UNITED STATES SECURITIES AND EXCHANGE COMMISSION Washington, D.C. 20549

FORM 8-K

CURRENT REPORT PURSUANT TO SECTION 13 OR 15(d)

OF THE SECURITIES EXCHANGE ACT OF 1934

DATE OF REPORT (DATE OF EARLIEST EVENT REPORTED): January 25, 2005

TEXAS INSTRUMENTS INCORPORATED (Exact name of registrant as specified in charter)

DELAWARE 001-03761 750289970 (State or other jurisdiction (Commission file number) (I.R.S. employer of incorporation) identification no.)

12500 TI BOULEVARD
P.O. BOX 660199
DALLAS, TEXAS 75266-0199
(Address of principal executive offices)

Registrant's telephone number, including area code: (972) 995-3773

Check the appropriate box below if the Form 8-K is intended to simultaneously satisfy the filing obligation of the registrant under any of the following provisions:

- __ Written communications pursuant to Rule 425 under the Securities Act (17 CFR 230.425)
- Soliciting material pursuant to Rule 14a-12 under the Exchange Act (17 CFR 240.14a-12)
- Pre-commencement communications pursuant to Rule 14d-2(b) under the Exchange Act (17 CFR 240.14d-2(b))
- Pre-commencement communications pursuant to Rule 13e-4(c) under the Exchange Act (17 CFR 240.13e-(4c))

ITEM 8.01. Other Events

The Registrant's news release dated January 25, 2005, regarding an authorization by its Board of Directors for the Registrant to repurchase an additional \$2 billion of its common stock, is attached hereto as Exhibit 99 is incorporated by reference herein.

ITEM 9.01. Exhibits

Designation of Exhibit in

this Report Description of Exhibit

99 Registrant's News Release Dated January 25, 2005

"Safe Harbor" Statement under the Private Securities Litigation Reform Act of 1995: The statements contained in this report on Form 8-K are "forward-looking statements" intended to qualify for the safe harbor from liability established

by the Private Securities Litigation Reform Act of 1995. These forward-looking statements are subject to certain risks and uncertainties that could cause actual results to differ materially from those in forward-looking statements.

We urge you to carefully consider the following important factors that could cause actual results to differ materially from the expectations of the company or its management:

- Market demand for semiconductors, particularly for analog chips and digital signal processors in key markets, such as telecommunications and computers;
- TI's ability to maintain or improve profit margins, including its ability to utilize its manufacturing facilities at sufficient levels to cover its fixed operating costs, in an intensely competitive and cyclical industry;
- TI's ability to develop, manufacture and market innovative products in a rapidly changing technological environment;
- TI's ability to compete in products and prices in an intensely competitive industry;
- - Losses or curtailments of purchases from key customers;
- The timing and amount of distributor and other customer inventory adjustments;
- The financial impact of inadequate or excess TI inventories to meet demand that differs from projections;
- TI's ability to maintain and enforce a strong intellectual property portfolio and obtain needed licenses from third parties;
- Consolidation of TI's patent licensees and market conditions reducing royalty payments to TI;
- Economic, social and political conditions in the countries in which TI, its customers or its suppliers operate, including security risks, health conditions, possible disruptions in transportation networks and fluctuations in foreign currency exchange rates;
- - Natural events such as severe weather and earthquakes in the locations in which TI, its customers or its suppliers operate;
- Availability and cost of raw materials and critical manufacturing equipment;
- Changes in the tax rate applicable to TI as a result of changes in tax law, the jurisdictions in which profits are determined to be earned and taxed, the outcome of tax audits and the ability to realize deferred tax assets;
- - TI's ability to recruit and retain skilled personnel; and
- Timely implementation of new manufacturing technologies, installation of manufacturing equipment, and the ability to obtain needed third-party foundry and assembly/test subcontract services.

For a more detailed discussion of these and other factors, see the text under the heading "Cautionary Statements Regarding Future Results of Operations" in Item 1 of TI's most recent Form 10-K. The forward-looking statements included in this Form 8-K are made only as of the date of this Form 8-K and TI undertakes no obligation to update the forward-looking statements to reflect subsequent events or circumstances.

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 hereunto duly authorized.

