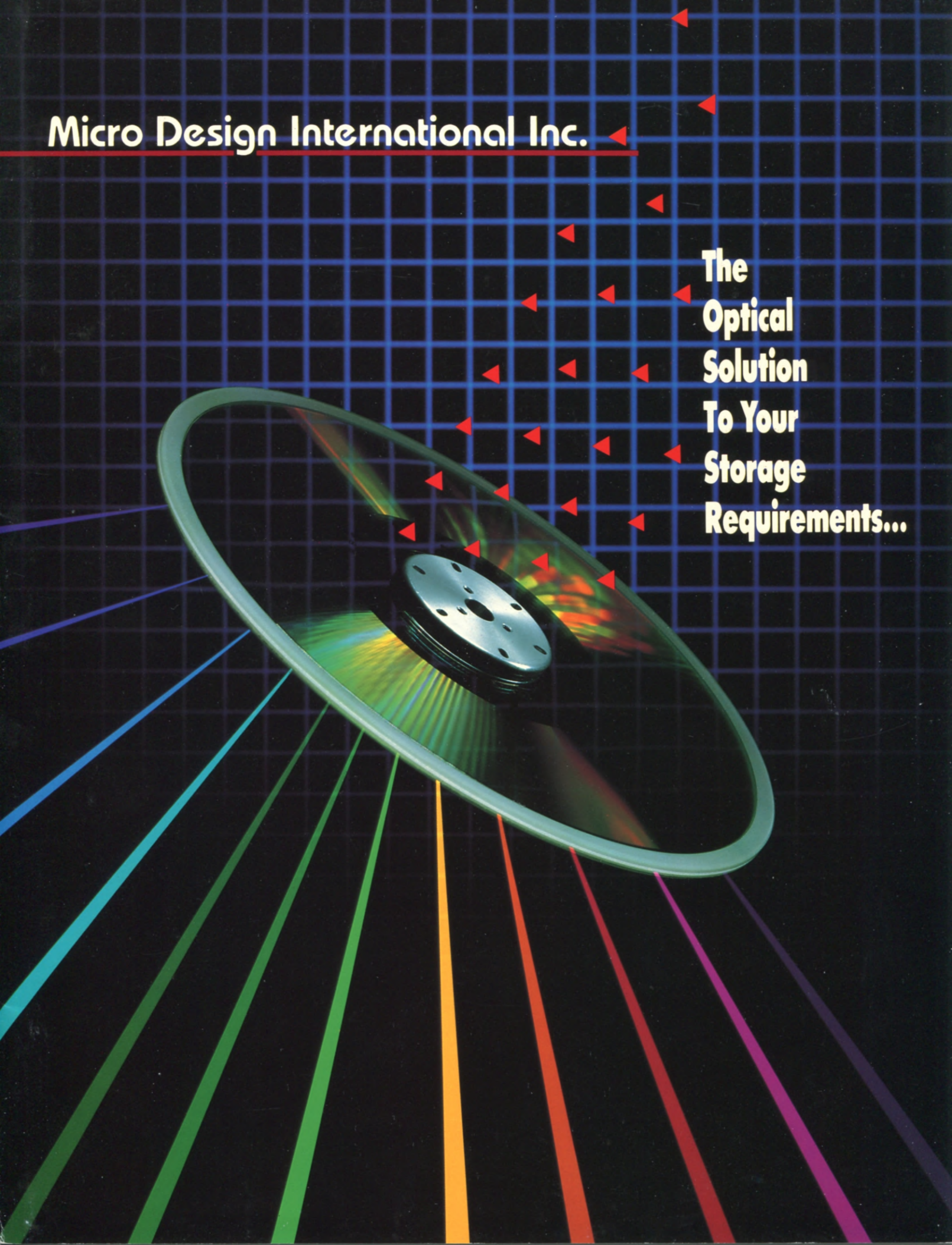


Micro Design International Inc.



**The
Optical
Solution
To Your
Storage
Requirements...**

Micro Design International

When you choose Micro Design International, you choose the leader in high-performance optical storage integration. Whether you need 200 megabytes or 40 gigabytes of on-line storage, MDI can deliver the best solution.

