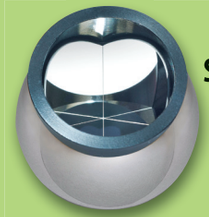
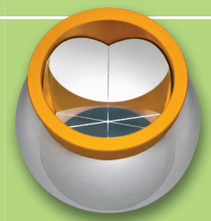


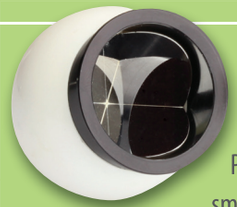
Stainless Steel Ball Mounted Hollow Retroreflectors™

PLX BMRs can significantly improve the performance of all laser-tracking systems. BMR's are available in 2 centering accuracies: within .0005" and within .0001" and are manufactured in three different diameters: 1½", ⅞" and ½". They are compatible with laser-tracking systems from all manufacturers. Now available, our all metal Durable Ball Mounted Hollow Retroreflectors (DBMRs).



All metal break resistant Durable Ball Mounted Retroreflectors (DBMRs)

PLX's high accuracy (DBMRs) offer increased durability and is designed to work in demanding environments. They have been successfully drop-tested on concrete from a height of 6 feet. Our new DBMRs are available in 1.5" diameter and two centering options (0.0001" and 0.0005"). They are compatible with laser-tracking systems from all manufacturers.



Ceramic Ball Mounted Hollow Retroreflectors™

PLX Ceramic NMBMR's are lighter, smoother, corrosion and electrically resistant, with low thermal conductivity. NMBMR's are available in 2 centering accuracies, within .0005" and within .0001", and are manufactured in 1½", ⅞" and ½" diameters. They are compatible with all laser-tracking systems.

PLX provides unique optical instruments, technologies, and solutions to problems of achieving and maintaining state-of-the-art optical accuracy and stability under severe environmental conditions.

PLX is a registered ISO 9001 company and is fully compliant with ISO requirements. We design and manufacture products that meet demanding Military Specs.

Our extensive in-house manufacturing and environmental testing facilities, performance testing capabilities and state-of-the-art optical analysis equipment provide total quality management and accountability.

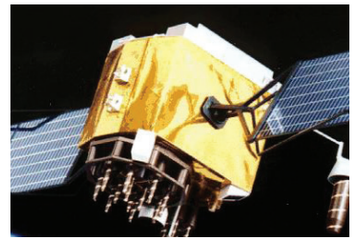
PLX products and systems are available in a wide variety of materials, mirror coatings, special metals, sizes, and configurations or can be customized to fit your specific requirements.

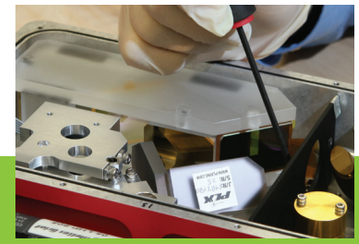
PLX
INNOVATIVE OPTICAL SYSTEMS

PLX Inc. 40 W. Jefryn Blvd.
Deer Park, NY 11729
Tel: 631.586.4190
Fax: 631.586.4196
www.plxinc.com
e-mail: info@plxinc.com

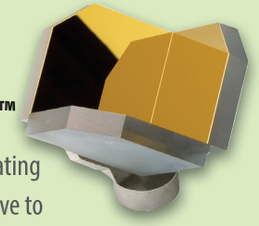
PLX

PRODUCTS AT A GLANCE



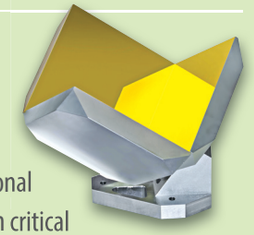


You'll find PLX instruments in MILITARY, AEROSPACE and COMMERCIAL/ INDUSTRIAL APPLICATIONS, as well as University Research and Science Labs around the world.



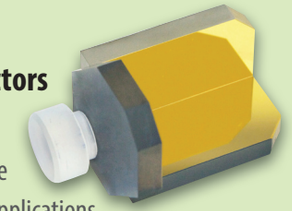
The Hard-Mounted Hollow Retroreflector™

The HMHR is a self-compensating mirror that is totally insensitive to position and movement, such as tilt. Parallel incident light that hits the HMHR will be returned with great accuracy to the light source, regardless of the HMHR's physical orientation. It can be coated for maximization over a spectral range, from UV to far IR.



The Ultra Stable Hard-Mounted Retroreflector™

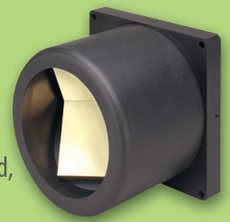
The USHM provides exceptional performance and stability in critical applications, such as military, aerospace or any OEM requirements. It is vacuum compatible and can be positioned about the permanently connected post in any orientation, providing greater freedom for different mounting configurations.



