

3370 Direct Access Storage Device

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3370 PRODUCT DESCRIPTION

The IBM 3370 disk storage facility is a direct access storage device providing fast access, large capacity, high data rate, and low cost data storage.

The storage media is a non-removable, dual actuator sealed Head Disk Assembly (HDA). The HDA is a fixed unit containing disks, heads, and two carriage assemblies. The two access mechanisms are working independently.

The operation mode is fixed block mode (FB-512). Each block contains 512 data bytes and is preceded by an identifier field.

Rotational Position Sensing (RPS) enables the drive to align with a specified record position. The channel or native interface is disconnected during most of the record search time.

There are CE tracks on each Data Surface for test purposes. The HDA is field-replaceable by the CE only.

The 3370 subsystem uses the "A" and "B" box concept.

One string consists of one "A" box and a maximum of three "B" boxes. (This is equivalent to an 8 drive string of 3340 disk drives.)

The 3370 is designed for native attachment to the IBM System 38 and for channel attachment to the IBM System 4341 via the 3880 Storage Control.

Four 3370 models are available:

Model A1 and A11: Dual actuator drive unit with the controller.

Model B1 and B11: Dual actuator drive.

The A1 and B1 models attach to the IBM 4341.

The A11 and B11 models attach to the IBM System 38

General Characteristics

| | | | |
|--------------------------|----------------------------------|--------|------|
| <input type="checkbox"/> | Access time (average) | 20 | ms |
| <input type="checkbox"/> | Data Rate | 1.86 | mb/s |
| <input type="checkbox"/> | Capacity Spindle | 571.3 | mb |
| <input type="checkbox"/> | Capacity/Actuator | 285.6 | mb |
| <input type="checkbox"/> | Capacity/Subsystem (8 addresses) | 2284.8 | mb |

Optional Features

String switch - enables the sharing of a 3370 subsystem between two separate control units.

Programming Support

3370s attached to the IBM 4341 are supported by DOS/VSE and VM 370.

3370s attached to the IBM System 38 are supported by CPF.

Maintainability/Serviceability

Problem Determination/Isolation facilities:

Maintenance Device (MD)

The MD is a portable onsite tool used as the CE's interface to the 3370. It combines the functions of a CE Panel and MAP package. The MD includes a microprocessor, diskette loading device, and hand held keyboard display.

For 3370s attached to the IBM 4341, the Soft Copy MAP functions are performed by the MD. The customized diskette is EC controlled and ships with each Model A1.

For 3370s attached to the IBM System 38, the Soft Copy MAP functions are performed within the processor.

Microprogrammed Maintenance Analysis Procedures (Soft Copy MAPs)

The MAPs provide:

- Automatic execution of in-line microdiagnostics for recreation of failures or machine check-out.
- High speed analysis of symptom codes provided by console messages and error logs for FRU isolation on intermittents.
- Programmed time measurements of electronic adjustments.

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Status and Sense byte information (Fault Symptom Code)

Environmental Recording, Edit and Print (EREP1)

EREP1 Analysis

An enhancement to EREP1 which provides additional input to the MAPs based on analysis of EREP1 summary data

Analysis Program - 1 (AP-1)

(Under system control program and standalone)

In-line Tests (Microdiagnostics)

New System Test (MST)

Software Error Recovery/Retry

High Speed error correction

Head offset for data check recovery

Visual power status indicators

Separate controller logic and power

Maintenance Information Manual (MIM)

Functional Logic Diagrams (FLD support level documentation)

Retain Data Bank Search

Career Path

This is a DP CE career path product.