## Ai Electronics ABC-24 Microcomputer

This machine is highly engineered, designed and finished. The case is intricately designed with panels that lift and swing to give easy access to all parts. Brackets and mountings are all specifically engineered and there is a high standard of workmanship to all aspects of assembly.

All electronics are contained on one "multiwire" construction circuit board. Multiwire allows very dense packing but makes it almost impossible to deduce the underlying circuit. The circuit board is easily removed after undoing two screws. Sufficient lead length is provided to operate the machine with the board removed, helpful for fault finding.

The machine has a rich set of peripheral interfaces – 2x floppy disc drives, 2x serial, 1x parallel, 1x GPIB. The keyboard is hardwired and uses an M58609 Keyboard Encoder IC, rather than a software based approach. The main board also has a 'bus' connection for further expansion. The main board chip set is large:

- Zilog Z80A CPU
- Intel 8202A DRAM controller
- DRAM 4116 16k x 1 4 banks of 8 chips = 64KB DRAM
- SRAM 2114P 1024 x4 6 chips = 3 KB SRAM
- UVEEPROM MB8516 2k x 8 2 chips = 4k BIOS code
- AM9511A Math Processor
- AM 9517A-4 DMA controller
- Intel 8259A Interrupt Controller 2 chips
- Zilog Z80A-SIO
- AM 8255A Peripheral Controller ( = 3x Parallel IO ports)
- 8212P 8-bit port/latch
- AM 8253-5 Triple Counter/Timer 2 chips
- Intel P8275 CRT controller
  - MB8516 2k x 8 UVEEPROM 2 chips, likely for char gen
- FD 1791 Floppy Disk Controller
- MC 68488 GPIB interface
  - 3448 GPIB driver ICs x4
- M58609 Keyboard Encoder
- Glue Logic Over 100 74-series TTL ICs

There are some unusual ICs. The 68488 GPIB interface suggests laboratory instrumentation applications while the 9511 Math Processor suggests scientific or business calculation applications. The 9511 Math Processor seems to have been a rare chip, even in its day.

Operating system was CP/M or Ai's proprietary system "DOSKET". No copy of the latter is known.

This ABC-24 was originally purchased in late 1980 for \$10,000, which included \$5000 for a financial and management accounting package. For comparison, at that time a base model family car (1980 VC Commodore sedan) cost \$7500.