

Appendix RF Test Data for 2.4G WIFI

Company: : CHIGEE TECHNOLOGY CO., LTD.

EUT : Motorcycle Dash cam

FCC ID: : 2A95C-XR-1

Model Number : XR-1

Report No. : HTT202601283F01

Reviewed By : Heber He

1. Duty Cycle

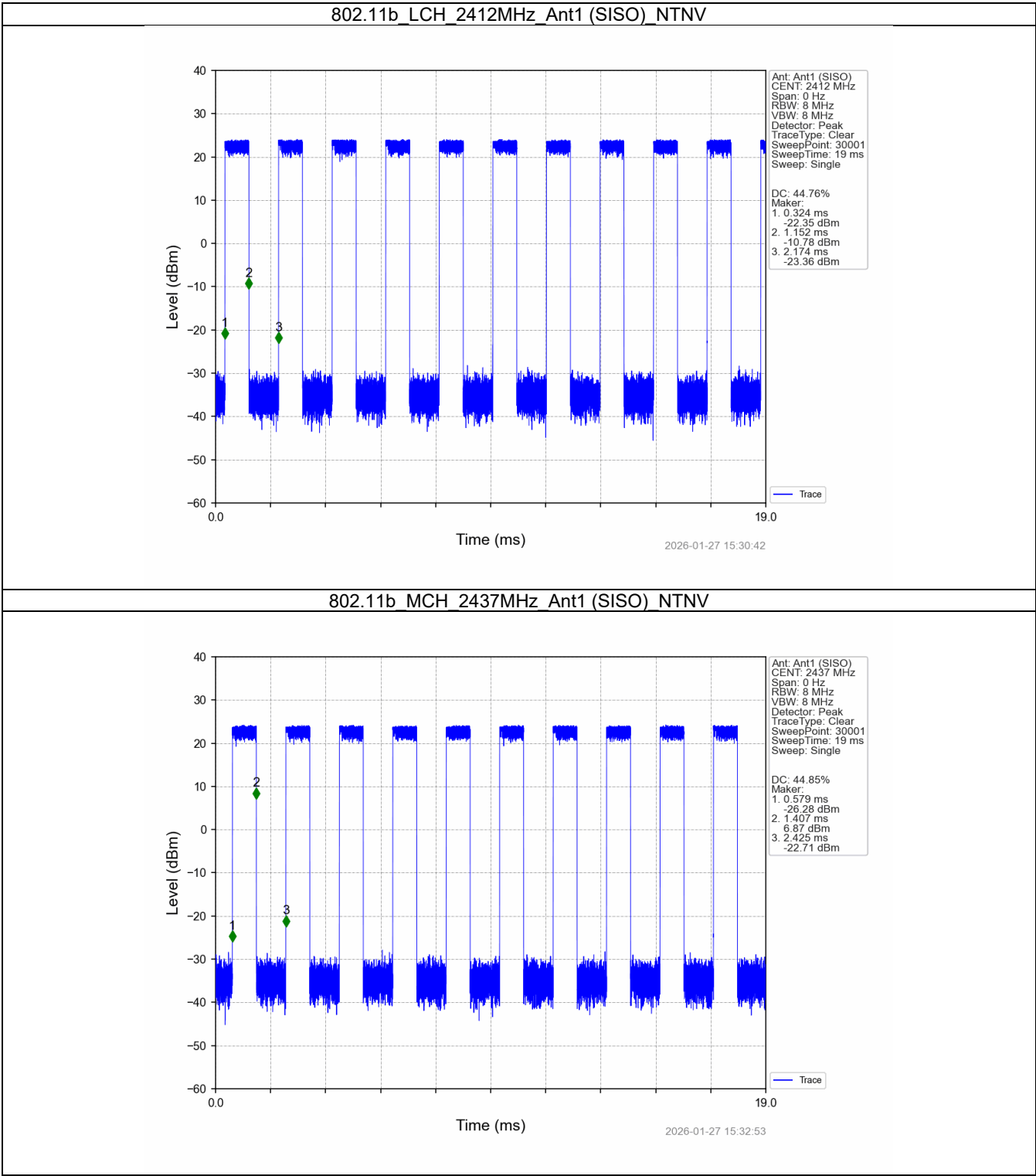
1.1 Test Result

1.1.1 Ant1

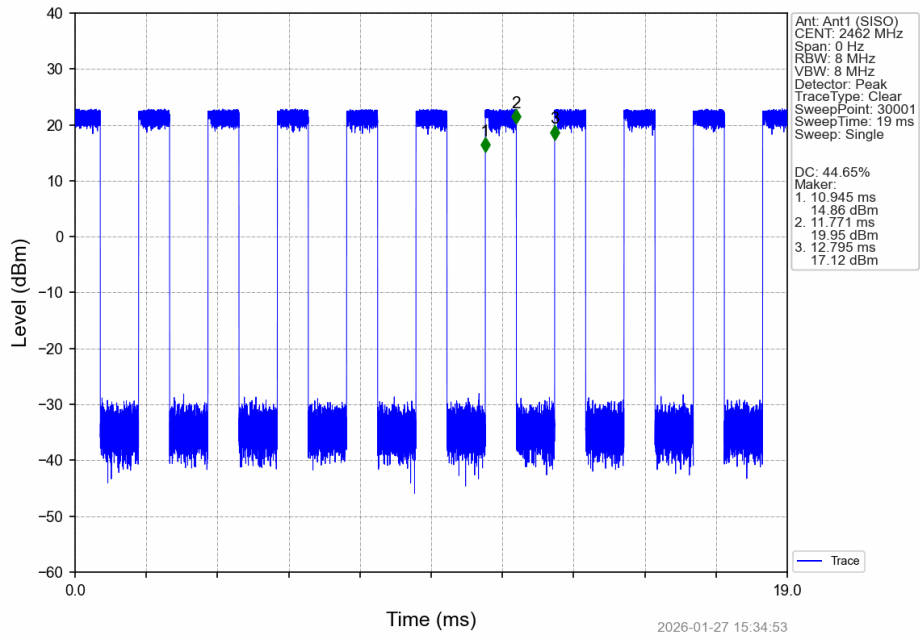
Ant1							
Mode	TX Type	Frequency (MHz)	T_on (ms)	Period (ms)	Duty Cycle (%)	Duty Cycle Correction Factor (dB)	Max. DC Variation (%)
802.11b	SISO	2412	0.828	1.850	44.76	3.49	0.02
		2437	0.828	1.846	44.85	3.48	0.02
		2462	0.826	1.850	44.65	3.50	0.03
802.11g	SISO	2412	0.174	1.202	14.48	8.39	0.03
		2437	0.175	1.199	14.60	8.36	0.03
		2462	0.174	1.202	14.48	8.39	0.03
802.11n (HT20)	SISO	2412	0.162	1.190	13.61	8.66	0.06
		2437	0.162	1.186	13.66	8.65	0.03
		2462	0.162	1.190	13.61	8.66	0.05
802.11n (HT40)	SISO	2422	0.097	1.125	8.62	10.64	0.03
		2437	0.098	1.126	8.70	10.60	0.03
		2452	0.097	1.122	8.65	10.63	0.00

1.2 Test Graph

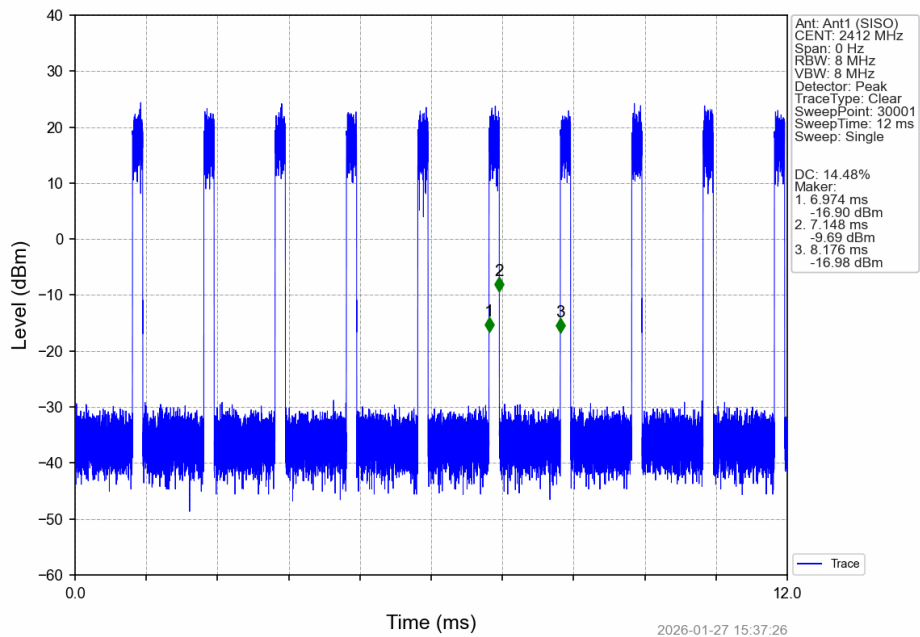
1.2.1 Ant1



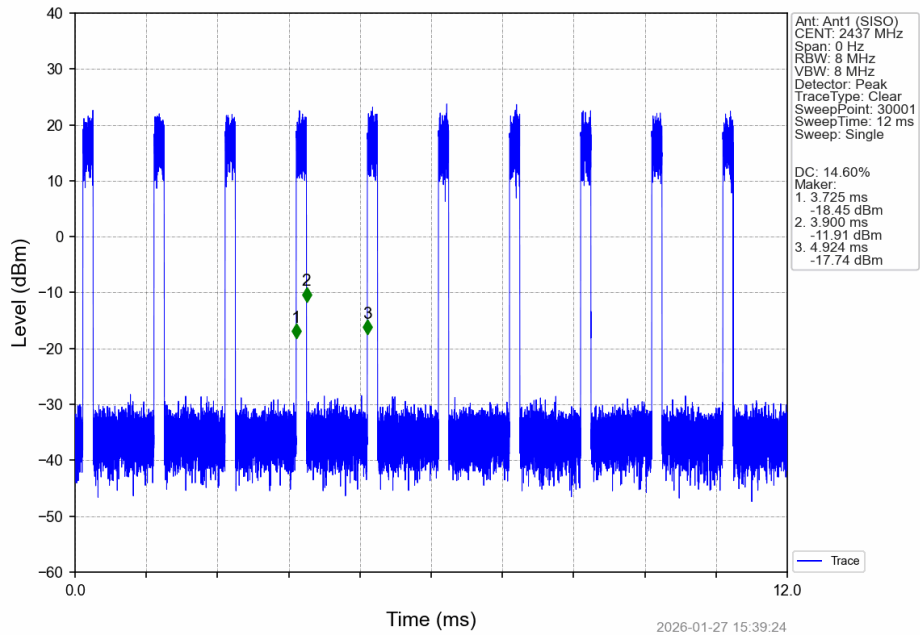
802.11b HCH 2462MHz Ant1 (SISO) NTN



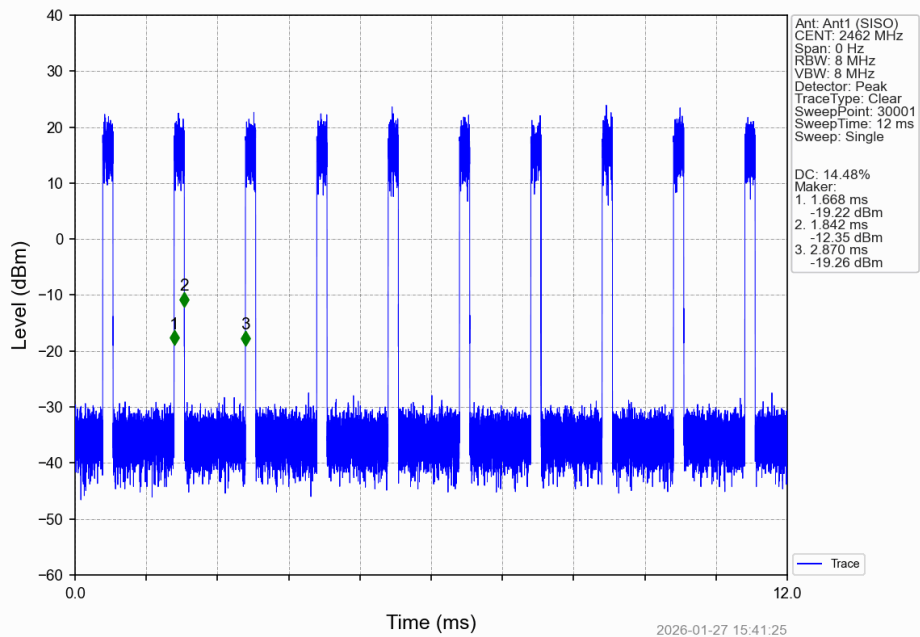
802.11g LCH 2412MHz Ant1 (SISO) NTN



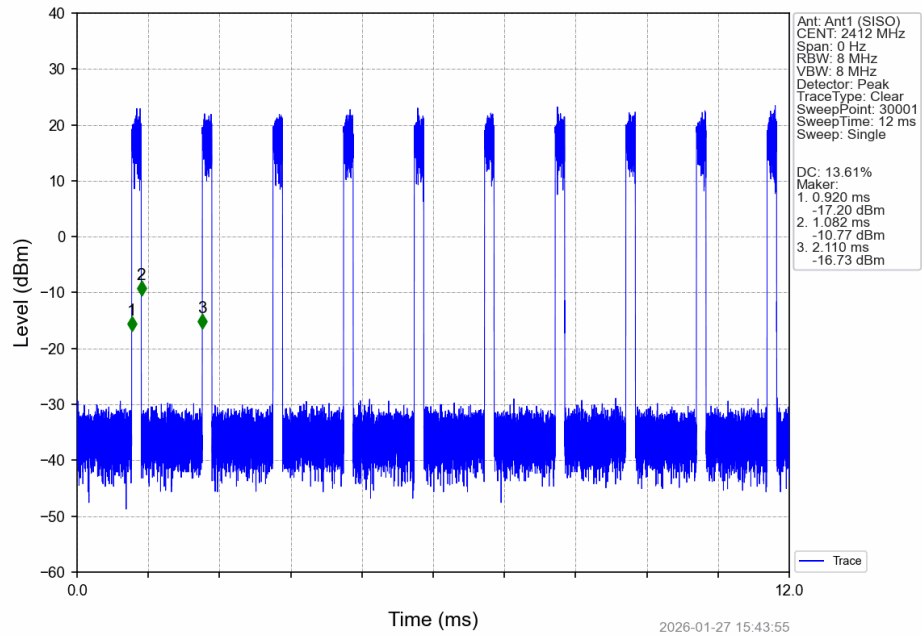
802.11g_MCH_2437MHz_Ant1 (SISO)_NTNV



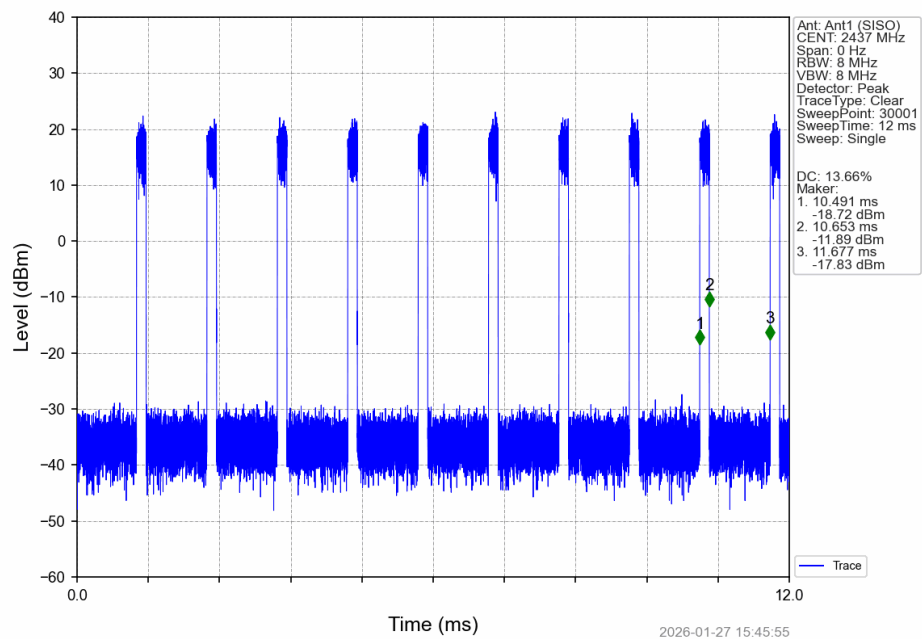
802.11g_HCH_2462MHz_Ant1 (SISO)_NTNV



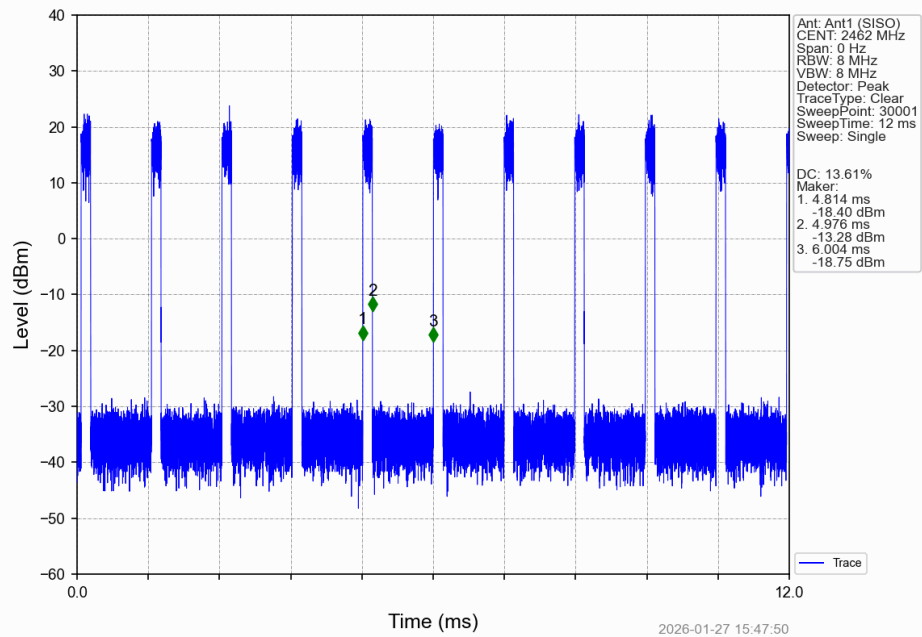
802.11n(HT20) LCH 2412MHz Ant1 (SISO) NTNV



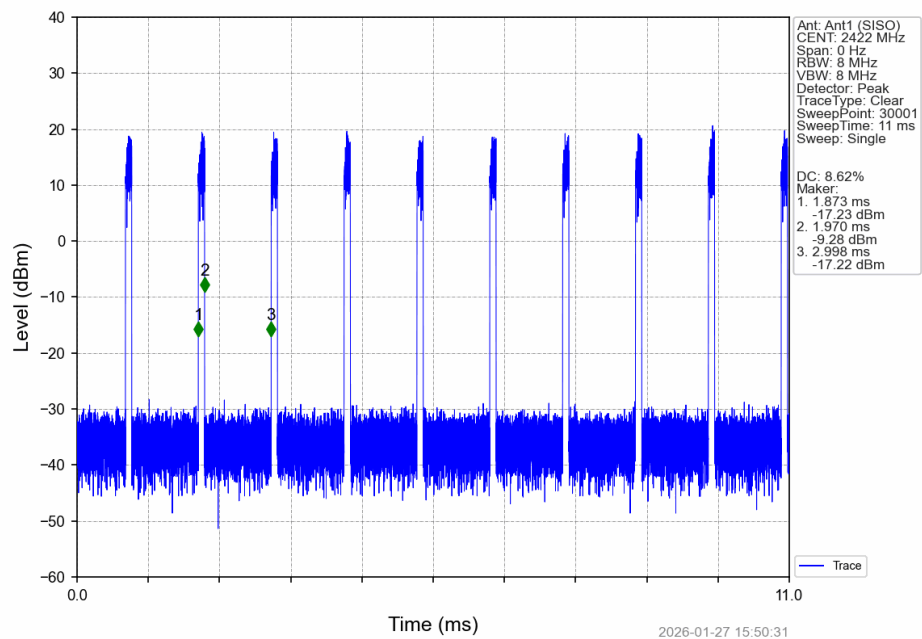
802.11n(HT20) MCH 2437MHz Ant1 (SISO) NTNV



