
SECURITIES AND EXCHANGE COMMISSION
WASHINGTON, D.C. 20549

FORM S-8
REGISTRATION STATEMENT
UNDER
THE SECURITIES ACT OF 1933

ON Semiconductor Corporation

(Exact Name of Registrant as Specified in Its Charter)

Delaware
(State or Other Jurisdiction of
Incorporation or Organization)

36-3840979
(I.R.S. Employer
Identification Number)

5005 E. McDowell Road
Phoenix, AZ 85008
(602) 244-6600
(Address of Registrant's Principal Executive Offices)

ON Semiconductor Corporation (fka SCG Holding Corporation) Executive Deferred Compensation Plan, and
ON Semiconductor Corporation (fka SCG Holding Corporation) Director Deferred Compensation Plan
(Full Title of the Plan)

George H. Cave, Esq.
ON Semiconductor Corporation
5005 E. McDowell Road
Phoenix, AZ 85008
(602) 244-5226
(Name, Address, and Telephone Number, Including Area Code, of Agent for Service)

CALCULATION OF REGISTRATION FEE

Title of each class of securities to be registered	Name of Plan	Amount to be registered	Proposed maximum offering price per share	Proposed maximum aggregate offering price(1)	Amount of registration fee
ON Semiconductor Corporation Executive Deferred Compensation Plan Obligations(2)	ON Semiconductor Corporation Executive Deferred Compensation Plan	100%	N/A	\$ 6,000,000	\$ 485.40
ON Semiconductor Corporation Director Deferred Compensation Plan Obligations(2)	ON Semiconductor Corporation Director Deferred Compensation Plan	100%	N/A	\$ 1,000,000	\$ 80.90
Total		100%	N/A	\$ 7,000,000	\$ 566.30

- (1) Estimated solely for the purpose of calculating the amount of the registration fee, pursuant to Rule 457(h) of the Securities Act of 1933
- (2) The ON Semiconductor Corporation Director Deferred Compensation Plan Obligations and the ON Semiconductor Corporation Executive Deferred Compensation Plan Obligations are unsecured obligations of ON Semiconductor Corporation to pay deferred compensation in the future in accordance with the ON Semiconductor Corporation Director Deferred Compensation Plan to its Directors and the ON Semiconductor Corporation Executive Deferred Compensation Plan for a select group of eligible participants.

Part I
Information Required In Section 10(a) Prospectus

The document(s) containing the information specified in Part I of Form S-8 will be sent or given to participating directors and employees as specified by Rule 428(b)(1) of the Securities Act of 1933, as amended. These documents and the documents incorporated by reference into this Registration Statement pursuant to Item 3 of Part II of this Registration Statement, taken together, constitute a prospectus that meets the requirements of Section 10(a) of the Securities Act.

Part II
Information Required In The Registration Statement

Item 3. Incorporation of Documents by Reference.

The following documents, which previously have been filed by ON Semiconductor Corporation (“Corporation” or “Registrant”) with the Commission, are incorporated herein by reference and made a part hereof:

- (i) The Corporation’s Annual Report on Form 10-K for the fiscal year ended December 31, 2002, filed with the Commission on March 25, 2003;
- (ii) The Corporation’s Quarterly Reports on Form 10-Q for the quarterly period ended April 4, 2003, filed with the Commission on May 16, 2003;
- (iii) The Corporation’s Current Reports on Form 8-K, filed with the Commission on January 29, 2003, February 7, 2003, February 18, 2003, March 4, 2003, March 18, 2003, May 1, 2003, June 20, 2003 and July 30, 2003; and
- (iv) All other reports filed pursuant to Section 13(a) or 15(d) of the Securities Exchange Act of 1934, as amended (“Exchange Act”), since the end of the fiscal year covered by registration document referred to in (i) above.

All reports and other documents filed by the Corporation 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 hereto, which indicates that all securities offered hereunder have been sold or which deregisters all securities remaining unsold, shall be deemed to be incorporated by reference in this Registration Statement and to be a part hereof from the date of filing of such documents.

