

AT A GLANCE

K6 Is World's Fastest x86 Chip 1
 AMD's K6 processor has entered production at speeds up to 233 MHz, delivering better performance than any of Intel's processors on mainstream PC applications. In the x86 performance race for the first time, AMD can significantly raise its chip prices while increasing market share at the same time.

Editorial: Intel's Slippery Pricing Slope 3
 Intel's competitors have claimed to deliver twice the performance at the same price but settle for half the price at the same performance. Intel's price curve ensures the latter strategy will not be as successful.

Most Significant Bits 4
 Motorola may take ARM license; Hitachi SH-DSP debuts—FP version in limbo; Intel sues AMD, Cyrix over MMX name; QED rolls out RM52x0 family; AMD's Elan410 reduces cost; Intel/Microsoft NetPC spec debuts; ATI Rage Pro draws first blood with AGP.

Digital's 21164PC Aimed at PC Market 9
 Selling for as little as \$295, the new Alpha processor will appear in Windows NT systems selling for \$2,500. At 533 MHz, the 21164PC should outperform a 266-MHz Pentium II by about 10–20% on mainstream PC software. On floating-point applications, the Alpha chip is much better than Pentium II, positioning it well for low-cost NT workstations.

Crystal SLIMD Speeds PCI Audio 13
 Crystal's CS4610 uses a "somewhat long instruction, multiple data" processor to perform a variety of advanced audio functions. Its powerful engine and moderate price make it the most attractive among the emerging group of PCI sound chips.

First Merced Patent Surfaces 16
 An Intel patent application reveals what appear to be the first IA-64 instructions and sheds new light on Merced. The document describes a processor that will implement both x86 and IA-64 in hardware, and applications will be able to easily switch between the two modes.

Mainframe History Provides Lessons 19
 In the first of two parts, microprocessor veteran Bernard Peuto explains the parallels between the history of mainframes and the history of microprocessors, indicating possibilities for the future.

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 Many experts expect CMOS technology improvements will slow or even halt in 10 to 20 years, derailing Moore's Law. If so, performance increases will continue to come from architectural improvements.

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