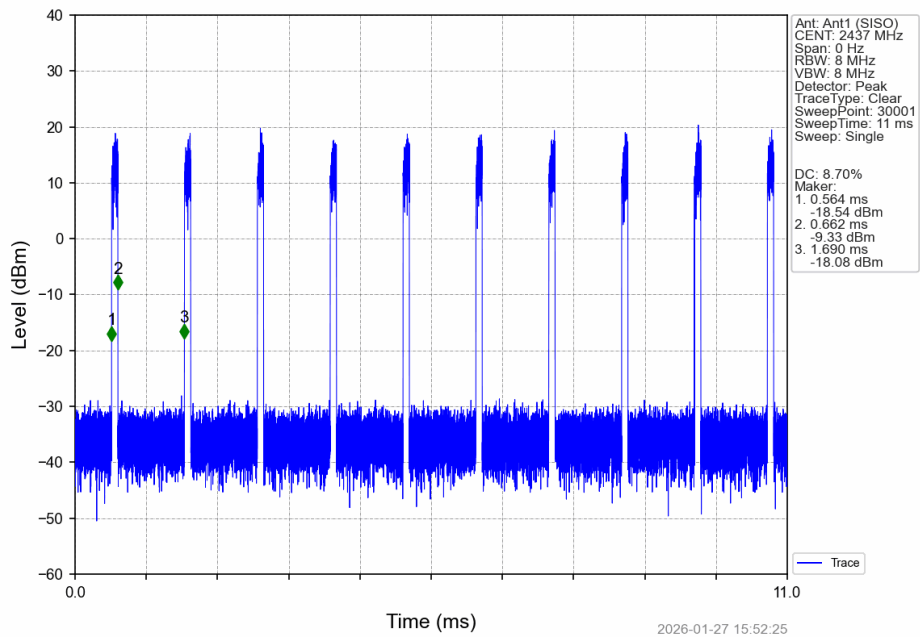
802.11n(HT20) HCH 2462MHz Ant1 (SISO) NTN



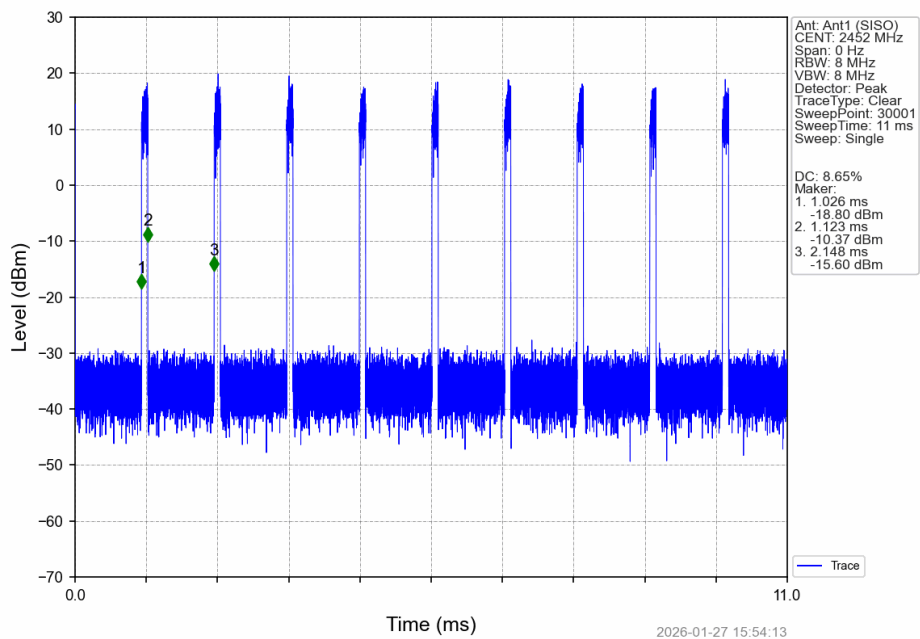
802.11n(HT40) LCH 2422MHz Ant1 (SISO) NTN



802.11n(HT40) MCH_2437MHz_Ant1 (SISO) NTN



802.11n(HT40) HCH_2452MHz_Ant1 (SISO) NTN



2. Bandwidth

2.1 Test Result

2.1.1 OBW

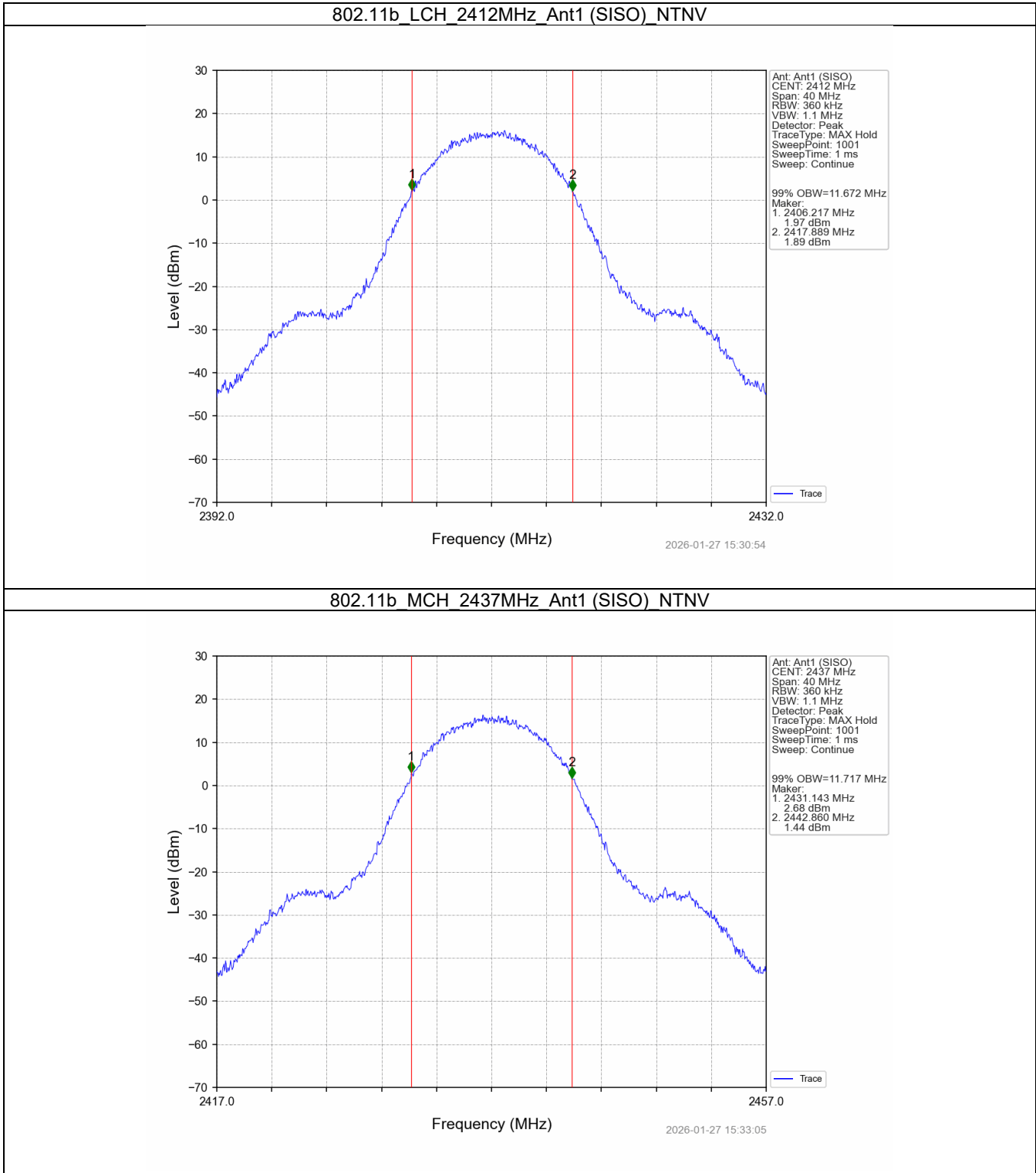
Mode	TX Type	Frequency (MHz)	ANT	99% Occupied Bandwidth (MHz)		Verdict
				Result	Limit	
802.11b	SISO	2412	1	11.672	/	Pass
		2437	1	11.717	/	Pass
		2462	1	11.683	/	Pass
802.11g	SISO	2412	1	17.451	/	Pass
		2437	1	17.417	/	Pass
		2462	1	17.433	/	Pass
802.11n (HT20)	SISO	2412	1	18.553	/	Pass
		2437	1	18.573	/	Pass
		2462	1	18.417	/	Pass
802.11n (HT40)	SISO	2422	1	36.705	/	Pass
		2437	1	36.880	/	Pass
		2452	1	36.824	/	Pass

2.1.2 6dB BW

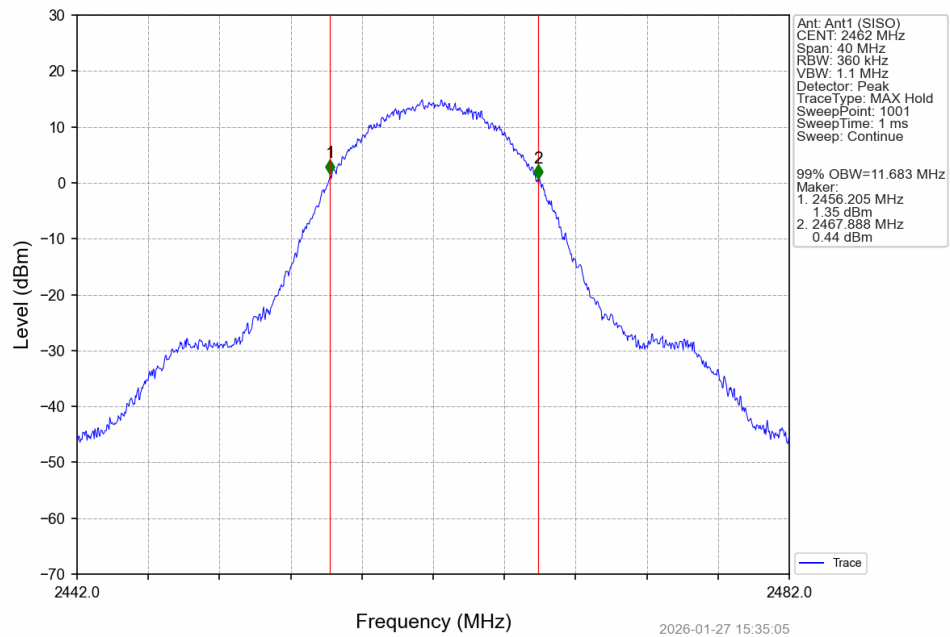
Mode	TX Type	Frequency (MHz)	ANT	6dB Bandwidth (MHz)		Verdict
				Result	Limit	
802.11b	SISO	2412	1	8.367	≥ 0.5	Pass
		2437	1	8.114	≥ 0.5	Pass
		2462	1	8.069	≥ 0.5	Pass
802.11g	SISO	2412	1	16.039	≥ 0.5	Pass
		2437	1	16.277	≥ 0.5	Pass
		2462	1	16.280	≥ 0.5	Pass
802.11n (HT20)	SISO	2412	1	17.349	≥ 0.5	Pass
		2437	1	16.963	≥ 0.5	Pass
		2462	1	17.230	≥ 0.5	Pass
802.11n (HT40)	SISO	2422	1	35.414	≥ 0.5	Pass
		2437	1	35.735	≥ 0.5	Pass
		2452	1	35.959	≥ 0.5	Pass

