Maxtor®

ENTERPRISE

10,000 RPM ENTERPRISE-CLASS HARD DRIVE

CAPACITY AND PERFORMANCE

- Industry's highest capacity SAS HDD
- 3Gb/s Serial Attached SCSI (SAS)
- Maximum sustained data rate up to 89MB/s
- Seek times as fast as 4.0ms
- Double the capacity of 15K RPM drives (per platter)
- 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® 10K V SAS

Serial Attached SCSI HARD DRIVE

73GB   147GB   300GB

Highest Capacity Enterprise SAS Hard Disk Drive for Mainstream High-Bandwidth Applications

Capacity, Availability, Scalability, Flexibility, Reliability, Adaptability and Performance—The Atlas 10K V SAS Advantage

The Maxtor® Atlas 10K V SAS delivers the industry's highest capacity point Serial Attached SCSI (SAS) drive with a 16MB cache, as fast as 4.0 msec seek time and 89MB/sec sustained data transfer rate, providing an optimal combination for use on mainstream enterprise solutions.

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

Higher System Availability
- Dual port provides two data paths to each disk 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/arbi-trated 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 main-tain compatibility with existing SCSI infra-structures

Atlas 10K V 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 dynam-ic 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 10K V SAS Best-Fit:
- Large Enterprise NAS/SAN Servers
- Mainstream NAS/SAN
- Workstations
- Direct Attached JBOD Storage
- Direct Attached RAID Storage

SPECIFICATIONS

	73.5	147.1	300
Formatted Capacity (GB)	73.5	147.1	300
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)	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			
Maximum Sustained (MB/sec)		89	
SAS Interface Bandwidth (MB/s)		600	
Cache (MBytes)		16	

Reliability Specifications

Contact Start Stop (CSS)	50,000
Data Error Rate per Bits Read	
Recoverable	<10 per 10^{12}
Nonrecoverable	<1 per 10^{15}
Seek	<10 per 10^{8}
MTTF	1.4 million hours
Limited warranty (years)	5

Environmental Specifications

	73.5	147.1	300
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

	73.5	147.1	300
Voltage Requirements		5V +/- 5% 12V +/- 5%	
Idle Power (W)	9.01	9.78	12.4

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)	1.8/0.82

ORDER INFORMATION

RohS Model Number	Capacity
8J073S0	73.5GB
8J147S0	147.1GB
8J300S0	300GB

Serial Attached SCSI   AV Ready   SPS™   MaxADAPT®   Yes NetWare®   Microsoft Windows Powered   c UL®   ◬   ☑   MIC   CE

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.

Maxtor®

What drives you.®