	-3.70	-23.70	Pass
		2452	/	/	1	-4.55	-24.55	Pass
802.11ax (HEW20)	SISO	2412	SU	/	1	-1.89	-21.89	Pass
		2437	SU	/	1	-0.97	-20.97	Pass
		2462	SU	/	1	-1.43	-21.43	Pass
802.11ax (HEW40)	SISO	2422	SU	/	1	-4.76	-24.76	Pass
		2437	SU	/	1	-3.75	-23.75	Pass
		2452	SU	/	1	-4.17	-24.17	Pass

5.2 Test Graph

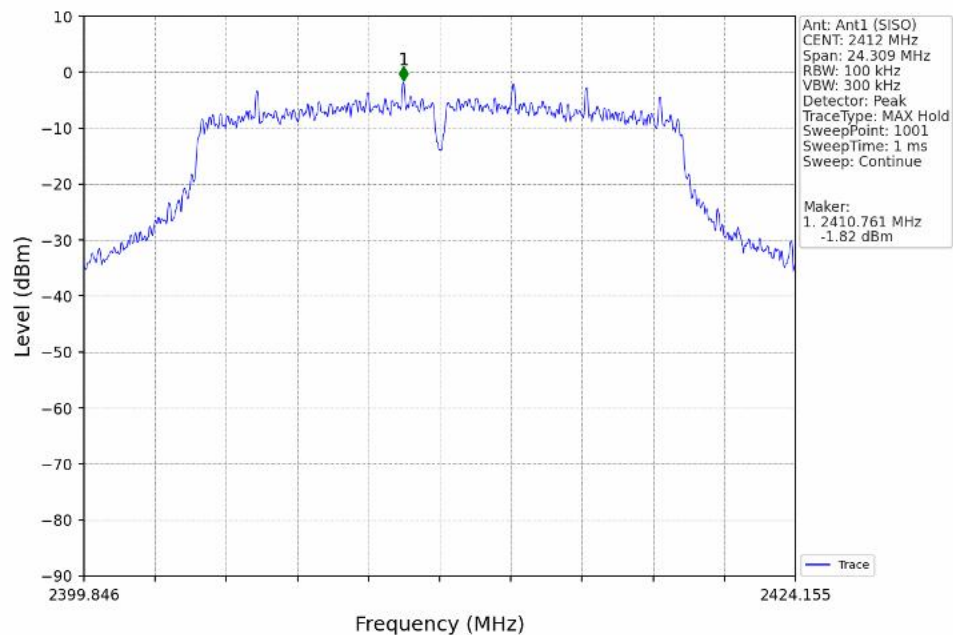
5.2.1 Ref



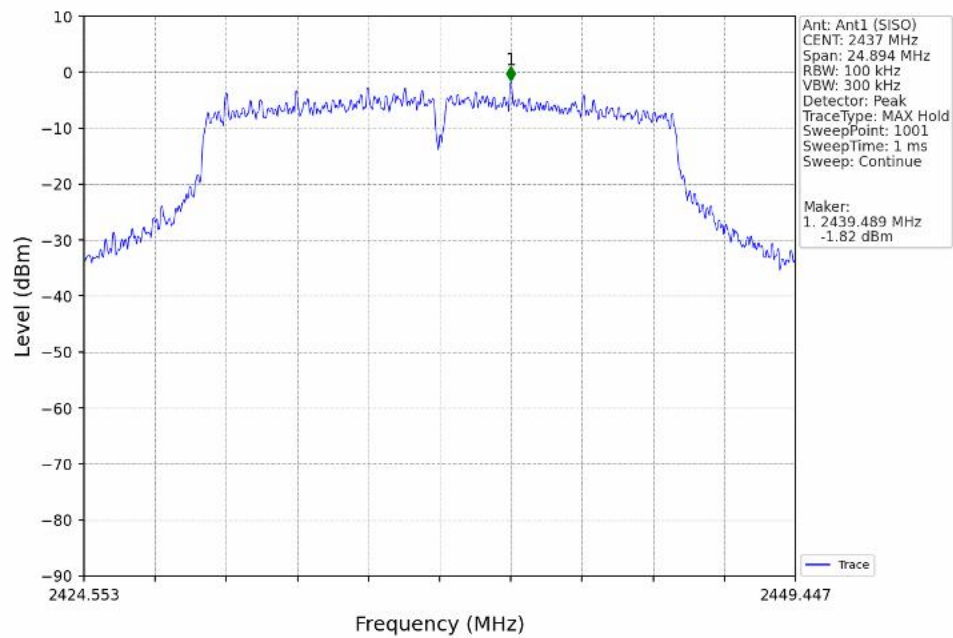
802.11b_HCH_2462MHz_Ant1 (SISO)_NTNV



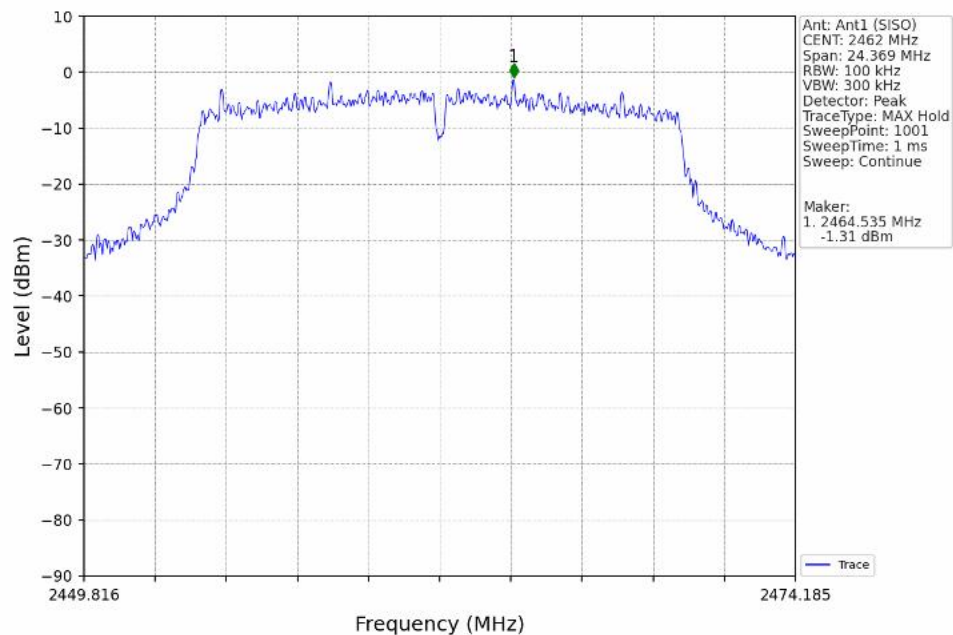
802.11g_LCH_2412MHz_Ant1 (SISO)_NTNV



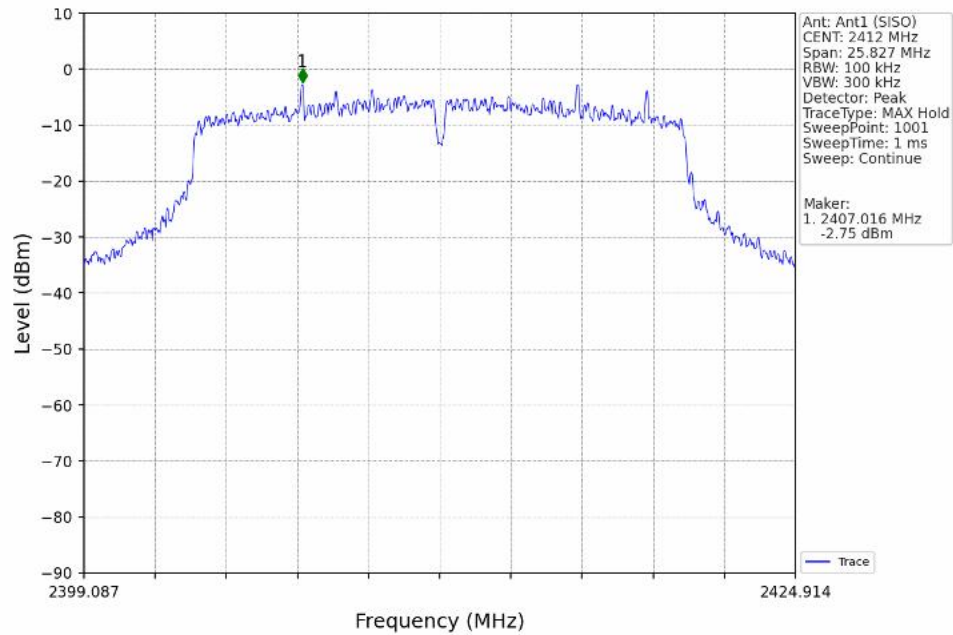
802.11g_MCH_2437MHz_Ant1 (SISO)_NTNV



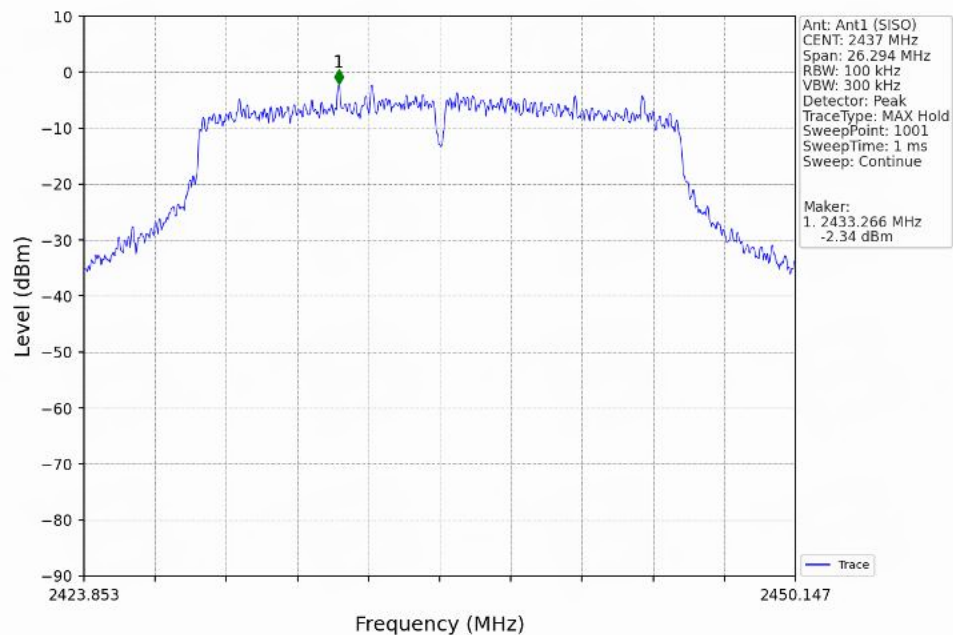
802.11g_HCH_2462MHz_Ant1 (SISO)_NTNV



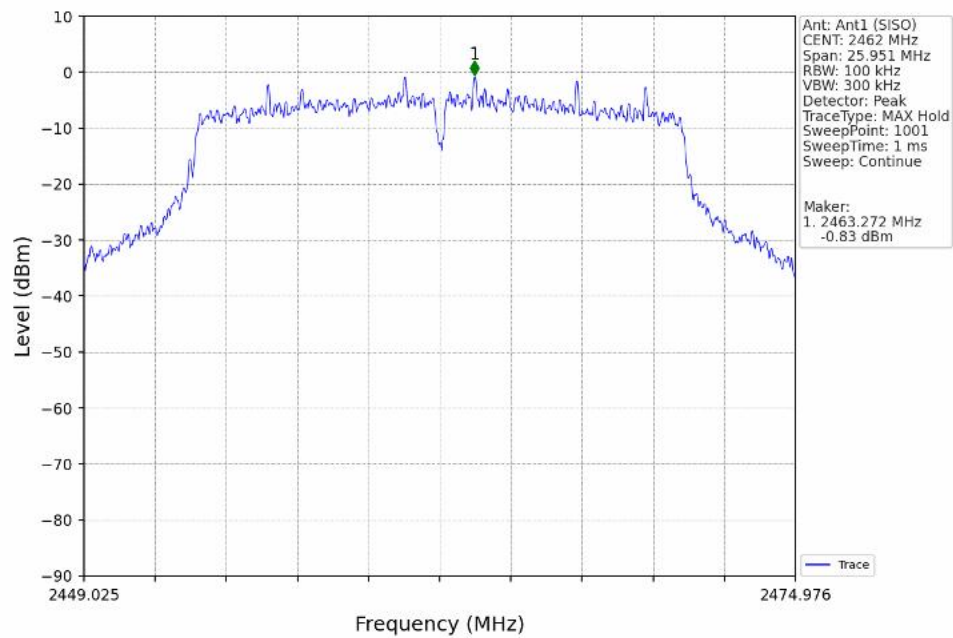
802.11n(HT20)_LCH_2412MHz_Ant1 (SISO)_NTNV



