

New Literature

TIME CODE DATA INDEXING HANDBOOK. ITE-Datametrics presents the complete theory on time code data indexing on different recording mediums with this handbook, which is available from Datametrics, Inc., 340 Fordham Road, Wilmington, MA 01887; (617) 658-5410.

MINICOMPUTER ACCESSORIES. The 24-page minicomputer accessory catalog incorporates many new products for the professional minicomputer user and is available by contacting Catalog Sales Dept., 1015 Corporation Way, P.O. Box 10056, Palo Alto, CA 94303; (415) 969-5678.

BUZZ WORDS. Pocket-sized booklet first published in 1972 and now expanded with the addition of 44 definitions to aid newcomers in the data communication field and EDP field is available from the public relations department of International Communications Corp., 8600 NW 41st St., Miami, FL 33166.

EMERSON TAPE PAC. A four-page brochure that describes Emerson Electric's Tape Pac System is available by writing the company's industrial controls division, 3300 S. Standard St., Santa Ana, CA 92702; (714) 545-5581.

POWER PLANT SIMULATORS. Brochure describes Electronic Associates, Inc., computer-based power plant simulators, and is available from the company, West Long Branch, NJ 07764; (201) 229-1100.

REMOTE PLOTTING. A 16-page color brochure that describes remote computing and plotting is available from Zeta Research, 1043 Stuart St., LaFayette, CA 94549; (415) 284-5200.

SYNTECH TERMINAL CLUSTERING UNIT. Literature describes the new CLU-8 terminal clustering unit, contains dia-

Mostek's 16K ROM features 550 ns access

Mostek has announced a new 16K ROM featuring maximum access time of 550 ns with a $\pm 10\%$ tolerance on the single +5 volt power supply. Organized in a $2K \times 8$ configuration, the MK 31000P-3 is a pin-for-pin replacement for the Intel 2316A/8316A and the General Instrument RO-3-8316A. According to Mostek, the new circuitry is fully TTL compatible, has a maximum power dissipation of only 330 mW, and is completely static (no clocks are required). Pricing is \$14.85 at 1000 pieces.

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grams illustrating typical system applications, and is available from Syntech Corp., 11810 Parklawn Dr., Rockville, MD 20852; (301) 770-0550.

TERMINAL SUPPLIES. Description and prices of Western Union Data Services' line of terminal supplies is available by contacting the company, 70 McKee Dr., Mahwah, NJ 07430; (800) 631-7064.

TERMIFLEX CHART. Wall mountable chart presents all 128 ASCII characters, alphanumeric name, octal, hex, and alternate code designations for the ASCII code. Contact Termiflex Corp., 17 Airport Road, Nashua, NH 03060; (603) 889-3883.

HELIPOT CONVERTERS. Bulletins on digital/analog and analog/digital conversion are available from Beckman Instruments, Inc., Technical Information Section, 2500 Harbor Blvd., Fullerton, CA 92634.

FABRI-TEK CORE MEMORY. A 4-page brochure describing the 696 and 698 core memory systems is available from Fabri-Tek, Inc., 5901 S. County Road 18, Minneapolis, MN 55436.

SOLID STATE DATABOOKS. The SSD-200D two volume, 1,232 page set contains information on RCA Solid State Division's complete standard inventory of circuits, microprocessors, memories, power transistors, MOS devices, rectifiers, triacs, diacs, RF, and microwave power devices. The Databooks can be obtained by volume

at \$6 each, or the two volumes for \$10 prepaid. Order from RCA Solid State Division, Box 3200, Somerville, NJ 08876.

ELECTRONIC TEST CATALOG. ITT Pomona Electronics offers this 76-page catalog, which includes a new products section, photographs, and charts describing accessories; available by writing the company, 1500 E. 9th St., Pomona, CA 91766.

FUNCTION GENERATOR. A 12-page brochure that contains product features, specifications, and configurations of instrumentation for Tektronix TM 500 Instrumentation and the FG 504 function generator is available from Tektronix, Inc., P.O. Box 500, Beaverton, OR 97077; (503) 644-0161, x5542.

PRINTED CIRCUITRY. A full color brochure describing new techniques in printed circuitry is available from Advance Circuits, Inc., 15102 Minnetonka Industrial Road, Minnetonka, MN 55343.

MANAGEMENT OF DATA ELEMENTS. A 278-page proceedings containing 28 technical papers on data management and standardization from the Second National Symposium on the Management of Data Elements in Computer Processing can be purchased from the National Technical Information Service, Department of Commerce, 5285 Port Royal Road, Springfield, VA 22151 by referring to report #PB-249-530. Price: \$9.25 (\$1.45 for microfiche), prepaid.



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HP introduces miniprocessor, data base management system, and interface bus I/O kit

Hewlett-Packard has announced its first "minicomputer on a board" with the introduction of the 2108K miniprocessor as a component product.

The new K-Series processor, which is hardware and software compatible with HP's 21MX Series of minicomputers, supports connections to a broad range of peripherals ranging from teletypes to a broad range of peripherals ranging from teletypes to high speed disks, is user microprogrammable, and is supported by HP's distributed systems software and hardware.

Two other products related to the company's 21MX Series were also announced: a new data base management system, called Image/1000 DBMS, and the HP 59310B minicomputer control for microprogrammable instruments.

According to HP, the 2108K miniprocessor can be viewed at two levels. At one level it's a high performance 24-bit microprocessor capable of performing a register-to-register add in one 325 ns machine cycle. With the optional 21MX instruction set ROM, it becomes a full minicomputer offering complete compatibility with HP's standard line of 21MX computers, software, and peripherals.