MDI Provides a Balanced Blend of Technology

- Large Storage Capacity
- Exceptional Reliability
- Compact Media
- Permanent Archive
- Low Cost, On-Line Storage
- System Compatibility

Since 1985, MDI has been at the forefront of optical storage technology, providing optical interfaces to many WORM (Write Once Read Many) optical drives and operating systems. From the simplicity of the "plug-and-play" LaserBank® sub-systems to the flexibility of the LaserBank Link™ interface kits, with MDI's unique systems you can choose the right optical solution for your application.

MDI Offers System Flexibility

The flexibility of Micro Design International products starts with the broad range of optical drives and operating systems supported by MDI interfaces. LaserBank Link interface products can support both 5.25 and 12 inch optical drives at the same time. With the variety of operating systems support; DOS, SCO™ XENIX, and UNIX®, you can easily integrate a Micro Design International optical product into your environment.



MDI Gives Worry-Free Data Security

The LaserBank or LaserBank Link interface allows you to store your information on laser cartridges that you can easily lock up or take with you. Files aren't left on the hard disk for unauthorized people to look at or retrieve. Because of the nature of WORM storage, after a file is written, it can't be physically erased.



MDI Provides Continuing Product Support

Support does not end when you purchase an MDI product. Each product is backed by a six month warranty. Extended warranty terms are also available for reasonable additional charges. Customer service is available through a toll-free support line, and on-site support can be made available if required.

Customer satisfaction, ease of use, and storage capacity are the perfect reasons for you to choose Micro Design International as your optical disk system vendor. See for yourself how MDI can help you solve your data storage problems and save not only files, but time and money as well!

Software Solutions For Your Environment

Micro Design International provides a variety of software interfaces with the LaserBank subsystem or the LaserBank Link interface kit, offering solutions tailored to your application requirements.

Transparent DOS Interface

The DOS interface provides optical storage with complete DOS transparency. During installation the ease of use becomes clear as the menu driven utilities provide easy installation and access to the special functions of the DOS interface software. The optical drive is used the same way as a large removable hard disk. Because standard DOS commands are used to manipulate files, no time is lost adjusting to a new work environment. The DOS interface runs existing applications without modification. With easy expandability, multiple gigabytes of on-line storage can be accessed.

Native SCO™ XENIX File System Interface

The MDI XENIX interface makes a WORM drive work like a standard XENIX block device. With the XENIX interface, a filesystem can be created on an optical cartridge and then mounted and accessed like any other XENIX mountable filesystem. Virtually all XENIX commands are supported by the mounted interface filesystem, including *fsck*, the filesystem integrity check program.

Since the XENIX interface makes a WORM drive work like a standard hard disk, it can be used with most existing software. Applications which have outgrown the system hard disk can be moved to optical cartridges with ease. For archival use, this interface is ideal, offering "On-Line Archive."



OPAL Interface For Applications Development

The Optical Peripheral Access Link (OPAL) interface provides a custom file system designed specifically to optimize the performance of optical drives. It consists of a library of software routines that can be linked with application programs to provide an interface between a variety of host computer operating systems and optical drives.

Included with the OPAL package is the OPAL Shell (OSH) program, which is an example of an OPAL application and includes source code. Currently available for DOS, SCO XENIX, UNIX System V and UNIX BSD, the OPAL interface enables transportability of data between different computer systems. Any OPAL cartridge is usable under all supported operating systems.



MDI LaserBank Subsystem

For the company that wants "plug-and-play" convenience, Micro Design International supplies complete subsystems which contain everything needed to provide your computer system with megabytes or gigabytes of on-line removeable storage. A LaserBank subsystem consists of a self-contained optical drive, SCSI host adapter, interface software, cables, and user documentation.

The LaserBank subsystems are available for a variety of operating systems and host computers. When greater storage capacities are needed than one drive can provide, LaserBank units can be daisy-chained easily to supply that extra storage. Easy expandability and "plug-and-play" convenience are the keys to Micro Design optical sub-systems.

MDI LaserBank Link Interface Kit

Because a complete subsystem may not be the answer to your storage problem, MDI has provided the LaserBank Link optical interface kit. The LaserBank Link is designed to provide the link between your computer and a variety of optical storage devices.

