PROCESSOR

- 8 Mhz 68000 microprocessor
- 2 million operations per second
- Multi-color processor status LED
- All I/O is interrupt-driven but optionally polled

SAGE™ BUS:

- Two 50-pin ribbon cables
- 24 address bits (will address 16 Mbytes)
- 16 data bits
- Non-DMA
- Asynchronous operation

MEMORY

- 128K to ½ Megabyte of RAM (SAGE II™ model)
- 128K to 1 Megabyte of RAM (SAGE IV™ model)
- Byte level parity error detection on all RAM
- No wait states needed for RAM access
- 8K (optionally 32K) EPROM Firmware contains self-test, DEBUGGER, and bootstraps

WINCHESTER DRIVE (SAGE IV model only)

- One to four drives
- Each drive 6 to 60 Mbytes fixed or 6 Mbytes removable
- Throughput is 160 to 400 Kbytes per second
- Flexible configuration

FLOPPY DRIVE

- One or two 5¼" floppy disk drives
- 80 tracks per surface
- Double-sided and double-density
- One drive—640K, two drives—1.3 Mbyte net
- Will load 20K program in one second

TERMINAL PORT

- RS-232C serial port
- Defined as data communication equipment
- Software defined baud rate, 50- 19.2K baud

MODEM PORT

- RS-232C serial port
- Defined as data terminal equipment
- Software defined baud rate, 50- 19.2K baud
- Fully supported modem control lines
- Ringing detect supported

AUXILIARY PORTS (SAGE IV model only)

- Four extra RS-232C serial ports
- Defined as data communication equipment
- Software defined baud rate, 50-19.2K baud

PRINTER PORT

- CENTRONICS compatible parallel port
- Can be used as a general purpose 14-bit software input, output or control port

IEEE-488 INTERFACE

- Implemented in hardware with TMS9914A controller and buffers
- Software definable characteristics
- Address and control masks defined by DIP switch or software

UCSD OPERATING SYSTEM

- Pascal, FORTRAN 77, BASIC and 68000 Macro Assembler
- Screen-oriented editor
- Filer and other utilities
- Interrupt-driven with printer spooling
- RAM-disk

MISCELLANEOUS

- Real-time clock
- Separate task scheduler with 15.6 usec resolution
- Standard four volume manual set, 1400 pages
- Introduction to the UCSD p-System by Grant/Butah, 300 pages
- Application Software Catalogue from Softech Microsystems, 53 pages

POWER AND PACKAGING

- 50-watt switching power supply (SAGE II model)
- 135-watt switching power supply (SAGE IV model)
- Forced-air cooling with quiet 20 CFM fan
- Size-6½ by 12½ by 16¾ inches
- Modular construction
- Easy servicing

WARRANTY

SAGE computers are built to exacting specifications and they come with a limited one year warranty.

SAGE™
COMPUTER TECHNOLOGY

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THE SAGE II AND SAGE IV™ SUPERMICROS.

JOIN THE EVOLUTION.

SURVIVAL OF THE FITTEST.

In 1982, the first of the 16-bit, 68000-based supermicros was introduced . . . the SAGE II™ computer.

It's in a price category with ordinary micros. But it's by far the fittest in the performance category. Perhaps a lot of micros are on the endangered species list without knowing it.

Now, in 1983, comes the SAGE IV™ computer, in a performance league with popular minicomputers costing much, much more. In fact, there's a very fuzzy line between the most powerful of the SAGE IV models and some pretty enormous mainframe computers.

Compared to other 68000-based machines, the SAGE™ micros feature no-compromise designs—highly-integrated, closely-packed, high-speed designs with no electronic red tape to slow things down.

That's why we say a SAGE supermicro offers more performance per dollar than any computer in history.

It's the natural selection.

THE NEW SAGE IV COMPUTER HAS MULTI-USER CAPABILITY.

The SAGE II model is designed to be operated by one or two users at a time.

The SAGE IV model however, can be operated by up to six users simultaneously.

Its multi-user capability is particularly attractive when you're planning to use it for business. Because, instead of buying six computers for six employees, you can buy one SAGE IV computer and six inexpensive terminals.

SAGE MICROS RUN 8 TIMES FASTER THAN MOST SPECIES.

Both the SAGE II and IV models feature Motorola's 16-bit, 68000 processor running at 8 MHz without wait states.

Most micros on the market today feature 8-bit processors such as the 8080, Z80 and 6502, none of which has the performance of the 68000.

And of the handful of 16-bit micros available, fewer still are true 16-bit machines with 32-bit internal architecture like the SAGE II and IV micros.

What all of this means, simply, is that SAGE computers are capable of 2 million operations per second.

So if you're comparing them against other micros, try comparing them against minis like the DEC PDP-11/60 instead.

UP TO 10 TIMES FASTER AT LOADING PROGRAMS.

An ordinary 8-bit micro takes a long time to load a long program, because "sector interleaving" is required to allow the processor time to process its data.

But since the SAGE micros feature a very fast implementation of the 16-bit, 68000 processor, data can actually be handled more rapidly than it can come from the floppy.

In fact, SAGE machines can handle the data faster from the floppy than other machines can from Winchesters. The SAGE IV Winchester is about 10 times faster yet.

UP TO 16 TIMES THE ONBOARD RAM.

Optionally, you can configure the SAGE II model with 1/2 megabyte and the SAGE IV model with as much as one full megabyte of RAM.

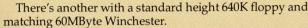That's about 8 to 16 times as much as is normally possible in an 8-bit micro.

And the SAGE IV micro has 4 times the onboard max RAM expandability of a stock 16-bit IBM PC.

WINCHESTERS AND FLOPPIES.

The SAGE II computer gives you a choice of either one or two built-in, low-profile, 5¼" floppy disk drives.

All three SAGE IV models, on the other hand, feature built-in, 5¼" Winchesters and floppies.

The "small" SAGE IV micro has a low-profile 640K floppy drive and a matching 6MByte Winchester.

There's another with a standard height 640K floppy and matching 60MByte Winchester.

Or the ultimate—One or two low-profile 640K floppies and up to 4 Winchesters all in the same cabinet. That's 240 megabytes.

RAM-DISK, TOO.

As if six disk drives weren't enough, RAM-Disk is like having yet another. It's actually an area of RAM that can be allocated for use as a pseudo disk device, and it's available on both the SAGE II and IV models.

Since RAM-Disk has no moving parts, it has no seek delays. So the transfer rate is even faster than a Winchester: 1MByte per second. It facilitates very quick execution of the filer, editor, compiler or user programs.

HUNDREDS OF PROGRAMS THANKS TO p-SYSTEM AND OPTIONAL CP/M-68K.

Unlike most new computers, the SAGE II and IV micros were fully supported with software from day one.

That's because they come standard with the powerful, portable p-System, "The Universal Operating System" developed by Softech Microsystems in cooperation with SAGE Computer Technology.

The p-System compiler generates a fast, efficient pseudo-code from programs written for 8-bit machines in Pascal, BASIC or Fortran. These programs can also be optionally translated to native code.

There are actually more than 127 sources for programs that run on the SAGE computers as if written specifically for them. LogiCalc, LogiQuest and Timberline's Spreadsheet, to name but a few.

Also, Digital Research's CP/M-68K, Volition Systems' Modula II and Hyper-FORTH are offered as optional operating systems.

LAST, AND LEAST, THE PRICE.

With prices starting at just $3,600 we believe SAGE Supermicros provide more performance and capacity per dollar than any computer in history.

Ask your SAGE dealer to prove it.

Then, join the evolution. It's the dawn of a whole new computer age.