



STABILIZED PLATFORMS | **iXblue**

iXblue at a glance

30

YEARS OF
EXPERIENCE

147+

MILLION EUROS
OF TURNOVER

80%

OF TURNOVER
ACHIEVED ABROAD

750+

EMPLOYEES

30,000+

FIBER-OPTIC
GYROSCOPES SOLD

20%

OF TURNOVER
REINVESTED
EACH YEAR IN R&D

65+

NAVIES AND
ARMIES SERVED

DELIVERING OVER

500

CUSTOMERS
EVERY YEAR

24/7

TECHNICAL
SUPPORT

With over 30 years in mechatronic expertise for motion simulators, iXblue is an independent leader in platform stabilization solutions for optronic, radar, antennas and weapon systems.

Industrial excellence

iXblue leverages the most advanced, proven technologies and implement critical systems only when they reach full technological maturity through intense tests and trials. In addition, iXblue designs its systems to attain the lowest maintenance needs. All of our off-the-shelf stabilized platforms are ITAR-free and in order to minimize the costs, cutting-edge hardware as well as COTS software are used as often as possible.

Performance and robustness

iXblue refuses technological compromise when it comes to choosing between performance and critical requirements for demanding land usage. High level R&D investment allows iXblue's solutions to meet the highest Line-Of-Sight (LOS) accuracy while being compliant with the most extreme operation conditions.

Scalability and ease-of-use

iXblue's systems have strong hardware, software and interface commonalities, allowing for great savings in terms of integration, installation, configuration management, logistics, training and maintenance costs. This also results in a greater flexibility to dimension the product according to the payload type, weight and size.

A COMPLETE RANGE OF STABILIZED PLATFORMS

Osiris

SINGLE-AXIS
GYROSTABILIZED
PLATFORM FOR
RF FLAT PANELS

Used for both surveillance and communication applications, Osiris ensures panoramic reconnaissance capability by providing quick rotation and fixed positioning of AESA RADAR antennas.

Ceos

TWO-AXIS
GYROSTABILIZED
PLATFORM FOR
SINGLE PAYLOAD

Used for situational awareness, security and surveillance applications, Ceos light-weight platform guarantees sharp images and/or videos by providing reliable stabilization to the most modern medium-weight integrated optical sensors packages.

Neos

TWO-AXIS
GYROSTABILIZED
PLATFORM FOR
MULTIPLE PAYLOADS

Used for situational awareness, security and surveillance applications, Neos offers a versatile platform that enables multiple optical sensors packages to provide sharp images and/or videos.

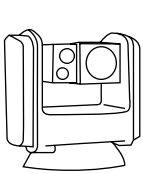
Leos Series

HIGHLY ACCURATE
TWO-AXIS
GYROSTABILIZED
PLATFORM FOR
OPTRONIC SENSORS

Used for observation, reconnaissance and targeting applications, Leos achieves ultimate Line-Of-Sight stabilization. Thanks to the integration of high-grade gyroscopes coupled to advanced algorithms, Leos maintains medium-weight optronic sensors' performance, detection, reconnaissance and identification capabilities.

As of today, two models are available and provide various degrees of gyrostabilization according to customers' needs.

