NOVA MEASURING INSTRUMENTS LTD Form 6-K July 07, 2009

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 7, 2009

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 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)(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 o No x

Attached hereto and incorporated by way of reference herein is a press release issued by the Registrant and entitled Nova s Metrology Deployed by Two Leading Flash Manufacturers at Copper CMP.

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.

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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).

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 7, 2009 By: /s/ Dror David

Dror David

Chief Financial Officer

Company Contact:

Dror David, Chief Financial Officer Nova Measuring Instruments Ltd.

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Nova s Metrology Deployed by Two Leading Flash Manufacturers at Copper CMP

Migration to Copper for high end memory devices continues to grow relying on tighter process control

REHOVOT, Israel, July 7, 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 that its NovaScan Integrated Metrology solution has been deployed for Copper process control at two leading flash memory manufacturers. The multiple NovaScan Integrated Metrology installations took place during the first half of 2009. The Company also reported more orders received at the beginning of July for similar tools from a major foundry which the Company will deliver in the third quarter of 2009.

By accurately measuring the Copper line thickness using NovaScan Optical CD and by deploying Advanced Process Control (APC) the Copper process variability was reduced by 30%. Collaboration with the customers also demonstrated a potential of further reducing process variability by measuring the Copper trench depth with a NovaScan stand-alone tool after Etch and feeding the result forward to CMP.

As part of the move to the 50nm and 40nm technology nodes, memory manufacturers start integrating Copper into their devices and Optical CD provides a useful means to measure and control relevant steps in the process—said Noam Shintel, Director of Corporate marketing at Nova. With our solution already deployed in foundries and given the rapid proliferation of Copper to the memory sector, I see a great potential for our metrology solutions. By deploying Nova—s metrology together with wafer to wafer process control, memory manufacturers can significantly improve their Copper process and reduce Copper process variability by dozens of percentage points.

Flash Copper process control is as demanding as logic process control. It is critical to control the Copper line s resistivity and therefore precisely control the Copper line profile which determines the chip s resistivity. Topography effects like dishing and erosion affect the device parasitic capacitance, leakage power and yield. At advanced technology nodes smaller CD s and increased density cause defects such as barrier residues while voids in the Copper fill become dominant in deterring yield.

NovaScan Integrated Metrology featuring industry leading reliability and throughput of less than one second Move Acquire Measure (MAM) time, coupled with NovaMARS 2D and 3D modeling software, provides the capability to accurately measure the Copper line profile, dishing, erosion, barrier residues and other Copper process parameters without affecting the overall cycle time or reducing Polisher speed.

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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.

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.

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