

## Literature Watch

## ASICs

**Laminated-film MCMs aim for mass market.** This alternative method for creating multichip modules delivers high-speed and high-density characteristics at a moderate cost. David Maliniak, *Electronic Design*, 11/11/93, p. 57, 4 pp.

## Buses

**Local-bus battle begins in earnest.** Although VL-Bus is already established, support is mounting for PCI bus. J.D. Mosley, *Electronic Business Buyer*, 11/93, p. 47, 4 pp.

**A designer's guide to computer buses.** While product lifecycles grow shorter, bus standards buck the trend and live long, healthy, useful lives. Richard Nass, *Electronic Design*, 11/22/93, p. 129, 6 pp.

## Development Tools

**Timing definition aids simulation of programmable logic's actual performance.** Linking design tools and simulations helps optimize, place, and route logic in modern FPGAs. Russ Lindgren, *Personal Engineering & Instrumentation News*, 11/93, p. 41, 7 pp.

**Structured development tool unleashes icon-based simulation.** Cast off the burden of a textual interface and program in the "mother tongue" of engineering: the block diagram. Michael L. Porter, *Personal Engineering & Instrumentation News*, 11/93, pg 55, 5 pp.

**Virtual design speeds embedded systems work.** Designers don't need simulators and emulators to develop embedded systems software without target hardware. Nino Vidovic, Ready Systems; *Electronic Design*, 11/11/93, p. 85, 8 pp.

## DSPs

**C continues its reign as the language of choice for DSP.** The difficulty of mapping C instructions onto a DSP's instruction set may force a change in the way these devices are programmed. David Shear, *EDN*, 11/11/93, p. 49, 4 pp.

## Graphics

**Chip set delivers fast graphics, digital video.** A graphics controller and accelerator gives PCs the look and feel of a workstation. Dave Bursky, *Electronic Design*, 11/11/93, p. 155, 3 pp.

## Memory

**Dual-port DRAM accelerates Windows.** Less expensive than VRAM, dual-port Window RAM brings high performance to low-cost video-display systems. Dave Bursky, *Electronic Design*, 11/1/93, p. 43, 4 pp.

## Miscellaneous

**RISC vendors look to software to gain edge.** Windows NT should allow computer designers more microprocessor options, but there's no certainty it will break Intel's grip on the volume PC marketplace. Robert Ristelhueber, *Electronic Business Buyer*, 11/93, p. 66, 4 pp.

**Mini PCs ratchet up in power, but come in smaller packages.** Compact 386- and 486-based computers offer low-cost, quick-to-design solutions for embedded applications. Warren Andrews, *Computer Design*, 11/93, p. 28, 3 pp.

**Standards: the language for success.** Standards, whether sanctioned by an officiating body or by force of practice, offer advantages to users and designers alike. Roy Rada, University of Liverpool; *Communications of the ACM*, 12/93, p. 17, 2 pp.

**A long-range look at the workstation-PC market.** The decade-long battle between workstations and personal computers intensifies as capabilities overlap. Nancy C. Battey, International Data Corp.; *Electronic Design*, 11/22/93, p. 29, 5 pp.

## Peripheral Chips

**Connect an FDDI peripheral to the Sbus.** Motorola's MC68840 and a single PAL make a complex interfacing task simple. Lynn A. Woods, Aviel Livay, Motorola; *Electronic Design*, 11/1/93, p. 69, 6 pp.

## Processors

**EDN's twentieth annual microprocessor directory.** Details more than 40 current families of microprocessors, from 8- to 64-bits wide. Steven H. Leibson, *EDN*, 11/25/93, p. 59, 47 pp.

**Speedy RISC CPU fits NT desktop, embedded needs.** The R4600, IDT's implementation of the 64-bit MIPS architecture, initially runs at 100 MHz. Dave Bursky, *Electronic Design*, 11/1/93, p. 112, 3 pp.

**Faster Hobbit CPUs also add flexibility.** Large caches and sophisticated branch prediction achieve a price/performance ratio two to five times a 486. Dave Bursky, *Electronic Design*, 11/1/93, p. 101, 3 pp.

**The microprocessor free-for-all.** Microprocessor king Intel may face a tough battle ahead as the PowerPC chip and Windows NT operating system offset the dependence on the x86 platform. Robert Ristelhueber, *Electronic Business Buyer*, 1/93, p. 55, 6 pp.

**High-performance  $\mu$ Ps.** Superscalar, superpipelined, RISC, and CISC processors all vie for their share of the market. John Gallant, *EDN*, 11/11/93, p. 58, 7 pp.

**Not your father's CPU.** Modern microprocessors cover a broad range of architectural constructs, such as built-in caches and branch-prediction hardware. Linda Geppert, *IEEE Spectrum*, 12/93, p. 20, 4 pp.

**Microprocessor performance onslaught pushes on.** Advances in architecture push microprocessor technology ever further. Dave Bursky, *Electronic Design*, 11/22/93, p. 85, 9 pp.

## Programmable Logic

**High-density PLDs defy simplistic categorization.** The push toward higher levels of integration has caused vendors to create multiple PLD-type structures in a single complex PLD. Bryon Moyer, Advanced Micro Devices; *Electronic Products*, 11/93, p. 39, 5 pp.