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KLA-Tencor Extends Wafer Plane Inspection Advantages to All Reticle Types

MILPITAS, Calif.--(BUSINESS WIRE)--

Today KLA-Tencor Corporation (NASDAQ: KLAC) introduced the die-to-database version of its latest mask inspection technology, Wafer Plane Inspection(TM) (WPI). WPI allows leading-edge logic and foundry mask makers to concurrently detect defects on the mask and assess whether the defects are likely to print on the wafer. For the first time, this capability is available for single-die reticles and multiple-die reticles with non-repeating fields.

"Several applications will benefit from WPI's new die-to-database capability," noted Zain Saidin, chief engineering officer and general manager of KLA-Tencor's Reticle and Photomask Inspection Division. "High-end graphics chips and high-end programmable devices tend to be manufactured on single-die reticles because the chips are so large. Photomasks containing different chips for multiple customers are often utilized by foundries as a means of improving efficiency. To facilitate faster learning during development, mask makers place multiple versions of a die on a single reticle. Finally, some defects repeat in the same location of every die. Die-to-die and cell-to-cell modes don't work in these situations. With die-to-database capability, WPI enables detection of printable defects on all reticles--not just those with repeating structures."

The unparalleled resolution of the images generated by KLA-Tencor's TeraScan reticle inspection system allows WPI to calculate not only how the light illuminates the top surface of the photoresist on the wafer (the 'aerial-plane image'), but also how the photoresist responds (the 'wafer-plane image'). The wafer-plane image more accurately predicts which defects are likely to print on the wafer.

Photomask makers in Taiwan, Japan and the United States have installed WPI on their TeraScan inspection systems, and have benefited from its power to accelerate mask development, production and qualification. WPI's new die-to-database capability is part of a broad portfolio of products from KLA-Tencor designed to address the metrology and inspection issues of advanced patterning.

About KLA-Tencor: KLA-Tencor Corporation is the world's leading supplier of process control and yield management solutions for the semiconductor and related microelectronics industries. Headquartered in Milpitas, Calif., the company has sales and service offices around the world. An S&P 500 company, KLA-Tencor is traded on the NASDAQ Global Select Market under the symbol KLAC. Additional information about the company is available at <http://www.kla-tencor.com> (KLAC-P).

Wafer Plane Inspection is a trademark of KLA-Tencor Corporation.

Source: KLA-Tencor Corporation