

Appendix RF Test Data for 2.4GWIFI

Company: : Shenzhen Zigxico Technology Co., Ltd

EUT : Smart Camera

FCC ID: : 2AZHU-S29

Model Number : S29

Report No. : HTT202510484F01

Reviewed By : Heber He

1. Duty Cycle

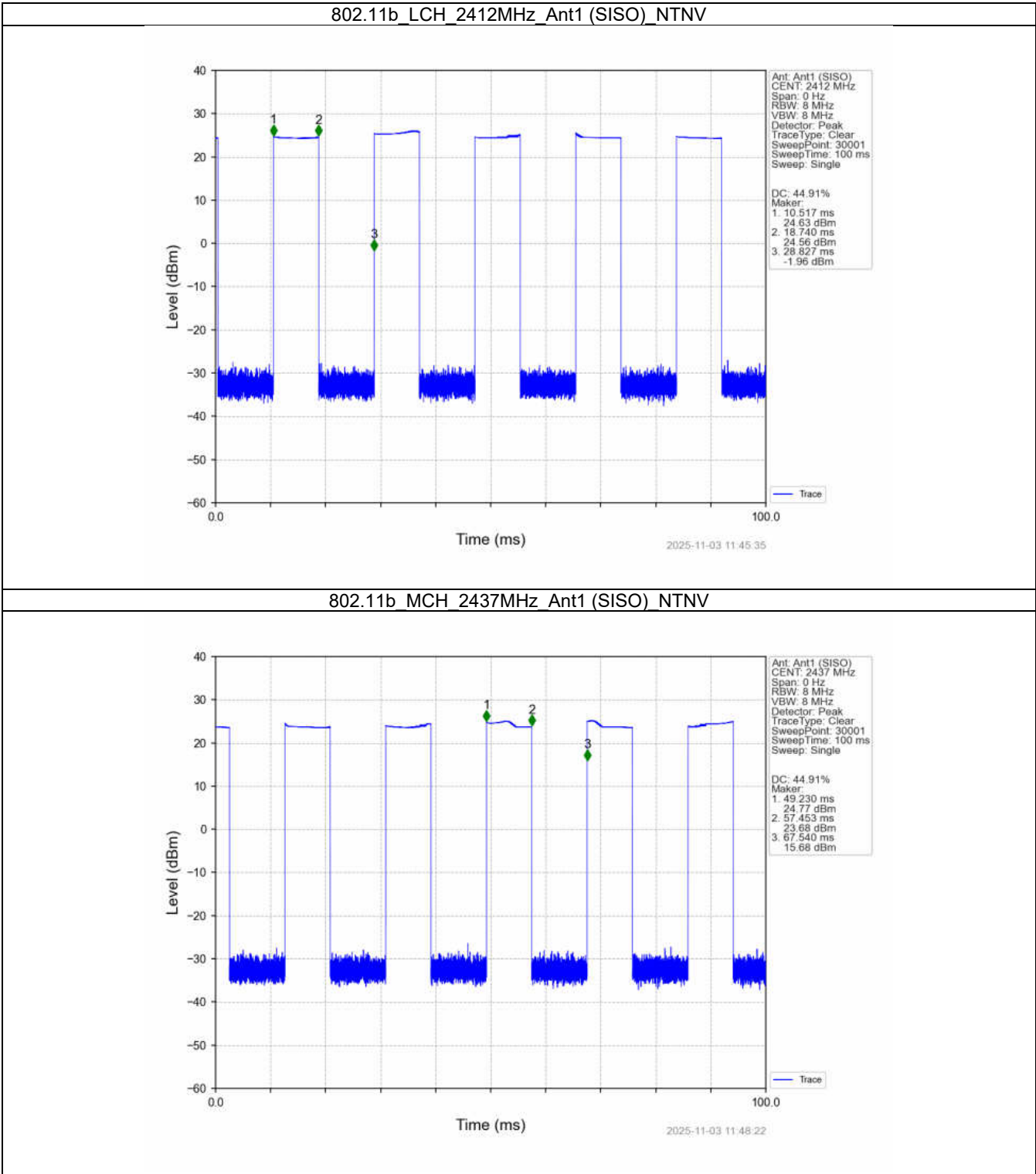
1.1 Test Result

1.1.1 Ant1

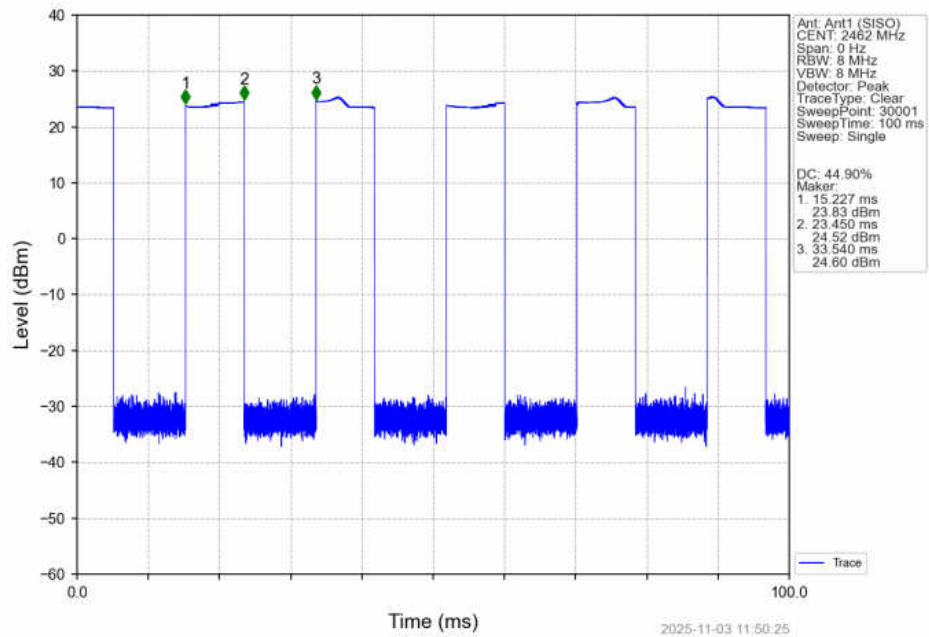
Ant1							
Mode	TX Type	Frequency (MHz)	T_on (ms)	Period (ms)	Duty Cycle (%)	Duty Cycle Correction Factor (dB)	Max. DC Variation (%)
802.11b	SISO	2412	8.223	18.310	44.91	3.48	0.01
		2437	8.223	18.310	44.91	3.48	0.02
		2462	8.223	18.313	44.90	3.48	0.01
802.11g	SISO	2412	1.363	11.456	11.90	9.25	0.03
		2437	1.363	11.560	11.79	9.28	0.14
		2462	1.363	11.460	11.89	9.25	0.03
802.11n (HT20)	SISO	2412	1.277	11.370	11.23	9.50	0.00
		2437	1.277	11.374	11.23	9.50	0.03
		2462	1.276	11.373	11.22	9.50	0.03
802.11n (HT40)	SISO	2422	0.636	11.636	5.47	12.62	0.46
		2437	0.636	10.730	5.93	12.27	0.03
		2452	0.633	10.730	5.90	12.29	0.03
802.11ax (HEW20)	SISO	2412	1.283	11.377	11.28	9.48	0.03
		2437	1.284	11.377	11.29	9.47	0.03
		2462	1.284	11.380	11.28	9.48	0.03
802.11ax (HEW40)	SISO	2422	0.640	10.737	5.96	12.25	0.03
		2437	0.640	10.734	5.96	12.25	0.03
		2452	0.640	10.737	5.96	12.25	0.00

1.2 Test Graph

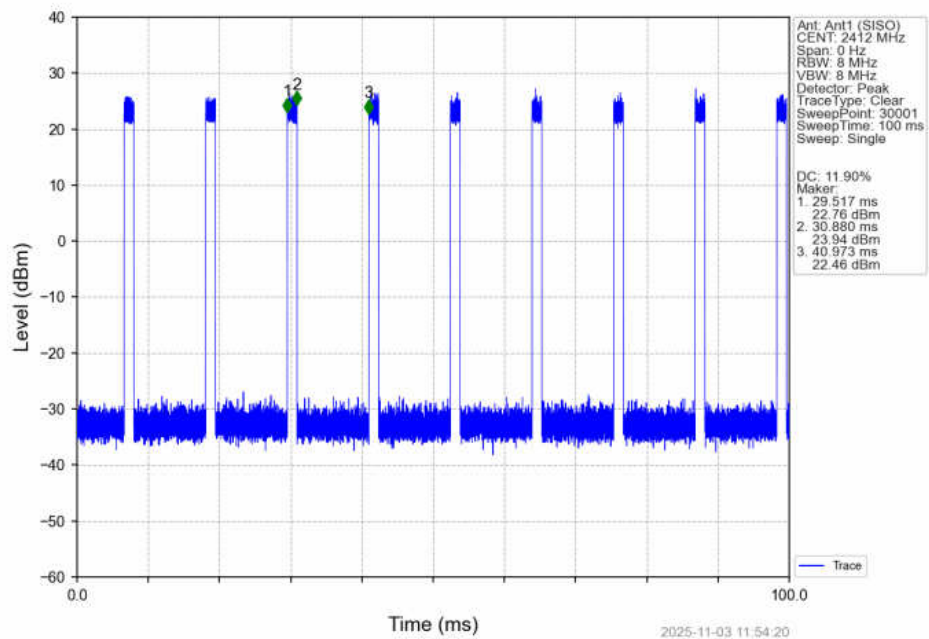
1.2.1 Ant1



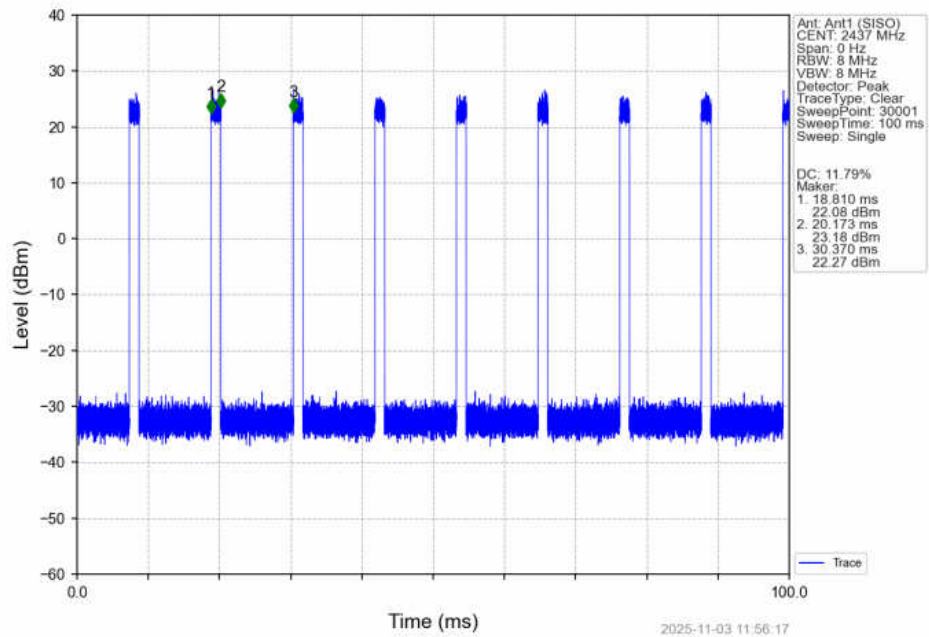
802.11b HCH 2462MHz Ant1 (SISO) NTN



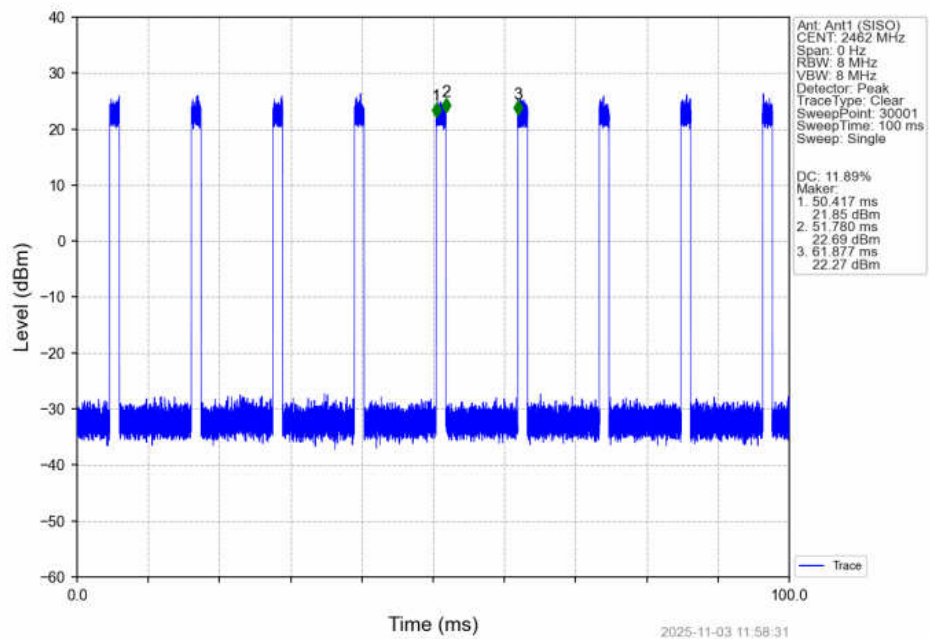
802.11g LCH 2412MHz Ant1 (SISO) NTN



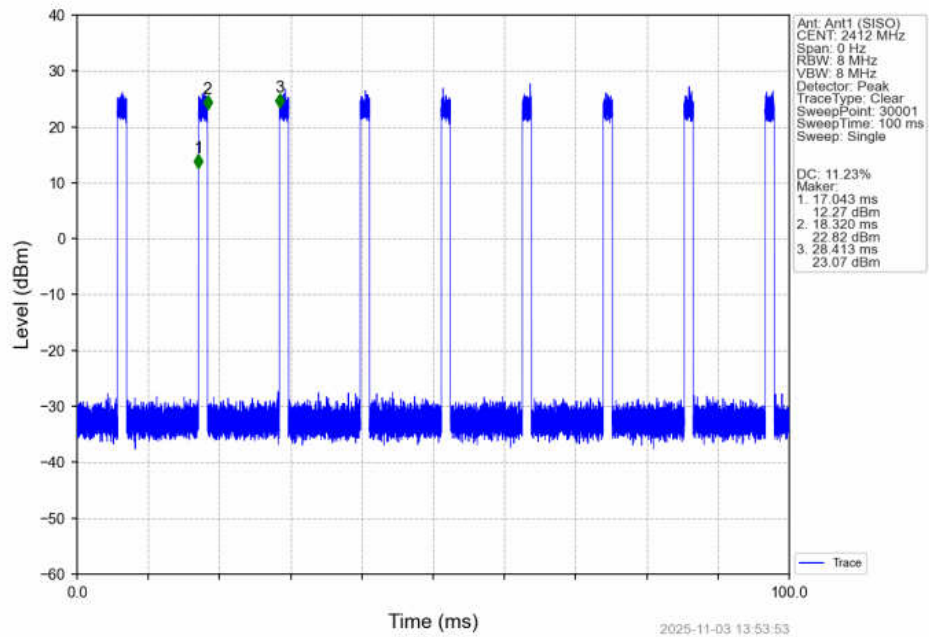
802.11g_MCH_2437MHz_Ant1 (SISO)_NTNV



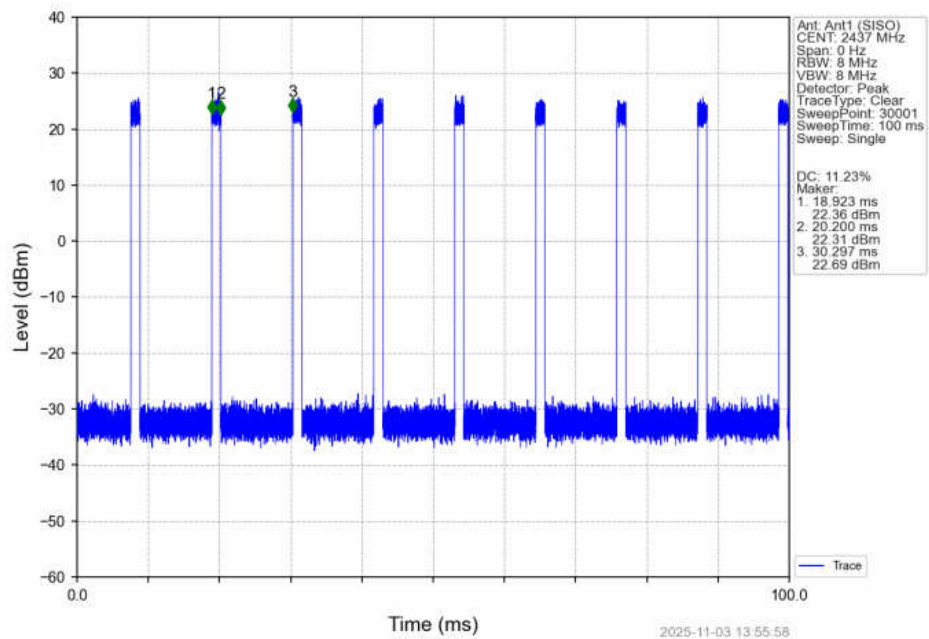
802.11g_HCH_2462MHz_Ant1 (SISO)_NTNV



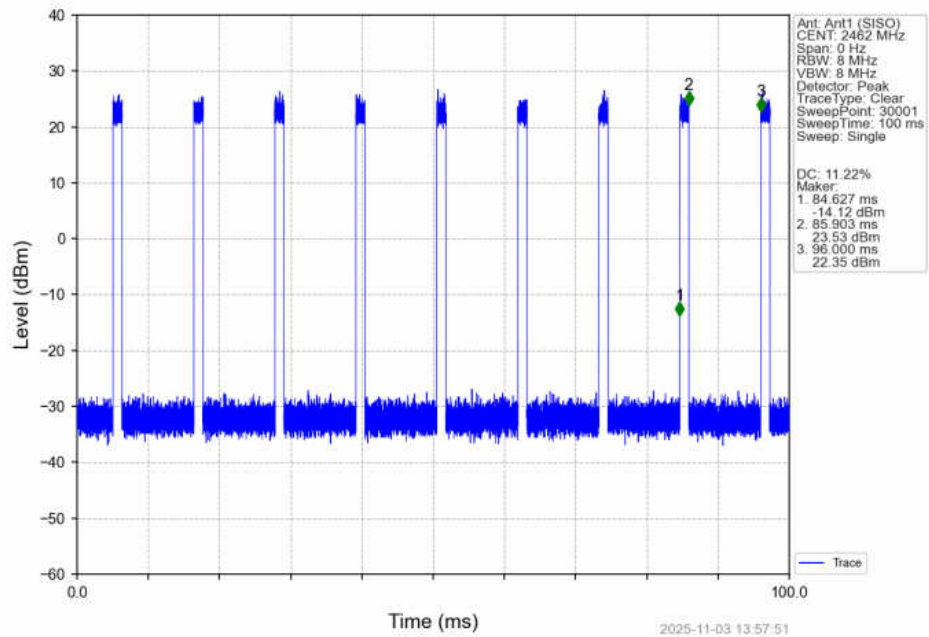
802.11n(HT20) LCH 2412MHz Ant1 (SISO) NTNV



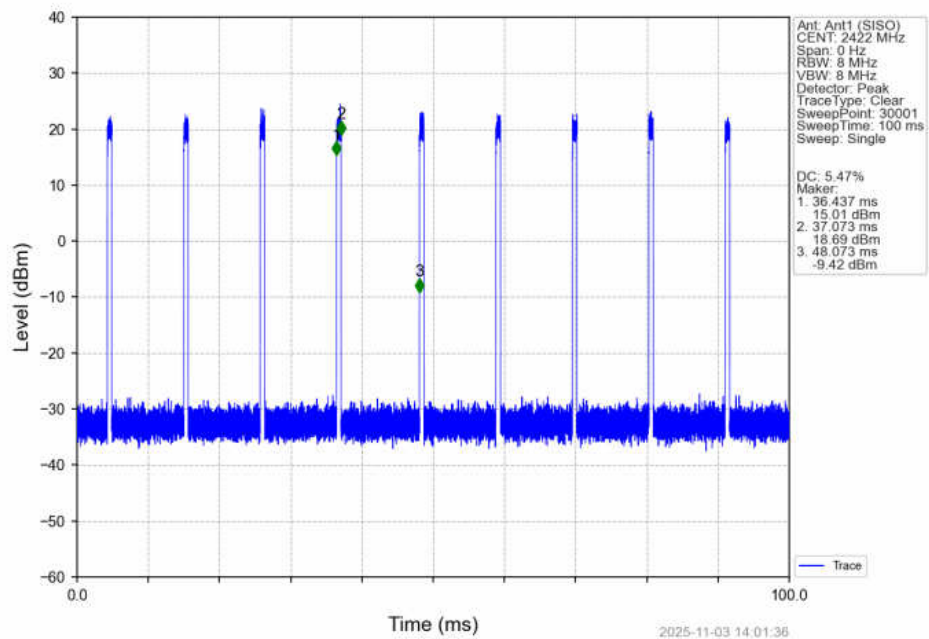
802.11n(HT20) MCH 2437MHz Ant1 (SISO) NTNV



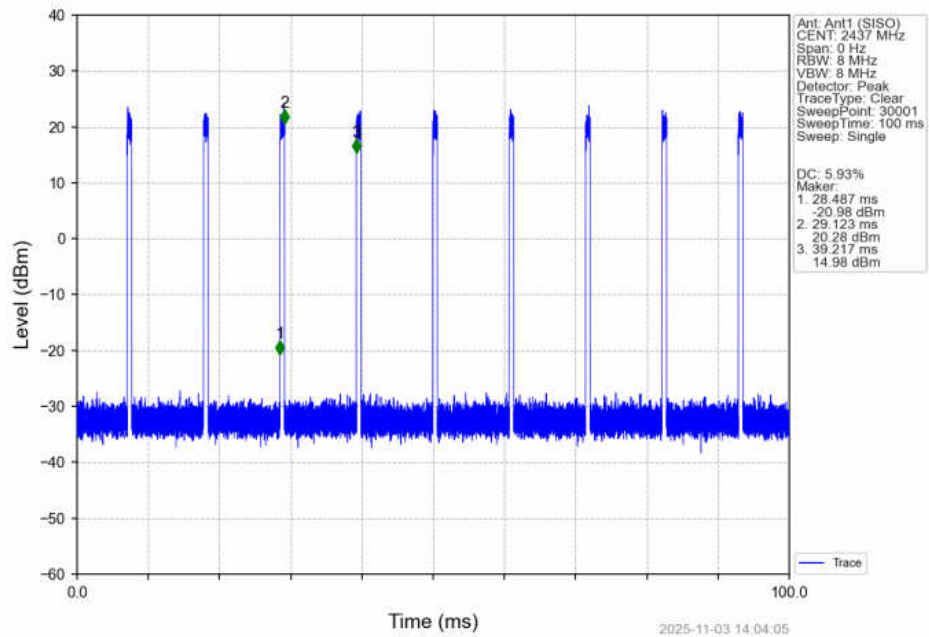
802.11n(HT20) HCH_2462MHz_Ant1 (SISO) NTN



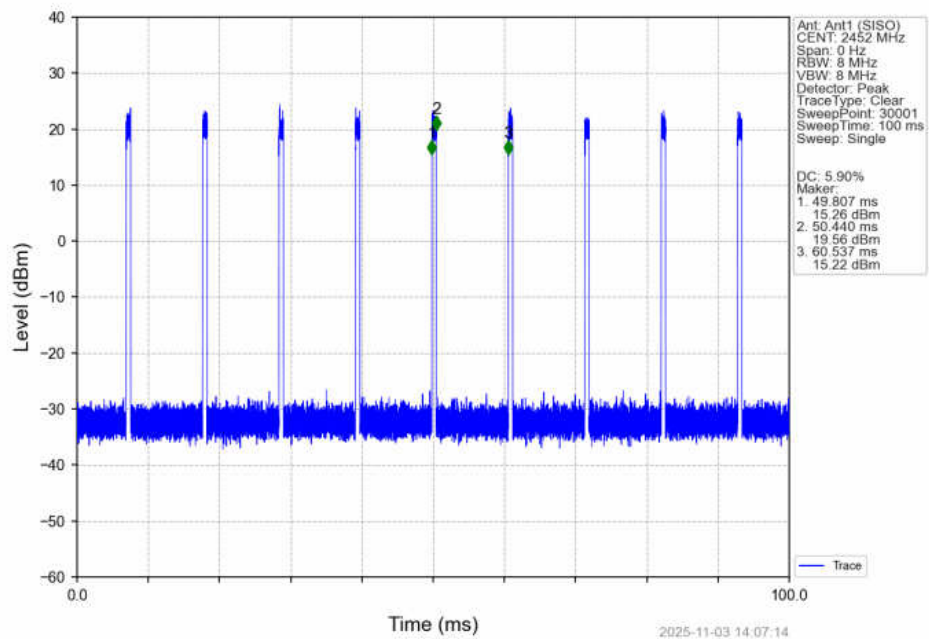
802.11n(HT40) LCH_2422MHz_Ant1 (SISO) NTN



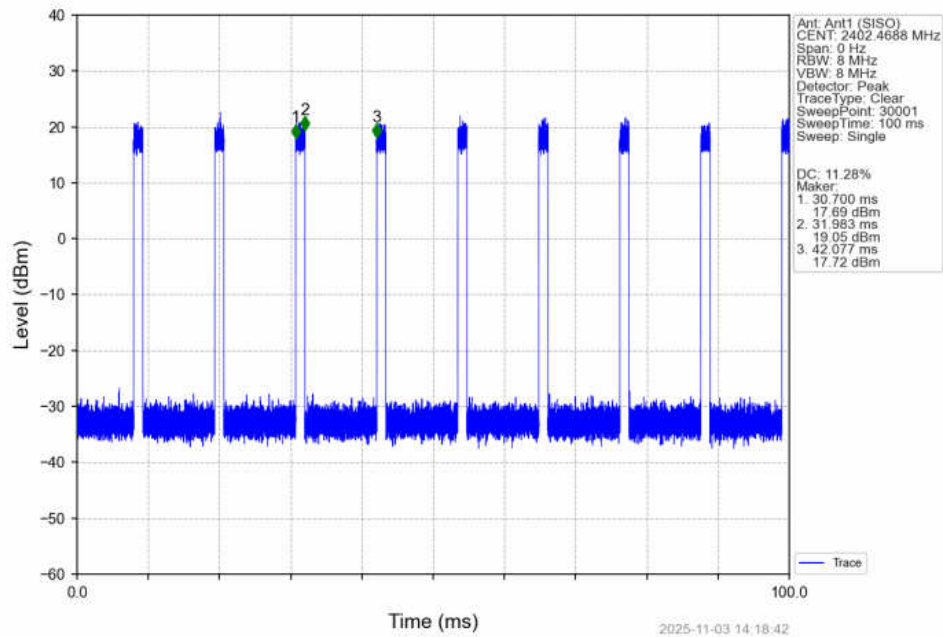
802.11n(HT40) MCH_2437MHz_Ant1 (SISO) NTN



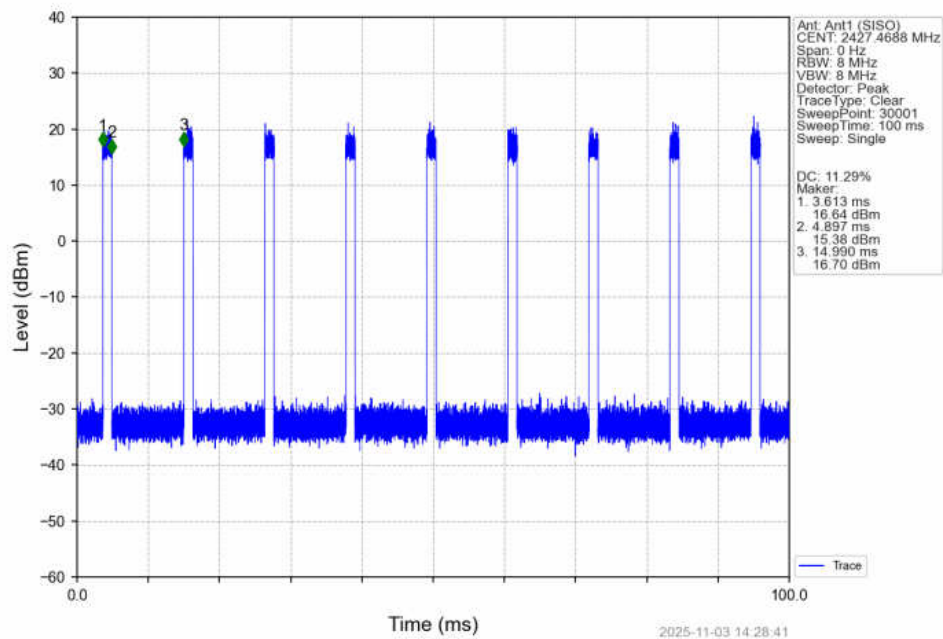
802.11n(HT40) HCH_2452MHz_Ant1 (SISO) NTN



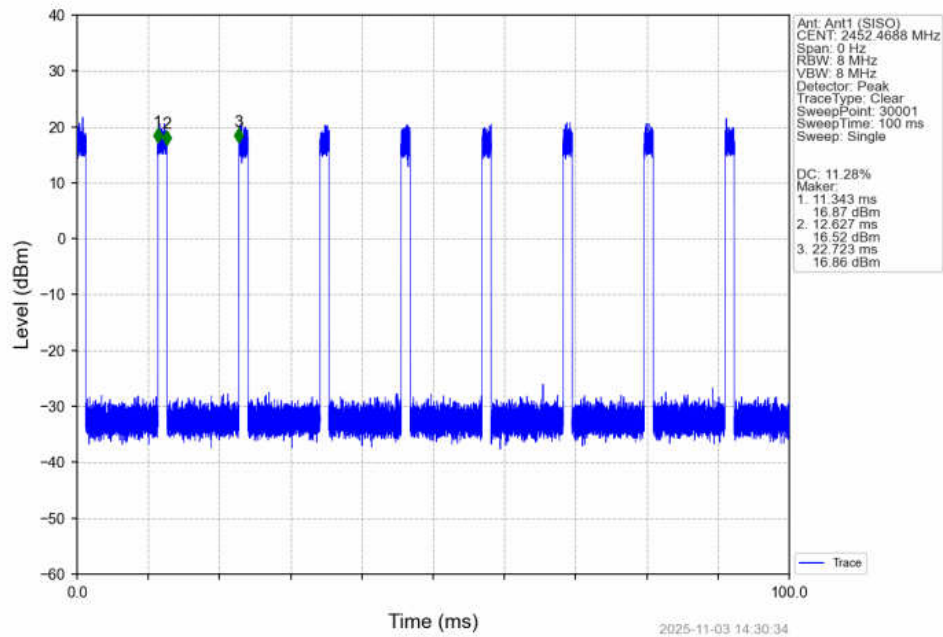
802.11ax(HEW20) LCH 2412MHz SU / Ant1 (SISO) NTNv



