

# IBM PS/2 (Model 90 XP 486) - Technical Specifications

## IBM Personal System/2 Model 90 XP 486



8590 processor complexes (187kb)

### General information

Machine type: 8590

Announce date: October, 1990

### Excerpt from the original announcement letter;

"The Personal System/2 (R) (PS/2(R)) Model 90 XP 486 is a family of powerful and expandable desktop systems based on IBM's Micro Channel (TM) architecture and 32-bit 80486 processors. These new systems are designed to meet the needs of users in advanced computing environments requiring high performance with large amounts of memory, medium to large data storage capability, and high resolution graphics. The PS/2 Model 90 XP 486 systems provide technical leadership and reflects IBM's responsiveness to satisfy customers requirements."

### System characteristics

Microprocessor: Intel 80486 SX or 80486DX (on processor complex)

Clock speed: 25 MHz or 33Mhz (DX)

Coprocessor: integrated 80487 on 486DX models

Type of BUS: 32-bit Micro Channel

Total number of expansion slots: 4 (desktop case)

Ports: PS/2 keyboard, PS/2 mouse, 2 DMA serial, DMA parallel, XGA,

### Memory

Min/Max on system board: 4/32/64MB

Type of memory:

RAM: DRAM (PS/2 72-pin SIMM, MUST be installed in a MATCHED PAIR ) 70ns parity checked (8 sockets)

ROM: 128kb

Cache: 8kb L1, 0kb L2

## Physical description

Power supply: 194w, 110-220VAC manual voltage switch

Weight: 11.4kg (25 lbs) (one fixed disk installed)

Dimensions (HxWxD): (140 x 440 x 430mm)

## Mass storage

Drive bays: 4 ( 3 x 3.5" HH, 1 x 5.25" HH)

Floppy Disk

Size: 3.5 inch half-height

Capacity: 1.44MB

Hard disk

Size: 3.5 inch half-height

Capacity: 80 (0J5), 160MB (0J9), 320MB (0KD)

Access time:

Interface: SCSI (PS/2 bus master SCSI adapter/A with cache)

## Display

Size:

Display type: Optional Analog CRT

Graphics modes supported: Integrated 32-bit XGA Display adapter

1024x768, 16 colours (256 colours w. memory expansion)

640x480, 256 colours

## Keyboard

Type: 101 key enhanced, 122 key host connect, 84 key space saving

## Software

Operating system: IBM PC DOS Versions 5.0

## Configurations

Various memory, diskette drive, hard drive, monitor, and keyboard configurations including;

8590-0G5 - System Unit 486SX-20, 4MB, 80MB, 1.44, 101 keyboard

8590-0G9 - System Unit 486SX-20, 4MB, 160MB, 1.44, 101 keyboard

8590-0H5 - System Unit 486SX-25, 4MB, 80MB, 1.44, 101 keyboard

8590-0H9 - System Unit 486SX-25, 4MB, 160MB, 1.44, 101 keyboard

8590-0J5 - System Unit 486DX-25, 4MB, 80MB, 1.44, 101 keyboard

8590-0J9 - System Unit 486DX-25, 4MB, 160MB, 1.44, 101 keyboard

8590-0KD - System Unit 486DX-33, 4MB, 320MB, 1.44, 101 keyboard

## Options

Description (#Feature Number)(Part Number)

SYSTEM BOARD MEMORY:

- IBM Personal System/2 2MB Memory Module Kit-70ns (#0129) (6450902)
- IBM Personal System/2 4MB Memory Module Kit-70ns (#0128) (6450128)
- IBM Personal System/2 1MB Memory Module Kit-85ns (#5212) (6450603)
- IBM Personal System/2 2MB Memory Module Kit-85ns (#5213) (6450604)

- IBM Personal System/2 2MB Memory Module Kit-80ns (#5214) (6450608)
- IBM Personal System/2 4MB Memory Module Kit-80ns (#3933) (87F9977)

#### MEMORY CACHE:

- IBM Personal System/2 256KB Cache Option (#1098) (6451095)

#### DASD:

- IBM Personal System/2 1.44MB 3.5" Slim High Diskette Drive (#1072) (6451072)
- IBM Personal System/2 60MB SCSI Fixed Disk Drive (#1049) (6451049)
- IBM Personal System/2 80MB SCSI Fixed Disk Drive (#1045) (6451045)
- IBM Personal System/2 120MB SCSI Fixed Disk Drive (#1050) (6451050)
- IBM Personal System/2 160MB SCSI Fixed Disk Drive (#1046) (6451046)
- IBM Personal System/2 320MB SCSI Fixed Disk Drive (#1108) (6451108)
- IBM Personal System/2 Micro Channel SCSI Adapter (#1005) (6451109)
- IBM Personal System/2 Micro Channel SCSI Adapter with Cache (#1018) (6451110)
- IBM Personal System/2 Micro Channel SCSI Adapter External Terminator (#1039) (6451039)
- IBM Personal System/2 Fixed Disk Drive Kit D (#1119) (6451120)
- IBM Personal System/2 External Enclosure for SCSI Devices 3511-003
- IBM Personal System/2 CD-ROM Drive (#1113) (6451113)
- IBM Personal System/2 External CD-ROM Drive 3510-001
- IBM Personal System/2 5.25-inch Slim High Diskette Drive (#1066) (6451066)
- IBM Personal System/2 5.25-inch Diskette Adapter/A (#1007)(6451007)
- IBM Personal System/2 4869-001 5.25-inch 360KB External Diskette Drive
- IBM Personal System/2 4869-002 5.25-inch 1.2MB External Diskette Drive
- IBM Optical Disk Drive 3363-A11
- IBM Optical Disk Drive 3363-B01

