As filed with the Securities and Exchange Commission on October 11, 2011

**Registration No. 333-**

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

# FORM S-8 REGISTRATION STATEMENT Under THE SECURITIES ACT OF 1933

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

Delaware (State or other jurisdiction of incorporation or organization) 75-0289970 (I.R.S. Employer Identification No.)

#### 12500 TI Boulevard P.O. Box 655474 Dallas, Texas 75265-5474 (Address of principal executive offices including zip code)

National Semiconductor Corporation 2009 Incentive Award Plan (Full title of the plan)

Joseph F. Hubach Senior Vice President, Secretary and General Counsel Texas Instruments Incorporated 12500 TI Boulevard P.O. Box 660199 Dallas, Texas 75265-0199 (Name and address of agent for service) 972-995-3773 (Telephone number, including area code, of agent for service)

Indicate by check mark whether the registrant is a large accelerated filer, an accelerated filer, a non-accelerated filer, or a smaller reporting company. See the definitions of "large accelerated filer," "accelerated filer" and "smaller reporting company" in Rule 12b-2 of the Exchange Act. (Check one)

Large accelerated filer S Non-accelerated filer

(Do not check if a smaller reporting company)

Accelerated filer [] Smaller reporting company []

## CALCULATION OF REGISTRATION FEE

|                                      |                    | Proposed       | Proposed           |              |
|--------------------------------------|--------------------|----------------|--------------------|--------------|
|                                      |                    | Maximum        | Maximum            | Amount of    |
|                                      | Amount to be       | Offering Price | Aggregate          | Registration |
| Title of Securities to be Registered | Registered (1) (2) | Per Share (3)  | Offering Price (3) | Fee (3)      |
| Common Stock (\$1 par value)         | 6,201,057          | \$25.13        | \$155,857,619      | \$17,862     |

(1) Pursuant to Rule 416 under the Securities Act of 1933 (the "Securities Act"), the Registrant is also registering an indeterminate number of additional shares which may be issued to prevent dilution resulting from stock splits, stock dividends or similar transactions.

(2) Represents shares subject to issuance relating to awards (including stock options and restricted stock units) outstanding under the National Semiconductor Corporation 2009 Incentive Award Plan, and assumed by the Registrant on September 23, 2011 pursuant to an Agreement and Plan of Merger by and among the Registrant, a wholly owned subsidiary of the Registrant and National Semiconductor Corporation dated as of April 4, 2011.

(3) Calculated in accordance with Rule 457 under the Securities Act.

#### EXPLANATORY NOTE

Texas Instruments Incorporated (the "Company") is filing this Registration Statement on Form S-8 in connection with outstanding equity awards ("Awards") granted under the National Semiconductor Corporation 2009 Incentive Award Plan. Pursuant to the Agreement and Plan of Merger, dated as of April 4, 2011, by and among the Company, a wholly owned subsidiary of the Company and National Semiconductor Corporation, shares of the Company's common stock became issuable with respect to the Awards assumed by the Company upon the closing of the merger on September 23, 2011.

#### PART II

## INFORMATION REQUIRED IN THE REGISTRATION STATEMENT

Item 3. Incorporation of Documents by Reference

The following documents have been filed by the Company with the Securities and Exchange Commission (the "Commission") pursuant to the Securities Exchange Act of 1934 (the "Exchange Act") and are incorporated herein by reference and made a part of this registration statement:

1. The Company's Annual Report on Form 10-K for the year ended December 31, 2010;

2. The Company's Quarterly Reports on Form 10-Q for the quarters ended March 31, 2011, and June 30, 2011;

3. The Company's Current Reports on Form 8-K filed February 18, 2011, March 14, 2011, April 4, 2011, April 5, 2011, April 27, 2011, May 16, 2011, May 23, 2011, July 27, 2011, September 15, 2011, September 21, 2011, and September 23, 2011 (excluding the information furnished under Item 7.01); and

4. The description of the Company's common stock contained in its Registration Statements on Form 10 filed with the Commission pursuant to Section 12 of the Exchange Act together with any amendment or report filed with the Commission for the purpose of updating such description.

