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Wireless Devices, Developing Countries Boost Medical Electronics Growth

Medical semiconductor sales forecast to return to double-digit growth rates in the next three years.

Information in this Research Bulletin comes from the 2014 edition of IC Insights' IC Market Drivers report, which was released in November 2013. The 475-page report includes 330 charts and figures to analyze several existing and emerging end-use applications that will drive the IC market through the year 2017.

Worldwide growth in medical electronics is expected to regain strength in the next three years after slowing since 2010 due to the weak global economy and efforts to curb healthcare costs in the U.S. and Europe, according to IC Insights' new 2014 edition of *IC Market Drivers—A Study of Emerging and Major End-Use Applications Fueling Demand for Integrated Circuits*. The new report forecasts medical electronics sales will grow 8% to about \$50.9 billion in 2014 after rising just 3% in 2013 to an estimated \$47.3 billion. Sales of semiconductors used in medical systems are also expected to gain strength in 2014, rising 12% to \$4.9 billion after growing 7% in 2013 to about \$4.4 billion.

Between 2012 and 2017, worldwide sales of medical electronics are projected to rise by a compound annual growth rate (CAGR) of 7.3%, reaching \$65.4 billion in the final forecast year of the 2014 *IC Market Drivers* report. The brand new medical electronics section in the 475-page report shows semiconductor sales for healthcare systems applications rising by a CAGR of 10.5% and reaching \$6.8 billion in 2017 (Figure 1).

In the years ahead, stronger growth in medical electronics will be fueled by sales of less expensive diagnostic and imaging equipment in China and other developing country markets as well as the explosion of wireless mobile healthcare systems that monitor patients remotely and reduce the need for expensive stays in hospitals. The 2014 *IC Market Drivers* report forecasts wireless mobile medical systems and closely associated wearable fitness-tracking devices generating revenues of nearly \$1.9 billion in 2014, which is a 53% increase from about \$1.2 billion in 2013, when worldwide sales grew 27%.

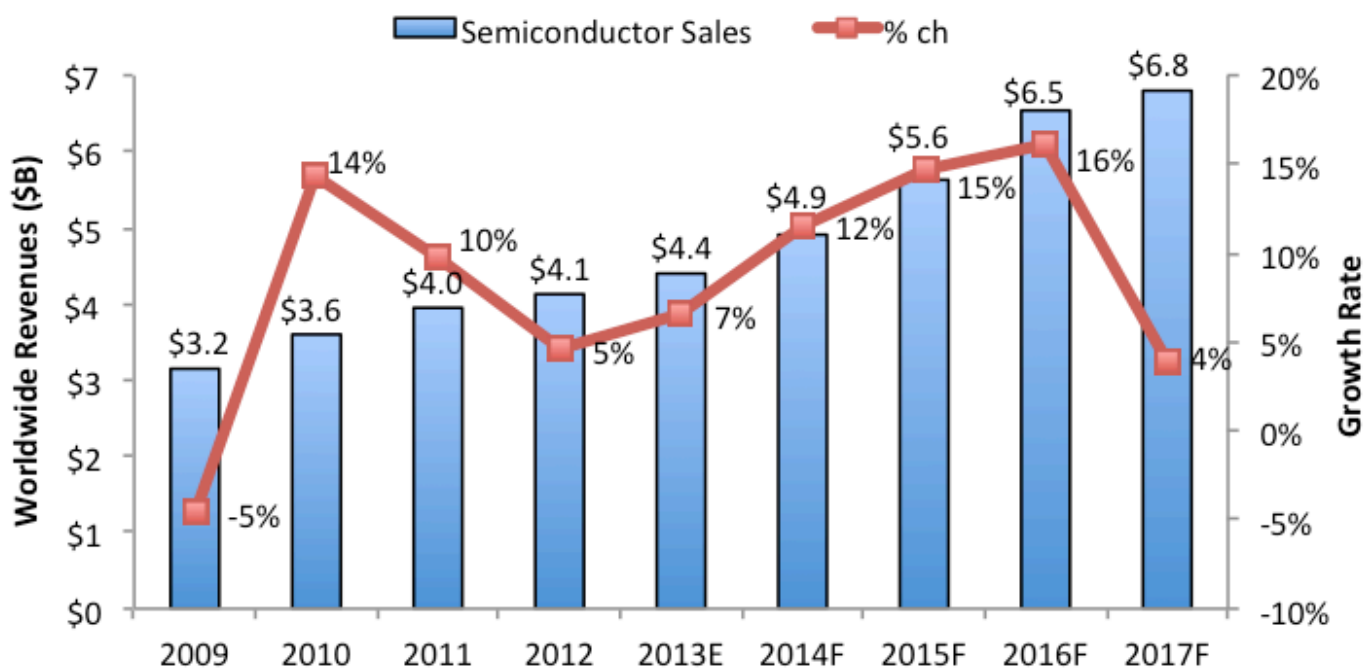
Development trends in medical systems for hospitals, clinics, and doctor offices are heading in two different directions as equipment makers respond to growing pressures for lower costs and increased