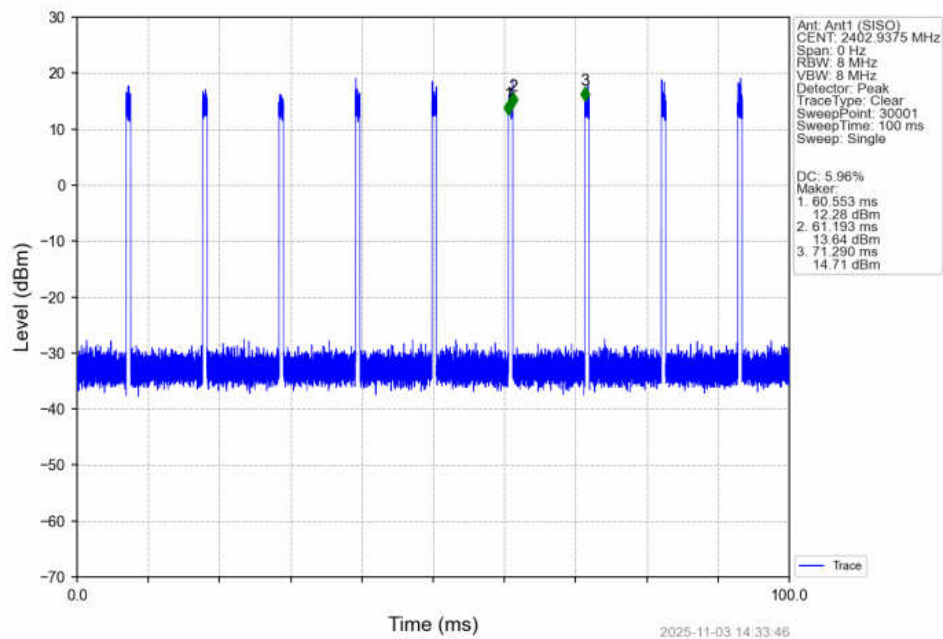
802.11ax(HEW20)_MCH 2437MHz_SU / _Ant1 (SISO)_NTNV



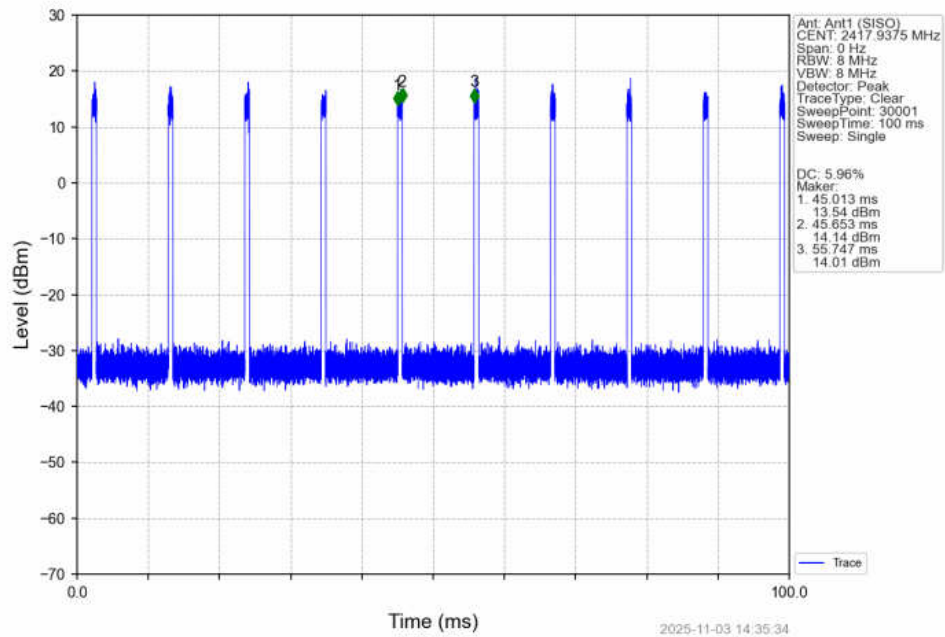
802.11ax(HEW20) HCH 2462MHz SU / Ant1 (SISO) NTNv



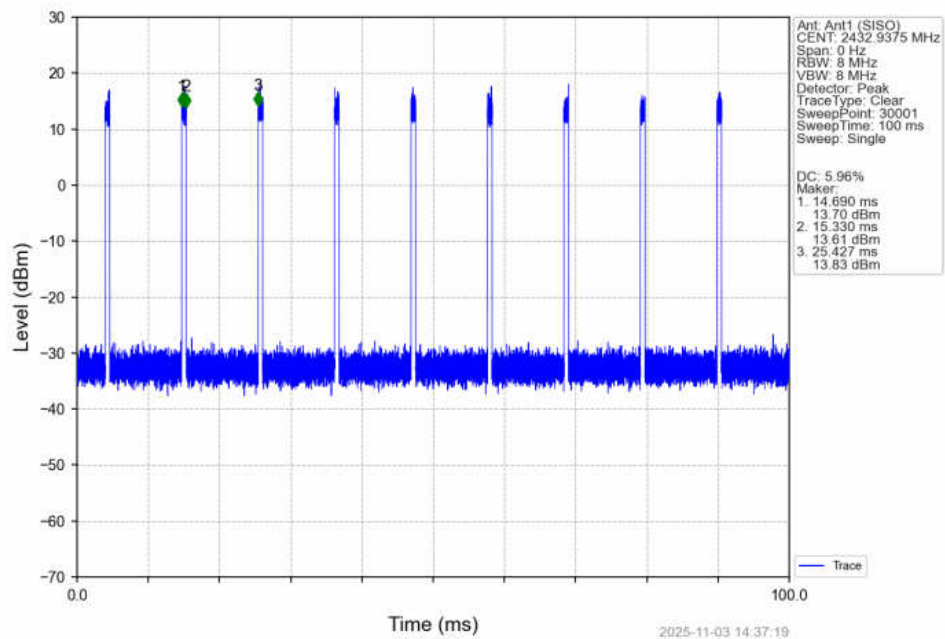
802.11ax(HEW40) LCH 2422MHz SU / Ant1 (SISO) NTNv



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



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



2. Bandwidth

2.1 Test Result

2.1.1 OBW

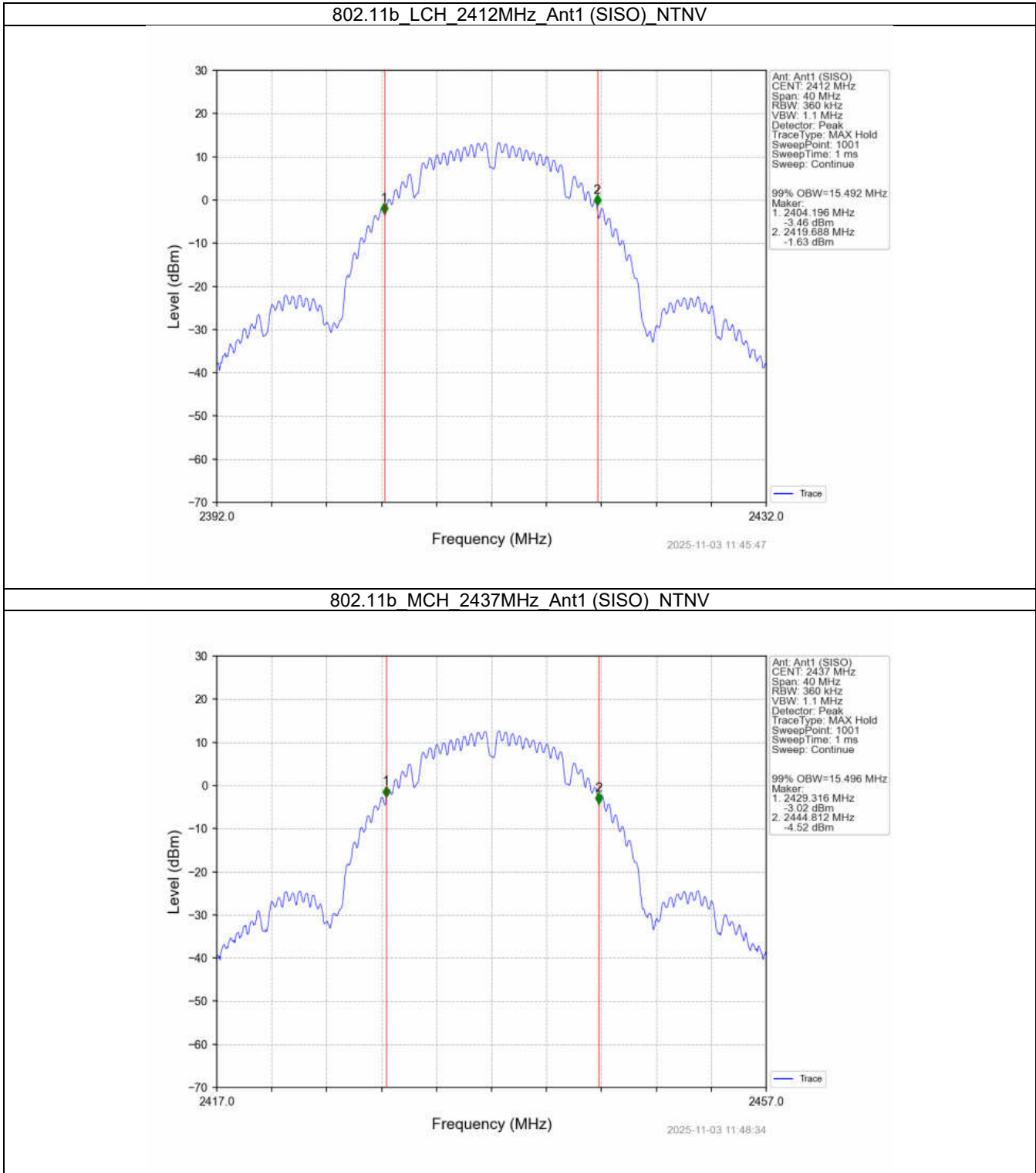
Mode	TX Type	Frequency (MHz)	ANT	99% Occupied Bandwidth (MHz)		Verdict
				Result	Limit	
802.11b	SISO	2412	1	15.492	/	Pass
		2437	1	15.496	/	Pass
		2462	1	15.502	/	Pass
802.11g	SISO	2412	1	18.150	/	Pass
		2437	1	18.295	/	Pass
		2462	1	18.081	/	Pass
802.11n (HT20)	SISO	2412	1	19.167	/	Pass
		2437	1	19.366	/	Pass
		2462	1	19.299	/	Pass
802.11n (HT40)	SISO	2422	1	37.915	/	Pass
		2437	1	37.919	/	Pass
		2452	1	37.469	/	Pass
802.11ax (HEW20)	SISO	2412	1	19.221	/	Pass
		2437	1	19.268	/	Pass
		2462	1	19.130	/	Pass
802.11ax (HEW40)	SISO	2422	1	38.147	/	Pass
		2437	1	37.975	/	Pass
		2452	1	37.503	/	Pass

2.1.2 6dB BW

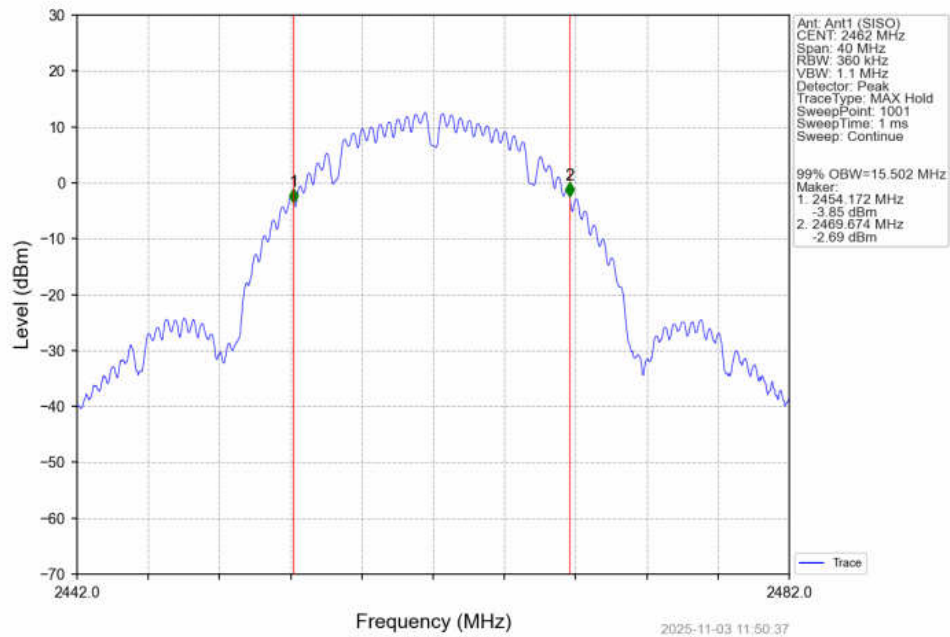
Mode	TX Type	Frequency (MHz)	ANT	6dB Bandwidth (MHz)		Verdict
				Result	Limit	
802.11b	SISO	2412	1	10.248	≥ 0.5	Pass
		2437	1	10.260	≥ 0.5	Pass
		2462	1	10.252	≥ 0.5	Pass
802.11g	SISO	2412	1	16.172	≥ 0.5	Pass
		2437	1	16.339	≥ 0.5	Pass
		2462	1	15.983	≥ 0.5	Pass
802.11n (HT20)	SISO	2412	1	17.033	≥ 0.5	Pass
		2437	1	17.347	≥ 0.5	Pass
		2462	1	16.284	≥ 0.5	Pass
802.11n (HT40)	SISO	2422	1	35.843	≥ 0.5	Pass
		2437	1	36.037	≥ 0.5	Pass
		2452	1	35.540	≥ 0.5	Pass
802.11ax (HEW20)	SISO	2412	1	16.891	≥ 0.5	Pass
		2437	1	17.342	≥ 0.5	Pass
		2462	1	17.137	≥ 0.5	Pass
802.11ax (HEW40)	SISO	2422	1	35.914	≥ 0.5	Pass
		2437	1	35.693	≥ 0.5	Pass
		2452	1	35.595	≥ 0.5	Pass

2.2 Test Graph

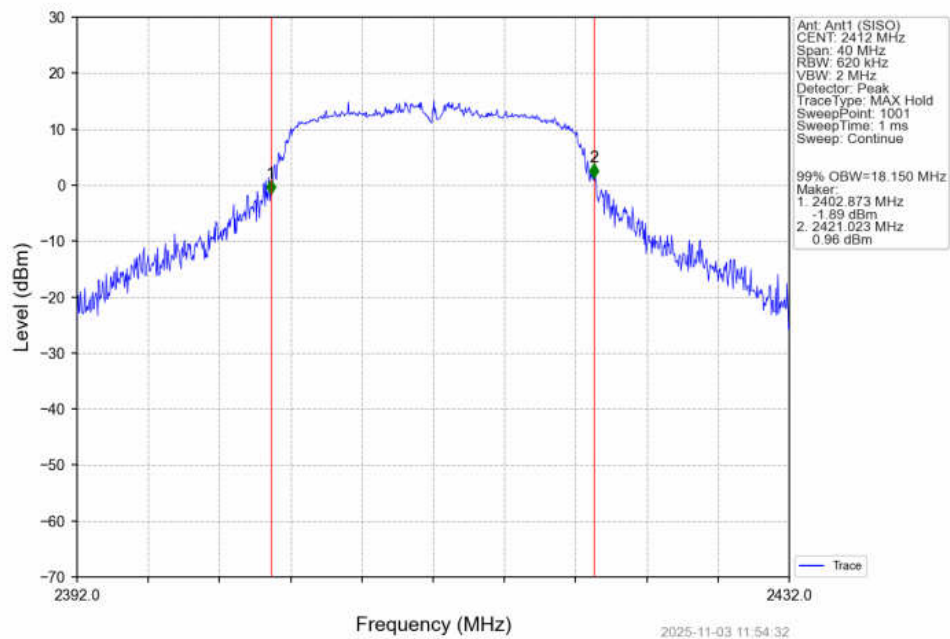
2.2.1 OBW



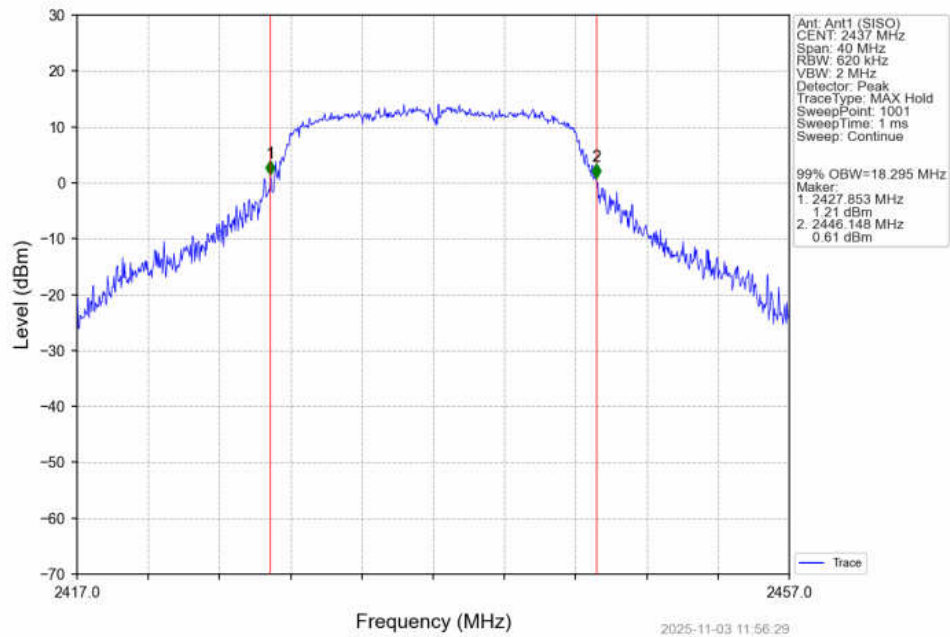
802.11b HCH 2462MHz Ant1 (SISO) NTN



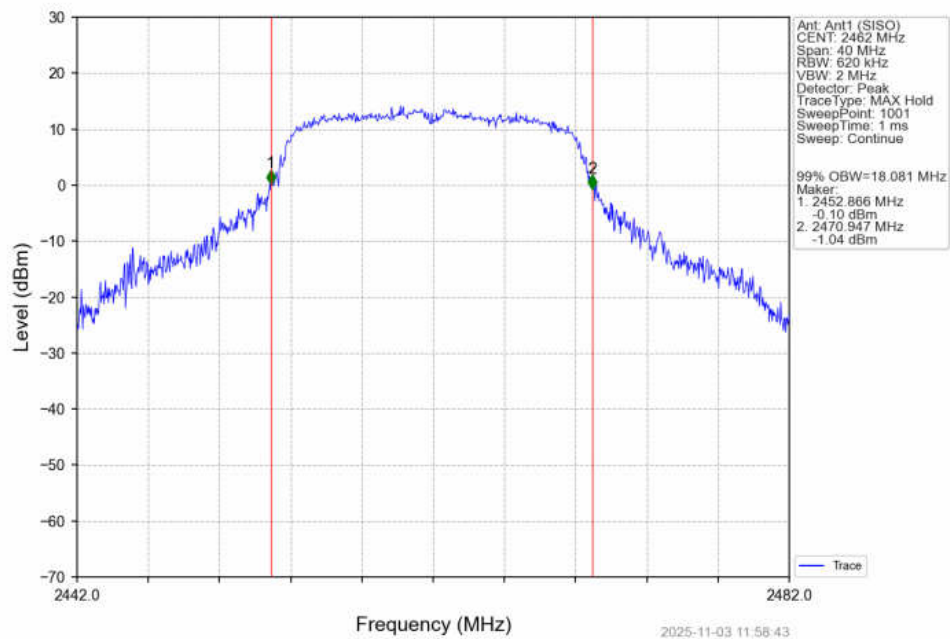
802.11g_LCH_2412MHz_Ant1 (SISO) NTN



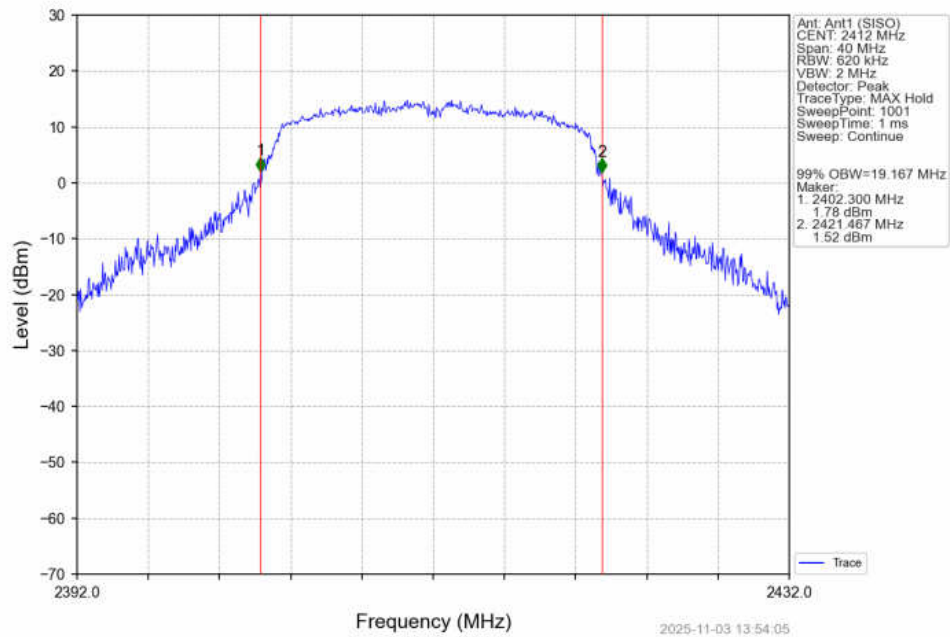
802.11g MCH 2437MHz Ant1 (SISO) NTN



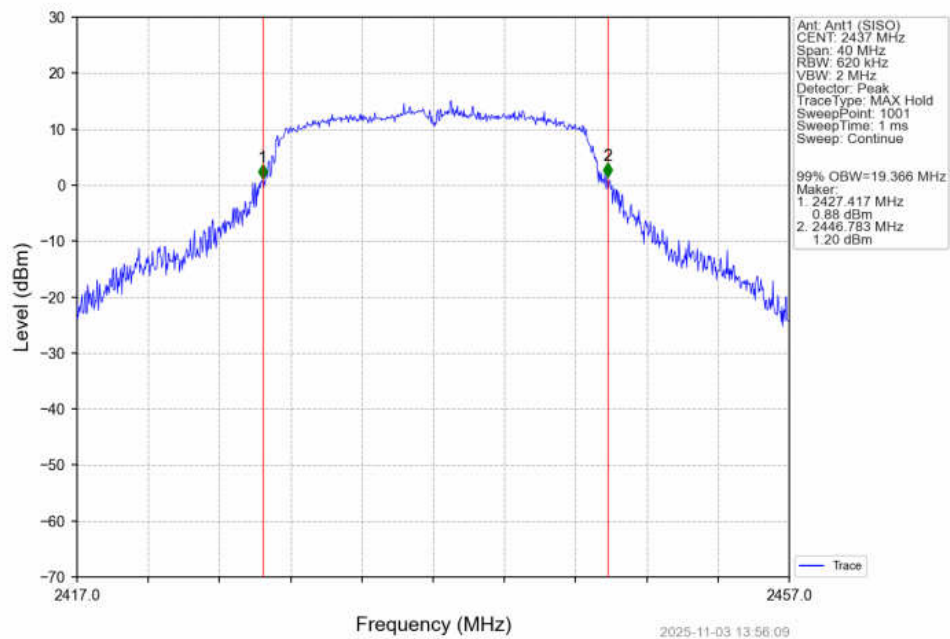
802.11g_HCH_2462MHz_Ant1 (SISO)_NTNV



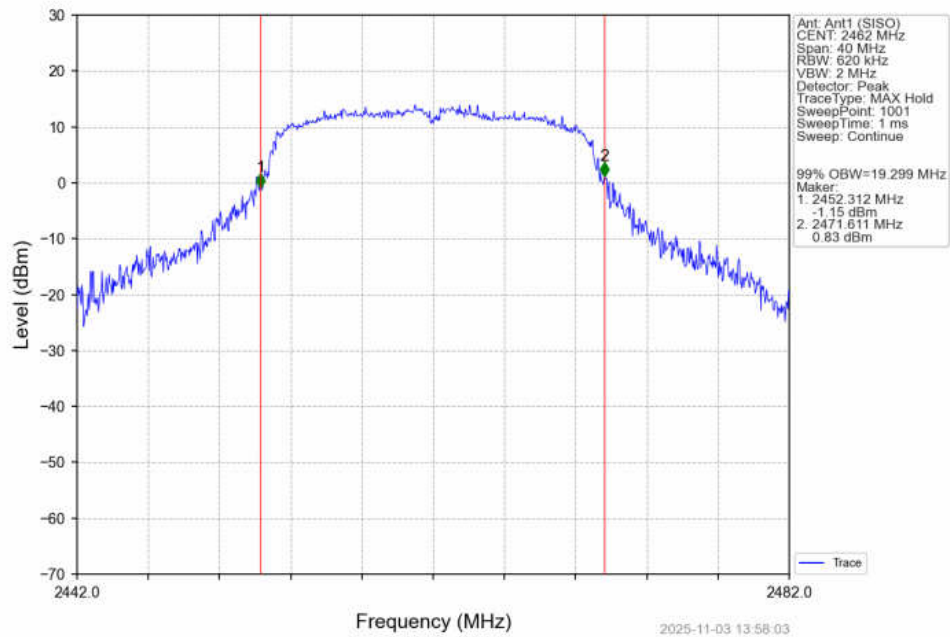
802.11n(HT20) LCH 2412MHz Ant1 (SISO) NTN



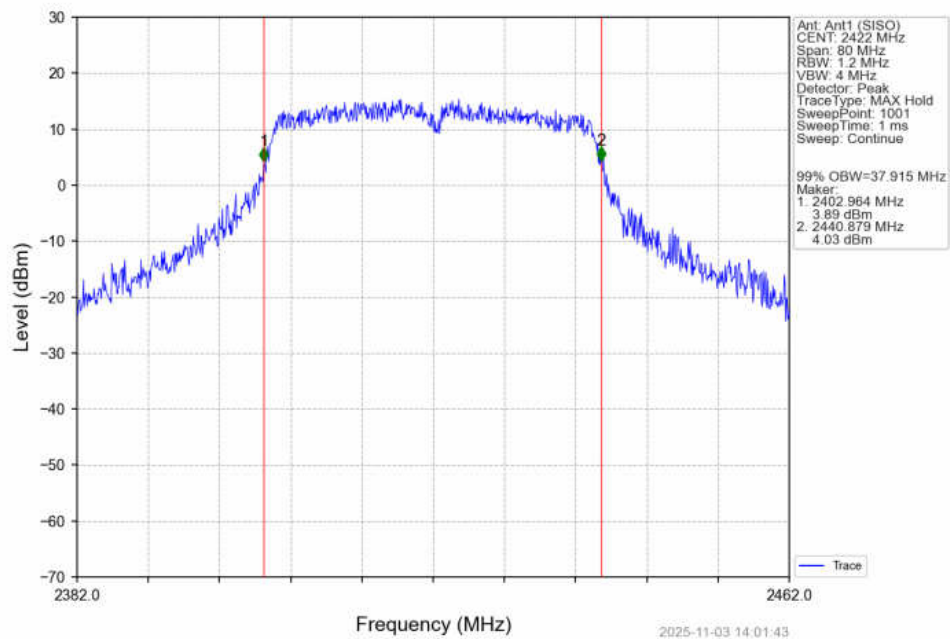
802.11n(HT20) MCH 2437MHz Ant1 (SISO) NTN



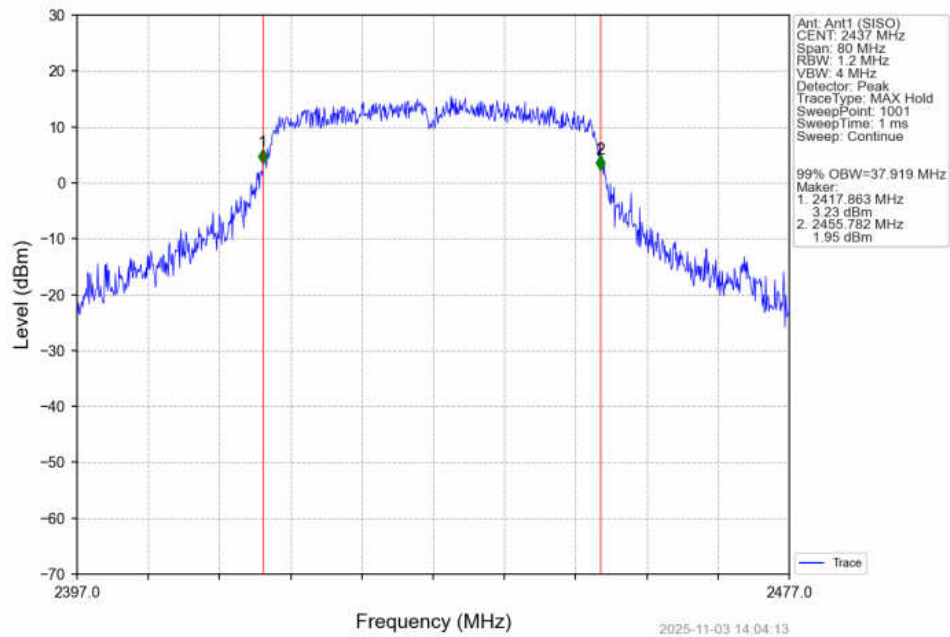
802.11n(HT20) HCH_2462MHz_Ant1 (SISO) NTN