For purposes of this Registration Statement, any document or any statement contained in a document incorporated or deemed to be incorporated herein by reference shall be deemed to be modified or superseded to the extent that a subsequently filed document or a statement contained herein or in any other subsequently filed document which also is or is deemed to be incorporated herein by reference modifies or supersedes such document or such statement in such document. Any statement 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.

The securities being registered represent obligations (the “Obligations”) of ON Semiconductor Corporation to make future payments to the participants in the ON Semiconductor Corporation Director Deferred Compensation Plan and the ON Semiconductor Corporation Executive Deferred Compensation Plan (collectively, the “Plan”). The Obligations consist of ON’s commitment under the Plan to deliver at a future date any of the following:

- compensation the receipt of which the participants have elected to defer under the terms of the Plan, and
- earnings on the foregoing amounts based on a notional investment measurement.

The amount of compensation to be deferred by each participant will be determined in accordance with the Plan based on elections by the participant. The Obligations will be indexed to one or more notional investment media individually chosen by the participant from a list specified pursuant to the Plan. The investment media selected by a participant will be used to measure the return

on his/her Plan accounts. The investment media will be used only for the purpose of calculating hypothetical returns, and the amounts in participants' Plan accounts will not actually be invested in the selected investment media.

The Obligations are generally payable in a cash lump-sum distribution upon a participant's death, withdrawal from the Plan, or termination of employment with ON Semiconductor or any of its affiliates. Under limited circumstances, at the participant's election, payment of the Obligations will be made in cash installments. There is no trading market for the Obligations.

The Obligations are unsecured general obligations of ON Semiconductor to make future payments to participants in accordance with the terms of the Plan. Obligations will rank without preference with other unsecured and unsubordinated indebtedness of ON Semiconductor from time to time outstanding and are, therefore, subject to the risks of ON Semiconductor's insolvency. ON Semiconductor has established a trust to serve as a source of funds from which it can satisfy the Obligations. Participants in the Plan will have no rights to any assets held by the trust, except as general creditors of ON Semiconductor. Assets of the trust will at all times be subject to the claims of the general creditors of ON Semiconductor and the general creditors of its affiliates adopting the Plan.

A participant's rights to any amounts credited to his accounts may not be alienated, sold, transferred, assigned, pledged, attached or otherwise encumbered by the participant and may only pass upon the participant's death pursuant to a beneficiary designation made by a participant in accordance with the terms of the Plan. The Obligations are not convertible into any other security of ON Semiconductor. ON Semiconductor reserves the right to amend, merge, consolidate or terminate the Plan.

Item 5. Interests of Named Experts and Counsel.

Not applicable.

Item 6. Indemnification of Directors and Officers.

Section 145 of the General Corporation Law of Delaware empowers a Delaware corporation to indemnify, subject to the standards set forth therein, any person who is a party in any action in connection with any action, suit or proceeding brought or threatened by reason of the fact that the person was a director, officer, employee or agent of such company, or is or was serving as such with respect to another entity at the request of such company. The General Corporation Law of Delaware also provides that a Delaware corporation may purchase insurance on behalf of any such director, officer, employee or agent.

Article Eleventh of our Amended and Restated Certificate of Incorporation provides for indemnification of our officers and directors to the full extent permitted by the Delaware General Corporation Law.

We carry insurance policies which cover our individual directors and officers for legal liability and which would pay on our behalf for expenses of indemnifying directors and officers in accordance with our Certificate of Incorporation.

Section 102(b)(7) of the Delaware General Corporation Law enables a Delaware corporation to provide in its certificate of incorporation for the elimination or limitation of the personal liability of a director to the corporation or its stockholders for monetary damages for breach of fiduciary duty as a director. Any such provision cannot eliminate or limit a director's liability (1) for any breach of the director's duty of loyalty to the corporation or its stockholders; (2) for acts or omissions not in good faith or which involve intentional misconduct or a knowing violation of law; (3) under Section 174 of the Delaware General Corporation Law (which imposes liability on directors for unlawful payment of dividends or unlawful stock purchase or redemption); or (4) for any transaction from which the director derived an improper personal benefit. Article Sixteenth of our Certificate of Incorporation eliminates the liability of each of our directors to us and our stockholders for monetary damages for breach of fiduciary duty as a director to the full extent permitted by the Delaware General Corporation Law.

Item 7. Exemption From Registration Claimed.

