

Literature Watch

Buses

The SBus market today and tomorrow. There are hundreds of add-ins to enhance speed, graphics, and to link scientific equipment, with more on the way. But while some SBus market segments are growing, others are becoming extinct. Gregory M. Leonard, Desktop Strategies; SunWorld, 7/93, pg 83, 10 pgs.

Proposed high-speed serial bus lets peripherals transfer 100 Mbits/s at low cost. Dave Bursky, Electronic Design, 6/10/93, pg 32, 2 pgs.

Special components simplify interface to PCMCIA cards. You don't have to start from scratch when designing an interface for PCMCIA cards. There are chips, boards, and card drives that already have many of the features you need. Gary Legg, EDN, 6/10/93, pg 61, 5 pgs.

Embedded control using ACCESS.bus. Macintosh users have long been used to plugging multiple peripherals together with a single kind of cabling system using Apple's Desktop Bus. Now, ACCESS.bus promises to clean up the cable clutter for PCs, too. David Wyland, The Wyland Group; Computer Applications Journal, 6/93, pg 26, 11 pgs.

Development Tools

"Fooling" Spice to handle ideal circuits. Getting around Spice's rigid rules requires creative techniques involving negative resistances and controlled sources. Vesselin Kavalov, Cadence Design Systems; Electronic Design, 6/10/93, pg 68, 3 pgs.

HDL-based design. Are hardware description languages (HDLs) viable for mainstream design? How difficult is it to use HDL tools and methodologies? Here's a report from the field evaluating HDL-based design on nine criteria. Ray Weiss, EDN, 6/10/93, pg 125, 9 pgs.

Expert system ensures EMC-rules compliance. Software tool uses EMC checks to predict electromagnetic emissions from a PC board or multichip module. Lisa Maliniak, Electronic Design, 6/10/93, pg 60, 3 pgs.

C compilers for 8-bit μ Cs. New and improved C compilers are opening up a brave new world for 8-bit- μ C programmers. David Shear, EDN, 6/24/93, pg 116, 9 pgs.

Graphics

Windows accelerator chip provides multimedia port. By leveraging a new architecture with a 64-bit memory data path, an IC can end video-subsystem duplication. Jack Shandle, Electronic Design, 6/24/93, pg 45, 4 pgs.

Video compression is the key to digital TV. Multimedia, video conferencing, and a home entertainment explosion depend on fast and inexpensive video chips. Smaller companies are ahead of the chip giants. Robert Ristelhueber, Ernest Meyer, Electronic Business, 7/93, pg 135, 3 pgs.

Memory

The ultimate RAM? The quest for core continues. Tom Cantrell, Computer Applications Journal, 6/93, pg 64, 6 pgs.

Miscellaneous

Sales rose, but profits eased in a turbulent 1992. IBM, DEC, and other industry stalwarts faltered, while Microsoft, Novell, Sybase, and Cisco made dramatic gains. Elaine L. Appleton, Electronic Business, 7/93, pg 44, 10 pgs.

Working with neural networks. Evaluating neural networks for applications requires a good prior grasp of the necessary algorithms and development techniques. Dan Hammerstrom, Adaptive Solutions; IEEE Spectrum, 7/93, pg 46, 8 pgs.

Heller teases SunWorld '93 audience with HaL's plans, says "SPARC is not doomed." Mark Cappel, SunWorld, 7/93, pg 22, 3 pgs.

High-speed clock drivers catch up with μ Ps. Keeping up with modern μ Ps is like keeping up with Speedy Gonzalez—it's hard to do. Nevertheless, vendors of clock-driver chips are up to the task. John Gallant, EDN, 6/24/93, pg 87, 7 pgs.

Multichip packaging stays hot. Standard ICs now come in MCM form and prototyping semicustom parts is faster. Spencer Chin, Electronic Products, 7/93, pg 17, 3 pgs.

Processors

RISC μ C combines fast CPU with EPROM, RAM, I/O. Ray Weiss, EDN, 6/24/93, pg 104, 2 pgs.

Toshiba 16-bit μ C integrates 16-/32-bit registers and 32-Kbit ROM. Ray Weiss, EDN, 6/10/93, pg 113, 2 pgs.

8-bit μ C drives 1280-pixel dot-matrix LCDs. Ray Weiss, EDN, 6/10/93, pg 118, 1 pg.