LITERATURE WATCH

DEVELOPMENT TOOLS

EDA tools let you track and control CMOS power dissipation. Knowing where your chip is dissipating power is important for both IC and chip-based system design. Jim Lipman, *EDN Europe,* 1/96, p. 7, 7 pp.

IC analysis tools help manage power. Power consumption has become an important parameter. Now designers have a choice of tools to help them cope. Lisa Maliniak, *Electronic Design,* 1/22/96, p. 71, 6 pp.

Pin multiplexing yields low-cost logic emulation. Instead of letting logic simulators bog down on complex designs, debug using reprogrammable logic emulators. Lisa Maliniak, *Electronic Design,* 1/22/96, p. 65, 3 pp.

Designers cross over to language-based tools. Graphical tools for high-level design languages (HDLs) help designers cope with complexity, but performance may suffer. Mike Donlin, *Computer Design,* 1/96, p. 69, 6 pp.

DSPS

Optimize DSP design with an extensible core. Maximize your DSP circuit's cost, power, and form factor with a building-block approach that lets you choose and match the right cells from a library of ASIC functions. Bob Caulk, *Electronic Design,* 1/22/96, p. 81, 4 pp.

$5 buys a 20-MHz, 16-bit fixed-point DSP controller. Zilog's 289323 combines a Clarkspur DSP core with a full set of peripherals. *Computer Design,* 1/96, p. 118, 1 pg.

GRAPHICS/VIDEO

JPEG parameters determine compression-system performance. The wide availability of JPEG software and hardware simplifies image-compression system design. Debora Grosse, Unisys; *EDN,* 1/18/96, p. 141, 6 pp.

Integrated MPEG ICs lower set-top, DVD costs. Vendors including LSI, SGS-Thomson, IBM, C-Cube, and AT&T offer low-cost MPEG-2 decoders. John Mayer, *Computer Design,* 1/96, p. 57, 4 pp.

MISCELLANEOUS

High-capacity, removable storage drives shake floppy foundation. More than a dozen products based on magnetic and optical technologies are ready to take a shot at replacing the 1.4M floppy. Maury Wright, *EDN,* 1/18/96, p. 41, 9 pp.

PowerPC poised to dominate VME. PowerPC has become the dominant VME RISC processor by offering the best mix of performance, popularity, and embeddability. Jeff Child, *Computer Design,* 1/96, p. 133, 5 pp.

PERIPHERALS

Cryptographic techniques. Code-generation and decoding ICs provide rolling-code encryption techniques that let noncryptographic experts design in security. Doug Conner, *EDN,* 1/18/96, p. 57, 6 pp.

Advancing the art of industrial video imaging: CCD cameras and frame grabbers. The industrial market for video-imaging applications is wide and varied. John Gallant, *EDN,* 1/18/96, p. 73, 6 pp.

PROCESSORS

Future comm processors will fuse DSP and RISC. One vision of future embedded communications processing calls for a single processor with a hybrid architecture, combining the best features of today's RISC and DSP machines. Dan Mansur, *Electronic Design,* 1/8/96, p. 99, 3 pp.

Embedded-controller architectures suit all needs. For cost-sensitive applications, 4- and 8-bit microcontrollers continue to dominate designer's thoughts. Dave Bursky, *Electronic Design,* 1/8/96, p. 53, 8 pp.

On-chip instructions boost multimedia. An UltraSparc architect explains how that chip accelerates real-time video and graphics. Marc Tremblay, *Electronic Design,* 1/8/96, p. 131, 3 pp.

PROGRAMMABLE LOGIC

Efficient RAM-based FPGAs ease system design. Enhanced FPGAs with distributed or dedicated RAM boost system throughputs. Dave Bursky, *Electronic Design,* 1/22/96, p. 53, 5 pp.

Enhanced FPGA family delivers 125,000 gates. By setting a new standard for gate count, the Xilinx XC4000EX allows integration of system functions. Dave Bursky, *Electronic Design,* 1/26/96, p. 141, 2 pp.

Programmable logic continues to push density/power thresholds. AT&T's 2CxxA family, Altera's EPF10K50, Xilinx's XC9500, and Atmel's ATF1500 offer increased density over previous CPLDs. Mike Donlin, *Computer Design,* 1/96, p. 32, 2 pp.

SYSTEM DESIGN

Invisible computing: now you see it, now you don't. With the convergence of several technologies, embedded computing is fast becoming the foundation of mass-market products. Clifford Meth, *Electronic Design,* 1/8/96, p. 84, 6 pp.

Previewing system solutions of the future. Tomorrow's communication systems will demand more of their embedded controllers, leading experts to advocate a two-processor solution. Trey Oprendek, *Electronic Design,* 1/8/96, p. 104, 3 pp.

Choosing lithium primary-cell types. Although they share common attributes, each of the various chemistries for lithium cells lends itself to different uses. Mark Schimpf, *Electronic Design,* 1/8/96, p. 141, 3 pp.

Supervisory ICs establish system boundaries. Although they don't have the glamour of CPUs, supervisory ICs perform unseen critical tasks in reset, memory protection, and watchdog functions. Bill Schweber, *EDN,* 1/8/96, p. 23, 5 pp.