The LaserBank Link interface kit consists of software, SCSI host adapter, cabling, and documentation. The kit provides all that is needed to create an interface to an optical drive. MDI provides LaserBank Link interface kits for WORM drives from a variety of manufacturers, including Panasonic, Pioneer, Maxtor, Cherokee, LMSI, Sony, and Toshiba. LaserBank Link interface kits are available with the same software configuration as the MDI LaserBank subsystems.



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SCO™ XENIX is a registered trademark of the Santa Cruz Operations. UNIX is a registered trademark of AT&T.

3/2/89

MICRO DESIGN INTERNATIONAL, INC.
SUGGESTED PRICE LIST FOR XENIX PRODUCTS
(EFFECTIVE FEBRUARY 1, 1989)

		PART NUMBER	SUG LIST PRICE	QTY 10+ PRICE	ANNUAL MAINT.
LASERBANK SUBSYSTEMS:*					
LASERBANK 400	MOUNTABLE INTERFACE	LB04WX	\$3,995	\$3,596	\$599
	OPAL FILE SYSTEM	OB04WX	\$3,995	\$3,596	\$599
LASERBANK 600	MOUNTABLE INTERFACE	LB06WX	\$5,495	\$5,083	\$824
	OPAL FILE SYSTEM	OB06WX	\$5,495	\$5,083	\$824
	SLAVE DDM-5001	SB06WO	\$2,500	\$2,313	\$375
LASERBANK 940	MOUNTABLE INTERFACE	LB09WX	\$4,595	\$4,136	\$689
	OPAL FILE SYSTEM	OB09X	\$4,595	\$4,136	\$689
LASERBANK 3200	MOUNTABLE INTERFACE	LB32WX	\$24,495	\$22,658	\$3,674
	OPAL FILE SYSTEM	OB32WX	\$24,495	\$22,658	\$3,674
	SLAVE DRIVE	SB32WO	\$13,000	\$12,025	\$1,950
LASERBANK 5000	OPAL FILE SYSTEM	OB50WX	\$25,495	\$23,583	\$3,824
	SLAVE DRIVE	SB50WO	\$22,000	\$20,350	\$3,300
LASERBANK 600R	REWRITABLE SUBSYSTEM	LB06RX	\$6,995	\$6,296	\$1,049
LASERBANK 600CD	CD-ROM SUBSYSTEM	LB06CX	\$1,000	\$900	\$150
LASERBANK LINKS:* (MINIMUM ORDER QUANTITY REQUIRED)					
5&1/4" WORM DRIVE	MOUNTABLE INTERFACE	LL05WX	\$1,995	\$1,796	\$299
	OPAL FILE SYSTEM	OL05WX	\$1,995	\$1,796	\$299
12" WORM DRIVE	MOUNTABLE INTERFACE	LL12WX	\$2,495	\$2,246	\$374
	OPAL FILE SYSTEM	OL12WX	\$2,495	\$2,246	\$374
*REQUIRED FEATURE CODES					
	SUPPORT FOR 286 PROCESSOR	FEAT. CODE			
	OR SUPPORT FOR 386 PROCESSOR	2WO	N/C		
		3WO	\$200	\$180	\$30
AND CACHE LOCATION (MOUNTABLE ONLY)					
	INTERNAL TO PC HOST	OOH	N/C		
	OR EXTERNAL DRIVE	OOE	\$400	\$360	\$60

(PC-DOS AND MEDIA PRICES ON THE OTHER SIDE)

