
If you've been waiting
for a versatile, full-color
CAD station with an
LSI-11/23 CPU, 5¼"
Winchester and floppy
disk storage in one
desktop package...

...you've been waitin

It's a complete, stand-alone system...

The AEDS11 combines sophisticated color graphics and imaging capabilities, a powerful minicomputer, 10.4 Megabytes of hard disk and .5 Megabytes of floppy disk storage, plus extensive communications capabilities in one 7-inch high enclosure that is suited to tabletop use or rack-mounting.

With its detachable, VT100-style keyboard and high-resolution 19-inch color monitor, the AEDS11 can be used in a wide variety of applications: as a stand-alone CAD/CAM system, as a local area network station, or even as a stand-alone system serving multiple users.

In addition, the AEDS11 is very expandable — with 12 free card slots for the flexible addition of memory, mass storage, or communications peripherals, such as digitizer pads, printers, hard copy devices, plotters, and more.

With versatile graphics capabilities...

The AEDS11 incorporates an AED767 full-color, high-resolution raster graphics terminal. Features include built-in anti-aliasing capability (i.e., without host processing), simultaneous display of 256 colors from a full-palette of 16.8 million, 1K x 1K x 8 video memory, large 768 x 575-pixel viewing window, blue-line reference grid, Tektronix emulation, selectable refresh rates, and eight memory planes.

With Winchester/floppy disk storage...

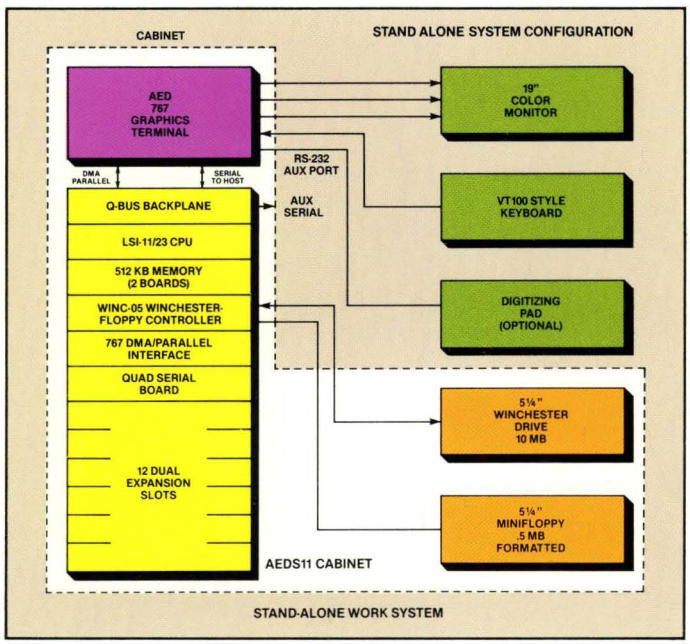
AED's WINC05 is at the heart of the AEDS11's Winchester/floppy disk storage system, which is built right into the AEDS11 base. The WINC05 emulates DEC's RL02 and RX02 for software transparency, while occupying only one Q-Bus® slot. One 5¼" Winchester disk and one 5¼" floppy disk provide 10.4 Megabytes and .5 Megabytes of storage, respectively. The disk system supports 22-bit extended Q-Bus addressing, and is upward compatible with higher capacity Winchesters (19 and 38 Megabytes), as well as removable-cartridge media.

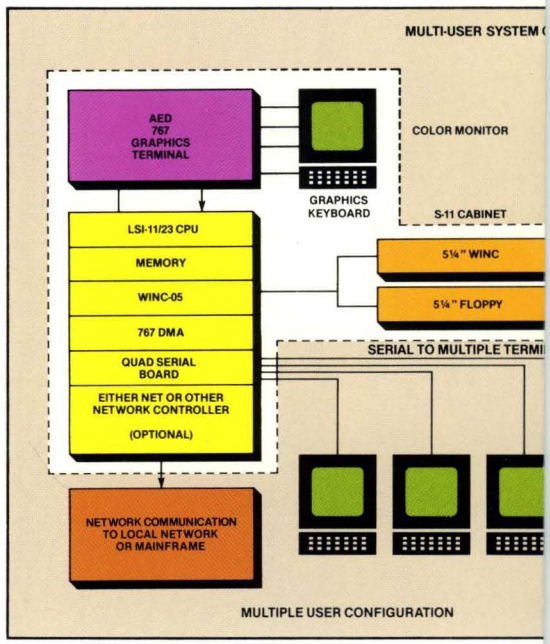
With a powerful CPU...

DEC's LSI-11/23 is the minicomputer in the AEDS11. It features 22-bit mem-

The AEDS11 may be used as a stand-alone design station for CAD/CAM, cartography, graphic arts, image processing, business graphics, process display, simulation, and TV production.

The AEDS11 fares equally well as part of a multi-user graphics system with a common data base. Applications include finance, information management, manufacturing control, order processing, purchasing, sales, forecasting, and word processing.





® DEC, LSI-11, PDP-11, RT11, RSX11, RSTS/E, Q-Bus, UNIBUS, and DIBOL are registered trademarks of Digital Equipment Corporation.

® UNIX, VENIX, XENIX, TSX+, and TAP are registered trademarks of Bell Telephone Laboratories, Venturecom, Microsoft Corporation, S&H Computers, and Advanced Electronics Design, respectively.

Preliminary specifications. Subject to change.

g for the AEDS 11.

ory addressing, 512-Kilobyte memory (expandable to 4 Megabytes), four RS-232C serial communication ports, an eighteen slot Q-Bus backplane, and full compatibility with thousands of existing software packages.