Not applicable.

Item 8. Exhibits.

The following exhibits are filed with or incorporated by reference into this Registration Statement (numbering corresponds to Exhibit Table in Item 601 of Regulation S-K):

- 4.1 ON Semiconductor Amended and Restated Executive Deferred Compensation Plan (incorporated by reference from Exhibit 10.31 to Registration Statement No. 333-30670 filed with the Commission on April 25, 2000)
- 4.2 First Amendment to the ON Semiconductor Corporation Amended and Restated Executive Deferred Compensation Plan, dated September 19, 2000*
- 4.3 Second Amendment to the ON Semiconductor Amended and Restated Executive Deferred Compensation Plan (incorporated by reference from Exhibit 10.7 of First Quarter 2002 Form 10-Q filed with the Commission on May 9, 2002)
- 4.4 ON Semiconductor Director Deferred Compensation Plan (incorporated by reference from Exhibit 10.35 to Registration Statement No. 333-30670 filed with the Commission on April 25, 2000)
- 4.5 Form of Master Trust Agreement for the ON Semiconductor Deferred Compensation Plans (incorporated by reference from Exhibit 10.36 to Registration Statement No. 333-30670 filed with the Commission on April 25, 2000)
- 5.1 Opinion of George H. Cave, Esq., regarding the validity of the securities being registered*
- 23.1 Consent of PricewaterhouseCoopers LLP, Independent Auditors*
- 23.2 Consent of George H. Cave, Esq. (included in Exhibit 5.1)*
- 24.1 Power of Attorney (included on signature page)*

* Filed herewith.

Item 9. Undertakings.

(a) The undersigned Registrant hereby undertakes:

(1) To file, during any period in which offers or sales are being made, a post-effective amendment to this Registration Statement:

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

(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. Notwithstanding the foregoing, any increase or decrease in volume of securities offered (if the total dollar value of securities offered would not exceed that which was registered) and any deviation from the low or high end of the estimated maximum offering range may be reflected in the form of the prospectus filed with the Commission pursuant to Rule 424(b) if, in the aggregate, the changes in volume and price represent no more than 20 percent change in the maximum aggregate offering price set forth in the "Calculation of Registration Fee" table in the effective registration statement.

(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 paragraphs (a)(1)(i) and (a)(1)(ii) do not apply if the information required to be included in a post-effective amendment by those paragraphs is contained in periodic reports filed with or furnished to the Commission by the Registrant pursuant to Section 13 or 15(d) of the Exchange Act that are incorporated by reference in this Registration Statement.

(2) That, for the purpose of determining any liability under the Securities Act, each such post-effective amendment 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.

(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.

(b) The undersigned Registrant hereby undertakes that, for purposes of determining any liability under the Securities Act, each filing of the Registrant's annual report pursuant to Section 13(a) or 15(d) of the Exchange Act (and, where applicable, each filing of the employee benefit plan's annual report pursuant to Section 15(d) of the Exchange Act) 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.

(c) Insofar as indemnification for liabilities arising under the Securities Act may be permitted to directors, officers and controlling persons of the Registrant pursuant to the foregoing provisions, or otherwise, the Registrant has been advised that in the opinion of the Commission such indemnification is against public policy as expressed in the Securities Act and is, therefore, unenforceable. In the event that a claim for indemnification against such liabilities (other than the payment by the Registrant of expenses incurred or paid by a director, officer or controlling person of the Registrant in the successful defense of any action, suit or proceeding) is asserted by such director, officer or controlling person in connection with the securities being registered, the Registrant 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 and will be governed by the final adjudication of such issue.

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**FIRST AMENDMENT TO THE
ON SEMICONDUCTOR CORPORATION
AMENDED AND RESTATED
EXECUTIVE DEFERRED COMPENSATION PLAN**

Effective December 13, 1999, ON Semiconductor (the "Company") adopted the ON Semiconductor Executive Deferred Compensation Plan. The Plan was subsequently amended and restated as the ON Semiconductor Amended and Restated Executive Deferred Compensation Plan ("Plan") on March 8, 2000. By this instrument, the company desires to amend the Plan to transition into the Plan those executives who formerly participated in the Cherry Semiconductor Corporation Deferred Compensation Program.

