NOVA MEASURING INSTRUMENTS LTD Form 6-K September 06, 2006

UNITED STATES

SECURITIES AND EXCHANGE COMMISSION

Washington, D.C. 20549

FORM 6-K

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

For September 6, 2006

Commission File No. 000-30668

NOVA MEASURING INSTRUMENTS LTD.

Building 22 Weitzmann Science Park, P.O.B 266, Rehovoth 76100, Israel

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 x Form 40-F o

Indicate by check mark if the registrant is submitting the Form 6-K in paper as permitted by Regulation S-T Rule 101(b)(1): _____

Indicate by check mark if the registrant is submitting the Form 6-K in paper as permitted by Regulation S-T Rule 101(b)(7) _____

Indicate by check mark whether the registrant by furnishing the information contained in this Form is also thereby furnishing the information to the Commission pursuant to Rule 12g3-2(b) under the Securities Exchange Act of 1934.

Yes O No X

If "Yes" is marked, indicate below the file number assigned to the registrant in connection with Rule 12g3-2(b): N/A.

Attached hereto as Exhibit 99.1 and incorporated herein by reference is the Registrant s press release entitled Nova Measuring Instruments Announces Auction of Right to License or Acquire Some of its Patents.

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.

Nova Measuring Instruments Ltd (the "Registrant")

September 6, 2006

By: /s/ Dror David

NOVA MEASURING INSTRUMENTS LTD.

Dror David Chief Financial Officer

Exhibit Index

Exhibit 99.1

Registrant s press release entitled Nova Measuring Instruments Announces Auction of Right to License or Acquire Some of its Patents.