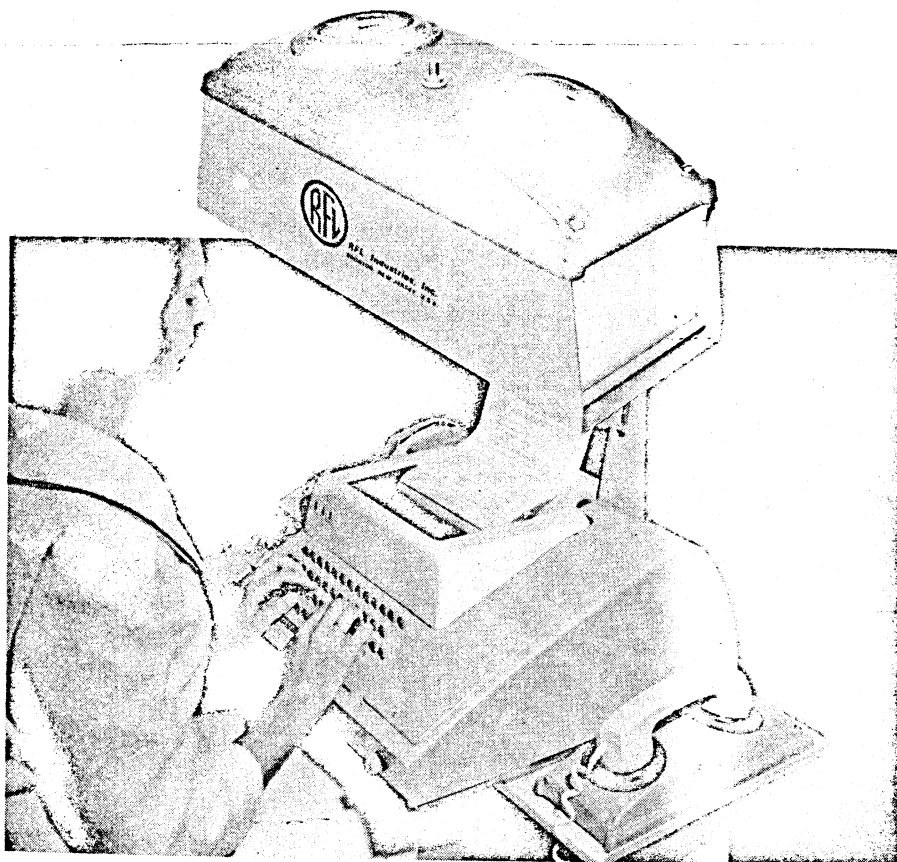


Hardware or Acoustical

RFL Does It All



Whether your needs are for a hardware coupler to connect directly to a standard telephone line (through a Data Access Arrangement) or for an acoustical connection, the new RFL Model 13AO/TTY is your best bet. It does both, and it's a simple transition from hardware to acoustical.

Designed primarily for computer time sharing applications and inter-communication links with Teletype terminals, the 13AO/TTY is also compatible with Bell 103A Dataphones.

The Model 13AO/TTY is a com-

pact unit (5"x4"x12") which operates over 2 or 4 wire circuits up to 300 bits per second, full or half-duplex. Unlike other couplers, it has built-in transmit and receive filters, to assure optimum operating performance.

RFL offers outright purchase or rental plans, and like all RFL communications equipment, the Model 13AO/TTY is built with the know how that has made RFL a leader in communications systems and instrumentation equipment for over half a century. Write or phone for full details.

RFL **RFL Industries, Inc.**
Communications Div. • Boonton, N.J. 07005

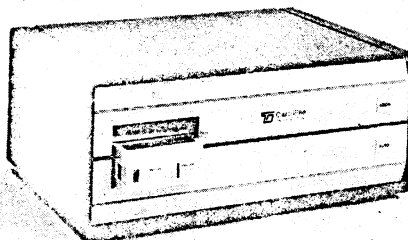
TEL. 201-334-3100/TWX: 710-987-8352/CABLE RADAIRCO, N.J.

CIRCLE 172 ON READER CARD

FYI: Sattys
new products...

with the proper packing. The shorter tape cartridges run \$14 each; the longer (over 25 feet) go for \$21. All tapes are guaranteed for 200 hours of in-motion use.