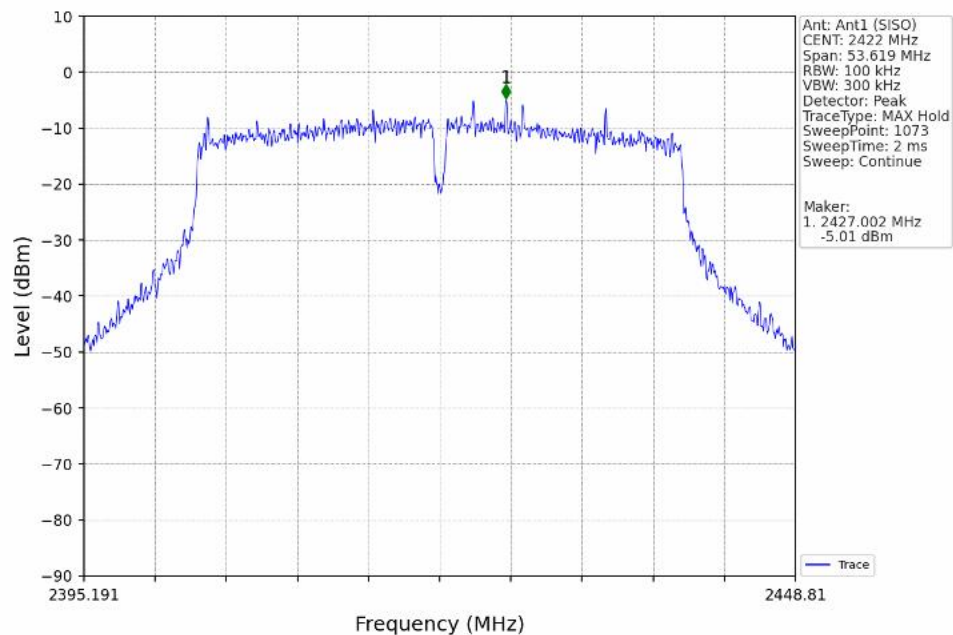
802.11n(HT20)_MCH_2437MHz_Ant1 (SISO)_NTNV



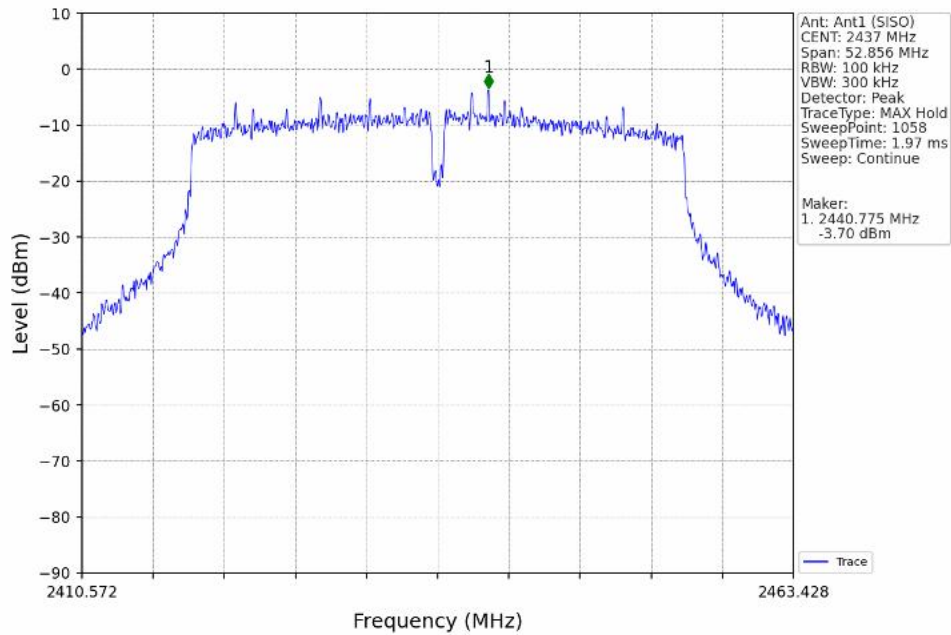
802.11n(HT20)_HCH_2462MHz_Ant1 (SISO)_NTNV



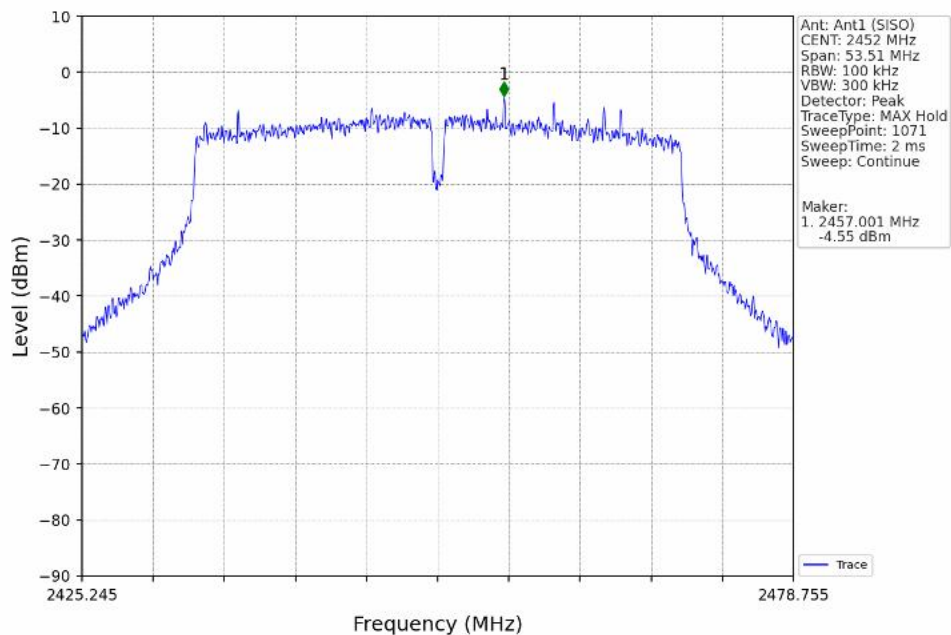
802.11n(HT40)_LCH_2422MHz_Ant1 (SISO)_NTNV



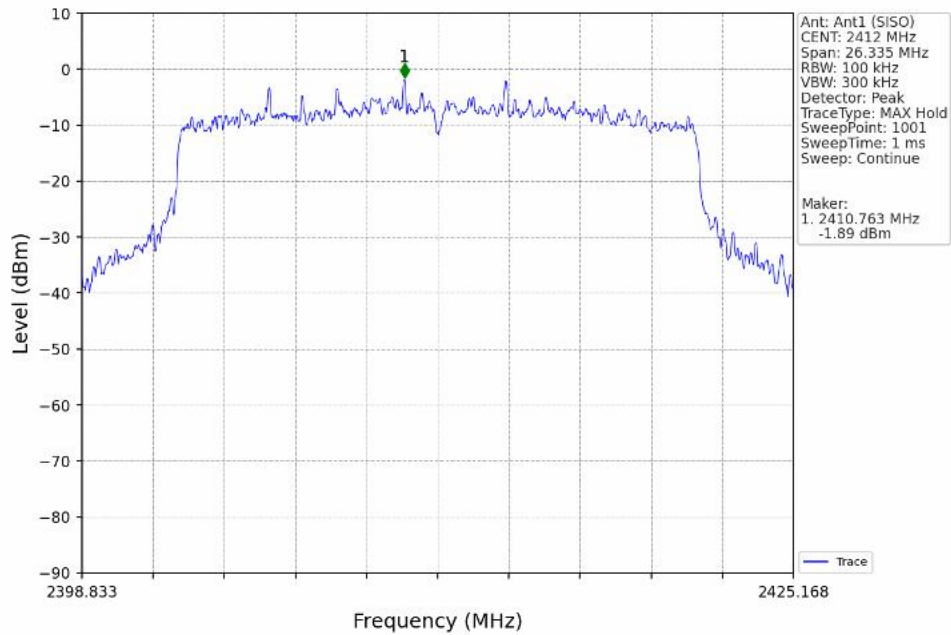
802.11n(HT40)_MCH_2437MHz_Ant1 (SISO)_NTNV



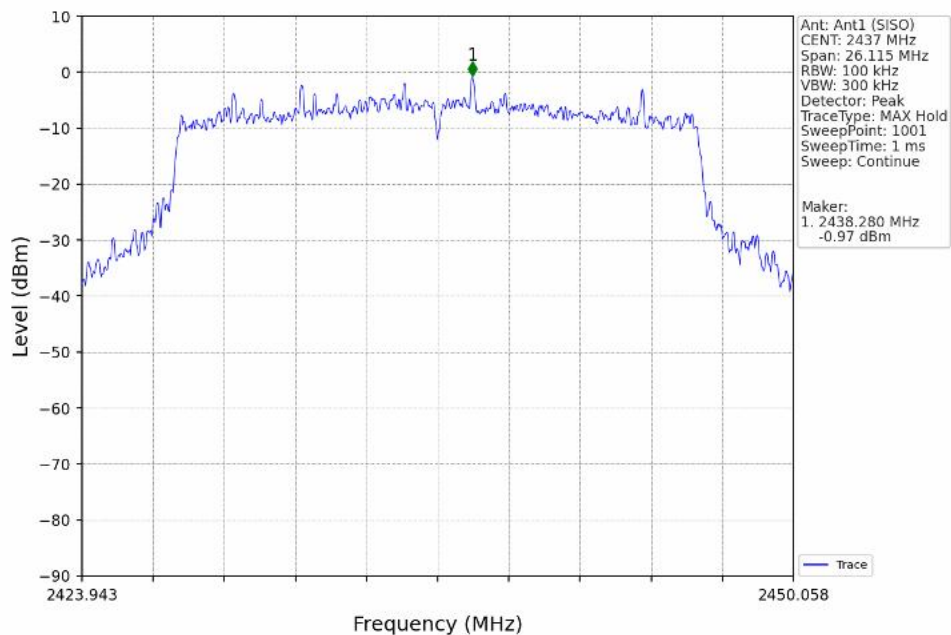
802.11n(HT40)_HCH_2452MHz_Ant1 (SISO)_NTNV



