Maxtor®

Atlas® 10K V

ENTERPRISE

10,000 RPM ENTERPRISE-CLASS HARD DRIVE

EXCEPTIONAL CAPACITY AND PERFORMANCE

- Industry's leading capacity 10K RPM drive
- Seek time as fast as 4.0ms
- Third-generation Ultra320 SCSI
- Maximum sustained data rate up to 89MB/sec
- 8MB cache (ECC protected)

EXTRAORDINARY VALUE

- Ease of integration
- MaxAdapt®
- Double the capacity of 15K RPM drives (per platter)
- SCSI investment protection

SUPERIOR RELIABILITY

- Designed for 1.4 million hours MTTF*
- 24x7 dependability
- Proven Atlas family architecture and firmware
- Shock Protection System
- Thermal sensor
- S.M.A.R.T. features
- RoHS Compliant

ULTRA320 SCSI HARD DRIVE

73GB 147GB 300GB

Reliability and capacity: the first 3.5" 10K RPM enterprise hard disk drive designed for 1.4 million hours MTTF* reliability with the highest capacity for mainstream high-bandwidth applications

The Atlas 10K V Advantage

The Atlas 10K V SCSI drive is an extremely reliable 10K RPM hard disk drive, designed for 1.4 million hours MTTF*, up to 300GB capacity, as fast as 4.0ms average seek time and an 89MB/sec sustained data transfer rate. Maxtor's intelligent drive technology, MaxAdapt, allows the Atlas 10K V drive to adapt to almost any system designs and conditions for ease of integration and maintains peak performance.

Maxtor MaxAdapt technology offers the following key features:

Intelligent MaxAdapt features

- Adaptive Bias Estimation (ABE)—Maintains consistent performance by adjusting the bias applied to the actuator
- Virtual Cache Lines (VCL)—Allows dynamic assignment of cache segments
- Adaptive Active Filtering (AAF)—Improves signal integrity
- Rotational Vibration Compensation (RVC)—Monitors and corrects for external vibration

Reliability

- Improved S.M.A.R.T. and self-diagnostics
- State-of-the-art manufacturing test processes
- Multiple temperature tests

Performance

- Anticipatory read and write streams—Minimizing hardware latency
- Opportunistic pre-fetch—Uses latency between commands to read ahead, improving performance
- Auto Read mode—Improves random and multiple sequential stream performance

Best-fit enterprise applications

- Multi-stream audio and video
- RAID applications
- SAN environments
- NAS environments
- Data warehousing
- Digital cinema
- E-mail servers
- Enterprise servers

SPECIFICATIONS

	73.5	147.1	300
Formatted Capacity (GB)	73.5	147.1	300
Bytes per Sector	512, 516, 518, 520, 522, 524		
Interface	Ultra320 SCSI (Backwards compatible with Ultra160, Ultra2, UltraSCSI)		
Interface Connectors	68-pin WIDE; 80-pin SCA-2		

Disk Drive Configuration

Disks	1	2	4
Heads	2	4	8

Performance Specifications

Seek Time			
Average Read/Write (ms)	4.0/4.5	4.2/4.7	4.4/4.9
Track-to-Track Read/Write (ms)	0.3/0.5		
Full Stroke Read/Write (ms)	11.0/12.0		
Spindle Speed (RPM)	10,000		
Average Rotational Latency (ms)	3		
Transfer Rate			
SCSI Maximum Burst (MB/s)	320		
SCSI Maximum Host (MB/s)	270		
Maximum Sustained (MB/sec)	89		
Cache (MBytes)	8		

Reliability Specifications

Contact Start Stop (CSS)	50,000
Data Error Rate per Bits Read	
Recoverable	<10 per 10^{12}
Nonrecoverable	<1 per 10^{15}
Limited warranty (years)	5

	73.5	147.1	300
Environmental Specifications			
Operating			
Temperature (°C)	5 to 55		
Maximum Case Temperature (°C)	60		
Non-Condensing Humidity (%)	5 to 95		
Shock 2 ms (G) R/W	63/30		
Rotational Shock (rad/sec^2)	7,000		
Vibration 5-500 Hz (G)	1.5		
Rotational Vibration (rad/sec^2)	25		
Altitude (feet)	-1,000 to 10,000		
Acoustics, Idle (bels)	3.6	3.6	3.8
Non-Operating			
Temperature (°C)	-40 to 70		
Non-Condensing Humidity (%)	5 to 95		
Shock 2 msec (G)	250		
Rotational Shock (rad/sec^2)	25,000		
Vibration 5-500 Hz (G)	2		
Altitude (feet)	-1,000 to 40,000		

Power Specifications

Voltage Requirements	5V +/- 5%	12V +/- 5%	
Idle Power (W)	8.0	8.5	10.8

Physical Dimensions

Width max (inches/mm)	4/101.6
Length max (inches/mm)	5.787/147.0
Height max (inches/mm)	1.028/26.1
Weight max (lb/kg)	1.8/0.82

ORDER INFORMATION

Model Number	RoHS Model Number	Capacity	Interface	Connector
8D073L0	8J073L0	73.5GB	Ultra320	68-pin Wide LVD
8D073J0	8J073J0	73.5GB	Ultra320	80-pin SCA-2
8D147L0	8J147L0	147.1GB	Ultra320	68-pin Wide LVD
8D147J0	8J147J0	147.1GB	Ultra320	80-pin SCA-2
8D300L0	8J300L0	300GB	Ultra320	68-pin Wide LVD
8D300J0	8J300J0	300GB	Ultra320	80-pin SCA-2

For support or information, call us at 1-800-2Maxtor or visit us at www.maxtor.com

All Maxtor products are backed by our leading service and support staff.

Service includes:

- Advance replacement in two business days
- 24-hour on-line troubleshooting tools and email
- Telephone support representatives available Monday-Friday during business hours (except holidays)

To speak with a Maxtor product support representative in the U.S. and Canada, call 1-800-2MAXTOR, Mon.-Fri. from 7 a.m. to 4 p.m. (PST).

In Europe, call +353 1 204 1111 Mon.-Thur. from 8:30 a.m. to 5 p.m. (GMT) and Fri. 8:30 a.m. to 4 p.m. (GMT).

In Australia, call +61 2 9369 3662. In Japan, call 005316-53616, and in Singapore, call 65-6852-0220 or 1-800-481-6788.

For purposes of measuring drive capacity, a megabyte (MB) means 1,000,000 bytes, a gigabyte (GB) means 1,000,000,000 bytes. Total accessible capacity varies depending on operating environment. Seek times are at nominal conditions and include settling. Specifications subject to change without notice.
* MTTF refers to the estimated mean time to failure based upon a statistical sample.

Maxtor®
What drives you.®