

Appendix RF Test Data for 2.4G WIFI

Company: : Shenzhen Speediance Living Technology co., Ltd.

EUT : Portable Multimedia Digital Fitness Equipment

FCC ID: : 2A4WP-GNA1A1

Model Number : GNA1A1

Report No. : HTT202605688F01

Reviewed By : Heber He

1. Duty Cycle

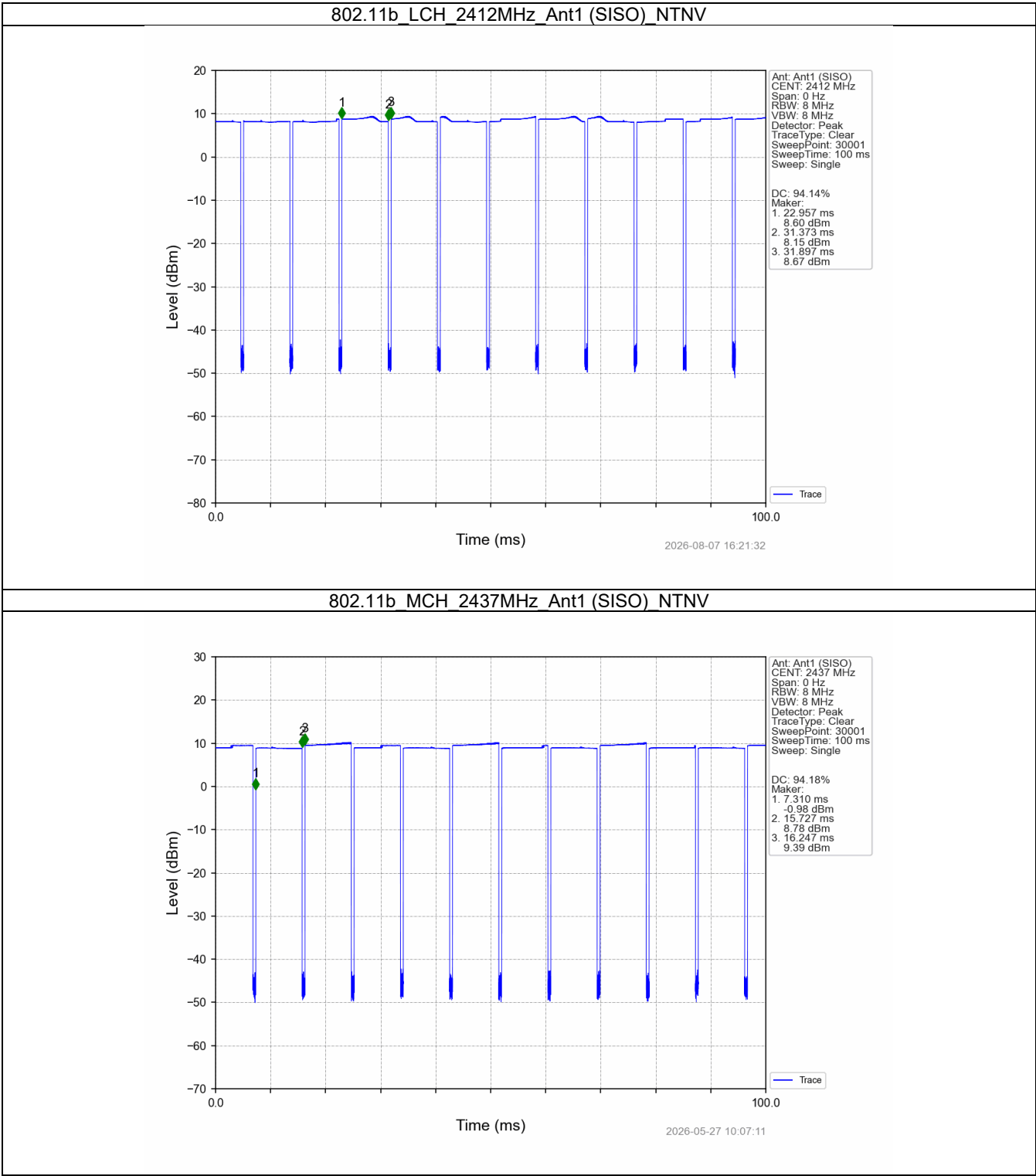
1.1 Test Result

1.1.1 Ant1

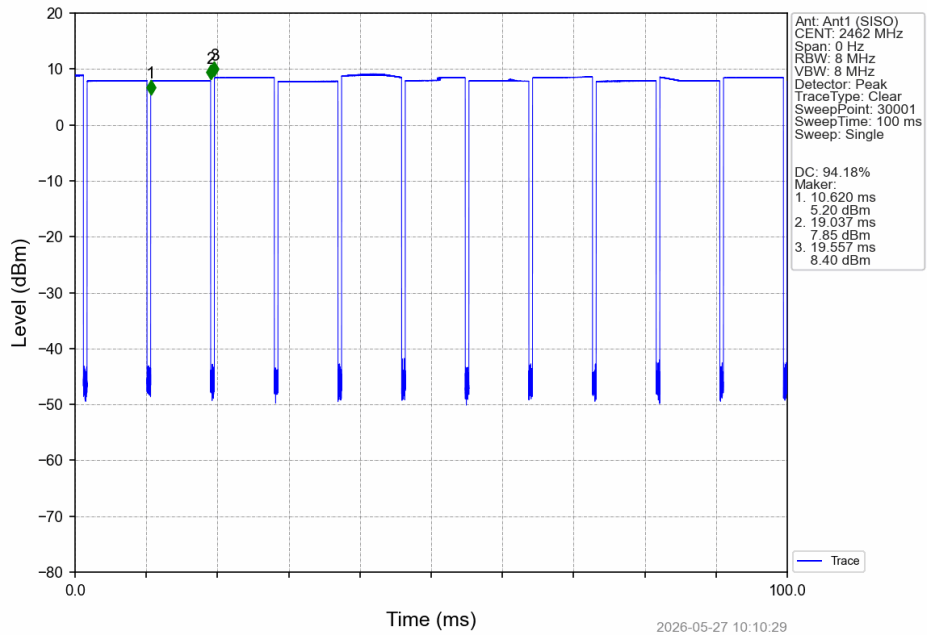
Ant1									
Mode	Tx Type	Frequency (MHz)	RU	RU Pos	T_on (ms)	Period (ms)	Duty Cycle (%)	Duty Cycle Correction Factor (dB)	Max. DC Variation (%)
802.11b	SISO	2412	/	/	8.416	8.940	94.14	0.26	0.11
		2437	/	/	8.417	8.937	94.18	0.26	0.04
		2462	/	/	8.417	8.937	94.18	0.26	0.04
802.11g	SISO	2412	/	/	1.399	1.924	72.71	1.38	0.08
		2437	/	/	1.396	1.922	72.63	1.39	0.03
		2462	/	/	1.398	1.922	72.74	1.38	0.03
802.11n (HT20)	SISO	2412	/	/	5.090	5.614	90.67	0.43	0.04
		2437	/	/	5.090	5.620	90.57	0.43	0.16
		2462	/	/	5.090	5.615	90.65	0.43	0.04
802.11n (HT40)	SISO	2422	/	/	4.896	5.422	90.30	0.44	0.04
		2437	/	/	4.896	5.422	90.30	0.44	0.03
		2452	/	/	4.896	5.426	90.23	0.45	0.17
802.11ax (HEW20)	SISO	2412	SU	/	3.879	4.403	88.10	0.55	0.04
		2437	SU	/	3.879	5.629	68.91	1.62	19.21
		2462	SU	/	3.879	4.474	86.70	0.62	1.49
802.11ax (HEW40)	SISO	2422	SU	/	3.874	4.403	87.99	0.56	0.20
		2437	SU	/	3.874	4.399	88.07	0.55	0.03
		2452	SU	/	3.873	4.404	87.94	0.56	0.21

1.2 Test Graph

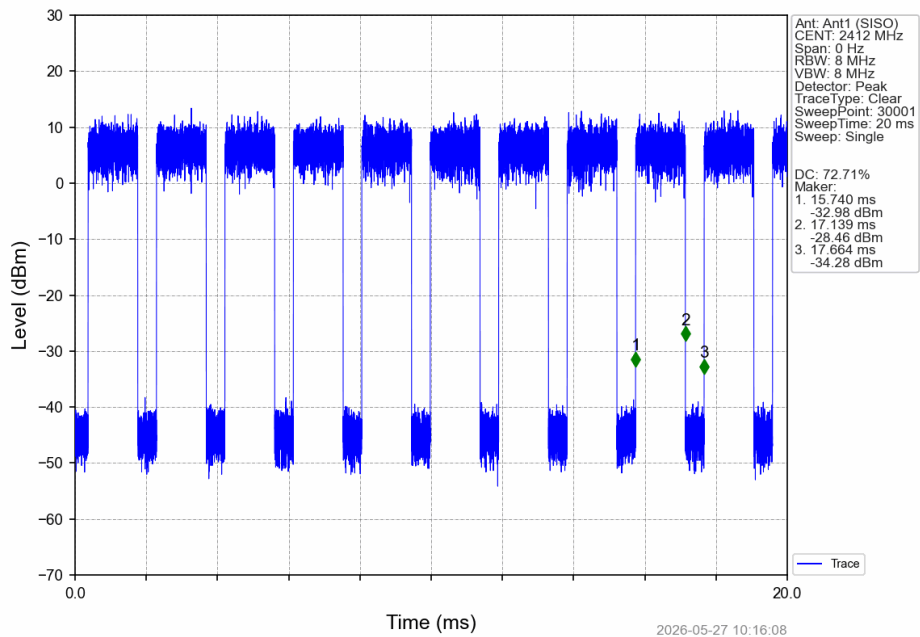
1.2.1 Ant1



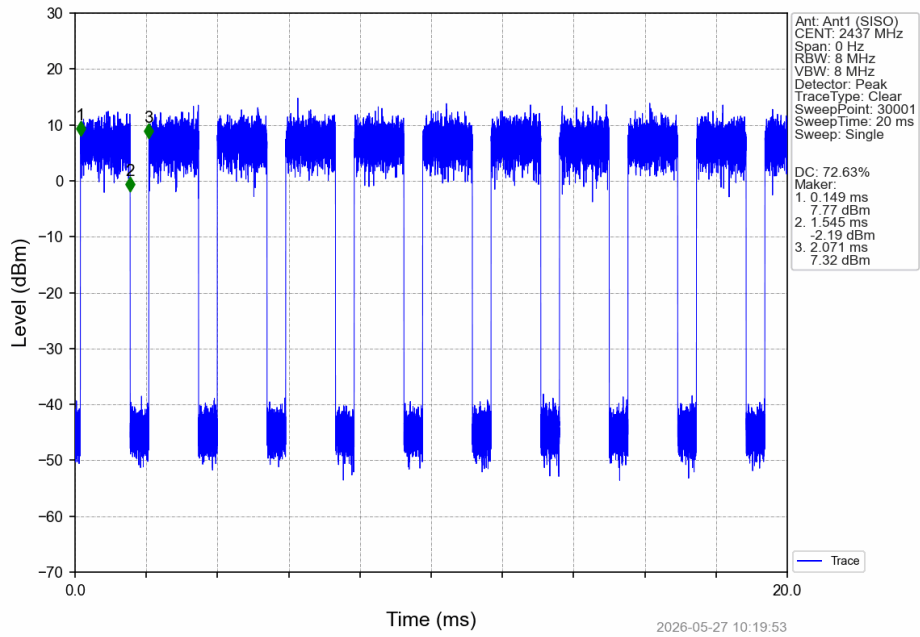
802.11b HCH 2462MHz Ant1 (SISO) NTN



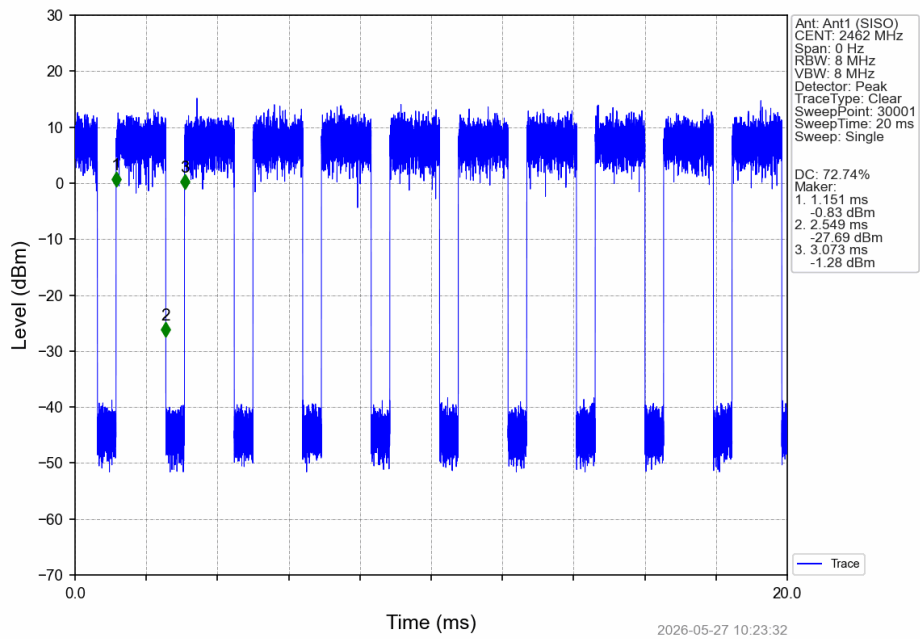
802.11g LCH 2412MHz Ant1 (SISO) NTN



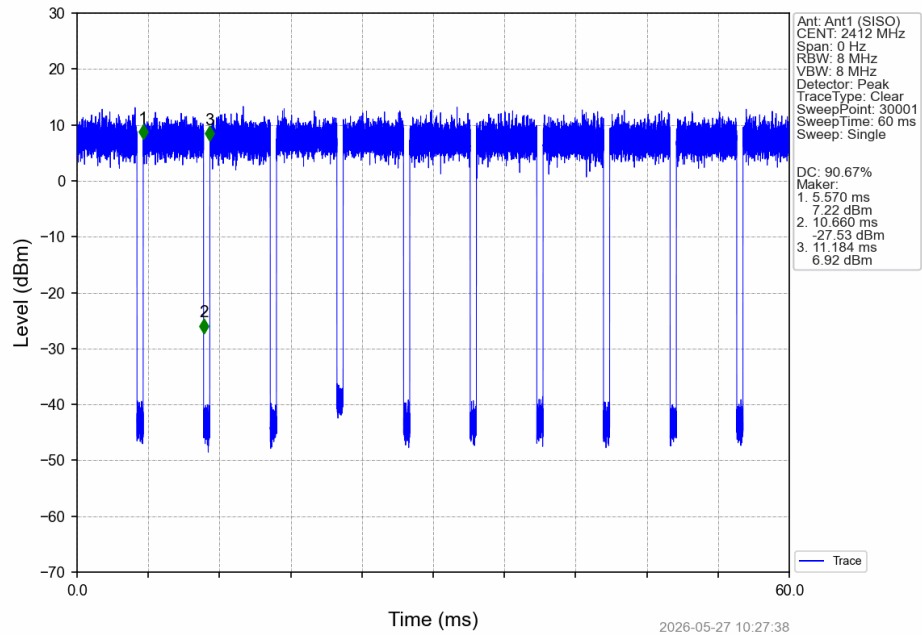
802.11g_MCH_2437MHz_Ant1 (SISO)_NTNV



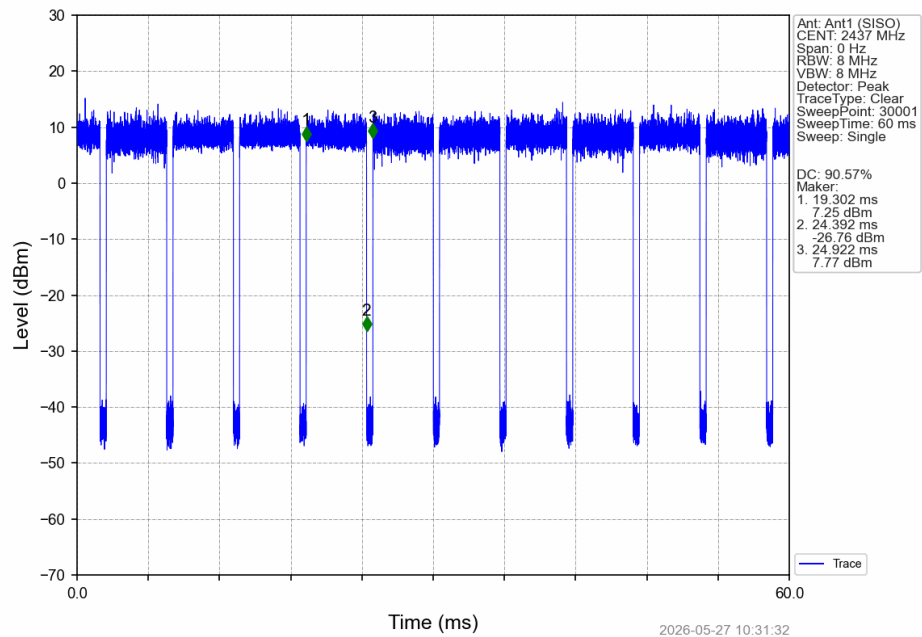
802.11g_HCH_2462MHz_Ant1 (SISO)_NTNV



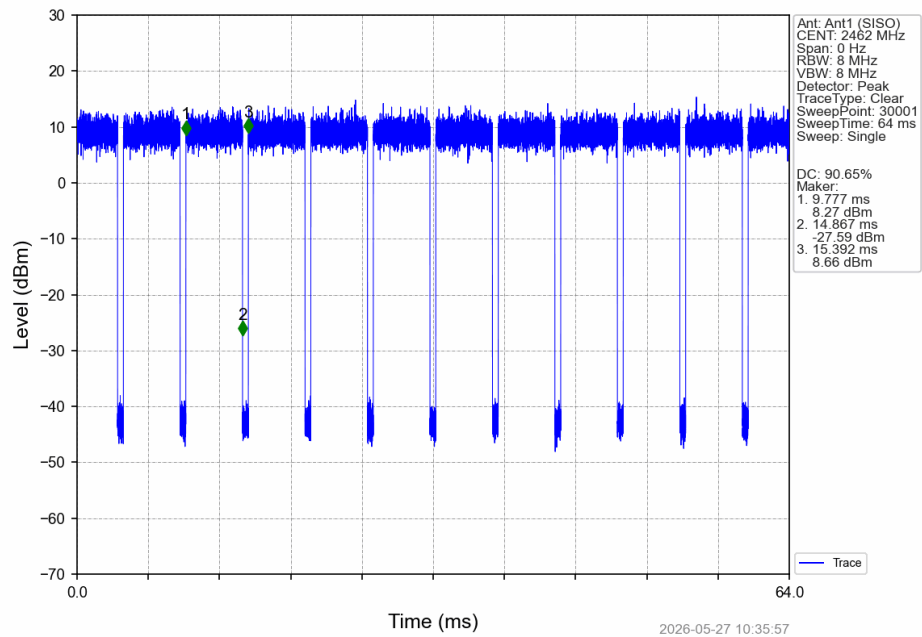
802.11n(HT20) LCH 2412MHz Ant1 (SISO) NTNV



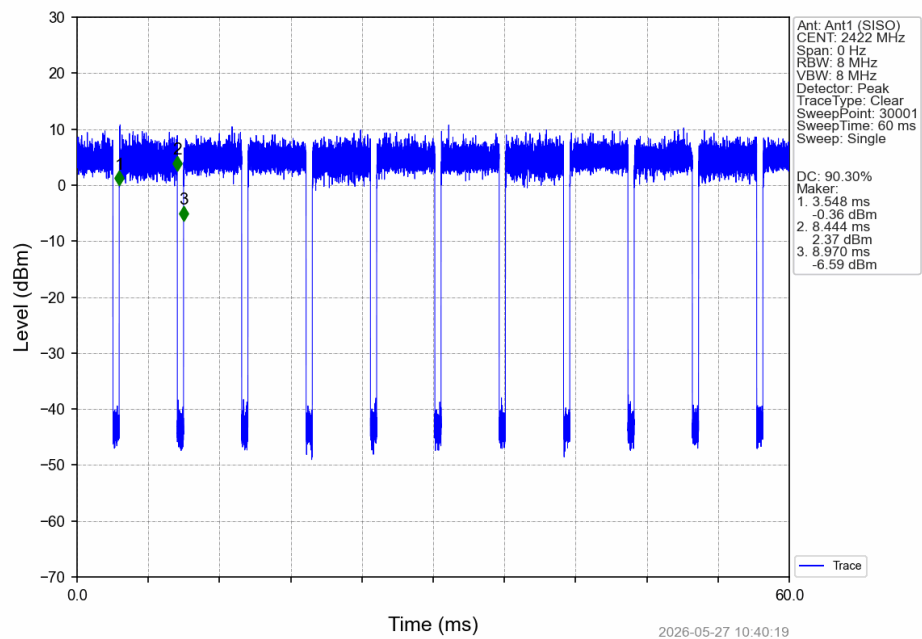
802.11n(HT20) MCH 2437MHz Ant1 (SISO) NTNV



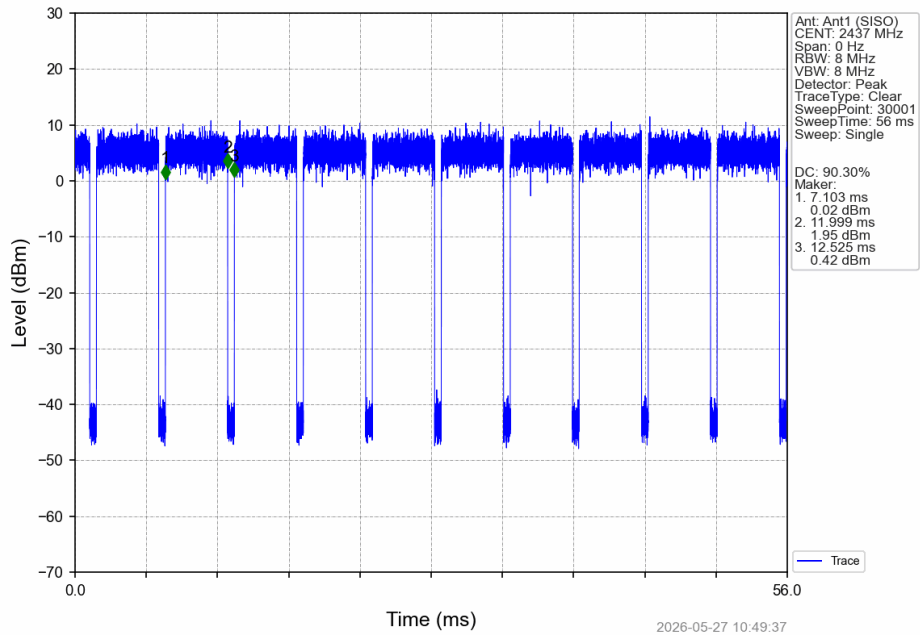
802.11n(HT20) HCH 2462MHz Ant1 (SISO) NTN