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availability of healthcare in poor and developing countries. One trend is to make new medical diagnostic systems smaller and less expensive so that equipment can be used in the rooms of hospital patients, more clinics, and doctor offices versus the dedicated examination rooms in hospitals and imaging centers. Advancements in semiconductor sensors—many of them built with microelectromechanical systems (MEMS) technology—wireless ICs, and system-on-chip (SoC) designs are also enabling new types of mobile medical devices that monitor patients and the elderly at home and then relay information to doctors or hospitals via wireless connections to cellphones or the Internet.

Medical Semiconductor Market Forecast



Source: IC Insights

Figure 1

The other trend highlighted in the new *IC Market Drivers* report is the creation of more powerful and integrated systems, which are expensive but promise to lower healthcare costs by detecting cancer and diseases sooner while supporting less invasive surgery for quick recovery times and shorter stays in hospitals. Computer-assisted surgery systems, surgical robots, and operating-room automation are among new technologies being pursued by some hospitals in developed-country markets.

Developed countries (such as the U.S., Europe, and Japan) have about 18% of the world's population, but account for nearly 80% of total healthcare spending—approximately \$5.3 billion versus \$1.4 billion in 178 developing and poor countries during 2012. The world's aging population in both developed and developing countries stands to greatly benefit from new wireless health-monitoring systems and telemedicine services that are aimed at reducing cost and serving more patients. While the large establish

markets have struggled in recent years, medical equipment sales have been booming in China, which is pursuing an ambitious initiative to significantly upgrade primary healthcare, hospitals, medical infrastructure, and access to medical services in the country's vast rural regions. China's investments in medical and healthcare infrastructure are expected to total \$63.5 billion this decade. Consequently, China's share of worldwide medical systems sales is expected to more than double in the next four years, reaching 10% in 2017 versus 4% in 2013, while the marketshares of developed countries shrink, according to IC Insights' new report.

Report Details: *IC Market Drivers 2014*

IC Market Drivers 2014—A Study of Emerging and Major End-Use Applications Fueling Demand for Integrated Circuits examines the largest, existing system opportunities for ICs and evaluates the potential for new applications that are expected to help fuel the market for ICs.

IC Market Drivers is divided into two parts. Part 1 provides a detailed forecast of the IC industry by system type, by region, and by IC product type through 2017. Part 2 of the *IC Market Drivers* report examines and evaluates key existing and emerging end-use applications that will support and propel the IC industry through 2017. Among the key applications covered in the report are automotive electronics, cellphones and smartphones, personal and mobile computing, servers and cloud computing, wireless networks, digital television and video game consoles, the smart grid and smart appliances, medical/health electronics, and a review of many near-term and long-term applications to watch such as wireless-energy transfer, home robotics, the Internet of Things (IoT) and autonomous vehicles that may provide significant opportunity for IC suppliers later this decade. Released in November 2013, the *IC Market Drivers 2014* report is priced at \$3,290 for an individual-user license and \$6,390 for a multi-user corporate license.

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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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