3/2/89

MICRO DESIGN INTERNATIONAL INC.
SUGGESTED PRICE LIST FOR PC-DOS PRODUCTS

EFFECTIVE FEBRUARY 1, 1989

		PART NUMBER	SUG LIST PRICE	QTY 10+ PRICE	ANNUAL MAINT.
LASERBANK SUBSYSTEMS:*					
LASERBANK 400	TRANSPARENT INTERFACE	LB04WP	\$2,995	\$2,696	\$449
	OPAL FILE SYSTEM	OB04WP	\$3,495	\$3,146	\$524
LASERBANK 600	TRANSPARENT INTERFACE	LB06WP	\$3,995	\$3,695	\$599
	OPAL FILE SYSTEM	OB06WP	\$4,495	\$4,158	\$674
	SLAVE DDM-5001	SB06WO	\$2,500	\$2,313	\$375
LASERBANK 940	TRANSPARENT INTERFACE	LB09WP	\$4,095	\$3,686	\$614
	OPAL FILE SYSTEM	OB09WP	\$4,595	\$4,136	\$689
LASERBANK 3200	TRANSPARENT INTERFACE	LB32WP	\$22,995	\$21,270	\$3,449
	OPAL FILE SYSTEM	OB32WP	\$23,495	\$21,733	\$3,524
	SLAVE DRIVE	SB32WO	\$13,000	\$12,025	\$1,950
LASERBANK 5000	TRANSPARENT INTERFACE	LB50WP	\$23,995	\$22,195	\$3,599
	OPAL FILE SYSTEM	OB50WP	\$24,495	\$22,658	\$3,674
	SLAVE DRIVE	SB50WO	\$22,000	\$20,350	\$3,300
LASERBANK 600R	REWRITABLE SUBSYSTEM	LB06RP16W	\$6,995	\$6,296	\$1,049
LASERBANK 600CD	LASERBANK 600CD	LB06CP08F	\$1,000	\$900	\$150

LASERBANK LINKS:* (MINIMUM ORDER QUANTITY REQUIRED)

5&1/4" WORM DRIVE	TRANSPARENT INTERFACE	LLO5WP	\$495	\$446	\$74
	OPAL FILE SYSTEM	OL05WP	\$995	\$896	\$149
12" WORM DRIVE	TRANSPARENT INTERFACE	LL12WP	\$995	\$896	\$149
	OPAL FILE SYSTEM	OL12WP	\$1,495	\$1,346	\$224

***REQUIRED FEATURE CODES:**

	FEAT. CODE				
8 BIT HOST ADAPTER	08F		N/C		
16 BIT HOST ADAPTER	16W	\$400	\$360	\$0	
IBM MICRO CHANNEL ADAPTER	16F	\$400	\$360	\$0	

MEDIA:

LASERBANK 400	200MB SINGLE SIDED	LBMW020	\$70	\$63	
	400MB DOUBLE SIDED	LBMW040	\$120	\$108	
LASERBANK 600	600MB DOUBLE SIDED	LBMW060	\$200	\$180	
LASERBANK 800	800MB DOUBLE SIDED	LBMW080	\$175	\$158	
LASERBANK 940	940MB DOUBLE SIDED	LBMW094	\$200	\$180	
LASERBANK 3200	3200MB DOUBLE SIDED CLV	LBMW320	\$400	\$360	
	2100MB DOUBLE SIDED CAV	LBMW210	\$400	\$360	
LASERBANK 5000	5000MB DOUBLE SIDED	LBMW500	\$500	\$450	
LASERBANK 600R	DOUBLE SIDED REWRITABLE	LBMR060	\$300	\$230	

(XENIX PRICES ON THE OTHER SIDE)



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LaserBank Series System Specifications

	LB-400	LB-600	LB-600R	LB-940	LB-3200	LB-600CD
Cartridge Capacity	400 MB	654 MB	600 MB	940 MB	3.2 GB	600MB
On-line Capacity	200 MB	327 MB	300 MB	470 MB	1.6 GB	600MB
Average Seek Time	190 msec.	60 msec.	83 msec.	90 msec.	< 350 msec.	350msec.
Data Transfer Rate	2.5 Mbps	5.94 Mbps	7.4 Mbps	3.88 - 6.89 Mbps	5.18 Mbps	1400Kbps
Sector Size	512 Bytes	512 Bytes	512/1024 Bytes	512/1024 Bytes	1024 Bytes	2048 Bytes
Rotational Speed	875 rpm	1800 rpm	2400 rpm	1200 rpm	360-720 rpm	200-530 rpm
Media Format	CAV	CAV	CAV	M-CAV	CAV, CLV	CLV
Average Latency	34 msec.	16.7 msec.	12.5 msec.	25 msec.		
Operating Temp.	10-35°C	5-40°C	5-40°C	10-35°C	5-35°C	5-45°C
Operating Relative Humidity	8-80%	10-80%	10-80%	8-80%	5-80%	10-90%
Storage Temp.	0-60°C	-20-50°C	-30-60°C	0-60°C	-10-45°C	-30-65°C
Storage Relative Humidity	5-80%	10-90%	5-90%	5-80%	5-90%	10-90%
Power Supply	100-120 VAC 50/60 Hz	120 VAC 50/60 Hz	110-240 VAC 50/60 Hz	100-120 VAC 50/60 Hz	90-132 VAC 50/60 Hz	120-220 VAC
Power Consumption	40W	45W	30W	40W	46W	
Dimensions (WxHxD)	206 mm 125 mm 384 mm	220 mm 125 mm 340 mm	211 mm 126 mm 310 mm	206 mm 125 mm 384 mm	375 mm 180 mm 520 mm	2.5 in. 13 in. 14 in.

