Atlas® 15K II

ULTRA320 SCSI HARD DRIVE

36GB 73GB 147GB

Reliability and performance: the first 15K RPM enterprise hard disk drive designed to deliver 1.4 million hours MTTF* with leading IOPS performance

The Atlas 15K II Strengths

The Atlas 15K II SCSI drive is one of the industry's fastest and reliable 15K RPM hard disk drive, with average seek times as fast as 3.0ms, maximum sustained data transfer rate of 98MB/sec, and designed for a 1.4 million hours MTTF*. The Atlas 15K II drive can manage the most demanding I/O-intensive and high-bandwidth applications with superior reliability and adaptability. Maxtor's intelligent drive technology, MaxAdapt, allows the Atlas 15K II drive to adapt to various system designs and conditions for ease of integration and maintains optimal 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

- OLTP
- SAN environments
- NAS environments
- High-performance workstations
- 3-D animation
- Scientific data processing
- Economic modeling
- Data mining
- Web servers
- Audio/video
- Digital imaging

ENTERPRISE

15,000 RPM ENTERPRISE-CLASS HARD DRIVE

EXCEPTIONAL CAPACITY AND PERFORMANCE

- Third-generation Ultra320 SCSI
- Maximum sustained data rate up to 98MB/sec
- 8MB cache (ECC protected)
- Seek time as fast as 3.0ms

EXTRAORDINARY VALUE

- Ease of integration
- MaxAdapt®
- Up to 39% more IO/sec than the Atlas 10K V
- 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

SPECIFICATIONS

	36.7	73.5	147.1
Formatted Capacity (GB)	36.7	73.5	147.1
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)	3.0/3.4	3.1/3.5	3.4/3.8
Track-to-Track Read/Write (ms)		0.3/0.5	
Full Stroke Read/Write (ms)		8.0/9.0	
Spindle Speed (RPM)		15,000	
Average Rotational Latency (ms)		2	
Transfer Rates			
SCSI Maximum Burst (MB/s)		320	
SCSI Maximum Host (MB/s)		270	
Maximum Sustained (MB/sec)		98	
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

	36.7	73.5	147.1
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)	6.8	8.4	13

Physical Dimensions

Width max (inches/mm)	4.0 / 101.6
Length max (inches/mm)	5.787 / 147.0
Height max (inches/mm)	1.028 / 26.1
Weight max (lb/kg)	2.0 / 0.91

ORDER INFORMATION

Model Number	RoHS Model Number	Capacity	Interface	Connector
8E036L0	8K036L0	36.7GB	Ultra320	68-pin Wide LVD
8E036J0	8K036J0	36.7GB	Ultra320	80-pin SCA-2
8E073L0	8K073L0	73.5GB	Ultra320	68-pin Wide LVD
8E073J0	8K073J0	73.5GB	Ultra320	80-pin SCA-2
8E147L0	8K147L0	147.1GB	Ultra320	68-pin Wide LVD
8E147J0	8K147J0	147.1GB	Ultra320	80-pin SCA-2

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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.

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What drives you.®