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Nova Unveils Next Generation Integrated Metrology Solutions

Rehovot, Israel – July 27, 2020 – Nova (Nasdaq: NVMI) announced today two break-through Integrated Metrology solutions, reinforcing the company's Optical CD portfolio technology leadership. The new platforms, Nova i570 HP and Nova ASTERA, will enhance Nova's ability to support customers in the most advanced Memory and Logic nodes. The new portfolio will strengthen Nova's partnerships with its customers for the development and manufacturing of next-generation IC architectures.

The continuous efforts to scale chips' performance create multiple process complexities, growing challenges in development time and difficulties in yield building. To meet the demand for tighter specs and smaller process windows, IC manufacturers require solutions that provide better metrology performance and reduce the overall measurement uncertainty. The ever-growing fabrication complexity dictates the need to measure in-die with minimal within-wafer and within-die variation. Furthermore, measuring in-die, requires even more accurate solutions, which traditional integrated metrology solutions cannot provide.

The Nova ASTERA platform is a first of a kind in the industry, providing stand-alone level performance in a compact form factor of integrated metrology. The new platform utilizes multi-channel measurements, providing the best solution in the market in terms of accuracy, precision, tool-to-tool matching and extendibility. The platform brings unmatched capability to the world of integrated metrology, enabling robust measurement for challenging OCD applications in DRAM, 3DNAND and Logic. Nova ASTERA offers the fastest available application time-to-solution, utilizing advanced physical and machine learning algorithms. The platform's rich spectral information content provides the necessary sensitivity for solving complex 3D Optical CD applications that require monitoring growing number of parameters. Nova ASTERA is targeted to support the development of the most advanced device technologies, beyond 3nm Logic and 256 Layers, multi-deck 3D-NAND nodes, and as such, is expected to enter the market over the course of the coming years.

The Nova i570 HP normal channel SR platform is the embodiment of Nova's mission, as the Integrated Metrology market leader, to provide the highest performance platform for high volume manufacturing

fabs. The new addition to the i5XX series offers the highest throughput in the market, supporting the new faster CMP polishers and allowing better within-wafer variation control by measuring more sites, as well as pre and post-wafer measurements. Enriched with Nova's advanced modeling and algorithmic solutions, the i570 HP provides major enhancements in metrology accuracy, precision and tool matching capabilities.

"As the market leader in the Integrated Metrology domain, we have a strong commitment to always redefine the limits of what our customers can achieve through our technology", said Effi Aboody, GM, Dimensional Metrology Division at Nova. "The Nova i570 HP will provide customers with the highest productivity and metrology performance available in the market today, while the Nova ASTERA is a game changer that trailblazes into new, never-before-achieved performance from IM tools. These new additions to our portfolio will allow our customers to shorten R&D cycles and increase efficiency in high volume manufacturing. Coupled with our advanced machine learning and modeling suite, we set the bar higher than ever before for Integrated Metrology solutions."

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 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.