

Product Overview

# The World's First 7mm, 2.5-Inch Form Factor Drive

## Momentum<sup>®</sup> Thin Hard Drives

### What you get.

- 7mm z-height form factor enables thin chassis design for all segments of laptop computing
- Seagate SmartAlign™ technology provides a transition to 4K sectors without the need for software utilities.
- Self-Encrypting Drives mitigate data breaches, comply with data protection regulations and preserve brand recognition.
- Self-Encrypting Drives with FIPS 140-2 certification<sup>1</sup> are approved for the U.S. and Canadian governments.

<sup>1</sup> See FIPS 140-2 Level 2 Certificate at <http://csrc.nist.gov/groups/STM/cmvp/documents/140-1/1401vend.htm>

# The World's First 7mm, 2.5-Inch Form Factor Drive

## Momentum® Thin Hard Drives



Seagate integrators and OEM customers are faced with an increasing demand for thinner yet fully functional mainstream laptop computing solutions. Until recently, the only option for these thinner solutions revolved around high-priced, slow performing 1.8-inch drives and high-priced, fast solid state drives. Because both storage types were costly options, system designers had no choice but to build thinner chassis only for their high-end lines. Enter Seagate ingenuity.

Realizing that the dilemma our customers faced was the lack of affordable thin storage for entry-level to mainstream laptops, high-end netbooks and thin ultraportables, Seagate designed a drive that could leverage current laptop drives in both material and product design. This successful initiative resulted in the design of the Seagate® Momentum® Thin drive, the world's first 7mm, 2.5-inch form factor drive. The new 7mm drive is a reduced-height platform available with 16MB of cache on both the mainstream 5400-RPM and the high-performance 7200-RPM options.

The 320GB, 250GB and 160GB sizes align with the sweet-spot capacity points our customers are looking for in a fully functional laptop system today. Furthermore, the addition of SmartAlign technology resolves Advanced Format 4K sector misalignment conditions and preserves performance without time-consuming software utilities—paving the way to a worry-free adoption of the 4K standard. And although the special design requires code and some component changes, it leverages Seagate expertise to deliver a much more affordable solution for thinner laptop computing needs.

### Trusted Computing Group (TCG) Opal Specification Drives

The Opal specification is designed to facilitate broad adoption of full disk encryption solutions by creating an open, industry standard that offers improved interoperability across storage vendors, encryption technologies and platforms. Both PC OEMs and end-user organizations can now implement off-the-shelf, factory-installed and interoperable hardware encryption solutions.

The Momentum Thin Self-Encrypting Drive is the first TCG Opal specification drive to achieve FIPS 140-2, Level-2 certification by the U.S. and Canadian governments.

Specifications	
Capacities (GB) <sup>1</sup>	320, 250 and 160
Interface	SATA 3Gb/s NCQ
Cache (MB)	16
Spindle Speed (RPM)	5400 and 7200
Shock (Gs)	
Operating: 2ms	350
Nonoperating: 2ms	1000
Acoustics (bels—sound power)	
Idle, Typical	2.0 (5400), 2.3 (7200)
Seek, Typical	2.2 (5400), 2.5 (7200)
Operating Temperature (°C)	0 to 60
Feature Options	Opal Specification, Self-Encrypting Drives with FIPS 140-2 certification <sup>2</sup> , SmartAlign™ technology <sup>3</sup>

<sup>1</sup> One gigabyte, or GB, equals one billion bytes when referring to drive capacity.

<sup>2</sup> See FIPS 140-2 Level 2 Certificate at <http://csrc.nist.gov/groups/STM/cmvp/documents/140-1/1401vend.htm>.

<sup>3</sup> Advanced Sector Format (4K) drives.

[www.seagate.com](http://www.seagate.com)



AMERICAS  
ASIA/PACIFIC  
EUROPE, MIDDLE EAST AND AFRICA

Seagate Technology LLC 10200 South De Anza Boulevard, Cupertino, California 95014, United States, 408-658-1000  
Seagate Singapore International Headquarters Pte. Ltd. 7000 Ang Mo Kio Avenue 5, Singapore 569877, 65-6485-3888  
Seagate Technology SAS 16-18 rue du Dôme, 92100 Boulogne-Billancourt, France, 33 1-4186 10 00

© 2011 Seagate Technology LLC. All rights reserved. Printed in USA. Seagate, Seagate Technology and the Wave logo are registered trademarks of Seagate Technology LLC in the United States and/or other countries. Momentum, QuietStep, Seagate Secure, SmartAlign and the Think Green logo are either trademarks or registered trademarks of Seagate Technology LLC or one of its affiliated companies in the United States and/or other countries. The FIPS logo is a certification mark of NIST, which does not imply product endorsement by NIST, the U.S., or Canadian governments. 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. 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](http://www.bis.doc.gov)). Seagate reserves the right to change, without notice, product offerings or specifications. PO0095.6-1108US, August 2011