802.11n(HT40) LCH 2422MHz Ant1 (SISO) NTN

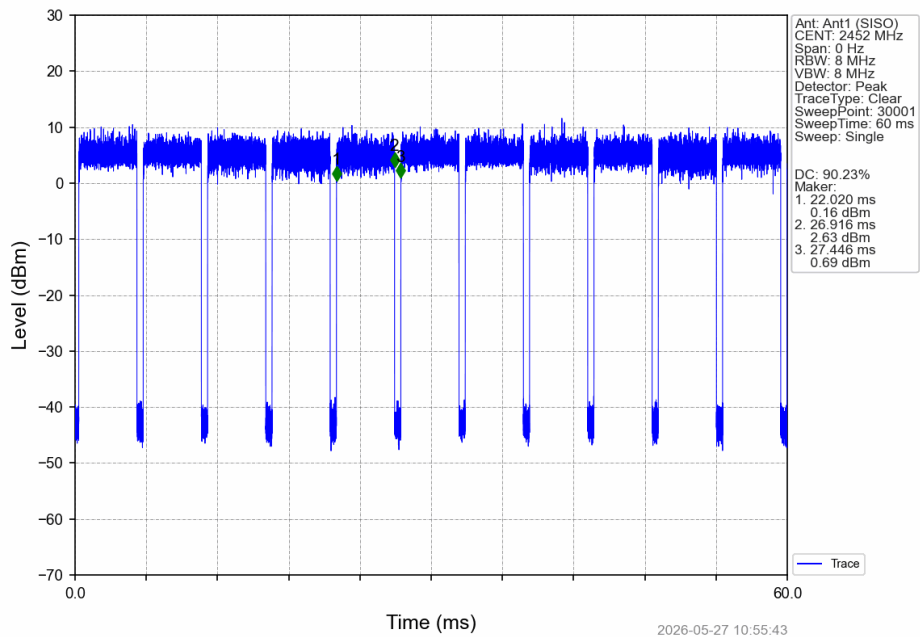


802.11n(HT40) MCH_2437MHz_Ant1 (SISO) NTN



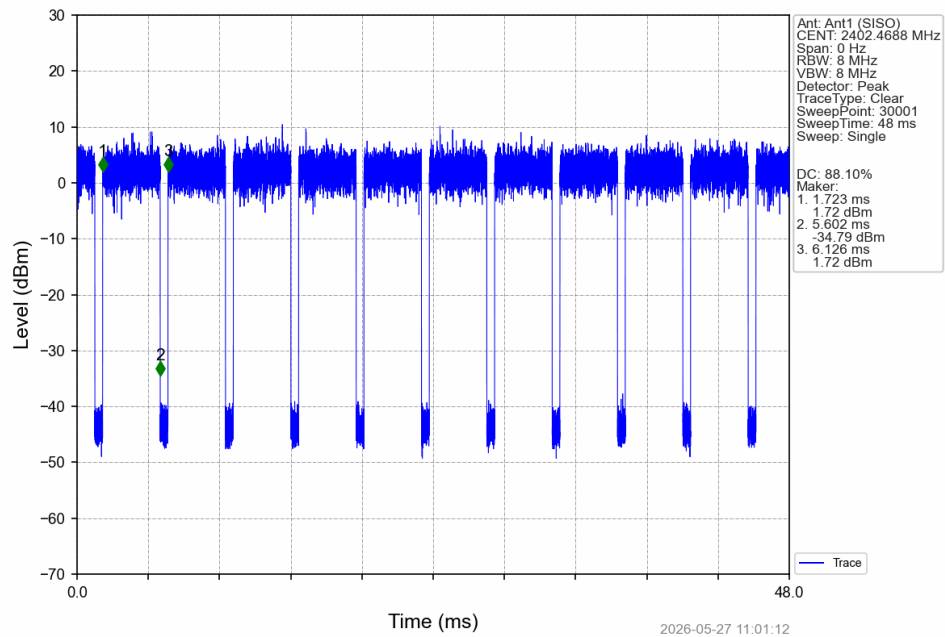
2026-05-27 10:49:37

802.11n(HT40) HCH_2452MHz_Ant1 (SISO) NTN

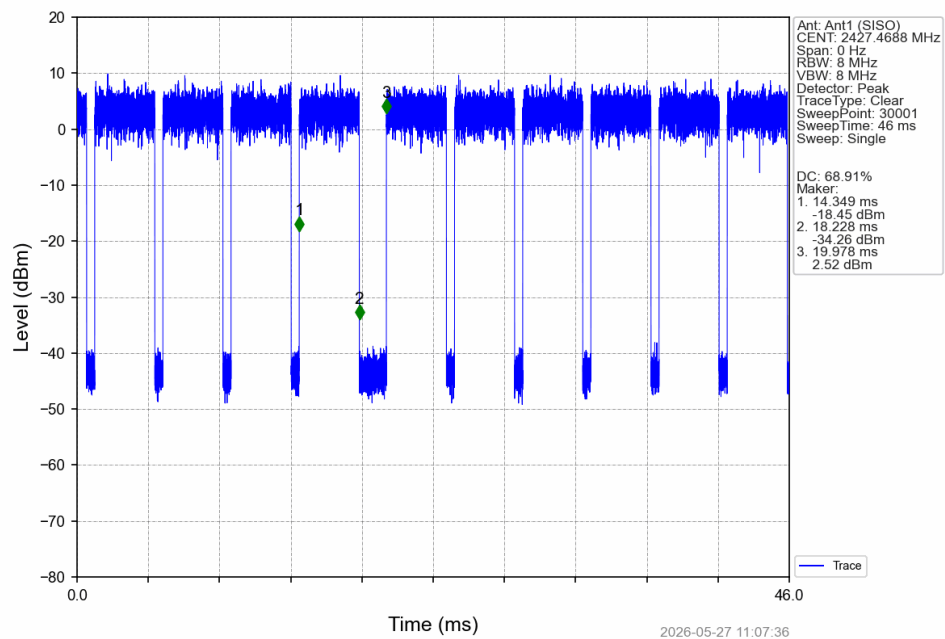


2026-05-27 10:55:43

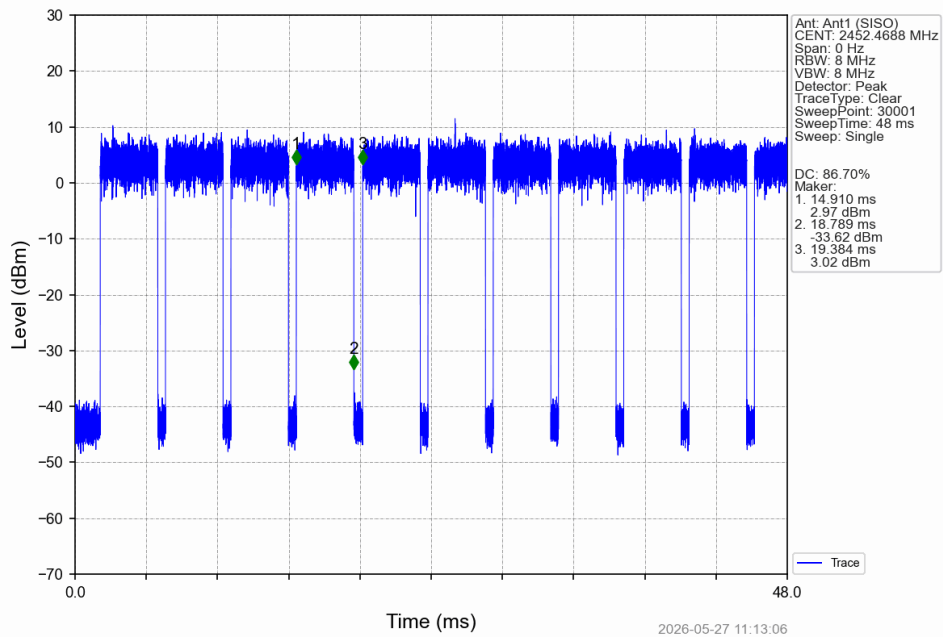
802.11ax(HEW20) LCH 2412MHz SU / Ant1 (SISO) NTN



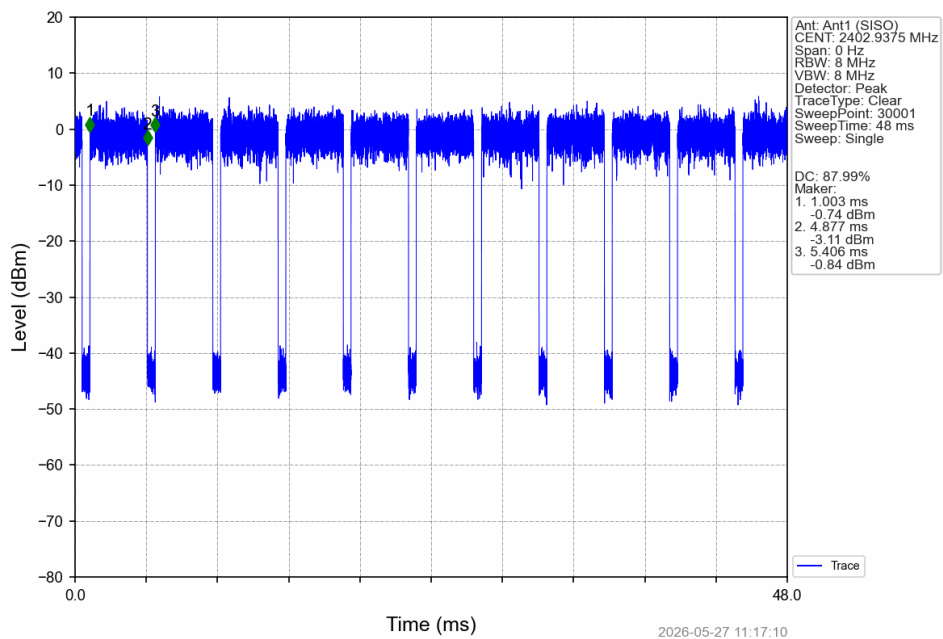
802.11ax(HEW20) MCH 2437MHz SU / Ant1 (SISO) NTN



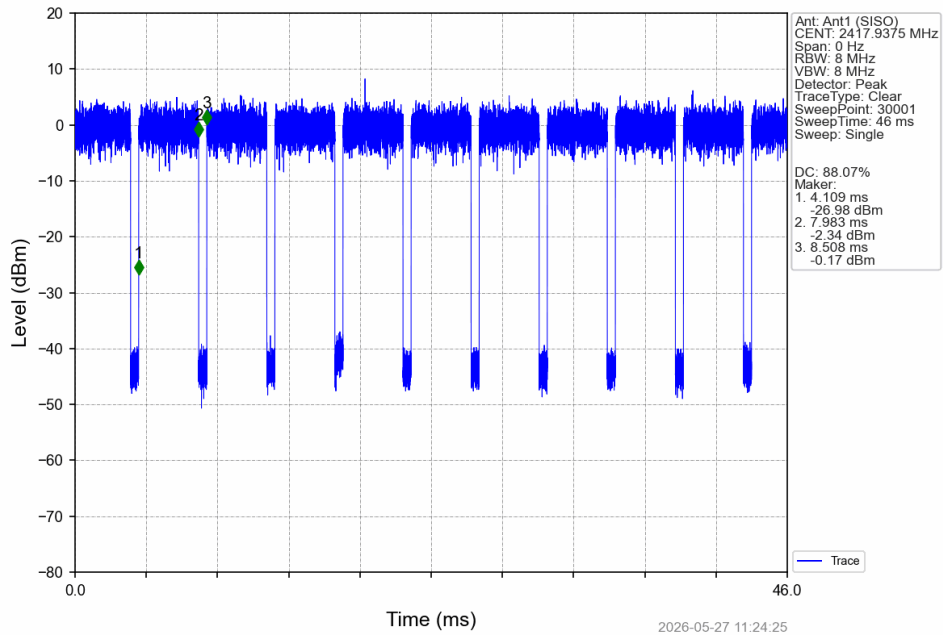
802.11ax(HEW20) HCH 2462MHz SU / Ant1 (SISO) NTNv



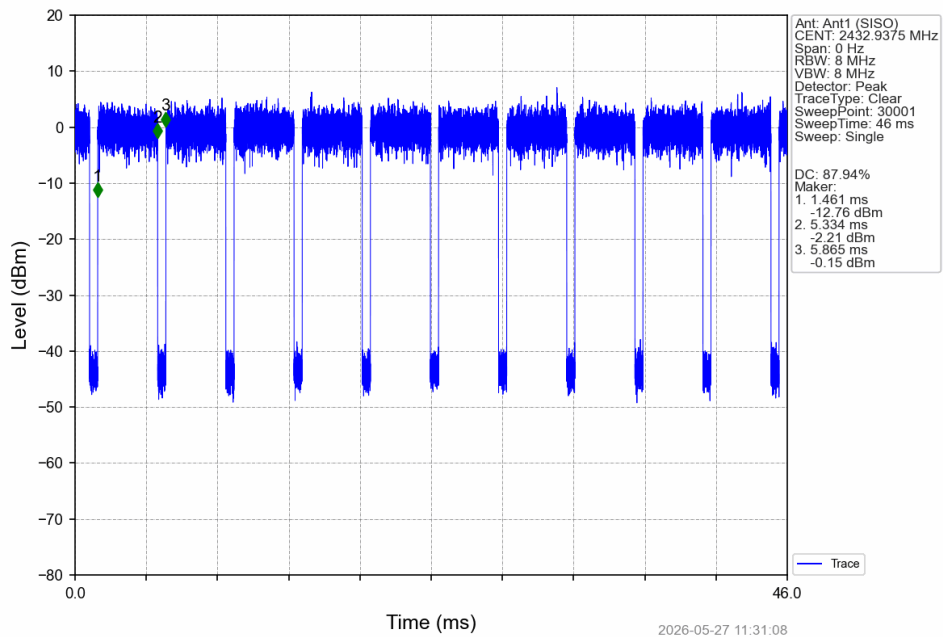
802.11ax(HEW40) LCH 2422MHz SU / Ant1 (SISO) NTNv



802.11ax(HEW40) MCH 2437MHz SU / Ant1 (SISO) NTN



802.11ax(HEW40) HCH 2452MHz SU / Ant1 (SISO) NTN



2. Bandwidth

2.1 Test Result

2.1.1 OBW

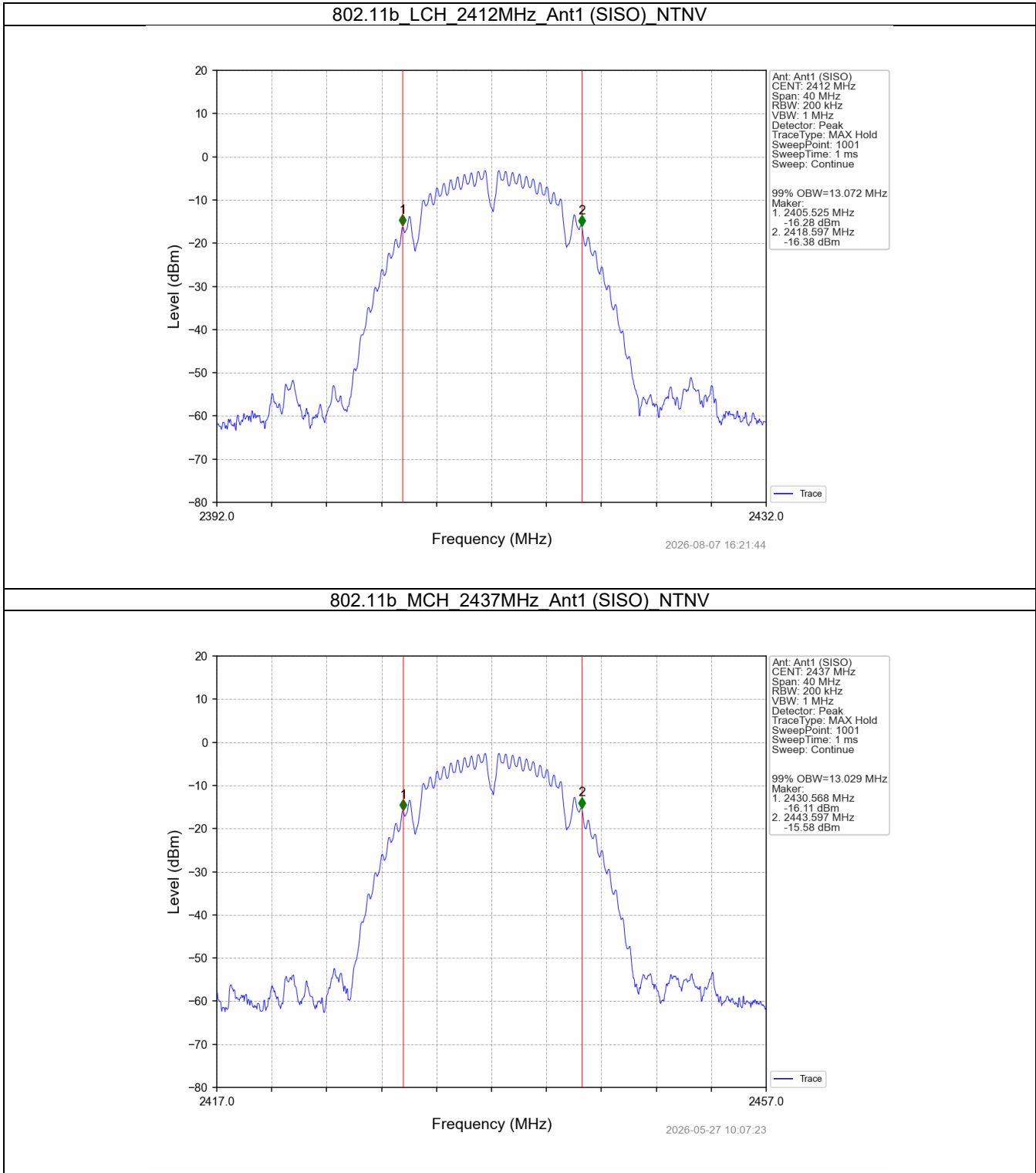
Mode	TX Type	Frequency (MHz)	RU	RU Pos	ANT	99% Occupied Bandwidth (MHz)		Verdict
						Result	Limit	
802.11b	SISO	2412	/	/	1	13.072	/	Pass
		2437	/	/	1	13.029	/	Pass
		2462	/	/	1	13.004	/	Pass
802.11g	SISO	2412	/	/	1	16.710	/	Pass
		2437	/	/	1	16.681	/	Pass
		2462	/	/	1	16.705	/	Pass
802.11n (HT20)	SISO	2412	/	/	1	17.925	/	Pass
		2437	/	/	1	17.867	/	Pass
		2462	/	/	1	17.864	/	Pass
802.11n (HT40)	SISO	2422	/	/	1	37.286	/	Pass
		2437	/	/	1	37.240	/	Pass
		2452	/	/	1	37.254	/	Pass
802.11ax (HEW20)	SISO	2412	SU	/	1	19.082	/	Pass
		2437	SU	/	1	19.039	/	Pass
		2462	SU	/	1	19.039	/	Pass
802.11ax (HEW40)	SISO	2422	SU	/	1	38.345	/	Pass
		2437	SU	/	1	38.318	/	Pass
		2452	SU	/	1	38.308	/	Pass

2.1.2 6dB BW

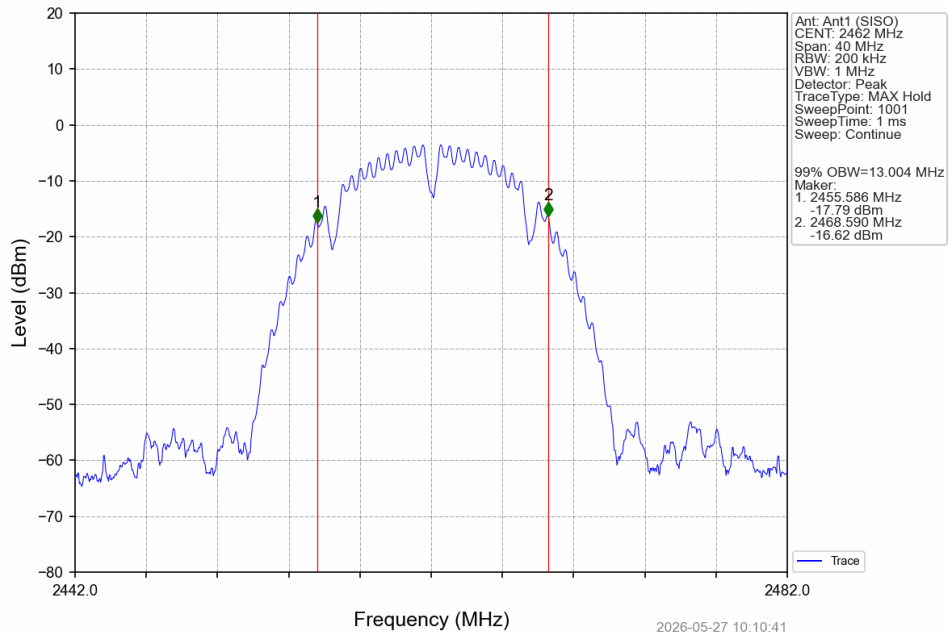
Mode	TX Type	Frequency (MHz)	RU	RU Pos	ANT	6dB Bandwidth (MHz)		Verdict
						Result	Limit	
802.11b	SISO	2412	/	/	1	9.174	>=0.5	Pass
		2437	/	/	1	9.168	>=0.5	Pass
		2462	/	/	1	9.164	>=0.5	Pass
802.11g	SISO	2412	/	/	1	16.381	>=0.5	Pass
		2437	/	/	1	16.401	>=0.5	Pass
		2462	/	/	1	16.388	>=0.5	Pass
802.11n (HT20)	SISO	2412	/	/	1	17.602	>=0.5	Pass
		2437	/	/	1	17.539	>=0.5	Pass
		2462	/	/	1	17.615	>=0.5	Pass
802.11n (HT40)	SISO	2422	/	/	1	36.357	>=0.5	Pass
		2437	/	/	1	35.836	>=0.5	Pass
		2452	/	/	1	36.284	>=0.5	Pass
802.11ax (HEW20)	SISO	2412	SU	/	1	18.943	>=0.5	Pass
		2437	SU	/	1	18.921	>=0.5	Pass
		2462	SU	/	1	18.946	>=0.5	Pass
802.11ax (HEW40)	SISO	2422	SU	/	1	37.606	>=0.5	Pass
		2437	SU	/	1	37.274	>=0.5	Pass
		2452	SU	/	1	37.535	>=0.5	Pass

