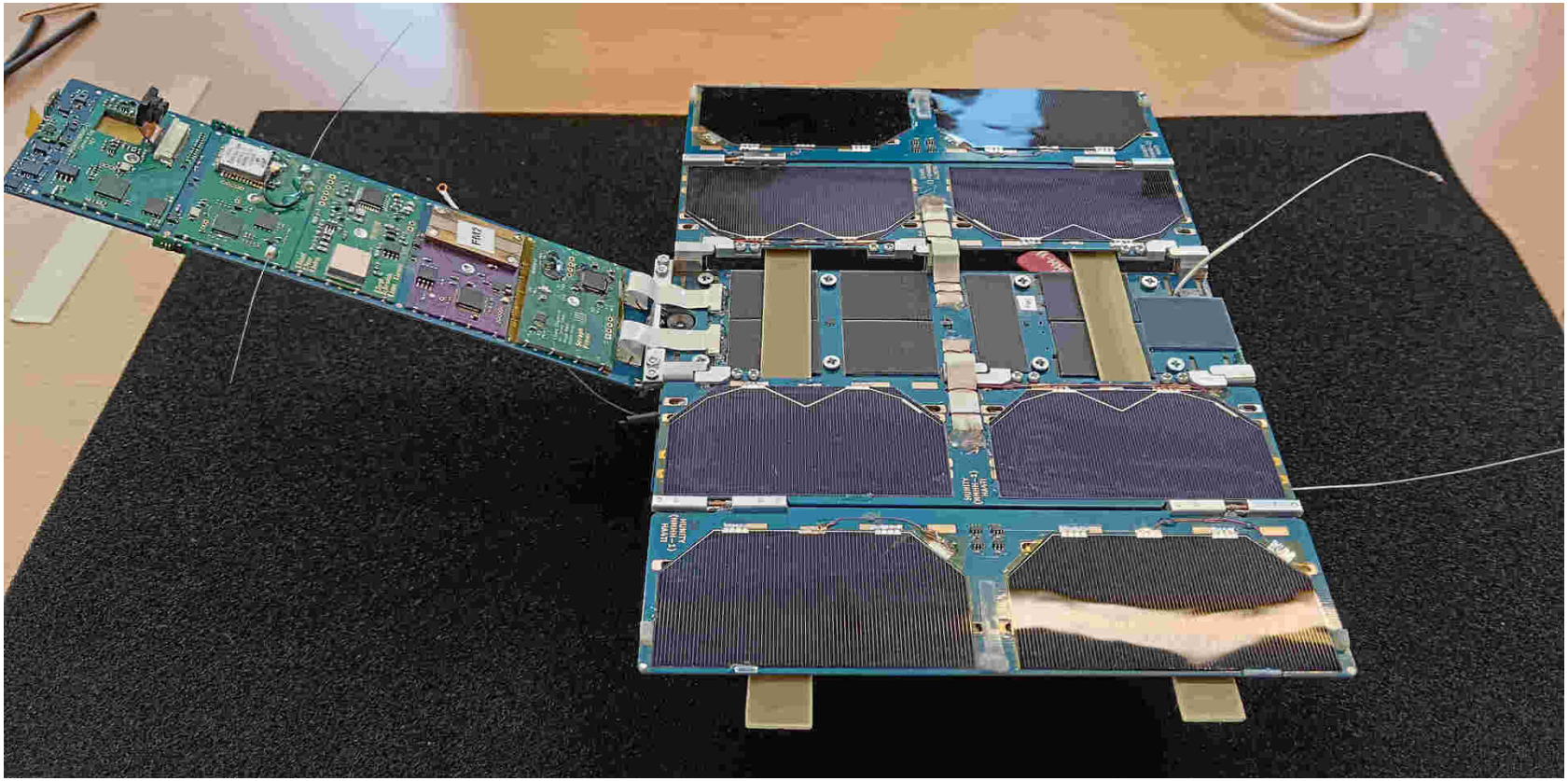
Hunity (NMHH-1) - BME VIK HVT MTL + MRC

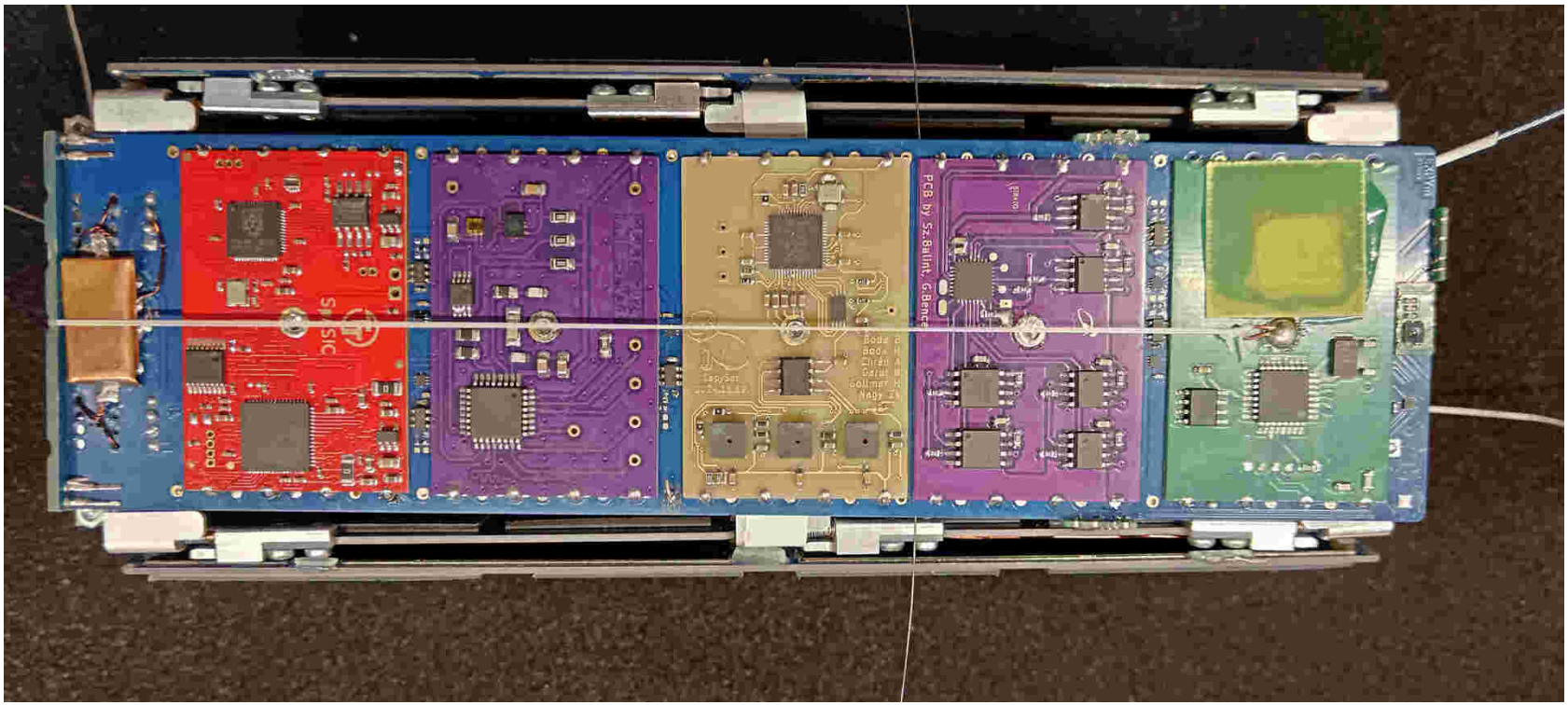
dr. Dudás Levente, dr. Gschwindt András

dudas.levente@vik.bme.hu

Hunity (NMHH-1) 1

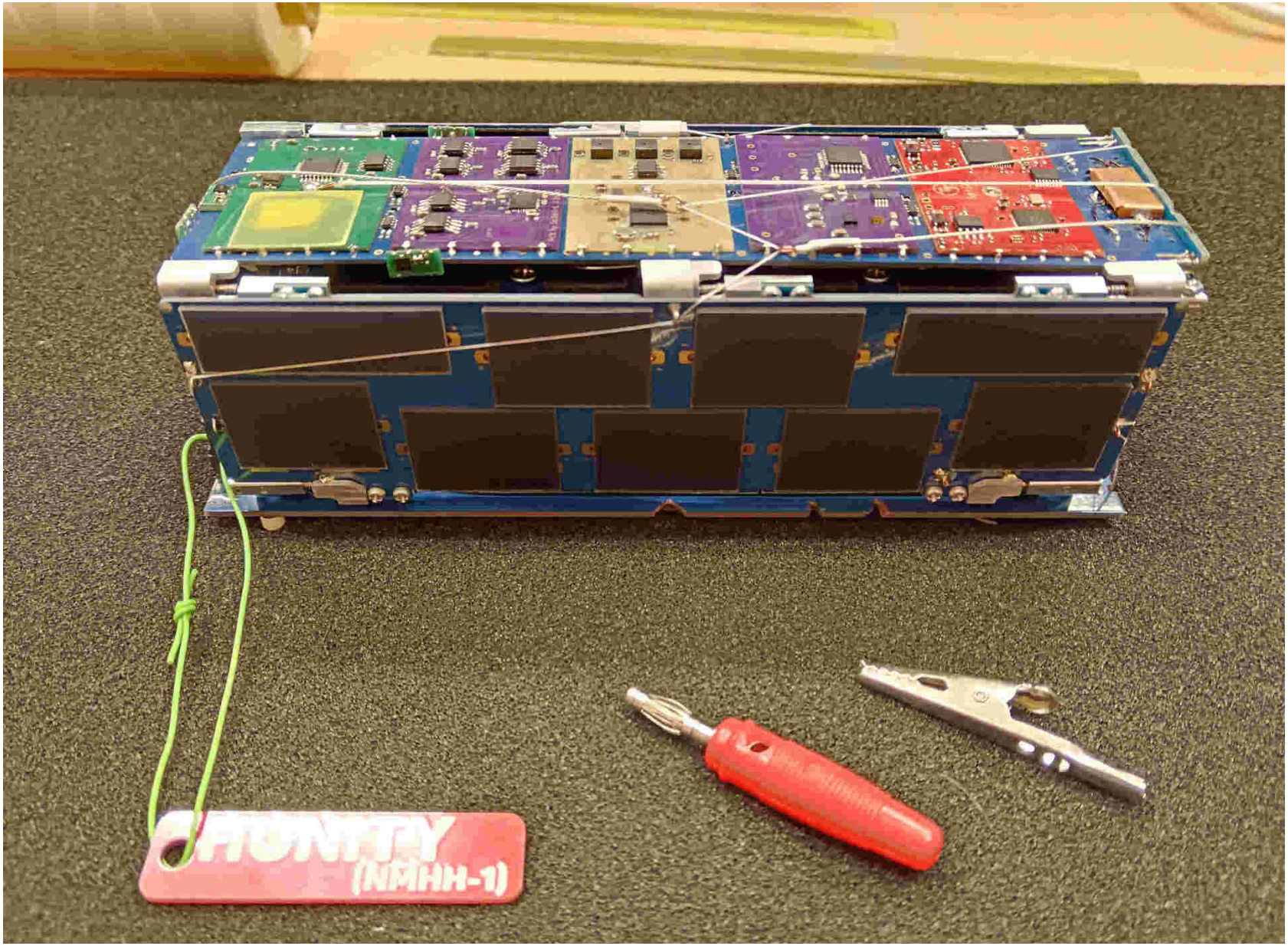


Hunity (NMHH-1) 2

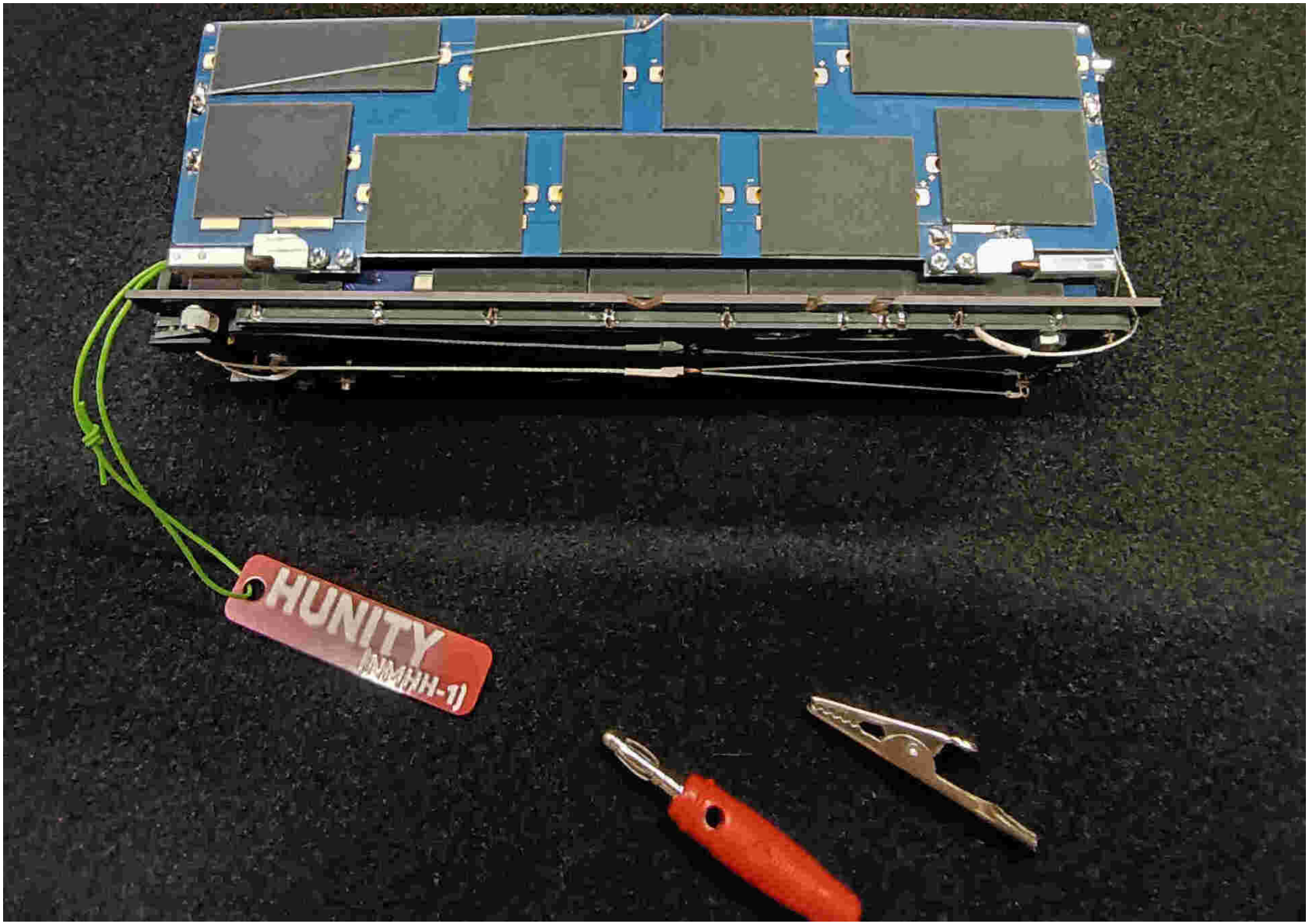


Hunity (NMHH-1) 3

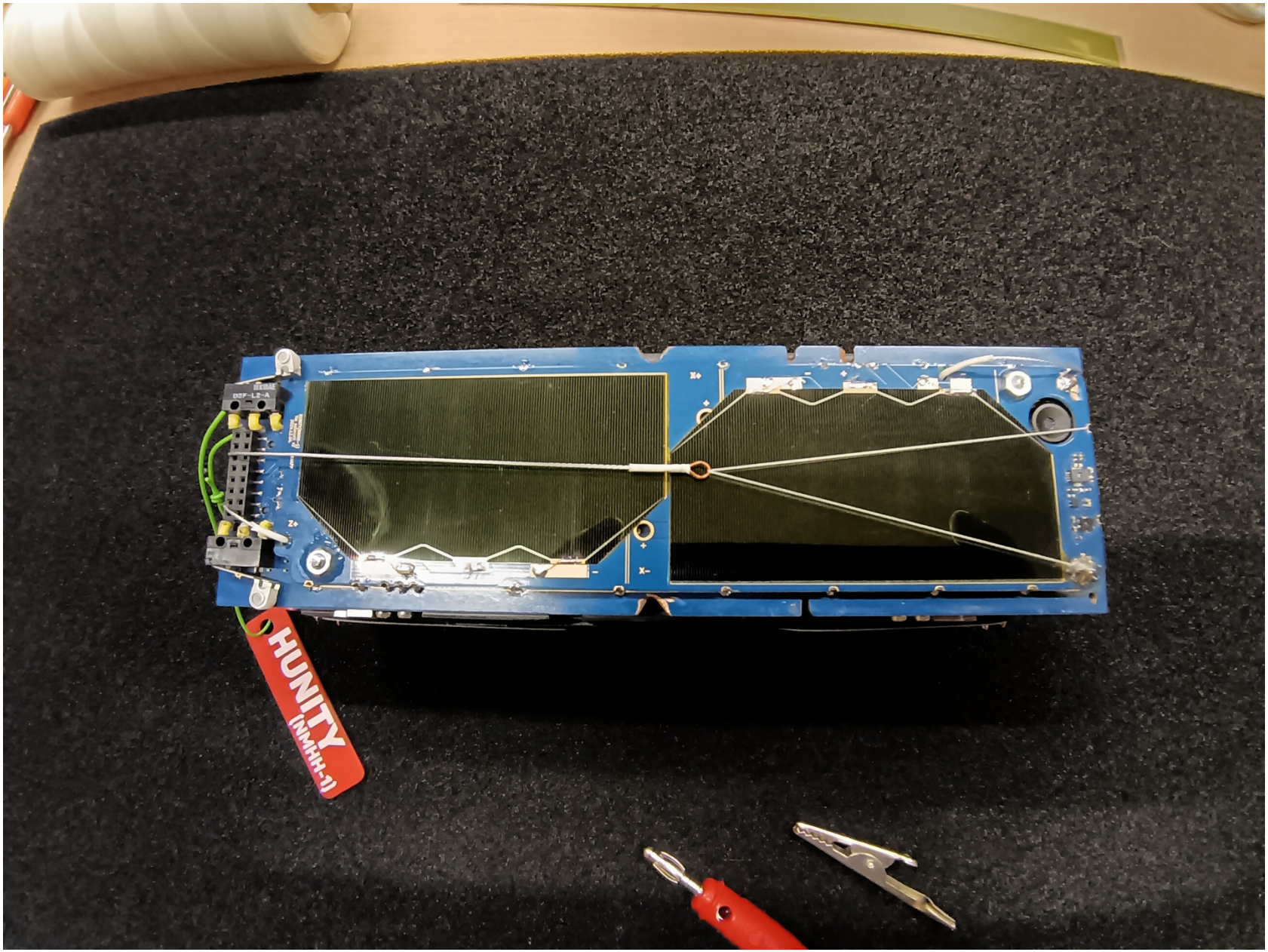
Hunity (NMHH-1) 4



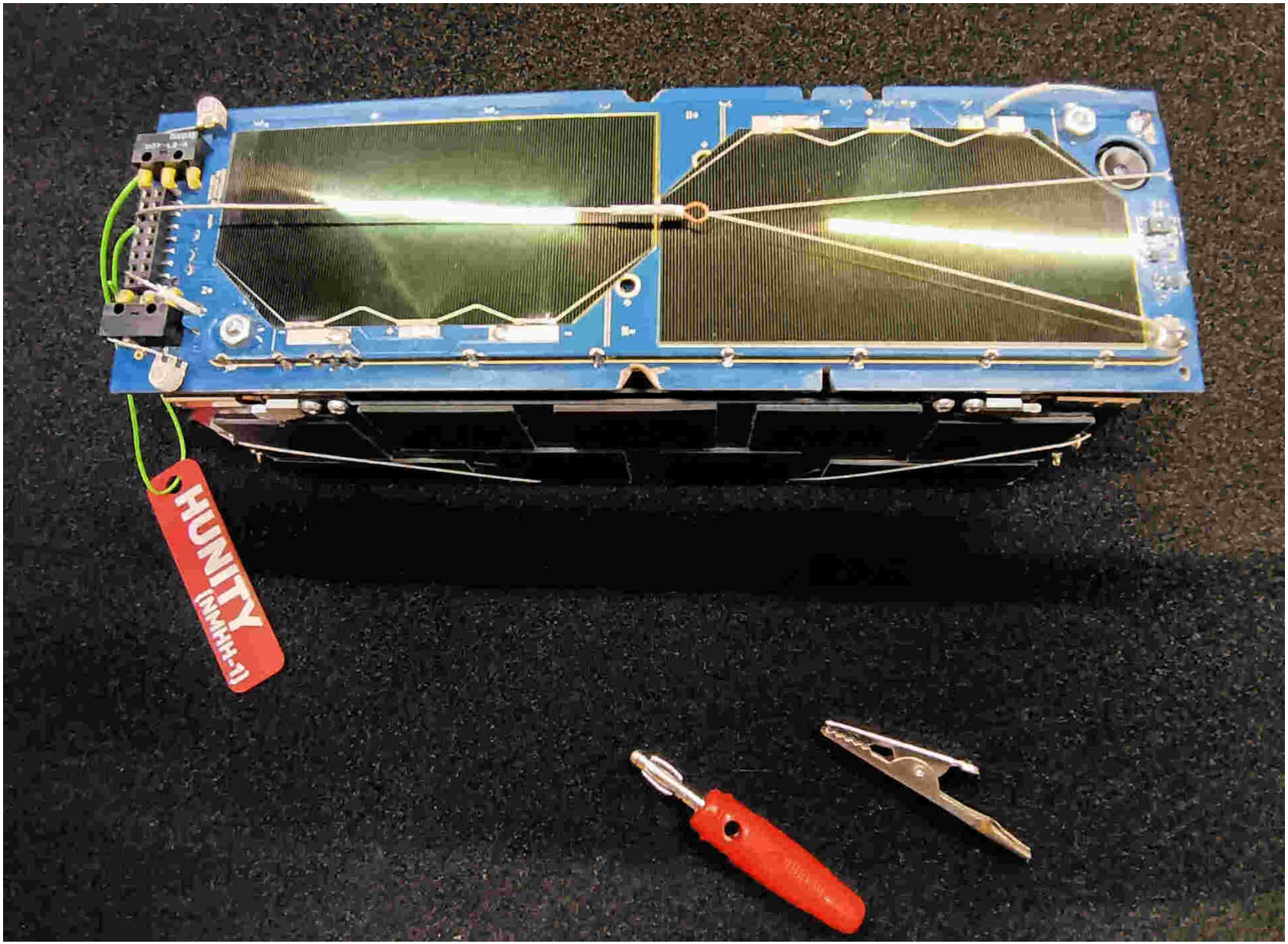
Hunity (NMHH-1) 5