When used with the 21MX instruction set, the microprocessor power is available using the microprogramming tools available on all 21MX-series computers. Because it is microprogrammable, the 2108K permits tailoring to specific applications. At the same time, storing programs in ROMs helps the user protect his investment in proprietary software, HP states.

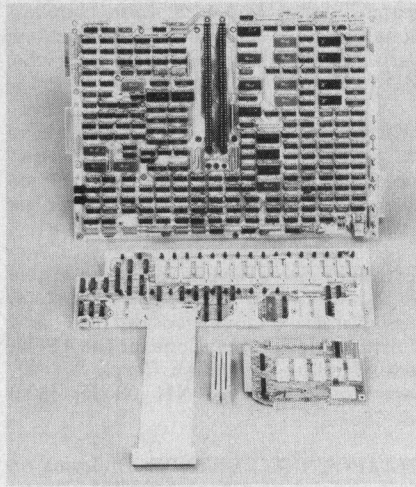
List price of a single processor is \$1475. Standard OEM discount prices apply to quantity purchases. Initial deliveries are scheduled to be two weeks after order.

The new data base management system, Image/1000 DBMS, allows users of HP 21MX disk-based minicomputer systems to consolidate individual data files into a single, interrelated data base. Once established, users have on-line, multi-terminal access to the data base with Query, an English-like inquiry language.

Image/1000 is designed to run on Hewlett-Packard 2100 or 21MX minicomputers with HP RTE-II or RTE-III operating systems. The software requires a minimum of 32K words of memory; the data base size is expandable to 120 million bytes of data by adding more disk memory.

Price of the Image/1000 software (tapes and manual) is \$6,000. A complete system—all software plus an HP 21MX minicomputer, disk, 32K words of memory, RTE-II operating system, system console, and 9-track magnetic tape drive for backup—has a current list price of \$49,950.

The new interface is a plug-in for the powered slots of the HP 21MX and 2100 minicomputers. One HP mini can use more than one 59310B, each independently



New HP K Series components include 2108K processor board (top), front panel assembly with cable, instruction set ROM board (lower right) and connector assembly (lower middle)

commanding a cluster of instruments interconnected via the HP interface bus.

Prices start at \$33,000 for a complete disk-based system including the HP 21MX 16K minicomputer. Delivery is 16 weeks. Price for the Model 59310B Interface Bus I/O Kit with RTE-II/III software for existing HP 2100/21MX computers is \$1000. Delivery is eight weeks.

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Criterion computer series announced by NCR

NCR is introducing a new series of general purpose computers, called the Criterion 8550 and Criterion 8570, that operate as multiple virtual machines. The computers can become Cobol virtual machine, dynamic multiprogramming systems, or NCR Century systems by changing the firmware.

The chief architectural departure in the Criterion is the use of an internal transfer bus. According to NCR, the bus uses distributed-intelligence techniques which eliminate much of the processing bottleneck in traditional computer architecture, where everything flows through the main processor.

Other features include extensive use of emitter coupled logic; MOS memory with error correction on 4K-chips that can be expanded to 1 million bytes within the same mainframe; a pipeline processor which cycles at speeds up to 56 ns; multiple virtual storage, which provides up to 16 million bytes of virtual memory per program; a dedicated service processor to manage operating control and act as the diagnostic control center; direct memory access by high-speed peripherals; three levels of diagnostics, which automatically check components and isolate malfunctions; on-line program development; and an additional miniprocessor for intelligent disk interface plus multiple microprocessors for low-cost communications interface. Most application pro-

MicroVox dual magtape microprocessor peripheral introduced

A magnetic-tape program development system for the Intel 8080, which also furnishes non-volatile storage for other microprocessor systems, has been introduced by Micro Communications Corporation.

Designed for easy interfacing and compatibility with any microprocessor system, the Model 30-002 MicroVox peripheral has two magnetic tape transports, one for writing and the other for reading. It provides a parallel, 8-bit data bus and requires four handshaking signals for communication control with the microprocessor. The interface is fully compatible with an Intel 8255 PPI or Motorola 6820 PIA, the company states.

MicroVox continuous-loop wafer cartridges are the storage medium in the peripheral. A 50-foot wafer stores a maximum of 48K bytes. A pair of prewritten wafers containing a monitor, an editor, and an assembler, all in Intel 8080 object code and requiring 4K of RAM for proper execution, are available with the peripheral.

The Model 30-002 peripheral sells for \$995 including five blank, certified wafers in assorted lengths. The pair of prewritten software wafers is \$25, and blank, certified wafers sell for \$3.15 to \$4.00 in single quantity, depending upon length.

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grams, files, terminals, and peripherals used with NCR Century processors can be transferred directly to the Criterion.

NCR has developed a set of micro-instructions which direct the Criterion to function as a Cobol virtual machine. The Cobol compiler can then generate an intermediate language which is interpreted directly by the firmware. Other compilers include Fortran, Neat 3, RPG, and Basic.

A basic Criterion 8550 system, including minimum 128K memory, 112-ns processor, integrated 600-cpm card reader, 1200-lpm printer, and 200-million-byte disk unit, rents for \$5,900 a month under a five-year agreement with a purchase price of \$258,950. Memory can be expanded in 64K increments to 512K bytes.

The more powerful Criterion 8570 has minimum memory of 256K bytes and a 56-ns processor. A basic system including the 600-cpm card reader, 1200-lpm printer, and 300 million bytes of disk storage, rents for \$10,300 a month; the purchase price is \$458,250. Memory can be expanded to 1 million bytes.

Both systems use the new NCR 6590 data module which incorporates disk and read/write heads in a single pack.

Customer deliveries of the Criterion will begin in the third quarter with the real storage software. The virtual resources executive is scheduled for release in mid-1977.

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