## HP measurement and computer advances





The HP 300. An innovation that puts high-powered, flexible computing into a small, compact console.

No larger than a free-standing terminal, the HP 300 is a new, low-cost business system that achieves a new level of computing concentration. Once programmed, it is friendly enough for people with no computer experience to use, yet packs a breadth of capabilities that will surpass normal expectations of a sophisticated applications designer.

The HP 300 computer is designed to simplify the development and control of dedicated on-line business applications. It incorporates HP's proprietary siliconon-sapphire (SOS) integrated circuit technology: Exhaustively tested and refined, SOS semiconductor chips give the HP 300 the related benefits of smaller size, greater performance, and lower cost than computers using traditional technologies. The HP 300 is designed for office environments and plugs into a standard electrical outlet.

The HP 300 can handle up to 16 terminals in transaction processing environments, and its "virtual memory" allows the use of extremely large programs and data sets without being confined to physical memory size. A powerful new operating system, Amigo/300, in conjunction with an integrated display system (IDS), greatly simplifies user interface, and enables the HP 300 to perform both as a multiprogramming and multi tasking system. For example, the HP 300 can print reports at the same time that higher-priority data entry

or data base management inquiry operations are taking place at the system's terminals.

Eight programmable soft keys on the side of the video display screen can be captioned to give the operator a series of choices in performing a job. The display itself can be divided into multiple "windows" to view and control different parts of an application. These windows can even be scrolled individually, both vertically and horizontally, to a width of 160 columns and a length of several thousand lines.

Two widely used business languages, RPG II and Business BASIC, are available, as are IMAGE/300 data base management with an English-like inquiry capability and TYPIST/300 text editing. There's even a HELP key that gives the user direct access to an on-line reference manual for the system. Full control of all job priorities and applications is maintained at the HP 300's central console.

The price of the system is \$36,500 with 256k bytes of main memory, 1 megabyte of mass storage on one flexible disc drive, and one 12-megabyte fixed disc. This can be expanded to 1 megabyte of main memory and 240 megabytes of disc storage. In brief, the HP 300 offers the capabilities, flexibility, and growth potential of computers costing two or three times its price.

## A working partnership with HP.

This informative management booklet outlines HP's approach to doing business. It summarizes the expertise, resources, support, and computer products we bring to customers. For a free copy write to A.P. Oliverio, Vice President, Marketing, Hewlett-Packard Co., 1501 Page Mill Rd., Palo Alto, CA 94304.

## extend your possibilities.

## HP's new fiber optic link: signal advantages in digital data transmission.

Hewlett-Packard's HFBR series fiber optic system can simplify error-free data communications between computers or within systems, especially in environments where electromagnetic interference is generated.

In environments where high-voltage equipment, heavy electrical machinery, transformers, or other devices generate electromagnetic interference, reliable data transmission between computers or within computer-instrument systems can be a problem. The usual data links of twisted wire or coaxial cable may necessitate the use of expensive shielding, conduit, isolation transformers, or data error checking and retransmission circuitry.

However, by converting the electrical signals to light pulses with no electrical charge, data can be transmitted over a single, hair-thin optical fiber without error or disruption. It is precisely such a system that HP has developed. Using standard TTL electrical interfaces and requiring only a single 5-volt power supply, small optical transmitters and receivers translate the coded electrical transmission into light pulses at one end of the fiber, and back to electrical signals at the other. The fiber, reinforced and jacketed in polyurethane, can span distances of up to 100 metres.

The system offers other advantages compared to electrical connections: broad bandwidth over long distances; light-weight, small-diameter, flexible cables; electrical isolation between connected units; and no externally radiated signal.

Typical applications include distributed system networks, process control systems, secure communications, aircraft or shipboard data links, high-voltage or electromagnetic field research, remote instrumentation systems, and factory data collection.

Prices start at \$570\* for a 10-metre system. The HFBR-1001 Transmitter and HFBR-2001 Receiver are available separately at \$225\* each, and various fixed-length connector-cable assemblies are available.



Fiber optic transmitter and receiver are connected to modulation/demodulation circuitry on a PC board for insertion in a computer.



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