AT&T announces WE DSP16 chip

AT&T's digital signal processor, the WE DSP16, multiplies and adds instructions simultaneously at a rate of either 75 or 55 nanoseconds, or about 13.3 or 18.2 million instructions per second.

The WE DSP16 is implemented in 1.0-micrometer double CMOS and dissipates less than 0.33 watts of power. The 16-bit IC has an on-board instruction cache that executes a set of up to 15 instructions 127 times with no looping overhead. A parallel pipelined architecture permits different operations to be executed by one DSP16 simultaneously.

Samples of the AT&T WE DSP16 in both speeds are currently available; full production is expected by fall 1987.

Contact AT&T for pricing.

Reader Service Number 41

TI adds to TMS320 DSP family

Texas Instruments has developed its third generation of TMS320 digital signal processors, the TMS320C30. With a computational rate designed to be greater than 33 million floating-point operations per second, the chip can be used in real-time DSP and computation-intensive applications. Its performance level is gained through internal parallelism, large on-chip memories, and concurrent DMA.

Key features of the TMS320C30 include a 60-ns, single-cycle execution time; two 1K-by-32-bit, single-cycle, dual-access RAM blocks; one 4K-by-32-bit single-cycle, dual-access ROM block; a 64-by-32-bit instruction cache; 32-bit instruction and data words and 24-bit addresses; a 32/40-bit floating-point and integer multiplier; and a 32/40-bit floating-point, integer, and logical ALU.

Additionally, the DSP offers eight extended precision registers, two 32-bit address-generator ALUs with eight auxiliary registers, and an on-chip DMA controller for concurrent I/O and CPU operation.

The 1-micrometer CMOS chip is upward-compatible with previous versions of the TMS320 family. Application support and quality development tools available include a full Kernighan and Ritchie C compiler, which supports inline assembly language code.

TI expects sample quantities to be available first quarter 1988 in two versions. A 144-pin microprocessor version is unpriced as yet; an 84-pin microcomputer will most likely be priced from $40 to $50 each in OEM quantities. Production is projected for fourth quarter 1988.

Reader Service Number 43

SRAM performs at 15-ns speeds

Organized as 256 words by 4 bits, the VLSI Technology VT7C122 SRAM is enclosed in 22-pin plastic DIP; it is also available in 25-ns and 35-ns versions.

The VT7C122 1K-bit static RAM from the Application Specific Memory Products Division of VLSI Technology offers access and cycle times of 15 nanoseconds. The CMOS memory chip is designed for applications of cache memories, writeable control stores, and data buffers.

The VT7C122 SRAM is available in sample quantities of 1000 for $10.44 each. Production-level availability is expected by fall 1987.

Reader Service Number 42

Image capture, graphics boards announced

Vutek Systems has introduced the Freeze Frame Image Capture and Super Deluxe EGA boards. Freeze Frame digitizes video images in real time from standard NTSC sources such as a CCTV camera, VCR, or videodisc player and combines the image with text for viewing on a monitor and subsequent storage on a disk. The combined image can be printed on a dot matrix or laser printer. Freeze Frame works with standard EGA or CGA boards in IBM PCs or compatibles.

The Deluxe EGA board allows users to draw 16 colors from a palette of 64 and supports features of the IBM EGA, CGA, PGA, DEGA, and MDA adapters. It also provides keyboard switching when changing from EGA to CGA modes.

Freeze Frame prices start at $1379, and Deluxe EGA retails for $559.

Reader Service Number 44

Reader Interest Survey

Indicate your interest in this department by circling the appropriate number on the Reader Interest Card.

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