hp
i n v e n t

hp workstation x4000

data sheet

more muscle, advanced graphics, same hp dependability

The HP Workstation x4000 incorporates technologies that take Intel® architecture workstation performance to new levels. Configurable to meet your present and future needs, the HP x4000 offers optional dual processing, the latest Intel 860 chipset with 400MHz front side bus along with a host of scalability, manageability and reliability features. In addition, under the HP leadership graphics program, you can choose from a broad range of ISV certified 3D and 2D graphics solutions.

hp workstation x4000	feature	benefit	advantage
	single or dual Intel Xeon™ processor at 1.8, 2.0, 2.2 , 2.4 or 2.8GHz	latest Intel technology delivers larger caches and faster frequencies for more compute power and application performance	higher frequencies and improved processor design provide increased floating point performance and compute power
	Intel 860 chipset with 400MHz system bus	enables dual processing and 64 PCI I/O; 3x the bandwidth of the Intel Pentium III system bus	allows use of the entire memory subsystem bandwidth for greater system responsiveness and user interaction
	build-to-order	configuration options allow you to add-in hardware or graphics options	can be tailored to the varying needs of hp workstation customers
	mass storage expandability; up to 292GB internal disk (with optional disk expansion kit A8038A for SCSI drives)	provides hard disk space and performance needed to work with uncompressed digital video, large models and multiple designs	ultra wide SCSI 3 high data throughput and up to 292GB of storage means greater productivity
	up to 4GB capacity RDRAM®	large memory capacity for more demanding applications and complex designs.	more design options; increased interactivity for faster insight; applications and workloads demanding large memory get a boost in performance
	RAID (optional for Windows 2000 Professional)	provides RAID 1 (disk mirroring) and RAID 0 (disk striping) support	disk mirroring provides data redundancy for fault tolerance; disk striping provides high data bandwidth to and from a disk array for digital video, non-linear editing, and other applications requiring high bandwidth to disk
	ISV qualification	hp's intimate relationships with top ISVs enable close collaboration, performance tuning, and hardware platform certification	assurance that the software and the hardware are fine tuned to provided guaranteed compatibility, reliability and the best performance possible
	hp toptools manageability software	advanced administration and management of system components and settings	provides industry-leading remote and local net-based management and diagnostics
	e-diag tools	provides preboot diagnostics, system configuration diagnostics and a complete test suite of the system hardware components; configurable to browse for BIOs or firmware	allows advanced administration and management of system components and settings; increases reliability and provides hardware self-diagnosis
	serviceability	efficient, open and easy to maintain chassis design and layout	easier servicing, upgrading and maintenance
	DVD+RW/+R/CD-RW combo drive (optional)	combination drive allows a single drive to efficiently handle all CD-ROM, DVD, CD-RW and DVD+RW needs; enables distribution of high quality, professional projects	provides immense 4.7GB data storage, backup and transfer; ability to create interactive media compatible with home DVD players
	IEEE 1394 OHCI card (optional)	optional factory-integrated solution for digital video connectivity	easy, convenient, and fast connection to digital video devices
	hp leadership graphics program	a wider range of graphics choices for applications that are fully supported on the platform	faster access to the best graphics in the industry at varying performance and price points; backed by more than 20 years of HP graphics expertise

hp workstation x4000 technical specifications

central processor

type	Intel Xeon processor
clock frequency	1.8, 2.0, 2.2, 2.4 or 2.8GHz
number of processors	1 or 2

cache (on-chip)

	L1: 16KB code, 16KB data
	L2: 512KB

main memory

bus bandwidth	3.2GB/sec
RAM type	PC800 ECC Rambus®
capacity	3.5 4GB
memory slots	8 RIMMs (4 pairs, dual channel)

operating system options

Windows 2000 Professional
Windows XP
Red Hat Linux 7.1

internal storage devices (2 storage bays)

dual channel U160 built into motherboard
choice of Ultra ATA/100 EIDE or Ultra 160 SCSI hard drives

Ultra ATA/100 EIDE hard drives* up to 2 devices, 160GB maximum	20GB (7200 RPM) 40GB (7200 RPM) 80GB (7200 RPM)
Ultra 160 SCSI hard drives Up to 4 devices, 292GB max**	18/36/73GB (10K rpm) 36GB (15K rpm)

*supported only on Windows 2000 Professional
**with optional disk expansion kit for SCSI hard drives

RAID (optional for Windows 2000)

Ultra 160 SCSI RAID - single channel	stripe (2 or 3 HDD) mirror (2 or 4 HDD)

expansion slots

PCI (full size - 5 slots available)	PCI 2.2 32b 33MHz (x3) PCI 2.2 64b 66MHz (x2)
AGP 4x Pro 50	50 watt limit

SCSI device connectivity

The integrated dual channel Ultra 160/SCSI card has 2 connectors

connector 1	68-pin connector for 2 internal LVD SCSI devices
connector 2	68-pin connector for external LVD SCSI devices

removable media

floppy drive	integrated 3.5" floppy drive
CD drive(s) up to 2 CD devices	48X CD-ROM 24X/10X/40X CD-RW 16X DVD DVD+RW/+R/CD-RW

networking (integrated)

RJ45	yes
LAN data rate	10/100Mbps

built-in I/O

serial interface 9-pin DIN	2 ports
parallel interface 25-pin DIN	1 port
USB (Universal Serial Bus) Series A	2 ports

storage bays

	(2) 3.5-inch external
	(3) 5.25-inch external
	(2) 3.5-inch internal

audio

type	16-bit stereo full-duplex

monitors

	18" Flat Panel LCD
	19" Flat Screen
	21" Flat Screen
	24" Flat Screen

environmental specifications

altitude

operating	3048m (10000 ft.) max
storage	4600m (15000 ft.) max

temperature

operating	+5°C to +35°C (+41°F to +95°F)
non-operating	-40°C to +70°C (-40°F to +158°F)

humidity

operating	15% to 80% (relative)

physical dimensions

height	49cm (19.30 in)
width	21cm (8.26 in)
depth	47cm (18.50 in)

net weight

minimum configuration	18.21Kg (40.2lbs)

power requirements

input current	5.0 A @ 100V Vac
line frequency	50Hz to 60Hz
maximum power input	500W

professional 2D graphics

ATI RADEON 7000	RADEON 7000 graphics controller 32MB DDR SDRAM memory

professional 3D graphics

entry3D

NVIDIA Quadro2 EX	Single, integrated geometry engine 32MB unified SDR graphics memory

mid-range 3D

ATI Fire GL 8800	ATI R200 graphics controller 128MB unified graphics memory

high-end 3D

NVIDIA Quadro4 900 XGL	integrated geometry engine 128MB DDR memory to deliver outstanding graphics performance

extreme 3D

3Dlabs Wildcat III 6110	6 geometry engines to deliver ultimate performance and the largest models 192MB graphics memory

www.hp.com/go/leadershipgraphics

HP PCs use genuine Windows® Operating Systems
www.Microsoft.com/piracy/howtotell