2.2 Test Graph

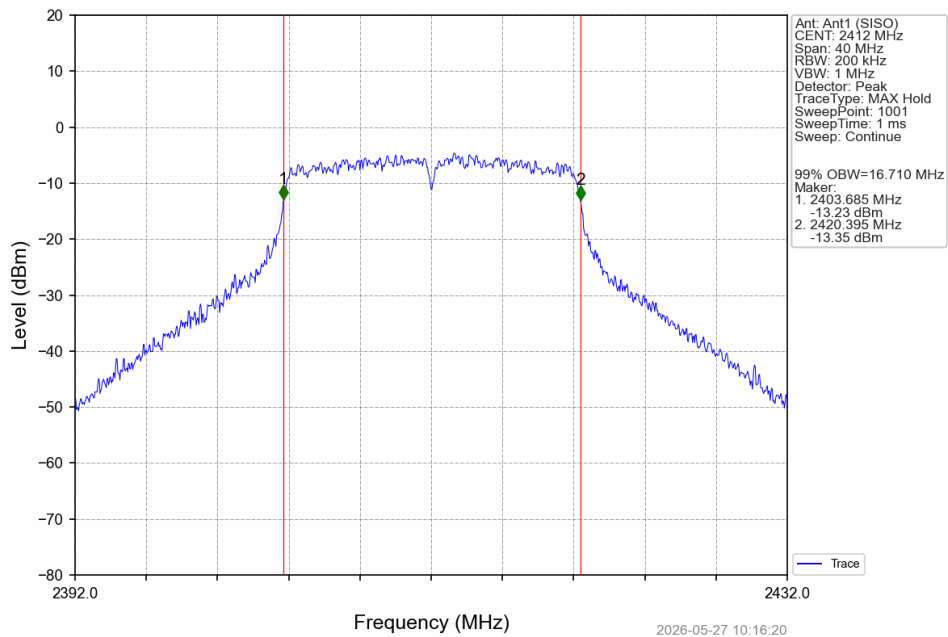
2.2.1 OBW



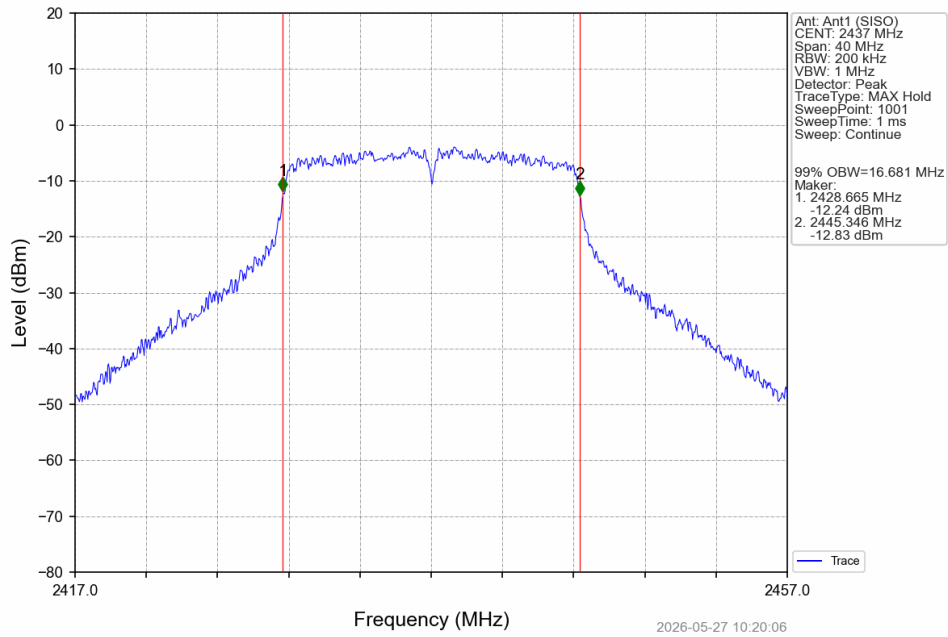
802.11b HCH 2462MHz Ant1 (SISO) NTN



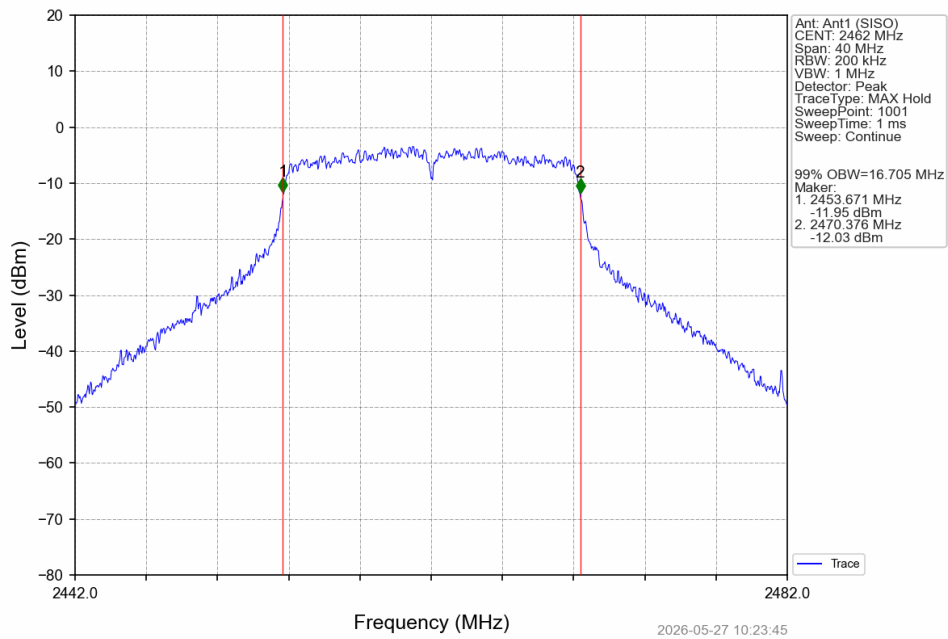
802.11g LCH 2412MHz Ant1 (SISO) NTN



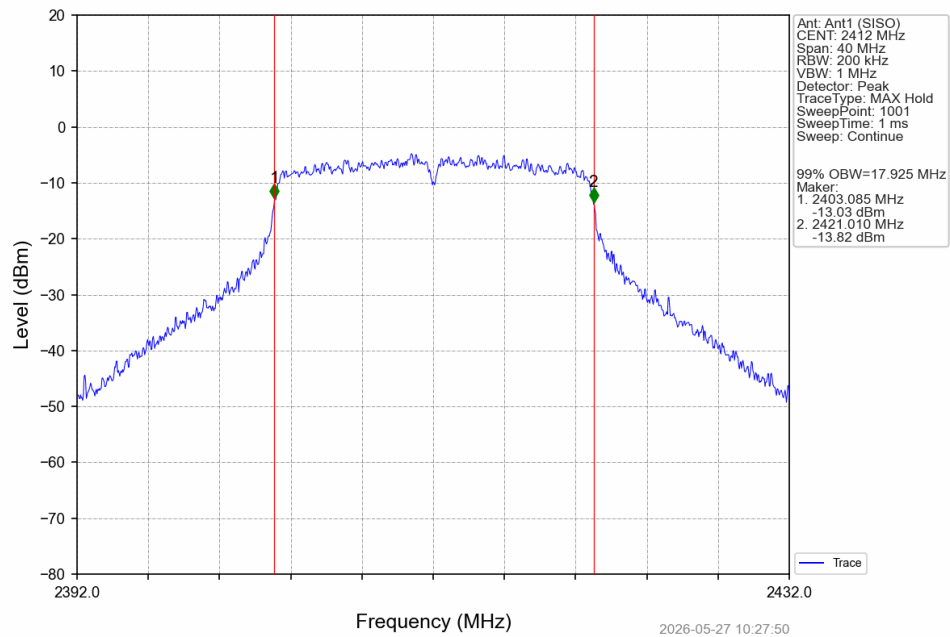
802.11g MCH 2437MHz Ant1 (SISO) NTN



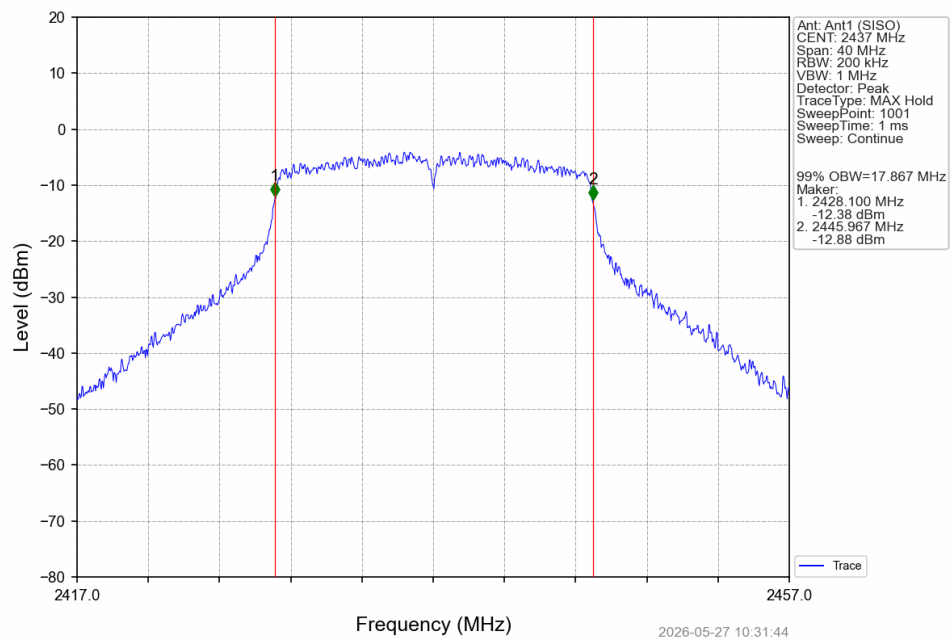
802.11g_HCH_2462MHz_Ant1 (SISO)_NTN



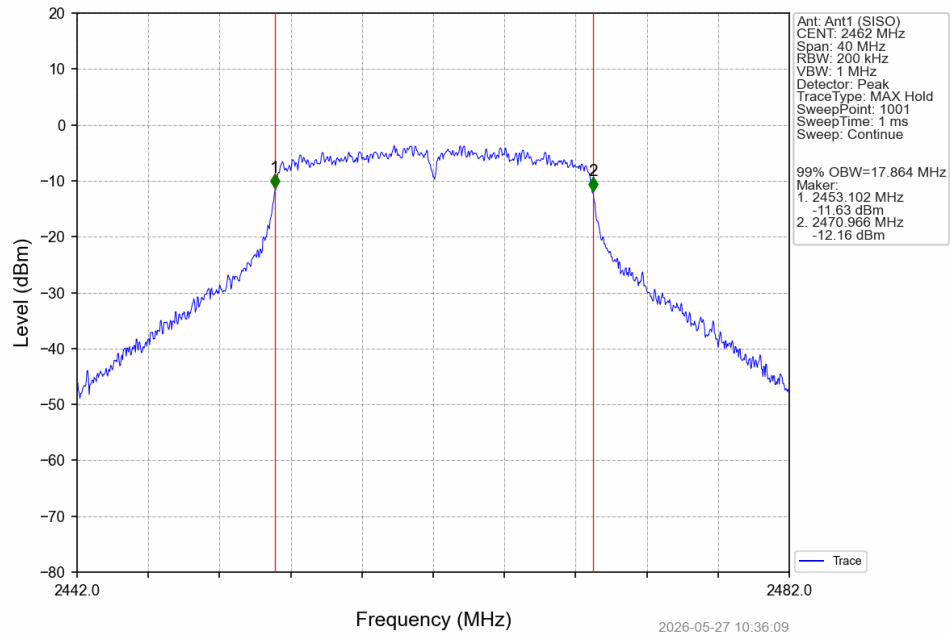
802.11n(HT20) LCH 2412MHz Ant1 (SISO) NTN



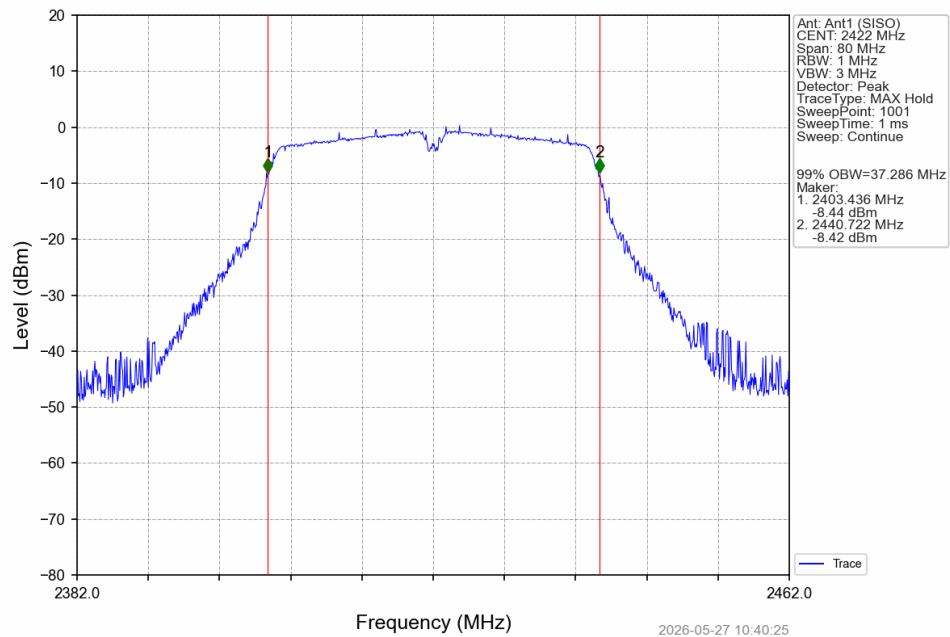
802.11n(HT20) MCH 2437MHz Ant1 (SISO) NTN



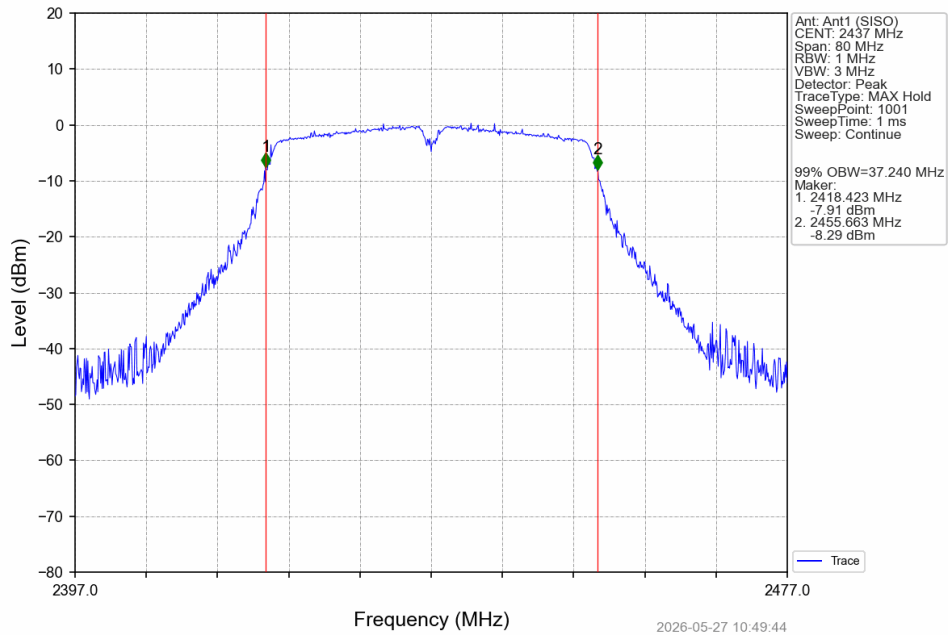
802.11n(HT20) HCH 2462MHz Ant1 (SISO) NTN



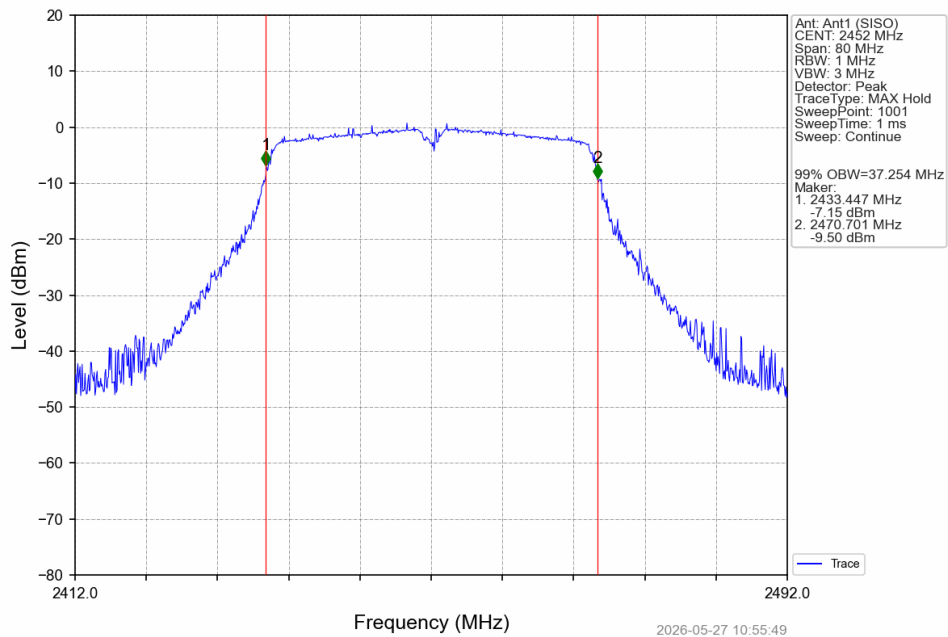
802.11n(HT40) LCH 2422MHz Ant1 (SISO) NTN



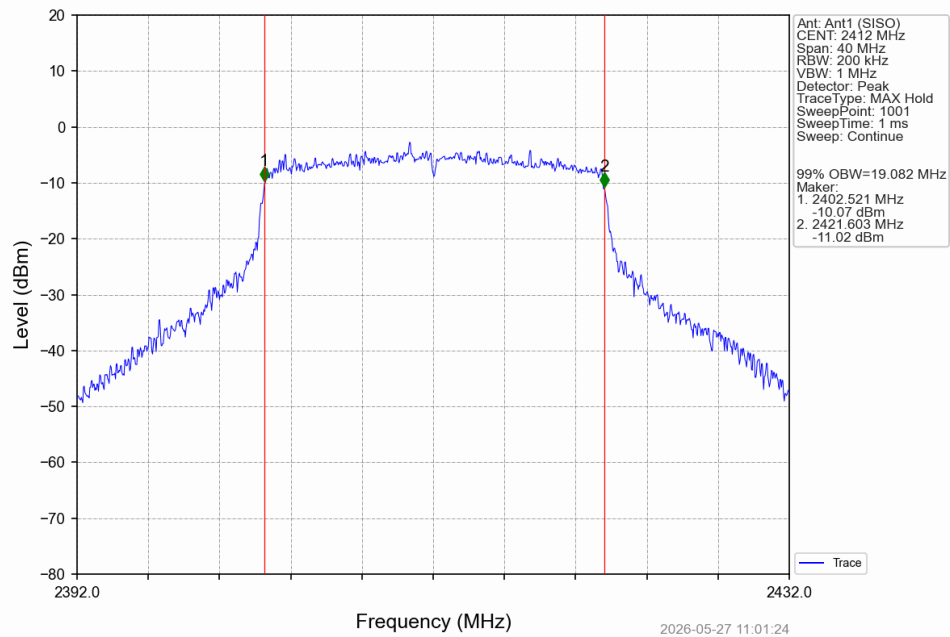
802.11n(HT40) MCH_2437MHz_Ant1 (SISO) NTN



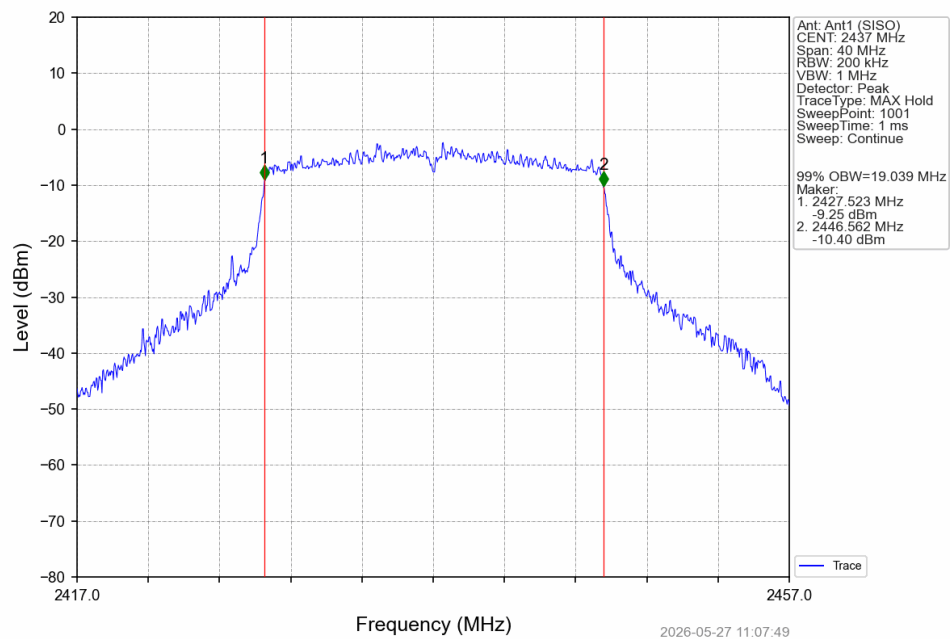
802.11n(HT40) HCH_2452MHz_Ant1 (SISO) NTN



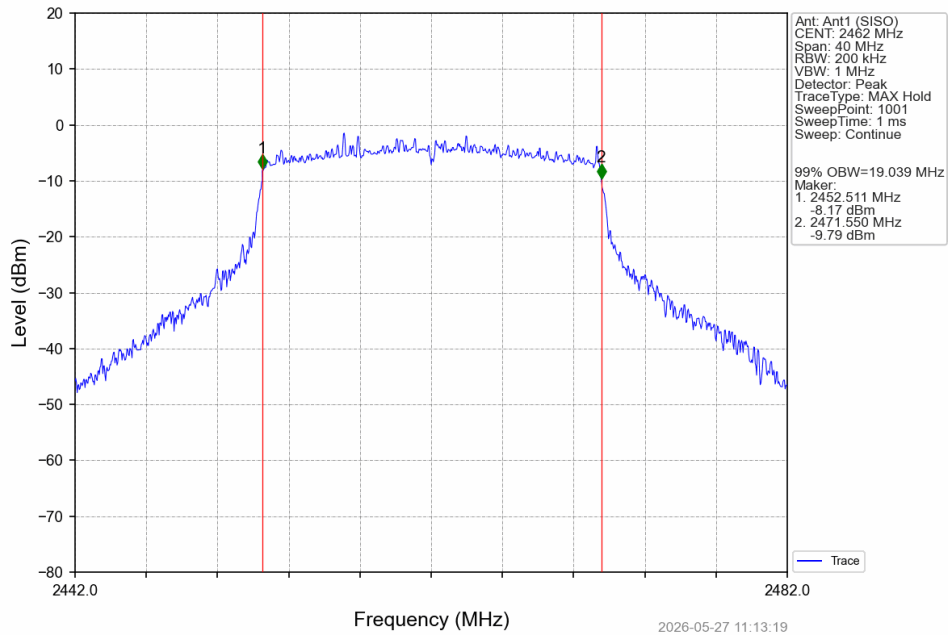
802.11ax(HEW20) LCH 2412MHz SU / Ant1 (SISO) NTN



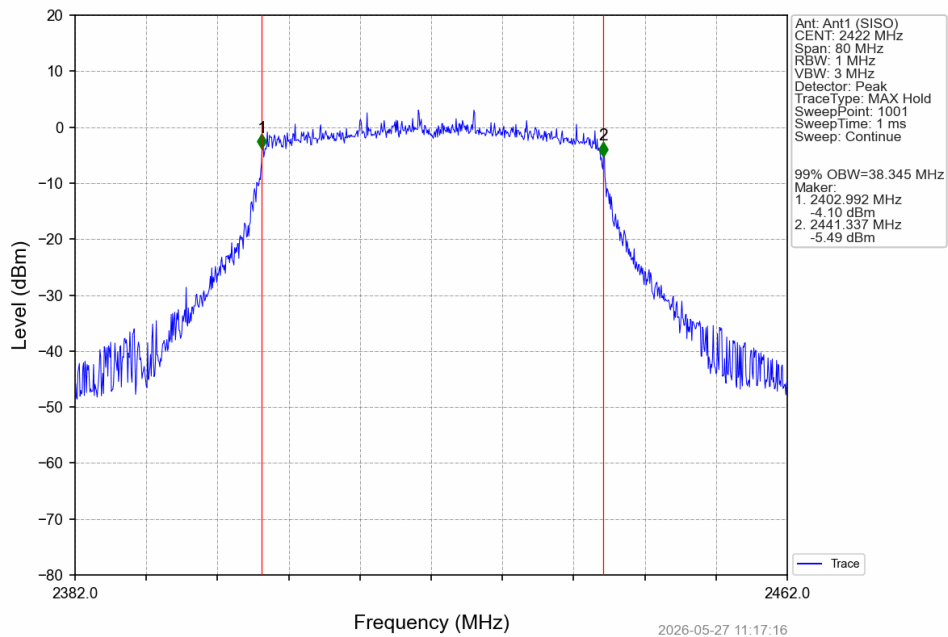
802.11ax(HEW20)_MCH 2437MHz SU / Ant1 (SISO) NTN



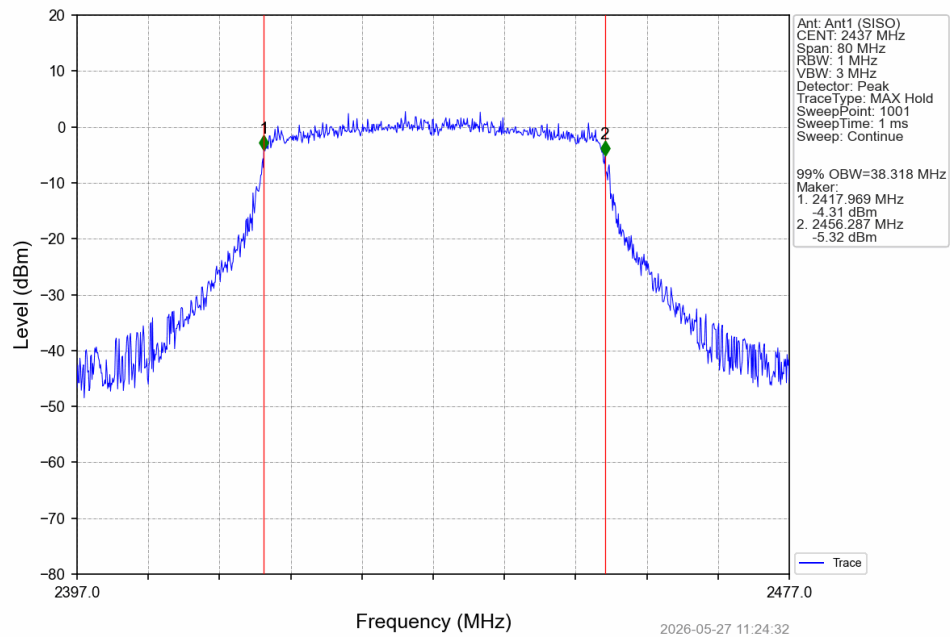
802.11ax(HEW20) HCH 2462MHz SU / Ant1 (SISO) NTNv



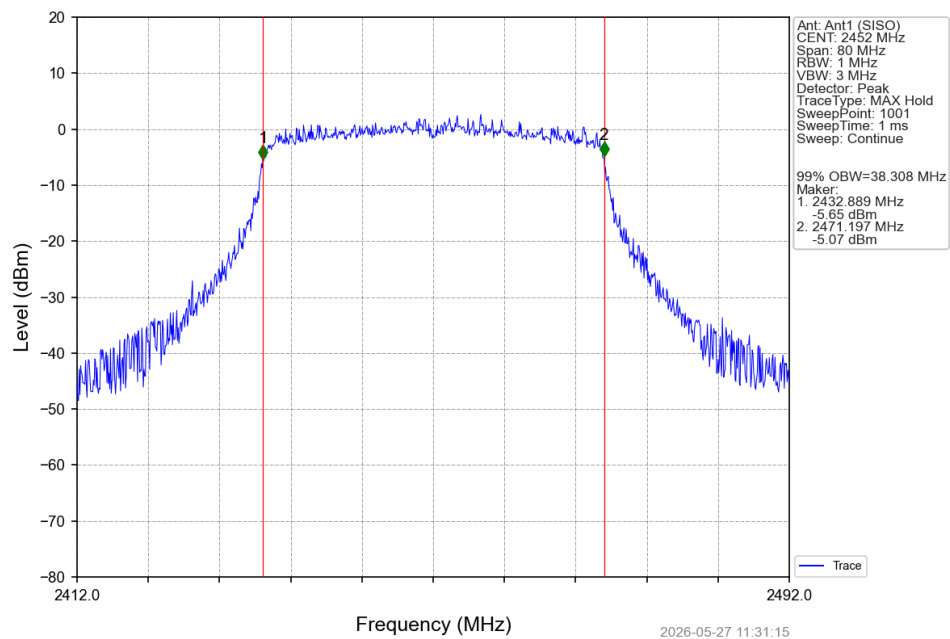
802.11ax(HEW40) LCH 2422MHz SU / Ant1 (SISO) NTNv



