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 is a presentation to ON employees on July 17, 2008 regarding ON's proposed acquisition of Catalyst.

Selection. Service. Support.

www.onsemi.com



ON Semiconductor®

Employee Presentation • July 2008

Safe Harbor Statement and Non-GAAP Financial Measure Information

During the course of this presentation, ON Semiconductor may make projections or other forward-looking statements regarding future events or its future financial performance. The words "estimate," "intend," "expect," "plan," "should" or similar expressions are intended to identify forward-looking statements. ON Semiconductor wishes to caution that such statements are subject to risks and uncertainties that could cause actual events or results to differ materially. Important factors relating to our business, including factors that could cause actual results to differ from our forward-looking statements, are described in our Form 10-K and other filings with the SEC. ON Semiconductor assumes no obligation to update forward-looking statements to reflect actual results or changed assumptions or other factors.

Some data in this presentation may include non-GAAP financial measures. You can find reconciliations of these non-GAAP financial measures to the most directly comparable measures under generally accepted accounting principles within the following presentation at our website (http://www.onsemi.com) at the "Investors" section under the category "Annual Reports/Financial Releases."

Employee Presentation • July 2008



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, Inc. ("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 for 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 94054, 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 its annual proxy statement filed with the SEC on April 4, 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).



Agenda

- Why is ON Semiconductor Acquiring Catalyst Semiconductor
- About ON Semiconductor
- Organization Overview and Common Questions
- Expectations and FAQs
- Employee Resources

er* ON

Why is ON Semiconductor Acquiring Catalyst Semiconductor

- The acquisition of Catalyst Semiconductor will add to ON Semiconductor's high gross margin analog and mixed signal products offerings
- Catalyst Semiconductor's EEPROM technology will strengthen our ASIC and power product capabilities expanding our ability to more comprehensively address our customers' needs
- Catalyst Semiconductor's proprietary intellectual property and proven design capabilities

Size and scale are important. ON Semiconductor can provide Catalyst with:

- Deeper customer relationships and sales channels
- Integrated manufacturing capabilities
- An expanded addressable market



A Winning Combination



- World class, high volume, cost effective products
- Leading standard products in Automotive. Computing, Consumer and Communications end markets
- Industry leader in power management



- Leader in analog, mixed signal and **EEPROM** technologies
 - Top 4 player in **EEPROM** sector
 - **Proprietary** technology and proven design capabilities

- · Leading standard and custom products increase customer value proposition
- Expanded analog and mixed signal design and strong **EEPROM** capabilities
- Expanded presence in automotive, consumer and industrial end markets
- Integrated manufacturing capabilities including advanced sub-micron Gresham fabrication facility which can extend the product roadmap and increase the total addressable market





Agenda

- Why is ON Semiconductor Acquiring Catalyst Semiconductor
- About ON Semiconductor
- Organization Overview and Common Questions
- Expectations and FAQs
- Employee Resources

ON Semiconductor®

Vision and Mission of ON Semiconductor

Our Vision

Dedicated to becoming the premier supplier of high performance energy efficient silicon solutions worldwide

Our Mission

To provide our customers with high quality, cost efficient solutions to solve the demanding power and signal management design challenges



Industry Dynamics Continue to Favor ON Semiconductor

Rationalization of the Supplier Base

- ON Semiconductor is the one-stop shop for the semiconductor requirements of our customers
 - From custom ASICs to standard components, we are an expert in power efficiency with the broadest selection of semiconductor products
 - We shipped more than 32 billion units in 2007, more than five products for every person in the world with 95 percent on-time delivery to our key customer requested dates

Customers and Consumers are focused on Energy Efficiency

- Government agencies such as EnergyStar[™], California CEC, European Code of Conduct and the China CSC as well as consumers are focused on the power consumption of electronic devices
- ON is a leader in the Green wave with its GreenPoint™ power solutions and Greenline™ products that meet these emerging standards at a lower total design cost

Consumer Driven Semiconductor Growth

Employee Presentation • July 2008

 High Volume, Competitive Costs, High Quality Levels, Flexible Capacity, Quick Design Turns