The 1024 looks good enough for computer-top mounting, but can also be crammed into a rack without modification. It is somewhat compatible with the earlier 4096 four-tape unit in that

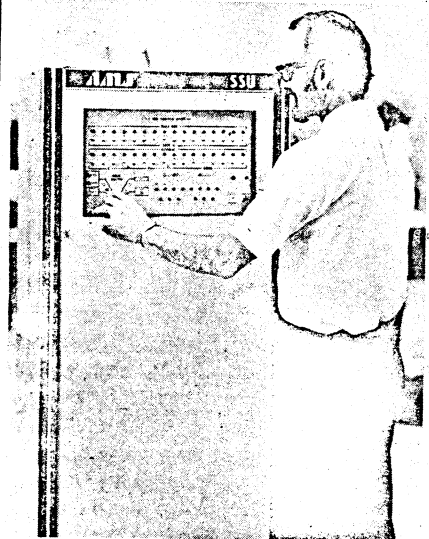


tapes written on either can be read on the other. Deliveries are quoted as 90 days for big quantities, half of that for test units. TRI-DATA CORP., Mountain View, Calif. For information:

CIRCLE 374 ON READER CARD

big, fast memory

The Semiconductor Storage Unit takes its place in the chain of being somewhere between extended core memories and large drums. It is large, offering storage sizes that start at two million bytes and go to 128 million, and cheaper than very large core systems.



It is also fast... not in terms of access time, but definitely in terms of transfer rate.

The ssv is not intended for all applications, but should be helpful where on-line storage size directly affects the number of jobs which can be processed, or the number of terminals which can be serviced, or the size of sorts and merges. Its block transfer

new products ...

capability is said to facilitate swapping, paging, and staging, and the figures seem to support that claim. For instance, the maximum transfer rate is given as 16 million bytes/sec. The random access time is slow, ranging from 1 usec to 525 usec and averaging 131 usec, but the sequential access time averages 1 usec.

The storage system is based on a "Data Loop" concept. In terms of semiconductors this means that the stored data is continuously moving through the memory, or looping. In a manner analogous to magnetic strips, the addressed data must be "brought up to speed" before it can be transferred out. (Hence, the slow random access time.) Unlike magnetic strip systems, however, there are no moving parts, everything is done with semiconductors.

The ssv clamps onto an IBM 360's Selector channel, and is said to be plug compatible with that system. Sitting there, its manufacturer claims, it can satisfy an order of magnitude more requests than a high speed drum, without problems of overrun.

The systems are built around a 1024-bit Data Loop module. Standard sizes

give two megabytes of storage, or four, or eight. Prices are \$352,440, \$601,640, and \$1,003,920, respectively; and these figures range from 1.98 cents to 1.41 cents per bit, almost half of the cost of an extended core memory. Rentals are \$7,835, \$13,370, and \$22,310 per month. Deliveries begin in the fourth quarter of this year. **ADVANCED MEMORY SYSTEMS, INC.**, Sunnyvale, Calif. For information:

CIRCLE 375 ON READER CARD

signal processor/computer

If a new computer from an embryo manufacturer is to be successful, it must fit a niche in the market where the competition is weak or non-existent. The CompuSignal Processor-30 is an effort to do this by providing, for \$85K, a 16-bit computer with a 100-nsec basic cycle time—equalled only by machines selling for several multiples of the csp-30's price—for use in on-line, real-time applications that don't demand large storage capacity. Although primarily intended for signal processing and Fast Fourier Transforms, the csp-30 may also be used for general purpose dp applications with the addition of about \$100K in peripherals, according to the vendor's estimate. The basic system includes a 512-word ic memory plus 4K-word

core, a ksr-35 Teletype, and a magnetic tape unit with two cassettes of 180K 8-bit character capacity each.

The cpu uses 128 basic instructions, of which 73 are single-word, and 55 double-word. Typical instruction rate is 3 million instructions/sec. Addressing possibilities include direct addressing over the full range of ic and core memories; indexed addressing; and multi-level indirect addressing. The accumulator file consists of 32 registers of which 14 are index registers, and an operand register; all are available to a programmer. Three parallel, expandable i/o channels are used for high speed devices or controllers, providing data transfer rates over 1 million words/sec. An additional i/o channel has an 8-device party line controller, with one address pre-assigned to mag tape program entry, one pre-assigned to the Teletype, and six available for assignment. Priority interrupts may be initiated externally or by program, and an interrupt enable/disable is effected by program; seven interrupt levels are standard. Additional 6-level ports are optionally available.

Basic ic memory, which is bipolar, is 512 words, expandable to 2,048 words in blocks of 128, with full cycle time and access time of 100 nsec each. Core memory begins at 4K words, expandable to 32K in 4K increments; full cycle

