



# Personal System/2 Model 95 XP 486 series

## Putting the full range of 486 power within reach

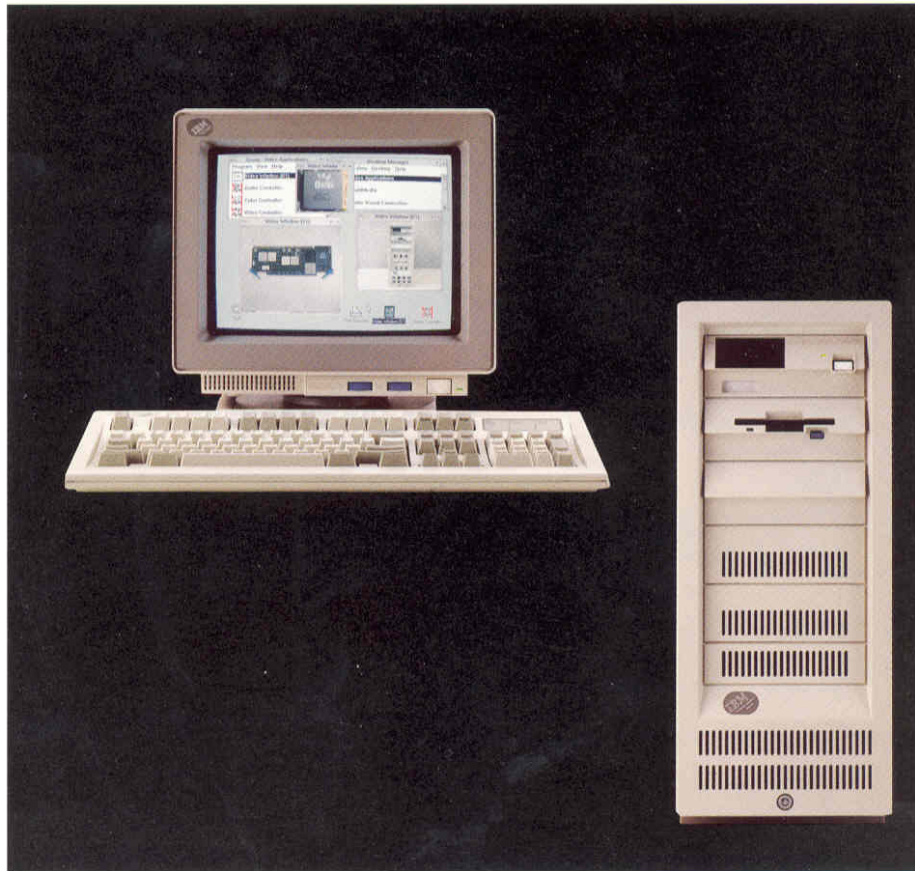
IBM turns the latest Intel486™ microprocessor technology into a series of fast and flexible solutions: the Model 95 XP™ 486 series from Personal System/2.® Providing a range of choices in processing speed, memory and storage, the series makes it possible to get i486™ power at precisely the right level for you.

Whether you select a 25 MHz, 33 MHz or 50 MHz processor complex, you benefit from balanced Micro Channel®-based performance. That means you get the most from the 95 XP 486's resources—from processor to ports to XGA graphics to SCSI fixed disks to optimized memory. So you realize the full potential of 486 power through the advanced technology of PS/2.®

There's future potential in Model 95 XP 486 systems. Upgradable processor complexes make it easy to move from 25 MHz to 33 MHz to 50 MHz as you need.

You can also expand your Model 95 XP 486 to handle larger and larger workloads. Six available 32-bit expansion slots, SCSI busmaster technology, space for five more internal storage devices, and support for as much as 64MB of memory on the system board give you lots of room to grow.

High-speed 8MB memory and from 160 million to 400 million bytes of disk storage are yours from the beginning. So with this series, you start powerful and stay powerful every step of the way.



