



## SPARCstation ELC

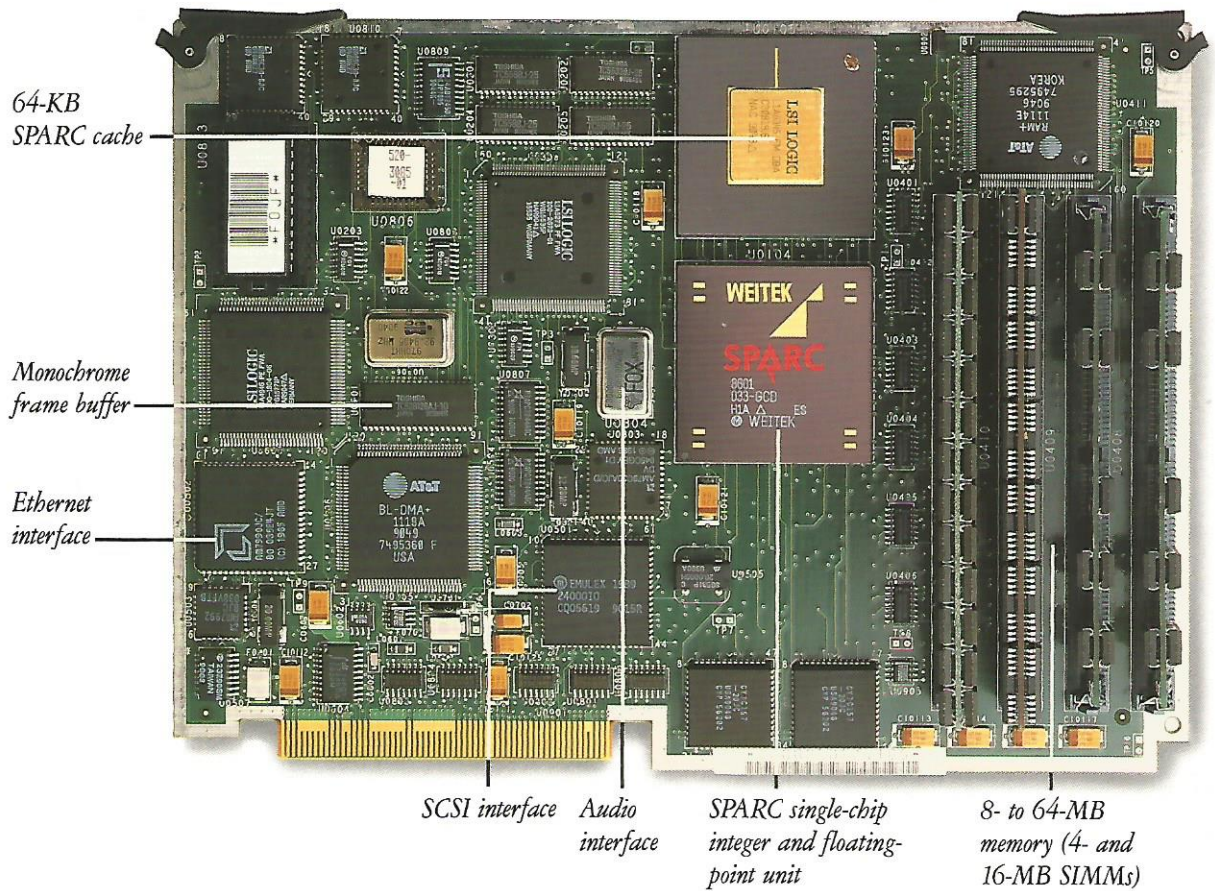
Sun continues a tradition of RISC workstation price/performance leadership with the SPARCstation™ ELC—an ideal entry-level desktop solution for database management, document image processing, and a variety of other commercial and technical areas. And with more than 3300 SPARCware™ solutions available today, users have access to all the leading commercial, technical, and productivity applications.

The SPARCstation ELC features the powerful SPARC® single-chip integer and floating-point processor, up to 64 MB of memory, and a SCSI port for disk, tape, and CD-ROM peripherals. It also includes an Ethernet port for client-server connectivity, an audio port and speaker for multimedia applications, and two serial ports. All these features are integrated onto a small, convection-cooled system board that fits neatly inside a high-resolution monochrome monitor. This unique packaging significantly reduces desktop footprint, eliminates noise, and lowers cost. In addition, the "pop-top" CPU access door allows users to remove the system board easily for service and memory upgrades.

Whether it's used in a diskfull or diskless configuration, the versatile SPARCstation ELC delivers the consistent, reliable network performance critical for database inquiries and updates, document image retrieval and display, and program compilation. When coupled with a powerful SPARCserver™ system, the SPARCstation ELC delivers cost-effective solutions for businesses today—reaffirming Sun as the leader in client-server computing.



