

# The world's fastest, most reliable hard drive



## CHEETAH X15-36LP

UP TO 40 PERCENT MORE I/O'S PER SECOND

BEST-FIT ENTERPRISE  
APPLICATIONS

E-COMMERCE  
SERVERS

TRANSACTION  
PROCESSING

SAN ENVIRONMENTS



- This second-generation, 15K-RPM drive has seek times at 3.6 msec and access times at 5.6 msec—30 percent faster than the 10K-RPM drives.
- We launched the first generation Cheetah X15 in June of 2000. Second-generation technology is backed by successful major OEM qualifications, one-year of successful field results and customer satisfaction.
- The Cheetah X15 holds the industry's highest reliability rating at 1,200,000 hours MTBF and at 0.73 percent AFR.
- Adopted by most major OEMs, the first-generation Cheetah X15 was the most awarded and acclaimed Seagate drive ever.

18.4 TO 36.7 GBYTES • 15K RPM • ULTRA160 SCSI, ULTRA320 SCSI, 2 GBIT/SEC FIBRE CHANNEL

# THE 15K-RPM CHEETAH X15-36LP, UP TO 40 PERCENT MORE I/Os PER SECOND



## Second-generation, 15K-RPM Cheetah Technology

- Seek times at 3.6 msec and data access times at 5.6 msec — 30 percent faster than the 10K-RPM drives.
- Up to 40 percent more I/O's per second than the 10K-RPM drives.
- Second-generation technology backed by OEM qualifications, field results, and customer satisfaction.
- Industry's highest rating at 1,200,000 hours MTBF, and at 0.73 percent AFR.

**Seagate's 3D Defense System™ — No One Does More to Protect Your Drives**  
Our 3D Defense System defends against every major challenge to high-performance data storage.

### Drive Defense

- SeaShell™** packaging provides more than 1,000 Gs shock protection during handling, reducing returns up to 70 percent.

### Data Defense

- Seagate's Advanced Multidrive System™ (SAMS)** reduces effects of rotational vibration generated by drives operating simultaneously.

### Diagnostic Defense

- SeaTools** Available in Desktop or Enterprise editions, this disc diagnostic utility prevents the expense and inconvenience of returning healthy drives.

