ENTERPRISE STORAGE

CHEETAH X15	15K RPM	18 GBYTES
CHEETAH	10K RPM	9–73 GBYTES
BARRACUDA	7.2K RPM	9–18 GBYTES

ULTRA, ULTRA160 SCSI
1Gb & 2Gb FIBRE CHANNEL

HIGH PERFORMANCE STORAGE

Industry-leading performance for the most demanding applications, Internet servers, workstations, network file servers and Enterprise servers

> New 15K RPM Cheetah X15 provides leadership in IOPS performance

> 4th generation 10K RPM Cheetah and 6th generation 7.2K Barracuda provide design maturity and reliability

> Cache ranging from the high performance 16 Mbyte to the economical 2 Mbyte

> Average seek times as fast as 3.9 msec

> Ultra160 SCSI and single-ended Ultra SCSI (8 or 16 bit)

> 2Gbit/sec Fibre Channel supports up to 400 Mbytes/s in dual loop

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	7.2K RPM VALUE CLASS		MAINSTREAM 10K RPM PERFORMANCE					15K RPM IOPS PERFORMANCE CLASS	
BARRACUDA	**Barracuda 18XL**	**Barracuda 18XL**	**Cheetah 18XL**	**Cheetah 18XL**	**Cheetah 36LP**	**Cheetah 36LP**	**Cheetah 73HH**	**Cheetah X15**	**CHEETAH**
	ST39216N/W ST39236LW/LC ST39236LWV/LCV	ST318416N/W ST318436LW/LC ST318436LWV/LCV	ST39204LW/LC	ST318404LW/LC	ST318304FC ST318304FCV	ST336704LW/LC/FC ST336704LWV/LCV/FCV	ST173404LW/LC/FC ST173404LWV/LCV/FCV	ST318451LW/LC/FC ST318451LWV/LCV/FCV	**Enterprise Additional Enhancements**
CAPACITY AND INTERFACE									
Formatted Gbytes (512 bytes/sector)	9.2	18.4	9.2	18.4	18.4	36.7	73.4	18.4	Broadest Product Line
Interface	Ultra SCSI (8,16 bit)	Ultra SCSI (8,16 bit)	Ultra160 SCSI	Ultra160 SCSI		Ultra160 SCSI	Ultra160 SCSI	Ultra160 SCSI	The Fastest Interfaces
	Ultra160 SCSI	Ultra160 SCSI			2Gb/s FC (dp*)**	2Gb/s FC (dp*)**	2Gb/s FC (dp*)**	2Gb/s FC (dp*)**	The Fastest Interfaces
PERFORMANCE									
Transfer Rate Internal, ZBR (Mbits/sec)	183 to 316	183 to 316	284 to 424	284 to 424	280 to 427	280 to 427	280 to 427	395 to 508	SAMS
Internal Formatted (MBytes/sec)	17.2 to 29.6	17.2 to 29.6	26.6 to 40.5	26.6 to 40.5	26.7 to 40.2	26.7 to 40.2	26.7 to 40.2	38.0 to 48.9	Headerless Format Efficiency
External (MBytes/sec) Ultra2/Ultra160 SCSI/FC (per loop)	20/40/160	20/40/160	160	160	200	160/200	160/200	160/200	Fairness
Cache, Multisegmented (KBytes)	2,048/V=4,096	2,048/V=4,096	4,096	4,096	4,096/V=16,384	4,096/V=16,384	4,096/V=16,384	4,096/V=16,384	V = Extra Cache
Seek Time Average Read/Write (msec)	5.9/6.4	5.9/6.4	5.2/6.0	5.2/6.0	5.2/6.0	5.2/6.0	5.6/6.2	3.9/4.5	SAMS
Track-to-Track Read/Write (msec)	0.6/0.8	0.6/0.8	0.6/0.8	0.6/0.8	0.6/0.9	0.6/0.9	0.6/0.9	0.5/0.7	SAMS
Latency, Average (msec)	4.17	4.17	2.99	2.99	2.99	2.99	2.99	2.0	RACE Motor
Spindle Speed (RPM)	7.2K	7.2K	10K	10K	10K	10K	10K	15K	RACE Motor
