



IBM 6x86 MICROPROCESSOR
Sixth-Generation Superscalar
Superpipelined x86-Compatible CPU

Introduction

Sixth-Generation Superscalar Superpipelined Architecture

- Dual 7-stage integer pipelines
- High performance on-chip FPU with 64-bit interface
- Operating frequencies of 100 MHz and above
- 16-KByte write-back cache

X86 Instruction Set Compatible

- Runs Windows 95, Windows NT, DOS, UNIX, Novell, OS/2, Solaris, and others

Optimum Performance for Windows[®]95

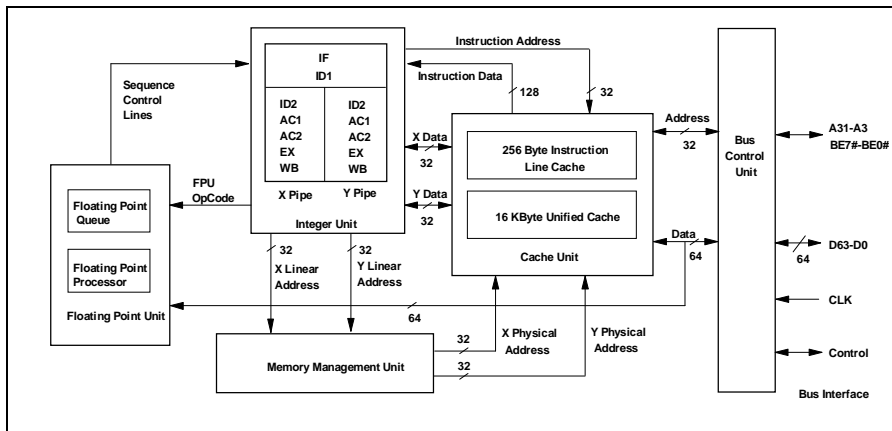
- Intelligent instruction dispatch
- Out-of-order completion
- Register renaming
- Data forwarding
- Branch prediction
- Speculative execution

64-Bit Data Bus

- P54C socket compatible for quick time to market

The IBM 6x86** microprocessor is a superscalar, superpipelined CPU that provides sixth-generation performance for x86 software. Since the IBM 6x86 CPU is fully compatible with the x86 instruction set, it is capable of executing a wide range of existing operating systems and applications, including Windows 95, DOS, Unix, Windows NT, Novell, OS/2, and Solaris. The IBM 6x86 CPU achieves top performance levels through the use of two optimized superpipelined integer units and an on-chip floating point unit. The superpipelined architecture reduces

timing constraints and allows the IBM 6x86 CPU to operate at core frequencies starting at 100 MHz. In addition, the IBM 6x86 CPU's integer and floating point units are optimized for maximum instruction throughput by using advanced architectural techniques, including register renaming, out-of-order execution, data forwarding, branch prediction, and speculative execution. These design innovations eliminate many data dependencies and resource conflicts that provide optimum performance for Windows 95 software.



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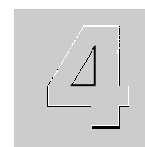
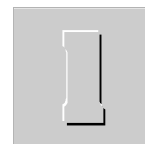
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