RESEARCH BULLETIN

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Semiconductor Shipments Forecast to Exceed 1 Trillion Devices in 2018

Semiconductor units forecast to increase 9% with IC units rising 11%, O-S-D units growing 8%.

Annual semiconductor unit shipments (integrated circuits and opto-sensor-discretes, or O-S-D, devices) are expected to grow 9% in 2018 and top *one trillion* units for the first time, based on data presented in the new, 2018 edition of IC Insights' *McClean Report—A Complete Analysis and Forecast of the Integrated Circuit Industry* (Figure 1). For 2018, semiconductor unit shipments are forecast to climb to 1,075.1 billion, which equates to 9% growth for the year. Starting in 1978 with 32.6 billion units and going through 2018, the compound annual growth rate for semiconductor units is forecast to be 9.1%, a solid growth figure over the 40-year span.

MORE INFORMATION CONTACT

Brian Matas
Vice President
Phone: +1-480-348-1133
Email: bmatas@icinsights.com

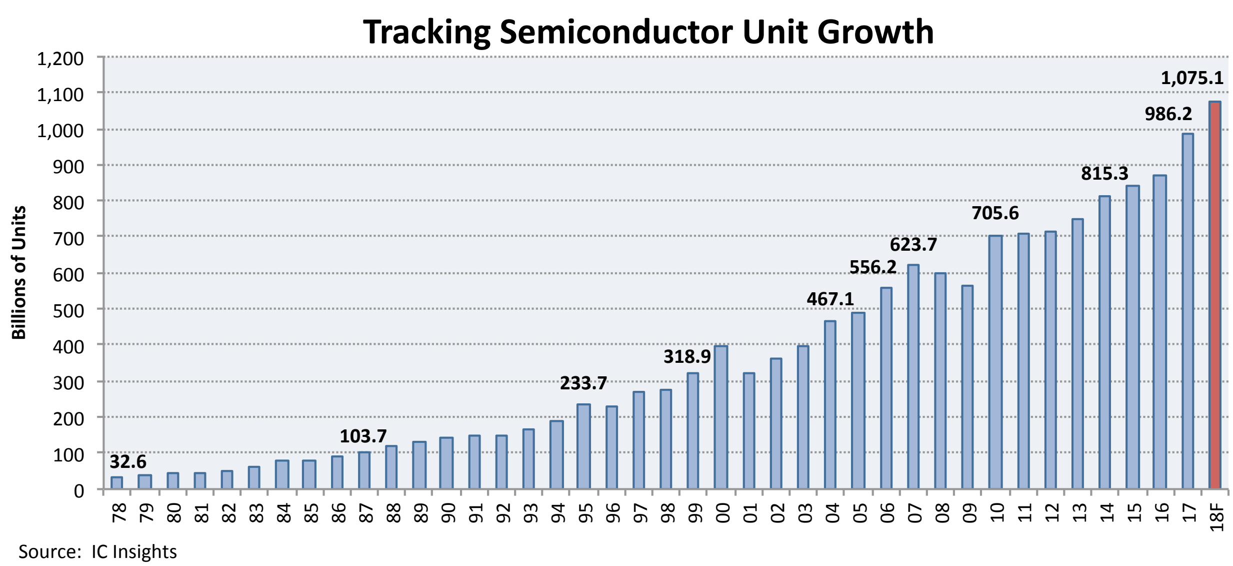

Figure 1

Over the span of just four years (2004-2007), semiconductor shipments broke through the 400-, 500-, and 600-billion unit levels before the global financial meltdown caused a big decline in semiconductor unit shipments in 2008 and 2009. Unit growth rebounded sharply with 25% growth in 2010 and displayed another strong increase in 2017 (14% growth) to climb past the 900-billion level.

The largest annual increase in semiconductor unit growth during the timespan shown was 34% in 1984, and the biggest decline was 19% in 2001 following the dot-com bust. The global financial meltdown and ensuing recession caused semiconductor shipments to fall in both 2008 and 2009; the only time that the industry experienced consecutive years in which unit shipments declined. The 25% increase in 2010 was the second-highest growth rate across the time span.