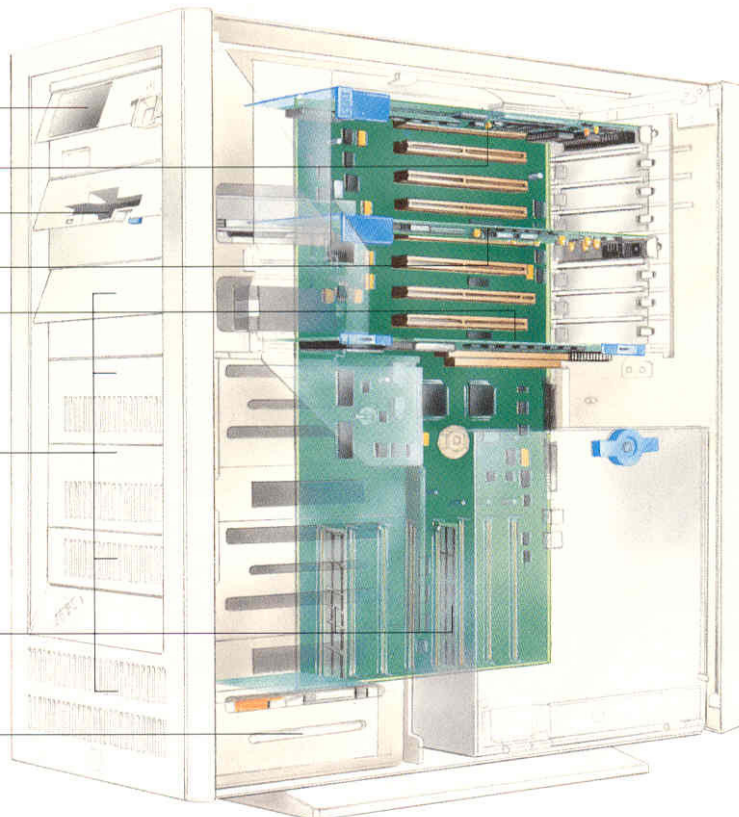
## Model 95 XP 486 series at work

Here are some of the ways you can put the Model 95 XP 486 series to work for you:

- Use as a file server on a local area network (LAN)—i486 SX processor models are particularly cost-effective
- Manage a large common database for multiple users on a LAN
- Connect your enterprise by turning any 95 XP 486 into a communications gateway and/or bridge
- Run desktop publishing and other high-resolution graphics applications—systems with i486 DX processors are ideal for engineering and CAD/CAM
- Increase user productivity and boost the performance of power and/or windowing applications in DOS, OS/2® or AIX® PS/2 environments
- Capture and manipulate pictures, data and sound for exciting multimedia training packages and marketing presentations

Feature	Benefit
<b>Advanced i486 SX and DX processor complexes</b>	<ul style="list-style-type: none"> <li>• Give you flexibility in choosing the right performance for the right price</li> <li>• Come with built-in memory cache for super-fast access to frequently used data</li> <li>• Offer a standard (DX) or support an optional (SX) floating-point unit</li> <li>• Provide a 256KB cache (50 MHz) or room to add one (33 MHz)</li> <li>• Handle network, numeric-intensive business and technical tasks at top speeds</li> <li>• Enable easy upgrades from 25 MHz to 33 MHz to 50 MHz to protect your investment</li> </ul>
<b>Enhanced memory design</b>	<ul style="list-style-type: none"> <li>• Utilizes interleaved memory technique for added performance</li> <li>• Performs parity checking for improved reliability and data integrity</li> <li>• Optimizes to allow memory SIMMs of different speeds to be used on the system board</li> </ul>
<b>SCSI Adapter with Cache (busmaster)</b>	<ul style="list-style-type: none"> <li>• Permits attachment of up to seven SCSI devices, including high-performance fixed disks, without using another expansion slot</li> <li>• Works with Micro Channel and multiple SCSI devices to enhance overall system performance</li> </ul>
<b>Seven storage bays (five available)</b>	<ul style="list-style-type: none"> <li>• Allow flexibility in configuring data storage with various combinations of diskette, disk, tape, CD-ROM and Rewritable Optical drives</li> <li>• Make room for up to five fixed disk drives providing internal storage of 2GB</li> </ul>
<b>Micro Channel</b>	<ul style="list-style-type: none"> <li>• Provides efficient data paths for fast, reliable, balanced performance</li> <li>• Supports multiple tasks and concurrent I/O operations</li> <li>• Protects investment by providing a platform for future expansion and growth</li> </ul>
<b>Six available 32-bit expansion slots</b>	<ul style="list-style-type: none"> <li>• Let you customize the Model 95 XP 486 series to suit your environment</li> <li>• Provide growth capability to allow future technologies to be added as they are developed</li> </ul>
<b>8MB memory, expandable to 64MB on planar</b>	<ul style="list-style-type: none"> <li>• Offers plenty of capacity for advanced programs and large amounts of data</li> <li>• Makes the Model 95 XP 486 series ideal for OS/2 and UNIX®-based operating environments</li> </ul>
<b>XGA graphics adapter (busmaster)</b>	<ul style="list-style-type: none"> <li>• Delivers faster performance for existing VGA applications</li> <li>• Supplies 1,024 x 768 addressability for high-quality, high-detail graphics and text</li> </ul>
<b>Initial Machine Load (IML)</b>	<ul style="list-style-type: none"> <li>• Provides system references on hard file, eliminating the need for separate diskettes</li> <li>• Simplifies implementation of future system program upgrades</li> </ul>
<b>Selectable boot</b>	<ul style="list-style-type: none"> <li>• Lets you boot from any diskette or disk drive so you can easily use different operating systems</li> <li>• Provides an additional level of security</li> </ul>