All documents filed by the Company with the Commission pursuant to Sections 13(a), 13(c), 14, or 15(d) of the Exchange Act subsequent to the date of this Registration Statement and prior to the filing of a post-effective amendment which indicates that all securities offered hereby have been sold or which deregisters all securities then remaining unsold, shall be deemed to be incorporated herein by reference and to be a part hereof from the date of filing of such documents. Any statement contained herein or in a document incorporated or deemed to be incorporated by reference herein shall be deemed to be modified or superseded for purposes of this Registration Statement to the extent that a statement contained herein or in any subsequently filed document which is or is deemed to be incorporated by reference herein modifies or supersedes such statement. Any such statements so modified or superseded shall not be deemed, except as so modified or superseded, to constitute a part of this Registration Statement.

Item 4. Description of Securities

Not Applicable.

Item 5. Interests of Named Experts and Counsel

Not Applicable.

Item 6. Indemnification of Directors and Officers

The General Corporation Law of the State of Delaware, at Section 145, provides, in pertinent part, that a corporation may indemnify any person who was or is a party or is threatened to be made a party to any threatened, pending or completed action, suit or proceeding, whether civil, criminal, administrative or investigative (other than an action by or in the right of the corporation), by reason of the fact that such person is or was a director, officer, employee or agent of the corporation, or is or was serving at the request of the corporation as the director, officer, employee or agent of another corporation, partnership, joint venture, trust or other enterprise, against expenses (including attorneys' fees), judgments, fines and amounts paid in settlement actually and reasonably incurred by the person in connection with such action, suit or proceeding if the person acted in good faith and in a manner the person reasonably believed to be in or not opposed to the best interests of the corporation and, with respect to any criminal action or proceeding, had no reasonable cause to believe the person's conduct was unlawful. The termination of any action, suit or proceeding by judgment, order, settlement, conviction or upon a plea of nolo contendere or its equivalent, shall not, of itself, create a presumption that the person did not act in good faith and in a manner which the person reasonably believed to be in or not opposed to the best interests of the corporation, and, with respect to any criminal action or proceeding, had reasonable cause to believe that the person's conduct was unlawful. In addition, the indemnification of expenses (including attorneys' fees) is allowed in derivative actions, except no indemnification is allowed in respect to any claim, issue or matter as to which any such person has been adjudged to be liable to the corporation, unless and only to the extent that the Court of Chancery or the court in which such action or suit was brought decides that indemnification is proper. To the extent that any such person succeeds on the merits or otherwise, such person shall be indemnified against expenses (including attorneys' fees) actually and reasonably incurred by such person in connection therewith. The determination that the person to be indemnified met the applicable standard of conduct, if not made by a court and if such person is a director or officer at the time of such determination, is made by the directors of the corporation by a majority vote of the directors not party to such an action, suit or proceeding even though less than a quorum, by a committee of such directors designated by a majority vote of such directors even though less than a quorum, or, if there are no such directors, or if such directors so direct, by independent legal counsel in a written opinion or by the stockholders. Expenses may be paid in advance upon the receipt, in the case of officers and directors, of undertakings to repay such amount if it shall ultimately be determined that the person is not entitled to be indemnified by the corporation as authorized in this section. A corporation may purchase indemnity insurance.

The above-described indemnification and advancement of expenses, unless otherwise provided when authorized or ratified, continue as to a person who has ceased to be a director, officer, employee or agent and inure to the benefit of such person's heirs, executors and administrators.

Article VI, Section 2 of the Company's By-laws provides that the Company shall indemnify its officers and directors for such expenses, judgments, fines and amounts paid in settlement to the full extent permitted by the laws of the State of Delaware.

Section 102(b)(7) of the Delaware General Corporation Law, as amended, permits a corporation to provide in its certificate of incorporation that a director of the corporation shall not be personally liable to the corporation or its stockholders for monetary damages for breach of fiduciary duty as a director, except for

liability (i) for any breach of the director's duty of loyalty to the corporation or its stockholders, (ii) for acts or omissions not in good faith or which involve intentional misconduct or a knowing violation of law, (iii) under Section 174 of the Delaware General Corporation Law, or (iv) for any transaction from which the director derived an improper personal benefit. Article Seventh of the Company's Restated Certificate of Incorporation contains such a provision.

Under insurance policies of the Company, directors and officers of the Company may be indemnified against certain losses arising from certain claims, including claims under the Securities Act of 1933, which may be made against such persons by reason of their being such directors or officers.

Item 7. Exemption from Registration Claimed

Not Applicable.

