Literature Watch

Buses

Enhancements drive VMEbus into the fast lane. Emerging communications standards, packaging, and semiconductor technologies improve the VMEbus. Jerry Gipper, Motorola Computer Products; *Electronic Products,* 8/94, p. 55, 4 pp.

Development Tools

Embedded RISC µPs present new debugging challenges. Debugging embedded RISC microprocessors in real-time applications requires a variety of techniques, including use of a logic analyzer. Roger Crooks, Tektronix; *EDN,* 8/4/94, p. 105, 6 pp.

Code-development tools support new fixed-point DSP. Fixed-point DSP has a wider choice of development tools. *Personal Engineering,* 8/94, p. 11, 2 pp.

Backplanes mesh simulators into one environment. A simulation backplane benefits the user by combining several simulation engines into one simulation session but costs friendliness and speed. Lisa Maliniak, *Electronic Design,* 8/8/94, p. 59, 6 pp.

Memory

Synchronous memories. Synchronous memories meet the needs of faster processors but require careful design. Richard A. Quinnell, *EDN,* 8/4/94, p. 56, 9 pp.

Miscellaneous

The alphabet from S to Z. Engineering mathematics: not just for the curious. Jack Crenshaw, *Embedded Systems Programming,* 8/94, p. 60, 12 pp.

Contract manufacturing. Board stuffers evolve to provide design distribution, procurement, and final assembly for major client corporations. Robert Ristelhueber, *Electronic Business Buyer,* 6/27/94, p. 49, 6 pp.

Salvageability by design. The recycling of electronic products impacts design. Patricia S. Dillon, Tufts University; *IEEE Spectrum,* 8/94, p. 18, 4 pp.

A different mirror. Two-dimensional surface-emitting semiconductor lasers have promising applications including printing, scanning, and communications. Paul L. Gourley, Kevin L. Lear, et al, Sandia National Labs; *IEEE Spectrum,* 8/94, p. 31, 5 pp.

PC-based X servers; features, no pep. X software that turns a PC into an X-terminal lacks performance but may be useful for certain applications. Ken Phillips, *Advanced Systems,* 8/94, p. 40, 7 pp.

High-speed bipolar process forms bedrock for wireless ICs. GEC Plessey's high-speed bipolar ICs meet increasing demand for commercial wireless products. Brian Kerridge, *EDN,* 8/18/94, p. 66, 4 pp.

What features does Windows NT offer that I can't find in Unix? The features of Windows NT when compared with those of Unix may be more abundant than currently perceived. Daniel Day, Fintronic USA; *Personal Engineering,* 8/94, p. 73, 1 pg.

Peripheral Chips

PC chip set integrates LAN functionality. A single chip, the National PC87340VUL, integrates most peripherals functions including LAN capability. Richard Nass, *Electronic Design,* 7/25/94, p. 141, 2 pp.

PCMCIA cards become mainstream. Small size and friendly features should help PCMCIA card usage grow five times by 1997. Bob Porooshani, *Electronic Products,* 8/94, p. 61, 4 pg.

Combo cards pose a wide array of choices for both product managers and design engineers. Combo cards pack function and value into a single PC slot. Tom Parrish, *IC Card Systems & Design,* 7–8/94, p. 28, 2 pp.

Processors

Massively parallel card shoehorns 128 processors into one slot. AT-bus card can put up to 128 custom processors in one PC slot and achieve 256 billion multiply-accumulate operations per second. *Personal Engineering,* 8/94, p. 23, 2 pp.

System Design

Acceleration puts the "snap" into graphics. Support circuits and memory chips speed up graphics. Dave Bursky, *Electronic Design,* 7/25/94, p. 55, 9 pp.

Desktop DOS goes undercover to run embedded systems. Embedding a PC becomes more popular. David Shear, *EDN,* 8/4/94, p. 43, 4 pp.

Build embedded systems. Improving fuzzy logic tools allow design and debugging of embedded systems. Gary Legg, *EDN,* 7/21/94, p. 51, 6 pp.

Predicting and precluding problems with memory latency. The divergence of processor and memory cycle times is examined, resulting in suggestions to reduce memory latency. Keith Boland, AT&T Global Information Solutions, Apostolos Dollas, Technical University of Crete; *IEEE Micro,* 8/94, p. 59, 9 pp.