

Literature Watch

Buses

Abe Hirsch on: VME vs. PLCs.

Abe Hirsch, Heurikon; Computer Design, 3/92, pg 29, 3 pgs.

First Futurebus+ products debut at Buscon. Warren Andrews; Computer Design, 3/92, pg 38, 3 pgs.

Standard buses gain ground in image processing. Warren Andrews; Computer Design, 3/92, pg 83, 6 pgs.

The scalable coherent interface and related standards projects. David B. Gustavson, Stanford Linear Accelerator Ctr.; IEEE Micro, 2/92, pg 10, 13 pgs.

Turmoil at the single-board computer market carnival. Board vendors caught by the collapse of personal computer prices are touting their latest attractions—RISC chips, software, and Services. David Webb; Electronic Business, 2/24/92, pg 50, 3 pgs.

VME CPU boards break barriers to reach compatibility. Jeffrey Child; Computer Design, 3/92, pg 113, 6 pgs.

Development Tools

Designers can now take their pick of 32-bit debugging tools. Bugs in 32-bit embedded systems can ruin your day, and many projects require emulation more than ever. But the rising cost of emulators is forcing a choice between expensive bug-hunting-tools or lower-cost debugging alternatives. Jeffrey Child; Computer Design, 3/92, pg 92, 10 pgs.

Third-party tools help DSP find a home in parallel processing. Dave Wilson; Computer Design, 3/92, pg 52, 2 pgs.

Graphics

VESA XGA standard. Bill Knapp, Cirrus Logic; Electronic Design, 2/20/92, pg 120, 1 pg.

Memory

ISSCC: digital technology. Dave Bursky; Electronic Design, 2/20/92, pg 48, 8 pgs.

Integrated cached DRAM lets data flow at 100 MHz. Build more efficient systems with highly integrated memories that merge the cache and DRAM into one IC. Dave Bursky; Electronic Design, 2/20/92, pg 142, 3 pgs.

Miscellaneous

A global guide to patents. Paula Doe, Rick Whiting, & Barbara N. Beckman; Electronic Business, 2/24/92, pg 38, 4 pgs.

Digital video. Television, communications, and computer specialists are working to unsnarl the exchange of material in any video format. Ronald K. Jurgen; IEEE Spectrum, 3/92, pg 24, 7 pgs.

Hardware requirements for neural network pattern classifiers. A case study and implementation. Bernhard E. Boser, Eduard Sackinger, Jane Bromley, Yann leCun, & Lawrence D. Jackel, AT&T Bell Laboratories; IEEE Micro, 2/92, pg 32, 9 pgs.

Protecting the power of the idea. Rick Whiting; Electronic Business, 2/24/92, pg 24, 6 pgs.

Scalable real-time OS adapts to range of applications. Tom Williams; Computer Design, 3/92, pg 66, 2 pgs.

Peripheral Chips

500-MHz 12-bit DAC creates 100-MHz signals. Frank Goodenough; Electronic Design, 2/20/92, pg 41, 5 pgs.

DRAM controller simplifies 32-bit processor access to memory. Richard A. Quinnell; EDN, 2/17/92, pg 93, 2 pgs.

ISSCC: communications & special-purpose ICs. Milt Leonard; Electronic Design, 2/20/92, pg 79, 5 pgs.

MCM DRAM accelerator boosts memory performance. Dave Wilson; Computer Design, 3/92, pg 56, 3 pgs.

Processors

Dual processors boost computer power. Combining an i860 RISC processor with an i486 can boost the latter's throughput tremendously at little extra cost. Mark Atkins, Intel Corporation; Electronic Design, 2/20/92, pg 122, 3 pgs.

Unix and the Am29000 microprocessor Though targeted for use in medium- to high-performance embedded applications, the Am29000 includes several design provisions allowing its use in Unix workstation applications. Daniel Mann, Advanced Micro Devices; IEEE Micro, 2/92, pg 23, 9 pgs.

Programmable Logic

Fitting programmable logic. New synthesis software for user-programmable logic relieves designers of complex fitting, placement, and routing. Thomas R. Clark, Data I/O Corporation; IEEE Spectrum, 3/92, pg 36, 4 pgs.

System Design

Dynabook revisited—portable computers past, present, and future. Larry Press; Communications of the ACM, 3/92, pg 25, 7 pgs.

High-speed digital circuits: timing techniques help signals stay in sync. Anne Watson Swager; EDN, 2/17/92, pg 81, 7 pgs.