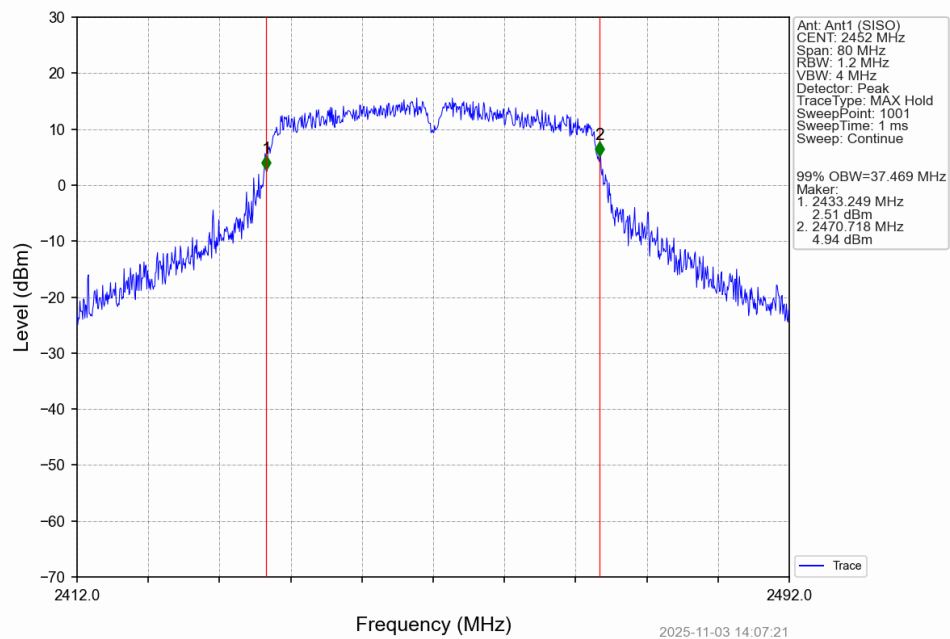
802.11n(HT40) LCH_2422MHz_Ant1 (SISO) NTN



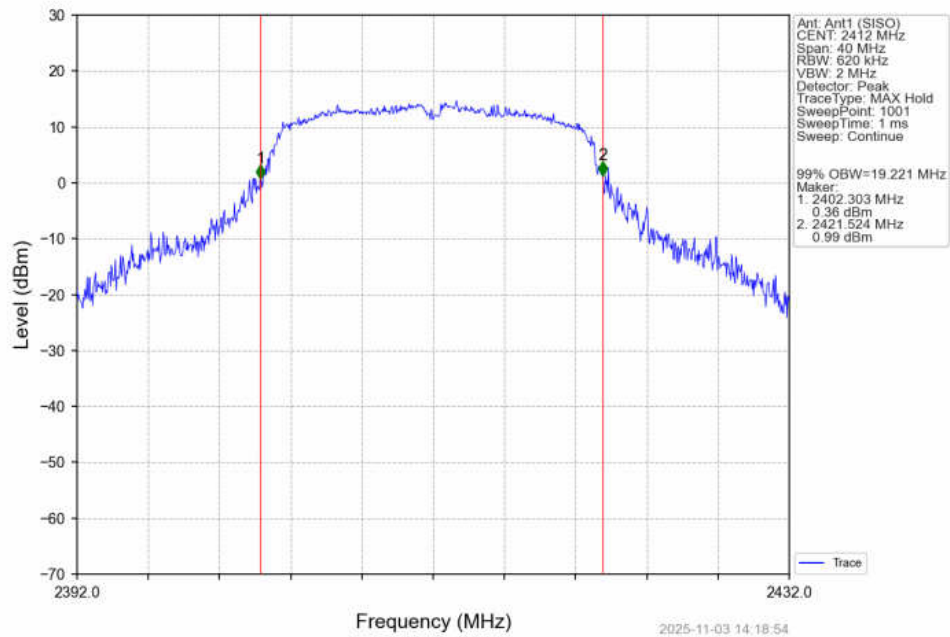
802.11n(HT40) MCH_2437MHz_Ant1 (SISO) NTN



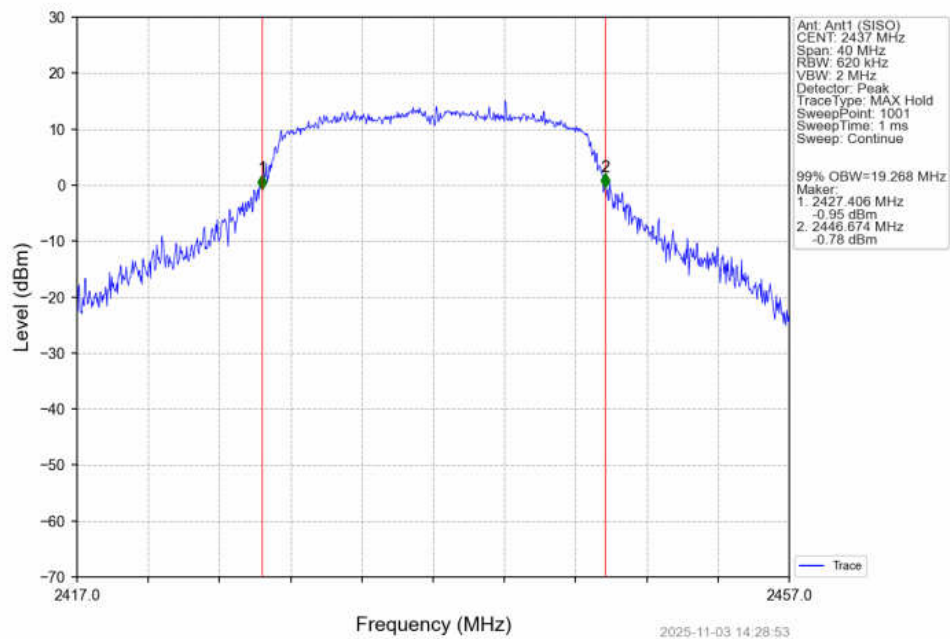
802.11n(HT40) HCH_2452MHz_Ant1 (SISO) NTN



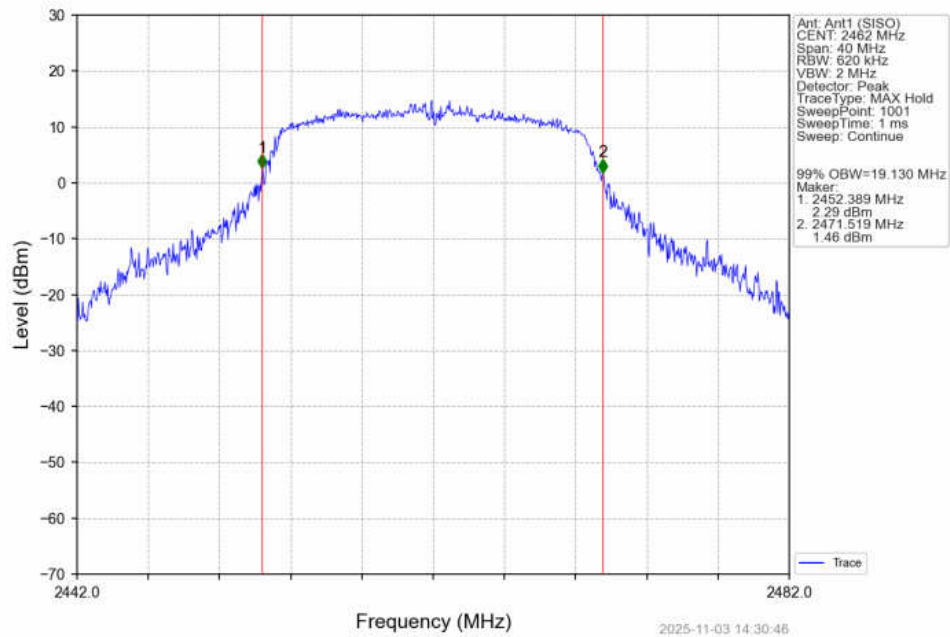
802.11ax(HEW20) LCH 2412MHz SU / Ant1 (SISO) NTN



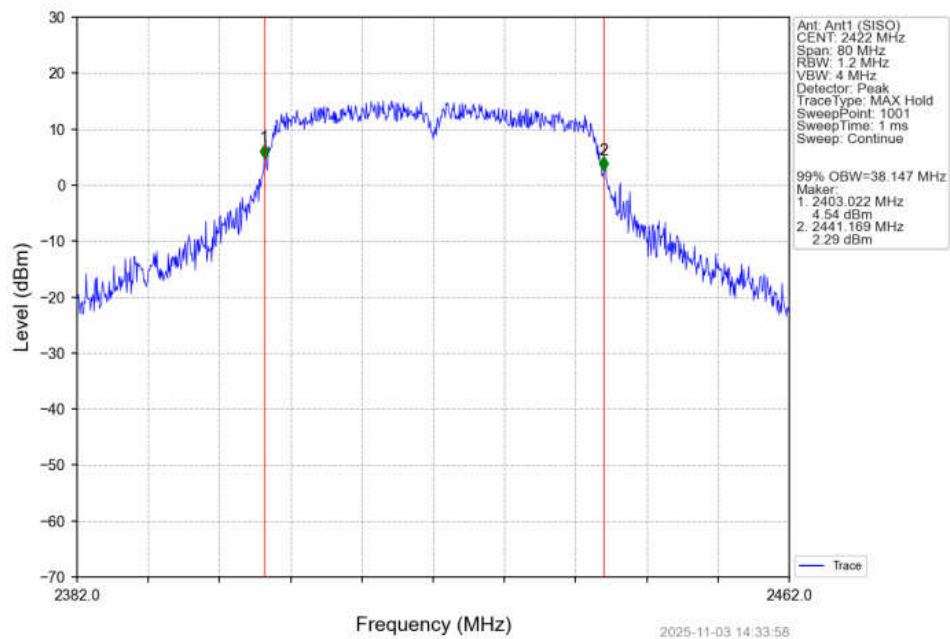
802.11ax(HEW20)_MCH_2437MHz_SU / Ant1 (SISO) NTN



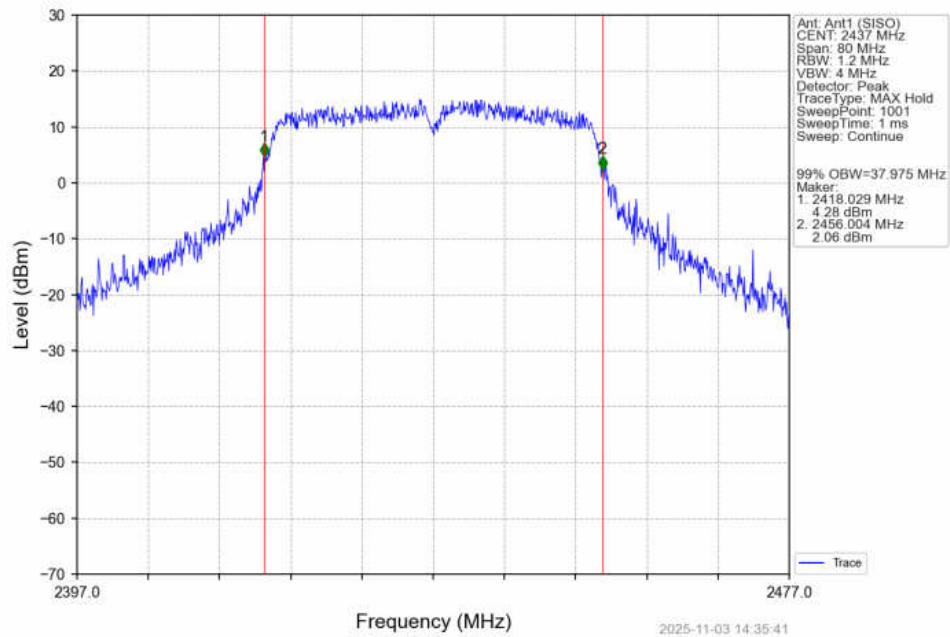
802.11ax(HEW20) HCH 2462MHz SU / Ant1 (SISO) NTNv



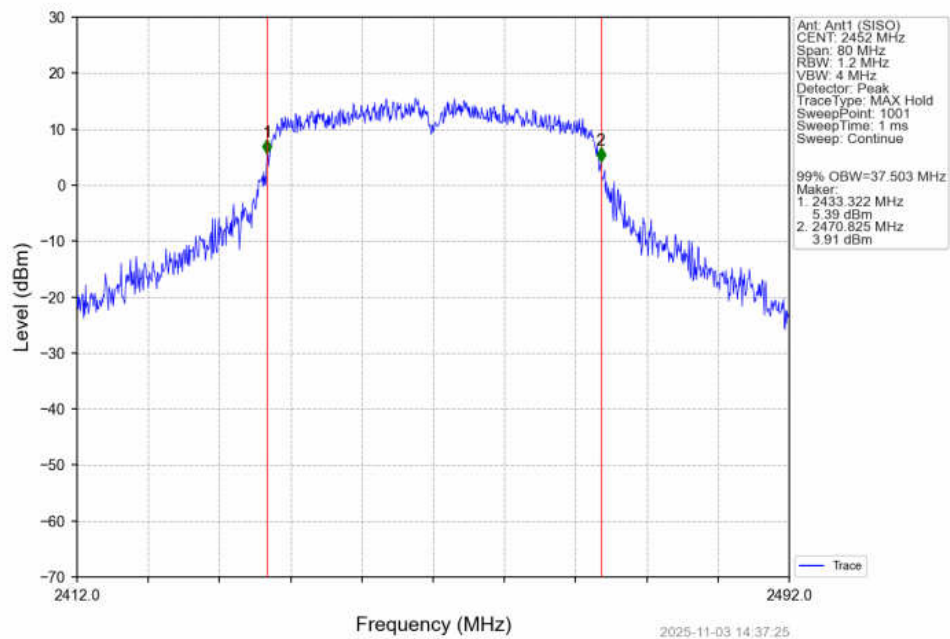
802.11ax(HEW40) LCH 2422MHz SU / Ant1 (SISO) NTNv



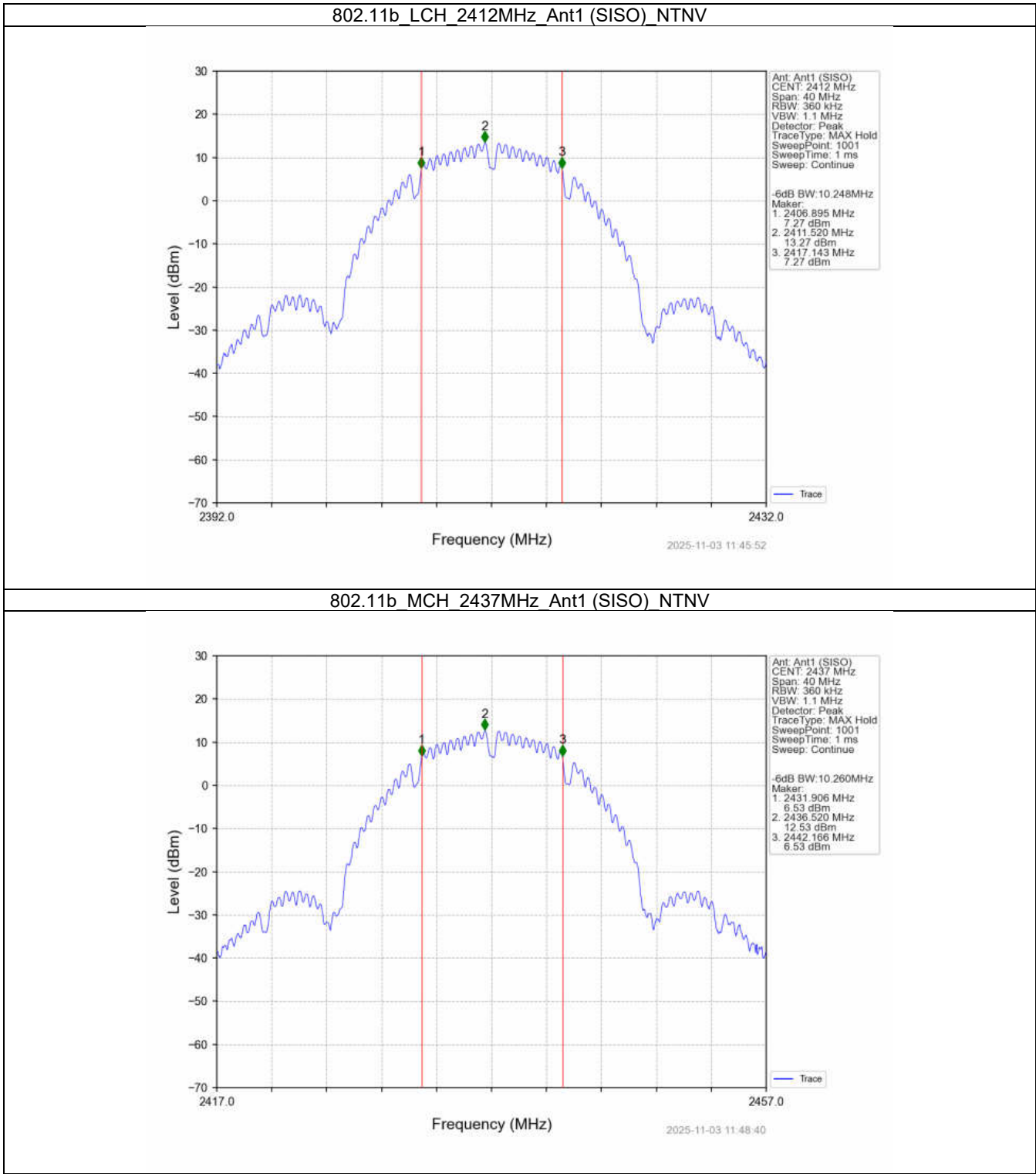
802.11ax(HEW40) MCH 2437MHz SU / Ant1 (SISO) NTN



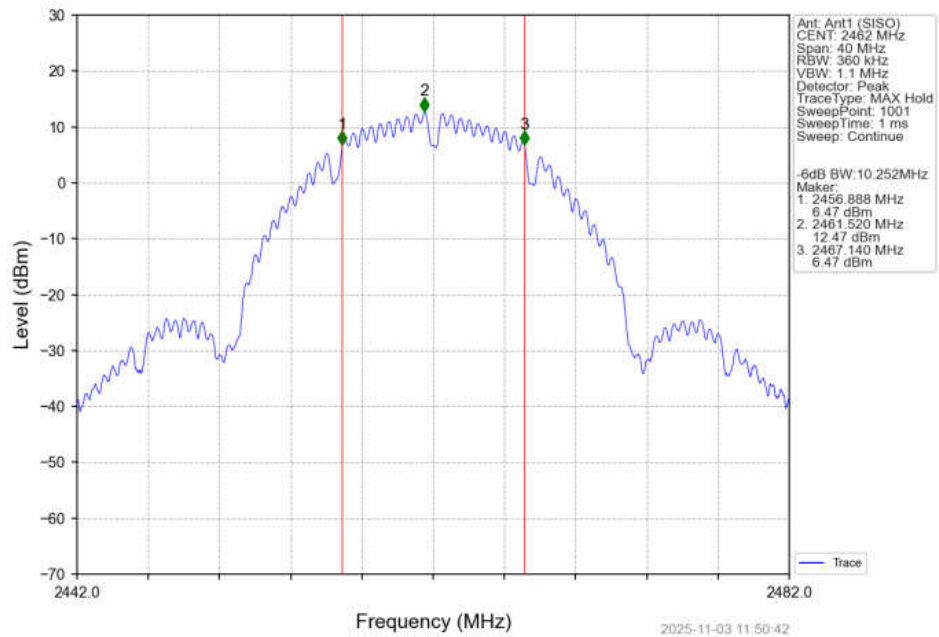
802.11ax(HEW40) HCH 2452MHz SU / Ant1 (SISO) NTN



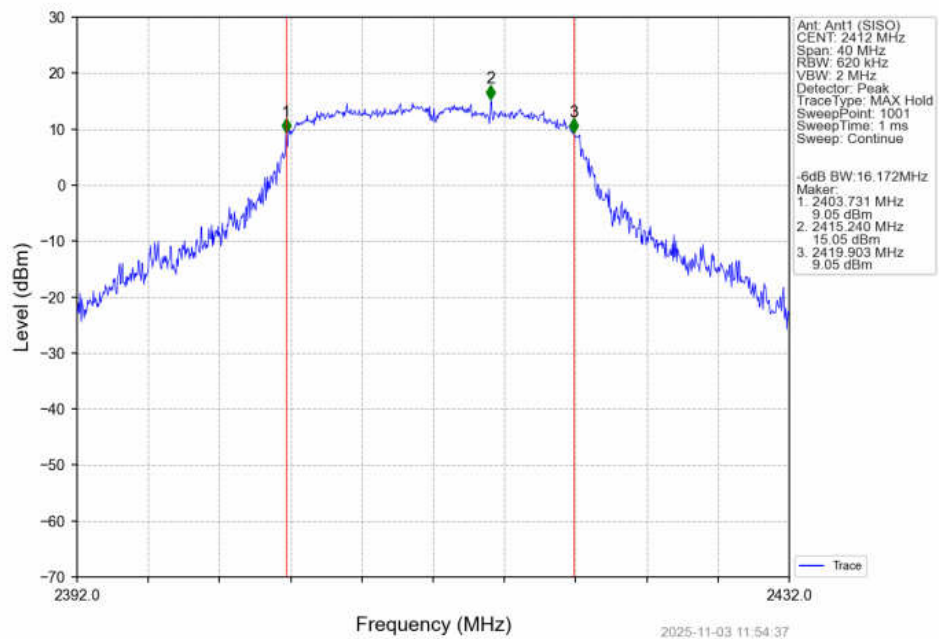
2.2.2 6dB BW



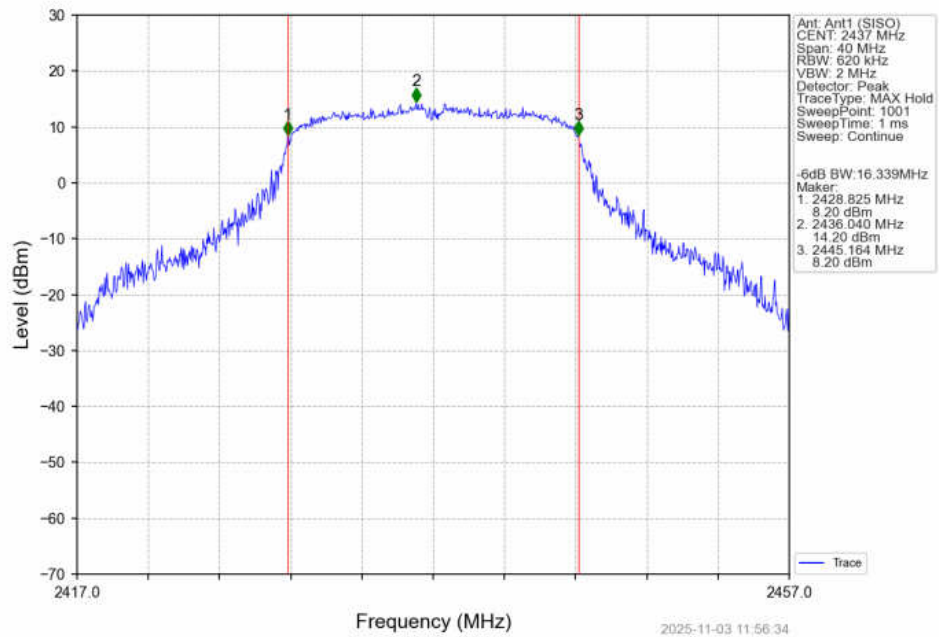
802.11b HCH 2462MHz Ant1 (SISO) NTN



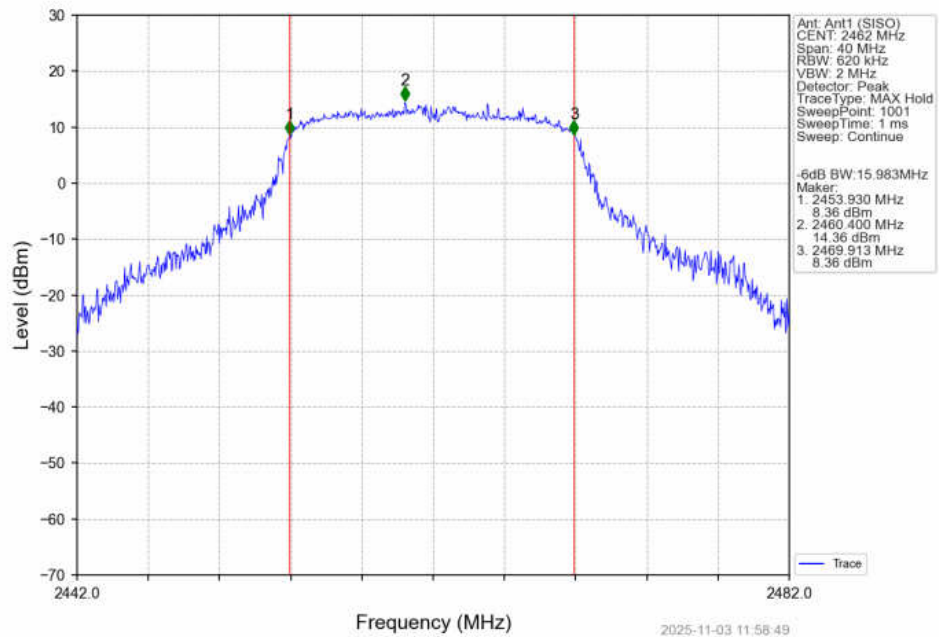
802.11g_LCH_2412MHz_Ant1 (SISO) NTN



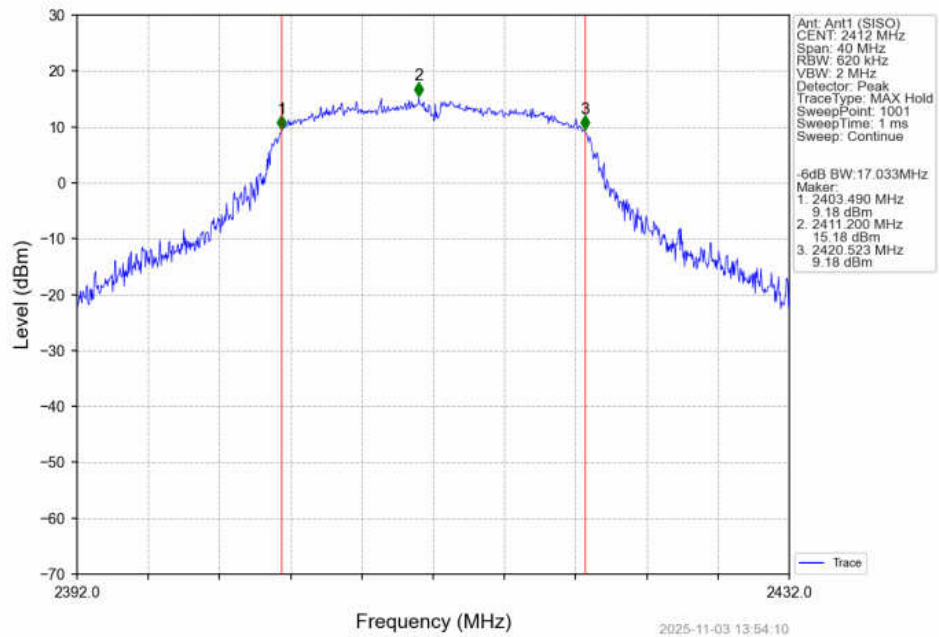
802.11g MCH 2437MHz Ant1 (SISO) NTN



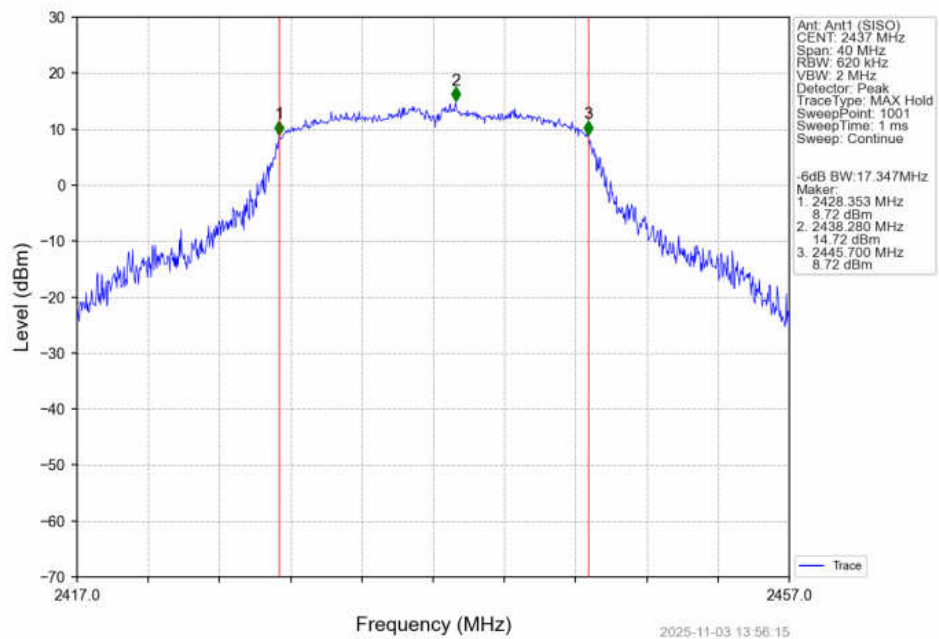
802.11g_HCH_2462MHz_Ant1 (SISO)_NTN



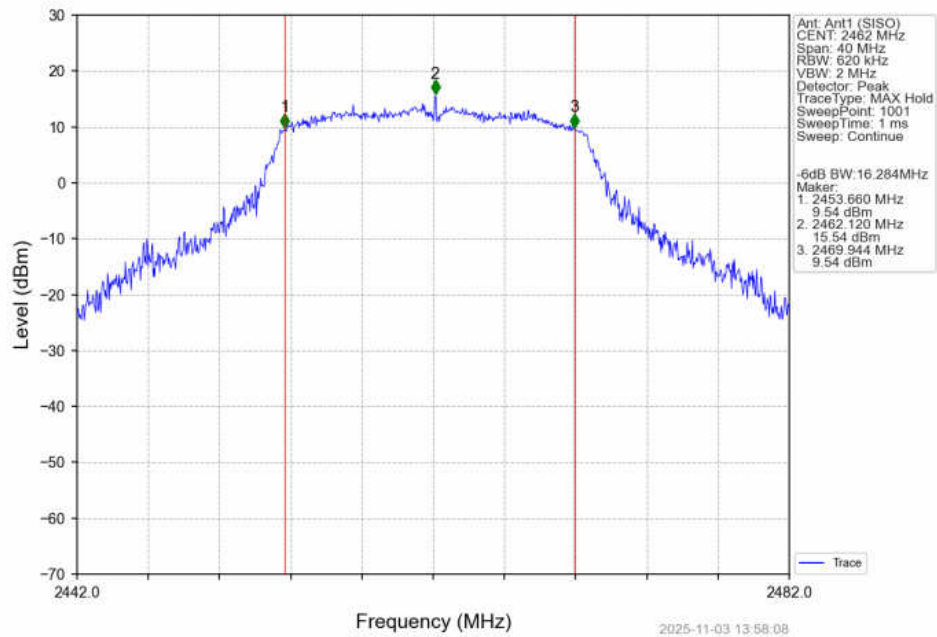
802.11n(HT20) LCH 2412MHz Ant1 (SISO) NTNV



