LITERATURE WATCH

DEVELOPMENT TOOLS

RF simulator overcomes speed, capacity obstacles. Innovative RF simulation algorithms quickly and accurately analyze digital-wireless designs containing nonlinear elements. Lisa Maliniak, *Electronic Design,* 12/4/95, p. 67, 3 pp.

Modeling and simulation capabilities smooth signal-integrity problems. Like speed bumps on a road, signal distortion, crosstalk, interconnect delay, and EMI can force you to slow your logic circuits—unless you take steps to avoid these problems early in the design cycle. Fred Saal, Quad Design; *EDN*, 12/7/95, p. 141, 7 pp.

GRAPHICS/VIDEO

Diversity in the midst of multimedia convergence. Huge business potential in desktop systems draws a crowd of chip suppliers peddling a wide variety of solutions and strategies. Deborah A. Vines, *Electronic Business Today,* 12/95, p. 65, 3 pp.

Image resizing and enhanced digital video compression. Digital video is gaining wide acceptance. Calvin Ngo, Genesis Microchip; *EDN,* 1/4/96, p. 145, 6 pp.

MEMORY

Souped-up memories boost system performance. The fast-page-mode DRAM has given way to higher performance memories such as extended-data-out and synchronous DRAMs. Markus Levy, *EDN,* 1/4/96, p. 38, 11 pp.

Process advances yield gigabit memories. Reductions in feature sizes and new process techniques bring gigabit DRAMS and flash memories closer to reality. Dave Bursky, *Electronic Design,* 1/4/95, p. 78, 5 pp.

MISCELLANEOUS

Bringing wideband telecommunications to the home and office. Both wired and wireless systems are under development. Charlie Allen, Maxim Integrated Products; *Electronic Products,* 12/95, p. 23, 5 pp.

Lithium-ion advances. New solid-state lithium-ion rechargeable batteries emerge to compete with liquid lithium-ion and nickel-based systems. Gregory Smith, Ultralife Batteries; *Electronic Products,* 12/95, p. 31, 2 pp.

Micromachining technologies promise smarter sensors, actuators for a broad range of applications. Micromachines today are used in the medical, industrial, consumer, military, automotive, and instrumentation fields. Milt Leonard, *Electronic Design,* 12/4/95, p. 35, 5 pp.

Programming PowerPC embedded applications. An ABI optimized for embedded applications offers the promise of interoperability among development tools. Steve Mihalik, Steve Sobek, Motorola; Steve Zucker, Sun Microsystems; *Embedded Systems Programming,* 12/95, p. 82, 11 pp.

To be or not to be asynchronous; that is the question. Asynchronous logic conveys advantages in certain situations, but, unlike synchronous logic, which you can typically view as a series of sequential actions, you generally must view asynchronous logic concurrently. Clive "Max" Maxfield, Intergraph Electronics; *EDN,* 12/7/95, p. 157, 7 pp.

PERIPHERALS

New devices will push frontiers in communications. IEDM papers examining everything from quantum electronics to vacuum tubes provide insight into technologies that will shape the future of communications. Lee Goldberg, *Electronic Design,* 12/4/95, p. 103, 3 pp.

Serial FireWire finally shows signs of gaining momentum. After Comdex introductions and demonstrations, optimism runs high for the 1394 bus, based on Apple's low-cost data link. Cynthia Bournellis, *Electronic Business Today,* 12/95, p. 35, 3 pp.

PROCESSORS

Efforts grow to 'freeze' embedded x86 support. PC components are being adapted for embedded use. J. Robert Lineback, *Electronic Business Today,* 12/95, p. 28, 2 pp.

Zero in on x86 derivatives for your embedded PC. x86-processor derivatives have become so abundant that system developers must invest large amounts of time to determine which works best for their embedded PC. Markus Levy, *EDN,* 11/95, p. 28, 6 pp.

PROGRAMMABLE LOGIC

Designing for speed with high-performance PLDs. High performance PLDs come in a variety of flavors. To choose the right one, consider the speed and time-to-market requirements of your application and learn what each PLD architecture offers. John Gallant, *EDN,* 11/95, p. 20, 5 pp.

SYSTEM DESIGN

Industrial PCs take on traits of full fault-tolerant systems. As PCs move into industrial (embedded) applications, reliability must be improved. Paul G. Schreier, *Personal Engineering,* 12/95, p. 25, 6 pp.