

SERIES 6500 LOW-SPEED MAGNETIC TAPE SYSTEMS

FEATURES

- Excellent Performance at a Low Cost
- Ability to Record or Read Data on either 7 or 9 Tracks
- Synchronous Read-After-Write Capability
- Speed of 25 or 45 Inches per Second

N437

Datacraft[®]

SPECIFICATIONS

Tape Speeds	25 or 45 ips, bi-directional. Maximum data transfer rate: 72K character/second.
Number of Tracks	7-track IBM (IBM 729 series track spacing).
	9-track ASCII (IBM 2400 series track spacing).
Read/Write Heads	A dual gap head is standard. A combination read/write head is available as an option.
Erase Heads	An erase head is standard on all units.
Densities	800, 556, or 200 bpi, 7-track (NRZI).
	800 bpi, 9-track (NRZI).
	1600 bpi, 9-track (PE).
	Dual and triple densities available.
Rewind Time	Less than 4 minutes, under capstan control (150 ips).
Skew	150 microinches.
Write-to-Read Crosstalk	5% maximum of the normal read signal.
Read Thresholds	28% and 18%.
Start/Stop Time	$380 \div$ (tape speed, ips) milliseconds.
Start/Stop Distance	$.190 \pm .02$ inches.
Tape Speed Variations	$\pm 1/2\%$.
Tape Size	$^{1\!/_{2}}$ inch standard computer tape (0.496 in. \pm 0.002) 1.5 mil. thickness.
Tape Reels	IBM type, maximum diameter $10\frac{1}{2}$ inches.
Size	24 in. high, $12\frac{1}{4}$ in. deep, $23\frac{5}{8}$ in. wide, $71\frac{3}{4}$ in. high (on castors), $35\frac{3}{4}$ in. deep.
Weight (including 19 in. cabinet)	300 pounds (one transport).
	400 pounds (two transports).
Temperature and Humidity	Operating: 0° to 55° C, 5% to 95% RHC-noncondensing.
Power	105/125v (210/250) volts, 47 to 64 Hz (400 Hz optional), 275 watts typical.



Specifications subject to change without written notice.

Designed to provide permanent or temporary storage of digital data, Series 6500 Magnetic Tape Systems satisfy the requirements of the low-speed tape user. Performance and low cost are combined in the Series 6500 Tape Systems to provide Datacraft Computer System users a method of recording IBM-compatible formatted data.

The Series 6500 Tape Systems are capable of recording or reading data on either 7 or 9 tracks at speeds of 25 or 45 inches per second. Data transfer rates of 72K characters per second at 1600 bits per inch are obtained using the Phase Encoded (PE) model. Transfer rates of 36K characters per second at 800 bits per inch are obtained using the NRZI formatted device. The tape transports are available with the Synchronous Read-After-Write capability. This technique provides the advantage of writing and checking data in a single pass.

Compactly packaged, the interface controller is contained on a single-printed circuit card located within the cabinet assembly of the tape transport device. The interface controller serves as the communication link between a Datacraft Computer and the magnetic tape systems. Capable of communicating with four tape transport devices, the interface controller is connected directly to the first unit and in the "daisy chain" fashion to the remaining three. In a completely self-contained system, including power supply, the interface controller assembles and disassembles the word transfers into characters and controls the bit packing density upon computer command. Data formatting, also included in the Series 6500 Tape System, provides the generation and decoding of IBM-compatible tapes. All timing and control signals necessary for the recording and reproduction of data are provided. The tape transports attached to each interface controller may be of mixed formats and speeds, i.e., a 1600 bpi, phase encoded transport and a 556 bpi, 7-track transport may be connected to the same controller.

The formatting electronics consist of automatic interblock gap generation and automatic tape motion control. Generation of LRC, CRC, vertical parity and tape mark characters is also included. Outputs are available to indicate the end of a data block, as well as a read error due to improper parity, non-matching CRC or LRC error. The 1600 bpi, phase encoded, formatters record preamble and postamble, identification burst and tape mark precisely to IBM standards. The read electronics strip the preamble and postamble from the data and deskew the data with a four character buffer. Single-track errors are corrected and multi-track errors indicated.

SOFTWARE

Complete software packages are provided with the Series 6500 Low-Speed Magnetic Tape Systems. In addition to the tape diagnostics, a Tape Operating System (TOS) is available. TOS provides maximum use of all the hardware capabilities in the magnetic tape system. The tape system is also supported by the Disc Operating System (DOS), Disc Monitor System (DMS), and Virtual Memory Operating System (Vulcan).

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