

Orbital systems
Launchers
Satellites

iXblue

iXblue is a global high-tech company specializing in the design and manufacturing of advanced marine, photonics and autonomy technologies. iXblue develops systems for complex applications in extreme environments, from the ocean depths to outer space. iXblue was one of the first companies in the world to develop the Fiber-Optic Gyroscope (FOG) technology and is now a recognized leader on this market.

For space application, in partnership with Airbus Defense & Space, iXblue has developed the Astrix series, a range of space fiber-optic gyroscopes. iXblue also designs and manufactures space grade optical components such as optical modulators, rad-hard fibers, fiber sources and amplifiers.

COMPETENCIES & CAPABILITIES

With a **dedicated team for space products** for more than 20 years, iXblue has end-to-end control of its value chain, from the R&D carried out in its engineering offices through manufacturing in the company's own production shops and quality control.

Production sites have **large clean rooms** for the manufacturing of space components and systems.

Numerous **skillful inertial experts** are available together with **all the required inertial and environmental means** to develop, test and qualify products.

iXblue supplies numerous space actors (ESA, CNES, Airbus for instance...) **following ECSS standards**.



PRODUCTS & SERVICES

Gyroscope for satellites and space probes:

- The Astrix series: high-performance space fiber-optic gyroscopes for military, scientific and telecom applications, developed in partnership with Airbus Defence & Space for more than 20 years
- Astrix NS: a new, compact and competitive space gyroscope

Inertial navigation system for launchers:

- The safety inertial navigation system for Ariane launchers, produced in partnership with Safran Data Systems

LiNbO₃ optical modulators for space applications

- Amplitude and phase LiNbO₃ modulators for laser communication terminals from satellites to satellites and from space to ground
- Phase LiNbO₃ modulators for laser cavity stabilization

Space grade optical fibers

- SM and PM radiation hardened fibers with a large choice of coatings
- Erbium and erbium/ytterbium doped fibers for sources and amplifiers
- Custom design of space grade optical fibers, as well as fiber sources and amplifiers

MAJOR SPACE PROJECTS & REFERENCES

iXblue collaborates with major space agencies in the world. Its components and systems have been selected by major space players and are on-board numerous satellites.

- Astrix gyroscopes are on board **more than 25 satellites** representing 2 million hours of cumulated flight without incident
- **Pléiade satellites** were the two first satellites using Astrix 200. They were launched in 2011 and are working well since then.
- iXblue manufactures **Ariane 5** safety inertial navigation system
- iXblue modulators are on board **Sentinel 1a and Sentinel 2a**, the GEO satellite Alphasat and NASA GRACE-FO mission

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TURNOVER: 120 M€

WORK FORCE: 650