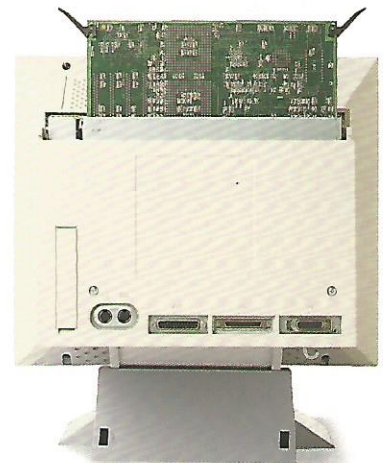
# SPARCstation ELC



*With the 17.1-SPECmark single-chip SPARC integer and floating-point unit, the SPARCstation ELC delivers powerful processing with the flexibility to expand memory easily.*



*The SPARCstation ELC's five built-in ports provide connectivity to hard disks and tape and CD-ROM drives, plus the capability for multimedia and voice applications.*



*The SPARCstation ELC "pop-top" CPU access door offers easy maintenance and memory expansion.*

## Features

## Benefits

33-MHz CMOS SPARC single-chip integer and floating-point processor; 17.1 SPECmarks (21 MIPS and 3 MFLOPS)

- Powerful, reliable, low-cost processing performance for rapid image decompression, database queries, and program compilation

64-MB RAM capacity (4-MB and 16-MB SIMMs)

- Flexibility to expand memory as performance demands evolve

Convection-cooled, 17-inch, 1152 × 900 monochrome monitor package

- Silent, fanless package fits easily on the desktop
- Crisp, high-resolution monitor is ideal for document image processing and database applications

“Pop-top” CPU access door

- Easy maintenance and memory upgrades

Five built-in ports:

- SCSI-2 port

- Access to hard disks, tape devices, CD-ROM drives, and other SCSI peripherals

- Ethernet port (15-pin thick Ethernet; can be connected to twisted pair or thin Ethernet with a transceiver)

- Integral network connection for heterogeneous client-server computing

- Two RS-232C serial ports

- Support for printers, modems, terminals, and SunLink® products

- Audio I/O port and speaker

- Support for multimedia and voice applications

Sun's ONC™ distributed computing environment and NFS® distributed computing filesystem

- Powerful networking capabilities for small to large networks, including support for connectivity to all PC and mainframe systems

SunOS™ environment

- SunOS 4.1.1 required

- UNIX® power for multitasking and high performance for network-based applications

- Preinstalled SunOS on 207-MB SCSI Desktop Disk Pack

- Plug-and-play installation
- Binary compatible with more than 3300 SPARCware applications

Advanced ease-of-use features:

- OPEN LOOK® graphical user interface

- Graphical, mouse-driven user interface with multitasking windows and pull-down menus, making full-featured UNIX applications intuitive and easy to learn

- OpenWindows™ DeskSet™ environment

- Powerful set of productivity tools, including File Manager, Mail Tool, Text Editor, and Calendar Manager

- Easy-to-use PC-style manuals

- Timesaving step-by-step guidelines

## Upgrades

Sun is committed to providing an easy migration path to the latest technologies.

- Board-swap upgrade for SPARCstation SLC users

- Increased performance; protects hardware and software investments



## Specifications

<b>Processor</b>	
Performance	17.1 SPECmarks (21 MIPS and 3 MFLOPS)
Integer unit	SPARC RISC processor
Floating-point unit	SPARC IEEE standard 754
Cache	64 KB
<b>Memory Management</b>	
Type	Sun-4™ MMU
Contexts	8 in hardware
I/O interface	DVMA
Page-mapped entry groups	128 PMEGs
<b>Main Memory</b>	
Standard RAM	8 MB (two 4-MB SIMMs)
Expansion RAM	4-MB and 16-MB SIMMs
Maximum RAM	64 MB (four 16-MB SIMMs), 40 MB (two 4-MB SIMMs and two 16-MB SIMMs), 16 MB (four 4-MB SIMMs)
<b>Ethernet Interface</b>	
Interface type	AUI
Data rate	10 Mb/sec
Connector	15-pin "D-sub"
<b>SCSI Interface</b>	
Connector	SCSI-2 (synchronous SCSI)
<b>I/O Ports</b>	
Serial	Two RS-232C serial through one 25-pin "D-sub" connector: first for async/sync with full modem control, second for async with data leads only
Audio	8 KHz, 8 bits with low-pulse code modulation; internal speaker
<b>System Bus</b>	
Type	SBus
Address bus width	25 bits
Data bus width	32 bits
Number of slots	0
<b>Monitor</b>	
Type	17-in. monochrome
Resolution	1152 (h) × 900 (v) pixels
Dots per inch	100
Pixel aspect ratio	1:1
Refresh rate	66 Hz, noninterlaced/93 MHz
Controls	Brightness, contrast, power, vertical and horizontal size, vertical and horizontal centering, focus
Antiglare/antistatic treatment	ESF coating
Power supply	110-120/200-240 VAC, full ranging

