Data handling

Print head is hot and quiet

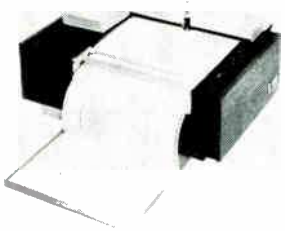
IC matrix provides hard copy on heat-sensitive paper for calculators, terminals

Impact printers are generally considered too noisy, power-hungry, bulky, complicated, and slow for use in the electronic calculators now flooding the market. Yet hard copy is often desired, and it is for this reason that Displaytek, a small company in Dallas, is marketing a thermal print head for use with heat-sensitive paper.

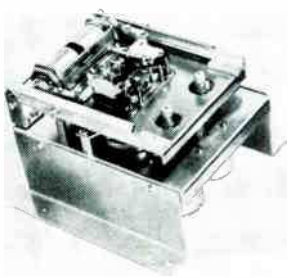
The print head, which Displaytek president Ed Ruggiero expects to be designed into computer terminals, electric typewriters, and strip printers, as well as calculators, is a 150-mil chip mounted by flip-chip techniques on a ceramic substrate. The chip is a silicon integrated circuit consisting of a five-by-seven matrix of dots formed by semiconductor junctions. These can be heated in patterns to form standard ASCII characters 0.1 inch high.

The dots heat in only 8 milliseconds, resulting in a print rate of 30 characters per second. The print head operates from 16 volts, and each dot requires an average current of 100 milliamperes. The silicon chip that contains the matrix, however, also includes drive amplifiers for each dot so that only ½ milliampere of drive current is required, making the device compatible with MOS, as well as with bipolar, ICs.

Though the heat-sensitive paper is in direct contact with the face of the silicon, Ruggiero says that wear on the print head is insignificant. He claims the device is good for 50 million impressions—approximately

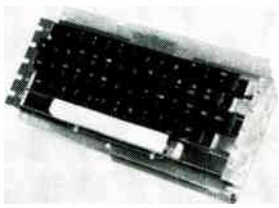


High-speed plotter 230 is designed for the time-share user. It is a self-contained desk-top unit that is capable of direct interface with most keyboard terminals and acoustic or direct couplers. Proprietary data compression techniques allow for maximum plotting speeds in all directions, not limited by transmission rate. Zeta Research Corp., 1043 Stuart St., Lafayette, Calif. [421]

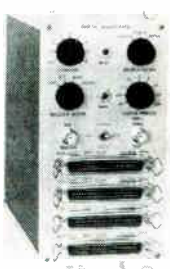


Digital cassette deck CAS-10 features both variable speed and bidirectional read/write under dual capstan control to minimize inter-record gaps. Sensing is done optically, with separate sensors for beginning-of-tape and end-of-tape. Cassette-in-place and file protect sensors are also featured. Auricord Division, Scovill Mfg., 35-41 29th St., Long Island City, N.Y. 11106 [422]

Magnetic tape system model 2045 offers industry-compatible tape recording at tape speeds to 45 in./s and packing densities to 800 b/s (non-return-to-zero, change on ones) and 1,600 b/s (phase-encoded). It features IBM tape interchangeability for either 7- or 9-track recording. Price is between $3,000 and $4,500. Bucode Inc., 175 Engineers Rd., Hauppauge, N.Y. 11787 [423]

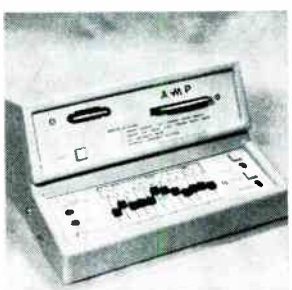


Solid state keyboard CDK-3 is for use in applications such as TWX, TTY and other communications systems. It offers the ASR-33 format. Low profile (¾ in.) and light weight (1½ lb) are of particular advantage in portable systems and where it is desired to design the keyboard as an integral part of a work surface. Control Devices Inc., 204 New Boston St., Woburn, Mass. [424]



Digital multiplexer model 263 provides an interface between the outputs of up to eight digital data sources and a single information handling system. It selectively and/or repetitively samples the data present at its input channels and makes the resulting output available at a single connector. Price is $895. Princeton Applied Research Corp., Box 565, Princeton, N.J. [425]

Vhf time code receiver model TCR-145 is designed to provide reliable data synchronization at facilities where standard time formats are transmitted. It is a solid state a-m receiver with fixed tuned, crystal controlled operation over the range from 30 to 400 MHz. An agc system provides an 80-dB dynamic range. Aerospace Research Inc., 130 Lincoln St., Boston, Mass. 02135. [426]



Data collection terminal Syscom is a remote unit for job-cost accounting applications. Incorporating a badge card reader, tabulating card reader, matrix slide switch and matrix rotary switch as input devices, it provides capability of collecting information from badge and tabulating cards plus variable data from the slide switch. AMP Inc., Harrisburg, Pa. [427]

Microfilm retrieval terminal can be used in almost-real-time applications. The device incorporates a new concept in microfilm—roll microfiche—which can carry as many as 45,000 pages of computer print-out on a 100-ft. roll of 105-mm film. Prices will range from $3,750 to $7,000, depending on options. Morgan Information Systems Inc., 3197 Park Blvd., Palo Alto, Calif. [428]