With a wide range of software options...

The AEDS11 can accommodate a wide variety of operating systems. Those distributed by DEC include RSX-11M®, RT-11®, and RSTS/E®. Many other popular systems are available, such as UNIX®, VENIX®, and XENIX®. The AEDS11 also runs TSX+®, a multi-user, DEC-compatible operating system.

Compatible compilers and interpretors from DEC include FORTRAN IV, DIBOL®, and BASIC PLUS; "C" and PASCAL are available from DEC-compatible suppliers.

Terminal access package (TAP®) from Advanced Electronics Design, Inc. provides FORTRAN calls to AED767 command protocol. Core implementation from Graphics Software Systems, Inc. I/O drivers are available for the DEC RT-11 and RSX-11M operating systems.

With many application programs available...

CAD/CAM . . .	Precision Visuals DI3000 Tektronix PLOT 10 Design Graphixs from Engineering Services Company
Cartography . .	Geo Based Systems, Inc.
Graphic arts . .	Xiphias
Business Graphics	ISSCO Displa & Telagraf

In addition to the application programs shown above, **DECUS** (Digital Equipment Corporation User Society) and **Hardcopy** magazine list thousands of field-proven application programs for computer graphics, engineering, and manufacturing which run on the LSI-11/23.

AND...with plenty of room for expansion!

The AEDS11 has a total of 18 Q-Bus slots, but only six are occupied by the AEDS11 — leaving twelve **powered** and **wired** slots available for expansion.

Additional memory cards, disk controllers, serial interfaces, channel interfaces, peripheral controllers, voice recognition/response devices, etc. may be plugged into these slots. Some of these are obtainable from AED, others from DEC, and still others from companies offering Q-Bus compatible products.

Specifications summary

Graphics

Built-in anti-aliasing. Eliminates the appearance of "jaggies" in raster-generated vectors. The anti-aliasing is accomplished within the AED767's firmware at draw time; requires no processing by host computer.

Graphic support commands. Draw vector, circle, ellipse, color-filled rectangle, stipple-filled rectangle, polygon (closed curve) fill, and many more.

Intelligence. An on-board 500 nsec. 6502A microprocessor controls the terminal and I/O functions, and performs character, vector, circle, and filled-area generation. Emulation of Tektronix 4010 family permits running of 10-bit PLOT 10®.

FORTRAN TAP (Terminal Access Package). Allows FORTRAN access to all AED767 commands.

Aux serial port. Permits connection of a Summagraphics Bit Pad One digitizer tablet.

Disk storage

Standard capacity. 10.9 Megabytes total (10.4 Megabyte Winchester disk and .5 Megabyte floppy disk back-up).

Controller (AED WINC05). Provides complete RL01/02 and RX02 emulation on one, dual-wide, Q-Bus compatible board. Offers full support of DEC's 22-bit addressing.

Operating system compatibility. Fully compatible with all DEC operating systems, including RT-11, RSX-11, and RSTS/E.

Net transfer rate (over the entire disk, including seeks).
Winchester: 259 Kilobytes per second
Floppy: 9.8 Kilobytes per second.

Burst transfer rate.
Winchester: 625 Kilobytes per second
Floppy: 31 Kilobytes per second.

Computer

DEC LSI-11/23. Popular 16-bit minicomputer with 22-bit extended addressing.

Memory. 512 Kilobytes provided (expandable to 4 Megabytes).

Memory addressing. 22-bits.

Serial ports. Features four RS-232C serial communication ports.

Backplane. Contains 18 Q-Bus slots.

Diagnostics Available from

DEC	AED
CPU	resident firmware self-test
MEMORY	capability (disk and graphics)
RL02 AND RX02	AED767 diagnostic (CPU-based)
Serial	AED WINC05 diagnostic (CPU-based)

Dimensions

	Base Unit	Monitor
Height	7" (18 cm)	19½" (50 cm)
Width	19" (48 cm)	19" (48 cm)
Depth	22" (56 cm)	21" (53 cm)
Weight	45 lbs (20 kg)	88 lbs (40 kg)

Power

	Base Unit	Monitor
Input Volts AC	100-130 @ 60 Hz 200-240 @ 50 Hz	100-130 @ 60 Hz 200-240 @ 50 Hz
Input Power (115/230)	350W max	150W max

Q-Bus powering and typical draw (standard configuration)
+5V DC +12V DC
Total Backplane Current Available:
22A 4A

Power (standard configuration)
Q-Bus Boards
11/23 CPU and 4 serial ports
3.5A 0.6A
512 Kilobyte memory
2.8A - 0 -
WINC05
2.5A 0.2A
767 DMA/parallel
0.7A - 0 -

Current Used
9.5A 0.8A
Current Available
12.5A 3.2A

Warranty

The AEDS11 and its Options are guaranteed to be free from defects in workmanship, materials, or design for a period of 90 days from the date of invoice.

Field service

Equipment reliability minimizes the need for service, and often a telephone call will solve operating problems. But when repair is needed, you can count on AED's wide network of service centers, located coast-to-coast. Fully qualified distributors in Europe and the Pacific Basin provide service in their areas. Many contracted service plans are also available to meet your special requirements.

Graphics user group

Membership in the AED graphics user group is free to all purchasers of the AEDS11. Members receive a free subscription to the group's newsletter, access to a library of user-submitted computer programs and software for support of AED graphics systems, and information about system applications from other group members.

*Refer to AED767, WINC05, or LSI-11/23 brochures for detailed specifications.

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