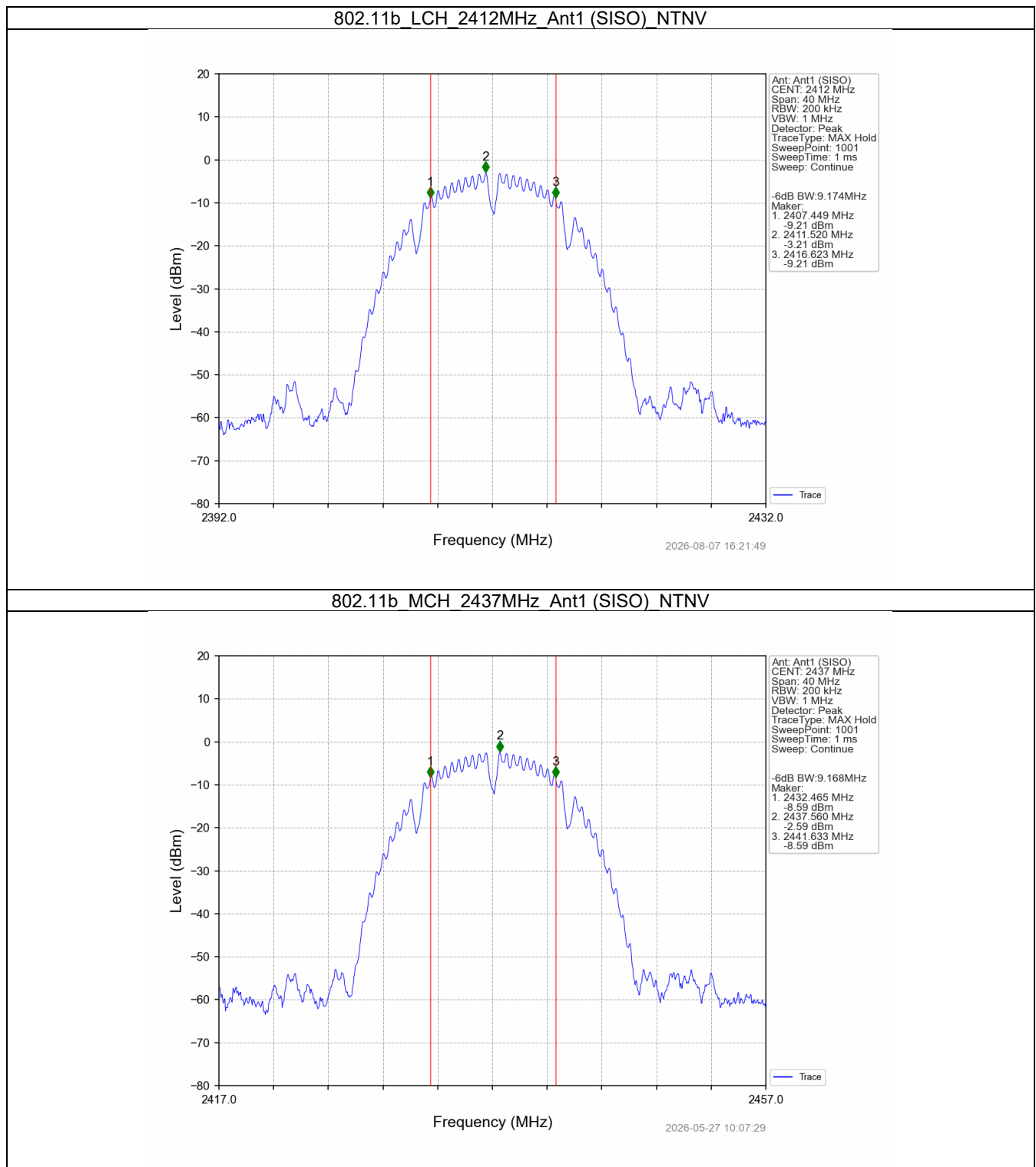
802.11ax(HEW40) MCH 2437MHz SU / Ant1 (SISO) NTN



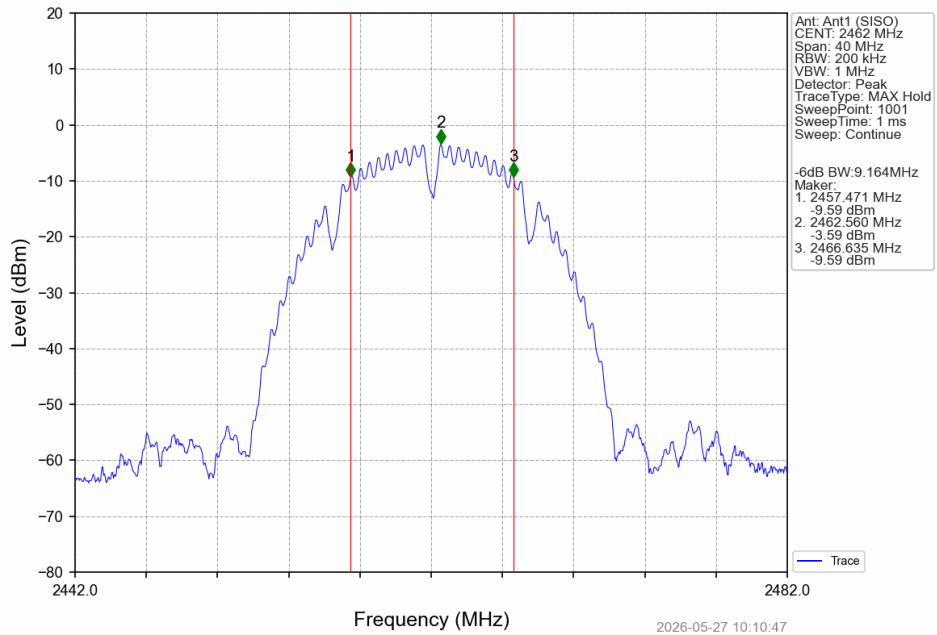
802.11ax(HEW40) HCH 2452MHz SU / Ant1 (SISO) NTN



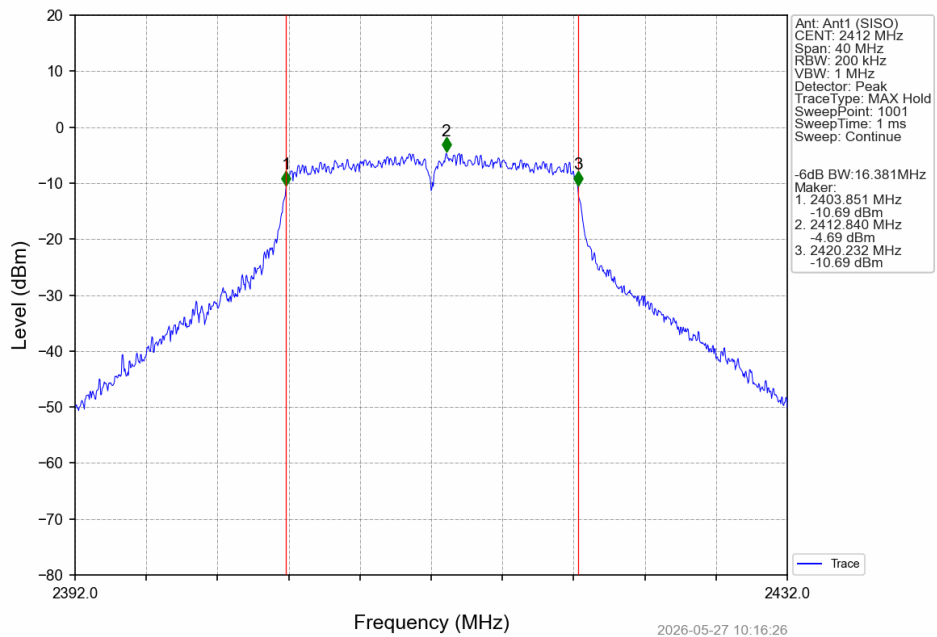
2.2.2 6dB BW



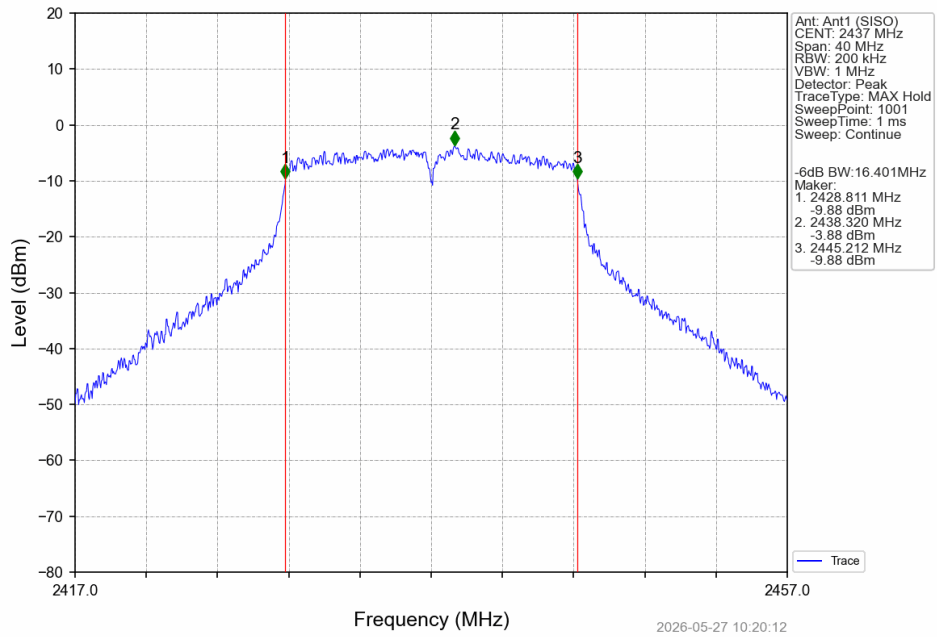
802.11b HCH 2462MHz Ant1 (SISO) NTN



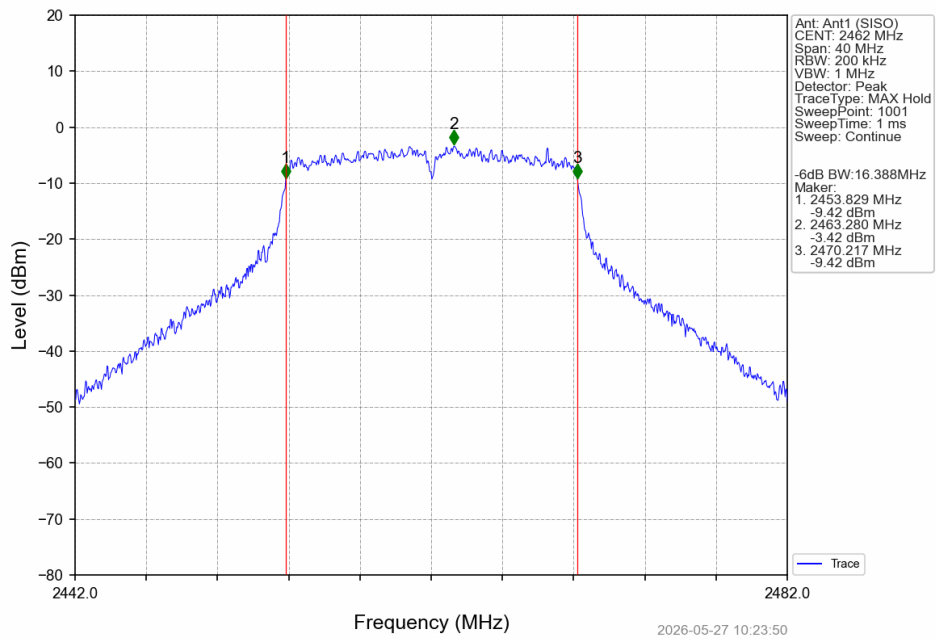
802.11g LCH 2412MHz Ant1 (SISO) NTN



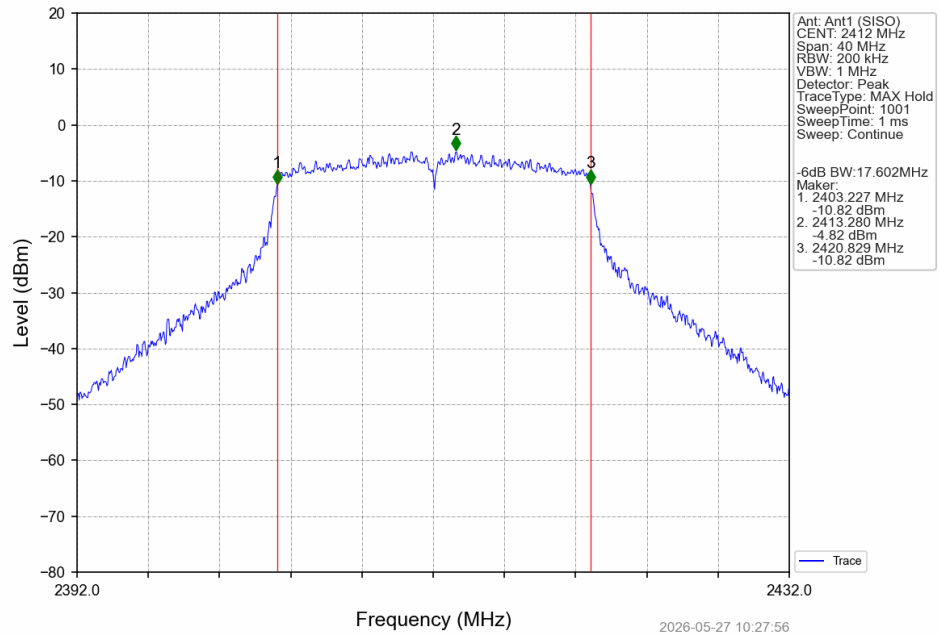
802.11g_MCH_2437MHz_Ant1 (SISO)_NTNV



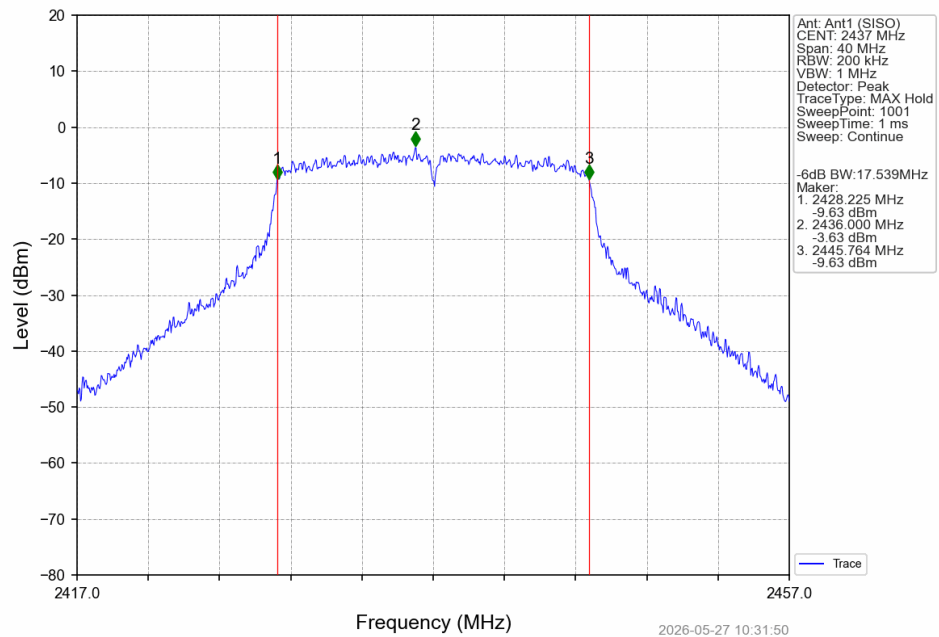
802.11g_HCH_2462MHz_Ant1 (SISO)_NTNV



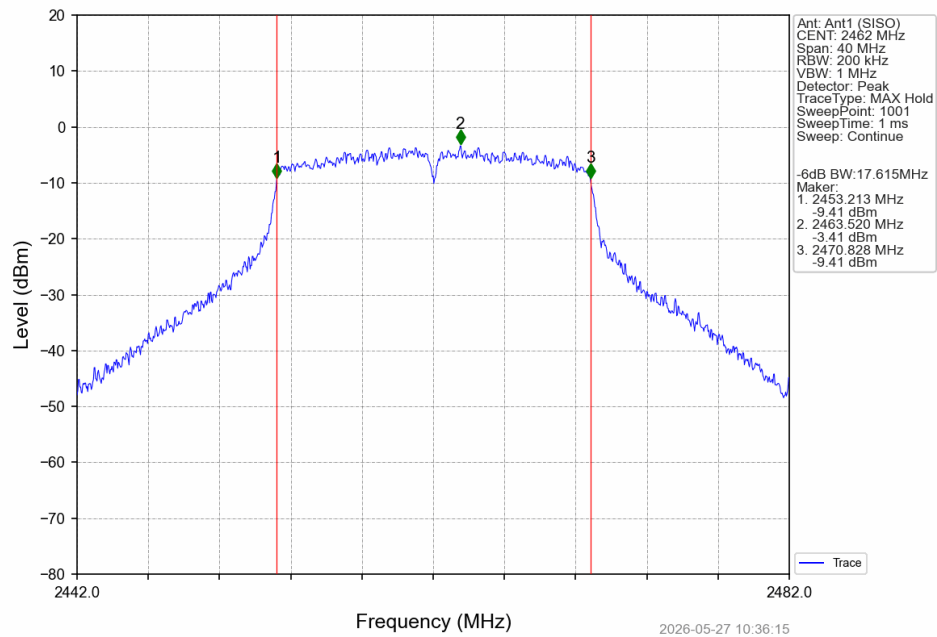
802.11n(HT20) LCH 2412MHz Ant1 (SISO) NTN



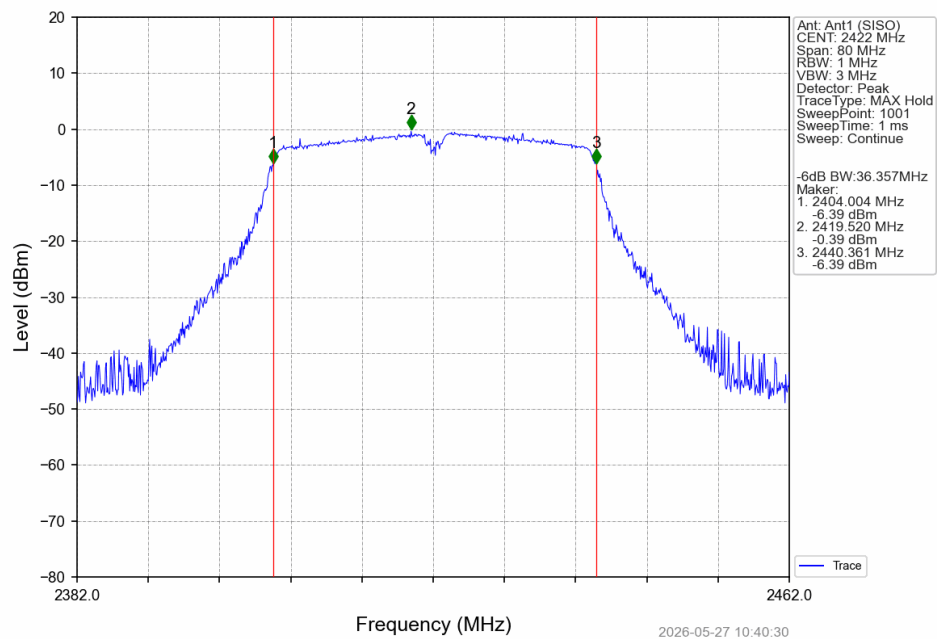
802.11n(HT20) MCH 2437MHz Ant1 (SISO) NTN



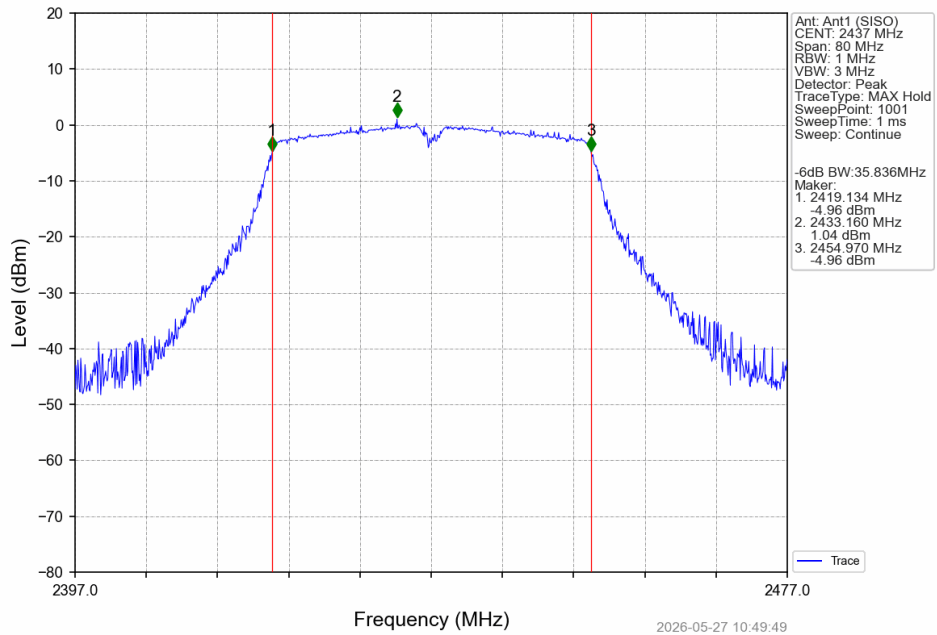
802.11n(HT20) HCH 2462MHz Ant1 (SISO) NTNV



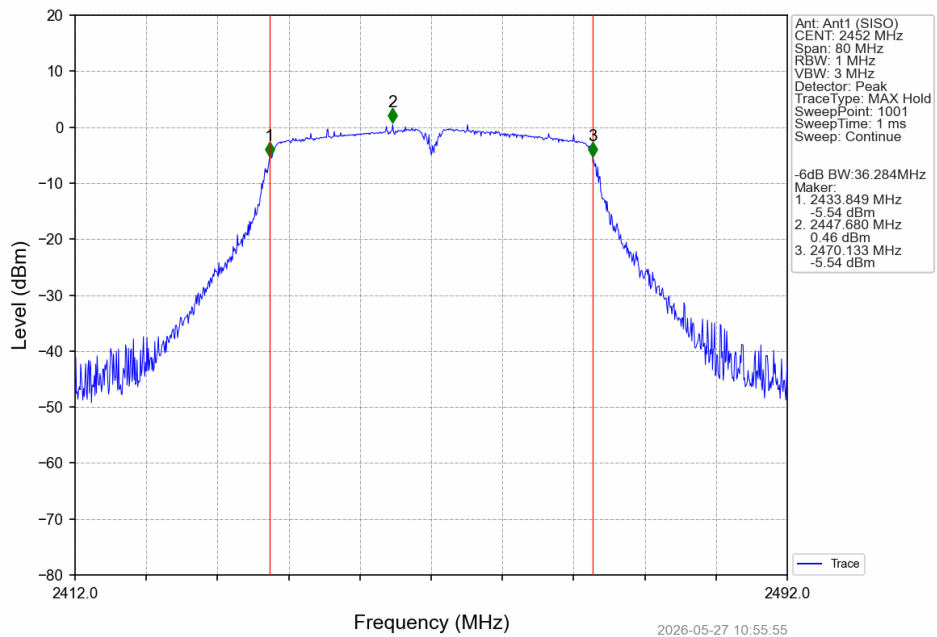
802.11n(HT40) LCH 2422MHz Ant1 (SISO) NTNV



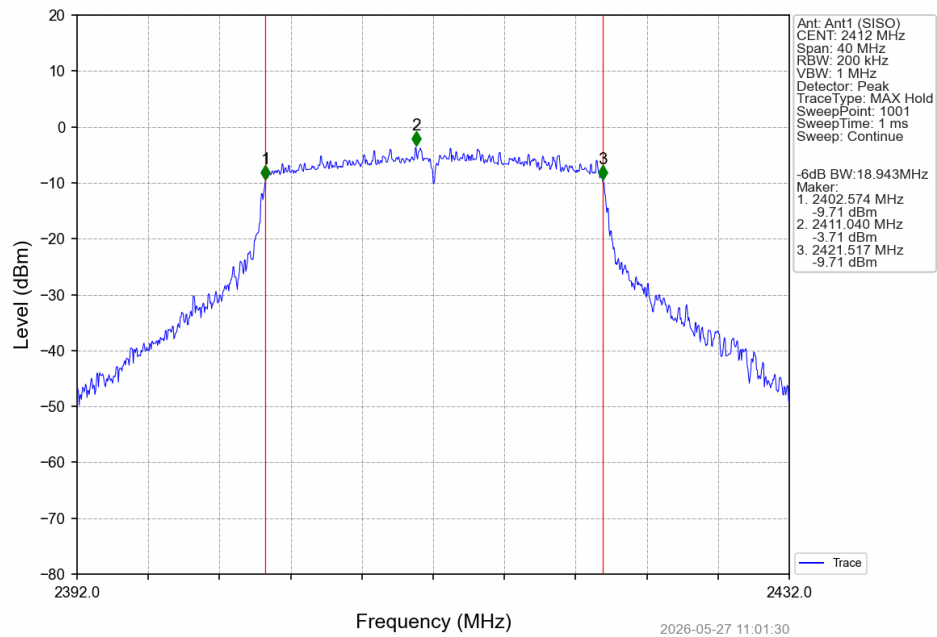
802.11n(HT40) MCH_2437MHz_Ant1 (SISO) NTN



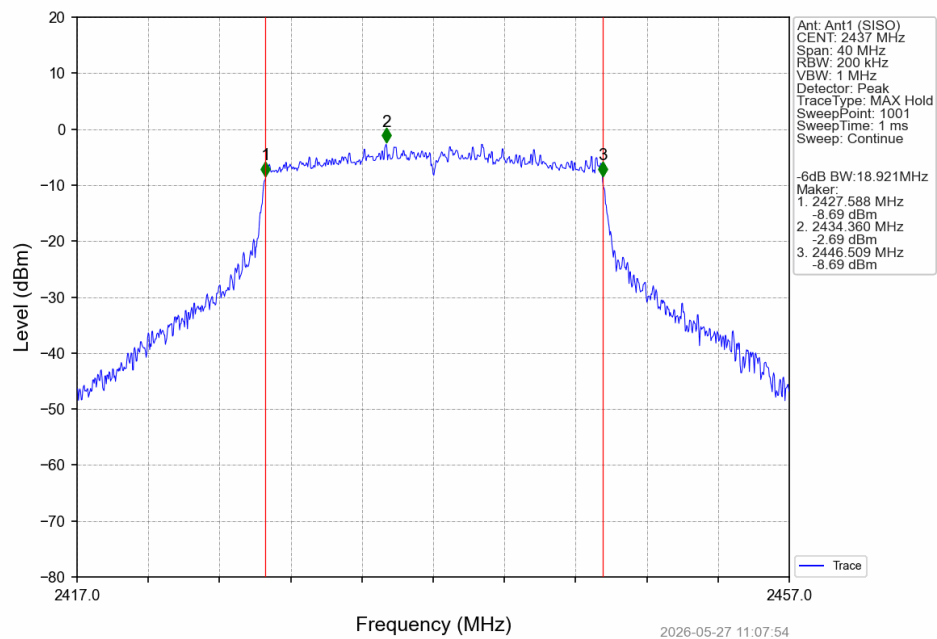
802.11n(HT40)_HCH_2452MHz_Ant1 (SISO)_NTN