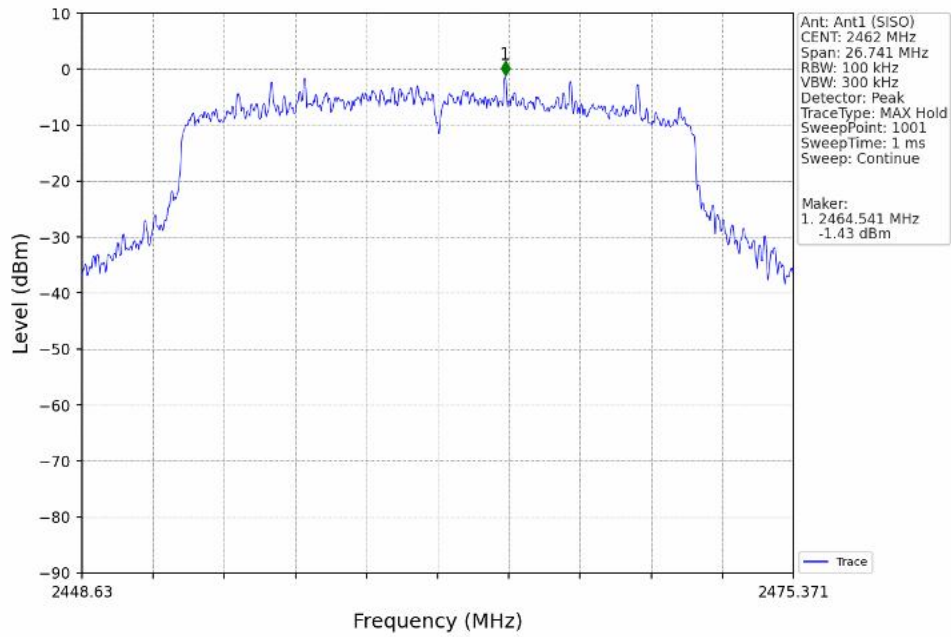
802.11ax(HEW20)_LCH_2412MHz_SU_/_Ant1 (SISO)_NTNV



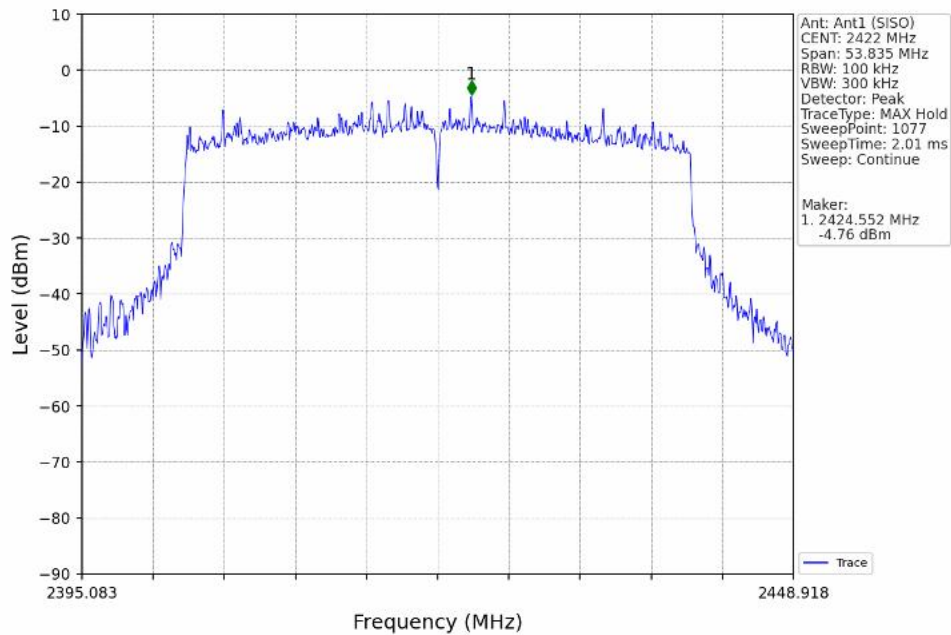
802.11ax(HEW20)_MCH_2437MHz_SU_/_Ant1 (SISO)_NTNV



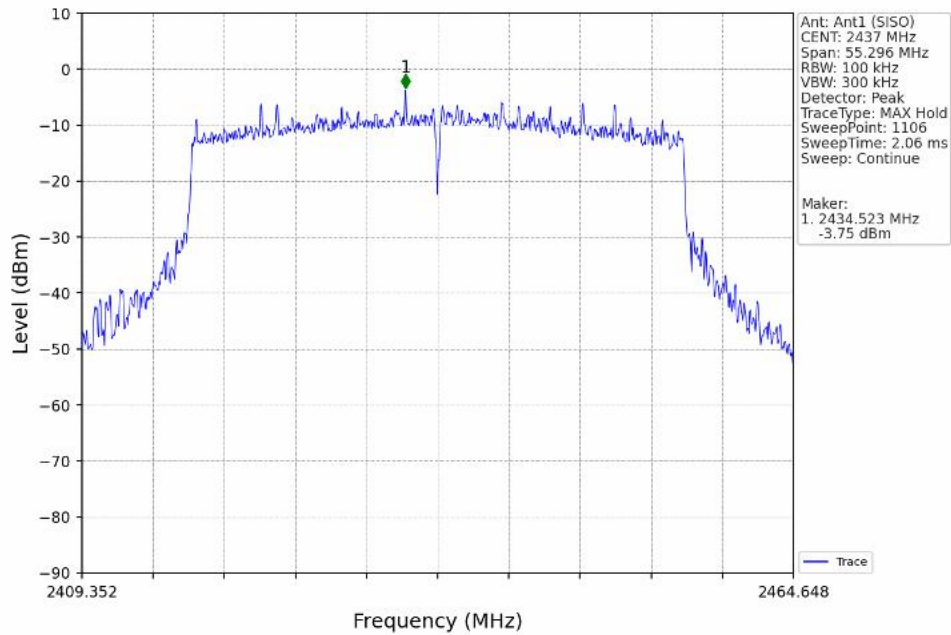
802.11ax(HEW20) HCH 2462MHz_SU / _Ant1 (SISO) _NTNV



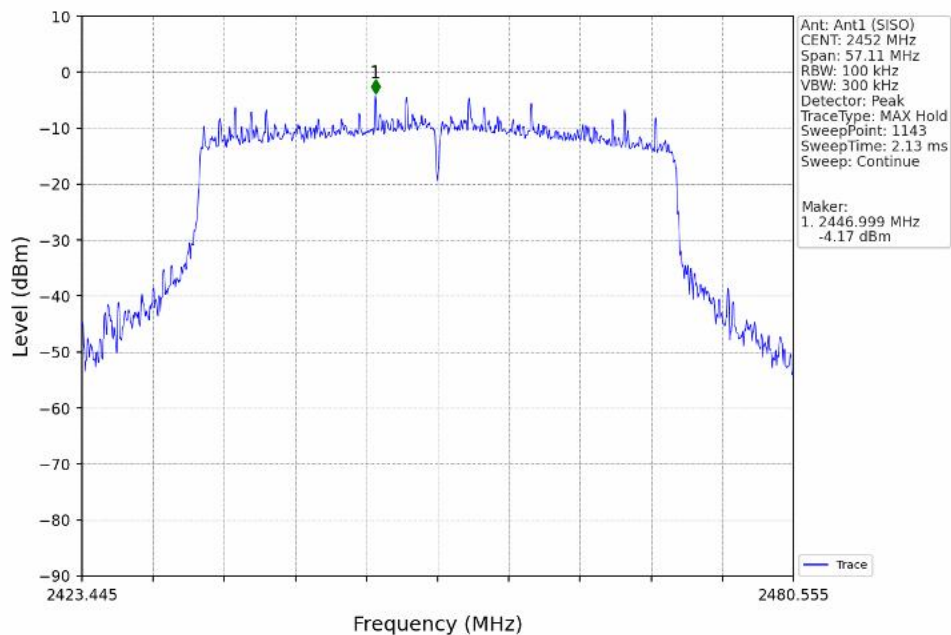
802.11ax(HEW40) LCH 2422MHz_SU / _Ant1 (SISO) _NTNV



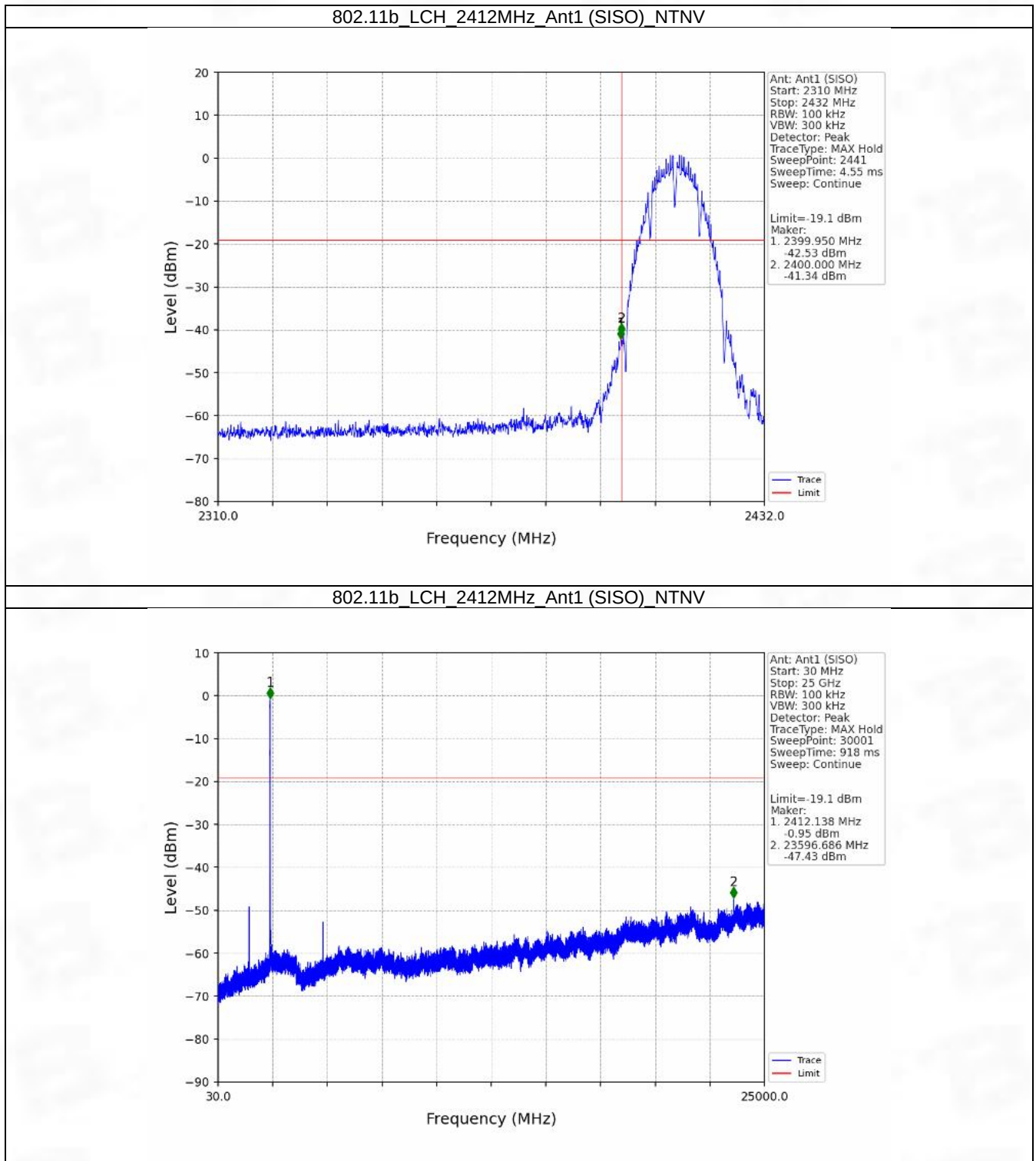
802.11ax(HEW40) MCH_2437MHz_SU / _Ant1 (SISO) _NTNV



