

ENTERPRISE

15,000 RPM ENTERPRISE-CLASS HARD DRIVE

EXCEPTIONAL PERFORMANCE

- 3Gb/s Serial Attached SCSI (SAS)
- Maximum sustained data rate up to 98MB/s
- Seek times as fast as 3.0ms
- Up to 39% more IO/sec than Atlas 10K V
- Full duplex capability
- 16MB Cache

EXTRAORDINARY VALUE

- MaxAdapt® Features
- Ease of integration
- SCSI investment protection

SUPERIOR RELIABILITY

- Designed for 1.4 million hours MTTF
- 24 x 7 dependability
- Dual port accessibility
- Proven Atlas family platform
- SMART features
- RoHS compliant

Atlas® 15K II SAS

Serial Attached SCSI HARD DRIVE

36GB 73GB 147GB

The “Fastest Drive in the World”* just got serial

Availability, Scalability, Flexibility, Reliability, Adaptability and Leading Edge Performance—The Atlas 15K II SAS Strengths

The Maxtor® Atlas 15K II SAS combines a 16MB cache, 98MB/s sustained data transfer rates and as fast as 3.0 msec seek times with the latest Enterprise interface technology—Serial Attached SCSI (SAS). Atlas 15K II drives deliver the required IOPS (input/output per second) performance to support transactional and IO intensive applications. Its sustained data rate makes it the ideal drive for high-bandwidth applications.

SAS technology brings together the best features of other Enterprise interfaces to deliver:

Higher System Availability

- Dual port provides two data paths to each drive increasing the drive's availability
- Multi-initiator capability enables multiple hosts to access a drive simultaneously
- Point-to-point connectivity for better fault isolation

Scalability

- More than 16,000 devices per SAS domain
- Scalable bandwidth via wide ports, i.e. up to 24 Gb/s peak bandwidth with 4 SAS links configured as a wide port with full duplex

End User Flexibility

- Configuration flexibility allow end-users to mix and match SAS and SATA drives to fit their specific application
- SAS back-planes can accommodate dual port / high performance SAS drives and/or high capacity / lower cost SATA drives

Performance

- Up to 128 queue depth support for improved IOPS performance
- Full duplex capability allow drives to send and receive data for two different IO operations simultaneously
- Point-to-point connectivity eliminates the bottleneck inherent with a shared/arbitrated bus
- Scalable bandwidth via wide ports
- Rate matching supports 1.5Gbs SATA and 3.0Gbs SAS drives for optimal performance

SCSI Investment Protection

- Employs the SCSI command set to maintain compatibility with existing SCSI infrastructures

Atlas 15K II SAS Hard Drives Deliver:

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
- Rotational Vibration Compensation (RVC)—Monitors and corrects for external vibration

Reliability

- 1,400,000 hours MTTF
- State-of-the-art manufacturing processes
- Multiple temperature tests
- Improved SMART and self-diagnostics

Atlas 15K II SAS Best-Fit Solutions:

- Large Enterprise NAS/SAN
- Servers
- Mainstream NAS/SAN
- Workstations
- Direct Attached JBOD Storage
- Direct Attached RAID Storage



*For more information, see StorageReview.com

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	SAS		
Number of Heads	2	4	8
Number of Disks	1	2	4

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			
Maximum Sustained Data Rate (MB/sec)	98		
SAS Interface Bandwidth (MB/s)	600		
Cache (MBytes)	16		

Reliability Specifications

CSS (cycles)	50,000		
Data Error Rate per Bits Read			
Recoverable	<10 per 10 ¹²		
Nonrecoverable	<1 per 10 ¹⁵		
Seek	<10 in 10 ⁸		
MTTF	1.4 million hours		
Limited warranty (years)	5		

ORDER INFORMATION

RoHS Model Number	Capacity
8K036S0	36.7GB
8K073S0	73.5GB
8K147S0	147.1GB



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 1 800 759 109. In Japan, call 00531 121 543, and in Singapore, call 1 800 481 6788.

For purposes of measuring drive capacity, 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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Environmental Specifications

	36.7	73.5	147.1
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)	10.24	12.66	15.13

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