Item 8. Exhibits

| 5     | Opinion of Jones Day.                            |
|-------|--|
| 23(a) | Consent of Ernst & Young LLP.                    |
| 23(b) | Consent of Jones Day (included in Exhibit 5).    |
| 24    | Power of Attorney (included on signature pages). |

Item 9. Undertakings

The Company hereby undertakes:

(1) To file, during any period in which offers or sales are being made of the securities registered hereby, a post-effective amendment to this registration statement:

(i) To include any prospectus required by Section 10(a)(3) of the Securities Act of 1933;

(ii) To reflect in the prospectus any facts or events arising after the effective date of this registration statement (or the most recent post-effective amendment thereof) which, individually or in the aggregate, represent a fundamental change in the information set forth in this registration statement; and

(iii) To include any material information with respect to the plan of distribution not previously disclosed in this registration statement or any material change to such information in this registration statement;

provided, however, that the undertakings set forth in paragraphs 1(i) and 1(ii) above do not apply if the information required to be included in a posteffective amendment by those paragraphs is contained in reports filed or furnished by the Company pursuant to Section 13 or Section 15(d) of the Securities Exchange Act of 1934 that are incorporated by reference in this registration statement.

(2) That, for the purpose of determining any liability under the Securities Act of 1933, each such post-effective amendment shall be deemed to be a new registration statement relating to the securities offered herein, and the offering of such securities at that time shall be deemed to be the initial bona fide offering thereof.

(3) To remove from registration by means of a post-effective amendment any of the securities being registered which remain unsold at the termination of the offering.

The Company hereby further undertakes that, for purposes of determining any liability under the Securities Act of 1933, each filing of the Company's annual report pursuant to Section 13(a) or Section 15(d) of the Securities Exchange Act of 1934 (and, where applicable, each filing of an employee benefit plan's annual report pursuant to Section 15(d) of the Securities Exchange Act of 1934) that is incorporated by reference in this registration statement shall be deemed to be a new registration statement relating to the securities offered therein, and the offering of such securities at that time shall be deemed to be the initial bona fide offering thereof.

Insofar as indemnification for liabilities arising under the Securities Act of 1933 may be permitted to directors, officers and controlling persons of the Company pursuant to the provisions set forth or described in Item 6 of this registration statement, or otherwise, the Company has been advised that in the opinion of the Securities and Exchange Commission such indemnification is against public policy as expressed in the Securities Act of 1933 and is, therefore, unenforceable. In the event that a claim for indemnification against such liabilities (other than the payment by the Company of expenses incurred or paid by a director, officer or controlling person of the Company in a successful defense of any action, suit or proceeding) is asserted against the Company by such director, officer or controlling person in connection with the securities registered hereby, the Company will, unless in the opinion of its counsel the matter has been settled by controlling precedent, submit to a court of appropriate jurisdiction the question whether such indemnification by it is against public policy as expressed in the Securities Act of 1933 and will be governed by the final adjudication of such issue.

# SIGNATURES

Pursuant to the requirements of the Securities Act of 1933, the Registrant certifies that it has reasonable grounds to believe that it meets all of the requirements for filing on Form S-8 and has duly caused this registration statement to be signed on its behalf by the undersigned, thereunto duly authorized, in the City of Dallas and State of Texas, on the 10th day of October, 2011.

TEXAS INSTRUMENTS INCORPORATED (Registrant)

By: /s/ KEVIN P. MARCH

Kevin P. March Senior Vice President and Chief Financial Officer

# POWER OF ATTORNEY

KNOW ALL MEN BY THESE PRESENTS, that the undersigned constitutes and appoints RICHARD K. TEMPLETON, JOSEPH F. HUBACH and KEVIN P. MARCH, and each of them, with full power to act without the others, his or her true and lawful attorneys-in-fact and agents, with full and several power of substitution, for him or her and in his or her name, place and stead, in any and all capacities, to sign the Registration Statement on Form S-8 under the Securities Act of 1933 and any or all amendments or supplements to such Registration Statement, and to file the same, with all exhibits thereto, and other documents in connection therewith, with the Securities and Exchange Commission, granting unto said attorneys-in-fact and agents, and each of them, full power and authority to do and perform each and every act and thing requisite and necessary to be done in and about the premises, as fully to all intents and purposes as he or she might or could do in person, hereby ratifying and confirming all that said attorneys-in-fact and agents or any of them, or their or his or her substitutes, may lawfully do or cause to be done by virtue hereof.