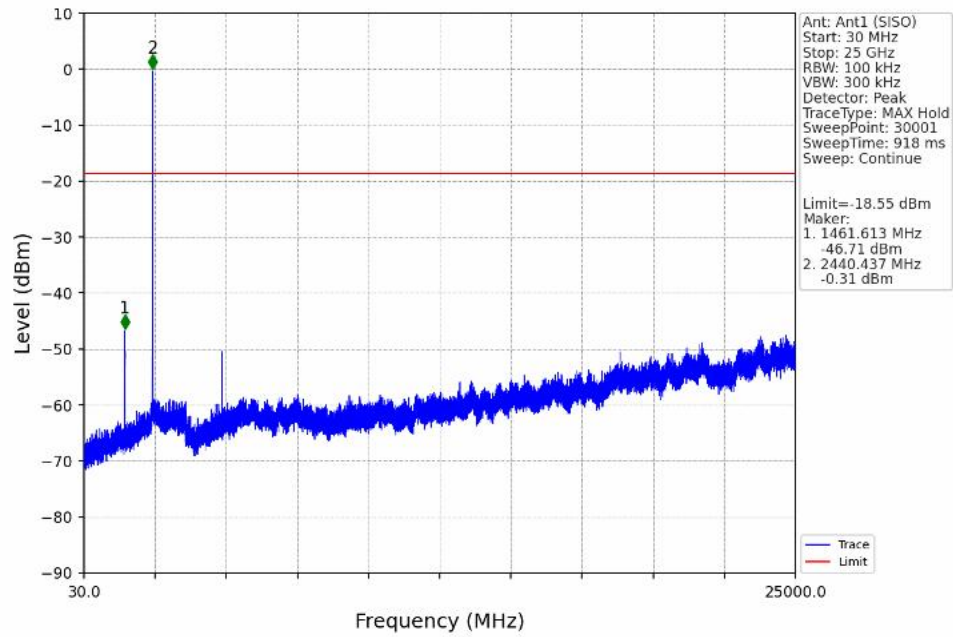
802.11ax(HEW40) HCH_2452MHz_SU / _Ant1 (SISO) _NTNV



