



Intel® Solid-State Drive 730 Series Non-Volatile Memory Storage Solutions

PRODUCT BRIEF

Performance Unleashed

Performance optimized 3rd Generation Intel controller with Intel Data Center DNA

The Intel® Solid-State Drive 730 Series delivers uncompromised performance by combining factory tuned components with Data Center DNA.



Optimized for Performance

Maximize your computing experience with the Intel® SSD 730 Series built with a specially qualified 3rd generation Intel controller, 20nm NAND and optimized firmware. Intel has taken storage a step further by factory overclocking these components to push the limits of performance with a 50% increase in controller speed and 20% increase in NAND bus speed. Intel SSD 730 Series are optimized for the most demanding tasks including digital content creation, video capture/editing, extreme gaming and other client usages where storage performance improves the user's experience and efficiency. Applications will benefit from the 50µs read latency, up to 550MB/s sequential reads and 89,000 IOPs random reads.

730 Series + Intel® Rapid Storage Technology = Amazing Performance

Digital Content Creation experts and PC Enthusiasts know the highest storage performance is achieved with RAID-0 configurations as SSDs saturate the SATA interface. Comparing two 730 Series drives in a RAID-0 array to a single alternative SSD, results in the same capacity and nearly double the performance. As shown below, two 730 Series drives in a RAID-0 configuration can provide throughput numbers exceeding 1000MB/s when coupled with Intel platforms supporting Intel Rapid Storage Technology. Similarly four 730 Series drives in a RAID-0 array with an Intel® chipset based platform can provide performance exceeding 1500MB/s.

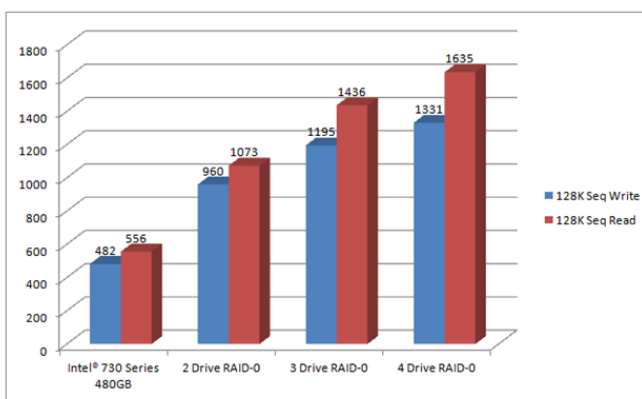
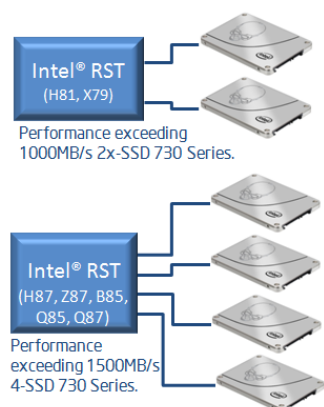
Intel Data Center DNA = Extreme Endurance & Performance Consistency

Intel® SSD 730 Series also delivers excellent endurance to support the needs of the most demanding client usages. Support for up to 70GB writes per day for five years (compared to the industry typical 20GB) provides piece of mind for digital content creators and PC enthusiasts who demand dependable up-time from their workstations and gaming rigs. The Intel SSD 730 Series drive also brings greater performance consistency to the client market in both single drive and multiple drive RAID arrays. Intel's advanced firmware algorithms allow Intel to deliver client SSDs with "data center" efficiency and dependability throughout the life of the drive.

Solid-State Computing Starts with Intel Inside®. For more information, visit www.intel.com/ssd

Product Spotlight

- Intel® SSD Architecture designed and optimized for leading client storage performance
- Intel Data Center DNA brings performance consistency for all data types and extreme endurance to client storage
- Intel® Rapid Storage Technology plus 730 Series delivers top performance for the most demanding storage



