terak® 8510 DATA PROCESSOR

- **LSI Processor**
- **Direct Access Mass Storage**
- **Full Disk Operating System**
- **Standard Programming Languages**
- **Physically Compact**
- **Modular Design**

SYSTEM DESCRIPTION

The TERAK 8510 is a completely self-contained disk based computer system incorporating a powerful LSI technology processor, a single flexible disk drive, a disk controller which handles up to four drives, single serial interface circuitry, power supplies and from 4K to 20K words (16-bit) of MOS read/write memory (12K standard).

The system is further enhanced by the unique TERAK universal serial interface panel allowing use of any peripheral requiring 20ma or RS-232-C signal levels and any of 14 switch selectable baud rates.

The 8510 features a 16-bit CPU, word and byte processing, eight general purpose registers, hardware and software interrupts, real time clock, parallel I/O data bus, power failure/auto-restart logic and optional hardware multiply, divide and floating point arithmetic.

This impressive array of hardware is packaged in a compact, attractive cabinet which occupies about one cubic foot of space and weighs less than 40 pounds.

The 8510 is supported by a complete disk operating system including a single job and a foreground/background (F/B) monitor. The operating system supports a MACRO Assembler, Editor, Linker, Librarian, file transfer software and utilities for converting, dumping, comparing and verifying. The operating system also supports two high level languages: BASIC (single and multiple user) and FORTRAN IV.

FEATURES

- LSI Processor — 8.5″ × 10″ PWB
- 16-bit word
- Word & Byte Processing
- 8 General purpose registers
- Hardware & software interrupts
- Real Time Clock
- Stack Processing
- Single & double operand instructions
- Power Monitor — power fail/restart
- Auto Bootstrap program loader
- Flexible Disk Mass Storage (IBM 3740 format)
- External Switch Selectable:
  - Logical Unit Numbers
  - 7 or 8 bit data transmissions
  - TTY filter enable/disable
  - Parity, no parity
  - Odd or even parity
  - 14 baud rates — 50 to 19,200
- 20ma Current Loop (active/passive)
- RS-232-C (male & female connectors)
- Disk Controller — handles up to four drives (daisy-chain fashion)
- Full Disk Operating System Support
- Supports BASIC, FORTRAN IV
- Foreground/Background processing capability

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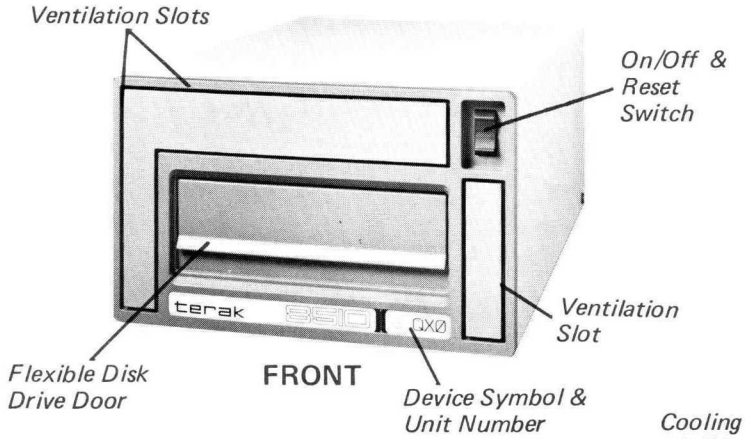
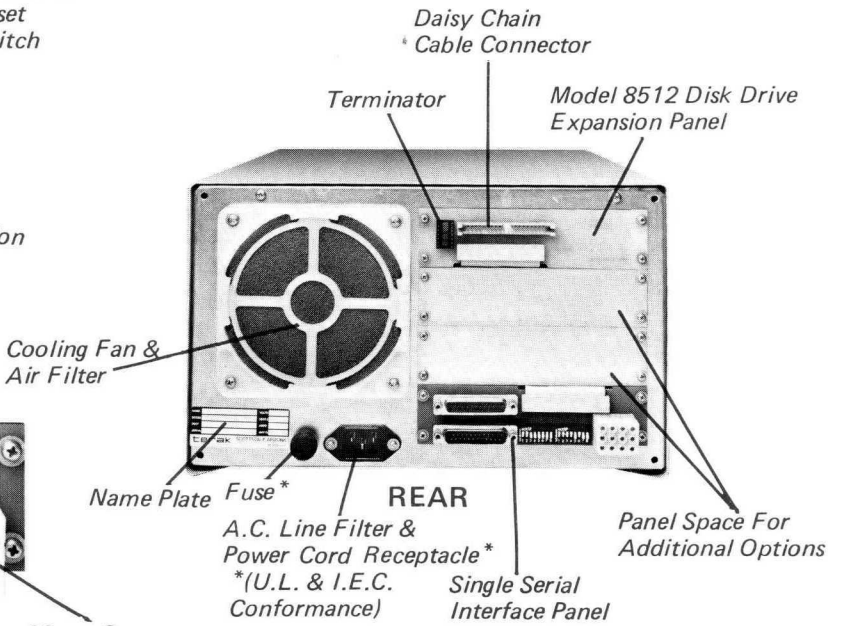
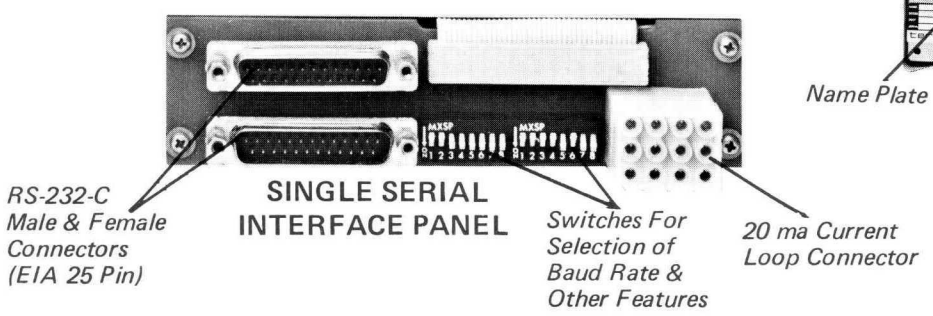
SPECIFICATIONS

Processor	DEC LSI-11 Microcomputer 16-bit word Direct Memory Access (DMA) Real Time Clock Interrupt Variable Word Operand Length 1, 2 or 3 Word Instruction Length 8 Addressing Modes 8 General Purpose Registers
Primary Memory	Dynamic MOS RAM; minimum 4K words (standard 12K words) expandable to 20K words in 4K word increments
Mass Memory	Single integral flexible disk drive. IBM 3740 compatible format, ceramic read/write head, 320 ms average access time. 256,256 bytes per diskette. Reliability: Read error rate — less than 1 in 10^9 bits Unrecoverable read error rate — less than 1 in 10^{12} bits Head Life — 30,000 Contact Hours Media Life — Greater than 10×10^6 passes per track on approved media.
Terminal Interface ..	Asynchronous EIA RS-232-C and 20ma current loop (active/passive). External switch selectable baud rates (14) from 50 to 19,200 baud.
A.C. Power Requirements	105,120,220,240 VAC @ 50/60 Hz 150 watts typical
Environmental	Operating Temperature — +40°F to +90 F Operating Humidity — 20% to 80% R.H. (non-condensing)
Physical	Height 7.5 in. (19.0 cm) Width 12.2 in. (31.0 cm) Depth 18.0 in. (46.0 cm) Weight 40 lbs. (18.2 kg)
Standard Options Available	Additional single serial interface Line printer controller Multi-port serial (four serial & one printer controller interface) 16-bit parallel interface Additional memory







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