2.2 Test Graph

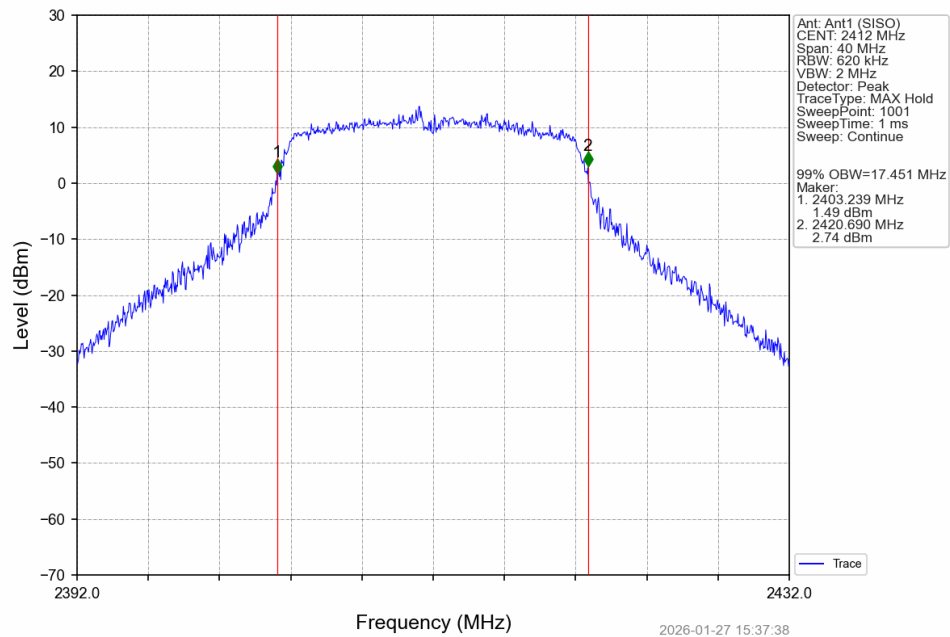
2.2.1 OBW



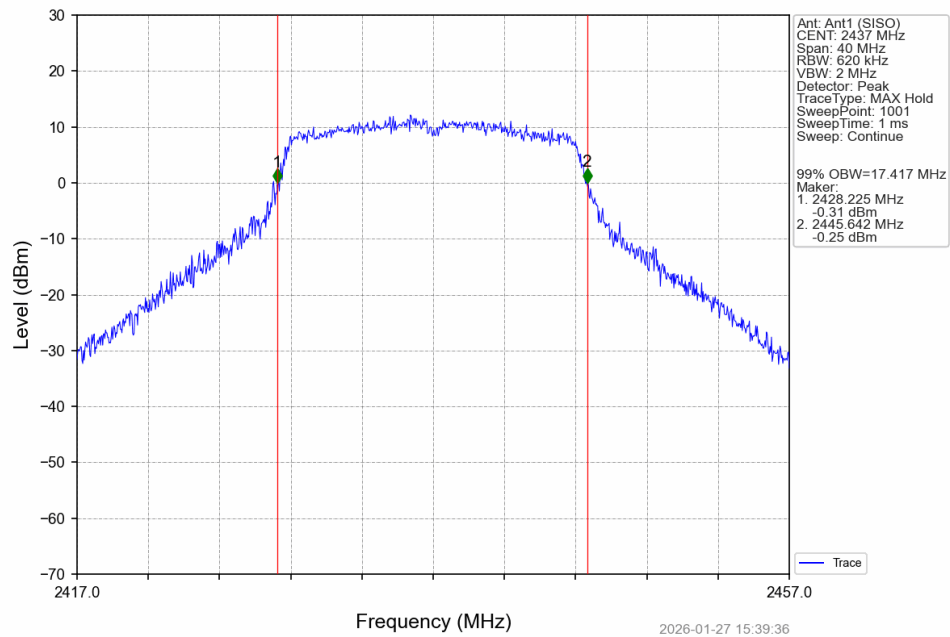
802.11b HCH 2462MHz Ant1 (SISO) NTN



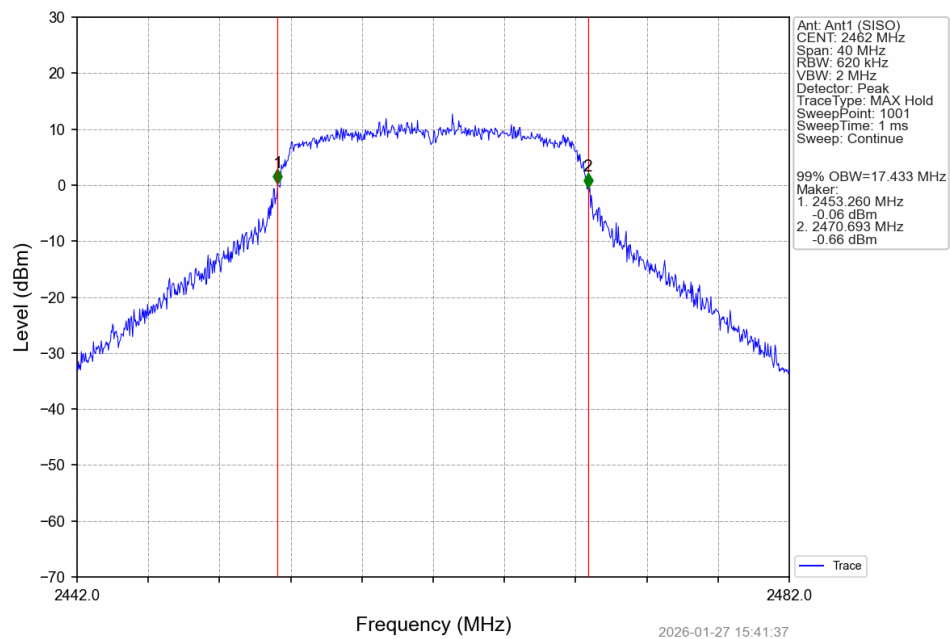
802.11g LCH 2412MHz Ant1 (SISO) NTN



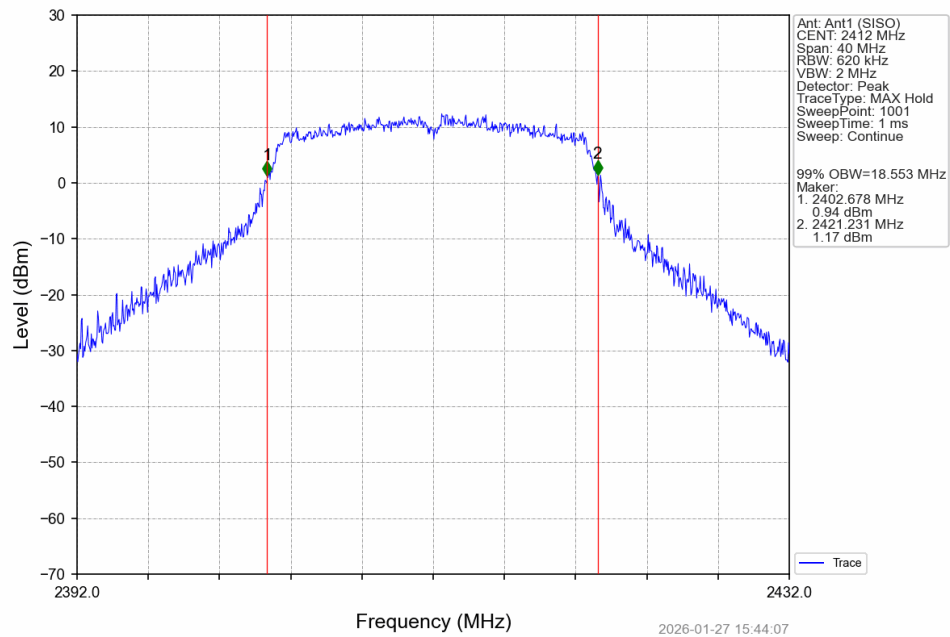
802.11g MCH 2437MHz Ant1 (SISO) NTN



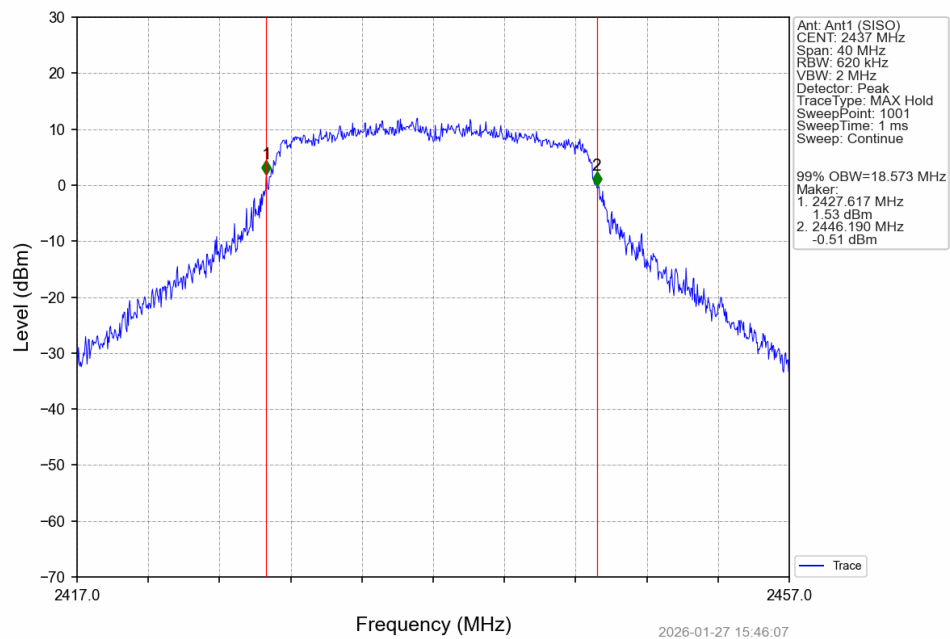
802.11g_HCH_2462MHz_Ant1 (SISO)_NTNV



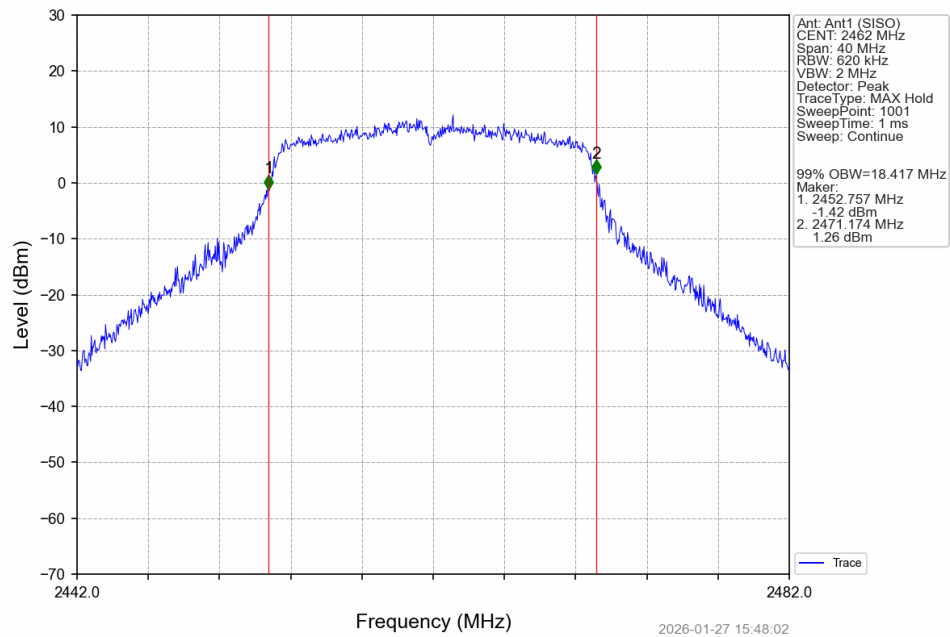
802.11n(HT20) LCH 2412MHz Ant1 (SISO) NTNV



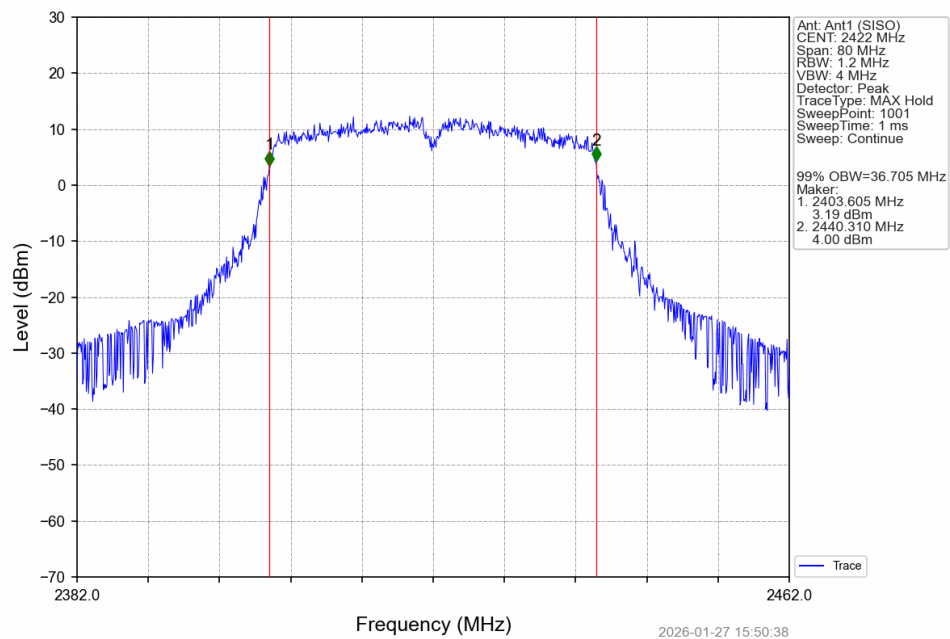
802.11n(HT20) MCH 2437MHz Ant1 (SISO) NTNV



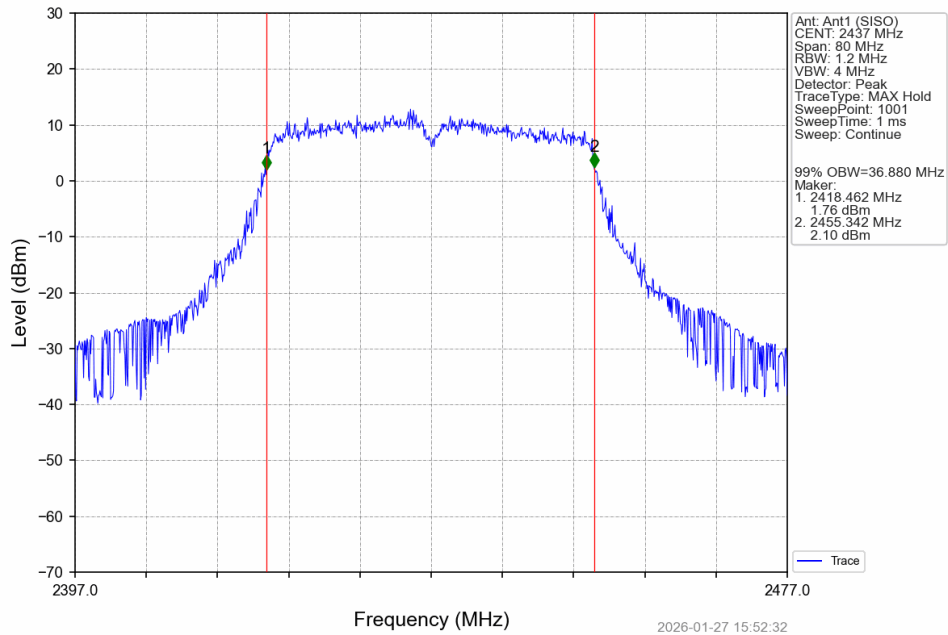
802.11n(HT20) HCH 2462MHz Ant1 (SISO) NTN



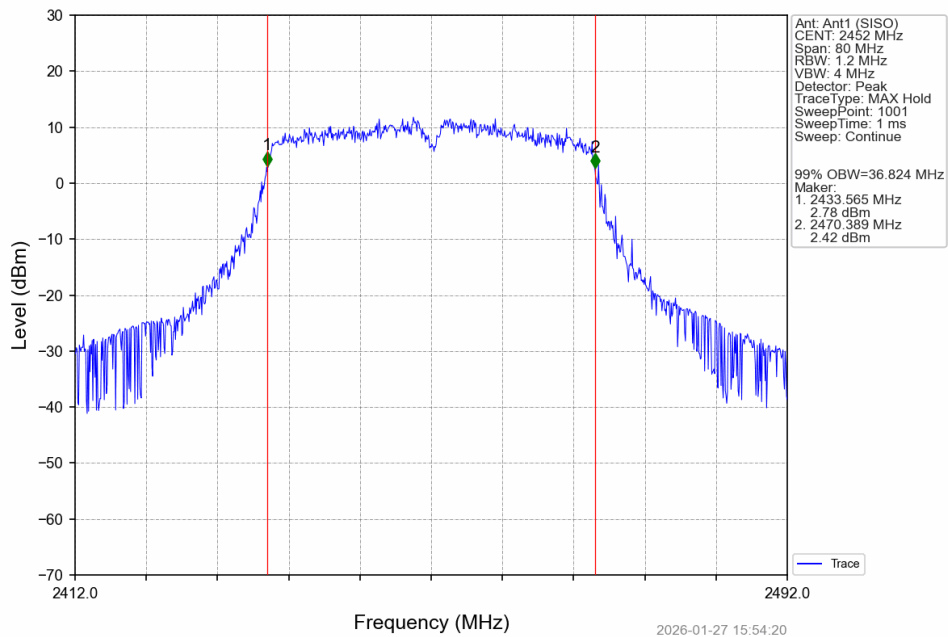
802.11n(HT40) LCH 2422MHz Ant1 (SISO) NTN



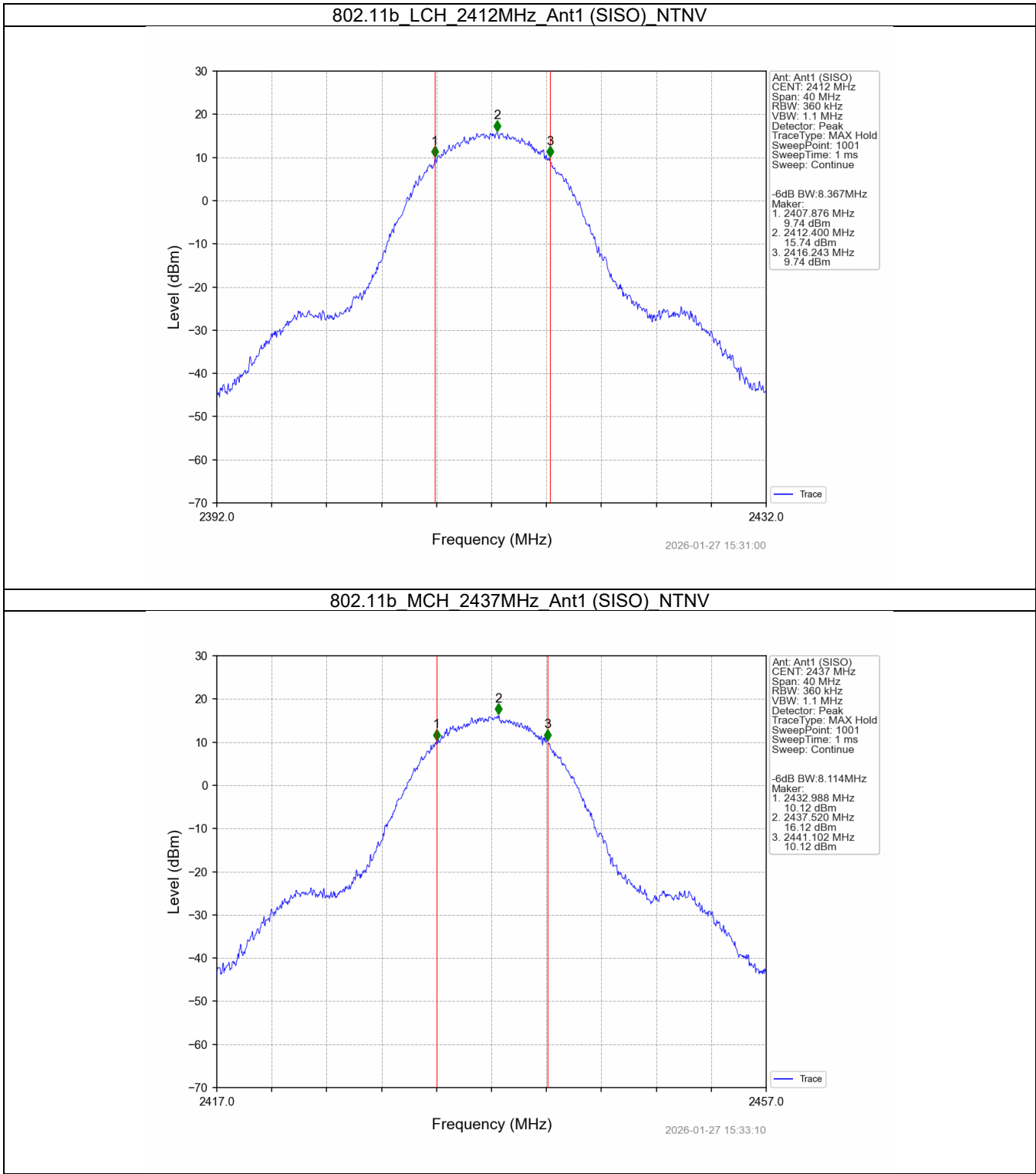
802.11n(HT40) MCH_2437MHz_Ant1 (SISO) NTN



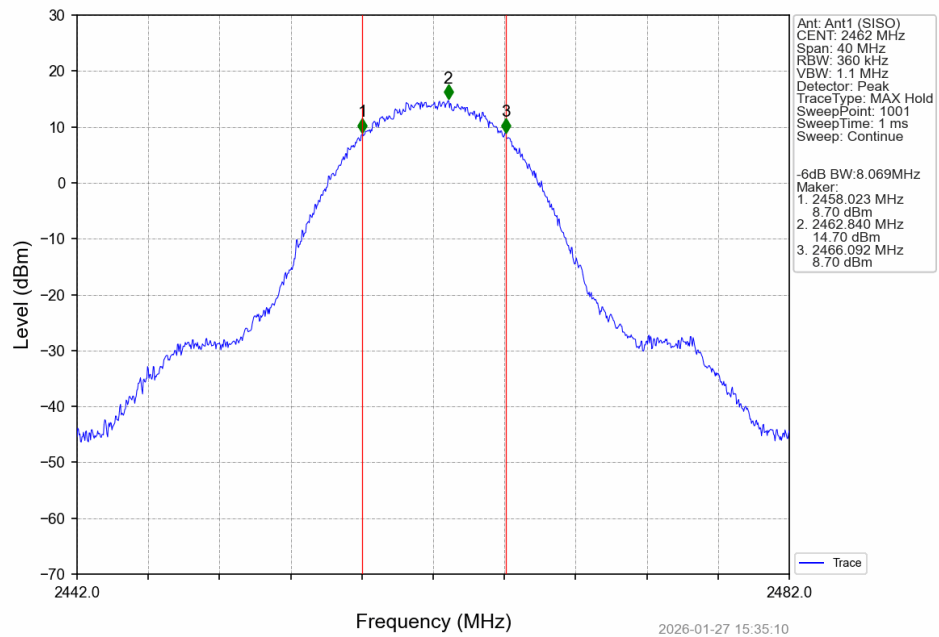
802.11n(HT40) HCH_2452MHz_Ant1 (SISO) NTN



