Intel to Make Processor With Built-in Graphics, Challenging AMD

By Ian King - Sep 10, 2010 2:20 AM GMT+0530

Paul Otellini, chief executive officer of Intel Corp. Photographer: Jay Mallin/Bloomberg

Intel Corp., the world's largest semiconductor maker, will show off its first chip design that has graphics capabilities built into the processor, stepping up a threat to Advanced Micro Devices Inc. and Nvidia Corp.

Chief Executive Officer Paul Otellini will demonstrate the product next week at the Intel Developer Forum in San Francisco, the company said. The design, known as Sandy Bridge, will go into production next quarter and become the basis for Intel's entire lineup.

The new approach marks a shift for the industry, potentially eliminating the need for separate graphics cards in most personal computers. AMD got a jump on that change with the 2006 purchase of ATI Technologies Inc., giving it access to a stand-alone graphics maker. It's been using ATI's capabilities to craft a new line of processors called Fusion. Intel's existing graphics features, included in chips attached to the processor, haven't been good enough to replace rival products.

"Intel never really took graphics that seriously -- they were pretty pathetic for a while there," said Steve Kleynhans, an analyst at Gartner Inc. who was briefed on Sandy Bridge. The new lineup is probably good enough for most PC users, which means manufacturers don't need to add separate chips, he said.

Putting graphics on the same piece of silicon as the main processor gives Intel a cost advantage, said Nick Knupffer, a spokesman for the Santa Clara, California-based company. The approach also consumes less power and improves performance because the chips communicate more efficiently, he said.

Slowdown Concerns

Intel fell 10 cents to $18 today on the Nasdaq Stock Market. The shares have dropped 12 percent this year on concern that demand is declining for computers, which provide more than 90 percent of Intel's revenue.

AMD and Nvidia lead the market for so-called discrete graphics, which are used in the add-in cards favored by video gamers. AMD is adding more of those features into its processors to create Fusion. They will appear in computers in the first quarter of next year, said John Taylor, a spokesman for the Sunnyvale, California-based company.

AMD expects to maintain its edge in graphics, he said.

"There are decades of research and design that goes into our discrete graphics," Taylor said. "Intel has yet to deliver a product that has discrete-level performance. Right now, it's just claims."

Good Enough?

Nvidia, meanwhile, only makes graphics chips, not central processors. That means it's facing the prospect of a shrinking market, said Gartner's Kleynhans. As long as the new built-in graphics meet the requirements of most consumers and companies, they won't need to pay for additional cards, he said.

"Up until fairly recently, integrated graphics couldn't even do the basics," Kleynhans said. "They've improved it to the point where it's crossed the threshold of what most users are looking for today."

Hector Marinez, a spokesman for Santa Clara-based Nvidia, said it's too early to write off the market for discrete- graphics chips. Intel hasn't hurt the market for stand-alone cards so far, and demand for such products is only increasing, he said.

"Intel's been proclaiming the death of discrete graphics for years," he said. "Discrete graphics are as much as 40 times faster than integrated ones, and Sandy Bridge's limitations won't allow users to make full use of the system's visual capabilities."