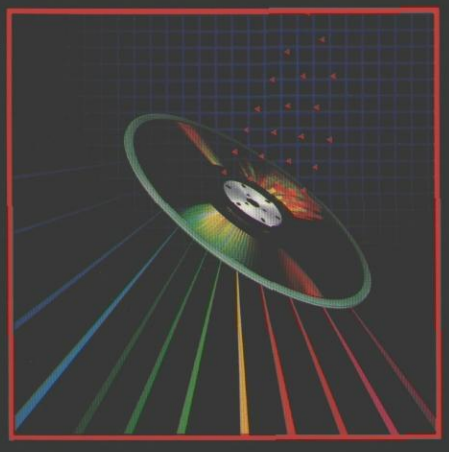
Now You Can Run With the Fast Ones

The *LaserBank*® 940 WORM and *LaserBank 600 Rewritable*

From the Company that offers you all the Optical Answers.



Since 1985, MDI has been at the forefront of optical technology, providing optical interfaces to many WORM optical drives and operating systems. Now, Rewritable and CD-ROM (Compact Disk-Read Only Media) technology are also at your fingertips with MDI.

Optical storage solutions are available from 200 megabytes to 47 gigabytes. WORM (Write Once, Read Many) offers excellent permanent archival storage. Rewritable has the flexibility of magnetic disk devices on high density removable media. CD-ROM provides economical distribution in a read-only form for large quantities of data.

Micro Design International's LaserBank 940 WORM and LaserBank 600 Rewritable optical disk systems offer you performance comparable to many hard disk drives.* With storage capacities of 940 and 600 Megabytes per cartridge, high density removable media is now available with outstanding performance characteristics at a reasonable cost per Megabyte.

**Ask for our Benchmark Information!*

Two software interfaces are available with the LaserBank subsystems: a native file system emulation which supports standard operating system file manipulation commands, or OPAL, a custom file system which allows the writing of application programs to access data on the optical drive. The software interfaces are available for the operating systems MS-DOS®, SCO™ XENIX, and Novell NetWare™.

These subsystems are complete with SCSI host adapter, cable, documentation and software to support your current applications. Micro Design International, the company with the widest spectrum of optical storage solutions in the industry. Now you can get the **right** solution for your application from the company that offers **all** the alternatives.

	WORM	Rewritable	CD-ROM
MS-DOS®	✔	✔	✔
IBM PS/2® DOS Micro Channel	✔	✔	✔
Novell® Network	✔	✔	✔**
SCO™ XENIX	✔	✔	✔
Sun™ OS/4	✔	✔**	✔

***available third quarter, 1989*

MS-DOS, IBM PS/2, Micro Channel, Novell, SCO XENIX, and Sun are trademarks of Microsoft, Inc., IBM, Novell, Inc., Santa Cruz Operations, and Sun Microsystems, Inc.

Micro Design International Inc.

6985 University Boulevard • Winter Park, Florida 32792
(407) 677-8333 • FAX (407) 677-8365

Micro Design International LaserBank 400

A Practical Solution

Micro Design International Inc.

Micro Design International

LaserBank 400

Micro Design International's LaserBank 400 is a complete "plug-and-play" drive subsystem which includes everything needed to integrate a mass-storage drive into your personal computer or workstation.

Two software interfaces are available with the LaserBank 400: a native file system emulation, supporting standard operating system file manipulation commands (ie. DOS XCOPY or XENIX cp), or OPAL (Optical Peripheral Access Link), a custom file system which allows the writing of applications programs to access data on the optical drive. The Opal Shell (OSH) source code is provided with OPAL as an example of optical applications programs.

Offering ease of installation, simplicity of operation, and permanence of written data, the LaserBank 400 is a practical solution for a number of application needs including:

- Document Storage
- CAD/CAM Back-up
- Medical Imaging
- Database Management
- On-Line Archiving
- Transaction Logging

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Specifications

Optical Disk Drive

Average Access Time			190 ms
Data Transfer Rate			2.5 Mbps
Corrected Bit Error Rate			Less than 10^{-12}
Spindle Rotational Speed			875 rpm
Average Latency			34 msec
Start/Stop Time			5 sec
Interface			SCSI
MTBF			20,000 hours
Environmental	Operating	Temperature	50-95° F (10-35° C)
		Humidity	8-80%
	Storage	Temperature	32-140° F (0-60° C)
		Humidity	5-80%
Power Supply			100-120 VAC, 50/60 Hz
Power Consumption			40W
Dimensions (WxHxD)			8.12 x 4.93 x 15.12 in. (206 x 125 x 384 mm)
Weight			14.1 lbs. (6.4Kg)

Optical Disk Cartridge

Capacity			200 MB/side
Sector Size			512 bytes
Sectors/Track			23
Tracks/Side			17,100
Track Pitch			1.6 um
Track Format			Pre-grooved, spiral
Recording Method			Phase change
Disk Diameter			130 mm
Disk Thickness			2.45 mm
Archival Life			More than 10 years
Environmental	Operating	Temperature	50-122° F (10-50° C)
		Humidity	8-80%
	Storage	Temperature	32-140° F (0-60° C)
		Humidity	5-80%
Dimensions (WxHxD)			5.31 x 0.37 x 5.71 in. (135 x 9.2 x 145 mm)
Weight			4.8 oz. (135 g)

Micro Design International 600R

High Performance Rewritable Subsystem

Micro Design International Inc.

