



Press Information

Motorola Introduces the MPC7450 PowerPC Microprocessor — the Highest Performing PowerPC Microprocessor on the Market Today

Customers benefit from high performance, unprecedented bus bandwidths, and low power solutions provided by new PowerPC G4 microprocessor

AUSTIN, TEXAS – January 9, 2001 – Delivering supercomputing levels of performance with revolutionary enhancements to the PowerPC™ microprocessor family, Motorola (NYSE: MOT) today announced the introduction of the MPC7450 PowerPC microprocessor with AltiVec™ technology. The MPC7450 processor, the third member of Motorola's fourth-generation (G4) PowerPC family, is shipping now at speeds up to 733 MHz. Continuing to build on its industry leadership position, Motorola's new PowerPC processors provide best-of-class solutions for the networking, telecommunications, high-end embedded systems, scientific computing, and desktop computer markets.

"Motorola's MPC7450 PowerPC microprocessor is designed to deliver high levels of real world performance and to meet the low power needs of our customers," commented Brian Wilkie, corporate vice president and general manager of Motorola's Computing Platform Division. "As Motorola's PowerPC processors continue to become more prevalent in both the computing and embedded arenas, we are pleased to consistently offer our customers powerful components which are engineered to enhance their product portfolios and accelerate time to market."



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Motorola's announces new MPC7450 microprocessor 2-2-2

“Apple's new Power Mac G4 line features a new high-performance architecture coupled with incredibly fast new PowerPC processors running up to 733 MHz,” said Jon Rubinstein, Apple's senior vice president of Hardware Engineering. “Apple's new G4s are perfect for professionals who demand supercomputing performance to handle the most processor-intensive tasks.”

Designed at Motorola's Austin, Texas technology center, the MPC7450 microprocessor has an advanced, deeper, seven-stage pipeline with two additional execution units, and an enhanced AltiVec engine. The L2 cache has been integrated onto the die for greater speed, and a 256-bit datapath to the L1 cache has been implemented. The MPC7450 processor also supports a large backside L3 cache with a 64-bit datapath, and provides multiple SRAM options. Additionally, the MPC7450 microprocessor implements Motorola's high-bandwidth MPX system bus, capable of achieving sustained bandwidth performance of 1064 MB/sec. which can provide up to 5 times the bus performance over G3 generation processors. Finally, the MPC7450 microprocessor has extensive tool support from compiler, debugger and emulator vendors providing complete sophisticated development environments to go hand-in-hand with Motorola's G4 architectural definition and the MPC7450 processor design.

The AltiVec vector processing engine has been expanded to dispatch two instructions to any of the four AltiVec execution units per clock cycle. This enhancement greatly improves vector instructions per clock performance. Software can also be optimized to utilize the MPC7450 microprocessor's AltiVec technology to enhance performance.

The MPC7450 PowerPC microprocessor is manufactured in the HiPerMOS 6 (HiP6) 0.18-micron copper fabrication process technology, and features a low-power design with three power-saving user-programmable modes – nap, doze (with bus snoop) and sleep – which reduce the power drawn by the processor.

The MPC7450 PowerPC microprocessor is shipping now at 533, 667, and 733 MHz. In addition, Motorola today introduced a speed upgrade to the MPC7410 microprocessor at 533 MHz.

For more information about the MPC7450 PowerPC microprocessor and additional members of Motorola's family of PowerPC microprocessors visit:

<http://www.motorola.com/smartnetworks>

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About Motorola

As the world's #1 producer of embedded processors, Motorola's Semiconductor Products Sector offers multiple DigitalDNA™ technologies which enable its customers to create "smart" products and new business opportunities in the networking and computing, wireless communications, transportation, and imaging and entertainment markets. Motorola's worldwide semiconductor sales were \$7.4 billion (USD) in 1999. <http://www.motorola.com/semiconductors>

Motorola, Inc. (NYSE:MOT) is a global leader in providing integrated communications solutions and embedded electronic solutions. Sales in 1999 were \$33.1 billion. <http://www.motorola.com>

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