NOVA MEASURING INSTRUMENTS LTD
Form 6-K
July 10, 2006

FORM 6 K

UNITED STATES
SECURITIES AND EXCHANGE COMMISSION

Washington, D.C. 20549

Report of Foreign Private Issuer
Pursuant to Rule 13a-16 or 15d-16
of the Securities Exchange Act of
1934

For July 10, 2006

Commission File No. 000-30668

NOVA MEASURING INSTRUMENTS LTD.

Building 22 Weitzmann Science Park, Rehovoth
P.O.B 266

Indicate by check mark whether the registrant files or will file
annual reports under cover Form 20-F or Form 40-F.

Form 20-F x Form 40-F o

Indicate by check mark if the registrant is submitting the Form 6-K in paper as permitted by Regulation
S-T Rule 101(b)(7) ____

Indicate by check mark whether the registrant by furnishing the
information contained in this Form is also thereby furnishing the
information to the Commission pursuant to Rule 12g3-2(b) under the
Securities Exchange Act of 1934.

Yes o No x

If Yes is marked, indicate below the file number assigned to the
registrant in connection with Rule 12g3-2(b): N/A.

Attached hereto and incorporated by reference herein are the following documents:

1. Press release entitled Nova Introduces its Next Generation HVM Scatterometry-based Metrology Solution
2. Press release entitled Nova Introduces an Advanced Scatterometry Modeling and Application Development Tool .

Signatures

Pursuant to the requirements of the Securities Exchange Act of 1934, the registrant has duly caused this report to be signed on its behalf by the undersigned, thereunto duly authorized.

Nova Measuring Instruments Ltd
(the "Registrant")

July 10, 2006

By: /s/ Dror David

Dror David
Chief Financial Officer

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Nova Introduces its Next Generation HVM Scatterometry-based Metrology Solution

NovaScan® 3090Next-SA system offers a wide range of 2D/3D and in-die metrology solutions for Dielectric and Copper CMP, Photolithography, Etch and CVD

Rehovot, July 10, 2006 Nova Measuring Instruments Ltd. (NASDAQ: NVMI), the market leader in integrated measurement and process control for the semiconductor industry, today launched the next generation of its NovaScan metrology systems, the NovaScan® 3090Next series.

The first system in the series is the NovaScan 3090Next-SA, a stand-alone, high-end metrology system, which provides improved topography modeling, faster throughput and excellent matching between tools and fabs. This is done through implementation of polarized normal-incidence spectroscopic scatterometry, with an extended ultraviolet and infrared spectral range, for measuring the thickness and topography of thin films widely used in semiconductor manufacturing.

The NovaScan 3090Next-SA supports all industry requirements for high volume manufacturing. A major highlight of the NovaScan 3090Next-SA is its new 2D/3D modeling functions, which are based on the company s unique NovaMARS™ modeling and application development software. NovaMARS provides a solution for the latest industry requirements for advanced structure modeling. This allows for enhanced solutions that identically match what is really on the wafer, and is critical for process control of advanced technologies at 45nm and beyond.

Another highlight of the NovaScan 3090Next-SA is its high throughput. The NovaScan 3090Next-SA provides the extremely fast throughput of 150 wafers per hour with a single metrology module. With this high throughput rate, the NovaScan 3090Next-SA can support higher sampling rates, while allowing it to keep up with high throughput process tools such as photolithography tracks. This ultimately leads to a very attractive cost of ownership (COO).

The system s main applications include full pattern profiling in 2D/3D with multiple critical dimensions measurements, as well as thickness measurement of Dielectric, Poly-silicon and very thin conducting layers, on either multi-layer stacks, on silicon or metal stacks.

Nova s approach ensures the best solution for high volume manufacturing (HVM) environments, where Stand Alone (SA) and Integrated Metrology (IM) systems are working together. Nova s solution is also ideal where tool-to-tool matching and recipe transportability are essential. At the same time, the system also provides for excellent matching performance between various areas in the fab and between fab sites.

Bents Kidron, Nova s Director of Marketing, stated: The NovaScan 3090Next-SA delivers the measurement capabilities needed for control of high-end 65nm and 45nm CMP, Etch, Photolithography and CVD applications. The NovaScan 3090Next-SA metrology system is fully compatible with the NovaScan 3090 series that we successfully introduced to the market in 2005, offering integrated metrology for CMP and Etch, and a Stand Alone solution. We believe that this new platform offers our customers a great solution for their High Volume Manufacturing metrology needs.

About Nova: Nova Measuring Instruments Ltd. develops, designs and produces integrated process control systems in the semiconductor manufacturing industry. Nova provides a broad range of integrated process control solutions that link different semiconductor processes and process equipment. The Company s website is www.nova.co.il

This press release may contain 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, 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: 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 or the applicability of those requirements to Nova and changes in customer demand for our products. 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, 2005 filed with the Securities and Exchange Commission on June 29, 2005. 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.

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Nova Introduces an Advanced Scatterometry Modeling and Application Development Tool

NovaMARS^{TM} supports the industry s move to 3D and in-die measurements

Rehovot, July 10, 2006 - Nova Measuring Instruments Ltd. (NASDAQ: NVMI), the market leader in integrated measurement and process control for the semiconductor industry, today launched NovaMARSTM, an advanced Scatterometry modeling and application development tool.

Scatterometry and Optical CD have become the fastest growing equipment segment in the process control of semiconductor manufacturing. The NovaMARS (Metrology Analysis & Recipe Setup) provides a solution for the latest industry requirements for advanced structure modeling. This

is done by enabling the definition of complex 2D and 3D structures along with their interfaces, for different layers and parameters. NovaMARS is designed to work with the NovaScan® 3090 and NovaScan® 3090Next metrology systems, available as integrated or stand-alone systems.

The NovaMARS system optimizes metrology tool performance and significantly shortens the application development cycle. An automatic or semi-automatic optimization of library parameters helps reduce the time-to-solution and maintain solution robustness for production environments. The flexible and intuitive user interface allows the creation of any 2D/3D and in-die models, and maximizes metrology tool capabilities for fast measurements. NovaMARS supports consistency for optimized solutions, which allows for reduced variability between users, and enables recipe and model template creation for fast and robust recipe design.

NovaMARS is supported by NovaHPC™ (High Power Computation) for effective and timely results. It is also available under a scalable and user configurable infrastructure with Nova s proprietary task management software, which accelerates recipe set-up and library building. NovaMARS s modularity also enables customers to purchase a low-cost entry-level system, using grid computing with the user s existing computation resources.

Bents Kidron, Nova s Director of Marketing, said, We anticipate that the NovaMARS™ system will enable us to maintain our leading position for high-end metrology solutions. It meets today s and the future s process control needs. We are seeing the industry trending towards new, more complex designs, with new materials and tighter design rules. This is forcing higher sampling of more complex structures with a clear trend for direct in-die measurements on the actual device. During the past few years, the optical Scatterometry method has built itself as a powerful technology used in production control by providing profiling and measurement of critical dimensions. According to Dataquest it is one of the fastest growing segments of process control equipment, expected to grow from $65M in 2005 to $170M in 2010. To exploit these capabilities, process engineers need to carefully model the desired structure to be measured, and this is where NovaMARS™ is an invaluable tool. We believe that if you can t model it, you can t measure it .

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