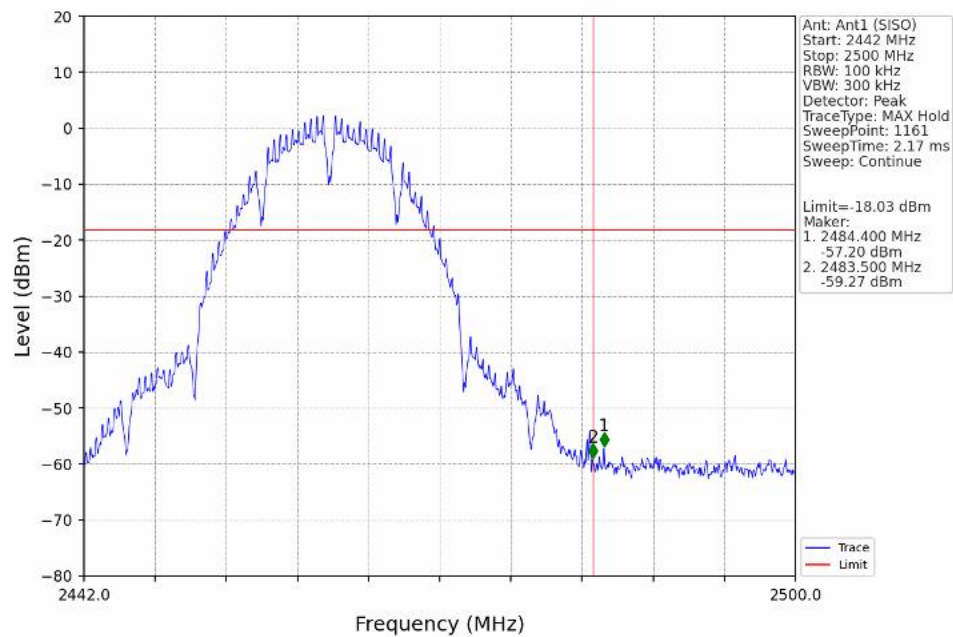
5.2.2 CSE



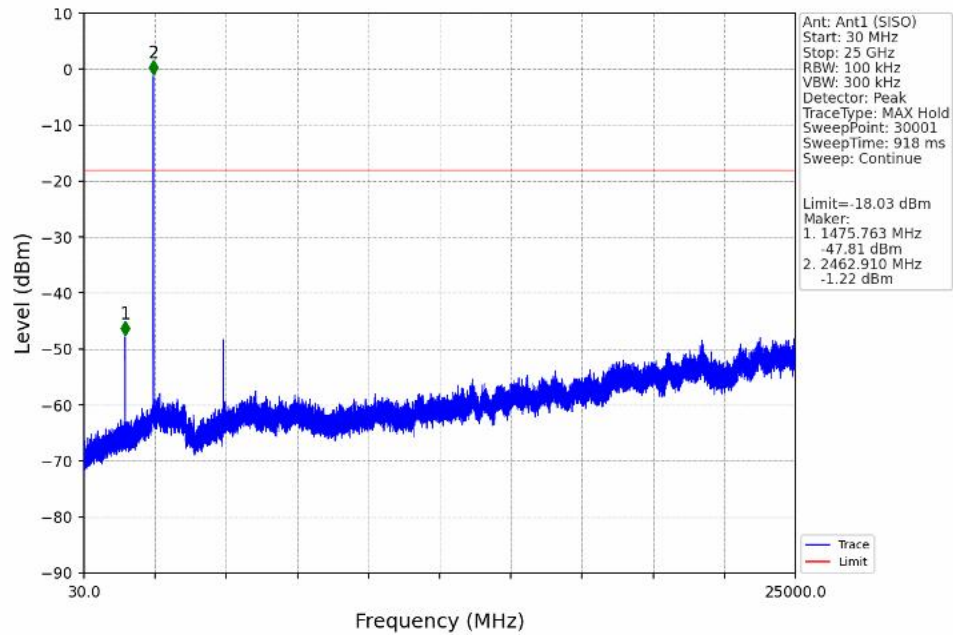
802.11b MCH_2437MHz_Ant1 (SISO)_NTNV



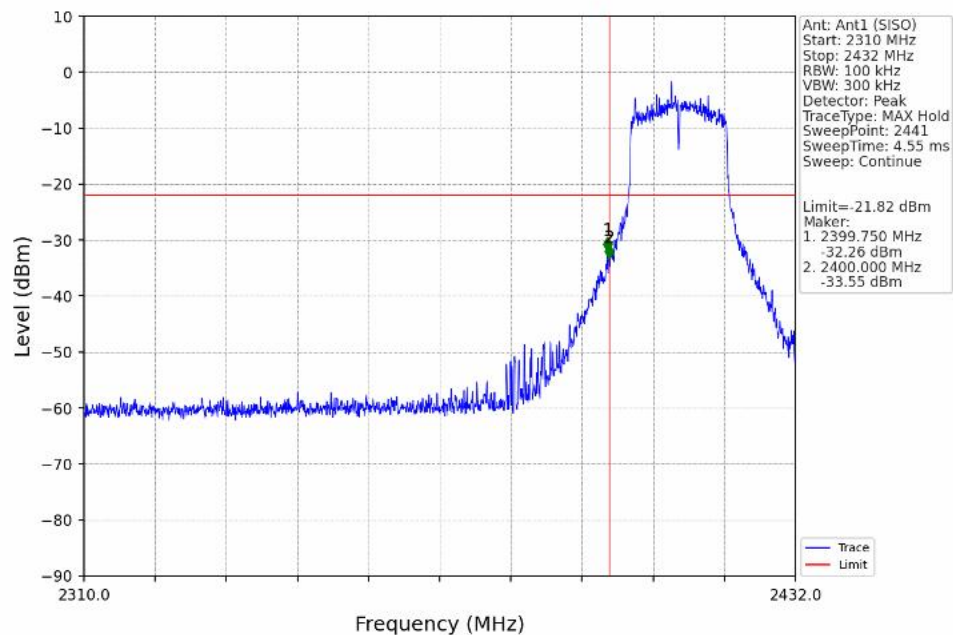
802.11b HCH_2462MHz_Ant1 (SISO)_NTNV



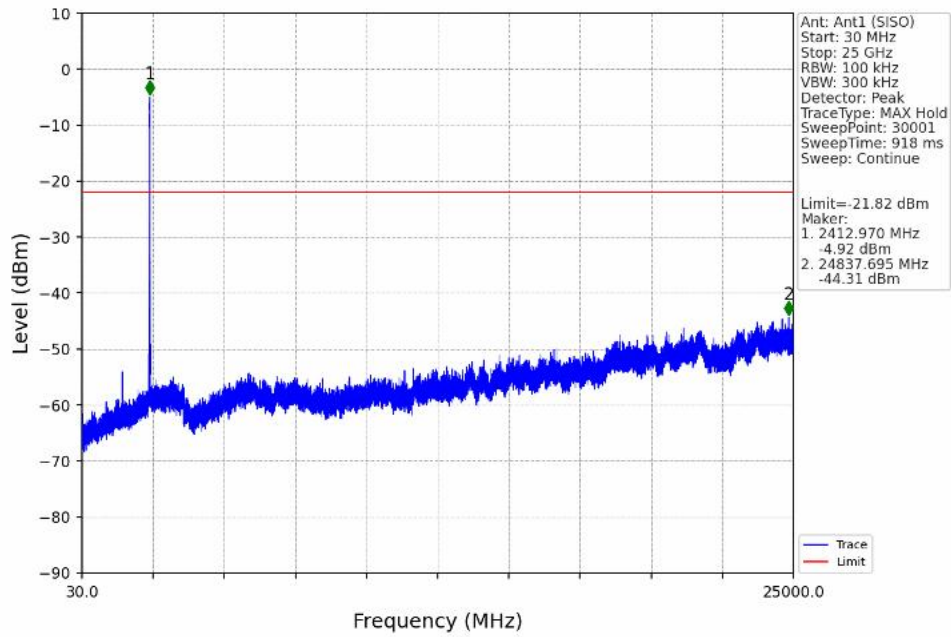
802.11b_HCH_2462MHz_Ant1 (SISO)_NTNV



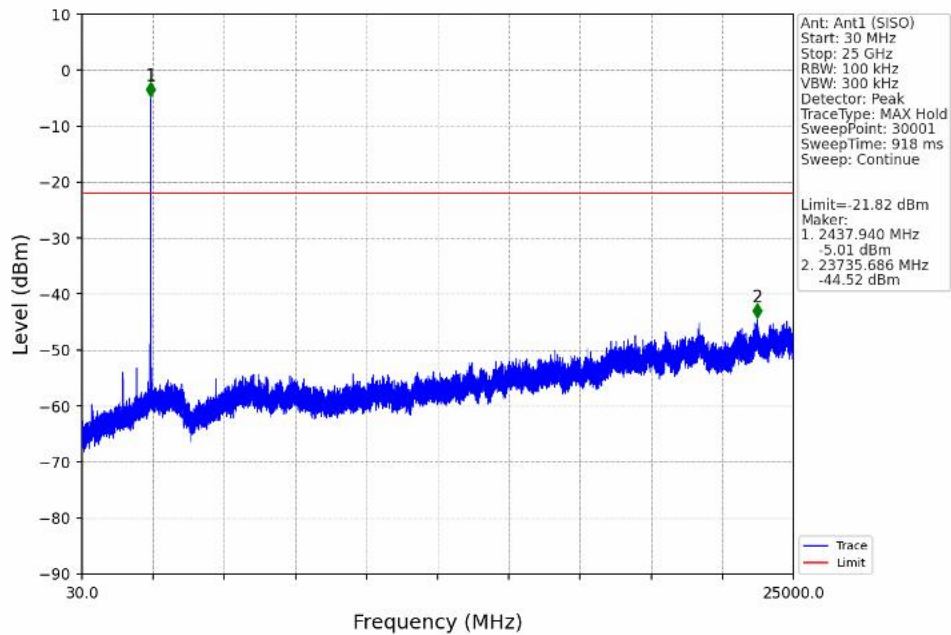
802.11g_LCH_2412MHz_Ant1 (SISO)_NTNV



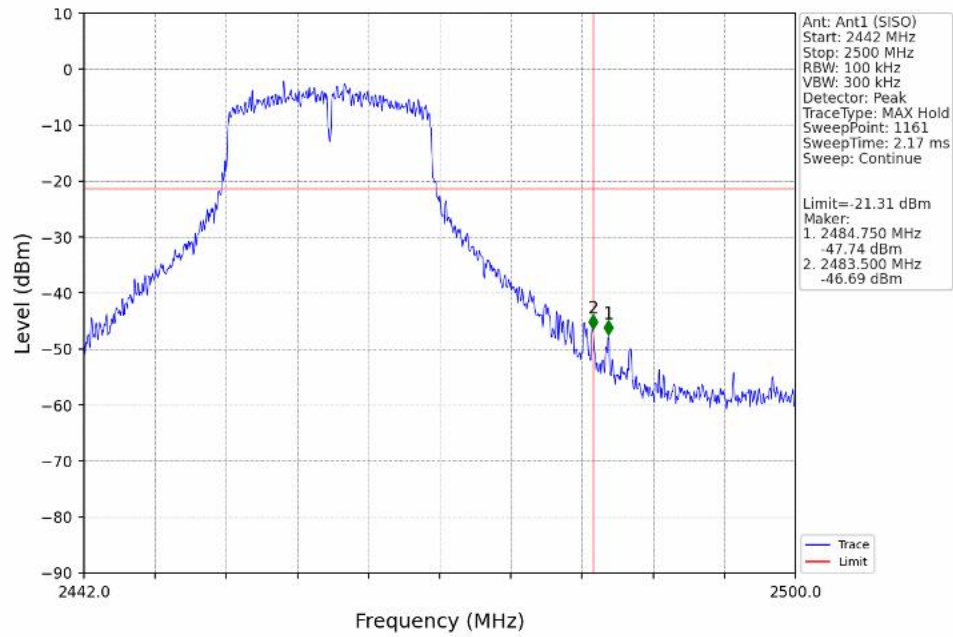
802.11g_LCH_2412MHz_Ant1 (SISO)_NTNV



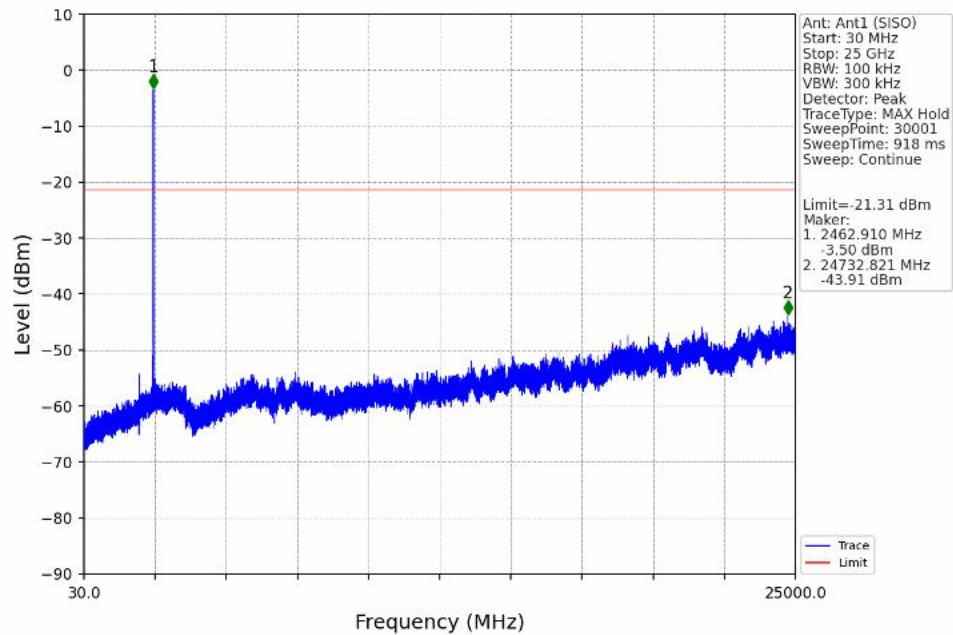
802.11g_MCH_2437MHz_Ant1 (SISO)_NTNV



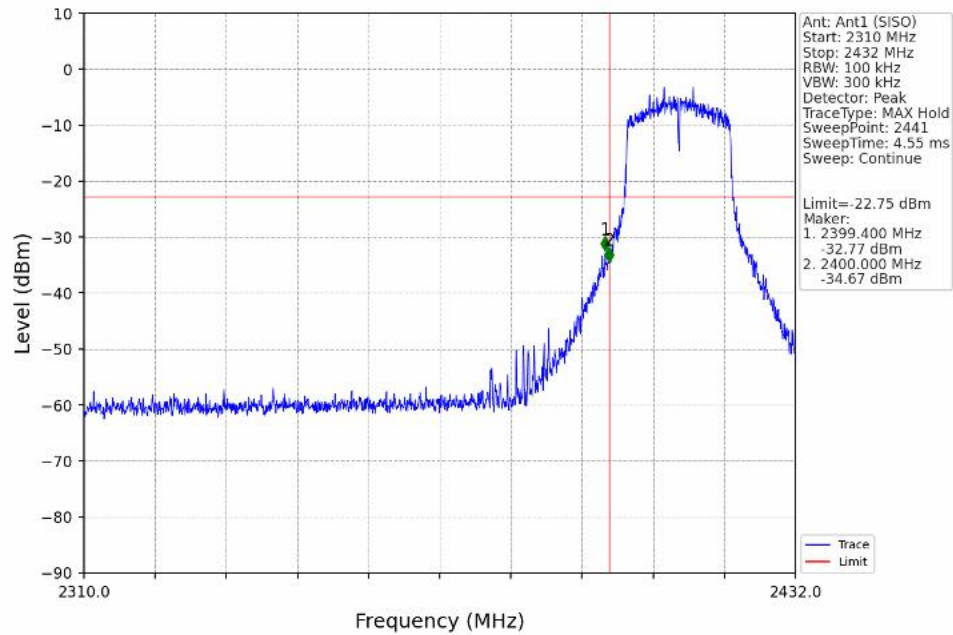
802.11g_HCH_2462MHz_Ant1 (SISO)_NTNV



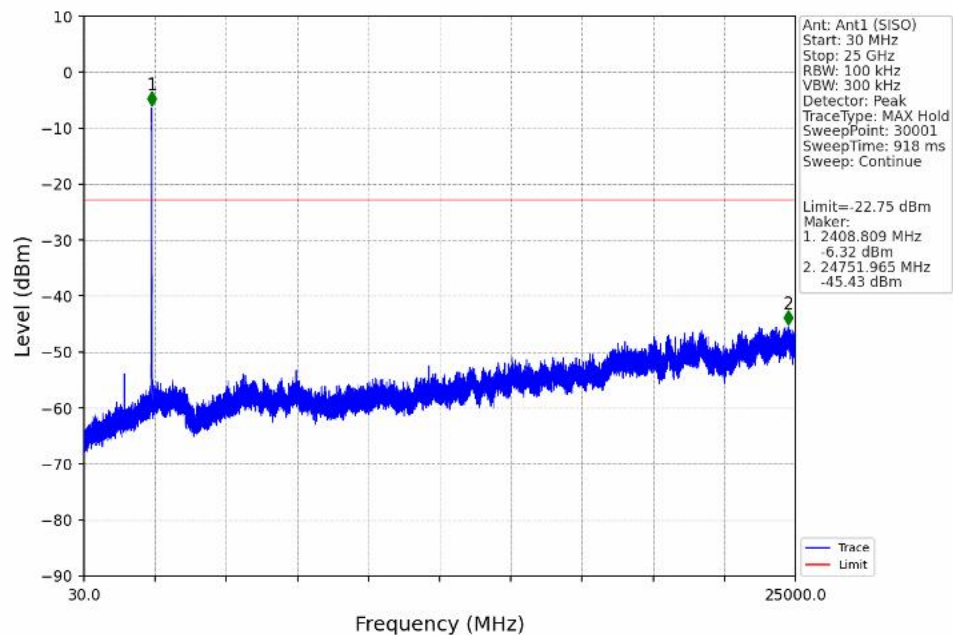
802.11g_HCH_2462MHz_Ant1 (SISO)_NTNV



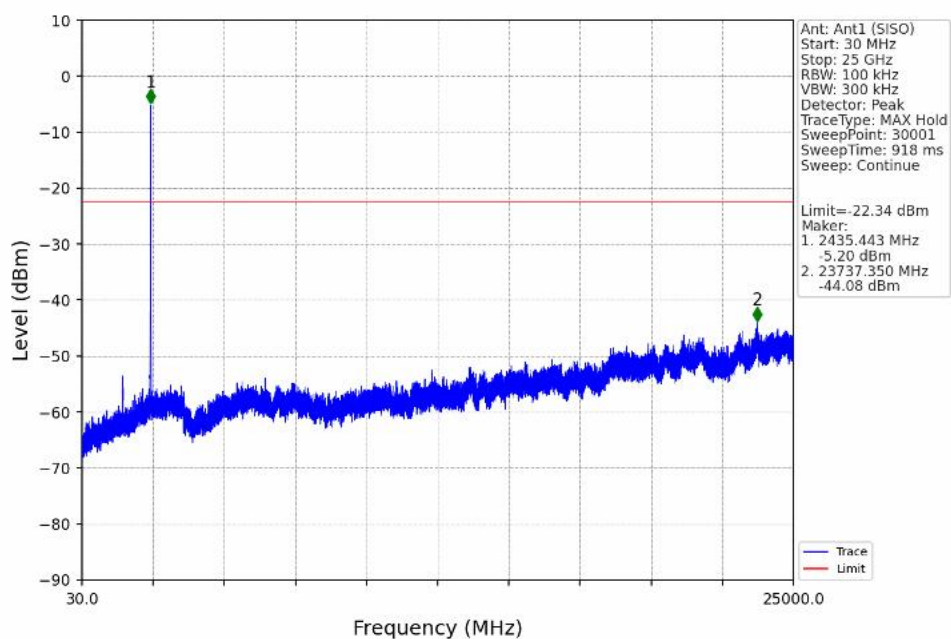
802.11n(HT20) LCH_2412MHz_Ant1 (SISO) NTN