Focus on the Right Applications

Automotive



- Driver Information and Telematics Powertrain
- Safety and Chassis
- Audio and Infotainment
- Exterior & Interior Lighting
- Body Electronics

Computing & Gaming



- CPU / GPU Power Delivery and Regulation
- Efficient Power Supplies
- Audio Signaling
- Thermal Management

Portable Consumer



- Display & Flash LED Lighting
- Audio Subsystems
- Data Switching
- Battery Charging Control
- Filtering for Camera and LCD Interface

Media & Entertainment



- Audio Signaling
- Digital Audio/Video Transmission
- Image Filtering
- Digital Audio/Video Switching
- Conditional Access Systems
- Power Supply Efficiency

Industrial



- Factory Automation
- Security Systems
- Sensor Interfaces
- Wireless or Wired Networking
- Communications Interface

Medical



- Implantable Devices
- Remote Patient Monitoring
- Medical Imaging
- Blood Glucose Monitoring
- Hearing Aids
- Therapeutics

HV Communication



- IP Cameras
- World Class PoE
- Surveillance Cameras
- Industrial Ethernet
- Robust Ethernet Environment
- High Power Accuracy

Military & Aerospace



- Guidance Systems
- Infrared Imaging
- Secure Military Communications
- Commercial/Military Avionics
- Tactical Missiles/Munitions

ON Semiconductor®

ON

Employee Presentation • July 2008

The Transformation Continues

1999-2004

Responsive and Flexible Supplier

- Commodity/mass-market orientation
- Strong focus on operations / supply chain / logistics
- Sales focused on procurement (transactional)
- · Strong service differentiation
- Emerging design relationships
- · Loose pricing management
- Improving financial health with debt and interest expense reduction

2004-2008

Enhanced Capabilities

- Expansion of product, sales and engineering capabilities through acquisitions
- Focused product success in high growth applications
- Important Supplier to Category One and Category Two customers
- Disciplined pricing process to capture margin
- Projected \$2.2 billion in Sales and 40%+ GMs
- Strong cash generation

FUTURE

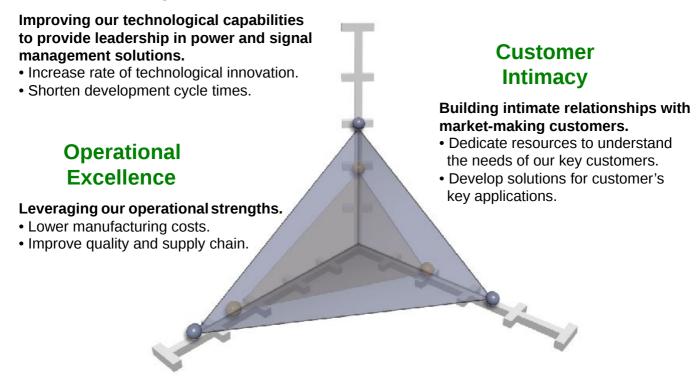
Premier Energy Efficient Supplier

- Premier supplier of high performance energy efficient solutions
- Customers Strategic Semiconductor Supplier
- Strong systems and field applications
- Revenues > \$4 billion, GMs > 50%
- Alignment of resources across company

r^a

ON Semiconductor Business Strategy

Product Leadership





Together We Have A Winning Organization

Operational Excellence

- Manufacturing capability to deliver solutions at the right value point
- Supply chain management expertise to ensure you get your parts when you want them, where you want them, and how you want them

Customer Intimacy

- Worldwide sales, design and support locations
- Solution Engineering Centers dedicated to working closely with customers to drive innovative designs with higher performance and getting them to market fast

Product Leadership

- Expertise in power efficient products and solutions and memory technologies
 - Custom, integrated ASICs, EEPROM to standard components
 - · Serving a broad range of end-market applications/end products
- System knowledge to meet tomorrow's power management challenges
- Analog and power IC and memory design expertise to translate customer requirements into next generation products
- Broadest portfolio to offer both parts and system solutions

