

RESEARCH BULLETIN

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Semi Content in Electronic Systems Forecast to Drop to 26.4% in 2019

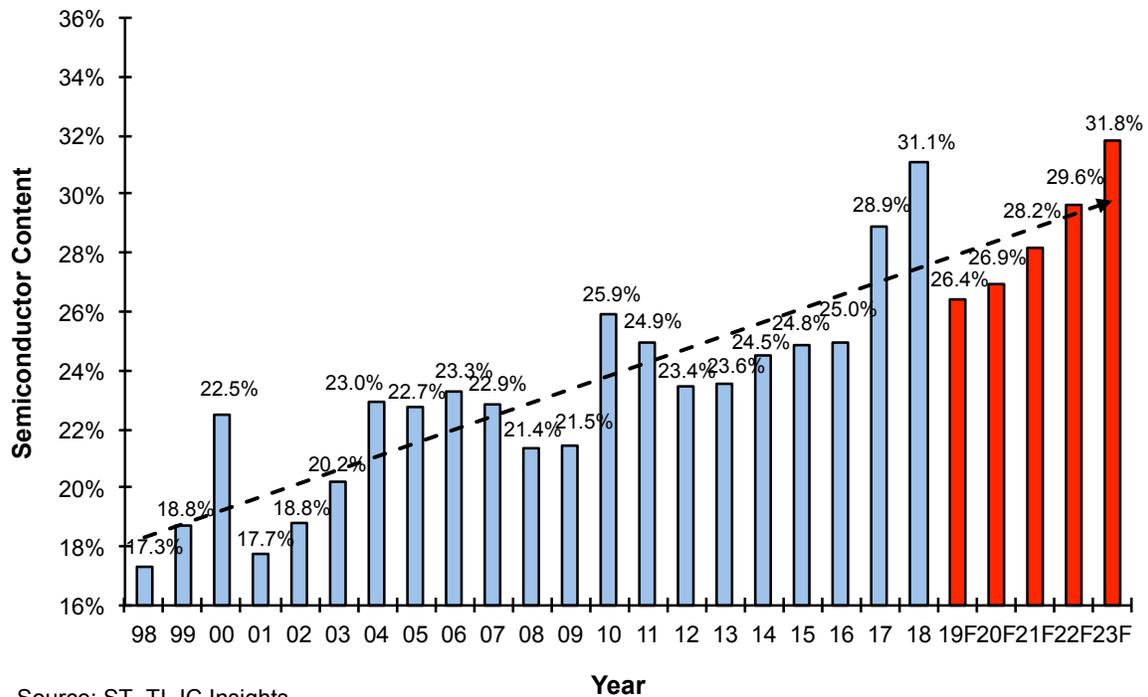
Falling IC ASPs to cause semiconductor content to plunge this year after setting a record high of 31.1% last year.

In its upcoming *Mid-Year Update to The McClean Report 2019* (to be released at the end of July), IC Insights forecasts that the 2019 global electronic systems market will grow 4% to \$1,680 billion. In contrast, the worldwide semiconductor market is expected to drop by 12% this year to \$443.8 billion after exceeding the \$500.0 billion level for the first time last year. If the 2019 forecasts come to fruition, the average semiconductor content in an electronic system will drop to 26.4% after setting the all-time record of 31.1% last year (Figure 1).

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Electronic System Semiconductor Content



Source: ST, TI, IC Insights

Figure 1

Historically, the driving force behind the higher average annual growth rate of the semiconductor industry as compared to the electronic systems market is the increasing value or content of semiconductors used in electronic systems. With global *unit* shipments of cellphones, automobiles, and PCs showing maturity and slowing over the past 10 years, the disparity between the 3% 2008-2018 CAGR registered in the electronic systems market and the 7% 2008-2018 CAGR displayed by the semiconductor market is directly due to the increased content/value of semiconductors in electronic systems.

While the trend of increasing semiconductor content has been evident for the past 30 years, the big jump in the average semiconductor content in electronic systems in 2017 and 2018 was primarily due to the huge surge in DRAM and NAND flash ASPs and average electronic system sales growth last year. The memory IC ASP jump experienced over the past two years (56% in 2017 and 29% in 2018) is expected to reverse itself this year (-33%) and bring the semiconductor content percentage down with it. However, beginning in 2020, the semiconductor content percentage figure is expected to once again resume its climb and eventually reach a new high of 31.8% in 2023.

The trend of increasingly higher semiconductor value in electronic systems has a limit. Extrapolating an annual increase in the percent semiconductor figure indefinitely would, at some point in the future, result in the semiconductor content of an electronic system reaching 100%. Whatever the ultimate ceiling is, once it is reached, the average annual growth for the semiconductor industry will closely track that of the electronic systems market (i.e., about 4%-5% per year).

The 200+ page Mid-Year Update to the 2019 edition of The McClean Report further describes IC Insights' IC market forecast data for 2019-2023.

Report Details: *The 2019 McClean Report*

Additional details on semiconductor and IC market trends will be provided in the *Mid-Year Update to 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 the 200+ page *Mid-Year Update*), and **free** access to subscriber-only webinars throughout the year. An individual-user license to *The McClean Report* is priced at \$4,990 and includes an Internet access password. A multi-user worldwide corporate license is available for \$7,990.

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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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