Hunity (NMHH-1) 6

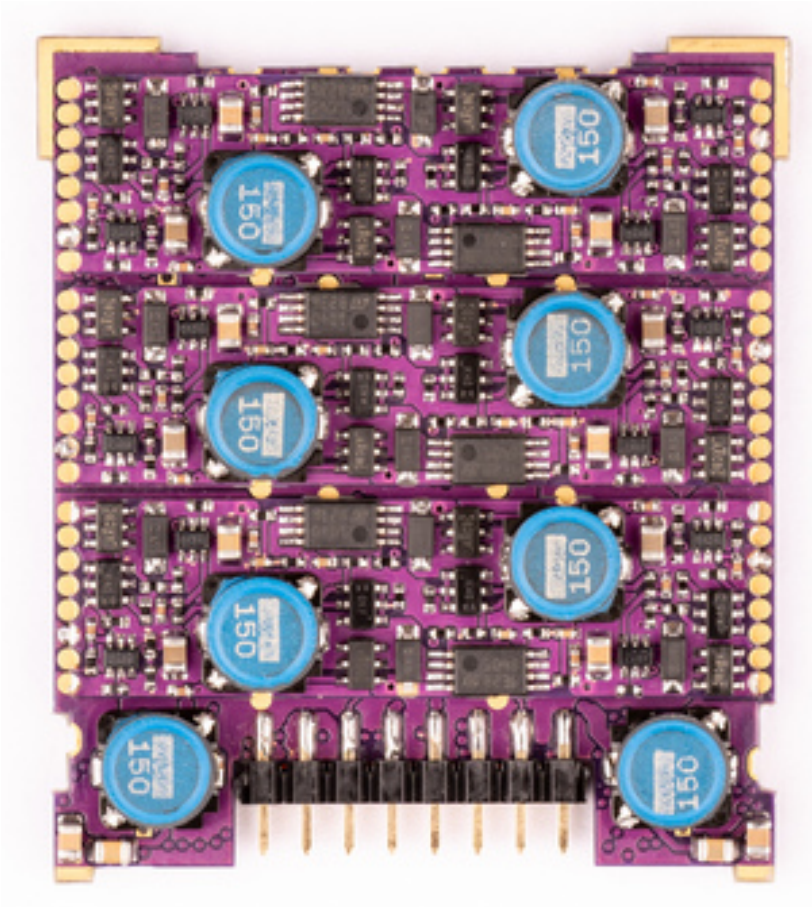


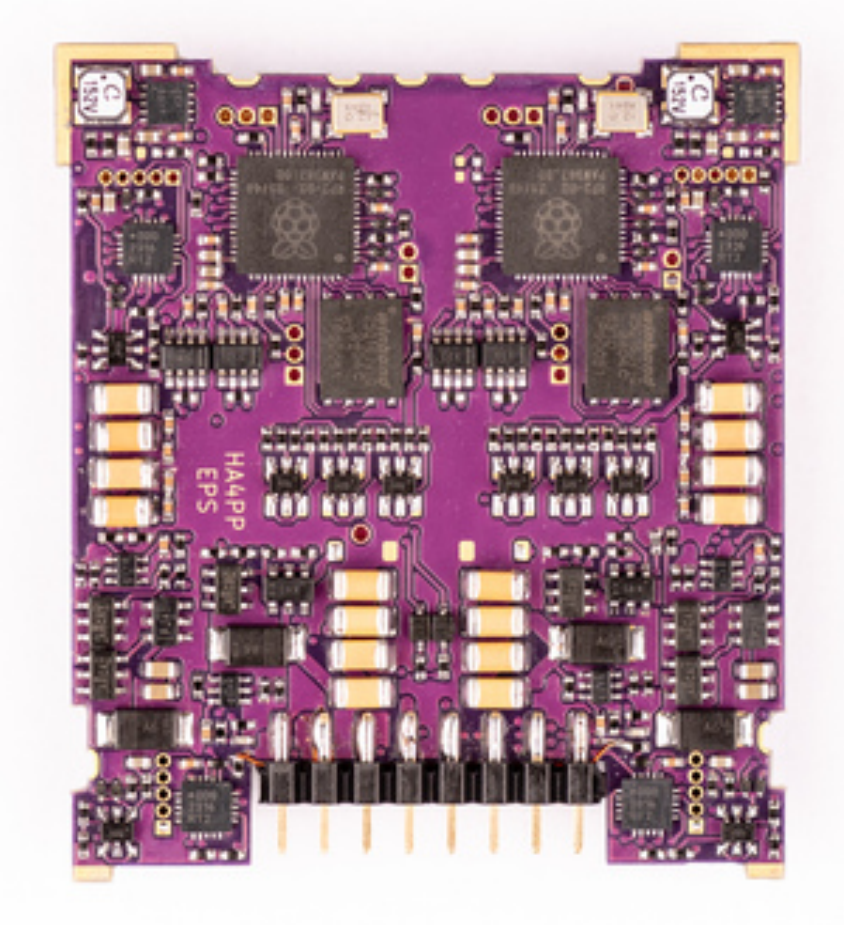
Hunity (NMHH-1) 7



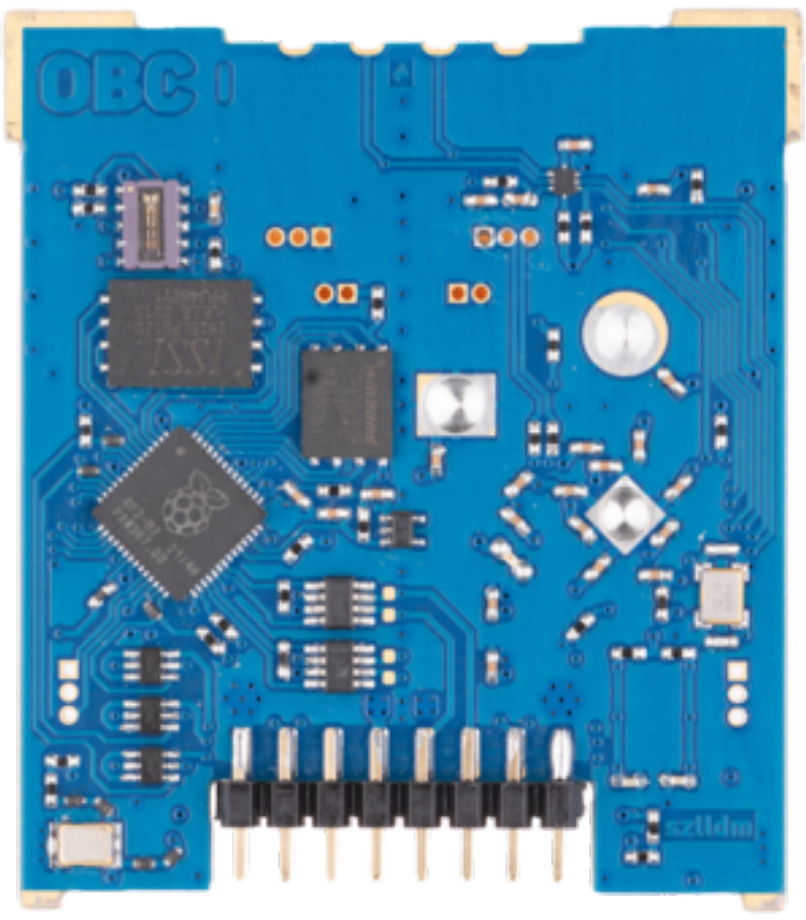
Hunity (NMHH-1) 8

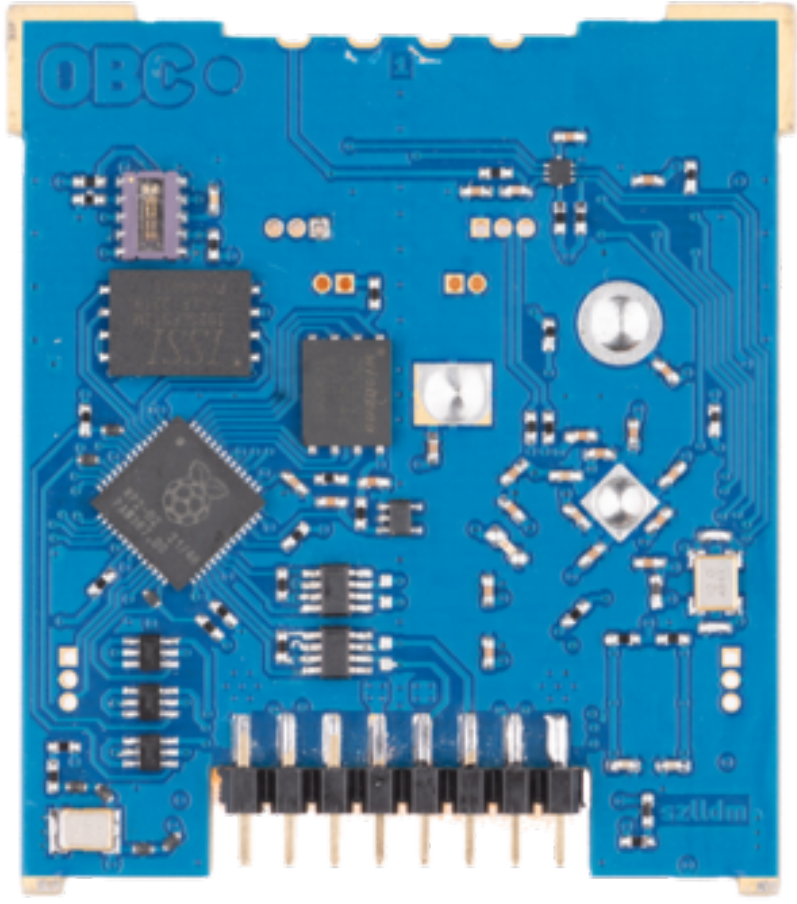
Electrical Power System



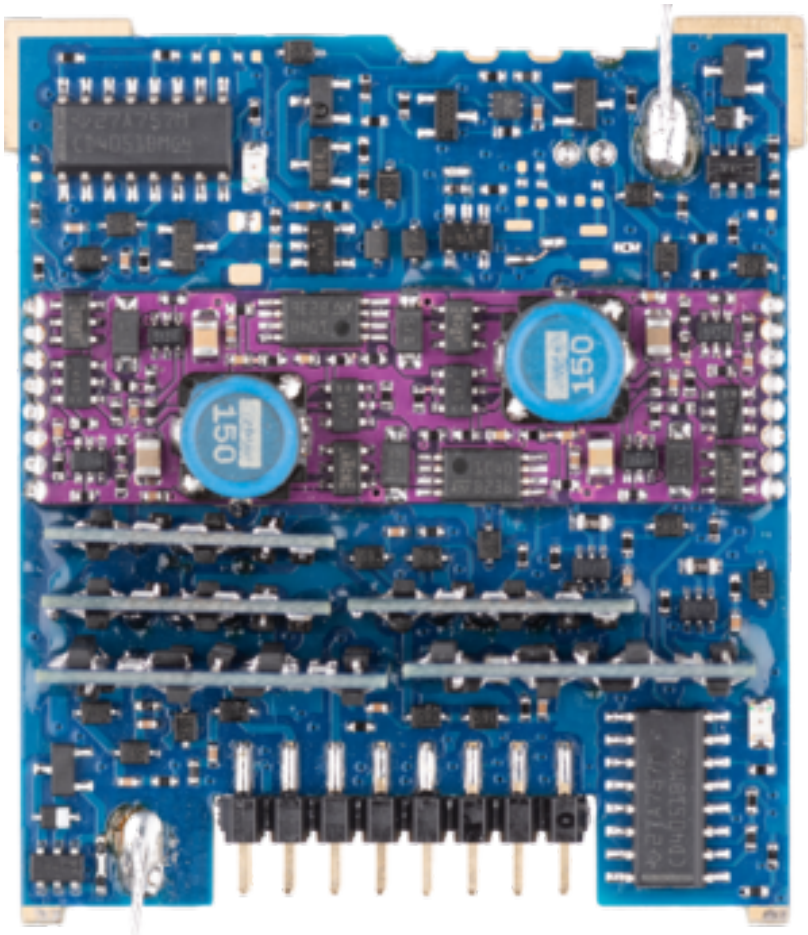


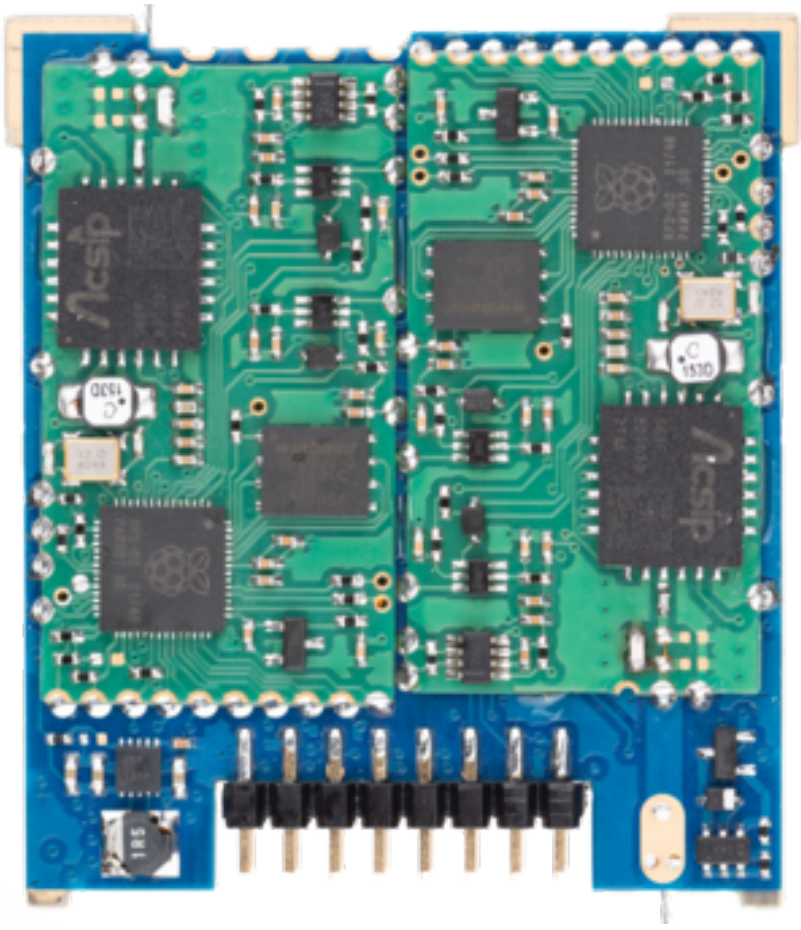
On-Board Computer



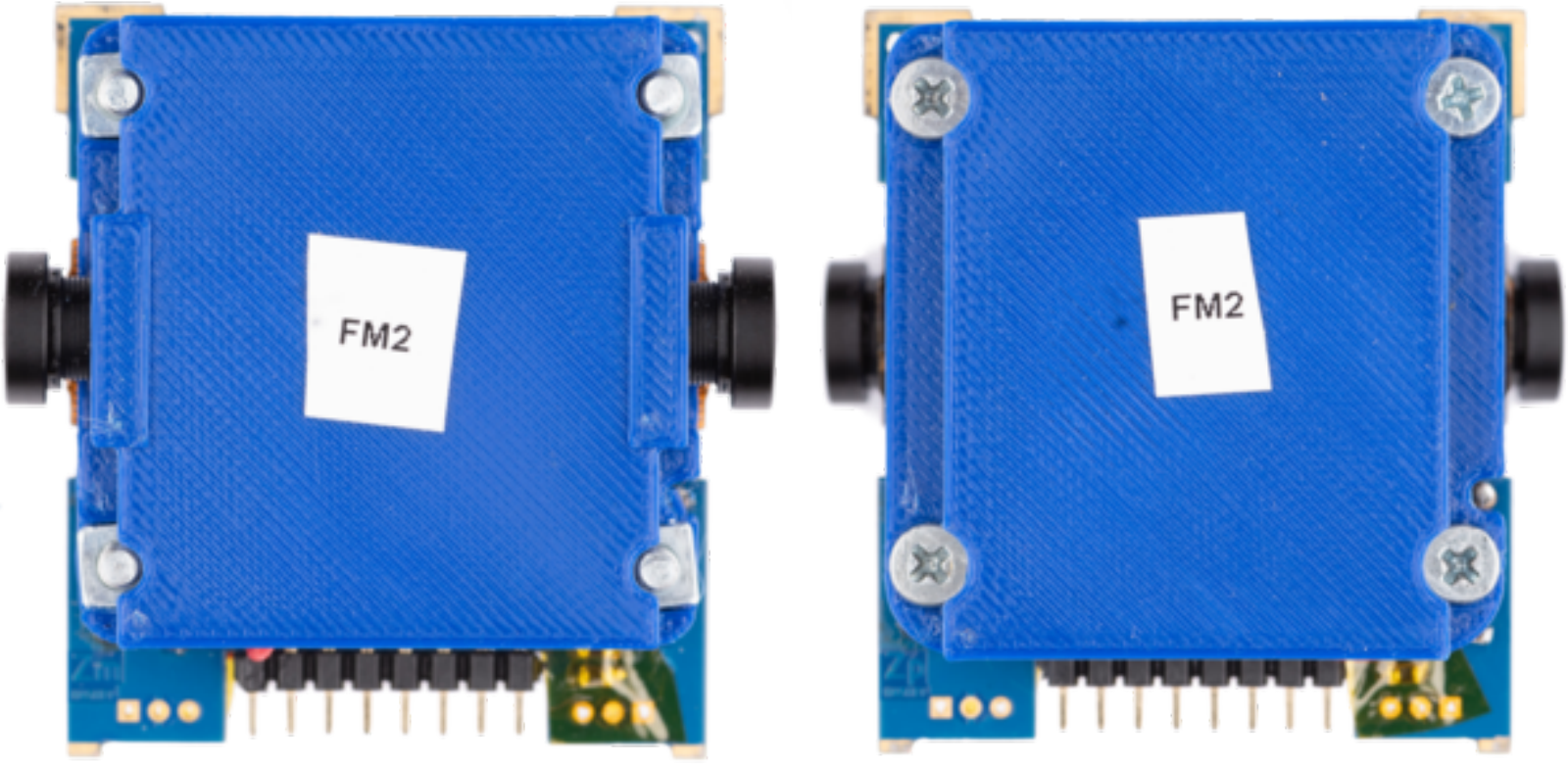


COMmunicational System

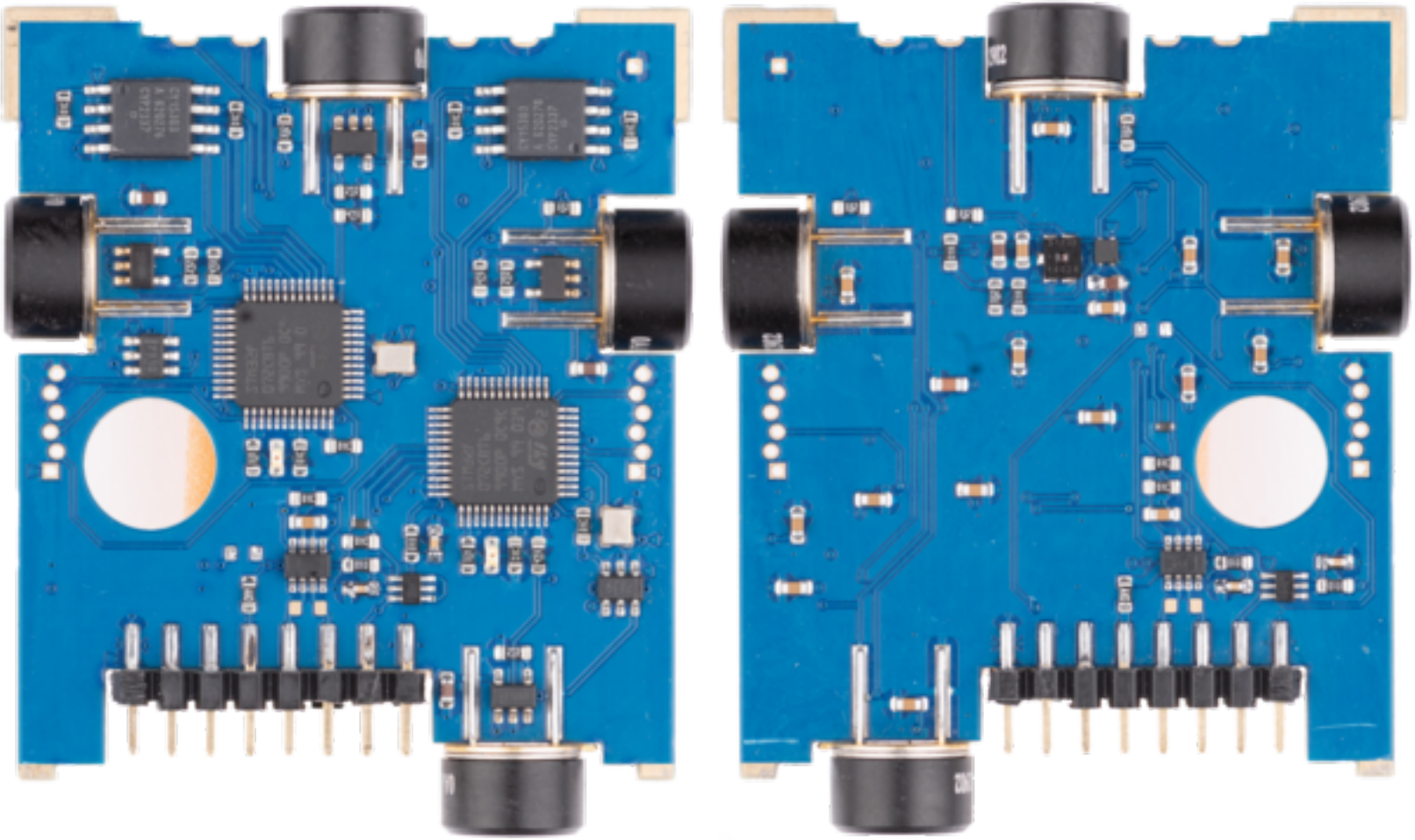




