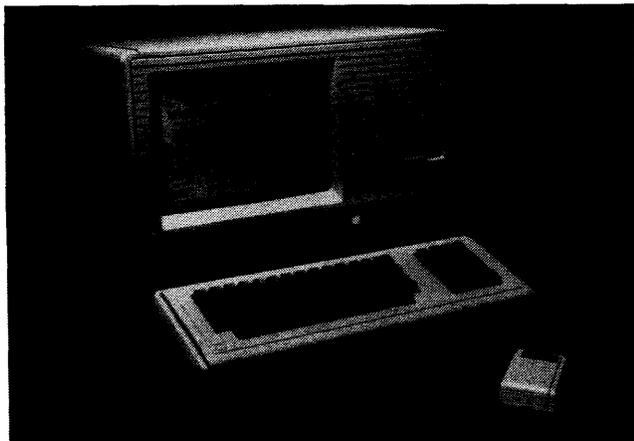


Apple Lisa 2 Series



The Lisa 2 Series computers are part of Apple's 32 Supermicro line. Varying in disk storage capacity, all three systems can support up to 1M bytes of memory.

BACKGROUND INFORMATION

Apple Computer, Inc., 20525 Mariani Avenue, Cupertino, California 95014. Telephone (408) 996-1010.

IN CANADA: Apple Canada, Inc., 875 Don Mills Road, Don Mills, Ontario M3C 1V9. Telephone (416) 444-2531.

Apple Computer designs, manufactures, and markets personal computers and systems for use in business, education, scientific, and home applications. Twelve regional support centers in the U.S. and Europe distribute Apple products worldwide to a network of more than 3300 independent retail dealers.

The Lisa 2 Series, along with the Macintosh, make up the Apple 32 Supermicro family. All members of this family incorporate Lisa technology, a 16-/32-bit microprocessor, high-resolution graphics, and a mouse. Lisa 2 replaces the original Lisa; however, Apple will continue to support Lisa 1 users through upgrading options.

SYSTEM CHARACTERISTICS

The Lisa 2 Series contains many of the same features of the original Lisa plus some enhancements. Based on the 16-/32-bit Motorola MC68000 microprocessor, the Lisa 2 Series consists of three models, the Lisa 2, Lisa 2/5, and Lisa 2/10.

All three models come with one 3½-inch 400K-byte microdiskette drive and include 512K bytes of memory which can be expanded up to 1M bytes. The faster speed of this diskette, along with an upgraded operating system, increase Lisa 2s performance by two to three times the speed of the original model. Lisa 2/5 adds an external 5M-byte hard disk; a built-in 10M-byte hard disk is standard with the Lisa 2/10.

Current models: Lisa 2, Lisa 2/5, Lisa 2/10.

Memory: 512KB-1MB RAM.

Storage capacity: 400KB diskette; 5MB-10MB hard disk.

Workstations: 1.

Base list price: Lisa 2—\$3,495, includes CPU, 512KB RAM, one 400KB diskette, CRT, keyboard, mouse, 1 parallel port, 2 serial ports, Macintosh operating system; Lisa 2/5—\$4,495, same as Lisa 2 plus 5MB hard disk; Lisa 2/10—\$5,495, same as Lisa 2 plus 10MB hard disk.

Typical list prices: Lisa 2—\$3,495, same as base configuration; Lisa 2/5—\$4,495, same as base configuration; Lisa 2/10—\$5,495, same as base configuration.

Popular options: from Apple—printers, additional memory, data communications equipment.

Principal programming languages: Basic, Pascal, Cobol.

Principal applications software: communications, database management, electronic spreadsheet, graphics, word processing, project management.

First shipment: Lisa 2—January 1984; 2/5—March 1984; 2/10—April 1984.

Number installed to date: new product.

Available through: Apple account executives, authorized dealers.

Apple is providing system upgrades, which include the microdiskette and 10M-byte hard disks, for the Lisa 1. The Lisa 2/5 upgrade exchanges Lisa's 5¼-inch diskettes with a 3½-inch microdiskette (the original already offers the external 5M-byte hard disk drive). The integral 10M-byte hard disk is installed with a Lisa 2/10 upgrade. Additional information and pricing on these options is included in the "Direct Access Storage" section which follows. The Lisa 1 upgrades do not include the Macintosh operating system, but users can add it as an option.

The Lisa 2 systems, like the Lisa 1, are designed as full-function office workstations. The "desktop" CRT displays graphic representations (icons) of equipment or tools (application programs) that are familiar to the office environment. These icons include a wastebasket, clip board, letter files, folders, stationary pads, and specific application programs.

The Lisa 2 includes the Macintosh operating system, enabling it to run Macintosh software. The 2/5 and 2/10 have, in addition, sufficient mass storage to run many third-party software packages and a wide range of Unix-based programs (Xenix and Uniplus are also available). When expanded to a full megabyte of memory, the 2/5 and 2/10 can run the complete Lisa Office System operating system with its integrated software. The Lisa Office System allows simultaneous operation of multiple Lisa programs, as well as cut-and-paste integration that lets users easily move information, such as text, numbers, and graphics, from one application to another.

