

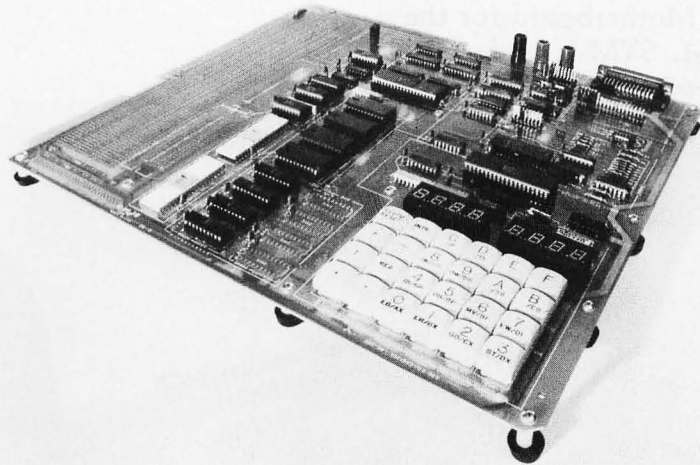
# What's New?

## SYSTEMS

### Microcomputer Kit with 8086 Processor

The Intel SDK-86 is a complete 8086 microcomputer system on a board with memory and I/O (input/output) systems in kit form. This stand-alone 16-bit microcomputer allows designers to obtain hands-on experience with Intel's 8086 16-bit HMOS microprocessor, which offers ten times the processing power of the 8080 processor.

Included in the kit is an 8086 processor; 8 K bytes of 2316 or 2716-type read-only memory; 2 K bytes (expandable to 4 K bytes) of 2142-type programmable memory; 48 parallel I/O lines (implemented through two 8255A programmable peripheral interface devices); an RS-232 or current loop serial I/O structure (implemented via an 8251A universal synchronous/asynchronous receiver-transmitter); selectable data rate from 110 to 4800 bits per second (bps); TTL-compatible bus signals and parallel I/O signals; 24-key hexadecimal data and control keyboard; 8-digit hexadecimal display and control (using an 8279 programmable keyboard and display controller); and 256 vectored interrupts.



The 2 K bytes of 2142-type programmable memory can be doubled by implementing additional devices in the positions provided. There is room for 8 K bytes of program instructions using either or both of the keyboard and terminal software monitors included in the kit. There is a fully buffered system bus. Programs and data may be entered three ways: from the built-in keyboard; through a built-in serial communications interface; or via cable (SDK-C86) from

any Intel Microcomputer Development System.

A complete design library is provided with the kit. This library includes both the assembly and user manual, plus an MCS-86 user manual and 8086 assembly language reference manual. The SDK-86 microcomputer kit is priced at \$780. For further information, contact Intel Corp., 3065 Bowers Ave, Santa Clara CA 95051.

Circle 594 on inquiry card.

### Personal Computer Introduced by Texas Instruments

Texas Instruments has introduced a personal computer featuring easy-to-use computing power for personal finance, home management, family entertainment

and education. Designated the Model TI-99/4, the system consists of a console with 16 K bytes of programmable memory, a wide range of sound effects, sixteen colors for graphic display, a powerful extended BASIC programming language, and a 13-inch color video monitor.

At the heart of the TI-99/4 is a library of Texas Instruments Solid State Software command modules. These command modules allow users instant program accessibility. Solid State Software command module titles include: Demonstration, Diagnostic, Early Learning Fun, Beginning Grammar, Number Magic, Video Graphs, Home Financial Decisions, Household Budget Management, Video Chess, Football, Physical Fitness, Speech Construction, Investment Analysis, Personal Record Keeping, Statistics, Early Reading, and Tax and Investment Record Keeping.

Among peripheral accessories offered is a Solid State Speech synthesizer with a price of \$150. By building a basic vocabulary into the language system, home programmers can place audible messages in their programs. The speech synthesizer module has a 200-word vocabulary and plugs into the console. Speech can be written into programs using BASIC programming language. Future command modules will call up

spoken words automatically.

TI BASIC is a full floating point, 13-digit expanded version of BASIC that is fully compatible with ASCII and the BASIC specification of the American National Standards Institute. TI BASIC includes a full complement of 24 BASIC statements, 14 commands, color graphics, and sound and music over four full octaves. A *Beginner's BASIC Guide* for self-teaching comes with the TI-99/4. For users knowledgeable about programming, McGraw-Hill has published *Programming BASIC With the TI Home Computer*, a book by Herbert Peckham.

Remote controls are offered as accessories to the TI-99/4. Two of these controls may be connected to the computer at the same time. Each includes a multiposition (360°) rotary lever with a side-mounted pushbutton. Other accessories offered by Texas Instruments include: a printer, disk storage, and an RS-232 interface device for connecting the computer to other electronic devices.

The price for the TI-99/4 system is \$1150. Solid State Software command modules carry prices ranging from \$19.95 to \$69.95 each. For further information, contact Texas Instruments Inc, Consumer Relations, Attn TI-99/4, POB 53, Lubbock TX 79408.

