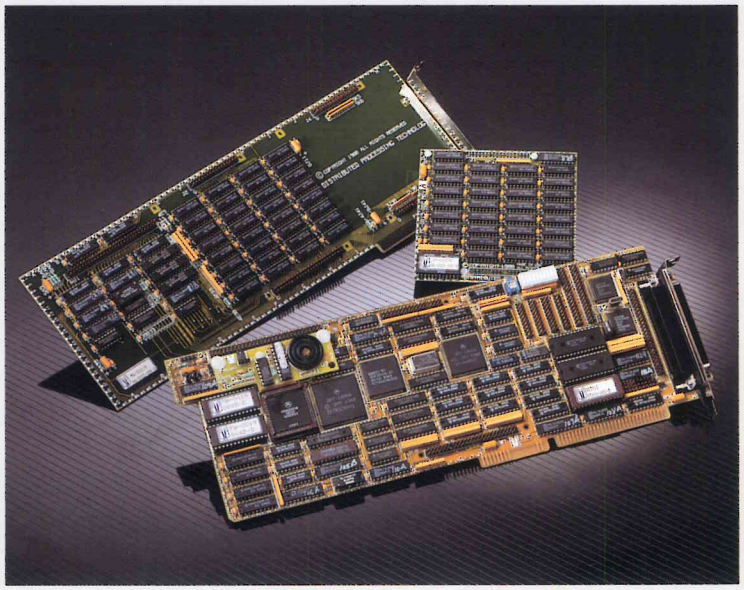

New Release !!

SmartCache™

Disk Controller

- 4.5MBytes of Cache In a Single Slot
- 0.5ms Access Time -- Increases Throughput
- Fault Tolerant Hardware Disk Mirroring
- Supports *All* Operating Systems - *No Drivers*
- Cache Expandable to 16 MBytes

DPT
Distributed
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Technology

SmartCache™ Product Summary

SmartCache is an intelligent caching disk controller designed for use in disk intensive environments such as multiuser systems, LAN fileservers and CAD workstations. Adding the Disk Mirroring Module to the SmartCache controller provides a disk mirroring solution which is compatible with all PC/ATs. SmartCache with Disk Mirroring provides a level of performance, fault tolerance and compatibility never before possible in a PC.

Build Larger, Faster Systems

In many applications, well over half the time is taken up waiting for the disk. Adding a faster processor only aggravates the disk bottleneck.

SmartCache accesses data in as little as 0.5ms so you no longer wait for the disk. This means you can build larger, faster 386 and 486 based systems and effectively compete with minicomputers.

Compatible With All PC Operating Systems

No special software drivers or BIOS ROMs are needed because SmartCache operates transparently to the operating system. It looks exactly like a standard AT disk controller to your computer. And since SmartCache does not occupy any system memory space, compatibility with all application software and other add-in boards is assured. Supported operating systems include:

10NET	OS/2
3COM 3+	PC-MOS
ALLOY	PICK
BOS	Prologue
Concurrent DOS	Quick Connect
C/CPM	QNX
DOS	SCO UNIX/XENIX
Interactive 386/ix	SuperDOS
Microport Unix	THEOS
Novell Netware	VM/386

Hardware Disk Mirroring

No Down Time • No Data Loss • Easy to Install

For the first time, disk fault tolerance is available for any PC, running any operating system. Adding the Disk Mirroring Module enables the SmartCache controller to manage two disk drives faster than other controllers manage one. Fault tolerance is provided by writing data simultaneously to both disk drives. With DPT's disk mirroring, the system keeps running when the disk drive crashes. And you never lose a single byte.

DPTMIR, a menu-driven utility which runs under DOS, is used to install mirroring and to install a new drive after the original drive fails. A copy of DPTMIR is provided with each Mirroring Module.

How SmartCache Works

SmartCache constantly monitors disk activity and keeps the most frequently used data in its high speed sector cache.

Since SmartCache stores each block individually in its sector cache, 32,000 separate pieces of data can be stored and accessed in 0.5ms. This is well beyond the capability of simple track cache schemes which require up to 17 KBytes of cache to store even the smallest piece of information.

The on-board 68000 microprocessor enables SmartCache to access the disk drive at the same time as the computer reads or writes to the controller cache. This simultaneous transfer of data between the computer, the cache, and the disk enables the system to maintain a very high level of performance, even when heavily loaded.

Advanced caching features increase disk performance to levels unattainable by non-caching controllers. Automatic look-ahead preloads the cache with data, anticipating the users next request. Disk writes go directly into the cache, resulting in the complete elimination of disk latency. SmartCache also elevator sorts the data and writes it to the disk in the background, greatly increasing disk write bandwith.

Expandable Cache

The controller's on-board cache RAM is expandable from 512KB to 2.5 or 4.5MB in a single bus slot by adding a 2MB or 4MB MM3011 Memory Module. The cache is further expanded by adding an MX3011 4MB Cache Expansion Board in a second slot. The Expansion Board can accept one or two Memory Modules, providing up to 16MB of controller cache. Cache upgrades are made in 2MB increments by combining 2MB and 4MB Memory Modules.

Optimized Disk Formatting

The DPT Format utility provides optimum performance and data security. Its menu-driven commands with on-screen help guides you through the low level disk format and media certification, making installation quick and easy. All media defects are managed entirely by the controller so the computer always sees a defect free disk. The controller even senses new defects and remaps them on-the-fly.

Backed By The Best: DPT

Distributed Processing Technology leads the industry in the design of intelligent controllers. DPT was the first to develop caching disk controllers for microcomputers and the first to introduce hardware disk mirroring. Our products have been at work for more than a decade, speeding up minis and mainframes. We offer a 1-year warranty, clear documentation, and outstanding technical support.

Technical Specifications

On-Board Cache Size:	512K - 4.5 MBytes
Maximum Cache Size:	16 MBytes
Cache Access Time:	0.5ms
Processor:	68000
Controller Slot:	16-bit AT Slot
Cache Expansion Slot:	8-bit AT Slot
Max. Transfer Rate:	4 MBytes/sec

SmartCache Controller Models

PM3011/75	ESDI/Floppy Disk Controller
PM3011/70	ESDI Disk Controller
PM3011/65	RLL/Floppy Disk Controller
PM3011/60	RLL Disk Controller
PM3011/55	ST506/Floppy Disk Controller
PM3011/50	ST506 Disk Controller

Drives Supported

PM3011/70	4 ESDI Drives (10, 15, & **20MHz**)
PM3011/60	2 RLL Drives
PM3011/50	2 ST506 Drives

SmartCache Cache Expansion

MM3011/2	2MB Memory Module
MM3011/4	4MB Memory Module
MX3011/4	4MB Cache Expansion Board

2MB and 4MB Memory Modules can be combined in any order.

SmartCache Options

DM3011	Disk Mirroring Module
BE3011	BIOS Table Expander Chip
PX3011/09	SCSI Adapter

The DM3011 adds disk mirroring to any PM3011 controller allowing one ST506 or RLL drive to be mirrored to one other, or up to two ESDI drives to be mirrored to two others.

The BE3011 Chip plugs directly onto any controller board adding over 300 additional drive types to the computers ROM BIOS.

The PX3011/09 SCSI Adapter can be built into any SmartCache model, providing an intelligent hardware interface for SCSI devices such as tape, or CD ROM. The SCSI Adapter option must be specified when ordering, or returned to the factory for upgrade. SCSI driver software is required and must be purchased from Independent Software Vendors. Contact DPT for more information.

DPT Distributed Processing Technology

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