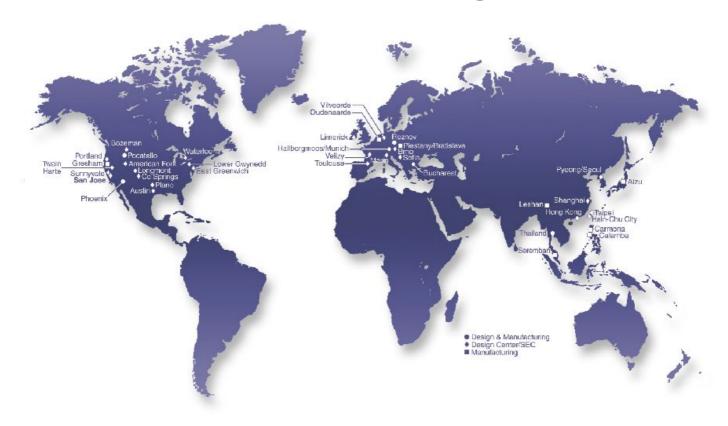


Operations Network





Worldwide Design





Agenda

- Why is ON Semiconductor Acquiring Catalyst Semiconductor
- About ON Semiconductor
- Organization Overview and Common Questions
- Expectations and FAQs
- Employee Resources

gr[≙]

Organization

President and
Chief Executive Officer
Keith Jackson

Sales & Marketing Bob Mahoney COO – Chief Operating Officer John Nelson

Finance Donald Colvin

Custom and Foundry Bob Klosterboer Standard Products
Bill Hall

Catalyst Semiconductor Gelu Voicu

Computing and Digital and Consumer Products Bill Schromm

Automotive and Power Regulation Products Andy Williams

Human Resources Colleen McKeown General Counsel Sonny Cave Manufacturing Services
Bill George

Integration Charlotte Diener

ON Semiconductor®

Common Questions

- Organization Expectations
- HR Policies
 - 2008 Benefits
- Travel
 - Policy
- Payroll
- Seniority
- Vacation and sick leave

Agenda

- Why is ON Semiconductor Acquiring Catalyst Semiconductor
- About ON Semiconductor
- Organization Overview and Common Questions
- Expectations and FAQs
- Employee Resources

ON Semiconductor^a

ter* ON

Expectations

- Your manager should:
 - Hold department meetings
 - Help set your focus/priorities
- Employees should:
 - Stay informed by reading FAQs from Catalyst Semiconductor
 - Ask questions
 - Send questions to employee.questions@onsemi.com

01

Expectations

Moving forward

- You will see:
 - Ongoing communications
 - "The Circuit" The employee newsletter
 - Updated FAQs
 - Ongoing communication meetings
 - Commitment to integrating work groups

01

Frequently Asked Questions

Top FAQs could be site-specific

- 1. Where can I find answers to my questions?
- 2. How many people are being laid off?
- 3. Are layoffs planned?
- 4. When will benefits change?
- 5. When do I get paid?
- 6. How will salaries be impacted?
- 7. Will there be merit changes?
- 8. Will my title change?

Agenda

- Why is ON Semiconductor Acquiring **Catalyst Semiconductor**
- **About ON Semiconductor**
- **Organization Overview and Common Questions**
- **Expectations and FAQs**
- **Employee Resources**

ON

Human Resources Contacts

- Colleen McKeown, SVP, HR and Communication
- David Eichler, CFO/HR
 - Rosa Vasquez, HR
- Kerry Chou, HR, Compensation
- Mark Carr, VP, HR Operations
- Tobin Cookman, HR Director
- Robert Colbert, Manager, Employee Communication
- Linda Chan, HR Director Asia
- employee.questions@onsemi.com

98° ON

Employee Resources

- Company intranet
- Site/department meetings
- employee.questions@onsemi.com
- Human Resources
- Your leader
- The Circuit the employee newsletter



Questions?





Selection. Service. Support.

www.onsemi.com



ON Semiconductor®

Employee Presentation • July 2008