



MICROPOLIS TOMAHAWK FAMILY

Ultra SCSI Interface 3.5 - Inch Disk Drive

The Micropolis Tomahawk™ 9 and Tomahawk 4LP are next-generation drives designed to deliver exceptional performance and higher capacities in a 3.5-inch package. The new drives combine Magneto Resistive (MR) recording head technology with the new digital PRML Data Channel and ID-less sector formats to achieve greater throughput and 9.10 GB and 4.55 GB formatted capacities.

The combination of the drives' 7200 rpm spindle speed, 7.9 ms average seek time, up to 125 MHz internal data rate and high-performance Ultra SCSI controller provide significant performance improvements over existing technologies.

By offering ease of integration, enhanced data integrity/reliability, and world-class manufacturing, the Micropolis Tomahawk drives deliver robust performance for all high end data storage needs.

4.55 and 9.1 gigabyte
7200 rpm spindle speed
Ultra SCSI Interface
7.9 ms average seek time
76 to 125MHz internal data rates
Sustained data rates over 10MB/s
Maximum data rates up to 40MB/s

The Micropolis Tomahawk 9 and Tomahawk 4LP provide enhanced data integrity through round-trip CRC data protection throughout the entire data path, automatic retries, and a state-of-the-art ECC with on-the-fly correction. Rugged construction and advanced proprietary hybrid-servo technology protect against shock and environmental variations.

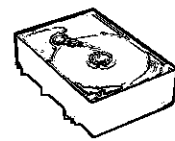
New S.M.A.R.T technology enables the drives to trigger an alert condition to the host when any of the vital statistics fall below an acceptable threshold.

Reliability has also been enhanced to 1,000,000 hours MTBF and Micropolis backs the Tomahawk family with a 5-year warranty.

And with the \$5 billion financial backing of our new parent, Singapore Technologies, you can count on us to constantly improve our operations - from design to production - ensuring that every Micropolis disk drive comes with the quality built in.



TOMAHAWK SPECIFICATIONS



	Tomahawk 4LP Model 4345	Tomahawk 9 Model 3391
Formatted Capacity		
Per Drive	4.55 GB	9.10 GB
Per Sector	512 B	512 B
Sectors/Track	Variable	Variable
Cylinders	4811	4811
Data Heads	11	22
Performance		
Seek Time		
Track-to-Track	1.0 ms	1.0 ms
Average	7.9 ms	7.9 ms
Maximum	19 ms	19 ms
Rotational Speed	7200 RPM	7200 RPM
Average Latency	4.17 ms	4.17 ms
Internal Data Rates		
Inner/Outer Zone	76/125 MHz	76/125 MHz
Ultra SCSI Interface		
Ultra SCSI narrow single ended	4345NS	3391NS
Ultra SCSI wide single ended*	4345WS	3391WS
Ultra SCSI wide differential*	4345WD	3391WD
Ultra SCSI wide single ended SCA	4345SS	3391SS
Ultra SCSI wide differential SCA	4345SD	3391SD
*Utilize 68-pin Unitized Connector		
Transfer Rate at Host Interface		
Wide Synchronous	40 MB/s	40 MB/s
Narrow Synchronous	20 MB/s	20 MB/s
Asynchronous	10 MB/s	10 MB/s
Cache Buffer Size	512 KB	512 KB
Power Dissipation		
Peak Start Current	1.75A peak	2.50A peak
Idle/Seek	10/12 Watts	14/17 Watts
Acoustic Noise (typical)		
Idle	33 dBA (4.5 Bels)	36 dBA (4.8 Bels)
Seek	36 dBA (4.8 Bels)	45 dBA (5.7 Bels)
Environmental		
Operating		
Temperature	5° C to 50° C	5° C to 50° C
Shock	10 g for 11 ms	10 g for 11 ms
Vibration	2 g peak	2 g peak
Non Operating		
Temperature	-40° C to 65° C	-40° C to 65° C
Shock	60 g for 11ms	60 g for 11ms
Vibration	5 g peak	5 g peak
Physical Dimensions		
H x W x D (in)	1 x 4 x 5.75	1.62 x 4 x 5.75
H x W x D (mm)	25.4 x 101.6 x 146.1	41.2 x 101.6 x 146.1
Weight (lb/kg)	1.4/0.64	2.0/0.91
Drive Features		
Ultra SCSI Compliant	Magneto-Resistive (MR) Heads	
PRML Read Channel	ID-less Sectors	
S.M.A.R.T Compliant	Multi-Segmented Read Ahead Caching	
Tagged Command Queuing with Write Coalescing	Write Caching option	
Through CRC Data Protection	Downloadable SCSI Code	
ECC with on-the-fly error correction	Automatic Sector Reallocation: (ARRE, AWRE) option	
Active Termination, jumpers enable/disable	On-board or remote LED option	
Industry standard mounting in any orientation	5-Year Warranty	

FOR MORE INFORMATION CALL 1-800-395-DRIVE

MICROPOLIS
The Drive For Excellence!™

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SYSTEM
COMPLIANT


MICROSOFT
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