CHEETAH X15-36LP	36.7 GB	36.7 GB	18.4 GB	18.4 GB	KEY ADVANTAGES
<b>Model Number</b>	ST336752LC/LW/FC	ST336732LC/LW	ST318452LC/LW/FC	ST318432LC/LW	
<b>CAPACITY AND INTERFACE</b>					
<b>Formatted-512 bytes/sector (Gbytes)</b>	36.7	36.7	18.4	18.4	Capacities in the sweet spot of the market
<b>Interface</b>	Ultra160 SCSI	Ultra320 SCSI	Ultra160 SCSI	Ultra320 SCSI	Up to 320-Mbyte-per-second transfer rate. Includes packetization and QAS. Fully compatible with Ultra160.
<b>External Transfer Rate (Mbytes/sec)</b>	160	320	160	320	
<b>Interface</b>	2 Gbits/sec FC		2 Gbits/sec FC		Seagate's FC experience and robust drives make it the number-one choice of major OEMs.
<b>External Transfer Rate (Mbytes/sec)</b>	200		200		
<b>PERFORMANCE</b>					
<b>Spindle Speed (RPM)</b>	15K	15K	15K	15K	<b>Economies of Speed for Transaction Processing</b>
<b>Latency, average (msec)</b>	2.0	2.0	2.0	2.0	Up to 40 percent more IOPS than the new generation 10K-RPM drives. Achieves rapid access to data with fewer drives than 10K. Performance is maximized with Seagate's advanced caching and command-queuing algorithms and Seagate's superior adjacent-track seek performance.
<b>Seek Time</b>					SAMS keeps performance on track by reducing the impact of rotational vibration in multidrive environments.
<b>Average read/write (msec)</b>	3.6/4.2	3.6/4.2	3.6/4.2	3.6/4.2	41 percent faster transfer rate than the Cheetah X15. Enhanced with Seagate's Nonlinear Optimized Formatting.
<b>Track-to-Track read/write (msec)</b>	0.3/0.4	0.3/0.4	0.3/0.4	0.3/0.4	
<b>Transfer Rate</b>					
<b>Internal (Mbits/sec)</b>	522-709	522-709	522-709	522-709	
<b>Internal Formatted (Mbytes/sec)</b>	51-69	51-69	51-69	51-69	
<b>Cache Multisegmented (Mbytes)</b>	8	8	8	8	
<b>CONFIGURATION/ORGANIZATION</b>					
<b>Discs/Heads</b>	4,8	4,8	2,4	2,4	Areal Density is maximized with Seagate's Zero Acceleration Path enhanced track spacing, allowing for a lower disc and head count bringing greater reliability.
<b>Sectors per drive, 512 bytes/sector</b>	71,687,369	71,687,369	35,843,670	35,843,670	
<b>Cylinders</b>	18,479	18,479	18,479	18,479	
<b>Recording Method PRML</b>	EPRML	EPRML	EPRML	EPRML	
<b>RELIABILITY/DATA INTEGRITY</b>					
<b>Error Rate</b>					Seagate has proven reliability leadership with its first-generation Cheetah X15. Highest reliability rating in the industry.
<b>Recoverable, per bits read</b>	10 per 10 <sup>12</sup>	10 per 10 <sup>12</sup>	10 per 10 <sup>12</sup>	10 per 10 <sup>12</sup>	Incorporates the most advanced elements of 3D Defense.
<b>Nonrecoverable, per bits read</b>	1 sector per 10 <sup>15</sup>	1 sector per 10 <sup>15</sup>	1 sector per 10 <sup>15</sup>	1 sector per 10 <sup>15</sup>	
<b>Seek Errors, per seek</b>	10 per 10 <sup>8</sup>	10 per 10 <sup>8</sup>	10 per 10 <sup>8</sup>	10 per 10 <sup>8</sup>	
<b>ENVIRONMENTAL</b>					
<b>Acoustics, Idle (bels)</b>	3.7	3.7	3.5	3.5	Seagate's sound barrier technology ensures whisper-quiet acoustics. Temperature sensor warns host when the temperature exceeds limits.
<b>Temperature: Operating/Nonoperating (°C)</b>	5 to 55/-40 to 70	5 to 55/-40 to 70	5 to 55/-40 to 70	5 to 55/-40 to 70	3D Drive Defense's SeaShell brings the nonop shock to over 1,000 Gs.
<b>Shock: Operating/Nonoperating 2 msec (Gs)</b>	15/250	15/250	15/250	15/250	
<b>Vibration: Operating/Nonoperating &lt;400 Hz (Gs)</b>	0.5/2.0	0.5/2.0	0.5/2.0	0.5/2.0	
<b>POWER REQUIREMENTS</b>					
<b>+12, +5 VDC ±5% (amps) typ operating SCSI, FC</b>	0.98/0.89, 0.98/0.99	0.98/0.89	0.79/0.88, 0.79/0.99	0.79/0.88	Power is within the envelope of 10K- and 15K-RPM products.
<b>Power, Idle: SCSI/FC (watts)</b>	12/13	12	10.3/11	10.3	
<b>PHYSICAL</b>					
<b>Height (in/mm)</b>	1.0/25.4	1.0/25.4	1.0/25.4	1.0/25.4	<b>Seagate's Customer Service:</b> rated above average to excellent by 95 percent of the 2,000 customers surveyed who used Seagate's service.
<b>Width (in/mm)</b>	4.0/101.6	4.0/101.6	4.0/101.6	4.0/101.6	Seagate's team brings superior breadth and depth of experience to you.
<b>Depth (in/mm)</b>	5.75/146.6	5.75/146.6	5.75/146.6	5.75/146.6	In the complex world of storage design, support is often the deciding factor.
<b>Weight (lb/kg)</b>	1.5/0.680	1.5/0.680	1.5/0.680	1.5/0.680	

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