

Product Overview

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

Momentum® Thin Hard Drives

What you get:

- 7mm z-height form factor, which enables thin chassis design for all segments of laptop computing
- Seagate SmartAlign™ technology, which provides a transition to 4K sectors without the need for software utilities
- Self-Encrypting Drives that mitigate data breaches, comply with data protection regulations and preserve brand recognition
- Self-Encrypting Drives with FIPS 140-2 certification¹ that are approved by the US and Canadian governments

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

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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.

Realising 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 exploit 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 5,400 RPM and the high-performance 7,200 RPM options.

The 500, 320, 250 and 160GB sizes align with the sweet-spot capacity points that 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 disc 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 organisations 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 US and Canadian governments.

Specifications	
Capacities (GB) ¹	500, 320, 250 and 160
Interface	SATA 3Gb/s NCQ
Cache (MB)	16
Spindle Speed (RPM)	5,400 and 7,200
Shock (Gs) Operating: 2ms Non-operating: 2ms	400 (500GB-5,400 only) and 350 1,000
Acoustics (bels — sound power) Idling, Typical Seek, Typical	2.0 (5,400), 2.3 (7,200) 2.2 (5,400), 2.5 (7,200)
Operating Temperature (°C)	0 to 60
Feature Options	Opal Specification, Self-Encrypting Drives with FIPS 140-2 certification ² , SmartAlign™ technology ³

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

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

³ SmartAlign technology available in most models. Refer to Data Sheet for details.

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