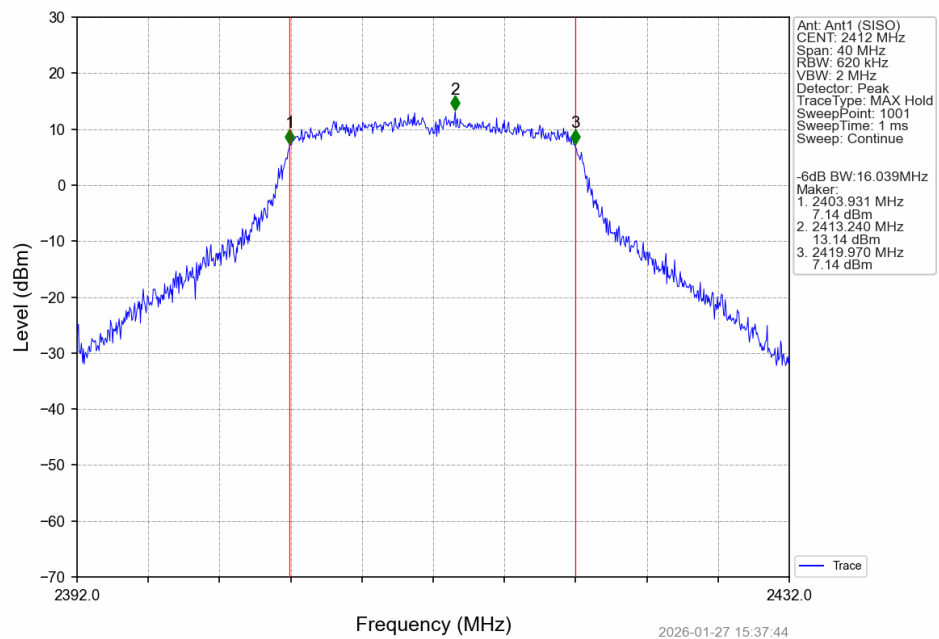
2.2.2 6dB BW



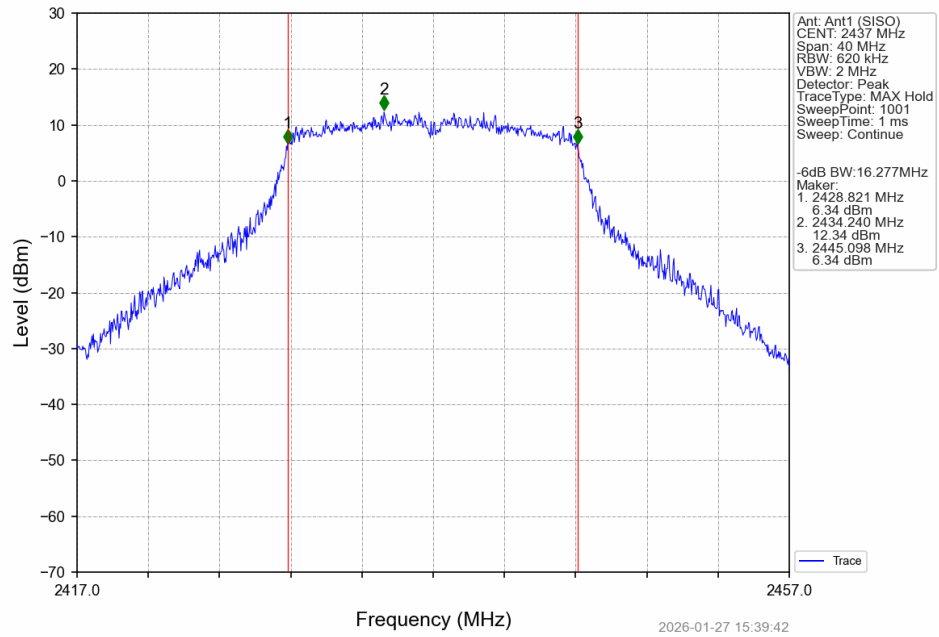
802.11b HCH 2462MHz Ant1 (SISO) NTN



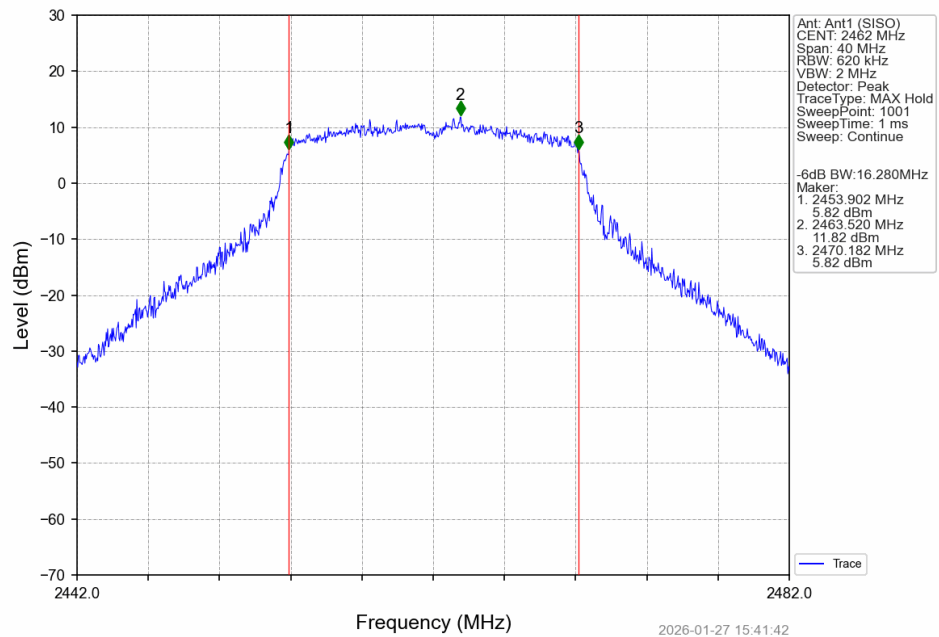
802.11g LCH 2412MHz Ant1 (SISO) NTN



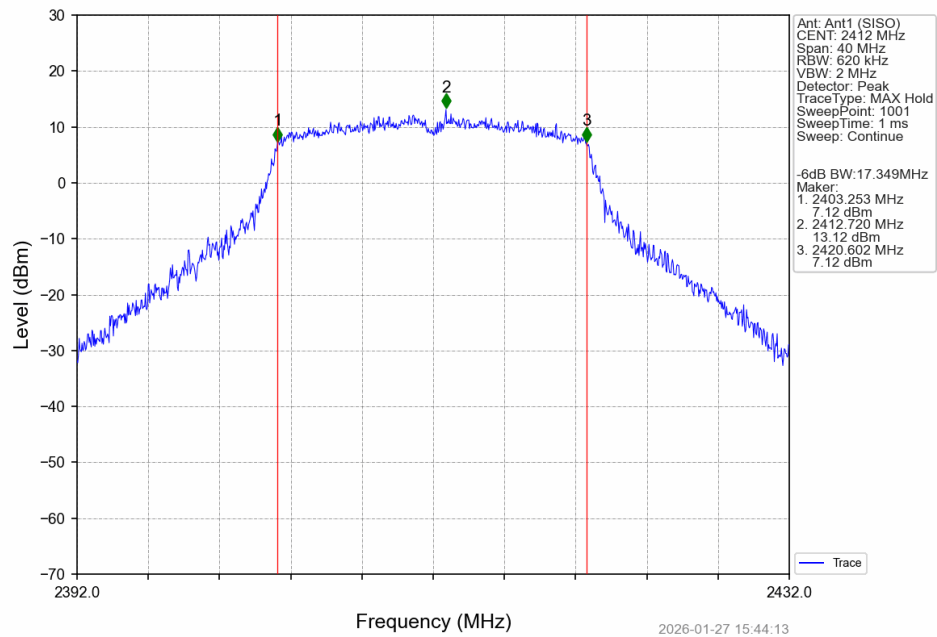
802.11g MCH 2437MHz Ant1 (SISO) NTN



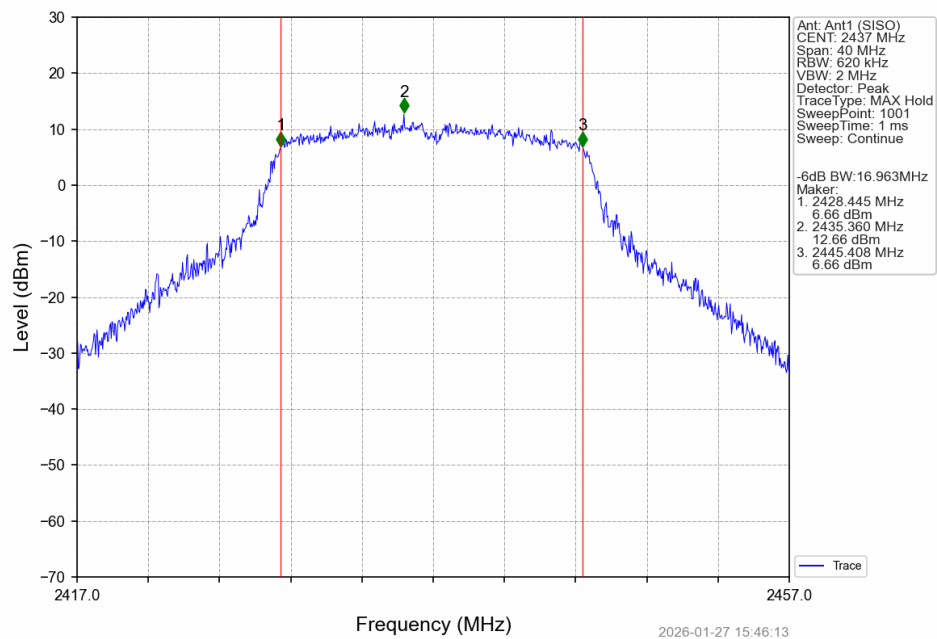
802.11g_HCH_2462MHz_Ant1 (SISO)_NTNV



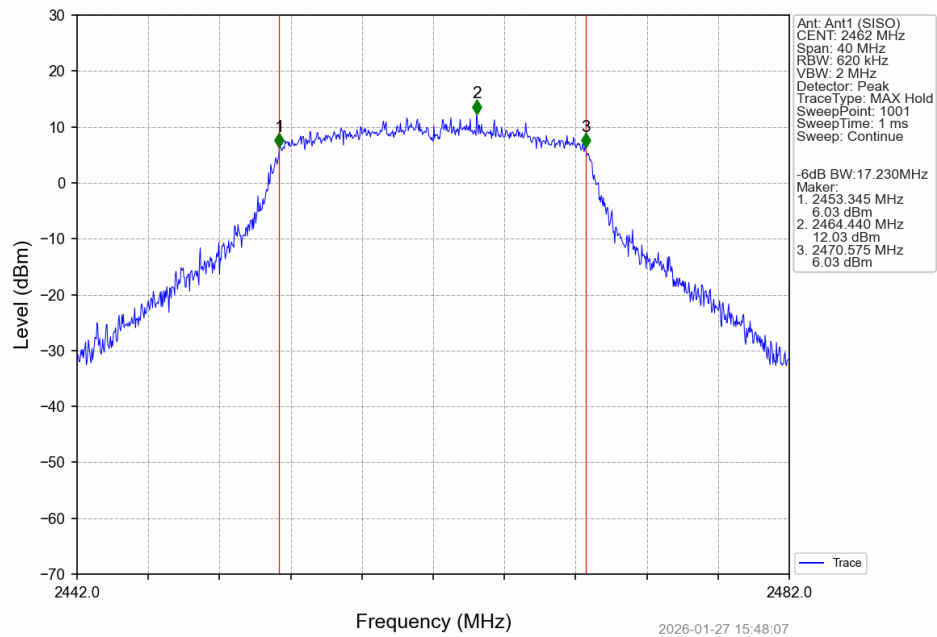
802.11n(HT20) LCH 2412MHz Ant1 (SISO) NTNV



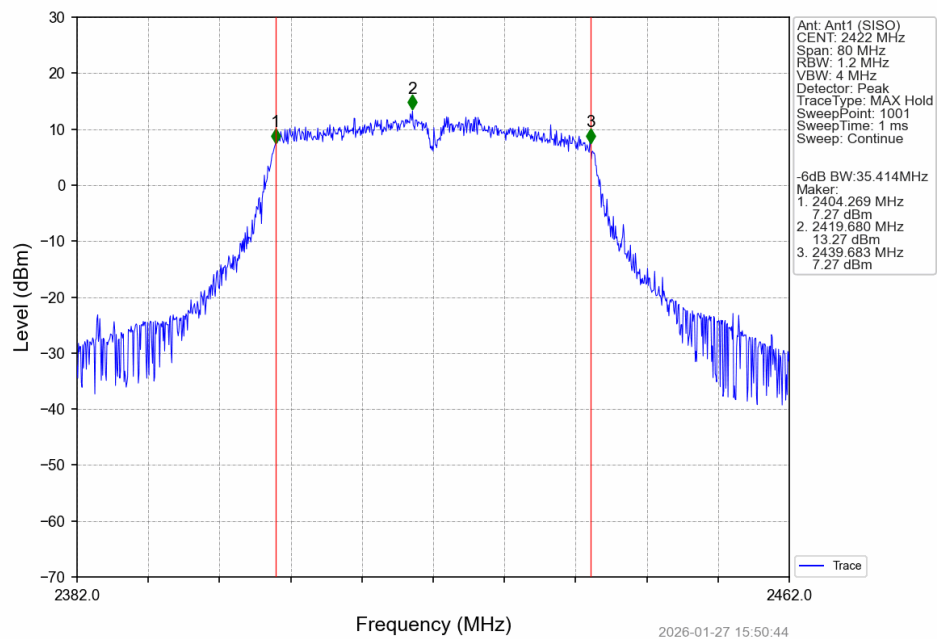
802.11n(HT20) MCH 2437MHz Ant1 (SISO) NTNV



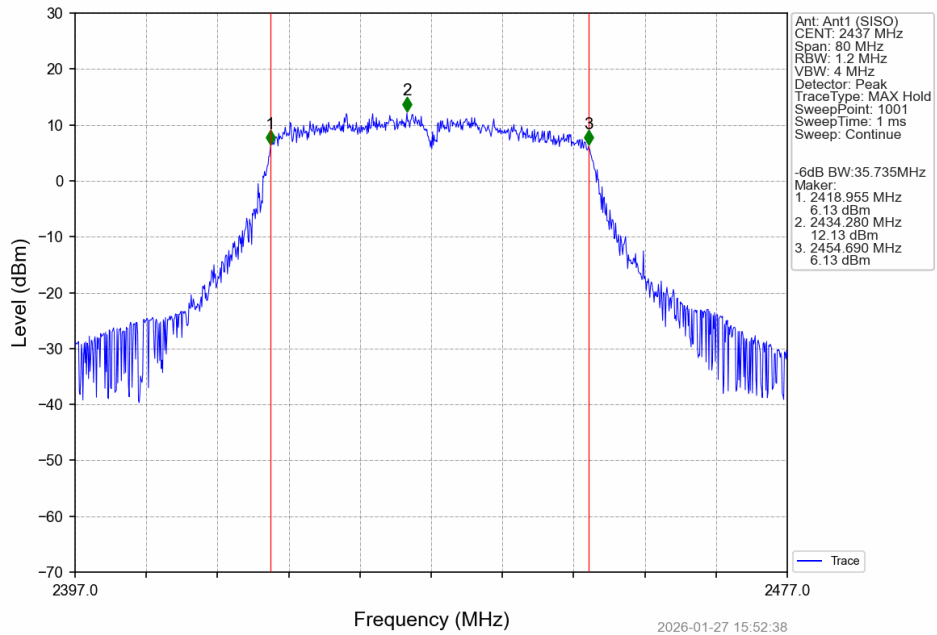
802.11n(HT20) HCH 2462MHz Ant1 (SISO) NTN



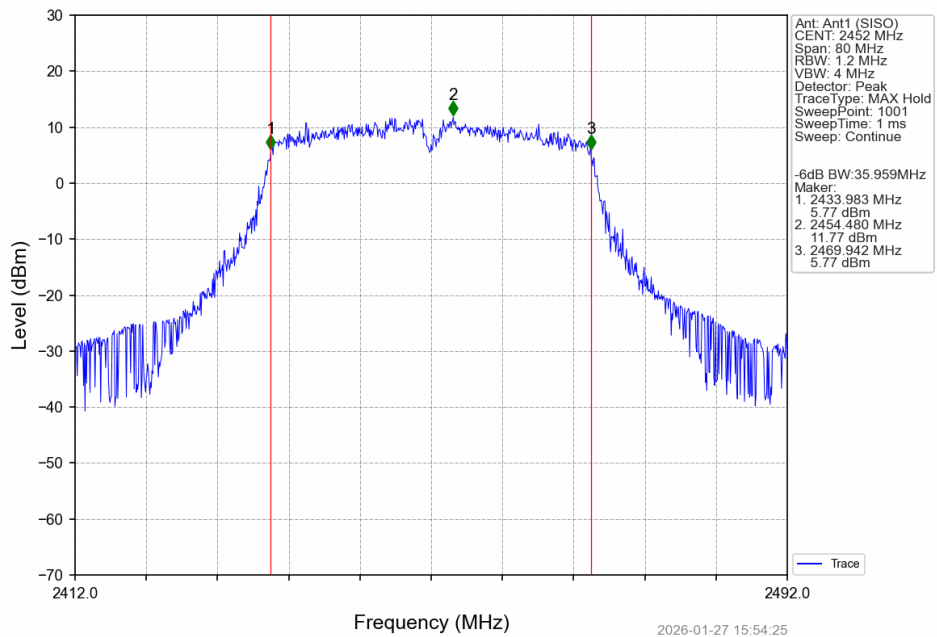
802.11n(HT40) LCH 2422MHz Ant1 (SISO) NTN



802.11n(HT40) MCH_2437MHz_Ant1 (SISO) NTN



802.11n(HT40) HCH_2452MHz_Ant1 (SISO) NTN



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	26.10	<=30	Pass
		2437	26.18	<=30	Pass
		2462	24.83	<=30	Pass
802.11g	SISO	2412	24.50	<=30	Pass
		2437	23.94	<=30	Pass
		2462	23.43	<=30	Pass
802.11n (HT20)	SISO	2412	24.42	<=30	Pass
		2437	23.63	<=30	Pass
		2462	23.29	<=30	Pass
802.11n (HT40)	SISO	2422	23.85	<=30	Pass
		2437	23.45	<=30	Pass
		2452	23.07	<=30	Pass

4. Maximum Power Spectral Density

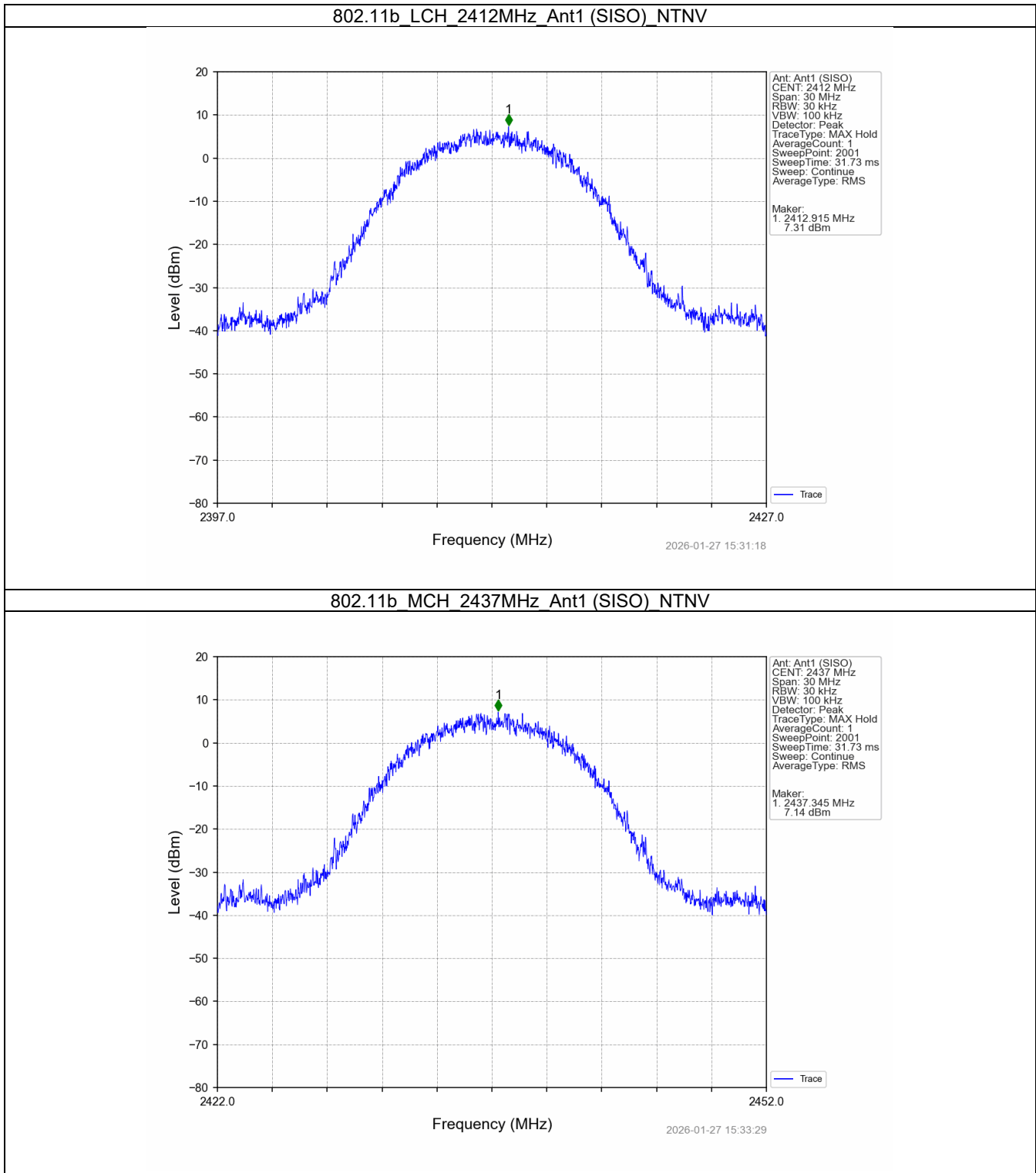
4.1 Test Result

4.1.1 PSD

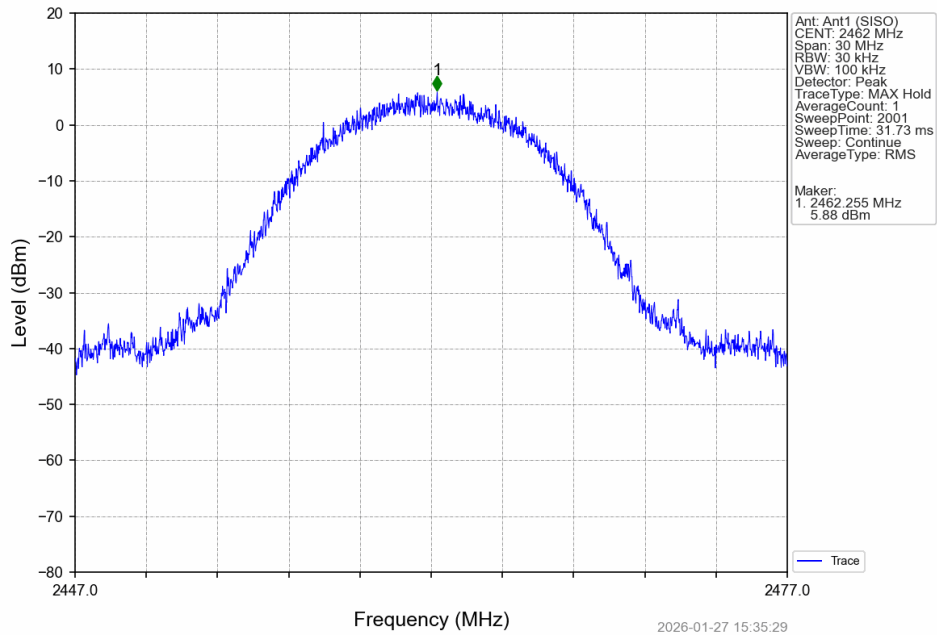
Mode	TX Type	Frequency (MHz)	Maximum PSD (dBm)		Verdict
			ANT1	Limit	
802.11b	SISO	2412	7.31	<=8	Pass
		2437	7.14	<=8	Pass
		2462	5.88	<=8	Pass
802.11g	SISO	2412	6.86	<=8	Pass
		2437	5.75	<=8	Pass
		2462	5.61	<=8	Pass
802.11n (HT20)	SISO	2412	6.95	<=8	Pass
		2437	6.08	<=8	Pass
		2462	5.75	<=8	Pass
802.11n (HT40)	SISO	2422	3.60	<=8	Pass
		2437	3.22	<=8	Pass
		2452	2.74	<=8	Pass

