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SAN JOSE, Calif., July 22, 2002—Novellus Systems, Inc. (Nasdaq:NVLS), the productivity and innovation leader in advanced deposition and surface preparation technology for the global semiconductor industry, today introduced a pair of 300-mm surface preparation tools—the GAMMA ™ 2130 photoresist removal system and the SIERRA ™ advanced dry clean system. The two new systems deliver dramatic improvements in cost of ownership (CoO), productivity and reliability over existing market offerings, with extendibility to the 65-nm node.

In today's 300-mm fabs, there are up to 30 process steps that require photoresist and residue removal. Approximately half of these are front-end processes. The remainder are back-end-of-line (BEOL) steps that increasingly incorporate copper dual-damascene technology for advanced interconnects. With so many process steps requiring surface preparation, the capital equipment used for this operation must deliver low CoO, high net throughput and reliability, as well as extendibility to multiple device generations.

"Changes in semiconductor manufacturing have created two distinct types of surface preparation applications to satisfy both front-end and back-end process needs," said Asuri Raghavan, executive vice president of Novellus' Surface Integrity Group. "Each of these new 300-mm systems from Novellus has been designed to meet one of those specific needs. The GAMMA 2130 addresses the high productivity, low cost requirements of front-end-of-line (FEOL) applications, while the highly configurable design of SIERRA makes it well-suited for critical BEOL cleans. This dual-platform surface preparation approach follows the Novellus strategy of delivering the optimal level of technology required for a particular application at the highest level of capital productivity possible."

The GAMMA 2130 system is designed for FEOL photoresist strip, where high productivity and low CoO are prime considerations. Featuring a MultiStation Sequential Processing (MSSP) architecture that incorporates six stations within a single process chamber, the GAMMA 2130 can remove both the low-dose and the more challenging high-dose implanted photoresist at a 30 percent higher throughput rate than its nearest competitor. By virtue of its very simple design, the high productivity and high reliability of GAMMA contribute to a CoO that is as much as 25 percent lower than that of competing tools. The system is the first robust, production-worthy 300-mm FEOL strip system available on today's market.

SIERRA is an advanced dry-clean system that delivers photoresist and residue removal capabilities for the more advanced post-etch BEOL applications. As semiconductor manufacturing migrates to copper metallization and low-k dielectrics, traditional surface preparation approaches become increasingly problematic. For instance, conventional strip and wet-clean processes applied to low-k dielectric films can lead to critical dimension (CD) changes in the line or via, as well as shifts in the effective k-value of the film. The SIERRA system is designed specifically to address these new and intricate cleaning challenges. The tool incorporates a dual-plasma source that delivers the process and operational flexibility required to perform advanced cleans on a variety of low-k dielectric materials without damaging these underlying exposed films. Leveraging the production-proven 200-mm PEP IRIDIA ™ technology used by integrated circuit manufacturers for sub-180-nm devices, SIERRA is extendible to the 65-nm node. The tool yields 25 percent higher capital productivity and 25 percent lower CoO than competing dry-clean systems.

The GAMMA 2130 and the SIERRA are in qualification or pilot production at leading logic and DRAM semiconductor manufacturers. Volume shipments are expected to commence in the third quarter of 2002.

"Safe Harbor" Statement under the Private Securities Litigation Reform Act of 1995: The statement regarding the expected commencement of volume shipments of the GAMMA 2130 and the SIERRA in the 3rd quarter of 2002, as well as other matters discussed in the news release that are not purely historical data, are forward-looking statements. The forward-looking statements contained in this news release involve risks and uncertainties including, but not limited to, delays or technical or manufacturing difficulties in volume production of the GAMMA 2130 and the SIERRA, and continued or deepening industry and economic downturns that could curtail the surface preparation market, as well as other risks indicated in Novellus' filings with the Securities and Exchange Commission (SEC). Actual results could differ materially from those set forth in the forward-looking statements. Novellus assumes no obligation to update this information. For more details relating to risks and uncertainties that could cause actual results to differ from the forward-looking statements contained in this news release, and risks to Novellus' business in general, please refer to Novellus' SEC filings, including its most recent Annual Report on Form 10-K for the year ended December 31, 2001 and its Quarterly Report on Form 10-Q for the quarter ended March 30, 2002.

About Novellus Systems:

Novellus Systems, Inc., an S&P 500 company, manufactures, markets and services advanced deposition and surface preparation equipment for today's advanced integrated circuits. The company's products are designed for high-volume production of advanced, leading-edge semiconductor devices at the lowest possible cost. Headquartered in San Jose, Calif., with subsidiaries throughout the United States as well as in the United Kingdom, France, Germany, The Netherlands, Ireland, Israel, Italy, India, China, Japan, Korea, Malaysia, Singapore and Taiwan, Novellus is a publicly traded company on the Nasdaq stock exchange (Nasdaq:NVLS) and a component of the Nasdaq-100 Index. Additional information about the company is available on Novellus' home page at www.novellus.com

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