Filed by ON Semiconductor Corporation Pursuant to Rule 425 under the Securities Act of 1933 and deemed filed pursuant to Rule 14a-12 of the Securities Exchange Act of 1934 Subject Company: Catalyst Semiconductor, Inc.

This document contains forward-looking statements within the meaning of the Private Securities Litigation Reform Act of 1995. These forward-looking statements include, but are not limited to, statements related to the benefits of the proposed transaction between ON Semiconductor Corporation ("ON") and Catalyst Semiconductor ("Catalyst Semiconductor") and the future financial performance of ON. These forward-looking statements are based on information available to ON and Catalyst Semiconductor as of the date of this release and current expectations, forecasts and assumptions and involve a number of risks and uncertainties that could cause actual results to differ materially from those anticipated by these forward-looking statements. Such risks and uncertainties include a variety of factors, some of which are beyond ON's or Catalyst Semiconductor's control. In particular, such risks and uncertainties include difficulties encountered in integrating merged businesses; the risk that the transaction does not close, including the risk that the requisite stockholder and regulatory approvals may not be obtained; the variable demand and the aggressive pricing environment for semiconductor products; dependence on each company's ability to successfully manufacture in increasing volumes on a cost-effective basis and with acceptable quality its current products; the adverse impact of competitive product announcements; revenues and operating performance, changes in overall economic conditions, the cyclical nature of the semiconductor industry, changes in demand for our products, changes in inventories at 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 leverage and restrictive covenants in debt agreements, risks associated with international operations, the threat or occurrence of international armed conflict and terrorist activities both in the United States and internationally, risks and costs associated with increased and new regulation of corporate governance and disclosure standards (including pursuant to Section 404 of the Sarbanes-Oxley Act of 2002), and risks involving environmental or other governmental regulation. Information concerning additional factors that could cause results to differ materially from those projected in the forward-looking statements is contained in ON's Annual Report on Form 10-K as filed with the Securities and Exchange Commission (the "SEC") on February 12, 2008, Quarterly Reports on Form 10-Q, Current Reports on Form 8-K and other of ON's SEC filings, and Catalyst Semiconductor's Annual Report on Form 10-K as filed with the SEC on July 3, 2008, Quarterly Reports on Form 10-Q, Current Reports on Form 8-K and other of Catalyst Semiconductor SEC filings. These forward-looking statements should not be relied upon as representing ON's or Catalyst Semiconductor's views as of any subsequent date and neither undertake any obligation to update forward-looking statements to reflect events or circumstances after the date they were made.

This communication is being made in respect of the proposed transaction involving ON and Catalyst Semiconductor. In connection with the proposed transaction, ON plans to file with the SEC a Registration Statement on Form S-4 containing a Proxy Statement of Catalyst Semiconductor and a Prospectus of ON, and each of ON and Catalyst Semiconductor plan to file with the SEC other documents regarding the proposed transaction. The definitive Proxy Statement/Prospectus will be mailed to stockholders of Catalyst Semiconductor. INVESTORS AND SECURITY HOLDERS ARE URGED TO READ THE PROXY STATEMENT/PROSPECTUS AND OTHER DOCUMENTS FILED WITH THE SEC CAREFULLY IN THEIR ENTIRETY WHEN THEY BECOME AVAILABLE BECAUSE THEY WILL CONTAIN IMPORTANT INFORMATION ABOUT THE PROPOSED TRANSACTION.

Investors and security holders will be able to obtain free copies of the Registration Statement and the Proxy Statement/Prospectus (when available) and other documents filed with the SEC by ON and Catalyst Semiconductor through the web site maintained by the SEC at www.sec.gov. In addition, investors and security holders will be able to obtain free copies of the Registration Statement and the Proxy Statement/Prospectus (when available) and other documents filed with the SEC from ON by directing a request to ON Semiconductor Corporation, 5005 East McDowell Road, Phoenix, AZ, 85008, Attention: Investor Relations (telephone: (602) 244-3437) or going to ON's corporate website at www.onsemi.com, or from Catalyst Semiconductor by directing a request to Catalyst Semiconductor, Inc., 2975 Stender Way, Santa Clara, CA 95054, Attention: Investor Relations (telephone: (408) 542-1200) or going to Catalyst Semiconductor's corporate website at www.catsemi.com.

ON and Catalyst Semiconductor and their respective directors and executive officers may be deemed to be participants in the solicitation of proxies in respect of the proposed transaction. Information regarding ON's directors and executive officers is contained in ON's annual proxy statement filed with the SEC on April 4, 2008, as supplemented a Current Report on Form 8-K filed with the SEC on March 17, 2008. Information regarding Catalyst Semiconductor's directors and executive officers is contained in Catalyst Semiconductor's annual proxy statement filed with the SEC on August 24, 2007. Additional information regarding the interests of such potential participants will be included in the Proxy Statement/Prospectus and the other relevant documents filed with the SEC (when available).

