

# Microsoft<sup>®</sup> MACH 20<sup>™</sup> Performance Enhancement System

For IBM<sup>®</sup> Personal Computers and 100% Compatibles

**Microsoft MACH 20 gives your personal computer the speed it needs to run today's and tomorrow's most powerful software, including graphics, task-switching, and windowing applications. But speed is just the start—Microsoft MACH 20 will get your PC ready for OS/2 applications, and it includes connectors for adding expanded memory, a multi-media disk drive controller, and graphic input devices.**

## Product Overview

The Microsoft MACH 20 board is the foundation for a complete system designed to enhance the performance of your personal computer. Depending on what options you choose, you can make your IBM PC, PC/XT, or compatible perform like a PC AT, just by adding one expansion card.

### **Two to six times the speed of a PC or PC/XT.**

Microsoft MACH 20 replaces your PC's 8088 processor with a fast Intel<sup>®</sup> 80286 microprocessor running at 8 MHz. This powerful microprocessor gives you performance that's two to six times faster than a standard IBM PC or PC/XT, so you take maximum advantage of today's and tomorrow's most powerful software, including applications written for the Microsoft Windows operating environment and the OS/2 operating system.

And to make sure you can run any application, Microsoft MACH 20 provides a handy software switch that lets you switch back to the slower 8088 processing speed required by some copy-protected or timing-dependent programs. Then you can switch right back to MACH 20 high performance.

### **Input device port built in.**

MACH 20 includes the Microsoft InPort<sup>™</sup> device interface, which supports the Microsoft Mouse and other input devices such as digitizing tablets or scanners.

Because the InPort interface is built right into the MACH 20, you gain a serial port or expansion slot in your computer for adding other accessories.

### **A cache bonus.**

MACH 20 also includes 16K of 16-bit-wide high-speed cache memory to process data faster. Cache memory is high-speed temporary storage that gives you faster access to frequently used information.

### **Add expanded memory and disk drive support.**

Microsoft MACH 20 instantly makes your PC or PC/XT perform like an AT. But it goes even further. Add the MACH 20 Memory Plus Expanded Memory Option and increase your PC's speed to surpass that of an 8MHz PC AT. Or add MACH 20 Disk Plus for multi-media disk drive support.

MACH 20 Memory Plus lets you add up to 3.5 megabytes of high-speed, 16-bit memory to your PC, and it plugs right into the MACH 20 board without using another expansion slot.

MACH 20 Disk Plus also plugs into the MACH 20 board without using an expansion slot. It supports 360K and 1.2MB 5¼" as well as 720K and 1.44MB 3½" internal flexible disk drives to give your PC drive-compatibility with a variety of other computers. With MACH 20 Disk Plus, you can remove your current disk controller board and actually *gain* an expansion slot.

**Microsoft<sup>®</sup>**

## The Microsoft MACH 20 Advantage

### Speed up performance without sacrificing compatibility.

The Microsoft MACH 20 8MHz Intel 80286 microprocessor gives you the power to run programs two to six times faster than a standard PC or PC/XT. And because MACH 20 *replaces* the original processor from your system, you can count on hardware and software compatibility.

### Get a total performance enhancement system.

MACH 20 is uniquely and economically expandable. Built-in connectors provide unmatched support for memory expansion,

disk drive control, and input devices like the Microsoft Mouse.

### Add speed to Microsoft Windows applications.

You'll see a dramatic speed increase when running task-switching software such as Microsoft Windows and powerful graphics-based programs such as desktop publishing and CAD applications.

Other programs run faster with MACH 20 as well. You'll notice significantly faster spreadsheet recalculations, quicker search and replace operations, and speedier database sorts.

### Install MACH 20 with the help of software.

You can get your system up and running in no time with Microsoft MACH 20. Special software helps install the board by checking your system configuration and suggesting appropriate jumper settings. There's even a program to check and see that everything has been installed correctly after you're finished following the installation procedures.

## Inside Microsoft MACH 20

### MACH 20 Performance Enhancement System

- 16-bit 80286 microprocessor
- 8 MHz operating speed
- 16K of 16-bit-wide on-board cache memory

- InPort interface supports the Microsoft Mouse and other InPort-compatible input devices

### MACH 20 Memory Plus Expanded Memory Option

- 512K of EMS/EEMS memory, standard; can be upgraded to 3.5 megabytes

### MACH 20 Disk Plus Multi-media Disk Controller Option

- Supports 360K and 1.2MB 5 1/4" disk drives
- Supports 720K and 1.44MB 3 1/2" disk drives
- Makes standard flexible disk drive controller unnecessary

## System Configuration

### Microsoft MACH 20 System Requirements

- IBM Personal Computer or 100% compatible

- DOS 2.0 or higher
- One double-sided disk drive

- Full-length auxiliary card slot
- Note: Additional hardware may be required to run OS/2

## Ordering Information

### Product Description.

Microsoft MACH 20 performance enhancement system for IBM Personal Computers and 100% compatibles.

### For more information.

For more information, contact your Microsoft dealer. Or write Microsoft Corporation/Attention: Ad Response/16011 NE 36th Way/Box 97017/Redmond, WA 98073-9717.

This data sheet is for informational purposes only. MICROSOFT MAKES NO WARRANTIES, EXPRESS OR IMPLIED, IN THIS SUMMARY.

© Copyright 1987. Microsoft Corporation. All rights reserved. Printed in USA.

Microsoft and the Microsoft logo are registered trademarks and InPort and MACH 20 are trademarks of Microsoft Corporation.

IBM is a registered trademark of International Business Machines Corporation. Intel is a registered trademark of Intel Corporation.