- Diagnostic panel
- SCSI Adapter with Cache
- 3.5" 1.44MB diskette drive
- XGA Adapter/A (with display port)
- i486 processor complex
- Five available storage bays
- 8MB (70ns) memory (standard)
- SCSI fixed disk (160MB or 400MB)





## IBM Personal System/2 Model 95 XP 486 series at a glance

Machine numbers	8595-0H9	8595-0HF	8595-0KF
<b>Microprocessor</b>			
Standard	80486 SX	80486 SX	80486 DX
Clock speed	25 MHz	25 MHz	33MHz
Wait states	0	0	0
Memory cache	8KB	8KB	8KB
Other functions	Data parity; parity memory reliability checking		Internal floating-point processing unit; data parity; parity memory reliability checking
Optional	80487 SX/25 MHz	80487 SX/25 MHz	256KB cache
Processor upgrades	33 MHz, 50 MHz	33 MHz, 50 MHz	50 MHz
<b>Bus architecture</b>			
Data path	Micro Channel	Micro Channel	Micro Channel
	32-bit	32-bit	32-bit
<b>Memory (RAM)</b>			
Standard	8MB (70ns)	8MB (70ns)	8MB (70ns)
Maximum on			
system board	64MB	64MB	64MB
System maximum	64MB	64MB	64MB
<b>Integrated functions</b>			
	Extended Graphics Array (XGA) display port, DMA serial port, DMA parallel port, pointing device port, keyboard port, diskette controller support for three drives, SCSI Adapter with Cache (includes SCSI port)		
<b>Available expansion slots</b>			
	Six 32-bit	Six 32-bit	Six 32-bit
<b>Diskette storage (internal)</b>			
Standard (3.5-inch)	1.44MB	1.44MB	1.44MB
Optional (3.5-inch)	1.44MB	1.44MB	1.44MB
Optional (5.25-inch)	1.2MB	1.2MB	1.2MB
<b>Fixed disk storage (internal)</b>			
Standard	160MB (16ms)	400MB (11.5ms)	400MB (11.5ms)
Optional SCSI	Up to four additional 80MB, 160MB, 320MB or 400MB internal SCSI drives		
<b>Tape backup (internal)</b>			
Optional (3.5-inch)	120MB	120MB	120MB
<b>Tape backup (internal/external)</b>			
Optional (5.25-inch)	2.3GB	2.3GB	2.3GB
<b>Display modes</b>			
APA modes	XGA (includes all VGA modes) 640 x 480 x 256 colors/64 gray shades; 1024 x 768 x 16 colors/gray shades; hardware support for 132-column text mode; 16-bit direct color mode at 640 x 480 x 64K colors		
Optional graphics	With additional video memory expansion feature, 1024 x 768 x 256 colors or 64 gray shades; higher resolution modes, up to 1,600 x 1,200, are supported by the IBM PS/2 Image Adapter/A family of adapters		
<b>Supported displays</b>			
	IBM Personal System/2 Color Displays 8512, 8513, 8514, 8515, 8516 and 8518; IBM Personal System/2 Monochrome Displays 8504 and 8508 <sup>1</sup>		
<b>Supported printers/plotters</b>			
	IBM Proprinter® 24P, IBM Personal Printer Series II family, IBM LaserPrinter family, IBM ExecJet™ Printer, IBM Page Printer 3816, IBM PS/1™ Printer, IBM 618X Color Plotters		
<b>Keyboard</b>			
	101 keys, including 12 function keys, 3 lighted mode indicators; 6-foot coiled cable		
<b>Power supply</b>			
	329-watt worldwide; autosensing and autoswitching		
<b>Operating system</b>			
	DOS 3.3 or higher, IBM OS/2 1.2 or 1.3, OS/2 2.0 (when available), AIX Personal System/2 1.2.1		
<b>Size</b>			
	Approx. 19.75"H x 8"W x 20"D (501mm x 203mm x 508mm); 50 lbs. (22.7 kg)		
<b>Warranty</b>			
	One-year limited warranty		

