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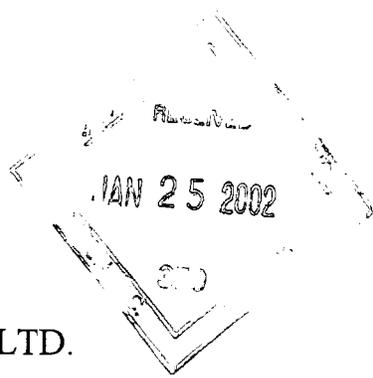
THOMSON
FINANCIAL

SECURITIES AND EXCHANGE COMMISSION
Washington, D.C. 20549

FORM 6-K

Report of Foreign Issuer
Pursuant to Rule 13a-16 or 15d-16 of
the Securities Exchange Act of 1934

January 21, 2002 PE



NOVA MEASURING INSTRUMENTS LTD.
(Translation of registrant's name into English)

Weizmann Science Park
P.O. Box 266
Rehovot 76100
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 whether the registrant by furnishing the information contained in this Form is also furnishing the information to the Commission pursuant to Rule 12g3-2(b) under the Securities and Exchange Act of 1934.

Yes No

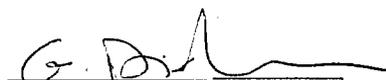
Attached hereto as Exhibit 1, and incorporated by reference herein, is the press release, dated January 6, 2002 of Nova Measuring Instruments Ltd. (the "Registrant"), relating to the Resignation of Nova's Chairman of the Board of Directors.

SIGNATURE

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.

January 21, 2002

A handwritten signature in black ink, appearing to read "G. Dishon", written over a horizontal line.

Giora Dishon, President
and Chief Executive Officer

Company Contact:

Dr. Giora Dishon, President & CEO
Nova Measuring Instruments Ltd.
Tel: 972-8-938-7505
E-mail: info@nova.co.il
<http://www.nova.co.il>

Investor Relations Contacts:

Adam Rosen / Madelene Glomsten
KCSA Public Relations Worldwide
Tel: 212-896-1220 / 212-896-1258
E-mail: arosen@kcsa.com / mglomsten@kcsa.com
<http://www.kcsa.com>

Company Press Release

**Nova Measuring Instruments Ltd. Reports
Resignation of Chairman of the Board of Directors**



Rehovoth, Israel, - January 6, 2002 - Nova Measuring Instruments, Ltd. (Nasdaq: NVMI), today announced that Mr. Mendy Erad, Chairman of Nova's Board of Directors, has resigned from his positions as Chairman and Director, effective January 1, 2002, to pursue personal interests. Mr. Erad had been a Director and Chairman since 1996.

Dr. Giora Dishon, President and CEO of Nova, said, "I would like to thank Mendy for his numerous contributions and tireless dedication to the Company. His support has helped us to grow the Company from a small start-up to a publicly-traded, well-positioned global Company. Mendy has been a tremendous asset to us during the last several years, and we wish him success in all of his future endeavors."

Dr. Dishon concluded, "The Company hopes to name a new chairman shortly."

About Nova

Nova Measuring Instruments Ltd. develops, designs and produces integrated process control systems in the semiconductor manufacturing industry. Nova provides a broad range of integrated process control solutions that link between different semiconductor processes and process equipment. The Company's web site is www.nova.co.il.