



HP xw6400 WORKSTATION

Mid-range dual processor/quad-coreⁱ and dual-coreⁱ workstation in a spacesaving, power-efficient package



The HP xw6400 is distinguished by what has been taken away—size, power demands, heat and noise—making this new mid-range workstation the ideal solution for space- and power-constrained environments. Added is Intel's new dual processor, quad-coreⁱ technology and the next-generation Intel chipset, delivering the performance you need today with the expandability and flexibility for adapting to tomorrow. Focused on specific customer requirements, the HP xw6400 Workstation's innovative, tool-less chassis was designed for small spaces.

A choice of Operating Environment

The HP xw6400 is available with preinstalled genuine Windows® XP Professional (32 or 64-bit). The HP xw6400 is also ready to handle the next-generation Microsoft Vista.

It also supports Red Hat Enterprise Linux WS 4 (64-bit). The HP Installer Kit for Linux is available to ease installation and help create a custom operating system image. The preinstalled HP Performance Tuning Framework (PTF)ⁱⁱ and HP Cool Tools help ease implementation and increase productivity.

We also offer 32-bit or 64-bit Red Hat Linux, either pre-installed or through our HP Installer Kit for Linux, which ensures you have all the tested drivers you need for the install.

Meet the challenges of a 64-bit world

The HP xw6400 delivers new Quad-Coreⁱ Intel Xeon Processor 5300 Sequence and Dual-Coreⁱ Intel® Xeon® Processor 5100 Sequence for the high

performance and expandability you need in a midrange personal workstation. Intel's 5000X next-generation, high-end performance chipset for Intel Xeon processors supports 1,333 MHz dual system busⁱⁱⁱ, and a 4 channel 667 MHz Fully Buffered DIMM (FBDIMM) memory subsystem, providing substantial improvement in throughput over previous Intel® chipset technology.

Supporting up to three internal hard disk drives, two optical disks, four PCI Express (PCIe) I/O slots, and two legacy PCI slots, the HP xw6400 delivers the capacity to handle large and complex data sets. With 4 GB DIMMs, the HP xw6400 can achieve configurations supporting applications that take advantage of up to 16 GB of memory to better accommodate our evolving 64-bit world.

Big innovations in a small package

With one of the smallest dual-processor form factors in the industry, the HP xw6400 Workstation fits neatly into cramped workspaces. Industry-leading, tool-less chassis design eases servicing, upgrading and maintenance.

The HP xw6400 supports up to eight monitors, allowing visualization of huge amounts of data from multiple sources with less need to toggle between applications. From Professional 2D through high-end 3D graphics, the HP xw6400 delivers the visual accuracy and image clarity your job demands. Strong relationships with application providers and graphics card vendors provide reliable, industry-standard, optimal solutions.

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HP recommends Windows Vista™ Business

