

Intel adds more muscles to its Pentium processor

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Byline: Kevin Coughlin, Star-Ledger Staff

Body

If you held off buying a computer this holiday season to wait for MMX, your wait is over.

Intel Corp. yesterday introduced its MMX computer chip, an improved version of its popular Pentium microprocessor designed to handle video, audio and games more smoothly. It is supposed to hold down costs of entry-level computers by eliminating the need for extra graphics cards and specialty chips, enhance videoconferencing, and boost computer performance anywhere from 10 percent to 400 percent.

The computer industry hopes the MMX will give a lift to PC sales, which were disappointing over the holidays.

Intel anticipates the new chips will be available in PCs retailing for \$1,500 to \$2,000. MMX will be offered in processing speeds of 200 megahertz and 166 megahertz for desktop computers, and 166 megahertz and 150 megahertz for mobile computers. The world's leading chip-maker plans to add MMX capabilities to its entire Pentium line within two years. Analysts predict the Santa Clara, Calif., company will ship between 30 million and 45 million MMX chips - about half its total sales - this year alone. IBM, Packard Bell, Olivetti, Zenith, Dell Computer and Gateway 2000 are among computer makers to adopt the new technology.

"This is the biggest change we've made since before the 386," said Mike Aymar, vice president of Intel's desktop computer group. He referred to a microprocessor unveiled 12 years ago that first enabled users to run more than one program at a time.

Aymar said that overall, MMX operates 60 percent faster than standard Pentiums and will run some programs two to four times faster. But there's a catch: To get the full benefits, you must run software specifically written for MMX. And right now, analysts say, there isn't much available, especially for business applications.

"This isn't something that breaks the mold. Most consumers are pretty much confused anyway, and this doesn't help. This is another confusing piece of complexity in an industry that they're supposed to be trying to make simpler," said Tom Rhineland of Forrester Research.

He said most users won't notice a major performance improvement from MMX. And many of the hot new 3-D games still will run better with 3-D graphics cards that are being included with some computers, Rhineland asserted.

But MMX shines for image processing tasks, such as scanning digitized family photos, said Nathan Brookwood, an analyst for Dataquest. "This is wonderful. You can do things in seconds that used to take minutes," he said.

MMX stood for "multimedia extension" when it was announced last spring, but the acronym doesn't stand for anything now, Brookwood said. He explained that the MMX chip can perform up to eight multimedia functions at once, where standard Pentium chips can only do one. This is accomplished without substantially increasing the chip size or components. "It's using the stuff that's already there in a smarter way," the analyst said. Brookwood does not expect MMX to spark a huge surge of PC sales, however.

Wall Street apparently wasn't wowed. Intel stock was down \$1.125 yesterday to \$142.25 per share in NASDAQ trading.

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[Intel Sends Much-Anticipated MMX Chip Into Market >INTC](#)

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NEWSWIRES

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Byline: By Carmen Fleetwood

Body

NEW YORK (Dow Jones)--MMX Chip Ahoy!

The technology market is chock-full of new products to greet Intel Corp.'s (INTC) new MMX - the multimedia extensions chip that will improve PC graphics, video and audio performances. Intel's new chip will be offered for 166- and 200-megahertz Pentium desktops and 150- and 166-megahertz mobile computers. Industry sources expect Intel to come out with processors for those with Pentiums who wish to upgrade with an MMX in the coming months.

Among the many companies to release new products using the MMX chip are Compaq Computer Corp. (CPQ), Dell Computer Corp. (DELL), Hewlett-Packard Co. (HWP), Fujitsu Ltd., Toshiba America, Yamaha Corp., the NEC computer systems division of Packard Bell, Micron Electronics Inc. (MUEI) and Motorola Inc. (MOT).

Investors, meanwhile, are hoping the new chip provides a kick for sales of personal computers.

Dean Witter Reynolds Inc. analyst Eugene Glazer believes there were "significant deferrals" of PC purchases in the fourth quarter and that they will probably materialize during the current quarter.

But he and others also note that the real impact of the chip in terms of performance will be felt later in the year, as more software is created to take advantage of the chip's features.

With the MMX, Intel added 57 new instructions to its Pentium system to increase the speed in multimedia and communication applications. MMX is expected to add about 20% speed to nonmultimedia, and significantly more to multimedia features.

Compaq said the MMX will provide 75% enhancement for its new line of Presarios featuring the chip compared to previous models with it. The company was able to achieve the improvement since it redesigned its machines to take advantage of the MMX's capabilities, said Rod Schrock, vice president of the Presario division.

So how does the release of the MMX chip rate in the annals of technology history?

"I don't think it's a major, major deal," said Datapro Information Services Group senior analyst Peter Lober. He added, however, that it is a "nice enhancement" and helpful.

Other experts also stressed that the release doesn't have nearly the importance of the introduction of such products as Microsoft Corp.'s (MSFT) Windows 95 or Windows NT 4.0 operating system, or even Intel's Pentium chip or other earlier microprocessors.

Intel Sends Much-Anticipated MMX Chip Into Market >INTC

But one advantage to the MMX release is that since it is an addition to a product already in the marketplace instead of the next generation, the incorporation of the chip will be rapid. In comparison, a product such as the Pentium chip took some time to become the standard chip after the 486 microprocessor, analysts said.

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