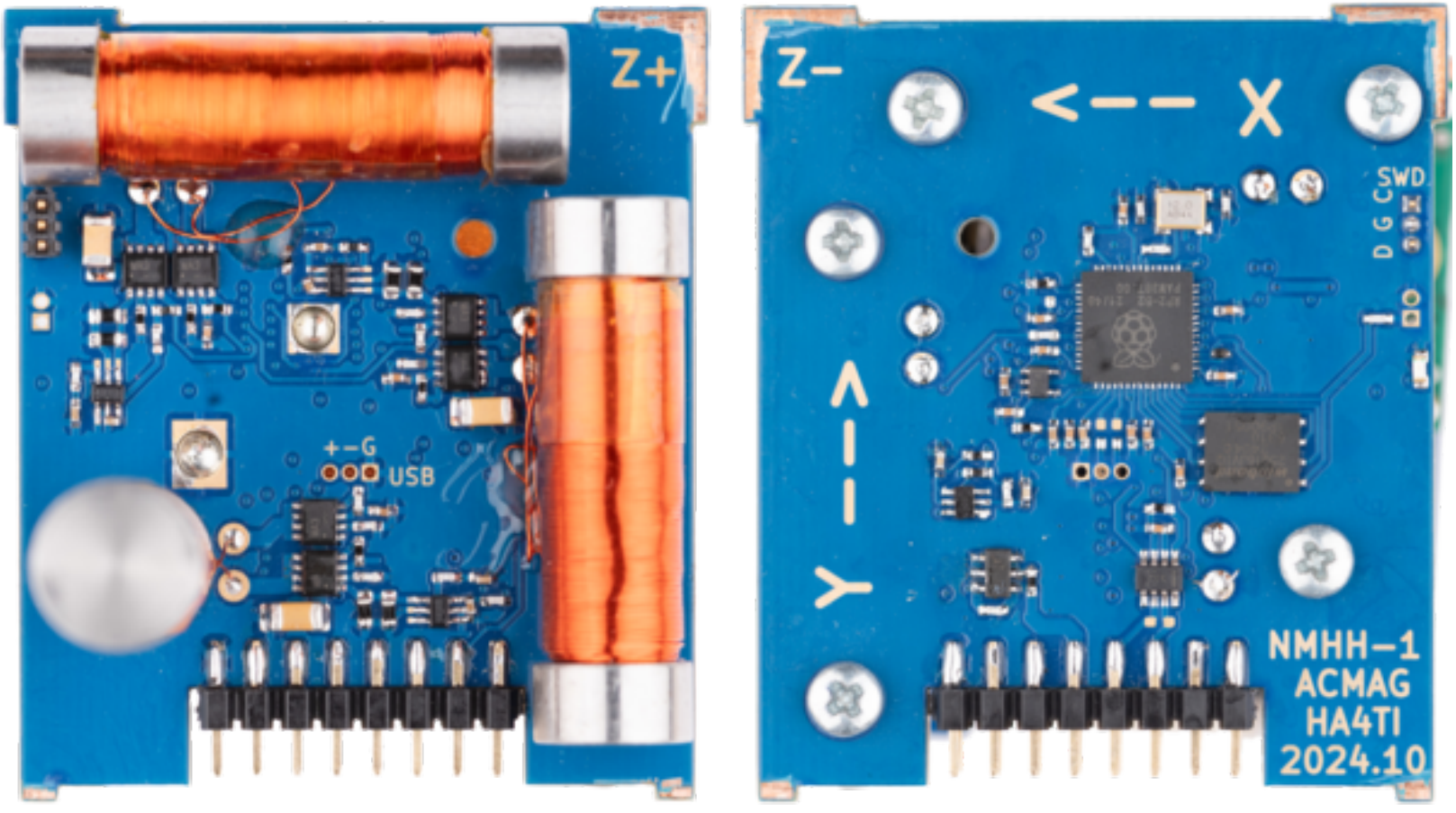
Battery + CAMera



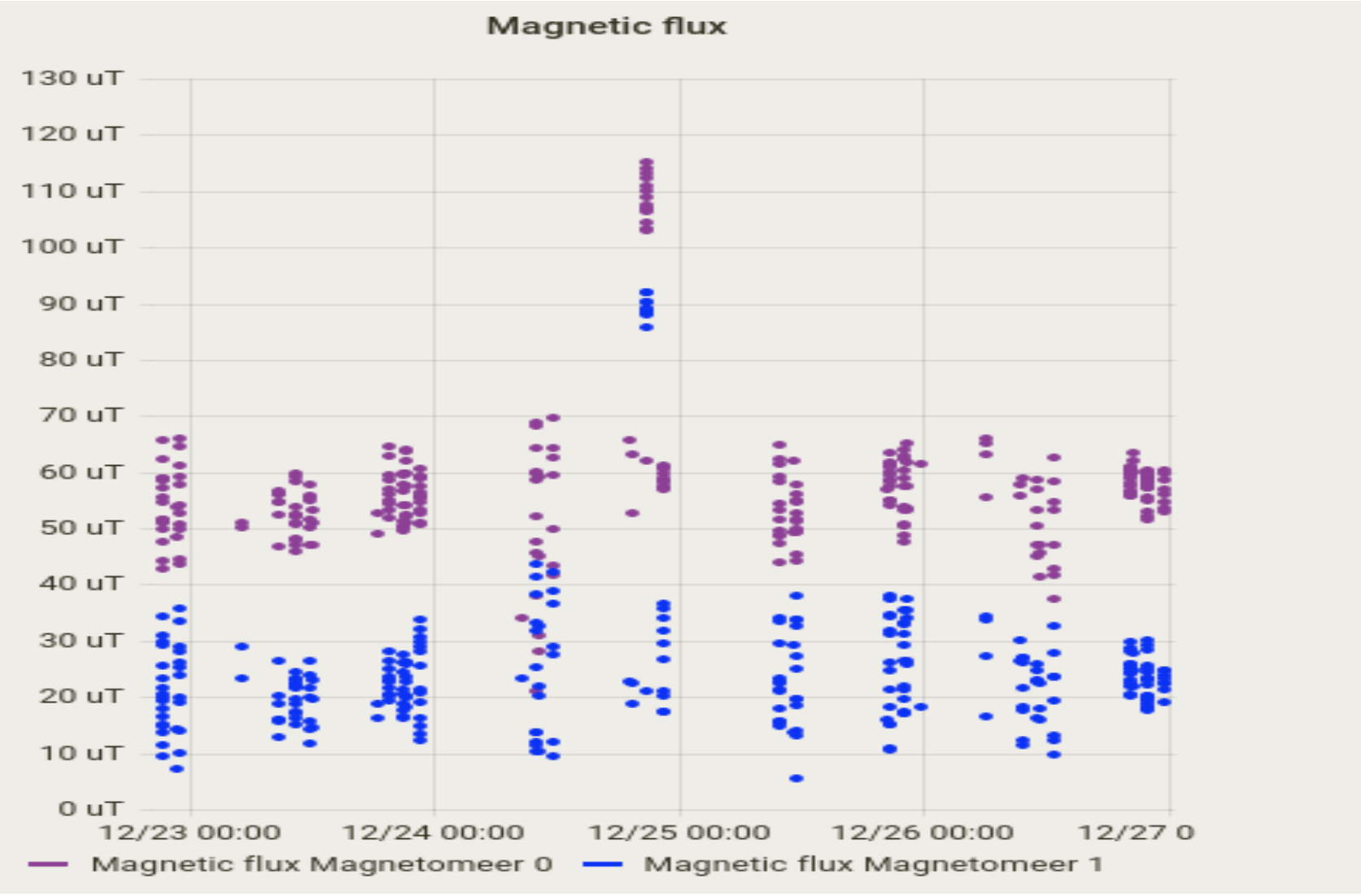
SUN Sensor



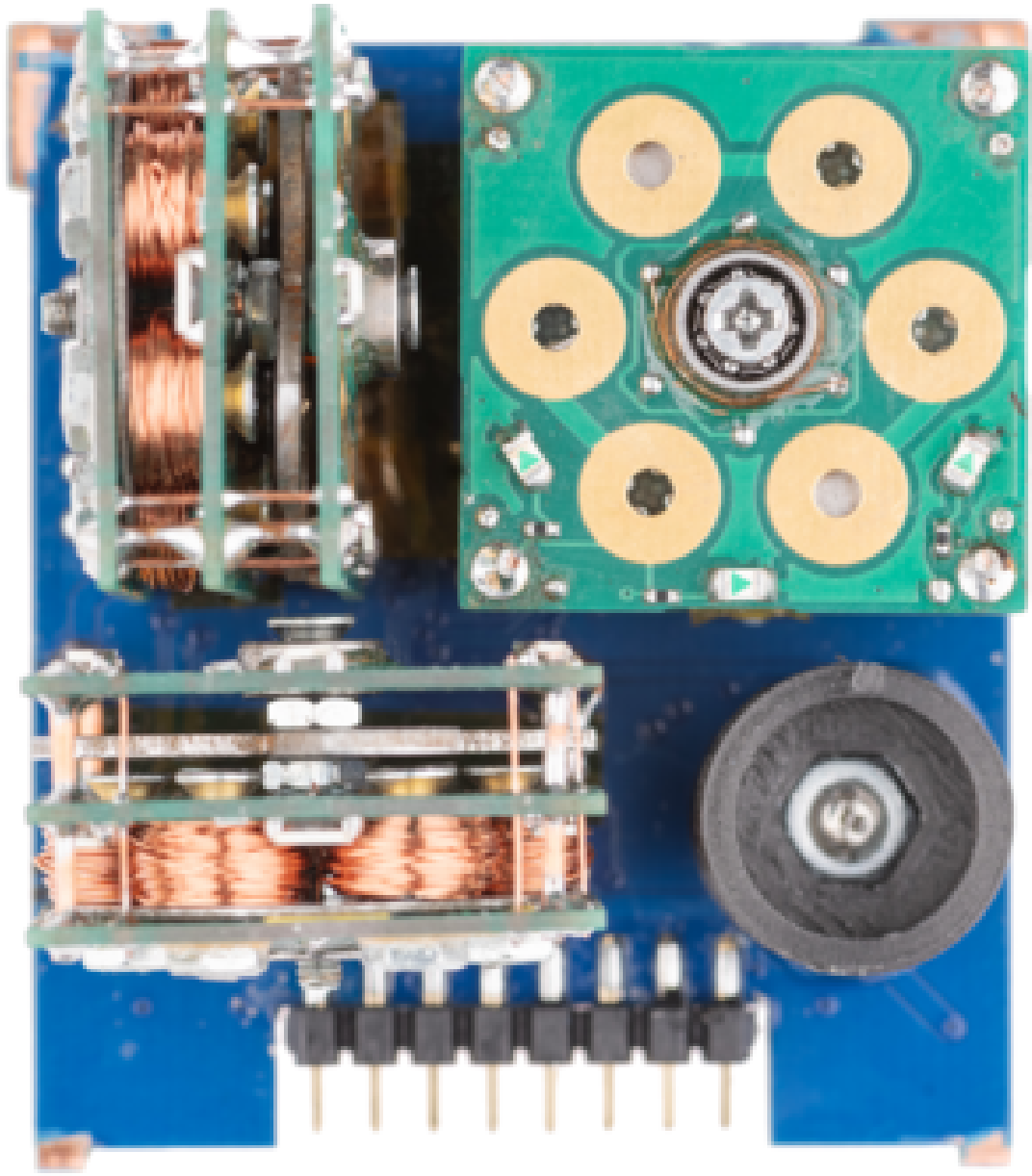
Attitude Control MAGnetic 1



Attitude Control MAGnetic 2



Attitude Control MOTor 1



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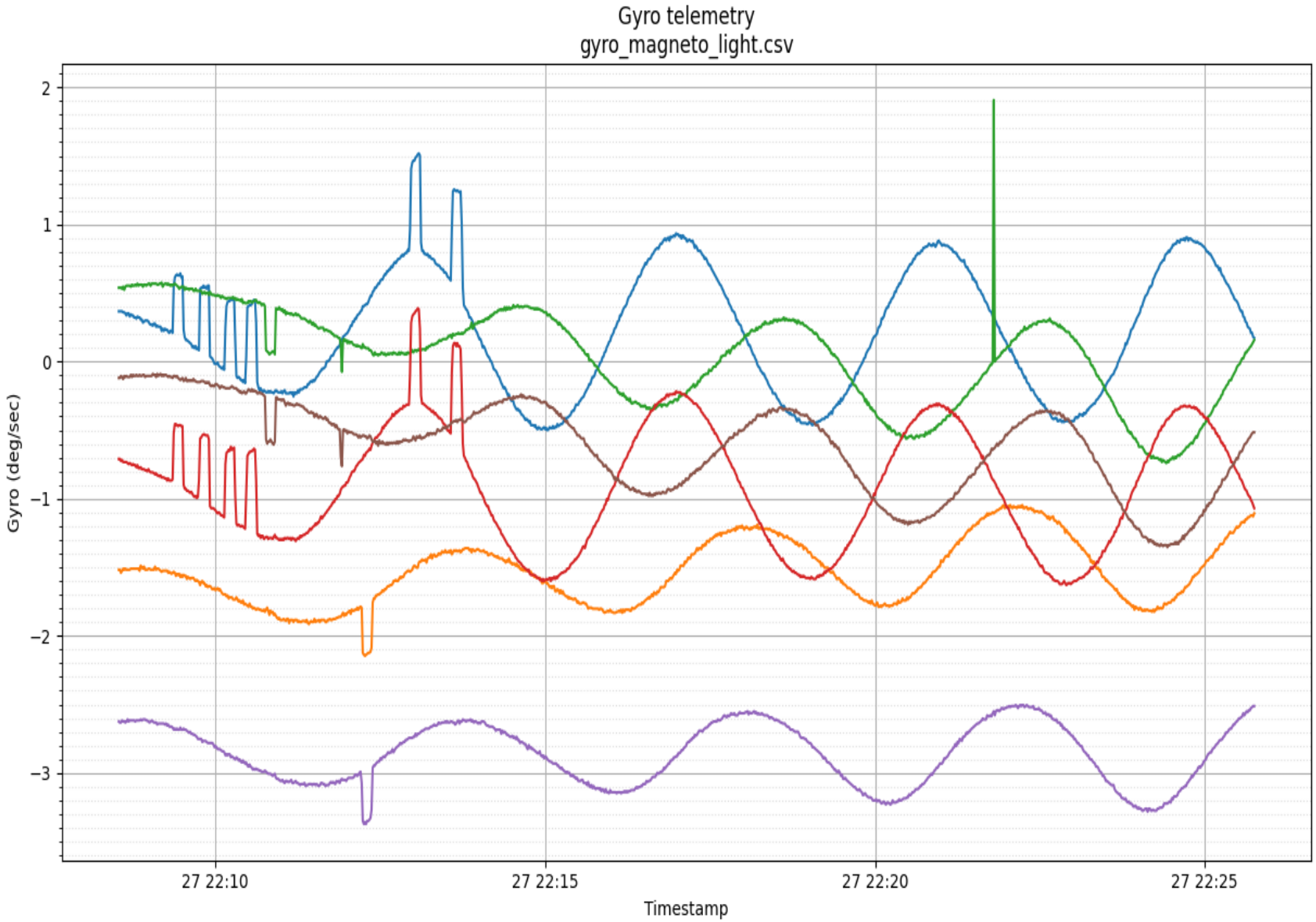
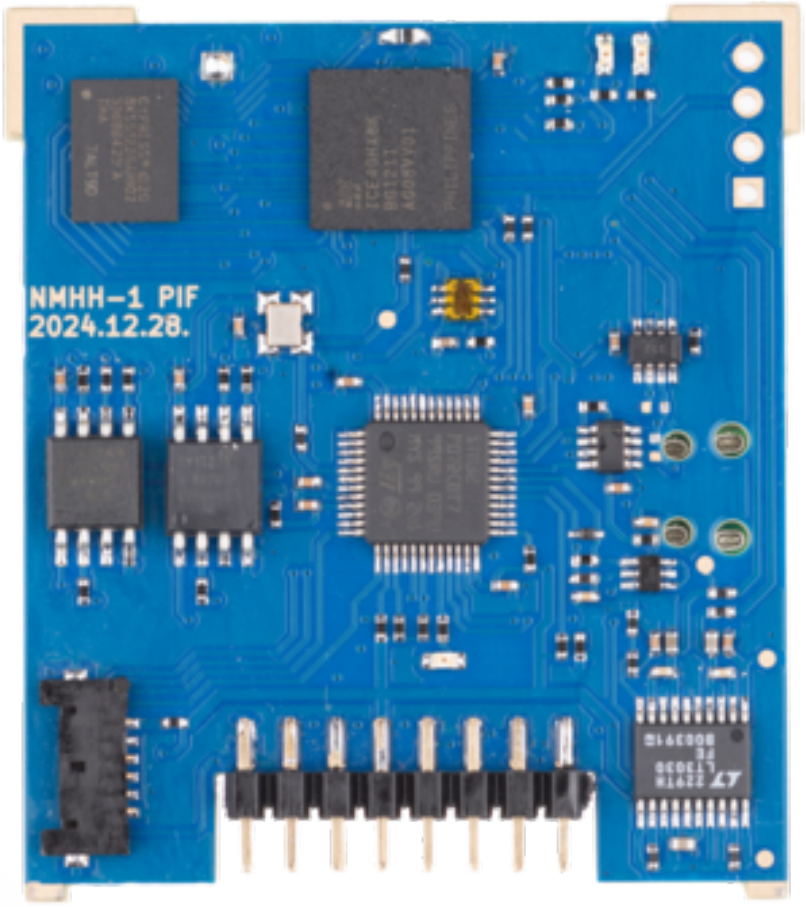
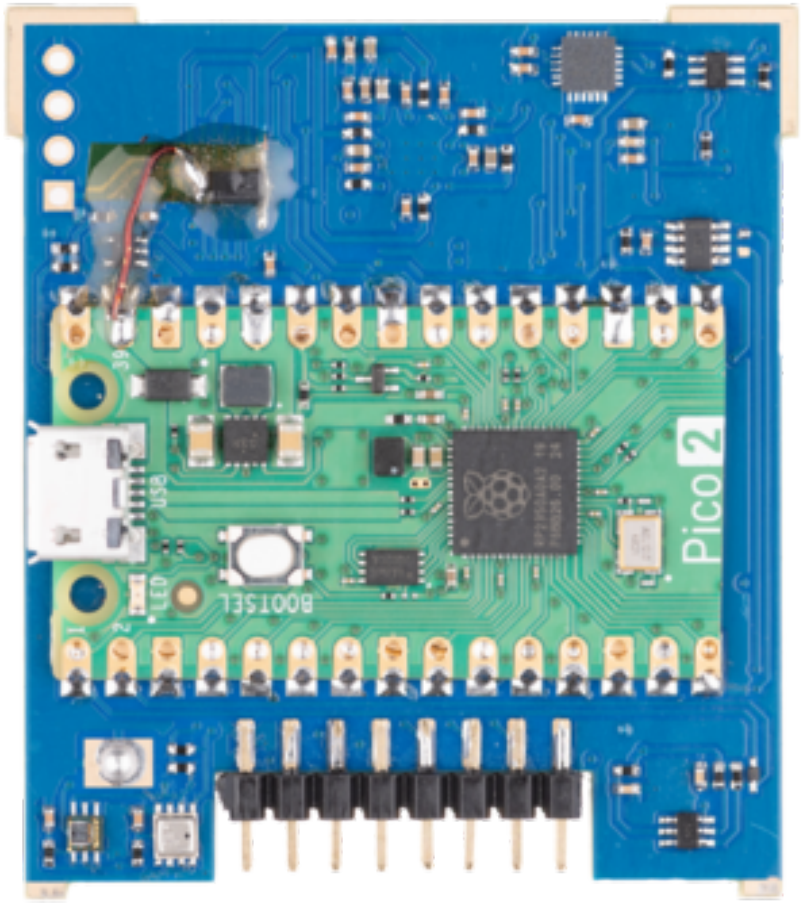
