

At a Glance

MICROPROCESSOR REPORT

THE INSIDERS' GUIDE TO MICROPROCESSOR HARDWARE

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IBM Extends DSP Performance with Mfast	1
Mfast will combine 20 VLIW-based 32-bit processors into a single powerful chip that can accelerate video, graphics, and audio functions in a PC environment, but the chip is not due until mid-1997. It will compete with media processors from Chromatic and others.	
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Many vendors are touting plans for \$500 home systems to break the Intel-Microsoft duopoly, but these systems won't threaten PCs.	
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Digital speeds x86 emulation; Nx586 gets FPU, speed boost; PowerPC 603e, 604 pick up speed; IDT R4640 lowers cost of Orion; NEC speeds R4300 to 133 MHz; ARM racks up an even dozen; New Tseng chip uses MoSys DRAM.	
AMD Kills 29000 Development	9
Faced with declining profits and limited resources, AMD has chosen to focus on its x86 processor line, dropping 29K development.	
Hitachi Adds FP, DSP Units to SuperH Chips	10
The SH-3E adds a fast FPU to Hitachi's line, while the SH-DSP is a unique combination of closely coupled integer and DSP cores.	
Enhanced HyperSparc Challenges UltraSparc	12
Ross Technology's Colorado 3 boosts HyperSparc performance, while Colorado 4 compares well with a low-end UltraSparc chip. Both will be most successful in the processor-upgrade market.	
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Motorola has completely revamped its DSP line with the debut of the 56300 family, the most powerful fixed-point DSP available.	
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Although the 401 is the smallest PowerPC core to date, its cost/performance is not competitive with MIPS or ARM processor cores.	
Pentium Pro Debuts with Few Bugs	18
Intel lists nine bugs in the latest Pentium Pro that require fixes in a future release. Pentium has 22 pending bugs and is due for an update. None of these bugs, however, affect most end users.	
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A panel of experts at the Microprocessor Forum project that Rambus and synchronous DRAM will duel to become the memory of the future, while NSP and UMA will spread mainly in low-end PCs.	
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