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Company Press Release

NOVA MEASURING INSTRUMENTS ANNOUNCES 2006 FIRST QUARTER RESULTS

Gradually Improving Market Conditions; Bookings Increase

Rehovoth, Israel, - May 10, 2006 - Nova Measuring Instruments, Ltd. (Nasdaq: NVMI), the market leader in integrated measurement and process control for the semiconductor industry, today reported breakeven results for the first quarter of 2006.

Total revenues for the first quarter of 2006 were \$10.3 million, a 106% increase over revenues of \$5.0 million reported for the first quarter of 2005 and a 16% sequential increase over revenues of \$8.8 million reported for the fourth quarter of 2005.

The Company reported a gross profit of \$4.8 million compared with gross profit of \$1.4 million for the first quarter of 2005 and gross profit of \$3.8 million for the previous quarter. Gross margin for the first quarter of 2006 was 46% compared with 27% for the first quarter of 2005 and 42% for the previous quarter.

Total operating expenses were \$5.0 million for the first quarter of 2006 compared with \$5.3 million in the first quarter of 2005, and \$5.4 million in the fourth quarter of 2005.

Net results were close to breakeven, compared with a net loss of \$3.8 million for the first quarter of 2005, or \$0.25 per share, and net loss of \$1.5 million, or \$0.10 per share, for the fourth quarter of 2005.

Cash reserves at the end of the first quarter of 2006 were \$21.1 million, a decrease of \$1.7 million compared to the end of previous quarter.

“During 2006, we began to see positive changes in market conditions,” said Dr. Giora Dishon, President and CEO. “The overall trends are favorable, although visibility on the precise timing of revenue remain low. Bookings have increased relative to the previous quarters of 2005, including orders for delivery in the following quarters for integrated metrology as well as stand-alone systems; our backlog at the end of the quarter is better than the previous quarters, and we continue to see positive demand for the new NovaScan 3090 product series, both direct from major end-users and through the process equipment manufacturers. We expect to continue to increase deliveries of the NovaScan 3090 systems for all applications: Oxide, Copper and Optical CD, in the following

quarters, as the industry continues moving to technology nodes of 65nm and below,”

Dr. Dishon added, “We are very excited about the acquisition of HyperNex, Inc., which manufactures stand-alone wide-angle X-ray diffraction metrology systems, and we are confident of the long term prospects of this technology for the most advanced semiconductors high-volume manufacturing. Acquiring the assets of HypeNex will strengthen our offering in the high-end stand-alone metrology market and will expand our array of process control solutions.”

The Company will host a conference call today, May 10, 2006, at 9:00am EST. To participate please dial in the U.S: 1-866-652 8972 UK: 0-800-917-9141 or internationally: +972-3-918-0609 at least 5 minutes before the start of the call. A recording of the call will be avialble on Nova’s website, within 24 hours following the end of the call.

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 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, the effect of the pending Hypernex, Inc. transaction, expected revenues, operating results, and earnings. 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 ability to successfully complete our acquisition and integration of HyperNex, Inc., 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 and changes in customer demand for our products. 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, 2004 filed with the Securities and Exchange Commission on June 28, 2005. 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.

(Tables to Follow)

NOVA MEASURING INSTRUMENTS LTD.
QUARTERLY CONSOLIDATED STATEMENTS OF OPERATIONS

(U.S. dollars in thousands, except per share data)

	<u>Q1-2006</u>	<u>Q1-2005</u> <u>(corrected)</u>	<u>Q4-2005</u>
REVENUES			
Product sales	7,797	3,378	6,601
Services	<u>2,485</u>	<u>1,618</u>	<u>2,236</u>
	<u>10,282</u>	<u>4,996</u>	<u>8,837</u>
COST OF REVENUES			
Product sales	3,656	2,063	2,939
Services	<u>1,857</u>	<u>1,571</u>	<u>2,152</u>
	<u>5,513</u>	<u>3,634</u>	<u>5,091</u>
GROSS PROFIT	<u>4,769</u>	<u>1,362</u>	<u>3,746</u>
OPERATING EXPENSES			
Research & Development expenses, net	2,297	2,917	2,280
Sales & Marketing expenses	1,672	1,710	2,007
General & Administration expenses	<u>1,048</u>	<u>711</u>	<u>1,089</u>
	<u>5,017</u>	<u>5,338</u>	<u>5,376</u>
OPERATING LOSS	248	3,976	1,630
INTEREST INCOME, NET	<u>207</u>	<u>193</u>	<u>105</u>
NET LOSS	<u>41</u>	<u>3,783</u>	<u>1,525</u>
Loss per share	<u>0.00</u>	<u>0.25</u>	<u>0.10</u>
Shares used for calculation of loss per share	<u>15,478</u>	<u>15,339</u>	<u>15,457</u>

NOVA MEASURING INSTRUMENTS LTD.
CONSOLIDATED BALANCE SHEET
(U.S. dollars in thousands)

	<u>March 31,</u> <u>2006</u>	<u>December 31,</u> <u>2005</u>
CURRENT ASSETS		
Cash and cash equivalents	4,893	5,776
Short-term interest-bearing bank deposits	1,471	1,206
Short-term investments	3,100	3,500
Held to maturity securities	4,830	4,388
Trade accounts receivable, net	6,031	6,841
Inventories	6,658	6,606
Other current assets	1,104	1,141
	<u>28,087</u>	<u>29,458</u>
LONG-TERM ASSETS		
Long-term interest-bearing bank deposits	2,655	2,974
Held to maturity securities	4,115	4,952
Other Long-term assets	279	262
Severance pay funds	2,265	2,186
	<u>9,314</u>	<u>10,374</u>
FIXED ASSETS, NET	<u>2,582</u>	<u>2,507</u>
Total assets	<u><u>39,983</u></u>	<u><u>42,339</u></u>
CURRENT LIABILITIES		
Trade accounts payable	5,295	5,744
Other current liabilities	6,926	8,880
	<u>12,221</u>	<u>14,624</u>
LONG-TERM LIABILITIES		
Liability for employee termination benefits	2,997	2,907
Deferred income	1,204	1,264
Other long-term liability	100	100
	<u>4,301</u>	<u>4,271</u>
SHAREHOLDERS' EQUITY		
Ordinary shares	46	46
Additional paid-in capital	73,672	73,636
Accumulated other comprehensive income	4	(18)
Accumulated deficit	(50,261)	(50,220)
Total shareholders' equity	<u>23,461</u>	<u>23,444</u>
Total liabilities and shareholders' equity	<u><u>39,983</u></u>	<u><u>42,339</u></u>