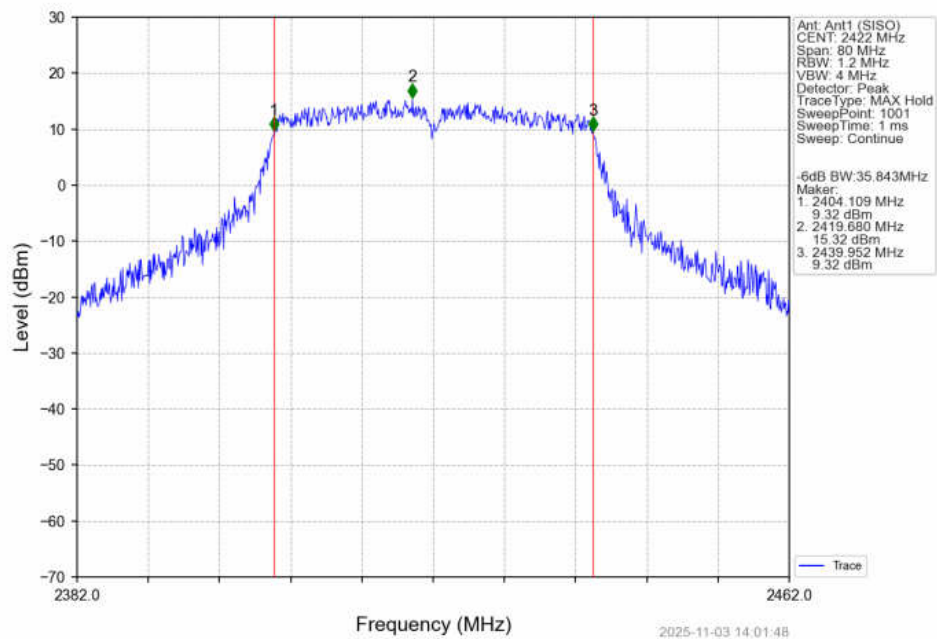
802.11n(HT20) MCH 2437MHz Ant1 (SISO) NTNV



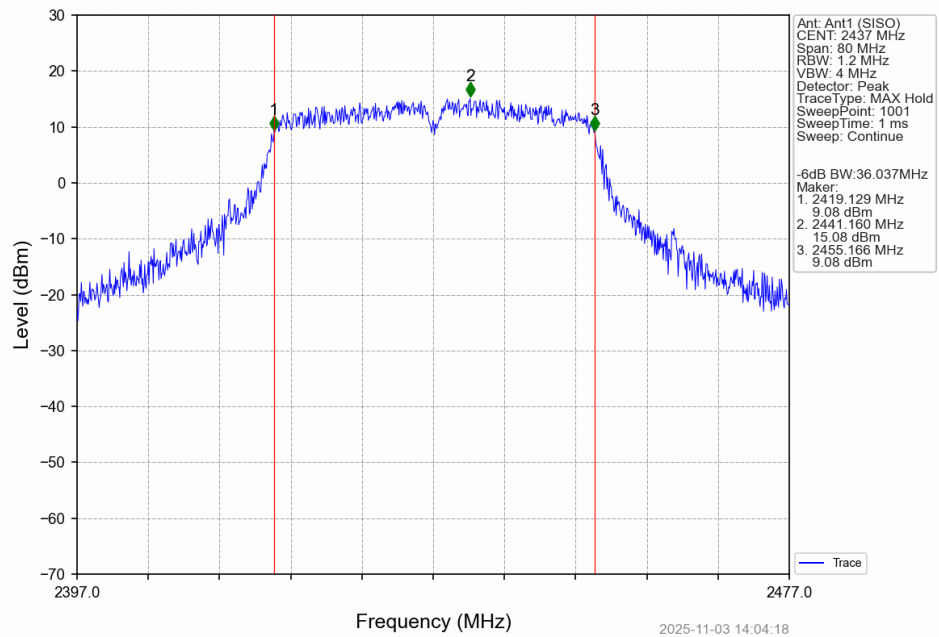
802.11n(HT20) HCH 2462MHz Ant1 (SISO) NTN



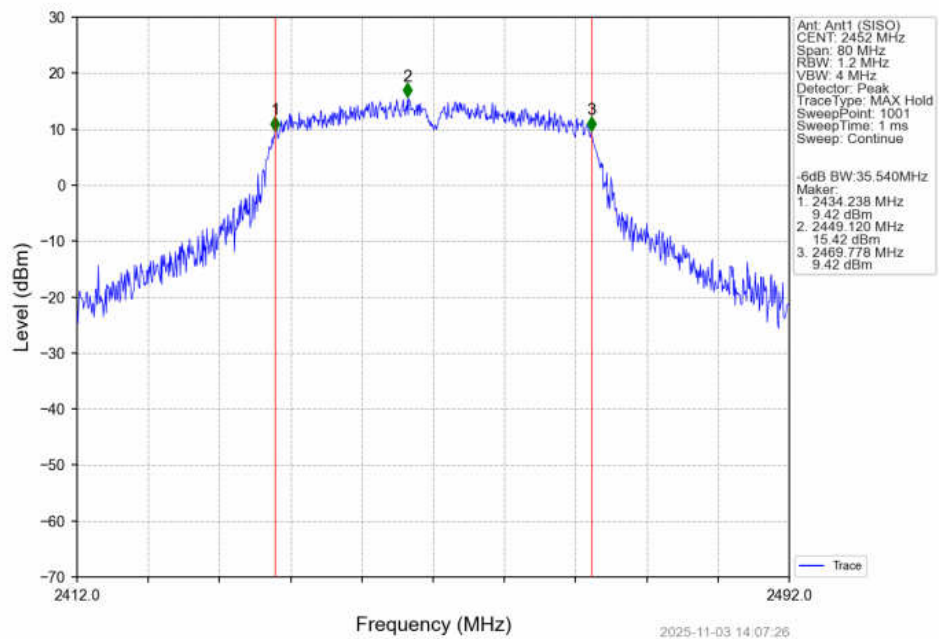
802.11n(HT40) LCH 2422MHz Ant1 (SISO) NTN



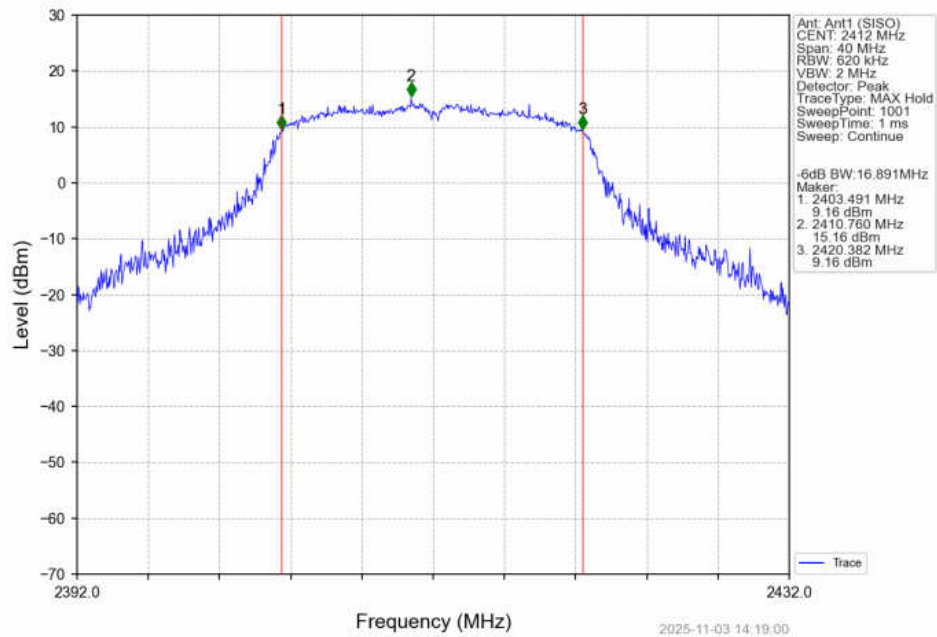
802.11n(HT40) MCH_2437MHz_Ant1 (SISO) NTN



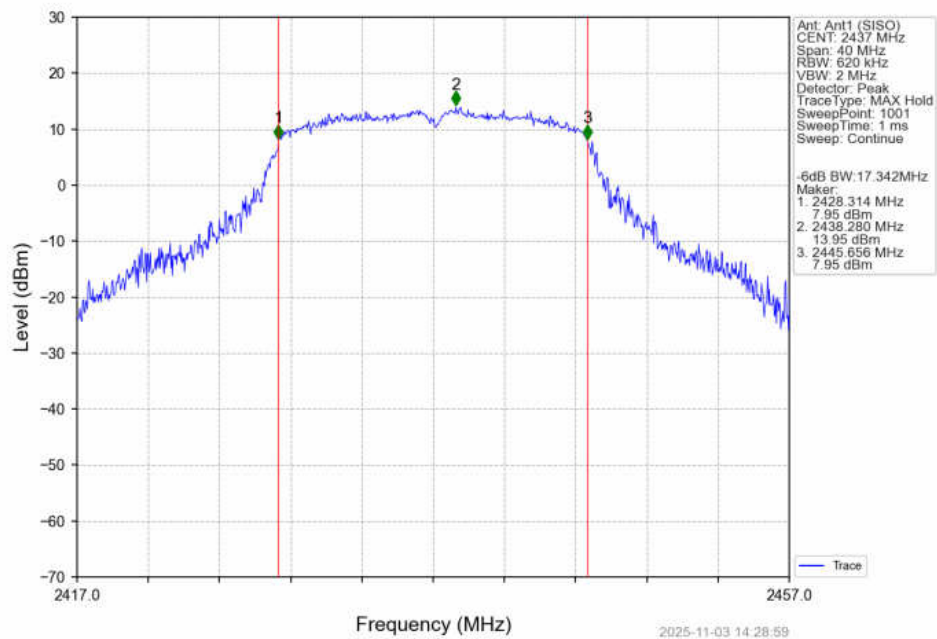
802.11n(HT40) HCH_2452MHz_Ant1 (SISO) NTN



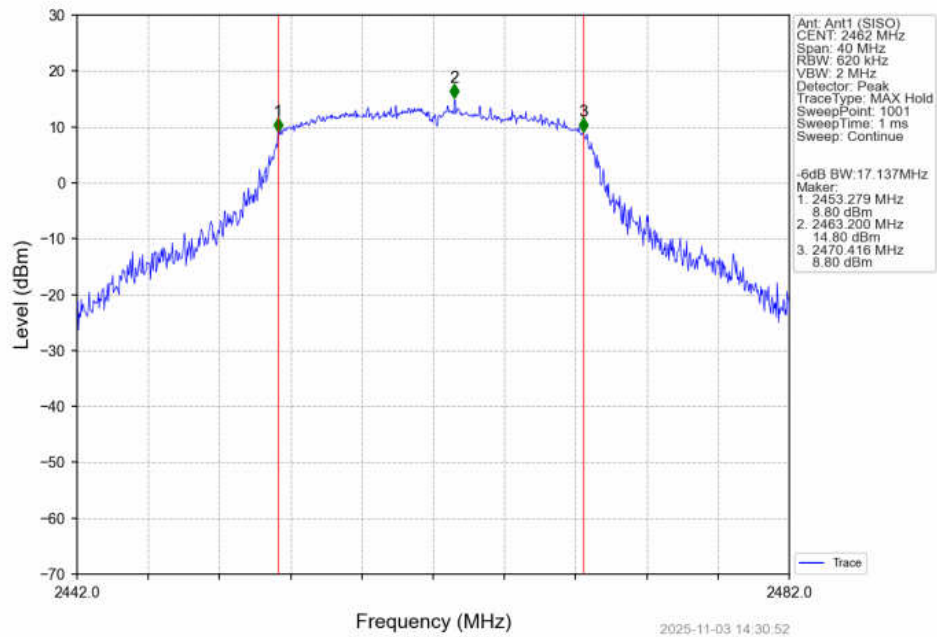
802.11ax(HEW20) LCH 2412MHz SU / Ant1 (SISO) NTNv



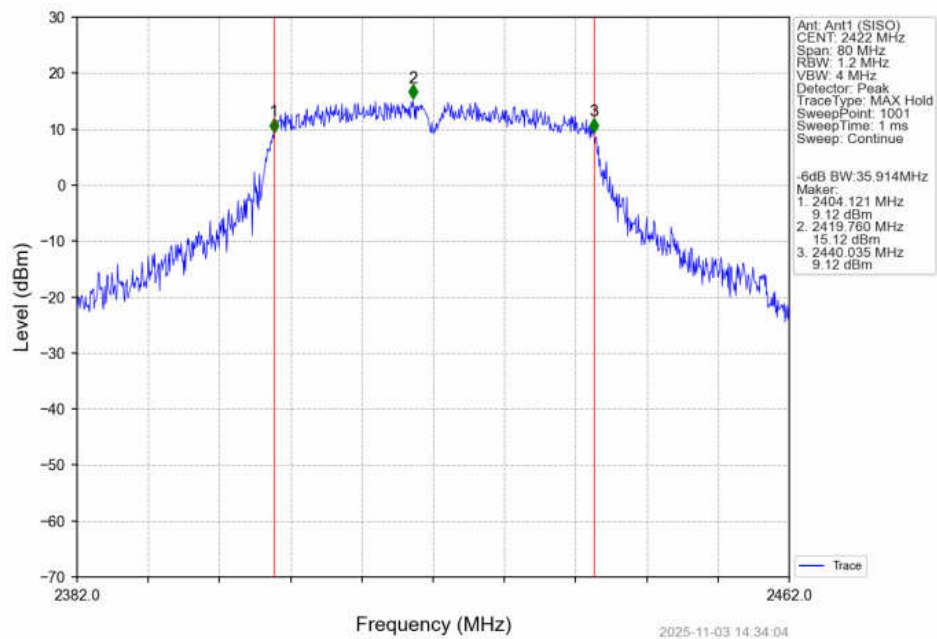
802.11ax(HEW20)_MCH_2437MHz_SU / Ant1 (SISO) NTNv



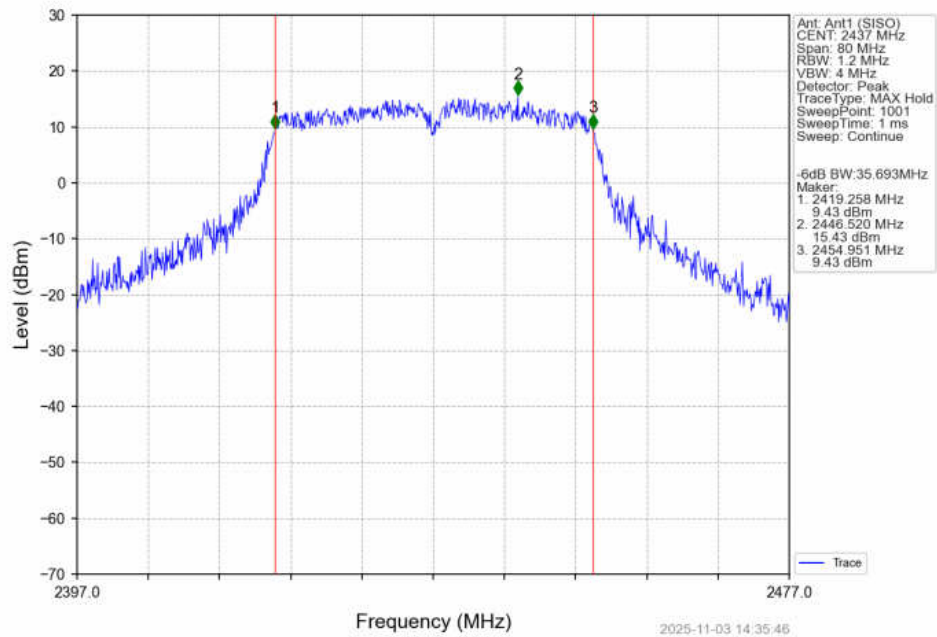
802.11ax(HEW20) HCH 2462MHz SU / Ant1 (SISO) NTNv



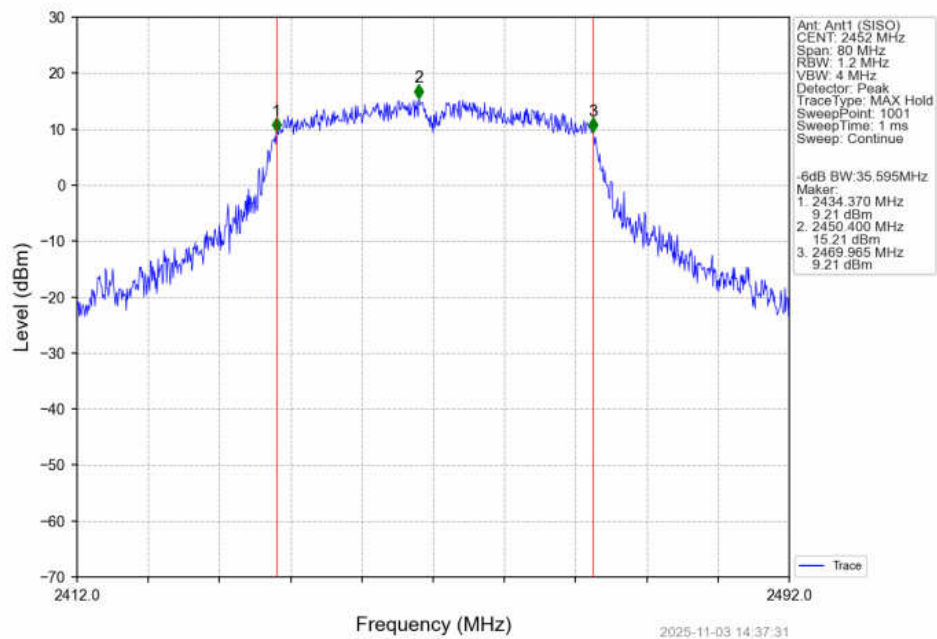
802.11ax(HEW40) LCH 2422MHz SU / Ant1 (SISO) NTNv



802.11ax(HEW40) MCH 2437MHz SU / Ant1 (SISO) 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)	Maximum Peak Conducted Output Power (dBm)		Verdict
			ANT1	Limit	
802.11b	SISO	2412	24.24	<=30	Pass
		2437	23.58	<=30	Pass
		2462	23.43	<=30	Pass
802.11g	SISO	2412	27.25	<=30	Pass
		2437	26.65	<=30	Pass
		2462	26.57	<=30	Pass
802.11n (HT20)	SISO	2412	27.55	<=30	Pass
		2437	26.99	<=30	Pass
		2462	26.60	<=30	Pass
802.11n (HT40)	SISO	2422	26.89	<=30	Pass
		2437	26.68	<=30	Pass
		2452	26.72	<=30	Pass
802.11ax (HEW20)	SISO	2412	27.28	<=30	Pass
		2437	26.78	<=30	Pass
		2462	26.65	<=30	Pass
802.11ax (HEW40)	SISO	2422	26.79	<=30	Pass
		2437	26.60	<=30	Pass
		2452	26.48	<=30	Pass

4. Maximum Power Spectral Density

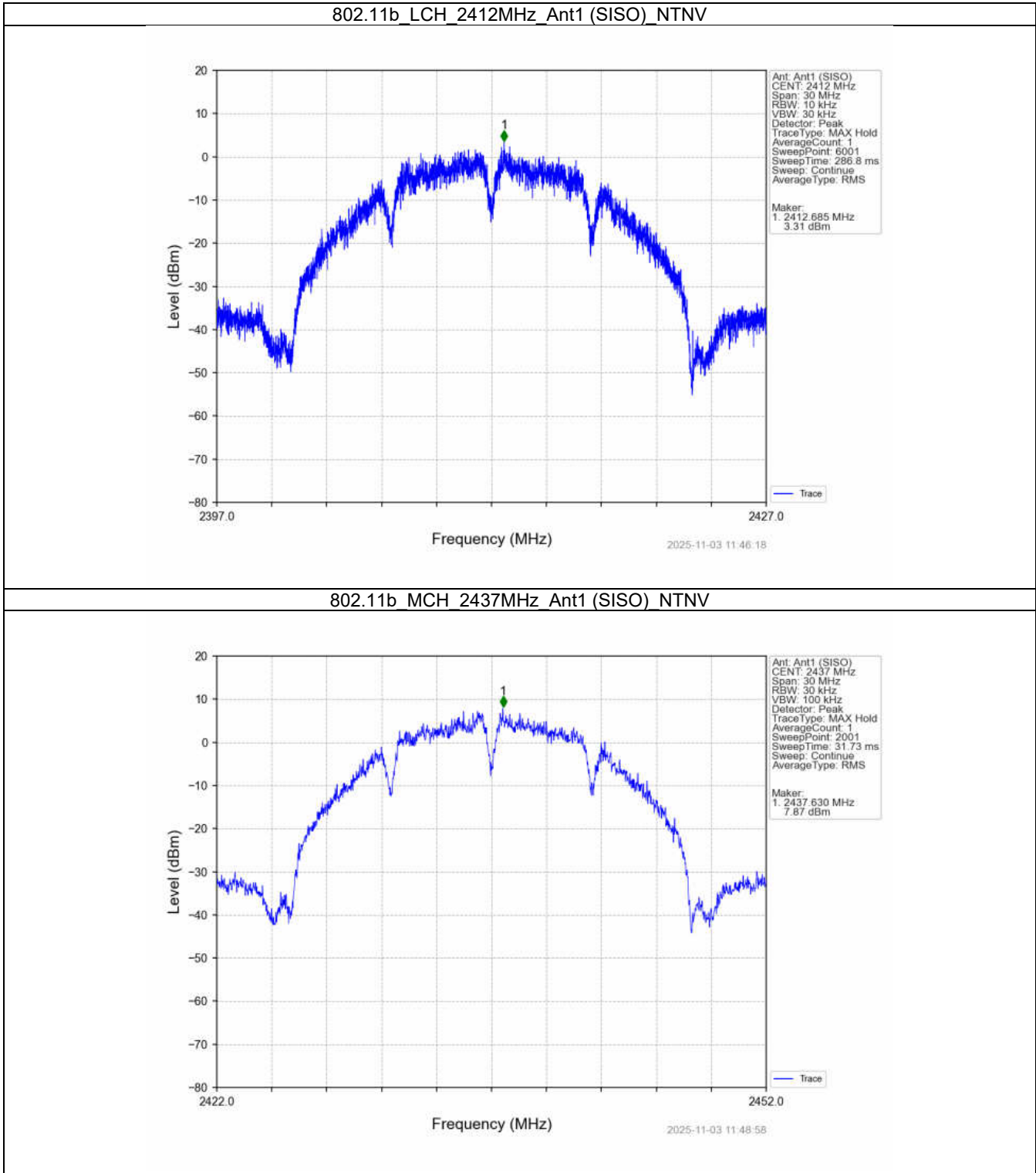
4.1 Test Result

4.1.1 PSD

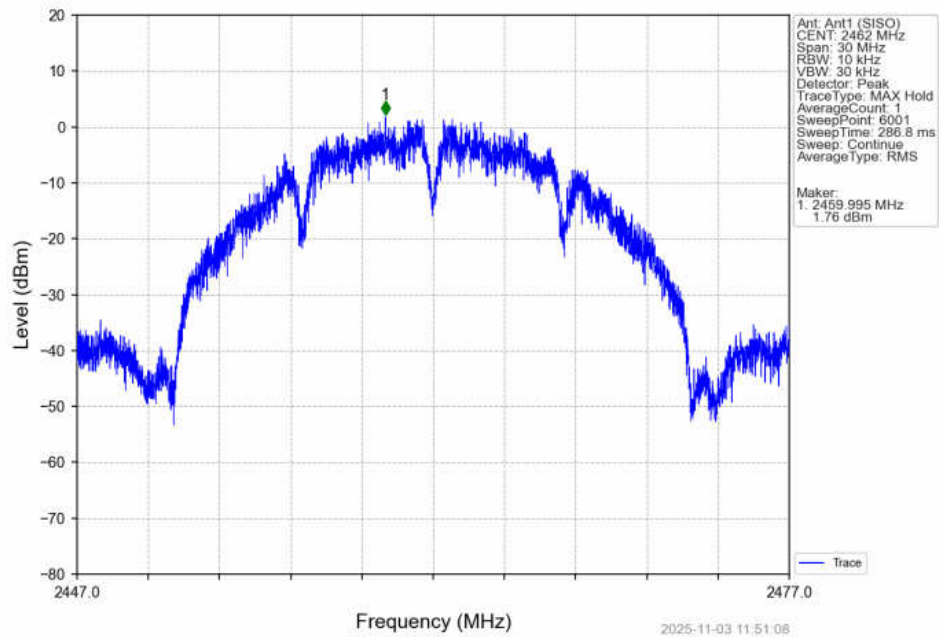
Mode	TX Type	Frequency (MHz)	Maximum PSD (dBm)		Verdict
			ANT1	Limit	
802.11b	SISO	2412	3.31	<=8	Pass
		2437	7.87	<=8	Pass
		2462	1.76	<=8	Pass
802.11g	SISO	2412	4.26	<=8	Pass
		2437	3.49	<=8	Pass
		2462	3.31	<=8	Pass
802.11n (HT20)	SISO	2412	3.96	<=8	Pass
		2437	4.58	<=8	Pass
		2462	5.14	<=8	Pass
802.11n (HT40)	SISO	2422	6.88	<=8	Pass
		2437	6.61	<=8	Pass
		2452	6.02	<=8	Pass
802.11ax (HEW20)	SISO	2412	4.00	<=8	Pass
		2437	3.64	<=8	Pass
		2462	3.94	<=8	Pass
802.11ax (HEW40)	SISO	2422	6.48	<=8	Pass
		2437	5.88	<=8	Pass
		2452	6.20	<=8	Pass