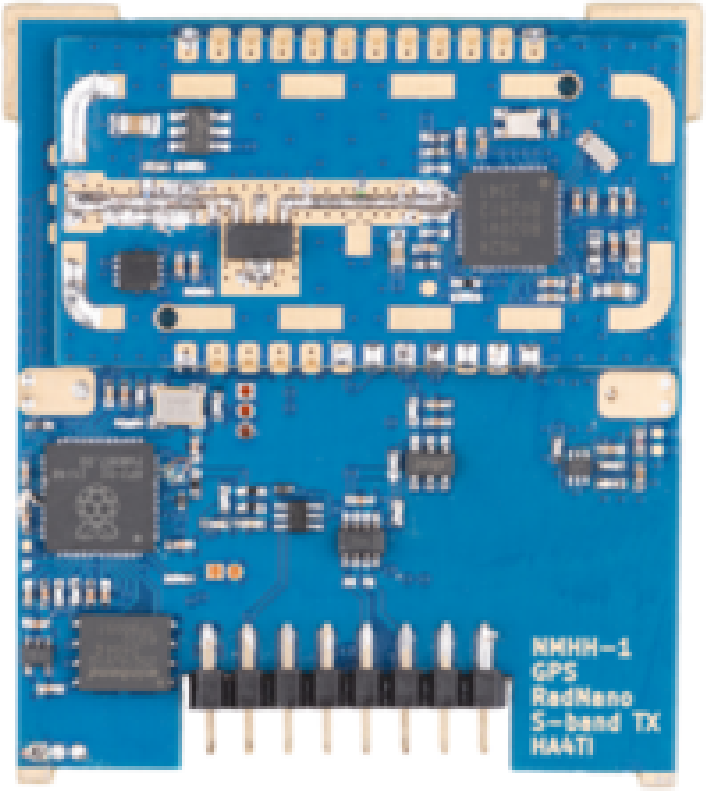


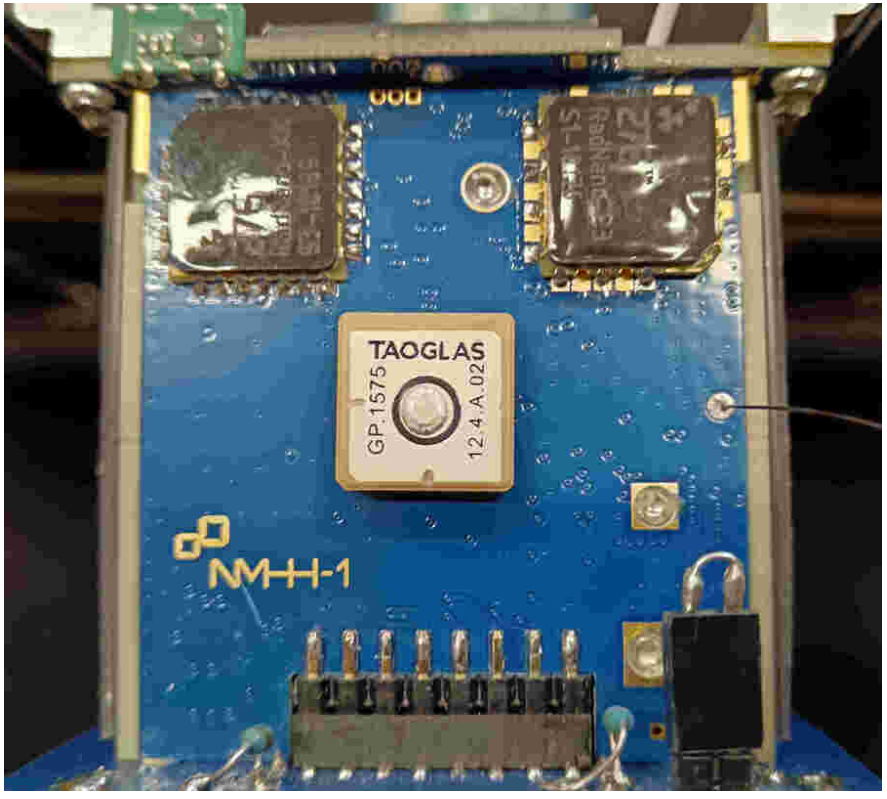
Pico2 + FPGA



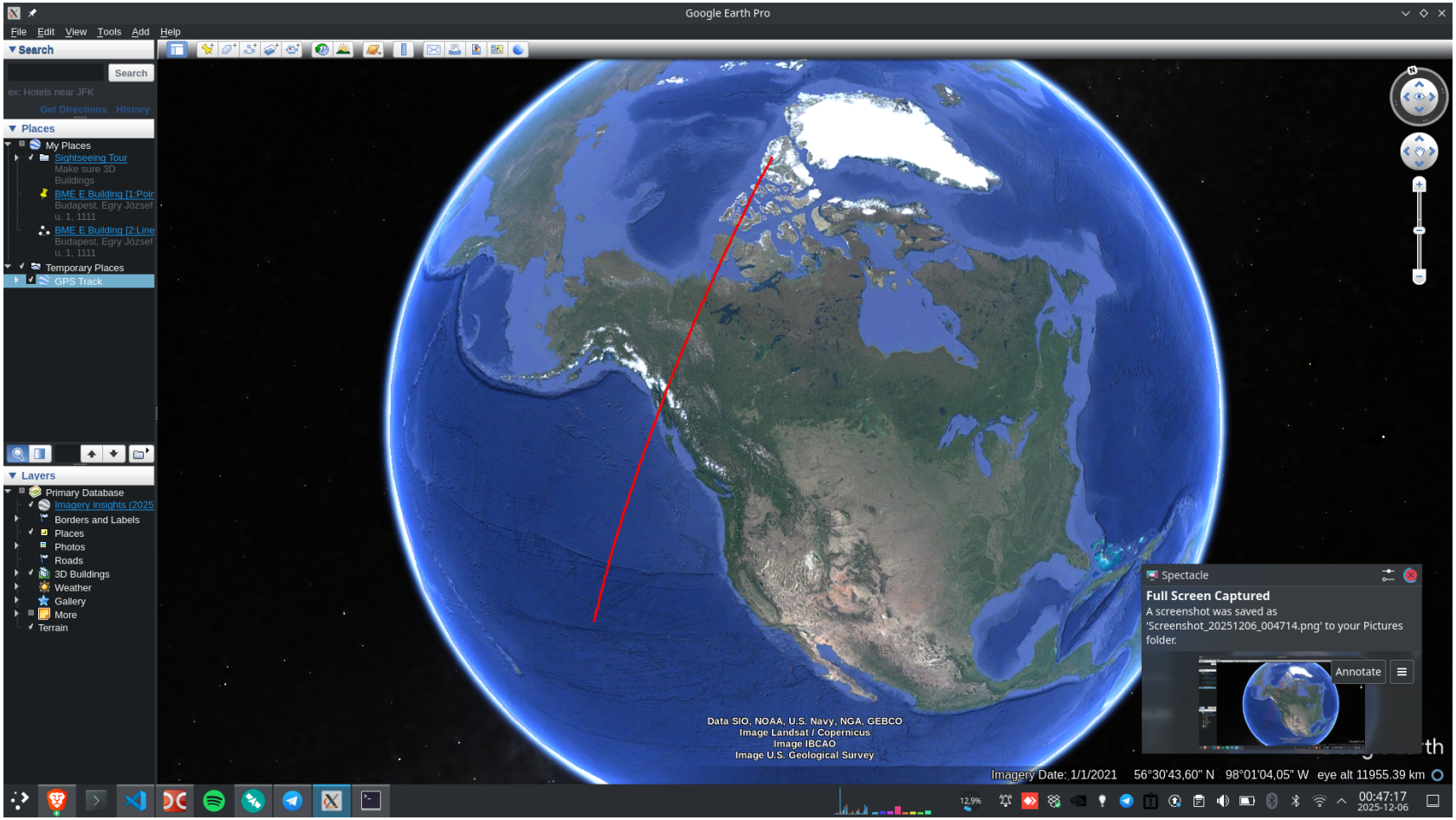


GPS + Radiation Sensor 1





GPS + Radiation Sensor 2



Experiments: SZESAT

Győr Széchenyi István University SZESAT team

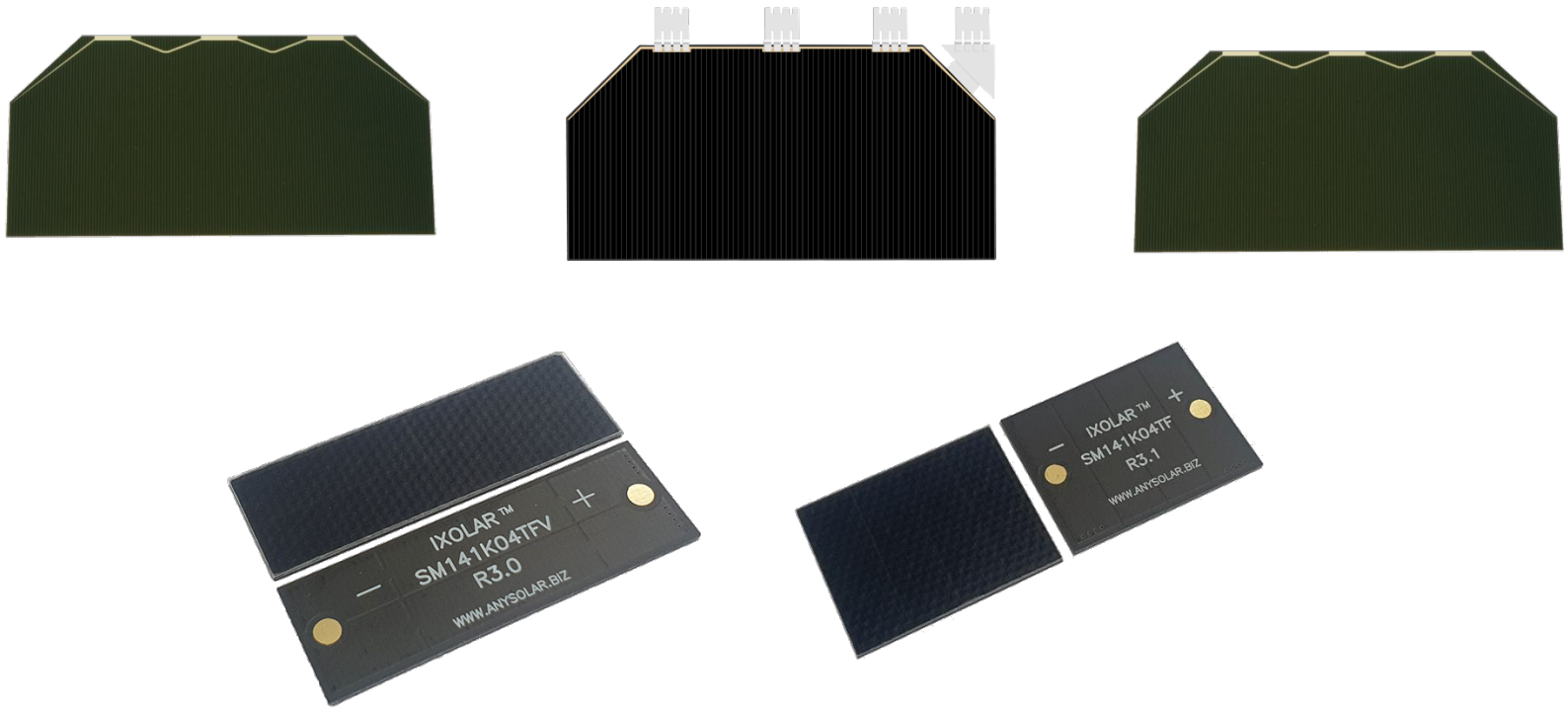
The SZESAT is a satellite within the NMHH-1 mission, developed by Széchenyi István University of Győr, featuring advanced technological demonstrations and experiments.