Form factor	Rackable minitower
Operating systems	Genuine Windows® XP Professional (32-bit) Genuine Windows® XP Professional x64 Windows Vista Capable Not all Windows Vista features are available for use on all Windows Vista Capable PCs. All Windows Vista Capable PCs will run the core experiences of Windows Vista, such as innovations in organizing and finding information, security, and reliability. Some features available in premium editions of Windows Vista—like the new Windows Aero™ user interface—require advanced or additional hardware. Check http://www.windowsvista.com/getready for details. Enterprise Linux™ WS 4 (64-bit) HP Installer Kit for Linux (includes drivers for both 32-bit & 64-bit OS versions of Red Hat Enterprise Linux 3 and 4)
Available processors	One or two Quad-Core ⁱ Intel Xeon Processor 5300 Sequence (8 MB total L2 cache) per processor (2 x 4 MB shared): 1.60 ^v GHz/1066 MHz FSB ⁱⁱⁱ , 1.86 ^v GHz/1066 MHz FSB ⁱⁱⁱ , 2.00 ^v GHz/1333 MHz FSB ⁱⁱⁱ , 2.33 ^v GHz/1333 MHz FSB ⁱⁱⁱ One or two Dual-Core ⁱ Intel Xeon Processor 5100 Sequence (4 MB shared L2 cache per processor): 1.60 ^v GHz/1066 MHz FSB ⁱⁱⁱ , 1.86 ^v GHz/1066 MHz FSB ⁱⁱⁱ , 2.00 ^v GHz/1333 MHz FSB ⁱⁱⁱ , 2.33 ^v GHz/1333 MHz FSB ⁱⁱⁱ , 3.00 ^v GHz/1333 MHz FSB ⁱⁱⁱ
Chipset	Intel 5000X
Memory	Up to 16 GB of ECC registered 4 channel DDR 667 MHz fully buffered DIMMs via 4 GB DIMMs in 4 DIMMs slots
Drive controllers	Integrated quad channel SATA 3 Gb/s controller with RAID 0 or 1 ^{vi} capability
Hard drive(s)	Up to 3 SATA drives*, 1.5 TB max.; 80 GB ^{vii} (7200 rpm) SATA 3 Gb/s, or 160, 250, 500 GB ^{vii} (7200 rpm) SATA 3 Gb/s NCQ; 80, 160 GB ^{vii} (10K rpm) SATA 1.5 Gb/s NCQ; Up to 3* Serial Attached SCSI (SAS) drives**, 900 GB ^{vii} max.; 146 GB ^{vii} (10K rpm) or 73, 146, 300 GB ^{vii} (15K rpm)** *Two 3.5-inch drive bays standard, third drive requires one external 5.25-inch drive bay. **Optional SAS controller required.
Optical drives	CD-ROM, DVD-ROM, CD-RW/DVD combo, DVD+/-RW DL with LightScribe Direct Disc Labeling (Microsoft Windows XP Professional only, requires LightScribe media for labeling) ^{viii}
Drive bays	2 external 5.25-inch bays, 2 internal 3.5-inch bays, 1 external 3.5-inch bay with optional floppy
Slots	6 slots: 1 PCIe x16 graphics slot, 1 PCIe x16 mechanically (x4 electrically), 2 PCIe x8 mechanically (x4 electrically), and 2 legacy PCI slots
Graphics	Professional 2D: NVIDIA Quadro NVS 285 (128 MB, dual display & up to 2 cards supported) NVIDIA Quadro NVS 440 (256 MB, quad display & up to 2 cards supported) Entry 3D: NVIDIA Quadro FX 560 (128 MB), ATI FireGL V3300 (128 MB) Mid-range 3D: NVIDIA Quadro FX 1500 (256 MB), ATI FireGL V7200 (256 MB) High-end 3D: NVIDIA Quadro FX 3500 (256 MB), NVIDIA Quadro FX 4500 (512 MB) with opt. Quadro G-Sync card
Audio	Integrated High Definition audio with Jack Retasking technology, opt. PCI Sound Blaster X-Fi XtremeMusic
Network	Integrated Broadcom 5752 Gigabit ^{ix} PCIe LAN on Motherboard, opt. Broadcom 5751 Gigabit ^{ix} PCIe NIC
Ports	Front: 2 USB 2.0, 1 IEEE 1394 (requires PCI card to enable functionality), 1 audio line out, 1 microphone line in Rear: 5 USB 2.0, 1 standard serial port, 1 parallel port, PS/2 keyboard and mouse, 1 RJ-45, audio line in, audio line out, 1 microphone line in Internal: 1 USB 2.0 (requires optional "Internal USB Kit" for connecting USB device)
Input devices	PS/2 Scroll Mouse; USB Optical Scroll Mouse; USB 3-Button Optical Mouse; USB SpaceMouse; USB SpaceBall; USB Space Pilot
Dimensions (H x W x D)	17.3 in (44.1 cm) x 6.5 in (16.5 cm) x 17.3 in (44.1 cm)
Power	575 watts, active Power Factor Correction
Monitors	19-inch HP LP1965 Flat Panel Monitor, 20.1-inch HP LP2065 Flat Panel Monitor, 24-inch HP LP2465 Flat Panel Monitor, 30-inch HP LP3065 Flat Panel Monitor
Warranty	Basic three years next business day, parts, labor, and 8x5 phone support; terms and conditions may vary, certain restrictions apply.

Certain Windows Vista product features require advanced or additional hardware. See <http://www.microsoft.com/windowsvista/getready/hardwarereqs.mspx> and <http://www.microsoft.com/windowsvista/getready/capable.mspx> for details. Windows Vista Upgrade Advisor can help you determine which features of Windows Vista will run on your computer. To download the tool, visit <http://www.windowsvista.com/upgradeadvisor>.

- i Quad-Core and Dual-Core are new technologies designed to improve performance of multithreaded software products and hardware-aware multitasking operating systems and may require appropriate operating system software for full benefits; check with software provider to determine suitability; Not all customers or software applications will necessarily benefit from use of these technologies.
- ii PTF preinstalled on HP xw6400 with Microsoft Windows XP Professional.
- iii Actual bus speed is less. Listed bus speed represents the equivalent effective throughput for data.
- iv GHz refers to internal clock speed of the processor. Other factors besides clock speed may impact system and application performance.
- v Expected availability 1/8/07.
- vi Hardware RAID is not supported on Linux systems. The Linux kernel, with built-in software RAID, provides excellent functionality and performance. It is a good alternative to hardware-based RAID. Please visit <http://h20000.www2.hp.com/bc/docs/support/SupportManual/c00060684/c00060684.pdf> for RAID capabilities with Linux.
- vii 1 GB = 1 billion bytes. Actual formatted capacity is less.
- viii Actual speeds may vary. Does not permit copying of commercially available DVD movies or other copy-right protected materials. Intended for creation and storage of your original material and other lawful uses. Double layer discs can store more data than single layer discs. However, double-layer discs burned with this drive may not be compatible with many existing single-layer DVD drives and players. LightScribe creates a grayscale image similar to black and white photography. LightScribe media required and sold separately.
- ix The term 10/100/1000 or Gigabit Ethernet indicates compliance with IEEE standard 802.3ab or Gigabit Ethernet, and does not connote actual operating speed of 1 Gb/sec. For high speed transmission, connection to a Gigabit Ethernet server and network infrastructure is required.

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