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™

Ideal for redirecting light in one coordinate, the HRMR can be used in almost every application where a "roof top" or porro prism can be used. Because the optical path is in air, there is no refraction and there is no reflecting front prism surface. It is also insensitive to tilt or misalignment in one coordinate.

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.

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 highefficiency returns. They can be designed in various sizes and with various mirror coatings.

All-In-One Autocollimator and Alignment Telescopes

The new ACT-25 and ACT-HR multifunction 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 and

with a full-featured software suite. They are designed for use in tool rooms, inspection departments and quality control laboratories.

You'll find PLX instruments in Military, Aerospace and Commercial/Industrial applications, as well as University Research and Science Labs around the world.



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PLX PRODUCTS at a Glance

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.





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.

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.



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: 11/2", 7/8" and 1/2". They are compatible with laser-tracking systems from all manufacturers. Also available, our new, all metal break resistant Durable Ball Mounted Retroreflectors (DBMRs).

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", 7/8" and ½" diameters. They are compatible with all laser-tracking systems.

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. This can be achieved by the use of the RMD to attach two or more instruments at their respective entrance and exit apertures. Beam position can be constantly adjusted.

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 $\frac{1}{2}$, 1" and 2" clear aperture, with accuracies better than 1 arc sec.





