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Nova's Materials Metrology Solution Selected for 5nm Technology Node

Rehovot, Israel – September 5, 2018 – Nova (Nasdaq: NVMI) announced today that a major foundry recently placed an order for its VeraFlex advanced X-Ray metrology solution for 5nm technology node.

Nova's solution utilizes X-ray Photoelectron Spectroscopy (XPS) to simultaneously measure composition and thickness of complex film stacks through the fabrication process. The integration of these film stacks is significantly more complicated than previous nodes both in terms of the materials used and their multi-layer composition, requiring sophisticated process control to minimize device variation. The VeraFlex product portfolio provides the requisite sensitivity and precision needed for these challenging measurements.

As a result of this selection, Nova expects more than \$12 million in aggregate business from this customer across 2018 and 2019.

"We are excited about this selection which confirms the applicability of our technology for 5nm and emphasizes the growing need for advanced materials metrology solutions in advanced nodes," said Adrian Wilson, General Manager of Nova's Materials Metrology Division. "In order to achieve better performance in smaller devices, our Logic customers are required to modify their materials strategy beyond the traditional architectural changes. These innovative developments increase the need for Materials control and our available market accordingly. We look forward to additional orders as 5nm moves into volume production and further applications are qualified."

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 enable 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 the worldwide financial instabilities; 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 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, 2017 filed with the Securities and Exchange Commission on February 28, 2018. 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.