

NOVA MEASURING INSTRUMENTS LTD  
Form 6-K  
July 11, 2011

UNITED STATES  
SECURITIES AND EXCHANGE COMMISSION  
Washington, DC 20549

FORM 6-K

REPORT OF FOREIGN PRIVATE ISSUER  
PURSUANT TO RULE 13a-16 OR 15d-16 OF  
THE SECURITIES EXCHANGE ACT OF 1934

July 11, 2011

Commission File No.: 000-30688

NOVA MEASURING INSTRUMENTS LTD.  
(Translation of registrant's name into English)

Building 22 Weizmann Science Park, Rehovot  
P.O.B 266  
Israel  
(Address of principal executive offices)

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 if the registrant is submitting the Form 6-K in paper as permitted by Regulation S-T Rule 101(b)(1):

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

Yes  No

Attached hereto and incorporated by way of reference herein is a press release issued by the Registrant and entitled: "Nova Pushing the Limits of 3D Profile Metrology with New Optical CD System".

#### 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.  
(Registrant)

Date: July 11, 2011

By: /s/ Dror David  
Dror David  
Chief Financial Officer

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## Nova Pushing the Limits of 3D Profile Metrology with New Optical CD System

### Introducing the All-New Nova T600® with Multi-Channel Reflectometry

- Innovative and unique optical configuration enables the move to vertical devices in next-generation memory and microprocessor chips
- Built to Nova industry-leading stability and reliability standards
- Extends range of Nova's market leading high productivity Optical CD solutions

REHOVOT, Israel, July 11, 2011 - 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 introduction of an innovative product for process control of complex vertical structures for the 22nm technology node and beyond. The powerful new Nova T600 Optical Critical Dimension (Optical CD) metrology system, developed in collaboration with leading device makers, has shown breakthrough metrology performance on critical device parameters. During evaluations with leading memory and foundry customers significant improvements were demonstrated, including up to 4 times increase in measurement sensitivity on critical profile parameters of advanced 3D applications.

As chipmakers strive to follow Moore's Law and continue to shrink device area, process architecture is driven to increasingly more complex 3D structures, such as FinFET, Stacked NAND, and Buried-Gate DRAM. Optical CD is the only known method to non-destructively measure and control these vertical processes. The newly introduced Nova T600 is the first Optical CD system to feature oblique incidence spectroscopic reflectometry. Combined with a normal-incidence reflectometer, this multi-channel reflectometry configuration is optimized for best sensitivity on small features, including at the bottom of high-aspect-ratio structures.

The exceptionally high signal-to-noise extracted by the Nova T600 provides superior performance on the full range of profile metrology applications. Measurement precision and accuracy are further enhanced by innovative new algorithms included in the next version of the NovaMARS application development software, soon to be announced. The concurrent optimization of information from multiple sources, a concept introduced by Nova as the Holistic Metrology Approach, is now fully supported by the combination of Nova T600 and NovaMARS.

Nova T600 is designed to meet the challenging cost of ownership requirements of semiconductor customers. This was achieved through a combination of high TPT, Modular Metrology™, and the flexibility to optimize optical configuration and tool type to best serve application needs. Nova T600 metrology units fit into the full frame low vibration T-platform, designed with a Modular Metrology concept that provides unrivaled cost effectiveness. T-platform can be configured to support multiple load ports and multiple measurement units - any combination of Nova T600 and Nova T500.



Eitan Oppenheim, Executive Vice President of Global Business, said: “We see critical importance in bringing to the market at this time a system that enables production of 3D devices. This major transition of the industry after 50 years of planar transistors is truly a revolution, and the Nova T600 allows us to actively participate in this revolution. We are excited to introduce this latest metrology innovation from Nova, extending our product portfolio going forward in order to address the challenging demands of advanced nodes and complex structures below 22nm.”

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).

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; 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 OEM suppliers; our ability to retain our competitive position despite the ongoing consolidation in our industry; 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; our dependency on our key employees; risks related to changes in our order backlog; risks related to the financial, political and environmental instabilities that may affect our sales in Asia; 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 31,2010 filed with the Securities and Exchange Commission on March 30, 2011. 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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