TEXAS INSTRUMENTS INCORPORATED

Date: January 25, 2005 By: /s/ KEVIN P. MARCH

Kevin P. March Senior Vice President and Chief Financial Officer

Exhibit 99

NEWS RELEASE C-05005

TI BOARD AUTHORIZES ADDITIONAL \$2 BILLION STOCK BUYBACK

DALLAS (Jan. 25, 2005) - Texas Instruments Incorporated (TI) (NYSE:TXN) today announced that its Board of Directors has authorized the company to repurchase an additional \$2 billion of its common stock. This is the second large repurchase program the company has announced in the past 6 months.

"TI's leadership in high-growth markets gives the company its strongest balance sheet in history and positions us for continued growth. This success enables us to return increased value to our shareholders," said Rich Templeton, TI's president and chief executive officer.

When combined with other previously announced buyback plans, the total outstanding share repurchase authorization is now about \$3 billion. In 2004, the company repurchased \$753 million of TI common stock, compared with \$284 million in 2003.

TI plans to repurchase shares at times and prices considered appropriate by the company. The company had 1,718.1 million shares outstanding at the end of the 2004.

###

"Safe Harbor" Statement under the Private Securities Litigation Reform Act of 1995: This release includes forward-looking statements intended to qualify for the safe harbor from liability established by the Private Securities Litigation Reform Act of 1995. These forward-looking statements generally can be identified by phrases such as TI or its management "believes," "expects," "anticipates," "foresees," "forecasts," "estimates" or other words or phrases of similar import. Similarly, statements in this release that describe the company's business strategy, outlook, objectives, plans, intentions or goals also are forward-looking statements. All such forward-looking statements are subject to certain risks and uncertainties that could cause actual results to differ materially from those in forward-looking statements.

We urge you to carefully consider the following important factors that could cause actual results to differ materially from the expectations of the company or its management:

- - Market demand for semiconductors, particularly for analog chips and digital signal processors in key markets, such as telecommunications and computers;
- TI's ability to maintain or improve profit margins, including its ability to utilize its manufacturing facilities at sufficient levels to cover its fixed operating costs, in an intensely competitive and cyclical industry;
- TI's ability to develop, manufacture and market innovative products in a rapidly changing technological environment;
- - TI's ability to compete in products and prices in an intensely competitive industry;
- Losses or curtailments of purchases from key customers;
- The timing and amount of distributor and other customer inventory adjustments;
- The financial impact of inadequate or excess TI inventories to meet demand that differs from projections;
- TI's ability to maintain and enforce a strong intellectual property portfolio and obtain needed licenses from third parties;
- Consolidation of TI's patent licensees and market conditions reducing royalty payments to TI;
- Economic, social and political conditions in the countries in which TI, its customers or its suppliers operate, including security risks, health conditions, possible disruptions in transportation networks and fluctuations in foreign currency exchange rates;

- Natural events such as severe weather and earthquakes in the locations in which TI, its customers or its suppliers operate;
- Availability and cost of raw materials and critical manufacturing equipment;
- Changes in the tax rate applicable to TI as a result of changes in tax law, the jurisdictions in which profits are determined to be earned and taxed, the outcome of tax audits and the ability to realize deferred tax assets;
- - TI's ability to recruit and retain skilled personnel; and
- Timely implementation of new manufacturing technologies, installation of manufacturing equipment, and the ability to obtain needed third-party foundry and assembly/test subcontract services.

For a more detailed discussion of these factors, see the text under the heading "Cautionary Statements Regarding Future Results of Operations" in Item 1 of the company's most recent Form 10-K. The forward-looking statements included in this release are made only as of the date of publication, and the company undertakes no obligation to update the forward-looking statements to reflect subsequent events or circumstances.

Texas Instruments Incorporated provides innovative DSP and analog technologies to meet our customers' real world signal processing requirements. In addition to Semiconductor, the company's businesses include Sensors & Controls and Educational & Productivity Solutions. TI is headquartered in Dallas, Texas, and has manufacturing, design or sales operations in more than 25 countries.

Texas Instruments is traded on the New York Stock Exchange under the symbol TXN. More information is located on the World Wide Web at www.ti.com .