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GIGAPHOTON DEMONSTRATES THE HIGHEST EFFICIENCY IN CREATING EUV LIGHT

Company to Deliver Latest Breakthroughs Designed to Further Enable EUV Lithography

OYAMA, JAPAN — February 28, 2011 — Gigaphoton Inc., a major lithography light source manufacturer, today announced that the company has demonstrated the highest conversion efficiency (CE) in producing extreme ultraviolet (EUV) light from tin plasma – a major milestone leading to a highly efficient and cost effective source. The company also stated its new EUV factory came online a year ago. Gigaphoton’s first commercial system has been built, is in integration testing and will ship later this year.

The demonstrated CE is 3.3% percent, marking the highest figure ever reported on small tin droplets. The droplets are less than 20 µm (micrometers) in diameter. This advanced performance is a direct result of the company’s unique design concept to use a short-wavelength laser “pre-pulse” before the main laser irradiates the target droplet. This achievement demonstrates proof of concept of Gigaphoton’s engineering approach to a high power EUV light source, while maintaining clean operation within the chamber/vessel. Details of the breakthrough will be presented at the 2011 SPIE Advanced Lithography Conference—a premier, annual conference for advanced lithography technology. These published results further demonstrate the effectiveness of Gigaphoton’s enabling EUV light source technology. The 2011 SPIE Advanced Lithography Conference and Exhibition will be held February 27-March 3 at the San Jose Convention Center, San Jose, Calif.

One of the biggest challenges facing EUV lithography tools is the ability to achieve scalable, high output power, critical to high-volume production applications, while maintaining low cost of operation with superior tin debris mitigation. As a result of years of development work in laser produced plasma (LPP) EUV technology, Gigaphoton is able to present this major breakthrough in high CE as well as production readiness of its first commercial source shipping this year. This work is a continuation of Gigaphoton’s successful development and

fielding of the GigaTwin, a laser for ArF immersion, the industry's working solution until EUV technology becomes mainstream.

"The success of this combination of technologies validates Gigaphoton's expertise in developing solutions that overcome critical industry obstacles to further ensure the adoption of EUV lithography," said Dr Yuji Watanabe, president of Gigaphoton. "The company is poised to tackle the EUV market head-on. To this end, we continue to aggressively invest in our infrastructure, while simultaneously ramping operations within our state-of-the-art factory for EUV light source production. As a result, Gigaphoton is strategically positioned to take advantage of the myriad opportunities provided by EUV lithography."

Members of the press that would like to schedule a meeting with Gigaphoton's executives during the conference may contact Angie Kellen at: akellen@mcapr.com or phone: 650-968-8900 ext. 120; otherwise, the media are encouraged to drop by Gigaphoton's Booth #119 or attend any of the paper presentations listed below.

Oral Presentations at SPIE Advanced Lithography Conference

100W 1st generation laser-produced plasma source system for HVM EUV lithography

Tuesday, March 1 at 8:00 a.m.

Paper 7969-7 of Conference 7972

Ecology and high-durability injection locked laser with flexible power for double-patterning ArF immersion lithography

Thursday, March 3 at 5:10 p.m. – 5:30 p.m.

Paper 7973-55 of Conference 7973

Paper Presentations at SPIE Advanced Lithography Conference:

Characterization and optimization of tin particle mitigation and EUV conversion efficiency in a laser-produced plasma EUV light source

Wednesday, March 2 at 6:00 p.m.

Paper 7969-100 of Conference 7969

Development of the reliable 20-kW class pulsed carbon dioxide laser system for LPP EUV light source

Wednesday, March 2 at 6:00 p.m.

Paper 7969-99 of Conference 7969

About Gigaphoton

Since its foundation in 2000, Gigaphoton develops and delivers user-friendly, highly-performing DUV laser light sources used at major semi-conductor chipmakers around the world. Today, Gigaphoton ArF and KrF technology leads the Pan-Asian DUV laser market and continues to expand throughout the US and European regions.

As semiconductor manufacturers continue their progress toward next-generation devices, Gigaphoton's unique and innovative LPP EUV technology solutions will lead the way to a cost effective, highly productive lithography source for high volume production. With a global business outlook, Gigaphoton strives to be the semiconductor industry's preferred lithography light source provider, focusing on end-user needs in every phase of its business from research and development to manufacturing to best-in-class reliability and world class customer support.

More information about Gigaphoton can be found on the company's website at <http://www.gigaphoton.com>.

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