AT A GLANCE

SA-1100 Puts PDA on a Chip 1

Digital has combined its fast StrongArm CPU core with a complete set of PDA peripherals, allowing powerful portable computers to be built from a handful of components. The SA-1100 outperforms all other PDA processors, yet at $39, is reasonably priced. The chip is ideal for a Newton, and it will also appear in Windows CE systems once that operating system is ported to ARM early next year.

Editorial: Microprocessors for the Indecisive 3

With the announcement of M•Core, Motorola now has four incompatible architectures for embedded applications. While this may seem like too many, each has a valuable role to play.

Most Significant Bits 4

Tillamook debuts at 233 MHz; Motorola previews new M•Core architecture; Apple kills CHRP, clone market; Sun, Acorn push NC reference platforms; AMD K6 scores IBM design win; NEC V830R/AV handles real-time MPEG-2.

New 3D Engines Redefine the Market 9

At the recent Siggraph, vendors ranging from HP to newcomer ART displayed radical new architectures for 3D rendering. Although these new designs won't appear in PCs any time soon, they point to major changes in 3D acceleration over the next few years.

DSP16xxx Targets Communications Apps 11

Lucent's latest DSP chip enhances its predecessor, the DSP16xx, with a second 16-bit multiplier, a three-input adder, six additional accumulator registers, and other new features. These features give the new 16xxx better performance than other conventional DSPs, but it can't match the speed of the more radical TI 320C62xx.

P6 Microcode Can Be Patched 16

Intel can develop microcode patches for its P6 processors that, via BIOS, are downloaded into the chip at boot time. This new tool allows the company to correct some hardware bugs.

AMD, Cyrix Lag on FP, MMX Performance 18

An extensive set of tests by PC Magazine Labs shows the AMD K6 and Cyrix 6x86MX match up well against Pentium/MMX and even Pentium II on business applications, but they fall well short on code that extensively uses floating-point or MMX instructions.

The Slater Perspective: Will Graphics Follow Chip Sets? 23

Intel's entry into the graphics-chip market, accelerated by its recent purchase of Chips and Technologies, might not lead Intel to a dominant position in that market—but it certainly could, a possibility that should worry many of today's leaders in the graphics market.

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