



Intel Foundry and ASML Collaborate to Accelerate Industry Readiness for High NA EUV

MONTEREY, Calif.--(BUSINESS WIRE)-- This week at the SPIE Photomask Technology + Extreme Ultraviolet Lithography conference, Intel Foundry and ASML highlighted continued progress in bringing High Numerical Aperture (High NA) Extreme Ultraviolet (EUV) lithography into production and advancing the technologies that will shape its future adoption.

Specifically, Intel Foundry and ASML shared the following updates:

- **High NA continues to be used in high-volume manufacturing production at Intel Foundry today**, with more than one million wafers processed to date across early tool certification and testing, research and development efforts, and volume production on select layers for a subset of Intel® Core™ Ultra Series 3 processors, code-named Panther Lake. Overlay, throughput and availability are meeting Intel Foundry's expectations.
- **Products manufactured on Intel 18A using High NA for select layers continue to deliver performance** that meets or exceeds comparable layers patterned using the NXE platform (EUV with numerical aperture of 0.33).
- **Customers can realize the benefits of High NA** using the industry's current mask format, either by floor-planning within the 6-inch mask or by utilizing Intel Foundry's stitching capabilities and process design kit (PDK) solutions.
- **For more than three years, Intel Foundry has championed the large mask format initiative to align the mask ecosystem**, working closely with ASML, mask makers, automation suppliers, EDA partners, materials providers, and semiconductor manufacturers to advance the standards, infrastructure, and technology needed to support future High NA scaling.

"Intel Foundry has been one of the key leaders of the industry's adoption of High NA, from installing the first commercial EXE system in 2024, to qualifying the latest generation of tools, to shipping the first high-volume logic product manufactured with High NA," said Christophe Fouquet, president and CEO, ASML. "ASML recognizes Intel Foundry's pioneering role in High NA and its innovations to deliver value today with 6-inch masks, as well as its long-time support of the 6x12-inch mask evolution."

"The companies building the increasingly complex AI products of the future need manufacturing innovations that are production-ready and easy to use," said Naga Chandrasekaran, Intel Executive Vice President and Co-General Manager of Intel Foundry. "Within our lithography capabilities, Intel Foundry is focused on near term enablement of High NA on 6-inch masks with or without stitching, and making the transition to 6x12-inch

masks. We will continue to work closely with ASML and the entire industry to enable this transition.”

Intel Foundry and ASML are building on years of collaboration to bring together the lithography ecosystem around larger-format masks, helping drive standards, infrastructure, and technology advances needed to support future High NA EUV scaling. Working alongside mask makers, automation suppliers, EDA partners, materials providers, and semiconductor manufacturers, the companies have helped establish the industry's path to larger-format masks while enabling customers to realize the benefits of High NA EUV today.

Presentations at SPIE Photomask Technology + Extreme Ultraviolet Lithography

This week at the SPIE Photomask Technology + Extreme Ultraviolet Lithography conference, Intel Foundry and ASML will share updates on reticle stitching, a technique that enables designers to use High NA EUV with today's standard 6-inch masks. ASML's Jan van Schoot will present "Scanner and mask requirements to support half field stitching" on Tuesday, September 8 at 11:00 a.m. Pacific time, followed by Intel Foundry's Kimberly Pierce, who will present "High NA EUV: stitching for manufacturing" at 11:20 a.m. in the same session.

About Intel

Intel (Nasdaq: INTC) designs and manufactures advanced semiconductors that connect and power the modern world. Every day, our engineers create new technologies that enhance and shape the future of computing to enable new possibilities for every customer we serve. Learn more at [intel.com](https://www.intel.com).

About ASML

ASML is a leading supplier to the semiconductor industry. The company provides chipmakers with hardware, software and services to mass produce the patterns of integrated circuits (microchips). Together with its partners, ASML drives the advancement of more affordable, more powerful, more energy-efficient microchips. ASML enables groundbreaking technology to solve some of humanity's toughest challenges, such as in healthcare, energy use and conservation, mobility and agriculture. ASML is a multinational company headquartered in Veldhoven, the Netherlands, with offices across EMEA, the US and Asia. Every day, ASML's more than 44,000 employees (FTE) challenge the status quo and push technology to new limits. ASML is traded on Euronext Amsterdam and NASDAQ under the symbol ASML. Discover ASML – our products, technology and career opportunities – at www.asml.com.

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