

Satellites
Transversal competencies



Founded in 2013, Cailabs is a French deep tech company which designs, manufactures and distributes innovative photonic products for telecommunications, free space transmission, industrial lasers, and LANs. A global leader in complex light shaping, its technology is currently protected by 19 patent families.

Cailabs has developed the TILBA product range designed for improving the reliability of laser communications.

COMPETENCIES & CAPABILITIES

- Improve the reliability of satellite, naval, aeronautical (aircraft, drones) and ground free-space optical links, even in strong atmospheric turbulence
- Make optical communication accessible and easily deployable thanks to standard, easy-to-use embedded components.
- Design and manufacture key laser communication components and modules
- Support lasercom projects at different integration stages



CAILABS

PRODUCTS & SERVICES

With its TILBA product range, Cailabs offers components and modules designed to upgrade free-space optical communication ground terminals, and is able to support customers at different integration stages, from the component to the optical ground station

- TILBA-ATMO is the first fully integrated atmospheric turbulence correction module for optical satcom downlinks, compatible with standard telescopes and telecom architectures.
- TILBA-EMIT combines laser sources to increase uplink emission power.

The TILBA technology is also able to compensate fine pointing errors in inter-satellite links.

MAJOR SPACE PROJECTS & REFERENCES

Cailabs is involved in government, defense and commercial programs internationally, and collaborates with major companies, institutes and space agencies worldwide.

Most space projects are confidential but among the references Cailabs is working with:

- CNES and ONERA, particularly through a R&T action aiming at improving the reliability of space-based laser communications through atmospheric turbulence
- DLR
- BridgeComm

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TURNOVER N/A

WORK FORCE 60 employees

SPACE TURNOVER N/A

SPACE WORK FORCE 10 employees