Array processor runs as coprocessor in Versabus system

A full 32-bit floating-point array processor, the SKYMNK-V, comes complete with software to support signal processing and other number crunching tasks on M68000-based Versabus systems. Manufactured by Sky Computers, Inc., the unit is contained on one Versamodule and is capable of one million floating-point operations per second for numerically intensive applications in seismic exploration, laboratory data processing, graphics, and image processing.

The SKYMNK-V is tightly coupled to the host. It shares the host’s memory and is controlled by the host’s operating system. This scheme eliminates the need for a large special-purpose memory as part of the array processor as well as the need for transferring data between processors before and after each function. As a DMA device, the SKYMNK-V can access data directly in host memory at a rate of 4M bytes per second. As a parallel processor, the SKYMNK-V overlaps I/O and arithmetic processing and thus speeds throughput, says Sky.

Other features of the SKYMNK-V include 48-bit extended precision for selected operations; real, complex, and integer arithmetic instructions; 24-bit addressing (16M bytes); a vector subroutine library of Fortran-callable math routines (including functions such as FFT, convolution/correlation, and thresholding); and software support under the Versados operating system. A software simulator is available for off-line applications development.

The SKYMNK-V is priced at $5990 (quantity 1) and is available for delivery 30 days after receipt of order.

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Forth for IBM PC runs under both PCDOS and CP/M

A Forth language system for the IBM Personal Computer, Laboratory Microsystems’ PC/FORTH includes an interpreter/compiler with virtual memory management, a full-screen editor, an 8086/8088 assembler, debugging aids, and a 150-page user manual.

The language has been extended to give full access to all operating system facilities, including file and record management. Both the IBM PCDOS and the Digital Research CP/M-86 operating systems are supported. Optional extension packages for advanced color graphics, software floating-point math, hardware-assisted floating-point math (using the Intel 8087 arithmetic coprocessor), and data base management are also available. A target compiler is offered which allows the creation of ROMable code for other microprocessors such as the Intel 8080, Zilog Z-80, and DEC LSI-11.

The price of the basic PC/FORTH program development package is $100, with delivery from stock.

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