

# BASIS 108



## THE ALTERNATIVE

Hardware and software  
compatible with Apple II<sup>1</sup>



### COMPATIBILITY

The BASIS 108 dual processor microcomputer system has features and capabilities not found in systems many times more costly. But more importantly, the system is compatible with the largest library of microcomputer software and plug-in peripherals available today. Its design and organization permit the BASIS 108 to be compatible with most programs and peripherals originally developed for use with the Apple II<sup>1</sup> microcomputer, including Pascal<sup>2</sup> and CP/M<sup>3</sup> based applications software packages.

### DUAL PROCESSORS

The BASIS 108 is equipped with both 6502 and Z80 microprocessors, and up to 128K of RAM. As the 6502 and Z80 can only address a 64K memory area, the RAM is split into two banks in the 128K version, and bankswitched as required during processing. Dual processors and bankswitched RAM provide tremendous capability for computing tasks of all types. The BASIS 108 is suitable for all computing needs; for personal use, professional use, or complex business applications that require real computing power.

### MEMORY

Memory capacity should never be a problem with the BASIS 108, with more built-in RAM than any comparable microcomputer system (64K to 128K). The 108 has a 2K system monitor, plus five sockets for installing additional ROM's or EPROM's of 2K each, for a total of 10K of user ROM space. The central processing unit (CPU) allows internal mounting of two 5¼-inch floppy disk drives that provide a combined storage capacity of 2.86K Bytes. Optionally, a 5¼-inch hard disk drive, or greater capacity floppy drives may be installed when greater storage capacity is required.

### THE CPU

The CPU housing is constructed of rugged cast aluminum, and is designed for use in any environment. Its design provides excellent shielding characteristics, eliminating all concerns about radiated interference (RFI).

Within this housing are the single-board computer, six Apple compatible peripheral slots (2-7), power supply, and space for mounting two disk drives. All system inputs and outputs are located on the unit's rear panel. Included are:

- Power input
- Two utility power outlets
- A DB-25 connector for keyboard I/O
- Two DB-25 connectors for system I/O
- Two composite video connectors
- A DE-9 connector for RGB video out
- A DIN connector for cassette In/Out
- A ribbon cable entry slot
- Three blank mounting spaces for additional DB-25 Connectors

The keyboard for the BASIS 108 features an exceptionally low profile design that is both attractive and functional. It is just over one inch in height and weighs about five pounds. The keyboard is connected to the CPU through a cable approximately five feet in length, allowing maximum operator freedom and convenience. The keyboard consists of 100 keys that are separated according to function into 4 groups.

- Standard ANSI typewriter keyboard
- Programmable function keys
- Cursor control block
- Numeric keypad

The keyboard output is sent to the motherboard, where it is decoded by a ROM programmed with mapping and character set information. This arrangement permits tremendous keyboard flexibility. By simply exchanging the standard ROM for one with different programming, you may have any keyboard configuration or set of characters desired. When more sophistication in keyboard handling is desirable, it is possible to select a keyboard interrupt mode of operation.

System packaging for the BASIS 108 is attractive, practical, and complete with built-in capability for system expansion. As your system grows, it will remain a compact, self-contained package instead of the awkward proliferation of boxes, cables, and adaptors that are characteristic of most microcomputer systems.

### VIDEO

The BASIS 108 offers a wide range of video display capabilities. The system provides Normal, Inverse, and Blinking displays, two Text modes, and three Color Graphic display modes.

#### TEXT DISPLAY

- 40 Columns X 24 Lines
- 80 Columns X 24 Lines

#### GRAPHICS DISPLAY

- 40 Horiz. X 48 Vert.; 16 Colors
- 80 Horiz. X 48 Vert.; 16 Colors
- 280 Horiz. X 192 Vert.; 8 Colors

#### COMBINED DISPLAY

- 40 Horiz. X 40 Vert., plus 4 Lines of Text @ 40 Characters
- 80 Horiz. X 40 Vert., plus 4 Lines of Text @ 80 Characters
- 280 Horiz. X 160 Vert., plus 4 Lines of Text @ 40 Characters, or 80 Characters (selectable)

The BASIS 108 has three separate video outputs to accommodate any display mode. These outputs are:

- Composite Black and White Video
- NTSC Composite Color Video
- RGB Video Output

The BASIS 108 offers compatibility, and more . . . A lot more. More computing power. More memory. More utility. More of everything you want in a microcomputer system . . . For a lot less.

### STANDARD FEATURES

- 6502 and Z80 microprocessors
- 64K or 128K RAM
- 2K System ROM, plus sockets for 10K additional user ROM
- RGB, NTSC, and B/W video outputs
- Selectable 80 or 40 column text display
- High Resolution Graphics: Eight colors, 280X192 or 280X160 with four lines of text
- Color Graphic Mode: 16 colors 40X48 or 80X48; 40X40 or 80X40 with four lines of text
- 8-bit Parallel Printer Output
- RS-232c Serial I/O
- Detached Keyboard: All standard keyboard functions, Upper/Lower case characters, Numeric Keypad, Cursor Control Block, and 15 programmable function keys.
- Built-in mounting for two 5¼-inch floppy disk drives
- Six system expansion slots for plug-in peripherals
- External Controller I/O
- Built-in loudspeaker
- Two accessory power outlets
- Mounting slots for three DB-25 I/O plugs

## THE ALTERNATIVE — BASIS 108

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DEALER

**BASIS**  
INCORPORATED 

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<sup>1</sup>Apple II is a trademark of Apple Computer, Inc.

<sup>2</sup>Pascal is a trademark of the UCSD Board of Regents.

<sup>3</sup>CP/M is a trademark of Digital Research.