
Preface

This technical reference provides system-specific hardware and software interface information for the IBM Personal System/1™ computer. It is intended for developers who provide hardware and software products to operate with this system.

You should understand the concepts of computer architecture and programming before using this publication.

This manual is divided into the following sections.

Section 1, "System Description" contains a description of IBM PS/1™ computer and discusses system board features, an I/O address map, and system unit specifications.

Section 2, "System Board" discusses the operation of the system microprocessor, interrupts, system timers, and speaker.

Section 3, "System Board I/O Controllers" describes the input and output interfaces of the system board. This includes the operation of the keyboard/mouse controller, video subsystem, diskette drive controller, serial port controller, parallel port controller, and the different types of memory.

Section 4, "Power Supply" contains electrical input/output specifications and theory of operation for the power supply.

Section 5, "Keyboard" contains a description and specifications for the keyboard.

Section 6, "Mouse" contains a description and specifications for the mouse.

Section 7, "Displays" describes the Color or Black and White™PHOTO GRAPHIC Displays.

Section 8, "Drives" contains a description of the 3.5-inch 30MB fixed disk drive and controller and the 3.5-inch 1.44MB diskette drive.

Section 9, "Modem/RS-232C Interface Cards" describes the 2400 bps modem card and the RS-232C interface card.

Section 10, "80286 Microprocessor Instruction Set" contains a quick reference for the 80286 assembly instruction set.

Section 11, "Characters and Keystrokes" contains the decimal and hexadecimal values for ASCII characters.

Section 12, "Compatibility" discusses guidelines to help developers design programs, adapters, and attachments that are compatible with other IBM Personal System/2 products and IBM Personal Computer products.

Appendix, "Options" contains features purchased separately, such as the 512KB memory expansion, audio card and joystick, 5.25-inch diskette drive unit, and adapter card unit.

A Glossary, Bibliography, and Index are also provided.

Suggested Related Publications:

- *BIOS Interface Technical Reference for IBM PS/1™ Computer*
- *Hardware Maintenance Service for IBM PS/1™ Computer*
- *Using DOS 4.00*
- *DOS 4.00 Command Reference*
- *DOS 4.00 Technical Reference and Application Programming*
- *IBM Personal Computer BASIC Reference.*