4.2 Test Graph

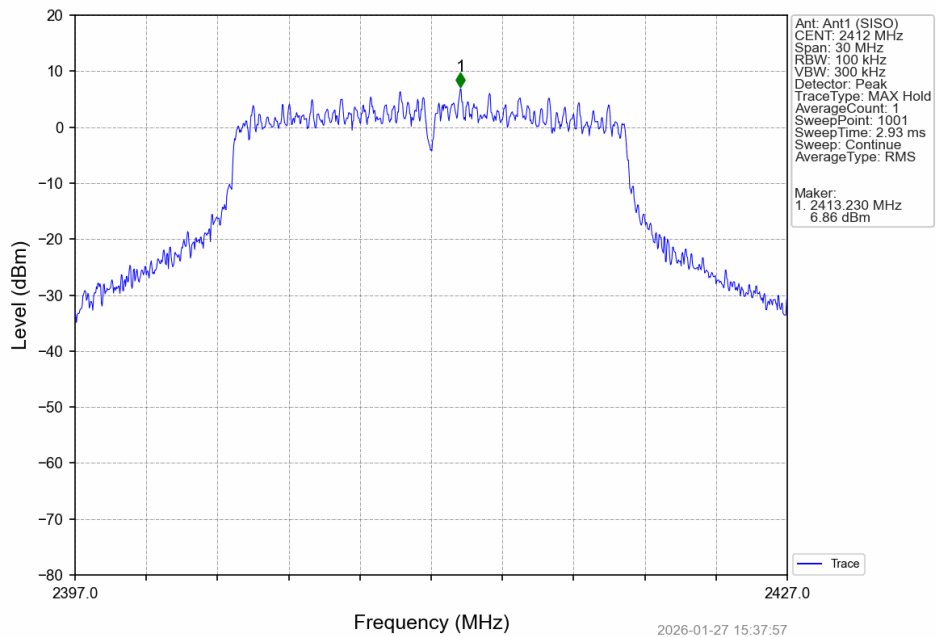
4.2.1 PSD



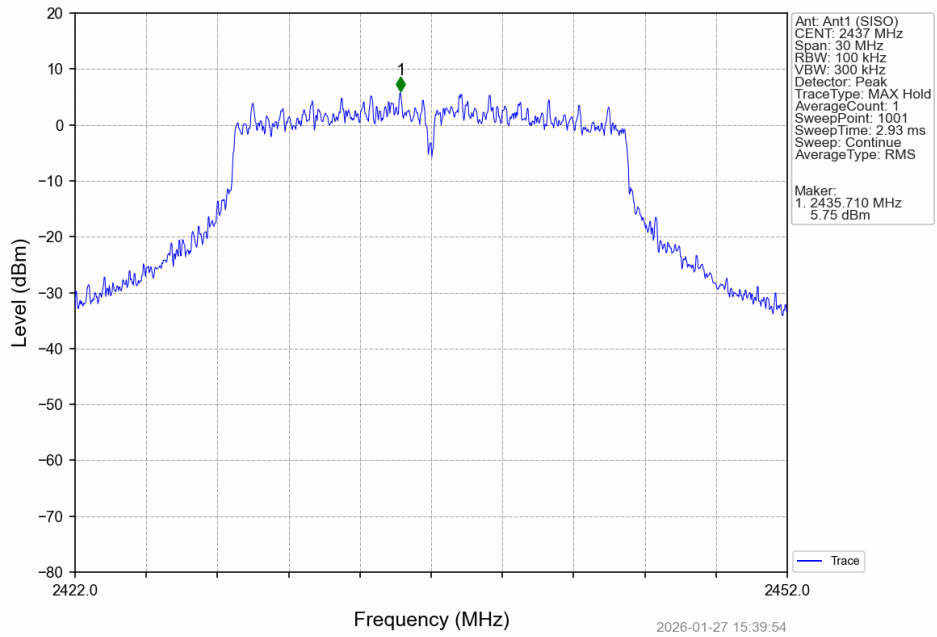
802.11b HCH 2462MHz Ant1 (SISO) NTN



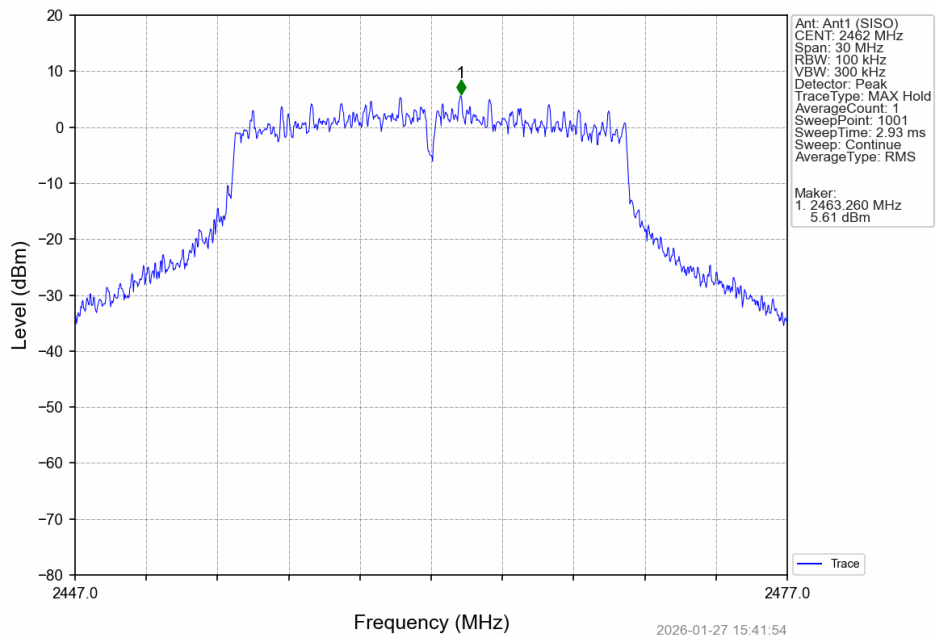
802.11g LCH 2412MHz Ant1 (SISO) NTN



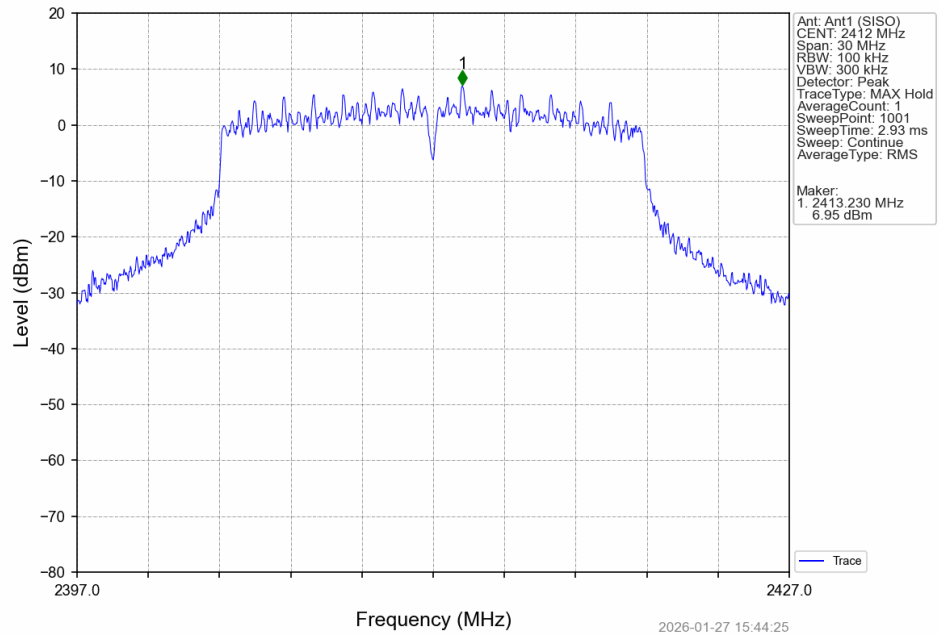
802.11g_MCH_2437MHz_Ant1 (SISO) NTN



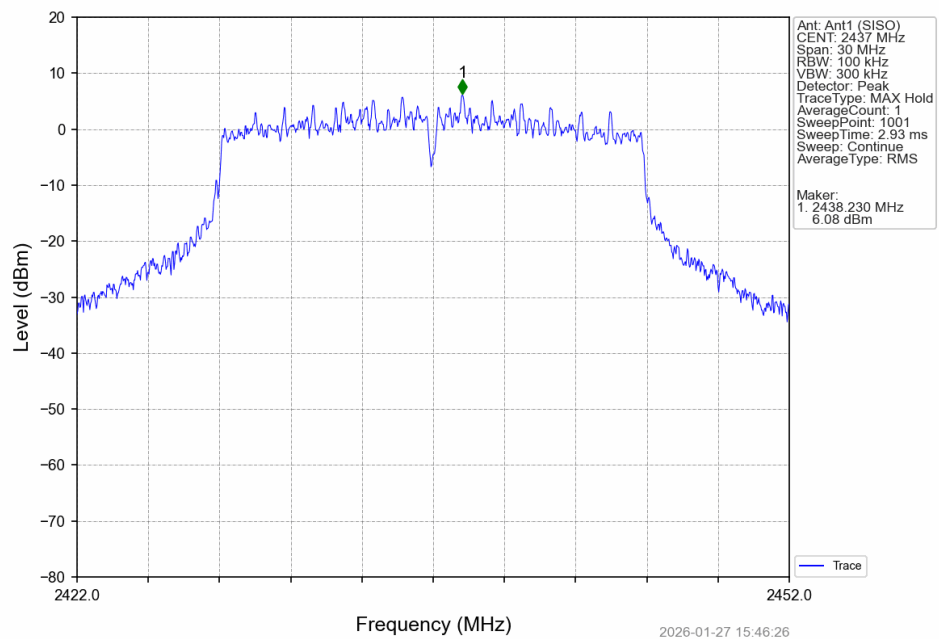
802.11g_HCH_2462MHz_Ant1 (SISO) NTN



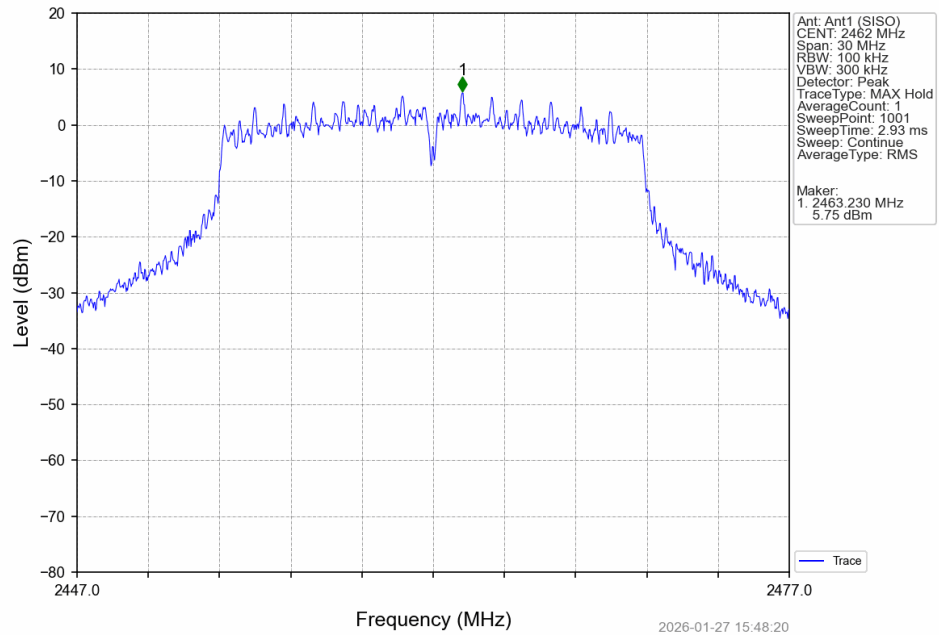
802.11n(HT20) LCH 2412MHz Ant1 (SISO) NTNV



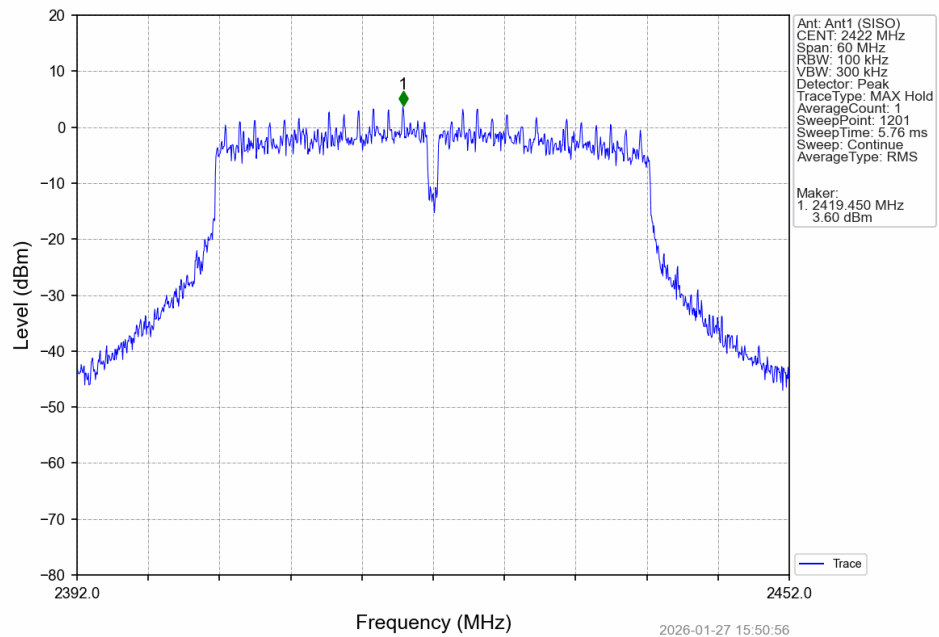
802.11n(HT20) MCH 2437MHz Ant1 (SISO) NTNV



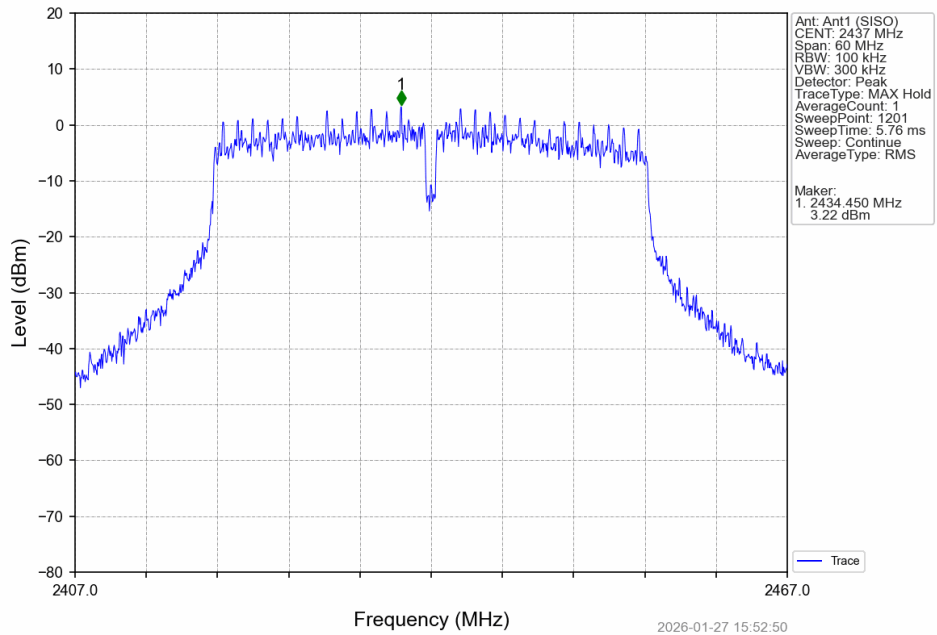
802.11n(HT20) HCH 2462MHz Ant1 (SISO) NTN



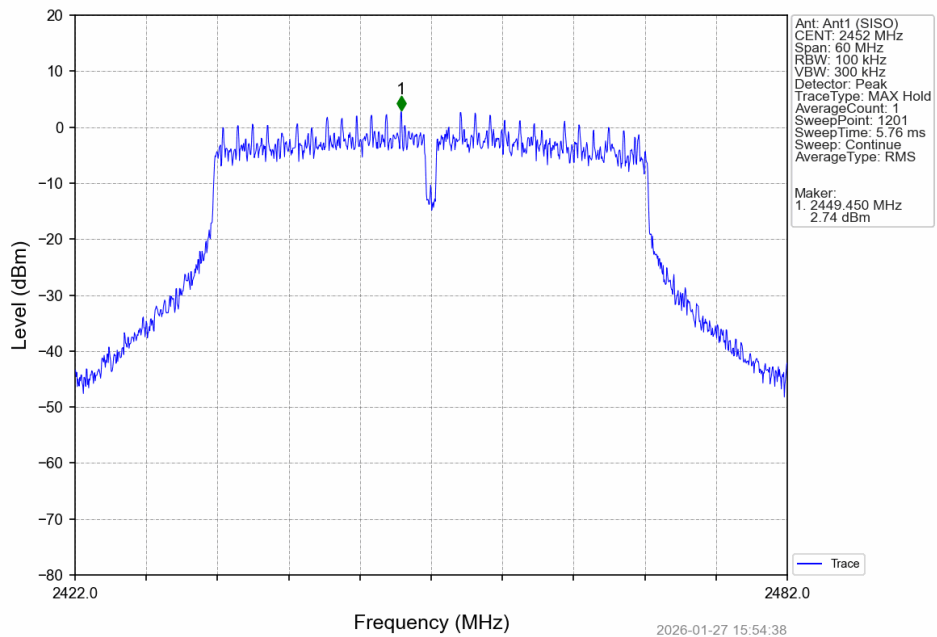
802.11n(HT40) LCH 2422MHz Ant1 (SISO) NTN



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



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



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	12.07
		2437	1	12.90
		2462	1	11.67
802.11g	SISO	2412	1	6.88
		2437	1	6.17
		2462	1	5.56
802.11n (HT20)	SISO	2412	1	7.01
		2437	1	6.01
		2462	1	5.75
802.11n (HT40)	SISO	2422	1	3.56
		2437	1	3.15
		2452	1	2.68

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.

