

RESEARCH BULLETIN

MAY 20, 2013

Qualcomm and Samsung Pass AMD in MPU Ranking

Slow notebook and desktop PC sales and stronger growth in mobile processors for smartphones and tablet PCs continues to lower Intel's marketshare as well.

A slowdown in notebook and desktop personal computer purchases coupled with strong growth in smartphones and tablet PCs knocked Advanced Micro Devices down to fourth place in microprocessor sales in 2012 from second, where AMD had been perched behind Intel since the 1990s, according to a new ranking of MPU suppliers by IC Insights. The new top 10 MPU list shows most leading suppliers of mobile processors based on ARM technology moving higher in the ranking while PC-dependent x86 MPU companies—Intel and AMD—continued to lose marketshare in 2012 (see Figure).

MORE INFORMATION CONTACT

Rob Lineback
Sr. Market Research Analyst
Phone: +1-817-731-0424
Email: rob@icinsights.com

Among the MPU leaders shown in the figure below, only top-ranked Intel and fourth-place AMD sell central processors built with x86 microarchitectures for standard notebook and desktop PCs running Windows operating system software from Microsoft. The remaining top 10 suppliers develop and sell mobile MPUs with RISC processor cores licensed from ARM in the U.K.

Leading MPU Suppliers (\$M)

2012 Rank	Company	2011	2012	Percent Change	Percent Marketshare	Main Product Lines
1	Intel	37,435	36,892	-1%	65.3%	x86 PC, server MPUs
2	Qualcomm	4,152	5,322	28%	9.4%	ARM mobile app processors
3	Samsung (+Apple)*	2,614	4,664	78%	8.2%	ARM mobile app processors
4	AMD	4,552	3,605	-21%	6.4%	x86 PC, server MPUs
5	Freescale	1,210	1,070	-12%	1.9%	ARM and embedded MPUs
6	Nvidia	591	764	29%	1.4%	ARM mobile app processors
7	TI	510	565	11%	1.0%	ARM mobile app processors
8	ST-Ericsson**	660	540	-18%	1.0%	ARM mobile app processors
9	Broadcom	295	345	17%	0.6%	ARM mobile app processors
10	MediaTek	280	325	16%	0.6%	ARM mobile app processors

*Includes Apple's custom processors made by Samsung's foundry business.

Source: IC Insights

**Cellphone IC joint venture to be dissolved by STMicroelectronics and Ericsson by 3Q13.

Moving ahead of AMD in the 2012 microprocessor ranking were Qualcomm, the cellphone IC sales leader that's been primarily successful in selling cellphone application processors, and Samsung, which in addition to its own ARM-based processors is the sole foundry source for Apple's custom-designed MPUs for its iPad tablet PCs and iPhone handsets. Sales of Qualcomm's ARM-based Snapdragon system-on-chip (SoC) processors increased 28% in 2012 to \$5.3 billion, increasing its MPU marketshare to 9.4% and moving it to second place in the ranking from third in 2011. Samsung (with Apple's MPU foundry business) moved to third place in the 2012 ranking from fourth in 2011 with a 78% increase in MPU sales. About 83% of Samsung's \$4.7 billion in MPU revenues in 2012 came from Apple's processors.

Intel remained the dominant leader in microprocessor sales but its share slipped to 65.3% of the MPU market compared to 67.3% in 2011 and 68.6% in 2010, based on IC Insights' analysis of suppliers. AMD's share of microprocessor sales fell to 6.4% in 2012 compared to 8.2% in 2011 and 9.6% in 2010, according to the new MPU ranking, which was recently released to subscribers of IC Insights' *McClean Report 2013*. Slowing sales of legacy PCs caused AMD to announce in late 2012 that it would be the first MPU supplier sell microprocessors built with x86 and ARM architectures—initially for server computers—starting in 2014.

The \$56.5 billion microprocessor market continued to be the largest single semiconductor product category in 2012, accounting for 22% of total IC sales. However, microprocessor sales growth slowed to 2% in 2012 following a strong 19% increase in 2011. IC Insights is forecasting a 10% increase in total MPU sales in 2013 to \$62.0 billion. During 2012, strong increases in mobile application processors used in cellphones and tablet PCs offset a 6% decline in MPU sales for desktop and notebook PCs, servers, and embedded-processor applications. Between 2012 and 2017, total MPU sales are projected to grow at a compound annual growth rate (CAGR) of 12%, reaching \$97.7 billion in the final year of the forecast.

Starting with *The 2013 McClean Report*, IC Insights expanded its coverage in the microprocessor market category to include system-on-chip processors used in cellular-phone handsets and touch-screen tablet PCs. Previously, these SoC processors were counted in the special-purpose logic/MPR category of the IC market—with cellphone application processors being part of the wireless communications segment and tablet processors in the computer and peripherals product segment. Prior to being reclassified, cellphone application MPUs represented about 32% of wireless communications special-purpose logic sales and 17% of unit shipments in 2011, based on IC Insights' previous market data. Tablet MPUs accounted for about 7% of computer/peripheral special-purpose logic sales and 2% of units in 2011, when these mobile processors were part of this IC segment.

With smartphone and tablet PC system shipments increasing by strong annual rates, IC Insights believes the inclusion of mobile application processors into the MPU category has become necessary to fully comprehend market and technology trends impacting this important IC product segment. SoC application processors in cellphones accounted for 22% of worldwide MPU sales in 2012 compared to 14% in 2010,

while tablet microprocessors represented 4% of the total in 2012 versus a little under 1% in 2010, which was the year Apple launched its first iPad products and dramatically changed portable computing in the consumer PC market.

Report Details: *The 2013 McClean Report*

Data in this research bulletin was excerpted from the *April Update* to the 2013 edition of IC Insights' flagship report, *The McClean Report—A Complete Analysis and Forecast of the Integrated Circuit Industry*, which features more than 400 tables and graphs in the main report alone. A subscription to *The McClean Report* includes **free** monthly updates from March through November (including a 250+ page *Mid-Year Report*), and **free** access to subscriber-only webinars throughout the year. An individual-user subscription to the 2013 edition of *The McClean Report* is priced at \$3,390 and includes an Internet access password. A multi-user worldwide corporate license is available for \$6,390.

To review additional information about IC Insights' new and existing market research products and services please visit our website: 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 • **Phone:** +1-480-348-1133 • **E-mail:** info@icinsights.com