Literature Watch

Buses

Multibus II looks to regain momentum. Buscon '92 puts the spotlight on much-heralded technology improvements. Patrick Mannion; Electronic Products, 3/92, pg 15, 2 pgs.

Memory

- 2-Mbit video RAMs—standardized feature sets add versatility and speed. Emerging 2-Mbit video RAMs offer more features and a wider interface to boost speed beyond earlier devices. Different manufacturers' products also conform more to a single standard, coming closer to eliminating second-sourcing. Richard A. Quinnell; EDN, 3/16/92, pg 37, 4 pgs.
- 4-Mbit DRAM integrates SRAM cache for 10-nsec cache-hit access. Richard A. Quinnell; EDN, 3/16/92, pg 77, 1 pg.
- Memory card forecast: a 62% jump in 1992. Soaring demand means profits now, but expect a commodity bloodbath—as in DRAMs—by 1995. David Webb; Electronic Business, 3/6/92, pg 45, 2 pgs.

Miscellaneous

- GaAs ICs: ICs see mainstream duty as uP glue logic. Maury Wright; EDN, 3/2/92, pg 97, 6 pgs.
- Multifunctional 3 1/2-in. optical drives—drives meet standards for removable data storage. Maury Wright; EDN, 3/16/92, pg 47, 5 pgs.

- Multimedia. Multimedia offers audio and video capabilities that can revolutionize the way you design circuits, discuss concepts, and interact with colleagues. But as usual, the primary issues revolve around compatibility and standardization. J.D. Mosley; EDN, 3/16/92, pg 101, 9 pgs.
- Opposing groups struggle to define standards for FDDI using copper wire. Although implementation of the FDDI over twistedpair copper wiring is not yet a reality, the ANSI X3T9.5 committee may soon resolve the conflicting issues. Dave Pryce; EDN, 3/2/92, pg 57, 4 pgs.
- Patent law: boost or barrier to invention? Our patent laws sometimes reward anticipation of an invention, rather than invention itself. The Patent Office exacerbates this tendency by insisting on recognizing a single inventor. Rodney Myrvaagnes; Electronic Products, 3/92, pg 7, 1 pg.
- SPEC: odyssey of a benchmark.

 Vendors are "tweaking" the SPEC
 tests—for example, using an unpublished precompiler that rewrites a
 key SPEC algorithm—to improve
 their results. Are they crossing
 over the line? Dave Taylor; SunWorld, 3/92, pg 48, 2 pgs.
- Smart-card applications' hidden problems add to designers' challenges. Gary Legg; EDN, 3/2/92, pg 83, 5 pgs.

Peripheral Chips

Chip set targets pocket and laptop modems. Battery-powered modem family combines send-receive fax with up to 38.4-kbits/s data rates. Milt Leonard; Electronic Design, 3/5/92, pg 127, 2 pgs.

Processors

- Enhanced 8051 delivers secure operation and protects software.
 Ray Weiss; EDN, 3/16/92, pg 83, 1 pg.
- High-speed 16-bit integer DSP chip tackles complex tasks.

 Dave Bursky; Electronic Design, 3/5/92, pg 129, 1 pg.

System Design

- High-speed CPU design: 40-MHz CMOS circuits send designers back to school. CPUs that run at 40 and 50 MHz are forcing CMOS designers to amass ECL design techniques to make circuits that function in this ethereal realm. John Gallant; EDN, 3/2/92, pg 67, 6 pgs.
- Piecewise analysis and accurate emulation yield precise power estimates. William Hall, Ray Mentzer, National Semiconductor Corp.; EDN, 3/16/92, pg 113, 13 pgs.
- The Stanford Dash multiprocessor: Daniel Lenoski, J. Laudon, K. Gharachorloo, W.D. Weber, A. Gupta, J. Hennessy, M. Horowitz,, and M.S. Lam Stanford University; Computer, 3/92, pg 63, 17 pgs.
- X-terminals stretch price-performance boundaries. Designers are facing such issues as how to get higher integration and whether to use RISC or CISC while keeping costs to a minimum. Richard Nass; Electronic Design, 3/5/92, pg 43, 6 pgs.