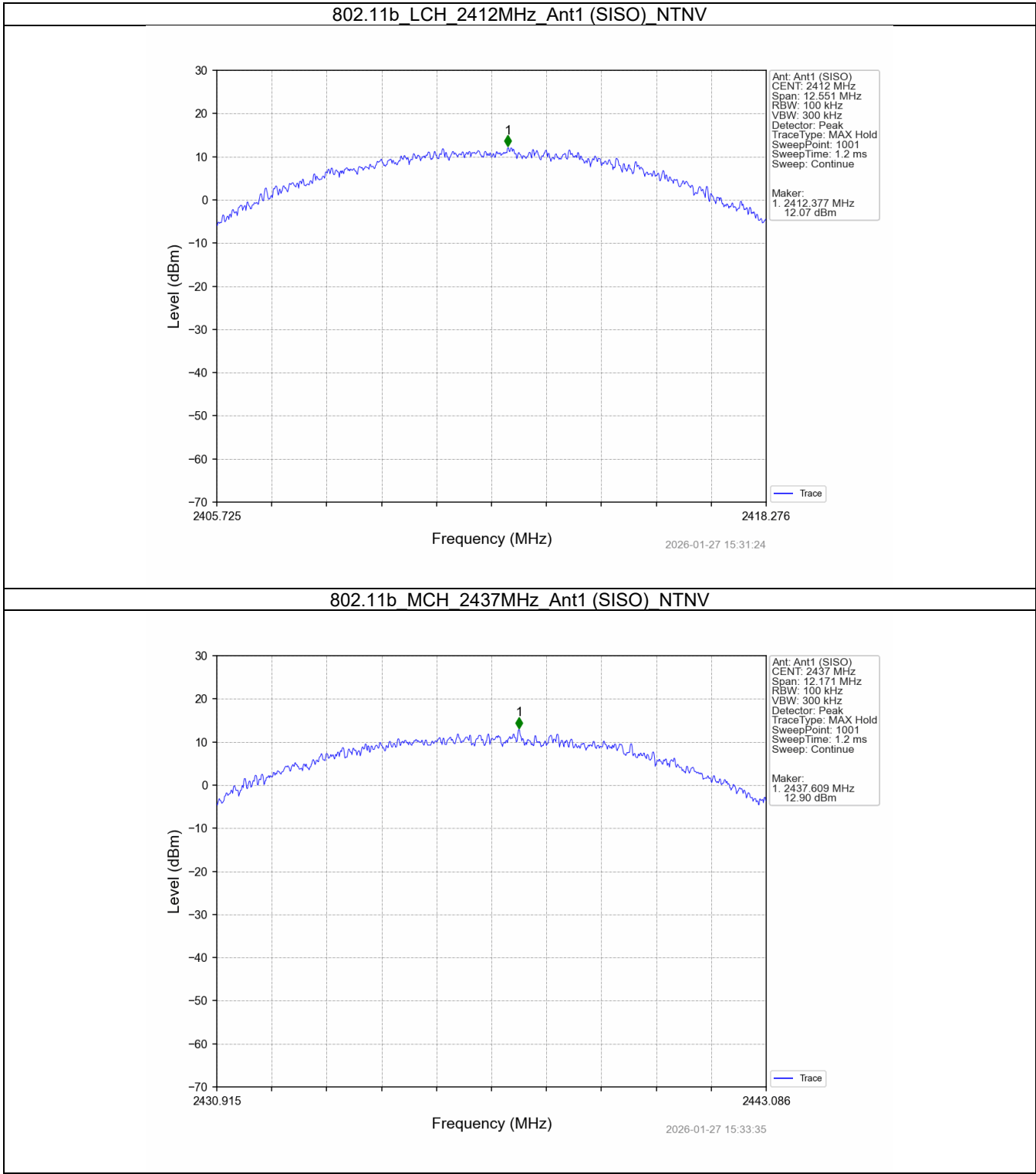
5.1.2 CSE

Mode	TX Type	Frequency (MHz)	ANT	Level of Reference (dBm)	Limit (dBm)	Verdict
802.11b	SISO	2412	1	12.07	-7.93	Pass
		2437	1	12.90	-7.10	Pass
		2462	1	11.67	-8.33	Pass
802.11g	SISO	2412	1	6.88	-13.12	Pass
		2437	1	6.17	-13.83	Pass
		2462	1	5.56	-14.44	Pass
802.11n (HT20)	SISO	2412	1	7.01	-12.99	Pass
		2437	1	6.01	-13.99	Pass
		2462	1	5.75	-14.25	Pass
802.11n (HT40)	SISO	2422	1	3.56	-16.44	Pass
		2437	1	3.15	-16.85	Pass
		2452	1	2.68	-17.32	Pass

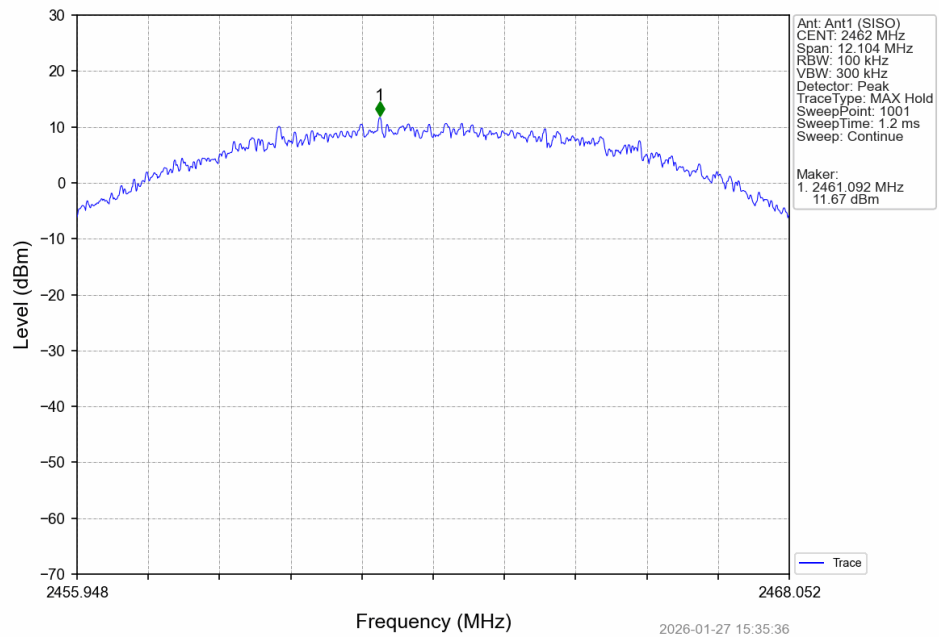
Note1: Refer to FCC Part 15.247 (d) and ANSI C63.10-2020, the channel contains the maximum PSD level was used to establish the reference level.

5.2 Test Graph

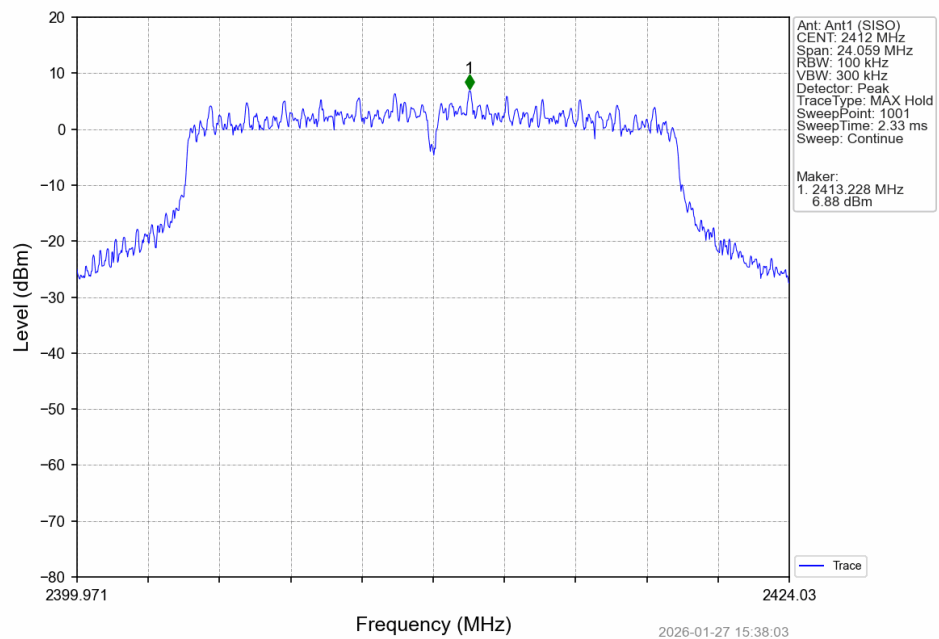
5.2.1 Ref



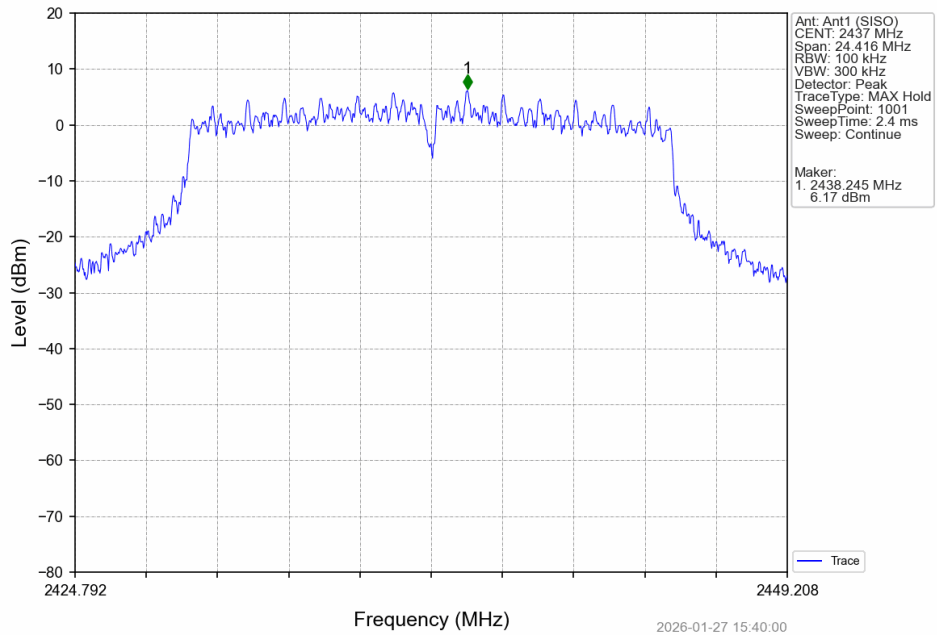
802.11b HCH 2462MHz Ant1 (SISO) NTN



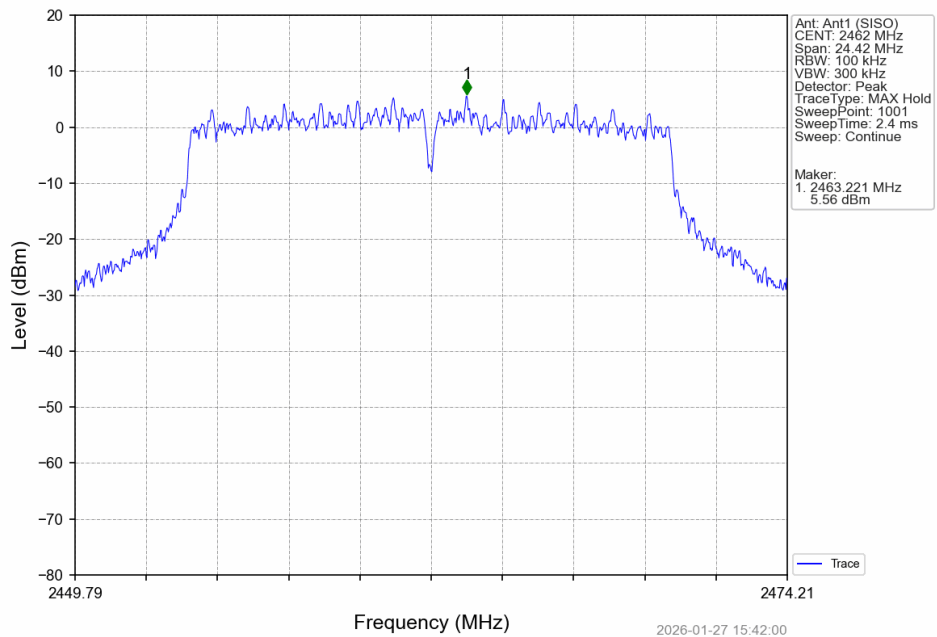
802.11g_LCH_2412MHz_Ant1 (SISO) NTN



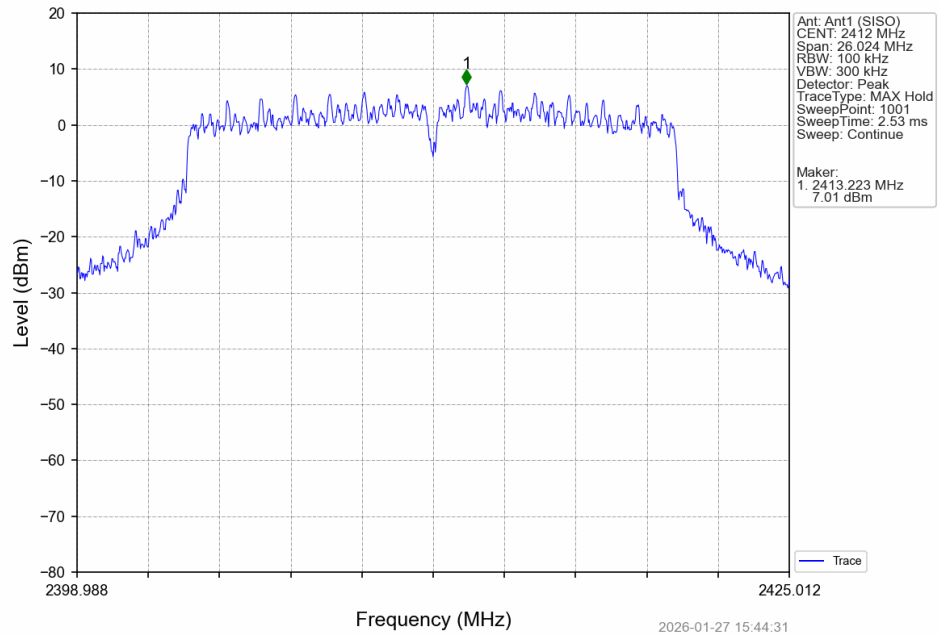
802.11g MCH 2437MHz Ant1 (SISO) NTN



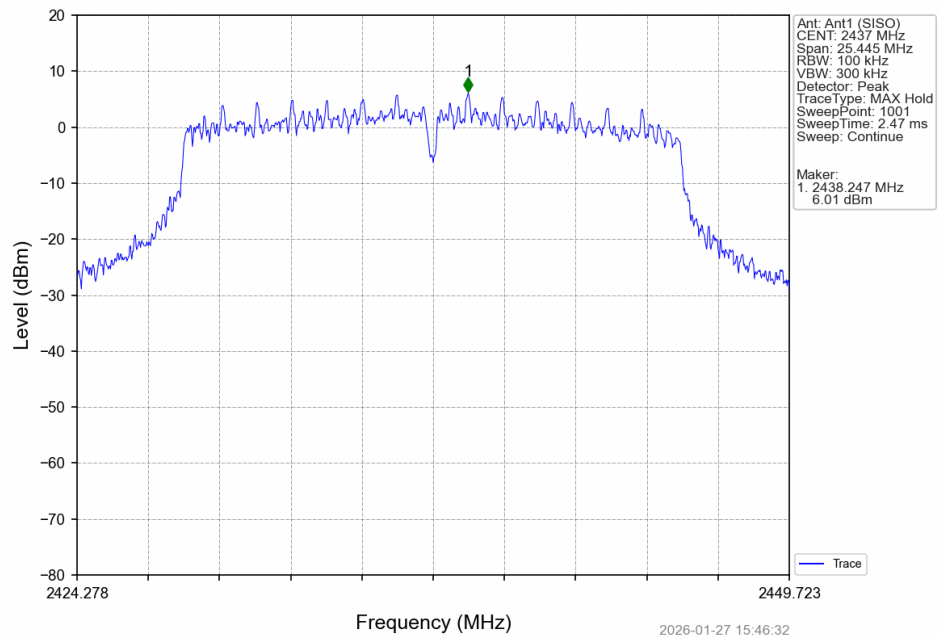
802.11g_HCH_2462MHz_Ant1 (SISO)_NTNV



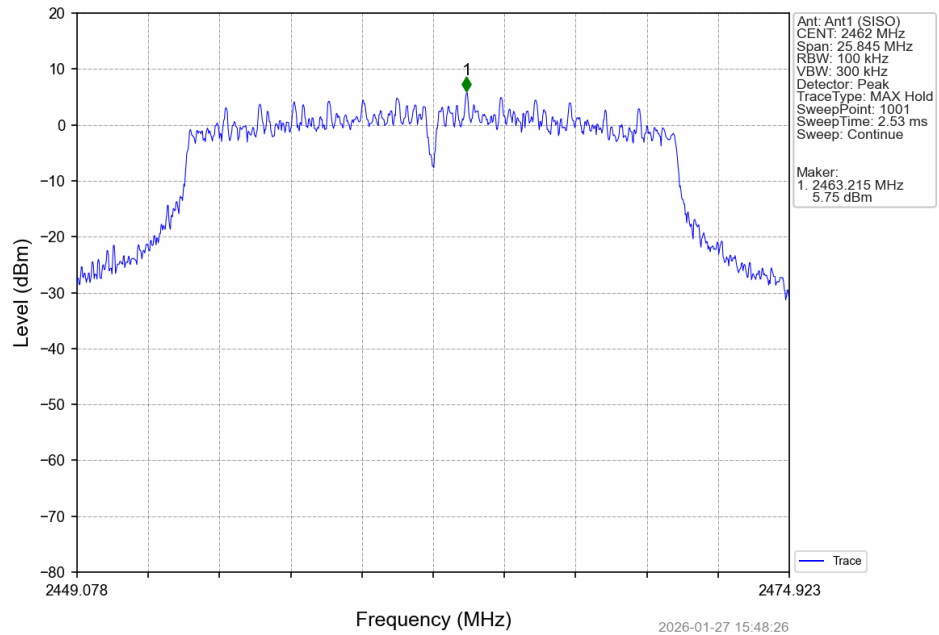
802.11n(HT20) LCH 2412MHz Ant1 (SISO) NTN



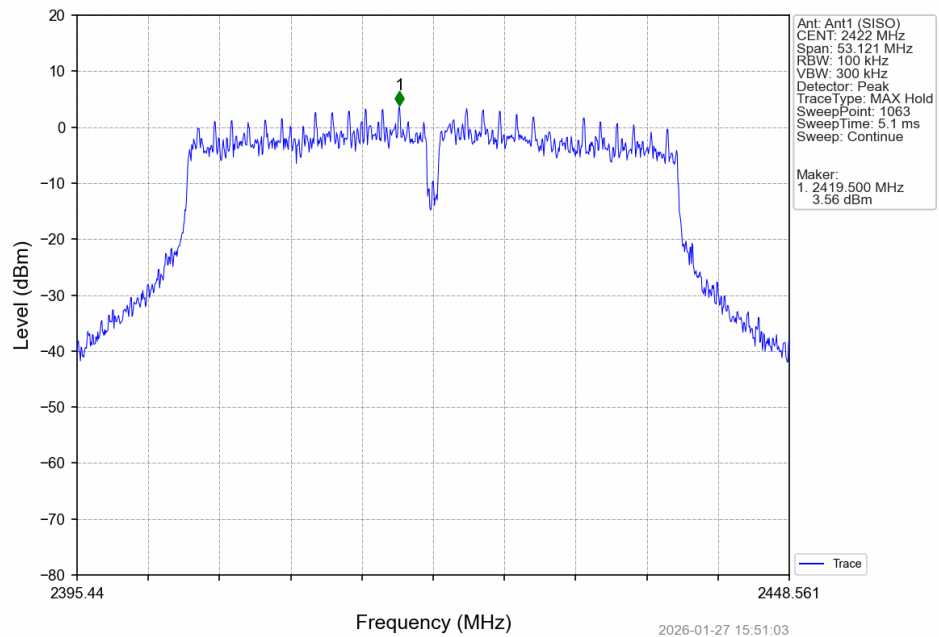
802.11n(HT20) MCH 2437MHz Ant1 (SISO) NTN



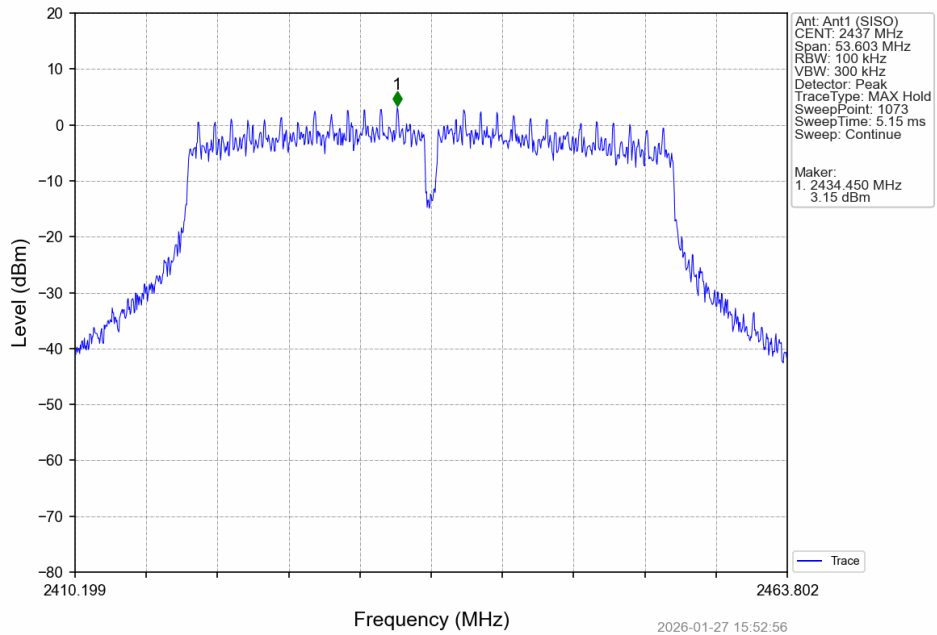
802.11n(HT20) HCH 2462MHz Ant1 (SISO) NTN



