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 2025

Commission File No.: 000-30668

NOVA LTD.

(Translation of registrant's name into English)

5 David Fikes Street, Rehovot, 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 □

Attached hereto and incorporated by way of reference herein is a press release issued by the Registrant and entitled: "Leading Foundry Selects Nova ELIPSON® for GAA Processes".

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.

Date: October 6, 2025

NOVA LTD.
(Registrant)

By: /s/ Guy Kizner

Guy Kizner
Chief Financial Officer



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Leading Foundry Selects Nova ELIPSON® for GAA Processes

Rehovot, Israel, October 6, 2025 - Nova (Nasdaq: NVMI) today announced that its ELIPSON® materials metrology solution has been selected as Tool of Record by a leading global foundry customer for advanced Gate-All-Around (GAA) manufacturing processes.

The Company has received orders and delivered several ELIPSON® tools to the customer for use in various high-volume production processes.

The selection marks a significant milestone for the ELIPSON® platform, which is designed to deliver non-destructive, in-die material characterization for the most challenging nodes in semiconductor fabrication. This selection joins the recent adoption of the Nova Metrion® platform by another GAA customer, further expanding the presence of Nova's materials metrology solutions in advanced logic nodes production.

Nova ELIPSON® leverages state-of-the-art Raman spectroscopy technology to provide precise, repeatable measurements of material properties—key requirements for next-generation device architectures. By enabling rapid, non-contact material analysis at the nanoscale, ELIPSON® supports manufacturers' needs for both innovation and efficiency in a dynamic market landscape.

Gaby Waisman, President and CEO of Nova, commented: "The selection of ELIPSON® by a leading global foundry for Gate-all-Around manufacturing, underscores our commitment to delivering differentiated solutions for the evolving needs of our customers. These latest developments indicate the significant value of our materials metrology portfolio to the industry's need for critical process insight in advanced nodes production."

About Nova

Nova is a leading innovator and key provider of material, optical and chemical solutions for advanced metrology and process control 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 developing and producing the most advanced semiconductor devices. Nova's unique capability to deliver innovative 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 worldwide. Additional information may be found on Nova's website link - https://www.novami.com/.

Nova is traded on the Nasdaq and TASE, Nasdaq ticker symbol NVMI.

Forward-Looking Statements

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 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 differ materially 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: risks related to information technology security threats, sophisticated computer crime, and data privacy; foreign political and economic risks including supply-chain difficulties; regulations that could restrict our operations such as economic sanctions and export restrictions; changes in U.S. trade policies and taxation; indirect effects of the Russia – Ukraine conflict; market instability including inflation and recessionary pressures; risks related to doing business with China; catastrophic events; inability to protect our intellectual property; open source technology exposure, including risks related to artificial intelligence; risks related to the use of artificial intelligence technologies; challenges related to our new ERP system; failure to compete effectively or to respond to rapid technological changes; consolidation in our industry; difficulty in predicting the length and strength of any downturn or expansion period of the market we target; factors that adversely affect the pricing and demand for our product lines; dependency on a small number of large customers; dependency on a single manufacturing facility per product line; dependency on a limited number of suppliers; difficulty in integrating current or future acquisitions; lengthy sales cycle and customer delays in orders; risks related to conditions in Israel, including Israel's conflicts with Hamas and other parties in the region; risks related to our convertible notes; currency fluctuations; and quarterly fluctuations in our operating results. 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, 2024, filed with the Securities and Exchange Commission on February 20, 2025. These factors are updated from time to time through the filing of reports and registration statements with the Securities and Exchange Commission. Nova Ltd. does not assume any obligation to update the forward-looking information contained in this press release.