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Nova Revolutionizes Materials Characterization for Optical CD

New package significantly reduces time to solution from days to several hours and improves Optical CD measurement quality

REHOVOT, Israel, June 30, 2009 - Nova Measuring Instruments Ltd. (NASDAQ: NVMI) provider of leading edge stand-alone metrology and the market leader of integrated metrology solutions to the semiconductor process control market, today announced the launching of MatMaker™, a Product-Driven Materials Characterization package which revolutionizes one of the most critical elements of Optical CD measurement. Last week the Company announced all time record orders for its stand-alone Optical CD product and the addition of the MatMaker™ Package is intended to further solidify the Company's position in the market.

Spectral Optical CD technologies need material optical properties (spectral n&k) to interpret the optical spectrum into a profile measurement. Until today the industry standard was to measure material properties on blanket wafers, layer by layer, a process that takes from days to more than a month, well in advance of actual Scatterometry application development. In addition to the obvious drawbacks of significant plan-ahead and time investment, this method could not account for material changes that occur during wafer processing, changes that affect material properties and the accuracy of the final measurement.

Nova's novel technology eliminates this step-by-step method. It capitalizes on proprietary breakthrough algorithms for enhancing the sensitivity of Scatterometry measurements, directly utilizing Scatterometry targets on the product wafer to determine the optical properties of the various constituent materials together with the geometrical profile parameters. Multiple film depositions on blanket wafers are no longer needed as a prerequisite for Scatterometry applications development, and any and all process-induced changes to materials optical properties can now be uniquely and accurately captured inside the Scatterometry model.

"At advanced technology nodes we see a rapid increase in Optical CD deployment and CD-SEM replacement" said Gabi Seligsohn, President and CEO of Nova. "This new technology, based on software algorithms and tools refined by our applications developers for the past 10 years, changes the way spectral Optical CD is deployed in fabs, significantly reducing application development time and cost while at the same time increasing the measurement accuracy. I see our new technology as a driver to further proliferation of Nova's Optical CD solutions not only to existing users of Optical CD but also to areas deploying other types of metrology".





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The MatMaker™ Package is available as an option to the latest version of NovaMARS Applications Development Software.

About Nova: Nova Measuring Instruments Ltd. develops, produces and markets advanced integrated and stand alone metrology solutions for the semiconductor manufacturing industry. Nova is traded on the NASDAQ & TASE under the symbol NVMI. The Company's website is www.nova.co.il.

This press release contains forward-looking statements within the meaning of safe harbor provisions of the Private Securities Litigation Reform Act of 1995 relating to future events or our future performance, such as statements regarding trends, demand for our products, expected deliveries, transaction, expected revenues, operating results, earnings and profitability. Forward-looking statements involve known and unknown risks, uncertainties and other factors that may cause our actual results, levels of activity, performance or achievements to be materially different from any future results, levels of activity, performance or achievements expressed or implied in those forward looking statements. These risks and other factors include but are not limited to: unanticipated consequences of the global economic crisis, our dependency on a single integrated process control product line; the highly cyclical nature of the markets we target; our inability to reduce spending during a slowdown in the semiconductor industry; our ability to respond effectively on a timely basis to rapid technological changes; risks associated with our dependence on a single manufacturing facility; our ability to expand our manufacturing capacity or marketing efforts to support our future growth; our dependency on a small number of large customers and small number of suppliers; risks related to our intellectual property; changes in customer demands for our products; new product offerings from our competitors; changes in or an inability to execute our business strategy; unanticipated manufacturing or supply problems; changes in tax requirements; changes in customer demand for our products; risks related to currency fluctuations; and risks related to our operations in Israel. We cannot guarantee future results, levels of activity, performance or achievements. The matters discussed in this press release also involve risks and uncertainties summarized under the heading "Risk Factors" in Nova's Annual Report on Form 20-F for the year ended December 31, 2008 filed with the Securities and Exchange Commission on March 30, 2009. These factors are updated from time to time through the filing of reports and registration statements with the Securities and Exchange Commission. Nova Measuring Instruments Ltd. does not assume any obligation to update the forward-looking information contained in this press release.