CONFIGURATION/ORGANIZATION									
Discs/Heads	2/3	3/6	2/3	3/6	3/6	6/12	12/24	5/10	Optimized for Reliability
Sectors per Drive (512 bytes/sector)	17,942,584	35,885,168	17,921,835	35,843,670	35,843,652	71,687,305	143,374,805	35,843,670	Optimized for Reliability
Cylinders	14,384	14,384	14,384	14,384	14,100	14,100	14,100	10,377	Optimized for Reliability
Recording Method (PRML)	EPRML	EPRML	NPV+	NPV+	NPV+	NPV+	NPV+	NPV+	Optimized for Reliability
RELIABILITY/DATA INTEGRITY									
S.M.A.R.T. Capable & SeaTools Enabled	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	3D Diagnostic Defense
Error Rate Recoverable, per Bits Read	10 per 10^{12}	10 per 10^{12}	10 per 10^{12}	10 per 10^{12}	10 per 10^{12}	10 per 10^{12}	10 per 10^{12}	10 per 10^{12}	3D Data Defense
Nonrecoverable, per Sectors Read	1 per 10^{15}	1 per 10^{15}	1 per 10^{15}	1 per 10^{15}	1 per 10^{15}	1 per 10^{15}	1 per 10^{15}	1 per 10^{15}	3D Data Defense
Seek Errors, per seek	10 per 10^{8}	10 per 10^{8}	10 per 10^{8}	10 per 10^{8}	10 per 10^{8}	10 per 10^{8}	10 per 10^{8}	10 per 10^{8}	3D Data Defense
POWER REQUIREMENTS									
+12/+5 VDC ± 5% (amps)	0.6	0.6	0.47/0.83	0.57/0.83	0.73/0.85	0.73/0.85	1.2/0.85	0.73/0.85	JIT Seeks
Power, Idle (watts) SCSI [FC]	6.5	6.8	8	9	[12.5]	11 [12.5]	15.7 [16.5]	11 [12.5]	RACE Motor
ENVIRONMENTAL									
Acoustics, Idle (Bels)	3.4	3.4	3.8	3.8	3.9	3.9	4.2	4.0	Sound Barrier Technology
Temperature (°C) Operating/Nonoperating	5 to 55/–40 to 70	5 to 55/–40 to 70	5 to 55/–40 to 70	5 to 55/–40 to 70	5 to 55/–40 to 70	5 to 55/–40 to 70	5 to 55/–40 to 70	5 to 55/–40 to 70	Temperature Sensor
Shock (Gs) Operating (11ms)/Nonop (2ms)	15/250	15/250	15/250	15/250	15/200	15/200	15/180	15/250	SeaShell
Vibration (Gs) Operating/Nonop (<400 Hz)	0.83/2.5	0.83/2.5	0.83/2.5	0.83/2.5	0.5/2	0.5/2	0.5/2	0.5/2	G-Force Protection
PHYSICAL									
Height (in/mm)	1.0/25.4	1.0/25.4	1.0/26	1.0/26	1.0/25.4	1.0/25.4	1.6/40.64	1.0/25.4	
Width (in/mm)	4.0/101.6	4.0/101.6	4.0/101.98	4.0/101.98	4.0/101.6	4.0/101.6	4.0/101.6	4.0/101.6	
Depth (in/mm)	5.75/146.1	5.75/146.1	5.78/146.7	5.78/146.7	5.75/146	5.75/146	5.75/146	5.75/146	
Weight (lb/kg)	1.5/0.68	1.5/0.68	1.50/0.68	1.50/0.68	1.3/0.59	1.3/0.59	2.0/0.907	1.6/0.73	

Capacity calculated with typical sparing. Sparing is user-optional.   * dual port   ** The 2 Gbit/sec Fibre Channel is capable of arbitrating down to 1 Gbit/sec.   + Noise Predictive Viterbi

These drives have also successfully completed compatibility testing with SCO Unix 5.04, SCO UnixWare 7.0/7.01 and Linux Red Hat 6.0/6.1.

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