

OUTLAB (2)

Out of the lab: Spectrometer NIR-B

Project Summary

Based on a special micromirror built by Lemetix for that project, we have built and demonstrated the feasibility of a compact spectrometer for the NIR-B band.

Spectral domain: $1.2\mu\text{m} - 2.6\mu\text{m}$, resolution: $0.014\mu\text{m}$

Size of the spectrometer: $25 \times 12 \times 3 \text{ cm}^3$ including light source

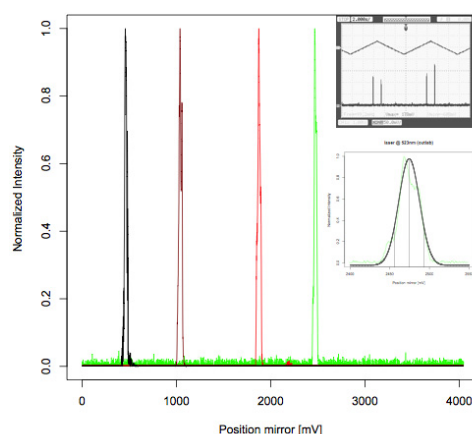
Light sources: Helioworks 7.2W or Osram halogen 20W

MEMS from Lemetix: surface $4 \times 4 \text{ mm}^2$ with 250 lp/mm (squared)

Detector : InGaAs (Thorlabs FGA20)

Valorisation

The device will be used by Lemetix as proof-of-concept.



Four visible laser were used to test the linear relationship between the angle of incidence on the micro-mirror and the wavelength ($R=0.996$).

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