## Wide range of options<sup>2</sup>

	Part no.
<b>Coprocessors/processor upgrades</b>	
• Wizard Adapter	34F3062
• Math Co-Processor 487 SX/20-25 MHz (0Gx <sup>3</sup> and 0Hx models only)	6451243
• 486/25 MHz Processor Upgrade	6450759
• 486/33 MHz Processor Upgrade	6451094
• 486/50 MHz Processor Upgrade	6450757
• 256KB Cache Option	6451095
<b>Storage devices</b>	
• 3.5" 1.44MB 1-inch High Diskette Drive	6451072
• 5.25" 360KB External Diskette Drive	4869001
• 5.25" 1.2MB External Diskette Drive	4869002
• 5.25" Slim High Diskette Drive	6451066
• 80MB SCSI Fixed Disk Drive	6451045
• 160MB SCSI Fixed Disk Drive	6451046
• 320MB SCSI Fixed Disk Drive	6451108
• 400MB SCSI Fixed Disk Drive	6451081
• CD-ROM Drive (internal)	6451113
• External CD-ROM Drive	3510001
• 6157 Streaming Tape Drive (60MB, 150MB)	6157001/6157002
• Internal Tape Backup Unit	30F5279
• 2.3GB SCSI Full High Tape Drive	6451121
• 2.3GB SCSI Tape Drive (external)	3532023
• 3.5" Rewritable Optical Drive	6450162
• External Storage Enclosure for SCSI Devices	3511003
• SCSI Storage Enclosure	35100V0
<b>Scanners</b>	
• 3119 PageScanner	94X2410
<b>Connectivity/communications</b>	
• Token-Ring Network Adapter/A	69X8138
• Token-Ring Network 16/4 Adapter/A	16F1133
• Token-Ring Network Busmaster Adapter/A	74F4140
• Adapter/A for Ethernet Networks	6451091
• PC Network Baseband Adapter/A	1501223
• PC Network Broadband Adapter II/A	1501222
• PC Network Adapter II/A—Frequency 2	96X5647
• PC Network Adapter II/A—Frequency 3	96X5648
• Realtime Interface Co-Processor Multiport/2 and related features	09F1897 <sup>4</sup>
• Realtime Interface Co-Processor Portmaster Adapter/A and related features	53F2601 <sup>4</sup>
• X.25 Interface Co-Processor/2	16F1858
• Multi-Protocol Adapter/A	6451114
• 3270 Connection	74F3465
• 300/1200/2400 Internal Modem/A	94X1755
• Leased Line Modem	26F1862
• System 36/38 W/S Emulation Adapter/A	69X6279
• Display Station Emulation Adapter/A	92X0743
• System/370™ Channel Emulation Adapter/A	06F3160
• Fax Concentrator Adapter/A	94X2530
<b>Graphics and multimedia</b>	
• XGA Display Adapter/A	75X5887
• Audio Capture/Playback Adapter/A	87F9909
• Video Capture Adapter/A	34F2785
• M-Motion Video Adapter/A	34F3087
• Image Adapter/A Series	44F9914 <sup>4</sup>
<b>Other features</b>	
• Micro Channel SCSI Adapter	6451109
• Micro Channel SCSI Adapter with Cache	6451110
• Mouse	6450350

