3880 PRODUCT DESCRIPTION

The 3880 is a Direct Access Storage Control Unit providing attachment capabilities for the 3370 and 3340/3344 file drives to system 4341.

The 3880 control unit, incorporating the latest technological concepts, consists of four functional areas packaged on one 4 x 2 gate:

- Storage Director (2 per 3880)
- Maintenance/Power Control Module
- MPL (Microprogram Load) file (33FD)
- Power

Each 3880 Storage Director contains a micro controller to perform instruction processing, and control storage which has microcode modules required for Channel/Device connections.

The 3880 has the capability for attaching up to four strings of 3370 or 3340/3344 file drives per director (8 strings per control unit). 3370 strings cannot be intermixed with 3340/3344 strings on the same director.

General Characteristics

The 3880 logic is designed primarily in high density Large Scale Integration Circuitry (LSI), functionally packaged in pluggable units.

The 3880 provides:

- **CONTROL UNIT RETRY** to recover from any control unit and file errors without intervention at the system level
- **CONTROL UNIT LOGGING** is also supported where storage subsystem errors and statistical information, recorded in the control unit, is periodically posted to Out Board Record/Statistical Data Record
- **SINGLE BIT MEMORY CORRECTION** is incorporated so that a single bit error will not prevent normal operation from continuing
- **POWER SEQUENCER/MONITOR** (PSM) constantly monitors the 3880 voltages, circuit protectors and thermals. Power supply components are monitored for under/over voltage and over current while logic boards are sampled for under voltage. Any fault detected will sequence down the 3880 and record a fault symptom code for problem isolation

Optional Features

- Two Channel Switch
  This feature allows two channel paths to each storage director (4 channel paths per 3880)
- Remote Enable/Disable
  This feature relocates the enable/disable switches from the operator panel to a remote console

Programming Support

Programming support is provided in DOS/VSE and VM/370 for 3370 attachment and DOS/VS, VS1, VM for 3340/3344 attachment.
General Characteristics

The 3880 logic is designed primarily in high density Large Scale Integration Circuitry (LSI), functionally packaged in pluggable units.

The 3880 provides:

- **CONTROL UNIT RETRY** to recover from any control unit and file errors without intervention at the system level.
- **CONTROL UNIT LOGGING** is also supported where storage subsystem errors and statistical information, recorded in the control unit, is periodically posted to Out Board Record/Statistical Data Record.
- **SINGLE BIT MEMORY CORRECTION** is incorporated so that a single bit error will not prevent normal operation from continuing.
- **POWER SEQUENCER/MONITOR (PSM)** constantly monitors the 3880 voltages, circuit protectors and therinals. Power supply components are monitored for under/over voltage and over current while logic boards are sampled for under voltage. Any fault detected will sequence down the 3880 and record a fault symptom code for problem isolation.

Optional Features

- **Two Channel Switch**
  This feature allows two channel paths to each storage director (4 channel paths per 3880).

- **Remote Enable/Disable**
  This feature relocates the enable/disable switches from the operator panel to a remote console.

Programming Support

Programming support is provided in DOS/VSE and VM /370 for 3370 attachment and DOS/VS, VS1, VM for 3340/3344 attachment.

Maintainability/Serviceability

- **Maintenance Device (MD)**
  The MD is a portable onsite tool used as the CE's interface to the 3880. It combines the functions of a CE Panel and MAP package. The MD includes a microprocessor, diskette loading device, and handheld keyboard display. The customized diskette is EC controlled and will be shipped with each 3880.
  The MD provides:
  - Automatic execution of microdiagnostics for recreation and isolation of failure
  - High speed analysis of symptom codes from console messages and error logs for FRU isolation
  - Routines and procedures for machine checkout.

- **Maintenance Information Manuals (MIM)**
  Contain support level documentation that supplement the MD's MAP package.

- **Environment Recording, Edit and Print (EREPI)**

- **Tracer/Dumper Micro**
  A tool to aid in problem isolation when no hardware error is evident. Runs concurrent with customer operation when invoked by the CE.

- **On Line Tests (OLTs)**
  A channel interface OLT and a Tracer/Dumper Retrieval OLT.

- **Hardcore Micro Tests**
  A series of tests initiated on each storage director with initial power up to thoroughly checkout the 3880 hardware.

- **New System Test (NST)**

CE Career Path

This is a DP CE career path product.