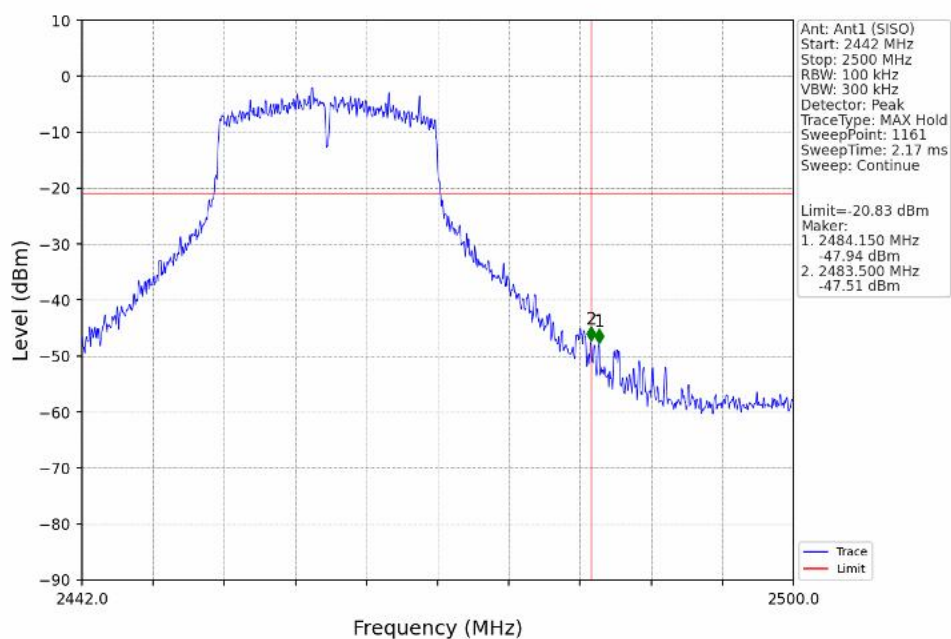
802.11n(HT20) LCH_2412MHz_Ant1 (SISO) NTN



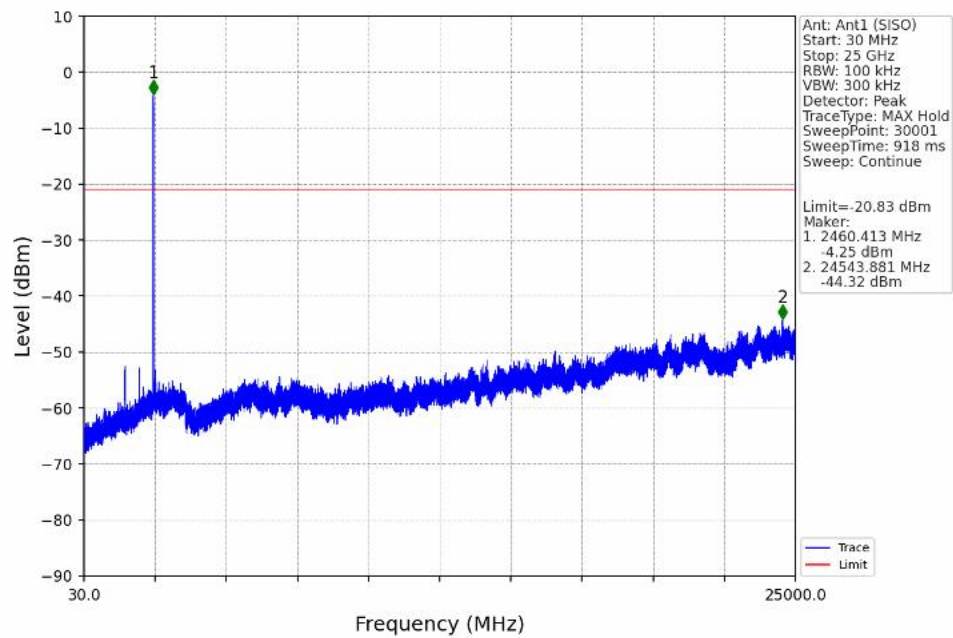
802.11n(HT20) MCH 2437MHz Ant1 (SISO) NTNV



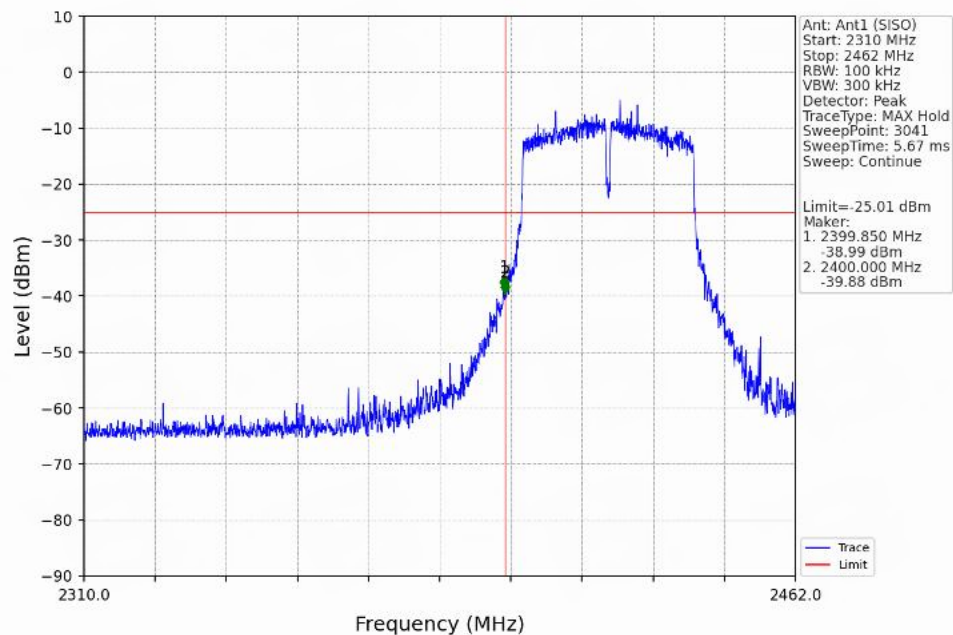
802.11n(HT20) HCH 2462MHz Ant1 (SISO) NTNV



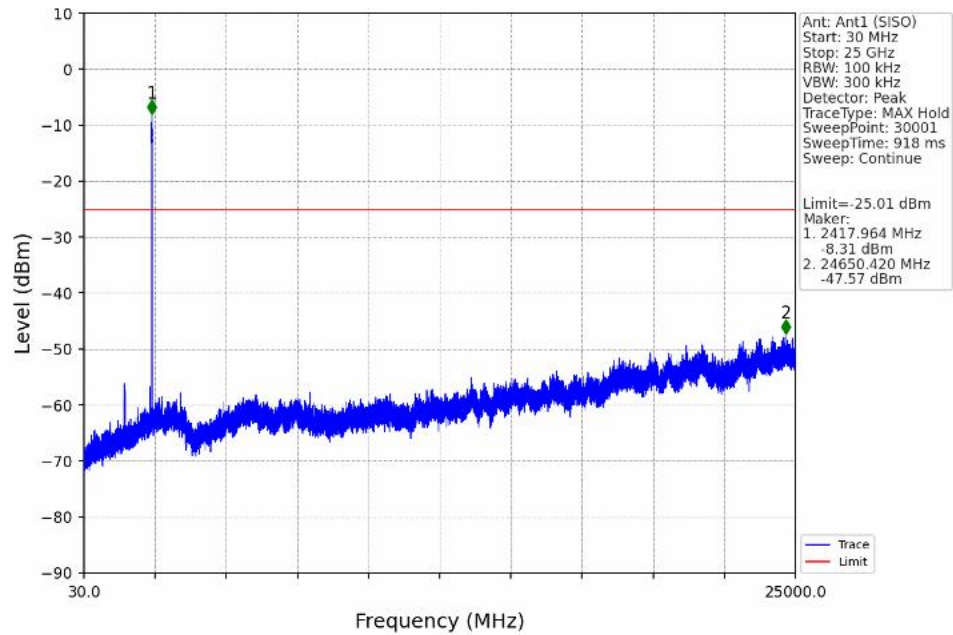
802.11n(HT20)_HCH_2462MHz_Ant1 (SISO)_NTNV



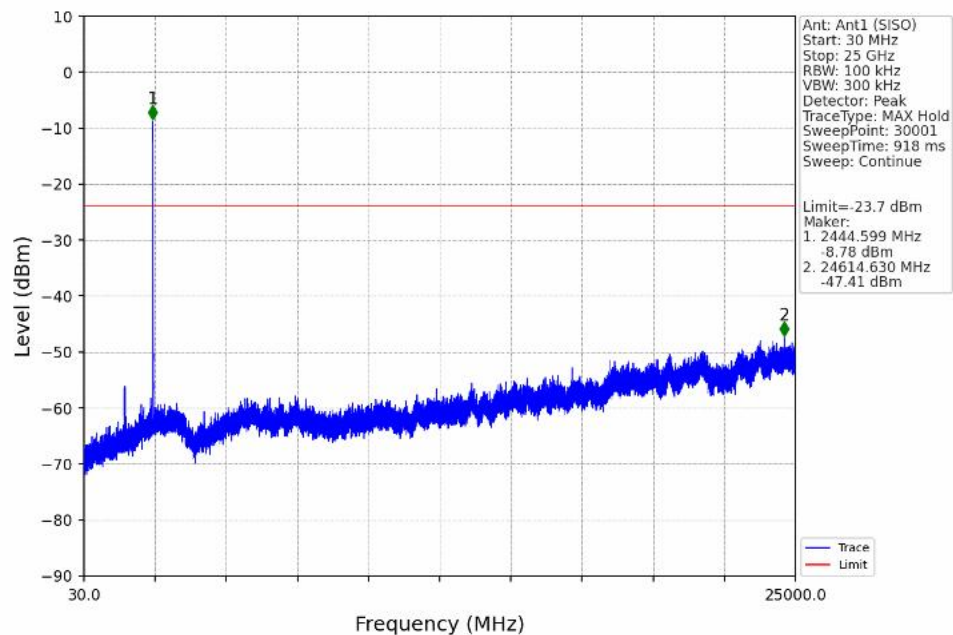
802.11n(HT40)_LCH_2422MHz_Ant1 (SISO)_NTNV



