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DESIGN MARCH/APRIL 1983



It takes more than a visual once-over to reveal the real differences between CAE workstations.

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VLSI DESIGN was founded to explore, expand, and define the interrelations between very-large-scale integrated circuits (VLSI) and computer architecture, design strategies, costs, and aids, as well as the electronics industry as a whole. VLSI DESIGN is unique in that it is written by and for the participants in this dynamic field. VLSI DESIGN intends to be the communication focus of a new VLSI design community, encourage its development, and help define its directions.

Over 25,500 copies of this issue printed.



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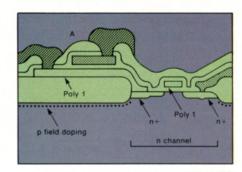
Cover

Several of the new breed of computer-aided engineering (CAE) workstations obviously *look* different from one another, but the real differences lie in the breadth of their respective applications software packages, and in their intended enhancements. These tools are to the VLSI designer what oscilloscopes and logic analyzers are to conventional circuit designers. Cover illustration by Nancy Freeman, San Francisco, CA.

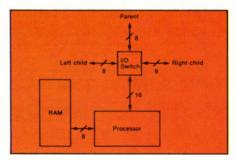


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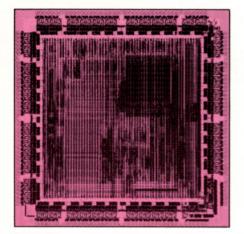


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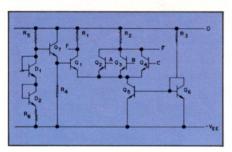


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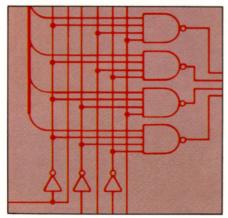
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The authors point out several system-level issues that designers should consider before committing operating-system software to a chip.

Testability and Maintainability with 34 a New 6K Gate Array

David R. Resnick, Control Data Corporation

This large gate array can test itself in the "Check-sum mode," using a pseudo-random number generator to create test operands.

Sorting Out the CAE Workstations

Jerry Werner, Editor-in-Chief

This report describes the most useful features of the new computer-aided-engineering (CAE) workstations, and includes a comprehensive table of the various systems' capabilities.

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