



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 desktside 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 625-MHz. Team the power of the PA-8700 processor with the HP workstation c3650's capacity to support up to 8-GB RAM, 146-GB 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.

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	<b>feature</b>	<b>benefit</b>	<b>advantage</b>
<b>performance</b>	PA-8700 RISC-processor running at 625-MHz	maximizes bandwidth and boosts system performance/execution	best application performance
	2.25-MB 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
	8-GB 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
<b>graphics</b>	hp <i>fxe</i> 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 <i>fx<sup>5</sup> pro</i> 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 <i>fx<sup>10</sup> pro</i> graphics accelerator	greater user productivity and performance in mechanical applications	delivers high-end 3D graphics performance for mechanical design and analysis
	hp Fire GL-UX	greatest user productivity and performance for mechanical applications and virtual prototyping	delivers the world's fastest 3D UNIX graphics performance for for mechanical design and analysis
<b>integration</b>	rack mountable	saves space, particularly when deployed in your systems operations room	supports on-side configuration as well as upright, desktop placement
<b>investment protection</b>	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

<b>central processor</b>	
type	PA-8700
clock frequency	625-MHz
number of processors	1
<b>primary cache (on chip)</b>	
total cache	2.25-MB
instruction	0.75-MB
data	1.50-MB
<b>performance</b>	
HP workstation performance results can be found at: <a href="http://www.hp.com/workstations/products/unix/performance.html">http://www.hp.com/workstations/products/unix/performance.html</a>	
<b>main memory</b>	
bus bandwidth	1.9-GB/sec
RAM type	120-MHz SDRAM
capacity	512-MB to 8-GB
memory slots	8
<b>PCI slots (6 total)</b>	
PCI 1X (half card)	2 slots
PCI 2X (full size)	3 slots
PCI 4X (full size)	1 slot
<b>internal storage devices</b>	
Ultra 2 SCSI LVD	80 pin SCA connector 2 drives maximum
	18-GB (10K RPM) 36-GB (10K RPM) 36-GB (15K RPM) 73-GB (10K RPM)
<b>removable media</b>	
DVD-ROM or CD-RW	1 internal
3.5 inch/1.44-MB floppy drive	1 internal
<b>external storage</b>	
NSE SCSI (HD50)	1 port - up to 7 devices
Ultra2 SCSI LVD	1 port - up to 13 devices
<b>networking interface</b>	
integrated	10/100 Base-Tx
LAN data rate	10/100 Mbits/sec
<b>other I/O</b>	
serial interface 9-pin DIN	2 ports
parallel interface 25-pin DIN	1 port
USB Series A	2 ports (keyboard and mouse only)
<b>audio</b>	
type	integrated, CD-quality stereo
inputs	stereo line-in, MIC-in
outputs	stereo line-out, internal speaker, headphone
<b>monitor</b>	
hp L2025	20-inch LCD, flat-panel
hp L1825	18-inch LCD, flat-panel
hp wide-aspect	24-inch CRT, flat-screen, wide aspect
hp p1130	21-inch CRT, flat-screen
hp p920	19-inch CRT, flat-screen
<b>operating system supported</b>	
hp-ux 11i TCOE (Technical Computing Operating Environment)	
hp-ux 11i MTOE (Minimal Technical Operating Environment)	
hp-ux 11.0	

<b>environmental specifications</b>				
altitude	operating	0-3000 m (0-10,000 ft)		
	non-operating	0-4500 m (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	0.21 Grms, 5-500-Hz		
	swept sine survival	0.50 Gpeak 5-500-Hz		
	random survival	2.09 Grms, 5-500-Hz		
safety		UL1950, CUL to CSA C22.2#950, and TUV GS Mark to EN60950/IEC950		
emissions		FCC and CISPR Class A and VCCI Class A		
<b>physical dimensions</b>				
height	44.5 cm (17.5 inches)			
width	22.0 cm (9.0 inches)			
depth	49.5 cm (19.5 inches)			
<b>physical dimensions with rack kit</b>				
height	6 EIA units			
width	48.3 cm (19 inches)			
depth	66.5 cm (25.8 inches)			
rack orientation	system racks on its side			
<b>net weight</b>				
minimum configuration	20.9 kg (45.9 lbs.)			
fully loaded	25.4 kg (55.8 lbs.)			
<b>power requirements</b>				
input current	7.4 amps RMS max @ 100-120 V			
	3.8 amps RMS max @ 220-240 V			
line frequency	50-60-Hz			
maximum power input	805 watts @ 120 VAC, 60-Hz			
<b>hp graphics</b>	<b>hp Fire GL-UX</b>	<b>hp fx<sup>10</sup> pro</b>	<b>hp fx<sup>5</sup> pro</b>	<b>hp fx<sup>e</sup></b>
graphics cards	1 max	1 max	1 max	4 max
max VGA resolution	1920x1200	1920x1200	1920x1200	1600x1200
max digital resolution	1600x1200	1600x1200	1600x1200	n/a
video memory (FB)	128-MB	128-MB	64-MB	24-MB
texture memory	shared	shared	shared	shared
max texture memory (1280x1024 resolution)	110-MB	110-MB	48-MB	9.5-MB
hardware double buffered overly	yes	yes	yes	yes
antialiased points & lines	yes	yes	yes	yes
full scene hardware antialiasing	yes	yes	no	no
stereo viewing	yes	yes	no	no
8-bit alpha planes	yes	yes	yes	no
visibility testing & occlusion culling	yes	yes	yes	no
full scene antialiasing	yes	yes	n/a	n/a
hardware accumulation buffer	yes	yes	no	no

The hp workstation c3650 – power to invent in real time

For the latest information about hp workstations:  
[www.hp.com/go/workstations](http://www.hp.com/go/workstations)

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