Pursuant to the requirements of the Securities Act of 1933, this registration statement has been signed by the following persons in the capacities indicated on the 10th day of October, 2011.

| Signature                  | Title   |
|----------------------------|---|
| /s/ RALPH W. BABB, JR.     |   |
| Ralph W. Babb, Jr.         | Director  |
| /s/ DANIEL A. CARP         |   |
| Daniel A. Carp             | Director  |
| /s/ CARRIE S. COX          |   |
| Carrie S. Cox              | Director  |
| /s/ STEPHEN P. MACMILLAN   |   |
| Stephen P. MacMillan       | Director  |
| /s/ PAMELA H. PATSLEY      |   |
| Pamela H. Patsley          | Director  |
| /s/ ROBERT E. SANCHEZ      |   |
| Robert E. Sanchez          | Director  |
| /s/ WAYNE R. SANDERS       |   |
| Wayne R. Sanders           | Director  |
| /s/ RUTH J. SIMMONS        |   |
| Ruth J. Simmons            | Director  |
| /s/ RICHARD K. TEMPLETON   |   |
| Richard K. Templeton       | Chairman; President;<br>Chief Executive Officer; Director |
| /s/ CHRISTINE TODD WHITMAN |   |
| Christine Todd Whitman     | Director  |
| /s/ KEVIN P. MARCH         |   |
| Kevin P. March             | Senior Vice President;<br>Chief Financial Officer;        |
|                            | Chief Accounting Officer                                  |

# INDEX TO EXHIBITS

| Exhibit<br>Number | Exhibit  |
|-------------------|--|
| 5                 | Opinion of Jones Day.                            |
| 23(a)             | Consent of Ernst & Young LLP.                    |
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| 24                | Power of Attorney (included on signature pages). |

Board of Directors Texas Instruments Incorporated 12500 TI Boulevard Dallas, Texas 75243

#### Re: Registration Statement on Form S-8 Filed by Texas Instruments Incorporated

Ladies and Gentlemen:

We have acted as counsel for Texas Instruments Incorporated, a Delaware corporation (the "*Company*"), in connection with the registration of 6,201,057 shares of the Company's Common Stock, par value \$1.00 per share (the "*Shares*"). The Shares are subject to issuance by the Company upon exercise of options and settlement of restricted stock units that were granted under the National Semiconductor Corporation 2009 Incentive Award Plan (the "*Plan*") and assumed by the Company pursuant to the Agreement and Plan of Merger, dated as of April 4, 2011, by and among the Company, a wholly owned subsidiary of the Company and National Semiconductor Corporation (collectively, the "*Assumed Awards*"). In connection with the opinion expressed herein, we have examined such documents, records and matters of law as we have deemed relevant or necessary for purposes of this opinion. Based on the foregoing, and subject to the further limitations, qualifications and assumptions set forth herein, we are of the opinion that the Shares that may be issued or delivered by the Company upon exercise or settlement of the Assumed Awards, as applicable, have been authorized by all necessary corporate action of the Company and will be, when issued or delivered in accordance with the terms of the Plan and associated award agreements, validly issued, fully paid and nonassessable.

The opinion expressed herein is limited to the General Corporation Law of the State of Delaware, including the applicable provisions of the Delaware Constitution and the reported judicial decisions interpreting such law, in each case as currently in effect, and we express no opinion as to the effect of the laws of any other jurisdiction. In addition, we have assumed that the resolutions authorizing the Company to issue or deliver the Shares upon exercise or settlement of the Assumed Awards will be in full force and effect at all times at which such Shares are issued or delivered by the Company, and the Company will take no action inconsistent with such resolutions.

We hereby consent to the filing of this opinion as Exhibit 5 to the Registration Statement on Form S-8 filed by the Company to effect registration of the Shares to be issued or delivered upon exercise or settlement of the Assumed Awards under the Securities Act of 1933 (the "*Act*"). In giving such consent, we do not thereby admit that we are included in the category of persons whose consent is required under Section 7 of the Act or the rules and regulations of the Securities Exchange Commission promulgated thereunder.

Very truly yours,

<u>/s/ JONES DAY</u> Jones Day

# CONSENT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

We consent to the incorporation by reference in the Registration Statement (Form S-8) pertaining to the National Semiconductor Corporation 2009 Incentive Award Plan of our reports dated February 25, 2011, with respect to the consolidated financial statements of Texas Instruments Incorporated and the effectiveness of internal control over financial reporting of Texas Instruments Incorporated included in its Annual Report (Form 10-K) for the year ended December 31, 2010, filed with the Securities and Exchange Commission.

<u>/s/ ERNST & YOUNG LLP</u> Ernst & Young LLP

Dallas, Texas October 10, 2011