

**DUAL BUS.** Parallel buses link VAX computers and M64 minisupercomputer environments.

files and other I/O peripherals. The P64/210's Unibus I/O processors handle data transfers at a 3-Mbyte/s rate over Unibus.

The P64/210 can also connect high-speed non-Unibus peripheral devices to minisupercomputer systems with its Openbus I/O processors, which run at a 12-Mbyte/s rate. This means system integrators can configure M64-series machines into powerful, complex systems using multiple M64s, array processors, VAXes, high-speed disks, high-density tapes, and high-speed analog-to-digital

converters. Flexibility of the I/O subsystem is further enhanced by up to 96 Mbytes of buffer memory. It can be accessed by the I/O processors at any speed up to the system bus's 24-Mbyte/s limit.

The P64/210 subsystem has three separate 32-bit buses to allow the system bus to handle concurrent transfers of 8-, 16-, or 32-bit data. The parallel I/O subsystem also has a built-in Unibus that links its multiple I/O processors together and to VAX machines.

The P64/210 offers full compatibility

with the VAX VMS operating-system software, providing support for the VAX Files-11 record-management protocol. This transparent coupling with the VMS operating environment means that a VAX and an M64 minisupercomputer can share files on the same high-performance disk drive.

The P64/210 targets real-time applications, such as aerospace and defense simulation, image and signal processing, seismic analysis, and graphics post-processing jobs.

Floating Point Systems will begin shipping the P64/210 in October, at a price starting under \$100,000.

—Tom Manuel

Floating Point Systems Inc., 3601 S.W. Murray Blvd., Beaverton, Ore. 97005.

Phone (503) 641-3151

[Circle 341]

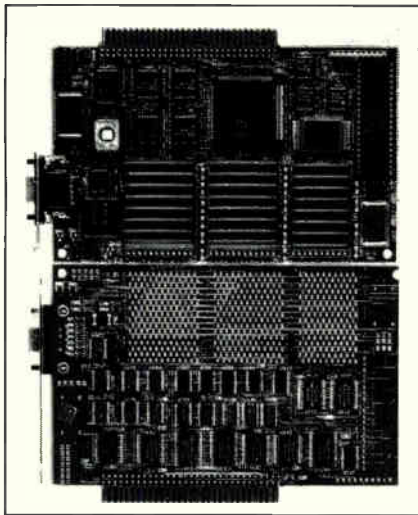
### CARD FOR PC DRAWS 10 MILLION PIXELS/S

The Model 1104 graphics coprocessor from Metheus Corp. occupies only half a slot in an IBM Corp. Personal Computer or compatible, but it can draw 10 million pixels/s with 1,024-by-768-pixel resolution on up to four bit planes.

The card achieves performance double that of standard graphics cards by implementing 500 Kbytes of video random-

# Color by

Watch Apple's new Macintosh II do for color computing what the original Macintosh did for black & white. Our RAMDAC enables Macintosh II to display some of the finest quality graphics available in a personal computer.



access memory and VLSI circuitry. The compact size of the 1104 represents a combination of high-level chip integration and surface-mount technology.

The 1104 is fully compatible with the company's 1100-series software drivers and supports a wide range of the most popular computer-aided design software packages. The card is available now for \$1,395.

Methus Corp., 5510 N.E. Elam Pkwy., Hillsboro, Ore. 97214.  
Phone (503) 640-8000 [Circle 346]

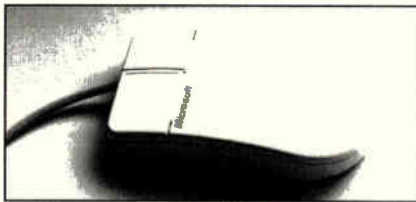
## MICROSOFT MOUSE HAS CAD SOFTWARE

The newest version of the Microsoft Mouse features enhanced mechanical design, three versions of high-quality graphics support—including a computer-aided-design version—and compatibility with IBM Corp.'s Personal Computer and Personal System/2.

A key design improvement moves the center of balance from the user's palm to his fingertips for improved control.

Three different software packages are offered. The first costs \$150 and is built around Microsoft Paintbrush, a color painting program developed by ZSoft of Marietta, Ga. The second, costing \$200, is bundled with PC Paintbrush for Microsoft Windows, the key difference being that it works within the Windows environment.

The third version, at \$175, targets the low-end CAD market with EasyCAD from Evolution Computing, Tempe,



Ariz. All three versions are available now.

Microsoft Corp., 16011 N.E. 36th Way, Redmond, Wash. 98073.

Phone (206) 882-8080 [Circle 347]

## HP'S 80386 VECTRAS TRIPLE PERFORMANCE

Hewlett-Packard Co.'s Vectra RS/16 and RS/20 personal computers integrate Intel Corp.'s 80386 microprocessor to get three and four times the performance of the original Vectras. Both floor-standing units, the RS/16 runs at 16 MHz and the RS/20 at 20 MHz.

The RS/16 includes 16 Mbytes of main memory and comes with a 40-Mbyte hard-disk drive. The RS/20 offers 20 Mbytes of main memory and comes with either a 103-, 155-, or 310-Mbyte hard-disk drive. The drives have an industry-standard ESDI interface and feature an average access time of 17 ms.

The memory in both systems can be expanded by 16 Mbytes by adding modules to the processor board. Both computers will be available in the first quarter of 1988. The RS/16 costs \$6,495; the RS/20 ranges from \$7,495 to \$11,995.

Hewlett-Packard Co., 3000 Hanover St., Palo Alto, Calif. 94304.  
Phone (415) 857-1501 [Circle 345]

# Brooktree®



*Macintosh II. 640x480 resolution, displays 256 colors simultaneously from a 16.8 million color palette. Bt453. Triple 8-bit 40 MHz RAMDAC with 256 color lookup table. Monolithic CMOS.*

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