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Nova's Through-Silicon-Via Metrology Solution Selected by Leading IC Manufacturer

*Nova V2600™ qualified as tool of record for logic and memory
applications*

REHOVOT, Israel, July 8, 2014 - Nova Measuring Instruments (Nasdaq: NVMI), a leading innovator and a key provider of optical metrology solutions for advanced process control used in semiconductor manufacturing, announced today that a major customer in Asia placed an order for its Through-Silicon-Via (TSV) metrology solution. This is the first order from this customer for Nova's TSV stand-alone metrology solution.

Following an intensive evaluation in a production environment, Nova's V2600™ solution was qualified to be the production tool of record (PTOR) for measuring and controlling the TSV formation process in both memory and logic applications. The planned implementation of Three-Dimensional (3D) Integration in volume manufacturing by this customer is expected to yield multiple orders over the next few years.

Nova's V2600™ was selected over alternative solutions primarily due to its unique capabilities to accurately measure all critical TSV dimensions, including side-wall angle, bottom diameter, and bottom curvature. Nova's innovative patented technology combines an optical method, Dark-Field Reflectometry, which is highly sensitive to variations in TSV internal structures, with a novel modeling engine for non-periodic structures. The system was confirmed to enable tight and reliable process control at high sampling rates, minimizing potential yield loss due to TSV electrical failures.

"Our selection by this top customer confirms the competitive advantage that our solution offers to the sector," said Eitan Oppenheim, President and CEO of Nova. "Our industry collaboration and technological innovation in specialized scatterometry solutions have identified a previously unaddressed customer need and resulted in a unique solution that enables the advancement of 3D Integration in volume manufacturing. This significant milestone is a result of our strategy to strengthen our cooperative efforts with leading customers to identify critical process issues and offer unique solutions throughout the

device lifecycle. We are looking forward to enhancing our collaboration with this customer to generate further orders in the future.”

About Nova: Nova Measuring Instrument Ltd. delivers continuous innovation by providing advanced optical metrology solutions for the semiconductor manufacturing industry. Deployed with the world’s largest integrated-circuit manufacturers, Nova’s products deliver state-of-the-art, high-performance metrology solutions for effective process control throughout the semiconductor fabrication lifecycle. Nova’s product portfolio, which combines high-precision hardware and cutting-edge software, supports the development and production of the most advanced devices in today’s high-end semiconductor market. Nova’s technical innovation and market leadership enable customers to improve process performance, enhance products’ yields and accelerate time to market. Nova acts as a partner to semiconductor manufacturers from its offices around the world. Additional information may be found at www.novameasuring.com Nova is traded on the NASDAQ & TASE under the symbol NVMI.

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: our dependency on two product lines; our dependency on a small number of large customers and small number of suppliers; 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; our dependency on PEM; risks related to exclusivity obligations and non-limited liability that may be included in our commercial agreements and arrangements; our ability to retain our competitive position despite the ongoing consolidation in our industry; risks related to our dependence on a single manufacturing facility; risks related to the extremely competitive market we are operation in; risks related to changes in our order backlog; risks related to the financial, political and environmental instabilities in Asia; risks related to our intellectual property; new product offerings from our competitors; 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, 2013 filed with the Securities and Exchange Commission on February 28, 2014. 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.