HP xw9300 Workstation

HP recommends Microsoft® Windows® XP Professional

Intelligently engineered in close collaboration with hardware and software partners, the HP xw9300 Workstation delivers the ultimate 64-bit personal workstation performance and visualization for compute-intensive environments. Supporting, for the first time, dual PCI Express x16 graphics and up to 2 single or dual-core[i] AMD Opteron™ processors, the HP xw9300 meets the combined needs for computational and visualization power and I/O performance while helping to lower total cost of ownership. Part of a complete portfolio of reliable, high-quality, easy-to-manage workstations, the HP xw9300 is ideal for scientists, engineers, designers and digital artists who have extremely complex analyses and/or advanced visualization requirements.

Features

- **Implement a high-performance, power efficient architecture with complete software compatibility:** The HP xw9300 Workstation is based on AMD Opteron 200 series processors delivering high-performance dual processing, up to 4 processor cores of performance complete software compatibility with Intel-based platforms. AMD64 extends the address space to a maximum of 16 TB virtual memory and allows the design and manipulation of huge data sets or models. An AMD64-enabled workstation should provide leading performance for many 32-bit applications. Although not all 32-bit applications may run as normal when you decide to change to a 64-bit operating system, many will, providing excellent flexibility. It is advised you pre-test your applications with Microsoft's 64-bit 120 day free trial before you order AMD64 (www.microsoft.com/windowsxp/64bit/evaluation/trial.mspx).
- **Get superior computing performance through Direct Connect Architecture:** With the AMD Direct Connect Architecture, the HP xw9300's memory and I/O are connected directly to the CPU optimizing performance. This helps balance throughput and enable expandable I/O.
- **Receive unmatched workstation visualization capability:** The HP xw9300 has two x16 PCI Express (PCIe) ports supporting dual, high-end graphics and SLI for NVIDIA Quadro enablement. Enabling up to 4 full-performance, 3D displays, the HP xw9300 provides cost-effective, scalable visualization capability for demanding high-performance graphics solutions such as parallel rendering or compositing. In addition, the HP xw9300 with PCIe will accommodate future upgrades to the latest graphics and I/O components.
- **Access the latest technology:** This is the first workstation available based on NVIDIA's nForce Professional chipset supporting dual PCIe x16 graphics and 4 Serial ATA 3 Gb/s disk interface channels facilitating exceptional performance from the AMD Opteron single and dual core technology and excellent expandability.
- **Handle very large and complex data sets:** The HP xw9300 Workstation supports up to 5 internal hard disk drives, 3 optical disks, 2 PCIe x16, 3 PCI-X (1x 133 MHz and 2x 100 MHz) and 1 PCI slot, delivering leadership workstation expandability.
- **Invest in more than a box:** The HP xw9300 features an expandable, rackable, and easily serviceable metal chassis with tool-less access. HP's close partnerships with Software and Hardware Vendors ensure compatibility, reliability and optimized performance on your mission critical applications. HP Performance Tuning Framework, available on HP Workstations with Microsoft® Windows®, an HP exclusive utility, queries HP's graphics certification database via the web and recommends the most appropriate driver for the users' graphics card and installed applications