- Satellite within HUNITY
- **Technological demonstration**
- **Laser communication experiment**
- Orientation detection with semiconductor sensor

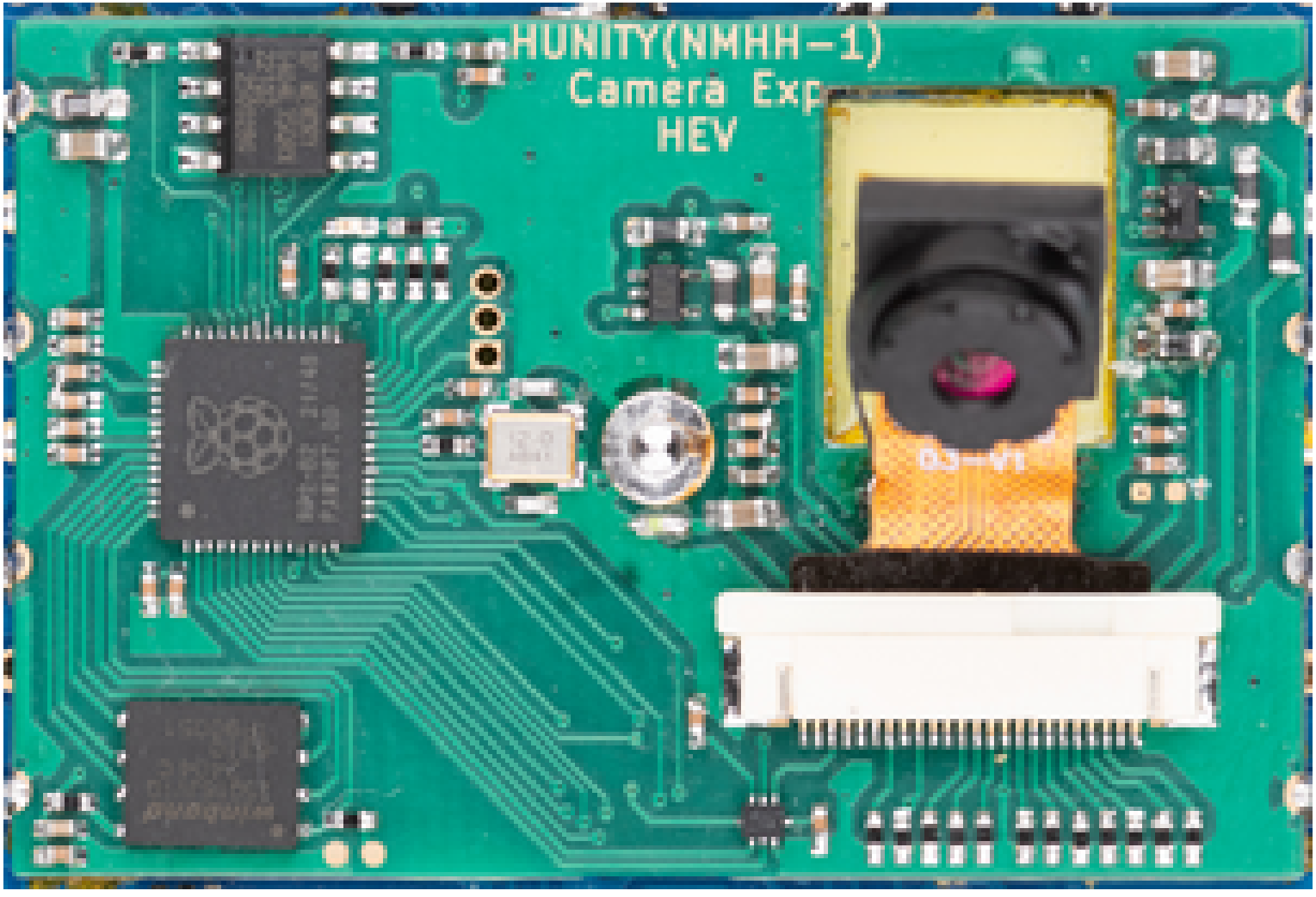
More information:

Visit SZESAT Website

Experiments: Solar Cells



Experiments: Selfie camera

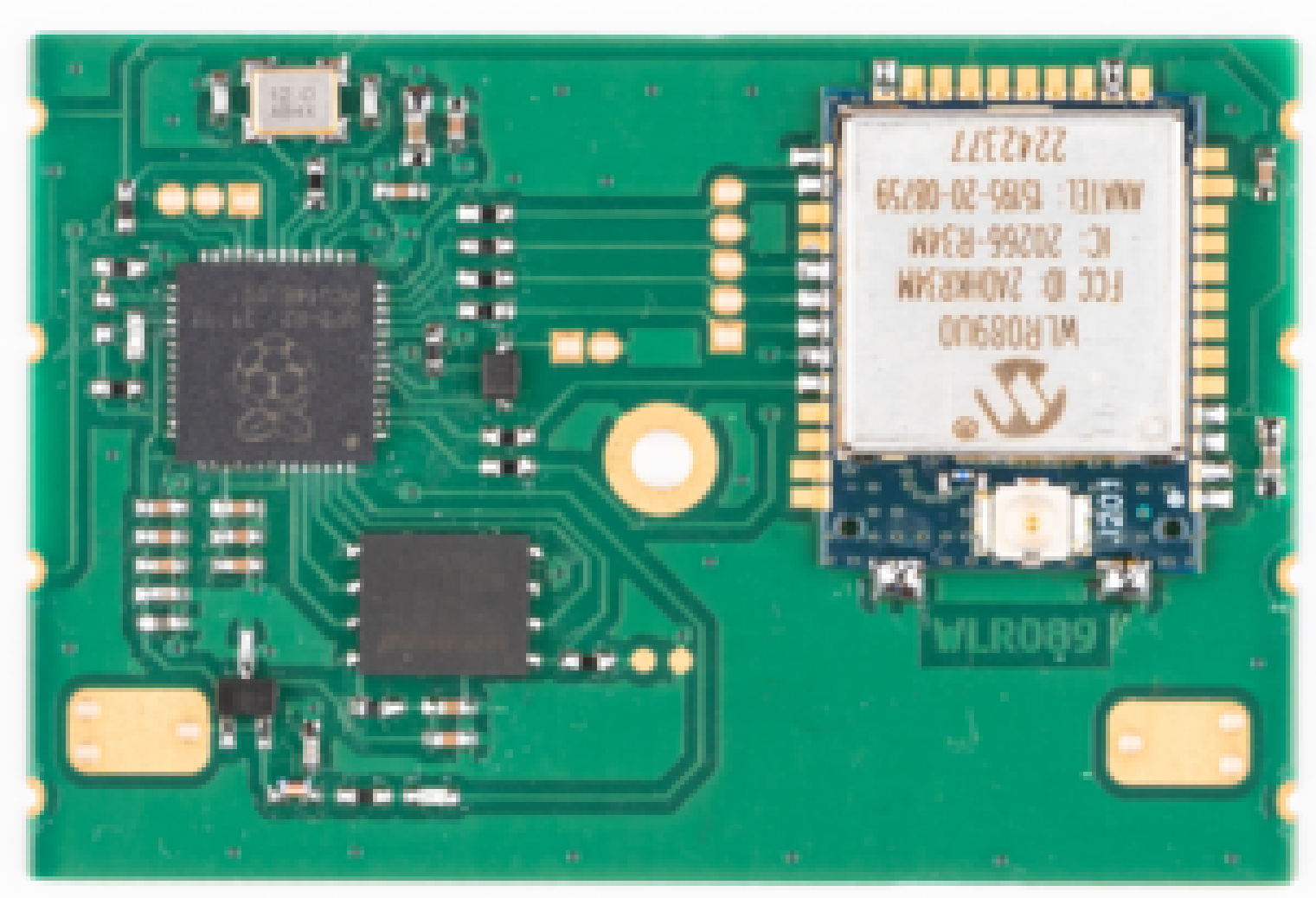


Hunity

Moon

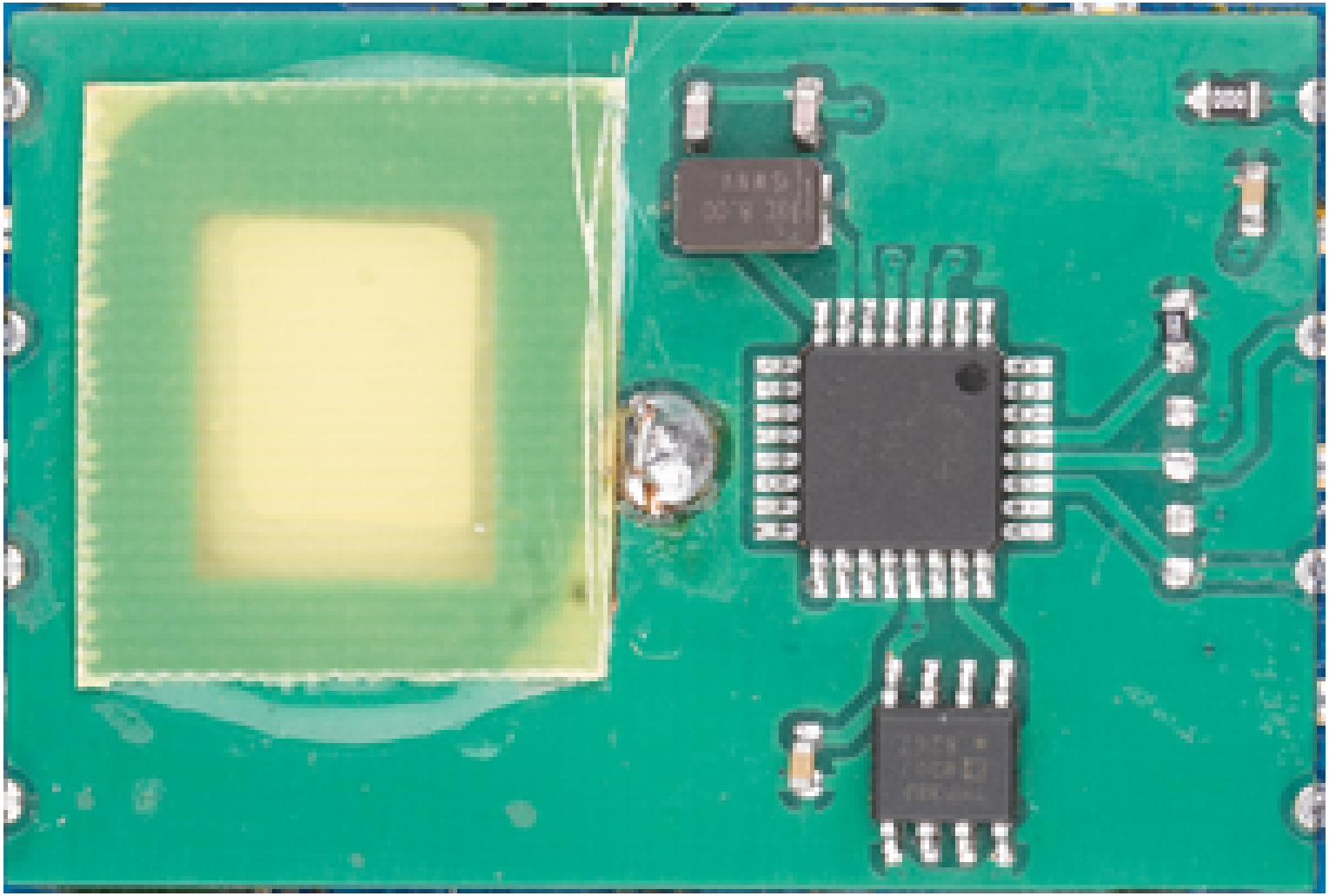
Earth

CanSat WLR COM module + Resonant Radar Reflector

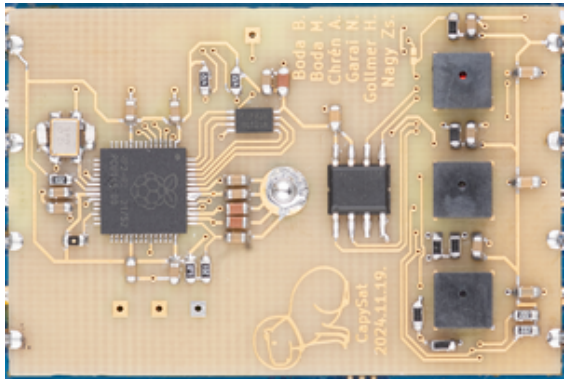


SpASIC

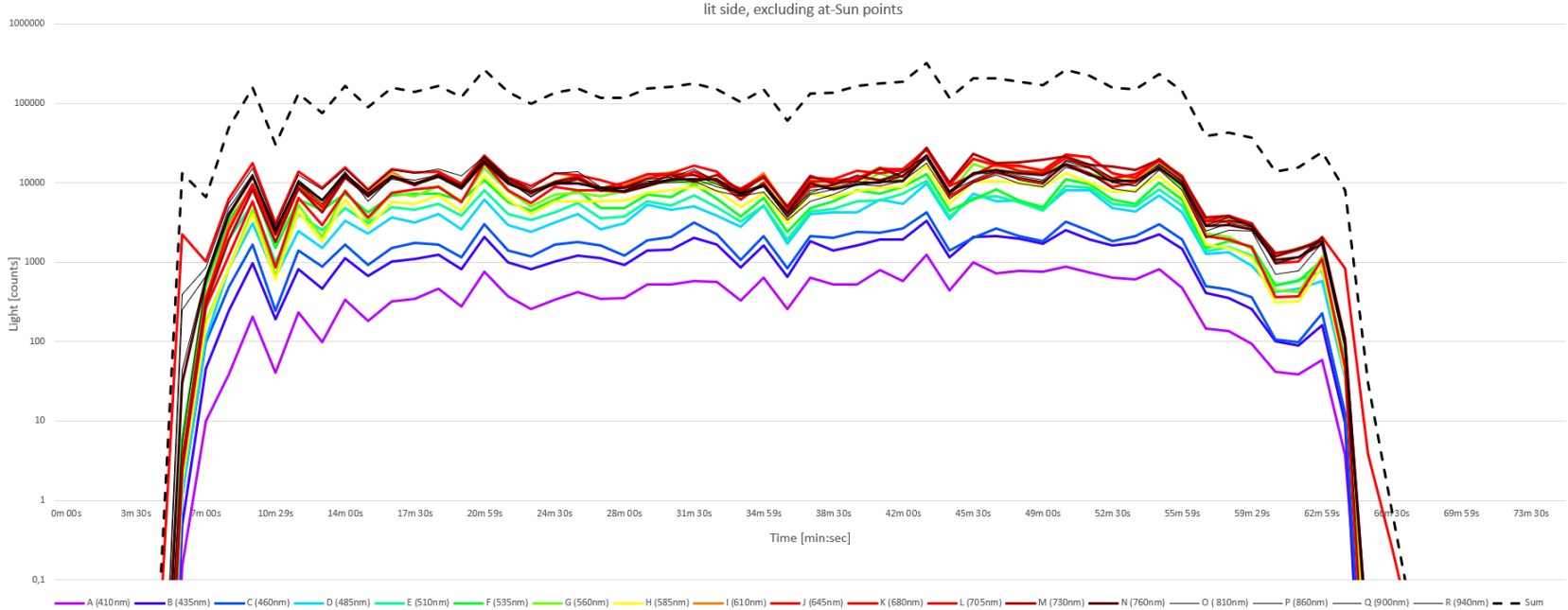
Experiment from Serbia



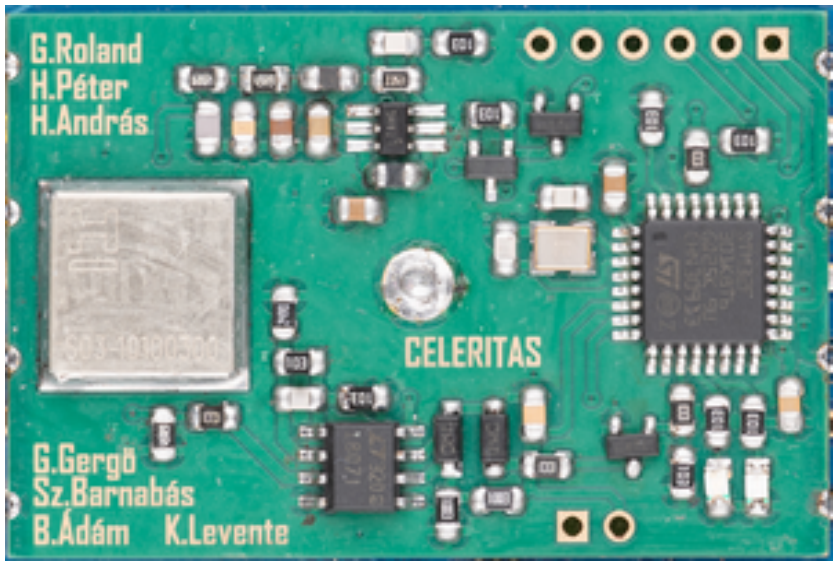
CanSat 2024: CapySat

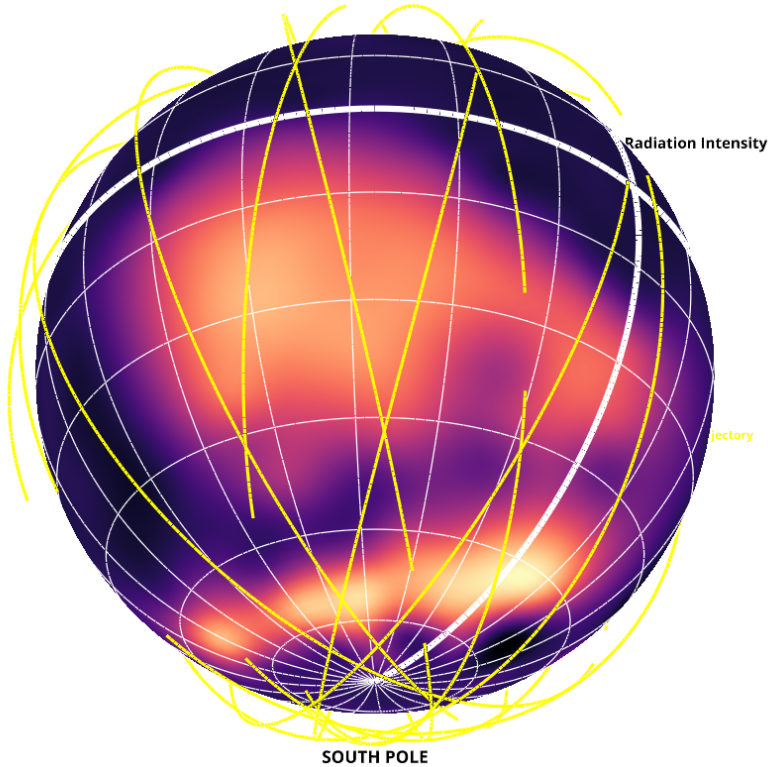


Light at given time during orbit
average from 18 passes
lit side, excluding at-Sun points