The percentage split of total semiconductor shipments is forecast to remain heavily weighted toward O-S-D devices. In 2018, O-S-D devices are forecast to account for 70% of total semiconductor units compared to 30% for ICs. Thirty-eight years ago in 1980, O-S-D devices accounted for 78% of semiconductor units and ICs represented 22% (Figure 2).

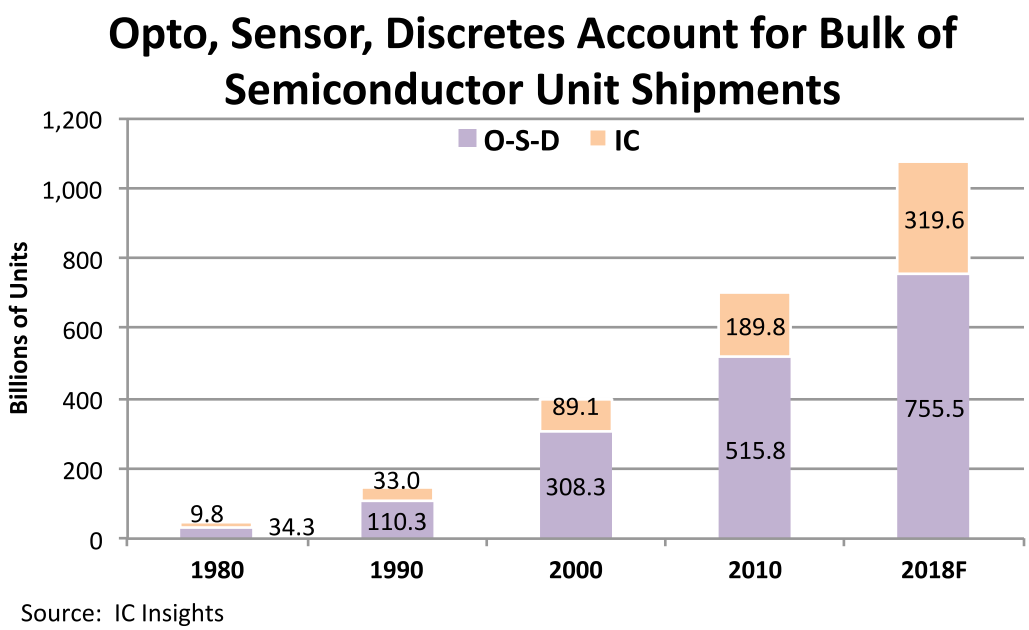

Figure 2

Semiconductor products forecast to have the strongest unit growth rates in 2018 are those that are essential building-block components in smartphones, automotive electronics systems, and within systems that are helping to build out of Internet of Things. Some of the fast-growing IC unit categories for 2018 include Industrial/Other—Application-Specific Analog (26% increase); Consumer—Special Purpose Logic (22% growth); Industrial/Other—Special Purpose Logic, (22%); 32-bit MCUs (21%); Wireless Communication—Application-Specific Analog (18%); and Auto—Application-Specific Analog (17%). Among O-S-D devices, CCDs and CMOS image sensors, laser transmitters, and every type of sensor product (magnetic, acceleration and yaw, pressure, and other sensors) are expected to enjoy double-digit unit growth this year.

Report Details: *The 2018 McClean Report*

Additional details on IC and semiconductor unit and market trends are provided in the 2018 edition of *The McClean Report—A Complete Analysis and Forecast of the Integrated Circuit Industry.* A subscription to *The McClean Report* includes **free** monthly updates from March through November (including a 250+ page *Mid-Year Update*), and **free** access to subscriber-only webinars throughout the year. An individual-user license to the 2018 edition of *The McClean Report* is priced at $4,290 and includes an Internet access password. A multi-user worldwide corporate license is available for $7,290.

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