Ultimate performance and expandability with AMD64

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Form factor	Rackable minitower
Preinstalled software options	Preinstalled Microsoft® Windows® XP Professional x64 Edition (64-bit) - workstation is WHQL certified, or preinstalled Microsoft Windows XP Professional (32-bit) - workstation is WHQL certified, or Red Hat Enterprise Linux® Workstation 3 Update 5 (64-bit only),or HP Installer Kit for for Linux (includes drivers for the 64-bit OS version)
Processor	Single or dual AMD Opteron™ 200 series processors 246 (2.0 GHz), 248 (2.2 GHz), 250 (2.4 GHz), 252 (2.6 GHz), 254 (2.8 GHz); dual-core[i] processors 270 (2.0 GHz), 275 (2.2 GHz), 280 (2.4 GHz) with AMD64 Technology & AMD HyperTransport™
System bus	1 GHz AMD HyperTransport
Chipset	NVIDIA nForce Professional with AMD-8131 HyperTransport PCI-X tunnel
Memory	16 GB maximum; 8 Registered DIMMs; DDR1-400 ECC (512 MB, 1 GB, 2 GB); up to 12.8 GB/sec throughput
Expansion bays	3 external 5.25 inch bays, 5 internal 3.5 inch bays
Drive controllers	Integrated SATA 3 Gb/s controller (4 channels) with RAID 0, 1, 0+1 capability[ii]; Integrated dual channel Ultra320 SCSI controller with opt. external connector; Opt. Ultra 320 SCSI controller – basic; Opt. Ultra 320 SCSI controller – advanced with RAID 0, 1, 10, 5, 50, JBOD capability, opt. 4 channel 3 Gb/s SATA RAID controller
Hard drive(s)	Up to 4 SATA drives, 2 TB max.; 250, 400 GB (7200 rpm) SATA 1.5 Gb/s or 74 GB (10K rpm) SATA 1.5 Gb/s or 80, 250 GB (7200 rpm) SATA 3 Gb/s, 500 GB SATA 3 Gb/s NCQ; or 73, 146, 300 GB (10K rpm) Ultra320 SCSI or 36, 73 or 146 GB (15K rpm) Ultra320 SCSI
Removable media	48X CD-ROM, 48X CD-RW, 16X DVD-ROM, 48X CD-RW/DVD combo, 16X DVD+/- RW DL LightScribe Disc Labeling (Windows 2K & XP only, requires LightScribe media for labeling)
Expansion slots	6 slots: 2 PCI Express (PCIe) x16 graphics and I/O; 3 full-height PCI-X slots (one 133 MHz, two 100 MHz slots); 1 full-length PCI slot
Graphics	Professional 2D: NVIDIA Quadro NVS 280 (PCIe) or Quadro NVS 285 with NVIDIA TurboCache Technology (PCIe) Entry 3D: NVIDIA Quadro FX 540 Mid-range 3D: NVIDIA Quadro FX 1400; NVIDIA SLI Technology capable High-end 3D: NVIDIA Quadro FX 3450, Quadro FX 4500 with opt. Quadro G-Sync card; NVIDIA SLI Technology capable
Audio	Integrated AC'97/16-bit stereo full-duplex, opt. SoundBlaster Audigy 2-ZS (PCI), opt. SoundBlaster X-Fi XtremeMusic (PCI)
I/O ports and connectors	Front: 2 USB 2.0, Headphone, Microphone, IEEE 1394 Back: 4 USB 2.0, 1 standard serial port, IEEE 1394, PS/2 keyboard and mouse, 1 RJ-45 to integrated Gigabit LAN, Audio In, Audio Out, Mic In
Communications	Integrated NVIDIA Gigabit LAN-on-motherboard; optional Broadcom 5751 Gigabit (PCIe)
Power supply	700 watts
Input devices	USB or PS/2 keyboard; choice of 2-button scroll mouse (optical or mechanical); 3-button mouse (optical or mechanical); USB SpaceBall 5000, USB SpacePilot
Dimensions (h × w × d)	17.9 inch (45.5 cm) x 8.3 inch (21.0 cm) x 20.7 inch (52.5 cm)
Weight	Minimum configuration – 42 lbs (19 kg); Maximum configuration – 54 lbs (24 kg)
Monitors	HP L1755 17 inch flat panel, HP L1955 19 inch flat panel, HP L2035 20.1 inch flat panel, HP L2335 23 inch flat panel
Warranty	Basic 3 years next business day, parts, labor, and 8x5 phone support; terms and conditions may vary, certain restrictions apply

[i] Not all customers or software applications will benefit from the use of a dual core processor. Compatible software including compatible operating system software, may be required to obtain the full benefit of this technology

[ii] 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.

Screen image courtesy of Paradigm

For more information, visit www.hp.com/workstations

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