Filed below are media talking points used by ON Semiconductor on July 17, 2008 regarding ON's proposed acquisition of Catalyst.

ON Semiconductor Media Talking Points

MEDIA TALKING POINTS

Acquisition of Catalyst Semiconductor

MEDIA CONTACTS

Please direct all media inquiries to the media relations department of ON Semiconductor.

ON Semiconductor

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Catalyst Semiconductor

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KEY FACTS

 A definitive agreement for the acquisition of Catalyst Semiconductor by ON Semiconductor was announced today (July 17).

- This will be an all-stock transaction with an equity value of approximately \$115 million and an enterprise value of approximately \$85 million.
- The companies expect the transaction to close in the fourth quarter of 2008.
- This agreement has been approved by both boards of directors.
- Catalyst Semiconductor shareholders will need to vote on this agreement. (A Catalyst shareholder meeting will most likely take place during the fourth quarter.)
- ON Semiconductor shareholders do not need to vote on this agreement. SEC regulations do not require a vote.

"ALL STOCK" TRANSACTION

- Under the terms of the agreement, Catalyst Semiconductor shareholders will receive 0.706 shares of ON Semiconductor common stock for each share of Catalyst Semiconductor common stock they own.
- Upon completion of the transaction, ON Semiconductor will issue approximately 13 million shares of common stock on a fully diluted basis to complete the transaction or approximately 3 percent of ON Semiconductor's fully diluted shares outstanding.
- Shares of the combined company will trade on the NASDAQ Global Exchange under the symbol "ONNN."

EMPLOYEES

- Catalyst Semiconductor currently employees approximately 250 people. The majority of these employees are located in Santa Clara, California; Bucharest, Romania; and Thailand. They also have employees in a number of other countries.
- ON Semiconductor expects to offer substantially all Catalyst employees positions. (No layoffs are currently planned as a result of the announced acquisition.)
- Gelu Voicu, Catalyst's CEO, will be joining the ON Semiconductor team.

BUSINESS OPERATIONS

 Once this deal is completed, Catalyst's customers, distributors, sales reps, vendors and suppliers can expect business to continue virtually unchanged for the foreseeable future.

FAQs

Why is ON Semiconductor buying Catalyst Semiconductor?

• The acquisition of Catalyst Semiconductor will add to ON Semiconductor's high gross margin analog and mixed signal products offerings for the digital consumer and wireless end-markets.

- Catalyst's EEPROM technology will strengthen ON Semiconductor's ASIC and power products capabilities expanding ON Semiconductor's ability
 to more comprehensively address its customers' needs.
- Catalyst's EEPROM (memory) product segment provides a new total available market (TAM) opportunity for ON Semiconductor of approximately \$800 million to \$1 billion.
- With the combination of ON Semiconductor's global footprint, effective channels of distribution, and top-tier customer relationships, ON Semiconductor expects to be able to support a broader and deeper penetration of Catalyst's overall product portfolio.
- · Catalyst has a long history of developing proprietary Intellectual Property (IP) and proven designs.
- Catalyst Semiconductor's strong portfolio offering should also benefit from ON Semiconductor's integrated manufacturing capabilities. The
 acquisition also further enhances the utilization of the Gresham facility.
- · To compete successfully in today's global marketplace, size and scale are important. ON Semiconductor provides Catalyst with:
 - Enhanced scale
 - o Deeper customer relationships and sales channels
 - o Integrated manufacturing capabilities
 - o An expanded addressable market

Catalyst has a "fabless" business model. Does ON Semiconductor plan to bring some or all manufacturing in-house?

• Catalyst's strategy has always been to be a fabless supplier. This has enabled Catalyst to select the best fab location and process for each of our product families. Moving forward, we will maintain the philosophy of selecting the best fab and process for the new products we develop.

How does Catalyst's sales model align with ON Semiconductor's?

- · The two companies have complimentary customers, supply chains, manufacturing technologies and sales channels.
- Much like ON Semiconductor, a large percent of Catalyst's sales are made through distribution channels. The remainder of Catalyst's sales are done via sales reps and the internal sales team.
- Catalyst's customers will benefit from the support of ON Semiconductor award winning channel sales and supply chain operations. Because ON Semiconductor and Catalyst utilize many of the same distributors, we can build on these well-established relationships.

What products and markets does Catalyst sell into?

• Catalyst's portfolio includes Digitally Programmable Potentiometers [DPP™], white and color LED drivers, DC/DC converters, voltage supervisors, I/O expanders, serial and parallel.

EEPROMs, Flash memories, and NVRAMs. Typical applications for our ICs include LCD displays, cellular phones, automotive illumination and instrumentation, optical networks, wireless LANs, network cards, DIMM modules, printers, digital satellite box receivers and set-top boxes.

How long has Catalyst been in business?

• Catalyst has a history of producing high quality products for more than 20 years.