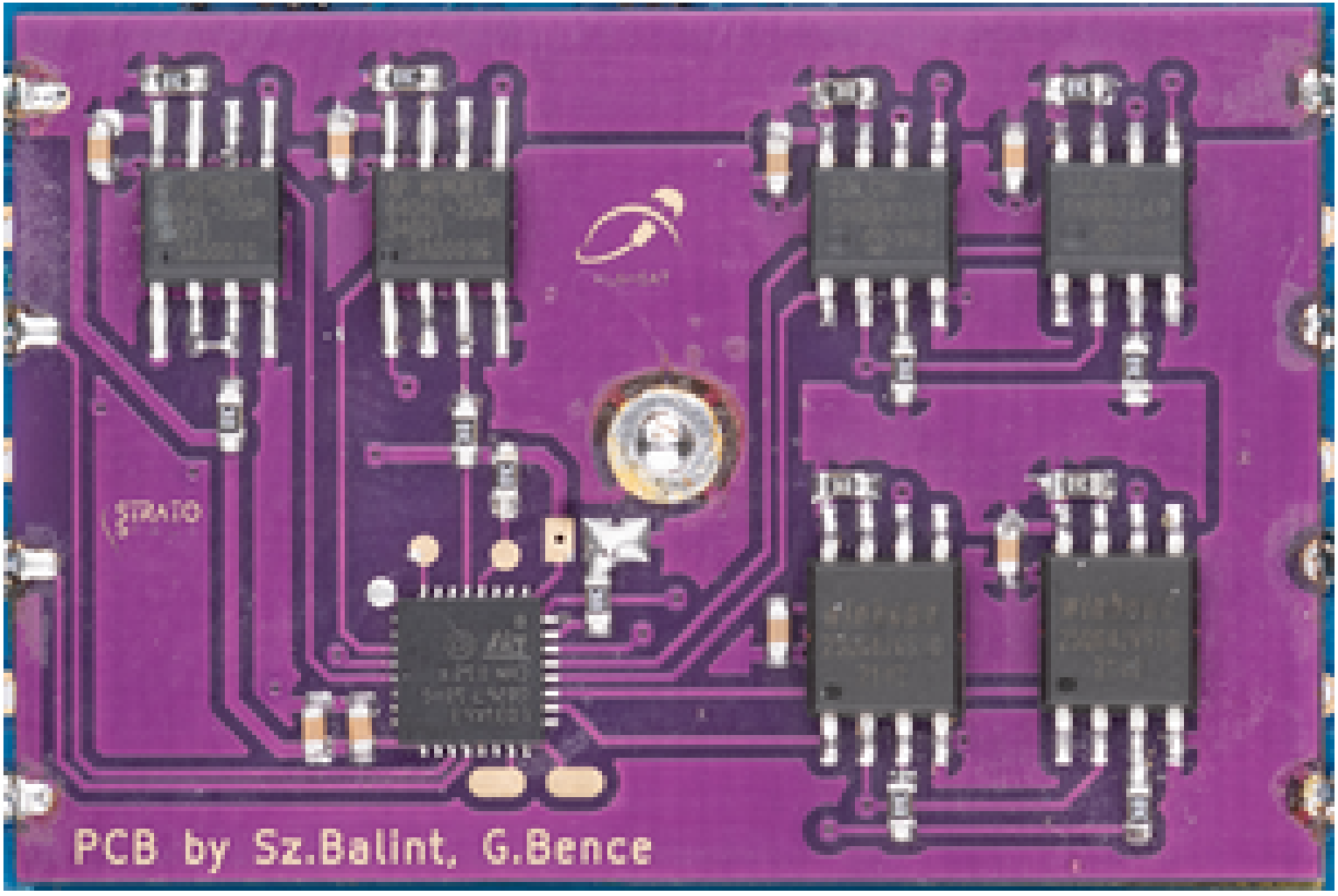


CanSat 2024: Celeritas





CanSat 2024: Kulinsat



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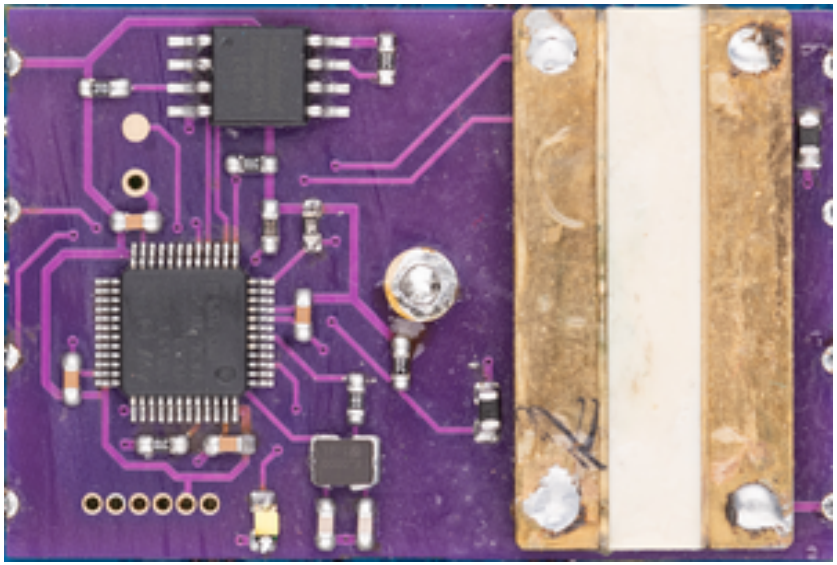
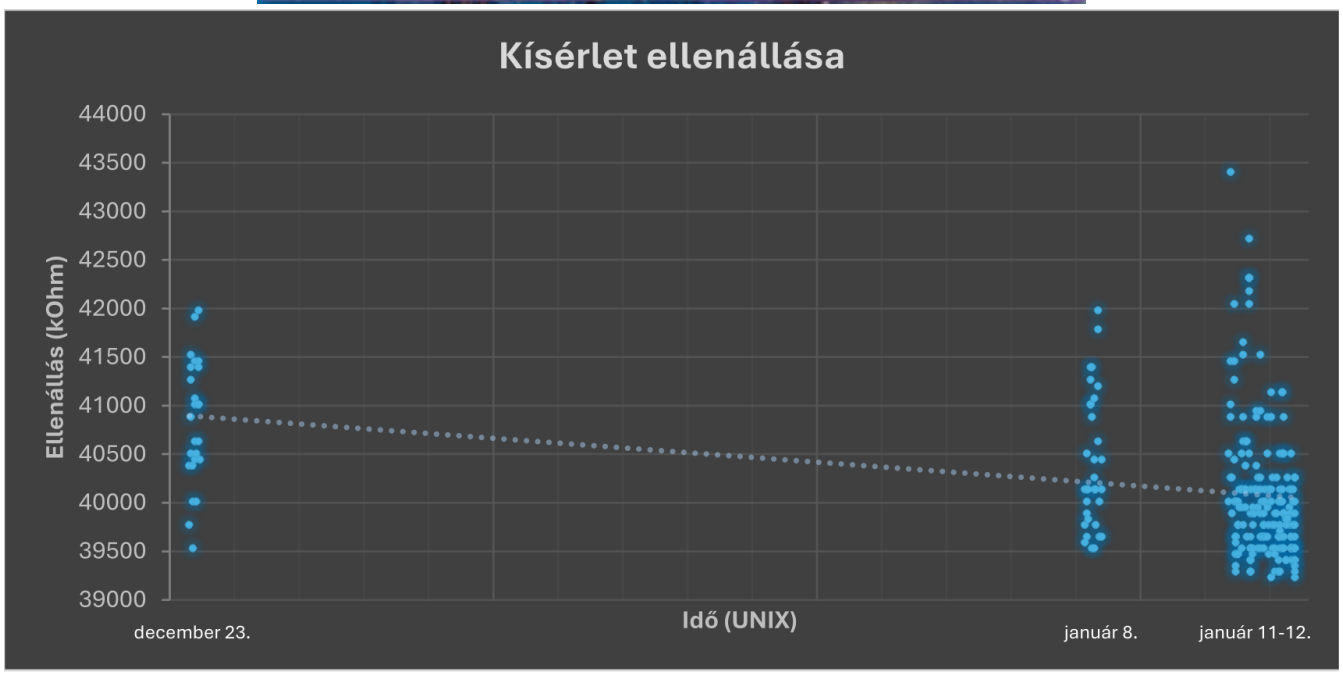
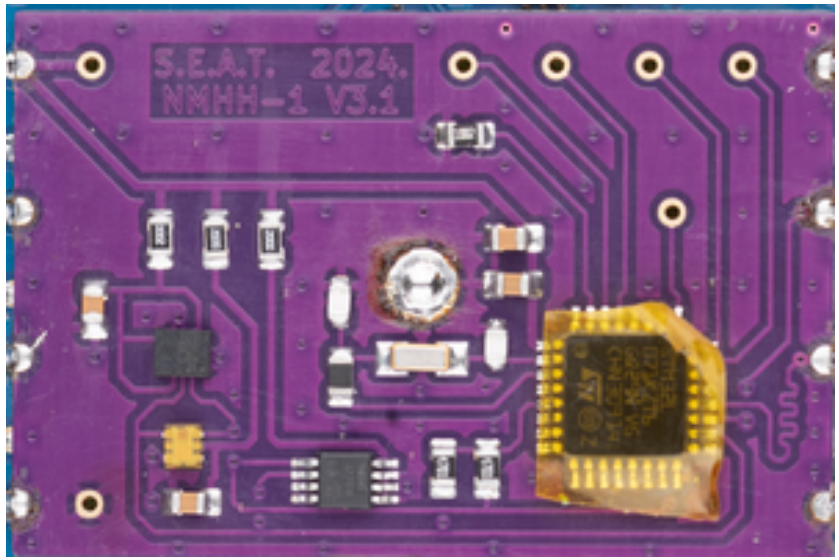
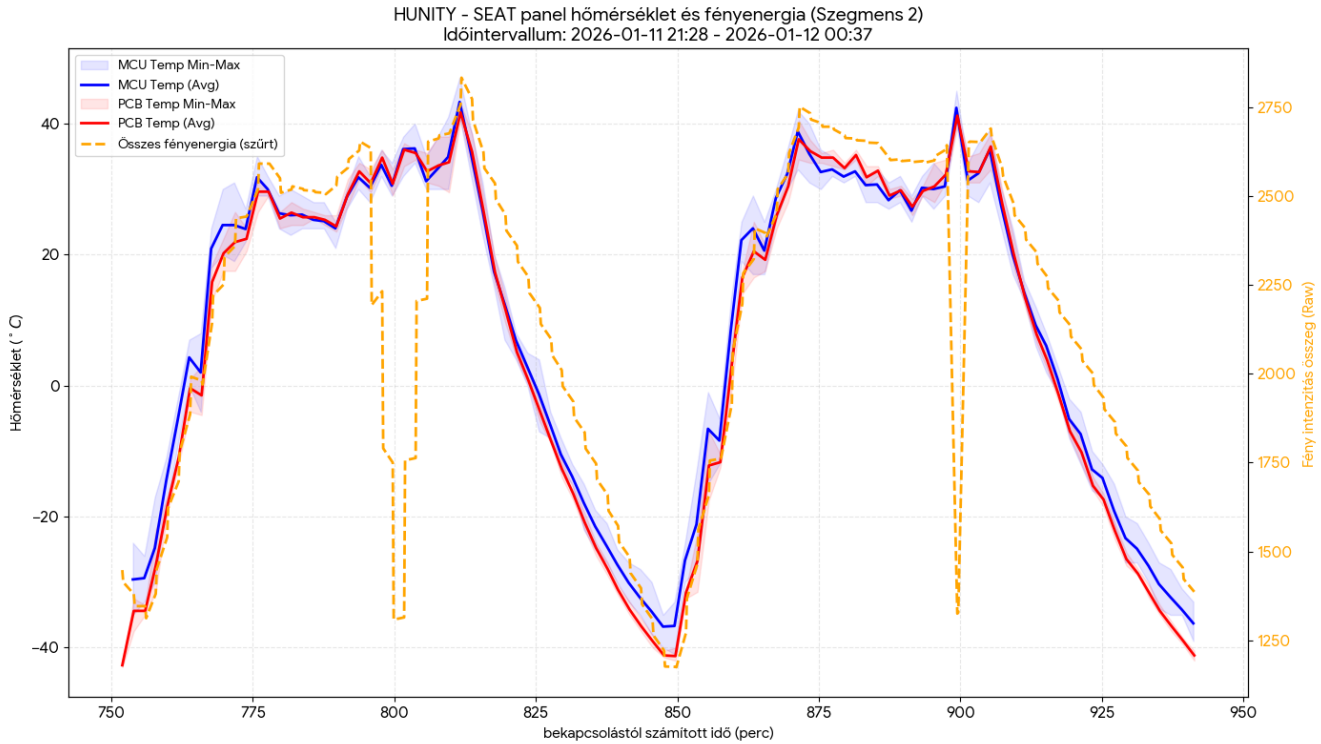


