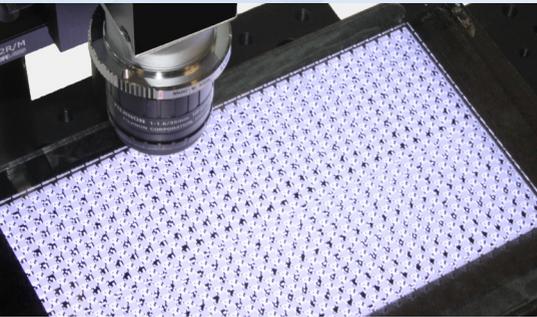


X, Y, θ Position Calibration Plate: nanoGPS Oxyo™

For Machine Vision and Microscopy

Available as OEM or Stand-Alone
Solution From HORIBA Scientific



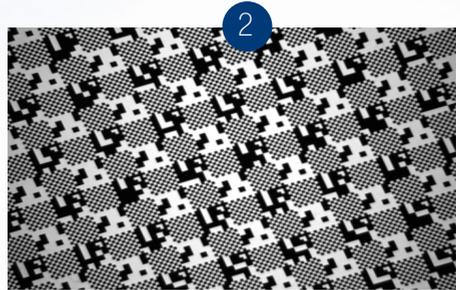
Powered by:
nanoGPS Technologies



Get Your Position in a **SNAPSHOT:** down to μm or nm scale



Place the patterned substrate in the field of view of camera or microscope



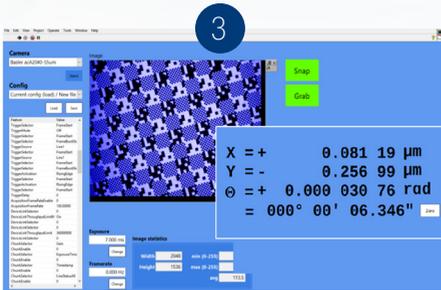
Take a snapshot

Key Features

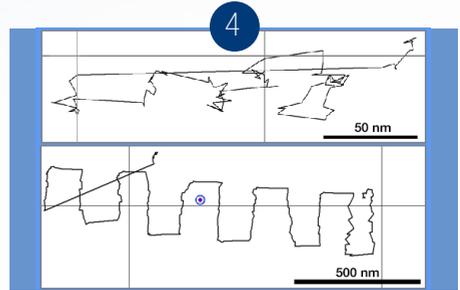
- Snapshot determination of 3 absolute coordinates
- Repositioning accuracy in the nm range (x, y) and 10 μrad (θ)
- Easier to deploy and cheaper than a laser interferometer system
- Based on your existing image acquisition system
- Can be easily installed/disinstalled, i.e. for verification or calibration operations
- Can be used as an upgrade or retrofit of existing stage assemblies
- In the case of a planar stage + rotation stage assemblies: cheaper and more accurate than conventional optical scale solutions
- Coded zone: ranging from 3 mm x 3 mm to 300 mm x 300 mm or more.

Using Breakthrough nanoGPS OxyO™ Technology

nanoGPS OxyO™ technology is based on taking a picture of a patented patterned substrate, and interpreting this picture into position (x, y) and orientation (θ).



Apply the nanoGPS OxyO™ software to interpret the snapshot into the position and orientation



Define movement and record actual itinerary

Typical Use Cases

- Provides reliable overnight automation (repositioning accuracy less than 10nm)
- Detects and solves positioning issues in a microscope (stability of the mount, perturbation by the lab environment, accuracy of a moving stage)
- Adds to Machine Vision the capability to determine trajectories, positioning accuracy and reproducibility
- When moving a part between 2 machines, allows precise repositioning of the part in each machine

This Absolute Encoder is Made for You

- All actors of position sensors value chain (end-users, integrators, distributors, but also manufacturers of position sensors looking for addition to their catalogue)
- Individual users in industry or academia

Contact Us

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HORIBA Scientific is one of the top five companies in the world for optical and analytical instrumentation. With an entire division dedicated to OEM projects, HORIBA Scientific is also a world-leading state-of-the-art manufacturer for OEM diffraction gratings and OEM spectrometers for industrial markets for more than 40 years.

The OEM team supports customers projects from scratch to success over the lifetime of the product. Our strong optical background allows us to build fully custom design based on customers specifications and optimized for cost reduction, robustness improvement and high volume production compatibility.

