Intel® Solid State Drive 540s Series

Expect More. Do More.

The Next Level of Consumer Computing
Optimize your computing experience with performance and reliability you can trust.

Intel Evolving Storage Technology
Introducing the Intel® Solid State Drive 540s Series, Intel’s latest evolution of solid state drives.

Designed for a range of devices from Ultrabooks to desktops and laptops, the Intel SSD 540s Series delivers a low-power storage solution to meet the performance, quality, and reliability requirements demanded by today’s consumer devices. Additionally, the 540s Series offers increased value as Intel’s first TLC-based drive in the Intel SSD 5 Series family.

TLC Done Right
Utilizing a uniquely architected combination of single level cell (SLC) cache and triple level cell (TLC) NAND Flash Memory, the 540s Series delivers an optimized balance of performance and value.

Flexibility for Any Solution
The 540s Series is the first Intel 5 Series drive to deliver up to 1TB of storage capacity.

Available in both the 2.5” and M.2 80mm form factors, and with storage capacities ranging from 120GB up to 1TB (1000GB), the 540s Series accelerates performance across a variety of computing devices.

Quality & Reliability You Can Trust
The 540s Series is backed by Intel’s five year limited warranty, including Intel’s world-class post sales customer support.

Accelerate Your Performance
The 540s Series accelerates platform performance with sequential reads of up to 560 megabytes and sequential writes of up to 480 megabytes per second (MB/s) and random read and write input/output operations (IOPS) of up to 78K and 85K respectively.¹

Performance that Matters
The 540s Series is architected to optimize performance for a 70%/30% 4KB random read/write mixed workload, the most utilized workload across common applications—delivering performance where it matters.

Charge Your Device Less Often
Managing tasks efficiently, the 540s Series reduces the drain on your battery. It reduces idle consumption by >90% compared to a typical hard drive disk, reducing power consumption from watts to milliwatts.¹ When coupled with a 6th generation Intel® Core™-based platform, the advanced power mode settings reduce power consumption another order of magnitude—from milliwatts to microwatts.

Product Spotlight
• Intel quality and reliability
• Performance that Matters
• Capacities up to 1TB
• Flexible form factors
• Low power consumption
• AES 256-bit self-encryption
• Backed by Intel’s five year warranty
TECHNICAL SPECIFICATIONS

<table>
<thead>
<tr>
<th>Model Name</th>
<th>Intel Solid State Drive 540s Series</th>
</tr>
</thead>
<tbody>
<tr>
<td>Capacity (GB) M.2</td>
<td>120, 180, 240, 360, 480, 1000 (1TB is double-sided)</td>
</tr>
<tr>
<td>Capacity (GB) 2.5-inch</td>
<td>120, 180, 240, 360, 480, 1000</td>
</tr>
</tbody>
</table>

NAND Flash Memory 16nm NAND Flash Memory Tri-Level Cell (TLC)

Bandwidth

<table>
<thead>
<tr>
<th>Form Factor</th>
<th>Capacity Point</th>
<th>Sequential Read (up to)</th>
<th>Sequential Write (up to)</th>
<th>Random Read (up to)</th>
<th>Random Write (up to)</th>
</tr>
</thead>
<tbody>
<tr>
<td>M.2 and 2.5-inch</td>
<td>120GB, 180GB, 240GB, 360GB, 480GB, 1000GB</td>
<td>560 MB/s</td>
<td>480 MB/s</td>
<td>78K IOPS</td>
<td>85K IOPS</td>
</tr>
</tbody>
</table>

Interface

<table>
<thead>
<tr>
<th>Interface</th>
<th>SATA 6Gb/s, compatible with SATA 3Gb/s</th>
</tr>
</thead>
</table>

Form Factor, Height and Weight

<table>
<thead>
<tr>
<th>Form Factor</th>
<th>Height/Weight</th>
</tr>
</thead>
<tbody>
<tr>
<td>M.2 (80mm)</td>
<td>Up to 3.73mm / up to 7 grams</td>
</tr>
<tr>
<td>2.5-inch</td>
<td>Up to 7mm / up to 68 grams</td>
</tr>
</tbody>
</table>

Life Expectancy

1.6 million hours Mean Time Between Failures (MTBF)

Power Consumption M.2

<table>
<thead>
<tr>
<th>Power Consumption M.2</th>
</tr>
</thead>
<tbody>
<tr>
<td>Active: 80mW Typical</td>
</tr>
<tr>
<td>Idle: 40 mW Typical</td>
</tr>
<tr>
<td>DevSleep: 3mW</td>
</tr>
</tbody>
</table>

Power Consumption 2.5-inch

<table>
<thead>
<tr>
<th>Power Consumption 2.5-inch</th>
</tr>
</thead>
<tbody>
<tr>
<td>Active: 90 mW Typical</td>
</tr>
<tr>
<td>Idle: 50 mW Typical</td>
</tr>
<tr>
<td>DevSleep: 5mW</td>
</tr>
</tbody>
</table>

Operating Temperature

0°C to 70°C

RoHS Compliance

Meets the requirements of European Union (EU) RoHS Compliance Directives

Software Tools

<table>
<thead>
<tr>
<th>Software Tools</th>
</tr>
</thead>
<tbody>
<tr>
<td>Intel® Data Migration Software at <a href="http://www.intel.com/go/ssdinstallation">www.intel.com/go/ssdinstallation</a></td>
</tr>
</tbody>
</table>

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2 Performance varies by capacity and is measured by Intel using IOMeter™ with Queue Depth 32.

3 Random 4KB writes measured using out-of-box SSD

4 All documented endurance test results are obtained in compliance with JESD218 Standards. See [www.jedec.org](http://www.jedec.org) for detailed definitions of JESD218 Standards.

5 Active power measured during execution of MobileMark® 2012 Workload with SATA Link Power Management (LPM) enabled.

6 Idle power defined as SSD at Idle with SATA Link Power Management (LPM) enabled. Idle power measured by temperature sensor, SMART Attribute BEh. Active airflow is recommended within the system for managing proper device operating temperatures in heavier workloads.

Intel technologies' features and benefits depend on system configuration and may require enabled hardware, software or service activation. Performance varies depending on system configuration. No computer system can be absolutely secure. Check with your system manufacturer or retailer or learn more at www.intel.com/ssd.

Tests document performance of components on a particular test, in specific systems. Differences in hardware, software, or configuration will affect actual performance. Consult other sources of information to evaluate performance as you consider your purchase.

IOMeter™ Test and System Configurations: Intel® Core™ i7-4790 (8MB L3 Cache, 3.60GHz), ASUS® Deluxe 2971-PLUS motherboard, Intel® HD Graphics 4600 driver 10.18.10.3920, BISOs: AMI® 2605 5/19/2015, Chipset: Intel® IFF 10.0.16.0, Memory: 8GB (2X4GB) Kingston DDR3-1355, Intel® RST driver 13.5, Microsoft® Windows 7 Enterprise 64-bit with SP1.


The products described in this document may contain design defects or errors known as errata which may cause the product to deviate from published specifications. Current characterized errata are available on request. Contact your local Intel sales office or your distributor to obtain the latest specifications and before placing your product order.

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Intel:
SSDSC2KW240H6X1  SSDSC2KW120H6X1  SSDSCKKW010X6X1  SSDSC2KW480H6X1  SSDSCKKW480H6X1
SSDSC2KW360H6X1  SSDSC2KW180H6X1  SSDSC2KW010X6X1  SSDSCKKW240H6X1  SSDSCKKW360H6X1
SSDSCKKW120H6X1  SSDSCKKW180H6X1