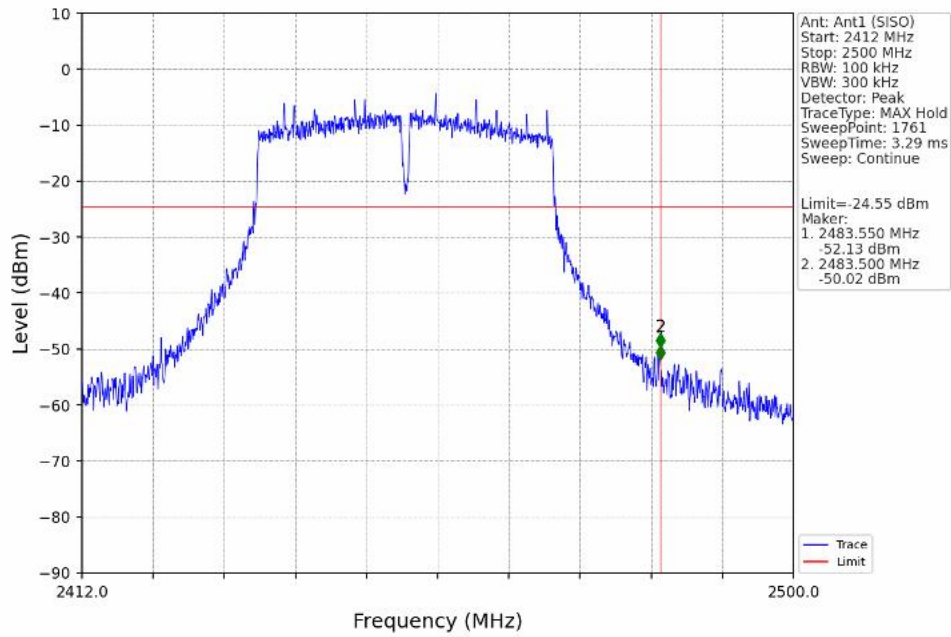
802.11n(HT40)_LCH_2422MHz_Ant1 (SISO)_NTNV



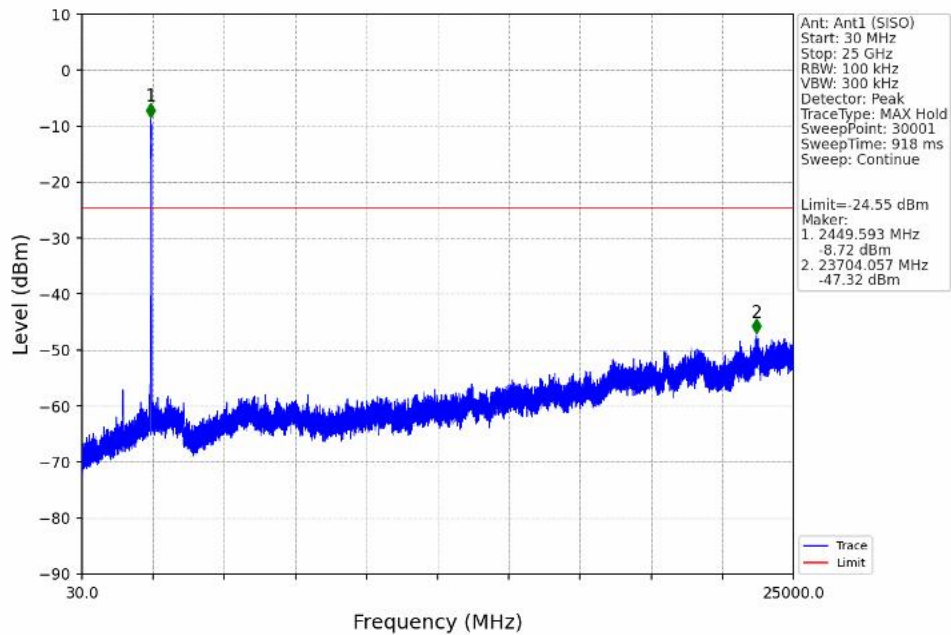
802.11n(HT40)_MCH_2437MHz_Ant1 (SISO)_NTNV



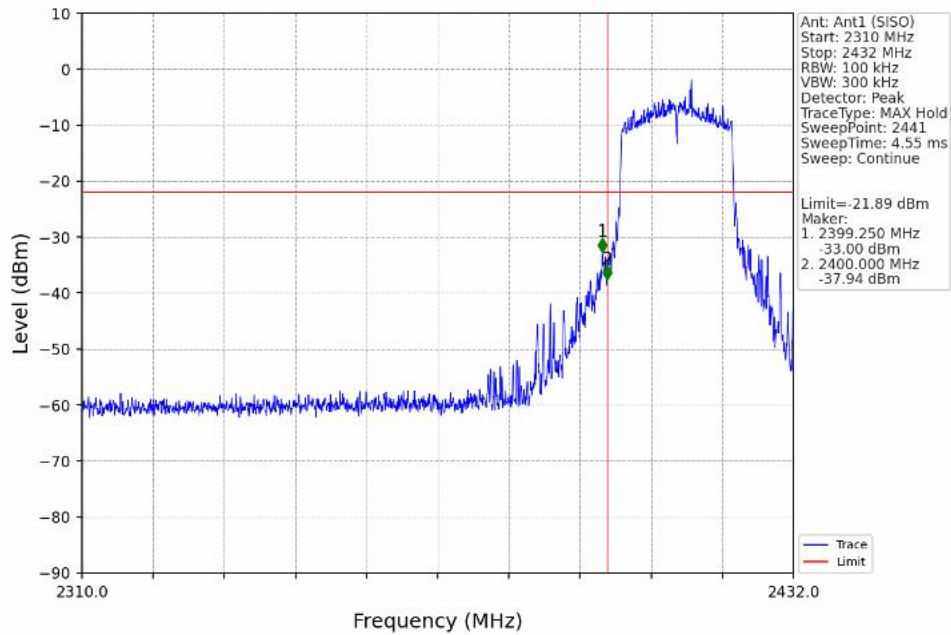
802.11n(HT40)_HCH_2452MHz_Ant1 (SISO)_NTNV



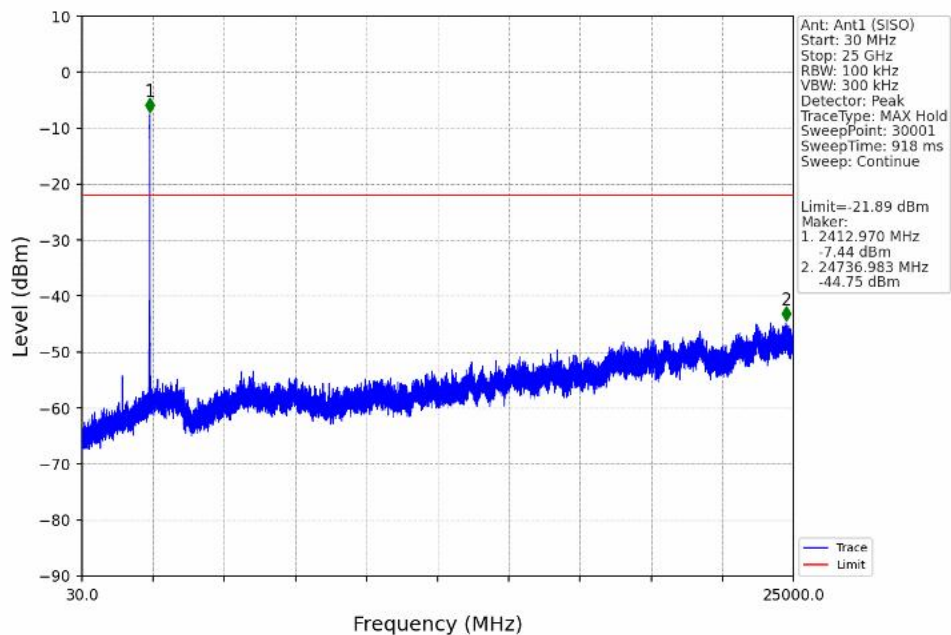
802.11n(HT40)_HCH_2452MHz_Ant1 (SISO)_NTNV



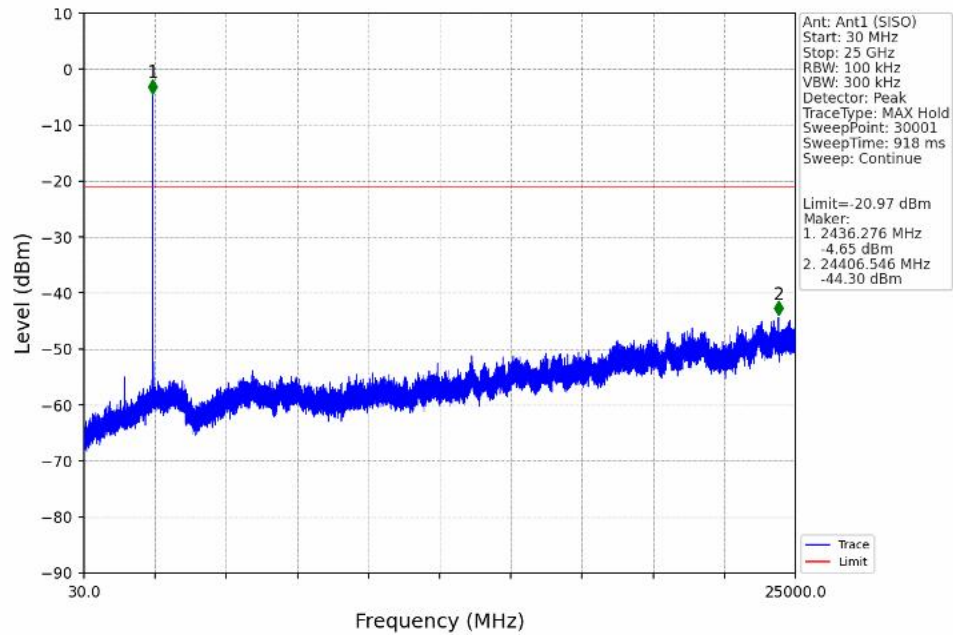
802.11ax(HEW20)_LCH_2412MHz_SU_ / _Ant1 (SISO)_NTNV



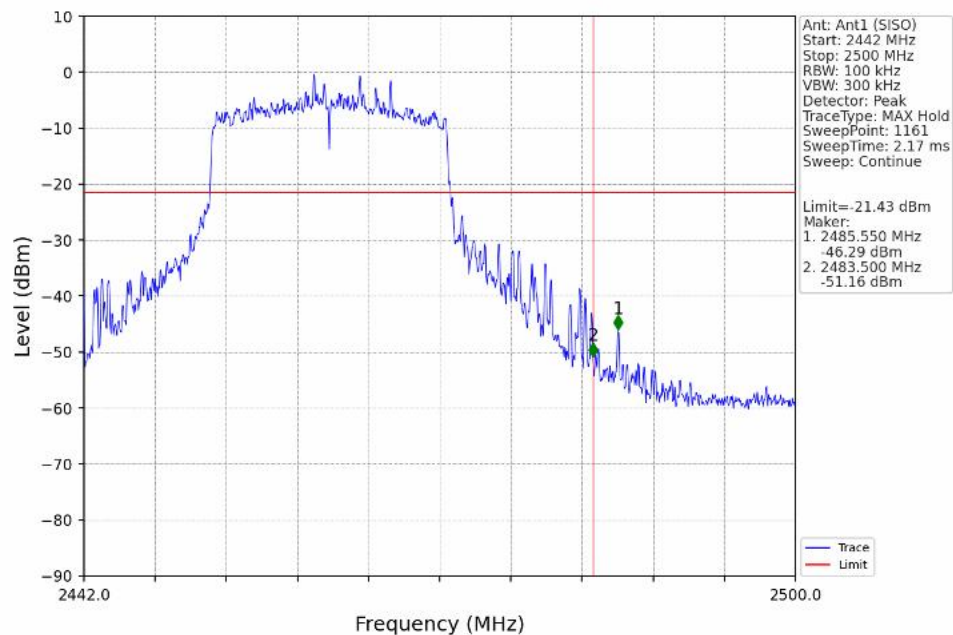
802.11ax(HEW20)_LCH_2412MHz_SU_ / _Ant1 (SISO)_NTNV



