

At a Glance

PA-8000 Combines Complexity and Speed	1
HP claims that its next-generation PA-8000 processor will regain the performance lead when it debuts in 1Q96. The design is the most feature-filled of the next-generation processors and continues HP's tradition of large, external primary caches.	
Editorial: Announcing Processors Without Chips	3
Vendors feel the urge to announce new processors before first silicon is available but risk performance shortages and schedule delays.	
Most Significant Bits	4
Sun selects HyperSparc; FirePower announces 603, 604 systems; IBM customizes PowerPC for System/36; Court allows AMD to continue 486 shipments; Intel to offer DSP software for Pentium.	
National Enters Embedded RISC Market	10
Introducing yet another new processor architecture, National claims that its Piranha project will result in the smallest RISC cores available while delivering competitive performance.	
New Pentiums for Notebooks, 486 Upgrades	14
Intel continues to barrage the market with new Pentium products, including a 75-MHz model for notebooks and an 83-MHz version to upgrade existing 486DX2 systems.	
IDT Spins R4600 for Consumer Market	18
The original R4600 design has spawned two derivatives: the R4650 for embedded consumer products and the R4700 for workstations. The R4650 outruns Intel's fastest i960HT at a moderate price.	
Sun Tweaks SuperSparc to Boost Performance	21
By unclogging the SuperSparc pipeline, Sun has increased its clock rate to 90 MHz in the new SuperSparc-2, presenting a significant performance boost to current SPARC customers.	
ARM Reaches into Set-Top Boxes	24
The new ARM7500 puts the core logic for a set-top box in a single chip, providing video, audio, and control functions.	
Literature Watch	26
Recent IC Announcements	27
Resources	28

MICROPROCESSOR REPORT

THE INSIDERS' GUIDE TO MICROPROCESSOR HARDWARE

Publisher and Editorial Director

Michael Slater
E-mail: mslater@mdr.ziff.com

Editor in Chief

Linley Gwennap
E-mail: linley@mdr.ziff.com

Senior Editor

James L. Turley
E-mail: jturley@mdr.ziff.com

Editorial Assistant: Suzanne Gifford

Technical Assistant: Mike Rockich

Editorial Board

Dennis Allison	Rich Belgard
Brian Case	Jeff Deutsch
Mike Feibus	Bruce Koball
Dean McCarron	Bernard L. Peuto
Martin Reynolds	John Snell
Nick Tredennick	John F. Wakerly
John H. Wharton	

Editorial Office

480 San Antonio Road, Suite 210
Mountain View, CA 94040

Phone: 415.917.3009 **Fax:** 415.917.3090

Microprocessor Report is published every three weeks, 17 issues per year. Rates are: *N. America:* \$495 per year, \$895 for two years. *Europe:* £375 per year, £645 for two years. *Elsewhere:* \$595 per year, \$1095 for two years. Additional copies in the same envelope: \$175 per year in North America, \$225 elsewhere. Back issues are available.

Microprocessor Report reviews and analyzes industry news based on information obtained from sources generally available to the public and from industry contacts. Although we consider these sources to be reliable, we cannot guarantee their accuracy. Readers assume full responsibility for any use made of the information contained herein.

Throughout this newsletter, trademark names are used. Rather than place a trademark symbol at every occurrence, we hereby state that we are using the names only in an editorial fashion with no intention of infringement of the trademark.

Published by

MICRODESIGN

President: Michael Slater

Subscriptions, customer service, and
Microprocessor Forum information:

Business Office

874 Gravenstein Hwy. So., Suite 14
Sebastopol, CA 95472

Phone: 707.824.4004 **Fax:** 707.823.0504

E-mail: cs@mdr.ziff.com

Copyright ©1994, MicroDesign Resources. All rights reserved. No part of this newsletter may be reproduced, stored in a retrieval system, or transmitted in any form or by any means without prior written permission.

Winner of the 1993 Computer Press Awards



Printed on recycled paper with soy ink.