

**MARCH 24, 2009**

## Return to Record Sales Seen in Opto, Sensors, and Power Discretes

*After 2009 decline, many O-S-D categories will reach new record levels in 2010-2011*

Despite the disastrous final months of 2008, semiconductor sales of optoelectronics, MEMS-based accelerometers, CMOS image sensors, power transistors, and overall discrete devices set record-high revenue levels last year, based on a detailed market analysis by IC Insights in its new 2009 *Optoelectronics, Sensors, and Discretes (O-S-D) Report*. After substantial declines in 2009, these semiconductor markets and product categories are forecast to recover and reach new sales records in the next two years, according to the 2009 *O-S-D Report*, which becomes available at the end of March.

Collectively, O-S-D sales reached an all-time high of \$43.0 billion in 2008, despite the beginning of a major semiconductor recession late in the year. IC Insights' new 280-page report shows 16.4% of total semiconductor revenues were generated by the O-S-D markets in 2008 (Figure 1). O-S-D revenue growth continues to outpace IC sales—thanks to strong annual growth rates in a handful of optoelectronics and sensor product categories. By 2013, the O-S-D markets will represent 17% of total semiconductor sales due to a higher compound annual growth rate (CAGR) than IC revenues in the next five years, says the 2009 report. O-S-D sales are expected to rise at a 7% CAGR in the 2008-2013 period compared to 6% for ICs.

Nearly all product categories in optoelectronics, sensors/actuators, and discretes were flying higher until November 2008, when the markets fell into a tailspin after the economic crisis deepened in 4Q08. In 2009, optoelectronics sales are now expected to decline 12% to \$16.9 billion. The MEMS-heavy sensors/actuator segment is forecast to drop 26% to \$4.1 billion in 2009, and the commodity-filled discretes segment will fall 21% to \$14.3 billion, according to IC Insights' projections in the new *O-S-D Report*. Total O-S-D sales are forecast to rebound 14% in 2010 and increase another 17% in 2011, reaching a new record-high of \$47.3 billion that year.

Optoelectronics—driven by strong sales momentum in CMOS image sensors, optical network lasers, and high-brightness LEDs—managed to end 2008 with revenues being up 13% to a record \$19.3 billion for the entire year. Optoelectronics exceeded discretes sales by \$1.1 billion in 2008—marking the first year in history that optoelectronics topped the market for discretes. After falling in 2009, the optoelectronics market will grow 15.4% to a new record-high \$19.5 billion in 2010, the *O-S-D Report* says.

Among the other key findings in 2009 O-S-D Report are:

- **Acceleration/yaw sensors**—built with microelectromechanical systems (MEMS) technology—crossed the \$1 billion sales mark for the first time ever in 2008 and became the largest semiconductor sensor

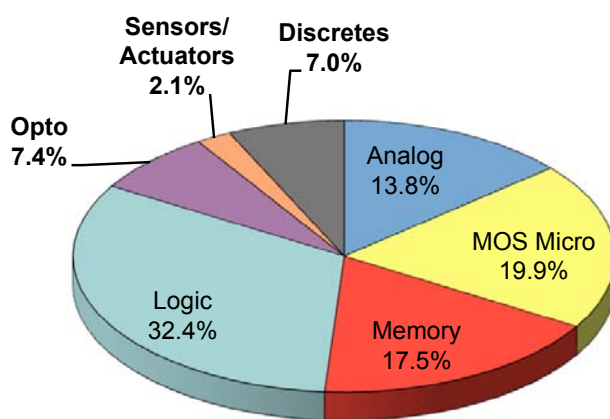
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product category. Sales in this category climbed 23% in 2008, thanks to tremendous growth in low-cost accelerometers for smartphones and consumer electronics. After a 19% drop in 2009, sales in this MEMS-based chip category are forecast to grow 21% in 2010, followed by another 24% increase in 2011, which will result in a new record high of \$1.3 billion that year.

- **CMOS image sensor sales** recovered in 2008 from a rare decline in 2007. After hitting a record-high \$5.0 billion in 2008, CMOS image sensor sales are expected to drop 10% in 2009, but will then bounce back with a 23% rise in 2010 to a new record of \$5.1 billion.
- **Power transistor revenues**—led by MOSFET and IGBT products—reached \$10.0 billion for the first time ever in 2008, but sales in this discretes category are forecast to drop 20% in 2009 due to widespread weakness in all end-use systems markets. Power transistor sales are then forecast to recover in 2010, growing 13%, and will reach a new record high of \$10.4 billion in 2011.

### O-S-D Marketshares versus Major IC Segments (2008 Semiconductor Market, \$261.8 Billion)



Source: IC Insights

**Figure 1**

## Report Details

The 2009 edition of the *O-S-D Report* extends IC Insights' coverage of the semiconductor industry with detailed analysis of trends and growth rates in the optoelectronics, sensors/actuators, and discretes market segments. The 280-page 2009 report is available for \$2,290 in either a three-ring binder or CD-ROM format. Additional individual copies of the CD-ROM or binder sell for \$495 each. The report is also available under a multi-user corporate license for \$5,590.

For more information, please visit [www.icinsights.com/prodsrvs/osdreport/](http://www.icinsights.com/prodsrvs/osdreport/).

### About IC Insights

IC Insights, Inc., based in Scottsdale, Arizona USA, is dedicated to providing high-quality, cost-effective market research for the semiconductor industry. Founded in 1997, IC Insights offers coverage of global economic trends, the semiconductor market forecast, capital spending and fab capacity trends, product market details, and technology trends, as well as complete IC company profiles and evaluations of end-use applications driving demand for ICs.

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