1. This Amendment shall amend only those provisions specified herein and those provisions not amended hereby shall remain in full force and effect.
2. Effective September 19, 2000, Section 3.1 of the Plan is amended by adding the following language after the third sentence:

"Notwithstanding the foregoing, effective as of September 19, 2000, any employee of the Company or an Affiliate who was a participant in the Cherry Semiconductor Corporation Deferred Compensation Plan ("Cherry Plan") shall be eligible to participate in the Plan."
3. Effective September 19, 2000, Section 6.2 of the Plan is hereby amended by adding the following language at the end of Section 6.2:

"Each Participant who was a participant in the Cherry Plan shall have an Account balance as of September 19, 2000, equal to the Participant's account balance under the Cherry Plan as of September 19, 2000."

ON SEMICONDUCTOR CORPORATION

August 12, 2003

ON Semiconductor Corporation
5005 McDowell Rd.
Phoenix, AZ 85008

Dear Sirs:

I refer to the Registration Statement on Form S-8 ("Registration Statement") to be filed today with the Securities and Exchange Commission ("Commission") under the Securities Act of 1933, as amended ("Act"), relating to the deferred compensation obligations ("Obligations") of ON Semiconductor Corporation, a Delaware corporation ("Company"), to be offered and sold under the Company's Executive Deferred Compensation Plan and the Directors Deferred Compensation Plan (collectively referred to as "Plans").

In connection with the foregoing registration, I have acted as the general counsel of the Company and have examined and am relying on originals, or copies certified or otherwise identified to my satisfaction, of such corporate records and such other instruments, and I have made such investigations of law, as I have deemed appropriate as a basis for the opinion expressed below.

Based on the foregoing, it is my opinion that the Obligations of the Company, when established pursuant to the terms of the Plans, will be valid and binding obligations of the Company, enforceable against the Company in accordance with their terms and the terms of the Plans, except as enforceability (i) may be limited by bankruptcy, insolvency, reorganization, or other similar laws affecting creditors' rights generally, and (ii) is subject to general principles of equity (regardless of whether such enforceability is considered in a proceeding in equity or at law).

I hereby consent to the filing of this opinion as an exhibit to the Registration Statement. By giving such consent, I do not thereby admit that I am an expert with respect to any part of the Registration Statement, including this exhibit, within the meaning of the term "expert" as used in the Act or the rules and regulations of the Commission issued thereunder.

Very truly yours,

By: _____ /s/ GEORGE H. CAVE

George H. Cave, Esq.

CONSENT OF INDEPENDENT AUDITORS

We hereby consent to the incorporation by reference in this Registration Statement on Form S-8 of ON Semiconductor Corporation of the following reports, all of which appear in ON Semiconductor Corporation's Registration Statement on Form S-4 (No. 333-104927) filed May 1, 2003:

- Our report dated February 5, 2003 relating to the financial statement schedule of ON Semiconductor Corporation;
- Our report dated February 5, 2003, except for Note 9 for which the date is March 3, 2003, relating to the consolidated financial statements of ON Semiconductor Corporation;
- Our report dated February 5, 2003, except for Note 8 for which the date is March 3, 2003, relating to the consolidated financial statements of Semiconductor Components Industries, LLC (a wholly-owned subsidiary of ON Semiconductor Corporation);
- Our report dated February 5, 2003, except for the fourth paragraph of Note 12 for which the date is March 3, 2003, relating to the consolidated financial statements of ON Semiconductor Trading, Ltd. (a wholly-owned subsidiary of ON Semiconductor Corporation);
- Our report dated February 5, 2003, except for the third paragraph of Note 10 for which the date is March 3, 2003, relating to the financial statements of SCG Malaysia Holdings Sdn. Bhd. (a wholly-owned subsidiary of ON Semiconductor Corporation); and,
- Our report dated February 5, 2003, except for the fourth paragraph of Note 10 for which the date is March 3, 2003, relating to the financial statements of SCG Philippines, Incorporated (a wholly-owned subsidiary of ON Semiconductor Corporation).

/s/ PricewaterhouseCoopers LLP

PricewaterhouseCoopers LLP
Phoenix, Arizona
August 12, 2003