hp

invent

hp
workstation
c3650

data sheet

the perfect balance of performance and price

The HP workstation c3650 with UNIX offers the perfect balance of price and performance in a deskside design system for running mechanical design and CAE applications. Supporting a high performance CPU; wide range of graphics alternatives; and maximum configuration flexibility all at attractive pricing, the HP workstation c3650 delivers the superior application performance you need to deal with your most compute intensive tasks. It will help slash product cycle times and shorten time to market. The HP workstation c3650 is perfect for engineers designing complete products, reviewing virtual prototypes, and performing small to medium-sized analyses.

The driving force behind the HP workstation c3650 is a PA-8700 processor running at 625MHz. Team the power of the PA-8700 processor with the HP workstation c3650's capacity to support up to 8GB RAM, 146GB internal disk, and six PCI cards, and you have a high intensity performance workstation at an affordable price. If you need configuration flexibility with a familiar form factor and O/S, you can deploy the HP workstation c3650 with confidence. Invent the future in real time with the HP workstation c3650.

hp workstation c3650	feature	benefit	advantage
performance	PA-8700 RISC-processor running at 625MHz	maximizes bandwidth and boosts system performance/execution	best application performance
	2.25MB on-chip cache	enhances system performance by minimizing latency and maximizing throughput	industry's largest on-chip cache increases application performance
	four-way set associative cache	requires less disk-to-cache access for instructions and data, providing higher performance	decreases the miss rate of direct mapped cache
	8GB SDRAM capacity	delivers higher application performance with less disk access; supports interactive work with complex 3D designs and virtual prototypes	delivers the largest RAM capacity available on any uni-processor workstation today
graphics	hp *fxe* graphics card	enables universal access to all types of data across diverse, cross-functional teams	provides full-featured, 3D capability across all hp workstation platforms
	hp *fx5 pro* graphics card	supports faster visualization of mid-size mechanical assemblies	delivers the industry's best mid-range 3D graphics performance for mechanical design work
	hp *fx10 pro* graphics card	supports faster visualization and interactive work with the largest 3D models	delivers the world's fastest 3D graphics performance for simulation and design work.
integration	rack mountable	saves space, particularly when deployed in your systems operations room	Ssupports on-side configuration as well as upright, desktop placement
investment protection	expansive tower with 6 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 Intel® Itanium™ processors	protects your investment in applications, data and systems	ensures smooth transition to hp's next-generation high-performance systems

hp workstation c3650 technical specifications

central processor
type	PA-8700
clock frequency	625MHz
number of processors	1

primary cache (on chip)
total cache	2.25MB
instruction	0.75MB
data	1.50MB

performance
HP workstation performance results can be found at:
http://www.hp.com/workstations/products/unix/performance.html

main memory
bus bandwidth	1.9GB/sec
RAM type	120MHz SDRAM
capacity	512MB-8GB
memory slots	8

PCI slots (6 total)
PCI 1X (half card)	2 slots
PCI 2X (full size)	3 slots
PCI 4X (full size)	1 slot

internal storage devices
Ultra 2 SCSI LVD	80 pin SCA connector
	2 drives maximum
	18GB (10K RPM)
	36GB (10K RPM)
	36GB (15K RPM)
	73GB (10K RPM)

removable media
CD-ROM or CD-RW*	1 internal
3.5 inch/1.44MB flloppy drive	1 internal

*HP-UX 11.0 and higher

external storage
NSE SCSI (HD50)	1 port - up to 7 devices
Ultra2 SCSI LVD	1 port - up to 13 devices

networking interface
integrated	10/100 Base-Tx
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 Series A	2 ports
	(keyboard and mouse only)

audio
type	integrated, CD-quality stereo
inputs	stereo line-in, MIC-in
outputs	stereo line-out, internal speaker, headphone

hp graphics

hp graphics	hp fxe	hp fx^5 pro	hp fx^{10} pro
graphics cards	4 max	1 max	1 max
max resolutions*	1600x1200	1920x1200	1920x1200
image planes/overlay	24/24DB**	24/24DB	24/24DB
planes	8 overlay	8 overlay	8 overlay
z-buffer	24-bit HW	24-bit HW	24-bit HW
stencil planes	4-bit HW	4-bit HW	4-bit HW
alpha planes	SW	8/8DB HW	8/8DB HW
texture memory	Std. 9.5MB	48MB***	110MB***
color maps			
image planes	2 image	2 image	2 image
overlay planes	2 overlay	2 overlay	2 overlay

*   with full feature set and 75Mz refresh
**   DB=double buffered
*** at 1280x1024 resolution

monitor
18.1" (18.1" viewable)	1280x1024 res LCD flat panel display
19" (18" viewable)	1600x1200 res. Flat FD Trinitron® CRT display
21" (19.8" viewable)	1600x1200 res flat FD Trinitron CRT display
24" (22.5" viewable)`	1920x1200 res flat FD Triniton CRT display

operating system supported
hp-ux 11i TCOE (Technical Computing Operating Environment)
hp-ux 11i MTOE (Minimal Technical Operating Environment)
hp-ux 11.0

environmental specifications
altitude	
operating	0-3000m (0-10,000 ft)
non-operating	0-4500m (0-15,000 ft)
temperature	
operating	5 to +40 °C
non-operating	-40 to +70 °C
humidity	
operating	15 to 80% (non condensing)
vibration	
operating random	0.21Grms, 5-500Hz
swept sine survival	0.50Gpeak 5-500Hz
random survival	2.09Grms, 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	44.5cm (17.5 inches)
width	22.0cm (9.0 inches)
depth	49.5cm (19.5 inches)

physical dimensions with rack kit
height	6 EIA units
width	48.3cm (19 inches)
depth	66.5cm (25.8 inches)
rack orientation	system racks on its side

net weight
minimum configuration	20.9kg (45.9 lbs.)
fully loaded	25.4kg (55.8 lbs.)

power requirements
input current	7.4amps RMS max @ 100-120V
	3.8 amps RMS max @ 220-240V
line frequency	50-60Hz
maximum power input	805 watts @ 120 VAC, 60Hz

The hp workstation c3650 – power to invent in real time

For the latest information about HP workstations:
http://www.hp.com/workstations

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