NOVA
partnering for process control

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Company Press Release

NOVA ANNOUNCES RECORD QUARTERLY FINANCIAL RESULTS FOR THE THIRD QUARTER OF 2010

Record bookings reflect strong business momentum across all product lines
Accelerating standalone customer penetration further strengthens market position and outlook

Rehovot, Israel - November 2, 2010 - 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, today reported its 2010 third quarter financial results.

Highlights for the Third Quarter of 2010

- Record revenues of $24.2 million
- Record gross margins of 56%
- Record net income of $7.3 million, or $0.27 per diluted share; net margin of 30%
- $7.9 million positive operating cash flow; strong balance sheet with cash reserves of $54.8 million

Management Comments

“Q3 was another excellent quarter, with record performance achieved in all aspects of our business”, said Gabi Seligsohn, President and CEO of Nova. “During the quarter we also continued to execute on our strategy of expanding our customer base with the stand alone metrology product line, adding two new foundry customers and one new memory customer. We expect to recognize most of the related revenues at the beginning of 2011.”

“On the integrated metrology front, we continued to enjoy record business volumes with many fabs ordering and installing dozens of tools per fab. Given the significant challenges experienced in

passion
innovation
performance

design rule shrink in all our served markets, the extent by which integrated metrology is being deployed is the highest it has ever been. Meanwhile, we successfully started the proliferation of our latest integrated metrology product, the Nova i500, and continued the delivery of the Nova T500 stand alone tool. We believe that the combination of new products and the recent customer design wins will support further growth in the future.”

2010 Fourth Quarter and Annual Guidance

For the fourth quarter of 2010, management expects revenues of $24.5-$26 million, with net profitability of 26%-29%.

In terms of the company’s existing 2010 annual guidance, of revenues of $78-$85 million and net profitability of 21%-24%, management expects to reach or slightly exceed the top-end of this guidance.

2010 Third Quarter Results

Total revenues for the third quarter of 2010 were $24.2 million, an increase of 112% relative to the third quarter of 2009, and an increase of 25% relative to the second quarter of 2010.

Gross margin for the third quarter of 2010 was 56%, compared with 48% in the third quarter of 2009, and 54% in the second quarter of 2010.

Operating expenses in the third quarter of 2010 were $6.4 million, compared with $4.0 million in the third quarter of 2009, and $5.8 million in the second quarter of 2010.

The company reported net income of $7.3 million, or $0.27 per diluted share, in the third quarter of 2010. This compares to a net income of $1.7 million, or $0.08 per share, in the third quarter of 2009, and a net income of $4.7 million, or $0.18 per diluted share, in the second quarter of 2010.

The company generated $7.9 million in cash from operating activities during the third quarter of 2010, and total cash reserves at the end of the third quarter of 2010 were $54.8 million.

The Company will host a conference call today, November 2, 2010, at 10:00am ET. To participate, please dial in the US: 1 866 850 2201; in Israel: 03 721 9510 or internationally: +1 212 444 0482. A recording of the call will be available on Nova’s website, within 24 hours following the end of the call. In addition, a presentation to accompany the conference call will be available together with a live webcast of the conference call. This will be accessible from a link on Nova’s website at www.nova.co.il.

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 two integrated process control product lines; 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; our dependency on OEM suppliers; 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; risks related to currency fluctuations; 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, 2009 filed with the Securities and Exchange Commission on March 26, 2010. 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.
CONSOLIDATED BALANCE SHEET
(U.S. dollars in thousands)

	As of September 30, 2010	As of December 31, 2009
CURRENT ASSETS		
Cash and cash equivalents	10,977	9,861
Short-term interest-bearing bank deposits	43,228	8,607
Trade accounts receivable	12,523	11,545
Inventories	10,041	3,949
Other current assets	3,088	1,728
	79,857	35,690
LONG-TERM ASSETS		
Long-term interest-bearing bank deposits	570	561
Other Long-term assets	167	142
Severance pay funds	2,525	2,368
	3,262	3,071
FIXED ASSETS, NET	2,422	2,163
Total assets	85,541	40,924
CURRENT LIABILITIES		
Trade accounts payable	8,644	3,715
Deferred income	5,115	1,671
Other current liabilities	6,801	5,237
	20,560	10,623
LONG-TERM LIABILITIES		
Liability for employee severance pay	3,478	3,168
Deferred income	1,502	183
Other long-term liability	26	35
	5,006	3,386
SHAREHOLDERS' EQUITY	59,975	26,915
Total liabilities and shareholders' equity	85,541	40,924

NOVA MEASURING INSTRUMENTS LTD.
QUARTERLY CONSOLIDATED STATEMENTS OF OPERATIONS
(U.S. dollars in thousands, except per share data)

	Three months ended		
	September 30, 2010	**June 30, 2010**	**September 30, 2009**
REVENUES			
Product sales	20,350	15,889	8,717
Services	3,860	3,551	2,677
	24,210	19,440	11,394
COST OF REVENUES			
Products	8,182	6,554	3,699
Services	2,542	2,452	2,191
	10,724	9,006	5,890
GROSS PROFIT	13,486	10,434	5,504
OPERATING EXPENSES			
Research & Development expenses, net	2,783	2,828	1,850
Sales & Marketing expenses	2,810	2,242	1,523
General & Administration expenses	795	679	594
	6,388	5,749	3,967
OPERATING PROFIT	7,098	4,685	1,537
Interest income, net	176	24	153
NET INCOME FOR THE PERIOD	7,274	4,709	1,690
Net income per share:			
Basic	0.29	0.19	0.09
Diluted	0.27	0.18	0.08
Shares used for calculation of net income per share:			
Basic	25,008	24,808	19,417
Diluted	26,478	26,406	19,942