<b>Keyboard</b>	107 keys, low profile
<b>Mouse</b>	Optical, 3-button
<b>Software</b>	
Operating system	SunOS 4.1.1 or higher
Language options	C, Pascal, Modula-2, FORTRAN, Sun Common Lisp, Cobol
<b>Communications</b>	
standards supported	Ethernet, NFS, TCP/IP
Graphics options	SunGKS™, SunPHIGS™, XGL™, Xlib, Pixwin, SunVision™
<b>Window systems</b>	OpenWindows, XView™
IBM/DEC connectivity	SunLink (add-on products)
<b>Mass Storage</b>	
<b>Desktop Storage Packs</b>	
Hard disk drive:	
Format	3.5-in. disk    3.5-inch disk
Formatted capacity	207 MB    424 MB
Average seek time	16 msec    14 msec
Burst transfer rate	4.0 MB/sec    5.0 MB/sec
(synchronous)	
Raw disk data rate	1.6 MB/sec    2.5-3.0 MB/sec
<b>Tape drive:</b>	
Format	.25-in. tape, QIC-150
Formatted capacity	150 MB
<b>CD-ROM:</b>	
Format	5.25-in. CD-ROM
Formatted capacity	Up to 644 MB
Burst transfer rate	1.2 MB/sec
<b>Desktop Storage Modules</b>	
Hard disk drive:	
Format	5.25-in. disk
Formatted capacity	1.3 GB
Average seek time	12 msec
Burst transfer rate	5.0 MB/sec
(synchronous)	
Raw disk data rate	3-4.5 MB/sec
<b>Tape drive:</b>	
Format	8-mm, helical scan tape
Formatted capacity	2.3 GB
Burst synchronous	
SCSI transfer rate	4.0 MB/sec

<b>Environment</b>	
Operating temperature	10° C to 40° C (50° F to 104° F)
Nonoperating temperature	-20° C to 60° C (-4° F to 140° F)
Operating humidity	20% to 80%, noncondensing @ 40° C
Nonoperating humidity	95%, noncondensing @ 40° C
<b>Regulations</b>	
Meets or exceeds the following requirements:	
Safety	UL1950, CSA C22.2 no. 950, TUV/GS per EN60950 ZHI/618
Ergonomics	CFR 47 (FCC Rules) Part 15B, Class B; VDE 0871 Class B; VCCI Class II;
EMC	MPR-1990:8 Low-Frequency Magnetic Field and Electro- static Field Emission Properties
EMI susceptibility	IEC 801-3 and IEC 801-4
X-ray emissions	CFR 21 (DHHS Rules) Sub- part J; PTB German X-ray Decree
Acoustic noise	Sun Microsystems 900-1330-01
Electrostatic discharge	Sun Microsystems 950-1150-02
Susceptibility (ESD)	IEC 801-2
Line surge susceptibility	ANSI/IEEE C62.41-1980
<b>Electrical</b>	
AC voltage	100-120 or 200-240 VAC
AC frequency	50-60 Hz
Power	2.2 A/1.2 A
<b>Dimensions and Weights</b>	
Monitor package	
Height	36.7 cm (14.5 in.)
Width	40.9 cm (16.1 in.)
Depth	39.5 cm (15.6 in.)
Net weight	16.8 kg (37 lbs.)
Shipping weight	19.5 kg (43 lbs.)
<b>Desktop Storage Pack</b>	
Height	7.1 cm (2.8 in.)
Width	24.4 cm (9.6 in.)
Depth	26.4 cm (10.4 in.)
Net weight	16.9 kg (7 lbs.)



### Sun Microsystems

2550 Garcia Avenue, Mountain View, CA 94043  
415 960-1300 Fax 415 969-9131

For U.S. sales office  
locations, call:  
800 821-4643  
In California:  
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European Headquarters  
Sun Microsystems Europe, Inc.  
Bagshot Manor, Green Lane  
Bagshot, Surrey GU19 5NL  
England  
0276 51440  
Fax 0276 51287

Australia: (02) 413 2666  
Belgium: 32-2-759 5925  
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Taiwan: 2-514-0567  
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Europe, Middle East, and Africa,  
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