

Educational Software Makes the Grade

# MICROCOMPUTING<sup>®</sup>

A WAYNE GREEN PUBLICATION

September 1982  
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Number 69

## The Shapes To Come:

Shirt-pocket Floppies

8/16-bit Micros

Portable  
Computers

...ne to the  
Room

... Atari,

Commodore,  
Heath, IBM...



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CO 80306





# MICROCOMPUTING

**Contents: September 1982**  
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On the cover: New developments which came out of the National Computer Conference showed a trend toward smaller, higher-density disks; micros with dual processors that can read both 8-bit and 16-bit operating systems; and more-easily transported micros for the microcomputerist on the move. These trends are reflected in the products shown on the cover (from top): a three-inch Micro Floppydisk marketed by Amdek Corporation, North Star's 8/16 Computer and the portable Kaycomp II microcomputer system. *Microcomputing's* report on the NCC begins on page 38.



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Add two more joysticks to your VIC.

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Add another input port to a single board computer.

★Designated for The Game Room

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Four optional peripherals are available for the iXO telecomputing system: a dot matrix printer, a video interface that provides a 32-character by 16-line display on a television set or monitor, an RS-232C interface and an acoustic coupler.



Non-Linear Systems, Inc. introduced double-density disks as a standard feature of its Kaycomp II portable microcomputer system. They claim to have generated \$7 million in sales in the first five weeks. The Kaycomp II operates under CP/M and sells at local dealers for \$1795.

modules include two different modems for communications (with and without cassette interface), two different thermal printers (40 and 15 columns), a TV adapter that feeds a modulated rf signal to a television set, cassette storage, more RAM, programmed ROM cartridges and even an attache case to carry the complete system. The system can connect directly to an impressive four-color plotter with full paper movement

and precise line definition and placement. The plotter is about 9 x 3 x 4 inches and weighs 12 ounces.

Panasonic has several communications programs for the HHC. These software packages come in small ROM modules which plug into the bottom of the machine. Telecomputing 1 turns the HHC into a dumb terminal with full ASCII transmission capability. Telecomputing 2 lets you transfer files between two HHCs or between an HHC and host computer system.

The Panasonic HHC line is not low priced and the options can add up quickly. The basic 8K Panasonic HHC has a list price of \$480. The modem with cassette interface lists for \$300. You should note, however, that the modems interface directly with the CPU bus, so the optional RS-232C serial port is not needed. A 16K RAM expansion costs \$350 and the Telecomputing 2 cartridge sells for \$39.95.

The entire HHC with all options becomes a very powerful system. The two major limitations are the size of the keyboard and the single line display. I will comment more on these limitations later because they are shared by two other new communications devices.

### Two Pocket Terminals

It is apparent that the people at