LPR-Series Low Profile Retroreflectors

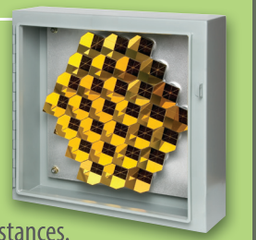
The USHM provides exceptional performance and stability in critical applications, such as military, aerospace or any OEM requirements. It is vacuum compatible and can be positioned about the permanently connected post in any orientation, providing greater freedom for different mounting configurations.

Omni Wave Hollow Retroreflector™



The OWHR has a unique, patented, cushion mounting, making it extremely resistant to shock. It is provided in a versatile housing which is compatible with all major mounting systems. Parallel incident light that hits the OWHR will be returned with great accuracy to the light source, regardless of its physical orientation.

Hollow Retroreflector Arrays™



PLX HRA's are perfect for modern FTIR long-path spectroscopy over a wide spectral range and long distances. They provide high quality wave fronts for perfect parallelism between incoming and outgoing beams and high-efficiency returns. They can be designed in various sizes and with various mirror coatings.

Modernized Boresight Module

The Modernized Boresight Module, designed by Lockheed Martin and manufactured by PLX, allows simultaneous viewing of multiple lines of sight under harsh environmental conditions. This updated capability enables the user to verify the alignment of the hardware's optical axis and its aiming device with sub-arc second accuracy.

Lateral Transfer Hollow Periscope™

The LTHP produces one output beam parallel to the input beam, and can produce two output beams if a beam splitter is used. In applications when the LTHP is vibrated, the exiting beam remains static and maintains critical parallelism with the entrance beam. The beam deviation can be as accurate as one arc second.

Lateral Transfer Hollow Retroreflector™

The LTHR is perfect for folding parallel light 180° degrees and displacing it to any given distance. It's an ideal solution for "U" fold in a large size Michelson interferometer or back-to-back configurations for folding interferometers. The LTHR can be accurate to one arc second and is extremely temperature stable.

Rotary Movement Device™ for LTHP and LTHR combinations

The RMD is for applications where the major beam must be aligned with two or more other optical axes or where a multiple configuration of LTHR's and LTHP's is required. Beam position can be constantly adjusted.

Beam Splitters & Windows

PLX Beam Splitters are an integral part of Boresighting systems that need to manage the direction of multiple beam paths. Available in 1 and 1.5 inch clear apertures with flatness of up to λ/20, and surface parallelism of one arc-second and surface quality of 80-50 or better.

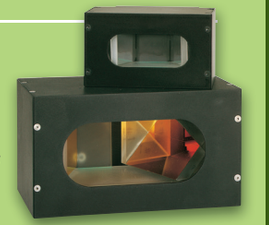
PLX Monolithic Interferometer

The PLX Monolithic Interferometer was developed with PLX's Monolithic Optical Structure Technology (M.O.S.T.™). This technology combines all of the elements of a complex optical setup into a single monolithic unit. It is especially useful in broadband light applications such as FTIR and is permanently aligned so it never needs adjustment.

Hollow Roof Mirrors™

The HRM can be used in almost every application where a roof or porro prism can be used. Because the optical path is in air, there is no refraction nor any reflecting front prism surface. It is also insensitive to tilt or misalignment in one coordinate. Useful in all wavelengths, HRMs are available with different accuracies and reflective coatings, and in custom configurations.

Hollow Penta Mirror and Penta Roof Assemblies



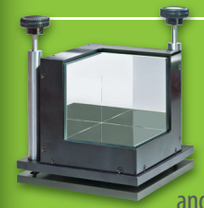
PLX Penta Mirrors and Penta Roof Mirror Assemblies provide the performance of a Penta prism with more control of wavelength transmission. Invariant assembly permits movements without compromising deviation or accuracy. Both are available in ½", 1" and 2" clear aperture, with accuracies better than 1 arc sec.

All-In-One Autocollimator and Alignment Telescopes

The new ACT-25 and ACT-HR multi-function instruments represent the latest advancement in Autocollimator technology. These high-accuracy instruments are capable of resolution down to a fraction of an arc second. Their primary application is to detect and measure small angular deviations. Both units come with a full-featured software suite. They are designed for use in tool rooms, inspection departments and quality control laboratories.

Cooperative targets Cooperative targets add to the functionality of our ACT-25 autocollimator. Combined with the automatic data recording, the use of the cooperative target can simplify linear deviation measurements.

PLX Tool Cube



Designed for setting up optical axes or intuitive alignment of equipment and instruments at right angles to each other or parallel to each other. They are Typically used with two or more lasers or autocollimators to establish orthogonal axes. The PLX Tool Cube is mounted in a housing that includes two adjustment knobs for leveling/aligning the tool cube.