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Cipher in Brief

Cipher Data Products, Inc. designs, manufactures, and markets an extensive line of 1/2-inch and 1/4-inch magnetic tape drives to meet the secondary storage needs of the computer industry. Cipher is an independent peripherals manufacturer serving the Original Equipment Manufacturers (OEM) marketplace.

Founded in 1968, Cipher has grown to become the industry leader in 1/2-inch streaming tape technology, in large part because of the overwhelming acceptance of the Microstreamer Tape Drive. The Microstreamer, a 1/2-inch streaming tape drive, now commands more than 90 percent of the 1/2-inch streaming tape drive market. Cipher's CacheTape Tape Drive continues in this successful tradition, establishing a new standard in 1/2-inch tape drive technology since its introduction in 1982.

Innovative technology in Cipher's 5 1/4-inch form factor cartridge tape drives continues to break new ground in the 1/4-inch market. The Series 540 Streaming Cartridge Tape Drive and the Series 525 FloppyTape Cartridge Tape Drive are leading Cipher to the forefront of the microperipherals marketplace.

Support and Service

Cipher sells its line of tape drives to OEMs through a direct sales force in North America and Europe. Regional sales offices are located in Newport Beach, California; Dallas, Texas; and Boston, Massachusetts. European headquarters are in Camberley, Surrey, England, with two additional wholly-owned subsidiaries near Paris, France and Munich, West Germany.

Cipher also has an extensive, worldwide distribution network that provides off-the-shelf delivery, local service and support, controllers and couplers, and other services for low-volume OEM customers. The Company's distributors serve the United States, Canada, Central Europe, the Far East, Africa, the Middle East, India, Australia, and Southeast Asia.

In North America, Cipher offers a nationwide field service network and complete factory repair service at its two Repair Centers in Garden Grove, California and Boston, Massachusetts. In Europe, Cipher's subsidiaries in England, France, and West Germany also provide factory repair and field service. Training and auxiliary service and support are benefits that Cipher's worldwide Customer Service organization also offers its customers.

Cipher Products

Cipher's magnetic tape drives provide high performance and reliability to meet the computer industry's needs—from intensive start/stop applications to small systems Winchester disk backup.

The field-proven Microstreamer 1/2-inch streaming tape drive provides cost-effective and reliable disk backup and data storage for medium- and large-sized systems. The CacheTape 1/2-inch tape drive is a high-performance device that has been proven to out-perform comparable start/stop drives, while using existing start/stop software. Both the Microstreamer and CacheTape products feature low-profile packaging and Cipher's patented, fully automatic front loading and threading capability.

In 1/4-inch cartridge tape drive technology, Cipher takes an aggressive approach in industry innovation, building on the acceptance of the QIC-standard Series 420 products introduced in 1981. The FloppyTape Cartridge Tape Drive represents an industry first, offering full floppy disk compatibility—at an unprecedented low price. The QIC-compatible 540 Streaming Cartridge Tape Drive provides high-capacity data storage in a 5 1/4-inch package, for unequalled secondary storage performance for small- to medium-sized computer systems.

A wide range of compliance arm and high performance vacuum column tape drives complete the Cipher family.

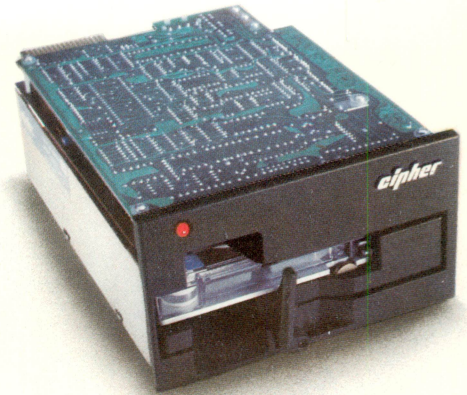
Cipher products have UL and CSA approval and meet all FCC requirements. The Microstreamer and CacheTape products meet the IEC-435 safety standards as well.

Regardless of the application—remote terminals, disk backup, data acquisition, or keyboard entry devices—Cipher's tape drives provide cost-effective, reliable solutions to the problems associated with Winchester disk backup and data storage.



Microstreamer[®] Tape Drive

(Series F880) CIPHER's 1/2-inch streaming Microstreamer Tape Drive features 1600 bpi read and write capabilities (Microstreamer I). A dual density 1600/3200 bpi option (Microstreamer II) with doubled capacity is available for high capacity disk file save/restore applications. The 1600/3200 bpi Microstreamer II model also offers the same complete IBM compatibility as the standard 1600 bpi Microstreamer I. The Microstreamer Tape Drive is fully formatted, ANSI and IBM compatible, and operates at 25 or 100 ips. In addition, the Microstreamer series of tape drives offers such standard features as low-profile packaging that requires only 8.75 inches of vertical rack space, patented fully automatic front loading and threading, and simple streaming mechanics. The Microstreamer is ideal for Winchester disk backup or as a low-cost tape drive for many other applications.



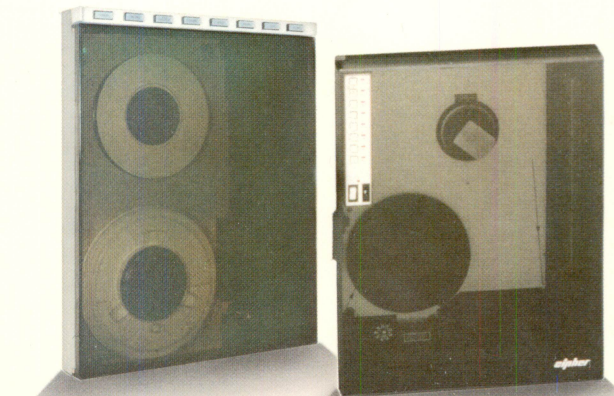
Quarterback[™] Cartridge Tape Drive

(Series 420) The 420 Streaming Cartridge Tape Drive offers a compact 8-inch package, provides 20 megabytes of formatted capacity, and uses the QIC standard interface and format. Fully formatted and nonformatted versions are available, at tape speeds of 30 or 90 ips. CIPHER's 420 Quarterback tape drives use standard 1/4-inch tape cartridges and provide transfer rates of up to 87 kilobytes per second. Tape motion is microprocessor-controlled, up to four basic units can be daisy-chained, and each drive is form-factor compatible with 8-inch floppy disks for simple system integration.



