



IBM @server xSeries 206m server offers a competitively priced server for distributed enterprises, retail stores, and small to medium-sized businesses

Overview

An excellent choice for cost-sensitive small and medium business or distributed environments, xSeries® 206m servers are easy to set up and use.

Value and performance

- Powerful Intel® Pentium® 4 or Pentium D processors:
 - Pentium 4 processors at 3.0 or 3.6 GHz with 2 MB L2 cache
 - Pentium D dual-core processors at 3.0 or 3.4 GHz with 2 x 2 MB L2 cache
 - Optimized for EM64T to support 32- or 64-bit applications
- 512 MB or 1 GB of PC2-4200 CL4 ECC DDR2 SDRAM DIMM memory standard; 8 GB maximum
- Integrated IBM ServeRAID™ 8e providing RAID-0 or -1
- Four or six expansion slots; Two 32-bit/33 MHz PCI, two PCI-Express (x1 and x8), two 64-bit/100 MHz PCI-X (model dependent)
- Integrated Gigabit Ethernet controller
- Choice of integrated; Serial-ATA (SATA), Serial Attached SCSI (SAS)
- Open bay models supporting simple-swap SATA, hot-swap SATA, or hot-swap SAS HDD
- Redundant hot-swap power supply models
- Select models include pre-installed Microsoft™ Small Business Server Standard Edition
- Storage Server models available with Storage Server Workgroup pre-installed

At your control

Manageability and serviceability features help diagnose problems quickly.

- Base Systems Management with IPMI 1.5 compliance
- Text console redirect over LAN for monitoring vital system functions
- Automatic server restart (ASR) to restart server after operating system failure
- Monitoring of memory, thermal or voltage faults
- Preboot eXecution Environment (PXE) and support for Wake on LAN®

At your service

Valuable services, utilities and systems-management tools help improve productivity and get your server up and running quickly.

- IBM Director to manage xSeries 206m servers and other LAN assets
- ServerGuide™ utilities to assist loading of many popular network operating systems
- Warranty: One- and three-year parts, customer replaceable unit (CRU) or on-site labor⁴, limited warranty⁵; optional warranty service upgrades

Key prerequisites

Monitor, keyboard and mouse

Planned availability date

May 24, 2006

At a glance

Features of the xSeries 206m server include:

- Single-core Pentium 4 and dual-core Pentium D processors at up to 3.6 GHz¹ with 800 MHz front-side bus (FSB), and Intel Extended Memory 64 Technology (EM64T)
- Integrated Serial-ATA (SATA) and Serial Attached SCSI (SAS) controllers, depending on model
- Rack support through a rack conversion kit option
- Up to six available I/O expansion slots
- Seven bays: Two 5.25-inch, five 3.5-inch
- Choice of bootable optical drives:
 - 48x-20x³ IDE CD-ROM
 - Combination drive
- One fixed 400-watt, voltage-sensing power supply or two redundant hot-swap 430-watt power supplies, depending on model
- System management support
- I/O ports:
 - Four USB
 - Integrated Gigabit Ethernet with RJ-45
 - Two software-compatible serial ports
 - One parallel port supporting devices using SSP, EPP or ECP protocols adhering to the IEEE 1284 standard
 - PS/2® keyboard and mouse ports
- Integrated ATI graphics controller with 16 MB video memory

This announcement is provided for your information only. For additional information, contact your IBM representative.

Description

Solid-performing server subsystems

This uniprocessor entry server delivers solid, economical performance by coupling single- and dual-core Intel Pentium 4 and Pentium D processors at up to 3.6 GHz with Intel EMT64T, high-speed PC2-4200 CL4 ECC DDR2 SDRAM DIMM memory and SAS or SATA storage subsystems.

Dual-core processors are the optimal choice for performance-demanding applications and running multiple applications simultaneously. Single-core processors are an excellent choice for systems running single applications or applications that are not typically performance-constrained.

The xSeries 206m server uses high-performance chipsets to optimize throughput from the processors to memory and I/O.

