

Mobile SATA Momentus[®]



Capacity	250GB	320GB	500GB	640GB	750GB	1TB	
Model	ST250LM004	ST320LM001	ST500LM012	ST640LM020	ST750LM022	ST1000LM024	Seagate Models
Model	HN-M250MBB	HN-M320MBB	HN-M500MBB	HN-M640MBB	HN-M750MBB	HN-M101MBB	Samsung Models

FEATURES

- Max. 500GB formatted capacity per disk
- SATA Native Command Queuing Feature
- TuMR/PMR head with FOD technology
- Serial ATA 3.0Gbps Interface Support
- Load/Unload Head Technology
- ATA Security Mode Feature Set
- ATA S.M.A.R.T. Feature Set
- SilentSeek™
- NoiseGuard™

DRIVE CONFIGURATION

Capacity ¹	250~750GB, 1TB
Interface	SATA 3.0 Gbps (1.5Gbps)
Rotational Speed	5400 RPM class

PERFORMANCE SPECIFICATIONS

Average Seek time (typical)	12 ms
Average Latency	5.6 ms
Drive Ready Time (typical) ³	4 sec
Data Transfer Rate	
Media to/from Buffer (Max.)	145 MB/s
Buffer to/from Host (Max.)	300 MB/s

RELIABILITY SPECIFICATIONS

Non-recoverable Read Error	1 sector in 10 ¹⁴ bits
Controlled Ramp Load/Unload	600,000

ACOUSTICS

Idle	2.4 Bel
Performance Seek	2.6 Bel

POWER REQUIREMENTS

Voltage	+5V ± 5%
Spin-up Current (Max.)	1000 mA
Seek (AVG) ⁴	2 W
Read/Write (AVG)	2.3 W
Low Power Idle (AVG)	0.7 W
Standby (AVG)	0.2 W
Sleep (AVG)	0.2 W

ENVIRONMENTAL SPECIFICATIONS

Temperature	
Operating	5 ~ 55 °C
Non-operating	-40 ~ 70 °C
Humidity (non-condensing)	
Operating	5-90 %
Non-operating	5-95 %
Linear Shock (1/2 sine pulse)	
Operating, 2ms	325 G
Non-operating, 2ms	750 G
Vibration (swept sine, 1/4 octave per minute)	
Operating	1.5 Grms
Altitude (relative to sea level)	
Operating	-300 to 3000 m
Non-operating	-400 to 15000 m

PHYSICAL DIMENSION

Height	9.5 ± 0.2 mm
Width	69.75 ± 0.25 mm
Length	100.3 ± 0.4 mm
Weight (max.)	107 g

* Note: Design and specifications are subject to change without prior notice.

1) 1MB = 1,000,000 Bytes, 1GB = 1,000,000,000 Bytes

Accessible capacity may vary as some OS uses binary numbering system for reported capacity

2) A small portion of the 8MB buffer memory is reserved for firmware use

3) Power-On to Drive Ready

4) 30% duty cycle, random seek



2.5" HDD product specification Rev 1.2
Match with product manual Rev 2.2

© 2012 Seagate Technology LLC. All rights reserved. Printed in USA. Seagate and Seagate Technology are registered trademarks of Seagate Technology LLC in the United States and/or other countries. Momentus is either a trademark or registered trademark of Seagate Technology LLC or one of its affiliated companies in the United States and/or other countries. All other trademarks or registered trademarks are the property of their respective owners. When referring to drive capacity, one gigabyte, or GB, equals one billion bytes and one terabyte, or TB, equals one trillion bytes. Your computer's operating system may use a different standard of measurement and report a lower capacity. In addition, some of the listed capacity is used for formatting and other functions, and thus will not be available for data storage. Actual data rates may vary depending on operating environment and other factors. The export or re-export of hardware or software containing encryption may be regulated by the U.S. Department of Commerce, Bureau of Industry and Security (for more information, visit www.bis.doc.gov), and controlled for import and use outside of the U.S. Seagate reserves the right to change, without notice, product offerings or specifications.