

NOVA MEASURING INSTRUMENTS LTD  
Form 6-K  
July 14, 2008

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UNITED STATES  
**SECURITIES AND EXCHANGE COMMISSION**

Washington, D.C. 20549

**FORM 6-K**

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

Date of Report: July 14, 2008  
Commission File No.: 000-30688

**NOVA MEASURING INSTRUMENTS LTD.**

**Building 22 Weizmann Science Park, Rehovot  
P.O.B 266  
Israel**

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  Form 40-F

Indicate by check mark whether the registrant is submitting this Form 6-K in paper as permitted by  
Regulation S-T Rule 101(b)(1): \_\_\_\_\_

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 12g3-2(b) under the Securities Exchange  
Act of 1934:

Yes  No

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

N/A.

Attached hereto and incorporated by way of reference herein is a press release issued by the Registrant on, and dated, July 14, 2008, and entitled "Nova Pushes Optical CD Boundaries with Nova T500 Stand-Alone Platform".

This report on Form 6-K is hereby incorporated by reference into Nova Measuring Instruments Ltd.'s registration statements on Form S-8, filed with the Securities and Exchange Commission on the following dates: September 13, 2000 (File No. 333-12546); March 5, 2002 (File No. 333-83734); December 24, 2002 (File No. 333-102193, as amended by Amendment No. 1, filed on January 5, 2006); March 24, 2003 (File No. 333-103981); May 17, 2004 (three files, File Nos. 333-115554, 333-115555, and 333-115556, as amended by Amendment No. 1, filed on January 5, 2006); March 7, 2005 (File No. 333-123158); December 29, 2005 (File No. 333-130745); September 21, 2006 (File No. 333-137491); and November 5, 2007 (File No. 333-147140) and into Nova Measuring Instruments Ltd.'s registration statement on Form F-3, filed with the Securities and Exchange Commission on May 11, 2007 (File No. 333-142834).

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**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")

By: */s/ Dror David*

Dror David  
Chief Financial Officer

Date: July 14, 2008

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**Nova Pushes Optical CD Boundaries with Nova T500 Stand-Alone Platform**

*The Nova T500 features 250WPH throughput and 30% improvement in precision*

**REHOVOT, Israel, July 14, 2008** - 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 unveiled its new high throughput high accuracy stand-alone optical CD platform.

The new Nova T500 follows the highly-successful 3090Next metrology tool. It addresses the industry's toughest challenges - increasing metrology sampling, improving metrology precision and reducing metrology cost of ownership.

We started our penetration of the stand-alone Optical CD market about two years ago based on years of experience with high end Integrated Metrology, said Gabi Seligsohn, President & CEO of Nova. The technological advantages of our platform helped make the penetration successful, resulting in installations in 13 different fabs. With its record breaking throughput and leading edge accuracy, I see the Nova T500 as key to continuing our strategy of providing a state of the art cost effective alternative to CD-SEM in Lithography and increasing our market share in stand-alone Optical CD.

The Nova T500 provides extremely high throughput of 250WPH (13 measurement sites). Based on Nova's patented Normal Incidence Spectral Reflectometry, the Nova T500 redesigned optics, improve metrology precision by 30% over current generation NovaScan 3090Next. The flexible platform allows up to three Measurement Units to be installed on the same tool, providing an easy and cost effective path to upgrades as well as adding other metrology capabilities as they become available. Combined with NovaMARS, advanced application development software, the Nova T500 has the ability to measure fine profile parameters on complex 3D test structures as well as in the device.

In the Nova T500 we designed the optics to significantly improve spectral accuracy said Boaz Brill, VP of Technology at Nova. The accuracy of the measured spectra is the most dominant factor in allowing the measurement of fine profile parameters as well as the key for best fleet matching. With improved spectral accuracy the Nova T500 provides solution to 32nm demanding Front End of Line applications while maintaining very high throughput.

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**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](http://www.nova.co.il).

### **The Nova T500 Advantage**

#### **Record Breaking Throughput**

Semiconductor manufacturers are facing tough process and business challenges. On one hand they are required to increase metrology sampling to cope with shrinking process windows, new materials and new architectures and on the other they are required to reduce cost to maintain profitability. 32nm Double Patterning whether Lithography based or Etch based, dictates higher than before metrology sampling. The Nova T500 throughput of 250WPH (13 sites) offers semiconductor manufacturers significant metrology CoO reduction and enables them to increase metrology sampling.

The flexible Nova T500 platform offers configurable throughput capabilities of 135WPH (13 sites) with one Metrology Unit (MU) and 250WPH (13 sites) with a second MU. For very dense sampling of 40 sites and more per wafer, as is often the case for scanner qualification and monitoring, a third MU can be added.

#### **Industry leading precision and matching**

Shrinking process windows dictate better understanding of metrology uncertainty factors. The 2007 International Technology Roadmap for Semiconductors (ITRS) replaces the single term precision, representing variability of a single tool over time, with uncertainty, consisting of three different factors: single tool measurement-to-measurement variability, tool-to-tool variability and sample-to-sample variability. Nova's patented Spectral Reflectometry (SR), designed specifically for best Optical CD performance, has already shown excellence on all factors in customer and third party evaluations. The Nova T500 redesigned optics reduce metrology uncertainty by 30% over current generation NovaScan 3090Next meeting ITRS requirements down to 22nm technology node.

#### **Upgradability and Extendibility**

The Nova T500 flexible design allows up to three metrology units to be installed on the same tool. In addition to throughput benefits, this design allows easy and cost effective upgradability to future metrology and extendibility to different metrology capabilities as they become available.

#### **3D and In-die Measurements**

As process windows shrink the correlation between solid or 2D test structures and the actual device diminishes. The Nova T500 high accuracy and sensitivity to profile parameters, combined with NovaMARS, advanced application development software, provides the ability to measure complex 3D profile parameters on test structures as well as in the device.

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#### **New Tool Operating Software**

The Nova T500 operating software features modern Graphics User Interface (GUI) conforming to SEMI standard E-95 controlling all tool operations including recipe creation, measurement, results plotting and analysis, troubleshooting, Preventive Maintenance (PM) and more. An error logging, diagnostic, handling and recovery module constantly analyzes the tool's health, handling errors when they occur and increasing Mean Time Between Interrupts (MTBI). The new rights management module supports simple as well as complex viewing and editing rights management schemes preventing unwanted recipe change and information leak to unauthorized personnel.

*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 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, 2007 filed with the Securities and Exchange Commission on March 28, 2008. These factors are updated from time to*

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*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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