Standard xSeries 206m configurations

| Model | Processor | Memory | Interface | Pre-load | HDD | CD-ROM |
|----------|---------------------------|---------|---------------|----------|----------|--------|
| 8485-B4x | 3.0 GHz P4 631 2 MB L2 | 512 MB | S/S SATA | SBSSE | 1x160 GB | 2 |
| 8485-B6x | 3.0 GHz P4 631 2 MB L2 | 1024 MB | S/S SATA | SBSSE | 2x160 GB | 2 |
| 8485-F2x | 3.6 GHz P4 661 2 MB L2 | 512 MB | S/S SATA | none | open bay | 1 |
| 8485-F4x | 3.6 GHz P4 661 2 MB L2 | 1024 MB | SATA/SAS HS# | none | open bay | 1 |
| 8485-H4x | 3.0 GHz PD 930 4 MB L2 | 1024 MB | S/S SATA | SBSSE | 2x250 GB | 2 |
| 8485-H6x | 3.0 GHz PD 930 4 MB L2 | 1024 MB | SATA/SAS HS*# | none | open bay | 1 |
| 8485-H8x | 3.0 GHz PD 930 4 MB L2 | 1024 MB | SATA/SAS HS*# | none | open bay | 2 |
| 8485-K2x | 3.4 GHz PD 950 4 MB L2 | 1024 MB | SATA/SAS HS*# | none | open bay | 1 |
| 8490-B4x | 3.0 GHz P4 631 2 MB L2 | 512 MB | S/S SATA | SBSSE | 1x160 GB | 2 |
| 8490-B6x | 3.0 GHz P4 631 2 MB L2 | 1024 MB | S/S SATA | SBSSE | 2x160 GB | 2 |
| 8490-F2x | 3.6 GHz P4 661 2 MB L2 | 512 MB | S/S SATA | none | open bay | 1 |
| 8490-F4x | 3.6 GHz P4 661 2 MB L2 | 1024 MB | SATA/SAS HS# | none | open bay | 1 |
| 8490-H4x | 3.0 GHz PD 930 4 MB L2 | 1024 MB | S/S SATA | SBSSE | 2x250 GB | 2 |
| 8490-H6x | 3.0 GHz PD 930 4 MB L2 | 1024 MB | SATA/SAS HS*# | none | open bay | 1 |
| 8490-H8x | 3.0 GHz PD 930 4 MB L2 | 1024 MB | SATA/SAS HS*# | none | open bay | 2 |
| 8490-K2x | 3.4 GHz PD 950 4 MB L2 | 1024 MB | SATA/SAS HS*# | none | open bay | 1 |
| 8490-GBx | 2.8 GHz PD 920 4 MB L2 | 1024 MB | SATA/SAS HS*# | SSW | 4x250 GB | 1 |
| 8490-EGx | 3.0 GHz P4 631 2 MB L2 | 512 MB | SATA/SAS HS*# | SSW | 4x160 GB | 1 |

Notes:

- (1) CD-ROM
- (2) Combination drive
- (*) Redundant power.
- (#) Universal keyed SAS backplane supports both SAS and SATA HDDs.

Additional features include:

- System board that supports high-speed 512 MB, 1 GB and 2 GB PC2-4200 CL4 ECC DDR2 SDRAM DIMM memory
- Integrated IBM ServeRAID 8e featuring RAID-0 or -1
- Up to six slots: Two PCI 2.2 and two PCI-Express (x8 and x1) standard; two PCI-X 100 MHz on selected models

- Full-duplex, Gigabit Ethernet PCI controller that speeds network communications to LAN clients

Expansion capacity and standard features

The xSeries 206m server is housed in a minitower (optionally rack mountable) that can economically handle expansion. This model features:

- Worldwide voltage-sensing power supply with auto restart that supports maximum configurations and

minimizes operator intervention after a temporary power outage. Power supply choices:

- Single 400-watt
- Redundant 430-watt (hot-swap)
- Two full-speed fans (three on hot-swap SATA or SAS models) plus one variable fan in each power supply that cools:
 - Power supply
 - Drive bays
 - Microprocessor
 - I/O
- 512 MB or 1 GB of standard PC2-4200 CL4 ECC DDR2 SDRAM DIMM memory
- Four DIMM sockets that support:
 - Up to 8 GB of system memory
 - Mixing memory sizes
- Up to six adapter card slots that support multiple adapters for network, systems management or data storage
- Seven drive bays:
 - One accessible 5.25 inch, half-high bay with 48x-20x CD-ROM drive
 - One open, accessible 5.25/3.5 inch, half-high bay, supporting tape backup devices and second optical drive
 - One accessible 3.5 inch, slim-high bay
 - Four internal 3.5 inch, slim high bays; one HDD standard on some models
- Simple-swap SATA, hot-swap SATA or hot-swap SAS HDDs
- Support for 15,000 rpm SAS HDDs
- Integrated ATI video with 16 MB of video memory

Systems management and control

xSeries 206m servers comply with the 2000 ATX implementation guidelines. These guidelines offer better control and manageability of a network.