540 Cartridge Tape Drive

(Series 540) The 540 Streaming Cartridge Tape Drive is a 5 1/4-inch form factor device that has been designed specifically for Winchester disk backup. The 540 tape drive features 45 or 60 megabytes of formatted data storage capacity, 90 ips tape speed, easy front loading of the standard 1/4-inch tape cartridge, and standard QIC interface and format compatibility. The 540 is also available in an unformatted version. An 8-inch form factor option (440) is also available, with the same features as the 540.



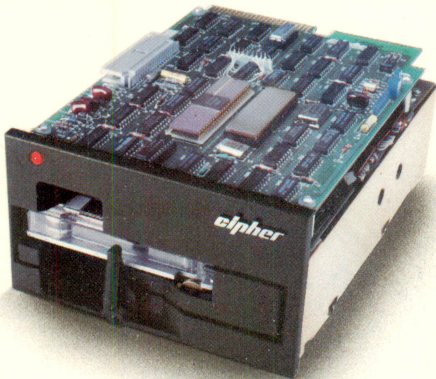
FloppyTape™ Cartridge Tape Drive

(Series 525) Cipher's 1/4-inch FloppyTape Cartridge Tape Drive incorporates innovative technology which utilizes standard floppy disk interfaces, formats, controllers, and software. The 525 FloppyTape drives are compatible with the widely-accepted floppy disk SA450 or SA850 interfaces. FloppyTape offers a compact 5 1/4-inch form factor package, stores up to 32 megabytes of unformatted data on a single standard 1/4-inch tape cartridge, provides easy front loading, offers sector addressing, and is available at a low price unprecedented in the peripherals industry. The easy integration, high performance, and cost make FloppyTape the ideal storage device for Winchester-based microcomputer and small business computer systems for backup and data storage applications.



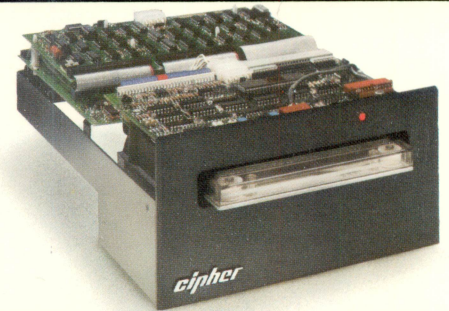
CacheTape™ Tape Drive

(Series M890, M891) The 1/2-inch CacheTape Tape Drive is a unique concept in start/stop tape technology that features high performance for start/stop intensive applications, a compact 8.75-inch size, simple mechanics, and user-friendly features such as automatic loading and threading. CacheTape is available in a 1600 bpi or 1600/3200 bpi dual density format. The 3200 bpi option provides a capacity of 92 megabytes on a single tape reel. In either the 1600 bpi or optional 1600/3200 bpi configuration, the CacheTape M890/M891 tape drives are fully IBM compatible. CacheTape M890 provides 75 ips tape drive equivalent performance and is an easy-to-use tape drive for new multi-purpose systems applications. CacheTape M891 offers 125 ips, or better, tape drive equivalent performance, making it ideal for all applications that require performance above a 75 ips start/stop vacuum column tape drive. Both models in the CacheTape family of 1/2-inch drives are fully software transparent on systems with existing vacuum column and compliance arm tape drives, while offering a much lower purchase price. These CacheTape benefits minimize integration time and difficulty.



Vacuum Column Tape Drive

(Series 900, MOD 11) CIPHER's Vacuum Column Tape Drives have been designed for reliability, easy operation, and simple maintenance—and are ideal for start/stop intensive applications. The Model 920 vacuum column tape drive provides standard dual density operation, uses reel sizes of 7, 8 1/2, and 10 1/2 inches, and provides tape speeds of up to 125 ips. The Model 910 and MOD 11 are available in NRZI, PE, or dual density formats and have tape speeds of up to 75 ips. The Series 900 tape drives feature microprocessor-controlled logic, built-in test features, low power consumption, low noise, and high performance. CIPHER's vacuum column drives use "industry standard" interfaces, conform to ANSI and IBM standards, and incorporate precise tape alignment with single capstan drive control to assure the highest reliability.



Compliance Arm Tape Drive

(Series 100, MOD 10, MOD 8) CIPHER's Compliance Arm Tape Drives have been designed for maximum up-time and user-friendliness. CIPHER's Series 100 and MOD 10 compliance arm tape drives offer NRZI, PE, or dual density formats, have standard speeds of 12.5 to 45 ips, and accept 7-, 8 1/2-, and 10 1/2-inch tape reels. The Series 100, MOD 10, and MOD 8 compliance arm tape drives feature direct drive reel motors and electro-mechanical compliance arms to ensure constant tape tension for gentle tape handling. The MOD 8 incorporates many of the same features of the Series 100 and MOD 10, in a 12 1/4-inch-high package. The MOD 8 has tape speeds of up to 37.5 ips, accepts tape reels up to 8 1/2 inches, and is available in NRZI or PE formats. The Series 100, MOD 10, and MOD 8 tape drives are all IBM and ANSI compatible, use "industry standard" interfaces, and provide high data reliability.