4.2 Test Graph

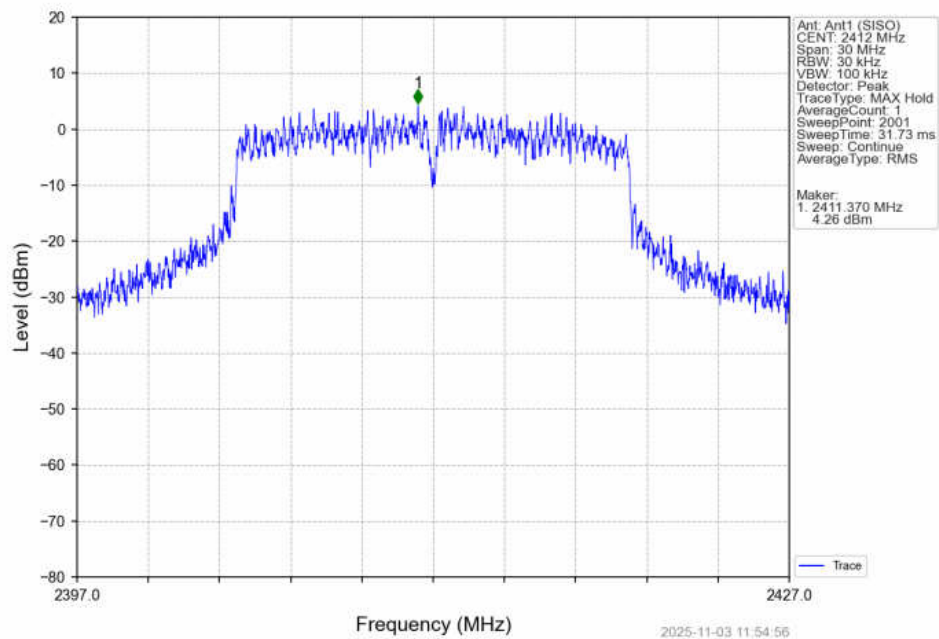
4.2.1 PSD



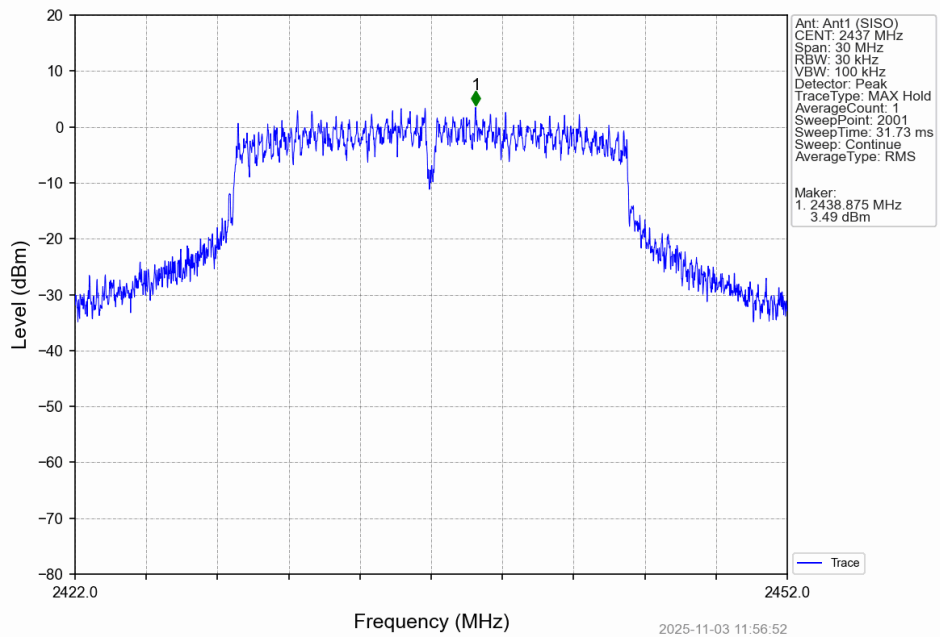
802.11b HCH 2462MHz Ant1 (SISO) NTN



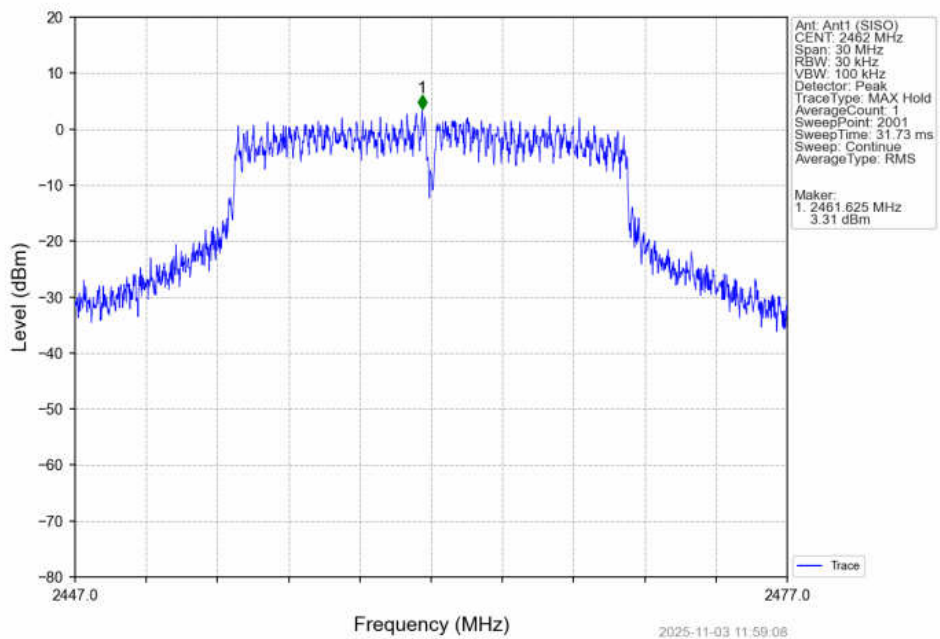
802.11g_LCH_2412MHz_Ant1 (SISO) NTN



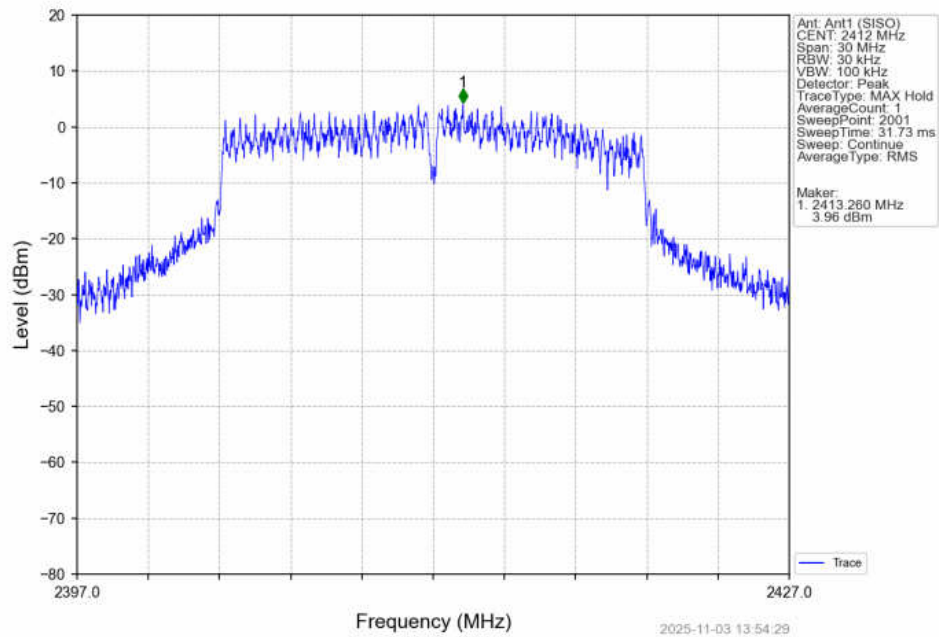
802.11g MCH 2437MHz Ant1 (SISO) NTN



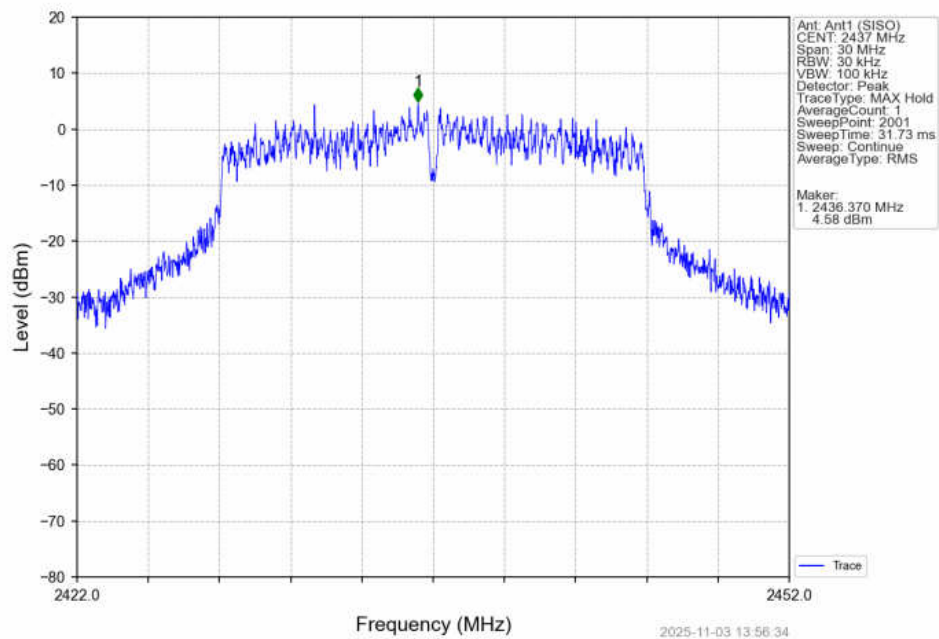
802.11g_HCH_2462MHz_Ant1 (SISO)_NTN



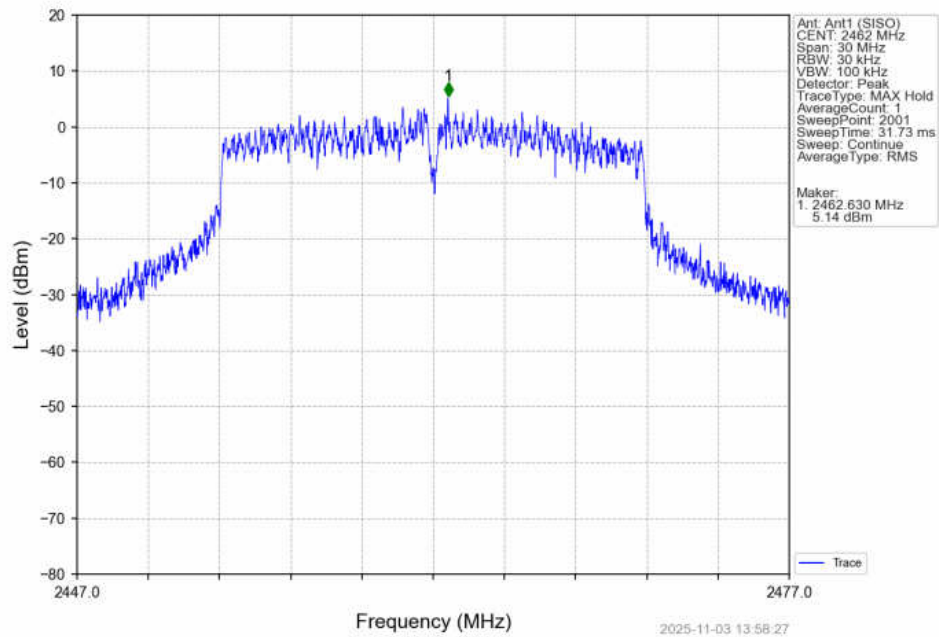
802.11n(HT20) LCH 2412MHz Ant1 (SISO) NTN



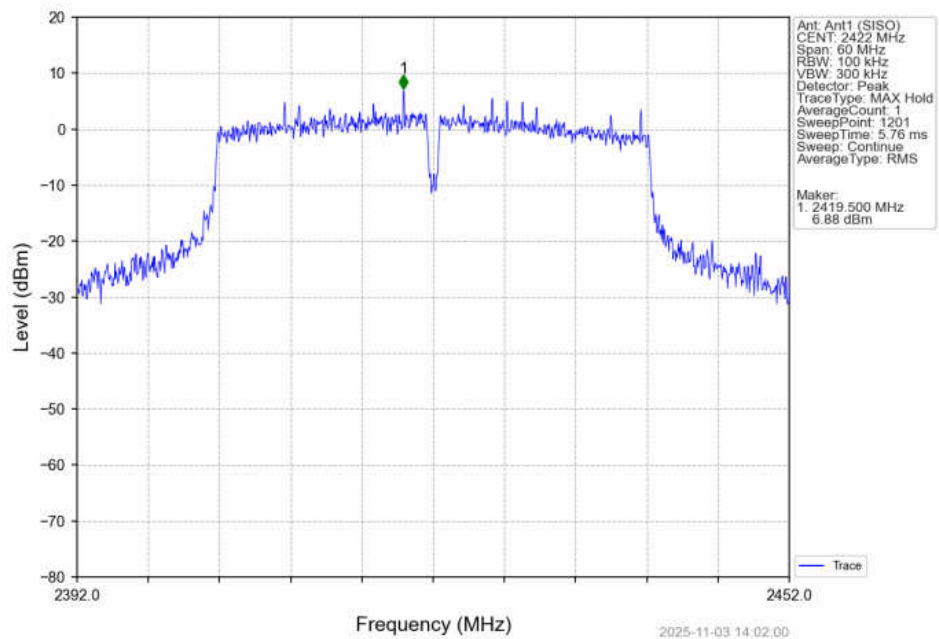
802.11n(HT20) MCH 2437MHz Ant1 (SISO) NTN



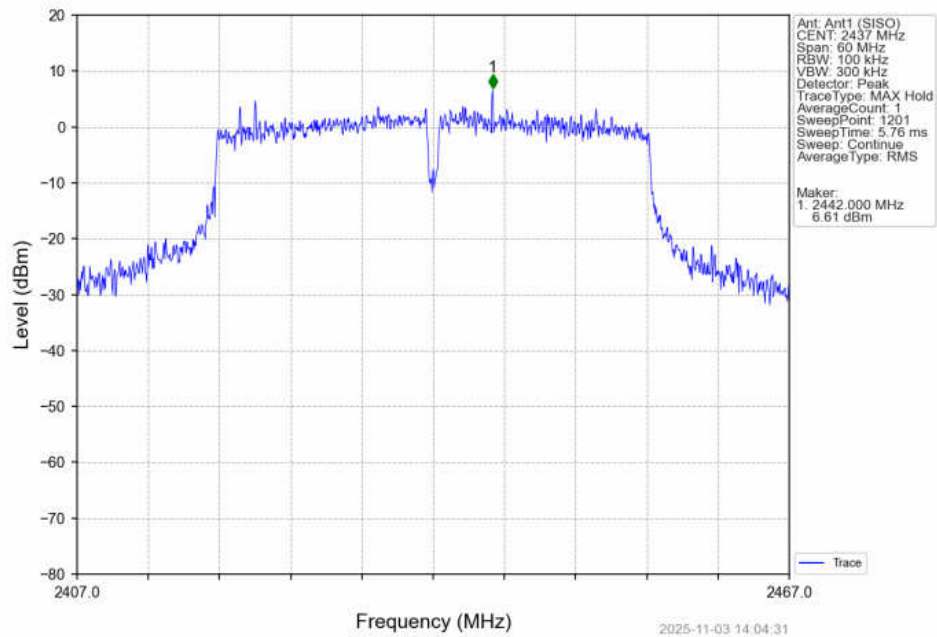
802.11n(HT20) HCH 2462MHz Ant1 (SISO) NTN



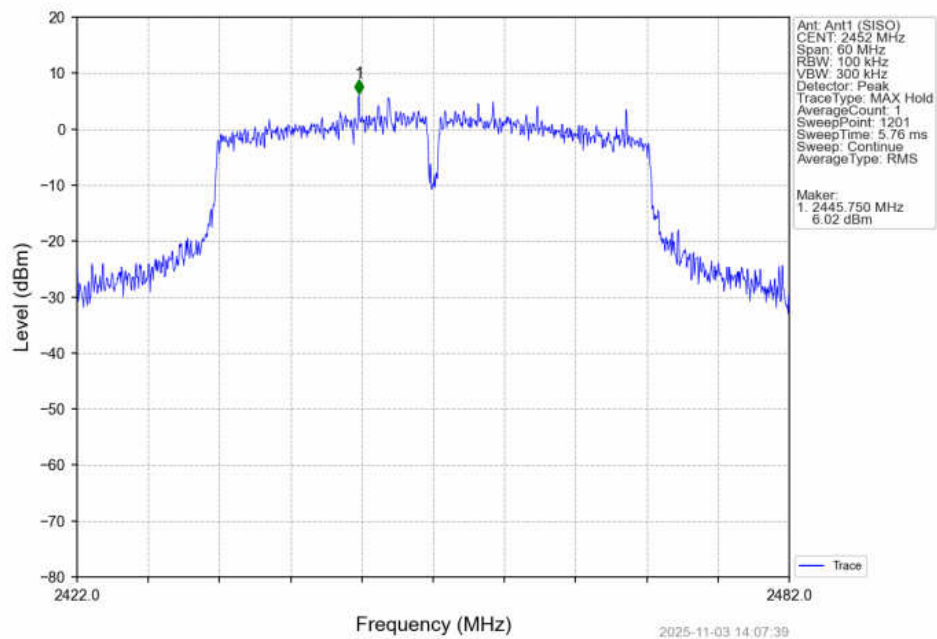
802.11n(HT40) LCH 2422MHz Ant1 (SISO) NTN



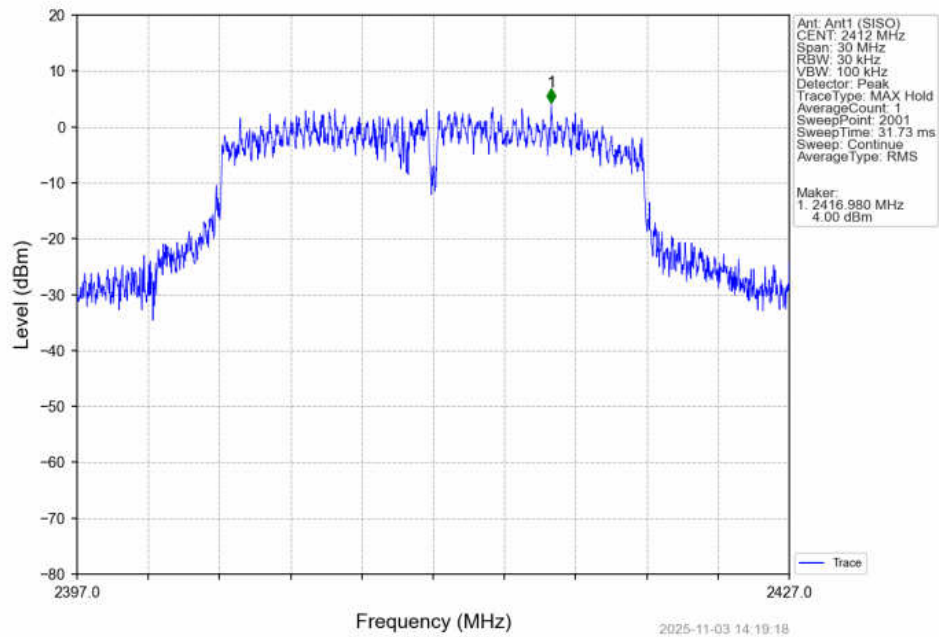
802.11n(HT40) MCH_2437MHz_Ant1 (SISO) NTN



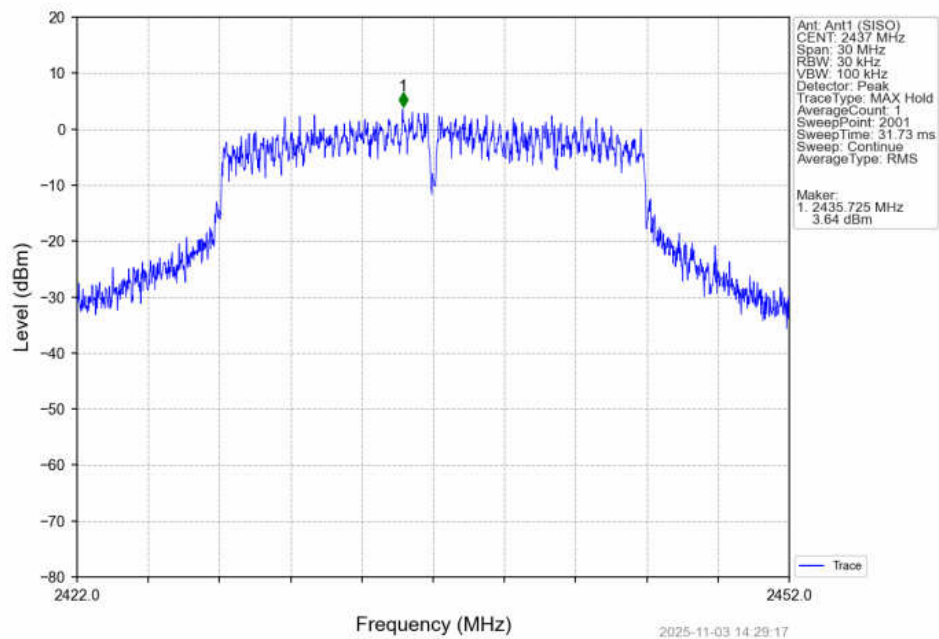
802.11n(HT40)_HCH_2452MHz_Ant1 (SISO)_NTN



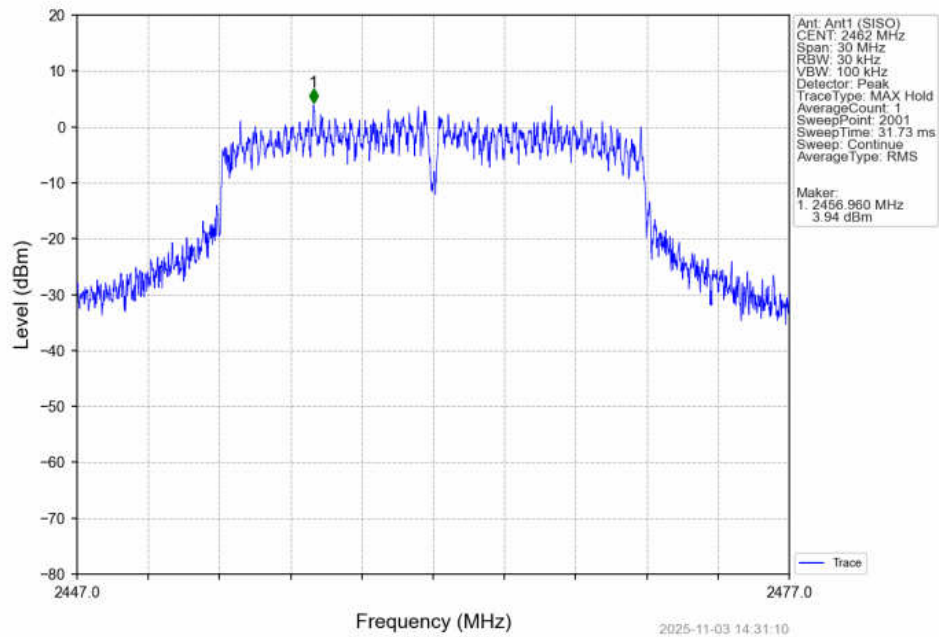
802.11ax(HEW20) LCH 2412MHz SU / Ant1 (SISO) NTN



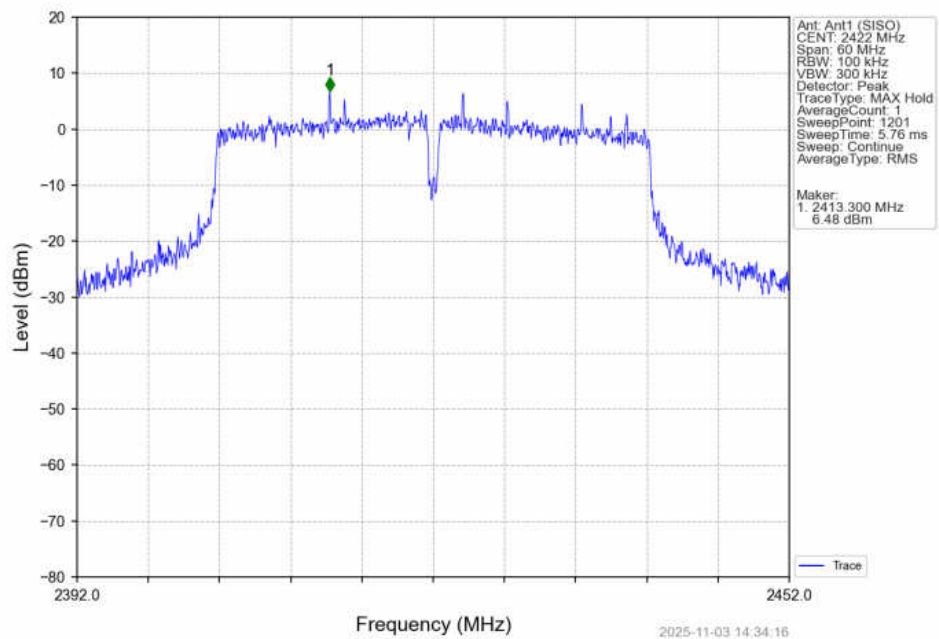
802.11ax(HEW20)_MCH 2437MHz SU / Ant1 (SISO) NTN



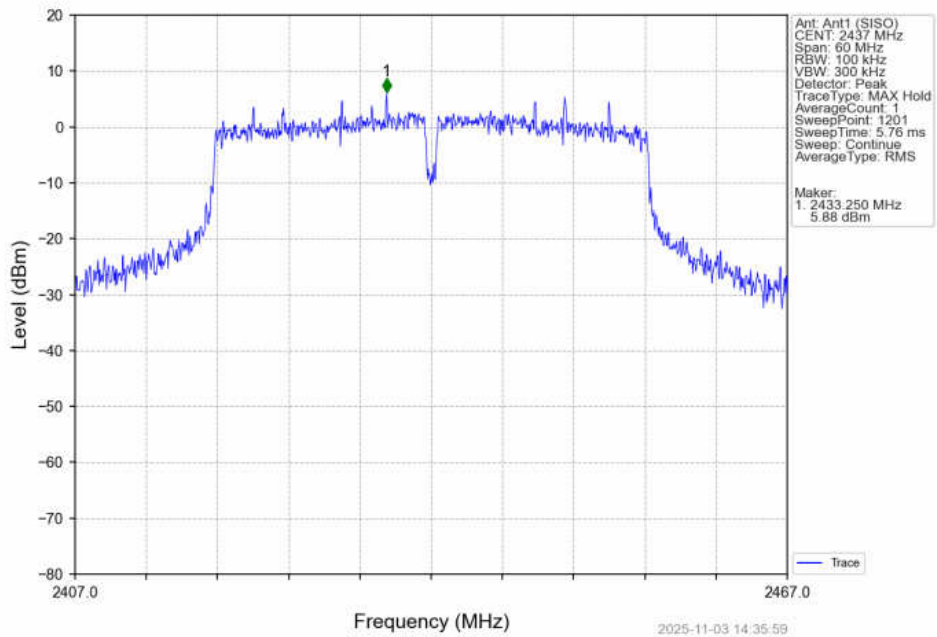
802.11ax(HEW20) HCH 2462MHz SU / Ant1 (SISO) NTNv



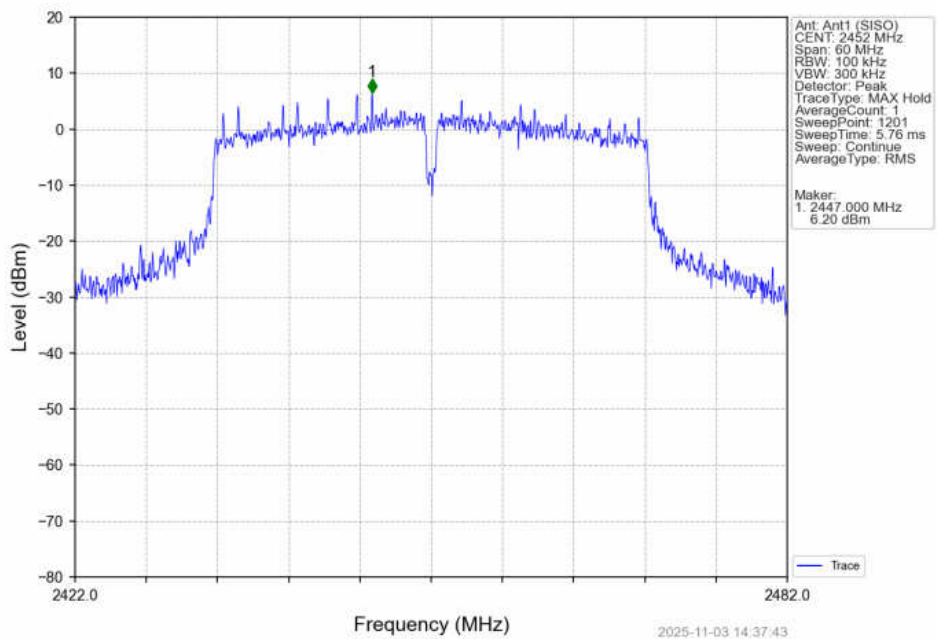
802.11ax(HEW40) LCH 2422MHz SU / Ant1 (SISO) NTNv



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

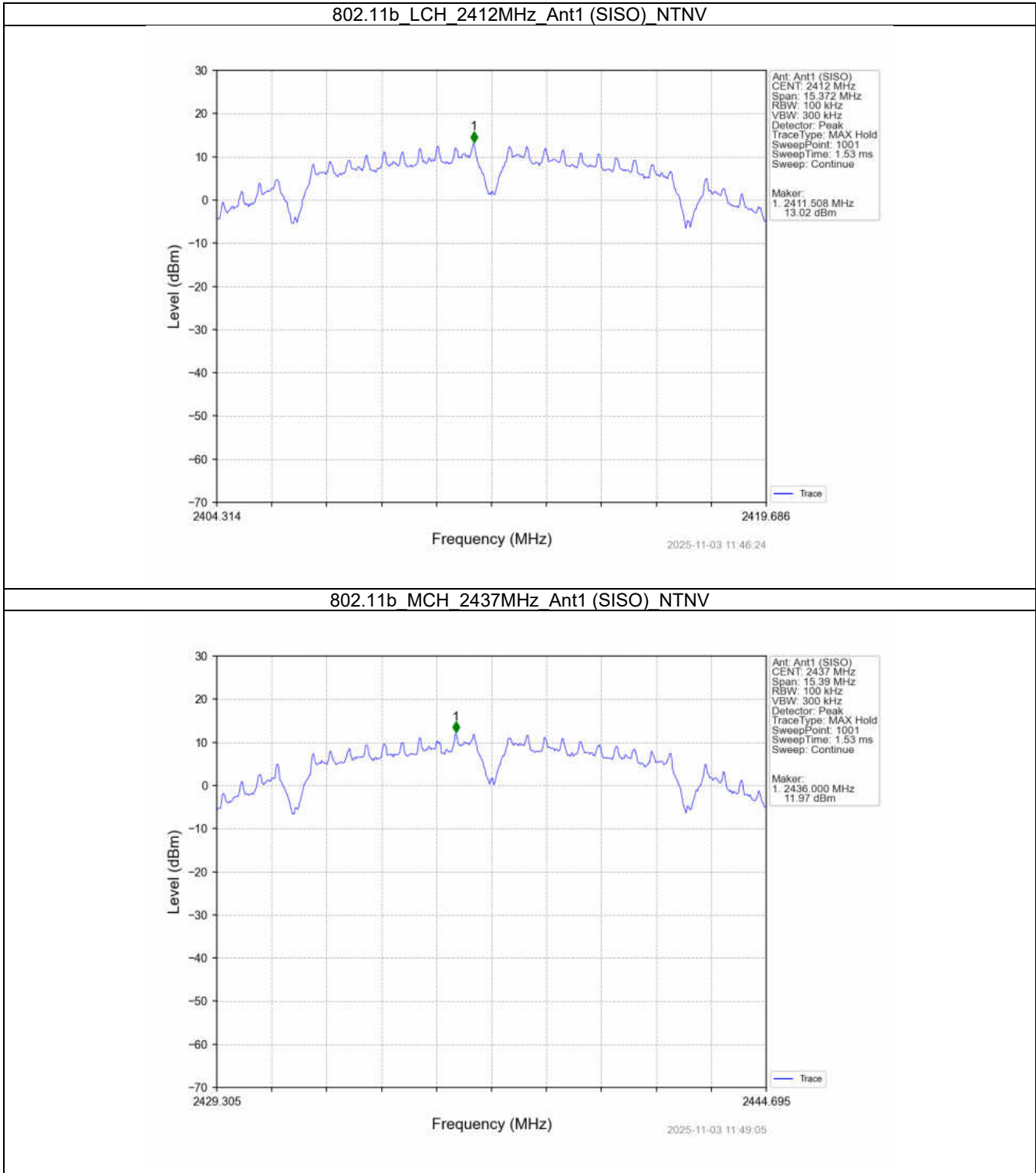
Mode	TX Type	Frequency (MHz)	ANT	Level of Reference (dBm)
802.11b	SISO	2412	1	13.02
		2437	1	11.97
		2462	1	11.78
802.11g	SISO	2412	1	9.23
		2437	1	8.17
		2462	1	9.61
802.11n (HT20)	SISO	2412	1	10.14
		2437	1	9.04
		2462	1	9.86
802.11n (HT40)	SISO	2422	1	6.29
		2437	1	6.50
		2452	1	7.01
802.11ax (HEW20)	SISO	2412	1	9.66
		2437	1	8.74
		2462	1	8.34
802.11ax (HEW40)	SISO	2422	1	6.60
		2437	1	6.28
		2452	1	6.47
Note1: Refer to FCC Part 15.247 (d) and ANSI C63.10-2020, the channel contains the maximum PSD level was used to establish the reference level.				