Supported features include:

- Base Systems Management with IPMI 1.5 compliance
- Wake on LAN for existing LAN adapters to remotely turn the server on from an off state
- Wake on LAN supported on integrated Ethernet controller
- Flash EPROM write protection
- SMBus isolation that isolates one bus section and required system components during system power-down to prevent current leakage into devices without power
- PXE support
- SM BIOS
- MAC address on PC box
- Remote Deployment Manager™

The xSeries 206m server also features IBM Director — a powerful, highly integrated systems management software solution built on industry standards and designed for ease of use. This product helps enable you to take control of your IT environment and manage physically dispersed IT assets more efficiently. It can potentially reduce costs through:

- Reduced downtime
- Increased productivity of IT personnel and end users
- Potentially reduced service and support costs

IT administrators can view the hardware configuration of remote systems in detail and monitor the usage and performance of critical components, such as processors, HDDs and memory.

IBM Director includes a portfolio of integrated server tools that work with the Remote Supervisor Adapter or other systems management monitoring functions. Typical functions and monitoring capabilities can include:

- Temperature
- Voltage
- Fan speed
- Diagnostic LEDs

IT administrators achieve comprehensive, virtual on-site control of xSeries servers through the ability to remotely:

- Access the server often, regardless of its status
- Inventory and display detailed system and component information
- View server bootup during POST
- Browse and delete logs of events and errors
- Reset or power cycle the server
- Monitor and set thresholds on server health including:
 - Operating system load
 - POST time-out
 - Voltage
 - Temperature
- Set proactive alerts for critical server events including PFA on HDDs
- Define automated actions such as:
 - Send an e-mail or page to an administrator
 - Execute a command or program
 - Pop up an error message to the IBM Director console
- Flash BIOS
- Monitor and graph the use of server resources such as:
 - Memory
 - Processor
 - HDDs
- Identify potential performance bottlenecks and react to prevent downtime

IBM Director Agent provides integration into leading workgroup and enterprise systems management environments via upward integration modules (available from IBM and third parties). Advanced management capabilities built into xSeries servers are available through:

- Tivoli® Enterprise and Tivoli NetView®
- Computer Associates (CA) Unicentre TNG
- HP OpenView
- Microsoft SMS
- BMC Patrol
- NetIQ

World-class support tools and programs

The xSeries 206m server comes with tools and programs that help you purchase your server, get it running and keep it running smoothly. IBM can help your company maintain ownership of technology leadership servers.

- The ServerProven® program lets you confidently configure your server with various devices and operating systems. This Web-based program provides compatibility information from actual testing of the xSeries 206m server with various adapters and devices.

- The ServerGuide CD library includes on-line publications, utilities and drivers that assist you in the loading of popular network operating systems.

Product positioning

The xSeries 206m server is positioned as the flexible, scalable and adaptable platform of the xSeries uniprocessor server line. It is designed and packaged with features intended specifically for cost-conscious small and medium business and can also be easily deployed in distributed environments and retail locations.

The xSeries 206m server combines leading industry-standard technologies, excellent internal data storage capacity, ease of use and basic systems management and control features, into an attractively priced entry server. This uniprocessor server provides solid performance to support general-purpose network or Web-serving applications.

Reference information

- ¹ GHz denotes the internal and/or external clock speed of the microprocessor only, not application performance. Many factors affect application performance.
- ² When referring to HDD or tape backup capacity, GB stands for one billion bytes. Total user capacity may vary depending on operating environments.
- ³ Actual playback speed will vary and is often less than the maximum possible.
- ⁴ You may be asked certain diagnostic questions before a technician is sent.
- ⁵ For information on the IBM Statement of Limited Warranty, visit

http://www.ibm.com/servers/support/machine_warranties/

Call 800-IBM-SERV (426-7378) or contact your IBM representative or reseller. Copies are available upon request.

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