#### COMMUNICATIONS:

- IBM Personal System/2 Adapter/A for ETHERNET Networks (#1091)(6451091)
- IBM Personal System/2 Dual Async Adapter/A (#1014)(6451013)
- The IBM 3270 Connection (#2000)(74F3465)
- IBM S/370 Channel Emulator/A (#3205) (1674899)
- IBM System 36/38 Work Station Emulation Adapter (#6279)(69X6279)
- IBM PC Network Baseband Adapter/A (#1223)(1501223)
- IBM PC Network Adapter II/A (#1222)(1501222)
- IBM PC Network Adapter II/A - Frequency 2 (#5647)(96X5647)
- IBM PC Network Adapter II/A - Frequency 3 (#5648)(96X5648)
- IBM Token-Ring Network Adapter/A (#4790)(69X8138)
- IBM Token-Ring Network Adapter/A - Remote Program Load (#8881) (25F8887)
- IBM Token-Ring Network 16/4 Adapter/A (#1133) (16F1133)-FRU level #53F7748
- IBM Personal System/2 300/1200 Internal Modem/A (#0349)(6450349)
- IBM Personal System/2 300/1200/2400 Internal Modem/A (#1755) (94X1755)
- IBM Personal System/2 Multi-protocol Adapter/A (#3043)(6451003)
- IBM Realtime Interface Co-Processor Multiport/2 (#6263 or #6247) (09F1897 or 16F1820) \*
- IBM Realtime Interface Co-Processor Multiport/2 8 Port RS-232 Interface Board

- (#6265) (09F1952)
  - IBM Realtime Interface Co-Processor Multiport/2 8 Port RS-422A Interface Board (#6326) (15F8852)
  - IBM Realtime Interface Co-Processor Multiport/2 6 Port RS-232C Synchronous Interface Board (#6327) (15F8861)
  - IBM Realtime Interface Co-Processor Multiport/2 4 Port RS-232 Interface Board (#6267) (09F1955)
  - IBM Realtime Interface Co-Processor Multiport/2 RS-232/RS-422 Interface Board (#6266) ((09F1958)
  - IBM Realtime Interface Co-Processor Portmaster Adapter/A (#6360, 6364 or 6368) (53F2601, 53F2604 or 53F2607) \*
  - IBM Realtime Interface Co-Processor Portmaster 8 Port RS-232 Interface Board/A (#6362) (53F2610)
  - IBM Realtime Interface Co-Processor Portmaster 8 Port RS-422 Interface Board/A (#6363) (53F2613)
- IBM Personal System/2 Model 90 XP 486 supports a maximum of two of these adapters.
- IBM Realtime Interface Co-Processor Surge Protection Adapter (#6361) (53F2625)
  - IBM X.25 Interface Co-Processor/2 (#6401) (16F1858)
  - IBM Display Station Emulation Adapter/A (#7743)(92X0743)
  - Store Controller Kit (#6500) (83X8187)
  - Second Store Loop Adapter/A (#6701) (83X7575)
  - IBM Personal System/2 FaxConcentrator Adapter/A (#2530) (94X2530)

\* Due to physical limitations of these adapters, they cannot be installed in slot #4 of the PS/2 Model 90 XP 486 systems.

#### PROCESSOR UPGRADE:

- IBM Personal System/2 486/33 Processor Upgrade Option (#5264) (6451094)  
The processor upgrade installation is provided by IBM or an IBM Authorized Remarketer.

#### DISPLAYS AND DISPLAY ADAPTERS:

- IBM Personal System/2 XGA Display Adapter/A (#5887) (75X5887)
- IBM Personal System/2 M-Motion Video Adapter (#3487) (34F3087) \*\*, \$
- IBM Personal System/2 Video Memory Expansion Option (#4007) (75X5889)
- IBM Personal System/2 Image Adapter/A (#4324)(07F4400)
- IBM Personal System/2 Image Adapter/A 1MB (#0072) (44F9914)
- IBM Personal System/2 Image Adapter/A 3MB (#0073) (44F9919)
- IBM Personal System/2 Image Adapter/A 3MB 6091 (#0074) (44F9921)
- IBM Personal System/2 Image Adapter/A Printer/Scanner Option (#1632) (07F4402)  
(Requires #4324 or #0072 or #0073 or #0074)
- IBM Personal System/2 Image Adapter/A Memory Expansion Kit (#3231) (07F4406)  
(Requires #1632)
- IBM Personal System/2 8503 Monochrome Display \*\*
- IBM Monochrome Display 8506 (Requires #4324 or #0072 or #0073)
- IBM Monochrome Display 8507
- IBM Monochrome Display 8508 (Requires #4324 or #0072 or #0073)

- IBM Personal System/2 Colour Display 8512 \*\*
- IBM Personal System/2 Colour Display 8513 \*\*
- IBM Personal System/2 Colour Display 8514
- IBM Personal System/2 Colour Display 8515
- IBM 6091 Colour Display (Requires #0074)

\*\* - Supports VGA or lower resolution modes only.

\$ - The IBM Personal System/ M-Motion Video Adapter requires the M-Motion Adapter Software Diskette version 1.01 or higher.

Plus many more IBM and 3rd party adapter cards...

Note: Options may no longer be available from IBM.