APPLICATIONS



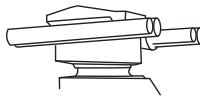
Optronic



Radars

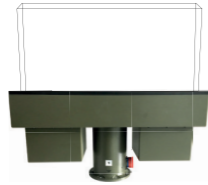


Antennas



Weapons

Stab Series



OSIRIS



CEOS



NEOS



LEOS S5



LEOS S6



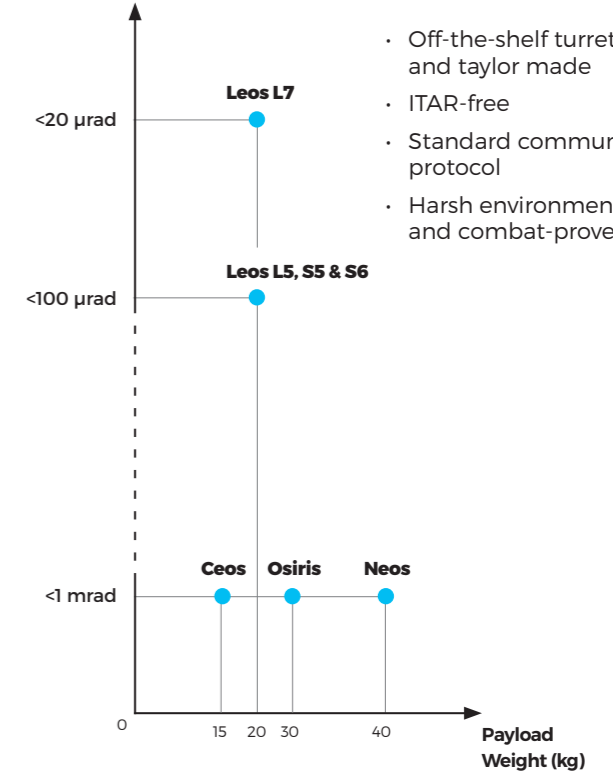
LEOS L5



LEOS L7

Main characteristics & performance	1-axes	2-axes	2-axes	2-axes	2-axes	2-axes	2-axes
Gyrostabilized Line-Of-Sight	< 1 mrad	< 1 mrad	< 1 mrad	< 100 μrad	< 100 μrad (with low drift MEMS gyro)	< 100 μrad	< 20 μrad (with FOG gyro)
Type of payload	In one piece	In one piece	One, two or three pieces	In one piece	In one piece	In one piece	In one piece
Nominal payload* (ground fixed system) (up to / kg)	50	30	60	25	25	40	40
Nominal payload* (ground mobile system) (Up to / kg)	30	15	40	•	•	20	20
Position accuracy	Azimuth ≤ 0.01°	Azimuth ≤ 0.05° Elevation ≤ 0.01°	≤ 0.01°	≤ 0.01°	≤ 0.01°	≤ 0.01°	≤ 0.01°
Angular speed (up to °/sec)	180	60	60	115	115	120	120
Angular acceleration (up to °/sec ²)	200	60	90	115	115	150	150
Physical characteristics							
Dimensions (L x l x H in mm)	550 x 220 x 290	320 x 165 x 385 (without arm)	285 x 230 x 535 (with bridge)	Ext φ 379 x 365 Intrusion φ 120 x 135	Ext φ 379 x 365 Intrusion φ 120 x 135	Diameter 530 x 540	Diameter 530 x 540
Weight (kg)	18	< 13	< 25	< 25	< 25	< 46	< 46

Line-Of-Sight
Cyrostabilization

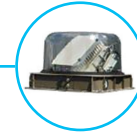


Key benefits

- Off-the-shelf turrets and tailor made
- ITAR-free
- Standard communication protocol
- Harsh environment and combat-proven

TAILOR-MADE SOLUTIONS

Operating in vast stretches of mountains and rugged valleys is a challenge when it comes to maintaining satellite communications. In Afghanistan, iXblue brought its gyrostabilization expertise to Thales Communication and Security to deliver over 30 hybrid orientation systems: including an Antenna Control Unit (ACU) and a positioner, the challenge was to create a perfect mechanic and electronic symbiosis able to ensure the beam pointing around the azimuthal axis with high bandwidth and low friction



On-the-move satellite communication with iXblue positioning system operating in the French army. Courtesy of Thales.

OEM EQUIPMENT

Motion Controllers and Servo-Drive Units

This series of rugged Motion Controllers and servo-Drive Units provide position, rate and gyrostabilization for two axis platforms. The MCDU family is based on modular architecture with filter boards, controllers and servo-drive units compatible with a wide range of motors (DC, BLDC or BLAC type).

Communication is ensured by serial link and iXlink protocol at refresh rate up to 1 kHz. Reliability and long lifetime with short circuit, over speed, temperature limit, position/rate/acceleration limits.

The control algorithms are based on the latest iXblue developments protected by several patents.



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