

## Nanomotion Unveils NanomotionATOM™ for Advanced Semiconductor Manufacturing

Trademarked technology enables ultra-fast, stable motion control for next-generation tools in the Angstrom Era

**Ronkonkoma, New York** (December 16, 2025) – Nanomotion, a leading provider of advanced motion solutions, is proud to announce NanomotionATOM $^{\text{TM}}$  — a new trademarked motor technology that is powering piezoelectric motion solutions. This innovation marks a significant breakthrough for OEMs by enabling ultra-precise motion control for Angstrom-level semiconductor manufacturing tools.

NanomotionATOM empowers unprecedented speed, stability, and responsiveness in Nanomotion's motion stages, needed for advanced semiconductor OEMs. This advanced motion control is driving semiconductor innovation, enabling tools, such as SEMs, wafer inspection and lithography, to meet the demands of shrinking geometries and tighter process windows.

Its vacuum-compatible design ensures clean operation in ultrahigh vacuum environments, minimizing contamination that may cause outgassing. This makes it ideal for SEM applications and other inspection metrology tools in semiconductor fabs.



"NanomotionATOM is more than a motor technology. It's a platform for innovation," said President of Nanomotion Alan Feinstein. "By enabling Angstrom-level positioning and dynamic sample manipulation in our motion systems, we are helping the industry meet the challenges of advanced manufacturing and beyond."

The technology's ability to support multi-axis, rapid movement with minimal settling time enables complex analyses and dynamic sample manipulation, critical for semiconductor applications. Advantages include:

- Rapid movement across X, Y, and Z axes, rotation and tilt for complex sample positioning and inspection tasks
- Compatibility with vacuum operating environments that need controlled production processes
- Sub-nanometer-level accuracy and stability to decrease drift and increase precision

Visit <a href="https://www.nanomotion.com/sem-whitepaper/">https://www.nanomotion.com/sem-whitepaper/</a> to learn more about how Nanomotion's precision stages are enabling the Anstrom Era with NanomotionATOM or see live demos of the motion solutions at SPIE Photonics West, booth 663.

## **ABOUT NANOMOTION**



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Nanomotion, a leader in advanced motion systems and subsystem modules, is a subsidiary of Johnson Electric. With a diverse product portfolio that includes motors, drivers, controllers, standard and custom stages, Nanomotion serves market leaders in critical industries such as semiconductors, biomedical and optronics. Headquartered in Yokne'am Illit, Israel, with an additional office in Ronkonkoma, New York, the company has been at the forefront of providing high-precision and reliable motion control solutions since its founding in 1992. Nanomotion remains committed to advancing the field of motion systems and delivering unparalleled performance for its customers.

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