
**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**

For the month of October 2020

Commission File No.: 000-30668

NOVA MEASURING INSTRUMENTS LTD.

(Translation of registrant's name into English)

**5 David Fikes Street, 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): ____

Attached hereto and incorporated by way of reference herein is a press release issued by the Registrant and entitled: "NovaPRISM™ Selected by Leading Global Memory Manufacturer".

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: October 7, 2020

By: */s/ Dror David*

Dror David
Chief Financial Officer

Company Contact:

Dror David, Chief Financial Officer
Nova Measuring Instruments Ltd.
Tel: +972-73-229-5760
E-mail: info@novami.com
www.novami.com

Investor Relations Contact:

Miri Segal
MS-IR LLC
Tel: +917-607-8654
E-mail: msegal@ms-ir.com

NovaPRISM™ Selected by Leading Global Memory Manufacturer

Rehovot, Israel – October 7, 2020 – Nova (Nasdaq: NVMI) announced today that one of the world's top Memory manufacturers recently selected Nova's leading-edge optical metrology solution, NovaPRISM™, for its most advanced Memory fabrication sites. Following the selection, the company expects to deliver multiple tools to multiple sites throughout 2021.

The selection followed an extensive competitive evaluation for the customer's advanced technology nodes for high-end process steps. Nova's solution was selected due to its unique offering that combines advanced optical metrology hardware with cutting-edge modeling and machine learning solutions, resulting in better metrology performance and overall faster time-to-solution.

As chip architecture advances to meet performance demand, Memory manufacturers face multiple challenges created by new design rules in advanced technology generations. These challenges impose tight process tolerances, require in-die measurement and create the need for faster time-to-solution to enable high-volume-manufacturing. The NovaPRISM™ is designed to meet these challenges using its advanced capabilities powered by Nova's Spectral Interferometry technology, which enables the platform to decorrelate parameters in complex apps and presents unique sensitivity beyond the existing Optical CD technics.

"Manufacturing challenges today require a synergistic and innovative approach where hardware, software and deep technologies come together to deliver fast, precise and robust solutions," stated Mr. Gabriel Waisman, Nova's Chief Business Officer. "This selection coincides with a recent successful implementation and acceptance of NovaPRISM™ by another AI Logic customer," added Mr. Gabriel Waisman. "These recent wins are a testament to our success in providing cutting-edge and unique solutions to our partners as they progress from R&D to HVM stages."

About Nova: Nova is a leading innovator and key provider of metrology solutions for advanced process control used in semiconductor manufacturing. Nova delivers continuous innovation by providing 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, provides its customers with deep insight into the development and production of the most advanced semiconductor devices. Nova's unique capability to deliver innovative X-ray and Optical solutions enables its customers to improve performance, enhance product 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.novami.com.

Nova is traded on 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, but are not limited to, anticipated growth opportunities and projections about our business and its future revenues, expenses 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. Factors that may affect our results, performance, circumstances or achievements include, but are not limited to, the following: our dependency on three product lines; our dependency on a small number of large customers and small number of suppliers; the highly cyclical and competitive nature of the markets we target and we operate in; 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 PEMs; 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 our manufacturing facilities; risks related to changes in our order backlog; risks related to efforts to complete and integrate current and/or future acquisitions; risks related to worldwide financial and economic instabilities, including the implications of the ongoing novel coronavirus (COVID-19) pandemic; risks related to our intellectual property; new product offerings from our competitors; unanticipated manufacturing or supply problems; risks related to government programs we participate in; risks related to taxation; changes in customer demand for our products; risks related to currency fluctuations; risks related to technology security threats, including data breaches, cyberattacks and system disruptions, and changes in privacy laws; risks related to acquisitions we may pursue 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, 2019 filed with the Securities and Exchange Commission on March 12, 2020. 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.