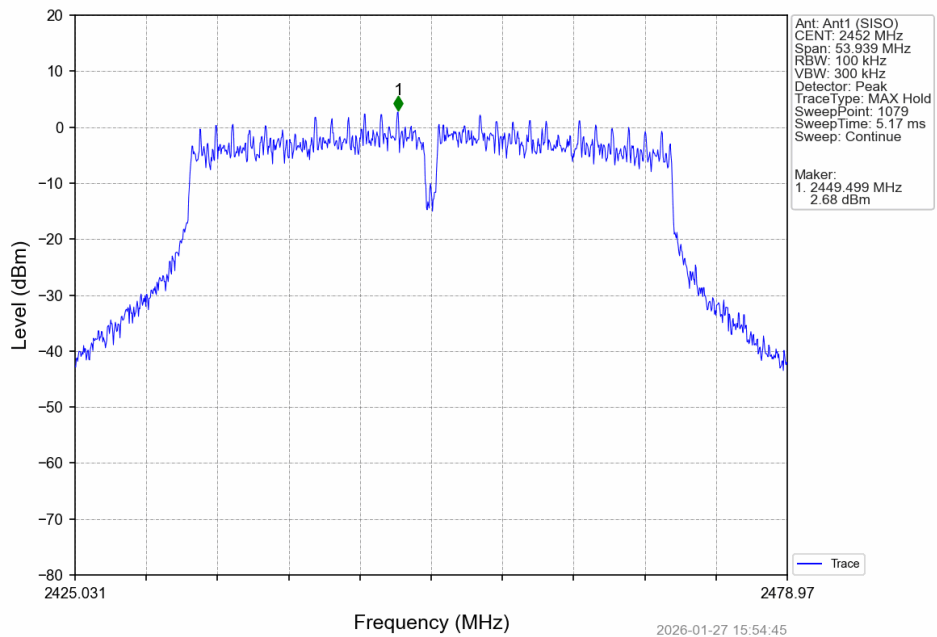
802.11n(HT40) LCH 2422MHz Ant1 (SISO) NTN



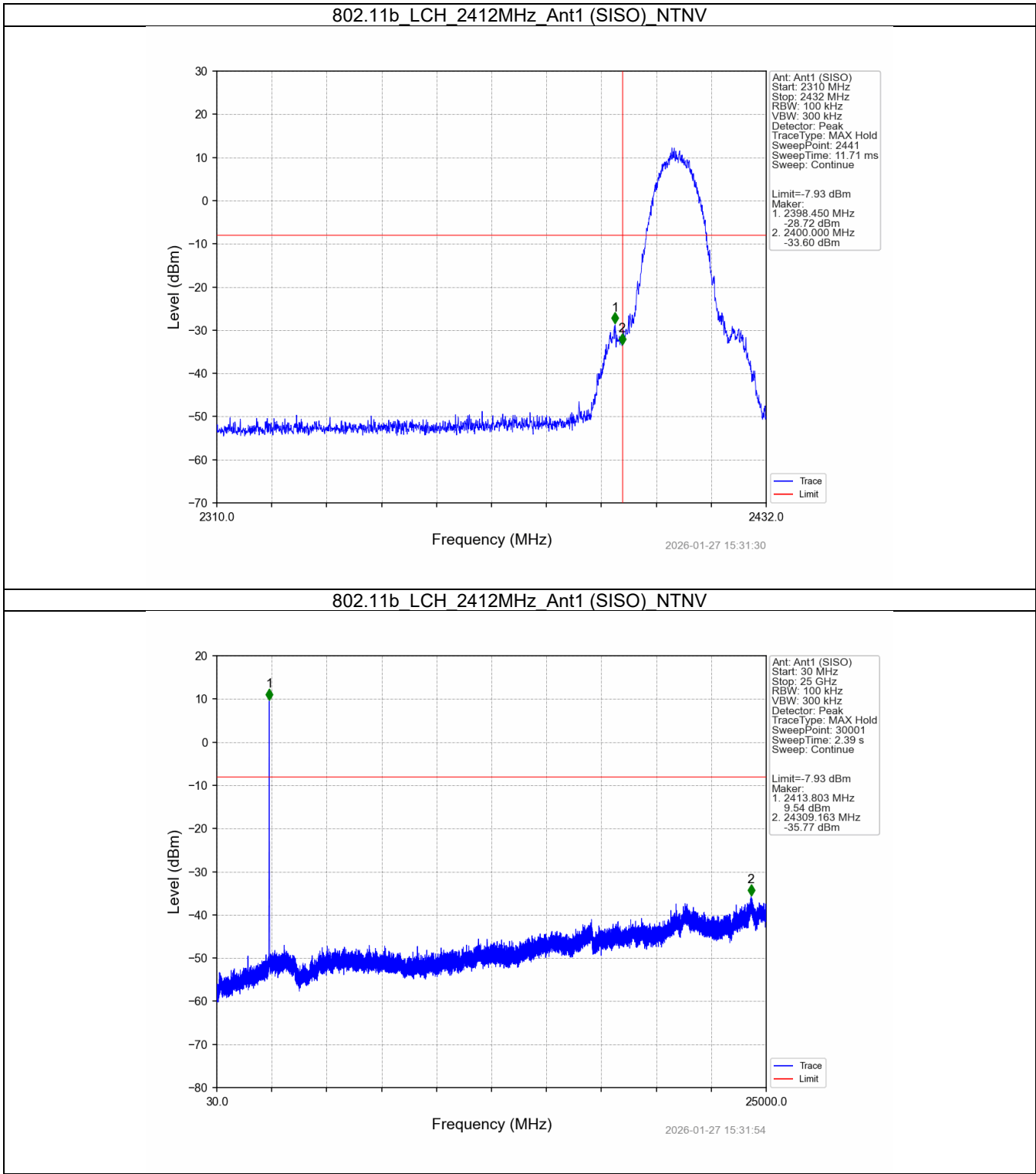
802.11n(HT40) MCH 2437MHz Ant1 (SISO) NTNV



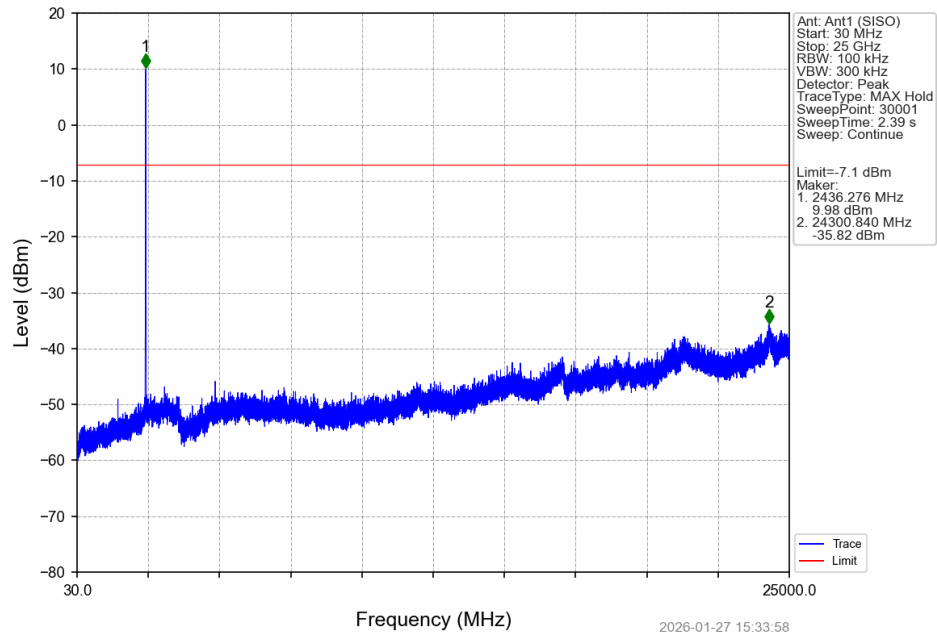
802.11n(HT40) HCH 2452MHz Ant1 (SISO) NTNV



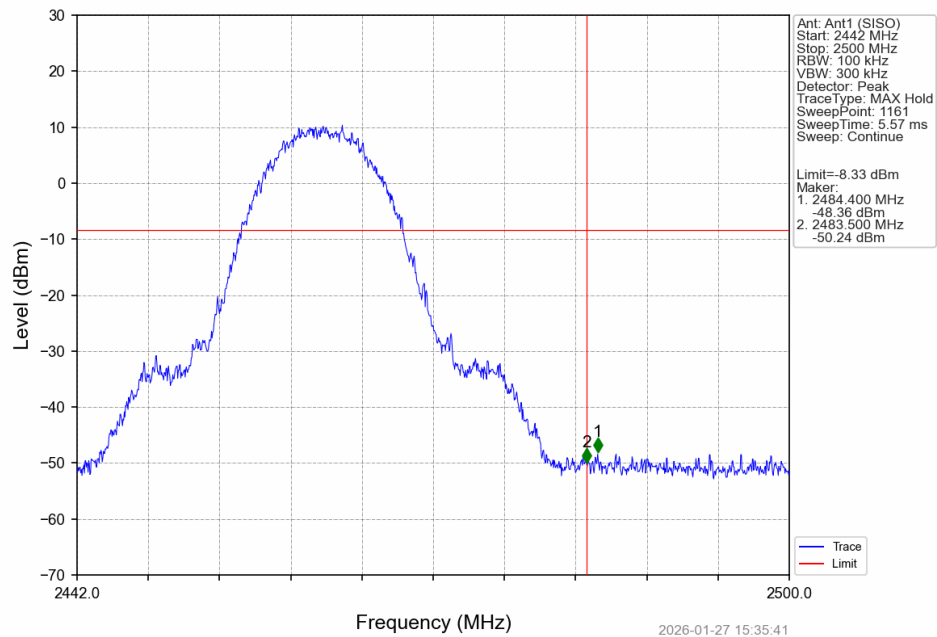
5.2.2 CSE



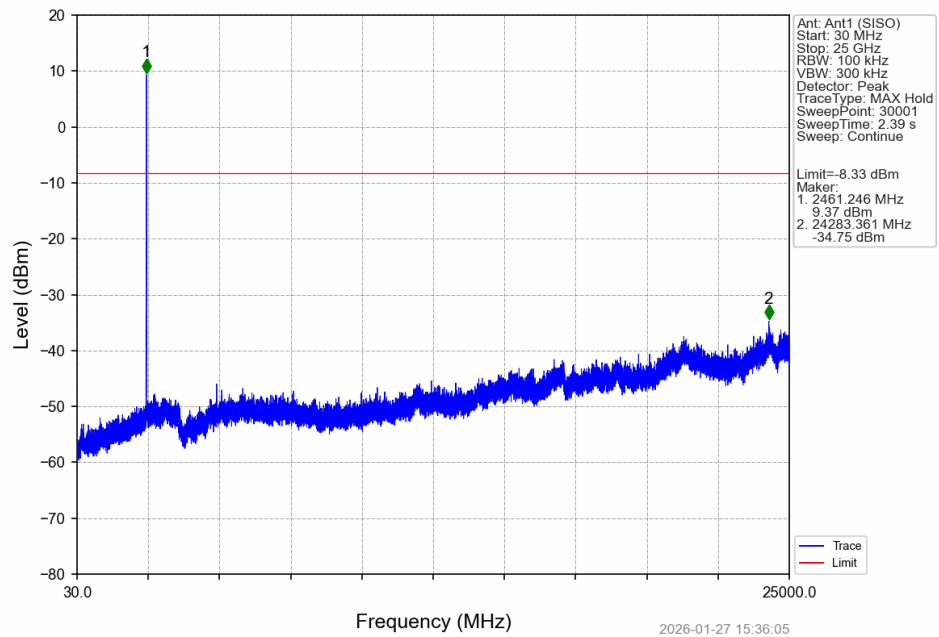
802.11b MCH 2437MHz Ant1 (SISO) NTN



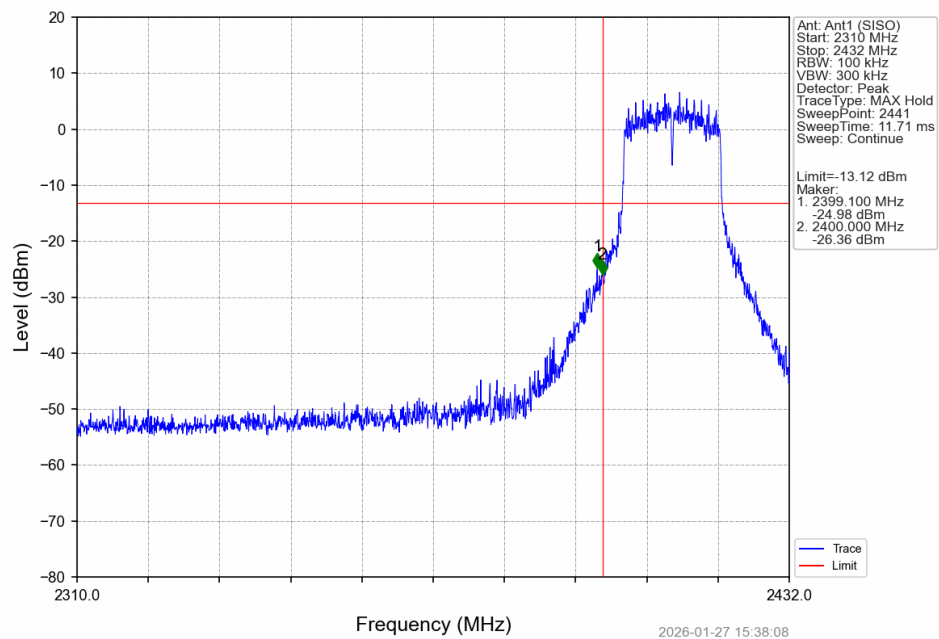
802.11b_HCH_2462MHz_Ant1 (SISO) NTN



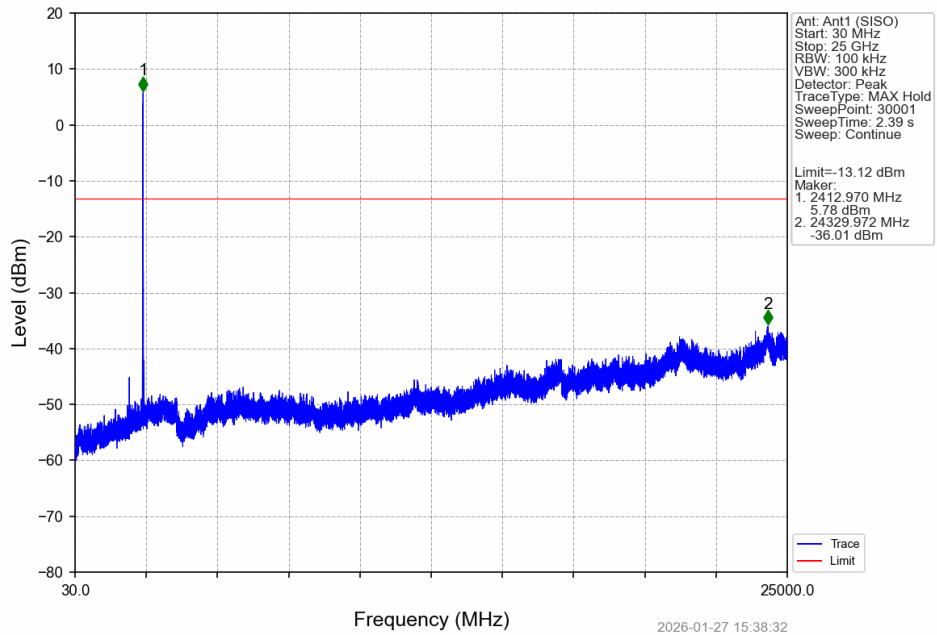
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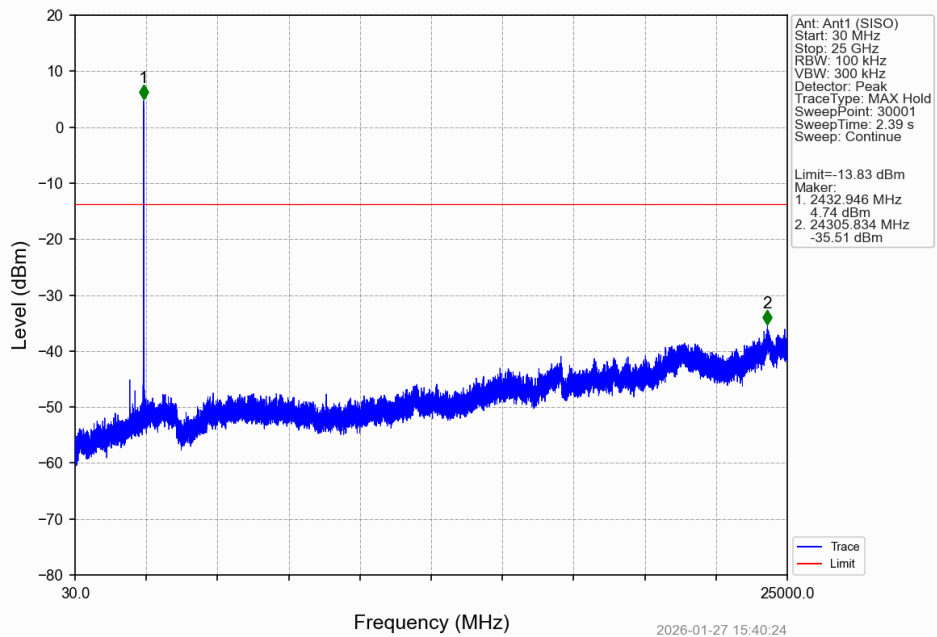
802.11g LCH 2412MHz Ant1 (SISO) NTN



