

The logo for Cailabs features the word "cailabs" in a bold, lowercase, sans-serif font. The text is white and is set against a dark background. Behind the text is a large, glowing light effect that transitions from a bright cyan at the top to a deep purple at the bottom, creating a lens flare or bokeh effect.

cailabs

SHAPING THE LIGHT

Light shaping for lasercom: Compensating turbulence with the MPLC

EPIC Online Technology Meeting -
Quarterly Briefing on New Space
Communications and Monitoring

David ALLIOUX – Product line manager

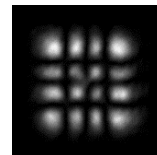
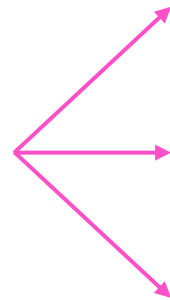
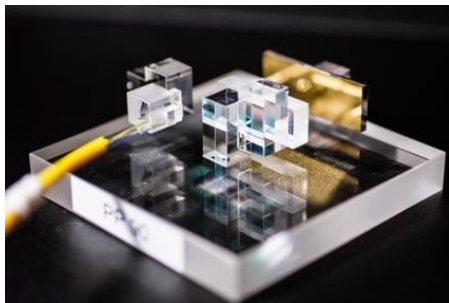


What do we do?

Passive optical beam shaping for lasercom & more

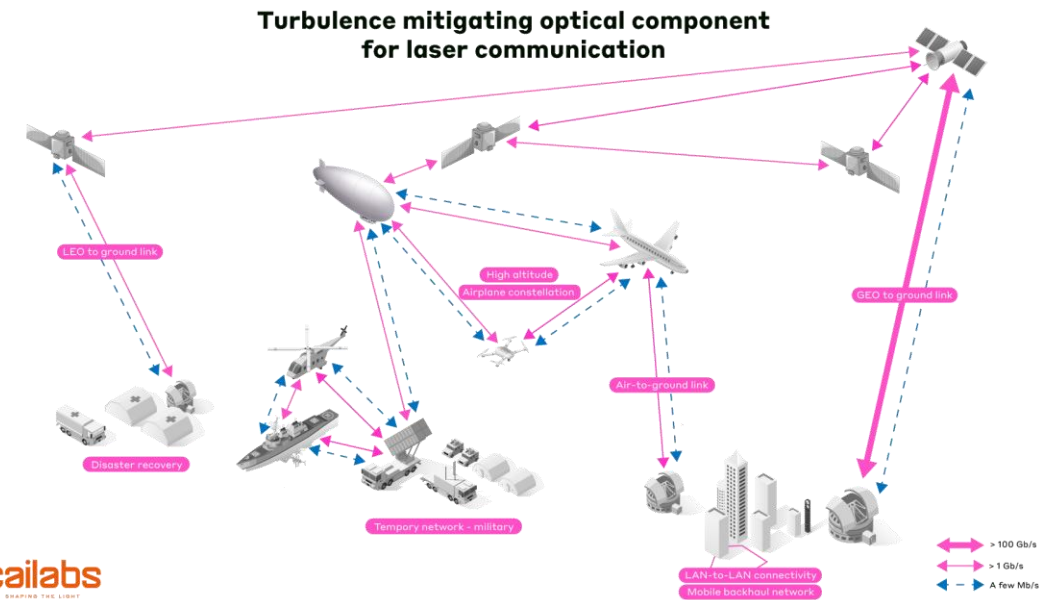
MPLC is a unique technology

- Enabling **complex optical beam shaping**
- With a **passive and standard** component
- And **state of the art performances**



That improves **lasercom** links

- At the reception
- At the emission



What do we offer?

Improve Lasercom reliability with standard components



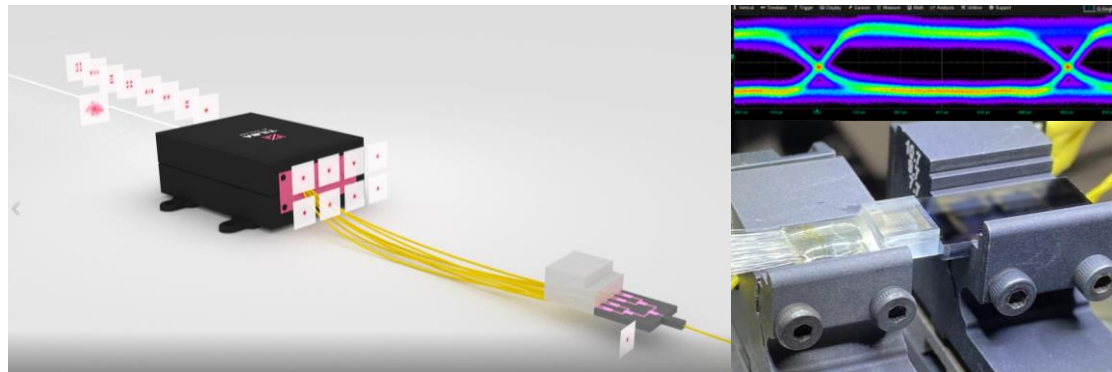
Turbulence mitigation

- Turbulence mitigation with no moving parts
- Standard, plug and play component
- Easy to integrate



Beam combining

- Optimum beam combining
- High power handling (kW)
- Large number of sources (>10)



What do we need?

New challenges, new partners, and new suppliers



New challenges:

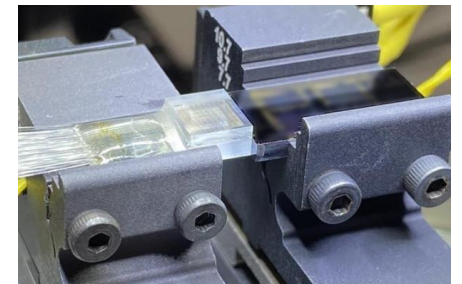
- **Communication companies** who wish to **deploy laser communication network**
- **Ground station integrators** who **have lasercom limitations** and need solutions
- **Top tier industrials** who have a **clear ambitious roadmap** willing to collaborate

New partners:

- **Researchers** who wish new **pre-compensation technique**
- **Ground station manufacturers** who wish **AO-free turbulence mitigation**
- **Anyone** who is interested in QKD with **OAM**

New suppliers

- Photonic chip supplier with fast process cycles and **4-5 dB IL**
- **Loise noise & threshold EDFA**





Thank you very much