South Central Regional Sales Office: 15851 Dallas Parkway, Suite 675 Dallas, TX 75248 (214) 450-5966 Fax (214) 450-5886

Western Regional Sales Office: P.O. Box 1672 Fremont, CA 94538 (415) 797-8481

Micro Design International LaserBank 600 CD CD-ROM Drive



Features

- * MDI LaserBank 600 CD CD-ROM drive
- * Host Bus Adapter for IBM PC/AT^R, and PS/2
- * Interface Cable
- * SCSI Bus Terminator
- * MS-DOS^R Software with MS-DOS CD-ROM extensions
- * Installation Manual and Operating Instructions
- * Sample Disk

The Micro Design International LaserBank 600 CD Subsystem provides a complete plug-and-play CD-ROM kit for attachment to the IBM PC/AT. The subsystem contains our industry-leading high performance LB600 CD drive in a stand alone cabinet, complete with power supply and SCSI interface. A host adapter and connecting hardware are provided to attach the drive to the IBM PC/AT. An MS-DOS software driver with the Microsoft CD-ROM Extension provides for easy access to the drive and application disks. A well-illustrated and detailed user's manual for ease of installation and operation completes the subsystem, plus a sample CD-ROM disk to check installation and demonstrate the power of your new CD-ROM.

LaserBank 600CD

Micro Design International's LaserBank[®] 600CD Compact Disk-Read Only Media Subsystem provides all the necessary equipment and instructions to allow you to integrate CD-ROM technology into your PC/AT, Micro Channel[®] personal computer, or workstation. CD-ROM technology lets you access a complete encyclopedia, reference books, catalogs, data bases, and even subscriptions to some magazines which provide their recent issues on CD-ROM disks.

The Micro Design International CD-ROM interface is currently available for DOS operating systems. The MS-DOS[®] subsystem allows total transparency at the applications level, allowing you to access the CD-ROM drive like a standard read-only hard disk or floppy disk drive. Functionally equivalent interfaces for UNIX[®]-based systems and Novell NetWare[®] (Version 2.15 and higher) will be available later this year.

The LaserBank 600CD is now available in either an internal or external configuration, at your option. The internal configuration is available in a half-height form factor, and includes an embedded SCSI controller. Internal power requirements are equivalent to those of standard hard disk drives.

Offering ease of installation, simplicity of operation, and the quickest of access times, the LaserBank 600CD has the speed and performance for all your CD-ROM applications.

UNIX, Novell NetWare, MS-DOS, and Micro Channel are registered trademarks of AT&T, Novell, Inc., Microsoft, and IBM Corp.

Specifications- LB600CD

Capacity	600 MB
Rotational Speed	200-530 rpm
Data Transfer Rate	1400Kb/sec
Interface Type	SCSI for IBM-PC/AT, IBM Micro Channel
Weight	4.5 kg
Dimensions	2.75 x 8 x 9 in
Power Requirements External Voltage AC Current Internal Voltage DC Current	120V or 220V .5A +5V,+12V, 0.5A, .25A
Seek Time Track to Track Random Average Maximum	1 msec 350 msec typical 700 msec
Non-Operating Environment Temperature Shock	-30 ^o to 65 ^o C 40G 10ms
Operating Environment Temperature Shock	5 ^o to 45 ^o C 5G 10ms
MTBF	25,000 hours
PM	None
Error Rates Unrecoverable Seek	1 in 10 ¹² bits 1 in 10 ⁶ seeks



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