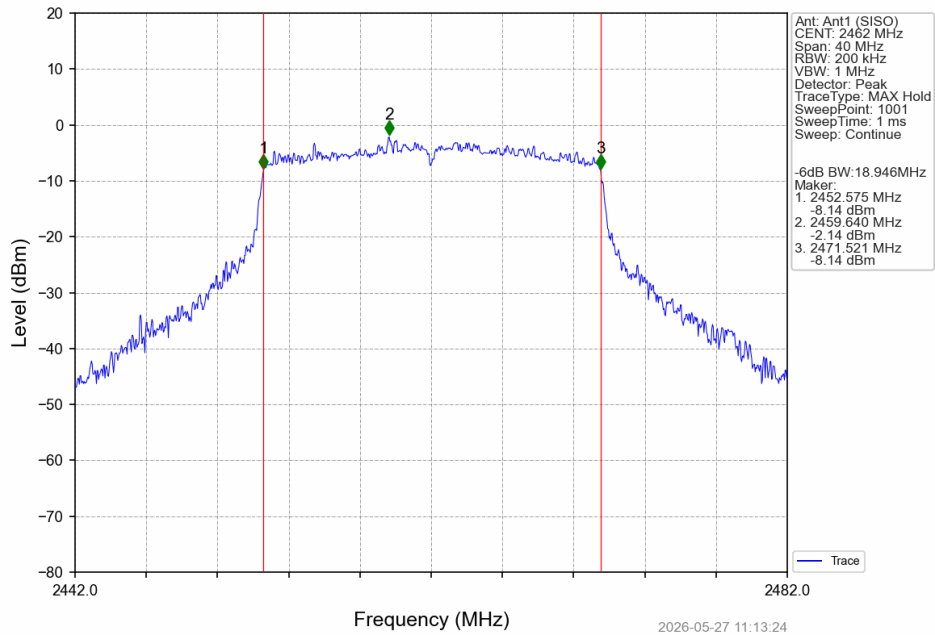
802.11ax(HEW20) LCH 2412MHz SU / Ant1 (SISO) NTN



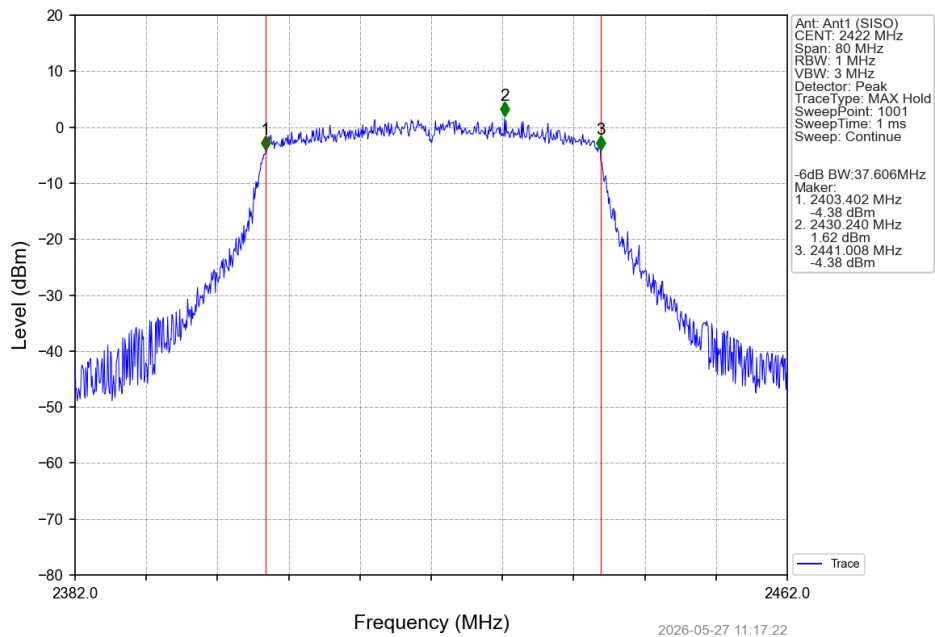
802.11ax(HEW20) MCH 2437MHz SU / Ant1 (SISO) NTN



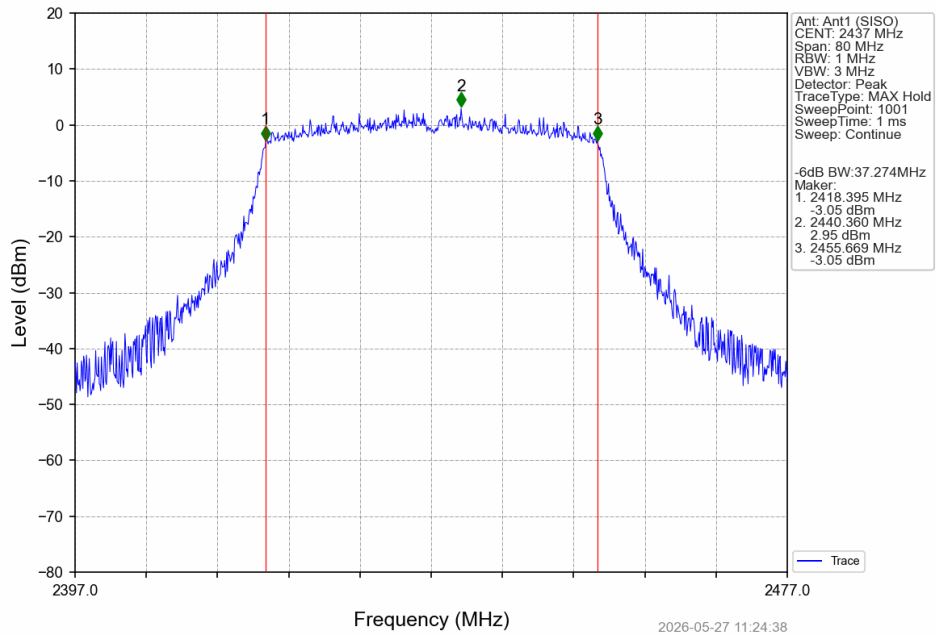
802.11ax(HEW20) HCH 2462MHz SU / Ant1 (SISO) NTNv



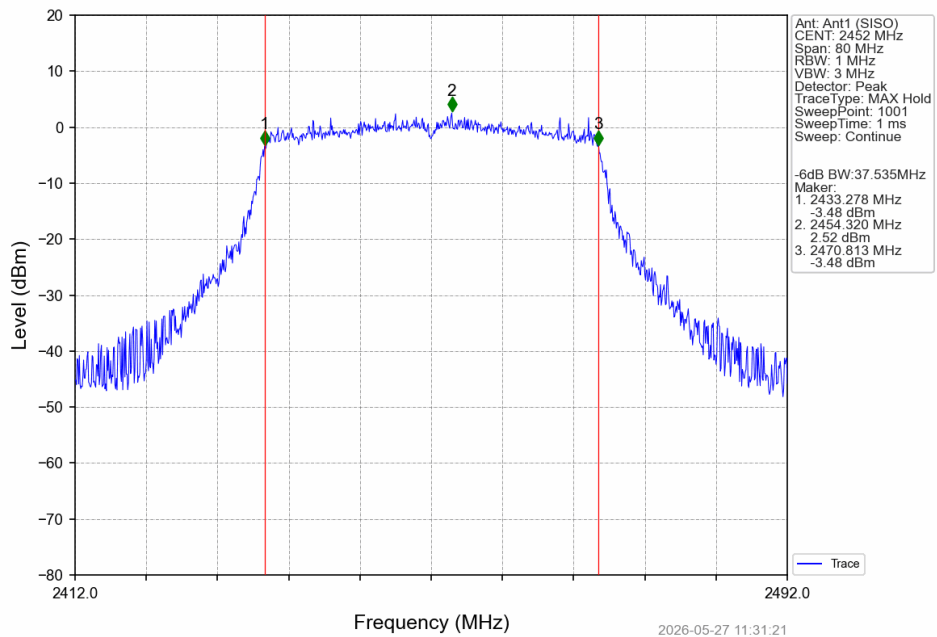
802.11ax(HEW40) LCH 2422MHz SU / Ant1 (SISO) NTNv



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	/	/	7.35	<=30	Pass
		2437	/	/	8.06	<=30	Pass
		2462	/	/	7.05	<=30	Pass
802.11g	SISO	2412	/	/	12.97	<=30	Pass
		2437	/	/	13.68	<=30	Pass
		2462	/	/	14.19	<=30	Pass
802.11n (HT20)	SISO	2412	/	/	12.91	<=30	Pass
		2437	/	/	13.70	<=30	Pass
		2462	/	/	14.21	<=30	Pass
802.11n (HT40)	SISO	2422	/	/	13.23	<=30	Pass
		2437	/	/	13.76	<=30	Pass
		2452	/	/	13.79	<=30	Pass
802.11ax (HEW20)	SISO	2412	SU	/	14.10	<=30	Pass
		2437	SU	/	14.95	<=30	Pass
		2462	SU	/	15.43	<=30	Pass
802.11ax (HEW40)	SISO	2422	SU	/	14.41	<=30	Pass
		2437	SU	/	14.84	<=30	Pass
		2452	SU	/	14.87	<=30	Pass

4. Maximum Power Spectral Density

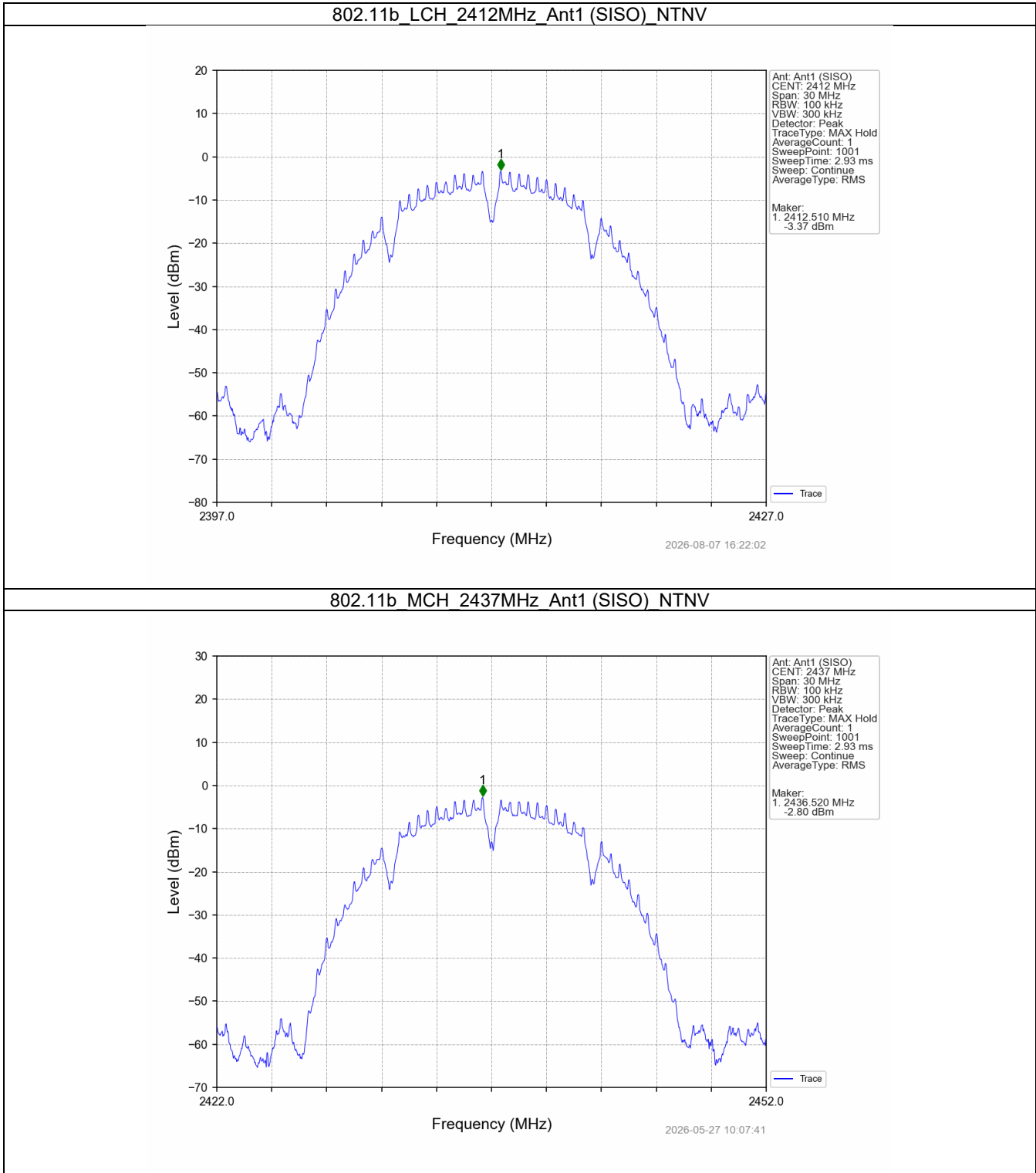
4.1 Test Result

4.1.1 PSD

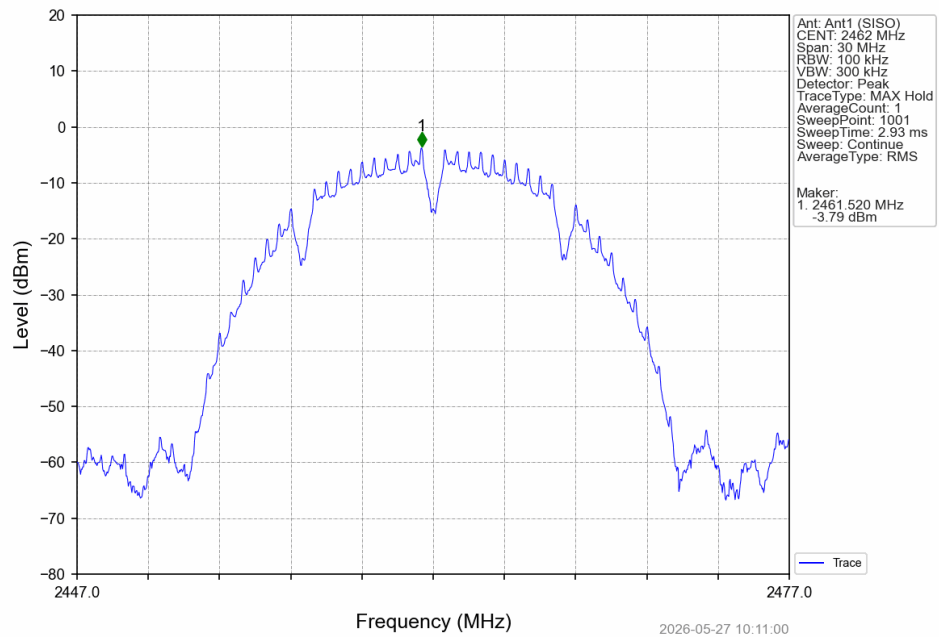
Mode	TX Type	Frequency (MHz)	RU	RU Pos	Maximum PSD (dBm)		Verdict
					ANT1	Limit(dBm/3kHz)	
802.11b	SISO	2412	/	/	-3.37dBm/100kHz	<=8	Pass
		2437	/	/	-2.80dBm/100kHz	<=8	Pass
		2462	/	/	-3.79dBm/100kHz	<=8	Pass
802.11g	SISO	2412	/	/	-6.08dBm/100kHz	<=8	Pass
		2437	/	/	-4.91dBm/100kHz	<=8	Pass
		2462	/	/	-4.29dBm/100kHz	<=8	Pass
802.11n (HT20)	SISO	2412	/	/	-5.53dBm/100kHz	<=8	Pass
		2437	/	/	-4.78dBm/100kHz	<=8	Pass
		2462	/	/	-4.71dBm/100kHz	<=8	Pass
802.11n (HT40)	SISO	2422	/	/	-8.74dBm/100kHz	<=8	Pass
		2437	/	/	-8.57dBm/100kHz	<=8	Pass
		2452	/	/	-8.80dBm/100kHz	<=8	Pass
802.11ax (HEW20)	SISO	2412	SU	/	-5.48dBm/100kHz	<=8	Pass
		2437	SU	/	-5.78dBm/100kHz	<=8	Pass
		2462	SU	/	-4.14dBm/100kHz	<=8	Pass
802.11ax (HEW40)	SISO	2422	SU	/	-8.42dBm/100kHz	<=8	Pass
		2437	SU	/	-8.15dBm/100kHz	<=8	Pass
		2452	SU	/	-8.51dBm/100kHz	<=8	Pass

4.2 Test Graph

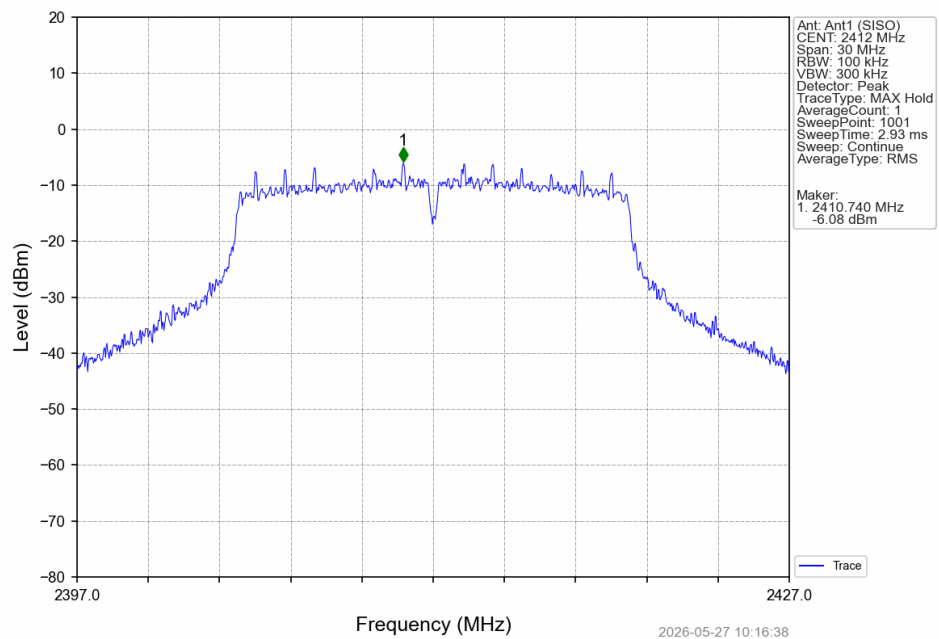
4.2.1 PSD



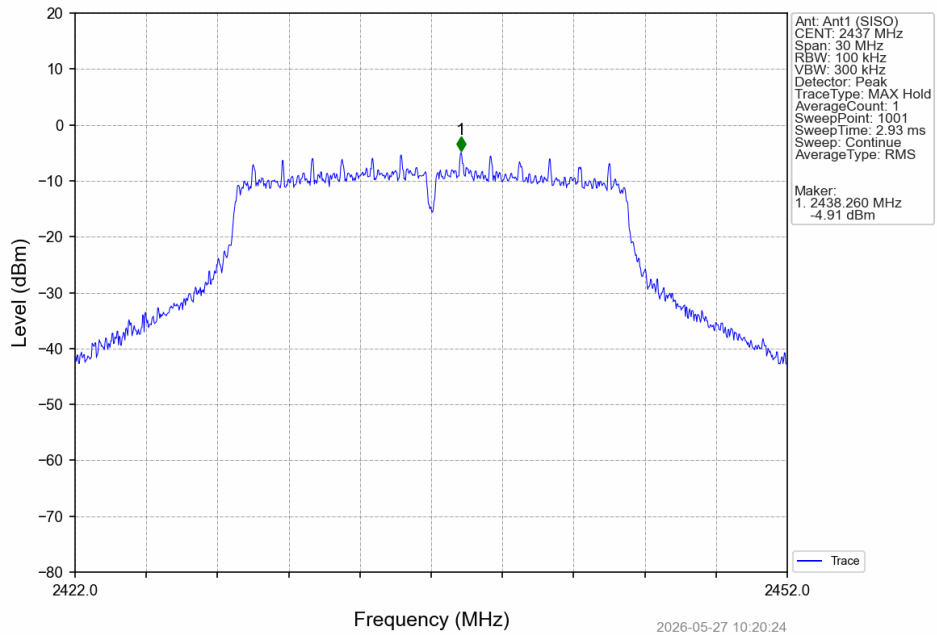
802.11b HCH 2462MHz Ant1 (SISO) NTN



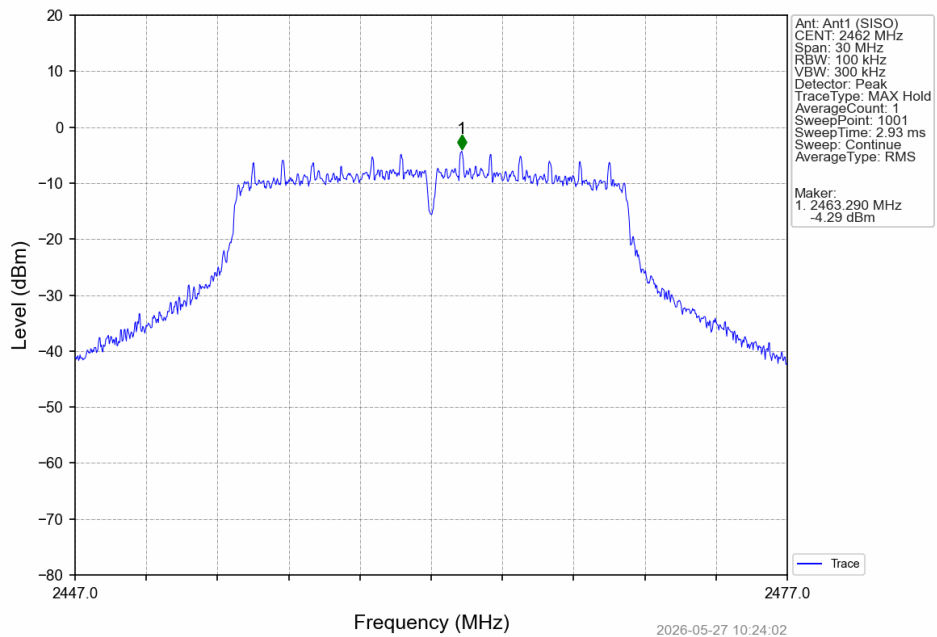
802.11g LCH 2412MHz Ant1 (SISO) NTN



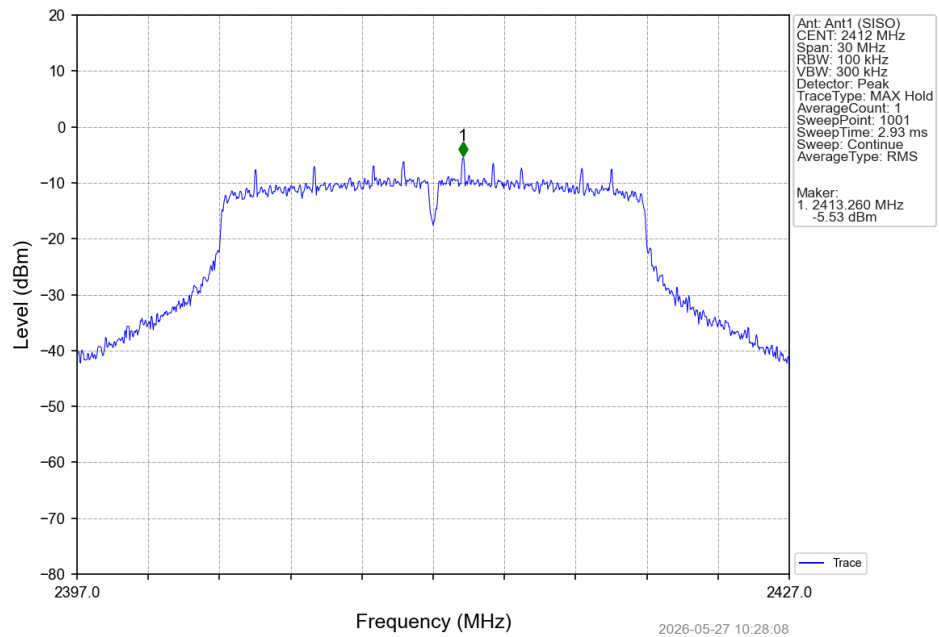
802.11g_MCH_2437MHz_Ant1 (SISO) NTN



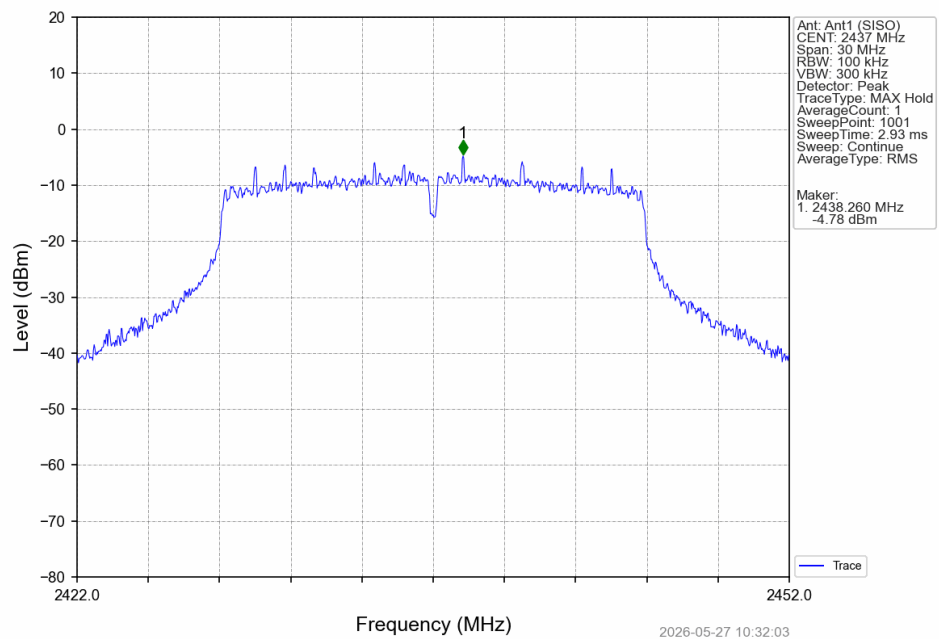
802.11g_HCH_2462MHz_Ant1 (SISO) NTN



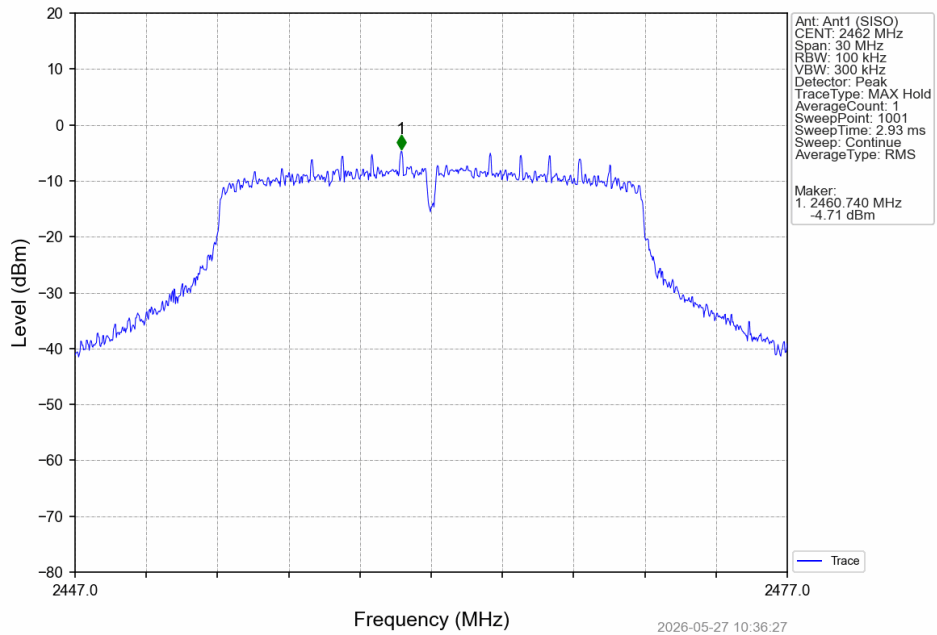
802.11n(HT20) LCH 2412MHz Ant1 (SISO) NTN