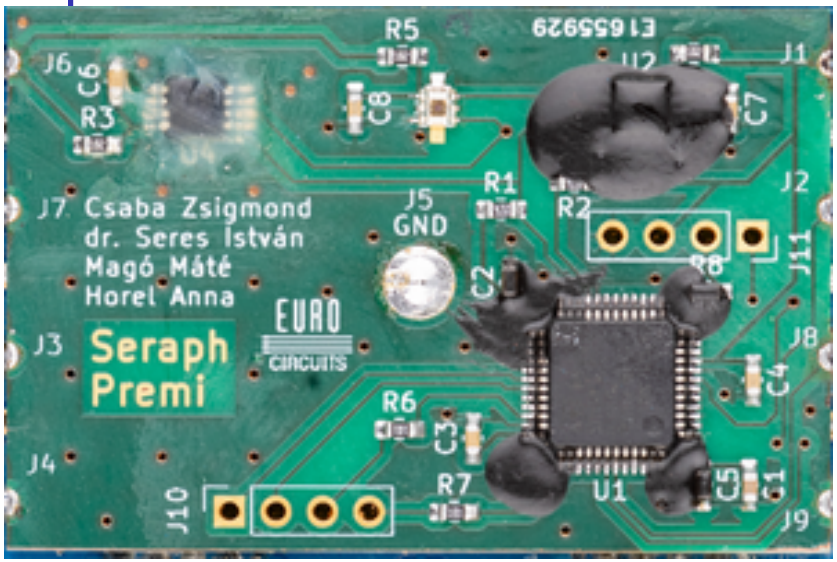


CanSat 2024: S.E.A.T

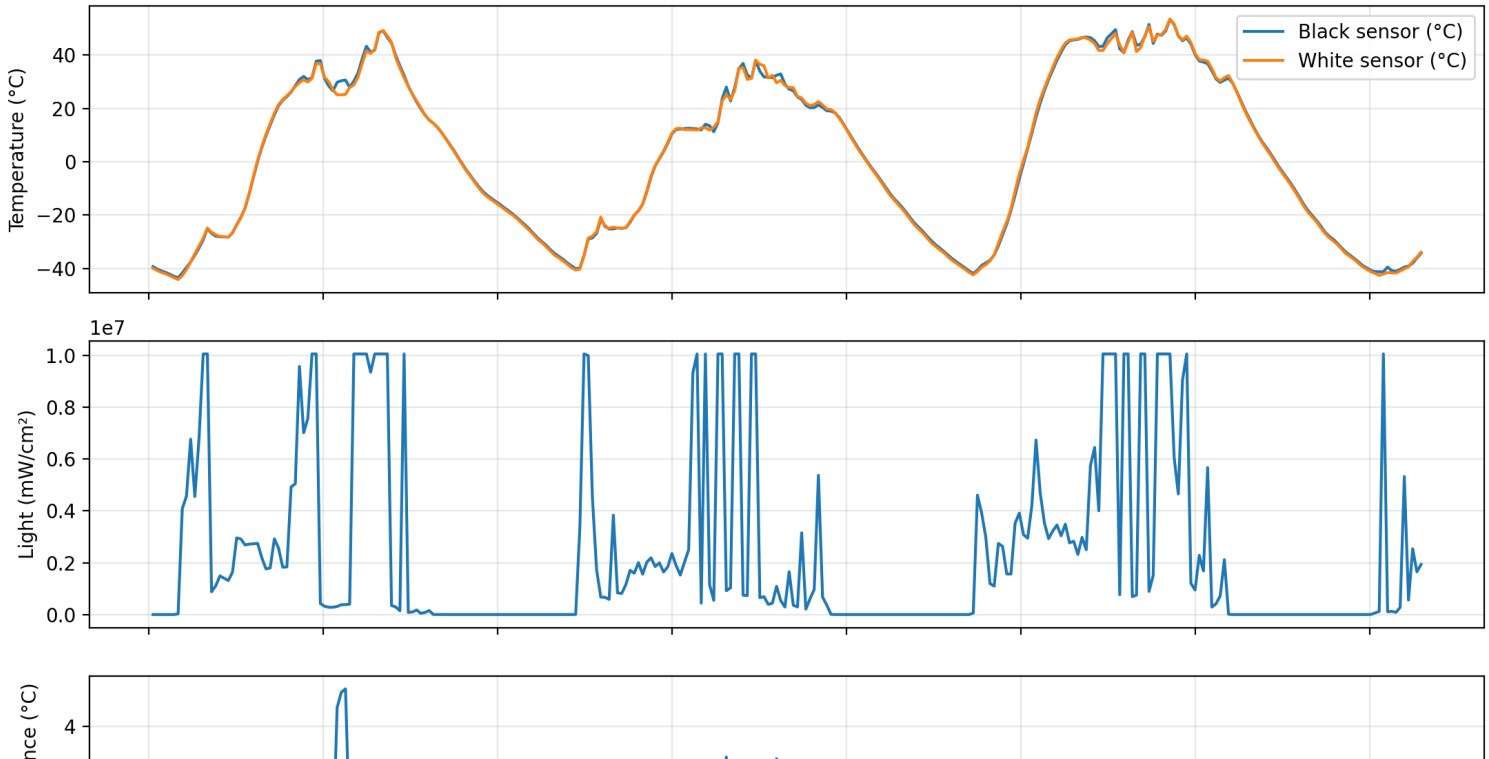




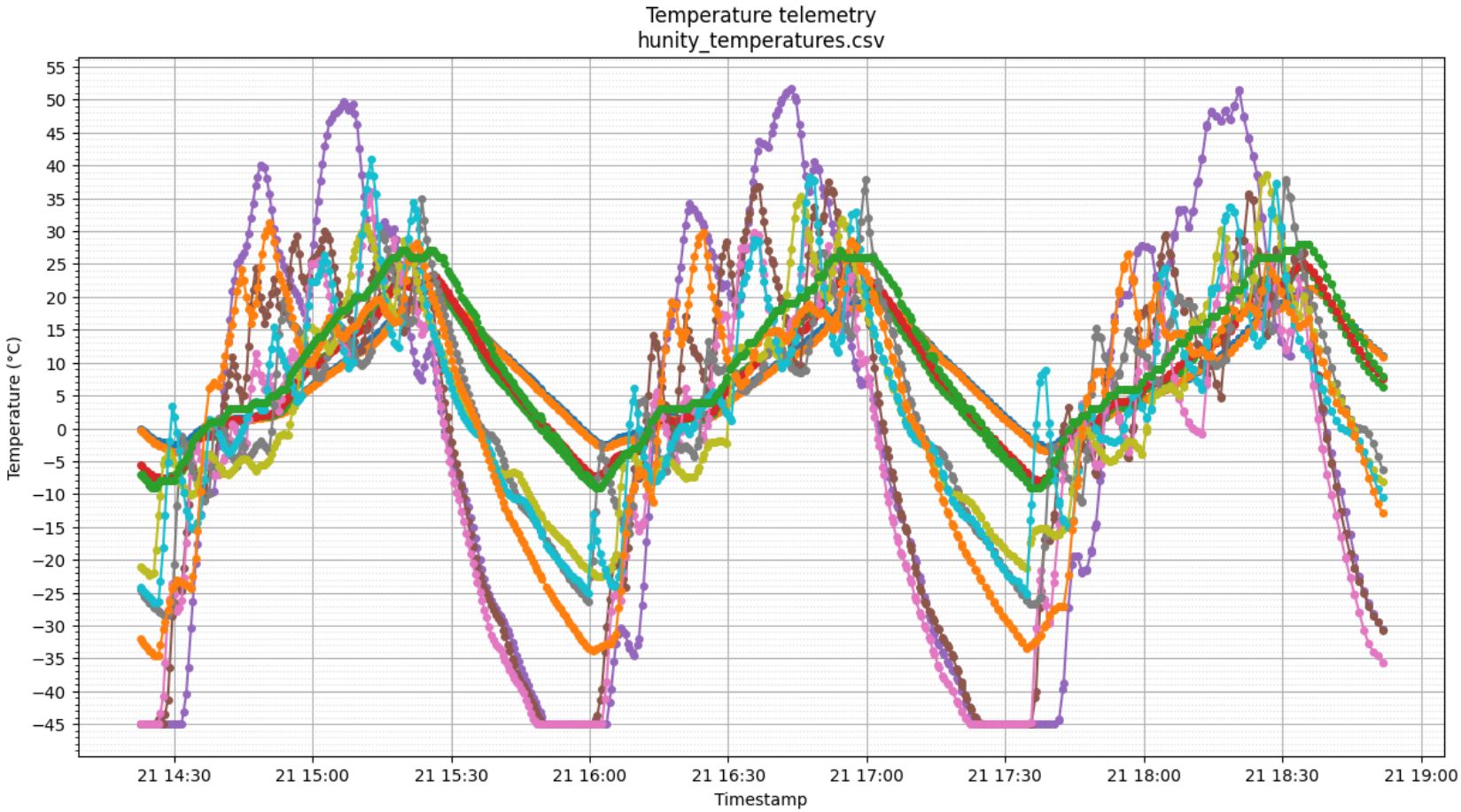
CanSat 2024: Seraph



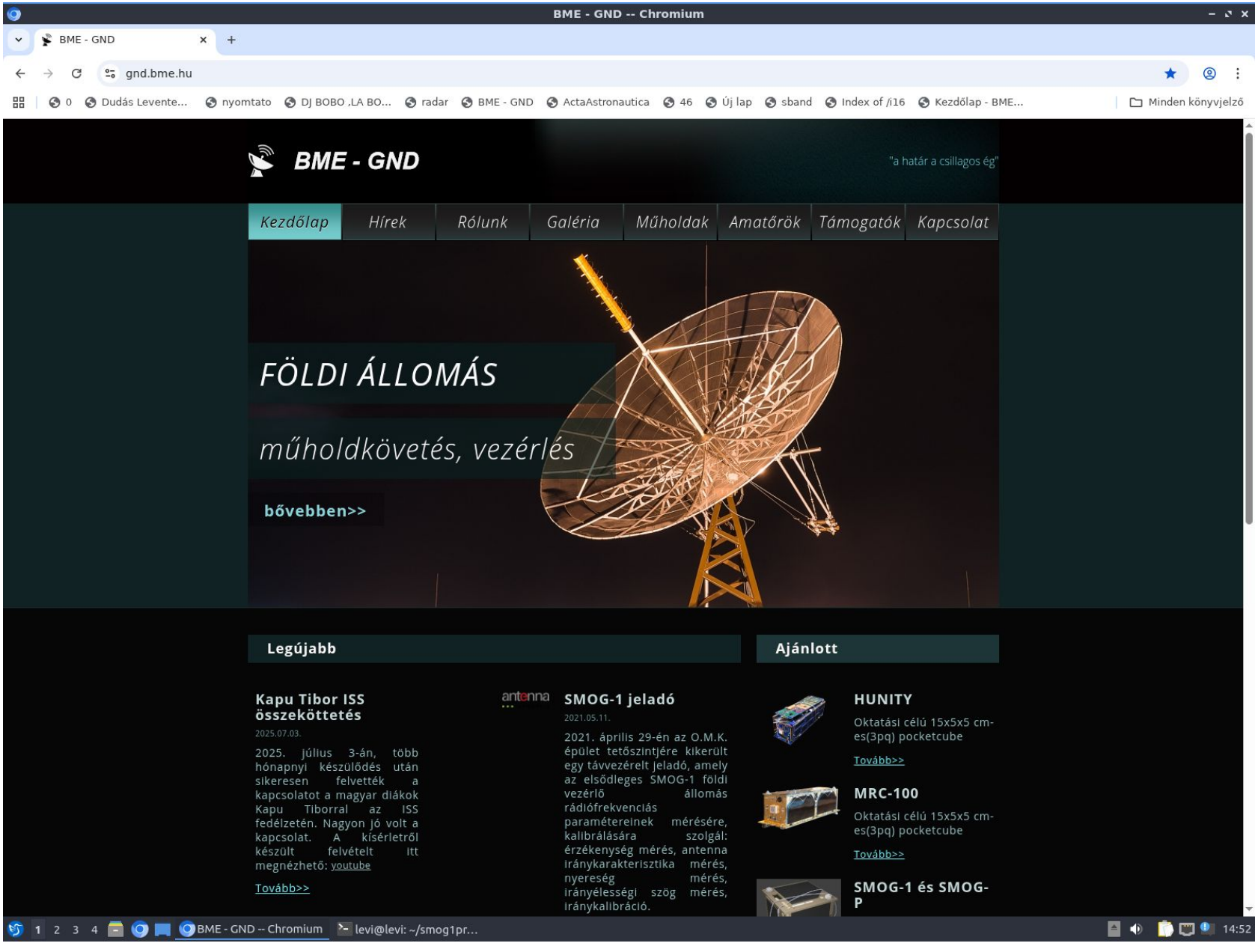
Hunity Seraph data — 20251223.csv



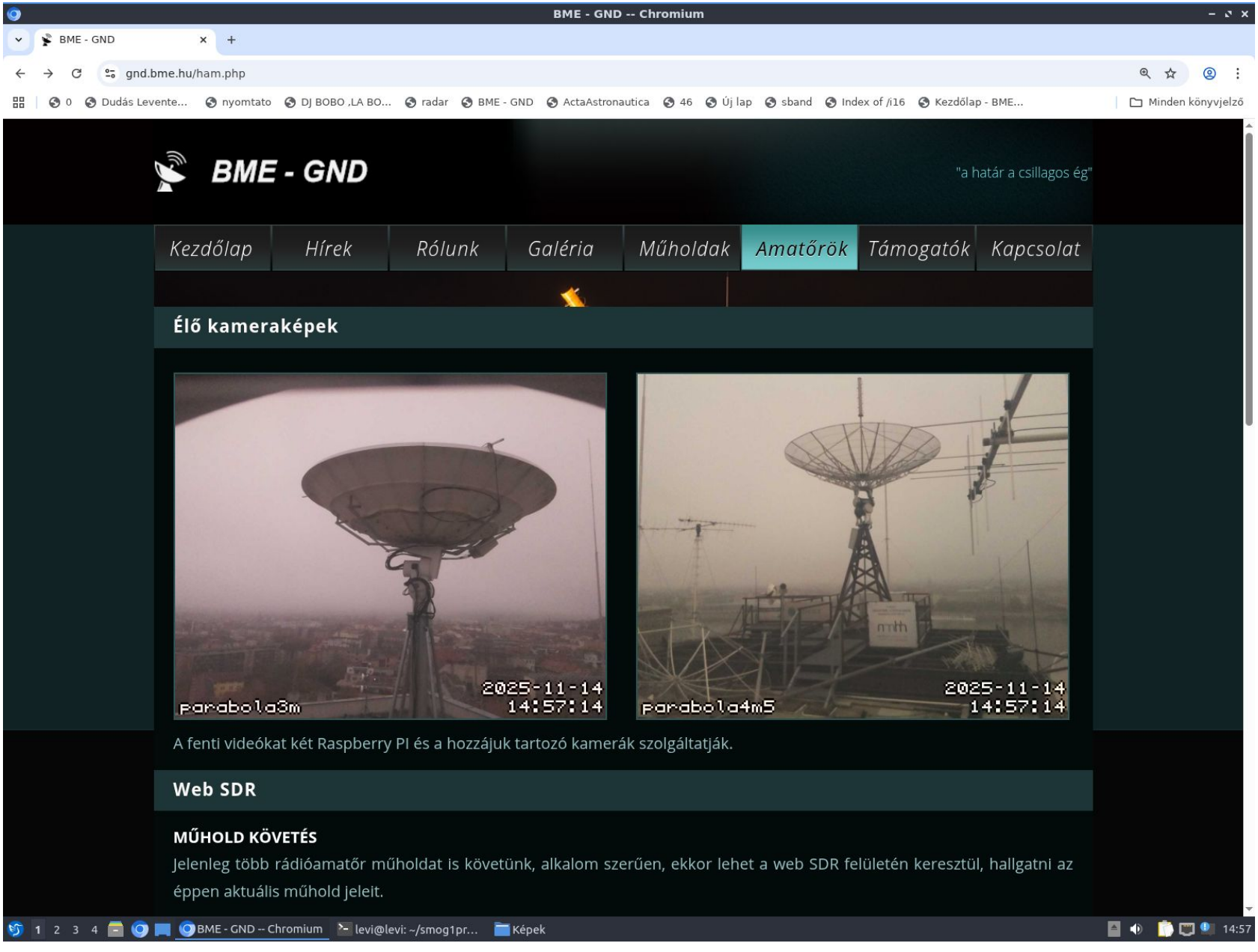
Hunity (NMHH-1) Ground Station 1



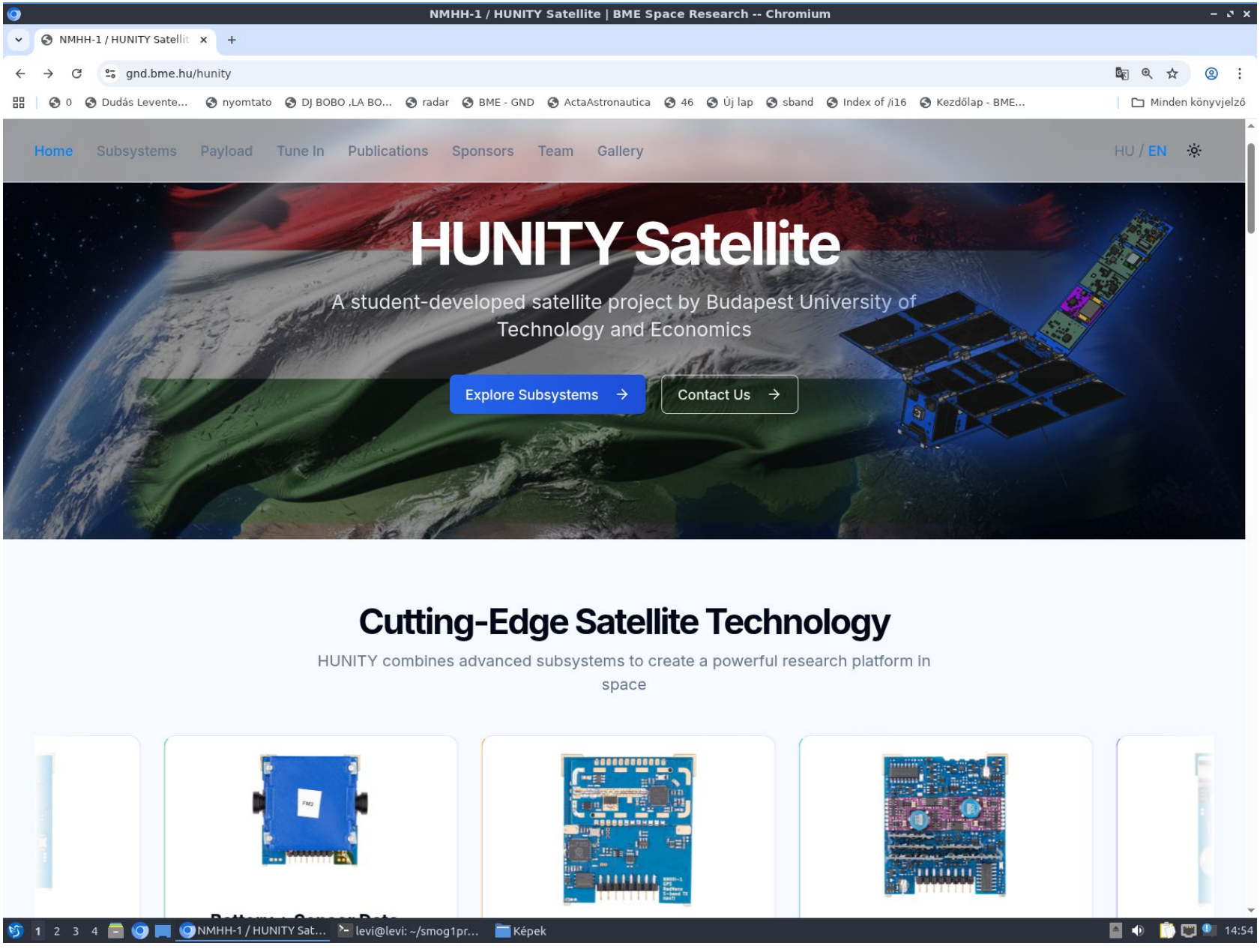
Hunity (NMHH-1) Ground Station 2



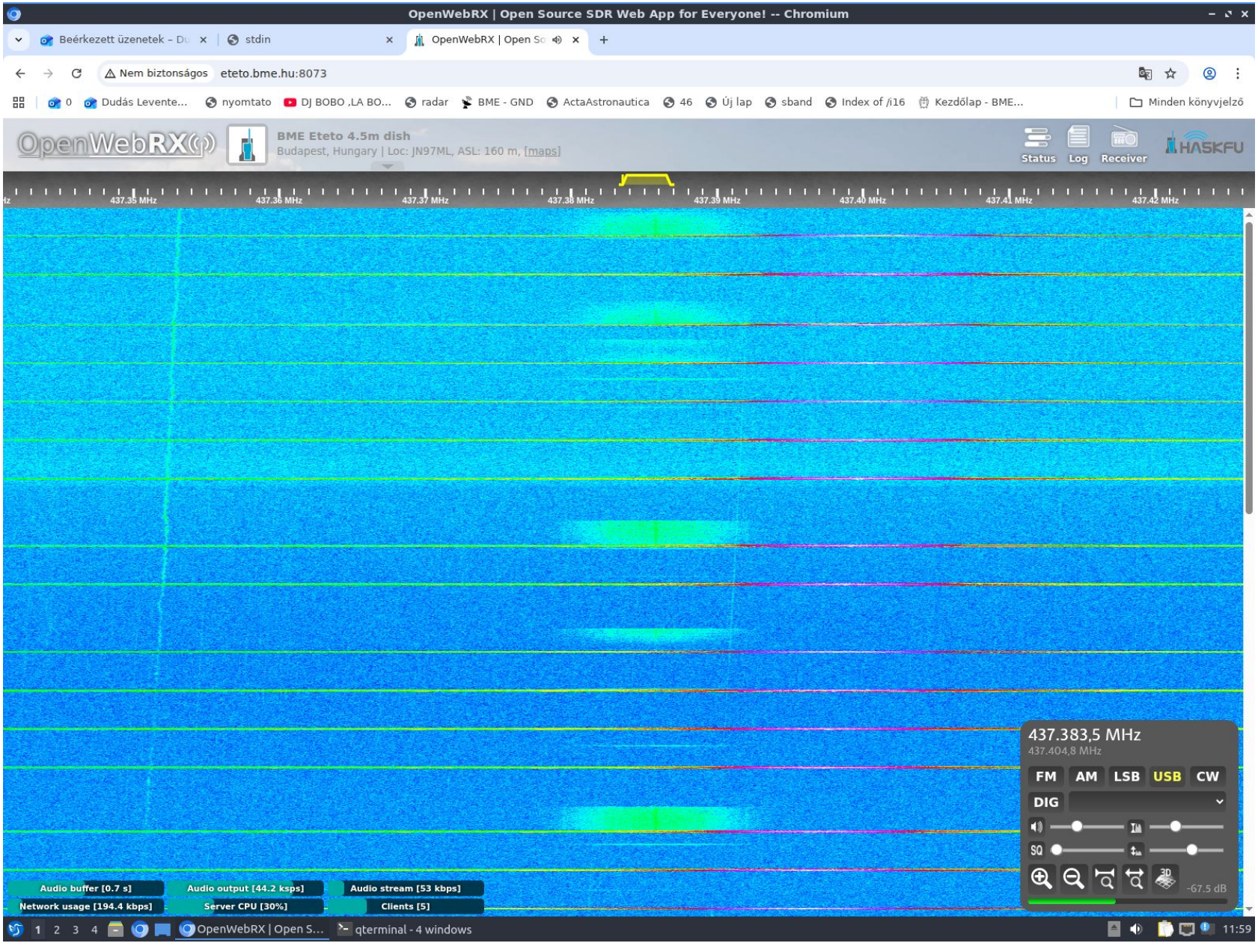
Hunity (NMHH-1) Ground Station 3



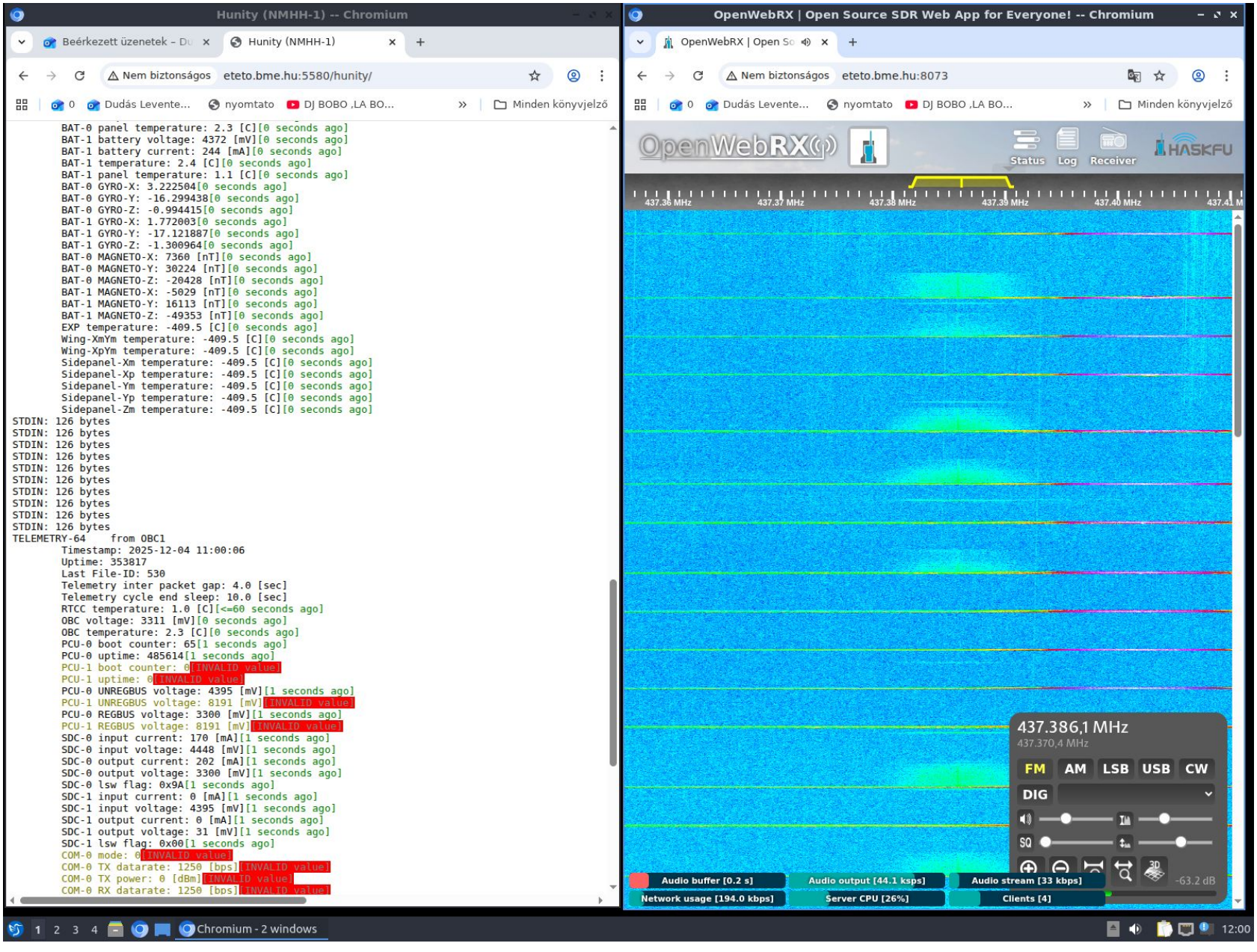
