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INTEL COPROCESSOR BRINGS HIGH PERFORMANCE
AFFORDABLE GRAPHICS TO THE OFFICE PC

PALO ALTO, Calif., May 19, 1986 -- Intel Corp. today introduced a VLSI graphics coprocessor designed to provide high performance, affordable graphics capabilities to the office workstation.

Intel also announced that the new graphics coprocessor is being supported by a coalition of independent software and hardware vendors.

Intel's 82786 graphics coprocessor, the first chip capable of executing multiple windows in hardware at rates more than 100 times faster than those of current software approaches, is aimed at such applications as office personal computers and low-end engineering workstations. It is designed to be used with any microprocessor, including Intel's 16-bit 80186 and 80286 and 32-bit 80386.

"The 82786 sets a new standard for graphics performance in the office workstation environment, doing to graphics what the numerics coprocessor did for floating point arithmetic," said David L. House, vice president and general manager of Intel's Microcomputer Group. "The software, hardware and development

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support by independent vendors represents an industry-wide commitment to establish a long-needed standard that will increase user productivity through high performance graphics."

Industry-wide Support

Vendors endorsing the 82786 include Ashton-Tate, Digital Research, Graphic Software Systems, Lotus Development Corp., Microsoft Corporation, Nova Graphics International Corp., Number Nine Computer Corp., and Reuters Limited. The companies are currently sampling the 82786 and are working on applications software, board products and development tools.

"One of the key hardware extensions that supports the speed needed to do graphics and text is a graphics coprocessor," said Bill Gates, president of Microsoft. "We find that the functions built into the 82786 are an excellent collection of features, packing more system bang into one chip than any other solution we know about. Now when our OEMs ask us to recommend a hardware method to speed up graphics, we suggest they use the 82786."

According to House, the 82786 is a high performance equivalent of sub-systems and boards that have traditionally used discrete components and software for graphics functions. "By putting software functions into the 82786 hardware, the improvements can increase system performance by nearly 100 times that of previous methods," House said. "Additionally, since the

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chip requires minimal support circuitry for most system configurations, it reduces the cost and board space requirements."

"Intel's new coprocessor, the 82786, is a step toward low cost, high performance display processing," said Edward Belove, vice president of corporate research and development, Lotus Development Corp. "Lotus is committed to pursuing technology which will take advantage of the richer visual medium of graphical interface and allow personal computer users to manage greater complexity."

"The introduction of the 82786 creates an exciting new era in microcomputer graphics display," said Harvey Jeane, vice president of product development for Ashton-Tate. "It will enable Ashton-Tate to build into our future products the type of next-generation, interactive graphic interface that users are demanding."

According to Tom Clarkson, chairman of Graphic Software Systems: "The combination of the 82786 and GSS firmware gives graphics application developers the best of both worlds -- high performance and a standard programmer interface. The result will be to shatter the bottleneck that has slowed the widespread development and use of desktop publishing, CAD, visual user-interfaces and other types of graphics-based computing."

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"The 82786 offers a new level of personal graphics performance beyond any hardware previously available for office and industrial systems, providing all the features required for GEM applications," said John Rowley, president of Digital Research.

Andrew Najda, president of Number Nine Computer Corp., said that the high performance and affordability of graphics' cards based on 82786 will make 1986 the year of PC desktop publishing. "The advantage of 82786 is that the PC user now has a single board graphics system that integrates high performance graphics and text previously available only on dedicated 32-bit graphic workstations."

According to Harold D. Blair, president of Nova Graphics International, "Intel's 82786 graphics coprocessor provides an excellent basis for constructing graphics hardware which will effectively support the implementation of graphics standards such as CGI and GKS."

Color and Resolution

The 82786 can support 640 by 480 by 8 pixel resolution displays with standard dynamic random-access memories (DRAM). At this resolution, it can provide up to 256 simultaneous colors. The 82786 alternatively supports 1800 by 1350 pixel resolution on monochrome systems. Using video DRAMs, the 82786 can provide virtually unlimited color support and resolution.

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Price and Availability

Intel's 82786 graphics coprocessor is available now in sample quantities. Volume production is scheduled to begin the fourth quarter of 1986. The 82786 sells for less than \$100.00 in quantities of 1000.

For more information, contact Intel Corp., Literature Dept. W-300, 3065 Bowers Ave., Santa Clara, Calif., 95051.

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