Intel® Solid-State Drive 730 Series

Technical Specifications¹

Model Name	Intel® Solid-State Drive 730 Series					
Capacity	2.5-inch: 240GB and 480GB					
NAND Flash Memory	20nm Intel® NAND Flash Memory Multi-Level Cell (MLC) Compute-Quality Components					
Sustained Sequential Reads / Writes						
Bandwidth ²	Sustained Sequential Reads / Writes			2 Drive RAID-0		
	240GB: up to 550 / 270 MB/s			240GB: up to 1020 / 530 MB/s		
	480GB: up to 550 / 470 MB/s			480GB: up to 1020 / 910 MB/s		
Read /Write Latency	50 µs / 65 µs					
4KB Reads / Writes						
Random I/O Operations per Second ³	4 KB Reads / Writes			2 Drive RAID-0		
	240GB: up to 86,000 IOPS / 56,000 IOPS			240GB: up to 136,000 IOPS / 111,000 IOPS		
	480GB: up to 89,000 IOPS / 74,000 IOPS			480GB: up to 168,000 IOPS / 145,000 IOPS		
Interface	SATA 6Gb/s, compatible with SATA 3Gb/s and 1.5Gb/s					
Form Factor, Height and Weight	Form Factor: 2.5-inch					
	Height: Up to 7mm					
	Weight: Up to 78 grams					
Life Expectancy	2 million hours Mean Time Between Failures (MTBF)					
Lifetime Endurance	240GB - 50GB Writes per Day			480GB - 70GB Writes per Day		
Usage	24/7 operation					
Power Consumption ⁴	12V	240GB	480GB	5V	240GB	480GB
	Active:	3.8W	5.5W	Active:	3.8W	5.0W
	Idle:	1.5W	1.5W	Idle:	1.2W	1.3W
Operating Temperature	0° C to 70° C					
RoHS Compliance	Meets the requirements of European Union (EU) RoHS Compliance Directives					
Product Ordering Information	To order, visit intel.com/ssd					

1. Based on the Intel® SSD DC 730 Series Product Specification.
2. Device measured using Iometer with 4K Random Writes QD=32 across 100% span of the drive. Latency measured using write transfer size of 4KB (4,096 bytes) and queue depth set to 1.
3. Based on JESD218 standard with JESD219 workload based on JESD SSD standard
4. Based on JEDEC SSD standard JC64.8

INFORMATION IN THIS DOCUMENT IS PROVIDED IN CONNECTION WITH INTEL® PRODUCTS. NO LICENSE, EXPRESS OR IMPLIED, BY ESTOPPEL OR OTHERWISE, TO ANY INTELLECTUAL PROPERTY RIGHTS IS GRANTED BY THIS DOCUMENT. EXCEPT AS PROVIDED IN INTEL'S TERMS AND CONDITIONS OF SALE FOR SUCH PRODUCTS, INTEL ASSUMES NO LIABILITY WHATSOEVER, AND INTEL DISCLAIMS ANY EXPRESS OR IMPLIED WARRANTY, RELATING TO SALE AND/OR USE OF INTEL PRODUCTS INCLUDING LIABILITY OR WARRANTIES RELATING TO FITNESS FOR A PARTICULAR PURPOSE, MERCHANTABILITY, OR INFRINGEMENT OF ANY PATENT, COPYRIGHT OR OTHER INTELLECTUAL PROPERTY RIGHT. UNLESS OTHERWISE AGREED IN WRITING BY INTEL, THE INTEL PRODUCTS ARE NOT DESIGNED NOR INTENDED FOR ANY APPLICATION IN WHICH THE FAILURE OF THE INTEL PRODUCT COULD CREATE A SITUATION WHERE PERSONAL INJURY OR DEATH MAY OCCUR.

Intel may make changes to specifications and product descriptions at any time, without notice. Designers must not rely on the absence or characteristics of any features or instructions marked "reserved" or "undefined." Intel reserves these for future definition and shall have no responsibility whatsoever for conflicts or incompatibilities arising from future changes to them. The information here is subject to change without notice. Do not finalize a design with this information.

Software and workloads used in performance tests may have been optimized for performance only on Intel microprocessors. Performance tests, such as SYSmark and MobileMark, are measured using specific computer systems, components, software, operations and functions. Any change to any of those factors may cause the results to vary. You should consult other information and performance tests to assist you in fully evaluating your contemplated purchases, including the performance of that product when combined with other products.

Performance tests and ratings are measured using specific computer systems and/or components and reflect the approximate performance of Intel products as measured by those tests. Any difference in system hardware or software design or configuration may affect actual performance. Buyers should consult other sources of information to evaluate the performance of systems or components they are considering purchasing. For more information on performance tests and on the performance of Intel products, go to: http://www.intel.com/performance/resources/benchmark_limitations.htm.

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. Copies of documents which have an order number and are referenced in this document, or other Intel literature, may be obtained by calling 1-800-548-4725, or by visiting Intel's Web site at www.intel.com.

*Other names and brands may be claimed as the property of others.

Copyright © 2014 Intel Corporation. All rights reserved. Intel, the Intel logo, and Intel Inside are trademarks of Intel Corporation in the U.S. and other countries.

Printed in the USA 20141209 tlm

330147-003US