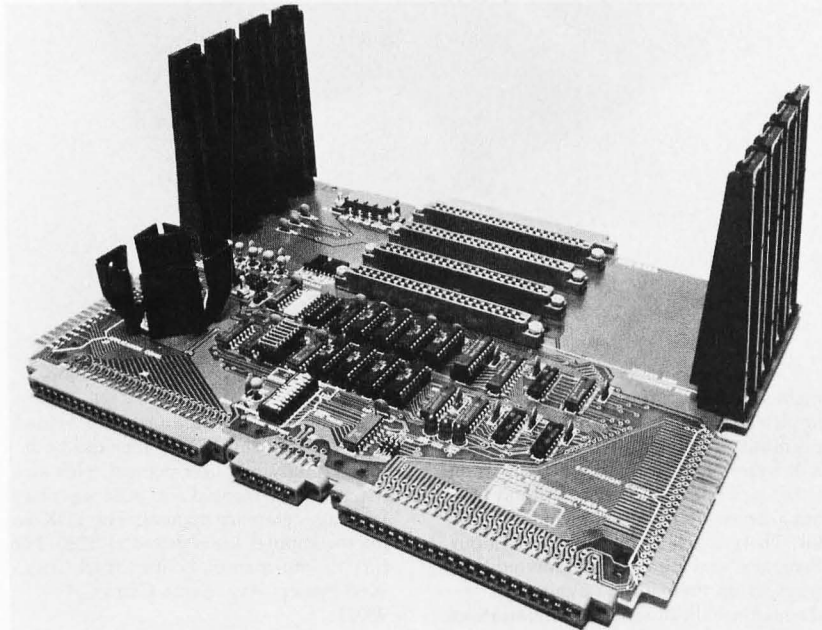
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# What's New?

## PERIPHERALS

### New Motherboard for the KIM-1, SYM-1, and AIM-65



The Little Buffered Mother motherboard incorporates 4 K bytes of programmable memory on the motherboard itself, which, when used with either the SYM-1 or AIM-65, gives the user a total of 8 K bytes of contiguous programmable memory (5 K contiguous on the KIM-1). The motherboard also has regulators for the on-board logic and has the power required for all three microprocessor boards, except the +24 V for the AIM printer.

The unit is available for \$139 without programmable memory or for \$189 with 4 K bytes of programmable memory. Optional boards for the Little Buffered Mother include programmable memory and a programmer, parallel input/output (I/O), and disk controller.

For more information, contact Seawell Marketing, 315 NW 85th St, Seattle WA 98117.

Circle 596 on inquiry card.

### High-Capacity Hard Disk Drive for S-100 Systems

MicroAge has introduced the Fujitsu M2201 Drive with S-100 bus controller for North Star Horizon systems. This system allows accessing up to 40 M bytes of disk storage per drive with the capability of adding up to 4 drives per system. The M2201 was developed with the advent of a new type of direct memory access (DMA) disk controller board capable of very high-speed data transfer. A 2400 RPM rotation combined with a quick seek time and relatively low latency time give the M2201 an average access time of 30 ms.

The system is available for \$9995. For more information, contact MicroAge Wholesale, 1425 W 12th Pl, Tempe AZ 85281.

Circle 597 on inquiry card.

### Low-Cost Peripheral Accepts Hand-Printed Characters

With the PrestoDigitizer tablet, users can communicate with their computers through ordinary hand-printed characters. Stroke direction and sequence are the parameters which are transmitted to the computer that allow it to recognize the user's style of hand-printed characters. The learning and recognition algorithms fit in approximately 2 K bytes of memory. Versions of the tablet are available for several popular computers. The tablets can recognize the entire uppercase alphabet, numerals, and many punctuation marks. The PrestoDigitizer retails for \$48.50, including software, from Innovision, POB 1317, Los Altos CA 94022.

Circle 598 on inquiry card.

### 8-Inch Fixed Disk Drive Series Offers Low Cost Per Megabyte

An 8-inch Winchester fixed disk drive series that offers 5 and 10 M bytes at a low cost has been introduced by Shugart, 435 Oakmead Pky, Sunnyvale CA 94086. Specifications include a capacity of 5.33 M bytes per drive for the SA1002 and 10.67 M bytes for the SA1004; formatted capacity is 4.2 and 8.4 bytes, respectively. Transfer rate for each type is 4.34 M bits per second. Average access time is 70 ms. The Winchester drives offer the same environmental specifications as the standard 8-inch floppy disk drive. Mean time between failure (MTBF) is 8000 power-on hours of typical usage. Optional data separator and controller printed circuit boards are available.

Price for the SA1002 in single quantities is \$1600 and \$1980 for the SA1004.

Circle 599 on inquiry card.

### MCD Consulting Introduces the Bionic Voice

Designed around a Computalker Consultants CT-1 Speech Synthesizer, the Bionic Voice uses English language design. Knowledge of phonemes or phonetic alphabet is not required. Predefined dictionaries are provided, and custom dictionary entries may be added. Rapid conversations are possible, because of the English language design. The Bionic Voice can be operated like a conventional language or spelling board. All numerals, letters of the alphabet, and any words or phrases defined on the keyboard may be vocalized instantly as the keys are depressed. There are no commands or codes to memorize nor is knowledge of computers necessary.

To upgrade to a version of the Bionic Voice that has more capability, a simple change of keyboard and computer program can be made.

The Bionic Voice may be used as a voice response for nonvocal or non-verbal individuals; for educational and instructional applications in speech pathology and linguistics; and as a foreign language translator. The Bionic Voice is not limited to voice synthesis. It may be applied to other computer functions. The price ranges between \$2700 and \$3500 depending on necessary modifications.

For further information about the Bionic Voice, contact MCD Consulting, 8306 Selleck, 600 N 15th St, Lincoln NE 68508.

Circle 600 on inquiry card.