A GLANCE The 740 is Intel's first graphics chip in years and the first in a planned family of 3D chips. It offers performance similar to today's fastest 3D chips with superior image quality, but its performance is likely to be overshadowed by other vendors' 1998 products. Still, the combination of good price/performance, strong driver support, and the Intel brand should help the company grab at least 10% of the 3D market this year and far more in the future. Intel appears to be leaning toward adopting StrongArm, but the company's dithering, combined with a lengthy FTC investigation, has already damaged the product line and could ultimately kill it. Compaq buys Alpha; VIA boosts Socket 7 to 100 MHz; S3, Cirrus, Oak signal instability in 3D market; Exponential patents surface at S3: National. Intel extend license. National kills in-house embedded x86 work; Motorola Core+ chip merges CPU with FPGA; QED gets airborne; Motorola joins Java bandwagon. The 5307 is the first chip to use the ColdFire v3 core, more than doubling performance over previous family members. The chip offers an easy upgrade from the slower and much more expensive 68EC040. It combines the new core with a basic set of peripherals for just \$17. At 90 MHz and 70 MIPs, the 5307 is the fastest chip in its price class. A small Massachusetts startup has created its own MIPS-compatible CPU without any guidance from—or paying any royalties to—Silicon Graphics. Lexra is offering its 4080 core at much lower fees than similar MIPS cores that are licensed, but legal hurdles may appear. Motorola's newest instruction set offers key advantages in systems designed for low cost and low power. Its simple yet powerful 16-bit instructions include more predicated and bit-manipulation instructions than do competing architectures. The small instructions improve code density and reduce die size compared with Motorola's other popular instruction sets. Despite a lot of talk, PC makers have done little to improve the usability of their systems, due to a relentless focus on reducing cost. Even Intel and Microsoft haven't been able to resolve this quandary.

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Microprocessor Report (ISSN 0899-9341) is published every three weeks, 17 issues per year. Rates are: U.S./Canada \$595 per year, \$1,095 for two years. Europe: £450 per year, £795 for two years. Elsewhere: \$695 per year, \$1,295 for two years. Back issues are available.

Published by



Business Office

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Computer Press Award, Best Newsletter, Winner, 1993, 1994; Runner-Up, 1996



Printed on recycled paper with soy ink.