## Memory matrix table

Memory on system board	486 SX models	486 DX models
Standard memory	8MB (70ns)	8MB (70ns)
Maximum memory	64MB*	64MB*
System board memory expansion kits**	2MB: 70ns (6450902) 4MB: 70ns (6450128) 8MB: 70ns (6450130)	2MB: 70ns (6450902) 4MB: 70ns (6450128) 8MB: 70ns (6450130)
Memory configurations possible on system board	Various configurations from 8MB to 64MB*	

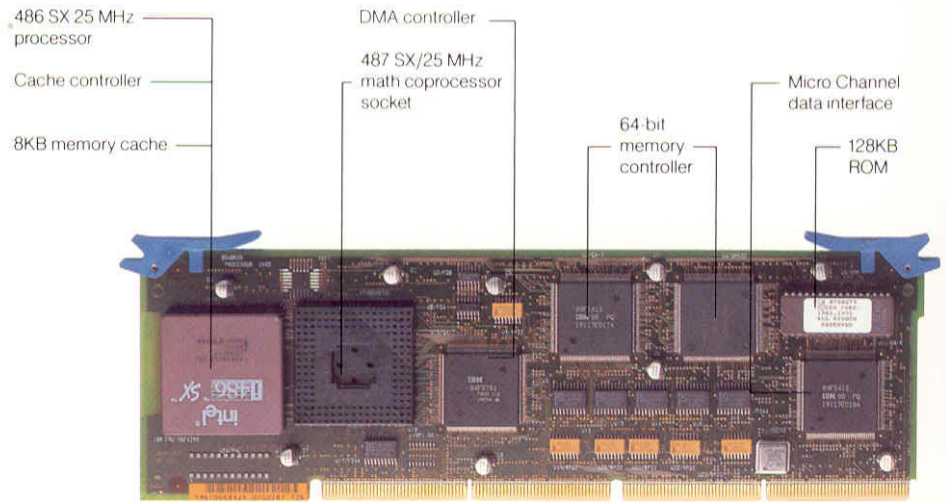
\*64MB maximum configuration requires 8MB SIMMs in all memory sockets.

\*\*Kits must be added in matched pairs in 33 MHz and 50 MHz systems. In 25 MHz systems, kits need not be added in matched pairs; however, installing in pairs will improve performance. 80ns and 85ns memory kits are also supported. 85ns memory kits are not supported on 0Hx models.

## A close look at i486 processing complexes

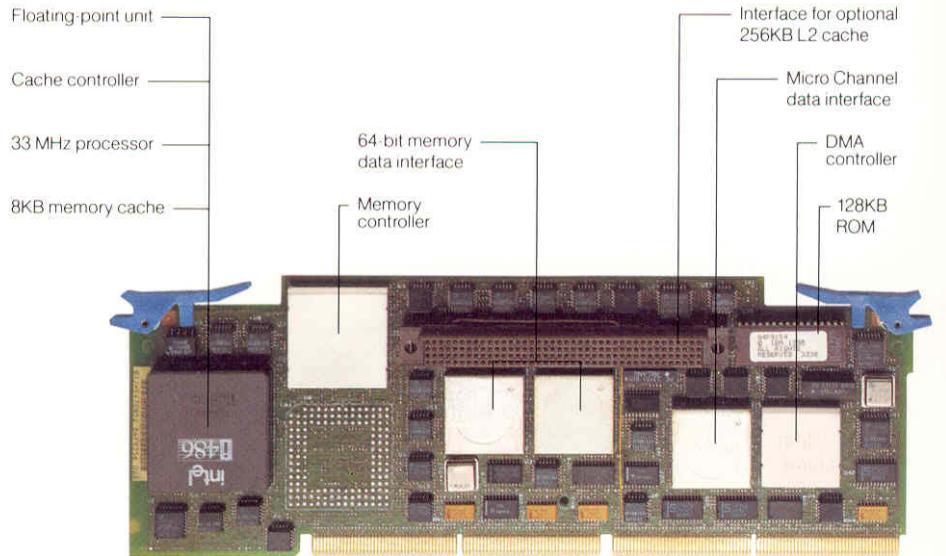
### i486 SX, 25 MHz

- High-power processing, affordably priced
- Integrated 8KB memory cache for "no-wait" processing
- Support for interleaved or noninterleaved memory
- 25 MHz 80487 SX coprocessor upgrade for extra-fast completion of numeric-intensive tasks
- Easy upgrade to 33 MHz or 50 MHz to keep pace with changing needs