Micro Design International

LaserBank 600R

Micro Design International's LaserBank® 600R Rewritable Optical subsystem provides all the necessary equipment and instructions for the integration of rewritable optical technology into your personal computer or workstation.

Three software interfaces are available with the LaserBank 600R: MS-DOS®, SCO™ XENIX, and Novell NetWare™. The interface to MS-DOS provides for a transparent hard disk emulation, occupying a non-bootable hard drive letter. SCO XENIX support provides a read/write mountable file system. The Novell interface allows for all the standard advanced features provided by Novell: disk caching, elevator seeking, and hot fix functions. Each interface has been designed to support all the standard file system manipulation commands, and support is available for both standard AT-bus and IBM Micro Channel® Architectures.

Offering ease of installation, simplicity of operation, and the economy and security of rewritable, removable media, the LaserBank 600R has the capacity and performance for all your rewritable optical disk needs.

Specifications

Rewritable Media

LaserBank LBM600R-M1	
Sector Size (bytes)	1024
Capacity (formatted)	650 MB/disk 326 MB/side
Data Transfer Rate	7.40 Mbps
User Data Transfer Rate	680 Kb/sec
Sectors per Track	17

LaserBank LBM600R-M2	
Sector Size (bytes)	512
Capacity (formatted)	594 MB/disk 297 MB/side
Data Transfer Rate	7.40 Mbps
User Data Transfer Rate	640 Kb/sec
Sectors per Track	31

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Specifications

Optical Disk Drive

Disk (with Protective Cartridge)		130mm MO disk
Disk Format		Continuous/Composite
Average Latency		12.5 msec
Rotational Speed		2,400 rpm
Rotational Mode		CAV
Number of Tracks		18,751/side
Weight		6.5 kg
Dimensions		211 x 126 x 310mm
Operating Mount		Horizontal or Vertical
Power Requirements	AC voltage	100-120V
	AC current	0.45 A
Seek Time	Short Stroke	20 msec
	Average	95 msec
	Full Stroke	185 msec
Non-Operating Environment	Temperature	-30° to 60°C
	Relative Humidity	5% to 90%
	Vibration	1G
	Shock	60G
Operating Environment	Temperature	5° to 40°C
	Relative Humidity	10% to 80%
	Max. Wet-bulb Temperature	29°C
	Temp. Gradient	10°C/hour
	Vibration	0.2G
	Shock	25G

MS-DOS, SCO XENIX, Novell NetWare, and IBM Micro Channel are trademarks of Microsoft, Santa Cruz Operations, Novell, Inc., and IBM Corporation.

Minimum Configuration Required:
DOS 3.2 or greater
SCO XENIX 286/386 2.3.1 or greater
Novell Netware 2.15 or greater.

Micro Design International LaserBank 940

Capacity and Performance

Micro Design International Inc.

Micro Design International

LaserBank 940

Micro Design International's LaserBank 940 "plug-and-play" subsystem provides the necessary equipment and instructions for the integration of WORM technology into your personal computer or workstation.

Two software interfaces are available with the LaserBank 940: a native file system emulation, supporting standard operating system file manipulation commands (ie. DOS XCOPY or XENIX cp), or OPAL (Optical Peripheral Access Link), a custom file system which allows the writing of applications programs to access data on the optical drive. The Opal Shell (OSH) source code is provided with OPAL as an example of optical applications programs.

Offering ease of installation, simplicity of operation, and permanence of written data, the LaserBank 940 has the capacity and performance for a number of application needs, including:

- On-Line Archiving
- Document Storage
- Medical Imaging
- CAD/CAM Back-up
- Database Management
- Transaction Logging

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Specifications

Optical Disk Drive

Average Access Time			90 msec
Data Transfer Rate			3.88-6.89 Mbps
Corrected Bit Error Rate			Less than 10^{-12}
Spindle Rotational Speed			1200 rpm
Average Latency			25 msec
Start/Stop Time			5 sec
Interface			SCSI
MTBF			20,000 hours
Environmental	Operating	Temperature	50-95° F (10-35° C)
		Humidity	8-80%
	Storage	Temperature	32-140° F (0-60° C)
		Humidity	5-80%
Power Supply			100-120 VAC, 50/60 Hz
Power Consumption			40W
Dimensions (WxHxD)			8.12 x 4.93 x 15.12 in. (206 x 125 x 384 mm)
Weight			14.1 lbs. (6.4Kg)

Optical Disk Cartridge

Capacity			470 MB/side
Sector Size			1024 bytes
Sectors/Track			18-32
Tracks/Side			18,360
Track Pitch			1.5 um
Track Format			Pre-grooved, spiral
Recording Method			Phase change
Disk Diameter			130 mm
Disk Thickness			2.45 mm
Archival Life			More than 10 years
Environmental	Operating	Temperature	50-122° F (10-50° C)
		Humidity	8-80%
	Storage	Temperature	32-140° F (0-60° C)
		Humidity	5-80%
Dimensions (WxHxD)			5.31 x 0.37 x 5.71 in. (135 x 9.2 x 145 mm)
Weight			4.8 oz. (135 g)