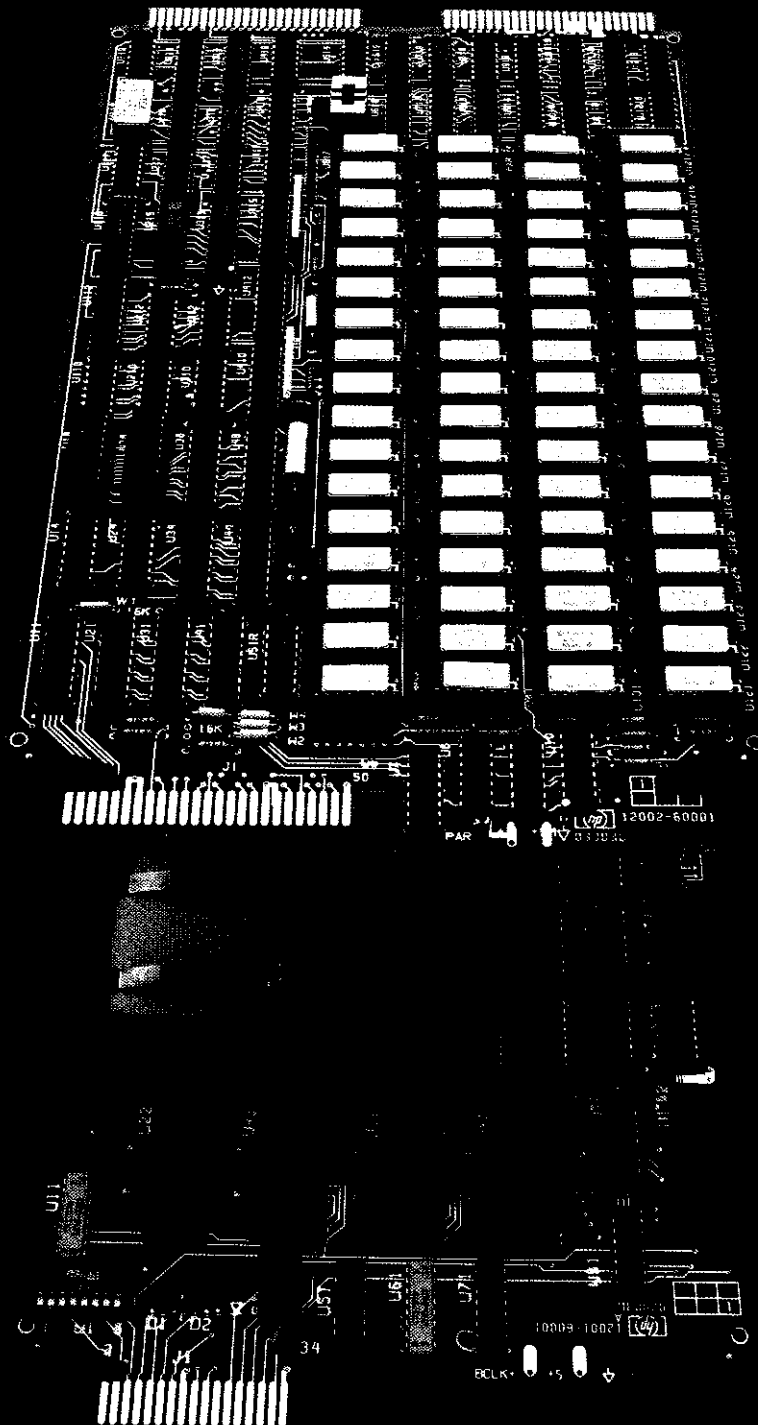


# HP 1000 Microcomputers

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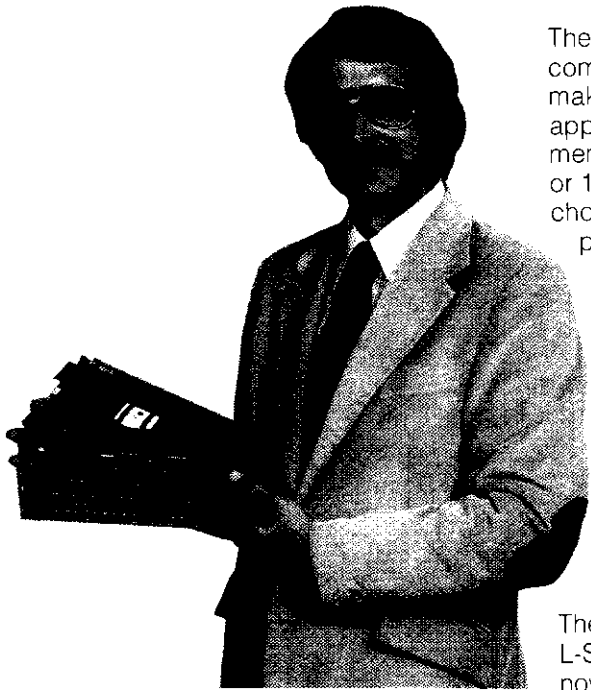
Announcing the half-megabyte  
L-Series — a new performance  
standard for microcomputers



# The HP 1000 L-Series. Microcomputer size and price . . .



## **HP announces another small breakthrough: The two-board, half-megabyte microcomputer**



In one of the first uses of state-of-the-art 64K RAMs, the HP 1000 L-Series microcomputer is now available with 512 kilobytes of memory on just one 6-3/4" x 11" board. With an advanced, Silicon-on-Sapphire computer on the other board, OEM's and system designers have more product design freedom than ever before. With so much computer performance and main memory on only two "half-size" boards, you can easily put the L-Series to work over a wide range of applications where truly useful computation power needs to be packed into limited space.

## **Do it your way. Choose the L-Series packaging that best fits your needs**

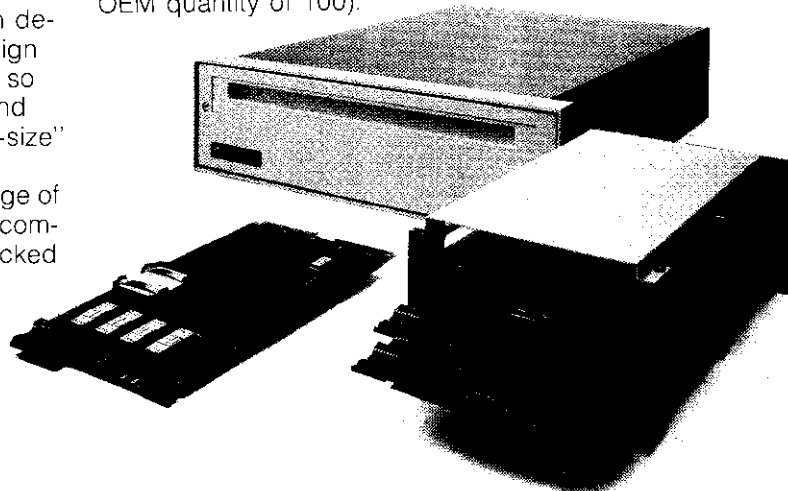
The HP 1000 L-Series microcomputer comes in a wide range of packages, making it easy to tailor to your specific application. Choose the CPU and memory board alone. Or put them in 5 or 10-slot card cages along with your choice of general and special-purpose interface boards. The L-Series also is offered in a rack-mountable cabinet with 10-slot card cage and power supply, and as a fully-integrated system.

There's also a wide choice of memory. If your application can run comfortably in less than 512K bytes, HP offers main memory boards with 64K and 128K bytes of 16K RAMs.

The two-board, half-megabyte L-Series microcomputer is available now at a development unit price of \$13,250 (U.S. list price). An L-Series with 64K bytes of memory costs \$2,250. OEM and volume discounts can enable you to apply the power and flexibility of the L-Series microcomputer for as little as \$1,530 (in OEM quantity of 100).

## **Filling a void at the upper end of the microcomputer spectrum**

Until now, designers with more than simple or single-task applications have had to choose between microcomputers and minicomputers. Eight and 16-bit microcomputers are small and economical, but often lack even elementary software support, requiring users to take a costly and time-consuming "do-it-yourself" approach to product development. Minicomputers provide needed power and software, but often are too large and too expensive. The L-Series fills this gap. While it is a microcomputer in size and price, it has full minicomputer software, making it an effective and economical solution to problems that previously were too complex or demanding to be solved by microcomputers.



