



Optimizing Inventory at ON Semiconductor

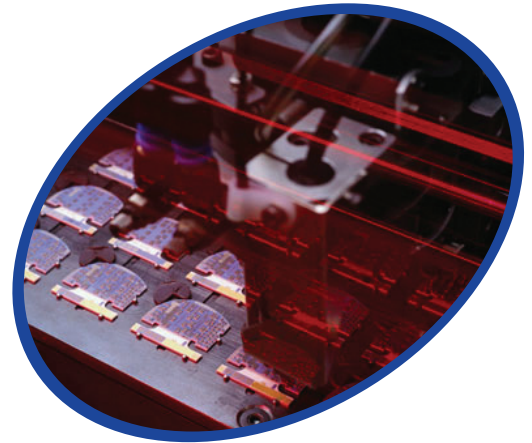
ON Semiconductor needed to replace its manual and imprecise methods to gain control of its current inventory and begin to strategically forecasting future demand. ON Semiconductor expects a 5 to 10 percent reduction in total inventory and a 300 percent ROI within six months of going live with i2 Inventory Optimization.™

With rapid advances in technology and constant demands for new products, semiconductor manufacturers must be able to manage current inventory and accurately forecast future needs to stay ahead of the competition.

Shipping more than 25 billion devices per year, ON Semiconductor uses a manual method of “white boarding” and calculating average usage to determine optimal inventory levels, which was leaving it behind in the highly competitive semiconductor industry.

“On average, we were holding more inventory than we needed to because we based it on cycle time, and we didn’t figure out what the forecast error was on one device versus another,” said Ravi Vancheeswaran, Manager of Systems and Processes in the Supply Chain Management Services Organization of ON Semiconductor. “We needed to base our inventory levels on demand variability and supply variability.”

Realizing that their inability to accurately forecast demand and respond to the varying needs of its customers put the company at a disadvantage, ON Semiconductor knew that it needed to control inventory levels to better service their customers.



ON Semiconductor®

Challenges

- Manage current inventory more effectively
- Increase accuracy of demand forecasts
- Respond quickly to customers' varying lead times

Solutions

- Develop stratification process for classifying devices
- Automate inventory planning process
- Utilize lead-time trends

Results

- Estimated 5–10% reduction in total inventory
- Projected 300% ROI
- Increased customer satisfaction

Company Description

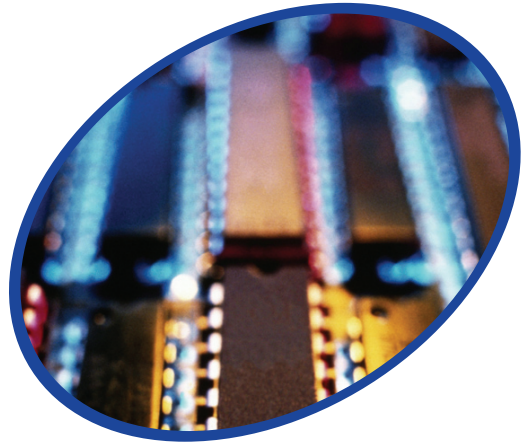
Headquartered in Phoenix, **ON Semiconductor** is a leading global supplier of advanced semiconductors for sophisticated electronics applications within the portable, wireless, computing, consumer, networking, automotive, and industrial end-product markets. ON Semiconductor has revenues of more than \$1 billion and employs 9,500 people worldwide.

"The power in Inventory Optimization is that we can directly focus our inventory positions based on individual customers or individual products. It is a true gain in market share because we can consistently satisfy customer request dates."

— Ravi Vancheeswaran
Manager of Systems and Processes,
Supply Chain Management Services Organization,
ON Semiconductor



ON Semiconductor®



Because manufacturing semiconductors is a multiple-stage process, ON Semiconductor was looking for a multi-echelon inventory optimization solution that could identify safety stock levels and inventory at each step in the process.

Why i2?

ON Semiconductor was familiar with i2 because it had already implemented i2 Supply Chain Planner,™ i2 Demand Fulfillment,™ i2 Corporate Planner,™ and i2 Demand Planner.™ These solutions were generating the data that ON Semiconductor needed to implement an inventory optimization tool into its supply chain network.

"You always want to keep your data simple and manage it in one place," Vancheeswaran said. "The data that is needed for the inventory optimization tool is already available in the data warehouses of the other i2 solutions, so we knew that if we went with i2 for inventory optimization, we wouldn't have to integrate our current information with a different system."

“We have completed the stabilization period on i2 Inventory Optimization, and we have been able to maintain service levels while reducing our inventory by three days. During this same time, the order lead times our customers place on us have shrunk by 20 percent. Without i2 Inventory Optimization we would have needed to significantly increase inventory levels to maintain service levels in the face of this change in order lead times.”

—John Mallon, Director, Supply Chain Solutions, at ON Semiconductor.

i2's Contribution

ON Semiconductor implemented i2 Inventory Optimization, which can enable companies to improve customer service and reduce lead times and costs by optimizing inventory strategies to meet market demand.

Inventory Optimization can enable ON Semiconductor to take a more strategic approach to its forecasting and planning. It is now able to use lead-time trends from individual customers to determine how much supply to hold for each of its three processes: wafer fab, dye bank, and finished goods. For ON Semiconductor, having the correct inventory on hand can make the difference between a sale and a dissatisfied customer.

“We could have one customer that forecasts well and lets us know what products it needs two months in advance,” Vancheeswaran said. “There is no need to hold inventory for that customer. We could build it from scratch. On the other hand, we could have a customer who always comes in right before it needs something. For that customer, if we don’t have the inventory on the shelf, we might lose the business.”

In addition to helping it meet customer demands, Inventory Optimization also can enable ON Semiconductor to forecast inventory by product.

“The power in Inventory Optimization is that we can directly focus our inventory positions based on individual customers or individual products,” Vancheeswaran said. “It creates a true gain in market share because we can consistently satisfy customer request dates.”

Inventory Optimization also can provide ON Semiconductor with a stratification process that classifies devices based on priorities established by the company. In its previous stratification methodology, ON Semiconductor used a device classification engine that only looked at external variables. Now, with i2 solutions, the company is able to include more variables and be more strategic in its decision making.

“With Inventory Optimization, we can look at internal and external variables and look at variability as a tool for figuring out how much inventory to hold at each location,” Vancheeswaran said.

ON Semiconductor's Results

Because Inventory Optimizer will help ON Semiconductor to manage its customer order lead times, the company is also able to make more strategic decisions about how much inventory to hold in its supply chain.

"We have completed the stabilization period on i2 Inventory Optimization, and we have been able to maintain service levels while reducing our inventory by three days," said John Mallon, Director, Supply Chain Solutions, at ON Semiconductor. "During this same time, the order lead times our customers place on us have shrunk by 20 percent. Without i2 Inventory Optimization we would have needed to significantly increase inventory levels to maintain service levels in the face of this change in order lead times."



The Supply Chain Company®

11701 Luna Road
Dallas, Texas 75234, USA
Phone 1.877.926.9286
Email info@i2.com
Web www.i2.com