

# At a Glance

## **PowerPC Becomes Best-Selling Desktop RISC .....1**

Our review of 1994's RISC chips finds Alpha holding its performance lead, while the Power Macintosh has pushed PowerPC past SPARC in sales volume. HP's megadeal with Intel rocked the industry, and MIPS struggled in the NT market. The coming year will see new high-end processors from all five major RISC vendors, but success will depend on market strategies, not performance.

## **Editorial: Intel's Handling of Bug Is the Real Problem .....3**

Bugs, even small ones, that affect end users should be disclosed promptly to the public. Intel failed to do so with the Pentium FPU bug and is now reaping what it has sown.

## **Most Significant Bits .....4**

Cyrix builds scalar M1 for notebooks; Cyrix makes sweeping legal gains; P24T slips into 1995; PowerPC 603+ set for 3Q95 shipments; Exponential to build PowerPC processor; Corollary sweeps Pentium MP systems; Fujitsu releases lighter SparcLite; General Magic gains momentum.

## **How Bad Is the Pentium FPU Bug? .....11**

Detailed analysis by Intel and independent parties agree that the chances of the average Pentium user seeing an inaccurate result are extremely small. Mathematicians, engineers, and other heavy math users are more likely to encounter the problem. Intel is offering to replace faulty chips and is developing a software workaround.

## **New Processor Families Join Embedded Fray .....15**

Over the past year, four new 32-bit architectures, two derived from existing CISC instruction sets, and PowerPC all leapt into the embedded market. Three new vendors joined ARMs, but Hitachi's SH7000 outsold all other embedded RISCs. Several companies began offering their processors as ASIC cores, a trend that will continue into 1995.

## **Literature Watch .....22**

## **Recent IC Announcements .....23**

## **Resources .....24**

## **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

### **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 Rd., Suite 210  
Mountain View, CA 94040

**Phone:** 415.917.3050 **Fax:** 415.917.3093

*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

**Director of Operations:** Donna Schaffer

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.