5.1.2 CSE

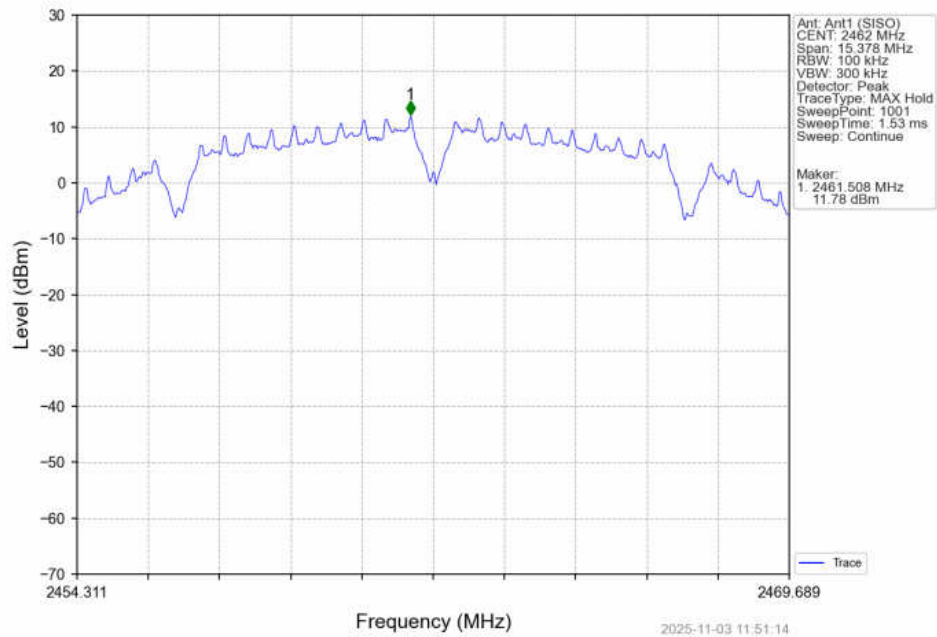
Mode	TX Type	Frequency (MHz)	ANT	Level of Reference (dBm)	Limit (dBm)	Verdict
802.11b	SISO	2412	1	13.02	-6.98	Pass
		2437	1	11.97	-8.03	Pass
		2462	1	11.78	-8.22	Pass
802.11g	SISO	2412	1	9.23	-10.77	Pass
		2437	1	8.17	-11.83	Pass
		2462	1	9.61	-10.39	Pass
802.11n (HT20)	SISO	2412	1	10.14	-9.86	Pass
		2437	1	9.04	-10.96	Pass
		2462	1	9.86	-10.14	Pass
802.11n (HT40)	SISO	2422	1	6.29	-13.71	Pass
		2437	1	6.50	-13.50	Pass
		2452	1	7.01	-12.99	Pass
802.11ax (HEW20)	SISO	2412	1	9.66	-10.34	Pass
		2437	1	8.74	-11.26	Pass
		2462	1	8.34	-11.66	Pass
802.11ax (HEW40)	SISO	2422	1	6.60	-13.40	Pass
		2437	1	6.28	-13.72	Pass
		2452	1	6.47	-13.53	Pass
Note1: Refer to FCC Part 15.247 (d) and ANSI C63.10-2020, the channel contains the maximum PSD level was used to establish the reference level.						

5.2 Test Graph

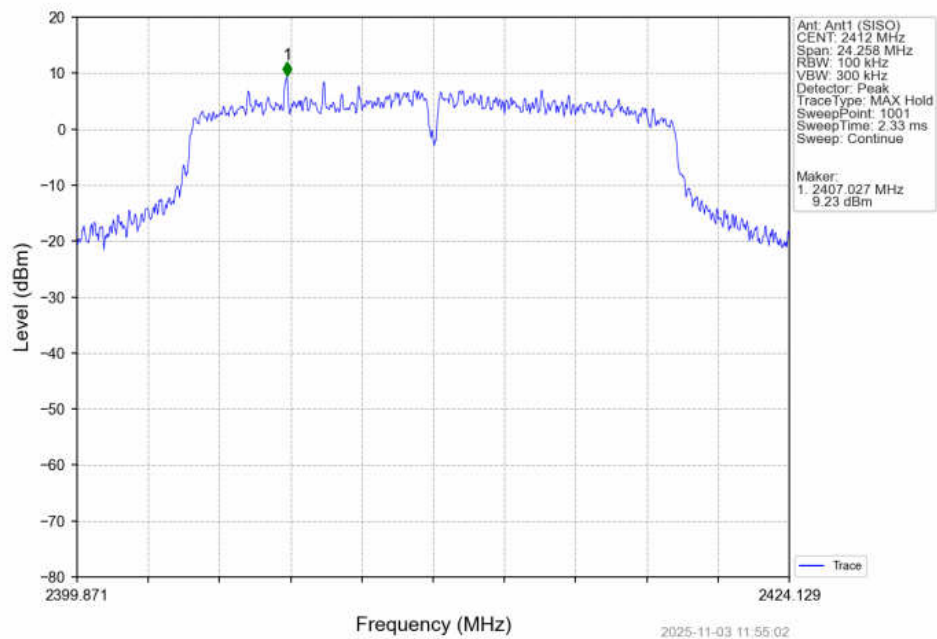
5.2.1 Ref



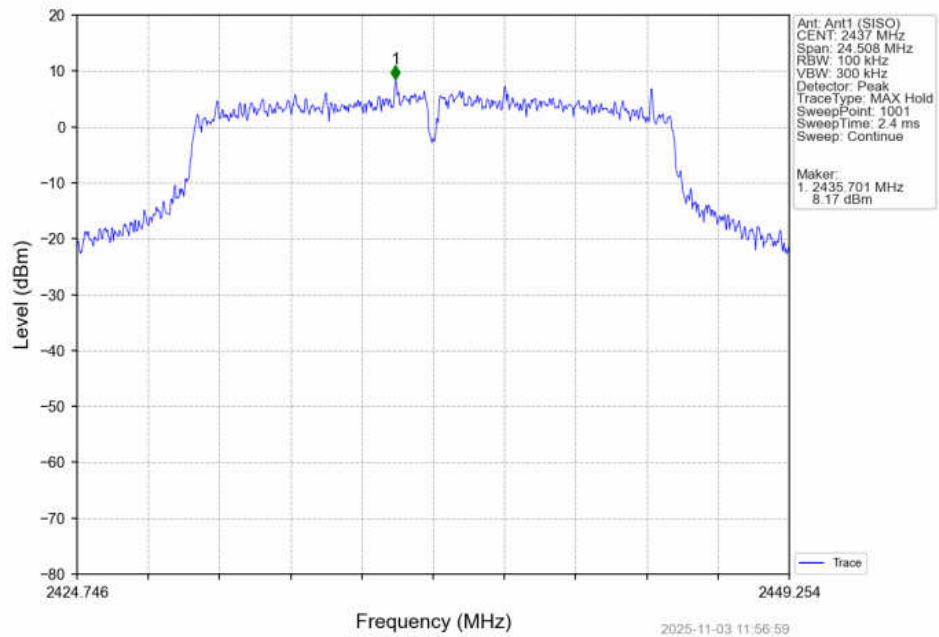
802.11b HCH 2462MHz Ant1 (SISO) NTN



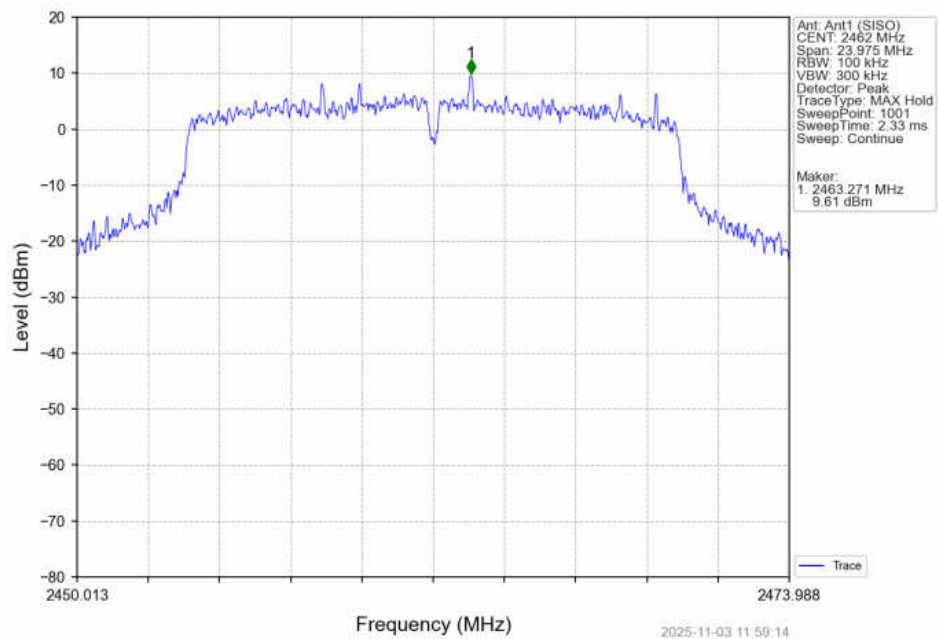
802.11g_LCH_2412MHz_Ant1 (SISO) NTN



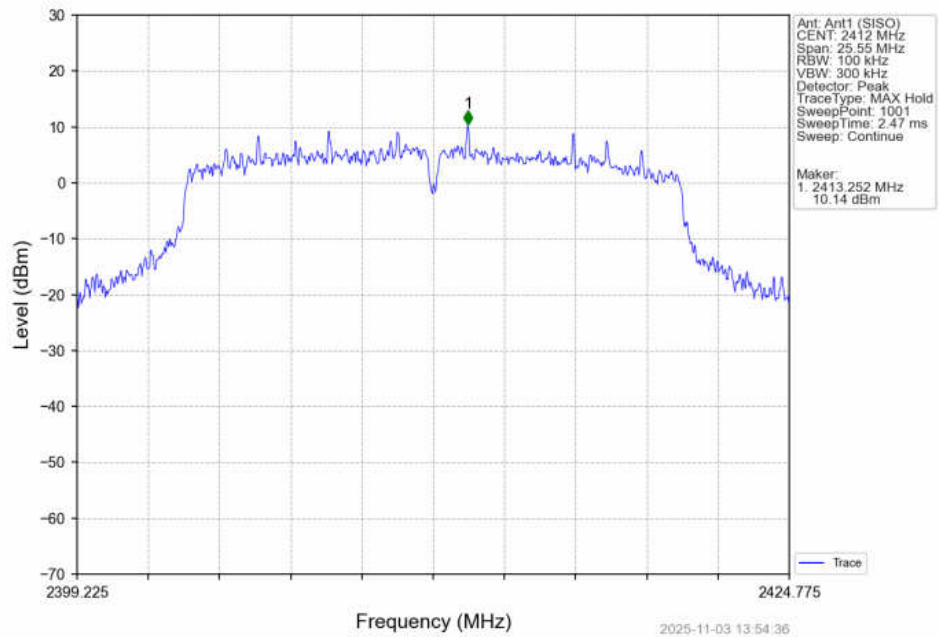
802.11g MCH 2437MHz Ant1 (SISO) NTN



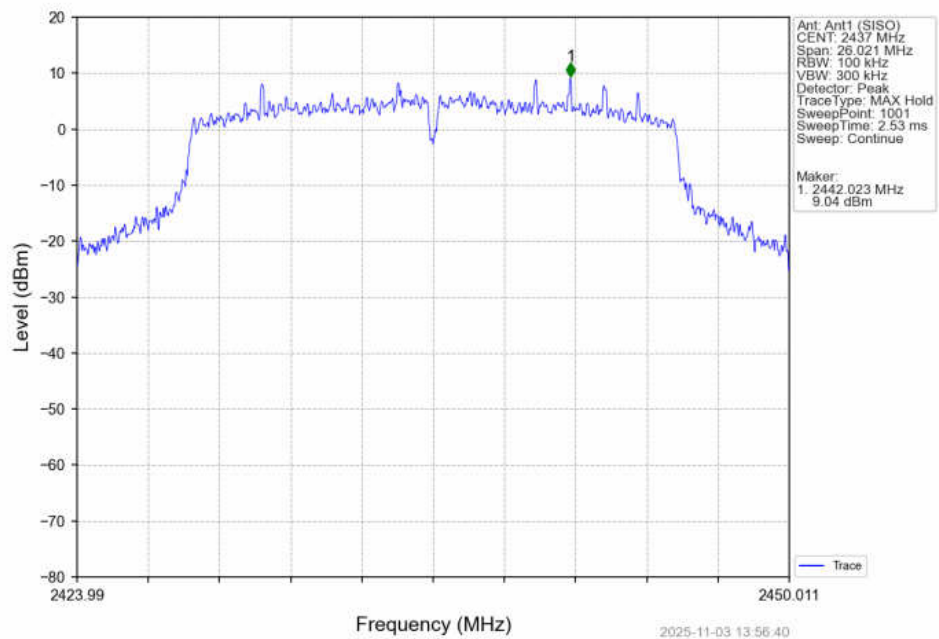
802.11g_HCH_2462MHz_Ant1 (SISO)_NTN



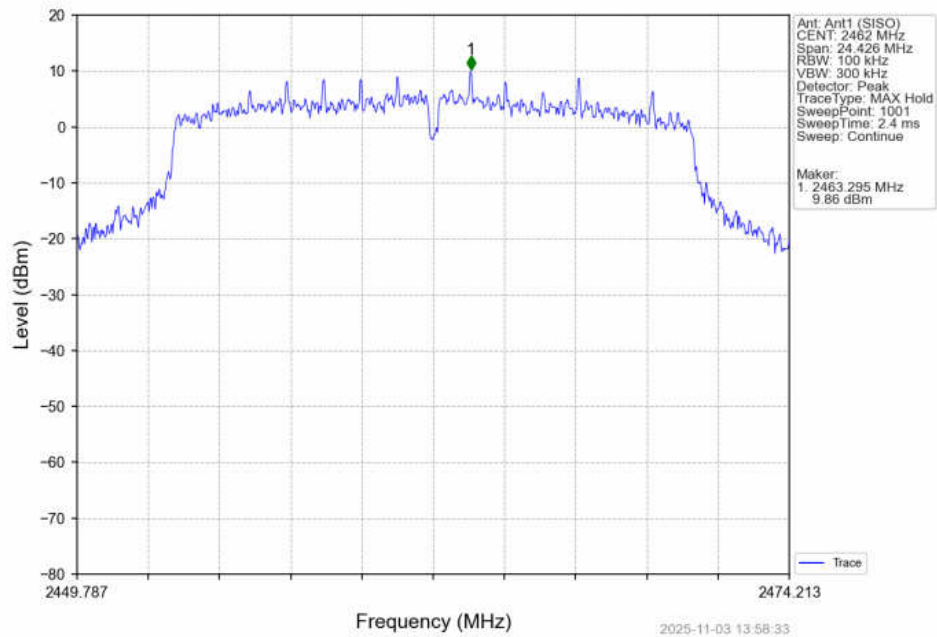
802.11n(HT20) LCH 2412MHz Ant1 (SISO) NTN



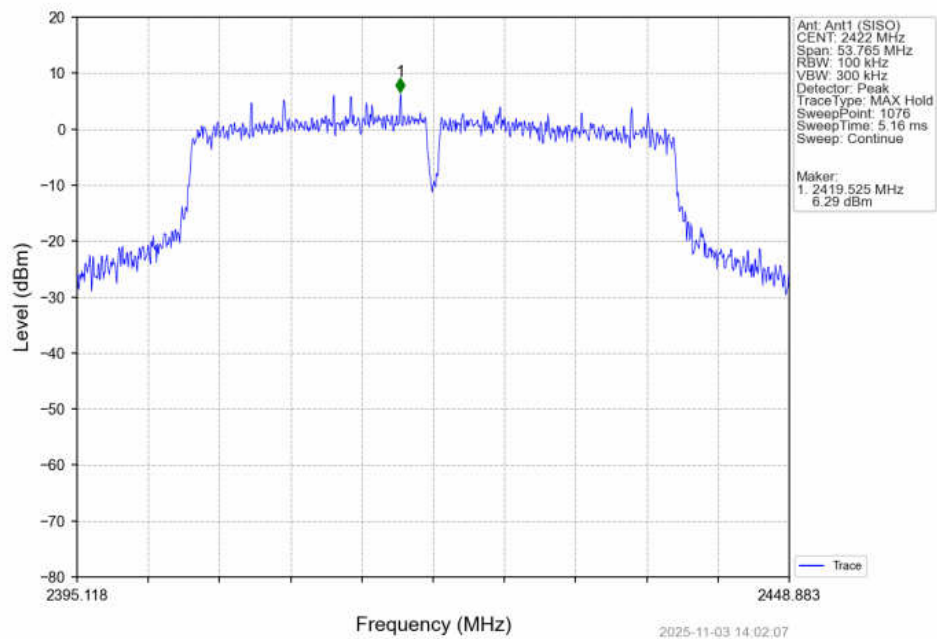
802.11n(HT20) MCH 2437MHz Ant1 (SISO) NTN



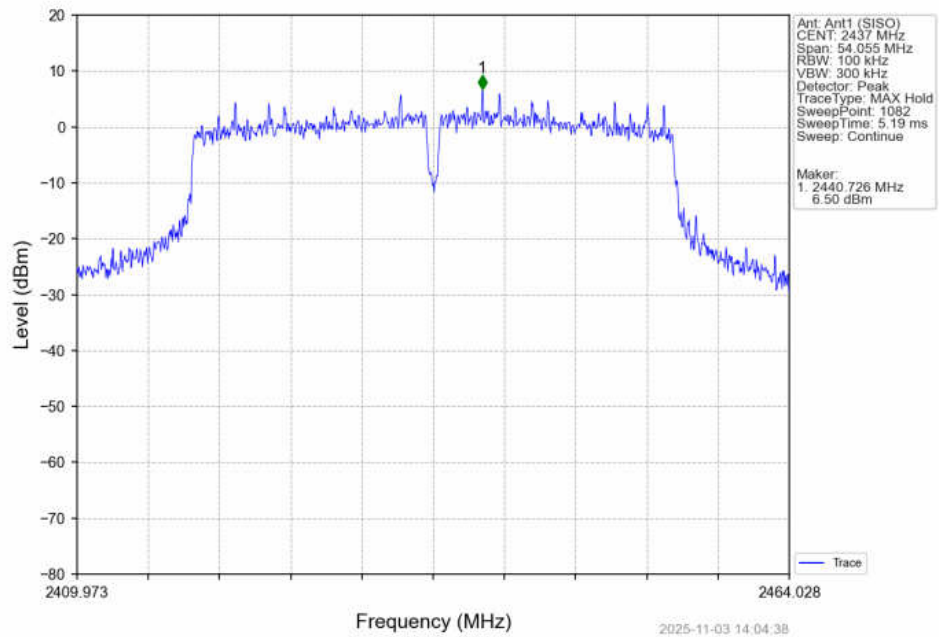
802.11n(HT20) HCH 2462MHz Ant1 (SISO) NTN



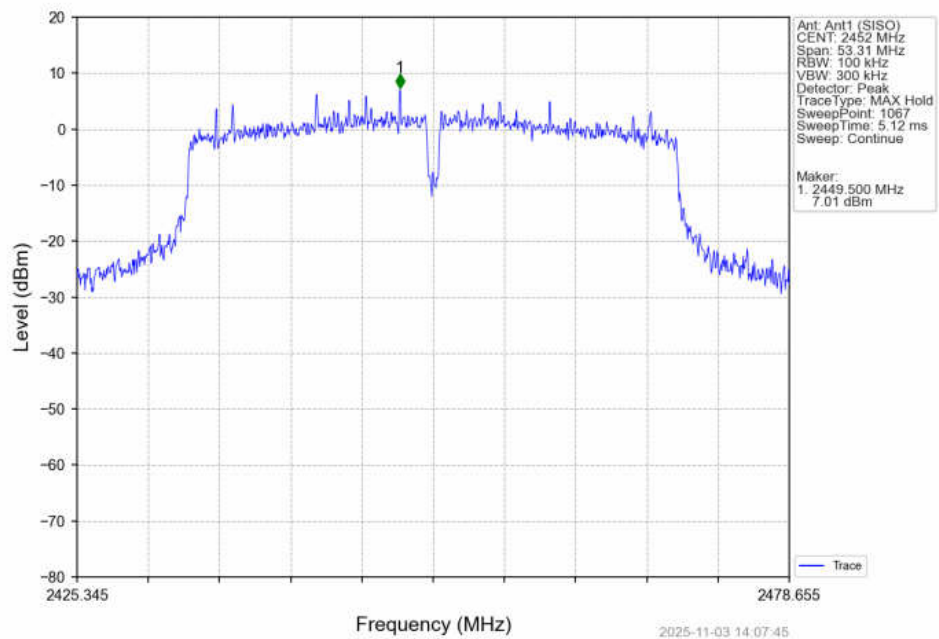
802.11n(HT40) LCH 2422MHz Ant1 (SISO) NTN



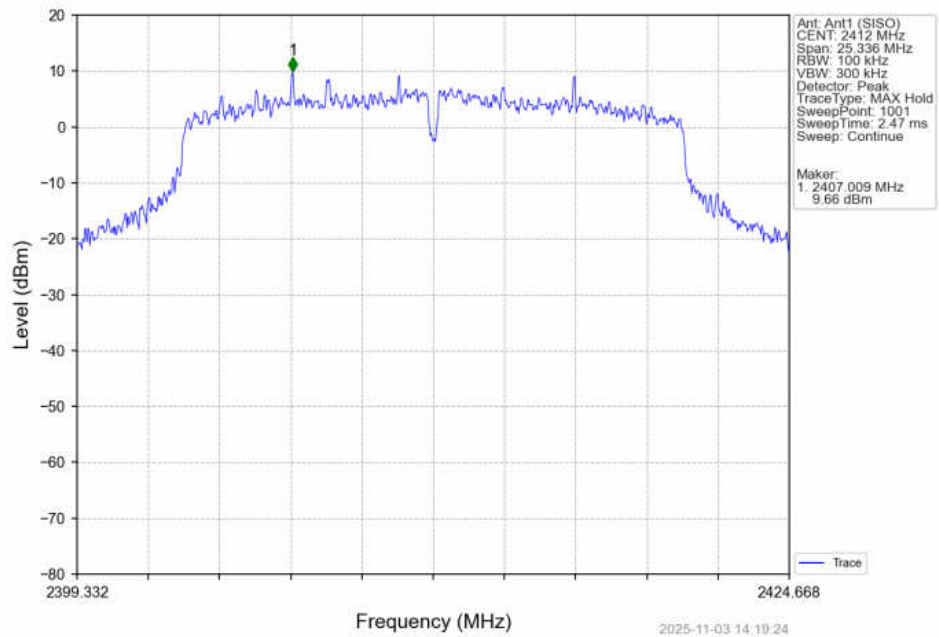
802.11n(HT40) MCH_2437MHz_Ant1 (SISO) NTN



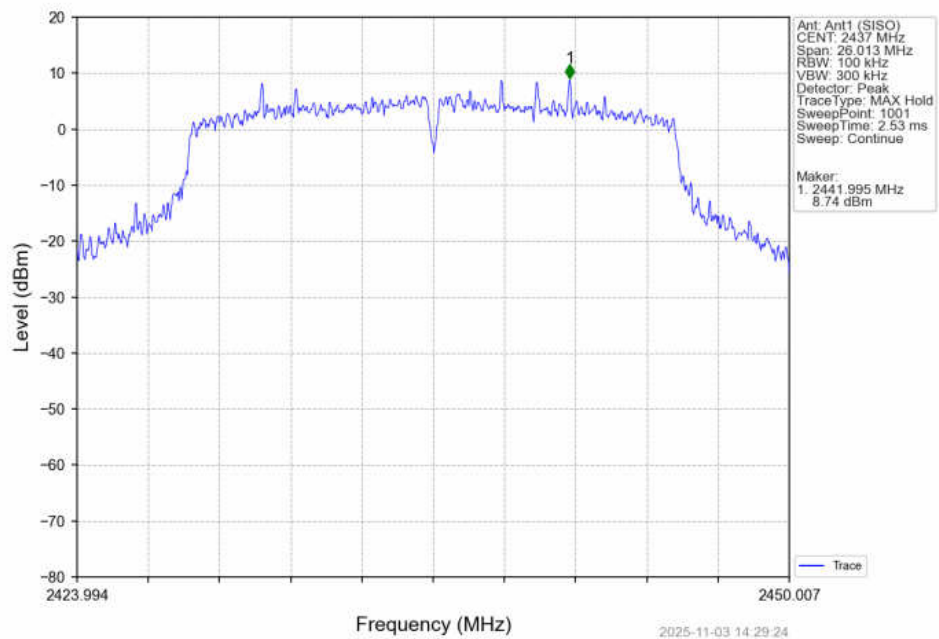
802.11n(HT40)_HCH_2452MHz_Ant1 (SISO)_NTN



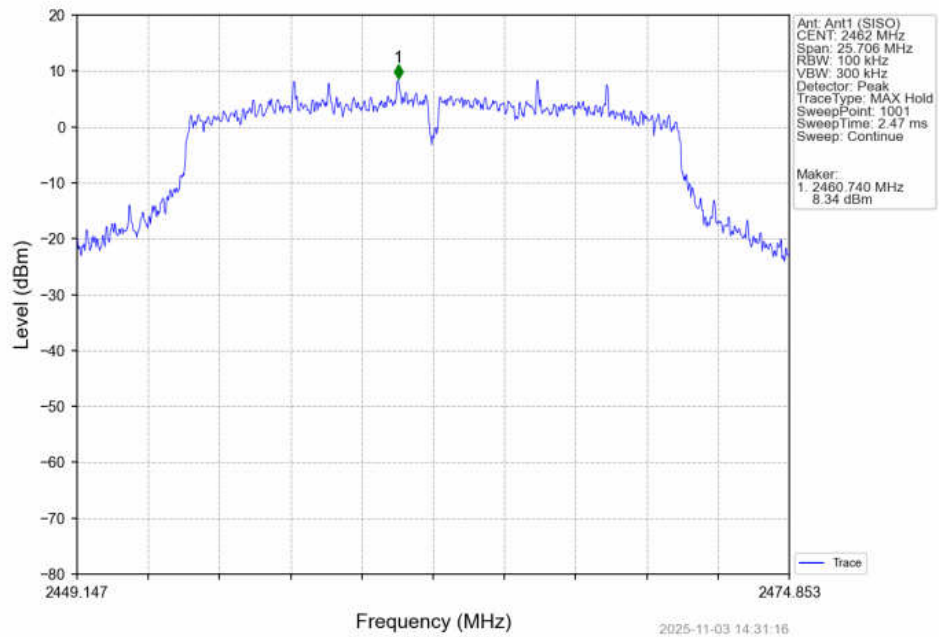
802.11ax(HEW20) LCH 2412MHz SU / Ant1 (SISO) NTN



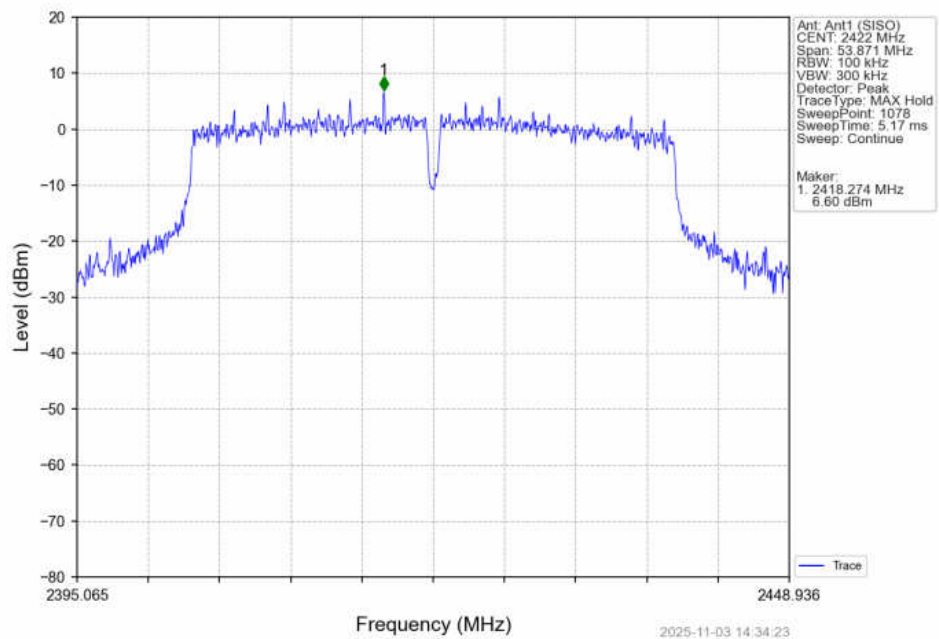
802.11ax(HEW20)_MCH_2437MHz_SU / Ant1 (SISO) NTN