... with the performance provided  
by full minicomputer software



**The HP 1000 L-Series  
difference: Small hardware  
with big software**

With its exceptional software support, you may have to remind yourself that the L-Series is "only" a micro-computer. The L-Series includes a powerful, multi-programming, multi-user, Real-Time Executive operating system. And it supports your choice of languages — Assembler, BASIC, FORTRAN 4X and Pascal — giving you unusual flexibility to match the language best suited to your product and application. HP's DS/1000-IV distributed systems software enables an L-Series microcomputer to be part of a local or global computer network. And the L-Series has a full data base management capability. With all these software tools at your command, it's easy to see how the L-Series brings an end to the "dead-end" micro-computer. And because the L-Series software is upward compatible, you get a smooth growth path to the rest of the HP 1000 computer family.

**All this can be yours. Along  
with HP's worldwide service  
and support**



As a microcomputer which runs the full HP 1000 instruction set, L-Series programs are easily moved to larger HP systems, and vice versa. And L-Series users gain immediate access to a broad range of Hewlett-Packard computer peripherals and instrumentation. The L-Series microcomputer's use of the Hewlett-Packard Interface Bus (HP-IB) makes adding I/O devices and instruments a simple, plug-in process. No longer does a microcomputer user have to develop

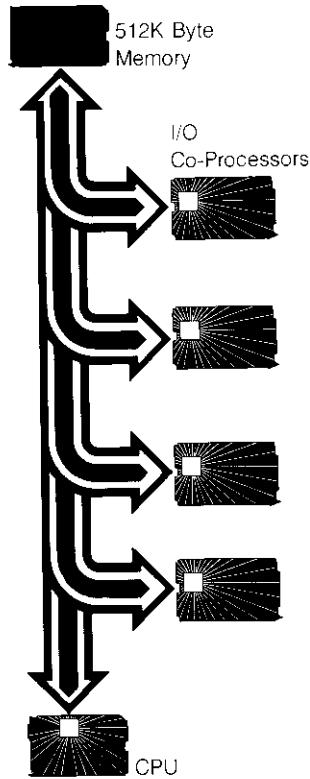
interfaces or convert programs to get peripheral support, connect to a network, or a growth path to a larger computer.

Further, the L-Series is not delivered and then abandoned. The L-Series microcomputer is backed by Hewlett-Packard's full range of customer services — user-selected levels of support, complete documentation, and HP's worldwide service network.

# If your application requires high-speed I/O, HP's unique Distributed Intelligence architecture makes the L-Series your clear choice

## Not only a half-megabyte of memory, but fast access to every bit of it

The L-Series microcomputer is designed with an innovative distributed intelligence architecture that essentially makes it several computers in one. The CPU handles computation, and I/O traffic is assigned to separate co-processors located on each interface board. This gives each I/O processor its own direct memory channel, and direct address to the entire main memory — whether you're using only 64K or a full half-megabyte. Direct memory access total throughput, for example, is a very fast 2.7 megabytes per second. The new RTE-XL operating system for the half-megabyte L-Series makes full use of the memory with such features as simultaneously mapped DMA for every interface channel, a 64K byte user program area, 255 user partitions, user-definable priorities for real-time programs, and more. In addition, the L-Series is hard to outgrow. If you need to add more devices, you merely add more interface boards, each with the processing power to keep up with the demand. The result of all this is I/O performance and throughput unmatched by any other microcomputer, or even by many minicomputers.



## A low-cost microcomputer equal to the challenge of your demanding, I/O-intensive applications

While the L-Series warrants consideration for any application requiring a high-performance microcomputer, its clear strength is its ability to handle high-speed I/O rates. This makes it particularly well-suited as a communications front end, data concentrator or message switcher. Its high-speed I/O and control capability also is important to peripheral-handling, and to a wide range of intensive data acquisition applications. Other obvious applications of the L-Series microcomputer include industrial and laboratory automation, computer-based instrumentation and process control tasks — all areas where large main memory and high throughput are required.

If you'd like a closer look at the L-Series, and how it might raise the upper limits of your system design or application needs, call your nearest HP sales office. Or write us at the address listed below, and we'll send you more detailed technical information right away.



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