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Nova Appoints Avi Cohen to its Board of Directors

REHOVOT, Israel – February 19, 2008 – 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, announced that Mr. Avi Cohen has been appointed to its Board of Directors, effective immediately.

Mr. Cohen's career includes more than 27 years of business management experience in high technology firms. Mr. Cohen is currently the Chief Operating Officer and Deputy to the CEO at ECI Telecom Ltd. Prior to joining ECI in 2006, Mr. Cohen served in a variety of management positions at KLA-Tencor including President of KLA-Tencor Israel as well as a Group Vice President, Corporate Officer and Member of the Executive Management Committee. During his tenure, he successfully led the creation of KLA-Tencor's global Metrology Group. Before joining KLA-Tencor, Mr. Cohen also spent three years as Managing Director of Octel Communications, Israel, after serving as founder and CEO of Allegro Intelligent Systems.

"We are excited to have Avi join the board of Directors. Avi's many years of experience in the process control and metrology markets will be a great addition to the board" Said Michael Brunstein, Chairman of the Board.

"We are looking forward to enjoying Avi's contribution at the board, Said Gabi Seligsohn, President and CEO of Nova. "Having a diverse executive background, Avi brings a unique combination that is sure to be leveraged at the board, as we continue on our growth path and penetration into more segments of the semiconductor process control market".

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: 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 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, 2006 filed with the Securities and Exchange Commission on May 11, 2007. 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.