Hunity (NMHH-1) Ground Station 4



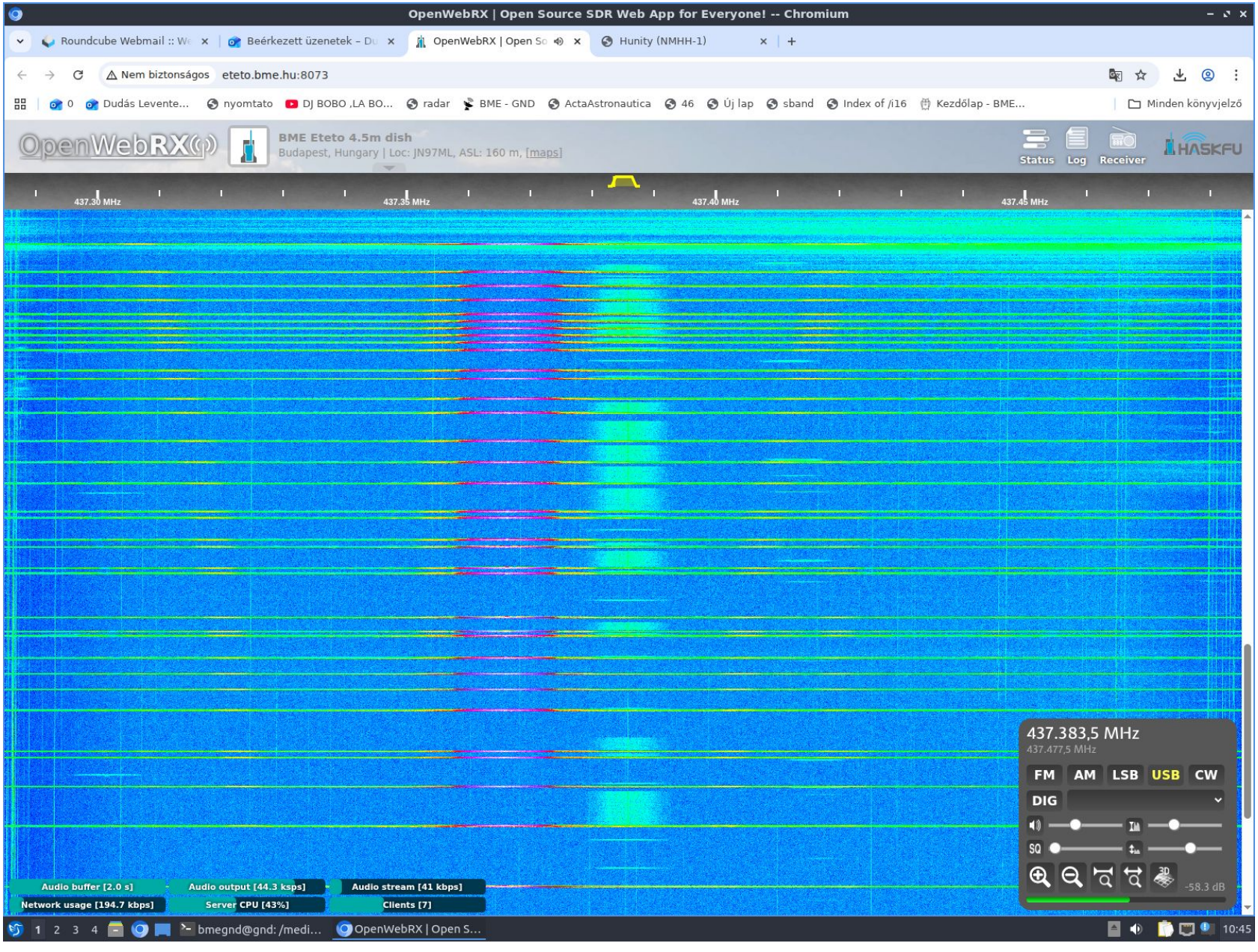
Hunity (NMHH-1) Operation 1



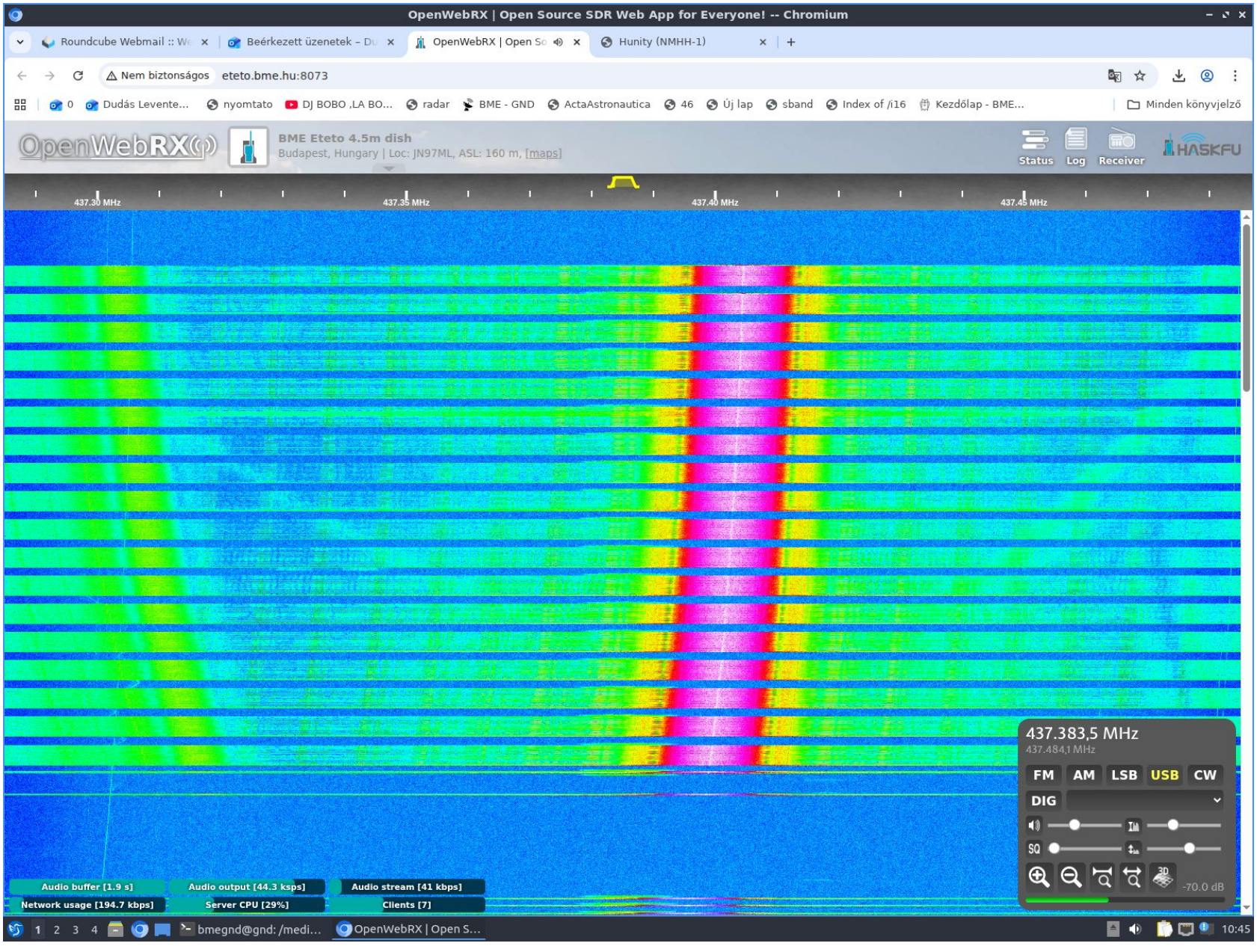
Hunity (NMHH-1) Operation 2



Hunity (NMHH-1) Operation 3



Hunity (NMHH-1) Operation 4



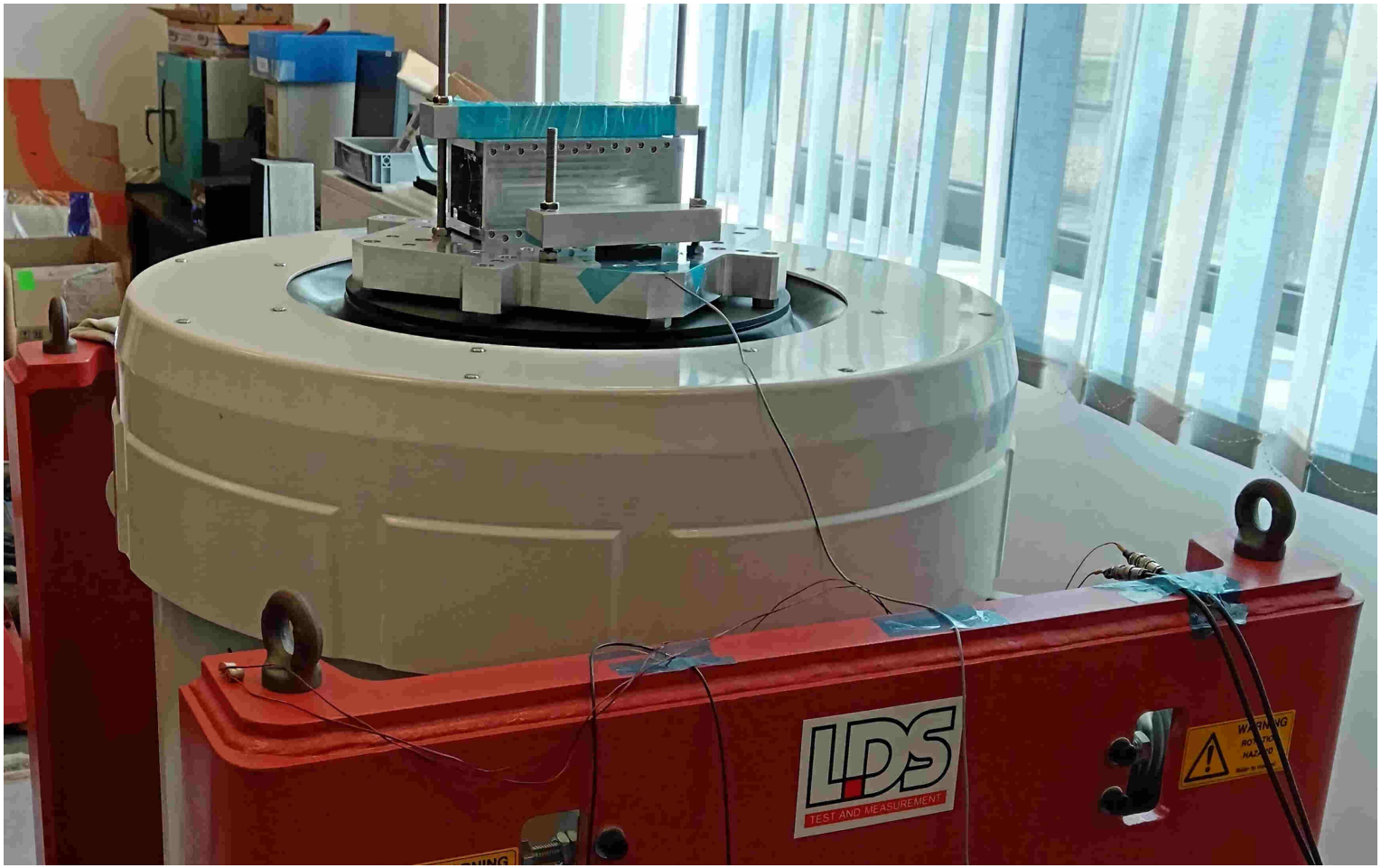
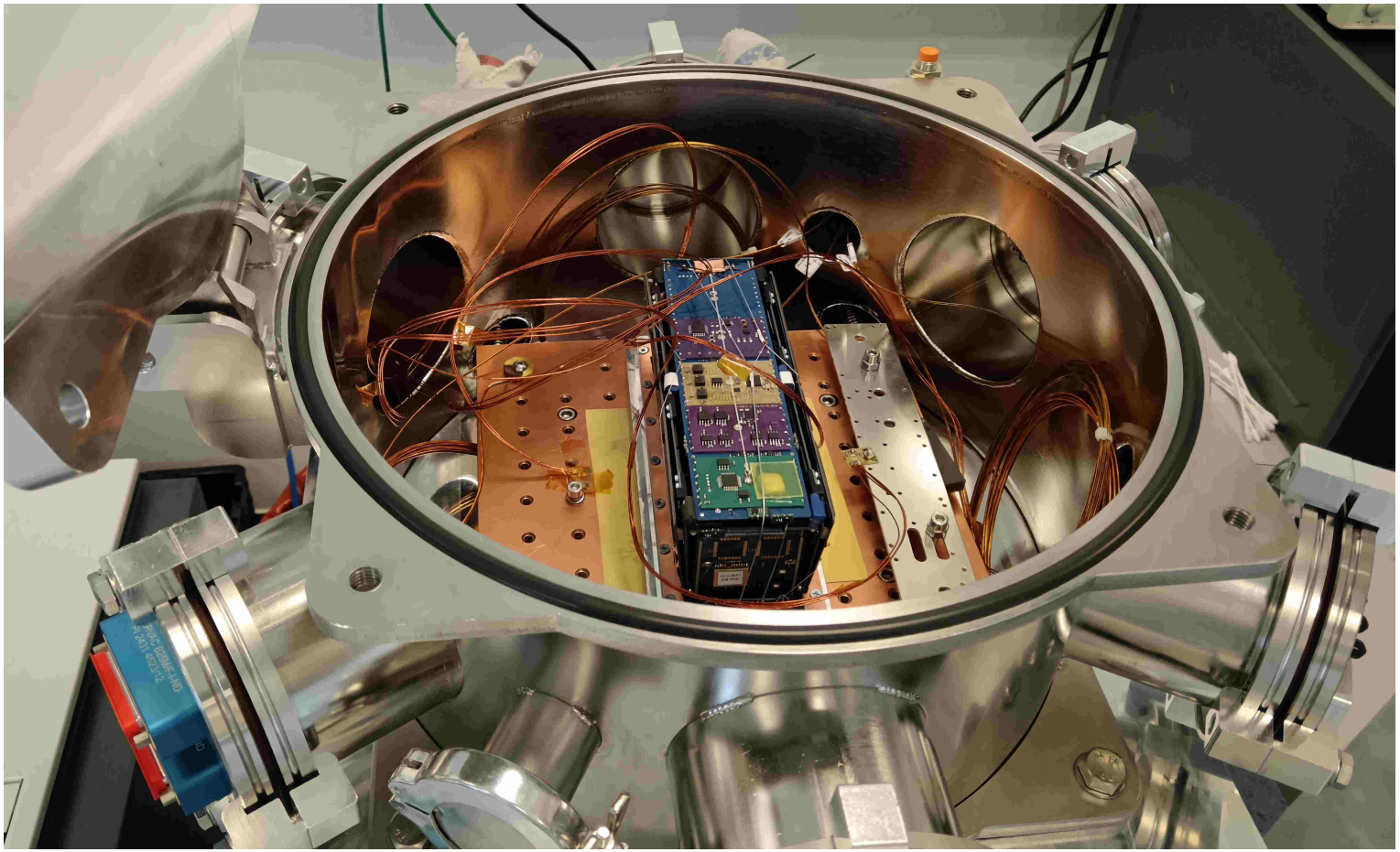
Hunity (NMHH-1) - BME VIK HVT MTL + MRC

Falcon-9 Transporter-15 2025-11-19 18:18 UTC

https://gnd.bme.hu/

https://gitlab.com/phorvath/smogcli2

Environmental Tests 1 - BHE



Environmental Tests 2 - BHE