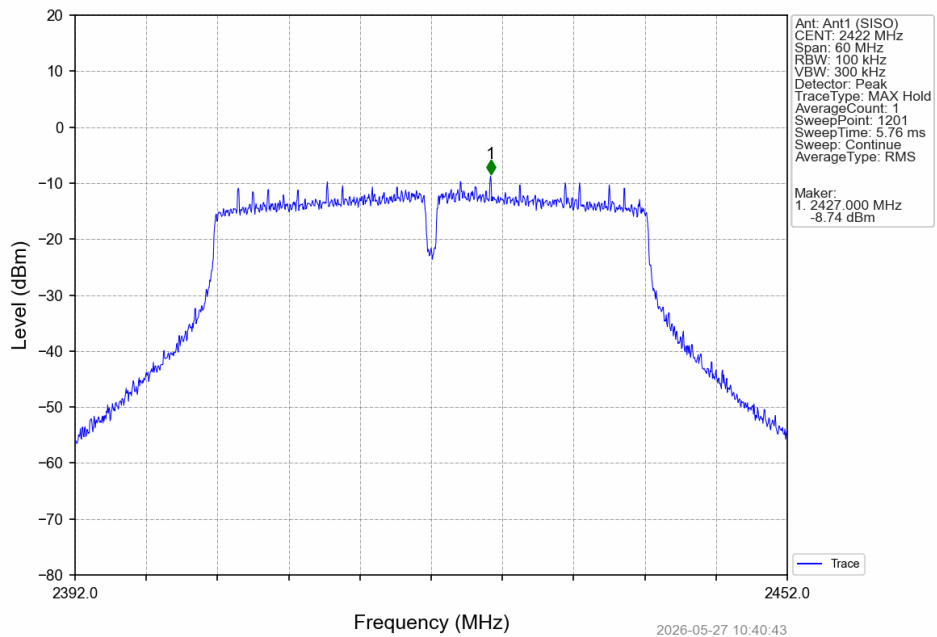
802.11n(HT20) MCH 2437MHz Ant1 (SISO) NTN



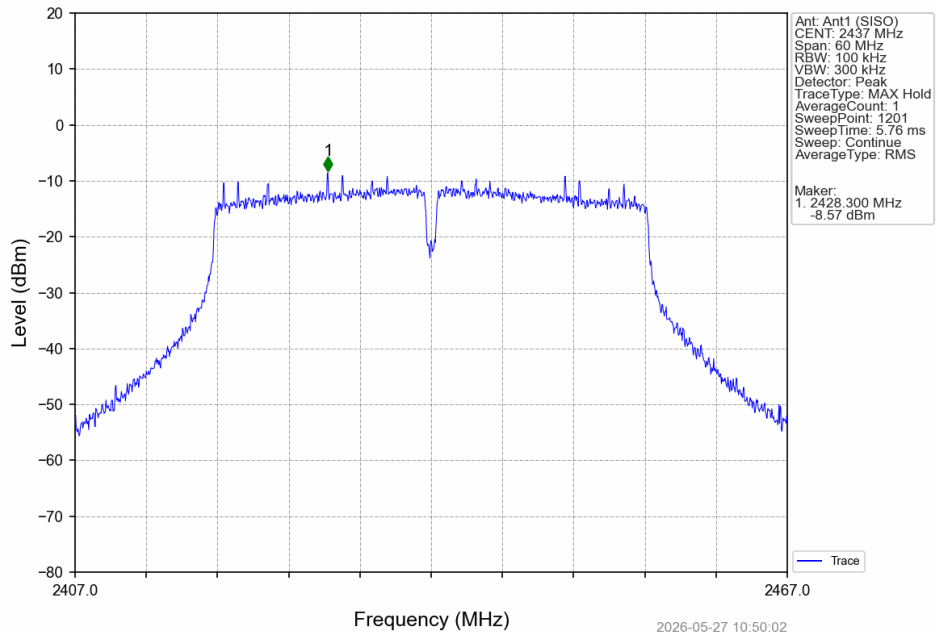
802.11n(HT20) HCH 2462MHz Ant1 (SISO) NTN



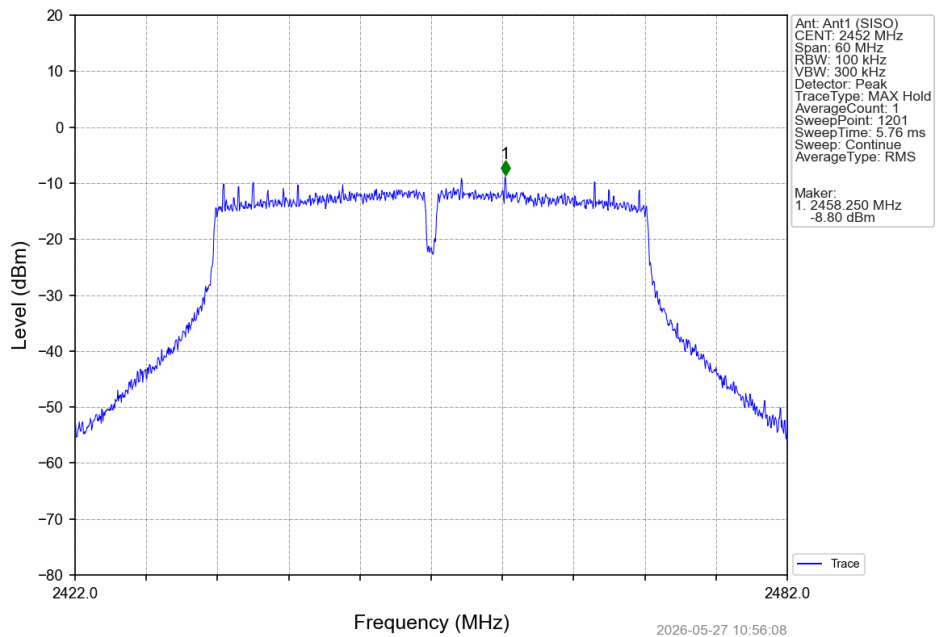
802.11n(HT40) LCH 2422MHz Ant1 (SISO) NTN



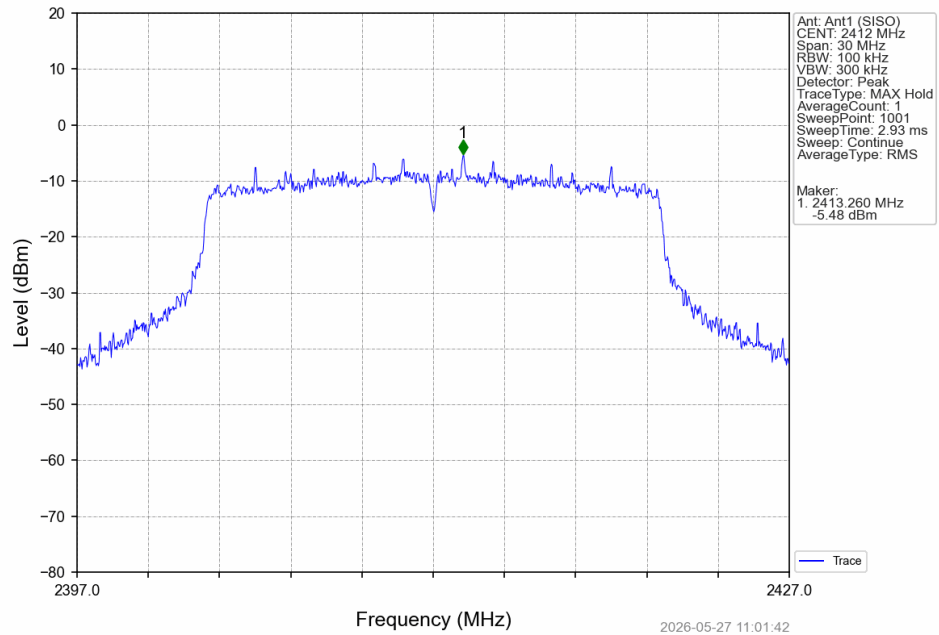
802.11n(HT40) MCH_2437MHz_Ant1 (SISO) NTN



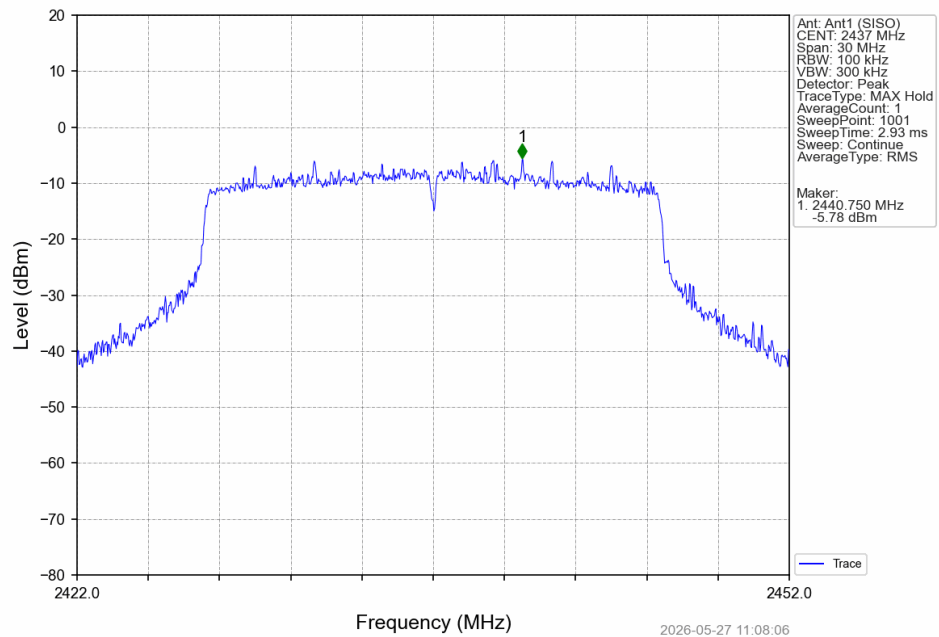
802.11n(HT40) HCH_2452MHz_Ant1 (SISO) NTN



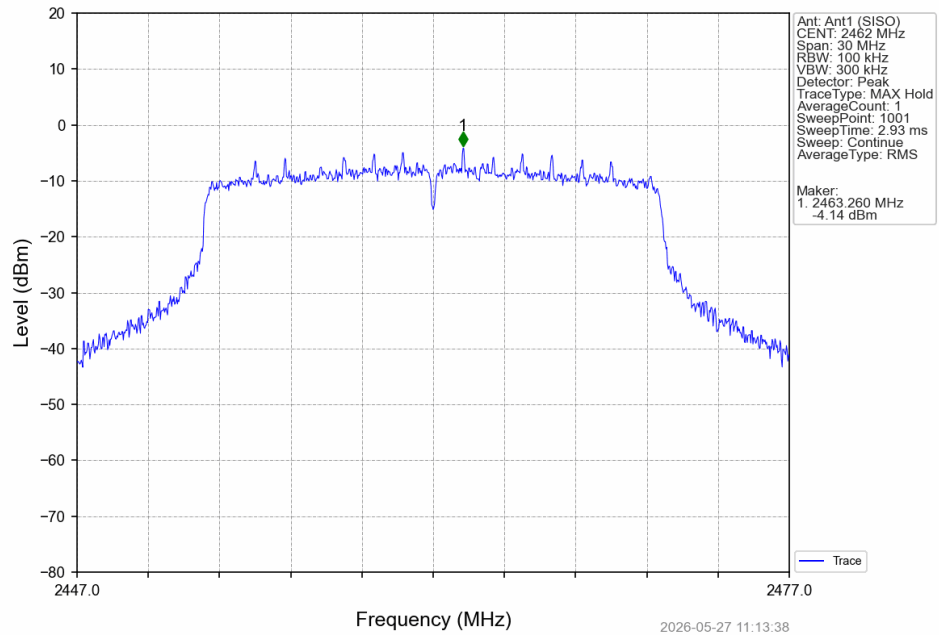
802.11ax(HEW20) LCH 2412MHz SU / Ant1 (SISO) NTN



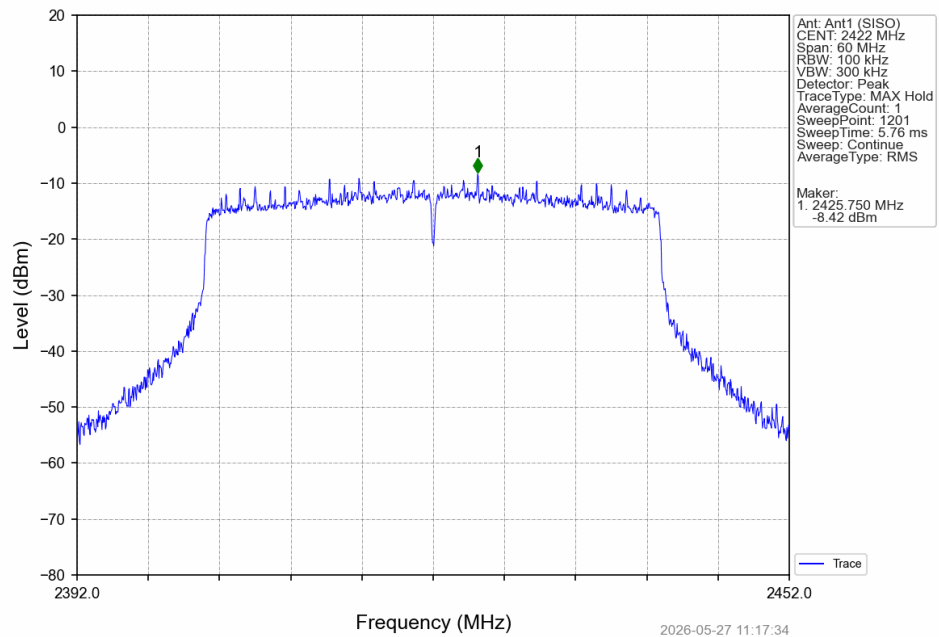
802.11ax(HEW20) MCH 2437MHz SU / Ant1 (SISO) NTN



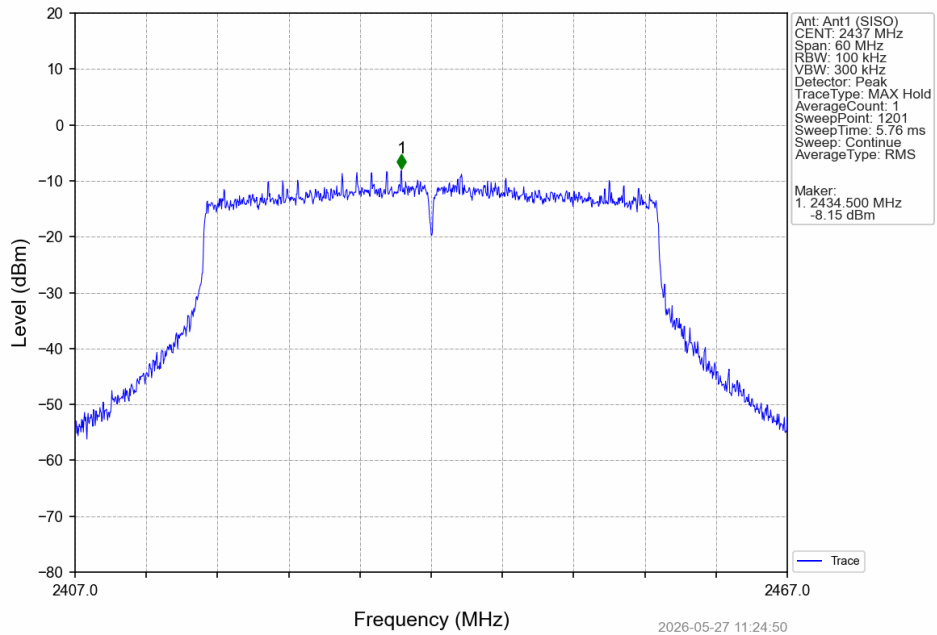
802.11ax(HEW20) HCH 2462MHz SU / Ant1 (SISO) NTNv



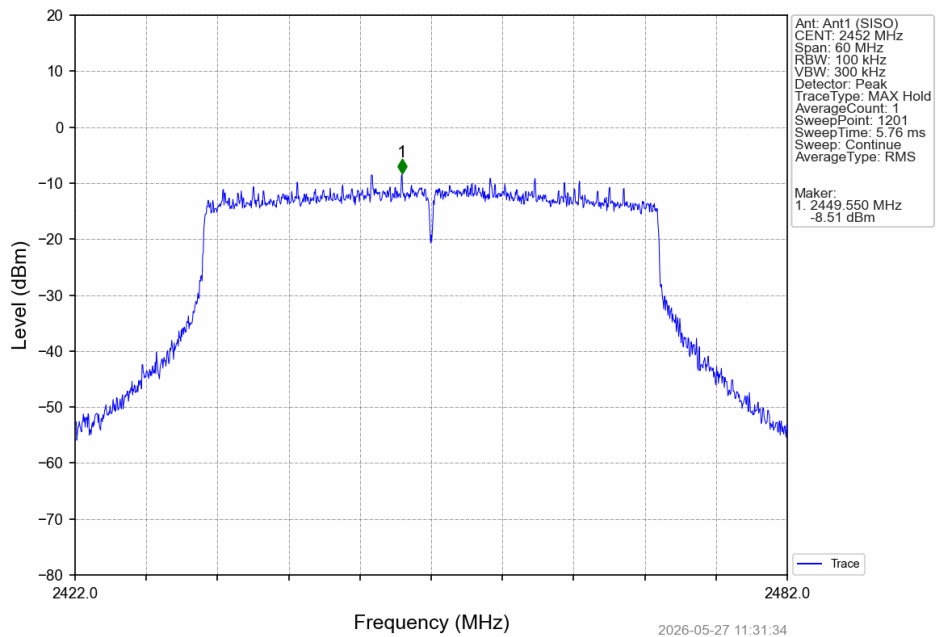
802.11ax(HEW40) LCH 2422MHz SU / Ant1 (SISO) NTNv



802.11ax(HEW40) MCH 2437MHz SU / Ant1 (SISO) NTN



802.11ax(HEW40) HCH 2452MHz SU / Ant1 (SISO) NTN



5. Unwanted Emissions In Non-restricted Frequency Bands

5.1 Test Result

5.1.1 Ref

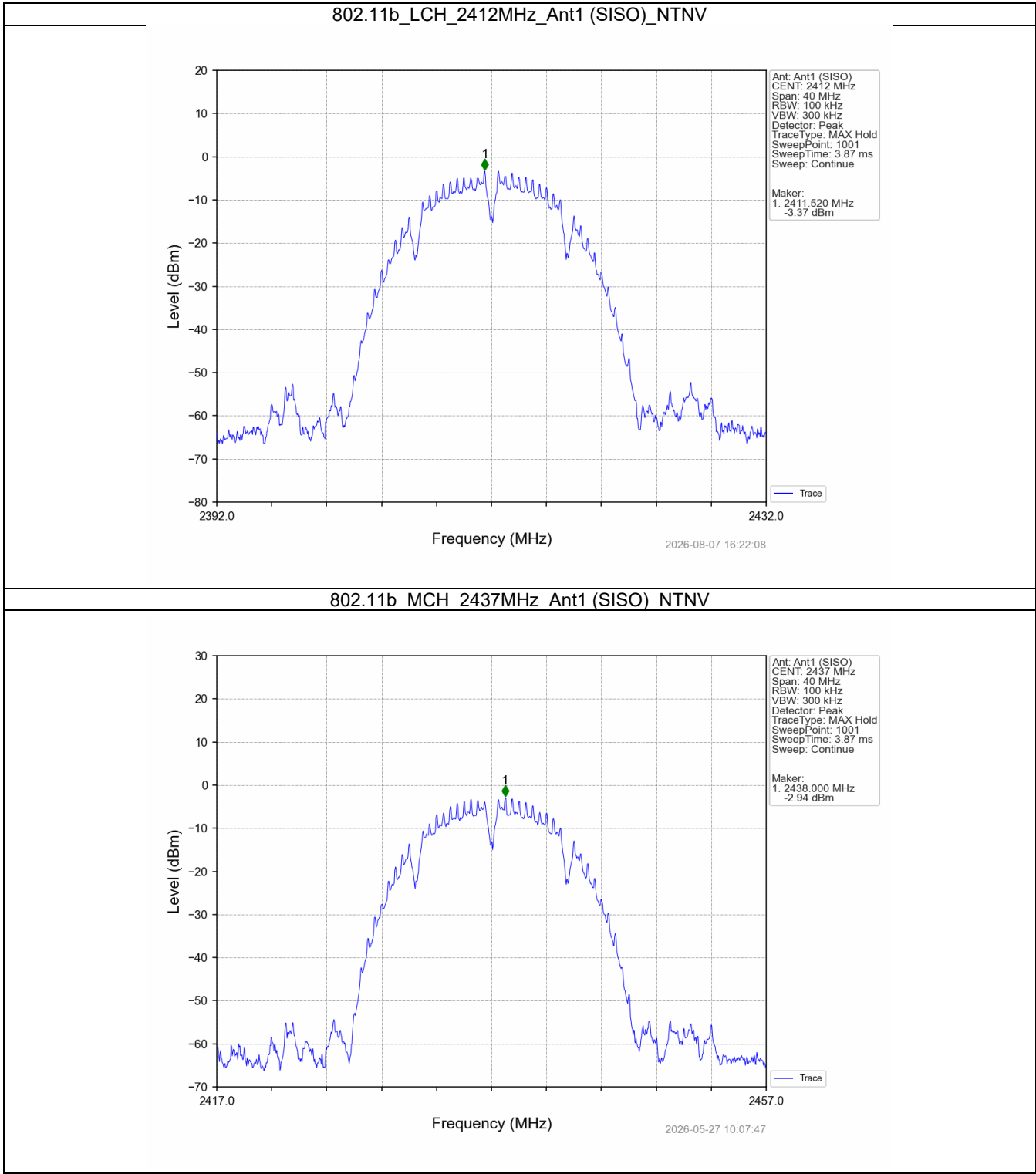
Mode	TX Type	Frequency (MHz)	RU	RU Pos	ANT	Level of Reference (dBm)
802.11b	SISO	2412	/	/	1	-3.37
		2437	/	/	1	-2.94
		2462	/	/	1	-3.75
802.11g	SISO	2412	/	/	1	-6.15
		2437	/	/	1	-5.08
		2462	/	/	1	-4.73
802.11n (HT20)	SISO	2412	/	/	1	-6.30
		2437	/	/	1	-6.09
		2462	/	/	1	-4.84
802.11n (HT40)	SISO	2422	/	/	1	-8.92
		2437	/	/	1	-8.48
		2452	/	/	1	-7.92
802.11ax (HEW20)	SISO	2412	SU	/	1	-6.05
		2437	SU	/	1	-4.67
		2462	SU	/	1	-4.27
802.11ax (HEW40)	SISO	2422	SU	/	1	-9.34
		2437	SU	/	1	-8.27
		2452	SU	/	1	-8.43