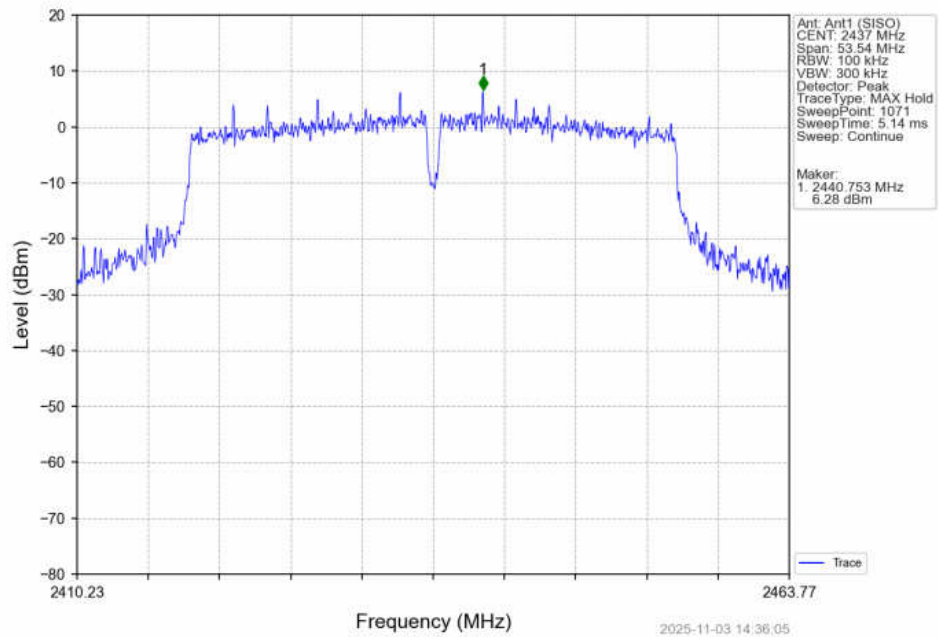
802.11ax(HEW20) HCH 2462MHz SU / Ant1 (SISO) NTNv



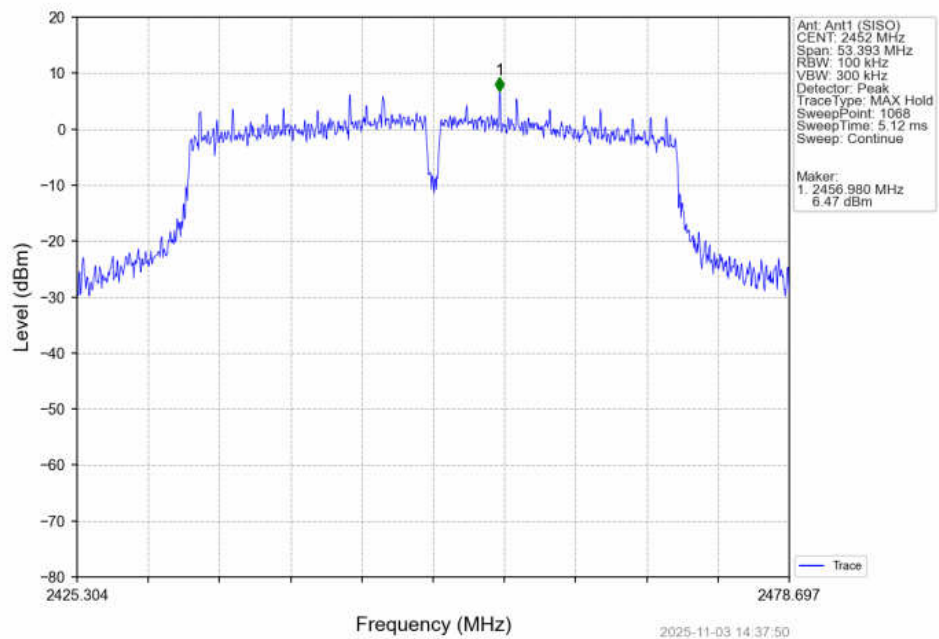
802.11ax(HEW40) LCH 2422MHz SU / Ant1 (SISO) NTNv



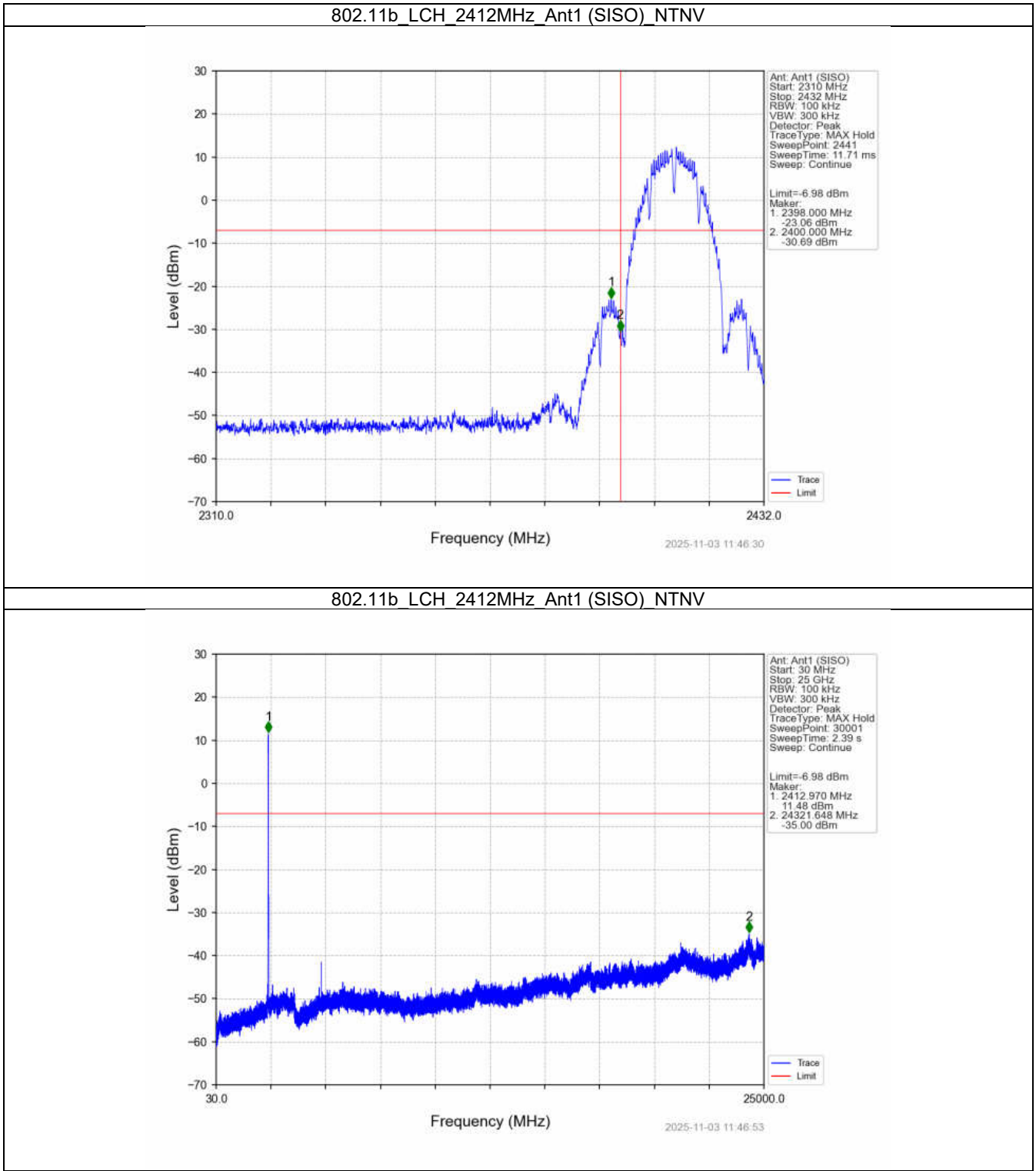
802.11ax(HEW40) MCH 2437MHz SU / Ant1 (SISO) NTN



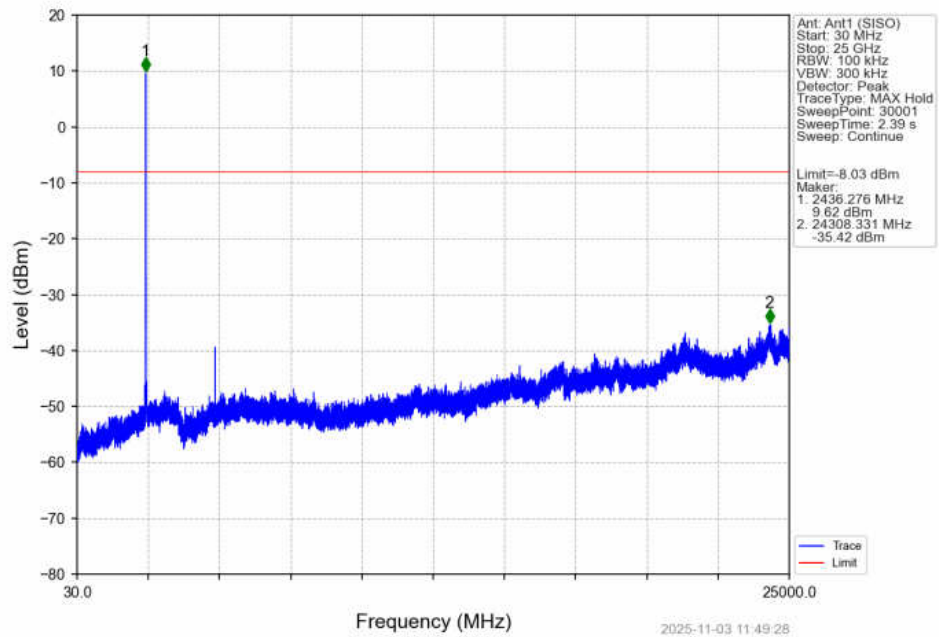
802.11ax(HEW40) HCH 2452MHz SU / Ant1 (SISO) NTN



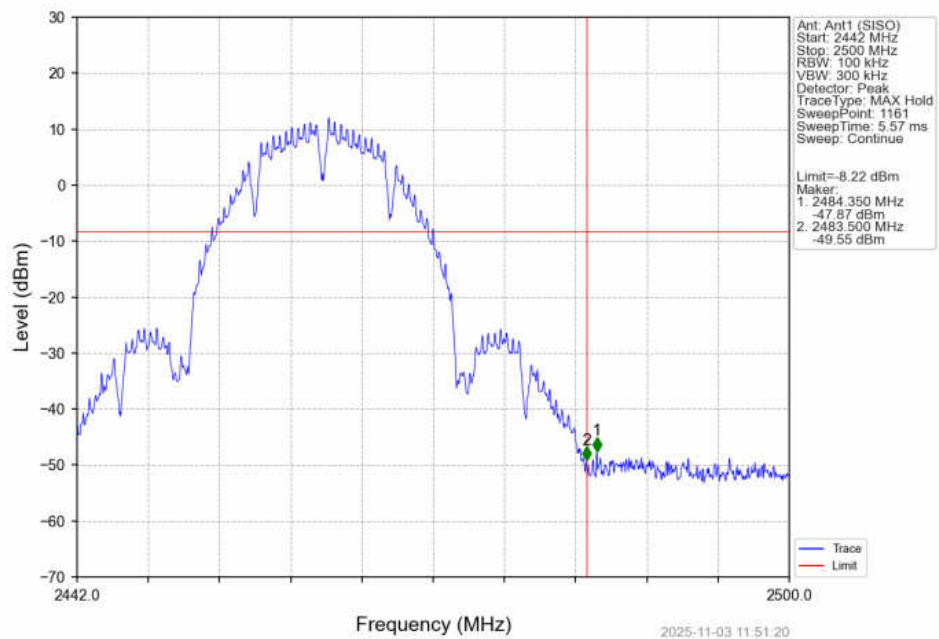
5.2.2 CSE



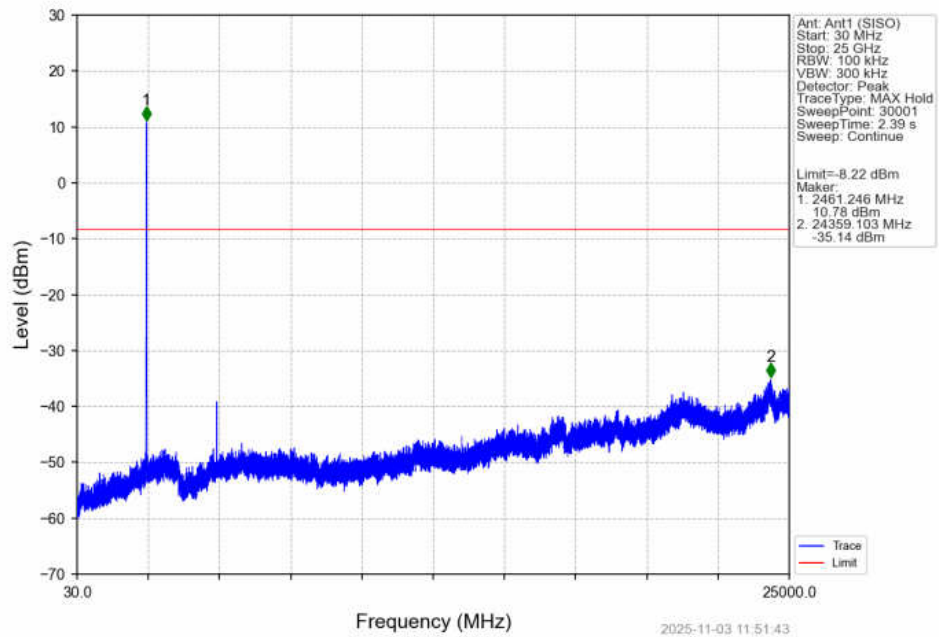
802.11b MCH 2437MHz Ant1 (SISO) NTN



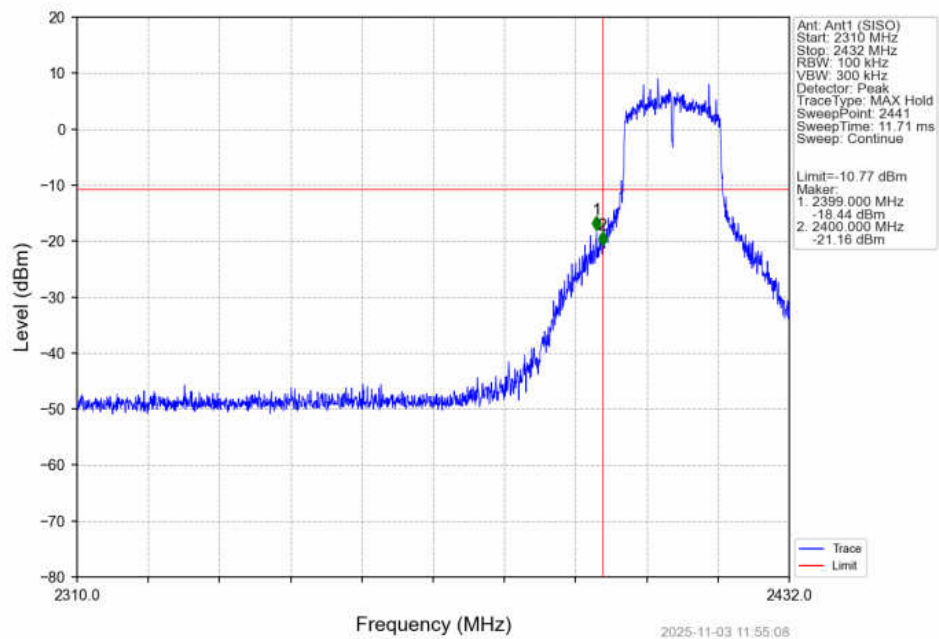
802.11b_HCH_2462MHz_Ant1 (SISO)_NTN



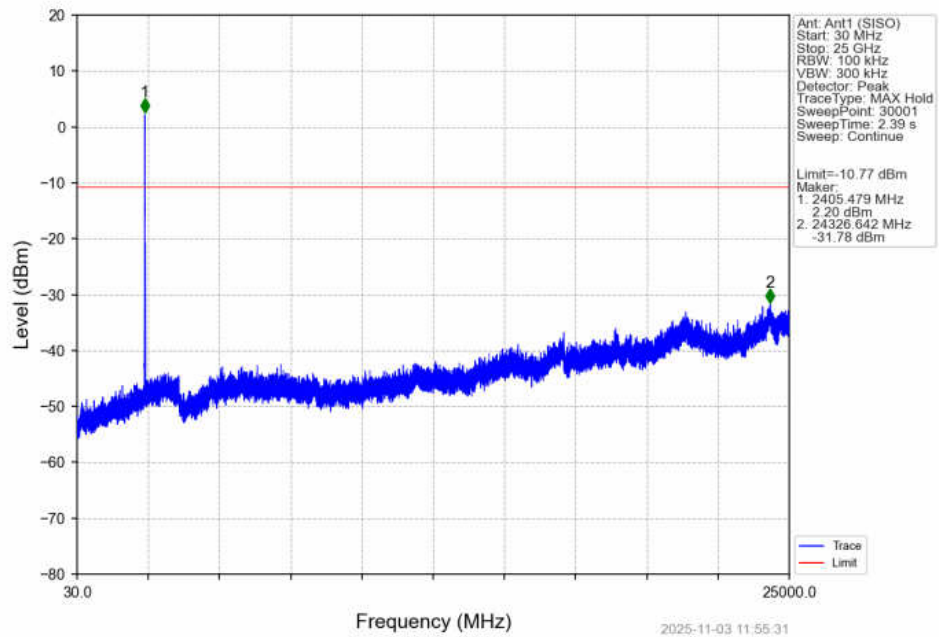
802.11b HCH 2462MHz Ant1 (SISO) NTN



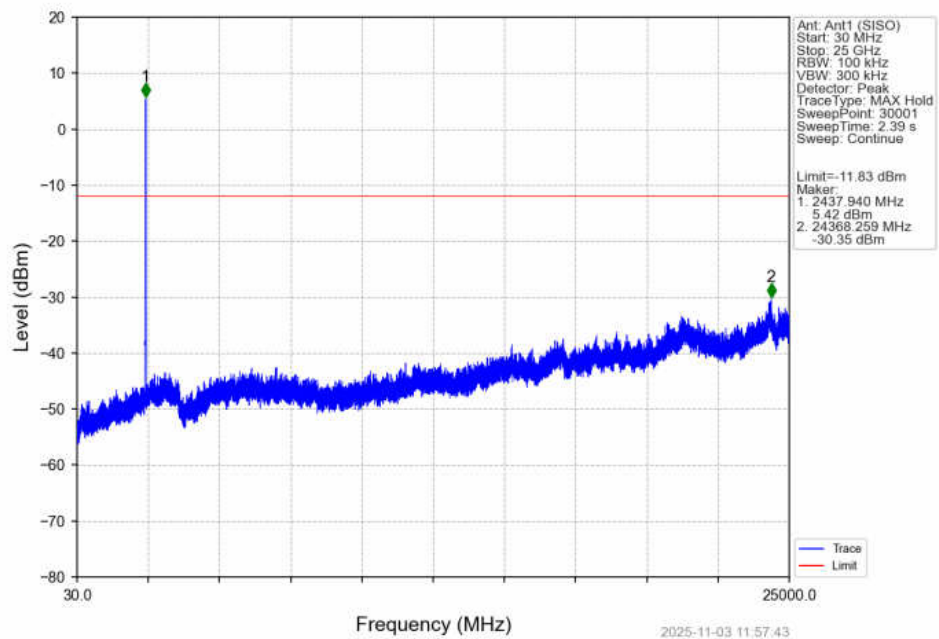
802.11g LCH 2412MHz Ant1 (SISO) NTN



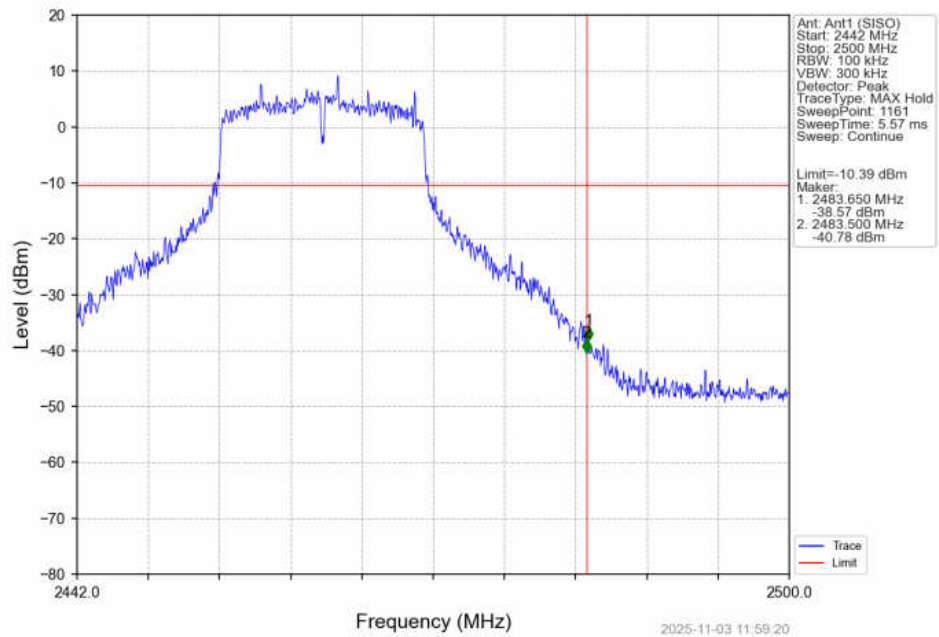
802.11g LCH 2412MHz Ant1 (SISO) NTN



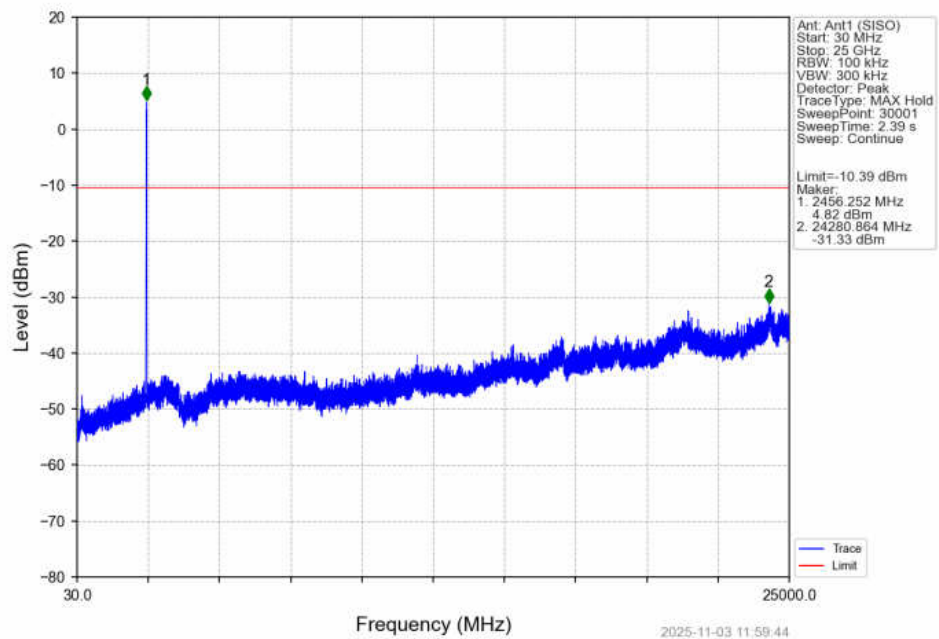
802.11g_MCH_2437MHz_Ant1 (SISO) NTN



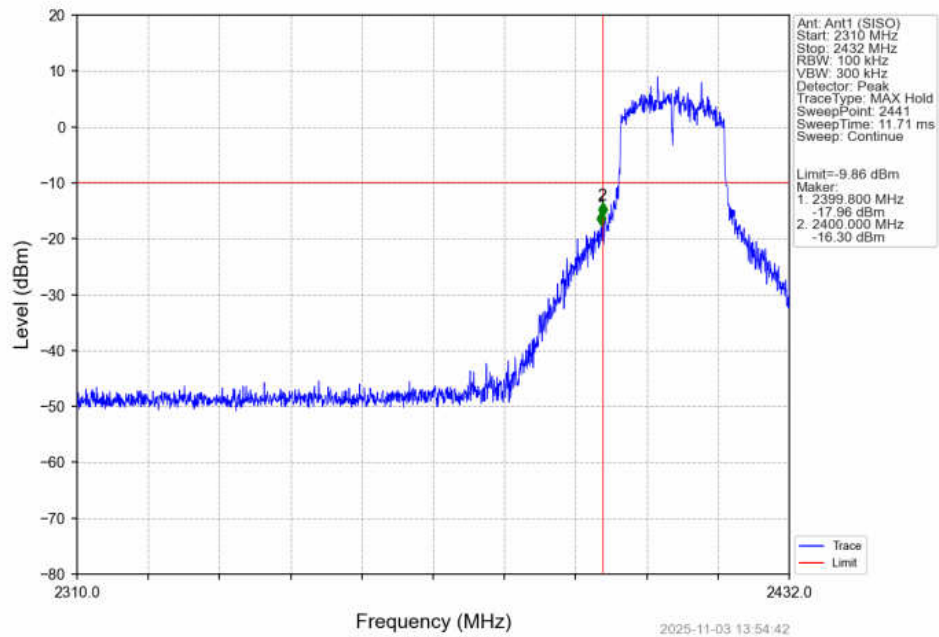
802.11g HCH 2462MHz Ant1 (SISO) NTN



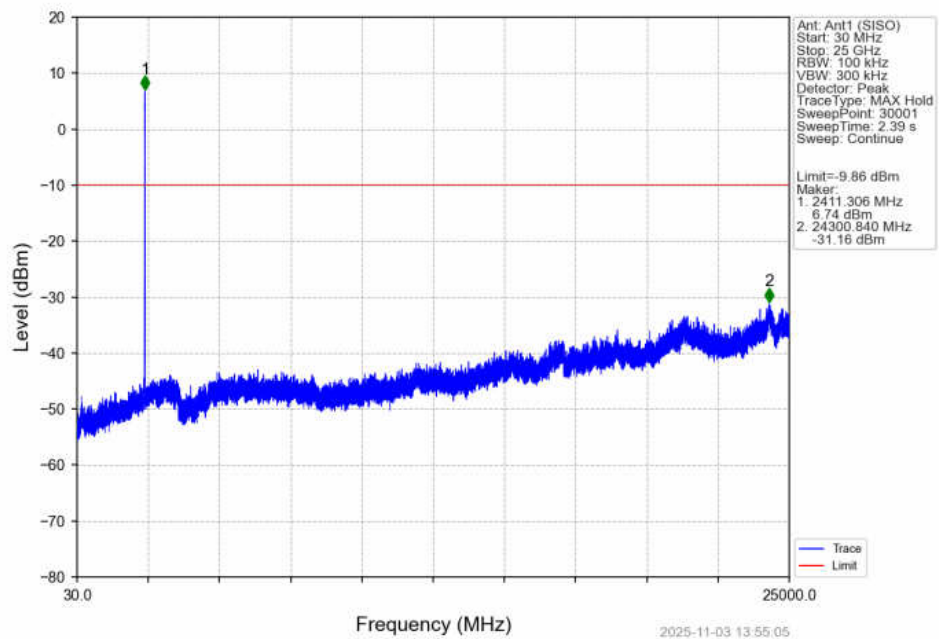
802.11g_HCH_2462MHz_Ant1 (SISO)_NTNV



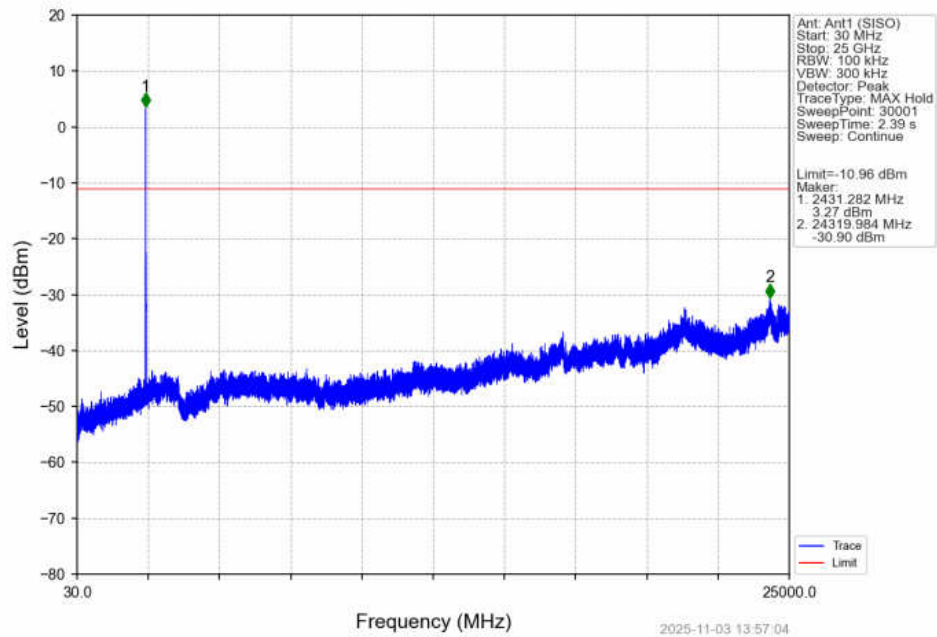
802.11n(HT20) LCH_2412MHz_Ant1 (SISO) NTN



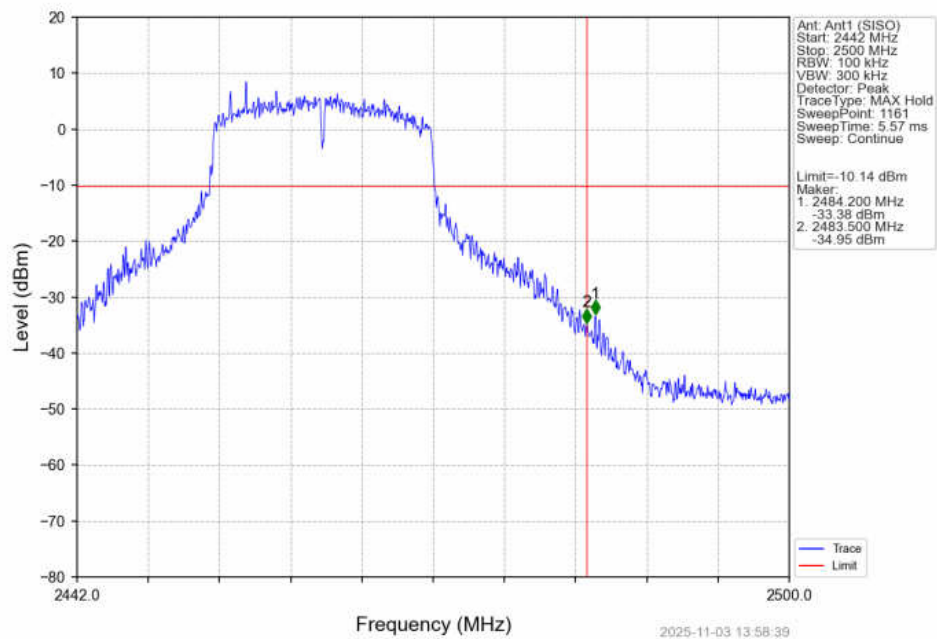
802.11n(HT20) LCH_2412MHz_Ant1 (SISO) NTN