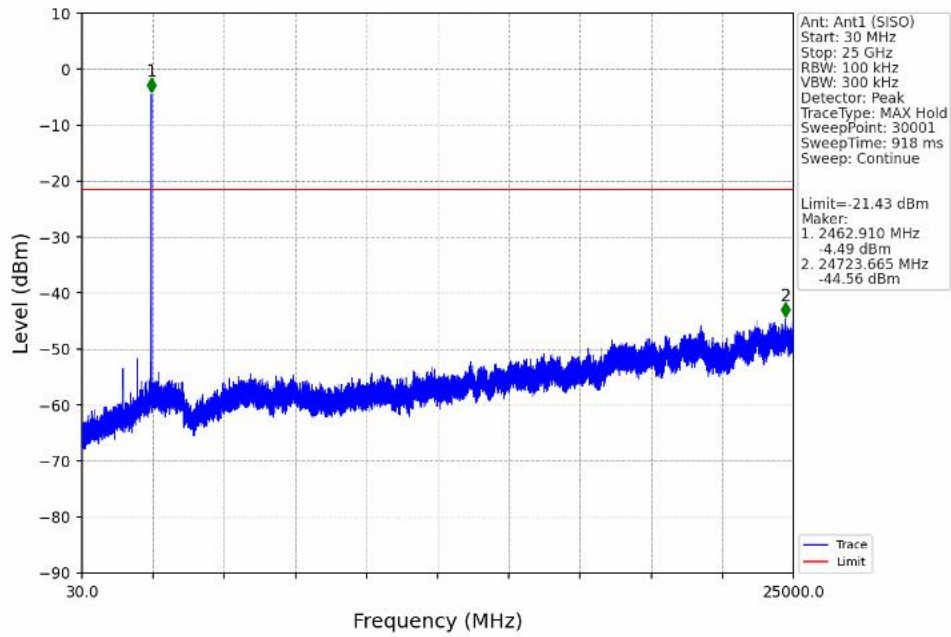
802.11ax(HEW20) MCH_2437MHz_SU / _Ant1 (SISO) _NTNV



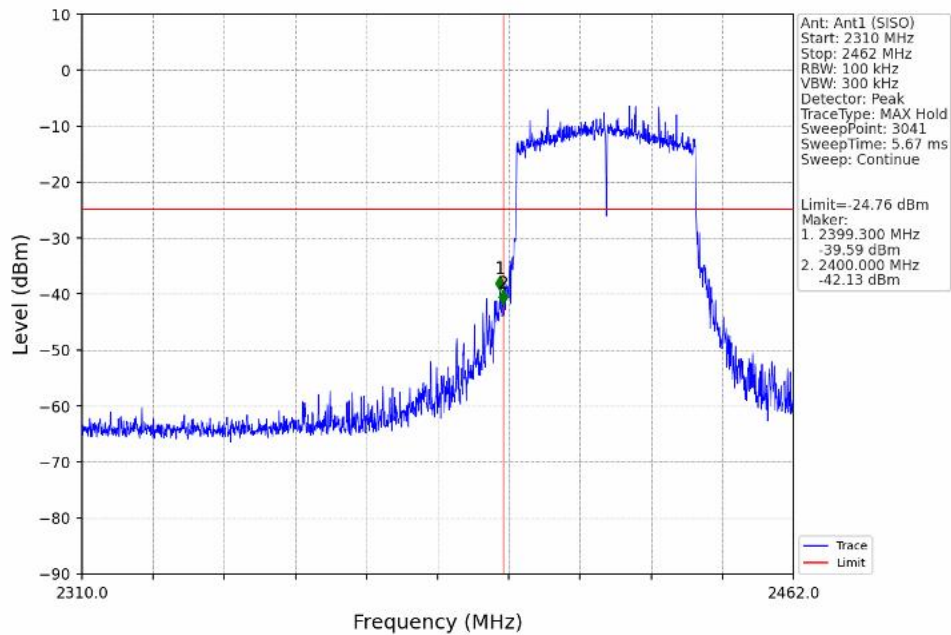
802.11ax(HEW20) HCH_2462MHz_SU / _Ant1 (SISO) _NTNV



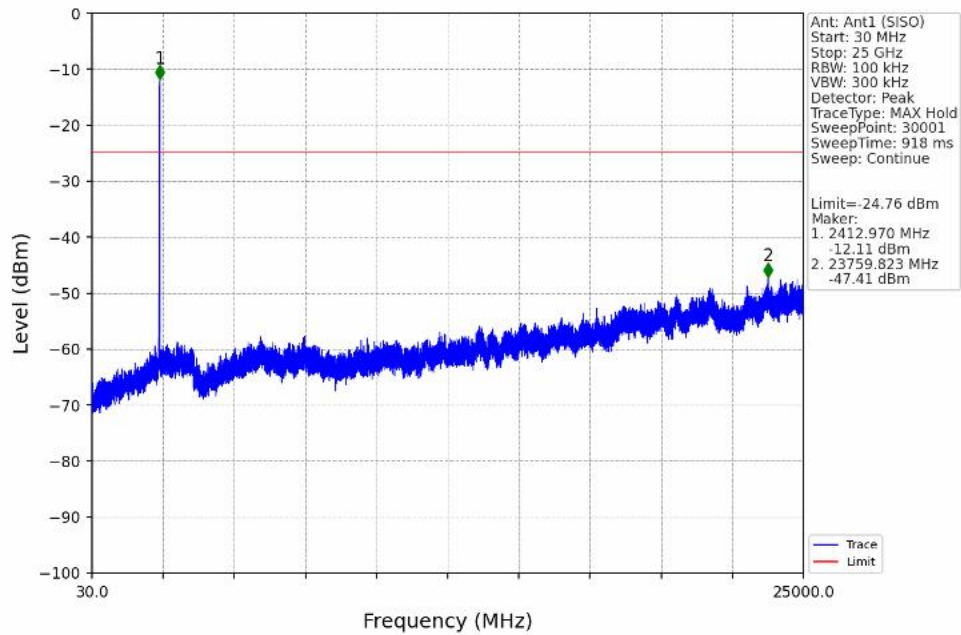
802.11ax(HEW20) HCH 2462MHz_SU / _Ant1 (SISO) _NTNV



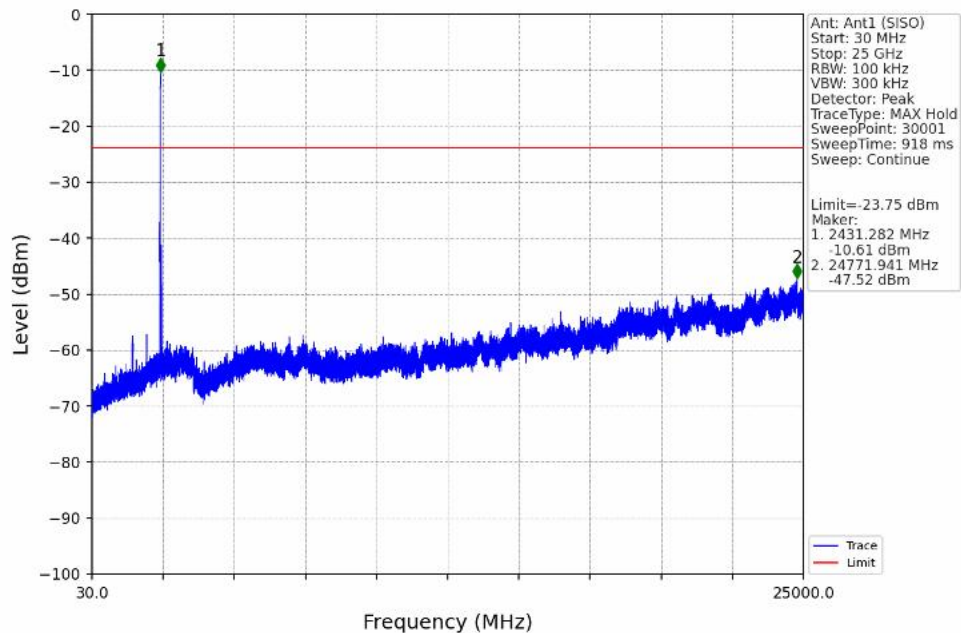
802.11ax(HEW40) LCH 2422MHz_SU / _Ant1 (SISO) _NTNV



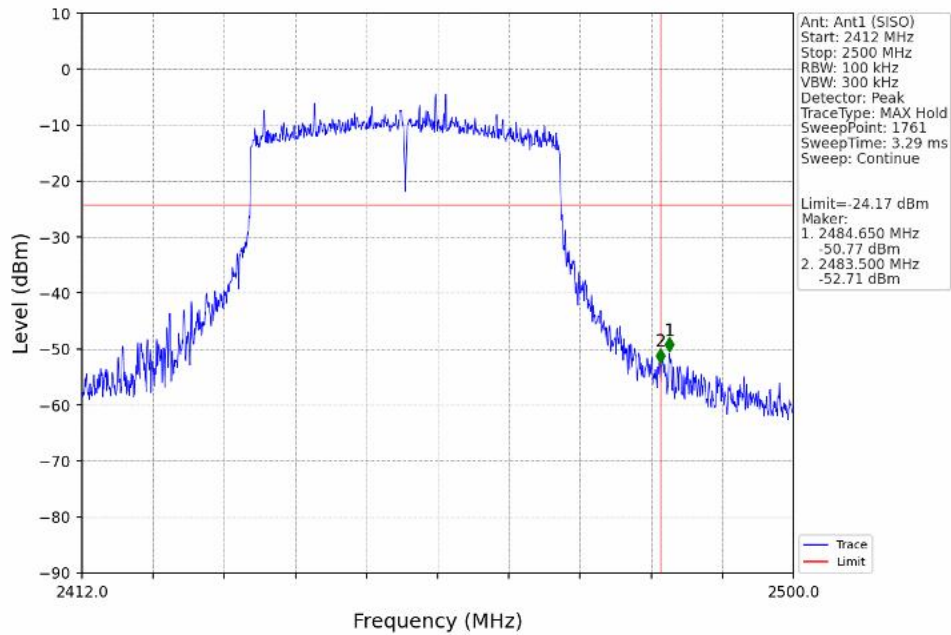
802.11ax(HEW40) LCH 2422MHz_SU / _Ant1 (SISO) _NTNV



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

