

CALCOMP

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TRIDENT T-50 DISK DRIVE

One of the new family of rotating disk pack magnetic memory devices, CalComp's TRIDENT Model T-50 is a high speed, random access, mass storage unit.

With a capacity of 54.7 megabytes per pack, the T-50 provides the OEM designer with an economical, compact, reliable and advanced unit, incorporating existing technology in an optimum design.

State-of-the-art data recovery techniques of the TRIDENT family combine with the many additional features listed below to assure data integrity.

Incorporating 370 tracks-per-inch technology, access to any one of the 815 positions on the disks can be accomplished in not more than 6 msec track-to-track. Average rotational latency is 8.3 milliseconds.

With a rotational speed of 3600 rpm, data is transferred at a rate of 806 kilobytes per second.

CalComp's TRIDENT T-50 possesses many valuable features that make it suitable for a wide range of designs and applications.

T-50 FEATURES

SINGLE COMPACT SELF CONTAINED UNIT

provides flexibility for lowboy cabinet, table top or 19" RETMA-rack drawer mounting with front and rear access.

FIVE-HIGH STANDARD 3336 TYPE DISKS AND 3330 TYPE SPINDLE INTERFACE which are available from multiple sources.

ELECTROMAGNETIC ACTUATOR AND PRE-RECORDED SERVO SURFACE provide superior head positioning accuracy, track densities and reliability. TRIDENT offers the OEM designer a new dimension in improved data integrity for his system.

HIGH VOLUME INTEGRAL AIR FLOW SYSTEM provides extremely clean and thermally stable air which assures data reliability.

FAST ACCESS TIME provides optimum system throughput.

FAST START TIME AND DYNAMIC BRAKING permit rapid pack change.

FUNCTIONALLY ORGANIZED PRINTED CIRCUIT BOARDS facilitate maintenance and reduce MTTR.

PROGRAMMABLE HEAD OFFSET AND VARIABLE STROBE TIMING features maximize recovery of marginal data and ensure high data integrity.

SECTOR LENGTH SELECTION in one-byte increments through jumpers on sector board.

VFO INCORPORATED IN THE DRIVE UNIT which eliminates the need for complex analog circuitry in the controller.



LOW BOY



RACK MOUNT



TABLE TOP

T-50 SPECIFICATIONS AND CHARACTERISTICS

CAPACITY

54.7 million 8-bit bytes

TRANSFER RATE

806 Kilobytes per second

ACCESS TIME

Track to Track: 6 msec. max.
Average Positioning: 30 msec.
Full Stroke: 55 msec. max.
Average Latency: 8.3 msec.

ROTATIONAL SPEED

3600 rpm

PACK START/STOP TIME

Start Time: 20 seconds (nominal)
Dynamic Braking: 20 seconds (nominal)

DENSITIES

Track Density: 370 tracks per inch
Recording Density: 4040 bits per inch
13,440 bytes per track
67,200 bytes per cylinder

DISK PACK CHARACTERISTICS

Disk Pack: IBM 3336-type components
Recording Surfaces: 5 plus 1 servo surface
Tracks per surface: 815

OPERATING METHODS

Recording Method: Modified Frequency Modulation
Positioning Method: Linear Motor; Track-Following
Servo

ERROR RATE

Recoverable: 1 error in 10^{10} bits
Non-recoverable: 1 error in 10^{13} bits
Positioning: 1 error in 10^6 seeks

RELIABILITY

MTBF: Designed to exceed 2500 hours
MTTR: Designed to be less than 1.5 hours
Service Life: 5 years or 45,000 hours

CONTROLS & INDICATORS

Ready Indicator
Fault Indicator
Start/Stop Switch
Read Only Switch
Degate Switch

EXTERNAL DIMENSIONS

17.8" wide x 10.5" high x 32" deep
(452 mm x 267 mm x 813 mm)

POWER REQUIREMENTS

Input Voltage: 117, 190, 200, 208, 220, 230, 240 vac
(+10%, -15%)
Line Frequency: 60 Hz \pm 1% (50 Hz \pm 1%, optional)
Starting Current: 117 vac Models = 24 amperes.
Other Models = 13 amperes.
Operating Current: 117 vac Models = 7.5 amperes.
Other Models = 4.5 amperes.

OPERATING ENVIRONMENT

Temperature: 60°F (16°C) to 100°F (38°C)
Temperature Gradient: 20°F (11°C)
Humidity: 10% to 80% (no condensation)

HEAT DISSIPATION

2500 BTU/hour

AIR FLOW

350 CFM minimum at 60 Hz
290 CFM minimum at 50 Hz

OPTIONS

Off-line Exerciser
Dual Access



California Computer Products, Inc.
2411 W. La Palma, Anaheim, CA 92801
Tel (714) 821-2011 Twx 910-591-1154