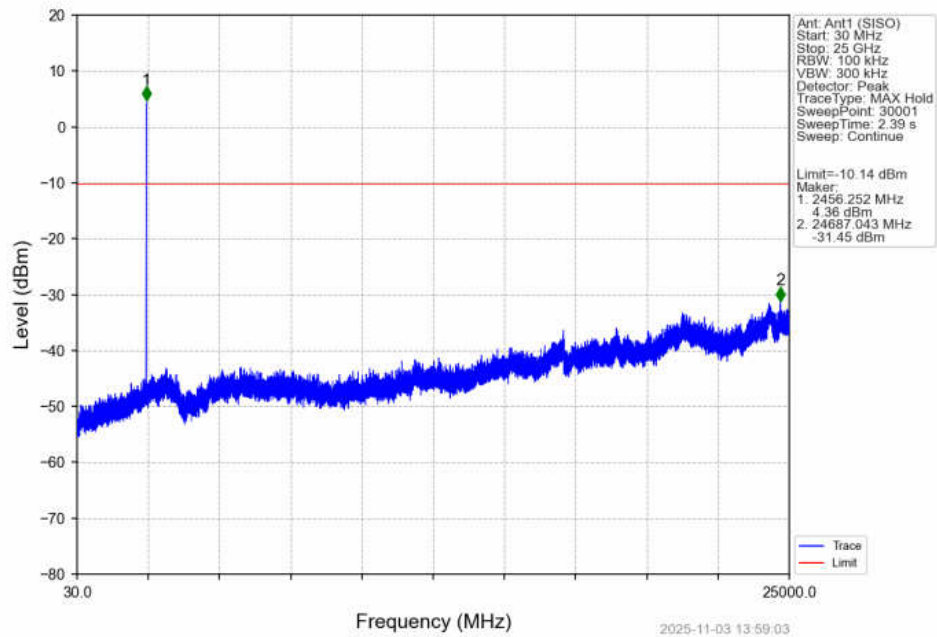
802.11n(HT20) MCH_2437MHz_Ant1 (SISO) NTN



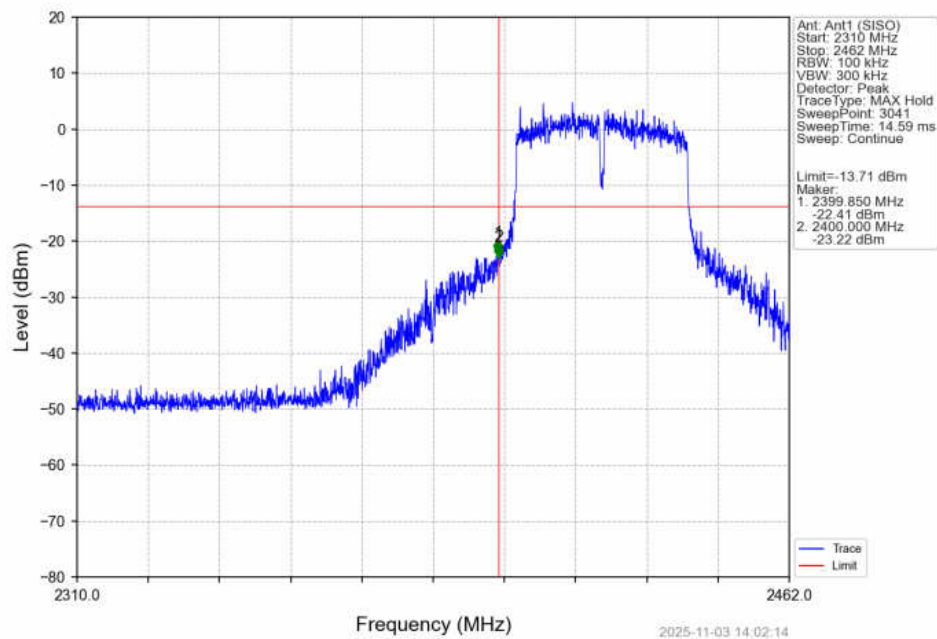
802.11n(HT20)_HCH_2462MHz_Ant1 (SISO)_NTN



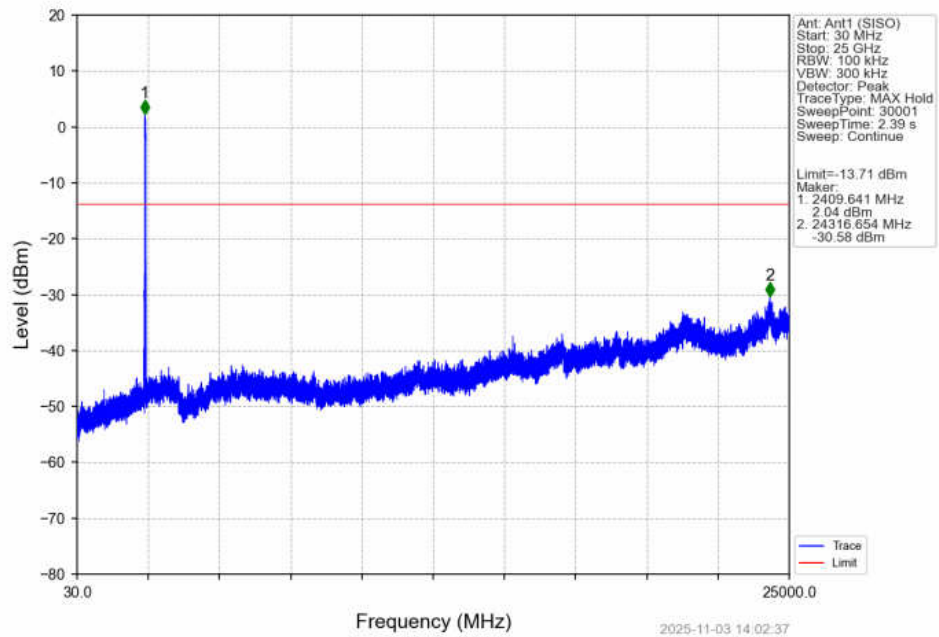
802.11n(HT20) HCH 2462MHz Ant1 (SISO) NTN



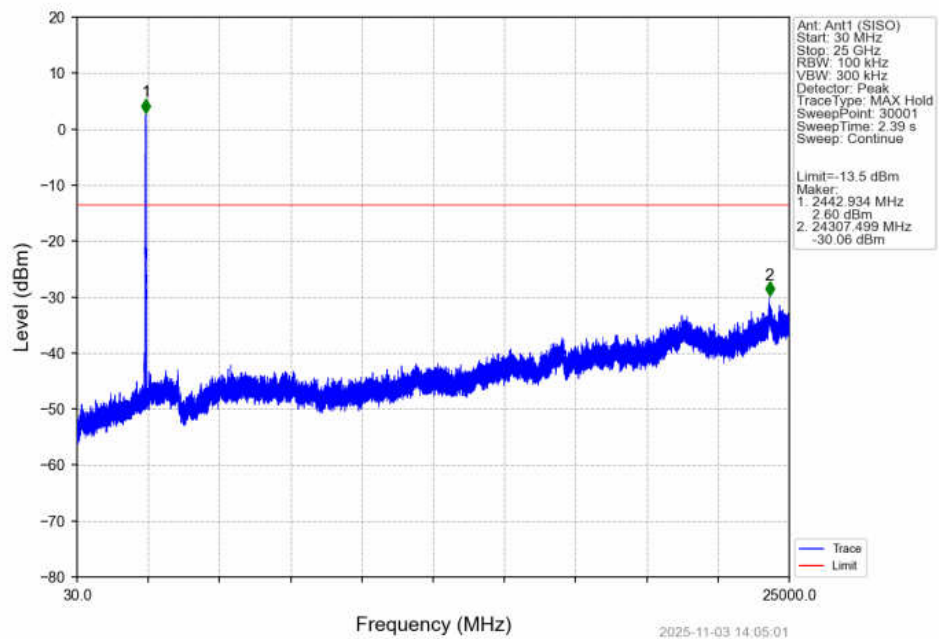
802.11n(HT40) LCH 2422MHz Ant1 (SISO) NTN



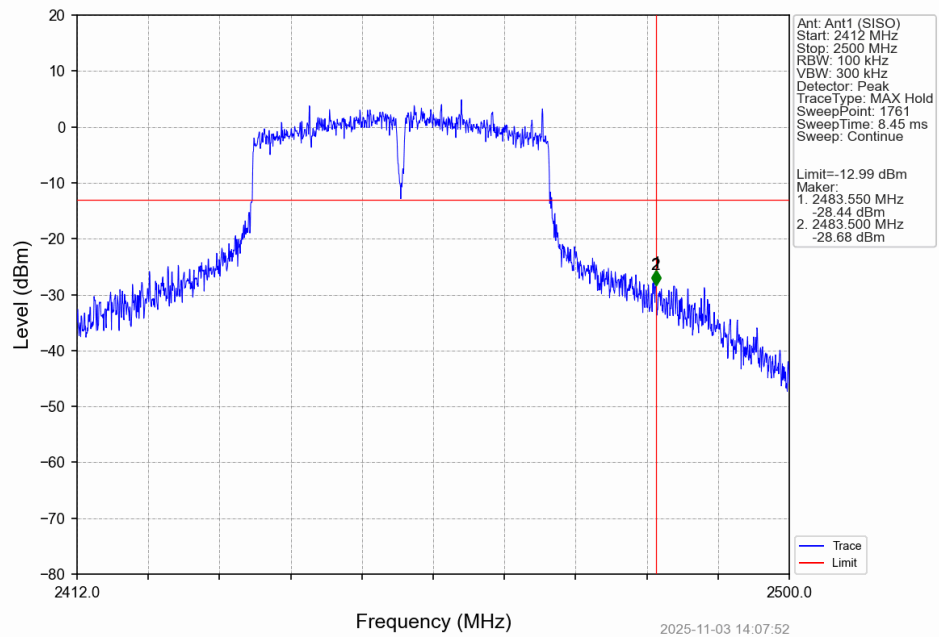
802.11n(HT40) LCH 2422MHz Ant1 (SISO) NTNV



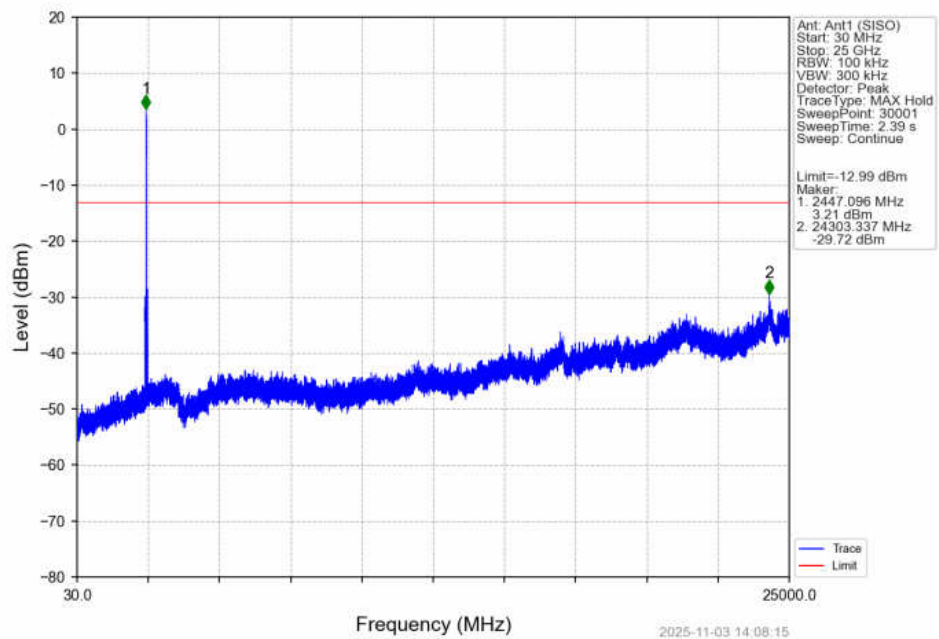
802.11n(HT40) MCH 2437MHz Ant1 (SISO) NTNV



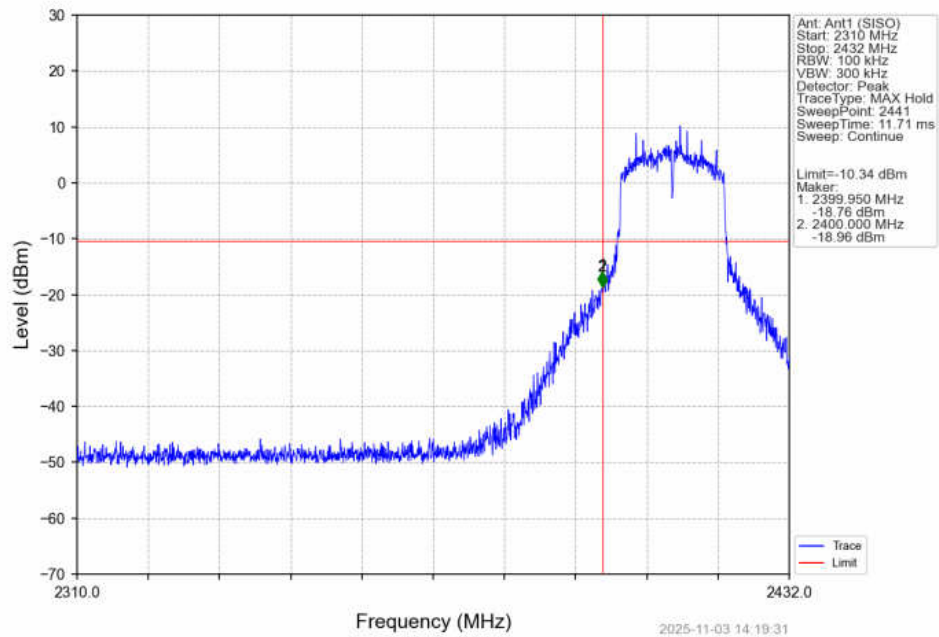
802.11n(HT40) HCH 2452MHz Ant1 (SISO) NTN



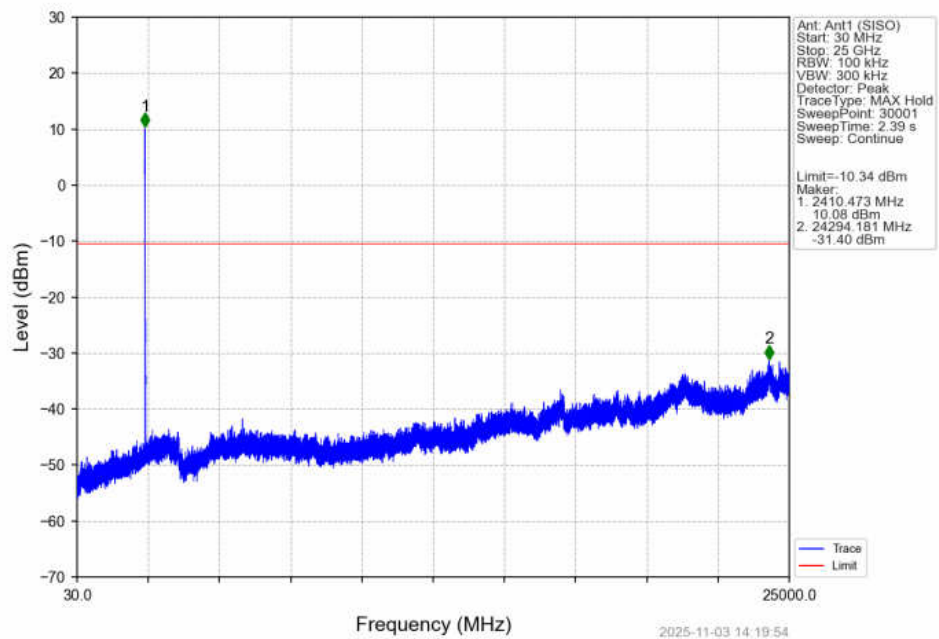
802.11n(HT40) HCH 2452MHz Ant1 (SISO) NTN



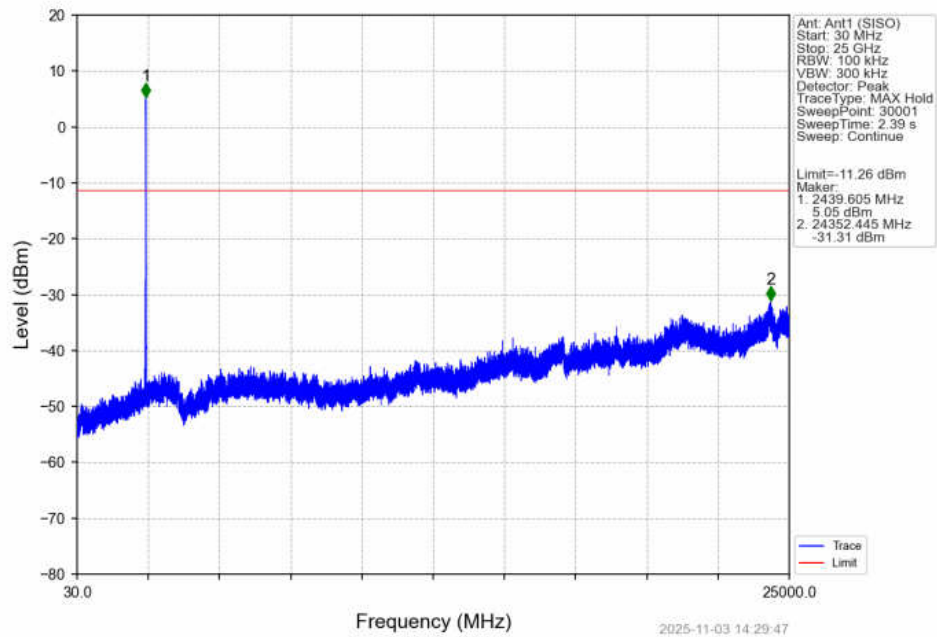
802.11ax(HEW20) LCH 2412MHz SU / Ant1 (SISO) NTNv



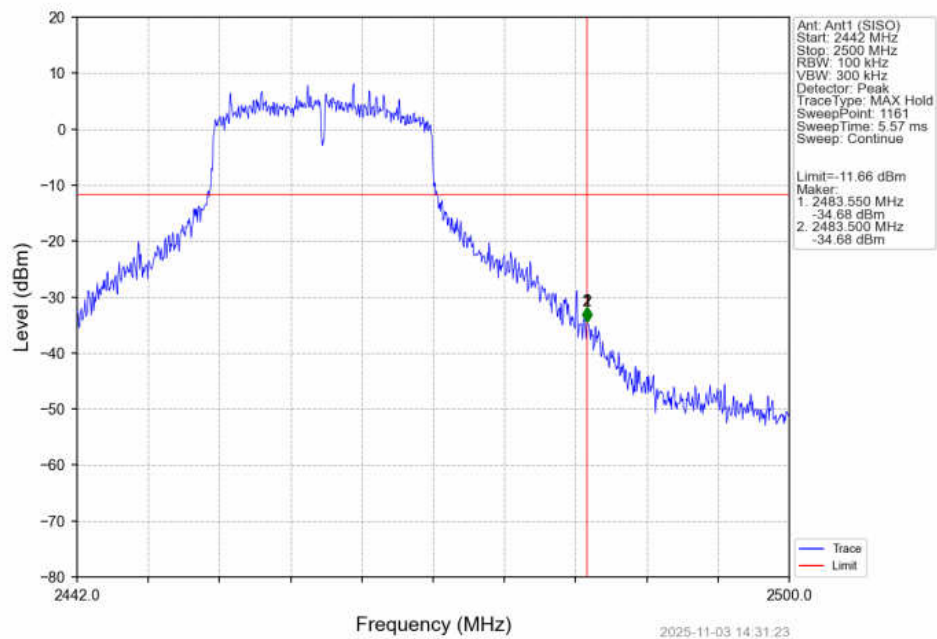
802.11ax(HEW20) LCH 2412MHz SU / Ant1 (SISO) NTNv



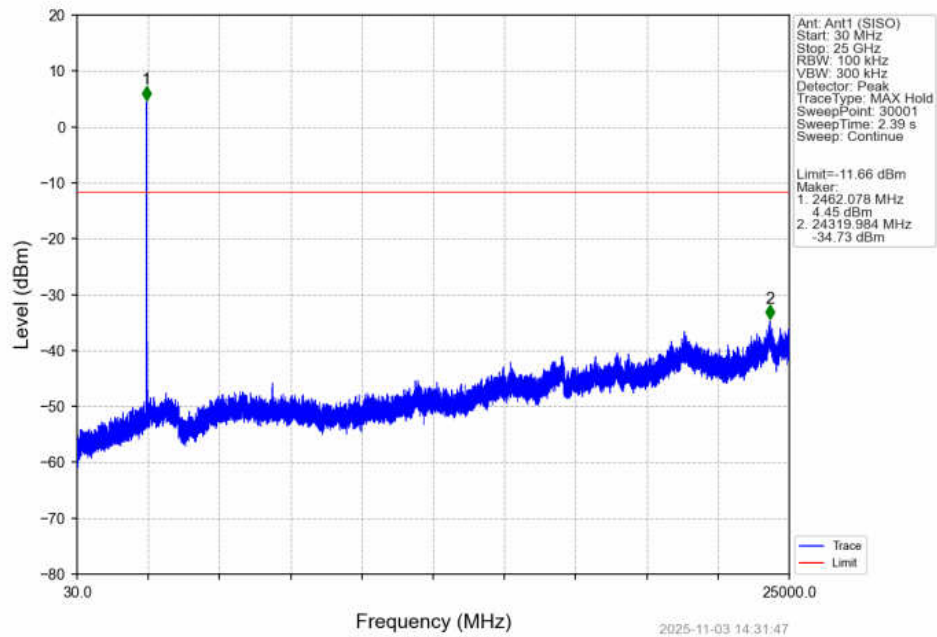
802.11ax(HEW20) MCH 2437MHz SU / Ant1 (SISO) NTN



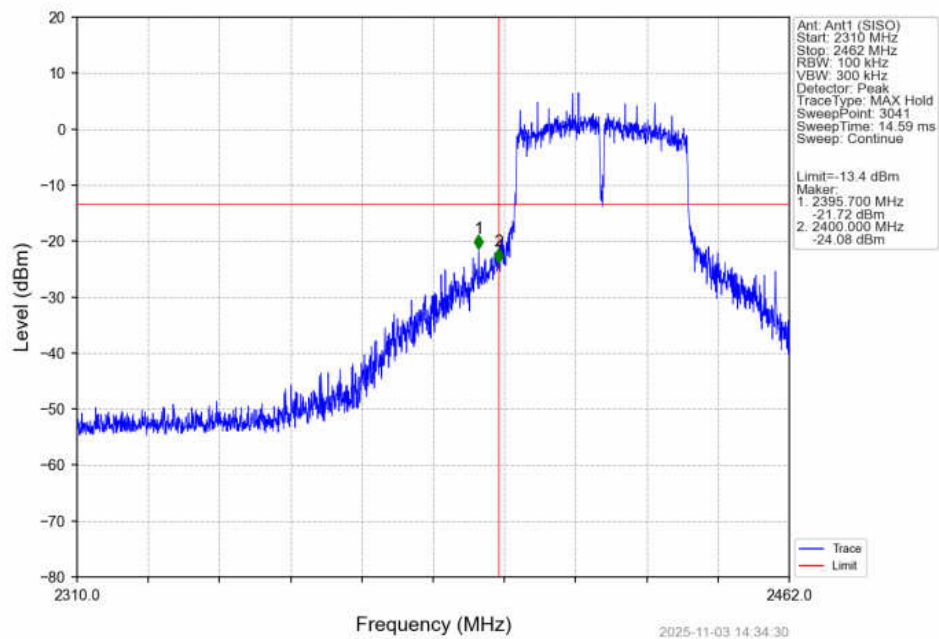
802.11ax(HEW20) HCH 2462MHz SU / Ant1 (SISO) NTN



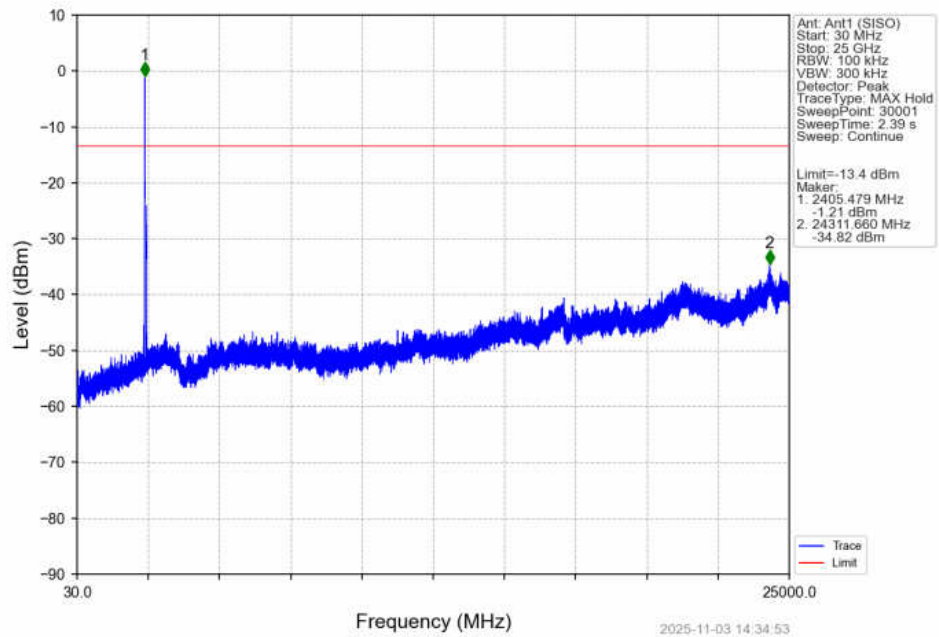
802.11ax(HEW20) HCH 2462MHz SU / Ant1 (SISO) NTNv



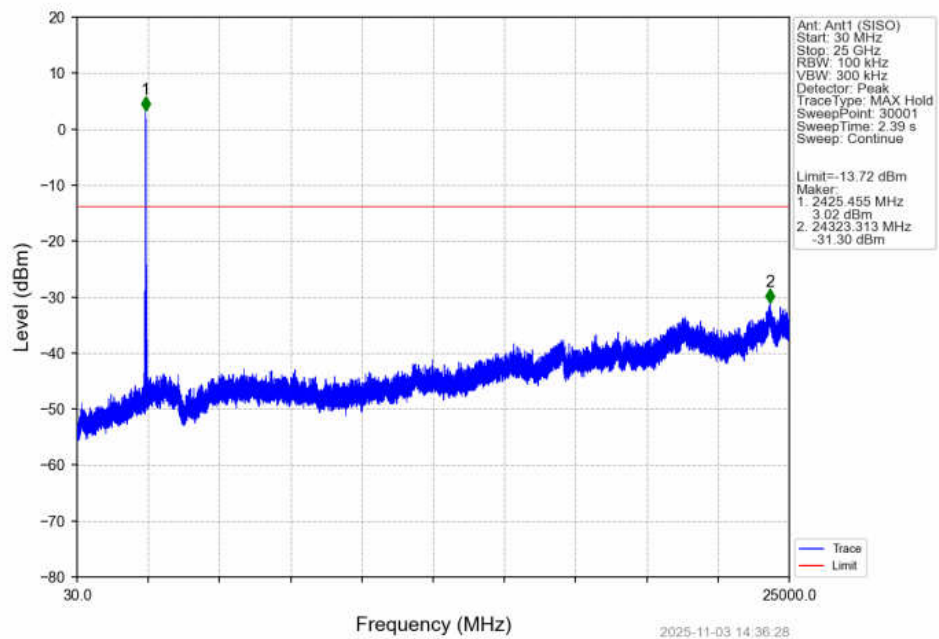
802.11ax(HEW40) LCH 2422MHz SU / Ant1 (SISO) NTNv



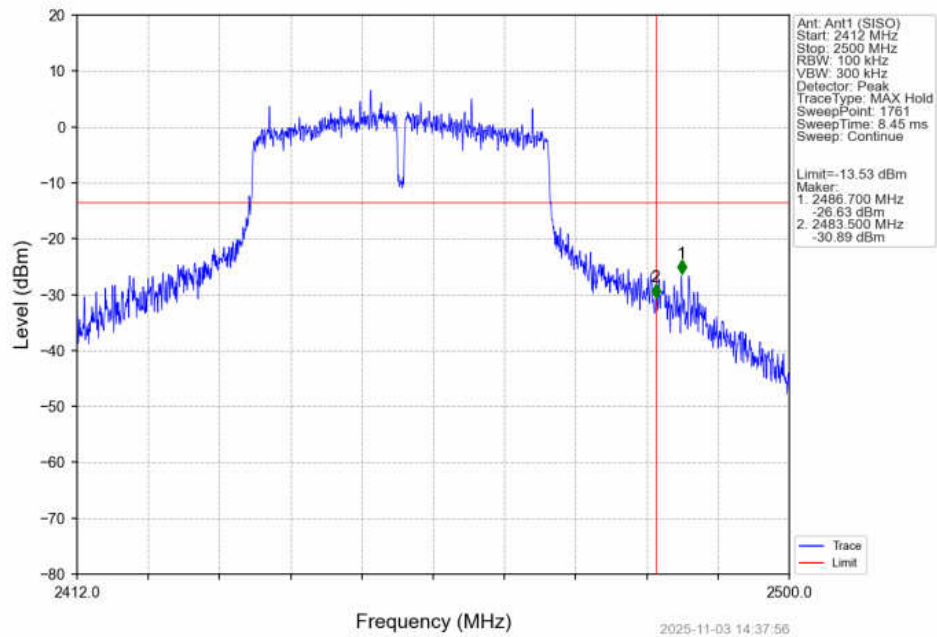
802.11ax(HEW40) LCH 2422MHz SU / Ant1 (SISO) NTNv



802.11ax(HEW40)_MCH_2437MHz_SU / Ant1 (SISO) NTNv



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



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

