

# RESEARCH BULLETIN

**FEBRUARY 23, 2022**

## Microprocessor Growth Will Slow in 2022 after Cellphone MPU Surge

Total MPU sales are expected to rise 7% this year with cellphone processors increasing 10% following a 31% jump in 2021; modest growth is seen in computer CPUs and embedded MPUs, says new 1Q update.

Total microprocessor sales in 2021 maintained strength, growing 14% to a record-high \$102.9 billion after climbing 16% in 2020, when emergency lockdowns in the Covid-19 virus crisis drove up demand for personal computers and large-screen smartphones because of increased reliance on the Internet during the deadly pandemic, says the new *February 1Q Update* of IC Insights' 2022 *McClean Report* service (Figure 1). Worldwide sales growth in total microprocessors is expected to slide back in 2022 to an increase of 7%, which will lift the MPU market to another record high of \$110.4 billion, with unit shipments rising 6% to 2.6 billion processors, according to the 1Q22 update's forecast.

### MORE INFORMATION CONTACT

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## Total Microprocessor Market History and Forecast

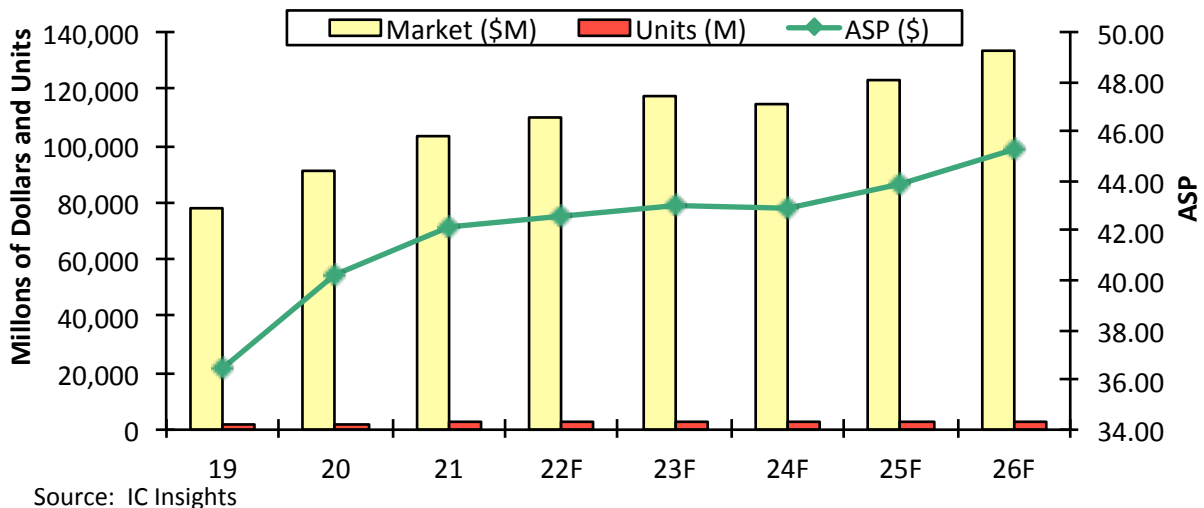


Figure 1

The total microprocessor market hung on to double-digit percentage growth in 2021 primarily because cellphone processor sales surged 31% as users moved to faster smartphones, including those built with new fifth-generation (5G) cellular modems, more powerful cameras, and artificial intelligence (AI) machine-learning capabilities for automatic performance improvements. After cellphone application

processor sales jumped to a record-high \$35.0 billion in 2021, the growth rate is expected to decrease to 10% in 2022, which will lift this mobile microprocessor segment to revenues of \$38.4 billion, based on IC Insights' forecast. Tight supplies of leading-edge smartphone processors and continuous integration of more functions, acceleration units, powerful graphics, and high-speed 5G modems on these MPUs will increase the average selling price of units by 4% in 2022 after the ASP climbed 22% both in 2021 and 2020, says the new update report.

Sales growth in computer central processing unit (CPU) microprocessors slowed to a 4% increase in 2021 after rising 14% in 2020. Computer CPU growth eased back after strong demand slowed for personal and home computers once many consumers, businesses, and schools had bought new systems for remote working and at-home education in the first year of the Covid-19 virus crisis. Sales of computer CPU MPUs—including x86 processors sold by Intel and rival Advanced Micro Devices for traditional notebook and desktop personal computers—are forecast to rise by another 4% in 2022 to a record-high \$50.5 billion.

Embedded microprocessor sales for a broad range of end-use systems—including industrial, communications, automotive, and Internet of Things (IoT)—are projected to grow 9% in 2022 to about \$21.5 billion after increasing 11% in both 2021 and 2020.

IC Insights' *McClean Report* service forecasts total MPU sales to increase by a compound annual growth rate (CAGR) of 5.3% between 2021 and 2026 to \$133.3 billion. Cellphone application processor sales are projected to rise by a CAGR of 6.3% in the five-year forecast to \$47.4 billion while computer CPU revenues are expected to grow by an annual rate of 3.7% to \$58.1 billion in 2026. Embedded MPU sales are forecast to grow by the fastest five-year average in microprocessor market, increasing by a CAGR of 7.2% to reach \$27.8 billion in 2026, says the new update.

### **Report Details: *The 2022 McClean Report***

*The McClean Report—A Complete Analysis and Forecast of the Semiconductor Industry*, is now available. A subscription to *The McClean Report* service includes the January *Semiconductor Industry Flash Report*, which provides clients with IC Insights' initial overview and forecast of the semiconductor industry for this year through 2026. In addition, *Quarterly Updates* to the report will be released in February, May, August, and November of this year. An individual user license to the 2022 edition of *The McClean Report* is available for \$5,390 and a multi-user worldwide corporate license is available for \$8,590. The Internet access password and the information accessible to download will be available through November 2022.

<https://www.icinsights.com/services/mcclean-report/pricing-order-forms/>

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