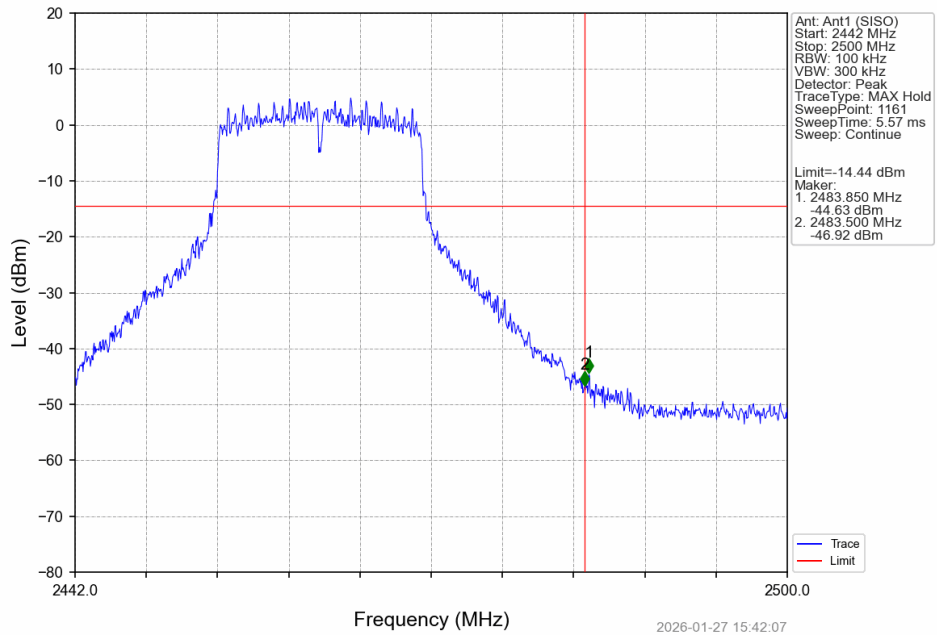
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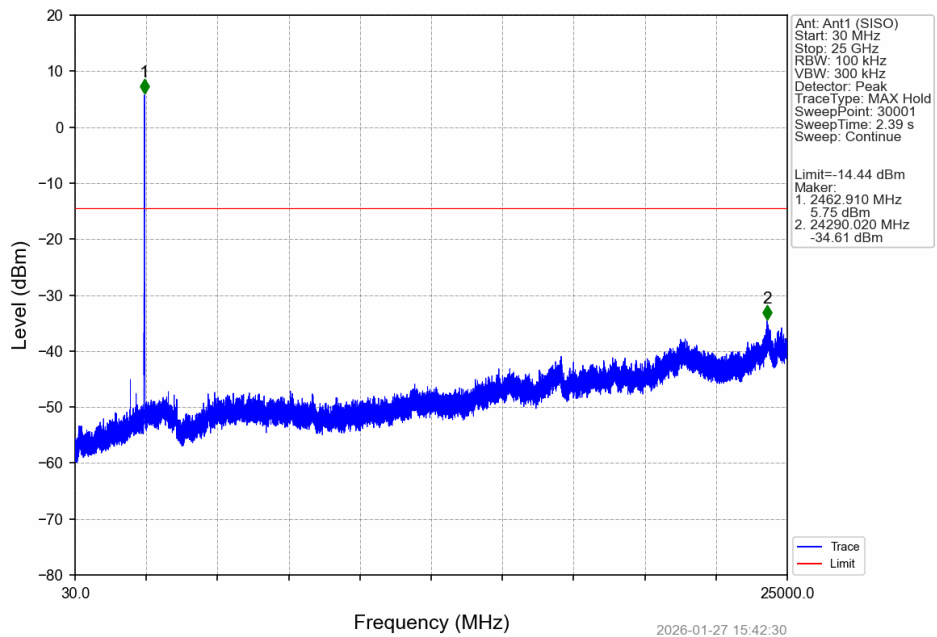
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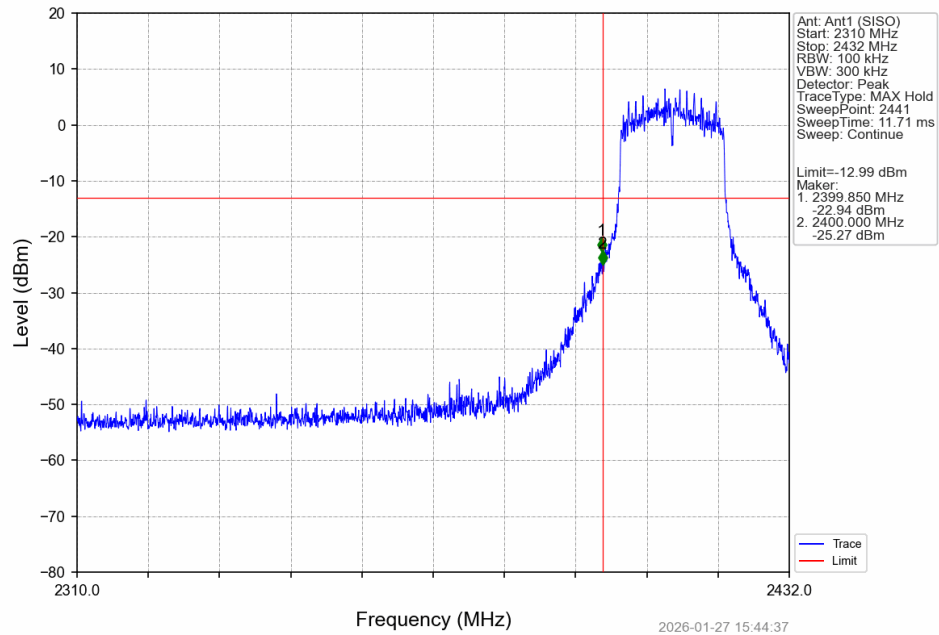
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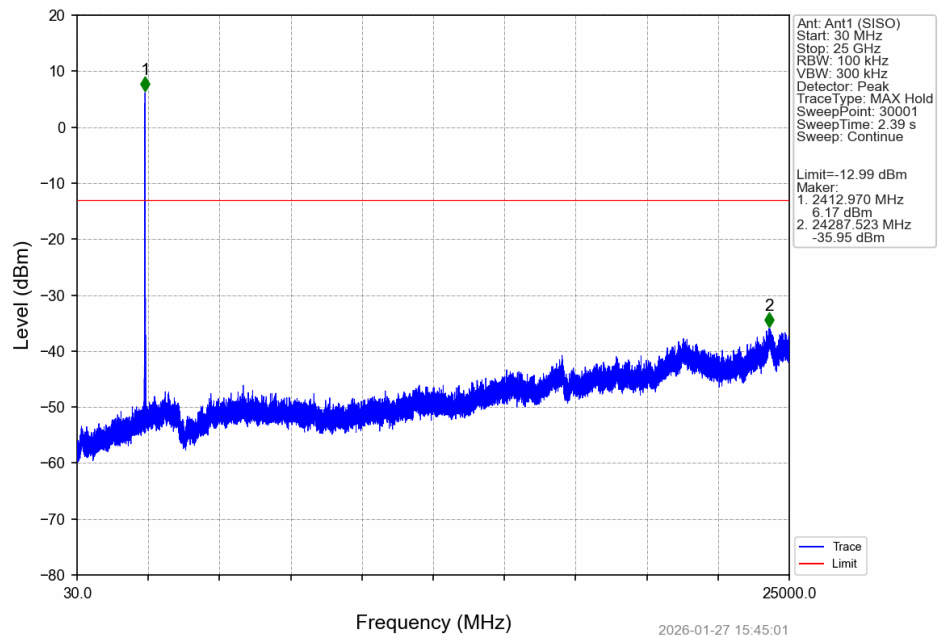
802.11g_HCH_2462MHz_Ant1 (SISO)_NTNV



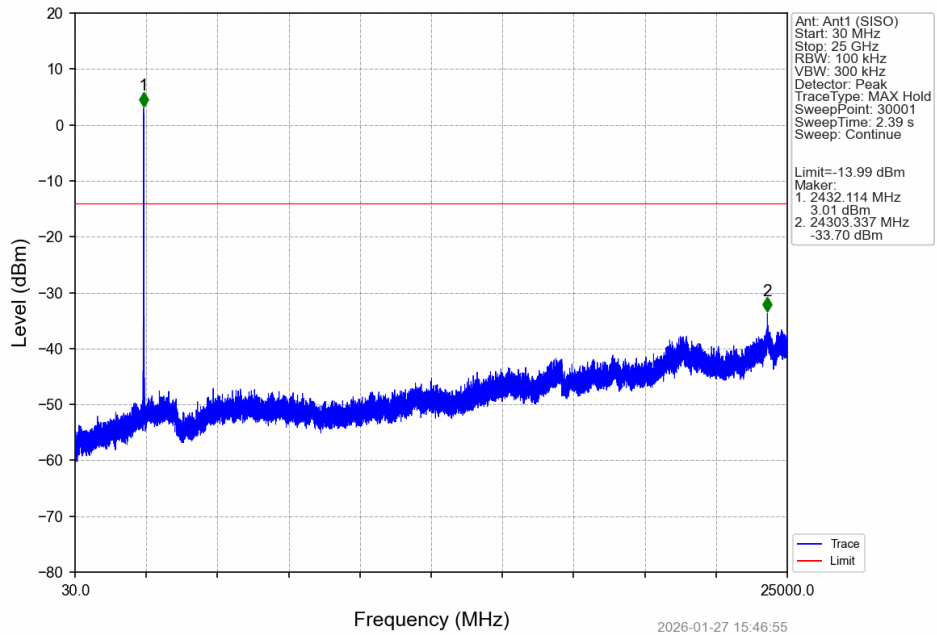
802.11n(HT20) LCH_2412MHz_Ant1 (SISO) NTN



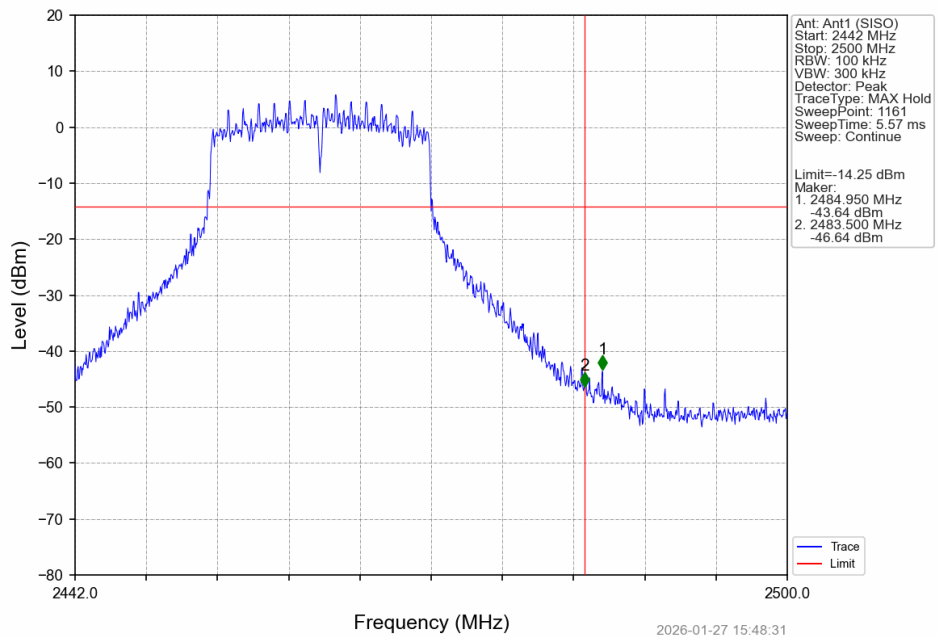
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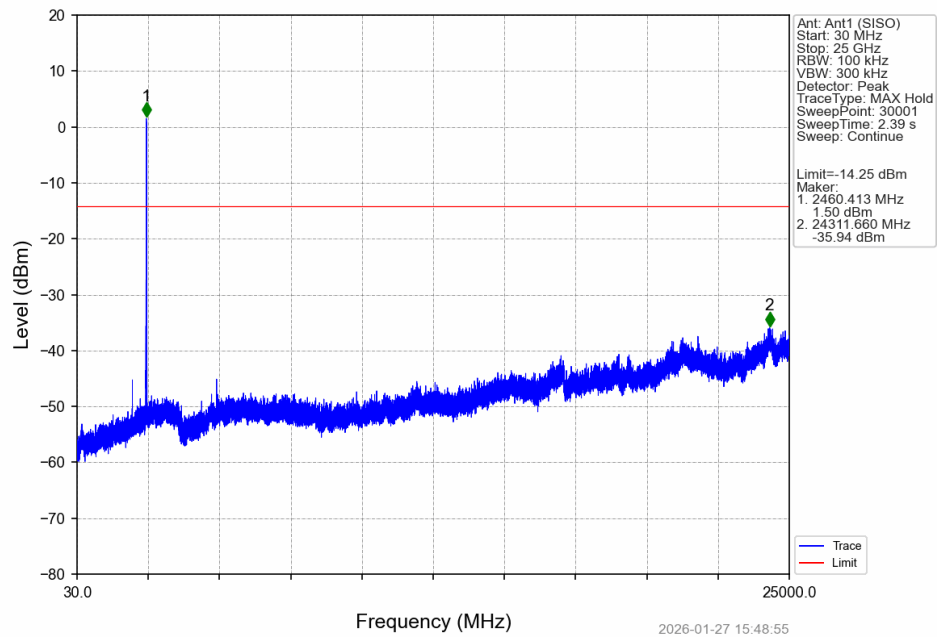
802.11n(HT20) MCH_2437MHz_Ant1 (SISO) NTN



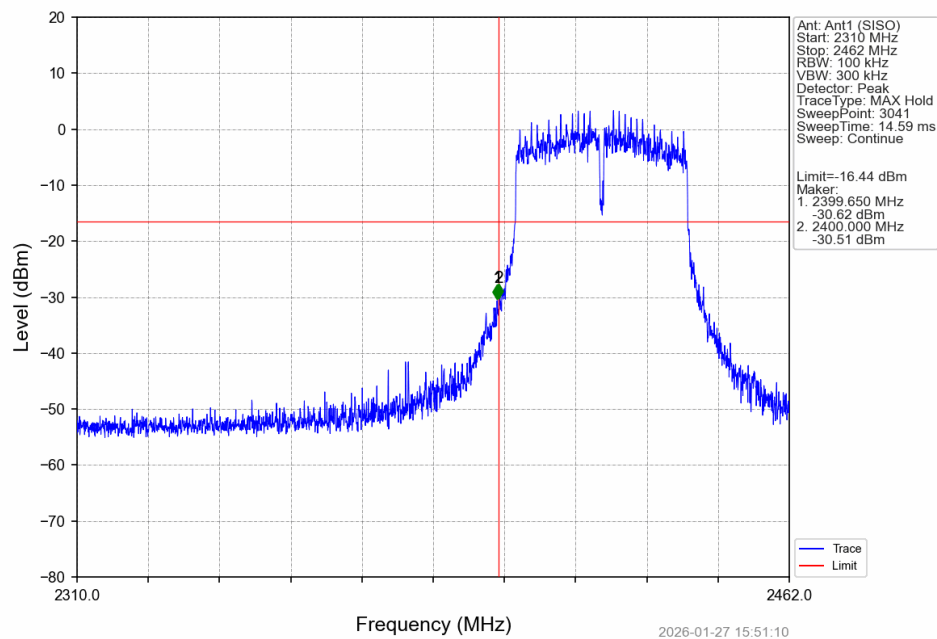
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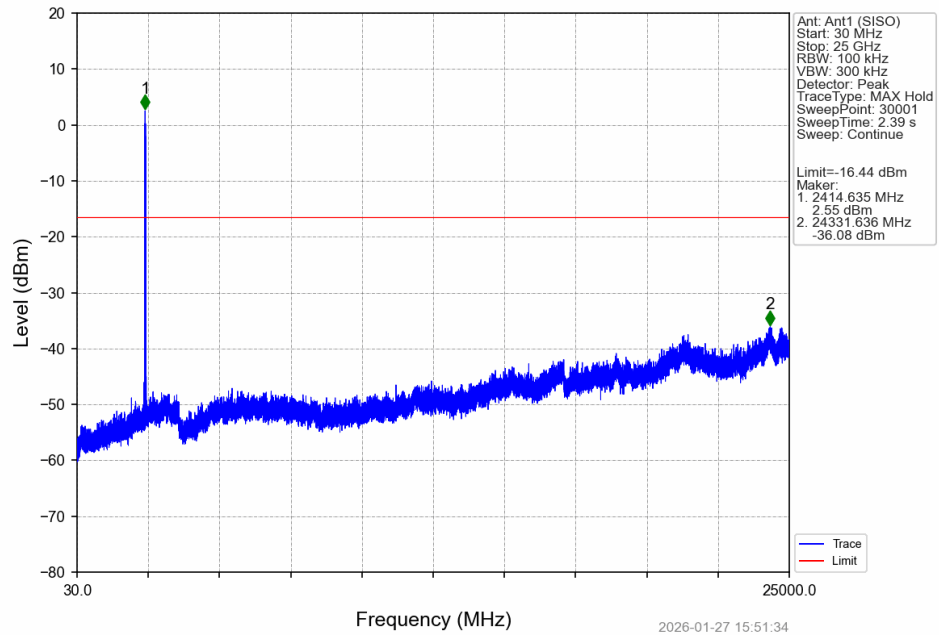
802.11n(HT20) HCH 2462MHz Ant1 (SISO) NTN



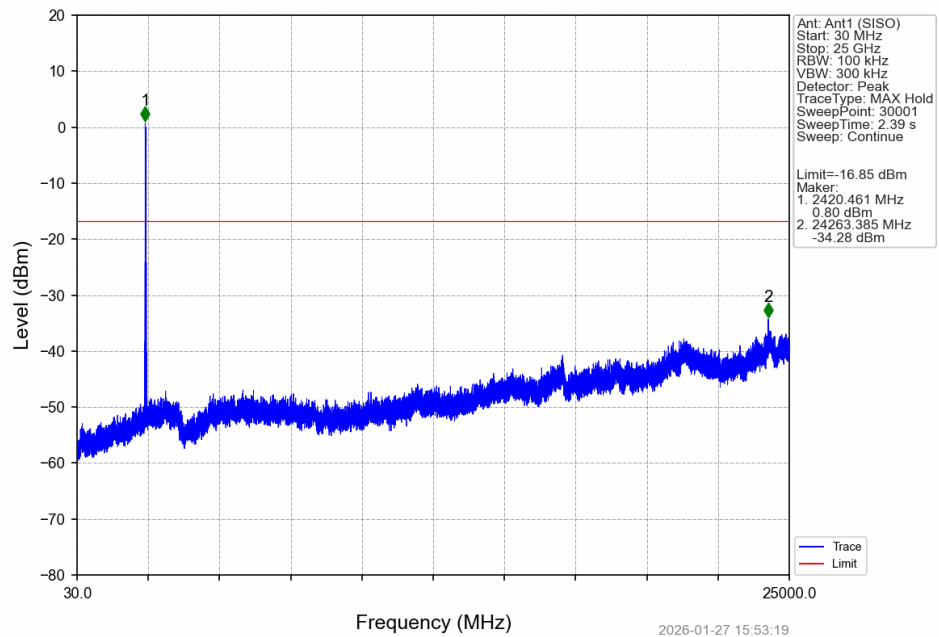
802.11n(HT40) LCH 2422MHz Ant1 (SISO) NTN



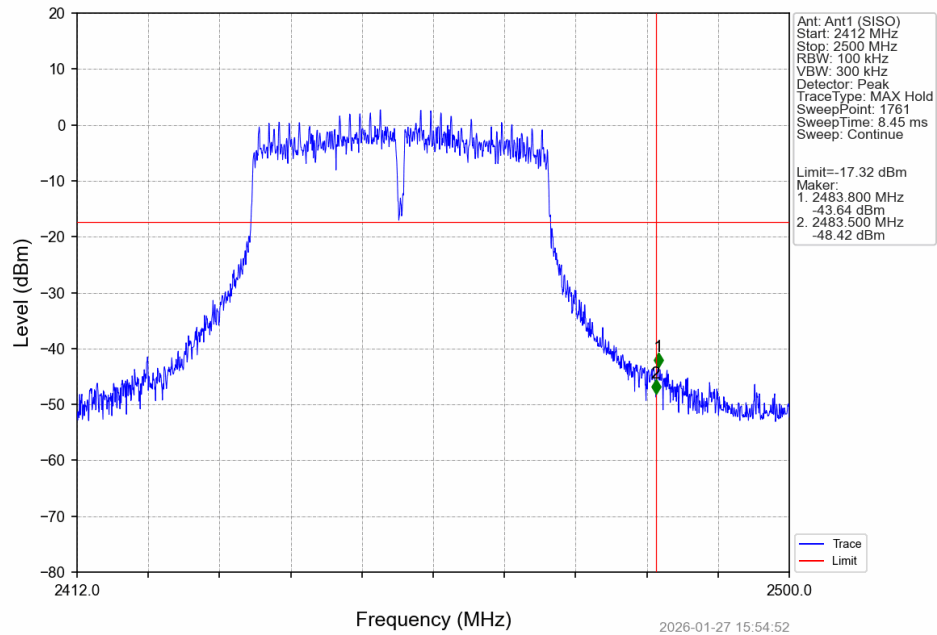
802.11n(HT40) LCH 2422MHz Ant1 (SISO) NTNV



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



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



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

