



## Photronics and Sigma-C Announce Strategic Alliance to Bolster Lithography Plane Integration Initiative

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BROOKFIELD, Connecticut and MUNICH, Germany - Sept. 15, 2004 - Photronics Inc., (Nasdaq: PLAB) a leading global photomask supplier, and SIGMA-C GmbH, announced today that they have entered into a strategic technology agreement. The two companies will combine respective technologies to strengthen Photronics' Integrated Lithography Plane (ILPSM) initiative, providing design and mask integration support to semiconductor companies transitioning to the 65nm and 45 nm technology nodes.

Under the agreement, Photronics gains preferred partner access to SIGMA-C's portfolio of world-class lithography simulation software tools along with strategic input on software development objectives that advance the Photronics ILPSM program. Within ILPSM related customer engagements, Photronics will deploy SIGMA-C tools to anticipate and understand the implications of the entire photomask process on advanced lithography integration options. In addition, Photronics will also have first access to early releases of new products, including SOLID-E, SIGMA-C's flagship platform introduced at SEMICON West 2004. "Photronics' commitment to global deployment of state-of-the-art simulation tools within our ILPSM program is based on the need to understand early how our mask technologies perform under conditions of strong resolution enhancement," said Dr. Christopher J. Progler, Photronics' Chief Technology Officer. "Moreover, adoption of immersion lithography and 193nm extensions through the 45nm node will drive a new class of mask interactions in the chip design and lithography imaging processes. We look forward to working with SIGMA-C to address these manufacturability challenges and provide a competitive advantage to our customer base." Bob Naber, SIGMA-C's director of technical marketing, added, "A strategic alliance with a company of Photronics' stature enables SIGMA-C to bring our unique technology to the forefront of the lithography community. As the industry marches toward the 45nm node, design-for-manufacturability will increasingly rely upon creative and efficient simulation solutions. We believe SIGMA-C's closer association with the mask fabrication community will highlight the advantages we have to offer and provide further support to future node transitions."

The enhanced capability in 3D-topography simulation of SIGMA-C's latest release of SOLID-C V6.5 was a particularly important factor in the software adoption by Photronics. SOLID-C V6.5 suite offers accelerated mask topography simulation as well as a new, efficient approach to improving wafer topography simulation speed. The new approach is a smart decomposition of the full simulation, a combination of Real Exposure over Non-topography and Flood Exposure over Topography (RENFT). That technology was announced on Sept. 13, "SIGMA-C and Fraunhofer IISB announce breakthrough in photomask and wafer topography simulation". [http://www.sigma-c.com/pressrelease/press\\_release\\_solid\\_v6.5\\_040913.pdf](http://www.sigma-c.com/pressrelease/press_release_solid_v6.5_040913.pdf)

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### About SIGMA-C

SIGMA-C is a leading provider of applied simulation software that models semiconductor fabrication from design to manufacture. SIGMA-C's product portfolio includes engineering tools, such as optical lithography simulation software, as well as production tools for full-chip data preparation, e-beam lithography, optical proximity correction and data analysis. The company's advanced simulation software allows users to optimize processes prior to actual production. This can significantly improve product yields, cycle times and equipment utilization rates. All leading-edge semiconductor manufacturers use SIGMA-C's tools. Founded in 1987, SIGMA-C is headquartered in Munich, Germany, with a U.S. subsidiary in Santa Clara, Calif. The company maintains a Web site at [www.sigma-c.com](http://www.sigma-c.com).

### About Photronics

Photronics is a leading worldwide manufacturer of photomasks. Photomasks are high precision quartz plates that contain microscopic images of electronic circuits. A key element in the manufacture of semiconductors and flat panel displays, photomasks are used to transfer circuit patterns onto semiconductor wafers during the fabrication of integrated circuits. They are produced in accordance with circuit designs provided by customers at strategically located manufacturing facilities in Asia, Europe, and North America. Additional information on the Company can be accessed at [www.photronics.com](http://www.photronics.com). ILP is a service mark of Photronics, Inc.

"Safe Harbor" Statement under the Private Securities Litigation Reform Act of 1995: Certain statements in this release are considered "forward looking statements" within the meaning of the Private Securities Litigation Reform Act of 1995. All forward-looking statements involve risks and uncertainties. In particular, any statement contained in this release regarding the consummation and benefits of future acquisitions, expectations with respect to future sales, financial performance, operating efficiencies and product expansion, are subject to known and unknown risks, uncertainties and contingencies, many of which are beyond the control of the Company. These factors may cause actual results, performance or achievements to differ materially from anticipated results, performances or achievements. Factors that might affect such forward looking statements include, but are not limited to, overall economic and business conditions; the demand and receipt of orders for the Company's products; competitive factors in the industries and geographic markets in which the Company competes; changes in federal, state and foreign tax requirements (including tax rate changes, new tax laws and revised tax law interpretations); the Company's ability to place new equipment in service on a timely basis; interest rate fluctuations and other capital market conditions, including foreign currency rate fluctuations; economic and political conditions in international markets; the ability to obtain a new bank facility or other financings; the ability to achieve anticipated synergies and other cost savings in connection with acquisitions and productivity programs; the timing, impact and other uncertainties of future acquisitions and investments; the seasonal and cyclical nature of the semiconductor industry; the availability of capital; management changes; damage or destruction to our facilities by natural disasters, labor strikes, political unrest or terrorist activity; the ability to fully utilize its tools; the ability of the Company to receive desired yields, pricing, product mix, and market acceptance of its products; changes in technology; and other risks and uncertainties set forth in the Company's SEC filings from time to time. Any forward-looking statements should be considered in light of these factors. The Company assumes no obligation to update the information in this release.

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