



## **Corporate Research & Development Centers Accelerate Photronics' Ability to Provide Leading Edge Technology**

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Corporate Research & Development Centers Accelerate Photronics' Ability to Provide Leading Edge Technology BROOKFIELD, Connecticut May 4, 2005 -- Photronics, Inc. (Nasdaq:PLAB), a worldwide leader in supplying innovative photomask-based imaging solutions for the global electronics and display industries, formally announced today its strategy to drive advanced photomask R&D through a network of Global Corporate Research & Development Centers. Photronics' photomask R&D center in Austin, Texas and the recently launched Photronics-PKL R&D Center in Cheon-an, Choong-nam, Korea are working with a diverse range of committed customers as they develop next generation fabrication processes to manufacture high performance integrated circuit products down through the 45 nanometer node. The Austin R&D Center is scheduled to begin 65 nanometer qualification in 2005 and has launched the infrastructure options sorting phase for 45 nanometer technology. The new Corporate R&D Center in Korea is being tasked with developing 65 nanometer and 45 nanometer mask technologies required by customers located primarily in the Asia region. Additionally, the Korean Corporate R&D Center will be developing flat panel display (FPD) masks used to fabricate TFT-LCD products using Generation 7 and beyond processes. Photronics' Global Corporate R&D Centers will also support the development and application of custom imaging solutions to address emerging opportunities in imprint lithography and nanotechnology.

The Global Corporate R&D Centers are also essential in further developing Photronics' Integrated Lithography Plane (ILPTM) initiative, through mask technology integration at its Centers in Asia, Europe and North America. "The Global Corporate R&D Center strategy is designed to focus our resources so that we can fully anticipate the needs of our most demanding technology customers in areas of semiconductor mask technology, FPD masks for TFT-LCD products, and in support for advanced mask integration initiatives. This is particularly critical as the semiconductor industry transitions into their 65 nanometer and 45 nanometer programs and the FPD industry migrates toward Generation 7 processes, both of which require increasingly more challenging mask solutions," commented Photronics' Chief Technology Officer, Christopher Progler, PhD. He added, "When a strategic supplier is supporting customers in rapidly changing technology markets, customer success, and ultimately the supplier's success, becomes increasingly dependent upon reducing the cycle time of technology development and early manufacturing. By maintaining our strong Global Corporate R&D Center footprint and further expanding our emphasis in Asia, Photronics continues to build the most flexible and customer focused R&D network in the photomask industry."

Constantine "Deno" Macricostas, Chairman and Chief Executive Officer added, "Photronics' ability to deliver innovative technology within the shortest possible cycle and with the greatest efficiency provides our customers with an important advantage in the global marketplace. In strategically aligning Photronics' technology roadmap with those of our customers, we gain additional momentum through our world class service organization as these customers move from development and into early yield." He added, "The Photronics R&D team is now positioned to think globally and act locally in developing customized next generation solutions. We are encouraged by our earliest successes, in both IC and FPD masks, as well as in supporting the emergence of imprint imaging applications by fabricating template masks. FPD masks for flat panel display applications, represents the biggest near-term growth market that the Company has seen in many years. Our strategy has resulted in great success, expanding our ability to bring innovative mask technology solutions to flat panel display customers in Korea and Taiwan."

Financial details were not disclosed in connection with Photronics' Global Corporate R&D Center program. The Company's R&D investments, particularly over the past several fiscal years, have been invested primarily in support of semiconductor customers developing 90 nanometer and below technologies. Many of these activities have enabled the Company to broaden its core competencies, which have been easily applied in several emerging markets. Mr. Macricostas noted, "With the installation of the latest manufacturing technology last year, we have shifted our attention to providing 65 nanometer and 45 nanometer programs, as well as now supporting FPD mask solutions for Generation 7 display customers. For the first time in our history, Photronics has a wide open opportunity to establish itself as the mask supplier with the process of record for these nodes with multiple customers. The R&D team now has the ability to position Photronics ahead of its competitors and really leverage the global service infrastructure and culture the Company has built over the past decade."

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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, 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).

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