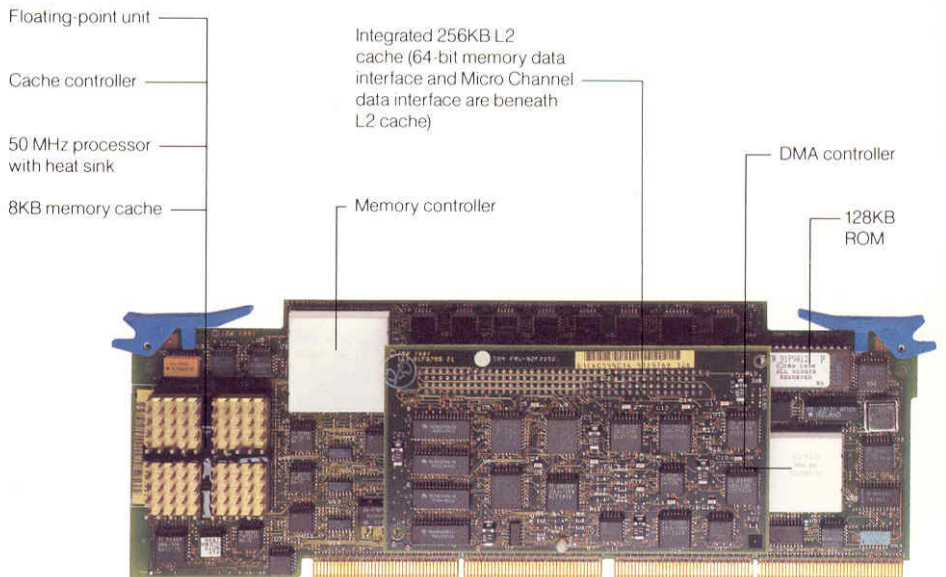
### i486 DX, 33 MHz

- High-speed 486 processor with full complement of integrated components
- On-chip floating-point unit for extra calculating speed
- Integrated 8KB memory cache for "no-wait" processing
- On-board interface for optional 256KB L2 cache
- Easy upgrade to 50 MHz when you want to work even faster



### i486 DX, 50 MHz

- The fastest 486 processor available today—for applications where every nanosecond counts
- Full complement of integrated components—including 8KB memory cache and floating-point unit—for maximum performance and speed
- 256KB L2 cache standard
- Upgradability to future higher-speed processors





## Why PS/2?

Here are some of the reasons why PS/2 stands out as the best solution for your business needs.

*Technological leadership* through Micro Channel architecture, integrated construction and advanced design (by combining Very Large-Scale Integration and Surface Mount Technology), and SCSI support for large data storage.

*Extensive communications capabilities*—through a wide range of connectivity options—that provide concurrent support for intelligent communications adapters and coprocessors, thanks to Micro Channel architecture.

*Compatibility and expandability* to protect your investment since the PS/2s you have today work with existing products and programs and with those you'll need tomorrow.

*Service and support* that provide you with everything from fast parts delivery to onsite services to system planning to 24-hour phone support—all at a competitive price.

*Business Partners* who enhance PS/2 capabilities by helping customers choose, customize and configure hardware and software to meet a range of needs.

*Quality and reliability* that ensure PS/2s are built to perform smoothly and dependably year after year.

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<sup>1</sup>Supported by PS/2 Image Adapter/A.

<sup>2</sup>The options listed may require other features for the desired function or for installation.

<sup>3</sup>Previous 20 MHz versions of the 95 XP.

<sup>4</sup>There is more than one part number for this type of option depending on the amount of on-card memory and other functions desired.



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10-91  
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