hp visualize b2000 UNIX workstation

data sheet

Your complete solution, right out of the box

The b2000 is the ideal combination of price and power. It features hp's award-winning pa-8500 processor, running at a 400MHz clock rate. Incorporating numerous breakthroughs in pa-risc processor design, the industry's highest total on-chip cache of 1.5MB, maximized bandwidths, and state-of-the-art cooling technology, the b2000 is a completely optimized, purely balanced system for workstation or server tasks.

hp visualize b2000 UNIX workstation	feature	benefit	advantage
performance	PA-8500 RISC-processor running at 400MHz	Puts more compute and visualization power behind EDA, mechanical design and other applications	Gives you the power of the chip that won the "Best RISC Processor" award (Microprocessor Reports Editor's Choice)
	1.5MB on-chip cache	Enhances system performance with greater application speed and throughput	Minimizes system latency with the industry's largest on-chip cache
	Maximum main memory up to 2GB Synchronous DRAM	Delivers higher application performance with less disk access	Supports interactive work with complex 2D and entry 3D models
	4 industry-standard PCI slots	Provides more capability for complex applications	Provides higher capability for graphics cards and other PCI I/O cards
	HP visualize-*fxe* graphics accelerator integrated on the system motherboard	Enables universal access to all types of data across diverse, cross-functional teams	Provides full-featured, 3D capability across all hp workstation platforms
	Optional visualize *fx⁵pro* graphics subsystem	Supports faster visualization or mid-size mechanical assembles	Delivers the industry's best mid-range 3D graphics performance for mechanical design work
integration	Rack mountable	Saves space, particularly for customers needing to maximize real estate	Supports on-side configuration as well as upright, desktop placement
investment protection	Expansive mini-tower with 4 industry-standard PCI slots	Gives you the flexibility to expand your system	Provides more capacity for PCI I/O cards
	Binary compatibility with future PA-RISC and IA-64 processors	Protects your investment in applications, data and systems	Ensures smooth transition to hp's next-generation high-performance systems
	Full-featured base configuration	Provides for a long, low maintenance life in embedded systems, OEM, and customer care platforms	Offers a robust, common feature-set that's fully functioning

b2000 technical specifications

central processor
Type	PA-8500
Clock frequency	400MHz
Number of processors	1

primary cache (on chip)
Instruction cache	0.5MB
Data cache	1.0MB

performance
SPECint95	31.8
SPECfp95	52.4
SPECint_rate95	286
SPECfp_rate95	472
SPECint2000	285 (preliminary)
SPECfp2000	325 (preliminary)

main memory
Bus bandwidth	1.9GB/sec
RAM type	120MHz SDRAM
Capacity	256MB-4GB
Memory slots	4

PCI slots (4 total)
PCI 1X (half card)	2 slots
PCI 2X (full size)	2 slots

internal storage devices
Ultra 2 SCSI LVD (80 pin SCA connector)
2 drives maximum
Hard-disk drive	9GB (10,000 rpm)
	18GB (10,000 rpm)
	36GB (10,000 rpm)

removable media
CD-ROM ATAPI interface	48X (internal)
3.5 in PC floppy drive or	1.44MB (internal)

external storage
NSE SCSI
50-pin high-density	available via PCI card

Ultra2 SCSI LVD
68-pin in high-density	available via PCI card

networking interface
RJ45	10/100 Base-Tx Ethernet
LAN Data Rate	10/100 Mbits/sec

other I/O
Serial interface 9-pin DIN	2 ports
Parallel interface 25-pin DIN	1 port
USB (Universal Serial Bus)	2 ports
Series A	(keyboard and mouse only)

audio
Type	Integrated, CD-quality stereo
Inputs	Stereo line-in, MIC-in
Outputs	Stereo line-out, internal speaker, headphone

monitor resolution with *fx-pro* graphics
18.1" (18.1" viewable)	1280x1024 res LCD flat panel display
19" (18" viewable)	1280x1024 res. Flat FD Trinitron CRT display
21" (19.8" viewable)	1280x1024 res flat FD Trinitron CRT display
24" (22.5" viewable)	1600x1024 res wide aspect Trinitron CRT display

minimum operating systems supported
hp-ux 11.00 ACE9911
hp-ux 10.20 ACE9912

environmental specifications
Altitude
Operating	0-3000m (0-10,000 ft)
Non-operating	0-4500m (0-15,000 ft)

Temperature
Operating	5 to +35 degrees C
Non-operating	-40 to +70 degrees C

Humidity
Operating	15 to 80% (non condensing)

Vibration
Operating random	0.21 G rms, 5-500Hz
Swept sine survival	0.5 G peak, 5-500Hz
Random survival	2.09 G rms, 5-500Hz
Safety	UL1950, CUL to CSA C22.2#950, and TUV GS Mark to EN60950/IEC950
Emissions	FCC and CISPR Class B and VCCI Class B

physical dimensions
Height	44.5 cm (17.5 in)
Width	22.9 cm (9.0 in)
Depth	49.5 cm (25.8 in)

physical dimensions with rack kit*
Height	6 EIA units
Width	45.1 cm (17.75 in) between columns
Depth	66.5 cm (25.8 in)

system racks on its side

net weight
Minimum configuration	18.6 Kg (41.0 lbs.)
Fully loaded	21.4 Kg (47.6 lbs.)

power requirements
Input current	8 amps RMS max @ 100-120V
	3.5 amps RMS max @ 220-240V
Line frequency	50-60Hz
Maximum power input	620 watts @120 VAC, 60Hz

visualize graphics

	visualize–*fxe*	visualize–*fx⁵pro*
Graphics boards	3 max	1 max
Max resolutions	1600x1200	1600x1200*
Image planes/overlay	24/24DB	24/24DB
Planes	8 overlay	8 overlay
Z-buffer	24-bit HW	24-bit HW
Stencil planes	4-bit HW	4-bit HW
Alpha planes	SW	8/8DB HW
Texture memory	Std. 3.5MB	48MB**
Color maps		
Image planes	2 image	2 image
Overlay planes	2 overlay	2 overlay

*with full feature set and 75Hz refresh
**at 1280 x 1024 resolution

*The **hp** b2000–helping you to invent, design and deliver.*

*For the latest information about **hp** visualize workstation products go to: **http://www.hp.com/visualize***