

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**

September 13, 2004

Date of report (Date of earliest event reported)

ON Semiconductor Corporation

(Exact name of registrant as specified in its charter)

Delaware
(State or other jurisdiction
of incorporation)

000-30419
(Commission File Number)

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

ON Semiconductor Corporation
5005 E. McDowell Road
Phoenix, Arizona
(Address of principal executive offices)

85008
(Zip Code)

602-244-6600
(Registrant's telephone number, including area code)

Check the appropriate box below if the Form 8-K filing 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-4(c))
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Item 7.01. Regulation FD Disclosure

On September 13, 2004, ON Semiconductor Corporation announced, via a news release, updated revenues and gross margin guidance for its third quarter of 2004. A copy of ON Semiconductor Corporation's news release is attached hereto as Exhibit 99.

The information in this report (including its exhibit) shall not be deemed to be "filed" for purposes of Section 18 of the Securities Exchange Act of 1934, as amended ("Exchange Act"), or otherwise subject to liability of that section. The information in this report (including its exhibit) shall not be incorporated by reference into any registration statement or other document filed under the Securities Act of 1933, as amended, or the Exchange Act, regardless of any general incorporation language in such filing, except as shall be expressly set forth by specific reference in such filing.

Item 9.01. Financial Statements and Exhibits.

- (a) Financial Statements of Businesses Acquired
Not applicable.
- (b) Pro Forma Financial Information
Not applicable.
- (c) Exhibits

<u>Exhibit No.</u>	<u>Description</u>
99	News release for ON Semiconductor Corporation dated September 13, 2004 titled "ON Semiconductor Resets the Bar for the Third Quarter of 2004"

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 thereunto duly authorized.

ON SEMICONDUCTOR CORPORATION
(Registrant)

Date: September 13, 2004

By: /s/ DONALD A. COLVIN

Donald A. Colvin
Chief Financial Officer

EXHIBIT INDEX

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ON Semiconductor®

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ON Semiconductor Resets the Bar for the Third Quarter of 2004

PHOENIX, Ariz. – Sept. 13, 2004 – During its July 28, 2004 conference call and in its second quarter earnings release, ON Semiconductor provided guidance that it expected its third quarter 2004 revenues to be up 2 to 5 percent and gross margin to be up 50 to 100 basis points as compared to the second quarter of 2004. The company's revenues for the second quarter of 2004 were \$333.5 million and gross margin was 33.7 percent. Based upon weaker than anticipated end-market demand and sell-thru revenue by distributors, ON Semiconductor now expects that revenues for the third quarter of 2004 will decline by approximately 6 percent and that gross margins will decline by approximately 150 basis points as compared to the second quarter of 2004 mainly due to lower manufacturing efficiencies.

About ON Semiconductor

ON Semiconductor (NASDAQ: ONNN) offers an extensive portfolio of power and data management semiconductors and standard semiconductor components that address the design needs of today's sophisticated electronic products, appliances and automobiles. For more information visit ON Semiconductor's website at <http://www.onsemi.com>.

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ON Semiconductor and the ON Semiconductor logo are registered trademarks of Semiconductor Components Industries, LLC. All other brand and product names appearing in this document are registered trademarks or trademarks of their respective holders. Although the company references its website in this news release, such information on the website is not to be incorporated herein.

This news release includes “forward-looking statements” as that term is defined in Section 27A of the Securities Act of 1933 and Section 21E of the Securities Exchange Act of 1934. All statements other than statements of historical fact are statements that could be deemed forward-looking statements and are often characterized by the use of words such as “believes,” “expects,” “estimates,” “projects,” “may,” “will,” “intends,” “plans,” or “anticipates,” or by discussions of strategy, plans or intentions. In this news release, forward-looking information relates to third quarter 2004 revenues and gross margins. All forward-looking statements in this news release are made based on management’s current expectations and estimates, which involve risks, uncertainties and other factors that could cause results to differ materially from those expressed in forward-looking statements. Among these factors are changes in overall economic conditions, the cyclical nature of the semiconductor industry, changes in demand for our products, changes in inventories at our customers and distributors, technological and product development risks, availability of raw materials, competitors’ actions, pricing and gross margin pressures, loss of key customers, order cancellations or reduced bookings, changes in manufacturing yields, control of costs and expenses, significant litigation, risks associated with acquisitions and dispositions, risks associated with our substantial leverage and restrictive covenants in our debt agreements, risks associated with our international operations, the threat or occurrence of international armed conflict and terrorist activities both in the United States and internationally and risks involving environmental or other governmental regulation. Additional factors that could affect the company’s future operating results are described in our Form 10-K for the year ended December 31, 2003 under the caption “Trends, Risks and Uncertainties” in the MD&A section, and other factors are described from time to time in our subsequent SEC filings. Readers are cautioned not to place undue reliance on forward-looking statements. We assume no obligation to update such information.