5.1.2 CSE

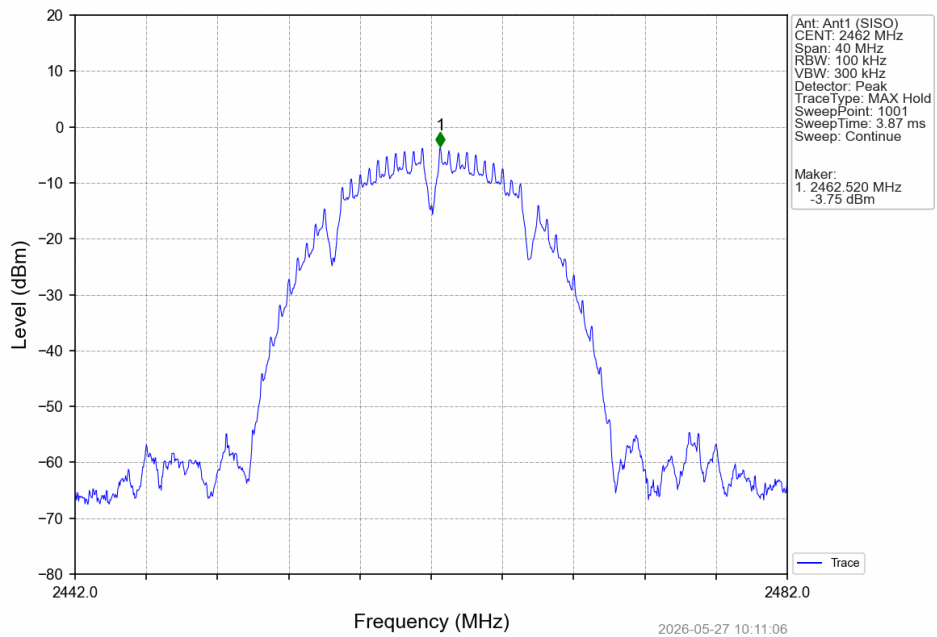
Mode	TX Type	Frequency (MHz)	RU	RU Pos	ANT	Level of Reference (dBm)	Limit (dBm)	Verdict
802.11b	SISO	2412	/	/	1	-3.37	-23.37	Pass
		2437	/	/	1	-2.94	-22.94	Pass
		2462	/	/	1	-3.75	-23.75	Pass
802.11g	SISO	2412	/	/	1	-6.15	-26.15	Pass
		2437	/	/	1	-5.08	-25.08	Pass
		2462	/	/	1	-4.73	-24.73	Pass
802.11n (HT20)	SISO	2412	/	/	1	-6.30	-26.30	Pass
		2437	/	/	1	-6.09	-26.09	Pass
		2462	/	/	1	-4.84	-24.84	Pass
802.11n (HT40)	SISO	2422	/	/	1	-8.92	-28.92	Pass
		2437	/	/	1	-8.48	-28.48	Pass
		2452	/	/	1	-7.92	-27.92	Pass
802.11ax (HEW20)	SISO	2412	SU	/	1	-6.05	-26.05	Pass
		2437	SU	/	1	-4.67	-24.67	Pass
		2462	SU	/	1	-4.27	-24.27	Pass
802.11ax (HEW40)	SISO	2422	SU	/	1	-9.34	-29.34	Pass
		2437	SU	/	1	-8.27	-28.27	Pass
		2452	SU	/	1	-8.43	-28.43	Pass

5.2 Test Graph

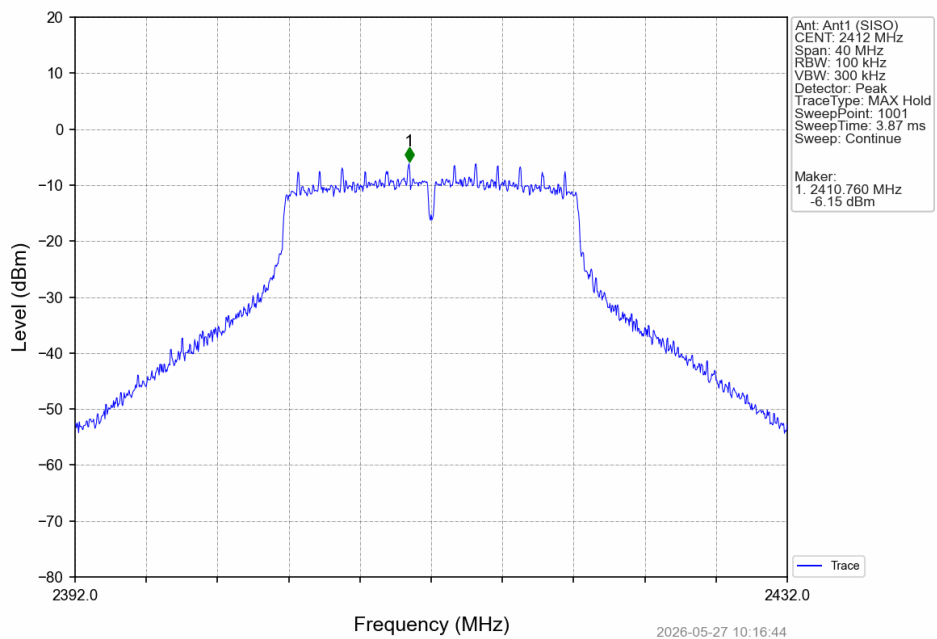
5.2.1 Ref



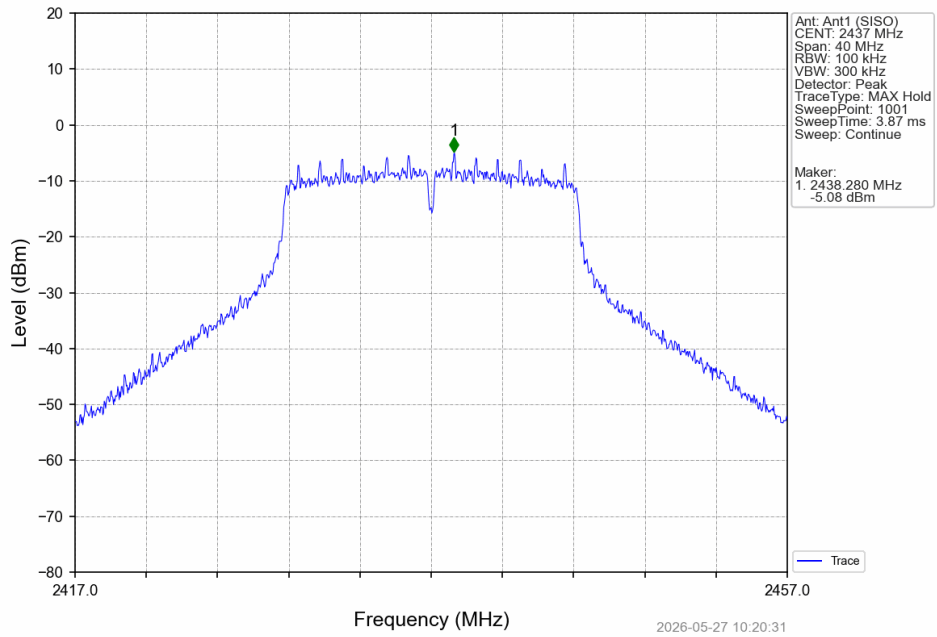
802.11b HCH 2462MHz Ant1 (SISO) NTN



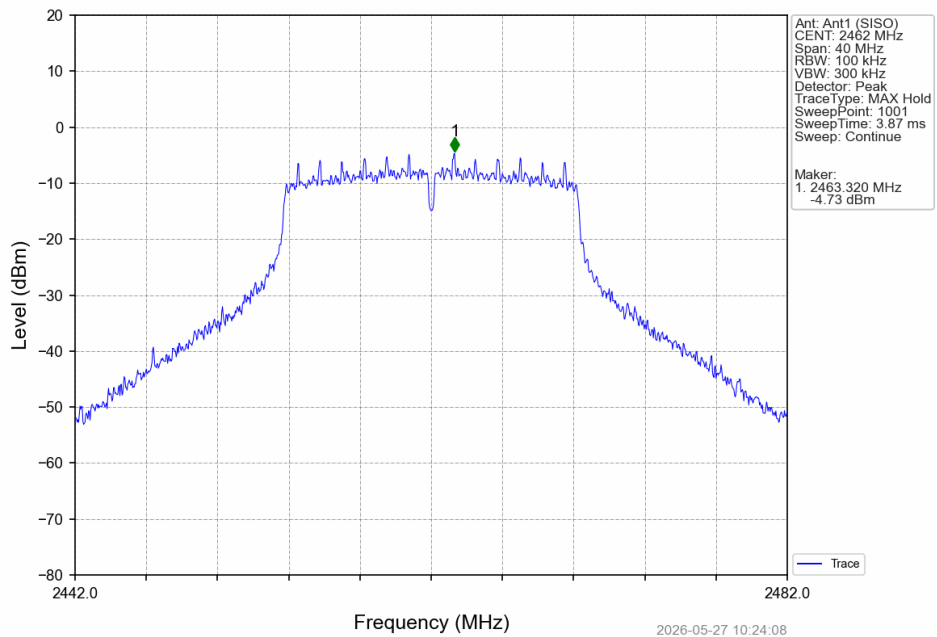
802.11g LCH 2412MHz Ant1 (SISO) NTN



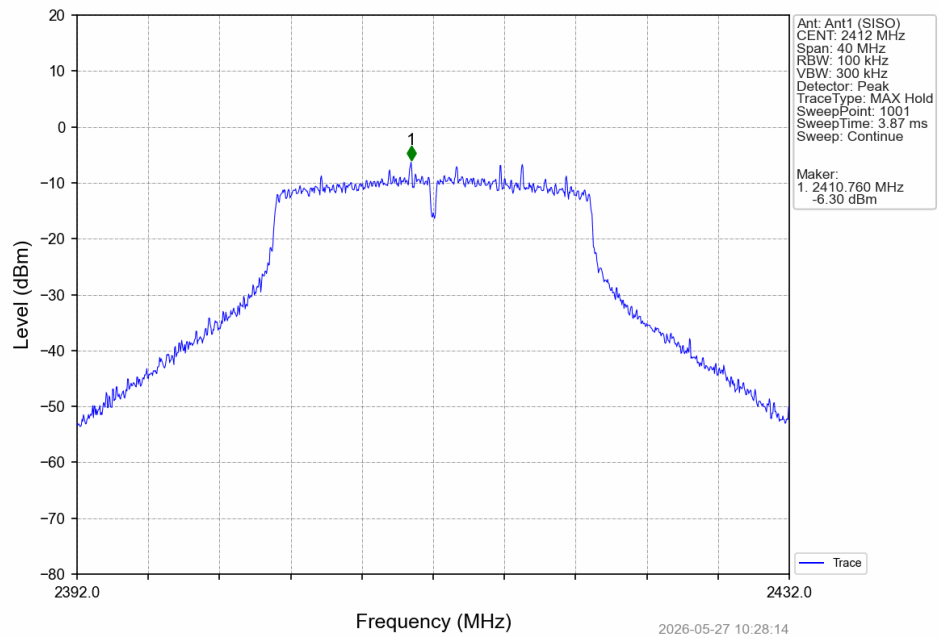
802.11g MCH 2437MHz Ant1 (SISO) NTN



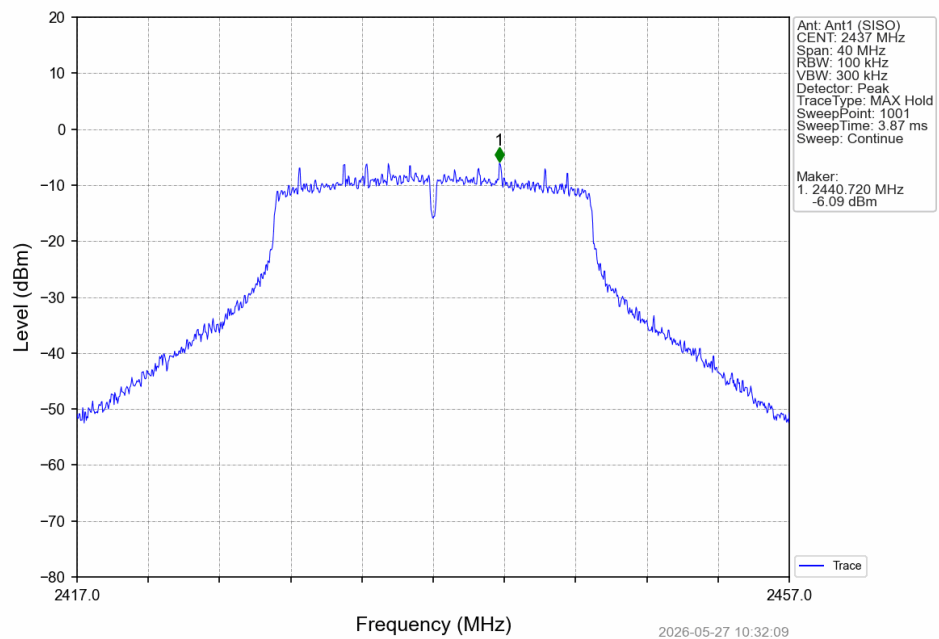
802.11g_HCH_2462MHz_Ant1 (SISO)_NTNV



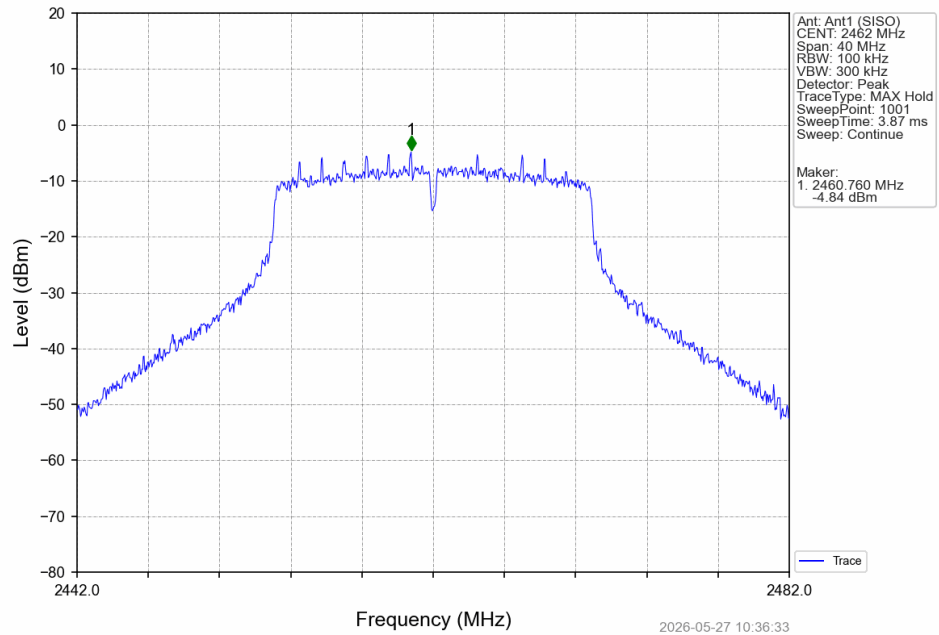
802.11n(HT20) LCH 2412MHz Ant1 (SISO) NTNV



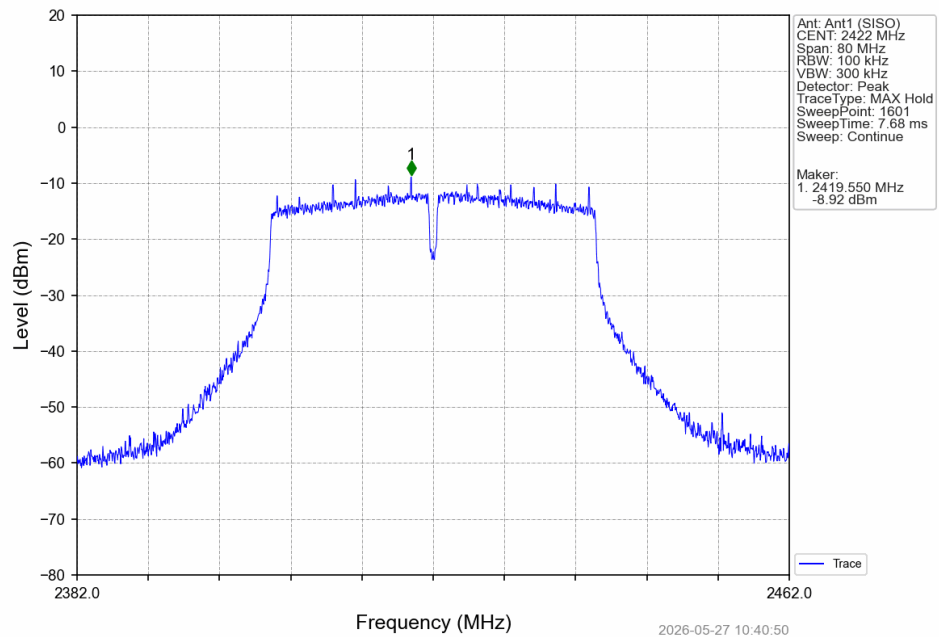
802.11n(HT20)_MCH_2437MHz_Ant1 (SISO)_NTNV



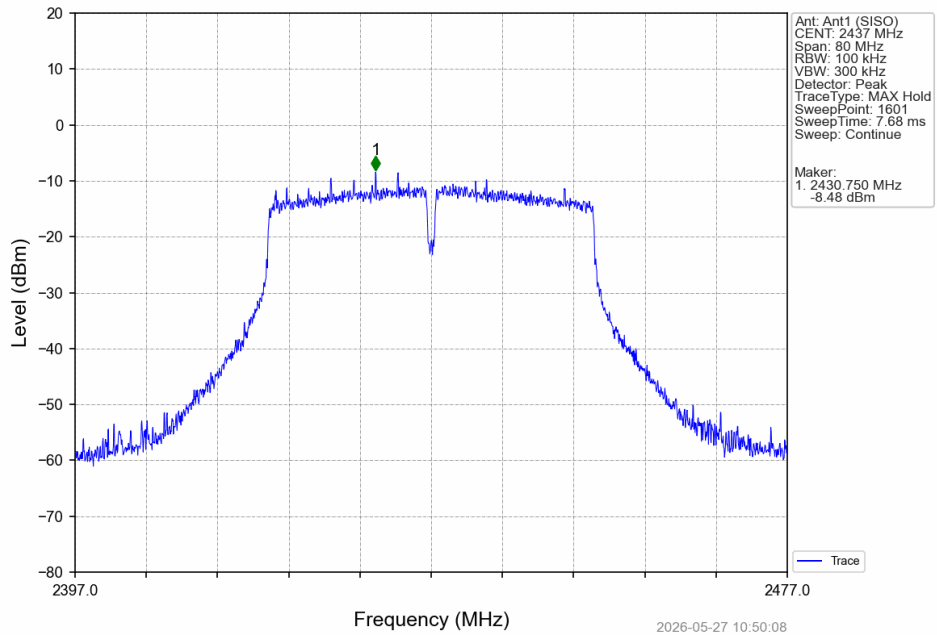
802.11n(HT20) HCH 2462MHz Ant1 (SISO) NTNV



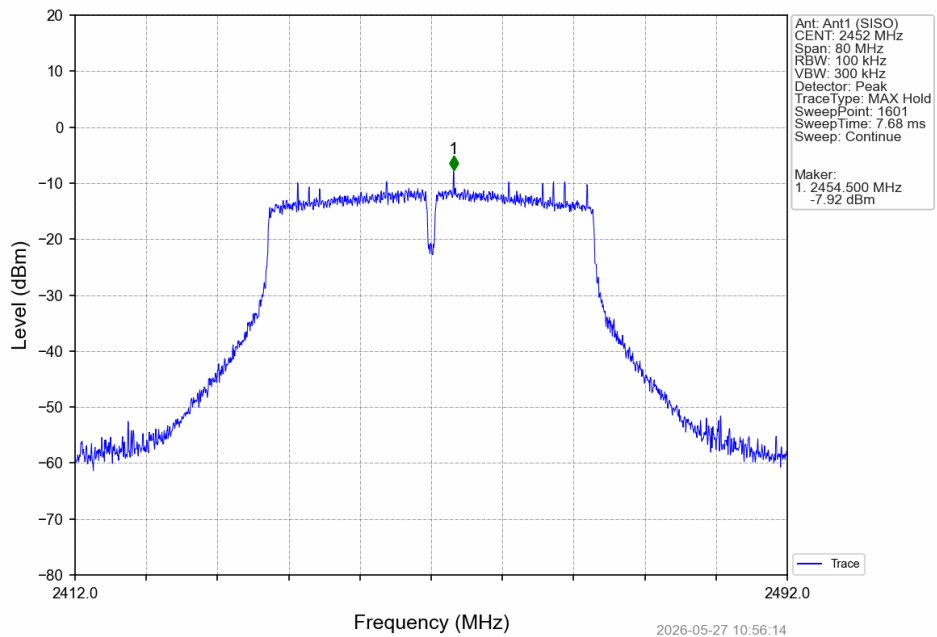
802.11n(HT40) LCH 2422MHz Ant1 (SISO) NTNV



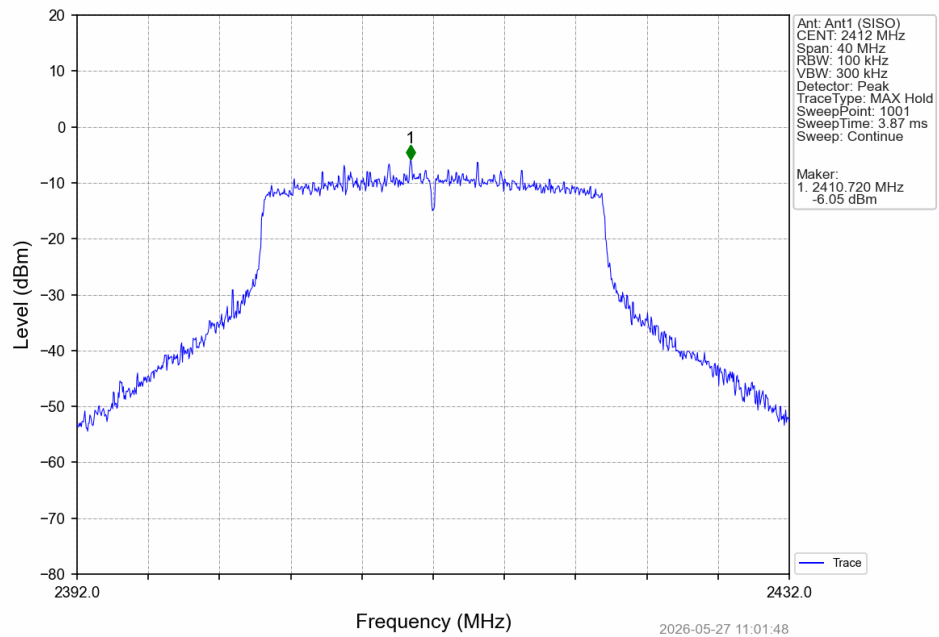
802.11n(HT40) MCH_2437MHz_Ant1 (SISO) NTN



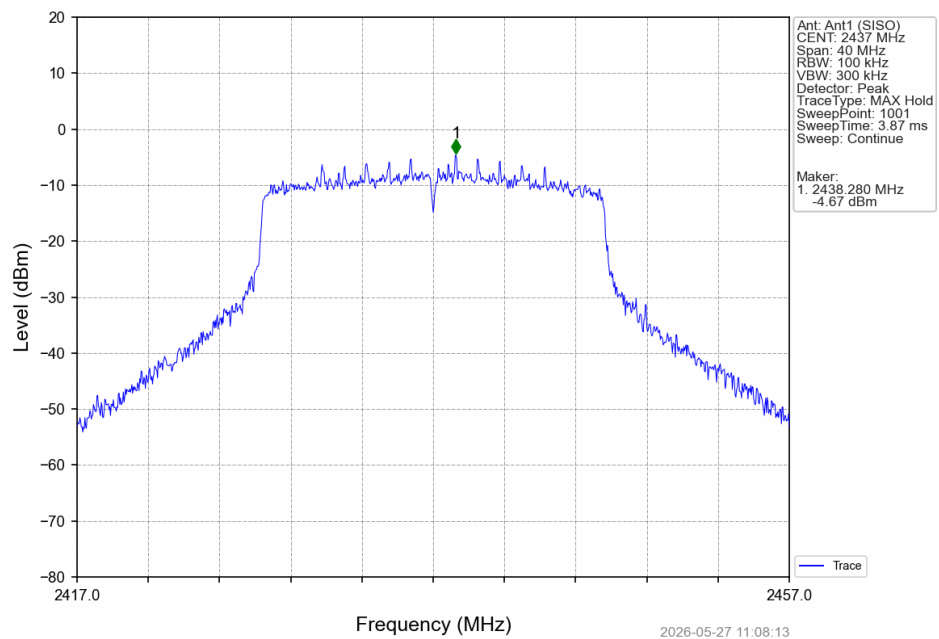
802.11n(HT40) HCH_2452MHz_Ant1 (SISO) NTN



