

# RESEARCH BULLETIN

**JULY 30, 2020**

## NAND Flash, DRAM Forecast to Remain Largest IC Markets in 2020

*The two memory categories are expected to account for one-third of total IC sales this year.*

IC Insights recently released its *Mid-Year Update to The McClean Report 2020*, which ranked the 33 largest IC product categories based on their expected sales and unit shipment volumes. The 33 IC product categories are those defined by the World Semiconductor Trade Statistics (WSTS) organization. The five largest of these IC product segments in terms of sales volume and shipments are shown in Figure 1.

### MORE INFORMATION CONTACT

Bill McClean  
 President  
 Phone: +1-480-348-1133  
 Email: bill@icinsights.com

DRAM and NAND flash are expected to repeat as the two largest IC segments again in 2020 after holding the same positions in 2019. With expected sales growth of 3.2% this year, the DRAM market is forecast to reach nearly \$64.6 billion, 15% greater than the NAND flash market, which is expected to be the second-largest IC segment in 2020.

### 2020 Forecast of Largest IC Products Sales and Unit Shipments

Sales	\$, Millions	20F/19 % Chg
DRAM	\$64,555	3.2%
NAND Flash	\$56,007	27.2%
Computer CPU	\$41,681	2.2%
Computer and Periph—Spcl Purp Logic	\$28,787	6.0%
Cellphone Application MPUs	\$20,904	-3.0%
Unit Shipments	Millions	20F/19 % Chg
Power Management Analog	65,105	-3.2%
Wireless Comm—App Specific Analog	22,901	-2.0%
Industrial—App Specific Analog	21,602	-4.9%
DRAM	18,560	7.5%
General Purpose Logic	16,681	-4.9%

Source: IC Insights

**Figure 1**

IC Insights forecasts DRAM will account for 17.5% of the total \$368.3 billion IC market in 2020. The DRAM market achieved its highest-ever sales volume in 2018 when it reached \$99.4 billion. That year, DRAM sales accounted for 23.6% of the total IC market.

NAND flash is forecast to be the second-largest IC market in 2020 with sales of \$56.0 billion, an increase of 27%—the strongest projected percentage growth rate among all 33 IC product categories this year. Like DRAM, the record-high year for NAND sales was 2018 when the market topped \$59.4 billion. The NAND flash market is expected to represent 15.2% of the total IC market this year. Together with DRAM, the two memory categories are forecast to account for nearly one-third of all IC sales this year.

While overall microprocessor growth in 2020 is not as strong as expected at the start of this year, the large computer CPU market category is benefitting from increased Internet usage during the global Covid-19 virus health crisis. Computer sales initially fell because of supply-chain constraints and other issues in China and Asia, but demand for personal computing systems and data-center servers grew in 2Q20 as more consumers, schools, and businesses increased their use of the Internet during the virus pandemic and lockdowns imposed by governments. Consequently, the forecast for computer CPU MPUs shows a 2.2% increase in sales to about \$41.7 billion.

The coronavirus pandemic hit the cellular handset market hard in 1H20, but smartphones sales are expected to gradually improve in 2H20, especially with early users of fifth-generation (5G) handsets beginning to make purchases. Cellphone application processor sales are expected to decline 3.0% in 2020 to \$20.9 billion, which still would make this segment the fifth-largest IC product category.

Three of the five largest categories for IC unit shipments in 2020 are expected to be analog devices. Shipments of power management analog devices are forecast to exceed the combined shipments of the next three-largest IC product categories again in 2020. Each of the three analog categories shown on the list is forecast to experience a decline in unit shipments this year.

DRAM shows up as one of the largest categories for unit IC shipments in 2020. With an uptick in computer shipments to support increased online business, education, and e-commerce activity due to the Covid-19 outbreak, DRAM units are forecast to rise 7.5% to nearly 18.6 billion units.

## **Report Details: *The 2020 McClean Report***

Additional details on semiconductor and IC market trends are 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 *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.

To review additional information about IC Insights' new and existing market research products and services please visit our website: [www.icinsights.com](http://www.icinsights.com)

### **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.

**Web Site:** [www.icinsights.com](http://www.icinsights.com) • **Phone:** +1-480-348-1133 • **E-mail:** [info@icinsights.com](mailto:info@icinsights.com)