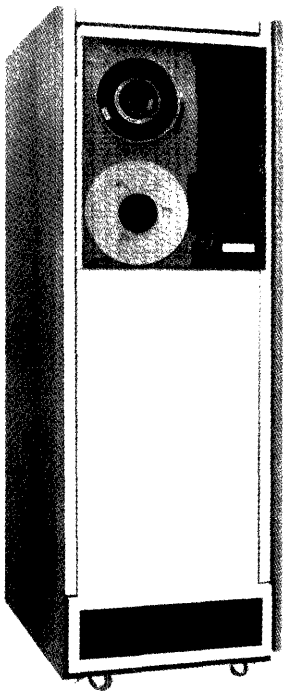
INTERDATA®

PERIPHERALS
Series W



800 CPI 75 IPS Magnetic Tape System

PRODUCT DESCRIPTION

The Interdata 75 IPS Magnetic Tape System provides a low cost, high performance, sequential access, bulk storage medium.

The system consists of a magnetic tape controller capable of supporting up to four transports, a vacuum column tape transport, cabinet, cables and power supply.

The transport is IBM code compatible, conforms to ANSI standards, and has a data transfer rate of 60,000 characters per second. To minimize delays, simultaneous read, write, and rewind are permitted in multiple transport configurations. Extensive hardware error checking by the controller and transport allows complete data transfer monitoring for error detection and recovery programs.

FEATURES

- 75 IPS, 9-track, 800 CPI
- Vacuum column
- Read-after-write Check
- Hardware CRC generation and check
- ANSI compatability
- 60,000 bytes/second transfer rate
- 1 x 4 controller

OPERATIONAL CHARACTERISTICS

The magnetic tape controller can control up to four read-after-write magnetic tape transports and contains the logic to provide NRZI formatting, error detection, and status condition. Operation is via the high-speed Selector Channel. Peak data transfer rates of 60,000 bytes per second are possible. Program control is exercised over various hardware functions including interrupt, read, write, file mark, rewind, skip file, and clear operations.

The controller is completely self-contained on a single 15-inch printed circuit board and employs the latest state-of-the-art LSI devices.

The controller responds to four different addresses, one for each of the four possible tape transports. An interrupt from any one of the four transports is queued and responded to by the proper interrupt address for the interrupting source.

The controller accepts commands and responds with specific transport status. Error status is provided for write overflow, read error during a write operation, cyclic redundancy character check, error during read operations, vertical parity error, and longitudinal redundancy check error.

Device status is provided for file mark sense, load point sense, tape not in motion, end of record, and device unavailable.

TRANSPORT

The transport is highly reliable, with an error rate of one in 2 x 10^8 bits transferred. The unit provides a forward tape speed of 75 inches per second. Its design ensures IBM and ANSI compatability as well as reliability and maintainability. Easily accessible up-front controls are provided for operator convenience and additional inside controls are provided for maintenance purposes.

The transport has a single capstan drive mechanism which maintains a highly accurate tape speed by using a low-inertia, DC servo motor. Motor speed stability is the result of a highly tuned, analog-type velocity feedback network that causes immediate corrective response if any irregularity is present.

Read, write, read-after-write, and control electronics are housed in the transport. Write deskew is accomplished digitally by timing the data written to minimize gap scatter and other static and dynamic skew effects. Critical turn-on and turn-off of write and erase currents are expertly controlled to prevent recording of spurious signals.

Manual control is provided for load point, on/off line, rewind, and power on/off. In addition, maintenance controls are conveniently located within the unit for forward, reverse, and stop.

The 800 CPI 75 IPS Magnetic Tape Systems are fully supported by the wide range of standard Interdata software: the BOSS operating system, the powerful Multi-Tasking OS/16MT2 and OS/32MT operating systems, and high-level languages such as FORTRAN, COBOL, BASIC, and CORAL 66.

SPECIFICATIONS

Controller

Commands	Enable Interrupt Disable Interrupt Disarm Read Write Write File Mark Rewind Skip File Forward Skip File Reverse Clear
Record Size	Variable, 4 character minimum
Environmental	0° to 50°C operational −40° to 85°C storage 0 to 90% humidity (with condensation)
Dimensions	15-in. (38.1 cm) x 15-in. (38.1 cm) Printed Circuit Board
Weight	2 Pounds (.9 Kg)

Tape Transport

Number of Tracks	9
Tape Speed Write	75 inches per second synchronous
Rewind	200 inches per second
Start/Stop time (nominal)	8 milliseconds
Inter-Record gap	.75 inch (1.9 cm) nominal
Recording mode	9-Track, NRZI, IBM and ANSI compatible
Recording Head	Magnetic dual gap with erase head
Packing Density	800 Characters per inch
Tape Format	IBM Compatible
Transfer Rate	60,000 bytes per second max.
Type of Reel	Hub mounting, 10 1/2-in. (26.7 cm) diameter maximum
Tape Capacity	2400 feet (732 meters), 0.5-in. wide (1.3 cm), 1.5 mil thick, approx. 23,000,000 bytes
Error Checks	Hardware Read-after-write
Error Rate	1 error in 2 x 10^8 bits transferred
Environmental	5° to 43° C operational 30 to 80% Relative humidity (without condensation)
Dimensions (including cabinet)	70 inches high (177.8 cm) 24 inches wide (60.96 cm) 30 inches deep (76.20 cm)
Weight (including cabinet)	475 Pounds (215.5 Kg)

Power

Transport	115/230 VAC 47-63 Hz 8.5/4.2A
Controller	+5 VDC, 3.5 amperes

INTERDATA PRODUCT NUMBERS

M46-490	75 IPS Magnetic Tape System. Consists of a 1 x 4 magnetic tape controller and one 9-Track, 800 CPI vacuum column magnetic tape transport. Also includes a cabinet, required cables and power supply.
M46-491	75 IPS Magnetic Tape Transport. Requires a M46-490. Consists of a 9-Track, 800 CPI vacuum column magnetic tape transport. Also includes a Cabinet, required cables and power supply.

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