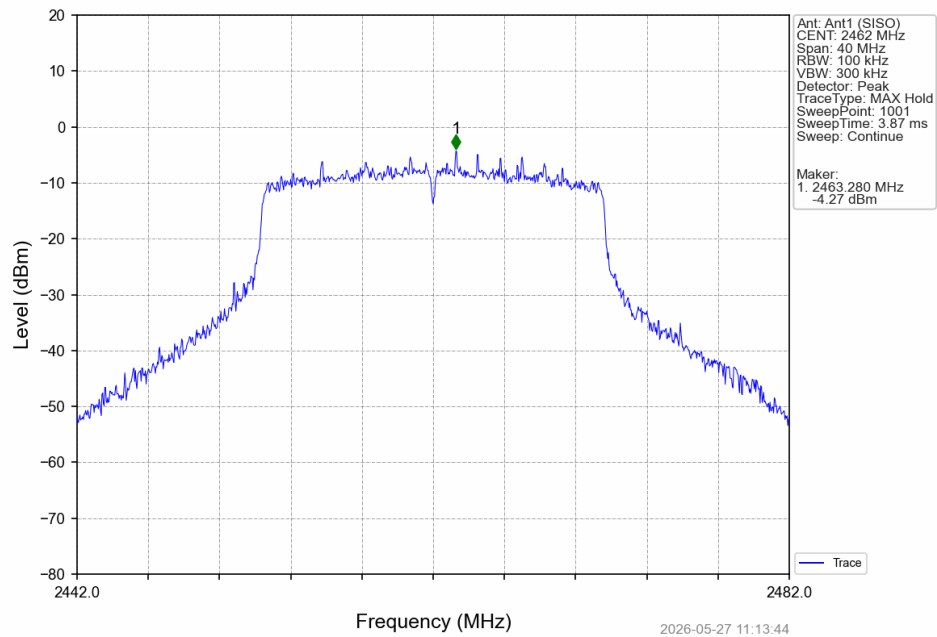
802.11ax(HEW20) LCH 2412MHz SU / Ant1 (SISO) NTNv



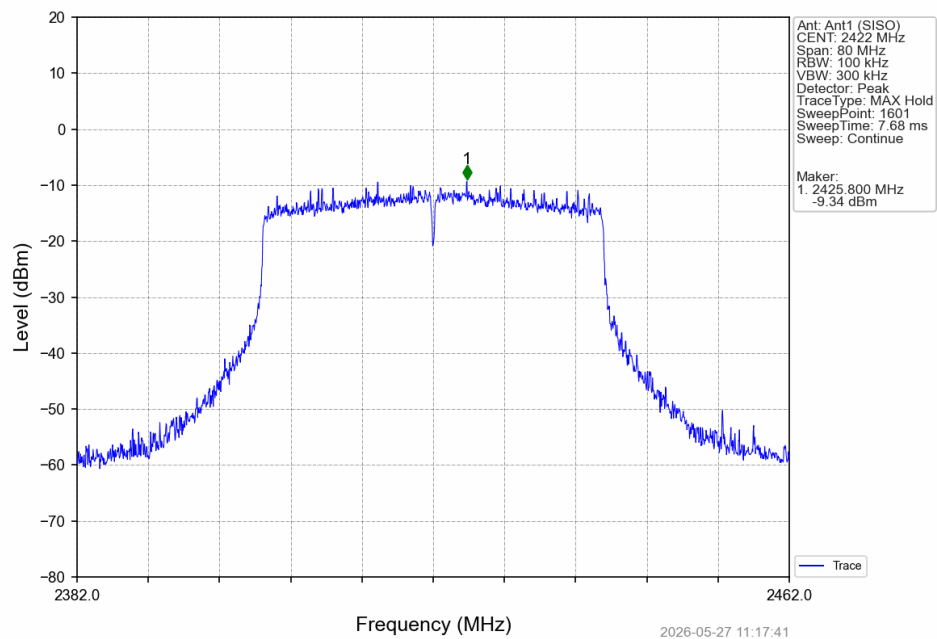
802.11ax(HEW20) MCH 2437MHz SU / Ant1 (SISO) NTNv



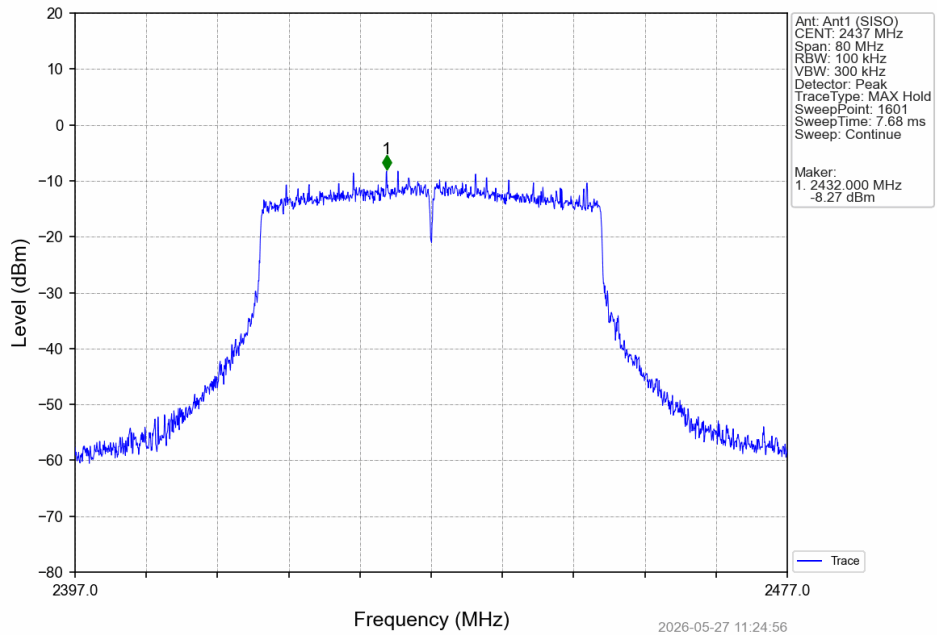
802.11ax(HEW20) HCH 2462MHz SU / Ant1 (SISO) NTNv



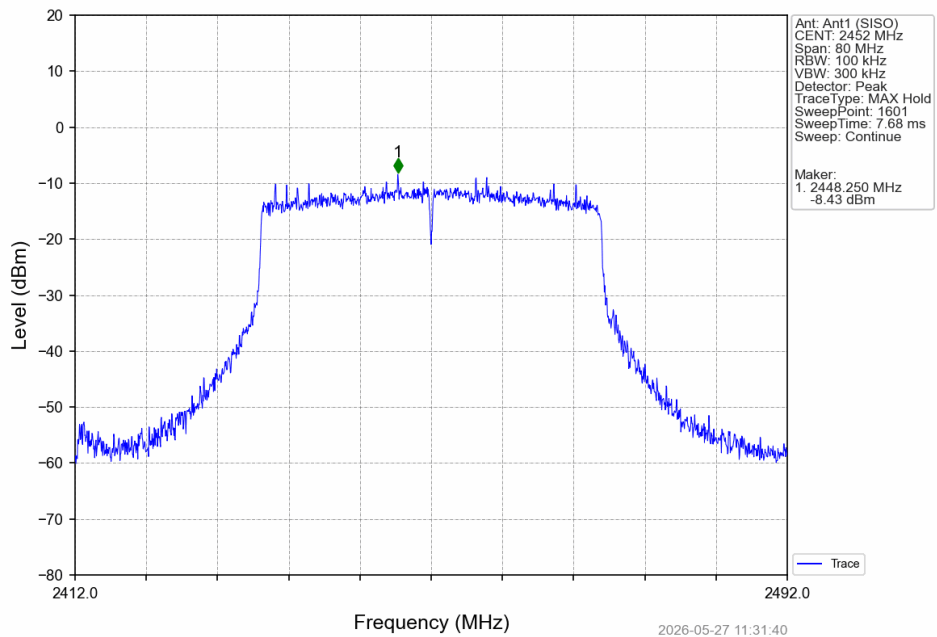
802.11ax(HEW40) LCH 2422MHz SU / Ant1 (SISO) NTNv



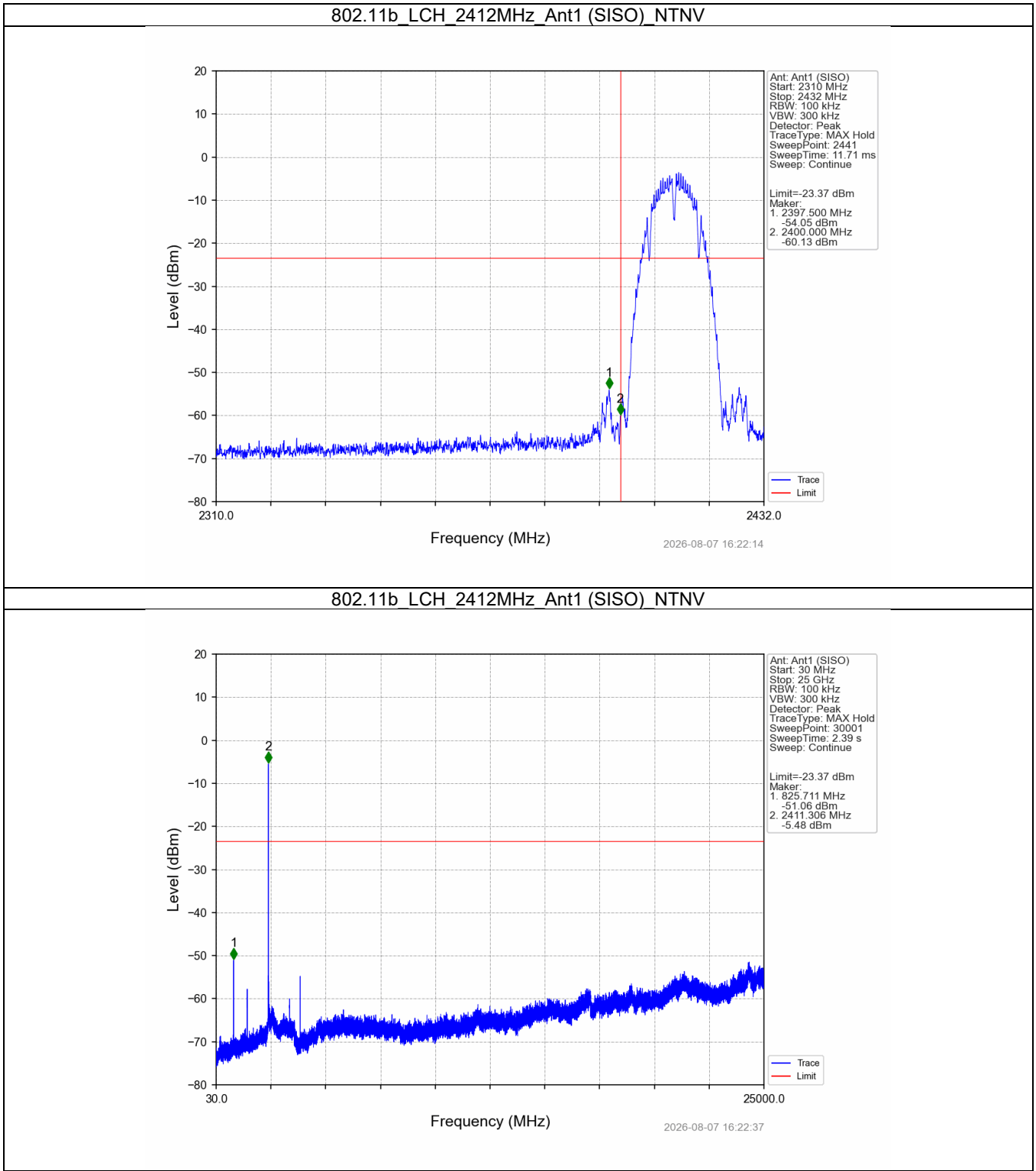
802.11ax(HEW40) MCH 2437MHz SU / Ant1 (SISO) NTN



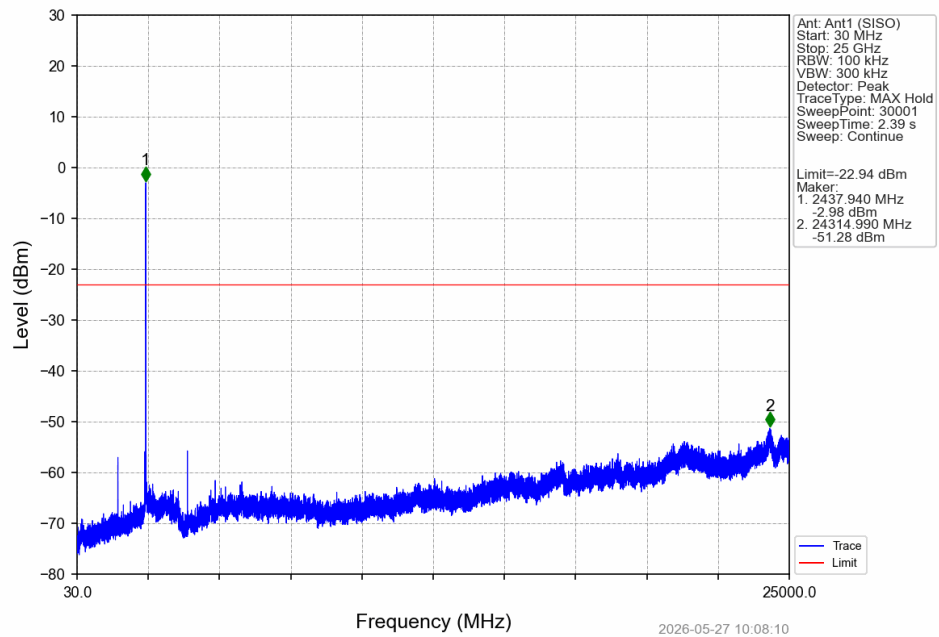
802.11ax(HEW40) HCH 2452MHz SU / Ant1 (SISO) NTN



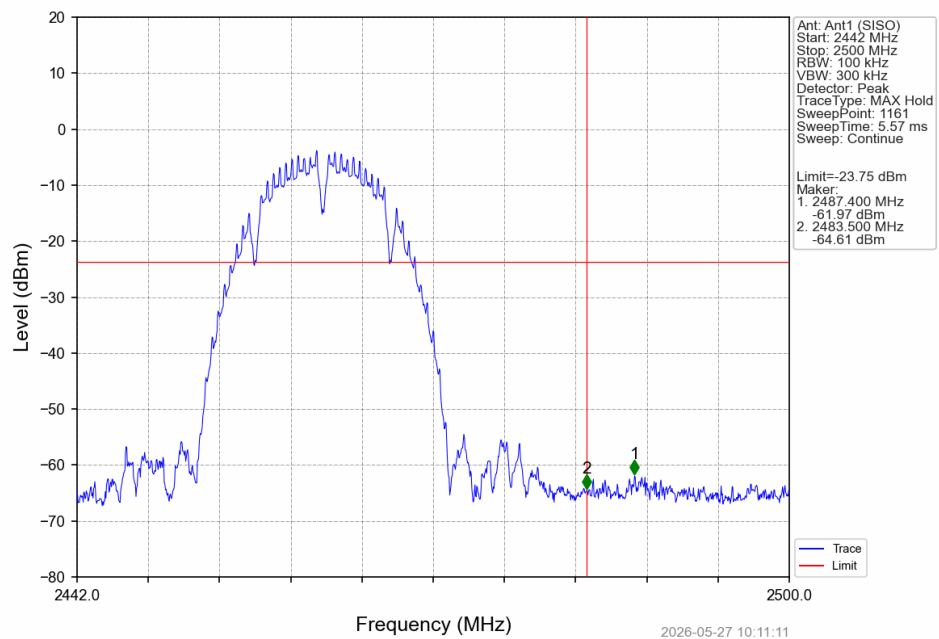
5.2.2 CSE



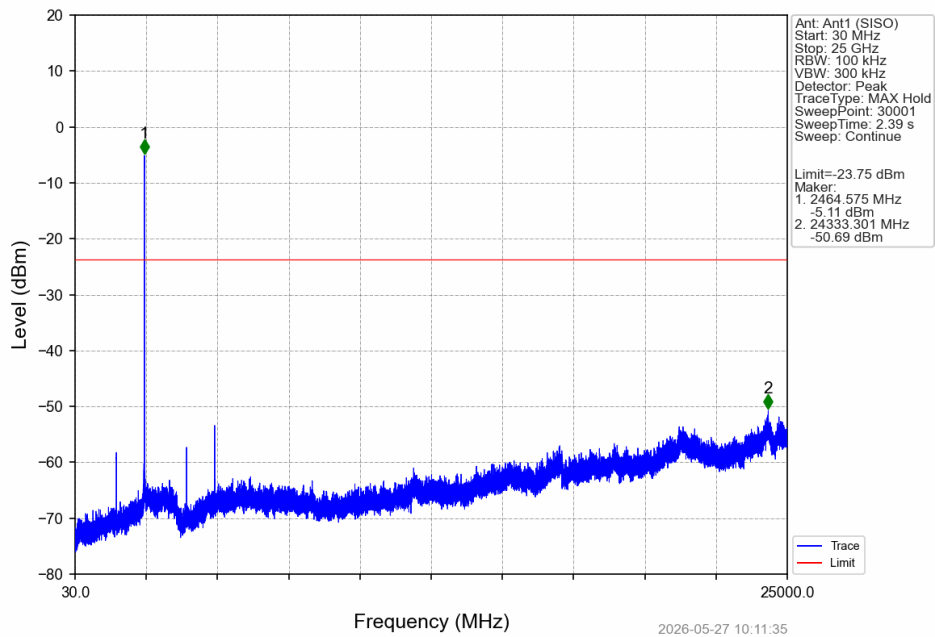
802.11b MCH 2437MHz Ant1 (SISO) NTN



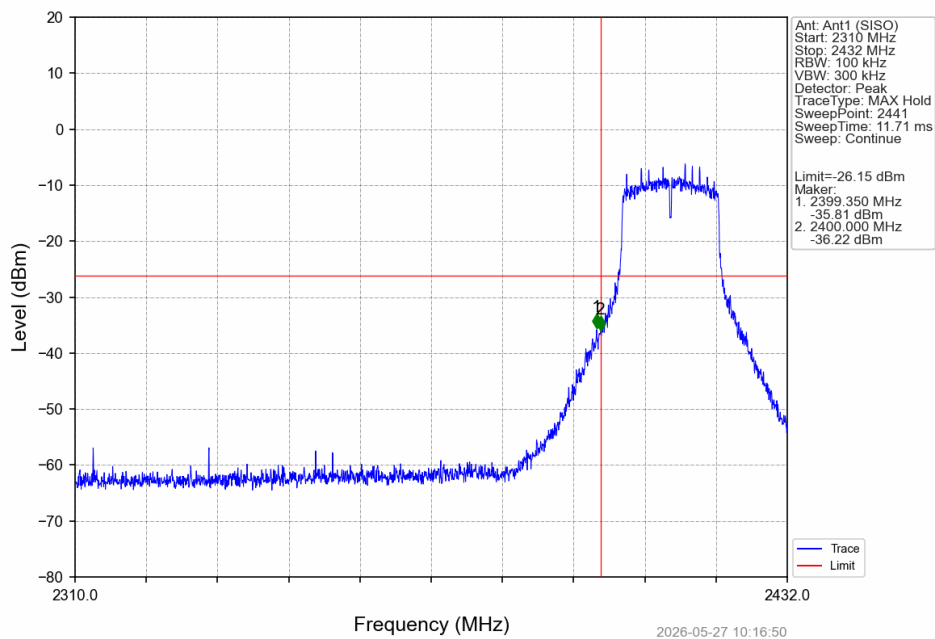
802.11b_HCH_2462MHz_Ant1 (SISO)_NTN



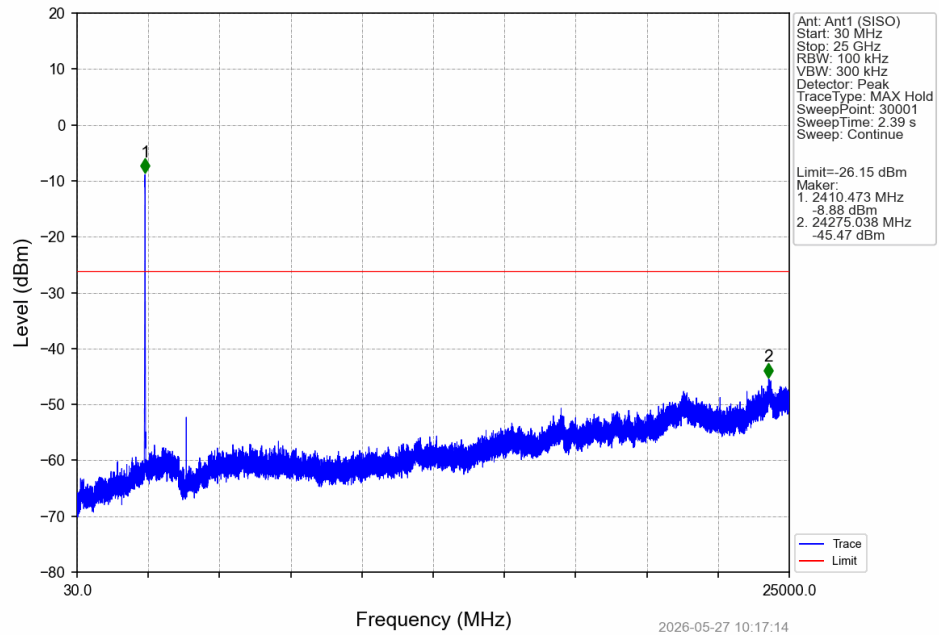
802.11b HCH 2462MHz Ant1 (SISO) NTN



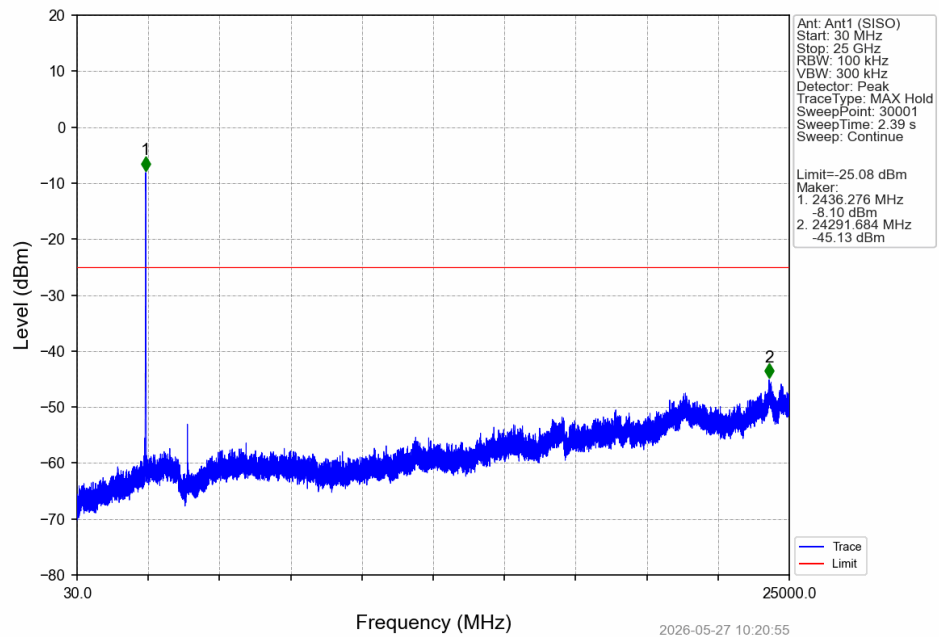
802.11g_LCH_2412MHz_Ant1 (SISO) NTN



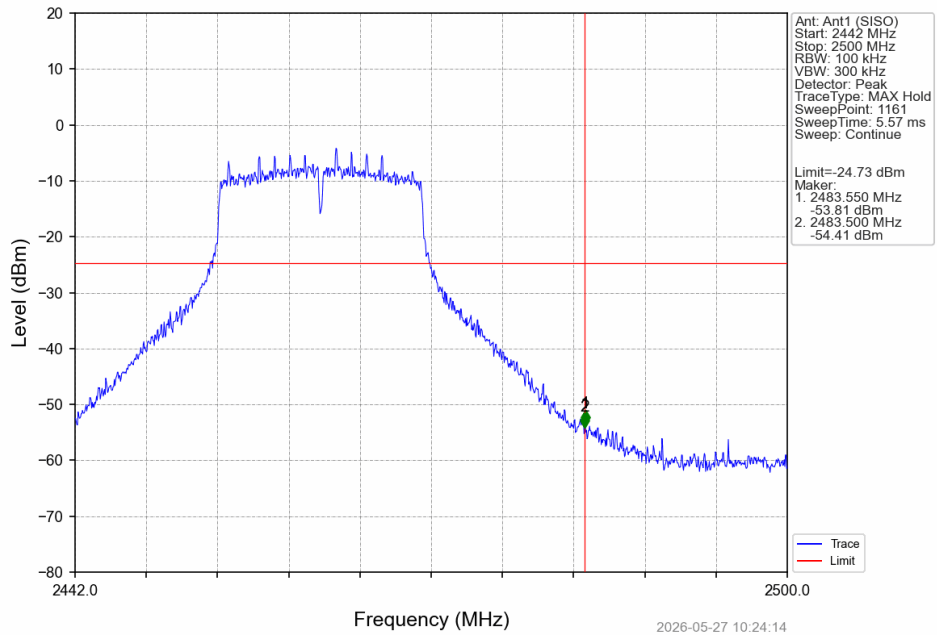
802.11g LCH 2412MHz Ant1 (SISO) NTN



802.11g_MCH_2437MHz_Ant1 (SISO)_NTN



802.11g HCH 2462MHz Ant1 (SISO) NTN



802.11g HCH 2462MHz Ant1 (SISO) NTN

