

Literature Watch

Development Tools

New directions for mixed-signal simulation. Analog language extensions change mixed-signal design methods. Kevin M. Walsh, *Anacad*; *Electronic Products*, 9/95, p. 25, 3 pp.

A Unix mixed-signal toolset flaunts usability. Analogy's SaberDesigner brings Windows-like ease of use and interoperability to Unix EDA tools. Lisa Maliniak, *Electronic Design*, 9/5/95, p. 163, 2 pp.

Signal analysis: a must for PCB design success. Signal integrity analysis tools help detect and/or avoid problems like crosstalk and ground bounce in high-speed PC boards. Lisa Maliniak, *Electronic Design*, 9/18/95, p. 69, 7 pp.

PC-hosted FPGA support tools ease chip configuration. Giving designers the ability to enter their designs with VHDL, Verilog, or by still using schematic or Boolean entry, the QuickWorks 5.1 suite of tools for the QuickLogic pASIC family can run on a PC with just 8M–16M of RAM. Dave Bursky, *Electronic Design*, 9/18/95, p. 169, 3 pp.

Graphics/Video

Multimedia board accelerates 3D graphics. First Nvidia-based board, from Diamond, sells for \$249. Richard Nass, *Electronic Design*, 9/18/95, p. 165, 3 pp.

Miscellaneous

Momentum builds behind embedded PCs. Lured by promises of low-cost hardware and vast software support, companies are embracing the PC architecture for embedded systems. But there are limits. Richard A. Quinnell, *Electronic Business Today*, 9/95, p. 36, 8 pp.

Peripherals

Where will smart homes get their smarts? Intelligent sensors meet neuron chips in the home applications arena. Ray Weiss, *Computer Design*, 9/95, p. 69, 12 pp.

Processors

Highly integrated datacomm chip simplifies systems. Motorola's PowerQuicc MPC860 combines a PowerPC core with four Ethernet ports. Dave Bursky, *Electronic Design*, 9/18/95, p. 175, 3 pp.

A cost-effective RISC/DSP microprocessor for embedded systems. Hyperstone is a 32-bit RISC microprocessor with DSP-like extensions. Michael Dolle, Manfred Schlett, Hyperstone Electronics; *IEEE Micro*, 10/95, p. 33, 9 pp.

Embedded control problems, Thumb, and the ARM7TDMI. A description of the problems of embedded control, the Thumb solution and its implementation, and typical application areas and competitive benchmarking. Simon Segars, Keith Clarke, et al, Advanced RISC Machines; *IEEE Micro*, 10/95, p. 22, 9 pp.

486 CPU packs peripherals for real-time system needs. Except for memory, the highly integrated NS486SXF from National Semiconductor packs all the features needed for a complete system on a single low-cost chip. Dave Bursky, *Electronic Design*, 9/5/95, p. 167, 2 pp.

EDN's 22nd annual $\mu P/\mu C$ directory. Overview and comparative data on 45 CPU families. Markus Levy, James P. Leonard, *EDN*, 9/14/95, p. 33, 50 pp.

Programmable Logic

Improved array efficiency lets FPGAs challenge gate arrays. With an architecture that mimics sea-of-gates gate arrays, Xilinx's new antifuse-based FPGAs deliver speed, low cost, and flexibility. Dave Bursky, *Electronic Design*, 9/5/95, p. 91, 4 pp.

Replace digital signal processors with HCPLDs. Could your DSP-based products enjoy performance gains while reducing their cost? Use these simple guidelines to understand how and where programmable logic can be used effectively. Leo Petropoulos, *Electronic Design*, 9/5/95, p. 99, 4 pp.

System Design

Fast LDOs and switchers provide sub-5-V power. Supply voltages for processors and other devices continue to plummet; designers respond with innovative solutions. Frank Goodenough, *Electronic Design*, 9/5/95, p. 65, 6 pp.

Next-generation clock drivers eliminate ground bounce. AMCC's latest 3.3-V clock drivers are ready for the P6. Richard Nass, *Electronic Design*, 9/5/95, p. 159, 2 pp.

Don't let rules of thumb set decoupling-capacitor values. Unfortunately, even though the consequences of selecting the wrong values are often serious, the most commonly used methods usually produce the wrong answers. Vincent W. Greb, EMC Integrity, Charles Grasso, Storage Technology; *EDN*, 9/1/95, p. 141, 6 pp.