NOVA MEASURING INSTRUMENTS LTD.
YEAR TO DATE CONSOLIDATED STATEMENTS OF OPERATIONS
(U.S. dollars in thousands, except per share data)

	Nine-months ended	
	September 30, 2010	**September 30, 2009**
REVENUES		
Product sales	49,140	16,993
Services	10,491	7,085
	59,631	24,078
COST OF REVENUES		
Product sales	20,214	7,333
Services	7,383	6,554
	27,597	13,887
GROSS PROFIT	32,034	10,191
OPERATING EXPENSES		
Research & Development expenses, net	8,165	4,816
Sales & Marketing expenses	7,248	3,989
General & Administration expenses	2,125	1,581
	17,538	10,386
OPERATING PROFIT (LOSS)	14,496	(195)
INTEREST INCOME, NET	186	132
NET INCOME (LOSS) FOR THE PERIOD	14,682	(63)
Net income (loss) per share:		
Basic	0.61	(0.00)
Diluted	0.57	
Shares used for calculation of net income (loss) per share:		
Basic	24,182	19,391
Diluted	25,540	

NOVA MEASURING INSTRUMENTS LTD.
QUARTERLY CONSOLIDATED STATEMENTS OF CASH FLOWS
(U.S. dollars in thousands)

	Three months ended		
	September 30, 2010	**June 30, 2010**	**September 30, 2009**
CASH FLOW – OPERATING ACTIVITIES			
Net income for the period	7,274	4,709	1,690
Adjustments to reconcile net loss to net cash used in operating activities:			
Depreciation and amortization	354	323	311
Amortization of deferred stock-based compensation	215	122	130
Increase (decrease) in liability for employee termination benefits, net	(10)	105	(2)
Net recognized gains on investments	--	--	4
Decrease (increase) in trade accounts receivables	(1,670)	67	(622)
Decrease (increase) in inventories	(2,065)	(1,855)	790
Decrease (Increase) in other short and long term assets	(776)	(388)	45
Increase (decrease) in trade accounts payables	2,095	289	(662)
Increase in other current and long-term liabilities	1,738	1,130	1,039
Increase (decrease) in short and long term deferred income	746	1,769	(857)
Net cash from operating activities	**7,901**	**6,271**	**1,866**
CASH FLOW – INVESTMENT ACTIVITIES			
Increase in short-term interest-bearing bank deposits	(3,934)	(10,701)	--
Proceeds from long-term interest-bearing bank deposits	--	--	4,595
Investments in long-term deposits	--	--	(2)
Additions to fixed assets	(453)	(307)	(72)
Net cash from (used in) investment activities	**(4,387)**	**(11,008)**	**4,521**
CASH FLOW – FINANCING ACTIVITIES			
Shares issued under employee share-based plans	625	51	--
Shares issued in public offering	--	--	142
Net cash from financing activities	**625**	**51**	**142**
Increase (decrease) in cash and cash equivalents	**4,139**	**(4,686)**	**6,529**
Cash and cash equivalents – beginning of period	**6,838**	**11,524**	**9,017**
Cash and cash equivalents – end of period	**10,977**	**6,838**	**15,546**

NOVA MEASURING INSTRUMENTS LTD.
YEAR TO DATE CONSOLIDATED STATEMENTS OF CASH FLOWS
(U.S. dollars in thousands)

	Nine months ended September 30, 2010	Nine months ended September 30, 2009
CASH FLOW – OPERATING ACTIVITIES		
Net income (loss) for the period	14,682	(63)
Adjustments to reconcile net loss to net cash used in operating activities:		
Depreciation and amortization	1,001	907
Amortization of deferred stock-based compensation	453	336
Increase in liability for employee termination benefits, net	143	28
Increase in trade accounts receivables	(978)	(2,819)
Decrease (increase) in inventories	(6,187)	1,946
Decrease (increase) in other current and long term assets	(1,423)	134
Increase (decrease) in trade accounts payables and other long term liabilities	4,929	(1,964)
Increase (decrease) in current liabilities	1,762	(600)
Increase (decrease) in short and long term deferred income	4,763	(1,795)
Net cash from (used in) operating activities	**19,145**	**(3,890)**
CASH FLOW – INVESTMENT ACTIVITIES		
Decrease (increase) in short-term interest-bearing bank deposits	(34,621)	50
Proceeds from (investment in) long-term deposits	(9)	19
Additions to fixed assets	(1,165)	(100)
Net cash used in investment activities	**(35,795)**	**(31)**
CASH FLOW – FINANCING ACTIVITIES		
Shares issued under employee share-based plans	798	142
Shares issued in public offering	16,968	--
Net cash from financing activities	**17,766**	**142**
Increase (decrease) in cash and cash equivalents	**1,116**	**(3,779)**
Cash and cash equivalents – beginning of period	**9,861**	**19,325**
Cash and cash equivalents – end of period	**10,977**	**15,546**