Applications available for the Lisa 2 include LisaWrite, LisaCalc, LisaDraw, LisaGraph, LisaProject, LisaList, and LisaTerminal. In addition, more than 100 third-party vendors are developing software for the Lisa 2 Series, as well as the Macintosh. Apple expects approximately 500 software

Apple Lisa 2 Series

▷ packages for the Apple 32 Supermicro systems to be available by the end of 1984.

Apple's plans for the future include the AppleBus, a point-to-point interconnect system for its computers. AppleBus will allow Lisa 2 computers to communicate with each other, peripheral devices, and other Apple computers linked together. The hardware interface for AppleBus is built into each Lisa 2 system.

For further details on this system, see the Apple Lisa 2 Series report in Datapro Reports on Microcomputers. □

HARDWARE

PROCESSOR/MEMORY

Model: Motorola MC68000 (16-/32-bit)
 RAM: 512KB-1MB
 Processor options: 512KB Add-On Memory Board, \$1,495

DISPLAY

Model: Apple integral CRT
 Screen size: 12"
 Chars./screen: up to 5280, 132 characters x 40 lines
 Char. type: upper-/lowercase, 11 typeface style/sizes; 364 x 720 pixels
 Attributes: underline, italic, bold, proportional spacing, presentation-size styles, large type styles
 Features: bit-mapped, low-glare, black on white screen, 16 shades of gray, 60 Hz refresh rate, mouse, computer oriented processor
 Graphics: integrated
 Interface: integral
 Price: included w/system

KEYBOARD

Type: detachable typewriter-style, National COPS microprocessor
 No. of keys: 76 total, includes full ASCII set, alternate character set to generate foreign language characters and math symbols
 Interface: interface w/control oriented processor

DIRECT ACCESS STORAGE

Model:	Apple diskette	Profile	Apple disk
Type:	3½" single-sided, single-density diskette	5¼" external hard disk	5¼" internal hard disk
Capacity/drive:	400KB	5MB	10MB
Drives/system:	1	1	1
Avg. access time:	—	95 milliseconds	—
Transfer rate:	—	5 megabits/sec.	—
Interface:	integral	parallel	integral
Price:	1 drive, includes w/Lisa 2, 2/5; 2/5 upgrade, \$595	included w/Lisa 2/5	included w/Lisa 2/10; 2/10 upgrade, \$2,495

PRINTER

Model:	ImageWriter	Apple letter-quality
Type:	dot matrix	bidirectional daisywheel
Paper:	3"-10", single sheet, fanfold roll, precut labels	up to 14½", single sheets, continuous forms
Char. set:	upper-/lowercase, graphics	upper-/lowercase, 6 foreign languages

Chars./line:	80-136	up to 198
Speed:	120 cps-180 cps	40 cps
Interface:	RS-232-C	RS-232-C
Price:	\$595	\$2,195

DATA COMMUNICATIONS

Model:	Apple ports	Apple Cluster Controller	AppleLine
Trans. mode:	async, sync	—	—
Protocol:	—	—	3270, 3278
Ports:	2	—	—
Speed:	rates of software programmable	—	—
Interface:	RS-232-C	RS-232-C	RS-232-C
Price:	included w/system	3 port version, \$4,500; 7 port version, \$7,000	\$1,295

OTHER I/O

Mouse: included w/system

I/O ELECTRONICS

Structure: 3 I/O slots

SOFTWARE

LANGUAGES

Basic: Basic Plus, \$295
 Pascal: \$595
 Cobol: \$995

OPERATING SYSTEM

Name: Macintosh operating system, bundled; w/Lisa 1, \$195; Lisa Office System, \$295
 Concurrent tasks: multiple tasks

UTILITIES

Sort: —
 Text editor: Lisa Editor
 Others: LisaTest diagnostics

DATA/DATABASE MANAGEMENT SYSTEMS

Name: LisaList, \$195
 Functions: creates, maintains, references personal databases

COMMUNICATIONS SUPPORT

Name: LisaTerminal Telecommunications Software, \$295
 Functions: gains access to remote mainframe and public databases; emulates DEC VT100, TTY, or VT52 terminals

APPLICATIONS PROGRAMS

Word Processing: LisaWrite, \$295
 Electronic Spreadsheet: LisaCalc, \$295
 Graphics: LisaGraph, \$295; LisaDraw, \$395; Art Department, \$150
 Project Management: LisaProject, \$395

SUPPORT SERVICES

DOCUMENTATION

Range: systems and operator's manual available

SUPPORT

Training & education: in-house training for larger firms available from Apple
 Maintenance: AppleCare, carry-in-service; on-site service program (a joint effort between Apple and RCA Data Services)
 Other: national support centers provide support and service via a toll-free number allotment of phone support time

TERMS AND CONDITIONS

Lease terms: Apple Leasing available
 Warranties: 90-day limited warranty
 Other terms: Apple Credit Card Plan ■